## Pelton, Jason M (DEC)

**From:** Zahradnik, Art <Art.Zahradnik@arcadis.com>
**Sent:** Monday, January 11, 2021 9:44 AM
**To:** Pelton, Jason M (DEC)
**Cc:** Hesler, Donald (DEC); Scharf, Steven (DEC); Hannon, ED [US] (AS); Stern, David; Wolfert, Mike; San Giovanni, Carlo; brian.s.murray@navy.mil; Brayack, David; Wu, Ernie; Das, Soma
**Subject:** DELIVERABLE - Form 1 Data - Northrop Grumman Bethpage - OU2 4Q-2020 Groundwater Sampling
**Attachments:** Form 1_Northrop Grumman Wells_final.pdf



Good morning Jason,

On behalf of Northrop Grumman, Arcadis is submitting the attached Form 1 data. As per discussions between Northrop Grumman and NYSDEC, NYSDEC requested that Northrop Grumman submit the validated Form 1s as soon as the information is available.

The attached Form 1's are for the remainder of the OU2 4Q 2020 routine sampling event (samples collected between 10/26/20 and 11/04/20) per the OU2 Groundwater Monitoring Plan (Arcadis 2016).
For your information, replicate sample REP102620SV1 was collected from monitoring well PLT1 MW-05 and REP110520ARH1 was collected from monitoring well GM-38D.

Please let us know if you have any questions,

Thank you,
-Art

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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102620ARH | | |
| **Lab Sample ID:** | JD15287-1 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72412.D | 1 | 11/03/20 18:12 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102620ARH | | |
| **Lab Sample ID:** | JD15287-1 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15D | | |
| **Lab Sample ID:** | JD15287-2 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72398.D | 1 | 11/03/20 12:10 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15D | | |
| **Lab Sample ID:** | JD15287-2 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 9.1 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15D2 | | |
| **Lab Sample ID:** | JD15287-3 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72399.D | 1 | 11/03/20 12:36 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 3.0 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15D2 | | |
| **Lab Sample ID:** | JD15287-3 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 6.9 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-04 | | |
| **Lab Sample ID:** | JD15287-4 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | < 10 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-04 | | |
| **Lab Sample ID:** | JD15287-4F | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | < 10 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-05 | | |
| **Lab Sample ID:** | JD15287-5 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 363 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-05 | | |
| **Lab Sample ID:** | JD15287-5F | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 331 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-06 | | |
| **Lab Sample ID:** | JD15287-6 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 164 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | PLT1 MW-06 | | |
| **Lab Sample ID:** | JD15287-6F | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 167 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15SR | | |
| **Lab Sample ID:** | JD15287-7 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72416.D | 1 | 11/03/20 19:55 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15SR | | |
| **Lab Sample ID:** | JD15287-7 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 2.9 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 9.1 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15SR | | |
| **Lab Sample ID:** | JD15287-7 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 375 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15SR | | |
| **Lab Sample ID:** | JD15287-7F | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 374 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15I | | |
| **Lab Sample ID:** | JD15287-8 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72442.D | 1 | 11/04/20 16:24 | KC | n/a | n/a | V2V3003 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-15I | | |
| **Lab Sample ID:** | JD15287-8 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 2.1 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 9.1 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102620SV1 | | |
| **Lab Sample ID:** | JD15287-9 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72436.D | 1 | 11/04/20 13:49 | KC | n/a | n/a | V2V3003 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102620SV1 | | |
| **Lab Sample ID:** | JD15287-9 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | REP102620SV1 | | |
| **Lab Sample ID:** | JD15287-10 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 383 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | REP102620SV1 | | |
| **Lab Sample ID:** | JD15287-10F | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | 332 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102620ARH | | |
| **Lab Sample ID:** | JD15287-11 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72413.D | 1 | 11/03/20 18:38 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | 1.1 | 2.0 | 1.0 | ug/l | J |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102620ARH | | |
| **Lab Sample ID:** | JD15287-11 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102620SV1 | | |
| **Lab Sample ID:** | JD15287-12 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72414.D | 1 | 11/03/20 19:04 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102620SV1 | | |
| **Lab Sample ID:** | JD15287-12 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/27/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 101% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102620SV1 | | |
| **Lab Sample ID:** | JD15287-12 | **Date Sampled:** | 10/26/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/27/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Chromium | < 10 | 10 | ug/l | 1 | 11/02/20 | 11/03/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49597
(2) Prep QC Batch: MP23603

RL = Reporting Limit

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-1RE
**Client ID:** GM-15D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2672.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | J | 0.14 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 82.3 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-2RE
**Client ID:** GM-15D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2673.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.6 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 77.0 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-3RE
**Client ID:** PLT1 MW-04
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2674.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.1 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 74.7 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-4RE
**Client ID:** PLT1 MW-05
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2675.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 0.40 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 77.6 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-5RE
**Client ID:** PLT1 MW-06
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2676.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | J | 0.13 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 78.6 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-6RE
**Client ID:** GM-15SR
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2677.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.24 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 79.0 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-7RE
**Client ID:** GM-15I
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2678.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 0.24 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 72.7 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-8RE
**Client ID:** FB102620ARH
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2679.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.26 | ug/L | 1 | .25 | 0.26 | 0.089 |
| 1,4-Dioxane-D8 | | 55.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-9RE
**Client ID:** FB102620SV1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2680.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.25 | ug/L | 1 | .25 | 0.25 | 0.085 |
| 1,4-Dioxane-D8 | | 61.5 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8929-10RE
**Client ID:** REP102620SV1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8929
**Lab File ID:** G2681.D

**Sample Date:** 26-OCT-20
**Received Date:** 27-OCT-20
**Extract Date:** 29-OCT-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289159

**Analysis Date:** 02-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 03-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 0.42 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 75.0 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102820ARH1 | | |
| **Lab Sample ID:** | JD15433-1 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100672.D | 1 | 11/06/20 02:05 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102820ARH1 | | |
| **Lab Sample ID:** | JD15433-1 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 104% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW3-1 | | |
| **Lab Sample ID:** | JD15433-2 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100668.D | 1 | 11/06/20 00:12 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | 0.53 | 1.0 | 0.50 | ug/l | J |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 4.1 | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | 2.4 | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | 14.7 | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 16.9 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | 0.56 | 1.0 | 0.54 | ug/l | J |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW3-1 | | |
| **Lab Sample ID:** | JD15433-2 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 168 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | 6.6 | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 109% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 110% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102820SV1 | | |
| **Lab Sample ID:** | JD15433-3 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100673.D | 1 | 11/06/20 02:33 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102820SV1 | | |
| **Lab Sample ID:** | JD15433-3 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 110% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-01GF | | |
| **Lab Sample ID:** | JD15433-4 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | < 10 | 10 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49620
(2) Prep QC Batch: MP23674

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-01GF | | |
| **Lab Sample ID:** | JD15433-4F | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 10/29/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | < 10 | 10 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49620
(2) Prep QC Batch: MP23674

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-17I | | |
| **Lab Sample ID:** | JD15433-5 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100676.D | 1 | 11/06/20 03:57 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-17I | | |
| **Lab Sample ID:** | JD15433-5 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 110% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 107% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 104% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-17D | | |
| **Lab Sample ID:** | JD15433-6 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100677.D | 1 | 11/06/20 04:26 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-17D | | |
| **Lab Sample ID:** | JD15433-6 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 108% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 108% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102820SV1 | | |
| **Lab Sample ID:** | JD15433-7 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100674.D | 1 | 11/06/20 03:01 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102820SV1 | | |
| **Lab Sample ID:** | JD15433-7 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 112% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 113% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 105% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102820SV1 | | |
| **Lab Sample ID:** | JD15433-7 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/29/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | < 10 | 10 | ug/l | 1 | 11/06/20 | 11/09/20 | MET | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49620
(2) Prep QC Batch: MP23674

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102820ARH | | |
| **Lab Sample ID:** | JD15433-8 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 4B100675.D | 1 | 11/06/20 03:29 | EH | n/a | n/a | V4B4345 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102820ARH | | |
| **Lab Sample ID:** | JD15433-8 | **Date Sampled:** | 10/28/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/29/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 107% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 101% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 108% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-1
**Client ID:** MW3-1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2719.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 8.3 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 62.1 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-2RA
**Client ID:** FB102820ARH
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2741.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.26 | ug/L | 1 | .25 | 0.26 | 0.087 |
| 1,4-Dioxane-D8 | | 60.3 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-3
**Client ID:** GM-17I
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2723.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 6.9 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 63.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-4
**Client ID:** GM-17D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2724.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 5.9 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 53.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-5
**Client ID:** MW-01GF
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2725.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 6.6 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 62.7 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9012-6
**Client ID:** FB102820SV1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9012
**Lab File ID:** G2726.D

**Sample Date:** 28-OCT-20
**Received Date:** 29-OCT-20
**Extract Date:** 03-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289419

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 06-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.25 | ug/L | 1 | .25 | 0.25 | 0.086 |
| 1,4-Dioxane-D8 | | 52.4 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-02GF | | |
| **Lab Sample ID:** | JD15880-1 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | 233 | 10 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49661
(2) Prep QC Batch: MP23805

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | MW-02GF | | |
| **Lab Sample ID:** | JD15880-1F | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Groundwater Filtered | **Date Received:** | 11/06/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Dissolved Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | 227 | 10 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49661
(2) Prep QC Batch: MP23805

RL = Reporting Limit

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110520PQ1 | | |
| **Lab Sample ID:** | JD15880-2 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2D193966.D | 1 | 11/18/20 17:25 | EH | n/a | n/a | V2D8400 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110520PQ1 | | |
| **Lab Sample ID:** | JD15880-2 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-38D | | |
| **Lab Sample ID:** | JD15880-3 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2D193955.D | 1 | 11/18/20 11:48 | EH | n/a | n/a | V2D8400 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 0.62 | 1.0 | 0.57 | ug/l | J |
| 107-06-2 | 1,2-Dichloroethane | 1.2 | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | 0.64 | 1.0 | 0.59 | ug/l | J |
| 156-59-2 | cis-1,2-Dichloroethene | 0.83 | 1.0 | 0.51 | ug/l | J |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 2.5 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-38D | | |
| **Lab Sample ID:** | JD15880-3 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 165 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-38D2 | | |
| **Lab Sample ID:** | JD15880-4 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2D193956.D | 1 | 11/18/20 12:17 | EH | n/a | n/a | V2D8400 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | 1.6 | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 7.9 | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 0.62 | 1.0 | 0.60 | ug/l | J |
| 75-35-4 | 1,1-Dichloroethene | 3.2 | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | 13.0 | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | 1.2 | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-38D2 | | |
| **Lab Sample ID:** | JD15880-4 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 26.2 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 103% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 101% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | REP110520ARH1 | | |
| **Lab Sample ID:** | JD15880-5 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2D193957.D | 1 | 11/18/20 12:46 | EH | n/a | n/a | V2D8400 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | 1.2 | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | 0.63 | 1.0 | 0.59 | ug/l | J |
| 156-59-2 | cis-1,2-Dichloroethene | 0.85 | 1.0 | 0.51 | ug/l | J |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 2.6 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | REP110520ARH1 | | |
| **Lab Sample ID:** | JD15880-5 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 160 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110520ARH1 | | |
| **Lab Sample ID:** | JD15880-6 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2D193967.D | 1 | 11/18/20 17:55 | EH | n/a | n/a | V2D8400 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110520ARH1 | | |
| **Lab Sample ID:** | JD15880-6 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/06/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110520SV1 | | |
| **Lab Sample ID:** | JD15880-7 | **Date Sampled:** | 11/05/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/06/20 |
| | | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**Total Metals Analysis**

| Analyte | Result | RL | Units | DF | Prep | Analyzed | By | Method | Prep Method |
|---|---|---|---|---|---|---|---|---|---|
| Cadmium | < 3.0 | 3.0 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |
| Chromium | < 10 | 10 | ug/l | 1 | 11/17/20 | 11/18/20 | ND | SW846 6010D [1] | SW846 3010A [2] |

(1) Instrument QC Batch: MA49661
(2) Prep QC Batch: MP23805

RL = Reporting Limit

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-1
**Client ID:** MW-02GF
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2774.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 6.9 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 82.5 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-2
**Client ID:** GM-38D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2775.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.4 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 71.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-3
**Client ID:** REP110520ARH1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2776.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.0 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 67.6 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-4
**Client ID:** GM-38D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2777.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 4.7 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 75.1 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-5
**Client ID:** FB110520ARH1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2778.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.24 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 86.2 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9257-6
**Client ID:** FB110520SV1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9257
**Lab File ID:** G2779.D

**Sample Date:** 05-NOV-20
**Received Date:** 06-NOV-20
**Extract Date:** 12-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG290041

**Analysis Date:** 13-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 13-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.24 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 89.7 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102720SV1 | | |
| **Lab Sample ID:** | JD15361-1 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72374.D | 1 | 11/02/20 15:55 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102720SV1 | | |
| **Lab Sample ID:** | JD15361-1 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 101% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 7.1 | ug/l | JN |
| | Total TIC, Volatile | | 7.1 | ug/l | J |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74I | | |
| **Lab Sample ID:** | JD15361-2 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72377.D | 1 | 11/02/20 17:12 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74I | | |
| **Lab Sample ID:** | JD15361-2 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.65 | 1.0 | 0.53 | ug/l | J |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 98% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D | | |
| **Lab Sample ID:** | JD15361-3 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72378.D | 1 | 11/02/20 17:38 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D | | |
| **Lab Sample ID:** | JD15361-3 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 1.8 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D2 | | |
| **Lab Sample ID:** | JD15361-4 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72379.D | 1 | 11/02/20 18:04 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | 0.58 | 1.0 | 0.57 | ug/l | J |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | 0.68 | 1.0 | 0.59 | ug/l | J |
| 156-59-2 | cis-1,2-Dichloroethene | 0.55 | 1.0 | 0.51 | ug/l | J |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 2.4 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D2 | | |
| **Lab Sample ID:** | JD15361-4 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 8.5 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 6.1 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D3 | | |
| **Lab Sample ID:** | JD15361-5 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72380.D | 1 | 11/02/20 18:29 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 4.0 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-74D3 | | |
| **Lab Sample ID:** | JD15361-5 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 4.4 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 98% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D | | |
| **Lab Sample ID:** | JD15361-6 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72381.D | 1 | 11/02/20 18:55 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D | | |
| **Lab Sample ID:** | JD15361-6 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 8.0 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 6.3 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D2 | | |
| **Lab Sample ID:** | JD15361-7 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72382.D | 1 | 11/02/20 19:21 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 1.1 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D2 | | |
| **Lab Sample ID:** | JD15361-7 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 39.6 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 97% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 7.5 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D3 | | |
| **Lab Sample ID:** | JD15361-8 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72383.D | 1 | 11/02/20 19:47 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 1.0 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-73D3 | | |
| **Lab Sample ID:** | JD15361-8 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 1.8 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102720SV1 | | |
| **Lab Sample ID:** | JD15361-9 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72375.D | 1 | 11/02/20 16:21 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102720SV1 | | |
| **Lab Sample ID:** | JD15361-9 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 5.3 | ug/l | JN |
| | Total TIC, Volatile | | 5.3 | ug/l | J |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102720PQ1 | | |
| **Lab Sample ID:** | JD15361-10 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72376.D | 1 | 11/02/20 16:47 | ED | n/a | n/a | V2V3000 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102720PQ1 | | |
| **Lab Sample ID:** | JD15361-10 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 101% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102720PQ1 | | |
| **Lab Sample ID:** | JD15361-11 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72411.D | 1 | 11/03/20 17:46 | ED | n/a | n/a | V2V3001 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [a] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102720PQ1 | | |
| **Lab Sample ID:** | JD15361-11 | **Date Sampled:** | 10/27/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/28/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 99% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-1
**Client ID:** GM-74I
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2708.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.6 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 49.4 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-2
**Client ID:** GM-74D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2709.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 4.1 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 50.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-3
**Client ID:** GM-74D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2710.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 2.1 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 55.2 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-4
**Client ID:** GM-74D3
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2711.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.7 | ug/L | 1 | .25 | 0.24 | 0.083 |
| 1,4-Dioxane-D8 | | 62.8 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-5
**Client ID:** GM-73D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2712.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 2.0 | ug/L | 1 | .25 | 0.24 | 0.083 |
| 1,4-Dioxane-D8 | | 59.9 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-6
**Client ID:** GM-73D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2713.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.6 | ug/L | 1 | .25 | 0.24 | 0.083 |
| 1,4-Dioxane-D8 | | 55.5 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-7
**Client ID:** GM-73D3
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2714.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.0 | ug/L | 1 | .25 | 0.24 | 0.083 |
| 1,4-Dioxane-D8 | | 56.1 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-8
**Client ID:** FB102720SV1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2715.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.25 | ug/L | 1 | .25 | 0.25 | 0.086 |
| 1,4-Dioxane-D8 | | 53.4 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN8970-9
**Client ID:** FB102720PQ1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN8970
**Lab File ID:** G2716.D

**Sample Date:** 27-OCT-20
**Received Date:** 28-OCT-20
**Extract Date:** 02-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289353

**Analysis Date:** 04-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 05-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.26 | ug/L | 1 | .25 | 0.26 | 0.088 |
| 1,4-Dioxane-D8 | | 50.8 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-39DA | | |
| **Lab Sample ID:** | JD15491-1 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72533.D | 1 | 11/06/20 18:24 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-39DA | | |
| **Lab Sample ID:** | JD15491-1 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 1.2 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 98% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-39DB | | |
| **Lab Sample ID:** | JD15491-2 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72534.D | 1 | 11/06/20 18:50 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-39DB | | |
| **Lab Sample ID:** | JD15491-2 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 26.1 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 87% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 8 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102920SV1 | | |
| **Lab Sample ID:** | JD15491-3 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72530.D | 1 | 11/06/20 17:06 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102920SV1 | | |
| **Lab Sample ID:** | JD15491-3 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 85% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-34D | | |
| **Lab Sample ID:** | JD15491-4 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72515.D | 1 | 11/06/20 10:23 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | 0.90 | 1.0 | 0.59 | ug/l | J |
| 156-59-2 | cis-1,2-Dichloroethene | 4.0 | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 6.0 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-34D | | |
| **Lab Sample ID:** | JD15491-4 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 161 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 87% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | system artifact | 1.42 | 6.4 | ug/l | J |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-34D2 | | |
| **Lab Sample ID:** | JD15491-5 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72535.D | 1 | 11/06/20 19:16 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | 0.62 | 1.0 | 0.51 | ug/l | J |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 6.5 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-34D2 | | |
| **Lab Sample ID:** | JD15491-5 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 60.9 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 95% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102920ARH1 | | |
| **Lab Sample ID:** | JD15491-6 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72531.D | 1 | 11/06/20 17:32 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB102920ARH1 | | |
| **Lab Sample ID:** | JD15491-6 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 94% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 87% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 93% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102920PQ1 | | |
| **Lab Sample ID:** | JD15491-7 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72532.D | 1 | 11/06/20 17:58 | ED | n/a | n/a | V2V3006 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide [a] | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane [a] | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB102920PQ1 | | |
| **Lab Sample ID:** | JD15491-7 | **Date Sampled:** | 10/29/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 10/30/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride [a] | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 96% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 98% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9094-1
**Client ID:** GM-39DA
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9094
**Lab File ID:** G2747.D

**Sample Date:** 29-OCT-20
**Received Date:** 02-NOV-20
**Extract Date:** 04-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289493

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.9 | ug/L | 1 | .25 | 0.29 | 0.10 |
| 1,4-Dioxane-D8 | | 59.6 | % | | | | |



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ANALYTICAL SERVICES

# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9094-2
**Client ID:** GM-39DB
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9094
**Lab File ID:** G2748.D

**Sample Date:** 29-OCT-20
**Received Date:** 02-NOV-20
**Extract Date:** 04-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289493

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 3.1 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 67.1 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9094-3
**Client ID:** FB102920ARH1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9094
**Lab File ID:** G2749.D

**Sample Date:** 29-OCT-20
**Received Date:** 02-NOV-20
**Extract Date:** 04-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289493

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.25 | ug/L | 1 | .25 | 0.25 | 0.086 |
| 1,4-Dioxane-D8 | | 50.9 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9094-4
**Client ID:** GM-34D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9094
**Lab File ID:** G2750.D

**Sample Date:** 29-OCT-20
**Received Date:** 02-NOV-20
**Extract Date:** 04-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289493

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 8.7 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 49.4 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9094-5
**Client ID:** GM-34D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9094
**Lab File ID:** G2751.D

**Sample Date:** 29-OCT-20
**Received Date:** 02-NOV-20
**Extract Date:** 04-NOV-20
**Extracted By:** MP
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289493

**Analysis Date:** 05-NOV-20
**Analyst:** JCG
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 6.9 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 55.5 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110220SV1 | | |
| **Lab Sample ID:** | JD15580-1 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325827.D | 1 | 11/06/20 16:32 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110220SV1 | | |
| **Lab Sample ID:** | JD15580-1 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 111% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 102% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 18D | | |
| **Lab Sample ID:** | JD15580-2 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325816.D | 1 | 11/06/20 11:31 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 18D | | |
| **Lab Sample ID:** | JD15580-2 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 18I | | |
| **Lab Sample ID:** | JD15580-3 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325817.D | 1 | 11/06/20 11:58 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 18I | | |
| **Lab Sample ID:** | JD15580-3 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 102% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 104% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 79I | | |
| **Lab Sample ID:** | JD15580-4 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325818.D | 1 | 11/06/20 12:26 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 79I | | |
| **Lab Sample ID:** | JD15580-4 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.90 | 1.0 | 0.53 | ug/l | J |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 79D | | |
| **Lab Sample ID:** | JD15580-5 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325819.D | 1 | 11/06/20 12:53 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 79D | | |
| **Lab Sample ID:** | JD15580-5 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 18.5 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110220PQ1 | | |
| **Lab Sample ID:** | JD15580-6 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325828.D | 1 | 11/06/20 17:00 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110220PQ1 | | |
| **Lab Sample ID:** | JD15580-6 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 104% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 104% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 101% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 78D | | |
| **Lab Sample ID:** | JD15580-7 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325820.D | 1 | 11/06/20 13:20 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 78D | | |
| **Lab Sample ID:** | JD15580-7 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.76 | 1.0 | 0.53 | ug/l | J |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 105% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 78D2 | | |
| **Lab Sample ID:** | JD15580-8 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325821.D | 1 | 11/06/20 13:48 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM 78D2 | | |
| **Lab Sample ID:** | JD15580-8 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 0.73 | 1.0 | 0.53 | ug/l | J |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 105% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 99% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110220ARH1 | | |
| **Lab Sample ID:** | JD15580-9 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | L325829.D | 1 | 11/06/20 17:27 | EH | n/a | n/a | VL9701 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110220ARH1 | | |
| **Lab Sample ID:** | JD15580-9 | **Date Sampled:** | 11/02/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/03/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 106% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 103% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-1
**Client ID:** GM-18D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2760.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 7.8 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | | 70.0 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-2
**Client ID:** GM-78D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2761.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 9.9 | ug/L | 1 | .25 | 0.24 | 0.081 |
| 1,4-Dioxane-D8 | | 73.6 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-3
**Client ID:** GM-78D2
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2762.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 12 | ug/L | 1 | .25 | 0.24 | 0.083 |
| 1,4-Dioxane-D8 | | 70.6 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-4
**Client ID:** GM-18I
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2763.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 6.9 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 70.0 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-5
**Client ID:** GM-79I
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2764.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 4.7 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 66.9 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-6
**Client ID:** GM-79D
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2765.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 5.1 | ug/L | 1 | .25 | 0.24 | 0.080 |
| 1,4-Dioxane-D8 | | 67.1 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9124-7
**Client ID:** FB110220ARH1
**Project:** OU2 Northrop Grumman Wells, Bethpage, I
**SDG:** SN9124
**Lab File ID:** G2766.D

**Sample Date:** 02-NOV-20
**Received Date:** 03-NOV-20
**Extract Date:** 09-NOV-20
**Extracted By:** JPS
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289819

**Analysis Date:** 10-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 10-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| 1,4-Dioxane | U | 0.24 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 55.7 | % | | | | |



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# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110420SV1 | | |
| **Lab Sample ID:** | JD15788-1 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72616.D | 1 | 11/11/20 00:28 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110420SV1 | | |
| **Lab Sample ID:** | JD15788-1 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 110% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 5.5 | ug/l | JNB |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-21D2 | | |
| **Lab Sample ID:** | JD15788-2 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72627.D | 1 | 11/11/20 05:13 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-21D2 | | |
| **Lab Sample ID:** | JD15788-2 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 7.2 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 100% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 6.2 | ug/l | JNB |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-35D2 | | |
| **Lab Sample ID:** | JD15788-3 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72628.D | 1 | 11/11/20 05:39 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 3.5 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-35D2 | | |
| **Lab Sample ID:** | JD15788-3 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 19.3 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110420PQ1 | | |
| **Lab Sample ID:** | JD15788-4 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72617.D | 1 | 11/11/20 00:54 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | TB110420PQ1 | | |
| **Lab Sample ID:** | JD15788-4 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 95% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 102% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 5.6 | ug/l | JNB |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-33D2 | | |
| **Lab Sample ID:** | JD15788-5 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72629.D | 1 | 11/11/20 06:05 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | 2.6 | 5.0 | 1.9 | ug/l | J |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | 1.2 | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-33D2 | | |
| **Lab Sample ID:** | JD15788-5 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 11.4 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 97% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 93% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-75D2 | | |
| **Lab Sample ID:** | JD15788-6 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72630.D | 1 | 11/11/20 06:31 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | GM-75D2 | | |
| **Lab Sample ID:** | JD15788-6 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | 15.1 | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 98% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 99% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 96% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110420SV1 | | |
| **Lab Sample ID:** | JD15788-7 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | 2V72618.D | 1 | 11/11/20 01:20 | ED | n/a | n/a | V2V3009 |
| Run #2 | | | | | | | |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 67-64-1 | Acetone [a] | ND | 10 | 6.0 | ug/l | |
| 71-43-2 | Benzene | ND | 0.50 | 0.43 | ug/l | |
| 75-27-4 | Bromodichloromethane | ND | 1.0 | 0.45 | ug/l | |
| 75-25-2 | Bromoform | ND | 1.0 | 0.63 | ug/l | |
| 74-83-9 | Bromomethane [b] | ND | 2.0 | 1.6 | ug/l | |
| 78-93-3 | 2-Butanone (MEK) | ND | 10 | 6.9 | ug/l | |
| 75-15-0 | Carbon disulfide | ND | 2.0 | 0.46 | ug/l | |
| 56-23-5 | Carbon tetrachloride | ND | 1.0 | 0.55 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.56 | ug/l | |
| 75-00-3 | Chloroethane | ND | 1.0 | 0.73 | ug/l | |
| 67-66-3 | Chloroform | ND | 1.0 | 0.50 | ug/l | |
| 74-87-3 | Chloromethane | ND | 1.0 | 0.76 | ug/l | |
| 124-48-1 | Dibromochloromethane | ND | 1.0 | 0.56 | ug/l | |
| 75-34-3 | 1,1-Dichloroethane | ND | 1.0 | 0.57 | ug/l | |
| 107-06-2 | 1,2-Dichloroethane | ND | 1.0 | 0.60 | ug/l | |
| 75-35-4 | 1,1-Dichloroethene | ND | 1.0 | 0.59 | ug/l | |
| 156-59-2 | cis-1,2-Dichloroethene | ND | 1.0 | 0.51 | ug/l | |
| 156-60-5 | trans-1,2-Dichloroethene | ND | 1.0 | 0.54 | ug/l | |
| 78-87-5 | 1,2-Dichloropropane | ND | 1.0 | 0.51 | ug/l | |
| 10061-01-5 | cis-1,3-Dichloropropene | ND | 1.0 | 0.47 | ug/l | |
| 10061-02-6 | trans-1,3-Dichloropropene | ND | 1.0 | 0.43 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.60 | ug/l | |
| 76-13-1 | Freon 113 | ND | 5.0 | 1.9 | ug/l | |
| 591-78-6 | 2-Hexanone | ND | 5.0 | 2.0 | ug/l | |
| 108-10-1 | 4-Methyl-2-pentanone(MIBK) | ND | 5.0 | 1.9 | ug/l | |
| 75-09-2 | Methylene chloride | ND | 2.0 | 1.0 | ug/l | |
| 100-42-5 | Styrene | ND | 1.0 | 0.49 | ug/l | |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | ND | 1.0 | 0.65 | ug/l | |
| 127-18-4 | Tetrachloroethene | ND | 1.0 | 0.90 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.53 | ug/l | |
| 71-55-6 | 1,1,1-Trichloroethane | ND | 1.0 | 0.54 | ug/l | |
| 79-00-5 | 1,1,2-Trichloroethane | ND | 1.0 | 0.53 | ug/l | |

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis





| | | | |
|---|---|---|---|
| **Client Sample ID:** | FB110420SV1 | | |
| **Lab Sample ID:** | JD15788-7 | **Date Sampled:** | 11/04/20 |
| **Matrix:** | AQ - Field Blank Water | **Date Received:** | 11/05/20 |
| **Method:** | SW846 8260D | **Percent Solids:** | n/a |
| **Project:** | Northrop Grumman, OU2 Hydro, Bethpage, NY | | |

**VOA OU2 GW List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 79-01-6 | Trichloroethene | ND | 1.0 | 0.53 | ug/l | |
| 75-01-4 | Vinyl chloride | ND | 1.0 | 0.79 | ug/l | |
| | m,p-Xylene | ND | 1.0 | 0.78 | ug/l | |
| 95-47-6 | o-Xylene | ND | 1.0 | 0.59 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 1868-53-7 | Dibromofluoromethane | 98% | | 80-120% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92% | | 81-124% |
| 2037-26-5 | Toluene-D8 | 100% | | 80-120% |
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 80-120% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 7446-09-5 | Sulfur dioxide | 1.63 | 5.3 | ug/l | JNB |
| | Total TIC, Volatile | | 0 | ug/l | |

(a) Associated CCV outside of control limits high, sample was ND. This compound in blank spike is outside in house QC limits bias high.
(b) Associated CCV outside of control limits low.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9223-3
**Client ID:** GM-33D2
**Project:** OU2 NG ONCT MW
**SDG:** SN9223
**Lab File ID:** G2770.D

**Sample Date:** 04-NOV-20
**Received Date:** 05-NOV-20
**Extract Date:** 10-NOV-20
**Extracted By:** JPS/KE
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289886

**Analysis Date:** 11-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 11-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.4 | ug/L | 1 | .25 | 0.24 | 0.082 |
| 1,4-Dioxane-D8 | | 72.0 | % | | | | |



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# Report of Analytical Results

**Client:** ARCADIS
**Lab ID:** SN9223-4
**Client ID:** GM-75D2
**Project:** OU2 NG ONCT MW
**SDG:** SN9223
**Lab File ID:** G2771.D

**Sample Date:** 04-NOV-20
**Received Date:** 05-NOV-20
**Extract Date:** 10-NOV-20
**Extracted By:** JPS/KE
**Extraction Method:** SW846 3520C
**Lab Prep Batch:** WG289886

**Analysis Date:** 11-NOV-20
**Analyst:** BF
**Analysis Method:** SW846 8270D SIM
**Matrix:** AQ
**% Solids:** NA
**Report Date:** 11-NOV-20

| Compound | Qualifier | Result | Units | Dilution | PQL | ADJ PQL | ADJ MDL |
|---|---|---|---|---|---|---|---|
| **1,4-Dioxane** | | 1.3 | ug/L | 1 | .25 | 0.23 | 0.079 |
| 1,4-Dioxane-D8 | * | 8.17 | % | | | | |



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