284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

# DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

| | |
|---|---|
| Value | If the result is a value greater than or equal to the detection limit, report the value |
| **U** | Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required. |
| **ND** | Indicates the analyte was analyzed for, but not detected |
| **J** | Indicates an estimated value**.** This flag is used:<br>(1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.)<br>(2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others. |
| **B** | Indicates the analyte was found in the blank as well as the sample report as "12 B". |
| **E** | Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis. |
| **D** | This flag identifies all compounds identified in an analysis at a secondary dilution factor. |
| **P** | This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P". |
| **N** | This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used. |
| **A** | This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product. |
| **Q** | Indicates the LCS did not meet the control limits requirements |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

# LAB CHRONICLE

| | | | |
|---|---|---|---|
| **OrderID:** | P5018 | **OrderDate:** | 11/26/2024 12:20:00 PM |
| **Client:** | New York City DEP of Environmental Protection/BWS | **Project:** | Industrial Wastewater Discharge Permit - Fall 2024 |
| **Contact:** | Nicholas Prokopowicz | **Location:** | L51,VOA Ref. #3 Water |

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|---|---|---|---|---|---|---|---|---|
| **P5018-01** | **14B-1** | **Water** | | | **11/26/24** | | | **11/26/24** |
| | | | VOCMS Group1 | 624.1 | | | 11/27/24 | |
| **P5018-02** | **14B-2** | **Water** | | | **11/26/24** | | | **11/26/24** |
| | | | VOCMS Group1 | 624.1 | | | 11/27/24 | |
| **P5018-03** | **14B-3** | **Water** | | | **11/26/24** | | | **11/26/24** |
| | | | VOCMS Group1 | 624.1 | | | 11/27/24 | |
| **P5018-04** | **14B-4** | **Water** | | | **11/26/24** | | | **11/26/24** |
| | | | VOCMS Group1 | 624.1 | | | 11/27/24 | |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Hit Summary Sheet
**SW-846**

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Protection/BW

| Sample ID | Client ID | Matrix | Parameter | Concentration | C | MDL | RDL | Units |
|---|---|---|---|---|---|---|---|---|
| **Client ID:** | | | | | | | | |
| | | | | 0 | | | | |

**Total Voc :**

**Total Concentration:**


# QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Surrogate Summary

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Protection/BWS

**Analytical Method:** SW624.1

| Lab Sample ID | Client ID | Parameter | Spike | Result | RecoveryQual | Limits Low | Limits High |
|---|---|---|---|---|---|---|---|
| P5018-01 | 14B-1 | 1,2-Dichloroethane-d4 | 30 | 29.9 | 100 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.8 | 96 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 24.9 | 83 | 63 | 112 |
| P5018-02 | 14B-2 | 1,2-Dichloroethane-d4 | 30 | 29.8 | 99 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.1 | 94 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 23.9 | 80 | 63 | 112 |
| P5018-03 | 14B-3 | 1,2-Dichloroethane-d4 | 30 | 30.6 | 102 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.6 | 95 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 23.9 | 80 | 63 | 112 |
| P5018-04 | 14B-4 | 1,2-Dichloroethane-d4 | 30 | 31.1 | 104 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.3 | 94 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 23.3 | 78 | 63 | 112 |
| VN1127WBL01 | VN1127WBL01 | 1,2-Dichloroethane-d4 | 30 | 31.1 | 104 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.6 | 95 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 24.5 | 82 | 63 | 112 |
| VN1127WBS01 | VN1127WBS01 | 1,2-Dichloroethane-d4 | 30 | 30.4 | 101 | 91 | 110 |
| | | Toluene-d8 | 30 | 29.6 | 99 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 29.4 | 98 | 63 | 112 |
| VN1127WBSD0 | VN1127WBSD01 | 1,2-Dichloroethane-d4 | 30 | 30.5 | 102 | 91 | 110 |
| | | Toluene-d8 | 30 | 29.9 | 100 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 28.3 | 94 | 63 | 112 |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Prot

**Analytical Method:** SW624.1 **Datafile :** VN085053.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1127WBS01 | Dichlorodifluoromethane | 20 | 19.9 | ug/L | 100 | | | 72 | 118 | |
| | Chloromethane | 20 | 17.4 | ug/L | 87 | | | 1 | 205 | |
| | Vinyl Chloride | 20 | 18.6 | ug/L | 93 | | | 5 | 195 | |
| | Bromomethane | 20 | 20.1 | ug/L | 101 | | | 15 | 185 | |
| | Chloroethane | 20 | 18.6 | ug/L | 93 | | | 40 | 160 | |
| | Trichlorofluoromethane | 20 | 20.0 | ug/L | 100 | | | 50 | 150 | |
| | 1,1,2-Trichlorotrifluoroethane | 20 | 20.0 | ug/L | 100 | | | 64 | 127 | |
| | 1,1-Dichloroethene | 20 | 18.7 | ug/L | 94 | | | 50 | 150 | |
| | Acetone | 100 | 95.8 | ug/L | 96 | | | 41 | 148 | |
| | Carbon disulfide | 20 | 17.3 | ug/L | 86 | | | 76 | 107 | |
| | Methyl tert-butyl Ether | 20 | 18.6 | ug/L | 93 | | | 82 | 114 | |
| | Methyl Acetate | 20 | 15.8 | ug/L | 79 | | | 63 | 139 | |
| | Methylene Chloride | 20 | 17.9 | ug/L | 90 | | | 60 | 140 | |
| | trans-1,2-Dichloroethene | 20 | 18.7 | ug/L | 94 | | | 70 | 130 | |
| | 1,1-Dichloroethane | 20 | 18.9 | ug/L | 95 | | | 70 | 130 | |
| | Cyclohexane | 20 | 18.7 | ug/L | 94 | | | 79 | 113 | |
| | 2-Butanone | 100 | 88.6 | ug/L | 89 | | | 69 | 129 | |
| | Carbon Tetrachloride | 20 | 19.4 | ug/L | 97 | | | 70 | 130 | |
| | cis-1,2-Dichloroethene | 20 | 18.6 | ug/L | 93 | | | 81 | 112 | |
| | Chloroform | 20 | 19.2 | ug/L | 96 | | | 70 | 135 | |
| | 1,1,1-Trichloroethane | 20 | 19.5 | ug/L | 98 | | | 70 | 130 | |
| | Methylcyclohexane | 20 | 18.6 | ug/L | 93 | | | 79 | 112 | |
| | Benzene | 20 | 17.9 | ug/L | 90 | | | 65 | 135 | |
| | 1,2-Dichloroethane | 20 | 19.0 | ug/L | 95 | | | 70 | 130 | |
| | Trichloroethene | 20 | 18.7 | ug/L | 94 | | | 65 | 135 | |
| | 1,2-Dichloropropane | 20 | 18.4 | ug/L | 92 | | | 35 | 165 | |
| | Bromodichloromethane | 20 | 18.2 | ug/L | 91 | | | 65 | 135 | |
| | 4-Methyl-2-Pentanone | 100 | 86.4 | ug/L | 86 | | | 73 | 131 | |
| | Toluene | 20 | 18.5 | ug/L | 93 | | | 70 | 130 | |
| | t-1,3-Dichloropropene | 20 | 18.0 | ug/L | 90 | | | 50 | 150 | |
| | cis-1,3-Dichloropropene | 20 | 18.5 | ug/L | 93 | | | 25 | 175 | |
| | 1,1,2-Trichloroethane | 20 | 18.8 | ug/L | 94 | | | 70 | 130 | |
| | 2-Hexanone | 100 | 88.9 | ug/L | 89 | | | 72 | 128 | |
| | Dibromochloromethane | 20 | 19.1 | ug/L | 96 | | | 70 | 135 | |
| | 1,2-Dibromoethane | 20 | 18.3 | ug/L | 92 | | | 86 | 114 | |
| | Tetrachloroethene | 20 | 19.4 | ug/L | 97 | | | 70 | 130 | |
| | Chlorobenzene | 20 | 18.9 | ug/L | 95 | | | 65 | 135 | |
| | Ethyl Benzene | 20 | 18.1 | ug/L | 91 | | | 60 | 140 | |
| | m/p-Xylenes | 40 | 37.0 | ug/L | 93 | | | 87 | 111 | |
| | o-Xylene | 20 | 17.9 | ug/L | 90 | | | 87 | 111 | |
| | Styrene | 20 | 18.4 | ug/L | 92 | | | 85 | 106 | |
| | Bromoform | 20 | 17.9 | ug/L | 90 | | | 70 | 130 | |
| | Isopropylbenzene | 20 | 18.8 | ug/L | 94 | | | 86 | 112 | |
| | 1,1,2,2-Tetrachloroethane | 20 | 17.8 | ug/L | 89 | | | 60 | 140 | |
| | 1,3,5-Trimethylbenzene | 20 | 19.2 | ug/L | 96 | | | 66 | 139 | |
| | 1,3-Dichlorobenzene | 20 | 19.1 | ug/L | 96 | | | 70 | 130 | |
| | 1,4-Dichlorobenzene | 20 | 18.6 | ug/L | 93 | | | 65 | 135 | |
| | 1,2-Dichlorobenzene | 20 | 18.4 | ug/L | 92 | | | 65 | 135 | |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Prot

**Analytical Method:** SW624.1 **Datafile :** VN085053.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1127WBS01 | 1,2-Dibromo-3-Chloropropane | 20 | 18.6 | ug/L | 93 | | | 69 | 122 | |
| | 1,2,4-Trichlorobenzene | 20 | 19.0 | ug/L | 95 | | | 61 | 118 | |
| | 1,2,3-Trichlorobenzene | 20 | 19.0 | ug/L | 95 | | | 38 | 159 | |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**

**SW-846**

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Prot

**Analytical Method:** SW624.1 **Datafile :** VN085054.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1127WBSD01 | Dichlorodifluoromethane | 20 | 21.1 | ug/L | 106 | 6 | | 72 | 118 | 20 |
| | Chloromethane | 20 | 18.0 | ug/L | 90 | 3 | | 1 | 205 | 20 |
| | Vinyl Chloride | 20 | 20.0 | ug/L | 100 | 7 | | 5 | 195 | 20 |
| | Bromomethane | 20 | 22.2 | ug/L | 111 | 9 | | 15 | 185 | 20 |
| | Chloroethane | 20 | 20.3 | ug/L | 102 | 9 | | 40 | 160 | 20 |
| | Trichlorofluoromethane | 20 | 22.0 | ug/L | 110 | 10 | | 50 | 150 | 20 |
| | 1,1,2-Trichlorotrifluoroethane | 20 | 22.5 | ug/L | 113 | 12 | | 64 | 127 | 20 |
| | 1,1-Dichloroethene | 20 | 20.4 | ug/L | 102 | 8 | | 50 | 150 | 20 |
| | Acetone | 100 | 110 | ug/L | 110 | 14 | | 41 | 148 | 20 |
| | Carbon disulfide | 20 | 18.8 | ug/L | 94 | 9 | | 76 | 107 | 20 |
| | Methyl tert-butyl Ether | 20 | 22.0 | ug/L | 110 | 17 | | 82 | 114 | 20 |
| | Methyl Acetate | 20 | 18.4 | ug/L | 92 | 15 | | 63 | 139 | 20 |
| | Methylene Chloride | 20 | 20.3 | ug/L | 102 | 13 | | 60 | 140 | 20 |
| | trans-1,2-Dichloroethene | 20 | 20.1 | ug/L | 101 | 7 | | 70 | 130 | 20 |
| | 1,1-Dichloroethane | 20 | 21.0 | ug/L | 105 | 10 | | 70 | 130 | 20 |
| | Cyclohexane | 20 | 20.3 | ug/L | 102 | 8 | | 79 | 113 | 20 |
| | 2-Butanone | 100 | 100 | ug/L | 100 | 12 | | 69 | 129 | 20 |
| | Carbon Tetrachloride | 20 | 21.6 | ug/L | 108 | 11 | | 70 | 130 | 20 |
| | cis-1,2-Dichloroethene | 20 | 20.6 | ug/L | 103 | 10 | | 81 | 112 | 20 |
| | Chloroform | 20 | 20.8 | ug/L | 104 | 8 | | 70 | 135 | 20 |
| | 1,1,1-Trichloroethane | 20 | 21.1 | ug/L | 106 | 8 | | 70 | 130 | 20 |
| | Methylcyclohexane | 20 | 21.0 | ug/L | 105 | 12 | | 79 | 112 | 20 |
| | Benzene | 20 | 20.8 | ug/L | 104 | 14 | | 65 | 135 | 20 |
| | 1,2-Dichloroethane | 20 | 22.0 | ug/L | 110 | 15 | | 70 | 130 | 20 |
| | Trichloroethene | 20 | 21.0 | ug/L | 105 | 11 | | 65 | 135 | 20 |
| | 1,2-Dichloropropane | 20 | 20.2 | ug/L | 101 | 9 | | 35 | 165 | 20 |
| | Bromodichloromethane | 20 | 21.2 | ug/L | 106 | 15 | | 65 | 135 | 20 |
| | 4-Methyl-2-Pentanone | 100 | 100 | ug/L | 100 | 15 | | 73 | 131 | 20 |
| | Toluene | 20 | 20.9 | ug/L | 104 | 11 | | 70 | 130 | 20 |
| | t-1,3-Dichloropropene | 20 | 20.7 | ug/L | 104 | 14 | | 50 | 150 | 20 |
| | cis-1,3-Dichloropropene | 20 | 21.3 | ug/L | 106 | 13 | | 25 | 175 | 20 |
| | 1,1,2-Trichloroethane | 20 | 21.1 | ug/L | 106 | 12 | | 70 | 130 | 20 |
| | 2-Hexanone | 100 | 100 | ug/L | 100 | 12 | | 72 | 128 | 20 |
| | Dibromochloromethane | 20 | 21.6 | ug/L | 108 | 12 | | 70 | 135 | 20 |
| | 1,2-Dibromoethane | 20 | 20.4 | ug/L | 102 | 10 | | 86 | 114 | 20 |
| | Tetrachloroethene | 20 | 22.4 | ug/L | 112 | 14 | | 70 | 130 | 20 |
| | Chlorobenzene | 20 | 20.9 | ug/L | 104 | 9 | | 65 | 135 | 20 |
| | Ethyl Benzene | 20 | 20.2 | ug/L | 101 | 10 | | 60 | 140 | 20 |
| | m/p-Xylenes | 40 | 41.4 | ug/L | 104 | 11 | | 87 | 111 | 20 |
| | o-Xylene | 20 | 21.3 | ug/L | 106 | 16 | | 87 | 111 | 20 |
| | Styrene | 20 | 20.8 | ug/L | 104 | 12 | | 85 | 106 | 20 |
| | Bromoform | 20 | 21.3 | ug/L | 106 | 16 | | 70 | 130 | 20 |
| | Isopropylbenzene | 20 | 20.5 | ug/L | 103 | 9 | | 86 | 112 | 20 |
| | 1,1,2,2-Tetrachloroethane | 20 | 20.6 | ug/L | 103 | 15 | | 60 | 140 | 20 |
| | 1,3,5-Trimethylbenzene | 20 | 20.7 | ug/L | 104 | 8 | | 66 | 139 | 20 |
| | 1,3-Dichlorobenzene | 20 | 20.9 | ug/L | 104 | 8 | | 70 | 130 | 20 |
| | 1,4-Dichlorobenzene | 20 | 20.7 | ug/L | 104 | 11 | | 65 | 135 | 20 |
| | 1,2-Dichlorobenzene | 20 | 20.5 | ug/L | 103 | 11 | | 65 | 135 | 20 |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** P5018

**Client:** New York City DEP of Environmental Prot

**Analytical Method:** SW624.1 **Datafile :** VN085054.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1127WBSD01 | 1,2-Dibromo-3-Chloropropane | 20 | 20.7 | ug/L | 104 | 11 | | 69 | 122 | 20 |
| | 1,2,4-Trichlorobenzene | 20 | 21.8 | ug/L | 109 | 14 | | 61 | 118 | 20 |
| | 1,2,3-Trichlorobenzene | 20 | 21.8 | ug/L | 109 | 14 | | 38 | 159 | 20 |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1127WBL01

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG NO.: P5018

Lab File ID: VN085055.D Lab Sample ID: VN1127WBL01

Date Analyzed: 11/27/2024 Time Analyzed: 13:19

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| VN1127WBS01 | VN1127WBS01 | VN085053.D | 11/27/2024 |
| VN1127WBSD01 | VN1127WBSD01 | VN085054.D | 11/27/2024 |
| 14B-1 | P5018-01 | VN085056.D | 11/27/2024 |
| 14B-2 | P5018-02 | VN085057.D | 11/27/2024 |
| 14B-3 | P5018-03 | VN085058.D | 11/27/2024 |
| 14B-4 | P5018-04 | VN085059.D | 11/27/2024 |

COMMENTS:

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG NO.: P5018

Lab File ID: VN084612.D BFB Injection Date: 10/31/2024

Instrument ID: MSVOA_N BFB Injection Time: 10:56

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.5 |
| 75 | 30.0 - 60.0% of mass 95 | 52.2 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.8 |
| 173 | Less than 2.0% of mass 174 | 0.8 ( 1.1 ) 1 |
| 174 | 50.0 - 100.0% of mass 95 | 73.9 |
| 175 | 5.0 - 9.0% of mass 174 | 5.6 ( 7.5 ) 1 |
| 176 | 95.0 - 101.0% of mass 174 | 72.1 ( 97.5 ) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.7 ( 6.5 ) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| VSTDICC005 | VSTDICC005 | VN084613.D | 10/31/2024 | 12:08 |
| VSTDICCC020 | VSTDICCC020 | VN084614.D | 10/31/2024 | 12:32 |
| VSTDICC050 | VSTDICC050 | VN084615.D | 10/31/2024 | 12:56 |
| VSTDICC100 | VSTDICC100 | VN084616.D | 10/31/2024 | 13:20 |
| VSTDICC150 | VSTDICC150 | VN084617.D | 10/31/2024 | 13:44 |

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
## BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG NO.: P5018

Lab File ID: VN085051.D BFB Injection Date: 11/27/2024

Instrument ID: MSVOA_N BFB Injection Time: 08:30

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.6 |
| 75 | 30.0 - 60.0% of mass 95 | 50.3 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.7 |
| 173 | Less than 2.0% of mass 174 | 1.2 ( 1.6 ) 1 |
| 174 | 50.0 - 100.0% of mass 95 | 73 |
| 175 | 5.0 - 9.0% of mass 174 | 5.2 ( 7.1 ) 1 |
| 176 | 95.0 - 101.0% of mass 174 | 69.9 ( 95.8 ) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.5 ( 6.4 ) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| VSTDCCC020 | VSTDCCC020 | VN085052.D | 11/27/2024 | 11:44 |
| VN1127WBS01 | VN1127WBS01 | VN085053.D | 11/27/2024 | 12:21 |
| VN1127WBSD01 | VN1127WBSD01 | VN085054.D | 11/27/2024 | 12:55 |
| VN1127WBL01 | VN1127WBL01 | VN085055.D | 11/27/2024 | 13:19 |
| 14B-1 | P5018-01 | VN085056.D | 11/27/2024 | 13:56 |
| 14B-2 | P5018-02 | VN085057.D | 11/27/2024 | 14:20 |
| 14B-3 | P5018-03 | VN085058.D | 11/27/2024 | 14:44 |
| 14B-4 | P5018-04 | VN085059.D | 11/27/2024 | 15:07 |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG NO.: P5018

Lab File ID: VN085052.D Date Analyzed: 11/27/2024

Instrument ID: MSVOA_N Time Analyzed: 11:44

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

| | IS1 AREA # | RT # | IS2 AREA # | RT # | IS3 AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 28768 | 7.81 | 155364 | 9.09 | 140160 | 11.87 |
| UPPER LIMIT | 57536 | 8.312 | 310728 | 9.594 | 280320 | 12.365 |
| LOWER LIMIT | 14384 | 7.312 | 77682 | 8.594 | 70080 | 11.365 |
| EPA SAMPLE NO. | | | | | | |
| 14B-1 | 33381 | 7.81 | 177303 | 9.10 | 151222 | 11.87 |
| 14B-2 | 21362 | 7.81 | 109546 | 9.09 | 94649 | 11.87 |
| 14B-3 | 24374 | 7.81 | 124625 | 9.10 | 107923 | 11.87 |
| 14B-4 | 24391 | 7.81 | 127521 | 9.09 | 110334 | 11.87 |
| VN1127WBL01 | 26189 | 7.81 | 138613 | 9.09 | 117498 | 11.87 |
| VN1127WBS01 | 32660 | 7.81 | 179004 | 9.09 | 161319 | 11.86 |
| VN1127WBSD01 | 29451 | 7.81 | 158864 | 9.10 | 140518 | 11.87 |

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

# Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.


# SAMPLE DATA

Raw Data: **VN085056.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-1 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085056.D | 5 | | 11/27/24 13:56 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-87-3 | Chloromethane | 5.90 | U | 5.90 | 25.0 | ug/L |
| 75-01-4 | Vinyl Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-83-9 | Bromomethane | 6.90 | U | 6.90 | 25.0 | ug/L |
| 75-00-3 | Chloroethane | 14.6 | U | 14.6 | 25.0 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 5.10 | U | 5.10 | 25.0 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 5.30 | U | 5.30 | 25.0 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 5.30 | U | 5.30 | 25.0 | ug/L |
| 67-64-1 | Acetone | 24.6 | U | 24.6 | 130 | ug/L |
| 75-15-0 | Carbon Disulfide | 4.70 | U | 4.70 | 25.0 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-20-9 | Methyl Acetate | 6.10 | U | 6.10 | 25.0 | ug/L |
| 75-09-2 | Methylene Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 110-82-7 | Cyclohexane | 5.20 | U | 5.20 | 25.0 | ug/L |
| 78-93-3 | 2-Butanone | 17.8 | U | 17.8 | 130 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 4.60 | U | 4.60 | 25.0 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 4.50 | U | 4.50 | 25.0 | ug/L |
| 67-66-3 | Chloroform | 3.60 | U | 3.60 | 25.0 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 4.00 | U | 4.00 | 25.0 | ug/L |
| 108-87-2 | Methylcyclohexane | 4.50 | U | 4.50 | 25.0 | ug/L |
| 71-43-2 | Benzene | 3.50 | U | 3.50 | 25.0 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 3.80 | U | 3.80 | 25.0 | ug/L |
| 79-01-6 | Trichloroethene | 3.90 | U | 3.90 | 25.0 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 3.30 | U | 3.30 | 25.0 | ug/L |
| 75-27-4 | Bromodichloromethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 20.8 | U | 20.8 | 130 | ug/L |
| 108-88-3 | Toluene | 3.60 | U | 3.60 | 25.0 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 4.00 | U | 4.00 | 25.0 | ug/L |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-1 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085056.D | 5 | | 11/27/24 13:56 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 3.40 | U | 3.40 | 25.0 | ug/L |
| 591-78-6 | 2-Hexanone | 19.7 | U | 19.7 | 130 | ug/L |
| 124-48-1 | Dibromochloromethane | 3.60 | U | 3.60 | 25.0 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 3.90 | U | 3.90 | 25.0 | ug/L |
| 127-18-4 | Tetrachloroethene | 4.70 | U | 4.70 | 25.0 | ug/L |
| 108-90-7 | Chlorobenzene | 3.40 | U | 3.40 | 25.0 | ug/L |
| 100-41-4 | Ethyl Benzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 179601-23-1 | m/p-Xylenes | 8.60 | U | 8.60 | 50.0 | ug/L |
| 95-47-6 | o-Xylene | 4.10 | U | 4.10 | 25.0 | ug/L |
| 100-42-5 | Styrene | 4.00 | U | 4.00 | 25.0 | ug/L |
| 75-25-2 | Bromoform | 5.00 | U | 5.00 | 25.0 | ug/L |
| 98-82-8 | Isopropylbenzene | 4.30 | U | 4.30 | 25.0 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 3.00 | U | 3.00 | 25.0 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 4.60 | U | 4.60 | 25.0 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.50 | U | 5.50 | 25.0 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 7.10 | U | 7.10 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 29.9 | | 91 - 110 | 100% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.8 | | 91 - 112 | 96% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 24.9 | | 63 - 112 | 83% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 33400 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 177000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 151000 | 11.865 | | | |

Raw Data: **VN085056.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-1 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085056.D | 5 | | 11/27/24 13:56 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085056.D
Acq On : 27 Nov 2024 13:56
Operator : JC\MD
Sample : P5018-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-1

Quant Time: Nov 28 06:52:00 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

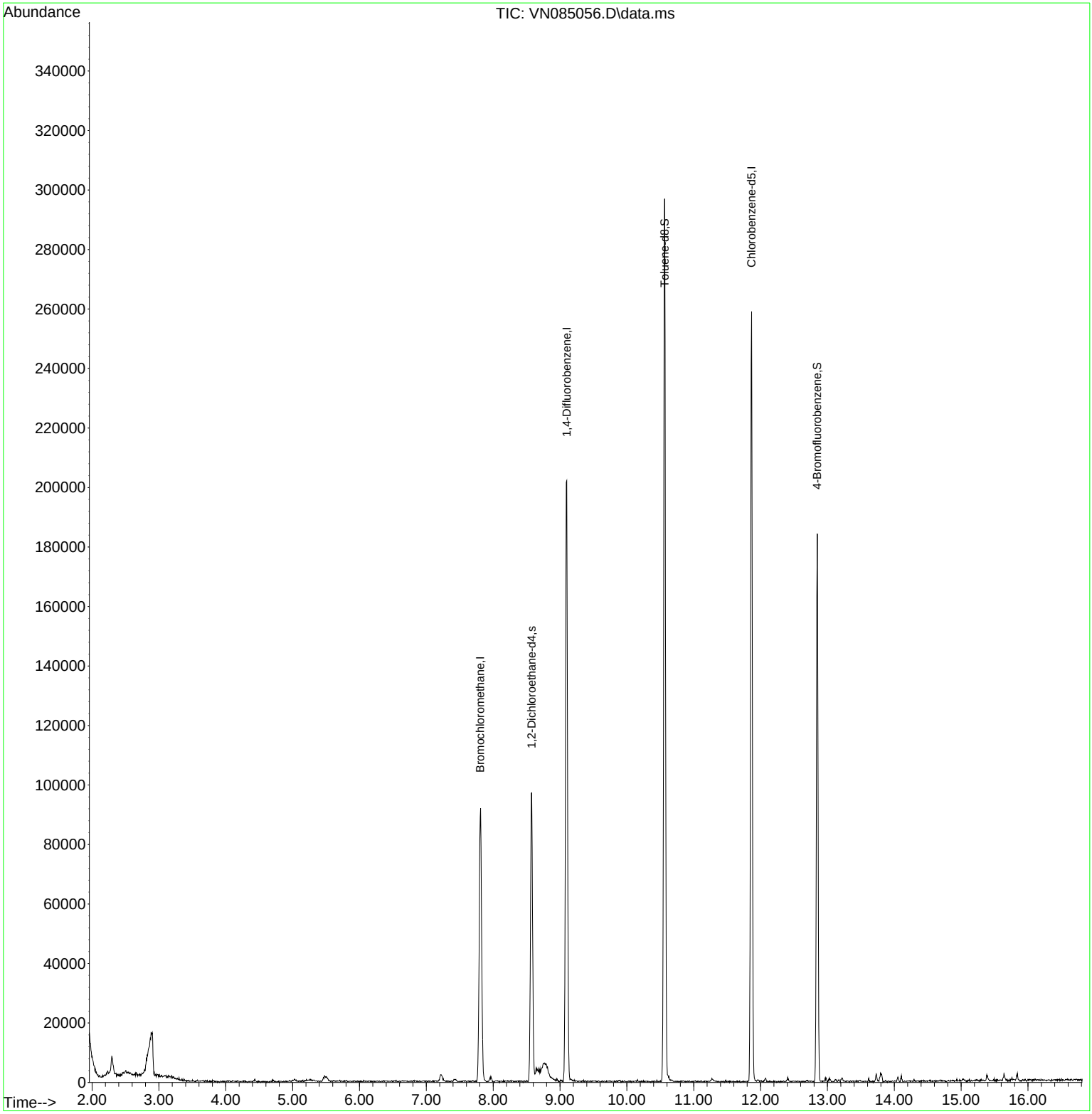
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 33381 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 177303 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 151222 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 80312 | 29.927 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 99.767% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 64801 | 24.887 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 82.967% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 205957 | 28.769 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 95.900% | | | |
| Target Compounds | | | | | | Qvalue |

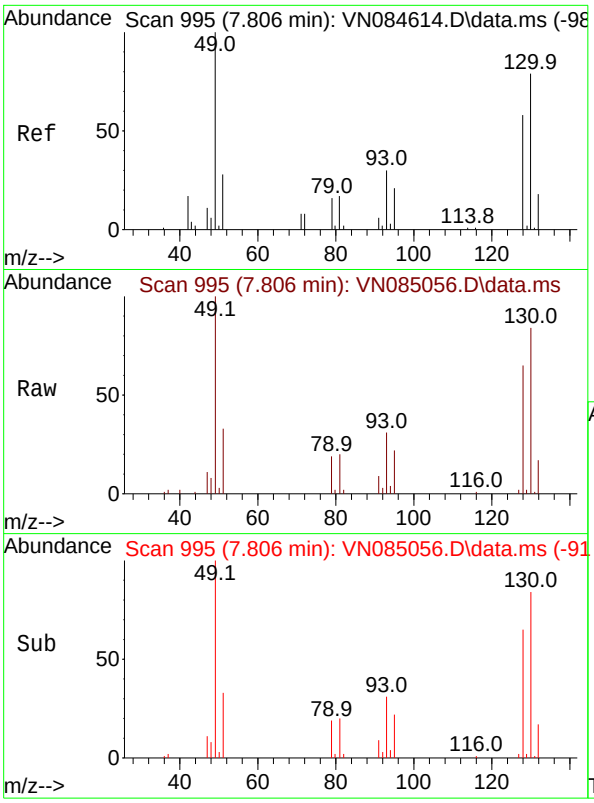
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085056.D
Acq On : 27 Nov 2024 13:56
Operator : JC\MD
Sample : P5018-01 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-1

Quant Time: Nov 28 06:52:00 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



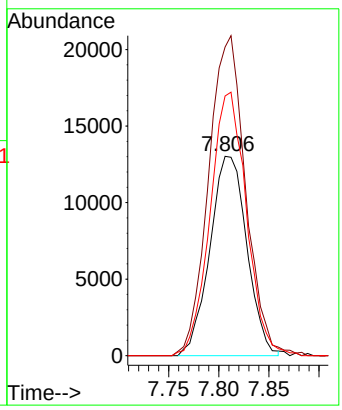


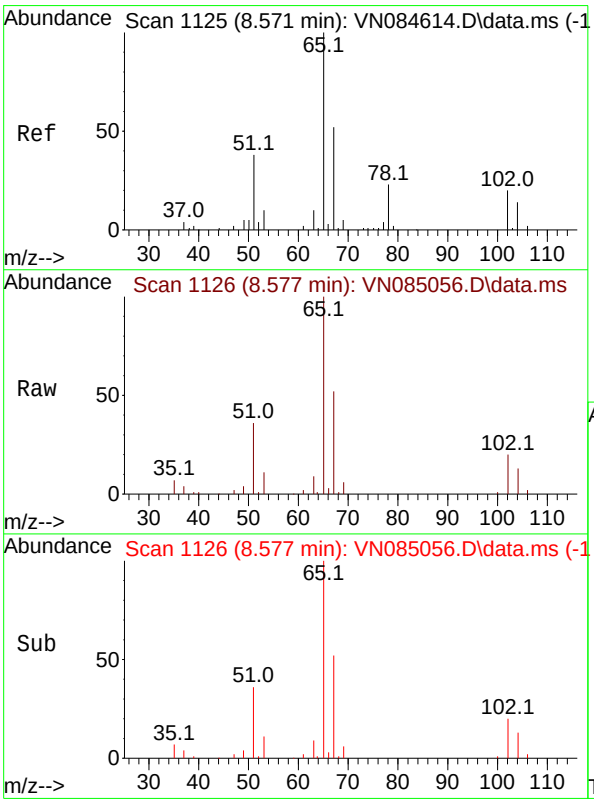

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-1

Tgt Ion:128 Resp: 33381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 160.9 | 0.0 | 427.0 |
| 130 | 130.2 | 0.0 | 322.2 |

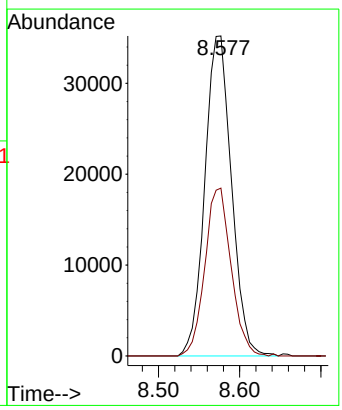


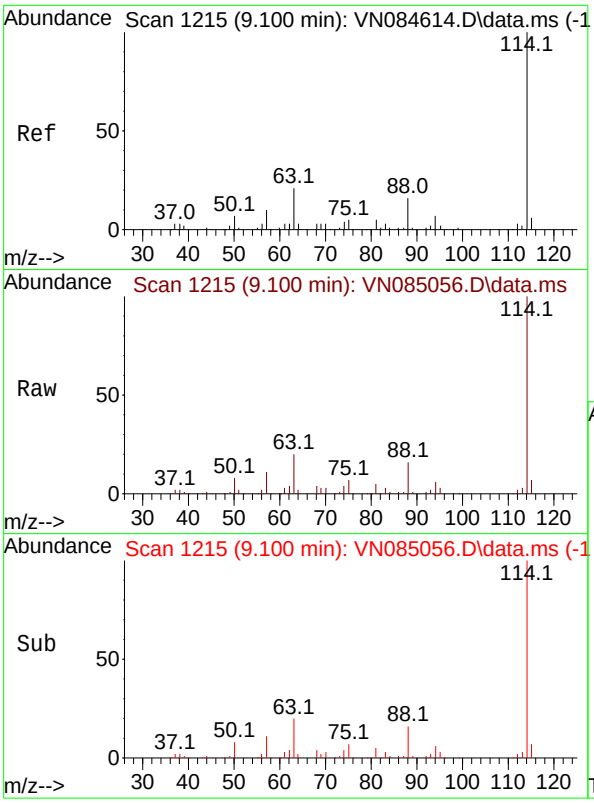




#27
1,2-Dichloroethane-d4
Concen: 29.927 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

Tgt Ion: 65 Resp: 80312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 51.6 | 40.7 | 61.1 |



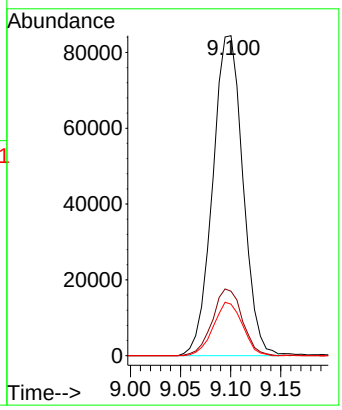


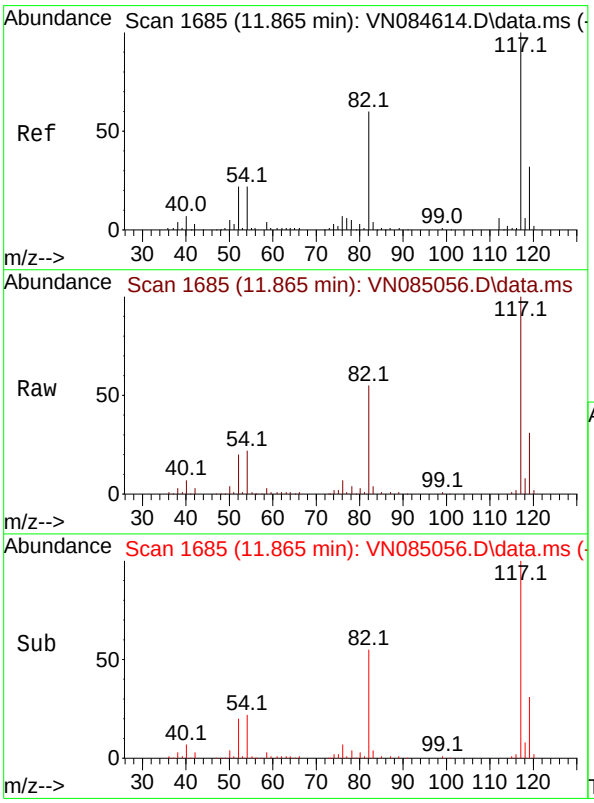

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-1

Tgt Ion:114 Resp: 177303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.6 | 16.8 | 25.2 |
| 88 | 16.1 | 12.9 | 19.3 |

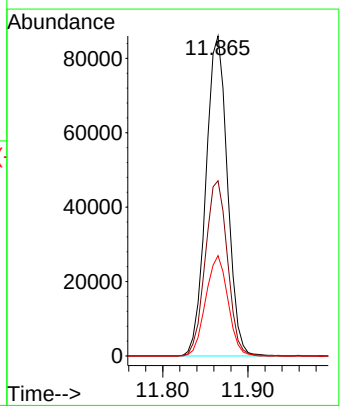


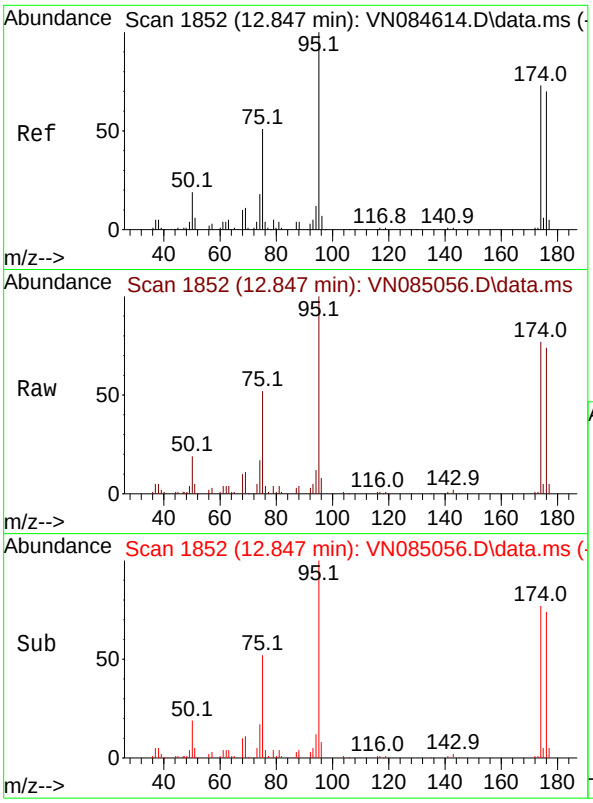




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.000 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

Tgt Ion:117 Resp: 151222

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.5 | 45.5 | 68.3 |
| 119 | 32.2 | 25.3 | 37.9 |



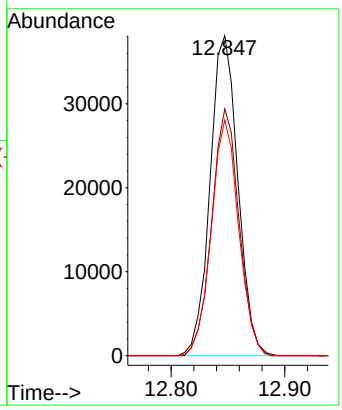


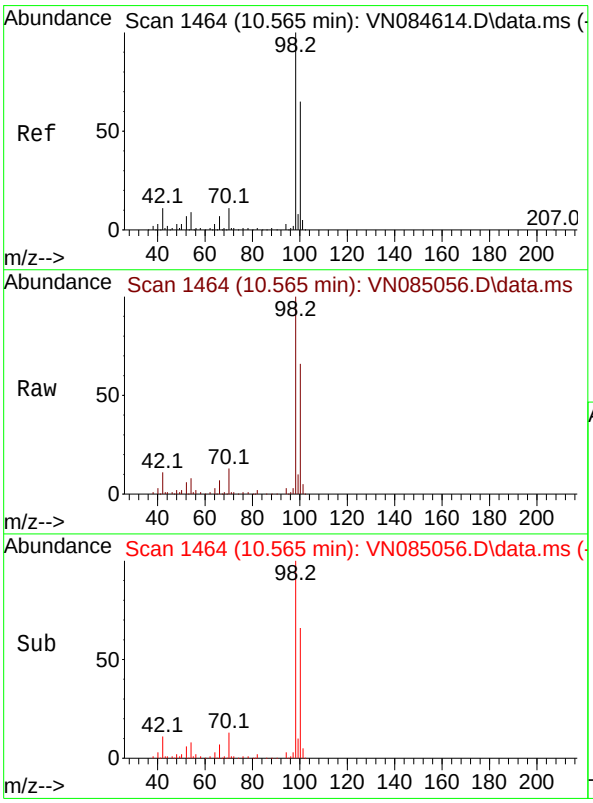

#60
4-Bromofluorobenzene
Concen: 24.887 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-1

Tgt Ion: 95 Resp: 64801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 76.0 | 59.6 | 89.4 |
| 176 | 72.7 | 58.6 | 88.0 |

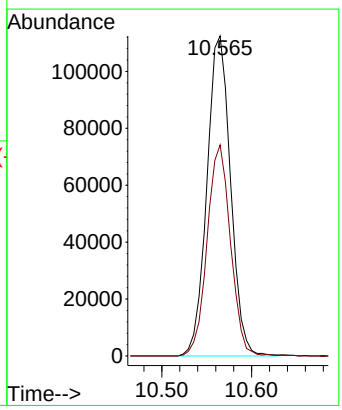



#63
Toluene-d8
Concen: 28.769 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN085056.D
Acq: 27 Nov 2024 13:56

Tgt Ion: 98 Resp: 205957

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 64.8 | 52.2 | 78.2 |



Raw Data: **VN085057.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-2 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-02 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085057.D | 5 | | 11/27/24 14:20 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-87-3 | Chloromethane | 5.90 | U | 5.90 | 25.0 | ug/L |
| 75-01-4 | Vinyl Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-83-9 | Bromomethane | 6.90 | U | 6.90 | 25.0 | ug/L |
| 75-00-3 | Chloroethane | 14.6 | U | 14.6 | 25.0 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 5.10 | U | 5.10 | 25.0 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 5.30 | U | 5.30 | 25.0 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 5.30 | U | 5.30 | 25.0 | ug/L |
| 67-64-1 | Acetone | 24.6 | U | 24.6 | 130 | ug/L |
| 75-15-0 | Carbon Disulfide | 4.70 | U | 4.70 | 25.0 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-20-9 | Methyl Acetate | 6.10 | U | 6.10 | 25.0 | ug/L |
| 75-09-2 | Methylene Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 110-82-7 | Cyclohexane | 5.20 | U | 5.20 | 25.0 | ug/L |
| 78-93-3 | 2-Butanone | 17.8 | U | 17.8 | 130 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 4.60 | U | 4.60 | 25.0 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 4.50 | U | 4.50 | 25.0 | ug/L |
| 67-66-3 | Chloroform | 3.60 | U | 3.60 | 25.0 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 4.00 | U | 4.00 | 25.0 | ug/L |
| 108-87-2 | Methylcyclohexane | 4.50 | U | 4.50 | 25.0 | ug/L |
| 71-43-2 | Benzene | 3.50 | U | 3.50 | 25.0 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 3.80 | U | 3.80 | 25.0 | ug/L |
| 79-01-6 | Trichloroethene | 3.90 | U | 3.90 | 25.0 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 3.30 | U | 3.30 | 25.0 | ug/L |
| 75-27-4 | Bromodichloromethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 20.8 | U | 20.8 | 130 | ug/L |
| 108-88-3 | Toluene | 3.60 | U | 3.60 | 25.0 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 4.00 | U | 4.00 | 25.0 | ug/L |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-2 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-02 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085057.D | 5 | | 11/27/24 14:20 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 3.40 | U | 3.40 | 25.0 | ug/L |
| 591-78-6 | 2-Hexanone | 19.7 | U | 19.7 | 130 | ug/L |
| 124-48-1 | Dibromochloromethane | 3.60 | U | 3.60 | 25.0 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 3.90 | U | 3.90 | 25.0 | ug/L |
| 127-18-4 | Tetrachloroethene | 4.70 | U | 4.70 | 25.0 | ug/L |
| 108-90-7 | Chlorobenzene | 3.40 | U | 3.40 | 25.0 | ug/L |
| 100-41-4 | Ethyl Benzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 179601-23-1 | m/p-Xylenes | 8.60 | U | 8.60 | 50.0 | ug/L |
| 95-47-6 | o-Xylene | 4.10 | U | 4.10 | 25.0 | ug/L |
| 100-42-5 | Styrene | 4.00 | U | 4.00 | 25.0 | ug/L |
| 75-25-2 | Bromoform | 5.00 | U | 5.00 | 25.0 | ug/L |
| 98-82-8 | Isopropylbenzene | 4.30 | U | 4.30 | 25.0 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 3.00 | U | 3.00 | 25.0 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 4.60 | U | 4.60 | 25.0 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.50 | U | 5.50 | 25.0 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 7.10 | U | 7.10 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 29.7 | | 91 - 110 | 99% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.1 | | 91 - 112 | 94% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 23.9 | | 63 - 112 | 80% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 21400 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 110000 | 9.094 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 94600 | 11.865 | | | |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-2 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-02 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085057.D | 5 | | 11/27/24 14:20 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085057.D
Acq On : 27 Nov 2024 14:20
Operator : JC\MD
Sample : P5018-02 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-2

Quant Time: Nov 28 06:57:17 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

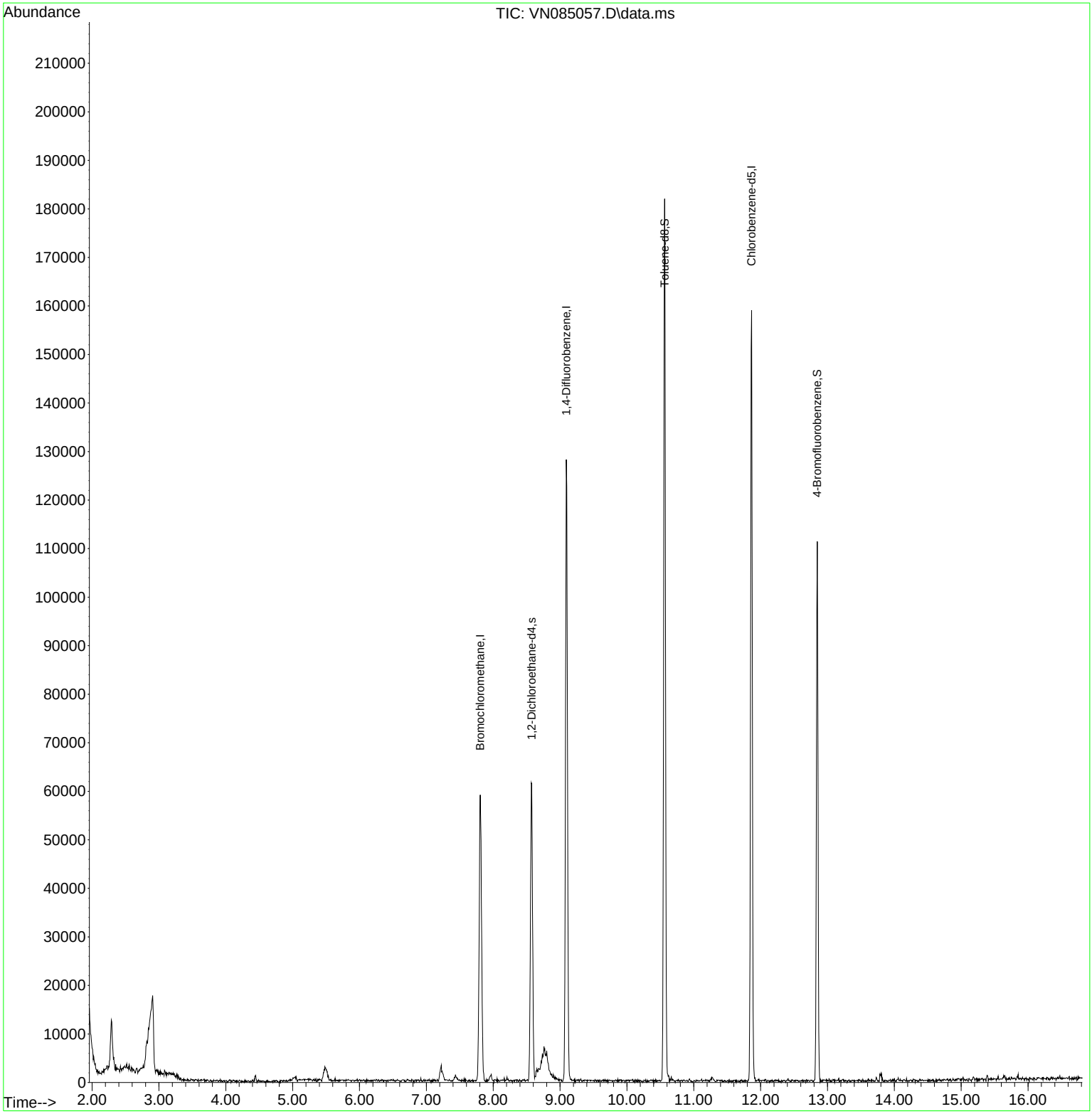
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 21362 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 109546 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 94649 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.576 | 65 | 51084 | 29.745 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 99.167% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 38956 | 23.904 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 79.667% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 125867 | 28.091 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 93.633% | | | |
| Target Compounds | | | | | | Qvalue |

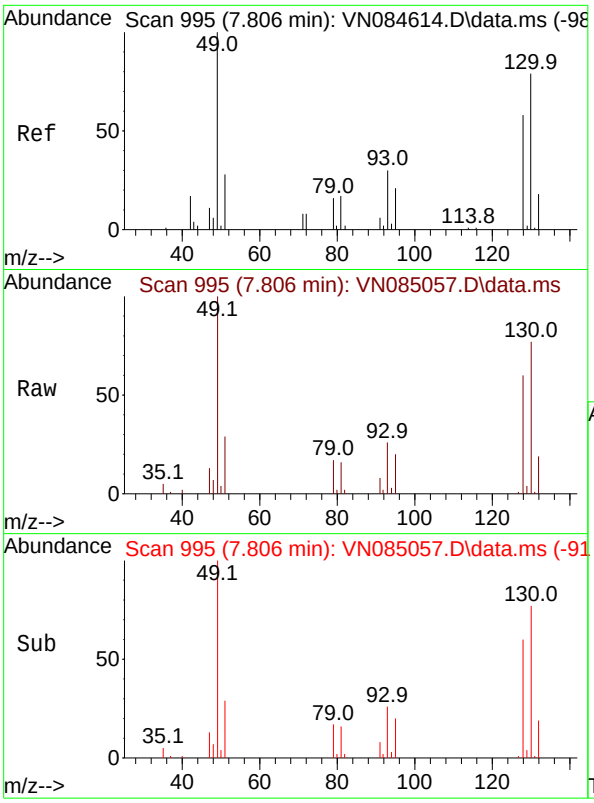
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085057.D
Acq On : 27 Nov 2024 14:20
Operator : JC\MD
Sample : P5018-02 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-2

Quant Time: Nov 28 06:57:17 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



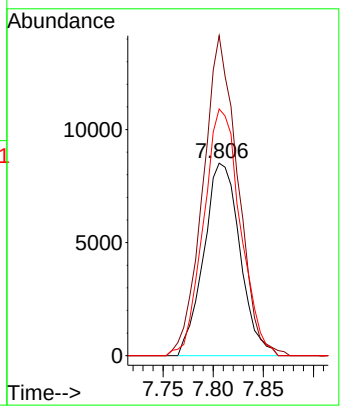


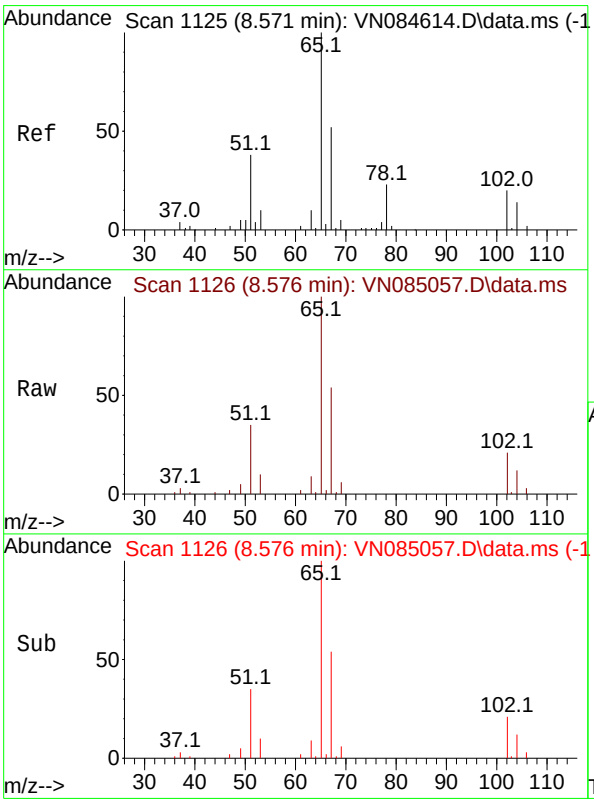

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-2

Tgt Ion:128 Resp: 21362

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 160.1 | 0.0 | 427.0 |
| 130 | 130.4 | 0.0 | 322.2 |

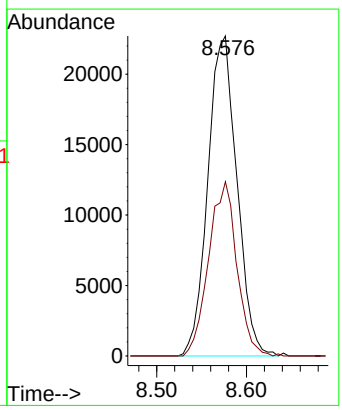


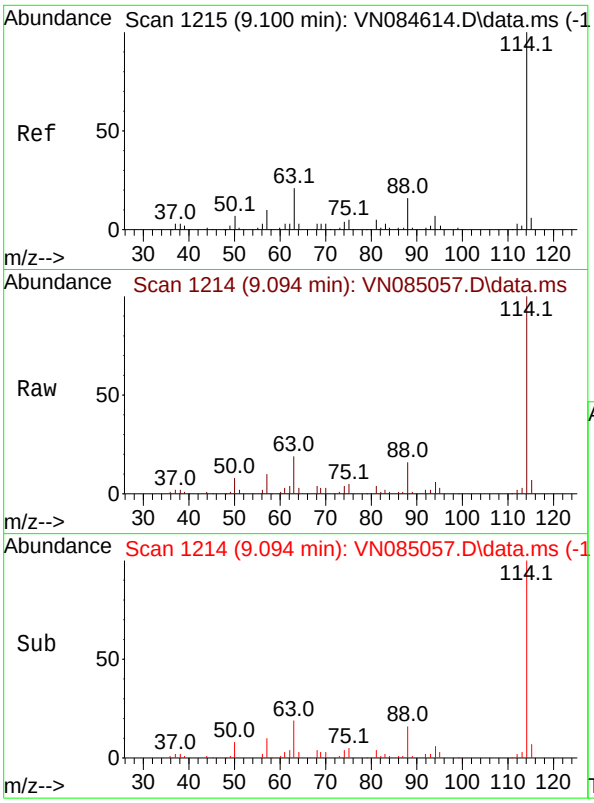




#27
1,2-Dichloroethane-d4
Concen: 29.745 ug/l
RT: 8.576 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

Tgt Ion: 65 Resp: 51084

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 52.7 | 40.7 | 61.1 |



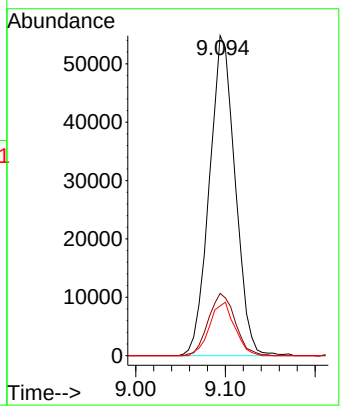


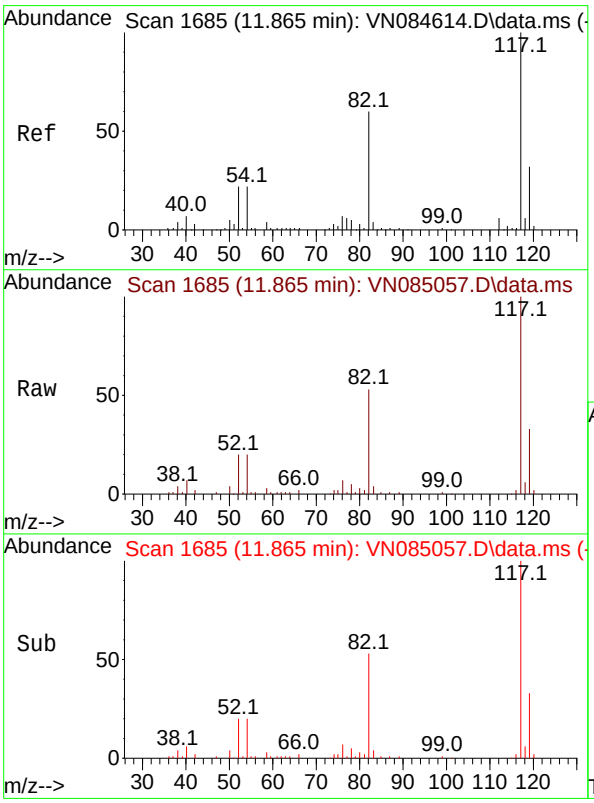

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-2

Tgt Ion:114 Resp: 109546

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.2 | 16.8 | 25.2 |
| 88 | 16.3 | 12.9 | 19.3 |

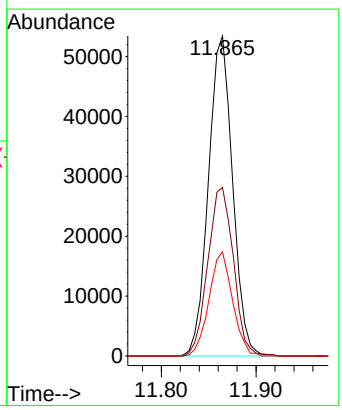


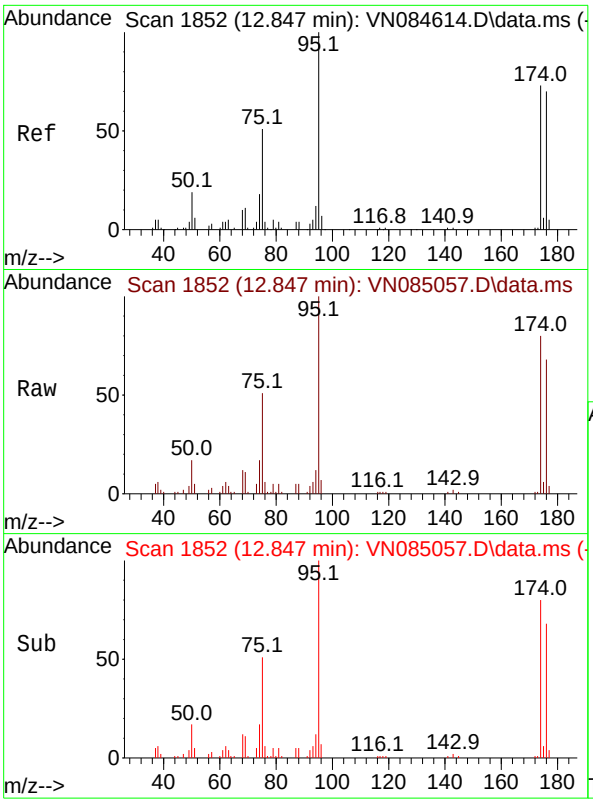




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

Tgt Ion:117 Resp: 94649

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 55.7 | 45.5 | 68.3 |
| 119 | 31.7 | 25.3 | 37.9 |



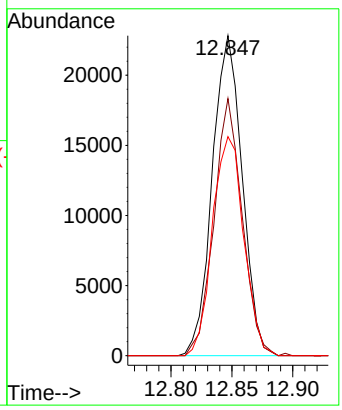


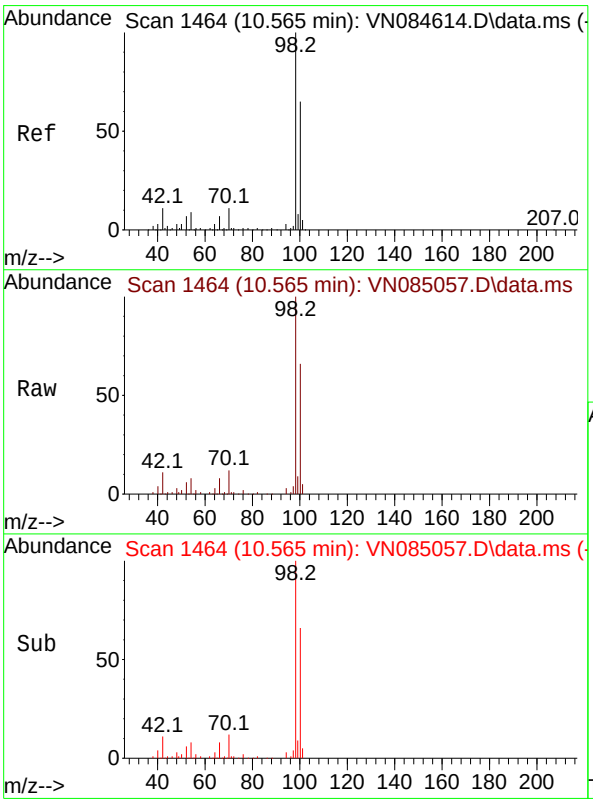

#60
4-Bromofluorobenzene
Concen: 23.904 ug/l
RT: 12.847 min Scan# 18
Delta R.T. -0.000 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-2

Tgt Ion: 95 Resp: 38956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 76.0 | 59.6 | 89.4 |
| 176 | 71.6 | 58.6 | 88.0 |

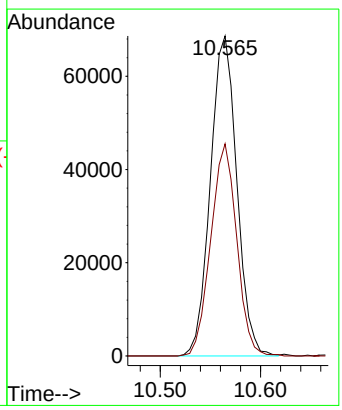



#63
Toluene-d8
Concen: 28.091 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN085057.D
Acq: 27 Nov 2024 14:20

Tgt Ion: 98 Resp: 125867

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 64.9 | 52.2 | 78.2 |



Raw Data: **VN085058.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-3 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-03 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085058.D | 5 | | 11/27/24 14:44 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-87-3 | Chloromethane | 5.90 | U | 5.90 | 25.0 | ug/L |
| 75-01-4 | Vinyl Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-83-9 | Bromomethane | 6.90 | U | 6.90 | 25.0 | ug/L |
| 75-00-3 | Chloroethane | 14.6 | U | 14.6 | 25.0 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 5.10 | U | 5.10 | 25.0 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 5.30 | U | 5.30 | 25.0 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 5.30 | U | 5.30 | 25.0 | ug/L |
| 67-64-1 | Acetone | 24.6 | U | 24.6 | 130 | ug/L |
| 75-15-0 | Carbon Disulfide | 4.70 | U | 4.70 | 25.0 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-20-9 | Methyl Acetate | 6.10 | U | 6.10 | 25.0 | ug/L |
| 75-09-2 | Methylene Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 110-82-7 | Cyclohexane | 5.20 | U | 5.20 | 25.0 | ug/L |
| 78-93-3 | 2-Butanone | 17.8 | U | 17.8 | 130 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 4.60 | U | 4.60 | 25.0 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 4.50 | U | 4.50 | 25.0 | ug/L |
| 67-66-3 | Chloroform | 3.60 | U | 3.60 | 25.0 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 4.00 | U | 4.00 | 25.0 | ug/L |
| 108-87-2 | Methylcyclohexane | 4.50 | U | 4.50 | 25.0 | ug/L |
| 71-43-2 | Benzene | 3.50 | U | 3.50 | 25.0 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 3.80 | U | 3.80 | 25.0 | ug/L |
| 79-01-6 | Trichloroethene | 3.90 | U | 3.90 | 25.0 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 3.30 | U | 3.30 | 25.0 | ug/L |
| 75-27-4 | Bromodichloromethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 20.8 | U | 20.8 | 130 | ug/L |
| 108-88-3 | Toluene | 3.60 | U | 3.60 | 25.0 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 4.00 | U | 4.00 | 25.0 | ug/L |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-3 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-03 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085058.D | 5 | | 11/27/24 14:44 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 3.40 | U | 3.40 | 25.0 | ug/L |
| 591-78-6 | 2-Hexanone | 19.7 | U | 19.7 | 130 | ug/L |
| 124-48-1 | Dibromochloromethane | 3.60 | U | 3.60 | 25.0 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 3.90 | U | 3.90 | 25.0 | ug/L |
| 127-18-4 | Tetrachloroethene | 4.70 | U | 4.70 | 25.0 | ug/L |
| 108-90-7 | Chlorobenzene | 3.40 | U | 3.40 | 25.0 | ug/L |
| 100-41-4 | Ethyl Benzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 179601-23-1 | m/p-Xylenes | 8.60 | U | 8.60 | 50.0 | ug/L |
| 95-47-6 | o-Xylene | 4.10 | U | 4.10 | 25.0 | ug/L |
| 100-42-5 | Styrene | 4.00 | U | 4.00 | 25.0 | ug/L |
| 75-25-2 | Bromoform | 5.00 | U | 5.00 | 25.0 | ug/L |
| 98-82-8 | Isopropylbenzene | 4.30 | U | 4.30 | 25.0 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 3.00 | U | 3.00 | 25.0 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 4.60 | U | 4.60 | 25.0 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.50 | U | 5.50 | 25.0 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 7.10 | U | 7.10 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 30.6 | | 91 - 110 | 102% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.6 | | 91 - 112 | 95% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 23.9 | | 63 - 112 | 80% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 24400 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 125000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 108000 | 11.865 | | | |

Raw Data: **VN085058.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-3 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-03 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085058.D | 5 | | 11/27/24 14:44 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085058.D
Acq On : 27 Nov 2024 14:44
Operator : JC\MD
Sample : P5018-03 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-3

Quant Time: Nov 28 05:33:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

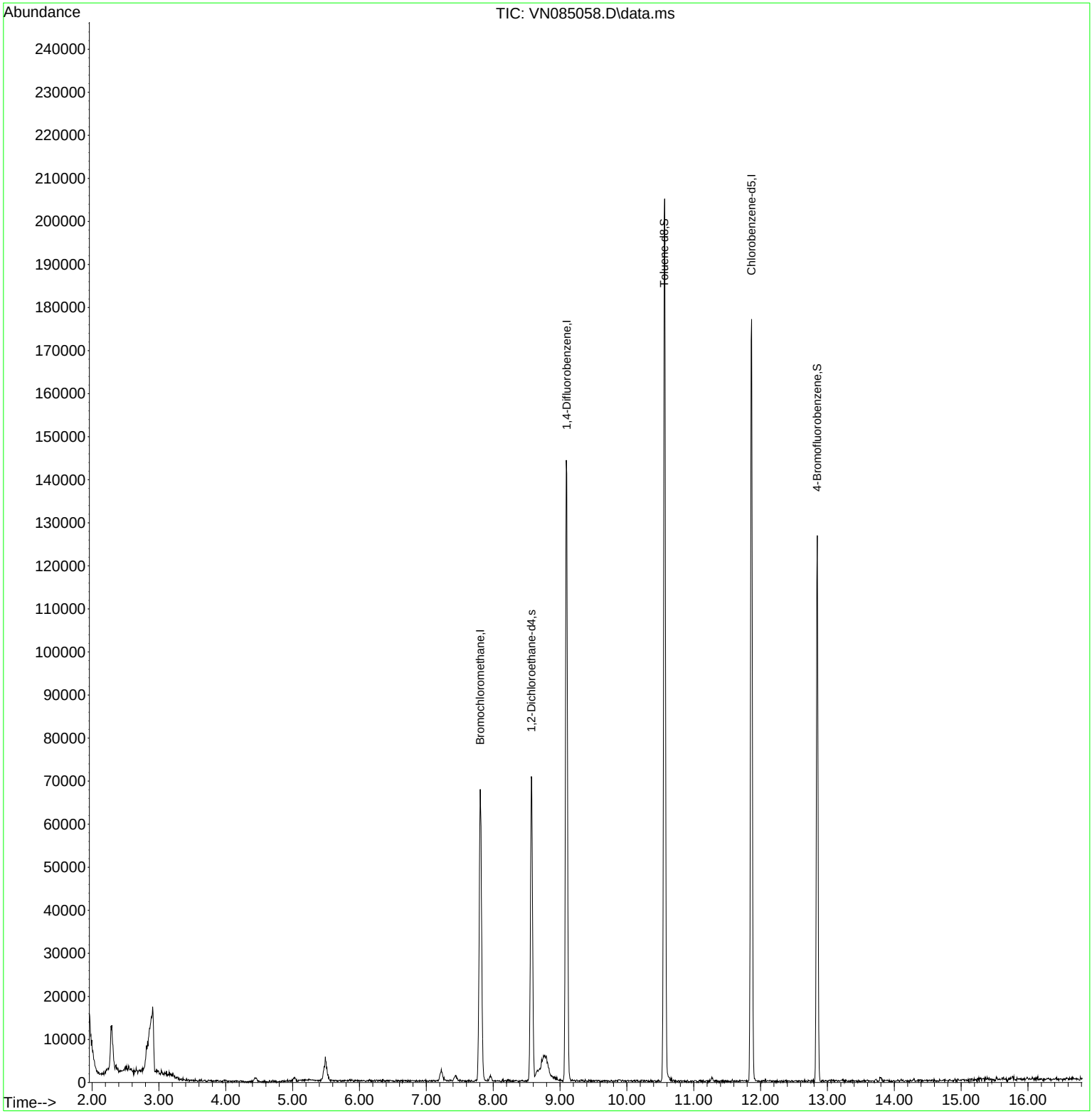
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 24374 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 124625 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 107923 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 59942 | 30.590 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 101.967% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 44374 | 23.879 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 79.600% | | | |
| 63) Toluene-d8 | 10.559 | 98 | 146031 | 28.583 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 95.267% | | | |
| Target Compounds | | | | | | Qvalue |

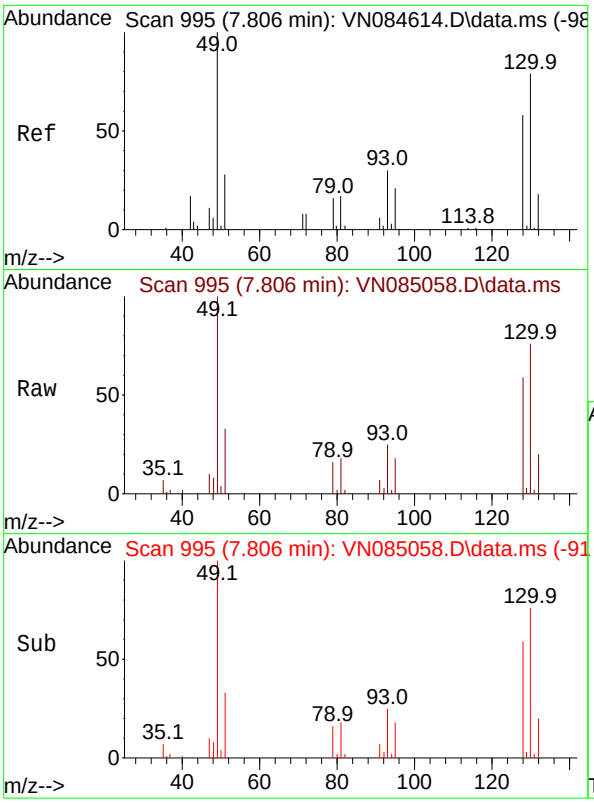
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085058.D
Acq On : 27 Nov 2024 14:44
Operator : JC\MD
Sample : P5018-03 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-3

Quant Time: Nov 28 05:33:58 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



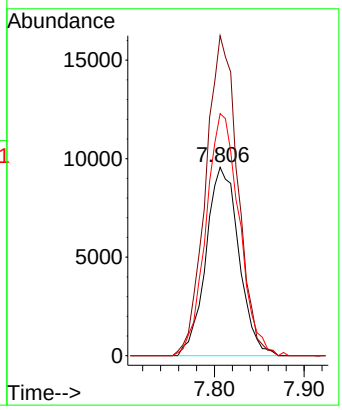


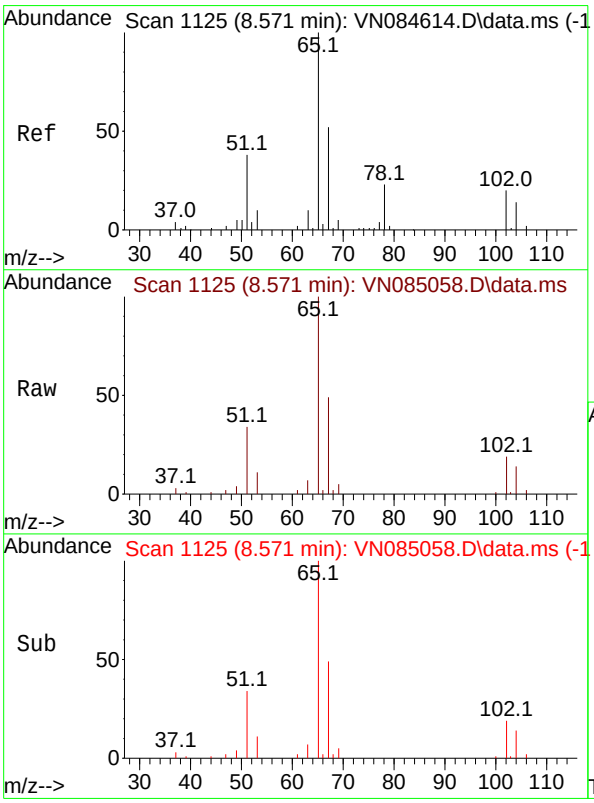

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-3

Tgt Ion:128 Resp: 24374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 165.5 | 0.0 | 427.0 |
| 130 | 130.1 | 0.0 | 322.2 |

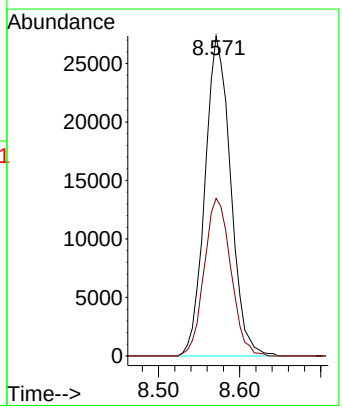


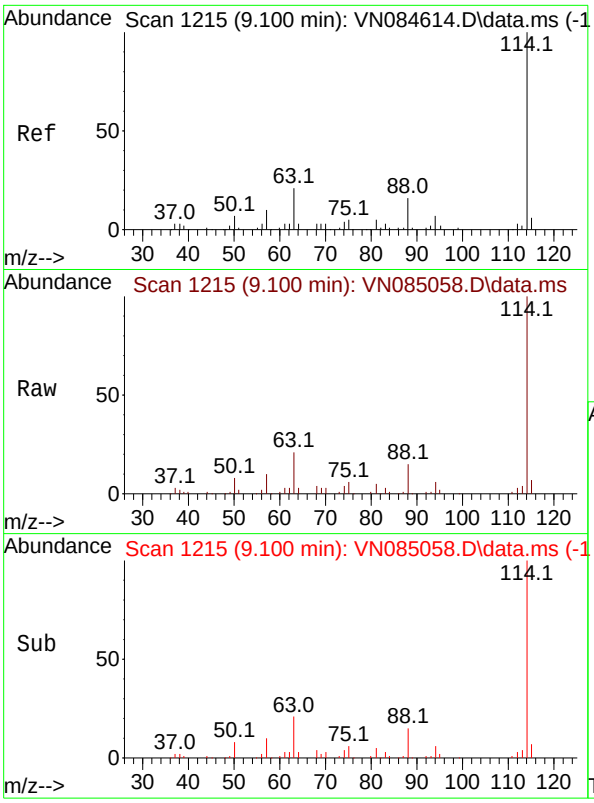




#27
1,2-Dichloroethane-d4
Concen: 30.590 ug/l
RT: 8.571 min Scan# 1125
Delta R.T. 0.000 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

Tgt Ion: 65 Resp: 59942

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 51.1 | 40.7 | 61.1 |



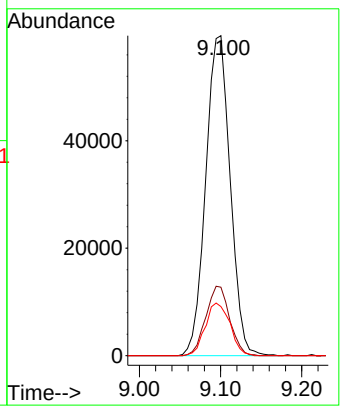


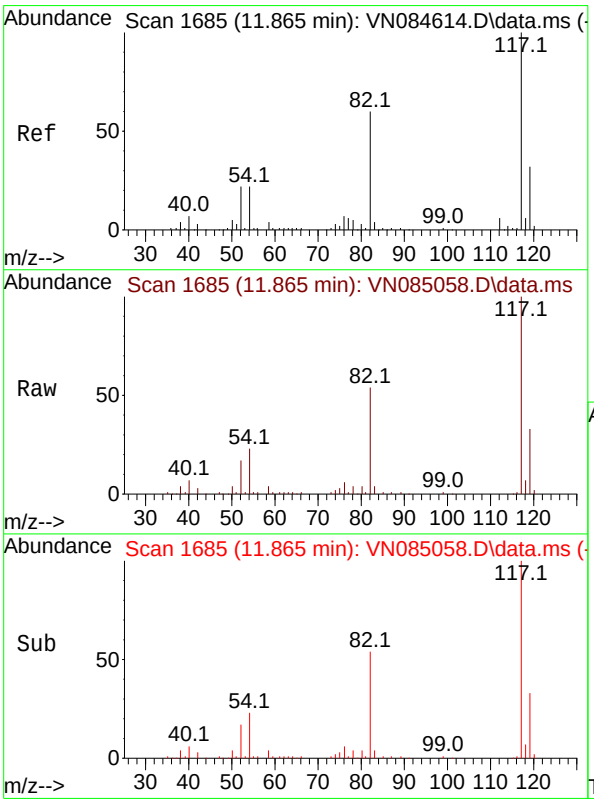

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-3

Tgt Ion:114 Resp: 124625

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.1 | 16.8 | 25.2 |
| 88 | 16.6 | 12.9 | 19.3 |

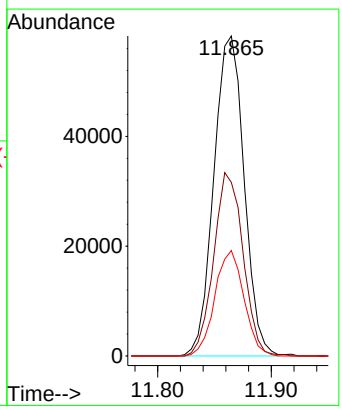


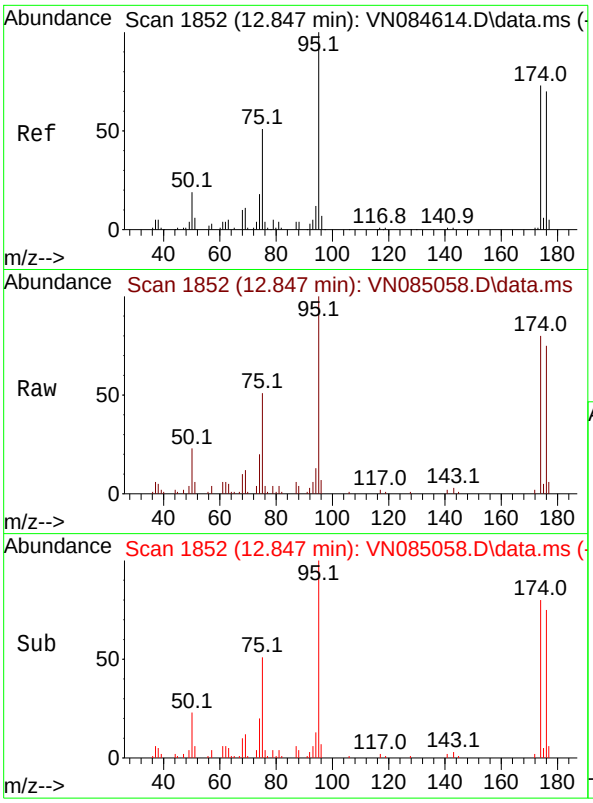




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.000 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

Tgt Ion:117 Resp: 107923

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 55.6 | 45.5 | 68.3 |
| 119 | 31.7 | 25.3 | 37.9 |



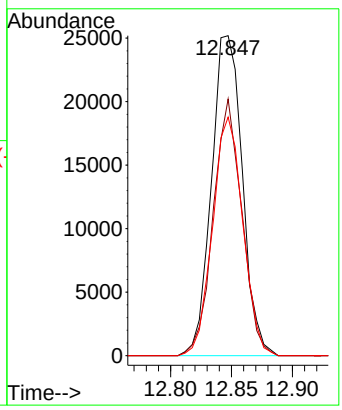


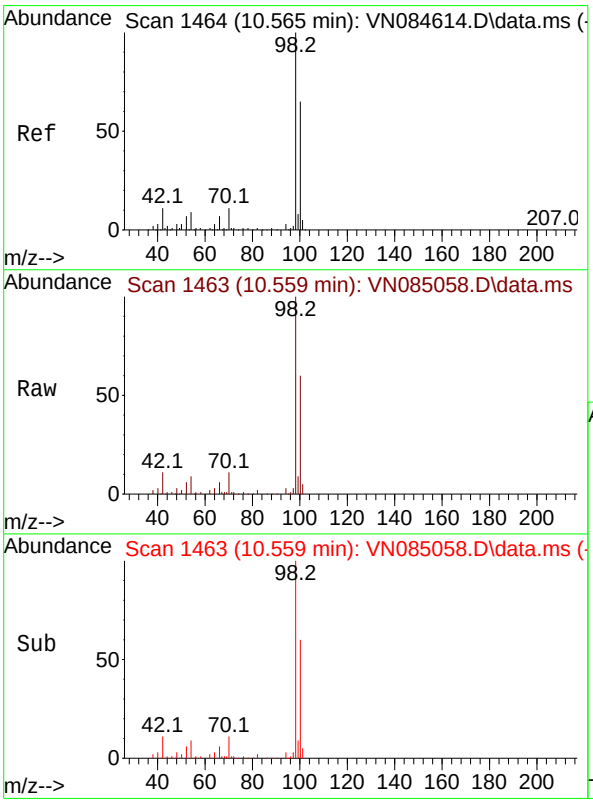

#60
4-Bromofluorobenzene
Concen: 23.879 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-3

Tgt Ion: 95 Resp: 44374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 74.3 | 59.6 | 89.4 |
| 176 | 73.1 | 58.6 | 88.0 |

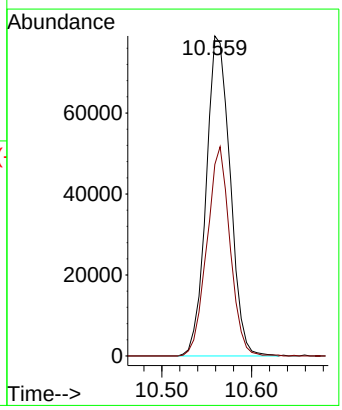



#63
Toluene-d8
Concen: 28.583 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. -0.006 min
Lab File: VN085058.D
Acq: 27 Nov 2024 14:44

Tgt Ion: 98 Resp: 146031

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 63.1 | 52.2 | 78.2 |



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-4 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-04 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085059.D | 5 | | 11/27/24 15:07 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-87-3 | Chloromethane | 5.90 | U | 5.90 | 25.0 | ug/L |
| 75-01-4 | Vinyl Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 74-83-9 | Bromomethane | 6.90 | U | 6.90 | 25.0 | ug/L |
| 75-00-3 | Chloroethane | 14.6 | U | 14.6 | 25.0 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 5.10 | U | 5.10 | 25.0 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 5.30 | U | 5.30 | 25.0 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 5.30 | U | 5.30 | 25.0 | ug/L |
| 67-64-1 | Acetone | 24.6 | U | 24.6 | 130 | ug/L |
| 75-15-0 | Carbon Disulfide | 4.70 | U | 4.70 | 25.0 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-20-9 | Methyl Acetate | 6.10 | U | 6.10 | 25.0 | ug/L |
| 75-09-2 | Methylene Chloride | 6.10 | U | 6.10 | 25.0 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 110-82-7 | Cyclohexane | 5.20 | U | 5.20 | 25.0 | ug/L |
| 78-93-3 | 2-Butanone | 17.8 | U | 17.8 | 130 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 4.60 | U | 4.60 | 25.0 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 4.50 | U | 4.50 | 25.0 | ug/L |
| 67-66-3 | Chloroform | 3.60 | U | 3.60 | 25.0 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 4.00 | U | 4.00 | 25.0 | ug/L |
| 108-87-2 | Methylcyclohexane | 4.50 | U | 4.50 | 25.0 | ug/L |
| 71-43-2 | Benzene | 3.50 | U | 3.50 | 25.0 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 3.80 | U | 3.80 | 25.0 | ug/L |
| 79-01-6 | Trichloroethene | 3.90 | U | 3.90 | 25.0 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 3.30 | U | 3.30 | 25.0 | ug/L |
| 75-27-4 | Bromodichloromethane | 4.10 | U | 4.10 | 25.0 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 20.8 | U | 20.8 | 130 | ug/L |
| 108-88-3 | Toluene | 3.60 | U | 3.60 | 25.0 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 4.00 | U | 4.00 | 25.0 | ug/L |

Raw Data: **VN085059.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-4 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-04 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085059.D | 5 | | 11/27/24 15:07 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 4.20 | U | 4.20 | 25.0 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 3.40 | U | 3.40 | 25.0 | ug/L |
| 591-78-6 | 2-Hexanone | 19.7 | U | 19.7 | 130 | ug/L |
| 124-48-1 | Dibromochloromethane | 3.60 | U | 3.60 | 25.0 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 3.90 | U | 3.90 | 25.0 | ug/L |
| 127-18-4 | Tetrachloroethene | 4.70 | U | 4.70 | 25.0 | ug/L |
| 108-90-7 | Chlorobenzene | 3.40 | U | 3.40 | 25.0 | ug/L |
| 100-41-4 | Ethyl Benzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 179601-23-1 | m/p-Xylenes | 8.60 | U | 8.60 | 50.0 | ug/L |
| 95-47-6 | o-Xylene | 4.10 | U | 4.10 | 25.0 | ug/L |
| 100-42-5 | Styrene | 4.00 | U | 4.00 | 25.0 | ug/L |
| 75-25-2 | Bromoform | 5.00 | U | 5.00 | 25.0 | ug/L |
| 98-82-8 | Isopropylbenzene | 4.30 | U | 4.30 | 25.0 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 3.00 | U | 3.00 | 25.0 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 3.70 | U | 3.70 | 25.0 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 4.80 | U | 4.80 | 25.0 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 4.40 | U | 4.40 | 25.0 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 4.60 | U | 4.60 | 25.0 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.50 | U | 5.50 | 25.0 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 7.10 | U | 7.10 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 31.1 | | 91 - 110 | 104% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.3 | | 91 - 112 | 94% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 23.3 | | 63 - 112 | 78% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 24400 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 128000 | 9.094 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 110000 | 11.865 | | | |

Raw Data: **VN085059.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | 11/26/24 |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | 11/26/24 |
| Client Sample ID: | 14B-4 | SDG No.: | P5018 |
| Lab Sample ID: | P5018-04 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085059.D | 5 | | 11/27/24 15:07 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Sample Results: **VN085059.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085059.D
Acq On : 27 Nov 2024 15:07
Operator : JC\MD
Sample : P5018-04 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-4

Quant Time: Nov 28 05:34:17 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

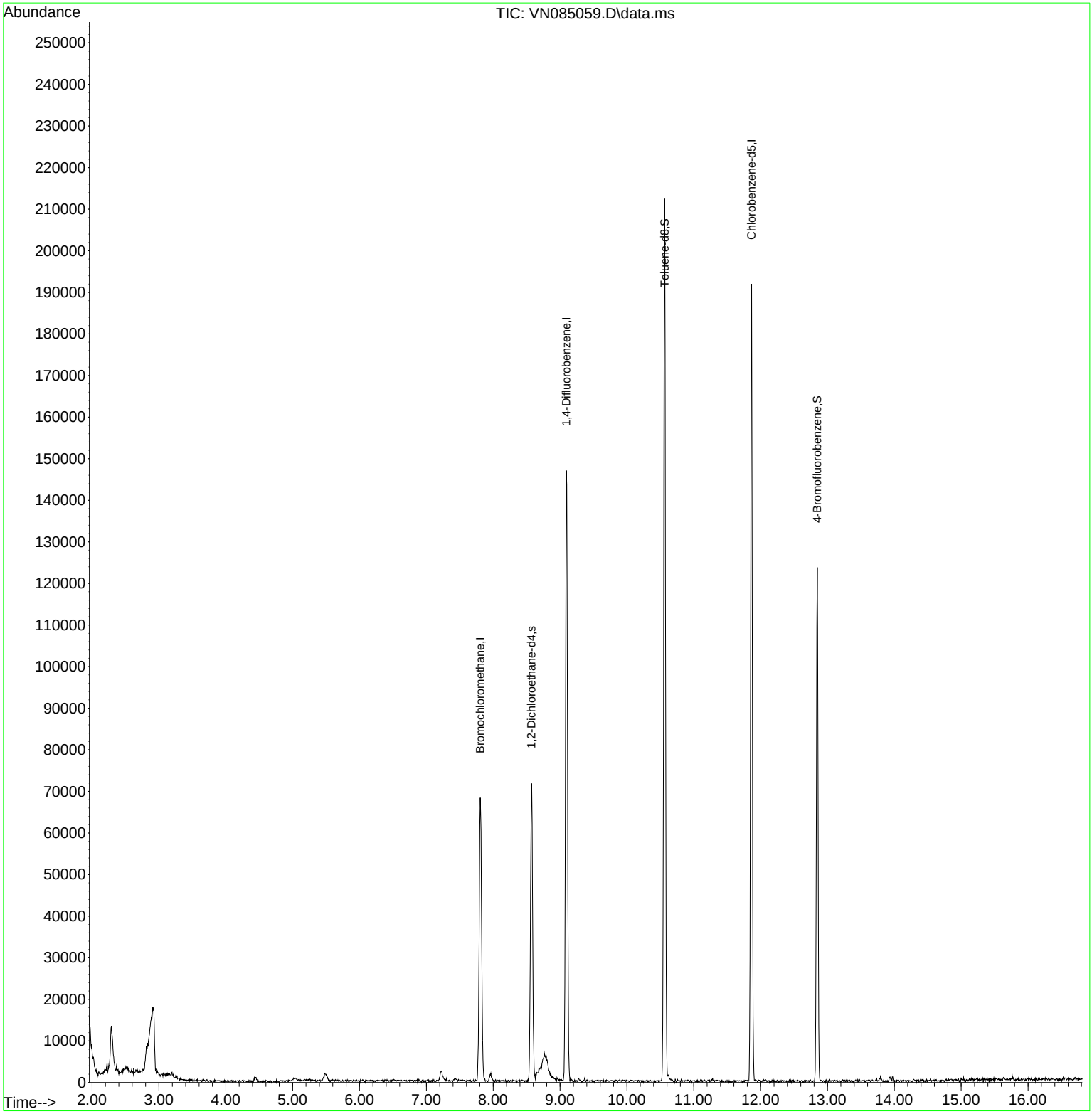
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 24391 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 127521 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 110334 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 61032 | 31.125 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 103.733% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 44319 | 23.329 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 77.767% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 147800 | 28.297 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 94.333% | | | |
| Target Compounds | | | | | | Qvalue |

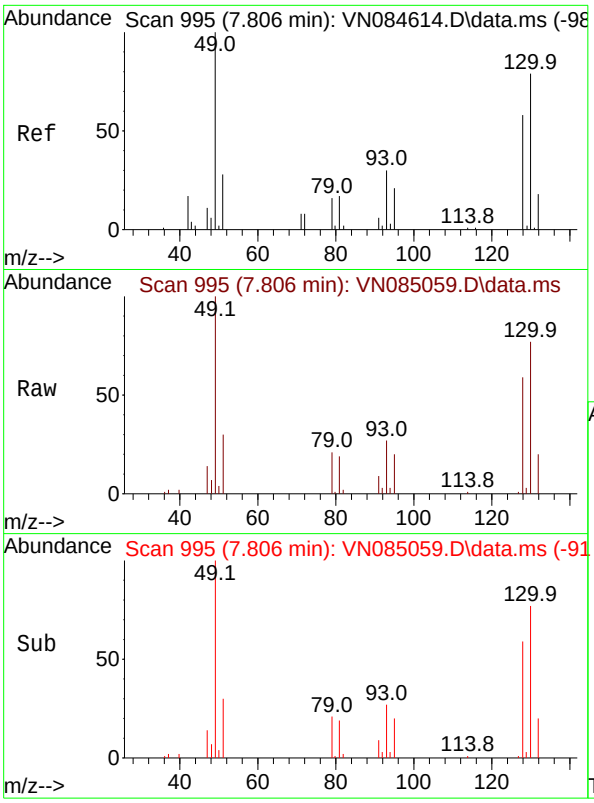
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085059.D
Acq On : 27 Nov 2024 15:07
Operator : JC\MD
Sample : P5018-04 5X
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-4

Quant Time: Nov 28 05:34:17 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



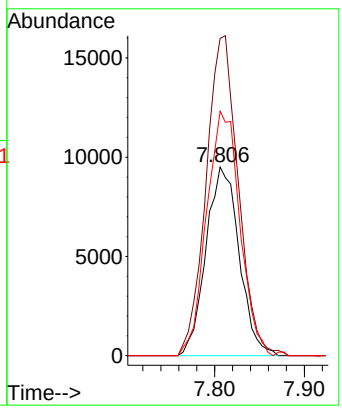


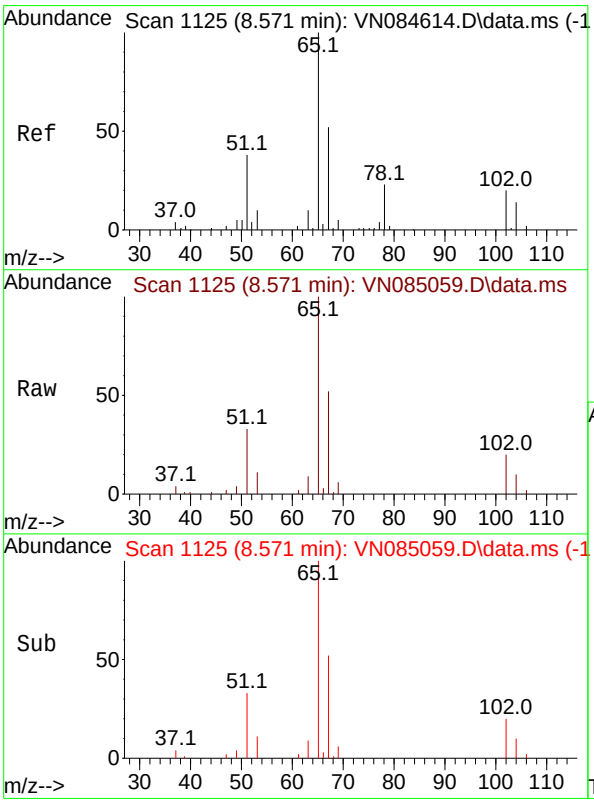

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-4

Tgt Ion:128 Resp: 24391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 164.8 | 0.0 | 427.0 |
| 130 | 130.5 | 0.0 | 322.2 |

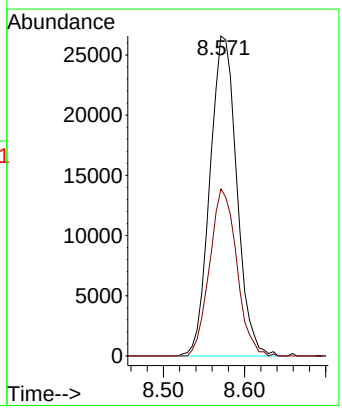


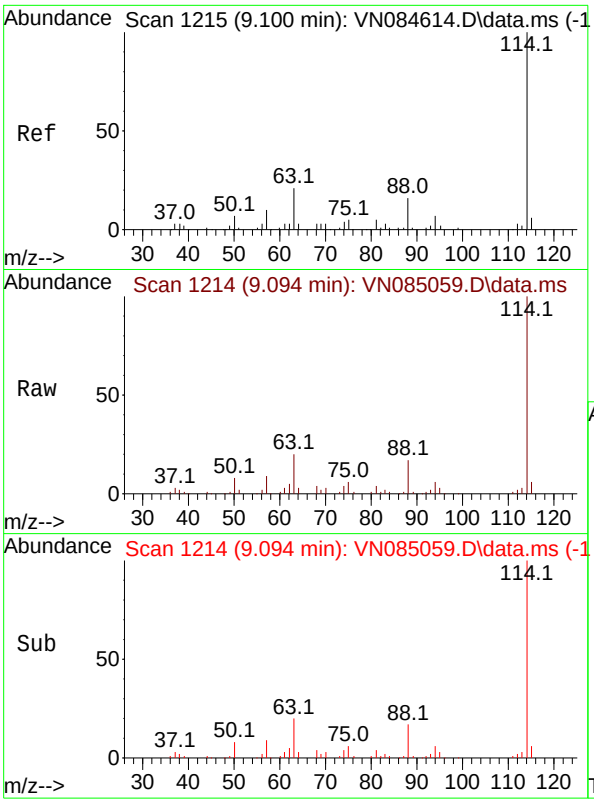




#27
1,2-Dichloroethane-d4
Concen: 31.125 ug/l
RT: 8.571 min Scan# 1125
Delta R.T. -0.000 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

Tgt Ion: 65 Resp: 61032

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 52.6 | 40.7 | 61.1 |



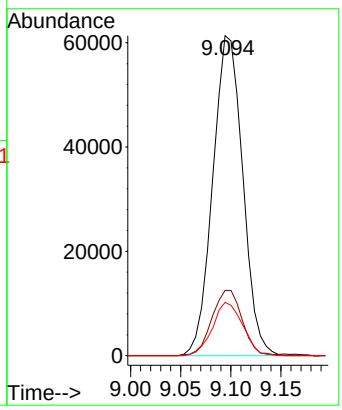


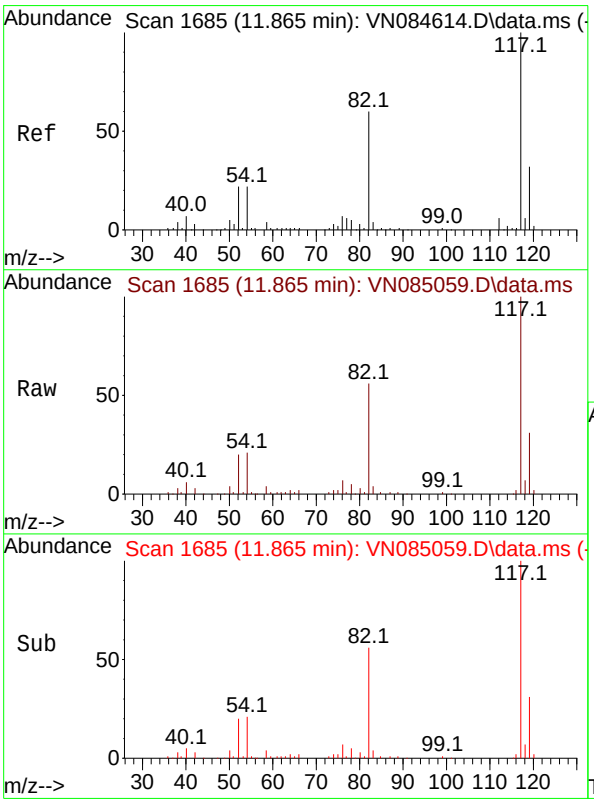

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-4

Tgt Ion:114 Resp: 127521

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.7 | 16.8 | 25.2 |
| 88 | 16.7 | 12.9 | 19.3 |

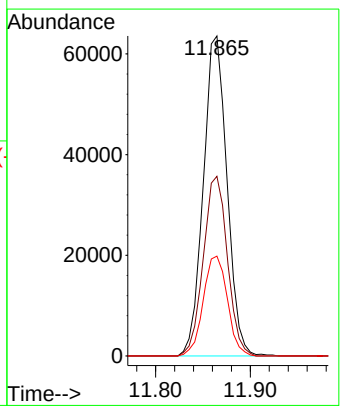


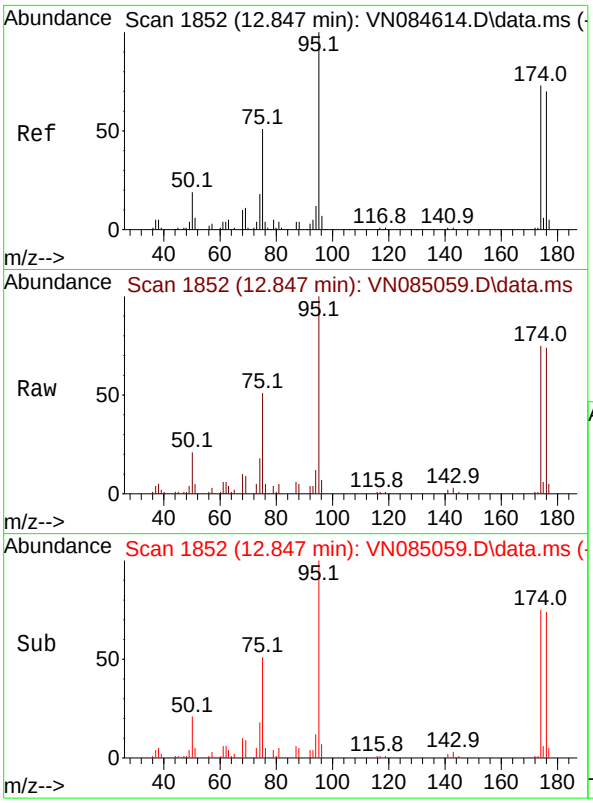




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

Tgt Ion:117 Resp: 110334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.2 | 45.5 | 68.3 |
| 119 | 31.8 | 25.3 | 37.9 |



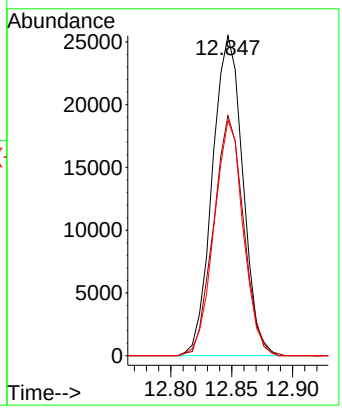


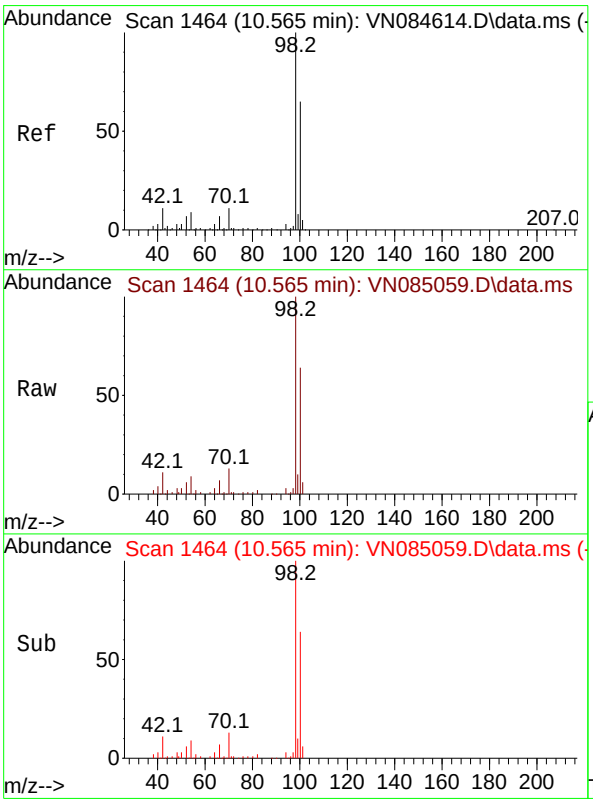

#60
4-Bromofluorobenzene
Concen: 23.329 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

**Instrument :**
MSVOA_N
**ClientSampleId :**
14B-4

Tgt Ion: 95 Resp: 44319

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 74.0 | 59.6 | 89.4 |
| 176 | 70.7 | 58.6 | 88.0 |

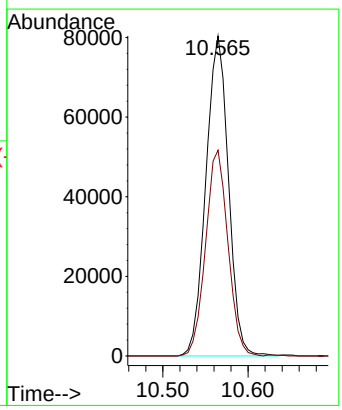



#63
Toluene-d8
Concen: 28.297 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN085059.D
Acq: 27 Nov 2024 15:07

Tgt Ion: 98 Resp: 147800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 63.7 | 52.2 | 78.2 |



# CALIBRATION SUMMARY

Raw Data

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG No.: P5018

Instrument ID: MSVOA_N Calibration Date(s): 10/31/2024 10/31/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:08 18:13

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VN084613.D RRF020 = VN084614.D RRF050 = VN084615.D
RRF100 = VN084616.D RRF150 = VN084617.D RRFCAL = VN084626.D

| COMPOUND | RRF005 | RRF020 | RRF050 | RRF100 | RRF150 | RRFCAL | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1.762 | 1.842 | 1.727 | 1.647 | 1.746 | | 1.745 | 4 |
| Chloromethane | 2.294 | 2.180 | 1.987 | 1.942 | 2.100 | | 2.101 | 6.8 |
| Vinyl Chloride | 1.987 | 2.059 | 1.937 | 1.841 | 1.929 | | 1.951 | 4.1 |
| Bromomethane | 1.026 | 1.087 | 0.943 | 0.927 | 0.969 | | 0.990 | 6.7 |
| Chloroethane | 1.361 | 1.345 | 1.305 | 1.162 | 1.231 | | 1.281 | 6.5 |
| Trichlorofluoromethane | 3.268 | 3.375 | 3.091 | 2.971 | 3.135 | | 3.168 | 5 |
| 1,1,2-Trichlorotrifluoroethane | 1.776 | 1.938 | 1.786 | 1.675 | 1.777 | | 1.790 | 5.3 |
| 1,1-Dichloroethene | 1.685 | 1.840 | 1.711 | 1.699 | 1.807 | | 1.748 | 4 |
| Acetone | 0.231 | 0.235 | 0.223 | 0.223 | 0.233 | | 0.229 | 2.3 |
| Carbon Disulfide | 5.140 | 5.375 | 5.016 | 4.956 | 5.235 | | 5.144 | 3.3 |
| Methyl tert-Butyl Ether | 4.972 | 5.809 | 5.618 | 5.772 | 6.099 | | 5.654 | 7.4 |
| Methyl Acetate | 3.900 | 2.690 | 2.326 | 2.302 | 2.408 | | 2.725 | 24.8 |
| Methylene Chloride | 2.119 | 2.210 | 1.980 | 1.930 | 2.004 | | 2.049 | 5.6 |
| trans-1,2-Dichloroethene | 1.819 | 1.905 | 1.810 | 1.776 | 1.854 | | 1.833 | 2.7 |
| 1,1-Dichloroethane | 3.711 | 3.802 | 3.469 | 3.417 | 3.534 | | 3.587 | 4.6 |
| Cyclohexane | 0.444 | 0.511 | 0.520 | 0.517 | 0.539 | | 0.506 | 7.2 |
| 2-Butanone | 0.206 | 0.207 | 0.207 | 0.210 | 0.213 | | 0.208 | 1.3 |
| Carbon Tetrachloride | 0.545 | 0.536 | 0.517 | 0.504 | 0.517 | | 0.524 | 3.2 |
| cis-1,2-Dichloroethene | 2.121 | 2.237 | 2.172 | 2.141 | 2.269 | | 2.188 | 2.9 |
| Chloroform | 3.764 | 3.915 | 3.598 | 3.469 | 3.627 | | 3.675 | 4.6 |
| 1,1,1-Trichloroethane | 0.631 | 0.645 | 0.604 | 0.593 | 0.595 | | 0.614 | 3.8 |
| Methylcyclohexane | 0.429 | 0.479 | 0.495 | 0.504 | 0.526 | | 0.486 | 7.5 |
| Benzene | 1.549 | 1.525 | 1.476 | 1.460 | 1.458 | | 1.494 | 2.8 |
| 1,2-Dichloroethane | 0.521 | 0.521 | 0.488 | 0.469 | 0.484 | | 0.497 | 4.7 |
| Trichloroethene | 0.340 | 0.350 | 0.331 | 0.325 | 0.338 | | 0.337 | 2.8 |
| 1,2-Dichloropropane | 0.371 | 0.372 | 0.351 | 0.349 | 0.355 | | 0.360 | 3.1 |
| Bromodichloromethane | 0.566 | 0.547 | 0.526 | 0.526 | 0.531 | | 0.539 | 3.2 |
| 4-Methyl-2-Pentanone | 0.453 | 0.490 | 0.472 | 0.475 | 0.478 | | 0.473 | 2.8 |
| Toluene | 1.732 | 1.781 | 1.675 | 1.658 | 1.698 | | 1.709 | 2.9 |
| t-1,3-Dichloropropene | 0.509 | 0.529 | 0.535 | 0.538 | 0.551 | | 0.532 | 2.9 |

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Raw Data

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG No.: P5018

Instrument ID: MSVOA_N Calibration Date(s): 10/31/2024 10/31/2024

Heated Purge: (Y/N) N Calibration Time(s): 12:08 18:13

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF005 = VN084613.D RRF020 = VN084614.D RRF050 = VN084615.D
RRF100 = VN084616.D RRF150 = VN084617.D RRFCAL = VN084626.D

| COMPOUND | RRF005 | RRF020 | RRF050 | RRF100 | RRF150 | RRFCAL | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | 0.535 | 0.580 | 0.567 | 0.580 | 0.592 | | 0.571 | 3.8 |
| 1,1,2-Trichloroethane | 0.340 | 0.353 | 0.336 | 0.330 | 0.328 | | 0.337 | 3 |
| 2-Hexanone | 0.325 | 0.355 | 0.349 | 0.354 | 0.351 | | 0.347 | 3.6 |
| Dibromochloromethane | 0.378 | 0.400 | 0.401 | 0.397 | 0.398 | | 0.395 | 2.5 |
| 1,2-Dibromoethane | 0.334 | 0.357 | 0.337 | 0.339 | 0.339 | | 0.341 | 2.6 |
| Tetrachloroethene | 0.313 | 0.331 | 0.310 | 0.305 | 0.311 | | 0.314 | 3.1 |
| Chlorobenzene | 1.030 | 1.071 | 1.018 | 1.011 | 1.028 | | 1.032 | 2.3 |
| Ethyl Benzene | 1.596 | 1.824 | 1.829 | 1.836 | 1.894 | | 1.796 | 6.4 |
| m/p-Xylenes | 0.615 | 0.710 | 0.706 | 0.695 | 0.712 | | 0.687 | 6 |
| o-Xylene | 0.569 | 0.690 | 0.681 | 0.683 | 0.692 | | 0.663 | 7.9 |
| Styrene | 0.911 | 1.136 | 1.179 | 1.154 | 1.180 | | 1.112 | 10.2 |
| Bromoform | 0.254 | 0.262 | 0.269 | 0.270 | 0.268 | | 0.265 | 2.6 |
| Isopropylbenzene | 1.407 | 1.671 | 1.715 | 1.692 | 1.752 | | 1.647 | 8.3 |
| 1,1,2,2-Tetrachloroethane | 0.555 | 0.568 | 0.529 | 0.510 | 0.509 | | 0.534 | 4.9 |
| 1,3,5-Trimethylbenzene | 1.193 | 1.438 | 1.480 | 1.442 | 1.485 | | 1.408 | 8.6 |
| 1,3-Dichlorobenzene | 0.736 | 0.812 | 0.793 | 0.787 | 0.801 | | 0.786 | 3.7 |
| 1,4-Dichlorobenzene | 0.729 | 0.784 | 0.790 | 0.779 | 0.801 | | 0.776 | 3.6 |
| 1,2-Dichlorobenzene | 0.724 | 0.821 | 0.787 | 0.760 | 0.780 | | 0.774 | 4.6 |
| 1,2-Dibromo-3-Chloropropane | 0.099 | 0.108 | 0.106 | 0.098 | 0.105 | | 0.103 | 4.3 |
| 1,2,4-Trichlorobenzene | 0.308 | 0.383 | 0.381 | 0.390 | 0.424 | | 0.377 | 11.2 |
| 1,2,3-Trichlorobenzene | 0.308 | 0.383 | 0.381 | 0.390 | 0.424 | | 0.377 | 11.2 |
| 1,2-Dichloroethane-d4 | 2.444 | 2.473 | 2.377 | 2.353 | 2.413 | | 2.412 | 2 |
| Toluene-d8 | 1.451 | 1.442 | 1.416 | 1.393 | 1.398 | | 1.420 | 1.8 |
| 4-Bromofluorobenzene | 0.482 | 0.506 | 0.531 | 0.538 | 0.526 | | 0.517 | 4.4 |

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

# Response Factor Report MSVOA_N_NEW

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 624N103124W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 01 02:38:04 2024
Response Via : Initial Calibration

Calibration Files
5 =VN084613.D 20 =VN084614.D 50 =VN084615.D 100 =VN084616.D 150 =VN084617.D

| | | Compound | 5 | 20 | 50 | 100 | 150 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Bromochloromethane | ----------ISTD---------- | | | | | | |
| 2) | M | Dichlorodifluoro... | 1.762 | 1.842 | 1.727 | 1.647 | 1.746 | 1.745 | 4.00 |
| 3) | M | Chloromethane | 2.294 | 2.180 | 1.987 | 1.942 | 2.100 | 2.101 | 6.81 |
| 4) | M | Vinyl Chloride | 1.987 | 2.059 | 1.937 | 1.841 | 1.929 | 1.951 | 4.13 |
| 5) | M | Bromomethane | 1.026 | 1.087 | 0.943 | 0.927 | 0.969 | 0.990 | 6.66 |
| 6) | M | Chloroethane | 1.361 | 1.345 | 1.305 | 1.162 | 1.231 | 1.281 | 6.50 |
| 7) | M | Trichlorofluorom... | 3.268 | 3.375 | 3.091 | 2.971 | 3.135 | 3.168 | 4.96 |
| 8) | T | Diethyl Ether | 1.000 | 1.165 | 1.128 | 1.145 | 1.212 | 1.130 | 7.00 |
| 9) | | 1,1,2-Trichlorot... | 1.776 | 1.938 | 1.786 | 1.675 | 1.777 | 1.790 | 5.27 |
| 10) | M | 1,1-Dichloroethene | 1.685 | 1.840 | 1.711 | 1.699 | 1.807 | 1.748 | 4.00 |
| 11) | | Methyl Iodide | 2.378 | 2.507 | 2.375 | 2.318 | 2.437 | 2.403 | 2.99 |
| 12) | | Methyl Acetate | 3.900 | 2.690 | 2.326 | 2.302 | 2.408 | 2.725 | 24.75 |
| 13) | M | Acrolein | 0.345 | 0.350 | 0.313 | 0.326 | 0.347 | 0.336 | 4.77 |
| 14) | M | Acrylonitrile | 0.838 | 0.902 | 0.889 | 0.892 | 0.937 | 0.892 | 3.97 |
| 15) | M | Acetone | 0.231 | 0.235 | 0.223 | 0.223 | 0.233 | 0.229 | 2.34 |
| 16) | M | Carbon Disulfide | 5.140 | 5.375 | 5.016 | 4.956 | 5.235 | 5.144 | 3.27 |
| 17) | | Allyl chloride | 2.858 | 3.101 | 2.786 | 2.986 | 3.164 | 2.979 | 5.34 |
| 18) | M | Methylene Chloride | 2.119 | 2.210 | 1.980 | 1.930 | 2.004 | 2.049 | 5.55 |
| 19) | M | trans-1,2-Dichlo... | 1.819 | 1.905 | 1.810 | 1.776 | 1.854 | 1.833 | 2.67 |
| 20) | T | Diisopropyl ether | 5.269 | 6.283 | 6.069 | 5.949 | 6.249 | 5.964 | 6.90 |
| 21) | M | 1,1-Dichloroethane | 3.711 | 3.802 | 3.469 | 3.417 | 3.534 | 3.587 | 4.57 |
| 22) | M | cis-1,2-Dichloro... | 2.121 | 2.237 | 2.172 | 2.141 | 2.269 | 2.188 | 2.89 |
| 23) | M | tert-Butyl Alcohol | 0.374 | 0.310 | 0.274 | 0.285 | 0.313 | 0.311 | 12.41 |
| 24) | M | Methyl tert-Buty... | 4.972 | 5.809 | 5.618 | 5.772 | 6.099 | 5.654 | 7.41 |
| 25) | M | Chloroform | 3.764 | 3.915 | 3.598 | 3.469 | 3.627 | 3.675 | 4.64 |
| 26) | | Cyclohexane | 2.348 | 2.813 | 2.794 | 2.761 | 2.982 | 2.740 | 8.58 |
| 27) | s | 1,2-Dichloroetha... | 2.444 | 2.473 | 2.377 | 2.353 | 2.413 | 2.412 | 2.02 |
| 28) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | |
| 29) | | 1,1-Dichloropropene | 0.428 | 0.467 | 0.452 | 0.452 | 0.461 | 0.452 | 3.31 |
| 30) | M | 2-Butanone | 0.206 | 0.207 | 0.207 | 0.210 | 0.213 | 0.208 | 1.26 |
| 31) | | 2,2-Dichloropropane | 0.563 | 0.584 | 0.548 | 0.528 | 0.535 | 0.552 | 4.06 |
| 32) | M | 1,1,1-Trichloroe... | 0.631 | 0.645 | 0.604 | 0.593 | 0.595 | 0.614 | 3.80 |
| 33) | M | Carbon Tetrachlo... | 0.545 | 0.536 | 0.517 | 0.504 | 0.517 | 0.524 | 3.16 |
| 34) | M | Benzene | 1.549 | 1.525 | 1.476 | 1.460 | 1.458 | 1.494 | 2.75 |
| 35) | | Methacrylonitrile | 0.240 | 0.246 | 0.234 | 0.256 | 0.258 | 0.247 | 4.17 |
| 36) | M | 1,2-Dichloroethane | 0.521 | 0.521 | 0.488 | 0.469 | 0.484 | 0.497 | 4.71 |
| 37) | M | Trichloroethene | 0.340 | 0.350 | 0.331 | 0.325 | 0.338 | 0.337 | 2.76 |
| 38) | | Methylcyclohexane | 0.429 | 0.479 | 0.495 | 0.504 | 0.526 | 0.486 | 7.52 |
| 39) | M | 1,2-Dichloropropane | 0.371 | 0.372 | 0.351 | 0.349 | 0.355 | 0.360 | 3.10 |
| 40) | | Dibromomethane | 0.257 | 0.262 | 0.247 | 0.246 | 0.245 | 0.252 | 3.04 |
| 41) | M | Bromodichloromet... | 0.566 | 0.547 | 0.526 | 0.526 | 0.531 | 0.539 | 3.22 |
| 42) | M | Vinyl Acetate | 0.692 | 0.782 | 0.788 | 0.809 | 0.824 | 0.779 | 6.59 |
| 43) | | Ethyl Acetate | 0.421 | 0.429 | 0.446 | 0.443 | 0.451 | 0.438 | 2.89 |
| 44) | | Isopropyl Acetate | 1.250 | 0.844 | 0.785 | 0.774 | 0.781 | 0.887 | 23.13 |
| 45) | T | 1,4-Dioxane | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 0.006 | 4.14 |
| 46) | | Methyl methacrylate | 0.332 | 0.349 | 0.356 | 0.369 | 0.376 | 0.356 | 4.92 |
| 47) | | n-amyl Acetate | 0.548 | 0.667 | 0.687 | 0.706 | 0.703 | 0.662 | 9.92 |
| 48) | M | t-1,3-Dichloropr... | 0.509 | 0.529 | 0.535 | 0.538 | 0.551 | 0.532 | 2.94 |
| 49) | T | cis-1,3-Dichloro... | 0.535 | 0.580 | 0.567 | 0.580 | 0.592 | 0.571 | 3.83 |
| 50) | M | 1,1,2-Trichloroe... | 0.340 | 0.353 | 0.336 | 0.330 | 0.328 | 0.337 | 2.96 |
| 51) | | Ethyl methacrylate | 0.436 | 0.503 | 0.539 | 0.560 | 0.563 | 0.520 | 10.15 |
| 52) | | 1,3-Dichloropropane | 0.582 | 0.610 | 0.586 | 0.577 | 0.573 | 0.586 | 2.46 |
| 53) | M | Dibromochloromet... | 0.378 | 0.400 | 0.401 | 0.397 | 0.398 | 0.395 | 2.47 |
| 54) | M | 1,2-Dibromoethane | 0.334 | 0.357 | 0.337 | 0.339 | 0.339 | 0.341 | 2.63 |
| 55) | M | 2-Chloroethyl vi... | 0.207 | 0.266 | 0.268 | 0.266 | 0.267 | 0.255 | 10.42 |
| 56) | M | Bromoform | 0.254 | 0.262 | 0.269 | 0.270 | 0.268 | 0.265 | 2.56 |

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 624N103124W.M

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 57) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | |
| 58) | M | 4-Methyl-2-Penta... | 0.453 | 0.490 | 0.472 | 0.475 | 0.478 | 0.473 | 2.83 |
| 59) | M | 2-Hexanone | 0.325 | 0.355 | 0.349 | 0.354 | 0.351 | 0.347 | 3.60 |
| 60) | S | 4-Bromofluoroben... | 0.482 | 0.506 | 0.531 | 0.538 | 0.526 | 0.517 | 4.39 |
| 61) | M | Tetrachloroethene | 0.313 | 0.331 | 0.310 | 0.305 | 0.311 | 0.314 | 3.11 |
| 62) | M | Toluene | 1.732 | 1.781 | 1.675 | 1.658 | 1.698 | 1.709 | 2.87 |
| 63) | S | Toluene-d8 | 1.451 | 1.442 | 1.416 | 1.393 | 1.398 | 1.420 | 1.81 |
| 64) | M | Chlorobenzene | 1.030 | 1.071 | 1.018 | 1.011 | 1.028 | 1.032 | 2.25 |
| 65) | | 1,1,1,2-Tetrachl... | 0.383 | 0.398 | 0.380 | 0.366 | 0.368 | 0.379 | 3.36 |
| 66) | M | Ethyl Benzene | 1.596 | 1.824 | 1.829 | 1.836 | 1.894 | 1.796 | 6.42 |
| 67) | M | m/p-Xylenes | 0.615 | 0.710 | 0.706 | 0.695 | 0.712 | 0.687 | 5.98 |
| 68) | M | o-Xylene | 0.569 | 0.690 | 0.681 | 0.683 | 0.692 | 0.663 | 7.95 |
| 69) | M | Styrene | 0.911 | 1.136 | 1.179 | 1.154 | 1.180 | 1.112 | 10.22 |
| 70) | | Isopropylbenzene | 1.407 | 1.671 | 1.715 | 1.692 | 1.752 | 1.647 | 8.35 |
| 71) | M | 1,1,2,2-Tetrachl... | 0.555 | 0.568 | 0.529 | 0.510 | 0.509 | 0.534 | 4.95 |
| 72) | | 1,2,3-Trichlorop... | 0.460 | 0.527 | 0.429 | 0.429 | 0.434 | 0.456 | 9.11 |
| 73) | | Bromobenzene | 0.406 | 0.442 | 0.425 | 0.427 | 0.425 | 0.425 | 2.97 |
| 74) | | n-propylbenzene | 1.596 | 1.953 | 2.030 | 1.985 | 2.068 | 1.926 | 9.86 |
| 75) | | 2-Chlorotoluene | 1.156 | 1.287 | 1.299 | 1.255 | 1.275 | 1.255 | 4.56 |
| 76) | | 1,3,5-Trimethylb... | 1.193 | 1.438 | 1.480 | 1.442 | 1.485 | 1.408 | 8.64 |
| 77) | | t-1,4-Dichloro-2... | 0.152 | 0.191 | 0.193 | 0.196 | 0.203 | 0.187 | 10.86 |
| 78) | | 4-Chlorotoluene | 1.151 | 1.299 | 1.301 | 1.280 | 1.306 | 1.268 | 5.18 |
| 79) | | tert-butylbenzene | 0.947 | 1.147 | 1.206 | 1.243 | 1.278 | 1.164 | 11.24 |
| 80) | | 1,2,4-Trimethylb... | 1.129 | 1.449 | 1.513 | 1.494 | 1.515 | 1.420 | 11.60 |
| 81) | | sec-Butylbenzene | 1.290 | 1.605 | 1.691 | 1.689 | 1.744 | 1.604 | 11.37 |
| 82) | | p-Isopropyltoluene | 1.023 | 1.338 | 1.445 | 1.437 | 1.495 | 1.348 | 14.13 |
| 83) | M | 1,3-Dichlorobenzene | 0.736 | 0.812 | 0.793 | 0.787 | 0.801 | 0.786 | 3.73 |
| 84) | M | 1,4-Dichlorobenzene | 0.729 | 0.784 | 0.790 | 0.779 | 0.801 | 0.776 | 3.59 |
| 85) | | n-Butylbenzene | 0.852 | 1.069 | 1.186 | 1.237 | 1.316 | 1.132 | 15.96 |
| 86) | T | Hexachloroethane | 0.273 | 0.284 | 0.275 | 0.265 | 0.280 | 0.276 | 2.60 |
| 87) | M | 1,2-Dichlorobenzene | 0.724 | 0.821 | 0.787 | 0.760 | 0.780 | 0.774 | 4.62 |
| 88) | | 1,2-Dibromo-3-Ch... | 0.099 | 0.108 | 0.106 | 0.098 | 0.105 | 0.103 | 4.27 |
| 89) | | 1,2,4-Trichlorob... | 0.308 | 0.383 | 0.381 | 0.390 | 0.424 | 0.377 | 11.21 |
| 90) | | Hexachlorobutadiene | 0.160 | 0.168 | 0.163 | 0.158 | 0.174 | 0.165 | 3.93 |
| 91) | M | Naphthalene | 0.839 | 1.126 | 1.272 | 1.338 | 1.445 | 1.204 | 19.47 |
| 92) | | 1,2,3-Trichlorob... | 0.308 | 0.383 | 0.381 | 0.390 | 0.424 | 0.377 | 11.21 |

(#) = Out of Range

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084613.D
Acq On : 31 Oct 2024 12:08
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/01/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:19:55 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 31324 | 30.000 | ug/l | | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 165636 | 30.000 | ug/l | | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 148900 | 30.000 | ug/l | | 0.00 |
| System Monitoring Compounds | | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 76561 | 30.402 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 101.333% | | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 71798 | 28.004 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 93.333% | | | | |
| 63) Toluene-d8 | 10.565 | 98 | 216062 | 30.652 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 102.167% | | | | |
| Target Compounds | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 9198 | 5.049 | ug/l | | 96 |
| 3) Chloromethane | 2.359 | 50 | 11978 | 5.461 | ug/l | | 99 |
| 4) Vinyl Chloride | 2.512 | 62 | 10376 | 5.094 | ug/l | # | 82 |
| 5) Bromomethane | 2.900 | 94 | 5354 | 5.179 | ug/l | | 86 |
| 6) Chloroethane | 3.071 | 64 | 7106m | 5.250 | ug/l | | |
| 7) Trichlorofluoromethane | 3.471 | 101 | 17062 | 5.158 | ug/l | | 98 |
| 8) Diethyl Ether | 3.953 | 74 | 5222 | 4.426 | ug/l | | 86 |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 9273 | 4.960 | ug/l | # | 39 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 8797 | 4.819 | ug/l | | 92 |
| 11) Methyl Iodide | 4.571 | 142 | 12414 | 4.948 | ug/l | | 99 |
| 12) Methyl Acetate | 5.012 | 43 | 20360m | 7.148 | ug/l | | |
| 13) Acrolein | 4.171 | 56 | 9009 | 25.674 | ug/l | | 92 |
| 14) Acrylonitrile | 5.718 | 53 | 21872m | 23.496 | ug/l | | |
| 15) Acetone | 4.442 | 58 | 6033m | 25.222 | ug/l | | |
| 16) Carbon Disulfide | 4.700 | 76 | 26836 | 4.996 | ug/l | # | 94 |
| 17) Allyl chloride | 5.006 | 41 | 14923m | 4.845 | ug/l | | |
| 18) Methylene Chloride | 5.277 | 84 | 11065 | 5.173 | ug/l | | 91 |
| 19) trans-1,2-Dichloroethene | 5.777 | 96 | 9494m | 4.962 | ug/l | | |
| 20) Diisopropyl ether | 6.665 | 45 | 27506 | 4.417 | ug/l | | 93 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 19373 | 5.173 | ug/l | | 92 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 11073 | 4.847 | ug/l | | 98 |
| 23) tert-Butyl Alcohol | 5.530 | 59 | 9753 | 30.011 | ug/l | # | 100 |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 25957 | 4.397 | ug/l | # | 90 |
| 25) Chloroform | 7.965 | 83 | 19651 | 5.122 | ug/l | | 94 |
| 26) Cyclohexane | 8.247 | 56 | 12257 | 4.285 | ug/l | # | 98 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 11807 | 4.733 | ug/l | | 98 |
| 30) 2-Butanone | 7.483 | 43 | 28435 | 24.708 | ug/l | | 100 |
| 31) 2,2-Dichloropropane | 7.488 | 77 | 15547 | 5.105 | ug/l | # | 90 |
| 32) 1,1,1-Trichloroethane | 8.159 | 97 | 17431 | 5.143 | ug/l | # | 85 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 15058 | 5.206 | ug/l | | 92 |
| 34) Benzene | 8.600 | 78 | 42762 | 5.186 | ug/l | # | 88 |
| 35) Methacrylonitrile | 7.777 | 41 | 6638 | 4.867 | ug/l | | 87 |
| 36) 1,2-Dichloroethane | 8.671 | 62 | 14384 | 5.245 | ug/l | # | 95 |
| 37) Trichloroethene | 9.347 | 130 | 9396m | 5.051 | ug/l | | |
| 38) Methylcyclohexane | 9.600 | 83 | 11830 | 4.405 | ug/l | | 97 |
| 39) 1,2-Dichloropropane | 9.624 | 63 | 10243 | 5.160 | ug/l | | 91 |
| 40) Dibromomethane | 9.706 | 93 | 7103 | 5.115 | ug/l | | 98 |
| 41) Bromodichloromethane | 9.888 | 83 | 15629 | 5.250 | ug/l | | 99 |
| 42) Vinyl Acetate | 6.600 | 43 | 95572 | 22.218 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084613.D
Acq On : 31 Oct 2024 12:08
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:19:55 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/01/2024
Supervised By :Mahesh Dadoda 11/04/2024

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 11619 | 4.747 ug/l | 97 |
| 44) Isopropyl Acetate | 8.682 | 43 | 34520 | 7.050 ug/l # | 82 |
| 45) 1,4-Dioxane | 9.700 | 88 | 3084 | 94.340 ug/l | 96 |
| 46) Methyl methacrylate | 9.677 | 41 | 9158 | 4.654 ug/l | 95 |
| 47) n-amyl Acetate | 12.494 | 43 | 15131 | 4.138 ug/l | 96 |
| 48) t-1,3-Dichloropropene | 10.829 | 75 | 14040 | 4.776 ug/l | 99 |
| 49) cis-1,3-Dichloropropene | 10.306 | 75 | 14763 | 4.686 ug/l | 98 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 9392 | 5.042 ug/l # | 89 |
| 51) Ethyl methacrylate | 10.871 | 69 | 12033 | 4.191 ug/l | 92 |
| 52) 1,3-Dichloropropane | 11.165 | 76 | 16055 | 4.966 ug/l | 98 |
| 53) Dibromochloromethane | 11.359 | 129 | 10423 | 4.782 ug/l | 97 |
| 54) 1,2-Dibromoethane | 11.471 | 107 | 9233 | 4.901 ug/l | 97 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 28637 | 20.343 ug/l | 99 |
| 56) Bromoform | 12.576 | 173 | 7007 | 4.796 ug/l | 97 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 56166 | 23.910 ug/l | 99 |
| 59) 2-Hexanone | 11.194 | 43 | 40278 | 23.416 ug/l | 95 |
| 61) Tetrachloroethene | 11.106 | 164 | 7756 | 4.977 ug/l | 96 |
| 62) Toluene | 10.629 | 91 | 42993 | 5.069 ug/l | 99 |
| 64) Chlorobenzene | 11.888 | 112 | 25563 | 4.993 ug/l | 95 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 9514 | 5.056 ug/l | 93 |
| 66) Ethyl Benzene | 11.959 | 91 | 39603 | 4.443 ug/l | 98 |
| 67) m/p-Xylenes | 12.070 | 106 | 30521 | 8.944 ug/l | 91 |
| 68) o-Xylene | 12.394 | 106 | 14127 | 4.292 ug/l | 97 |
| 69) Styrene | 12.412 | 104 | 22620 | 4.099 ug/l | 99 |
| 70) Isopropylbenzene | 12.694 | 105 | 34923 | 4.271 ug/l | 98 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 13765 | 5.194 ug/l | 100 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 11412m | 4.514 ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 10078 | 4.779 ug/l | 92 |
| 74) n-propylbenzene | 13.035 | 91 | 39598 | 4.141 ug/l | 97 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 28696 | 4.609 ug/l | 98 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 29615 | 4.239 ug/l | 100 |
| 77) t-1,4-Dichloro-2-butene | 12.741 | 75 | 3762 | 4.053 ug/l | 93 |
| 78) 4-Chlorotoluene | 13.217 | 91 | 28573 | 4.542 ug/l | 98 |
| 79) tert-butylbenzene | 13.441 | 119 | 23495 | 4.067 ug/l | 97 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 28024 | 3.976 ug/l | 100 |
| 81) sec-Butylbenzene | 13.612 | 105 | 32017 | 4.022 ug/l | 99 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 25380 | 3.794 ug/l | 99 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 18270 | 4.684 ug/l | 97 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 18085 | 4.693 ug/l | 93 |
| 85) n-Butylbenzene | 14.053 | 91 | 21135 | 3.762 ug/l | 99 |
| 86) Hexachloroethane | 14.335 | 117 | 6782 | 4.957 ug/l | 99 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 17958 | 4.672 ug/l | 96 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 2451 | 4.793 ug/l | 90 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 7643 | 4.084 ug/l | 98 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 3978 | 4.866 ug/l | 96 |
| 91) Naphthalene | 15.641 | 128 | 20829 | 3.485 ug/l | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 7643 | 4.084 ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

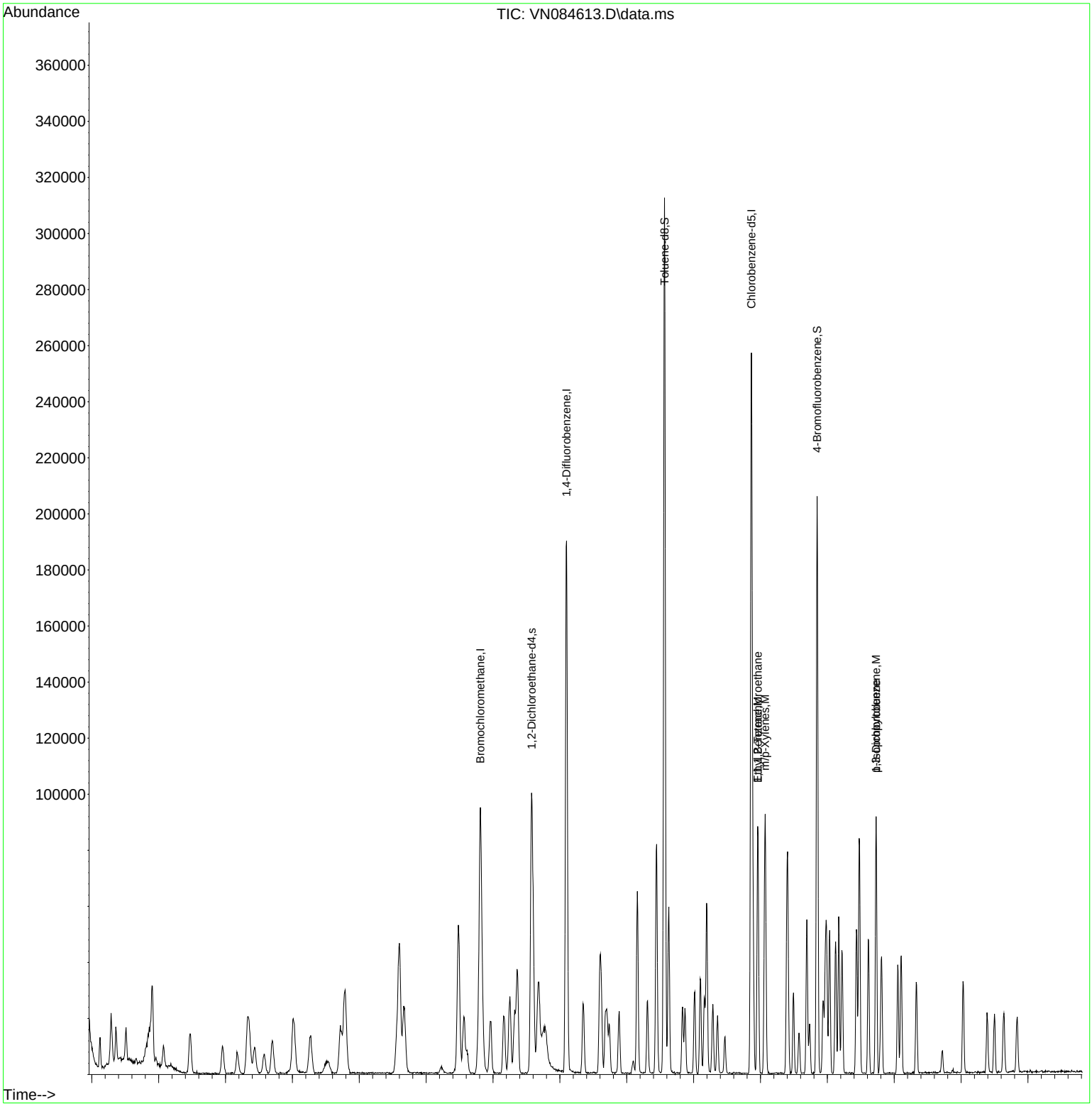
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084613.D
Acq On : 31 Oct 2024 12:08
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:19:55 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/01/2024
Supervised By :Mahesh Dadoda 11/04/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICCC020

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:21:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 31274 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 172181 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 154107 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 77335 | 30.759 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 102.533% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 77916 | 29.364 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 97.867% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 222235 | 30.462 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 101.533% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.118 | 85 | 38402 | 21.112 | ug/l | 100 |
| 3) Chloromethane | 2.359 | 50 | 45455 | 20.756 | ug/l | 100 |
| 4) Vinyl Chloride | 2.512 | 62 | 42937 | 21.114 | ug/l | 100 |
| 5) Bromomethane | 2.901 | 94 | 22663 | 21.957 | ug/l | 100 |
| 6) Chloroethane | 3.059 | 64 | 28033 | 20.742 | ug/l | 100 |
| 7) Trichlorofluoromethane | 3.465 | 101 | 70369 | 21.307 | ug/l | 100 |
| 8) Diethyl Ether | 3.953 | 74 | 24291 | 20.620 | ug/l | 100 |
| 9) 1,1,2-Trichlorotrifluo... | 4.359 | 101 | 40406 | 21.649 | ug/l | 100 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 38356 | 21.045 | ug/l | 100 |
| 11) Methyl Iodide | 4.583 | 142 | 52273 | 20.867 | ug/l | 100 |
| 12) Methyl Acetate | 5.018 | 43 | 56085 | 19.721 | ug/l | 100 |
| 13) Acrolein | 4.177 | 56 | 36444 | 104.025 | ug/l | 100 |
| 14) Acrylonitrile | 5.718 | 53 | 93989 | 101.129 | ug/l | 100 |
| 15) Acetone | 4.430 | 58 | 24469 | 102.461 | ug/l | 100 |
| 16) Carbon Disulfide | 4.695 | 76 | 112057 | 20.895 | ug/l | 100 |
| 17) Allyl chloride | 5.006 | 41 | 64662 | 21.027 | ug/l | 100 |
| 18) Methylene Chloride | 5.265 | 84 | 46076 | 21.573 | ug/l | 100 |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 39708 | 20.785 | ug/l | 100 |
| 20) Diisopropyl ether | 6.671 | 45 | 130988 | 21.069 | ug/l | 100 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 79269 | 21.202 | ug/l | 100 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 46637 | 20.448 | ug/l | 100 |
| 23) tert-Butyl Alcohol | 5.542 | 59 | 32351m | 99.706 | ug/l | |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 121117 | 20.549 | ug/l | 100 |
| 25) Chloroform | 7.965 | 83 | 81615 | 21.306 | ug/l | 100 |
| 26) Cyclohexane | 8.247 | 56 | 58646 | 20.535 | ug/l | 100 |
| 29) 1,1-Dichloropropene | 8.365 | 75 | 53609 | 20.671 | ug/l | 100 |
| 30) 2-Butanone | 7.483 | 43 | 118837 | 99.338 | ug/l | 100 |
| 31) 2,2-Dichloropropane | 7.489 | 77 | 66980 | 21.158 | ug/l | 100 |
| 32) 1,1,1-Trichloroethane | 8.159 | 97 | 74085 | 21.027 | ug/l | 100 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 61528 | 20.465 | ug/l | 100 |
| 34) Benzene | 8.600 | 78 | 175051 | 20.421 | ug/l | 100 |
| 35) Methacrylonitrile | 7.777 | 41 | 28223 | 19.906 | ug/l | 100 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 59810 | 20.981 | ug/l | 100 |
| 37) Trichloroethene | 9.347 | 130 | 40135 | 20.754 | ug/l | 100 |
| 38) Methylcyclohexane | 9.600 | 83 | 54992 | 19.697 | ug/l | 100 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 42682 | 20.684 | ug/l | 100 |
| 40) Dibromomethane | 9.706 | 93 | 30074 | 20.833 | ug/l | 100 |
| 41) Bromodichloromethane | 9.882 | 83 | 62781 | 20.287 | ug/l | 100 |
| 42) Vinyl Acetate | 6.600 | 43 | 448664 | 100.337 | ug/l | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICCC020

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:21:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 49217 | 19.343 | ug/l | 98 |
| 44) Isopropyl Acetate | 8.688 | 43 | 96864 | 19.030 | ug/l | 100 |
| 45) 1,4-Dioxane | 9.694 | 88 | 13694 | 402.979 | ug/l | 100 |
| 46) Methyl methacrylate | 9.682 | 41 | 40026 | 19.568 | ug/l | 100 |
| 47) n-amyl Acetate | 12.494 | 43 | 76604 | 20.151 | ug/l | 100 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 60713 | 19.868 | ug/l | 100 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 66524 | 20.312 | ug/l | 100 |
| 50) 1,1,2-Trichloroethane | 11.018 | 97 | 40510 | 20.921 | ug/l | 100 |
| 51) Ethyl methacrylate | 10.877 | 69 | 57722 | 19.339 | ug/l | 100 |
| 52) 1,3-Dichloropropane | 11.165 | 76 | 70002 | 20.827 | ug/l | 100 |
| 53) Dibromochloromethane | 11.359 | 129 | 45946 | 20.276 | ug/l | 100 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 40970 | 20.920 | ug/l | 100 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 152772 | 104.401 | ug/l | 100 |
| 56) Bromoform | 12.576 | 173 | 30104 | 19.820 | ug/l | 100 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 251499 | 103.446 | ug/l | 100 |
| 59) 2-Hexanone | 11.194 | 43 | 182123 | 102.300 | ug/l | 100 |
| 61) Tetrachloroethene | 11.100 | 164 | 33984 | 21.071 | ug/l | 100 |
| 62) Toluene | 10.630 | 91 | 182960 | 20.845 | ug/l | 100 |
| 64) Chlorobenzene | 11.888 | 112 | 110008 | 20.761 | ug/l | 100 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 40878 | 20.991 | ug/l | 100 |
| 66) Ethyl Benzene | 11.965 | 91 | 187374 | 20.313 | ug/l | 100 |
| 67) m/p-Xylenes | 12.071 | 106 | 145866 | 41.303 | ug/l | 100 |
| 68) o-Xylene | 12.400 | 106 | 70893 | 20.810 | ug/l | 100 |
| 69) Styrene | 12.412 | 104 | 116660 | 20.424 | ug/l | 100 |
| 70) Isopropylbenzene | 12.694 | 105 | 171676 | 20.286 | ug/l | 100 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 58304 | 21.256 | ug/l | 100 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 54117m | 20.681 | ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 45364 | 20.784 | ug/l | 100 |
| 74) n-propylbenzene | 13.035 | 91 | 200691 | 20.280 | ug/l | 100 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 132203 | 20.515 | ug/l | 100 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 147751 | 20.434 | ug/l | 100 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 19637 | 20.442 | ug/l | 100 |
| 78) 4-Chlorotoluene | 13.218 | 91 | 133430 | 20.493 | ug/l | 100 |
| 79) tert-butylbenzene | 13.435 | 119 | 117804 | 19.701 | ug/l | 100 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 148836 | 20.404 | ug/l | 100 |
| 81) sec-Butylbenzene | 13.612 | 105 | 164903 | 20.014 | ug/l | 100 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 137483 | 19.858 | ug/l | 100 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 83438 | 20.670 | ug/l | 100 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 80500 | 20.182 | ug/l | 100 |
| 85) n-Butylbenzene | 14.053 | 91 | 109807 | 18.885 | ug/l | 100 |
| 86) Hexachloroethane | 14.329 | 117 | 29191 | 20.617 | ug/l | 100 |
| 87) 1,2-Dichlorobenzene | 14.100 | 146 | 84342 | 21.203 | ug/l | 100 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 11061 | 20.899 | ug/l | 100 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 39326 | 20.305 | ug/l | 100 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 17295 | 20.443 | ug/l | 100 |
| 91) Naphthalene | 15.641 | 128 | 115679 | 18.702 | ug/l | 100 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 39326 | 20.305 | ug/l | 100 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

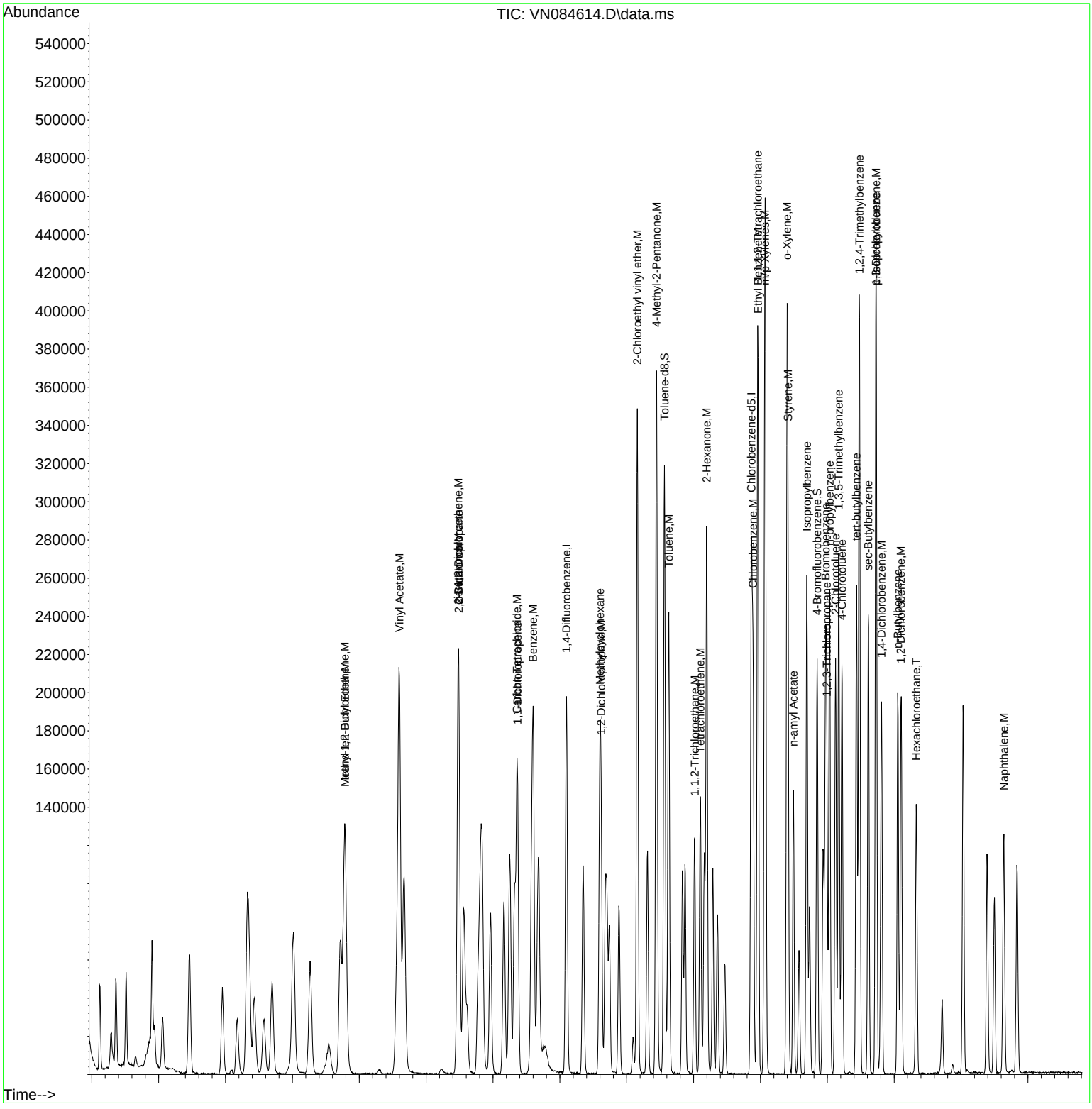
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:21:31 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICCC020

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084615.D
Acq On : 31 Oct 2024 12:56
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC050

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:22:20 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 32918 | 30.000 | ug/l | | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 176826 | 30.000 | ug/l | | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 164720 | 30.000 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 78237 | 29.563 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 98.533% | | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 87434 | 30.828 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 102.767% | | | | |
| 63) Toluene-d8 | 10.565 | 98 | 233304 | 29.919 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 99.733% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 94735 | 49.481 | ug/l | | 96 |
| 3) Chloromethane | 2.359 | 50 | 109029 | 47.299 | ug/l | | 98 |
| 4) Vinyl Chloride | 2.512 | 62 | 106283 | 49.654 | ug/l | | 97 |
| 5) Bromomethane | 2.901 | 94 | 51725 | 47.610 | ug/l | | 100 |
| 6) Chloroethane | 3.077 | 64 | 71616m | 50.344 | ug/l | | |
| 7) Trichlorofluoromethane | 3.471 | 101 | 169605 | 48.790 | ug/l | | 97 |
| 8) Diethyl Ether | 3.953 | 74 | 61891 | 49.913 | ug/l | | 96 |
| 9) 1,1,2-Trichlorotrifluo... | 4.359 | 101 | 97991 | 49.880 | ug/l | | 99 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 93892 | 48.943 | ug/l | | 95 |
| 11) Methyl Iodide | 4.583 | 142 | 130322 | 49.426 | ug/l | | 100 |
| 12) Methyl Acetate | 5.018 | 43 | 127594 | 42.624 | ug/l | | 94 |
| 13) Acrolein | 4.171 | 56 | 85754 | 232.550 | ug/l | | 98 |
| 14) Acrylonitrile | 5.712 | 53 | 243950 | 249.373 | ug/l | | 99 |
| 15) Acetone | 4.430 | 58 | 61279 | 243.784 | ug/l | | 91 |
| 16) Carbon Disulfide | 4.700 | 76 | 275193 | 48.752 | ug/l | | 99 |
| 17) Allyl chloride | 5.012 | 41 | 152844 | 47.220 | ug/l | | 98 |
| 18) Methylene Chloride | 5.265 | 84 | 108652 | 48.332 | ug/l | | 98 |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 99291 | 49.378 | ug/l | | 91 |
| 20) Diisopropyl ether | 6.671 | 45 | 332986 | 50.885 | ug/l | | 98 |
| 21) 1,1-Dichloroethane | 6.565 | 63 | 190325 | 48.363 | ug/l | | 98 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 119146 | 49.630 | ug/l | | 94 |
| 23) tert-Butyl Alcohol | 5.542 | 59 | 75243 | 220.317 | ug/l | # | 100 |
| 24) Methyl tert-Butyl Ether | 5.795 | 73 | 308206 | 49.680 | ug/l | | 99 |
| 25) Chloroform | 7.959 | 83 | 197402 | 48.959 | ug/l | | 94 |
| 26) Cyclohexane | 8.253 | 56 | 153309 | 51.000 | ug/l | # | 100 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 133196 | 50.010 | ug/l | | 100 |
| 30) 2-Butanone | 7.477 | 43 | 305143 | 248.373 | ug/l | | 99 |
| 31) 2,2-Dichloropropane | 7.483 | 77 | 161607 | 49.708 | ug/l | | 98 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 178128 | 49.229 | ug/l | | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 152324 | 49.334 | ug/l | | 98 |
| 34) Benzene | 8.600 | 78 | 434965 | 49.409 | ug/l | | 97 |
| 35) Methacrylonitrile | 7.777 | 41 | 69021 | 47.401 | ug/l | | 97 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 143921 | 49.161 | ug/l | | 100 |
| 37) Trichloroethene | 9.353 | 130 | 97539 | 49.114 | ug/l | | 99 |
| 38) Methylcyclohexane | 9.600 | 83 | 145824 | 50.859 | ug/l | | 98 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 103300 | 48.746 | ug/l | | 97 |
| 40) Dibromomethane | 9.706 | 93 | 72848 | 49.139 | ug/l | | 99 |
| 41) Bromodichloromethane | 9.882 | 83 | 154994 | 48.769 | ug/l | | 99 |
| 42) Vinyl Acetate | 6.600 | 43 | 1161725 | 252.978 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084615.D
Acq On : 31 Oct 2024 12:56
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:22:20 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC050

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 131344 | 50.265 ug/l | 98 |
| 44) Isopropyl Acetate | 8.688 | 43 | 231400 | 44.267 ug/l | 98 |
| 45) 1,4-Dioxane | 9.694 | 88 | 33980 | 973.675 ug/l # | 89 |
| 46) Methyl methacrylate | 9.677 | 41 | 104945 | 49.957 ug/l | 96 |
| 47) n-amyl Acetate | 12.494 | 43 | 202564 | 51.886 ug/l | 98 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 157614 | 50.224 ug/l | 95 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 167077 | 49.675 ug/l | 97 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 98990 | 49.780 ug/l | 96 |
| 51) Ethyl methacrylate | 10.871 | 69 | 158738 | 51.786 ug/l | 96 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 172748 | 50.047 ug/l | 99 |
| 53) Dibromochloromethane | 11.359 | 129 | 118100 | 50.750 ug/l | 97 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 99236 | 49.341 ug/l | 96 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 395250 | 263.010 ug/l | 99 |
| 56) Bromoform | 12.576 | 173 | 79210 | 50.781 ug/l | 99 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 647306 | 249.093 ug/l | 98 |
| 59) 2-Hexanone | 11.194 | 43 | 478961 | 251.701 ug/l | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 85090 | 49.359 ug/l | 98 |
| 62) Toluene | 10.629 | 91 | 459711 | 49.000 ug/l | 99 |
| 64) Chlorobenzene | 11.888 | 112 | 279544 | 49.357 ug/l | 97 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 104199 | 50.060 ug/l | 98 |
| 66) Ethyl Benzene | 11.965 | 91 | 502126 | 50.927 ug/l | 94 |
| 67) m/p-Xylenes | 12.071 | 106 | 387469 | 102.646 ug/l | 98 |
| 68) o-Xylene | 12.394 | 106 | 187021 | 51.361 ug/l | 98 |
| 69) Styrene | 12.412 | 104 | 323595 | 53.002 ug/l | 98 |
| 70) Isopropylbenzene | 12.694 | 105 | 470823 | 52.050 ug/l | 99 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 145223 | 49.532 ug/l | 97 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 117853m | 42.135 ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 116686 | 50.015 ug/l | 97 |
| 74) n-propylbenzene | 13.035 | 91 | 557232 | 52.681 ug/l | 99 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 356739 | 51.790 ug/l | 98 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 406282 | 52.568 ug/l | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 53054 | 51.671 ug/l | 86 |
| 78) 4-Chlorotoluene | 13.218 | 91 | 357227 | 51.329 ug/l | 100 |
| 79) tert-butylbenzene | 13.435 | 119 | 331066 | 51.799 ug/l | 99 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 415493 | 53.289 ug/l | 98 |
| 81) sec-Butylbenzene | 13.618 | 105 | 464362 | 52.727 ug/l | 100 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 396709 | 53.609 ug/l | 99 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 217624 | 50.438 ug/l | 99 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 216965 | 50.890 ug/l | 97 |
| 85) n-Butylbenzene | 14.053 | 91 | 325553 | 52.381 ug/l | 99 |
| 86) Hexachloroethane | 14.329 | 117 | 75612 | 49.961 ug/l | 99 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 215946 | 50.790 ug/l | 98 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 28965 | 51.201 ug/l | 96 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 104664 | 50.558 ug/l | 96 |
| 90) Hexachlorobutadiene | 15.494 | 225 | 44832 | 49.577 ug/l | 95 |
| 91) Naphthalene | 15.641 | 128 | 349297 | 52.834 ug/l | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 104664 | 50.558 ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

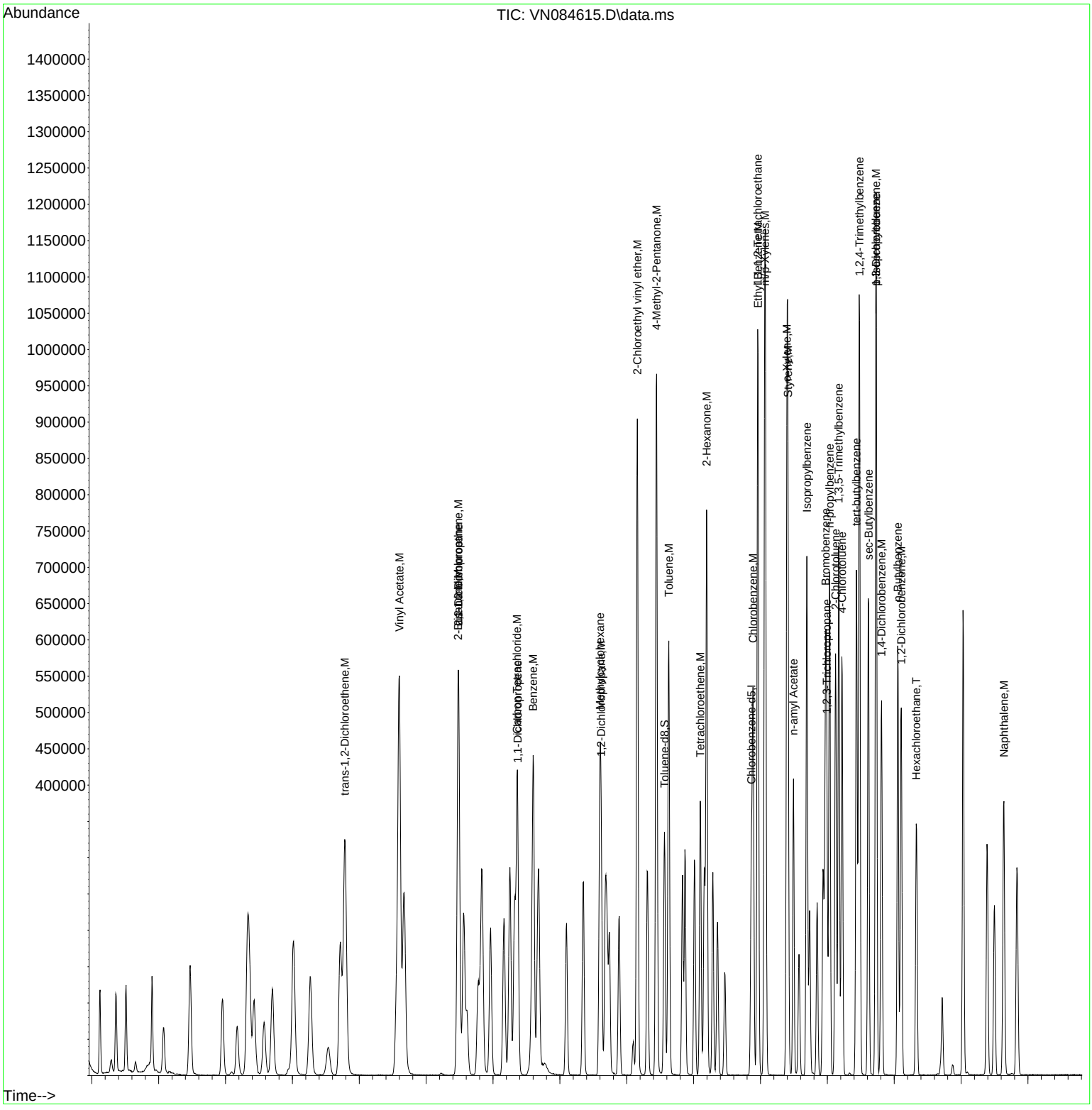
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084615.D
Acq On : 31 Oct 2024 12:56
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:22:20 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC050

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084616.D
Acq On : 31 Oct 2024 13:20
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:23:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 34742 | 30.000 | ug/l | | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 185533 | 30.000 | ug/l | | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 172801 | 30.000 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 81745 | 29.267 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 97.567% | | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 92972 | 31.247 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 104.167% | | | | |
| 63) Toluene-d8 | 10.565 | 98 | 240739 | 29.429 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 98.100% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.118 | 85 | 190784 | 94.416 | ug/l | | 96 |
| 3) Chloromethane | 2.359 | 50 | 224931 | 92.457 | ug/l | | 96 |
| 4) Vinyl Chloride | 2.512 | 62 | 213170 | 94.361 | ug/l | | 96 |
| 5) Bromomethane | 2.901 | 94 | 107304 | 93.582 | ug/l | | 99 |
| 6) Chloroethane | 3.059 | 64 | 134554 | 89.622 | ug/l | | 91 |
| 7) Trichlorofluoromethane | 3.465 | 101 | 344065 | 93.780 | ug/l | | 96 |
| 8) Diethyl Ether | 3.953 | 74 | 132542 | 101.279 | ug/l | | 95 |
| 9) 1,1,2-Trichlorotrifluo... | 4.348 | 101 | 193932 | 93.533 | ug/l | | 100 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 196748 | 97.174 | ug/l | | 96 |
| 11) Methyl Iodide | 4.577 | 142 | 268385 | 96.444 | ug/l | | 93 |
| 12) Methyl Acetate | 5.024 | 43 | 266611 | 84.389 | ug/l | | 98 |
| 13) Acrolein | 4.171 | 56 | 188911 | 485.398 | ug/l | | 99 |
| 14) Acrylonitrile | 5.712 | 53 | 516678 | 500.435 | ug/l | | 98 |
| 15) Acetone | 4.424 | 58 | 129317 | 487.448 | ug/l | | 84 |
| 16) Carbon Disulfide | 4.700 | 76 | 573917 | 96.334 | ug/l | | 97 |
| 17) Allyl chloride | 5.006 | 41 | 345769 | 101.215 | ug/l | | 96 |
| 18) Methylene Chloride | 5.271 | 84 | 223525 | 94.210 | ug/l | | 99 |
| 19) trans-1,2-Dichloroethene | 5.777 | 96 | 205660 | 96.906 | ug/l | | 91 |
| 20) Diisopropyl ether | 6.671 | 45 | 688942 | 99.753 | ug/l | | 96 |
| 21) 1,1-Dichloroethane | 6.565 | 63 | 395669 | 95.263 | ug/l | | 97 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 247895 | 97.839 | ug/l | | 95 |
| 23) tert-Butyl Alcohol | 5.547 | 59 | 164832 | 457.302 | ug/l | # | 100 |
| 24) Methyl tert-Butyl Ether | 5.794 | 73 | 668387 | 102.082 | ug/l | | 98 |
| 25) Chloroform | 7.965 | 83 | 401691 | 94.396 | ug/l | | 99 |
| 26) Cyclohexane | 8.253 | 56 | 319727 | 100.777 | ug/l | # | 99 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 279360 | 99.967 | ug/l | | 99 |
| 30) 2-Butanone | 7.483 | 43 | 647906 | 502.619 | ug/l | | 99 |
| 31) 2,2-Dichloropropane | 7.488 | 77 | 326433 | 95.693 | ug/l | | 98 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 366838 | 96.624 | ug/l | | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 311893 | 96.275 | ug/l | | 99 |
| 34) Benzene | 8.600 | 78 | 902770 | 97.735 | ug/l | | 95 |
| 35) Methacrylonitrile | 7.777 | 41 | 158460 | 103.718 | ug/l | | 97 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 289900 | 94.377 | ug/l | | 99 |
| 37) Trichloroethene | 9.347 | 130 | 201181 | 96.547 | ug/l | | 94 |
| 38) Methylcyclohexane | 9.600 | 83 | 311539 | 103.557 | ug/l | | 97 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 215746 | 97.029 | ug/l | | 92 |
| 40) Dibromomethane | 9.706 | 93 | 151914 | 97.663 | ug/l | | 99 |
| 41) Bromodichloromethane | 9.888 | 83 | 325039 | 97.474 | ug/l | | 99 |
| 42) Vinyl Acetate | 6.600 | 43 | 2500453 | 518.946 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084616.D
Acq On : 31 Oct 2024 13:20
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:23:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 274207 | 100.013 | ug/l | 98 |
| 44) Isopropyl Acetate | 8.688 | 43 | 478812 | 87.298 | ug/l | 96 |
| 45) 1,4-Dioxane | 9.694 | 88 | 75558 | 2063.461 | ug/l | 96 |
| 46) Methyl methacrylate | 9.682 | 41 | 228239 | 103.551 | ug/l | 94 |
| 47) n-amyl Acetate | 12.494 | 43 | 436801 | 106.634 | ug/l | 96 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 332996 | 101.131 | ug/l | 97 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 358906 | 101.702 | ug/l | 95 |
| 50) 1,1,2-Trichloroethane | 11.018 | 97 | 204253 | 97.894 | ug/l | 98 |
| 51) Ethyl methacrylate | 10.871 | 69 | 346376 | 107.698 | ug/l | 96 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 357116 | 98.605 | ug/l | 99 |
| 53) Dibromochloromethane | 11.359 | 129 | 245721 | 100.636 | ug/l | 97 |
| 54) 1,2-Dibromoethane | 11.471 | 107 | 209631 | 99.338 | ug/l | 96 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 822490 | 521.622 | ug/l | 99 |
| 56) Bromoform | 12.576 | 173 | 167239 | 102.184 | ug/l | 99 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 1367142 | 501.494 | ug/l | 99 |
| 59) 2-Hexanone | 11.194 | 43 | 1018919 | 510.417 | ug/l | 98 |
| 61) Tetrachloroethene | 11.100 | 164 | 175966 | 97.300 | ug/l | 99 |
| 62) Toluene | 10.629 | 91 | 954854 | 97.017 | ug/l | 98 |
| 64) Chlorobenzene | 11.888 | 112 | 582322 | 98.008 | ug/l | 97 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 211092 | 96.671 | ug/l | 99 |
| 66) Ethyl Benzene | 11.965 | 91 | 1057324 | 102.222 | ug/l | 97 |
| 67) m/p-Xylenes | 12.071 | 106 | 800698 | 202.196 | ug/l | 99 |
| 68) o-Xylene | 12.394 | 106 | 393457 | 103.001 | ug/l | 98 |
| 69) Styrene | 12.412 | 104 | 664652 | 103.773 | ug/l | 99 |
| 70) Isopropylbenzene | 12.694 | 105 | 974870 | 102.732 | ug/l | 98 |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83 | 293813 | 95.526 | ug/l | 97 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 247347m | 84.297 | ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 245959 | 100.496 | ug/l | 98 |
| 74) n-propylbenzene | 13.035 | 91 | 1143491 | 103.052 | ug/l | 99 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 722984 | 100.052 | ug/l | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 830495 | 102.432 | ug/l | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 112802 | 104.723 | ug/l | 91 |
| 78) 4-Chlorotoluene | 13.223 | 91 | 737525 | 101.018 | ug/l | 99 |
| 79) tert-butylbenzene | 13.435 | 119 | 716107 | 106.804 | ug/l | 96 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 860667 | 105.223 | ug/l | 99 |
| 81) sec-Butylbenzene | 13.617 | 105 | 973025 | 105.317 | ug/l | 100 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 827966 | 106.655 | ug/l | 100 |
| 83) 1,3-Dichlorobenzene | 13.735 | 146 | 453157 | 100.115 | ug/l | 99 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 448828 | 100.351 | ug/l | 99 |
| 85) n-Butylbenzene | 14.053 | 91 | 712477 | 109.276 | ug/l | 99 |
| 86) Hexachloroethane | 14.329 | 117 | 152797 | 96.241 | ug/l | 98 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 438040 | 98.208 | ug/l | 99 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 56385 | 95.009 | ug/l | 91 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 224355 | 103.306 | ug/l | 96 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 90825 | 95.741 | ug/l | 95 |
| 91) Naphthalene | 15.635 | 128 | 770611 | 111.109 | ug/l | 100 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 224355 | 103.306 | ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

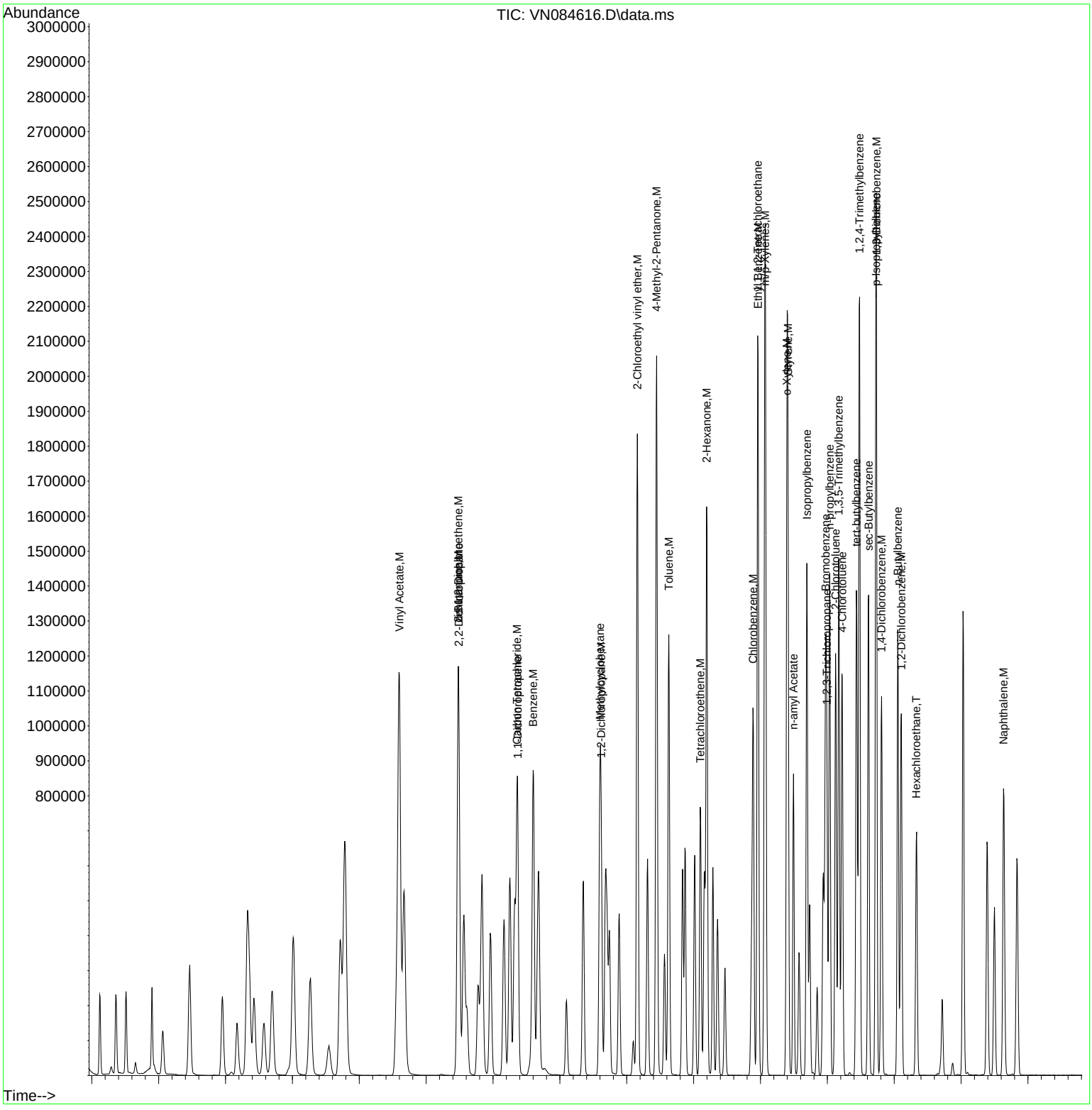
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084616.D
Acq On : 31 Oct 2024 13:20
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:23:10 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084617.D
Acq On : 31 Oct 2024 13:44
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:24:02 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 34315 | 30.000 | ug/l | | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 189928 | 30.000 | ug/l | | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 174515 | 30.000 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 82785 | 30.008 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 100.033% | | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 91818 | 30.557 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 101.867% | | | | |
| 63) Toluene-d8 | 10.565 | 98 | 244038 | 29.539 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 98.467% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 299645 | 150.135 | ug/l | | 94 |
| 3) Chloromethane | 2.359 | 50 | 360263 | 149.927 | ug/l | | 100 |
| 4) Vinyl Chloride | 2.512 | 62 | 330947 | 148.318 | ug/l | | 95 |
| 5) Bromomethane | 2.900 | 94 | 166205 | 146.755 | ug/l | | 99 |
| 6) Chloroethane | 3.053 | 64 | 211245 | 142.454 | ug/l | | 90 |
| 7) Trichlorofluoromethane | 3.459 | 101 | 537825 | 148.417 | ug/l | | 99 |
| 8) Diethyl Ether | 3.953 | 74 | 208008 | 160.923 | ug/l | | 96 |
| 9) 1,1,2-Trichlorotrifluo... | 4.347 | 101 | 304904 | 148.885 | ug/l | | 100 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 309990 | 155.009 | ug/l | | 93 |
| 11) Methyl Iodide | 4.577 | 142 | 418106 | 152.116 | ug/l | | 93 |
| 12) Methyl Acetate | 5.018 | 43 | 413207 | 132.418 | ug/l | | 97 |
| 13) Acrolein | 4.171 | 56 | 297469 | 773.843 | ug/l | | 98 |
| 14) Acrylonitrile | 5.718 | 53 | 803457 | 787.881 | ug/l | | 98 |
| 15) Acetone | 4.424 | 58 | 199728 | 762.223 | ug/l | | 94 |
| 16) Carbon Disulfide | 4.694 | 76 | 898255 | 152.651 | ug/l | | 98 |
| 17) Allyl chloride | 5.012 | 41 | 542863 | 160.886 | ug/l | | 96 |
| 18) Methylene Chloride | 5.265 | 84 | 343819 | 146.714 | ug/l | | 95 |
| 19) trans-1,2-Dichloroethene | 5.777 | 96 | 318103 | 151.754 | ug/l | | 89 |
| 20) Diisopropyl ether | 6.671 | 45 | 1072240 | 157.183 | ug/l | | 98 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 606359 | 147.807 | ug/l | | 97 |
| 22) cis-1,2-Dichloroethene | 7.482 | 96 | 389337 | 155.576 | ug/l | | 94 |
| 23) tert-Butyl Alcohol | 5.553 | 59 | 268783 | 754.978 | ug/l | # | 100 |
| 24) Methyl tert-Butyl Ether | 5.794 | 73 | 1046401 | 161.805 | ug/l | | 98 |
| 25) Chloroform | 7.965 | 83 | 622385 | 148.078 | ug/l | | 96 |
| 26) Cyclohexane | 8.253 | 56 | 511647 | 163.276 | ug/l | # | 98 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 437707 | 153.006 | ug/l | | 100 |
| 30) 2-Butanone | 7.482 | 43 | 1009048 | 764.664 | ug/l | | 98 |
| 31) 2,2-Dichloropropane | 7.488 | 77 | 508098 | 145.502 | ug/l | | 98 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 565049 | 145.389 | ug/l | | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 490498 | 147.903 | ug/l | | 98 |
| 34) Benzene | 8.600 | 78 | 1384757 | 146.447 | ug/l | | 96 |
| 35) Methacrylonitrile | 7.777 | 41 | 245428 | 156.925 | ug/l | | 99 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 459837 | 146.236 | ug/l | | 99 |
| 37) Trichloroethene | 9.347 | 130 | 321371 | 150.657 | ug/l | | 93 |
| 38) Methylcyclohexane | 9.600 | 83 | 499572 | 162.217 | ug/l | | 97 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 337522 | 148.284 | ug/l | | 96 |
| 40) Dibromomethane | 9.706 | 93 | 233108 | 146.393 | ug/l | | 99 |
| 41) Bromodichloromethane | 9.888 | 83 | 504647 | 147.833 | ug/l | | 98 |
| 42) Vinyl Acetate | 6.600 | 43 | 3914346 | 793.588 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084617.D
Acq On : 31 Oct 2024 13:44
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:24:02 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 428446 | 152.653 ug/l | 97 |
| 44) Isopropyl Acetate | 8.688 | 43 | 741325 | 132.033 ug/l | 96 |
| 45) 1,4-Dioxane | 9.700 | 88 | 117373 | 3131.238 ug/l | 96 |
| 46) Methyl methacrylate | 9.682 | 41 | 357456 | 158.423 ug/l | 98 |
| 47) n-amyl Acetate | 12.494 | 43 | 667282 | 159.131 ug/l | 94 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 523588 | 155.334 ug/l | 97 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 561762 | 155.501 ug/l | 94 |
| 50) 1,1,2-Trichloroethane | 11.018 | 97 | 311081 | 145.645 ug/l | 95 |
| 51) Ethyl methacrylate | 10.876 | 69 | 534438 | 162.326 ug/l | 96 |
| 52) 1,3-Dichloropropane | 11.165 | 76 | 544181 | 146.779 ug/l | 99 |
| 53) Dibromochloromethane | 11.359 | 129 | 378123 | 151.277 ug/l | 98 |
| 54) 1,2-Dibromoethane | 11.470 | 107 | 321983 | 149.047 ug/l | 99 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 1267478 | 785.232 ug/l | 99 |
| 56) Bromoform | 12.576 | 173 | 254436 | 151.864 ug/l | 99 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 2085089 | 757.339 ug/l | 98 |
| 59) 2-Hexanone | 11.200 | 43 | 1531300 | 759.555 ug/l | 98 |
| 61) Tetrachloroethene | 11.100 | 164 | 271458 | 148.628 ug/l | 98 |
| 62) Toluene | 10.629 | 91 | 1481581 | 149.056 ug/l | 98 |
| 64) Chlorobenzene | 11.888 | 112 | 896579 | 149.418 ug/l | 99 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 321277 | 145.687 ug/l | 100 |
| 66) Ethyl Benzene | 11.965 | 91 | 1652923 | 158.236 ug/l | 96 |
| 67) m/p-Xylenes | 12.070 | 106 | 1242416 | 310.660 ug/l | 100 |
| 68) o-Xylene | 12.400 | 106 | 604062 | 156.582 ug/l | 98 |
| 69) Styrene | 12.412 | 104 | 1029762 | 159.199 ug/l | 99 |
| 70) Isopropylbenzene | 12.694 | 105 | 1528377 | 159.480 ug/l | 98 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 443836 | 142.885 ug/l | 97 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 379116m | 127.935 ug/l | |
| 73) Bromobenzene | 12.982 | 156 | 370688 | 149.971 ug/l | 97 |
| 74) n-propylbenzene | 13.035 | 91 | 1804610 | 161.034 ug/l | 99 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 1112415 | 152.433 ug/l | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 1295565 | 158.223 ug/l | 98 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 177307 | 162.992 ug/l | 90 |
| 78) 4-Chlorotoluene | 13.223 | 91 | 1139441 | 154.535 ug/l | 100 |
| 79) tert-butylbenzene | 13.435 | 119 | 1114831 | 164.638 ug/l | 96 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 1321571 | 159.986 ug/l | 98 |
| 81) sec-Butylbenzene | 13.617 | 105 | 1521726 | 163.089 ug/l | 100 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 1304826 | 166.431 ug/l | 100 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 699236 | 152.963 ug/l | 99 |
| 84) 1,4-Dichlorobenzene | 13.811 | 146 | 698605 | 154.663 ug/l | 99 |
| 85) n-Butylbenzene | 14.053 | 91 | 1148718 | 174.453 ug/l | 99 |
| 86) Hexachloroethane | 14.335 | 117 | 244372 | 152.408 ug/l | 97 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 680730 | 151.120 ug/l | 98 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 91914 | 153.355 ug/l | 92 |
| 89) 1,2,4-Trichlorobenzene | 15.841 | 180 | 369695 | 168.557 ug/l | 96 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 151702 | 158.343 ug/l | 94 |
| 91) Naphthalene | 15.641 | 128 | 1260875 | 180.011 ug/l | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.841 | 180 | 369695 | 168.557 ug/l | 96 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

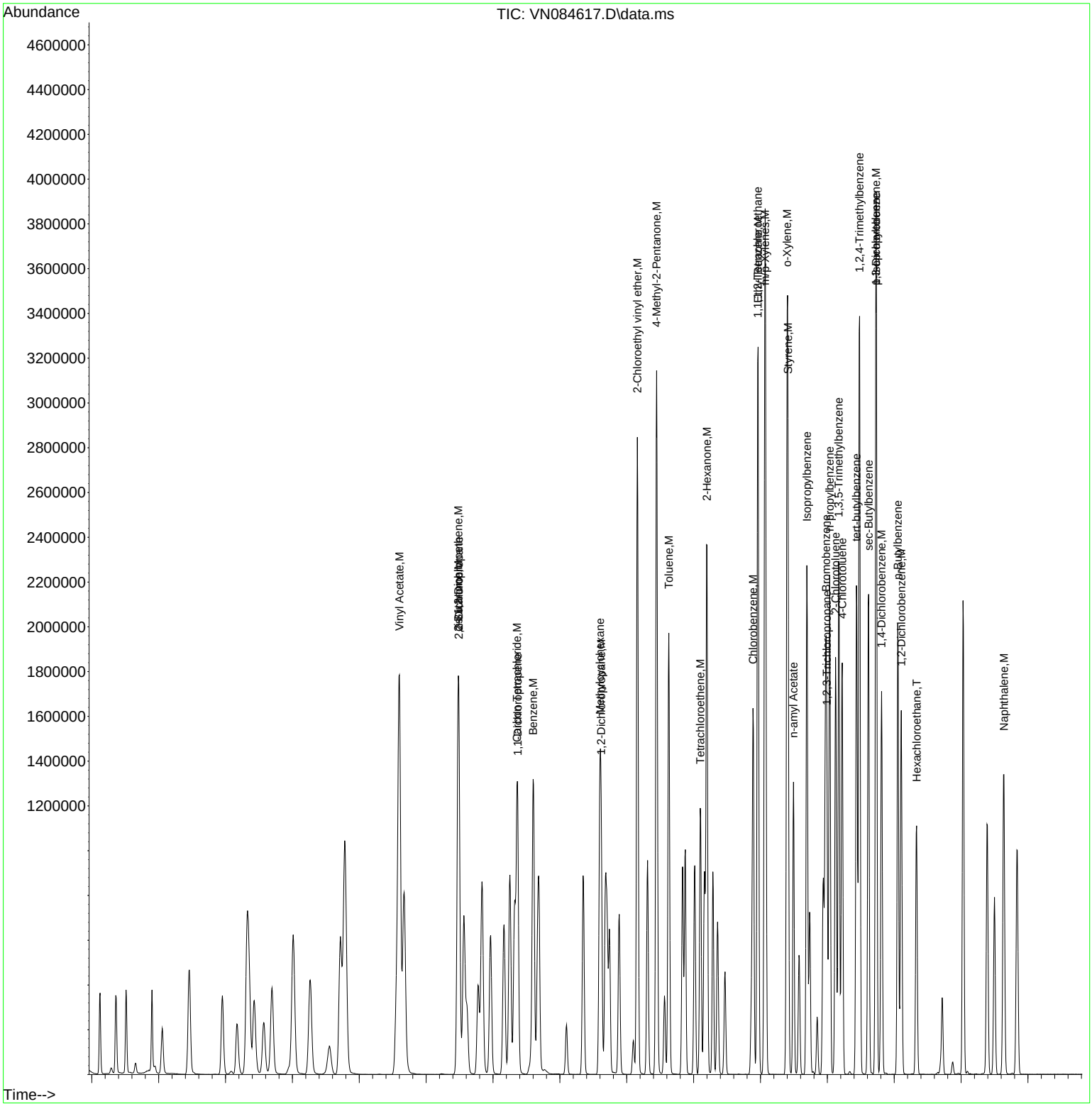
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084617.D
Acq On : 31 Oct 2024 13:44
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:24:02 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:19:19 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 33219 | 30.000 | ug/l | | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 181690 | 30.000 | ug/l | | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 170699 | 30.000 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.576 | 65 | 78518 | 29.401 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 98.000% | | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 87996 | 29.939 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 99.800% | | | | |
| 63) Toluene-d8 | 10.565 | 98 | 235463 | 29.138 | ug/l | | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 97.133% | | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 39007 | 20.189 | ug/l | | 96 |
| 3) Chloromethane | 2.359 | 50 | 45924 | 19.742 | ug/l | | 96 |
| 4) Vinyl Chloride | 2.512 | 62 | 43634 | 20.200 | ug/l | | 96 |
| 5) Bromomethane | 2.900 | 94 | 21634 | 19.733 | ug/l | | 100 |
| 6) Chloroethane | 3.077 | 64 | 27349 | 19.284 | ug/l | # | 89 |
| 7) Trichlorofluoromethane | 3.471 | 101 | 70373 | 20.061 | ug/l | | 100 |
| 8) Diethyl Ether | 3.953 | 74 | 26411 | 21.107 | ug/l | | 92 |
| 9) 1,1,2-Trichlorotrifluo... | 4.353 | 101 | 41161 | 20.762 | ug/l | | 98 |
| 10) 1,1-Dichloroethene | 4.330 | 96 | 38591 | 19.934 | ug/l | | 94 |
| 11) Methyl Iodide | 4.577 | 142 | 52797 | 19.843 | ug/l | | 92 |
| 12) Methyl Acetate | 5.018 | 43 | 54572 | 18.084 | ug/l | | 98 |
| 13) Acrolein | 4.171 | 56 | 36257 | 97.432 | ug/l | | 97 |
| 14) Acrylonitrile | 5.718 | 53 | 99433 | 100.722 | ug/l | | 97 |
| 15) Acetone | 4.430 | 58 | 26069 | 102.773 | ug/l | | 95 |
| 16) Carbon Disulfide | 4.700 | 76 | 112949 | 19.828 | ug/l | | 98 |
| 17) Allyl chloride | 5.012 | 41 | 62388 | 18.913 | ug/l | | 93 |
| 18) Methylene Chloride | 5.265 | 84 | 43401 | 19.131 | ug/l | | 98 |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 39248 | 19.342 | ug/l | | 94 |
| 20) Diisopropyl ether | 6.665 | 45 | 129663 | 19.635 | ug/l | | 97 |
| 21) 1,1-Dichloroethane | 6.565 | 63 | 76784 | 19.334 | ug/l | | 97 |
| 22) cis-1,2-Dichloroethene | 7.482 | 96 | 46989 | 19.396 | ug/l | | 97 |
| 23) tert-Butyl Alcohol | 5.541 | 59 | 37052 | 107.508 | ug/l | # | 100 |
| 24) Methyl tert-Butyl Ether | 5.788 | 73 | 122468 | 19.562 | ug/l | | 100 |
| 25) Chloroform | 7.965 | 83 | 79286 | 19.486 | ug/l | | 97 |
| 26) Cyclohexane | 8.253 | 56 | 62127 | 20.480 | ug/l | # | 99 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 53477 | 19.541 | ug/l | | 99 |
| 30) 2-Butanone | 7.482 | 43 | 126487 | 100.199 | ug/l | | 100 |
| 31) 2,2-Dichloropropane | 7.488 | 77 | 66622 | 19.943 | ug/l | | 99 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 71786 | 19.308 | ug/l | | 99 |
| 33) Carbon Tetrachloride | 8.365 | 117 | 62252 | 19.622 | ug/l | | 94 |
| 34) Benzene | 8.606 | 78 | 173675 | 19.200 | ug/l | # | 95 |
| 35) Methacrylonitrile | 7.777 | 41 | 29897 | 19.983 | ug/l | | 98 |
| 36) 1,2-Dichloroethane | 8.671 | 62 | 57389 | 19.078 | ug/l | | 99 |
| 37) Trichloroethene | 9.353 | 130 | 40639 | 19.915 | ug/l | | 85 |
| 38) Methylcyclohexane | 9.600 | 83 | 57621 | 19.559 | ug/l | | 97 |
| 39) 1,2-Dichloropropane | 9.623 | 63 | 41855 | 19.222 | ug/l | | 90 |
| 40) Dibromomethane | 9.706 | 93 | 29763 | 19.539 | ug/l | | 97 |
| 41) Bromodichloromethane | 9.882 | 83 | 63336 | 19.395 | ug/l | | 94 |
| 42) Vinyl Acetate | 6.600 | 43 | 471501 | 99.926 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.559 | 43 | 52600 | 19.830 | ug/l | 96 |
| 44) Isopropyl Acetate | 8.688 | 43 | 98265 | 18.295 | ug/l | 100 |
| 45) 1,4-Dioxane | 9.694 | 88 | 14685 | 409.524 | ug/l | 94 |
| 46) Methyl methacrylate | 9.682 | 41 | 42350 | 19.620 | ug/l | 91 |
| 47) n-amyl Acetate | 12.494 | 43 | 79469 | 19.811 | ug/l | 100 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 63042 | 19.551 | ug/l | 96 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 67490 | 19.529 | ug/l | 97 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 40428 | 19.786 | ug/l | 92 |
| 51) Ethyl methacrylate | 10.870 | 69 | 61356 | 19.481 | ug/l | 96 |
| 52) 1,3-Dichloropropane | 11.165 | 76 | 68595 | 19.341 | ug/l | 98 |
| 53) Dibromochloromethane | 11.359 | 129 | 47080 | 19.690 | ug/l | 98 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 40000 | 19.356 | ug/l | 96 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 158206 | 102.456 | ug/l | 99 |
| 56) Bromoform | 12.582 | 173 | 31892 | 19.898 | ug/l | 99 |
| 58) 4-Methyl-2-Pentanone | 10.441 | 43 | 269754 | 100.170 | ug/l | 98 |
| 59) 2-Hexanone | 11.194 | 43 | 196485 | 99.639 | ug/l | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 34173 | 19.129 | ug/l | 94 |
| 62) Toluene | 10.629 | 91 | 184150 | 18.941 | ug/l | 99 |
| 64) Chlorobenzene | 11.894 | 112 | 114563 | 19.519 | ug/l | 96 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 40847 | 18.937 | ug/l | 97 |
| 66) Ethyl Benzene | 11.965 | 91 | 193657 | 18.953 | ug/l | 95 |
| 67) m/p-Xylenes | 12.070 | 106 | 153096 | 39.137 | ug/l | 98 |
| 68) o-Xylene | 12.400 | 106 | 73335 | 19.434 | ug/l | 95 |
| 69) Styrene | 12.412 | 104 | 124645 | 19.701 | ug/l | 99 |
| 70) Isopropylbenzene | 12.694 | 105 | 188026 | 20.058 | ug/l | 97 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 58559 | 19.273 | ug/l | 98 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 55357m | 21.337 | ug/l | |
| 73) Bromobenzene | 12.982 | 156 | 46221 | 19.118 | ug/l | 94 |
| 74) n-propylbenzene | 13.035 | 91 | 217666 | 19.858 | ug/l | 100 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 141697 | 19.851 | ug/l | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 160297 | 20.014 | ug/l | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 20549 | 19.312 | ug/l | 95 |
| 78) 4-Chlorotoluene | 13.217 | 91 | 141472 | 19.616 | ug/l | 99 |
| 79) tert-butylbenzene | 13.441 | 119 | 134979 | 20.379 | ug/l | 96 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 160493 | 19.863 | ug/l | 99 |
| 81) sec-Butylbenzene | 13.617 | 105 | 179829 | 19.704 | ug/l | 100 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 148622 | 19.381 | ug/l | 99 |
| 83) 1,3-Dichlorobenzene | 13.735 | 146 | 86431 | 19.330 | ug/l | 97 |
| 84) 1,4-Dichlorobenzene | 13.811 | 146 | 87143 | 19.724 | ug/l | 97 |
| 85) n-Butylbenzene | 14.053 | 91 | 124802 | 19.377 | ug/l | 99 |
| 86) Hexachloroethane | 14.335 | 117 | 30122 | 19.206 | ug/l | 99 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 86578 | 19.650 | ug/l | 97 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 12268 | 20.926 | ug/l | 98 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 43307 | 20.187 | ug/l | 98 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 19143 | 20.428 | ug/l | 96 |
| 91) Naphthalene | 15.641 | 128 | 132615 | 19.356 | ug/l | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 43307 | 20.187 | ug/l | 98 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

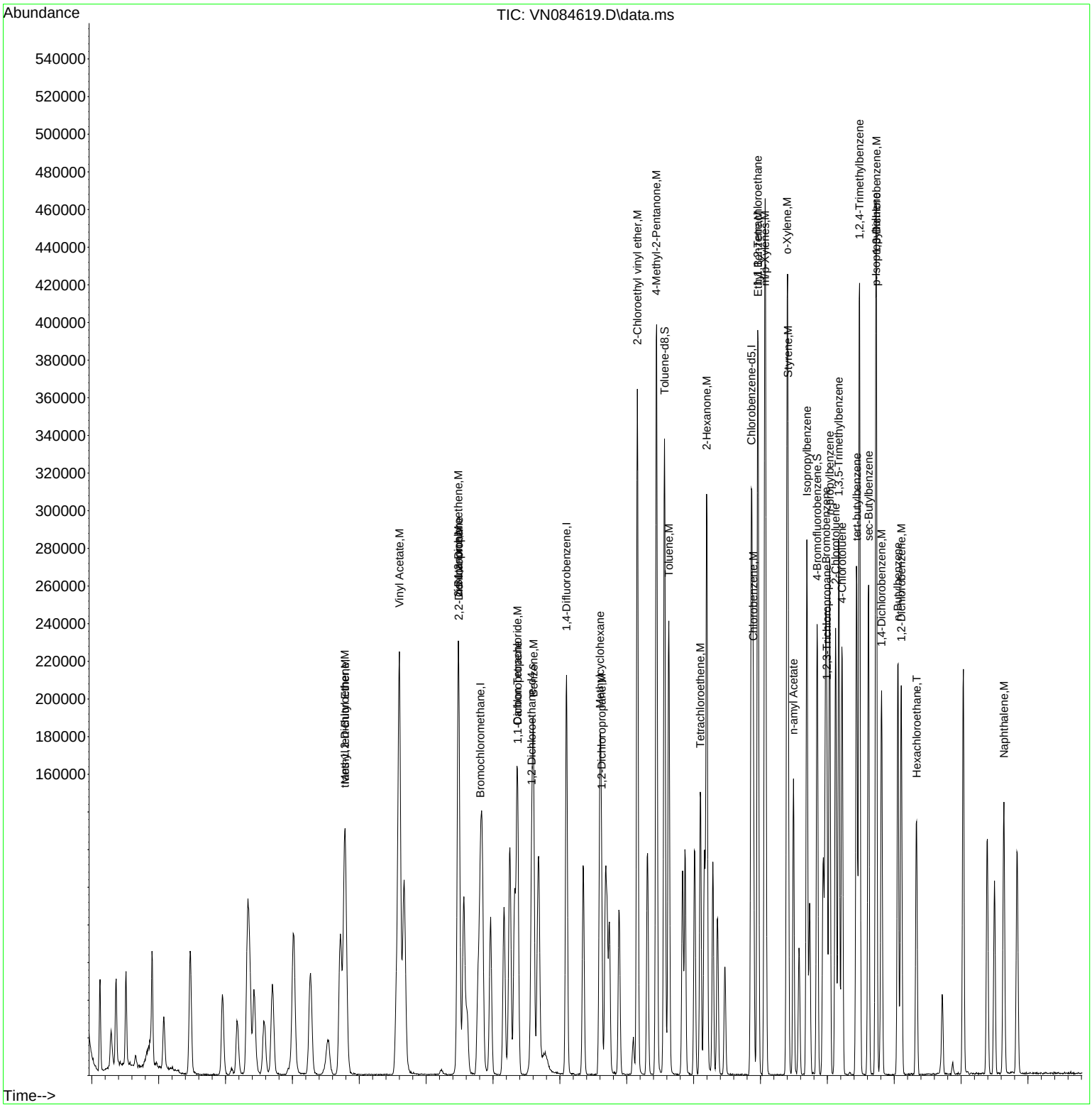
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

**Manual Integrations APPROVED**

Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 2 | M | Dichlorodifluoromethane | 1.745 | 1.761 | -0.9 | 102 | 0.00 |
| 3 | M | Chloromethane | 2.101 | 2.074 | 1.3 | 101 | 0.00 |
| 4 | M | Vinyl Chloride | 1.951 | 1.970 | -1.0 | 102 | 0.00 |
| 5 | M | Bromomethane | 0.990 | 0.977 | 1.3 | 95 | 0.00 |
| 6 | M | Chloroethane | 1.281 | 1.235 | 3.6 | 98 | 0.02 |
| 7 | M | Trichlorofluoromethane | 3.168 | 3.178 | -0.3 | 100 | 0.00 |
| 8 | T | Diethyl Ether | 1.130 | 1.193 | -5.6 | 109 | 0.00 |
| 9 | | 1,1,2-Trichlorotrifluoroeth | 1.790 | 1.859 | -3.9 | 102 | 0.00 |
| 10 | M | 1,1-Dichloroethene | 1.748 | 1.743 | 0.3 | 101 | 0.00 |
| 11 | | Methyl Iodide | 2.403 | 2.384 | 0.8 | 101 | 0.00 |
| 12 | | Methyl Acetate | 2.725 | 2.464 | 9.6 | 97 | 0.00 |
| 13 | M | Acrolein | 0.336 | 0.327 | 2.7 | 99 | 0.00 |
| 14 | M | Acrylonitrile | 0.892 | 0.898 | -0.7 | 106 | 0.00 |
| 15 | M | Acetone | 0.229 | 0.235 | -2.6 | 107 | 0.00 |
| 16 | M | Carbon Disulfide | 5.144 | 5.100 | 0.9 | 101 | 0.00 |
| 17 | | Allyl chloride | 2.979 | 2.817 | 5.4 | 96 | 0.00 |
| 18 | M | Methylene Chloride | 2.049 | 1.960 | 4.3 | 94 | 0.00 |
| 19 | M | trans-1,2-Dichloroethene | 1.833 | 1.772 | 3.3 | 99 | 0.00 |
| 20 | T | Diisopropyl ether | 5.964 | 5.855 | 1.8 | 99 | 0.00 |
| 21 | M | 1,1-Dichloroethane | 3.587 | 3.467 | 3.3 | 97 | 0.00 |
| 22 | M | cis-1,2-Dichloroethene | 2.188 | 2.122 | 3.0 | 101 | 0.00 |
| 23 | M | tert-Butyl Alcohol | 0.311 | 0.335 | -7.7 | 115 | 0.00 |
| 24 | M | Methyl tert-Butyl Ether | 5.654 | 5.530 | 2.2 | 101 | 0.00 |
| 25 | M | Chloroform | 3.675 | 3.580 | 2.6 | 97 | 0.00 |
| 26 | | Cyclohexane | 2.740 | 2.805 | -2.4 | 106 | 0.00 |
| 27 | s | 1,2-Dichloroethane-d4 | 2.412 | 2.364 | 2.0 | 102 | 0.00 |
| 28 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 106 | 0.00 |
| 29 | | 1,1-Dichloropropene | 0.452 | 0.441 | 2.4 | 100 | 0.00 |
| 30 | M | 2-Butanone | 0.208 | 0.209 | -0.5 | 106 | 0.00 |
| 31 | | 2,2-Dichloropropane | 0.552 | 0.550 | 0.4 | 99 | 0.00 |
| 32 | M | 1,1,1-Trichloroethane | 0.614 | 0.593 | 3.4 | 97 | 0.00 |
| 33 | M | Carbon Tetrachloride | 0.524 | 0.514 | 1.9 | 101 | 0.00 |
| 34 | M | Benzene | 1.494 | 1.434 | 4.0 | 99 | 0.00 |
| 35 | | Methacrylonitrile | 0.247 | 0.247 | 0.0 | 106 | 0.00 |
| 36 | M | 1,2-Dichloroethane | 0.497 | 0.474 | 4.6 | 96 | 0.00 |
| 37 | M | Trichloroethene | 0.337 | 0.336 | 0.3 | 101 | 0.00 |
| 38 | | Methylcyclohexane | 0.486 | 0.476 | 2.1 | 105 | 0.00 |
| 39 | M | 1,2-Dichloropropane | 0.360 | 0.346 | 3.9 | 98 | 0.00 |
| 40 | | Dibromomethane | 0.252 | 0.246 | 2.4 | 99 | 0.00 |
| 41 | M | Bromodichloromethane | 0.539 | 0.523 | 3.0 | 101 | 0.00 |
| 42 | M | Vinyl Acetate | 0.779 | 0.779 | 0.0 | 105 | 0.00 |
| 43 | | Ethyl Acetate | 0.438 | 0.434 | 0.9 | 107 | 0.00 |
| 44 | | Isopropyl Acetate | 0.887 | 0.811 | 8.6 | 101 | 0.00 |
| 45 | T | 1,4-Dioxane | 0.006 | 0.006 | 0.0 | 107 | 0.00 |
| 46 | | Methyl methacrylate | 0.356 | 0.350 | 1.7 | 106 | 0.00 |
| 47 | | n-amyl Acetate | 0.662 | 0.656 | 0.9 | 104 | 0.00 |
| 48 | M | t-1,3-Dichloropropene | 0.532 | 0.520 | 2.3 | 104 | 0.00 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | cis-1,3-Dichloropropene | 0.571 | 0.557 | 2.5 | 101 | 0.00 |
| 50 | M | 1,1,2-Trichloroethane | 0.337 | 0.334 | 0.9 | 100 | 0.00 |
| 51 | | Ethyl methacrylate | 0.520 | 0.507 | 2.5 | 106 | 0.00 |
| 52 | | 1,3-Dichloropropane | 0.586 | 0.566 | 3.4 | 98 | 0.00 |
| 53 | M | Dibromochloromethane | 0.395 | 0.389 | 1.5 | 102 | 0.00 |
| 54 | M | 1,2-Dibromoethane | 0.341 | 0.330 | 3.2 | 98 | 0.00 |
| 55 | M | 2-Chloroethyl vinyl ether | 0.255 | 0.261 | -2.4 | 104 | 0.00 |
| 56 | M | Bromoform | 0.265 | 0.263 | 0.8 | 106 | 0.00 |
| 57 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 111 | 0.00 |
| 58 | M | 4-Methyl-2-Pentanone | 0.473 | 0.474 | -0.2 | 107 | 0.00 |
| 59 | M | 2-Hexanone | 0.347 | 0.345 | 0.6 | 108 | 0.00 |
| 60 | S | 4-Bromofluorobenzene | 0.517 | 0.516 | 0.2 | 113 | 0.00 |
| 61 | M | Tetrachloroethene | 0.314 | 0.300 | 4.5 | 101 | 0.00 |
| 62 | M | Toluene | 1.709 | 1.618 | 5.3 | 101 | 0.00 |
| 63 | S | Toluene-d8 | 1.420 | 1.379 | 2.9 | 106 | 0.00 |
| 64 | M | Chlorobenzene | 1.032 | 1.007 | 2.4 | 104 | 0.00 |
| 65 | | 1,1,1,2-Tetrachloroethane | 0.379 | 0.359 | 5.3 | 100 | 0.00 |
| 66 | M | Ethyl Benzene | 1.796 | 1.702 | 5.2 | 103 | 0.00 |
| 67 | M | m/p-Xylenes | 0.687 | 0.673 | 2.0 | 105 | 0.00 |
| 68 | M | o-Xylene | 0.663 | 0.644 | 2.9 | 103 | 0.00 |
| 69 | M | Styrene | 1.112 | 1.095 | 1.5 | 107 | 0.00 |
| 70 | | Isopropylbenzene | 1.647 | 1.652 | -0.3 | 110 | 0.00 |
| 71 | M | 1,1,2,2-Tetrachloroethane | 0.534 | 0.515 | 3.6 | 100 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 0.456 | 0.486 | -6.6 | 102 | 0.00 |
| 73 | | Bromobenzene | 0.425 | 0.406 | 4.5 | 102 | 0.00 |
| 74 | | n-propylbenzene | 1.926 | 1.913 | 0.7 | 108 | 0.00 |
| 75 | | 2-Chlorotoluene | 1.255 | 1.245 | 0.8 | 107 | 0.00 |
| 76 | | 1,3,5-Trimethylbenzene | 1.408 | 1.409 | -0.1 | 108 | 0.00 |
| 77 | | t-1,4-Dichloro-2-butene | 0.187 | 0.181 | 3.2 | 105 | 0.00 |
| 78 | | 4-Chlorotoluene | 1.268 | 1.243 | 2.0 | 106 | 0.00 |
| 79 | | tert-butylbenzene | 1.164 | 1.186 | -1.9 | 115 | 0.00 |
| 80 | | 1,2,4-Trimethylbenzene | 1.420 | 1.410 | 0.7 | 108 | 0.00 |
| 81 | | sec-Butylbenzene | 1.604 | 1.580 | 1.5 | 109 | 0.00 |
| 82 | | p-Isopropyltoluene | 1.348 | 1.306 | 3.1 | 108 | 0.00 |
| 83 | M | 1,3-Dichlorobenzene | 0.786 | 0.760 | 3.3 | 104 | 0.00 |
| 84 | M | 1,4-Dichlorobenzene | 0.776 | 0.766 | 1.3 | 108 | 0.00 |
| 85 | | n-Butylbenzene | 1.132 | 1.097 | 3.1 | 114 | 0.00 |
| 86 | T | Hexachloroethane | 0.276 | 0.265 | 4.0 | 103 | 0.00 |
| 87 | M | 1,2-Dichlorobenzene | 0.774 | 0.761 | 1.7 | 103 | 0.00 |
| 88 | | 1,2-Dibromo-3-Chloropropane | 0.103 | 0.108 | -4.9 | 111 | 0.00 |
| 89 | | 1,2,4-Trichlorobenzene | 0.377 | 0.381 | -1.1 | 110 | 0.00 |
| 90 | | Hexachlorobutadiene | 0.165 | 0.168 | -1.8 | 111 | 0.00 |
| 91 | M | Naphthalene | 1.204 | 1.165 | 3.2 | 115 | 0.00 |
| 92 | | 1,2,3-Trichlorobenzene | 0.377 | 0.381 | -1.1 | 110 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | Bromochloromethane | 30.000 | 30.000 | 0.0 | 106 | 0.00 |
| 2 | M | Dichlorodifluoromethane | 20.000 | 20.189 | -0.9 | 102 | 0.00 |
| 3 | M | Chloromethane | 20.000 | 19.742 | 1.3 | 101 | 0.00 |
| 4 | M | Vinyl Chloride | 20.000 | 20.200 | -1.0 | 102 | 0.00 |
| 5 | M | Bromomethane | 20.000 | 19.733 | 1.3 | 95 | 0.00 |
| 6 | M | Chloroethane | 20.000 | 19.284 | 3.6 | 98 | 0.02 |
| 7 | M | Trichlorofluoromethane | 20.000 | 20.061 | -0.3 | 100 | 0.00 |
| 8 | T | Diethyl Ether | 20.000 | 21.107 | -5.5 | 109 | 0.00 |
| 9 | | 1,1,2-Trichlorotrifluoroeth | 20.000 | 20.762 | -3.8 | 102 | 0.00 |
| 10 | M | 1,1-Dichloroethene | 20.000 | 19.934 | 0.3 | 101 | 0.00 |
| 11 | | Methyl Iodide | 20.000 | 19.843 | 0.8 | 101 | 0.00 |
| 12 | | Methyl Acetate | 20.000 | 18.084 | 9.6 | 97 | 0.00 |
| 13 | M | Acrolein | 100.000 | 97.432 | 2.6 | 99 | 0.00 |
| 14 | M | Acrylonitrile | 100.000 | 100.722 | -0.7 | 106 | 0.00 |
| 15 | M | Acetone | 100.000 | 102.773 | -2.8 | 107 | 0.00 |
| 16 | M | Carbon Disulfide | 20.000 | 19.828 | 0.9 | 101 | 0.00 |
| 17 | | Allyl chloride | 20.000 | 18.913 | 5.4 | 96 | 0.00 |
| 18 | M | Methylene Chloride | 20.000 | 19.131 | 4.3 | 94 | 0.00 |
| 19 | M | trans-1,2-Dichloroethene | 20.000 | 19.342 | 3.3 | 99 | 0.00 |
| 20 | T | Diisopropyl ether | 20.000 | 19.635 | 1.8 | 99 | 0.00 |
| 21 | M | 1,1-Dichloroethane | 20.000 | 19.334 | 3.3 | 97 | 0.00 |
| 22 | M | cis-1,2-Dichloroethene | 20.000 | 19.396 | 3.0 | 101 | 0.00 |
| 23 | M | tert-Butyl Alcohol | 100.000 | 107.508 | -7.5 | 115 | 0.00 |
| 24 | M | Methyl tert-Butyl Ether | 20.000 | 19.562 | 2.2 | 101 | 0.00 |
| 25 | M | Chloroform | 20.000 | 19.486 | 2.6 | 97 | 0.00 |
| 26 | | Cyclohexane | 20.000 | 20.480 | -2.4 | 106 | 0.00 |
| 27 | s | 1,2-Dichloroethane-d4 | 30.000 | 29.401 | 2.0 | 102 | 0.00 |
| 28 | I | 1,4-Difluorobenzene | 30.000 | 30.000 | 0.0 | 106 | 0.00 |
| 29 | | 1,1-Dichloropropene | 20.000 | 19.541 | 2.3 | 100 | 0.00 |
| 30 | M | 2-Butanone | 100.000 | 100.199 | -0.2 | 106 | 0.00 |
| 31 | | 2,2-Dichloropropane | 20.000 | 19.943 | 0.3 | 99 | 0.00 |
| 32 | M | 1,1,1-Trichloroethane | 20.000 | 19.308 | 3.5 | 97 | 0.00 |
| 33 | M | Carbon Tetrachloride | 20.000 | 19.622 | 1.9 | 101 | 0.00 |
| 34 | M | Benzene | 20.000 | 19.200 | 4.0 | 99 | 0.00 |
| 35 | | Methacrylonitrile | 20.000 | 19.983 | 0.1 | 106 | 0.00 |
| 36 | M | 1,2-Dichloroethane | 20.000 | 19.078 | 4.6 | 96 | 0.00 |
| 37 | M | Trichloroethene | 20.000 | 19.915 | 0.4 | 101 | 0.00 |
| 38 | | Methylcyclohexane | 20.000 | 19.559 | 2.2 | 105 | 0.00 |
| 39 | M | 1,2-Dichloropropane | 20.000 | 19.222 | 3.9 | 98 | 0.00 |
| 40 | | Dibromomethane | 20.000 | 19.539 | 2.3 | 99 | 0.00 |
| 41 | M | Bromodichloromethane | 20.000 | 19.395 | 3.0 | 101 | 0.00 |
| 42 | M | Vinyl Acetate | 100.000 | 99.926 | 0.1 | 105 | 0.00 |
| 43 | | Ethyl Acetate | 20.000 | 19.830 | 0.9 | 107 | 0.00 |
| 44 | | Isopropyl Acetate | 20.000 | 18.295 | 8.5 | 101 | 0.00 |
| 45 | T | 1,4-Dioxane | 400.000 | 409.524 | -2.4 | 107 | 0.00 |
| 46 | | Methyl methacrylate | 20.000 | 19.620 | 1.9 | 106 | 0.00 |
| 47 | | n-amyl Acetate | 20.000 | 19.811 | 0.9 | 104 | 0.00 |
| 48 | M | t-1,3-Dichloropropene | 20.000 | 19.551 | 2.2 | 104 | 0.00 |

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
ICVVN103124

Quant Time: Nov 01 02:42:26 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

| | | Compound | Amount | Calc. | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | T | cis-1,3-Dichloropropene | 20.000 | 19.529 | 2.4 | 101 | 0.00 |
| 50 | M | 1,1,2-Trichloroethane | 20.000 | 19.786 | 1.1 | 100 | 0.00 |
| 51 | | Ethyl methacrylate | 20.000 | 19.481 | 2.6 | 106 | 0.00 |
| 52 | | 1,3-Dichloropropane | 20.000 | 19.341 | 3.3 | 98 | 0.00 |
| 53 | M | Dibromochloromethane | 20.000 | 19.690 | 1.5 | 102 | 0.00 |
| 54 | M | 1,2-Dibromoethane | 20.000 | 19.356 | 3.2 | 98 | 0.00 |
| 55 | M | 2-Chloroethyl vinyl ether | 100.000 | 102.456 | -2.5 | 104 | 0.00 |
| 56 | M | Bromoform | 20.000 | 19.898 | 0.5 | 106 | 0.00 |
| 57 | I | Chlorobenzene-d5 | 30.000 | 30.000 | 0.0 | 111 | 0.00 |
| 58 | M | 4-Methyl-2-Pentanone | 100.000 | 100.170 | -0.2 | 107 | 0.00 |
| 59 | M | 2-Hexanone | 100.000 | 99.639 | 0.4 | 108 | 0.00 |
| 60 | S | 4-Bromofluorobenzene | 30.000 | 29.939 | 0.2 | 113 | 0.00 |
| 61 | M | Tetrachloroethene | 20.000 | 19.129 | 4.4 | 101 | 0.00 |
| 62 | M | Toluene | 20.000 | 18.941 | 5.3 | 101 | 0.00 |
| 63 | S | Toluene-d8 | 30.000 | 29.138 | 2.9 | 106 | 0.00 |
| 64 | M | Chlorobenzene | 20.000 | 19.519 | 2.4 | 104 | 0.00 |
| 65 | | 1,1,1,2-Tetrachloroethane | 20.000 | 18.937 | 5.3 | 100 | 0.00 |
| 66 | M | Ethyl Benzene | 20.000 | 18.953 | 5.2 | 103 | 0.00 |
| 67 | M | m/p-Xylenes | 40.000 | 39.137 | 2.2 | 105 | 0.00 |
| 68 | M | o-Xylene | 20.000 | 19.434 | 2.8 | 103 | 0.00 |
| 69 | M | Styrene | 20.000 | 19.701 | 1.5 | 107 | 0.00 |
| 70 | | Isopropylbenzene | 20.000 | 20.058 | -0.3 | 110 | 0.00 |
| 71 | M | 1,1,2,2-Tetrachloroethane | 20.000 | 19.273 | 3.6 | 100 | 0.00 |
| 72 | | 1,2,3-Trichloropropane | 20.000 | 21.337 | -6.7 | 102 | 0.00 |
| 73 | | Bromobenzene | 20.000 | 19.118 | 4.4 | 102 | 0.00 |
| 74 | | n-propylbenzene | 20.000 | 19.858 | 0.7 | 108 | 0.00 |
| 75 | | 2-Chlorotoluene | 20.000 | 19.851 | 0.7 | 107 | 0.00 |
| 76 | | 1,3,5-Trimethylbenzene | 20.000 | 20.014 | -0.1 | 108 | 0.00 |
| 77 | | t-1,4-Dichloro-2-butene | 20.000 | 19.312 | 3.4 | 105 | 0.00 |
| 78 | | 4-Chlorotoluene | 20.000 | 19.616 | 1.9 | 106 | 0.00 |
| 79 | | tert-butylbenzene | 20.000 | 20.379 | -1.9 | 115 | 0.00 |
| 80 | | 1,2,4-Trimethylbenzene | 20.000 | 19.863 | 0.7 | 108 | 0.00 |
| 81 | | sec-Butylbenzene | 20.000 | 19.704 | 1.5 | 109 | 0.00 |
| 82 | | p-Isopropyltoluene | 20.000 | 19.381 | 3.1 | 108 | 0.00 |
| 83 | M | 1,3-Dichlorobenzene | 20.000 | 19.330 | 3.4 | 104 | 0.00 |
| 84 | M | 1,4-Dichlorobenzene | 20.000 | 19.724 | 1.4 | 108 | 0.00 |
| 85 | | n-Butylbenzene | 20.000 | 19.377 | 3.1 | 114 | 0.00 |
| 86 | T | Hexachloroethane | 20.000 | 19.206 | 4.0 | 103 | 0.00 |
| 87 | M | 1,2-Dichlorobenzene | 20.000 | 19.650 | 1.8 | 103 | 0.00 |
| 88 | | 1,2-Dibromo-3-Chloropropane | 20.000 | 20.926 | -4.6 | 111 | 0.00 |
| 89 | | 1,2,4-Trichlorobenzene | 20.000 | 20.187 | -0.9 | 110 | 0.00 |
| 90 | | Hexachlorobutadiene | 20.000 | 20.428 | -2.1 | 111 | 0.00 |
| 91 | M | Naphthalene | 20.000 | 19.356 | 3.2 | 115 | 0.00 |
| 92 | | 1,2,3-Trichlorobenzene | 20.000 | 20.187 | -0.9 | 110 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Raw Data: **VN085052.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG No.: P5018

Instrument ID: MSVOA_N Calibration Date/Time: 11/27/2024 11:44

Lab File ID: VN085052.D Init. Calib. Date(s): 10/31/2024 10/31/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:08 18:13

GC Column: RXI-624 ID: 0.25 (mm)

| COMPOUND | RRF | RRF020 | MIN RRF | %D | MAX%D |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 1.745 | 1.674 | | -4.07 | |
| Chloromethane | 2.101 | 1.893 | | -9.9 | |
| Vinyl Chloride | 1.951 | 1.786 | 0.1 | -8.46 | |
| Bromomethane | 0.990 | 1.067 | 0.1 | 7.68 | |
| Chloroethane | 1.281 | 1.153 | | -9.99 | |
| Trichlorofluoromethane | 3.168 | 3.160 | | -0.25 | |
| 1,1,2-Trichlorotrifluoroethane | 1.790 | 1.817 | | 1.51 | |
| 1,1-Dichloroethene | 1.748 | 1.652 | 0.1 | -5.49 | |
| Acetone | 0.229 | 0.208 | | -9.17 | |
| Carbon Disulfide | 5.144 | 4.540 | | -11.74 | |
| Methyl tert-Butyl Ether | 5.654 | 5.120 | | -9.44 | |
| Methyl Acetate | 2.725 | 2.081 | | -23.63 | |
| Methylene Chloride | 2.049 | 1.867 | | -8.88 | |
| trans-1,2-Dichloroethene | 1.833 | 1.739 | | -5.13 | |
| 1,1-Dichloroethane | 3.587 | 3.289 | 0.2 | -8.31 | |
| Cyclohexane | 0.506 | 0.455 | | -10.08 | |
| 2-Butanone | 0.208 | 0.178 | | -14.42 | |
| Carbon Tetrachloride | 0.524 | 0.506 | 0.1 | -3.43 | |
| cis-1,2-Dichloroethene | 2.188 | 2.041 | | -6.72 | |
| Chloroform | 3.675 | 3.498 | 0.2 | -4.82 | |
| 1,1,1-Trichloroethane | 0.614 | 0.589 | 0.1 | -4.07 | |
| Methylcyclohexane | 0.486 | 0.438 | | -9.88 | |
| Benzene | 1.494 | 1.359 | 0.5 | -9.04 | |
| 1,2-Dichloroethane | 0.497 | 0.465 | 0.1 | -6.44 | |
| Trichloroethene | 0.337 | 0.318 | 0.3 | -5.64 | |
| 1,2-Dichloropropane | 0.360 | 0.335 | | -6.94 | |
| Bromodichloromethane | 0.539 | 0.495 | 0.2 | -8.16 | |
| 4-Methyl-2-Pentanone | 0.473 | 0.398 | | -15.86 | |
| Toluene | 1.709 | 1.592 | 0.4 | -6.85 | |
| t-1,3-Dichloropropene | 0.532 | 0.485 | 0.1 | -8.84 | |
| cis-1,3-Dichloropropene | 0.571 | 0.536 | 0.2 | -6.13 | |
| 1,1,2-Trichloroethane | 0.337 | 0.316 | 0.1 | -6.23 | |
| 2-Hexanone | 0.347 | 0.290 | | -16.43 | |
| Dibromochloromethane | 0.395 | 0.376 | 0.1 | -4.81 | |
| 1,2-Dibromoethane | 0.341 | 0.309 | | -9.38 | |
| Tetrachloroethene | 0.314 | 0.301 | 0.2 | -4.14 | |
| Chlorobenzene | 1.032 | 0.987 | 0.5 | -4.36 | |
| Ethyl Benzene | 1.796 | 1.622 | 0.1 | -9.69 | |

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Raw Data: **VN085052.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: NEWY17

Lab Code: CHEM Case No.: P5018 SAS No.: P5018 SDG No.: P5018

Instrument ID: MSVOA_N Calibration Date/Time: 11/27/2024 11:44

Lab File ID: VN085052.D Init. Calib. Date(s): 10/31/2024 10/31/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 12:08 18:13

GC Column: RXI-624 ID: 0.25 (mm)

| COMPOUND | RRF | RRF020 | MIN RRF | %D | MAX%D |
|---|---|---|---|---|---|
| m/p-Xylenes | 0.687 | 0.636 | 0.3 | -7.42 | |
| o-Xylene | 0.663 | 0.611 | 0.3 | -7.84 | |
| Styrene | 1.112 | 1.036 | 0.3 | -6.84 | |
| Bromoform | 0.265 | 0.236 | 0.1 | -10.94 | |
| Isopropylbenzene | 1.647 | 1.539 | | -6.56 | |
| 1,1,2,2-Tetrachloroethane | 0.534 | 0.477 | 0.3 | -10.67 | |
| 1,3,5-Trimethylbenzene | 1.408 | 1.353 | | -3.91 | |
| 1,3-Dichlorobenzene | 0.786 | 0.743 | 0.2 | -5.47 | |
| 1,4-Dichlorobenzene | 0.776 | 0.748 | 0.2 | -3.61 | |
| 1,2-Dichlorobenzene | 0.774 | 0.715 | 0.2 | -7.62 | |
| 1,2-Dibromo-3-Chloropropane | 0.103 | 0.086 | | -16.5 | |
| 1,2,4-Trichlorobenzene | 0.377 | 0.365 | 0.2 | -3.18 | |
| 1,2,3-Trichlorobenzene | 0.377 | 0.365 | | -3.18 | |
| 1,2-Dichloroethane-d4 | 2.412 | 2.387 | 0.01 | -1.04 | |
| Toluene-d8 | 1.420 | 1.388 | 0.01 | -2.25 | |
| 4-Bromofluorobenzene | 0.517 | 0.499 | 0.2 | -3.48 | |

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085052.D
Acq On : 27 Nov 2024 11:44
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDCCC020

Quant Time: Nov 28 05:29:59 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 28768 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 155364 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 140160 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 68683 | 29.697 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 99.000% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 69898 | 28.963 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 96.533% | | | |
| 63) Toluene-d8 | 10.559 | 98 | 194573 | 29.324 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 97.733% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 32108 | 19.189 | ug/l | 92 |
| 3) Chloromethane | 2.360 | 50 | 36305 | 18.022 | ug/l | 99 |
| 4) Vinyl Chloride | 2.512 | 62 | 34247 | 18.308 | ug/l | 93 |
| 5) Bromomethane | 2.907 | 94 | 20454 | 21.543 | ug/l | 99 |
| 6) Chloroethane | 3.095 | 64 | 22115 | 18.006 | ug/l | 95 |
| 7) Trichlorofluoromethane | 3.483 | 101 | 60605 | 19.949 | ug/l | 100 |
| 8) Diethyl Ether | 3.954 | 74 | 20120 | 18.567 | ug/l | 91 |
| 9) 1,1,2-Trichlorotrifluo... | 4.371 | 101 | 34854m | 20.301 | ug/l | |
| 10) 1,1-Dichloroethene | 4.336 | 96 | 31686 | 18.900 | ug/l | 84 |
| 11) Methyl Iodide | 4.577 | 142 | 44759 | 19.424 | ug/l | 93 |
| 12) Methyl Acetate | 5.012 | 43 | 39912 | 15.273 | ug/l | 97 |
| 13) Acrolein | 4.171 | 56 | 26026 | 80.759 | ug/l | 99 |
| 14) Acrylonitrile | 5.706 | 53 | 70252 | 82.173 | ug/l | 98 |
| 15) Acetone | 4.430 | 58 | 19905 | 90.614 | ug/l | 80 |
| 16) Carbon Disulfide | 4.706 | 76 | 87074 | 17.651 | ug/l # | 94 |
| 17) Allyl chloride | 5.018 | 41 | 47007 | 16.455 | ug/l | 98 |
| 18) Methylene Chloride | 5.277 | 84 | 35804m | 18.224 | ug/l | |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 33359 | 18.983 | ug/l | 96 |
| 20) Diisopropyl ether | 6.659 | 45 | 106175 | 18.566 | ug/l | 97 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 63087 | 18.343 | ug/l | 98 |
| 22) cis-1,2-Dichloroethene | 7.477 | 96 | 39150 | 18.660 | ug/l | 94 |
| 23) tert-Butyl Alcohol | 5.530 | 59 | 22129 | 74.143 | ug/l # | 100 |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 98204 | 18.113 | ug/l | 99 |
| 25) Chloroform | 7.959 | 83 | 67090 | 19.040 | ug/l | 94 |
| 26) Cyclohexane | 8.247 | 56 | 47100 | 17.929 | ug/l # | 96 |
| 29) 1,1-Dichloropropene | 8.365 | 75 | 43484 | 18.582 | ug/l | 98 |
| 30) 2-Butanone | 7.477 | 43 | 92302 | 85.508 | ug/l | 99 |
| 31) 2,2-Dichloropropane | 7.483 | 77 | 59687 | 20.895 | ug/l | 100 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 61002 | 19.188 | ug/l | 99 |
| 33) Carbon Tetrachloride | 8.353 | 117 | 52364 | 19.302 | ug/l | 99 |
| 34) Benzene | 8.600 | 78 | 140743 | 18.196 | ug/l | 96 |
| 35) Methacrylonitrile | 7.777 | 41 | 23218 | 18.148 | ug/l | 95 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 48214 | 18.744 | ug/l | 100 |
| 37) Trichloroethene | 9.347 | 130 | 32956 | 18.887 | ug/l | 98 |
| 38) Methylcyclohexane | 9.594 | 83 | 45352 | 18.003 | ug/l | 97 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 34717 | 18.645 | ug/l | 100 |
| 40) Dibromomethane | 9.706 | 93 | 23524 | 18.060 | ug/l | 98 |
| 41) Bromodichloromethane | 9.883 | 83 | 51250 | 18.353 | ug/l | 100 |
| 42) Vinyl Acetate | 6.595 | 43 | 353293 | 87.561 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085052.D
Acq On : 27 Nov 2024 11:44
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDCCC020

Quant Time: Nov 28 05:29:59 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

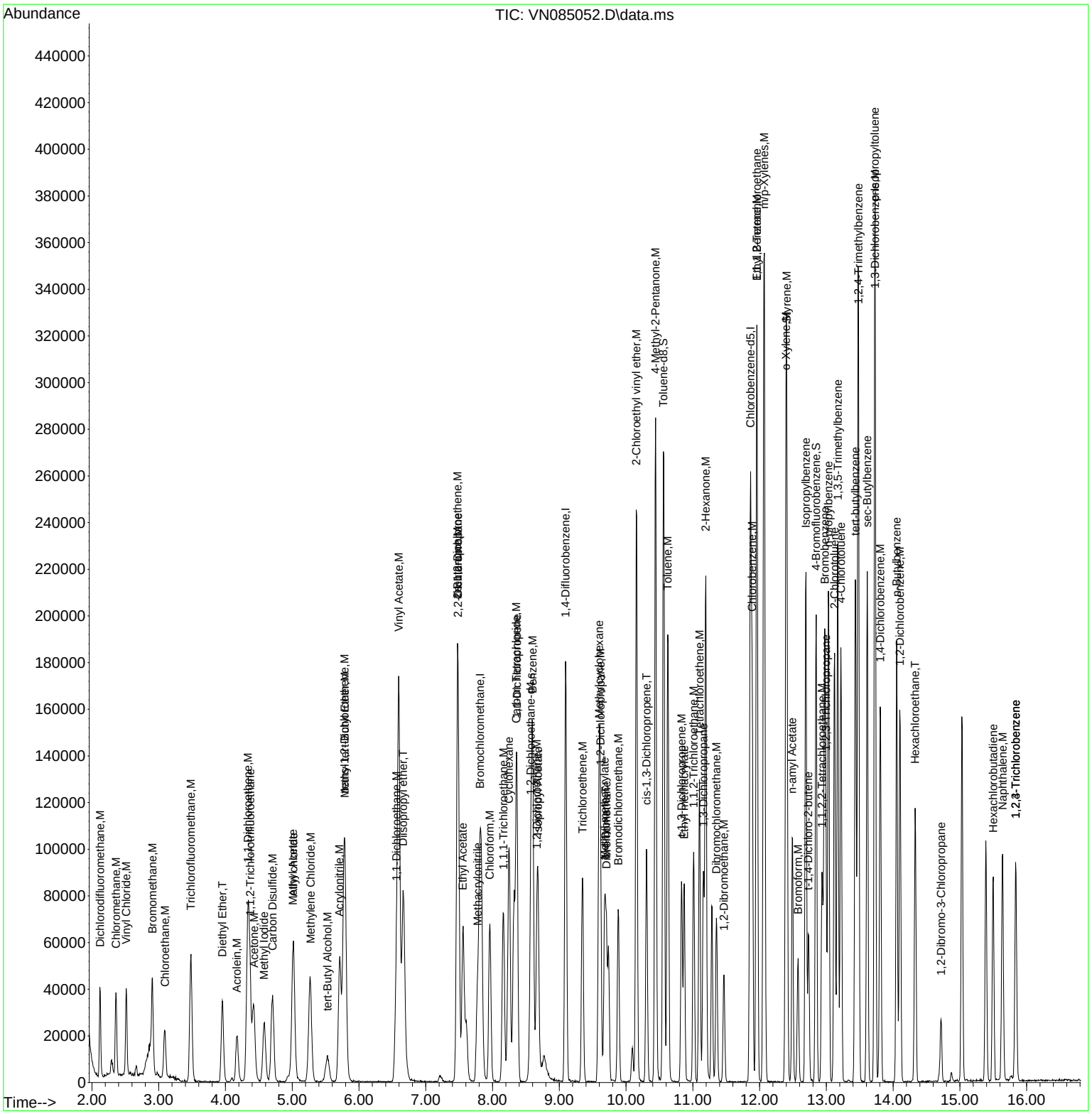
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.553 | 43 | 36167 | 15.945 | ug/l | | 100 |
| 44) Isopropyl Acetate | 8.683 | 43 | 73039 | 15.903 | ug/l | | 99 |
| 45) 1,4-Dioxane | 9.694 | 88 | 9606 | 313.277 | ug/l | # | 70 |
| 46) Methyl methacrylate | 9.677 | 41 | 30198 | 16.361 | ug/l | | 96 |
| 47) n-amyl Acetate | 12.488 | 43 | 53926 | 15.721 | ug/l | | 98 |
| 48) t-1,3-Dichloropropene | 10.830 | 75 | 50213 | 18.211 | ug/l | | 96 |
| 49) cis-1,3-Dichloropropene | 10.306 | 75 | 55495 | 18.779 | ug/l | | 95 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 32725 | 18.730 | ug/l | | 95 |
| 51) Ethyl methacrylate | 10.871 | 69 | 45017 | 16.715 | ug/l | | 96 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 54569 | 17.993 | ug/l | | 99 |
| 53) Dibromochloromethane | 11.353 | 129 | 38954 | 19.052 | ug/l | | 98 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 31988 | 18.102 | ug/l | | 97 |
| 55) 2-Chloroethyl vinyl ether | 10.153 | 63 | 109569 | 82.982 | ug/l | | 99 |
| 56) Bromoform | 12.576 | 173 | 24443 | 17.835 | ug/l | | 98 |
| 58) 4-Methyl-2-Pentanone | 10.441 | 43 | 186087 | 84.157 | ug/l | | 99 |
| 59) 2-Hexanone | 11.194 | 43 | 135441 | 83.648 | ug/l | | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 28161 | 19.198 | ug/l | | 96 |
| 62) Toluene | 10.624 | 91 | 148738 | 18.632 | ug/l | | 98 |
| 64) Chlorobenzene | 11.888 | 112 | 92200 | 19.132 | ug/l | | 95 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 34478 | 19.467 | ug/l | | 100 |
| 66) Ethyl Benzene | 11.959 | 91 | 151524 | 18.061 | ug/l | | 97 |
| 67) m/p-Xylenes | 12.071 | 106 | 118829 | 36.996 | ug/l | | 99 |
| 68) o-Xylene | 12.394 | 106 | 57067 | 18.418 | ug/l | | 99 |
| 69) Styrene | 12.406 | 104 | 96817 | 18.636 | ug/l | | 99 |
| 70) Isopropylbenzene | 12.694 | 105 | 143806 | 18.684 | ug/l | | 99 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 44600 | 17.878 | ug/l | | 98 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 39678m | 18.626 | ug/l | | |
| 73) Bromobenzene | 12.976 | 156 | 38185 | 19.235 | ug/l | | 98 |
| 74) n-propylbenzene | 13.029 | 91 | 169659 | 18.850 | ug/l | | 100 |
| 75) 2-Chlorotoluene | 13.124 | 91 | 111064 | 18.949 | ug/l | | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 126463 | 19.230 | ug/l | | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.729 | 75 | 14332 | 16.404 | ug/l | | 92 |
| 78) 4-Chlorotoluene | 13.218 | 91 | 112705 | 19.032 | ug/l | | 99 |
| 79) tert-butylbenzene | 13.435 | 119 | 103660 | 19.061 | ug/l | | 99 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 128927 | 19.433 | ug/l | | 97 |
| 81) sec-Butylbenzene | 13.612 | 105 | 145710 | 19.444 | ug/l | | 99 |
| 82) p-Isopropyltoluene | 13.723 | 119 | 121657 | 19.321 | ug/l | | 100 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 69442 | 18.914 | ug/l | | 97 |
| 84) 1,4-Dichlorobenzene | 13.806 | 146 | 69922 | 19.274 | ug/l | | 97 |
| 85) n-Butylbenzene | 14.053 | 91 | 100159 | 18.939 | ug/l | | 98 |
| 86) Hexachloroethane | 14.329 | 117 | 24888 | 19.327 | ug/l | | 100 |
| 87) 1,2-Dichlorobenzene | 14.100 | 146 | 66779 | 18.458 | ug/l | | 98 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.718 | 75 | 7992 | 16.603 | ug/l | | 96 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 34063 | 19.337 | ug/l | | 97 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 16934 | 22.008 | ug/l | | 94 |
| 91) Naphthalene | 15.641 | 128 | 94116 | 16.730 | ug/l | | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 34063 | 19.337 | ug/l | | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085052.D
Acq On : 27 Nov 2024 11:44
Operator : JC\MD
Sample : VSTDCCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VSTDCCC020

Quant Time: Nov 28 05:29:59 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



# QC SAMPLE DATA

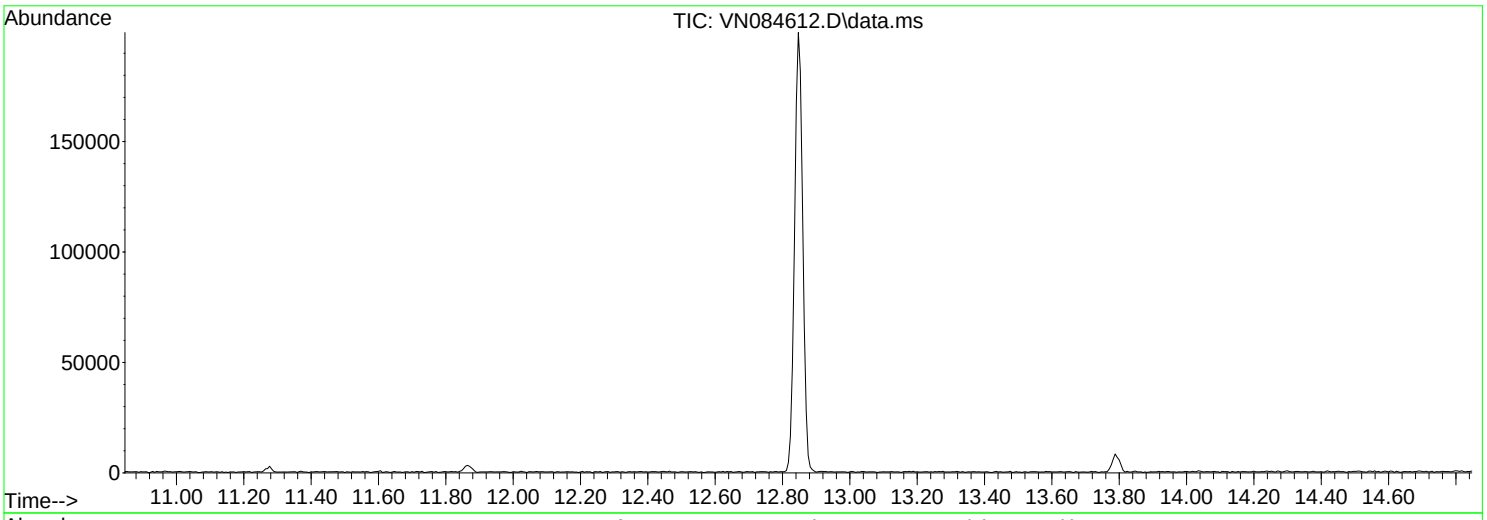
Sample Results: **VN084612.D**

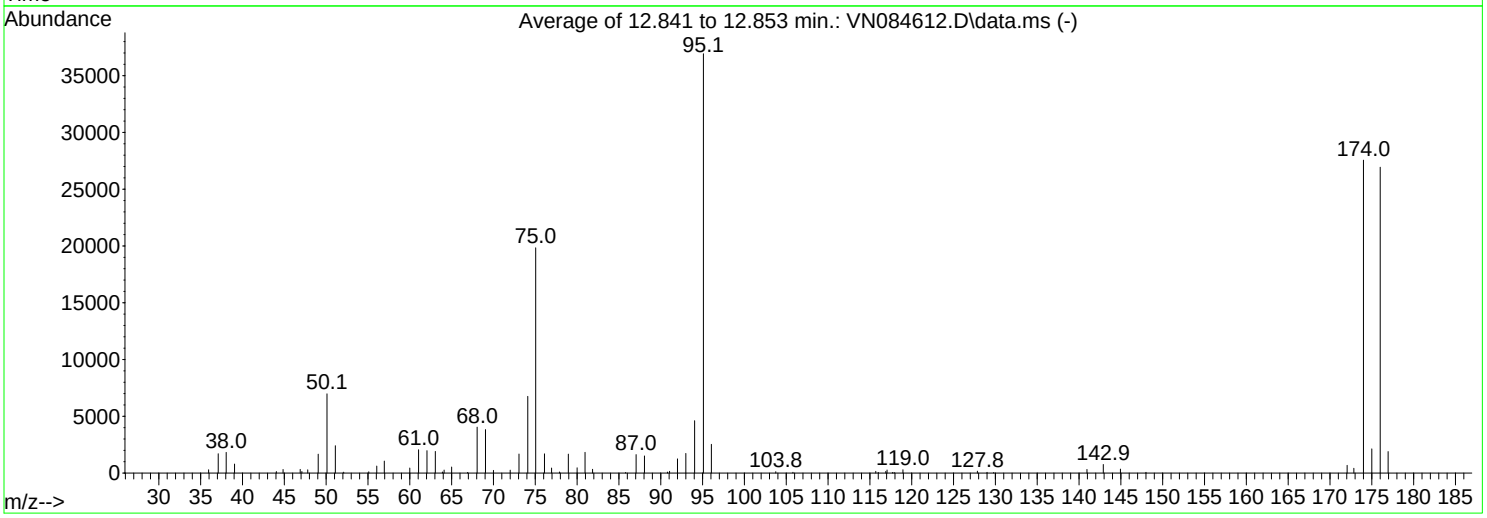
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084612.D
Acq On : 31 Oct 2024 10:56
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 01 02:38:04 2024




AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1844

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.9 | 6981 | PASS |
| 75 | 95 | 30 | 60 | 53.7 | 19840 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 36931 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 2535 | PASS |
| 173 | 174 | 0.00 | 2 | 1.5 | 422 | PASS |
| 174 | 95 | 50 | 100 | 74.6 | 27560 | PASS |
| 175 | 174 | 5 | 9 | 7.7 | 2131 | PASS |
| 176 | 174 | 95 | 101 | 97.7 | 26936 | PASS |
| 177 | 176 | 5 | 9 | 7.0 | 1894 | PASS |

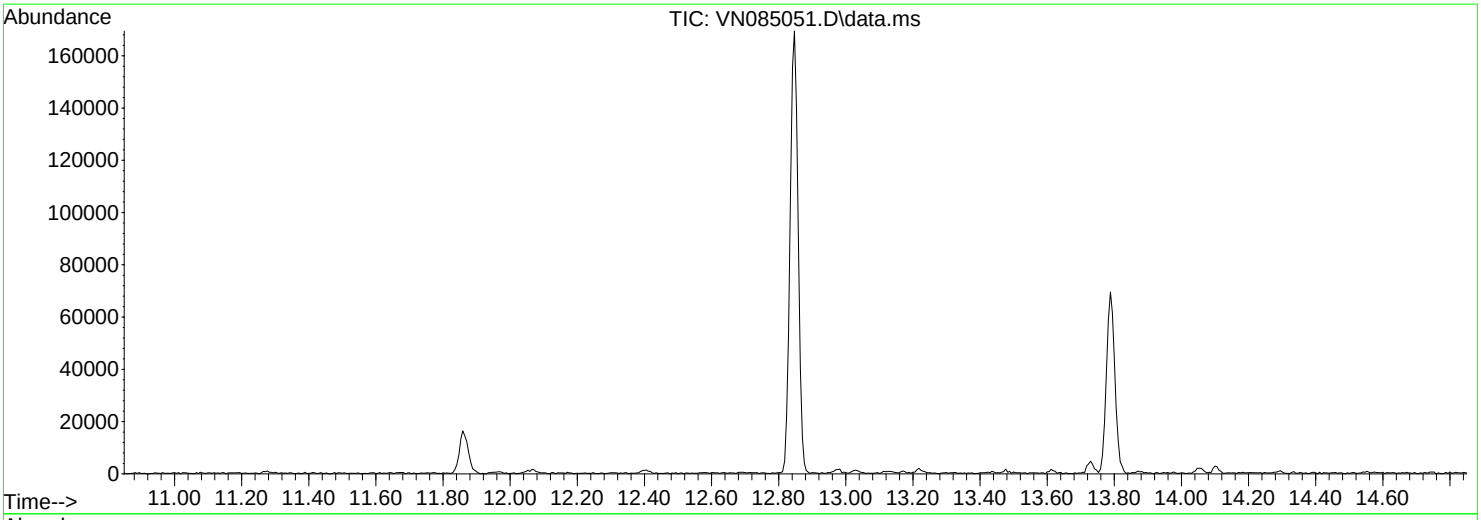
Sample Results: **VN085051.D**

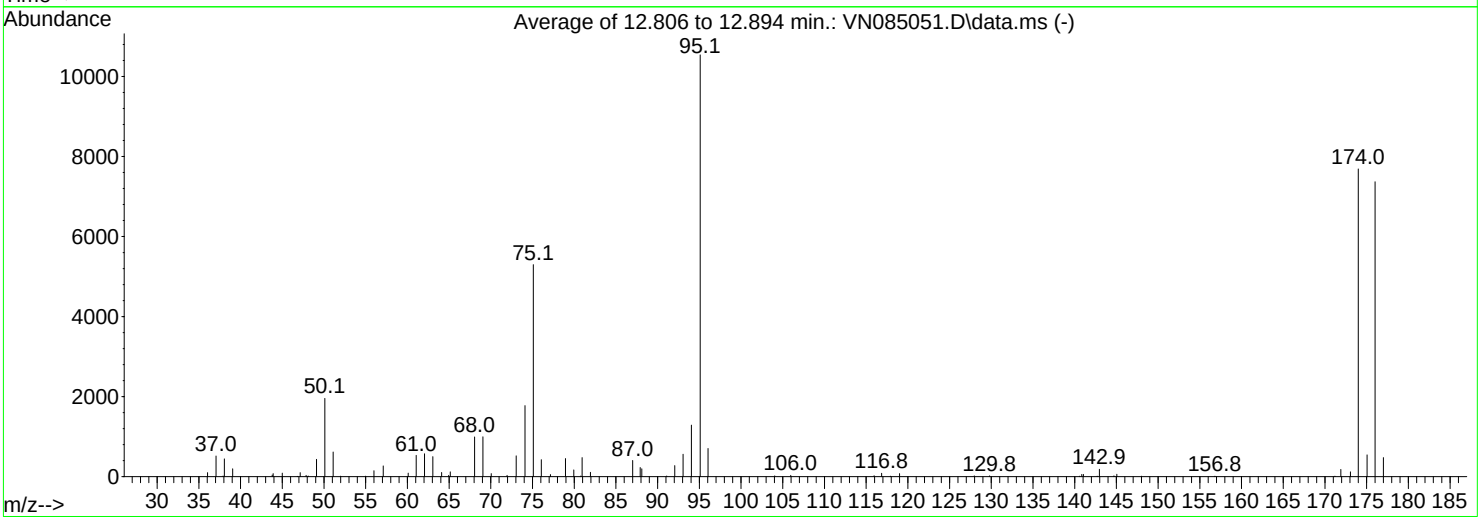
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085051.D
Acq On : 27 Nov 2024 08:30
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Fri Nov 01 02:38:04 2024




AutoFind: Averaged scan 1845 to 1860; Bkg corrected with scan 1844

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.6 | 1956 | PASS |
| 75 | 95 | 30 | 60 | 50.3 | 5300 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 10541 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 704 | PASS |
| 173 | 174 | 0.00 | 2 | 1.6 | 122 | PASS |
| 174 | 95 | 50 | 100 | 73.0 | 7691 | PASS |
| 175 | 174 | 5 | 9 | 7.1 | 544 | PASS |
| 176 | 174 | 95 | 101 | 95.8 | 7371 | PASS |
| 177 | 176 | 5 | 9 | 6.4 | 474 | PASS |

Raw Data: **VN085055.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBL01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBL01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085055.D | 1 | | 11/27/24 13:19 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 1.20 | U | 1.20 | 5.00 | ug/L |
| 74-87-3 | Chloromethane | 1.20 | U | 1.20 | 5.00 | ug/L |
| 75-01-4 | Vinyl Chloride | 1.20 | U | 1.20 | 5.00 | ug/L |
| 74-83-9 | Bromomethane | 1.40 | U | 1.40 | 5.00 | ug/L |
| 75-00-3 | Chloroethane | 2.90 | U | 2.90 | 5.00 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 1.00 | U | 1.00 | 5.00 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 1.10 | U | 1.10 | 5.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 1.10 | U | 1.10 | 5.00 | ug/L |
| 67-64-1 | Acetone | 4.90 | U | 4.90 | 25.0 | ug/L |
| 75-15-0 | Carbon Disulfide | 0.93 | U | 0.93 | 5.00 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 0.83 | U | 0.83 | 5.00 | ug/L |
| 79-20-9 | Methyl Acetate | 1.20 | U | 1.20 | 5.00 | ug/L |
| 75-09-2 | Methylene Chloride | 1.20 | U | 1.20 | 5.00 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 0.95 | U | 0.95 | 5.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 0.81 | U | 0.81 | 5.00 | ug/L |
| 110-82-7 | Cyclohexane | 1.00 | U | 1.00 | 5.00 | ug/L |
| 78-93-3 | 2-Butanone | 3.60 | U | 3.60 | 25.0 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 0.91 | U | 0.91 | 5.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 0.90 | U | 0.90 | 5.00 | ug/L |
| 67-66-3 | Chloroform | 0.72 | U | 0.72 | 5.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 0.79 | U | 0.79 | 5.00 | ug/L |
| 108-87-2 | Methylcyclohexane | 0.89 | U | 0.89 | 5.00 | ug/L |
| 71-43-2 | Benzene | 0.69 | U | 0.69 | 5.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 0.75 | U | 0.75 | 5.00 | ug/L |
| 79-01-6 | Trichloroethene | 0.77 | U | 0.77 | 5.00 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 0.65 | U | 0.65 | 5.00 | ug/L |
| 75-27-4 | Bromodichloromethane | 0.81 | U | 0.81 | 5.00 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 4.20 | U | 4.20 | 25.0 | ug/L |
| 108-88-3 | Toluene | 0.72 | U | 0.72 | 5.00 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 0.79 | U | 0.79 | 5.00 | ug/L |

Raw Data: **VN085055.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBL01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBL01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085055.D | 1 | | 11/27/24 13:19 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 0.83 | U | 0.83 | 5.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 0.68 | U | 0.68 | 5.00 | ug/L |
| 591-78-6 | 2-Hexanone | 3.90 | U | 3.90 | 25.0 | ug/L |
| 124-48-1 | Dibromochloromethane | 0.72 | U | 0.72 | 5.00 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 0.78 | U | 0.78 | 5.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 0.94 | U | 0.94 | 5.00 | ug/L |
| 108-90-7 | Chlorobenzene | 0.67 | U | 0.67 | 5.00 | ug/L |
| 100-41-4 | Ethyl Benzene | 0.73 | U | 0.73 | 5.00 | ug/L |
| 179601-23-1 | m/p-Xylenes | 1.70 | U | 1.70 | 10.0 | ug/L |
| 95-47-6 | o-Xylene | 0.82 | U | 0.82 | 5.00 | ug/L |
| 100-42-5 | Styrene | 0.80 | U | 0.80 | 5.00 | ug/L |
| 75-25-2 | Bromoform | 1.00 | U | 1.00 | 5.00 | ug/L |
| 98-82-8 | Isopropylbenzene | 0.85 | U | 0.85 | 5.00 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 0.60 | U | 0.60 | 5.00 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 0.74 | U | 0.74 | 5.00 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 0.88 | U | 0.88 | 5.00 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 0.95 | U | 0.95 | 5.00 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 0.88 | U | 0.88 | 5.00 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 0.91 | U | 0.91 | 5.00 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 1.10 | U | 1.10 | 5.00 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 1.40 | U | 1.40 | 5.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 31.1 | | 91 - 110 | 104% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.6 | | 91 - 112 | 95% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 24.5 | | 63 - 112 | 82% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 26200 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 139000 | 9.094 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 117000 | 11.865 | | | |

Raw Data: **VN085055.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBL01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBL01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085055.D | 1 | | 11/27/24 13:19 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085055.D
Acq On : 27 Nov 2024 13:19
Operator : JC\MD
Sample : VN1127WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBL01

Quant Time: Nov 28 05:32:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

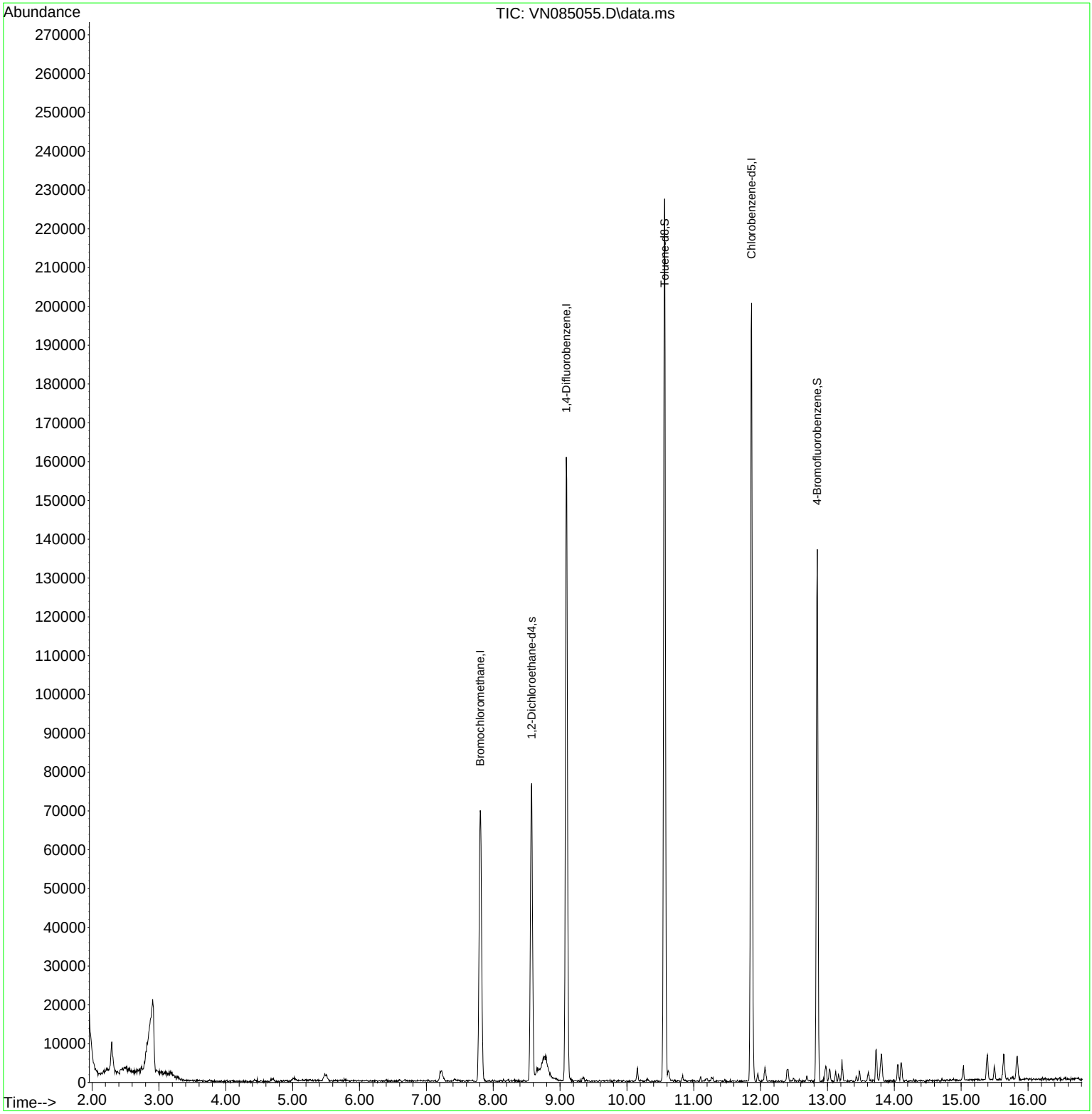
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 26189 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 138613 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 117498 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 65482 | 31.101 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 103.667% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 49537 | 24.485 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 81.633% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 159071 | 28.598 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 95.333% | | | |
| Target Compounds | | | | | | Qvalue |

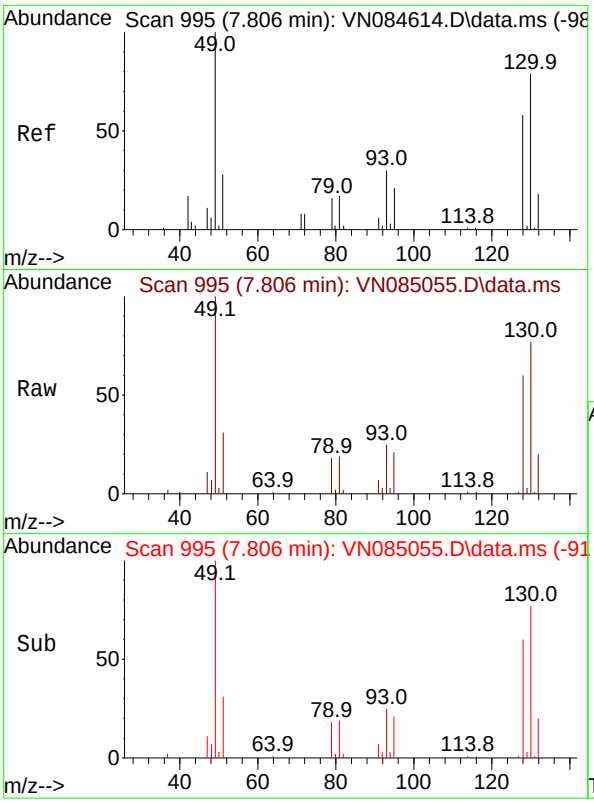
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085055.D
Acq On : 27 Nov 2024 13:19
Operator : JC\MD
Sample : VN1127WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBL01

Quant Time: Nov 28 05:32:41 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



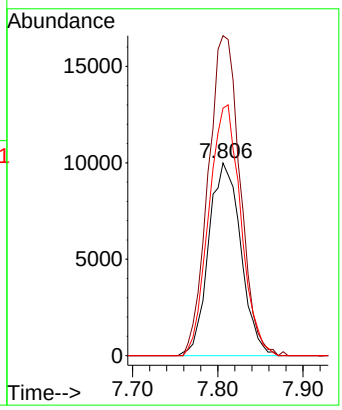


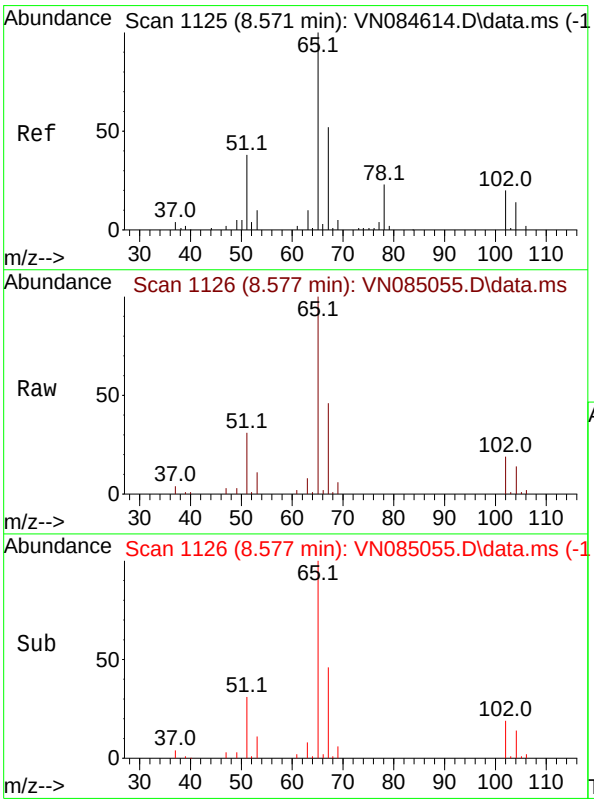

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBL01

Tgt Ion:128 Resp: 26189

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 164.8 | 0.0 | 427.0 |
| 130 | 129.7 | 0.0 | 322.2 |

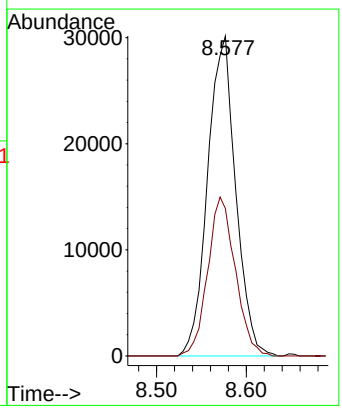


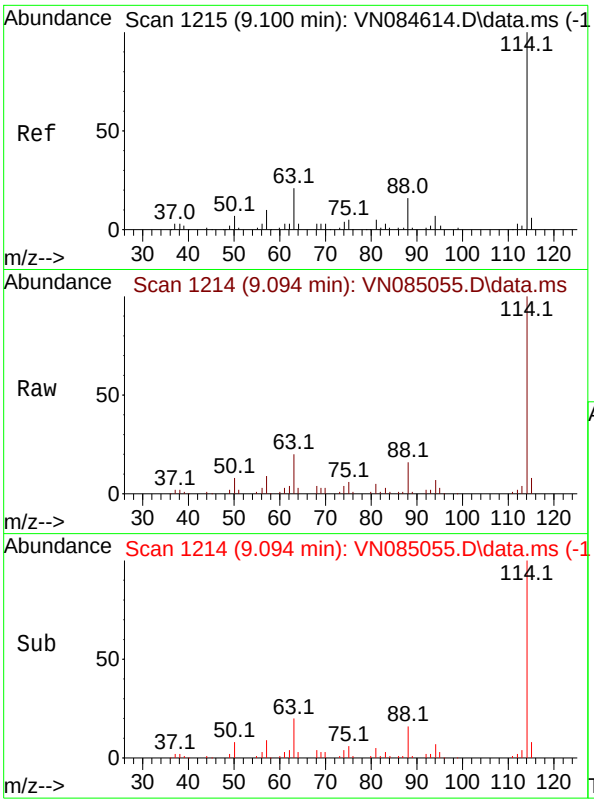




#27
1,2-Dichloroethane-d4
Concen: 31.101 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

Tgt Ion: 65 Resp: 65482

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 48.8 | 40.7 | 61.1 |



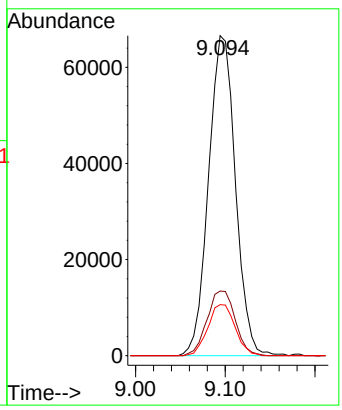


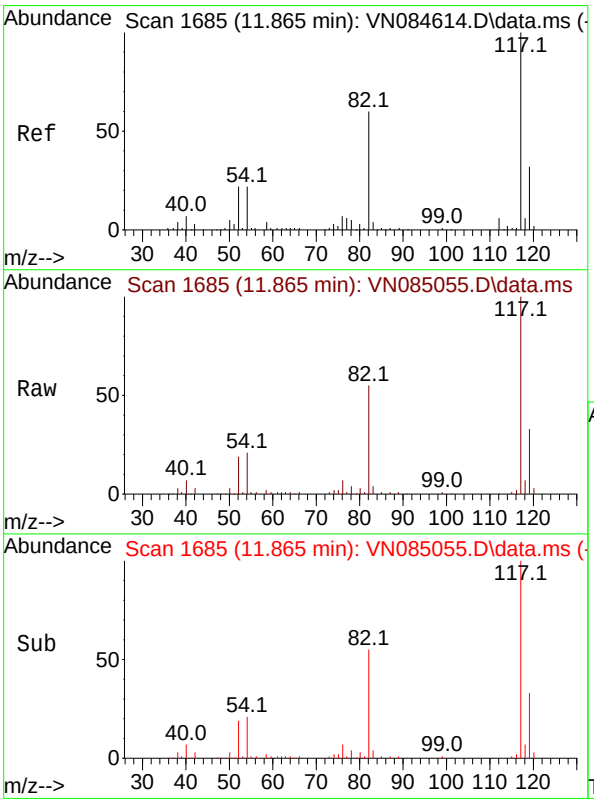

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.094 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBL01

Tgt Ion:114 Resp: 138613

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.2 | 16.8 | 25.2 |
| 88 | 16.2 | 12.9 | 19.3 |

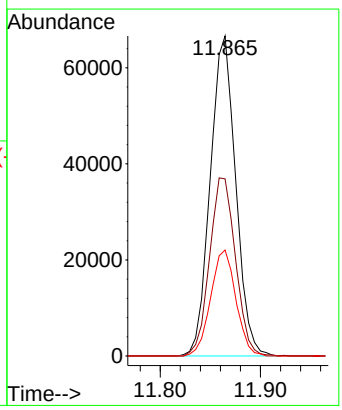


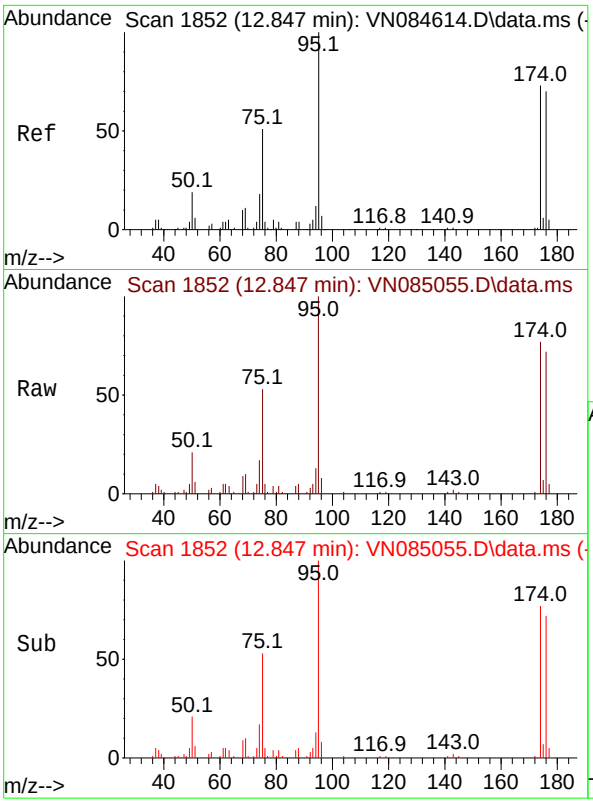




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

Tgt Ion:117 Resp: 117498

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.7 | 45.5 | 68.3 |
| 119 | 32.8 | 25.3 | 37.9 |



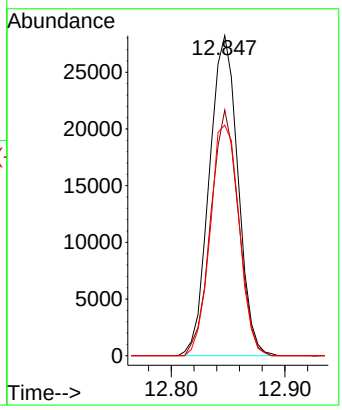


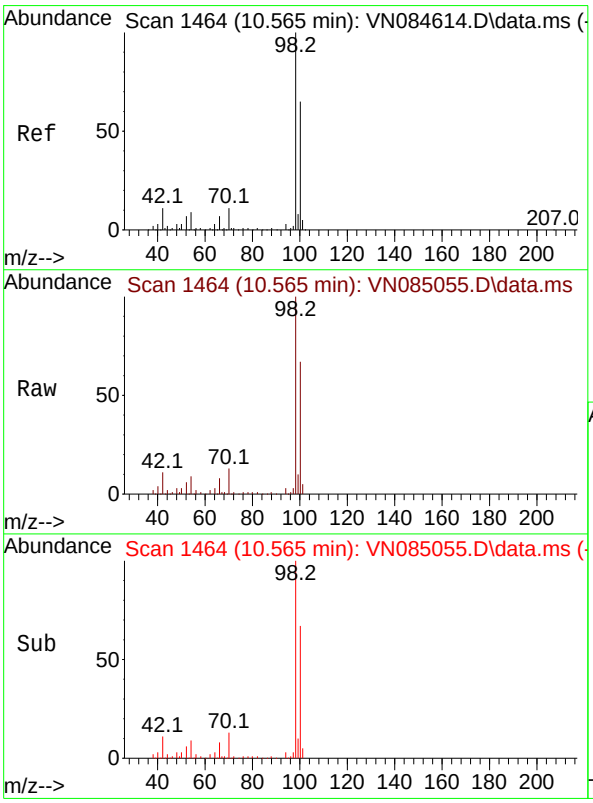

#60
4-Bromofluorobenzene
Concen: 24.485 ug/l
RT: 12.847 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBL01

Tgt Ion: 95 Resp: 49537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 74.2 | 59.6 | 89.4 |
| 176 | 72.7 | 58.6 | 88.0 |

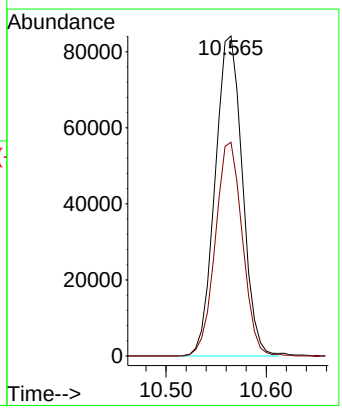



#63
Toluene-d8
Concen: 28.598 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN085055.D
Acq: 27 Nov 2024 13:19

Tgt Ion: 98 Resp: 159071

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.3 | 52.2 | 78.2 |



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBS01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBS01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085053.D | 1 | | 11/27/24 12:21 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 19.9 | | 1.20 | 5.00 | ug/L |
| 74-87-3 | Chloromethane | 17.4 | | 1.20 | 5.00 | ug/L |
| 75-01-4 | Vinyl Chloride | 18.6 | | 1.20 | 5.00 | ug/L |
| 74-83-9 | Bromomethane | 20.1 | | 1.40 | 5.00 | ug/L |
| 75-00-3 | Chloroethane | 18.6 | | 2.90 | 5.00 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 20.0 | | 1.00 | 5.00 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 20.0 | | 1.10 | 5.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 18.7 | | 1.10 | 5.00 | ug/L |
| 67-64-1 | Acetone | 95.8 | | 4.90 | 25.0 | ug/L |
| 75-15-0 | Carbon Disulfide | 17.3 | | 0.93 | 5.00 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 18.6 | | 0.83 | 5.00 | ug/L |
| 79-20-9 | Methyl Acetate | 15.8 | | 1.20 | 5.00 | ug/L |
| 75-09-2 | Methylene Chloride | 17.9 | | 1.20 | 5.00 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 18.7 | | 0.95 | 5.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 18.9 | | 0.81 | 5.00 | ug/L |
| 110-82-7 | Cyclohexane | 18.7 | | 1.00 | 5.00 | ug/L |
| 78-93-3 | 2-Butanone | 88.6 | | 3.60 | 25.0 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 19.4 | | 0.91 | 5.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 18.6 | | 0.90 | 5.00 | ug/L |
| 67-66-3 | Chloroform | 19.2 | | 0.72 | 5.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 19.5 | | 0.79 | 5.00 | ug/L |
| 108-87-2 | Methylcyclohexane | 18.6 | | 0.89 | 5.00 | ug/L |
| 71-43-2 | Benzene | 17.9 | | 0.69 | 5.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 19.0 | | 0.75 | 5.00 | ug/L |
| 79-01-6 | Trichloroethene | 18.7 | | 0.77 | 5.00 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 18.4 | | 0.65 | 5.00 | ug/L |
| 75-27-4 | Bromodichloromethane | 18.2 | | 0.81 | 5.00 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 86.4 | | 4.20 | 25.0 | ug/L |
| 108-88-3 | Toluene | 18.5 | | 0.72 | 5.00 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 18.0 | | 0.79 | 5.00 | ug/L |

Raw Data: **VN085053.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBS01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBS01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085053.D | 1 | | 11/27/24 12:21 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 18.5 | | 0.83 | 5.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 18.8 | | 0.68 | 5.00 | ug/L |
| 591-78-6 | 2-Hexanone | 88.9 | | 3.90 | 25.0 | ug/L |
| 124-48-1 | Dibromochloromethane | 19.1 | | 0.72 | 5.00 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 18.3 | | 0.78 | 5.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 19.4 | | 0.94 | 5.00 | ug/L |
| 108-90-7 | Chlorobenzene | 18.9 | | 0.67 | 5.00 | ug/L |
| 100-41-4 | Ethyl Benzene | 18.1 | | 0.73 | 5.00 | ug/L |
| 179601-23-1 | m/p-Xylenes | 37.0 | | 1.70 | 10.0 | ug/L |
| 95-47-6 | o-Xylene | 17.9 | | 0.82 | 5.00 | ug/L |
| 100-42-5 | Styrene | 18.4 | | 0.80 | 5.00 | ug/L |
| 75-25-2 | Bromoform | 17.9 | | 1.00 | 5.00 | ug/L |
| 98-82-8 | Isopropylbenzene | 18.8 | | 0.85 | 5.00 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 17.8 | | 0.60 | 5.00 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 19.2 | | 0.74 | 5.00 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 19.1 | | 0.88 | 5.00 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 18.6 | | 0.95 | 5.00 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 18.4 | | 0.88 | 5.00 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 18.6 | | 0.91 | 5.00 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 19.0 | | 1.10 | 5.00 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 19.0 | | 1.40 | 5.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 30.4 | | 91 - 110 | 101% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 29.6 | | 91 - 112 | 99% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 29.4 | | 63 - 112 | 98% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 32700 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 179000 | 9.094 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 161000 | 11.859 | | | |

Raw Data: **VN085053.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBS01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBS01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085053.D | 1 | | 11/27/24 12:21 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085053.D
Acq On : 27 Nov 2024 12:21
Operator : JC\MD
Sample : VN1127WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBS01

Quant Time: Nov 28 05:30:51 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 32660 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.094 | 114 | 179004 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.859 | 117 | 161319 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 79724 | 30.363 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 101.200% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 81541 | 29.356 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 97.867% | | | |
| 63) Toluene-d8 | 10.559 | 98 | 226230 | 29.623 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 98.733% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.118 | 85 | 37801 | 19.900 | ug/l | 94 |
| 3) Chloromethane | 2.359 | 50 | 39834 | 17.417 | ug/l | 98 |
| 4) Vinyl Chloride | 2.512 | 62 | 39453 | 18.577 | ug/l | 90 |
| 5) Bromomethane | 2.906 | 94 | 21690 | 20.122 | ug/l | 97 |
| 6) Chloroethane | 3.089 | 64 | 25913 | 18.584 | ug/l | 98 |
| 7) Trichlorofluoromethane | 3.483 | 101 | 68880 | 19.971 | ug/l | 99 |
| 8) Diethyl Ether | 3.953 | 74 | 23706 | 19.269 | ug/l | 95 |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 38897 | 19.956 | ug/l | 99 |
| 10) 1,1-Dichloroethene | 4.330 | 96 | 35517 | 18.660 | ug/l | 87 |
| 11) Methyl Iodide | 4.583 | 142 | 51014 | 19.501 | ug/l | 94 |
| 12) Methyl Acetate | 5.018 | 43 | 46804 | 15.776 | ug/l | 98 |
| 13) Acrolein | 4.171 | 56 | 30374m | 83.020 | ug/l | |
| 14) Acrylonitrile | 5.706 | 53 | 84073 | 86.621 | ug/l | 97 |
| 15) Acetone | 4.430 | 58 | 23883 | 95.767 | ug/l | 94 |
| 16) Carbon Disulfide | 4.706 | 76 | 96910 | 17.304 | ug/l | 97 |
| 17) Allyl chloride | 5.018 | 41 | 52130 | 16.073 | ug/l | 96 |
| 18) Methylene Chloride | 5.265 | 84 | 40001 | 17.934 | ug/l | 91 |
| 19) trans-1,2-Dichloroethene | 5.777 | 96 | 37230 | 18.661 | ug/l | 87 |
| 20) Diisopropyl ether | 6.665 | 45 | 121631 | 18.734 | ug/l | 98 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 73682 | 18.871 | ug/l | 99 |
| 22) cis-1,2-Dichloroethene | 7.477 | 96 | 44319 | 18.607 | ug/l | 97 |
| 23) tert-Butyl Alcohol | 5.524 | 59 | 26521 | 78.269 | ug/l # | 100 |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 114196 | 18.553 | ug/l | 99 |
| 25) Chloroform | 7.959 | 83 | 76814 | 19.202 | ug/l | 91 |
| 26) Cyclohexane | 8.253 | 56 | 55755 | 18.694 | ug/l # | 97 |
| 29) 1,1-Dichloropropene | 8.365 | 75 | 49993 | 18.542 | ug/l | 99 |
| 30) 2-Butanone | 7.477 | 43 | 110174 | 88.586 | ug/l | 99 |
| 31) 2,2-Dichloropropane | 7.477 | 77 | 68998 | 20.964 | ug/l | 99 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 71535 | 19.529 | ug/l | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 60580 | 19.382 | ug/l | 98 |
| 34) Benzene | 8.600 | 78 | 159354 | 17.881 | ug/l | 96 |
| 35) Methacrylonitrile | 7.771 | 41 | 25134 | 17.051 | ug/l | 95 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 56234 | 18.975 | ug/l | 98 |
| 37) Trichloroethene | 9.347 | 130 | 37673 | 18.739 | ug/l | 92 |
| 38) Methylcyclohexane | 9.594 | 83 | 54082 | 18.633 | ug/l | 98 |
| 39) 1,2-Dichloropropane | 9.612 | 63 | 39483 | 18.405 | ug/l | 90 |
| 40) Dibromomethane | 9.706 | 93 | 28509 | 18.996 | ug/l | 97 |
| 41) Bromodichloromethane | 9.882 | 83 | 58558 | 18.201 | ug/l | 97 |
| 42) Vinyl Acetate | 6.594 | 43 | 418974 | 90.126 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085053.D
Acq On : 27 Nov 2024 12:21
Operator : JC\MD
Sample : VN1127WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBS01

Quant Time: Nov 28 05:30:51 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

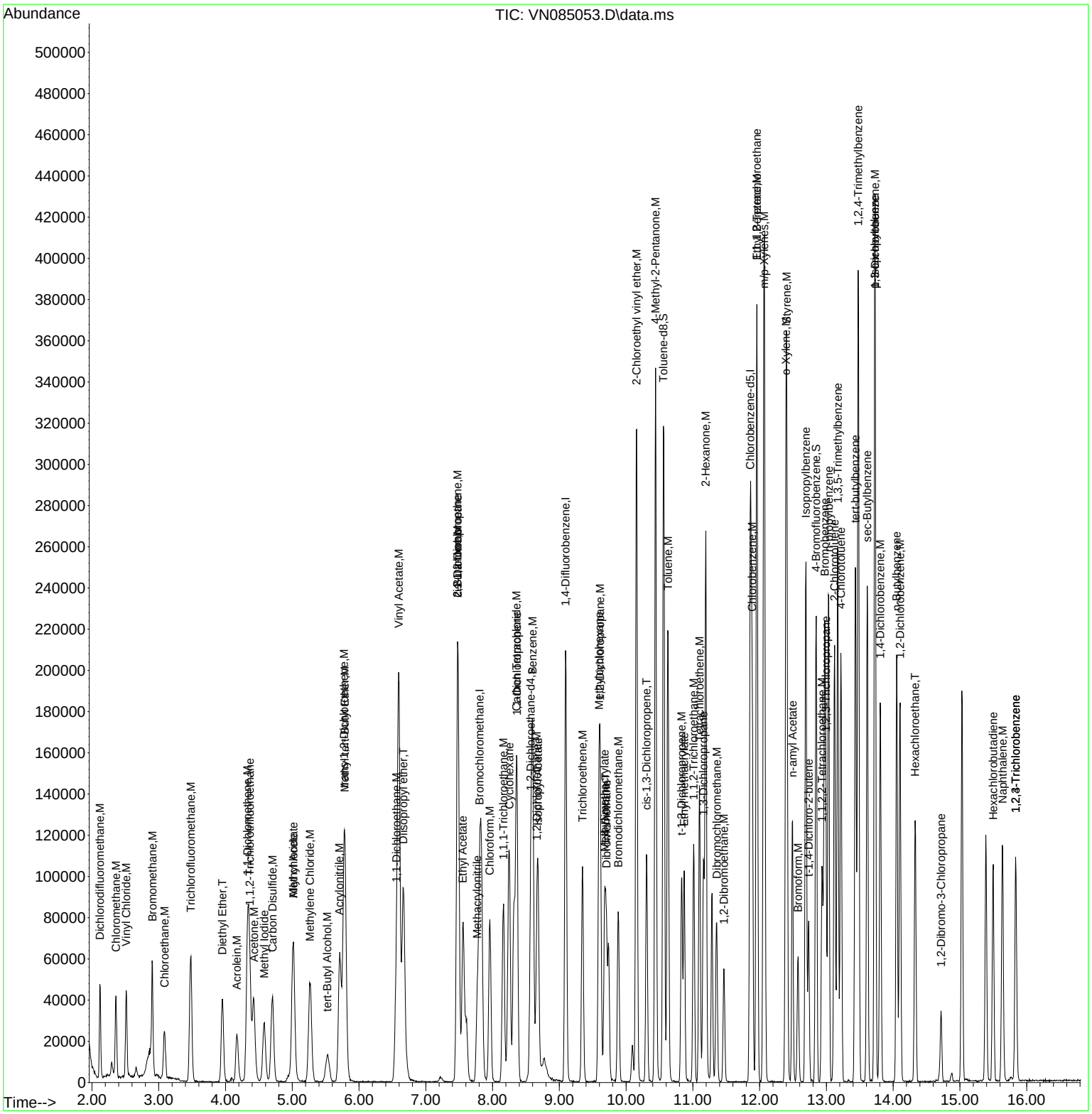
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.553 | 43 | 42071 | 16.099 | ug/l | 97 |
| 44) Isopropyl Acetate | 8.683 | 43 | 92466m | 17.474 | ug/l | |
| 45) 1,4-Dioxane | 9.694 | 88 | 11579 | 327.752 | ug/l | 91 |
| 46) Methyl methacrylate | 9.677 | 41 | 35933 | 16.897 | ug/l | 94 |
| 47) n-amyl Acetate | 12.494 | 43 | 63833 | 16.152 | ug/l | 98 |
| 48) t-1,3-Dichloropropene | 10.829 | 75 | 57326 | 18.045 | ug/l | 99 |
| 49) cis-1,3-Dichloropropene | 10.306 | 75 | 63060 | 18.521 | ug/l | 95 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 37772 | 18.764 | ug/l | 96 |
| 51) Ethyl methacrylate | 10.871 | 69 | 54005 | 17.404 | ug/l | 97 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 63448 | 18.158 | ug/l | 98 |
| 53) Dibromochloromethane | 11.359 | 129 | 44890 | 19.055 | ug/l | 96 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 37251 | 18.296 | ug/l | 96 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 144980 | 95.300 | ug/l | 98 |
| 56) Bromoform | 12.576 | 173 | 28254 | 17.893 | ug/l | 99 |
| 58) 4-Methyl-2-Pentanone | 10.441 | 43 | 219965 | 86.430 | ug/l | 99 |
| 59) 2-Hexanone | 11.194 | 43 | 165732 | 88.931 | ug/l | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 32769 | 19.409 | ug/l | 96 |
| 62) Toluene | 10.629 | 91 | 169805 | 18.481 | ug/l | 97 |
| 64) Chlorobenzene | 11.888 | 112 | 104694 | 18.875 | ug/l | 97 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 38593 | 18.932 | ug/l | 98 |
| 66) Ethyl Benzene | 11.959 | 91 | 175100 | 18.134 | ug/l | 97 |
| 67) m/p-Xylenes | 12.071 | 106 | 136742 | 36.989 | ug/l | 100 |
| 68) o-Xylene | 12.394 | 106 | 63815 | 17.895 | ug/l | 94 |
| 69) Styrene | 12.406 | 104 | 110233 | 18.436 | ug/l | 98 |
| 70) Isopropylbenzene | 12.694 | 105 | 166861 | 18.835 | ug/l | 99 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 51127 | 17.806 | ug/l | 100 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 47640m | 19.430 | ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 43648 | 19.103 | ug/l | 97 |
| 74) n-propylbenzene | 13.035 | 91 | 193531 | 18.682 | ug/l | 98 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 127203 | 18.856 | ug/l | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 145182 | 19.181 | ug/l | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 17983 | 17.883 | ug/l | 85 |
| 78) 4-Chlorotoluene | 13.218 | 91 | 127084 | 18.645 | ug/l | 99 |
| 79) tert-butylbenzene | 13.435 | 119 | 118374 | 18.911 | ug/l | 99 |
| 80) 1,2,4-Trimethylbenzene | 13.476 | 105 | 146596 | 19.198 | ug/l | 99 |
| 81) sec-Butylbenzene | 13.612 | 105 | 167054 | 19.368 | ug/l | 98 |
| 82) p-Isopropyltoluene | 13.723 | 119 | 138369 | 19.093 | ug/l | 100 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 80897 | 19.144 | ug/l | 99 |
| 84) 1,4-Dichlorobenzene | 13.806 | 146 | 77741 | 18.619 | ug/l | 97 |
| 85) n-Butylbenzene | 14.053 | 91 | 117054 | 19.231 | ug/l | 98 |
| 86) Hexachloroethane | 14.329 | 117 | 27595 | 18.618 | ug/l | 97 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 76484 | 18.368 | ug/l | 99 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 10318 | 18.623 | ug/l | 97 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 38539 | 19.009 | ug/l | 97 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 19739 | 22.288 | ug/l | 92 |
| 91) Naphthalene | 15.641 | 128 | 110829 | 17.117 | ug/l | 100 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 38539 | 19.009 | ug/l | 97 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085053.D
Acq On : 27 Nov 2024 12:21
Operator : JC\MD
Sample : VN1127WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBS01

Quant Time: Nov 28 05:30:51 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBSD01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBSD01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085054.D | 1 | | 11/27/24 12:55 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-71-8 | Dichlorodifluoromethane | 21.1 | | 1.20 | 5.00 | ug/L |
| 74-87-3 | Chloromethane | 18.0 | | 1.20 | 5.00 | ug/L |
| 75-01-4 | Vinyl Chloride | 20.0 | | 1.20 | 5.00 | ug/L |
| 74-83-9 | Bromomethane | 22.2 | | 1.40 | 5.00 | ug/L |
| 75-00-3 | Chloroethane | 20.3 | | 2.90 | 5.00 | ug/L |
| 75-69-4 | Trichlorofluoromethane | 22.0 | | 1.00 | 5.00 | ug/L |
| 76-13-1 | 1,1,2-Trichlorotrifluoroethane | 22.5 | | 1.10 | 5.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 20.4 | | 1.10 | 5.00 | ug/L |
| 67-64-1 | Acetone | 110 | | 4.90 | 25.0 | ug/L |
| 75-15-0 | Carbon Disulfide | 18.8 | | 0.93 | 5.00 | ug/L |
| 1634-04-4 | Methyl tert-Butyl Ether | 22.0 | | 0.83 | 5.00 | ug/L |
| 79-20-9 | Methyl Acetate | 18.4 | | 1.20 | 5.00 | ug/L |
| 75-09-2 | Methylene Chloride | 20.3 | | 1.20 | 5.00 | ug/L |
| 156-60-5 | trans-1,2-Dichloroethene | 20.1 | | 0.95 | 5.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 21.0 | | 0.81 | 5.00 | ug/L |
| 110-82-7 | Cyclohexane | 20.3 | | 1.00 | 5.00 | ug/L |
| 78-93-3 | 2-Butanone | 100 | | 3.60 | 25.0 | ug/L |
| 56-23-5 | Carbon Tetrachloride | 21.6 | | 0.91 | 5.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 20.6 | | 0.90 | 5.00 | ug/L |
| 67-66-3 | Chloroform | 20.8 | | 0.72 | 5.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 21.1 | | 0.79 | 5.00 | ug/L |
| 108-87-2 | Methylcyclohexane | 21.0 | | 0.89 | 5.00 | ug/L |
| 71-43-2 | Benzene | 20.8 | | 0.69 | 5.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 22.0 | | 0.75 | 5.00 | ug/L |
| 79-01-6 | Trichloroethene | 21.0 | | 0.77 | 5.00 | ug/L |
| 78-87-5 | 1,2-Dichloropropane | 20.2 | | 0.65 | 5.00 | ug/L |
| 75-27-4 | Bromodichloromethane | 21.2 | | 0.81 | 5.00 | ug/L |
| 108-10-1 | 4-Methyl-2-Pentanone | 100 | | 4.20 | 25.0 | ug/L |
| 108-88-3 | Toluene | 20.9 | | 0.72 | 5.00 | ug/L |
| 10061-02-6 | t-1,3-Dichloropropene | 20.7 | | 0.79 | 5.00 | ug/L |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBSD01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBSD01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085054.D | 1 | | 11/27/24 12:55 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| 10061-01-5 | cis-1,3-Dichloropropene | 21.3 | | 0.83 | 5.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 21.1 | | 0.68 | 5.00 | ug/L |
| 591-78-6 | 2-Hexanone | 100 | | 3.90 | 25.0 | ug/L |
| 124-48-1 | Dibromochloromethane | 21.6 | | 0.72 | 5.00 | ug/L |
| 106-93-4 | 1,2-Dibromoethane | 20.4 | | 0.78 | 5.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 22.4 | | 0.94 | 5.00 | ug/L |
| 108-90-7 | Chlorobenzene | 20.9 | | 0.67 | 5.00 | ug/L |
| 100-41-4 | Ethyl Benzene | 20.2 | | 0.73 | 5.00 | ug/L |
| 179601-23-1 | m/p-Xylenes | 41.4 | | 1.70 | 10.0 | ug/L |
| 95-47-6 | o-Xylene | 21.3 | | 0.82 | 5.00 | ug/L |
| 100-42-5 | Styrene | 20.8 | | 0.80 | 5.00 | ug/L |
| 75-25-2 | Bromoform | 21.3 | | 1.00 | 5.00 | ug/L |
| 98-82-8 | Isopropylbenzene | 20.5 | | 0.85 | 5.00 | ug/L |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 20.6 | | 0.60 | 5.00 | ug/L |
| 108-67-8 | 1,3,5-Trimethylbenzene | 20.7 | | 0.74 | 5.00 | ug/L |
| 541-73-1 | 1,3-Dichlorobenzene | 20.9 | | 0.88 | 5.00 | ug/L |
| 106-46-7 | 1,4-Dichlorobenzene | 20.7 | | 0.95 | 5.00 | ug/L |
| 95-50-1 | 1,2-Dichlorobenzene | 20.5 | | 0.88 | 5.00 | ug/L |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | 20.7 | | 0.91 | 5.00 | ug/L |
| 120-82-1 | 1,2,4-Trichlorobenzene | 21.8 | | 1.10 | 5.00 | ug/L |
| 87-61-6 | 1,2,3-Trichlorobenzene | 21.8 | | 1.40 | 5.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 30.5 | | 91 - 110 | 102% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 29.9 | | 91 - 112 | 100% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 28.3 | | 63 - 112 | 94% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 29500 | 7.812 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 159000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 141000 | 11.865 | | | |

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | New York City DEP of Environmental Protection/BWS | Date Collected: | |
| Project: | Industrial Wastewater Discharge Permit - Fall 2024 | Date Received: | |
| Client Sample ID: | VN1127WBSD01 | SDG No.: | P5018 |
| Lab Sample ID: | VN1127WBSD01 | Matrix: | Water |
| Analytical Method: | E624.1 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group1 |
| GC Column: | RXI-624 ID : 0.25 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VN085054.D | 1 | | 11/27/24 12:55 | VN112724 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085054.D
Acq On : 27 Nov 2024 12:55
Operator : JC\MD
Sample : VN1127WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBSD01

Quant Time: Nov 28 05:31:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 29451 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 158864 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 140518 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.571 | 65 | 72239 | 30.510 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 101.700% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 68388 | 28.265 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 94.233% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 199101 | 29.930 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 99.767% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 36067 | 21.056 | ug/l | 96 |
| 3) Chloromethane | 2.354 | 50 | 37129 | 18.003 | ug/l | 98 |
| 4) Vinyl Chloride | 2.512 | 62 | 38329 | 20.015 | ug/l | 95 |
| 5) Bromomethane | 2.912 | 94 | 21603 | 22.225 | ug/l | 99 |
| 6) Chloroethane | 3.089 | 64 | 25583 | 20.346 | ug/l | 97 |
| 7) Trichlorofluoromethane | 3.483 | 101 | 68291 | 21.958 | ug/l | 93 |
| 8) Diethyl Ether | 3.953 | 74 | 23761 | 21.418 | ug/l | 94 |
| 9) 1,1,2-Trichlorotrifluo... | 4.353 | 101 | 39576 | 22.517 | ug/l | 99 |
| 10) 1,1-Dichloroethene | 4.330 | 96 | 34948 | 20.362 | ug/l | 96 |
| 11) Methyl Iodide | 4.577 | 142 | 50812 | 21.540 | ug/l | 96 |
| 12) Methyl Acetate | 5.024 | 43 | 49248 | 18.408 | ug/l | 97 |
| 13) Acrolein | 4.171 | 56 | 31226 | 94.648 | ug/l | 97 |
| 14) Acrylonitrile | 5.718 | 53 | 88094 | 100.653 | ug/l | 98 |
| 15) Acetone | 4.424 | 58 | 25029 | 111.297 | ug/l | 99 |
| 16) Carbon Disulfide | 4.700 | 76 | 94836 | 18.778 | ug/l | 99 |
| 17) Allyl chloride | 5.012 | 41 | 52730 | 18.030 | ug/l | 90 |
| 18) Methylene Chloride | 5.265 | 84 | 40741 | 20.256 | ug/l | 93 |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 36185 | 20.114 | ug/l | 88 |
| 20) Diisopropyl ether | 6.665 | 45 | 124178 | 21.210 | ug/l | 96 |
| 21) 1,1-Dichloroethane | 6.565 | 63 | 74070 | 21.037 | ug/l | 98 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 44172 | 20.566 | ug/l | 97 |
| 23) tert-Butyl Alcohol | 5.542 | 59 | 29631 | 96.976 | ug/l # | 100 |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 121886 | 21.960 | ug/l | 99 |
| 25) Chloroform | 7.959 | 83 | 74963 | 20.781 | ug/l | 98 |
| 26) Cyclohexane | 8.253 | 56 | 54643 | 20.318 | ug/l # | 97 |
| 29) 1,1-Dichloropropene | 8.365 | 75 | 51079 | 21.347 | ug/l | 99 |
| 30) 2-Butanone | 7.483 | 43 | 114539 | 103.771 | ug/l | 99 |
| 31) 2,2-Dichloropropane | 7.483 | 77 | 67298 | 23.040 | ug/l | 99 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 68456 | 21.058 | ug/l | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 59980 | 21.623 | ug/l | 98 |
| 34) Benzene | 8.600 | 78 | 164188 | 20.759 | ug/l | 96 |
| 35) Methacrylonitrile | 7.771 | 41 | 26403 | 20.183 | ug/l | 95 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 57882 | 22.007 | ug/l # | 93 |
| 37) Trichloroethene | 9.347 | 130 | 37522 | 21.030 | ug/l | 85 |
| 38) Methylcyclohexane | 9.600 | 83 | 54024 | 20.972 | ug/l | 97 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 38513 | 20.229 | ug/l | 96 |
| 40) Dibromomethane | 9.706 | 93 | 28134 | 21.123 | ug/l | 98 |
| 41) Bromodichloromethane | 9.883 | 83 | 60402 | 21.154 | ug/l | 99 |
| 42) Vinyl Acetate | 6.594 | 43 | 435967 | 105.670 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085054.D
Acq On : 27 Nov 2024 12:55
Operator : JC\MD
Sample : VN1127WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBSD01

Quant Time: Nov 28 05:31:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

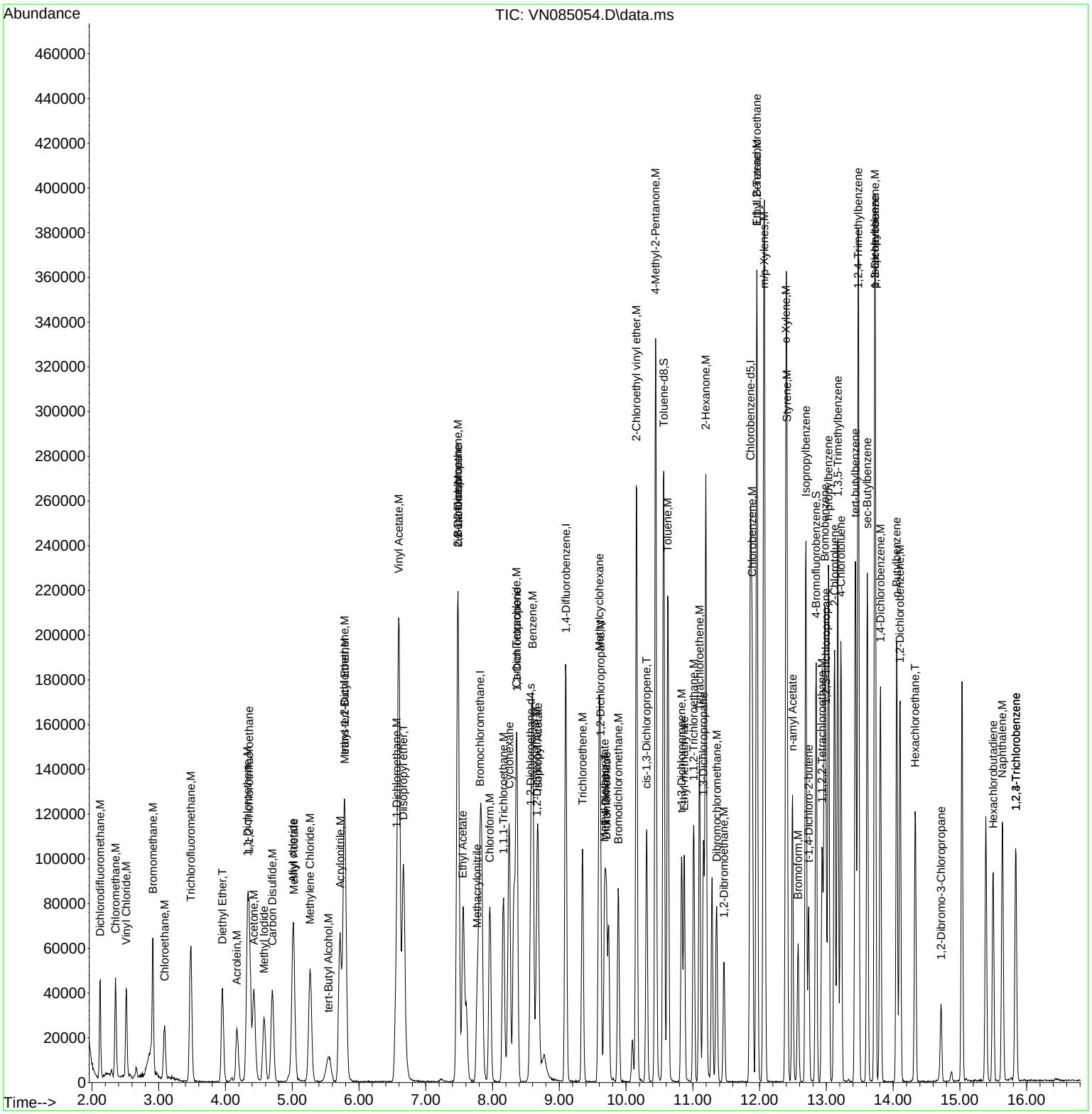
| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 43) Ethyl Acetate | 7.553 | 43 | 41442 | 17.868 | ug/l | | 95 |
| 44) Isopropyl Acetate | 8.683 | 43 | 100608 | 21.422 | ug/l | | 97 |
| 45) 1,4-Dioxane | 9.694 | 88 | 12074 | 385.090 | ug/l | # | 93 |
| 46) Methyl methacrylate | 9.677 | 41 | 35892 | 19.018 | ug/l | | 89 |
| 47) n-amyl Acetate | 12.494 | 43 | 64954 | 18.519 | ug/l | | 99 |
| 48) t-1,3-Dichloropropene | 10.829 | 75 | 58378 | 20.706 | ug/l | | 97 |
| 49) cis-1,3-Dichloropropene | 10.306 | 75 | 64354 | 21.297 | ug/l | | 95 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 37662 | 21.081 | ug/l | | 95 |
| 51) Ethyl methacrylate | 10.871 | 69 | 53336 | 19.368 | ug/l | | 96 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 65014 | 20.965 | ug/l | | 98 |
| 53) Dibromochloromethane | 11.359 | 129 | 45200 | 21.619 | ug/l | | 97 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 36851 | 20.394 | ug/l | | 95 |
| 55) 2-Chloroethyl vinyl ether | 10.153 | 63 | 121540 | 90.020 | ug/l | | 98 |
| 56) Bromoform | 12.576 | 173 | 29840 | 21.293 | ug/l | | 96 |
| 58) 4-Methyl-2-Pentanone | 10.441 | 43 | 222869 | 100.535 | ug/l | | 98 |
| 59) 2-Hexanone | 11.194 | 43 | 166599 | 102.630 | ug/l | | 98 |
| 61) Tetrachloroethene | 11.100 | 164 | 32894 | 22.367 | ug/l | | 89 |
| 62) Toluene | 10.624 | 91 | 167340 | 20.909 | ug/l | | 99 |
| 64) Chlorobenzene | 11.888 | 112 | 101215 | 20.949 | ug/l | | 99 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 39699 | 22.357 | ug/l | | 99 |
| 66) Ethyl Benzene | 11.959 | 91 | 170174 | 20.232 | ug/l | | 99 |
| 67) m/p-Xylenes | 12.071 | 106 | 133305 | 41.397 | ug/l | | 99 |
| 68) o-Xylene | 12.394 | 106 | 66202 | 21.312 | ug/l | | 97 |
| 69) Styrene | 12.412 | 104 | 108145 | 20.764 | ug/l | | 98 |
| 70) Isopropylbenzene | 12.694 | 105 | 157872 | 20.459 | ug/l | | 99 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 51623 | 20.640 | ug/l | | 96 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 42135m | 19.729 | ug/l | | |
| 73) Bromobenzene | 12.976 | 156 | 41203 | 20.703 | ug/l | | 98 |
| 74) n-propylbenzene | 13.029 | 91 | 183357 | 20.320 | ug/l | | 100 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 120549 | 20.515 | ug/l | | 99 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 136206 | 20.659 | ug/l | | 98 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 17691 | 20.197 | ug/l | | 96 |
| 78) 4-Chlorotoluene | 13.218 | 91 | 120608 | 20.315 | ug/l | | 99 |
| 79) tert-butylbenzene | 13.435 | 119 | 111640 | 20.476 | ug/l | | 98 |
| 80) 1,2,4-Trimethylbenzene | 13.476 | 105 | 140100 | 21.063 | ug/l | | 96 |
| 81) sec-Butylbenzene | 13.612 | 105 | 157340 | 20.943 | ug/l | | 99 |
| 82) p-Isopropyltoluene | 13.723 | 119 | 129726 | 20.550 | ug/l | | 99 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 77012 | 20.923 | ug/l | | 100 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 75273 | 20.696 | ug/l | | 99 |
| 85) n-Butylbenzene | 14.053 | 91 | 109482 | 20.649 | ug/l | | 99 |
| 86) Hexachloroethane | 14.329 | 117 | 26564 | 20.576 | ug/l | | 99 |
| 87) 1,2-Dichlorobenzene | 14.100 | 146 | 74405 | 20.514 | ug/l | | 99 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 10011 | 20.744 | ug/l | | 94 |
| 89) 1,2,4-Trichlorobenzene | 15.841 | 180 | 38501 | 21.801 | ug/l | | 99 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 18213 | 23.610 | ug/l | | 96 |
| 91) Naphthalene | 15.635 | 128 | 110357 | 19.567 | ug/l | | 99 |
| 92) 1,2,3-Trichlorobenzene | 15.841 | 180 | 38501 | 21.801 | ug/l | | 99 |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN112724\
Data File : VN085054.D
Acq On : 27 Nov 2024 12:55
Operator : JC\MD
Sample : VN1127WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 4 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1127WBSD01

Quant Time: Nov 28 05:31:46 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

# Manual Integration Report

| Sequence: | VN103124 | Instrument | MSVOA_n |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|
| VSTDICC005 | VN084613.D | 1,2,3-Trichloropropane | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Acetone | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Acrylonitrile | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Allyl chloride | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Chloroethane | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Methyl Acetate | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | trans-1,2-Dichloroethene | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICC005 | VN084613.D | Trichloroethene | SAM | 11/1/2024 11:36:59 AM | MMDadoda | 11/4/2024 1:19:09 AM | Peak Integrated by Software |
| VSTDICCC020 | VN084614.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:50 AM | MMDadoda | 11/4/2024 1:19:11 AM | Peak Integrated by Software |
| VSTDICCC020 | VN084614.D | tert-Butyl Alcohol | SAM | 11/4/2024 1:13:50 AM | MMDadoda | 11/4/2024 1:19:11 AM | Peak Integrated by Software |
| VSTDICC050 | VN084615.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:52 AM | MMDadoda | 11/4/2024 1:19:12 AM | Peak Integrated by Software |
| VSTDICC050 | VN084615.D | Chloroethane | SAM | 11/4/2024 1:13:52 AM | MMDadoda | 11/4/2024 1:19:12 AM | Peak Integrated by Software |
| VSTDICC100 | VN084616.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:53 AM | MMDadoda | 11/4/2024 1:19:13 AM | Peak Integrated by Software |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

# Manual Integration Report

| Sequence: | VN103124 | Instrument | MSVOA_n |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|
| VSTDICC150 | VN084617.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:54 AM | MMDadoda | 11/4/2024 1:19:15 AM | Peak Integrated by Software |
| VSTDICV020 | VN084619.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:55 AM | MMDadoda | 11/4/2024 1:19:16 AM | Peak Integrated by Software |
| VSTDCCC020 | VN084626.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:14:00 AM | MMDadoda | 11/4/2024 1:19:23 AM | Peak Integrated by Software |
| VSTDCCC020 | VN084626.D | Allyl chloride | SAM | 11/4/2024 1:14:00 AM | MMDadoda | 11/4/2024 1:19:23 AM | Peak Integrated by Software |
| VSTDCCC020 | VN084626.D | Diethyl Ether | SAM | 11/4/2024 1:14:00 AM | MMDadoda | 11/4/2024 1:19:23 AM | Peak Integrated by Software |
| VSTDCCC020 | VN084626.D | tert-Butyl Alcohol | SAM | 11/4/2024 1:14:00 AM | MMDadoda | 11/4/2024 1:19:23 AM | Peak Integrated by Software |
| VSTDCCC020 | VN084626.D | trans-1,2-Dichloroethene | SAM | 11/4/2024 1:14:00 AM | MMDadoda | 11/4/2024 1:19:23 AM | Peak Integrated by Software |

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

# Manual Integration Report

| Sequence: | VN112724 | Instrument | MSVOA_n |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Instrument ID: MSVOA_N**

## Daily Analysis Runlog For Sequence/QCBatch ID # VN103124

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Review By | Semsettin Yesilyurt | Review On | 11/1/2024 11:37:52 AM | | | | |
| Supervise By | Mahesh Dadoda | Supervise On | 11/4/2024 1:19:34 AM | | | | |
| SubDirectory | VN103124 | HP Acquire Method | MSVOA_N | | HP Processing Method | 624n103124w.m | |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP131208 |
| Initial Calibration Stds | VP131209,VP131210,VP131211,VP131212,VP131213 |
| CCC | VP131215,VP131216 |
| Internal Standard/PEM | VP130994 |
| ICV/I.BLK | VP131214 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | Data File Name | Date-Time | Operator | Status |
|---|---|---|---|---|---|
| 1 | BFB | VN084612.D | 31 Oct 2024 10:56 | JC\MD | Ok |
| 2 | VSTDICC005 | VN084613.D | 31 Oct 2024 12:08 | JC\MD | Ok,M |
| 3 | VSTDICCC020 | VN084614.D | 31 Oct 2024 12:32 | JC\MD | Ok,M |
| 4 | VSTDICC050 | VN084615.D | 31 Oct 2024 12:56 | JC\MD | Ok,M |
| 5 | VSTDICC100 | VN084616.D | 31 Oct 2024 13:20 | JC\MD | Ok,M |
| 6 | VSTDICC150 | VN084617.D | 31 Oct 2024 13:44 | JC\MD | Ok,M |
| 7 | VIBLK | VN084618.D | 31 Oct 2024 14:08 | JC\MD | Ok |
| 8 | VSTDICV020 | VN084619.D | 31 Oct 2024 14:42 | JC\MD | Ok,M |
| 9 | VN1031WBS01 | VN084620.D | 31 Oct 2024 15:25 | JC\MD | Ok,M |
| 10 | VN1031WBSD01 | VN084621.D | 31 Oct 2024 15:49 | JC\MD | Ok,M |
| 11 | VN1031WBL01 | VN084622.D | 31 Oct 2024 16:37 | JC\MD | Ok |
| 12 | P4646-02 | VN084623.D | 31 Oct 2024 17:01 | JC\MD | Ok |
| 13 | P4646-01 | VN084624.D | 31 Oct 2024 17:25 | JC\MD | Ok,M |
| 14 | VIBLK | VN084625.D | 31 Oct 2024 17:49 | JC\MD | Ok |
| 15 | VSTDCCC020 | VN084626.D | 31 Oct 2024 18:13 | JC\MD | Ok,M |

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Instrument ID: MSVOA_N**

## Daily Analysis Runlog For Sequence/QCBatch ID # VN112724

| | | | | | |
|---|---|---|---|---|---|
| Review By | | Review On | | | |
| Supervise By | | Supervise On | | | |
| SubDirectory | VN112724 | HP Acquire Method | | HP Processing Method | 624N103124W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP131827 |
| Initial Calibration Stds | |
| CCC | VP131828,VP131829 |
| Internal Standard/PEM | |
| ICV/I.BLK | |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | Data File Name | Date-Time | Operator | Status |
|---|---|---|---|---|---|
| 1 | BFB | VN085051.D | 27 Nov 2024 08:30 | JC\MD | Ok |
| 2 | VSTDCCC020 | VN085052.D | 27 Nov 2024 11:44 | JC\MD | Ok,NR |
| 3 | VN1127WBS01 | VN085053.D | 27 Nov 2024 12:21 | JC\MD | Ok,NR |
| 4 | VN1127WBSD01 | VN085054.D | 27 Nov 2024 12:55 | JC\MD | Ok,NR |
| 5 | VN1127WBL01 | VN085055.D | 27 Nov 2024 13:19 | JC\MD | Ok |
| 6 | P5018-01 | VN085056.D | 27 Nov 2024 13:56 | JC\MD | Ok |
| 7 | P5018-02 | VN085057.D | 27 Nov 2024 14:20 | JC\MD | Ok |
| 8 | P5018-03 | VN085058.D | 27 Nov 2024 14:44 | JC\MD | Ok |
| 9 | P5018-04 | VN085059.D | 27 Nov 2024 15:07 | JC\MD | Ok |
| 10 | VSTDCCC020 | VN085060.D | 27 Nov 2024 16:12 | JC\MD | Ok,NR |

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Instrument ID:** MSVOA_N

## Daily Analysis Runlog For Sequence/QCBatch ID # VN103124

| | | | | | |
|---|---|---|---|---|---|
| Review By | Semsettin Yesilyurt | Review On | 11/1/2024 11:37:52 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 11/4/2024 1:19:34 AM | | |
| SubDirectory | VN103124 | HP Acquire Method | MSVOA_N | HP Processing Method | 624n103124w.m |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP131208 |
| Initial Calibration Stds | VP131209,VP131210,VP131211,VP131212,VP131213 |
| CCC | VP131215,VP131216 |
| Internal Standard/PEM | VP130994 |
| ICV/I.BLK | VP131214 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | ClientID | Data File Name | Date-Time | Comment | Operator | Status |
|---|---|---|---|---|---|---|---|
| 1 | BFB | BFB | VN084612.D | 31 Oct 2024 10:56 | | JC\MD | Ok |
| 2 | VSTDICC005 | VSTDICC005 | VN084613.D | 31 Oct 2024 12:08 | | JC\MD | Ok,M |
| 3 | VSTDICCC020 | VSTDICCC020 | VN084614.D | 31 Oct 2024 12:32 | | JC\MD | Ok,M |
| 4 | VSTDICC050 | VSTDICC050 | VN084615.D | 31 Oct 2024 12:56 | | JC\MD | Ok,M |
| 5 | VSTDICC100 | VSTDICC100 | VN084616.D | 31 Oct 2024 13:20 | | JC\MD | Ok,M |
| 6 | VSTDICC150 | VSTDICC150 | VN084617.D | 31 Oct 2024 13:44 | | JC\MD | Ok,M |
| 7 | VIBLK | VIBLK | VN084618.D | 31 Oct 2024 14:08 | | JC\MD | Ok |
| 8 | VSTDICV020 | ICVVN103124 | VN084619.D | 31 Oct 2024 14:42 | | JC\MD | Ok,M |
| 9 | VN1031WBS01 | VN1031WBS01 | VN084620.D | 31 Oct 2024 15:25 | | JC\MD | Ok,M |
| 10 | VN1031WBSD01 | VN1031WBSD01 | VN084621.D | 31 Oct 2024 15:49 | | JC\MD | Ok,M |
| 11 | VN1031WBL01 | VN1031WBL01 | VN084622.D | 31 Oct 2024 16:37 | | JC\MD | Ok |
| 12 | P4646-02 | 241030043-05-TRIP-BL | VN084623.D | 31 Oct 2024 17:01 | TB,pH#6.0 B | JC\MD | Ok |
| 13 | P4646-01 | 241030069-01-VOA | VN084624.D | 31 Oct 2024 17:25 | pH#9.0 B | JC\MD | Ok,M |
| 14 | VIBLK | VIBLK | VN084625.D | 31 Oct 2024 17:49 | | JC\MD | Ok |
| 15 | VSTDCCC020 | VSTDCCC020EC | VN084626.D | 31 Oct 2024 18:13 | | JC\MD | Ok,M |

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

**Instrument ID:** MSVOA_N

## Daily Analysis Runlog For Sequence/QCBatch ID # VN112724

| | | | | | |
|---|---|---|---|---|---|
| Review By | | Review On | | | |
| Supervise By | | Supervise On | | | |
| SubDirectory | VN112724 | HP Acquire Method | | HP Processing Method | 624N103124W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP131827 |
| Initial Calibration Stds | |
| CCC | VP131828,VP131829 |
| Internal Standard/PEM | |
| ICV/I.BLK | |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | ClientID | Data File Name | Date-Time | Comment | Operator | Status |
|---|---|---|---|---|---|---|---|
| 1 | BFB | BFB | VN085051.D | 27 Nov 2024 08:30 | | JC\MD | Ok |
| 2 | VSTDCCC020 | VSTDCCC020 | VN085052.D | 27 Nov 2024 11:44 | | JC\MD | Ok,NR |
| 3 | VN1127WBS01 | VN1127WBS01 | VN085053.D | 27 Nov 2024 12:21 | | JC\MD | Ok,NR |
| 4 | VN1127WBSD01 | VN1127WBSD01 | VN085054.D | 27 Nov 2024 12:55 | | JC\MD | Ok,NR |
| 5 | VN1127WBL01 | VN1127WBL01 | VN085055.D | 27 Nov 2024 13:19 | | JC\MD | Ok |
| 6 | P5018-01 | 14B-1 | VN085056.D | 27 Nov 2024 13:56 | | JC\MD | Ok |
| 7 | P5018-02 | 14B-2 | VN085057.D | 27 Nov 2024 14:20 | | JC\MD | Ok |
| 8 | P5018-03 | 14B-3 | VN085058.D | 27 Nov 2024 14:44 | | JC\MD | Ok |
| 9 | P5018-04 | 14B-4 | VN085059.D | 27 Nov 2024 15:07 | | JC\MD | Ok |
| 10 | VSTDCCC020 | VSTDCCC020EC | VN085060.D | 27 Nov 2024 16:12 | | JC\MD | Ok,NR |

M : Manual Integration


# SHIPPING DOCUMENTS

# CHEMTECH
## CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. P5018
QUOTE NO.
COC Number 2041835

### CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: New York City DEP of Environmental
ADDRESS: 3701 Jerome Ave
CITY Bronx STATE: NY ZIP:
ATTENTION: Nicholas Prokopowicz
PHONE: FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: Industrial W/w Discharge
PROJECT NO.: LOCATION:
PROJECT MANAGER: Nicholas Prokopowicz
e-mail:
PHONE: FAX:

### CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

### DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced
- ☐ US EPA CLP
- ☐ NYS ASP A
- ☐ NYS ASP B
- ☐ Other _____
- ☐ EDD FORMAT _____

### ANALYSIS

1 Non-Polar Material
2 TSS, pH
3 Hex Chrom
4 VOC
5 Metals
6 Cyanide
7
8
9

| CHEMTECH SAMPLE ID | PROJECT SAMPLE IDENTIFICATION | SAMPLE MATRIX | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE COLLECTION DATE | SAMPLE COLLECTION TIME | # OF BOTTLES | PRESERVATIVES E/C (1) | E (2) | E/A (3) | E/B (4) | E/D (5) | (6) | (7) | (8) | (9) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 14B-1 | Water | | X | 11.26.24 | 700 | 6 | X | X | X | X | X | | | | | 6.76 pH |
| 2. | 14B-2 | | | X | | 759 | 6 | X | X | X | X | X | | | | | 6.80 pH |
| 3. | 14B-3 | | | X | | 900 | 6 | X | X | X | X | X | | | | | 6.89 pH |
| 4. | 14B-4 | | | X | | 1001 | 6 | X | X | X | X | X | | | | | 6.78 pH |
| 5. | 14B-4MS | | | X | | 1002 | 1 | X | | | | | | | | | |
| 6. | 14B-4MSD | | | X | | 1003 | 1 | X | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | |

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

### SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

| RELINQUISHED BY SAMPLER: | DATE/TIME: | RECEIVED BY: |
|---|---|---|
| 1. JT | 1020 11.26.24 | 1. |
| 2. | DATE/TIME: | 2. |
| 3. JT | 1350 11.26.24 | 3. |

Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.8 °C
Comments:

Page ____ of ____

CLIENT: ☐ Hand Delivered ☐ Other _____
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☐ YES ☐ NO



WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside, NJ 07092 Tel. 908-789-8900 Fax 908-789-8922

# FIELD SAMPLING LOG

Client Name: New York City DEP of Environmental
Client Address: 3701 Jerome Ave
Client Rep on Site: Nicholas Prokopowicz
Sampling Date: 11·26·24
Arrival Time: 600 Departure Time: 1020

Project Name: Industrial w/w Discharge
Project Location: Bronx, NY
Cooler Custody Seal: NA
Temperature Correction Factor (°C): NA

## FIELD SAMPLING INFORMATION

| Sampling Location | Date/Time of sampling | Field Measurements | | | |
|---|---|---|---|---|---|
| | | Date/Time of Analysis | pH | Temperature °C | Specific Conductance (mS/cm) (99% -101%) |
| CCV (W3071) | 0653 11·26·24 | 0655 11·26·24 | 6.99 | 18.21 | N/A |
| 14B#1 | 700 | 703 | 6.76 | 13.25 | |
| 14B#2 | 759 | 802 | 6.80 | 13.14 | |
| 14B#3 | 900 | 903 | 6.89 | 13.29 | |
| 14B#4 | 1001 | 1003 | 6.78 | 13.41 | |
| DUP | 1004 | 1007 | 6.77 | 13.39 | |
| CCV (W3071) | 1008 | 1010 | 7.01 | 18.18 | |

**Meter: YSI MPS, Model # 556, Serial # 085A0063**

**Sampler Signature/Date:** 11·26·24

**Supervisor Review/Date:**

QA Control# A3041241

# FIELD SAMPLING LOG

Client Name: New York City DEP of Environmental
Client Address: 3701 Jerome Ave
Client Rep on Site: Nicholas ProKopowicz
Sampling Date: 11·26·24
Arrival Time: 600 Departure Time: 1020

Project Name: Industrial w/ Discharge
Project Location: Bronx, NY
Cooler Custody Seal: NA
Temperature Correction Factor (°C): NA

## FIELD EQUIPMENT CALIBRATION (± 1%) (99% -101%)

| pH Calibration (± 1%) (99% -101%) (SM4500-H B/9040C) | | | | |
|---|---|---|---|---|
| | Calibration (± 1%) (99% -101%) | | | ICV (± 0.1 pH unit) |
| | 7.00 Buffer W 3071 | 4.00 Buffer W 3107 | 10.00 Buffer W 3094 | 7.00 Buffer W 3093 |
| Time | 0640 | 0643 | 0646 | 0649 |
| Temp °C | 18.41 | 18.81 | 18.95 | 18.07 |
| pH | 6.98 | 3.99 | 9.98 | 7.02 |

## FIELD EQUIPMENT CALIBRATION (± 1%) (99% -101%)

| Specific Conductance (mS/cm) (99% -101%)/(mmho/cm) (SM2510 B/120.1/9050A) | | |
|---|---|---|
| | Calibration (± 1%) (99% -101%) | ICV (± 1%) (99% -101%) |
| | WP | WP |
| Time | | |
| Temp °C | | |
| Reading (mS/cm) | | |

**Sampler Signature/Date:** 11·26·24

**Supervisor Review/Date:**

QA Control# A3041241

**CHEMTECH**

284 Sheffield Street Mountainside, NJ 07092

## Laboratory Composite Sample log

Chemtech Project number: P5018 Date: 11-26-24

Client Name: New York City DEP of Environment Client Project Name : Industrial W/W Discharge

Instructions: Composite metals, Cyanide, Hexchrom samples 4:1

Sample Custodian: IT

| Client Sample ID | Weigh /Volume used | New ID | Sample Description | Sample Composite time | Comments |
|---|---|---|---|---|---|
| 14B #1 | 500mL - 125mL<br>1000mL - 250mL | 14B (1-4) comp | Dark Brown Water | 1420 | 125x4 = 500mL<br>250x4 = 1000mL Volume used |
| 14B #2 | | | | | |
| 14B #3 | | | | | |
| 14B #4 | | | | | |

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

# Laboratory Certification

| Certified By | License No. |
|---|---|
| | |
| CAS EPA CLP Contract | 68HERH20D0011 |
| | |
| Connecticut | PH-0830 |
| | |
| DOD ELAP (ANAB) | L2219 |
| | |
| Maine | 2024021 |
| | |
| Maryland | 296 |
| | |
| New Hampshire | 255424 Rev 1 |
| | |
| New Jersey | 20012 |
| | |
| New York | 11376 |
| | |
| Pennsylvania | 68-00548 |
| | |
| Soil Permit | 525-24-234-08441 |
| | |
| Texas | T104704488 |

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

# LOGIN REPORT/SAMPLE TRANSFER

**Order ID :** P5018 NEWY17
**Client Name :** New York City DEP of Env
**Client Contact :** Nicholas Prokopowicz
**Invoice Name :** New York City DEP of Env
**Invoice Contact :** Nicholas Prokopowicz

**Order Date :** 11/26/2024 12:20:00 PM
**Project Name :** Industrial Wastewater Disch
**Receive DateTime :** 11/26/2024 12:00:00 AM
**Purchase Order :**

**Project Mgr :**
**Report Type :** Level 2
**EDD Type :** EXCEL NOCLEANUP
**Hard Copy Date :**
**Date Signoff :**

| LAB ID | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST | TEST GROUP | METHOD | FAX DATE | DUE DATES |
|---|---|---|---|---|---|---|---|---|---|
| P5018-01 | 14B-1 | Water | 11/26/2024 | 07:00 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |
| P5018-02 | 14B-2 | Water | 11/26/2024 | 07:59 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |
| P5018-03 | 14B-3 | Water | 11/26/2024 | 09:00 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |
| P5018-04 | 14B-4 | Water | 11/26/2024 | 10:01 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |

**Relinguished By :** JT
**Date / Time :** 11-26-24 1415

**Received By :** Sam
**Date / Time :** 11/26/24 1415

**Storage Area :** VOA Refridgerator Room