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 |

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# LAB CHRONICLE

| | | | |
|---|---|---|---|
| **OrderID:** | P4646 | **OrderDate:** | 10/31/2024 10:57:00 AM |
| **Client:** | Garden State Laboratories, Inc. | **Project:** | Waste Water 2024 |
| **Contact:** | Sharon Ercoliani | **Location:** | VOA Ref. #3 Water |

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|---|---|---|---|---|---|---|---|---|
| **P4646-01** | **241030069-01-VOA** | **Water** | | | **10/30/24** | | | **10/31/24** |
| | | | VOCMS Group1 | 624.1 | | | 10/31/24 | |
| **P4646-02** | **241030043-05-TRIP-BLANK** | **Water** | | | **10/30/24** | | | **10/31/24** |
| | | | VOCMS Group1 | 624.1 | | | 10/31/24 | |

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# Hit Summary Sheet
**SW-846**

**SDG No.:** P4646

**Client:** Garden State Laboratories, Inc.

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

**Total Voc :**

**Total Concentration:**


# QC SUMMARY

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# Surrogate Summary

**SDG No.:** P4646

**Client:** Garden State Laboratories, Inc.

**Analytical Method:** SW624.1

| Lab Sample ID | Client ID | Parameter | Spike | Result | RecoveryQual | Limits Low | Limits High |
|---|---|---|---|---|---|---|---|
| P4646-01 | 241030069-01-VOA | 1,2-Dichloroethane-d4 | 30 | 29.3 | 98 | 91 | 110 |
| | | Toluene-d8 | 30 | 27.9 | 93 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 27.8 | 93 | 63 | 112 |
| P4646-02 | 241030043-05-TRIP-BLANK | 1,2-Dichloroethane-d4 | 30 | 29.7 | 99 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.0 | 93 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 25.1 | 84 | 63 | 112 |
| VN1031WBL01 | VN1031WBL01 | 1,2-Dichloroethane-d4 | 30 | 29.3 | 98 | 91 | 110 |
| | | Toluene-d8 | 30 | 28.4 | 95 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 25.0 | 83 | 63 | 112 |
| VN1031WBS01 | VN1031WBS01 | 1,2-Dichloroethane-d4 | 30 | 30.3 | 101 | 91 | 110 |
| | | Toluene-d8 | 30 | 29.0 | 97 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 29.6 | 99 | 63 | 112 |
| VN1031WBSD0 | VN1031WBSD01 | 1,2-Dichloroethane-d4 | 30 | 30.2 | 101 | 91 | 110 |
| | | Toluene-d8 | 30 | 29.4 | 98 | 91 | 112 |
| | | 4-Bromofluorobenzene | 30 | 29.2 | 97 | 63 | 112 |

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## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** P4646

**Client:** Garden State Laboratories, Inc.

**Analytical Method:** SW624.1 **Datafile :** VN084620.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1031WBS01 | Acrolein | 100 | 100 | ug/L | 100 | | | 60 | 140 | |
| | Acrylonitrile | 100 | 100 | ug/L | 100 | | | 60 | 140 | |

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## Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

**SW-846**

**SDG No.:** P4646

**Client:** Garden State Laboratories, Inc.

**Analytical Method:** SW624.1 **Datafile :** VN084621.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VN1031WBSD01 | Acrolein | 100 | 100 | ug/L | 100 | 0 | | 60 | 140 | 20 |
| | Acrylonitrile | 100 | 100 | ug/L | 100 | 0 | | 60 | 140 | 20 |

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# VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1031WBL01

Lab Name: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG NO.: P4646

Lab File ID: VN084622.D Lab Sample ID: VN1031WBL01

Date Analyzed: 10/31/2024 Time Analyzed: 16:37

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 |
|---|---|---|---|
| VN1031WBS01 | VN1031WBS01 | VN084620.D | 10/31/2024 |
| VN1031WBSD01 | VN1031WBSD01 | VN084621.D | 10/31/2024 |
| 241030043-05-TRIP-BLANK | P4646-02 | VN084623.D | 10/31/2024 |
| 241030069-01-VOA | P4646-01 | VN084624.D | 10/31/2024 |

COMMENTS:

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

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

Lab Name: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG NO.: P4646

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 |
| VN1031WBS01 | VN1031WBS01 | VN084620.D | 10/31/2024 | 15:25 |
| VN1031WBSD01 | VN1031WBSD01 | VN084621.D | 10/31/2024 | 15:49 |
| VN1031WBL01 | VN1031WBL01 | VN084622.D | 10/31/2024 | 16:37 |
| 241030043-05-TRIP-BLANK | P4646-02 | VN084623.D | 10/31/2024 | 17:01 |
| 241030069-01-VOA | P4646-01 | VN084624.D | 10/31/2024 | 17:25 |

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# VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG NO.: P4646

Lab File ID: VN084614.D Date Analyzed: 10/31/2024

Instrument ID: MSVOA_N Time Analyzed: 12:32

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 | 31274 | 7.81 | 172181 | 9.10 | 154107 | 11.87 |
| UPPER LIMIT | 62548 | 8.306 | 344362 | 9.6 | 308214 | 12.365 |
| LOWER LIMIT | 15637 | 7.306 | 86090.5 | 8.6 | 77053.5 | 11.365 |
| EPA SAMPLE NO. | | | | | | |
| 241030069-01-VOA | 30788 | 7.81 | 160595 | 9.10 | 150355 | 11.87 |
| 241030043-05-TRIP-BLANK | 30549 | 7.81 | 160545 | 9.10 | 142191 | 11.87 |
| VN1031WBL01 | 32185 | 7.81 | 168153 | 9.10 | 145344 | 11.87 |
| VN1031WBS01 | 33399 | 7.81 | 190761 | 9.10 | 176885 | 11.87 |
| VN1031WBSD01 | 32646 | 7.81 | 182685 | 9.10 | 167999 | 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.

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# VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG NO.: P4646

Lab File ID: VN084614.D Date Analyzed: 10/31/2024

Instrument ID: MSVOA_N Time Analyzed: 12:32

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

| | IS4 AREA # | RT # | | | | |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 0 | 0 | | | | |
| UPPER LIMIT | 0 | | | | | |
| LOWER LIMIT | 0 | | | | | |
| EPA SAMPLE NO. | | | | | | |
| 241030069-01-VOA | 0 | 0.00 | | | | |
| 241030043-05-TRIP-BLANK | 0 | 0.00 | | | | |
| VN1031WBL01 | 0 | 0.00 | | | | |
| VN1031WBS01 | 0 | 0.00 | | | | |
| VN1031WBSD01 | 0 | 0.00 | | | | |

IS4 =

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: **VN084624.D**

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Garden State Laboratories, Inc. | Date Collected: | 10/30/24 |
| Project: | Waste Water 2024 | Date Received: | 10/31/24 |
| Client Sample ID: | 241030069-01-VOA | SDG No.: | P4646 |
| Lab Sample ID: | P4646-01 | 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 |
|---|---|---|---|---|
| VN084624.D | 1 | | 10/31/24 17:25 | VN103124 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 107-02-8 | Acrolein | 9.30 | U | 9.30 | 25.0 | ug/L |
| 107-13-1 | Acrylonitrile | 3.70 | U | 3.70 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 29.3 | | 91 - 110 | 98% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 27.9 | | 91 - 112 | 93% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 27.8 | | 63 - 112 | 93% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 30800 | 7.812 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 161000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 150000 | 11.865 | | | |

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: **VN084624.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084624.D
Acq On : 31 Oct 2024 17:25
Operator : JC\MD
Sample : P4646-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:49:32 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 :**
241030069-01-VOA

**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) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 30788 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 160595 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 150355 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 72579 | 29.323 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 97.733% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 72009 | 27.815 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 92.700% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 198530 | 27.892 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 92.967% | | | |
| Target Compounds | | | | | | Qvalue |
| 8) Diethyl Ether | 3.959 | 74 | 2669m | 2.301 | ug/l | |
| 12) Methyl Acetate | 5.030 | 43 | 7615m | 2.723 | ug/l | |
| 15) Acetone | 4.430 | 58 | 67225 | 285.951 | ug/l | 92 |
| 16) Carbon Disulfide | 4.689 | 76 | 3437 | 0.651 | ug/l # | 78 |
| 23) tert-Butyl Alcohol | 5.553 | 59 | 1301139 | 4073.413 | ug/l # | 100 |
| 24) Methyl tert-Butyl Ether | 5.795 | 73 | 16202m | 2.792 | ug/l | |
| 30) 2-Butanone | 7.483 | 43 | 264366 | 236.931 | ug/l | 94 |
| 34) Benzene | 8.600 | 78 | 33478 | 4.187 | ug/l # | 84 |
| 45) 1,4-Dioxane | 9.700 | 88 | 3026 | 95.472 | ug/l # | 84 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 8956 | 3.776 | ug/l # | 77 |
| 62) Toluene | 10.624 | 91 | 19845 | 2.317 | ug/l | 97 |
| 64) Chlorobenzene | 11.888 | 112 | 7252 | 1.403 | ug/l | 89 |
| 66) Ethyl Benzene | 11.965 | 91 | 57034 | 6.337 | ug/l | 94 |
| 67) m/p-Xylenes | 12.071 | 106 | 28691 | 8.327 | ug/l | 99 |
| 68) o-Xylene | 12.394 | 106 | 17412 | 5.239 | ug/l | 98 |
| 70) Isopropylbenzene | 12.694 | 105 | 8063 | 0.977 | ug/l | 97 |
| 74) n-propylbenzene | 13.035 | 91 | 5033 | 0.521 | ug/l | 98 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 5106 | 0.724 | ug/l | 100 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 20270 | 2.848 | ug/l | 97 |
| 82) p-Isopropyltoluene | 13.723 | 119 | 6988 | 1.035 | ug/l | 94 |
| 84) 1,4-Dichlorobenzene | 13.806 | 146 | 13402 | 3.444 | ug/l | 95 |
| 85) n-Butylbenzene | 14.053 | 91 | 1456 | 0.257 | ug/l | 95 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 1621 | 0.418 | ug/l | 92 |
| 91) Naphthalene | 15.641 | 128 | 205176 | 33.999 | ug/l | 99 |

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

Sample Results: **VN084624.D**

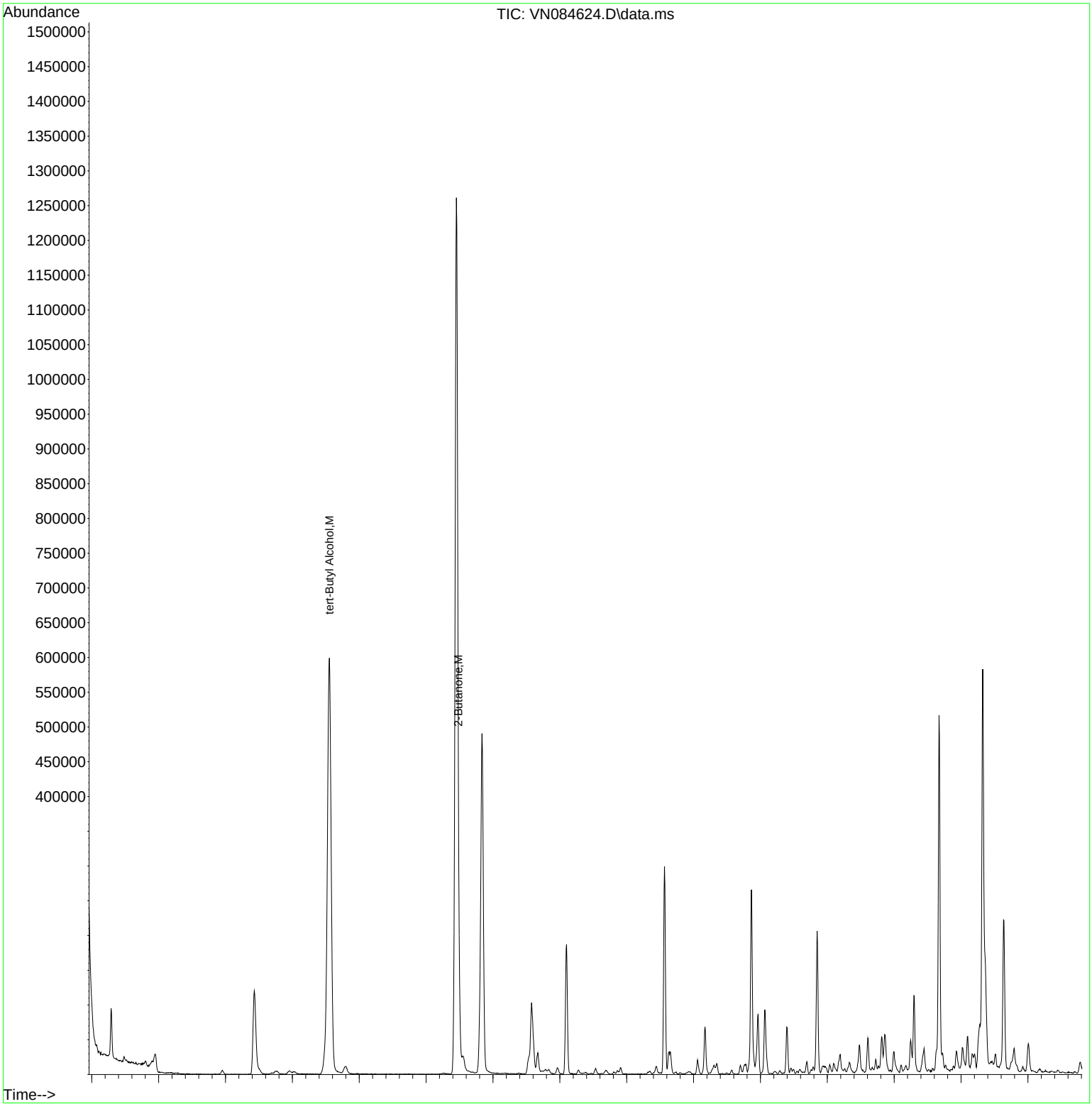
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084624.D
Acq On : 31 Oct 2024 17:25
Operator : JC\MD
Sample : P4646-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

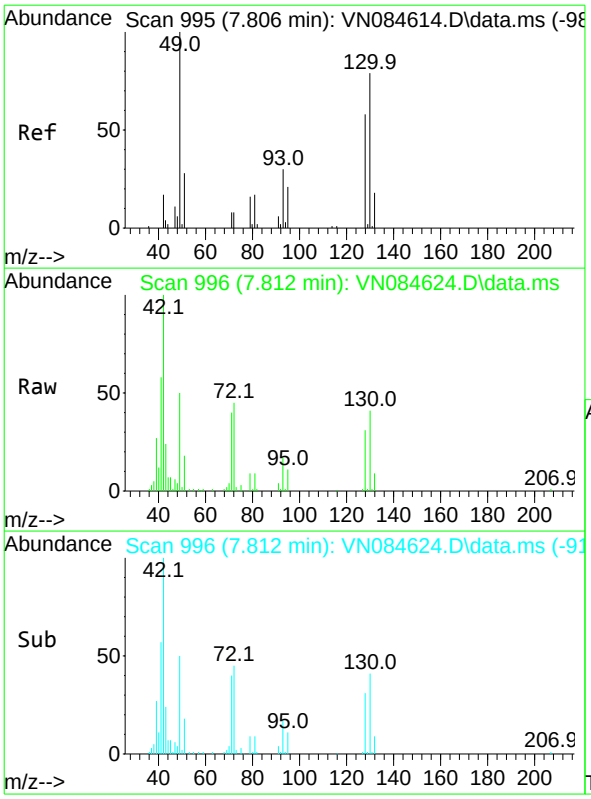
Quant Time: Nov 01 02:49:32 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N103124W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Nov 01 02:38:04 2024
Response via : Initial Calibration

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations APPROVED**

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

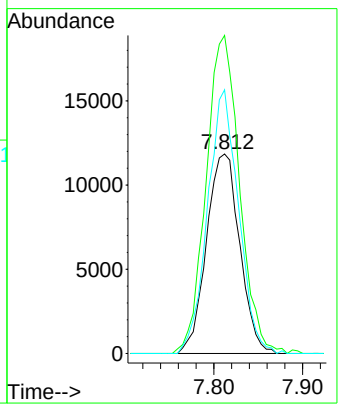





#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 99
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:128 Resp: 30788

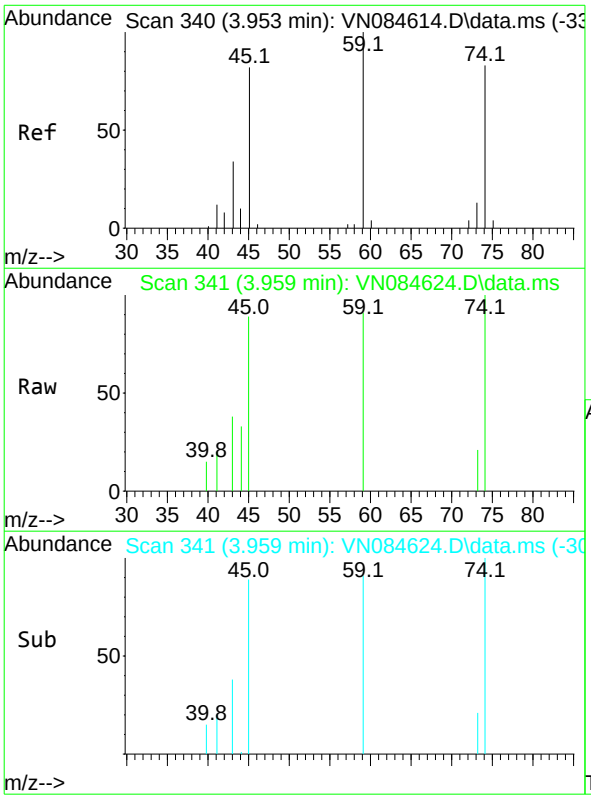
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 160.2 | 0.0 | 427.0 |
| 130 | 123.2 | 0.0 | 322.2 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

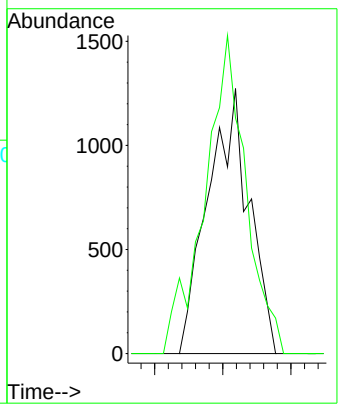
Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

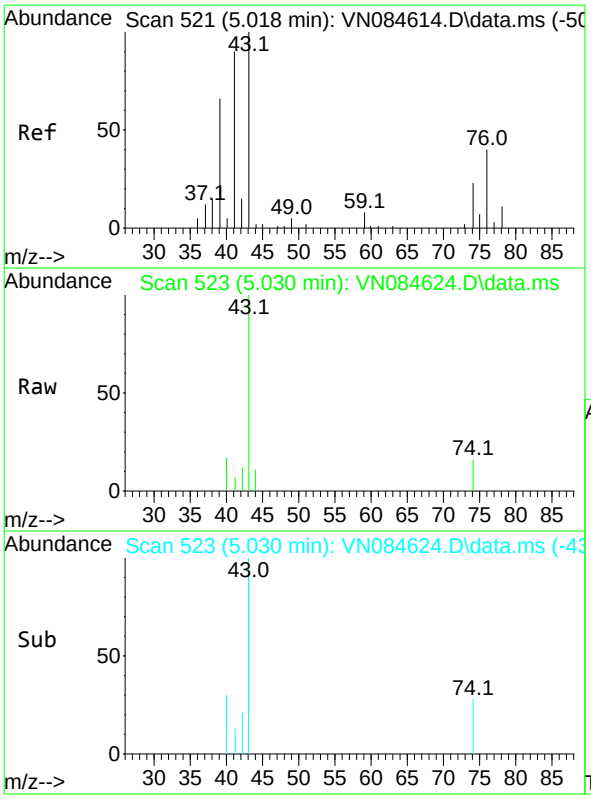



#8
Diethyl Ether
Concen: 2.301 ug/l m
RT: 3.959 min Scan# 341
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 74 Resp: 2669

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 0.0 | 19.8 | 178.4# |






#12
Methyl Acetate
Concen: 2.723 ug/l m
RT: 5.030 min Scan# 52
Delta R.T. 0.012 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

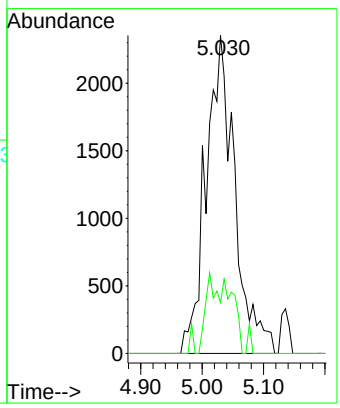
Tgt Ion: 43 Resp: 7615

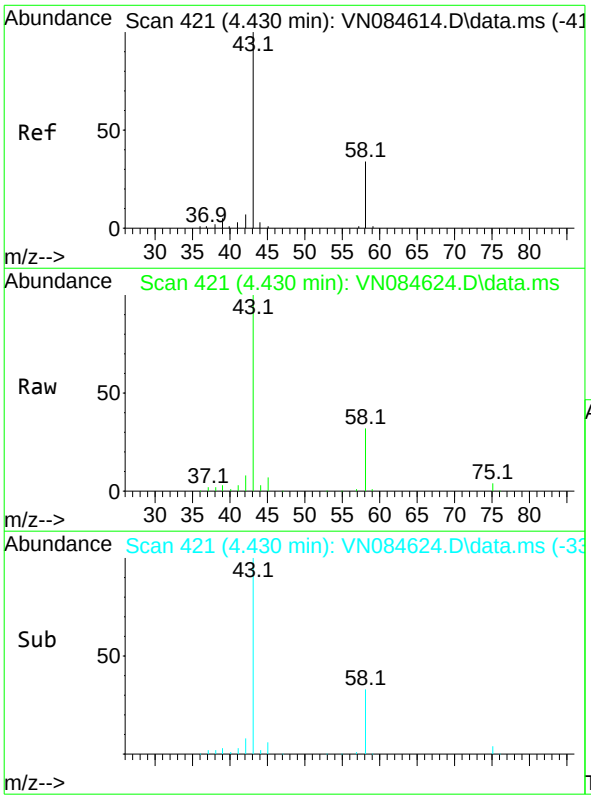
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 16.0 | 19.0 | 28.4# |

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

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

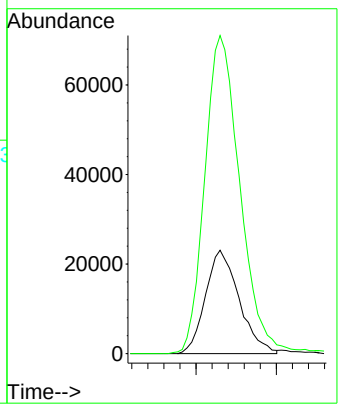


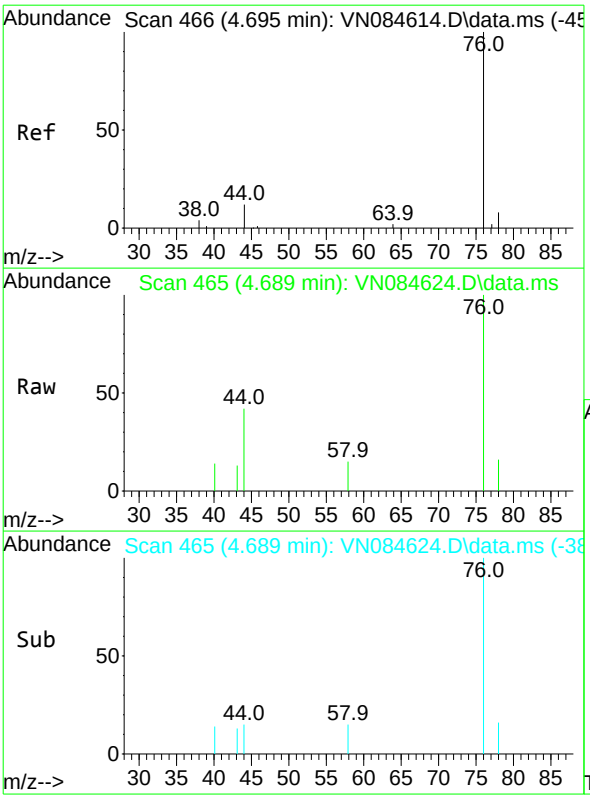




#15
Acetone
Concen: 285.951 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 58 Resp: 67225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 58 | 100 | | |
| 43 | 306.1 | 233.0 | 349.6 |






#16
Carbon Disulfide
Concen: 0.651 ug/l
RT: 4.689 min Scan# 46
Delta R.T. -0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 76 Resp: 3437

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 15.8 | 6.6 | 9.8# |

**Instrument :**
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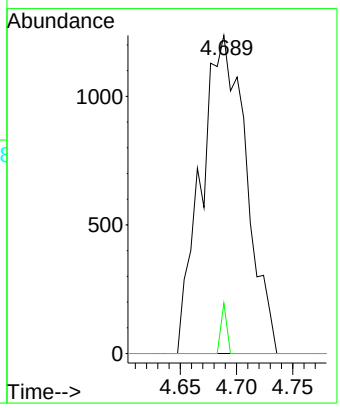
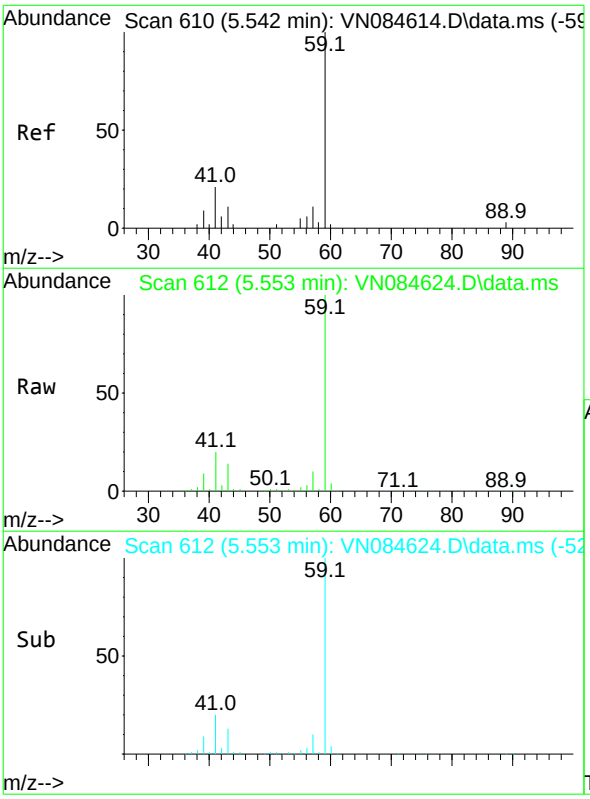
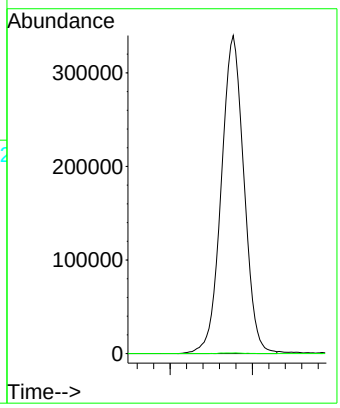


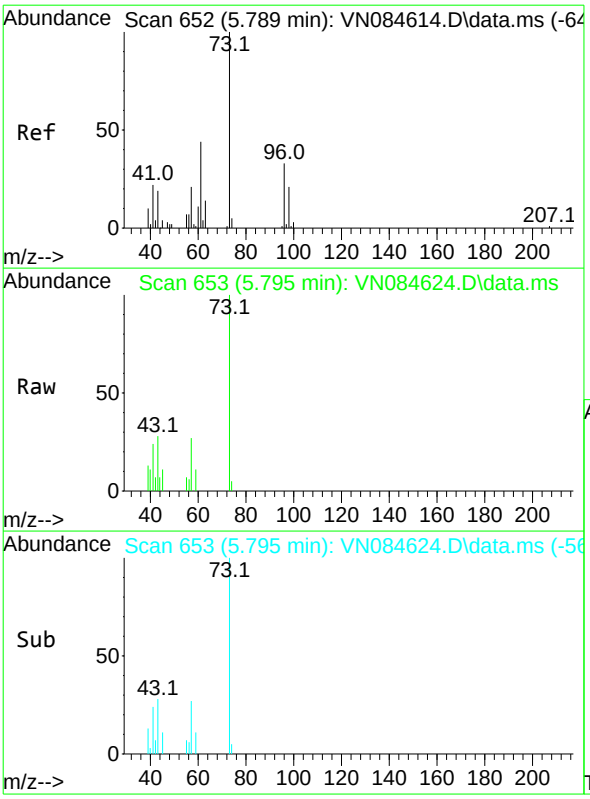




#23
tert-Butyl Alcohol
Concen: 4073.413 ug/l
RT: 5.553 min Scan# 612
Delta R.T. 0.012 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 59 Resp: 1301139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 52 | 0.1 | 0.0 | 0.0# |






#24
Methyl tert-Butyl Ether
Concen: 2.792 ug/l m
RT: 5.795 min Scan# 65
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 73 Resp: 16202

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 43 | 15.6 | 16.5 | 24.7# |

**Instrument :**
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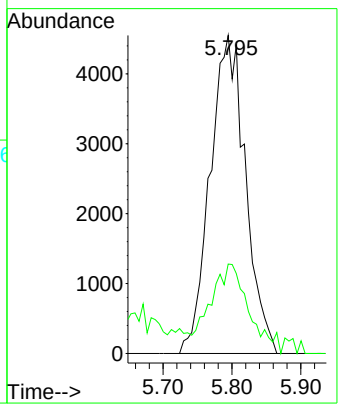
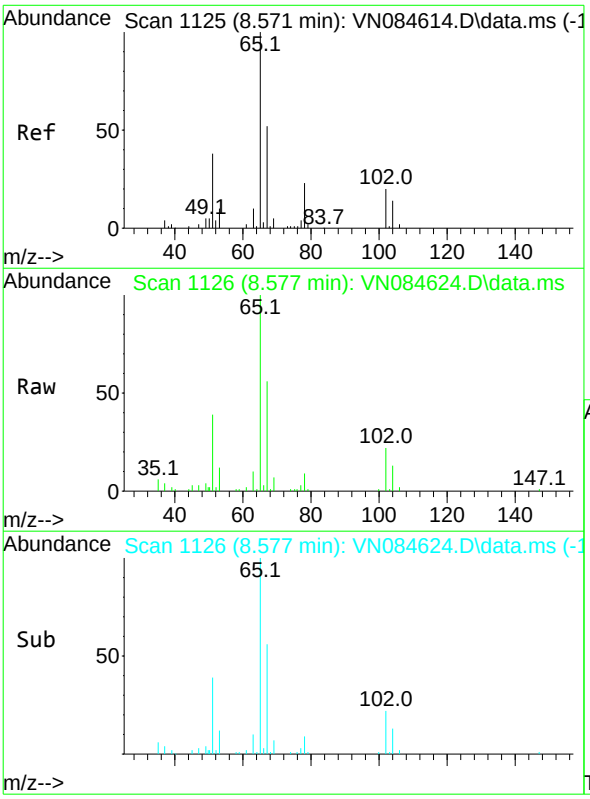
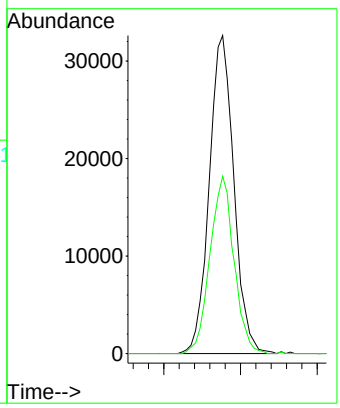


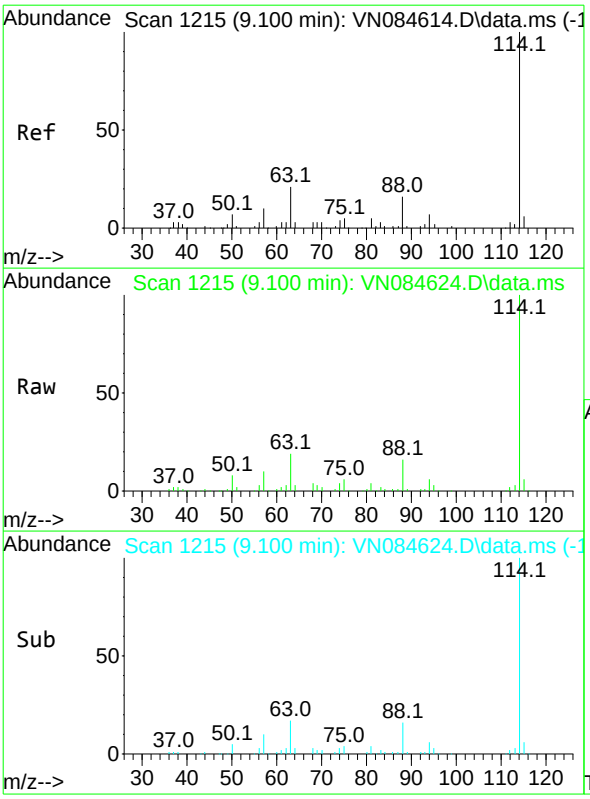




#27
1,2-Dichloroethane-d4
Concen: 29.323 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 65 Resp: 72579

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 54.5 | 40.7 | 61.1 |

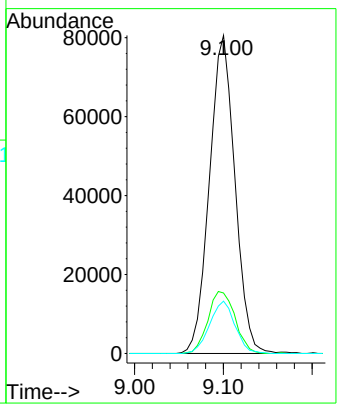





#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 12
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:114 Resp: 160595

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.7 | 16.8 | 25.2 |
| 88 | 16.4 | 12.9 | 19.3 |




**Instrument :**
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**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
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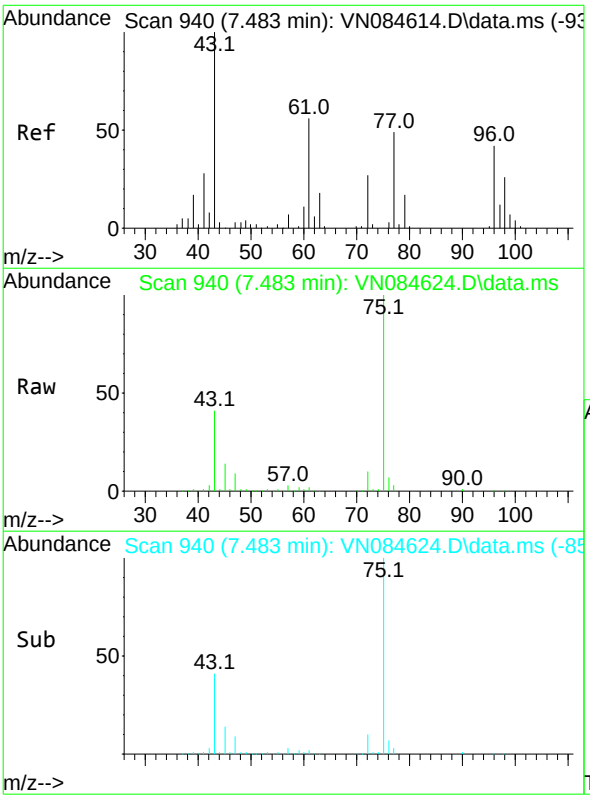
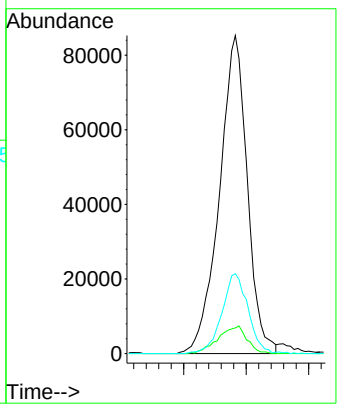
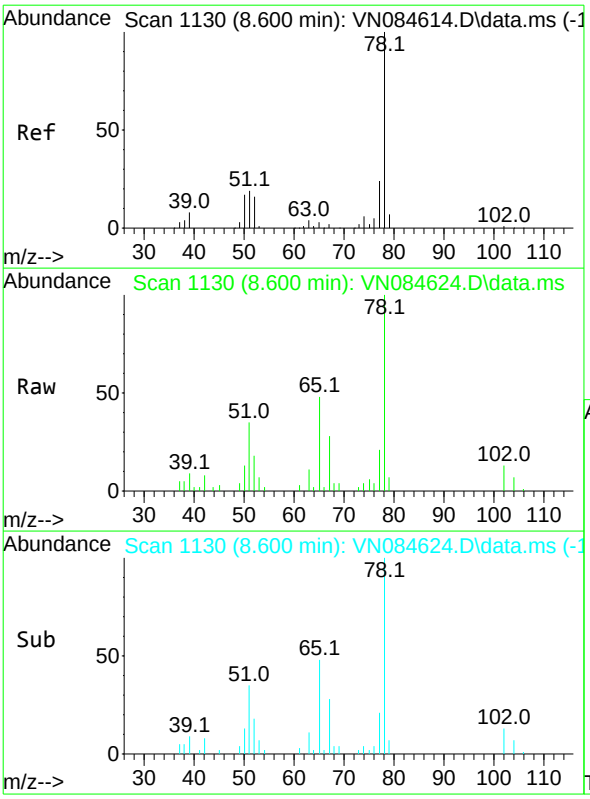



#30
2-Butanone
Concen: 236.931 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 43 Resp: 264366

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 8.9 | 6.2 | 9.4 |
| 72 | 23.5 | 21.5 | 32.3 |

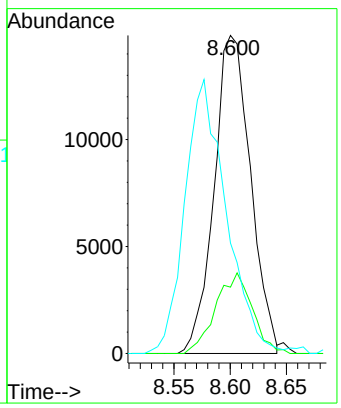





#34
Benzene
Concen: 4.187 ug/l
RT: 8.600 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 78 Resp: 33478

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 20.9 | 19.3 | 28.9 |
| 51 | 33.0 | 16.1 | 24.1# |

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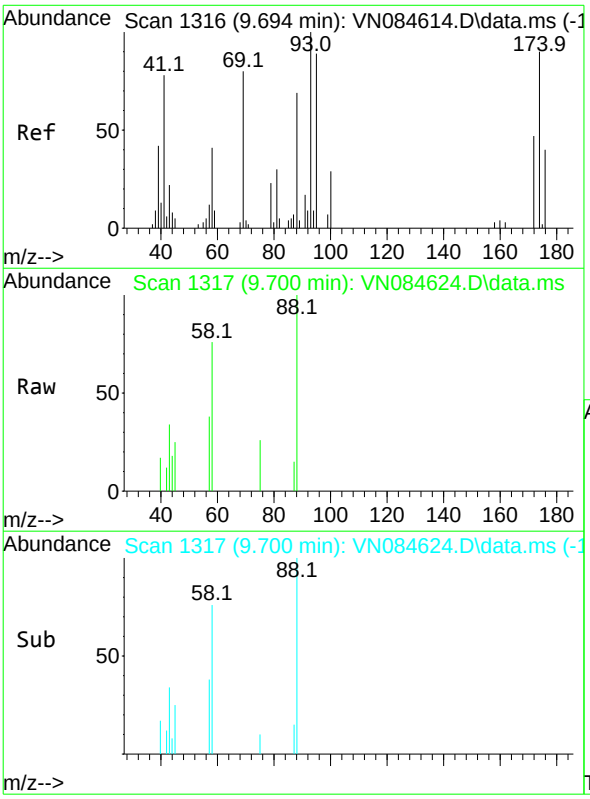
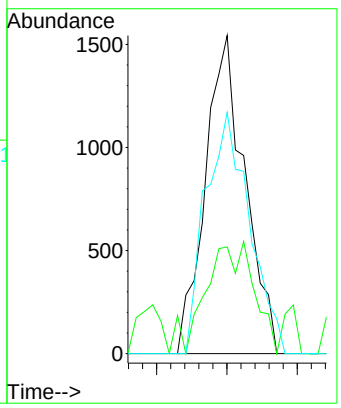
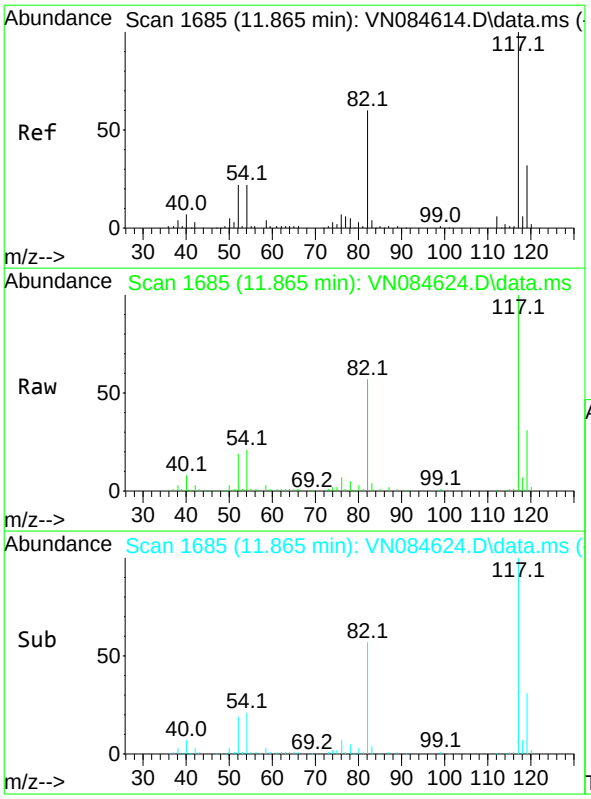



#45
1,4-Dioxane
Concen: 95.472 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 88 Resp: 3026

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 25.9 | 20.8 | 31.2 |
| 58 | 84.0 | 53.4 | 80.2# |

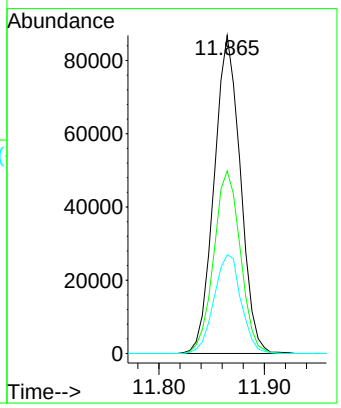





#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 16
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:117 Resp: 150355

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 58.1 | 45.5 | 68.3 |
| 119 | 32.1 | 25.3 | 37.9 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
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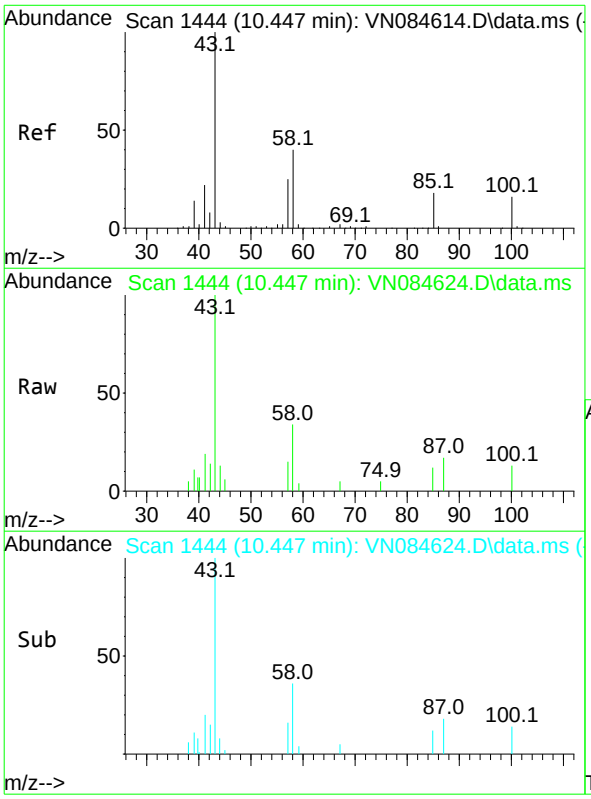
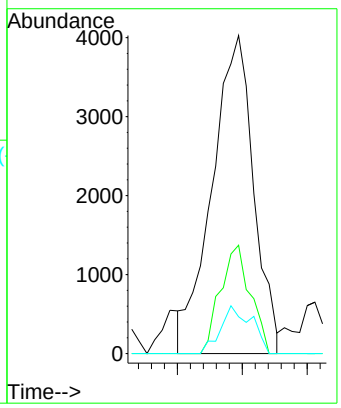
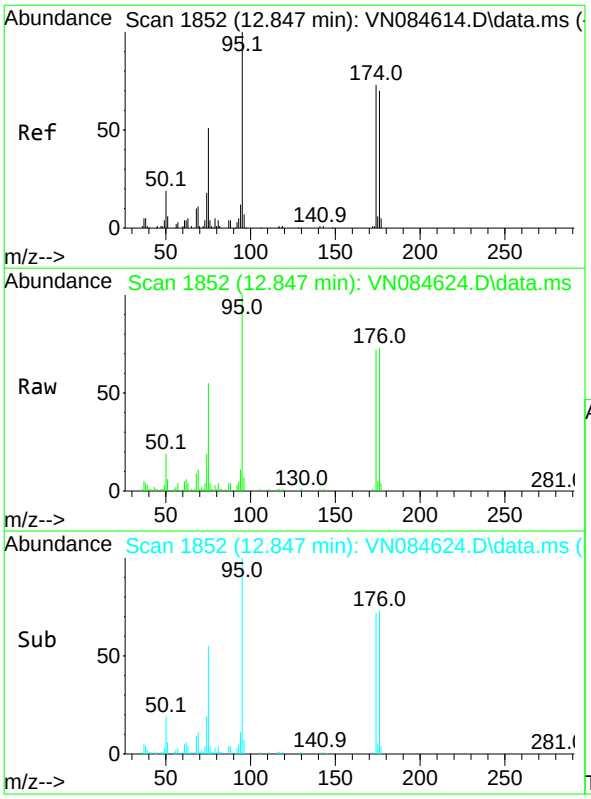



#58
4-Methyl-2-Pentanone
Concen: 3.776 ug/l
RT: 10.447 min Scan# 1444
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 43 Resp: 8956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 24.6 | 31.2 | 46.8# |
| 85 | 8.5 | 14.9 | 22.3# |

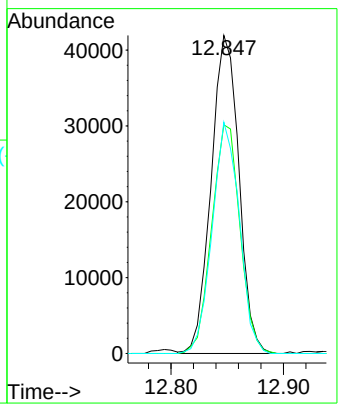





#60
4-Bromofluorobenzene
Concen: 27.815 ug/l
RT: 12.847 min Scan# 18
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 95 Resp: 72009

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 73.1 | 59.6 | 89.4 |
| 176 | 71.0 | 58.6 | 88.0 |

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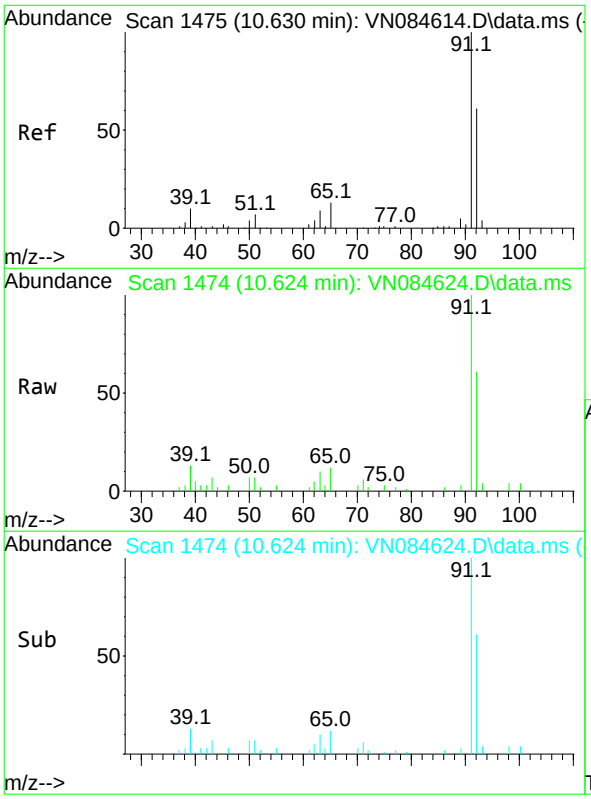
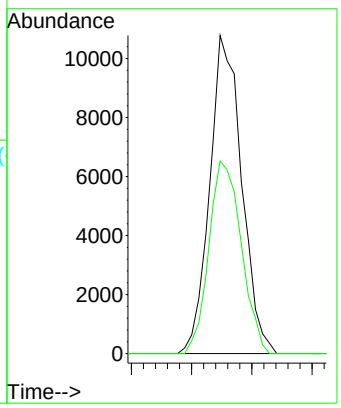
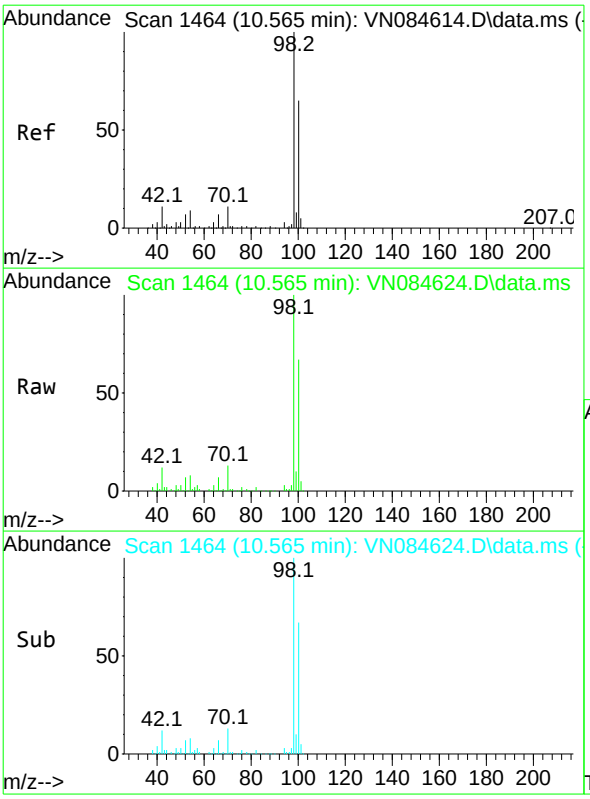



#62
Toluene
Concen: 2.317 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. -0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 91 Resp: 19845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 61.4 | 47.5 | 71.3 |

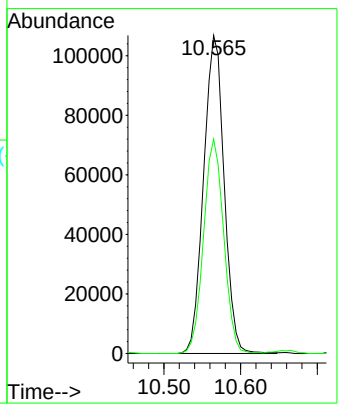





#63
Toluene-d8
Concen: 27.892 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 98 Resp: 198530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 66.1 | 52.2 | 78.2 |

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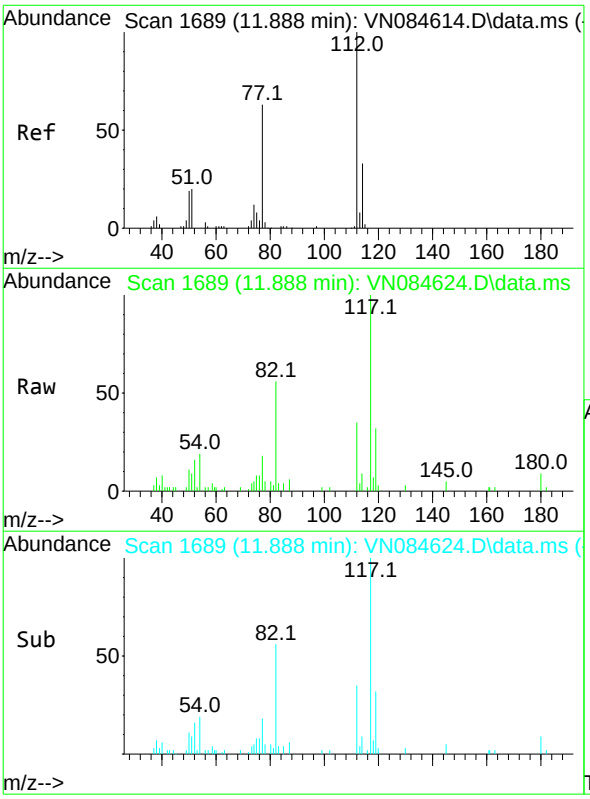
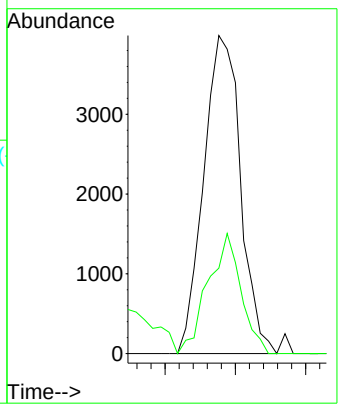
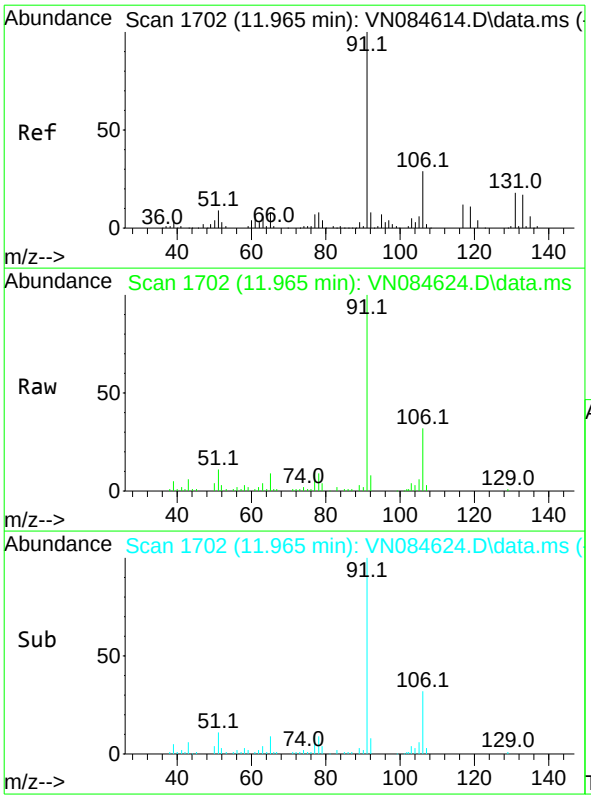



#64
Chlorobenzene
Concen: 1.403 ug/l
RT: 11.888 min Scan# 1689
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:112 Resp: 7252

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 26.9 | 26.2 | 39.4 |

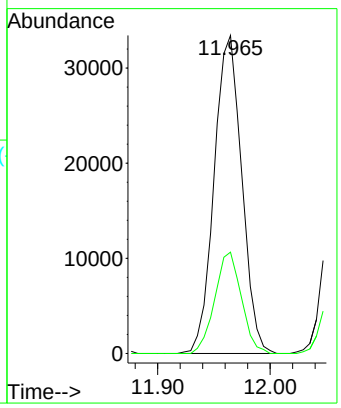





#66
Ethyl Benzene
Concen: 6.337 ug/l
RT: 11.965 min Scan# 17
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 91 Resp: 57034

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.9 | 22.9 | 34.3 |

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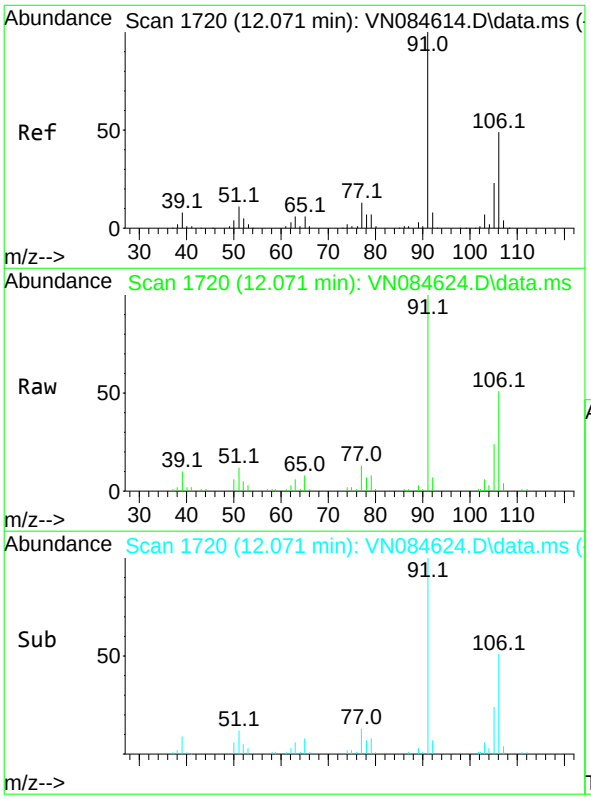
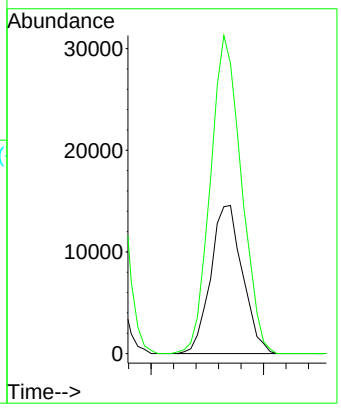
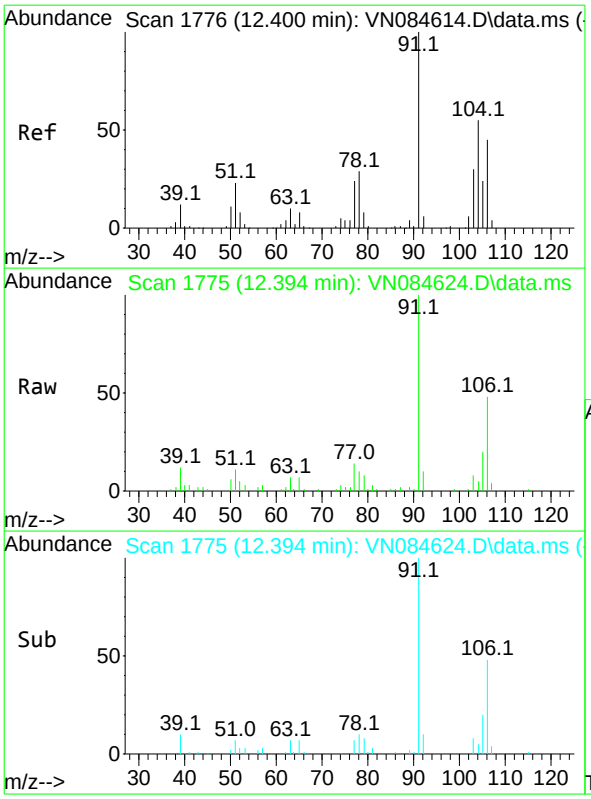



#67
m/p-Xylenes
Concen: 8.327 ug/l
RT: 12.071 min Scan# 1720
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:106 Resp: 28691

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 208.9 | 168.1 | 252.1 |






#68
o-Xylene
Concen: 5.239 ug/l
RT: 12.394 min Scan# 17
Delta R.T. -0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:106 Resp: 17412

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 218.4 | 107.7 | 322.9 |

**Instrument :**
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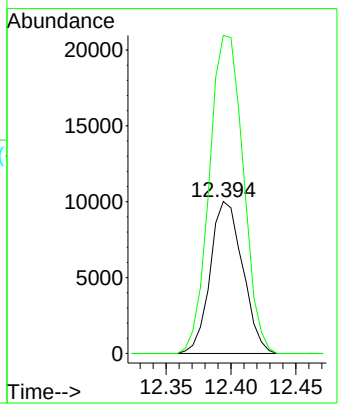
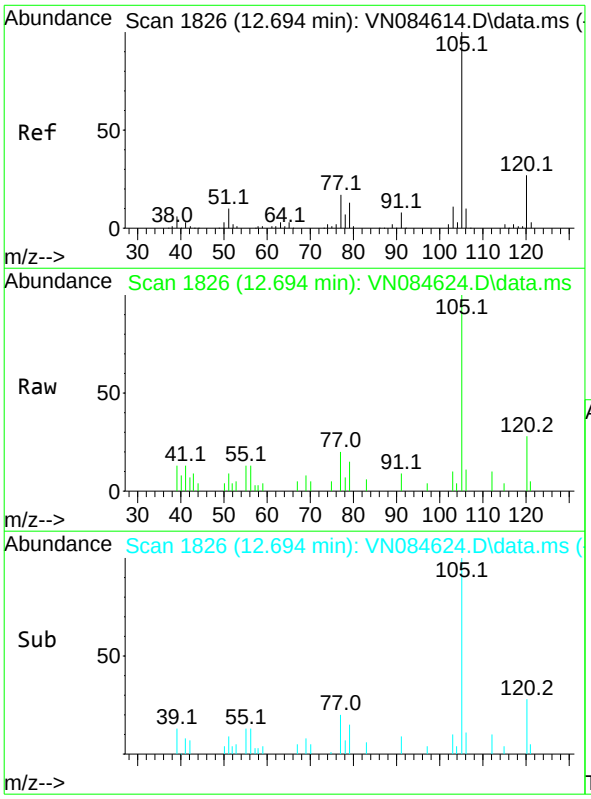
Supervised By :Mahesh Dadoda 11/04/2024

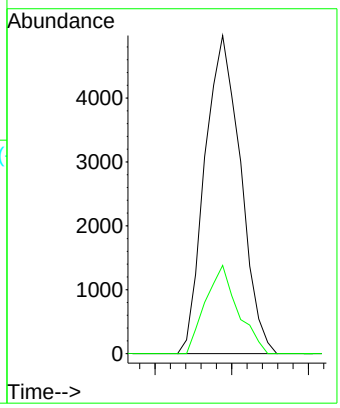


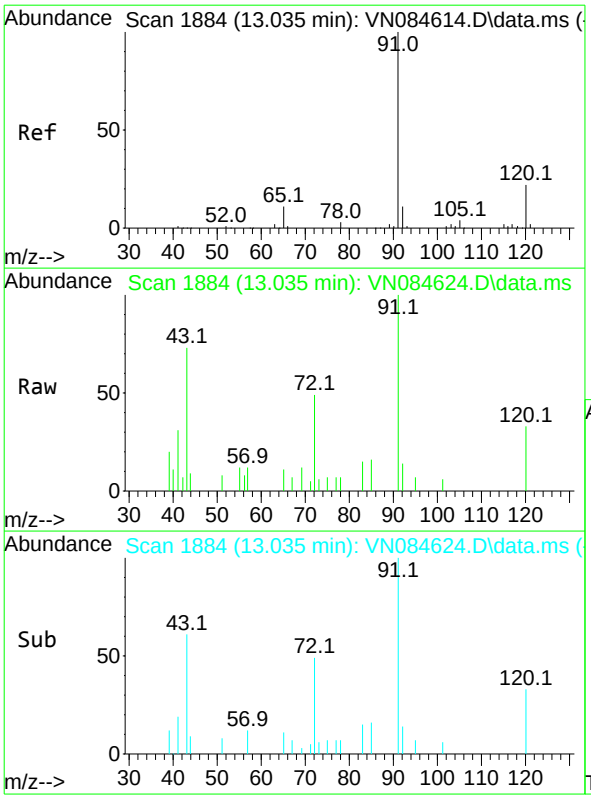




#70
Isopropylbenzene
Concen: 0.977 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:105 Resp: 8063

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 25.1 | 18.7 | 34.7 |

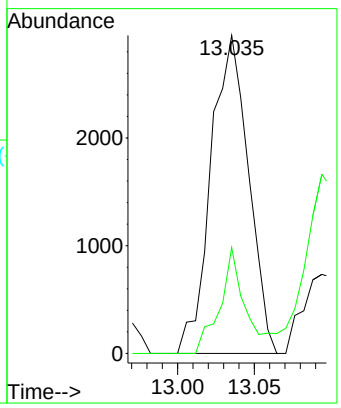





#74
n-propylbenzene
Concen: 0.521 ug/l
RT: 13.035 min Scan# 18
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 91 Resp: 5033

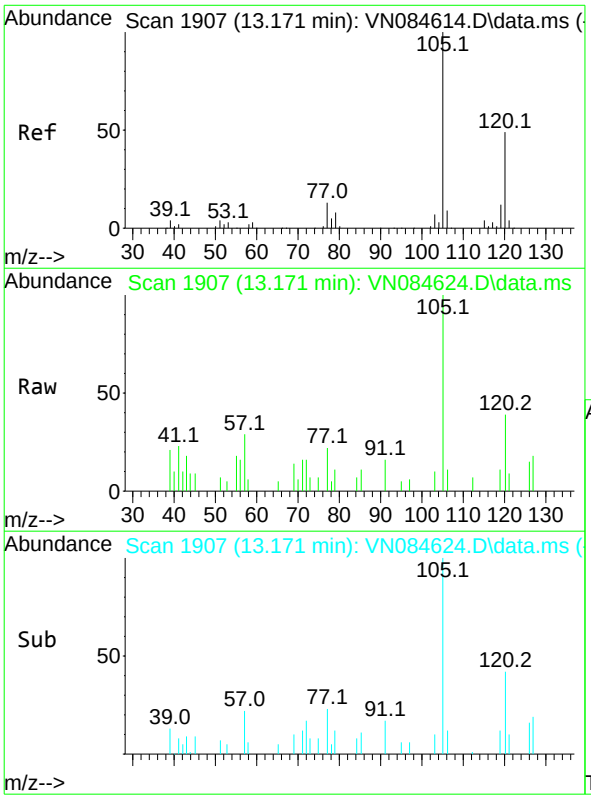
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 21.1 | 0.0 | 44.0 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

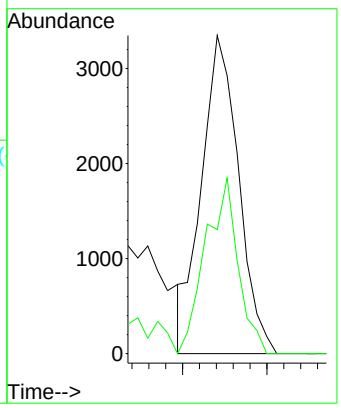
Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

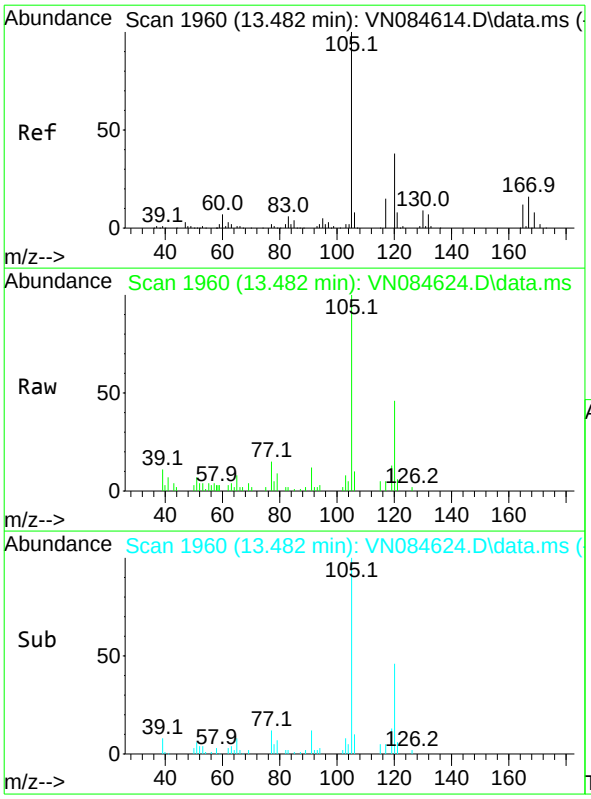



#76
1,3,5-Trimethylbenzene
Concen: 0.724 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:105 Resp: 5106

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.6 | 0.0 | 96.8 |

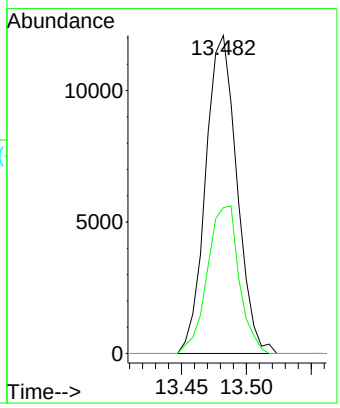





#80
1,2,4-Trimethylbenzene
Concen: 2.848 ug/l
RT: 13.482 min Scan# 19
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:105 Resp: 20270

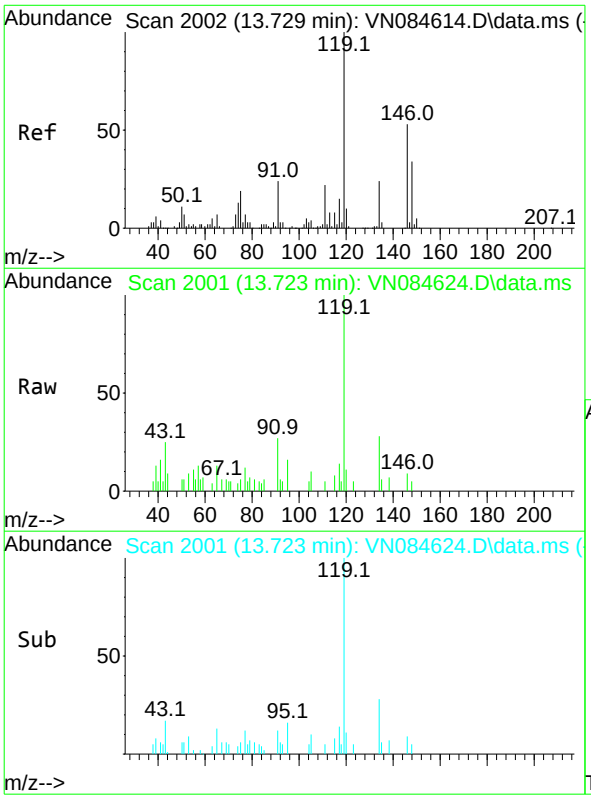
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.1 | 0.0 | 90.4 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

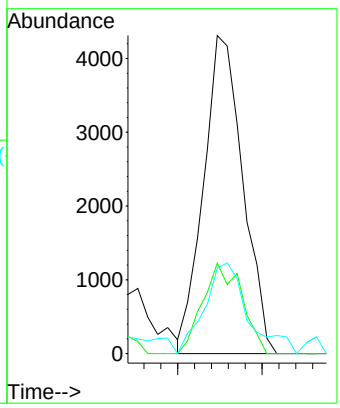
Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

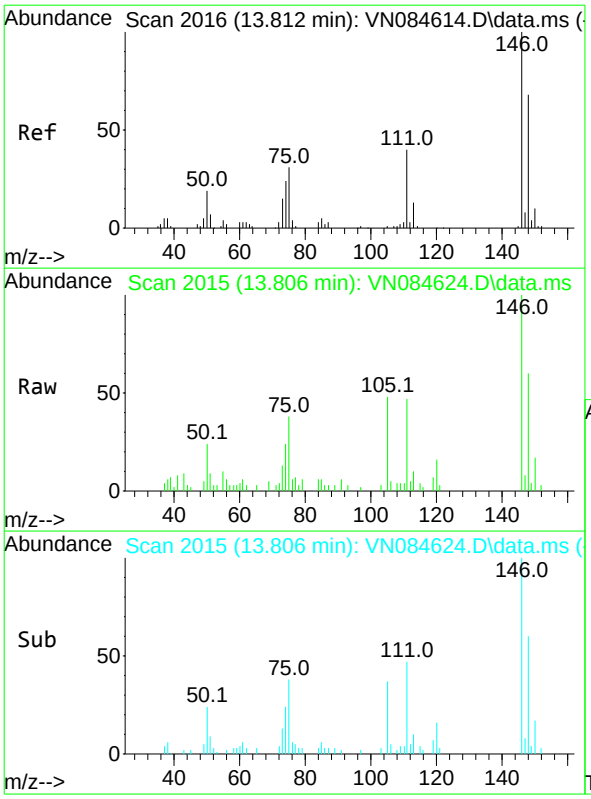



#82
p-Isopropyltoluene
Concen: 1.035 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. -0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:119 Resp: 6988

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 28.3 | 0.0 | 51.4 |
| 91 | 29.0 | 0.0 | 50.4 |

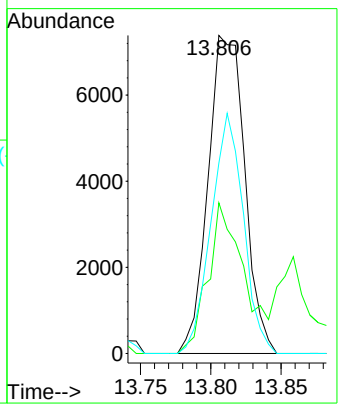





#84
1,4-Dichlorobenzene
Concen: 3.444 ug/l
RT: 13.806 min Scan# 20
Delta R.T. -0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:146 Resp: 13402

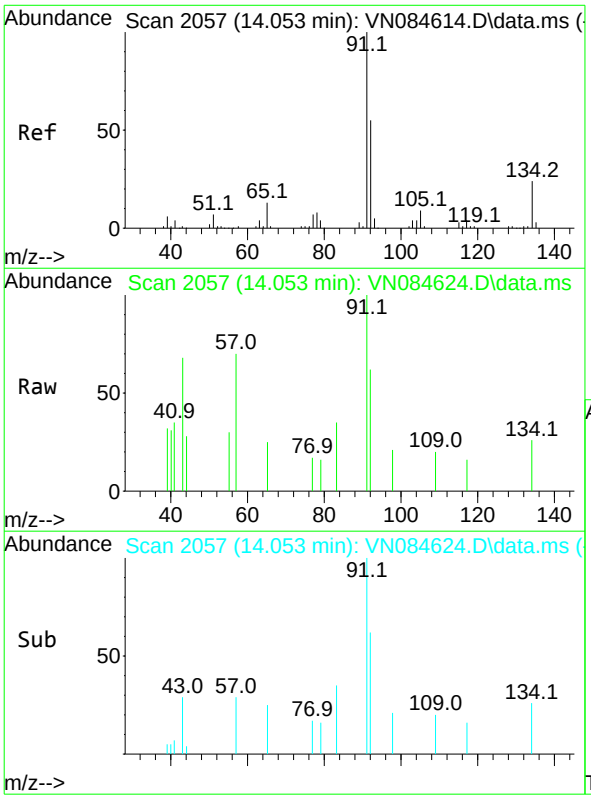
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 46.7 | 20.2 | 60.5 |
| 148 | 66.5 | 32.6 | 98.0 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

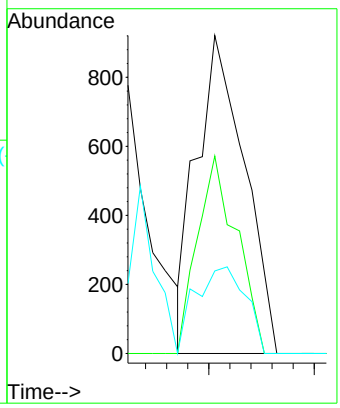
Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024

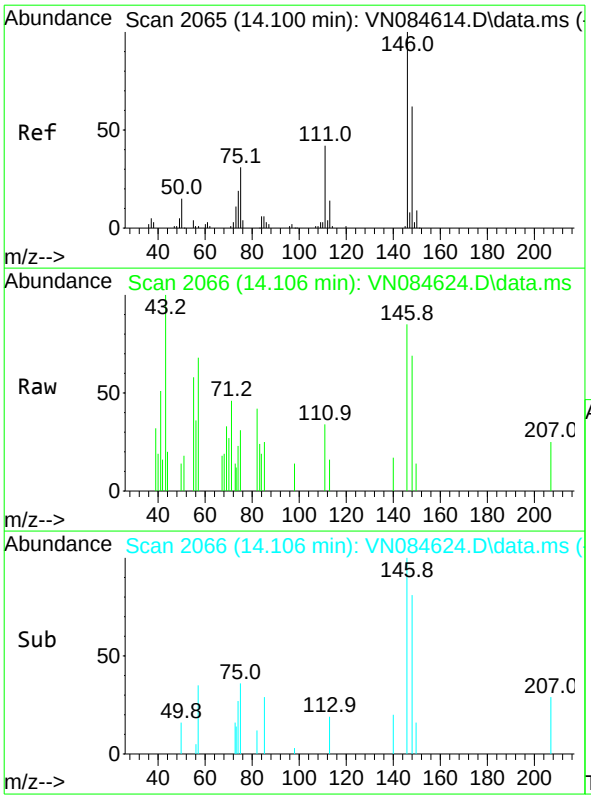



#85
n-Butylbenzene
Concen: 0.257 ug/l
RT: 14.053 min Scan# 2057
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion: 91 Resp: 1456

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 51.0 | 0.0 | 106.2 |
| 134 | 28.5 | 0.0 | 48.2 |

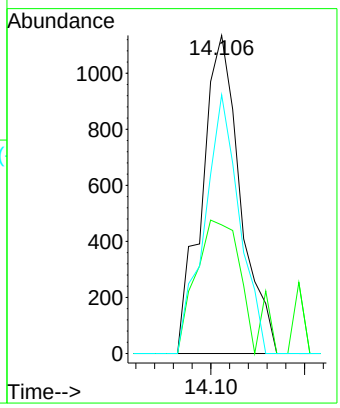





#87
1,2-Dichlorobenzene
Concen: 0.418 ug/l
RT: 14.106 min Scan# 20
Delta R.T. 0.006 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:146 Resp: 1621

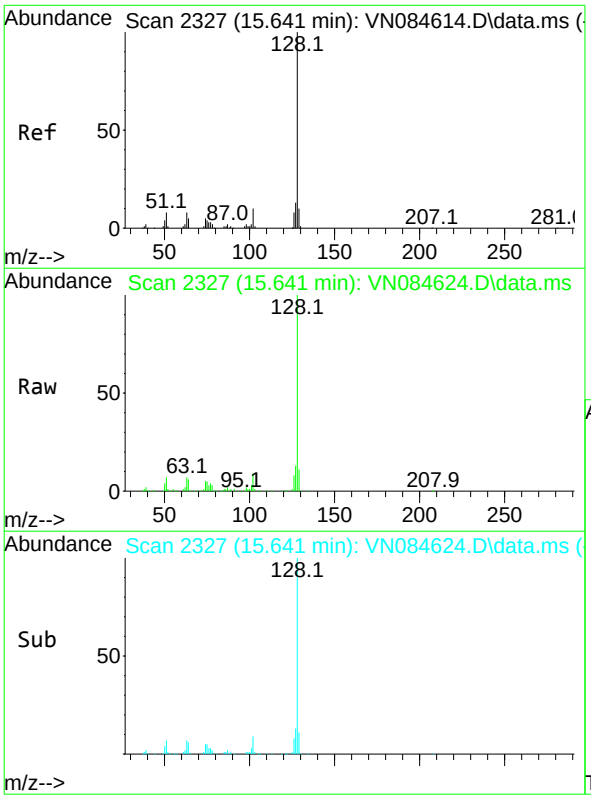
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 46.8 | 22.4 | 67.0 |
| 148 | 73.8 | 32.6 | 98.0 |




**Instrument :**
MSVOA_N
**ClientSampleId :**
241030069-01-VOA

**Manual Integrations**
**APPROVED**

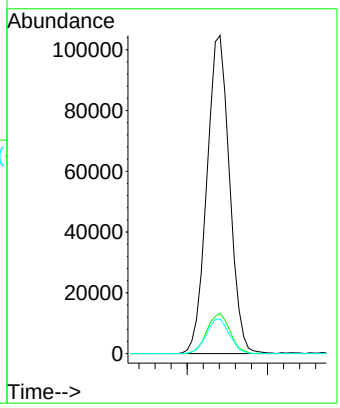
Reviewed By :Semsettin Yesilyurt 11/04/2024
Supervised By :Mahesh Dadoda 11/04/2024




#91
Naphthalene
Concen: 33.999 ug/l
RT: 15.641 min Scan# 2327
Delta R.T. 0.000 min
Lab File: VN084624.D
Acq: 31 Oct 2024 17:25

Tgt Ion:128 Resp: 205176

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.8 | 10.3 | 15.5 |
| 129 | 11.1 | 8.6 | 12.8 |



Raw Data: **VN084623.D**

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

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Garden State Laboratories, Inc. | Date Collected: | 10/30/24 |
| Project: | Waste Water 2024 | Date Received: | 10/31/24 |
| Client Sample ID: | 241030043-05-TRIP-BLANK | SDG No.: | P4646 |
| Lab Sample ID: | P4646-02 | 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 |
|---|---|---|---|---|
| VN084623.D | 1 | | 10/31/24 17:01 | VN103124 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 107-02-8 | Acrolein | 9.30 | U | 9.30 | 25.0 | ug/L |
| 107-13-1 | Acrylonitrile | 3.70 | U | 3.70 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 29.7 | | 91 - 110 | 99% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.0 | | 91 - 112 | 93% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 25.1 | | 63 - 112 | 84% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 30500 | 7.806 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 161000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 142000 | 11.865 | | | |

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: **VN084623.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084623.D
Acq On : 31 Oct 2024 17:01
Operator : JC\MD
Sample : P4646-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Quant Time: Nov 01 02:49:14 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

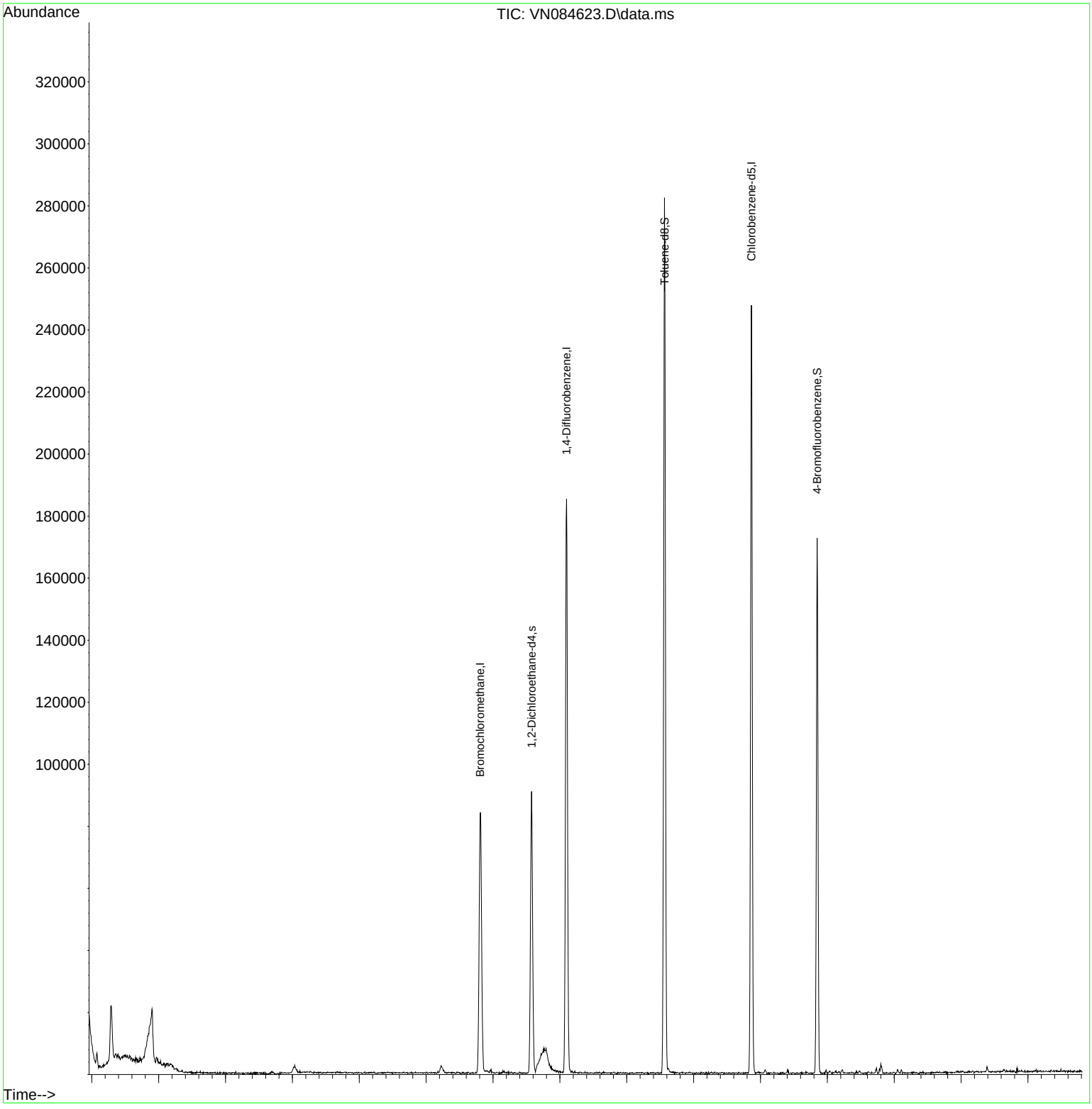
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.806 | 128 | 30549 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 160545 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 142191 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 72870 | 29.671 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 98.900% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 61359 | 25.062 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 83.533% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 188693 | 28.032 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 93.433% | | | |
| Target Compounds | | | | | | Qvalue |
| 12) Methyl Acetate | 5.036 | 43 | 4714 | 1.699 | ug/l | 91 |

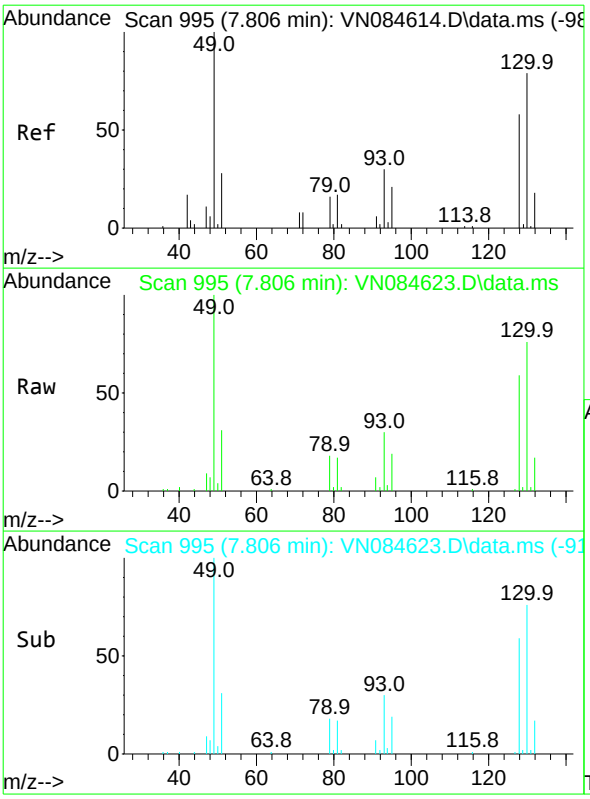
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084623.D
Acq On : 31 Oct 2024 17:01
Operator : JC\MD
Sample : P4646-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Quant Time: Nov 01 02:49:14 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



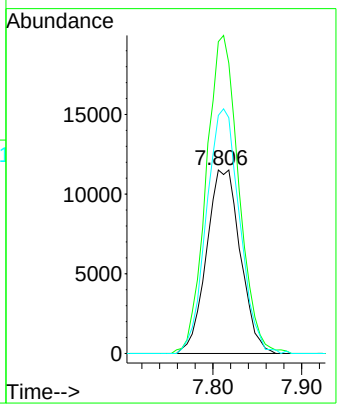


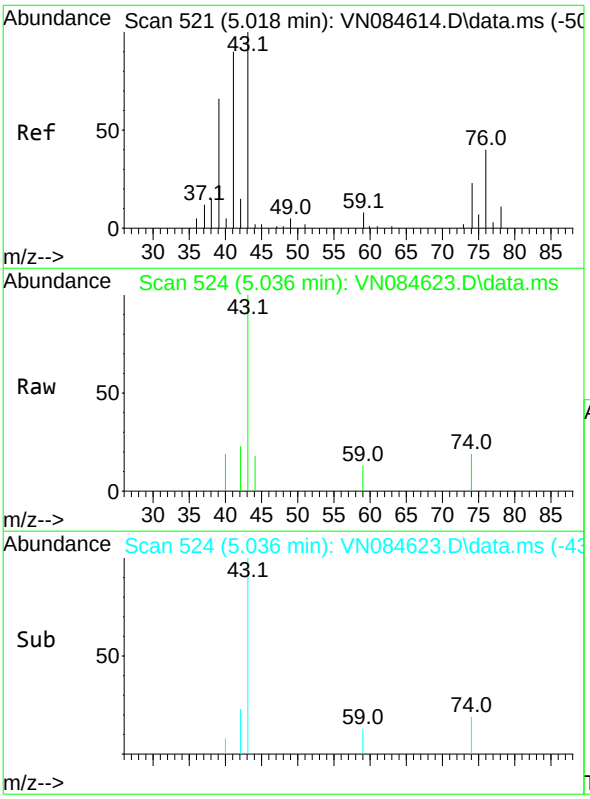

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.806 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Tgt Ion:128 Resp: 30549

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 166.4 | 0.0 | 427.0 |
| 130 | 130.4 | 0.0 | 322.2 |

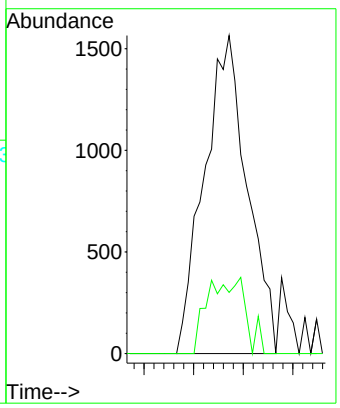


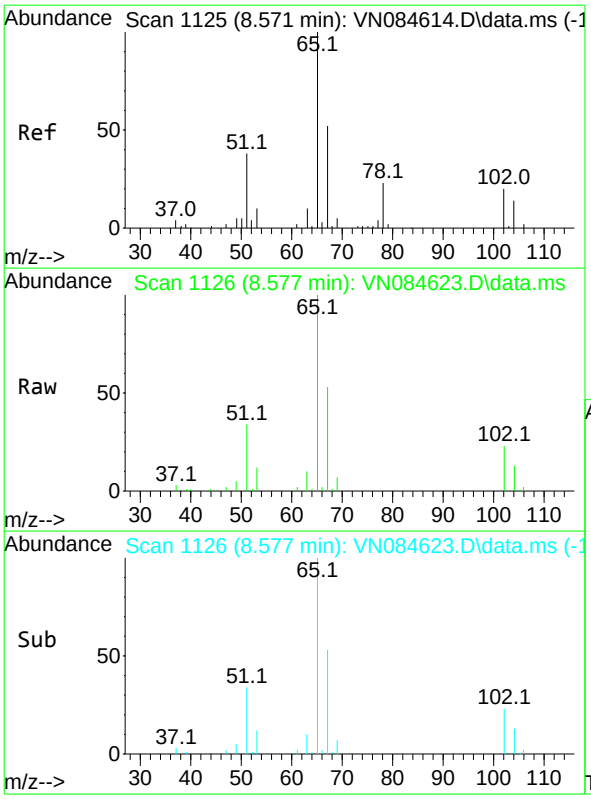




#12
Methyl Acetate
Concen: 1.699 ug/l
RT: 5.036 min Scan# 524
Delta R.T. 0.018 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

Tgt Ion: 43 Resp: 4714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 19.2 | 19.0 | 28.4 |



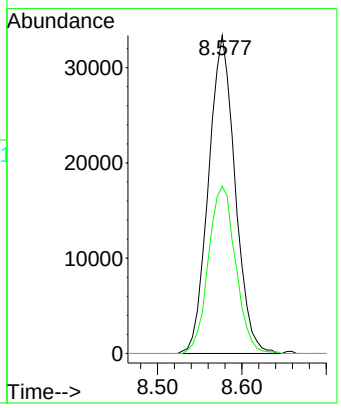


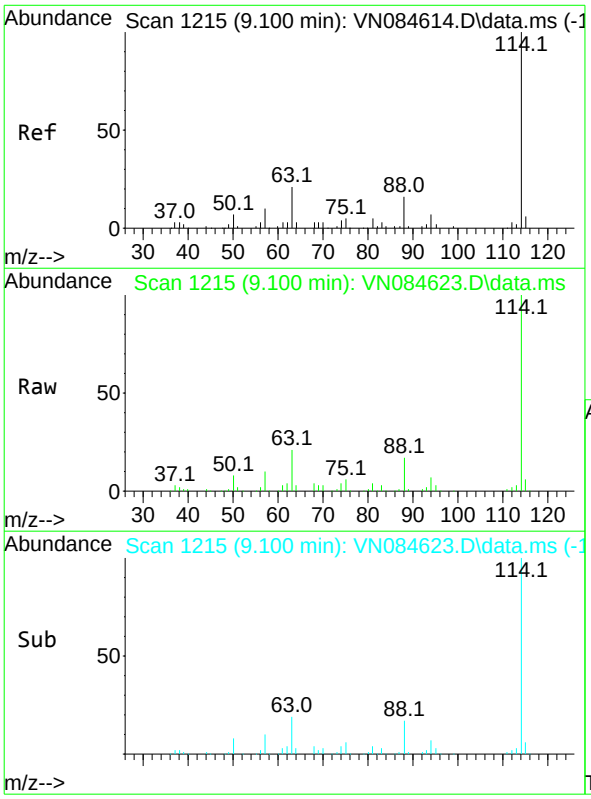

#27
1,2-Dichloroethane-d4
Concen: 29.671 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Tgt Ion: 65 Resp: 72870

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 54.0 | 40.7 | 61.1 |

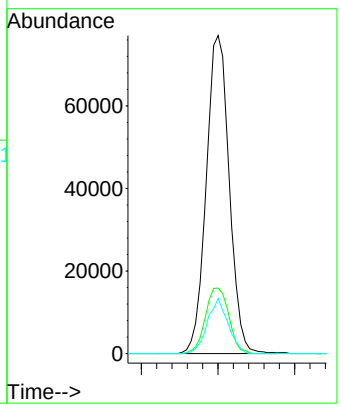


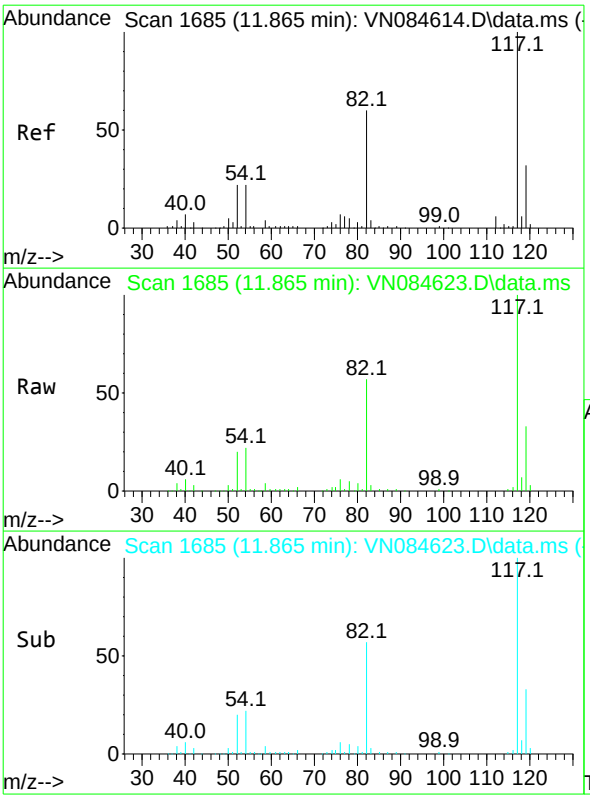




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. -0.000 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

Tgt Ion:114 Resp: 160545

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.0 | 16.8 | 25.2 |
| 88 | 15.6 | 12.9 | 19.3 |



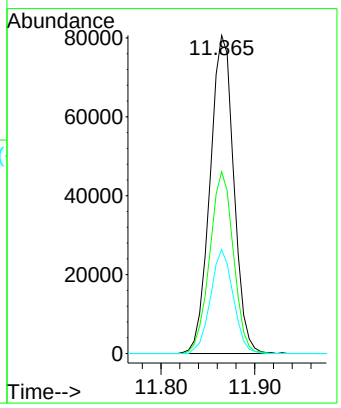


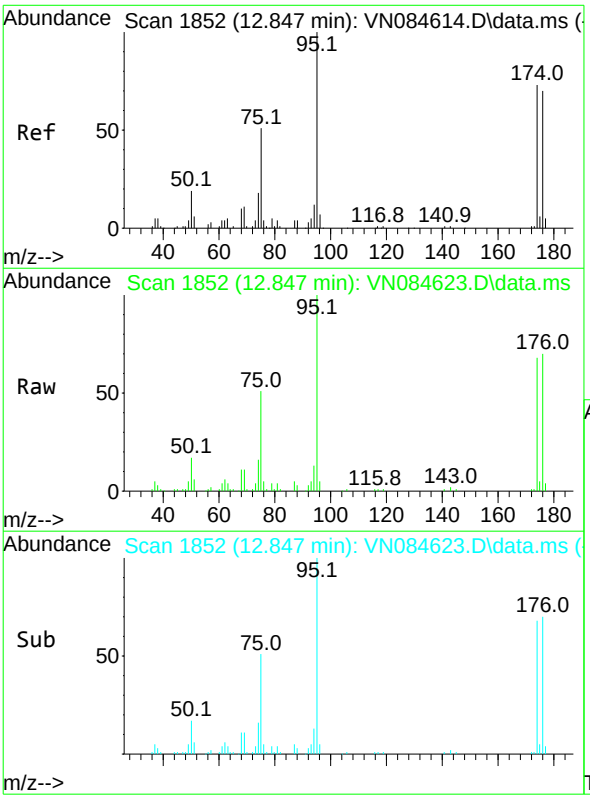

#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 16
Delta R.T. -0.000 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Tgt Ion:117 Resp: 142191

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 45.5 | 68.3 |
| 119 | 31.2 | 25.3 | 37.9 |

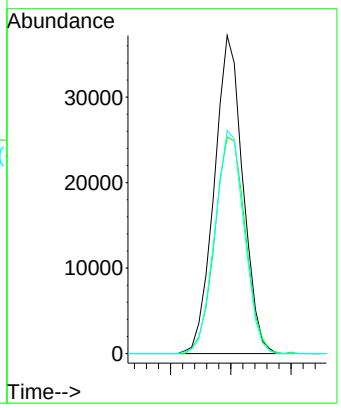


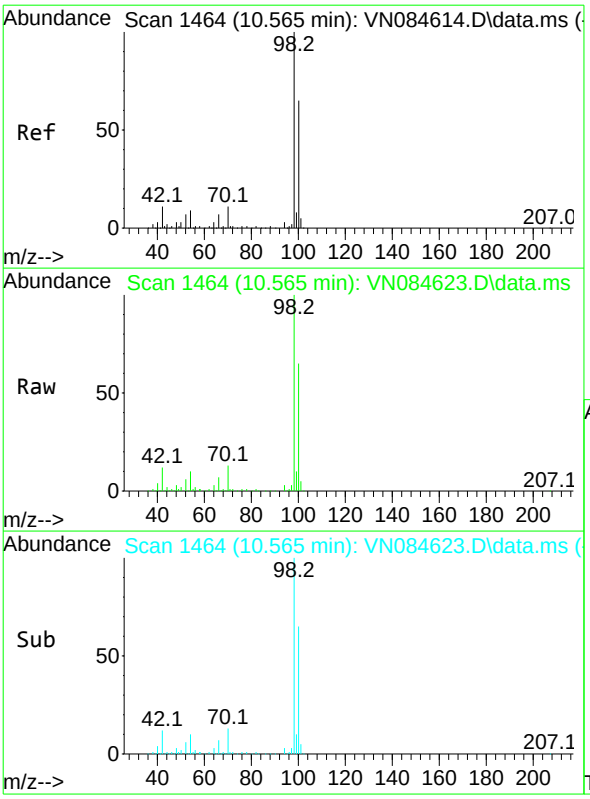




#60
4-Bromofluorobenzene
Concen: 25.062 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.000 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

Tgt Ion: 95 Resp: 61359

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 72.8 | 59.6 | 89.4 |
| 176 | 72.1 | 58.6 | 88.0 |



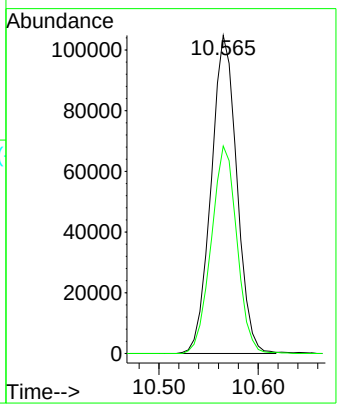



#63
Toluene-d8
Concen: 28.032 ug/l
RT: 10.565 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN084623.D
Acq: 31 Oct 2024 17:01

**Instrument :**
MSVOA_N
**ClientSampleId :**
241030043-05-TRIP-BLANK

Tgt Ion: 98 Resp: 188693

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.1 | 52.2 | 78.2 |



# CALIBRATION SUMMARY

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

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG No.: P4646

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 |
|---|---|---|---|---|---|---|---|---|
| Acrolein | 0.345 | 0.350 | 0.313 | 0.326 | 0.347 | | 0.336 | 4.8 |
| Acrylonitrile | 0.838 | 0.902 | 0.889 | 0.892 | 0.937 | | 0.892 | 4 |
| 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

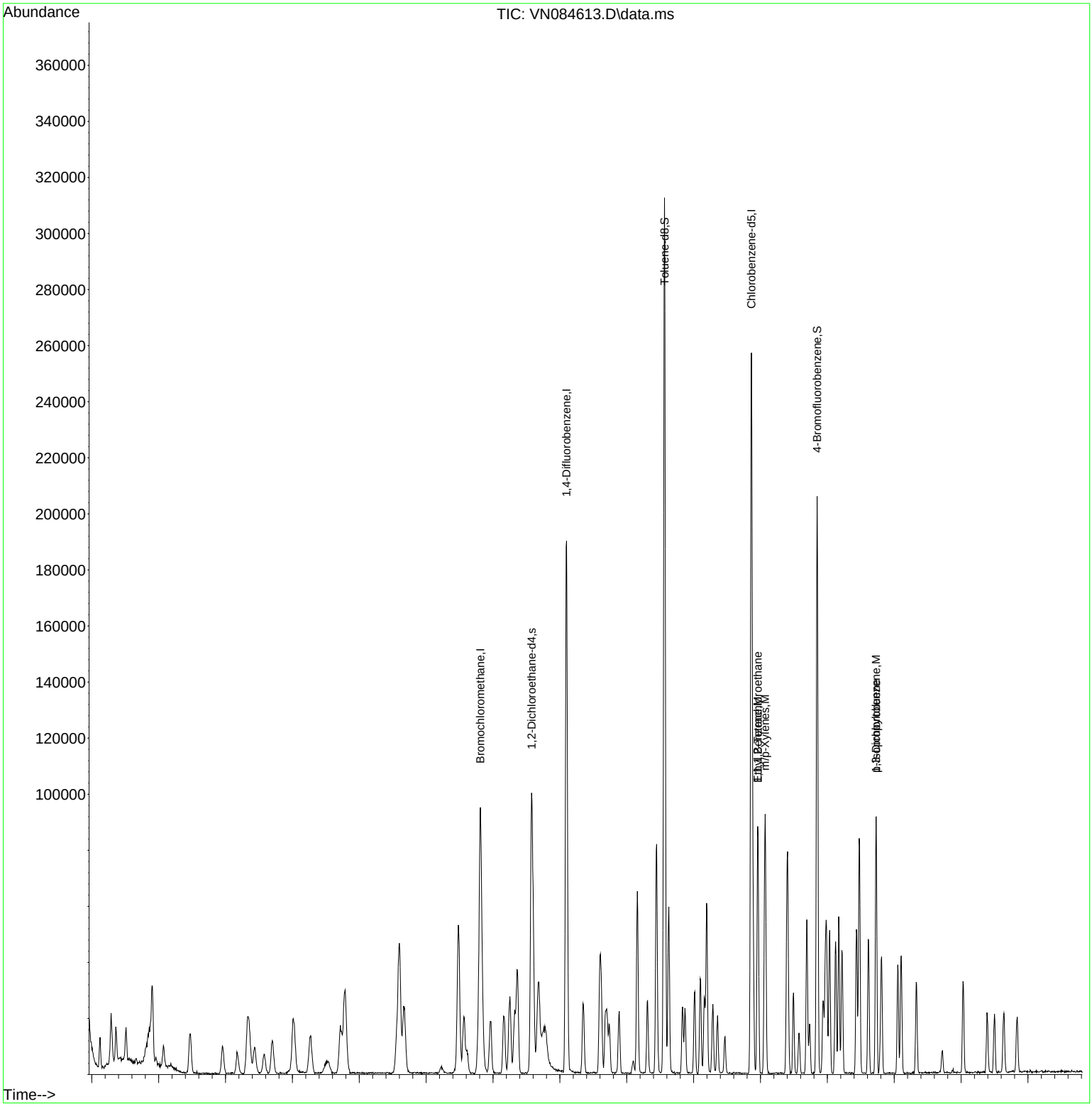
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084613.D
Acq On : 31 Oct 2024 12:08
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

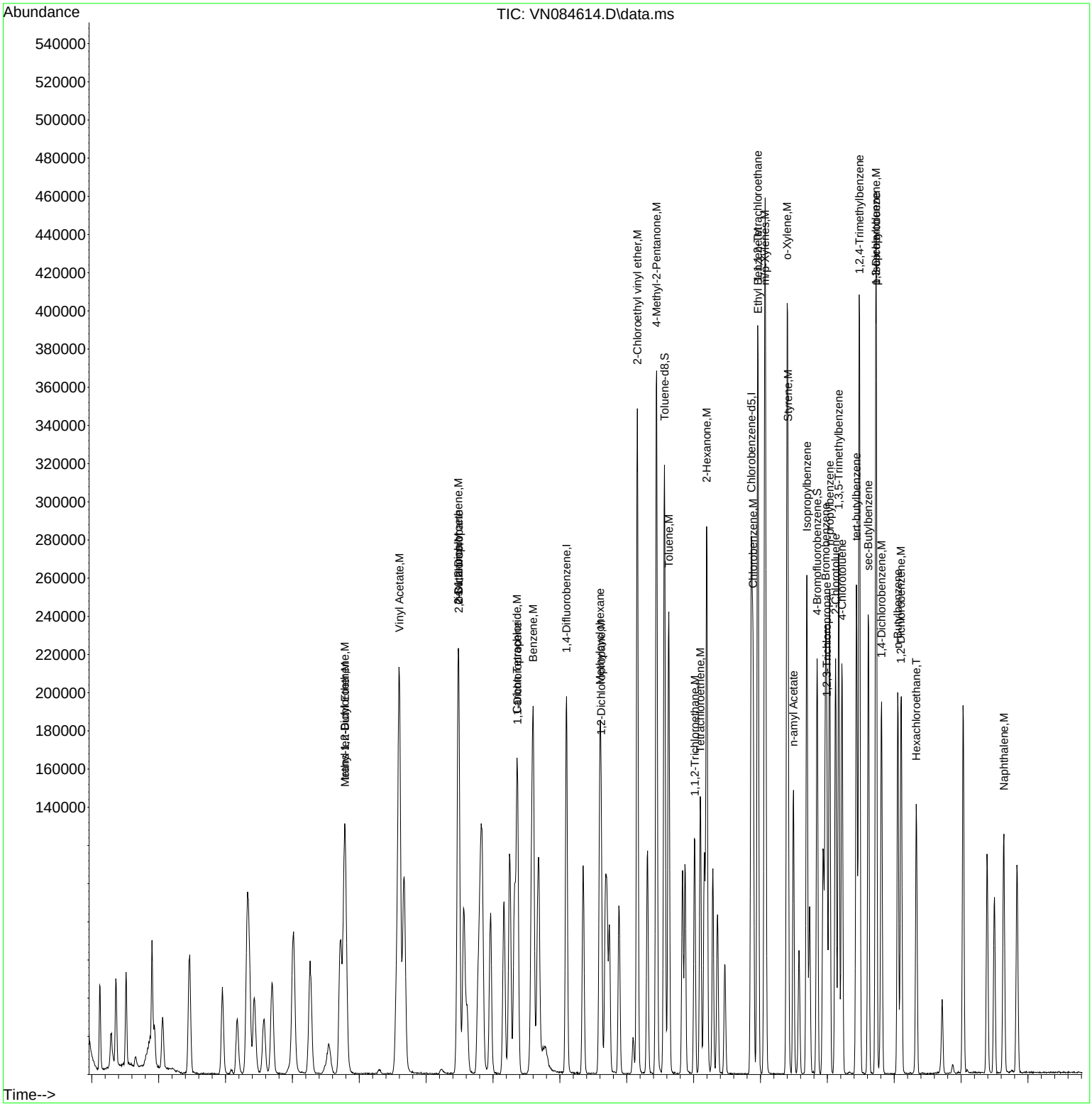
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

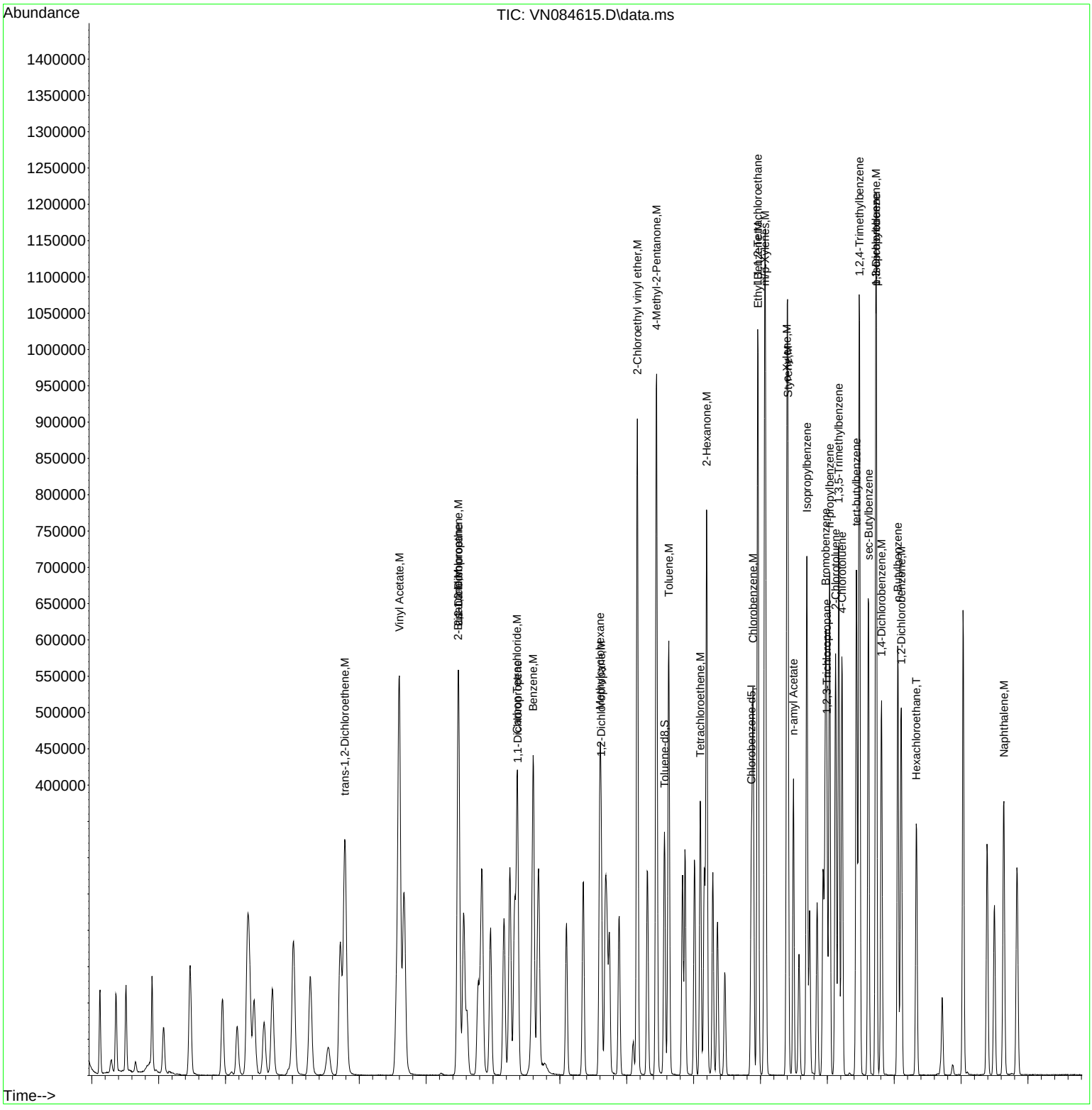
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084615.D
Acq On : 31 Oct 2024 12:56
Operator : JC\MD
Sample : VSTDICC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

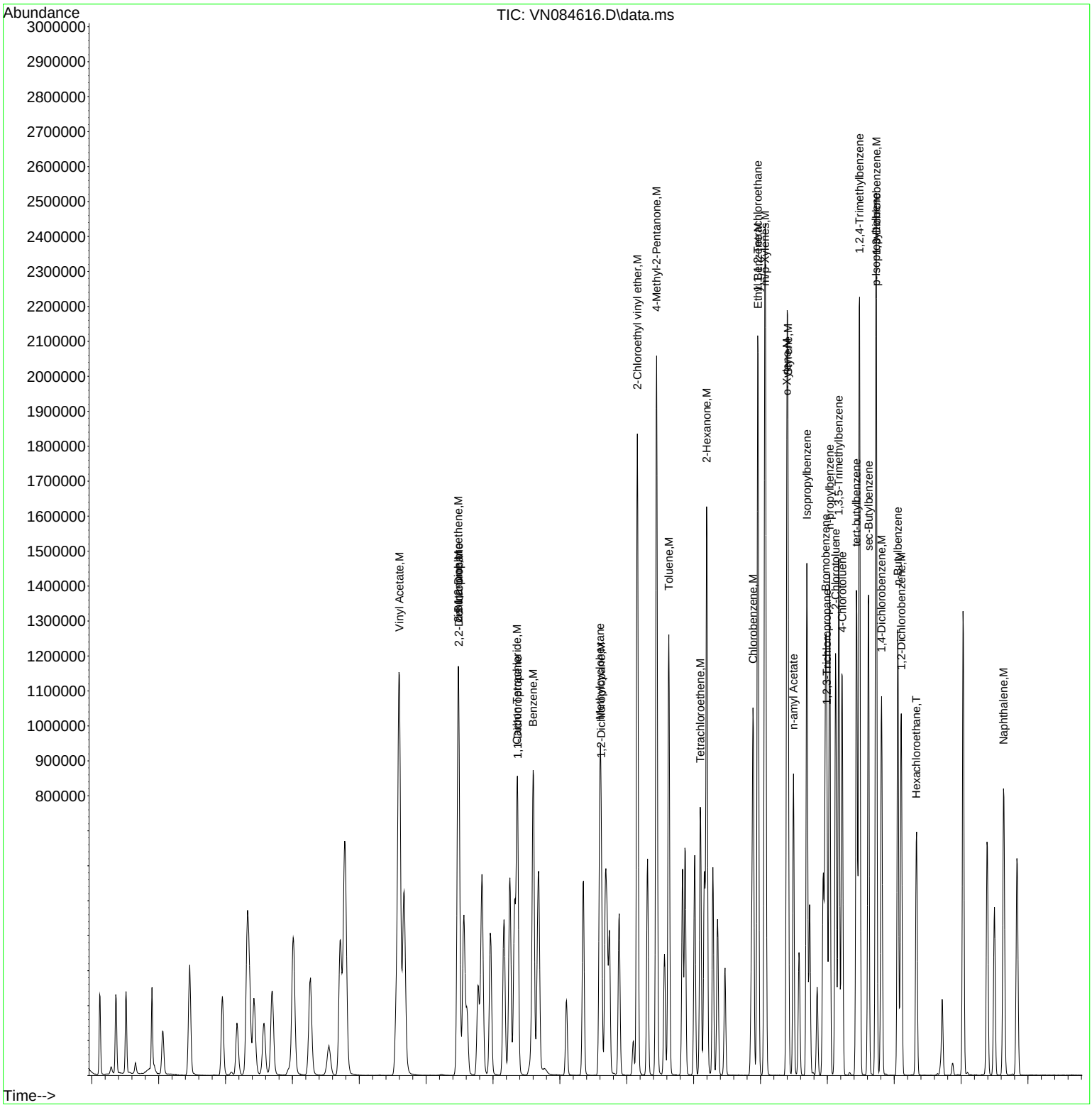
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084616.D
Acq On : 31 Oct 2024 13:20
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

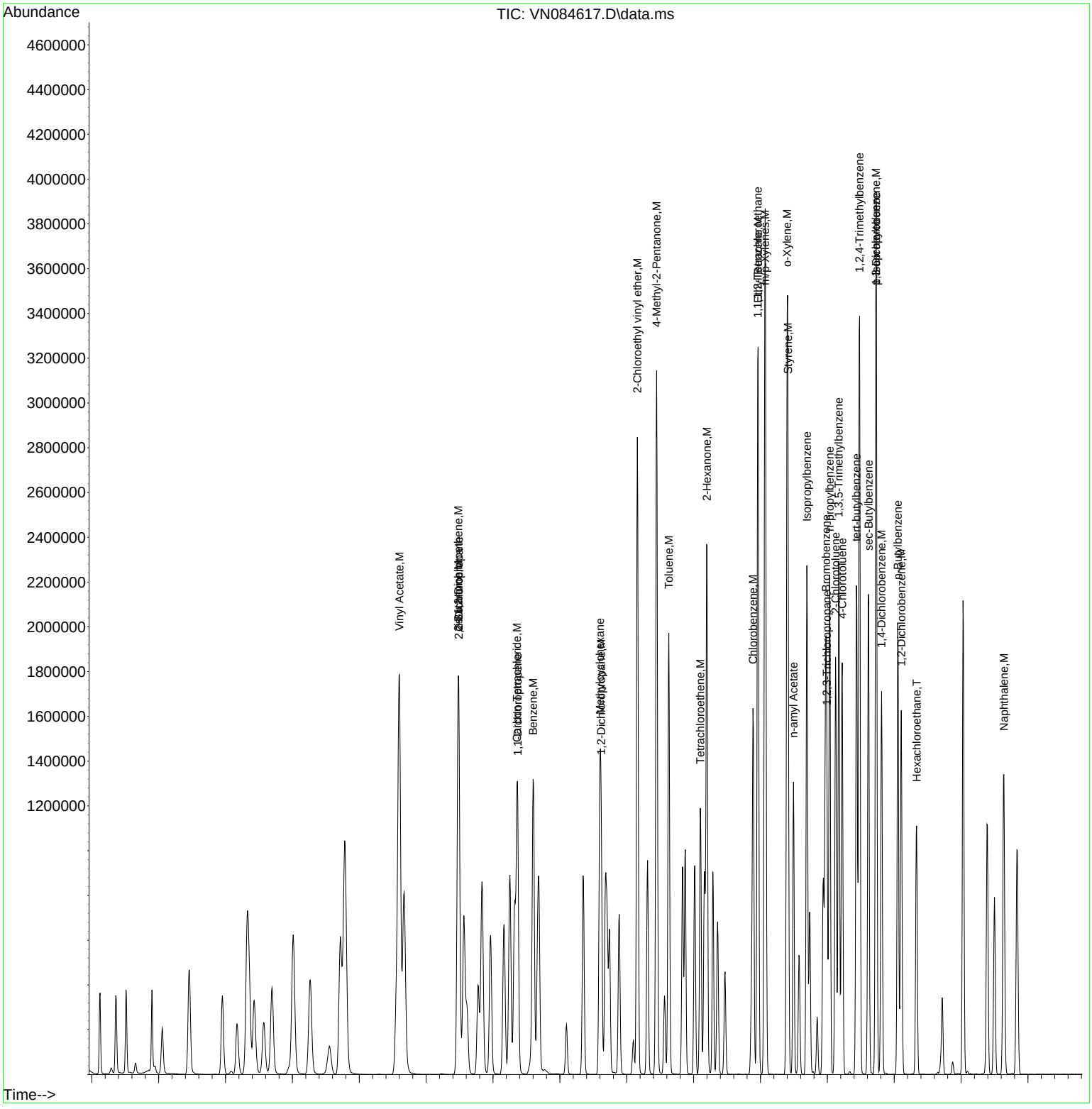
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084617.D
Acq On : 31 Oct 2024 13:44
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

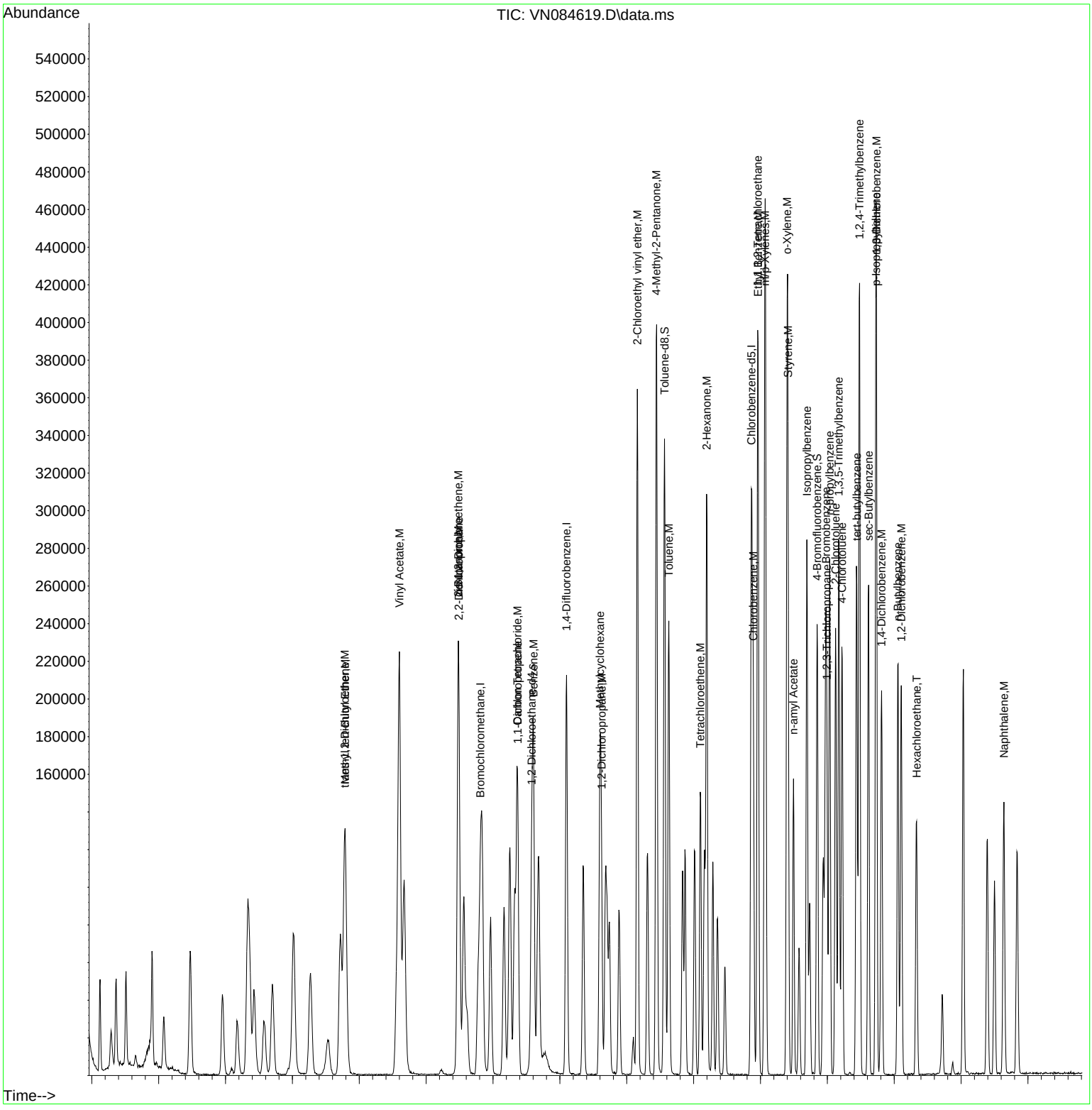
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084619.D
Acq On : 31 Oct 2024 14:42
Operator : JC\MD
Sample : VSTDICV020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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

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: GARD04

Lab Code: CHEM Case No.: P4646 SAS No.: P4646 SDG No.: P4646

Instrument ID: MSVOA_N Calibration Date/Time: 10/31/2024 12:32

Lab File ID: VN084614.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 |
|---|---|---|---|---|---|
| Acrolein | 0.336 | 0.350 | | 4.17 | |
| Acrylonitrile | 0.892 | 0.902 | | 1.12 | |
| 1,2-Dichloroethane-d4 | 2.412 | 2.473 | | 2.53 | |
| Toluene-d8 | 1.420 | 1.442 | | 1.55 | |
| 4-Bromofluorobenzene | 0.517 | 0.506 | | -2.13 | |

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

Sample Results: **VN084614.D**

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

| 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 |

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

| 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

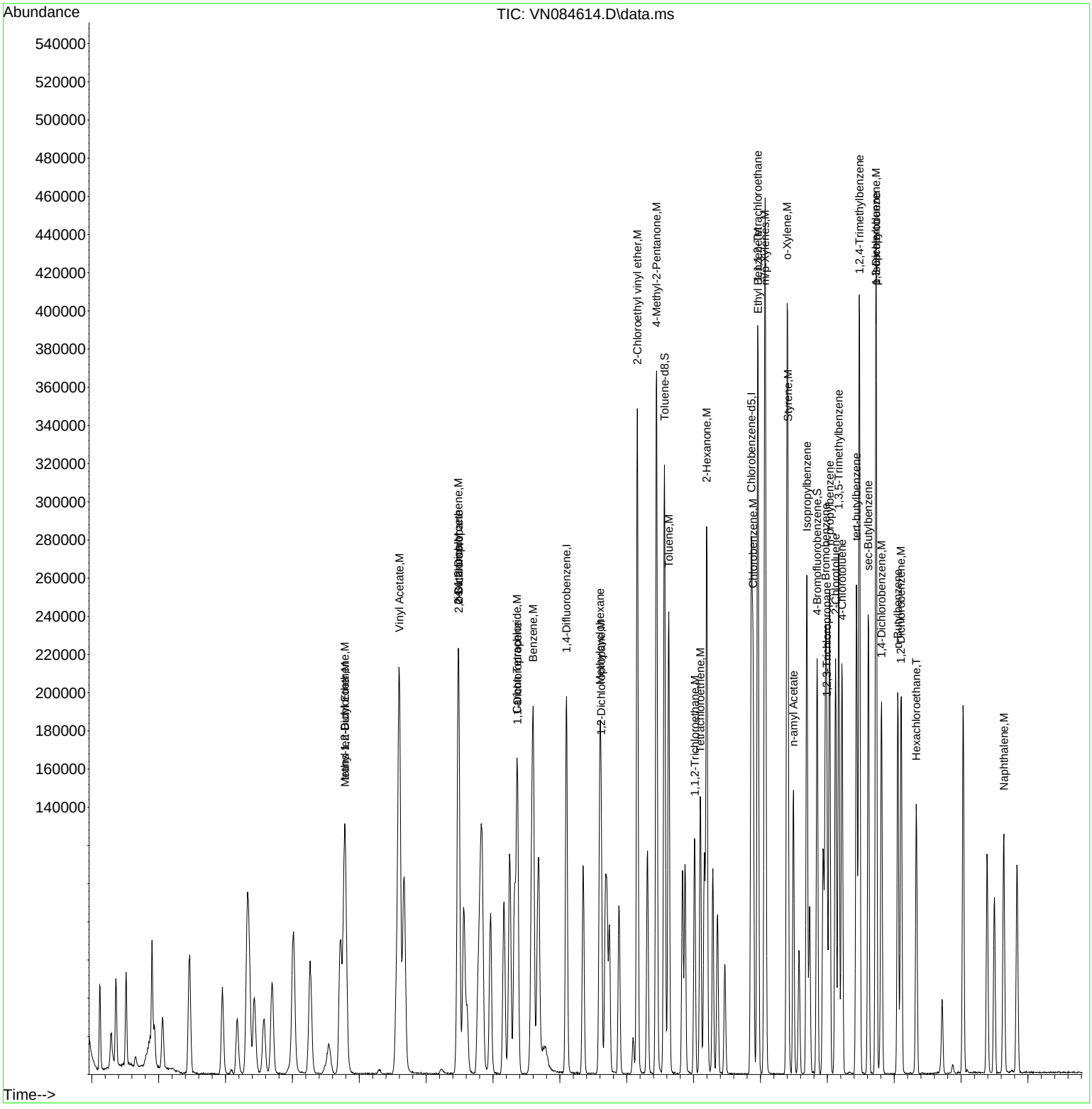
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084614.D
Acq On : 31 Oct 2024 12:32
Operator : JC\MD
Sample : VSTDICCC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

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



# QC SAMPLE DATA

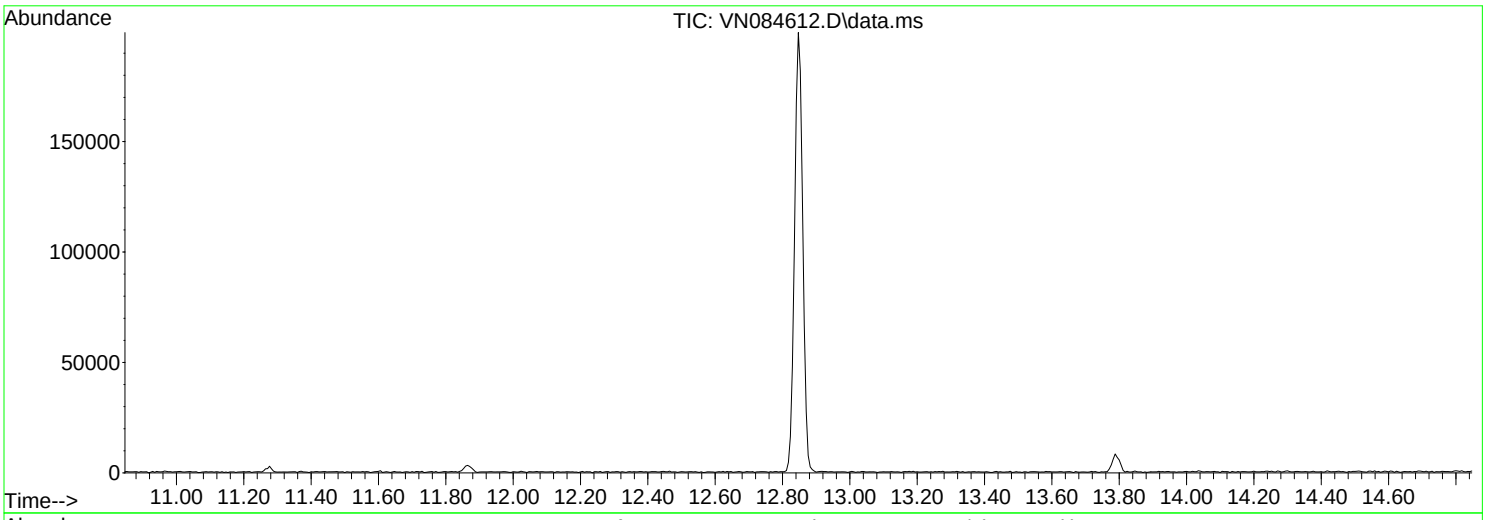
Sample Results: **VN084612.D**

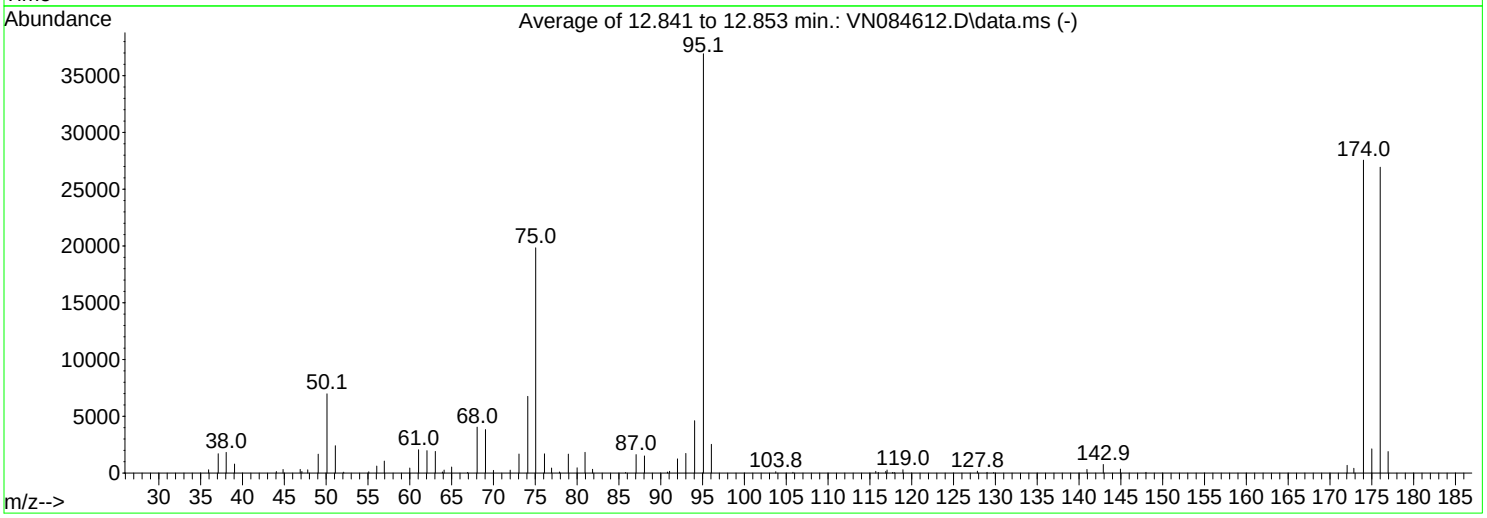
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084612.D
Acq On : 31 Oct 2024 10:56
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**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 |

Raw Data: **VN084622.D**

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

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Garden State Laboratories, Inc. | Date Collected: | |
| Project: | Waste Water 2024 | Date Received: | |
| Client Sample ID: | VN1031WBL01 | SDG No.: | P4646 |
| Lab Sample ID: | VN1031WBL01 | 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 |
|---|---|---|---|---|
| VN084622.D | 1 | | 10/31/24 16:37 | VN103124 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 107-02-8 | Acrolein | 9.30 | U | 9.30 | 25.0 | ug/L |
| 107-13-1 | Acrylonitrile | 3.70 | U | 3.70 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 29.3 | | 91 - 110 | 98% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 28.4 | | 91 - 112 | 95% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 25.0 | | 63 - 112 | 83% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 32200 | 7.812 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 168000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 145000 | 11.865 | | | |

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\VN103124\
Data File : VN084622.D
Acq On : 31 Oct 2024 16:37
Operator : JC\MD
Sample : VN1031WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1031WBL01

Quant Time: Nov 01 02:48:49 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

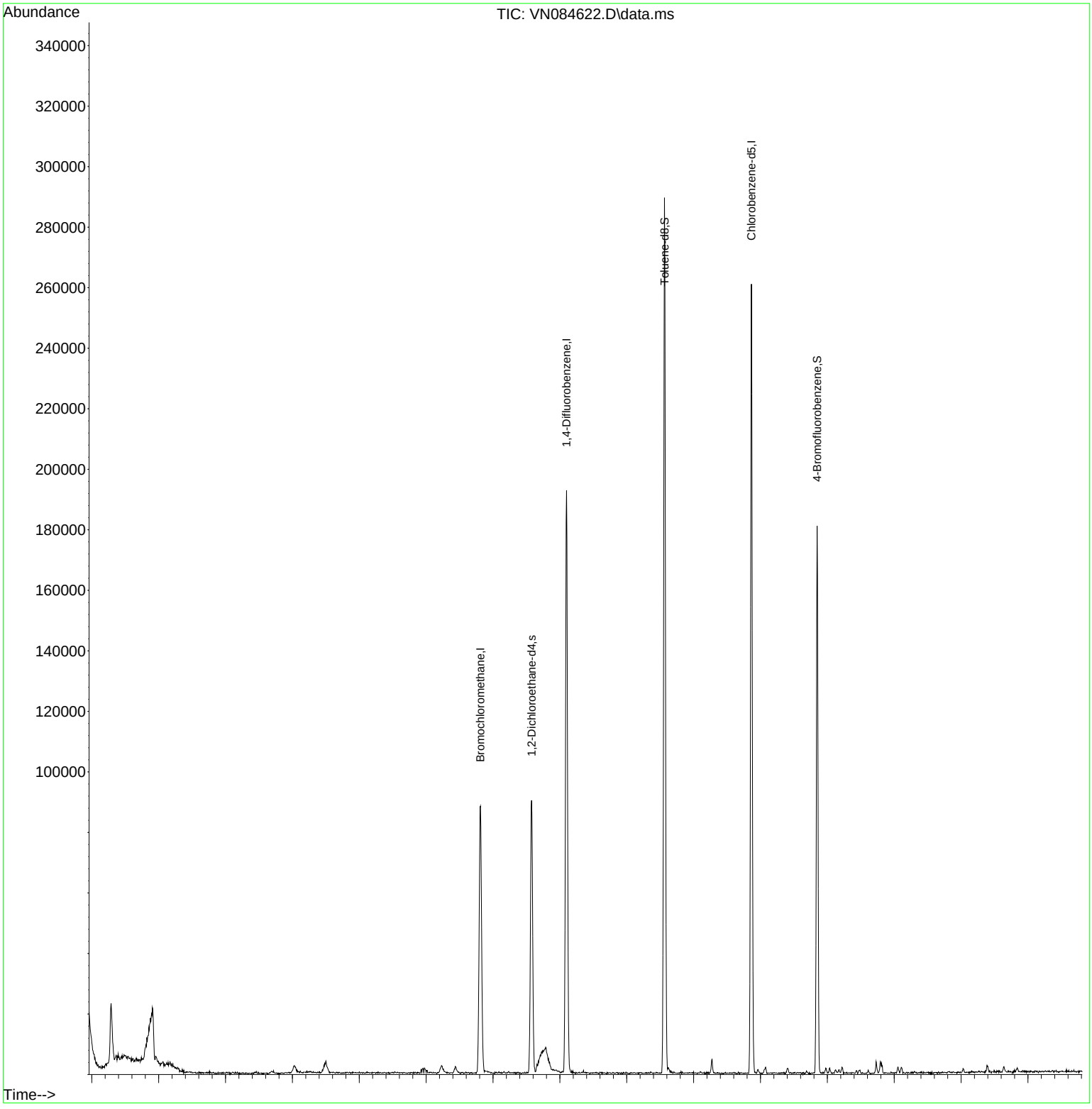
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 32185 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 168153 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 145344 | 30.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 75738 | 29.271 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 97.567% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 62663 | 25.039 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 83.467% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 195650 | 28.435 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 94.767% | | | |
| Target Compounds | | | | | | Qvalue |

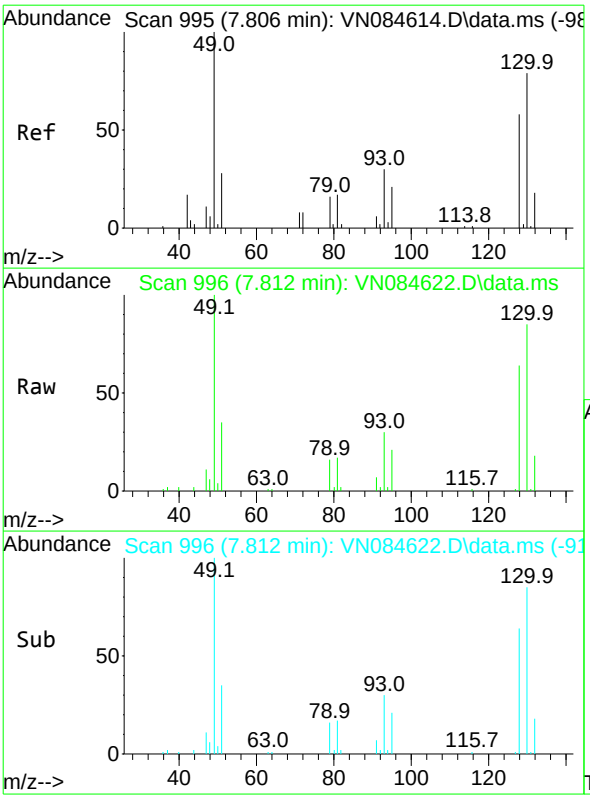
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084622.D
Acq On : 31 Oct 2024 16:37
Operator : JC\MD
Sample : VN1031WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1031WBL01

Quant Time: Nov 01 02:48:49 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



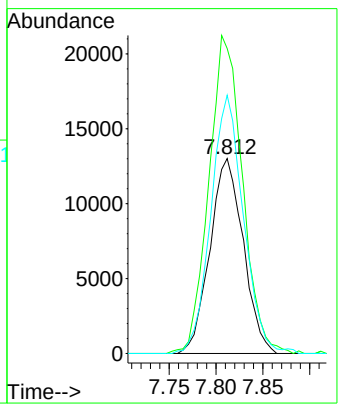


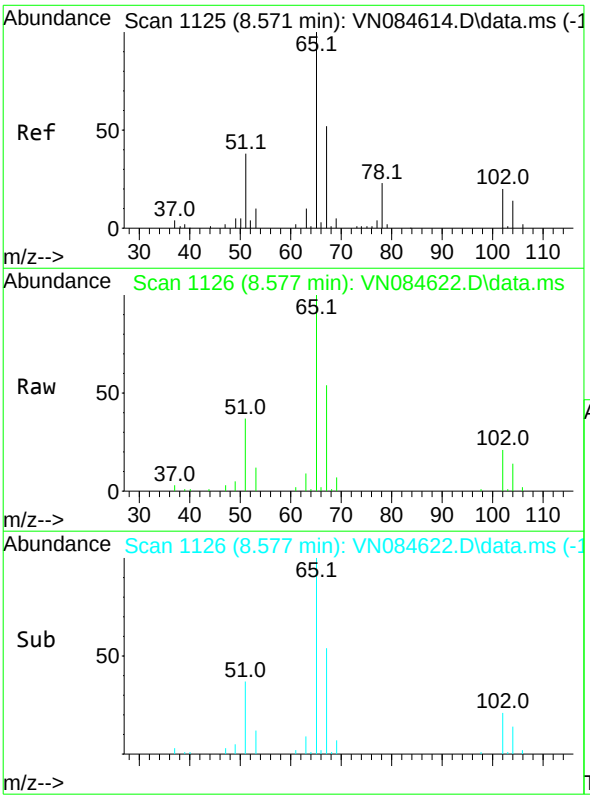

#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 99
Delta R.T. 0.006 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1031WBL01

Tgt Ion:128 Resp: 32185

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 49 | 164.1 | 0.0 | 427.0 |
| 130 | 129.3 | 0.0 | 322.2 |

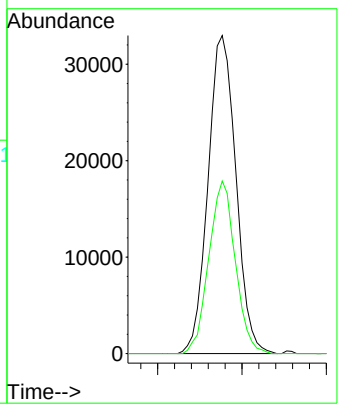


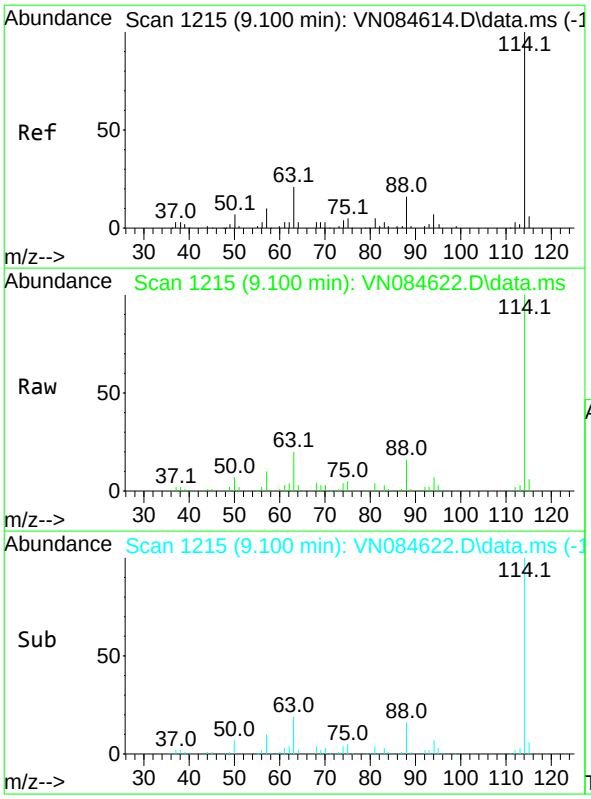




#27
1,2-Dichloroethane-d4
Concen: 29.271 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

Tgt Ion: 65 Resp: 75738

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 51.5 | 40.7 | 61.1 |



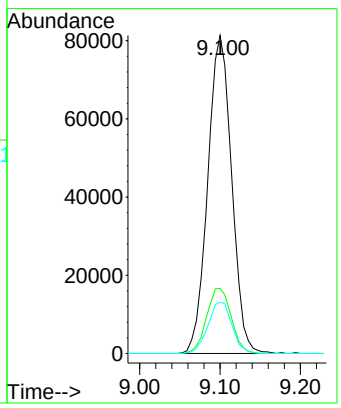


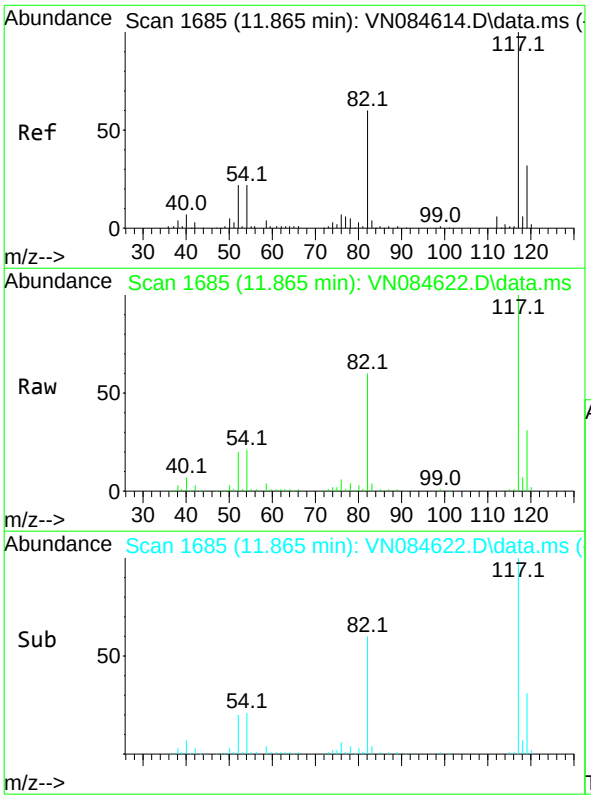

#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.100 min Scan# 12
Delta R.T. -0.000 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1031WBL01

Tgt Ion:114 Resp: 168153

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.0 | 16.8 | 25.2 |
| 88 | 16.3 | 12.9 | 19.3 |

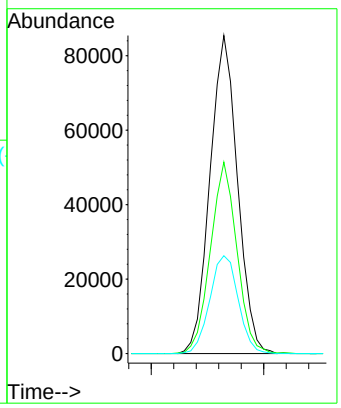


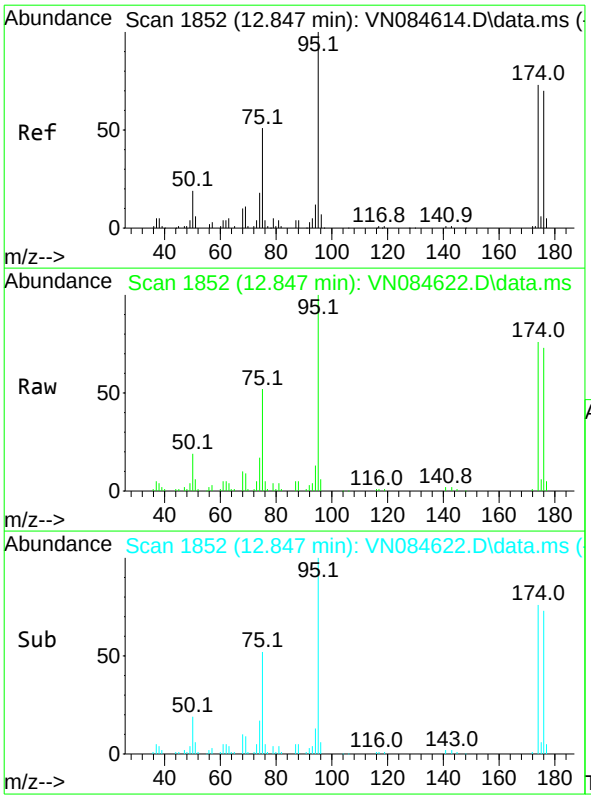




#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

Tgt Ion:117 Resp: 145344

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.8 | 45.5 | 68.3 |
| 119 | 31.8 | 25.3 | 37.9 |



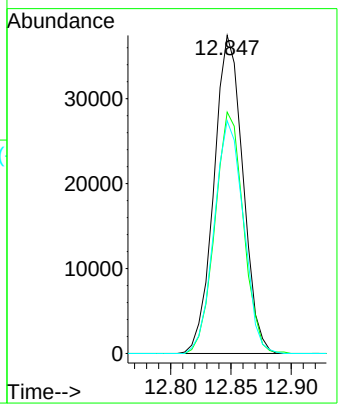


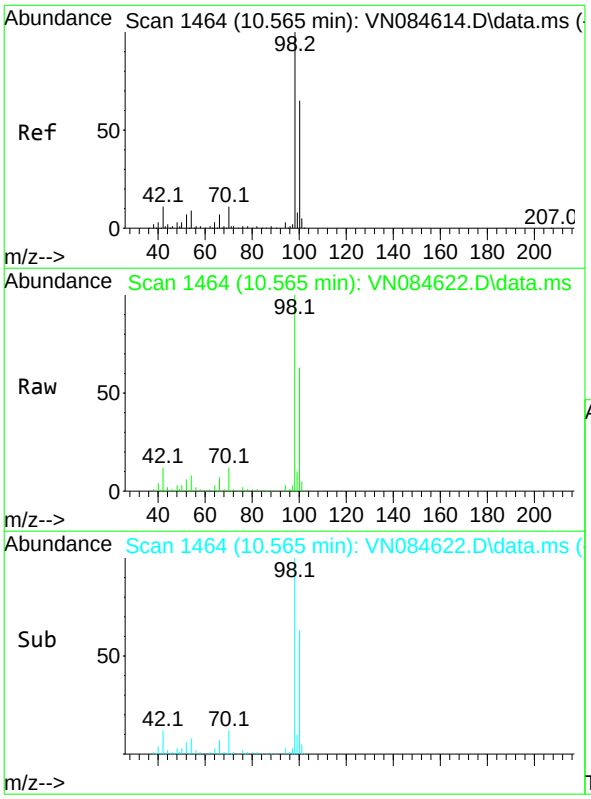

#60
4-Bromofluorobenzene
Concen: 25.039 ug/l
RT: 12.847 min Scan# 18
Delta R.T. -0.000 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

**Instrument :**
MSVOA_N
**ClientSampleId :**
VN1031WBL01

Tgt Ion: 95 Resp: 62663

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 74.5 | 59.6 | 89.4 |
| 176 | 73.9 | 58.6 | 88.0 |

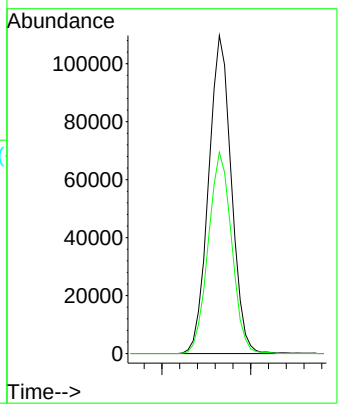



#63
Toluene-d8
Concen: 28.435 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN084622.D
Acq: 31 Oct 2024 16:37

Tgt Ion: 98 Resp: 195650

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



Raw Data: **VN084620.D**

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

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Garden State Laboratories, Inc. | Date Collected: | |
| Project: | Waste Water 2024 | Date Received: | |
| Client Sample ID: | VN1031WBS01 | SDG No.: | P4646 |
| Lab Sample ID: | VN1031WBS01 | 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 |
|---|---|---|---|---|
| VN084620.D | 1 | | 10/31/24 15:25 | VN103124 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 107-02-8 | Acrolein | 100 | | 9.30 | 25.0 | ug/L |
| 107-13-1 | Acrylonitrile | 100 | | 3.70 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 30.3 | | 91 - 110 | 101% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 29.0 | | 91 - 112 | 97% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 29.6 | | 63 - 112 | 99% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 33400 | 7.812 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 191000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 177000 | 11.865 | | | |

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: **VN084620.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084620.D
Acq On : 31 Oct 2024 15:25
Operator : JC\MD
Sample : VN1031WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:47:09 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 :**
VN1031WBS01

**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) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 33399 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 190761 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 176885 | 30.000 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 81408 | 30.319 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 101.067% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 90137 | 29.595 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 98.667% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 242553 | 28.966 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 96.567% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 42599 | 21.929 | ug/l | 96 |
| 3) Chloromethane | 2.360 | 50 | 48182 | 20.601 | ug/l | 98 |
| 4) Vinyl Chloride | 2.512 | 62 | 45800 | 21.089 | ug/l | 92 |
| 5) Bromomethane | 2.901 | 94 | 23288 | 21.127 | ug/l | 99 |
| 6) Chloroethane | 3.083 | 64 | 28938 | 20.294 | ug/l | 90 |
| 7) Trichlorofluoromethane | 3.477 | 101 | 72515 | 20.560 | ug/l | 98 |
| 8) Diethyl Ether | 3.954 | 74 | 25925 | 20.607 | ug/l | 97 |
| 9) 1,1,2-Trichlorotrifluo... | 4.365 | 101 | 43080m | 21.613 | ug/l | |
| 10) 1,1-Dichloroethene | 4.330 | 96 | 41048 | 21.089 | ug/l | 95 |
| 11) Methyl Iodide | 4.577 | 142 | 56567 | 21.145 | ug/l | 92 |
| 12) Methyl Acetate | 5.024 | 43 | 56949 | 18.770 | ug/l | 99 |
| 13) Acrolein | 4.177 | 56 | 39277 | 104.978 | ug/l | 97 |
| 14) Acrylonitrile | 5.712 | 53 | 101806 | 102.570 | ug/l | 99 |
| 15) Acetone | 4.430 | 58 | 29244m | 114.669 | ug/l | |
| 16) Carbon Disulfide | 4.706 | 76 | 119634 | 20.888 | ug/l | 100 |
| 17) Allyl chloride | 5.018 | 41 | 63363 | 19.105 | ug/l | 96 |
| 18) Methylene Chloride | 5.271 | 84 | 46752 | 20.497 | ug/l | 96 |
| 19) trans-1,2-Dichloroethene | 5.777 | 96 | 41749 | 20.463 | ug/l | 90 |
| 20) Diisopropyl ether | 6.665 | 45 | 139393 | 20.994 | ug/l | 97 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 81312 | 20.364 | ug/l | 96 |
| 22) cis-1,2-Dichloroethene | 7.489 | 96 | 50182 | 20.602 | ug/l | 97 |
| 23) tert-Butyl Alcohol | 5.536 | 59 | 35402m | 102.167 | ug/l | |
| 24) Methyl tert-Butyl Ether | 5.795 | 73 | 130027 | 20.658 | ug/l | 99 |
| 25) Chloroform | 7.965 | 83 | 81662 | 19.962 | ug/l | 94 |
| 26) Cyclohexane | 8.253 | 56 | 64244 | 21.064 | ug/l # | 97 |
| 29) 1,1-Dichloropropene | 8.371 | 75 | 55913 | 19.460 | ug/l | 99 |
| 30) 2-Butanone | 7.483 | 43 | 131624 | 99.310 | ug/l | 100 |
| 31) 2,2-Dichloropropane | 7.483 | 77 | 74068 | 21.118 | ug/l | 99 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 74402 | 19.060 | ug/l | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 65330 | 19.613 | ug/l | 97 |
| 34) Benzene | 8.600 | 78 | 182332 | 19.199 | ug/l | 95 |
| 35) Methacrylonitrile | 7.777 | 41 | 31177 | 19.847 | ug/l | 96 |
| 36) 1,2-Dichloroethane | 8.671 | 62 | 61079 | 19.339 | ug/l | 100 |
| 37) Trichloroethene | 9.353 | 130 | 43111 | 20.122 | ug/l | 96 |
| 38) Methylcyclohexane | 9.600 | 83 | 60844 | 19.671 | ug/l | 98 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 44096 | 19.288 | ug/l | 95 |
| 40) Dibromomethane | 9.706 | 93 | 30967 | 19.362 | ug/l | 99 |
| 41) Bromodichloromethane | 9.888 | 83 | 64547 | 18.826 | ug/l | 93 |
| 42) Vinyl Acetate | 6.600 | 43 | 487246 | 98.352 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084620.D
Acq On : 31 Oct 2024 15:25
Operator : JC\MD
Sample : VN1031WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:47:09 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 :**
VN1031WBS01

**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 | 53782 | 19.312 | ug/l | 99 |
| 44) Isopropyl Acetate | 8.689 | 43 | 103338 | 18.324 | ug/l | 100 |
| 45) 1,4-Dioxane | 9.700 | 88 | 15567 | 413.478 | ug/l # | 92 |
| 46) Methyl methacrylate | 9.683 | 41 | 44299 | 19.547 | ug/l | 97 |
| 47) n-amyl Acetate | 12.494 | 43 | 82462 | 19.579 | ug/l | 99 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 66374 | 19.605 | ug/l | 100 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 71193 | 19.621 | ug/l | 95 |
| 50) 1,1,2-Trichloroethane | 11.012 | 97 | 43089 | 20.086 | ug/l | 92 |
| 51) Ethyl methacrylate | 10.871 | 69 | 66643 | 20.153 | ug/l | 93 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 72538 | 19.480 | ug/l | 99 |
| 53) Dibromochloromethane | 11.359 | 129 | 49065 | 19.544 | ug/l | 99 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 42466 | 19.572 | ug/l | 99 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 159615 | 98.453 | ug/l | 98 |
| 56) Bromoform | 12.577 | 173 | 32429 | 19.271 | ug/l | 98 |
| 58) 4-Methyl-2-Pentanone | 10.441 | 43 | 275302 | 98.655 | ug/l | 98 |
| 59) 2-Hexanone | 11.194 | 43 | 206596 | 101.103 | ug/l | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 37634 | 20.329 | ug/l | 98 |
| 62) Toluene | 10.630 | 91 | 194250 | 19.281 | ug/l | 98 |
| 64) Chlorobenzene | 11.888 | 112 | 121575 | 19.989 | ug/l | 99 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 43317 | 19.379 | ug/l | 100 |
| 66) Ethyl Benzene | 11.965 | 91 | 209600 | 19.796 | ug/l | 97 |
| 67) m/p-Xylenes | 12.071 | 106 | 163590 | 40.357 | ug/l | 98 |
| 68) o-Xylene | 12.394 | 106 | 77525 | 19.826 | ug/l | 96 |
| 69) Styrene | 12.412 | 104 | 134476 | 20.511 | ug/l | 97 |
| 70) Isopropylbenzene | 12.694 | 105 | 194101 | 19.982 | ug/l | 99 |
| 71) 1,1,2,2-Tetrachloroethane | 12.935 | 83 | 60828 | 19.320 | ug/l | 98 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 51730m | 19.242 | ug/l | |
| 73) Bromobenzene | 12.976 | 156 | 50409 | 20.121 | ug/l | 99 |
| 74) n-propylbenzene | 13.035 | 91 | 231556 | 20.386 | ug/l | 100 |
| 75) 2-Chlorotoluene | 13.124 | 91 | 149817 | 20.254 | ug/l | 97 |
| 76) 1,3,5-Trimethylbenzene | 13.171 | 105 | 170491 | 20.543 | ug/l | 99 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 22437 | 20.349 | ug/l | 90 |
| 78) 4-Chlorotoluene | 13.224 | 91 | 152409 | 20.393 | ug/l | 99 |
| 79) tert-butylbenzene | 13.435 | 119 | 141995 | 20.689 | ug/l | 96 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 172807 | 20.639 | ug/l | 98 |
| 81) sec-Butylbenzene | 13.618 | 105 | 192399 | 20.344 | ug/l | 99 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 159925 | 20.125 | ug/l | 99 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 91075 | 19.656 | ug/l | 98 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 91454 | 19.976 | ug/l | 98 |
| 85) n-Butylbenzene | 14.059 | 91 | 135833 | 20.352 | ug/l | 99 |
| 86) Hexachloroethane | 14.329 | 117 | 31507 | 19.387 | ug/l | 99 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 89499 | 19.602 | ug/l | 99 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.718 | 75 | 12304 | 20.254 | ug/l | 95 |
| 89) 1,2,4-Trichlorobenzene | 15.841 | 180 | 43053 | 19.366 | ug/l | 95 |
| 90) Hexachlorobutadiene | 15.506 | 225 | 20434 | 21.043 | ug/l | 94 |
| 91) Naphthalene | 15.641 | 128 | 137299 | 19.339 | ug/l | 100 |
| 92) 1,2,3-Trichlorobenzene | 15.841 | 180 | 43053 | 19.366 | ug/l | 95 |

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

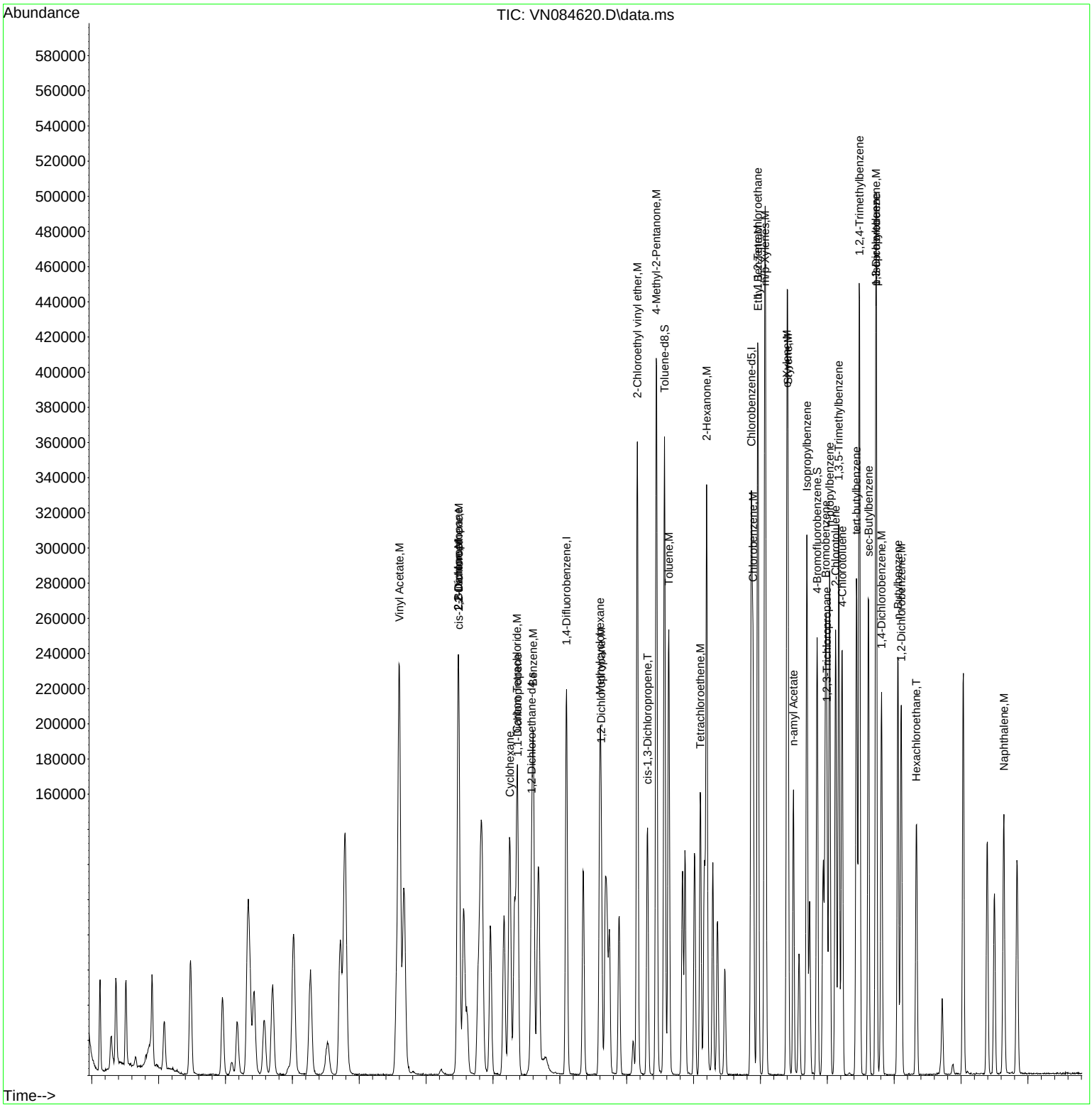
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084620.D
Acq On : 31 Oct 2024 15:25
Operator : JC\MD
Sample : VN1031WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:47:09 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 :**
VN1031WBS01

**Manual Integrations APPROVED**

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



Raw Data: **VN084621.D**

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

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | Garden State Laboratories, Inc. | Date Collected: | |
| Project: | Waste Water 2024 | Date Received: | |
| Client Sample ID: | VN1031WBSD01 | SDG No.: | P4646 |
| Lab Sample ID: | VN1031WBSD01 | 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 |
|---|---|---|---|---|
| VN084621.D | 1 | | 10/31/24 15:49 | VN103124 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 107-02-8 | Acrolein | 100 | | 9.30 | 25.0 | ug/L |
| 107-13-1 | Acrylonitrile | 100 | | 3.70 | 25.0 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 30.2 | | 91 - 110 | 101% | SPK: 30 |
| 2037-26-5 | Toluene-d8 | 29.4 | | 91 - 112 | 98% | SPK: 30 |
| 460-00-4 | 4-Bromofluorobenzene | 29.2 | | 63 - 112 | 97% | SPK: 30 |
| **INTERNAL STANDARDS** | | | | | | |
| 74-97-5 | Bromochloromethane | 32600 | 7.812 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 183000 | 9.1 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 168000 | 11.865 | | | |

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: **VN084621.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084621.D
Acq On : 31 Oct 2024 15:49
Operator : JC\MD
Sample : VN1031WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:48:01 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 :**
VN1031WBSD01

**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) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Bromochloromethane | 7.812 | 128 | 32646 | 30.000 | ug/l | 0.00 |
| 28) 1,4-Difluorobenzene | 9.100 | 114 | 182685 | 30.000 | ug/l | 0.00 |
| 57) Chlorobenzene-d5 | 11.865 | 117 | 167999 | 30.000 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 27) 1,2-Dichloroethane-d4 | 8.577 | 65 | 79275 | 30.205 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 110 | | Recovery = 100.700% | | | |
| 60) 4-Bromofluorobenzene | 12.847 | 95 | 84456 | 29.197 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 63 - 112 | | Recovery = 97.333% | | | |
| 63) Toluene-d8 | 10.565 | 98 | 233505 | 29.360 | ug/l | 0.00 |
| Spiked Amount 30.000 | Range 91 - 112 | | Recovery = 97.867% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 2.124 | 85 | 38985 | 20.532 | ug/l | 95 |
| 3) Chloromethane | 2.359 | 50 | 46257 | 20.234 | ug/l | 99 |
| 4) Vinyl Chloride | 2.512 | 62 | 42525 | 20.032 | ug/l | 92 |
| 5) Bromomethane | 2.900 | 94 | 22376 | 20.768 | ug/l | 100 |
| 6) Chloroethane | 3.065 | 64 | 28556 | 20.488 | ug/l | 95 |
| 7) Trichlorofluoromethane | 3.465 | 101 | 71406 | 20.712 | ug/l | 99 |
| 8) Diethyl Ether | 3.953 | 74 | 25474 | 20.715 | ug/l | 94 |
| 9) 1,1,2-Trichlorotrifluo... | 4.353 | 101 | 40541 | 20.808 | ug/l | 99 |
| 10) 1,1-Dichloroethene | 4.324 | 96 | 39157 | 20.581 | ug/l | 95 |
| 11) Methyl Iodide | 4.571 | 142 | 53170 | 20.333 | ug/l | 92 |
| 12) Methyl Acetate | 5.024 | 43 | 56139 | 18.930 | ug/l | 96 |
| 13) Acrolein | 4.177 | 56 | 37462 | 102.437 | ug/l | 100 |
| 14) Acrylonitrile | 5.724 | 53 | 97670 | 100.673 | ug/l | 99 |
| 15) Acetone | 4.430 | 58 | 27180 | 109.034 | ug/l | 85 |
| 16) Carbon Disulfide | 4.700 | 76 | 113085 | 20.200 | ug/l | 99 |
| 17) Allyl chloride | 5.012 | 41 | 66114 | 20.394 | ug/l | 96 |
| 18) Methylene Chloride | 5.265 | 84 | 45208 | 20.277 | ug/l | 95 |
| 19) trans-1,2-Dichloroethene | 5.783 | 96 | 40300 | 20.209 | ug/l | 92 |
| 20) Diisopropyl ether | 6.671 | 45 | 133508 | 20.572 | ug/l | 97 |
| 21) 1,1-Dichloroethane | 6.559 | 63 | 78145 | 20.023 | ug/l | 99 |
| 22) cis-1,2-Dichloroethene | 7.483 | 96 | 48039 | 20.177 | ug/l | 97 |
| 23) tert-Butyl Alcohol | 5.536 | 59 | 37032m | 109.336 | ug/l | |
| 24) Methyl tert-Butyl Ether | 5.789 | 73 | 127042 | 20.649 | ug/l | 99 |
| 25) Chloroform | 7.959 | 83 | 80528 | 20.139 | ug/l | 95 |
| 26) Cyclohexane | 8.253 | 56 | 64909 | 21.773 | ug/l # | 95 |
| 29) 1,1-Dichloropropene | 8.365 | 75 | 54654 | 19.862 | ug/l | 99 |
| 30) 2-Butanone | 7.483 | 43 | 125147 | 98.597 | ug/l | 98 |
| 31) 2,2-Dichloropropane | 7.483 | 77 | 70080 | 20.864 | ug/l | 99 |
| 32) 1,1,1-Trichloroethane | 8.165 | 97 | 74479 | 19.923 | ug/l | 99 |
| 33) Carbon Tetrachloride | 8.359 | 117 | 63277 | 19.837 | ug/l | 99 |
| 34) Benzene | 8.606 | 78 | 177177 | 19.480 | ug/l | 94 |
| 35) Methacrylonitrile | 7.777 | 41 | 28441 | 18.906 | ug/l | 97 |
| 36) 1,2-Dichloroethane | 8.665 | 62 | 58249 | 19.259 | ug/l | 100 |
| 37) Trichloroethene | 9.353 | 130 | 40196 | 19.591 | ug/l | 91 |
| 38) Methylcyclohexane | 9.600 | 83 | 59338 | 20.032 | ug/l | 99 |
| 39) 1,2-Dichloropropane | 9.618 | 63 | 44012 | 20.103 | ug/l | 93 |
| 40) Dibromomethane | 9.706 | 93 | 29895 | 19.519 | ug/l | 98 |
| 41) Bromodichloromethane | 9.888 | 83 | 63485 | 19.335 | ug/l | 95 |
| 42) Vinyl Acetate | 6.600 | 43 | 477204 | 100.583 | ug/l | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084621.D
Acq On : 31 Oct 2024 15:49
Operator : JC\MD
Sample : VN1031WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:48:01 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 :**
VN1031WBSD01

**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 | 52620 | 19.730 | ug/l | | 100 |
| 44) Isopropyl Acetate | 8.688 | 43 | 94921 | 17.576 | ug/l | | 97 |
| 45) 1,4-Dioxane | 9.694 | 88 | 15679 | 434.863 | ug/l | # | 85 |
| 46) Methyl methacrylate | 9.682 | 41 | 41700 | 19.214 | ug/l | | 91 |
| 47) n-amyl Acetate | 12.494 | 43 | 80970 | 20.075 | ug/l | | 95 |
| 48) t-1,3-Dichloropropene | 10.835 | 75 | 63914 | 19.713 | ug/l | | 96 |
| 49) cis-1,3-Dichloropropene | 10.312 | 75 | 69450 | 19.987 | ug/l | | 95 |
| 50) 1,1,2-Trichloroethane | 11.018 | 97 | 40510 | 19.718 | ug/l | | 95 |
| 51) Ethyl methacrylate | 10.876 | 69 | 63630 | 20.093 | ug/l | | 94 |
| 52) 1,3-Dichloropropane | 11.159 | 76 | 70880 | 19.876 | ug/l | | 99 |
| 53) Dibromochloromethane | 11.359 | 129 | 48005 | 19.967 | ug/l | | 97 |
| 54) 1,2-Dibromoethane | 11.465 | 107 | 40593 | 19.536 | ug/l | | 98 |
| 55) 2-Chloroethyl vinyl ether | 10.159 | 63 | 154220 | 99.331 | ug/l | | 99 |
| 56) Bromoform | 12.576 | 173 | 31835 | 19.755 | ug/l | | 99 |
| 58) 4-Methyl-2-Pentanone | 10.447 | 43 | 267088 | 100.773 | ug/l | | 100 |
| 59) 2-Hexanone | 11.194 | 43 | 196936 | 101.473 | ug/l | | 99 |
| 61) Tetrachloroethene | 11.100 | 164 | 34684 | 19.727 | ug/l | | 97 |
| 62) Toluene | 10.629 | 91 | 186269 | 19.467 | ug/l | | 99 |
| 64) Chlorobenzene | 11.888 | 112 | 115588 | 20.010 | ug/l | | 98 |
| 65) 1,1,1,2-Tetrachloroethane | 11.959 | 131 | 41286 | 19.448 | ug/l | | 98 |
| 66) Ethyl Benzene | 11.965 | 91 | 195795 | 19.471 | ug/l | | 94 |
| 67) m/p-Xylenes | 12.070 | 106 | 152197 | 39.532 | ug/l | | 100 |
| 68) o-Xylene | 12.394 | 106 | 74275 | 20.000 | ug/l | | 96 |
| 69) Styrene | 12.412 | 104 | 126243 | 20.274 | ug/l | | 98 |
| 70) Isopropylbenzene | 12.694 | 105 | 185047 | 20.058 | ug/l | | 98 |
| 71) 1,1,2,2-Tetrachloroethane | 12.941 | 83 | 59950 | 20.048 | ug/l | | 97 |
| 72) 1,2,3-Trichloropropane | 12.994 | 75 | 49762m | 19.489 | ug/l | | |
| 73) Bromobenzene | 12.976 | 156 | 47545 | 19.982 | ug/l | | 98 |
| 74) n-propylbenzene | 13.035 | 91 | 216677 | 20.085 | ug/l | | 100 |
| 75) 2-Chlorotoluene | 13.123 | 91 | 141777 | 20.181 | ug/l | | 98 |
| 76) 1,3,5-Trimethylbenzene | 13.170 | 105 | 161455 | 20.483 | ug/l | | 97 |
| 77) t-1,4-Dichloro-2-butene | 12.735 | 75 | 20864 | 19.923 | ug/l | | 90 |
| 78) 4-Chlorotoluene | 13.223 | 91 | 143411 | 20.204 | ug/l | | 100 |
| 79) tert-butylbenzene | 13.435 | 119 | 136935 | 21.007 | ug/l | | 95 |
| 80) 1,2,4-Trimethylbenzene | 13.482 | 105 | 164066 | 20.632 | ug/l | | 97 |
| 81) sec-Butylbenzene | 13.612 | 105 | 177891 | 19.805 | ug/l | | 98 |
| 82) p-Isopropyltoluene | 13.729 | 119 | 150744 | 19.973 | ug/l | | 99 |
| 83) 1,3-Dichlorobenzene | 13.729 | 146 | 88108 | 20.022 | ug/l | | 99 |
| 84) 1,4-Dichlorobenzene | 13.812 | 146 | 86946 | 19.995 | ug/l | | 99 |
| 85) n-Butylbenzene | 14.053 | 91 | 123578 | 19.495 | ug/l | | 98 |
| 86) Hexachloroethane | 14.329 | 117 | 31385 | 20.333 | ug/l | | 100 |
| 87) 1,2-Dichlorobenzene | 14.106 | 146 | 87547 | 20.189 | ug/l | | 98 |
| 88) 1,2-Dibromo-3-Chloropr... | 14.717 | 75 | 12546 | 21.744 | ug/l | | 98 |
| 89) 1,2,4-Trichlorobenzene | 15.835 | 180 | 42048 | 19.915 | ug/l | | 99 |
| 90) Hexachlorobutadiene | 15.500 | 225 | 19789 | 21.456 | ug/l | | 93 |
| 91) Naphthalene | 15.641 | 128 | 132406 | 19.636 | ug/l | | 100 |
| 92) 1,2,3-Trichlorobenzene | 15.835 | 180 | 42048 | 19.915 | ug/l | | 99 |

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

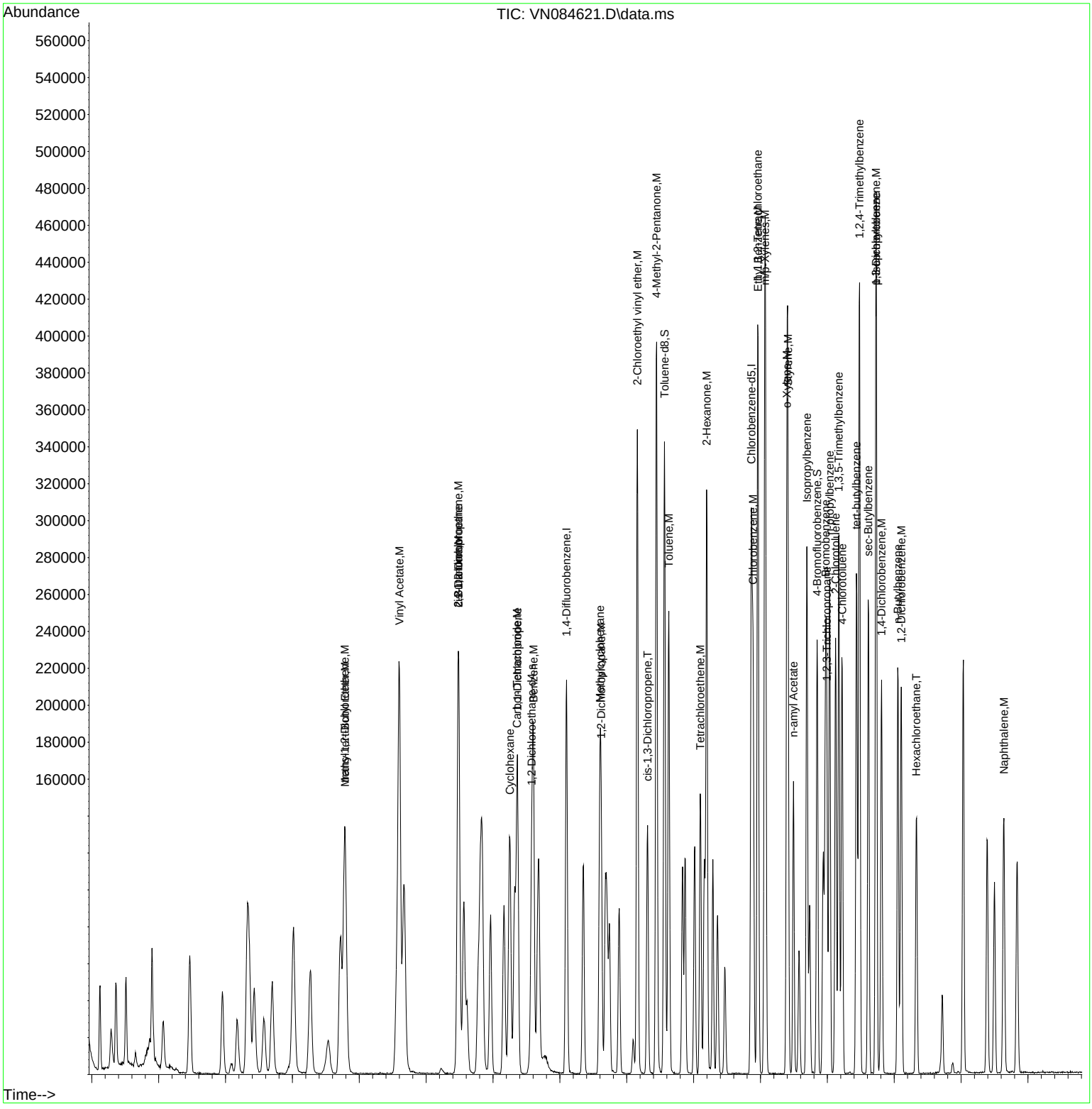
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103124\
Data File : VN084621.D
Acq On : 31 Oct 2024 15:49
Operator : JC\MD
Sample : VN1031WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 01 02:48:01 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 :**
VN1031WBSD01

**Manual Integrations APPROVED**

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



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 |

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# 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 |
| VN1031WBS01 | VN084620.D | 1,1,2-Trichlorotrifluoroethane | SAM | 11/4/2024 1:13:57 AM | MMDadoda | 11/4/2024 1:19:17 AM | Peak Integrated by Software |
| VN1031WBS01 | VN084620.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:57 AM | MMDadoda | 11/4/2024 1:19:17 AM | Peak Integrated by Software |
| VN1031WBS01 | VN084620.D | Acetone | SAM | 11/4/2024 1:13:57 AM | MMDadoda | 11/4/2024 1:19:17 AM | Peak Integrated by Software |
| VN1031WBS01 | VN084620.D | tert-Butyl Alcohol | SAM | 11/4/2024 1:13:57 AM | MMDadoda | 11/4/2024 1:19:17 AM | Peak Integrated by Software |
| VN1031WBSD01 | VN084621.D | 1,2,3-Trichloropropane | SAM | 11/4/2024 1:13:58 AM | MMDadoda | 11/4/2024 1:19:19 AM | Peak Integrated by Software |
| VN1031WBSD01 | VN084621.D | tert-Butyl Alcohol | SAM | 11/4/2024 1:13:58 AM | MMDadoda | 11/4/2024 1:19:19 AM | Peak Integrated by Software |
| P4646-01 | VN084624.D | Diethyl Ether | SAM | 11/4/2024 1:13:59 AM | MMDadoda | 11/4/2024 1:19:22 AM | Peak Integrated by Software |
| P4646-01 | VN084624.D | Methyl Acetate | SAM | 11/4/2024 1:13:59 AM | MMDadoda | 11/4/2024 1:19:22 AM | Peak Integrated by Software |
| P4646-01 | VN084624.D | Methyl tert-Butyl Ether | SAM | 11/4/2024 1:13:59 AM | MMDadoda | 11/4/2024 1:19:22 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 |

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# Manual Integration Report

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

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

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**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

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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


# SHIPPING DOCUMENTS

# Garden State Laboratories, Inc.

**Main Lab - 410 Hillside Avenue, Hillside NJ 07205 - NJDEP Lab Cert. #20044**
**Jersey Shore Lab - 54 Main Street, Waretown NJ 08758 - NJDEP Lab Cert. #15037**

*Tel. 800-273-8901/908-688-8900 Fax 908-688-8966 www.gslabs.com info@gslabs.com*

***Office and Drop off Locations***

*North Jersey Office: 225 Sparta Avenue, Sparta, NJ 07871 Tel. 973-729-1827*

*West Jersey Office: 2050 Route 31 North, Glen Gardner, NJ 08826 Tel. 908-537-7414*

P46646

OR SAMPLE RECEIVING USE ONLY

DATE/TIME/TEMP. REC'D AT LAB:

Page ____ of ____

**GSL CLIENT #**

MICRO #

CHEM. #

SAMPLE REC'D BY:

☐ GSL FIELD SAMPLER/PICK-UP

☐ PICK-UP AT DROP OFF LOCATION

☐ DELIVERED BY CLIENT

CHAIN OF CUSTODY RECORD - PRESS HARD AND PRINT CLEARLY - USE BALL POINT PEN

IMPORTANT: PRINTED NAMES & SIGNATURES ARE REQUIRED

**CLIENT INFORMATION (REPORT TO BE SENT TO)**

Name: Garden State Laboratories, Inc. Contact/Authorized by: Robert Szot

Mailing Address: 410 Hillside Ave. Phone: 908-688-8900 EXT 129

City/State/Zip: Hilside, NJ. 07205 Email: rszot@gslabs.com

**SAMPLE INFORMATION**

SAMPLE TYPE: WASTE WATER

SAMPLE LOCATI ACUA SW LANDFILL LEACHATE TANKS

| Grab | Comp | SAMPLE ID | SAMPLE COLLECTION Date | Time | AM | PM | ANALYSIS REQUIRED (Print Legibly) ☐ List attached Total Pages ____ | No. | Type* | Size | Pres.* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X | X | VOA 2410300649-01 | 10/30/24 | 10:56 | X | | EPA 8260 TCL LIST + Acrolien & Acrylonitrile | 3 | V | 40ml | A |
| X | | Trip blank 2410300443-05 | — | — | | | EPA 8260 TCL LIST + Acrolien & Acı | 2 | V | 40ml | A |

CONTAINER INFORMATION

⇨ *Container Type: P = Plastic G = Glass A = Amber Glass T = Sterile Thio V = Vial Other/Specify:*

⇨ *Preservation Code: A = Non Preserved B = Sulfuric Acid C = Sodium Hydroxide D = Nitric Acid E = Hydrochloric Acid F = Zinc Acetate G = Sodium Thiosulfate H = Ascorbic Acid I = Cooled Other/Specify:*

☒ SUBCONTRACTED WORK

TURNAROUND TIME: ☒ Stand ☐ Rush (If RUSH REQUESTED) Rush Due by:

REPORT FORMAT ☒ Standard Report ☐ Other/Specify:

☐ Standard Report + E2 PWS ID#:

SEND TO: Chem Tech

DATE/TIME:

METHOD OF SHIPMEN Deliver

**PAYMENT INFORMATION**

☐ Sampling/Pick-up Fee: $ ☐ Composite Fee: $ ☐ Rush Fee: $ Amount Due: $

Payment Method: ☐ Credit Card Type: ☐ Check # ☐ Other: See Quote

Note:

VOA UNPRESERVED DUE TO EFFERVESCENSE - 3 DAY TAT PER JORDAN HE ATL16

Temp 3.7°

**SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION**
**PLEASE PRINT YOUR NAME LEGIBLY, USE FULL LEGAL SIGNATURE, DATE AND TIME**

| | | |
|---|---|---|
| **Sampled by (PRINT):** | Signature: | Date/Time: |
| Client/Client's Representative (PRINT): | Signature: | Date/Time: |
| 1. Received/Relinquished by (PRINT): Daniel Askey | Signature: | Date/Time: 10/30/24 15:32 |
| 2. Received/Relinquished by (PRINT): Matt JACKSON | Signature: | Date/Time: 10/31/24 8:28 |



Jamir Davis

10-31-24 0828

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 :** | P4646 GARD04 | **Order Date :** | 10/31/2024 10:57:00 AM | **Project Mgr :** | |
| **Client Name :** | Garden State Laboratories, I | **Project Name :** | Waste Water 2024 | **Report Type :** | Level 1 |
| **Client Contact :** | Sharon Ercoliani | **Receive DateTime :** | 10/31/2024 8:28:00 AM | **EDD Type :** | EXCEL NOCLEANUP |
| **Invoice Name :** | Garden State Laboratories, I | **Purchase Order :** | | **Hard Copy Date :** | |
| **Invoice Contact :** | Sharon Ercoliani | | | **Date Signoff :** | |

| LAB ID | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST | TEST GROUP | METHOD | FAX DATE | DUE DATES |
|---|---|---|---|---|---|---|---|---|---|
| P4646-01 | 241030069-01-VOA | Water | 10/30/2024 | 10:56 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |
| | | | | | VOCMS Group2 | | 8260-Low | | 10 Bus. Days |
| P4646-02 | 241030043-05-TRIP-BLANK | Water | 10/30/2024 | 00:00 | | | | | |
| | | | | | VOCMS Group1 | | 624.1 | | 10 Bus. Days |
| | | | | | VOCMS Group2 | | 8260-Low | | 10 Bus. Days |

**Relinguished By :** _____

**Date / Time :** 10-31-24 1225

**Received By :** _____

**Date / Time :** 10-31-24 12:25 ~~12:12~~

**Storage Area :** **VOA Refridgerator Room**