CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# DATA PACKAGE

## VOLATILE ORGANICS

**PROJECT NAME : FORMER SCHLUMBERGER SITE PRINCETON NJ**

**JACOBS ENGINEERING GROUP, INC.**

**412 Mt. Kemble Ave**

**Downtown Building**

**Morristown, NJ - 07960**

**Phone No: 9732670555**

**ORDER ID : N6070**

**ATTENTION : Doug Scott**

NELAP ACCREDITED TNI LABORATORY

ANAB ACCREDITED ISO/IEC 17025 DOD ELAP

**Laboratory Certification ID # 20012**

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# Cover Page

**Order ID :** N6070

**Project ID :** Former Schlumberger Site Princeton NJ

**Client :** JACOBS Engineering Group, Inc.

| Lab Sample Number | Client Sample Number |
|---|---|
| N6070-01 | GW-BR-04-226-245-121422-H |

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____ Date: 7/13/2023

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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# CASE NARRATIVE

**JACOBS Engineering Group, Inc.**
**Project Name: Former Schlumberger Site Princeton NJ**
**Project # N/A**
**Chemtech Project # N6070**
**Test Name: VOCMS Group3**

**A. Number of Samples and Date of Receipt:**
1 Water samples were received on 12/14/2022.

**B. Parameters**
According to the Chain of Custody document, the following analyses were requested: SVOC-SIMGroup1 and VOCMS Group3. This data package contains results for VOCMS Group3.

**C. Analytical Techniques:**
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of VOCMS Group3 was based on method 8260D.

**D. QA/ QC Samples:**
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

**E. Additional Comments:**
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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**F. Manual Integration Comments:**

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

---

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

## 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 |

## GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: N6070 MATRIX: Water

METHOD: 8260D

| | | NA | NO | YES |
|---|---|---|---|---|
| 1. | Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks) | | | ✓ |
| 2. | GC/MS Tuning Specifications<br>BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ) | | | ✓ |
| 3. | GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series. | | | ✓ |
| 4. | GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series. | | | ✓ |
| 5. | GC/MS Calibration Requirements.<br>The Initial Calibration met the requirements .<br>The Continuous Calibration met the requirements . | | | ✓ |
| 6. | Blank Contamination - If yes, list compounds and concentrations in each blank: | | ✓ | |
| 7. | Surrogate Recoveries Meet Criteria<br>If not met, list those compounds and their recoveries which fall outside the acceptable ranges. | | | ✓ |
| 8. | Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria<br>If not met, list those compounds and their recoveries which fall outside the acceptable range. | | | ✓ |
| 9. | Internal Standard Area/Retention Time Shift Meet Criteria<br>Comments: | | | ✓ |
| 10. | Analysis Holding Time Met<br>If not met, list number of days exceeded for each sample: | | | ✓ |

ADDITIONAL COMMENTS:

Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added

**GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)**

NA NO YES

and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

_____ _____

QA REVIEW Date

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## APPENDIX A

## QA REVIEW GENERAL DOCUMENTATION

**Project #:** N6070

| | Completed |
|---|---|
| **For thorough review, the report must have the following:** | |
| **GENERAL:** | |
| **Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)** | ✓ |
| **Check chain-of-custody for proper relinquish/return of samples** | ✓ |
| **Is the chain of custody signed and complete** | ✓ |
| **Check internal chain-of-custody for proper relinquish/return of samples /sample extracts** | ✓ |
| **Collect information for each project id from server. Were all requirements followed** | ✓ |
| **COVER PAGE:** | |
| **Do numbers of samples correspond to the number of samples in the Chain of Custody on login page** | ✓ |
| **Do lab numbers and client Ids on cover page agree with the Chain of Custody** | ✓ |
| **CHAIN OF CUSTODY:** | |
| **Do requested analyses on Chain of Custody agree with form I results** | ✓ |
| **Do requested analyses on Chain of Custody agree with the log-in page** | ✓ |
| **Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody** | ✓ |
| **Were the samples received within hold time** | ✓ |
| **Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle** | ✓ |
| **ANALYTICAL:** | |
| **Was method requirement followed?** | ✓ |
| **Was client requirement followed?** | ✓ |
| **Does the case narrative summarize all QC failure?** | ✓ |
| **All runlogs and manual integration are reviewed for requirements** | ✓ |
| **All manual calculations and /or hand notations verified** | ✓ |

**1st Level QA Review Signature:** SOHIL JODHANI **Date:** 07/13/2023

**2nd Level QA Review Signature:** _____ **Date:** _____

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# LAB CHRONICLE

| | | | |
|---|---|---|---|
| **OrderID:** | N6070 | **OrderDate:** | 12/14/2022 4:13:00 PM |
| **Client:** | JACOBS Engineering Group, Inc. | **Project:** | Former Schlumberger Site Princeton NJ |
| **Contact:** | Doug Scott | **Location:** | M11,VOA Ref. #3 Water |

| LabID | ClientID | Matrix | Test | Method | Sample Date | Prep Date | Anal Date | Received |
|---|---|---|---|---|---|---|---|---|
| **N6070-01** | **GW-BR-04-226-245-1 21422-H** | **Water** | | | **12/14/22** | | | **12/14/22** |
| | | | VOCMS Group3 | 8260-Low | | | 12/15/22 | |

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# Hit Summary Sheet
**SW-846**

**SDG No.:** N6070

**Client:** JACOBS Engineering Group, Inc.

| Sample ID | Client ID | Matrix | Parameter | Concentration | C | MDL | RDL | Units |
|---|---|---|---|---|---|---|---|---|
| **Client ID:** | **GW-BR-04-226-245-121422-H** | | | | | | | |
| N6070-01 | GW-BR-04-226-24 | Water | 1,1-Dichloroethene | 1.80 | | 0.23 | 1.00 | ug/L |
| N6070-01 | GW-BR-04-226-24 | Water | cis-1,2-Dichloroethene | 9.00 | | 0.17 | 1.00 | ug/L |
| N6070-01 | GW-BR-04-226-24 | Water | Trichloroethene | 4.90 | | 0.27 | 1.00 | ug/L |
| | | | **Total Voc :** | 15.7 | | | | |
| | | | **Total Concentration:** | 15.7 | | | | |

# QC SUMMARY

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## Surrogate Summary

**SDG No.:** N6070

**Client:** JACOBS Engineering Group, Inc.

**Analytical Method:** SW8260-Low

| Lab Sample ID | Client ID | Parameter | Spike | Result | RecoveryQual | Limits Low | Limits High |
|---|---|---|---|---|---|---|---|
| N6070-01 | GW-BR-04-226-245-121422-H | 1,2-Dichloroethane-d4 | 50 | 48.8 | 98 | 70 (74) | 130 (125) |
| | | Dibromofluoromethane | 50 | 49.3 | 99 | 70 (75) | 130 (124) |
| | | Toluene-d8 | 50 | 47.6 | 95 | 70 (86) | 130 (113) |
| | | 4-Bromofluorobenzene | 50 | 48.6 | 97 | 70 (64) | 130 (133) |
| VX1215WBL01 | VX1215WBL01 | 1,2-Dichloroethane-d4 | 50 | 43.0 | 86 | 70 (74) | 130 (125) |
| | | Dibromofluoromethane | 50 | 43.9 | 88 | 70 (75) | 130 (124) |
| | | Toluene-d8 | 50 | 42.9 | 86 | 70 (86) | 130 (113) |
| | | 4-Bromofluorobenzene | 50 | 43.5 | 87 | 70 (64) | 130 (133) |
| VX1215WBS01 | VX1215WBS01 | 1,2-Dichloroethane-d4 | 50 | 48.2 | 96 | 70 (74) | 130 (125) |
| | | Dibromofluoromethane | 50 | 51.4 | 103 | 70 (75) | 130 (124) |
| | | Toluene-d8 | 50 | 54.1 | 108 | 70 (86) | 130 (113) |
| | | 4-Bromofluorobenzene | 50 | 58.6 | 117 | 70 (64) | 130 (133) |
| VX1215WBSD0 | VX1215WBSD01 | 1,2-Dichloroethane-d4 | 50 | 43.0 | 86 | 70 (74) | 130 (125) |
| | | Dibromofluoromethane | 50 | 46.0 | 92 | 70 (75) | 130 (124) |
| | | Toluene-d8 | 50 | 47.4 | 95 | 70 (86) | 130 (113) |
| | | 4-Bromofluorobenzene | 50 | 51.1 | 102 | 70 (64) | 130 (133) |

( ) = LABORATORY INHOUSE LIMIT

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**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**
**SW-846**

**SDG No.:** N6070

**Client:** JACOBS Engineering Group, Inc.

**Analytical Method:** SW8260-Low **Datafile :** VX033432.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | Limits RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VX1215WBS01 | Vinyl chloride | 20 | 19.0 | ug/L | 95 | | | 70 (65) | 130 (117) | |
| | 1,1-Dichloroethene | 20 | 14.9 | ug/L | 75 | | | 70 (74) | 130 (110) | |
| | 1,1-Dichloroethane | 20 | 19.9 | ug/L | 100 | | | 70 (78) | 130 (112) | |
| | cis-1,2-Dichloroethene | 20 | 20.6 | ug/L | 103 | | | 70 (77) | 130 (110) | |
| | 1,1,1-Trichloroethane | 20 | 21.7 | ug/L | 109 | | | 70 (80) | 130 (108) | |
| | Benzene | 20 | 21.3 | ug/L | 106 | | | 70 (82) | 130 (109) | |
| | 1,2-Dichloroethane | 20 | 21.1 | ug/L | 106 | | | 70 (80) | 130 (115) | |
| | Trichloroethene | 20 | 22.2 | ug/L | 111 | | | 70 (77) | 130 (113) | |
| | 1,1,2-Trichloroethane | 20 | 22.0 | ug/L | 110 | | | 70 (83) | 130 (112) | |
| | Tetrachloroethene | 20 | 22.0 | ug/L | 110 | | | 70 (67) | 130 (123) | |

( ) = LABORATORY INHOUSE LIMIT

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**Laboratory Control Sample/Laboratory Control Sample Duplicate Summary**
**SW-846**

**SDG No.:** N6070

**Client:** JACOBS Engineering Group, Inc.

**Analytical Method:** SW8260-Low **Datafile :** VX033433.D

| Lab Sample ID | Parameter | Spike | Result | Unit | Rec | RPD | Qual | Limits Low | Limits High | Limits RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| VX1215WBSD01 | Vinyl chloride | 20 | 17.6 | ug/L | 88 | 8 | | 70 (65) | 130 (117) | 20 (20) |
| | 1,1-Dichloroethene | 20 | 16.8 | ug/L | 84 | 11 | | 70 (74) | 130 (110) | 20 (20) |
| | 1,1-Dichloroethane | 20 | 18.5 | ug/L | 93 | 7 | | 70 (78) | 130 (112) | 20 (20) |
| | cis-1,2-Dichloroethene | 20 | 18.7 | ug/L | 94 | 9 | | 70 (77) | 130 (110) | 20 (20) |
| | 1,1,1-Trichloroethane | 20 | 19.8 | ug/L | 99 | 10 | | 70 (80) | 130 (108) | 20 (20) |
| | Benzene | 20 | 19.7 | ug/L | 99 | 7 | | 70 (82) | 130 (109) | 20 (20) |
| | 1,2-Dichloroethane | 20 | 19.8 | ug/L | 99 | 7 | | 70 (80) | 130 (115) | 20 (20) |
| | Trichloroethene | 20 | 21.0 | ug/L | 105 | 6 | | 70 (77) | 130 (113) | 20 (20) |
| | 1,1,2-Trichloroethane | 20 | 20.5 | ug/L | 103 | 7 | | 70 (83) | 130 (112) | 20 (20) |
| | Tetrachloroethene | 20 | 19.9 | ug/L | 100 | 10 | | 70 (67) | 130 (123) | 20 (20) |

( ) = LABORATORY INHOUSE LIMIT

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# VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1215WBL01

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033431.D Lab Sample ID: VX1215WBL01

Date Analyzed: 12/15/2022 Time Analyzed: 10:39

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

| EPA SAMPLE NO. | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| VX1215WBS01 | VX1215WBS01 | VX033432.D | 12/15/2022 |
| VX1215WBSD01 | VX1215WBSD01 | VX033433.D | 12/15/2022 |
| GW-BR-04-226-245-121422-H | N6070-01 | VX033441.D | 12/15/2022 |

COMMENTS:

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

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033272.D BFB Injection Date: 12/07/2022

Instrument ID: MSVOA_X BFB Injection Time: 09:17

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 18.7 |
| 75 | 30.0 - 60.0% of mass 95 | 53.1 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 6.9 |
| 173 | Less than 2.0% of mass 174 | 0.7 ( 0.9 ) 1 |
| 174 | 50.0 - 100.0% of mass 95 | 77 |
| 175 | 5.0 - 9.0% of mass 174 | 5.9 ( 7.6 ) 1 |
| 176 | 95.0 - 101.0% of mass 174 | 75.2 ( 97.6 ) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 4.9 ( 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 |
|---|---|---|---|---|
| VSTDICC001 | VSTDICC001 | VX033273.D | 12/07/2022 | 09:46 |
| VSTDICC005 | VSTDICC005 | VX033274.D | 12/07/2022 | 10:09 |
| VSTDICC020 | VSTDICC020 | VX033275.D | 12/07/2022 | 10:32 |
| VSTDICCC050 | VSTDICCC050 | VX033276.D | 12/07/2022 | 10:55 |
| VSTDICC100 | VSTDICC100 | VX033277.D | 12/07/2022 | 11:18 |
| VSTDICC150 | VSTDICC150 | VX033278.D | 12/07/2022 | 11:42 |

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

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033429.D BFB Injection Date: 12/15/2022

Instrument ID: MSVOA_X BFB Injection Time: 09:39

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

| m/e | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE |
|---|---|---|
| 50 | 15.0 - 40.0% of mass 95 | 19.2 |
| 75 | 30.0 - 60.0% of mass 95 | 52.9 |
| 95 | Base Peak, 100% relative abundance | 100 |
| 96 | 5.0 - 9.0% of mass 95 | 7 |
| 173 | Less than 2.0% of mass 174 | 0.9 ( 1.2 ) 1 |
| 174 | 50.0 - 100.0% of mass 95 | 80.4 |
| 175 | 5.0 - 9.0% of mass 174 | 6.1 ( 7.6 ) 1 |
| 176 | 95.0 - 101.0% of mass 174 | 78.2 ( 97.3 ) 1 |
| 177 | 5.0 - 9.0% of mass 176 | 5.1 ( 6.6 ) 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 |
|---|---|---|---|---|
| VSTDCCC050 | VSTDCCC050 | VX033430.D | 12/15/2022 | 10:10 |
| VX1215WBL01 | VX1215WBL01 | VX033431.D | 12/15/2022 | 10:39 |
| VX1215WBS01 | VX1215WBS01 | VX033432.D | 12/15/2022 | 11:07 |
| VX1215WBSD01 | VX1215WBSD01 | VX033433.D | 12/15/2022 | 11:46 |
| GW-BR-04-226-245-121422-H | N6070-01 | VX033441.D | 12/15/2022 | 14:50 |

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## VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033276.D Date Analyzed: 12/07/2022

Instrument ID: MSVOA_X Time Analyzed: 10:55

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

| | IS1 AREA # | RT # | IS2 AREA # | RT # | IS3 AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 158881 | 5.56 | 255290 | 6.76 | 233891 | 10.06 |
| UPPER LIMIT | 317762 | 6.056 | 510580 | 7.263 | 467782 | 10.555 |
| LOWER LIMIT | 79440.5 | 5.056 | 127645 | 6.263 | 116946 | 9.555 |
| EPA SAMPLE NO. | | | | | | |
| GW-BR-04-226-245-121422 | 115233 | 5.55 | 182643 | 6.76 | 164061 | 10.06 |
| TB-01-121422 | 128174 | 5.56 | 204029 | 6.76 | 177272 | 10.06 |
| GW-BR-01-160-180-121422 | 112732 | 5.56 | 179781 | 6.76 | 158358 | 10.06 |
| GW-BR-02-160-180-121422 | 111282 | 5.55 | 176885 | 6.76 | 155365 | 10.06 |
| GW-BR-03-128-148-121422 | 117851 | 5.55 | 187379 | 6.76 | 166169 | 10.06 |

IS1 = Pentafluorobenzene
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: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033430.D Date Analyzed: 12/15/2022

Instrument ID: MSVOA_X Time Analyzed: 10:10

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

| | IS1 AREA # | RT # | IS2 AREA # | RT # | IS3 AREA # | RT # |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 139266 | 5.55 | 214327 | 6.76 | 205390 | 10.06 |
| UPPER LIMIT | 278532 | 6.05 | 428654 | 7.257 | 410780 | 10.555 |
| LOWER LIMIT | 69633 | 5.05 | 107164 | 6.257 | 102695 | 9.555 |
| EPA SAMPLE NO. | | | | | | |
| GW-BR-04-226-245-121422-H | 115233 | 5.55 | 182643 | 6.76 | 164061 | 10.06 |
| VX1215WBL01 | 143365 | 5.55 | 223781 | 6.76 | 198464 | 10.06 |
| VX1215WBS01 | 144488 | 5.55 | 222709 | 6.76 | 207849 | 10.06 |
| VX1215WBSD01 | 137295 | 5.55 | 210886 | 6.76 | 199474 | 10.06 |

IS1 = Pentafluorobenzene
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.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG NO.: N6070

Lab File ID: VX033430.D Date Analyzed: 12/15/2022

Instrument ID: MSVOA_X Time Analyzed: 10:10

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

| | IS4 AREA # | RT # | | | | |
|---|---|---|---|---|---|---|
| 12 HOUR STD | 103647 | 12.024 | | | | |
| UPPER LIMIT | 207294 | 12.524 | | | | |
| LOWER LIMIT | 51823.5 | 11.524 | | | | |
| EPA SAMPLE NO. | | | | | | |
| GW-BR-04-226-245-121422-H | 77379 | 12.02 | | | | |
| VX1215WBL01 | 92099 | 12.02 | | | | |
| VX1215WBS01 | 106397 | 12.02 | | | | |
| VX1215WBSD01 | 101751 | 12.02 | | | | |

IS4 = 1,4-Dichlorobenzene-d4

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

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | JACOBS Engineering Group, Inc. | Date Collected: | 12/14/22 |
| Project: | Former Schlumberger Site Princeton NJ | Date Received: | 12/14/22 |
| Client Sample ID: | GW-BR-04-226-245-121422-H | SDG No.: | N6070 |
| Lab Sample ID: | N6070-01 | Matrix: | Water |
| Analytical Method: | SW8260 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group3 |
| GC Column: | DB-624UI ID : 0.18 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VX033441.D | 1 | | 12/15/22 14:50 | VX121522 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-01-4 | Vinyl Chloride | 0.22 | U | 0.22 | 1.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 1.80 | | 0.23 | 1.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 | 1.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 9.00 | | 0.17 | 1.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 0.18 | U | 0.18 | 1.00 | ug/L |
| 71-43-2 | Benzene | 0.16 | U | 0.16 | 1.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 0.18 | U | 0.18 | 1.00 | ug/L |
| 79-01-6 | Trichloroethene | 4.90 | | 0.27 | 1.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 0.19 | U | 0.19 | 1.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 0.18 | U | 0.18 | 1.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 48.8 | | 70 (74) - 130 (125) | 98% | SPK: 50 |
| 1868-53-7 | Dibromofluoromethane | 49.3 | | 70 (75) - 130 (124) | 99% | SPK: 50 |
| 2037-26-5 | Toluene-d8 | 47.6 | | 70 (86) - 130 (113) | 95% | SPK: 50 |
| 460-00-4 | 4-Bromofluorobenzene | 48.7 | | 70 (64) - 130 (133) | 97% | SPK: 50 |
| **INTERNAL STANDARDS** | | | | | | |
| 363-72-4 | Pentafluorobenzene | 115000 | 5.55 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 183000 | 6.763 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 164000 | 10.055 | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 77400 | 12.024 | | | |

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_X\Data\VX121522\
Data File : VX033441.D
Acq On : 15 Dec 2022 14:50
Operator : JC/MD
Sample : N6070-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Quant Time: Dec 16 01:02:56 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

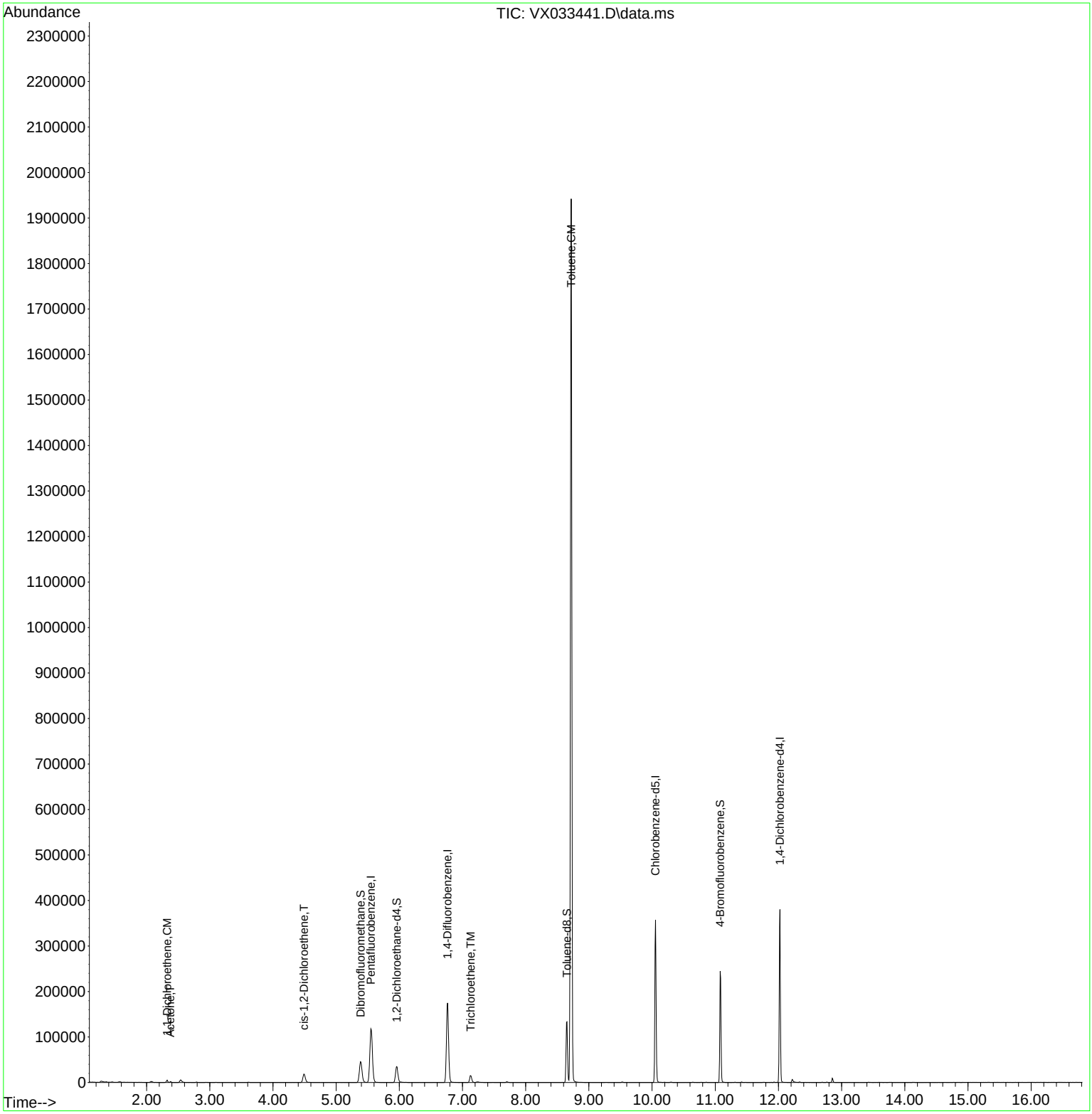
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 115233 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 182643 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 164061 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 77379 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 36088 | 48.816 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 97.640% | | | |
| 35) Dibromofluoromethane | 5.385 | 113 | 40491 | 49.290 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 98.580% | | | |
| 50) Toluene-d8 | 8.653 | 98 | 81865 | 47.637 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 95.280% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 63928 | 48.651 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 97.300% | | | |
| Target Compounds | | | | | | Qvalue |
| 12) 1,1-Dichloroethene | 2.325 | 96 | 1845 | 1.766 | ug/l | 83 |
| 16) Acetone | 2.373 | 43 | 2007 | 3.669 | ug/l | 96 |
| 27) cis-1,2-Dichloroethene | 4.489 | 96 | 12282 | 8.993 | ug/l | 87 |
| 44) Trichloroethene | 7.129 | 130 | 6252 | 4.856 | ug/l | 95 |
| 52) Toluene | 8.720 | 92 | 739140 | 244.804 | ug/l | 99 |

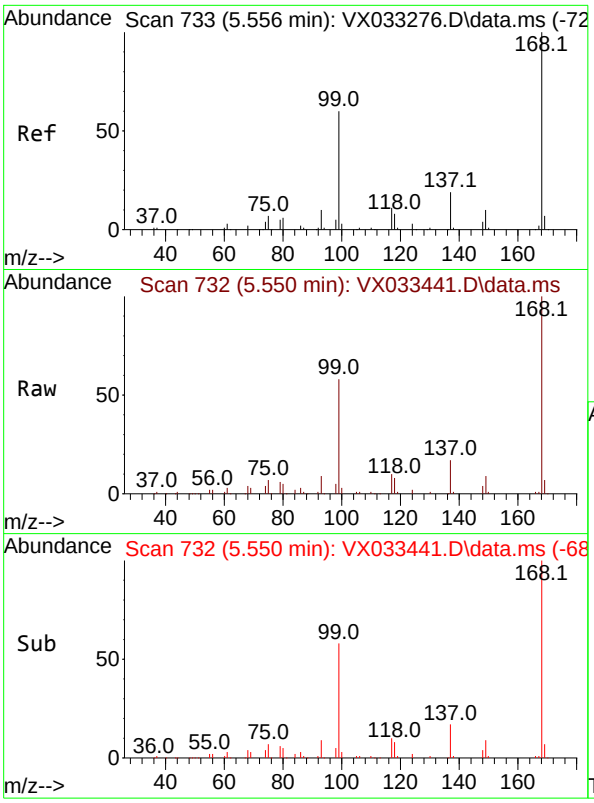
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033441.D
Acq On : 15 Dec 2022 14:50
Operator : JC/MD
Sample : N6070-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Quant Time: Dec 16 01:02:56 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration



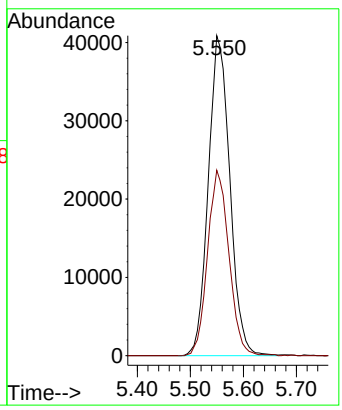


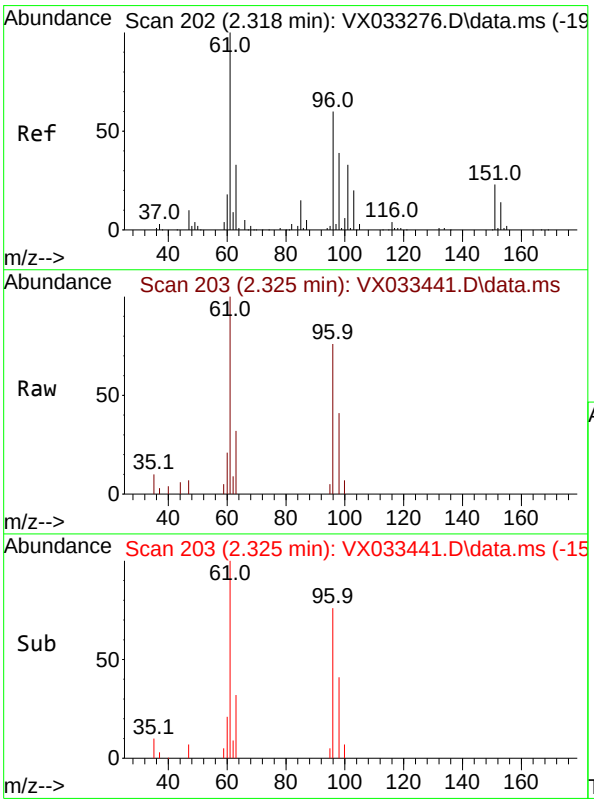

#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion:168 Resp: 115233

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 58.0 | 46.1 | 69.1 |

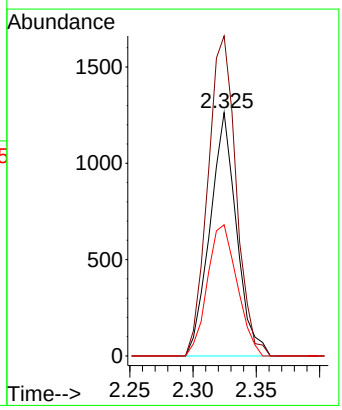


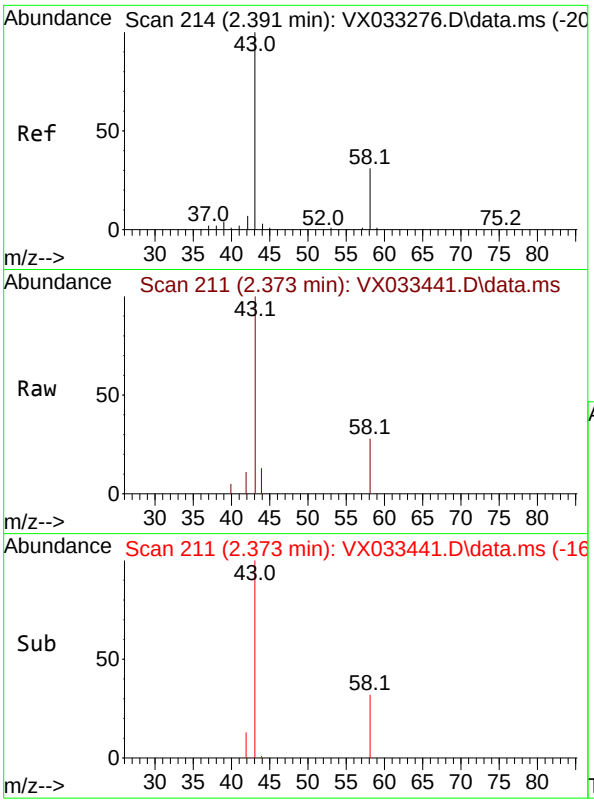




#12
1,1-Dichloroethene
Concen: 1.766 ug/l
RT: 2.325 min Scan# 203
Delta R.T. 0.006 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion: 96 Resp: 1845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 131.5 | 125.1 | 187.7 |
| 98 | 53.9 | 50.6 | 76.0 |



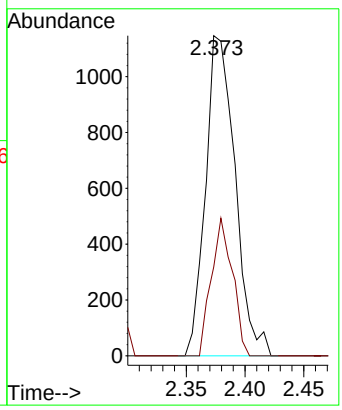


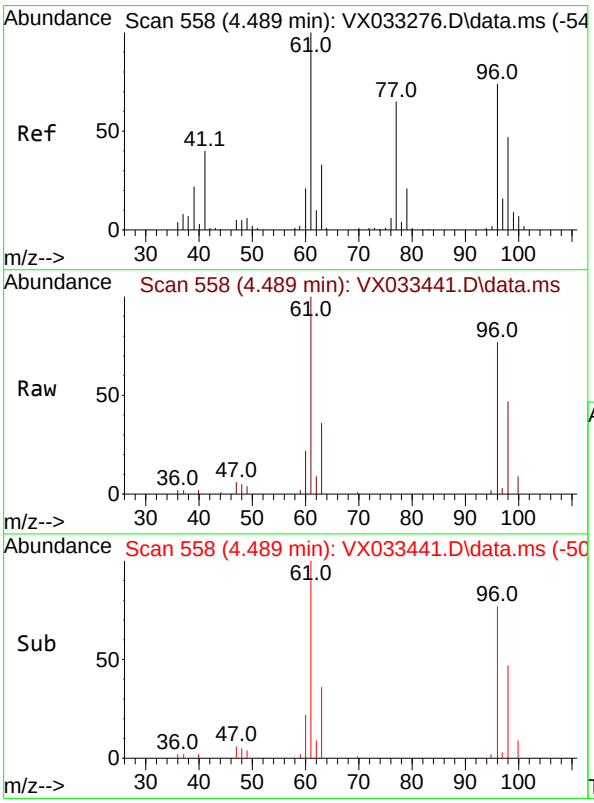

#16
Acetone
Concen: 3.669 ug/l
RT: 2.373 min Scan# 21
Delta R.T. -0.018 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion: 43 Resp: 2007

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 27.7 | 23.8 | 35.8 |

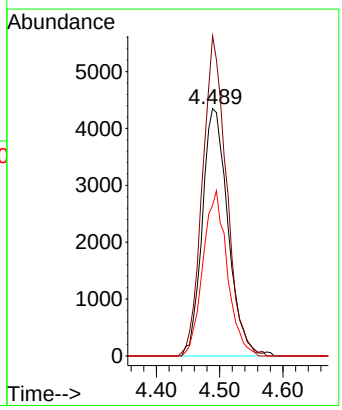


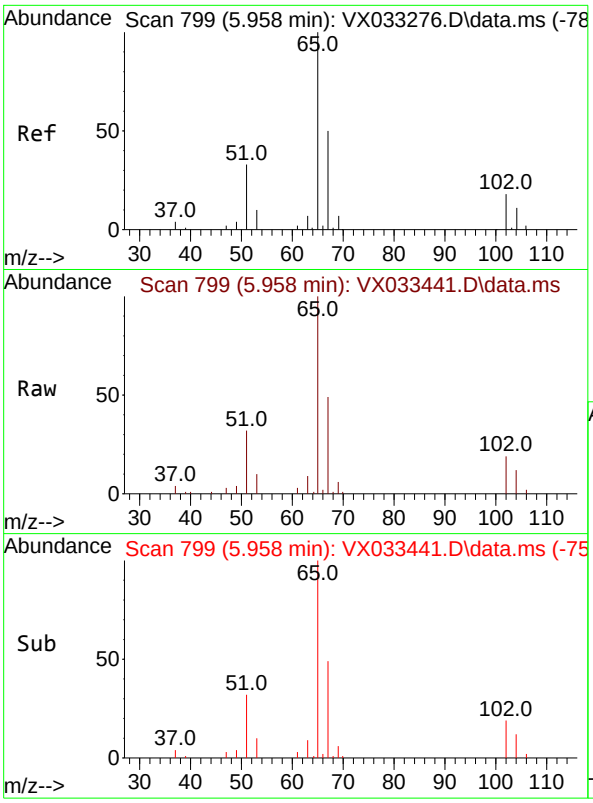




#27
cis-1,2-Dichloroethene
Concen: 8.993 ug/l
RT: 4.489 min Scan# 558
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion: 96 Resp: 12282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 120.8 | 0.0 | 286.0 |
| 98 | 63.1 | 0.0 | 129.6 |



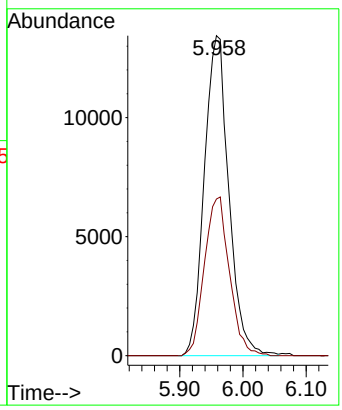


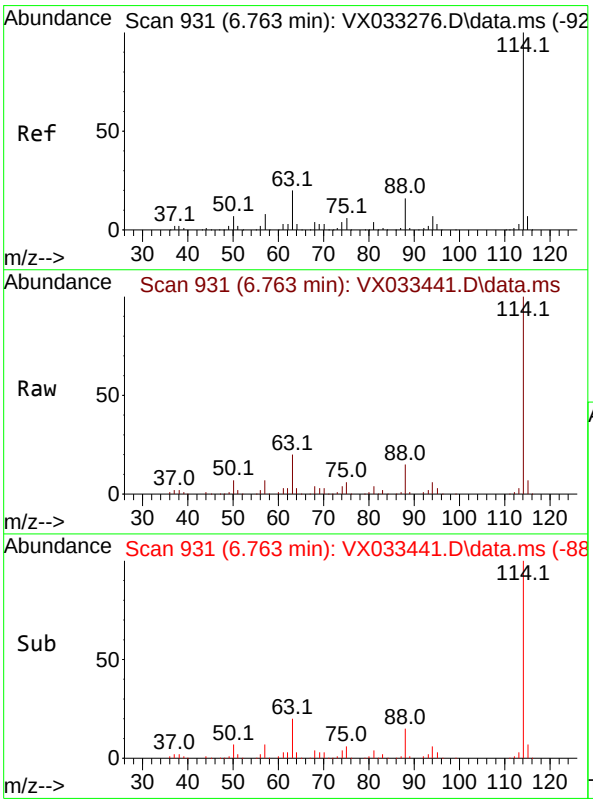

#33
1,2-Dichloroethane-d4
Concen: 48.816 ug/l
RT: 5.958 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion: 65 Resp: 36088

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.7 | 0.0 | 101.8 |

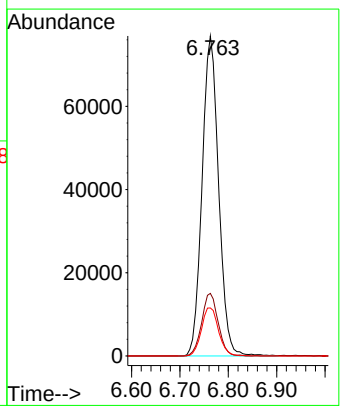


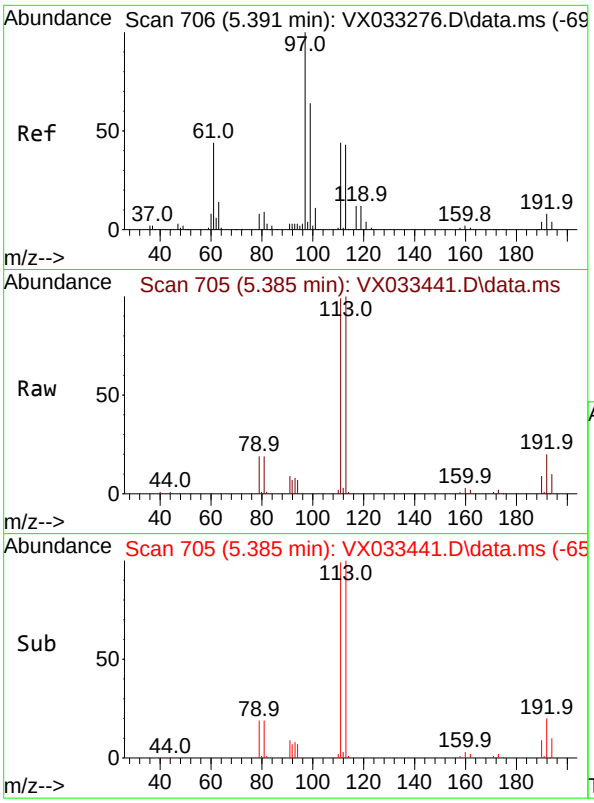




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion:114 Resp: 182643

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.6 | 0.0 | 41.6 |
| 88 | 15.0 | 0.0 | 33.4 |



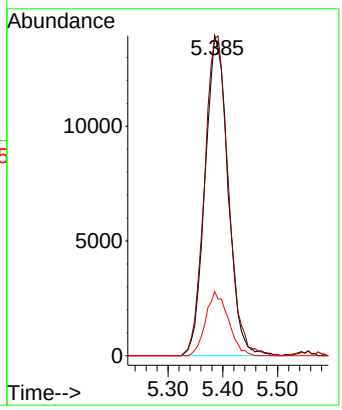


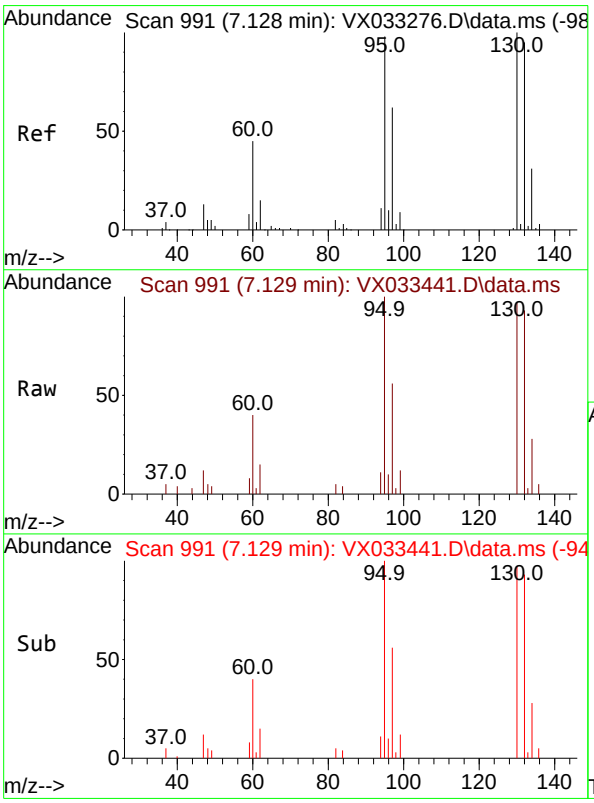

#35
Dibromofluoromethane
Concen: 49.290 ug/l
RT: 5.385 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion:113 Resp: 40491

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 103.7 | 82.4 | 123.6 |
| 192 | 19.7 | 15.4 | 23.2 |

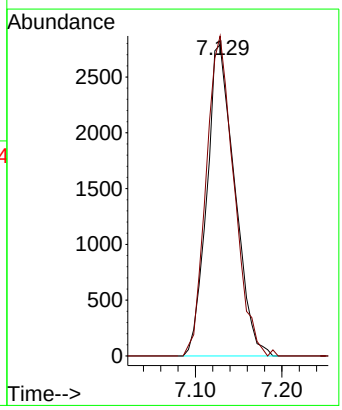


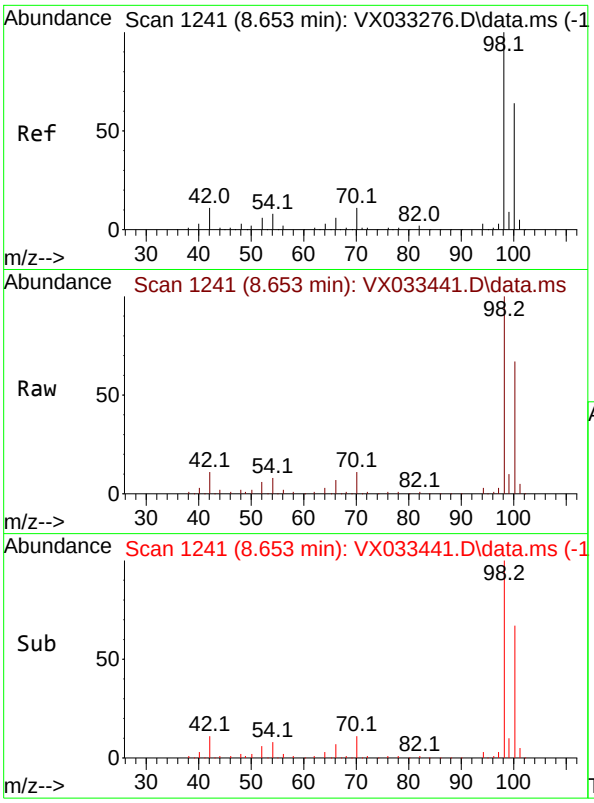




#44
Trichloroethene
Concen: 4.856 ug/l
RT: 7.129 min Scan# 991
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion:130 Resp: 6252

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 102.8 | 0.0 | 195.2 |



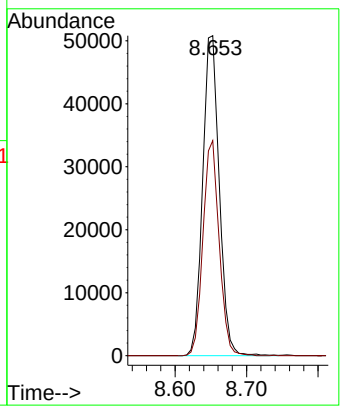


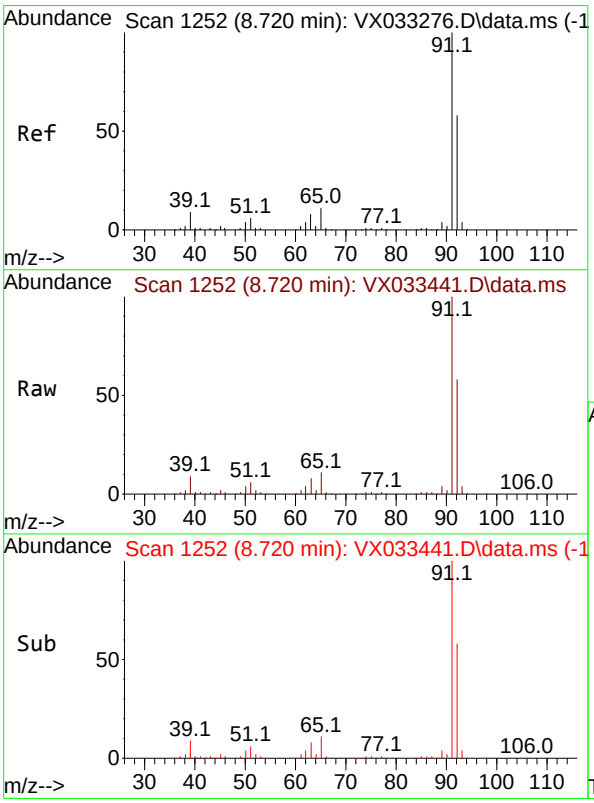

#50
Toluene-d8
Concen: 47.637 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion: 98 Resp: 81865

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.5 | 50.9 | 76.3 |

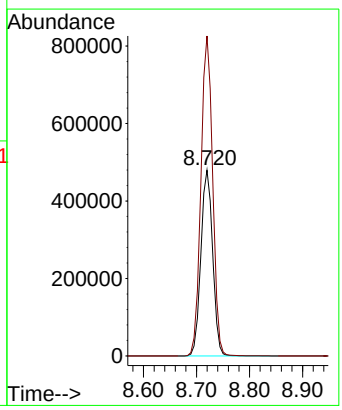


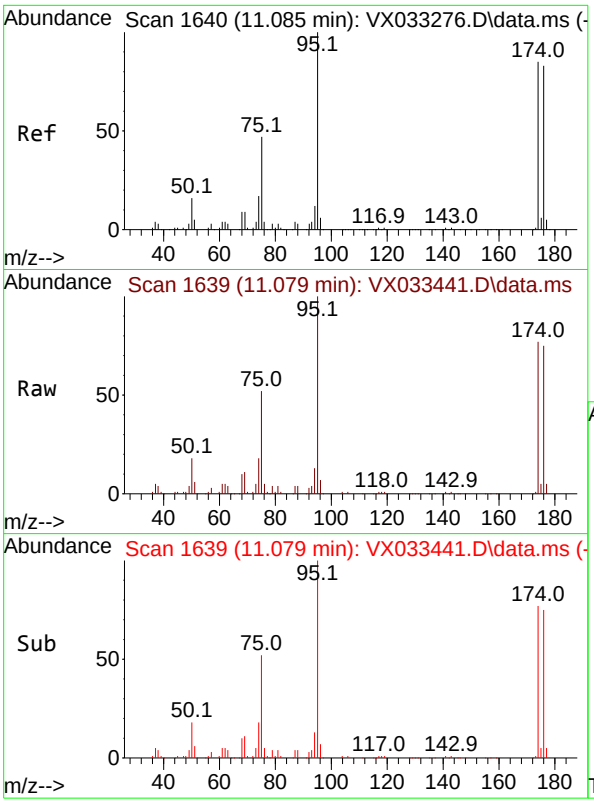




#52
Toluene
Concen: 244.804 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion: 92 Resp: 739140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 171.8 | 138.3 | 207.5 |



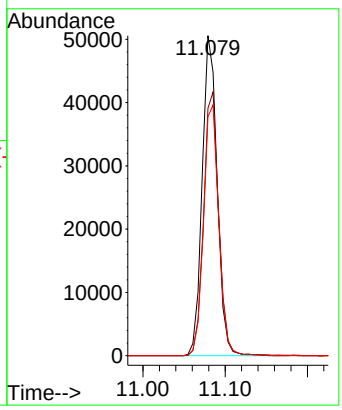


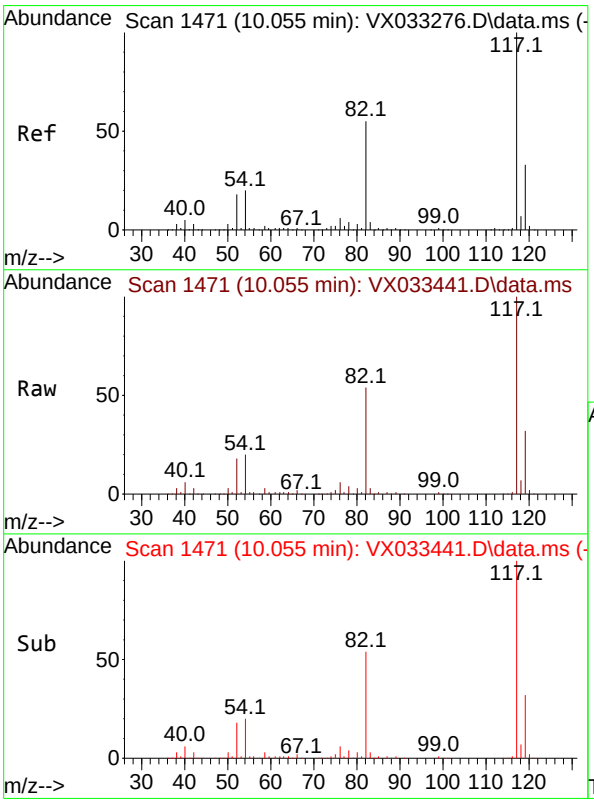

#62
4-Bromofluorobenzene
Concen: 48.651 ug/l
RT: 11.079 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion: 95 Resp: 63928

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 83.2 | 0.0 | 164.0 |
| 176 | 79.9 | 0.0 | 154.4 |

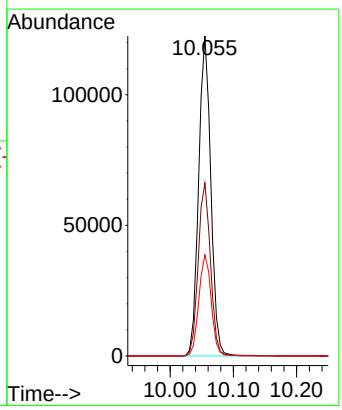


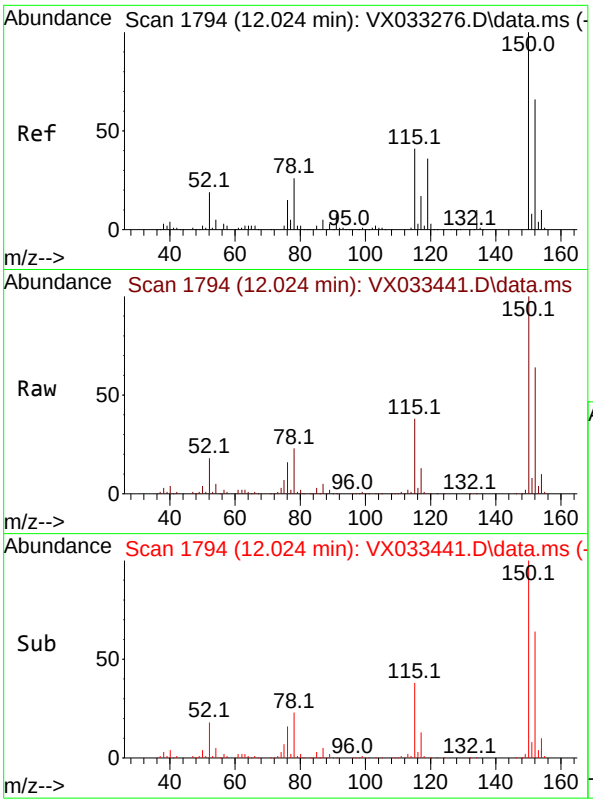




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

Tgt Ion:117 Resp: 164061

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.0 | 44.3 | 66.5 |
| 119 | 31.6 | 25.7 | 38.5 |



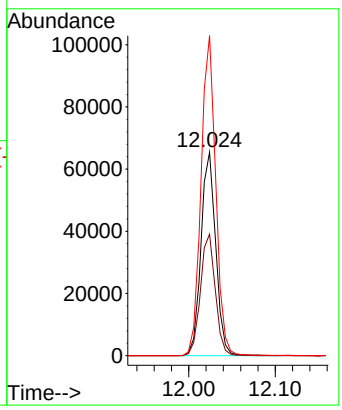



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033441.D
Acq: 15 Dec 2022 14:50

**Instrument :**
MSVOA_X
**ClientSampleId :**
GW-BR-04-226-245-121422

Tgt Ion:152 Resp: 77379

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 60.2 | 44.0 | 132.0 |
| 150 | 157.0 | 0.0 | 351.8 |



# CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG No.: N6070

Instrument ID: MSVOA_X Calibration Date(s): 12/07/2022 12/07/2022

Heated Purge: (Y/N) N Calibration Time(s): 09:46 11:42

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX033273.D RRF005 = VX033274.D RRF020 = VX033275.D
RRF050 = VX033276.D RRF100 = VX033277.D RRF150 = VX033278.D

| COMPOUND | RRF001 | RRF005 | RRF020 | RRF050 | RRF100 | RRF150 | $\overline{RRF}$ | % RSD |
|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 0.507 | 0.456 | 0.514 | 0.427 | 0.429 | 0.434 | 0.461 | 8.6 |
| 1,1-Dichloroethene | 0.442 | 0.467 | 0.505 | 0.422 | 0.439 | 0.445 | 0.453 | 6.4 |
| 1,1-Dichloroethane | 0.880 | 0.899 | 1.006 | 0.844 | 0.851 | 0.987 | 0.911 | 7.6 |
| cis-1,2-Dichloroethene | 0.544 | 0.560 | 0.647 | 0.561 | 0.577 | 0.667 | 0.593 | 8.7 |
| 1,1,1-Trichloroethane | 0.768 | 0.851 | 0.990 | 0.850 | 0.867 | 0.896 | 0.870 | 8.3 |
| Benzene | 1.179 | 1.249 | 1.464 | 1.214 | 1.280 | 1.285 | 1.278 | 7.8 |
| 1,2-Dichloroethane | 0.475 | 0.503 | 0.586 | 0.477 | 0.488 | 0.516 | 0.508 | 8.1 |
| Trichloroethene | 0.321 | 0.337 | 0.410 | 0.338 | 0.361 | 0.348 | 0.352 | 8.8 |
| 1,1,2-Trichloroethane | 0.322 | 0.322 | 0.387 | 0.333 | 0.350 | 0.369 | 0.347 | 7.6 |
| Tetrachloroethene | 0.352 | 0.360 | 0.390 | 0.322 | 0.332 | 0.296 | 0.342 | 9.6 |
| 1,2-Dichloroethane-d4 | | 0.378 | 0.324 | 0.288 | 0.279 | 0.336 | 0.321 | 12.4 |
| Dibromofluoromethane | | 0.251 | 0.234 | 0.204 | 0.210 | 0.226 | 0.225 | 8.4 |
| Toluene-d8 | | 0.503 | 0.488 | 0.444 | 0.454 | 0.463 | 0.470 | 5.2 |
| 4-Bromofluorobenzene | | 0.341 | 0.382 | 0.353 | 0.356 | 0.366 | 0.360 | 4.3 |

* 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_X

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
Method File : 82X120722W.M
Title : SW846 8260
Last Update : Wed Dec 07 12:43:54 2022
Response Via : Initial Calibration

Calibration Files
1 =VX033273.D 5 =VX033274.D 20 =VX033275.D 50 =VX033276.D 100 =VX033277.D 150 =VX033278.D

| | | Compound | 1 | 5 | 20 | 50 | 100 | 150 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | Pentafluorobenzene | ----------ISTD---------- | | | | | | | |
| 2) | T | Dichlorodifluo... | 0.364 | 0.350 | 0.392 | 0.327 | 0.345 | 0.317 | 0.349 | 7.67 |
| 3) | P | Chloromethane | 0.420 | 0.419 | 0.448 | 0.364 | 0.366 | 0.407 | 0.404 | 8.20 |
| 4) | C | Vinyl Chloride | 0.507 | 0.456 | 0.514 | 0.427 | 0.429 | 0.434 | 0.461 | 8.63# |
| 5) | T | Bromomethane | | 0.353 | 0.364 | 0.300 | 0.312 | 0.362 | 0.338 | 8.92 |
| 6) | T | Chloroethane | 0.388 | 0.385 | 0.392 | 0.338 | 0.298 | 0.299 | 0.350 | 12.69 |
| 7) | T | Trichlorofluor... | 0.980 | 0.897 | 0.981 | 0.815 | 0.789 | 0.732 | 0.866 | 11.96 |
| 8) | T | Diethyl Ether | 0.312 | 0.324 | 0.344 | 0.275 | 0.277 | 0.344 | 0.313 | 9.93 |
| 9) | T | 1,1,2-Trichlor... | 0.441 | 0.476 | 0.535 | 0.445 | 0.448 | 0.410 | 0.459 | 9.26 |
| 10) | T | Methyl Iodide | | 0.388 | 0.559 | 0.490 | 0.510 | 0.568 | 0.503 | 14.38 |
| 11) | T | Tert butyl alc... | | 0.102 | 0.100 | 0.080 | 0.093 | 0.115 | 0.098 | 13.13 |
| 12) | CM | 1,1-Dichloroet... | 0.442 | 0.467 | 0.505 | 0.422 | 0.439 | 0.445 | 0.453 | 6.43# |
| 13) | T | Acrolein | | 0.115 | 0.083 | 0.101 | 0.102 | 0.131 | 0.106 | 16.64 |
| 14) | T | Allyl chloride | 0.678 | 0.697 | 0.798 | 0.684 | 0.702 | 0.785 | 0.724 | 7.35 |
| 15) | T | Acrylonitrile | 0.211 | 0.232 | 0.267 | 0.226 | 0.233 | 0.288 | 0.243 | 11.90 |
| 16) | T | Acetone | 0.262 | 0.248 | 0.265 | 0.205 | 0.201 | 0.243 | 0.237 | 11.72 |
| 17) | T | Carbon Disulfide | 1.190 | 1.130 | 1.287 | 1.098 | 1.126 | 1.149 | 1.163 | 5.83 |
| 18) | T | Methyl Acetate | 0.608 | 0.627 | 0.763 | 0.643 | 0.659 | 0.822 | 0.687 | 12.46 |
| 19) | T | Methyl tert-bu... | 1.313 | 1.502 | 1.711 | 1.477 | 1.529 | 1.889 | 1.570 | 12.81 |
| 20) | T | Methylene Chlo... | 0.568 | 0.516 | 0.566 | 0.470 | 0.477 | 0.579 | 0.529 | 9.13 |
| 21) | T | trans-1,2-Dich... | 0.441 | 0.498 | 0.548 | 0.470 | 0.487 | 0.532 | 0.496 | 7.95 |
| 22) | T | Diisopropyl ether | 1.317 | 1.488 | 1.743 | 1.509 | 1.499 | 1.750 | 1.551 | 10.78 |
| 23) | T | Vinyl Acetate | 0.992 | 1.093 | 1.333 | 1.173 | 1.191 | 1.440 | 1.204 | 13.43 |
| 24) | P | 1,1-Dichloroet... | 0.880 | 0.899 | 1.006 | 0.844 | 0.851 | 0.987 | 0.911 | 7.61 |
| 25) | T | 2-Butanone | 0.297 | 0.333 | 0.386 | 0.323 | 0.321 | 0.384 | 0.341 | 10.70 |
| 26) | T | 2,2-Dichloropr... | 0.602 | 0.648 | 0.744 | 0.648 | 0.666 | 0.713 | 0.670 | 7.60 |
| 27) | T | cis-1,2-Dichlo... | 0.544 | 0.560 | 0.647 | 0.561 | 0.577 | 0.667 | 0.593 | 8.66 |
| 28) | T | Bromochloromet... | 0.378 | 0.376 | 0.407 | 0.373 | 0.345 | 0.409 | 0.381 | 6.22 |
| 29) | T | Tetrahydrofuran | 0.189 | 0.213 | 0.246 | 0.210 | 0.212 | 0.253 | 0.221 | 11.04 |
| 30) | C | Chloroform | 0.935 | 0.991 | 1.128 | 0.958 | 0.962 | 1.095 | 1.012 | 7.92# |
| 31) | T | Cyclohexane | | 0.756 | 0.876 | 0.743 | 0.761 | 0.676 | 0.762 | 9.49 |
| 32) | T | 1,1,1-Trichlor... | 0.768 | 0.851 | 0.990 | 0.850 | 0.867 | 0.896 | 0.870 | 8.29 |
| 33) | S | 1,2-Dichloroet... | | 0.378 | 0.324 | 0.288 | 0.279 | 0.336 | 0.321 | 12.37 |
| 34) | I | 1,4-Difluorobenzene | ----------ISTD---------- | | | | | | | |
| 35) | S | Dibromofluorom... | | 0.251 | 0.234 | 0.204 | 0.210 | 0.226 | 0.225 | 8.43 |
| 36) | T | 1,1-Dichloropr... | 0.439 | 0.420 | 0.500 | 0.422 | 0.450 | 0.400 | 0.438 | 7.88 |
| 37) | T | Ethyl Acetate | 0.356 | 0.384 | 0.479 | 0.397 | 0.418 | 0.454 | 0.414 | 10.98 |
| 38) | T | Carbon Tetrach... | 0.477 | 0.481 | 0.566 | 0.478 | 0.500 | 0.445 | 0.491 | 8.28 |
| 39) | T | Methylcyclohexane | 0.487 | 0.478 | 0.574 | 0.490 | 0.528 | 0.388 | 0.491 | 12.57 |
| 40) | TM | Benzene | 1.179 | 1.249 | 1.464 | 1.214 | 1.280 | 1.285 | 1.278 | 7.77 |
| 41) | T | Methacrylonitrile | 0.185 | 0.209 | 0.268 | 0.225 | 0.232 | 0.252 | 0.228 | 12.95 |
| 42) | TM | 1,2-Dichloroet... | 0.475 | 0.503 | 0.586 | 0.477 | 0.488 | 0.516 | 0.508 | 8.14 |
| 43) | T | Isopropyl Acetate | 0.561 | 0.604 | 0.751 | 0.641 | 0.685 | 0.759 | 0.667 | 11.95 |
| 44) | TM | Trichloroethene | 0.321 | 0.337 | 0.410 | 0.338 | 0.361 | 0.348 | 0.352 | 8.82 |
| 45) | C | 1,2-Dichloropr... | 0.300 | 0.319 | 0.371 | 0.309 | 0.324 | 0.338 | 0.327 | 7.74# |
| 46) | T | Dibromomethane | 0.226 | 0.246 | 0.281 | 0.233 | 0.243 | 0.265 | 0.249 | 8.17 |
| 47) | T | Bromodichlorom... | 0.428 | 0.448 | 0.562 | 0.468 | 0.491 | 0.515 | 0.485 | 9.99 |
| 48) | T | Methyl methacr... | 0.310 | 0.309 | 0.386 | 0.331 | 0.350 | 0.378 | 0.344 | 9.61 |
| 49) | T | 1,4-Dioxane | 0.007 | 0.007 | 0.009 | 0.007 | 0.008 | 0.009 | 0.008 | 12.08 |
| 50) | S | Toluene-d8 | | 0.503 | 0.488 | 0.444 | 0.454 | 0.463 | 0.470 | 5.19 |
| 51) | T | 4-Methyl-2-Pen... | 0.356 | 0.404 | 0.499 | 0.413 | 0.417 | 0.443 | 0.422 | 11.22 |
| 52) | CM | Toluene | 0.715 | 0.786 | 0.970 | 0.814 | 0.845 | 0.829 | 0.827 | 10.14# |
| 53) | T | t-1,3-Dichloro... | 0.386 | 0.390 | 0.526 | 0.467 | 0.512 | 0.555 | 0.473 | 15.14 |
| 54) | T | cis-1,3-Dichlo... | 0.419 | 0.456 | 0.580 | 0.510 | 0.549 | 0.587 | 0.517 | 13.19 |
| 55) | T | 1,1,2-Trichlor... | 0.322 | 0.322 | 0.387 | 0.333 | 0.350 | 0.369 | 0.347 | 7.63 |
| 56) | T | Ethyl methacry... | 0.381 | 0.430 | 0.560 | 0.489 | 0.519 | 0.557 | 0.489 | 14.65 |

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
Method File : 82X120722W.M

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | 1,3-Dichloropr... | 0.481 | 0.540 | 0.638 | 0.535 | 0.559 | 0.596 | 0.558 | 9.66 |
| 58) | T | 2-Chloroethyl ... | 0.196 | 0.211 | 0.218 | 0.224 | 0.236 | 0.258 | 0.224 | 9.57 |
| 59) | T | 2-Hexanone | 0.263 | 0.291 | 0.375 | 0.306 | 0.305 | 0.325 | 0.311 | 12.05 |
| 60) | T | Dibromochlorom... | 0.305 | 0.353 | 0.439 | 0.376 | 0.399 | 0.425 | 0.383 | 12.82 |
| 61) | T | 1,2-Dibromoethane | 0.307 | 0.345 | 0.423 | 0.358 | 0.377 | 0.407 | 0.370 | 11.46 |
| 62) | S | 4-Bromofluorob... | | 0.341 | 0.382 | 0.353 | 0.356 | 0.366 | 0.360 | 4.32 |
| 63) | I | Chlorobenzene-d5 | ----------ISTD---------- | | | | | | | |
| 64) | T | Tetrachloroethene | 0.352 | 0.360 | 0.390 | 0.322 | 0.332 | 0.296 | 0.342 | 9.56 |
| 65) | PM | Chlorobenzene | 0.995 | 0.976 | 1.159 | 0.966 | 0.993 | 0.985 | 1.013 | 7.15 |
| 66) | T | 1,1,1,2-Tetrac... | 0.352 | 0.357 | 0.442 | 0.372 | 0.381 | 0.392 | 0.383 | 8.49 |
| 67) | C | Ethyl Benzene | 1.620 | 1.734 | 2.043 | 1.735 | 1.773 | 1.680 | 1.764 | 8.31# |
| 68) | T | m/p-Xylenes | 0.630 | 0.662 | 0.790 | 0.677 | 0.699 | 0.660 | 0.686 | 8.13 |
| 69) | T | o-Xylene | 0.620 | 0.652 | 0.786 | 0.671 | 0.678 | 0.663 | 0.678 | 8.34 |
| 70) | T | Styrene | 0.931 | 1.043 | 1.295 | 1.115 | 1.145 | 1.137 | 1.111 | 10.85 |
| 71) | P | Bromoform | 0.246 | 0.274 | 0.344 | 0.304 | 0.315 | 0.334 | 0.303 | 12.22 |
| 72) | I | 1,4-Dichlorobenzen... | ----------ISTD---------- | | | | | | | |
| 73) | T | Isopropylbenzene | 3.344 | 3.639 | 4.186 | 3.560 | 3.681 | 3.335 | 3.624 | 8.59 |
| 74) | T | N-amyl acetate | 0.953 | 1.110 | 1.444 | 1.240 | 1.283 | 1.388 | 1.236 | 14.67 |
| 75) | P | 1,1,2,2-Tetrac... | 1.069 | 1.152 | 1.301 | 1.088 | 1.106 | 1.181 | 1.150 | 7.39 |
| 76) | T | 1,2,3-Trichlor... | 0.962 | 0.971 | 1.176 | 0.963 | 0.995 | 1.036 | 1.017 | 8.13 |
| 77) | T | Bromobenzene | 0.862 | 0.918 | 1.033 | 0.865 | 0.901 | 0.912 | 0.915 | 6.82 |
| 78) | T | n-propylbenzene | 3.595 | 3.949 | 4.768 | 4.049 | 4.186 | 3.731 | 4.047 | 10.21 |
| 79) | T | 2-Chlorotoluene | 2.395 | 2.495 | 2.876 | 2.425 | 2.460 | 2.354 | 2.501 | 7.62 |
| 80) | T | 1,3,5-Trimethy... | 2.678 | 2.967 | 3.535 | 2.982 | 3.093 | 2.845 | 3.017 | 9.64 |
| 81) | T | trans-1,4-Dich... | | 0.254 | 0.347 | 0.312 | 0.343 | 0.379 | 0.327 | 14.38 |
| 82) | T | 4-Chlorotoluene | 2.811 | 2.834 | 3.331 | 2.792 | 2.896 | 2.784 | 2.908 | 7.27 |
| 83) | T | tert-Butylbenzene | 2.752 | 2.939 | 3.536 | 2.975 | 3.078 | 2.769 | 3.008 | 9.55 |
| 84) | T | 1,2,4-Trimethy... | 2.729 | 2.938 | 3.552 | 2.951 | 3.038 | 2.859 | 3.011 | 9.45 |
| 85) | T | sec-Butylbenzene | 3.216 | 3.419 | 4.179 | 3.535 | 3.677 | 3.032 | 3.510 | 11.39 |
| 86) | T | p-Isopropyltol... | 2.873 | 2.858 | 3.591 | 3.011 | 3.153 | 2.669 | 3.026 | 10.61 |
| 87) | T | 1,3-Dichlorobe... | 1.506 | 1.619 | 1.923 | 1.603 | 1.672 | 1.624 | 1.658 | 8.50 |
| 88) | T | 1,4-Dichlorobe... | 1.682 | 1.682 | 1.911 | 1.594 | 1.651 | 1.640 | 1.693 | 6.59 |
| 89) | T | n-Butylbenzene | 2.204 | 2.260 | 2.999 | 2.508 | 2.697 | 2.202 | 2.478 | 12.99 |
| 90) | T | Hexachloroethane | 0.494 | 0.476 | 0.589 | 0.506 | 0.542 | 0.480 | 0.514 | 8.43 |
| 91) | T | 1,2-Dichlorobe... | 1.630 | 1.619 | 1.901 | 1.561 | 1.612 | 1.621 | 1.657 | 7.35 |
| 92) | T | 1,2-Dibromo-3-... | 0.222 | 0.232 | 0.279 | 0.233 | 0.249 | 0.275 | 0.248 | 9.56 |
| 93) | T | 1,2,4-Trichlor... | 0.920 | 0.923 | 1.153 | 0.958 | 1.054 | 0.999 | 1.001 | 9.00 |
| 94) | T | Hexachlorobuta... | 0.447 | 0.390 | 0.460 | 0.382 | 0.412 | 0.314 | 0.401 | 13.09 |
| 95) | T | Naphthalene | 2.568 | 3.024 | 3.914 | 3.317 | 3.527 | 3.683 | 3.339 | 14.53 |
| 96) | T | 1,2,3-Trichlor... | 0.957 | 0.960 | 1.140 | 0.981 | 1.045 | 0.999 | 1.014 | 6.86 |

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033273.D
Acq On : 07 Dec 2022 09:46
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 07 10:41:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 142504 | 50.000 | ug/l | | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 225802 | 50.000 | ug/l | | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 197000 | 50.000 | ug/l | | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 90814 | 50.000 | ug/l | | 0.00 |
| **System Monitoring Compounds** | | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 0.000 | 65 | 0d | 0.000 | ug/l | | |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = | 0.000%# | | | |
| 35) Dibromofluoromethane | 0.000 | 113 | 0d | 0.000 | ug/l | | |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = | 0.000%# | | | |
| 50) Toluene-d8 | 0.000 | 98 | 0d | 0.000 | ug/l | | |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = | 0.000%# | | | |
| 62) 4-Bromofluorobenzene | 0.000 | 95 | 0d | 0.000 | ug/l | | |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = | 0.000%# | | | |
| **Target Compounds** | | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 1038 | 0.953 | ug/l | | 92 |
| 3) Chloromethane | 1.294 | 50 | 1198 | 1.019 | ug/l | | 96 |
| 4) Vinyl Chloride | 1.374 | 62 | 1445 | 1.104 | ug/l | | 92 |
| 6) Chloroethane | 1.697 | 64 | 1105 | 1.037 | ug/l | # | 87 |
| 7) Trichlorofluoromethane | 1.892 | 101 | 2793 | 1.100 | ug/l | # | 80 |
| 8) Diethyl Ether | 2.136 | 74 | 889 | 1.112 | ug/l | | 83 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 1257 | 0.942 | ug/l | | 92 |
| 12) 1,1-Dichloroethene | 2.318 | 96 | 1259 | 1.012 | ug/l | | 92 |
| 14) Allyl chloride | 2.666 | 41 | 1931 | 0.962 | ug/l | | 94 |
| 15) Acrylonitrile | 3.074 | 53 | 3013 | 4.842 | ug/l | | 96 |
| 16) Acetone | 2.392 | 43 | 3731 | 5.757 | ug/l | | 97 |
| 17) Carbon Disulfide | 2.514 | 76 | 3391 | 0.987 | ug/l | # | 93 |
| 18) Methyl Acetate | 2.709 | 43 | 1734 | 0.967 | ug/l | | 96 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 3742 | 0.868 | ug/l | | 93 |
| 20) Methylene Chloride | 2.794 | 84 | 1618 | 1.036 | ug/l | # | 85 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 1257 | 0.884 | ug/l | | 85 |
| 22) Diisopropyl ether | 3.763 | 45 | 3754 | 0.859 | ug/l | # | 77 |
| 23) Vinyl Acetate | 3.733 | 43 | 14131 | 4.129 | ug/l | # | 93 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 2507 | 1.002 | ug/l | # | 93 |
| 25) 2-Butanone | 4.574 | 43 | 4232 | 4.735 | ug/l | | 97 |
| 26) 2,2-Dichloropropane | 4.464 | 77 | 1715 | 0.853 | ug/l | # | 65 |
| 27) cis-1,2-Dichloroethene | 4.489 | 96 | 1551 | 0.960 | ug/l | | 97 |
| 28) Bromochloromethane | 4.903 | 49 | 1078 | 0.981 | ug/l | # | 98 |
| 29) Tetrahydrofuran | 5.031 | 42 | 2697 | 4.756 | ug/l | | 94 |
| 30) Chloroform | 5.098 | 83 | 2666 | 0.952 | ug/l | | 98 |
| 32) 1,1,1-Trichloroethane | 5.379 | 97 | 2190 | 0.873 | ug/l | # | 48 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 1983 | 0.974 | ug/l | | 97 |
| 37) Ethyl Acetate | 4.721 | 43 | 1606 | 0.904 | ug/l | # | 77 |
| 38) Carbon Tetrachloride | 5.672 | 117 | 2156 | 0.955 | ug/l | | 85 |
| 39) Methylcyclohexane | 7.385 | 83 | 2200 | 0.947 | ug/l | | 94 |
| 40) Benzene | 6.043 | 78 | 5324 | 0.933 | ug/l | | 99 |
| 41) Methacrylonitrile | 4.940 | 41 | 836 | 0.837 | ug/l | # | 69 |
| 42) 1,2-Dichloroethane | 6.092 | 62 | 2147 | 0.934 | ug/l | | 89 |
| 43) Isopropyl Acetate | 6.342 | 43 | 2534 | 0.863 | ug/l | # | 94 |
| 44) Trichloroethene | 7.129 | 130 | 1448 | 0.904 | ug/l | | 78 |
| 45) 1,2-Dichloropropane | 7.433 | 63 | 1355 | 0.961 | ug/l | | 93 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033273.D
Acq On : 07 Dec 2022 09:46
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 07 10:41:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 46) Dibromomethane | 7.580 | 93 | 1022 | 0.929 | ug/l | | 91 |
| 47) Bromodichloromethane | 7.824 | 83 | 1934 | 0.909 | ug/l | # | 93 |
| 48) Methyl methacrylate | 7.702 | 41 | 1402 | 0.927 | ug/l | | 89 |
| 49) 1,4-Dioxane | 7.714 | 88 | 593m | 21.310 | ug/l | | |
| 51) 4-Methyl-2-Pentanone | 8.580 | 43 | 8030 | 4.431 | ug/l | | 99 |
| 52) Toluene | 8.720 | 92 | 3231 | 0.861 | ug/l | | 94 |
| 53) t-1,3-Dichloropropene | 8.988 | 75 | 1741 | 0.834 | ug/l | | 95 |
| 54) cis-1,3-Dichloropropene | 8.372 | 75 | 1891 | 0.825 | ug/l | | 98 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 1456 | 0.952 | ug/l | | 96 |
| 56) Ethyl methacrylate | 9.116 | 69 | 1720 | 0.817 | ug/l | | 99 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 2174 | 0.881 | ug/l | | 98 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 4421 | 4.420 | ug/l | | 96 |
| 59) 2-Hexanone | 9.433 | 43 | 5946 | 4.442 | ug/l | | 93 |
| 60) Dibromochloromethane | 9.518 | 129 | 1379 | 0.838 | ug/l | | 93 |
| 61) 1,2-Dibromoethane | 9.616 | 107 | 1386 | 0.859 | ug/l | | 99 |
| 64) Tetrachloroethene | 9.275 | 164 | 1386 | 0.994 | ug/l | | 86 |
| 65) Chlorobenzene | 10.079 | 112 | 3922 | 0.999 | ug/l | | 96 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 1386 | 0.963 | ug/l | # | 66 |
| 67) Ethyl Benzene | 10.195 | 91 | 6381 | 0.916 | ug/l | | 96 |
| 68) m/p-Xylenes | 10.305 | 106 | 4964 | 1.819 | ug/l | | 98 |
| 69) o-Xylene | 10.646 | 106 | 2441 | 0.925 | ug/l | | 97 |
| 70) Styrene | 10.658 | 104 | 3668 | 0.849 | ug/l | | 95 |
| 71) Bromoform | 10.799 | 173 | 971 | 0.880 | ug/l | # | 97 |
| 73) Isopropylbenzene | 10.963 | 105 | 6074 | 0.936 | ug/l | | 96 |
| 74) N-amyl acetate | 10.847 | 43 | 1731 | 0.784 | ug/l | | 95 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 1942 | 0.992 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 1748m | 1.016 | ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 1565 | 0.981 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 6530 | 0.880 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 4350 | 0.965 | ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 4864 | 0.892 | ug/l | | 96 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 5105 | 0.967 | ug/l | | 98 |
| 83) tert-Butylbenzene | 11.713 | 119 | 4998 | 0.921 | ug/l | | 96 |
| 84) 1,2,4-Trimethylbenzene | 11.756 | 105 | 4957 | 0.912 | ug/l | | 100 |
| 85) sec-Butylbenzene | 11.890 | 105 | 5842 | 0.900 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 5219 | 0.949 | ug/l | | 94 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 2736 | 0.914 | ug/l | | 96 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 3055m | 0.996 | ug/l | | |
| 89) n-Butylbenzene | 12.335 | 91 | 4003 | 0.845 | ug/l | | 97 |
| 90) Hexachloroethane | 12.542 | 117 | 897 | 0.993 | ug/l | | 97 |
| 91) 1,2-Dichlorobenzene | 12.341 | 146 | 2961 | 1.017 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 404 | 1.034 | ug/l | | 88 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 1671 | 0.931 | ug/l | | 91 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 811 | 1.024 | ug/l | | 91 |
| 95) Naphthalene | 13.780 | 128 | 4665 | 0.803 | ug/l | | 98 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 1739 | 0.966 | ug/l | | 97 |

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

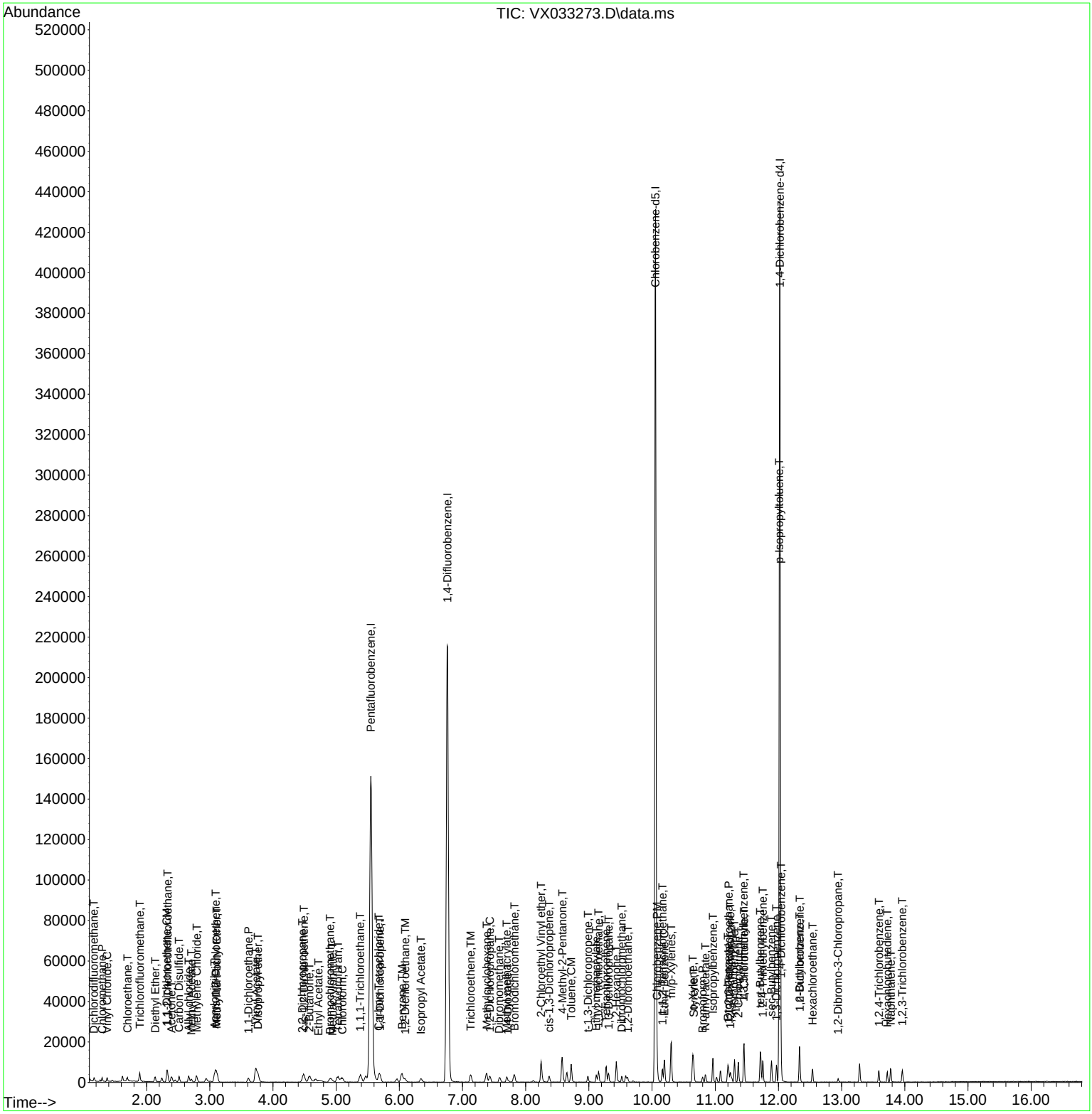
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033273.D
Acq On : 07 Dec 2022 09:46
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

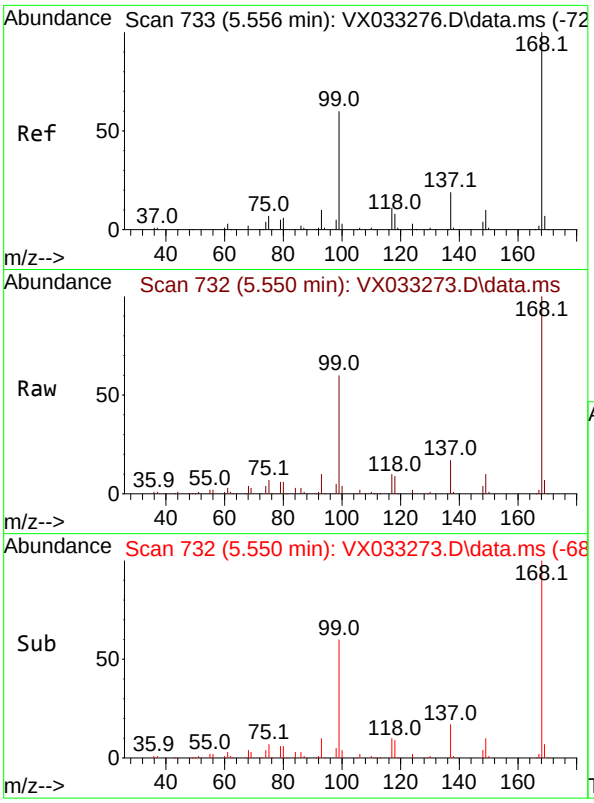
Quant Time: Dec 07 10:41:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

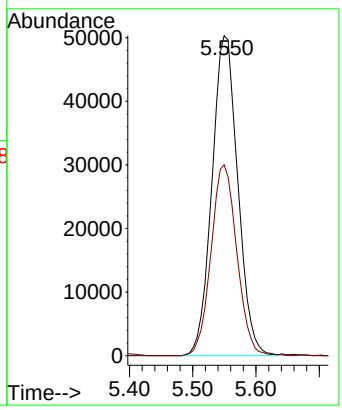





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:168 Resp: 14250

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 59.6 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

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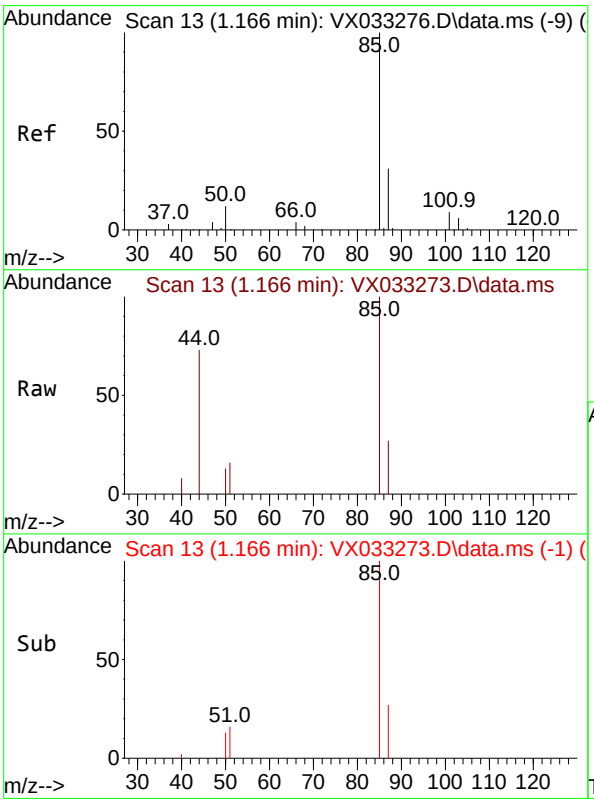
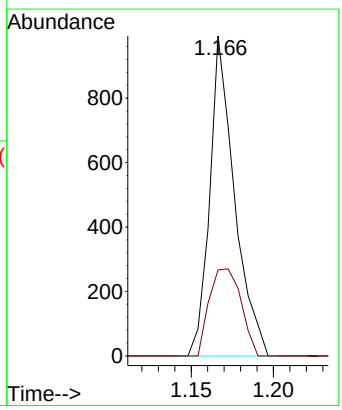
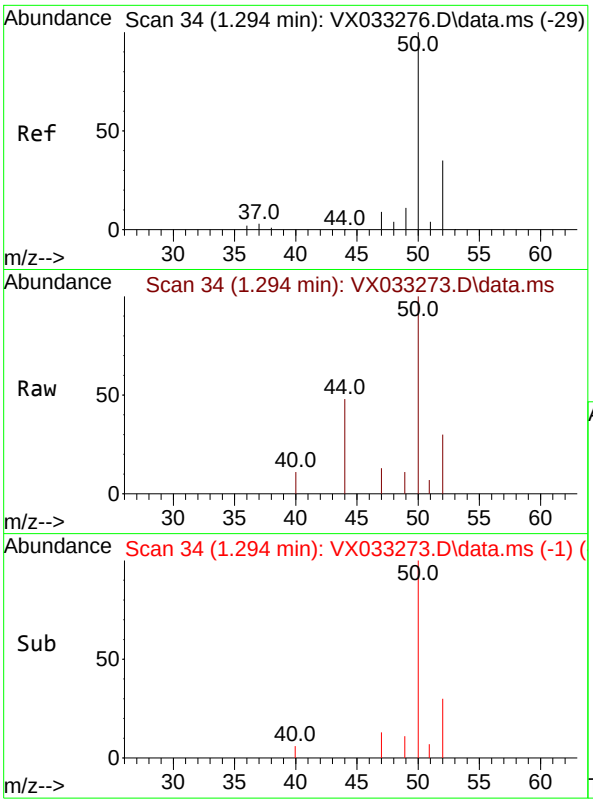



#2
Dichlorodifluoromethane
Concen: 0.953 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 85 Resp: 1038

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 26.9 | 15.6 | 46.7 |

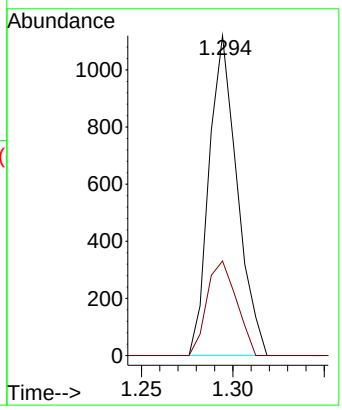





#3
Chloromethane
Concen: 1.019 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 50 Resp: 119

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 29.6 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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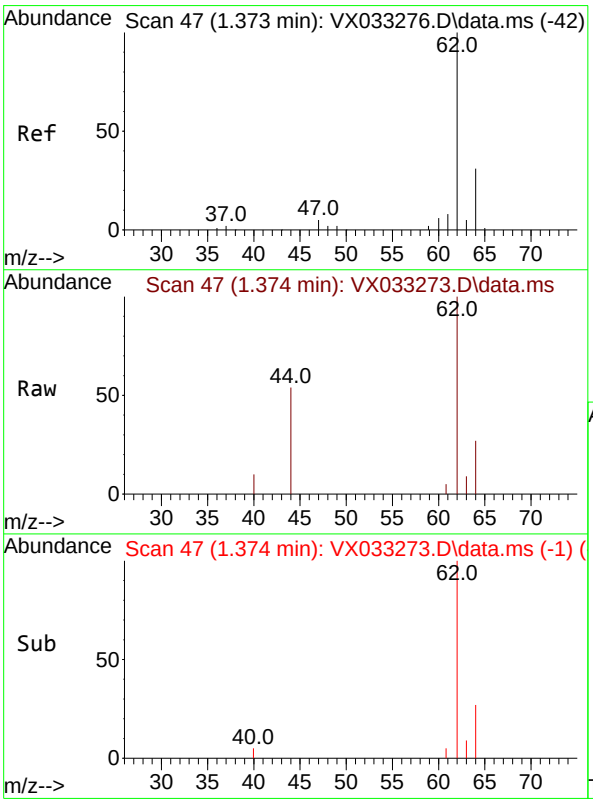
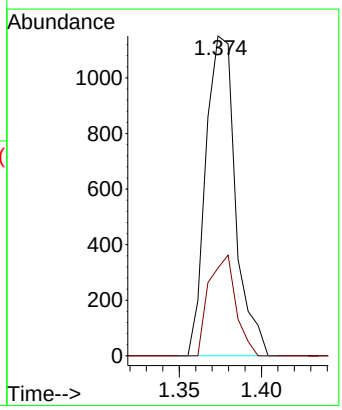
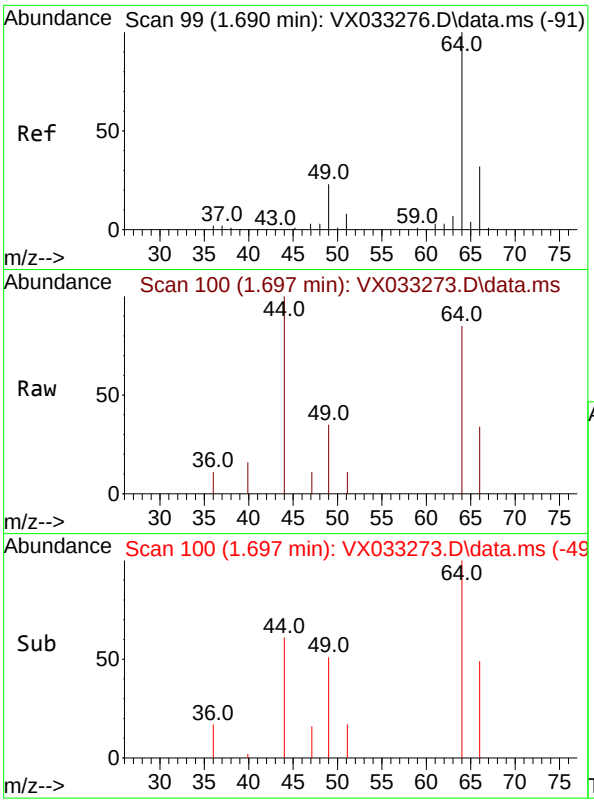



#4
Vinyl Chloride
Concen: 1.104 ug/l
RT: 1.374 min Scan# 47
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 62 Resp: 1445

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 27.5 | 25.8 | 38.6 |

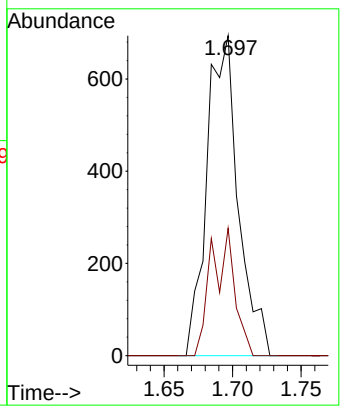





#6
Chloroethane
Concen: 1.037 ug/l
RT: 1.697 min Scan# 1
Delta R.T. 0.012 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 64 Resp: 110

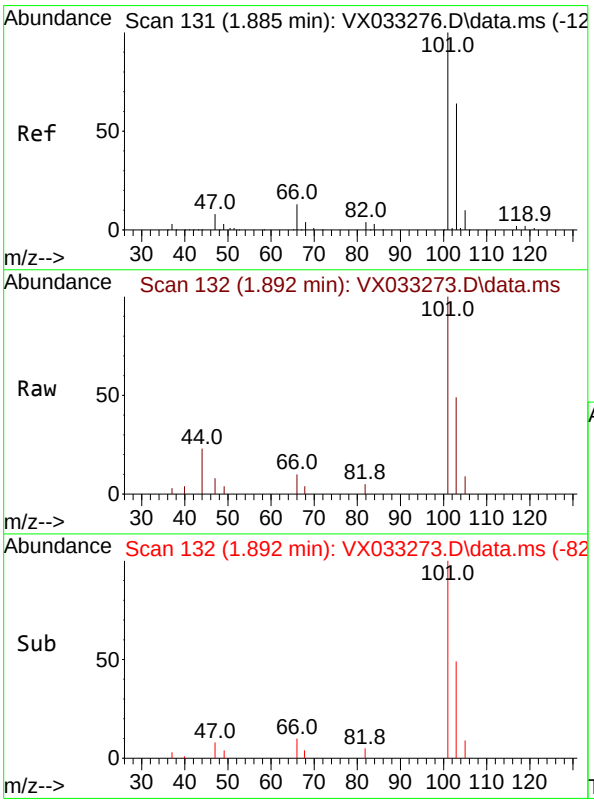
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 39.8 | 26.0 | 39.0# |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

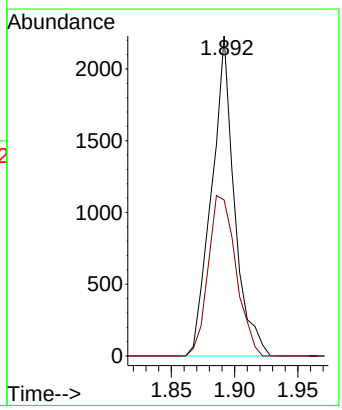
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

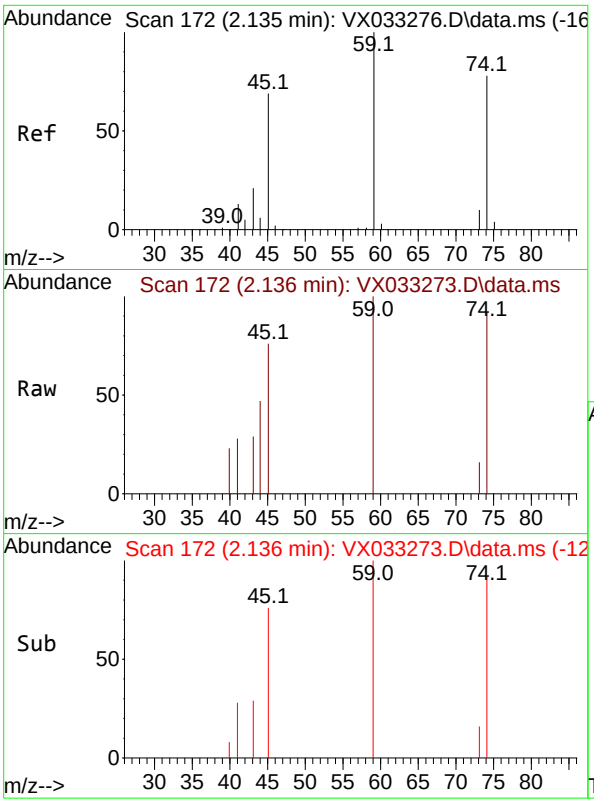



#7
Trichlorofluoromethane
Concen: 1.100 ug/l
RT: 1.892 min Scan# 132
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:101 Resp: 2793

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 48.7 | 51.4 | 77.2# |






#8
Diethyl Ether
Concen: 1.112 ug/l
RT: 2.136 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 74 Resp: 88

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 109.8 | 46.6 | 139.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

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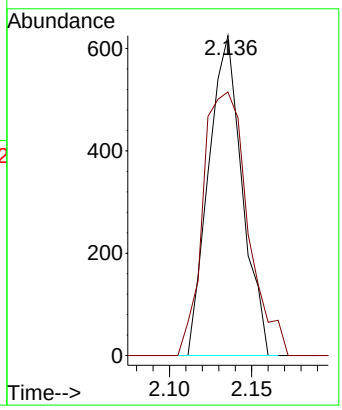
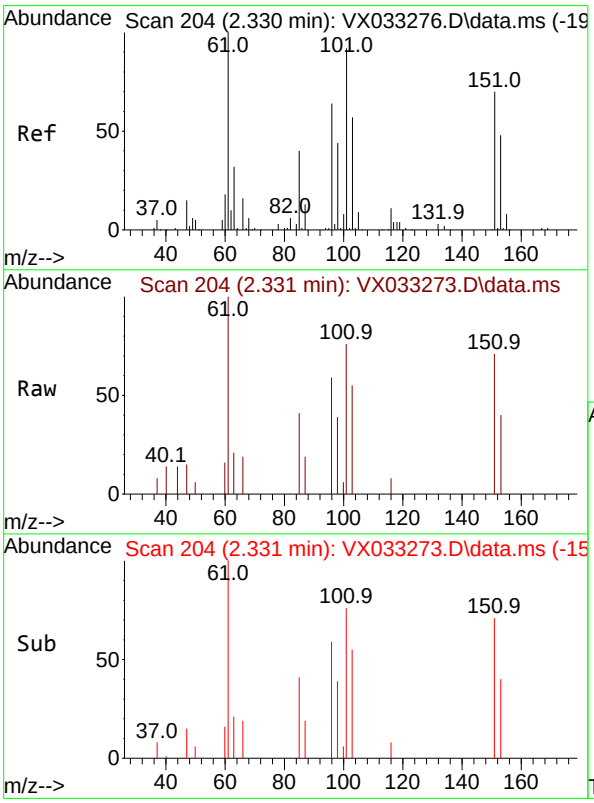
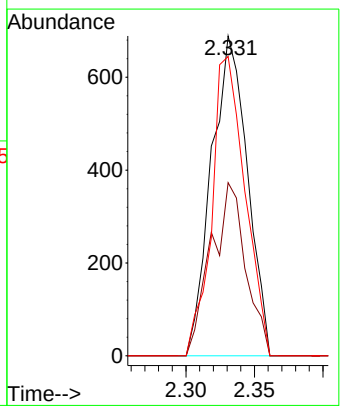


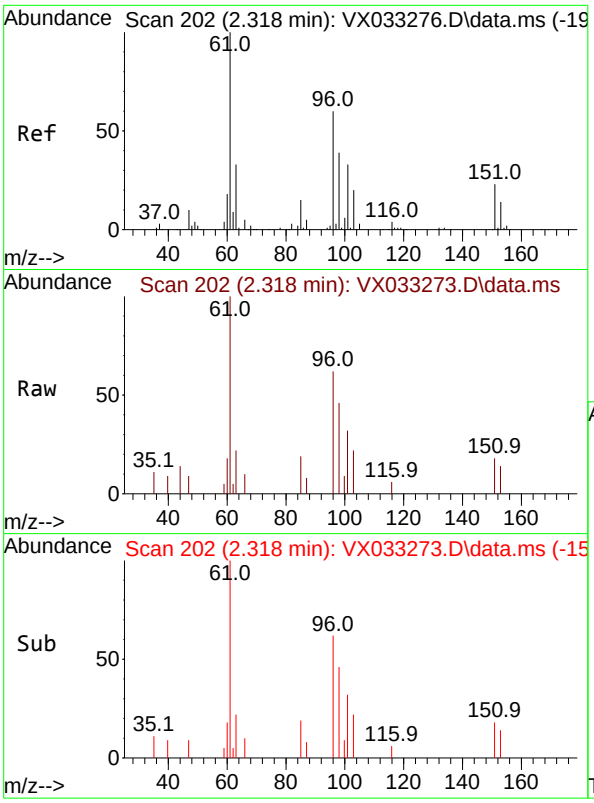




#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.942 ug/l
RT: 2.331 min Scan# 204
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:101 Resp: 1257

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 52.3 | 37.0 | 55.4 |
| 151 | 86.6 | 64.4 | 96.6 |

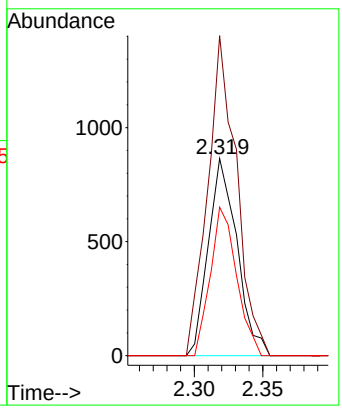





#12
1,1-Dichloroethene
Concen: 1.012 ug/l
RT: 2.318 min Scan# 2
Delta R.T. -0.001 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 96 Resp: 125

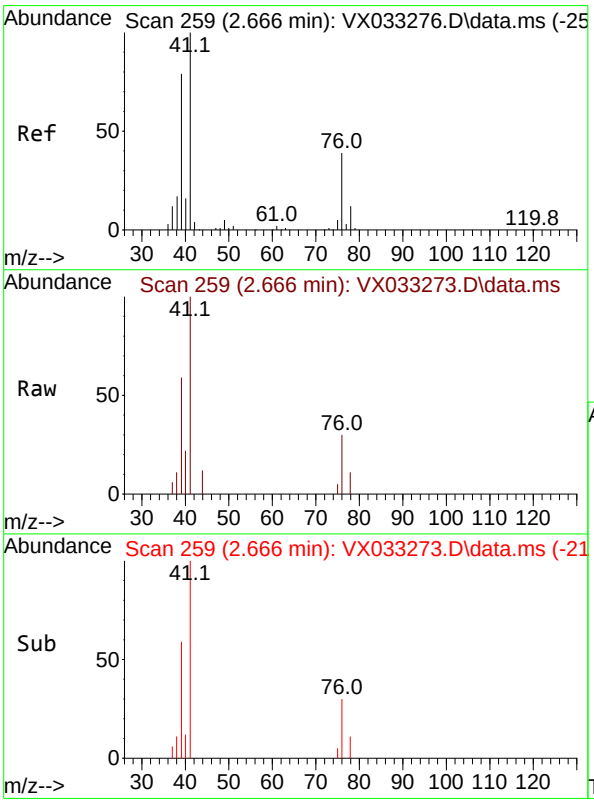
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 162.4 | 125.1 | 187.7 |
| 98 | 75.3 | 50.6 | 76.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

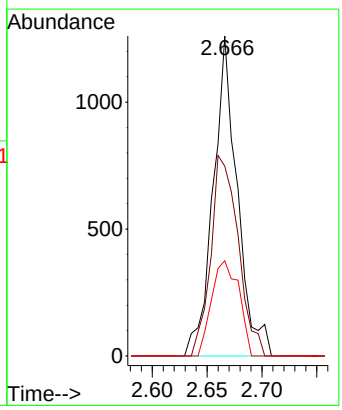
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

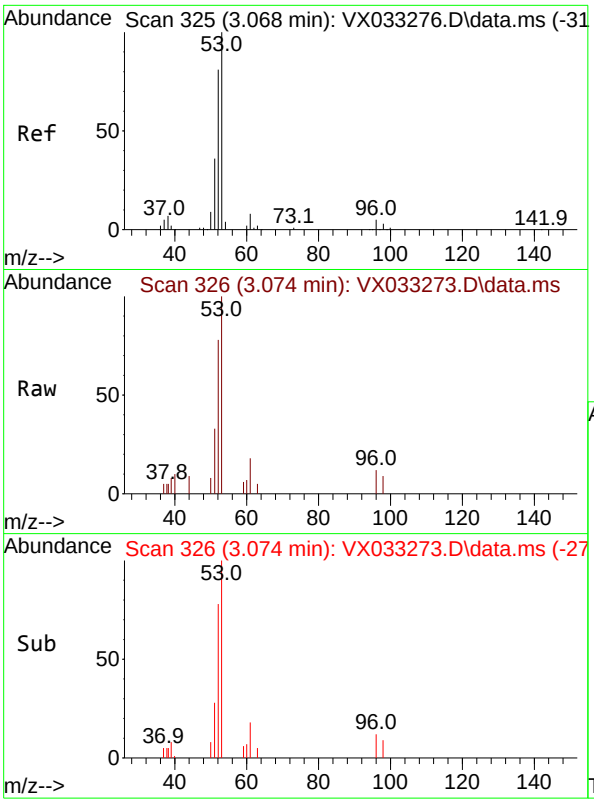



#14
Allyl chloride
Concen: 0.962 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 41 Resp: 1931

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 71.1 | 61.4 | 92.2 |
| 76 | 33.6 | 29.2 | 43.8 |

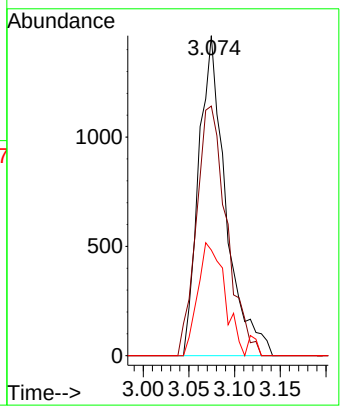





#15
Acrylonitrile
Concen: 4.842 ug/l
RT: 3.074 min Scan# 3
Delta R.T. 0.012 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 53 Resp: 301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 86.9 | 67.4 | 101.0 |
| 51 | 35.0 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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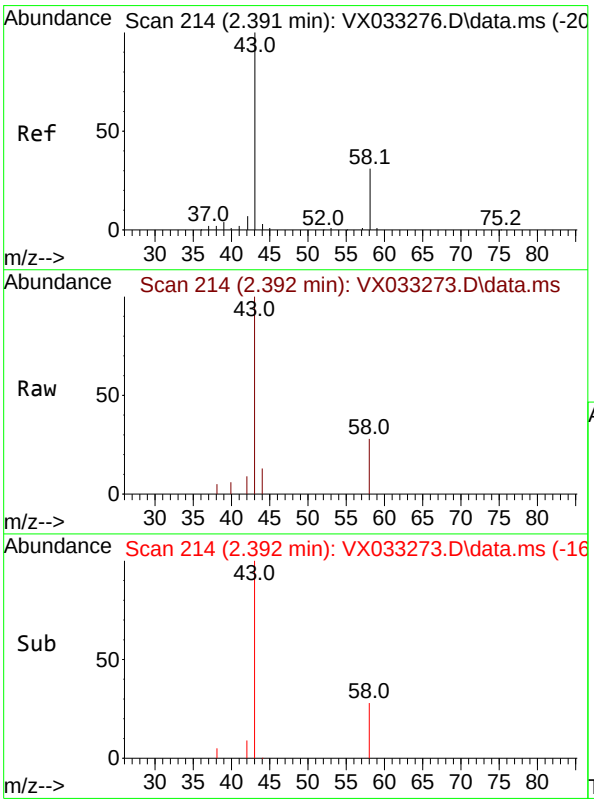
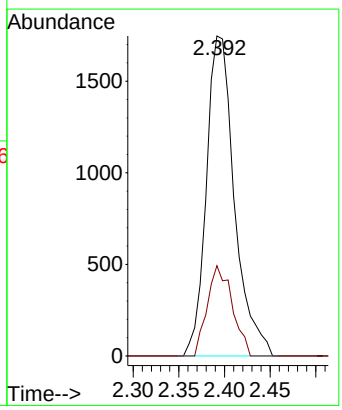
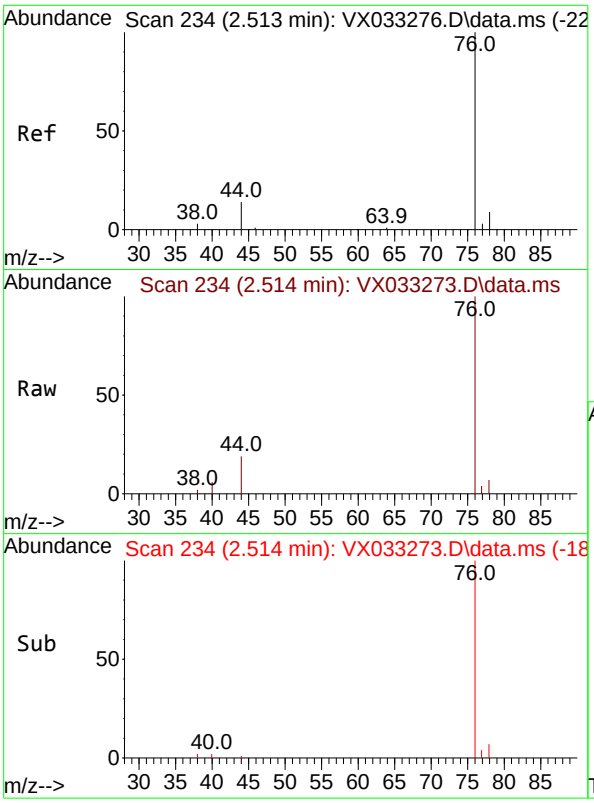



#16
Acetone
Concen: 5.757 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.012 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 3731

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 28.2 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 0.987 ug/l
RT: 2.514 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

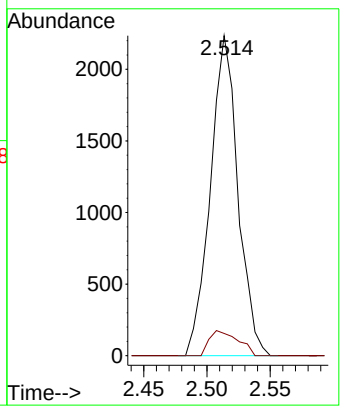
Tgt Ion: 76 Resp: 339

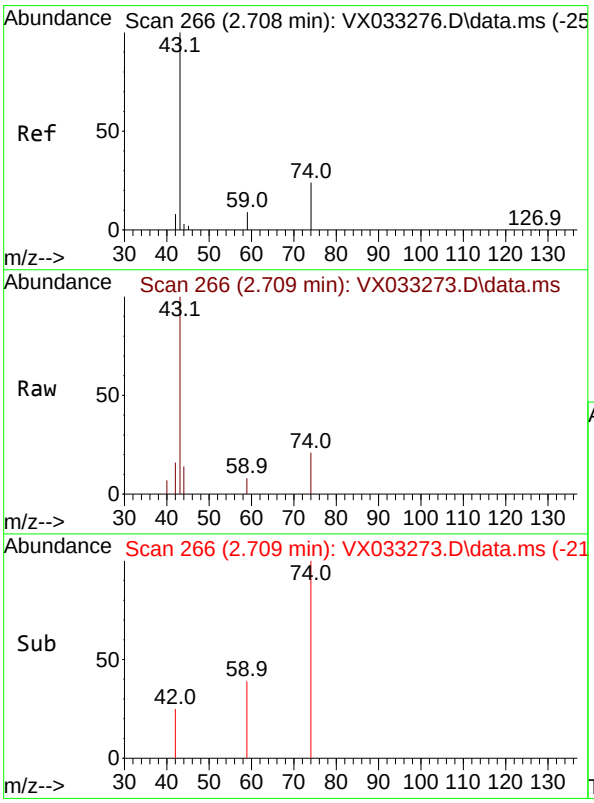
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 6.9 | 7.5 | 11.3# |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

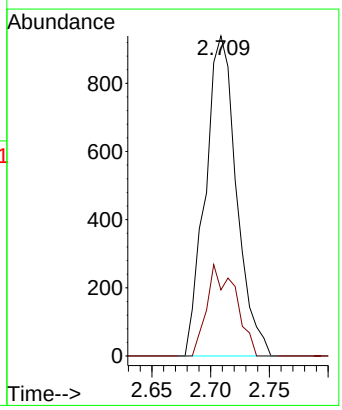


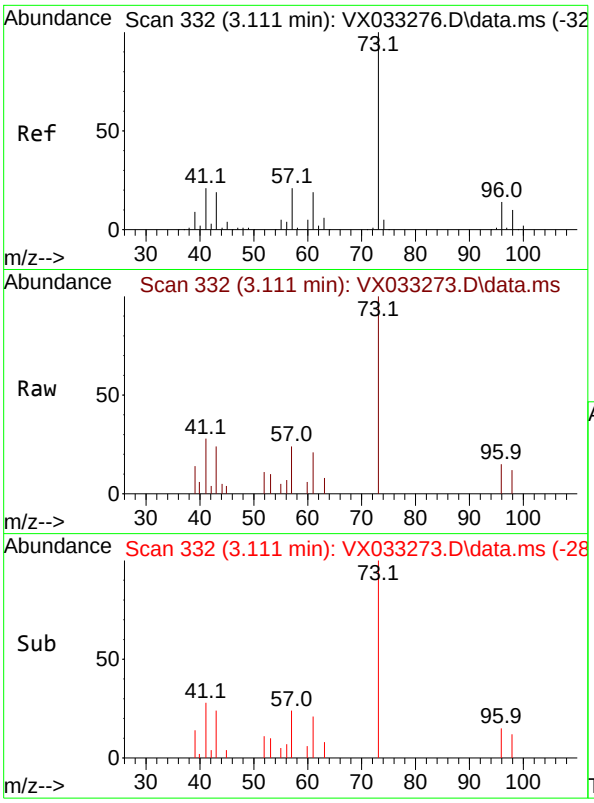




#18
Methyl Acetate
Concen: 0.967 ug/l
RT: 2.709 min Scan# 266
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 1734

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 26.4 | 19.4 | 29.0 |

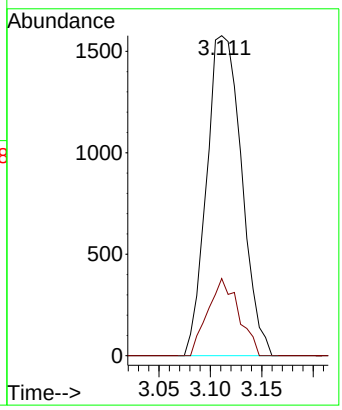





#19
Methyl tert-butyl Ether
Concen: 0.868 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 73 Resp: 374

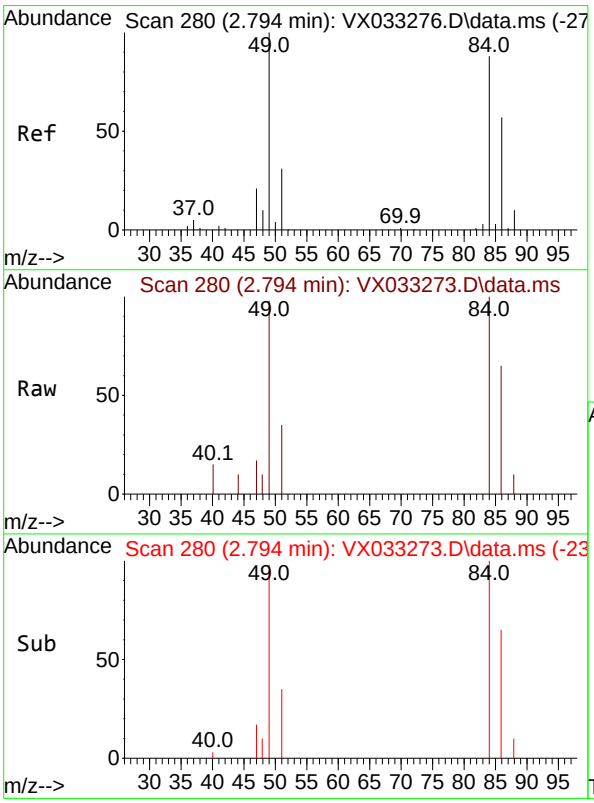
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 24.1 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

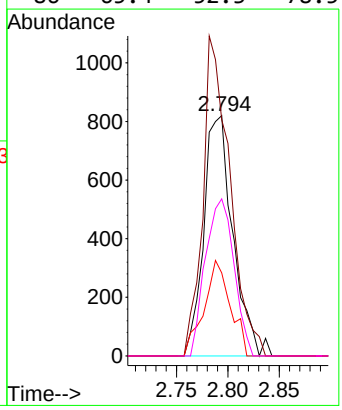
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

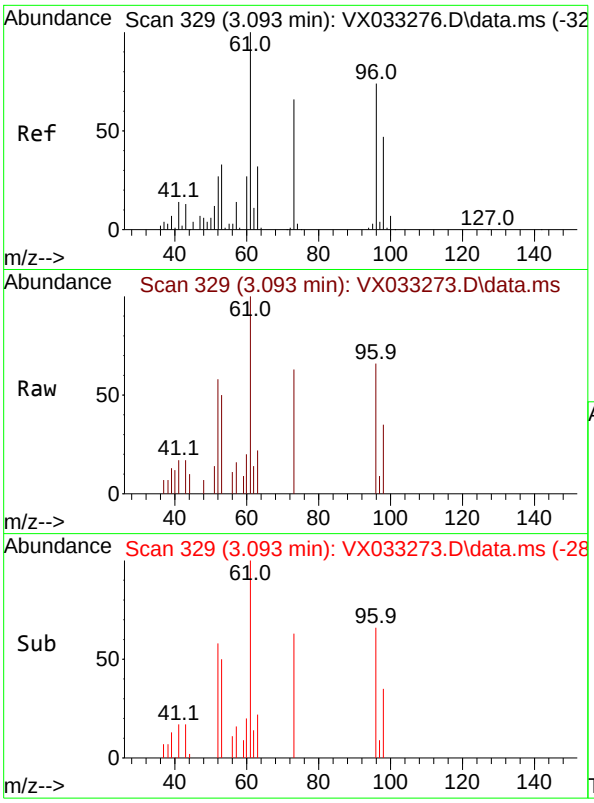



#20
Methylene Chloride
Concen: 1.036 ug/l
RT: 2.794 min Scan# 280
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 84 Resp: 1618

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 98.3 | 101.0 | 151.6# |
| 51 | 34.5 | 31.1 | 46.7 |
| 86 | 65.4 | 52.3 | 78.5 |

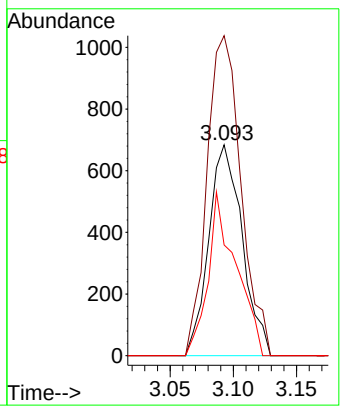





#21
trans-1,2-Dichloroethene
Concen: 0.884 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 96 Resp: 125

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 151.8 | 106.6 | 160.0 |
| 98 | 52.5 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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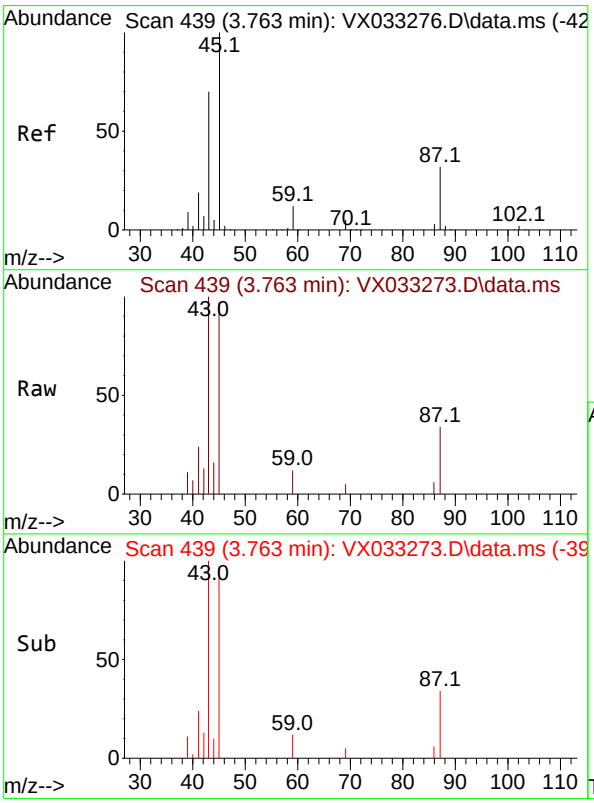
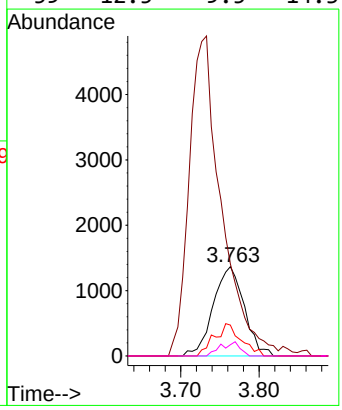
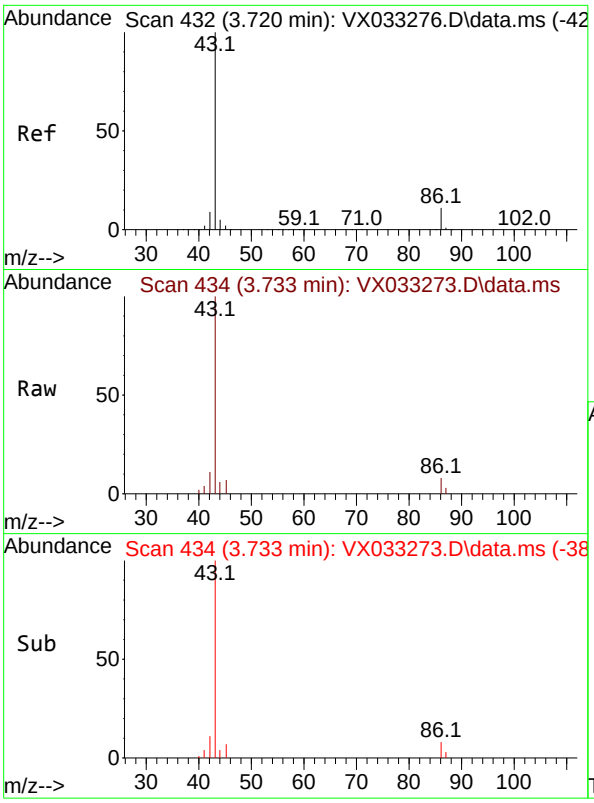



#22
Diisopropyl ether
Concen: 0.859 ug/l
RT: 3.763 min Scan# 439
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 45 Resp: 3754

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 97.5 | 56.4 | 84.6# |
| 87 | 34.6 | 24.4 | 36.6 |
| 59 | 12.5 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 4.129 ug/l
RT: 3.733 min Scan# 4
Delta R.T. 0.012 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 1413

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 8.2 | 8.6 | 12.8# |

**Instrument :**
MSVOA_X
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VSTDICC001

**Manual Integrations**
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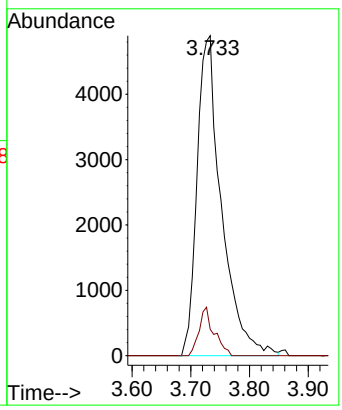
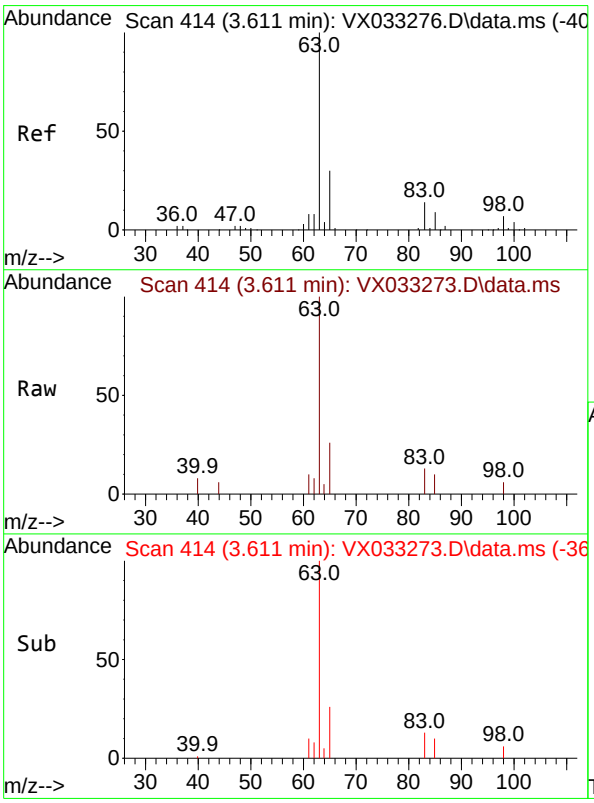
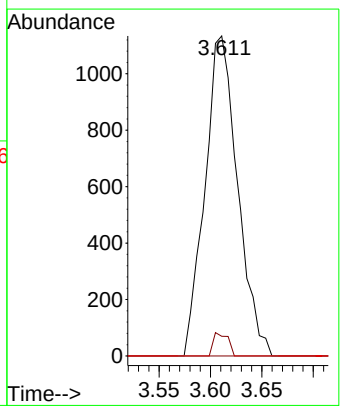


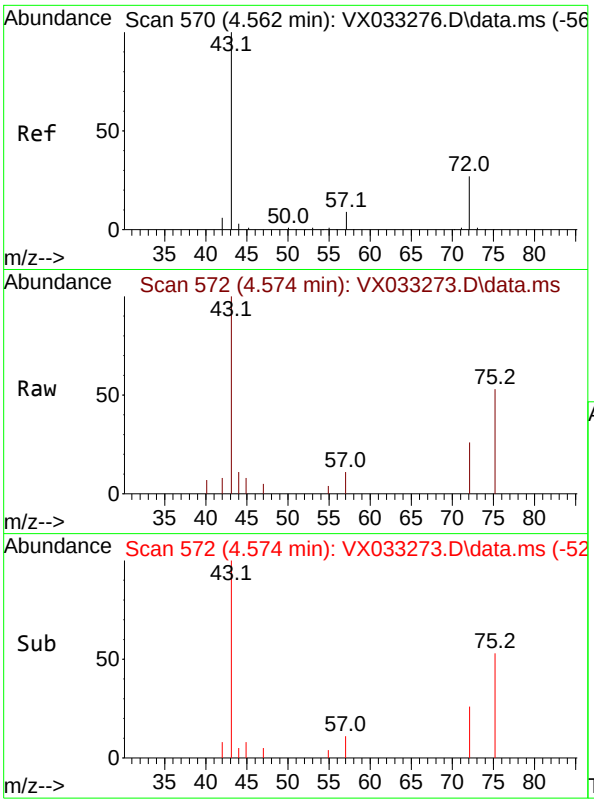




#24
1,1-Dichloroethane
Concen: 1.002 ug/l
RT: 3.611 min Scan# 414
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 63 Resp: 2507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 6.2 | 3.5 | 10.4 |
| 100 | 0.0 | 2.3 | 6.8# |






#25
2-Butanone
Concen: 4.735 ug/l
RT: 4.574 min Scan# 5
Delta R.T. 0.018 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 423

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 26.3 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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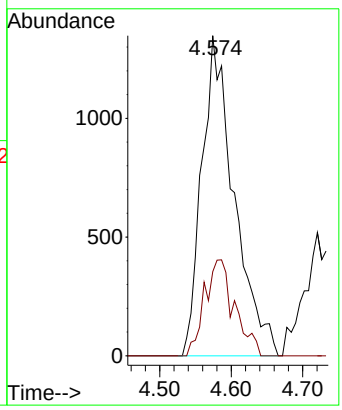
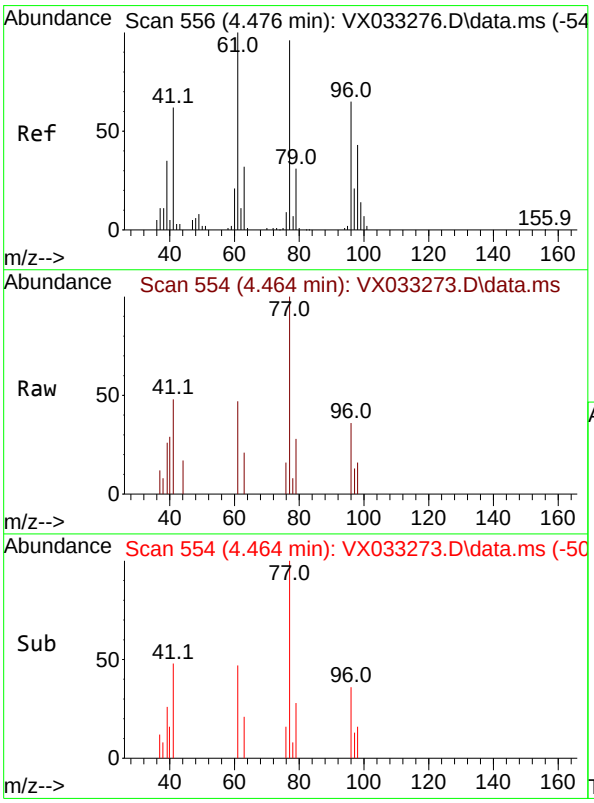
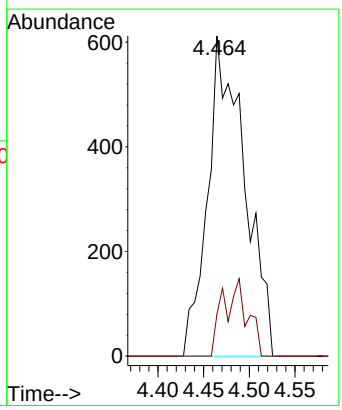


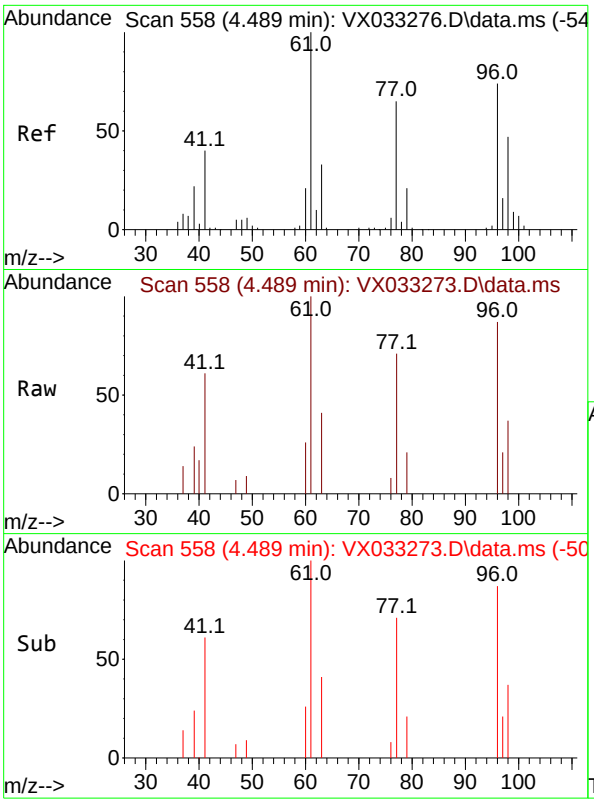




#26
2,2-Dichloropropane
Concen: 0.853 ug/l
RT: 4.464 min Scan# 554
Delta R.T. -0.013 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 77 Resp: 1715

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 5.9 | 11.4 | 34.1# |

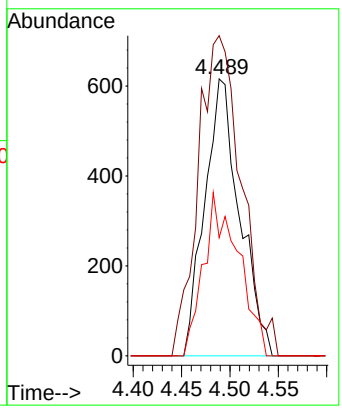





#27
cis-1,2-Dichloroethene
Concen: 0.960 ug/l
RT: 4.489 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 96 Resp: 155

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 141.5 | 0.0 | 286.0 |
| 98 | 58.6 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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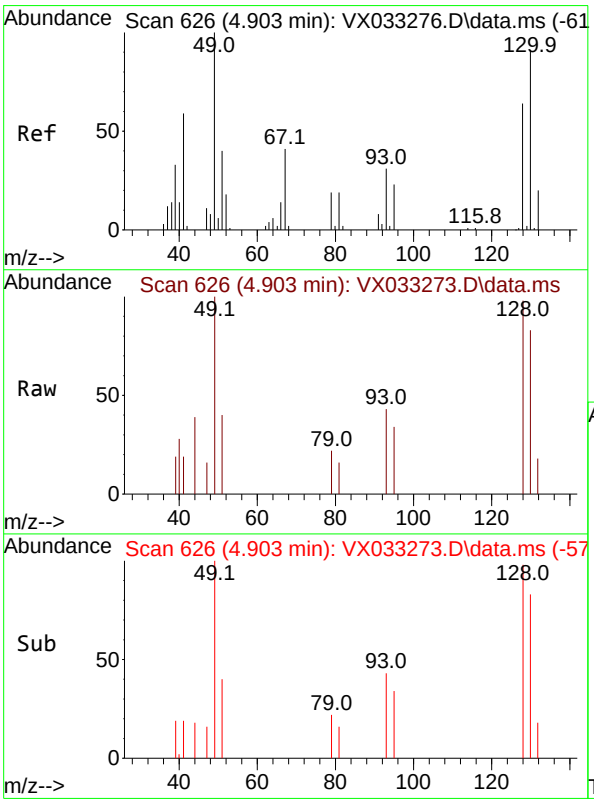
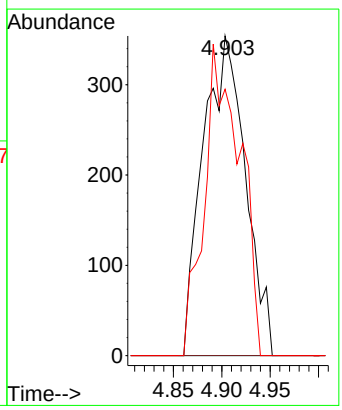
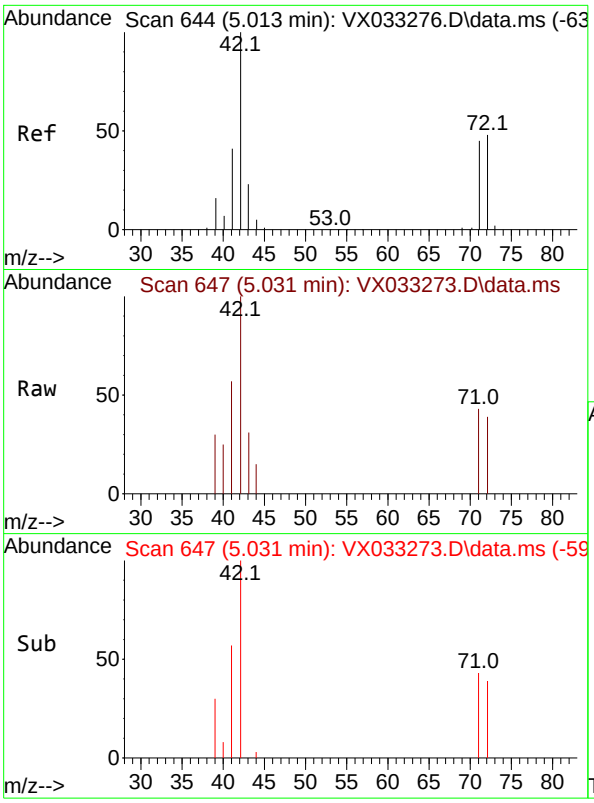



#28
Bromochloromethane
Concen: 0.981 ug/l
RT: 4.903 min Scan# 626
Delta R.T. -0.001 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 49 Resp: 1078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 0.0 | 0.0 | 3.8 |
| 130 | 82.5 | 67.5 | 101.3 |

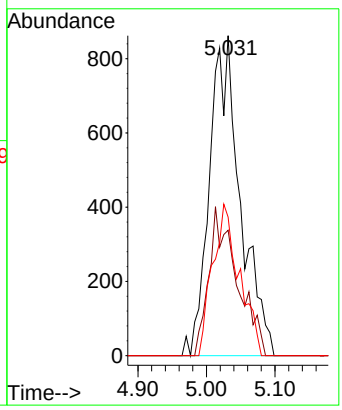





#29
Tetrahydrofuran
Concen: 4.756 ug/l
RT: 5.031 min Scan# 64
Delta R.T. 0.030 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 42 Resp: 269

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 42.4 | 37.6 | 56.4 |
| 71 | 40.8 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

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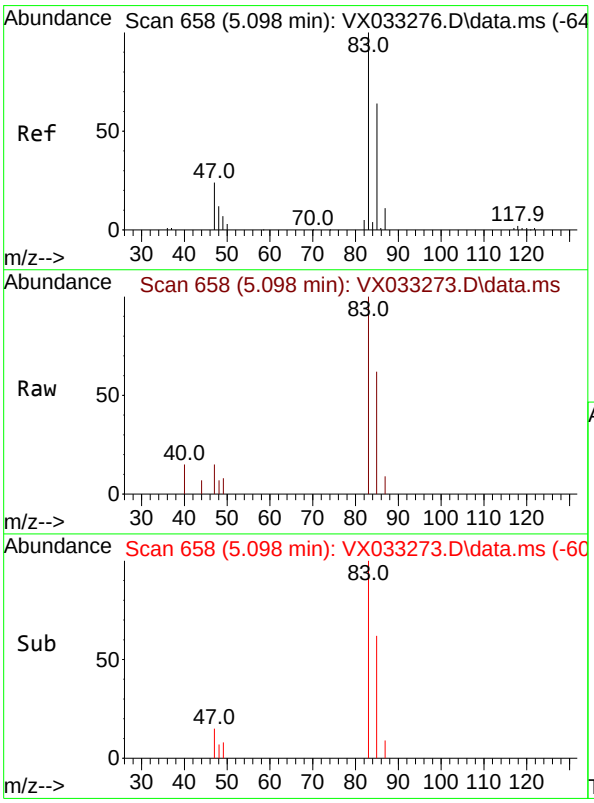
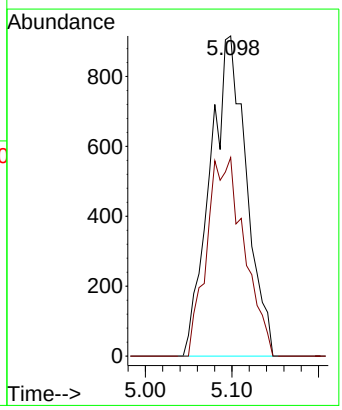
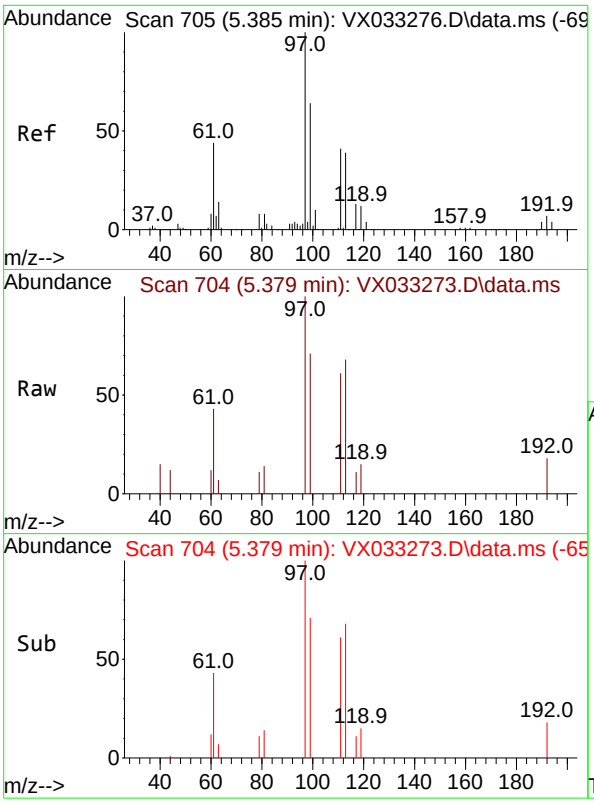



#30
Chloroform
Concen: 0.952 ug/l
RT: 5.098 min Scan# 658
Delta R.T. -0.001 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 83 Resp: 2666

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.0 | 51.1 | 76.7 |






#32
1,1,1-Trichloroethane
Concen: 0.873 ug/l
RT: 5.379 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 97 Resp: 219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 0.0 | 51.4 | 77.0# |
| 61 | 49.5 | 35.2 | 52.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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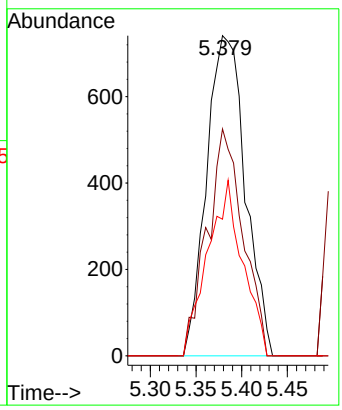
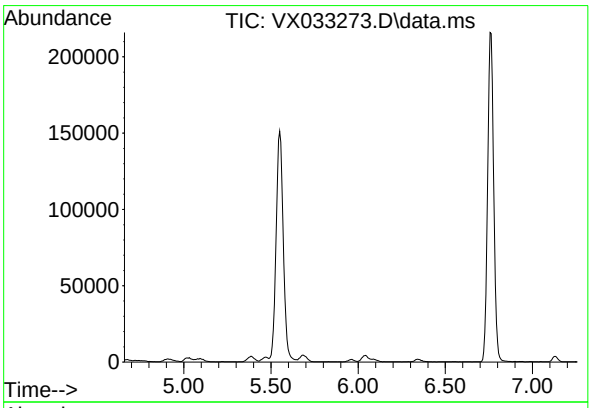


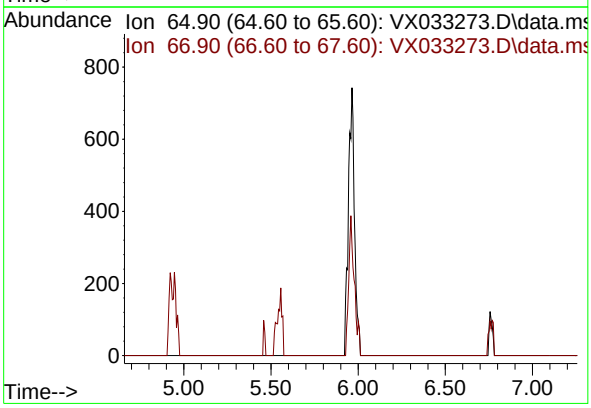



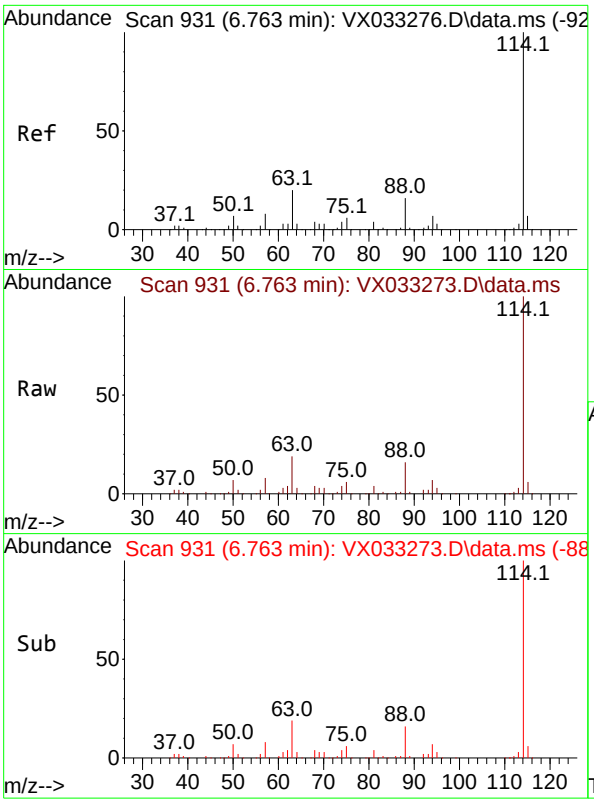

#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 5.96 min

Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 65

| Sig | Exp Ratio |
|---|---|
| 65 | 100 |
| 67 | 50.9 |






#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:114 Resp: 22580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.3 | 0.0 | 41.6 |
| 88 | 15.7 | 0.0 | 33.4 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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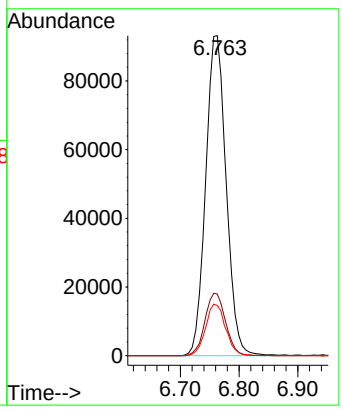
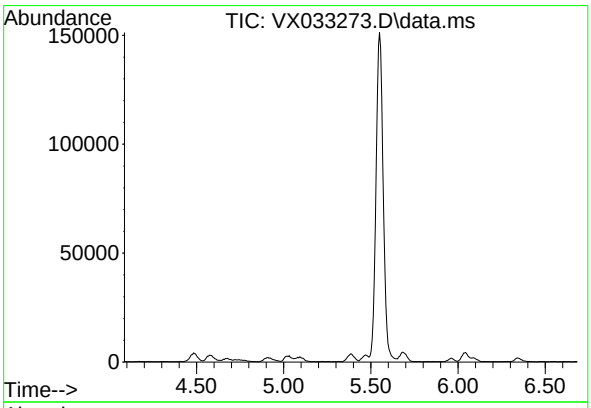


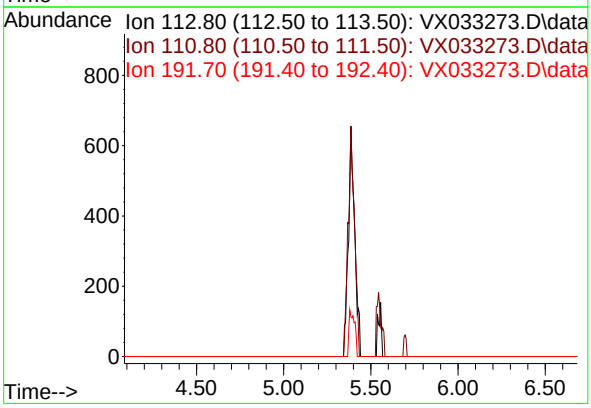



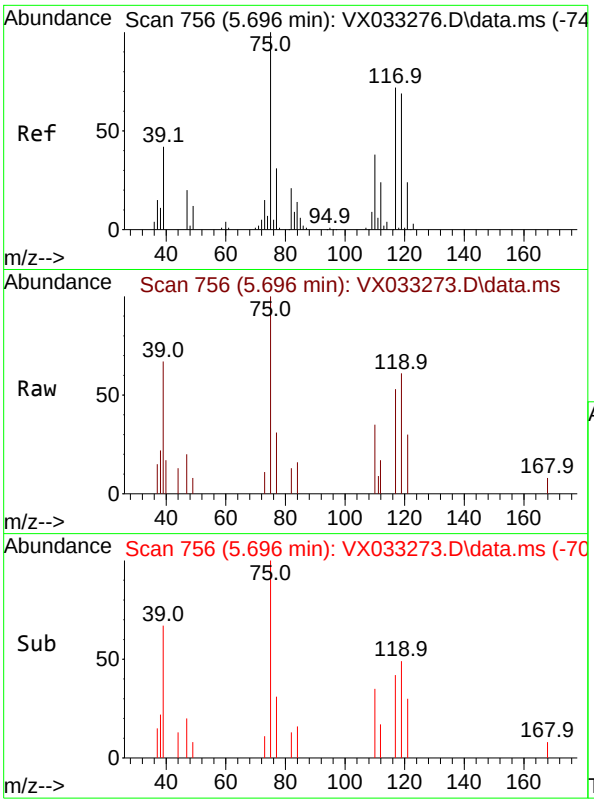

#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 5.38 min

Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 113

| Sig | Exp Ratio |
|---|---|
| 113 | 100 |
| 111 | 103.0 |
| 192 | 19.3 |

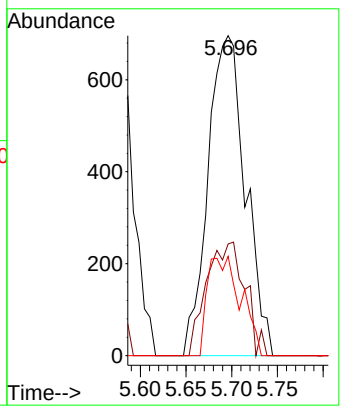





#36
1,1-Dichloropropene
Concen: 0.974 ug/l
RT: 5.696 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 36.4 | 18.4 | 55.2 |
| 77 | 27.5 | 24.5 | 36.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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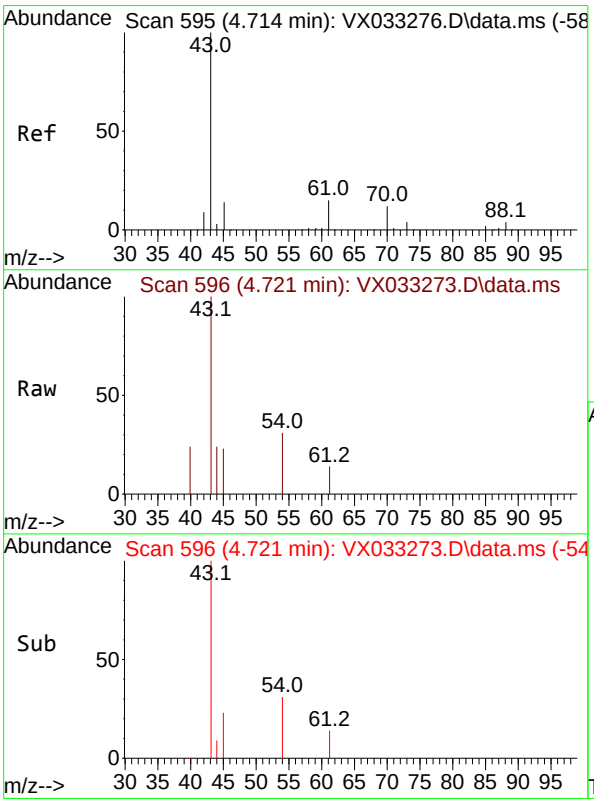
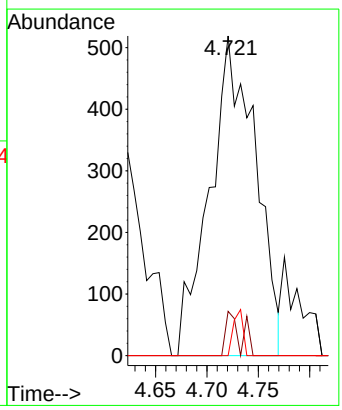
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

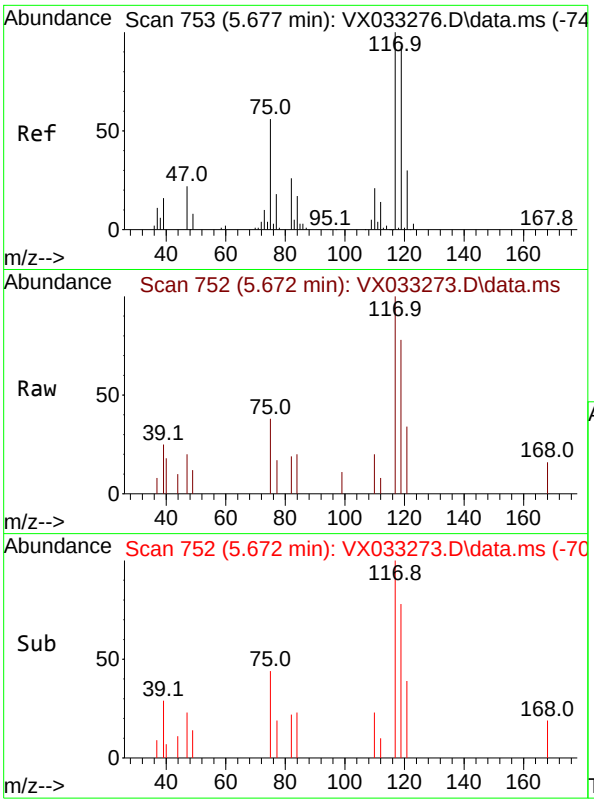



#37
Ethyl Acetate
Concen: 0.904 ug/l
RT: 4.721 min Scan# 596
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 1606

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 4.5 | 11.5 | 17.3# |
| 70 | 3.1 | 9.1 | 13.7# |

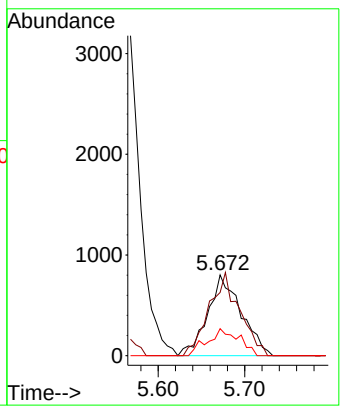





#38
Carbon Tetrachloride
Concen: 0.955 ug/l
RT: 5.672 min Scan# 7
Delta R.T. -0.012 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:117 Resp: 215

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 78.3 | 77.2 | 115.8 |
| 121 | 33.5 | 25.8 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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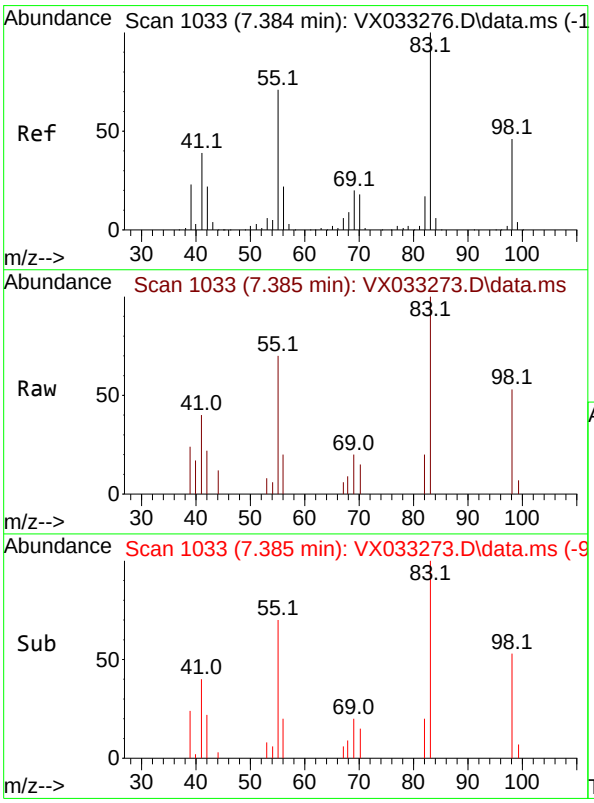
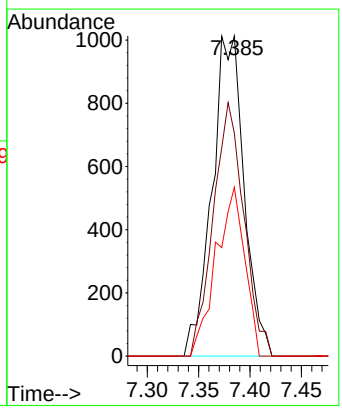
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

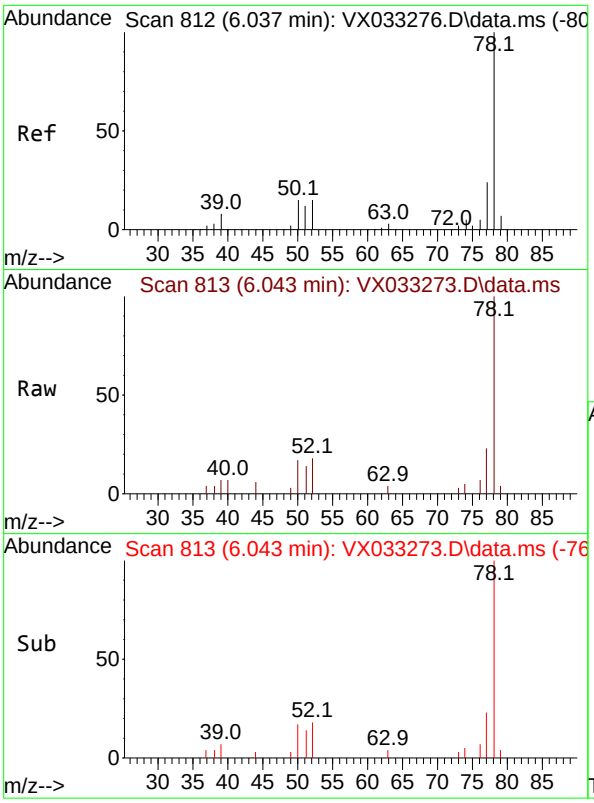



#39
Methylcyclohexane
Concen: 0.947 ug/l
RT: 7.385 min Scan# 1033
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 83 Resp: 2200

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 69.6 | 58.4 | 87.6 |
| 98 | 52.7 | 37.2 | 55.8 |

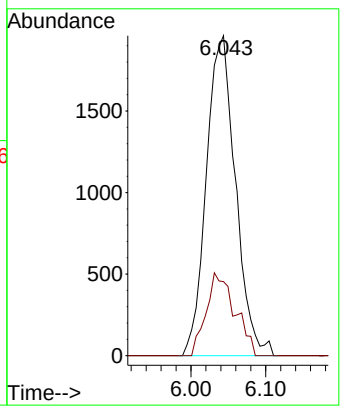





#40
Benzene
Concen: 0.933 ug/l
RT: 6.043 min Scan# 8
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 78 Resp: 532

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.1 | 19.0 | 28.4 |




**Instrument :**
MSVOA_X
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VSTDICC001

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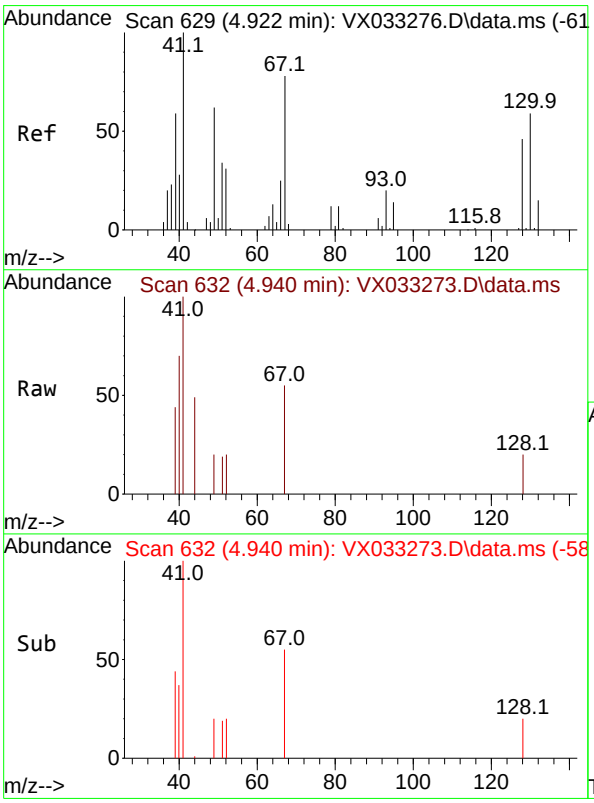
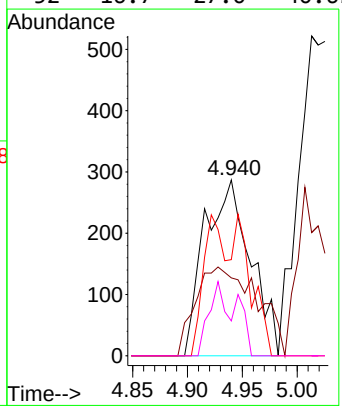
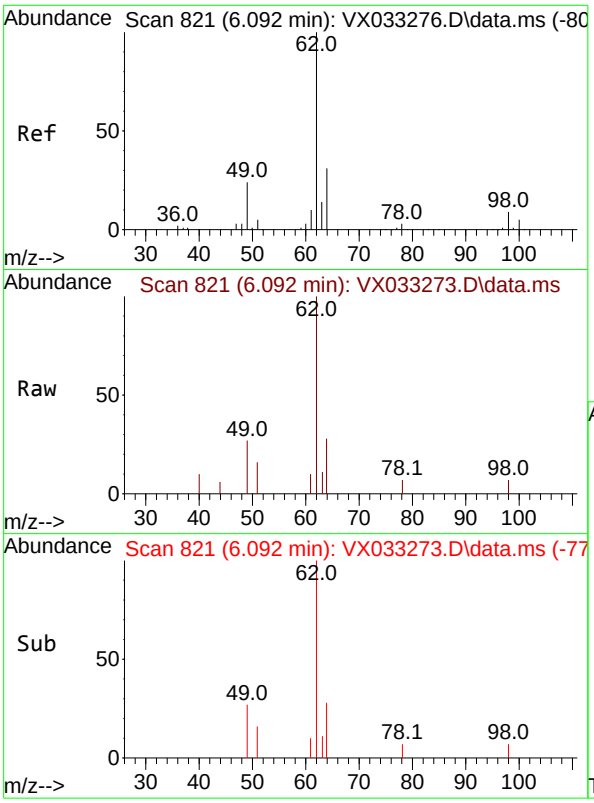



#41
Methacrylonitrile
Concen: 0.837 ug/l
RT: 4.940 min Scan# 632
Delta R.T. 0.018 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 41 Resp: 836

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 67.6 | 47.5 | 71.3 |
| 67 | 35.8 | 60.5 | 90.7# |
| 52 | 16.7 | 27.0 | 40.6# |

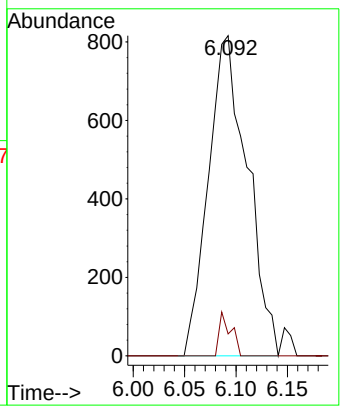





#42
1,2-Dichloroethane
Concen: 0.934 ug/l
RT: 6.092 min Scan# 8
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 62 Resp: 214

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 4.1 | 0.0 | 16.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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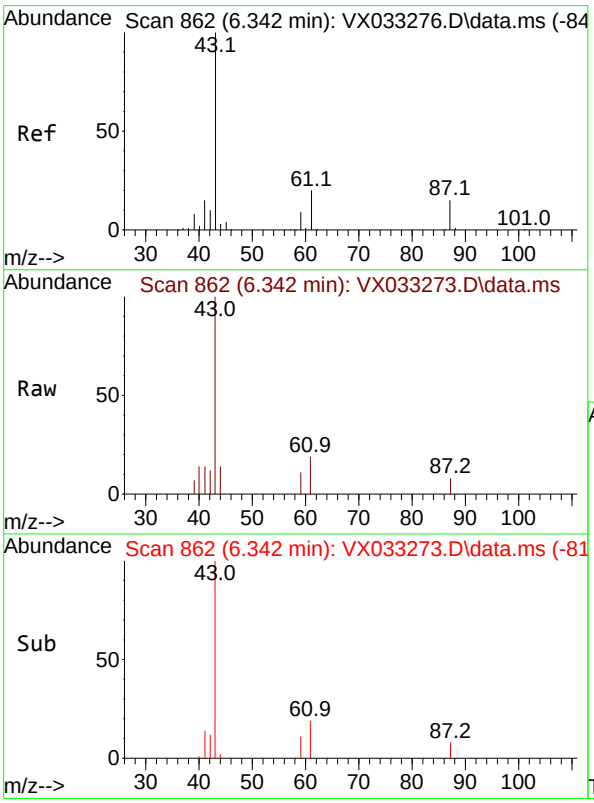
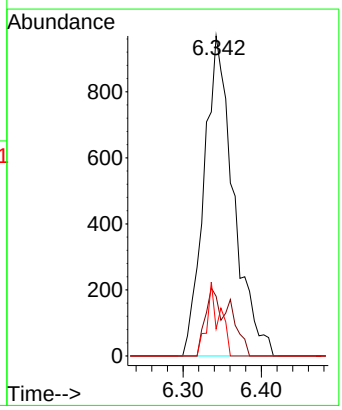
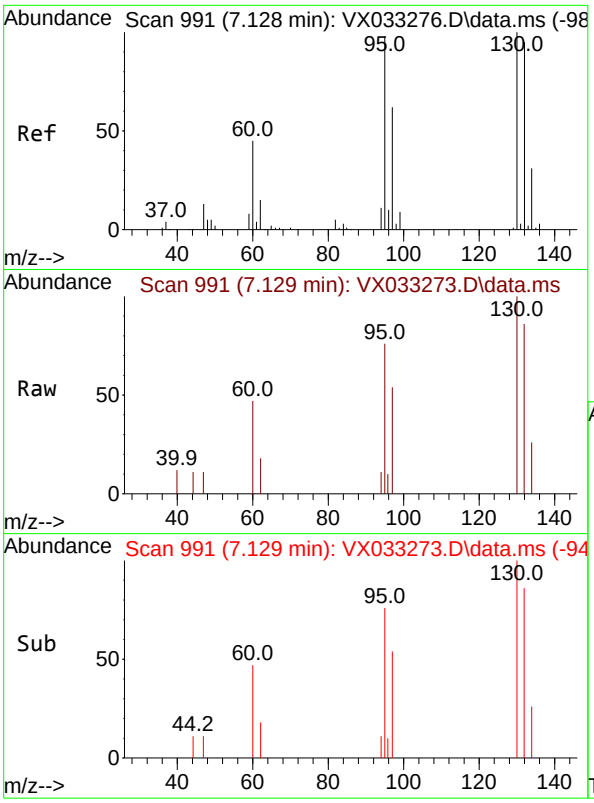



#43
Isopropyl Acetate
Concen: 0.863 ug/l
RT: 6.342 min Scan# 862
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 2534

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 17.6 | 15.4 | 23.0 |
| 87 | 10.0 | 10.8 | 16.2# |

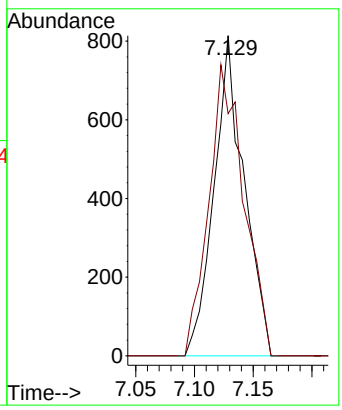





#44
Trichloroethene
Concen: 0.904 ug/l
RT: 7.129 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:130 Resp: 144

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 75.7 | 0.0 | 195.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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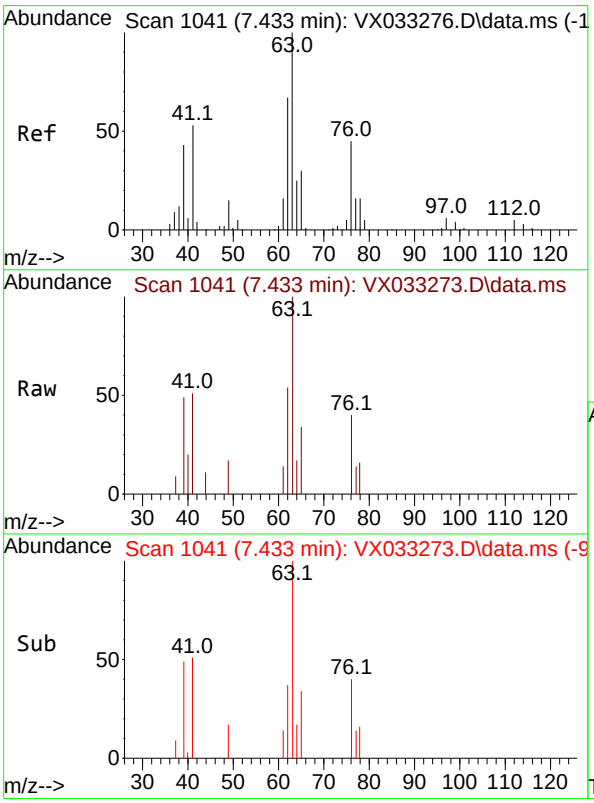
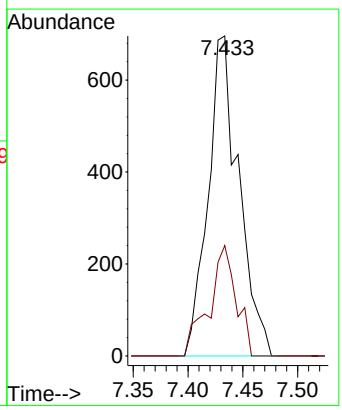
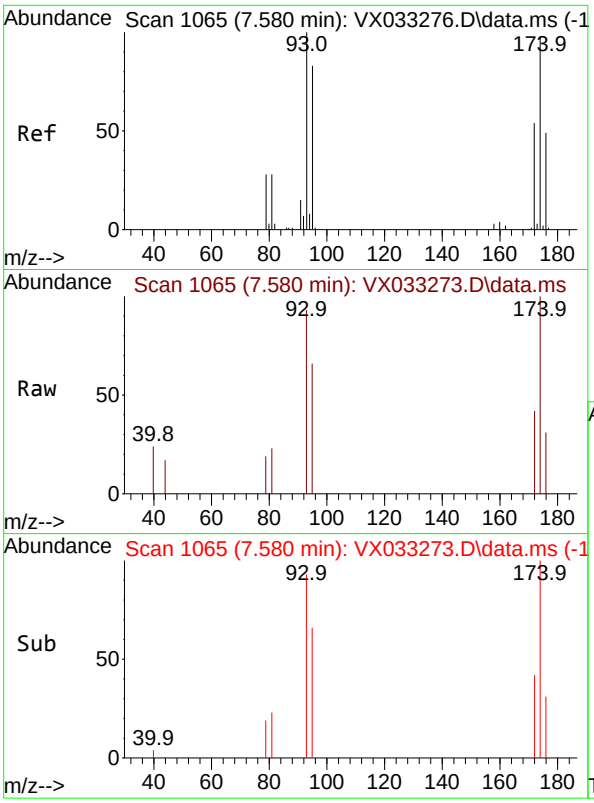



#45
1,2-Dichloropropane
Concen: 0.961 ug/l
RT: 7.433 min Scan# 1041
Delta R.T. -0.001 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 63 Resp: 1355

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 34.5 | 24.6 | 36.8 |

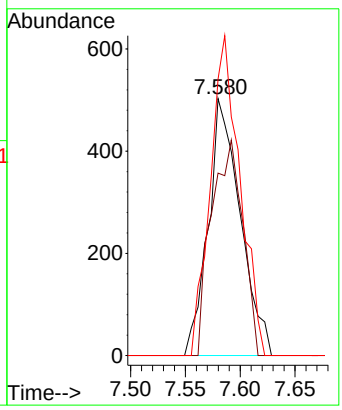





#46
Dibromomethane
Concen: 0.929 ug/l
RT: 7.580 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 93 Resp: 102

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 82.4 | 65.8 | 98.8 |
| 174 | 115.3 | 79.8 | 119.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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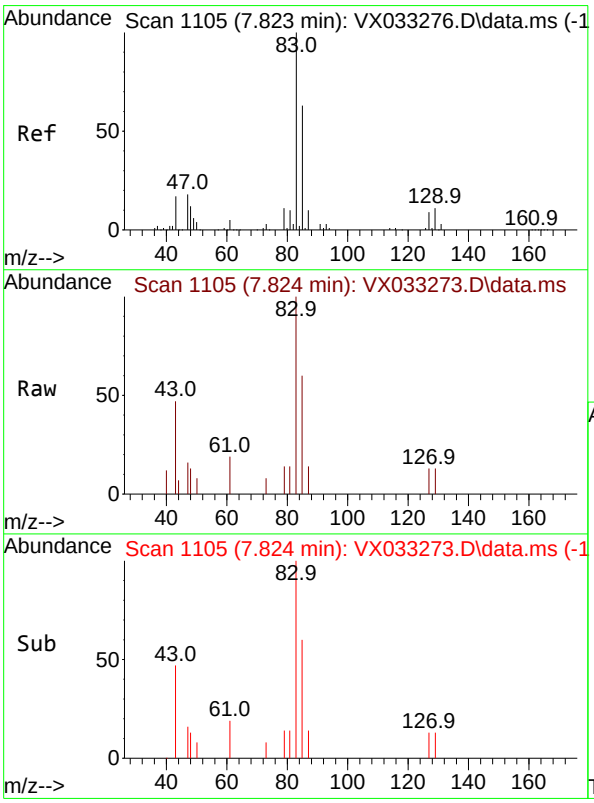
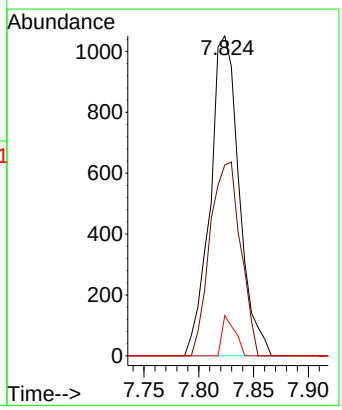
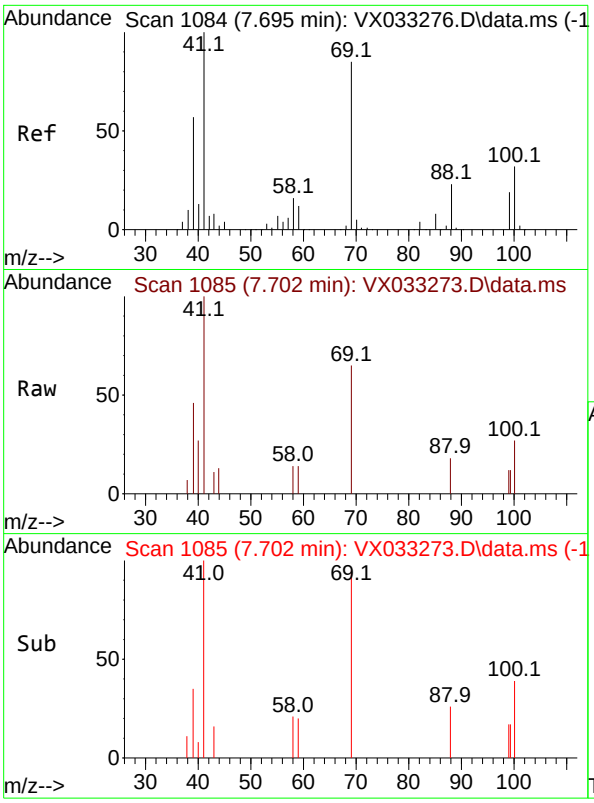



#47
Bromodichloromethane
Concen: 0.909 ug/l
RT: 7.824 min Scan# 1105
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 83 Resp: 1934

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 59.7 | 52.2 | 78.4 |
| 127 | 12.6 | 7.4 | 11.2# |

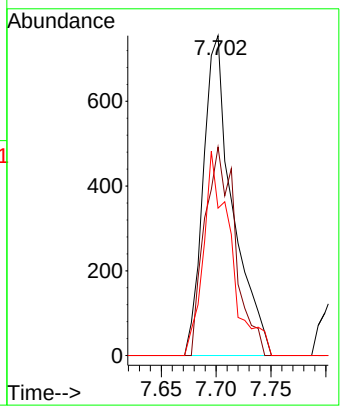





#48
Methyl methacrylate
Concen: 0.927 ug/l
RT: 7.702 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 41 Resp: 140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 68.5 | 65.1 | 97.7 |
| 39 | 59.7 | 51.9 | 77.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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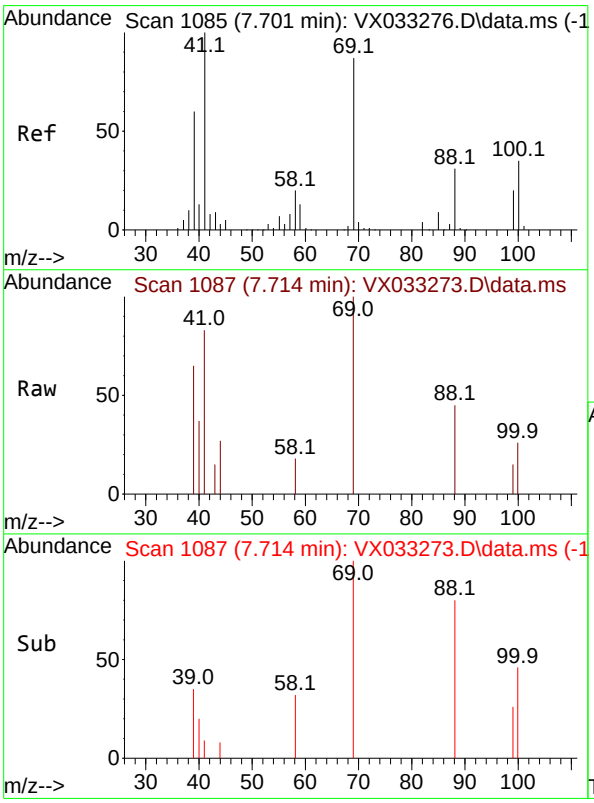
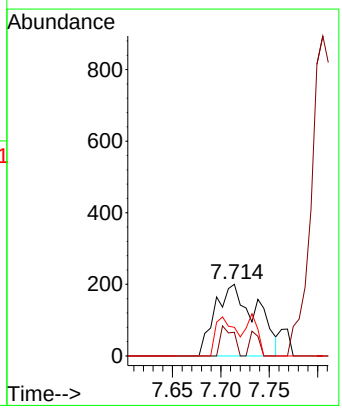
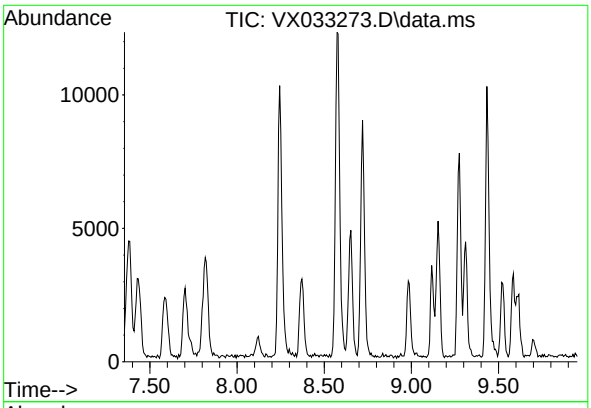



#49
1,4-Dioxane
Concen: 21.310 ug/l m
RT: 7.714 min Scan# 1087
Delta R.T. 0.043 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 88 Resp: 593

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 13.2 | 26.6 | 39.8# |
| 58 | 25.8 | 51.7 | 77.5# |






#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 8.65 min

Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 98

| Sig | Exp Ratio |
|---|---|
| 98 | 100 |
| 100 | 63.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

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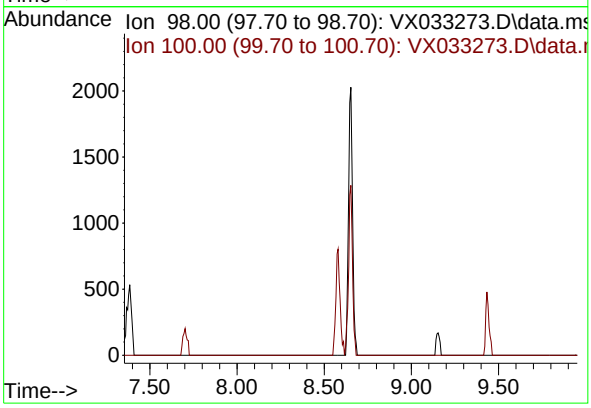
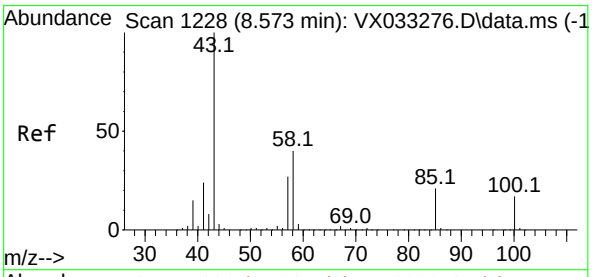
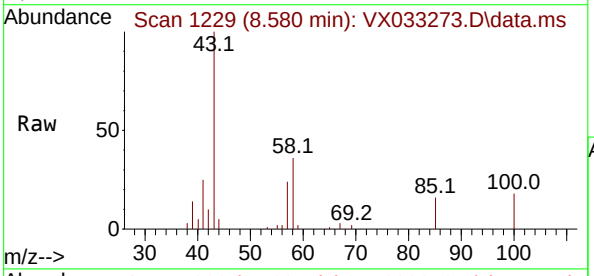


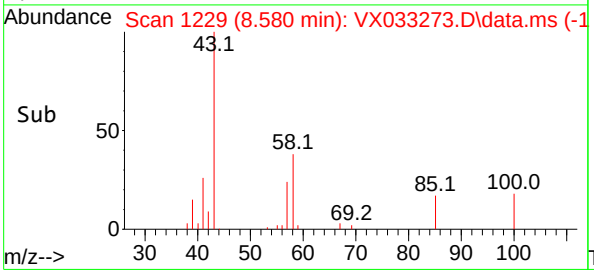



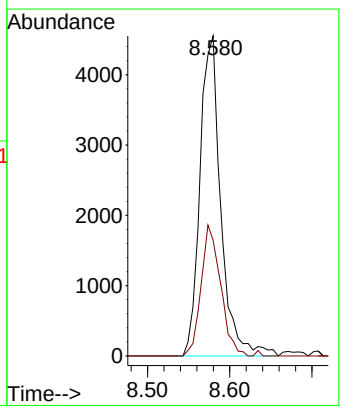

#51
4-Methyl-2-Pentanone
Concen: 4.431 ug/l
RT: 8.580 min Scan# 1229
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

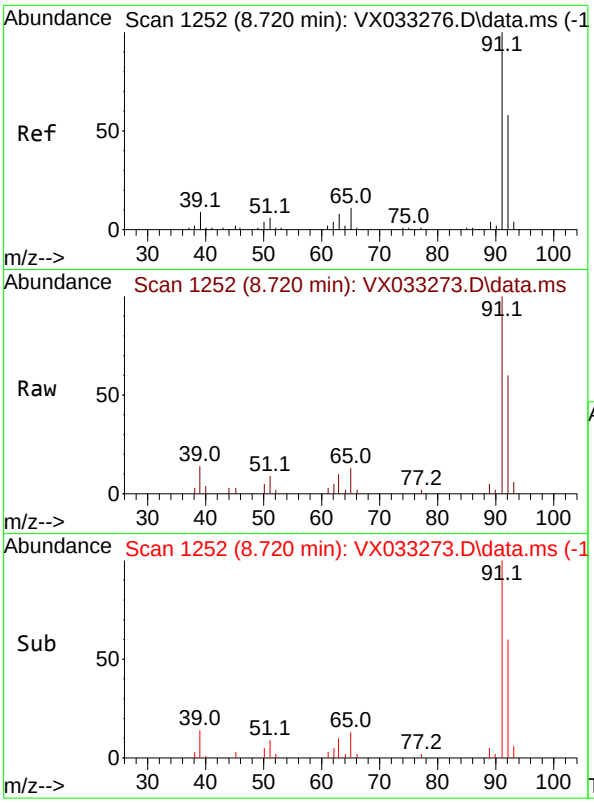
Tgt Ion: 43 Resp: 8030

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 38.2 | 30.9 | 46.3 |



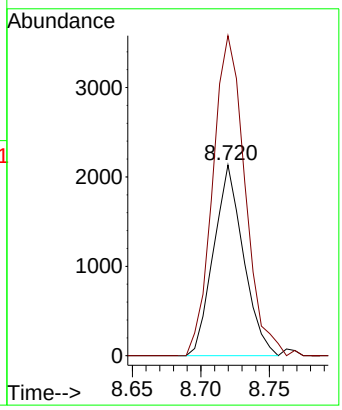






#52
Toluene
Concen: 0.861 ug/l
RT: 8.720 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 92 Resp: 323

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 181.7 | 138.3 | 207.5 |




**Instrument :**
MSVOA_X
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VSTDICC001

**Manual Integrations**
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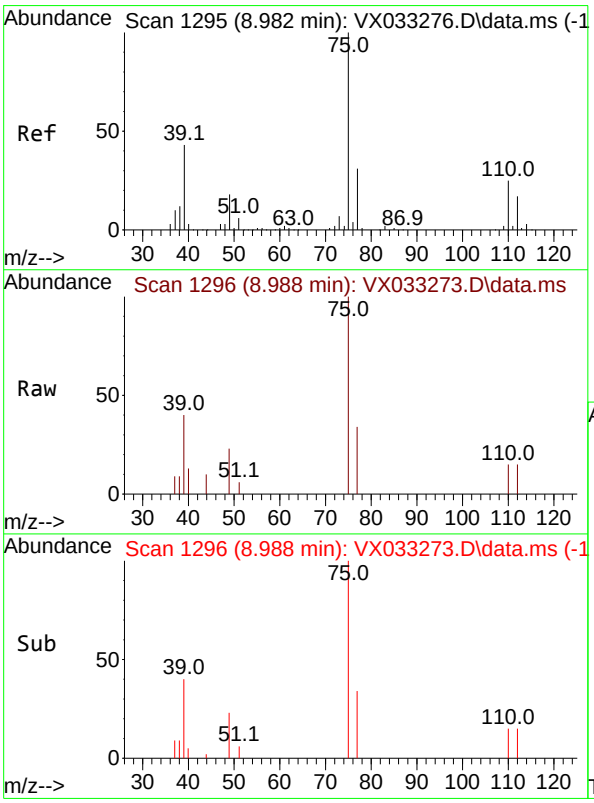
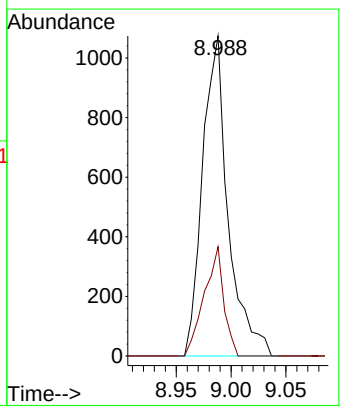
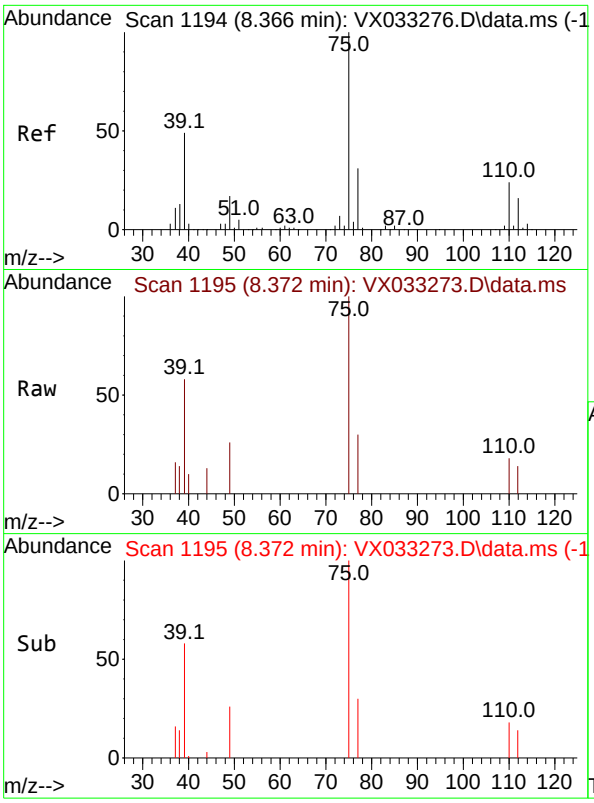



#53
t-1,3-Dichloropropene
Concen: 0.834 ug/l
RT: 8.988 min Scan# 1296
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 1741

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 34.2 | 25.1 | 37.7 |

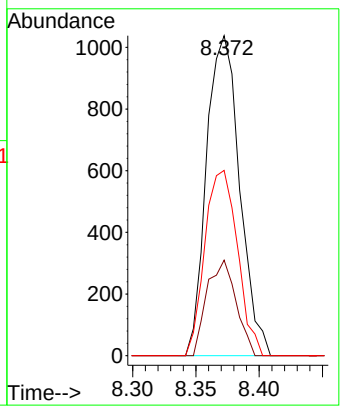





#54
cis-1,3-Dichloropropene
Concen: 0.825 ug/l
RT: 8.372 min Scan# 11
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 189

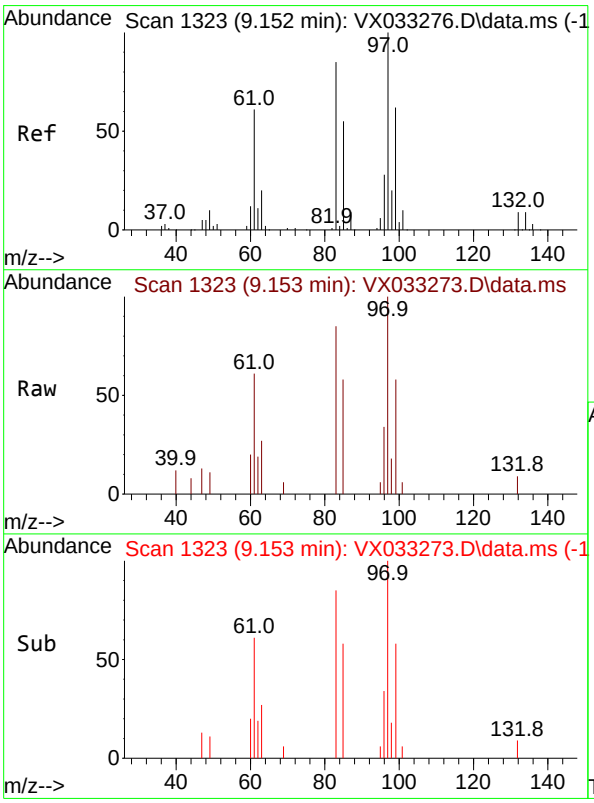
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 29.9 | 25.1 | 37.7 |
| 39 | 57.9 | 45.5 | 68.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

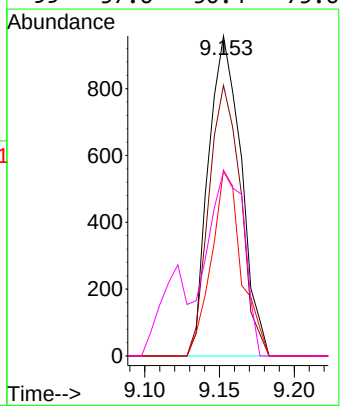
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

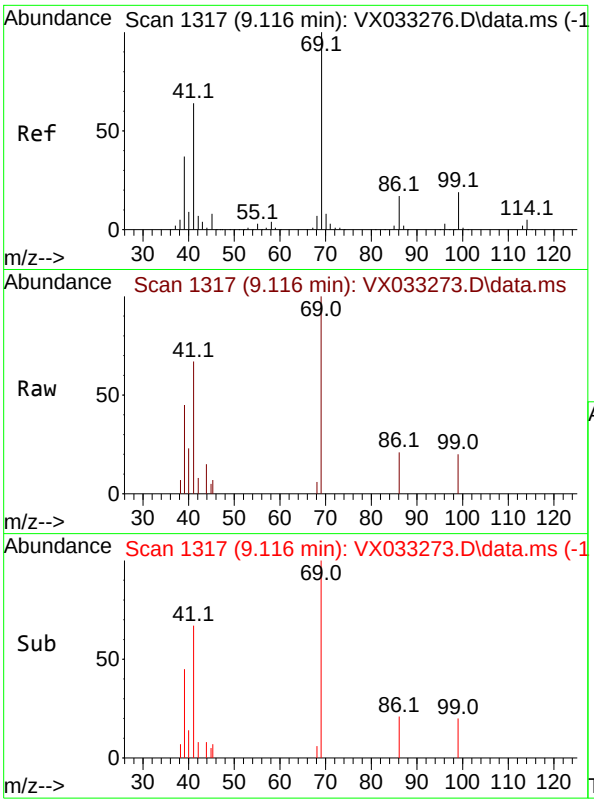



#55
1,1,2-Trichloroethane
Concen: 0.952 ug/l
RT: 9.153 min Scan# 1323
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 97 Resp: 1456

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 84.6 | 68.1 | 102.1 |
| 85 | 58.0 | 43.3 | 64.9 |
| 99 | 57.6 | 50.4 | 75.6 |

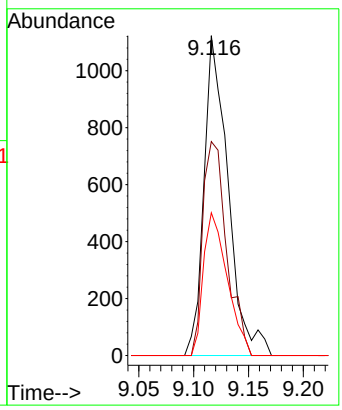





#56
Ethyl methacrylate
Concen: 0.817 ug/l
RT: 9.116 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 69 Resp: 172

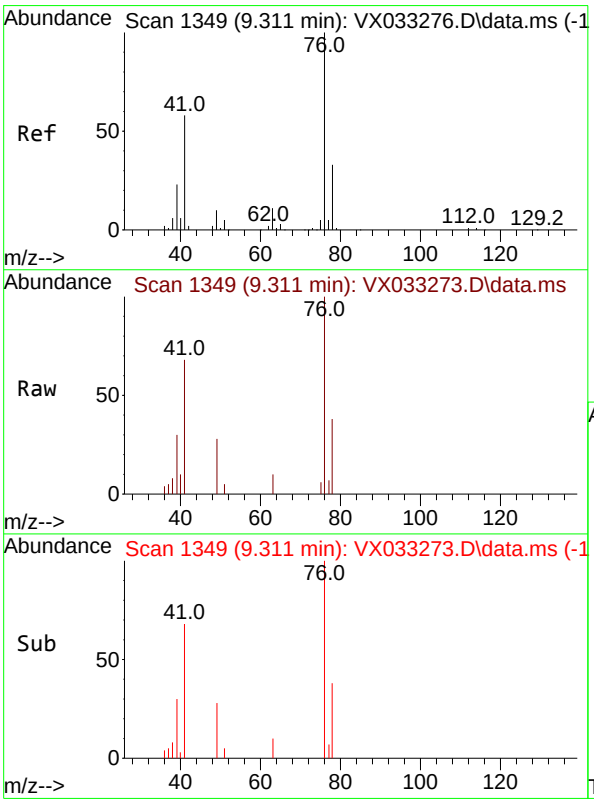
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 66.0 | 54.3 | 81.5 |
| 39 | 44.1 | 35.2 | 52.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

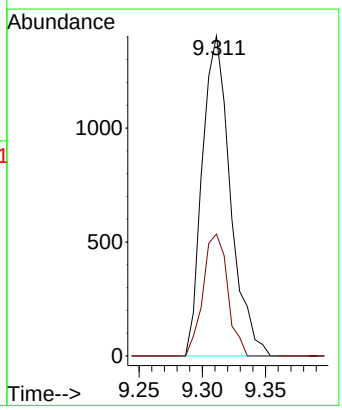
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

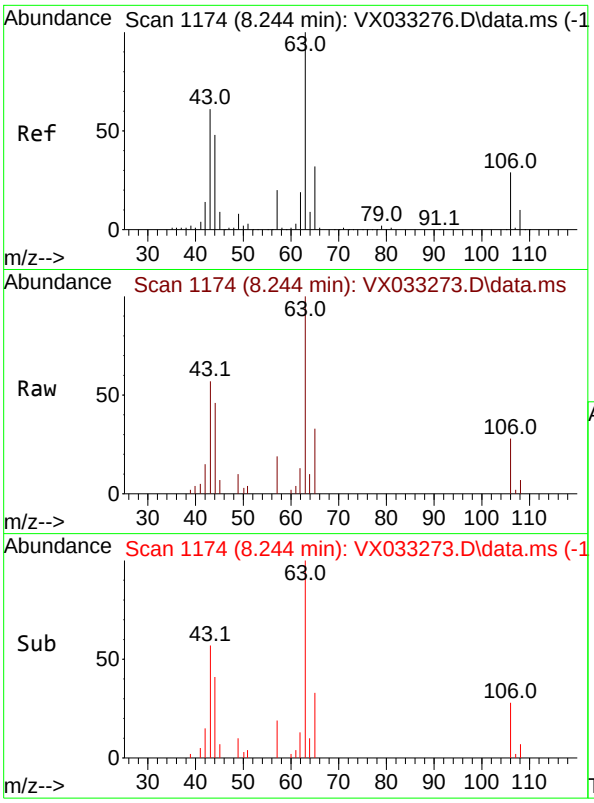



#57
1,3-Dichloropropane
Concen: 0.881 ug/l
RT: 9.311 min Scan# 1349
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 76 Resp: 2174

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 33.3 | 26.0 | 39.0 |

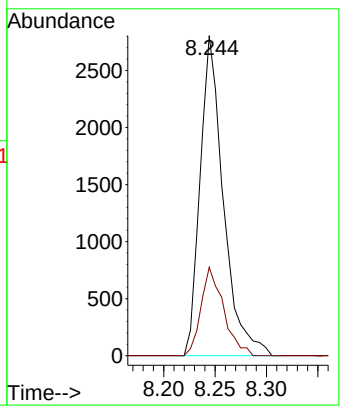





#58
2-Chloroethyl Vinyl ether
Concen: 4.420 ug/l
RT: 8.244 min Scan# 11
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 63 Resp: 442

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 26.8 | 23.3 | 34.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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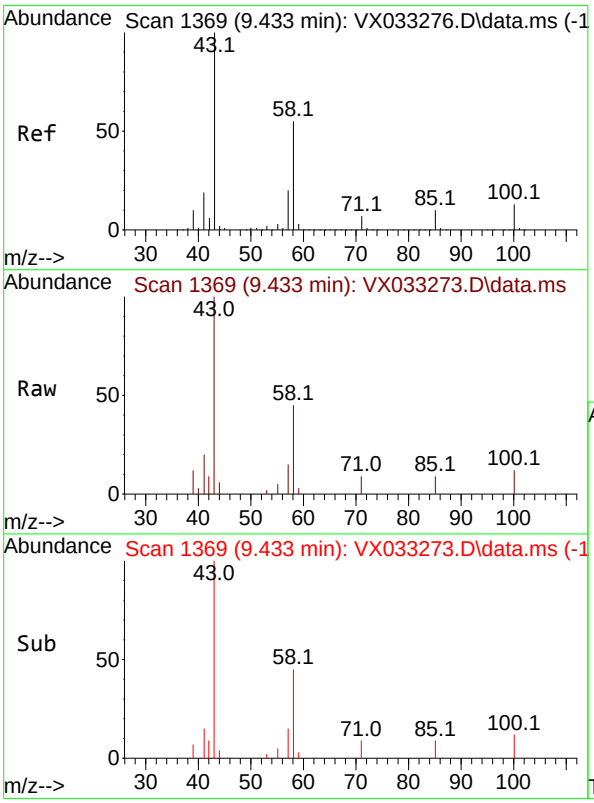
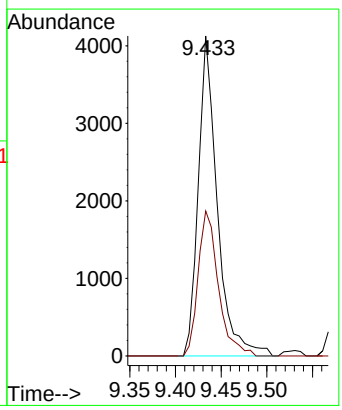
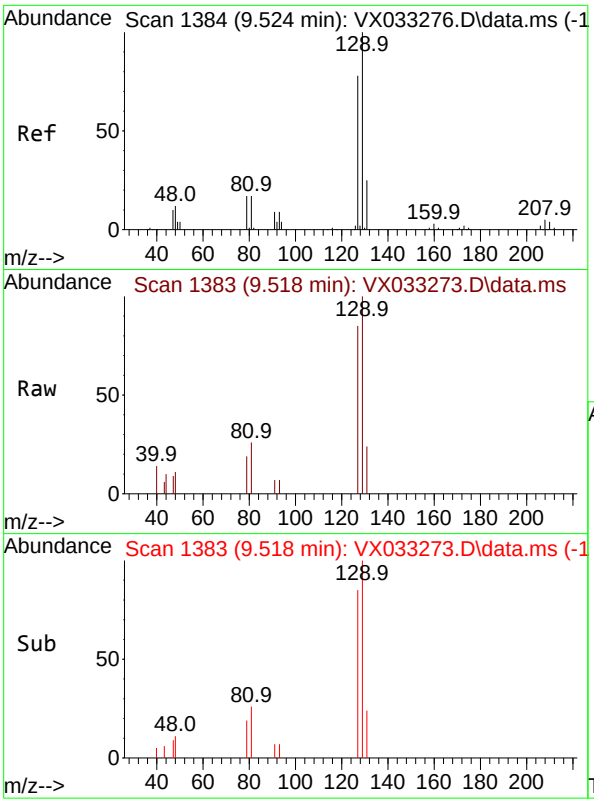



#59
2-Hexanone
Concen: 4.442 ug/l
RT: 9.433 min Scan# 1369
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 5946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 48.4 | 26.5 | 79.5 |

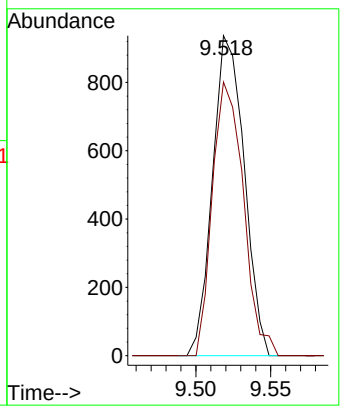





#60
Dibromochloromethane
Concen: 0.838 ug/l
RT: 9.518 min Scan# 1
Delta R.T. -0.007 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:129 Resp: 137

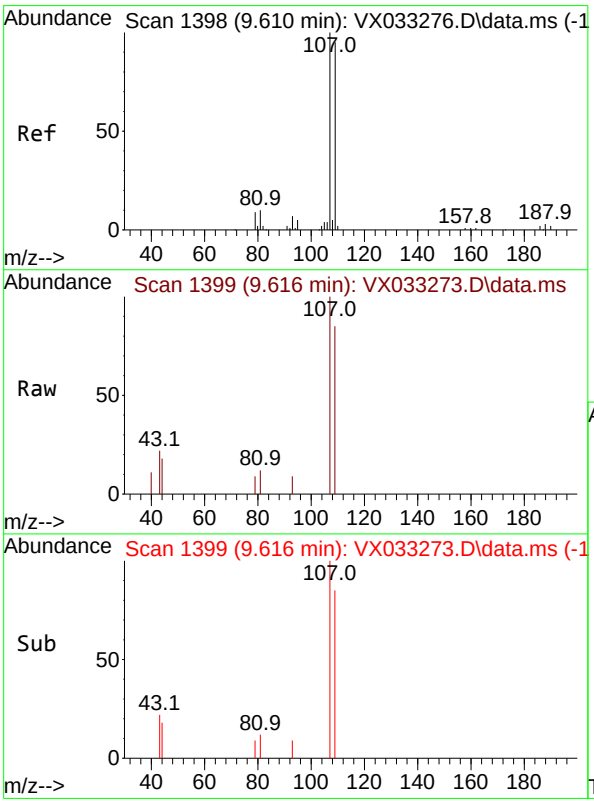
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 83.7 | 38.6 | 115.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

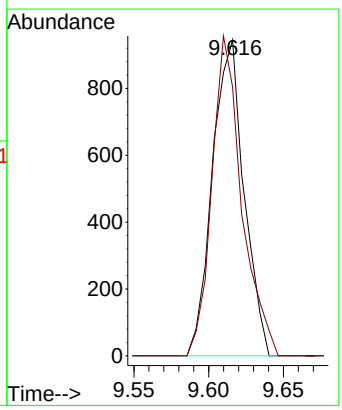
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

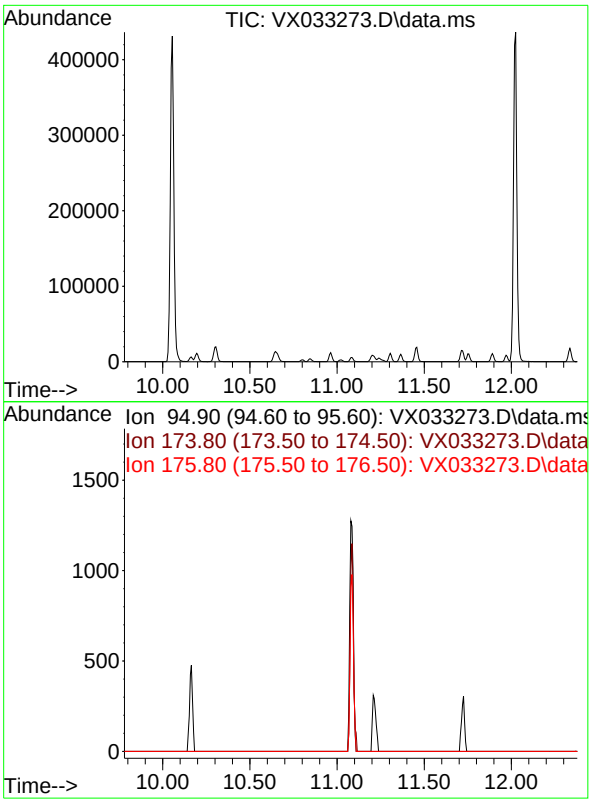



#61
1,2-Dibromoethane
Concen: 0.859 ug/l
RT: 9.616 min Scan# 1399
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:107 Resp: 1386

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 95.6 | 76.0 | 114.0 |






#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 11.08 min

Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 95

| Sig | Exp Ratio |
|---|---|
| 95 | 100 |
| 174 | 82.0 |
| 176 | 77.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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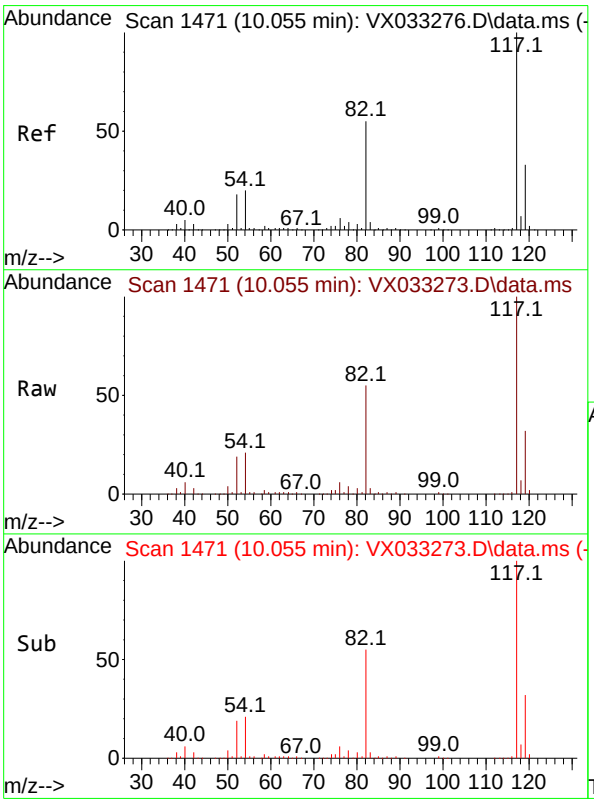
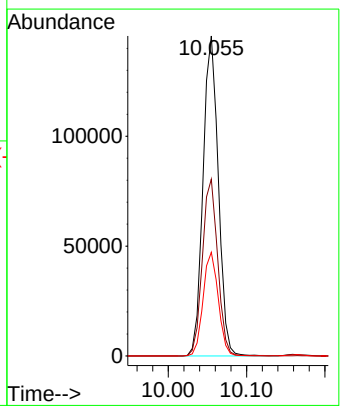
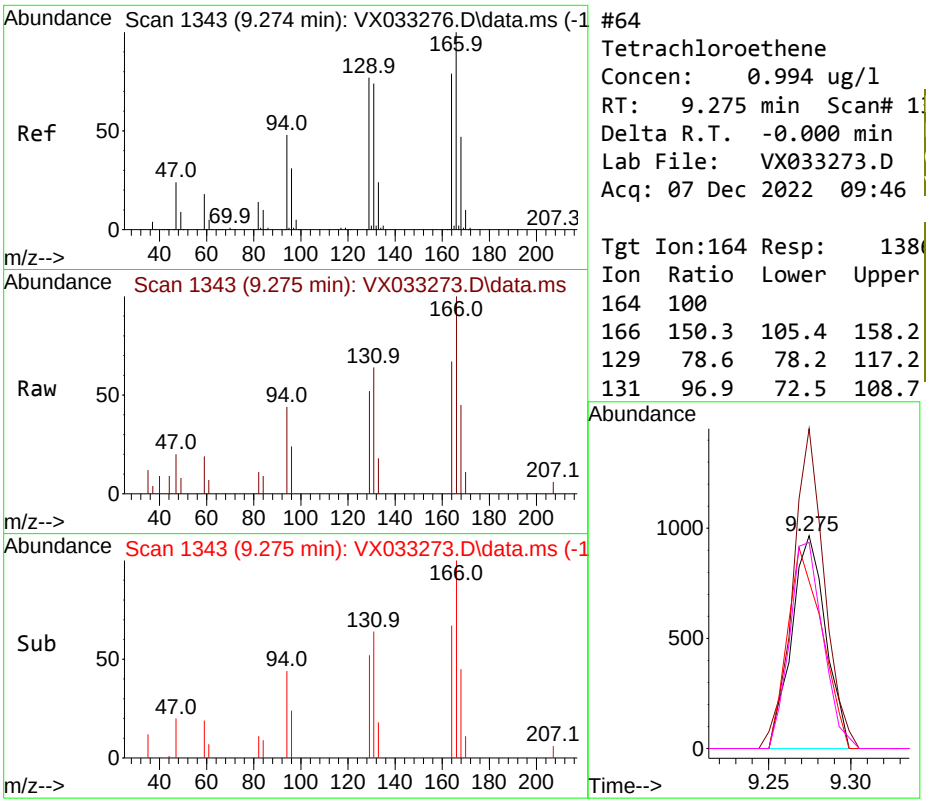



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:117 Resp: 197000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 55.3 | 44.3 | 66.5 |
| 119 | 32.4 | 25.7 | 38.5 |






#64
Tetrachloroethene
Concen: 0.994 ug/l
RT: 9.275 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:164 Resp: 138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 150.3 | 105.4 | 158.2 |
| 129 | 78.6 | 78.2 | 117.2 |
| 131 | 96.9 | 72.5 | 108.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

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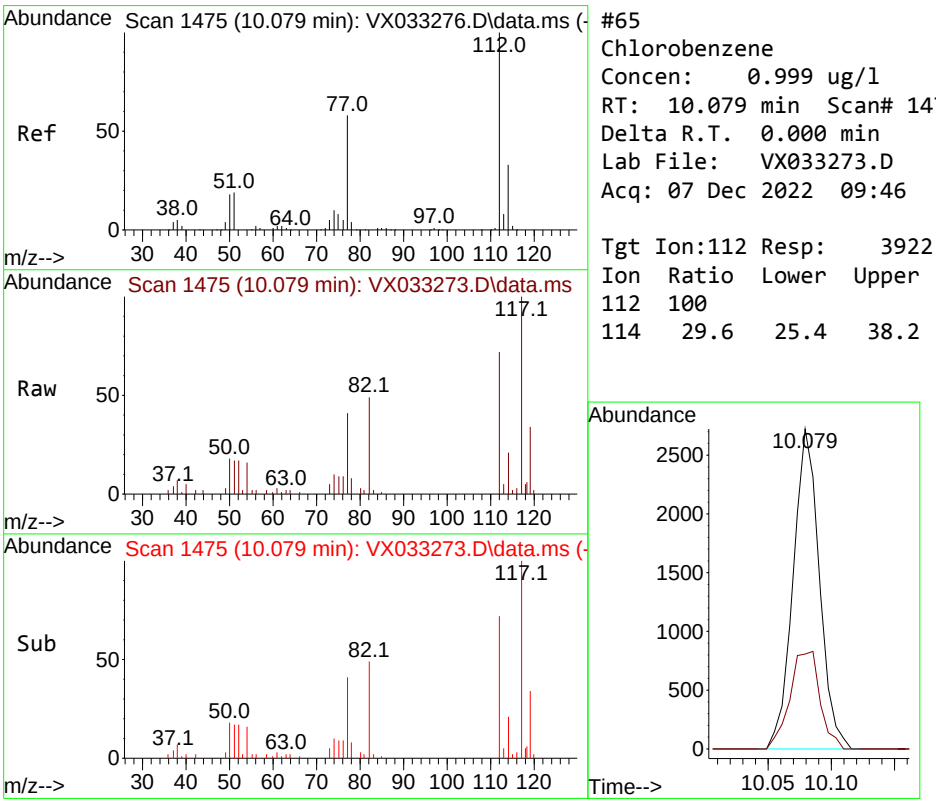
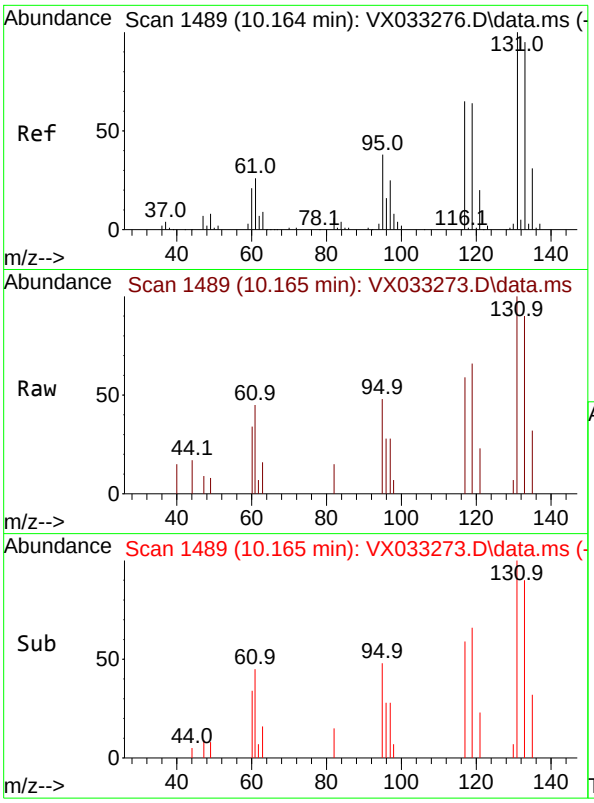



#65
Chlorobenzene
Concen: 0.999 ug/l
RT: 10.079 min Scan# 1475
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:112 Resp: 3922

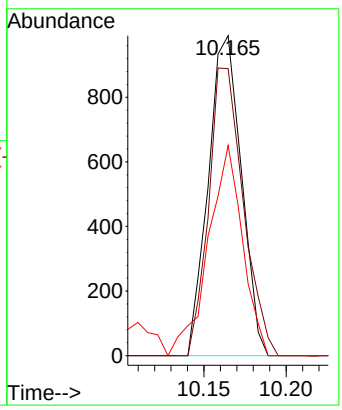
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 29.6 | 25.4 | 38.2 |




#66
1,1,1,2-Tetrachloroethane
Concen: 0.963 ug/l
RT: 10.165 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:131 Resp: 138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 94.3 | 47.6 | 142.9 |
| 119 | 0.0 | 32.4 | 97.0# |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

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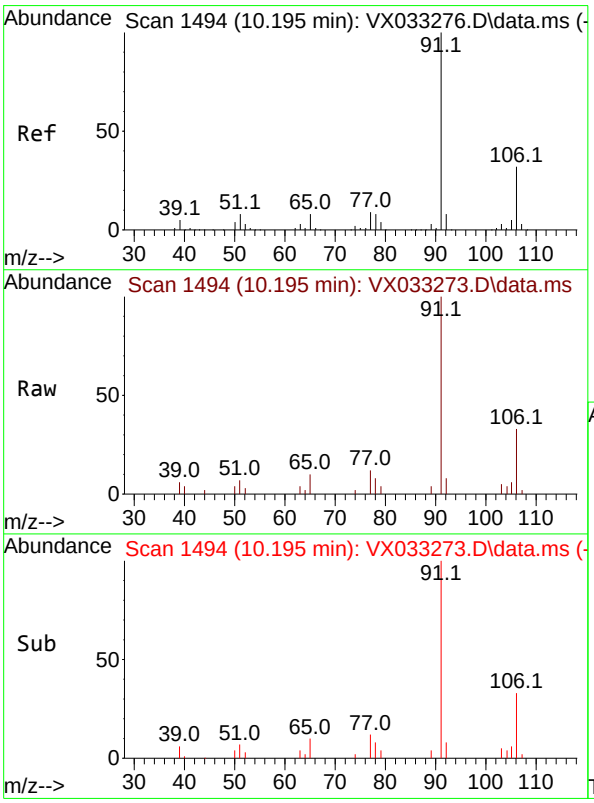
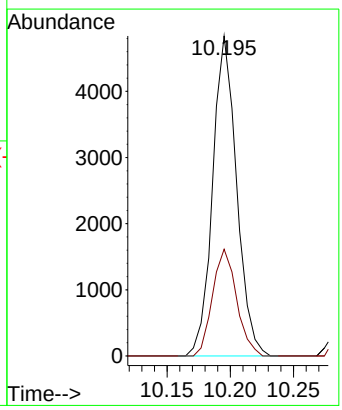
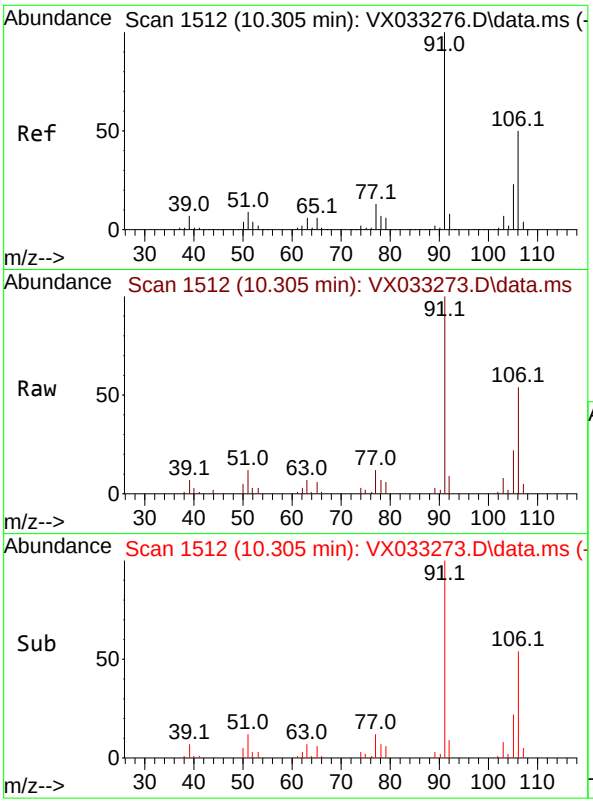



#67
Ethyl Benzene
Concen: 0.916 ug/l
RT: 10.195 min Scan# 1494
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 6381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 33.4 | 25.0 | 37.6 |

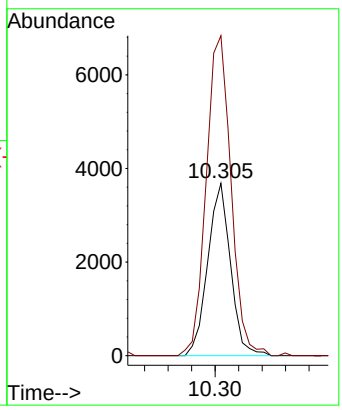





#68
m/p-Xylenes
Concen: 1.819 ug/l
RT: 10.305 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:106 Resp: 496

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 202.0 | 164.5 | 246.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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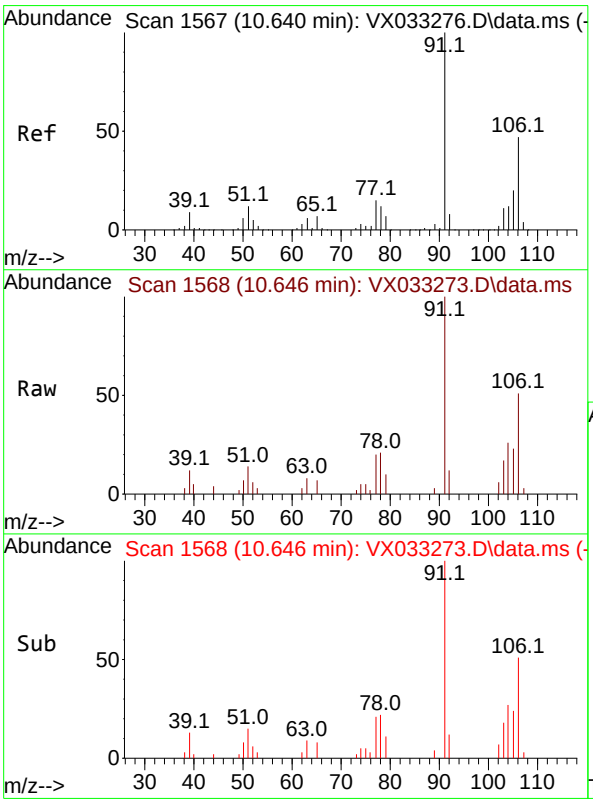
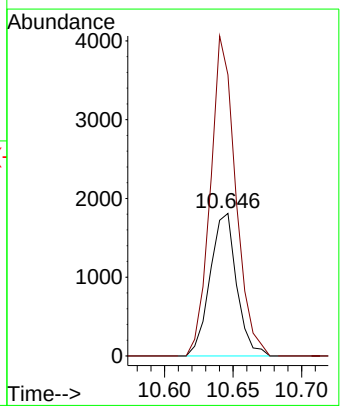
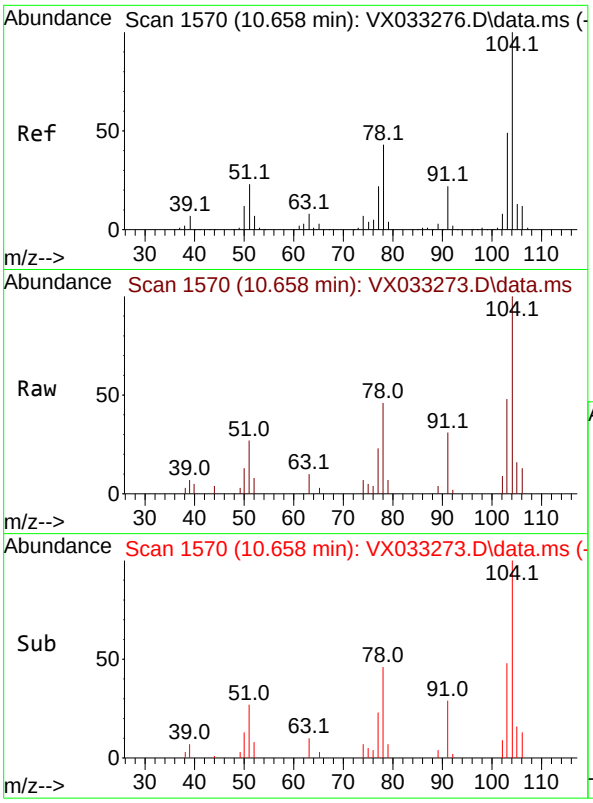



#69
o-Xylene
Concen: 0.925 ug/l
RT: 10.646 min Scan# 1568
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:106 Resp: 2441

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 213.0 | 109.2 | 327.6 |

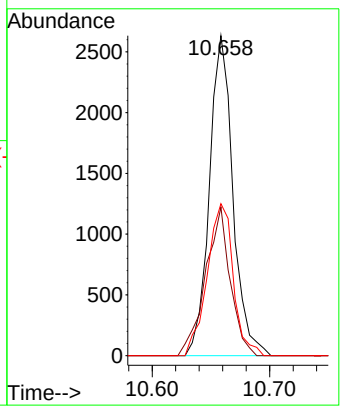





#70
Styrene
Concen: 0.849 ug/l
RT: 10.658 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:104 Resp: 366

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 48.7 | 41.8 | 62.8 |
| 103 | 52.5 | 44.5 | 66.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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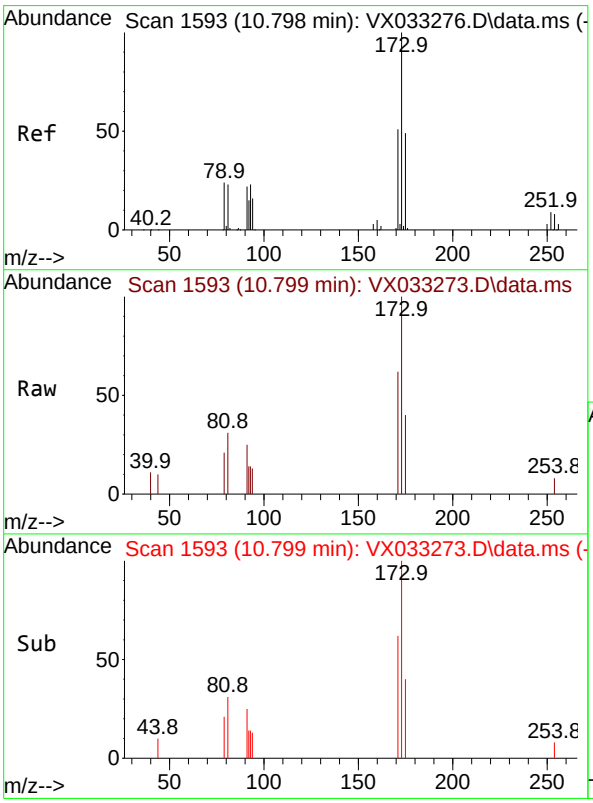
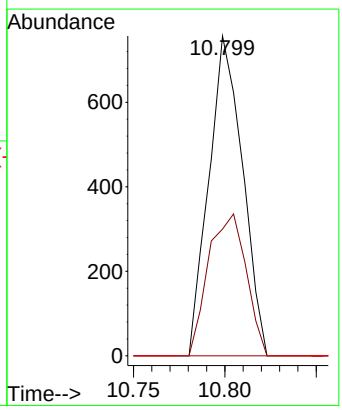
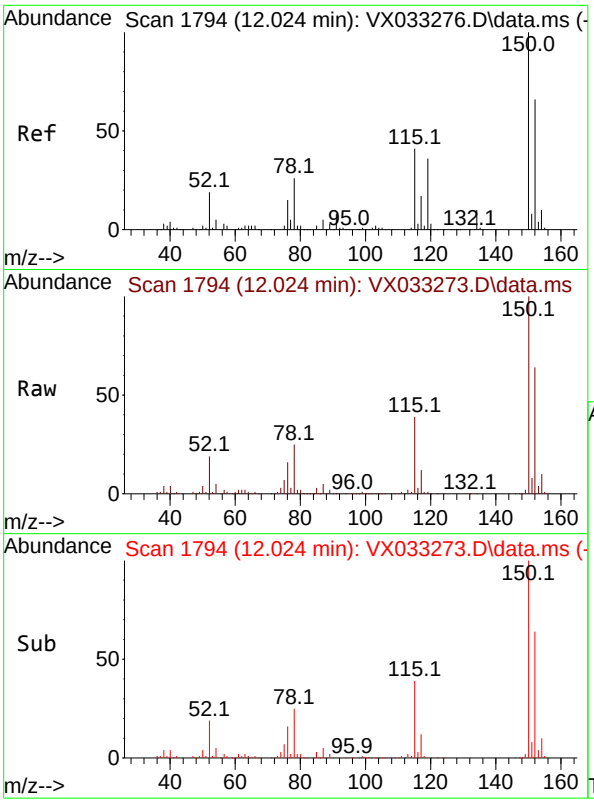



#71
Bromoform
Concen: 0.880 ug/l
RT: 10.799 min Scan# 1593
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:173 Resp: 971

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 49.8 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |

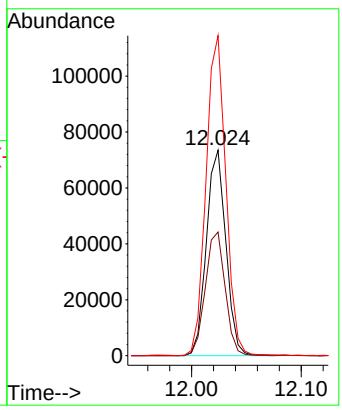





#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:152 Resp: 9081

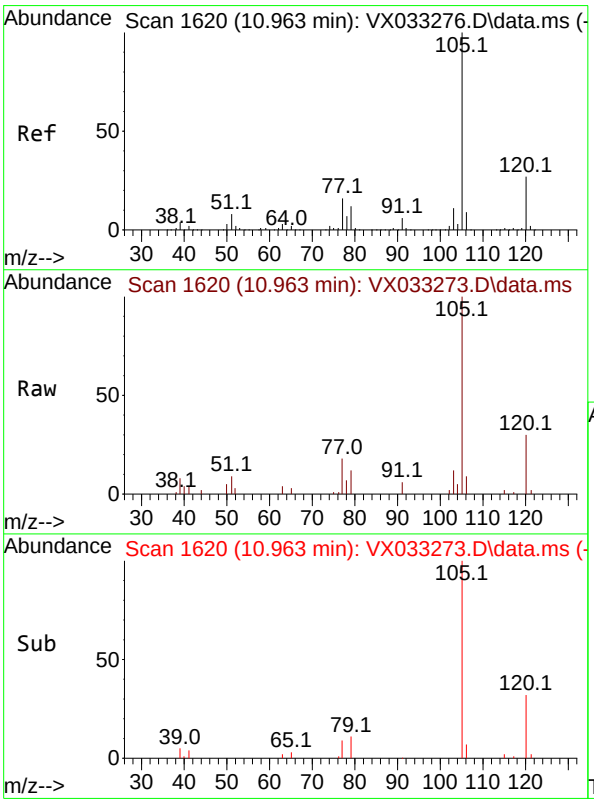
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 61.3 | 44.0 | 132.0 |
| 150 | 158.4 | 0.0 | 351.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

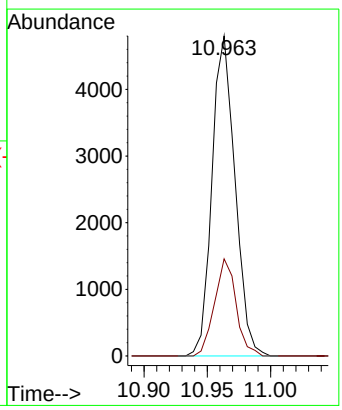
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

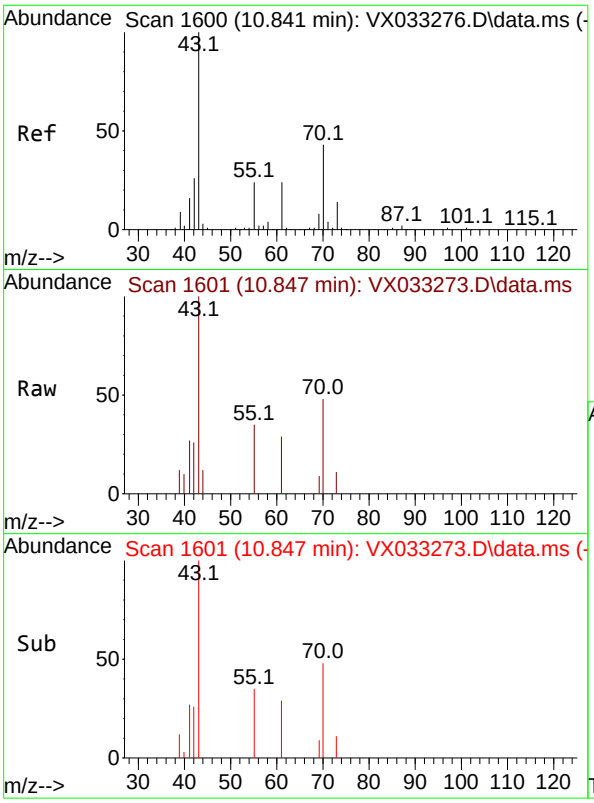



#73
Isopropylbenzene
Concen: 0.936 ug/l
RT: 10.963 min Scan# 1620
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:105 Resp: 6074

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 28.4 | 13.1 | 39.3 |

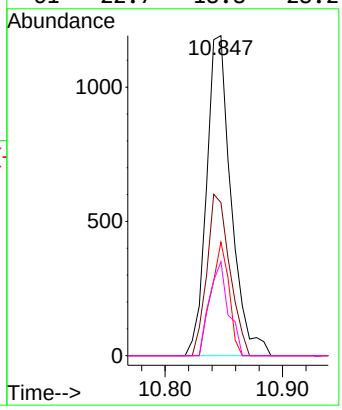





#74
N-amyl acetate
Concen: 0.784 ug/l
RT: 10.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 43 Resp: 173

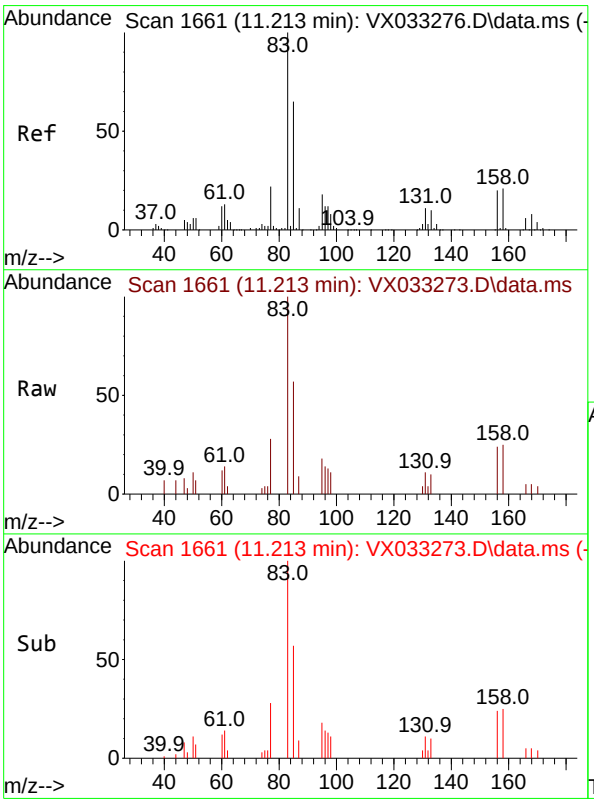
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 46.9 | 33.6 | 50.4 |
| 55 | 25.6 | 19.4 | 29.2 |
| 61 | 22.7 | 18.8 | 28.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

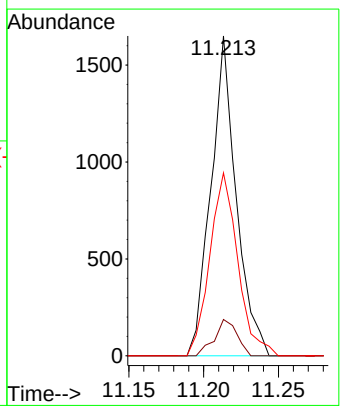
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

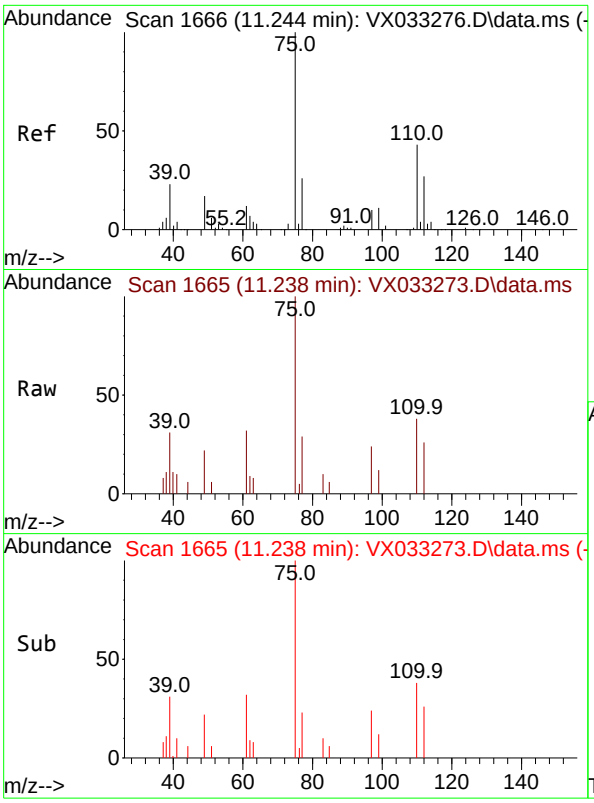



#75
1,1,2,2-Tetrachloroethane
Concen: 0.992 ug/l
RT: 11.213 min Scan# 1661
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 83 Resp: 1942

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.1 | 5.4 | 16.2 |
| 85 | 63.4 | 31.9 | 95.9 |

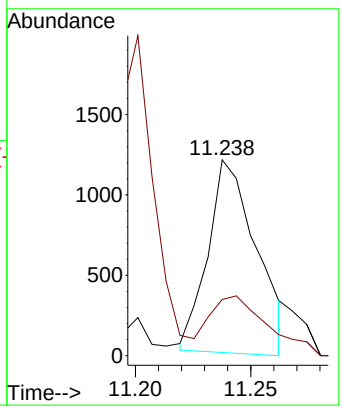





#76
1,2,3-Trichloropropane
Concen: 1.016 ug/l m
RT: 11.238 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 174

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 37.1 | 20.0 | 60.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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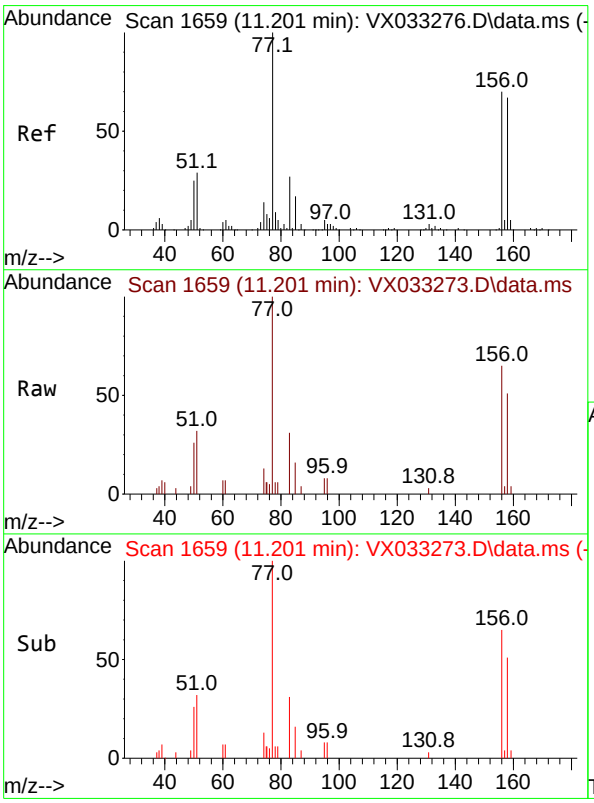
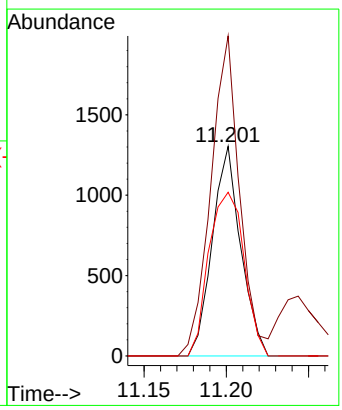
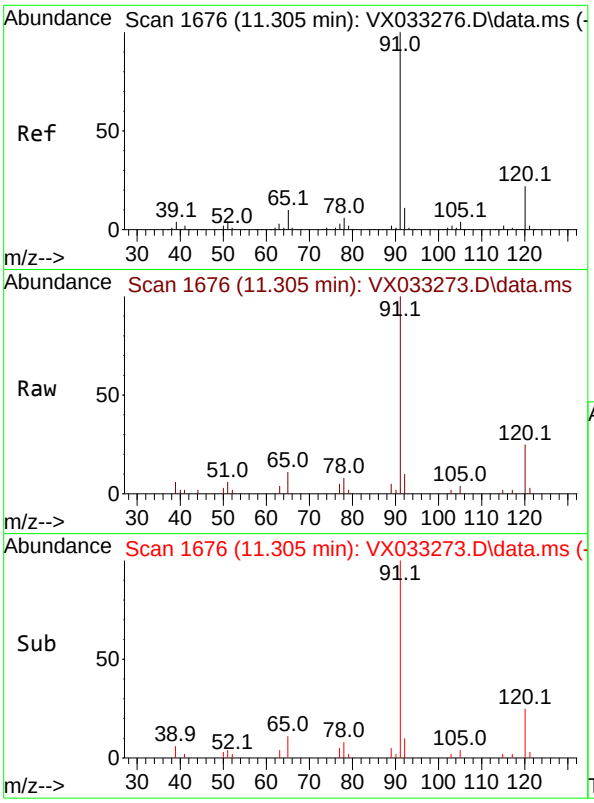



#77
Bromobenzene
Concen: 0.981 ug/l
RT: 11.201 min Scan# 1659
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:156 Resp: 1565

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 155.7 | 76.1 | 228.4 |
| 158 | 97.1 | 48.8 | 146.3 |






#78
n-propylbenzene
Concen: 0.880 ug/l
RT: 11.305 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 653

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 22.9 | 11.6 | 34.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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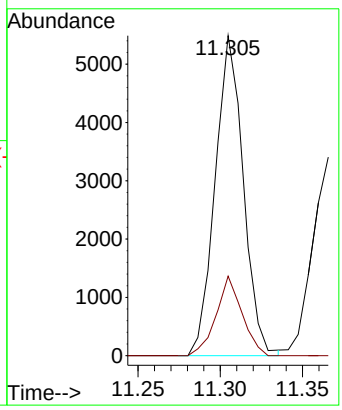
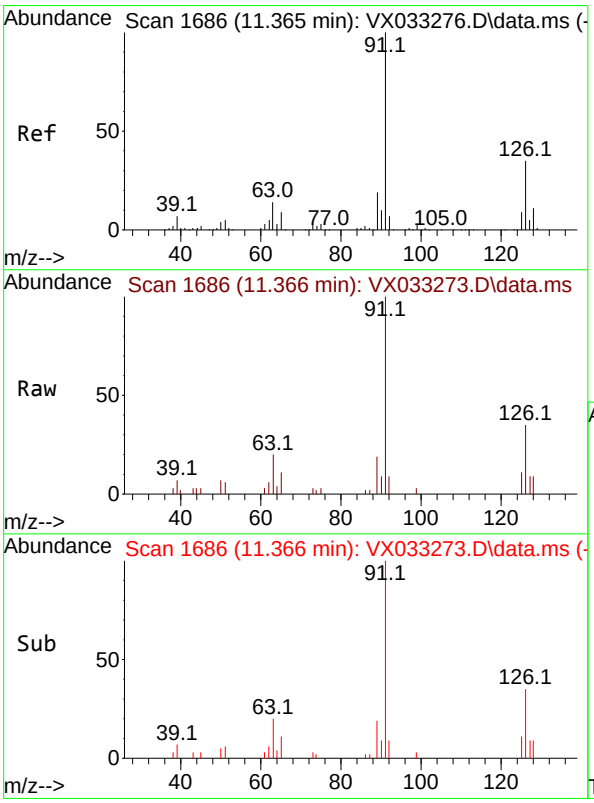
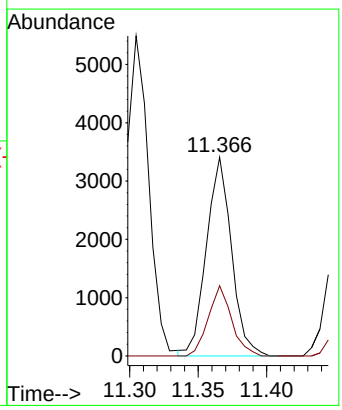


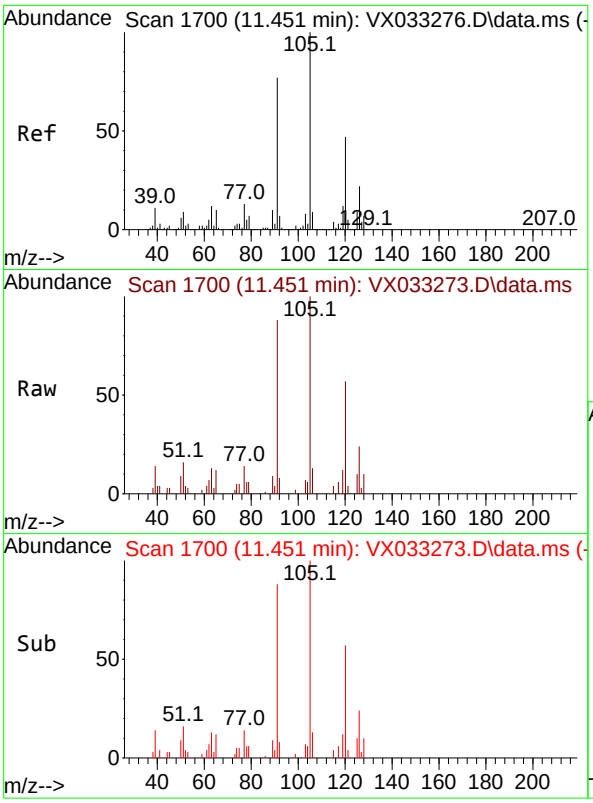




#79
2-Chlorotoluene
Concen: 0.965 ug/l
RT: 11.366 min Scan# 1686
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 4350

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 32.9 | 17.1 | 51.2 |

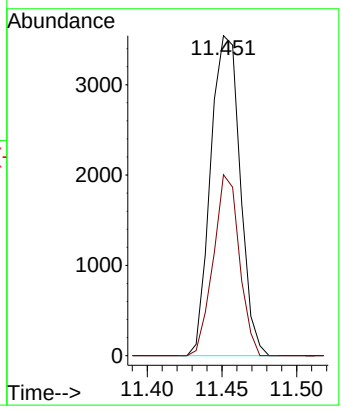





#80
1,3,5-Trimethylbenzene
Concen: 0.892 ug/l
RT: 11.451 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:105 Resp: 486

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 49.8 | 23.6 | 71.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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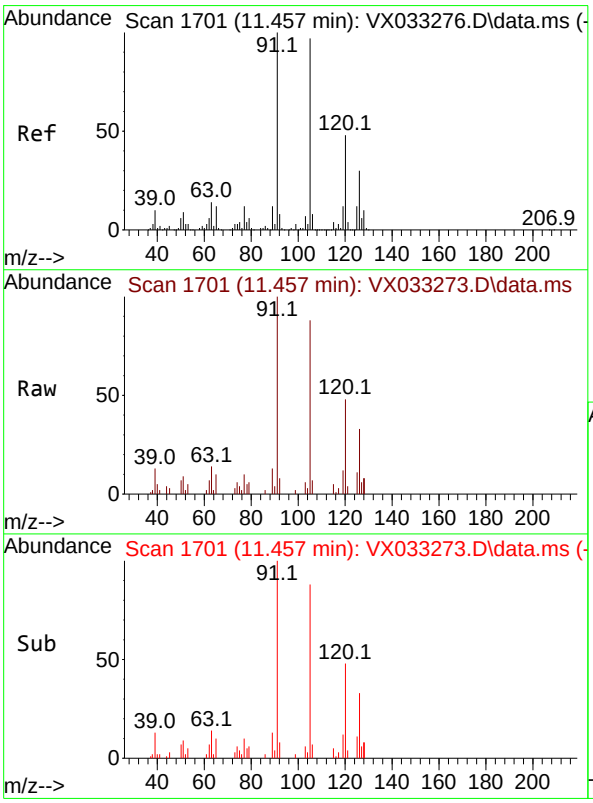
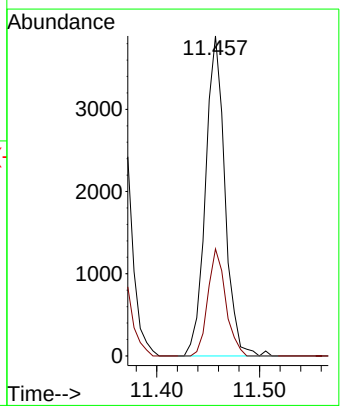
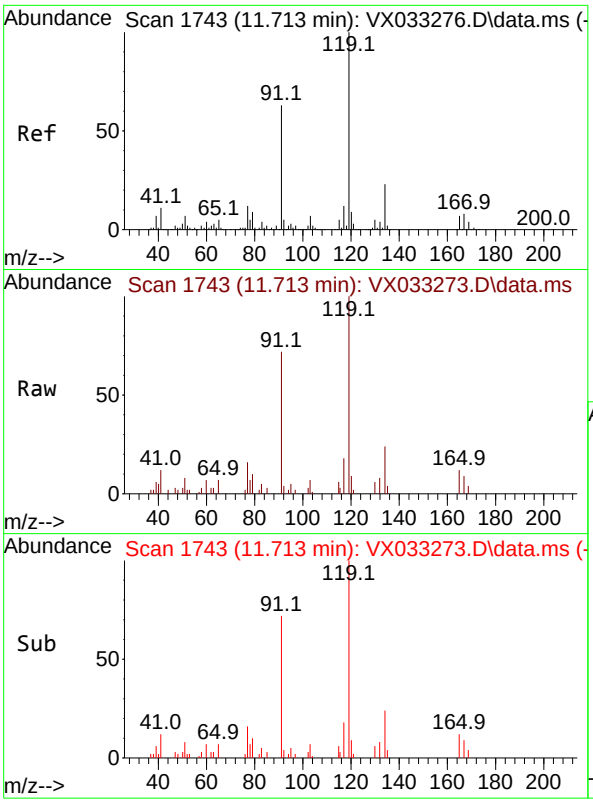



#82
4-Chlorotoluene
Concen: 0.967 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 5105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.7 | 14.8 | 44.4 |

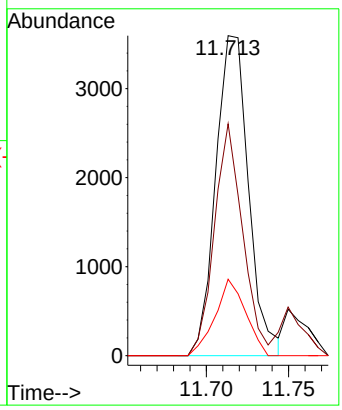





#83
tert-Butylbenzene
Concen: 0.921 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:119 Resp: 499

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 62.4 | 29.4 | 88.2 |
| 134 | 22.2 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

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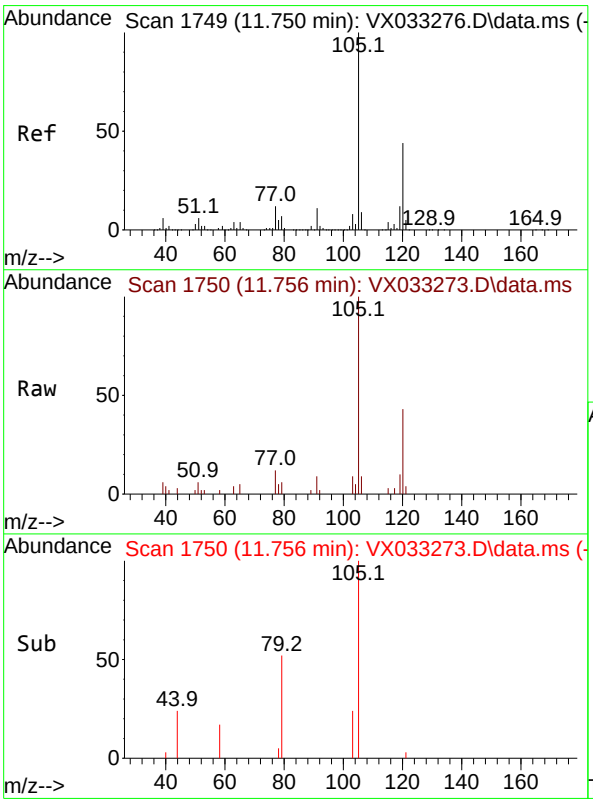
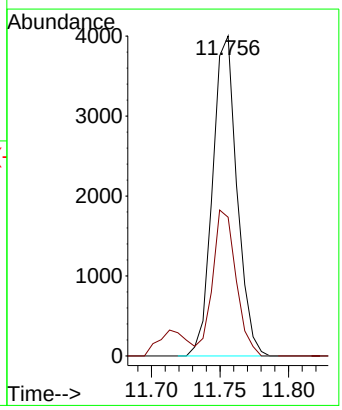
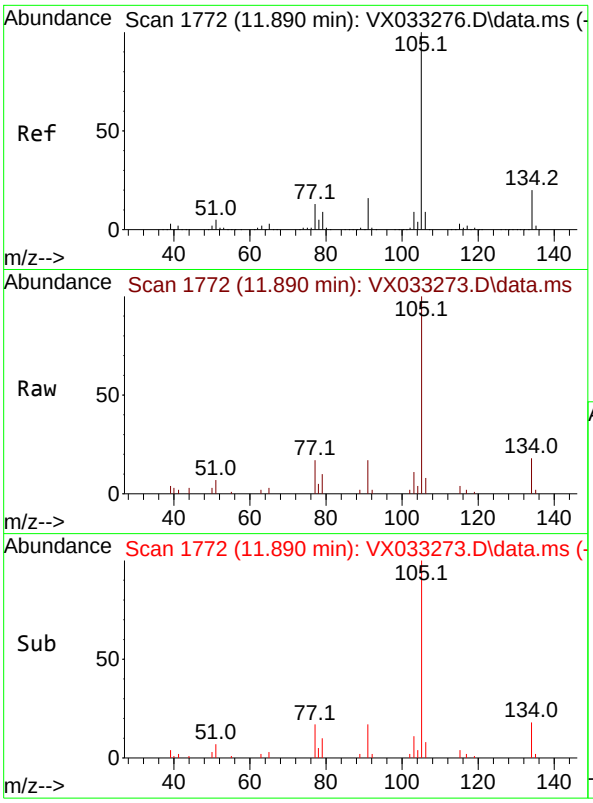



#84
1,2,4-Trimethylbenzene
Concen: 0.912 ug/l
RT: 11.756 min Scan# 1750
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:105 Resp: 4957

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.9 | 21.9 | 65.5 |

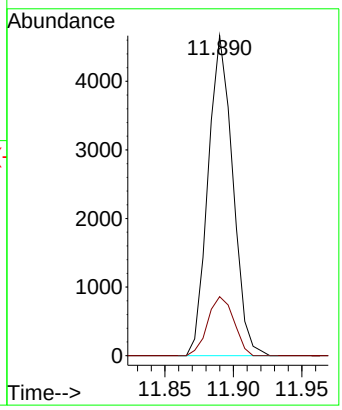





#85
sec-Butylbenzene
Concen: 0.900 ug/l
RT: 11.890 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:105 Resp: 584

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 19.6 | 9.9 | 29.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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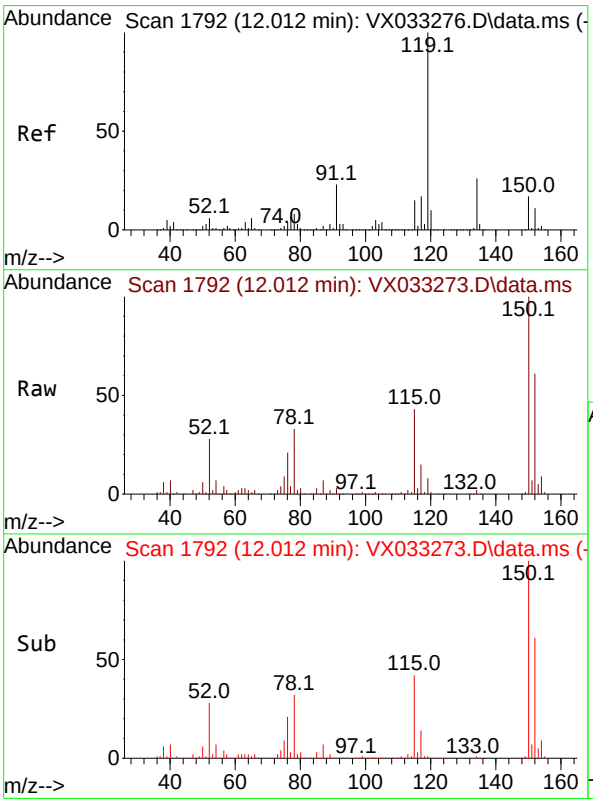
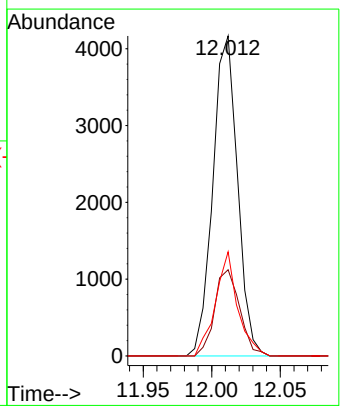
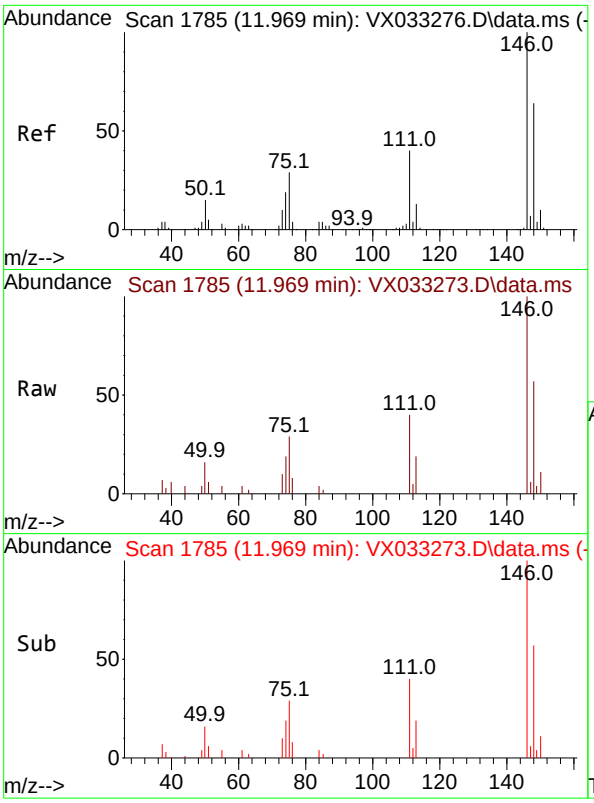



#86
p-Isopropyltoluene
Concen: 0.949 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:119 Resp: 5219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 27.5 | 12.9 | 38.7 |
| 91 | 29.4 | 12.5 | 37.5 |

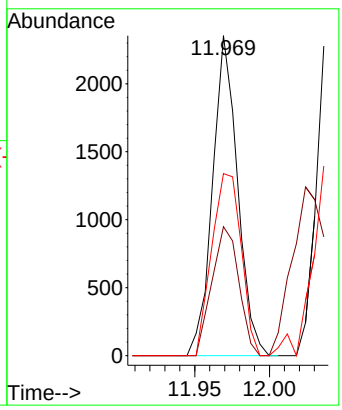





#87
1,3-Dichlorobenzene
Concen: 0.914 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:146 Resp: 273

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 43.3 | 20.6 | 61.8 |
| 148 | 66.9 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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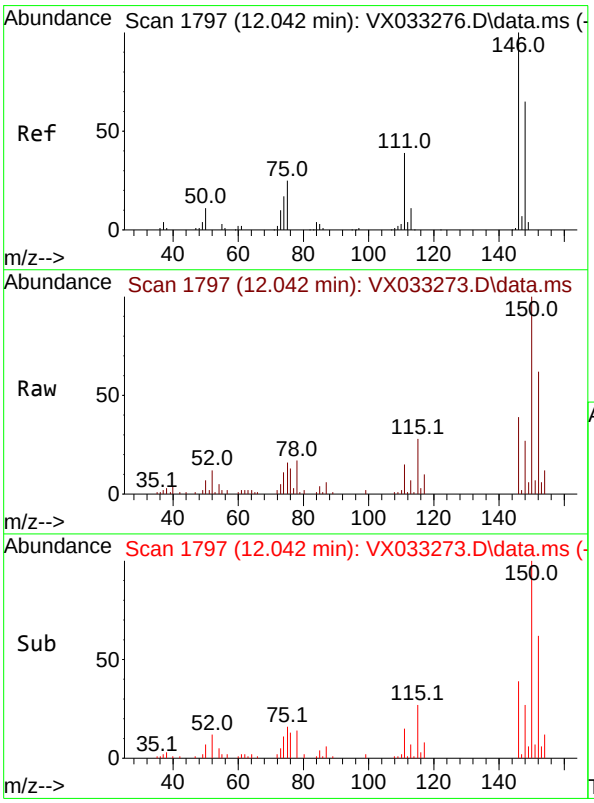
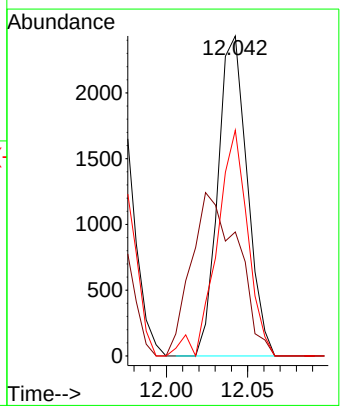
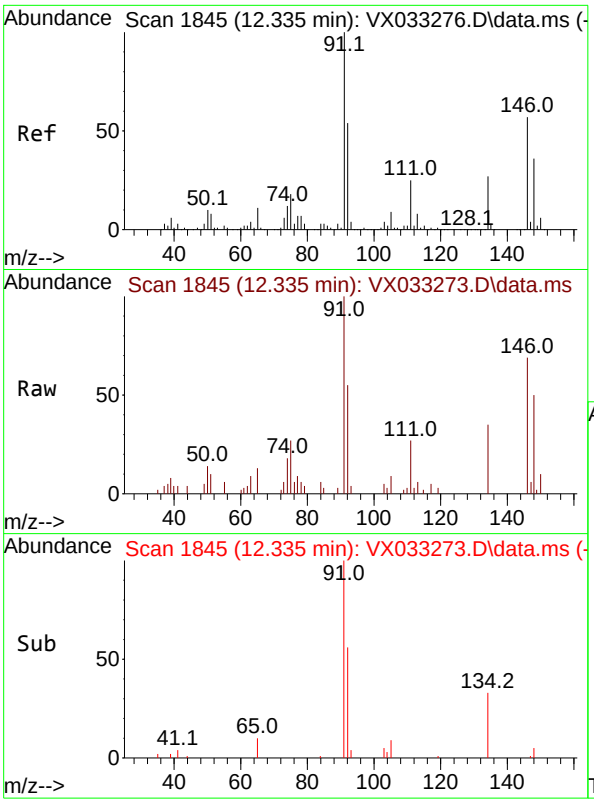



#88
1,4-Dichlorobenzene
Concen: 0.996 ug/l m
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:146 Resp: 3055

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 38.8 | 20.5 | 61.6 |
| 148 | 59.9 | 32.2 | 96.6 |

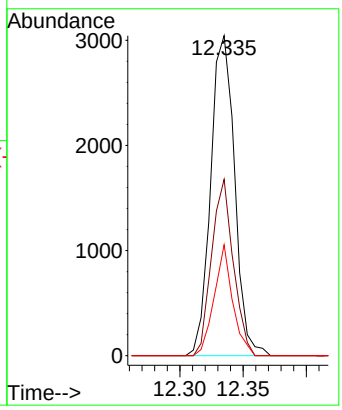





#89
n-Butylbenzene
Concen: 0.845 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 91 Resp: 400

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 49.8 | 26.2 | 78.6 |
| 134 | 26.9 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

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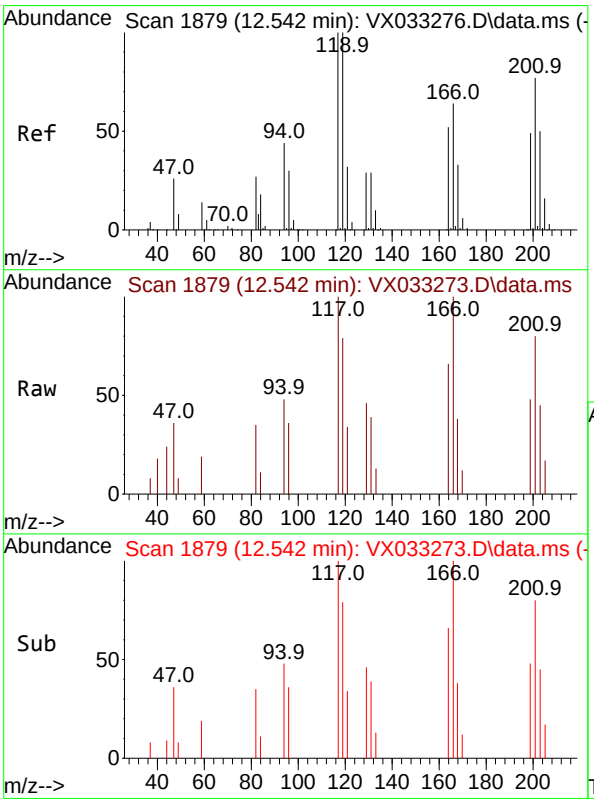
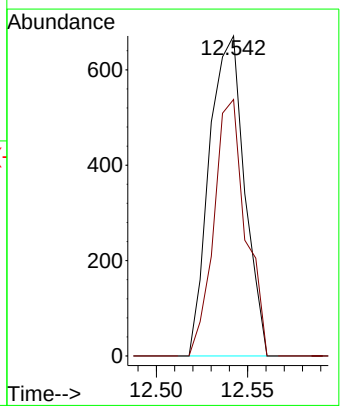
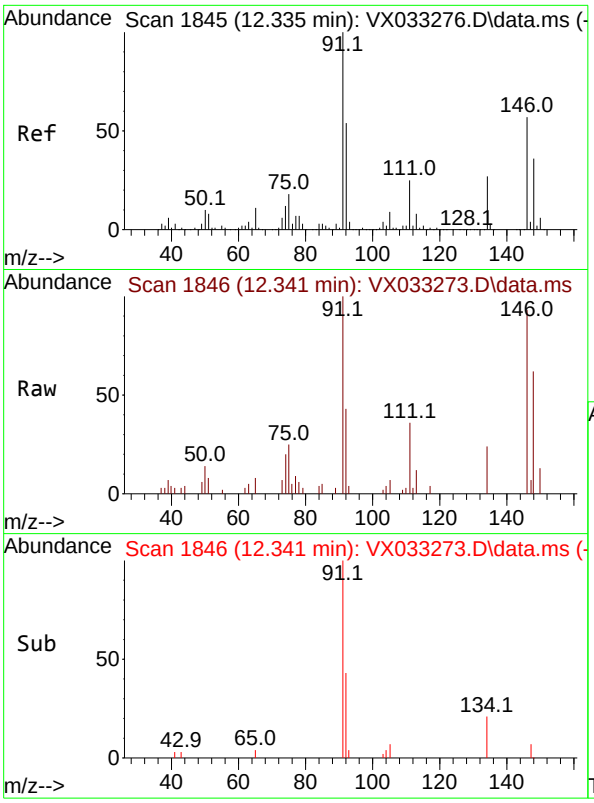



#90
Hexachloroethane
Concen: 0.993 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:117 Resp: 897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 72.5 | 37.6 | 112.9 |

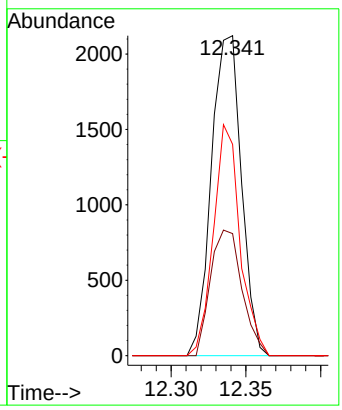





#91
1,2-Dichlorobenzene
Concen: 1.017 ug/l
RT: 12.341 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:146 Resp: 296

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.3 | 21.5 | 64.5 |
| 148 | 64.1 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
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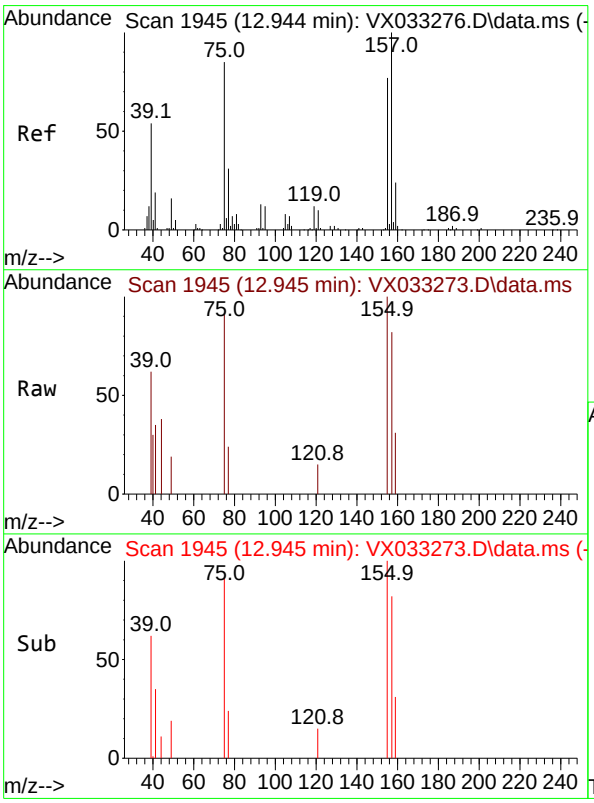
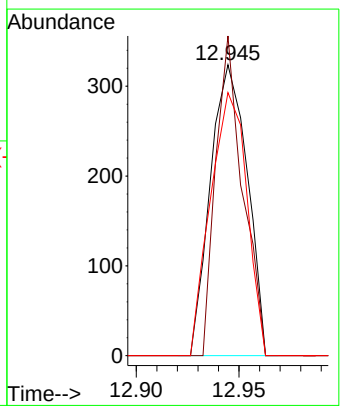
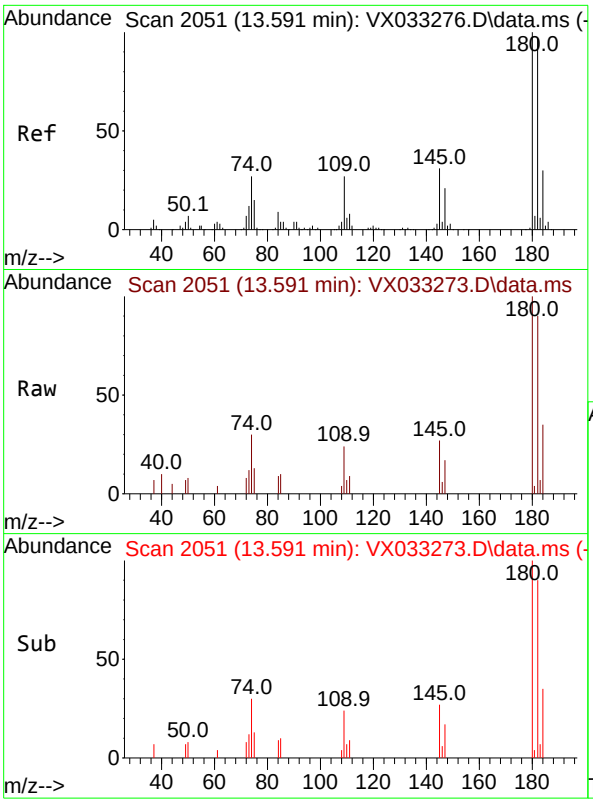



#92
1,2-Dibromo-3-Chloropropane
Concen: 1.034 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion: 75 Resp: 404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 80.2 | 41.6 | 124.8 |
| 157 | 89.1 | 54.1 | 162.4 |

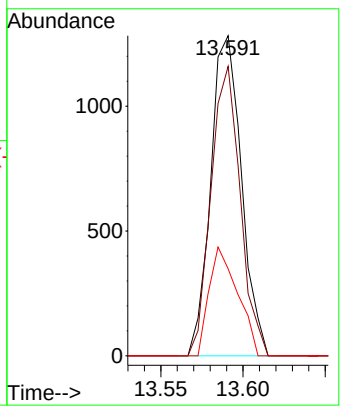





#93
1,2,4-Trichlorobenzene
Concen: 0.931 ug/l
RT: 13.591 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:180 Resp: 167

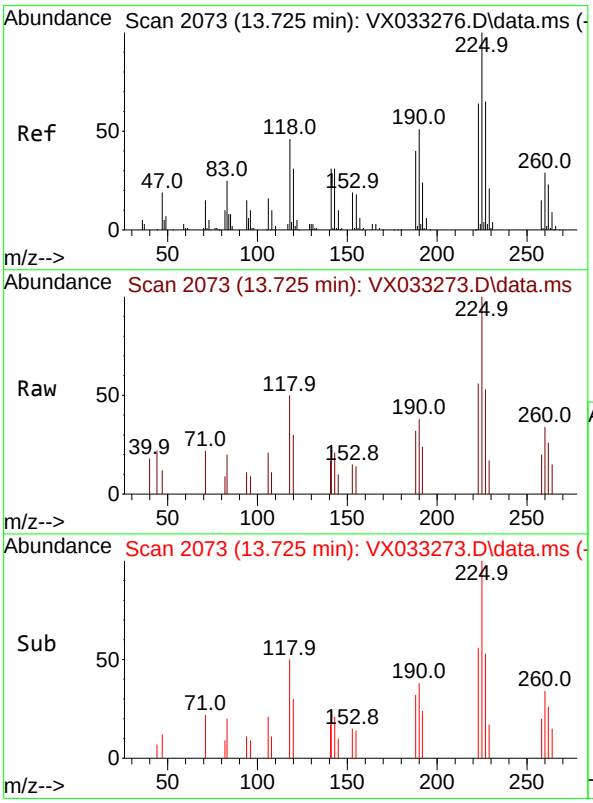
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 85.9 | 48.4 | 145.0 |
| 145 | 31.5 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations APPROVED**

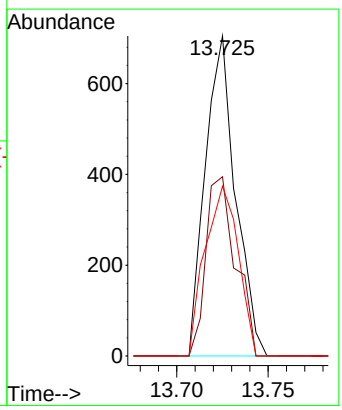
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

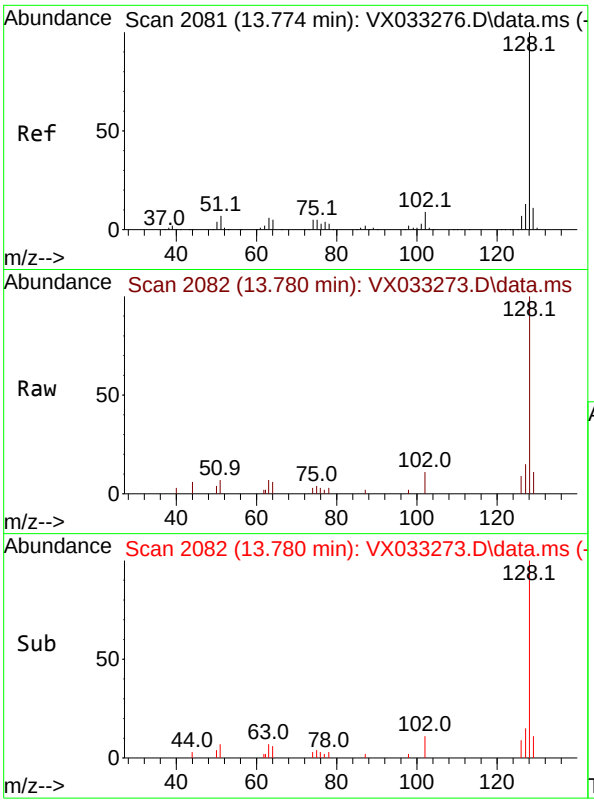



#94
Hexachlorobutadiene
Concen: 1.024 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:225 Resp: 811

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 55.2 | 31.9 | 95.9 |
| 227 | 58.3 | 31.9 | 95.5 |

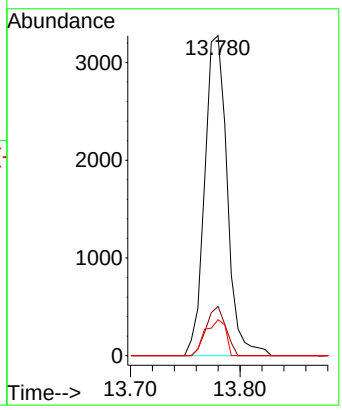





#95
Naphthalene
Concen: 0.803 ug/l
RT: 13.780 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:128 Resp: 466

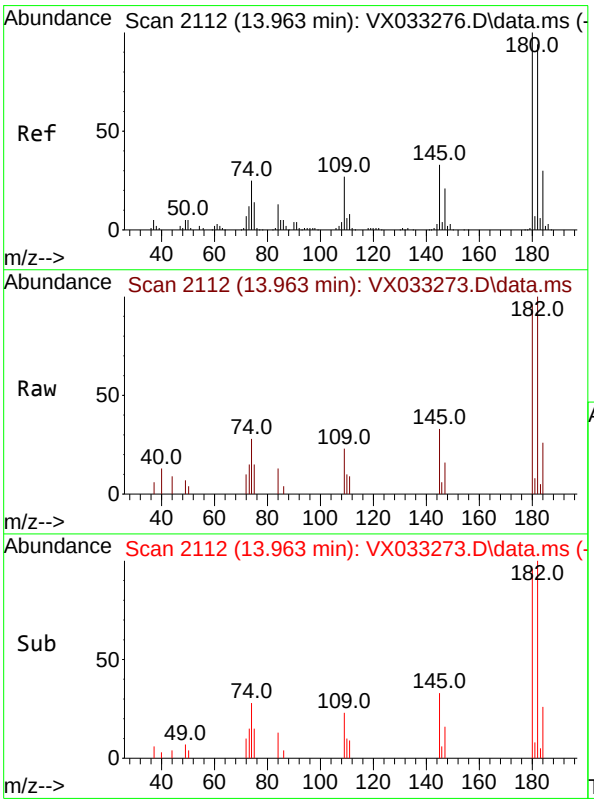
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.4 | 10.2 | 15.4 |
| 129 | 10.2 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC001

**Manual Integrations**
**APPROVED**

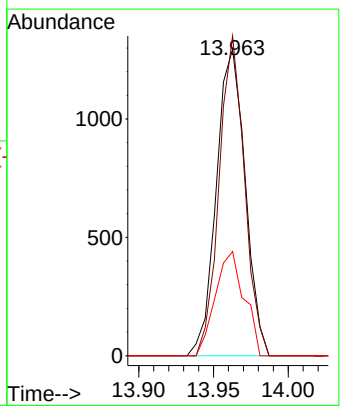
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 0.966 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033273.D
Acq: 07 Dec 2022 09:46

Tgt Ion:180 Resp: 1739

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 91.4 | 47.5 | 142.6 |
| 145 | 34.1 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033274.D
Acq On : 07 Dec 2022 10:09
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 10:46:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.556 | 168 | 144070 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 229334 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 202892 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 94568 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 5440 | 3.505 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = | 7.020%# | | |
| 35) Dibromofluoromethane | 5.391 | 113 | 5752 | 4.449 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = | 8.900%# | | |
| 50) Toluene-d8 | 8.653 | 98 | 11540 | 2.749 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = | 5.500%# | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 7812 | 4.600 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = | 9.200%# | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 5044 | 4.583 | ug/l | 97 |
| 3) Chloromethane | 1.294 | 50 | 6038 | 5.081 | ug/l | 96 |
| 4) Vinyl Chloride | 1.374 | 62 | 6564 | 4.961 | ug/l | 94 |
| 5) Bromomethane | 1.617 | 94 | 5092 | 5.190 | ug/l | 97 |
| 6) Chloroethane | 1.691 | 64 | 5540 | 5.143 | ug/l | 95 |
| 7) Trichlorofluoromethane | 1.886 | 101 | 12920 | 5.032 | ug/l | 100 |
| 8) Diethyl Ether | 2.136 | 74 | 4665 | 5.770 | ug/l | 94 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 6854 | 5.078 | ug/l | 97 |
| 10) Methyl Iodide | 2.453 | 142 | 5583 | 3.613 | ug/l | 99 |
| 11) Tert butyl alcohol | 3.007 | 59 | 7343m | 33.016 | ug/l | |
| 12) 1,1-Dichloroethene | 2.319 | 96 | 6721 | 5.346 | ug/l | 99 |
| 13) Acrolein | 2.239 | 56 | 8257m | 32.321 | ug/l | |
| 14) Allyl chloride | 2.666 | 41 | 10045 | 4.949 | ug/l | 97 |
| 15) Acrylonitrile | 3.068 | 53 | 16698 | 26.544 | ug/l | 99 |
| 16) Acetone | 2.392 | 43 | 17889 | 27.301 | ug/l | 97 |
| 17) Carbon Disulfide | 2.514 | 76 | 16275 | 4.685 | ug/l | 97 |
| 18) Methyl Acetate | 2.709 | 43 | 9028 | 4.977 | ug/l | 96 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 21635 | 4.962 | ug/l | 98 |
| 20) Methylene Chloride | 2.788 | 84 | 7429 | 4.706 | ug/l | 97 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 7168 | 4.984 | ug/l | 97 |
| 22) Diisopropyl ether | 3.763 | 45 | 21433 | 4.849 | ug/l | 94 |
| 23) Vinyl Acetate | 3.727 | 43 | 78754 | 22.764 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.605 | 63 | 12949 | 5.120 | ug/l | 98 |
| 25) 2-Butanone | 4.568 | 43 | 23979 | 26.540 | ug/l | 98 |
| 26) 2,2-Dichloropropane | 4.483 | 77 | 9330 | 4.588 | ug/l | 99 |
| 27) cis-1,2-Dichloroethene | 4.495 | 96 | 8066 | 4.936 | ug/l | 100 |
| 28) Bromochloromethane | 4.903 | 49 | 5414 | 4.872 | ug/l # | 99 |
| 29) Tetrahydrofuran | 5.019 | 42 | 15358 | 26.788 | ug/l | 98 |
| 30) Chloroform | 5.099 | 83 | 14271 | 5.038 | ug/l | 99 |
| 31) Cyclohexane | 5.476 | 56 | 10895 | 4.793 | ug/l | 96 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 12264 | 4.834 | ug/l | 97 |
| 36) 1,1-Dichloropropene | 5.690 | 75 | 9627 | 4.657 | ug/l | 98 |
| 37) Ethyl Acetate | 4.714 | 43 | 8802 | 4.880 | ug/l | 97 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 11021 | 4.806 | ug/l | 93 |
| 39) Methylcyclohexane | 7.379 | 83 | 10958 | 4.646 | ug/l | 95 |
| 40) Benzene | 6.043 | 78 | 28636 | 4.940 | ug/l | 98 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033274.D
Acq On : 07 Dec 2022 10:09
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 10:46:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.922 | 41 | 4794 | 4.724 | ug/l | | 97 |
| 42) 1,2-Dichloroethane | 6.092 | 62 | 11537 | 4.944 | ug/l | | 99 |
| 43) Isopropyl Acetate | 6.348 | 43 | 13843 | 4.641 | ug/l | | 98 |
| 44) Trichloroethene | 7.129 | 130 | 7732 | 4.754 | ug/l | | 99 |
| 45) 1,2-Dichloropropane | 7.433 | 63 | 7318 | 5.109 | ug/l | | 96 |
| 46) Dibromomethane | 7.586 | 93 | 5641 | 5.047 | ug/l | | 99 |
| 47) Bromodichloromethane | 7.824 | 83 | 10273 | 4.757 | ug/l | | 100 |
| 48) Methyl methacrylate | 7.696 | 41 | 7089 | 4.617 | ug/l | | 97 |
| 49) 1,4-Dioxane | 7.708 | 88 | 3321 | 117.505 | ug/l | # | 83 |
| 51) 4-Methyl-2-Pentanone | 8.573 | 43 | 46309 | 25.160 | ug/l | | 98 |
| 52) Toluene | 8.720 | 92 | 18018 | 4.725 | ug/l | | 100 |
| 53) t-1,3-Dichloropropene | 8.982 | 75 | 8954m | 4.224 | ug/l | | |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 10463 | 4.494 | ug/l | | 99 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 7396 | 4.764 | ug/l | | 94 |
| 56) Ethyl methacrylate | 9.116 | 69 | 9861 | 4.610 | ug/l | | 97 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 12377 | 4.938 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 24237 | 23.860 | ug/l | | 99 |
| 59) 2-Hexanone | 9.433 | 43 | 33348 | 24.527 | ug/l | | 98 |
| 60) Dibromochloromethane | 9.525 | 129 | 8098 | 4.845 | ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 7913 | 4.829 | ug/l | | 96 |
| 64) Tetrachloroethene | 9.275 | 164 | 7306 | 5.087 | ug/l | | 93 |
| 65) Chlorobenzene | 10.079 | 112 | 19809 | 4.897 | ug/l | | 96 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 7253 | 4.894 | ug/l | | 98 |
| 67) Ethyl Benzene | 10.195 | 91 | 35174 | 4.902 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.305 | 106 | 26854 | 9.557 | ug/l | | 99 |
| 69) o-Xylene | 10.640 | 106 | 13235 | 4.868 | ug/l | | 94 |
| 70) Styrene | 10.659 | 104 | 21152 | 4.756 | ug/l | | 98 |
| 71) Bromoform | 10.799 | 173 | 5553 | 4.886 | ug/l | # | 98 |
| 73) Isopropylbenzene | 10.963 | 105 | 34409 | 5.092 | ug/l | | 99 |
| 74) N-amyl acetate | 10.841 | 43 | 10497 | 4.566 | ug/l | | 98 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 10892 | 5.340 | ug/l | | 97 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 9183m | 5.127 | ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 8678 | 5.222 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 37347 | 4.834 | ug/l | | 100 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 23595 | 5.028 | ug/l | | 100 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 28056 | 4.942 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 2404 | 4.363 | ug/l | # | 84 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 26803 | 4.874 | ug/l | | 99 |
| 83) tert-Butylbenzene | 11.713 | 119 | 27792 | 4.918 | ug/l | | 99 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 27785 | 4.908 | ug/l | | 100 |
| 85) sec-Butylbenzene | 11.890 | 105 | 32333 | 4.783 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 27023 | 4.718 | ug/l | | 98 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 15307 | 4.910 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 15903 | 4.981 | ug/l | | 96 |
| 89) n-Butylbenzene | 12.335 | 91 | 21376 | 4.332 | ug/l | | 97 |
| 90) Hexachloroethane | 12.542 | 117 | 4506 | 4.788 | ug/l | | 99 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 15312 | 5.050 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 2190 | 5.382 | ug/l | | 95 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 8724 | 4.667 | ug/l | | 99 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 3692 | 4.477 | ug/l | | 99 |
| 95) Naphthalene | 13.780 | 128 | 28600 | 4.730 | ug/l | | 99 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 9081 | 4.845 | ug/l | | 98 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033274.D
Acq On : 07 Dec 2022 10:09
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 10:46:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

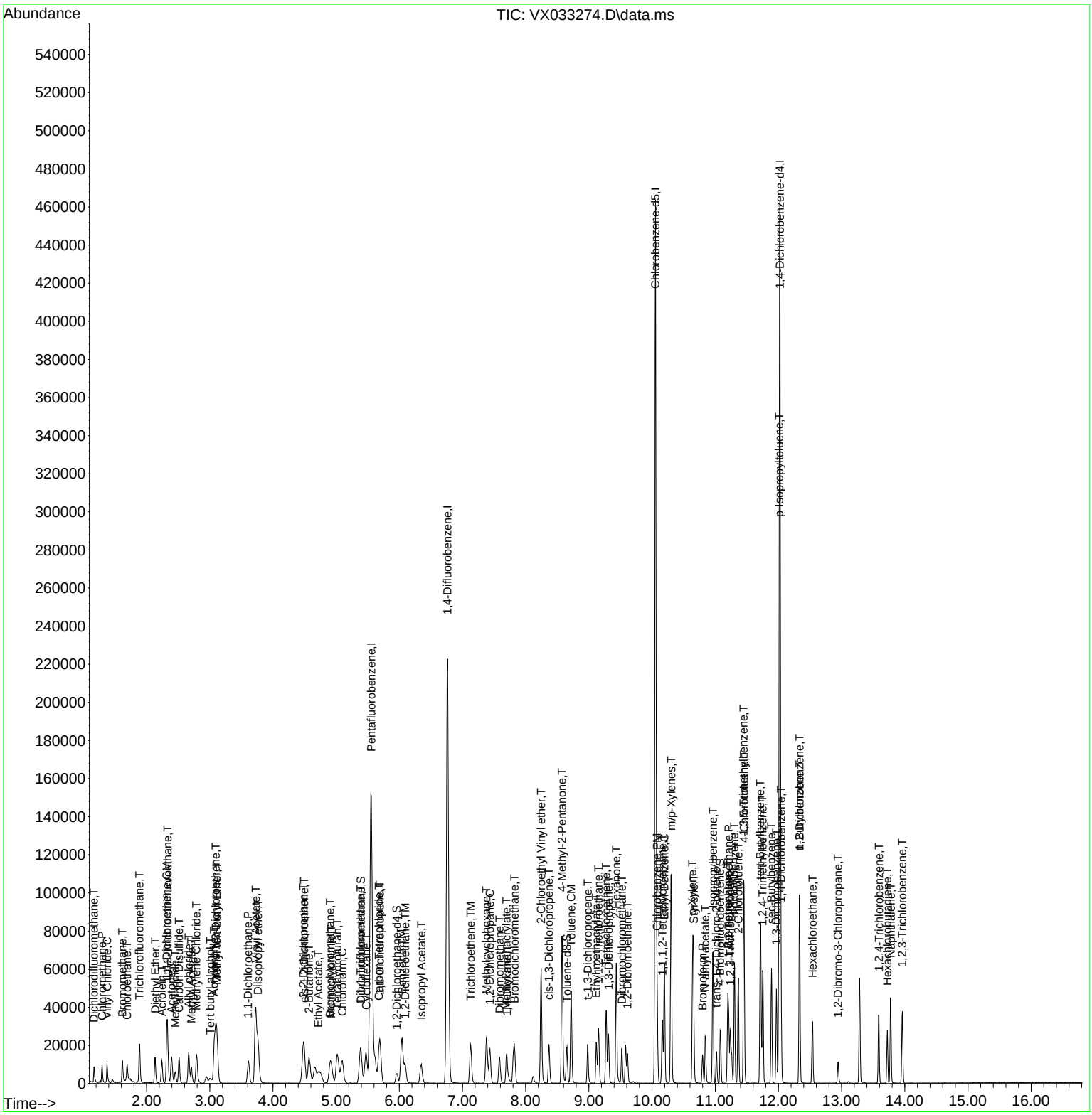
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033274.D
Acq On : 07 Dec 2022 10:09
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

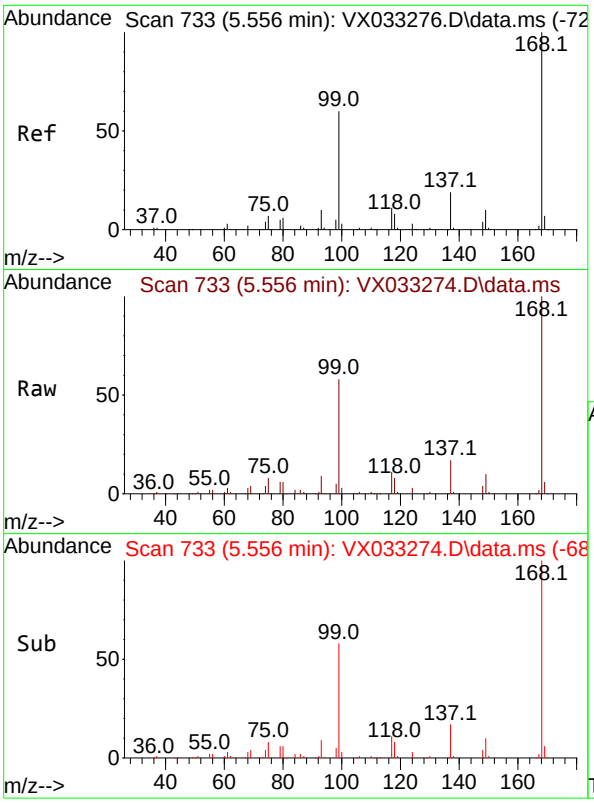
Quant Time: Dec 07 10:46:23 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

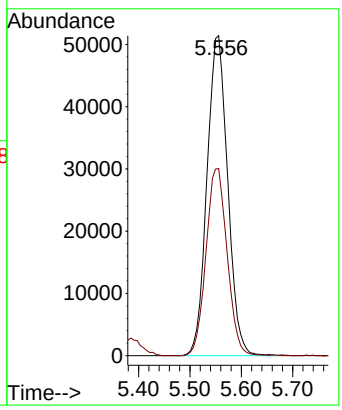





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.556 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:168 Resp: 14407

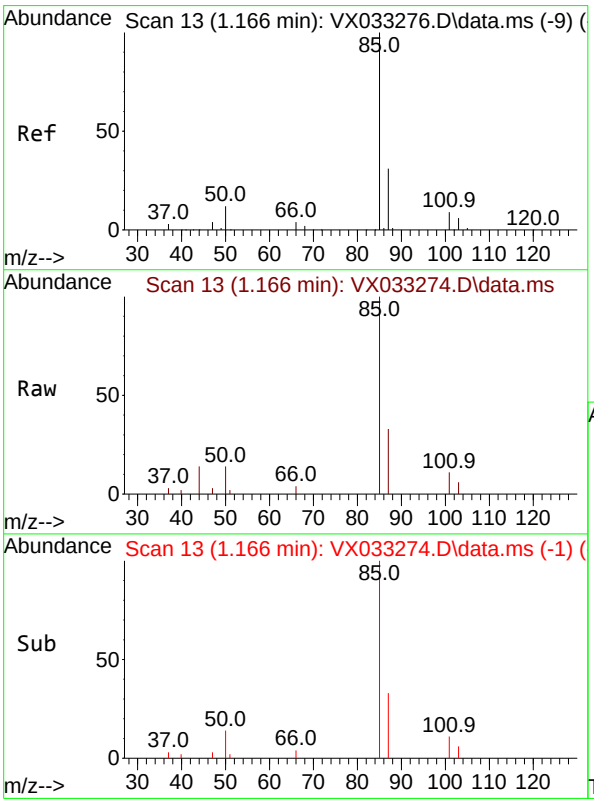
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 58.5 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

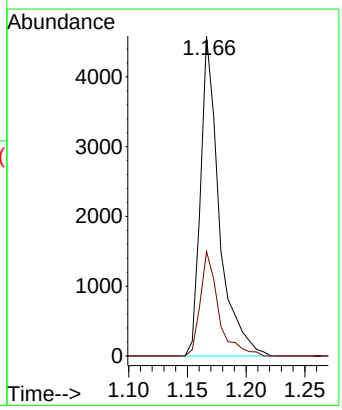
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

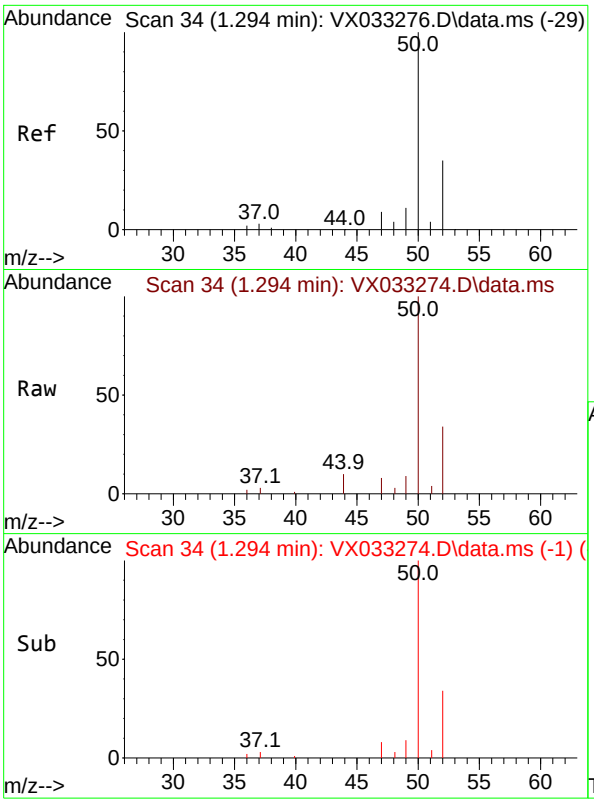



#2
Dichlorodifluoromethane
Concen: 4.583 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 85 Resp: 5044

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.7 | 15.6 | 46.7 |

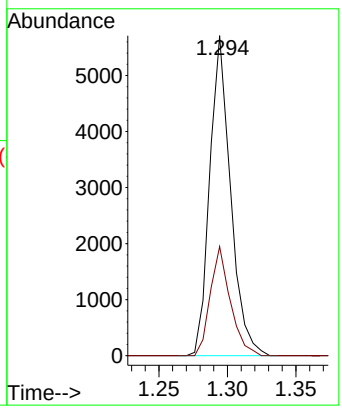





#3
Chloromethane
Concen: 5.081 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 50 Resp: 603

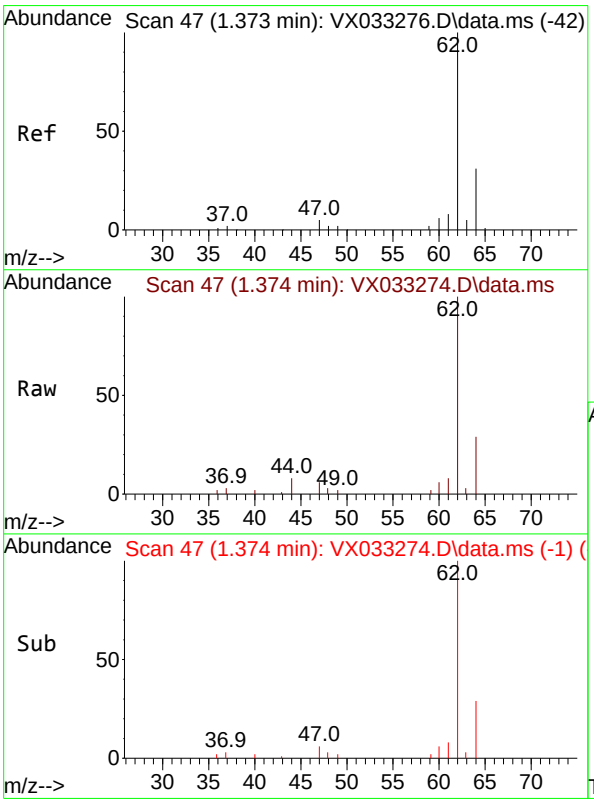
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 34.1 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

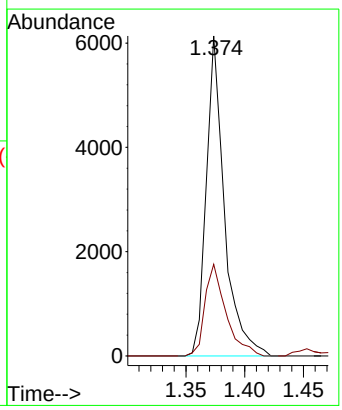
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

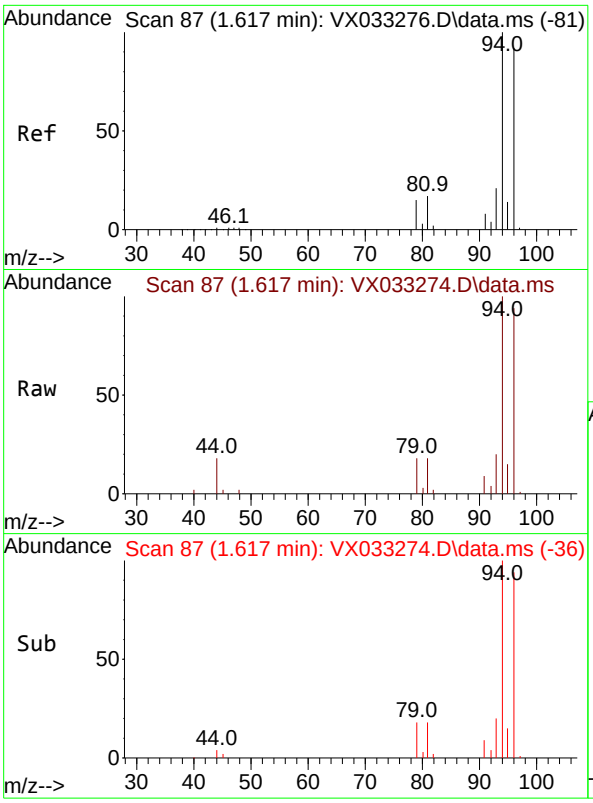



#4
Vinyl Chloride
Concen: 4.961 ug/l
RT: 1.374 min Scan# 47
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 62 Resp: 6564

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 28.6 | 25.8 | 38.6 |

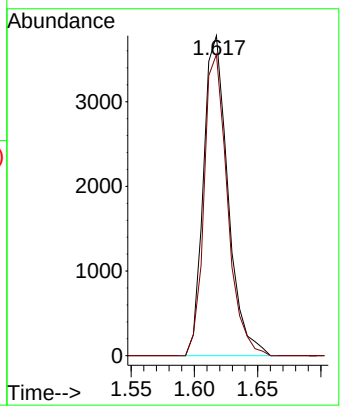





#5
Bromomethane
Concen: 5.190 ug/l
RT: 1.617 min Scan# 8
Delta R.T. 0.012 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 94 Resp: 509

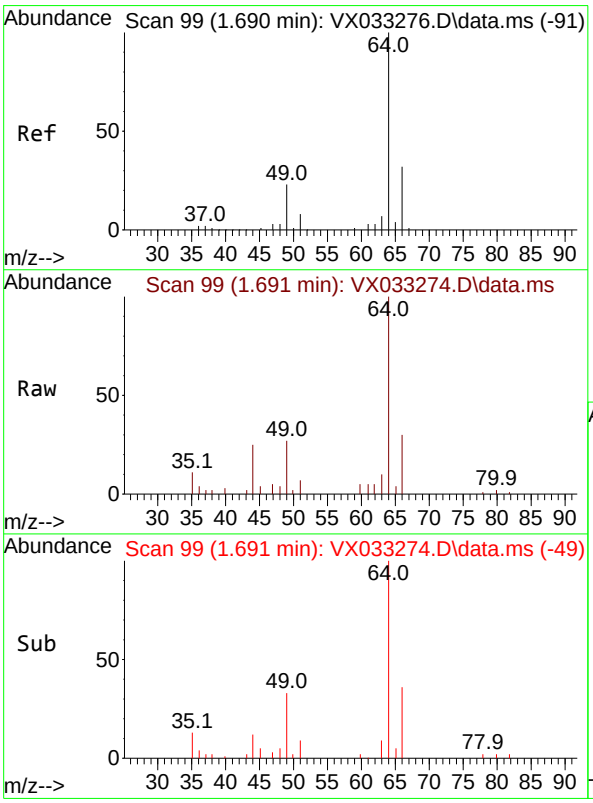
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 94.2 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

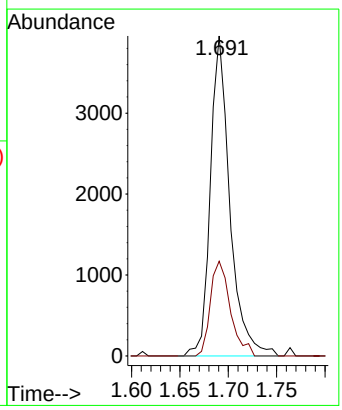
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

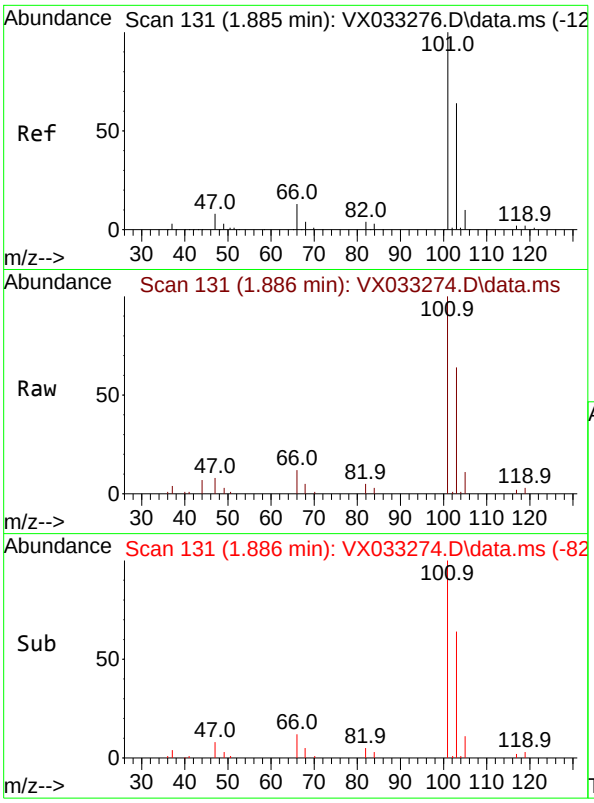



#6
Chloroethane
Concen: 5.143 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 64 Resp: 5540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 29.6 | 26.0 | 39.0 |

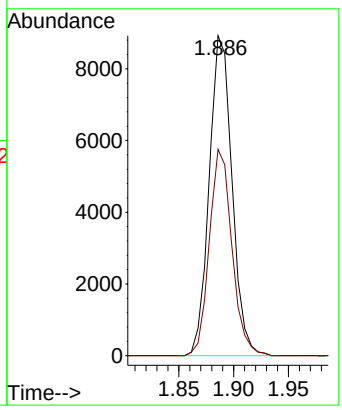





#7
Trichlorofluoromethane
Concen: 5.032 ug/l
RT: 1.886 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:101 Resp: 1292

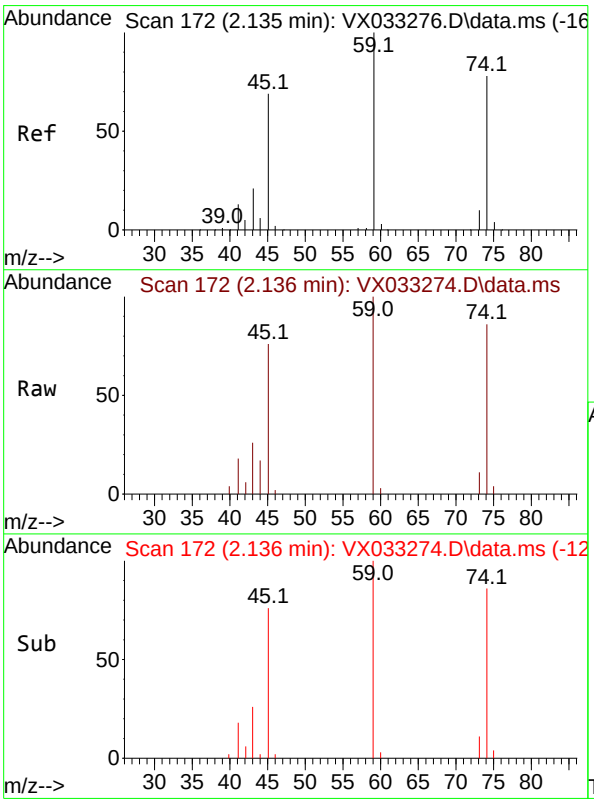
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.4 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

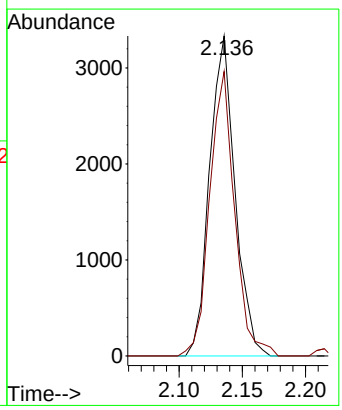
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

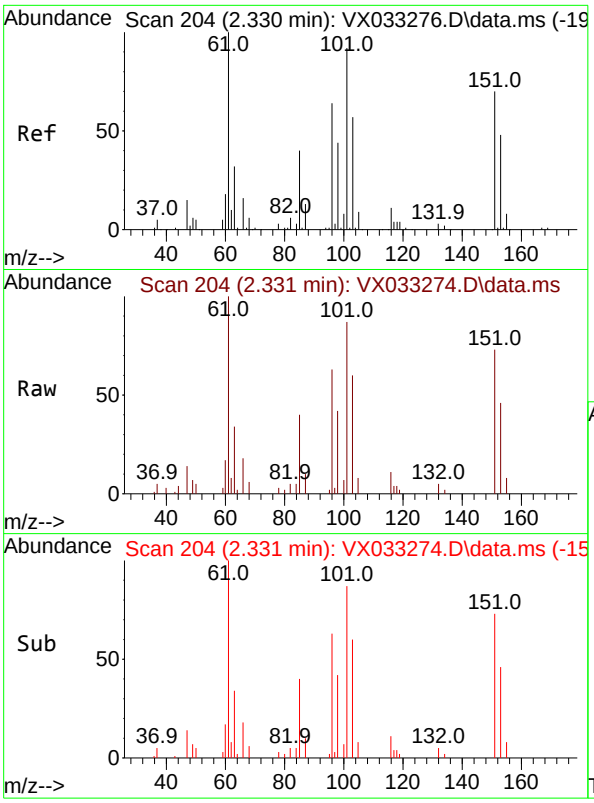



#8
Diethyl Ether
Concen: 5.770 ug/l
RT: 2.136 min Scan# 172
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 74 Resp: 4665

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 87.1 | 46.6 | 139.7 |






#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.078 ug/l
RT: 2.331 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:101 Resp: 685

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 42.7 | 37.0 | 55.4 |
| 151 | 79.5 | 64.4 | 96.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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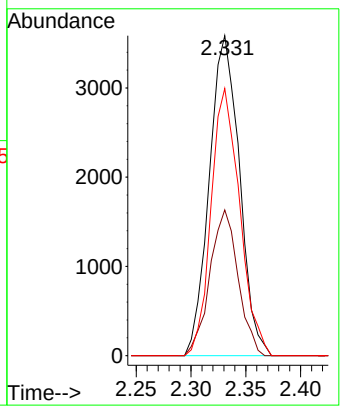
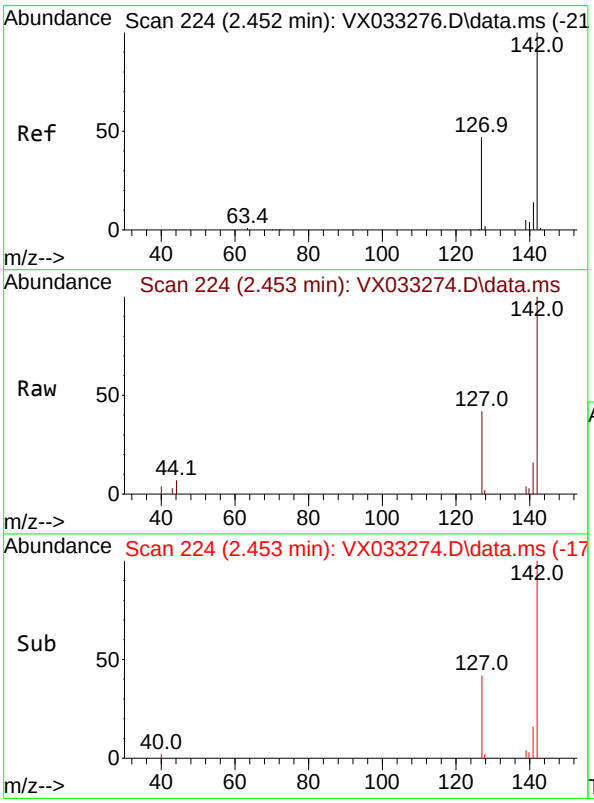
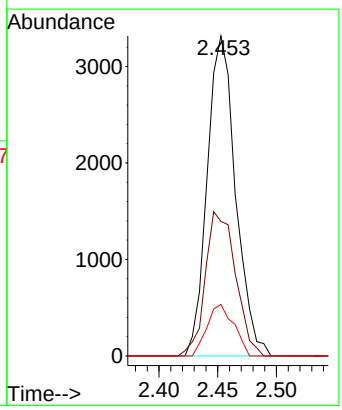


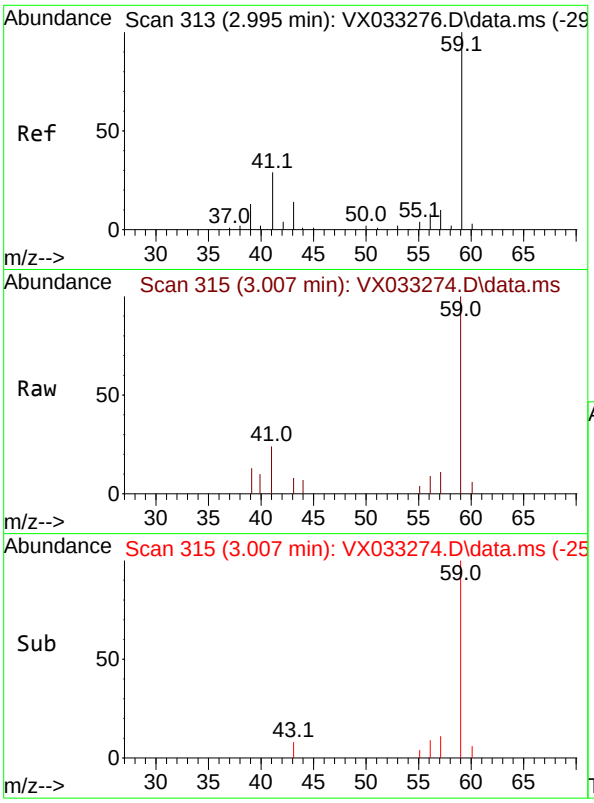




#10
Methyl Iodide
Concen: 3.613 ug/l
RT: 2.453 min Scan# 224
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:142 Resp: 5583

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.8 | 38.6 | 57.8 |
| 141 | 15.1 | 11.4 | 17.2 |

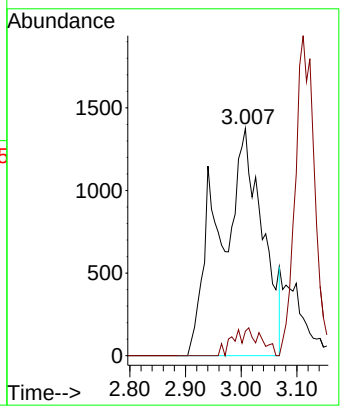





#11
Tert butyl alcohol
Concen: 33.016 ug/l m
RT: 3.007 min Scan# 3
Delta R.T. 0.042 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 59 Resp: 734

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 0.0 | 8.2 | 12.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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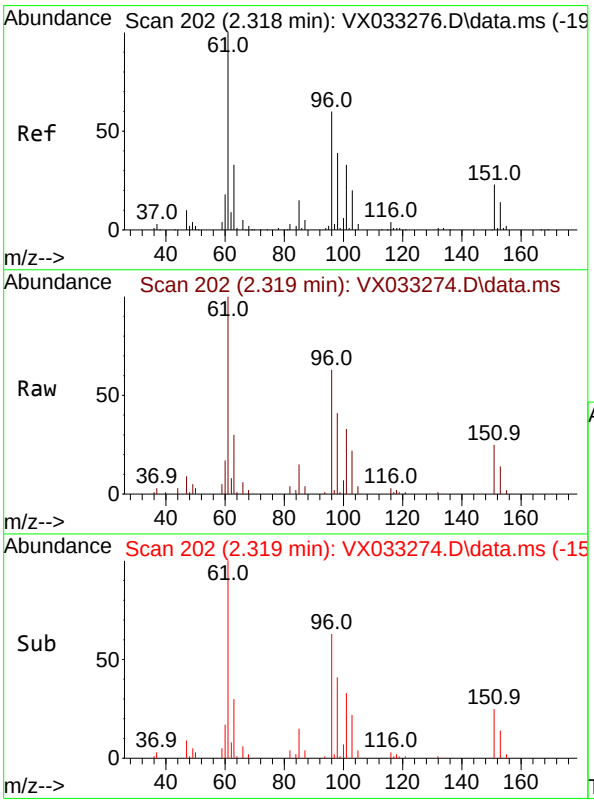
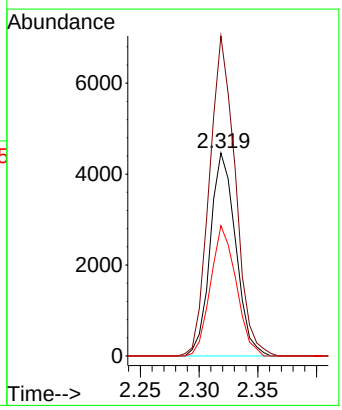
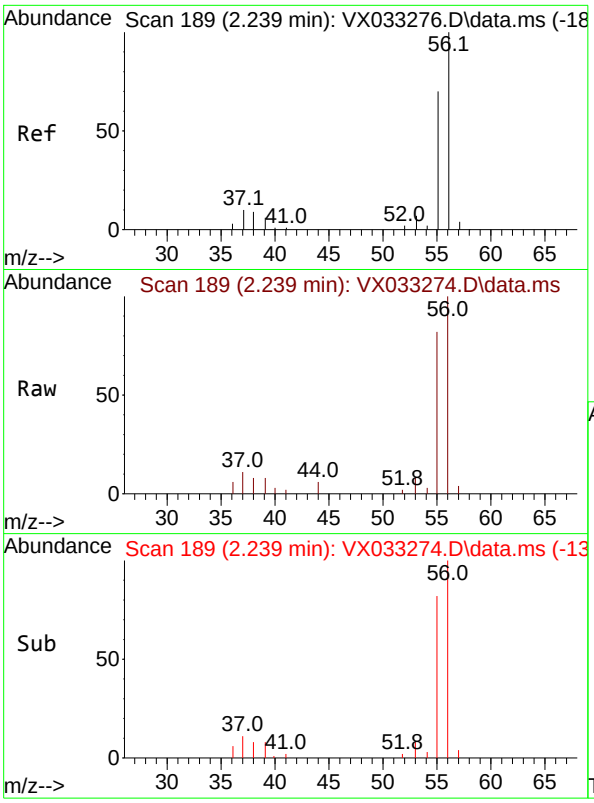



#12
1,1-Dichloroethene
Concen: 5.346 ug/l
RT: 2.319 min Scan# 202
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 96 Resp: 6721

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 157.6 | 125.1 | 187.7 |
| 98 | 64.2 | 50.6 | 76.0 |

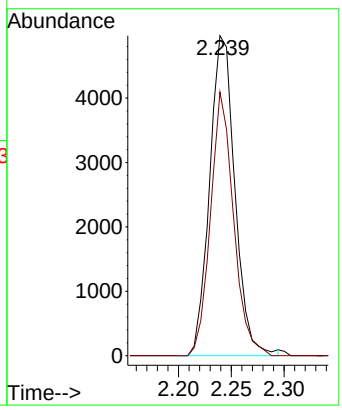





#13
Acrolein
Concen: 32.321 ug/l m
RT: 2.239 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 56 Resp: 825

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 75.3 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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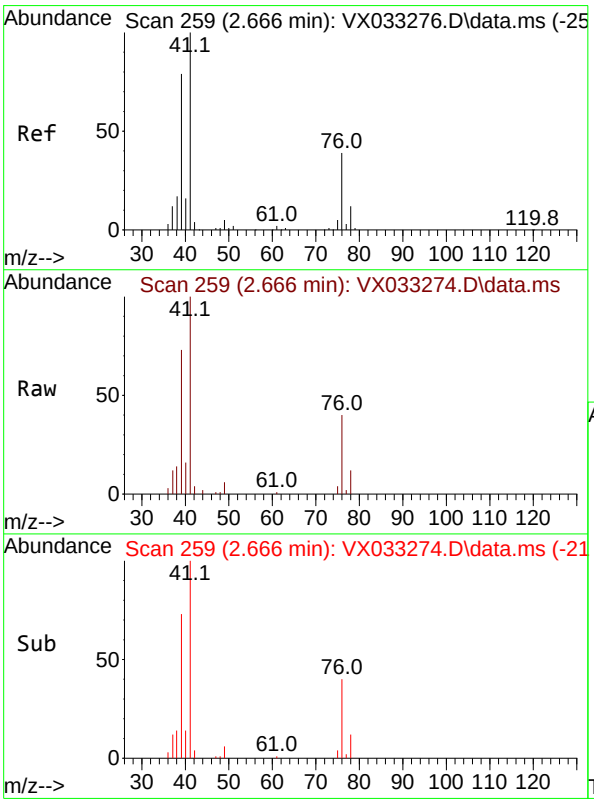
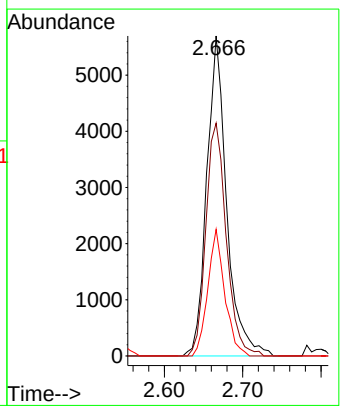
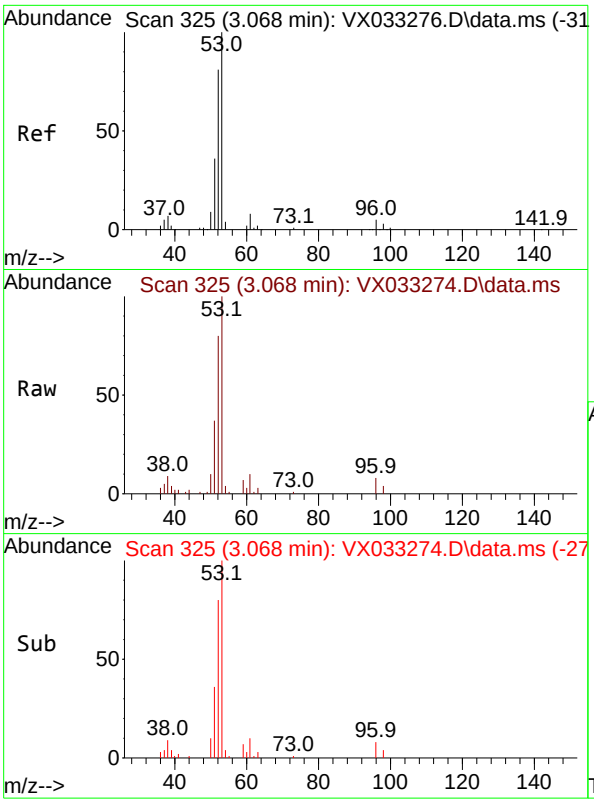



#14
Allyl chloride
Concen: 4.949 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 41 Resp: 10045

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 74.6 | 61.4 | 92.2 |
| 76 | 33.8 | 29.2 | 43.8 |

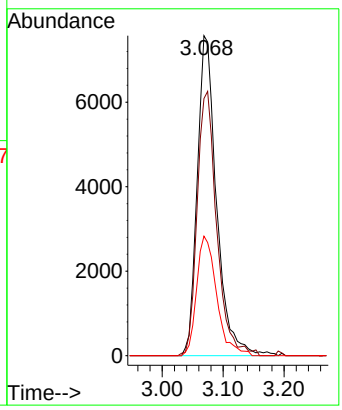





#15
Acrylonitrile
Concen: 26.544 ug/l
RT: 3.068 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 53 Resp: 1669

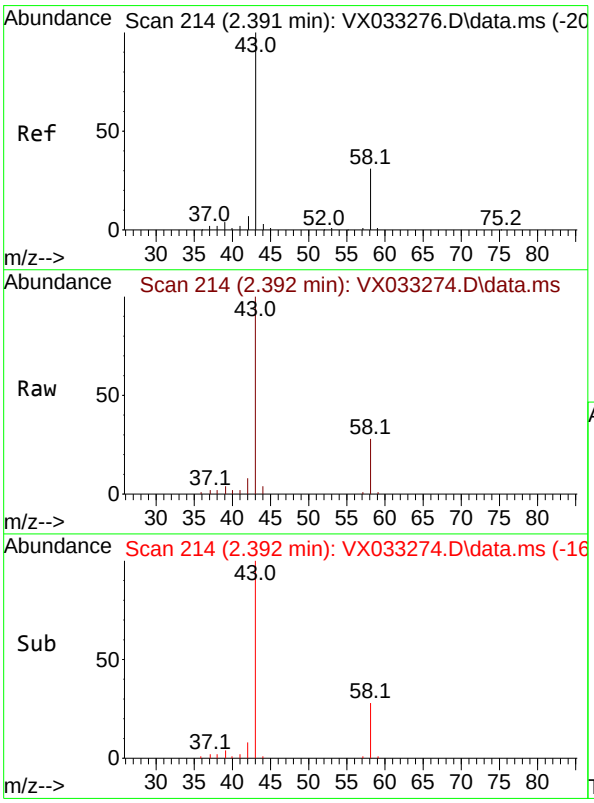
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 83.6 | 67.4 | 101.0 |
| 51 | 38.9 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

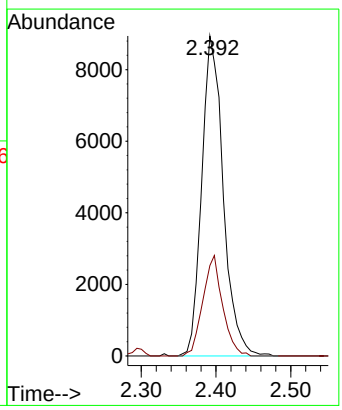
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

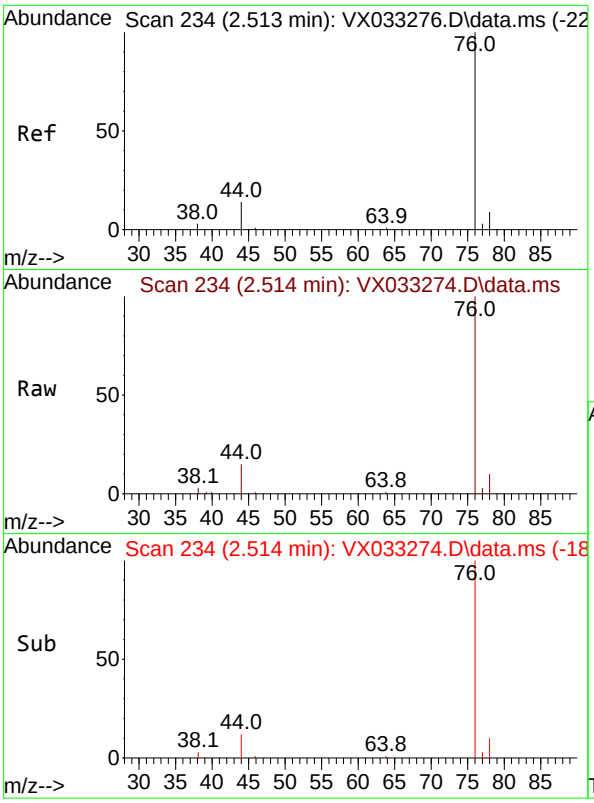



#16
Acetone
Concen: 27.301 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.012 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 17889

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 28.2 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 4.685 ug/l
RT: 2.514 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 76 Resp: 1627

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 10.4 | 7.5 | 11.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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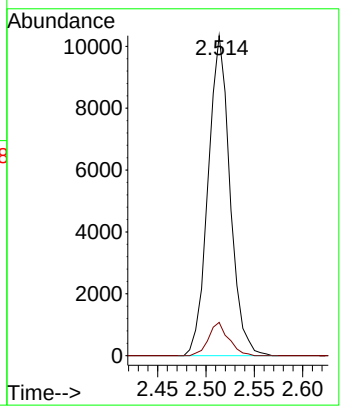
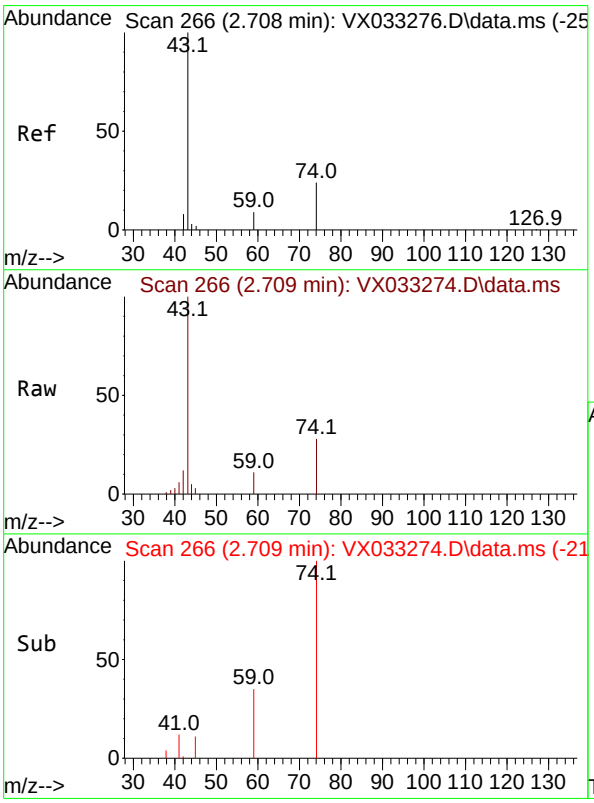
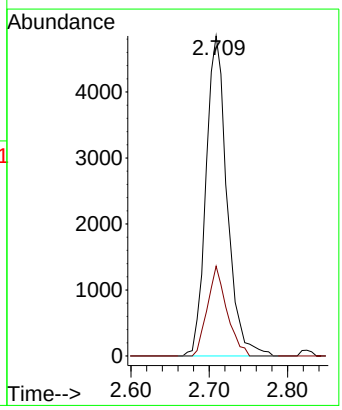


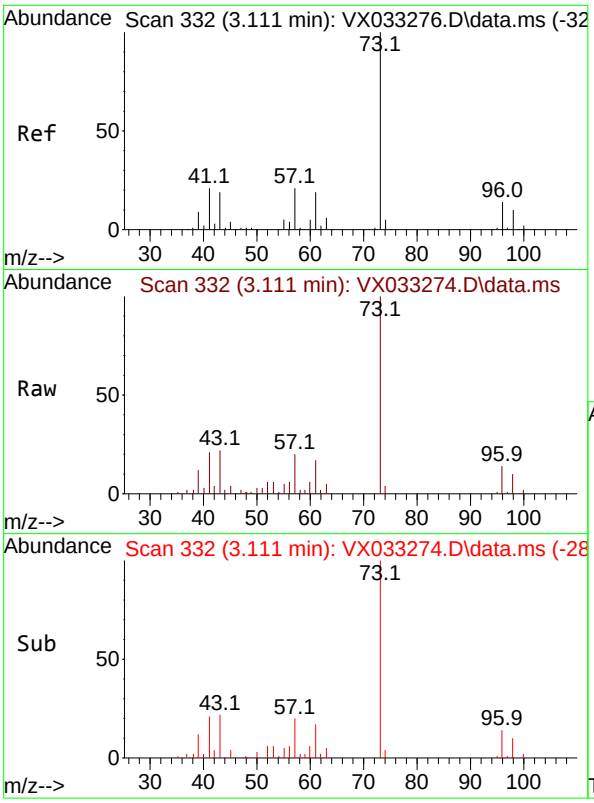




#18
Methyl Acetate
Concen: 4.977 ug/l
RT: 2.709 min Scan# 266
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 9028

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 26.1 | 19.4 | 29.0 |

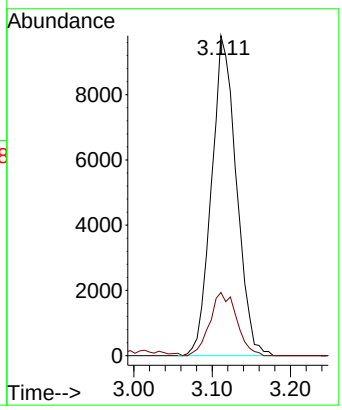





#19
Methyl tert-butyl Ether
Concen: 4.962 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 73 Resp: 2163

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 19.7 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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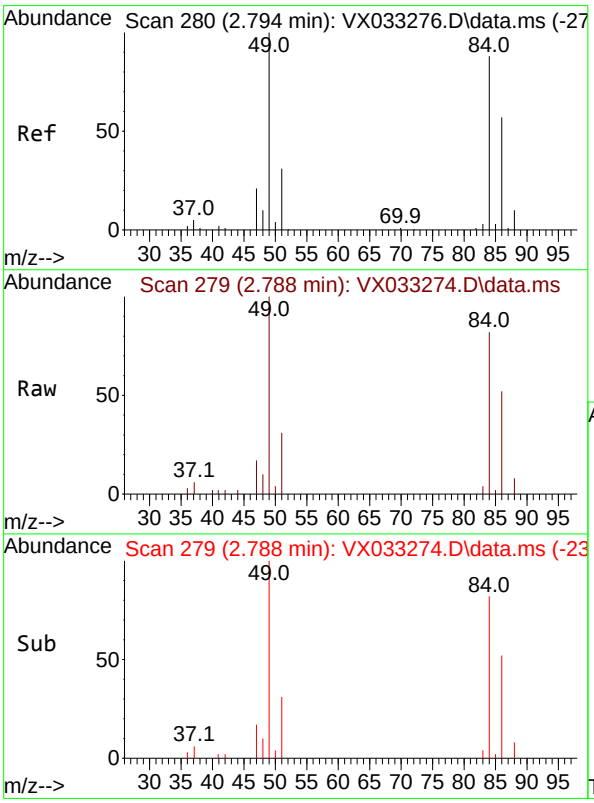
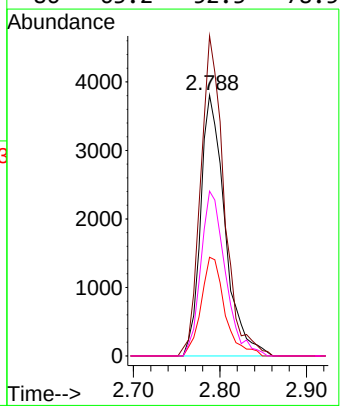
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

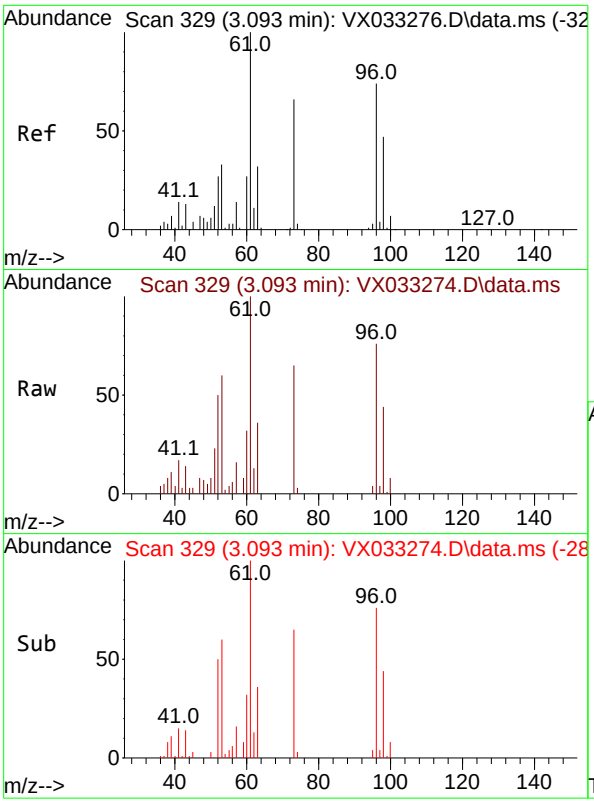



#20
Methylene Chloride
Concen: 4.706 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 84 Resp: 7429

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 122.7 | 101.0 | 151.6 |
| 51 | 37.8 | 31.1 | 46.7 |
| 86 | 63.2 | 52.3 | 78.5 |

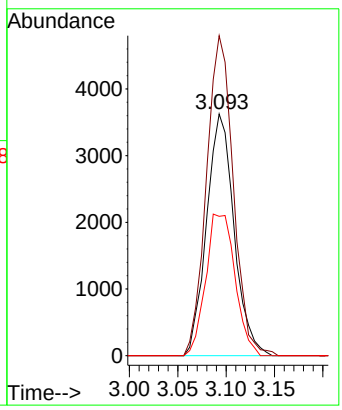





#21
trans-1,2-Dichloroethene
Concen: 4.984 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 96 Resp: 716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 132.4 | 106.6 | 160.0 |
| 98 | 57.7 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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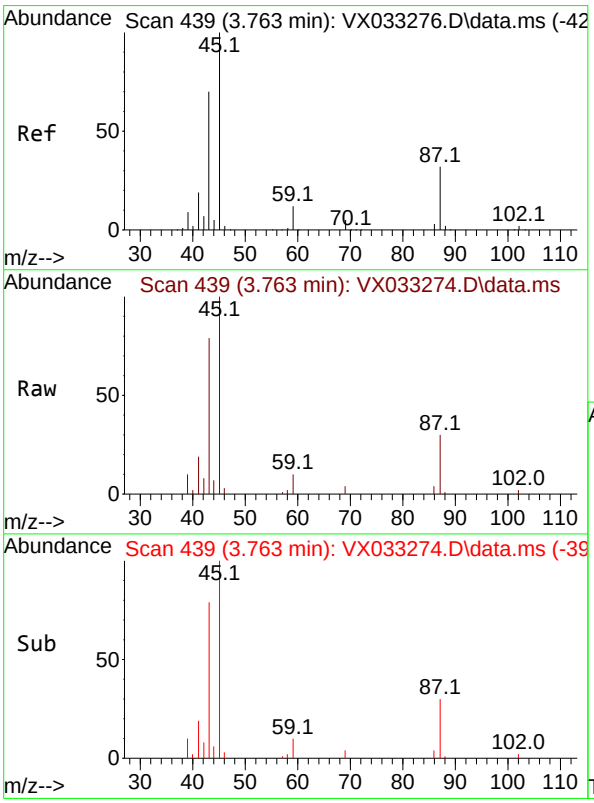
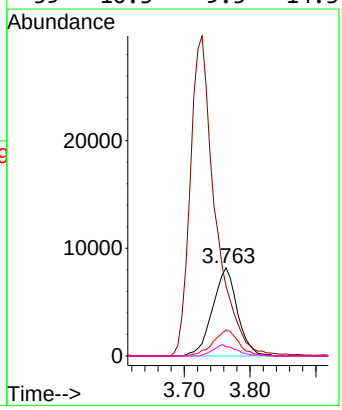
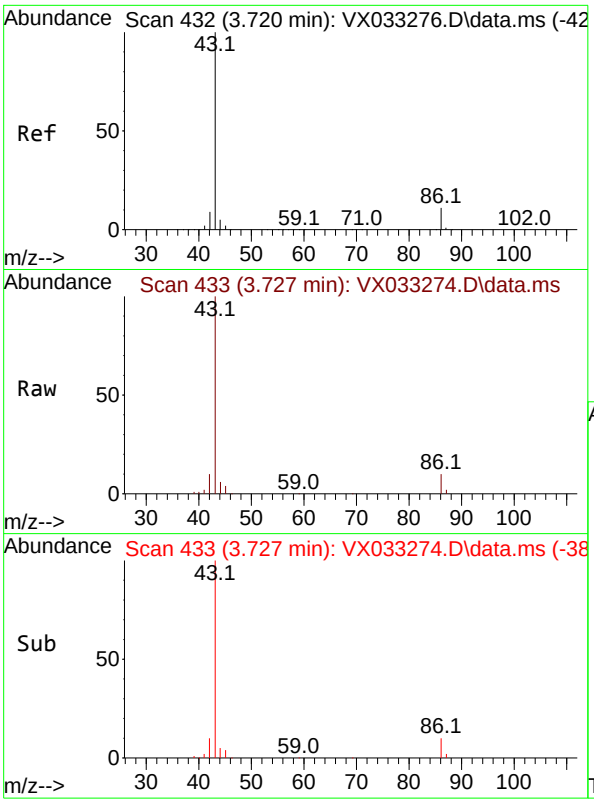



#22
Diisopropyl ether
Concen: 4.849 ug/l
RT: 3.763 min Scan# 439
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 45 Resp: 21433

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 76.9 | 56.4 | 84.6 |
| 87 | 29.5 | 24.4 | 36.6 |
| 59 | 10.3 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 22.764 ug/l
RT: 3.727 min Scan# 4
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

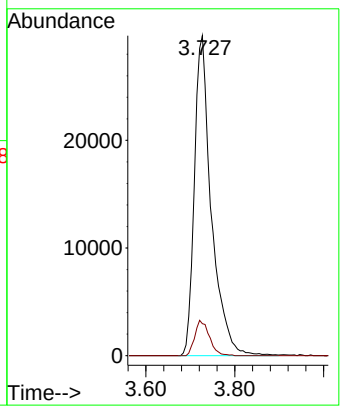
Tgt Ion: 43 Resp: 7875

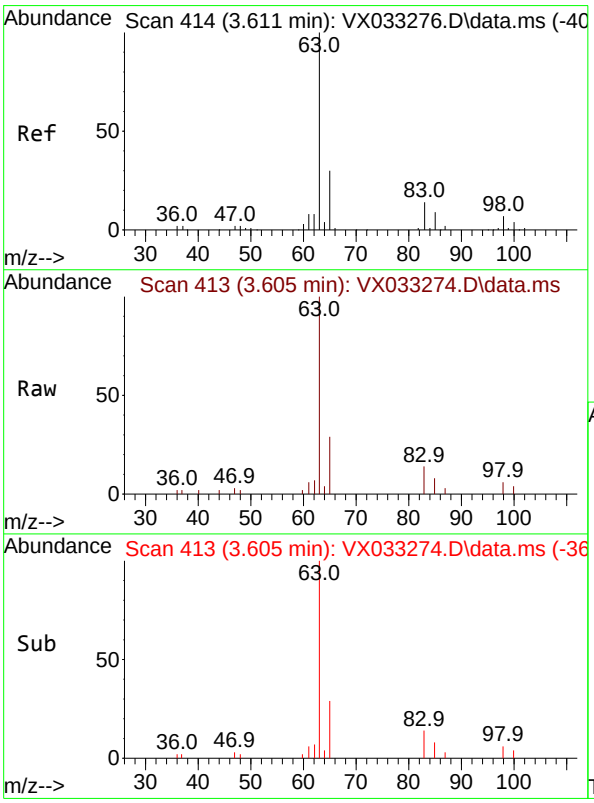
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 10.0 | 8.6 | 12.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

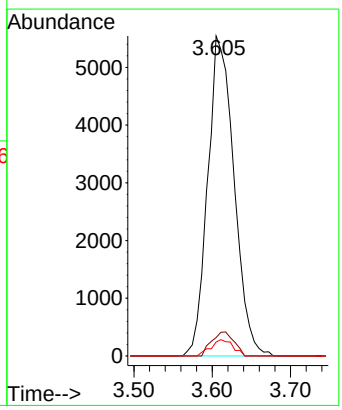


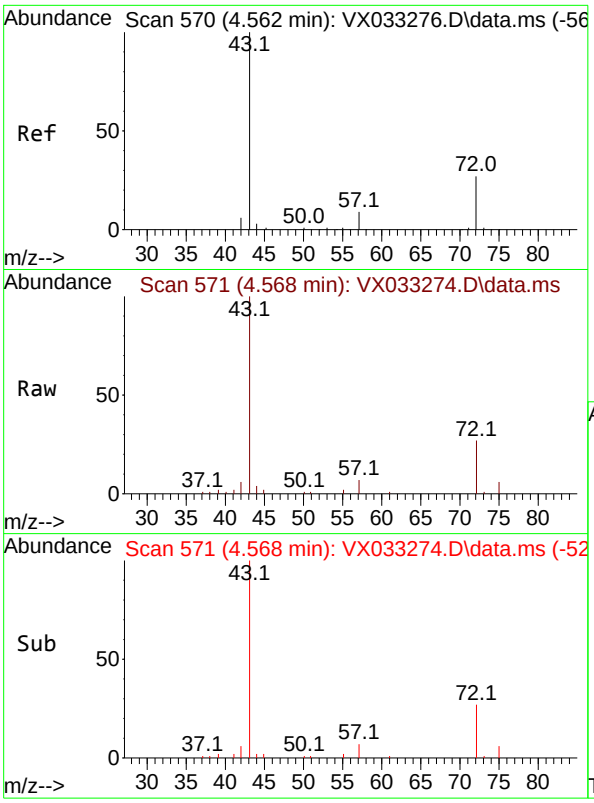




#24
1,1-Dichloroethane
Concen: 5.120 ug/l
RT: 3.605 min Scan# 413
Delta R.T. -0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 63 Resp: 12949

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 5.8 | 3.5 | 10.4 |
| 100 | 4.4 | 2.3 | 6.8 |

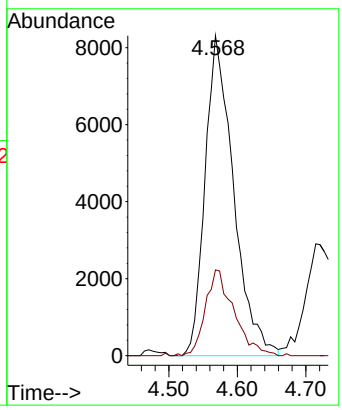





#25
2-Butanone
Concen: 26.540 ug/l
RT: 4.568 min Scan# 5
Delta R.T. 0.012 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 2397

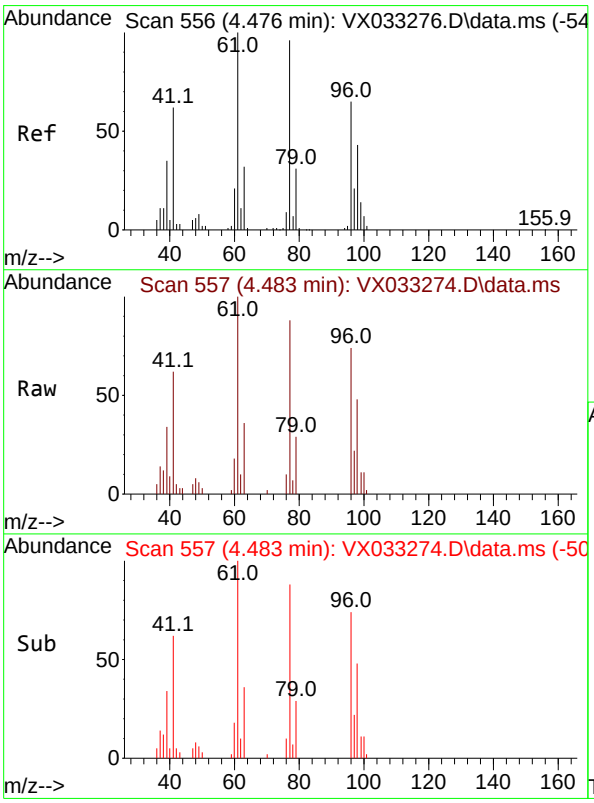
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 26.8 | 22.2 | 33.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

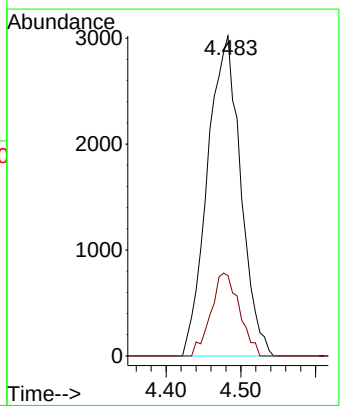
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

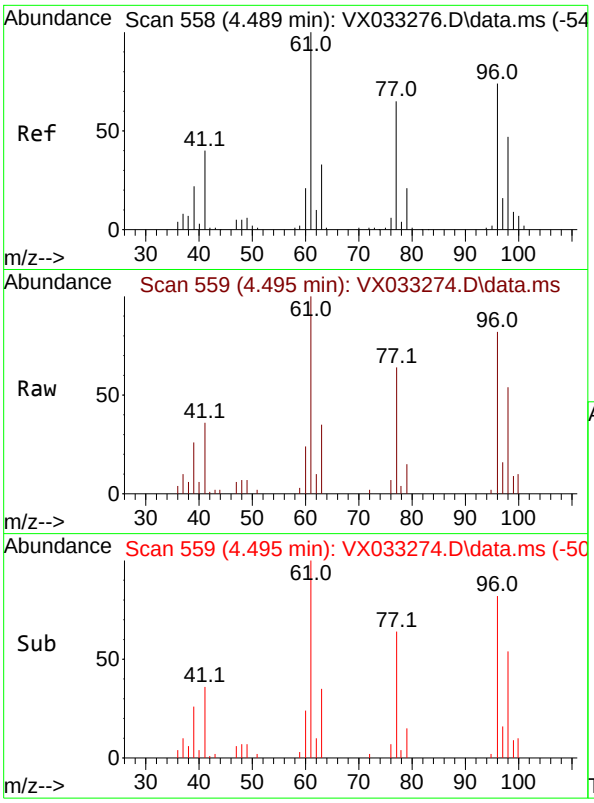



#26
2,2-Dichloropropane
Concen: 4.588 ug/l
RT: 4.483 min Scan# 557
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 77 Resp: 9330

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 22.2 | 11.4 | 34.1 |






#27
cis-1,2-Dichloroethene
Concen: 4.936 ug/l
RT: 4.495 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 96 Resp: 806

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 143.6 | 0.0 | 286.0 |
| 98 | 64.8 | 0.0 | 129.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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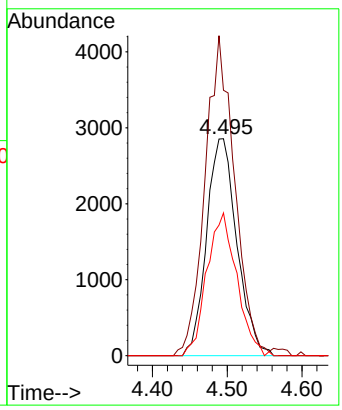
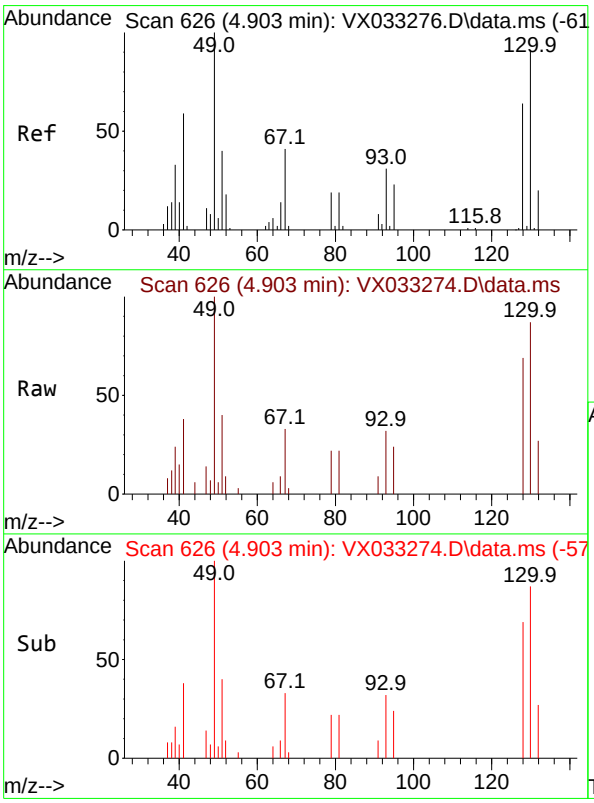
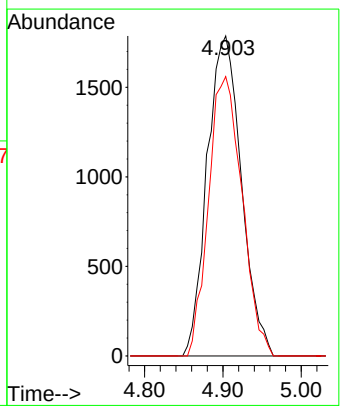


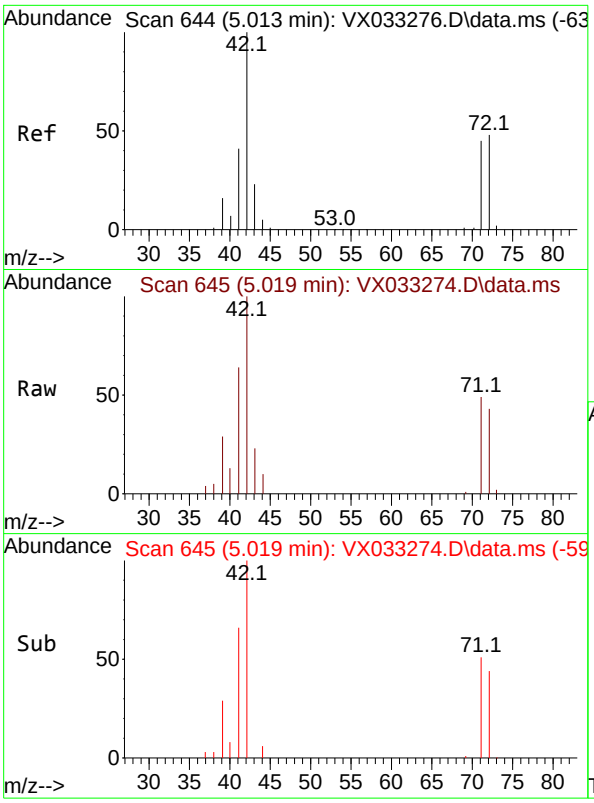




#28
Bromochloromethane
Concen: 4.872 ug/l
RT: 4.903 min Scan# 626
Delta R.T. -0.001 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 49 Resp: 5414

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 0.0 | 0.0 | 3.8 |
| 130 | 85.6 | 67.5 | 101.3 |






#29
Tetrahydrofuran
Concen: 26.788 ug/l
RT: 5.019 min Scan# 64
Delta R.T. 0.018 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 42 Resp: 1535

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 45.6 | 37.6 | 56.4 |
| 71 | 42.4 | 34.7 | 52.1 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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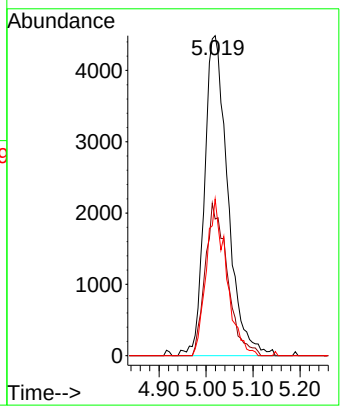
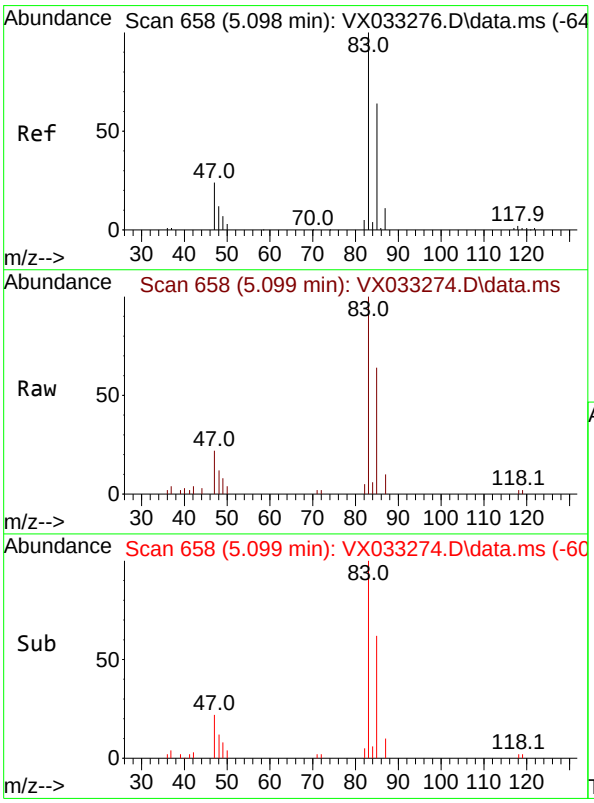
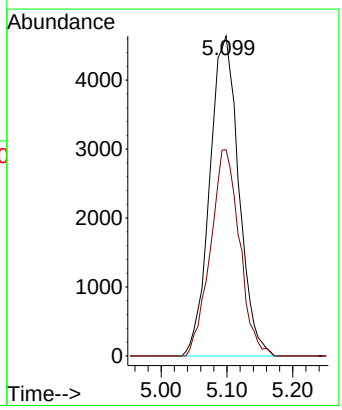


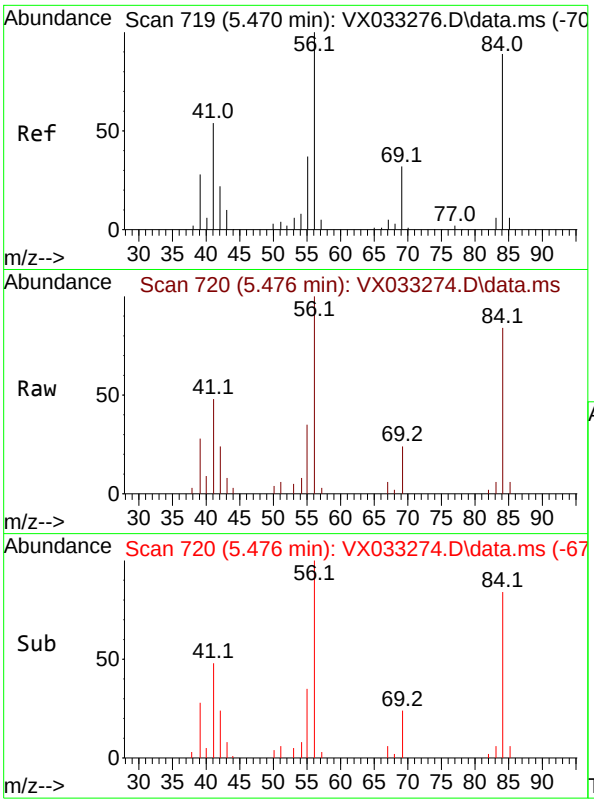




#30
Chloroform
Concen: 5.038 ug/l
RT: 5.099 min Scan# 658
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 83 Resp: 14271

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.5 | 51.1 | 76.7 |

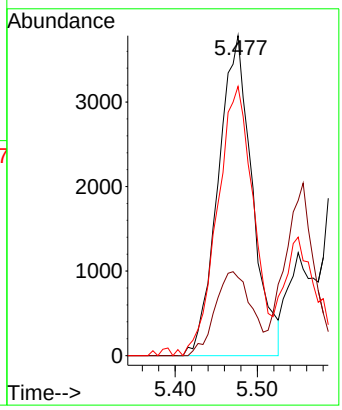





#31
Cyclohexane
Concen: 4.793 ug/l
RT: 5.476 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 56 Resp: 1089

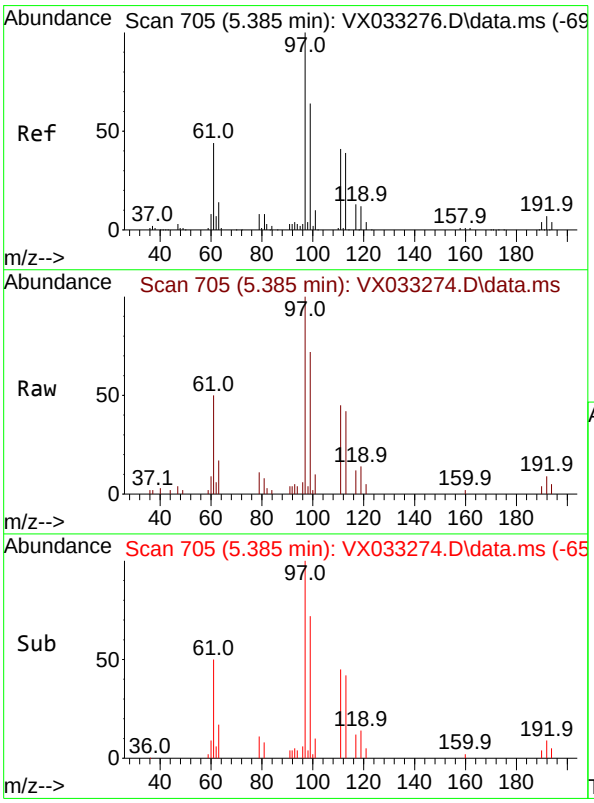
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 24.5 | 24.1 | 36.1 |
| 84 | 82.3 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

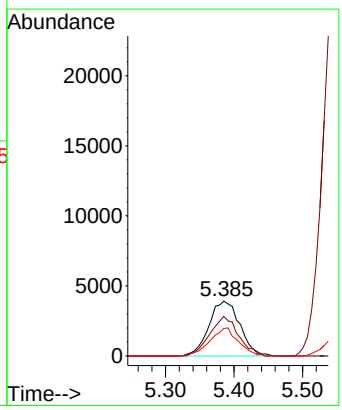
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

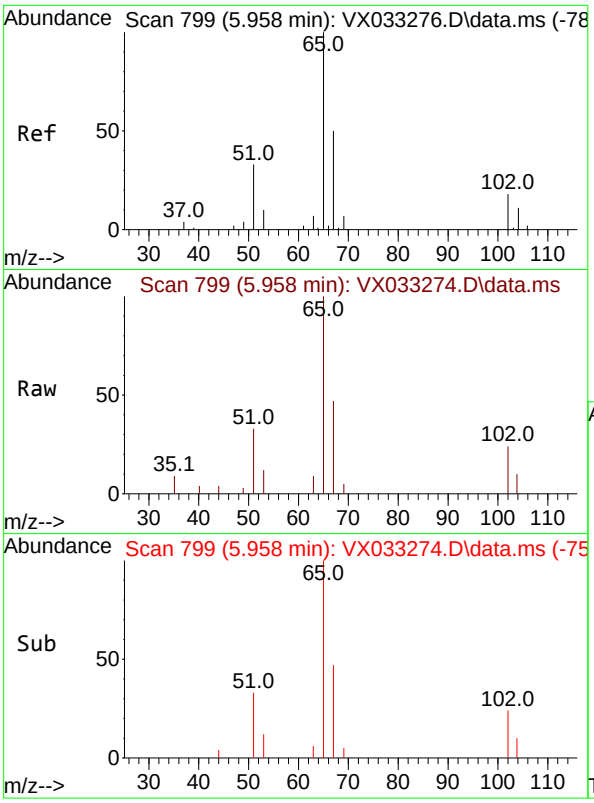



#32
1,1,1-Trichloroethane
Concen: 4.834 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 97 Resp: 12264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 66.8 | 51.4 | 77.0 |
| 61 | 46.3 | 35.2 | 52.8 |

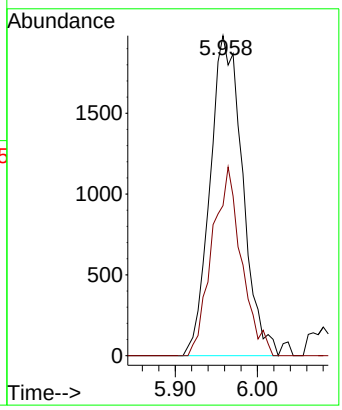





#33
1,2-Dichloroethane-d4
Concen: 3.505 ug/l
RT: 5.958 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 65 Resp: 544

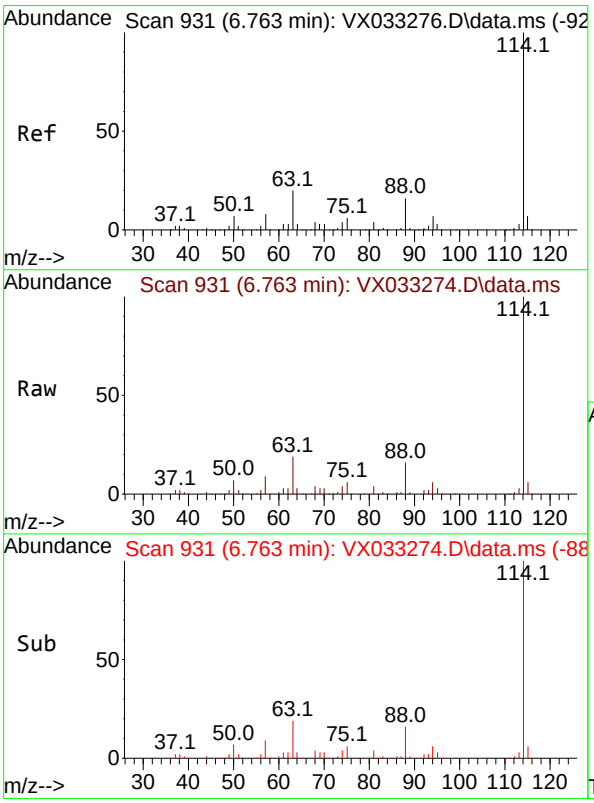
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 53.5 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

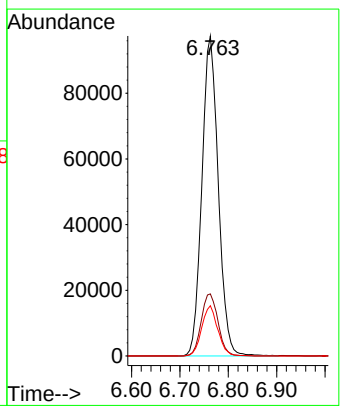
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

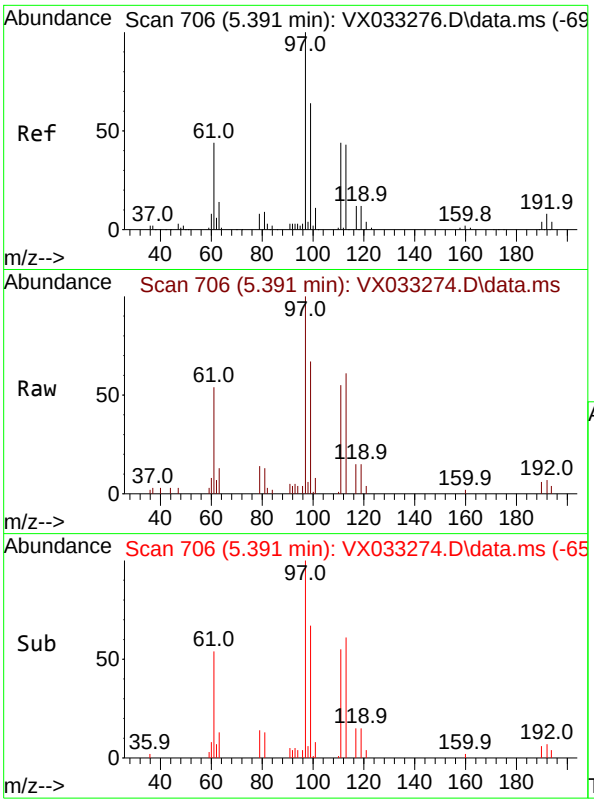



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:114 Resp: 229334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.4 | 0.0 | 41.6 |
| 88 | 15.7 | 0.0 | 33.4 |

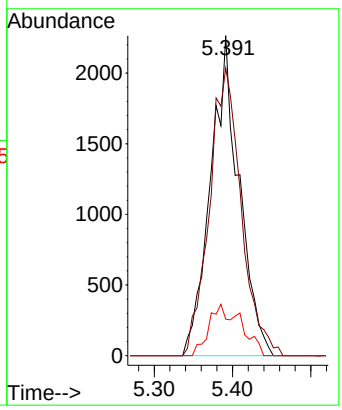





#35
Dibromofluoromethane
Concen: 4.449 ug/l
RT: 5.391 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:113 Resp: 575

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 99.5 | 82.4 | 123.6 |
| 192 | 11.1 | 15.4 | 23.2# |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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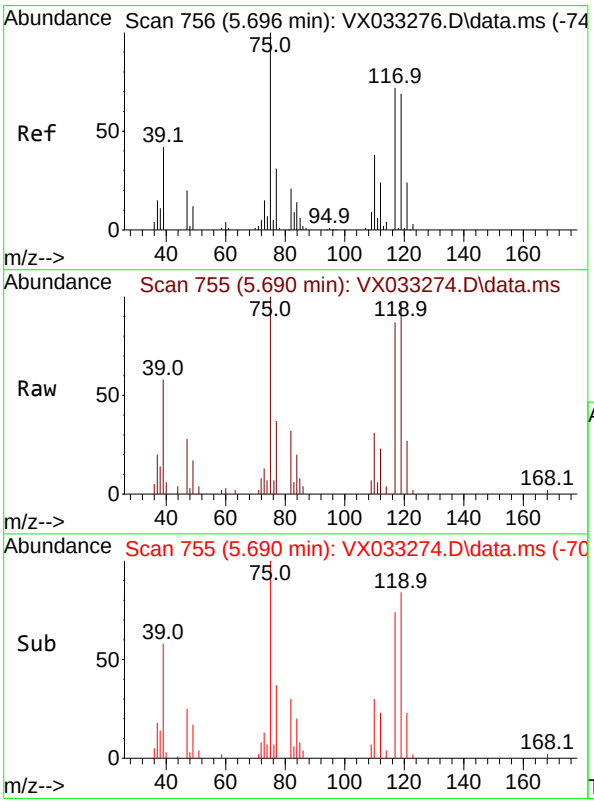
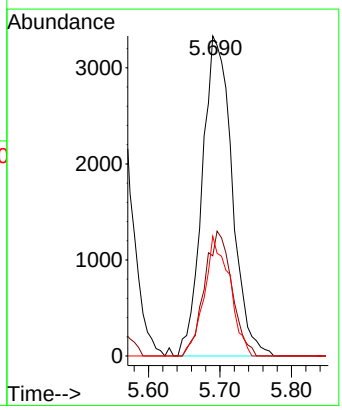
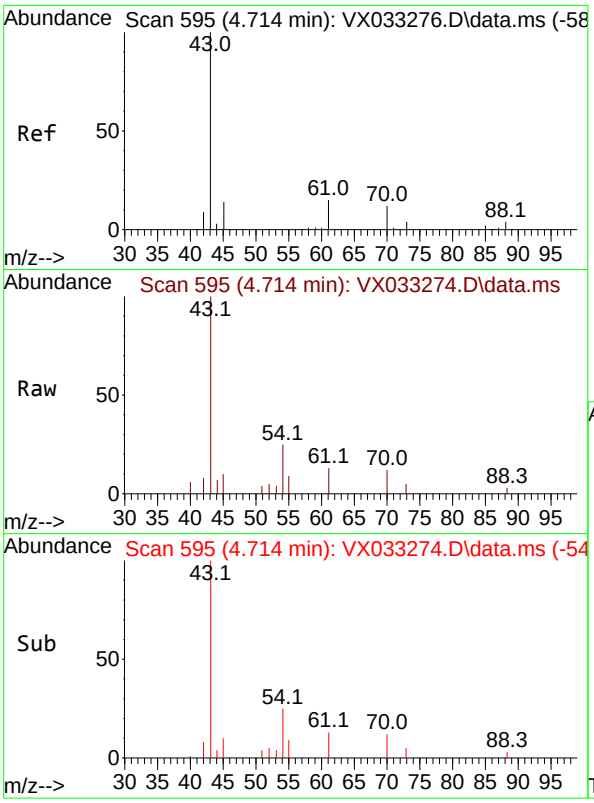



#36
1,1-Dichloropropene
Concen: 4.657 ug/l
RT: 5.690 min Scan# 755
Delta R.T. -0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 9627

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 36.0 | 18.4 | 55.2 |
| 77 | 32.2 | 24.5 | 36.7 |






#37
Ethyl Acetate
Concen: 4.880 ug/l
RT: 4.714 min Scan# 5
Delta R.T. -0.001 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 13.9 | 11.5 | 17.3 |
| 70 | 9.7 | 9.1 | 13.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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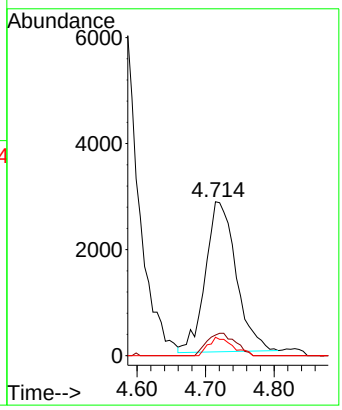
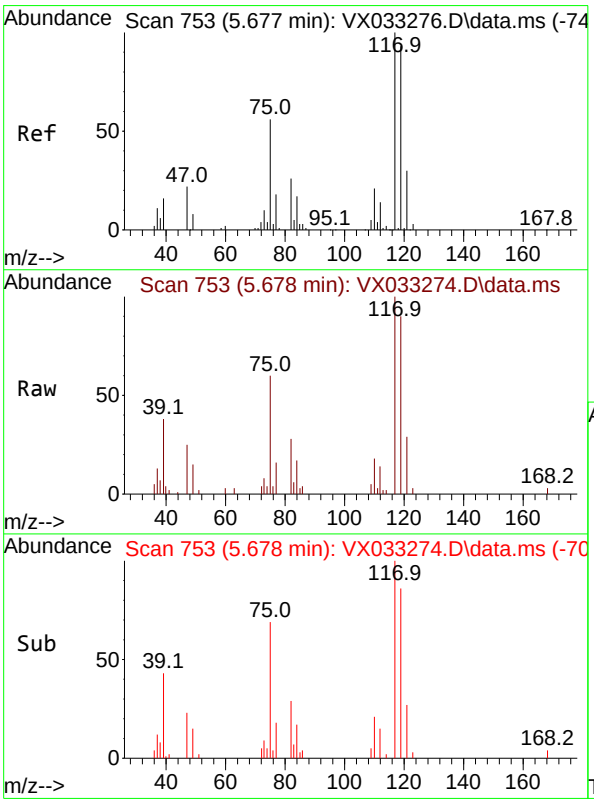
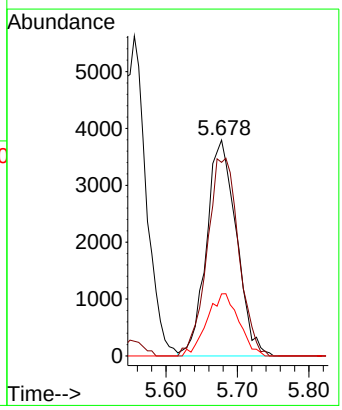


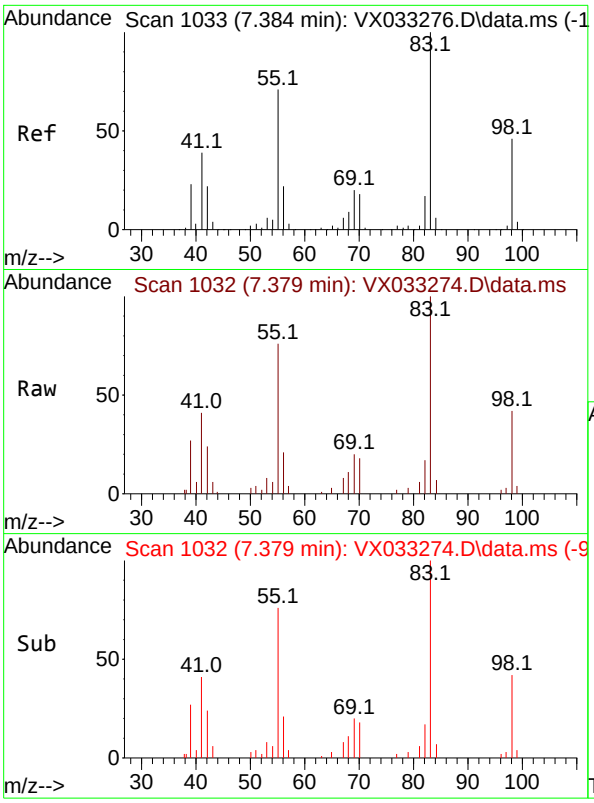




#38
Carbon Tetrachloride
Concen: 4.806 ug/l
RT: 5.678 min Scan# 753
Delta R.T. -0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:117 Resp: 11021

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 89.7 | 77.2 | 115.8 |
| 121 | 28.8 | 25.8 | 38.6 |

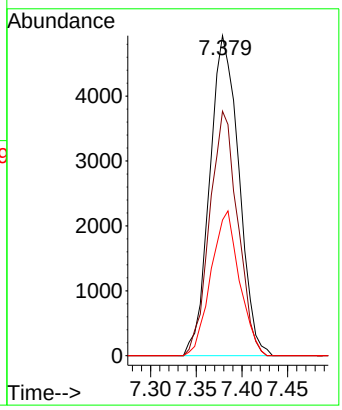





#39
Methylcyclohexane
Concen: 4.646 ug/l
RT: 7.379 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 83 Resp: 1095

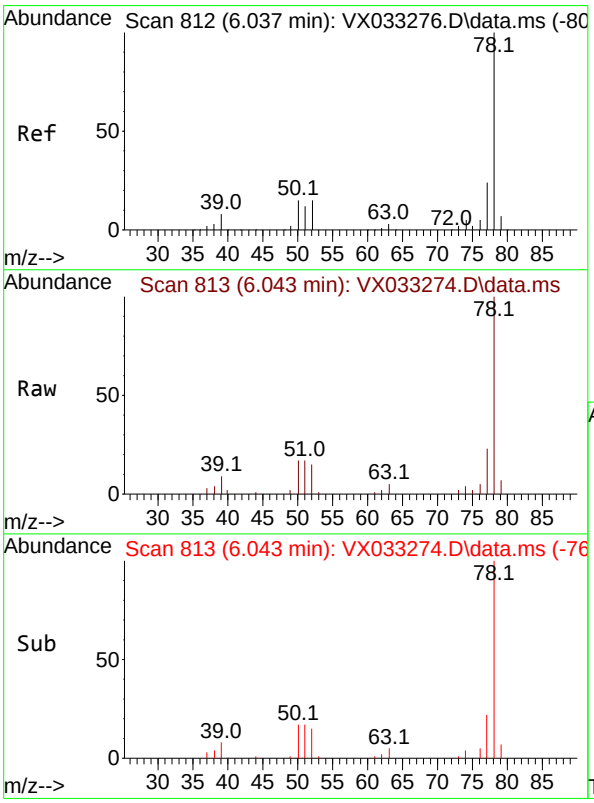
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 76.4 | 58.4 | 87.6 |
| 98 | 42.4 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

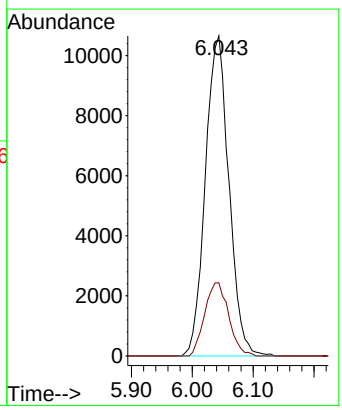
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

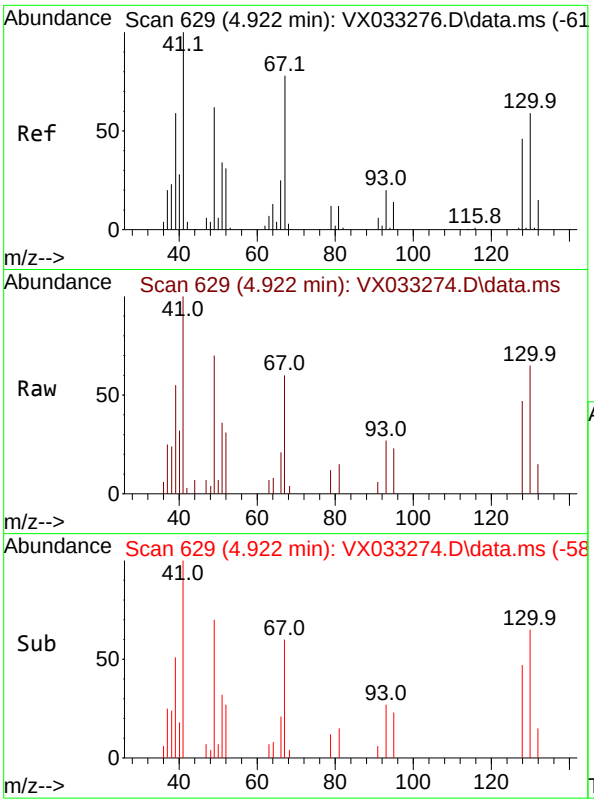



#40
Benzene
Concen: 4.940 ug/l
RT: 6.043 min Scan# 813
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 78 Resp: 28636

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 22.9 | 19.0 | 28.4 |

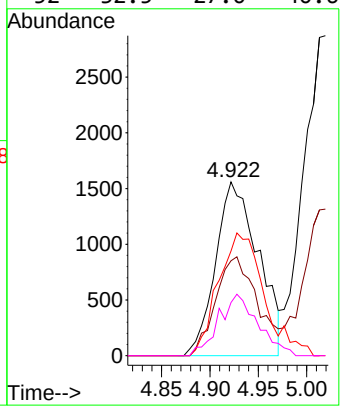





#41
Methacrylonitrile
Concen: 4.724 ug/l
RT: 4.922 min Scan# 6
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 41 Resp: 479

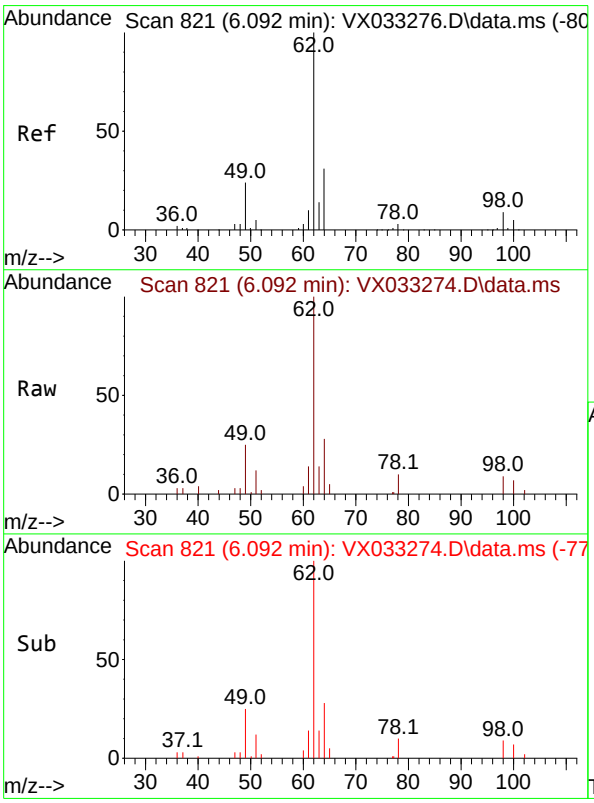
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 55.5 | 47.5 | 71.3 |
| 67 | 75.1 | 60.5 | 90.7 |
| 52 | 32.5 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

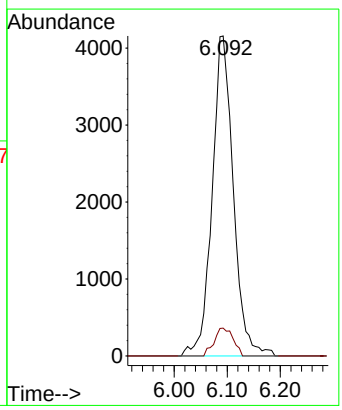
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

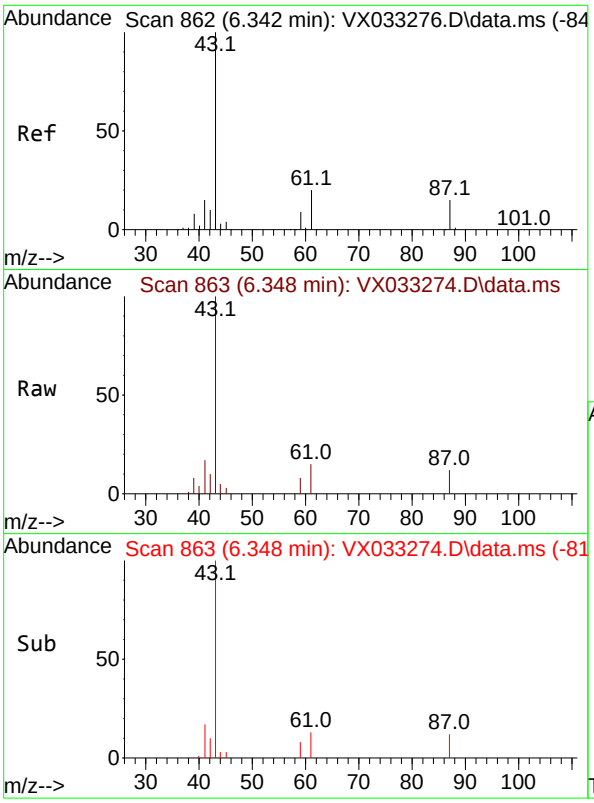



#42
1,2-Dichloroethane
Concen: 4.944 ug/l
RT: 6.092 min Scan# 821
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 62 Resp: 11537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 7.8 | 0.0 | 16.0 |

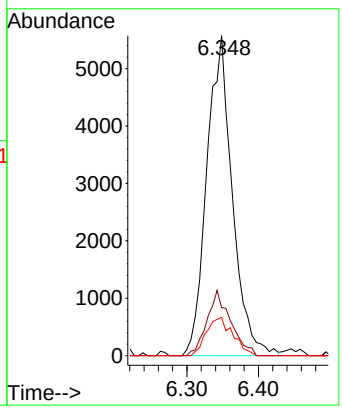





#43
Isopropyl Acetate
Concen: 4.641 ug/l
RT: 6.348 min Scan# 8
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 1384

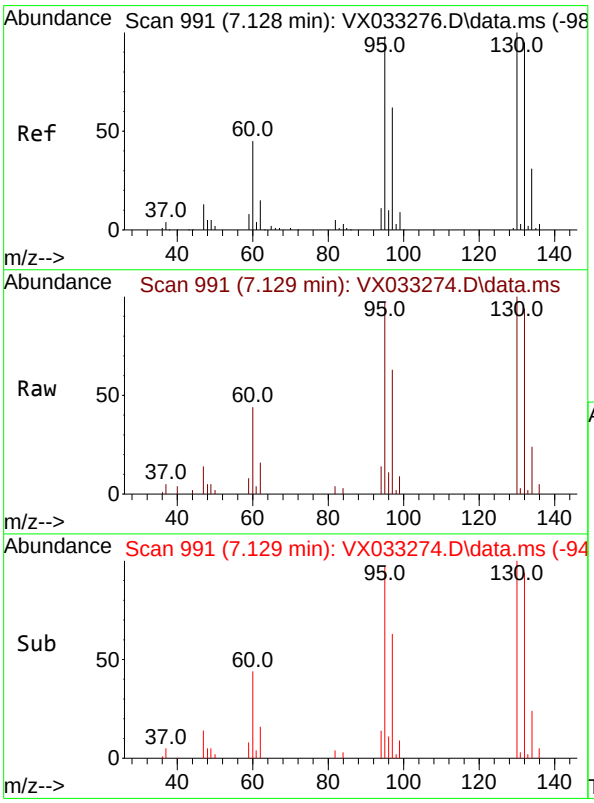
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 18.9 | 15.4 | 23.0 |
| 87 | 12.4 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

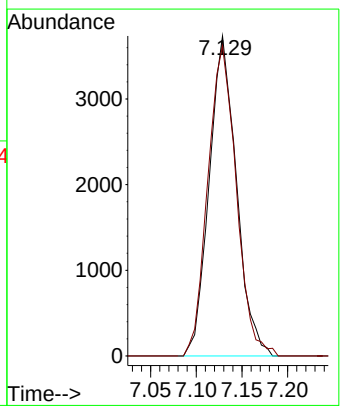
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

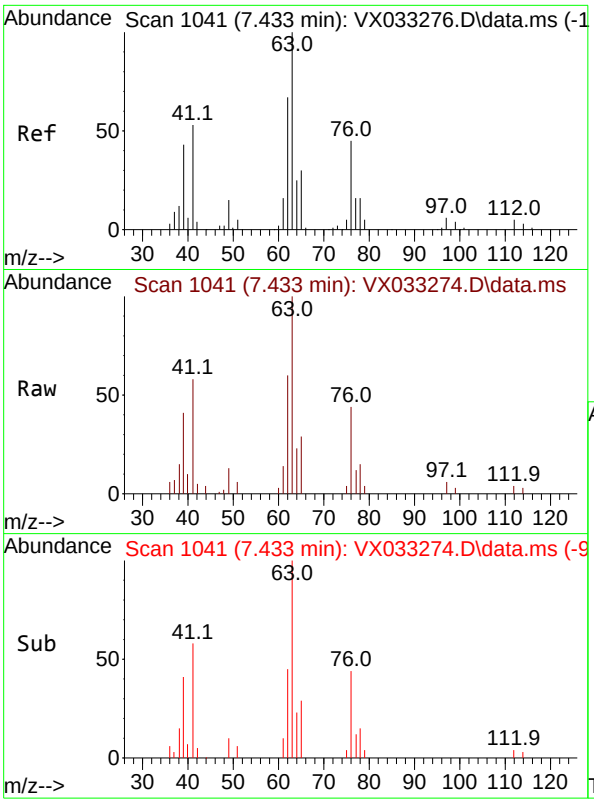



#44
Trichloroethene
Concen: 4.754 ug/l
RT: 7.129 min Scan# 991
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:130 Resp: 7732

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 96.9 | 0.0 | 195.2 |

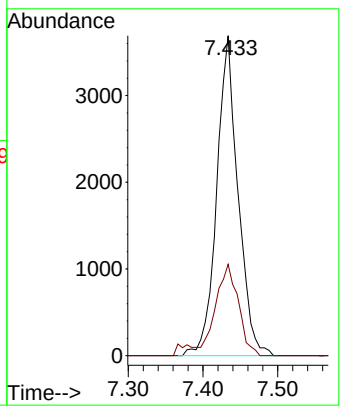





#45
1,2-Dichloropropane
Concen: 5.109 ug/l
RT: 7.433 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 63 Resp: 731

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 28.6 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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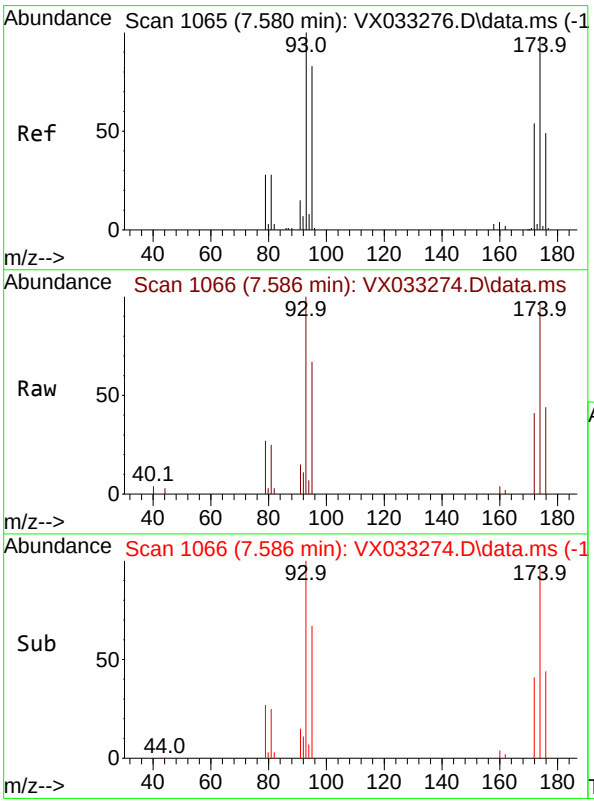
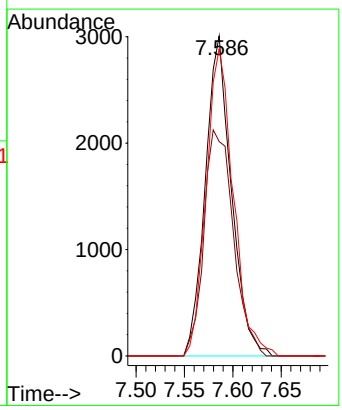
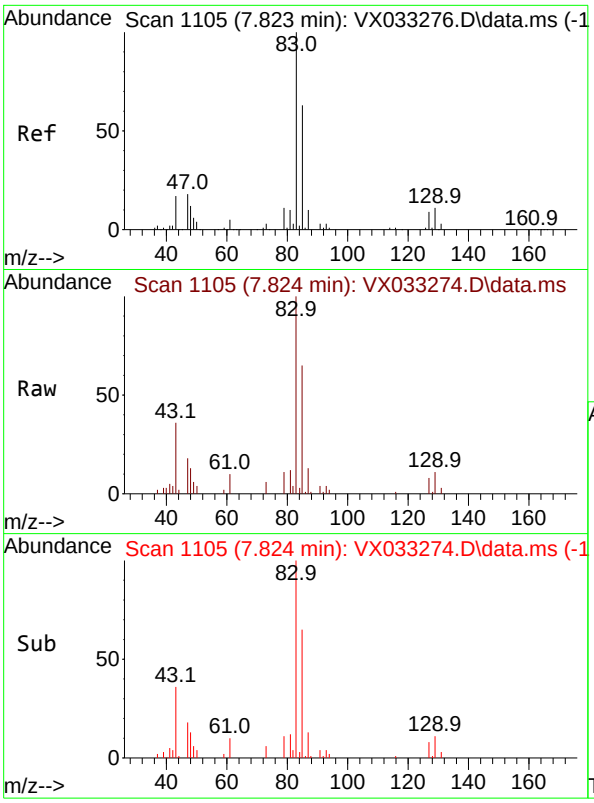



#46
Dibromomethane
Concen: 5.047 ug/l
RT: 7.586 min Scan# 1066
Delta R.T. 0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 93 Resp: 5641

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 79.9 | 65.8 | 98.8 |
| 174 | 99.7 | 79.8 | 119.6 |

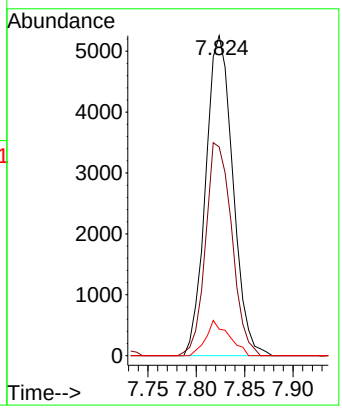





#47
Bromodichloromethane
Concen: 4.757 ug/l
RT: 7.824 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 83 Resp: 1027

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.2 | 52.2 | 78.4 |
| 127 | 8.3 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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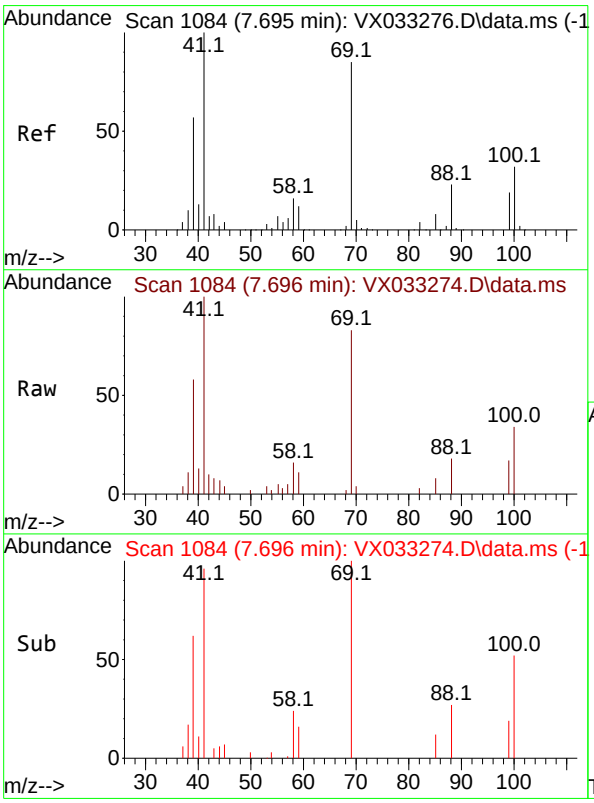
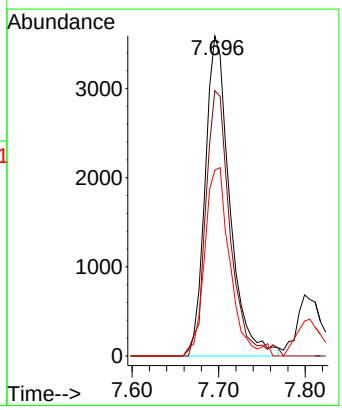
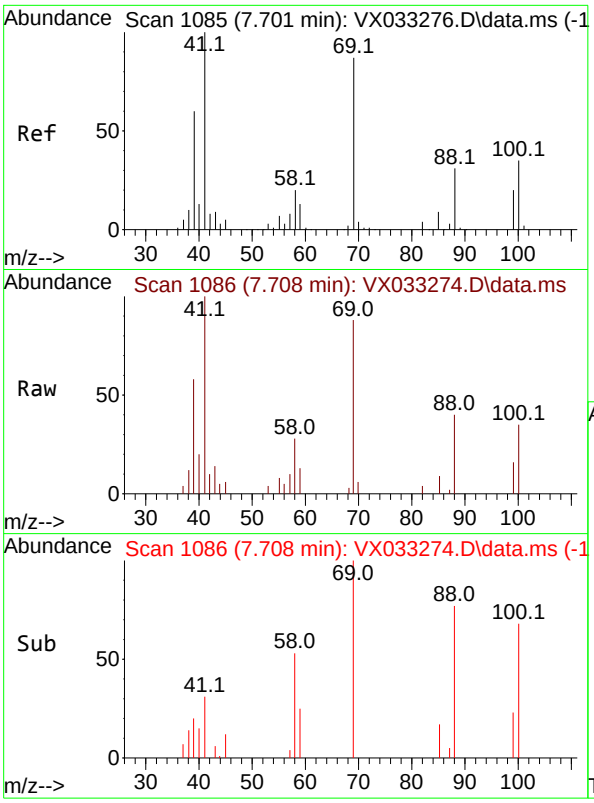



#48
Methyl methacrylate
Concen: 4.617 ug/l
RT: 7.696 min Scan# 1084
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 41 Resp: 7089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 82.0 | 65.1 | 97.7 |
| 39 | 60.3 | 51.9 | 77.9 |






#49
1,4-Dioxane
Concen: 117.505 ug/l
RT: 7.708 min Scan# 1
Delta R.T. 0.037 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 88 Resp: 332

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 18.7 | 26.6 | 39.8# |
| 58 | 75.0 | 51.7 | 77.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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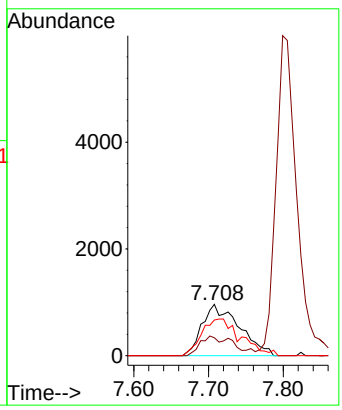
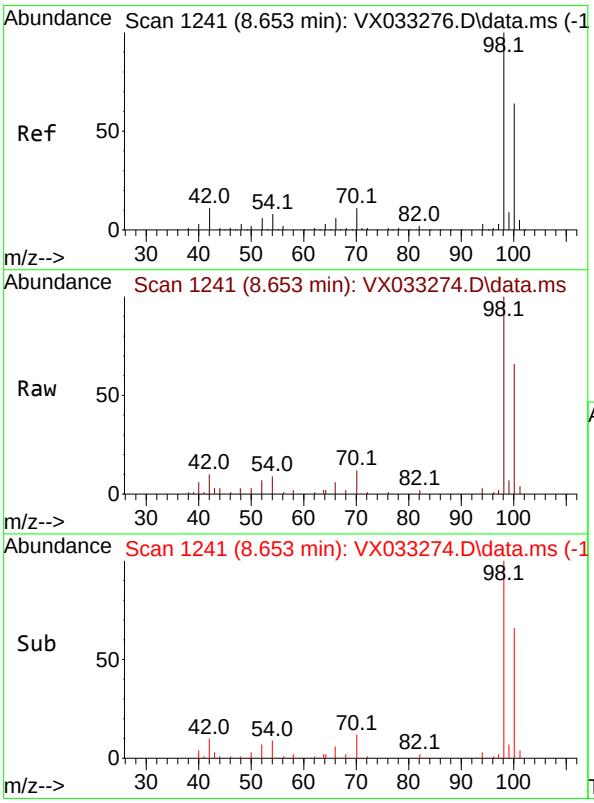
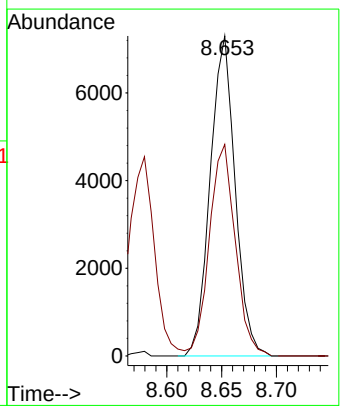


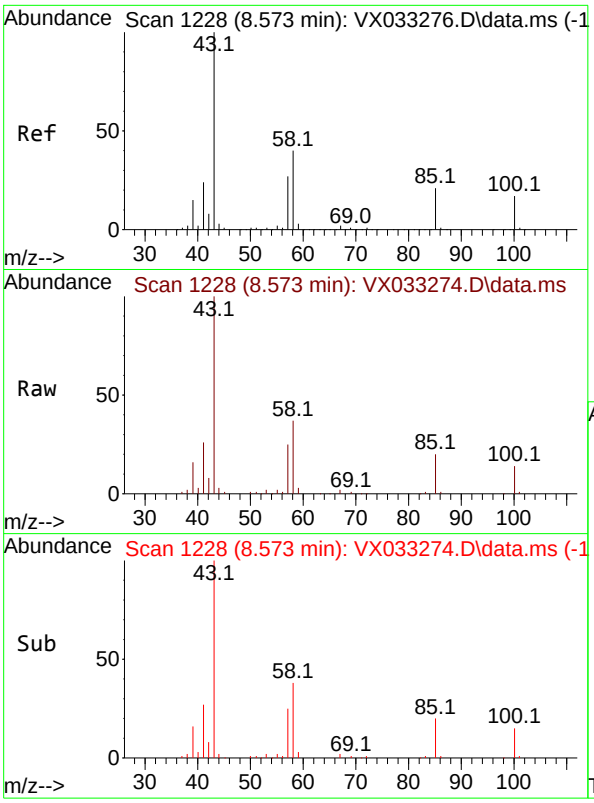




#50
Toluene-d8
Concen: 2.749 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 98 Resp: 11540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 68.8 | 50.9 | 76.3 |

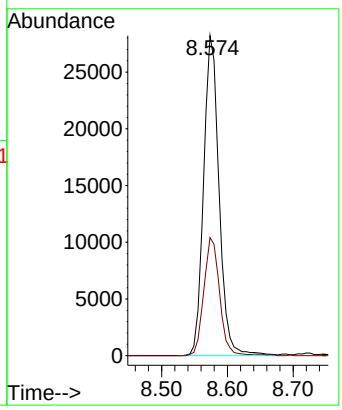





#51
4-Methyl-2-Pentanone
Concen: 25.160 ug/l
RT: 8.573 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 4630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 37.4 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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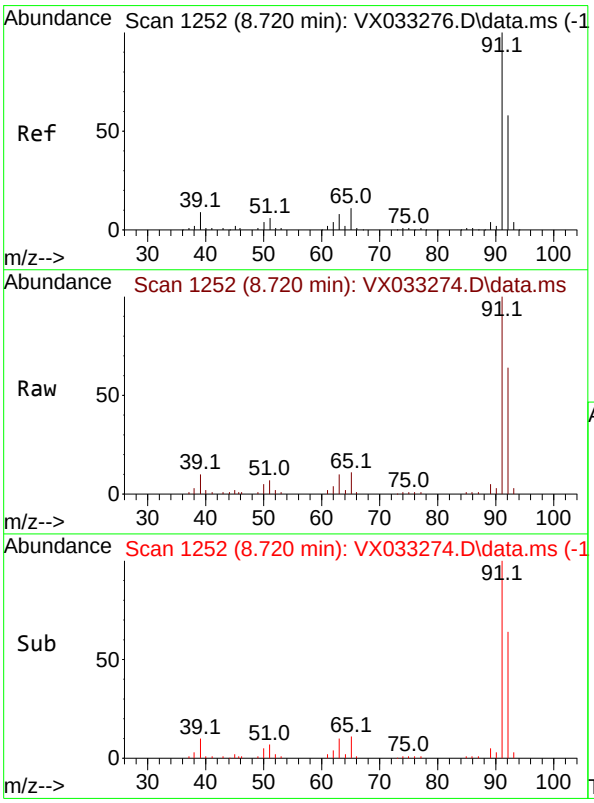
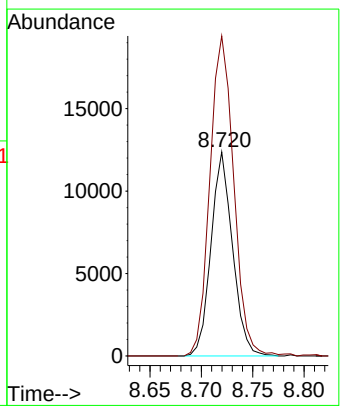
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

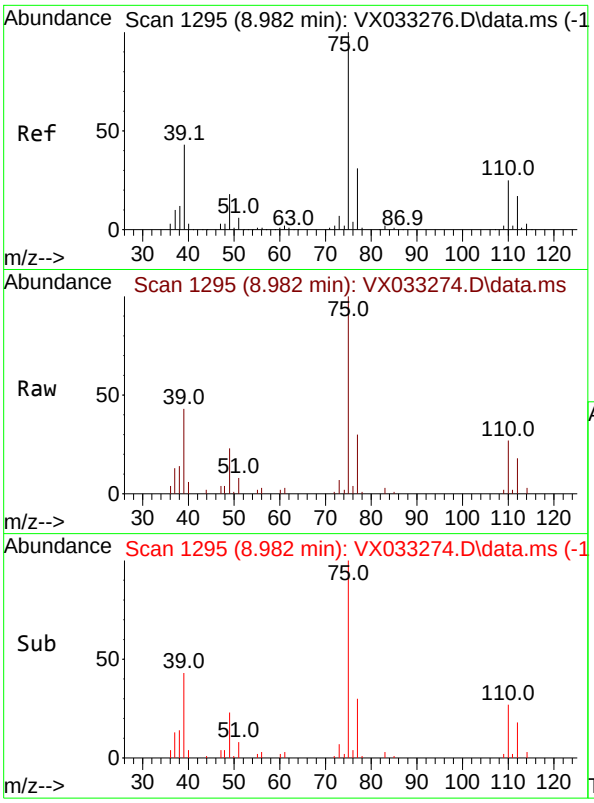



#52
Toluene
Concen: 4.725 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 92 Resp: 18018

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 173.6 | 138.3 | 207.5 |

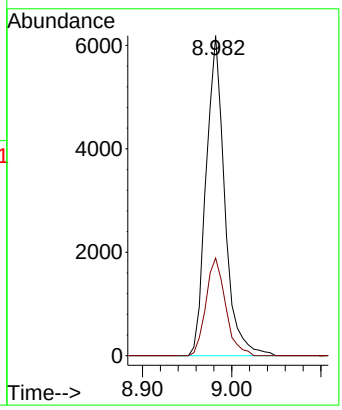





#53
t-1,3-Dichloropropene
Concen: 4.224 ug/l m
RT: 8.982 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 895

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 30.5 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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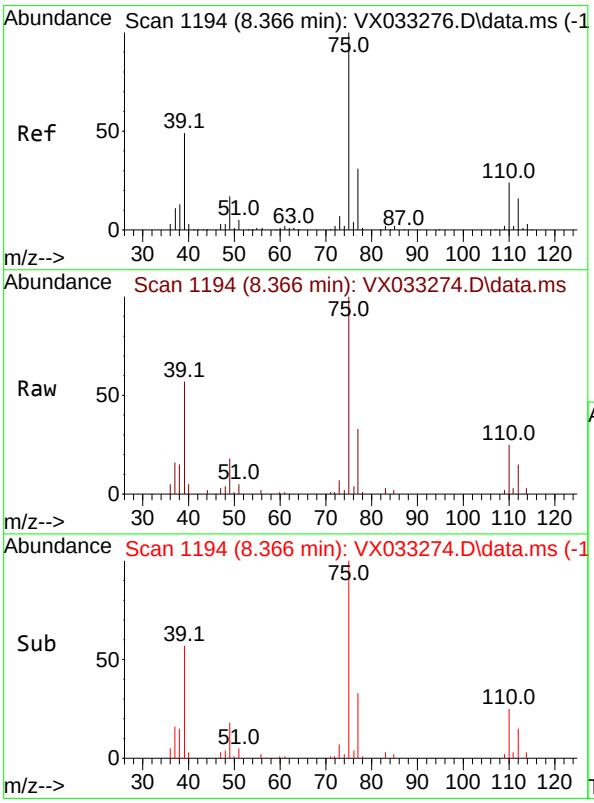
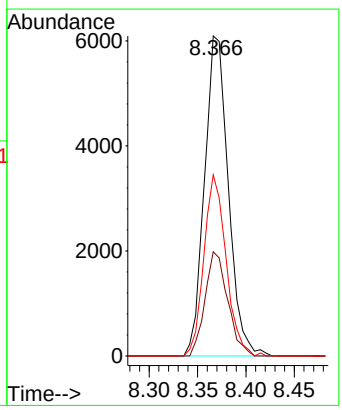
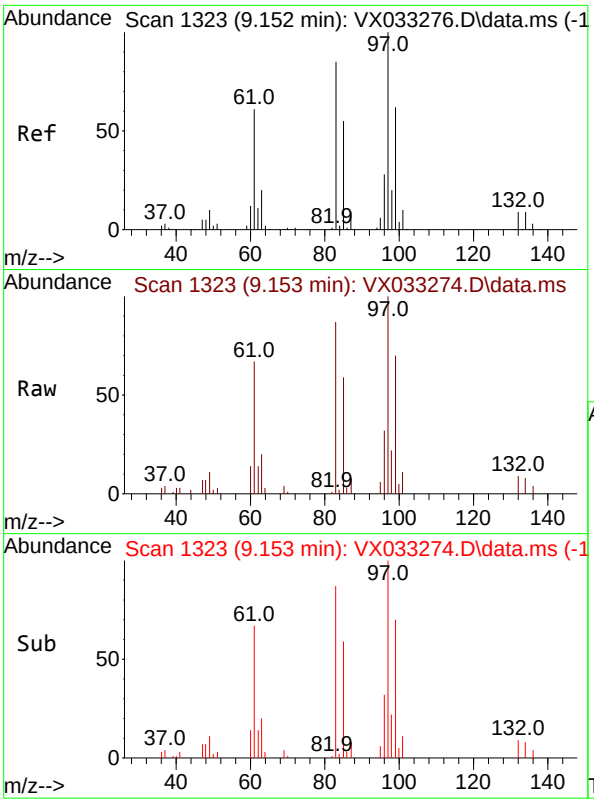



#54
cis-1,3-Dichloropropene
Concen: 4.494 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 10463

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.6 | 25.1 | 37.7 |
| 39 | 56.6 | 45.5 | 68.3 |

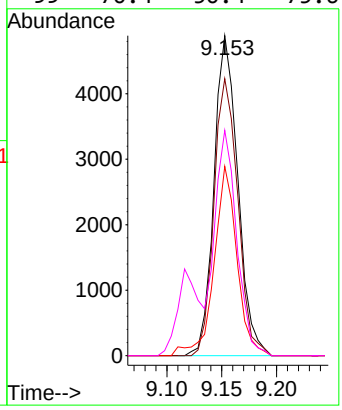





#55
1,1,2-Trichloroethane
Concen: 4.764 ug/l
RT: 9.153 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 97 Resp: 739

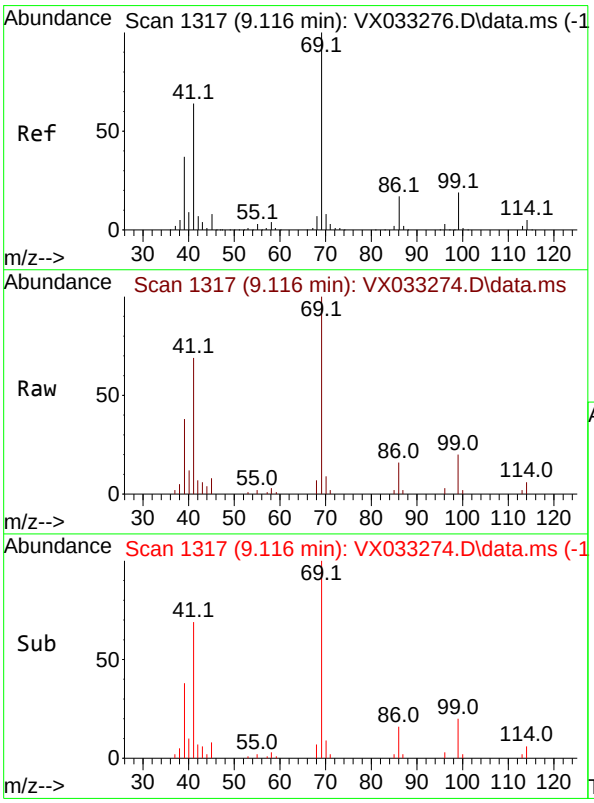
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 86.5 | 68.1 | 102.1 |
| 85 | 59.2 | 43.3 | 64.9 |
| 99 | 70.4 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

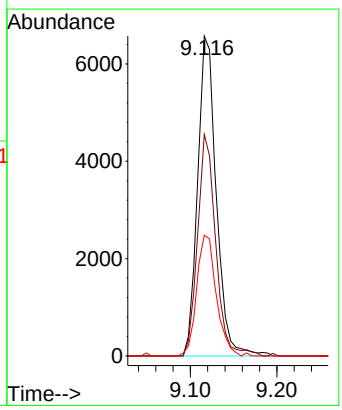
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

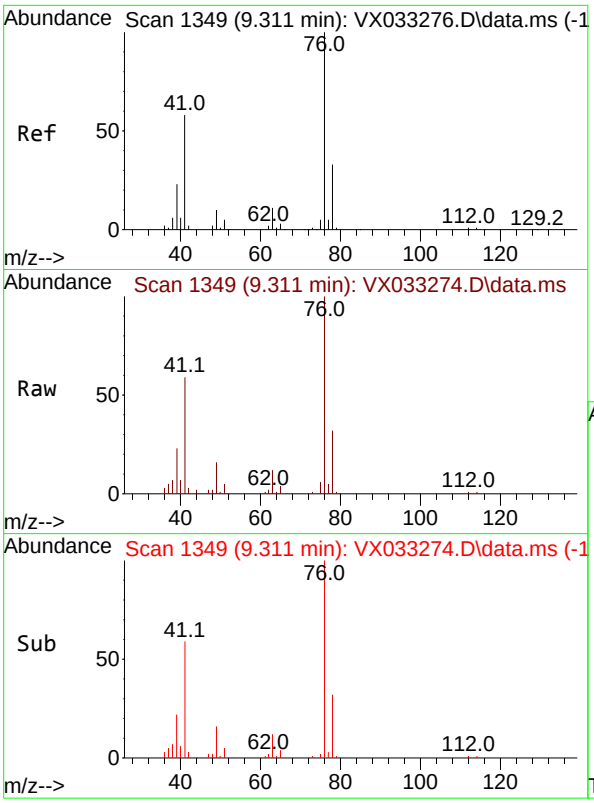



#56
Ethyl methacrylate
Concen: 4.610 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 69 Resp: 9861

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 67.2 | 54.3 | 81.5 |
| 39 | 39.7 | 35.2 | 52.8 |

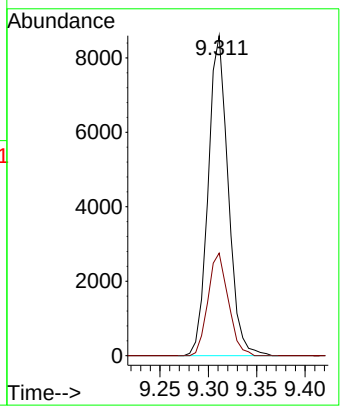





#57
1,3-Dichloropropane
Concen: 4.938 ug/l
RT: 9.311 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 76 Resp: 1237

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 32.6 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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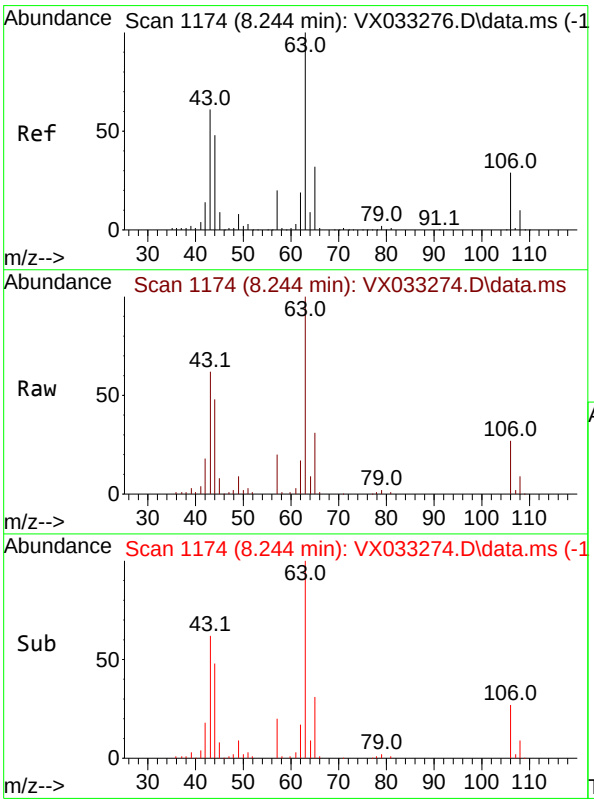
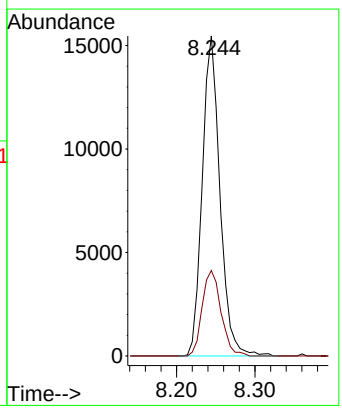
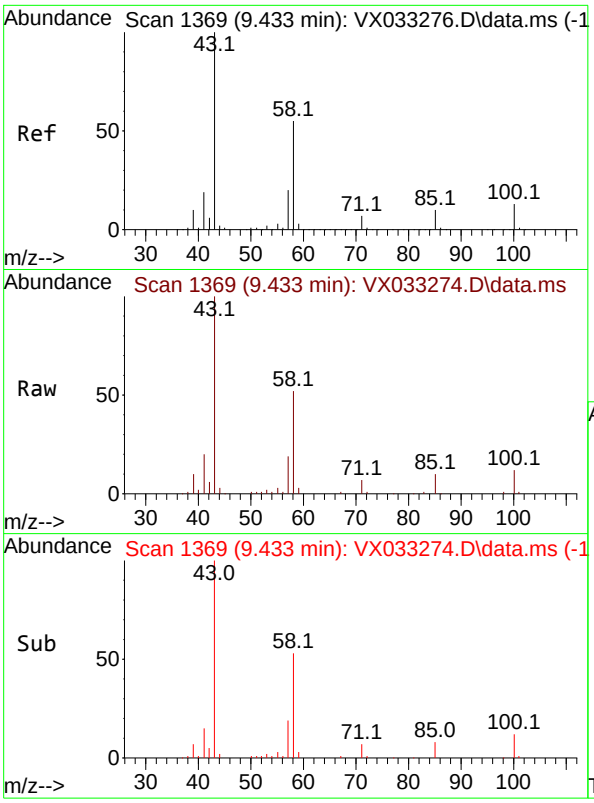



#58
2-Chloroethyl Vinyl ether
Concen: 23.860 ug/l
RT: 8.244 min Scan# 1174
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 63 Resp: 24237

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 28.3 | 23.3 | 34.9 |

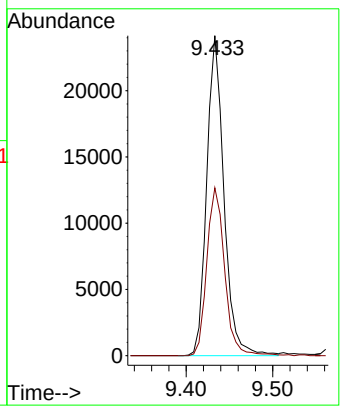





#59
2-Hexanone
Concen: 24.527 ug/l
RT: 9.433 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 3334

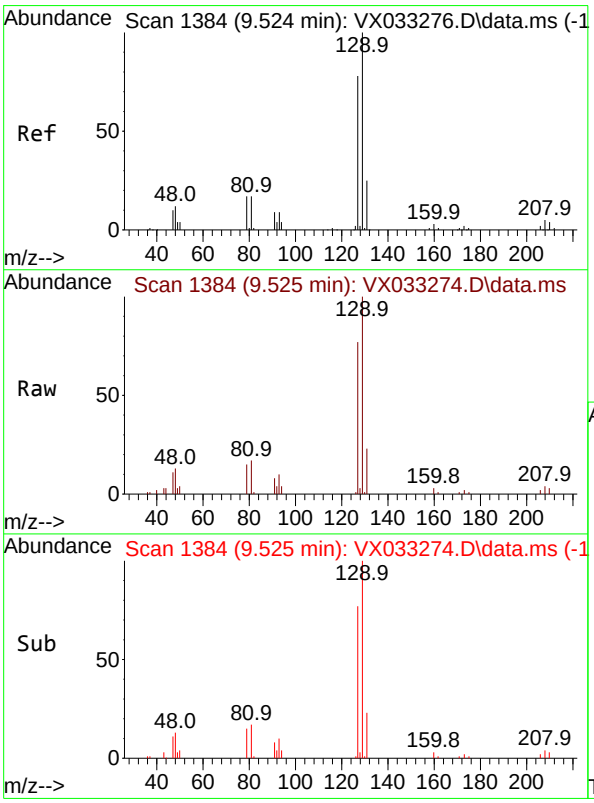
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 54.4 | 26.5 | 79.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

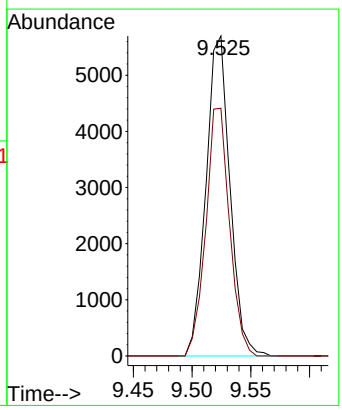
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

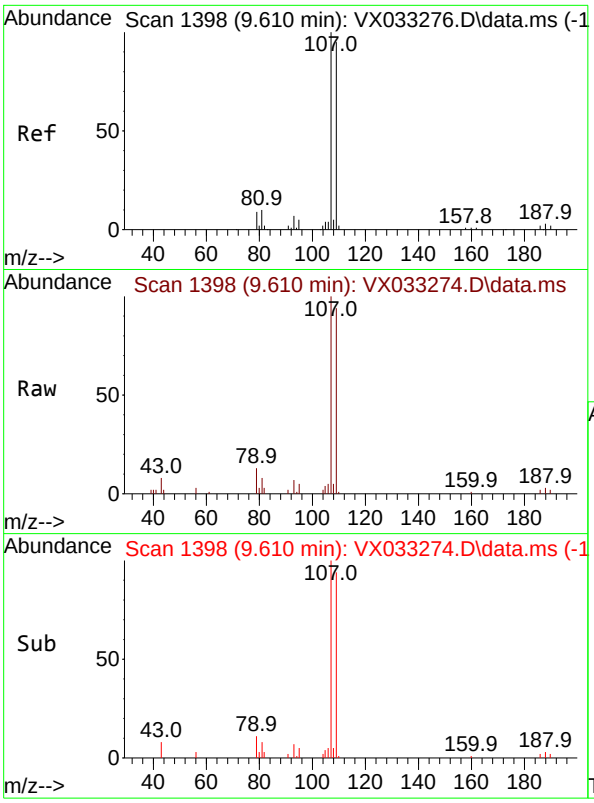



#60
Dibromochloromethane
Concen: 4.845 ug/l
RT: 9.525 min Scan# 1384
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:129 Resp: 8098

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 76.5 | 38.6 | 115.8 |






#61
1,2-Dibromoethane
Concen: 4.829 ug/l
RT: 9.610 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

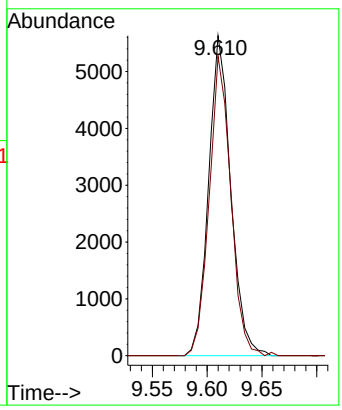
Tgt Ion:107 Resp: 791

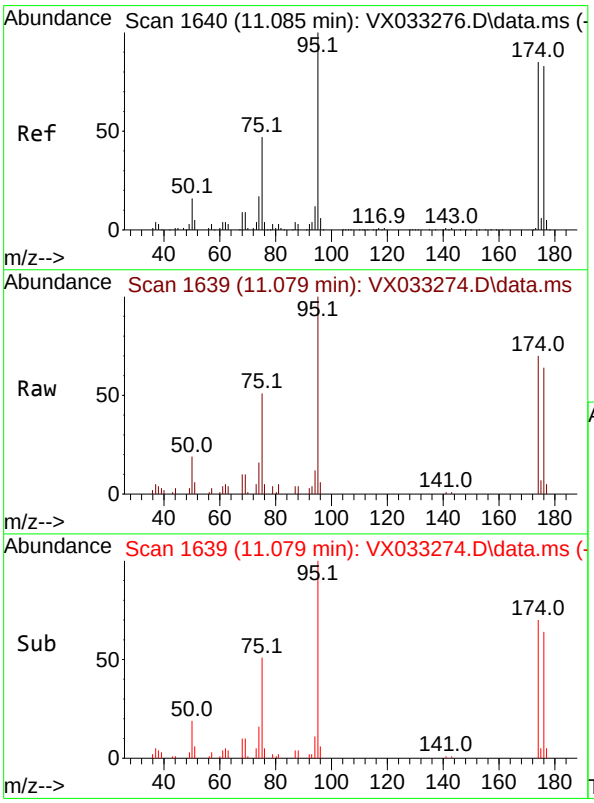
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 91.3 | 76.0 | 114.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

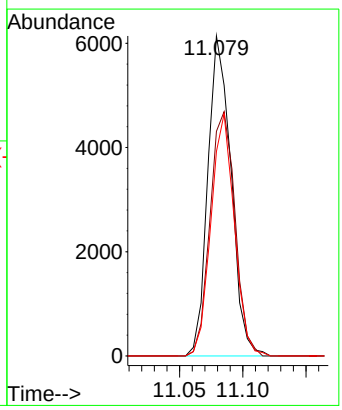


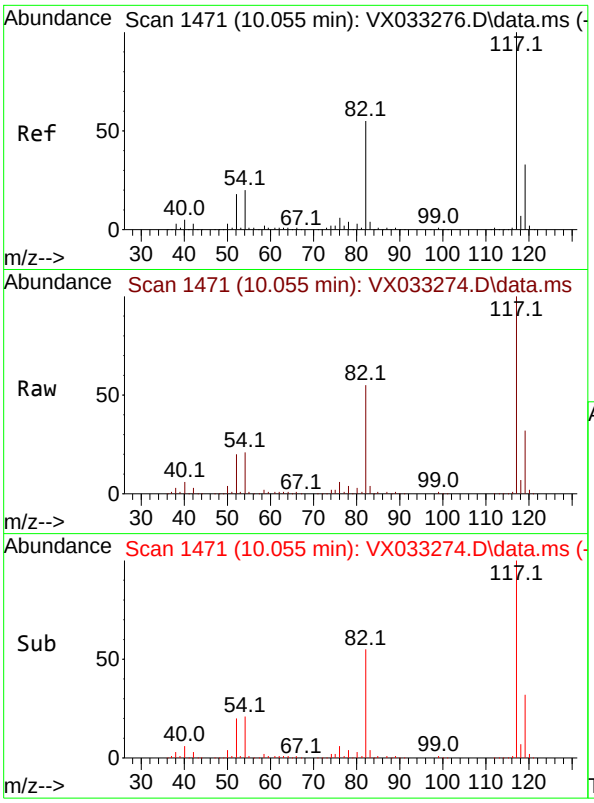




#62
4-Bromofluorobenzene
Concen: 4.600 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 95 Resp: 7812

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 82.3 | 0.0 | 164.0 |
| 176 | 76.3 | 0.0 | 154.4 |

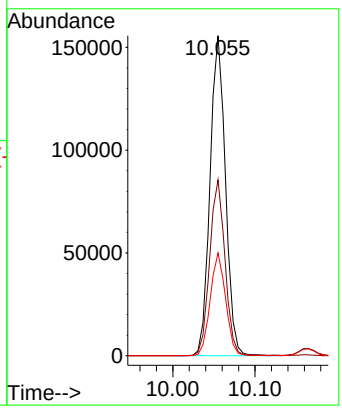





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:117 Resp: 20289

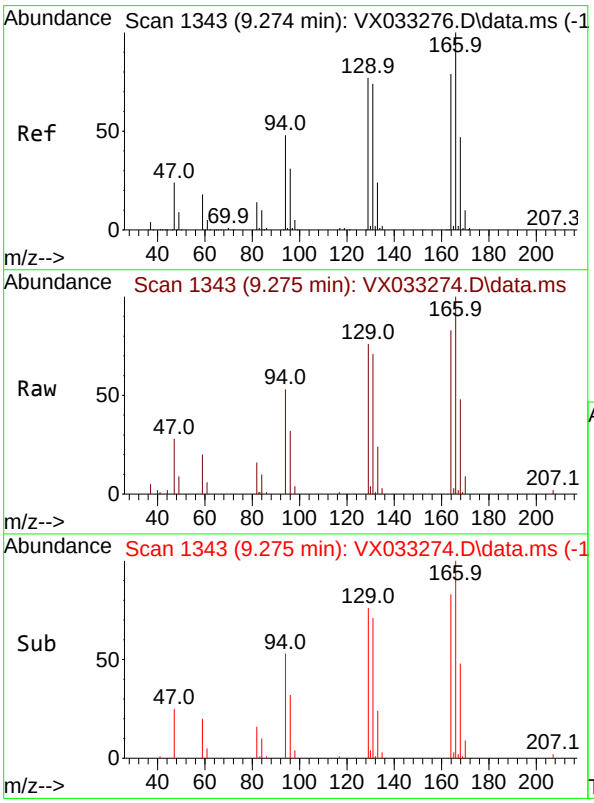
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 55.0 | 44.3 | 66.5 |
| 119 | 32.1 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

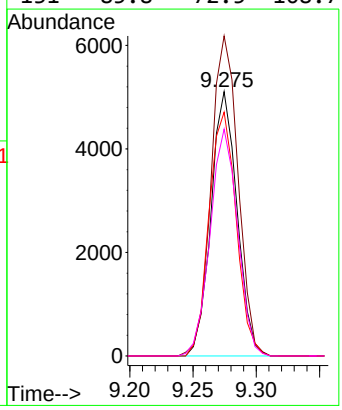
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

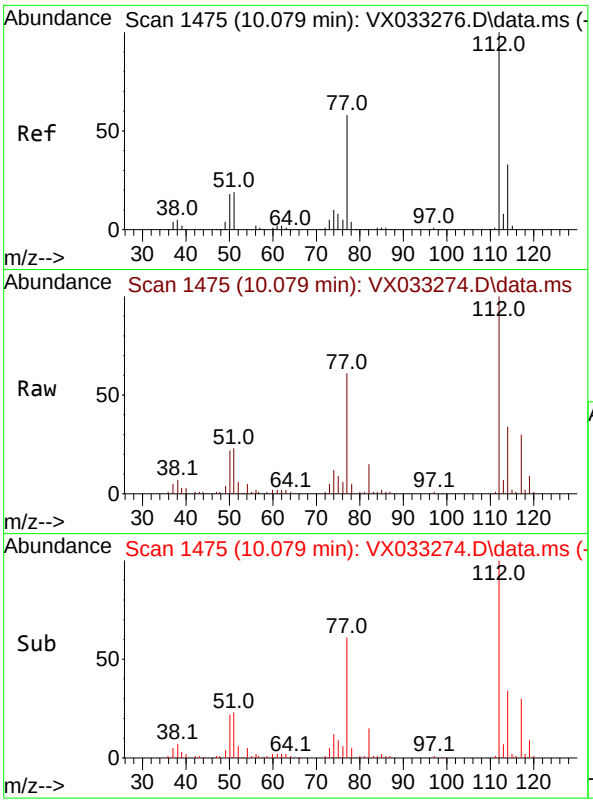



#64
Tetrachloroethene
Concen: 5.087 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:164 Resp: 7306

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 121.0 | 105.4 | 158.2 |
| 129 | 92.2 | 78.2 | 117.2 |
| 131 | 85.8 | 72.5 | 108.7 |






#65
Chlorobenzene
Concen: 4.897 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

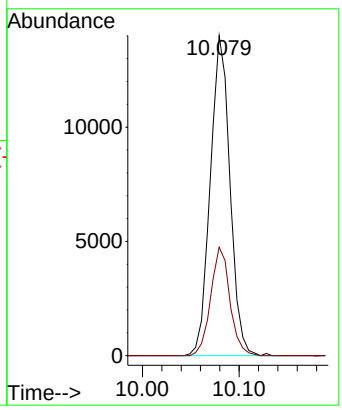
Tgt Ion:112 Resp: 1980

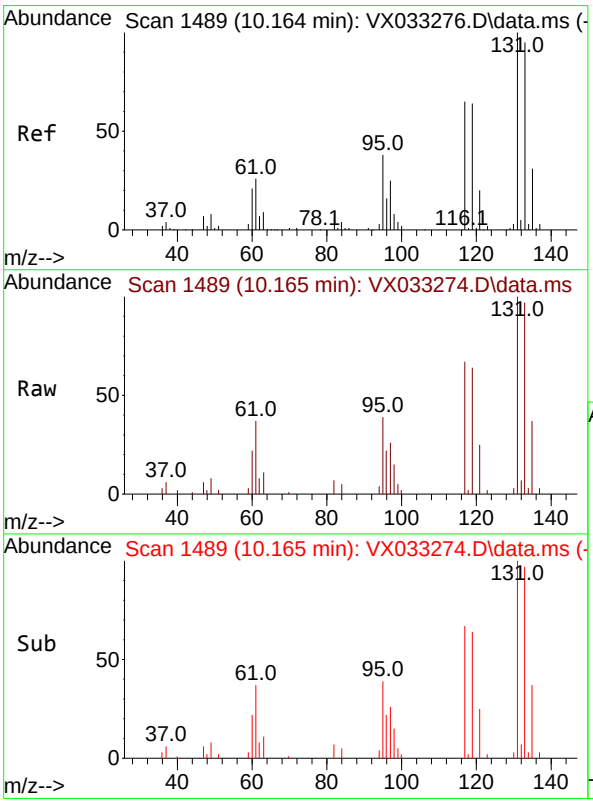
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 33.9 | 25.4 | 38.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

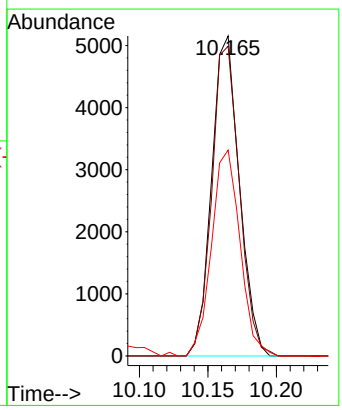


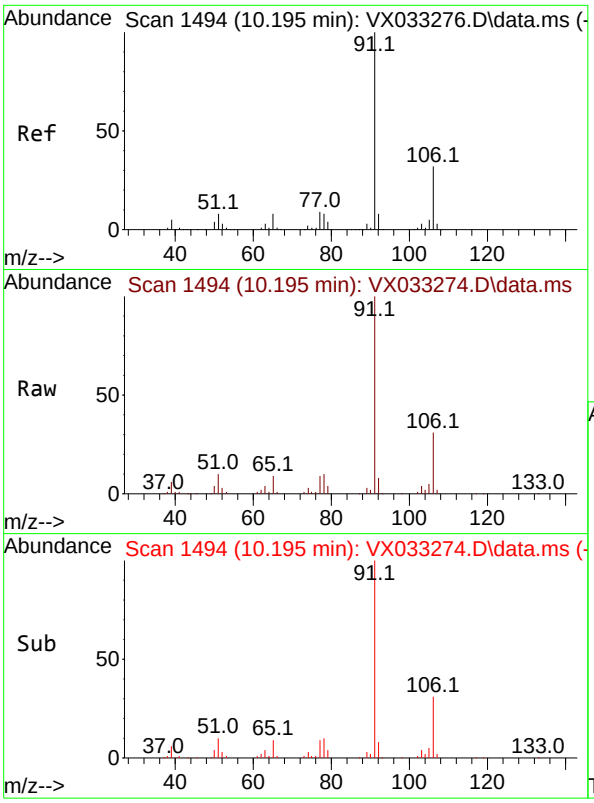




#66
1,1,1,2-Tetrachloroethane
Concen: 4.894 ug/l
RT: 10.165 min Scan# 1489
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:131 Resp: 7253

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 96.9 | 47.6 | 142.9 |
| 119 | 66.0 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 4.902 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

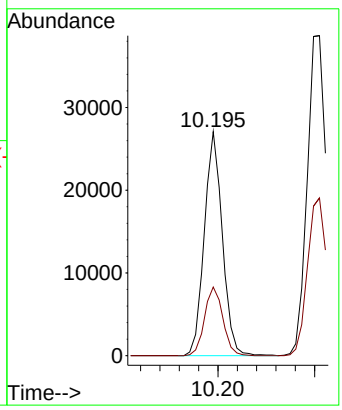
Tgt Ion: 91 Resp: 3517

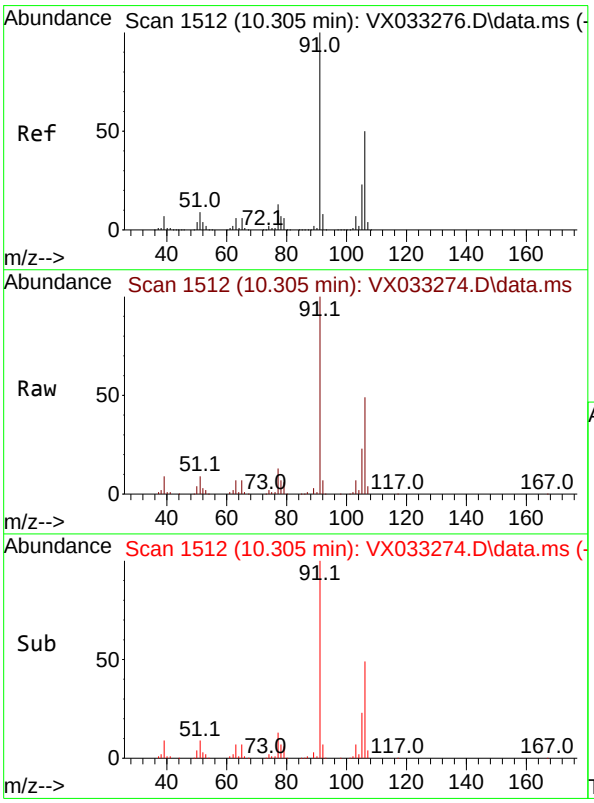
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.6 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

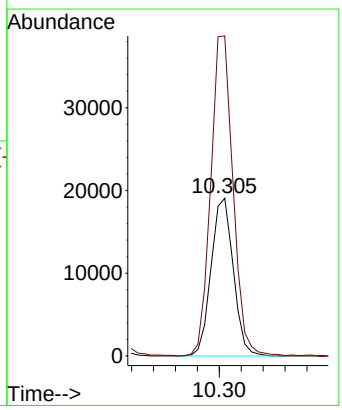


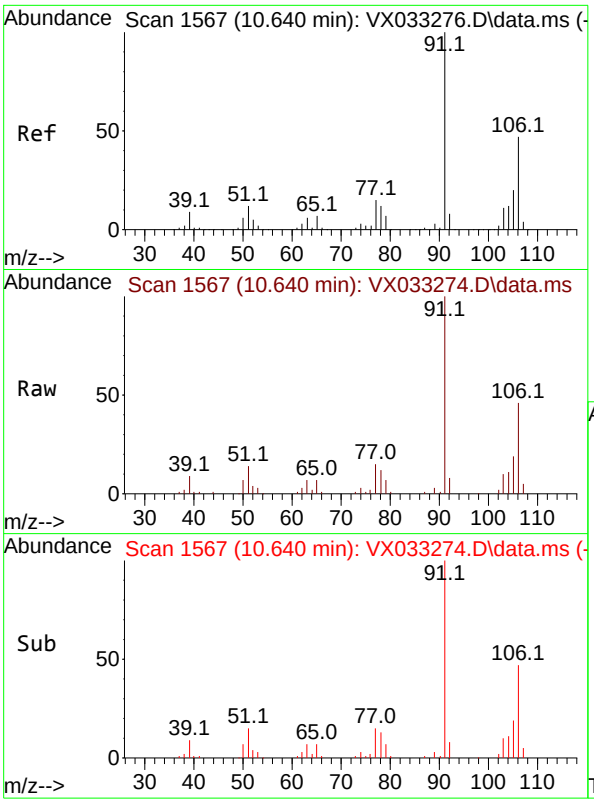




#68
m/p-Xylenes
Concen: 9.557 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:106 Resp: 26854

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 204.2 | 164.5 | 246.7 |

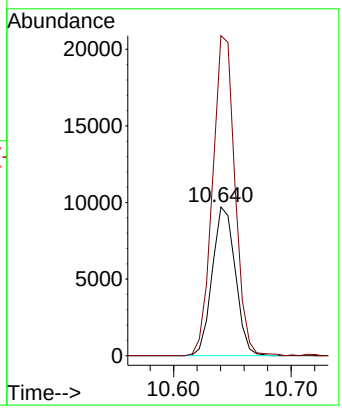





#69
o-Xylene
Concen: 4.868 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:106 Resp: 1323

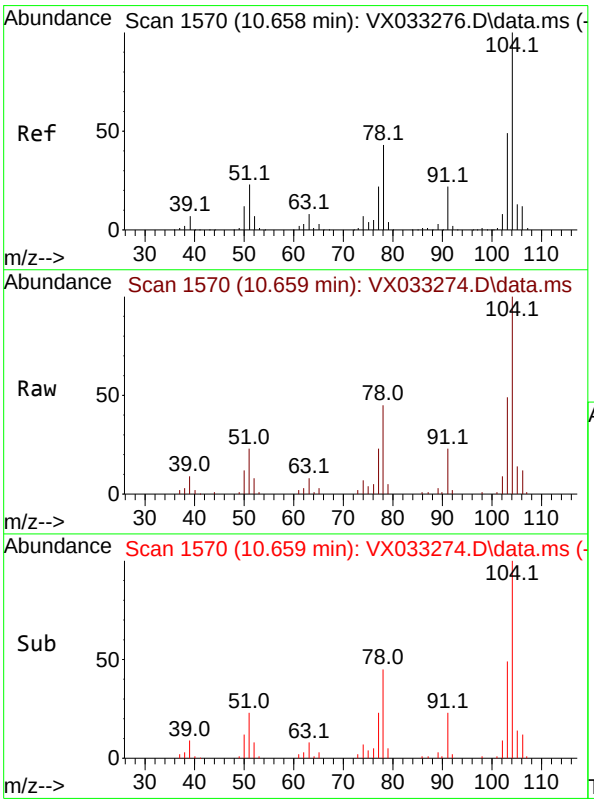
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 209.4 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

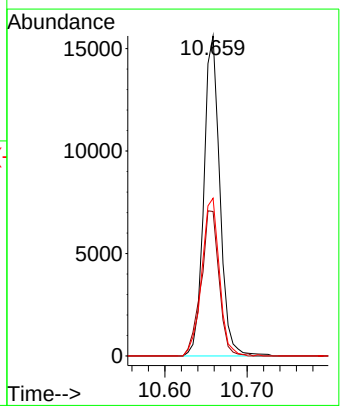
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

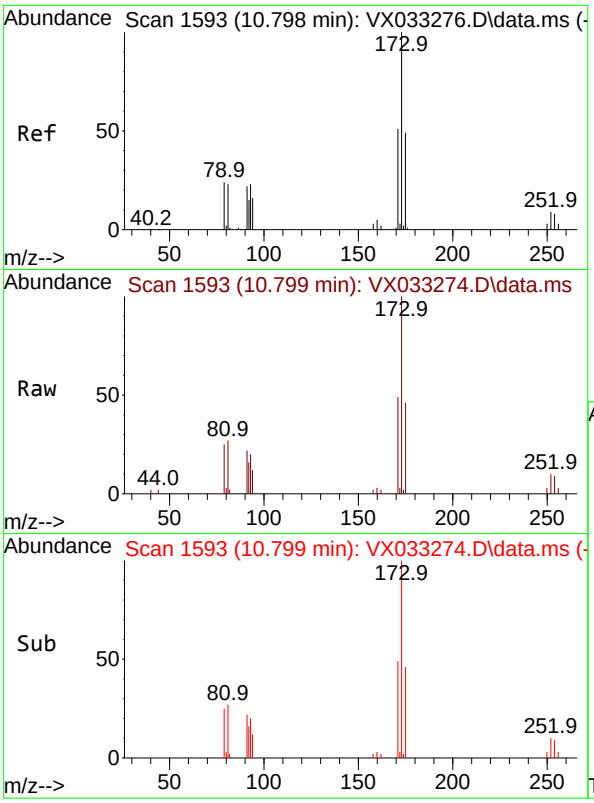



#70
Styrene
Concen: 4.756 ug/l
RT: 10.659 min Scan# 1570
Delta R.T. -0.001 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:104 Resp: 21152

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 50.7 | 41.8 | 62.8 |
| 103 | 53.9 | 44.5 | 66.7 |






#71
Bromoform
Concen: 4.886 ug/l
RT: 10.799 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

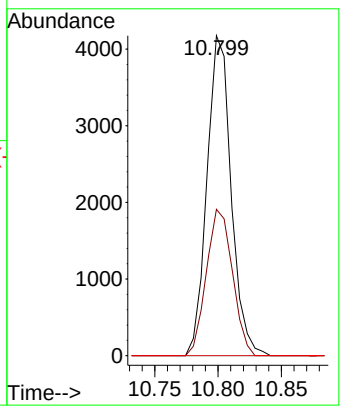
Tgt Ion:173 Resp: 555

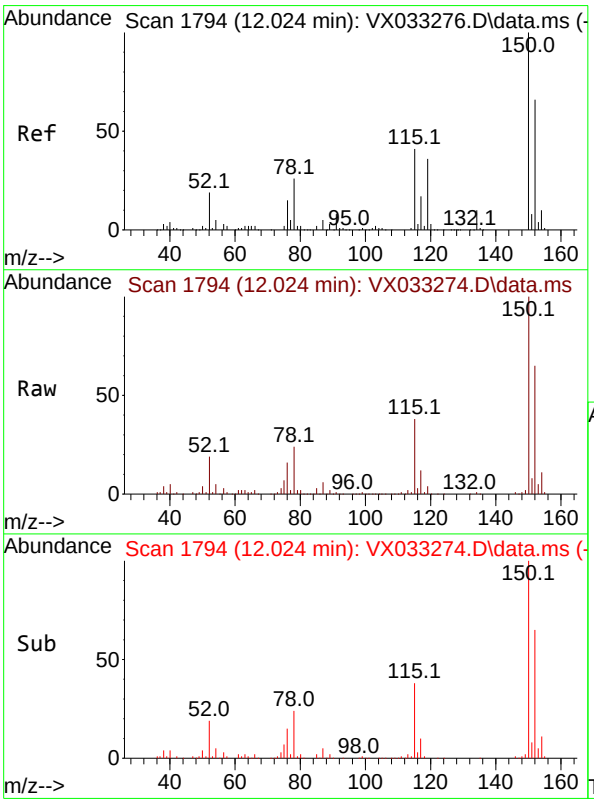
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 49.3 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

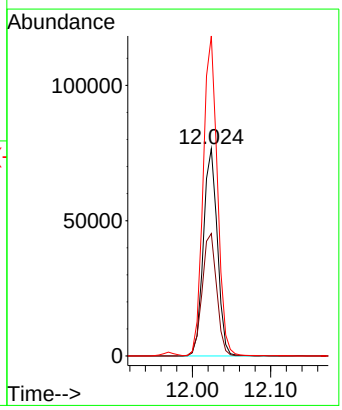


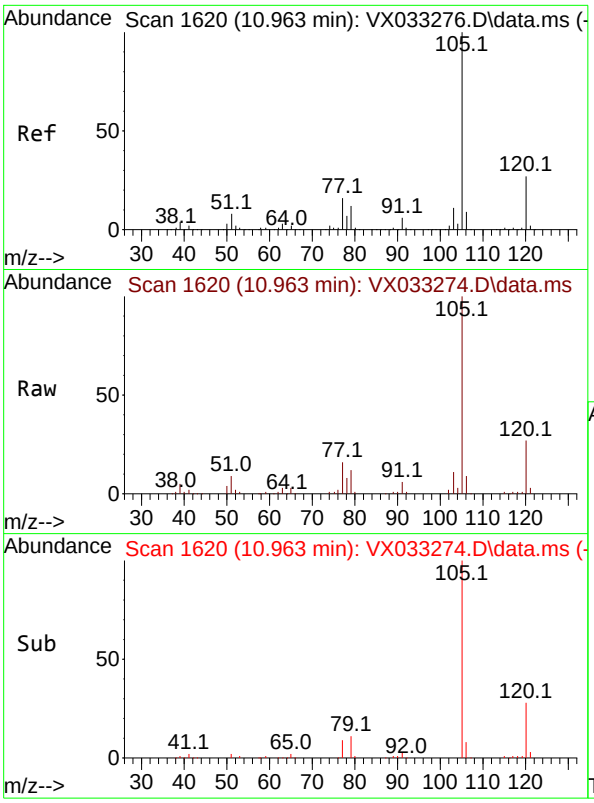




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:152 Resp: 94568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 61.6 | 44.0 | 132.0 |
| 150 | 157.0 | 0.0 | 351.8 |

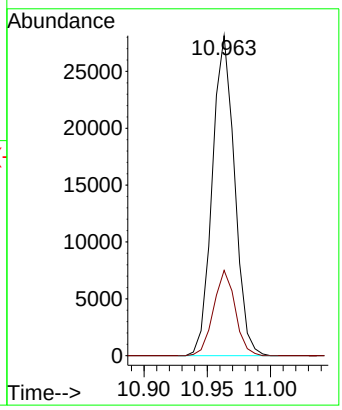





#73
Isopropylbenzene
Concen: 5.092 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:105 Resp: 3440

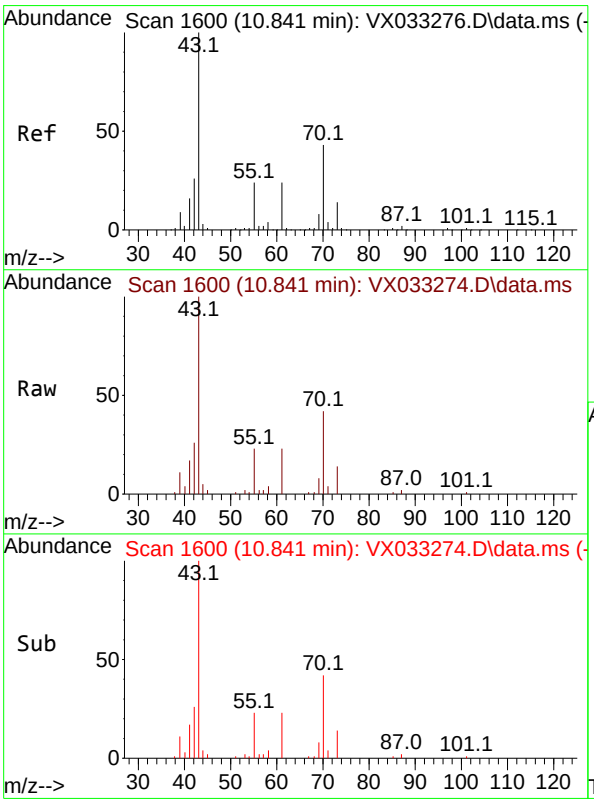
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 25.9 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

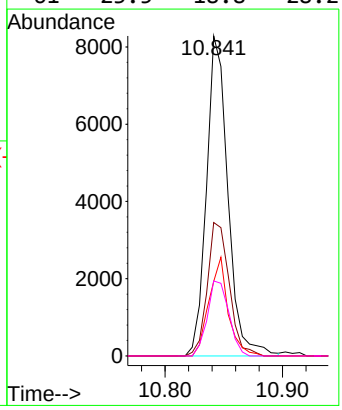
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

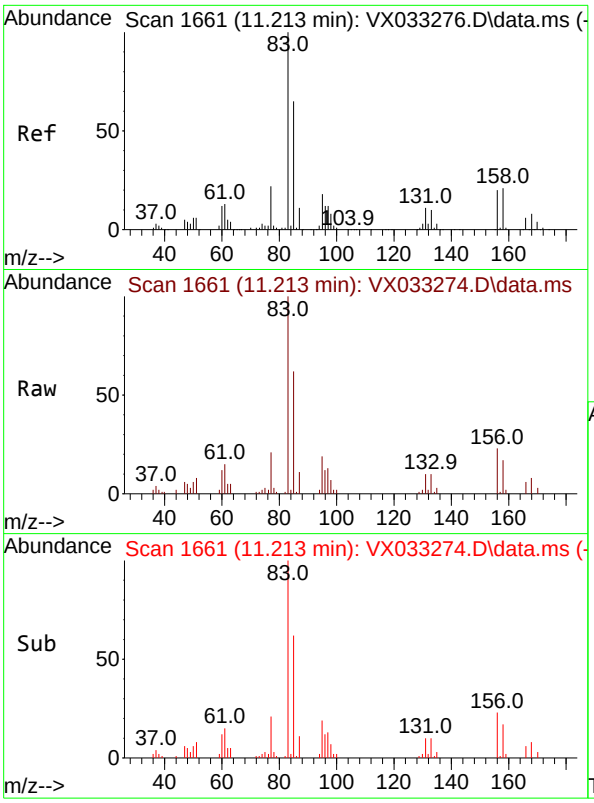



#74
N-amyl acetate
Concen: 4.566 ug/l
RT: 10.841 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 43 Resp: 10497

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 42.7 | 33.6 | 50.4 |
| 55 | 27.5 | 19.4 | 29.2 |
| 61 | 23.5 | 18.8 | 28.2 |

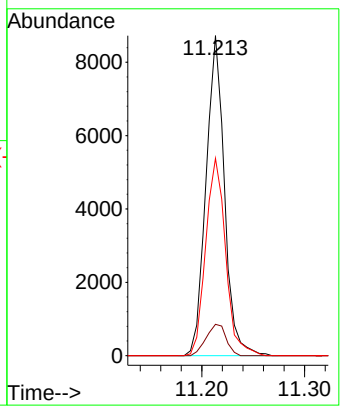





#75
1,1,2,2-Tetrachloroethane
Concen: 5.340 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 83 Resp: 1089

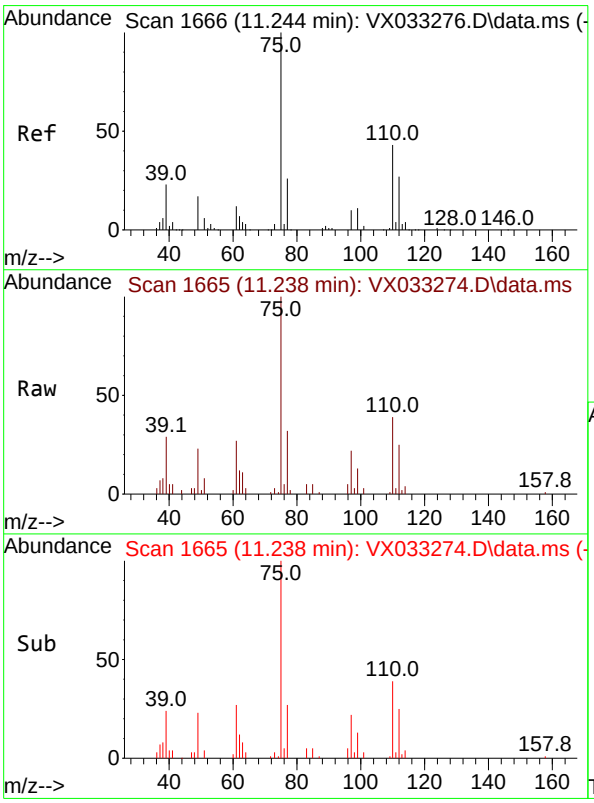
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 66.5 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

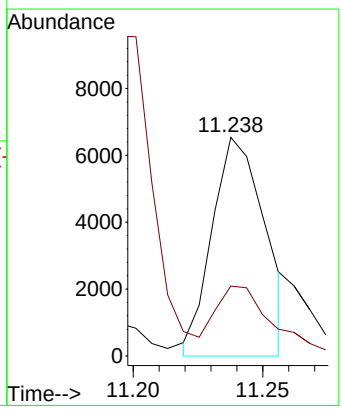
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

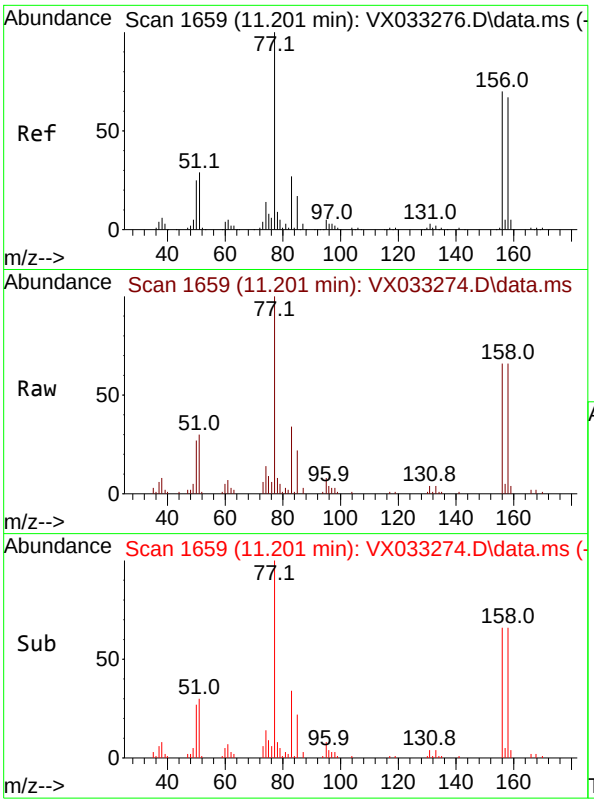



#76
1,2,3-Trichloropropane
Concen: 5.127 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 9183

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 36.0 | 20.0 | 60.0 |

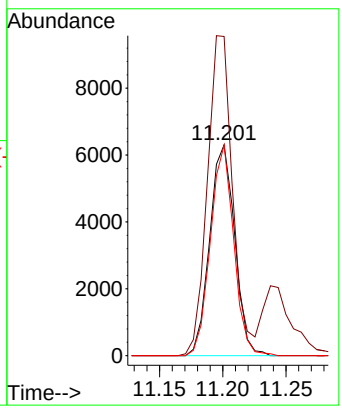





#77
Bromobenzene
Concen: 5.222 ug/l
RT: 11.201 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:156 Resp: 867

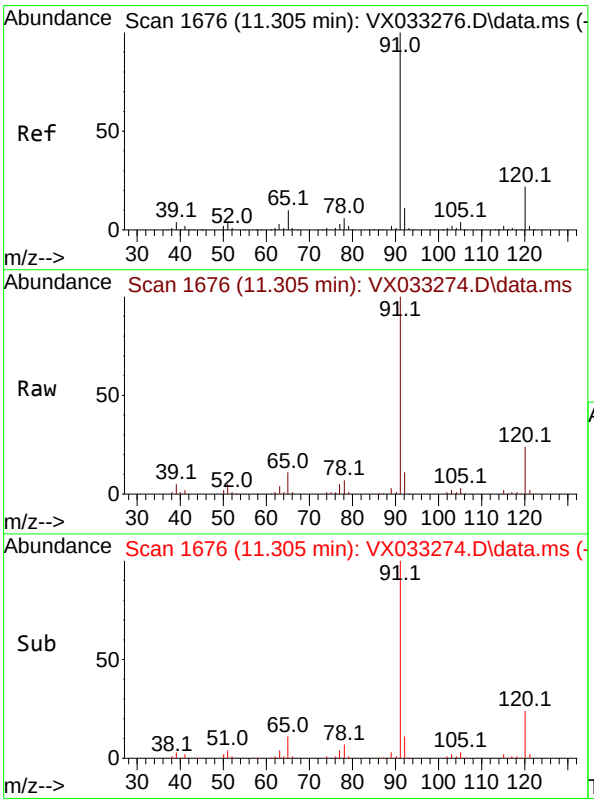
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 152.5 | 76.1 | 228.4 |
| 158 | 92.8 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

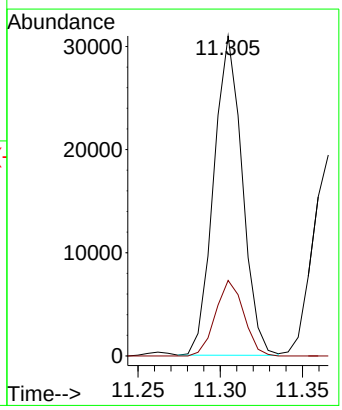
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

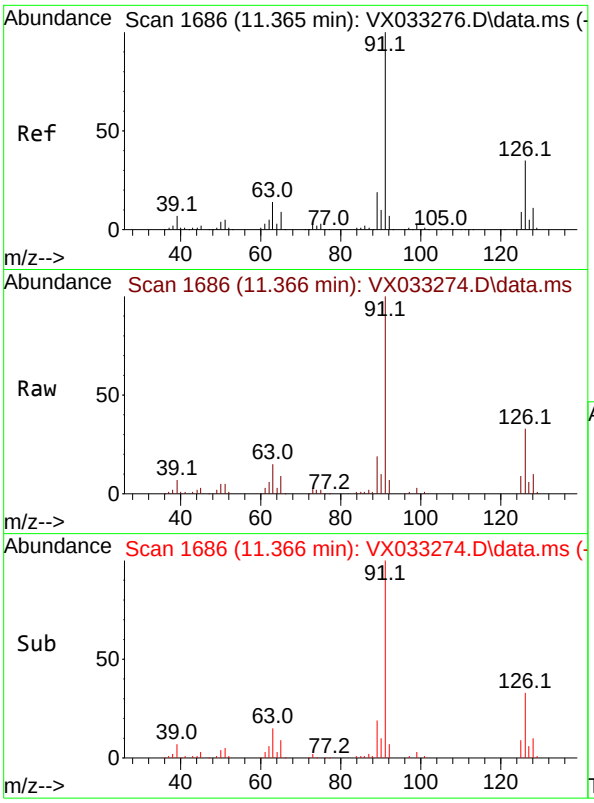



#78
n-propylbenzene
Concen: 4.834 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 91 Resp: 37347

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.4 | 11.6 | 34.8 |






#79
2-Chlorotoluene
Concen: 5.028 ug/l
RT: 11.366 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

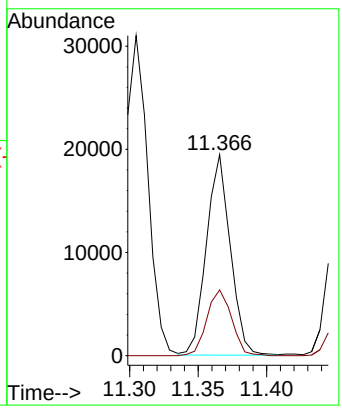
Tgt Ion: 91 Resp: 2359

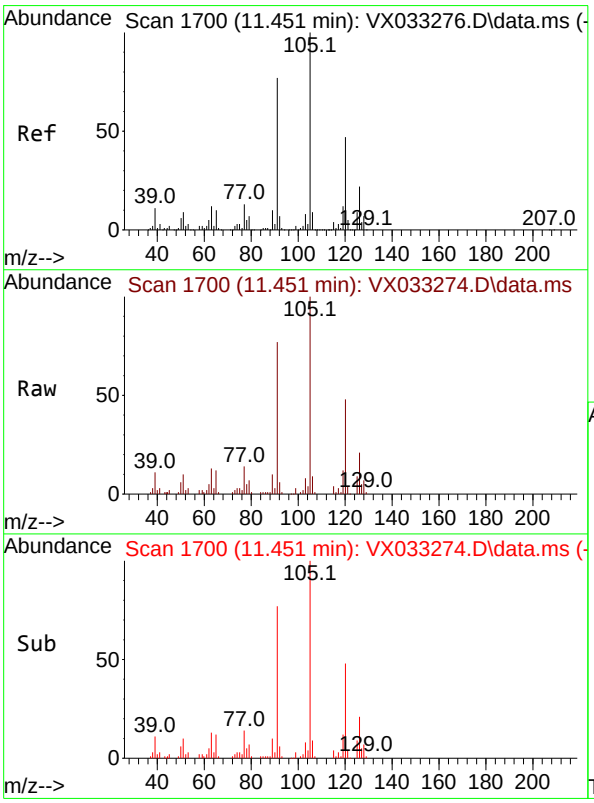
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 33.9 | 17.1 | 51.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

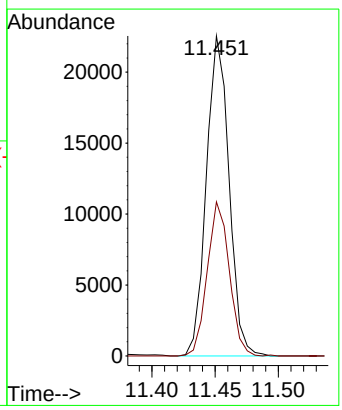


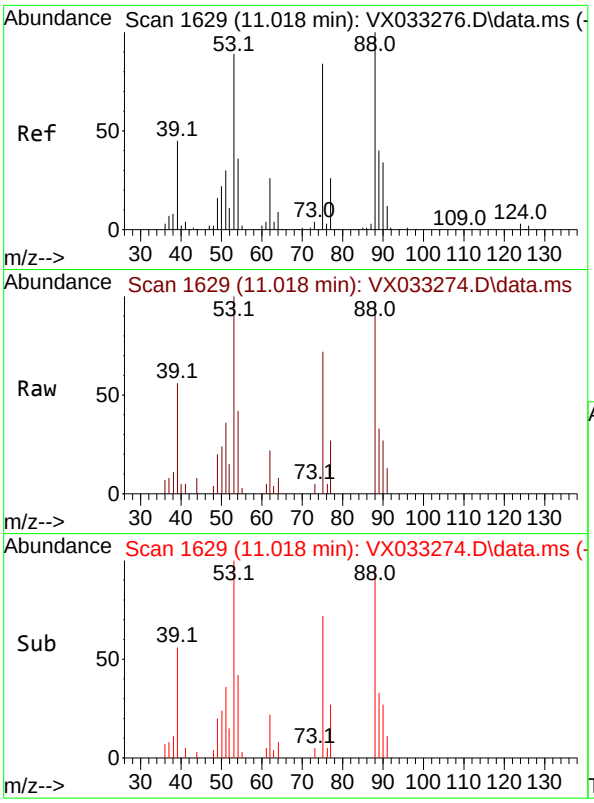




#80
1,3,5-Trimethylbenzene
Concen: 4.942 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:105 Resp: 28056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.9 | 23.6 | 71.0 |

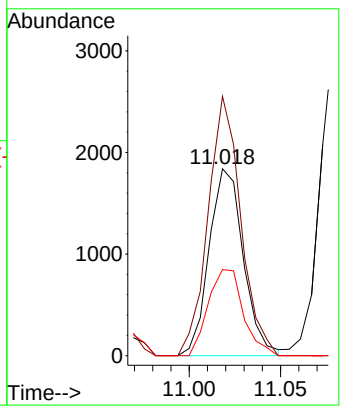





#81
trans-1,4-Dichloro-2-butene
Concen: 4.363 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 240

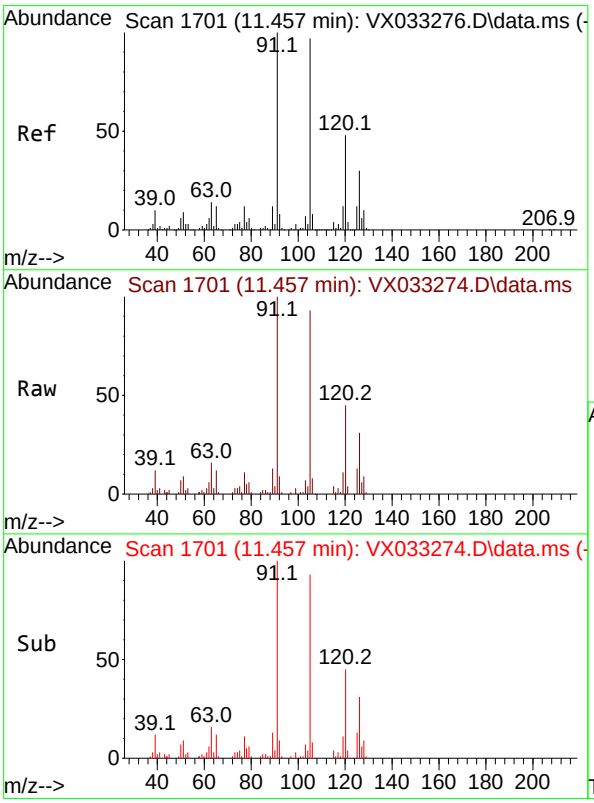
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 132.4 | 86.9 | 130.3# |
| 89 | 47.3 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

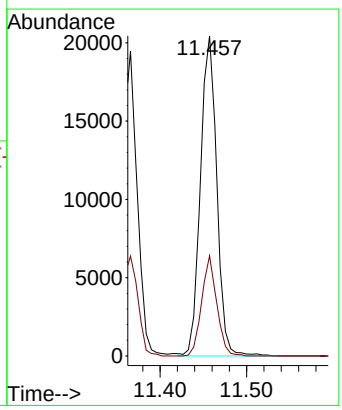
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

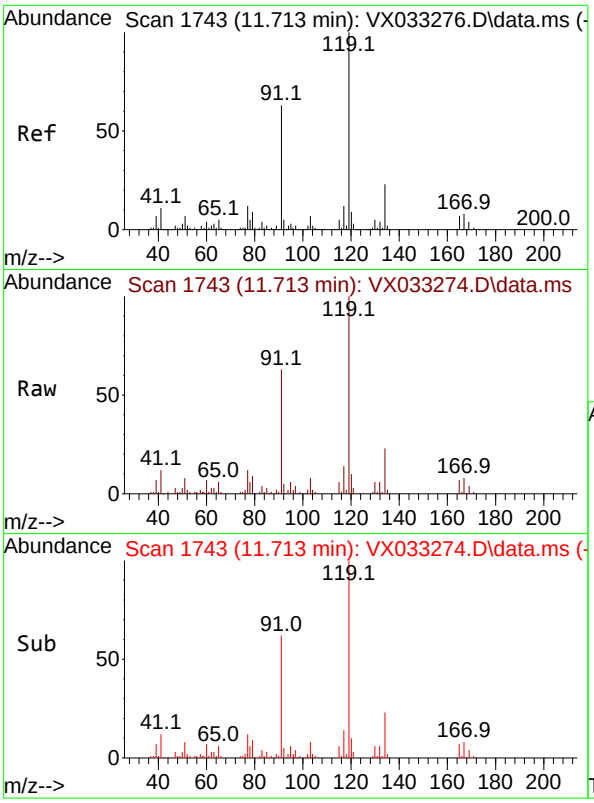



#82
4-Chlorotoluene
Concen: 4.874 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 91 Resp: 26803

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 28.9 | 14.8 | 44.4 |

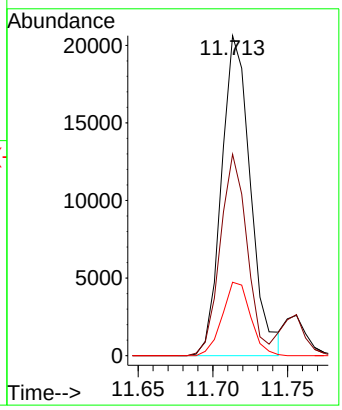





#83
tert-Butylbenzene
Concen: 4.918 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:119 Resp: 2779

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 58.4 | 29.4 | 88.2 |
| 134 | 22.4 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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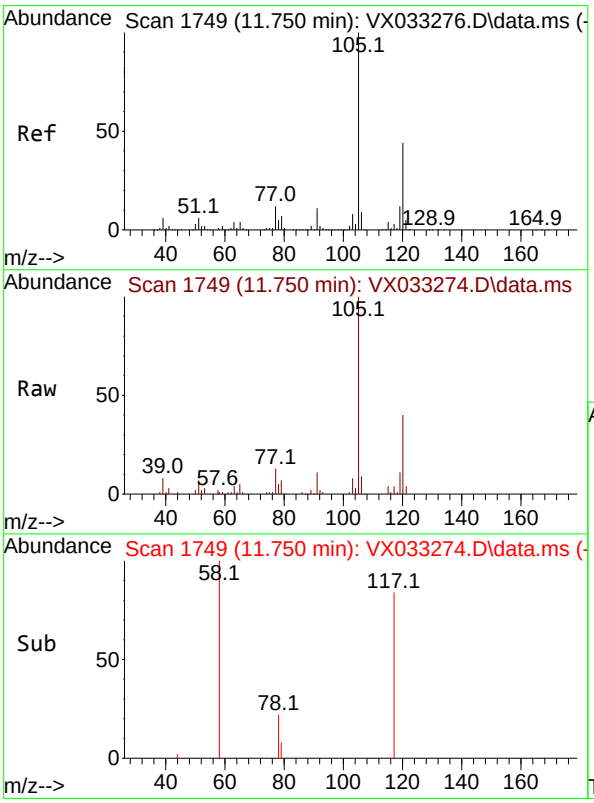
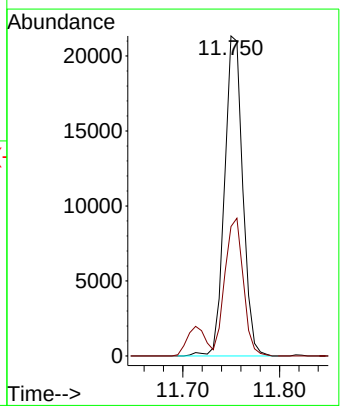
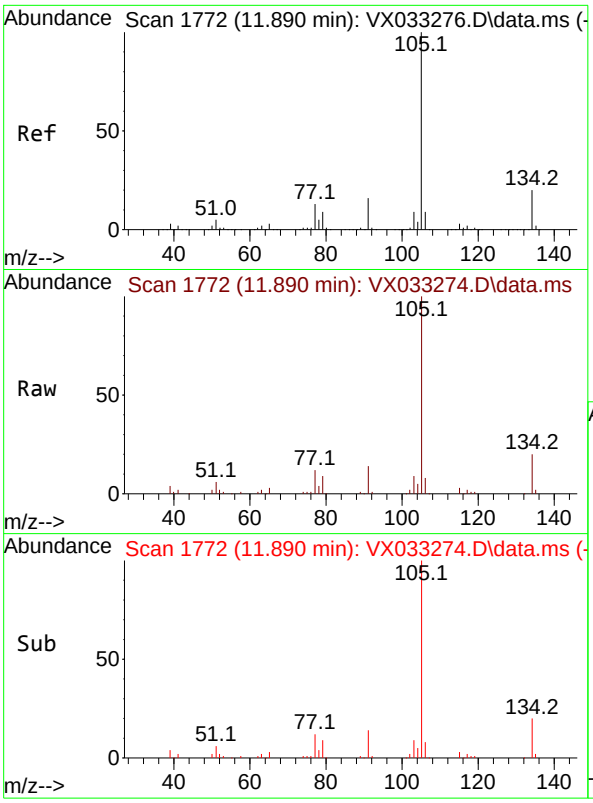



#84
1,2,4-Trimethylbenzene
Concen: 4.908 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:105 Resp: 27785

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.6 | 21.9 | 65.5 |






#85
sec-Butylbenzene
Concen: 4.783 ug/l
RT: 11.890 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:105 Resp: 3233

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.3 | 9.9 | 29.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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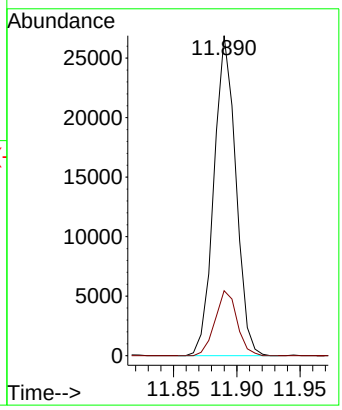
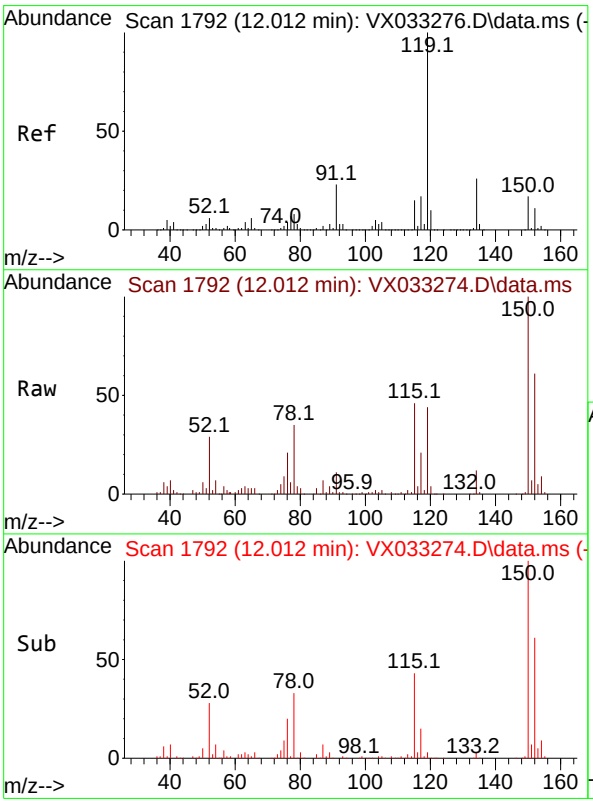
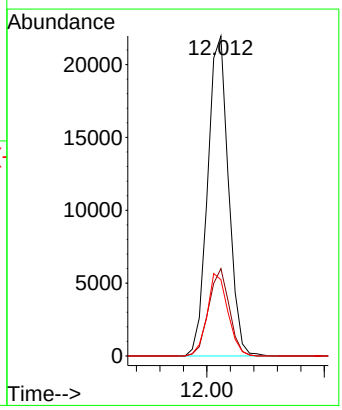


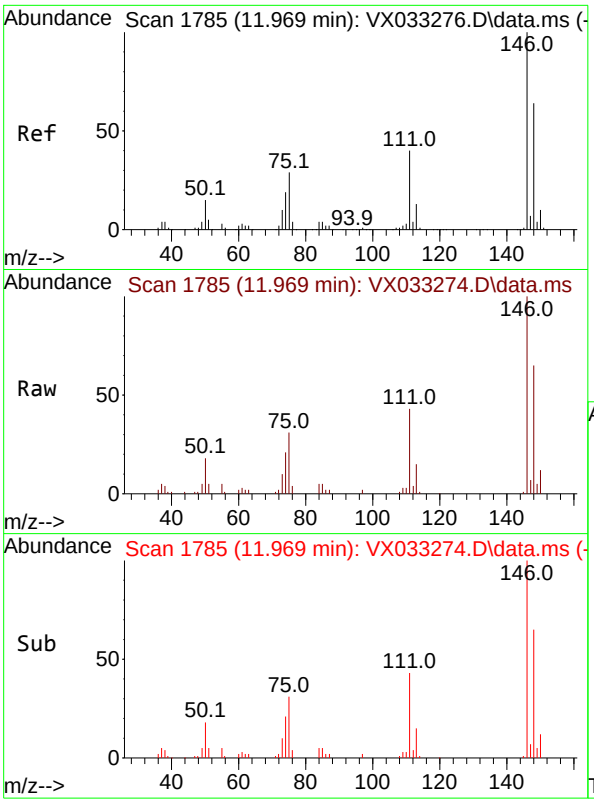




#86
p-Isopropyltoluene
Concen: 4.718 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:119 Resp: 27023

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 27.0 | 12.9 | 38.7 |
| 91 | 25.6 | 12.5 | 37.5 |

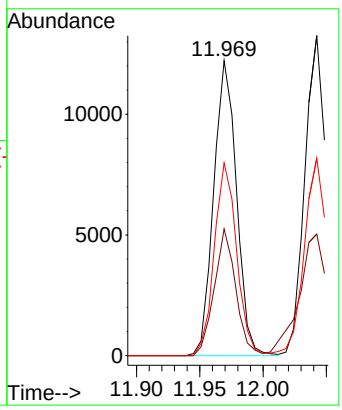





#87
1,3-Dichlorobenzene
Concen: 4.910 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:146 Resp: 1530

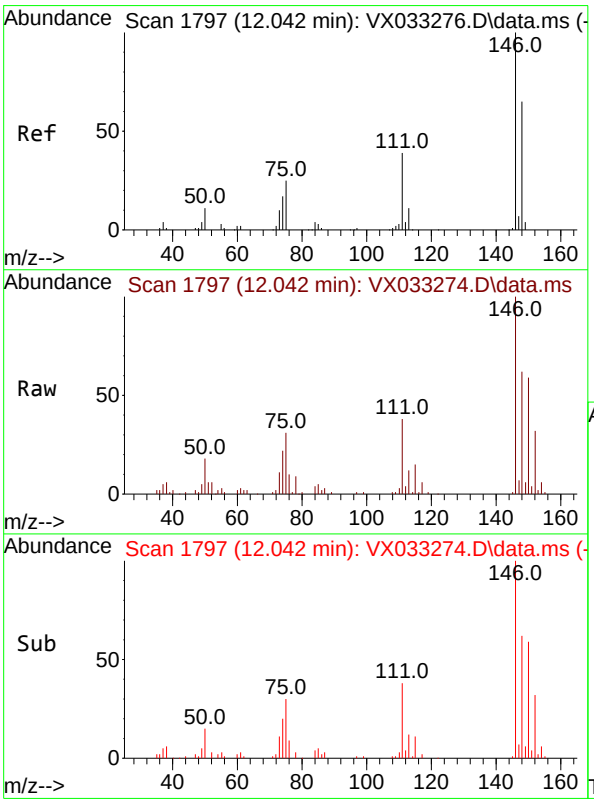
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.5 | 20.6 | 61.8 |
| 148 | 63.9 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

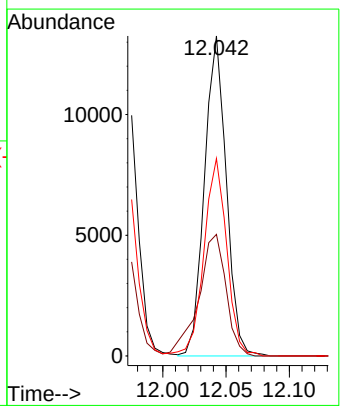
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

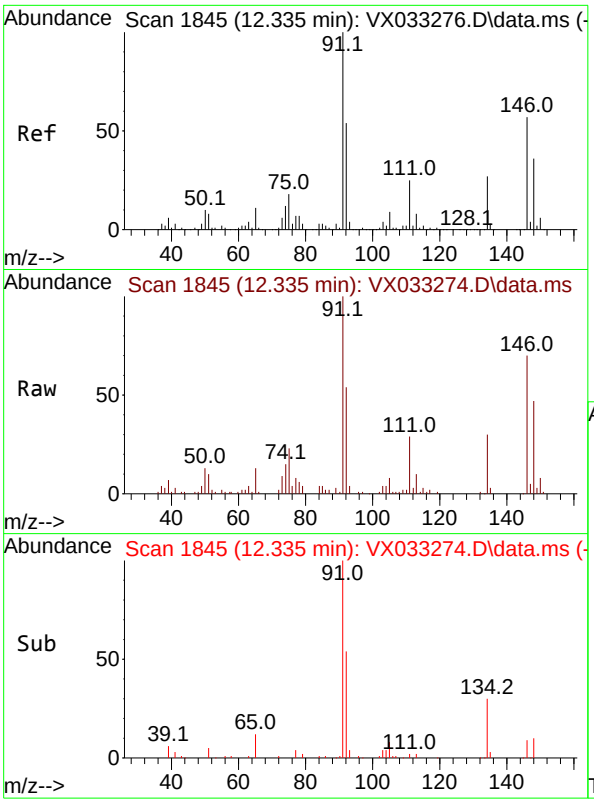



#88
1,4-Dichlorobenzene
Concen: 4.981 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:146 Resp: 15903

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 47.8 | 20.5 | 61.6 |
| 148 | 64.5 | 32.2 | 96.6 |

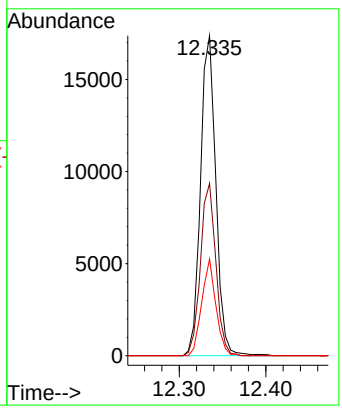





#89
n-Butylbenzene
Concen: 4.332 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 91 Resp: 2137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 53.9 | 26.2 | 78.6 |
| 134 | 27.9 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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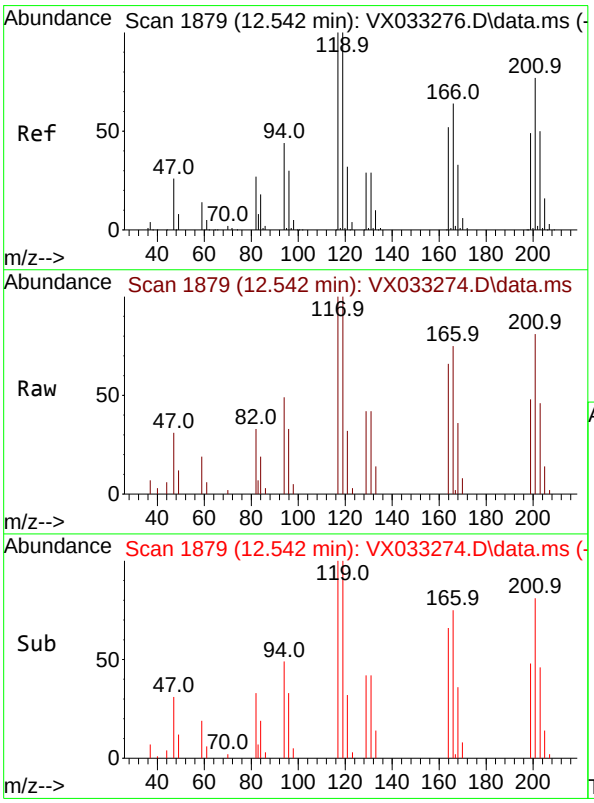
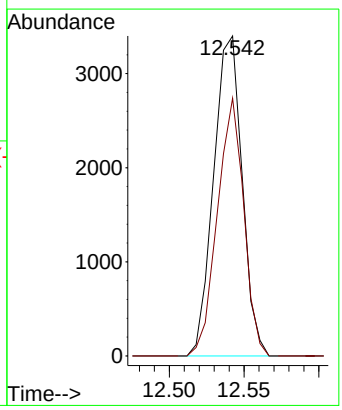
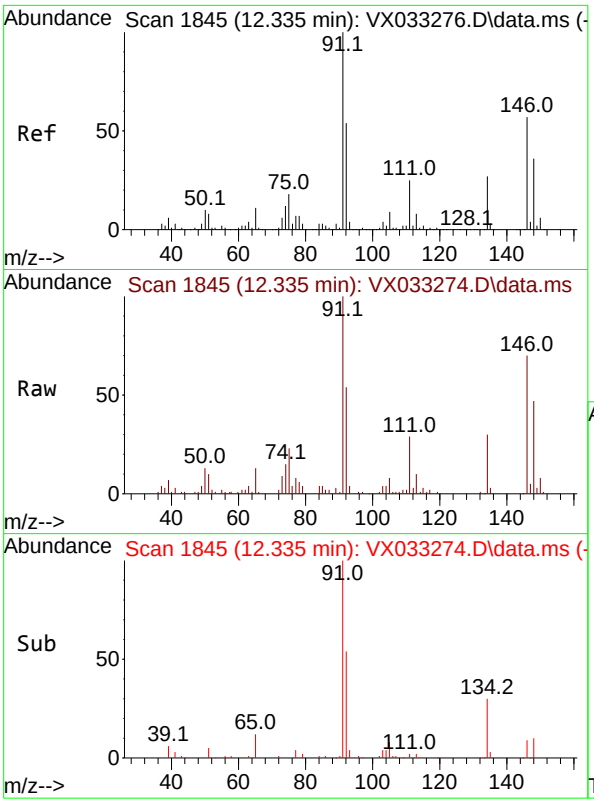



#90
Hexachloroethane
Concen: 4.788 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:117 Resp: 4506

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 74.5 | 37.6 | 112.9 |

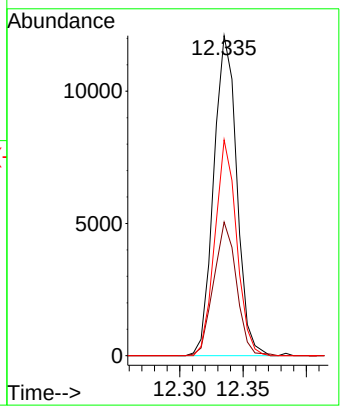





#91
1,2-Dichlorobenzene
Concen: 5.050 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:146 Resp: 1531

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.3 | 21.5 | 64.5 |
| 148 | 63.7 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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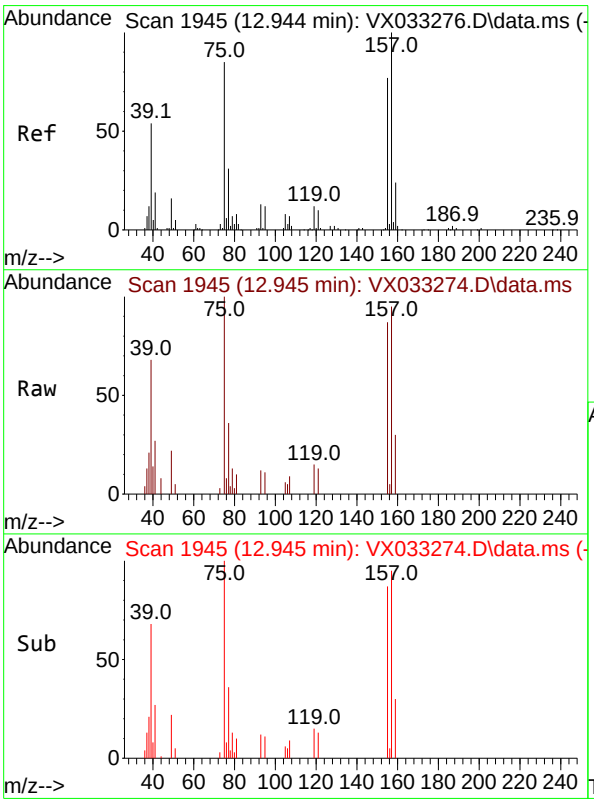
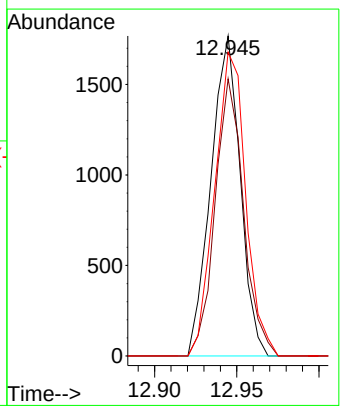
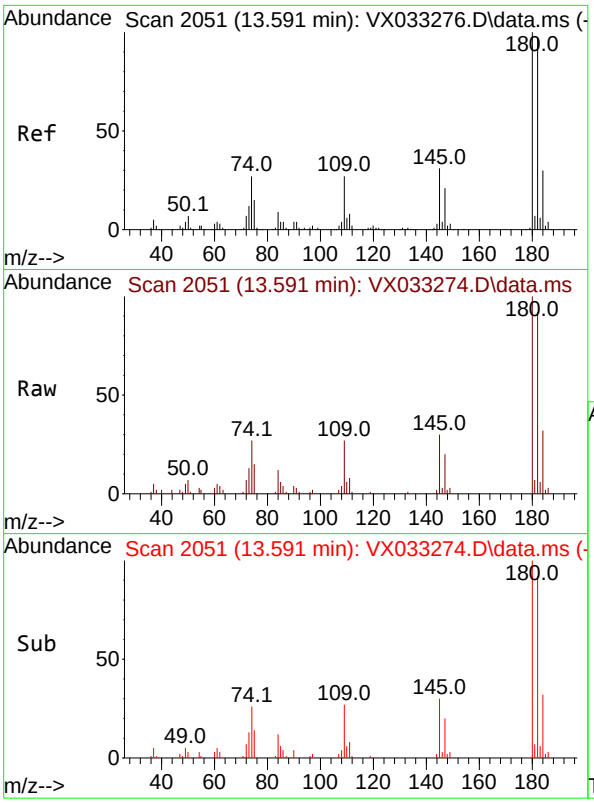



#92
1,2-Dibromo-3-Chloropropane
Concen: 5.382 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion: 75 Resp: 2190

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 84.2 | 41.6 | 124.8 |
| 157 | 100.3 | 54.1 | 162.4 |

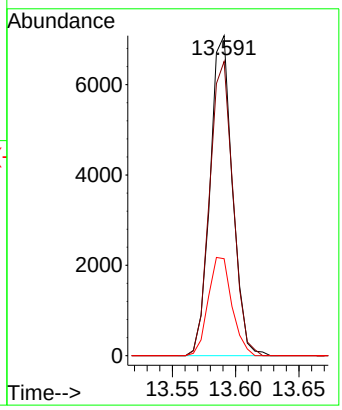





#93
1,2,4-Trichlorobenzene
Concen: 4.667 ug/l
RT: 13.591 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:180 Resp: 872

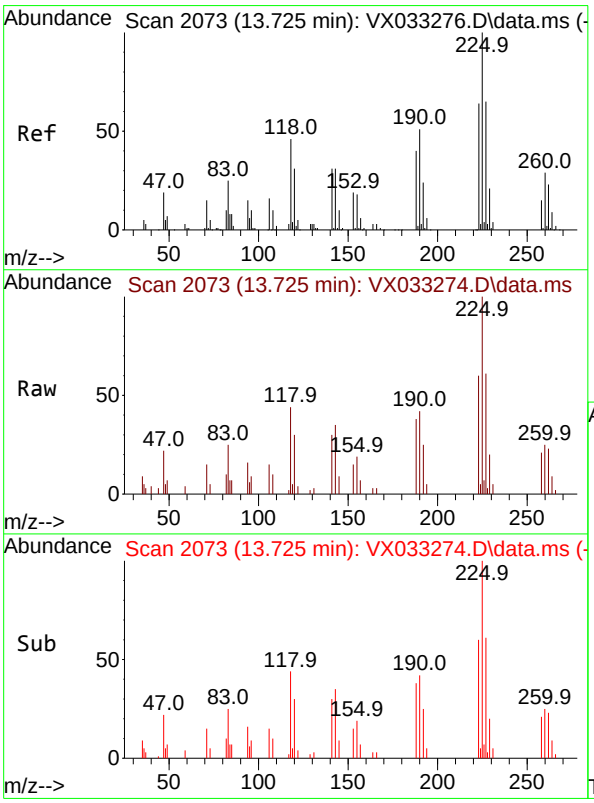
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.3 | 48.4 | 145.0 |
| 145 | 32.5 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

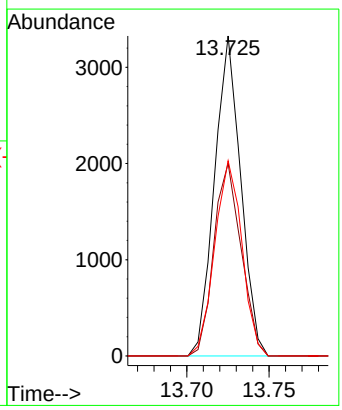
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

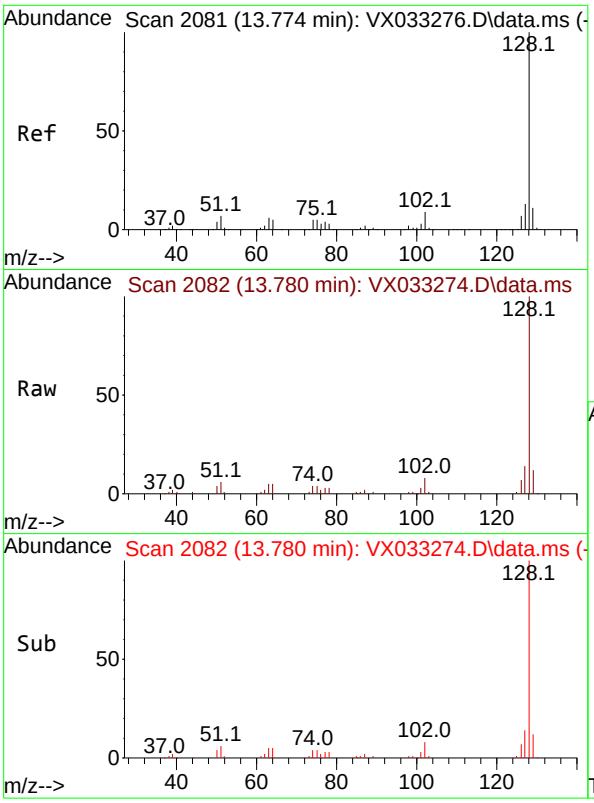



#94
Hexachlorobutadiene
Concen: 4.477 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:225 Resp: 3692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 62.6 | 31.9 | 95.9 |
| 227 | 63.3 | 31.9 | 95.5 |

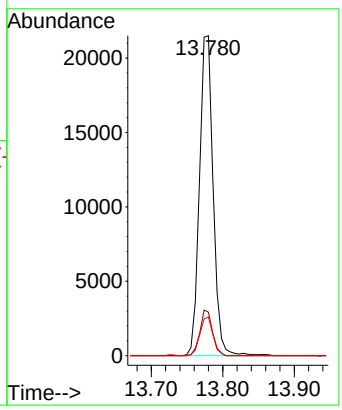





#95
Naphthalene
Concen: 4.730 ug/l
RT: 13.780 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:128 Resp: 2860

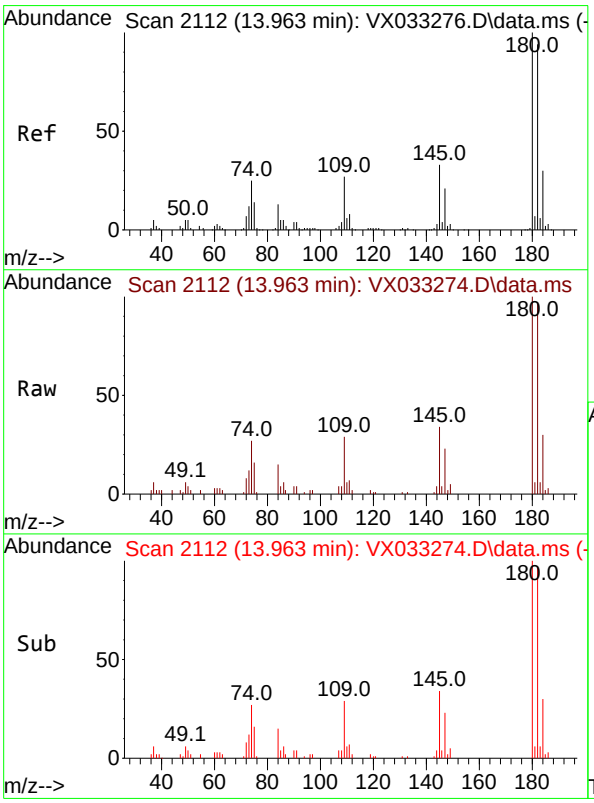
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.1 | 10.2 | 15.4 |
| 129 | 11.5 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC005

**Manual Integrations**
**APPROVED**

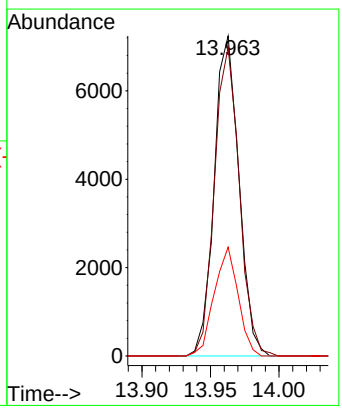
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 4.845 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033274.D
Acq: 07 Dec 2022 10:09

Tgt Ion:180 Resp: 9081

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 96.9 | 47.5 | 142.6 |
| 145 | 32.9 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033275.D
Acq On : 07 Dec 2022 10:32
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 11:16:31 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.556 | 168 | 147521 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 231761 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 212087 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 104636 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.964 | 65 | 19119 | 12.031 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 24.060%# | | | |
| 35) Dibromofluoromethane | 5.391 | 113 | 21699 | 16.607 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 33.220%# | | | |
| 50) Toluene-d8 | 8.653 | 98 | 45228 | 10.662 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 21.320%# | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 35433 | 20.645 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 41.280%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 23127 | 20.520 | ug/l | 99 |
| 3) Chloromethane | 1.294 | 50 | 26409 | 21.705 | ug/l | 98 |
| 4) Vinyl Chloride | 1.373 | 62 | 30354 | 22.406 | ug/l | 98 |
| 5) Bromomethane | 1.617 | 94 | 21504 | 21.406 | ug/l | 99 |
| 6) Chloroethane | 1.690 | 64 | 23121 | 20.964 | ug/l | 97 |
| 7) Trichlorofluoromethane | 1.892 | 101 | 57892 | 22.018 | ug/l | 99 |
| 8) Diethyl Ether | 2.135 | 74 | 20304 | 24.528 | ug/l | 95 |
| 9) 1,1,2-Trichlorotrifluo... | 2.330 | 101 | 31565 | 22.840 | ug/l | 96 |
| 10) Methyl Iodide | 2.452 | 142 | 32964 | 20.836 | ug/l | 99 |
| 11) Tert butyl alcohol | 2.989 | 59 | 29613 | 130.033 | ug/l | 99 |
| 12) 1,1-Dichloroethene | 2.324 | 96 | 29810 | 23.156 | ug/l | 98 |
| 13) Acrolein | 2.239 | 56 | 24508 | 93.690 | ug/l | 100 |
| 14) Allyl chloride | 2.666 | 41 | 47089 | 22.656 | ug/l | 96 |
| 15) Acrylonitrile | 3.068 | 53 | 78907 | 122.500 | ug/l | 99 |
| 16) Acetone | 2.391 | 43 | 78227 | 116.594 | ug/l | 100 |
| 17) Carbon Disulfide | 2.513 | 76 | 75958 | 21.356 | ug/l | 100 |
| 18) Methyl Acetate | 2.708 | 43 | 45026 | 24.243 | ug/l | 99 |
| 19) Methyl tert-butyl Ether | 3.117 | 73 | 100985 | 22.619 | ug/l | 99 |
| 20) Methylene Chloride | 2.794 | 84 | 33410 | 20.670 | ug/l | 93 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 32308 | 21.939 | ug/l | 96 |
| 22) Diisopropyl ether | 3.763 | 45 | 102846 | 22.725 | ug/l | 97 |
| 23) Vinyl Acetate | 3.720 | 43 | 393390 | 111.048 | ug/l | 100 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 59379 | 22.928 | ug/l | 99 |
| 25) 2-Butanone | 4.562 | 43 | 113918 | 123.133 | ug/l | 98 |
| 26) 2,2-Dichloropropane | 4.483 | 77 | 43915 | 21.089 | ug/l | 100 |
| 27) cis-1,2-Dichloroethene | 4.495 | 96 | 38152 | 22.802 | ug/l | 99 |
| 28) Bromochloromethane | 4.897 | 49 | 24001 | 21.092 | ug/l | 97 |
| 29) Tetrahydrofuran | 5.013 | 42 | 72726 | 123.883 | ug/l | 99 |
| 30) Chloroform | 5.098 | 83 | 66575 | 22.953 | ug/l | 98 |
| 31) Cyclohexane | 5.476 | 56 | 51704 | 22.212 | ug/l | 91 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 58398 | 22.482 | ug/l | 99 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 46341 | 22.181 | ug/l | 99 |
| 37) Ethyl Acetate | 4.720 | 43 | 44368 | 24.342 | ug/l | 98 |
| 38) Carbon Tetrachloride | 5.677 | 117 | 52464 | 22.637 | ug/l | 97 |
| 39) Methylcyclohexane | 7.384 | 83 | 53198 | 22.317 | ug/l | 97 |
| 40) Benzene | 6.037 | 78 | 135692 | 23.165 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033275.D
Acq On : 07 Dec 2022 10:32
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 11:16:31 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.928 | 41 | 24810 | 24.191 | ug/l | | 98 |
| 42) 1,2-Dichloroethane | 6.092 | 62 | 54314 | 23.029 | ug/l | | 99 |
| 43) Isopropyl Acetate | 6.342 | 43 | 69604 | 23.091 | ug/l | | 99 |
| 44) Trichloroethene | 7.128 | 130 | 37995 | 23.116 | ug/l | | 100 |
| 45) 1,2-Dichloropropane | 7.433 | 63 | 34412 | 23.772 | ug/l | | 96 |
| 46) Dibromomethane | 7.586 | 93 | 26034 | 23.049 | ug/l | | 98 |
| 47) Bromodichloromethane | 7.823 | 83 | 52123 | 23.881 | ug/l | | 99 |
| 48) Methyl methacrylate | 7.695 | 41 | 35797 | 23.071 | ug/l | | 97 |
| 49) 1,4-Dioxane | 7.701 | 88 | 16990 | 594.851 | ug/l | | 99 |
| 51) 4-Methyl-2-Pentanone | 8.573 | 43 | 231237 | 124.317 | ug/l | | 99 |
| 52) Toluene | 8.720 | 92 | 89946 | 23.340 | ug/l | | 98 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 48793 | 22.777 | ug/l | | 100 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 53756 | 22.847 | ug/l | | 96 |
| 55) 1,1,2-Trichloroethane | 9.152 | 97 | 35906 | 22.885 | ug/l | | 99 |
| 56) Ethyl methacrylate | 9.116 | 69 | 51875 | 23.997 | ug/l | | 95 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 59108 | 23.336 | ug/l | | 99 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 101008 | 98.398 | ug/l | | 100 |
| 59) 2-Hexanone | 9.433 | 43 | 173715 | 126.425 | ug/l | | 98 |
| 60) Dibromochloromethane | 9.524 | 129 | 40652 | 24.066 | ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 39225 | 23.686 | ug/l | | 98 |
| 64) Tetrachloroethene | 9.274 | 164 | 33071 | 22.029 | ug/l | | 96 |
| 65) Chlorobenzene | 10.079 | 112 | 98299 | 23.247 | ug/l | | 100 |
| 66) 1,1,1,2-Tetrachloroethane | 10.164 | 131 | 37470 | 24.185 | ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 173292 | 23.103 | ug/l | | 100 |
| 68) m/p-Xylenes | 10.299 | 106 | 134099 | 45.655 | ug/l | | 100 |
| 69) o-Xylene | 10.640 | 106 | 66685 | 23.464 | ug/l | | 98 |
| 70) Styrene | 10.658 | 104 | 109831 | 23.622 | ug/l | | 100 |
| 71) Bromoform | 10.798 | 173 | 29189 | 24.572 | ug/l | # | 99 |
| 73) Isopropylbenzene | 10.963 | 105 | 175194 | 23.430 | ug/l | | 100 |
| 74) N-amyl acetate | 10.841 | 43 | 60421 | 23.754 | ug/l | | 98 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 54465 | 24.134 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.237 | 75 | 49227m | 24.842 | ug/l | | |
| 77) Bromobenzene | 11.195 | 156 | 43240 | 23.514 | ug/l | | 99 |
| 78) n-propylbenzene | 11.304 | 91 | 199580 | 23.345 | ug/l | | 100 |
| 79) 2-Chlorotoluene | 11.365 | 91 | 120391 | 23.187 | ug/l | | 99 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 147966 | 23.556 | ug/l | | 100 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 14526 | 23.827 | ug/l | | 96 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 139436 | 22.916 | ug/l | | 100 |
| 83) tert-Butylbenzene | 11.713 | 119 | 148011 | 23.672 | ug/l | | 98 |
| 84) 1,2,4-Trimethylbenzene | 11.756 | 105 | 148682 | 23.739 | ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 174891 | 23.380 | ug/l | | 100 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 150310 | 23.717 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 80485 | 23.335 | ug/l | | 98 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 79989 | 22.644 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 125513 | 22.988 | ug/l | | 100 |
| 90) Hexachloroethane | 12.542 | 117 | 24641 | 23.665 | ug/l | | 98 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 79568 | 23.715 | ug/l | | 98 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.944 | 75 | 11683 | 25.947 | ug/l | | 98 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 48268 | 23.338 | ug/l | | 97 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 19262 | 21.110 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 163799 | 24.481 | ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 47697 | 22.997 | ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033275.D
Acq On : 07 Dec 2022 10:32
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:16:31 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

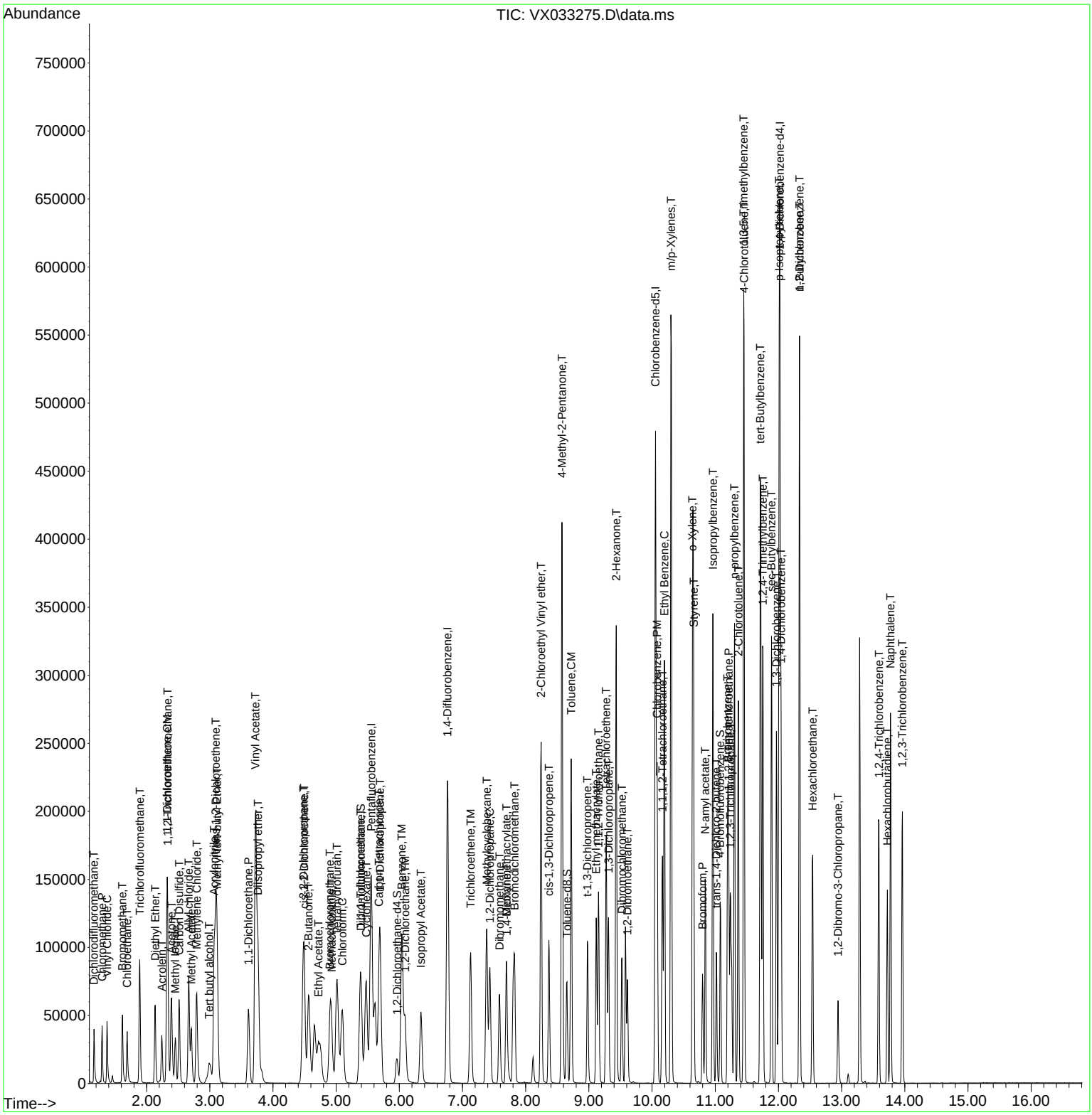
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033275.D
Acq On : 07 Dec 2022 10:32
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

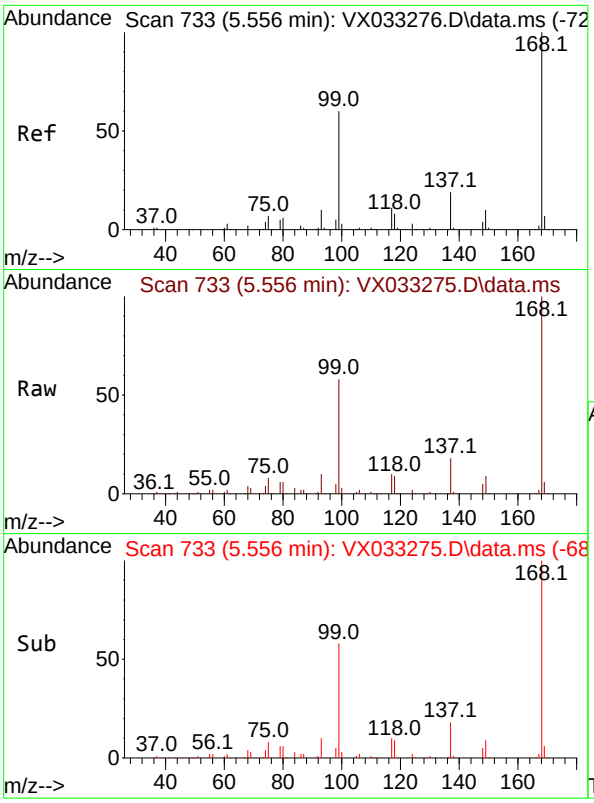
Quant Time: Dec 07 11:16:31 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

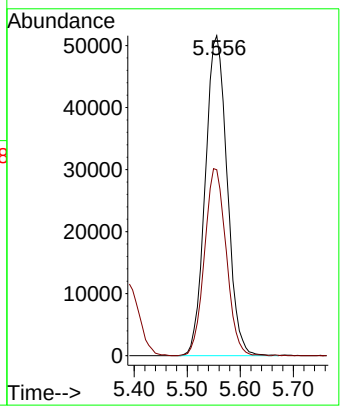





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.556 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:168 Resp: 14752

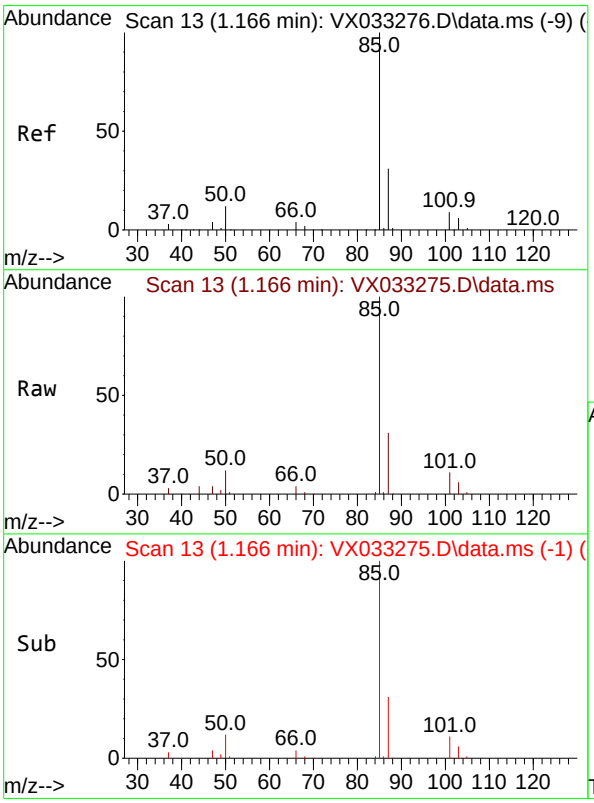
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 58.1 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

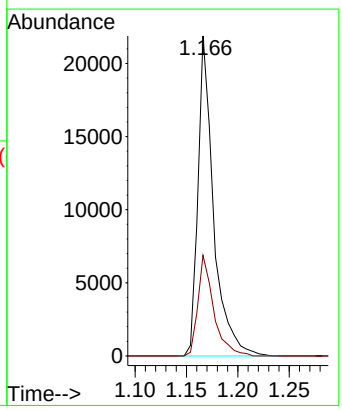
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

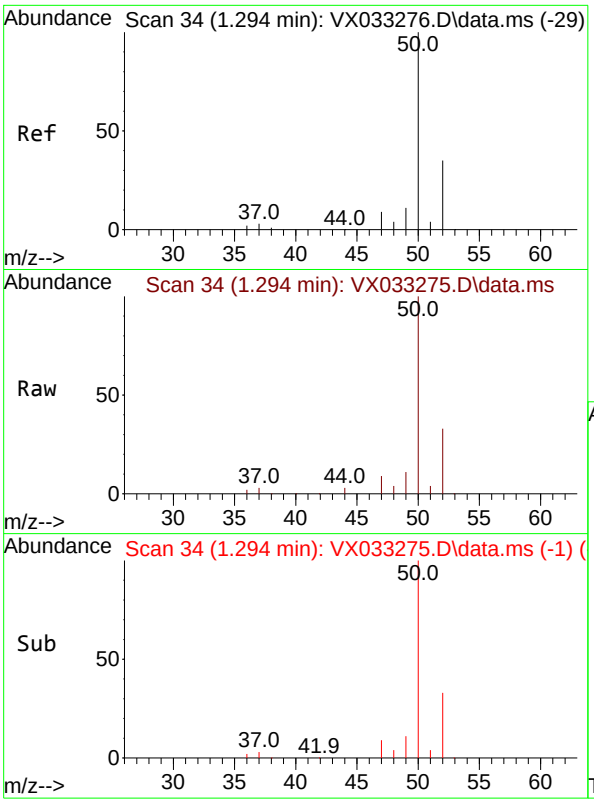



#2
Dichlorodifluoromethane
Concen: 20.520 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 85 Resp: 23127

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 31.5 | 15.6 | 46.7 |

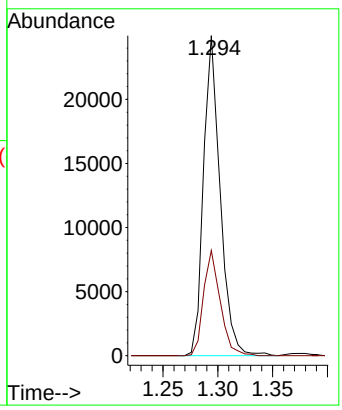





#3
Chloromethane
Concen: 21.705 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 50 Resp: 2640

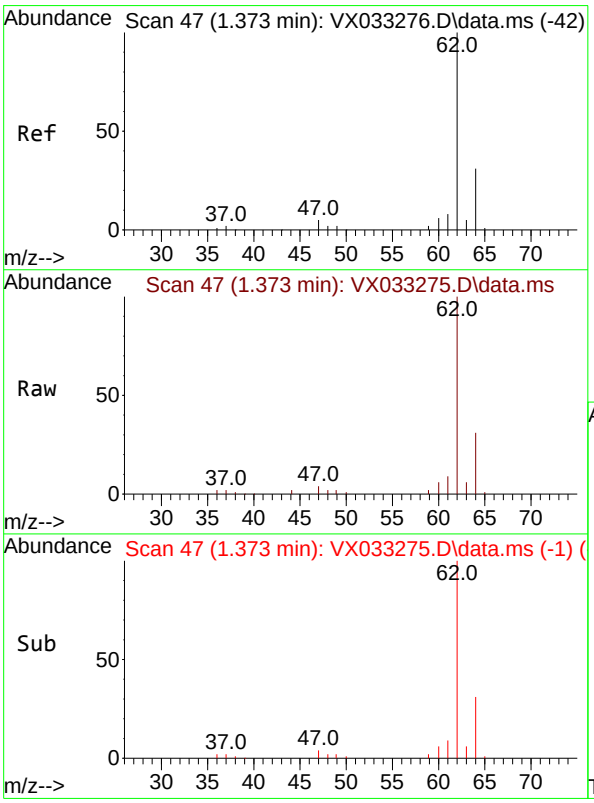
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.9 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

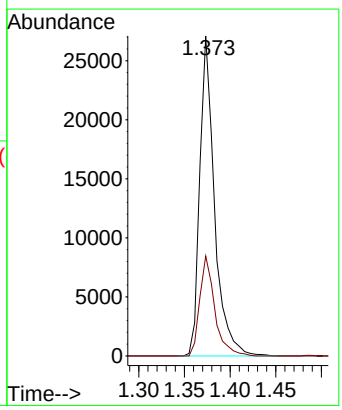
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

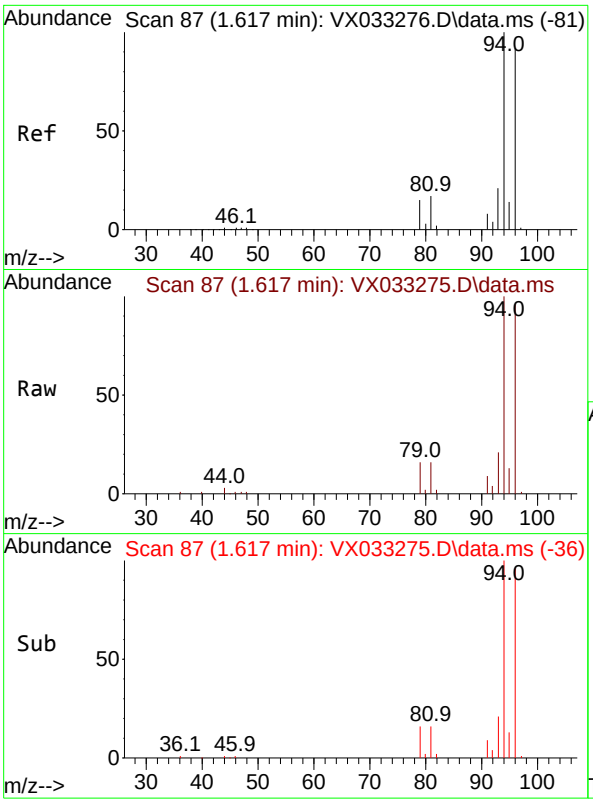



#4
Vinyl Chloride
Concen: 22.406 ug/l
RT: 1.373 min Scan# 47
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 62 Resp: 30354

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.2 | 25.8 | 38.6 |

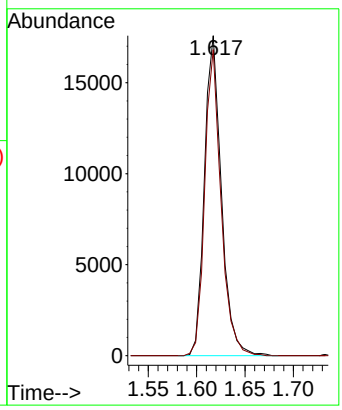





#5
Bromomethane
Concen: 21.406 ug/l
RT: 1.617 min Scan# 8
Delta R.T. 0.012 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 94 Resp: 2150

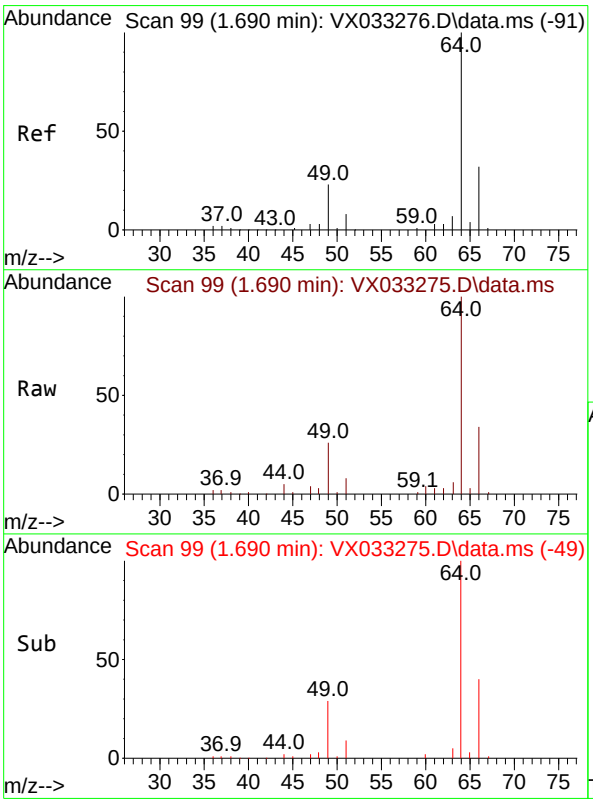
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 95.6 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

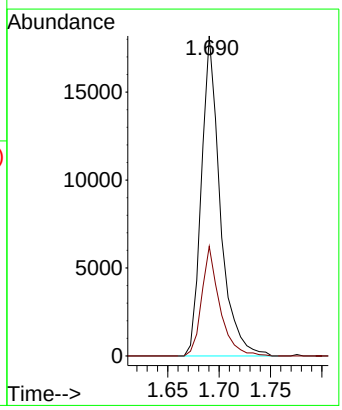
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

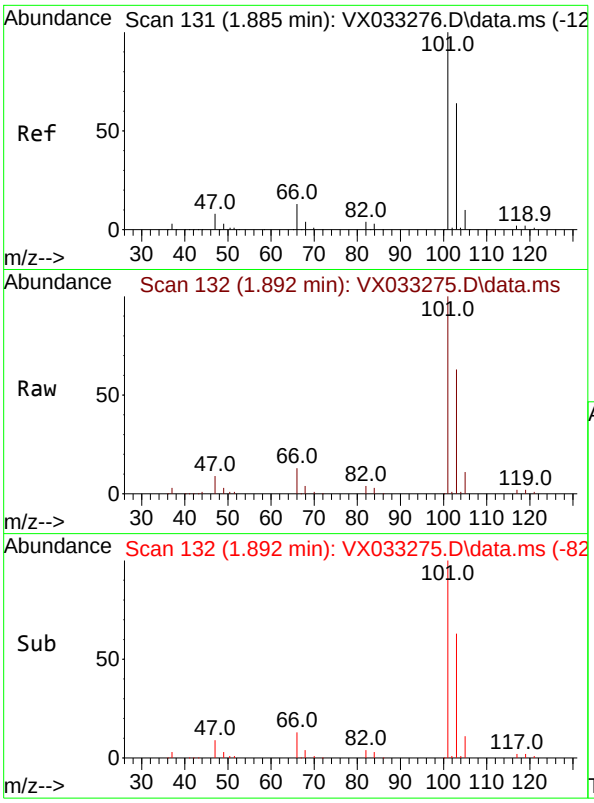



#6
Chloroethane
Concen: 20.964 ug/l
RT: 1.690 min Scan# 99
Delta R.T. 0.005 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 64 Resp: 23121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 34.3 | 26.0 | 39.0 |

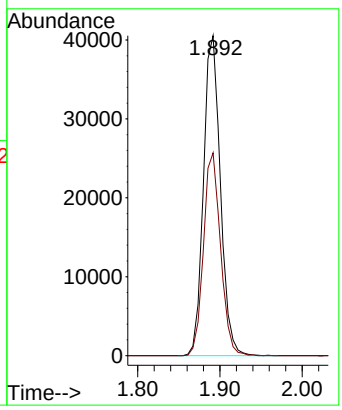





#7
Trichlorofluoromethane
Concen: 22.018 ug/l
RT: 1.892 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:101 Resp: 5789

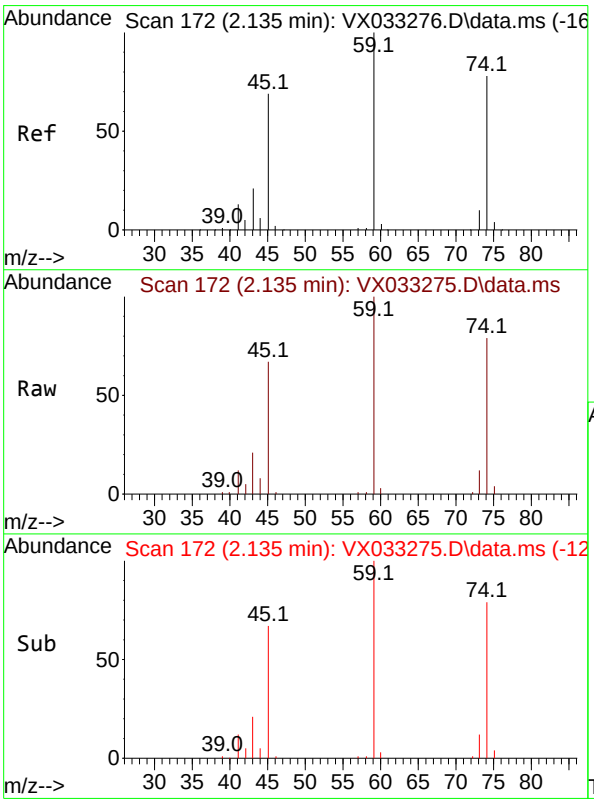
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.4 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

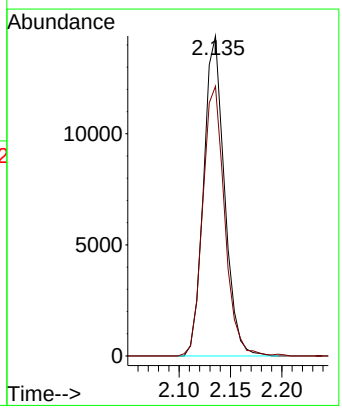
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

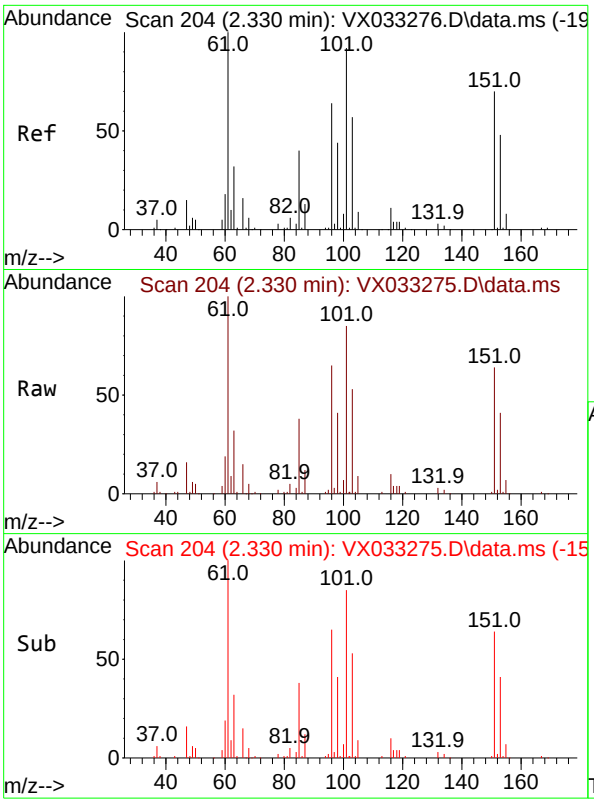



#8
Diethyl Ether
Concen: 24.528 ug/l
RT: 2.135 min Scan# 172
Delta R.T. 0.005 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 74 Resp: 20304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 88.7 | 46.6 | 139.7 |

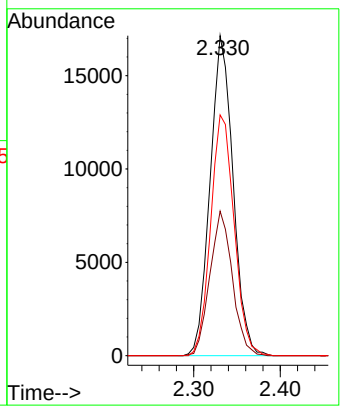





#9
1,1,2-Trichlorotrifluoroethane
Concen: 22.840 ug/l
RT: 2.330 min Scan# 2
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:101 Resp: 3156

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 44.3 | 37.0 | 55.4 |
| 151 | 76.9 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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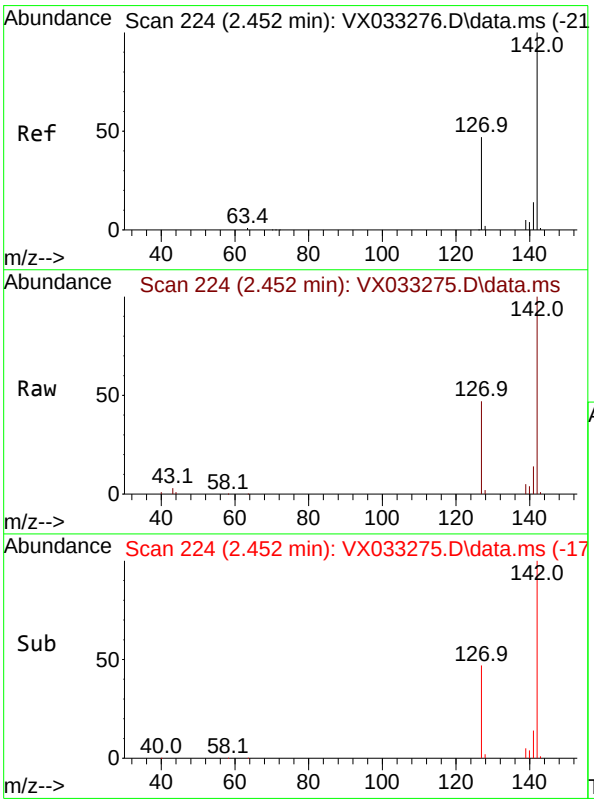
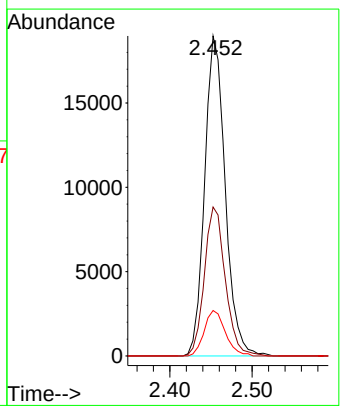
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

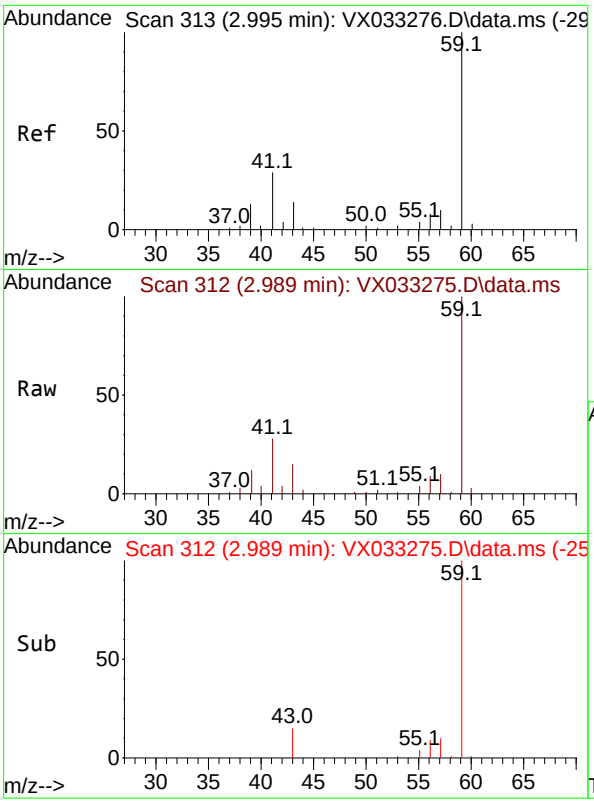



#10
Methyl Iodide
Concen: 20.836 ug/l
RT: 2.452 min Scan# 224
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:142 Resp: 32964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.4 | 38.6 | 57.8 |
| 141 | 14.6 | 11.4 | 17.2 |

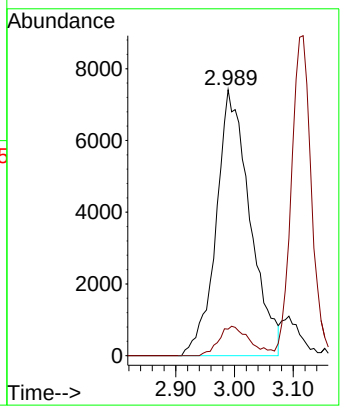





#11
Tert butyl alcohol
Concen: 130.033 ug/l
RT: 2.989 min Scan# 3
Delta R.T. 0.024 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 59 Resp: 2961

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 9.9 | 8.2 | 12.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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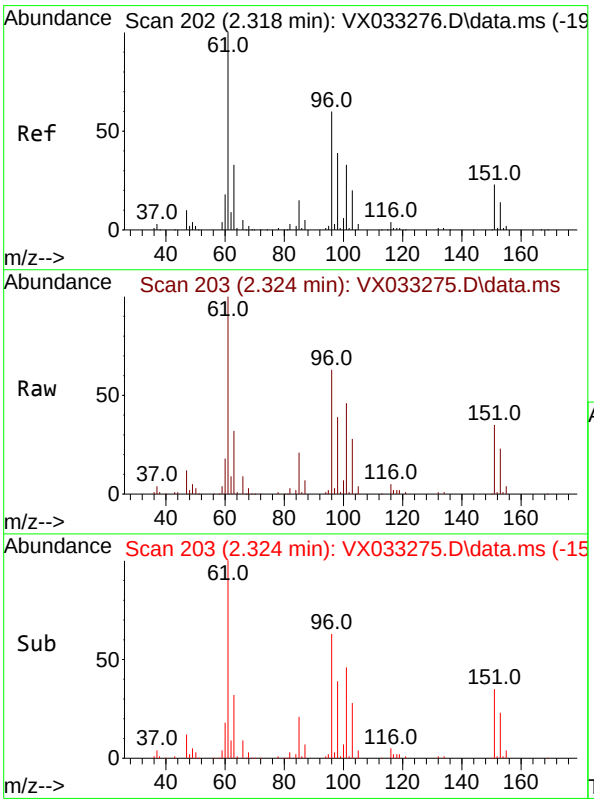
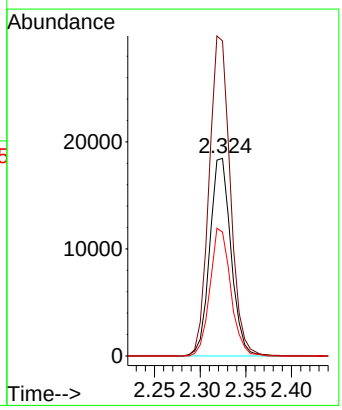
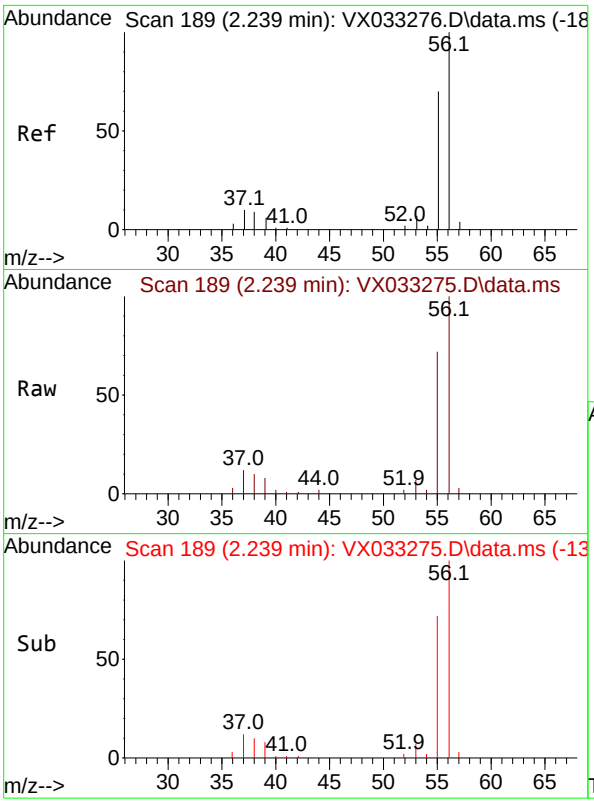



#12
1,1-Dichloroethene
Concen: 23.156 ug/l
RT: 2.324 min Scan# 203
Delta R.T. 0.005 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 96 Resp: 29810

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 159.4 | 125.1 | 187.7 |
| 98 | 62.7 | 50.6 | 76.0 |

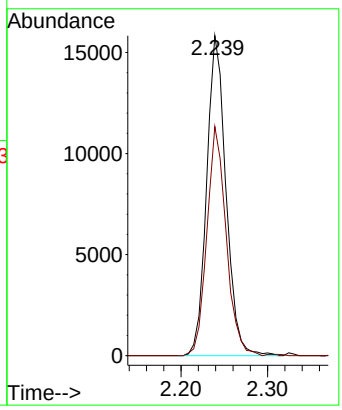





#13
Acrolein
Concen: 93.690 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 56 Resp: 2450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 71.5 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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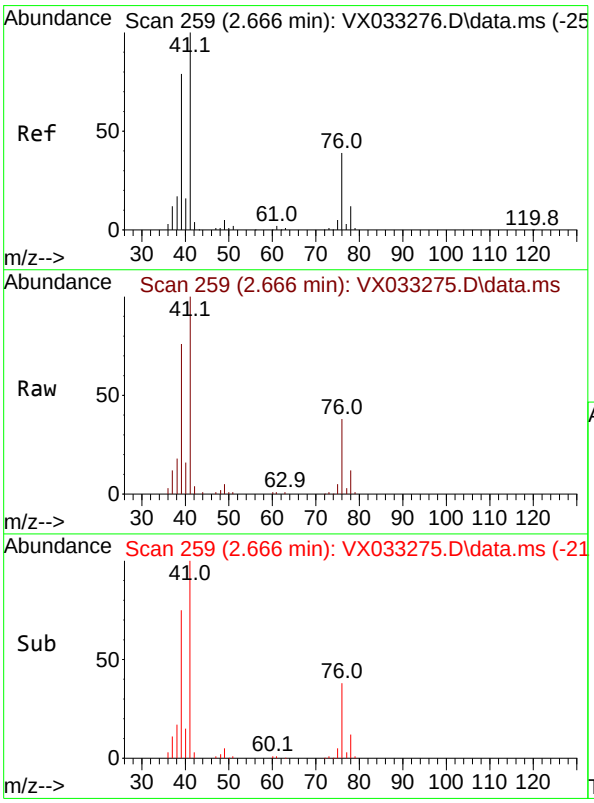
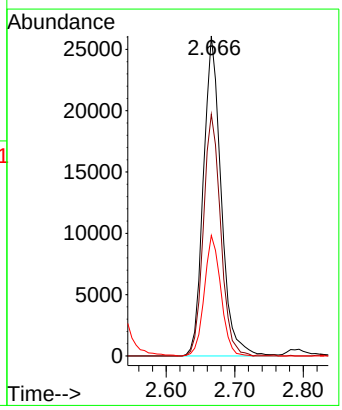
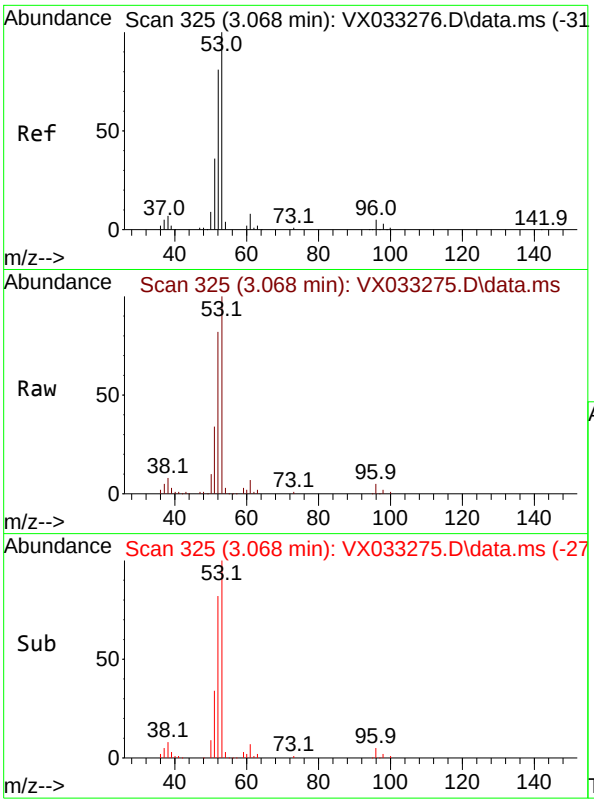



#14
Allyl chloride
Concen: 22.656 ug/l
RT: 2.666 min Scan# 259
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 41 Resp: 47089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 73.2 | 61.4 | 92.2 |
| 76 | 35.1 | 29.2 | 43.8 |

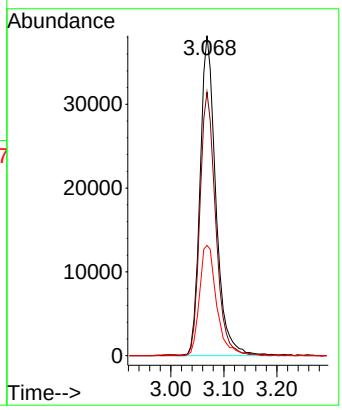





#15
Acrylonitrile
Concen: 122.500 ug/l
RT: 3.068 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 53 Resp: 7890

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 82.5 | 67.4 | 101.0 |
| 51 | 37.5 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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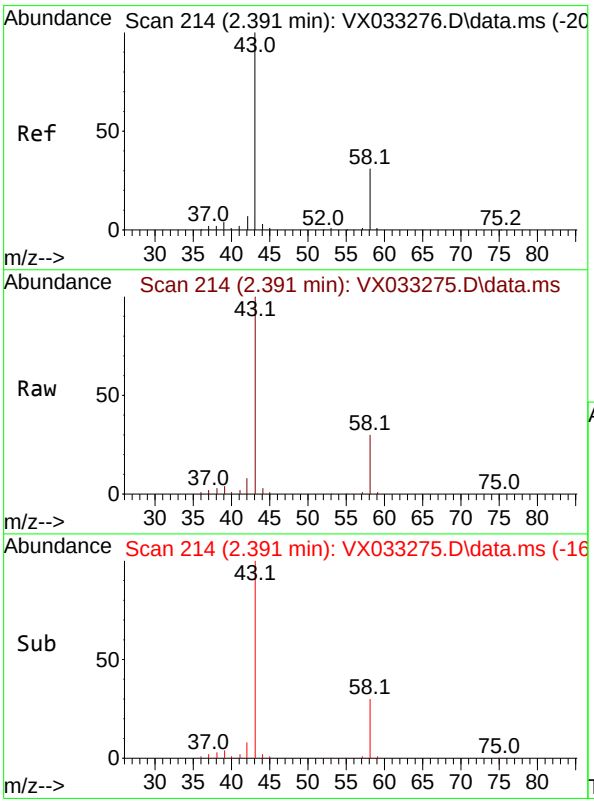
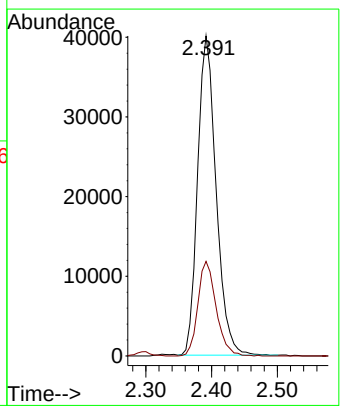
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

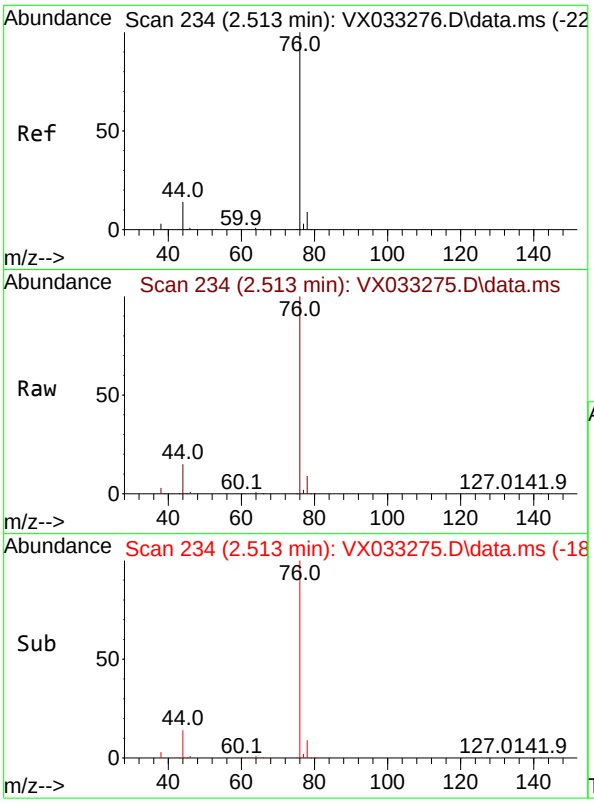



#16
Acetone
Concen: 116.594 ug/l
RT: 2.391 min Scan# 214
Delta R.T. 0.011 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 78227

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 29.6 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 21.356 ug/l
RT: 2.513 min Scan# 2
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 76 Resp: 7595

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.4 | 7.5 | 11.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

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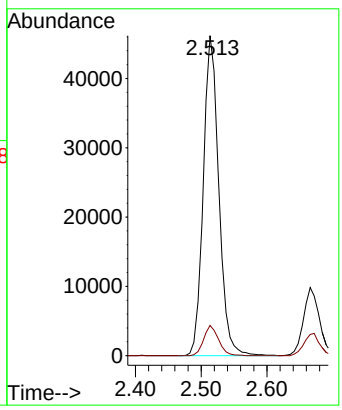
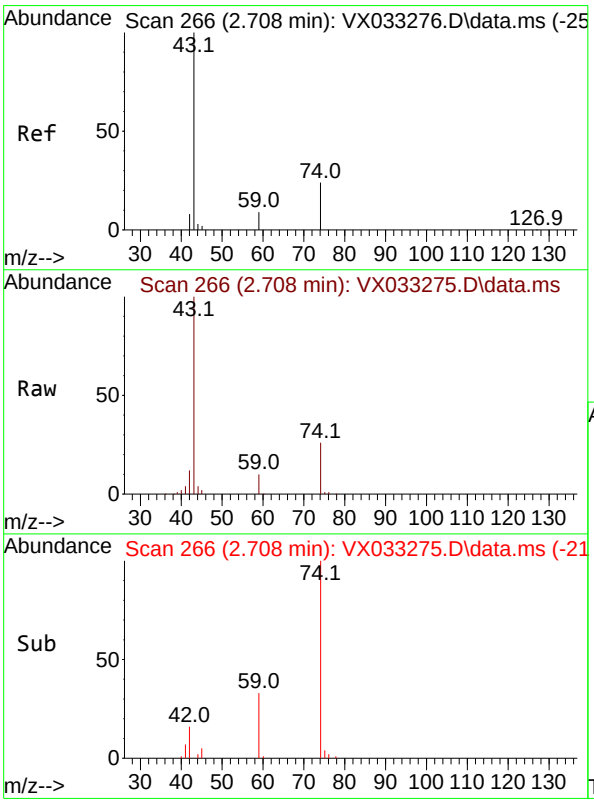
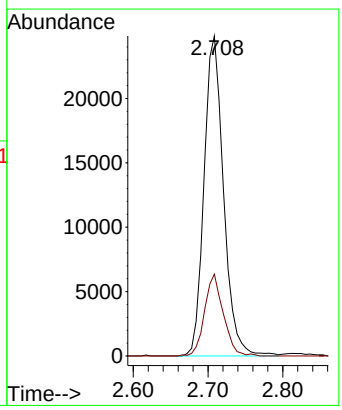


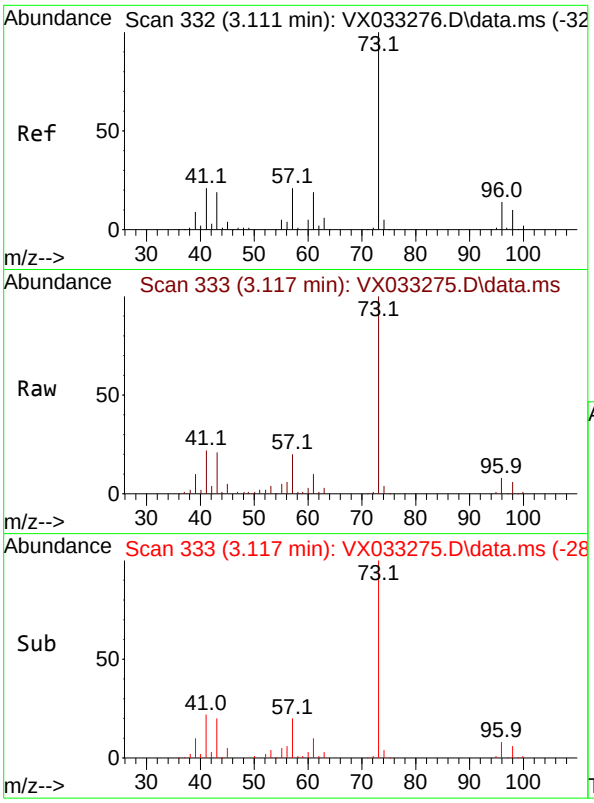




#18
Methyl Acetate
Concen: 24.243 ug/l
RT: 2.708 min Scan# 266
Delta R.T. 0.005 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 45026

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 24.5 | 19.4 | 29.0 |

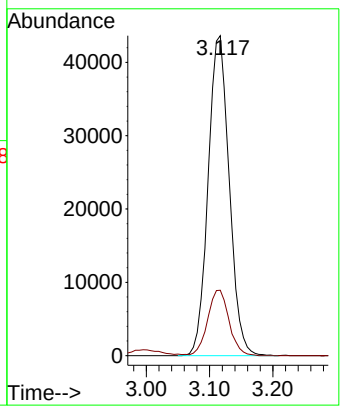





#19
Methyl tert-butyl Ether
Concen: 22.619 ug/l
RT: 3.117 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 73 Resp: 10098

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 20.4 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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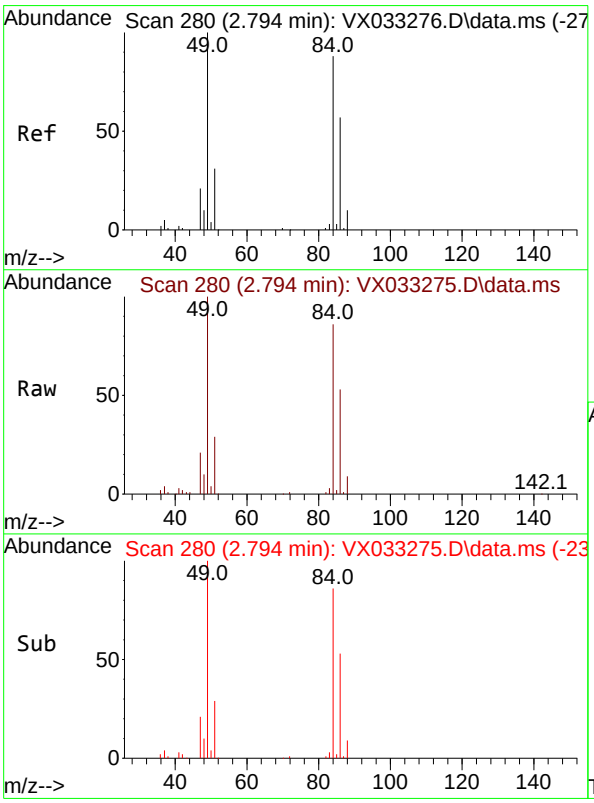
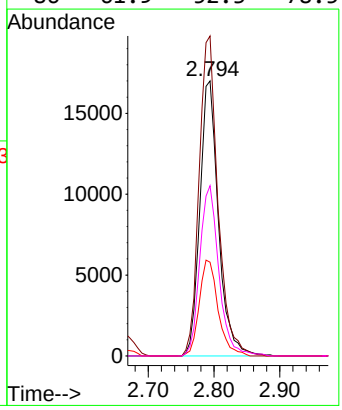
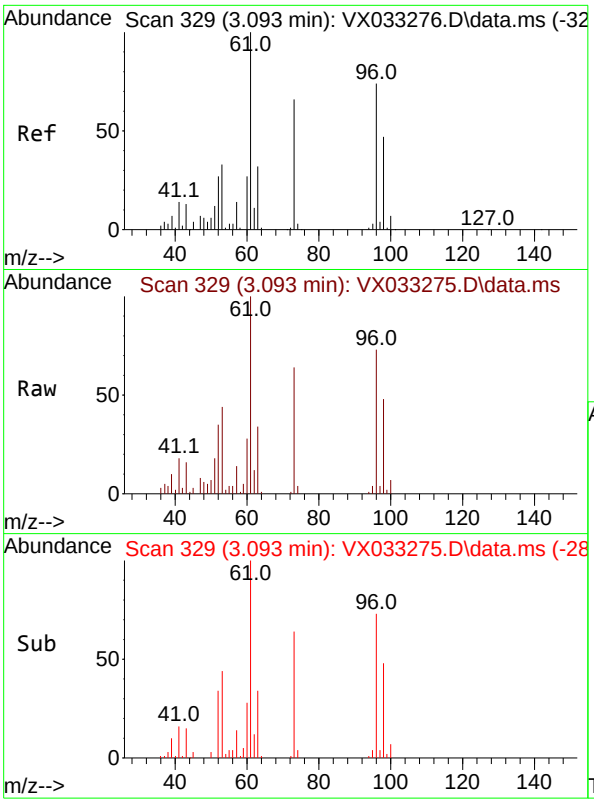



#20
Methylene Chloride
Concen: 20.670 ug/l
RT: 2.794 min Scan# 280
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 84 Resp: 33410

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 116.4 | 101.0 | 151.6 |
| 51 | 34.1 | 31.1 | 46.7 |
| 86 | 61.9 | 52.3 | 78.5 |

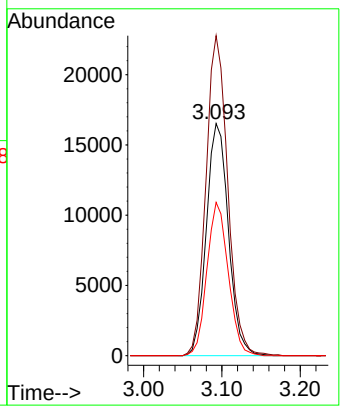





#21
trans-1,2-Dichloroethene
Concen: 21.939 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 96 Resp: 3230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 137.9 | 106.6 | 160.0 |
| 98 | 66.0 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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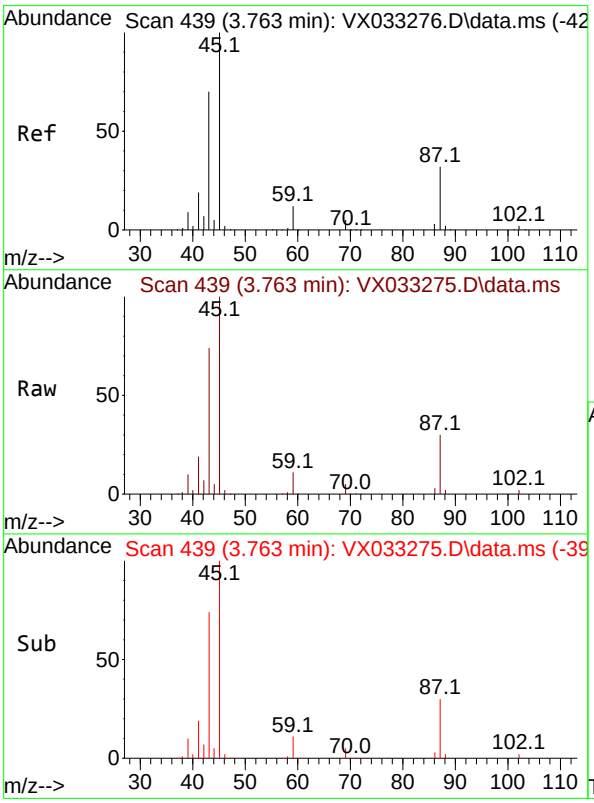
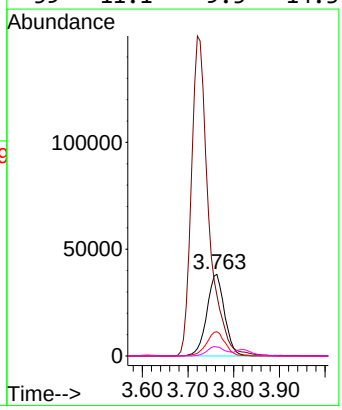
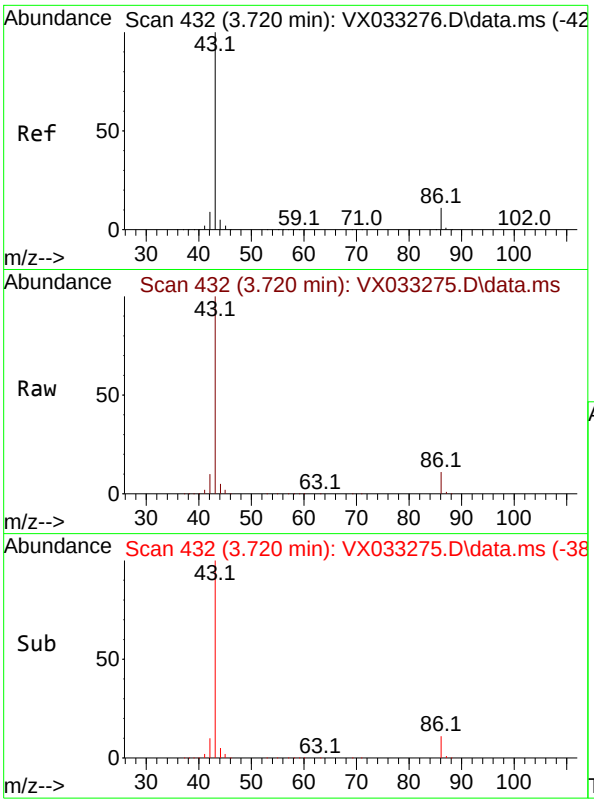



#22
Diisopropyl ether
Concen: 22.725 ug/l
RT: 3.763 min Scan# 439
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 45 Resp: 102846

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 73.6 | 56.4 | 84.6 |
| 87 | 29.6 | 24.4 | 36.6 |
| 59 | 11.1 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 111.048 ug/l
RT: 3.720 min Scan# 4
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 39339

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 10.5 | 8.6 | 12.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

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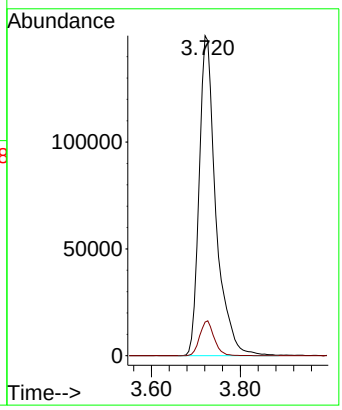
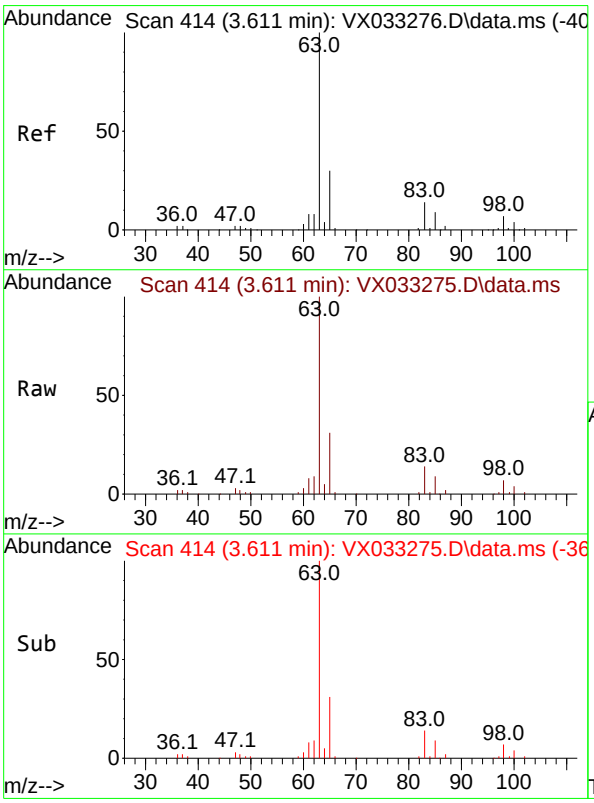
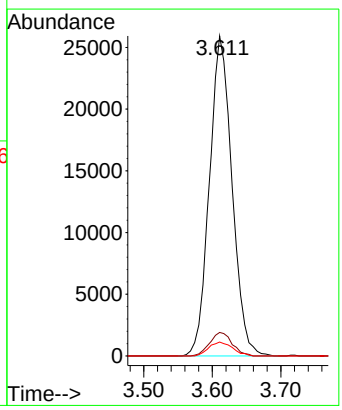


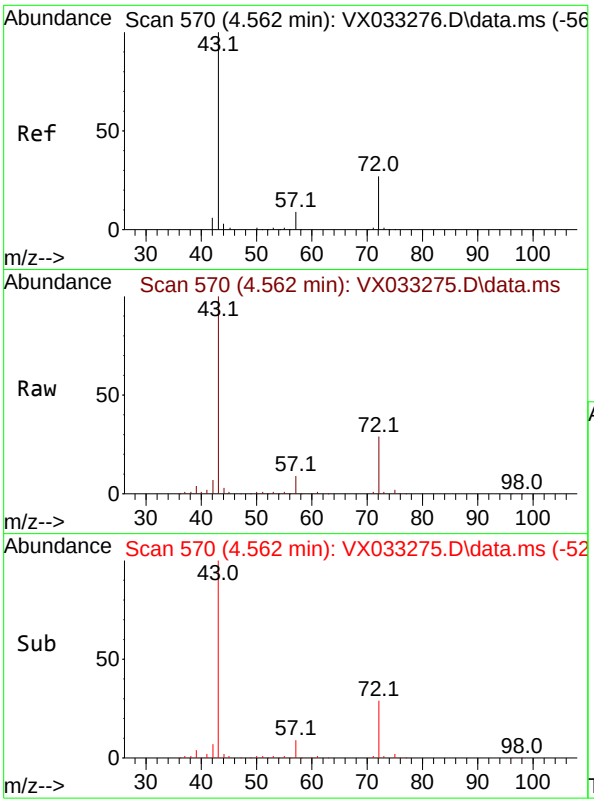




#24
1,1-Dichloroethane
Concen: 22.928 ug/l
RT: 3.611 min Scan# 414
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 63 Resp: 59379

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 7.3 | 3.5 | 10.4 |
| 100 | 4.4 | 2.3 | 6.8 |

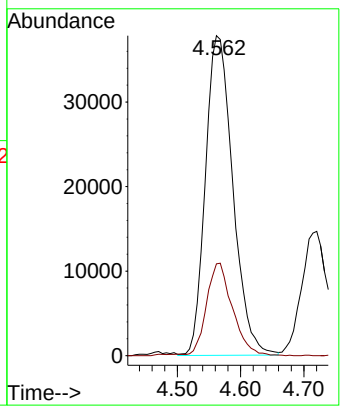





#25
2-Butanone
Concen: 123.133 ug/l
RT: 4.562 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 11391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 28.6 | 22.2 | 33.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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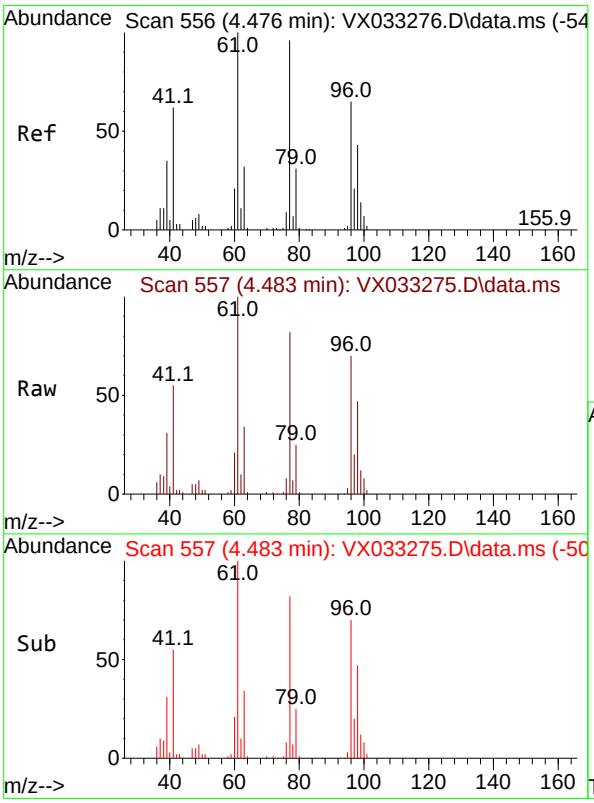
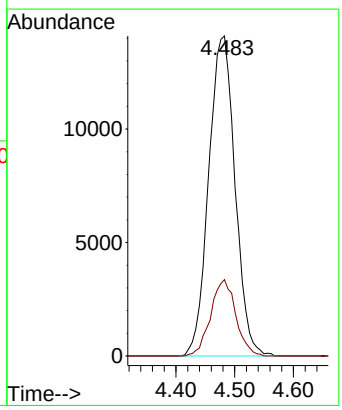
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

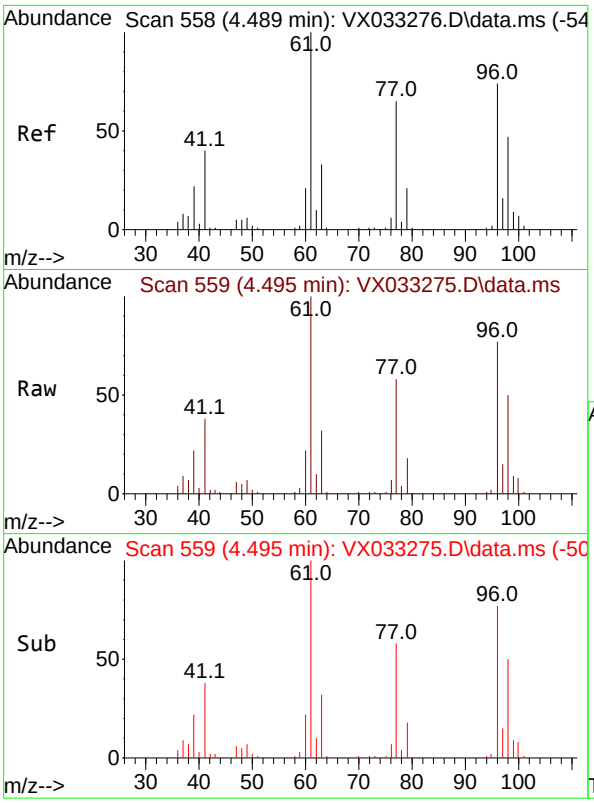



#26
2,2-Dichloropropane
Concen: 21.089 ug/l
RT: 4.483 min Scan# 557
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 77 Resp: 43915

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 22.8 | 11.4 | 34.1 |

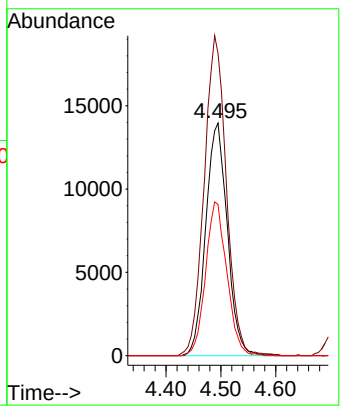





#27
cis-1,2-Dichloroethene
Concen: 22.802 ug/l
RT: 4.495 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 96 Resp: 3815

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 141.4 | 0.0 | 286.0 |
| 98 | 65.0 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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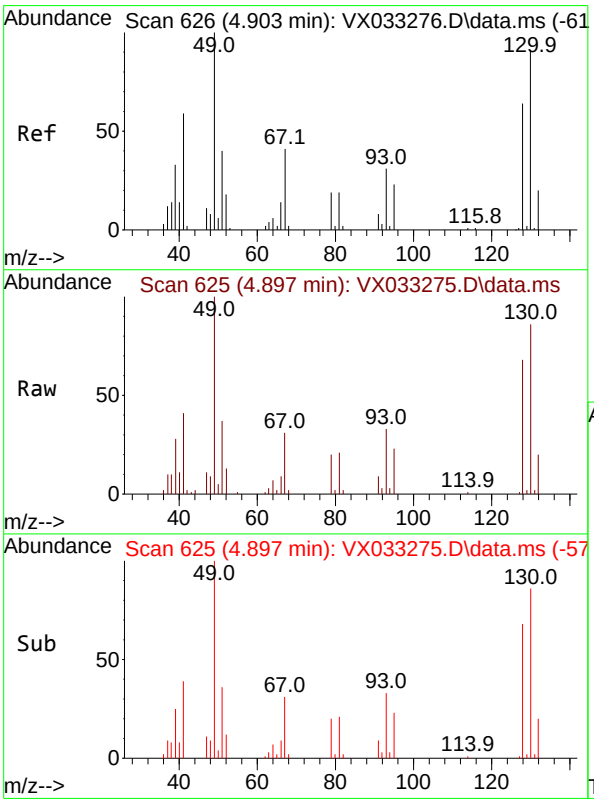
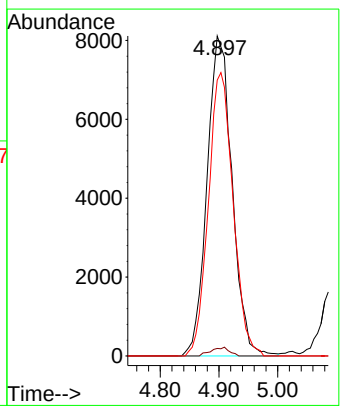
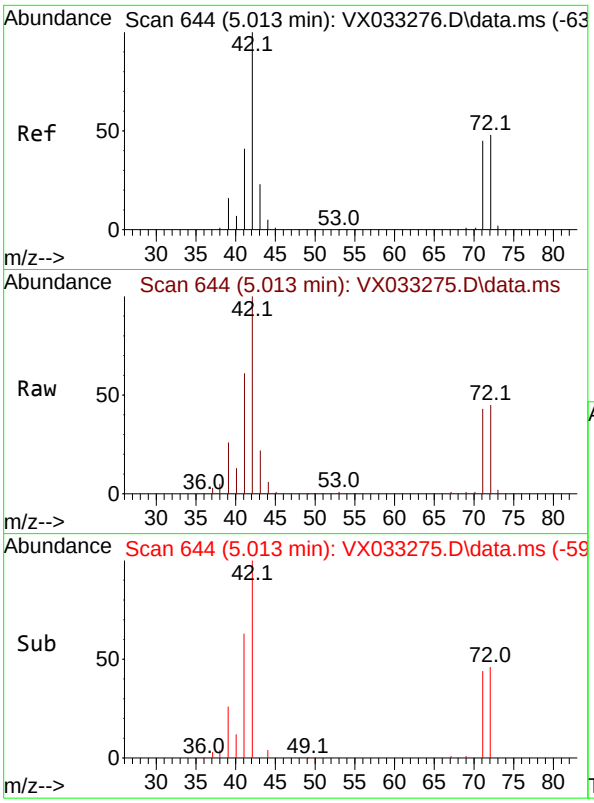



#28
Bromochloromethane
Concen: 21.092 ug/l
RT: 4.897 min Scan# 625
Delta R.T. -0.007 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 49 Resp: 24001

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.0 | 0.0 | 3.8 |
| 130 | 87.4 | 67.5 | 101.3 |

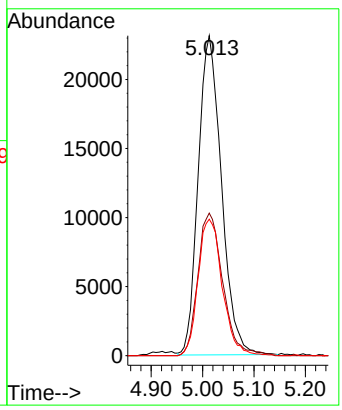





#29
Tetrahydrofuran
Concen: 123.883 ug/l
RT: 5.013 min Scan# 64
Delta R.T. 0.012 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 42 Resp: 7272

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 47.8 | 37.6 | 56.4 |
| 71 | 44.5 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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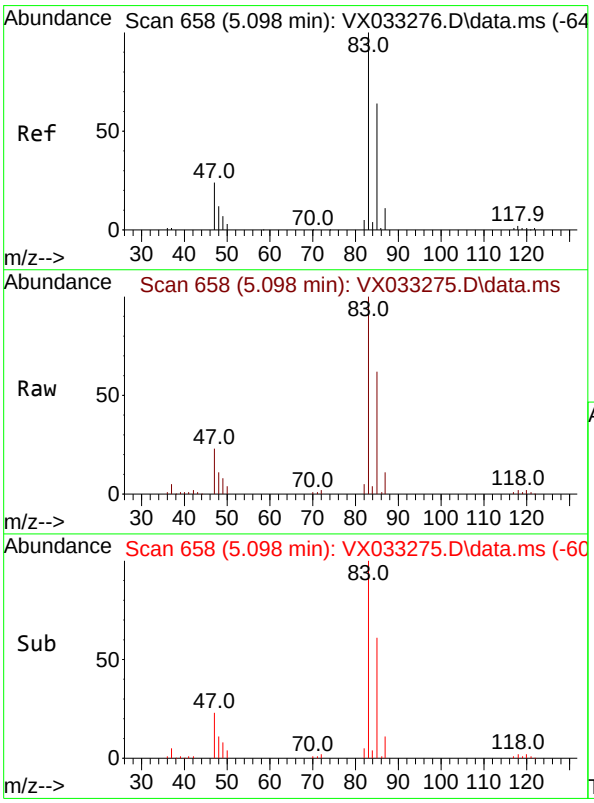
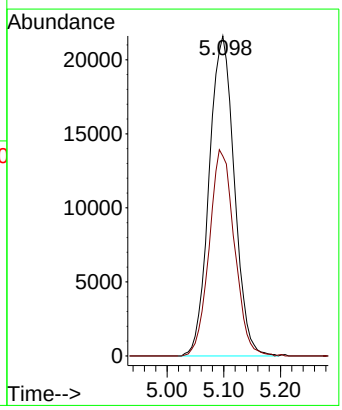
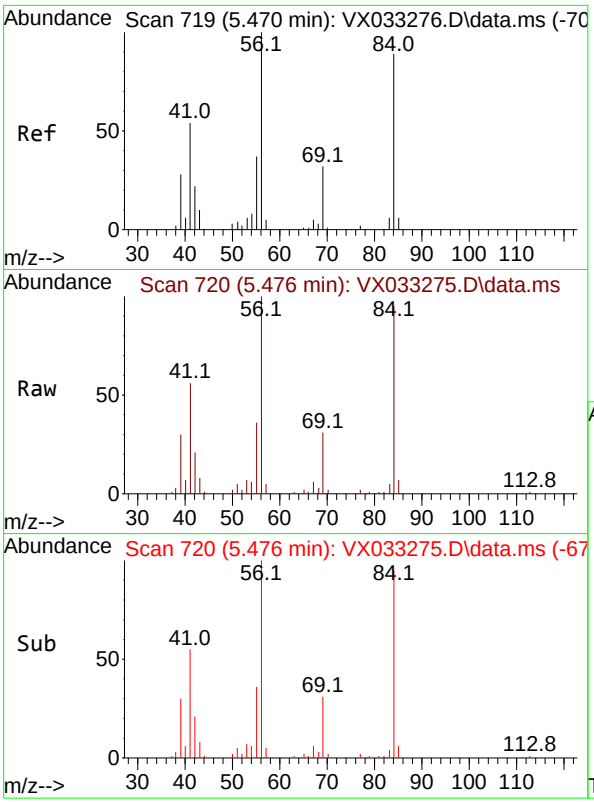



#30
Chloroform
Concen: 22.953 ug/l
RT: 5.098 min Scan# 658
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 83 Resp: 66575

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.5 | 51.1 | 76.7 |






#31
Cyclohexane
Concen: 22.212 ug/l
RT: 5.476 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 56 Resp: 5170

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 31.4 | 24.1 | 36.1 |
| 84 | 93.6 | 66.9 | 100.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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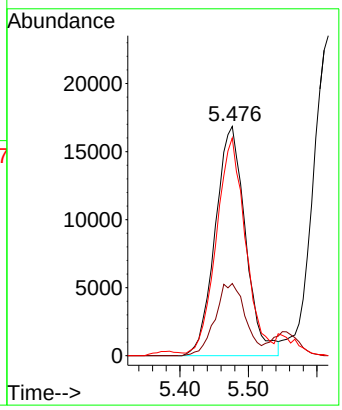
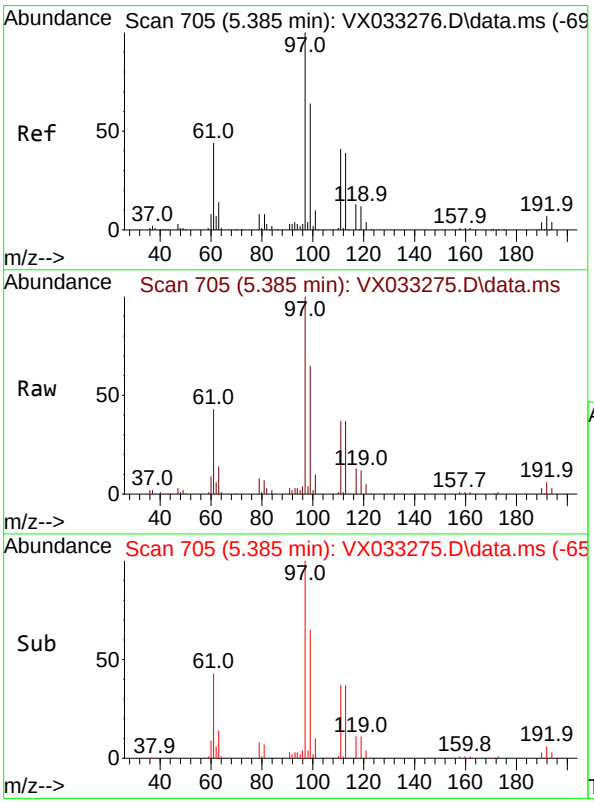
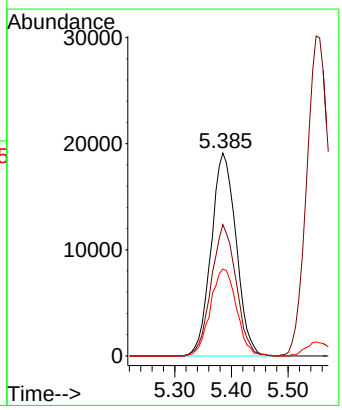


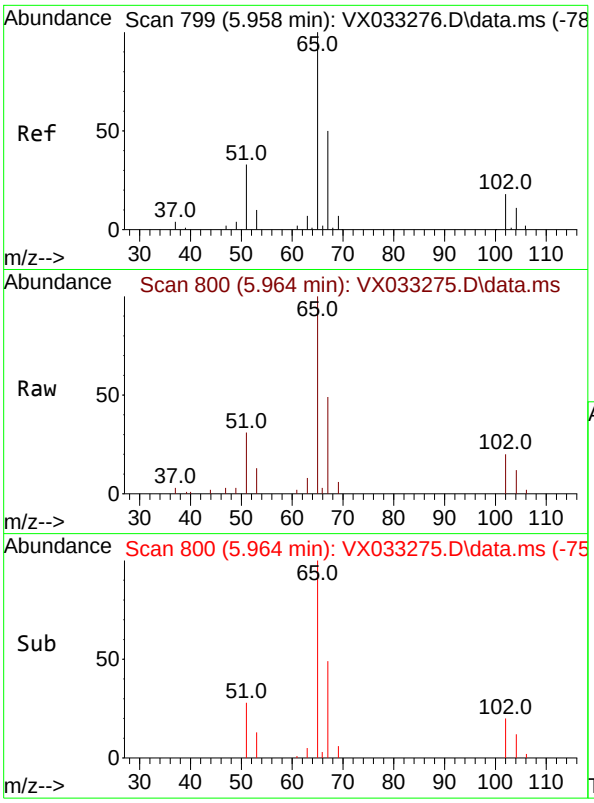




#32
1,1,1-Trichloroethane
Concen: 22.482 ug/l
RT: 5.385 min Scan# 705
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 97 Resp: 58398

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.5 | 51.4 | 77.0 |
| 61 | 44.8 | 35.2 | 52.8 |

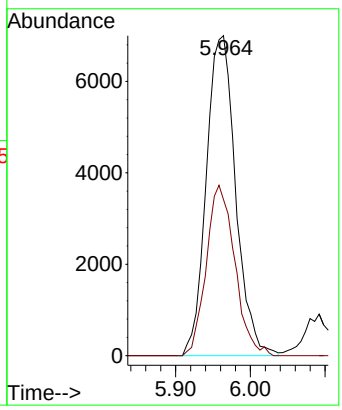





#33
1,2-Dichloroethane-d4
Concen: 12.031 ug/l
RT: 5.964 min Scan# 8
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 65 Resp: 1911

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 51.7 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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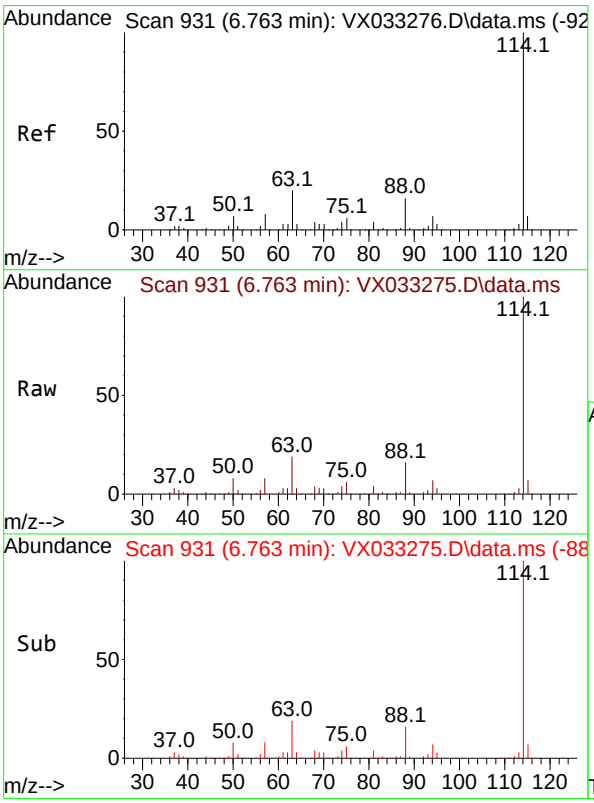
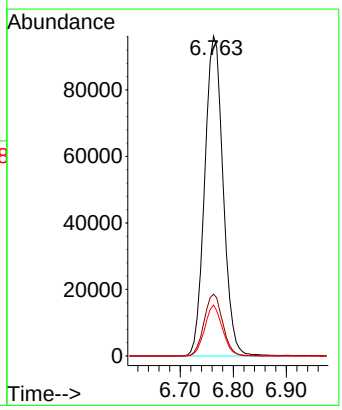
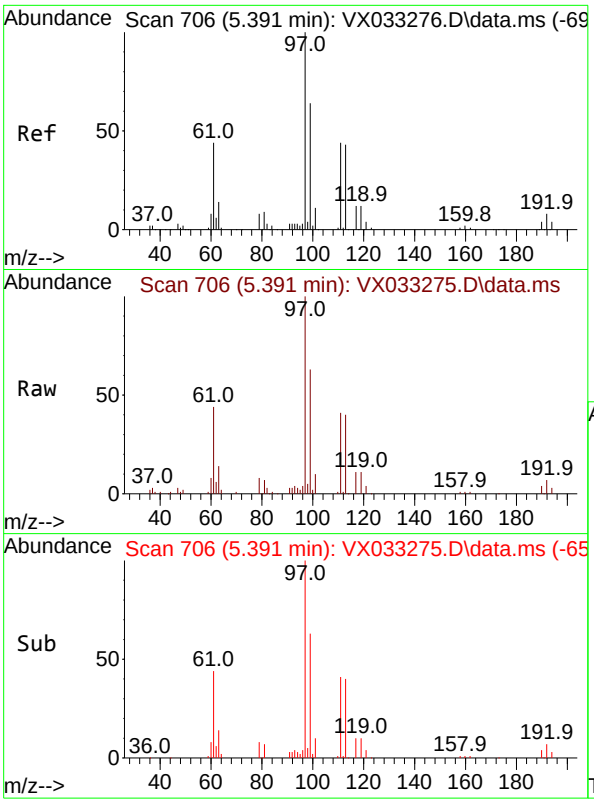



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:114 Resp: 231761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.3 | 0.0 | 41.6 |
| 88 | 15.9 | 0.0 | 33.4 |

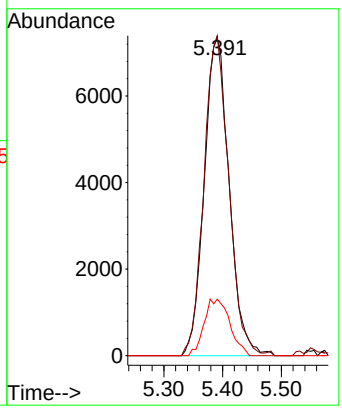





#35
Dibromofluoromethane
Concen: 16.607 ug/l
RT: 5.391 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:113 Resp: 2169

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 99.9 | 82.4 | 123.6 |
| 192 | 18.3 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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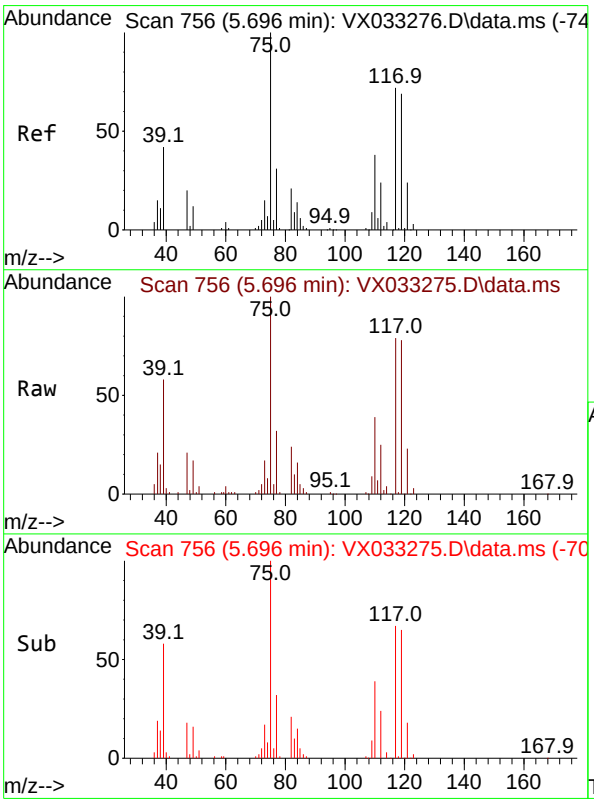
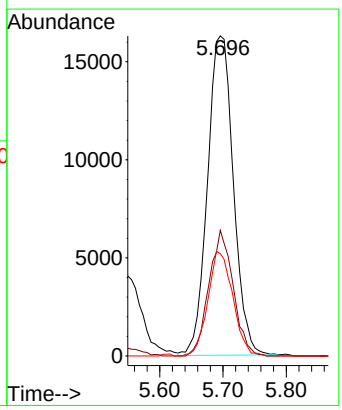
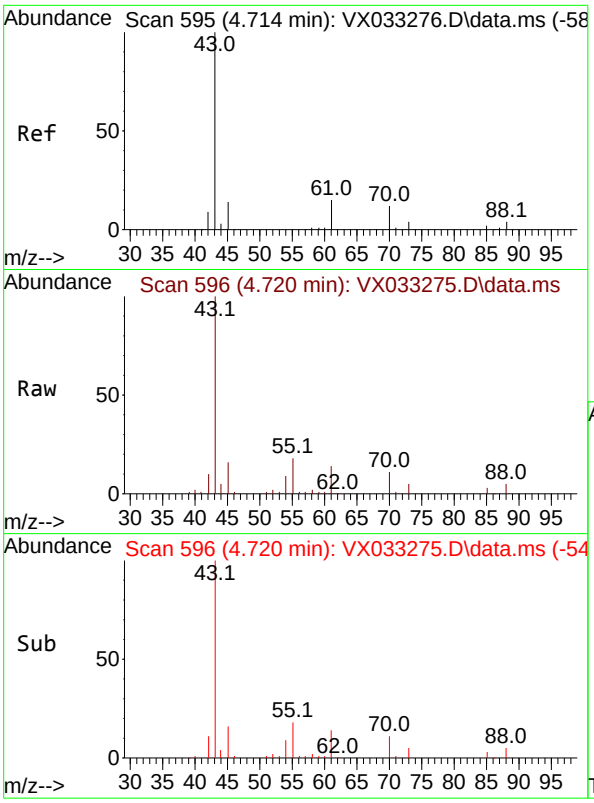



#36
1,1-Dichloropropene
Concen: 22.181 ug/l
RT: 5.696 min Scan# 756
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 46341

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 36.7 | 18.4 | 55.2 |
| 77 | 31.5 | 24.5 | 36.7 |

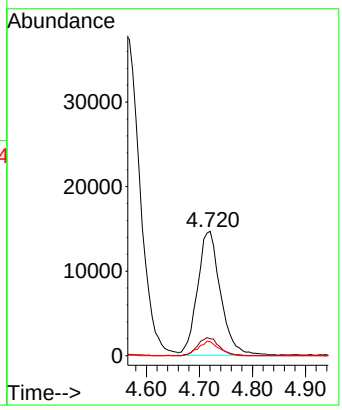





#37
Ethyl Acetate
Concen: 24.342 ug/l
RT: 4.720 min Scan# 5
Delta R.T. 0.005 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 4436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 13.7 | 11.5 | 17.3 |
| 70 | 10.3 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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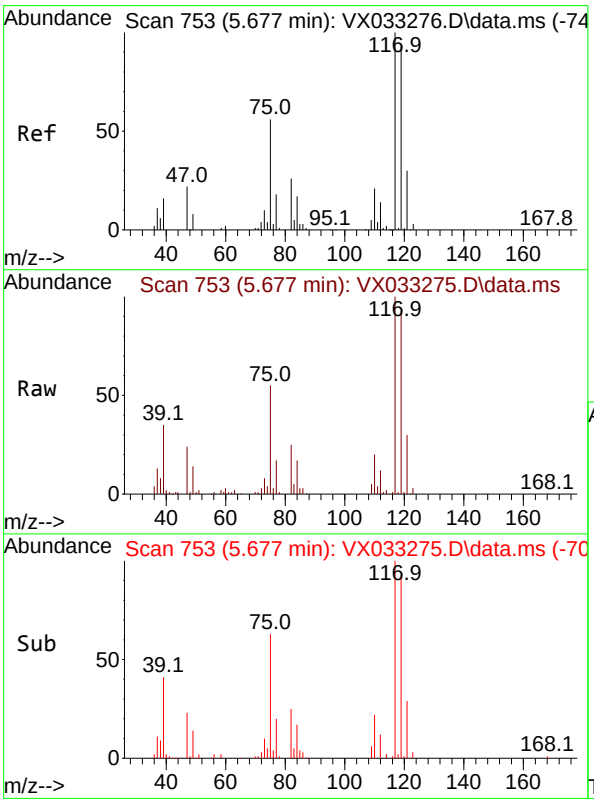
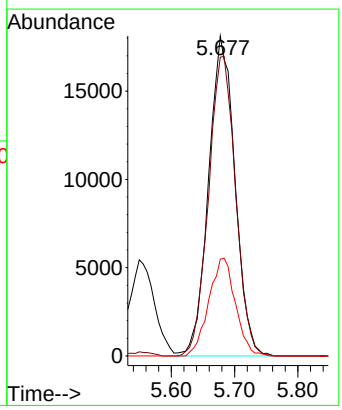
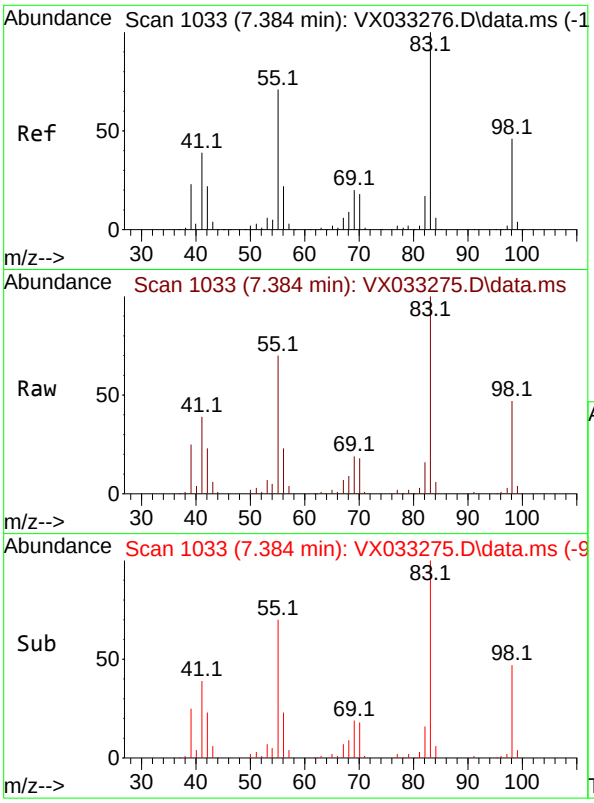



#38
Carbon Tetrachloride
Concen: 22.637 ug/l
RT: 5.677 min Scan# 753
Delta R.T. -0.007 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:117 Resp: 52464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 93.3 | 77.2 | 115.8 |
| 121 | 30.3 | 25.8 | 38.6 |

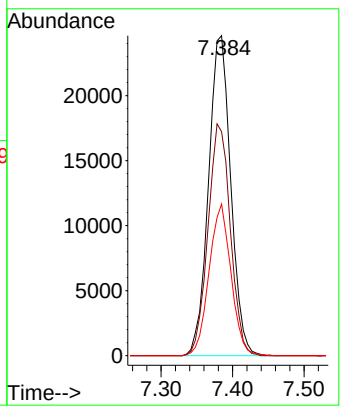





#39
Methylcyclohexane
Concen: 22.317 ug/l
RT: 7.384 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 83 Resp: 5319

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 70.0 | 58.4 | 87.6 |
| 98 | 47.4 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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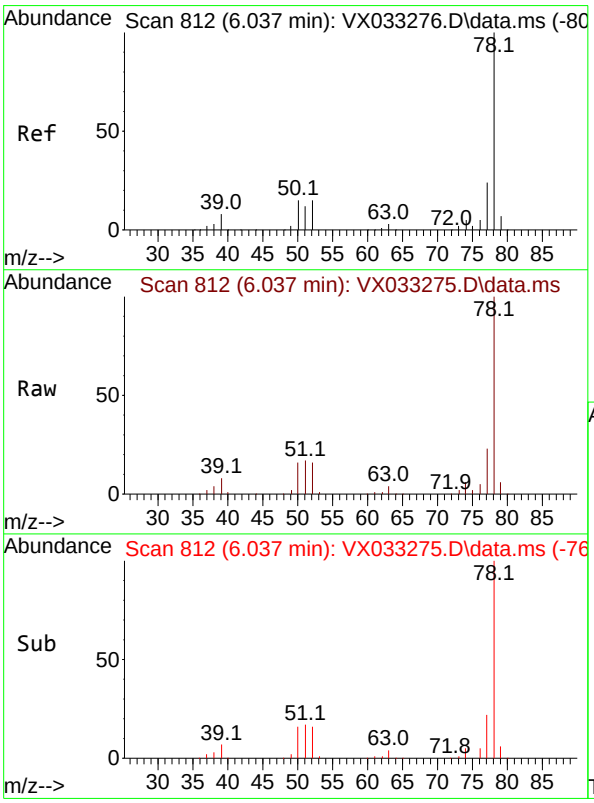
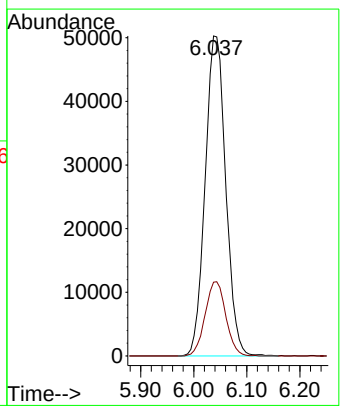
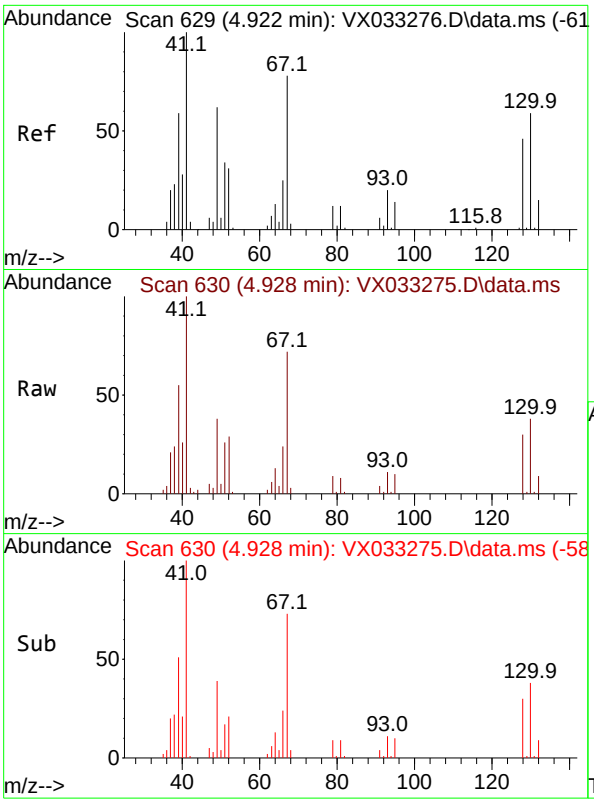



#40
Benzene
Concen: 23.165 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 78 Resp: 135692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.0 | 19.0 | 28.4 |

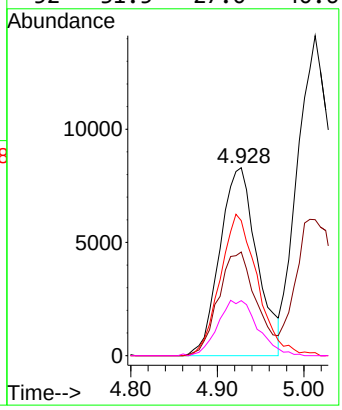





#41
Methacrylonitrile
Concen: 24.191 ug/l
RT: 4.928 min Scan# 6
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 41 Resp: 2481

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 56.4 | 47.5 | 71.3 |
| 67 | 75.3 | 60.5 | 90.7 |
| 52 | 31.5 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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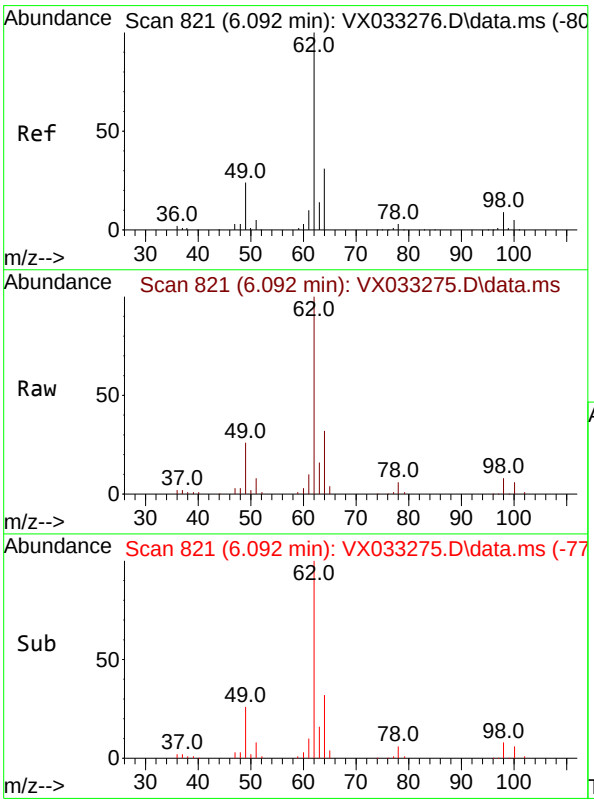
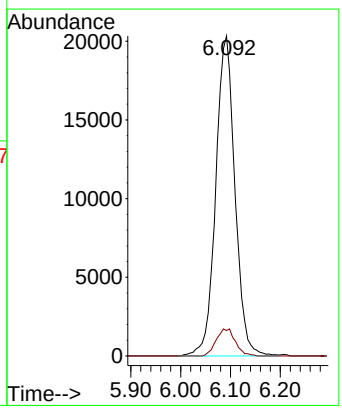
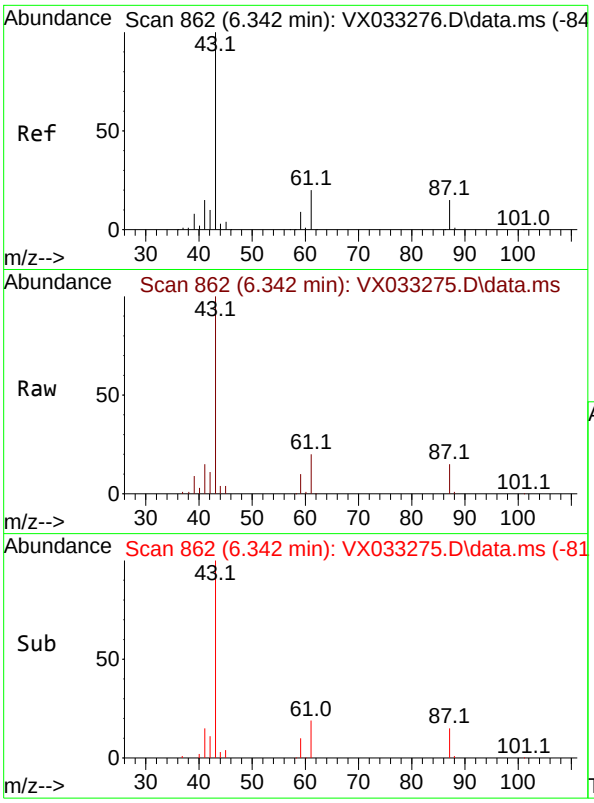



#42
1,2-Dichloroethane
Concen: 23.029 ug/l
RT: 6.092 min Scan# 821
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 62 Resp: 54314

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.5 | 0.0 | 16.0 |

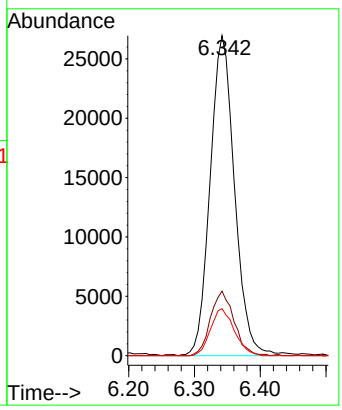





#43
Isopropyl Acetate
Concen: 23.091 ug/l
RT: 6.342 min Scan# 8
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 6960

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 19.4 | 15.4 | 23.0 |
| 87 | 14.3 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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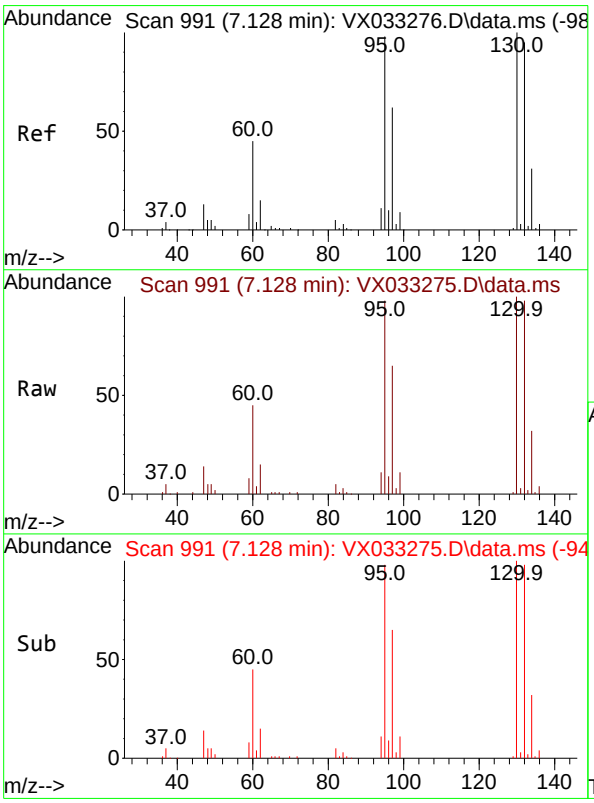
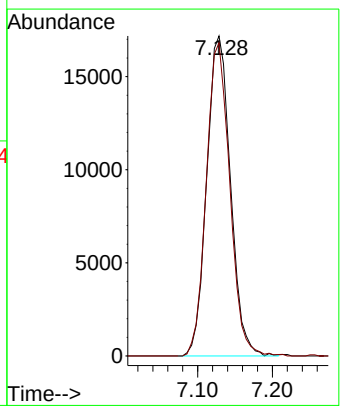
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

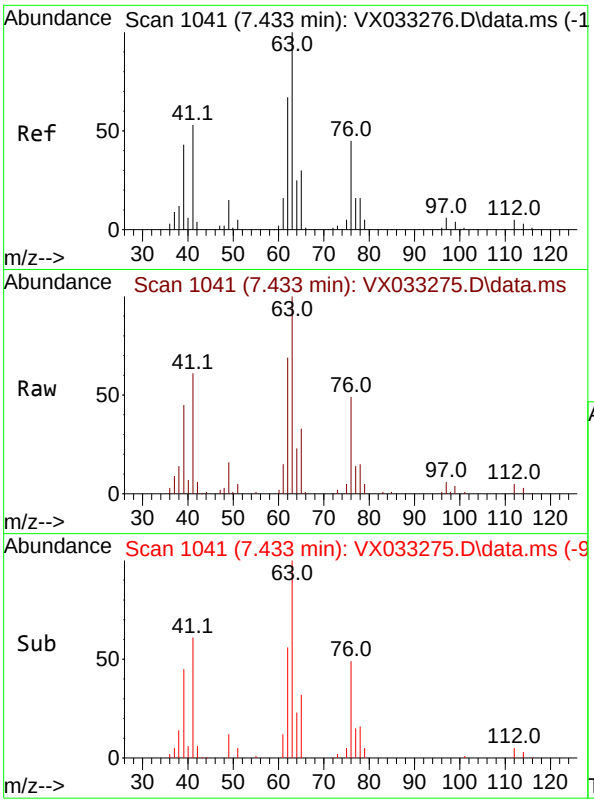



#44
Trichloroethene
Concen: 23.116 ug/l
RT: 7.128 min Scan# 991
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:130 Resp: 37995

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 97.9 | 0.0 | 195.2 |

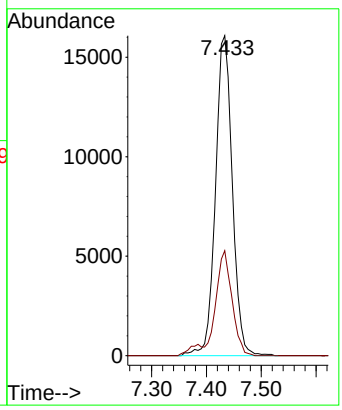





#45
1,2-Dichloropropane
Concen: 23.772 ug/l
RT: 7.433 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 63 Resp: 3441

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 32.8 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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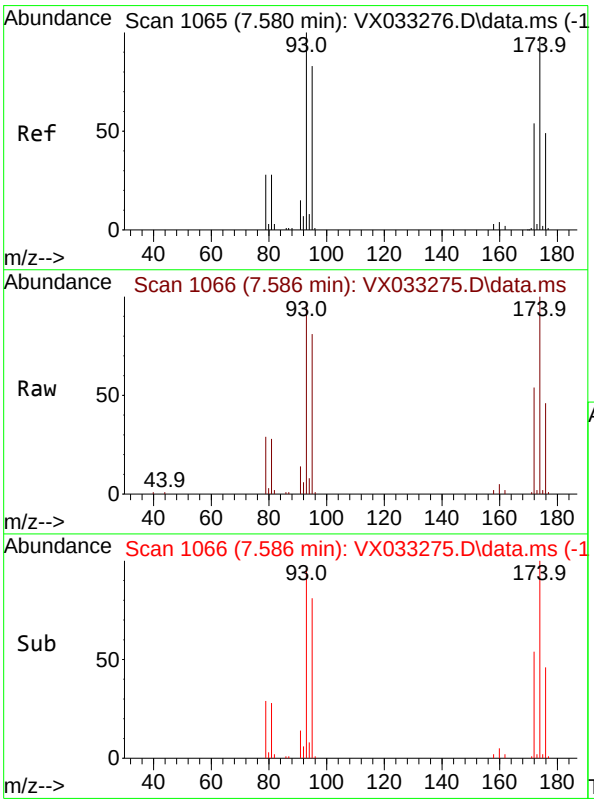
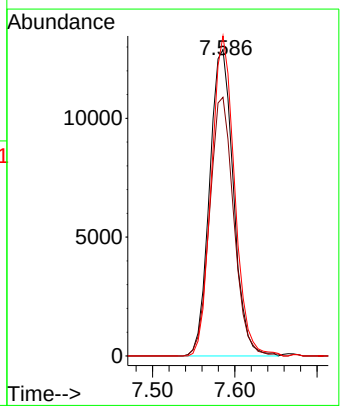
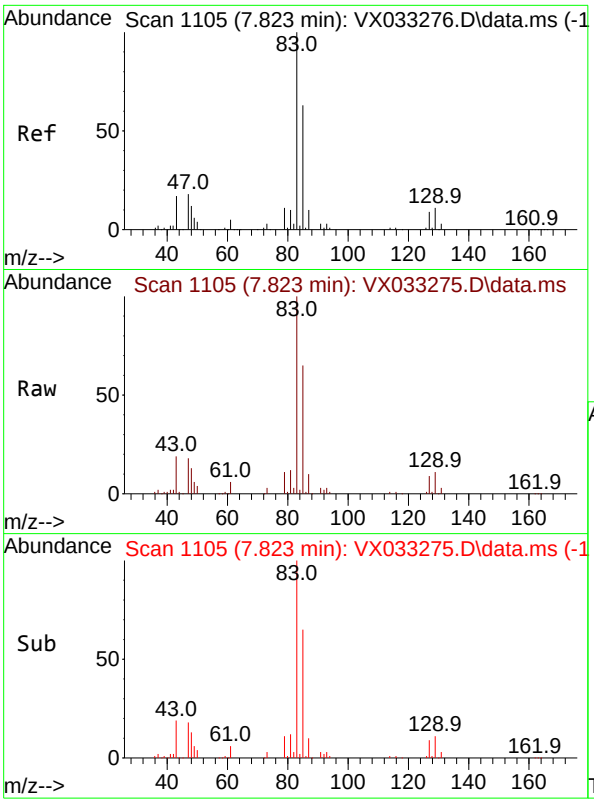



#46
Dibromomethane
Concen: 23.049 ug/l
RT: 7.586 min Scan# 1066
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 93 Resp: 26034

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 85.2 | 65.8 | 98.8 |
| 174 | 101.4 | 79.8 | 119.6 |

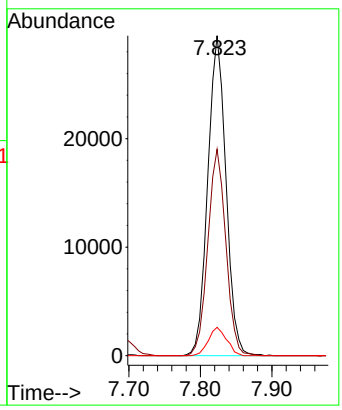





#47
Bromodichloromethane
Concen: 23.881 ug/l
RT: 7.823 min Scan# 11
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 83 Resp: 5212

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.5 | 52.2 | 78.4 |
| 127 | 8.9 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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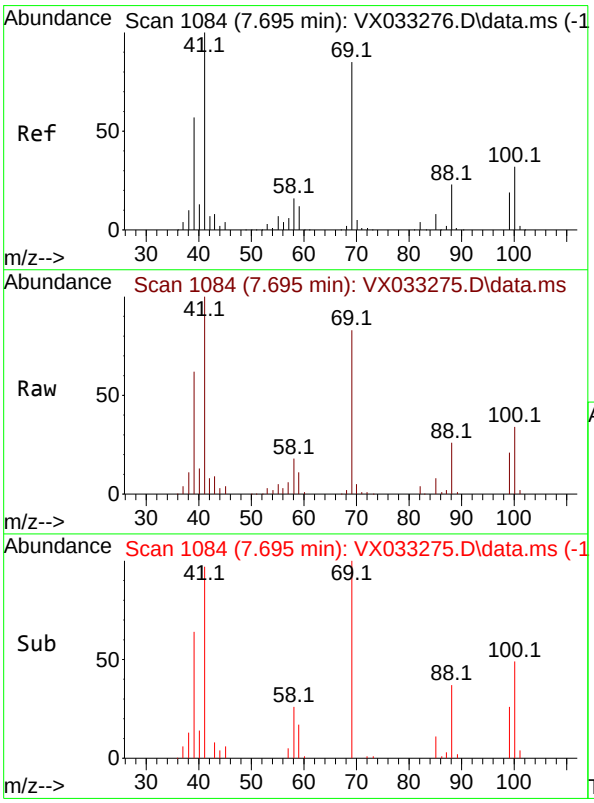
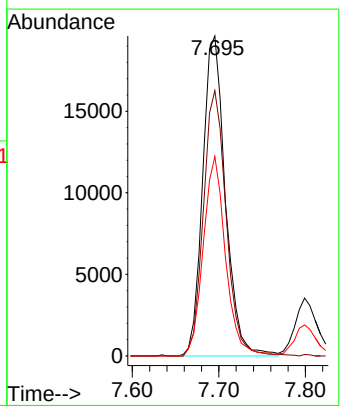
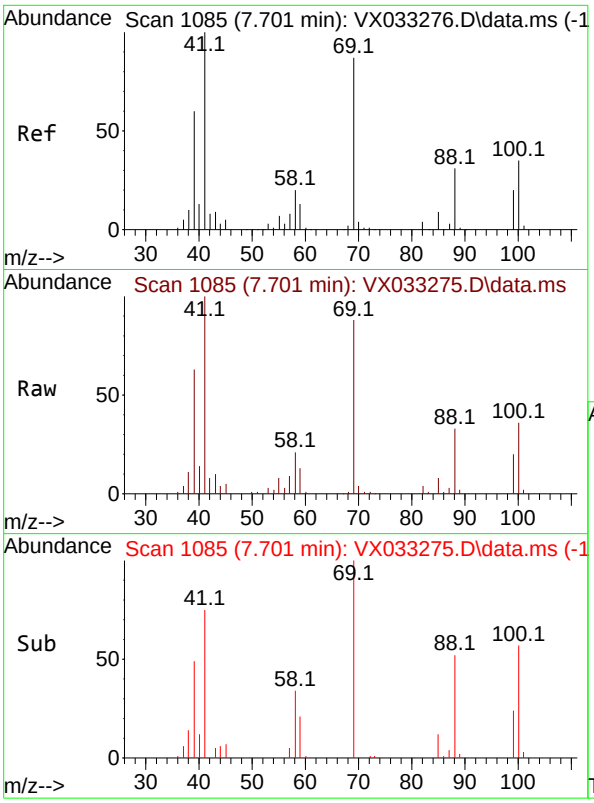



#48
Methyl methacrylate
Concen: 23.071 ug/l
RT: 7.695 min Scan# 1084
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 41 Resp: 35797

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 83.0 | 65.1 | 97.7 |
| 39 | 61.1 | 51.9 | 77.9 |

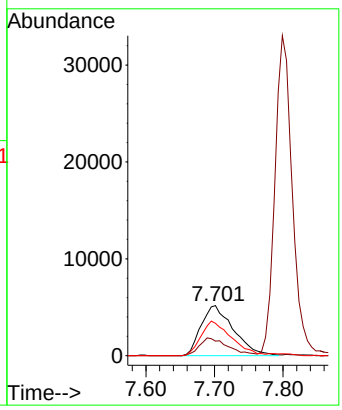





#49
1,4-Dioxane
Concen: 594.851 ug/l
RT: 7.701 min Scan# 1
Delta R.T. 0.030 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 88 Resp: 1699

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 31.6 | 26.6 | 39.8 |
| 58 | 64.5 | 51.7 | 77.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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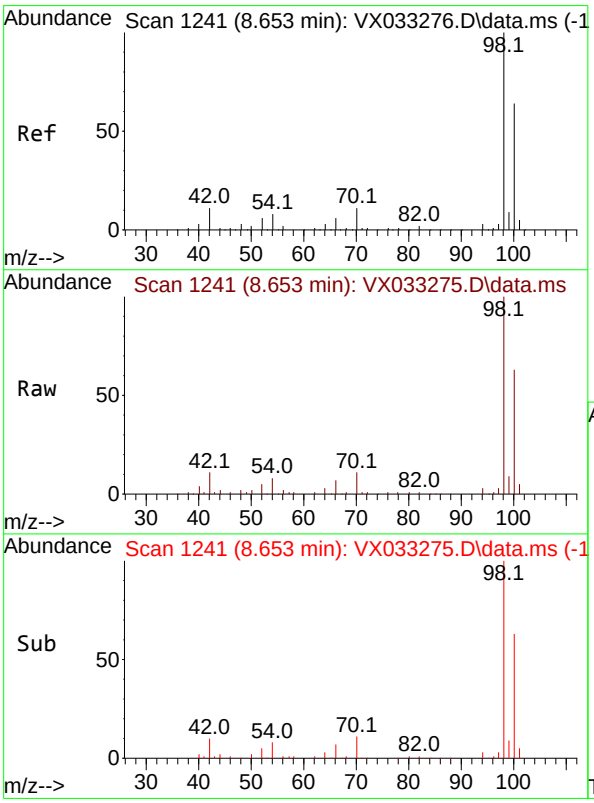
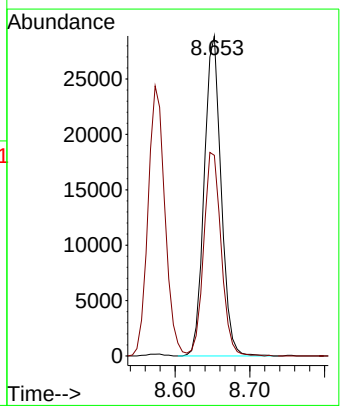
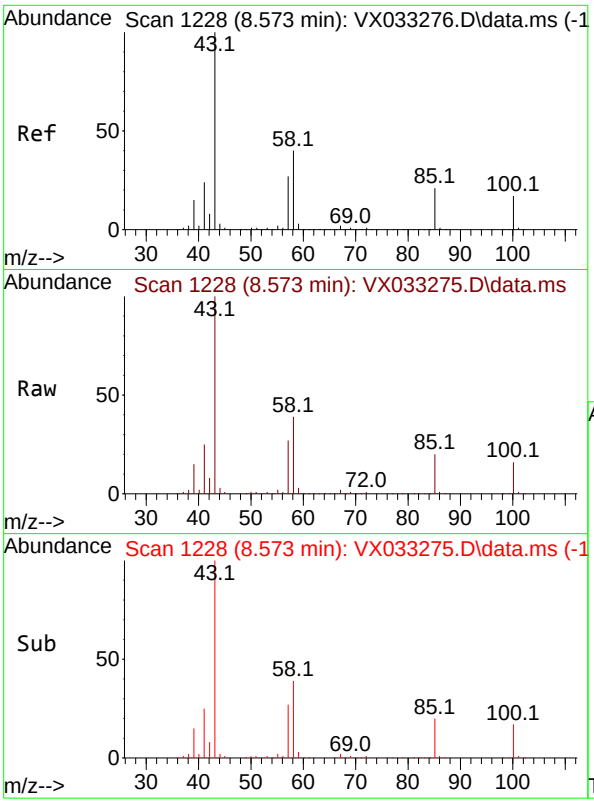



#50
Toluene-d8
Concen: 10.662 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 98 Resp: 45228

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.9 | 50.9 | 76.3 |






#51
4-Methyl-2-Pentanone
Concen: 124.317 ug/l
RT: 8.573 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 23123

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 39.5 | 30.9 | 46.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

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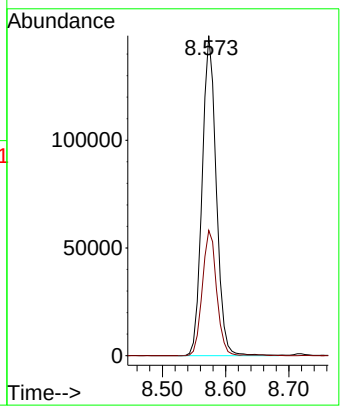
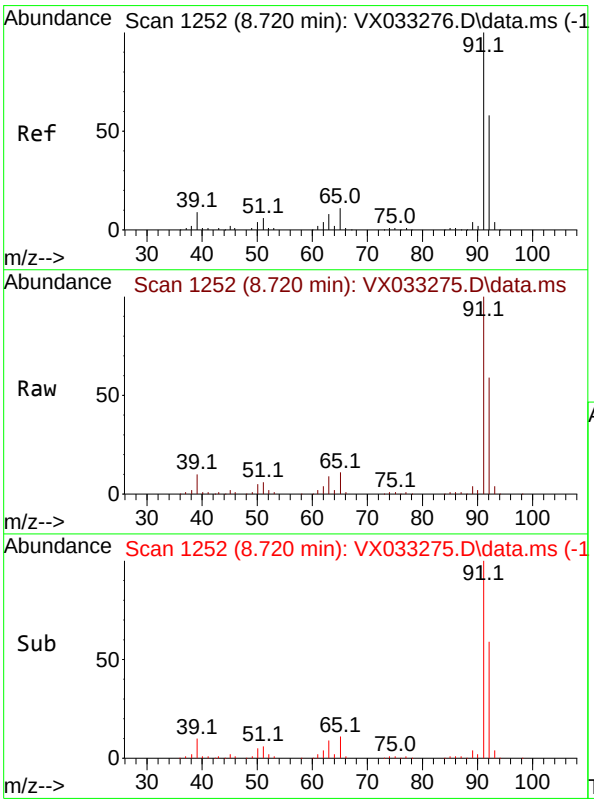
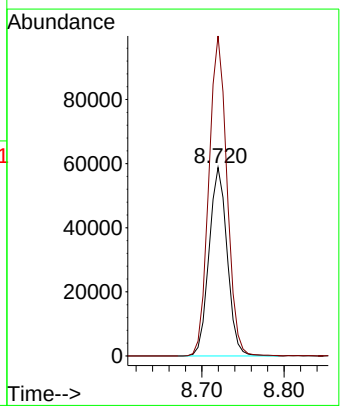


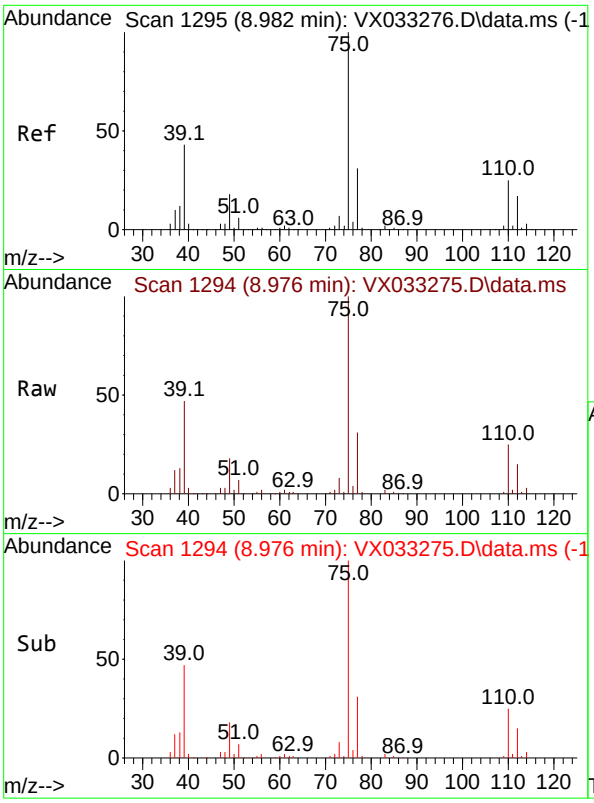




#52
Toluene
Concen: 23.340 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 92 Resp: 89946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 169.9 | 138.3 | 207.5 |

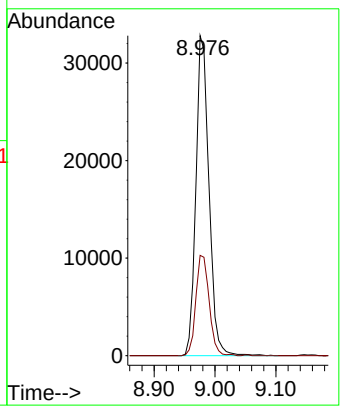





#53
t-1,3-Dichloropropene
Concen: 22.777 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 4879

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.3 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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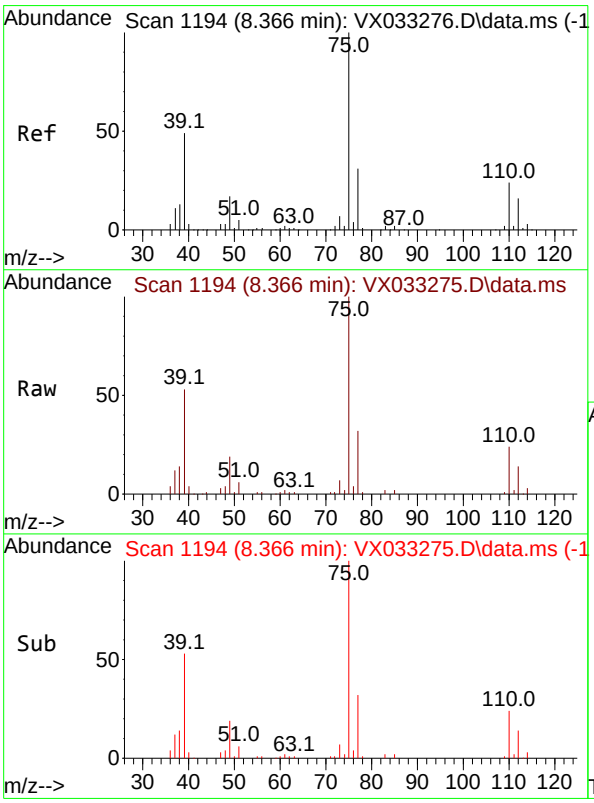
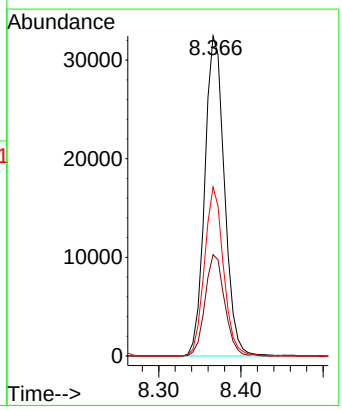
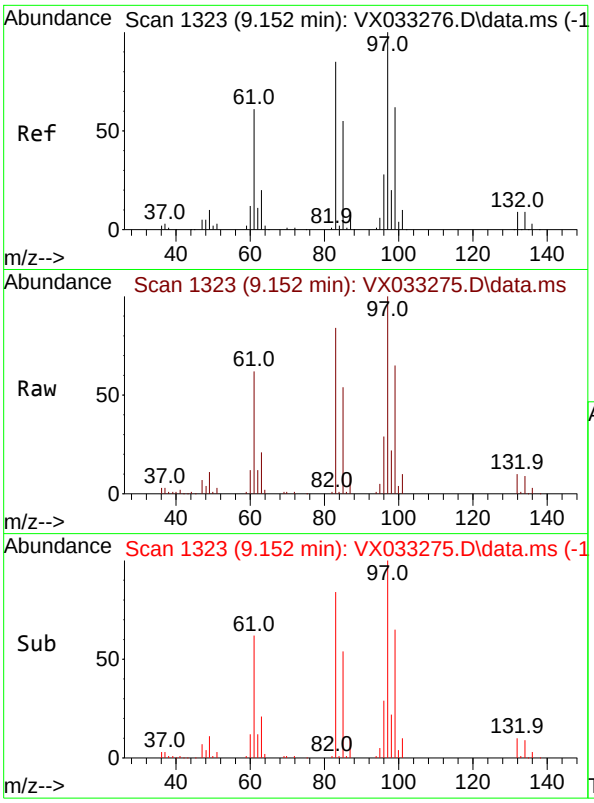



#54
cis-1,3-Dichloropropene
Concen: 22.847 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 53756

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.7 | 25.1 | 37.7 |
| 39 | 52.8 | 45.5 | 68.3 |

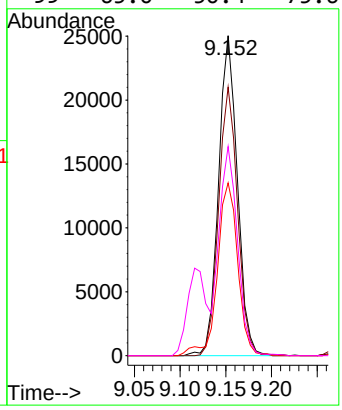





#55
1,1,2-Trichloroethane
Concen: 22.885 ug/l
RT: 9.152 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 97 Resp: 3590

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.9 | 68.1 | 102.1 |
| 85 | 54.0 | 43.3 | 64.9 |
| 99 | 65.0 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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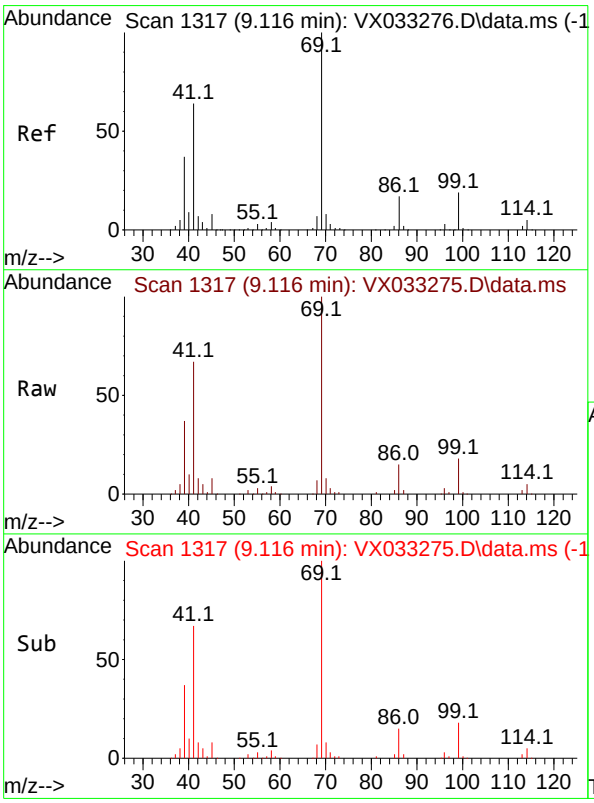
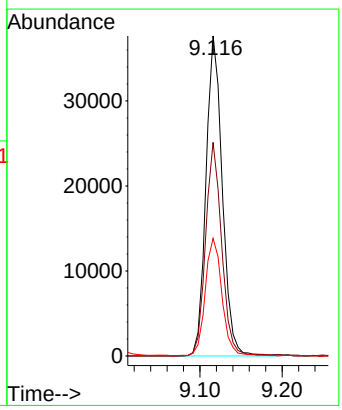
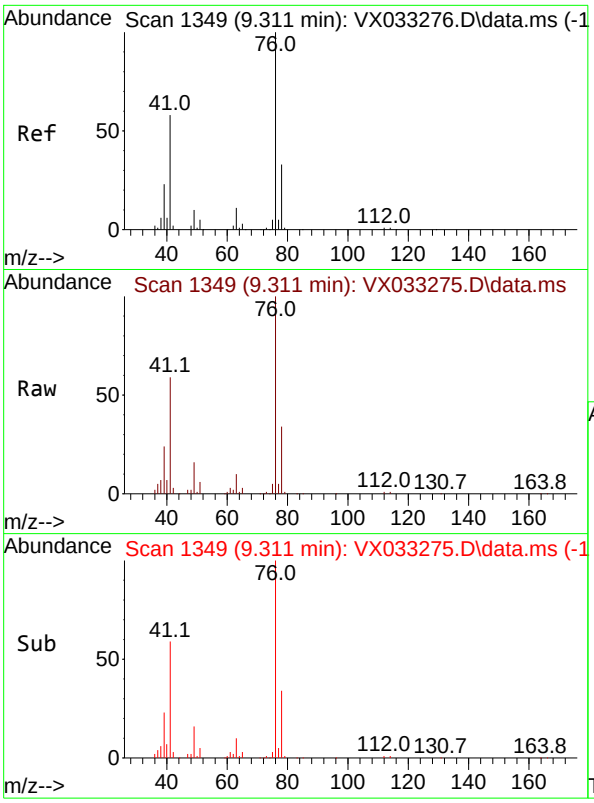



#56
Ethyl methacrylate
Concen: 23.997 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 69 Resp: 51875

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 65.8 | 54.3 | 81.5 |
| 39 | 38.0 | 35.2 | 52.8 |

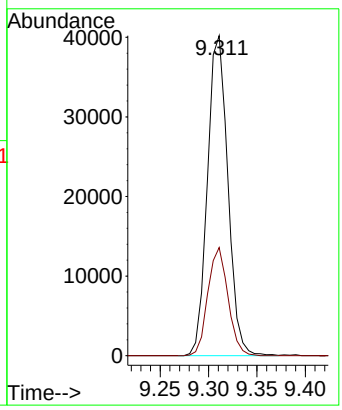





#57
1,3-Dichloropropane
Concen: 23.336 ug/l
RT: 9.311 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 76 Resp: 5910

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 33.3 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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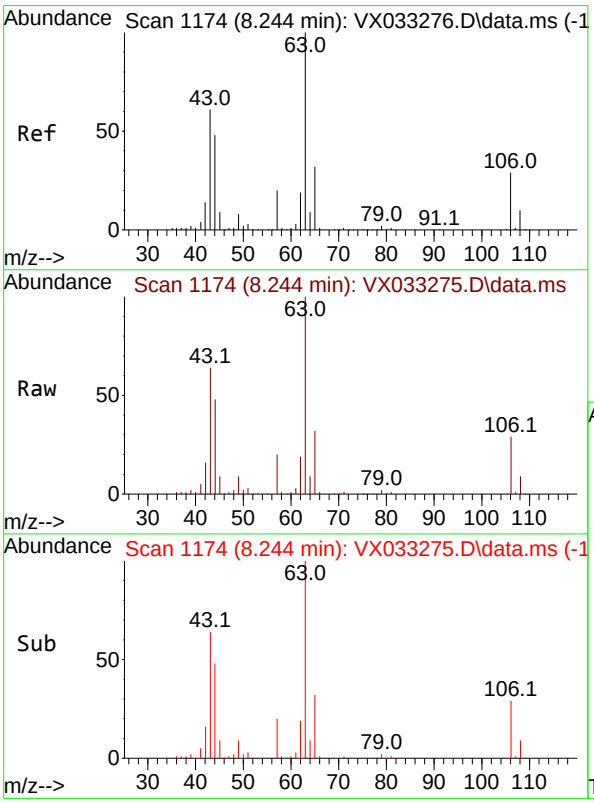
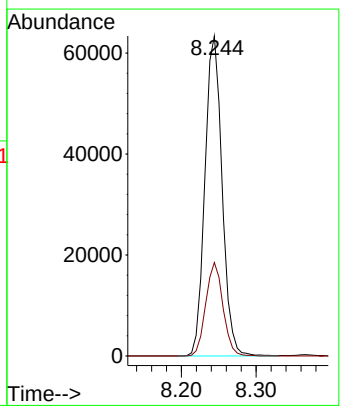
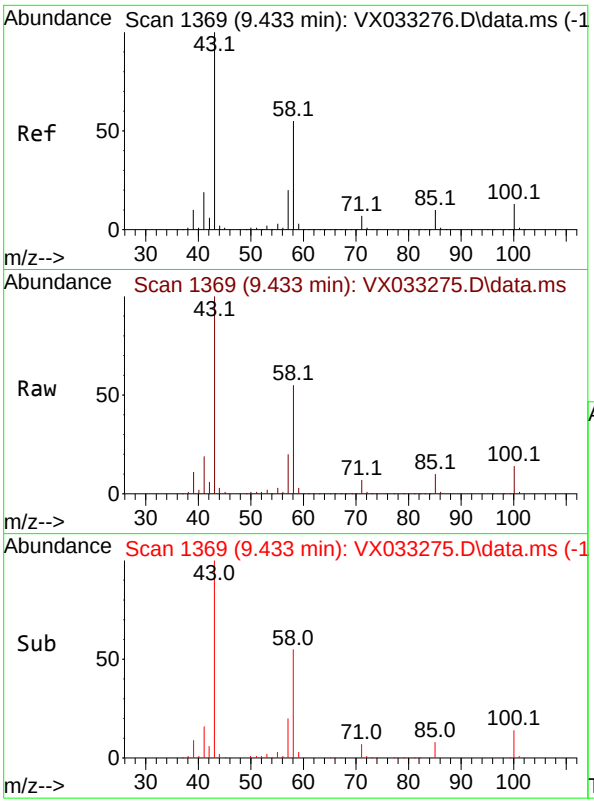



#58
2-Chloroethyl Vinyl ether
Concen: 98.398 ug/l
RT: 8.244 min Scan# 1174
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 63 Resp: 101008

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 29.2 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 126.425 ug/l
RT: 9.433 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 17371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 54.5 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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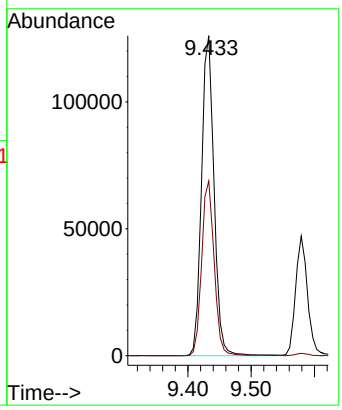
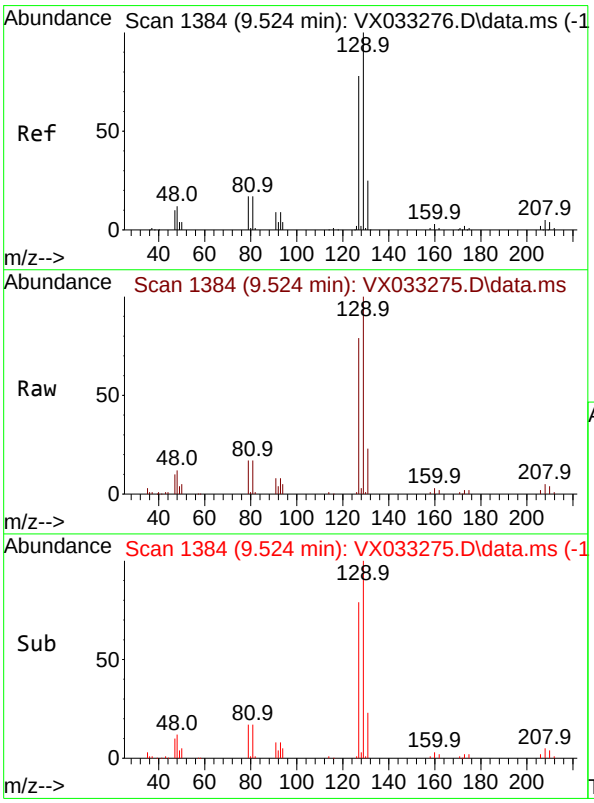
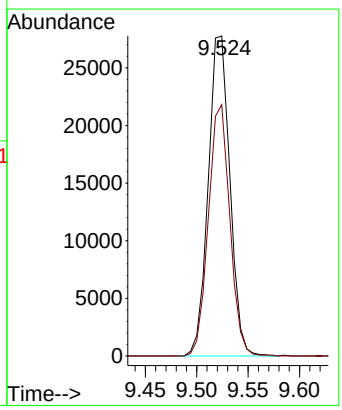


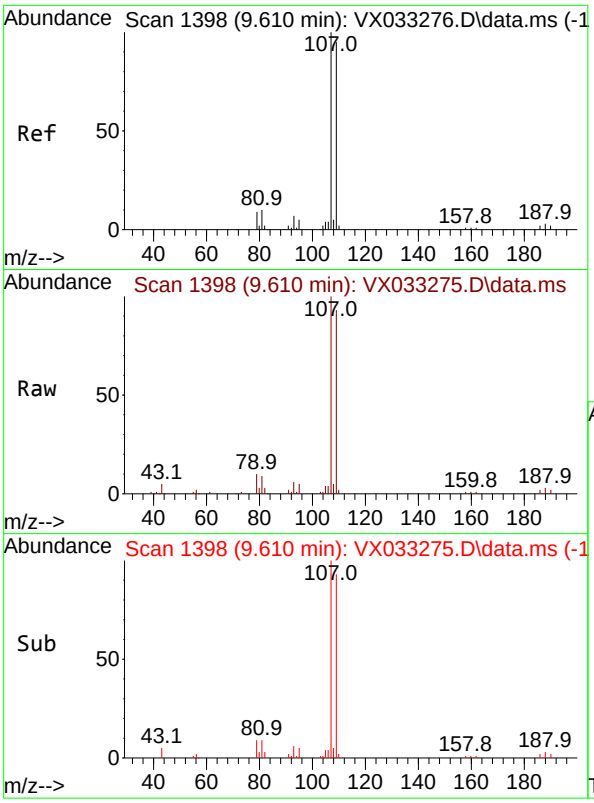




#60
Dibromochloromethane
Concen: 24.066 ug/l
RT: 9.524 min Scan# 1384
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:129 Resp: 40652

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.7 | 38.6 | 115.8 |

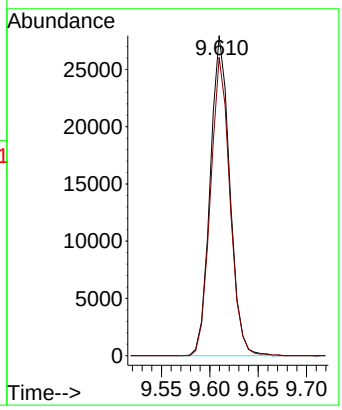





#61
1,2-Dibromoethane
Concen: 23.686 ug/l
RT: 9.610 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:107 Resp: 3922

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 92.6 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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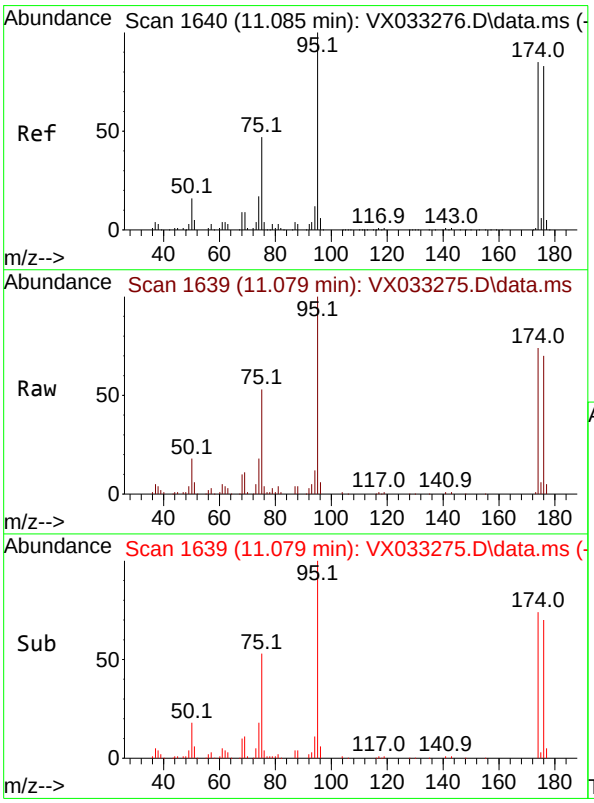
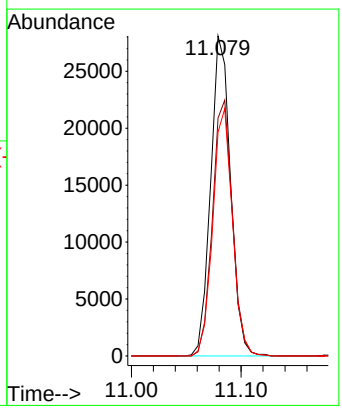
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

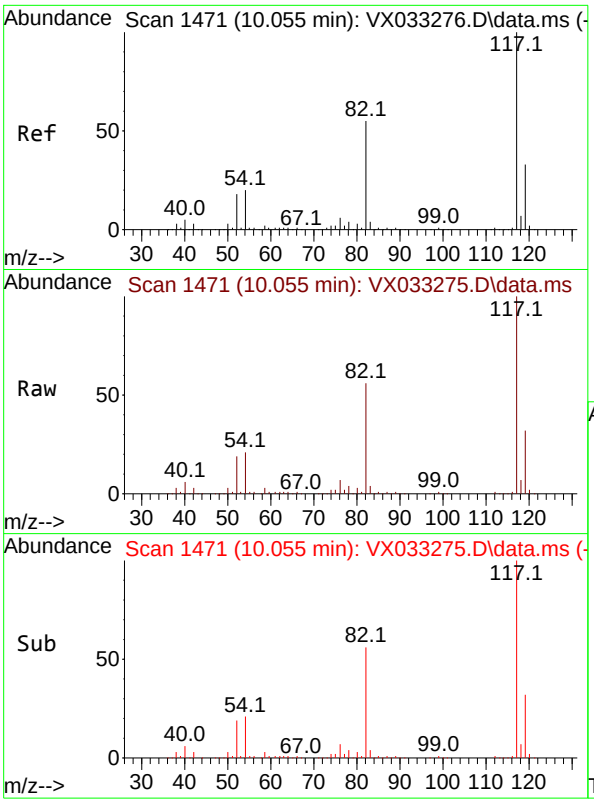



#62
4-Bromofluorobenzene
Concen: 20.645 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 95 Resp: 35433

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 80.4 | 0.0 | 164.0 |
| 176 | 76.6 | 0.0 | 154.4 |

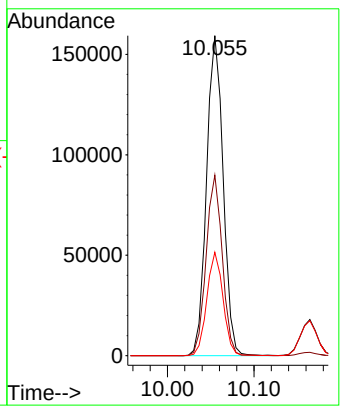





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:117 Resp: 21208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.4 | 44.3 | 66.5 |
| 119 | 32.3 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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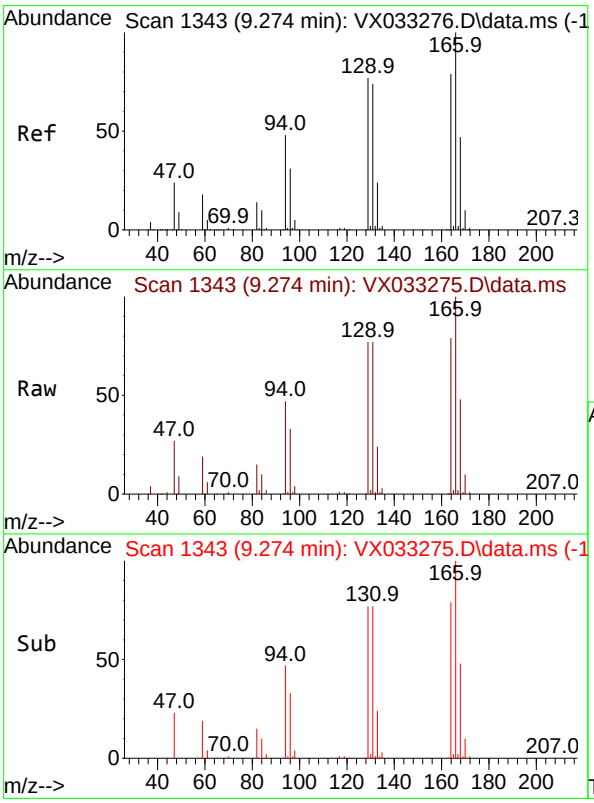
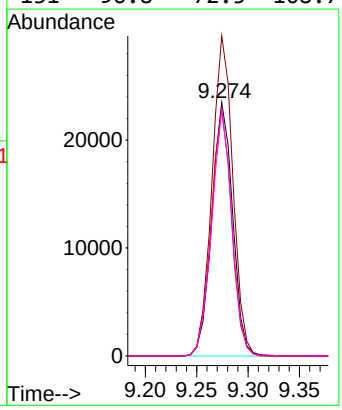
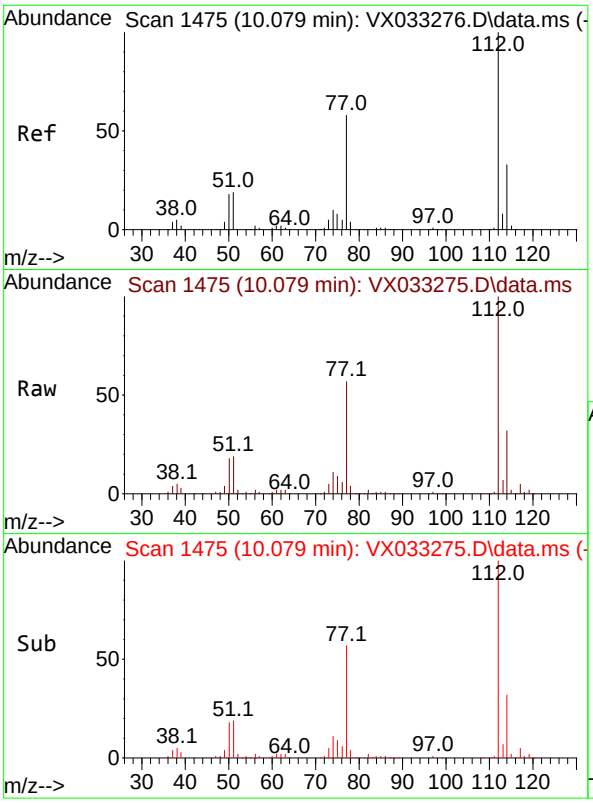



#64
Tetrachloroethene
Concen: 22.029 ug/l
RT: 9.274 min Scan# 1343
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:164 Resp: 33071

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 126.2 | 105.4 | 158.2 |
| 129 | 97.2 | 78.2 | 117.2 |
| 131 | 96.8 | 72.5 | 108.7 |

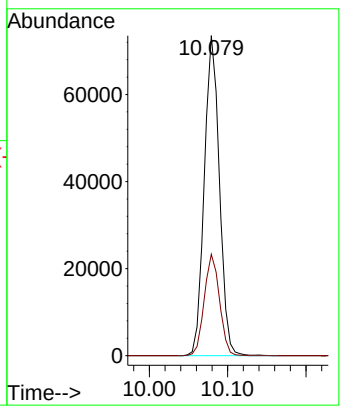





#65
Chlorobenzene
Concen: 23.247 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:112 Resp: 9829

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 31.7 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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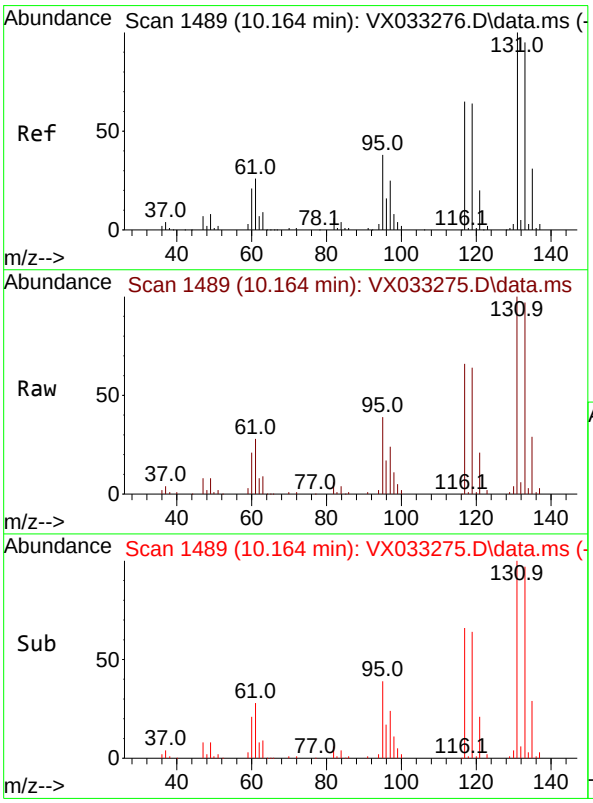
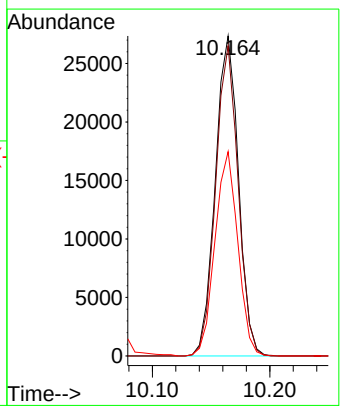
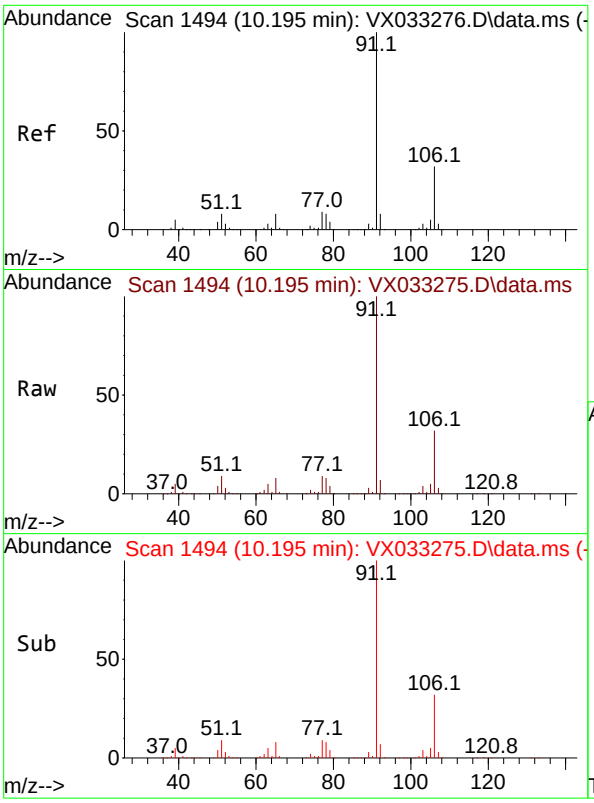



#66
1,1,1,2-Tetrachloroethane
Concen: 24.185 ug/l
RT: 10.164 min Scan# 1489
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:131 Resp: 37470

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 94.3 | 47.6 | 142.9 |
| 119 | 63.1 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 23.103 ug/l
RT: 10.195 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 17329

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.5 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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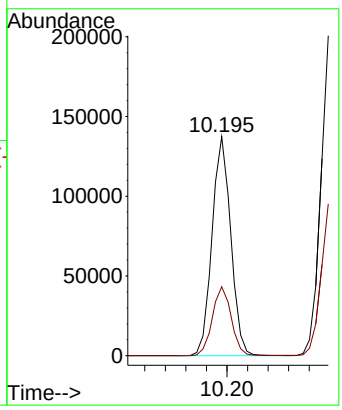
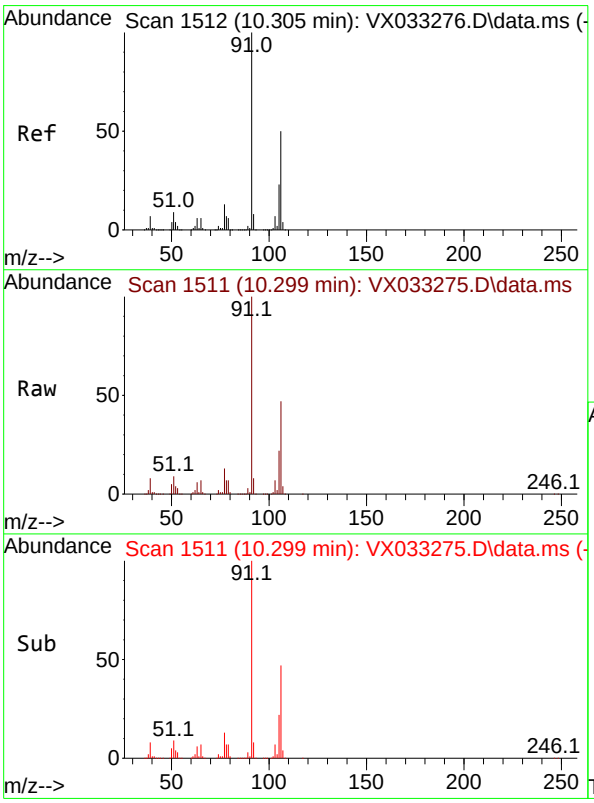
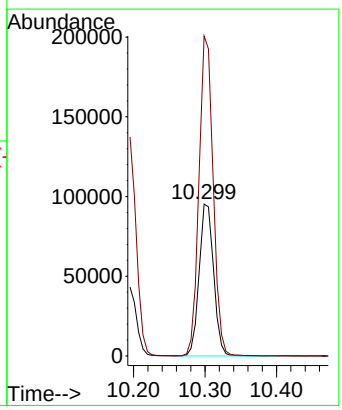


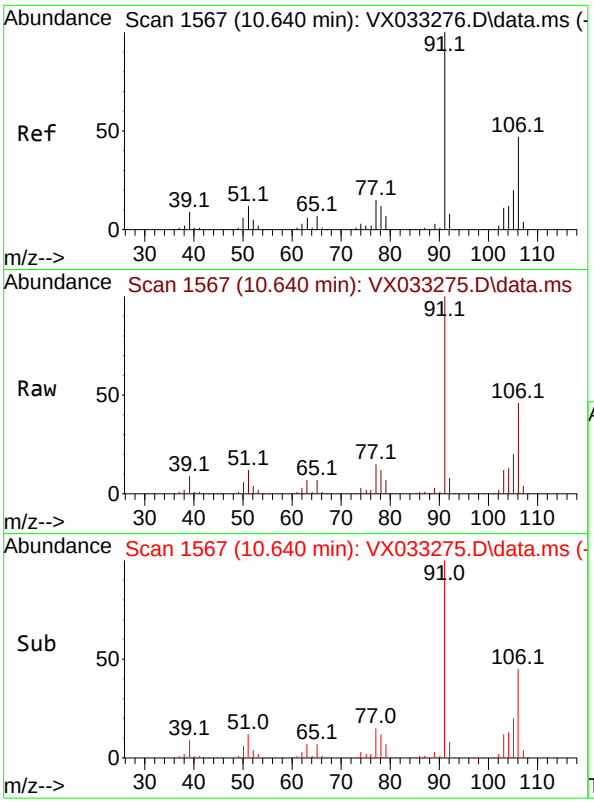




#68
m/p-Xylenes
Concen: 45.655 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:106 Resp: 134099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 205.9 | 164.5 | 246.7 |

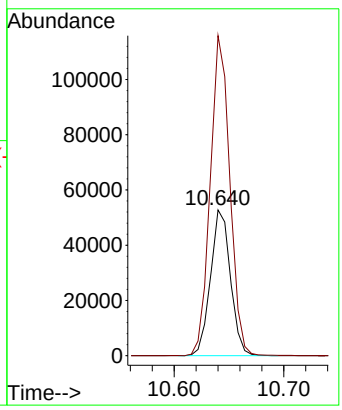





#69
o-Xylene
Concen: 23.464 ug/l
RT: 10.640 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:106 Resp: 6668

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 215.9 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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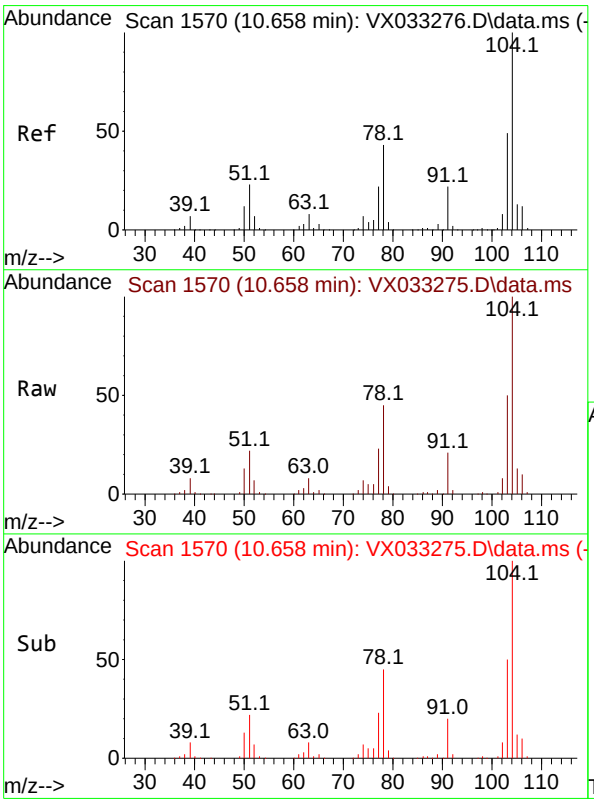
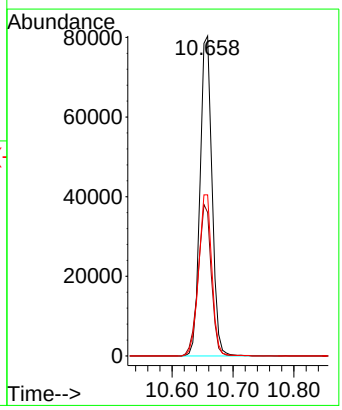
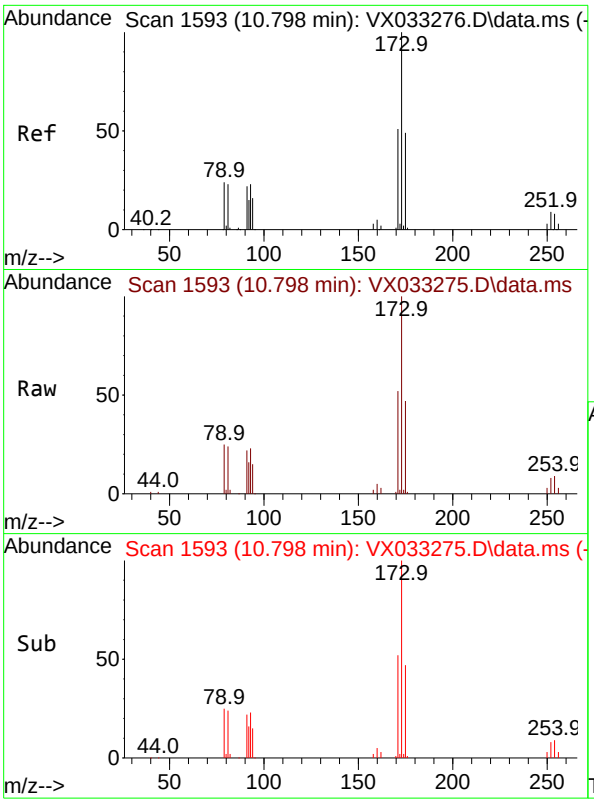



#70
Styrene
Concen: 23.622 ug/l
RT: 10.658 min Scan# 1570
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:104 Resp: 109831

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 52.0 | 41.8 | 62.8 |
| 103 | 55.5 | 44.5 | 66.7 |

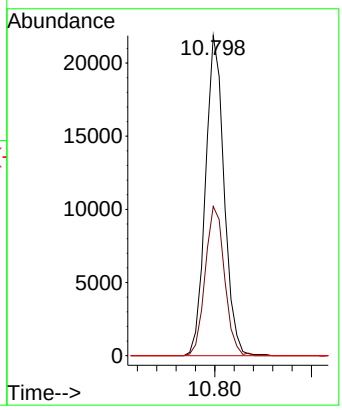





#71
Bromoform
Concen: 24.572 ug/l
RT: 10.798 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:173 Resp: 2918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.5 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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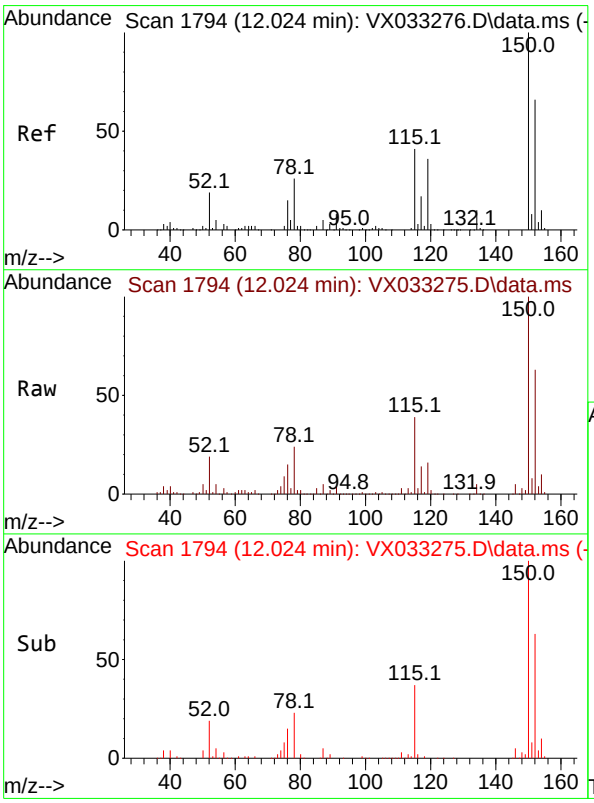
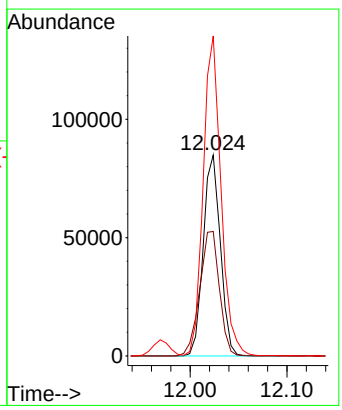
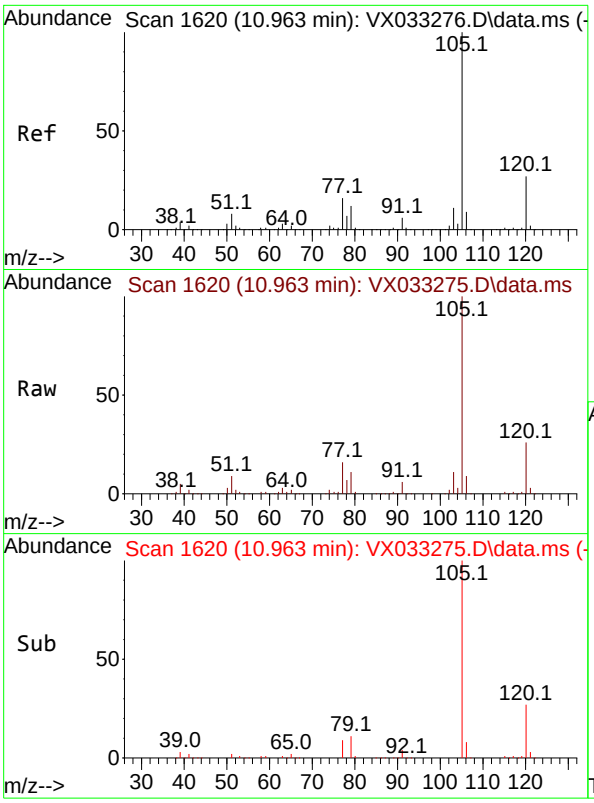



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:152 Resp: 104636

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 71.2 | 44.0 | 132.0 |
| 150 | 165.8 | 0.0 | 351.8 |






#73
Isopropylbenzene
Concen: 23.430 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:105 Resp: 17519

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.2 | 13.1 | 39.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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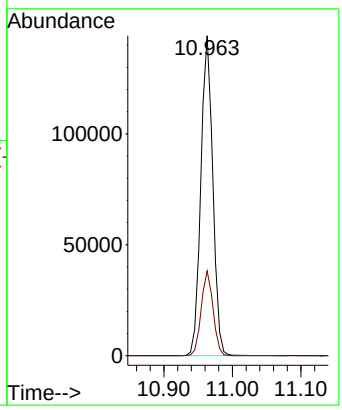
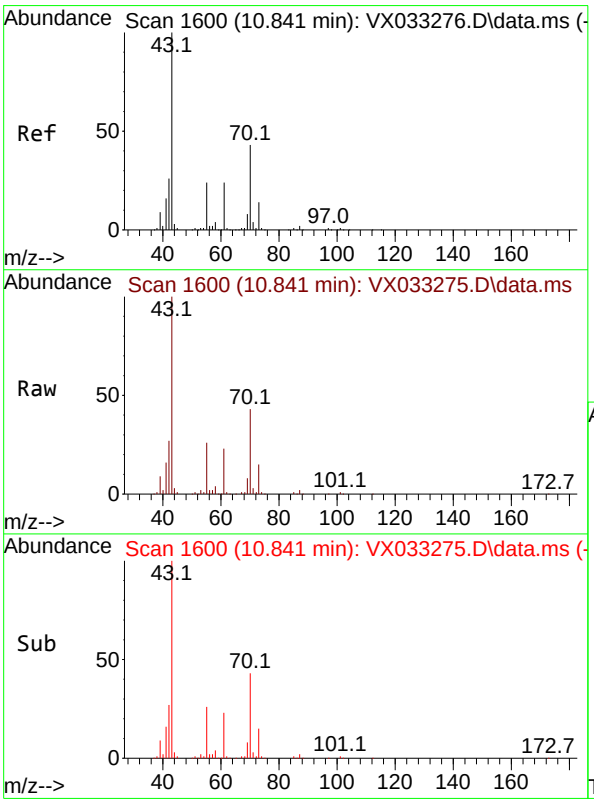
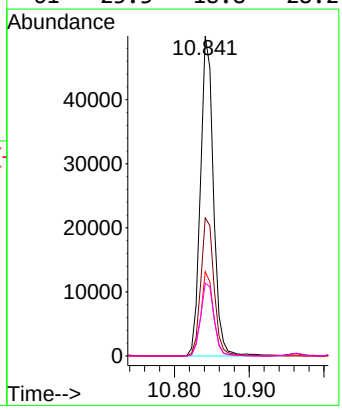


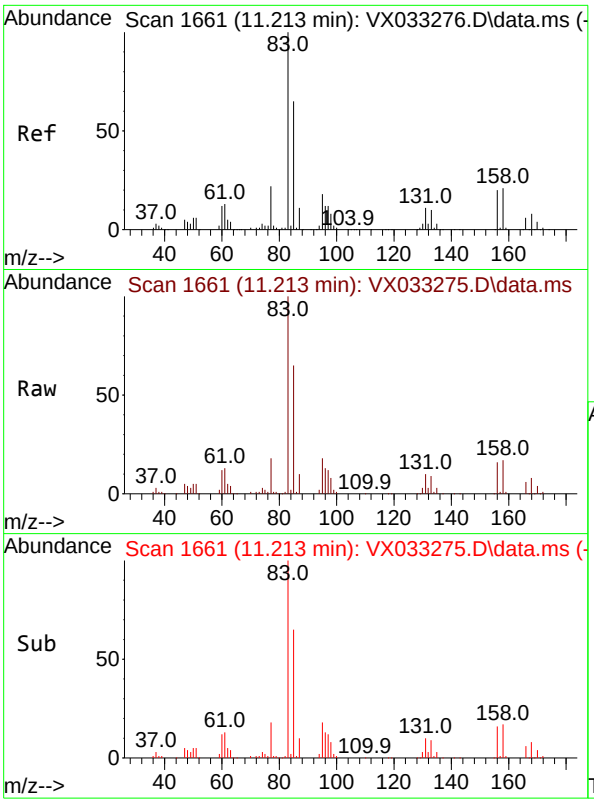




#74
N-amyl acetate
Concen: 23.754 ug/l
RT: 10.841 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 43 Resp: 60421

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 43.9 | 33.6 | 50.4 |
| 55 | 25.3 | 19.4 | 29.2 |
| 61 | 23.3 | 18.8 | 28.2 |

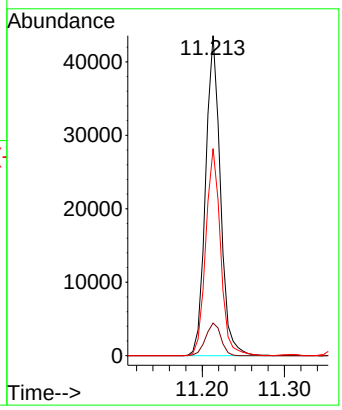





#75
1,1,2,2-Tetrachloroethane
Concen: 24.134 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 83 Resp: 5446

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 64.6 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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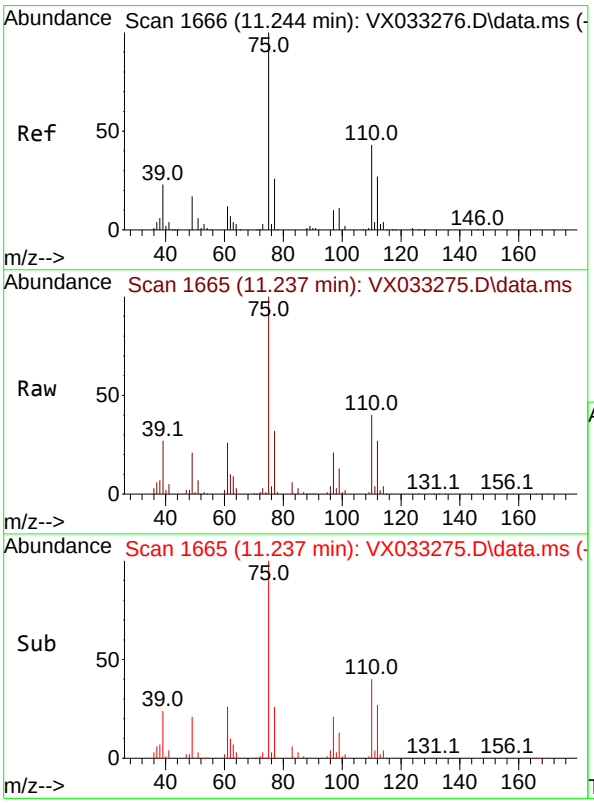
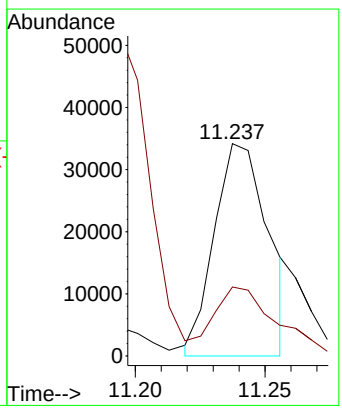
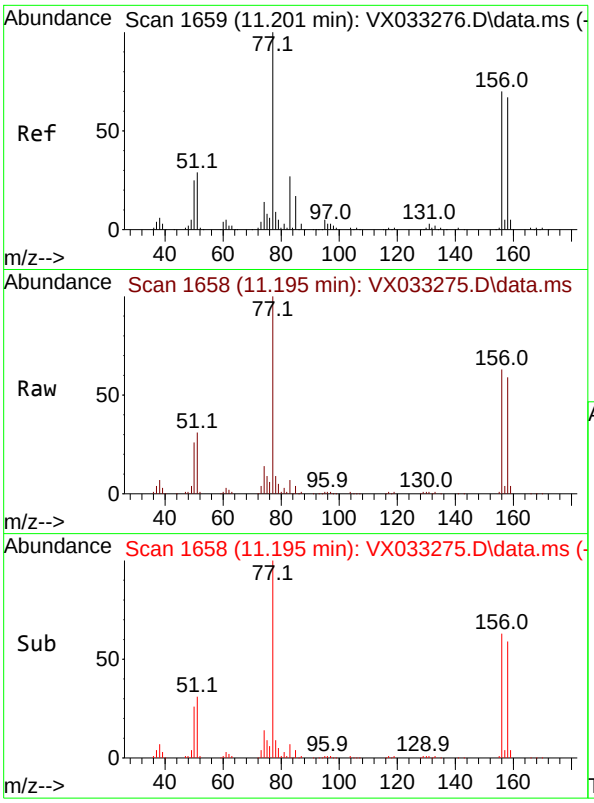



#76
1,2,3-Trichloropropane
Concen: 24.842 ug/l m
RT: 11.237 min Scan# 1665
Delta R.T. -0.007 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 49227

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 38.8 | 20.0 | 60.0 |

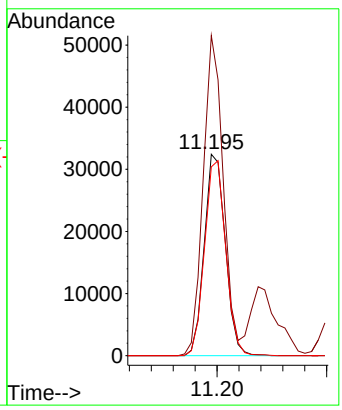





#77
Bromobenzene
Concen: 23.514 ug/l
RT: 11.195 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:156 Resp: 4324

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 150.5 | 76.1 | 228.4 |
| 158 | 97.5 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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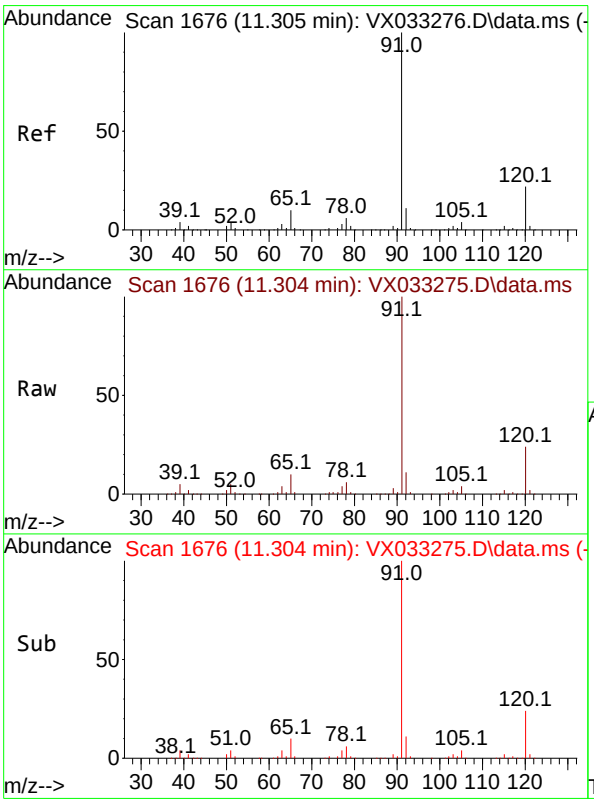
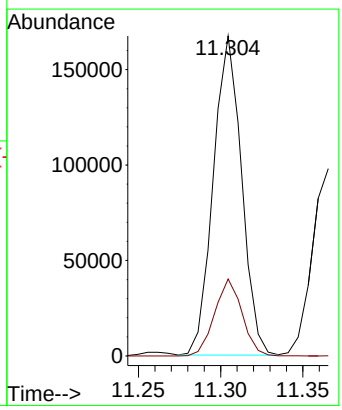
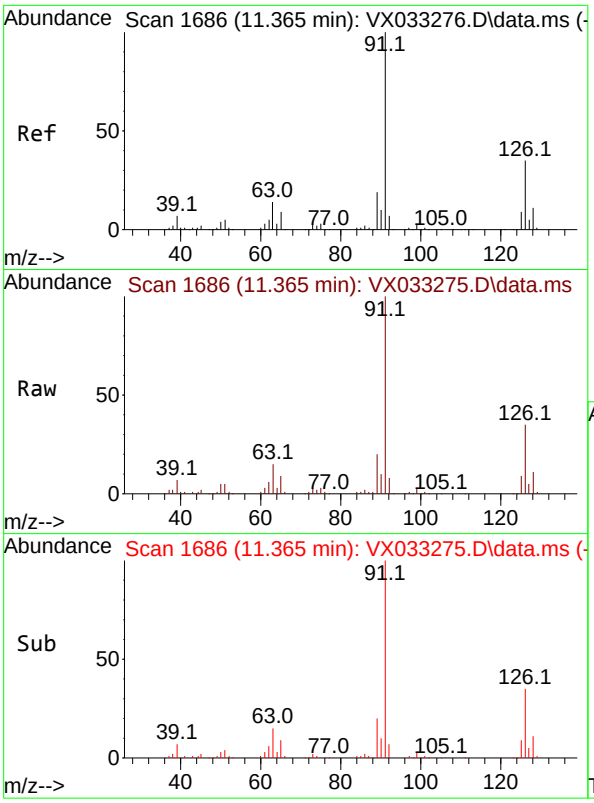



#78
n-propylbenzene
Concen: 23.345 ug/l
RT: 11.304 min Scan# 1676
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 199580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.4 | 11.6 | 34.8 |

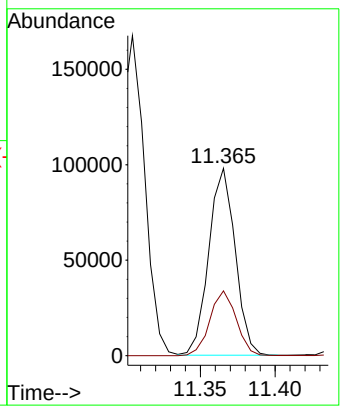





#79
2-Chlorotoluene
Concen: 23.187 ug/l
RT: 11.365 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 12039

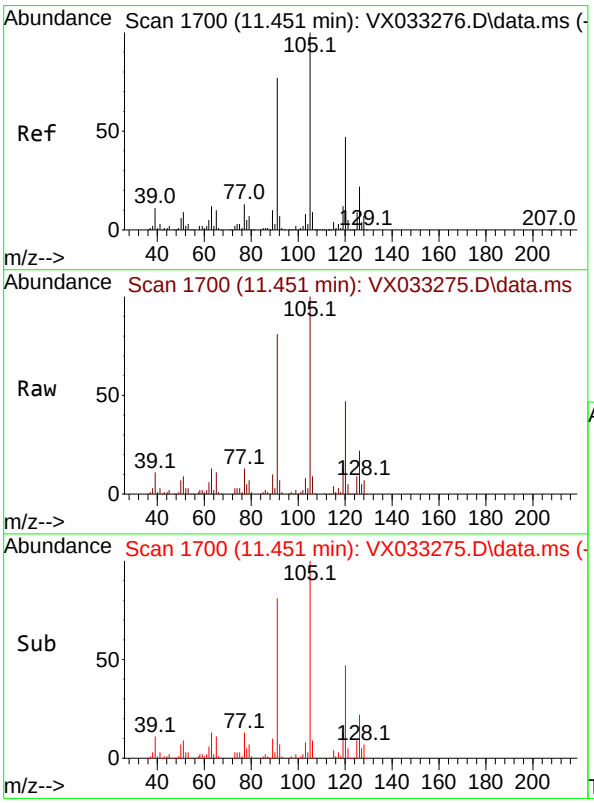
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 34.7 | 17.1 | 51.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

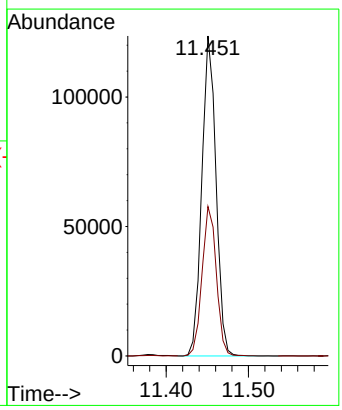
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

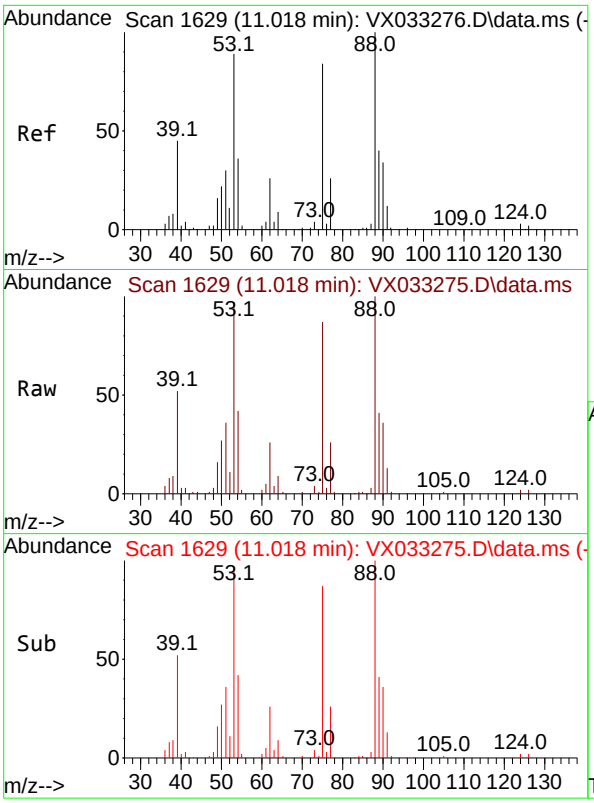



#80
1,3,5-Trimethylbenzene
Concen: 23.556 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:105 Resp: 147966

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.1 | 23.6 | 71.0 |






#81
trans-1,4-Dichloro-2-butene
Concen: 23.827 ug/l
RT: 11.018 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 1452

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 113.0 | 86.9 | 130.3 |
| 89 | 49.1 | 38.3 | 57.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
**APPROVED**

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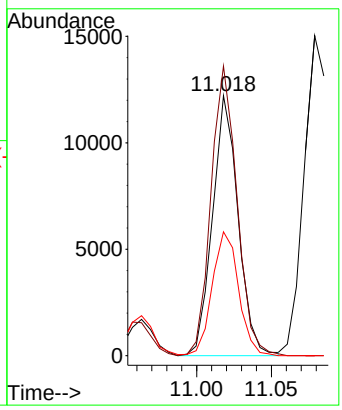
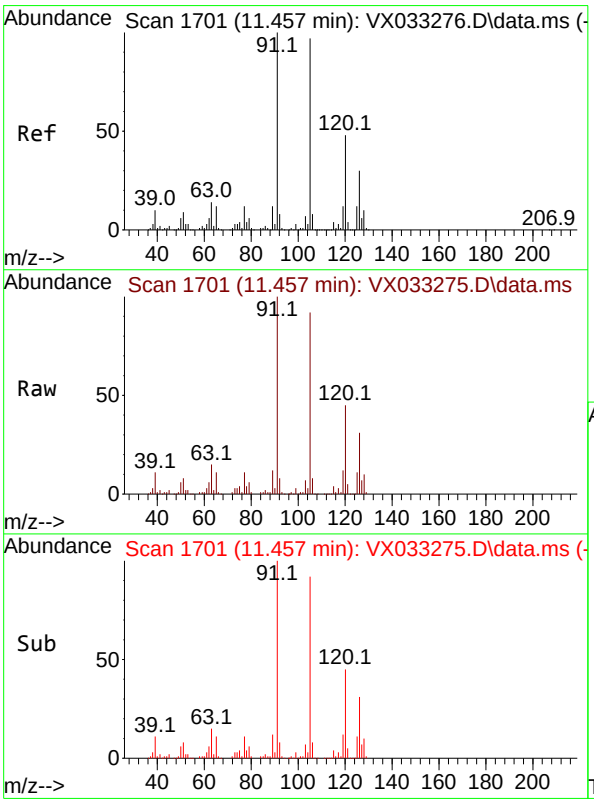
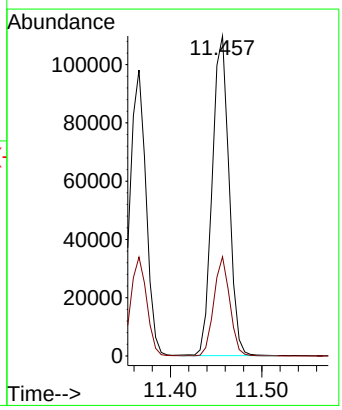


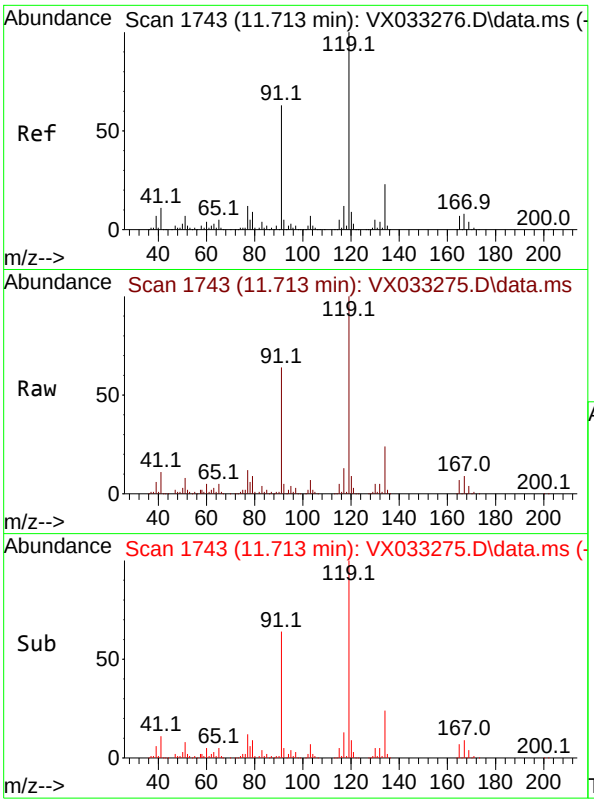




#82
4-Chlorotoluene
Concen: 22.916 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 139436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 29.6 | 14.8 | 44.4 |

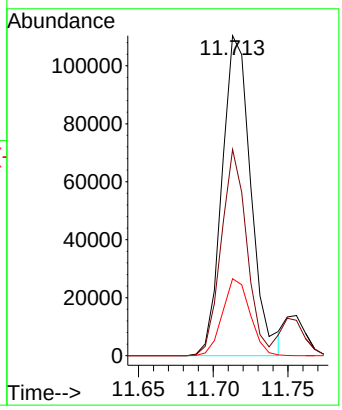





#83
tert-Butylbenzene
Concen: 23.672 ug/l
RT: 11.713 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:119 Resp: 14801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 57.2 | 29.4 | 88.2 |
| 134 | 23.0 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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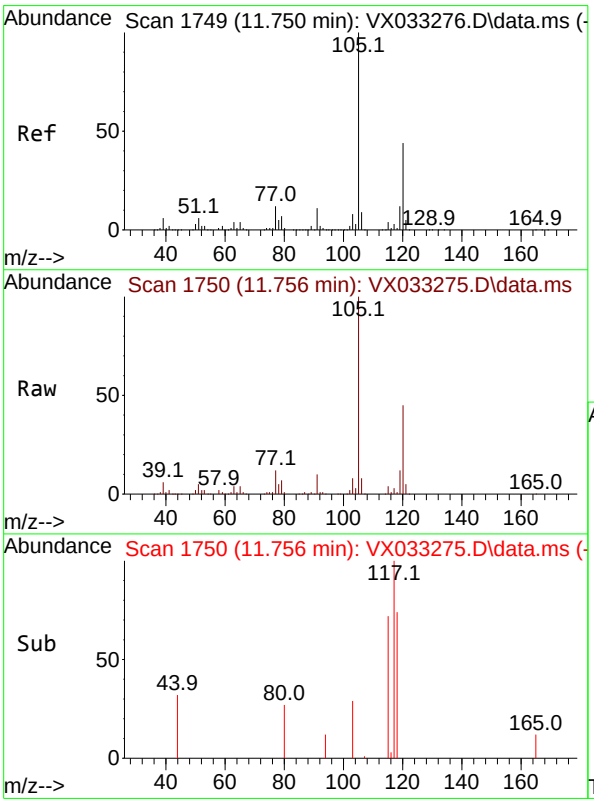
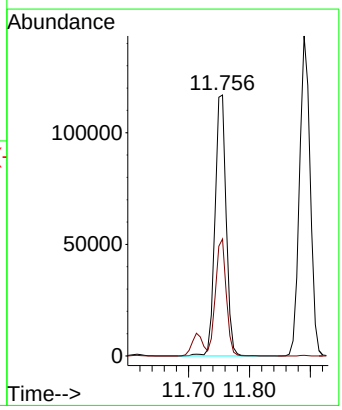
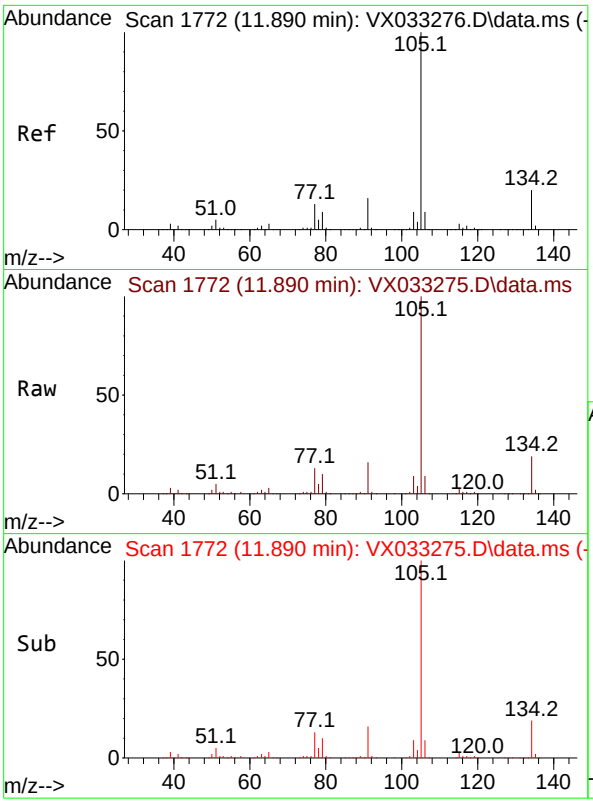



#84
1,2,4-Trimethylbenzene
Concen: 23.739 ug/l
RT: 11.756 min Scan# 1750
Delta R.T. 0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:105 Resp: 148682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.2 | 21.9 | 65.5 |






#85
sec-Butylbenzene
Concen: 23.380 ug/l
RT: 11.890 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:105 Resp: 17489

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 19.8 | 9.9 | 29.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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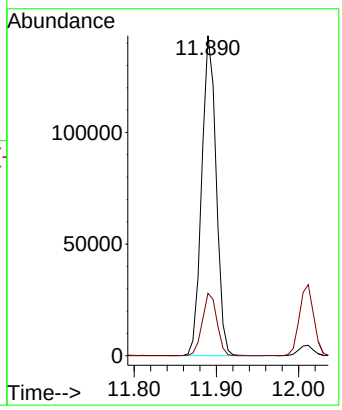
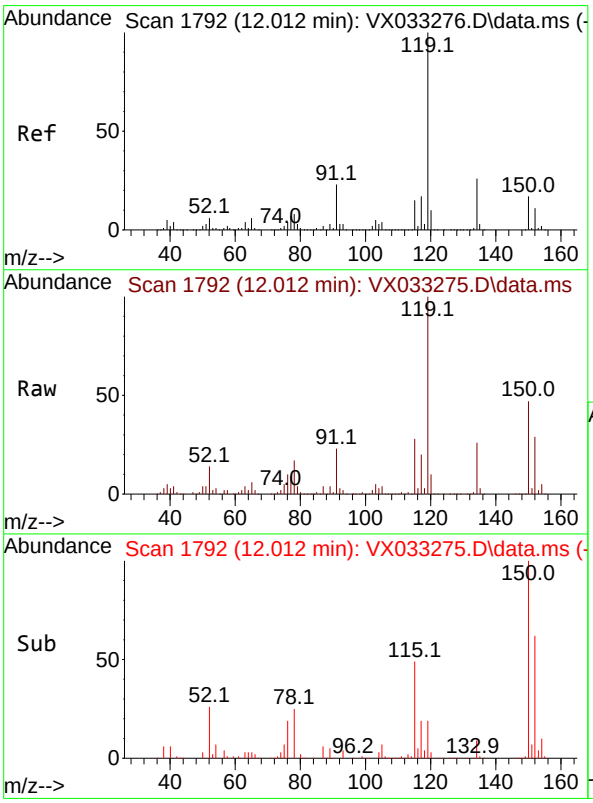
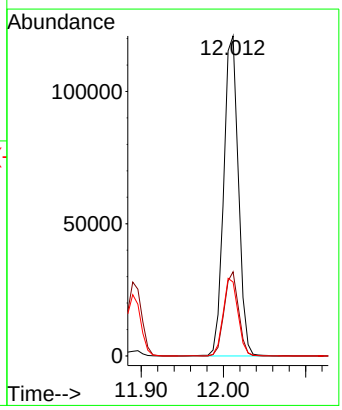


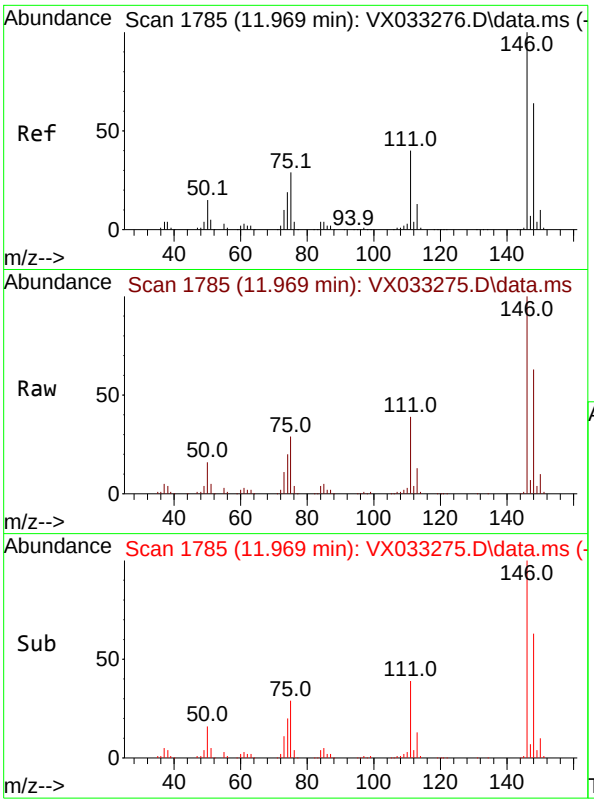




#86
p-Isopropyltoluene
Concen: 23.717 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:119 Resp: 150310

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 25.7 | 12.9 | 38.7 |
| 91 | 24.6 | 12.5 | 37.5 |

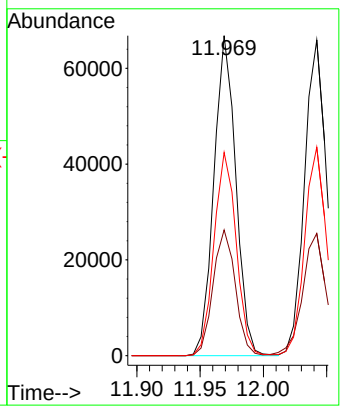





#87
1,3-Dichlorobenzene
Concen: 23.335 ug/l
RT: 11.969 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:146 Resp: 8048

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.9 | 20.6 | 61.8 |
| 148 | 64.3 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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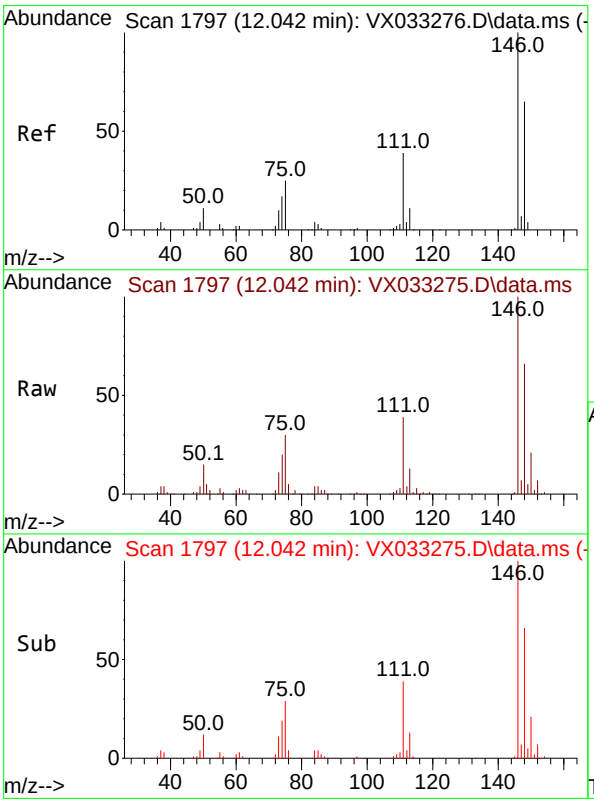
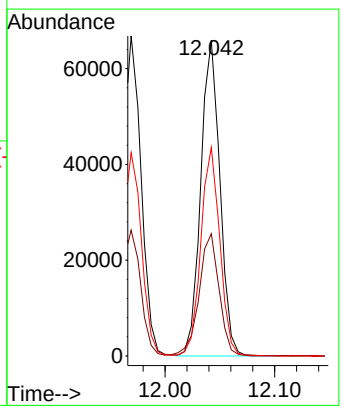
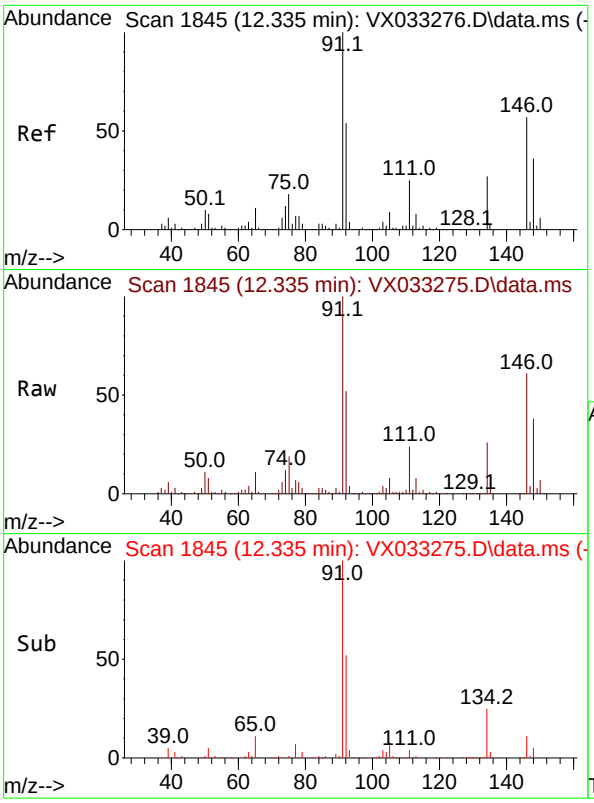



#88
1,4-Dichlorobenzene
Concen: 22.644 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:146 Resp: 79989

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.7 | 20.5 | 61.6 |
| 148 | 65.5 | 32.2 | 96.6 |

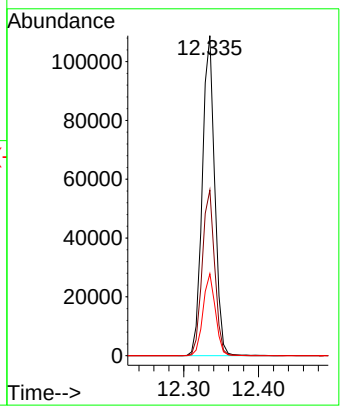





#89
n-Butylbenzene
Concen: 22.988 ug/l
RT: 12.335 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 91 Resp: 12551

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.2 | 26.2 | 78.6 |
| 134 | 25.5 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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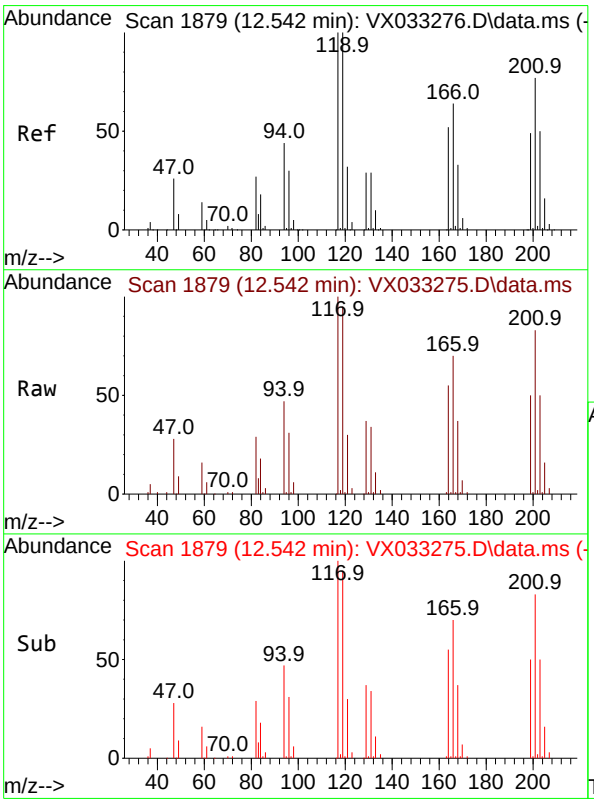
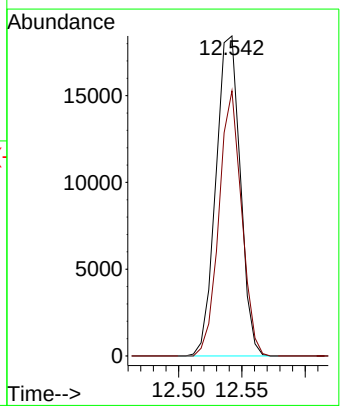
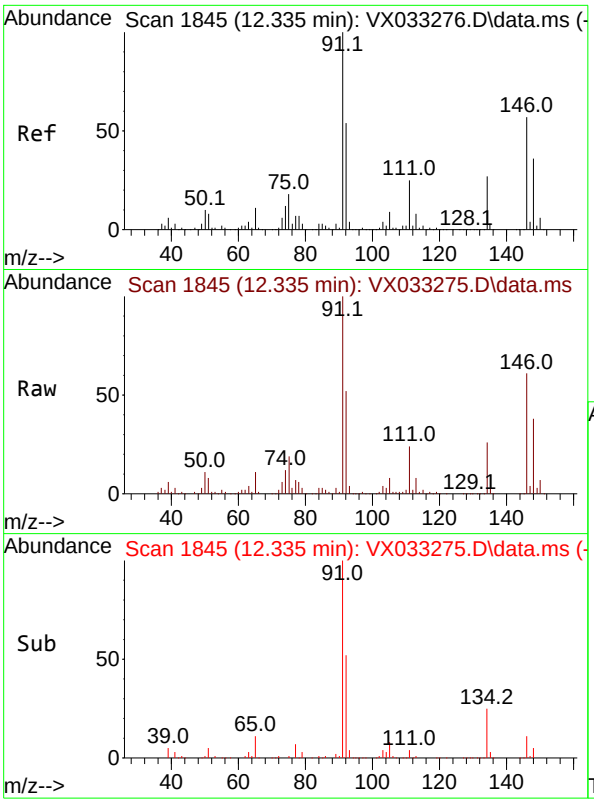



#90
Hexachloroethane
Concen: 23.665 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:117 Resp: 24641

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 76.9 | 37.6 | 112.9 |

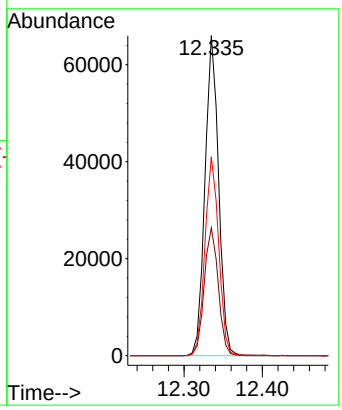





#91
1,2-Dichlorobenzene
Concen: 23.715 ug/l
RT: 12.335 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:146 Resp: 7956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.0 | 21.5 | 64.5 |
| 148 | 62.8 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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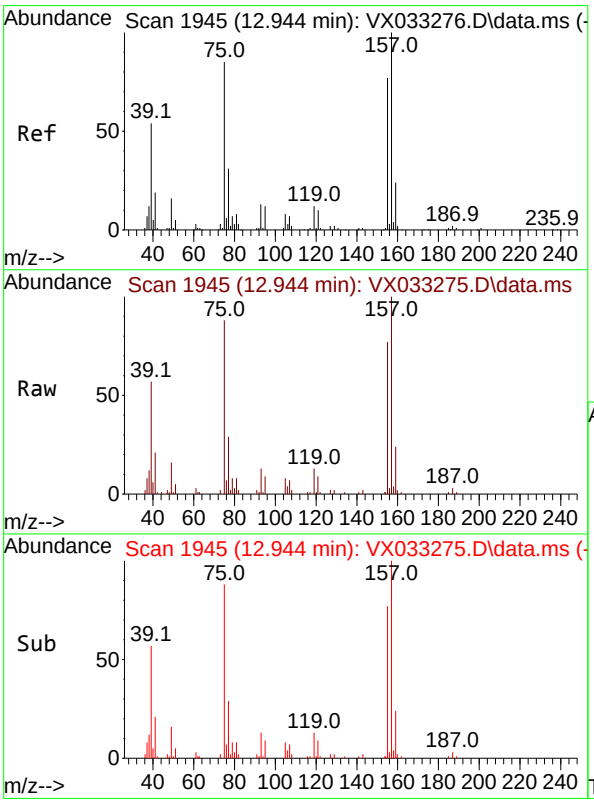
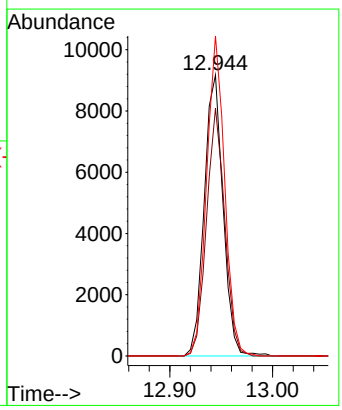
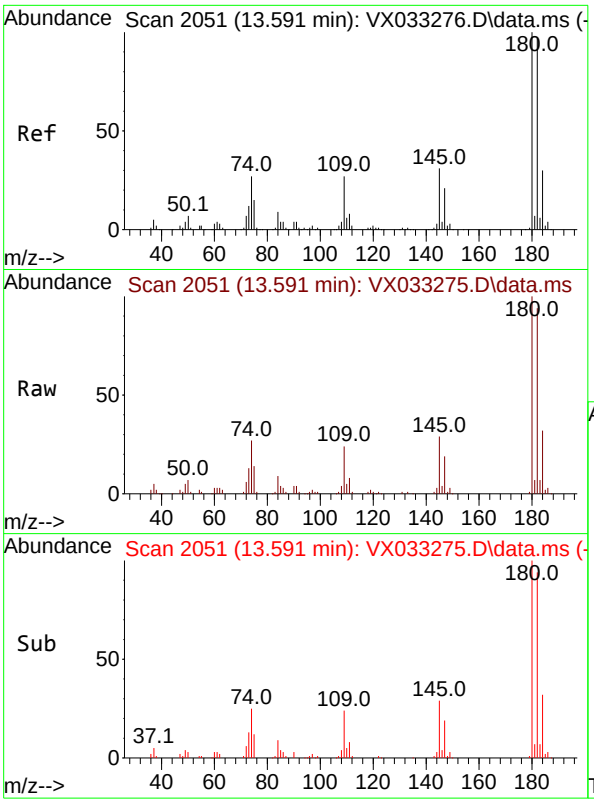



#92
1,2-Dibromo-3-Chloropropane
Concen: 25.947 ug/l
RT: 12.944 min Scan# 1945
Delta R.T. -0.001 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion: 75 Resp: 11683

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 85.4 | 41.6 | 124.8 |
| 157 | 109.4 | 54.1 | 162.4 |

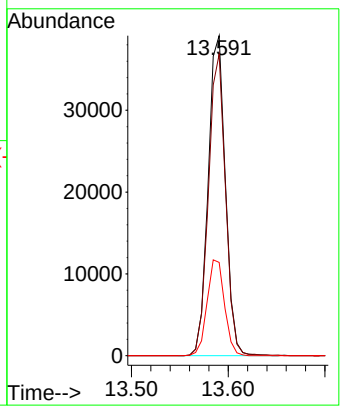





#93
1,2,4-Trichlorobenzene
Concen: 23.338 ug/l
RT: 13.591 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:180 Resp: 4826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 93.7 | 48.4 | 145.0 |
| 145 | 30.3 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations**
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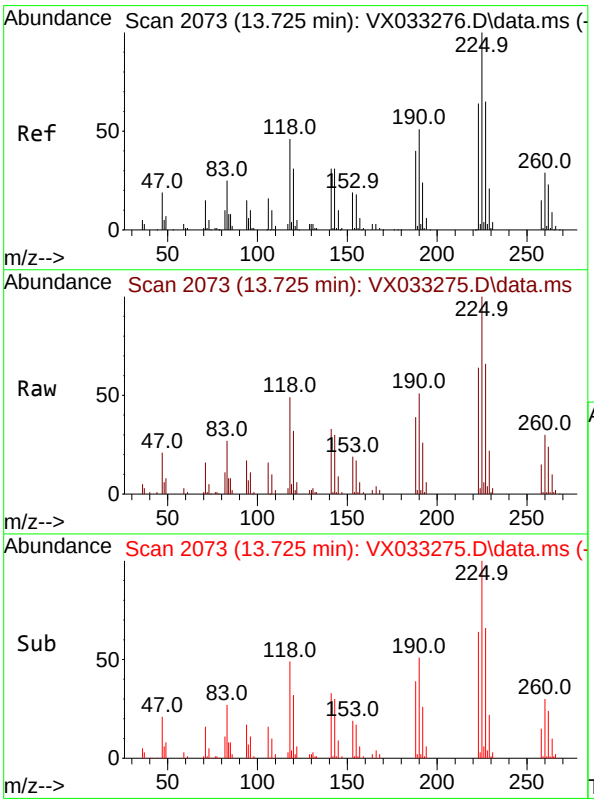
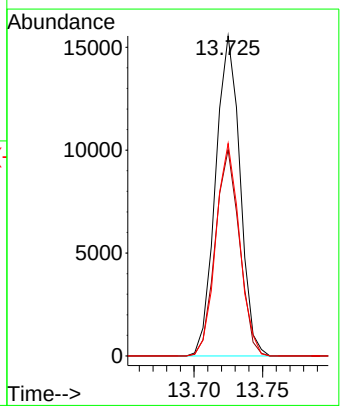
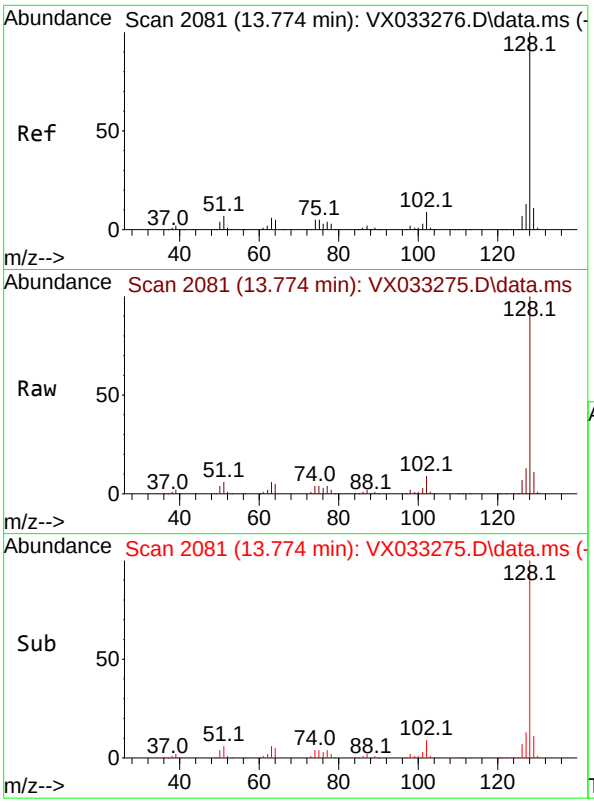



#94
Hexachlorobutadiene
Concen: 21.110 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:225 Resp: 19262

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 63.3 | 31.9 | 95.9 |
| 227 | 64.2 | 31.9 | 95.5 |

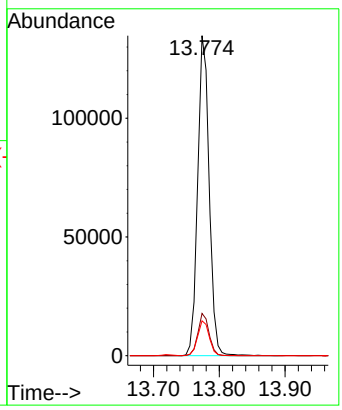





#95
Naphthalene
Concen: 24.481 ug/l
RT: 13.774 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:128 Resp: 16379

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.9 | 10.2 | 15.4 |
| 129 | 11.0 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC020

**Manual Integrations APPROVED**

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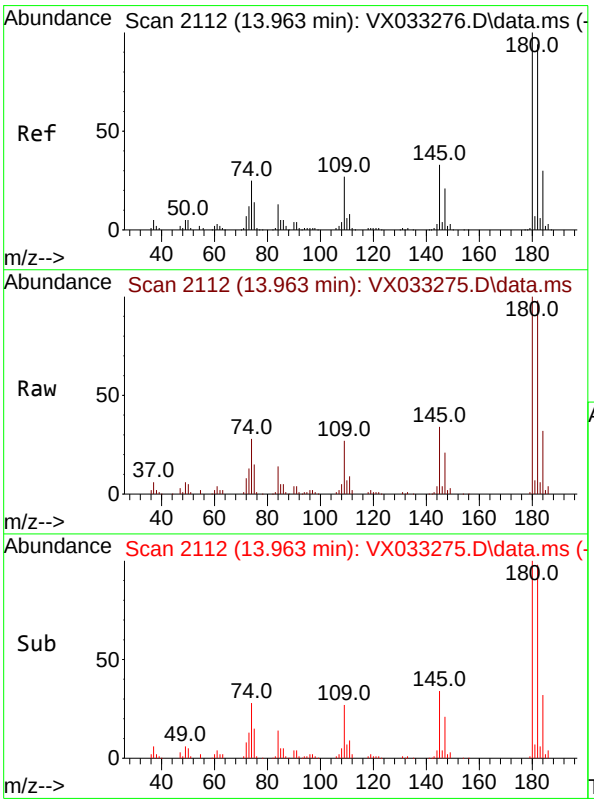
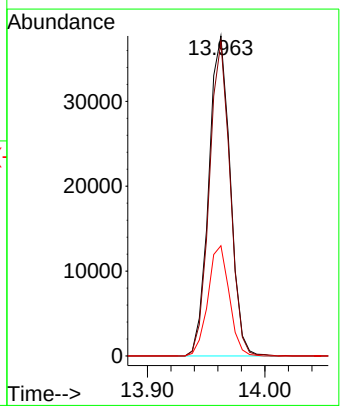



#96
1,2,3-Trichlorobenzene
Concen: 22.997 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033275.D
Acq: 07 Dec 2022 10:32

Tgt Ion:180 Resp: 47697

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.2 | 47.5 | 142.6 |
| 145 | 34.2 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033276.D
Acq On : 07 Dec 2022 10:55
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:21:04 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.556 | 168 | 158881 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 255290 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 233891 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 115251 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 45704 | 26.704 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 53.400%# | | | |
| 35) Dibromofluoromethane | 5.391 | 113 | 52030 | 36.151 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 72.300%# | | | |
| 50) Toluene-d8 | 8.653 | 98 | 113428 | 24.276 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 48.560%# | | | |
| 62) 4-Bromofluorobenzene | 11.085 | 95 | 90159 | 47.689 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 95.380% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 51981 | 42.824 | ug/l | 100 |
| 3) Chloromethane | 1.294 | 50 | 57823 | 44.126 | ug/l | 95 |
| 4) Vinyl Chloride | 1.373 | 62 | 67871 | 46.517 | ug/l | 98 |
| 5) Bromomethane | 1.617 | 94 | 47634 | 44.026 | ug/l | 95 |
| 6) Chloroethane | 1.690 | 64 | 53654 | 45.170 | ug/l | 99 |
| 7) Trichlorofluoromethane | 1.885 | 101 | 129548 | 45.748 | ug/l | 100 |
| 8) Diethyl Ether | 2.135 | 74 | 43677 | 48.991 | ug/l | 98 |
| 9) 1,1,2-Trichlorotrifluo... | 2.330 | 101 | 70688 | 47.492 | ug/l | 98 |
| 10) Methyl Iodide | 2.452 | 142 | 77866 | 45.699 | ug/l | 100 |
| 11) Tert butyl alcohol | 2.995 | 59 | 63661 | 259.553 | ug/l | 97 |
| 12) 1,1-Dichloroethene | 2.318 | 96 | 67045 | 48.355 | ug/l | 95 |
| 13) Acrolein | 2.239 | 56 | 80235 | 284.793 | ug/l | 99 |
| 14) Allyl chloride | 2.666 | 41 | 108703 | 48.562 | ug/l | 96 |
| 15) Acrylonitrile | 3.068 | 53 | 179363 | 258.544 | ug/l | 98 |
| 16) Acetone | 2.391 | 43 | 162918 | 225.460 | ug/l | 98 |
| 17) Carbon Disulfide | 2.513 | 76 | 174501 | 45.554 | ug/l | 99 |
| 18) Methyl Acetate | 2.708 | 43 | 102198 | 51.092 | ug/l | 98 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 234733 | 48.816 | ug/l | 98 |
| 20) Methylene Chloride | 2.794 | 84 | 74742 | 42.935 | ug/l | 93 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 74596 | 47.033 | ug/l | 98 |
| 22) Diisopropyl ether | 3.763 | 45 | 239712 | 49.181 | ug/l | 99 |
| 23) Vinyl Acetate | 3.720 | 43 | 932198 | 244.330 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 134140 | 48.093 | ug/l | 99 |
| 25) 2-Butanone | 4.562 | 43 | 256828 | 257.754 | ug/l | 99 |
| 26) 2,2-Dichloropropane | 4.476 | 77 | 102996 | 45.925 | ug/l | 100 |
| 27) cis-1,2-Dichloroethene | 4.489 | 96 | 89089 | 49.439 | ug/l | 97 |
| 28) Bromochloromethane | 4.903 | 49 | 59340 | 48.418 | ug/l | 94 |
| 29) Tetrahydrofuran | 5.013 | 42 | 166665 | 263.602 | ug/l | 99 |
| 30) Chloroform | 5.098 | 83 | 152229 | 48.731 | ug/l | 99 |
| 31) Cyclohexane | 5.470 | 56 | 118008 | 47.071 | ug/l | 95 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 135108 | 48.294 | ug/l | 99 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 107681 | 46.792 | ug/l | 99 |
| 37) Ethyl Acetate | 4.714 | 43 | 101371 | 50.491 | ug/l | 100 |
| 38) Carbon Tetrachloride | 5.677 | 117 | 122084 | 47.822 | ug/l | 96 |
| 39) Methylcyclohexane | 7.384 | 83 | 125111 | 47.648 | ug/l | 98 |
| 40) Benzene | 6.037 | 78 | 309956 | 48.039 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033276.D
Acq On : 07 Dec 2022 10:55
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 11:21:04 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.922 | 41 | 57319 | 50.738 | ug/l | | 98 |
| 42) 1,2-Dichloroethane | 6.092 | 62 | 121854 | 46.905 | ug/l | | 99 |
| 43) Isopropyl Acetate | 6.342 | 43 | 163749 | 49.316 | ug/l | | 98 |
| 44) Trichloroethene | 7.128 | 130 | 86406 | 47.724 | ug/l | | 100 |
| 45) 1,2-Dichloropropane | 7.433 | 63 | 78837 | 49.442 | ug/l | | 99 |
| 46) Dibromomethane | 7.580 | 93 | 59524 | 47.841 | ug/l | | 99 |
| 47) Bromodichloromethane | 7.823 | 83 | 119589 | 49.743 | ug/l | | 98 |
| 48) Methyl methacrylate | 7.695 | 41 | 84608 | 49.504 | ug/l | | 95 |
| 49) 1,4-Dioxane | 7.701 | 88 | 38262 | 1216.156 | ug/l | | 99 |
| 51) 4-Methyl-2-Pentanone | 8.573 | 43 | 526567 | 257.000 | ug/l | | 97 |
| 52) Toluene | 8.720 | 92 | 207899 | 48.976 | ug/l | | 100 |
| 53) t-1,3-Dichloropropene | 8.982 | 75 | 119339 | 50.573 | ug/l | | 98 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 130089 | 50.193 | ug/l | | 93 |
| 55) 1,1,2-Trichloroethane | 9.152 | 97 | 85123 | 49.254 | ug/l | | 99 |
| 56) Ethyl methacrylate | 9.116 | 69 | 124802 | 52.411 | ug/l | | 93 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 136551 | 48.943 | ug/l | | 99 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 286076 | 252.998 | ug/l | | 100 |
| 59) 2-Hexanone | 9.433 | 43 | 390656 | 258.105 | ug/l | | 96 |
| 60) Dibromochloromethane | 9.524 | 129 | 96040 | 51.615 | ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 91480 | 50.149 | ug/l | | 99 |
| 64) Tetrachloroethene | 9.274 | 164 | 75304 | 45.485 | ug/l | | 97 |
| 65) Chlorobenzene | 10.079 | 112 | 225991 | 48.463 | ug/l | | 98 |
| 66) 1,1,1,2-Tetrachloroethane | 10.164 | 131 | 86946 | 50.887 | ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 405828 | 49.061 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.305 | 106 | 316676 | 97.764 | ug/l | | 98 |
| 69) o-Xylene | 10.640 | 106 | 156950 | 50.078 | ug/l | | 96 |
| 70) Styrene | 10.658 | 104 | 260878 | 50.879 | ug/l | | 98 |
| 71) Bromoform | 10.798 | 173 | 71067 | 54.249 | ug/l | # | 99 |
| 73) Isopropylbenzene | 10.963 | 105 | 410304 | 49.820 | ug/l | | 99 |
| 74) N-amyl acetate | 10.841 | 43 | 142952 | 51.025 | ug/l | | 97 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 125418 | 50.456 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.244 | 75 | 110953m | 50.834 | ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 99728 | 49.237 | ug/l | | 100 |
| 78) n-propylbenzene | 11.305 | 91 | 466678 | 49.561 | ug/l | | 100 |
| 79) 2-Chlorotoluene | 11.365 | 91 | 279467 | 48.866 | ug/l | | 99 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 343696 | 49.677 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 36013 | 53.631 | ug/l | | 97 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 321742 | 48.008 | ug/l | | 98 |
| 83) tert-Butylbenzene | 11.713 | 119 | 342890 | 49.789 | ug/l | | 98 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 340117 | 49.302 | ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 407442 | 49.452 | ug/l | | 98 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 347069 | 49.719 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 184702 | 48.618 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 183674 | 47.208 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 289041 | 48.064 | ug/l | | 99 |
| 90) Hexachloroethane | 12.542 | 117 | 58312 | 50.845 | ug/l | | 99 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 179882 | 48.675 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.944 | 75 | 26891 | 54.222 | ug/l | | 95 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 110381 | 48.454 | ug/l | | 99 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 44005 | 43.785 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 382237 | 51.866 | ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 113042 | 49.483 | ug/l | | 99 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033276.D
Acq On : 07 Dec 2022 10:55
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 11:21:04 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

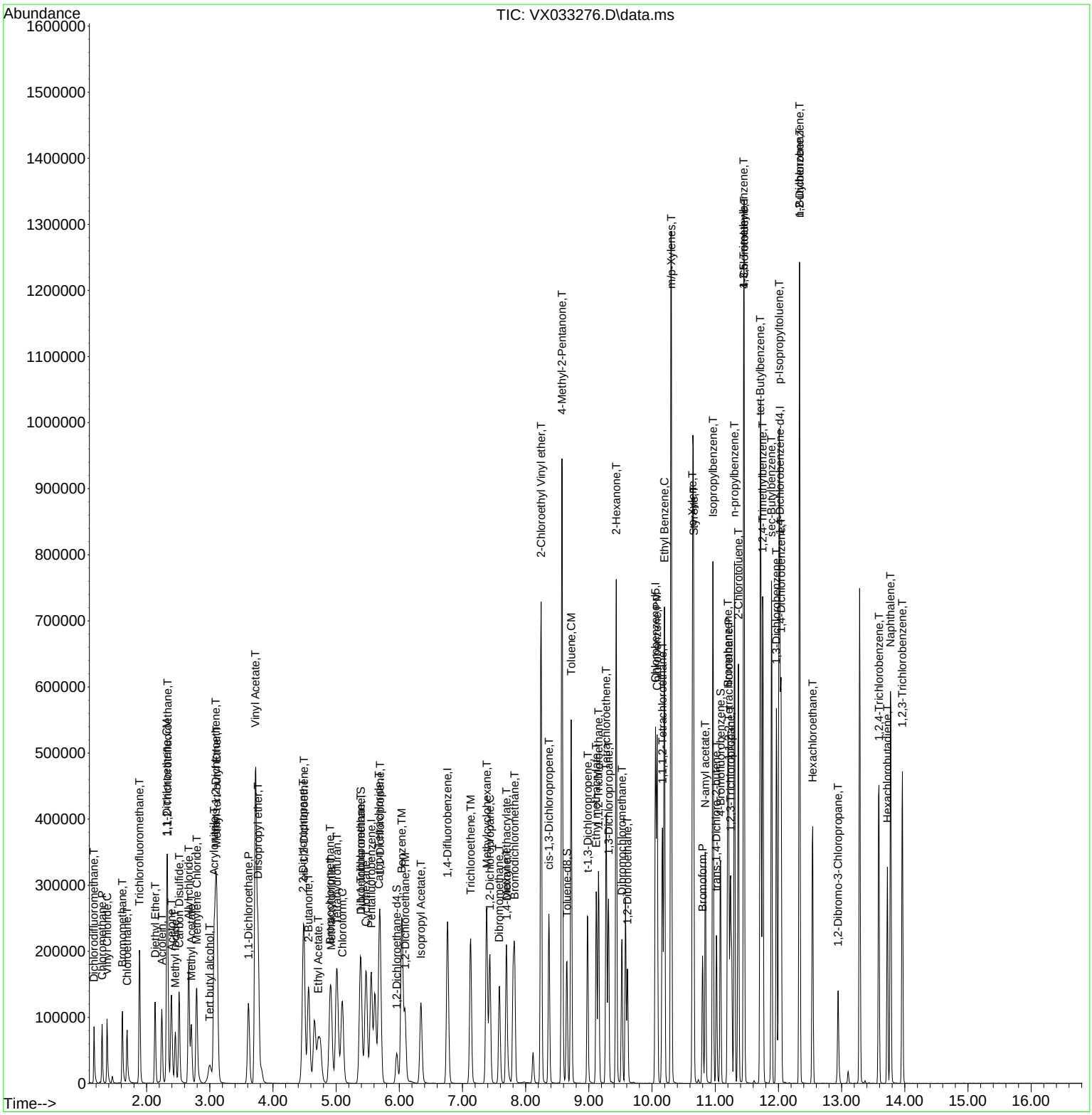
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033276.D
Acq On : 07 Dec 2022 10:55
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

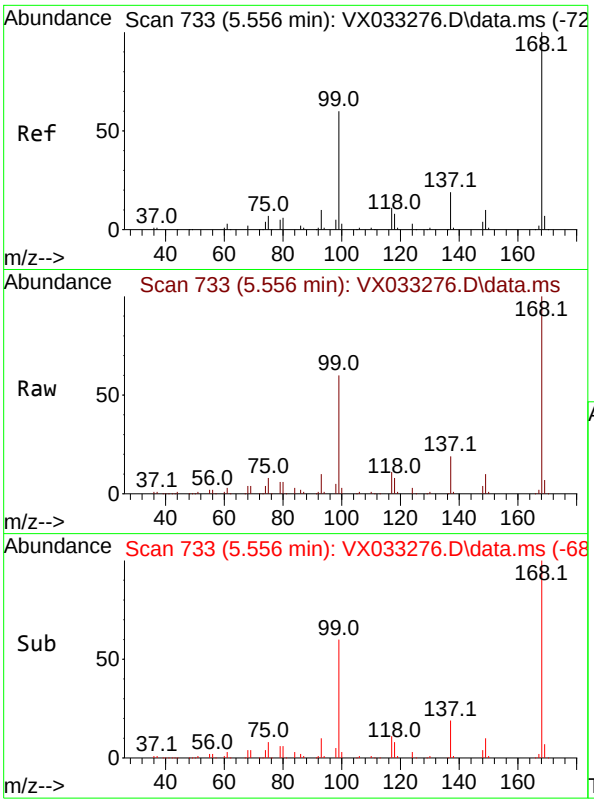
Quant Time: Dec 07 11:21:04 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

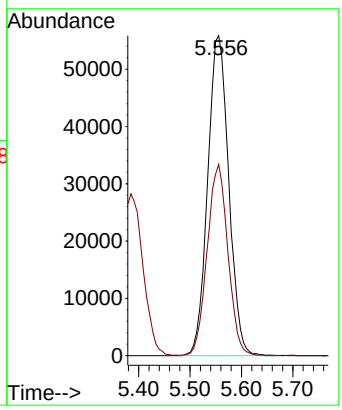





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.556 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:168 Resp: 15888

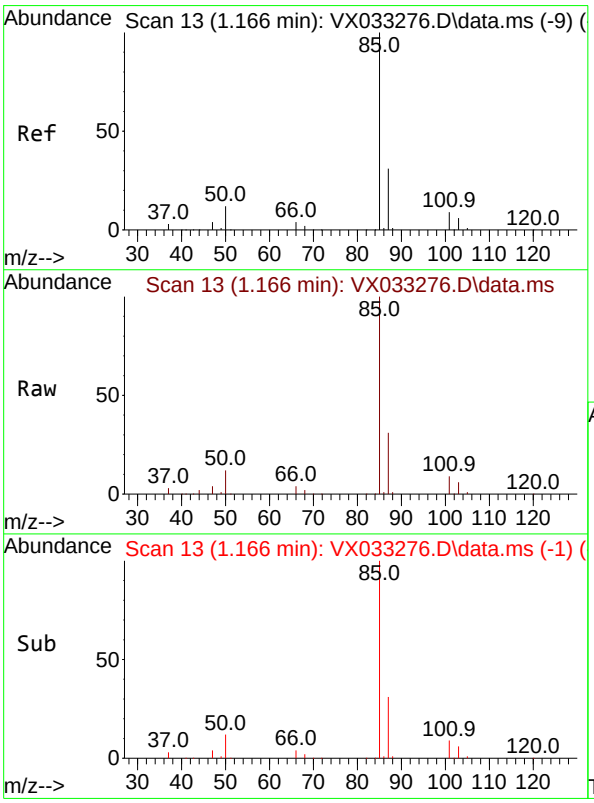
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 59.6 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

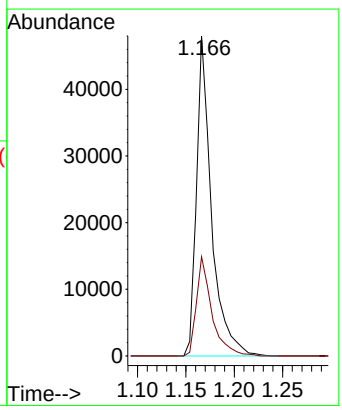
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

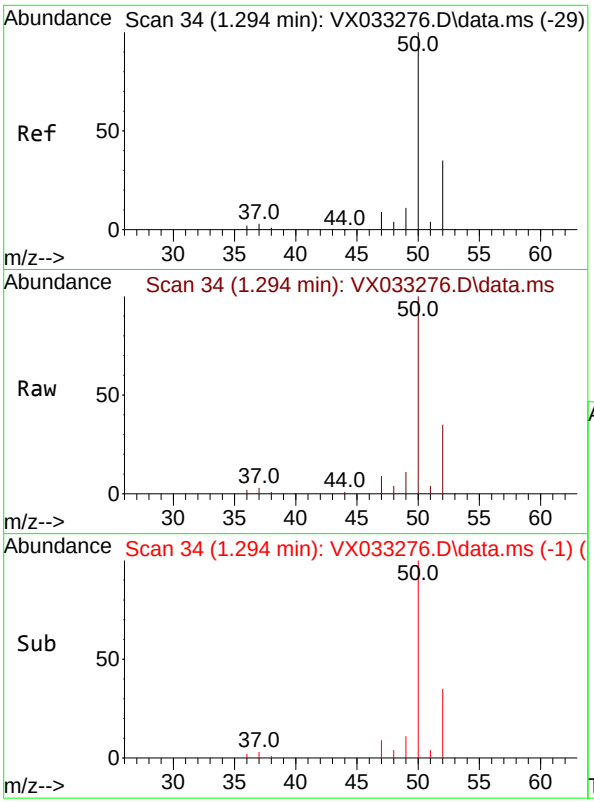



#2
Dichlorodifluoromethane
Concen: 42.824 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 85 Resp: 51981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 31.0 | 15.6 | 46.7 |

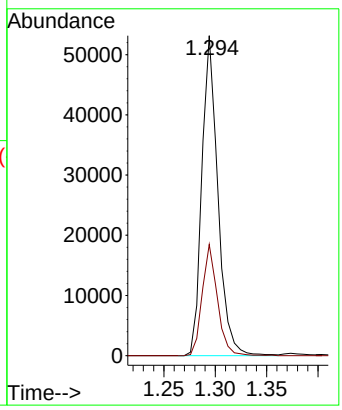





#3
Chloromethane
Concen: 44.126 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 50 Resp: 5782

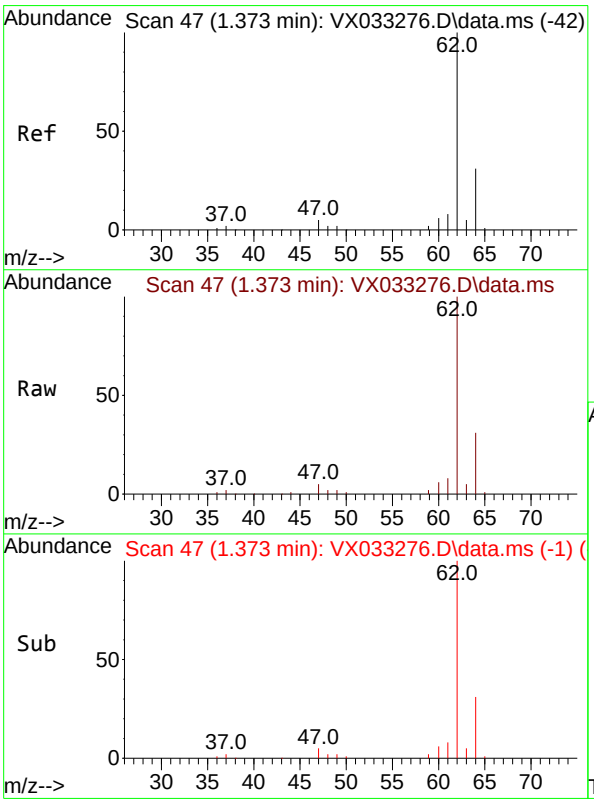
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 34.7 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

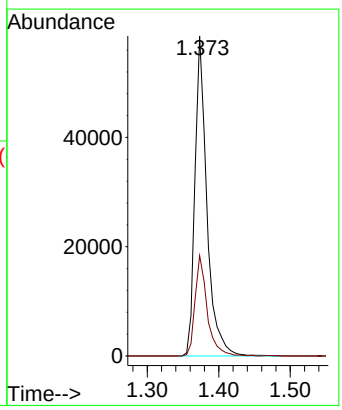
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

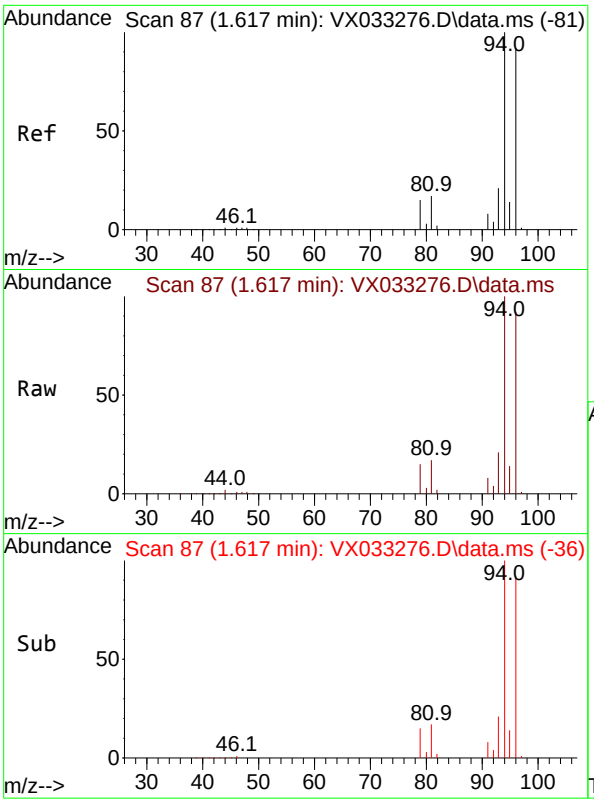



#4
Vinyl Chloride
Concen: 46.517 ug/l
RT: 1.373 min Scan# 47
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 62 Resp: 67871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.4 | 25.8 | 38.6 |

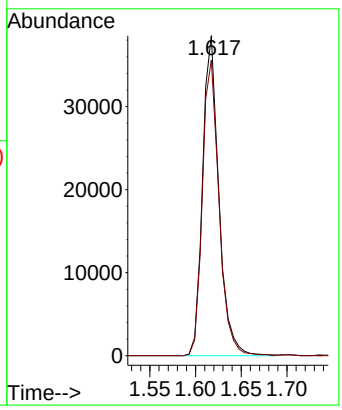





#5
Bromomethane
Concen: 44.026 ug/l
RT: 1.617 min Scan# 8
Delta R.T. 0.012 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 94 Resp: 4763

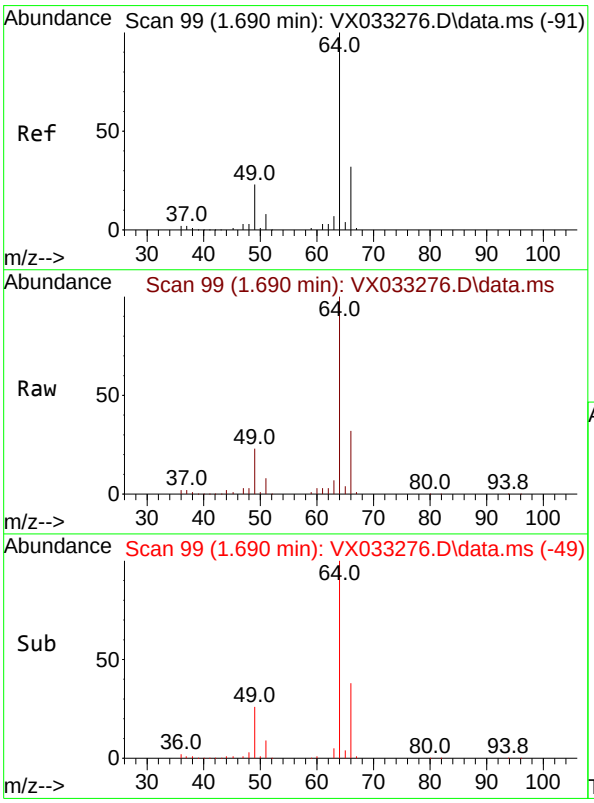
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 92.4 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

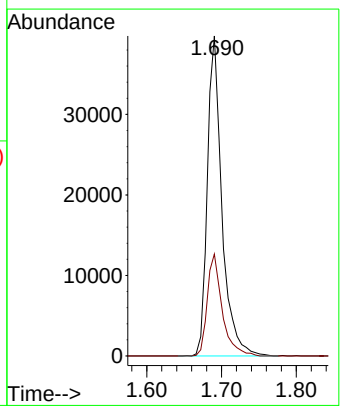
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

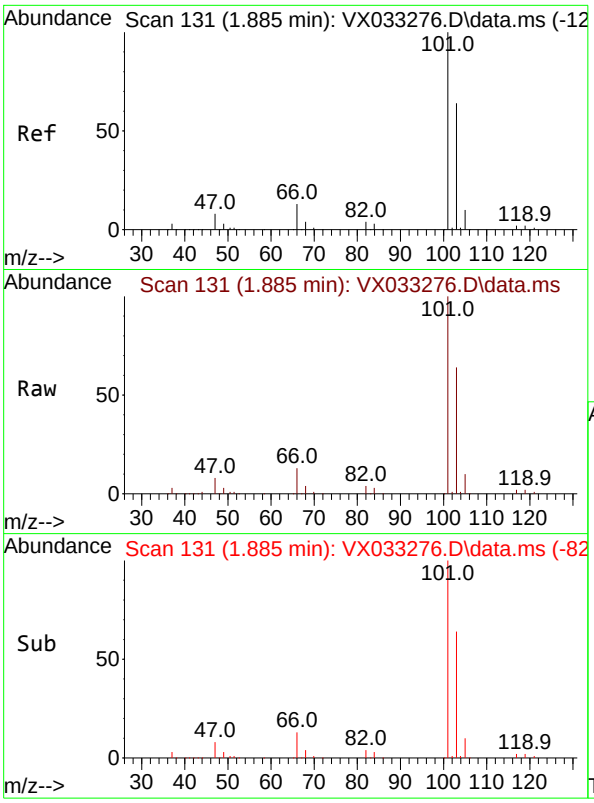



#6
Chloroethane
Concen: 45.170 ug/l
RT: 1.690 min Scan# 99
Delta R.T. 0.005 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 64 Resp: 53654

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 31.9 | 26.0 | 39.0 |

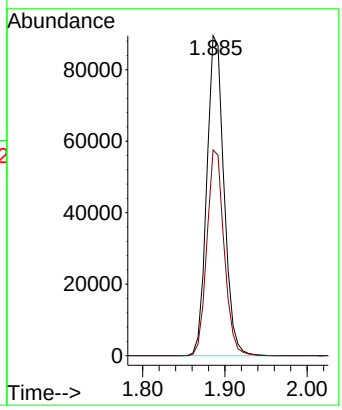





#7
Trichlorofluoromethane
Concen: 45.748 ug/l
RT: 1.885 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:101 Resp: 12954

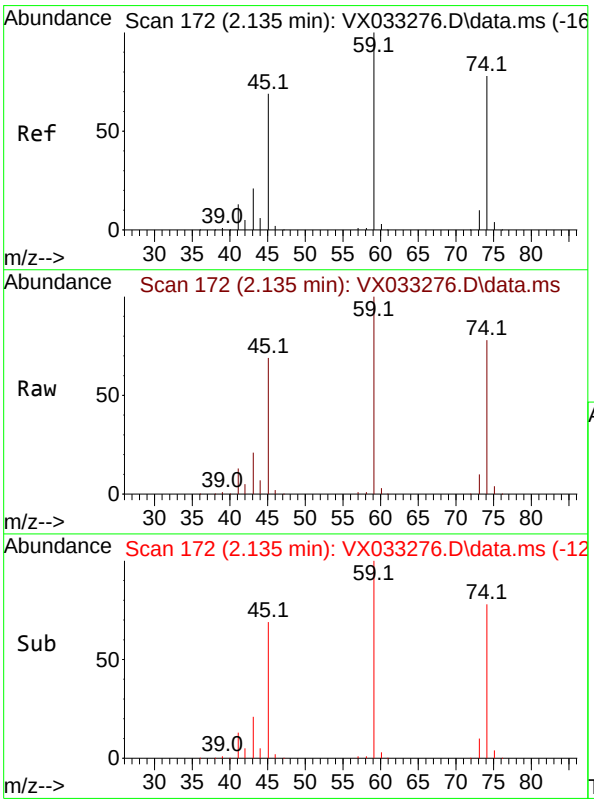
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.3 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

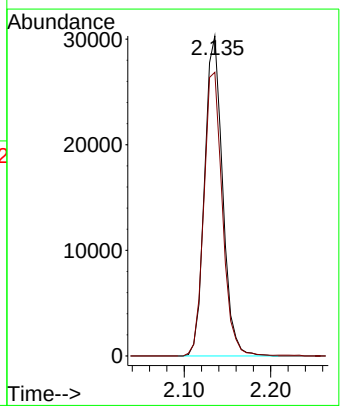
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

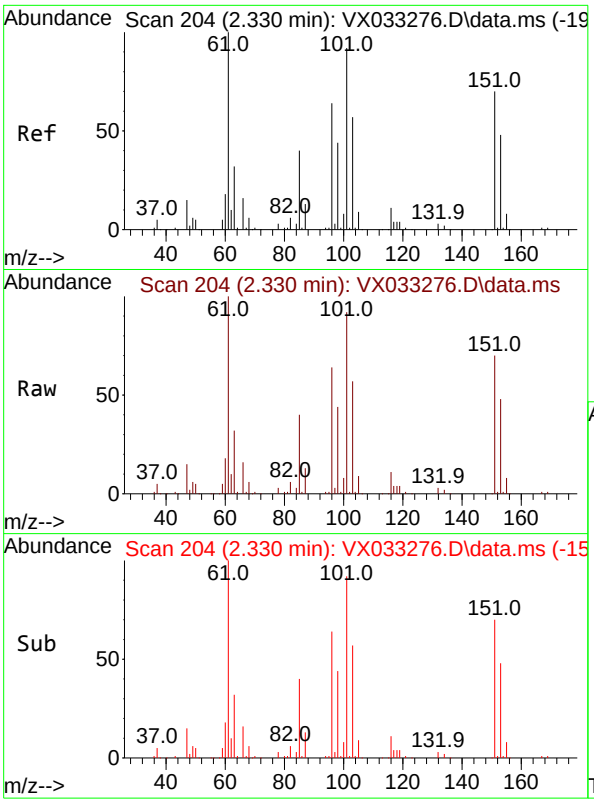



#8
Diethyl Ether
Concen: 48.991 ug/l
RT: 2.135 min Scan# 172
Delta R.T. 0.005 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 74 Resp: 43677

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 91.2 | 46.6 | 139.7 |

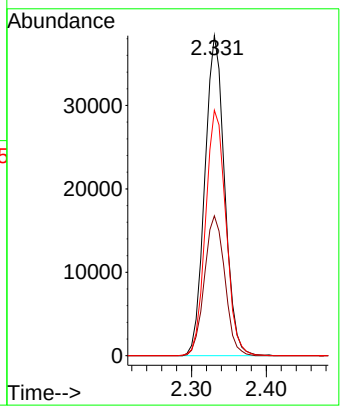





#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.492 ug/l
RT: 2.330 min Scan# 2
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:101 Resp: 7068

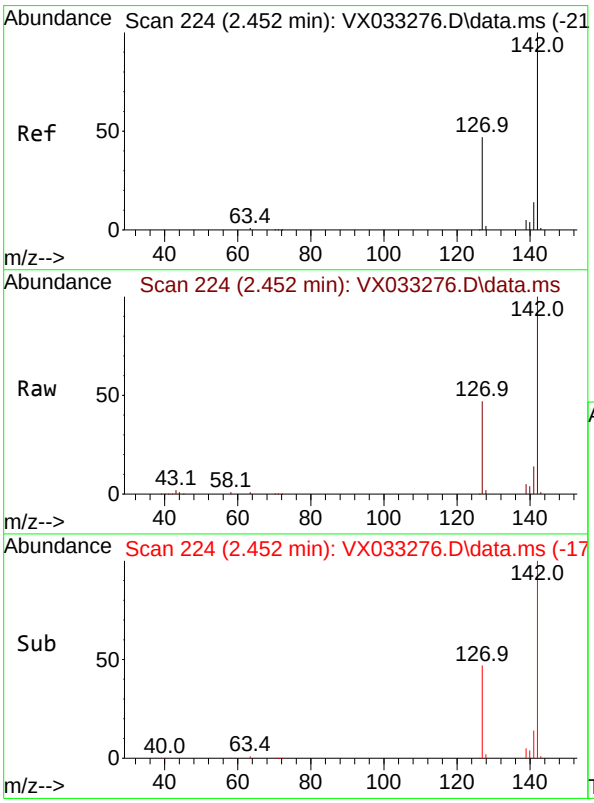
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.0 | 37.0 | 55.4 |
| 151 | 78.7 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

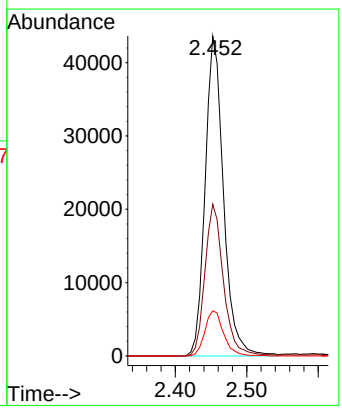
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

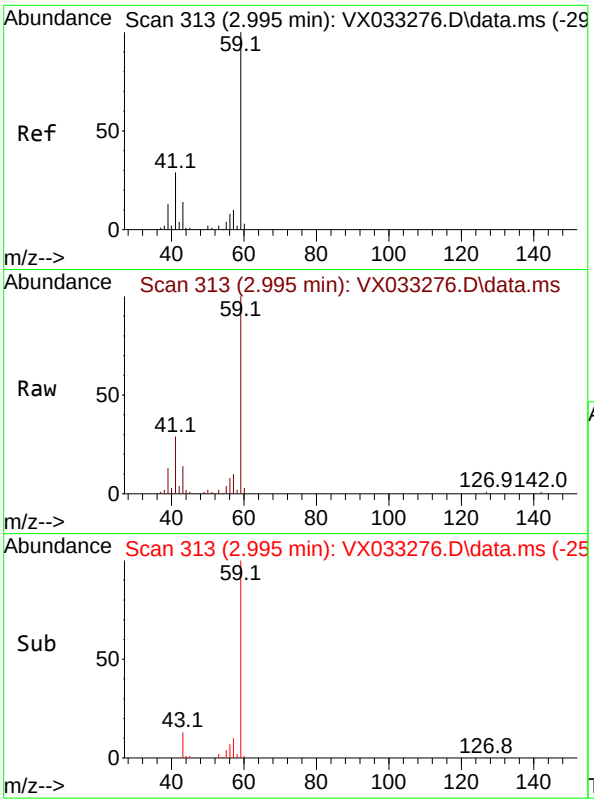



#10
Methyl Iodide
Concen: 45.699 ug/l
RT: 2.452 min Scan# 224
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:142 Resp: 77866

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.9 | 38.6 | 57.8 |
| 141 | 14.4 | 11.4 | 17.2 |

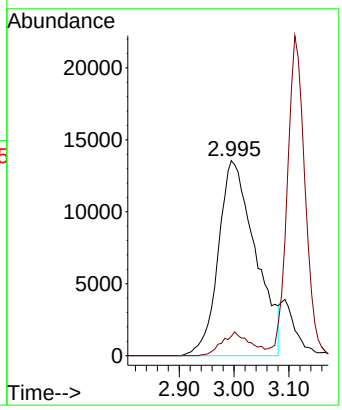





#11
Tert butyl alcohol
Concen: 259.553 ug/l
RT: 2.995 min Scan# 3
Delta R.T. 0.030 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 59 Resp: 6366

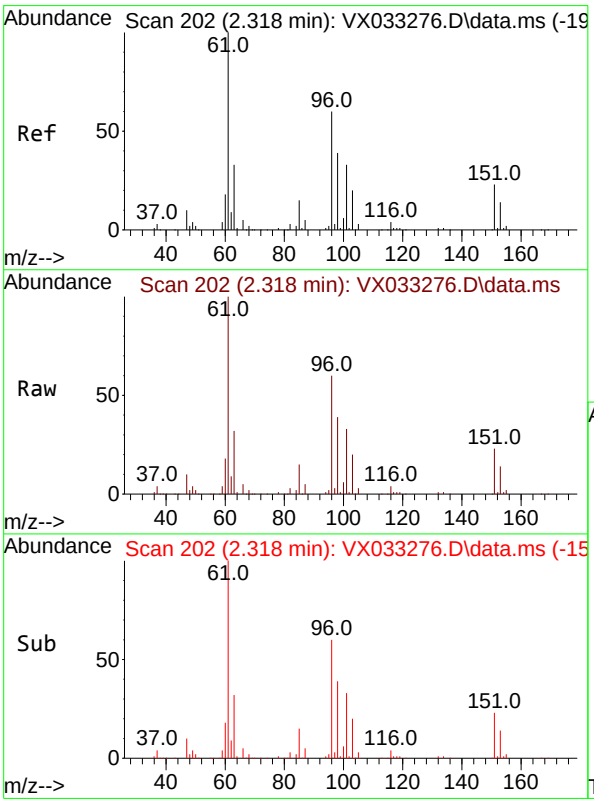
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 9.2 | 8.2 | 12.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

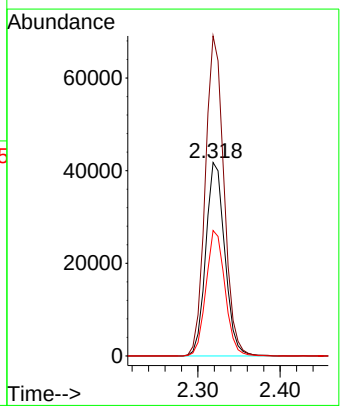
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

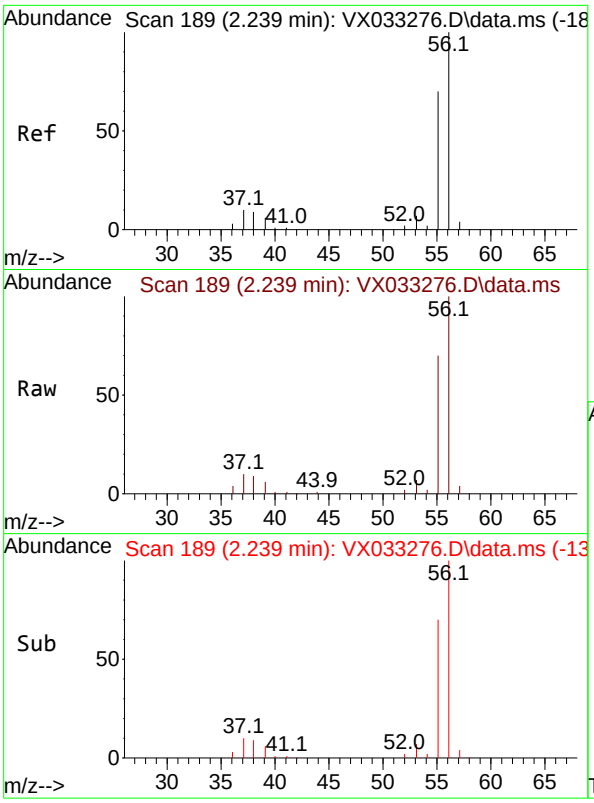



#12
1,1-Dichloroethene
Concen: 48.355 ug/l
RT: 2.318 min Scan# 202
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 96 Resp: 67045

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 165.4 | 125.1 | 187.7 |
| 98 | 64.8 | 50.6 | 76.0 |

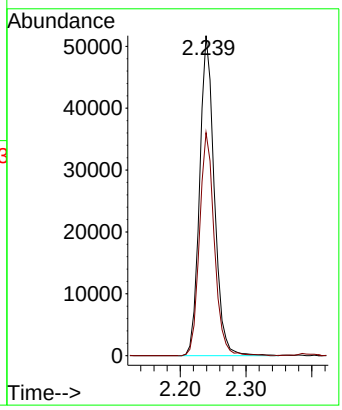





#13
Acrolein
Concen: 284.793 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 56 Resp: 8023

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.3 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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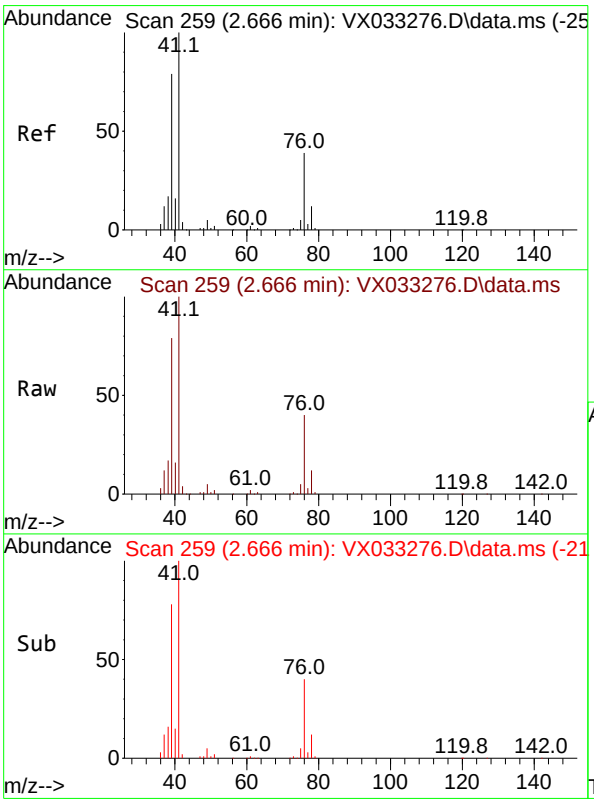
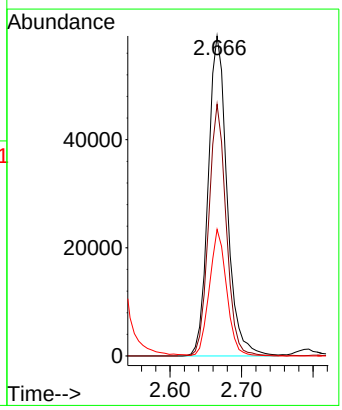
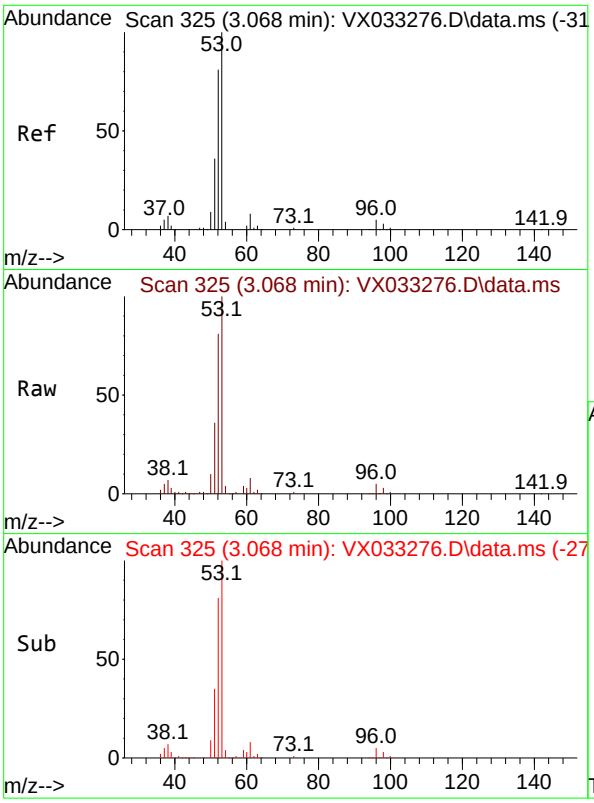



#14
Allyl chloride
Concen: 48.562 ug/l
RT: 2.666 min Scan# 259
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 41 Resp: 108703

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 72.6 | 61.4 | 92.2 |
| 76 | 36.0 | 29.2 | 43.8 |

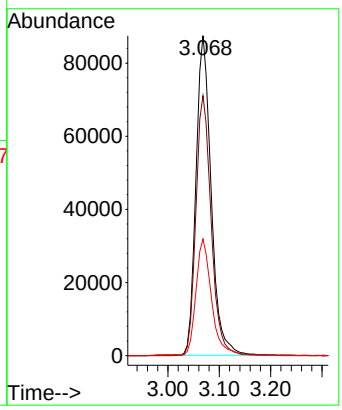





#15
Acrylonitrile
Concen: 258.544 ug/l
RT: 3.068 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 53 Resp: 17936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 82.4 | 67.4 | 101.0 |
| 51 | 37.1 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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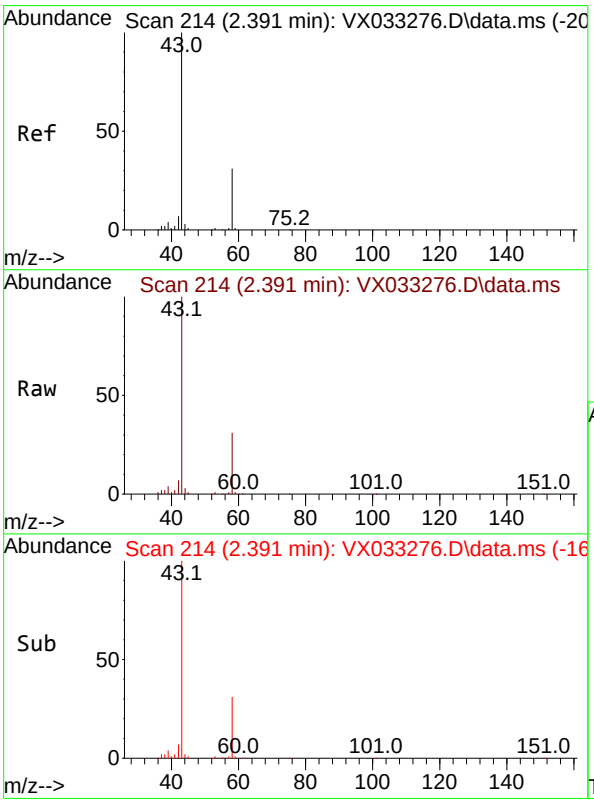
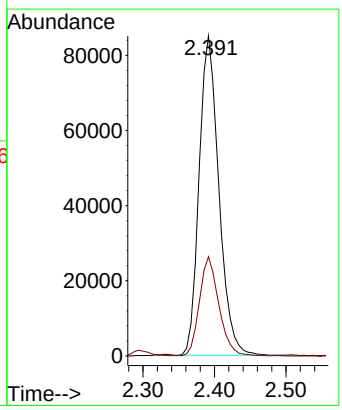
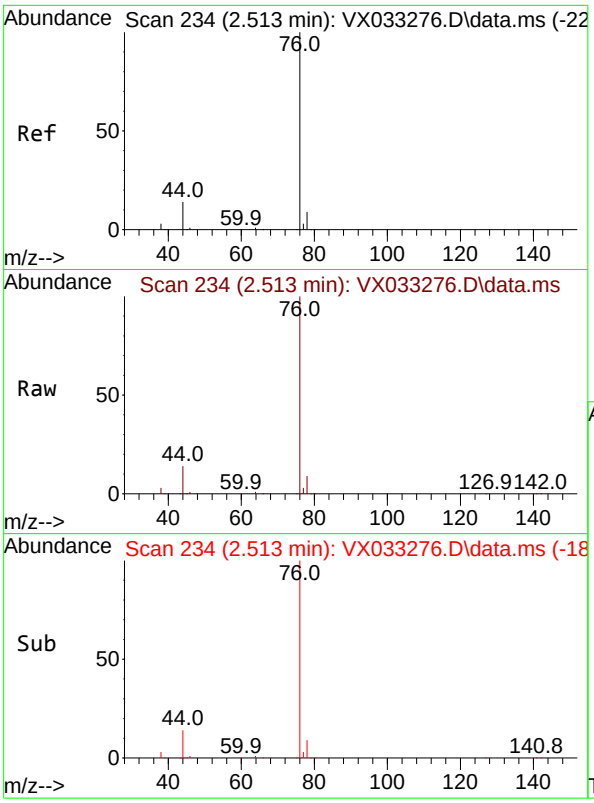



#16
Acetone
Concen: 225.460 ug/l
RT: 2.391 min Scan# 214
Delta R.T. 0.011 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 162918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.0 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 45.554 ug/l
RT: 2.513 min Scan# 2
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 76 Resp: 17450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 8.9 | 7.5 | 11.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

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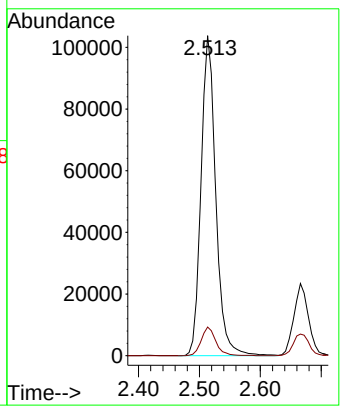
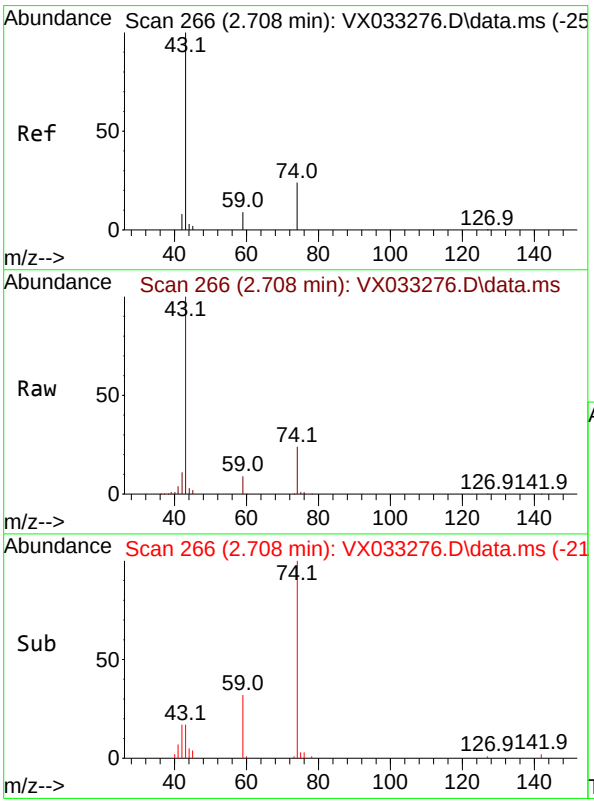
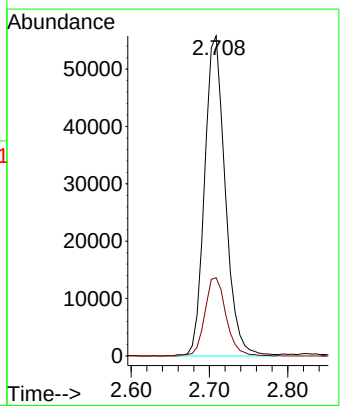


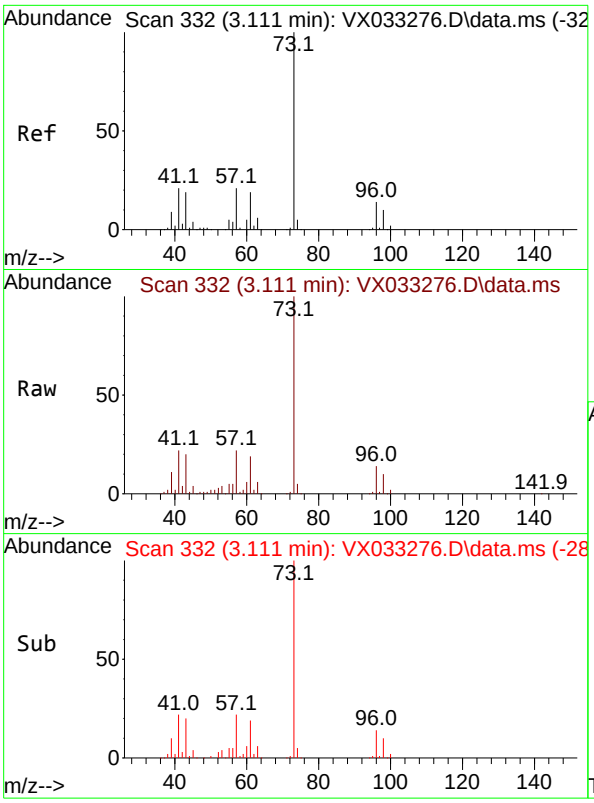




#18
Methyl Acetate
Concen: 51.092 ug/l
RT: 2.708 min Scan# 266
Delta R.T. 0.005 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 102198

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.2 | 19.4 | 29.0 |






#19
Methyl tert-butyl Ether
Concen: 48.816 ug/l
RT: 3.111 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 73 Resp: 23473

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 21.8 | 16.6 | 25.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

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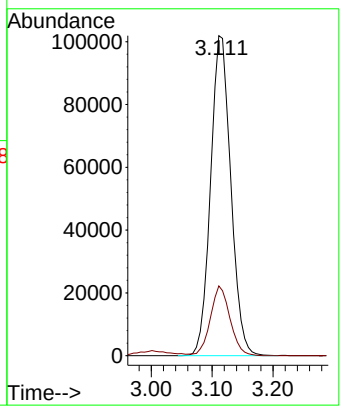
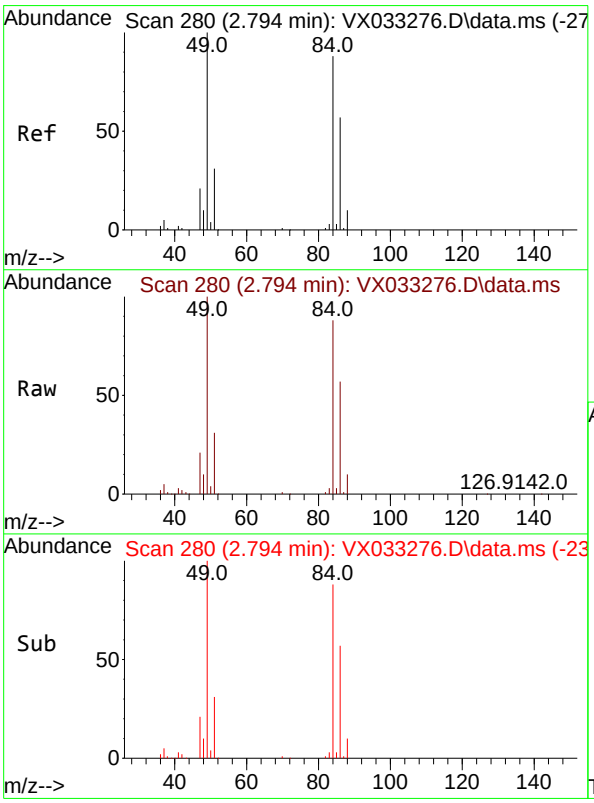
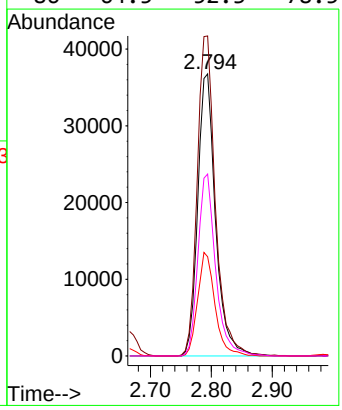


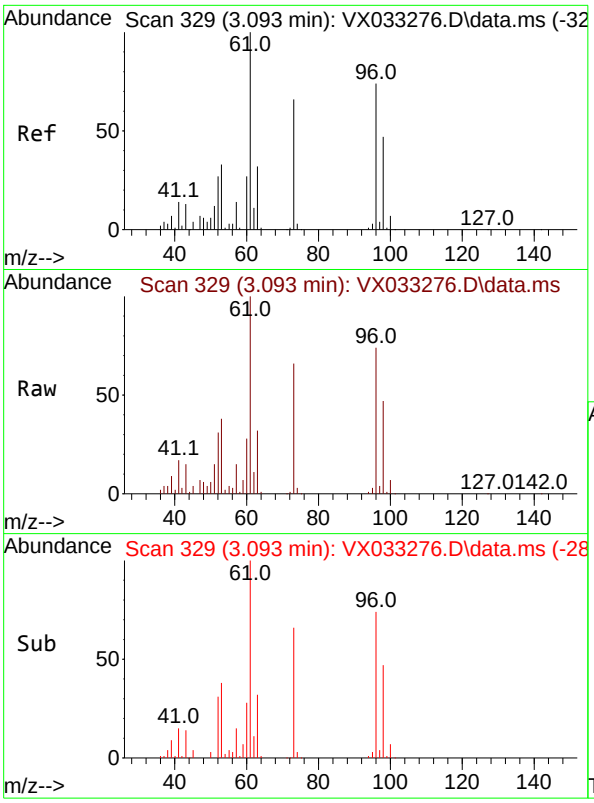




#20
Methylene Chloride
Concen: 42.935 ug/l
RT: 2.794 min Scan# 280
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 84 Resp: 74742

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 113.5 | 101.0 | 151.6 |
| 51 | 35.2 | 31.1 | 46.7 |
| 86 | 64.5 | 52.3 | 78.5 |

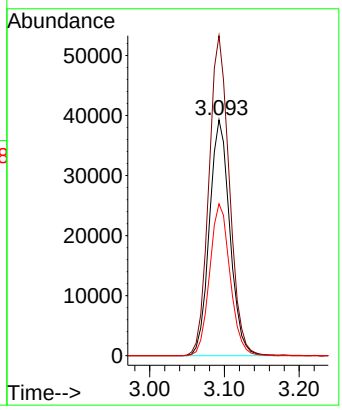





#21
trans-1,2-Dichloroethene
Concen: 47.033 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 96 Resp: 7459

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 135.7 | 106.6 | 160.0 |
| 98 | 64.4 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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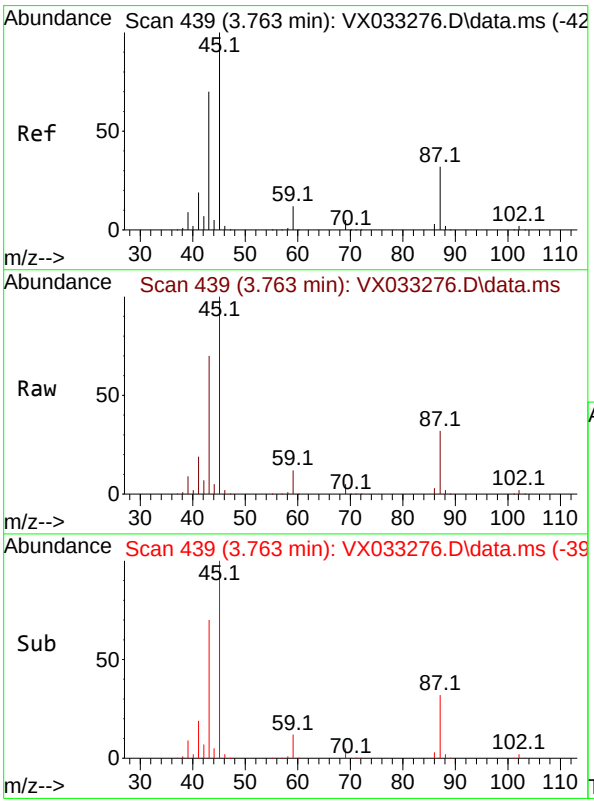
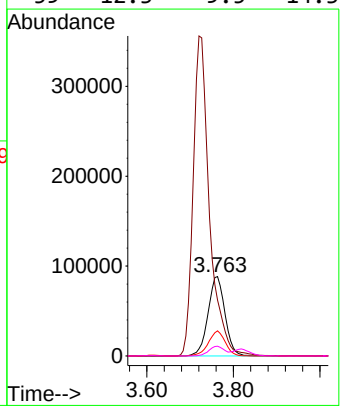
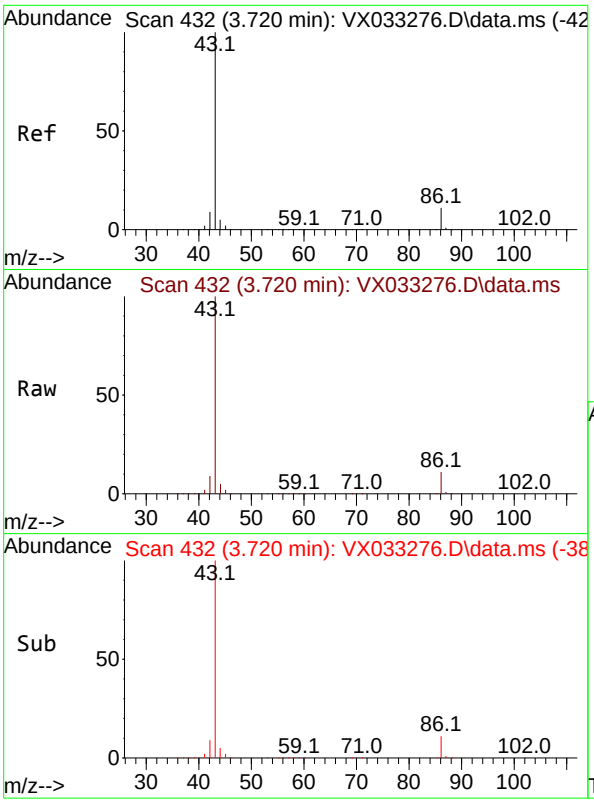



#22
Diisopropyl ether
Concen: 49.181 ug/l
RT: 3.763 min Scan# 439
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 45 Resp: 239712

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 70.1 | 56.4 | 84.6 |
| 87 | 31.7 | 24.4 | 36.6 |
| 59 | 12.3 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 244.330 ug/l
RT: 3.720 min Scan# 4
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 93219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.4 | 8.6 | 12.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

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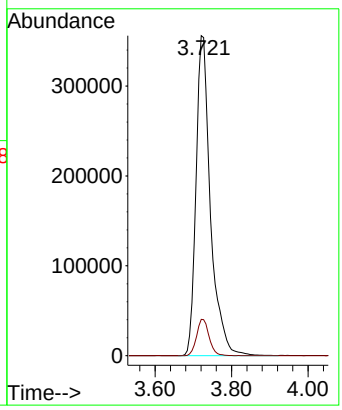
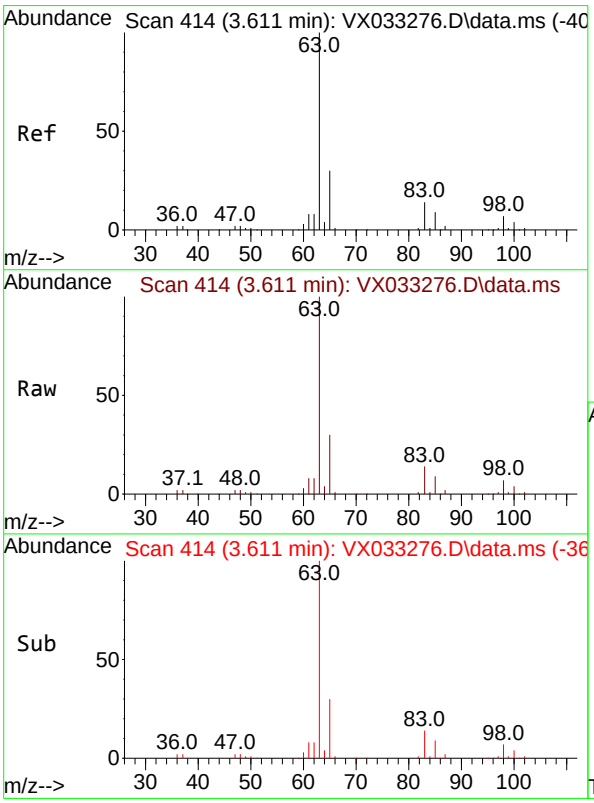
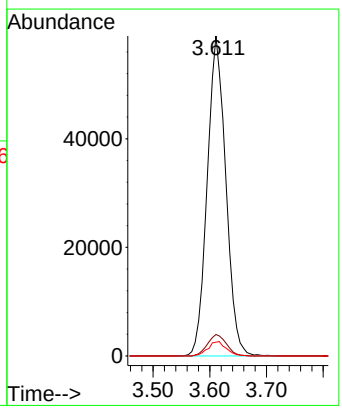


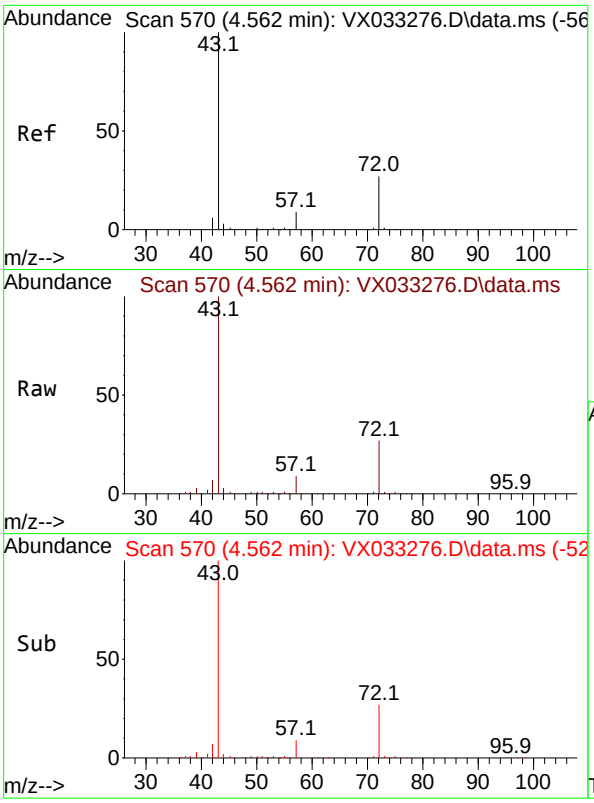




#24
1,1-Dichloroethane
Concen: 48.093 ug/l
RT: 3.611 min Scan# 414
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 63 Resp: 134140

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 6.7 | 3.5 | 10.4 |
| 100 | 4.3 | 2.3 | 6.8 |






#25
2-Butanone
Concen: 257.754 ug/l
RT: 4.562 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 25682

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 27.0 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

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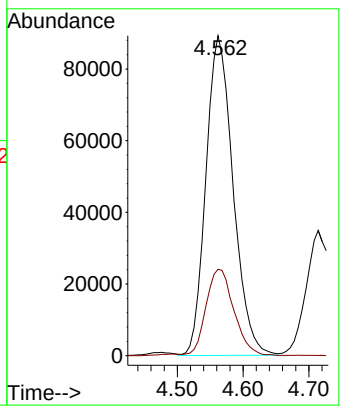
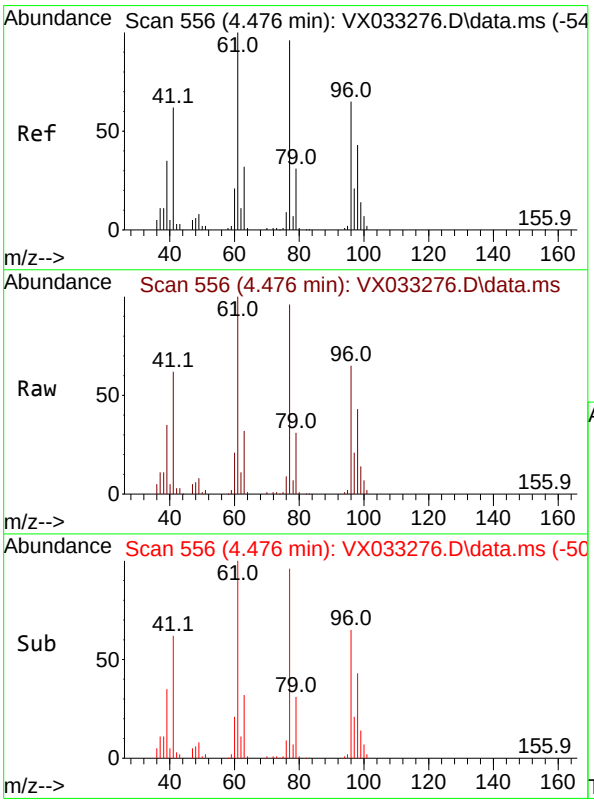
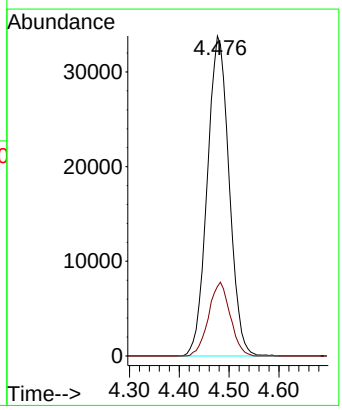


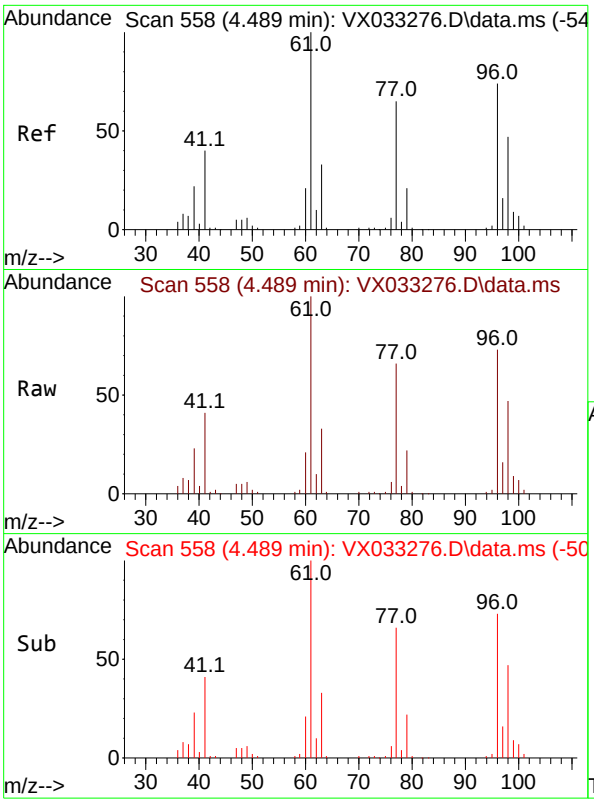




#26
2,2-Dichloropropane
Concen: 45.925 ug/l
RT: 4.476 min Scan# 556
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 77 Resp: 102996

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 22.7 | 11.4 | 34.1 |

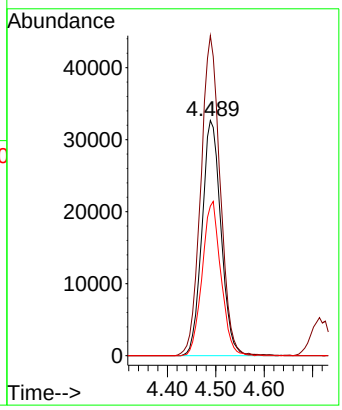





#27
cis-1,2-Dichloroethene
Concen: 49.439 ug/l
RT: 4.489 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 96 Resp: 8908

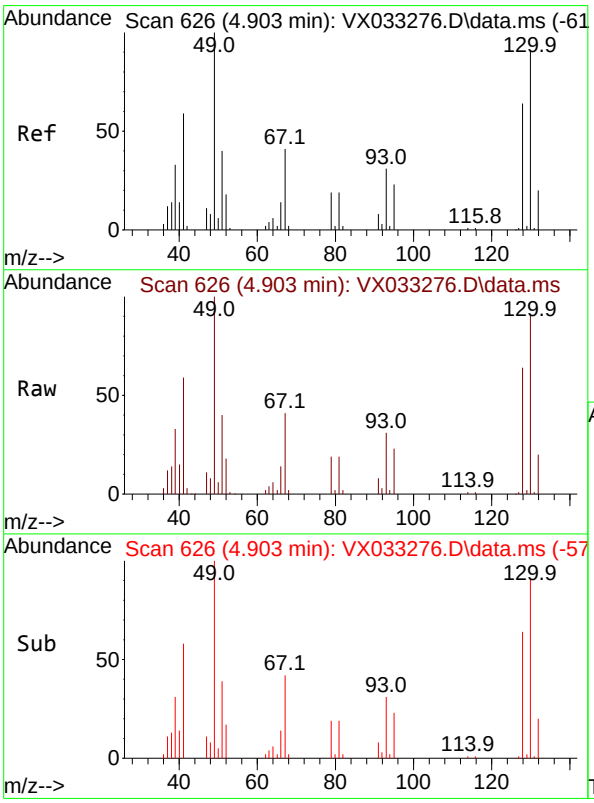
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 138.7 | 0.0 | 286.0 |
| 98 | 64.4 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

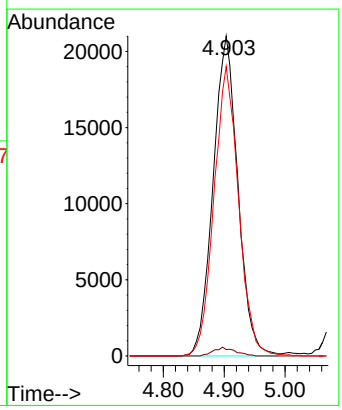
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

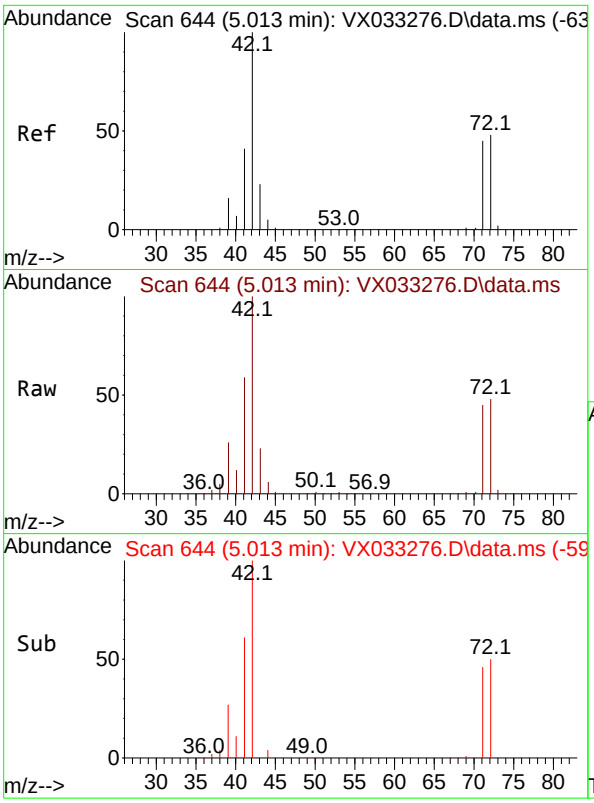



#28
Bromochloromethane
Concen: 48.418 ug/l
RT: 4.903 min Scan# 626
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 49 Resp: 59340

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.4 | 0.0 | 3.8 |
| 130 | 90.0 | 67.5 | 101.3 |

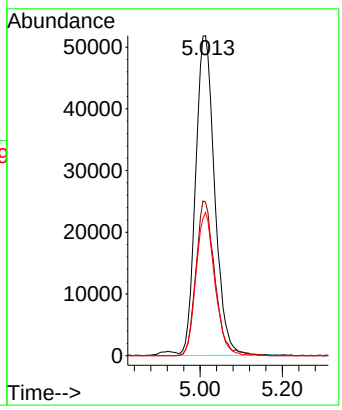





#29
Tetrahydrofuran
Concen: 263.602 ug/l
RT: 5.013 min Scan# 64
Delta R.T. 0.012 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 42 Resp: 16666

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 48.0 | 37.6 | 56.4 |
| 71 | 44.2 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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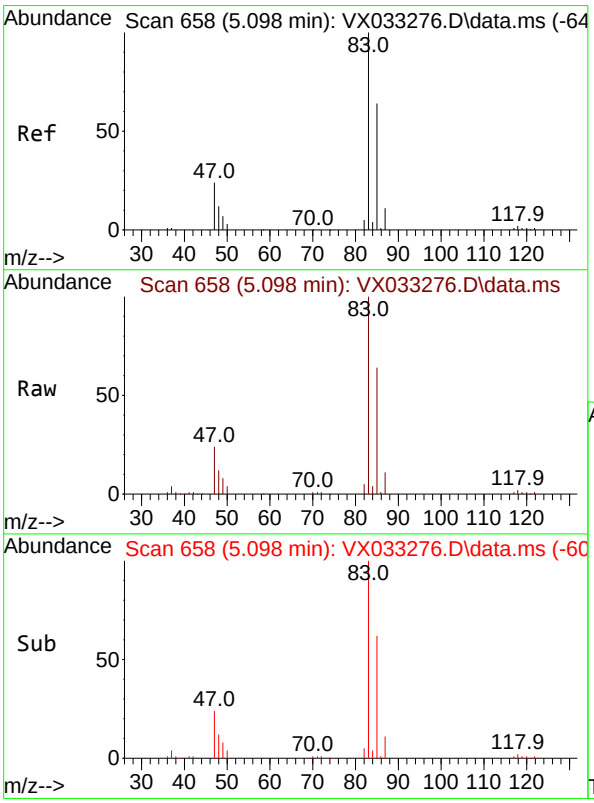
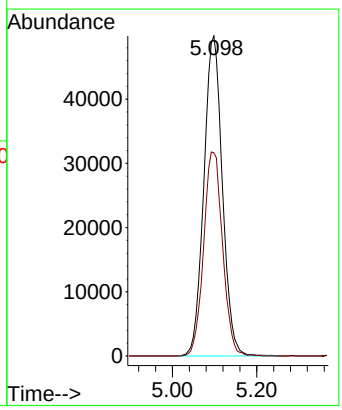
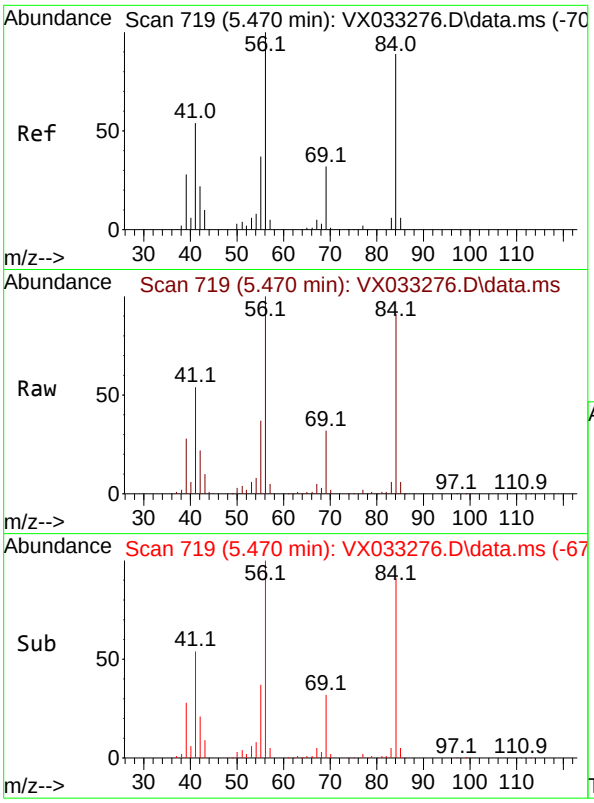



#30
Chloroform
Concen: 48.731 ug/l
RT: 5.098 min Scan# 658
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 83 Resp: 152229

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.5 | 51.1 | 76.7 |

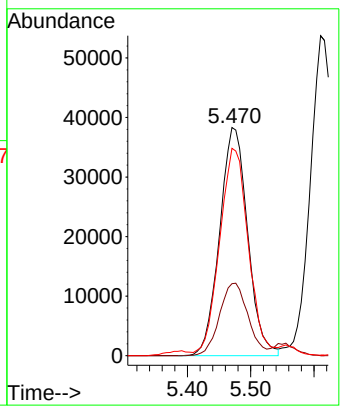





#31
Cyclohexane
Concen: 47.071 ug/l
RT: 5.470 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 56 Resp: 11800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 31.6 | 24.1 | 36.1 |
| 84 | 88.9 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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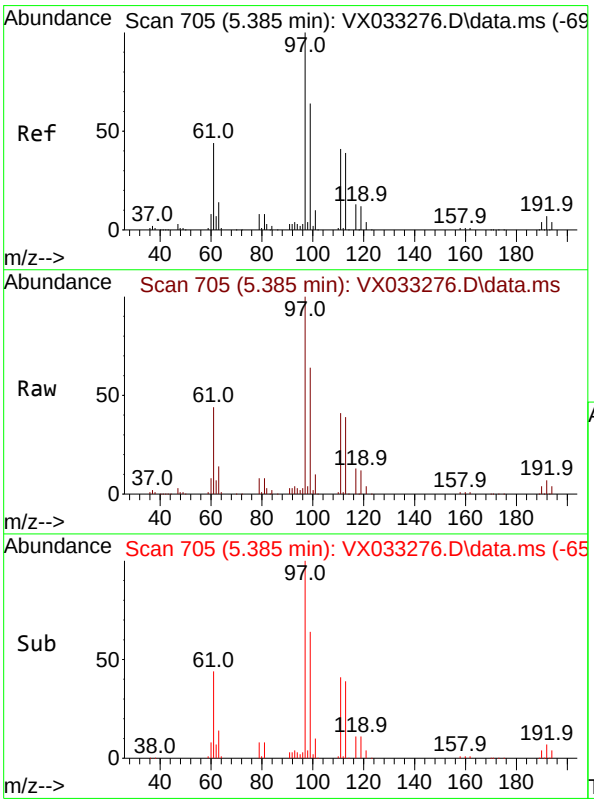
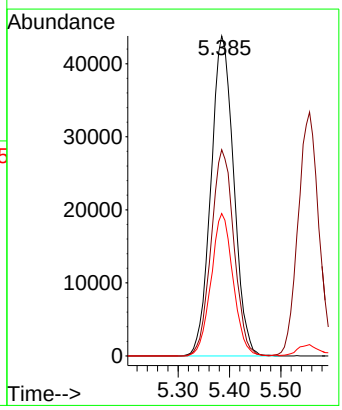
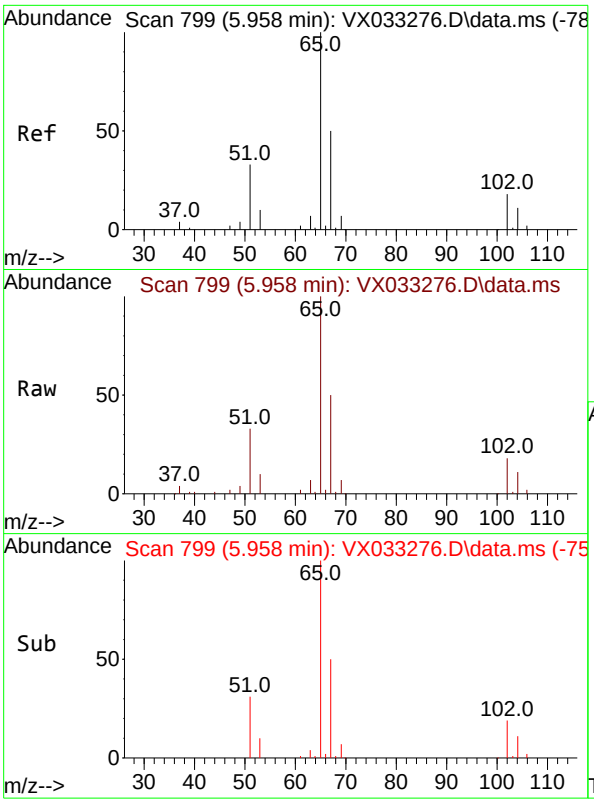



#32
1,1,1-Trichloroethane
Concen: 48.294 ug/l
RT: 5.385 min Scan# 705
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 97 Resp: 135108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 51.4 | 77.0 |
| 61 | 43.0 | 35.2 | 52.8 |






#33
1,2-Dichloroethane-d4
Concen: 26.704 ug/l
RT: 5.958 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 65 Resp: 4570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 51.3 | 0.0 | 101.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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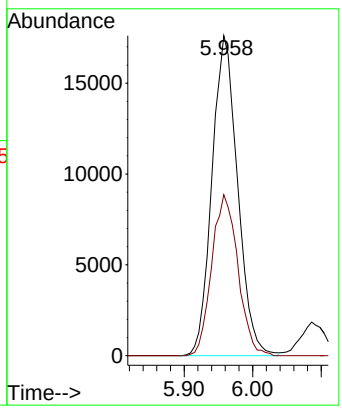
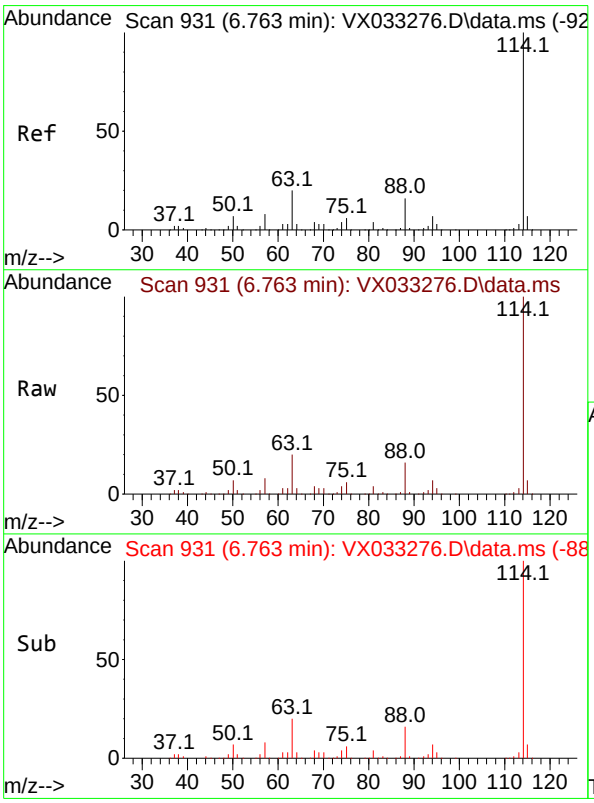
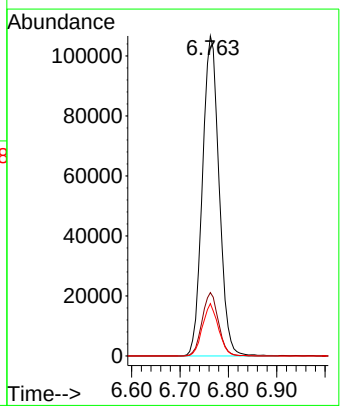


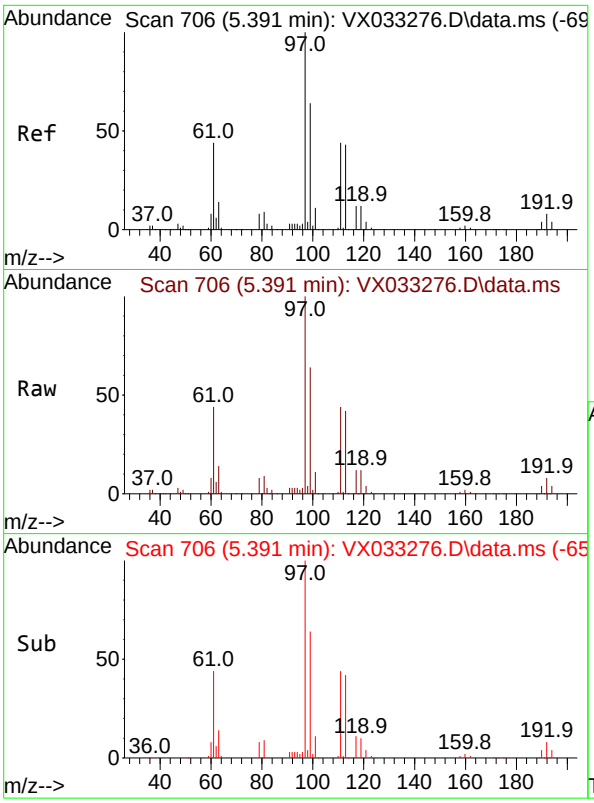




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:114 Resp: 255290

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.8 | 0.0 | 41.6 |
| 88 | 16.3 | 0.0 | 33.4 |

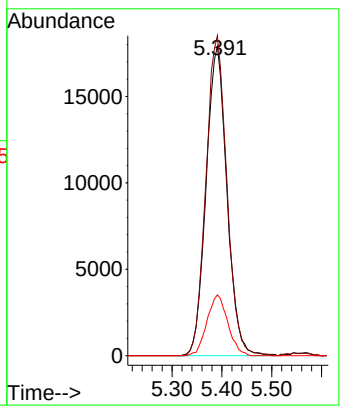





#35
Dibromofluoromethane
Concen: 36.151 ug/l
RT: 5.391 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:113 Resp: 5203

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 103.5 | 82.4 | 123.6 |
| 192 | 19.6 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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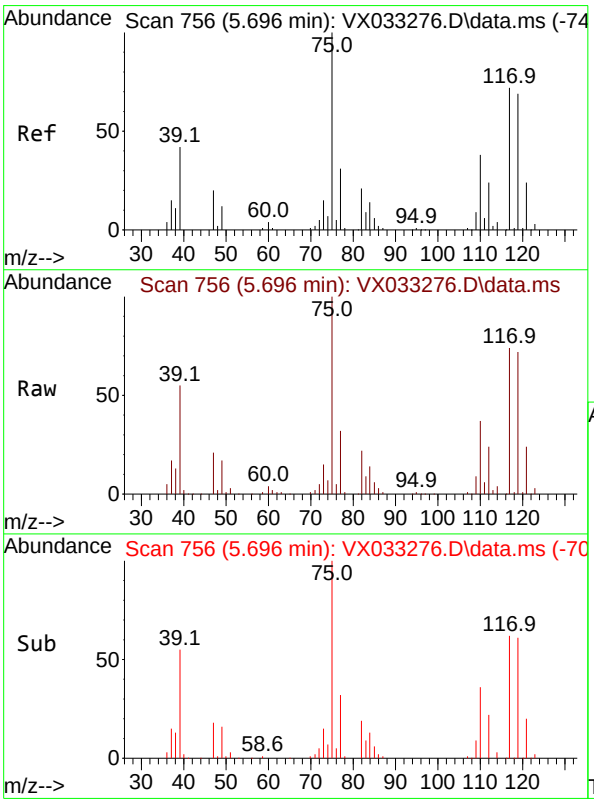
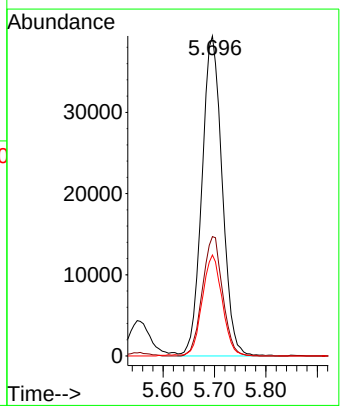
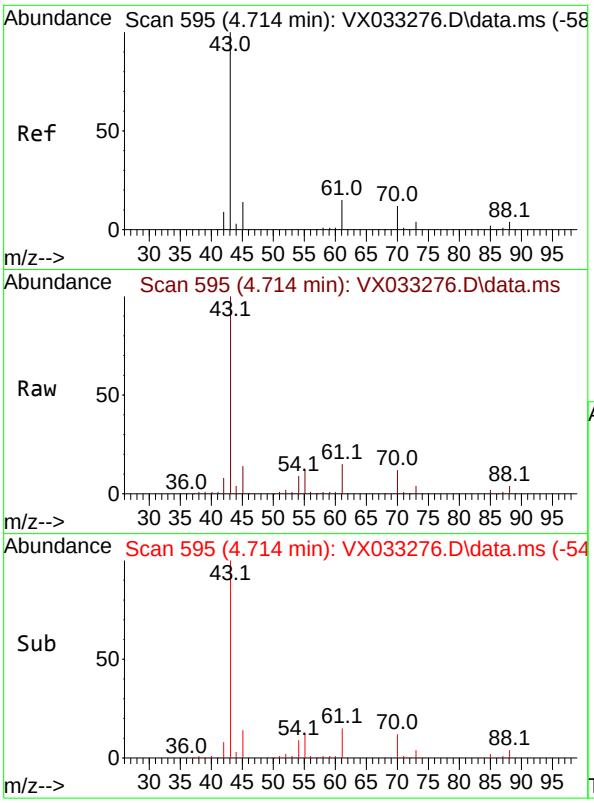



#36
1,1-Dichloropropene
Concen: 46.792 ug/l
RT: 5.696 min Scan# 756
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 107681

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 37.2 | 18.4 | 55.2 |
| 77 | 31.0 | 24.5 | 36.7 |






#37
Ethyl Acetate
Concen: 50.491 ug/l
RT: 4.714 min Scan# 5
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 10137

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.4 | 11.5 | 17.3 |
| 70 | 11.3 | 9.1 | 13.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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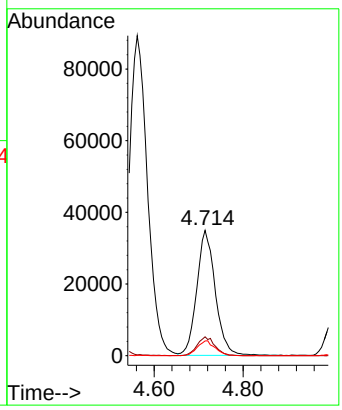
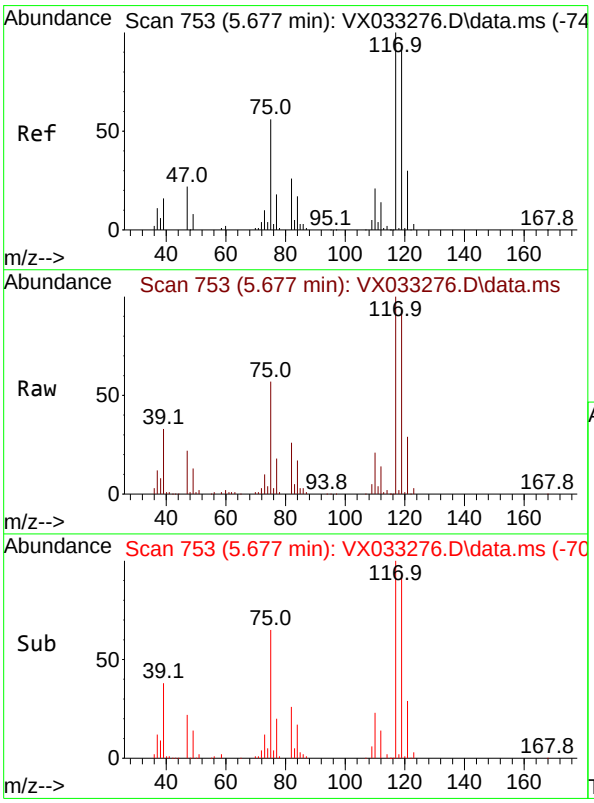
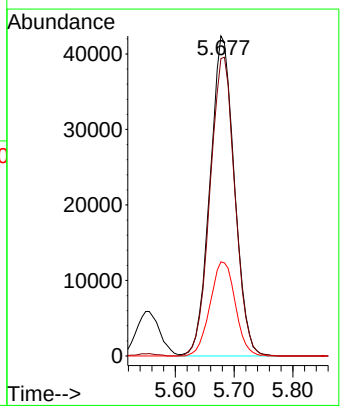


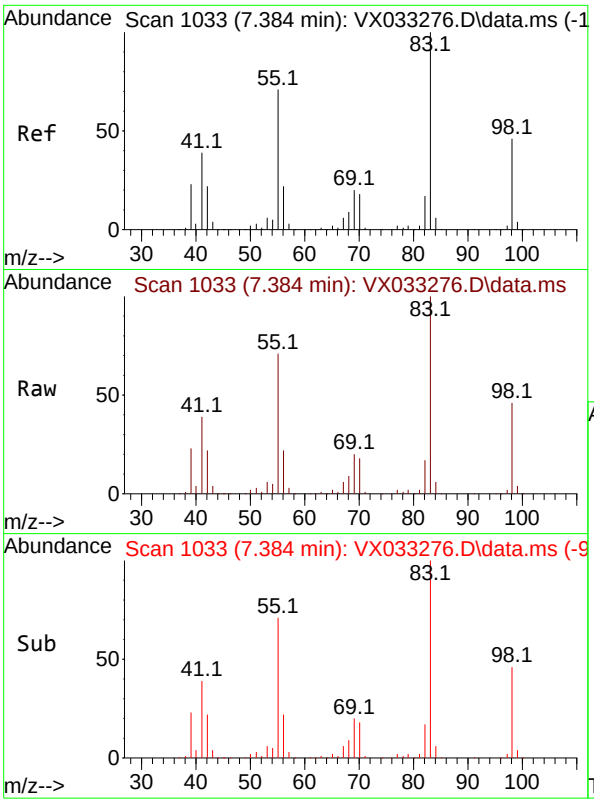




#38
Carbon Tetrachloride
Concen: 47.822 ug/l
RT: 5.677 min Scan# 753
Delta R.T. -0.007 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:117 Resp: 122084

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 93.0 | 77.2 | 115.8 |
| 121 | 29.4 | 25.8 | 38.6 |

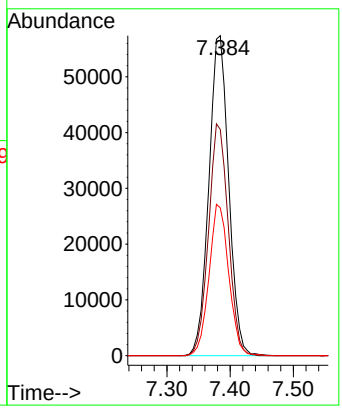





#39
Methylcyclohexane
Concen: 47.648 ug/l
RT: 7.384 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 83 Resp: 12511

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 70.7 | 58.4 | 87.6 |
| 98 | 46.2 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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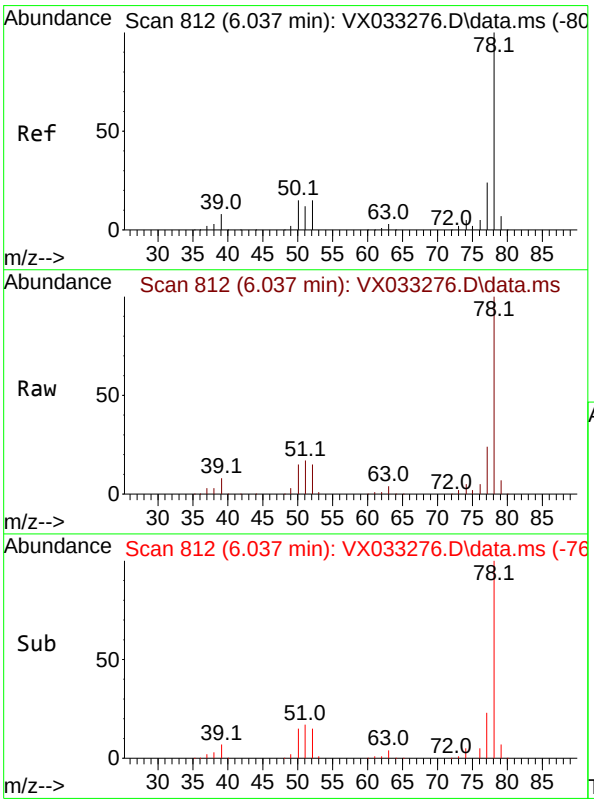
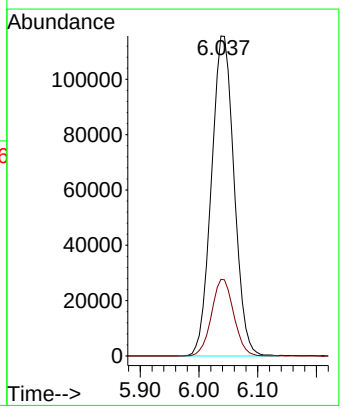
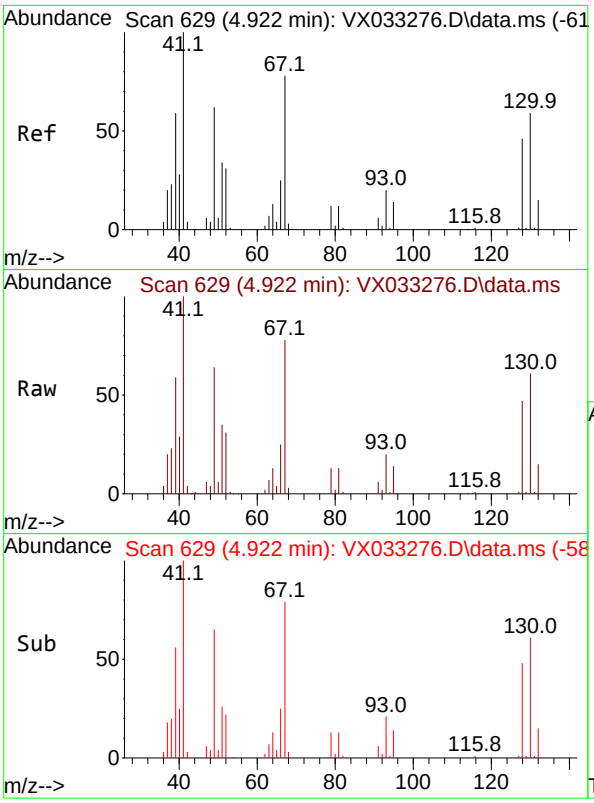



#40
Benzene
Concen: 48.039 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 78 Resp: 309956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 24.0 | 19.0 | 28.4 |

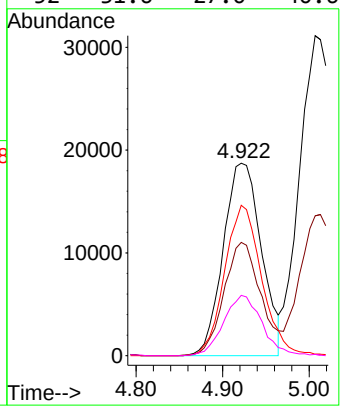





#41
Methacrylonitrile
Concen: 50.738 ug/l
RT: 4.922 min Scan# 6
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 41 Resp: 5731

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 57.9 | 47.5 | 71.3 |
| 67 | 76.2 | 60.5 | 90.7 |
| 52 | 31.6 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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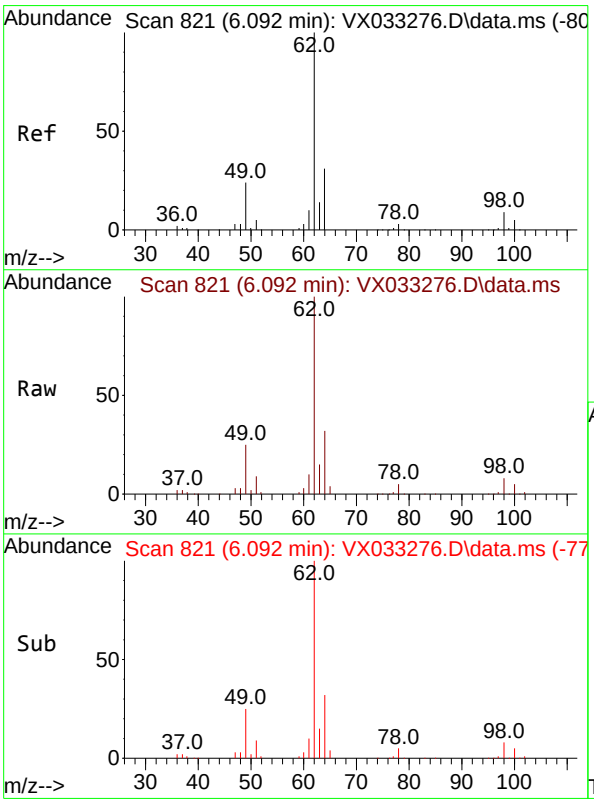
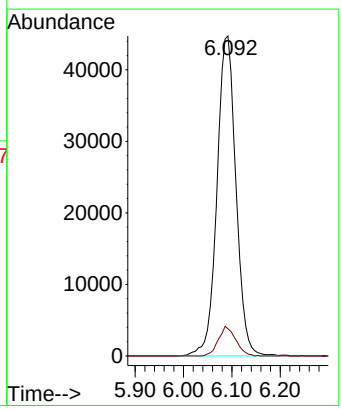
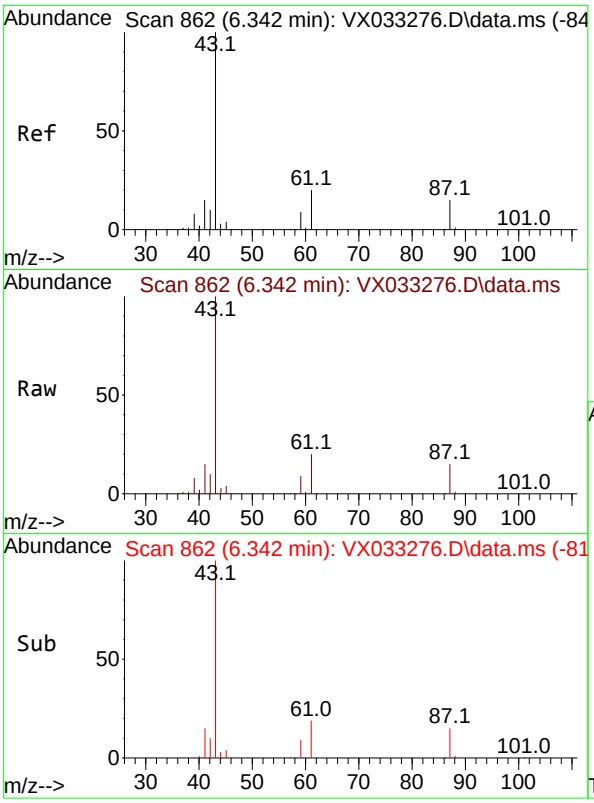



#42
1,2-Dichloroethane
Concen: 46.905 ug/l
RT: 6.092 min Scan# 821
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 62 Resp: 121854

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.5 | 0.0 | 16.0 |

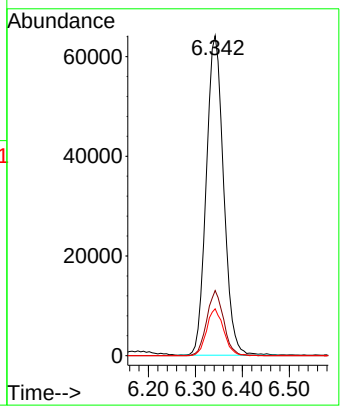





#43
Isopropyl Acetate
Concen: 49.316 ug/l
RT: 6.342 min Scan# 8
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 16374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 19.9 | 15.4 | 23.0 |
| 87 | 14.4 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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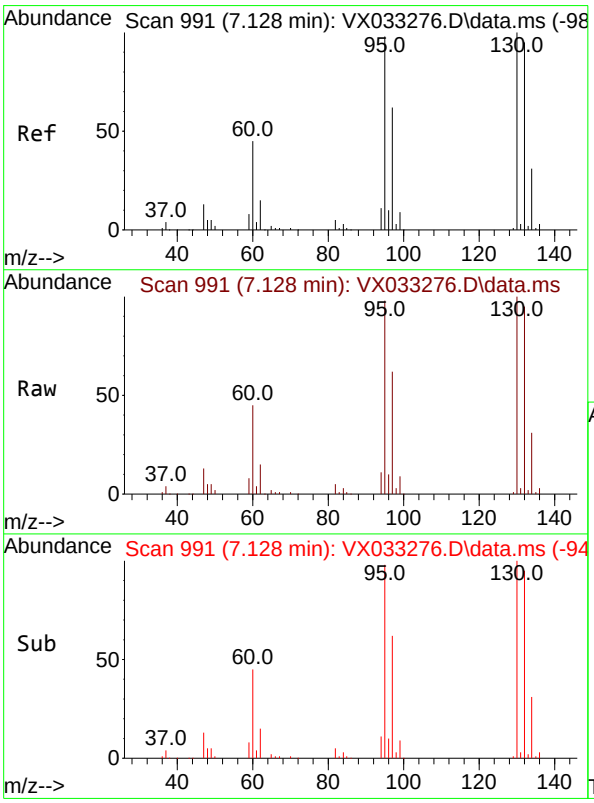
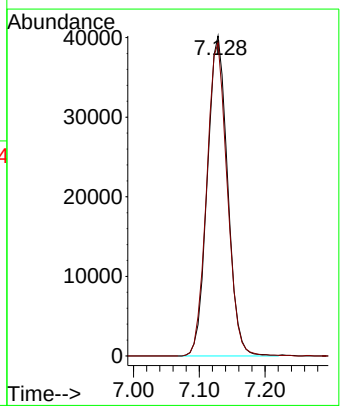
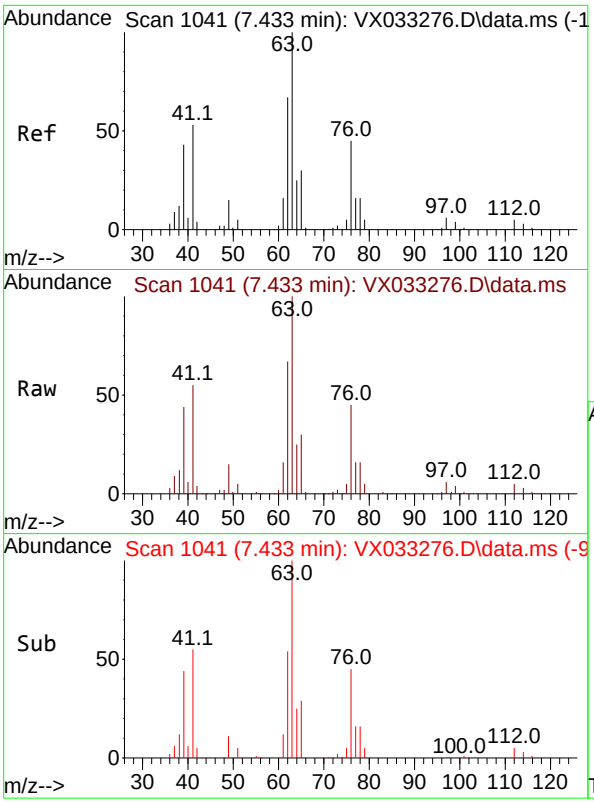



#44
Trichloroethene
Concen: 47.724 ug/l
RT: 7.128 min Scan# 991
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:130 Resp: 86406

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 97.8 | 0.0 | 195.2 |

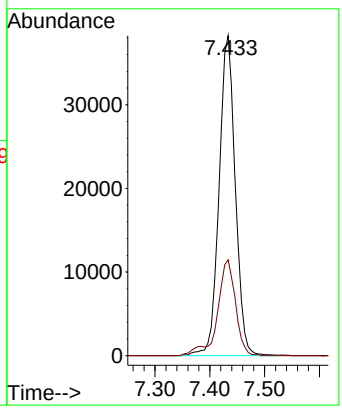





#45
1,2-Dichloropropane
Concen: 49.442 ug/l
RT: 7.433 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 63 Resp: 7883

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.0 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

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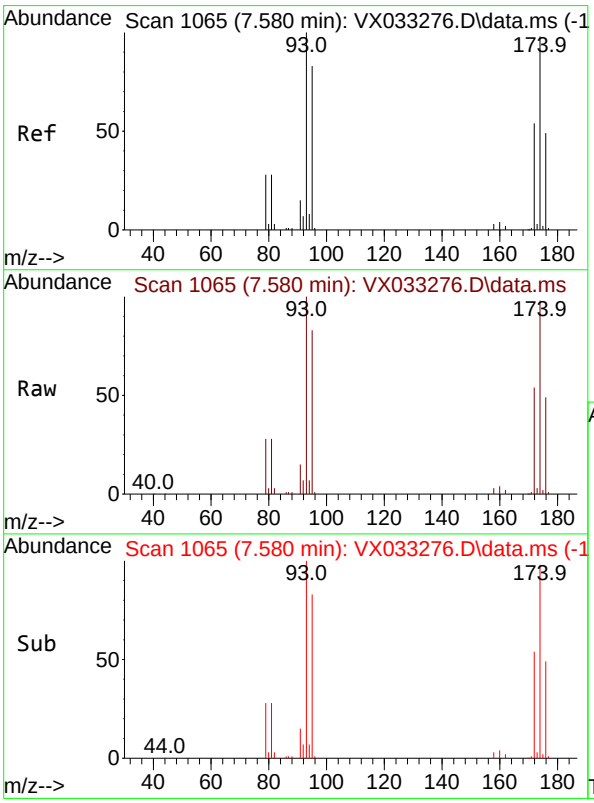
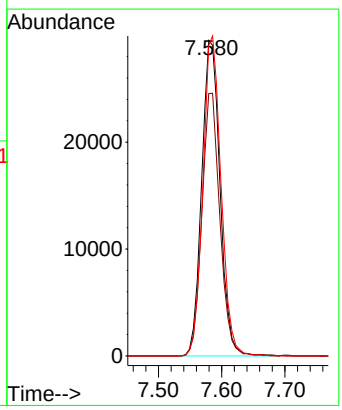
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

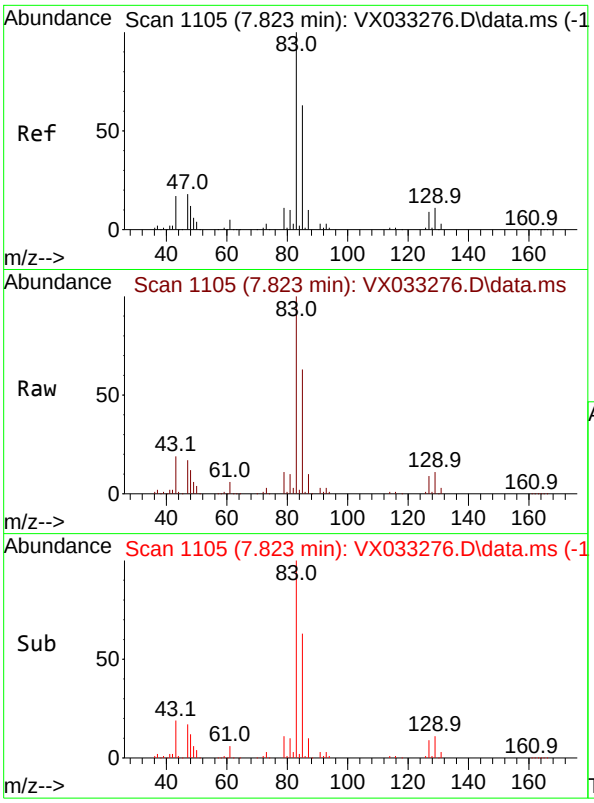



#46
Dibromomethane
Concen: 47.841 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 93 Resp: 59524

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 81.8 | 65.8 | 98.8 |
| 174 | 100.3 | 79.8 | 119.6 |

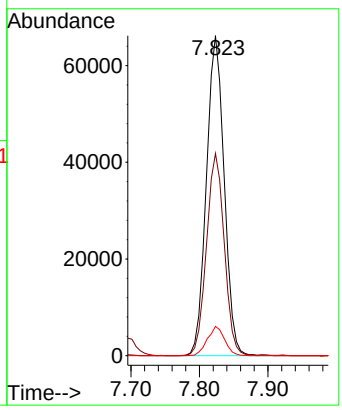





#47
Bromodichloromethane
Concen: 49.743 ug/l
RT: 7.823 min Scan# 11
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 83 Resp: 11958

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 52.2 | 78.4 |
| 127 | 9.1 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

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Reviewed By :John Carlone 12/08/2022
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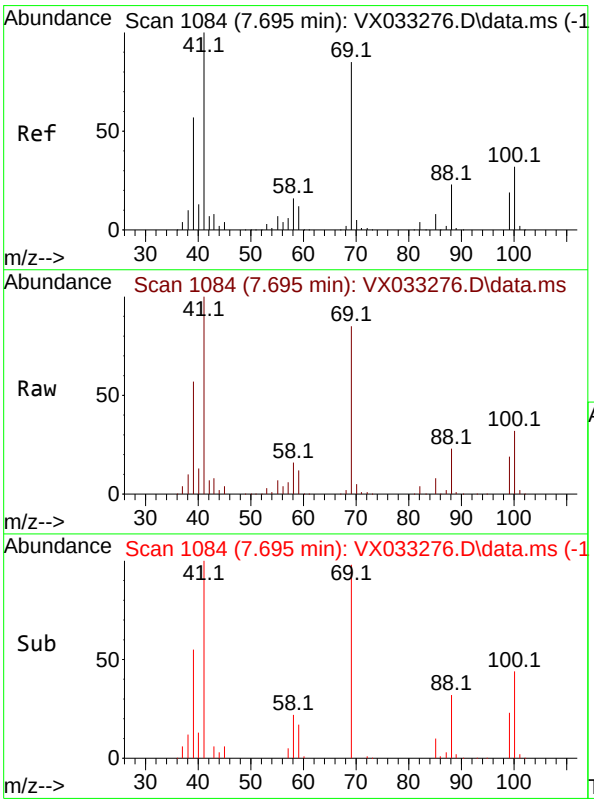
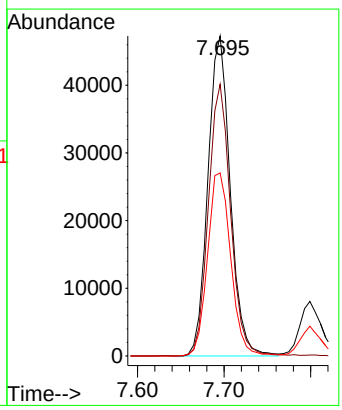
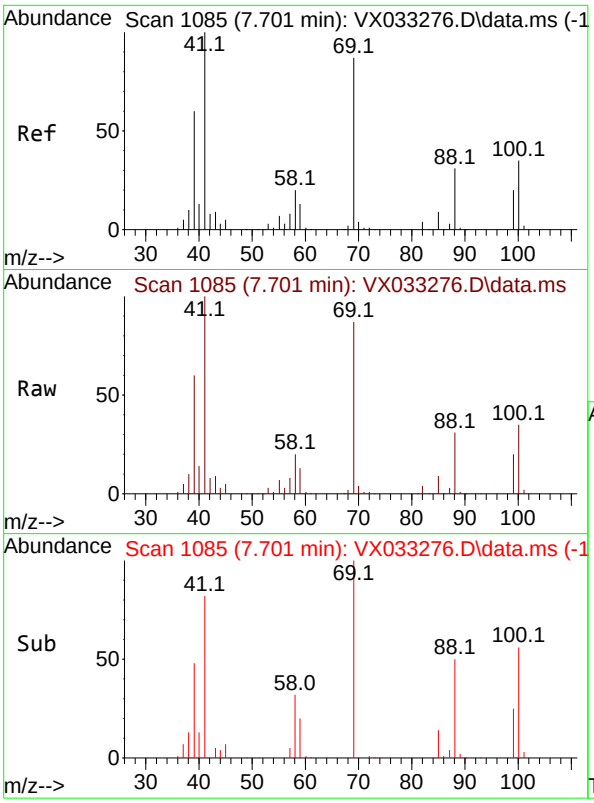



#48
Methyl methacrylate
Concen: 49.504 ug/l
RT: 7.695 min Scan# 1084
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 41 Resp: 84608

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 84.7 | 65.1 | 97.7 |
| 39 | 59.5 | 51.9 | 77.9 |

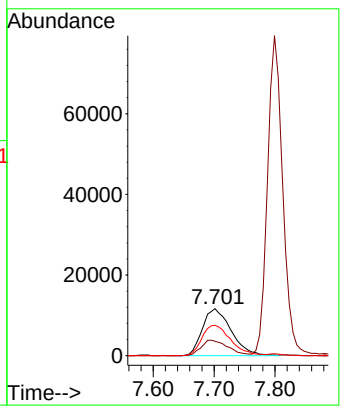





#49
1,4-Dioxane
Concen: 1216.156 ug/l
RT: 7.701 min Scan# 1
Delta R.T. 0.030 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 88 Resp: 3826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 30.9 | 26.6 | 39.8 |
| 58 | 64.5 | 51.7 | 77.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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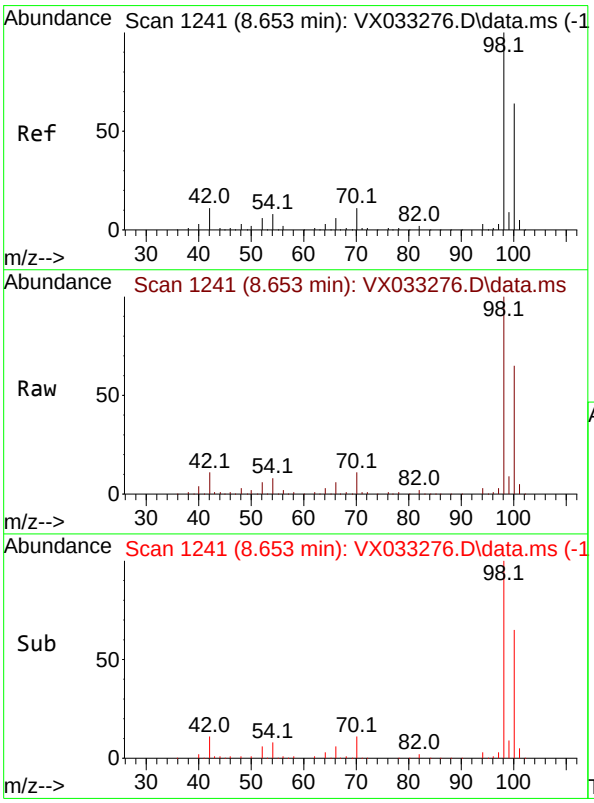
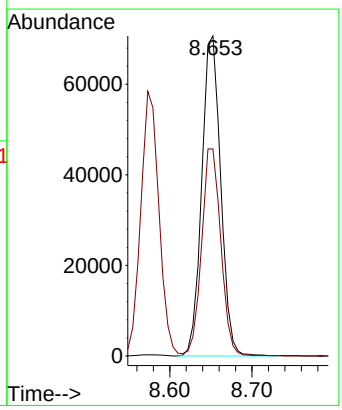
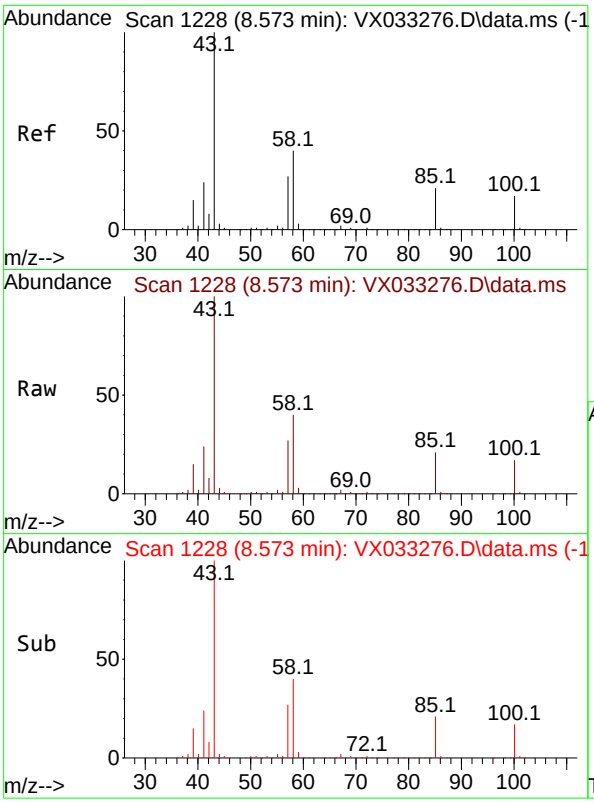



#50
Toluene-d8
Concen: 24.276 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 98 Resp: 113428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.6 | 50.9 | 76.3 |

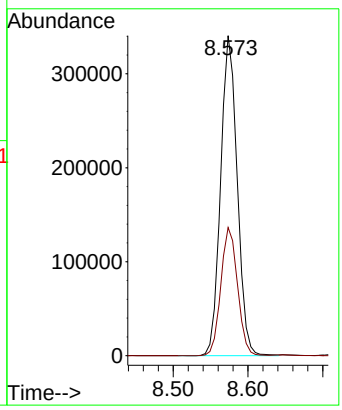





#51
4-Methyl-2-Pentanone
Concen: 257.000 ug/l
RT: 8.573 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 52656

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 40.2 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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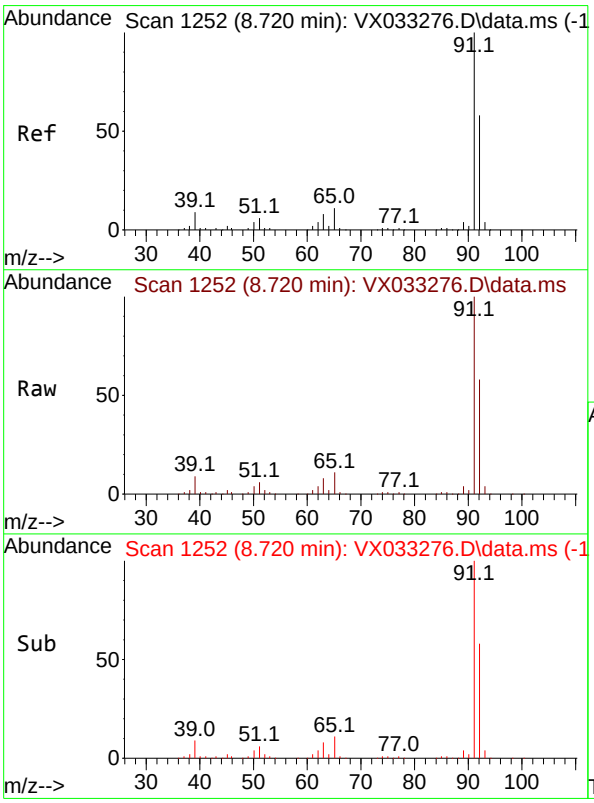
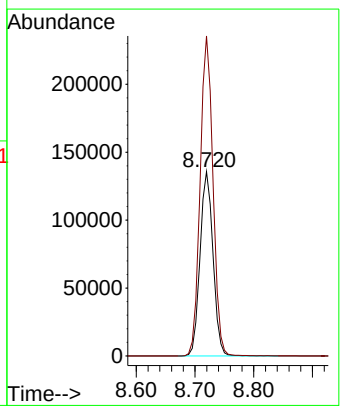
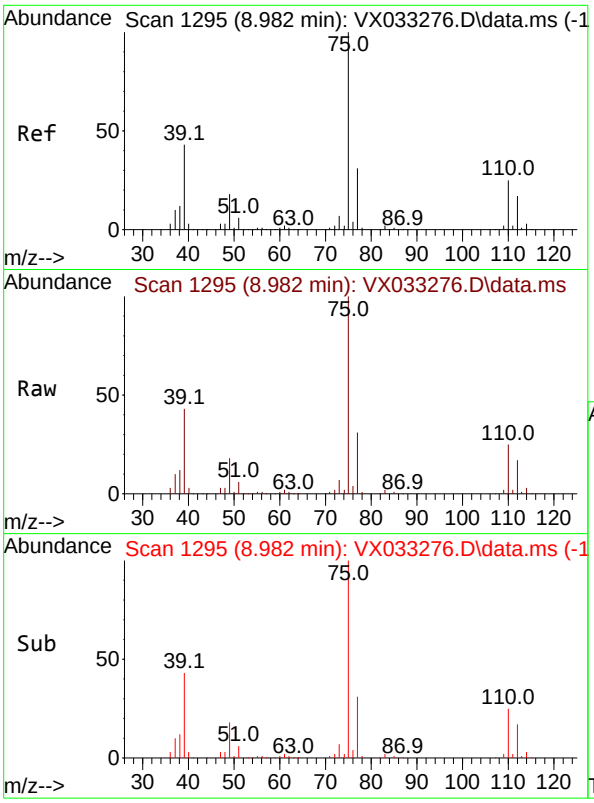



#52
Toluene
Concen: 48.976 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 92 Resp: 207899

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 172.3 | 138.3 | 207.5 |

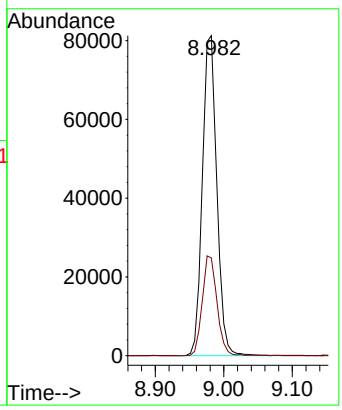





#53
t-1,3-Dichloropropene
Concen: 50.573 ug/l
RT: 8.982 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 11933

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 30.6 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

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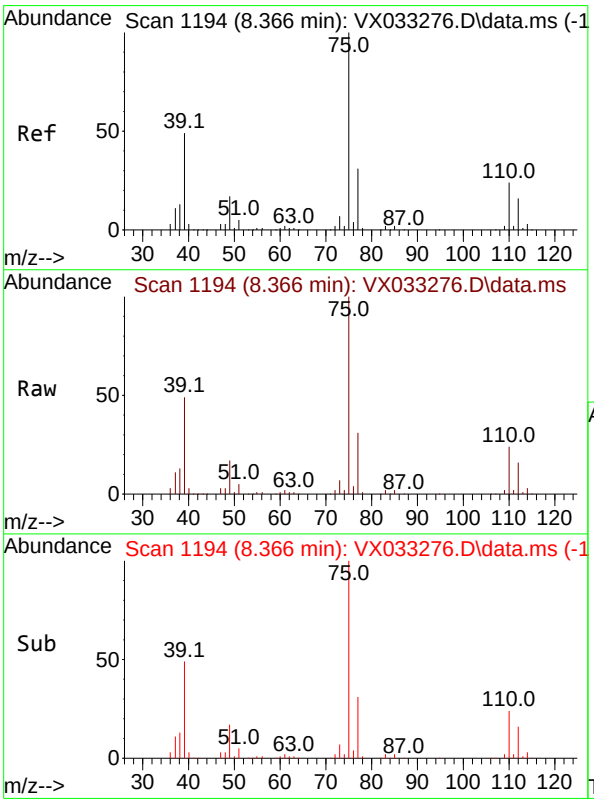
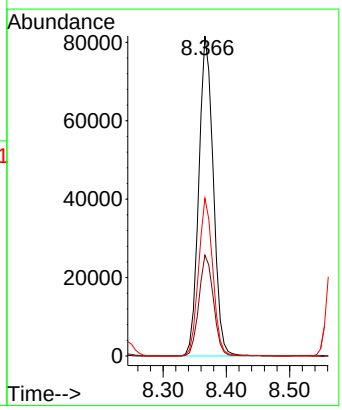
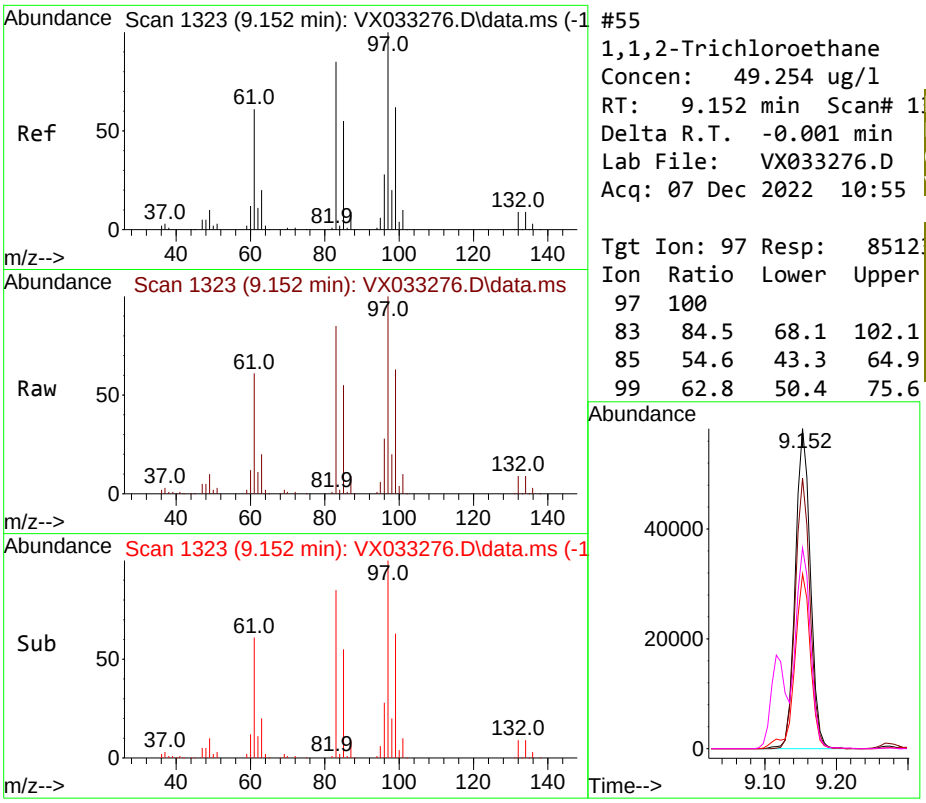



#54
cis-1,3-Dichloropropene
Concen: 50.193 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 130089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.5 | 25.1 | 37.7 |
| 39 | 49.3 | 45.5 | 68.3 |






#55
1,1,2-Trichloroethane
Concen: 49.254 ug/l
RT: 9.152 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 97 Resp: 8512

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 84.5 | 68.1 | 102.1 |
| 85 | 54.6 | 43.3 | 64.9 |
| 99 | 62.8 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

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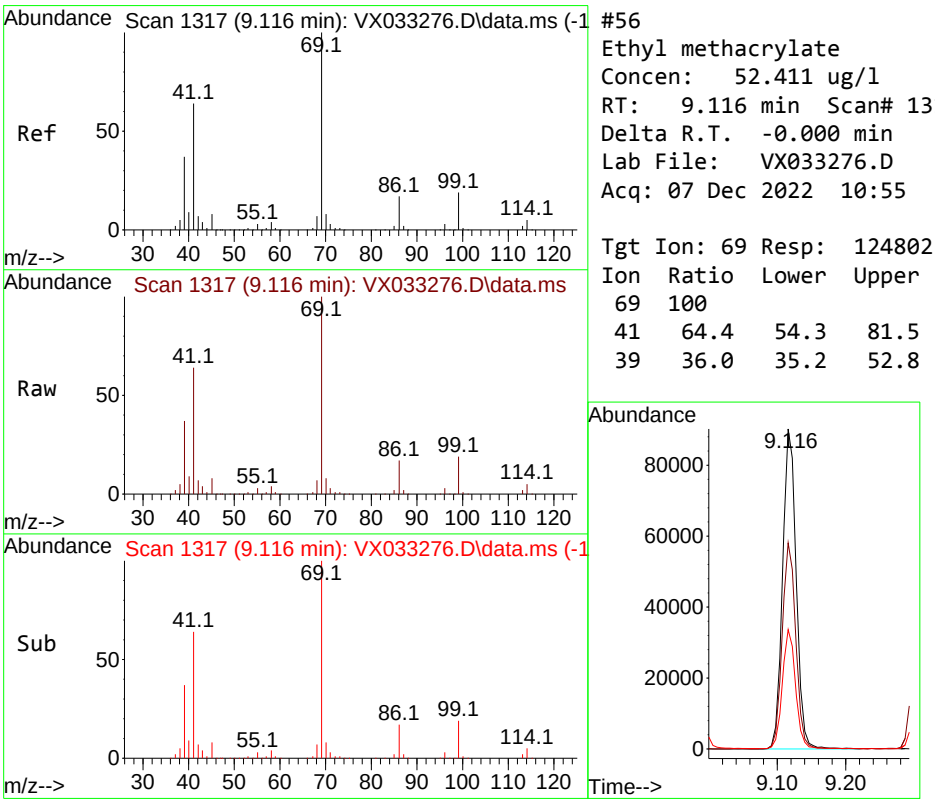
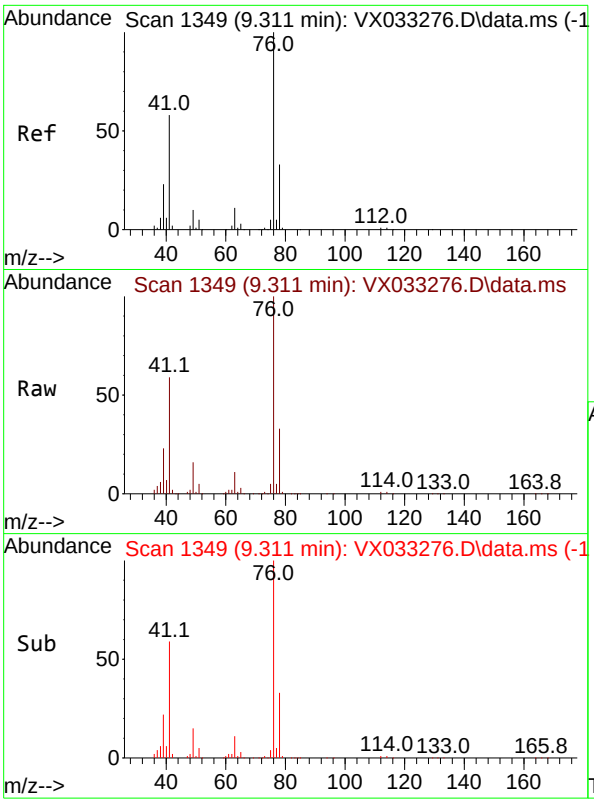



#56
Ethyl methacrylate
Concen: 52.411 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 69 Resp: 124802

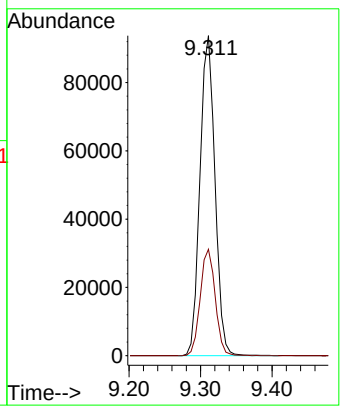
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 64.4 | 54.3 | 81.5 |
| 39 | 36.0 | 35.2 | 52.8 |




#57
1,3-Dichloropropane
Concen: 48.943 ug/l
RT: 9.311 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 76 Resp: 13655

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 33.2 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

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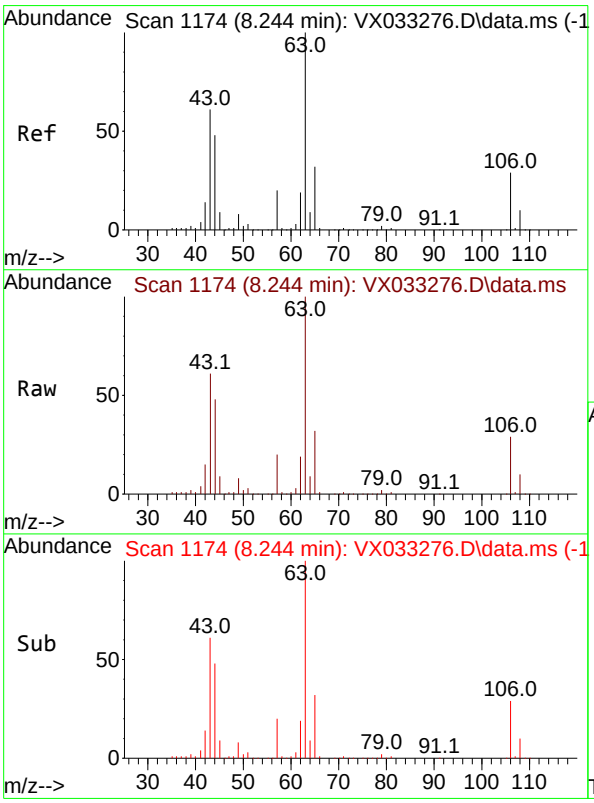
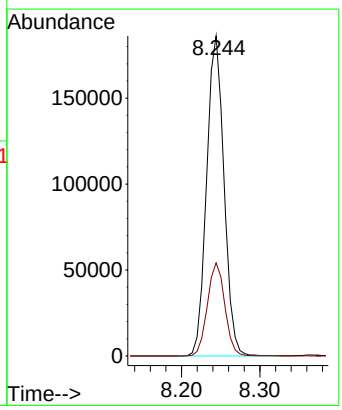
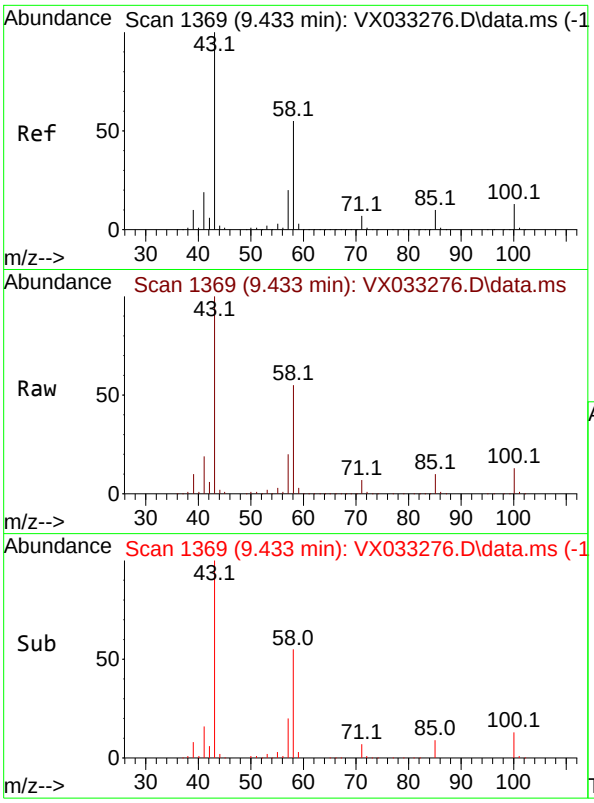



#58
2-Chloroethyl Vinyl ether
Concen: 252.998 ug/l
RT: 8.244 min Scan# 1174
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 63 Resp: 286076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 29.2 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 258.105 ug/l
RT: 9.433 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 39065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 55.8 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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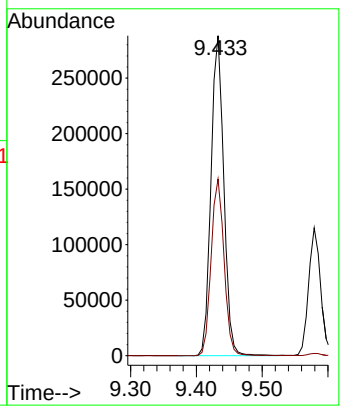
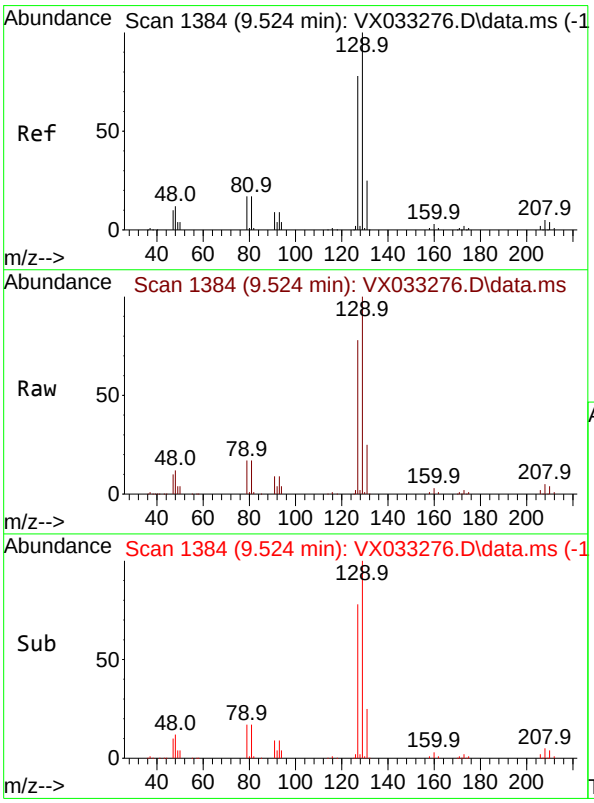
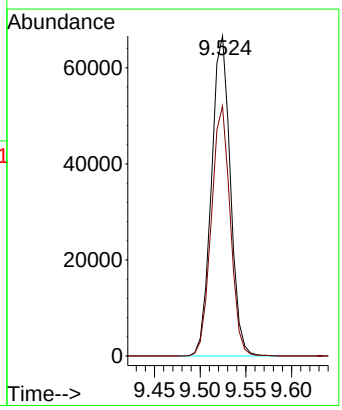


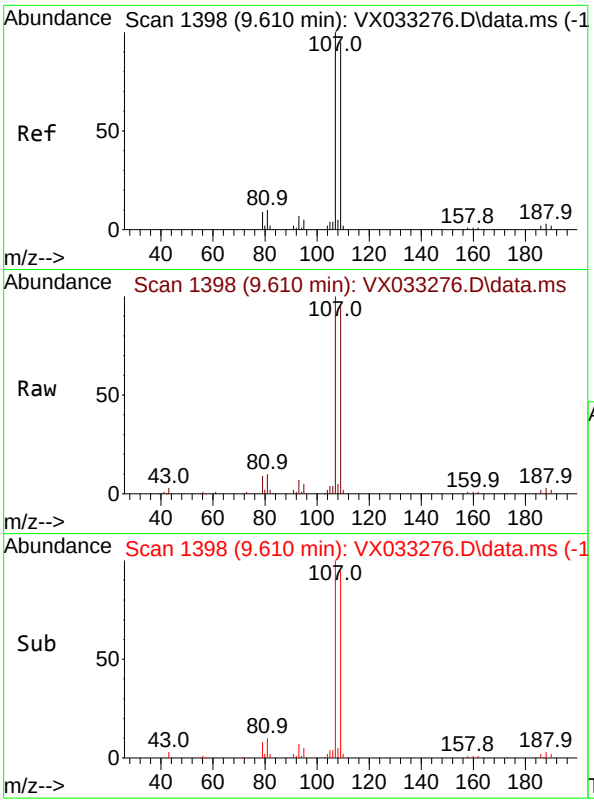




#60
Dibromochloromethane
Concen: 51.615 ug/l
RT: 9.524 min Scan# 1384
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:129 Resp: 96040

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.0 | 38.6 | 115.8 |

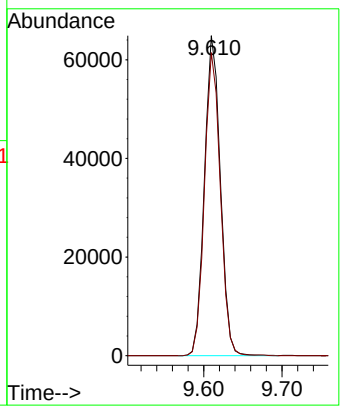





#61
1,2-Dibromoethane
Concen: 50.149 ug/l
RT: 9.610 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:107 Resp: 9148

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.4 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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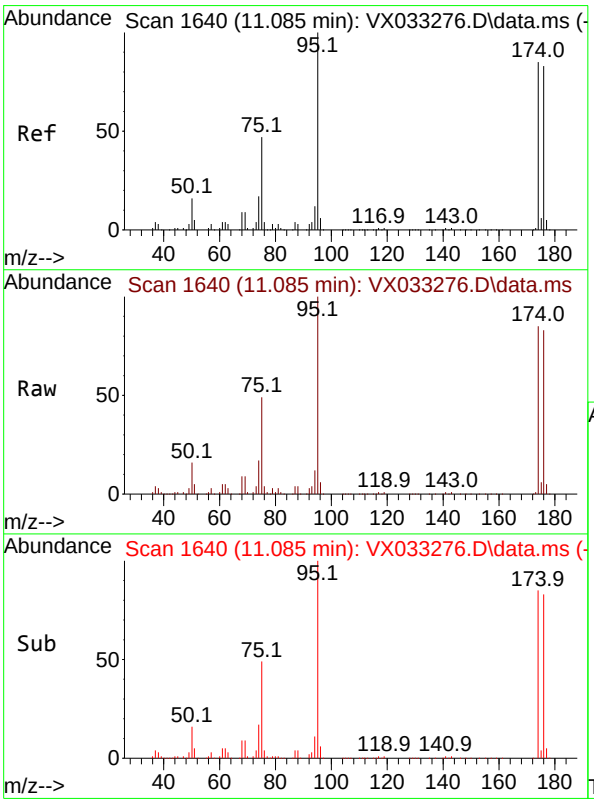
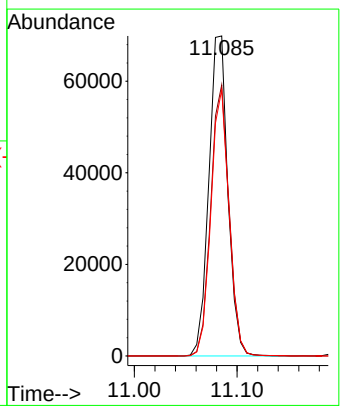
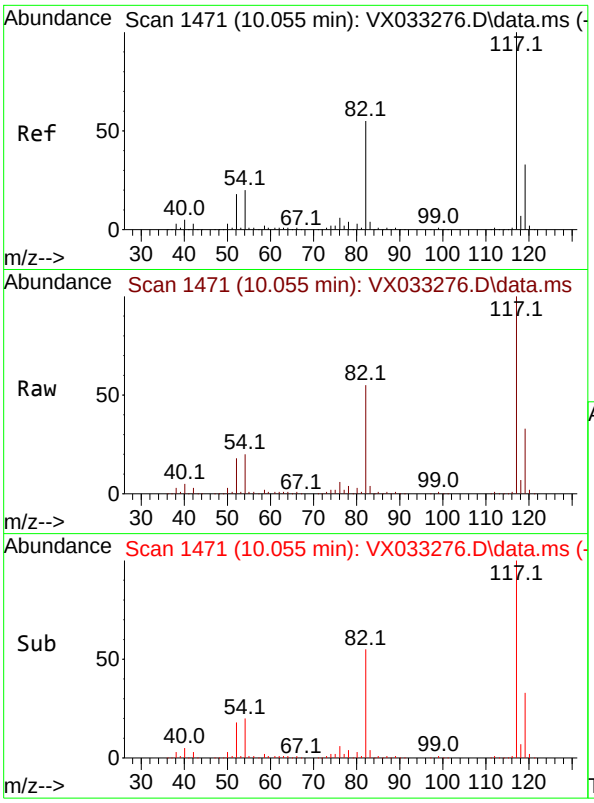



#62
4-Bromofluorobenzene
Concen: 47.689 ug/l
RT: 11.085 min Scan# 1640
Delta R.T. 0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 95 Resp: 90159

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 81.7 | 0.0 | 164.0 |
| 176 | 79.3 | 0.0 | 154.4 |

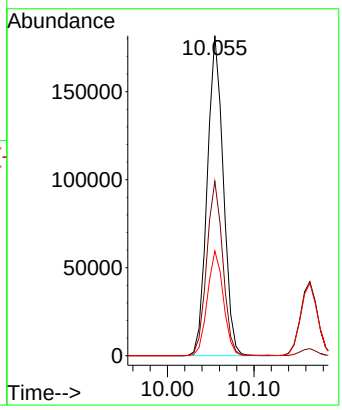





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:117 Resp: 23389

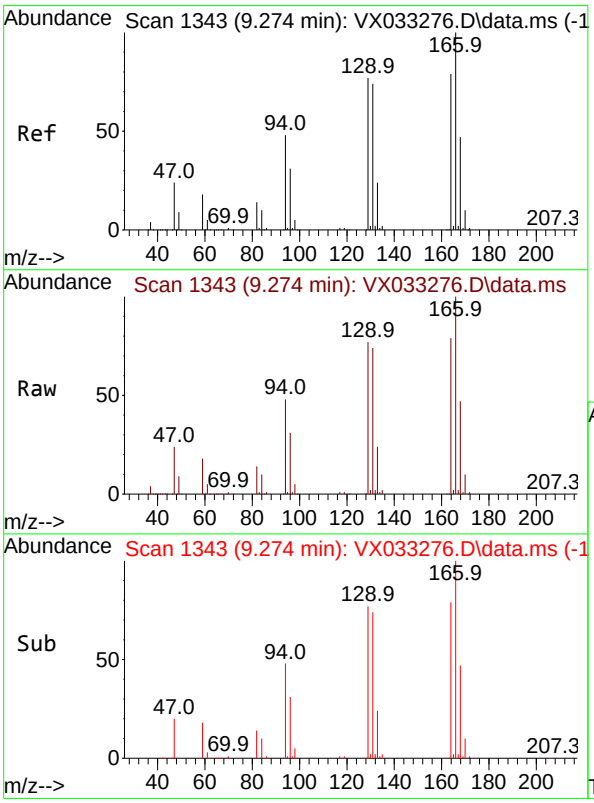
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.5 | 44.3 | 66.5 |
| 119 | 32.7 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

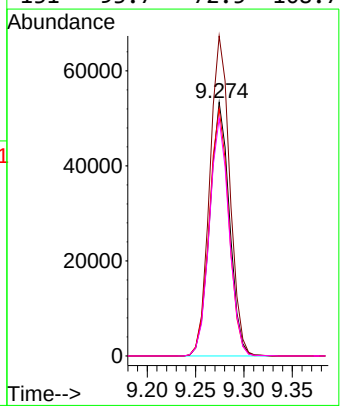
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

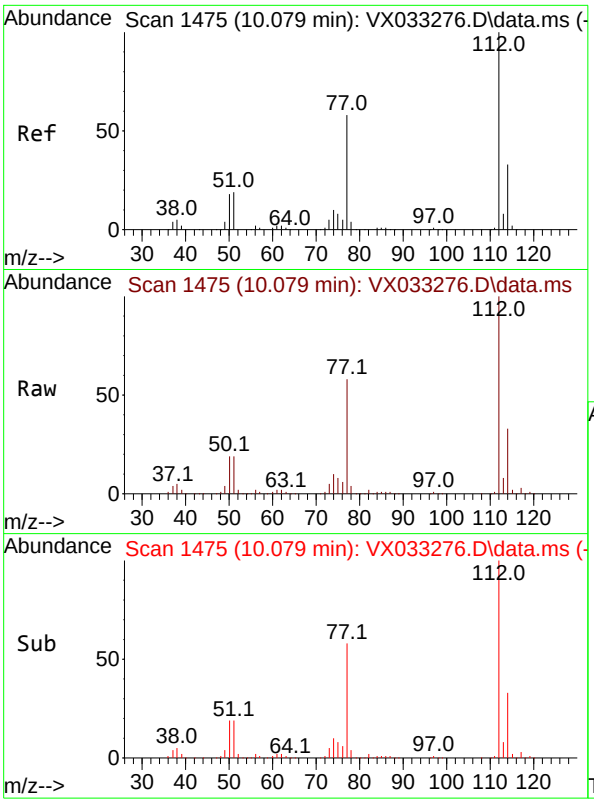



#64
Tetrachloroethene
Concen: 45.485 ug/l
RT: 9.274 min Scan# 1343
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:164 Resp: 75304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 126.2 | 105.4 | 158.2 |
| 129 | 97.5 | 78.2 | 117.2 |
| 131 | 93.7 | 72.5 | 108.7 |

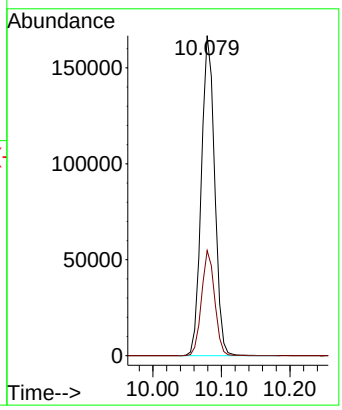





#65
Chlorobenzene
Concen: 48.463 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:112 Resp: 22599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 32.8 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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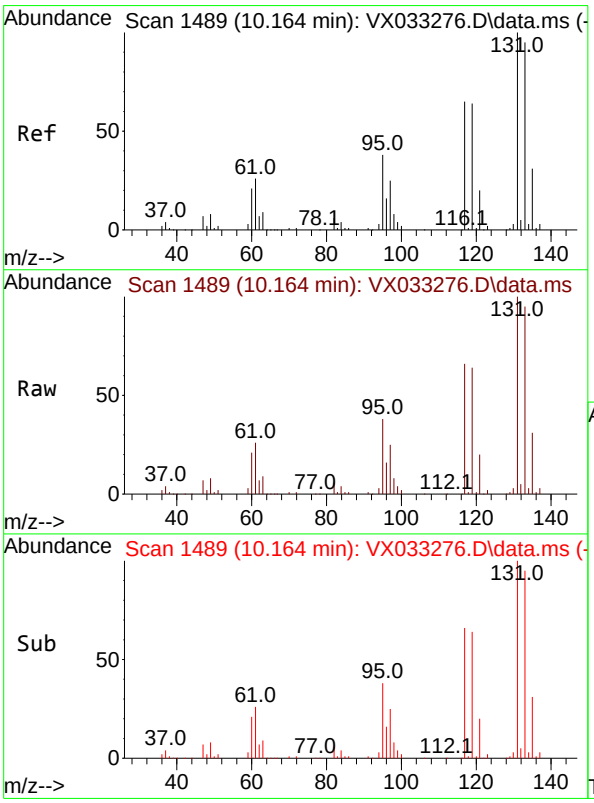
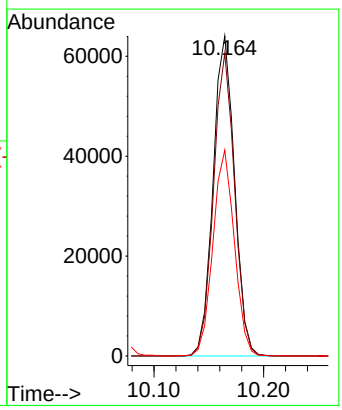
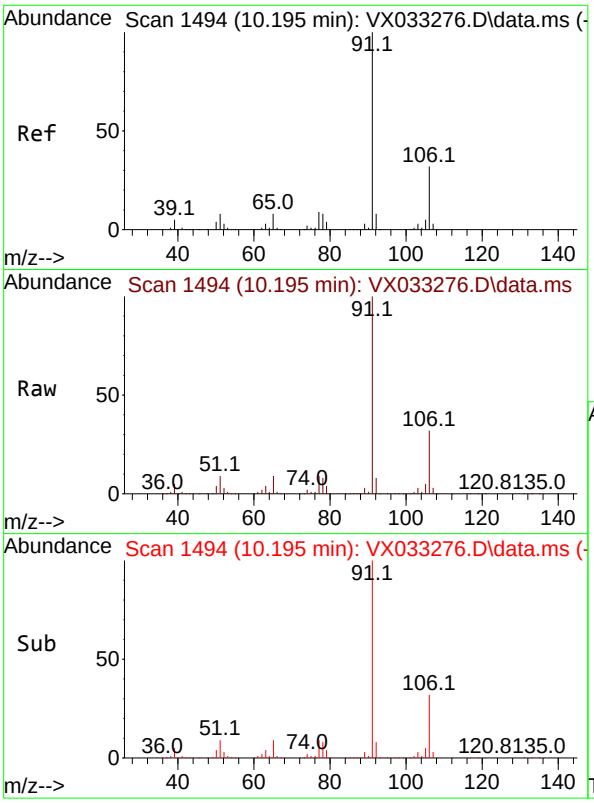



#66
1,1,1,2-Tetrachloroethane
Concen: 50.887 ug/l
RT: 10.164 min Scan# 1489
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:131 Resp: 86946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 93.4 | 47.6 | 142.9 |
| 119 | 64.5 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 49.061 ug/l
RT: 10.195 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

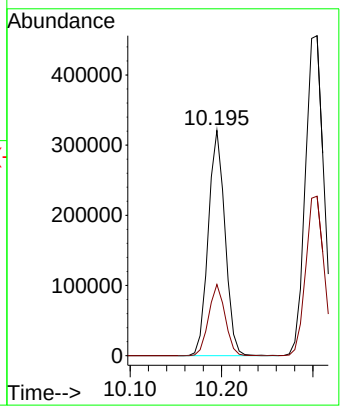
Tgt Ion: 91 Resp: 40582

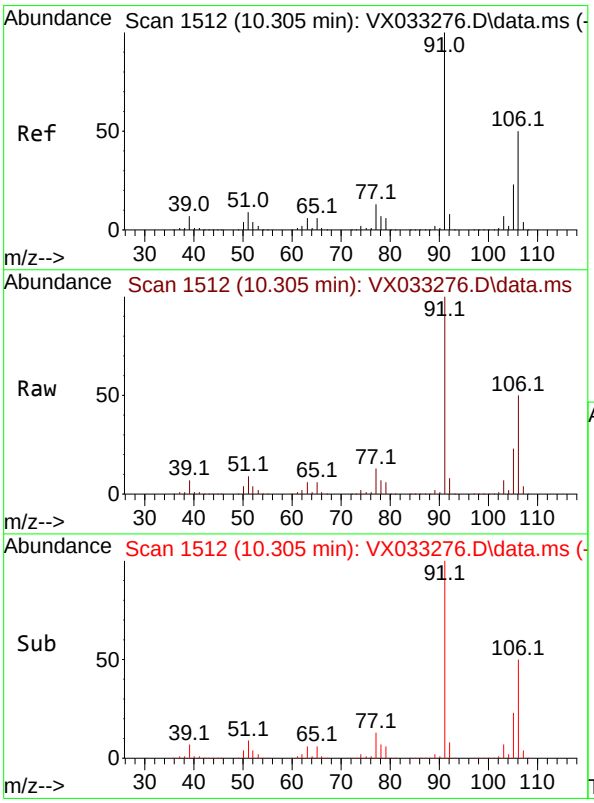
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.6 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

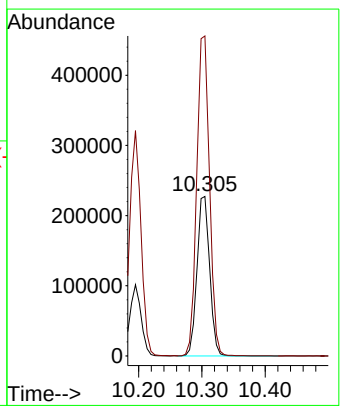


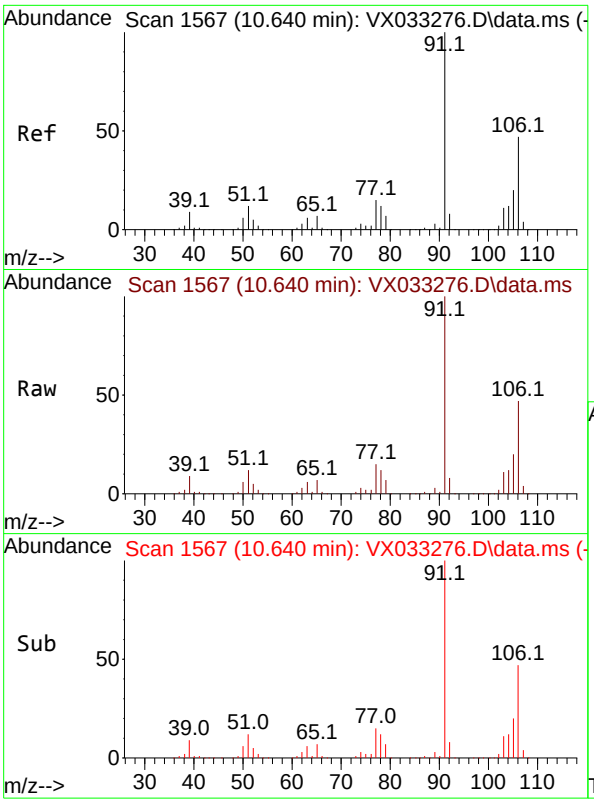




#68
m/p-Xylenes
Concen: 97.764 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:106 Resp: 316676

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 202.3 | 164.5 | 246.7 |






#69
o-Xylene
Concen: 50.078 ug/l
RT: 10.640 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:106 Resp: 15695

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 212.0 | 109.2 | 327.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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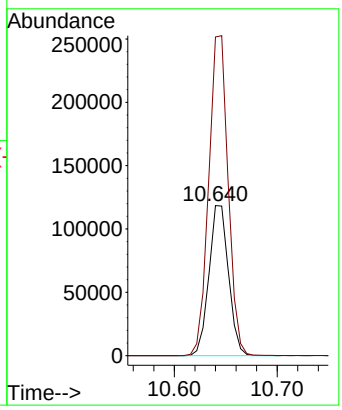
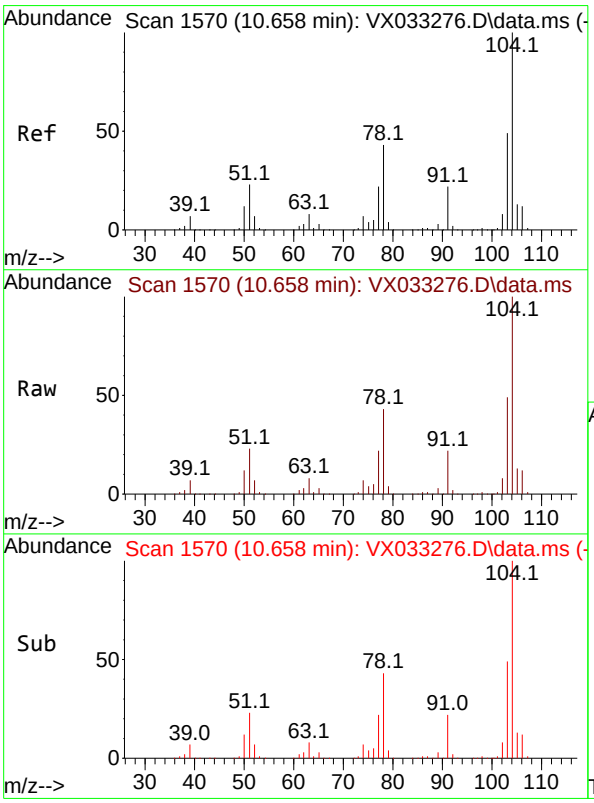
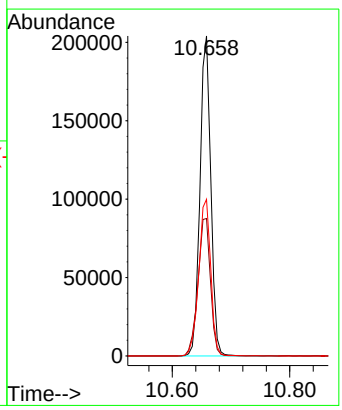


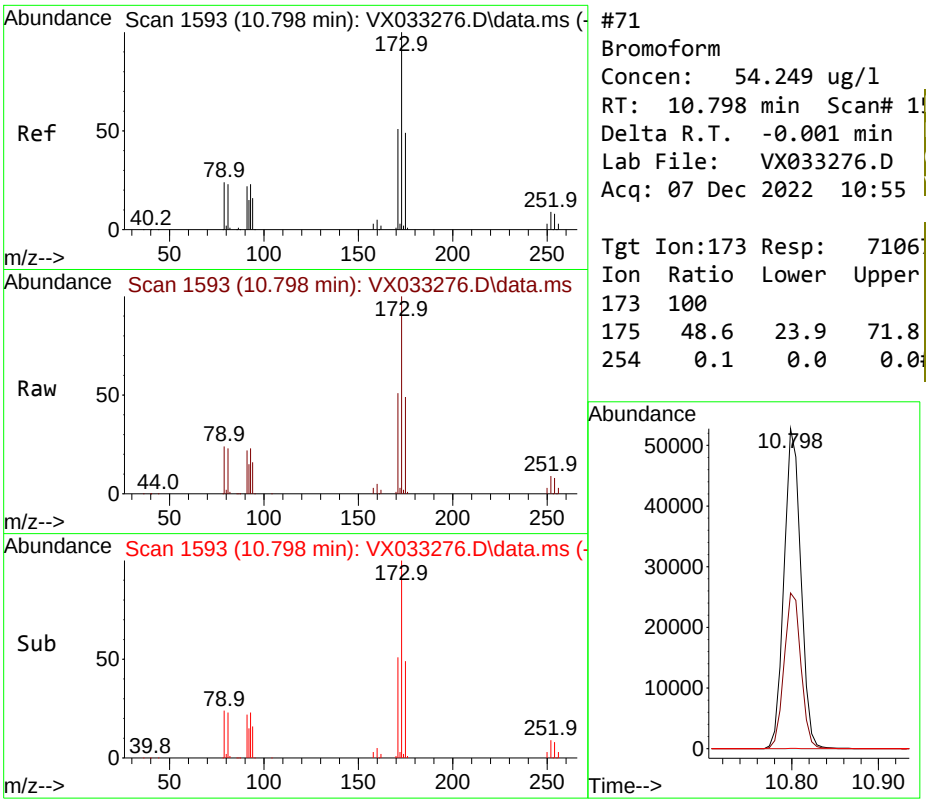




#70
Styrene
Concen: 50.879 ug/l
RT: 10.658 min Scan# 1570
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:104 Resp: 260878

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 49.9 | 41.8 | 62.8 |
| 103 | 54.4 | 44.5 | 66.7 |






#71
Bromoform
Concen: 54.249 ug/l
RT: 10.798 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:173 Resp: 7106

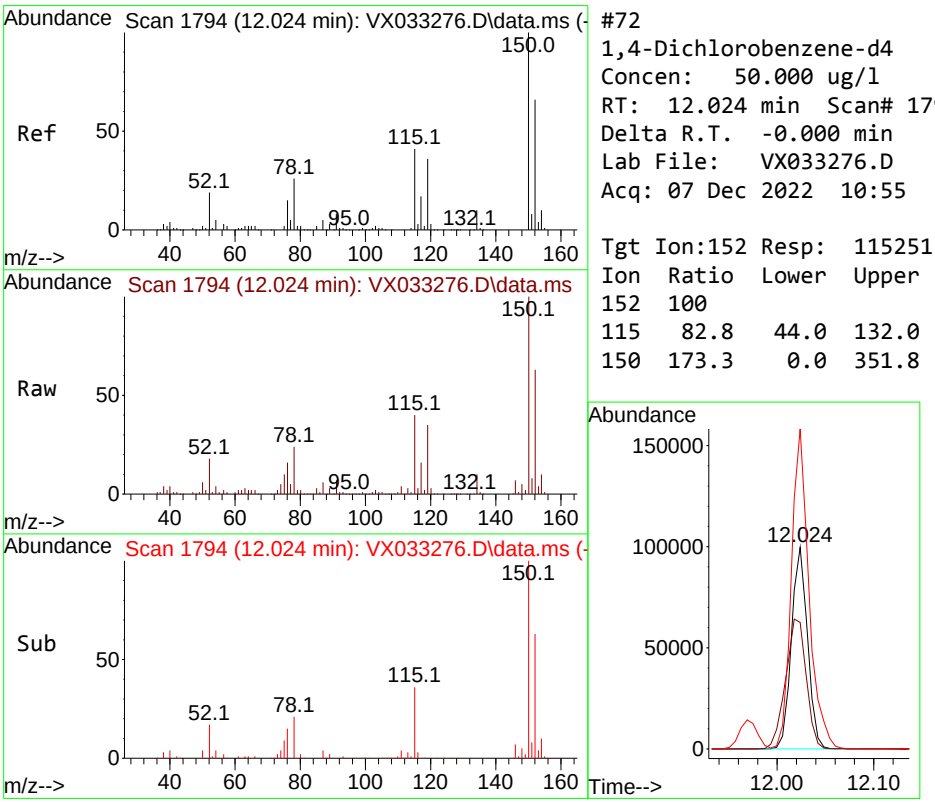
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.6 | 23.9 | 71.8 |
| 254 | 0.1 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

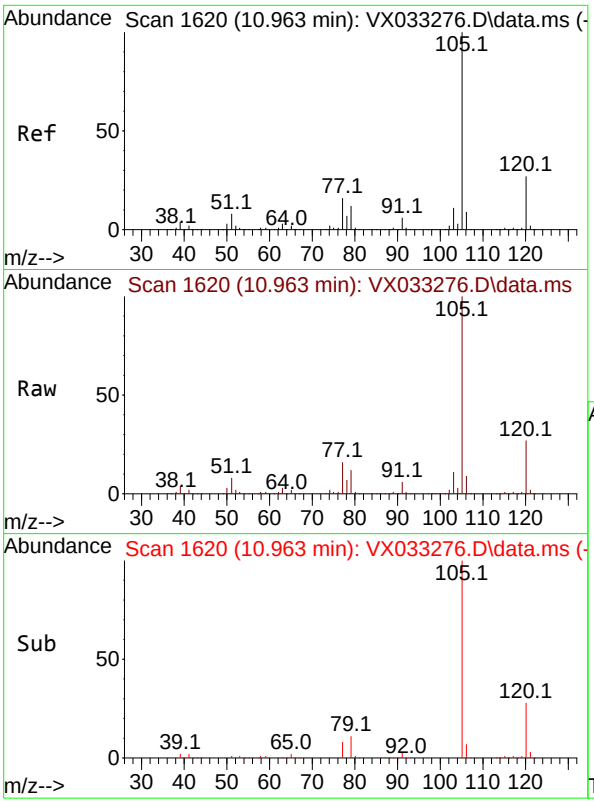
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:152 Resp: 115251

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 82.8 | 44.0 | 132.0 |
| 150 | 173.3 | 0.0 | 351.8 |




#73
Isopropylbenzene
Concen: 49.820 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

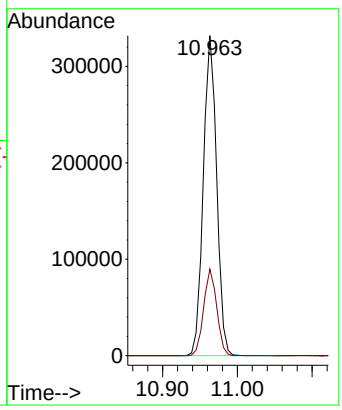
Tgt Ion:105 Resp: 41030

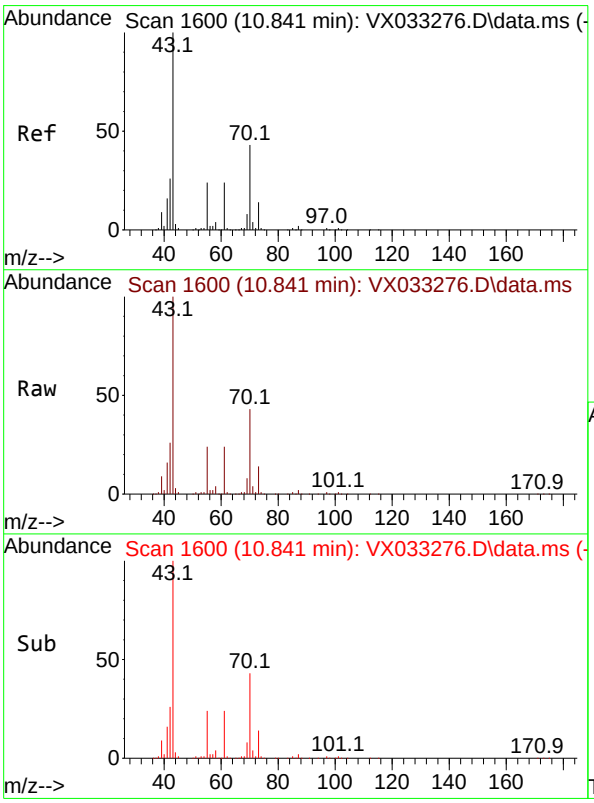
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.6 | 13.1 | 39.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

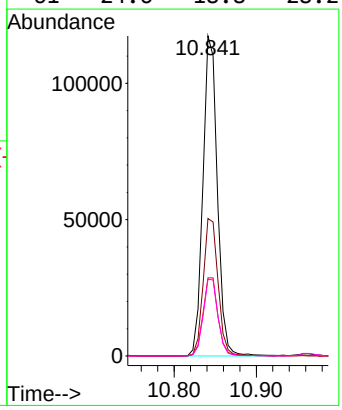


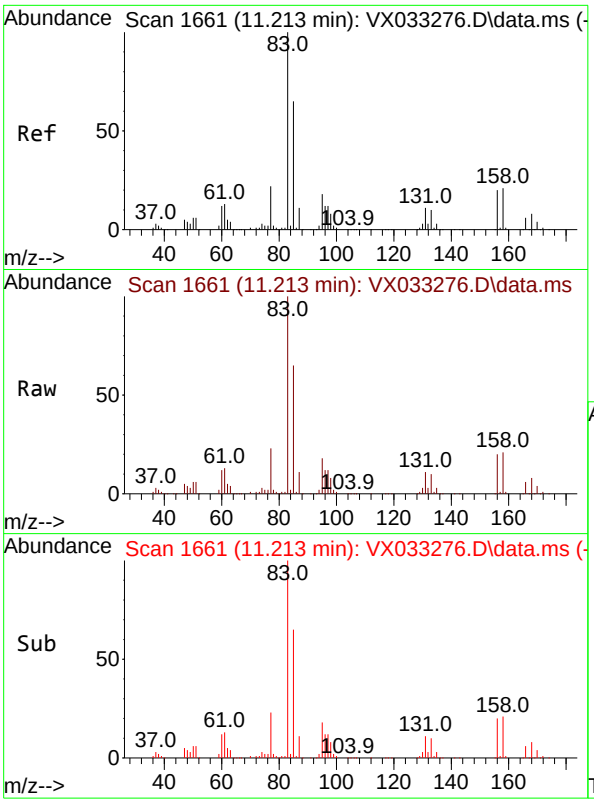




#74
N-amyl acetate
Concen: 51.025 ug/l
RT: 10.841 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 43 Resp: 142952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 44.2 | 33.6 | 50.4 |
| 55 | 25.6 | 19.4 | 29.2 |
| 61 | 24.6 | 18.8 | 28.2 |

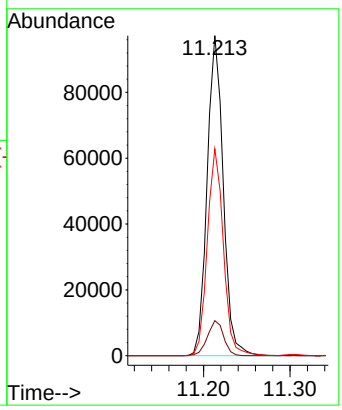





#75
1,1,2,2-Tetrachloroethane
Concen: 50.456 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 83 Resp: 12541

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 11.1 | 5.4 | 16.2 |
| 85 | 64.5 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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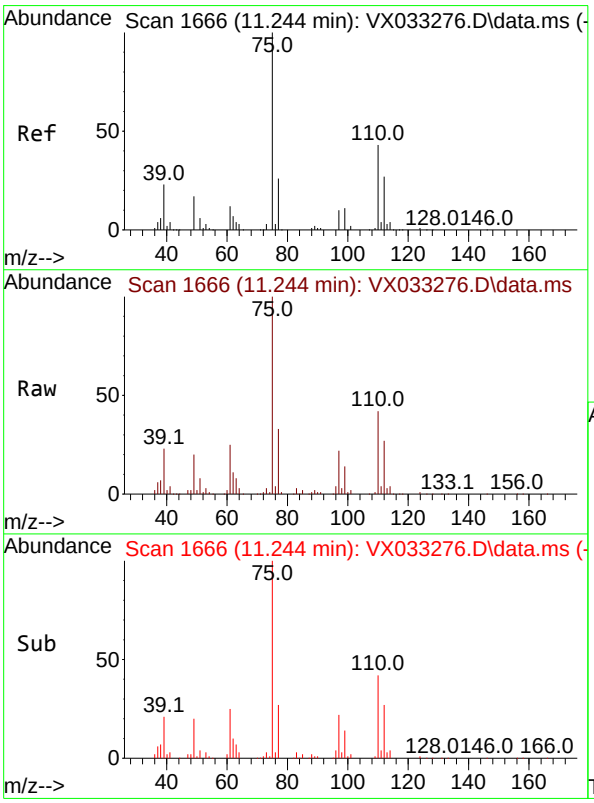
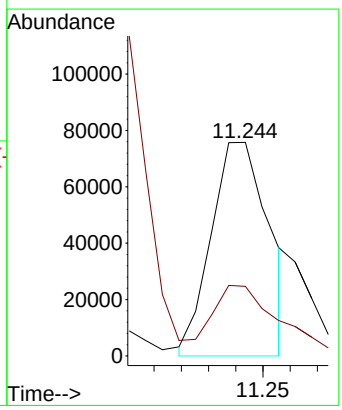
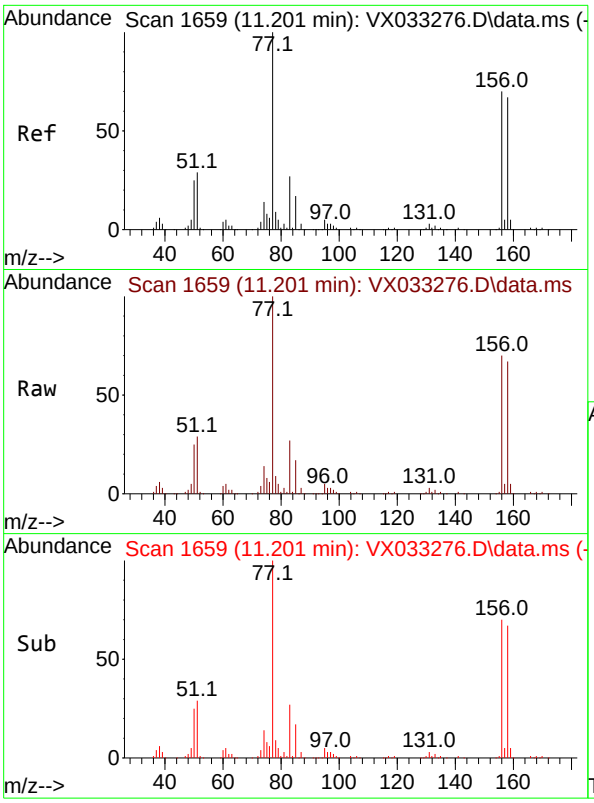



#76
1,2,3-Trichloropropane
Concen: 50.834 ug/l m
RT: 11.244 min Scan# 1666
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 110953

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 39.7 | 20.0 | 60.0 |

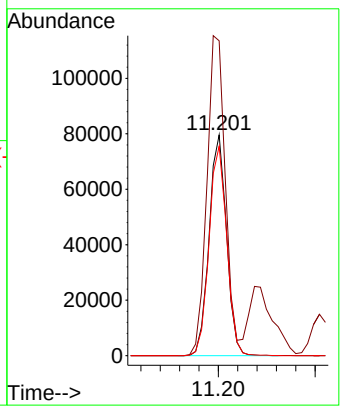





#77
Bromobenzene
Concen: 49.237 ug/l
RT: 11.201 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:156 Resp: 9972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 152.2 | 76.1 | 228.4 |
| 158 | 96.5 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

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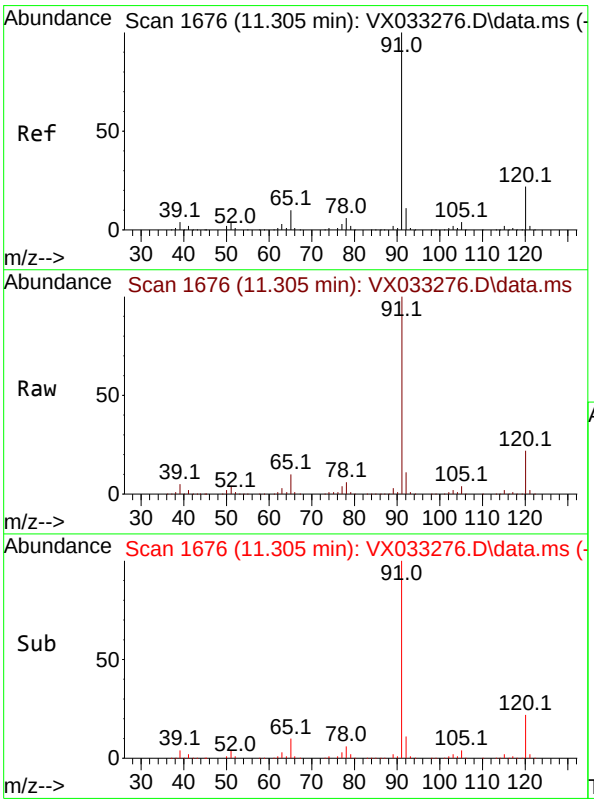
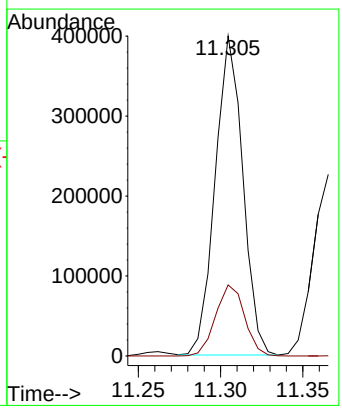
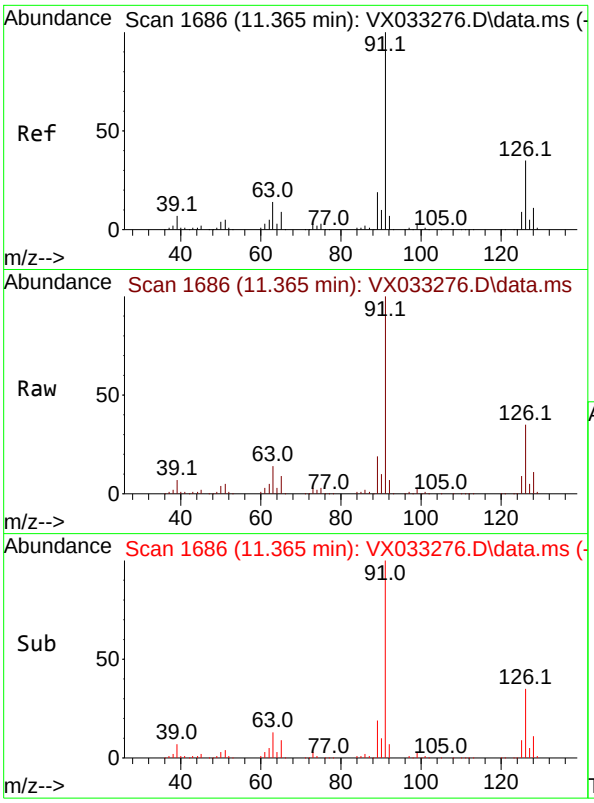



#78
n-propylbenzene
Concen: 49.561 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 91 Resp: 466678

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.3 | 11.6 | 34.8 |






#79
2-Chlorotoluene
Concen: 48.866 ug/l
RT: 11.365 min Scan# 1
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 91 Resp: 27946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 34.5 | 17.1 | 51.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

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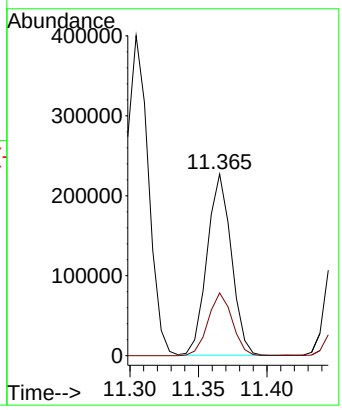
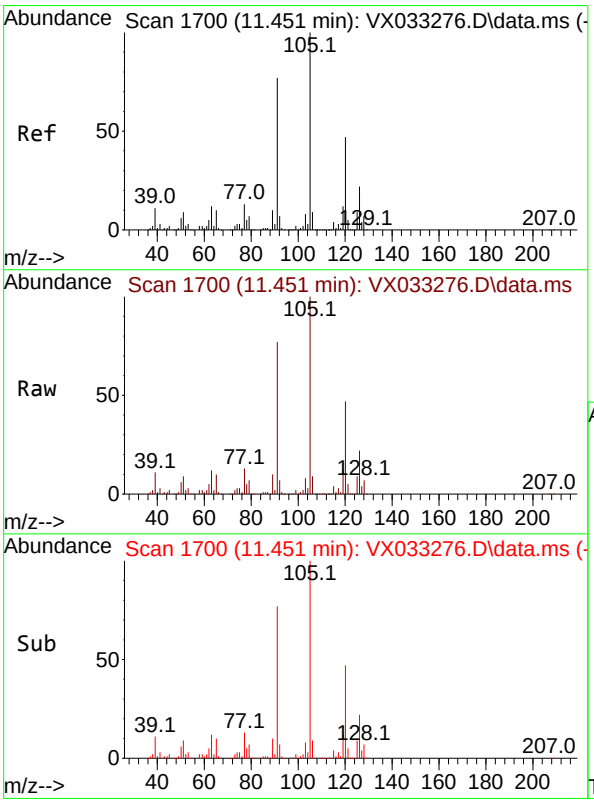
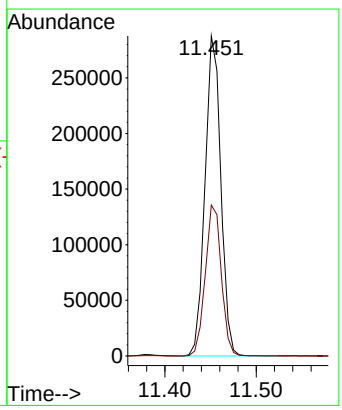


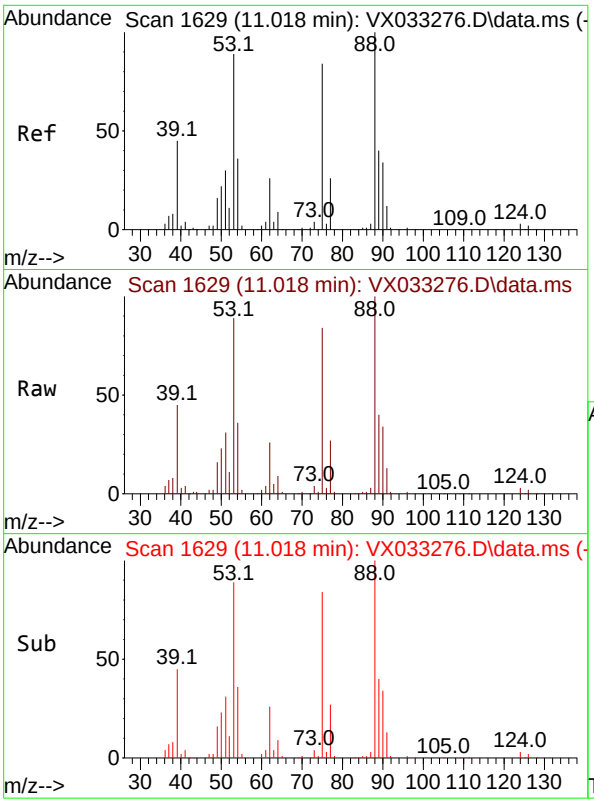




#80
1,3,5-Trimethylbenzene
Concen: 49.677 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:105 Resp: 343696

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.1 | 23.6 | 71.0 |






#81
trans-1,4-Dichloro-2-butene
Concen: 53.631 ug/l
RT: 11.018 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 3601

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 103.6 | 86.9 | 130.3 |
| 89 | 47.7 | 38.3 | 57.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

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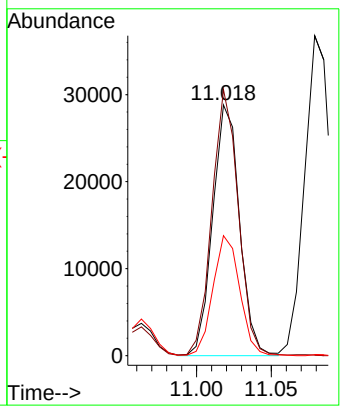
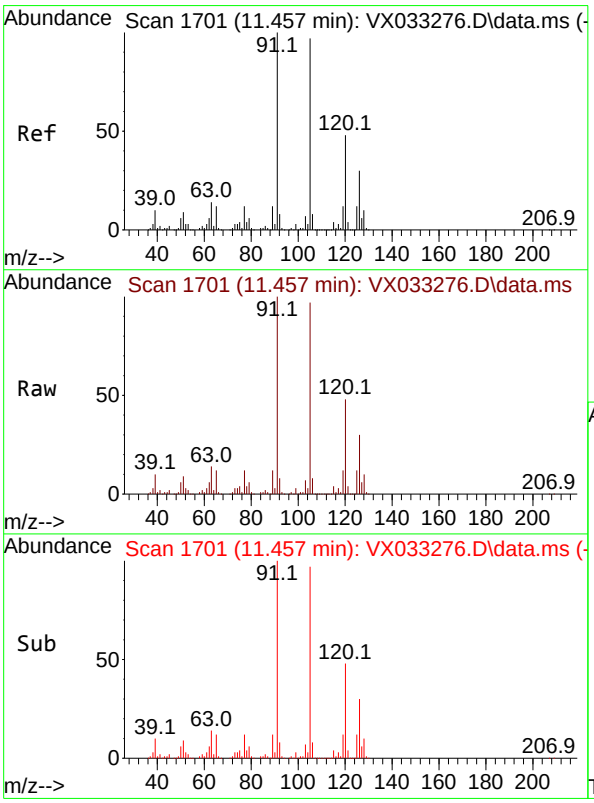
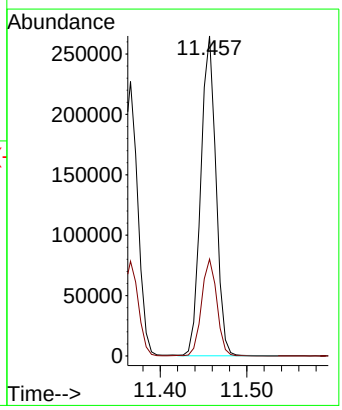


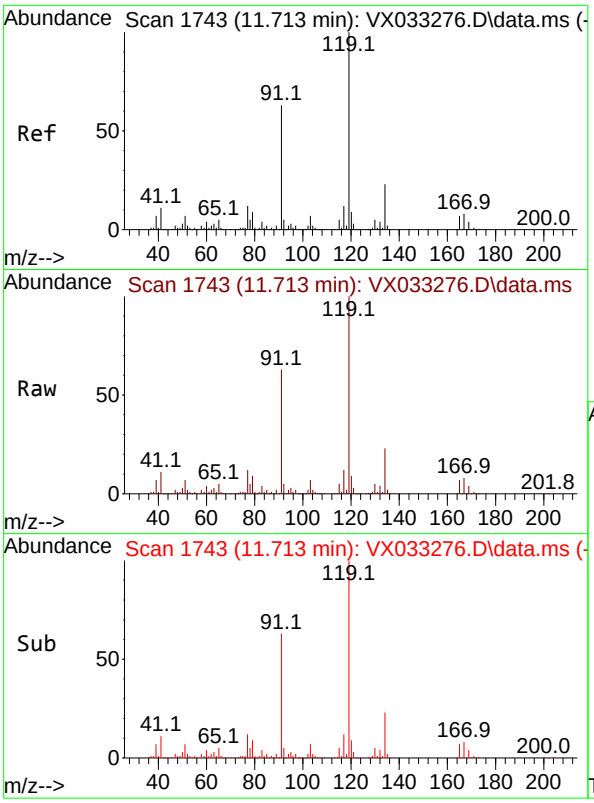




#82
4-Chlorotoluene
Concen: 48.008 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 91 Resp: 321742

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.6 | 14.8 | 44.4 |

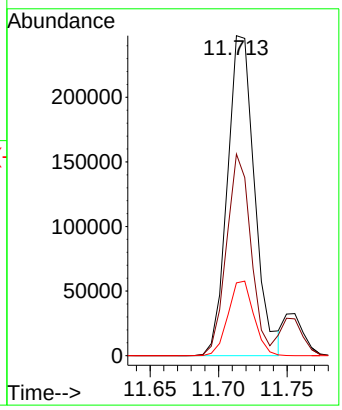





#83
tert-Butylbenzene
Concen: 49.789 ug/l
RT: 11.713 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:119 Resp: 34289

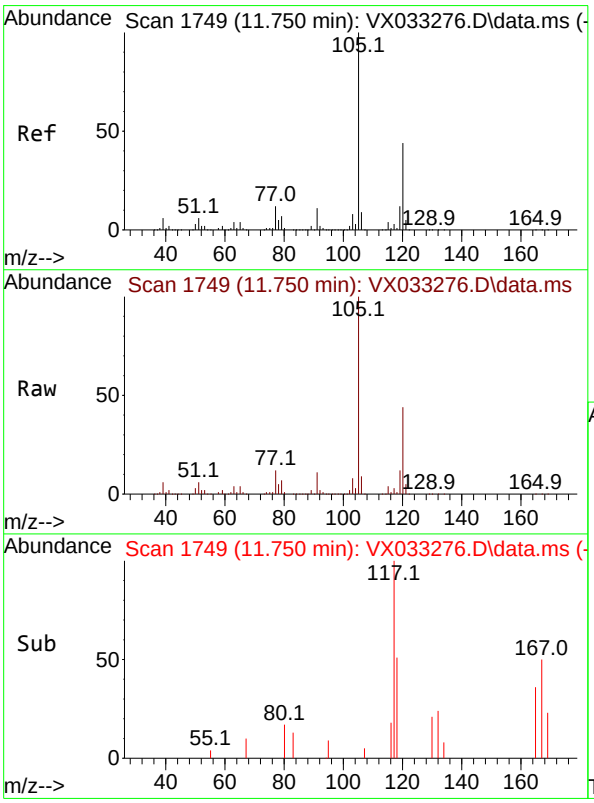
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 56.7 | 29.4 | 88.2 |
| 134 | 22.0 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

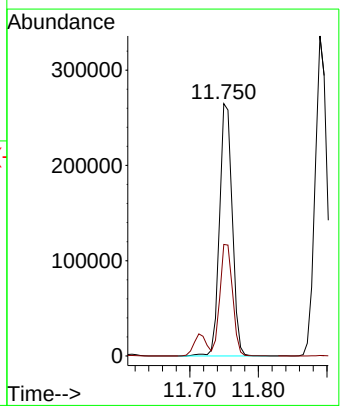
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

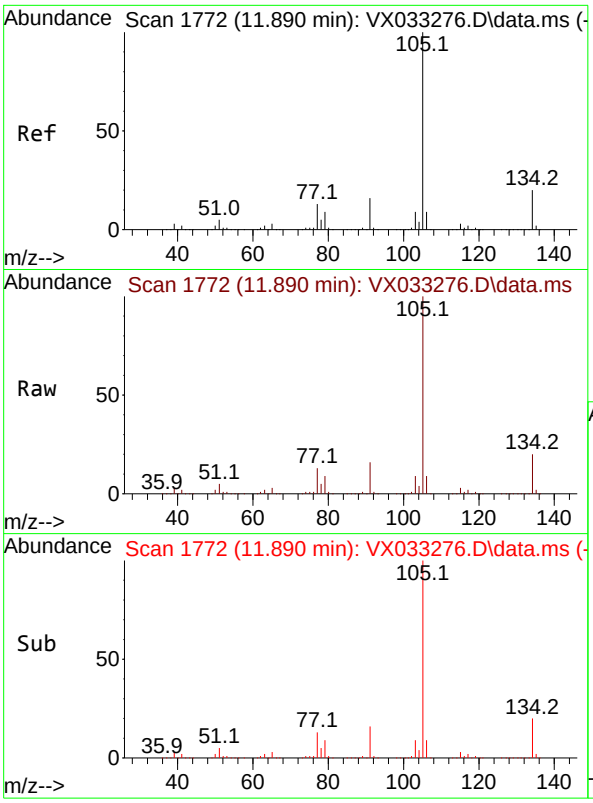



#84
1,2,4-Trimethylbenzene
Concen: 49.302 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:105 Resp: 340117

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.0 | 21.9 | 65.5 |

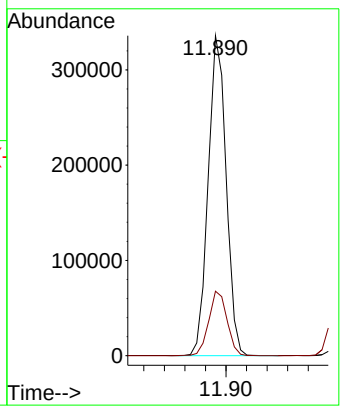





#85
sec-Butylbenzene
Concen: 49.452 ug/l
RT: 11.890 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:105 Resp: 40744

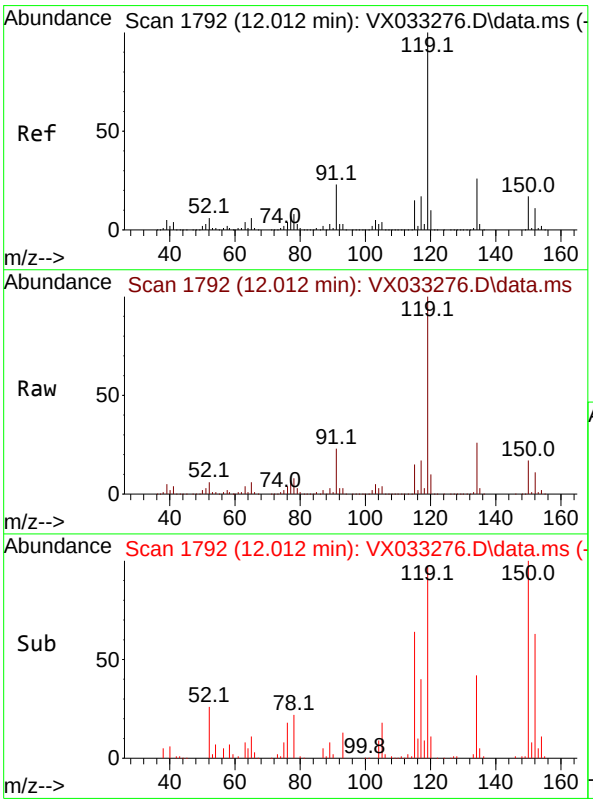
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.5 | 9.9 | 29.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

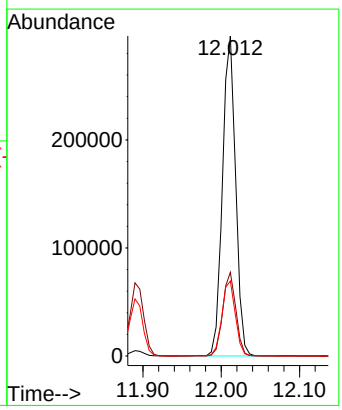
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

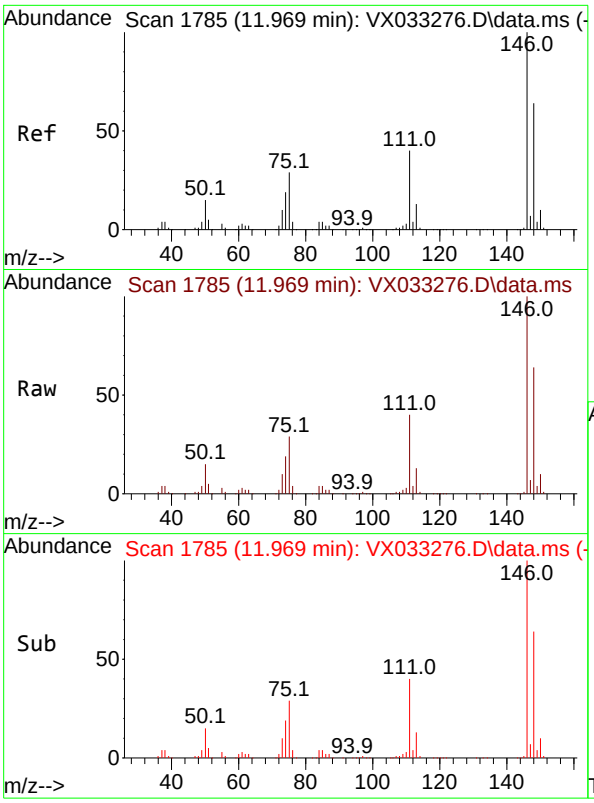



#86
p-Isopropyltoluene
Concen: 49.719 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:119 Resp: 347069

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.0 | 12.9 | 38.7 |
| 91 | 23.8 | 12.5 | 37.5 |






#87
1,3-Dichlorobenzene
Concen: 48.618 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

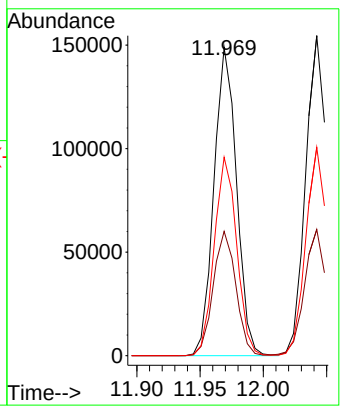
Tgt Ion:146 Resp: 18470

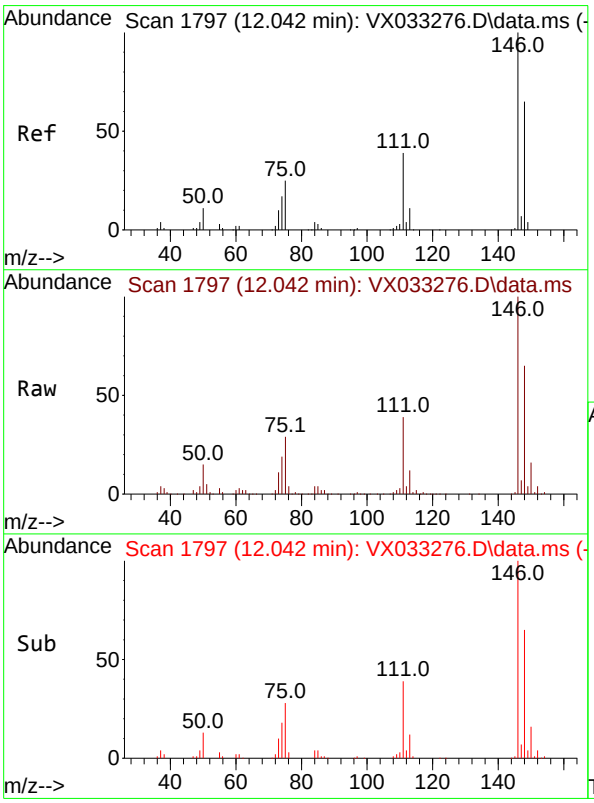
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.6 | 20.6 | 61.8 |
| 148 | 63.9 | 31.7 | 95.1 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

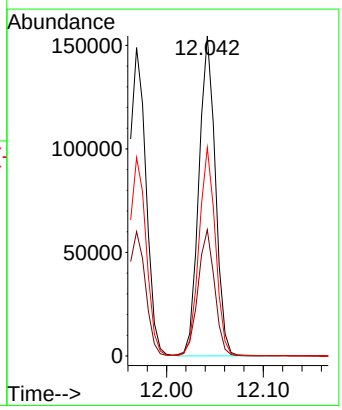


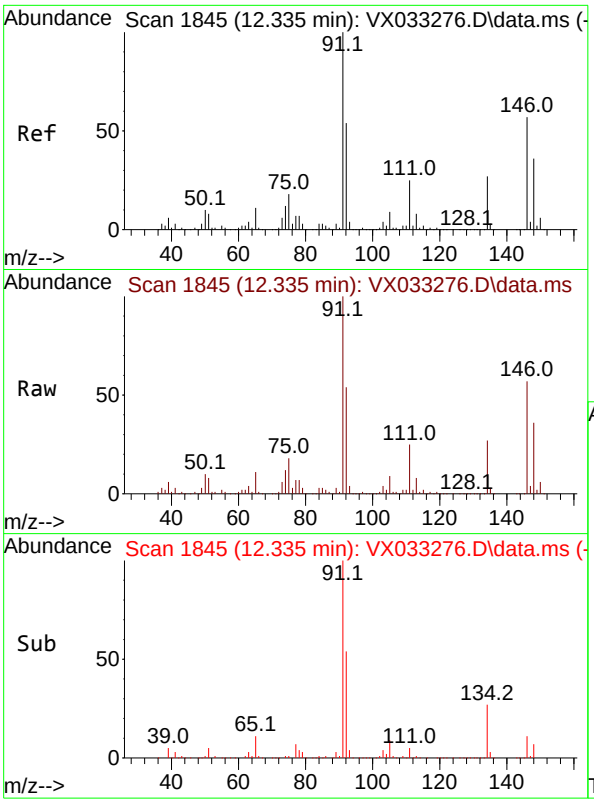




#88
1,4-Dichlorobenzene
Concen: 47.208 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:146 Resp: 183674

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.8 | 20.5 | 61.6 |
| 148 | 64.7 | 32.2 | 96.6 |

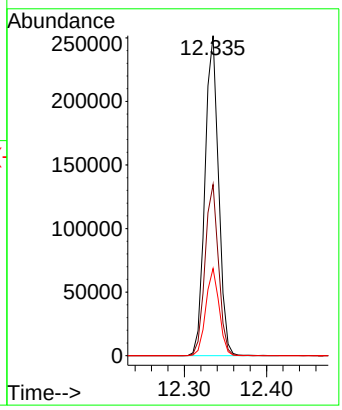





#89
n-Butylbenzene
Concen: 48.064 ug/l
RT: 12.335 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 91 Resp: 28904

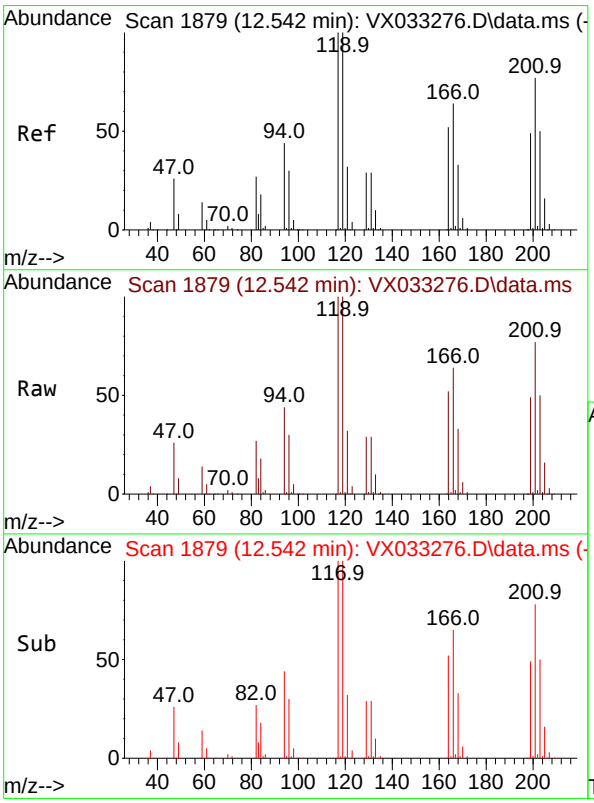
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 53.0 | 26.2 | 78.6 |
| 134 | 26.7 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

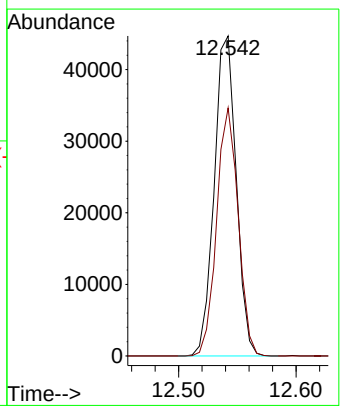
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

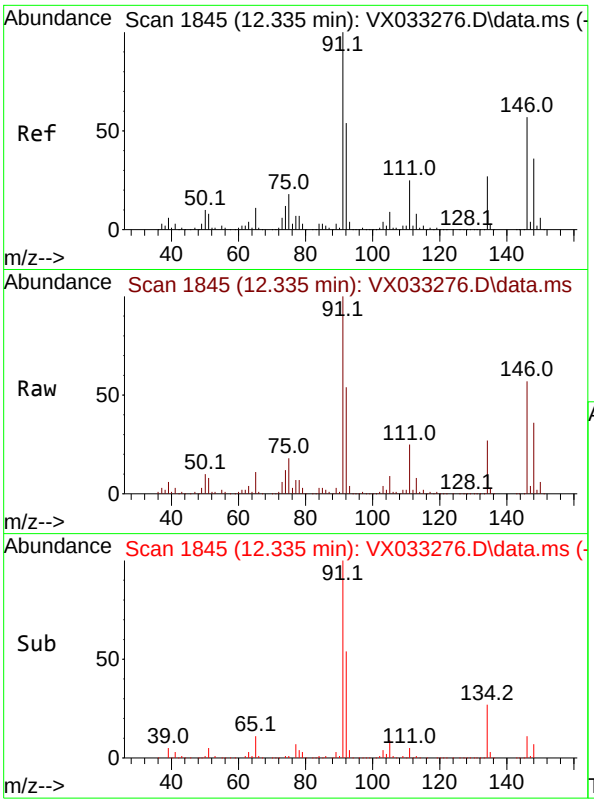



#90
Hexachloroethane
Concen: 50.845 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:117 Resp: 58312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 75.7 | 37.6 | 112.9 |

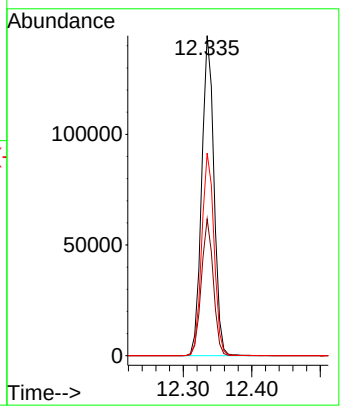





#91
1,2-Dichlorobenzene
Concen: 48.675 ug/l
RT: 12.335 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:146 Resp: 17988

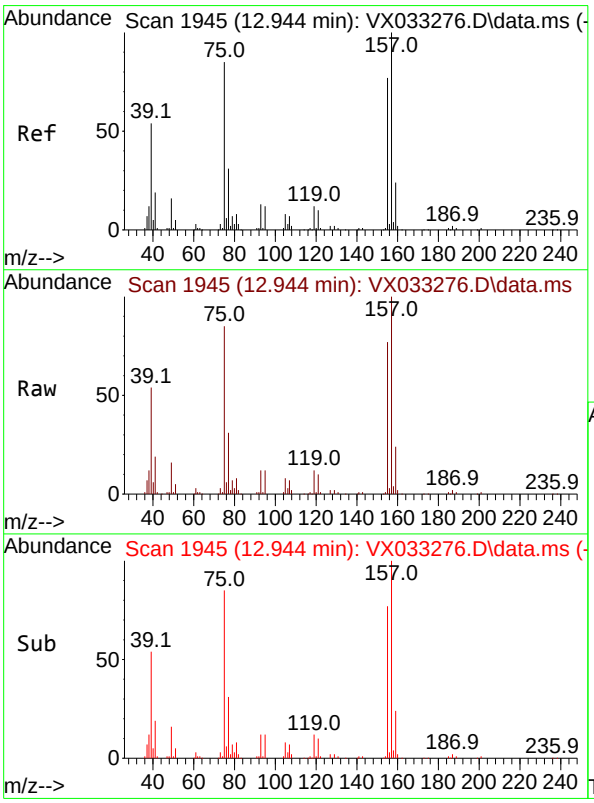
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.7 | 21.5 | 64.5 |
| 148 | 63.8 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

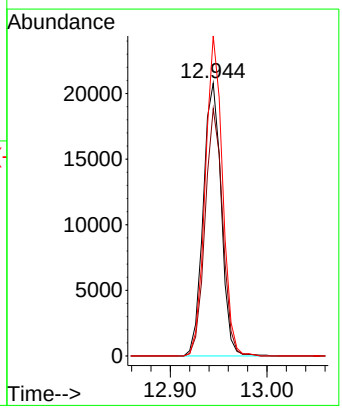
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

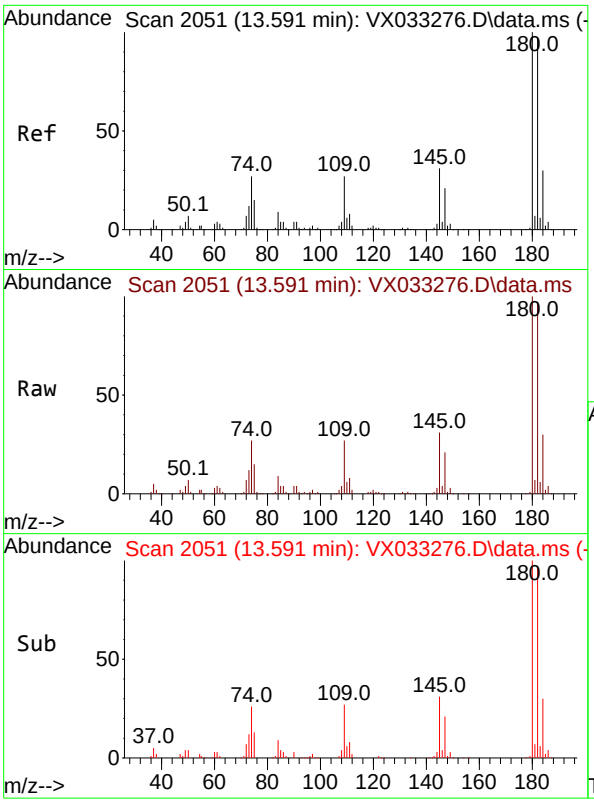



#92
1,2-Dibromo-3-Chloropropane
Concen: 54.222 ug/l
RT: 12.944 min Scan# 1945
Delta R.T. -0.001 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion: 75 Resp: 26891

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 88.6 | 41.6 | 124.8 |
| 157 | 112.8 | 54.1 | 162.4 |






#93
1,2,4-Trichlorobenzene
Concen: 48.454 ug/l
RT: 13.591 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

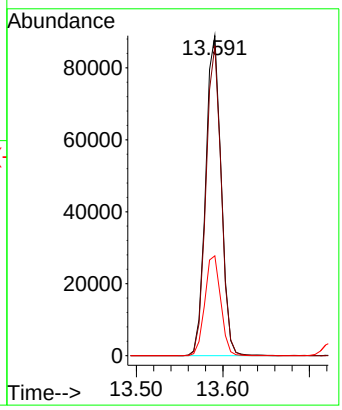
**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

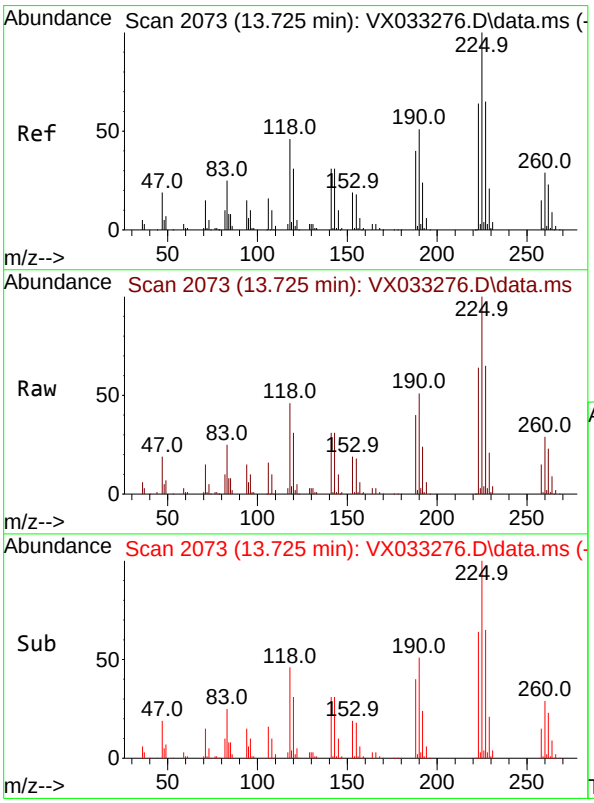
Tgt Ion:180 Resp: 11038

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.6 | 48.4 | 145.0 |
| 145 | 32.0 | 16.2 | 48.5 |

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

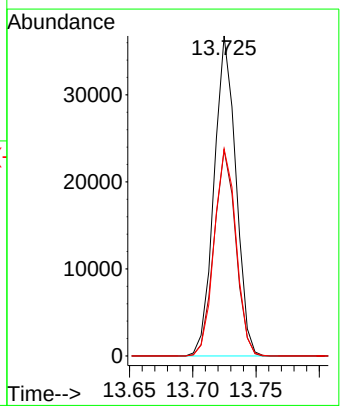


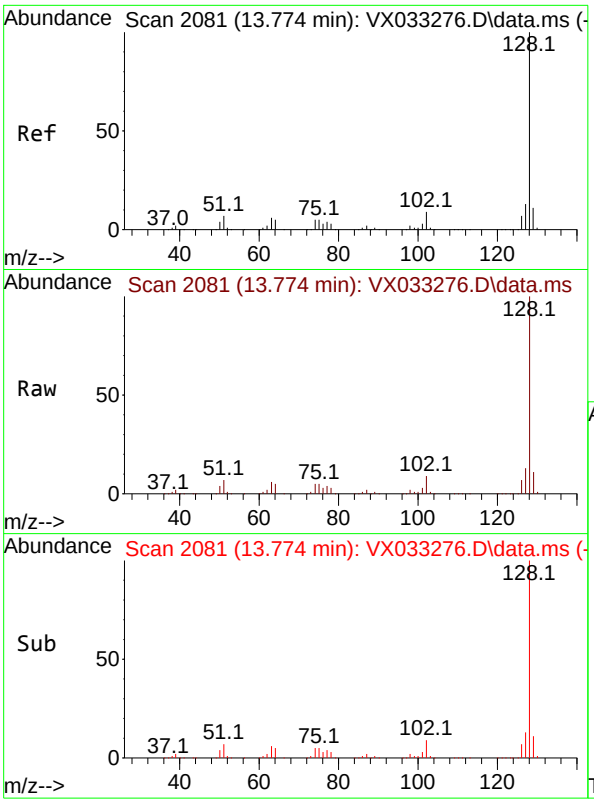




#94
Hexachlorobutadiene
Concen: 43.785 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:225 Resp: 44005

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 64.1 | 31.9 | 95.9 |
| 227 | 64.7 | 31.9 | 95.5 |

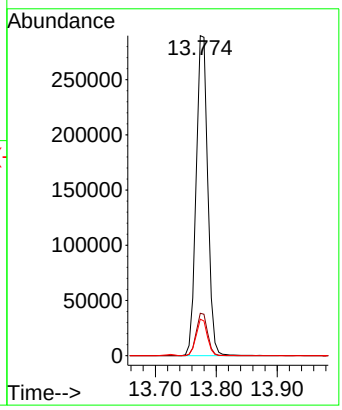





#95
Naphthalene
Concen: 51.866 ug/l
RT: 13.774 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:128 Resp: 38223

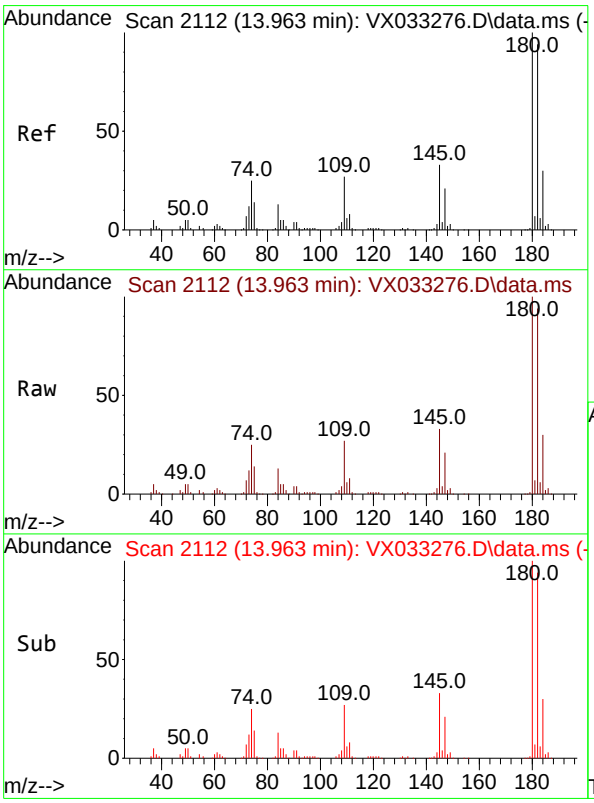
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.0 | 10.2 | 15.4 |
| 129 | 11.1 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICCC050

**Manual Integrations APPROVED**

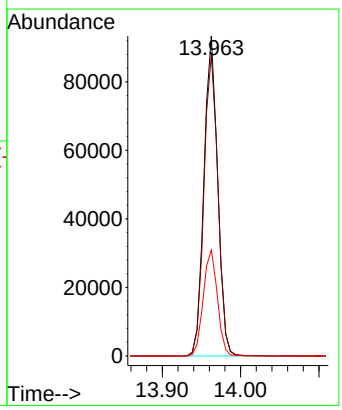
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 49.483 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033276.D
Acq: 07 Dec 2022 10:55

Tgt Ion:180 Resp: 113042

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 96.1 | 47.5 | 142.6 |
| 145 | 33.9 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033277.D
Acq On : 07 Dec 2022 11:18
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 11:46:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.556 | 168 | 165055 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 255123 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 234757 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 114385 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 92117 | 51.808 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 103.620% | | | |
| 35) Dibromofluoromethane | 5.391 | 113 | 106926 | 74.342 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 148.680%# | | | |
| 50) Toluene-d8 | 8.653 | 98 | 231771 | 49.636 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 99.280% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 181855 | 96.253 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 192.500%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 113964 | 90.376 | ug/l | 96 |
| 3) Chloromethane | 1.294 | 50 | 120662 | 88.636 | ug/l | 97 |
| 4) Vinyl Chloride | 1.374 | 62 | 141536 | 93.376 | ug/l | 99 |
| 5) Bromomethane | 1.618 | 94 | 103035 | 91.668 | ug/l | 97 |
| 6) Chloroethane | 1.691 | 64 | 98459 | 79.790 | ug/l | 98 |
| 7) Trichlorofluoromethane | 1.886 | 101 | 260418 | 88.522 | ug/l | 99 |
| 8) Diethyl Ether | 2.136 | 74 | 91426 | 98.713 | ug/l | 97 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 147980 | 95.703 | ug/l | 99 |
| 10) Methyl Iodide | 2.453 | 142 | 168388 | 95.129 | ug/l | 98 |
| 11) Tert butyl alcohol | 3.081 | 59 | 153047m | 600.649 | ug/l | |
| 12) 1,1-Dichloroethene | 2.319 | 96 | 144956 | 100.637 | ug/l | 98 |
| 13) Acrolein | 2.239 | 56 | 168892 | 577.055 | ug/l | 100 |
| 14) Allyl chloride | 2.666 | 41 | 231599 | 99.594 | ug/l | 95 |
| 15) Acrylonitrile | 3.069 | 53 | 384195 | 533.084 | ug/l | 98 |
| 16) Acetone | 2.392 | 43 | 332080 | 442.372 | ug/l | 98 |
| 17) Carbon Disulfide | 2.514 | 76 | 371702 | 93.405 | ug/l | 100 |
| 18) Methyl Acetate | 2.709 | 43 | 217517 | 104.676 | ug/l | 97 |
| 19) Methyl tert-butyl Ether | 3.117 | 73 | 504714 | 101.037 | ug/l | 100 |
| 20) Methylene Chloride | 2.788 | 84 | 157499 | 87.090 | ug/l | 92 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 160881 | 97.643 | ug/l | 99 |
| 22) Diisopropyl ether | 3.764 | 45 | 494701 | 97.699 | ug/l | 98 |
| 23) Vinyl Acetate | 3.721 | 43 | 1966313 | 496.095 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 281027 | 96.987 | ug/l | 100 |
| 25) 2-Butanone | 4.568 | 43 | 529242 | 511.283 | ug/l | 100 |
| 26) 2,2-Dichloropropane | 4.477 | 77 | 220013 | 94.433 | ug/l | 98 |
| 27) cis-1,2-Dichloroethene | 4.489 | 96 | 190459 | 101.740 | ug/l | 97 |
| 28) Bromochloromethane | 4.897 | 49 | 114001 | 89.540 | ug/l | 95 |
| 29) Tetrahydrofuran | 5.013 | 42 | 350450 | 533.548 | ug/l | 97 |
| 30) Chloroform | 5.093 | 83 | 317680 | 97.890 | ug/l | 99 |
| 31) Cyclohexane | 5.477 | 56 | 251166 | 96.437 | ug/l | 94 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 286297 | 98.509 | ug/l | 98 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 229465 | 99.777 | ug/l | 100 |
| 37) Ethyl Acetate | 4.715 | 43 | 213345 | 106.332 | ug/l | 100 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 255340 | 100.085 | ug/l | 96 |
| 39) Methylcyclohexane | 7.385 | 83 | 269308 | 102.633 | ug/l | 98 |
| 40) Benzene | 6.037 | 78 | 653275 | 101.314 | ug/l | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033277.D
Acq On : 07 Dec 2022 11:18
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 11:46:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.922 | 41 | 118380 | 104.856 | ug/l | | 96 |
| 42) 1,2-Dichloroethane | 6.086 | 62 | 249168 | 95.974 | ug/l | | 98 |
| 43) Isopropyl Acetate | 6.342 | 43 | 349609 | 105.360 | ug/l | | 97 |
| 44) Trichloroethene | 7.129 | 130 | 184157 | 101.780 | ug/l | | 99 |
| 45) 1,2-Dichloropropane | 7.434 | 63 | 165570 | 103.903 | ug/l | | 99 |
| 46) Dibromomethane | 7.580 | 93 | 124128 | 99.831 | ug/l | | 98 |
| 47) Bromodichloromethane | 7.824 | 83 | 250677 | 104.337 | ug/l | | 100 |
| 48) Methyl methacrylate | 7.696 | 41 | 178559 | 104.542 | ug/l | | 93 |
| 49) 1,4-Dioxane | 7.708 | 88 | 81715 | 2599.008 | ug/l | | 98 |
| 51) 4-Methyl-2-Pentanone | 8.574 | 43 | 1063088 | 519.198 | ug/l | | 96 |
| 52) Toluene | 8.720 | 92 | 431003 | 101.600 | ug/l | | 99 |
| 53) t-1,3-Dichloropropene | 8.982 | 75 | 261464 | 110.875 | ug/l | | 99 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 280027 | 108.114 | ug/l | | 90 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 178523 | 103.364 | ug/l | | 98 |
| 56) Ethyl methacrylate | 9.116 | 69 | 264710 | 111.239 | ug/l | # | 91 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 285374 | 102.351 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 601216 | 532.046 | ug/l | | 98 |
| 59) 2-Hexanone | 9.433 | 43 | 776936 | 513.655 | ug/l | | 94 |
| 60) Dibromochloromethane | 9.525 | 129 | 203673 | 109.532 | ug/l | | 100 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 192450 | 105.569 | ug/l | | 99 |
| 64) Tetrachloroethene | 9.275 | 164 | 155777 | 93.745 | ug/l | | 96 |
| 65) Chlorobenzene | 10.079 | 112 | 466180 | 99.602 | ug/l | | 99 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 179053 | 104.407 | ug/l | | 100 |
| 67) Ethyl Benzene | 10.195 | 91 | 832367 | 100.255 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.305 | 106 | 656555 | 201.944 | ug/l | | 97 |
| 69) o-Xylene | 10.640 | 106 | 318285 | 101.180 | ug/l | | 97 |
| 70) Styrene | 10.659 | 104 | 537696 | 104.480 | ug/l | | 98 |
| 71) Bromoform | 10.799 | 173 | 147977 | 112.541 | ug/l | # | 99 |
| 73) Isopropylbenzene | 10.963 | 105 | 842073 | 103.020 | ug/l | | 99 |
| 74) N-amyl acetate | 10.842 | 43 | 293580 | 105.583 | ug/l | | 96 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 253116 | 102.600 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 227655m | 105.091 | ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 206162 | 102.556 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 957635 | 102.470 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 562746 | 99.144 | ug/l | | 99 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 707491 | 103.034 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 78356 | 117.572 | ug/l | | 91 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 662404 | 99.587 | ug/l | | 99 |
| 83) tert-Butylbenzene | 11.713 | 119 | 704229 | 103.031 | ug/l | | 98 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 694969 | 101.503 | ug/l | | 98 |
| 85) sec-Butylbenzene | 11.890 | 105 | 841254 | 102.877 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 721390 | 104.124 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 382452 | 101.433 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.043 | 146 | 377754 | 97.826 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 616947 | 103.367 | ug/l | | 98 |
| 90) Hexachloroethane | 12.542 | 117 | 123879 | 108.833 | ug/l | | 98 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 368843 | 100.562 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 56957 | 115.714 | ug/l | | 93 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 241047 | 106.614 | ug/l | | 98 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 94278 | 94.517 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 806793 | 110.304 | ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 239154 | 105.480 | ug/l | | 99 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033277.D
Acq On : 07 Dec 2022 11:18
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 07 11:46:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

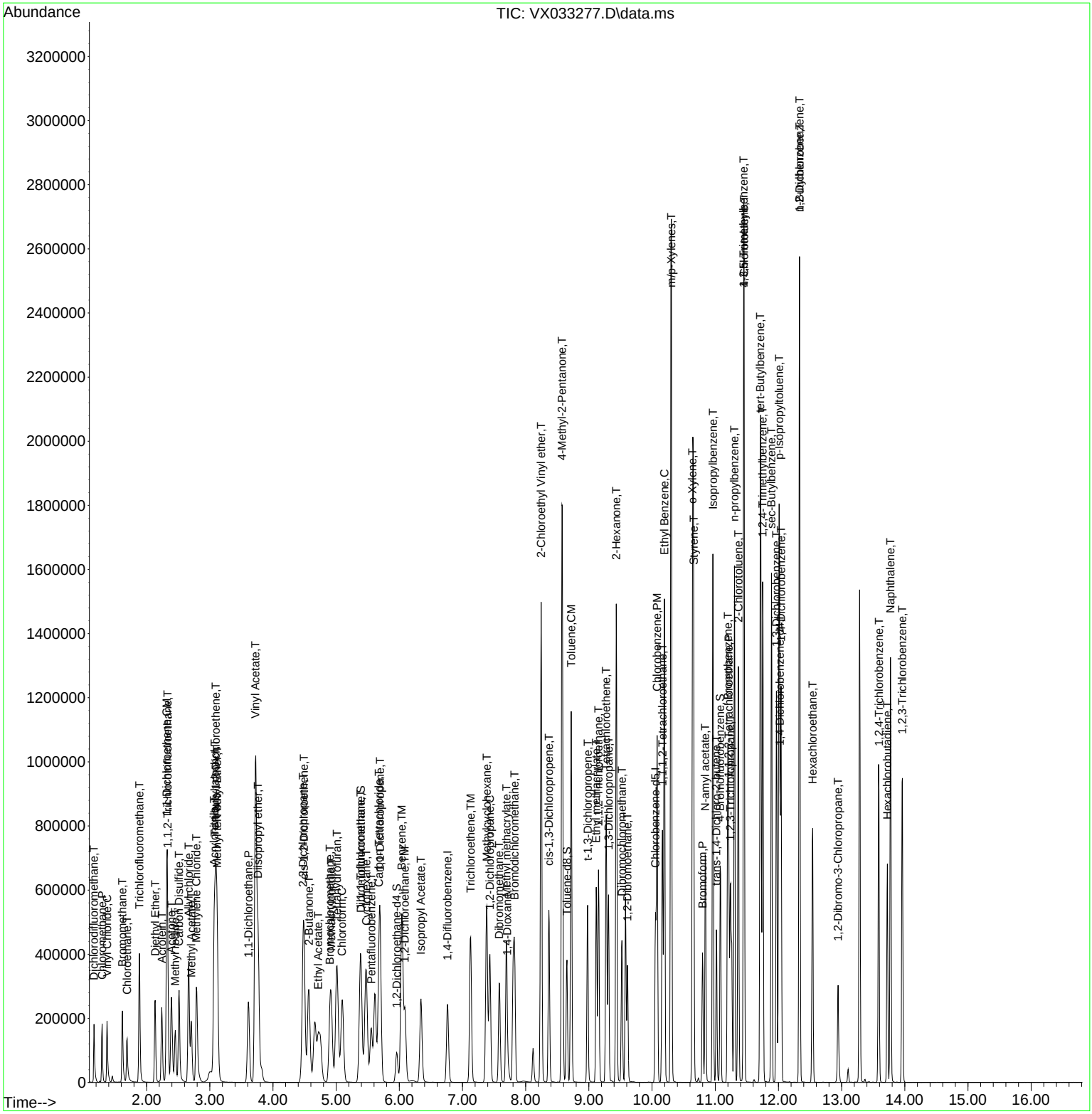
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033277.D
Acq On : 07 Dec 2022 11:18
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

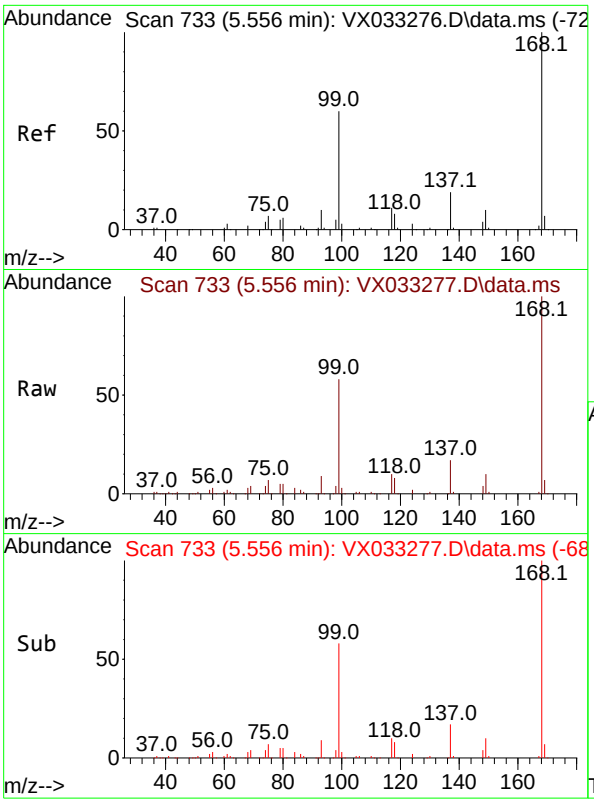
Quant Time: Dec 07 11:46:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

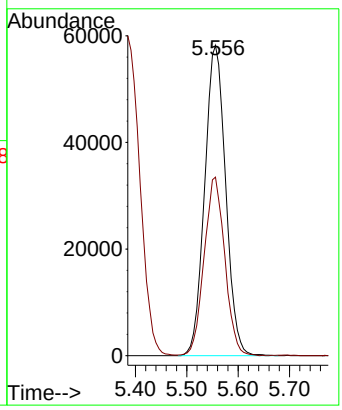





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.556 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:168 Resp: 16505

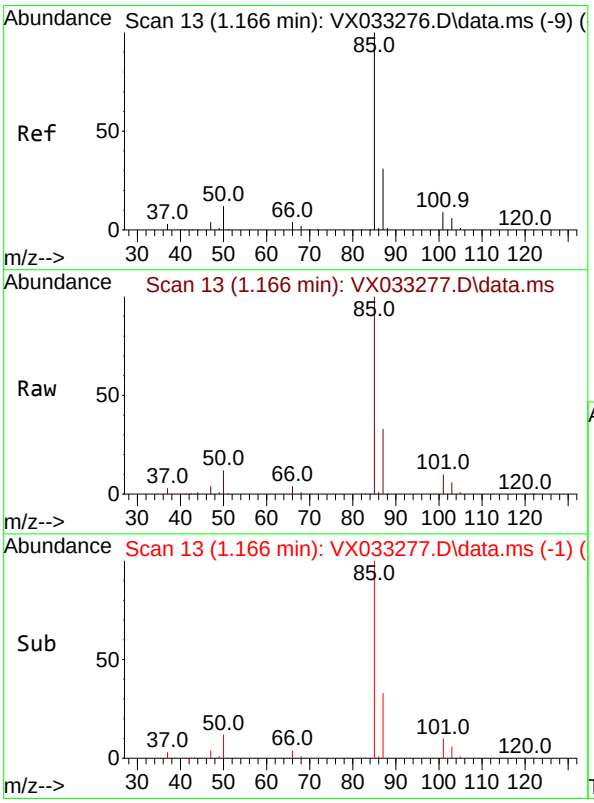
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 57.4 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

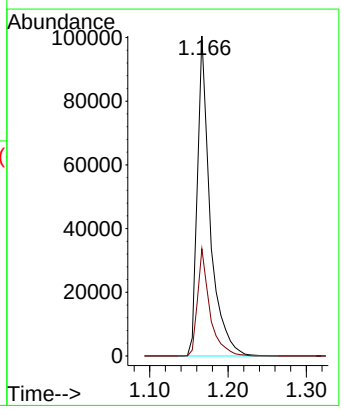
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

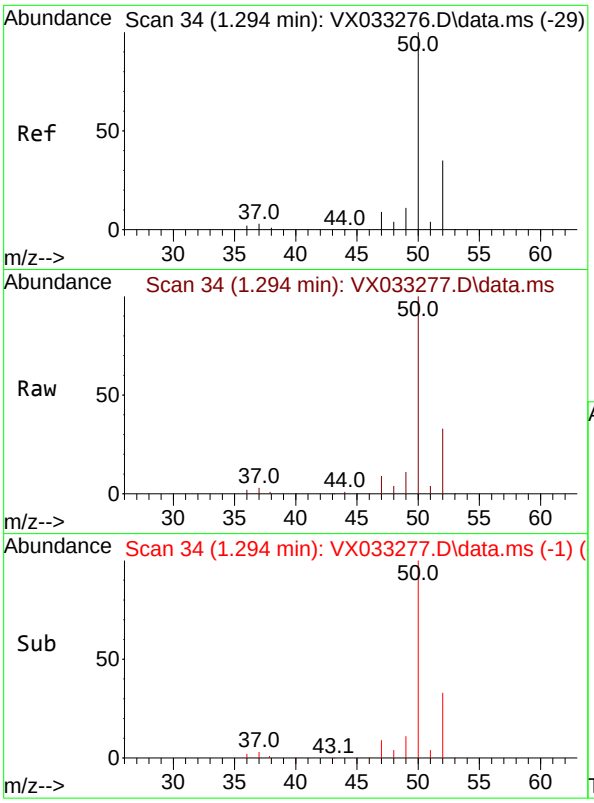



#2
Dichlorodifluoromethane
Concen: 90.376 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 85 Resp: 113964

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.5 | 15.6 | 46.7 |

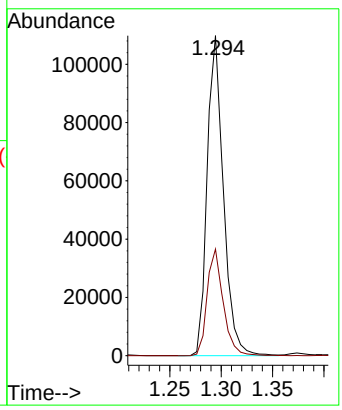





#3
Chloromethane
Concen: 88.636 ug/l
RT: 1.294 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 50 Resp: 12066

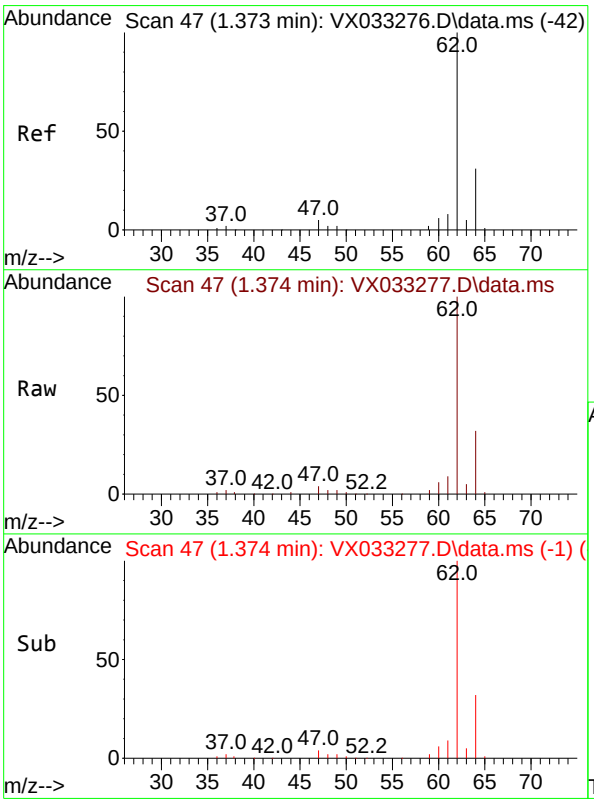
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.3 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

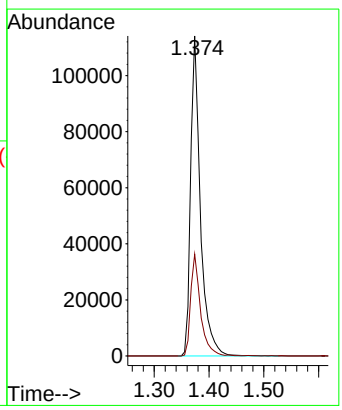
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

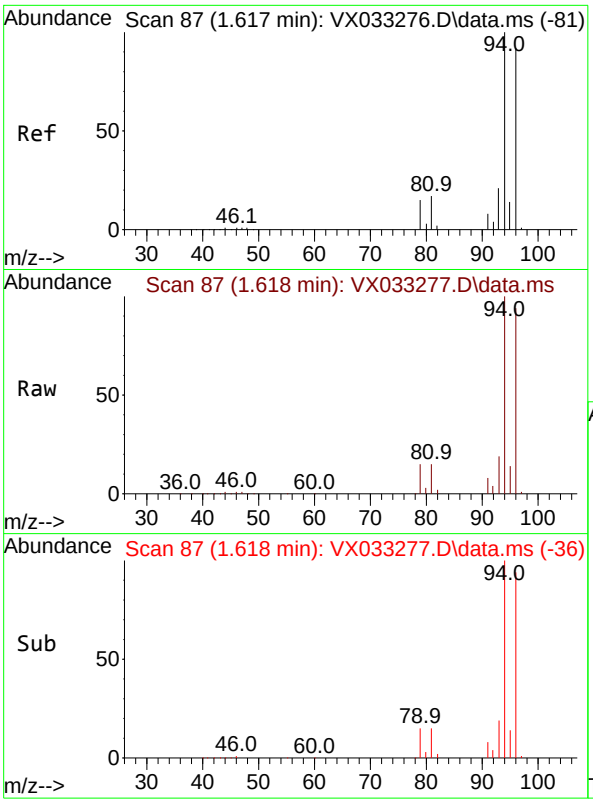



#4
Vinyl Chloride
Concen: 93.376 ug/l
RT: 1.374 min Scan# 47
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 62 Resp: 141536

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.8 | 25.8 | 38.6 |






#5
Bromomethane
Concen: 91.668 ug/l
RT: 1.618 min Scan# 8
Delta R.T. 0.013 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

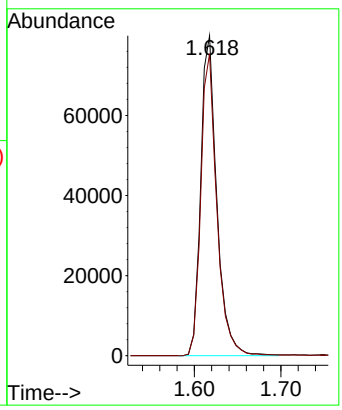
Tgt Ion: 94 Resp: 10303

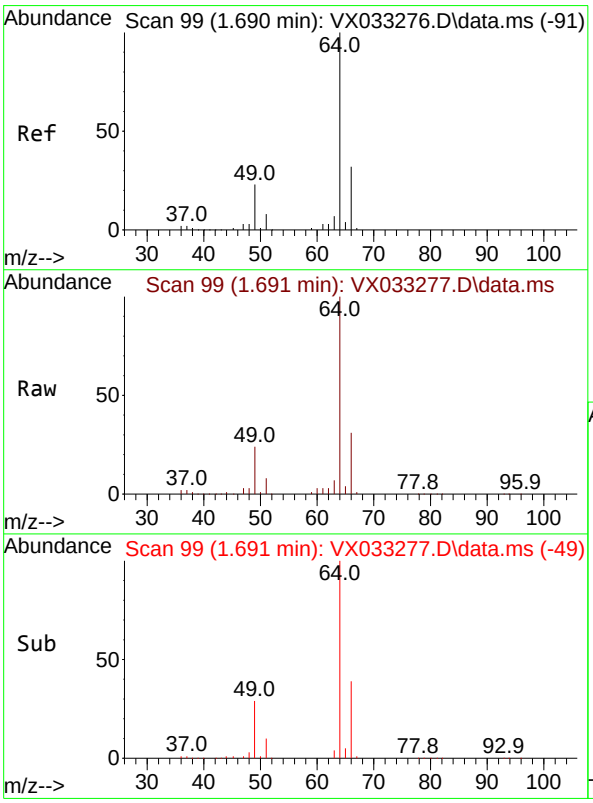
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 94.4 | 77.6 | 116.4 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

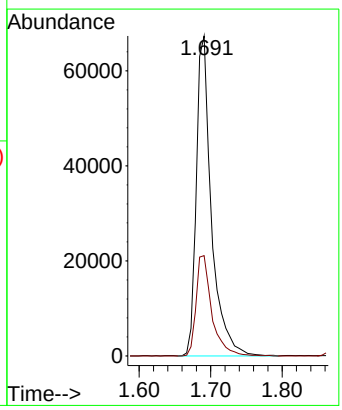


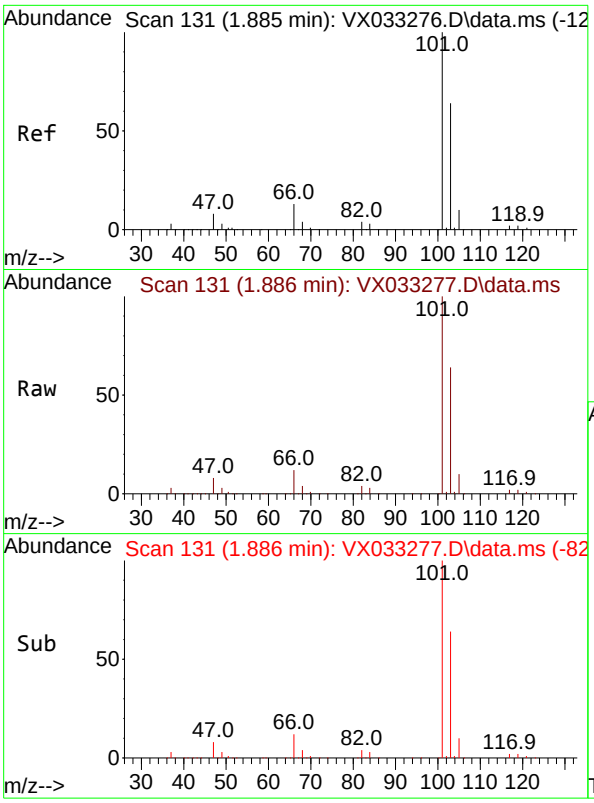




#6
Chloroethane
Concen: 79.790 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 64 Resp: 98459

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 31.3 | 26.0 | 39.0 |

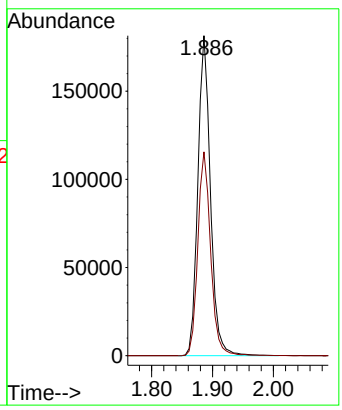





#7
Trichlorofluoromethane
Concen: 88.522 ug/l
RT: 1.886 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:101 Resp: 26041

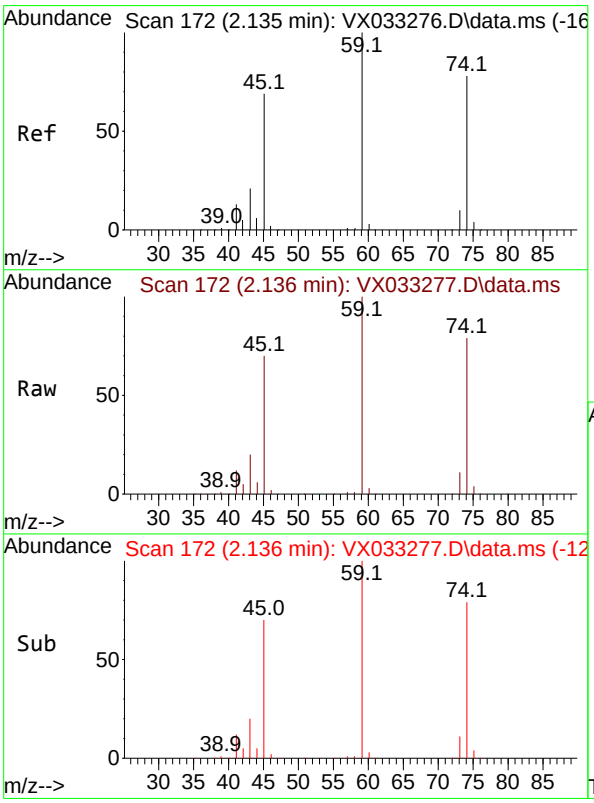
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.7 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

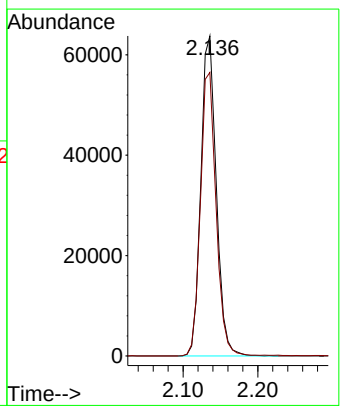
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

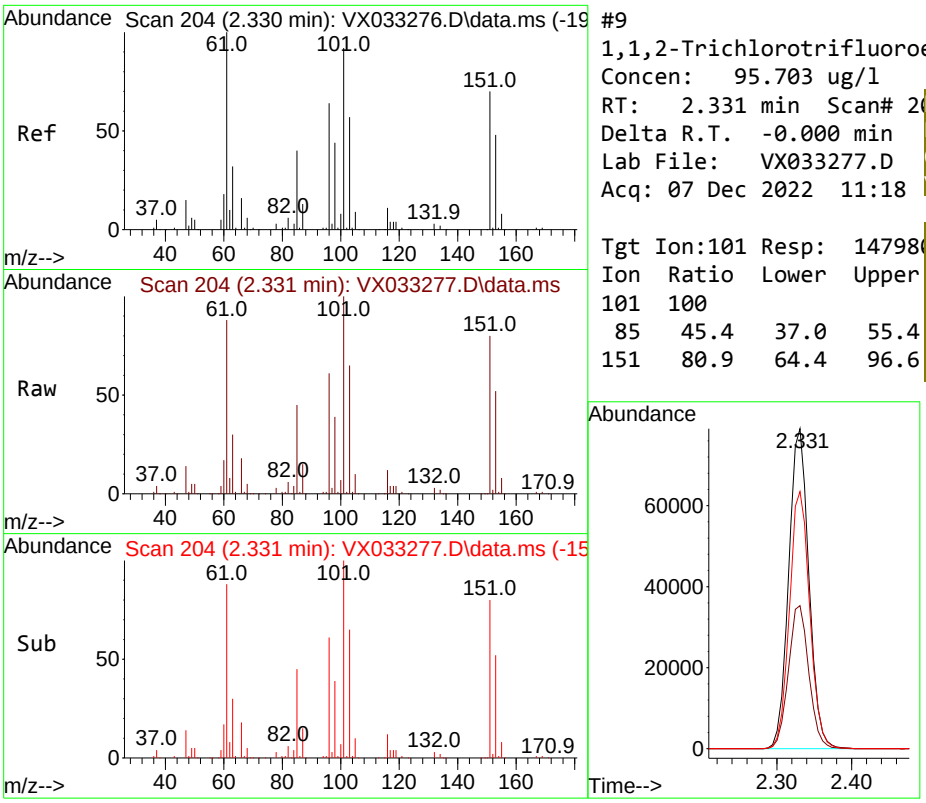



#8
Diethyl Ether
Concen: 98.713 ug/l
RT: 2.136 min Scan# 172
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 74 Resp: 91426

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 90.4 | 46.6 | 139.7 |






#9
1,1,2-Trichlorotrifluoroethane
Concen: 95.703 ug/l
RT: 2.331 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:101 Resp: 14798

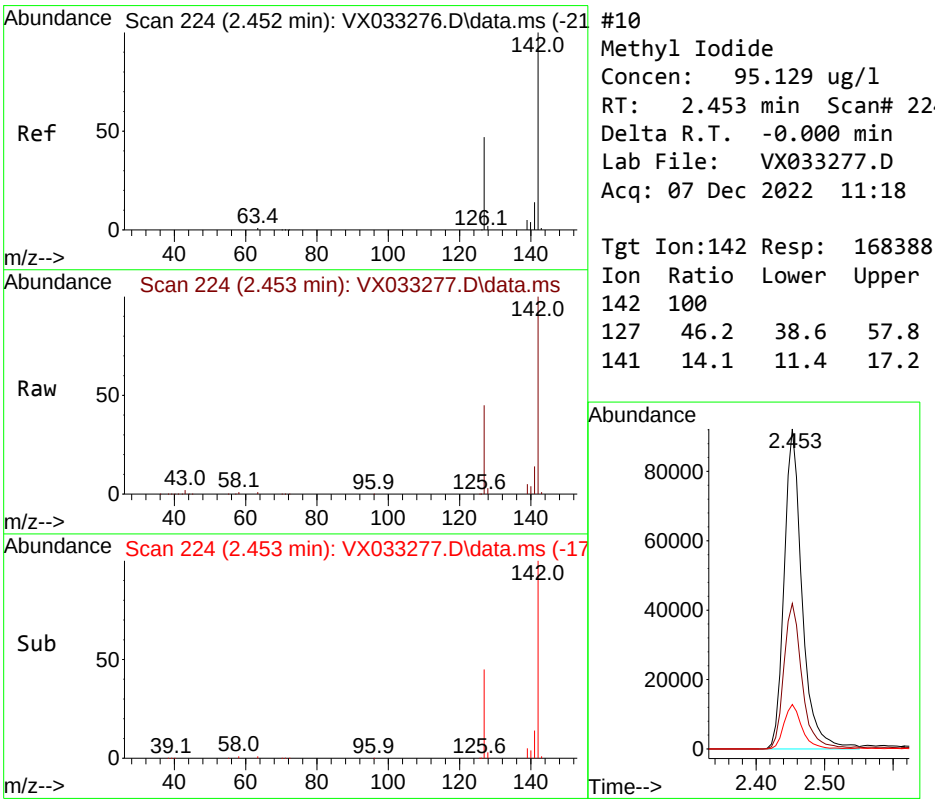
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.4 | 37.0 | 55.4 |
| 151 | 80.9 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

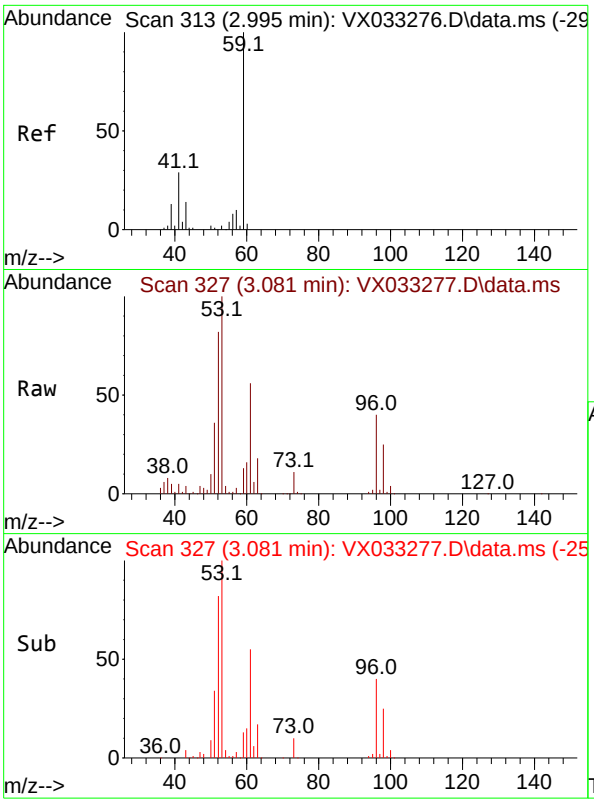
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#10
Methyl Iodide
Concen: 95.129 ug/l
RT: 2.453 min Scan# 224
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:142 Resp: 168388

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 46.2 | 38.6 | 57.8 |
| 141 | 14.1 | 11.4 | 17.2 |




#11
Tert butyl alcohol
Concen: 600.649 ug/l m
RT: 3.081 min Scan# 3
Delta R.T. 0.116 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

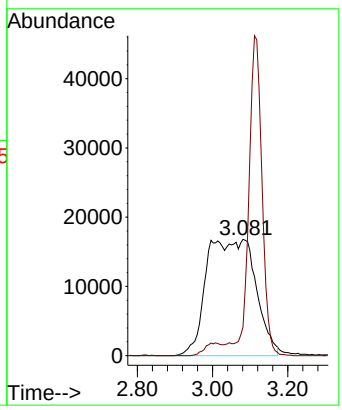
Tgt Ion: 59 Resp: 15304

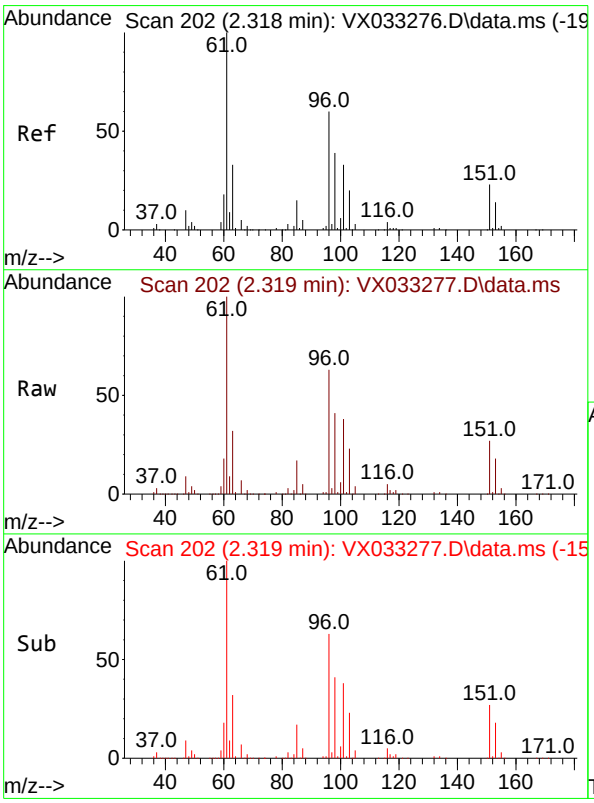
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 3.8 | 8.2 | 12.4 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

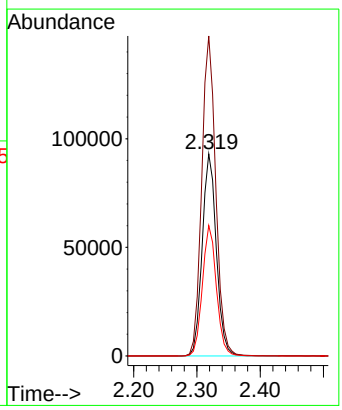


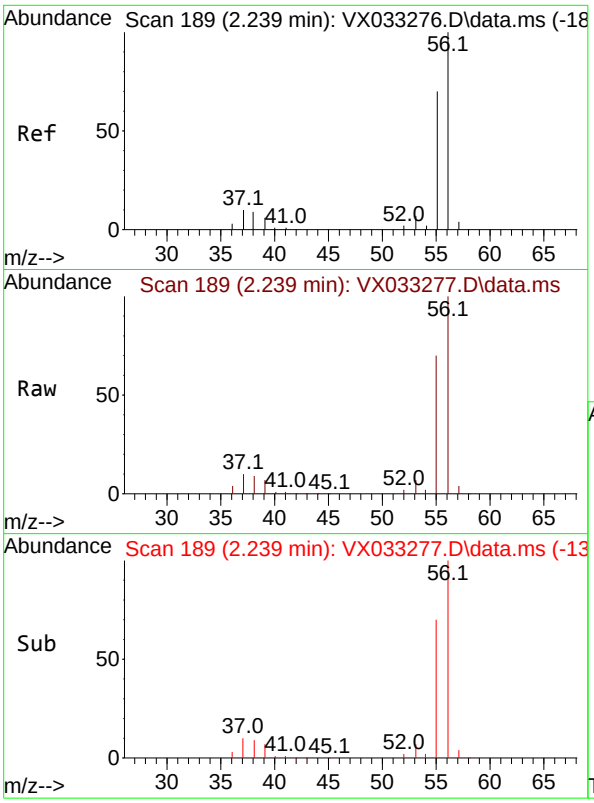




#12
1,1-Dichloroethene
Concen: 100.637 ug/l
RT: 2.319 min Scan# 202
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 96 Resp: 144956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 158.4 | 125.1 | 187.7 |
| 98 | 64.5 | 50.6 | 76.0 |

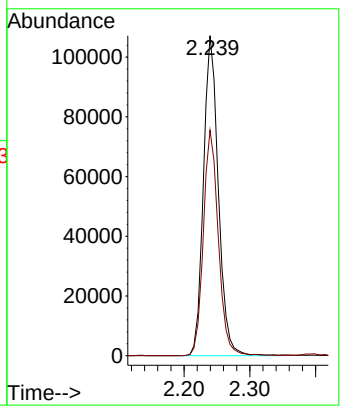





#13
Acrolein
Concen: 577.055 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 56 Resp: 16889

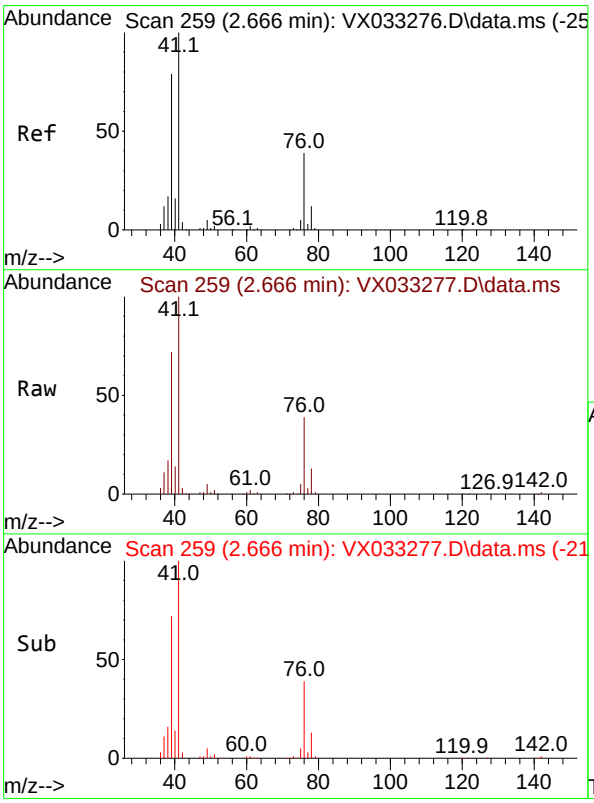
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.8 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

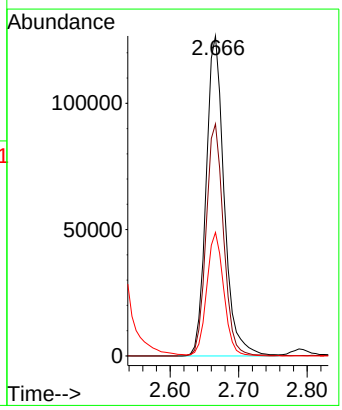
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

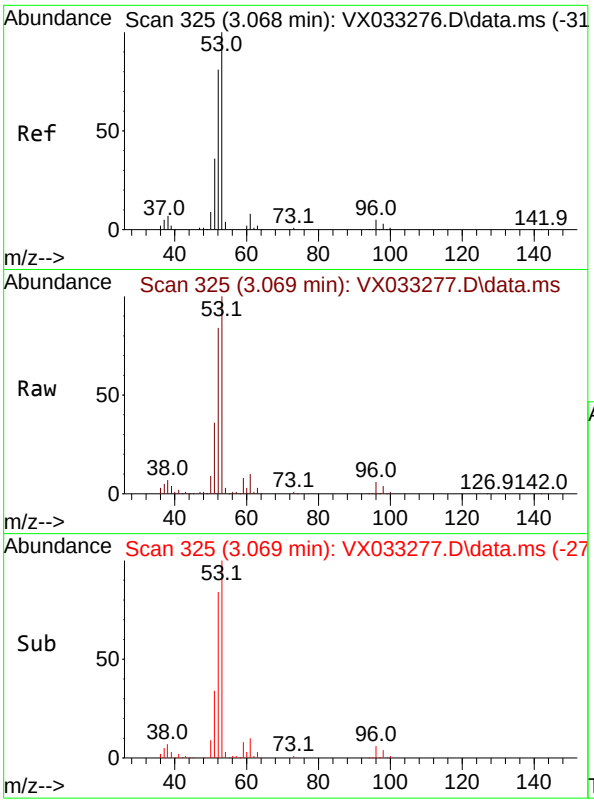



#14
Allyl chloride
Concen: 99.594 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 41 Resp: 231599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 70.0 | 61.4 | 92.2 |
| 76 | 36.5 | 29.2 | 43.8 |

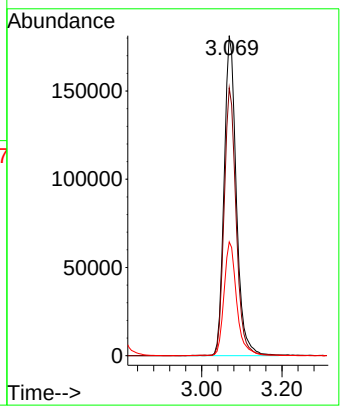





#15
Acrylonitrile
Concen: 533.084 ug/l
RT: 3.069 min Scan# 3
Delta R.T. 0.007 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 53 Resp: 38419

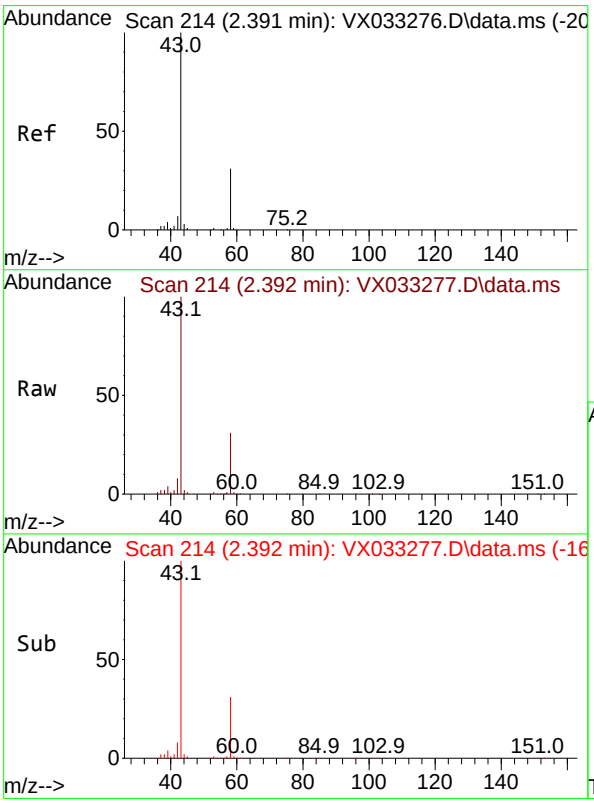
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 82.5 | 67.4 | 101.0 |
| 51 | 36.9 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

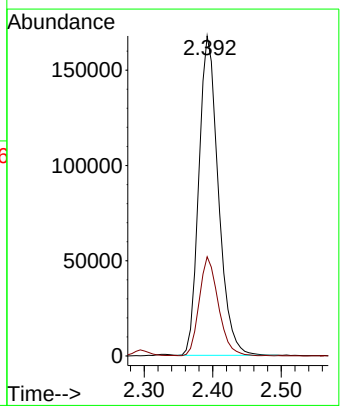
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

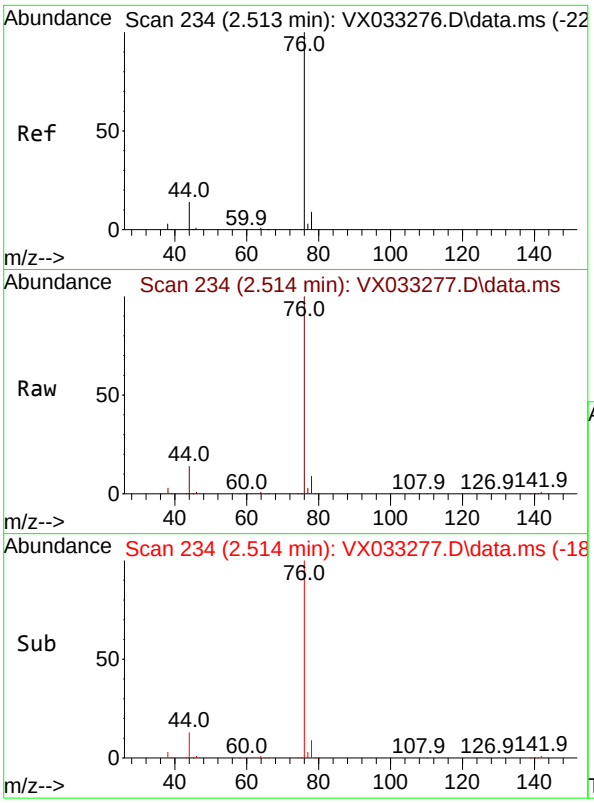



#16
Acetone
Concen: 442.372 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.012 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 332080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.0 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 93.405 ug/l
RT: 2.514 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

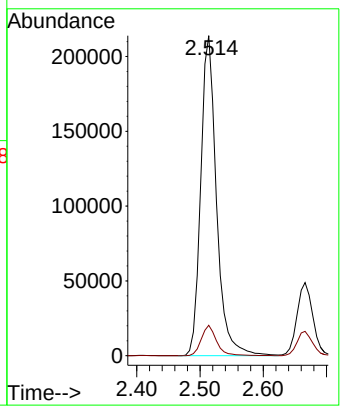
Tgt Ion: 76 Resp: 37170

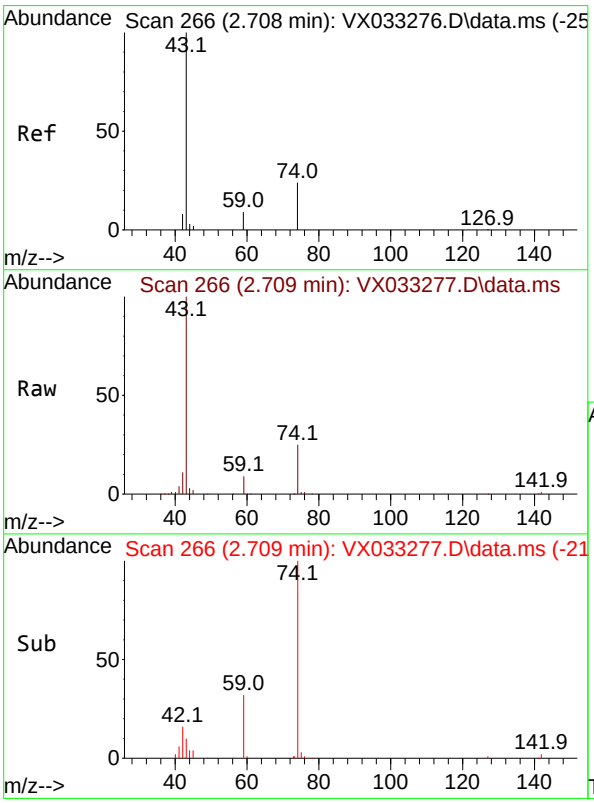
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.5 | 7.5 | 11.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

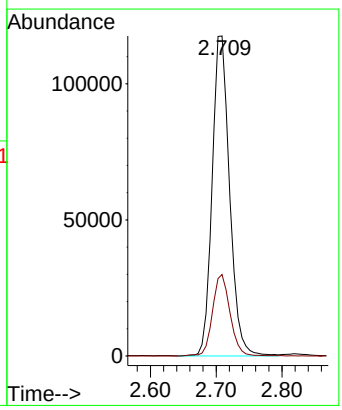


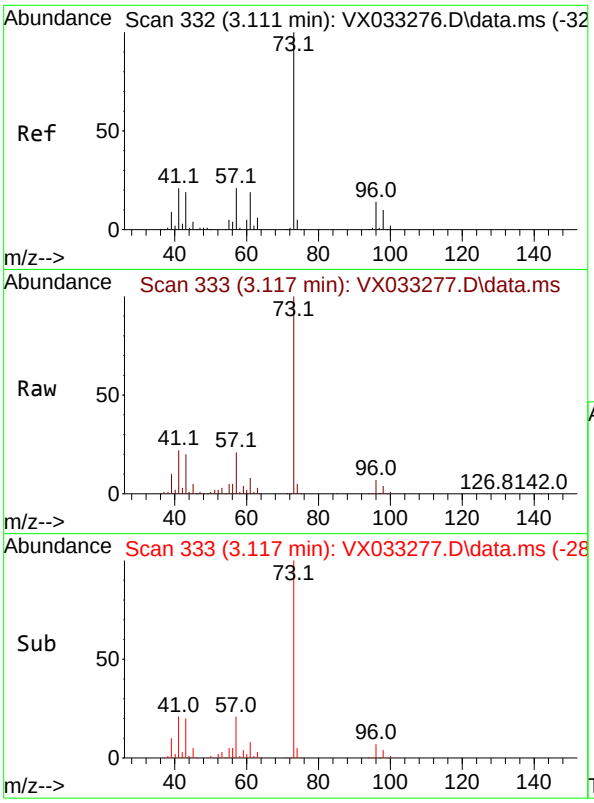




#18
Methyl Acetate
Concen: 104.676 ug/l
RT: 2.709 min Scan# 266
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 217517

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.6 | 19.4 | 29.0 |

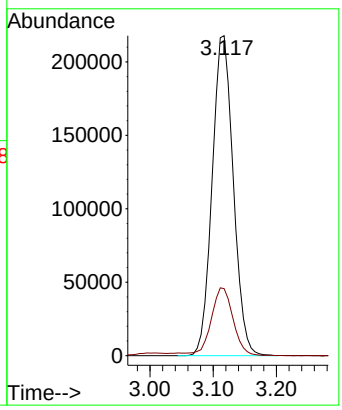





#19
Methyl tert-butyl Ether
Concen: 101.037 ug/l
RT: 3.117 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 73 Resp: 50471

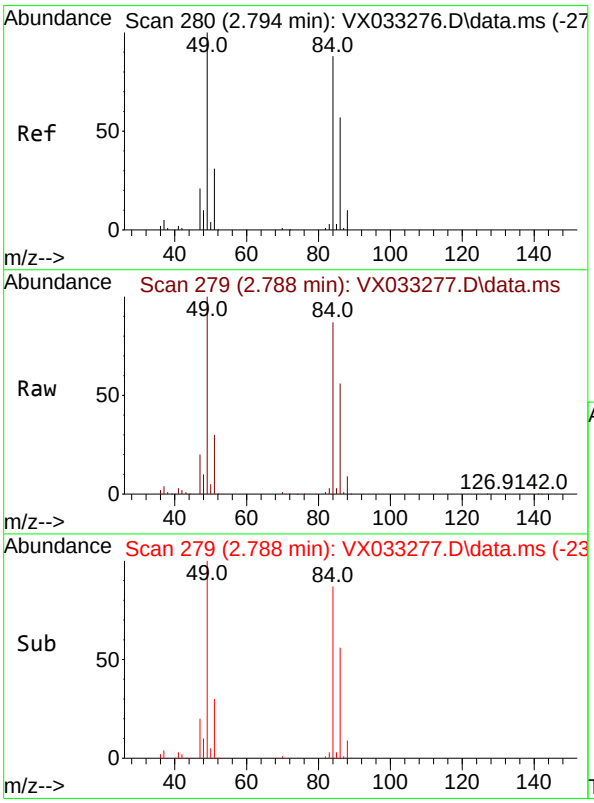
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 20.9 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

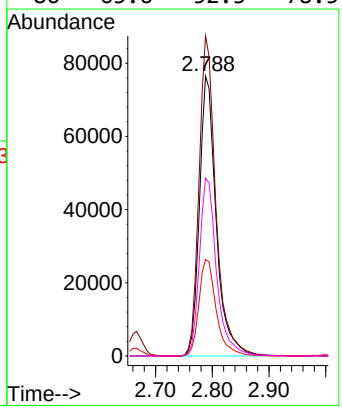
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

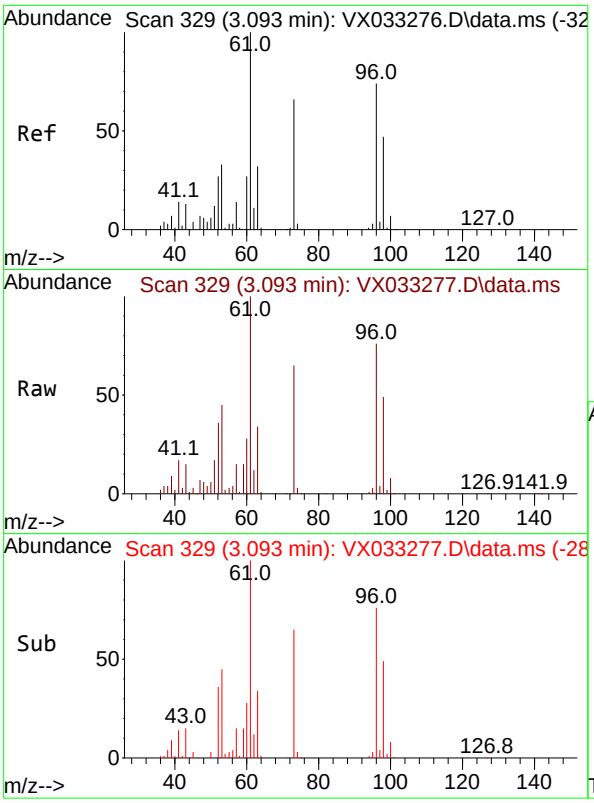



#20
Methylene Chloride
Concen: 87.090 ug/l
RT: 2.788 min Scan# 279
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 84 Resp: 157499

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 114.4 | 101.0 | 151.6 |
| 51 | 34.4 | 31.1 | 46.7 |
| 86 | 63.6 | 52.3 | 78.5 |

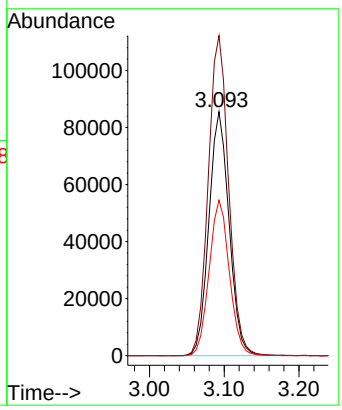





#21
trans-1,2-Dichloroethene
Concen: 97.643 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 96 Resp: 16088

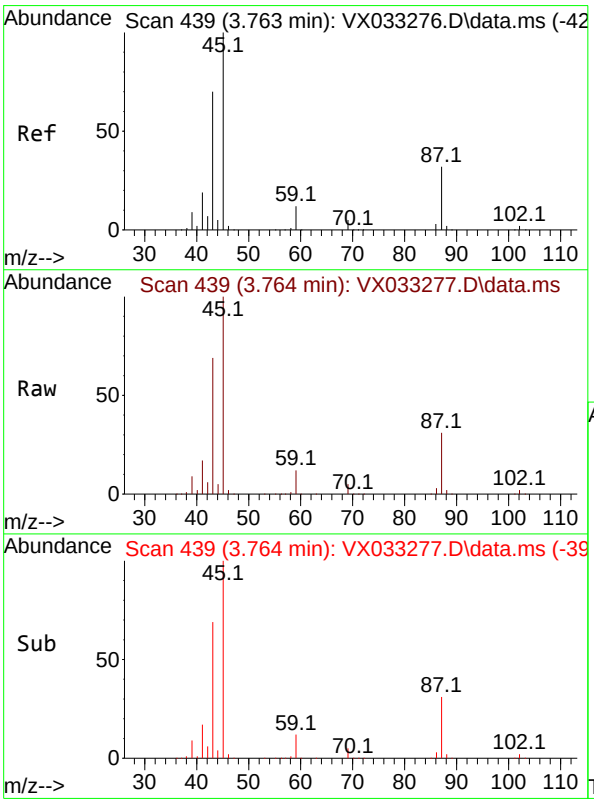
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 131.1 | 106.6 | 160.0 |
| 98 | 63.7 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

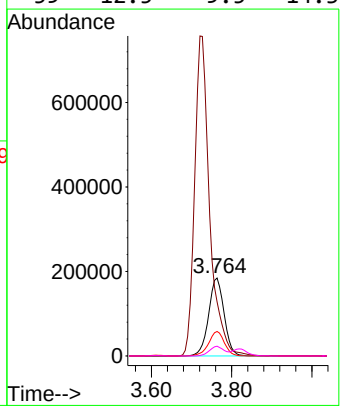
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

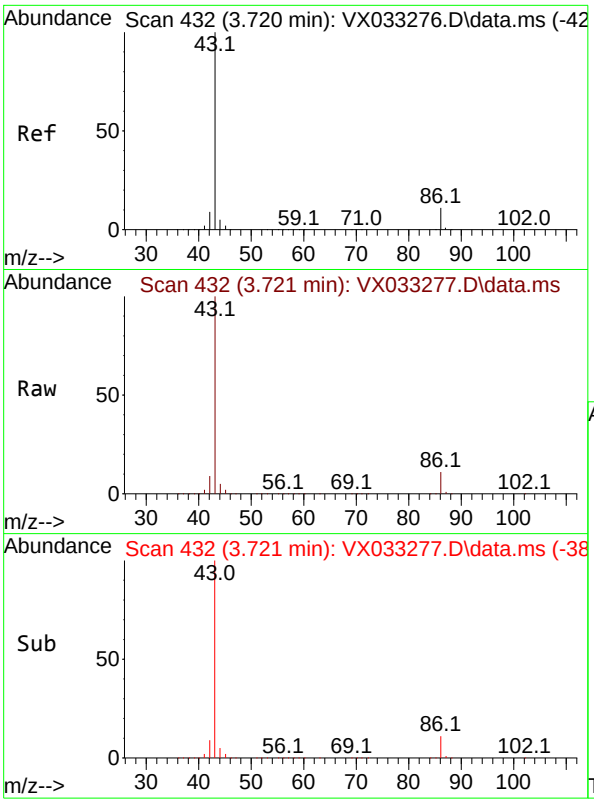



#22
Diisopropyl ether
Concen: 97.699 ug/l
RT: 3.764 min Scan# 439
Delta R.T. 0.001 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 45 Resp: 494701

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 69.3 | 56.4 | 84.6 |
| 87 | 31.5 | 24.4 | 36.6 |
| 59 | 12.5 | 9.5 | 14.3 |

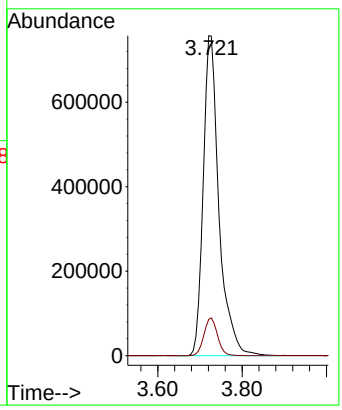





#23
Vinyl Acetate
Concen: 496.095 ug/l
RT: 3.721 min Scan# 4
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 196631

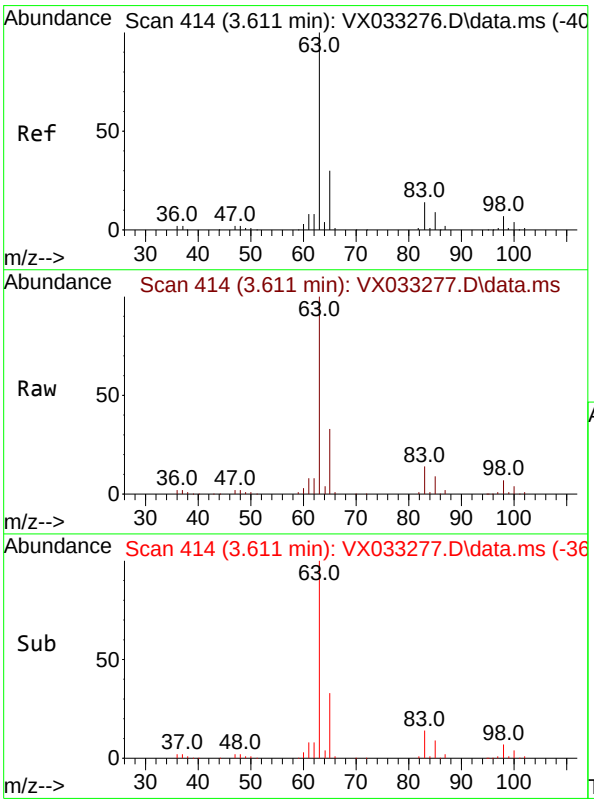
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.4 | 8.6 | 12.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

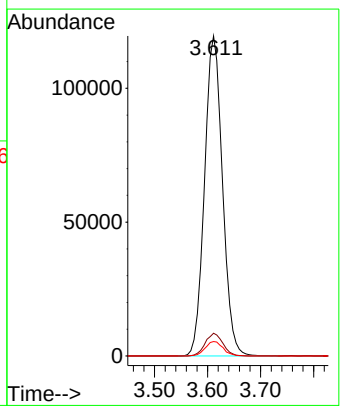
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

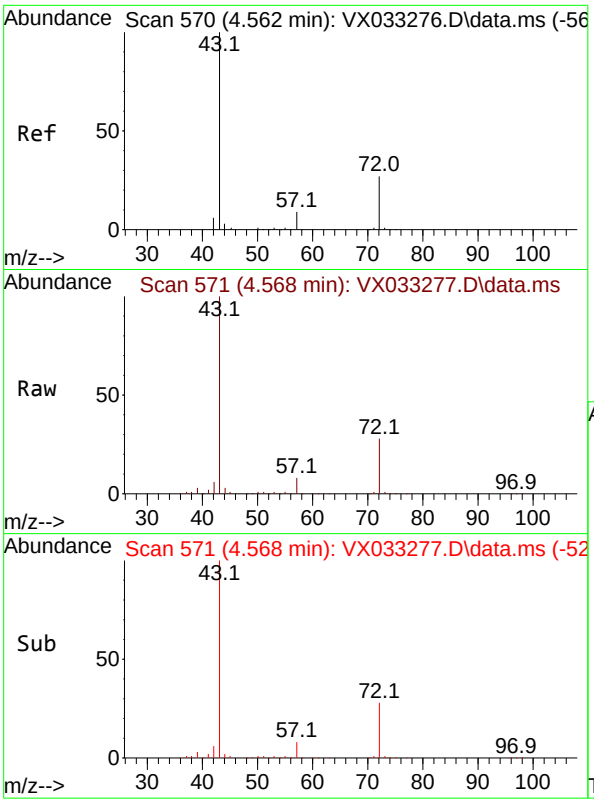



#24
1,1-Dichloroethane
Concen: 96.987 ug/l
RT: 3.611 min Scan# 414
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 63 Resp: 281027

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 7.1 | 3.5 | 10.4 |
| 100 | 4.5 | 2.3 | 6.8 |

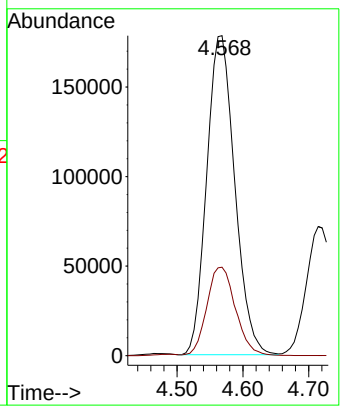





#25
2-Butanone
Concen: 511.283 ug/l
RT: 4.568 min Scan# 5
Delta R.T. 0.012 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 52924

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 27.5 | 22.2 | 33.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

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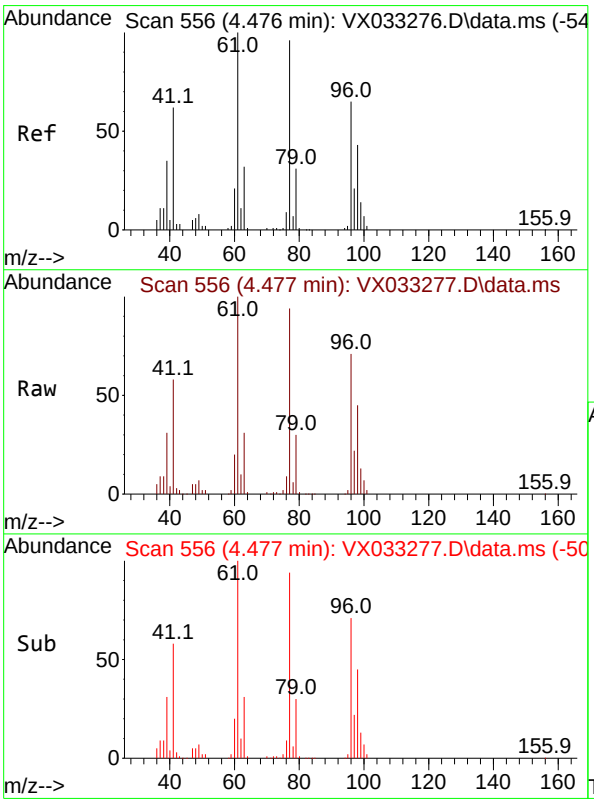
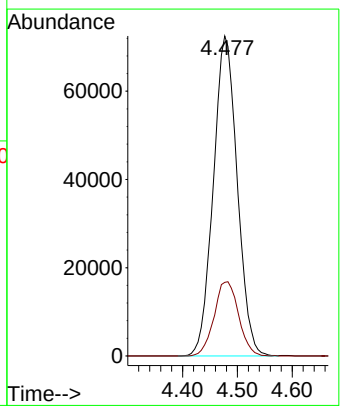
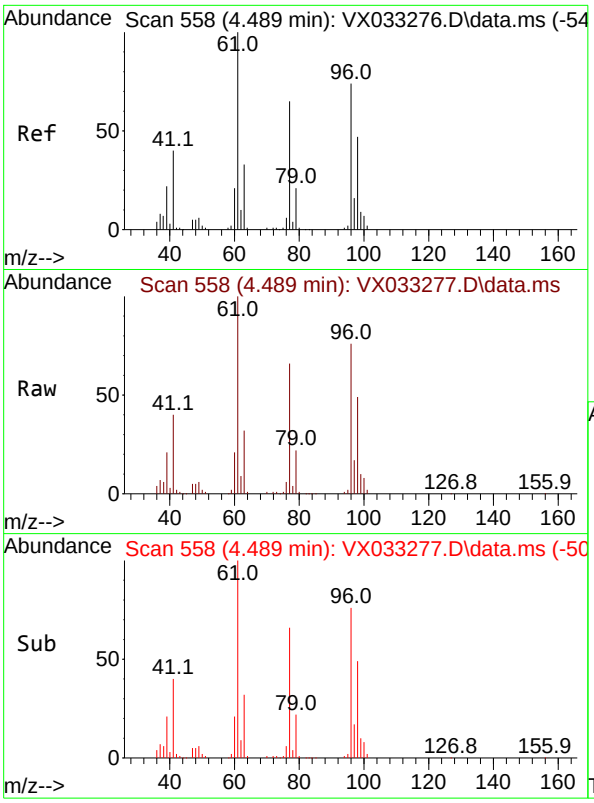



#26
2,2-Dichloropropane
Concen: 94.433 ug/l
RT: 4.477 min Scan# 556
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 77 Resp: 220013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 23.7 | 11.4 | 34.1 |






#27
cis-1,2-Dichloroethene
Concen: 101.740 ug/l
RT: 4.489 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

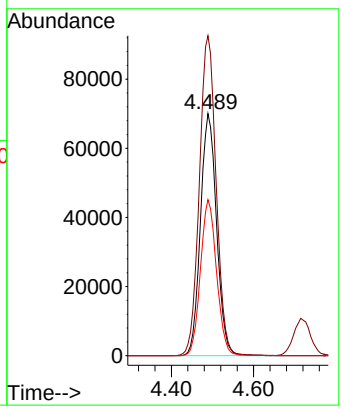
Tgt Ion: 96 Resp: 19045

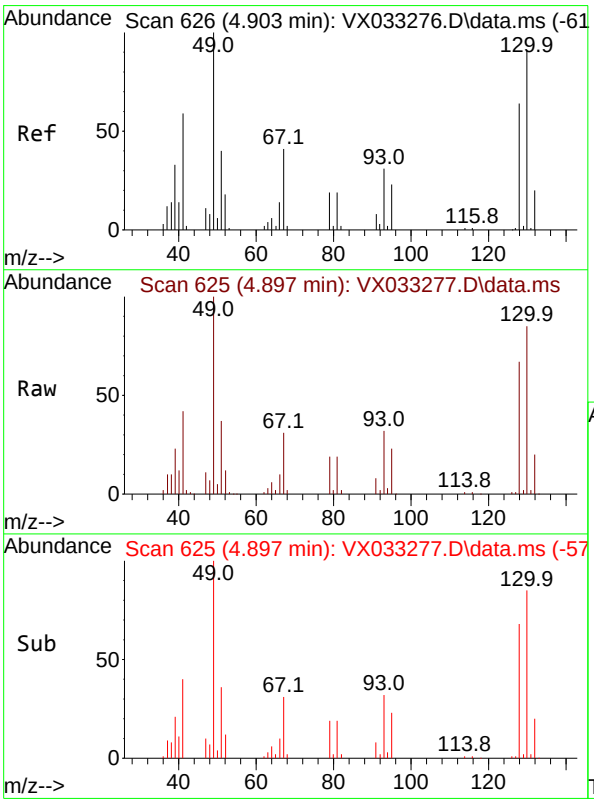
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 137.6 | 0.0 | 286.0 |
| 98 | 64.3 | 0.0 | 129.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

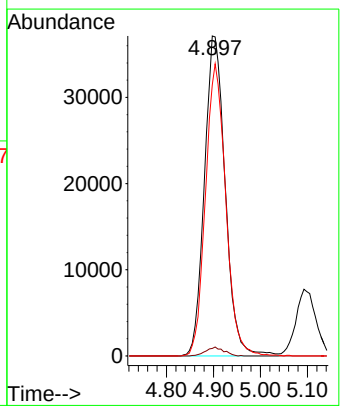


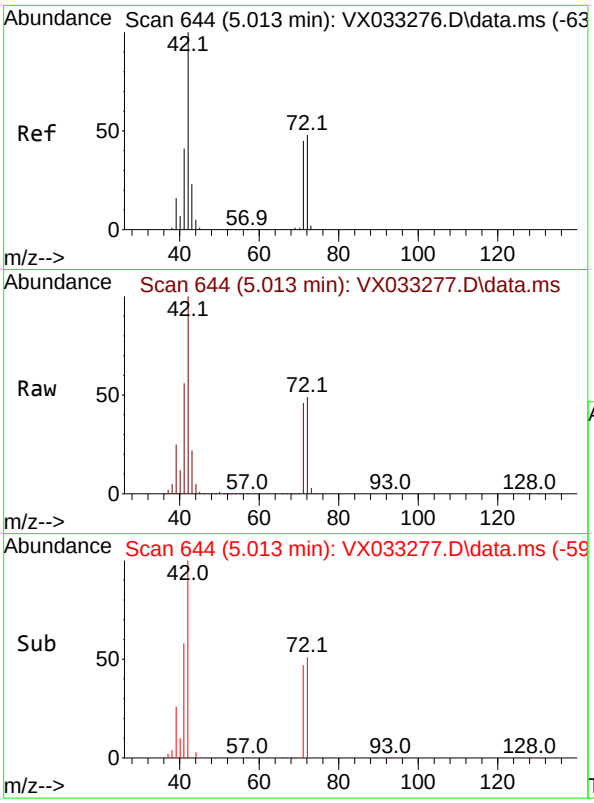




#28
Bromochloromethane
Concen: 89.540 ug/l
RT: 4.897 min Scan# 625
Delta R.T. -0.007 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 49 Resp: 114001

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.4 | 0.0 | 3.8 |
| 130 | 89.1 | 67.5 | 101.3 |

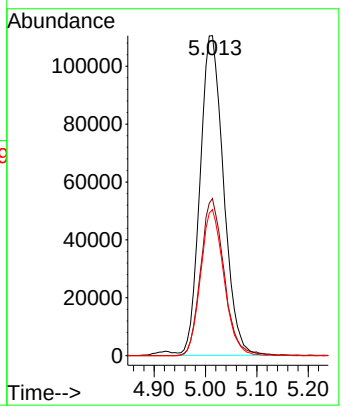





#29
Tetrahydrofuran
Concen: 533.548 ug/l
RT: 5.013 min Scan# 64
Delta R.T. 0.012 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 42 Resp: 35045

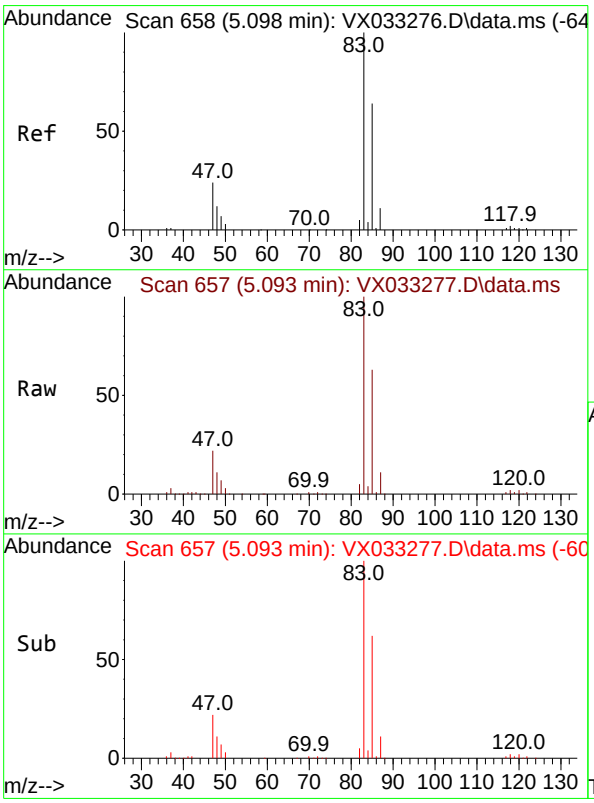
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 49.1 | 37.6 | 56.4 |
| 71 | 45.3 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

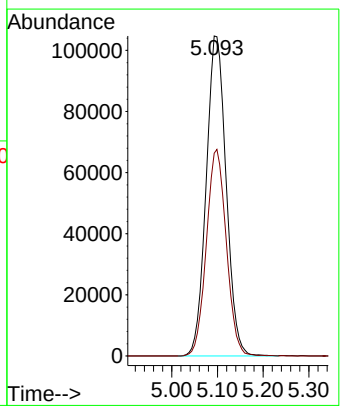
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

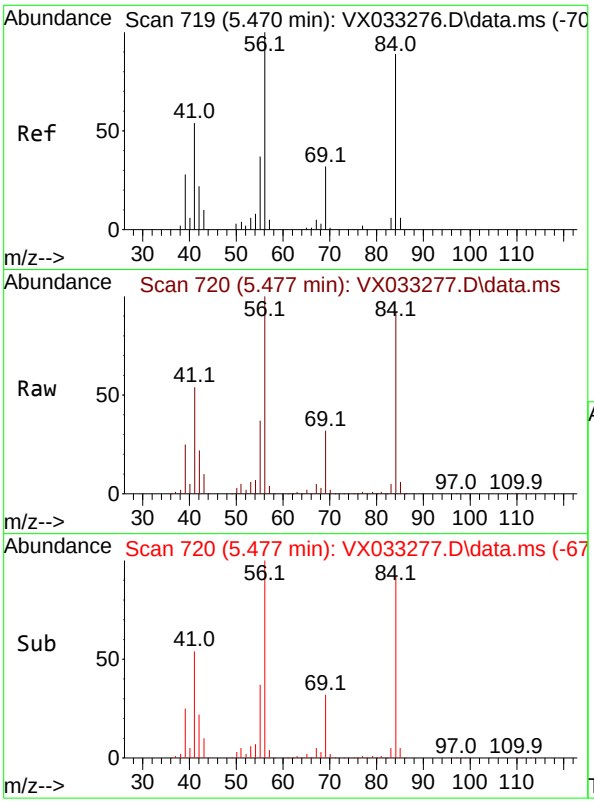



#30
Chloroform
Concen: 97.890 ug/l
RT: 5.093 min Scan# 657
Delta R.T. -0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 83 Resp: 317680

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 51.1 | 76.7 |

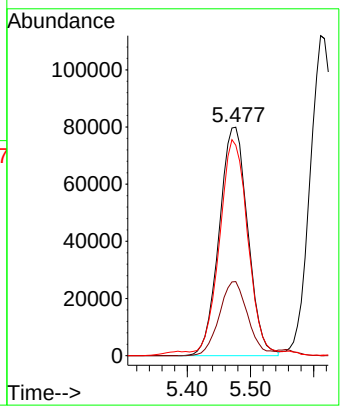





#31
Cyclohexane
Concen: 96.437 ug/l
RT: 5.477 min Scan# 7
Delta R.T. 0.007 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 56 Resp: 25116

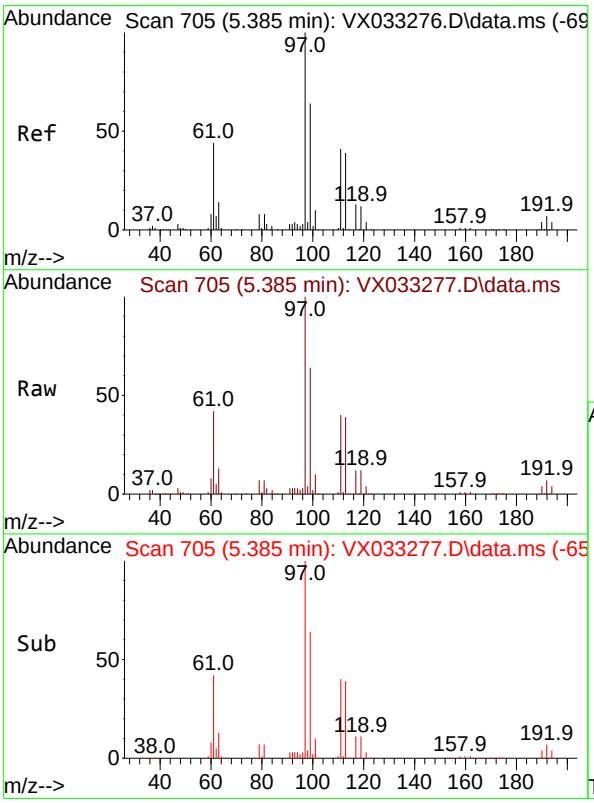
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 32.4 | 24.1 | 36.1 |
| 84 | 90.2 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

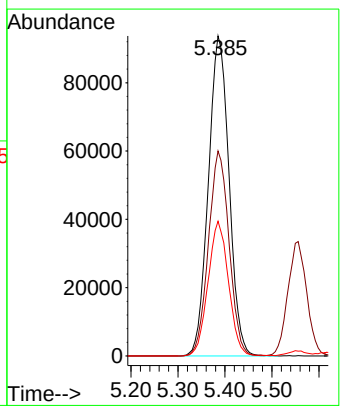
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

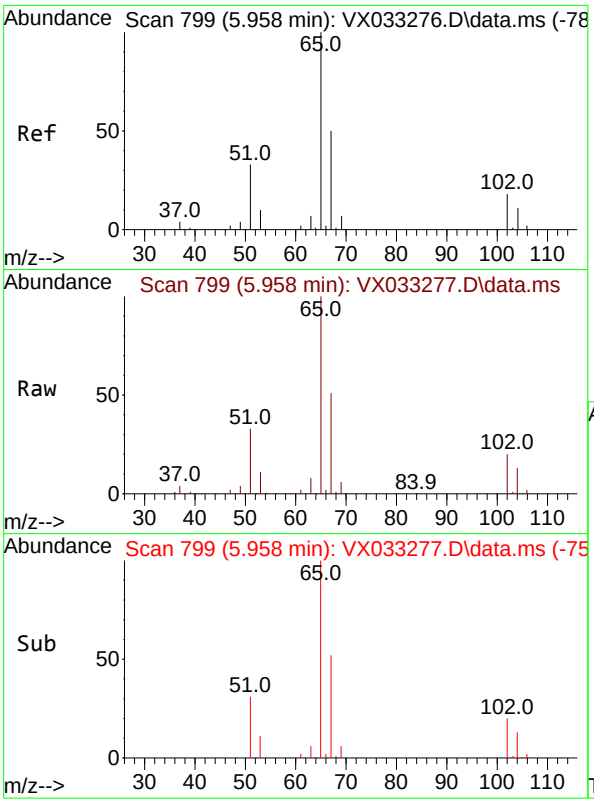



#32
1,1,1-Trichloroethane
Concen: 98.509 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 97 Resp: 286297

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.9 | 51.4 | 77.0 |
| 61 | 41.7 | 35.2 | 52.8 |






#33
1,2-Dichloroethane-d4
Concen: 51.808 ug/l
RT: 5.958 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

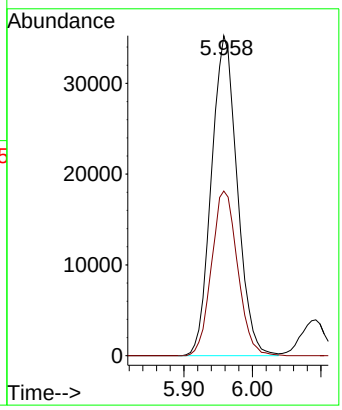
Tgt Ion: 65 Resp: 9211

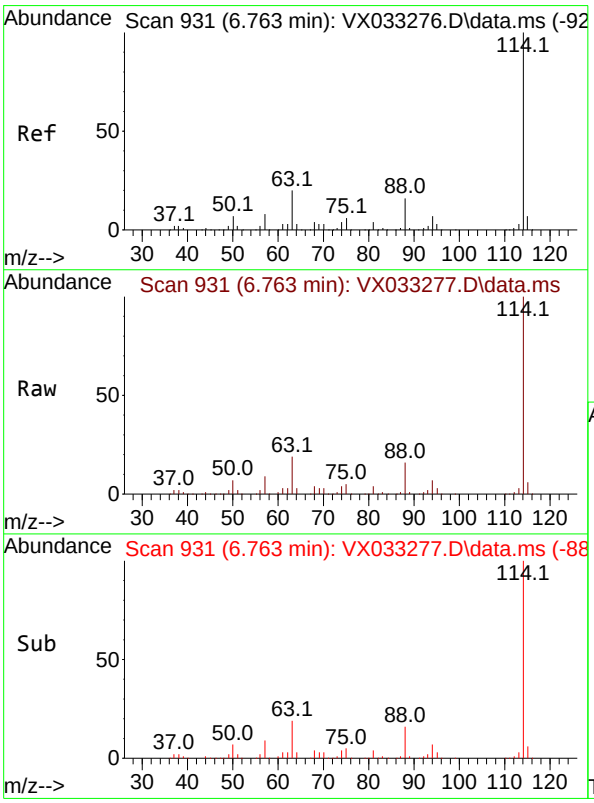
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 52.0 | 0.0 | 101.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

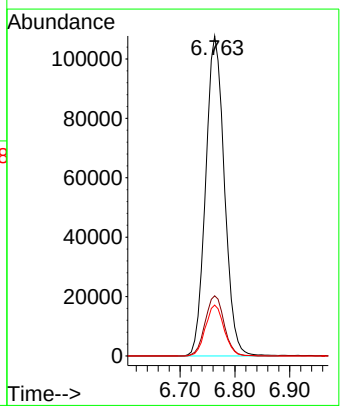


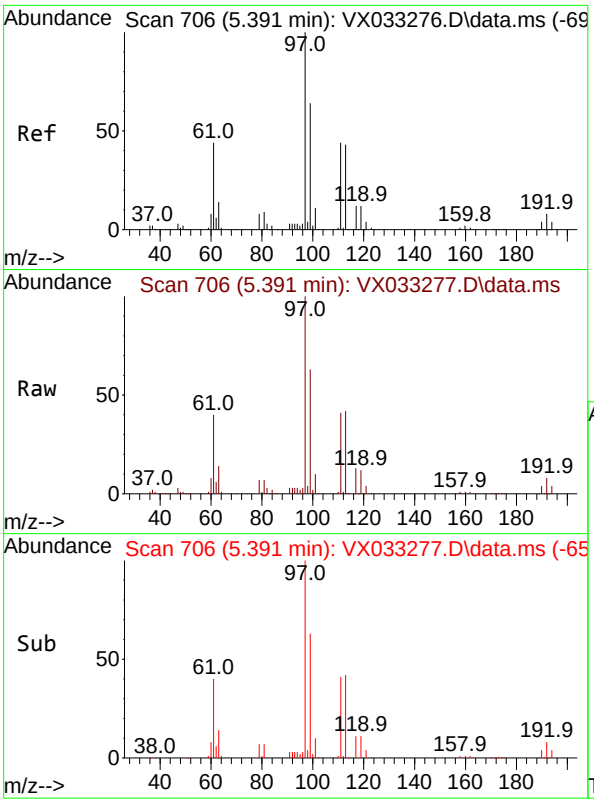




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:114 Resp: 255123

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 18.8 | 0.0 | 41.6 |
| 88 | 15.9 | 0.0 | 33.4 |

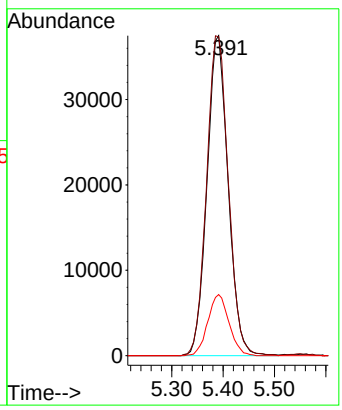





#35
Dibromofluoromethane
Concen: 74.342 ug/l
RT: 5.391 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:113 Resp: 10692

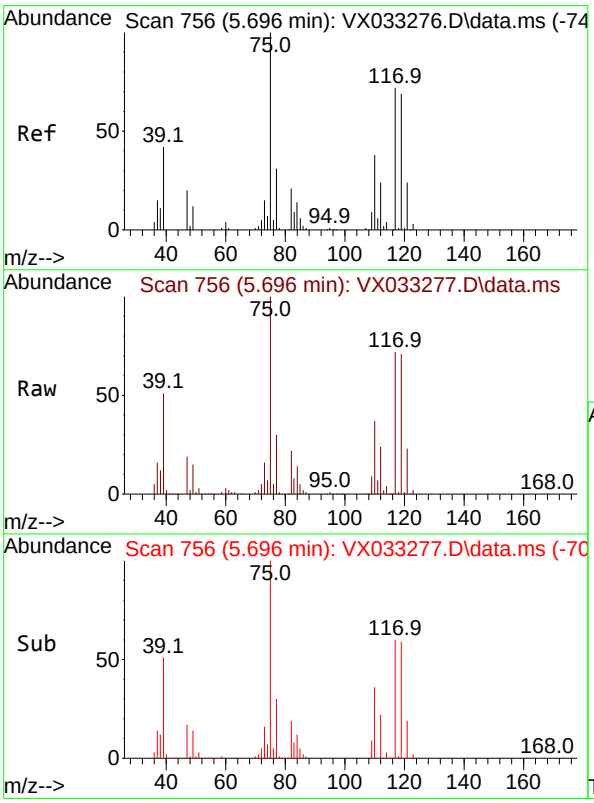
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 103.1 | 82.4 | 123.6 |
| 192 | 19.2 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

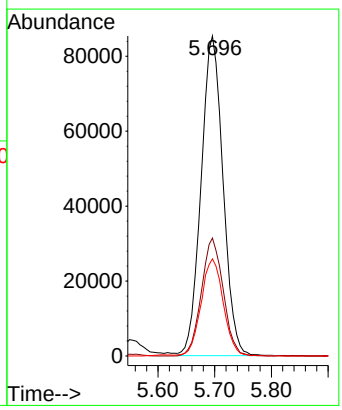
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

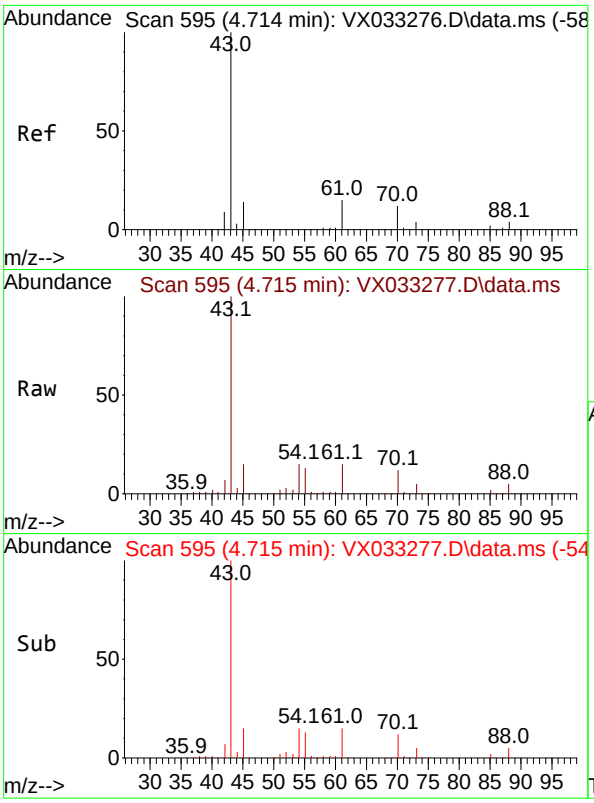



#36
1,1-Dichloropropene
Concen: 99.777 ug/l
RT: 5.696 min Scan# 756
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 229465

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 36.7 | 18.4 | 55.2 |
| 77 | 30.7 | 24.5 | 36.7 |

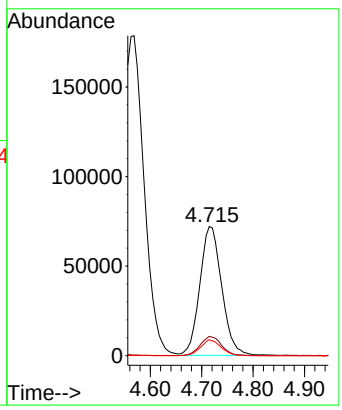





#37
Ethyl Acetate
Concen: 106.332 ug/l
RT: 4.715 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 21334

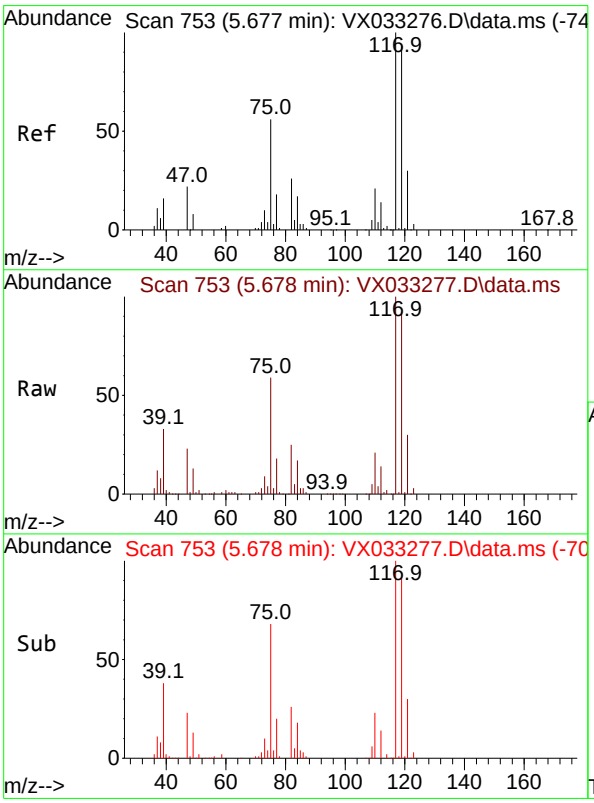
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.6 | 11.5 | 17.3 |
| 70 | 11.5 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

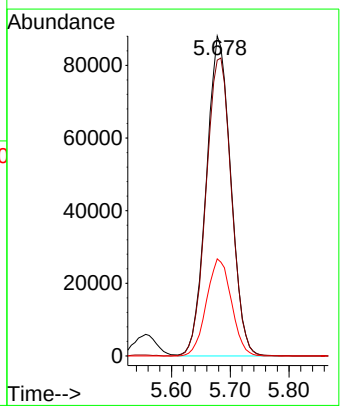
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

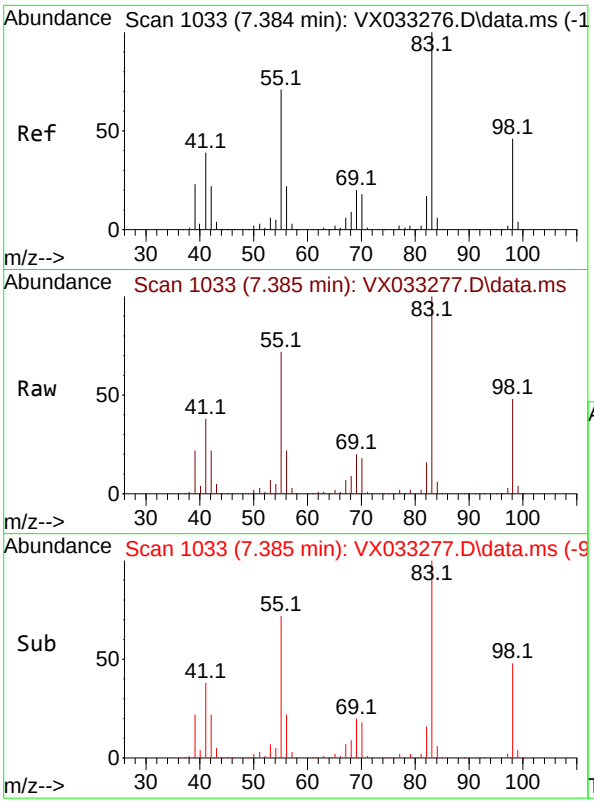



#38
Carbon Tetrachloride
Concen: 100.085 ug/l
RT: 5.678 min Scan# 753
Delta R.T. -0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:117 Resp: 255340

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 92.3 | 77.2 | 115.8 |
| 121 | 30.3 | 25.8 | 38.6 |

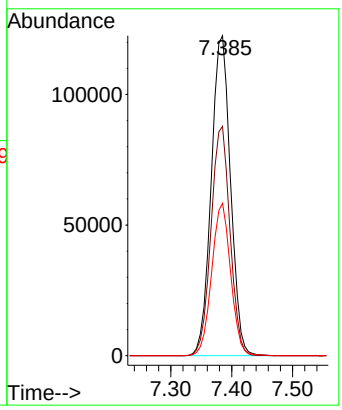





#39
Methylcyclohexane
Concen: 102.633 ug/l
RT: 7.385 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 83 Resp: 26930

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 71.7 | 58.4 | 87.6 |
| 98 | 47.6 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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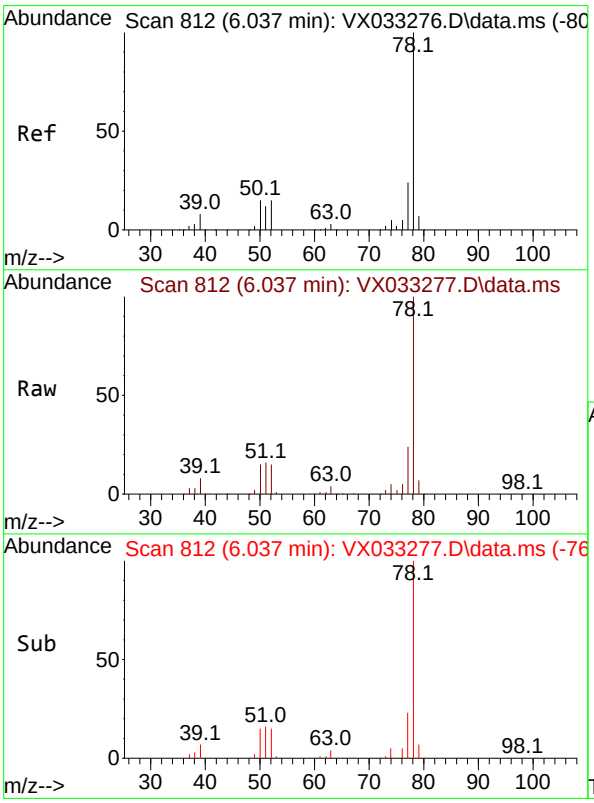
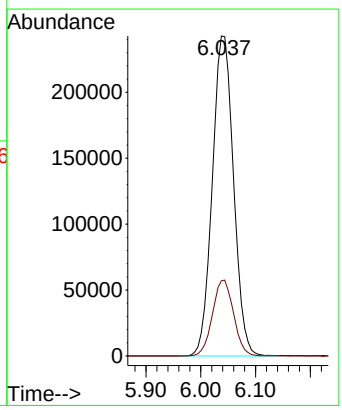
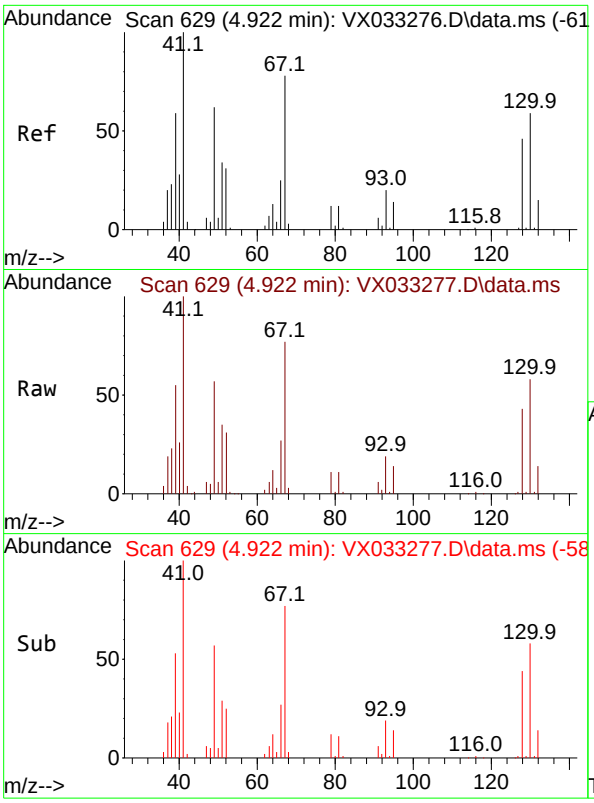



#40
Benzene
Concen: 101.314 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 78 Resp: 653275

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.5 | 19.0 | 28.4 |

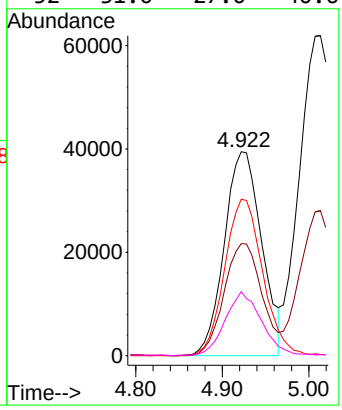





#41
Methacrylonitrile
Concen: 104.856 ug/l
RT: 4.922 min Scan# 6
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 41 Resp: 11838

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 55.4 | 47.5 | 71.3 |
| 67 | 78.1 | 60.5 | 90.7 |
| 52 | 31.0 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
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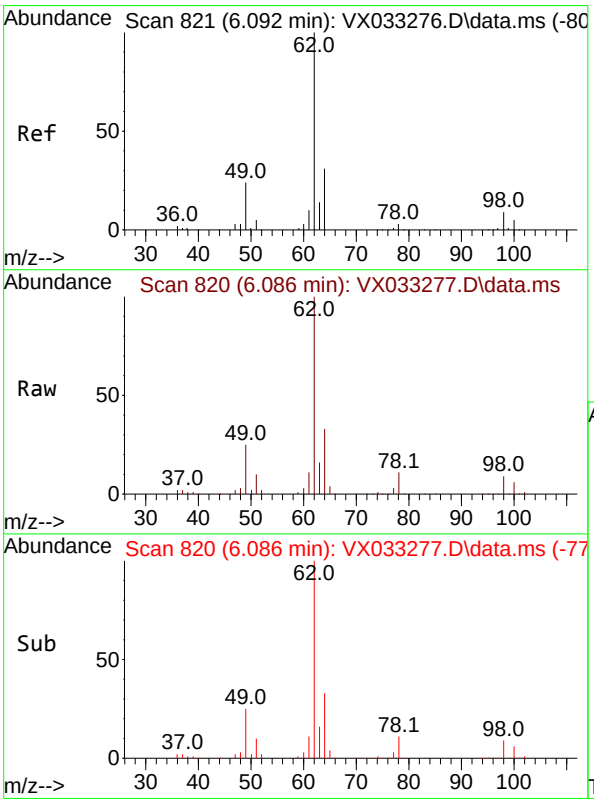
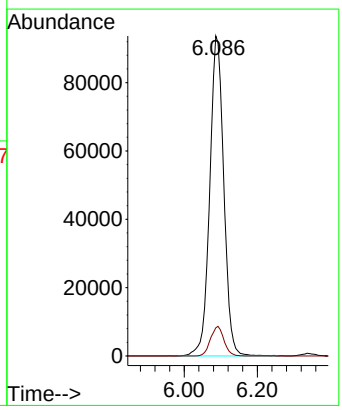
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

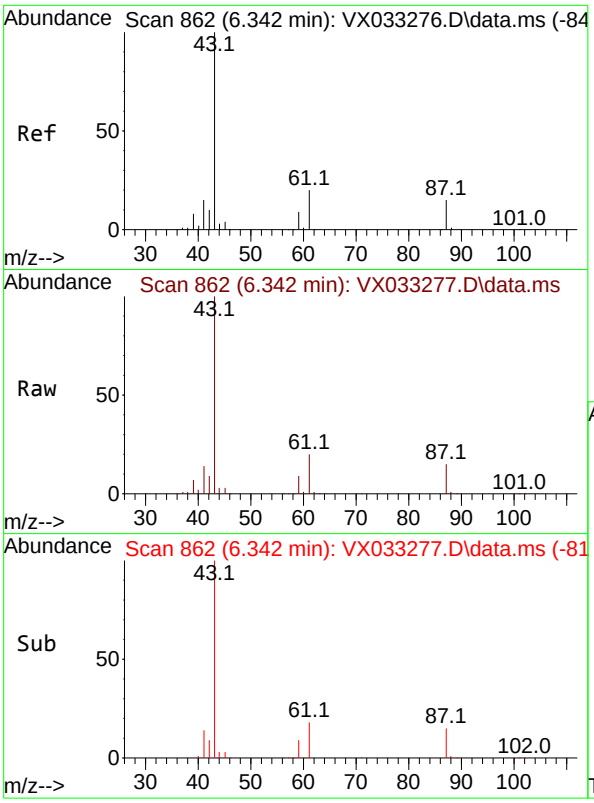



#42
1,2-Dichloroethane
Concen: 95.974 ug/l
RT: 6.086 min Scan# 820
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 62 Resp: 249168

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.9 | 0.0 | 16.0 |

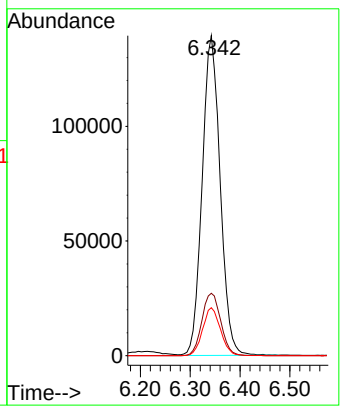





#43
Isopropyl Acetate
Concen: 105.360 ug/l
RT: 6.342 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 34960

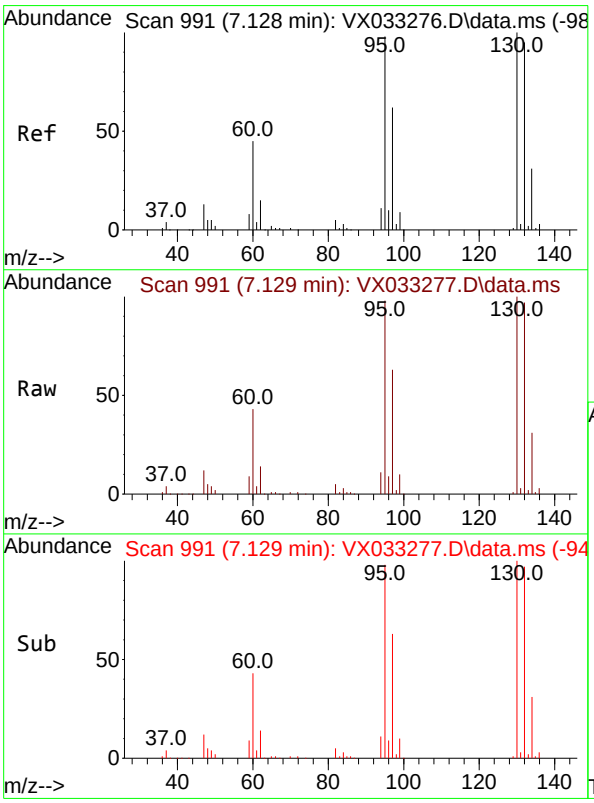
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 20.4 | 15.4 | 23.0 |
| 87 | 14.9 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

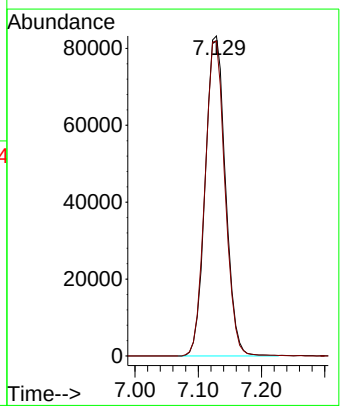
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

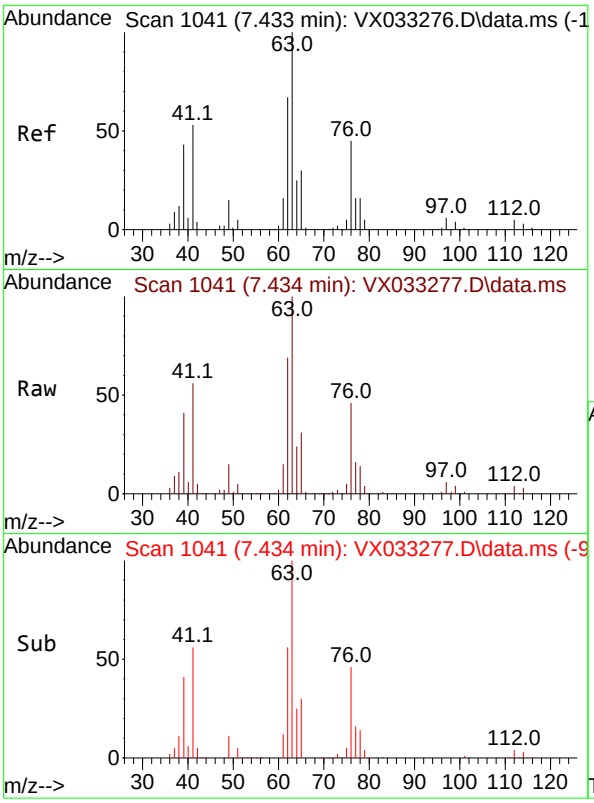



#44
Trichloroethene
Concen: 101.780 ug/l
RT: 7.129 min Scan# 991
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:130 Resp: 184157

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 98.3 | 0.0 | 195.2 |

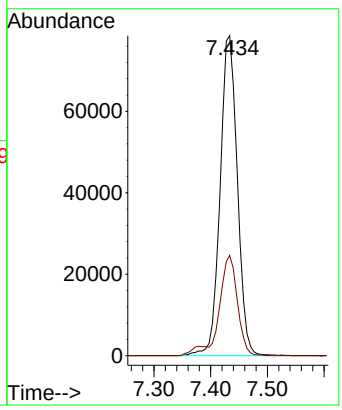





#45
1,2-Dichloropropane
Concen: 103.903 ug/l
RT: 7.434 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 63 Resp: 16557

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 31.3 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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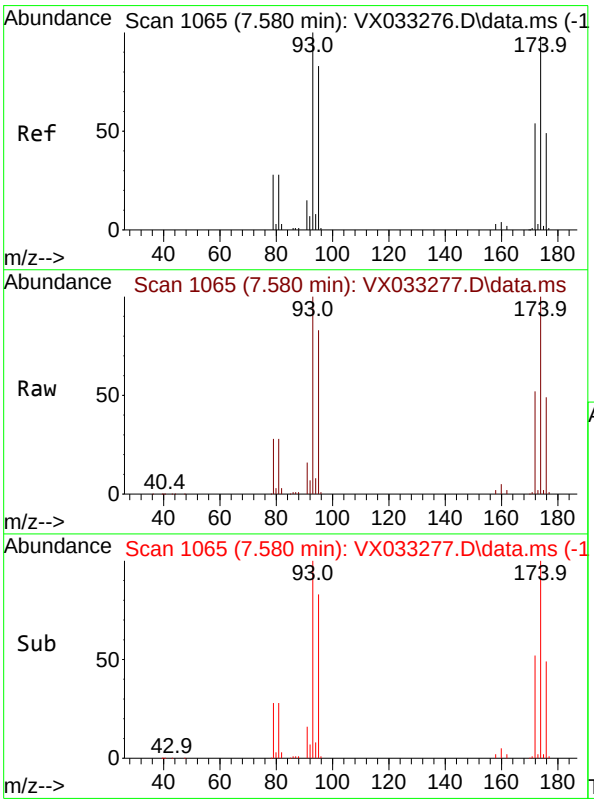
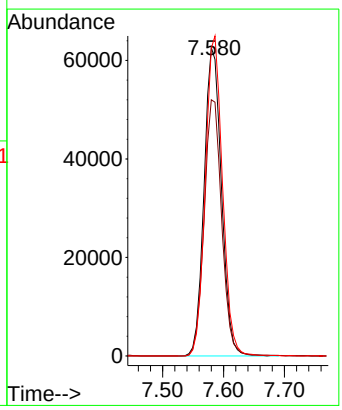
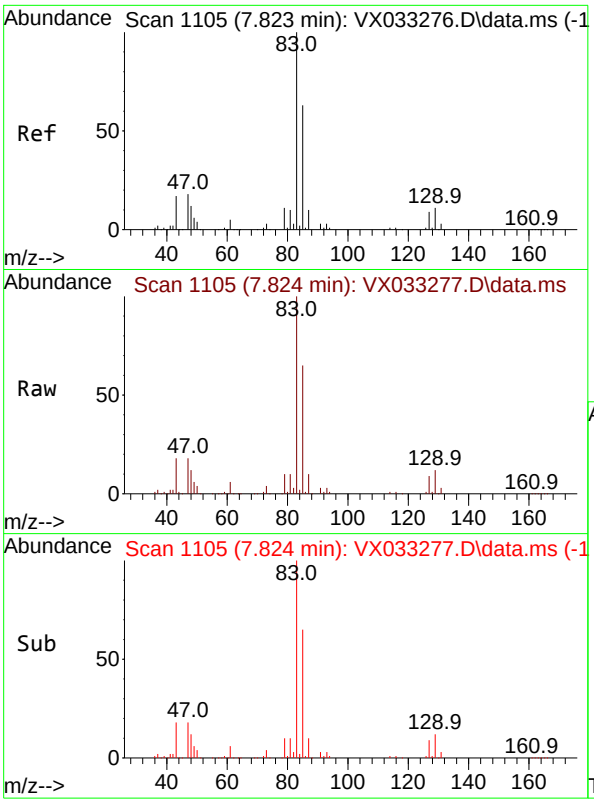



#46
Dibromomethane
Concen: 99.831 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 93 Resp: 124128

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 83.6 | 65.8 | 98.8 |
| 174 | 102.7 | 79.8 | 119.6 |

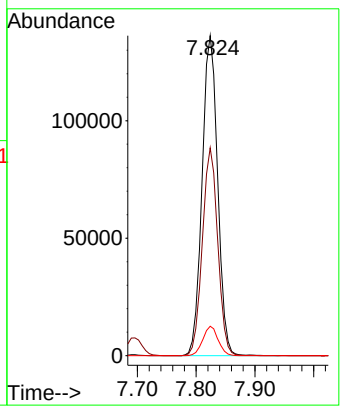





#47
Bromodichloromethane
Concen: 104.337 ug/l
RT: 7.824 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 83 Resp: 25067

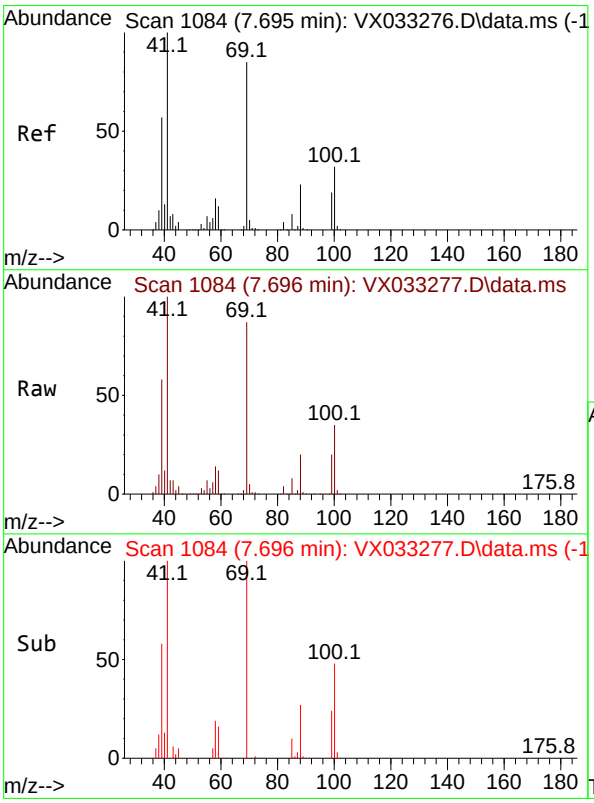
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.9 | 52.2 | 78.4 |
| 127 | 9.2 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

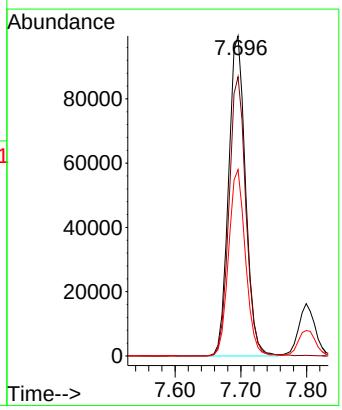
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

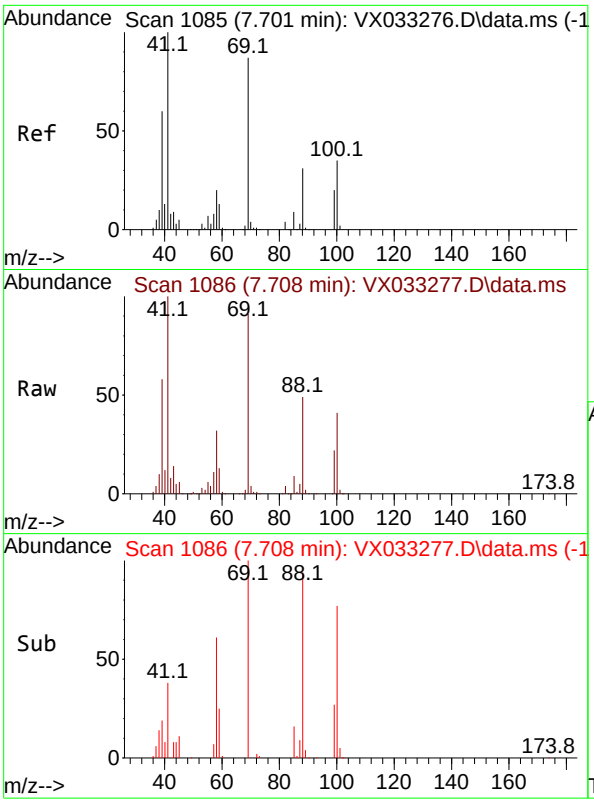



#48
Methyl methacrylate
Concen: 104.542 ug/l
RT: 7.696 min Scan# 1084
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 41 Resp: 178559

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 86.8 | 65.1 | 97.7 |
| 39 | 57.9 | 51.9 | 77.9 |






#49
1,4-Dioxane
Concen: 2599.008 ug/l
RT: 7.708 min Scan# 1
Delta R.T. 0.037 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

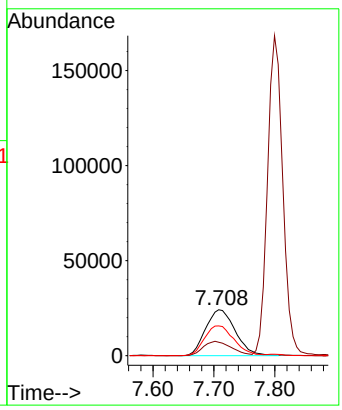
Tgt Ion: 88 Resp: 8171

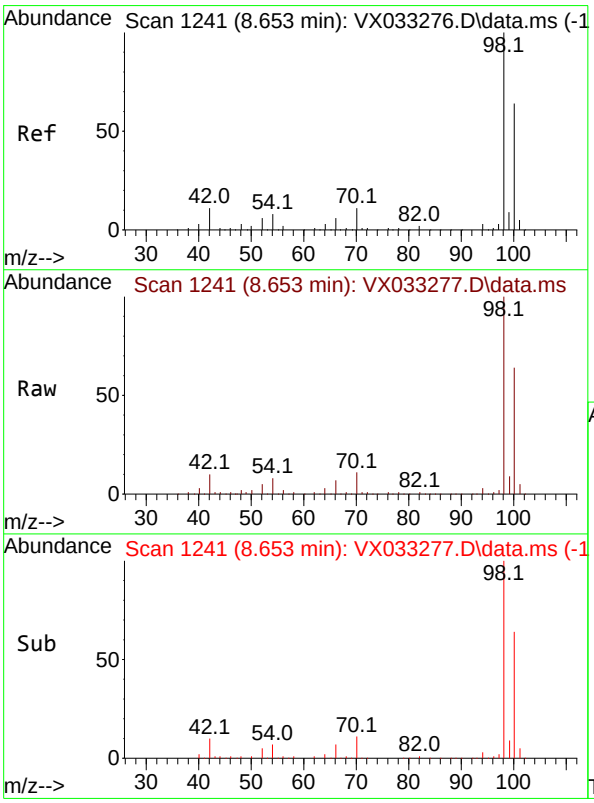
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 29.3 | 26.6 | 39.8 |
| 58 | 64.5 | 51.7 | 77.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

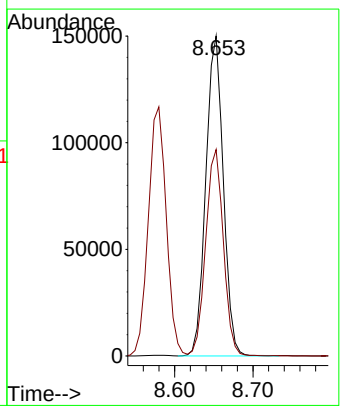


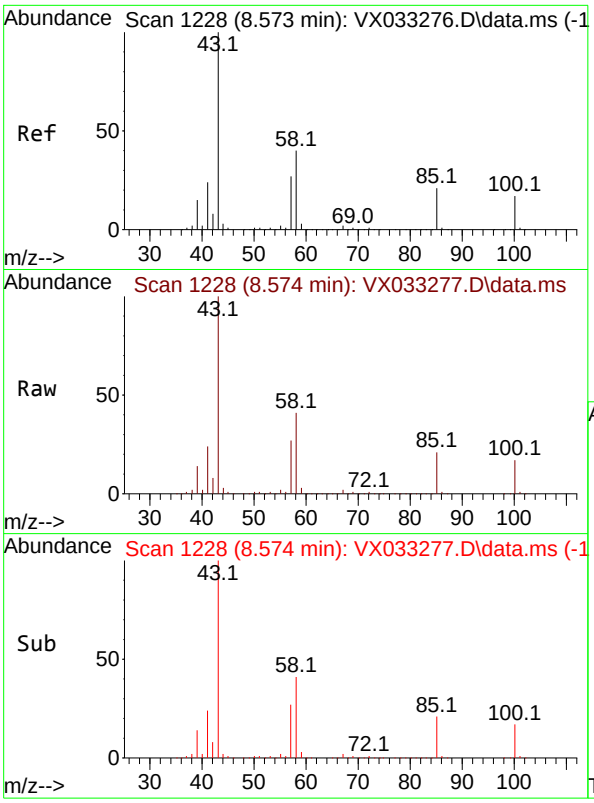




#50
Toluene-d8
Concen: 49.636 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 98 Resp: 231771

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.1 | 50.9 | 76.3 |

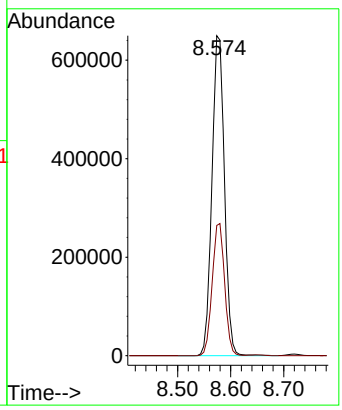





#51
4-Methyl-2-Pentanone
Concen: 519.198 ug/l
RT: 8.574 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 106308

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 41.2 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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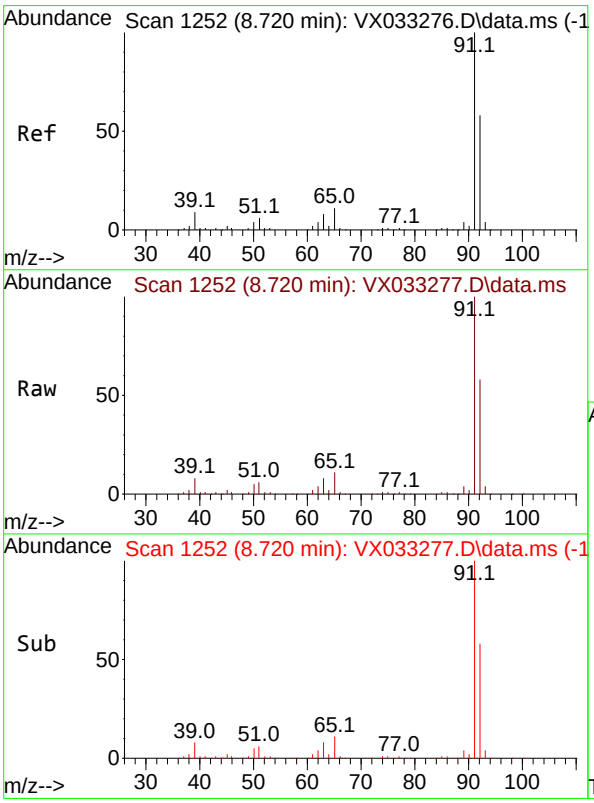
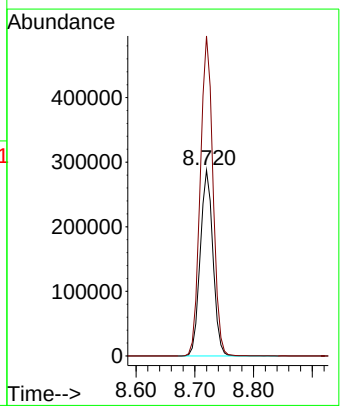
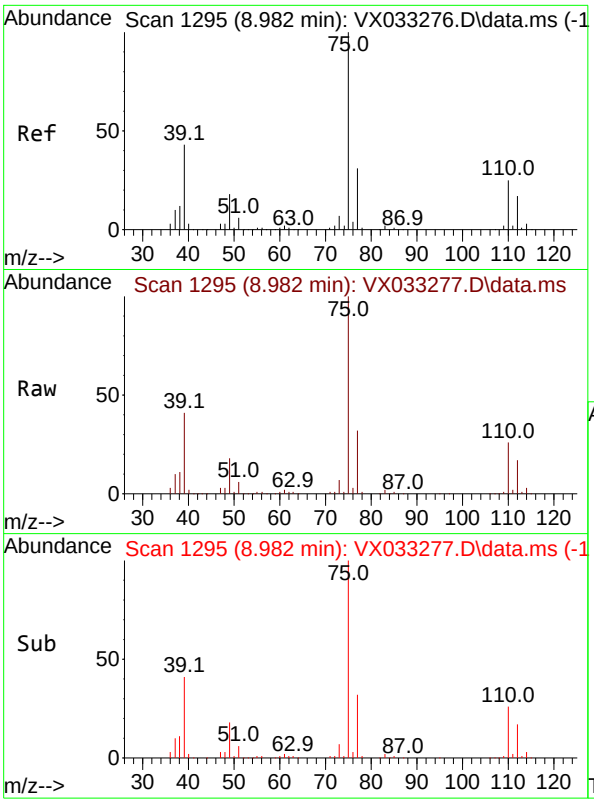



#52
Toluene
Concen: 101.600 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 92 Resp: 431003

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 171.9 | 138.3 | 207.5 |

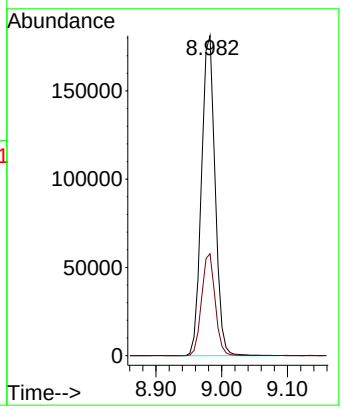





#53
t-1,3-Dichloropropene
Concen: 110.875 ug/l
RT: 8.982 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 26146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.8 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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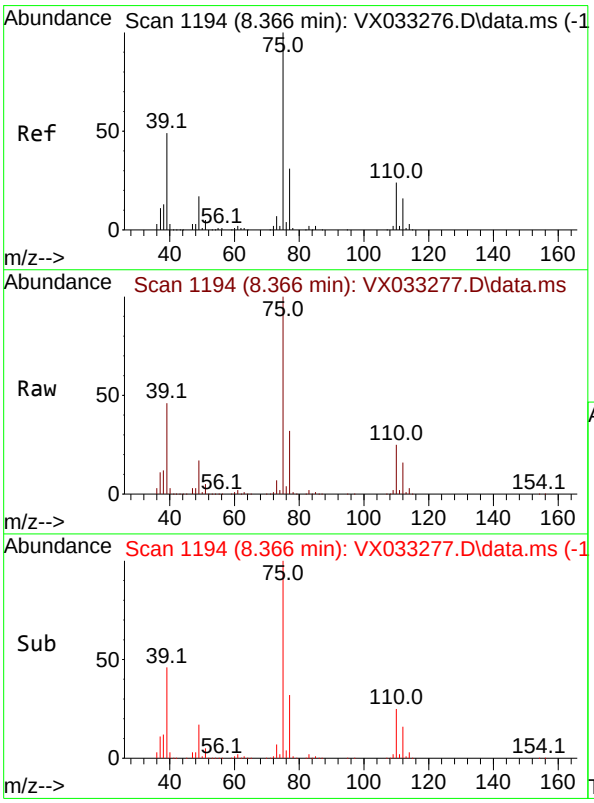
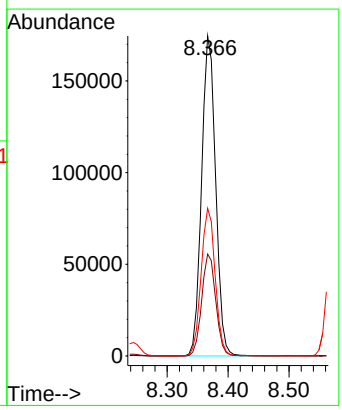
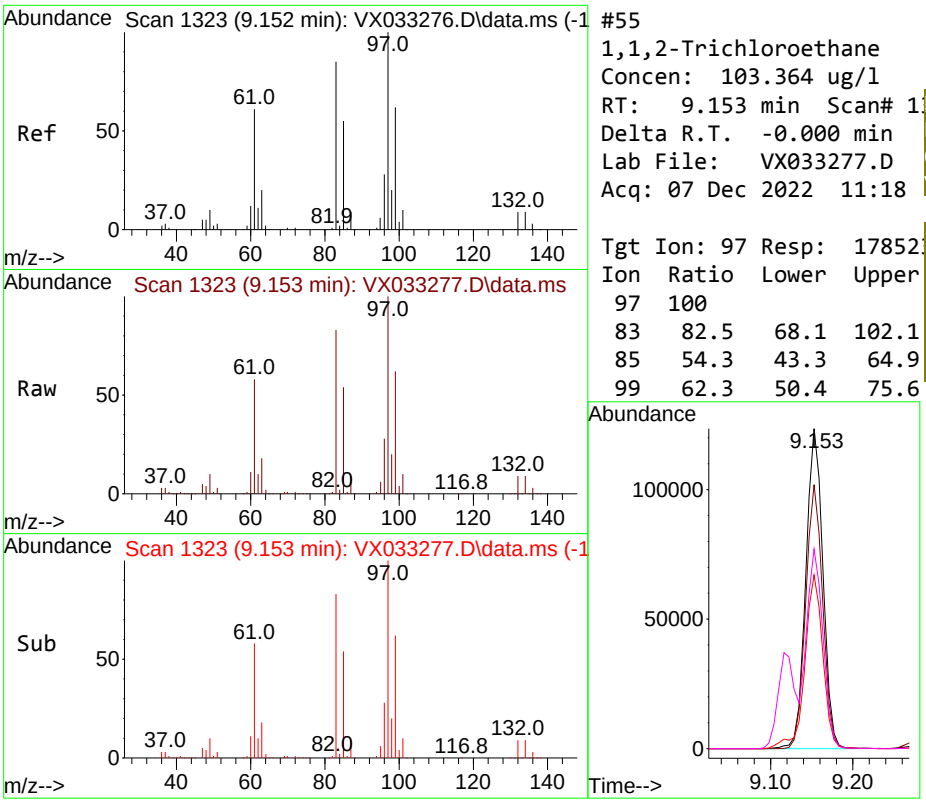



#54
cis-1,3-Dichloropropene
Concen: 108.114 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 280027

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.8 | 25.1 | 37.7 |
| 39 | 46.2 | 45.5 | 68.3 |






#55
1,1,2-Trichloroethane
Concen: 103.364 ug/l
RT: 9.153 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 97 Resp: 17852

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.5 | 68.1 | 102.1 |
| 85 | 54.3 | 43.3 | 64.9 |
| 99 | 62.3 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

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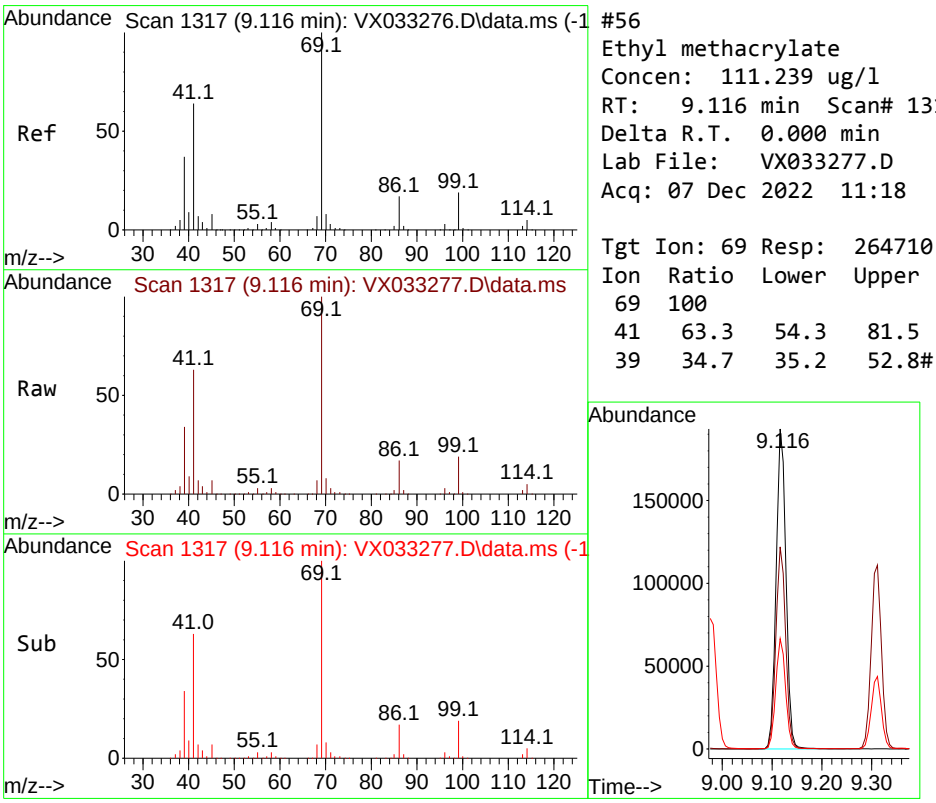
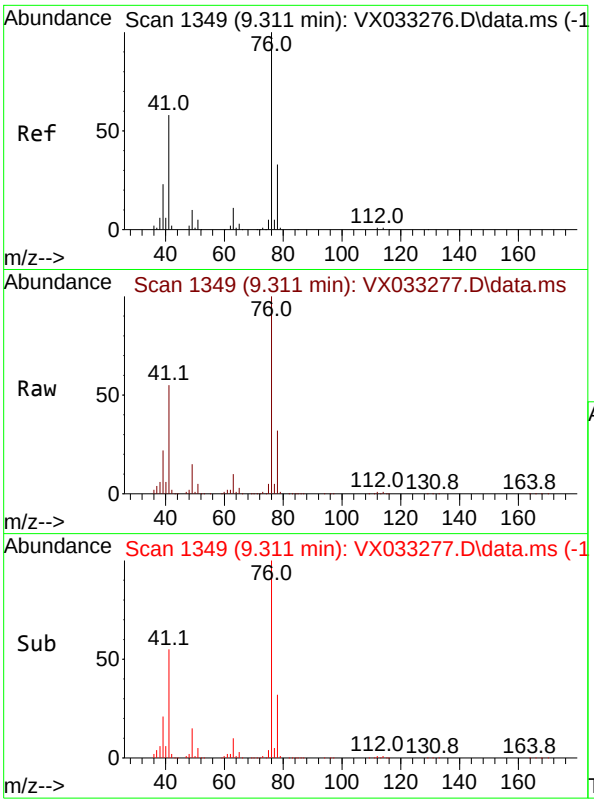



#56
Ethyl methacrylate
Concen: 111.239 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 69 Resp: 264710

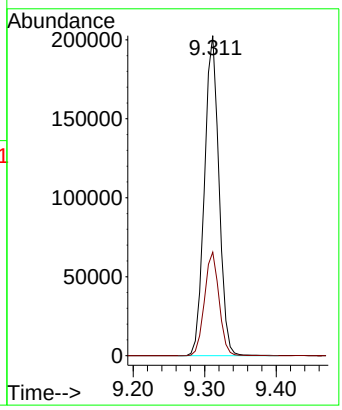
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 63.3 | 54.3 | 81.5 |
| 39 | 34.7 | 35.2 | 52.8# |




#57
1,3-Dichloropropane
Concen: 102.351 ug/l
RT: 9.311 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 76 Resp: 28537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 32.4 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

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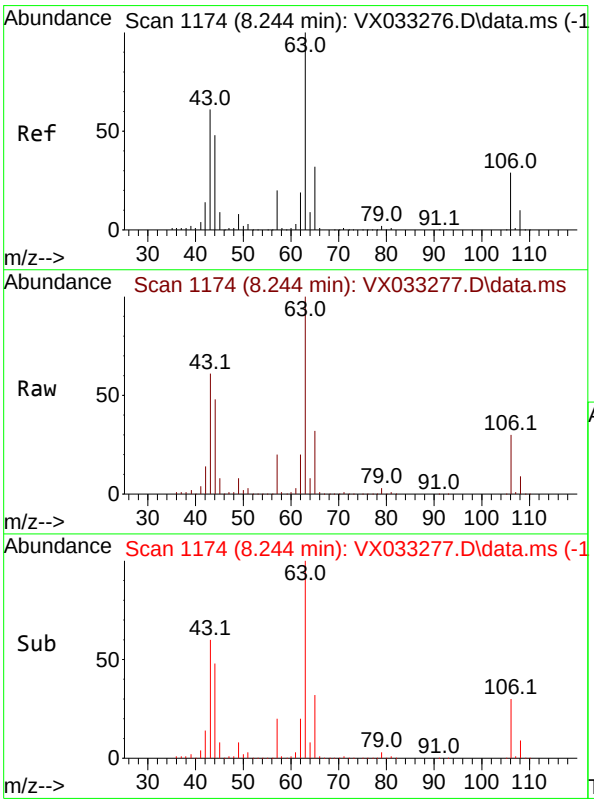
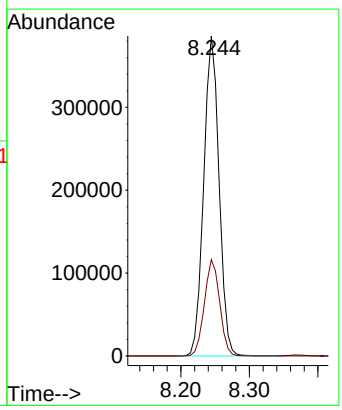
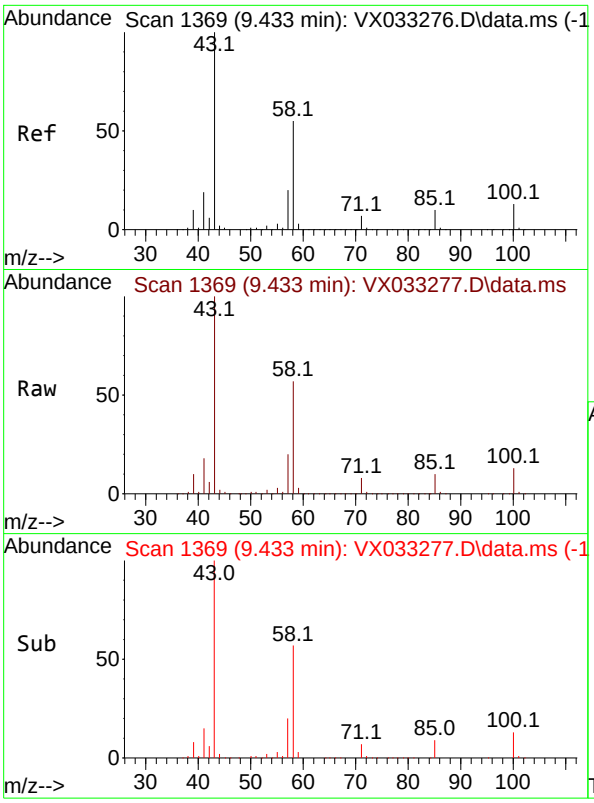



#58
2-Chloroethyl Vinyl ether
Concen: 532.046 ug/l
RT: 8.244 min Scan# 1174
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 63 Resp: 601216

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 30.0 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 513.655 ug/l
RT: 9.433 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 77693

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 57.2 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

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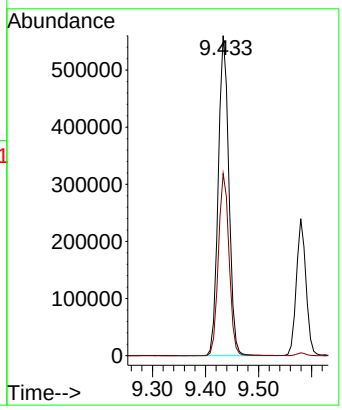
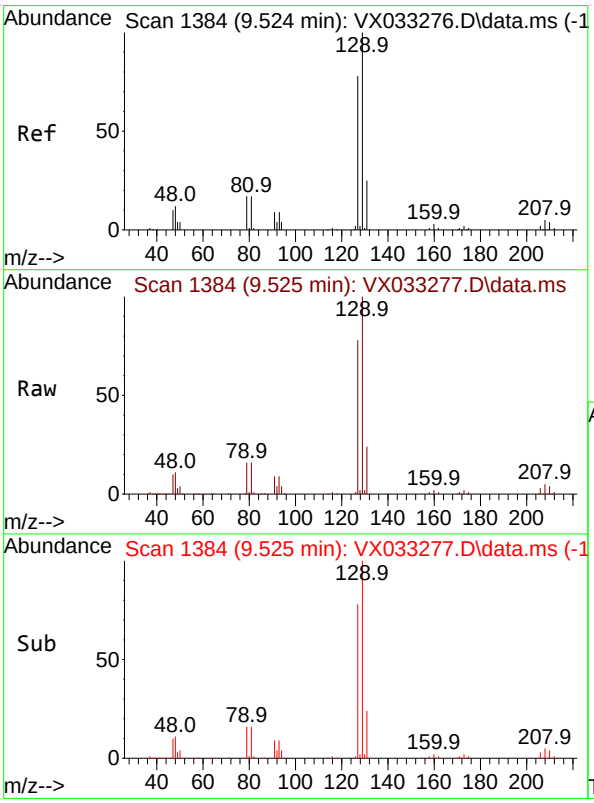
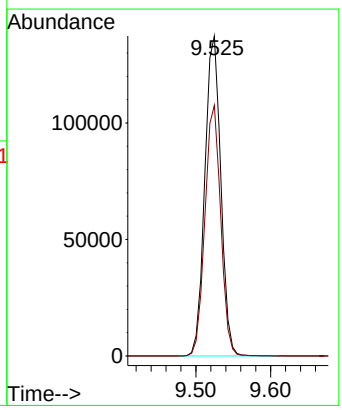


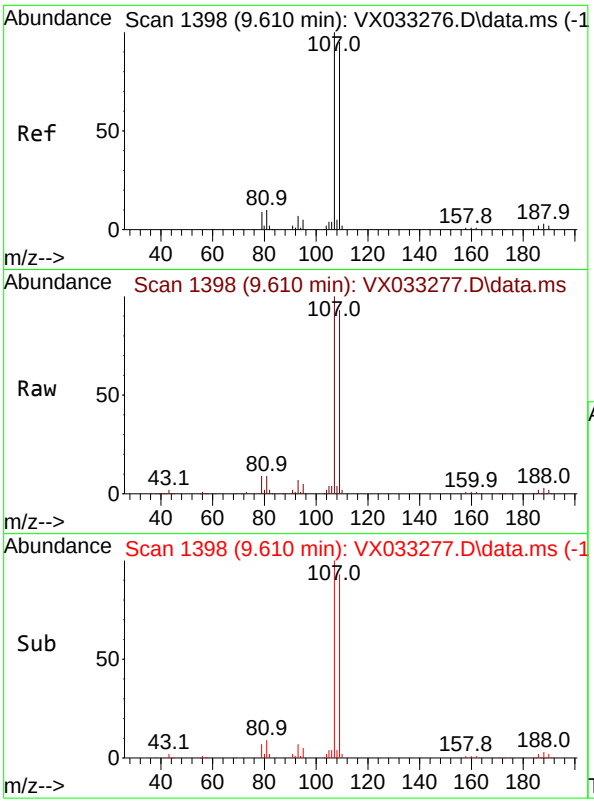




#60
Dibromochloromethane
Concen: 109.532 ug/l
RT: 9.525 min Scan# 1384
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:129 Resp: 203673

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.6 | 38.6 | 115.8 |

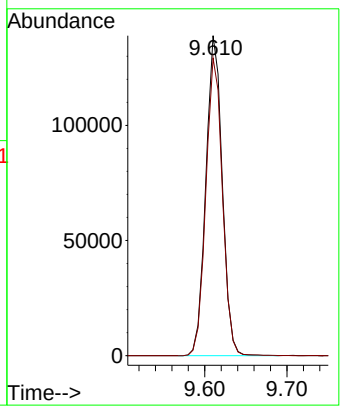





#61
1,2-Dibromoethane
Concen: 105.569 ug/l
RT: 9.610 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:107 Resp: 19245

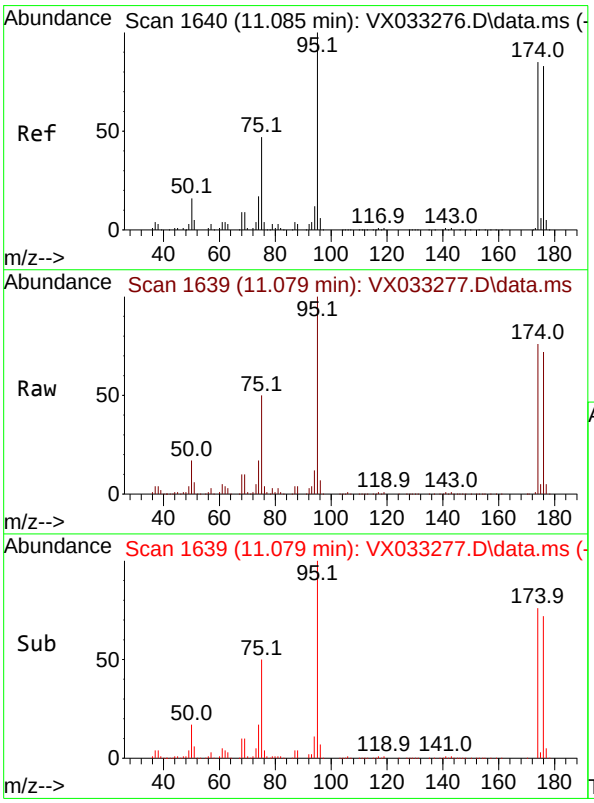
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.2 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

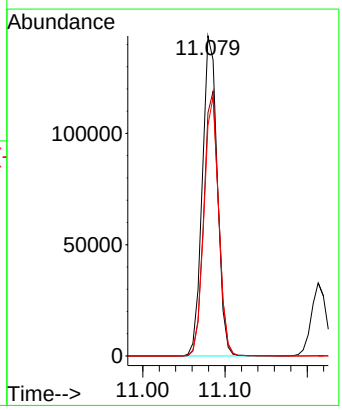
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

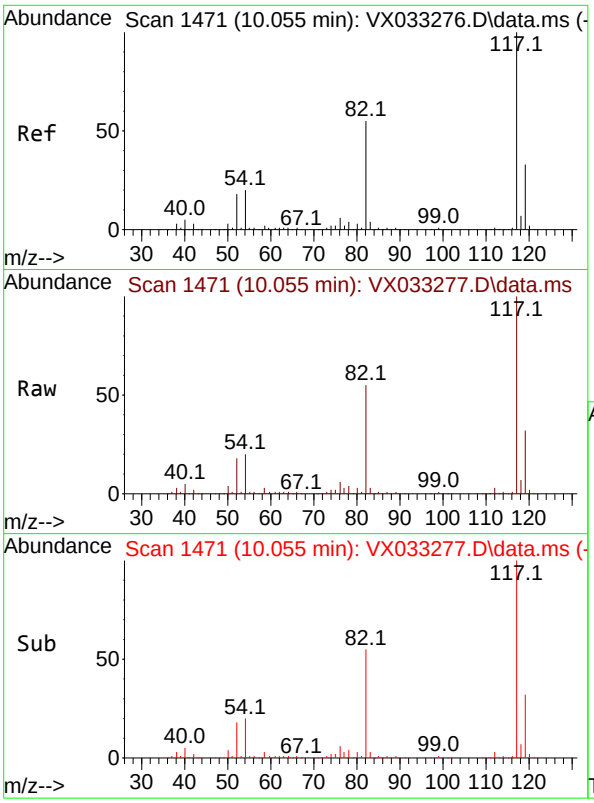



#62
4-Bromofluorobenzene
Concen: 96.253 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 95 Resp: 181855

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 81.9 | 0.0 | 164.0 |
| 176 | 79.6 | 0.0 | 154.4 |

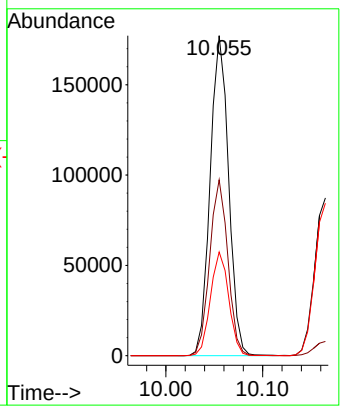





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:117 Resp: 23475

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.9 | 44.3 | 66.5 |
| 119 | 32.4 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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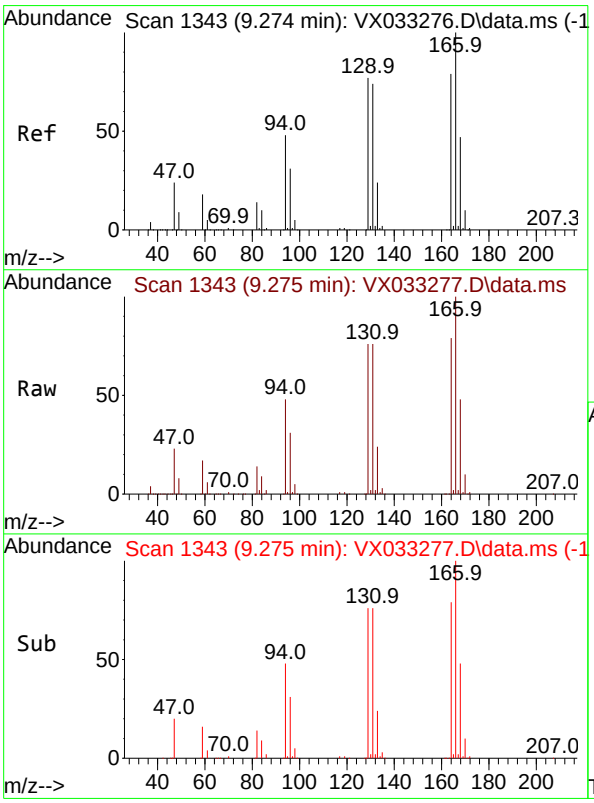
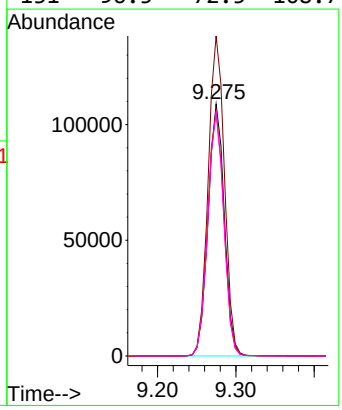
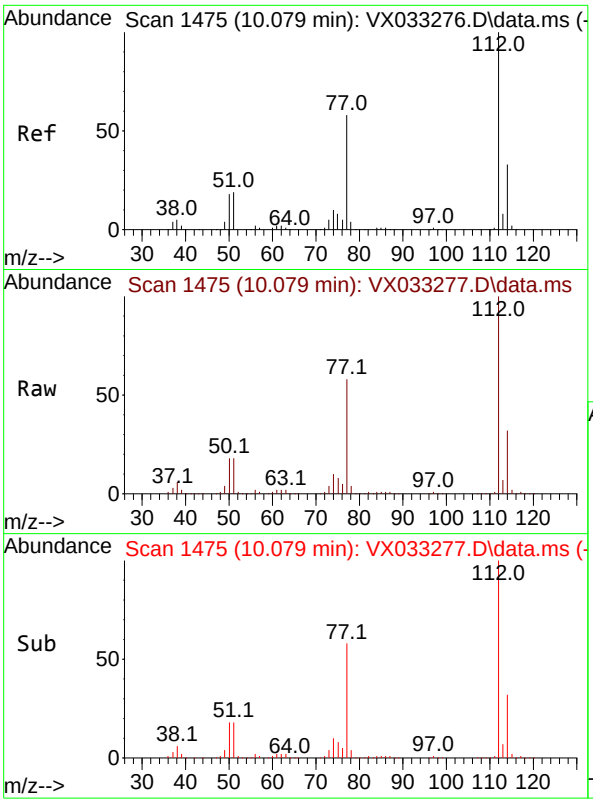



#64
Tetrachloroethene
Concen: 93.745 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:164 Resp: 155777

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 127.0 | 105.4 | 158.2 |
| 129 | 97.1 | 78.2 | 117.2 |
| 131 | 96.5 | 72.5 | 108.7 |

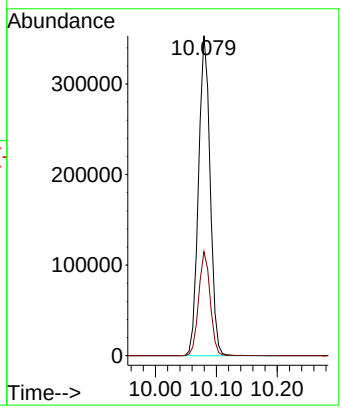





#65
Chlorobenzene
Concen: 99.602 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:112 Resp: 46618

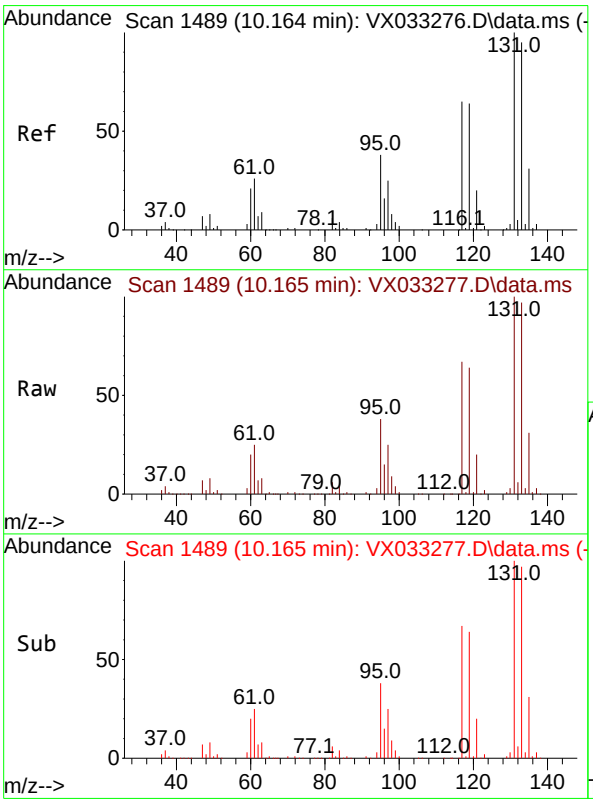
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 32.5 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

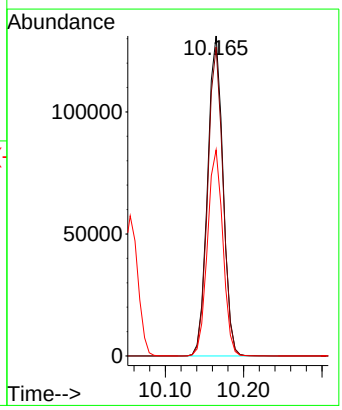
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

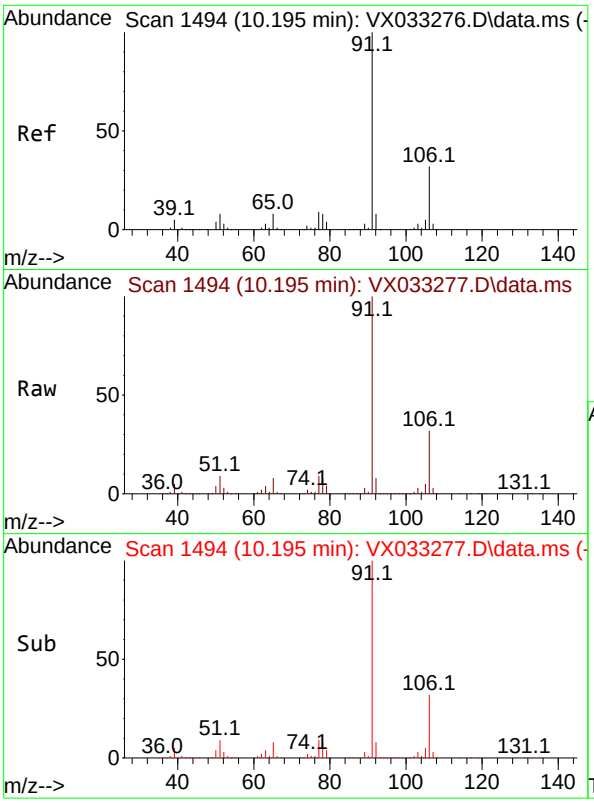



#66
1,1,1,2-Tetrachloroethane
Concen: 104.407 ug/l
RT: 10.165 min Scan# 1489
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:131 Resp: 179053

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.7 | 47.6 | 142.9 |
| 119 | 64.5 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 100.255 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

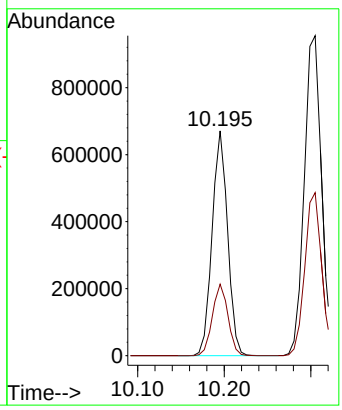
Tgt Ion: 91 Resp: 83236

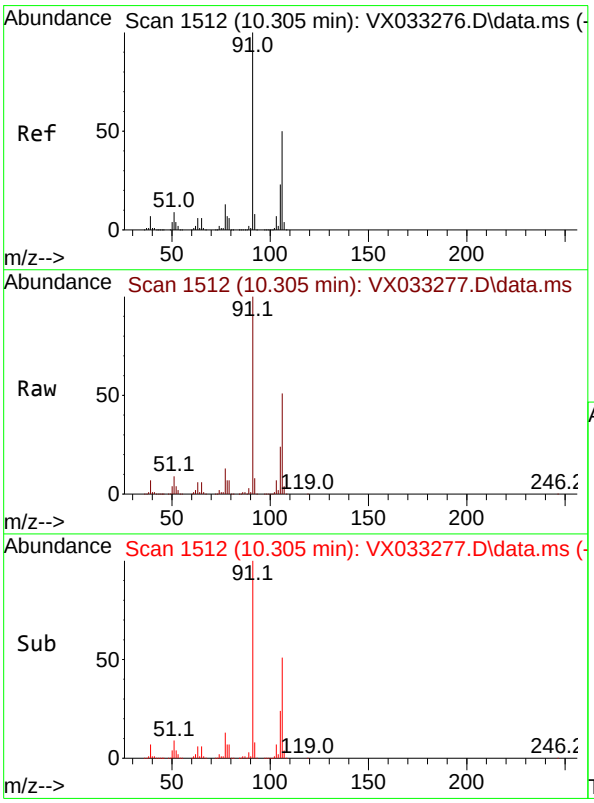
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.8 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

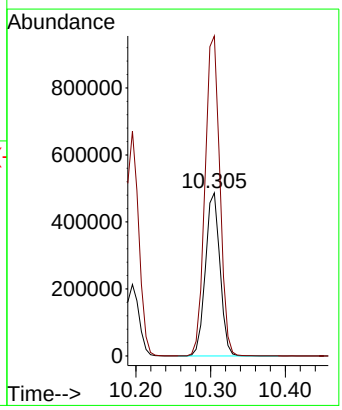


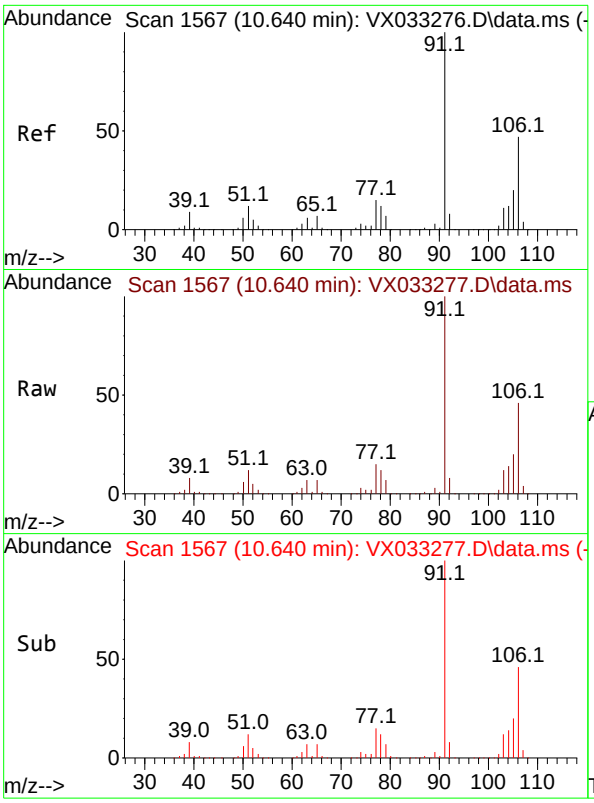




#68
m/p-Xylenes
Concen: 201.944 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:106 Resp: 656555

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 200.3 | 164.5 | 246.7 |

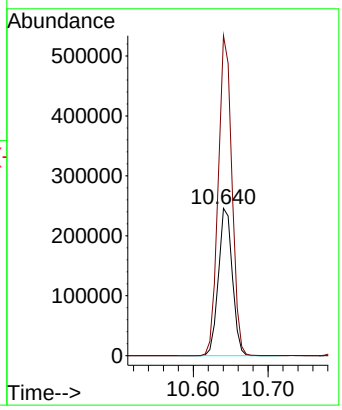





#69
o-Xylene
Concen: 101.180 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:106 Resp: 31828

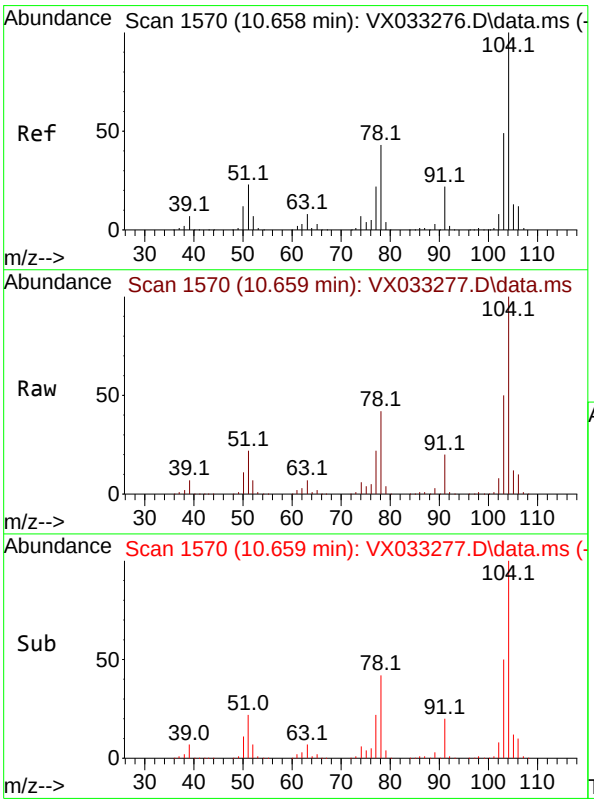
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 213.4 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

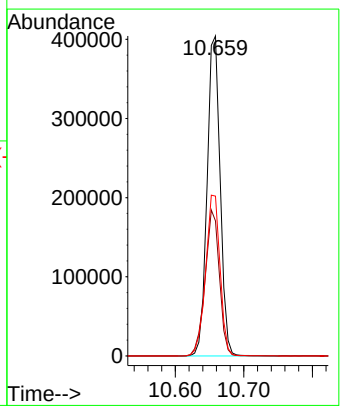
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

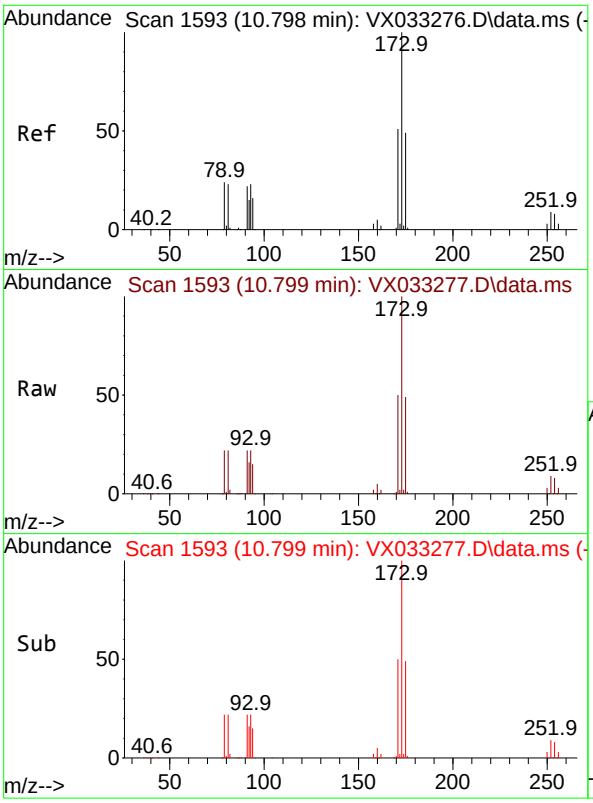



#70
Styrene
Concen: 104.480 ug/l
RT: 10.659 min Scan# 1570
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:104 Resp: 537696

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 49.7 | 41.8 | 62.8 |
| 103 | 55.4 | 44.5 | 66.7 |

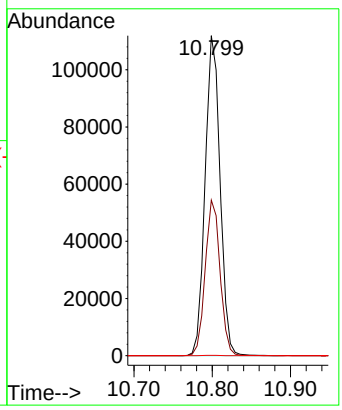





#71
Bromoform
Concen: 112.541 ug/l
RT: 10.799 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:173 Resp: 14797

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.4 | 23.9 | 71.8 |
| 254 | 0.1 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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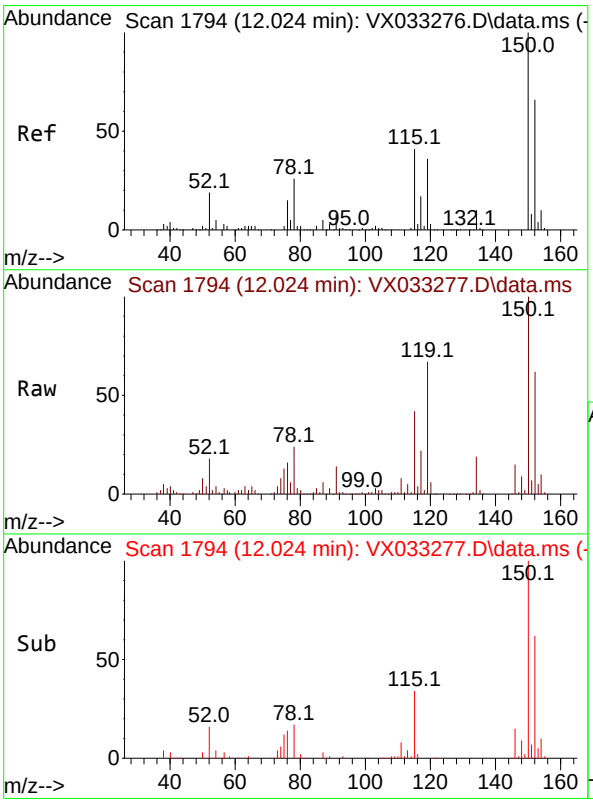
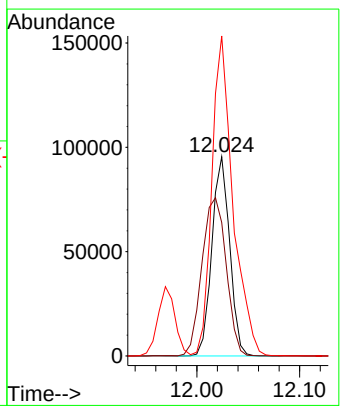
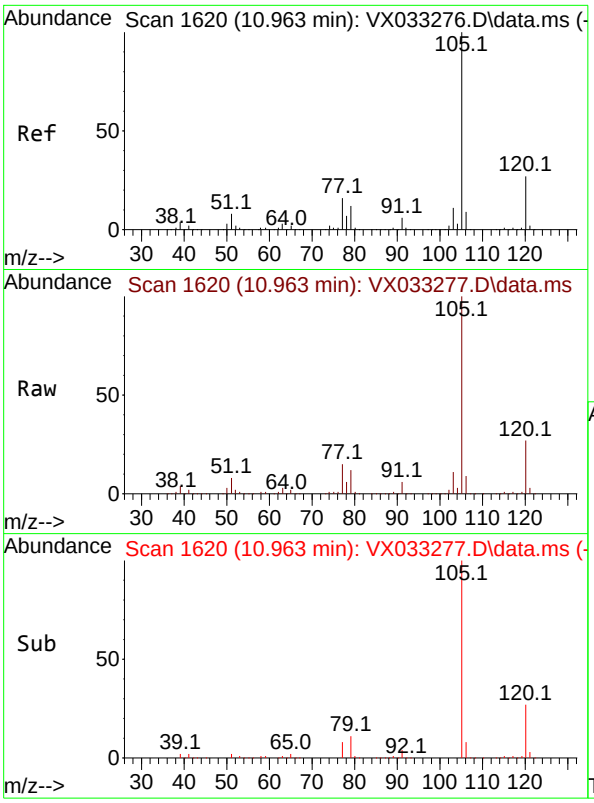



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:152 Resp: 114385

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 108.7 | 44.0 | 132.0 |
| 150 | 191.0 | 0.0 | 351.8 |

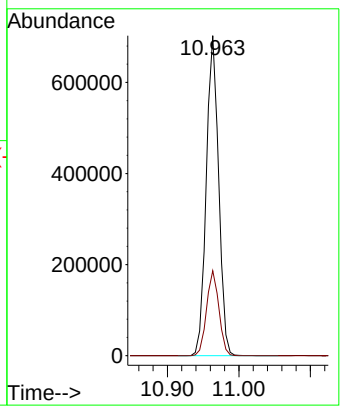





#73
Isopropylbenzene
Concen: 103.020 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:105 Resp: 84207

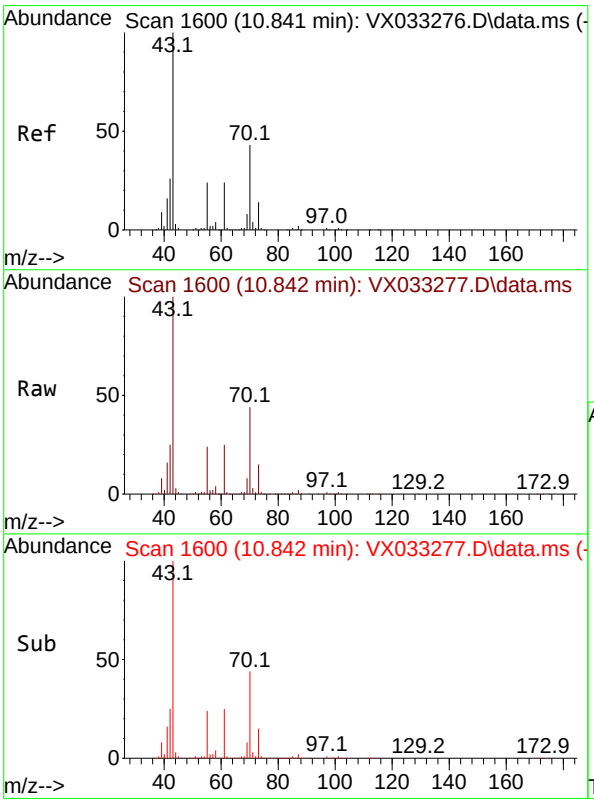
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.5 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

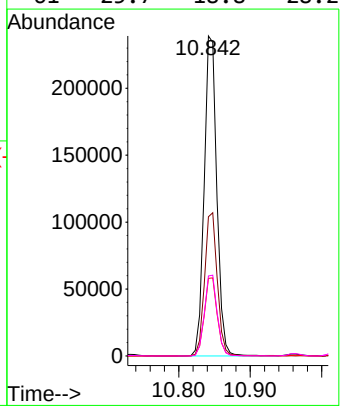
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

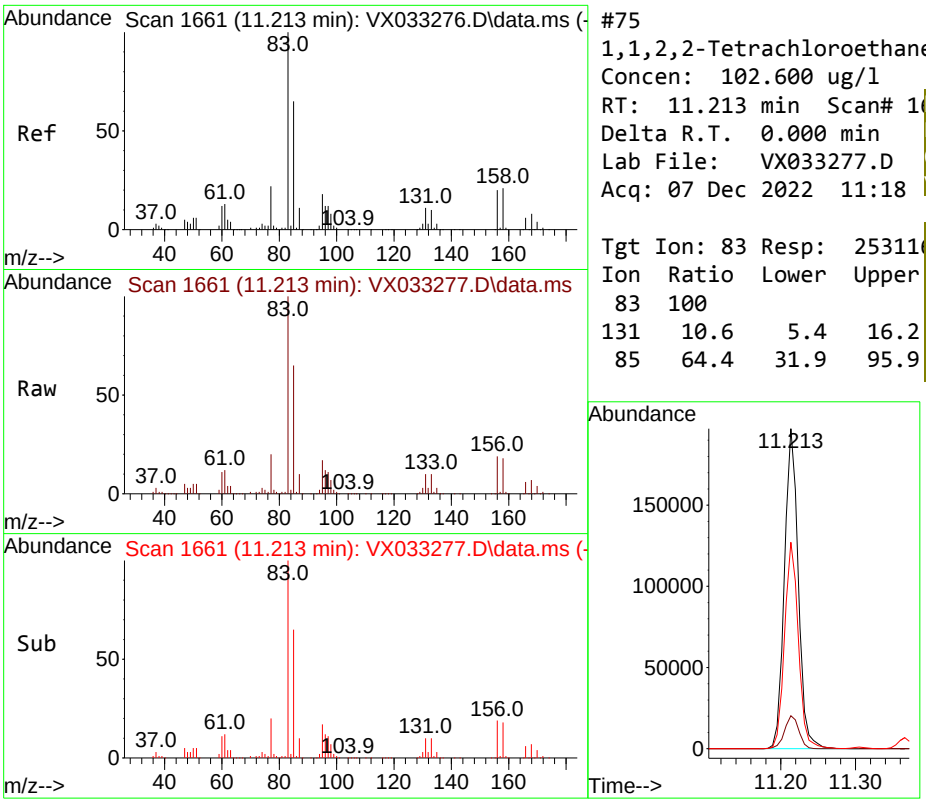



#74
N-amyl acetate
Concen: 105.583 ug/l
RT: 10.842 min Scan# 1600
Delta R.T. 0.001 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 43 Resp: 293580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 45.1 | 33.6 | 50.4 |
| 55 | 25.0 | 19.4 | 29.2 |
| 61 | 25.7 | 18.8 | 28.2 |






#75
1,1,2,2-Tetrachloroethane
Concen: 102.600 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 83 Resp: 25311

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 64.4 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

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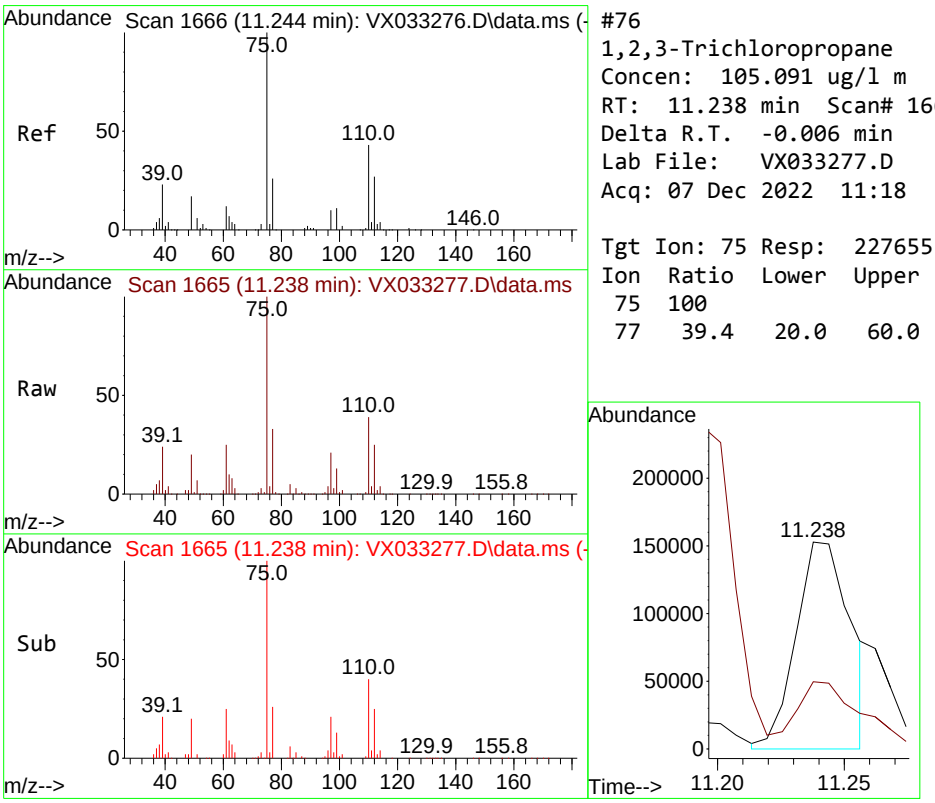
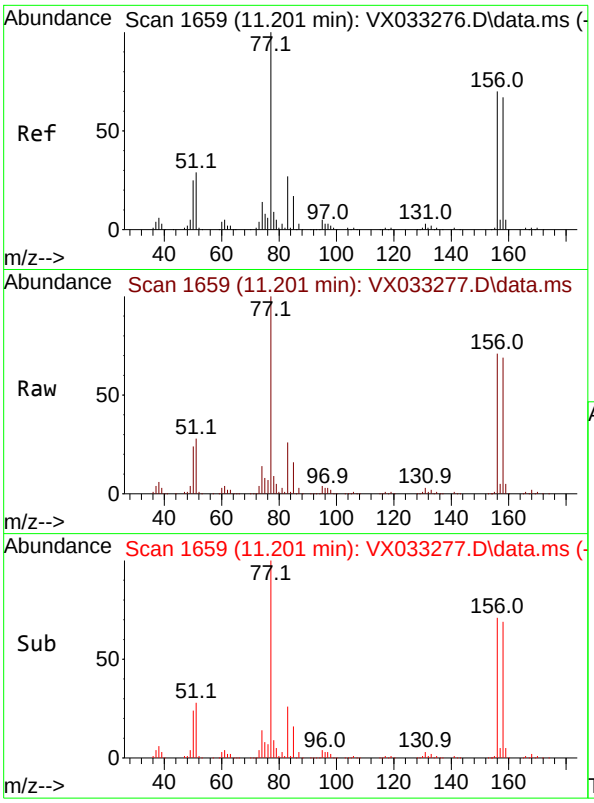



#76
1,2,3-Trichloropropane
Concen: 105.091 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 227655

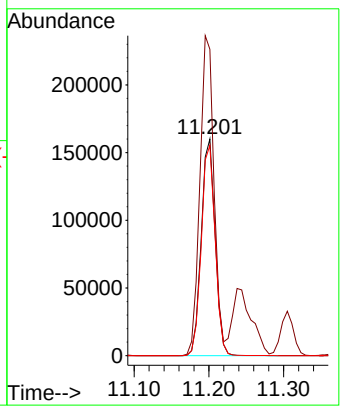
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 39.4 | 20.0 | 60.0 |




#77
Bromobenzene
Concen: 102.556 ug/l
RT: 11.201 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:156 Resp: 20616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 149.5 | 76.1 | 228.4 |
| 158 | 96.8 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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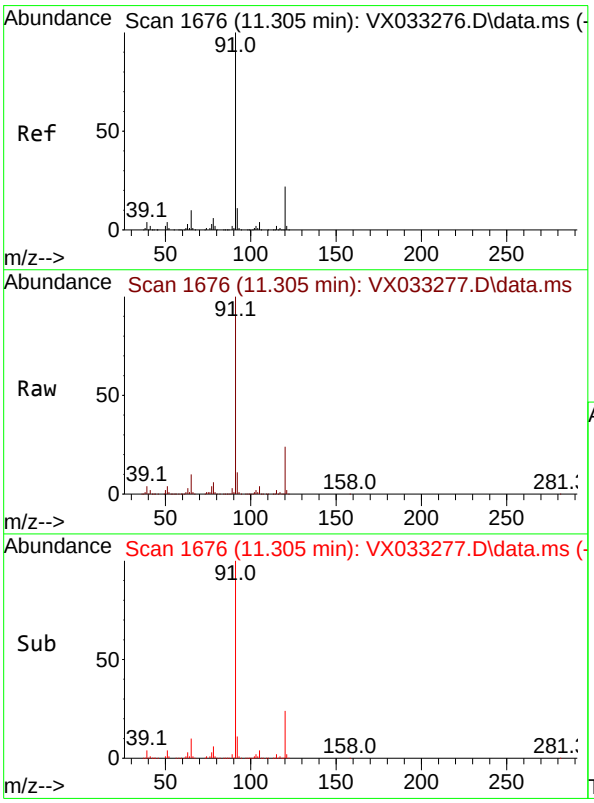
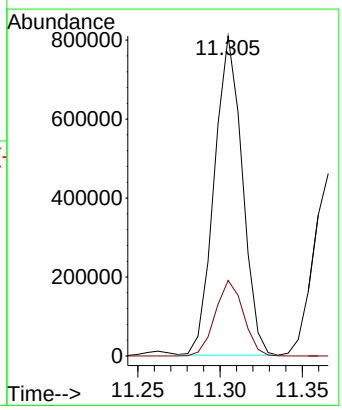
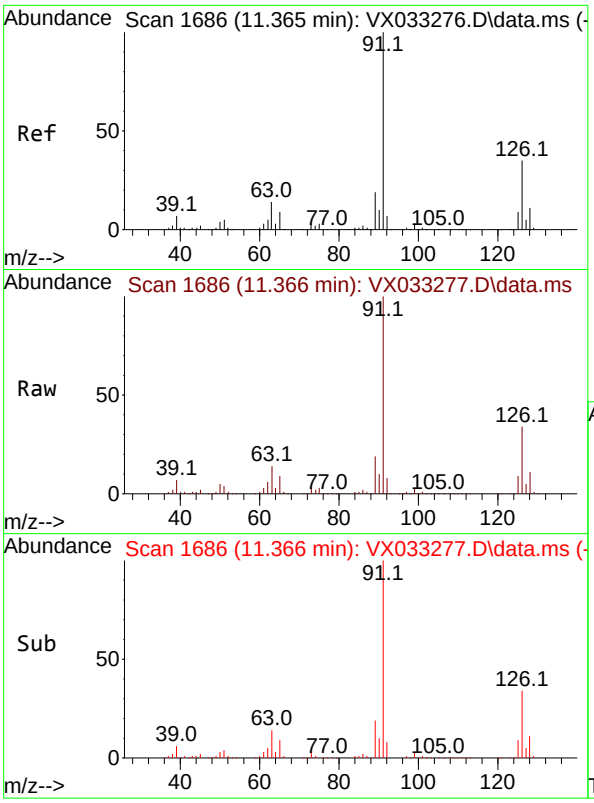



#78
n-propylbenzene
Concen: 102.470 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 91 Resp: 957635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.8 | 11.6 | 34.8 |

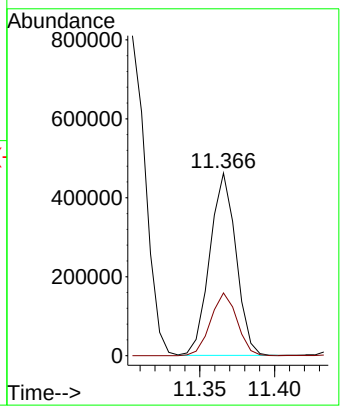





#79
2-Chlorotoluene
Concen: 99.144 ug/l
RT: 11.366 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 91 Resp: 56274

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 34.6 | 17.1 | 51.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

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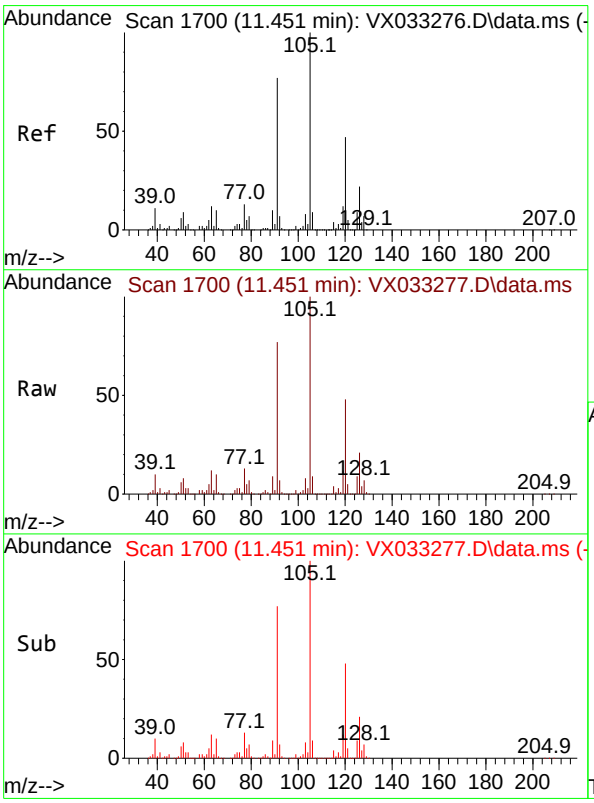
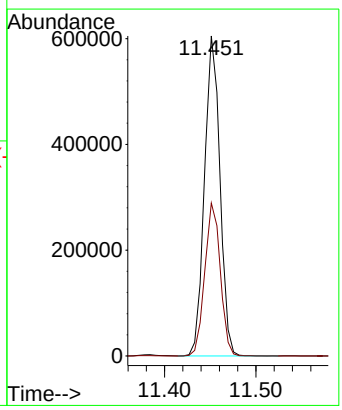
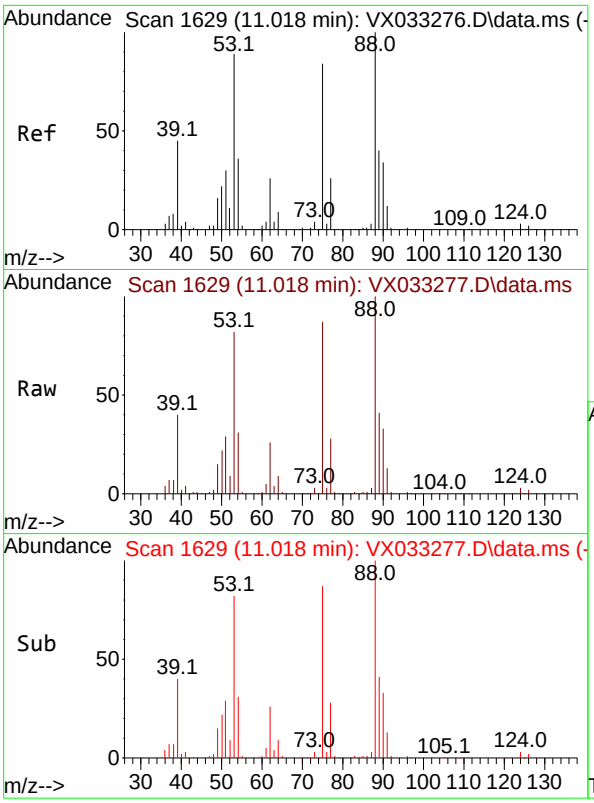



#80
1,3,5-Trimethylbenzene
Concen: 103.034 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:105 Resp: 707491

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.0 | 23.6 | 71.0 |

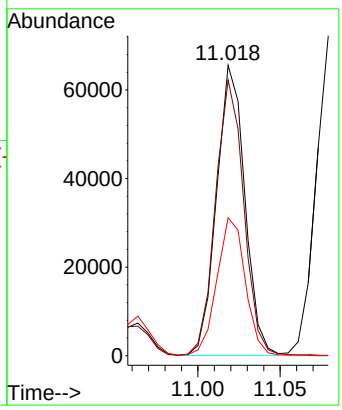





#81
trans-1,4-Dichloro-2-butene
Concen: 117.572 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 7835

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 94.8 | 86.9 | 130.3 |
| 89 | 48.0 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

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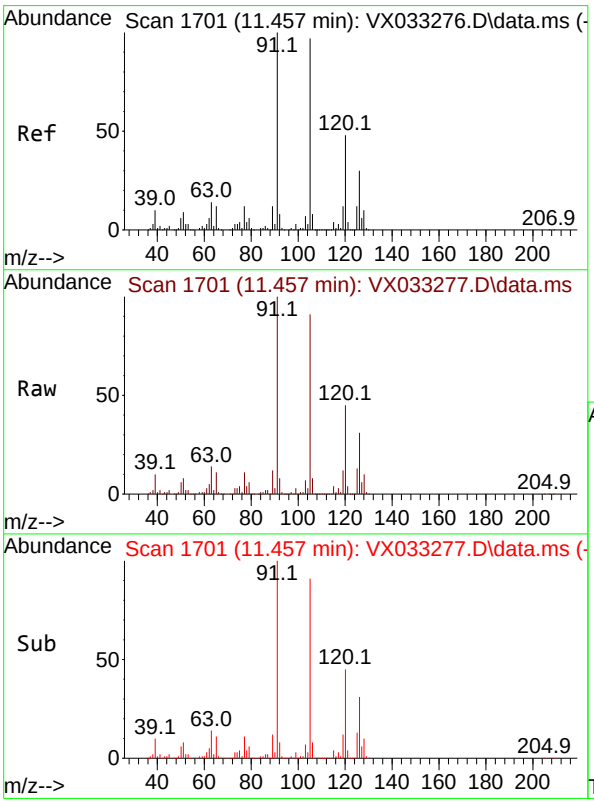
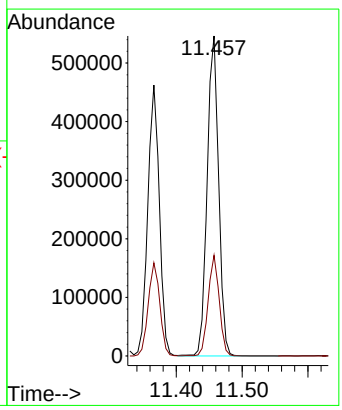
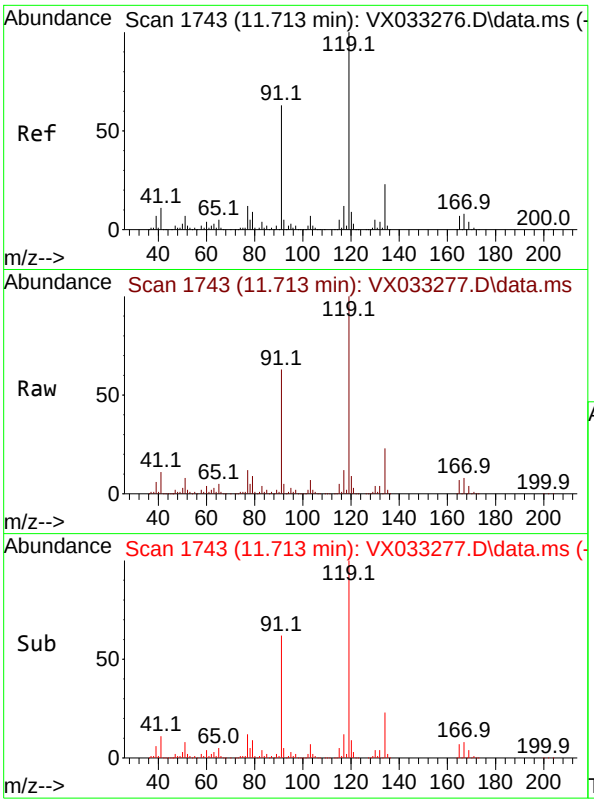



#82
4-Chlorotoluene
Concen: 99.587 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 91 Resp: 662404

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.4 | 14.8 | 44.4 |

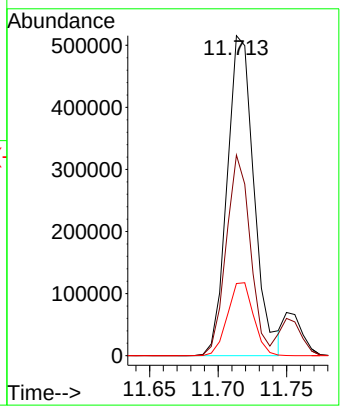





#83
tert-Butylbenzene
Concen: 103.031 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:119 Resp: 70422

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 56.6 | 29.4 | 88.2 |
| 134 | 22.1 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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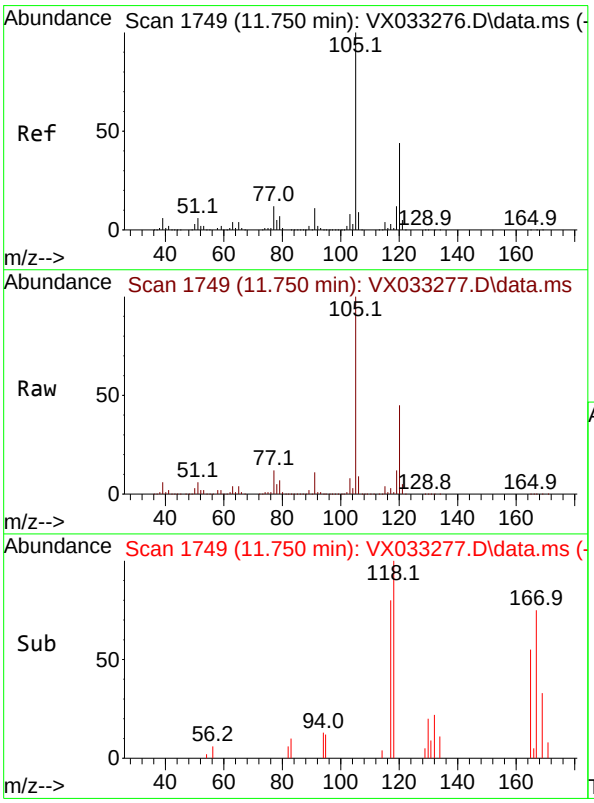
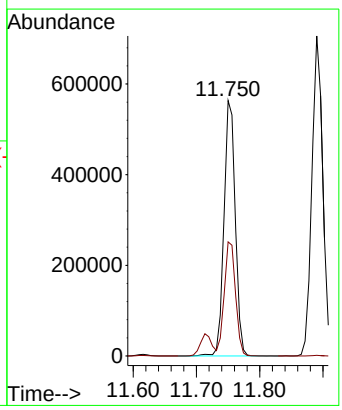
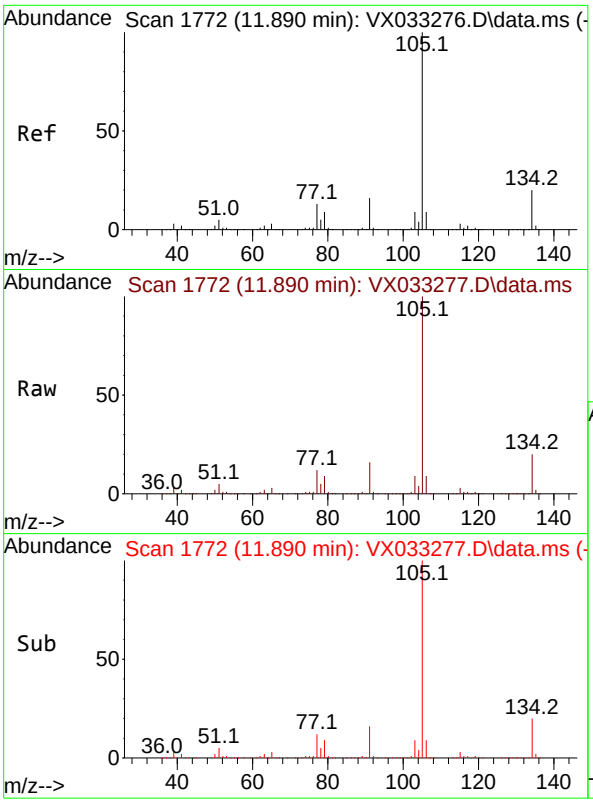



#84
1,2,4-Trimethylbenzene
Concen: 101.503 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:105 Resp: 694969

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.7 | 21.9 | 65.5 |

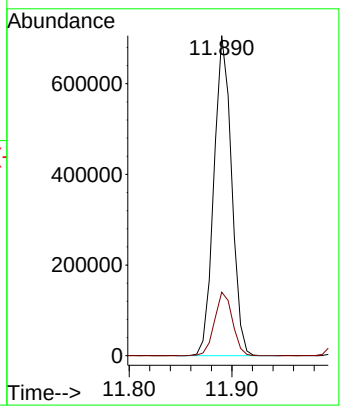





#85
sec-Butylbenzene
Concen: 102.877 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:105 Resp: 84125

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.1 | 9.9 | 29.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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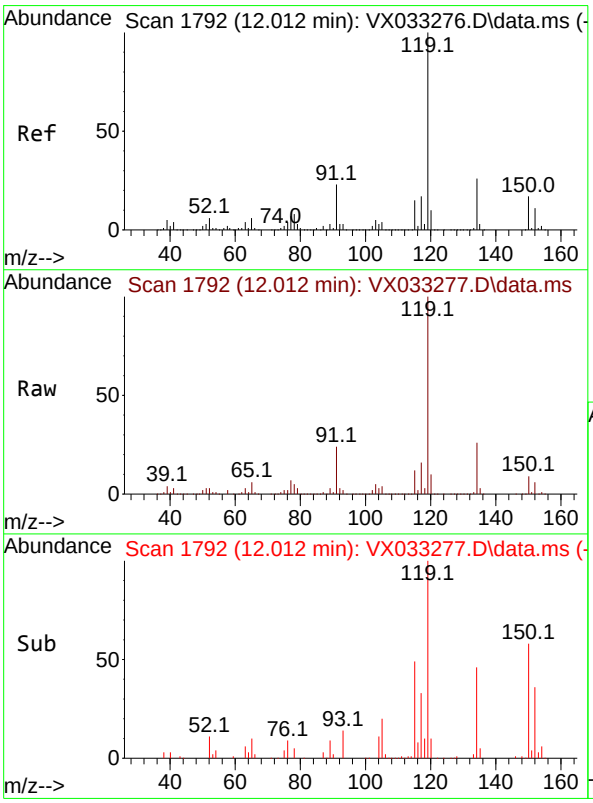
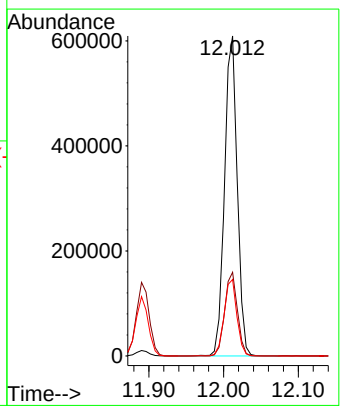
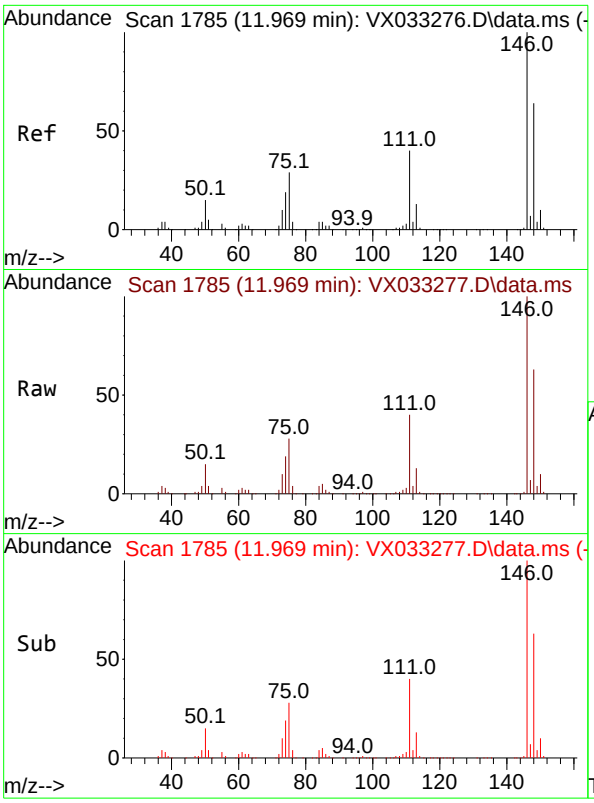



#86
p-Isopropyltoluene
Concen: 104.124 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:119 Resp: 721390

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.1 | 12.9 | 38.7 |
| 91 | 24.0 | 12.5 | 37.5 |

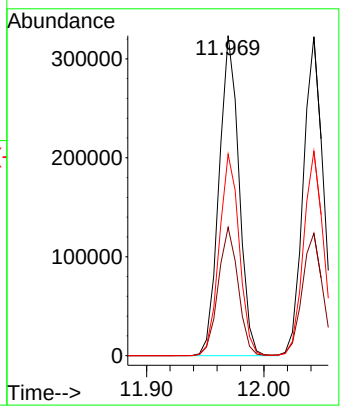





#87
1,3-Dichlorobenzene
Concen: 101.433 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:146 Resp: 38245

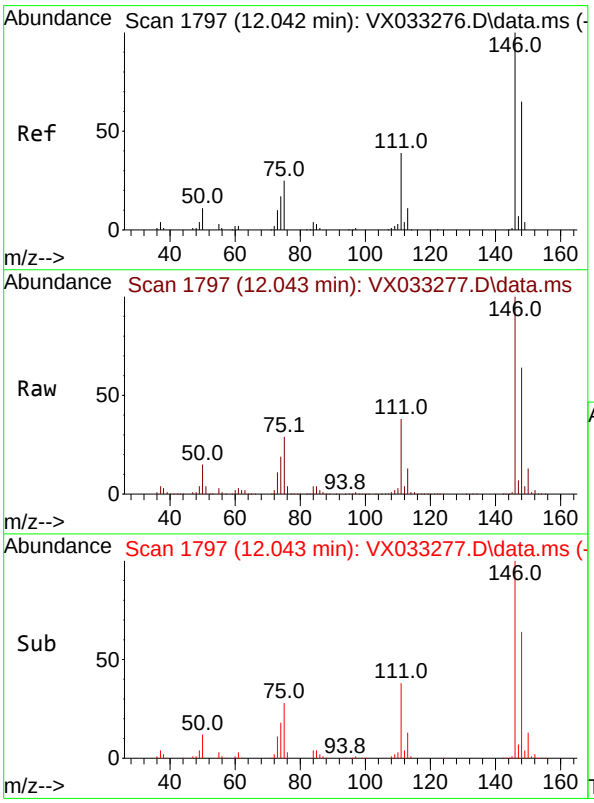
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.0 | 20.6 | 61.8 |
| 148 | 63.1 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

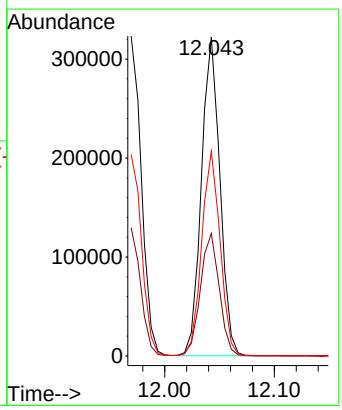
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

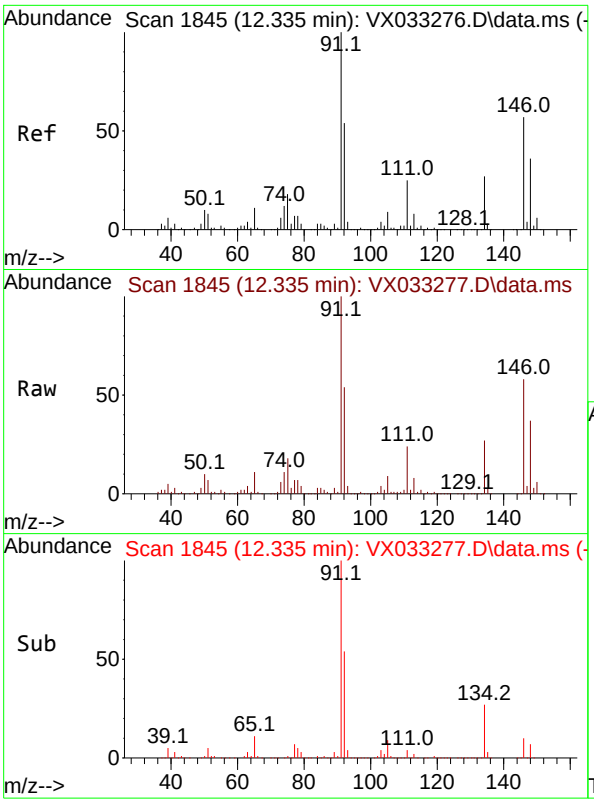



#88
1,4-Dichlorobenzene
Concen: 97.826 ug/l
RT: 12.043 min Scan# 1797
Delta R.T. 0.001 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:146 Resp: 377754

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.4 | 20.5 | 61.6 |
| 148 | 63.9 | 32.2 | 96.6 |

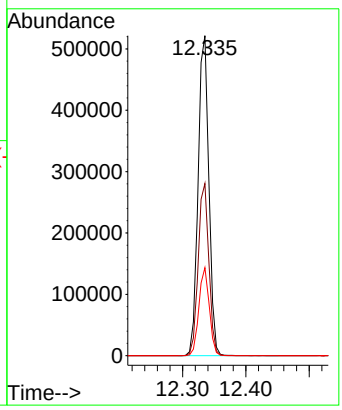





#89
n-Butylbenzene
Concen: 103.367 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 91 Resp: 61694

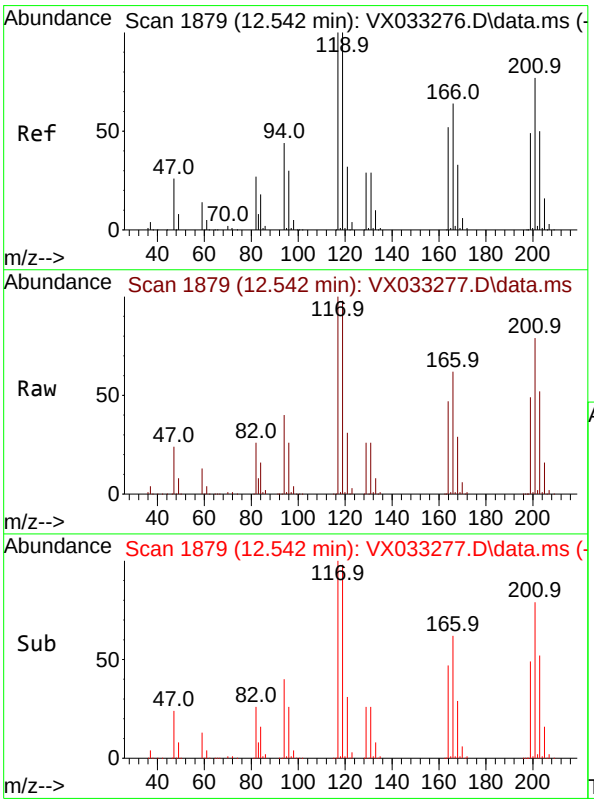
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 53.4 | 26.2 | 78.6 |
| 134 | 26.6 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

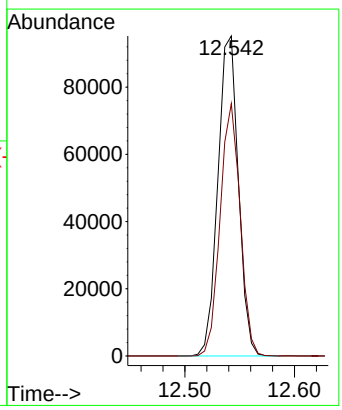
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

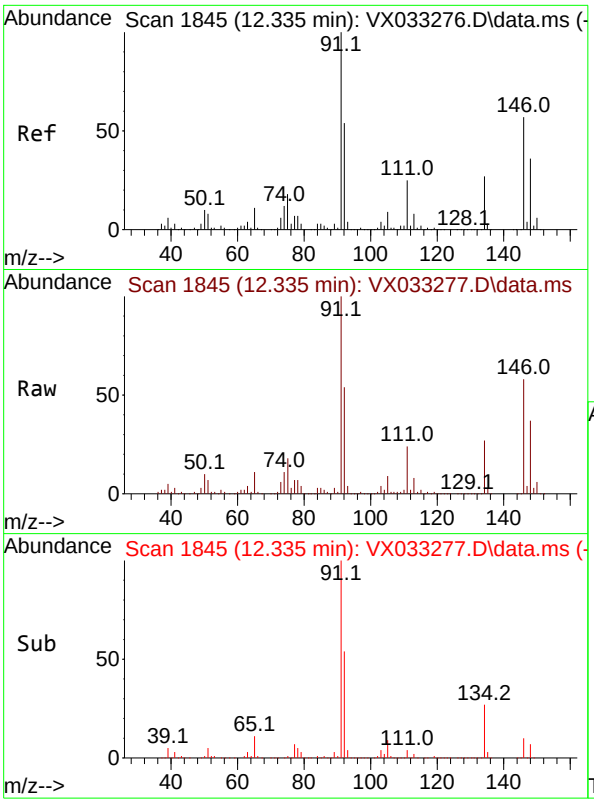



#90
Hexachloroethane
Concen: 108.833 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:117 Resp: 123879

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 77.1 | 37.6 | 112.9 |

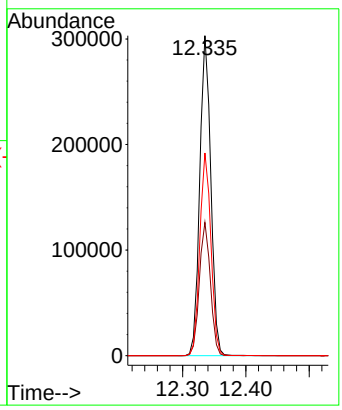





#91
1,2-Dichlorobenzene
Concen: 100.562 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:146 Resp: 36884

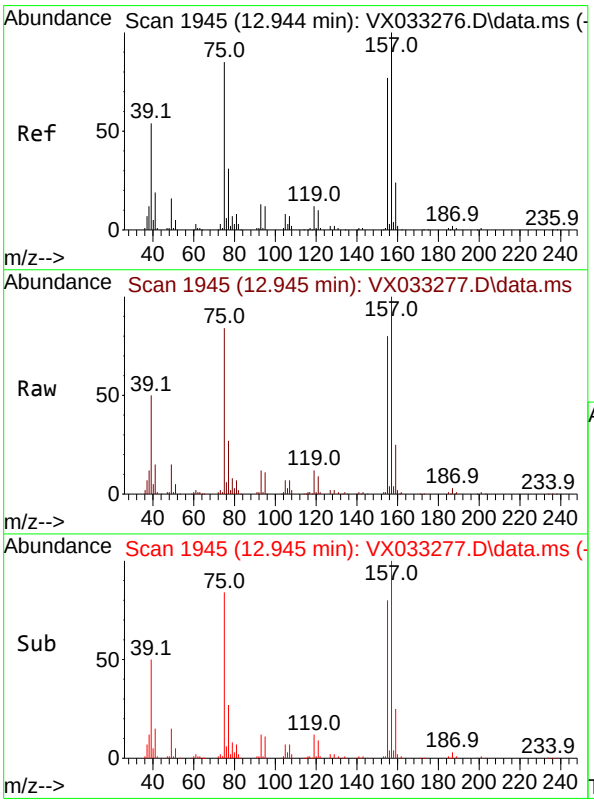
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.7 | 21.5 | 64.5 |
| 148 | 63.8 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

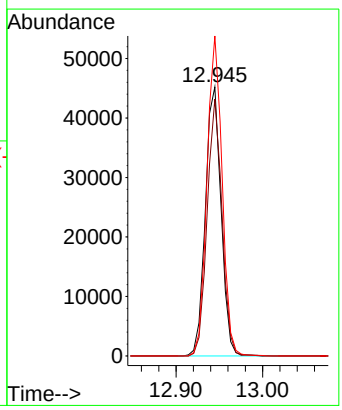
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

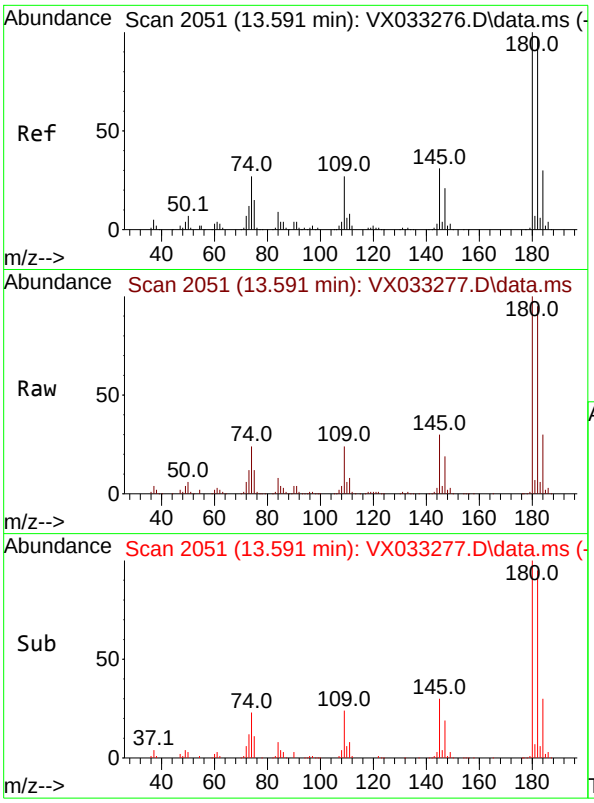



#92
1,2-Dibromo-3-Chloropropane
Concen: 115.714 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion: 75 Resp: 56957

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 90.3 | 41.6 | 124.8 |
| 157 | 114.6 | 54.1 | 162.4 |

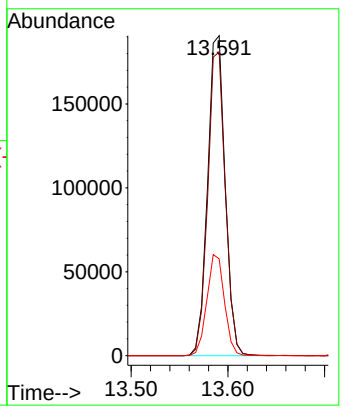





#93
1,2,4-Trichlorobenzene
Concen: 106.614 ug/l
RT: 13.591 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:180 Resp: 24104

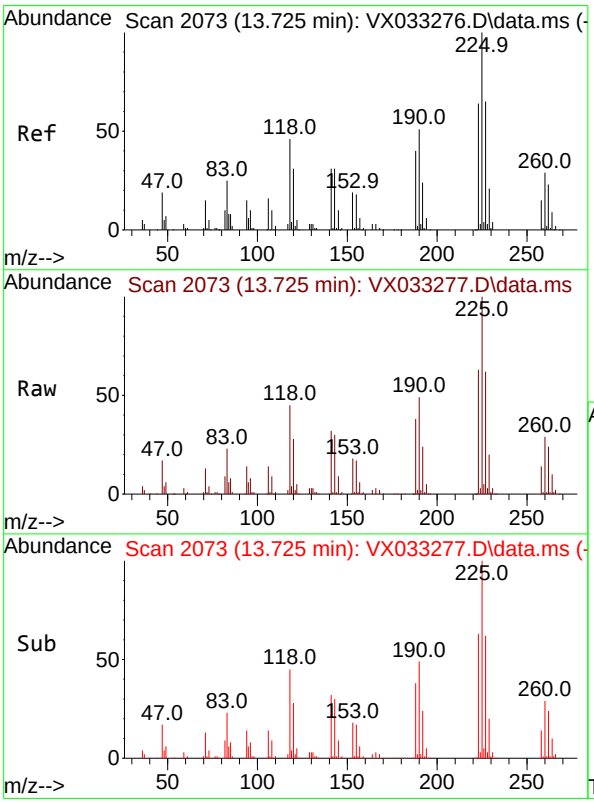
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.0 | 48.4 | 145.0 |
| 145 | 31.5 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations**
**APPROVED**

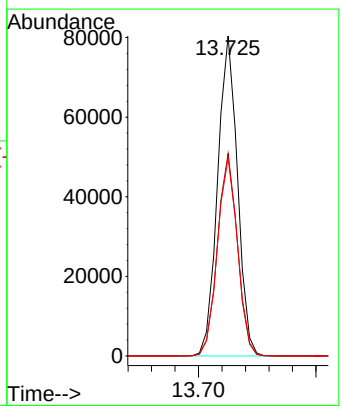
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

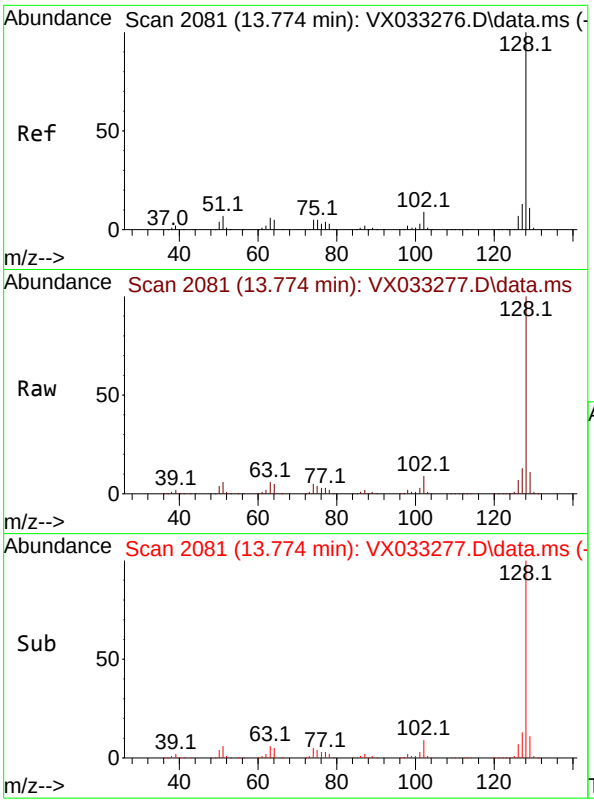



#94
Hexachlorobutadiene
Concen: 94.517 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:225 Resp: 94278

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 63.3 | 31.9 | 95.9 |
| 227 | 62.9 | 31.9 | 95.5 |

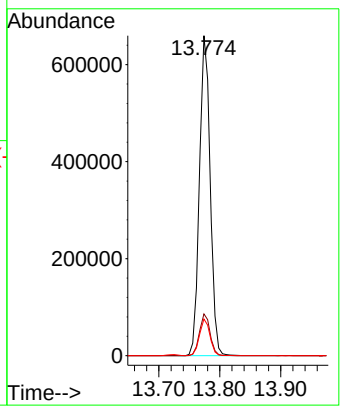





#95
Naphthalene
Concen: 110.304 ug/l
RT: 13.774 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:128 Resp: 80679

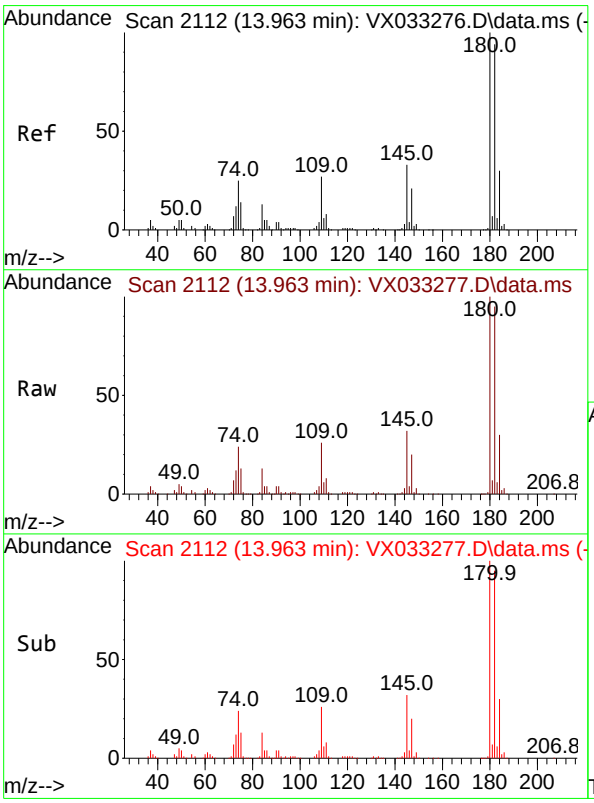
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.9 | 10.2 | 15.4 |
| 129 | 11.1 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC100

**Manual Integrations APPROVED**

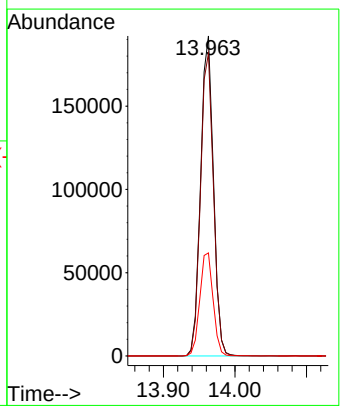
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 105.480 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033277.D
Acq: 07 Dec 2022 11:18

Tgt Ion:180 Resp: 239154

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.6 | 47.5 | 142.6 |
| 145 | 33.5 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033278.D
Acq On : 07 Dec 2022 11:42
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 12:10:16 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.556 | 168 | 128972 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.763 | 114 | 222944 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 208305 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 99577 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 129821 | 93.441 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 186.880%# | | | |
| 35) Dibromofluoromethane | 5.391 | 113 | 151294 | 120.373 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 240.740%# | | | |
| 50) Toluene-d8 | 8.653 | 98 | 309454 | 75.838 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 151.680%# | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 244909 | 148.337 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 296.680%# | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 122657 | 124.483 | ug/l | 98 |
| 3) Chloromethane | 1.294 | 50 | 157314 | 147.891 | ug/l | 97 |
| 4) Vinyl Chloride | 1.374 | 62 | 167807 | 141.681 | ug/l | 98 |
| 5) Bromomethane | 1.617 | 94 | 140122 | 159.542 | ug/l | 96 |
| 6) Chloroethane | 1.691 | 64 | 115495 | 119.781 | ug/l | 100 |
| 7) Trichlorofluoromethane | 1.886 | 101 | 283240 | 123.217 | ug/l | 99 |
| 8) Diethyl Ether | 2.136 | 74 | 133256 | 184.129 | ug/l | 95 |
| 9) 1,1,2-Trichlorotrifluo... | 2.325 | 101 | 158793 | 131.427 | ug/l | 98 |
| 10) Methyl Iodide | 2.453 | 142 | 219915 | 158.998 | ug/l | 97 |
| 11) Tert butyl alcohol | 3.093 | 59 | 222821m | 1119.143 | ug/l | |
| 12) 1,1-Dichloroethene | 2.319 | 96 | 172262 | 153.054 | ug/l | 99 |
| 13) Acrolein | 2.239 | 56 | 253022m | 1106.369 | ug/l | |
| 14) Allyl chloride | 2.666 | 41 | 303647 | 167.109 | ug/l | 93 |
| 15) Acrylonitrile | 3.068 | 53 | 557830 | 990.556 | ug/l | 98 |
| 16) Acetone | 2.392 | 43 | 469301 | 800.072 | ug/l | 98 |
| 17) Carbon Disulfide | 2.514 | 76 | 444725 | 143.021 | ug/l | 100 |
| 18) Methyl Acetate | 2.709 | 43 | 318234 | 195.990 | ug/l | 97 |
| 19) Methyl tert-butyl Ether | 3.117 | 73 | 730692 | 187.198 | ug/l | 99 |
| 20) Methylene Chloride | 2.788 | 84 | 224037 | 158.542 | ug/l | 91 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 205904 | 159.931 | ug/l | 98 |
| 22) Diisopropyl ether | 3.763 | 45 | 677264 | 171.174 | ug/l | 99 |
| 23) Vinyl Acetate | 3.727 | 43 | 2785251 | 899.311 | ug/l | 96 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 382012 | 168.724 | ug/l | 99 |
| 25) 2-Butanone | 4.568 | 43 | 743566 | 919.306 | ug/l | 99 |
| 26) 2,2-Dichloropropane | 4.477 | 77 | 275691 | 151.437 | ug/l | 97 |
| 27) cis-1,2-Dichloroethene | 4.489 | 96 | 258191 | 176.507 | ug/l | 96 |
| 28) Bromochloromethane | 4.903 | 49 | 158318 | 159.137 | ug/l | 93 |
| 29) Tetrahydrofuran | 5.013 | 42 | 490232 | 955.173 | ug/l | 96 |
| 30) Chloroform | 5.099 | 83 | 423786 | 167.120 | ug/l | 98 |
| 31) Cyclohexane | 5.477 | 56 | 261384 | 128.438 | ug/l | 92 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 346522 | 152.589 | ug/l | 98 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 267855 | 133.281 | ug/l | 98 |
| 37) Ethyl Acetate | 4.721 | 43 | 303375 | 173.027 | ug/l | 99 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 297622 | 133.497 | ug/l | 98 |
| 39) Methylcyclohexane | 7.385 | 83 | 259458 | 113.151 | ug/l | 98 |
| 40) Benzene | 6.037 | 78 | 859288 | 152.499 | ug/l | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033278.D
Acq On : 07 Dec 2022 11:42
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 12:10:16 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc Units | | Dev(Min) |
|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.928 | 41 | 168569 | 170.863 ug/l | | 96 |
| 42) 1,2-Dichloroethane | 6.086 | 62 | 345058 | 152.092 ug/l | | 97 |
| 43) Isopropyl Acetate | 6.342 | 43 | 507740 | 175.101 ug/l | | 97 |
| 44) Trichloroethene | 7.129 | 130 | 232626 | 147.125 ug/l | | 99 |
| 45) 1,2-Dichloropropane | 7.434 | 63 | 226079 | 162.353 ug/l | | 100 |
| 46) Dibromomethane | 7.580 | 93 | 177123 | 163.014 ug/l | | 98 |
| 47) Bromodichloromethane | 7.824 | 83 | 344310 | 163.993 ug/l | | 98 |
| 48) Methyl methacrylate | 7.696 | 41 | 252825 | 169.388 ug/l | | 92 |
| 49) 1,4-Dioxane | 7.720 | 88 | 115303 | 4196.625 ug/l | | 96 |
| 51) 4-Methyl-2-Pentanone | 8.580 | 43 | 1480794 | 827.584 ug/l | | 95 |
| 52) Toluene | 8.720 | 92 | 554420 | 149.557 ug/l | | 100 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 371247 | 180.152 ug/l | | 99 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 392302 | 173.324 ug/l | | 90 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 246911 | 163.595 ug/l | | 99 |
| 56) Ethyl methacrylate | 9.116 | 69 | 372607 | 179.181 ug/l | # | 90 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 398683 | 163.628 ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl ether | 8.244 | 63 | 863389 | 874.338 ug/l | | 98 |
| 59) 2-Hexanone | 9.439 | 43 | 1087532 | 822.777 ug/l | | 93 |
| 60) Dibromochloromethane | 9.525 | 129 | 283948 | 174.743 ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 272145 | 170.833 ug/l | | 99 |
| 64) Tetrachloroethene | 9.275 | 164 | 184932 | 125.423 ug/l | | 97 |
| 65) Chlorobenzene | 10.079 | 112 | 615825 | 148.283 ug/l | | 99 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 244812 | 160.880 ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 1049730 | 142.491 ug/l | | 99 |
| 68) m/p-Xylenes | 10.305 | 106 | 824272 | 285.726 ug/l | | 96 |
| 69) o-Xylene | 10.646 | 106 | 414501 | 148.498 ug/l | | 96 |
| 70) Styrene | 10.659 | 104 | 710697 | 155.632 ug/l | | 98 |
| 71) Bromoform | 10.799 | 173 | 208713 | 178.889 ug/l | # | 100 |
| 73) Isopropylbenzene | 10.963 | 105 | 996208 | 140.002 ug/l | | 99 |
| 74) N-amyl acetate | 10.848 | 43 | 414776 | 171.353 ug/l | | 95 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 352906 | 164.323 ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.244 | 75 | 309515m | 164.127 ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 272423 | 155.671 ug/l | | 100 |
| 78) n-propylbenzene | 11.305 | 91 | 1114633 | 137.006 ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 703127 | 142.298 ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 849987 | 142.194 ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 113174 | 195.069 ug/l | | 90 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 831705 | 143.634 ug/l | | 98 |
| 83) tert-Butylbenzene | 11.719 | 119 | 827149 | 139.011 ug/l | | 96 |
| 84) 1,2,4-Trimethylbenzene | 11.756 | 105 | 854067 | 143.289 ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 905800 | 127.242 ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 797245 | 132.185 ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 485166 | 147.810 ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 489915 | 145.739 ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 657935 | 126.627 ug/l | | 98 |
| 90) Hexachloroethane | 12.542 | 117 | 143263 | 144.580 ug/l | | 98 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 484137 | 151.625 ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 82029 | 191.433 ug/l | | 92 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 298296 | 151.555 ug/l | | 98 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 93761 | 107.977 ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 1100373 | 172.814 ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 298441 | 151.203 ug/l | | 100 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033278.D
Acq On : 07 Dec 2022 11:42
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 12:10:16 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033278.D
Acq On : 07 Dec 2022 11:42
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 12:10:16 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 09:47:15 2022
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**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

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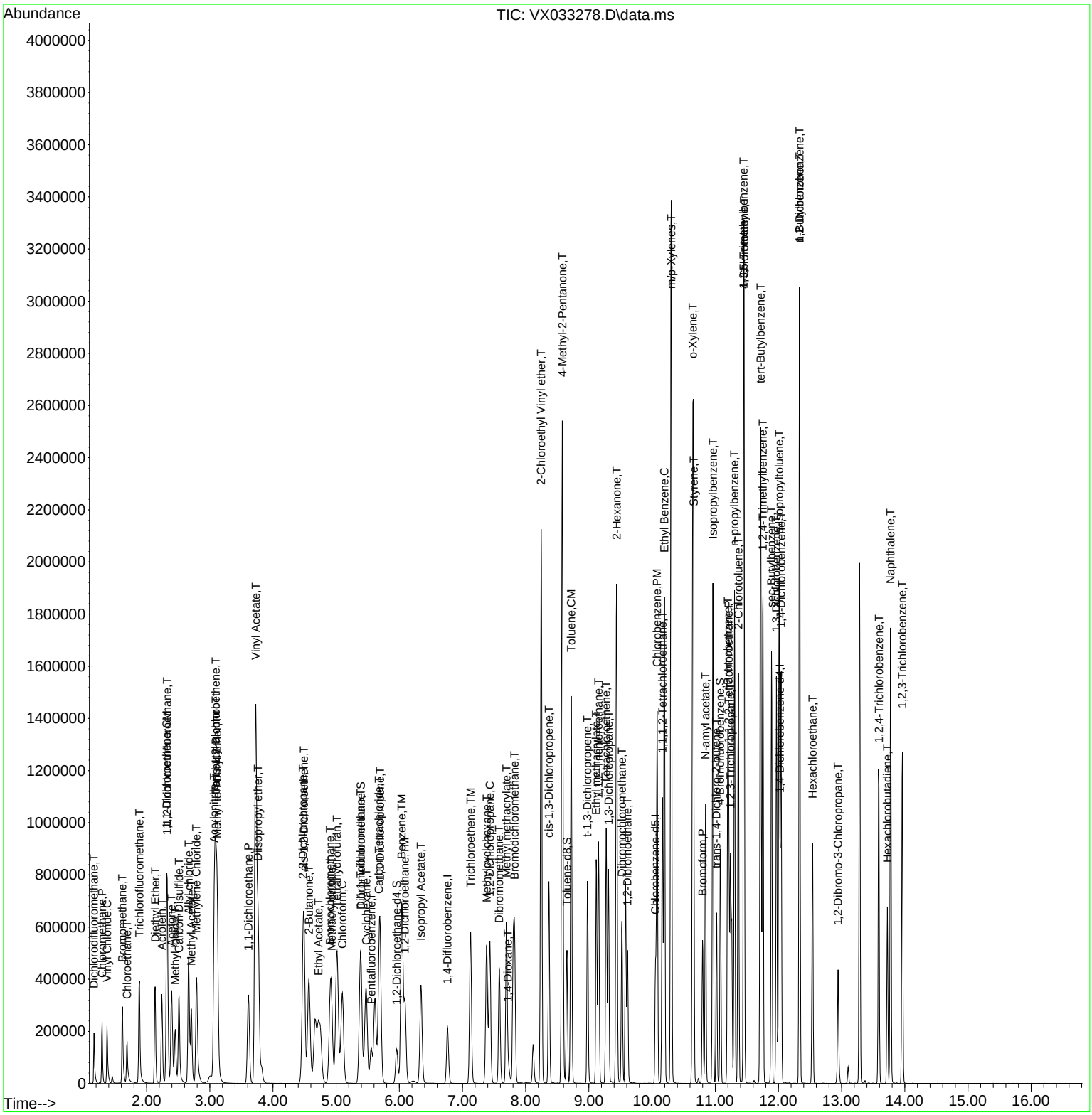
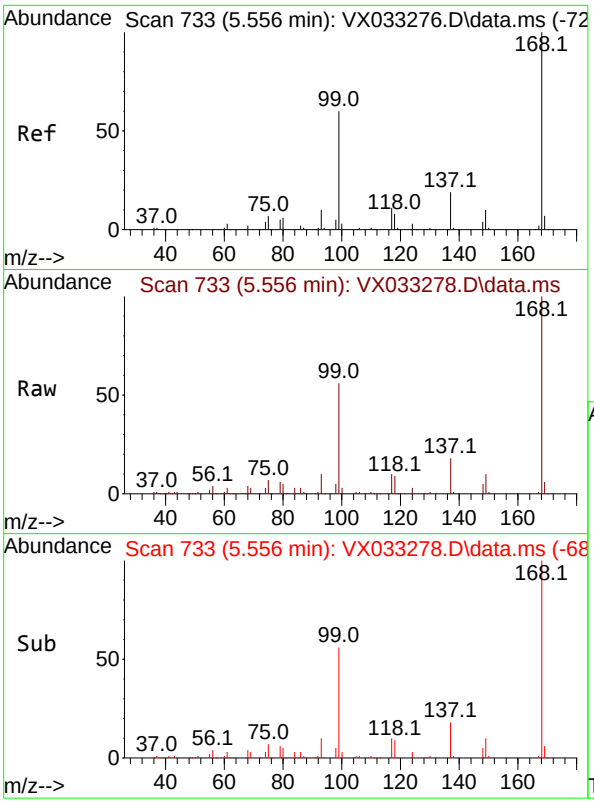
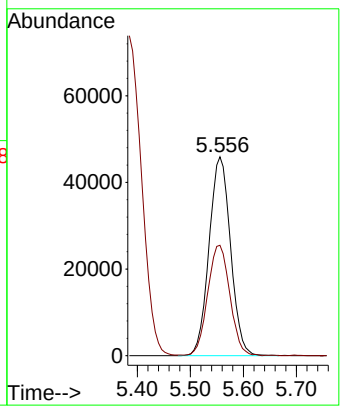





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.556 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:168 Resp: 12897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 55.4 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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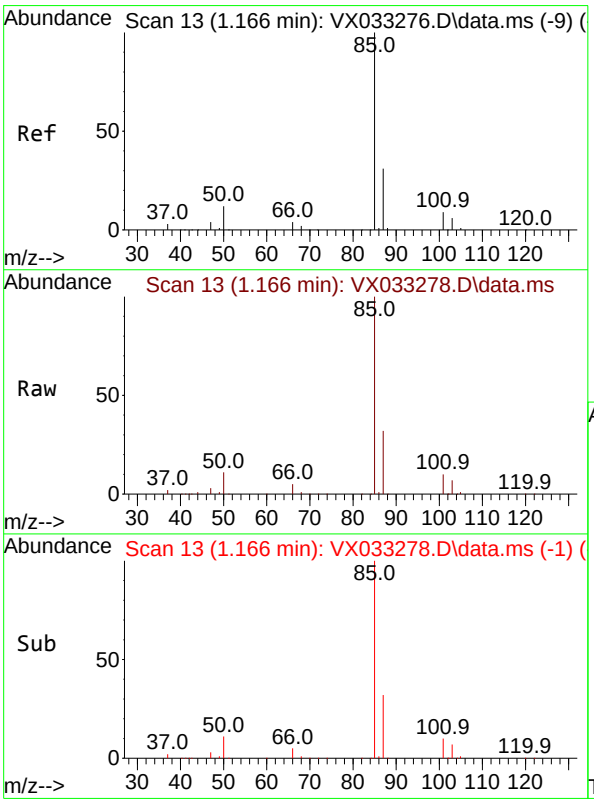
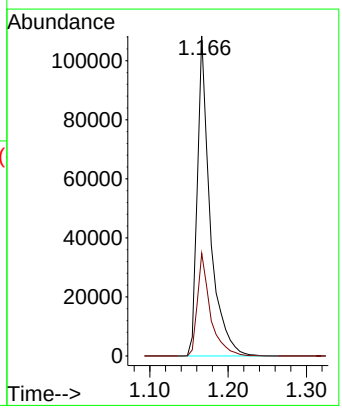
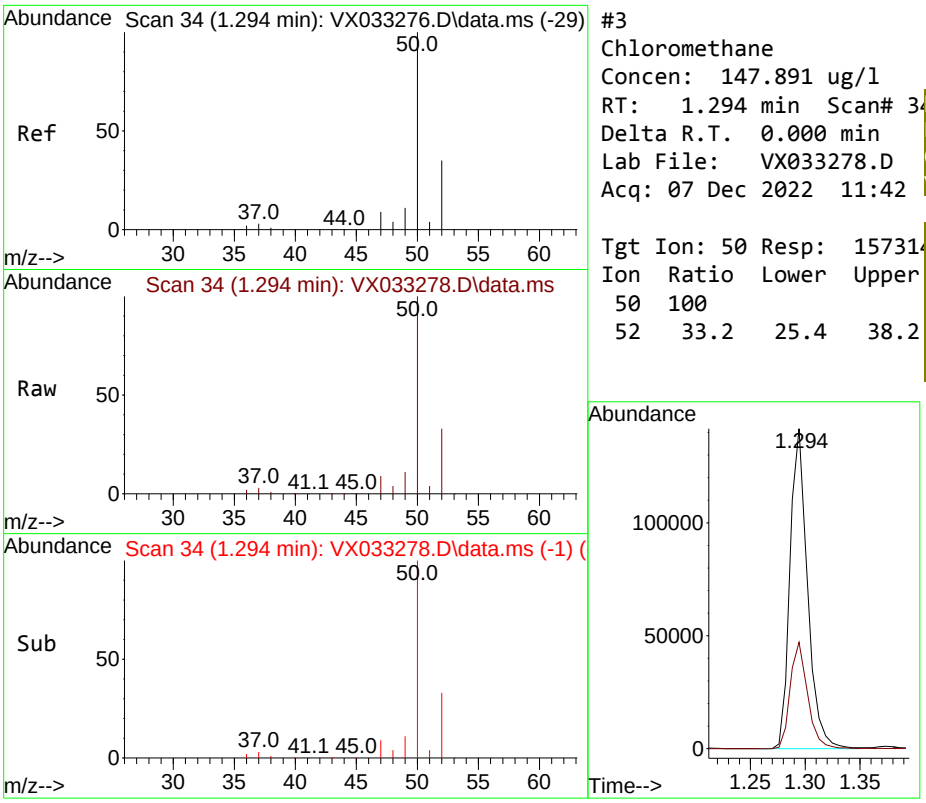



#2
Dichlorodifluoromethane
Concen: 124.483 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 85 Resp: 122657

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.1 | 15.6 | 46.7 |






#3
Chloromethane
Concen: 147.891 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 50 Resp: 15731

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.2 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

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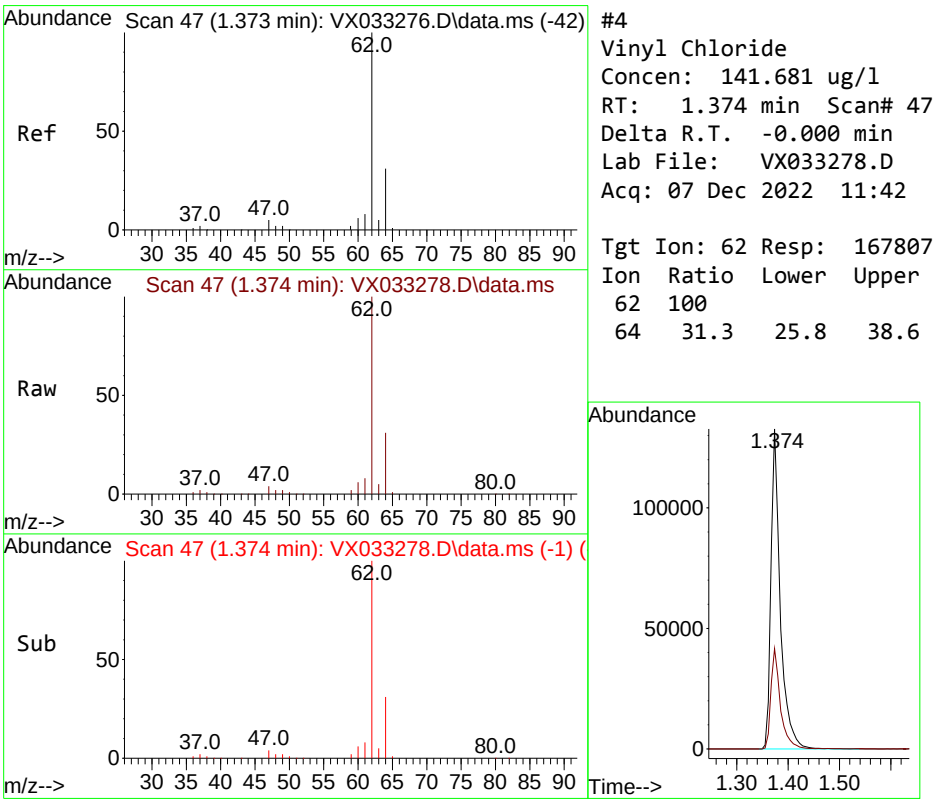
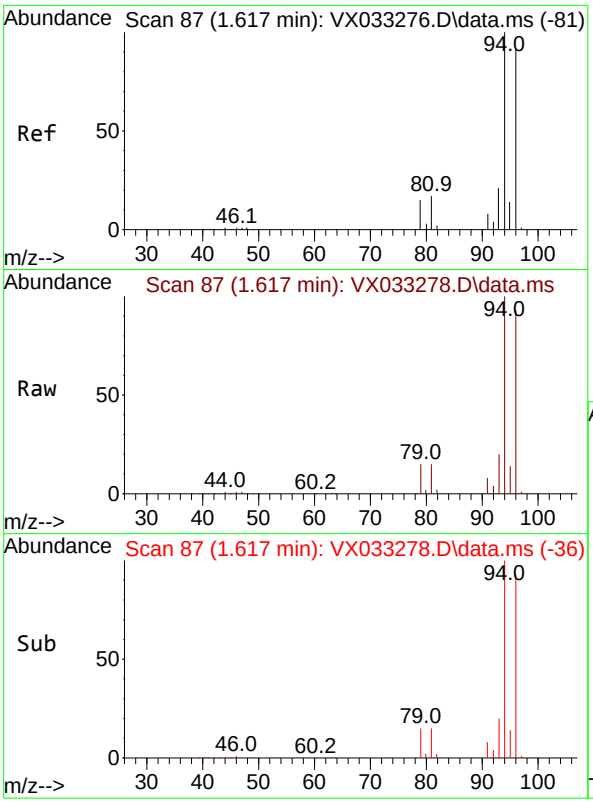



#4
Vinyl Chloride
Concen: 141.681 ug/l
RT: 1.374 min Scan# 47
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 62 Resp: 167807

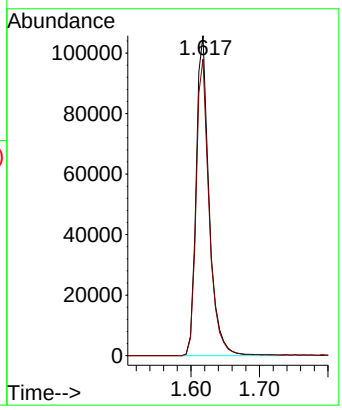
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.3 | 25.8 | 38.6 |




#5
Bromomethane
Concen: 159.542 ug/l
RT: 1.617 min Scan# 8
Delta R.T. 0.012 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 94 Resp: 14012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 92.6 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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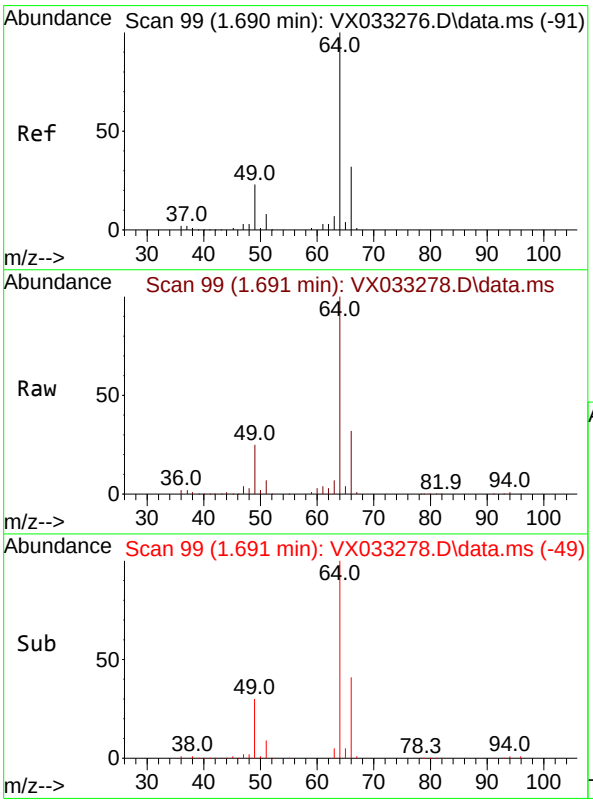
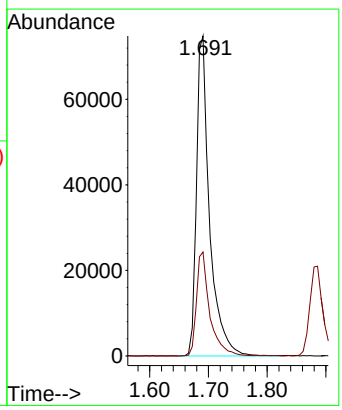
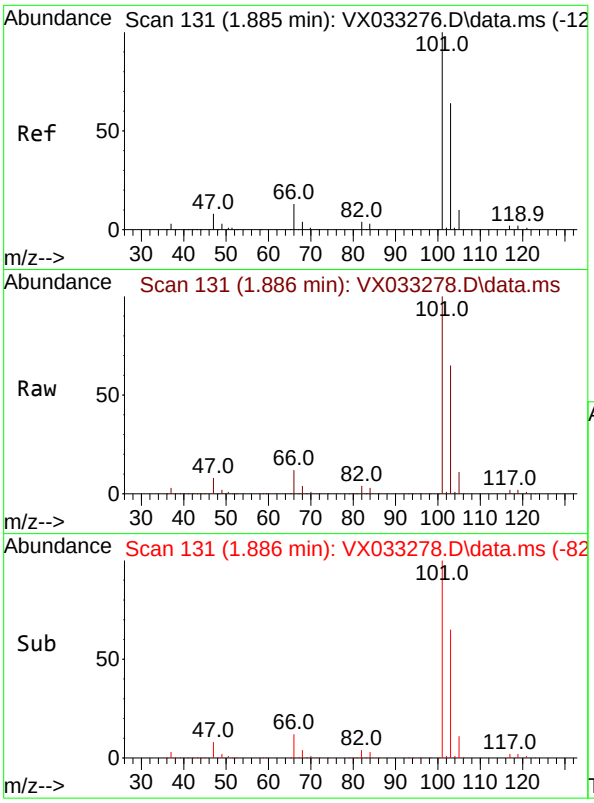



#6
Chloroethane
Concen: 119.781 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 64 Resp: 115495

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 32.5 | 26.0 | 39.0 |






#7
Trichlorofluoromethane
Concen: 123.217 ug/l
RT: 1.886 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:101 Resp: 28324

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.8 | 51.4 | 77.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

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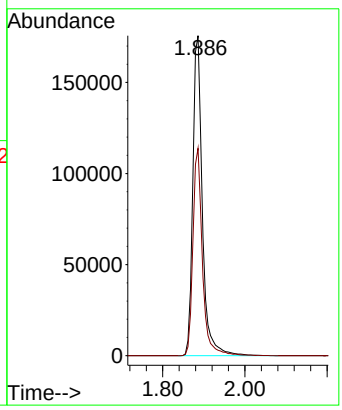
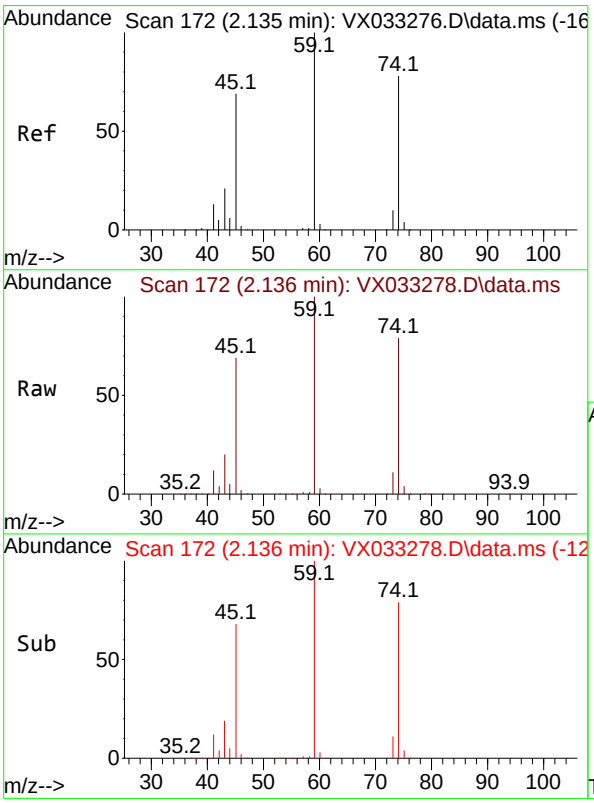
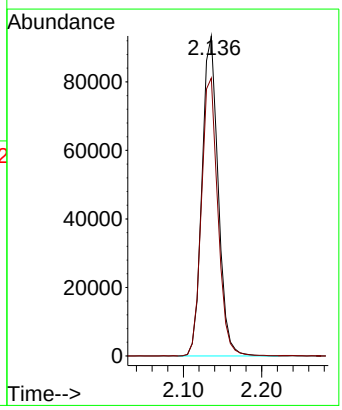


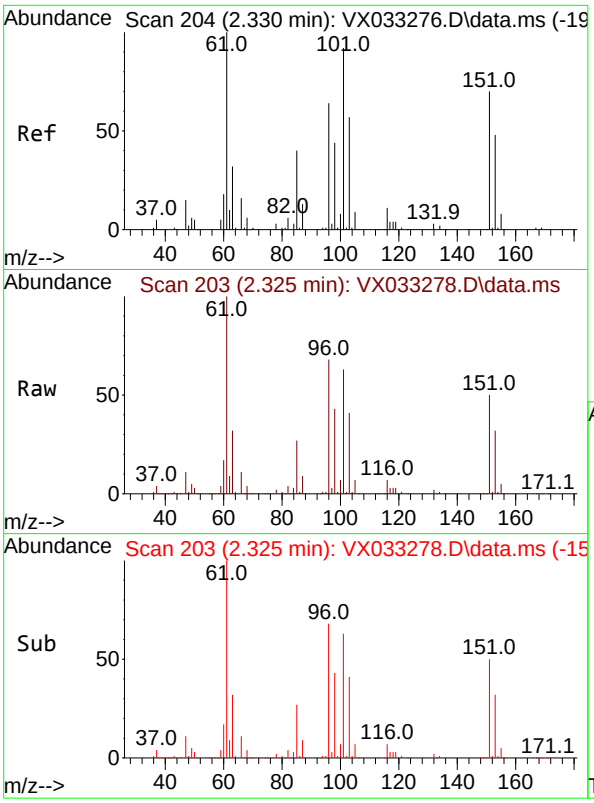




#8
Diethyl Ether
Concen: 184.129 ug/l
RT: 2.136 min Scan# 172
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 74 Resp: 133256

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 88.6 | 46.6 | 139.7 |

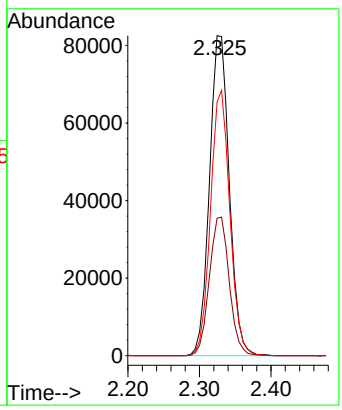





#9
1,1,2-Trichlorotrifluoroethane
Concen: 131.427 ug/l
RT: 2.325 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:101 Resp: 15879

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 43.6 | 37.0 | 55.4 |
| 151 | 81.0 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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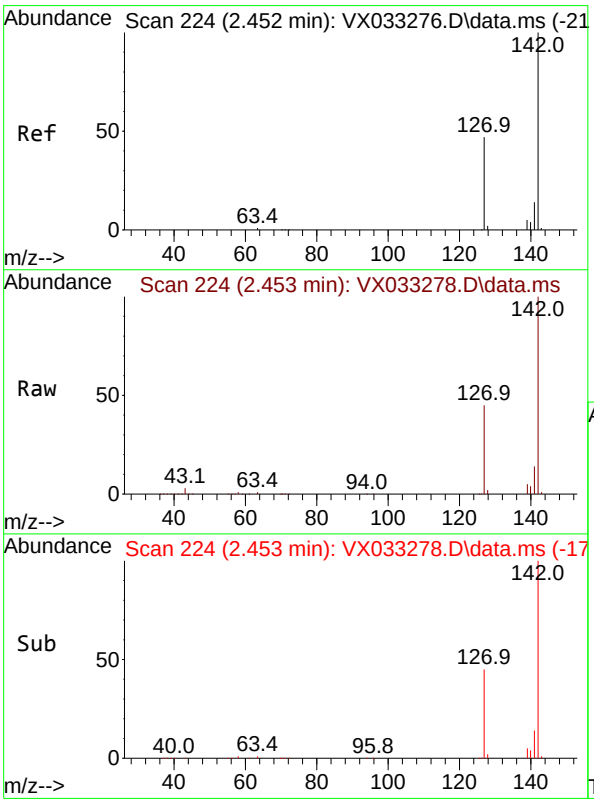
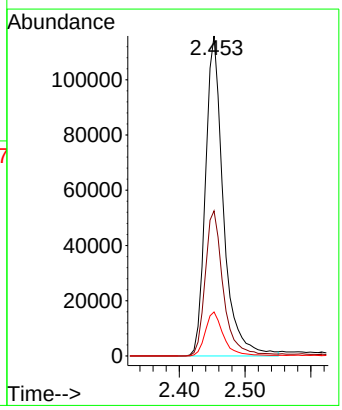
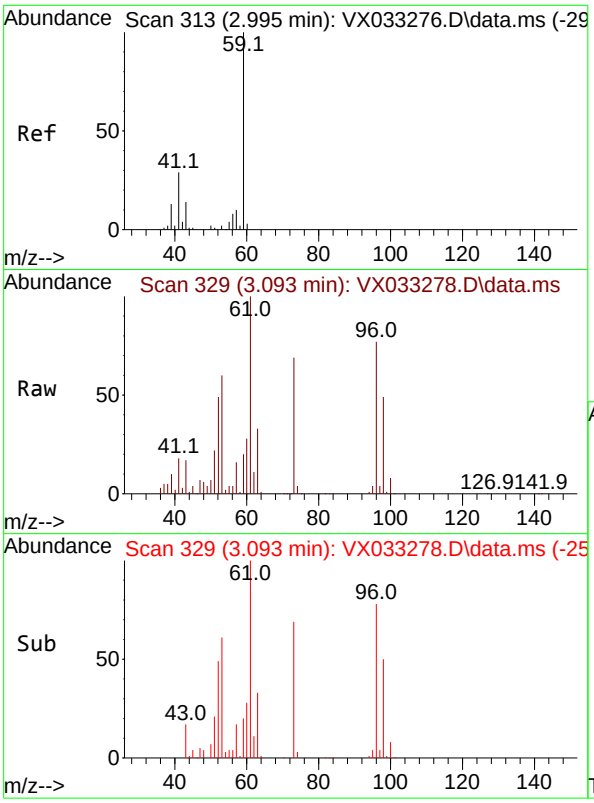



#10
Methyl Iodide
Concen: 158.998 ug/l
RT: 2.453 min Scan# 224
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:142 Resp: 219915

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 46.0 | 38.6 | 57.8 |
| 141 | 14.1 | 11.4 | 17.2 |

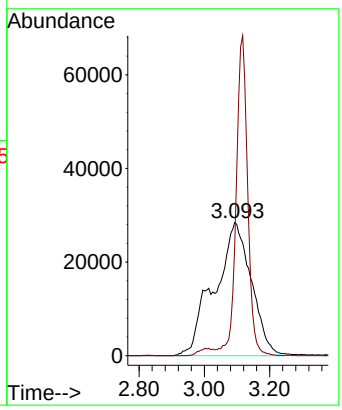





#11
Tert butyl alcohol
Concen: 1119.143 ug/l m
RT: 3.093 min Scan# 3
Delta R.T. 0.128 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 59 Resp: 22282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 0.0 | 8.2 | 12.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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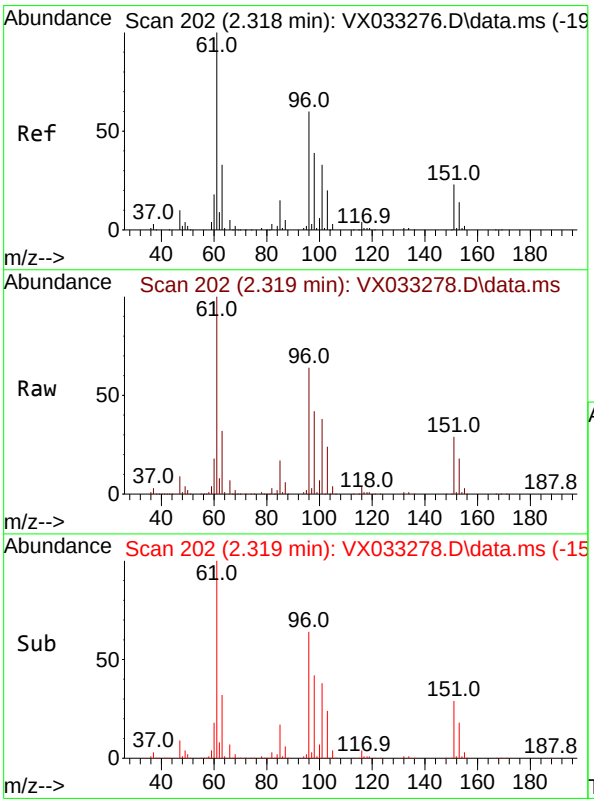
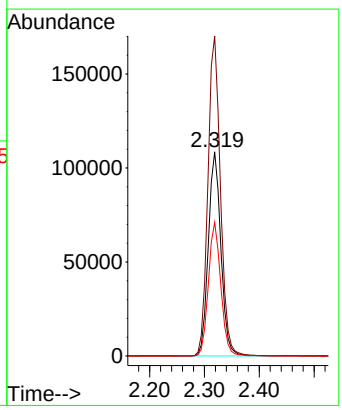
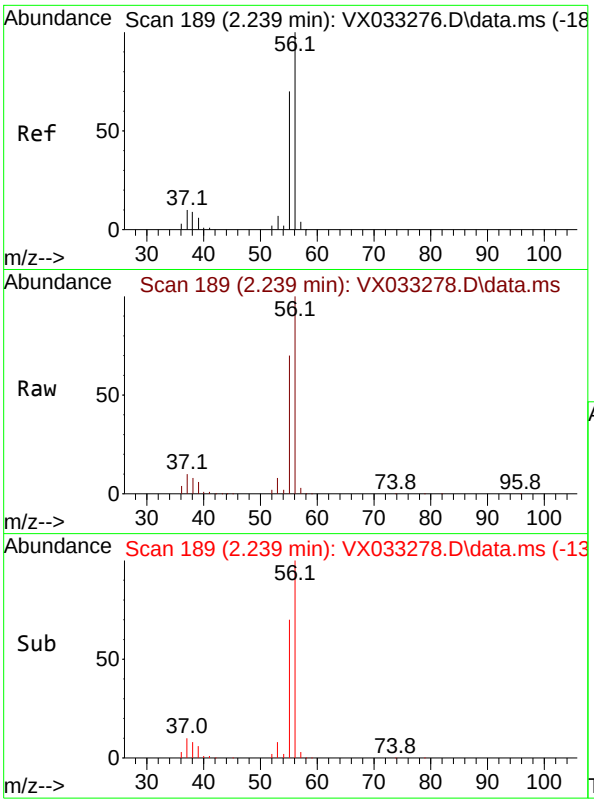



#12
1,1-Dichloroethene
Concen: 153.054 ug/l
RT: 2.319 min Scan# 202
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 96 Resp: 172262

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 156.8 | 125.1 | 187.7 |
| 98 | 65.5 | 50.6 | 76.0 |

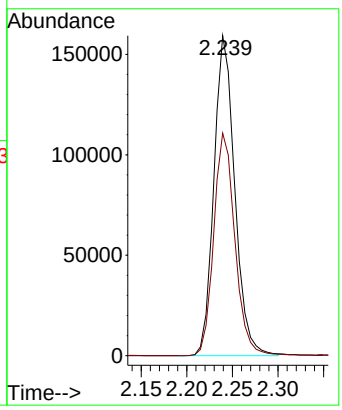





#13
Acrolein
Concen: 1106.369 ug/l m
RT: 2.239 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 56 Resp: 25302

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.8 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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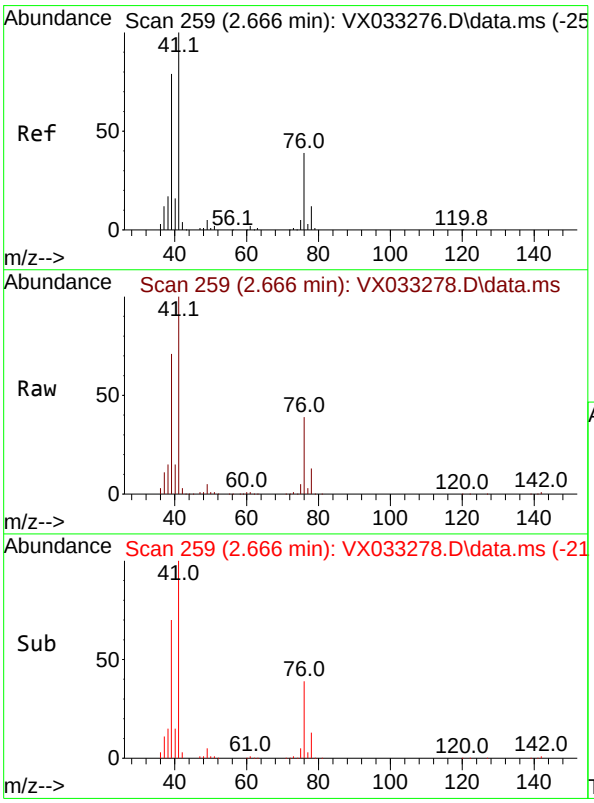
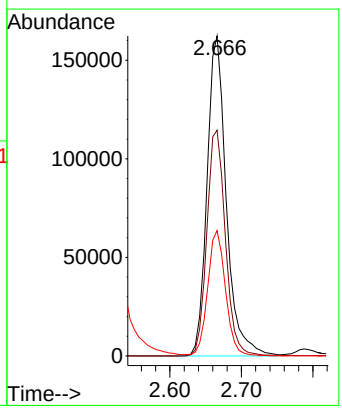
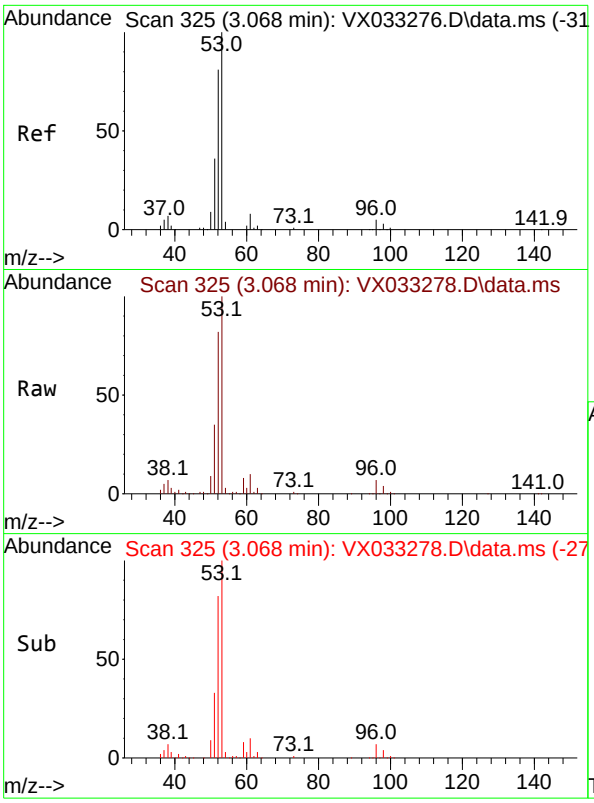



#14
Allyl chloride
Concen: 167.109 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 41 Resp: 303647

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 68.1 | 61.4 | 92.2 |
| 76 | 36.5 | 29.2 | 43.8 |

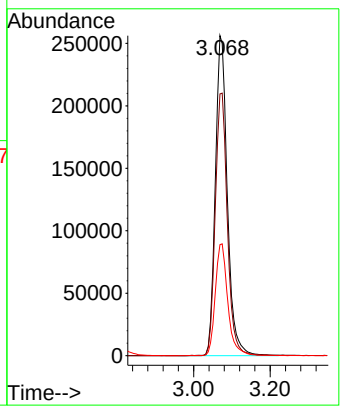





#15
Acrylonitrile
Concen: 990.556 ug/l
RT: 3.068 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 53 Resp: 55783

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 82.8 | 67.4 | 101.0 |
| 51 | 36.6 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

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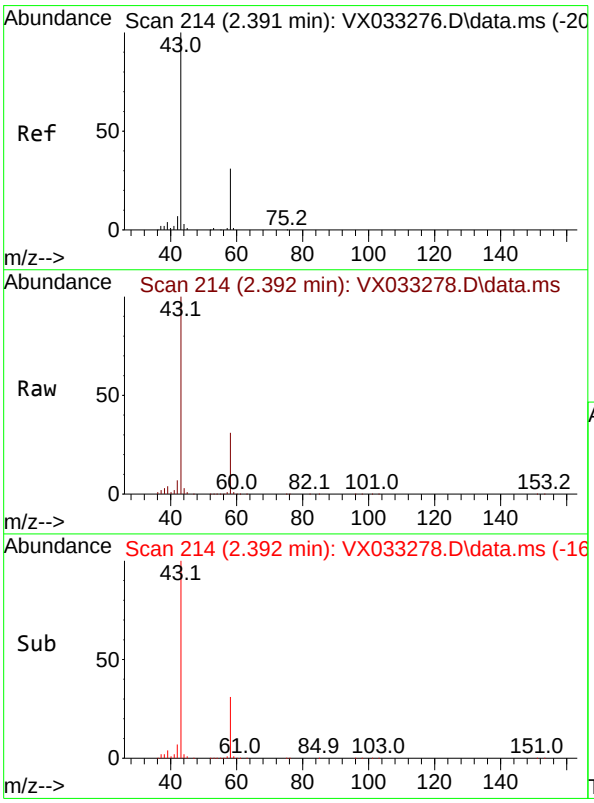
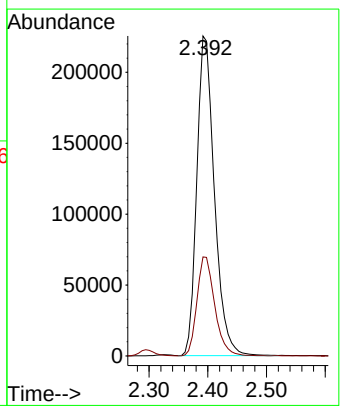
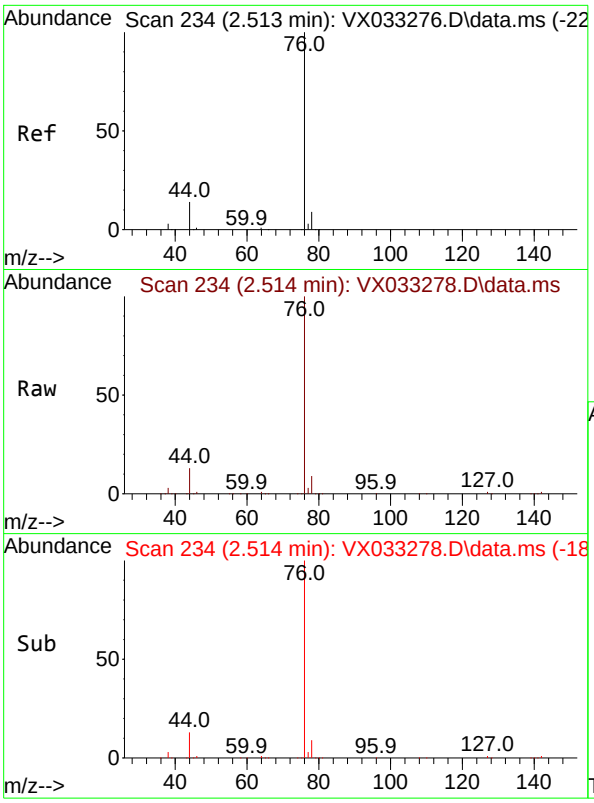



#16
Acetone
Concen: 800.072 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.012 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 469301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.9 | 23.8 | 35.8 |

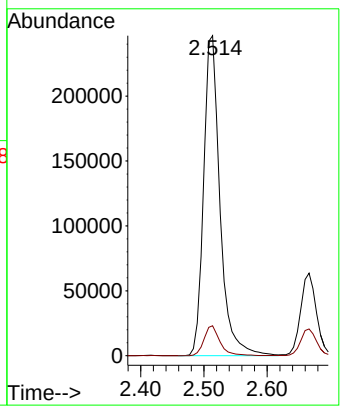





#17
Carbon Disulfide
Concen: 143.021 ug/l
RT: 2.514 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 76 Resp: 44472

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.3 | 7.5 | 11.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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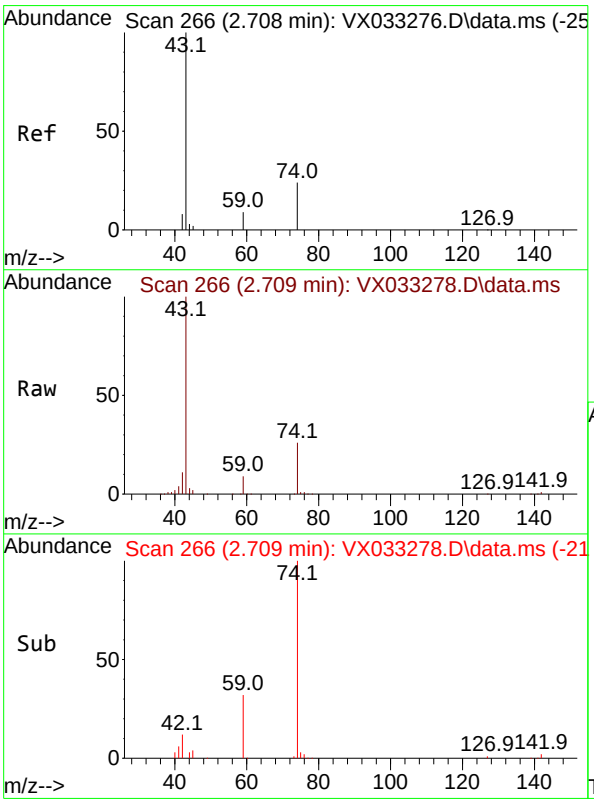
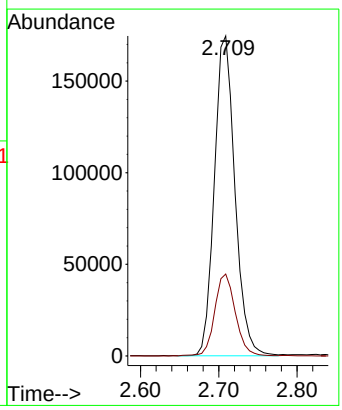
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

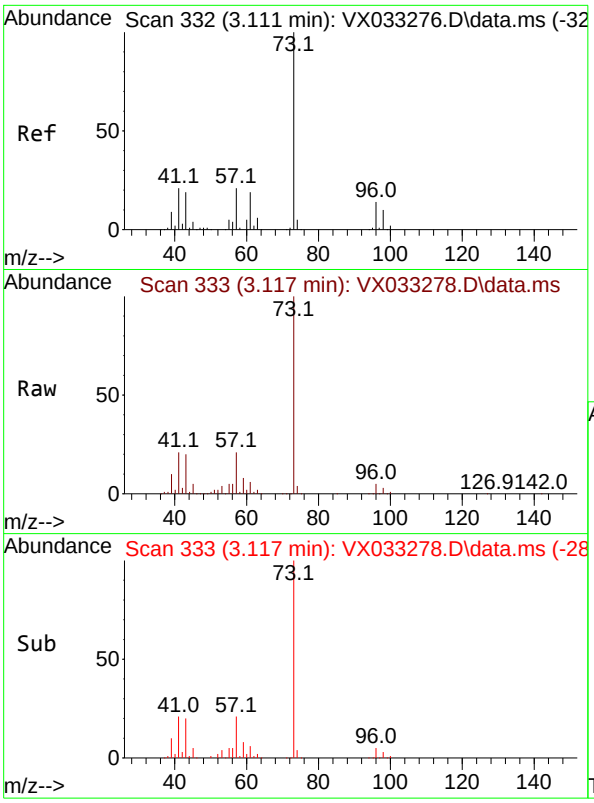



#18
Methyl Acetate
Concen: 195.990 ug/l
RT: 2.709 min Scan# 266
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 318234

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.8 | 19.4 | 29.0 |

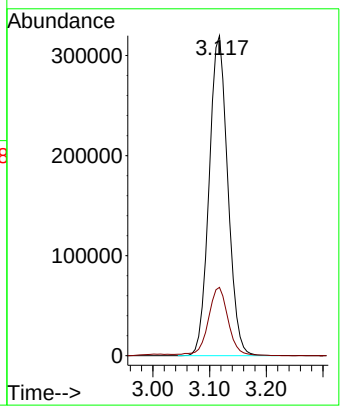





#19
Methyl tert-butyl Ether
Concen: 187.198 ug/l
RT: 3.117 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 73 Resp: 73069

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 21.3 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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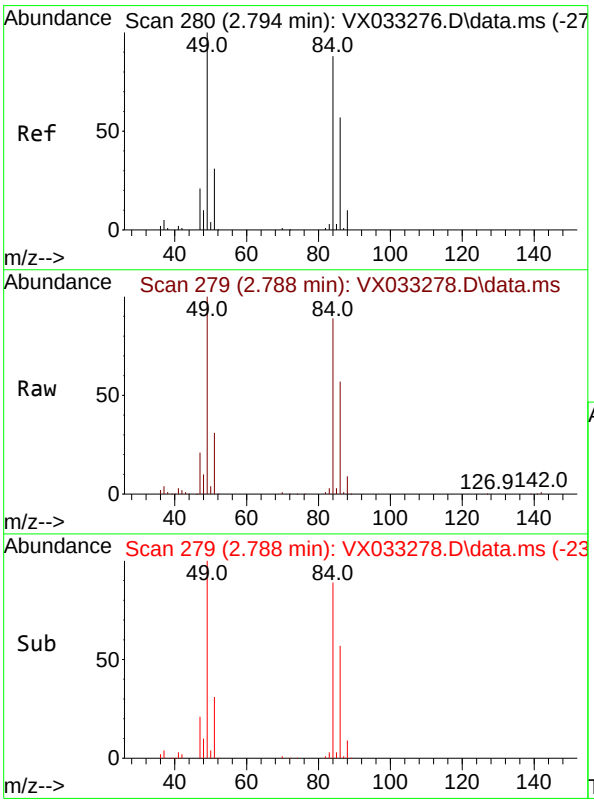
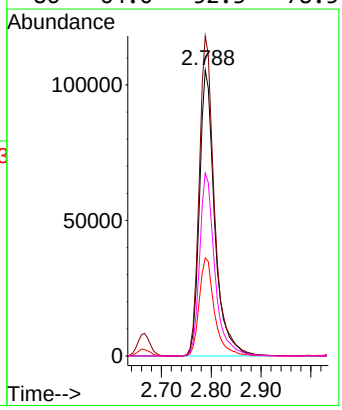
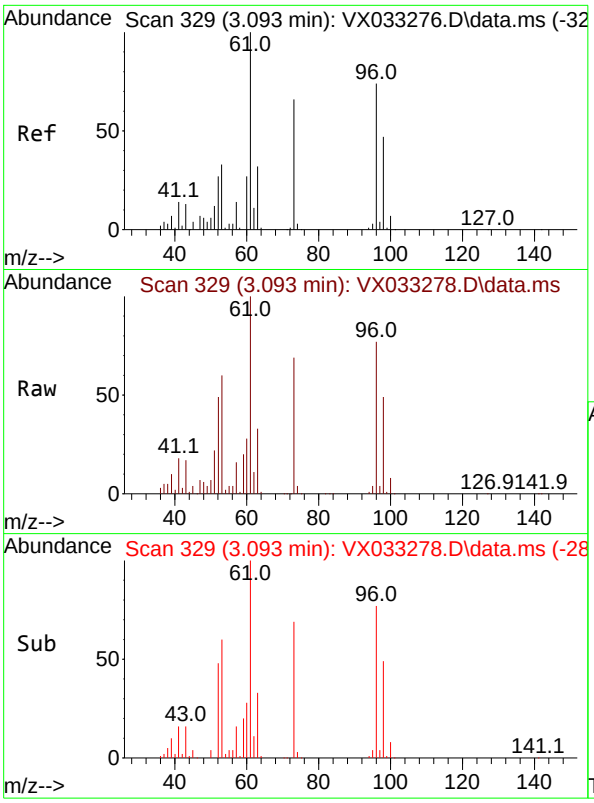



#20
Methylene Chloride
Concen: 158.542 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 84 Resp: 224037

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 112.0 | 101.0 | 151.6 |
| 51 | 34.3 | 31.1 | 46.7 |
| 86 | 64.0 | 52.3 | 78.5 |

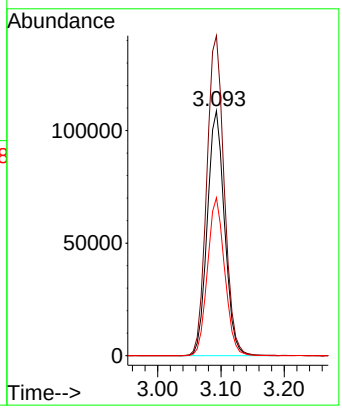





#21
trans-1,2-Dichloroethene
Concen: 159.931 ug/l
RT: 3.093 min Scan# 3
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 96 Resp: 20590

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 130.7 | 106.6 | 160.0 |
| 98 | 64.5 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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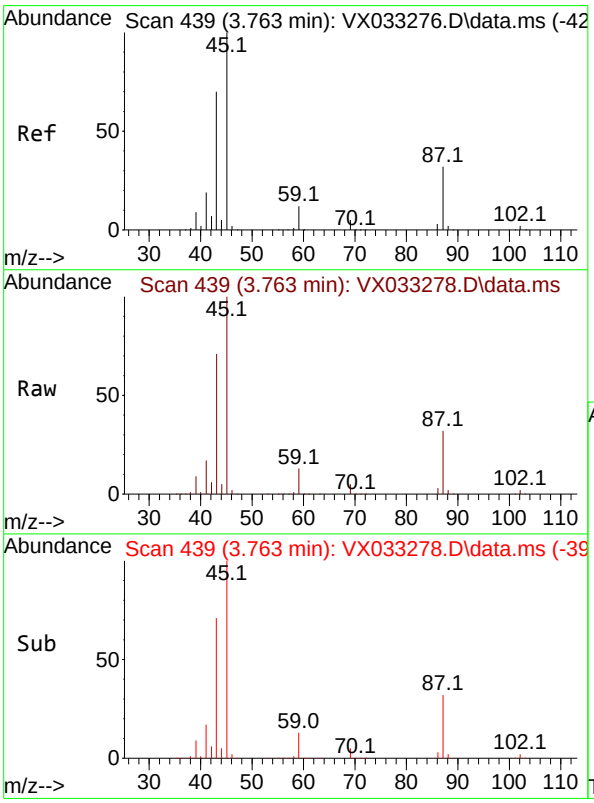
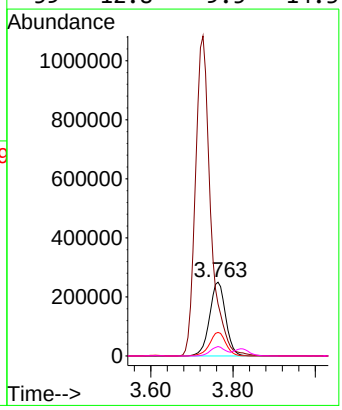
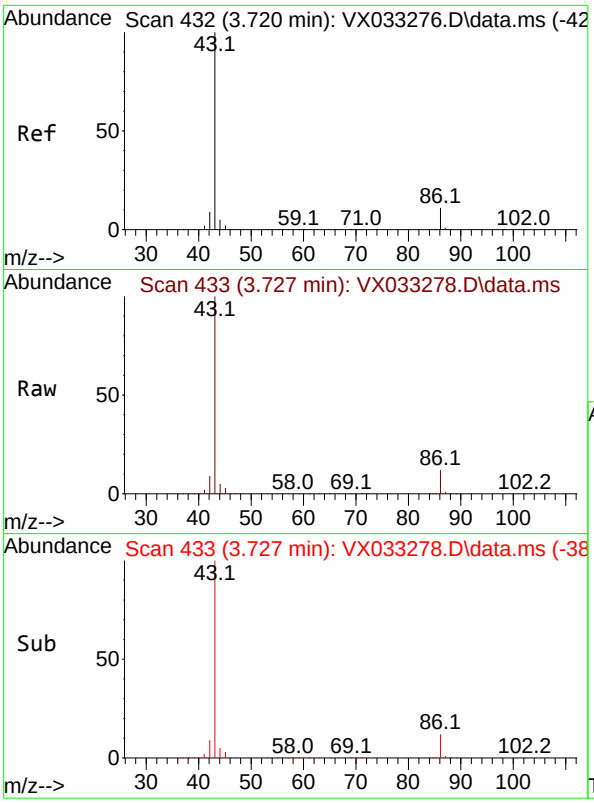



#22
Diisopropyl ether
Concen: 171.174 ug/l
RT: 3.763 min Scan# 439
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 45 Resp: 677264

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 70.6 | 56.4 | 84.6 |
| 87 | 31.9 | 24.4 | 36.6 |
| 59 | 12.8 | 9.5 | 14.3 |

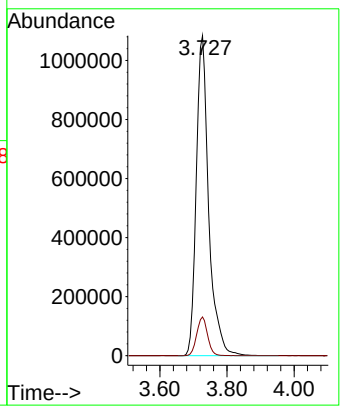





#23
Vinyl Acetate
Concen: 899.311 ug/l
RT: 3.727 min Scan# 4
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 278525

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 12.1 | 8.6 | 12.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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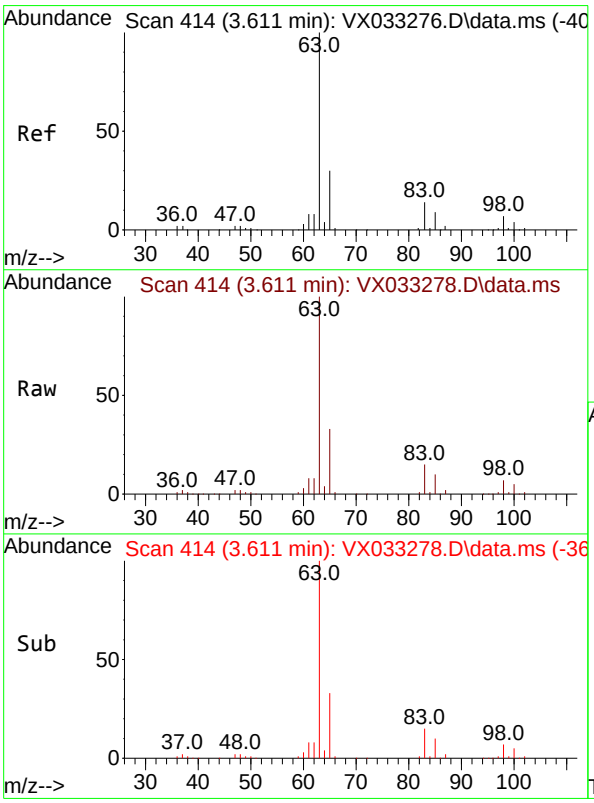
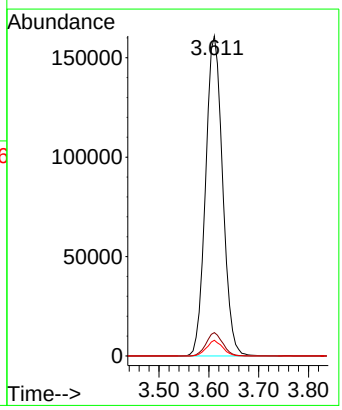
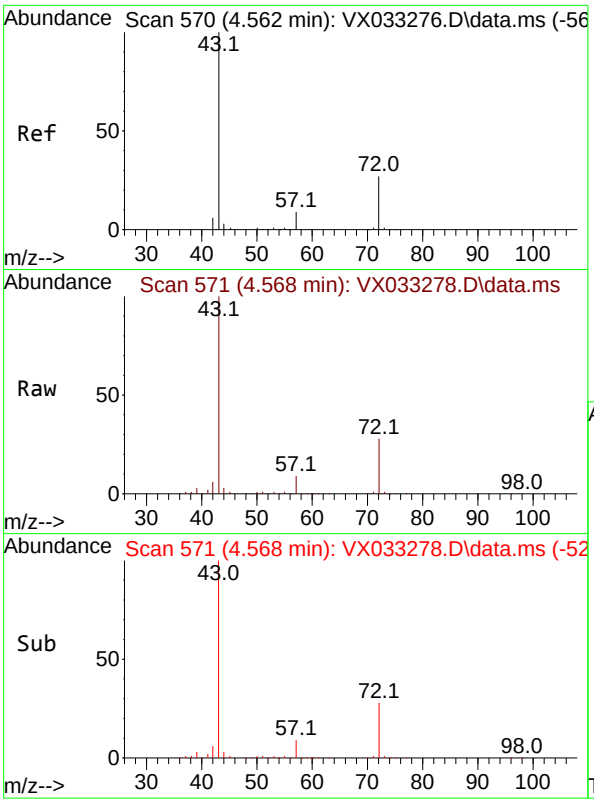



#24
1,1-Dichloroethane
Concen: 168.724 ug/l
RT: 3.611 min Scan# 414
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 63 Resp: 382012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 7.3 | 3.5 | 10.4 |
| 100 | 4.9 | 2.3 | 6.8 |

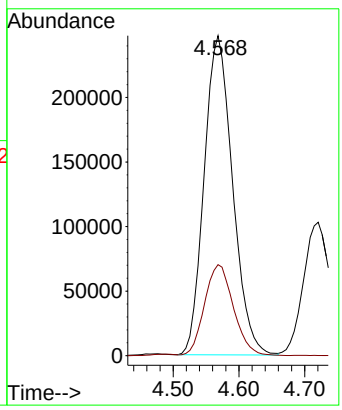





#25
2-Butanone
Concen: 919.306 ug/l
RT: 4.568 min Scan# 5
Delta R.T. 0.012 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 74356

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 28.4 | 22.2 | 33.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

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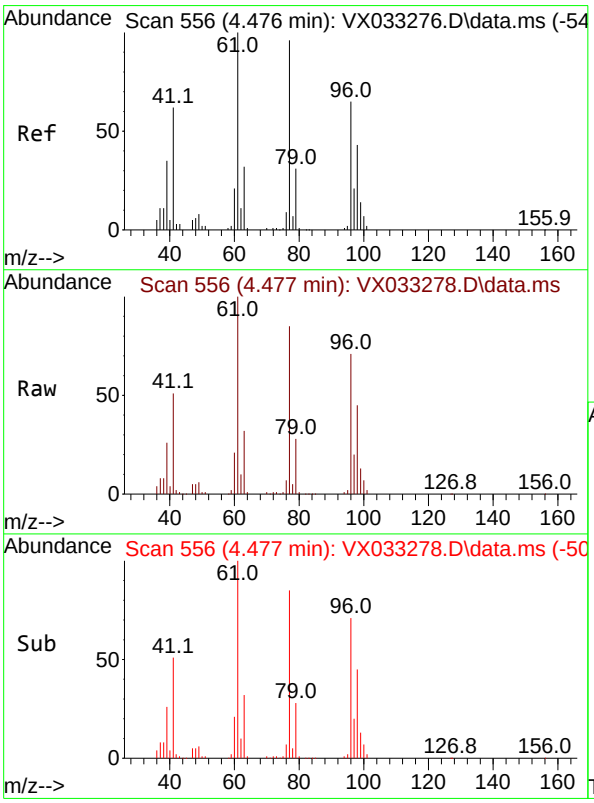
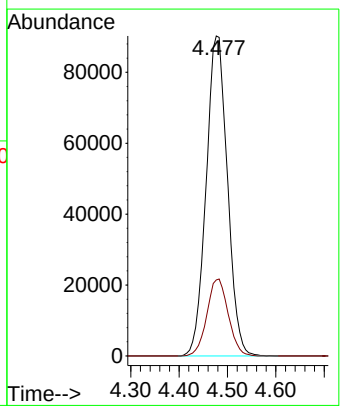
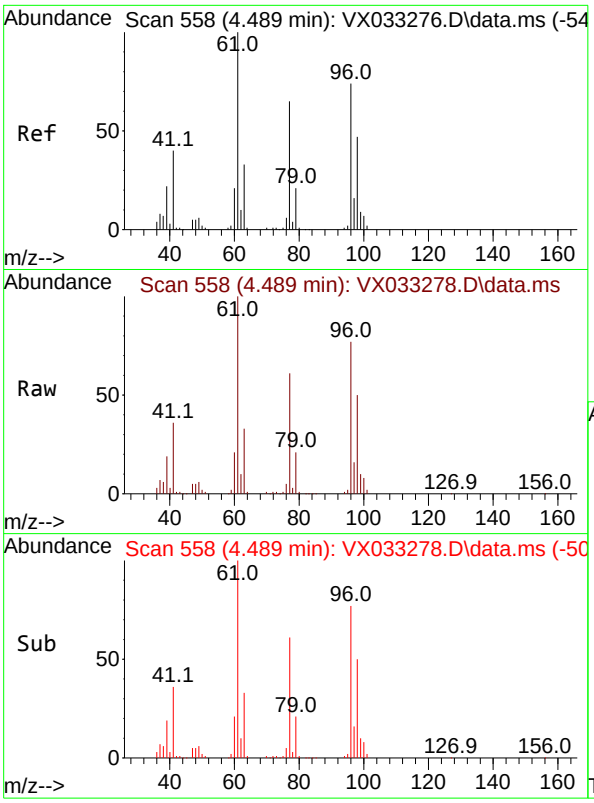



#26
2,2-Dichloropropane
Concen: 151.437 ug/l
RT: 4.477 min Scan# 556
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 77 Resp: 275691

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 24.1 | 11.4 | 34.1 |

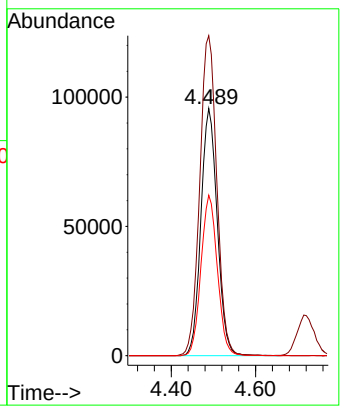





#27
cis-1,2-Dichloroethene
Concen: 176.507 ug/l
RT: 4.489 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 96 Resp: 25819

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 135.5 | 0.0 | 286.0 |
| 98 | 65.0 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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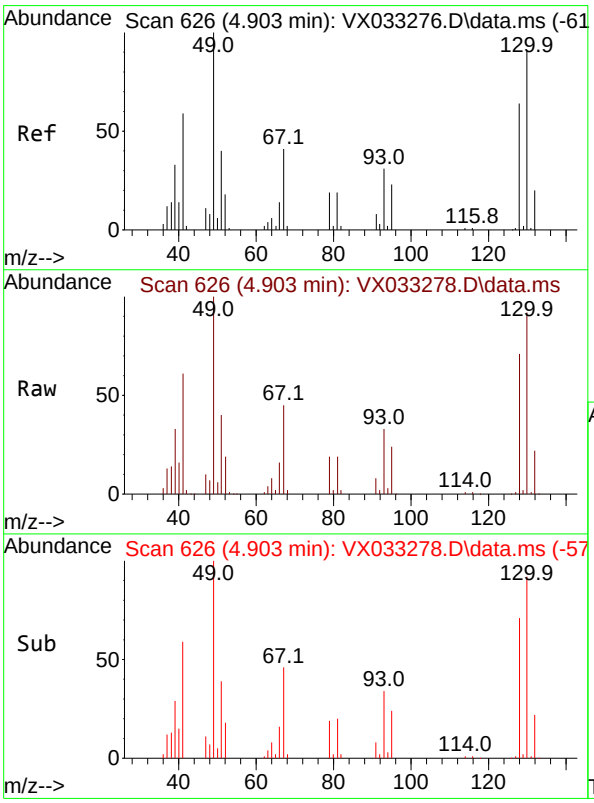
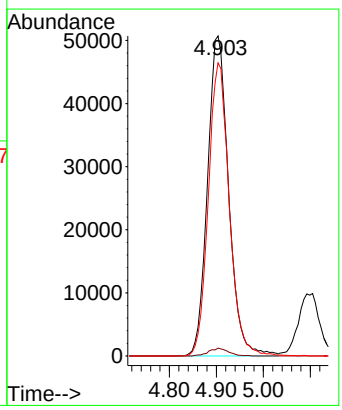
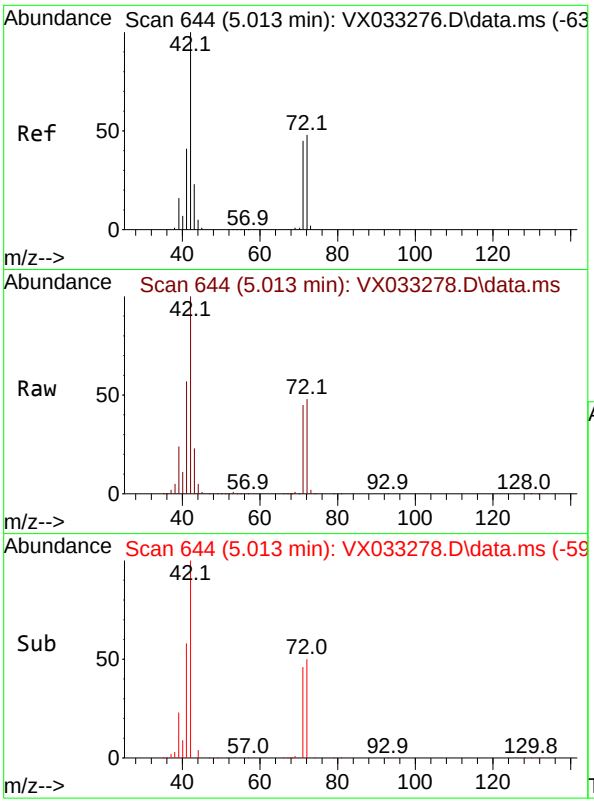



#28
Bromochloromethane
Concen: 159.137 ug/l
RT: 4.903 min Scan# 626
Delta R.T. -0.001 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 49 Resp: 158318

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.3 | 0.0 | 3.8 |
| 130 | 90.7 | 67.5 | 101.3 |

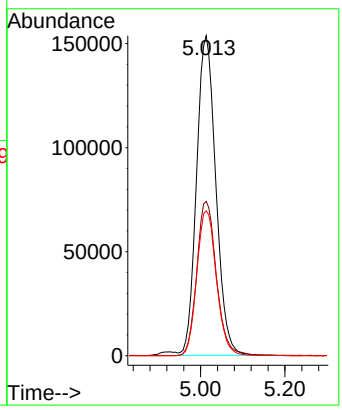





#29
Tetrahydrofuran
Concen: 955.173 ug/l
RT: 5.013 min Scan# 64
Delta R.T. 0.012 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 42 Resp: 49023

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 49.3 | 37.6 | 56.4 |
| 71 | 45.9 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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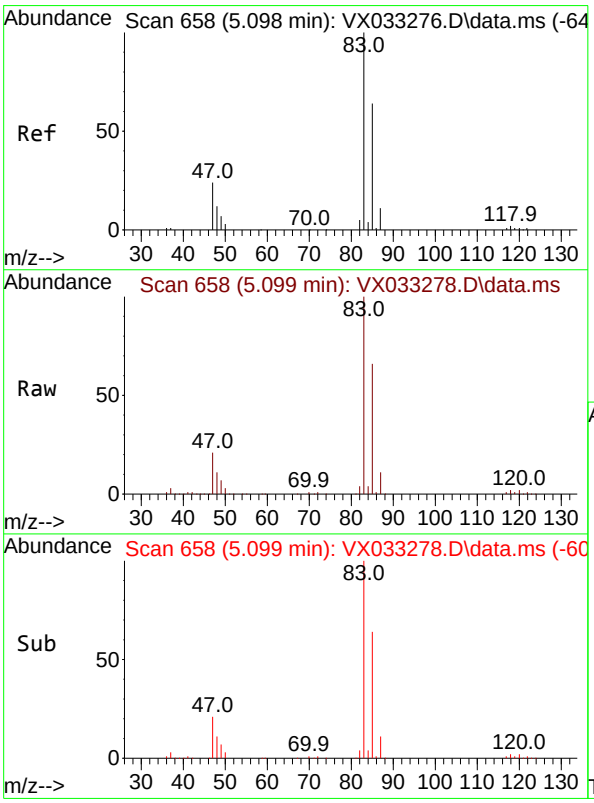
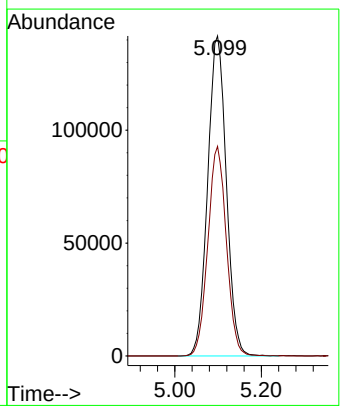
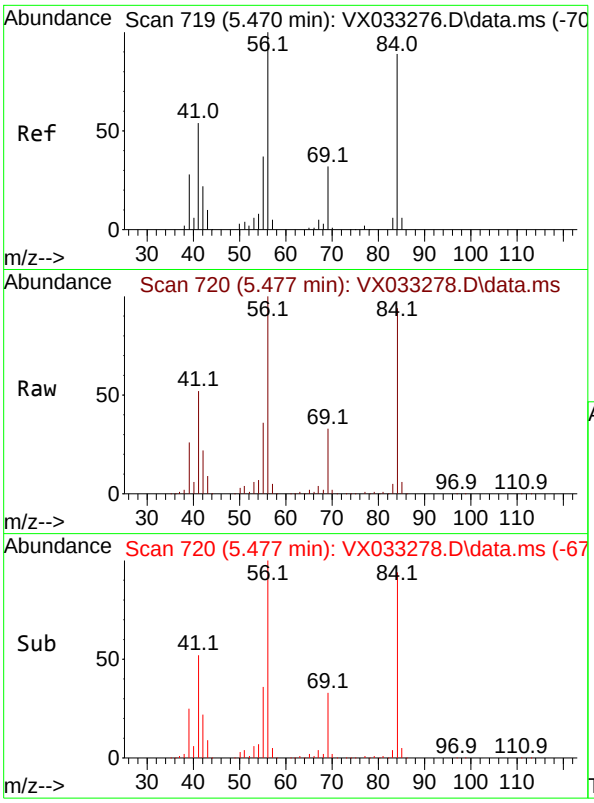



#30
Chloroform
Concen: 167.120 ug/l
RT: 5.099 min Scan# 658
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 83 Resp: 423786

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.5 | 51.1 | 76.7 |

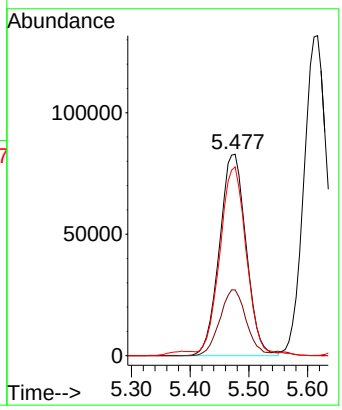





#31
Cyclohexane
Concen: 128.438 ug/l
RT: 5.477 min Scan# 7
Delta R.T. 0.007 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 56 Resp: 26138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 32.7 | 24.1 | 36.1 |
| 84 | 92.3 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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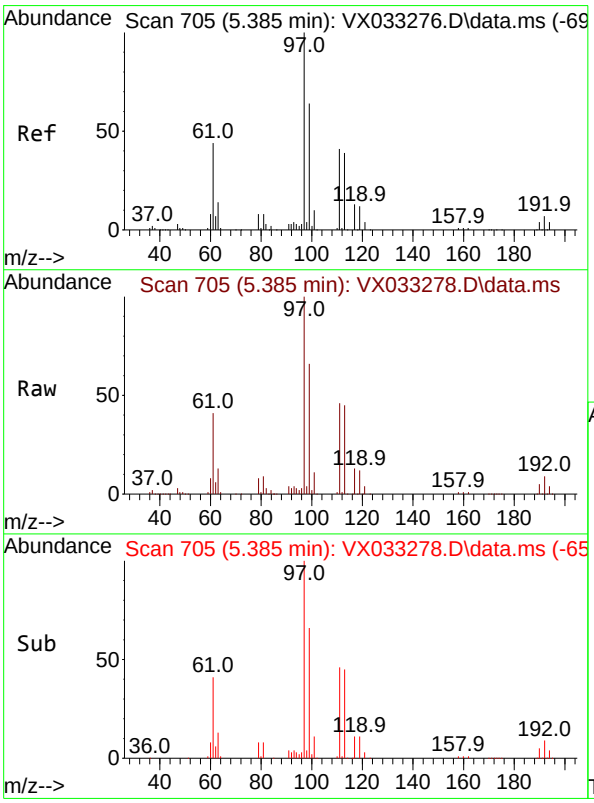
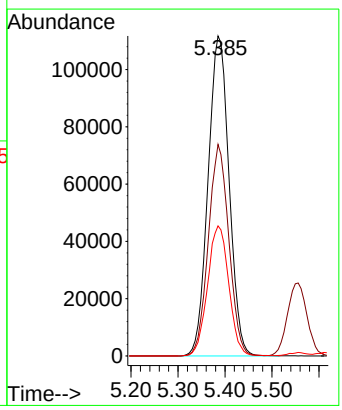
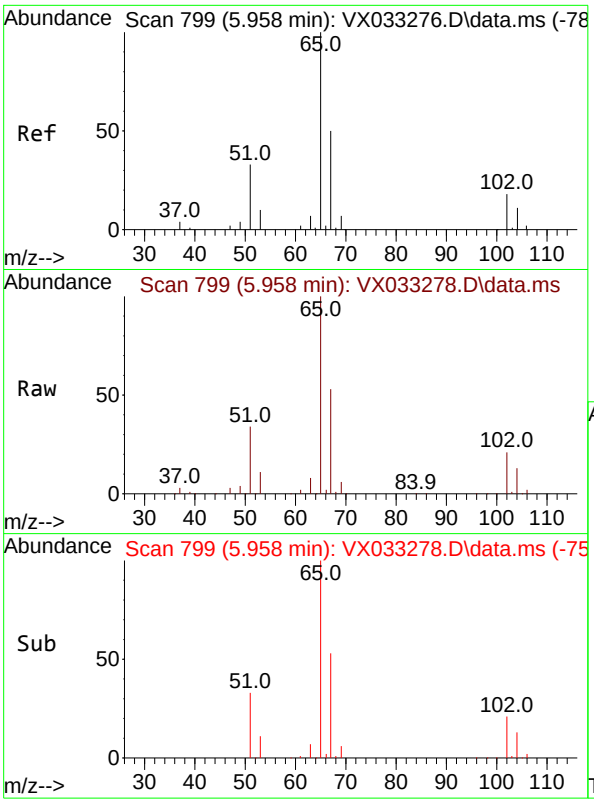



#32
1,1,1-Trichloroethane
Concen: 152.589 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 97 Resp: 346522

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.6 | 51.4 | 77.0 |
| 61 | 41.1 | 35.2 | 52.8 |

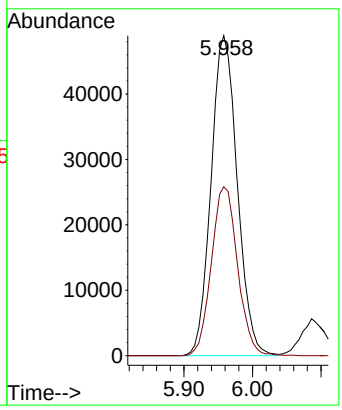





#33
1,2-Dichloroethane-d4
Concen: 93.441 ug/l
RT: 5.958 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 65 Resp: 12982

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 52.8 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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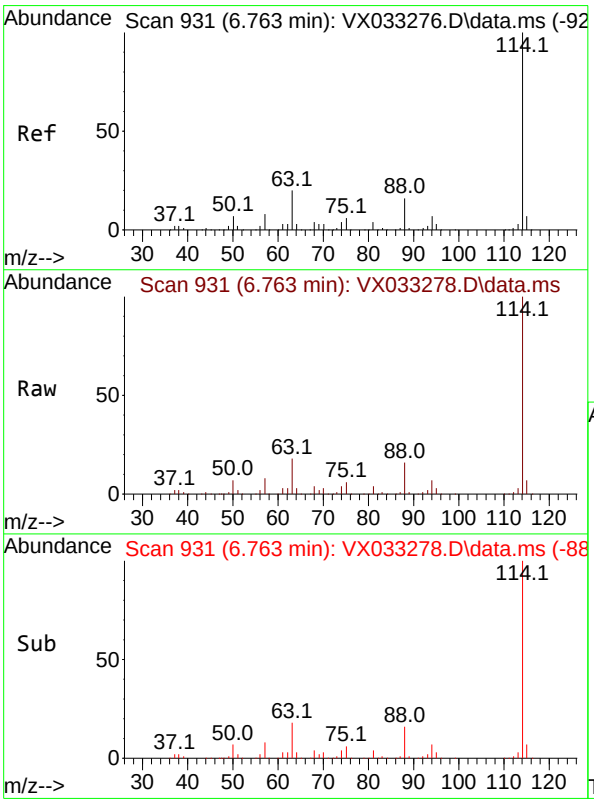
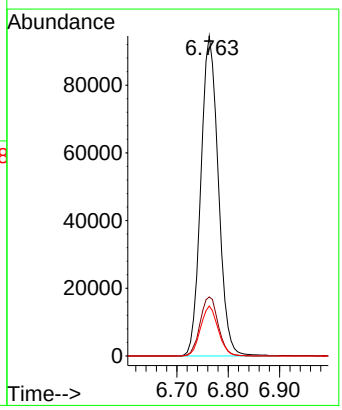
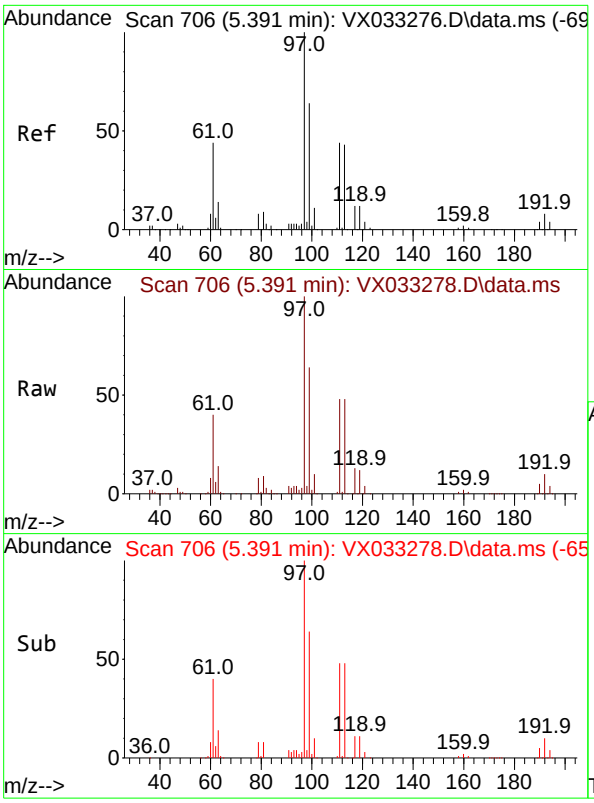



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 931
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:114 Resp: 222944

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 18.4 | 0.0 | 41.6 |
| 88 | 15.6 | 0.0 | 33.4 |

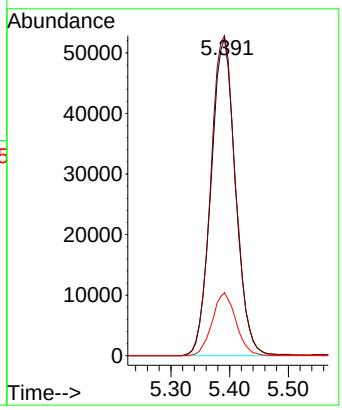





#35
Dibromofluoromethane
Concen: 120.373 ug/l
RT: 5.391 min Scan# 7
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:113 Resp: 15129

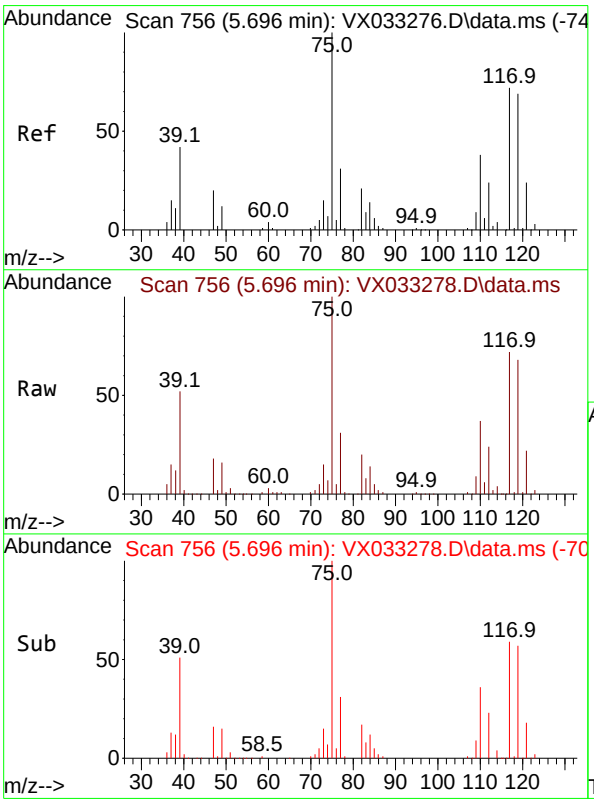
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 102.3 | 82.4 | 123.6 |
| 192 | 19.4 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

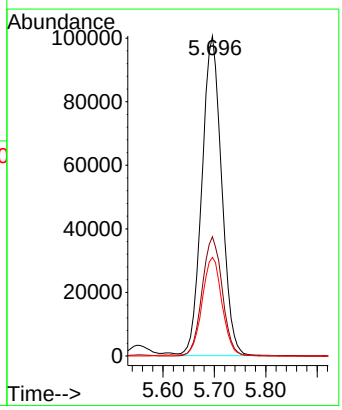
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

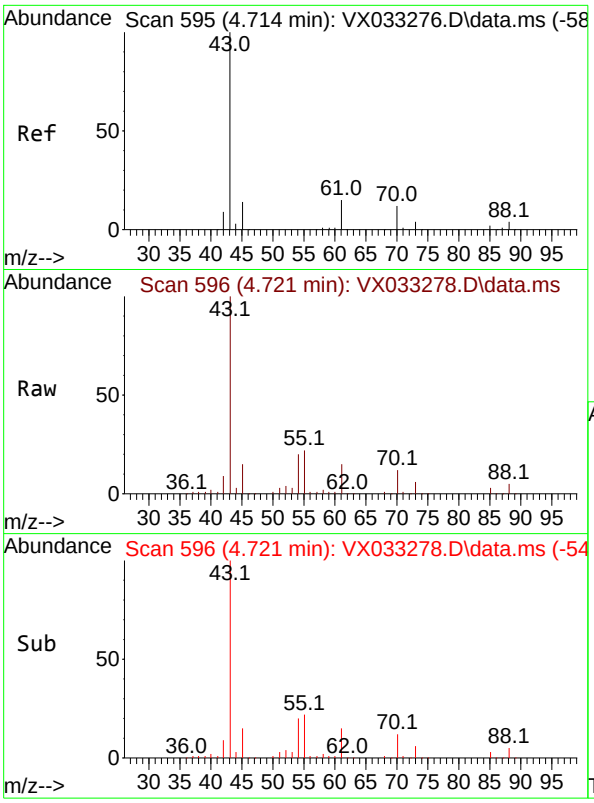



#36
1,1-Dichloropropene
Concen: 133.281 ug/l
RT: 5.696 min Scan# 756
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 267855

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 37.9 | 18.4 | 55.2 |
| 77 | 31.2 | 24.5 | 36.7 |

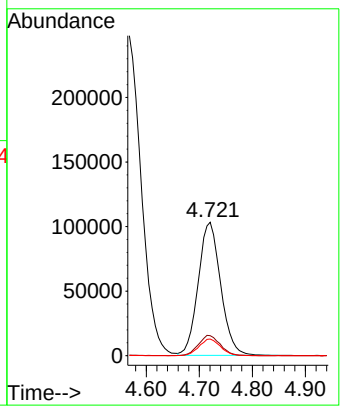





#37
Ethyl Acetate
Concen: 173.027 ug/l
RT: 4.721 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 30337

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.9 | 11.5 | 17.3 |
| 70 | 12.0 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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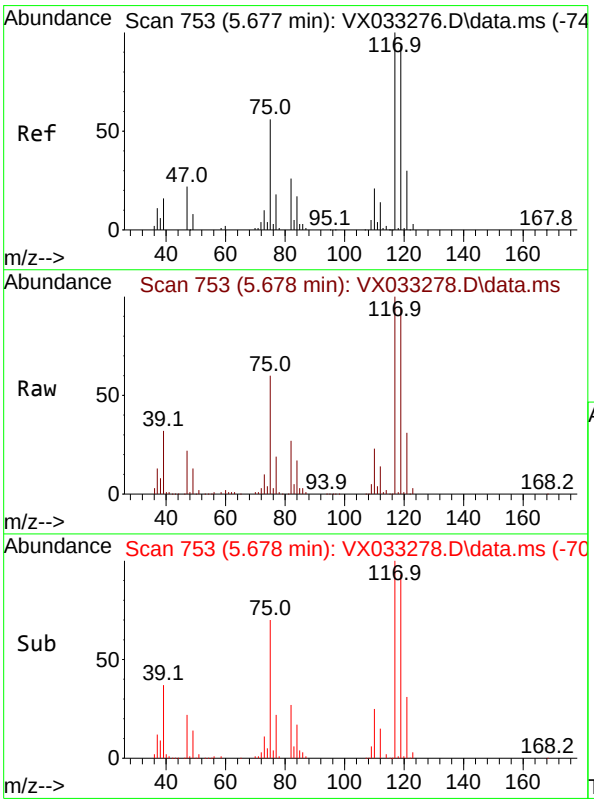
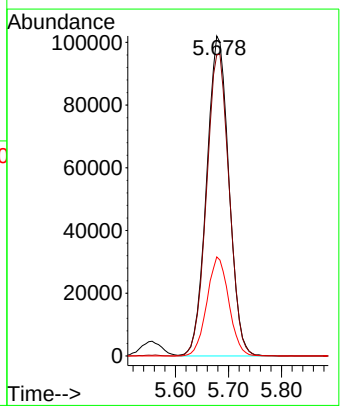
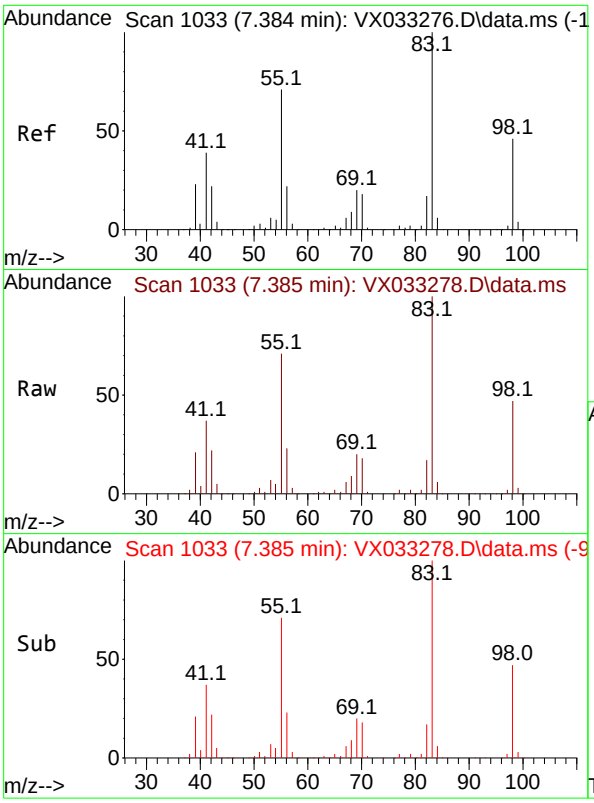



#38
Carbon Tetrachloride
Concen: 133.497 ug/l
RT: 5.678 min Scan# 753
Delta R.T. -0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:117 Resp: 297622

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.1 | 77.2 | 115.8 |
| 121 | 31.0 | 25.8 | 38.6 |

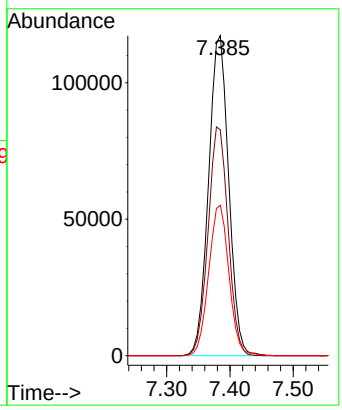





#39
Methylcyclohexane
Concen: 113.151 ug/l
RT: 7.385 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 83 Resp: 25945

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 70.6 | 58.4 | 87.6 |
| 98 | 47.0 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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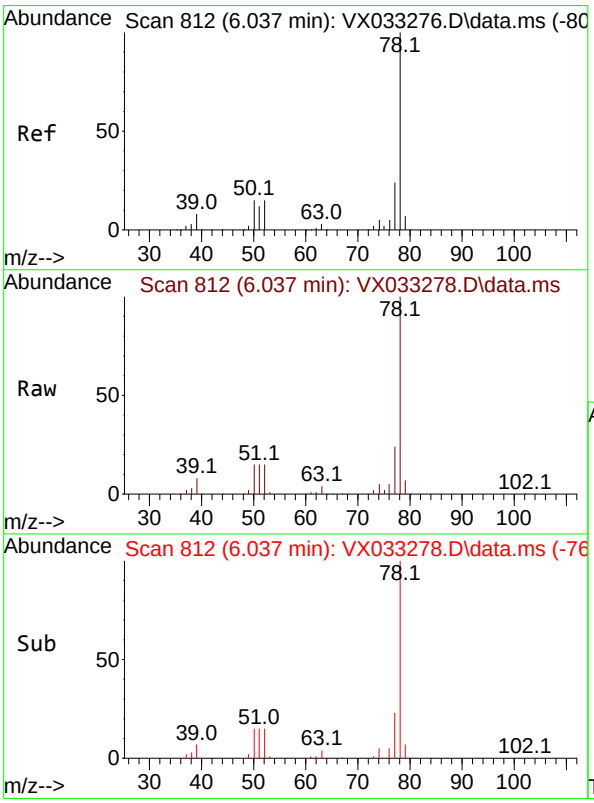
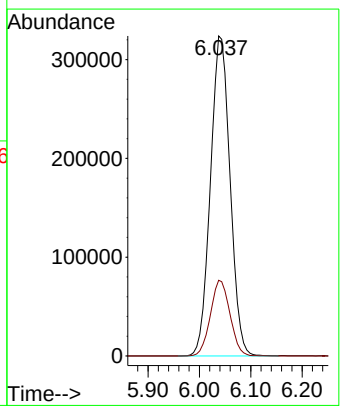
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

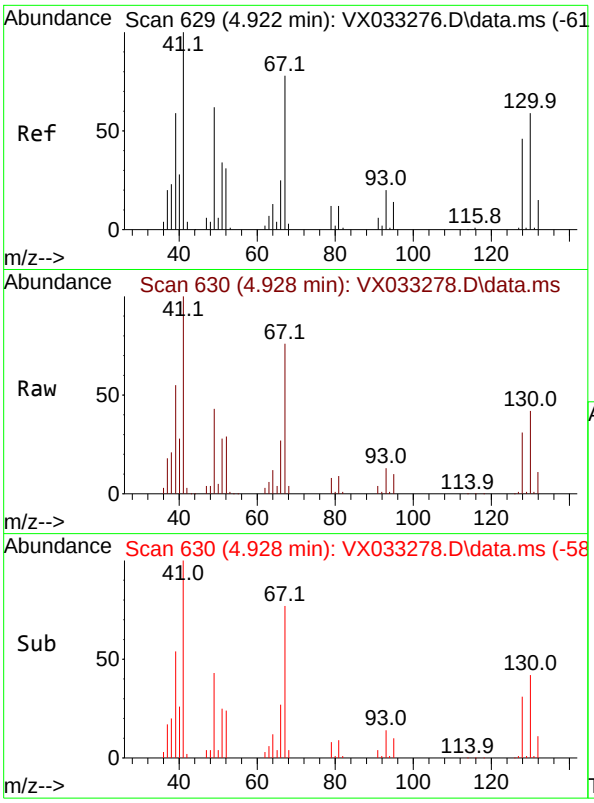



#40
Benzene
Concen: 152.499 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 78 Resp: 859288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.7 | 19.0 | 28.4 |

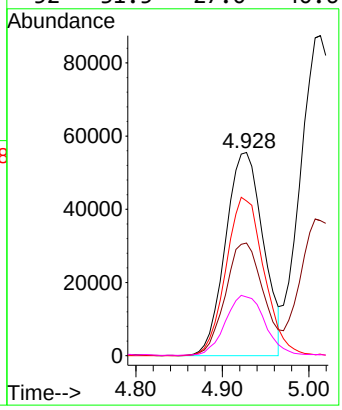





#41
Methacrylonitrile
Concen: 170.863 ug/l
RT: 4.928 min Scan# 6
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 41 Resp: 16856

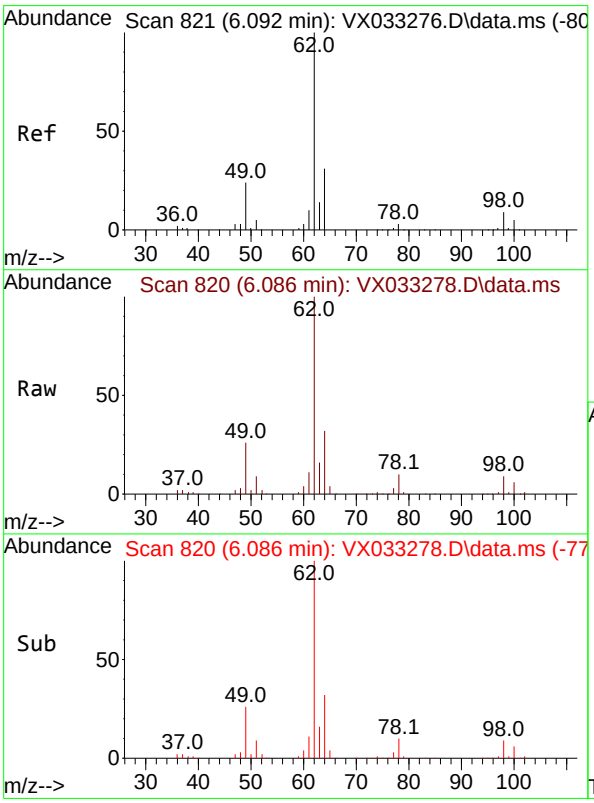
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 56.8 | 47.5 | 71.3 |
| 67 | 78.6 | 60.5 | 90.7 |
| 52 | 31.5 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

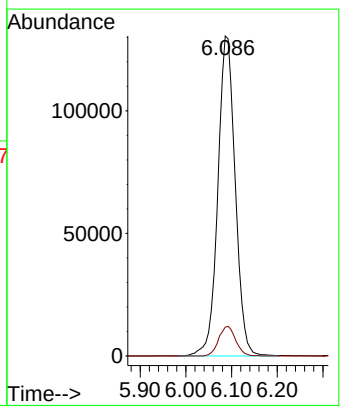
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

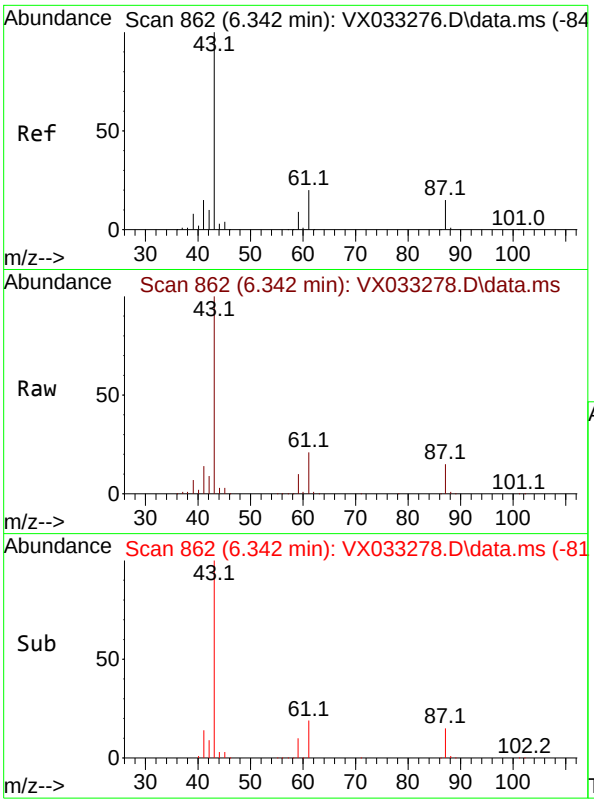



#42
1,2-Dichloroethane
Concen: 152.092 ug/l
RT: 6.086 min Scan# 820
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 62 Resp: 345058

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 9.1 | 0.0 | 16.0 |

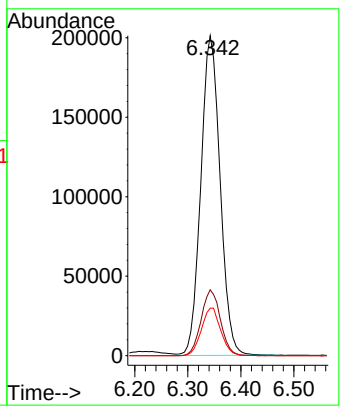





#43
Isopropyl Acetate
Concen: 175.101 ug/l
RT: 6.342 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 50774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 20.6 | 15.4 | 23.0 |
| 87 | 14.9 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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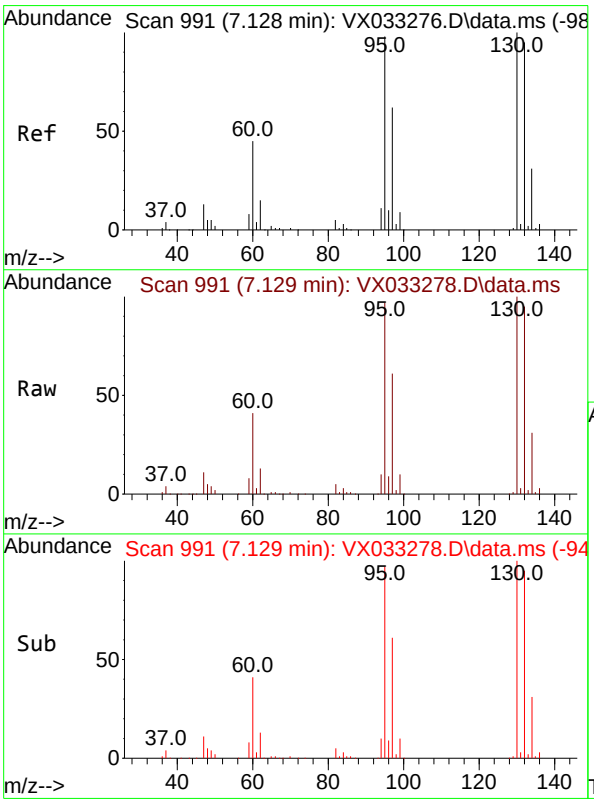
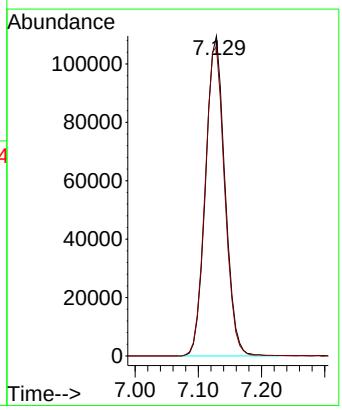
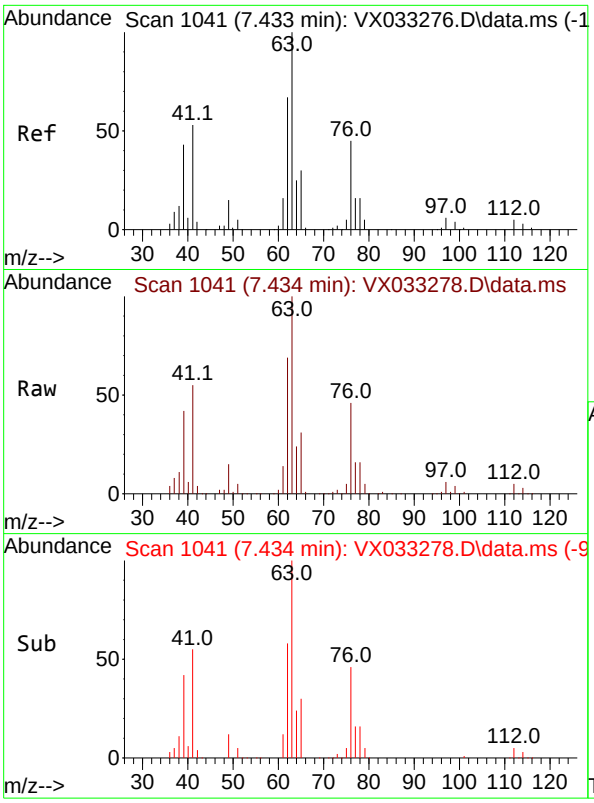



#44
Trichloroethene
Concen: 147.125 ug/l
RT: 7.129 min Scan# 991
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:130 Resp: 232626

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 96.6 | 0.0 | 195.2 |

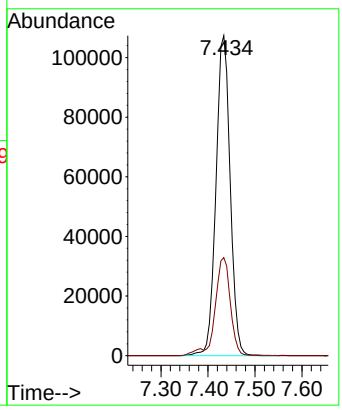





#45
1,2-Dichloropropane
Concen: 162.353 ug/l
RT: 7.434 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 63 Resp: 22607

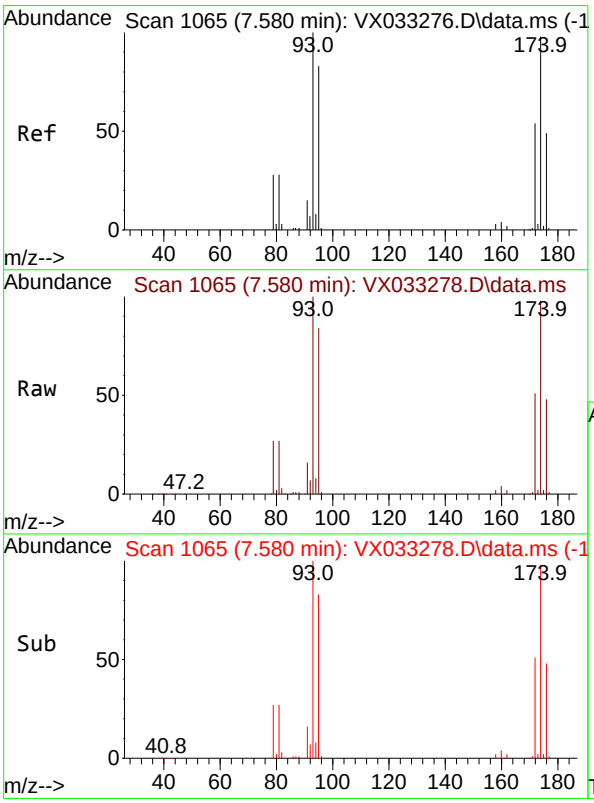
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.6 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

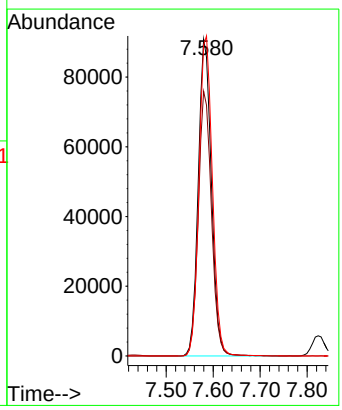
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

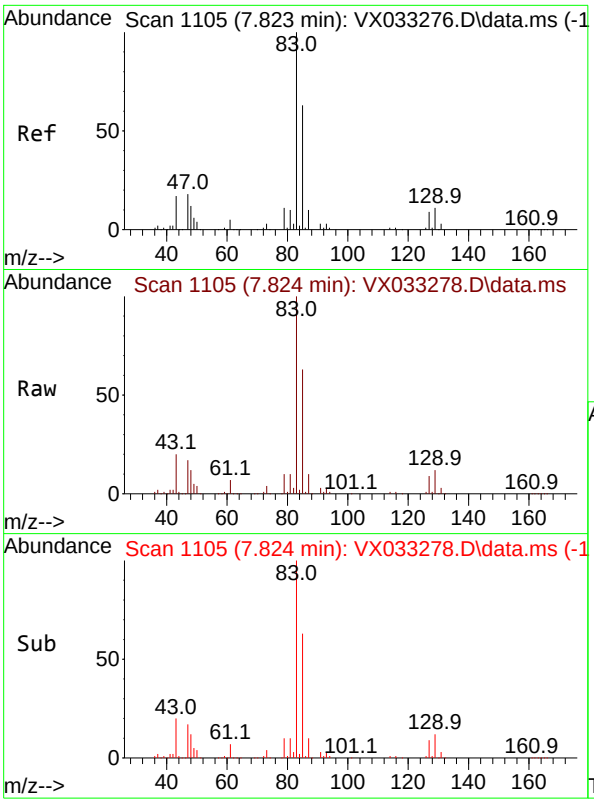



#46
Dibromomethane
Concen: 163.014 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 93 Resp: 177123

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 83.4 | 65.8 | 98.8 |
| 174 | 102.6 | 79.8 | 119.6 |

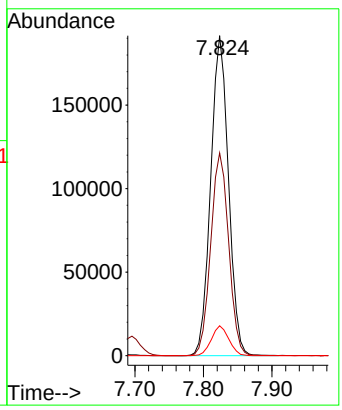





#47
Bromodichloromethane
Concen: 163.993 ug/l
RT: 7.824 min Scan# 11
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 83 Resp: 34431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 52.2 | 78.4 |
| 127 | 9.4 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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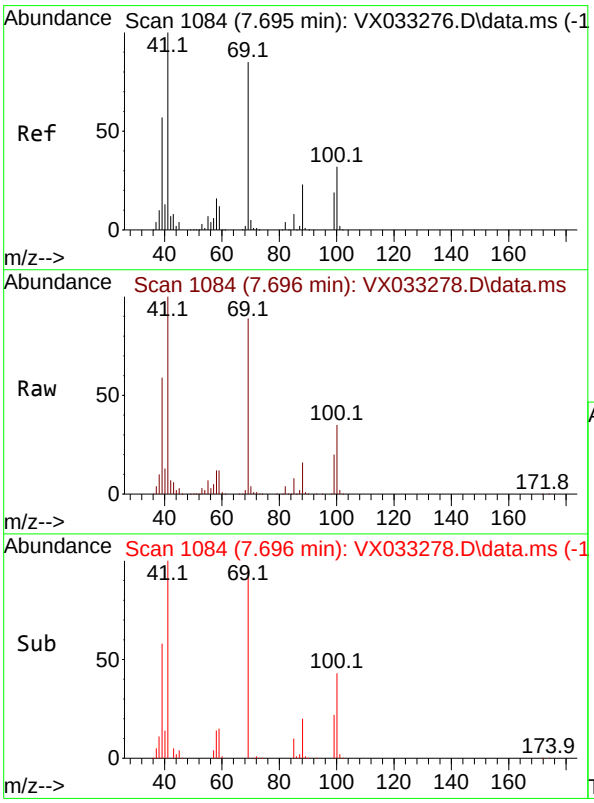
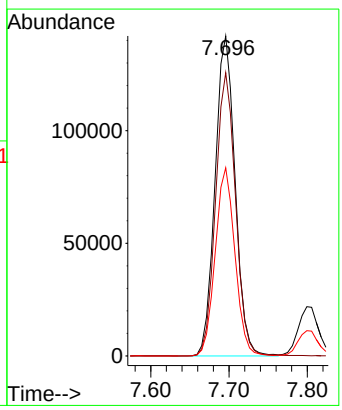
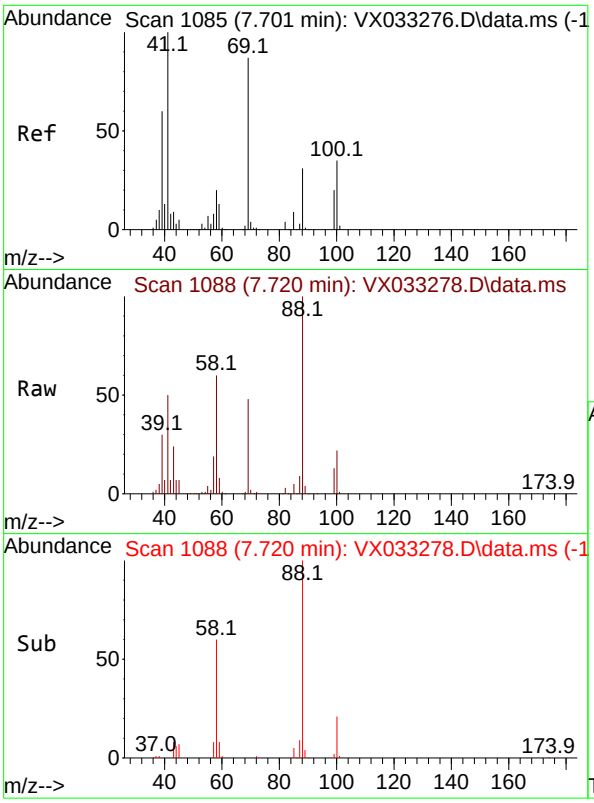



#48
Methyl methacrylate
Concen: 169.388 ug/l
RT: 7.696 min Scan# 1084
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 41 Resp: 252825

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 88.1 | 65.1 | 97.7 |
| 39 | 57.9 | 51.9 | 77.9 |






#49
1,4-Dioxane
Concen: 4196.625 ug/l
RT: 7.720 min Scan# 1
Delta R.T. 0.049 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 88 Resp: 11530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 28.1 | 26.6 | 39.8 |
| 58 | 63.7 | 51.7 | 77.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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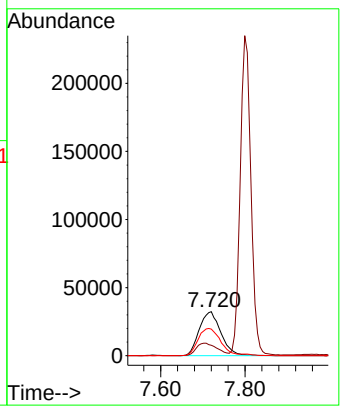
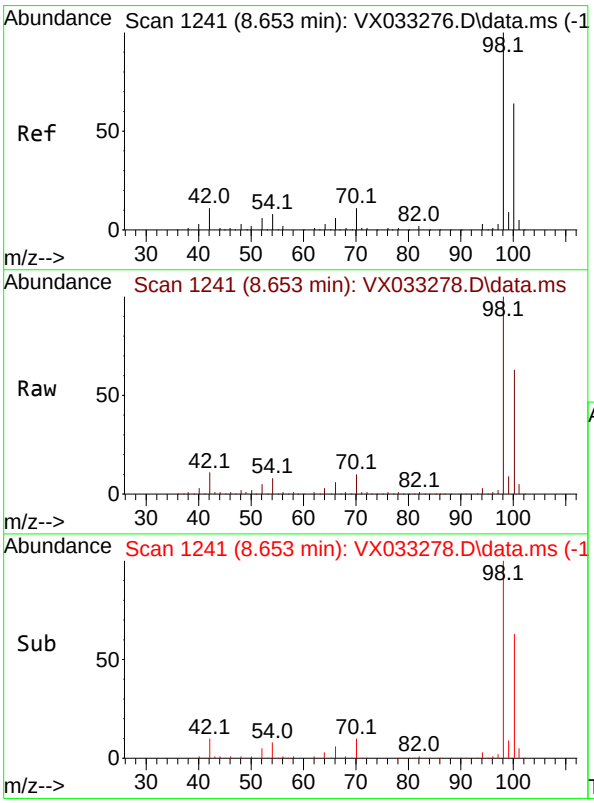
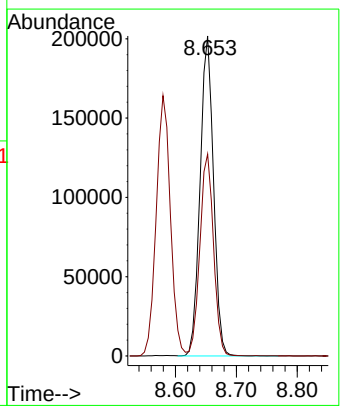


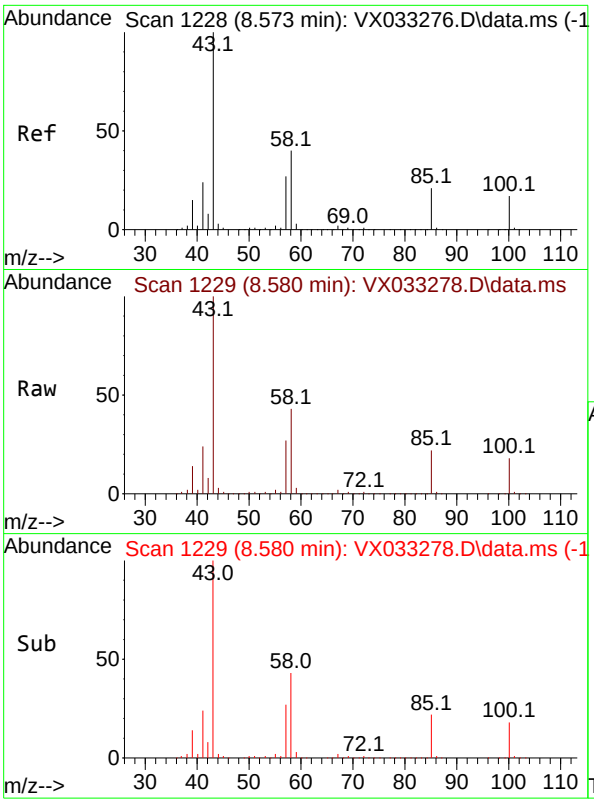




#50
Toluene-d8
Concen: 75.838 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 98 Resp: 309454

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 64.1 | 50.9 | 76.3 |

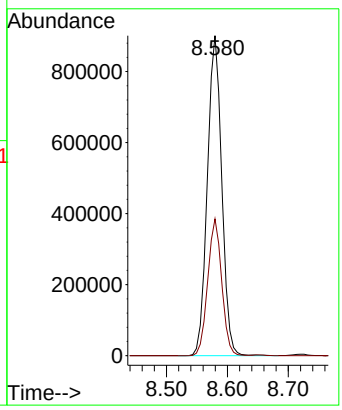





#51
4-Methyl-2-Pentanone
Concen: 827.584 ug/l
RT: 8.580 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 148079

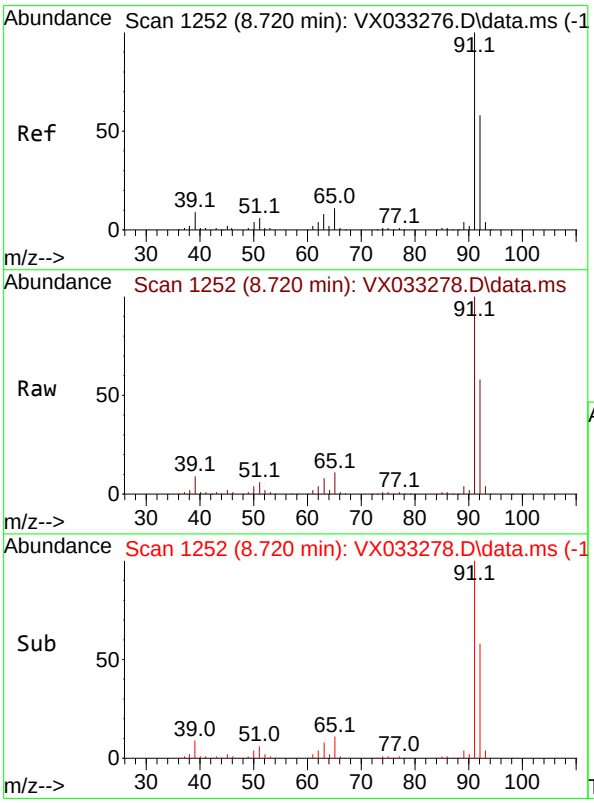
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 41.6 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

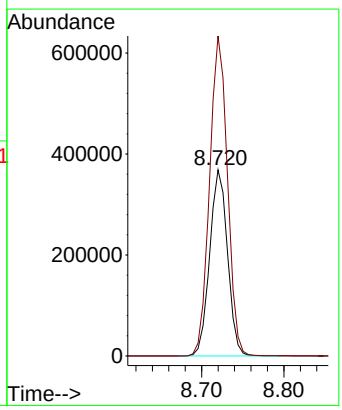
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

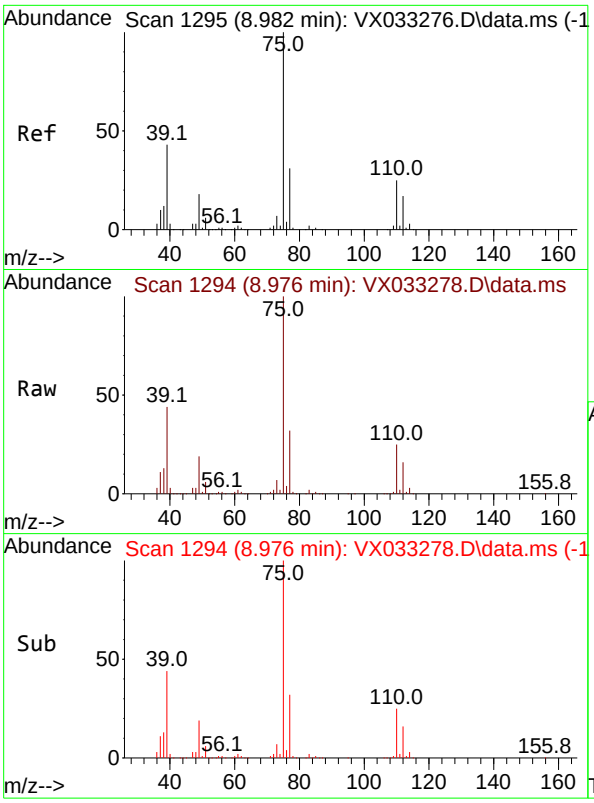



#52
Toluene
Concen: 149.557 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 92 Resp: 554420

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 172.7 | 138.3 | 207.5 |

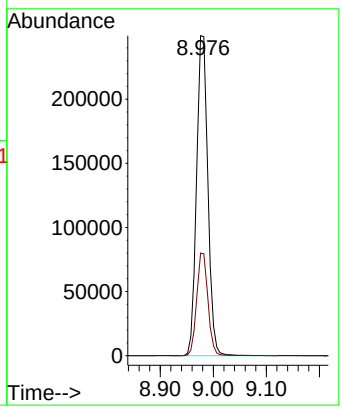





#53
t-1,3-Dichloropropene
Concen: 180.152 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 37124

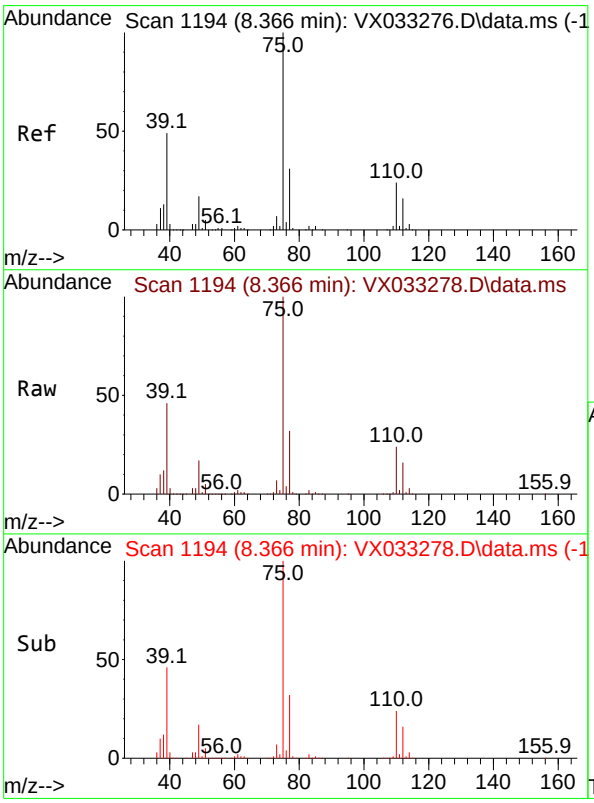
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.0 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

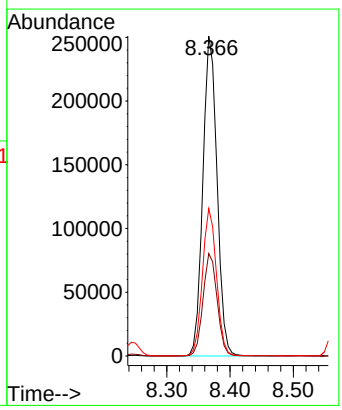
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

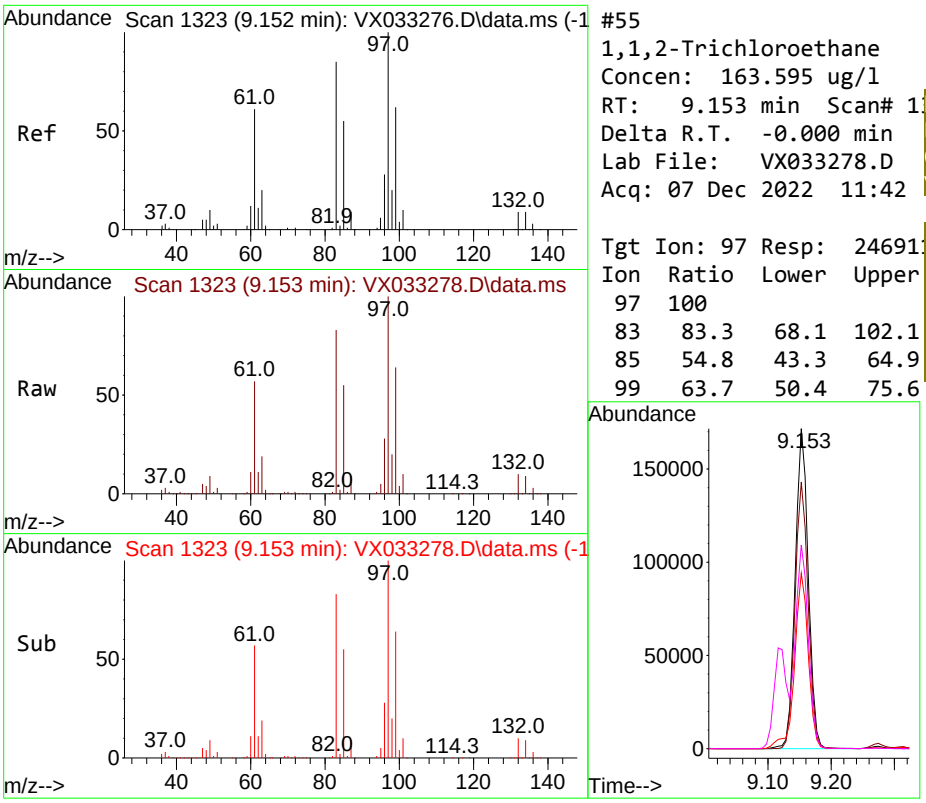



#54
cis-1,3-Dichloropropene
Concen: 173.324 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 392302

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.0 | 25.1 | 37.7 |
| 39 | 46.0 | 45.5 | 68.3 |






#55
1,1,2-Trichloroethane
Concen: 163.595 ug/l
RT: 9.153 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 97 Resp: 24691

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 83.3 | 68.1 | 102.1 |
| 85 | 54.8 | 43.3 | 64.9 |
| 99 | 63.7 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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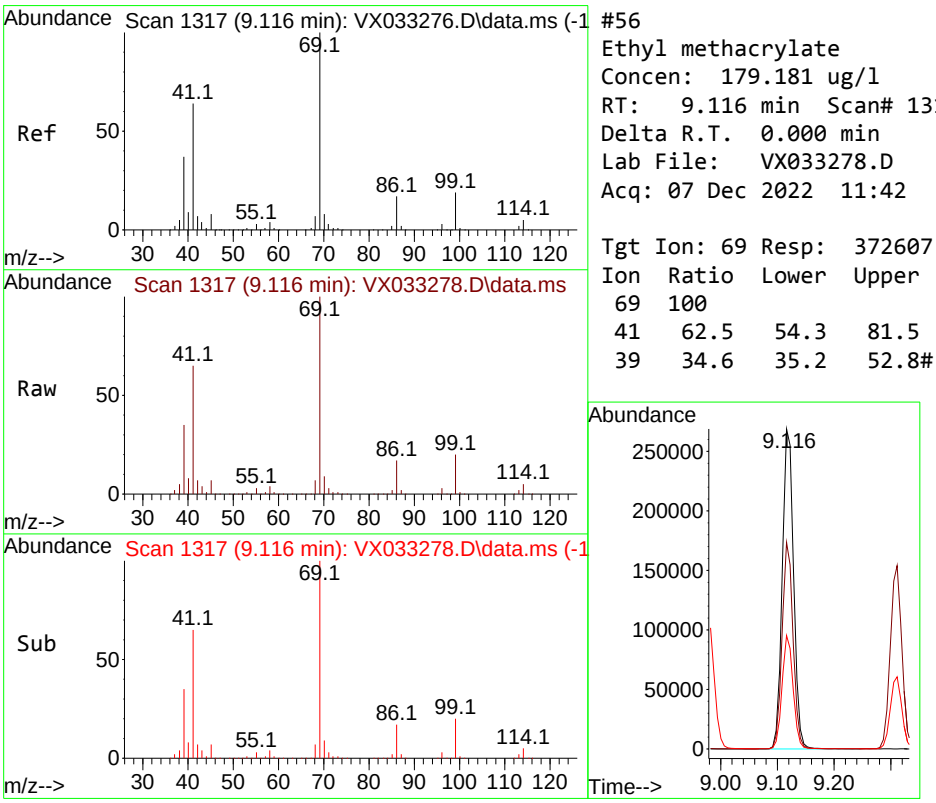
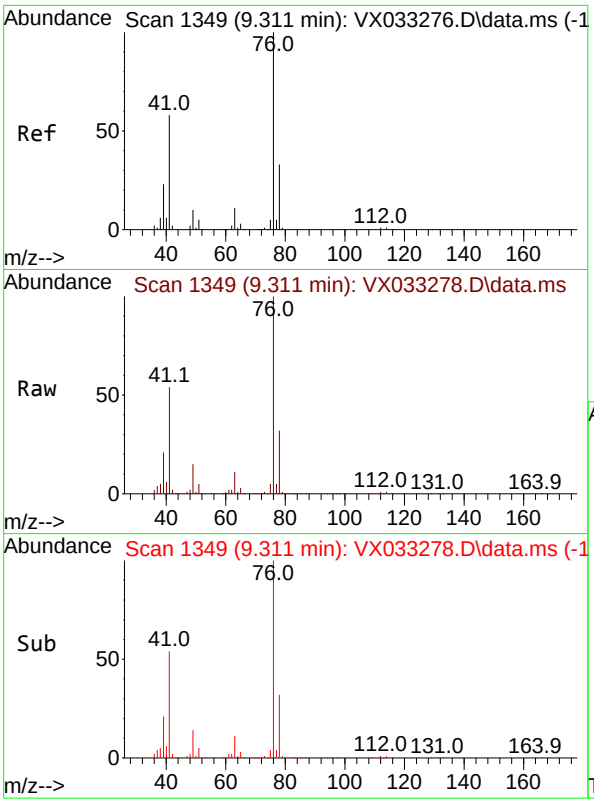



#56
Ethyl methacrylate
Concen: 179.181 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 69 Resp: 372607

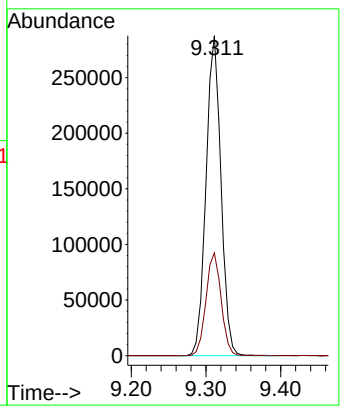
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 62.5 | 54.3 | 81.5 |
| 39 | 34.6 | 35.2 | 52.8# |




#57
1,3-Dichloropropane
Concen: 163.628 ug/l
RT: 9.311 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 76 Resp: 39868

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 32.6 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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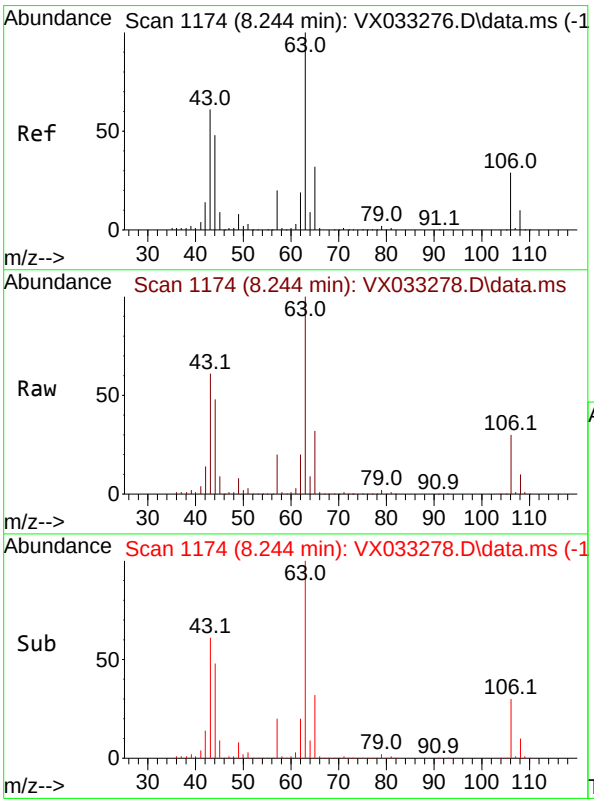
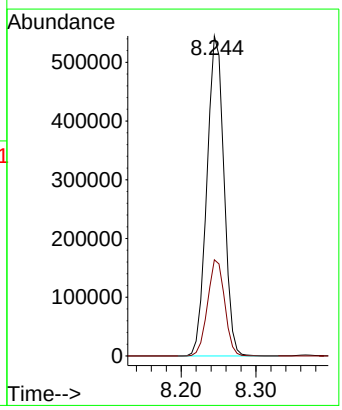
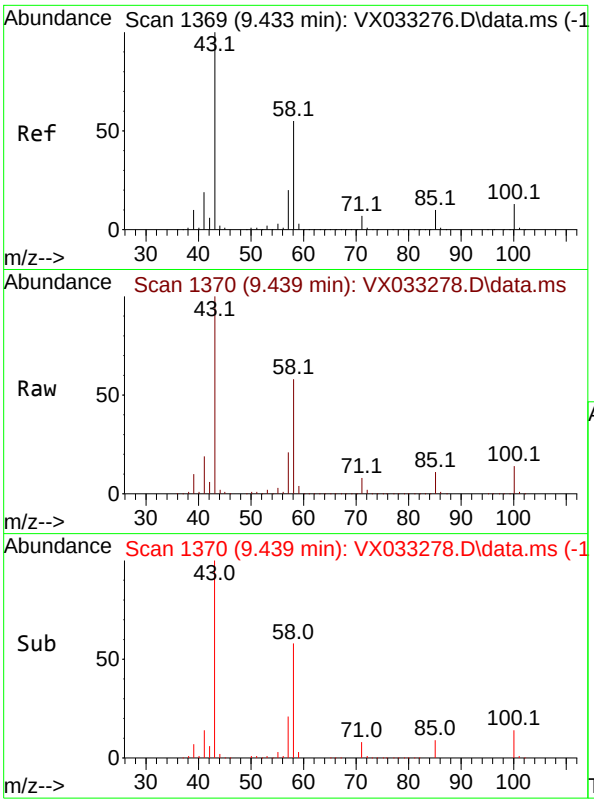



#58
2-Chloroethyl Vinyl ether
Concen: 874.338 ug/l
RT: 8.244 min Scan# 1174
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 63 Resp: 863389

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 30.1 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 822.777 ug/l
RT: 9.439 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 108753

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 57.8 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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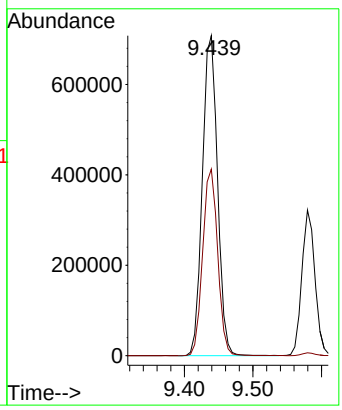
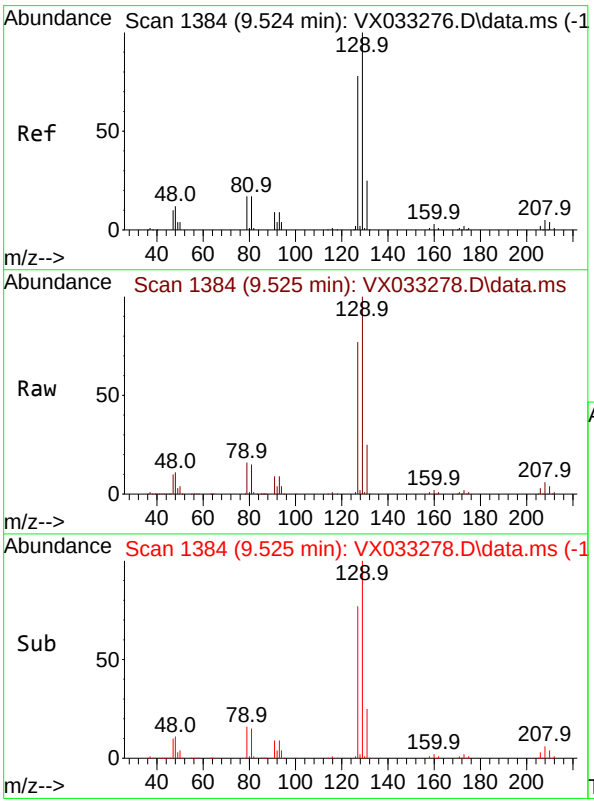
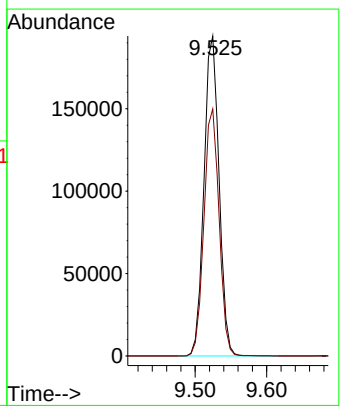


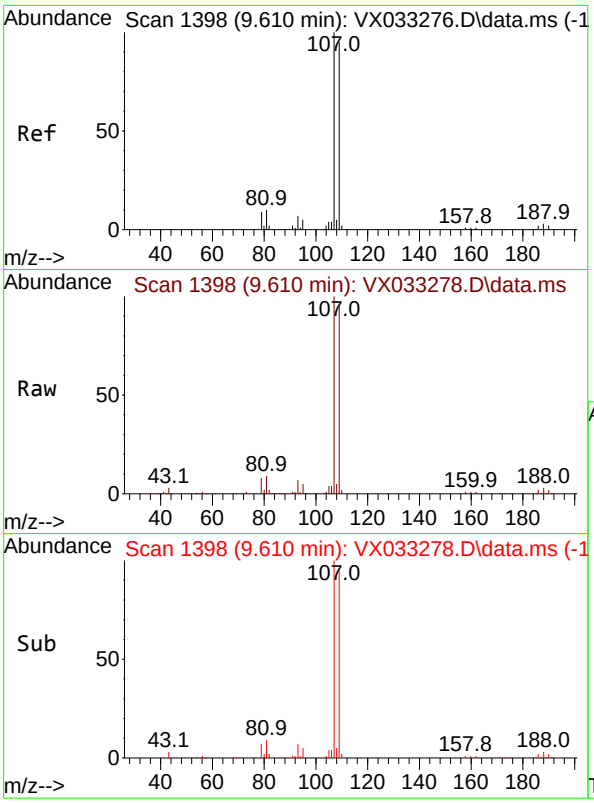




#60
Dibromochloromethane
Concen: 174.743 ug/l
RT: 9.525 min Scan# 1384
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:129 Resp: 283948

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.7 | 38.6 | 115.8 |

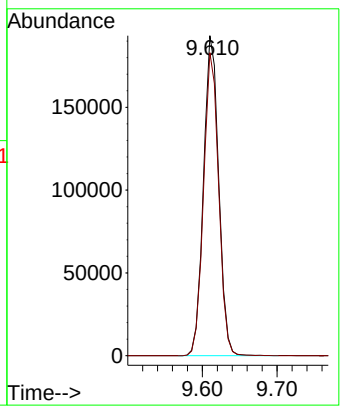





#61
1,2-Dibromoethane
Concen: 170.833 ug/l
RT: 9.610 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:107 Resp: 27214

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.2 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
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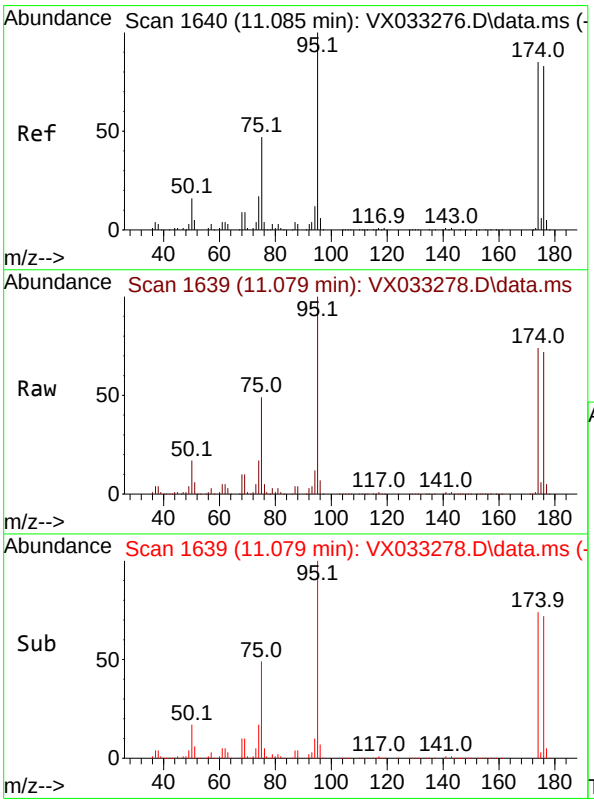
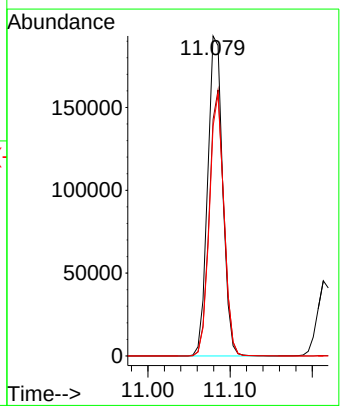
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

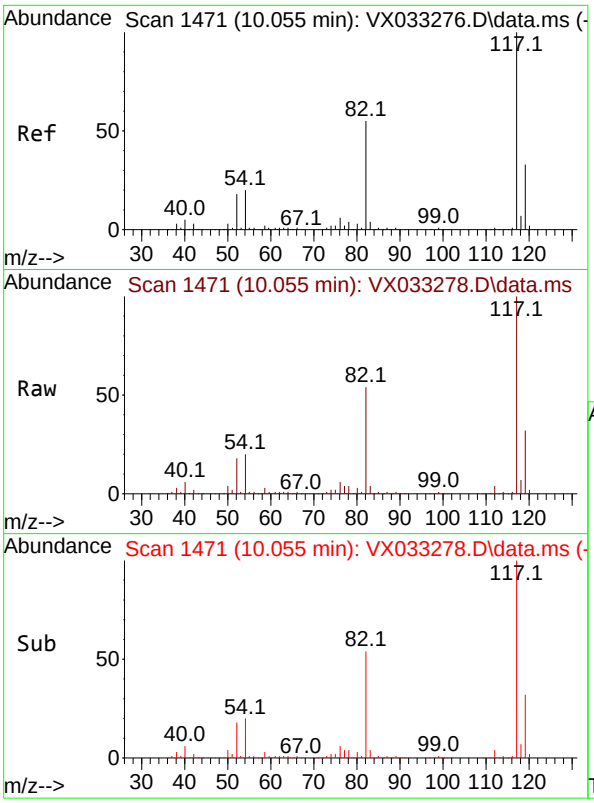



#62
4-Bromofluorobenzene
Concen: 148.337 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 95 Resp: 244909

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 80.8 | 0.0 | 164.0 |
| 176 | 79.3 | 0.0 | 154.4 |

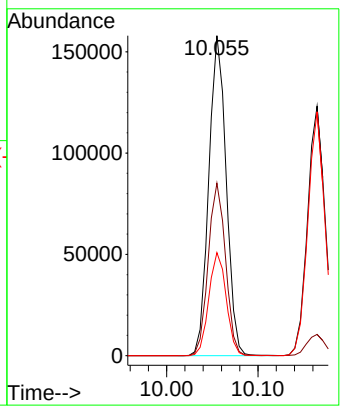





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:117 Resp: 20830

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.9 | 44.3 | 66.5 |
| 119 | 32.2 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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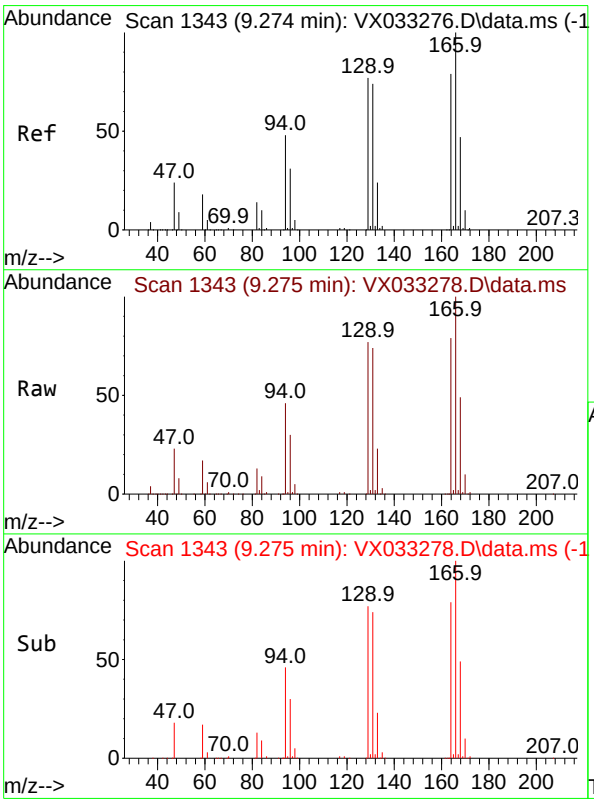
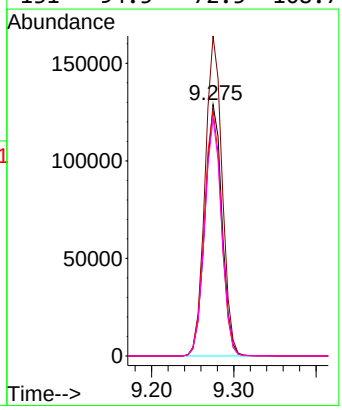
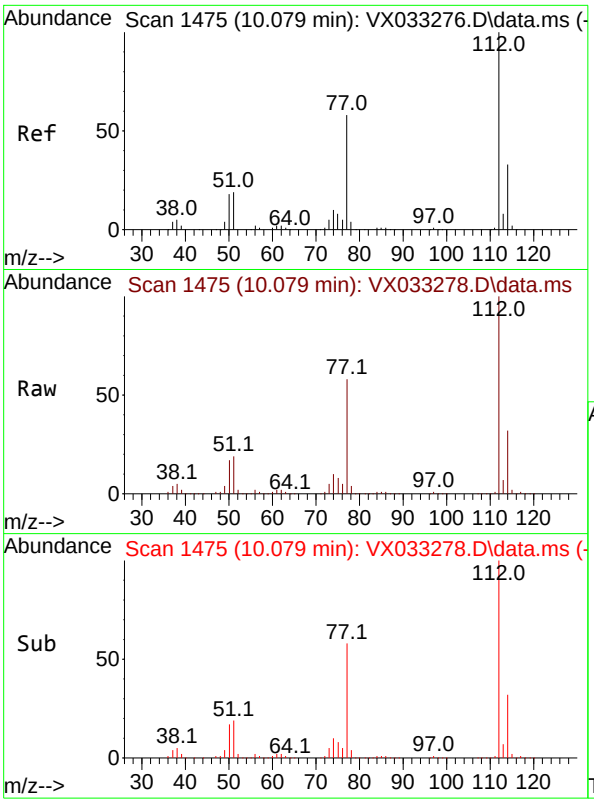



#64
Tetrachloroethene
Concen: 125.423 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:164 Resp: 184932

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 127.3 | 105.4 | 158.2 |
| 129 | 97.7 | 78.2 | 117.2 |
| 131 | 94.5 | 72.5 | 108.7 |

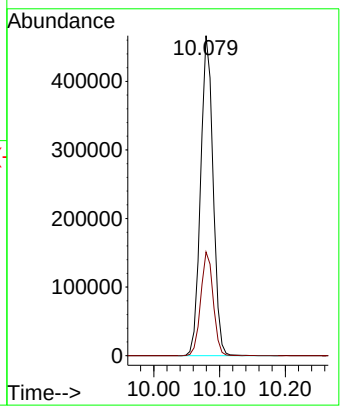





#65
Chlorobenzene
Concen: 148.283 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:112 Resp: 61582

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 32.4 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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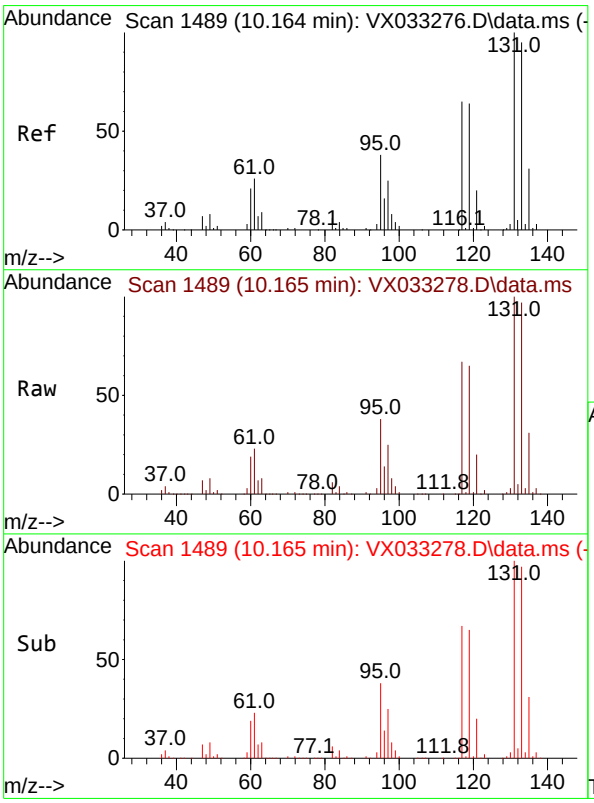
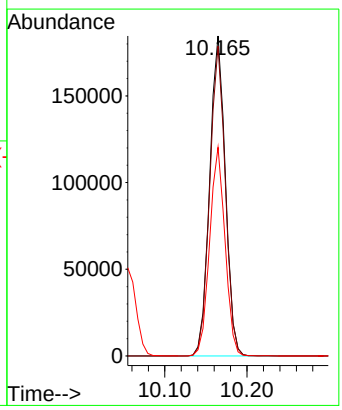
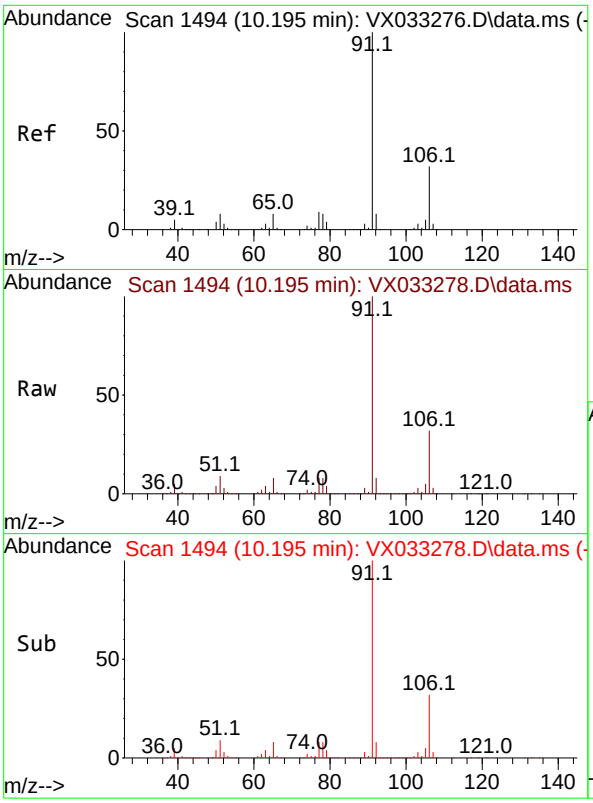



#66
1,1,1,2-Tetrachloroethane
Concen: 160.880 ug/l
RT: 10.165 min Scan# 1489
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:131 Resp: 244812

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.9 | 47.6 | 142.9 |
| 119 | 64.0 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 142.491 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 104973

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.7 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

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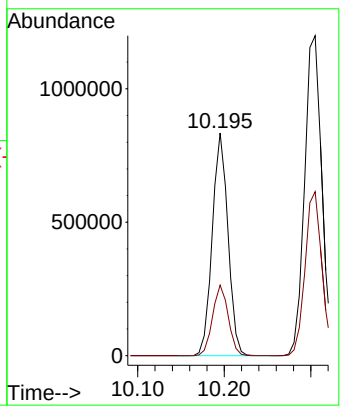
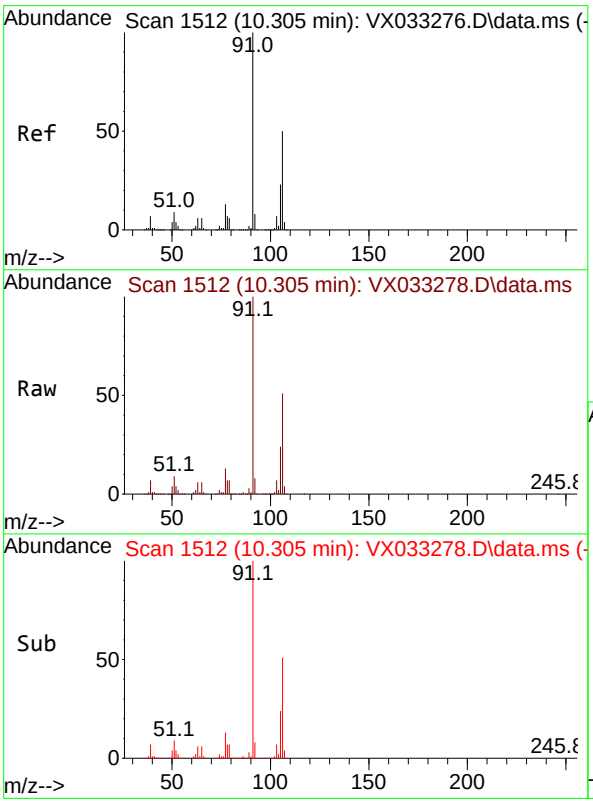
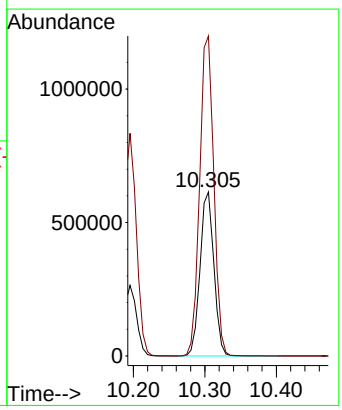


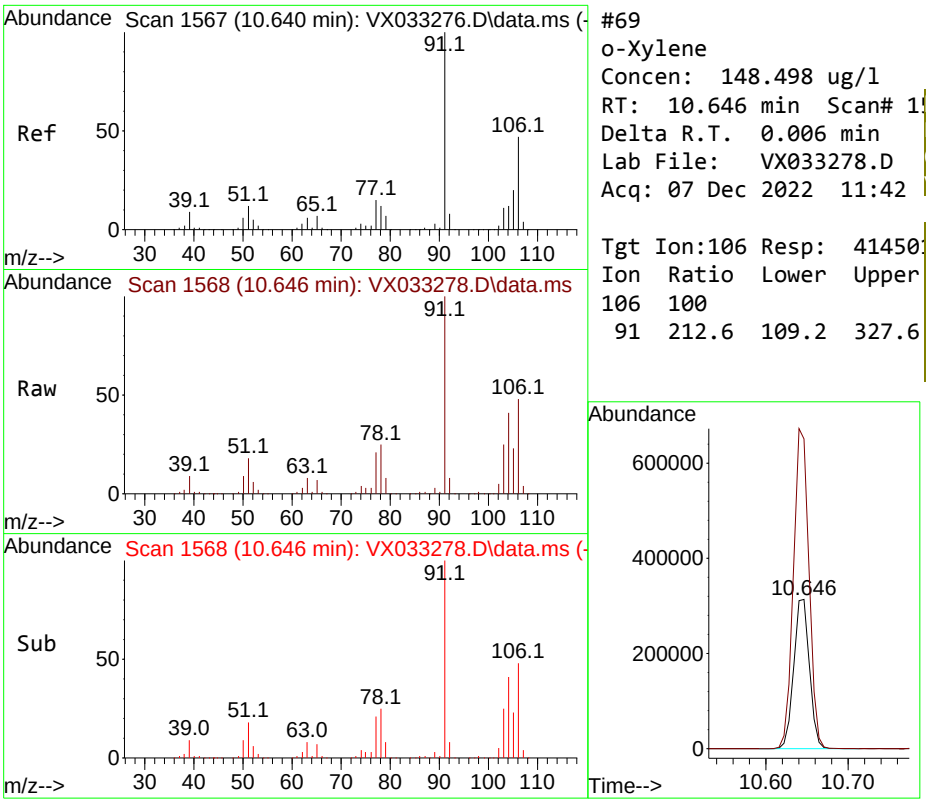




#68
m/p-Xylenes
Concen: 285.726 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:106 Resp: 824272

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 199.5 | 164.5 | 246.7 |






#69
o-Xylene
Concen: 148.498 ug/l
RT: 10.646 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:106 Resp: 41450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 212.6 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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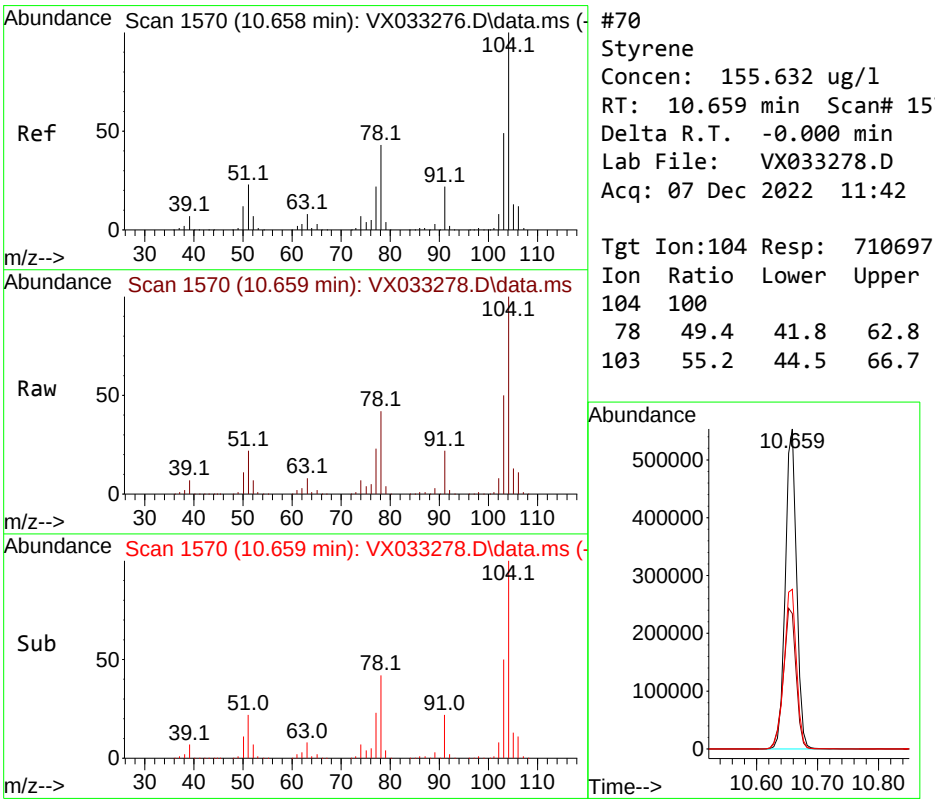
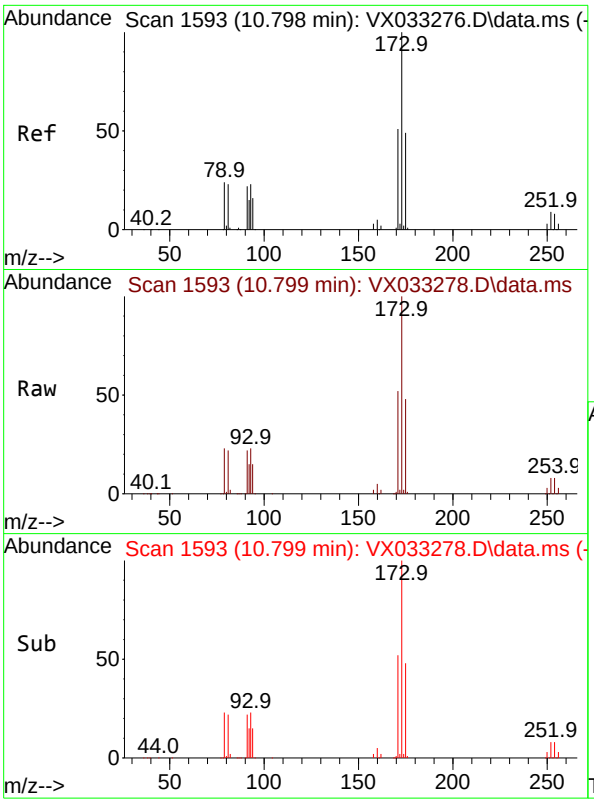



#70
Styrene
Concen: 155.632 ug/l
RT: 10.659 min Scan# 1570
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:104 Resp: 710697

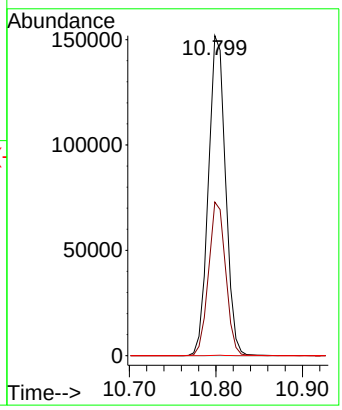
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 49.4 | 41.8 | 62.8 |
| 103 | 55.2 | 44.5 | 66.7 |




#71
Bromoform
Concen: 178.889 ug/l
RT: 10.799 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:173 Resp: 20871

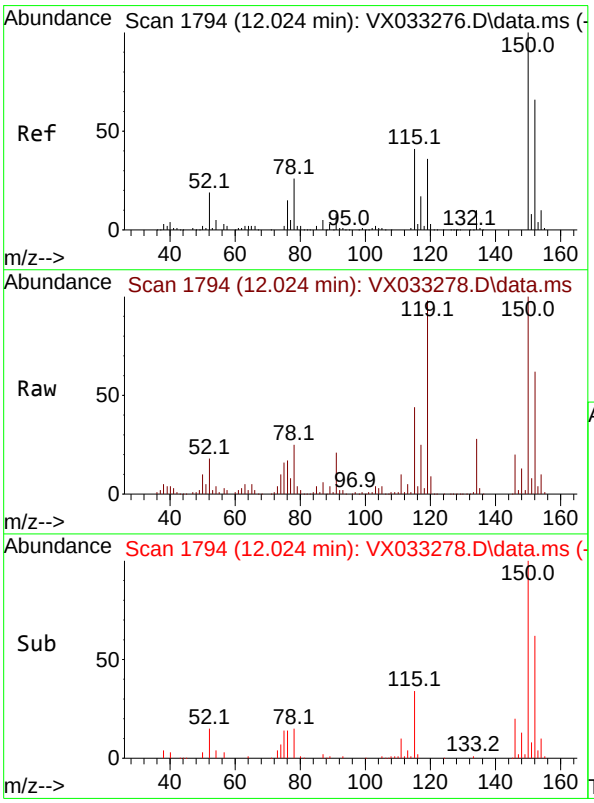
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 47.8 | 23.9 | 71.8 |
| 254 | 0.1 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

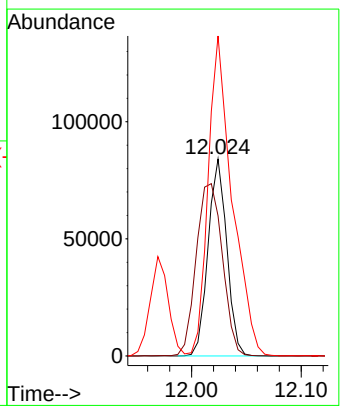
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

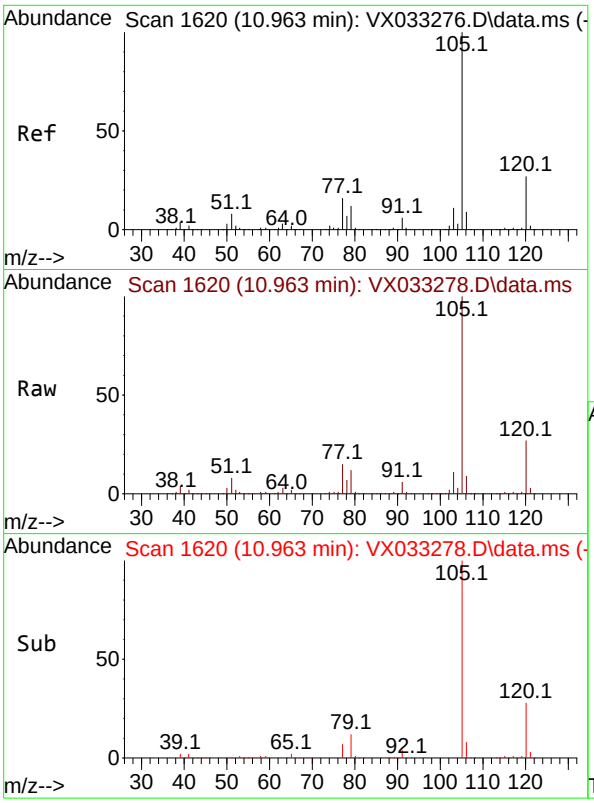



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:152 Resp: 99577

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 122.6 | 44.0 | 132.0 |
| 150 | 208.4 | 0.0 | 351.8 |

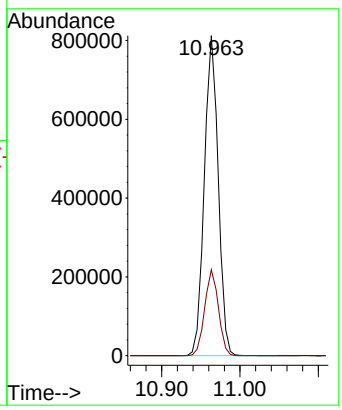





#73
Isopropylbenzene
Concen: 140.002 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:105 Resp: 99620

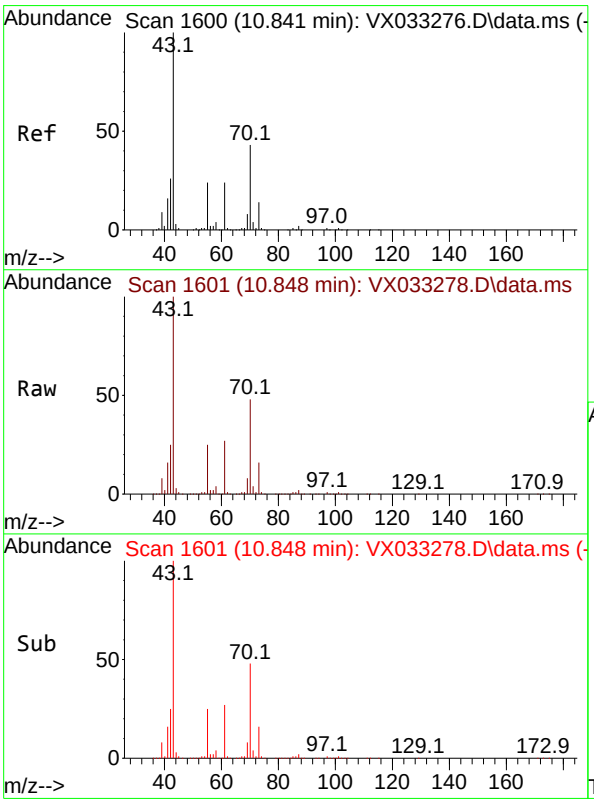
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.6 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

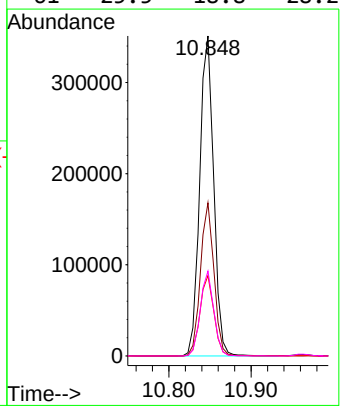
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

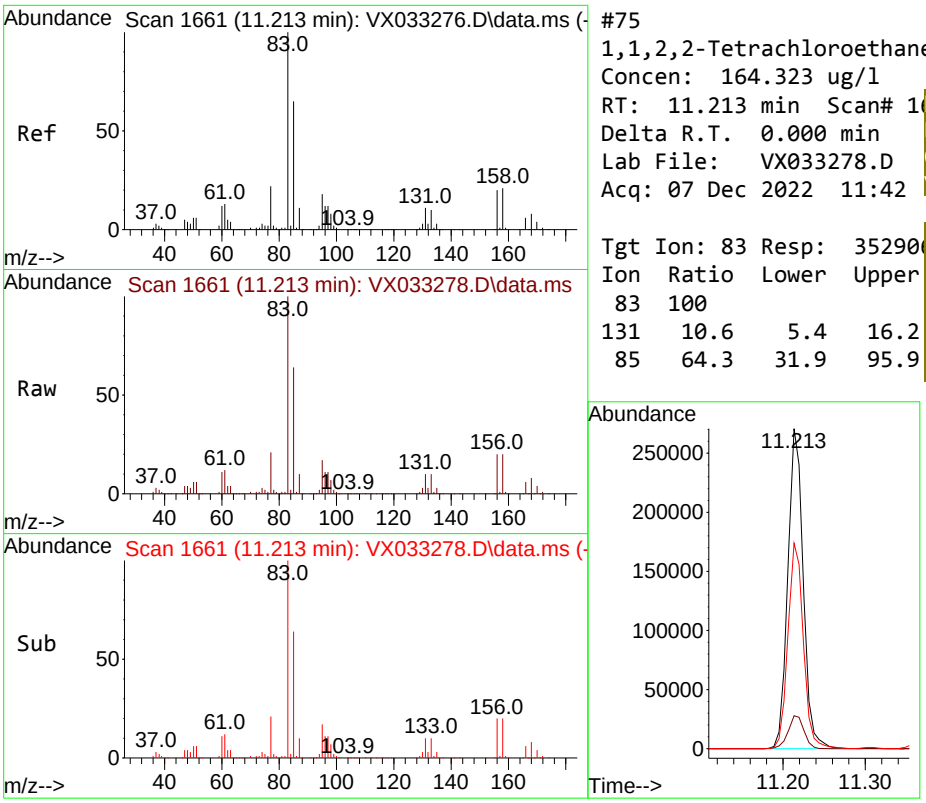



#74
N-amyl acetate
Concen: 171.353 ug/l
RT: 10.848 min Scan# 1601
Delta R.T. 0.007 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 43 Resp: 414776

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 46.2 | 33.6 | 50.4 |
| 55 | 24.9 | 19.4 | 29.2 |
| 61 | 25.5 | 18.8 | 28.2 |






#75
1,1,2,2-Tetrachloroethane
Concen: 164.323 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 83 Resp: 35290

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 64.3 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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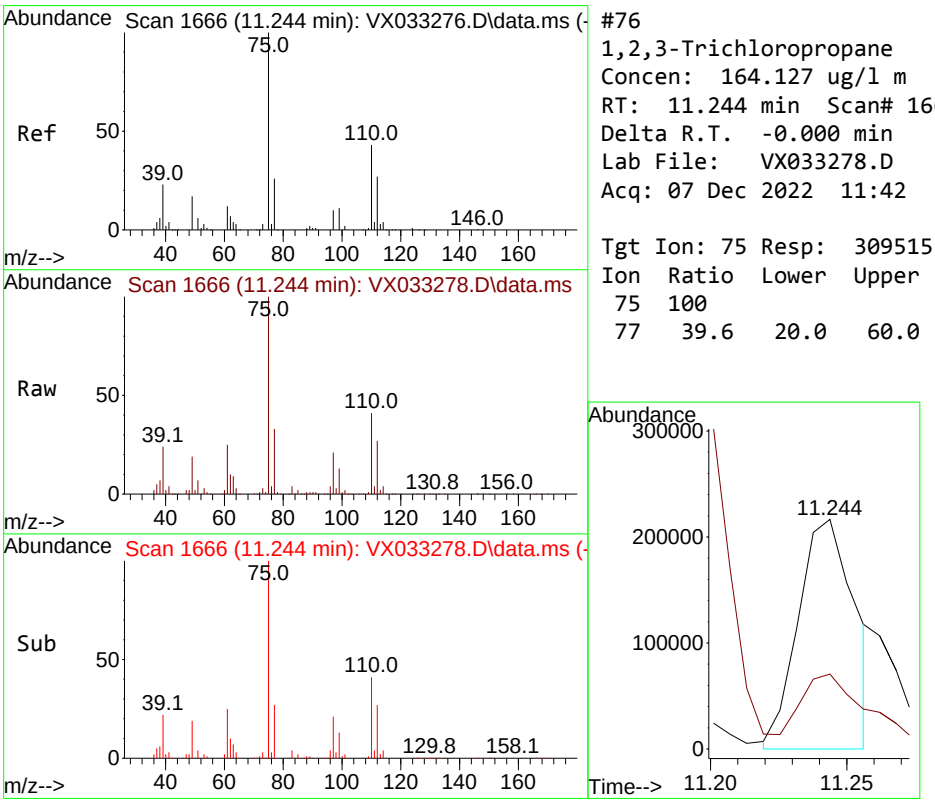
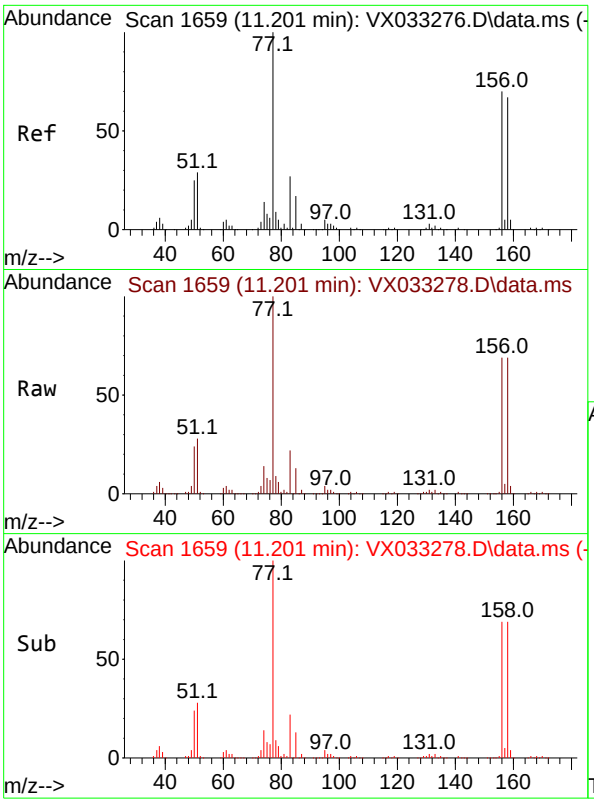



#76
1,2,3-Trichloropropane
Concen: 164.127 ug/l m
RT: 11.244 min Scan# 1666
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 309515

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 39.6 | 20.0 | 60.0 |




#77
Bromobenzene
Concen: 155.671 ug/l
RT: 11.201 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:156 Resp: 27242

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 152.0 | 76.1 | 228.4 |
| 158 | 97.5 | 48.8 | 146.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

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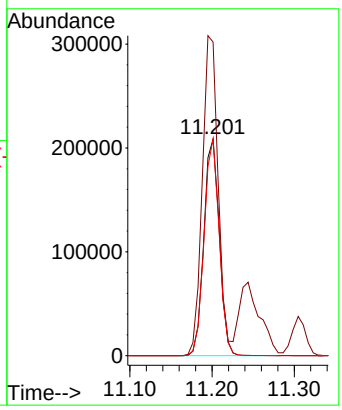
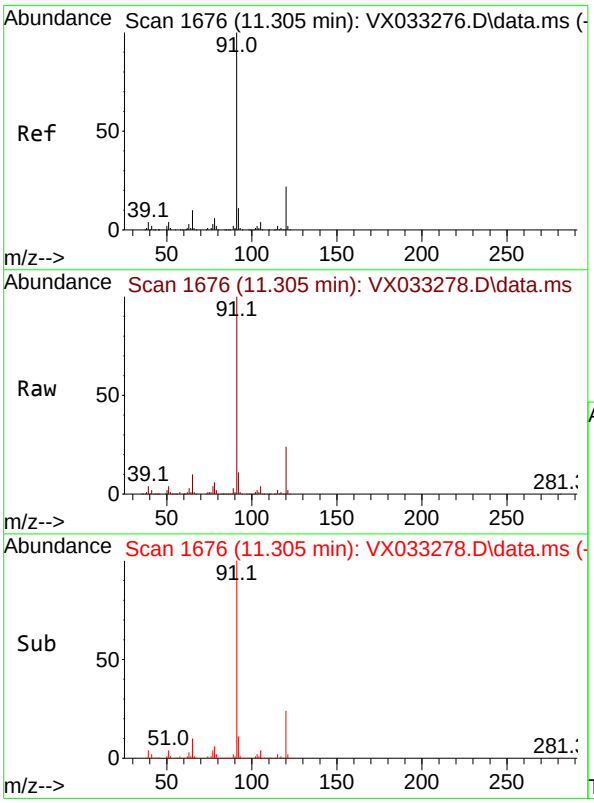
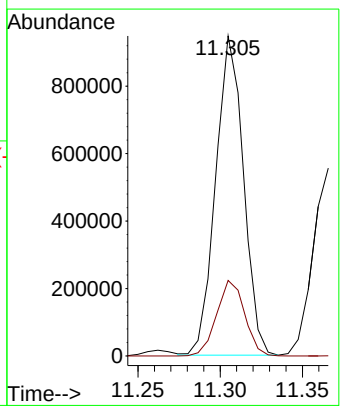


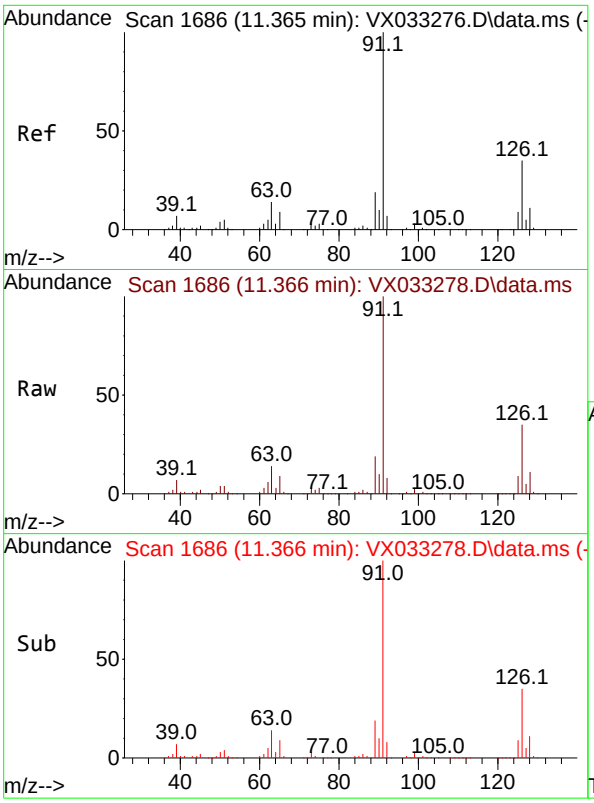




#78
n-propylbenzene
Concen: 137.006 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 1114633

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.8 | 11.6 | 34.8 |

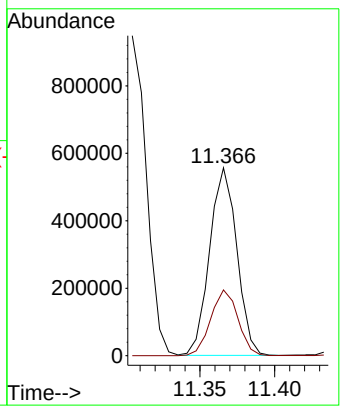





#79
2-Chlorotoluene
Concen: 142.298 ug/l
RT: 11.366 min Scan# 1
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 70312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 35.1 | 17.1 | 51.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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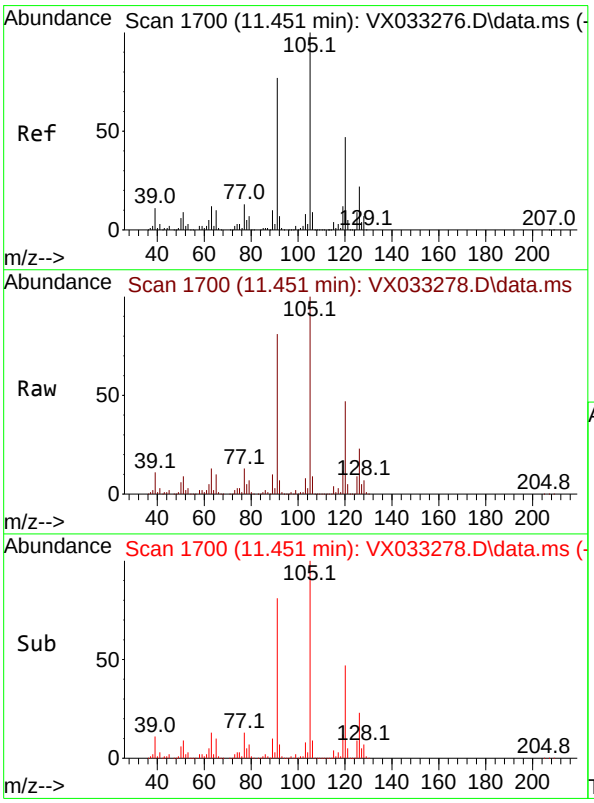
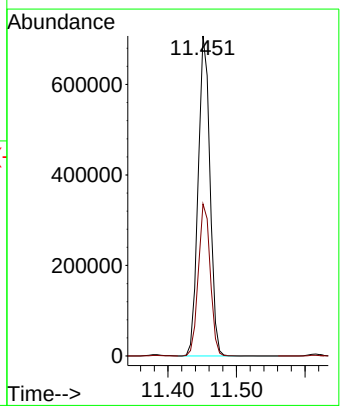
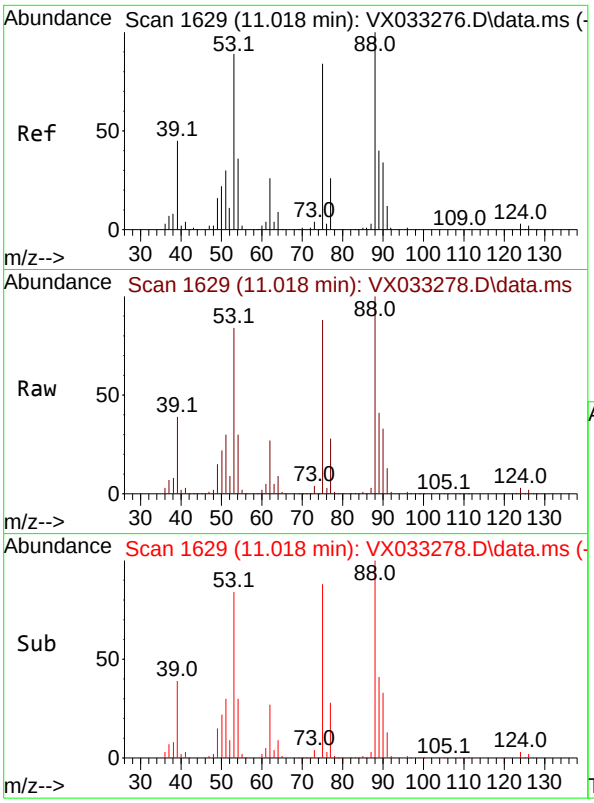



#80
1,3,5-Trimethylbenzene
Concen: 142.194 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:105 Resp: 849987

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.0 | 23.6 | 71.0 |

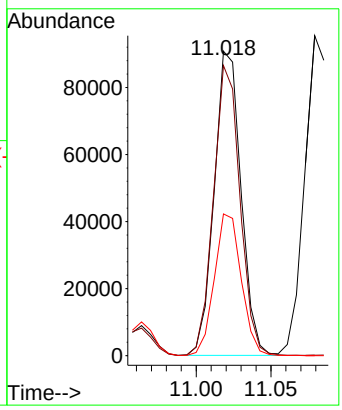





#81
trans-1,4-Dichloro-2-butene
Concen: 195.069 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 11317

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 94.1 | 86.9 | 130.3 |
| 89 | 46.9 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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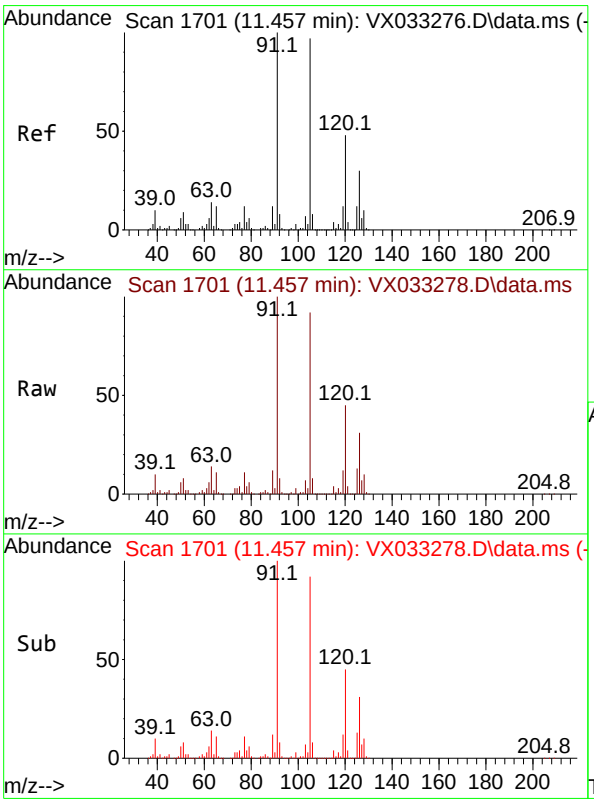
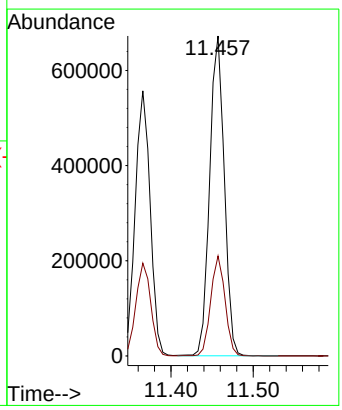
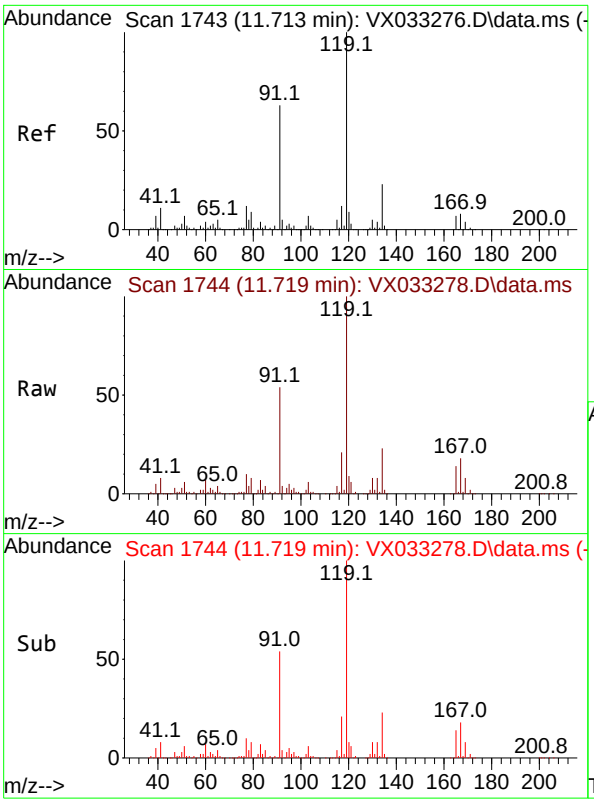



#82
4-Chlorotoluene
Concen: 143.634 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 831705

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.6 | 14.8 | 44.4 |

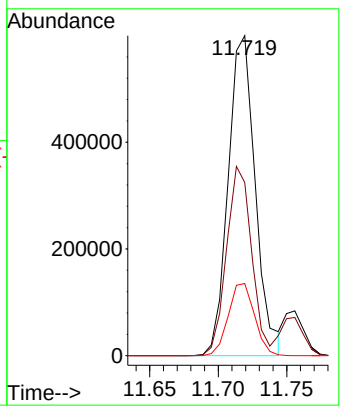





#83
tert-Butylbenzene
Concen: 139.011 ug/l
RT: 11.719 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:119 Resp: 82714

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 54.8 | 29.4 | 88.2 |
| 134 | 21.9 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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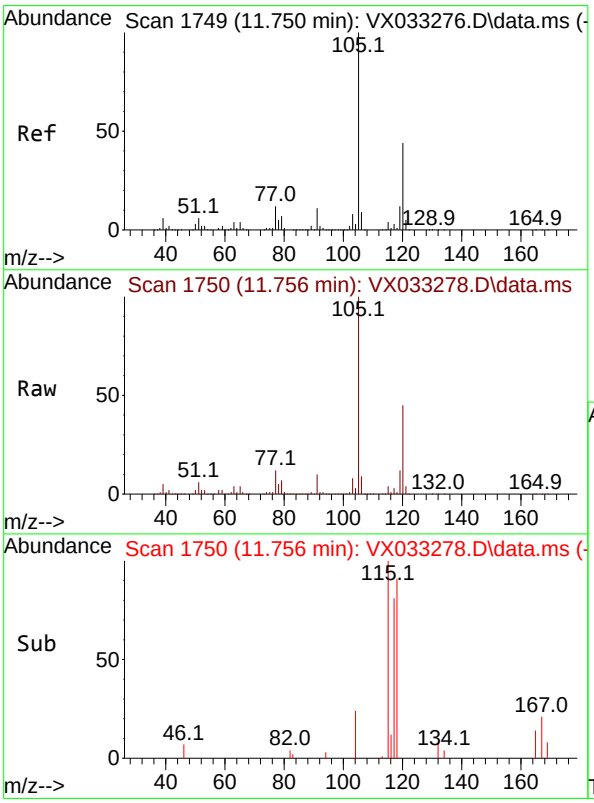
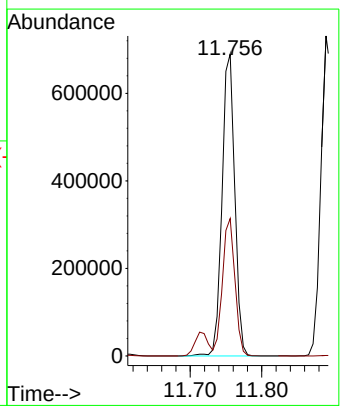
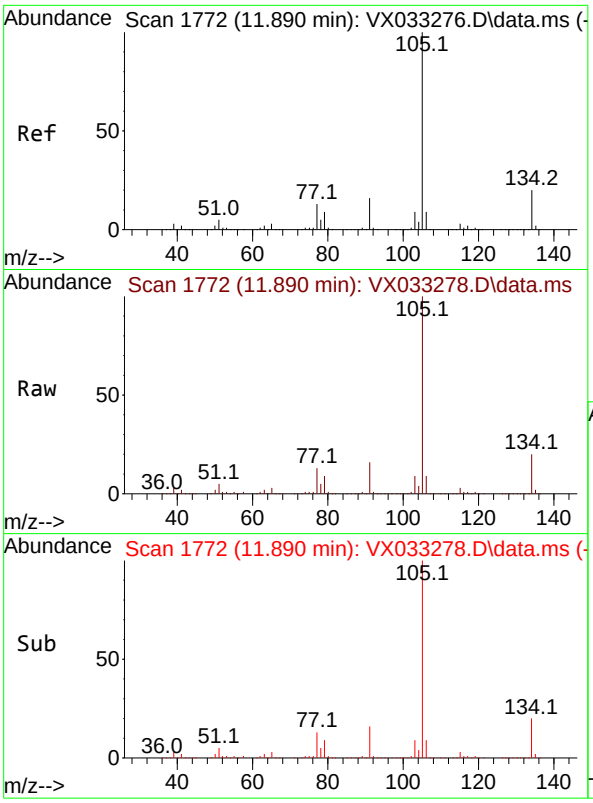



#84
1,2,4-Trimethylbenzene
Concen: 143.289 ug/l
RT: 11.756 min Scan# 1750
Delta R.T. 0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:105 Resp: 854067

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 21.9 | 65.5 |






#85
sec-Butylbenzene
Concen: 127.242 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:105 Resp: 90580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.3 | 9.9 | 29.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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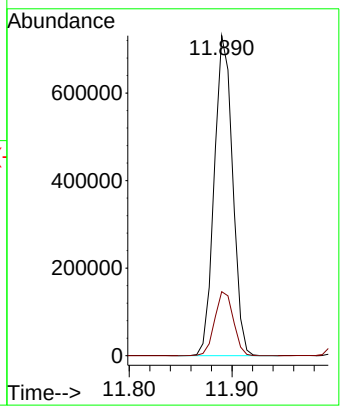
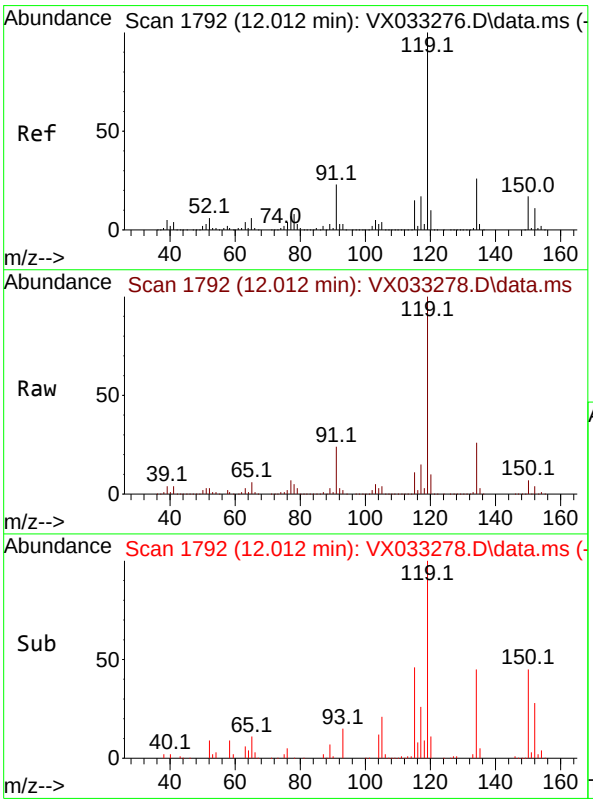
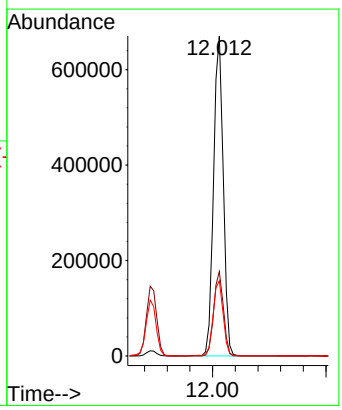


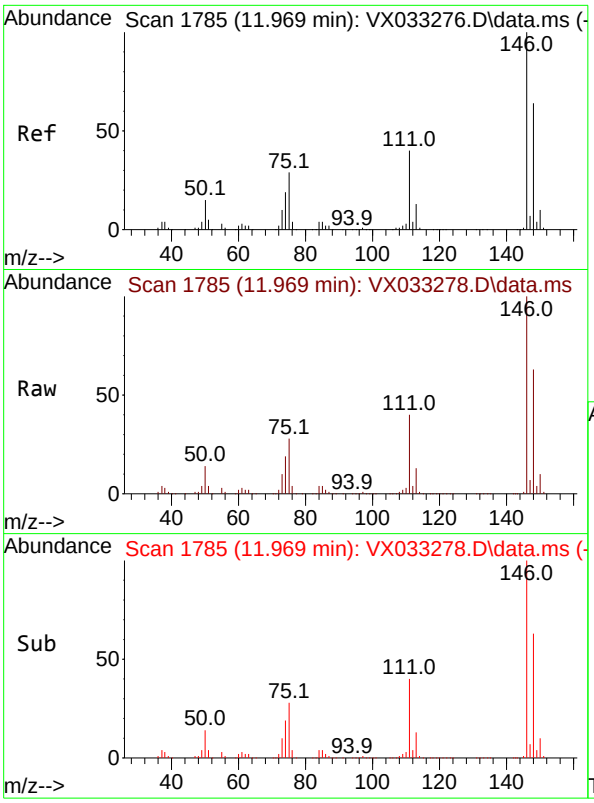




#86
p-Isopropyltoluene
Concen: 132.185 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:119 Resp: 797245

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.3 | 12.9 | 38.7 |
| 91 | 24.0 | 12.5 | 37.5 |

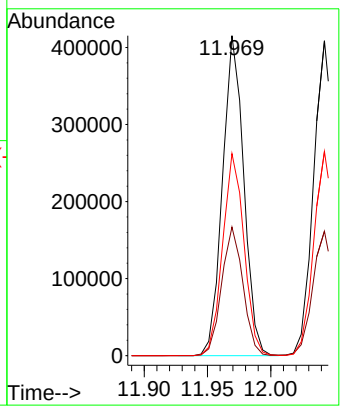





#87
1,3-Dichlorobenzene
Concen: 147.810 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:146 Resp: 48516

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.3 | 20.6 | 61.8 |
| 148 | 63.5 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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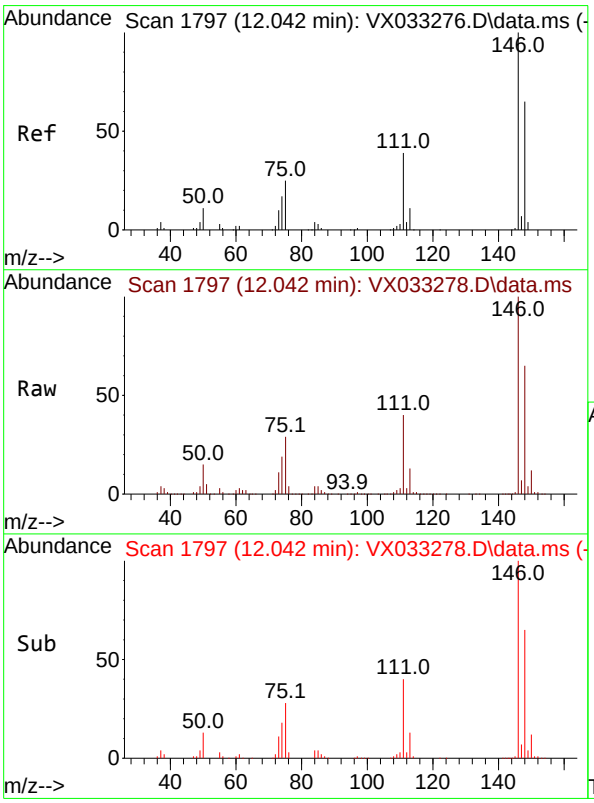
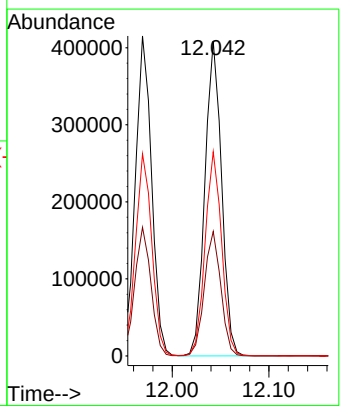
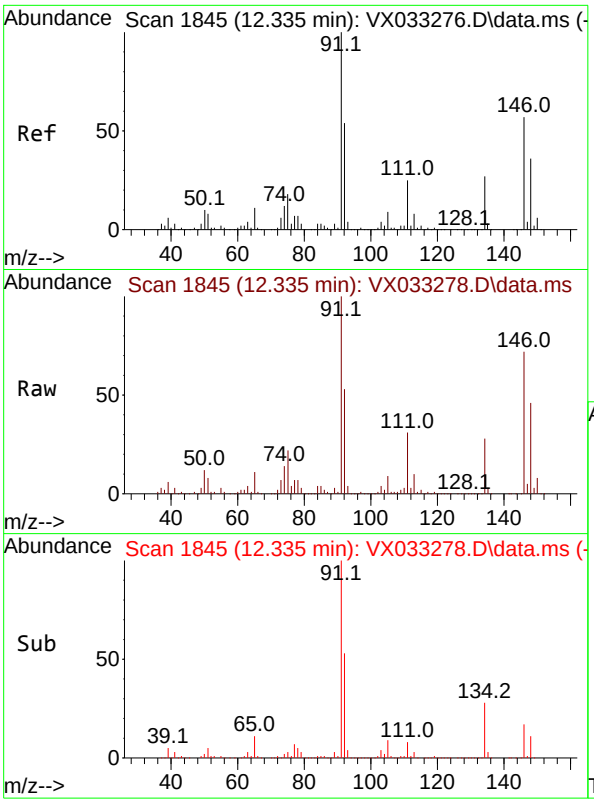



#88
1,4-Dichlorobenzene
Concen: 145.739 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:146 Resp: 489915

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.3 | 20.5 | 61.6 |
| 148 | 64.2 | 32.2 | 96.6 |

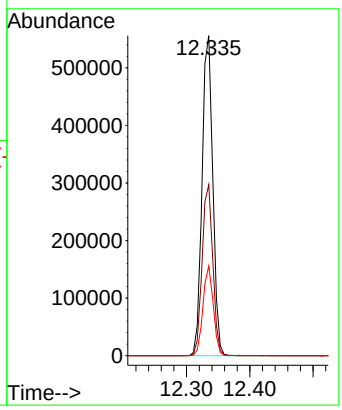





#89
n-Butylbenzene
Concen: 126.627 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 91 Resp: 65793

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 53.2 | 26.2 | 78.6 |
| 134 | 26.9 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

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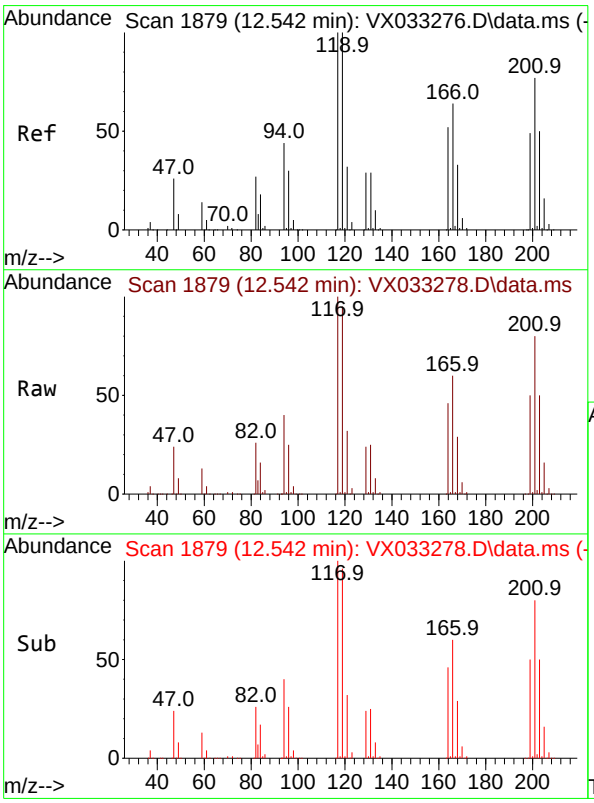
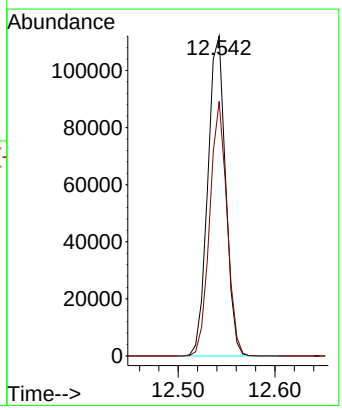
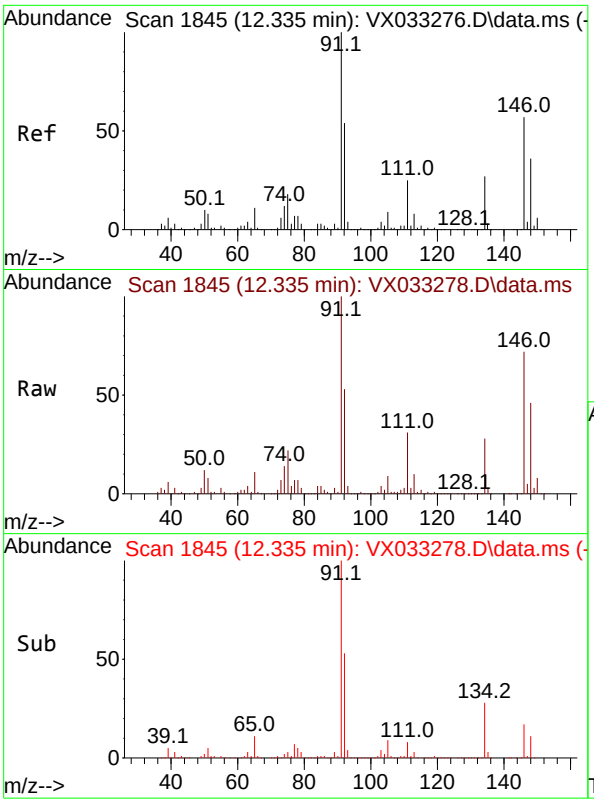



#90
Hexachloroethane
Concen: 144.580 ug/l
RT: 12.542 min Scan# 1879
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:117 Resp: 143263

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 76.9 | 37.6 | 112.9 |

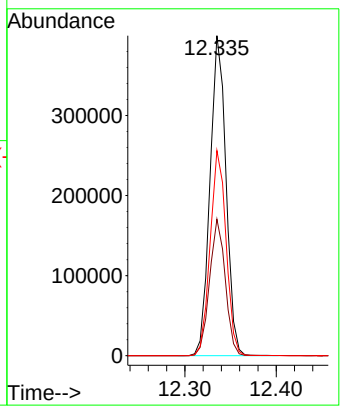





#91
1,2-Dichlorobenzene
Concen: 151.625 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:146 Resp: 48413

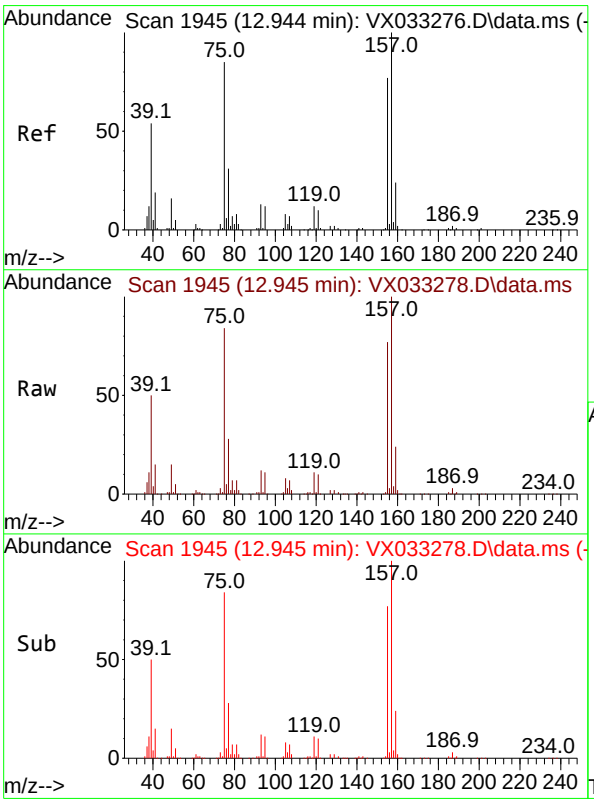
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 42.0 | 21.5 | 64.5 |
| 148 | 64.0 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

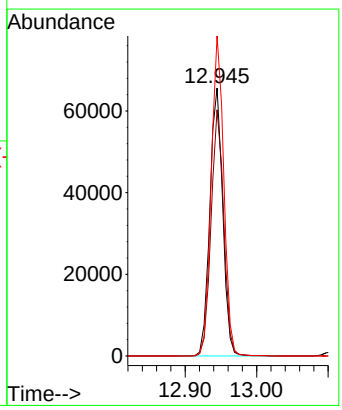
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

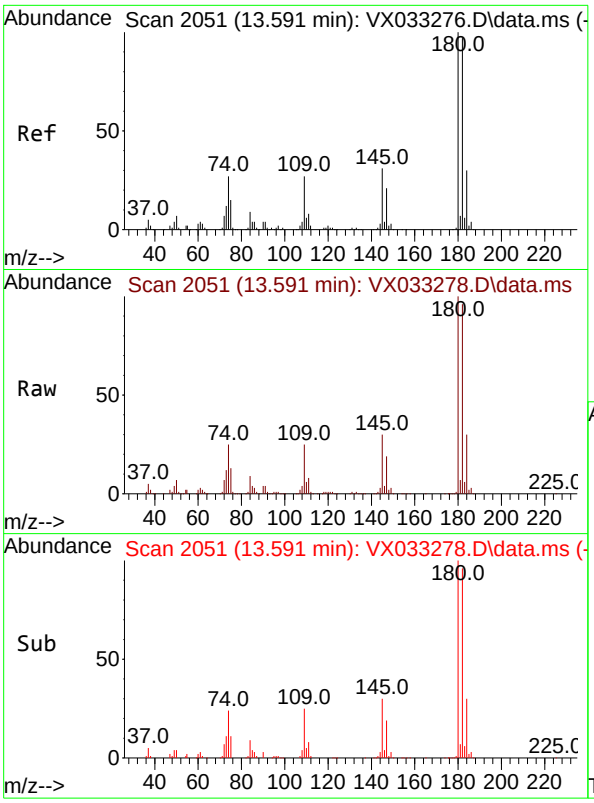



#92
1,2-Dibromo-3-Chloropropane
Concen: 191.433 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion: 75 Resp: 82029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 90.2 | 41.6 | 124.8 |
| 157 | 116.8 | 54.1 | 162.4 |

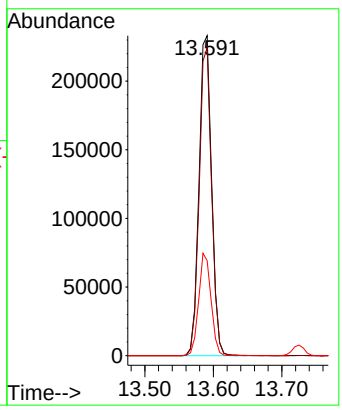





#93
1,2,4-Trichlorobenzene
Concen: 151.555 ug/l
RT: 13.591 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:180 Resp: 29829

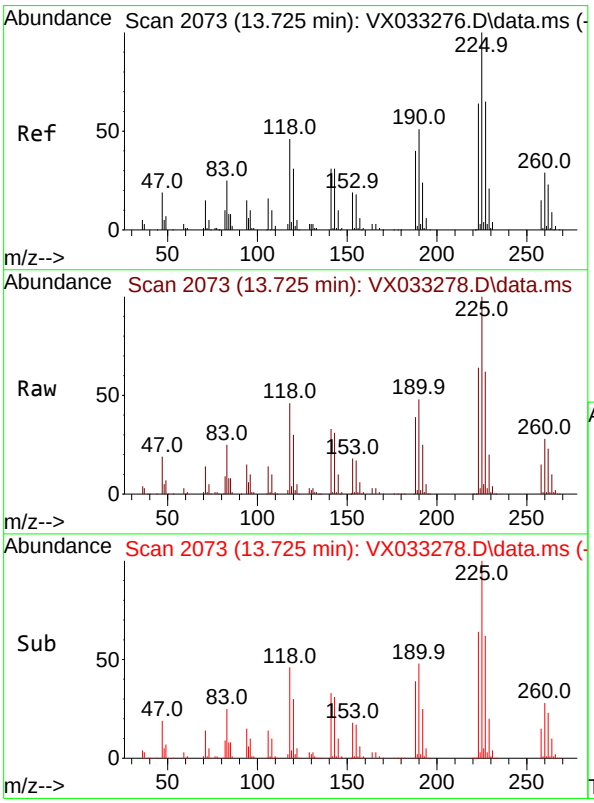
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 94.9 | 48.4 | 145.0 |
| 145 | 31.3 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

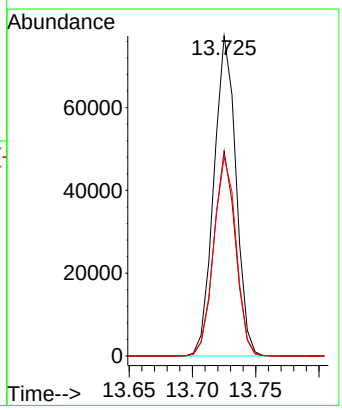
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

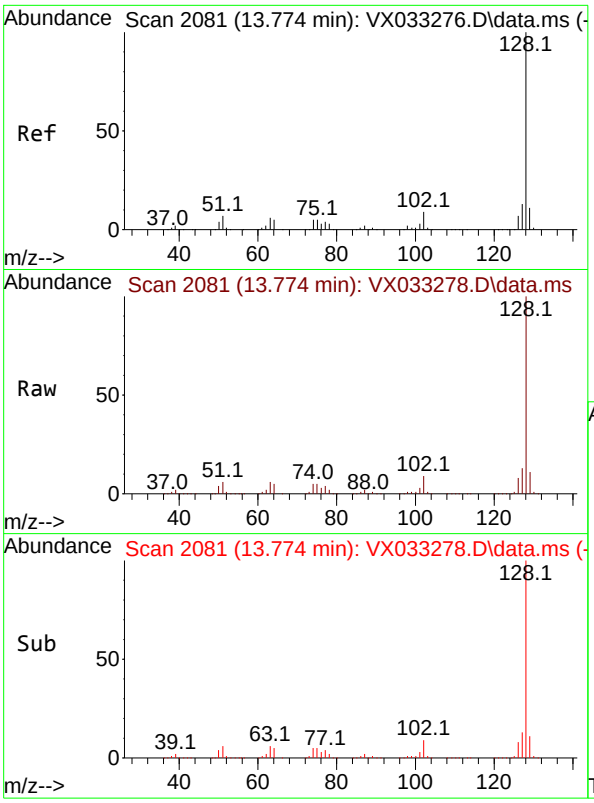



#94
Hexachlorobutadiene
Concen: 107.977 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:225 Resp: 93761

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 62.4 | 31.9 | 95.9 |
| 227 | 63.0 | 31.9 | 95.5 |

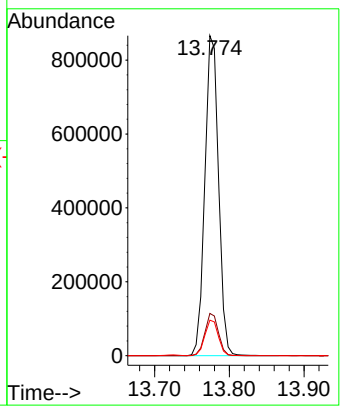





#95
Naphthalene
Concen: 172.814 ug/l
RT: 13.774 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:128 Resp: 110037

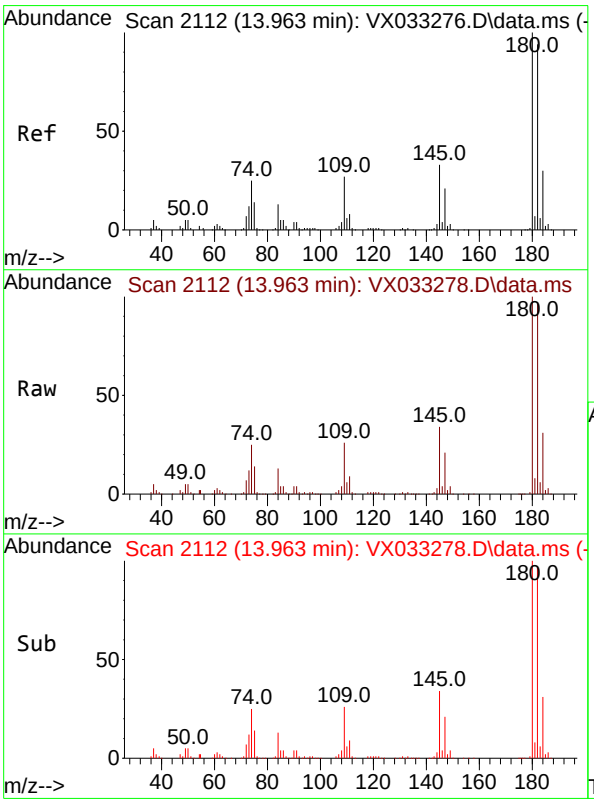
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 13.0 | 10.2 | 15.4 |
| 129 | 11.0 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDICC150

**Manual Integrations APPROVED**

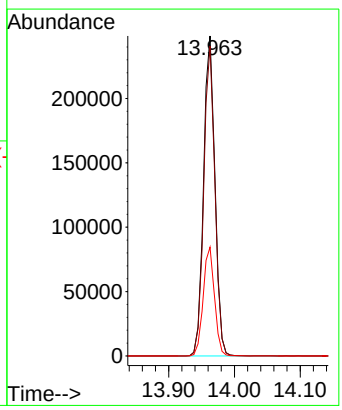
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 151.203 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. -0.000 min
Lab File: VX033278.D
Acq: 07 Dec 2022 11:42

Tgt Ion:180 Resp: 298441

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.2 | 47.5 | 142.6 |
| 145 | 33.9 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 162415 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.757 | 114 | 257660 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 237524 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 120258 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.952 | 65 | 48832 | 46.866 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 93.740% | | | |
| 35) Dibromofluoromethane | 5.385 | 113 | 55536 | 47.921 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 95.840% | | | |
| 50) Toluene-d8 | 8.647 | 98 | 121350 | 50.054 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 100.100% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 97770 | 52.743 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 105.480% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 56389 | 49.702 | ug/l | 96 |
| 3) Chloromethane | 1.295 | 50 | 59512 | 45.367 | ug/l | 96 |
| 4) Vinyl Chloride | 1.374 | 62 | 69954 | 46.704 | ug/l | 99 |
| 5) Bromomethane | 1.618 | 94 | 52357 | 47.632 | ug/l | 98 |
| 6) Chloroethane | 1.691 | 64 | 53665 | 47.236 | ug/l | 96 |
| 7) Trichlorofluoromethane | 1.886 | 101 | 136355 | 48.490 | ug/l | 99 |
| 8) Diethyl Ether | 2.130 | 74 | 46097 | 45.386 | ug/l | 99 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 74711 | 50.085 | ug/l | 99 |
| 10) Methyl Iodide | 2.453 | 142 | 71219 | 43.593 | ug/l | 99 |
| 11) Tert butyl alcohol | 3.002 | 59 | 67251 | 211.111 | ug/l | 100 |
| 12) 1,1-Dichloroethene | 2.319 | 96 | 70587 | 47.939 | ug/l | 99 |
| 13) Acrolein | 2.239 | 56 | 78806 | 228.098 | ug/l | 100 |
| 14) Allyl chloride | 2.666 | 41 | 112896 | 48.012 | ug/l | 95 |
| 15) Acrylonitrile | 3.062 | 53 | 179556 | 227.543 | ug/l | 100 |
| 16) Acetone | 2.392 | 43 | 166939 | 216.519 | ug/l | 99 |
| 17) Carbon Disulfide | 2.514 | 76 | 180946 | 47.881 | ug/l | 99 |
| 18) Methyl Acetate | 2.703 | 43 | 102476 | 45.913 | ug/l | 97 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 245794 | 48.192 | ug/l | 100 |
| 20) Methylene Chloride | 2.788 | 84 | 78430 | 45.612 | ug/l | 93 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 78497 | 48.735 | ug/l | 98 |
| 22) Diisopropyl ether | 3.757 | 45 | 244025 | 48.438 | ug/l | 97 |
| 23) Vinyl Acetate | 3.721 | 43 | 958390 | 245.096 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.605 | 63 | 139554 | 47.145 | ug/l | 99 |
| 25) 2-Butanone | 4.556 | 43 | 257566 | 232.728 | ug/l | 99 |
| 26) 2,2-Dichloropropane | 4.471 | 77 | 108371 | 49.784 | ug/l | 99 |
| 27) cis-1,2-Dichloroethene | 4.483 | 96 | 93344 | 48.492 | ug/l | 97 |
| 28) Bromochloromethane | 4.898 | 49 | 59423 | 47.956 | ug/l | 93 |
| 29) Tetrahydrofuran | 5.001 | 42 | 167379 | 233.427 | ug/l | 98 |
| 30) Chloroform | 5.093 | 83 | 156035 | 47.482 | ug/l | 98 |
| 31) Cyclohexane | 5.471 | 56 | 125301 | 50.601 | ug/l | 91 |
| 32) 1,1,1-Trichloroethane | 5.379 | 97 | 140838 | 49.812 | ug/l | 99 |
| 36) 1,1-Dichloropropene | 5.690 | 75 | 112707 | 49.882 | ug/l | 100 |
| 37) Ethyl Acetate | 4.709 | 43 | 101939 | 47.728 | ug/l | 100 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 125509 | 49.578 | ug/l | 97 |
| 39) Methylcyclohexane | 7.379 | 83 | 134321 | 53.112 | ug/l | 99 |
| 40) Benzene | 6.038 | 78 | 322242 | 48.914 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.916 | 41 | 57501 | 48.856 | ug/l | | 97 |
| 42) 1,2-Dichloroethane | 6.086 | 62 | 124620 | 47.637 | ug/l | | 98 |
| 43) Isopropyl Acetate | 6.336 | 43 | 167268 | 48.673 | ug/l | | 97 |
| 44) Trichloroethene | 7.123 | 130 | 90972 | 50.085 | ug/l | | 99 |
| 45) 1,2-Dichloropropane | 7.428 | 63 | 82041 | 48.695 | ug/l | | 99 |
| 46) Dibromomethane | 7.580 | 93 | 61420 | 47.855 | ug/l | | 97 |
| 47) Bromodichloromethane | 7.818 | 83 | 122743 | 49.061 | ug/l | | 98 |
| 48) Methyl methacrylate | 7.690 | 41 | 86058 | 48.521 | ug/l | | 94 |
| 49) 1,4-Dioxane | 7.696 | 88 | 39410 | 974.422 | ug/l | | 97 |
| 51) 4-Methyl-2-Pentanone | 8.574 | 43 | 533877 | 245.658 | ug/l | | 97 |
| 52) Toluene | 8.720 | 92 | 214134 | 50.273 | ug/l | | 99 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 126110 | 47.076 | ug/l | | 99 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 136491 | 51.268 | ug/l | | 90 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 87728 | 48.997 | ug/l | | 99 |
| 56) Ethyl methacrylate | 9.116 | 69 | 129329 | 51.302 | ug/l | | 92 |
| 57) 1,3-Dichloropropane | 9.305 | 76 | 142492 | 49.540 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl ether | 8.238 | 63 | 291627 | 252.823 | ug/l | | 99 |
| 59) 2-Hexanone | 9.427 | 43 | 399172 | 249.243 | ug/l | | 96 |
| 60) Dibromochloromethane | 9.519 | 129 | 101310 | 51.356 | ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 96259 | 50.543 | ug/l | | 99 |
| 64) Tetrachloroethene | 9.275 | 164 | 80126 | 49.334 | ug/l | | 98 |
| 65) Chlorobenzene | 10.080 | 112 | 237720 | 49.423 | ug/l | | 100 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 89447 | 49.209 | ug/l | | 100 |
| 67) Ethyl Benzene | 10.195 | 91 | 425565 | 50.786 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.299 | 106 | 335122 | 102.791 | ug/l | | 98 |
| 69) o-Xylene | 10.640 | 106 | 163154 | 50.629 | ug/l | | 97 |
| 70) Styrene | 10.653 | 104 | 274901 | 52.086 | ug/l | | 98 |
| 71) Bromoform | 10.799 | 173 | 73003 | 50.740 | ug/l | # | 100 |
| 73) Isopropylbenzene | 10.964 | 105 | 431345 | 49.486 | ug/l | | 99 |
| 74) N-amyl acetate | 10.842 | 43 | 150450 | 50.590 | ug/l | | 96 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 130259 | 47.106 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 118011m | 48.233 | ug/l | | |
| 77) Bromobenzene | 11.201 | 156 | 106101 | 48.205 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 494916 | 50.851 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 292372 | 48.608 | ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 364334 | 50.214 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 37394 | 47.543 | ug/l | | 97 |
| 82) 4-Chlorotoluene | 11.457 | 91 | 339915 | 48.600 | ug/l | | 98 |
| 83) tert-Butylbenzene | 11.713 | 119 | 363888 | 50.294 | ug/l | | 98 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 360637 | 49.794 | ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 435925 | 51.640 | ug/l | | 100 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 370603 | 50.922 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 197172 | 49.452 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.043 | 146 | 197406 | 48.472 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 318727 | 53.470 | ug/l | | 99 |
| 90) Hexachloroethane | 12.536 | 117 | 61643 | 49.829 | ug/l | | 97 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 190001 | 47.664 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 28225 | 47.255 | ug/l | | 96 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 122405 | 50.844 | ug/l | | 99 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 49918 | 51.780 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 406692 | 50.644 | ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 122061 | 50.061 | ug/l | | 99 |

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

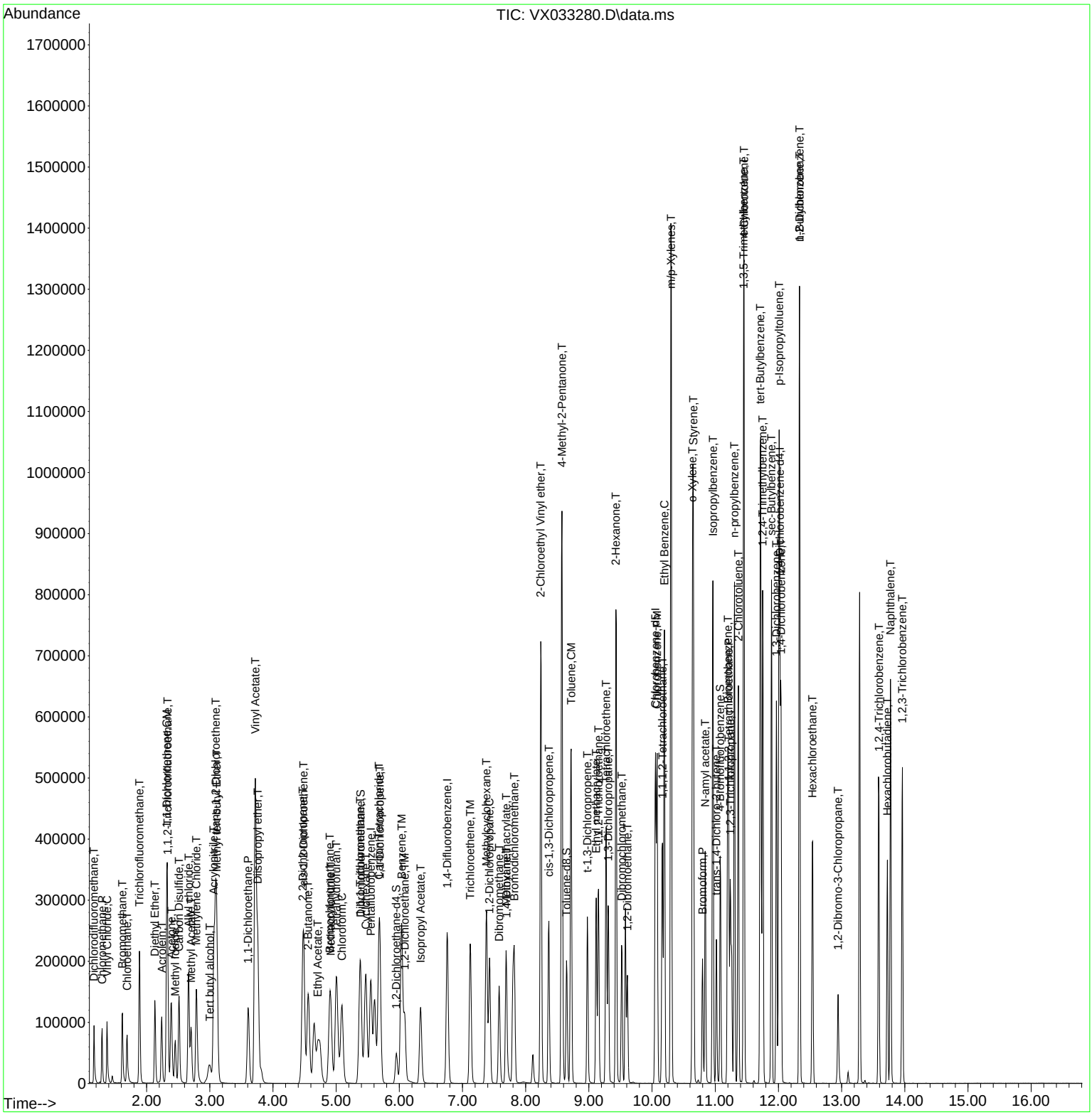
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

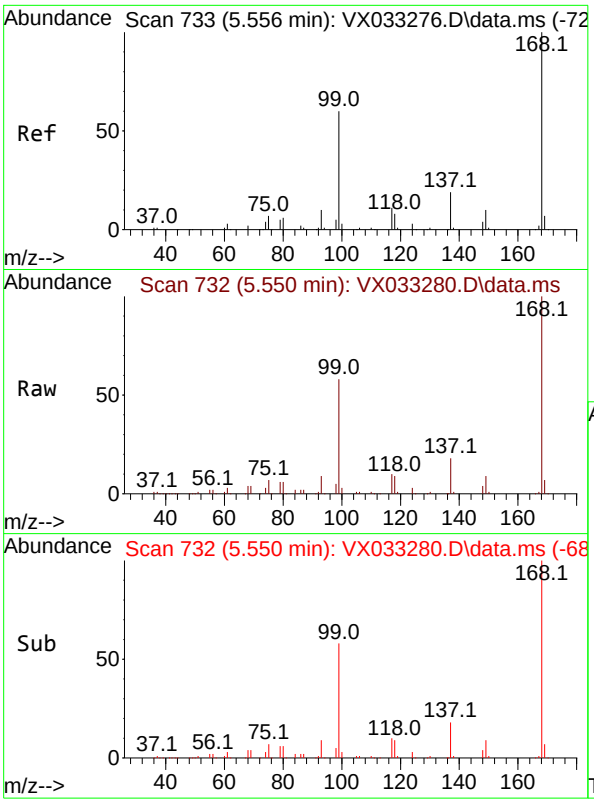
Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

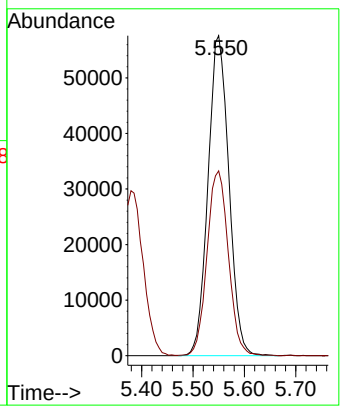





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:168 Resp: 16241

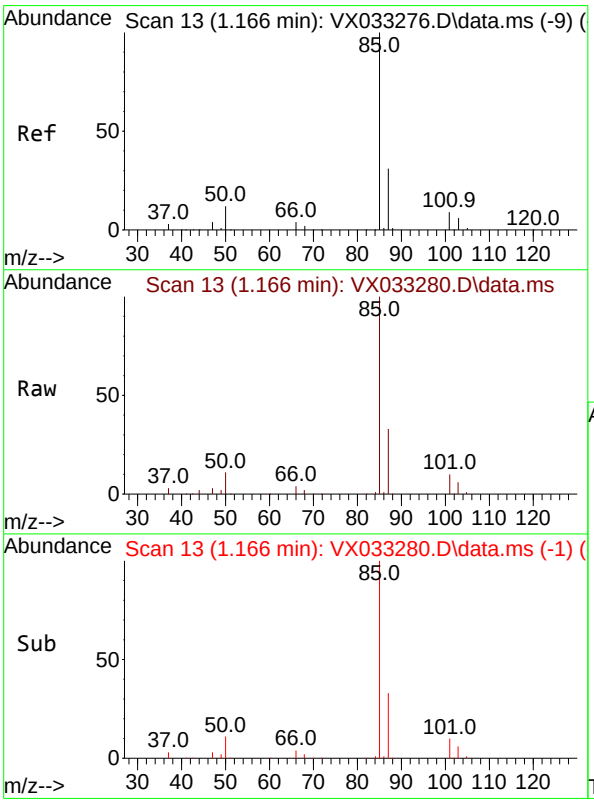
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 57.8 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

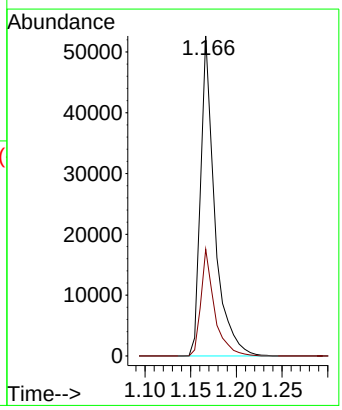
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

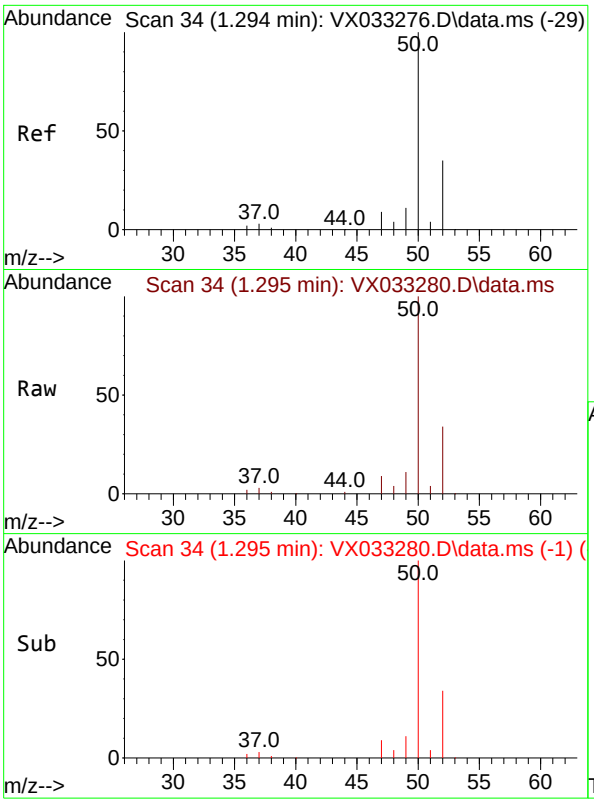



#2
Dichlorodifluoromethane
Concen: 49.702 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 85 Resp: 56389

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.4 | 15.6 | 46.7 |

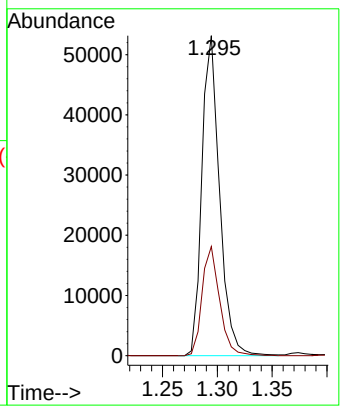





#3
Chloromethane
Concen: 45.367 ug/l
RT: 1.295 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 50 Resp: 5951

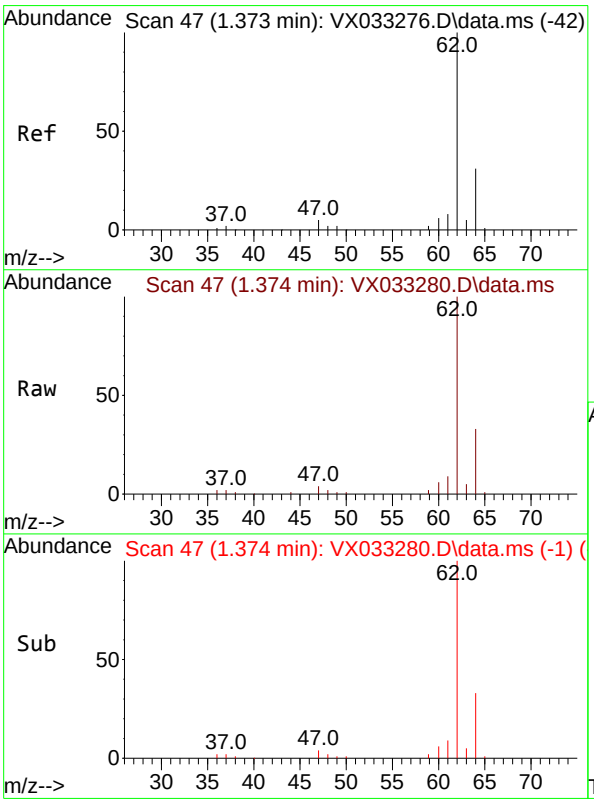
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 34.1 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

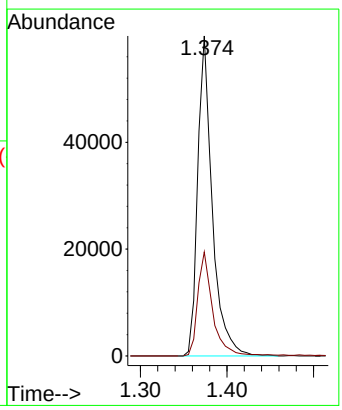
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

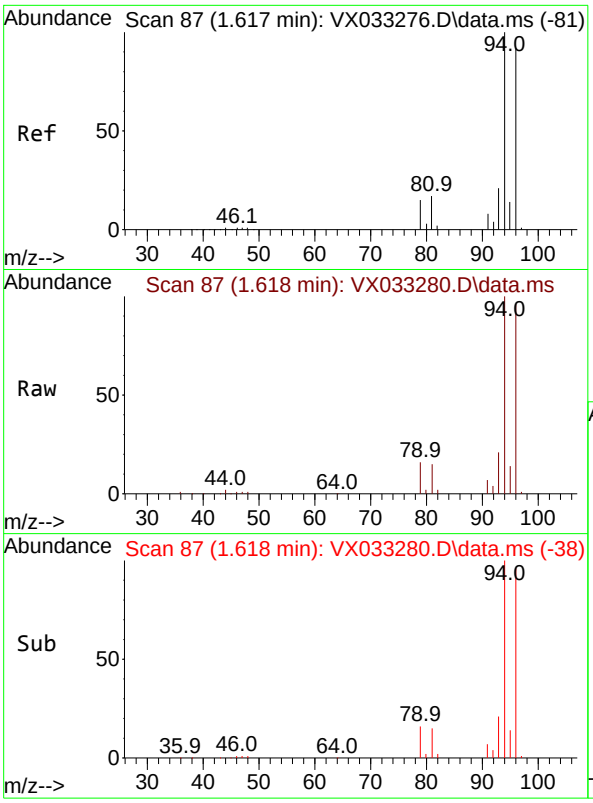



#4
Vinyl Chloride
Concen: 46.704 ug/l
RT: 1.374 min Scan# 47
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 62 Resp: 69954

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 32.5 | 25.8 | 38.6 |

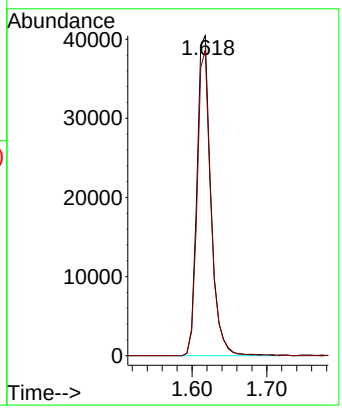





#5
Bromomethane
Concen: 47.632 ug/l
RT: 1.618 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 94 Resp: 5235

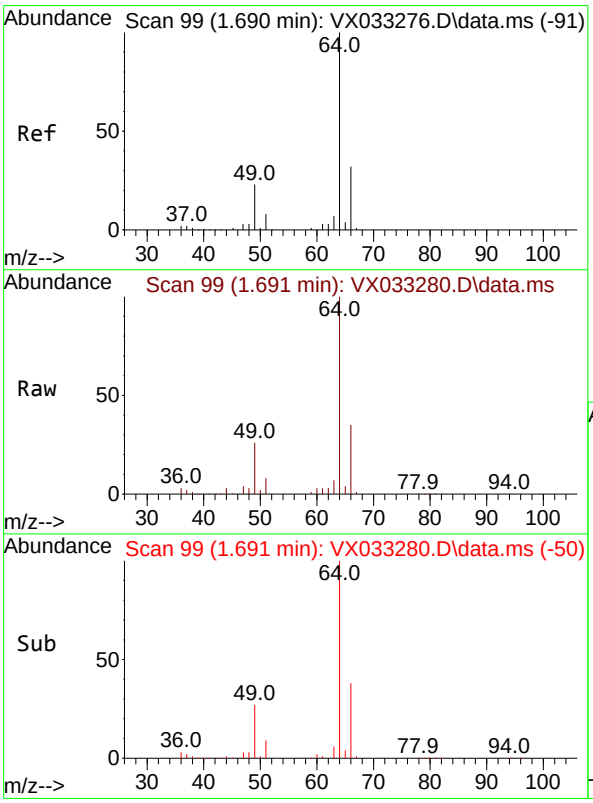
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 95.5 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

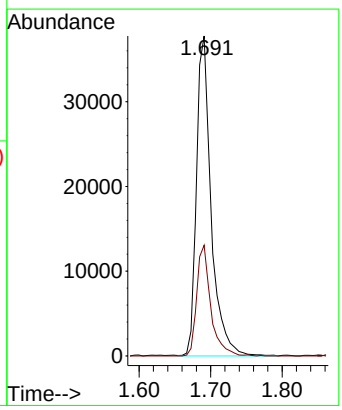
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

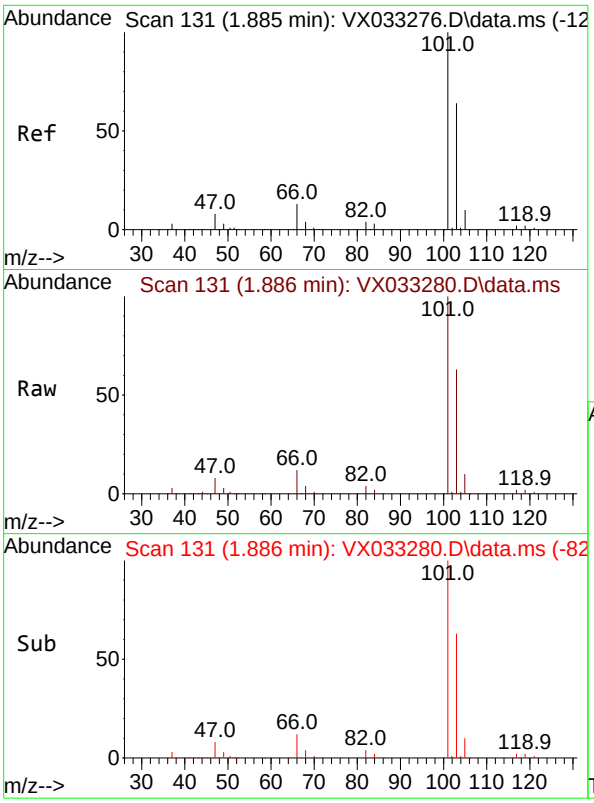



#6
Chloroethane
Concen: 47.236 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 64 Resp: 53665

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 34.6 | 26.0 | 39.0 |






#7
Trichlorofluoromethane
Concen: 48.490 ug/l
RT: 1.886 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

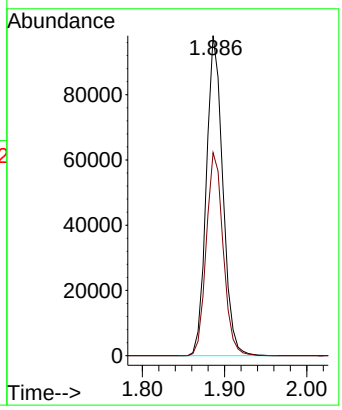
Tgt Ion:101 Resp: 13635

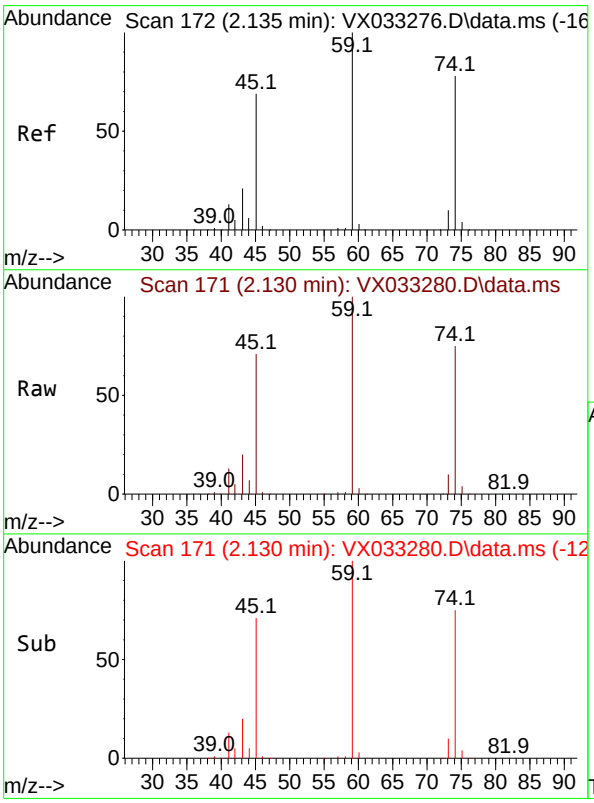
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.5 | 51.4 | 77.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

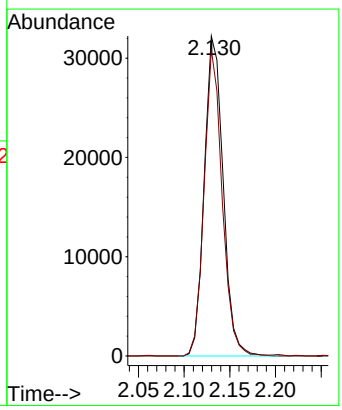


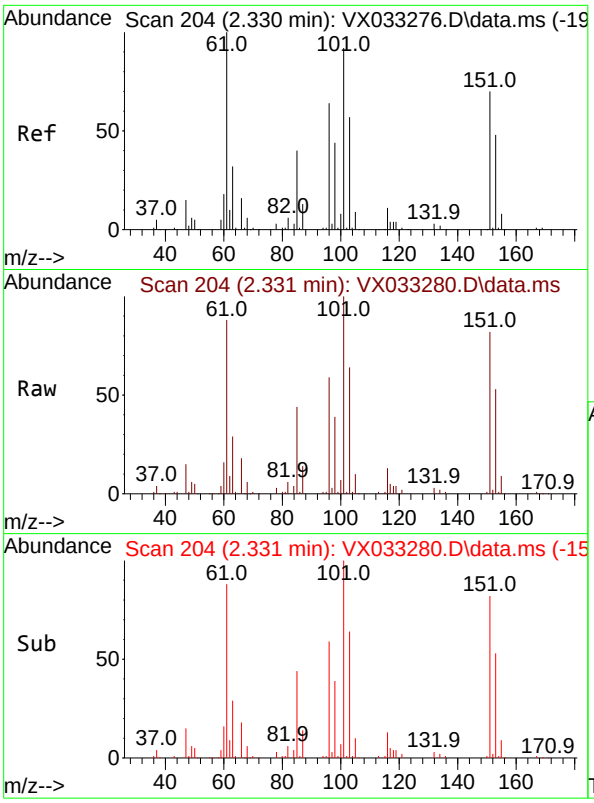




#8
Diethyl Ether
Concen: 45.386 ug/l
RT: 2.130 min Scan# 171
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 74 Resp: 46097

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 92.0 | 46.6 | 139.7 |

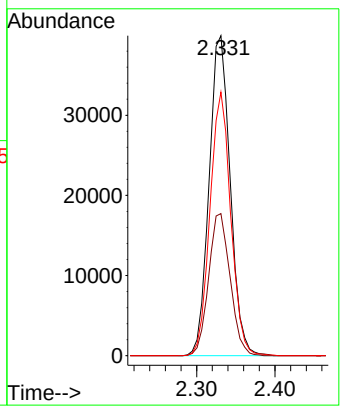





#9
1,1,2-Trichlorotrifluoroethane
Concen: 50.085 ug/l
RT: 2.331 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:101 Resp: 7471

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.2 | 37.0 | 55.4 |
| 151 | 81.2 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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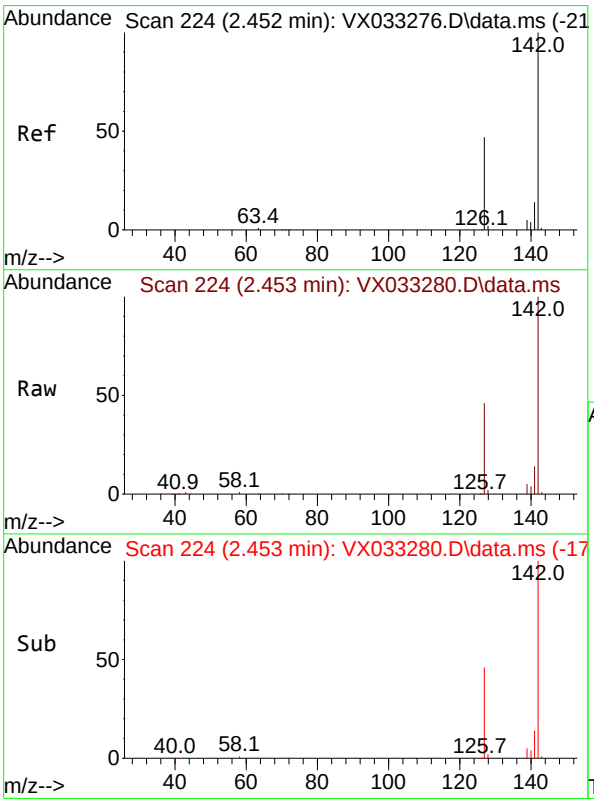
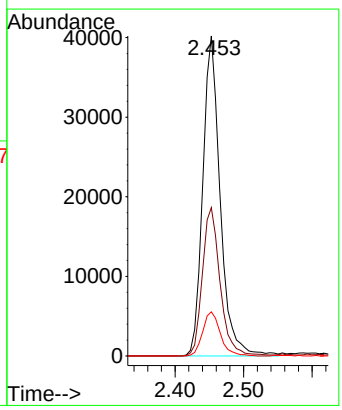
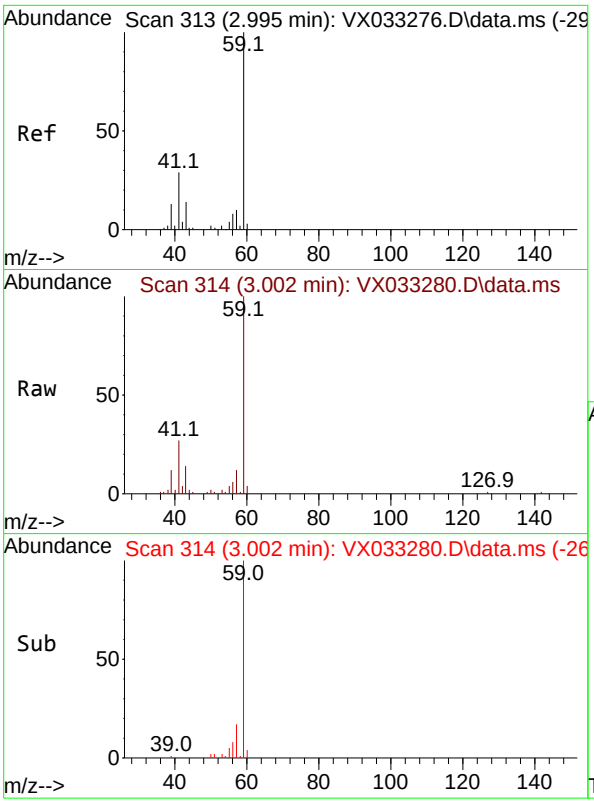



#10
Methyl Iodide
Concen: 43.593 ug/l
RT: 2.453 min Scan# 224
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:142 Resp: 71219

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.3 | 38.6 | 57.8 |
| 141 | 14.0 | 11.4 | 17.2 |






#11
Tert butyl alcohol
Concen: 211.111 ug/l
RT: 3.002 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 59 Resp: 6725

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 10.3 | 8.2 | 12.4 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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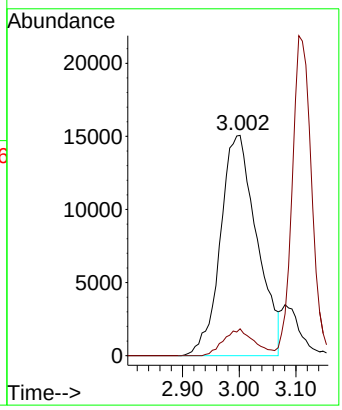
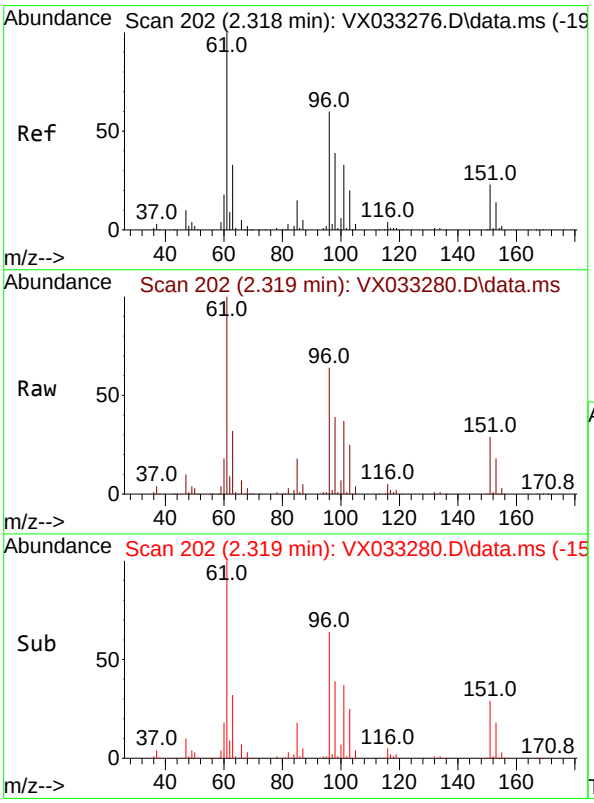
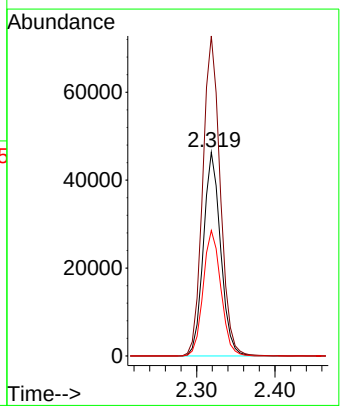


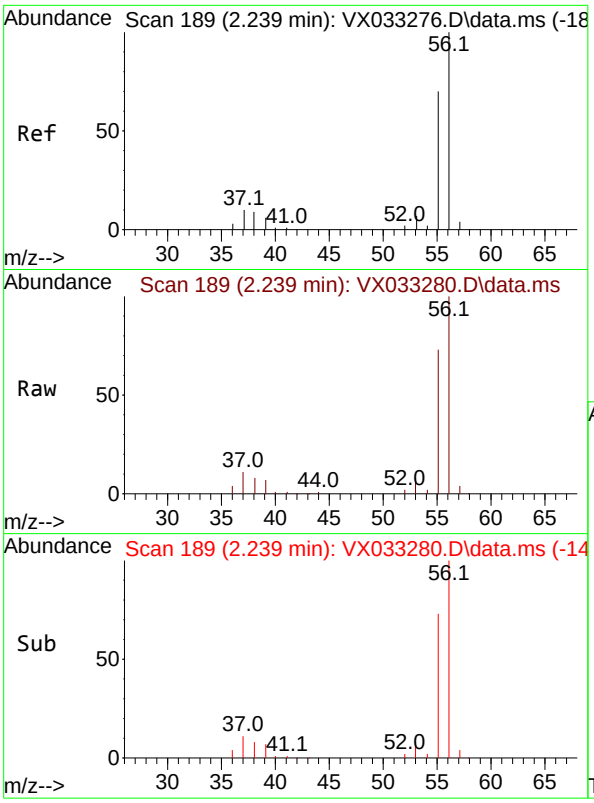




#12
1,1-Dichloroethene
Concen: 47.939 ug/l
RT: 2.319 min Scan# 202
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 96 Resp: 70587

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 157.1 | 125.1 | 187.7 |
| 98 | 61.6 | 50.6 | 76.0 |

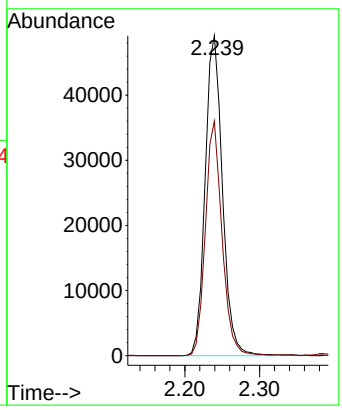





#13
Acrolein
Concen: 228.098 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 56 Resp: 7880

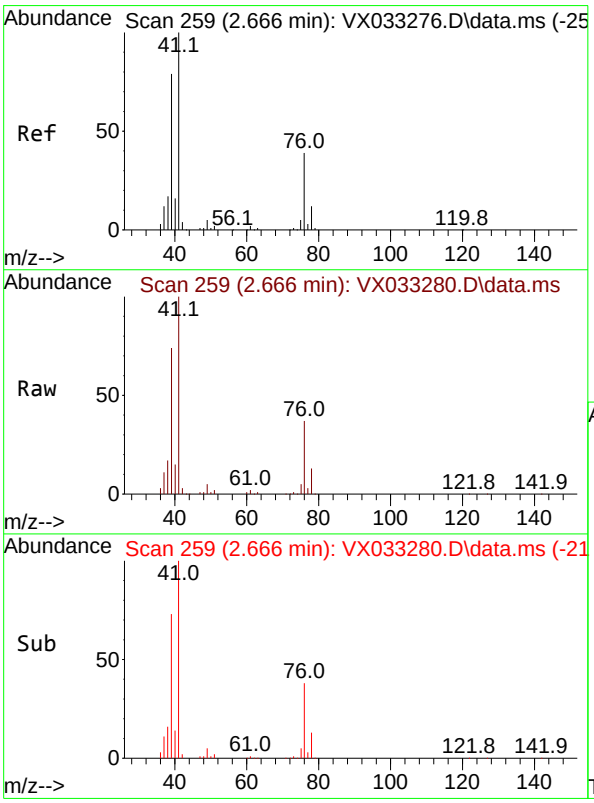
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.7 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

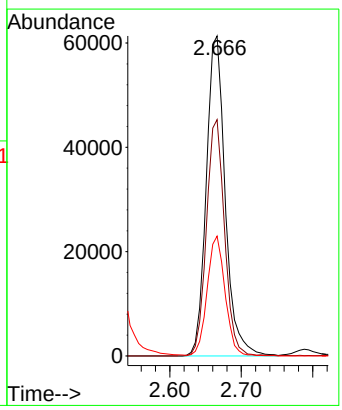
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

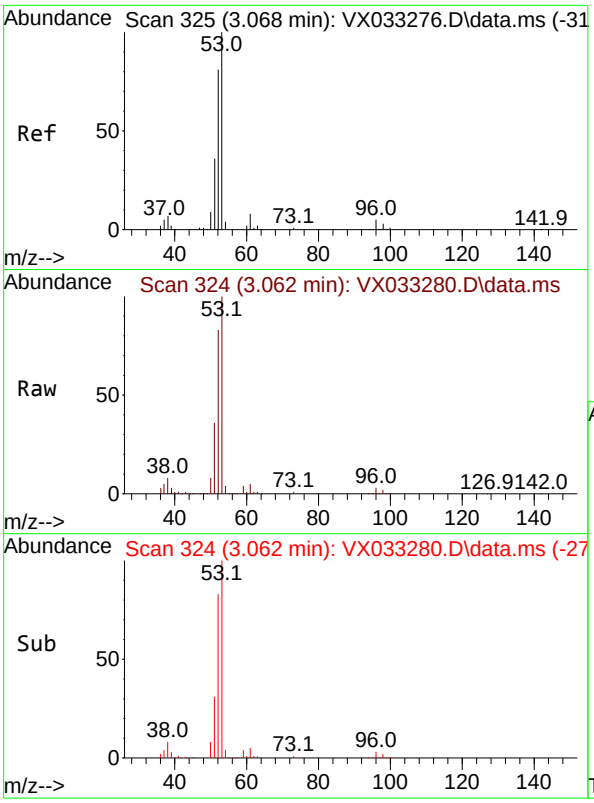



#14
Allyl chloride
Concen: 48.012 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 41 Resp: 112896

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 70.8 | 61.4 | 92.2 |
| 76 | 35.6 | 29.2 | 43.8 |

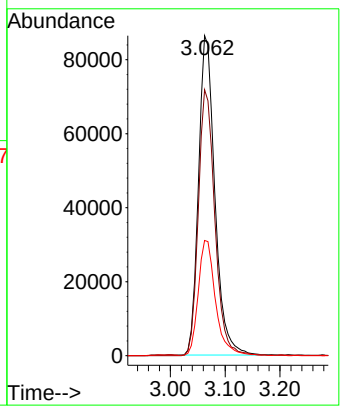





#15
Acrylonitrile
Concen: 227.543 ug/l
RT: 3.062 min Scan# 3
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 53 Resp: 17955

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 84.1 | 67.4 | 101.0 |
| 51 | 37.9 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
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ICVVX120722

**Manual Integrations**
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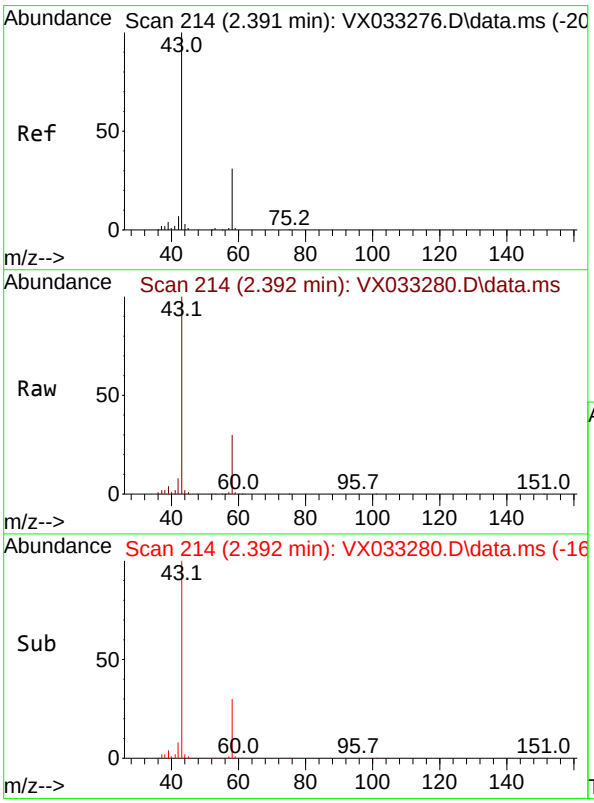
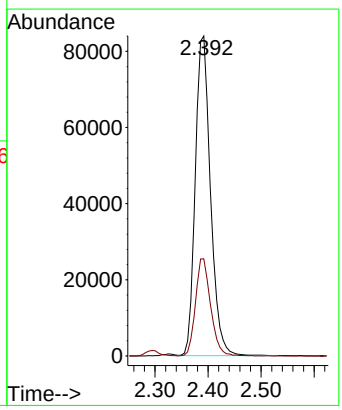
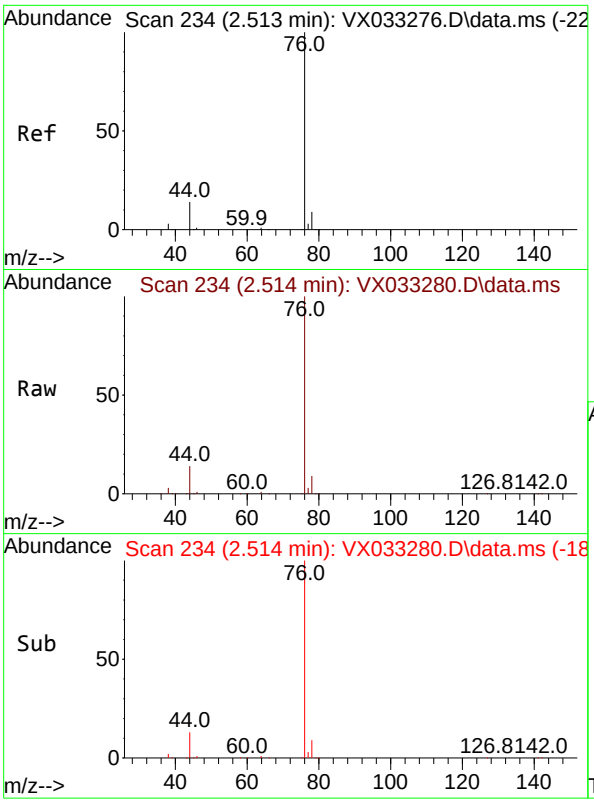



#16
Acetone
Concen: 216.519 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 166939

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.4 | 23.8 | 35.8 |

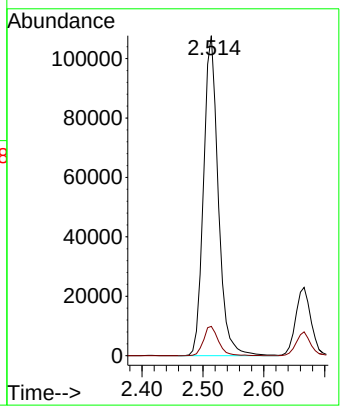





#17
Carbon Disulfide
Concen: 47.881 ug/l
RT: 2.514 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 76 Resp: 18094

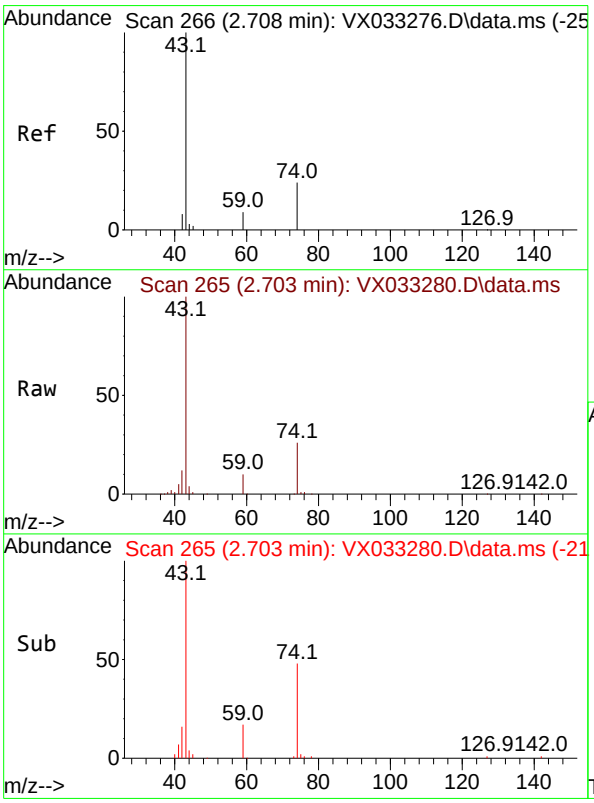
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.2 | 7.5 | 11.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

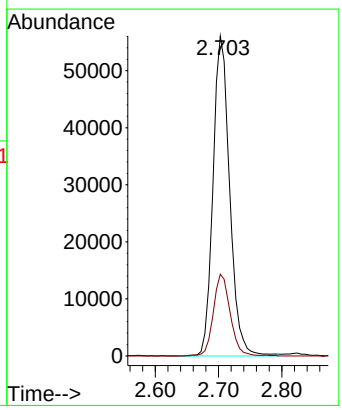
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

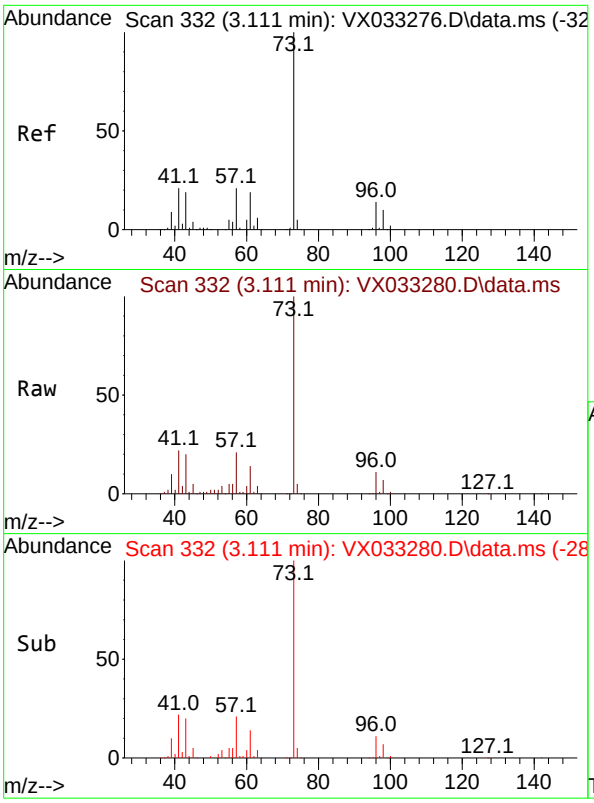



#18
Methyl Acetate
Concen: 45.913 ug/l
RT: 2.703 min Scan# 265
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 102476

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.9 | 19.4 | 29.0 |






#19
Methyl tert-butyl Ether
Concen: 48.192 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 73 Resp: 24579

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 20.6 | 16.6 | 25.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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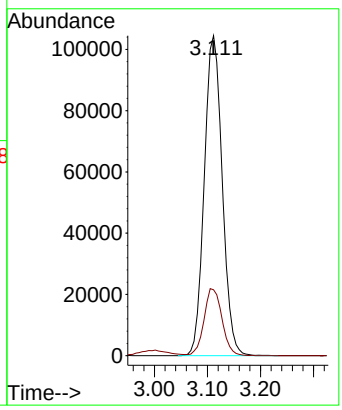
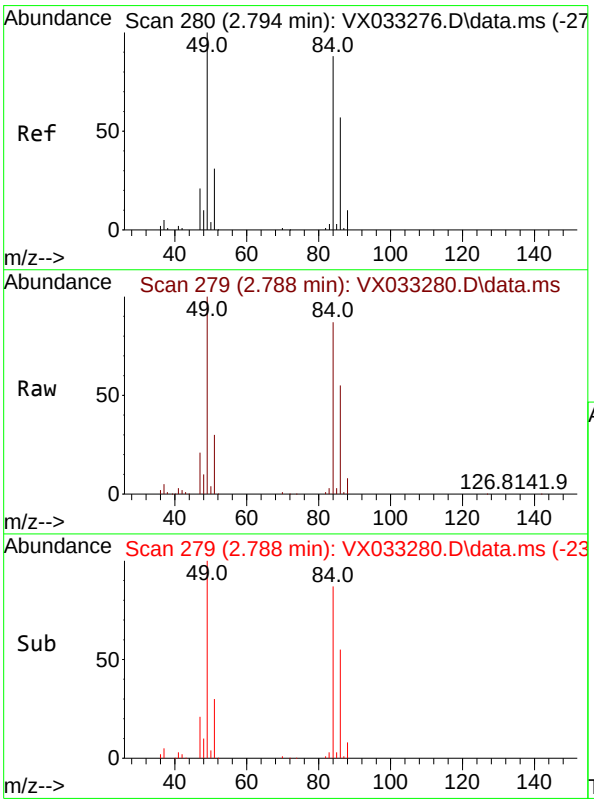
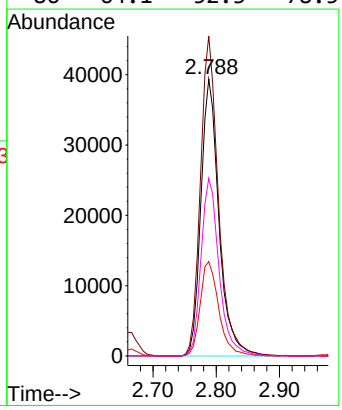


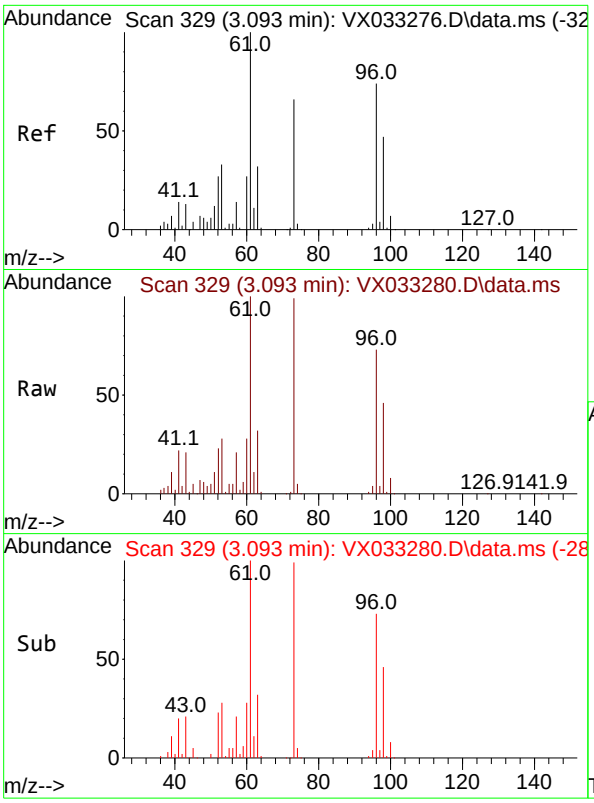




#20
Methylene Chloride
Concen: 45.612 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 84 Resp: 78430

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 115.6 | 101.0 | 151.6 |
| 51 | 34.1 | 31.1 | 46.7 |
| 86 | 64.1 | 52.3 | 78.5 |

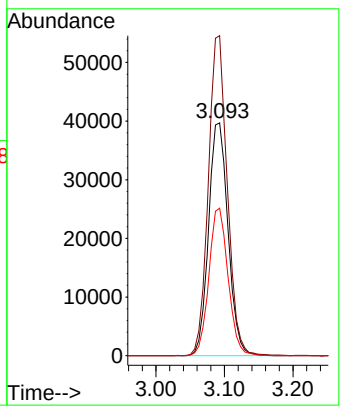





#21
trans-1,2-Dichloroethene
Concen: 48.735 ug/l
RT: 3.093 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 96 Resp: 7849

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 137.3 | 106.6 | 160.0 |
| 98 | 63.4 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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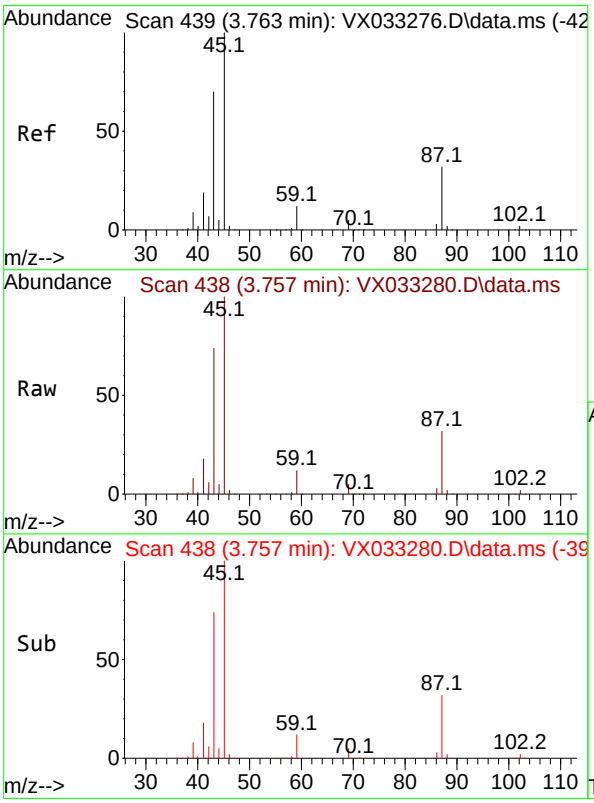
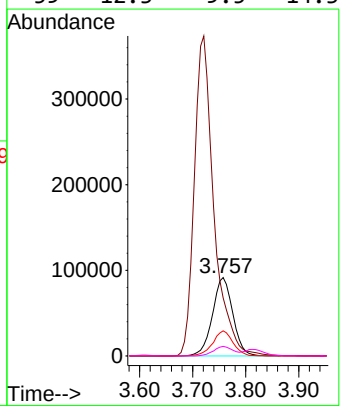
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

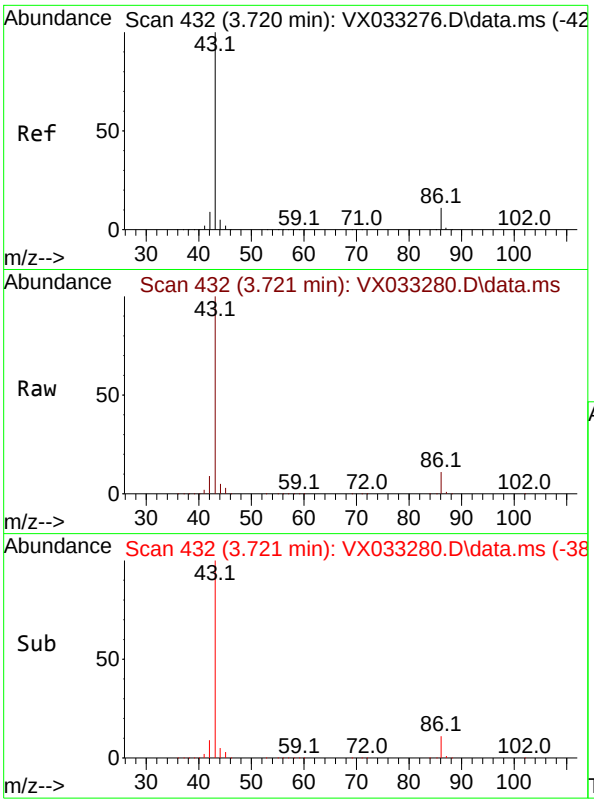



#22
Diisopropyl ether
Concen: 48.438 ug/l
RT: 3.757 min Scan# 438
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 45 Resp: 244025

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 73.2 | 56.4 | 84.6 |
| 87 | 32.1 | 24.4 | 36.6 |
| 59 | 12.3 | 9.5 | 14.3 |

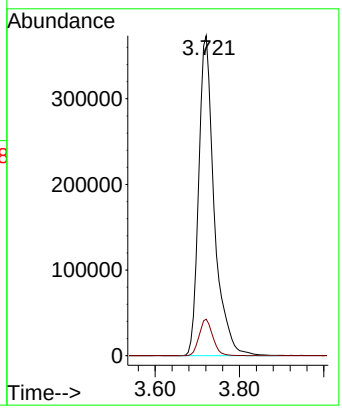





#23
Vinyl Acetate
Concen: 245.096 ug/l
RT: 3.721 min Scan# 4
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 95839

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.4 | 8.6 | 12.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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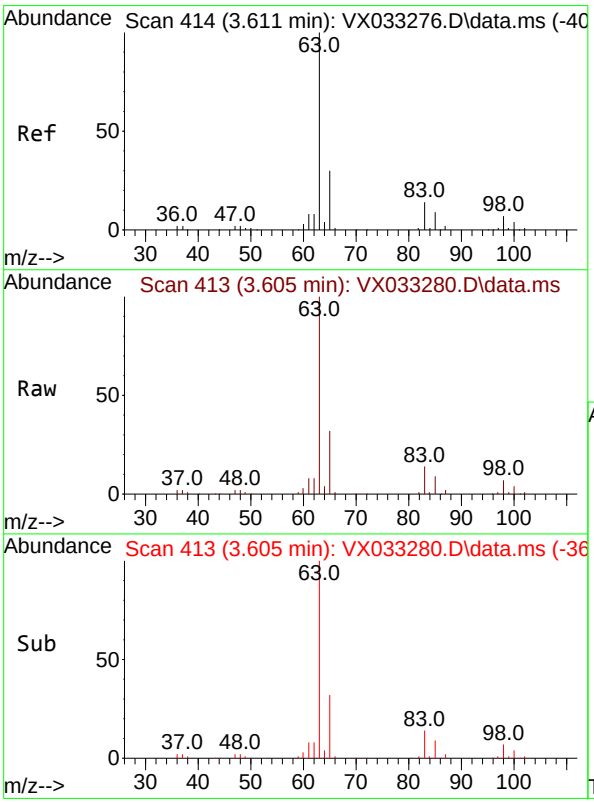
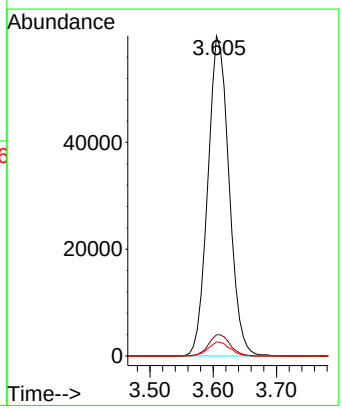
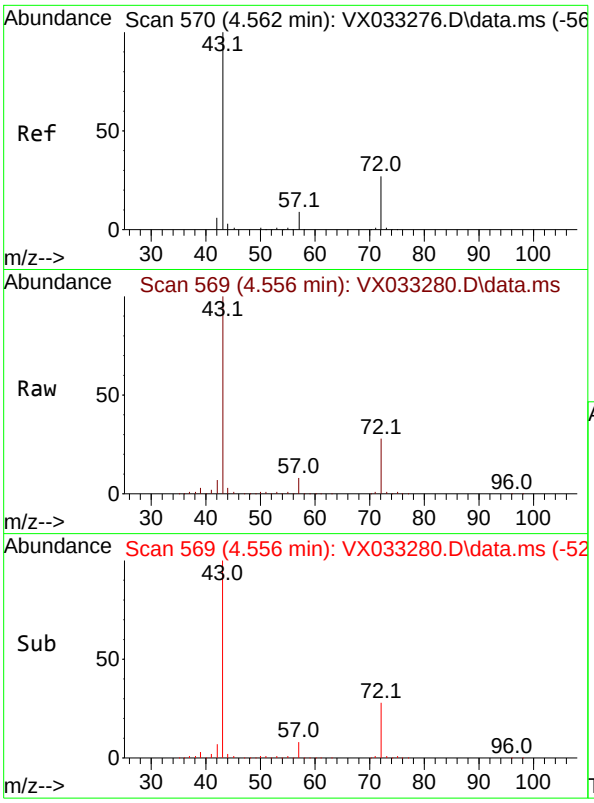



#24
1,1-Dichloroethane
Concen: 47.145 ug/l
RT: 3.605 min Scan# 413
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 63 Resp: 139554

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 6.6 | 3.5 | 10.4 |
| 100 | 4.4 | 2.3 | 6.8 |






#25
2-Butanone
Concen: 232.728 ug/l
RT: 4.556 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 25756

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 28.1 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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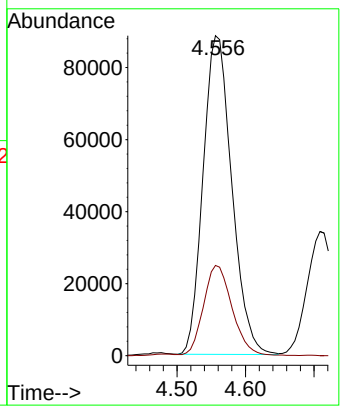
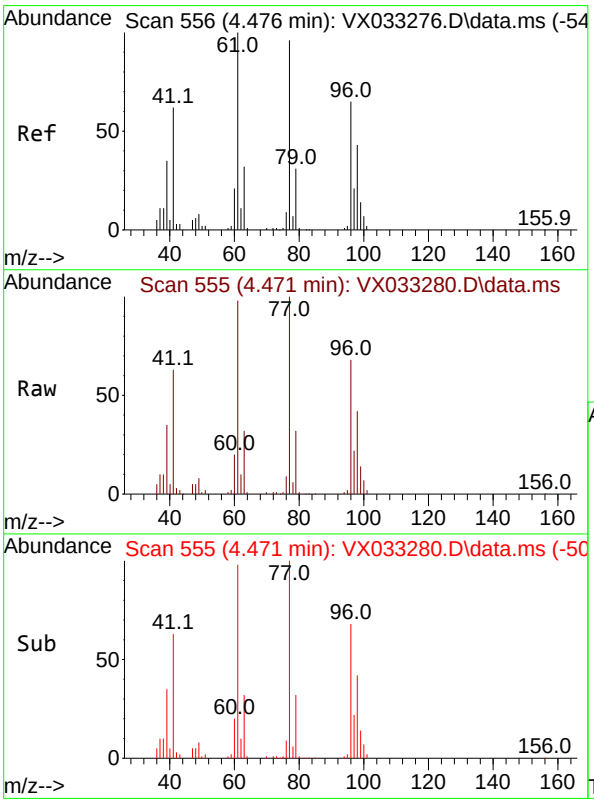
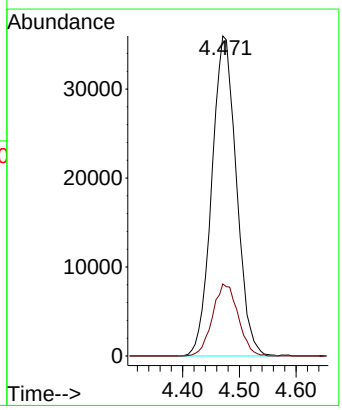


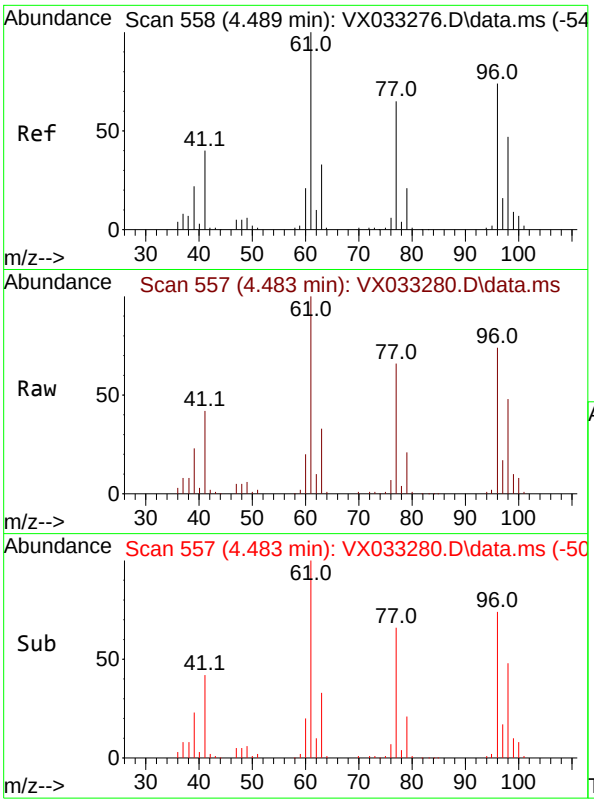




#26
2,2-Dichloropropane
Concen: 49.784 ug/l
RT: 4.471 min Scan# 555
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 77 Resp: 108371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 23.3 | 11.4 | 34.1 |

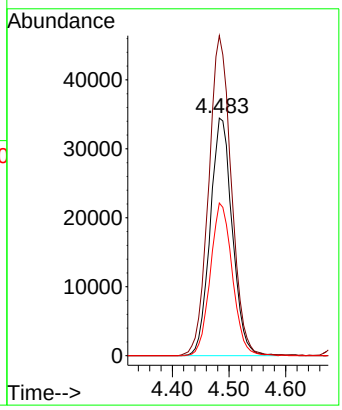





#27
cis-1,2-Dichloroethene
Concen: 48.492 ug/l
RT: 4.483 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 96 Resp: 9334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 138.1 | 0.0 | 286.0 |
| 98 | 63.8 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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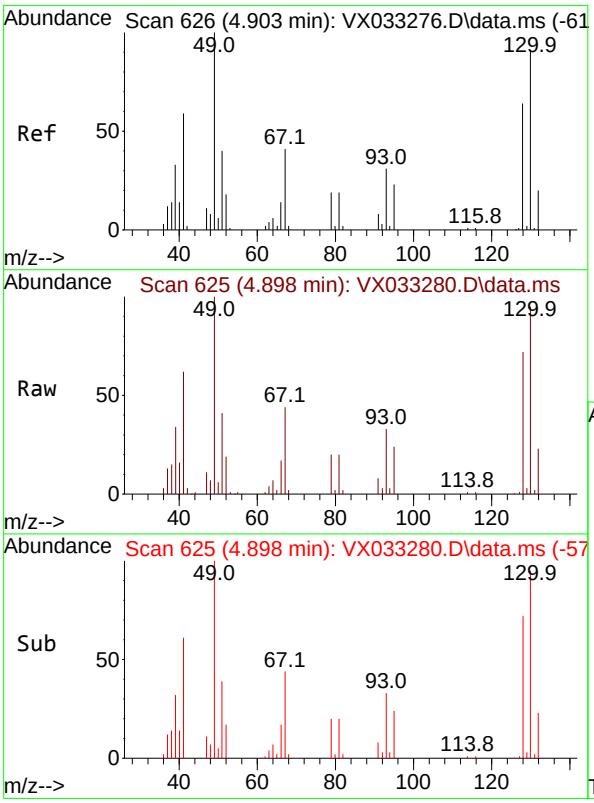
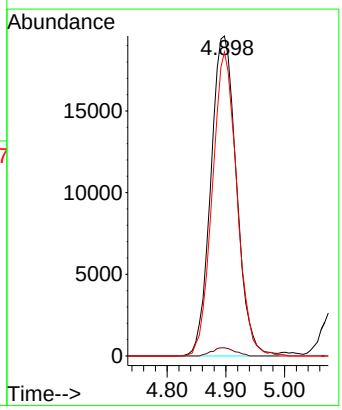
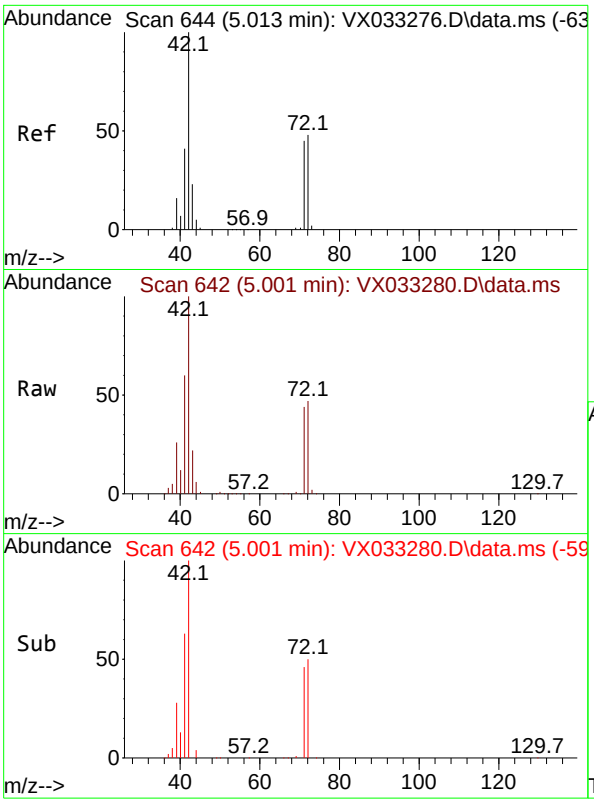



#28
Bromochloromethane
Concen: 47.956 ug/l
RT: 4.898 min Scan# 625
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 49 Resp: 59423

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.3 | 0.0 | 3.8 |
| 130 | 90.8 | 67.5 | 101.3 |

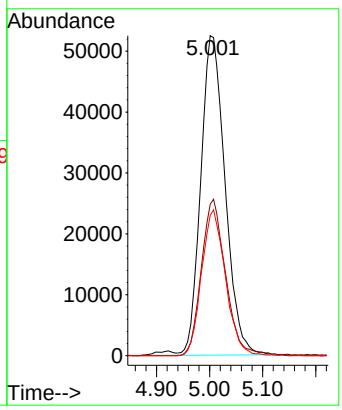





#29
Tetrahydrofuran
Concen: 233.427 ug/l
RT: 5.001 min Scan# 64
Delta R.T. -0.012 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 42 Resp: 16737

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 48.8 | 37.6 | 56.4 |
| 71 | 44.8 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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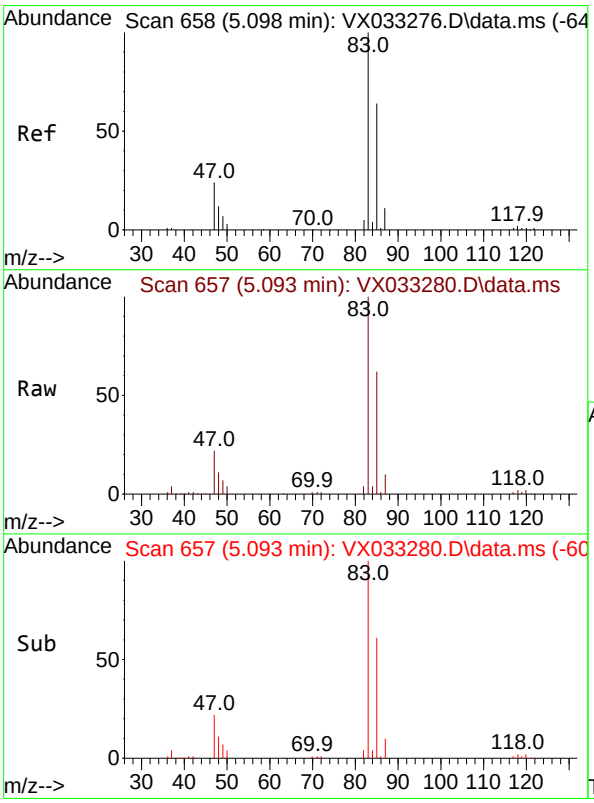
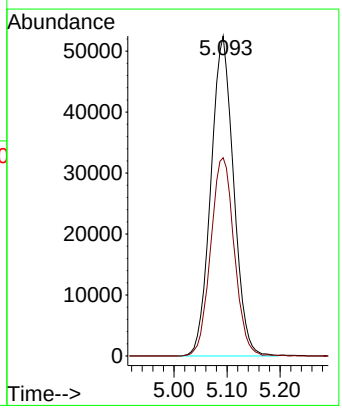
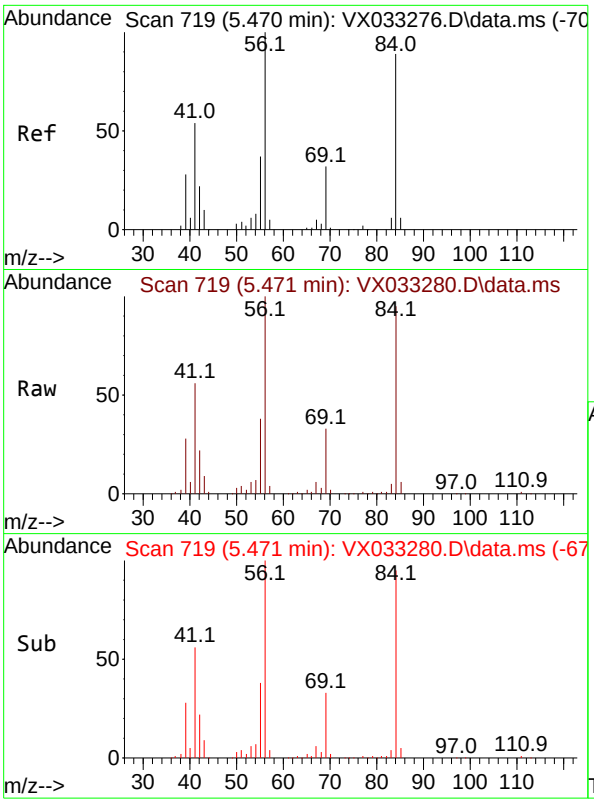



#30
Chloroform
Concen: 47.482 ug/l
RT: 5.093 min Scan# 657
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 83 Resp: 156035

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.0 | 51.1 | 76.7 |

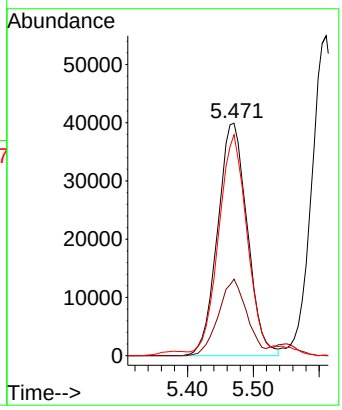





#31
Cyclohexane
Concen: 50.601 ug/l
RT: 5.471 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 56 Resp: 12530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 32.9 | 24.1 | 36.1 |
| 84 | 93.2 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

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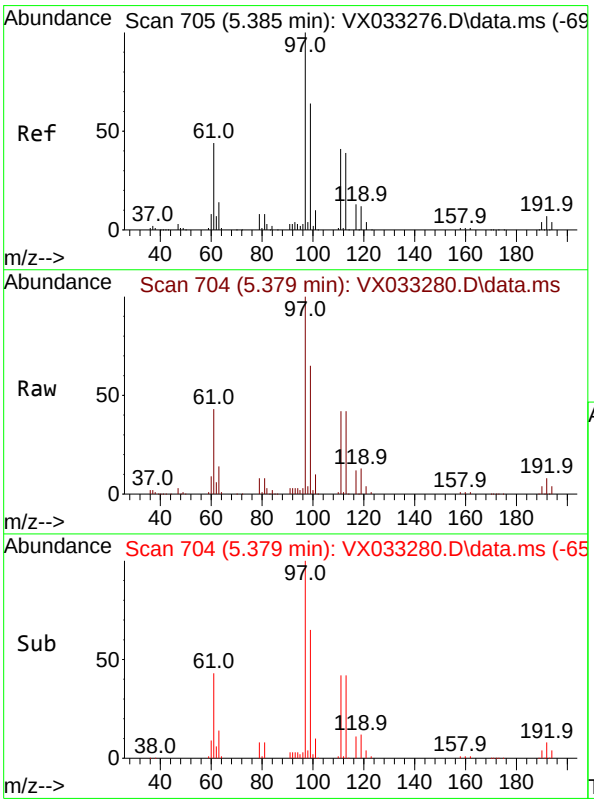
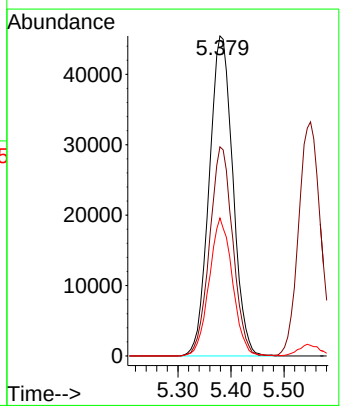
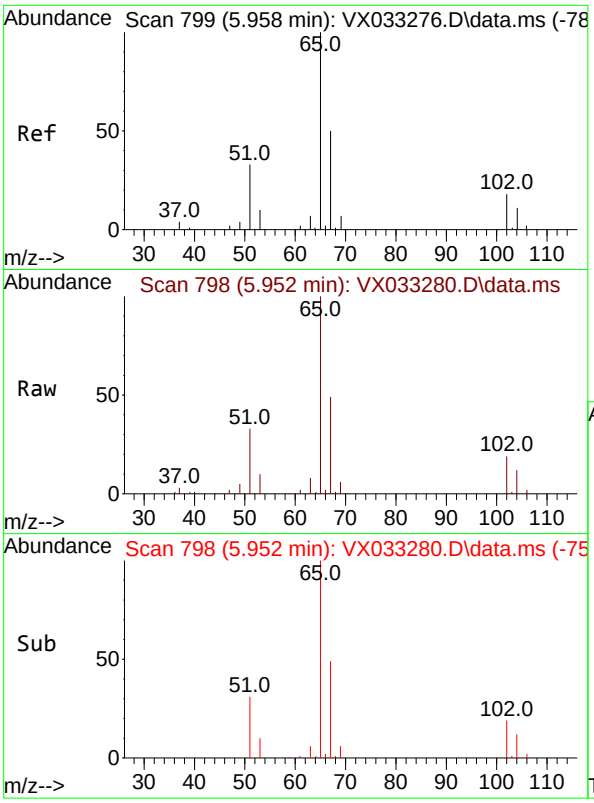



#32
1,1,1-Trichloroethane
Concen: 49.812 ug/l
RT: 5.379 min Scan# 704
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 97 Resp: 140838

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.1 | 51.4 | 77.0 |
| 61 | 42.4 | 35.2 | 52.8 |

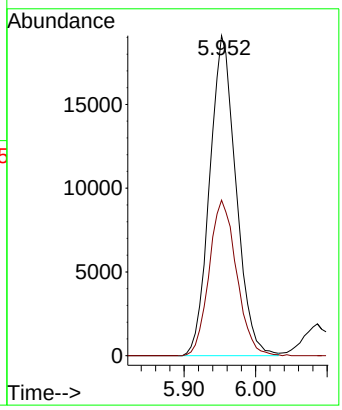





#33
1,2-Dichloroethane-d4
Concen: 46.866 ug/l
RT: 5.952 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 65 Resp: 4883

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.5 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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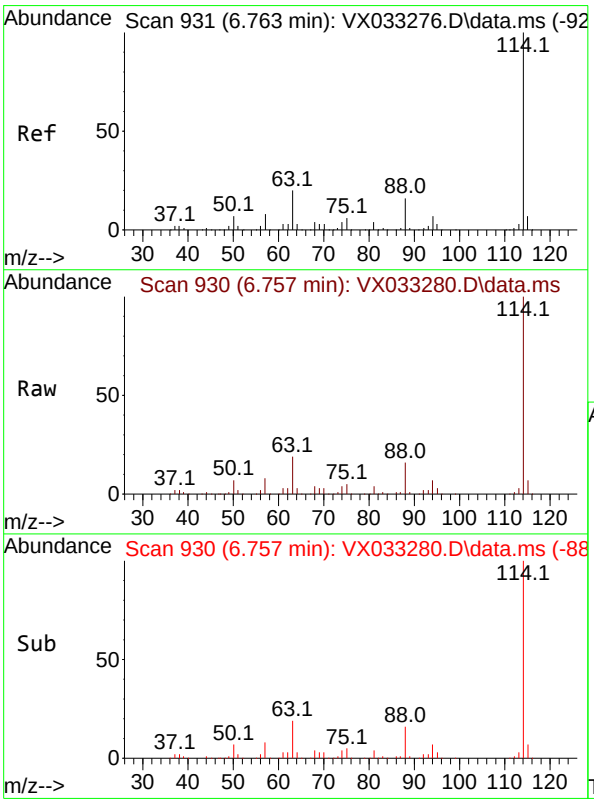
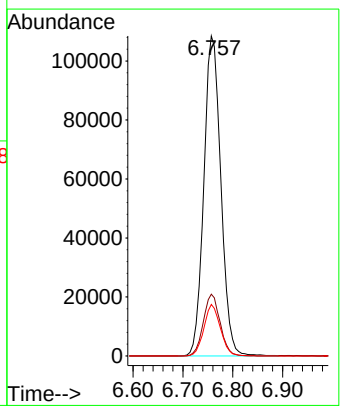
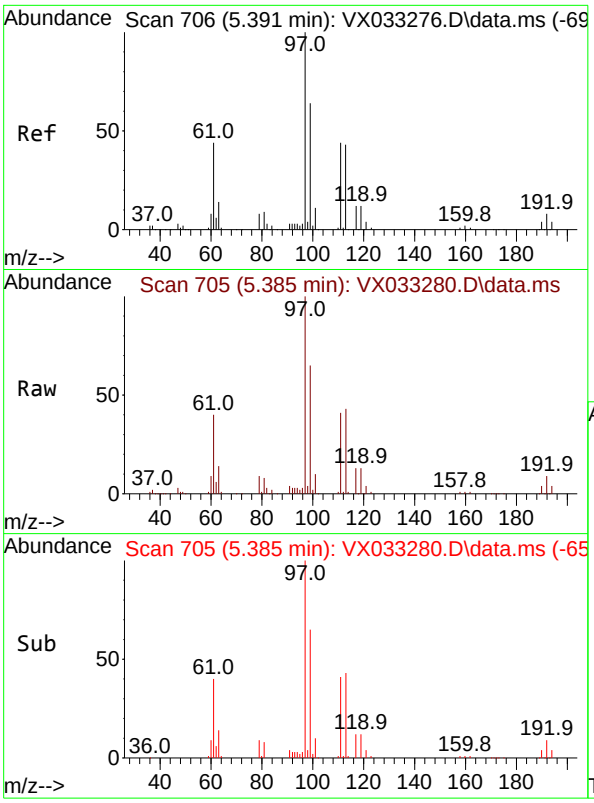



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 930
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:114 Resp: 257660

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.3 | 0.0 | 41.6 |
| 88 | 16.1 | 0.0 | 33.4 |

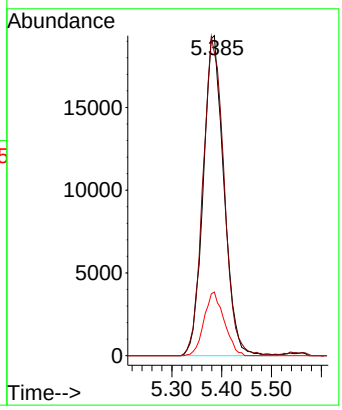





#35
Dibromofluoromethane
Concen: 47.921 ug/l
RT: 5.385 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:113 Resp: 5553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 101.6 | 82.4 | 123.6 |
| 192 | 19.4 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

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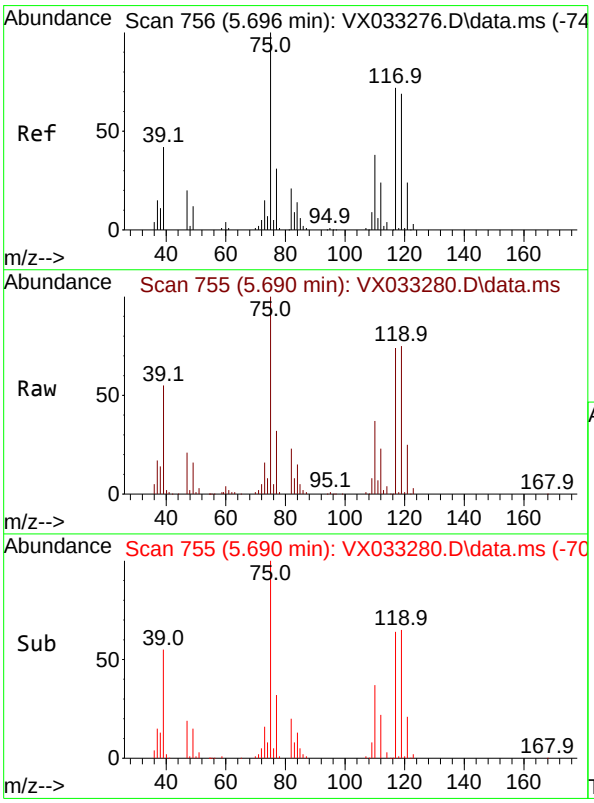
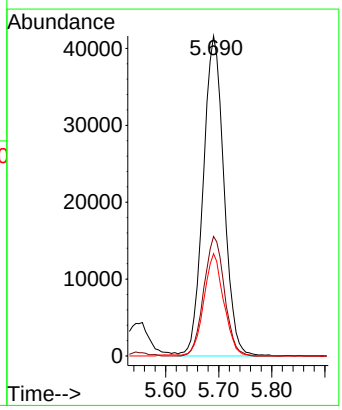
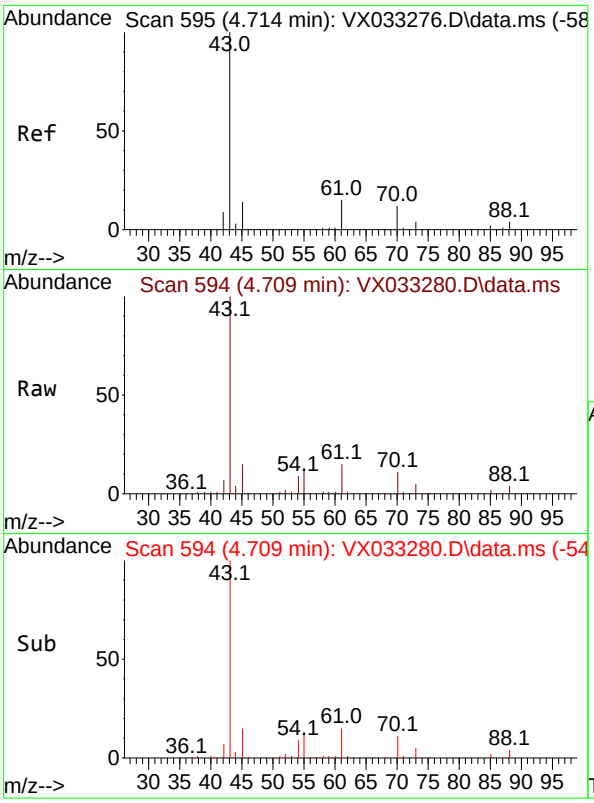



#36
1,1-Dichloropropene
Concen: 49.882 ug/l
RT: 5.690 min Scan# 755
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 112707

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 37.1 | 18.4 | 55.2 |
| 77 | 30.8 | 24.5 | 36.7 |

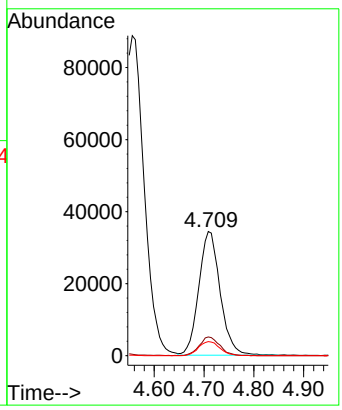





#37
Ethyl Acetate
Concen: 47.728 ug/l
RT: 4.709 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 10193

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.7 | 11.5 | 17.3 |
| 70 | 11.4 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

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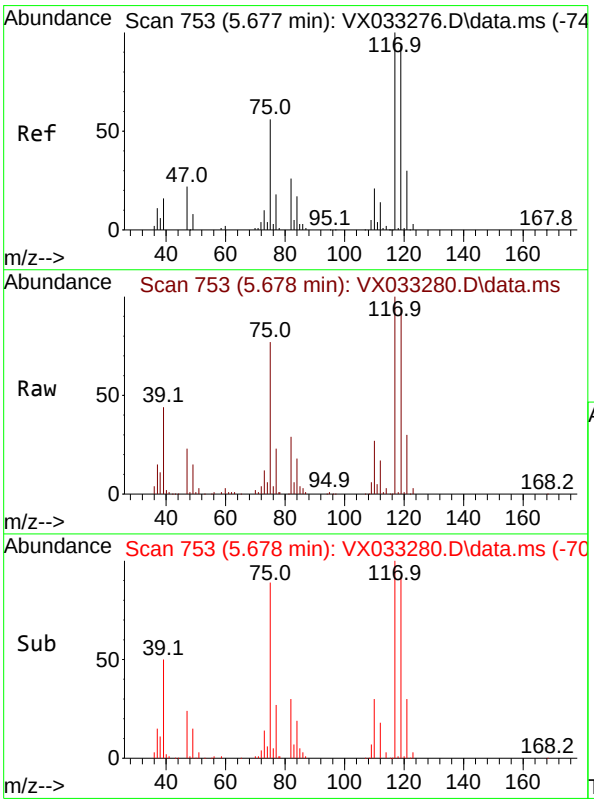
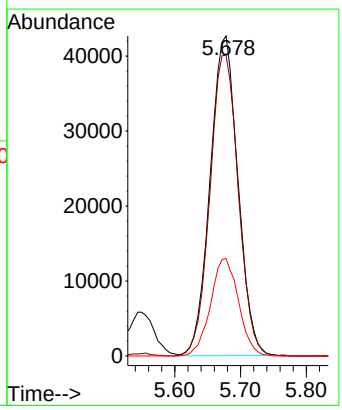
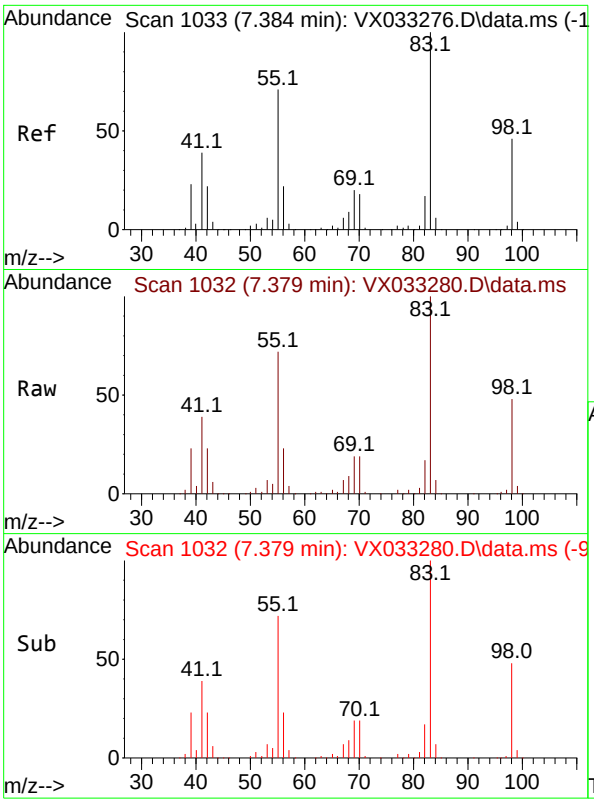



#38
Carbon Tetrachloride
Concen: 49.578 ug/l
RT: 5.678 min Scan# 753
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:117 Resp: 125509

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 94.0 | 77.2 | 115.8 |
| 121 | 30.5 | 25.8 | 38.6 |

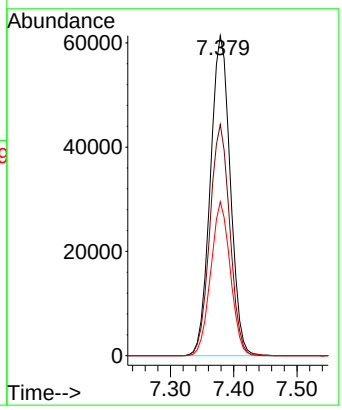





#39
Methylcyclohexane
Concen: 53.112 ug/l
RT: 7.379 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 83 Resp: 13432

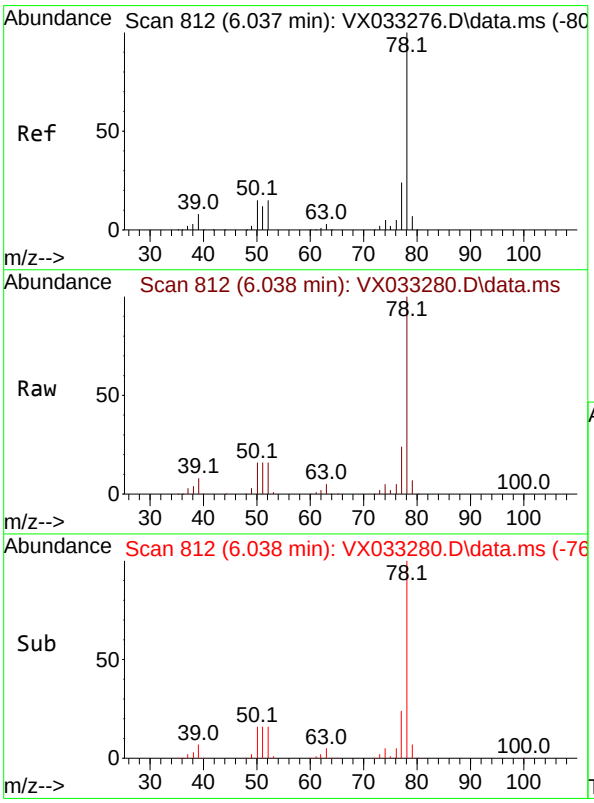
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 72.2 | 58.4 | 87.6 |
| 98 | 48.1 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

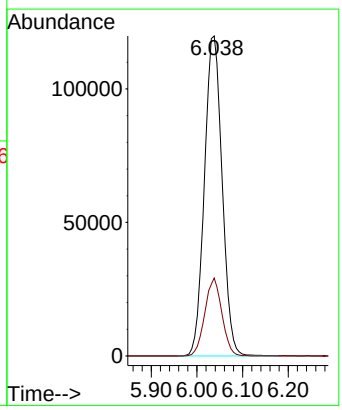
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

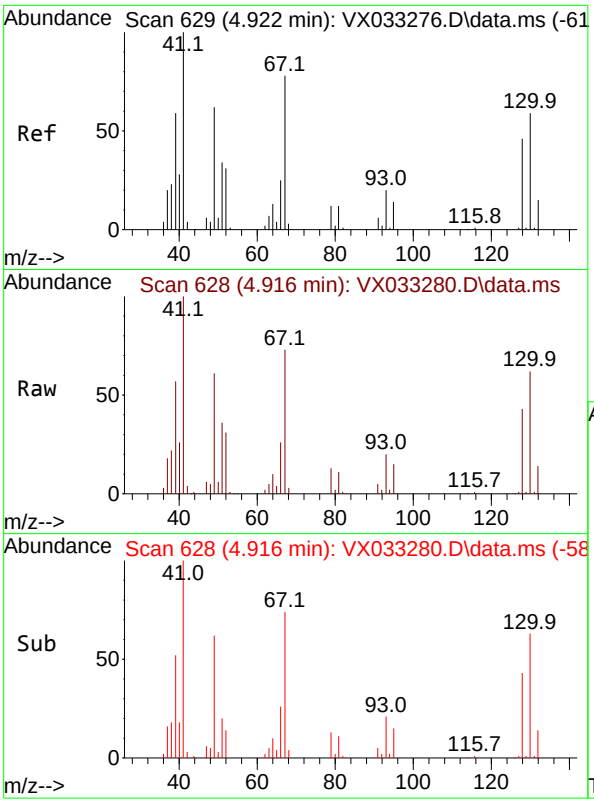



#40
Benzene
Concen: 48.914 ug/l
RT: 6.038 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 78 Resp: 322242

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 24.4 | 19.0 | 28.4 |

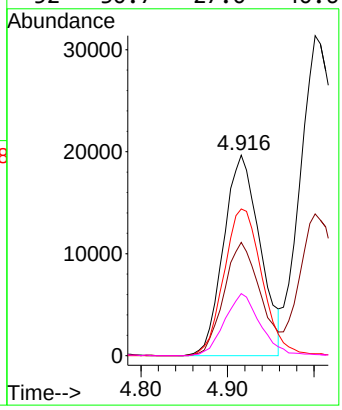





#41
Methacrylonitrile
Concen: 48.856 ug/l
RT: 4.916 min Scan# 6
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 41 Resp: 5750

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 56.2 | 47.5 | 71.3 |
| 67 | 76.9 | 60.5 | 90.7 |
| 52 | 30.7 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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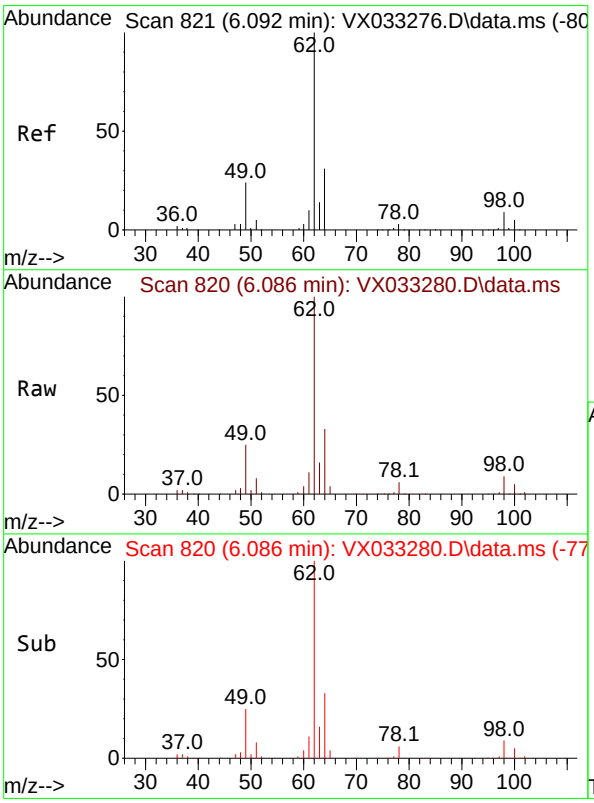
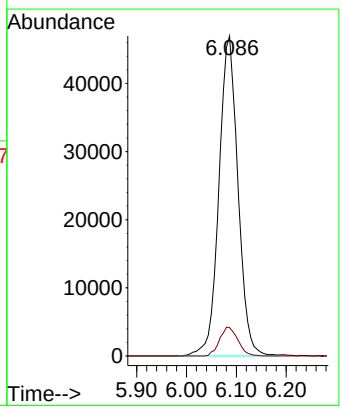
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

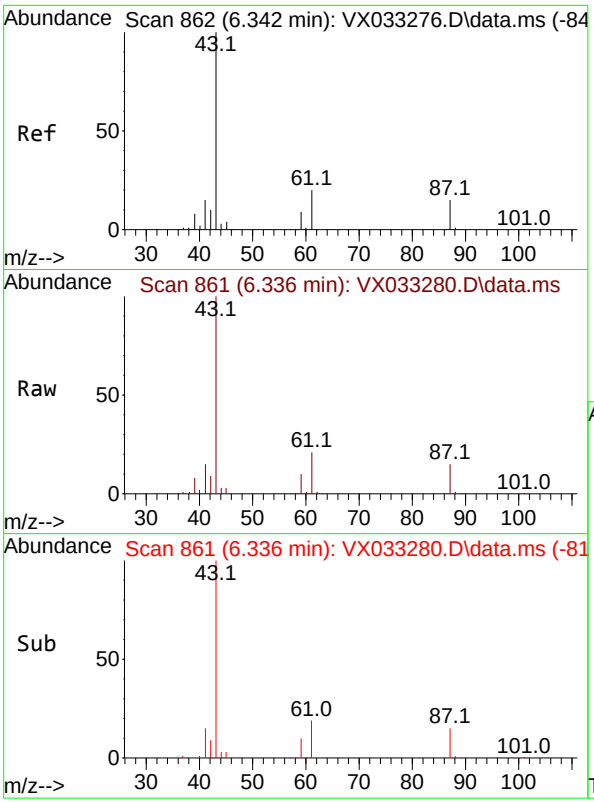



#42
1,2-Dichloroethane
Concen: 47.637 ug/l
RT: 6.086 min Scan# 820
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 62 Resp: 124620

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.6 | 0.0 | 16.0 |

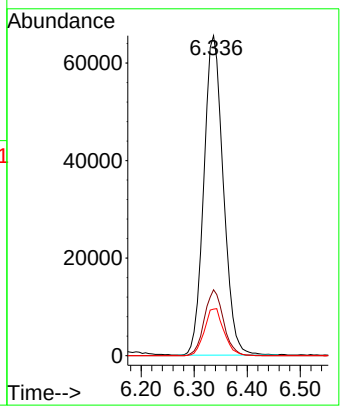





#43
Isopropyl Acetate
Concen: 48.673 ug/l
RT: 6.336 min Scan# 8
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 16726

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 20.2 | 15.4 | 23.0 |
| 87 | 14.8 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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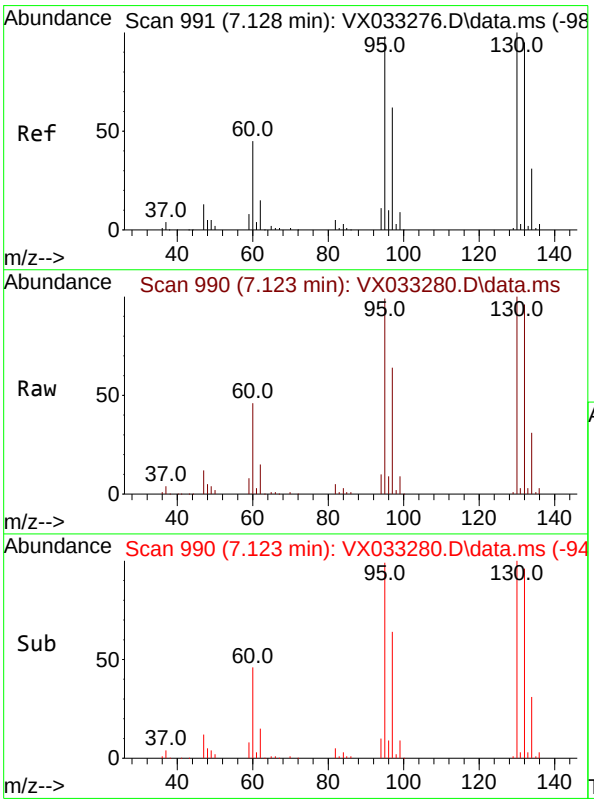
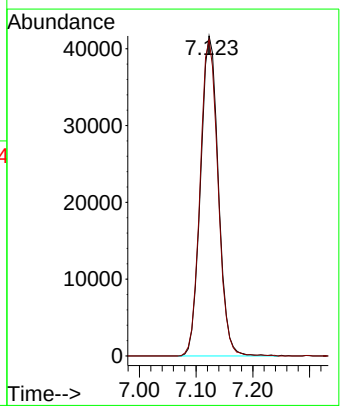
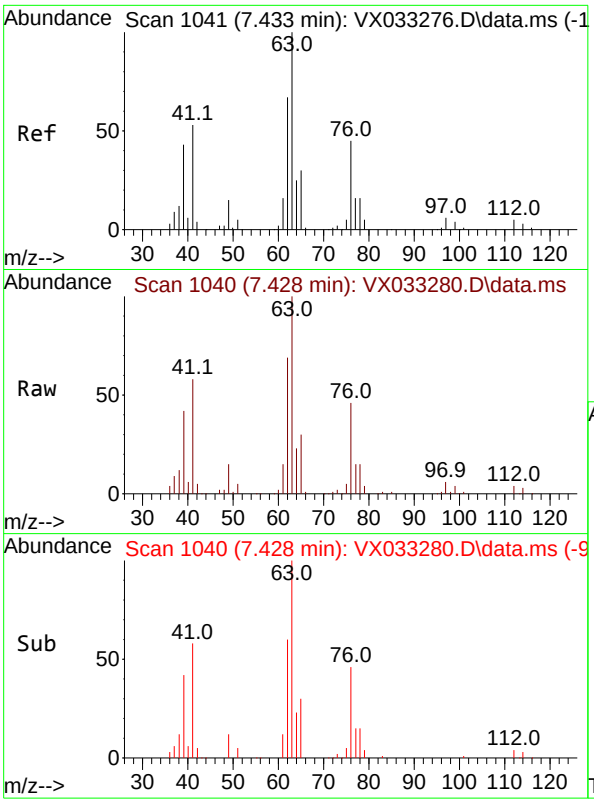



#44
Trichloroethene
Concen: 50.085 ug/l
RT: 7.123 min Scan# 990
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:130 Resp: 90972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 98.8 | 0.0 | 195.2 |

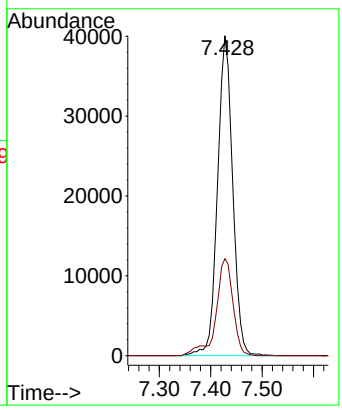





#45
1,2-Dichloropropane
Concen: 48.695 ug/l
RT: 7.428 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 63 Resp: 8204

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.3 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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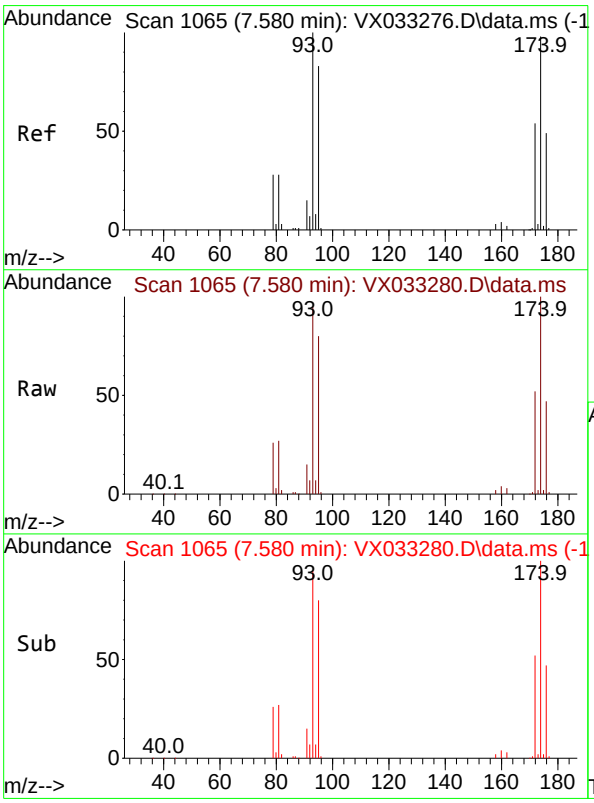
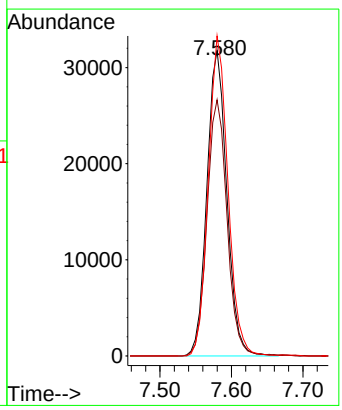
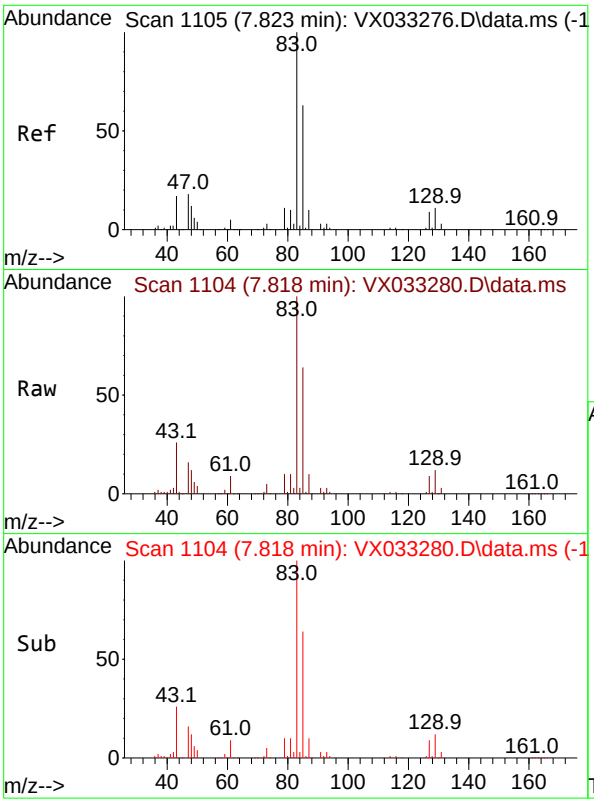



#46
Dibromomethane
Concen: 47.855 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 93 Resp: 61420

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 84.5 | 65.8 | 98.8 |
| 174 | 103.4 | 79.8 | 119.6 |

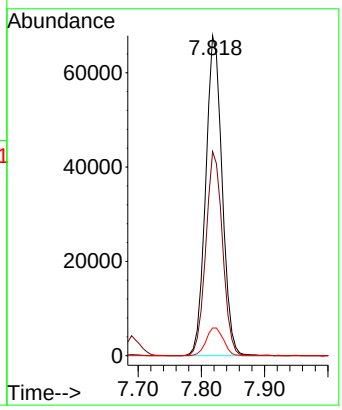





#47
Bromodichloromethane
Concen: 49.061 ug/l
RT: 7.818 min Scan# 11
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 83 Resp: 12274

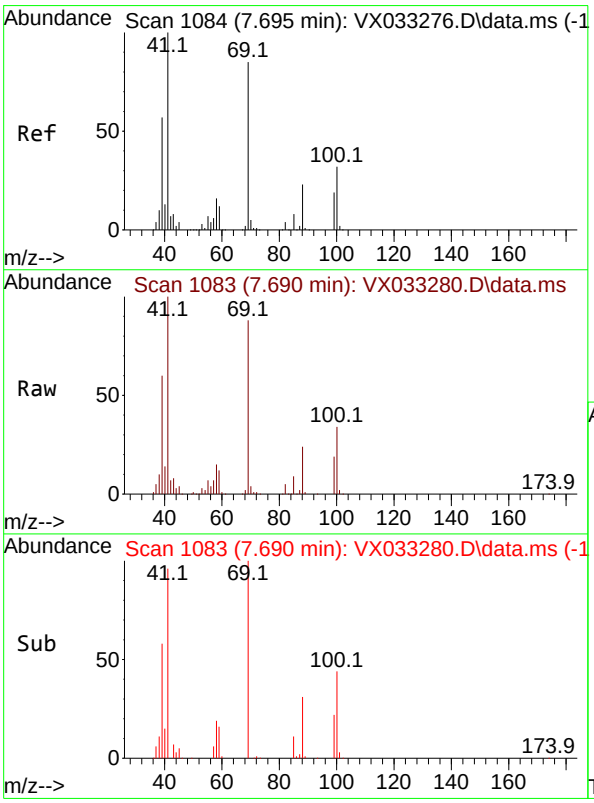
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.8 | 52.2 | 78.4 |
| 127 | 8.7 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

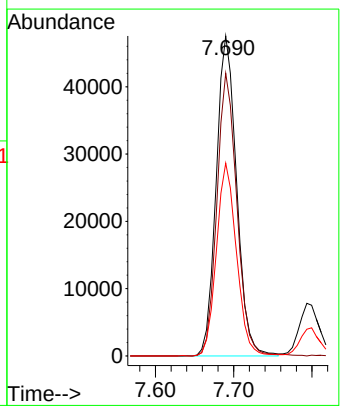
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

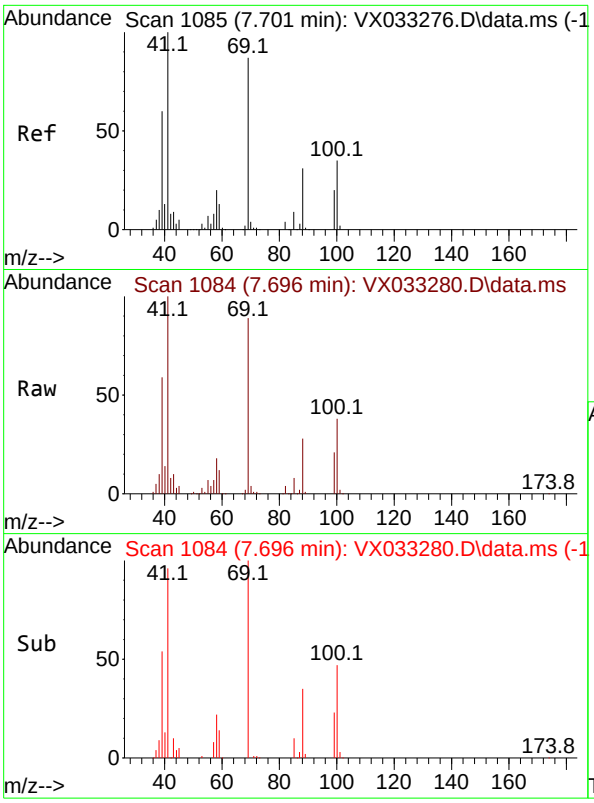



#48
Methyl methacrylate
Concen: 48.521 ug/l
RT: 7.690 min Scan# 1083
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 41 Resp: 86058

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 86.8 | 65.1 | 97.7 |
| 39 | 59.4 | 51.9 | 77.9 |






#49
1,4-Dioxane
Concen: 974.422 ug/l
RT: 7.696 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 88 Resp: 3941

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 29.4 | 26.6 | 39.8 |
| 58 | 63.2 | 51.7 | 77.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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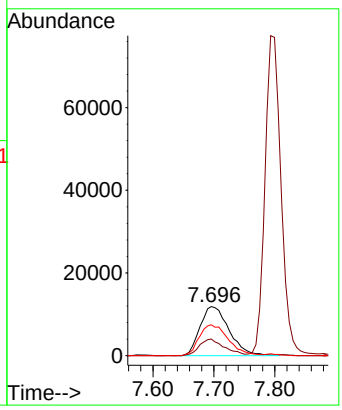
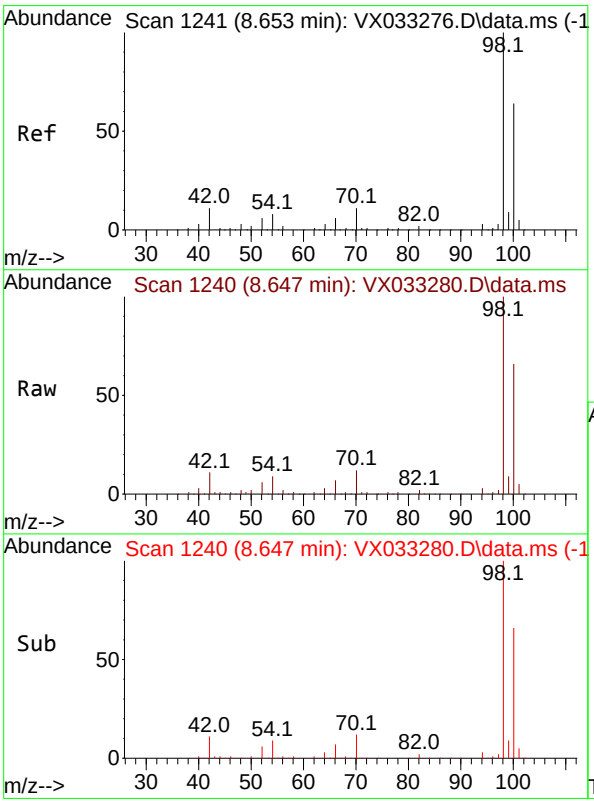
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

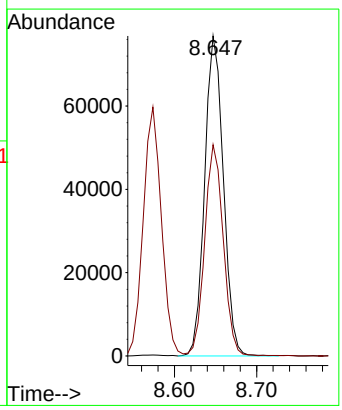


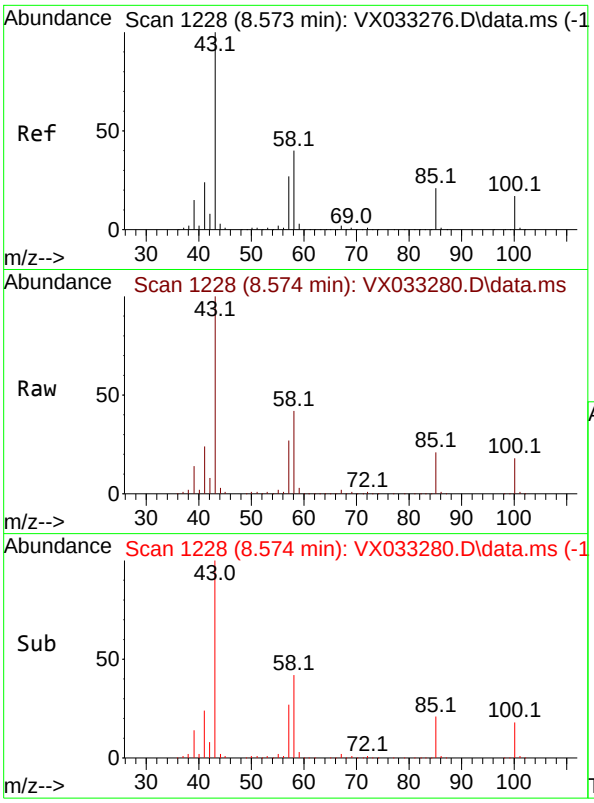




#50
Toluene-d8
Concen: 50.054 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 98 Resp: 121350

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.8 | 50.9 | 76.3 |

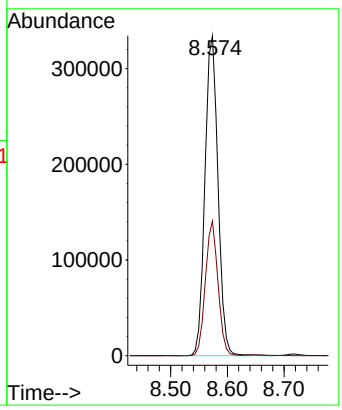





#51
4-Methyl-2-Pentanone
Concen: 245.658 ug/l
RT: 8.574 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 53387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 40.5 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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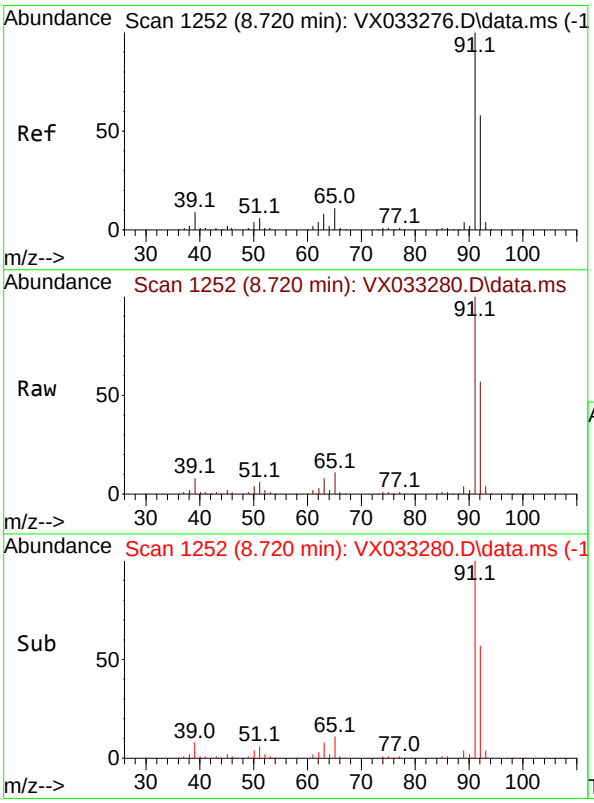
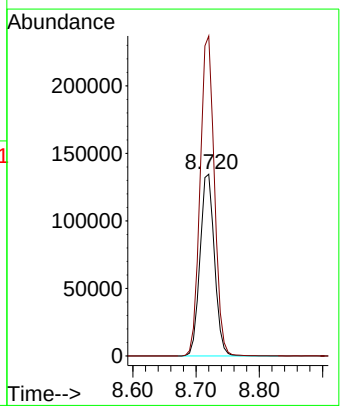
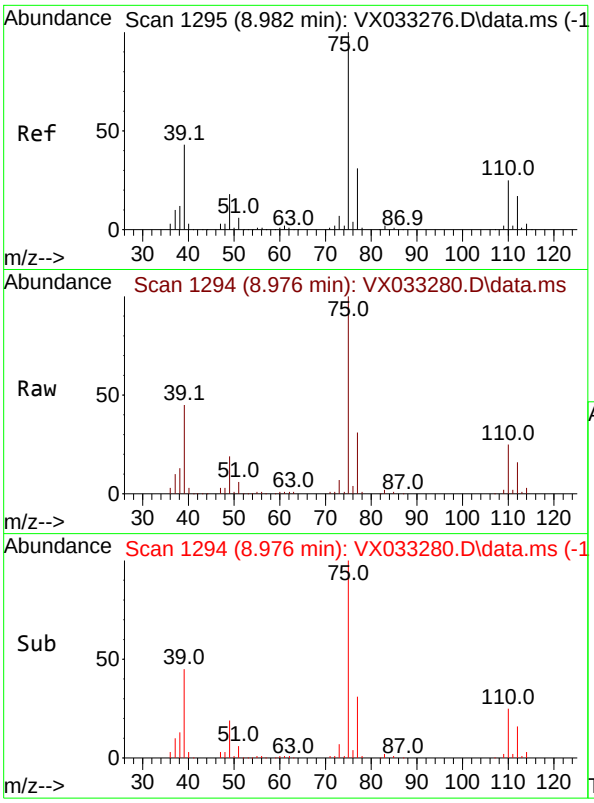



#52
Toluene
Concen: 50.273 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 92 Resp: 214134

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 174.2 | 138.3 | 207.5 |

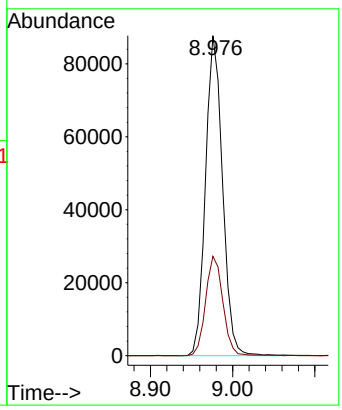





#53
t-1,3-Dichloropropene
Concen: 47.076 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 12611

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 31.0 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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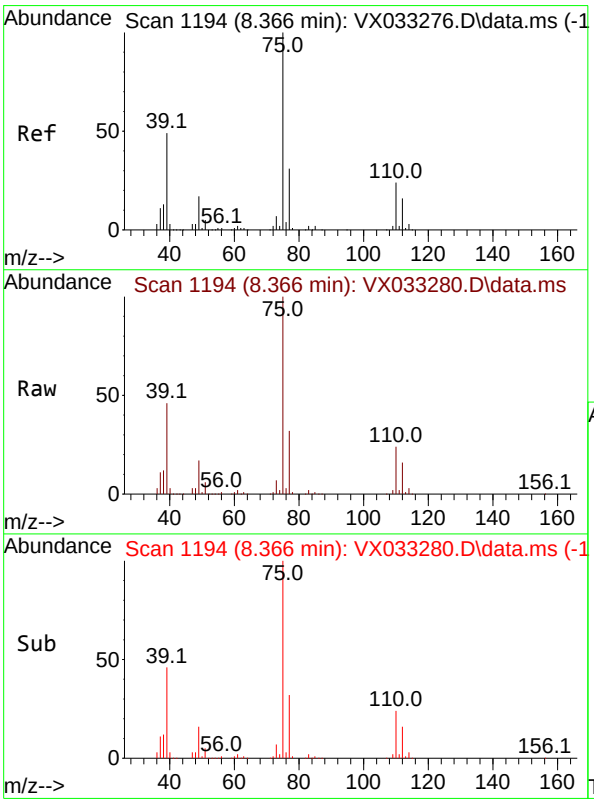
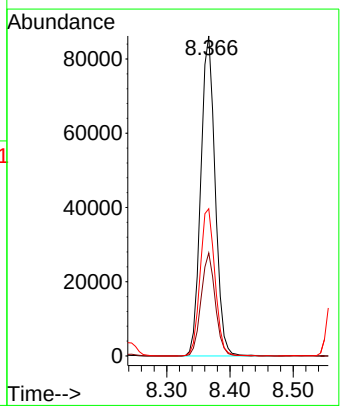
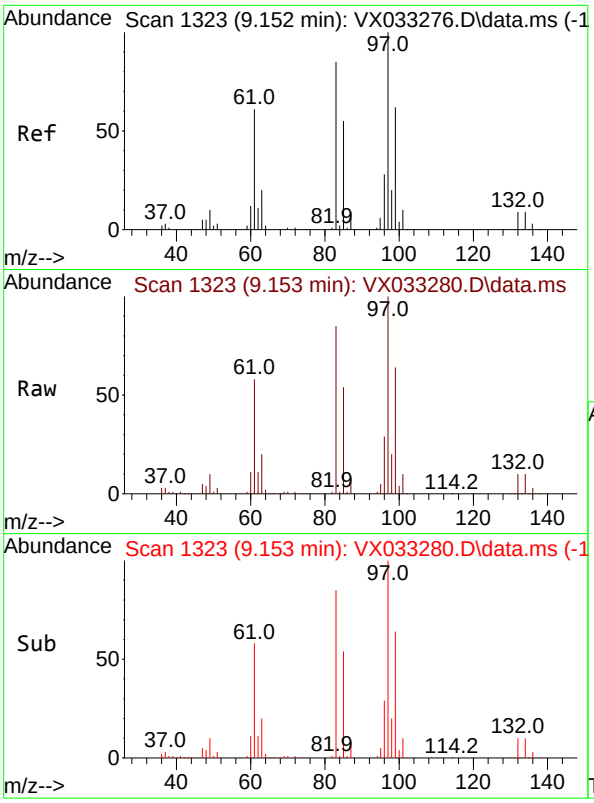



#54
cis-1,3-Dichloropropene
Concen: 51.268 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 136491

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.2 | 25.1 | 37.7 |
| 39 | 46.0 | 45.5 | 68.3 |

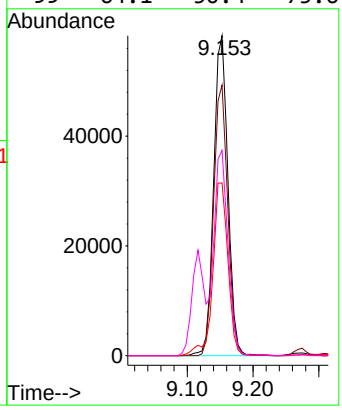





#55
1,1,2-Trichloroethane
Concen: 48.997 ug/l
RT: 9.153 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 97 Resp: 8772

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 84.6 | 68.1 | 102.1 |
| 85 | 54.0 | 43.3 | 64.9 |
| 99 | 64.1 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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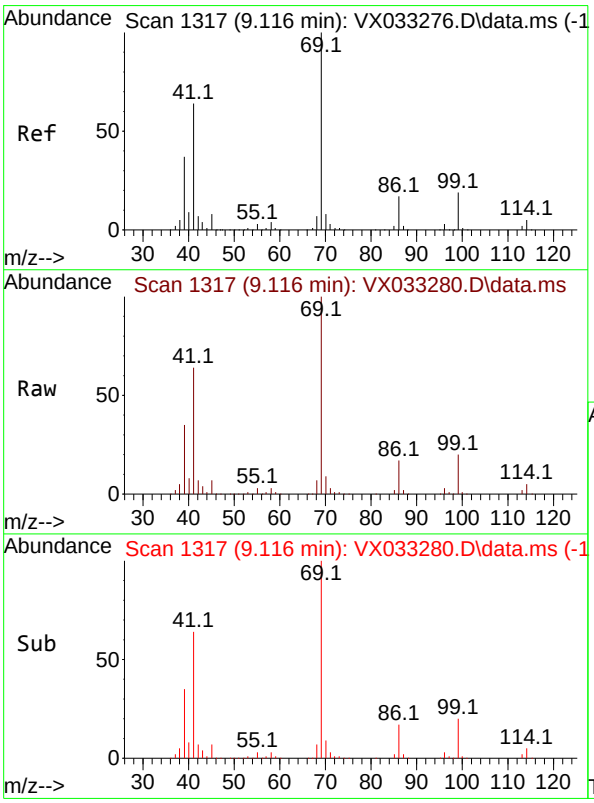
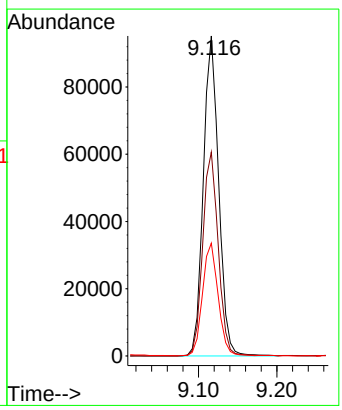
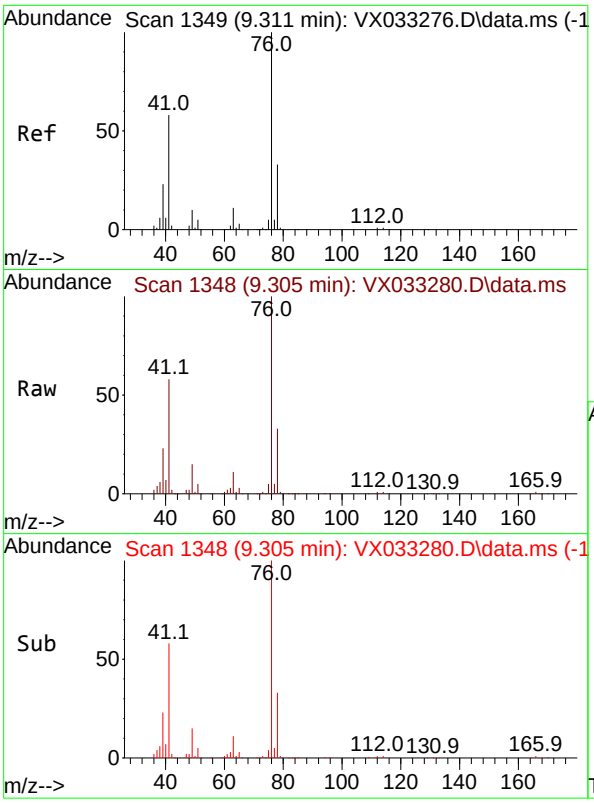



#56
Ethyl methacrylate
Concen: 51.302 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 69 Resp: 129329

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 64.5 | 54.3 | 81.5 |
| 39 | 35.7 | 35.2 | 52.8 |






#57
1,3-Dichloropropane
Concen: 49.540 ug/l
RT: 9.305 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

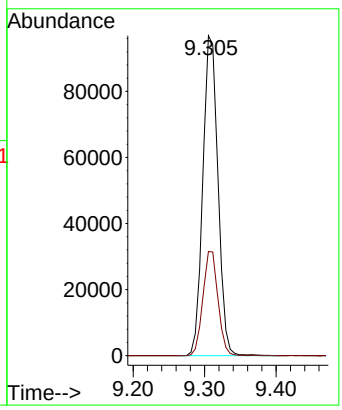
Tgt Ion: 76 Resp: 14249

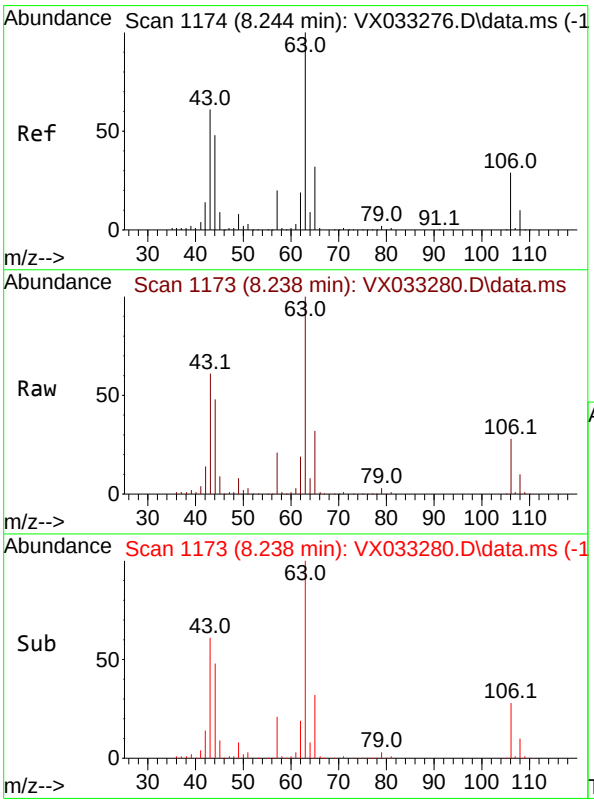
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 32.5 | 26.0 | 39.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

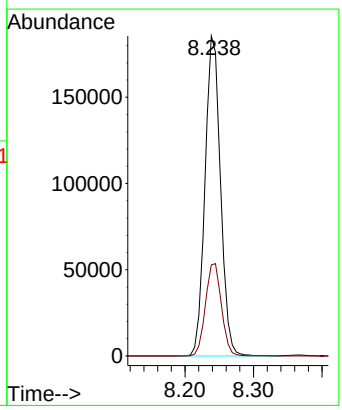


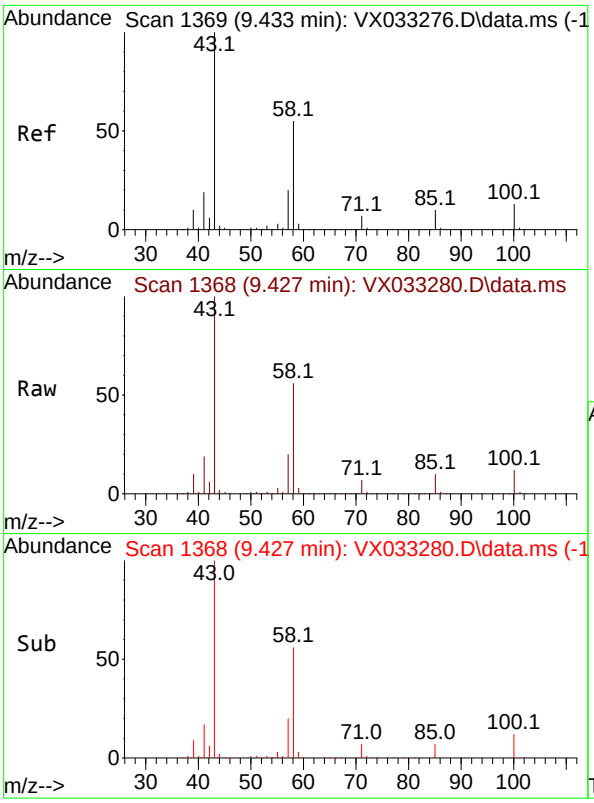




#58
2-Chloroethyl Vinyl ether
Concen: 252.823 ug/l
RT: 8.238 min Scan# 1173
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 63 Resp: 291627

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 29.8 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 249.243 ug/l
RT: 9.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

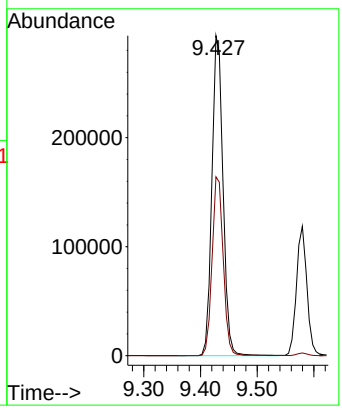
Tgt Ion: 43 Resp: 39917

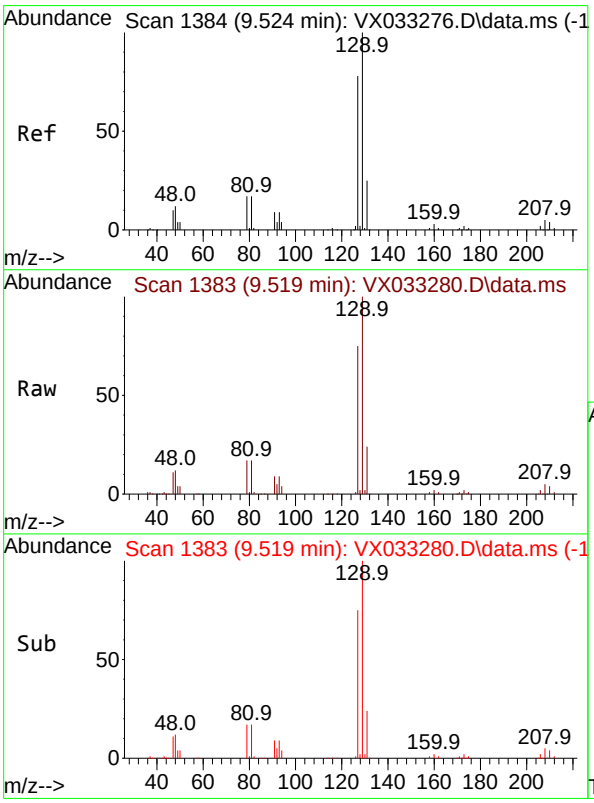
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 56.1 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

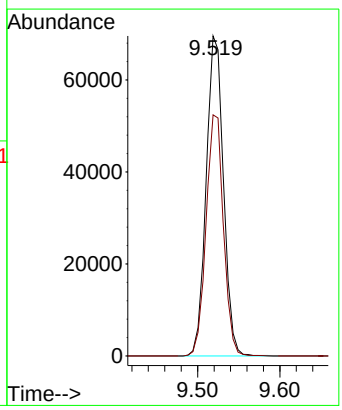


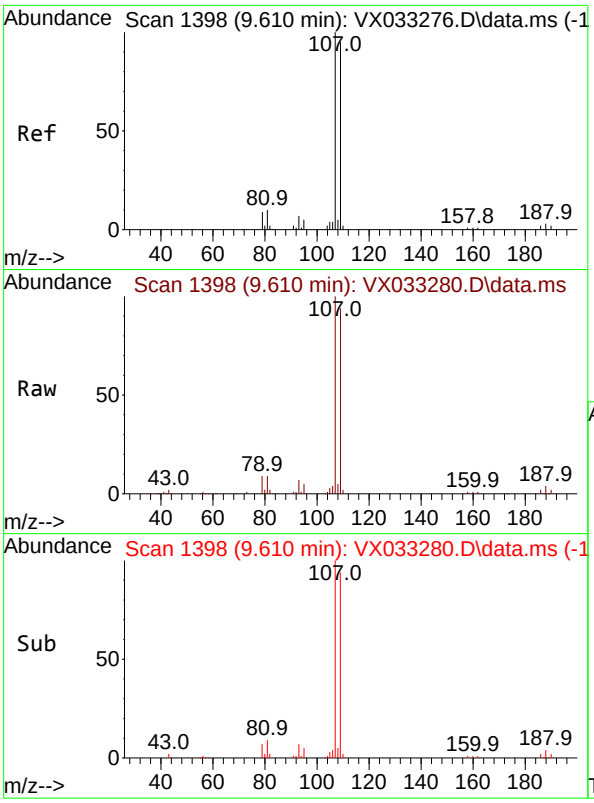




#60
Dibromochloromethane
Concen: 51.356 ug/l
RT: 9.519 min Scan# 1383
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:129 Resp: 101310

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 76.1 | 38.6 | 115.8 |

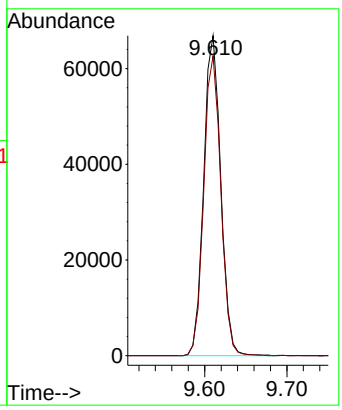





#61
1,2-Dibromoethane
Concen: 50.543 ug/l
RT: 9.610 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:107 Resp: 9625

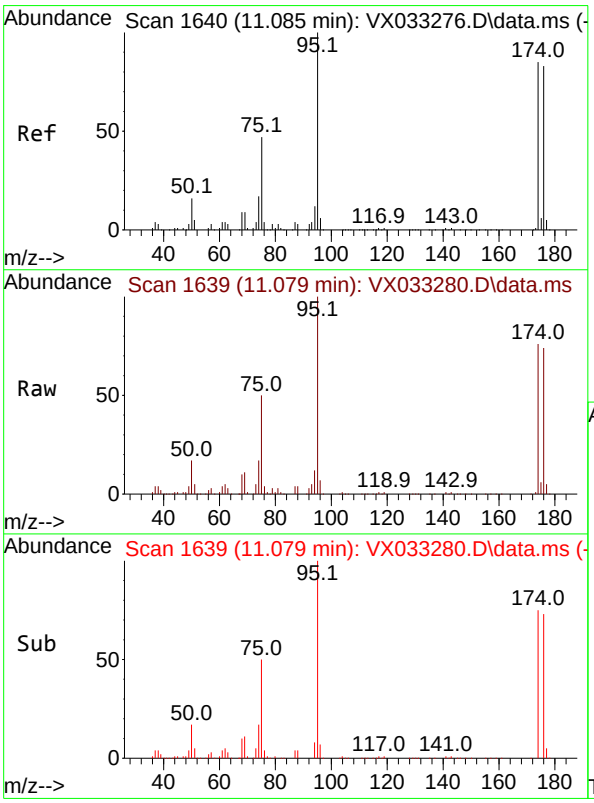
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.0 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

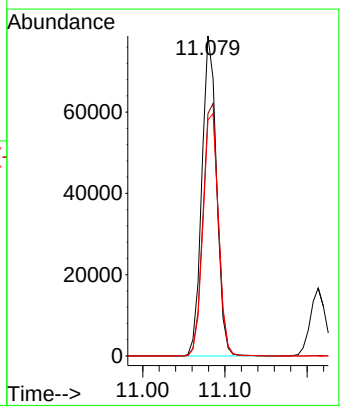
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

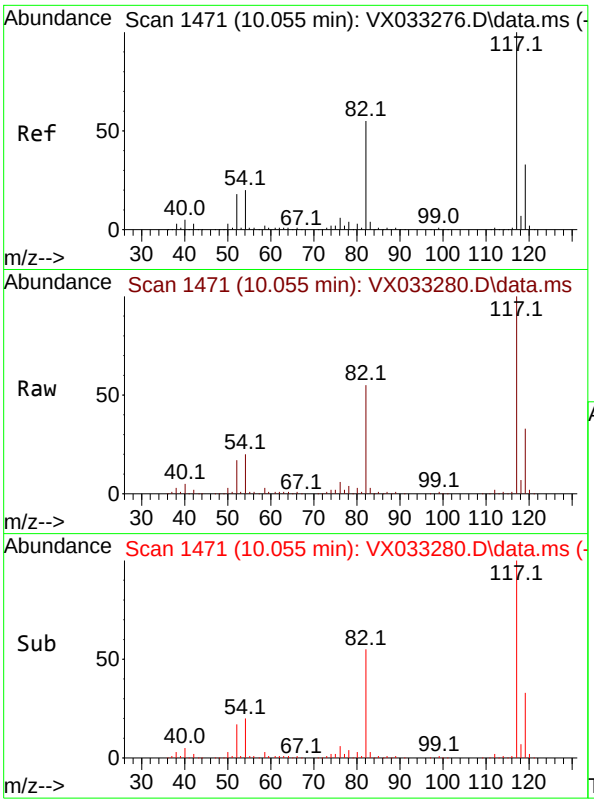



#62
4-Bromofluorobenzene
Concen: 52.743 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 95 Resp: 97770

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 82.1 | 0.0 | 164.0 |
| 176 | 79.5 | 0.0 | 154.4 |

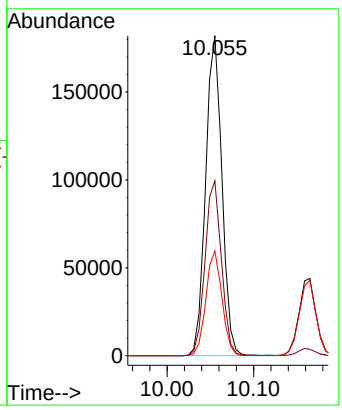





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:117 Resp: 23752

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.7 | 44.3 | 66.5 |
| 119 | 32.7 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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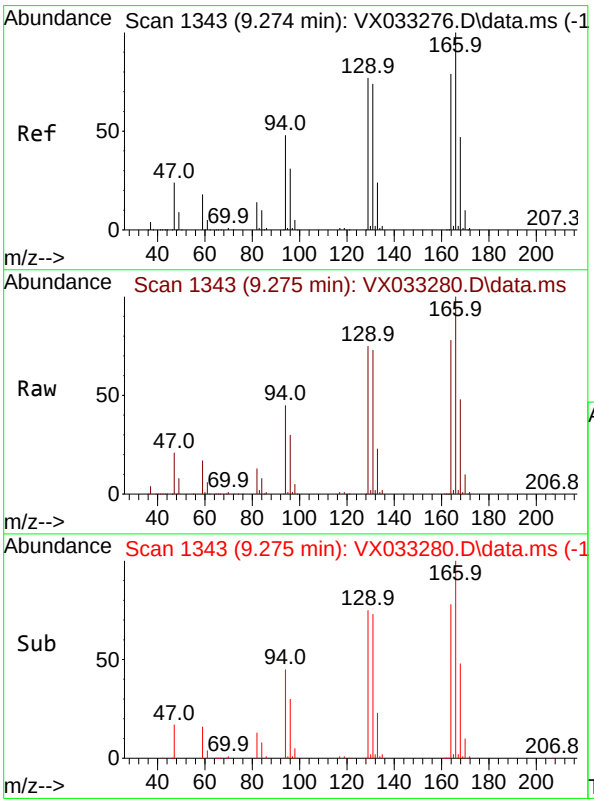
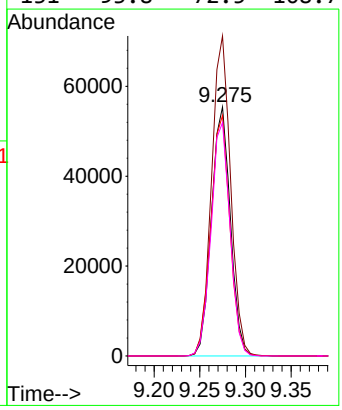
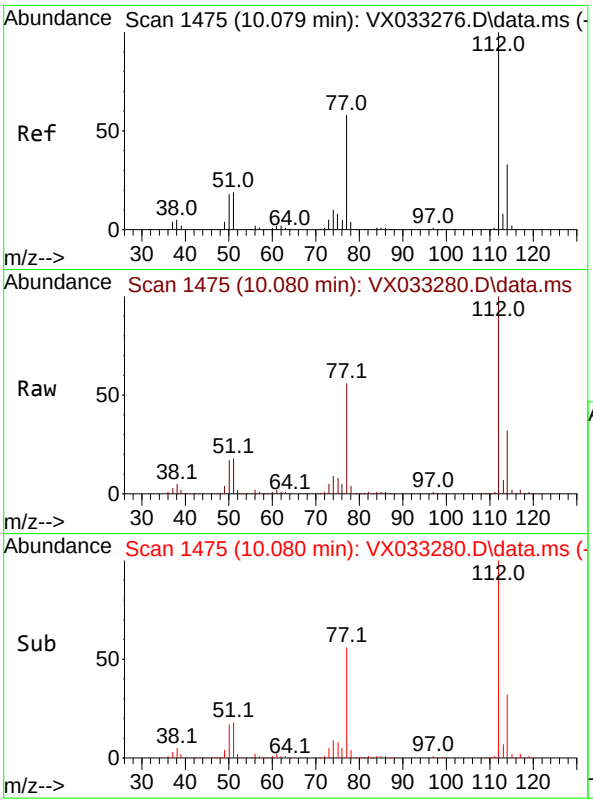



#64
Tetrachloroethene
Concen: 49.334 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:164 Resp: 80126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 128.6 | 105.4 | 158.2 |
| 129 | 96.6 | 78.2 | 117.2 |
| 131 | 93.8 | 72.5 | 108.7 |

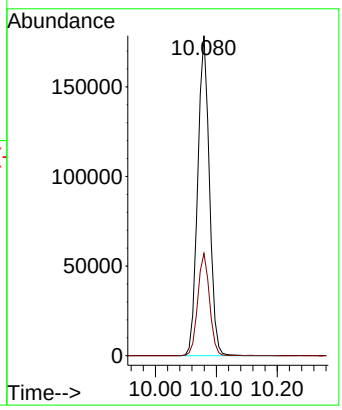





#65
Chlorobenzene
Concen: 49.423 ug/l
RT: 10.080 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:112 Resp: 23772

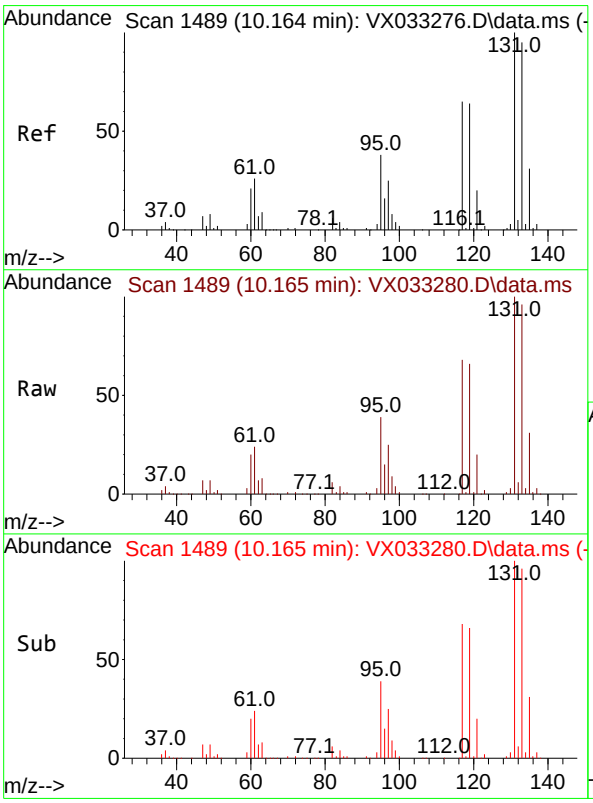
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 31.9 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

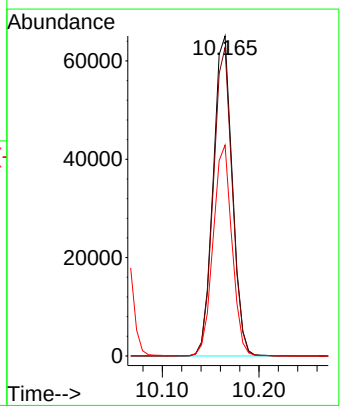
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

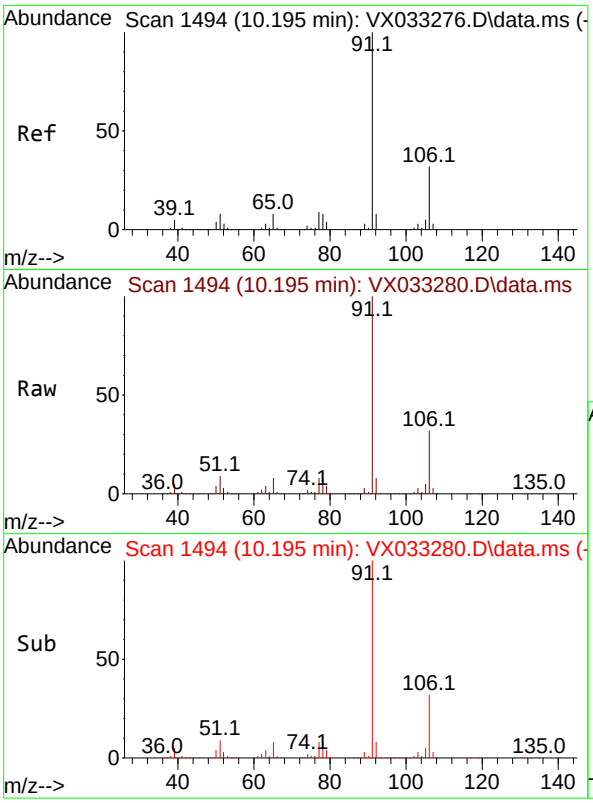



#66
1,1,1,2-Tetrachloroethane
Concen: 49.209 ug/l
RT: 10.165 min Scan# 1489
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:131 Resp: 89447

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.3 | 47.6 | 142.9 |
| 119 | 64.8 | 32.4 | 97.0 |

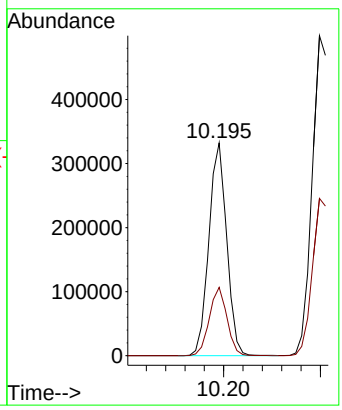





#67
Ethyl Benzene
Concen: 50.786 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 42556

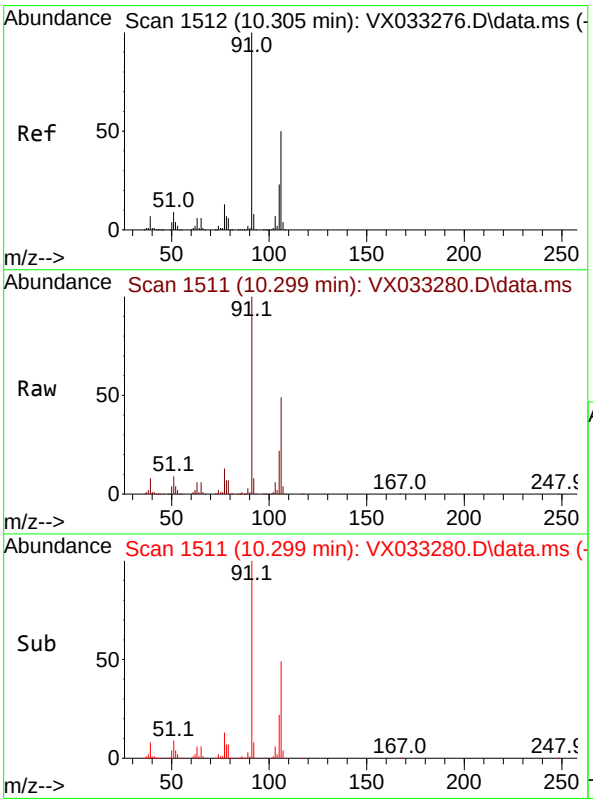
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 32.1 | 25.0 | 37.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

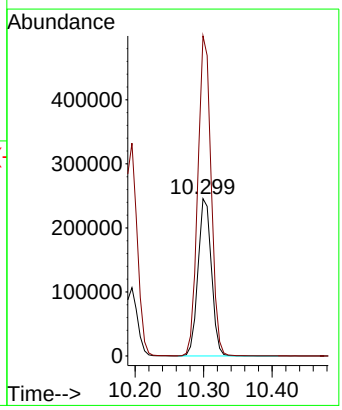
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

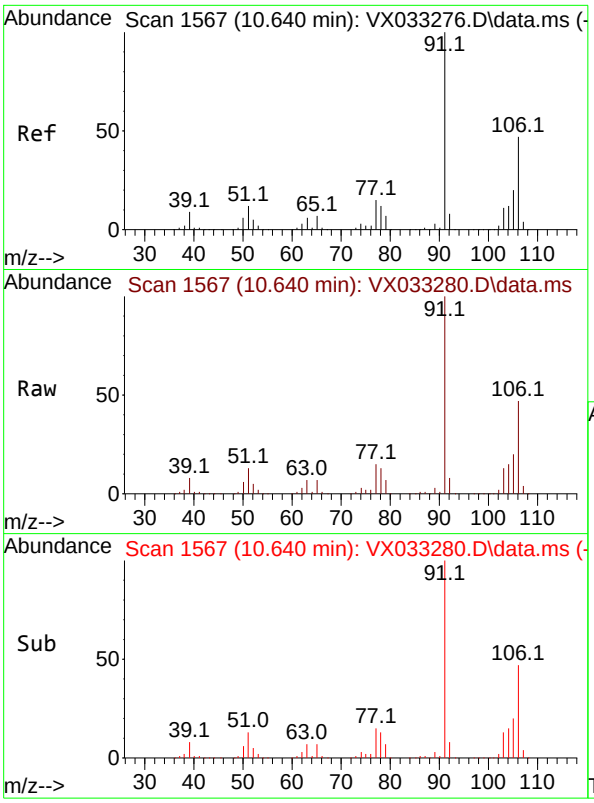



#68
m/p-Xylenes
Concen: 102.791 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:106 Resp: 335122

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 202.2 | 164.5 | 246.7 |

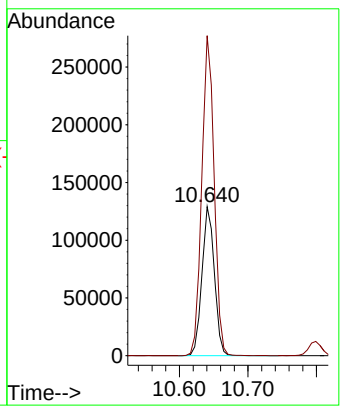





#69
o-Xylene
Concen: 50.629 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:106 Resp: 16315

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 214.0 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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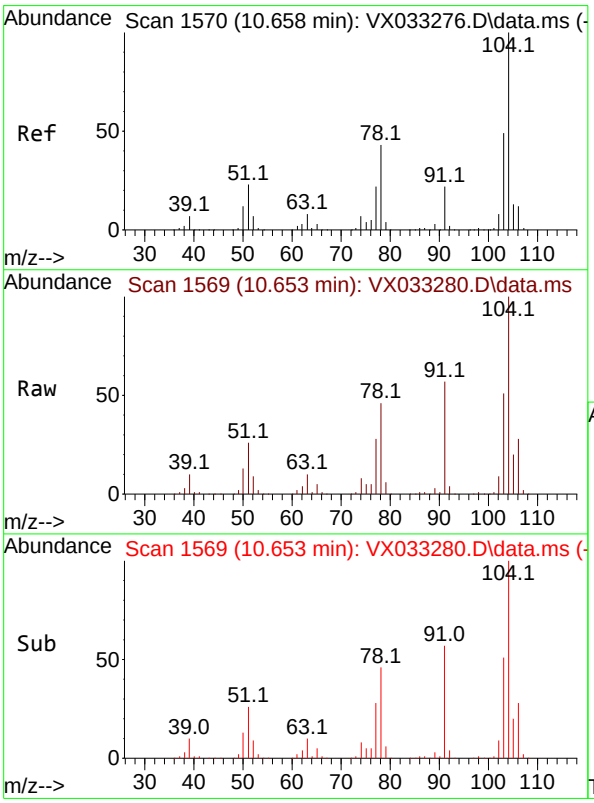
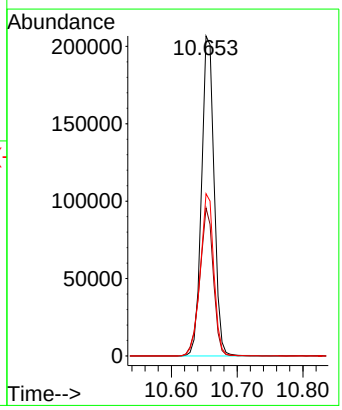
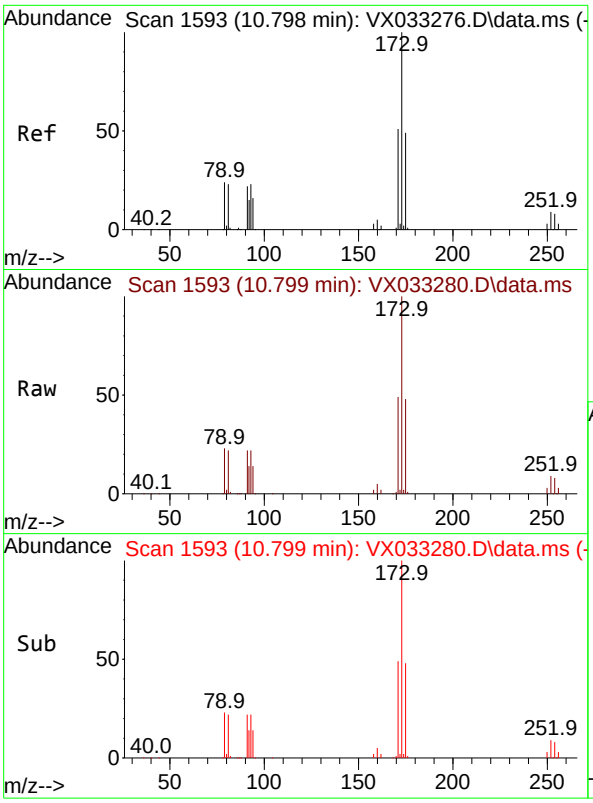



#70
Styrene
Concen: 52.086 ug/l
RT: 10.653 min Scan# 1569
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:104 Resp: 274901

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 49.8 | 41.8 | 62.8 |
| 103 | 54.8 | 44.5 | 66.7 |

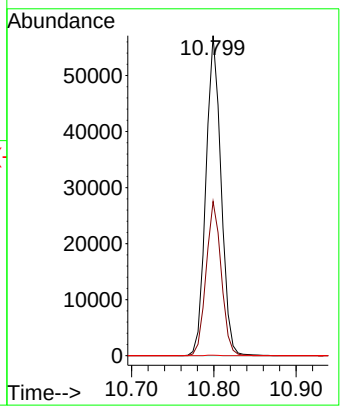





#71
Bromoform
Concen: 50.740 ug/l
RT: 10.799 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:173 Resp: 7300

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.1 | 23.9 | 71.8 |
| 254 | 0.1 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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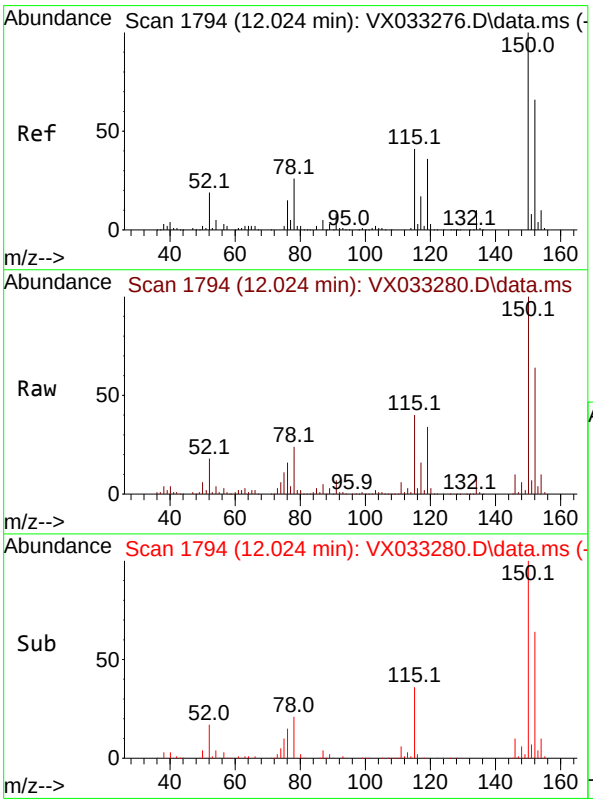
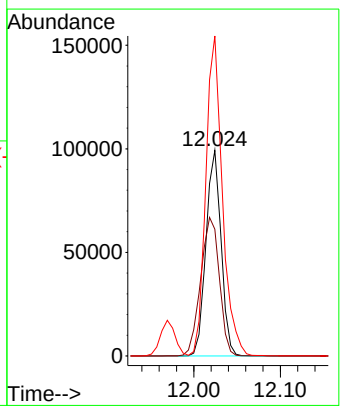
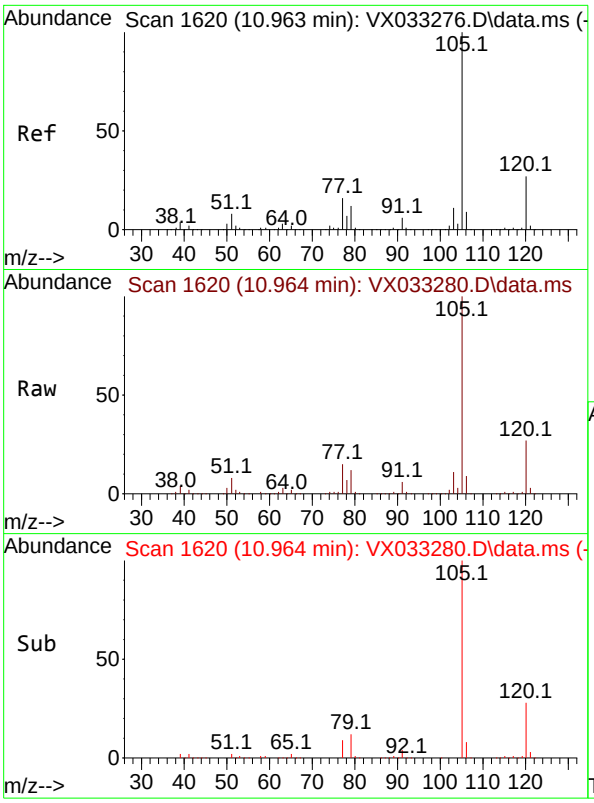



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:152 Resp: 120258

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 83.5 | 44.0 | 132.0 |
| 150 | 170.9 | 0.0 | 351.8 |

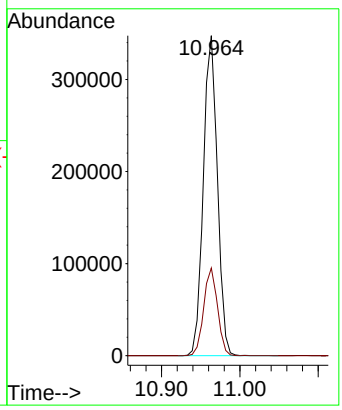





#73
Isopropylbenzene
Concen: 49.486 ug/l
RT: 10.964 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:105 Resp: 43134

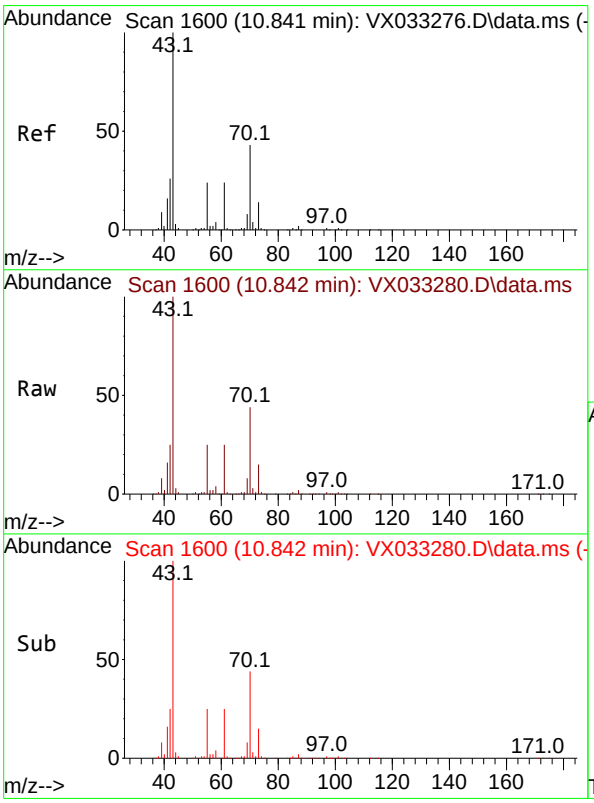
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.9 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

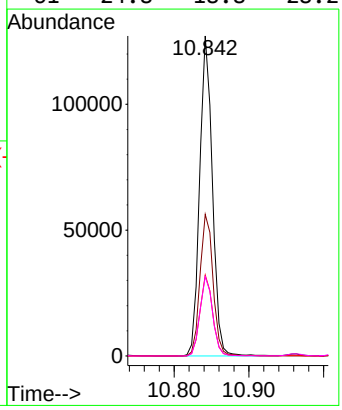
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

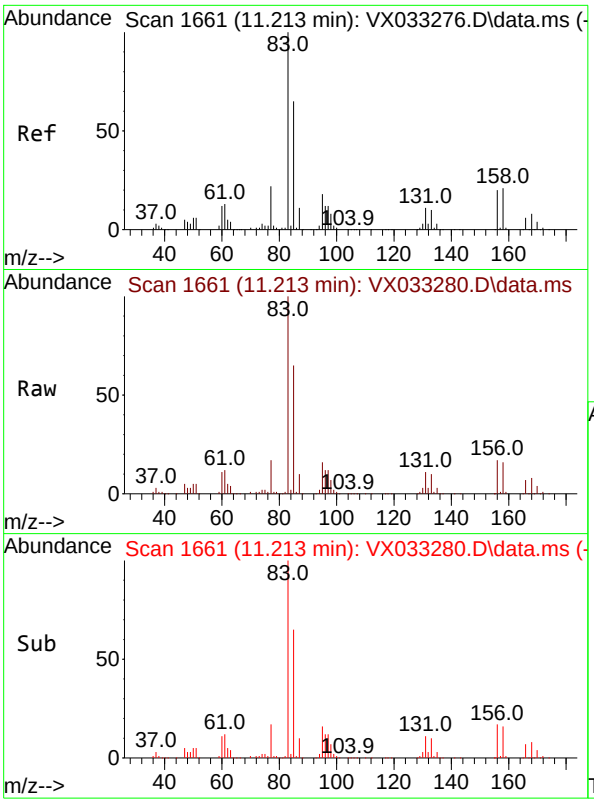



#74
N-amyl acetate
Concen: 50.590 ug/l
RT: 10.842 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 43 Resp: 150450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 45.5 | 33.6 | 50.4 |
| 55 | 25.3 | 19.4 | 29.2 |
| 61 | 24.8 | 18.8 | 28.2 |

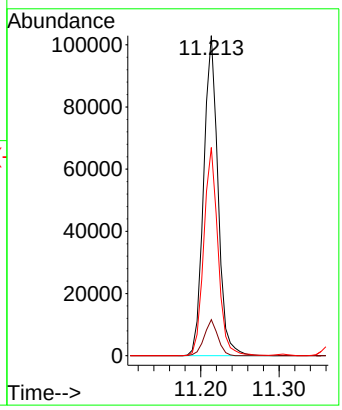





#75
1,1,2,2-Tetrachloroethane
Concen: 47.106 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 83 Resp: 13025

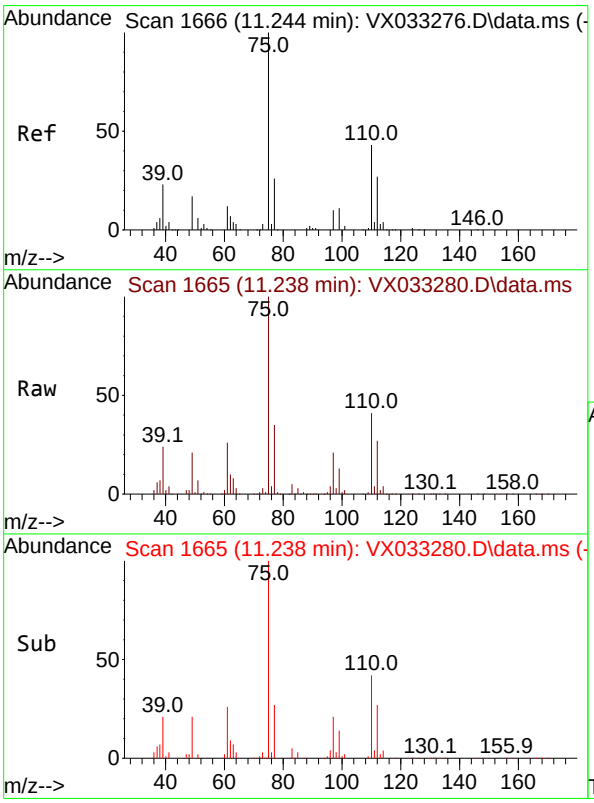
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 64.6 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

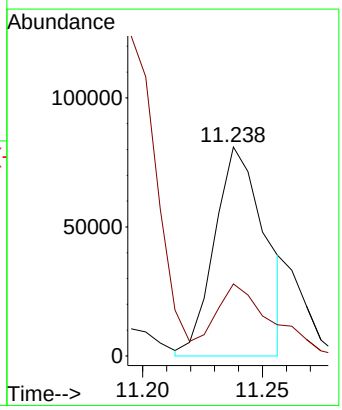
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

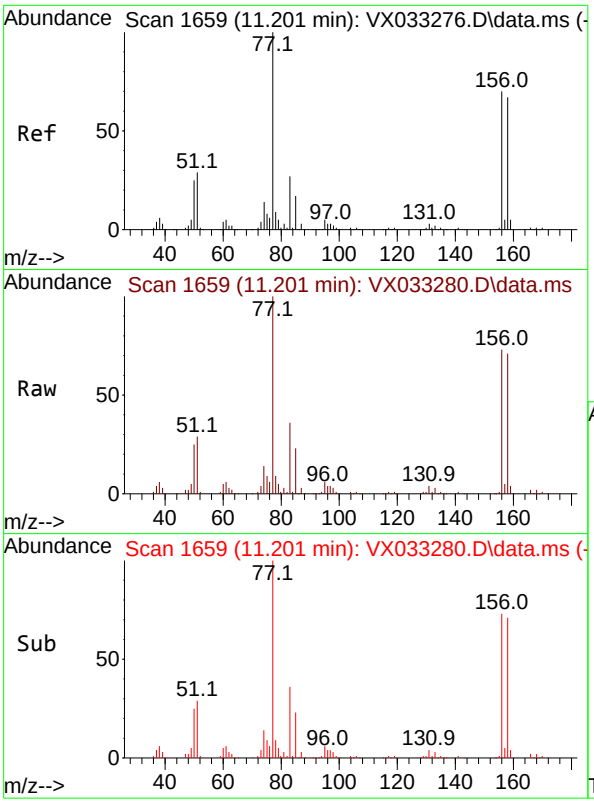



#76
1,2,3-Trichloropropane
Concen: 48.233 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 118011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 39.3 | 20.0 | 60.0 |

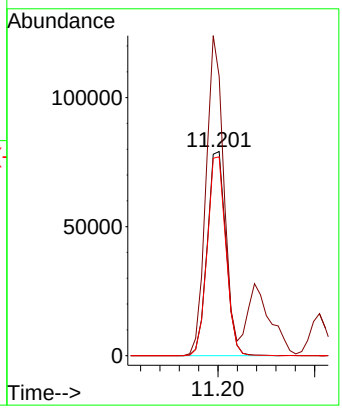





#77
Bromobenzene
Concen: 48.205 ug/l
RT: 11.201 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:156 Resp: 10610

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 148.6 | 76.1 | 228.4 |
| 158 | 97.4 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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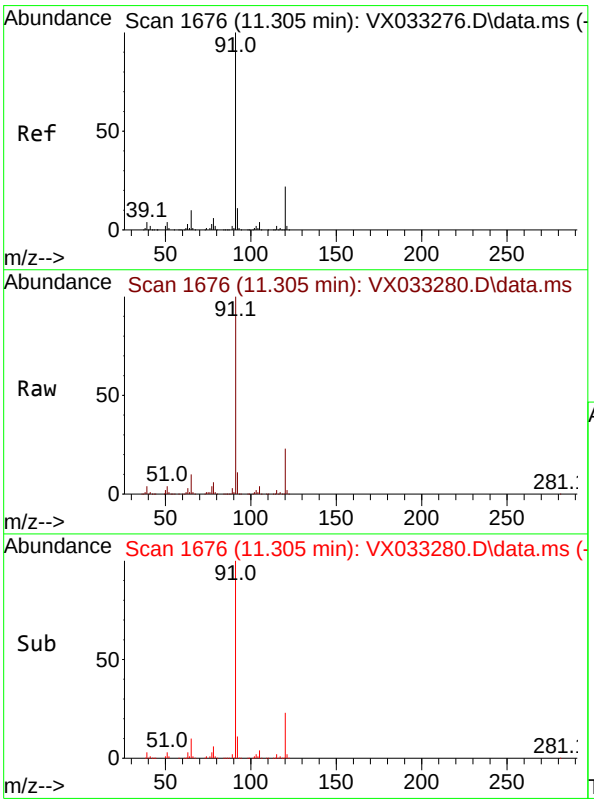
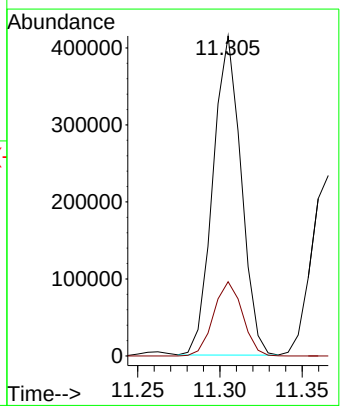
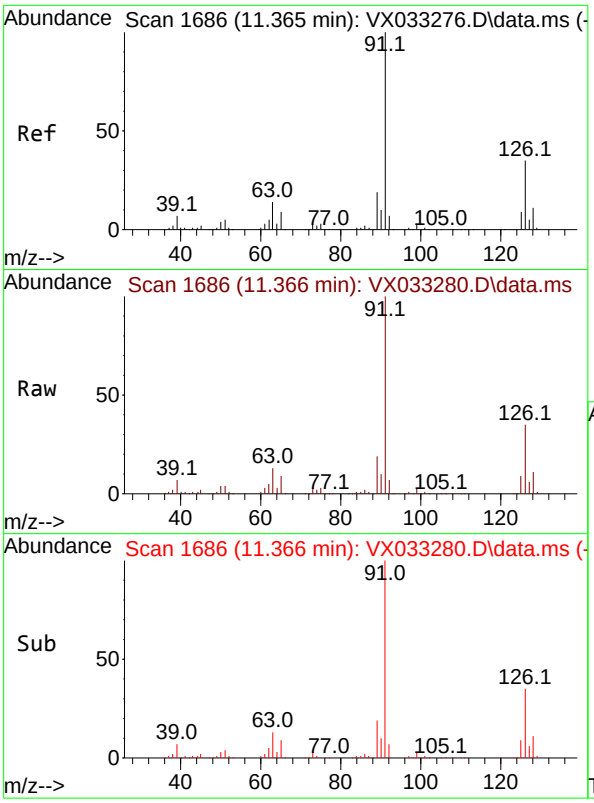



#78
n-propylbenzene
Concen: 50.851 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 494916

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.8 | 11.6 | 34.8 |

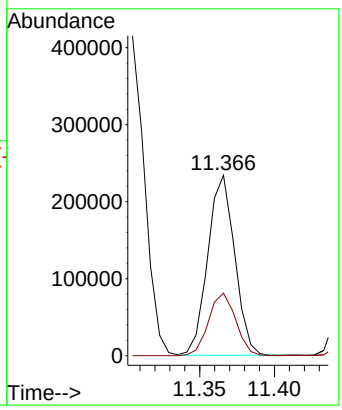





#79
2-Chlorotoluene
Concen: 48.608 ug/l
RT: 11.366 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 29237

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 35.0 | 17.1 | 51.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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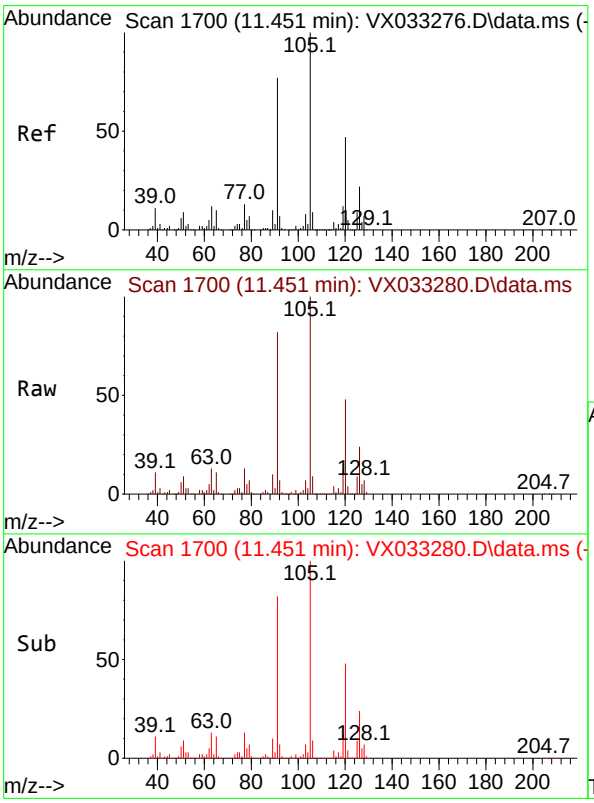
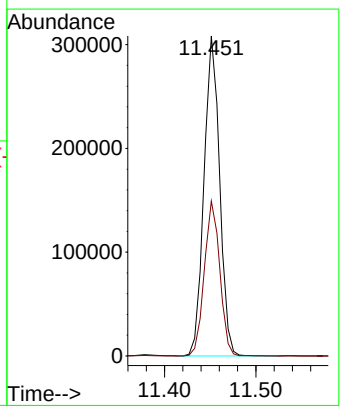
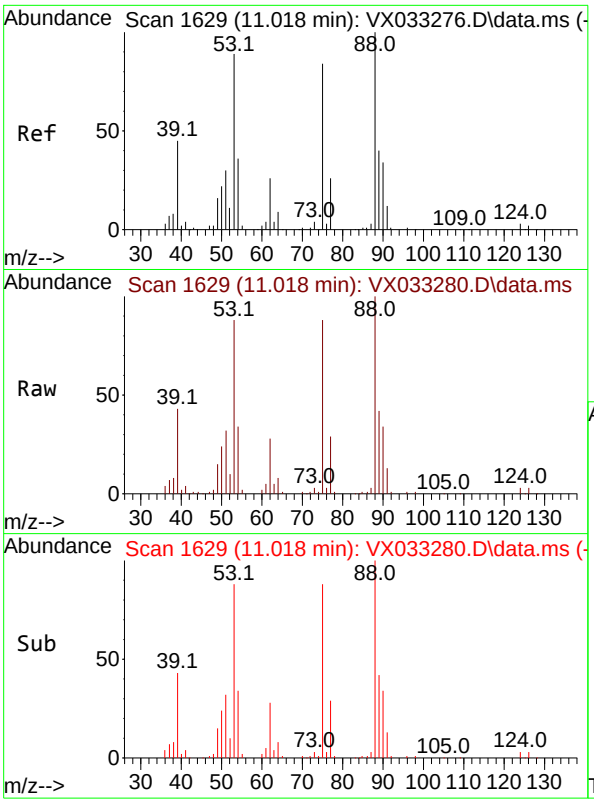



#80
1,3,5-Trimethylbenzene
Concen: 50.214 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:105 Resp: 364334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.0 | 23.6 | 71.0 |

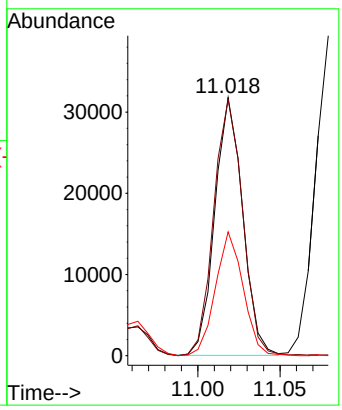





#81
trans-1,4-Dichloro-2-butene
Concen: 47.543 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 3739

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 103.5 | 86.9 | 130.3 |
| 89 | 47.7 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/08/2022
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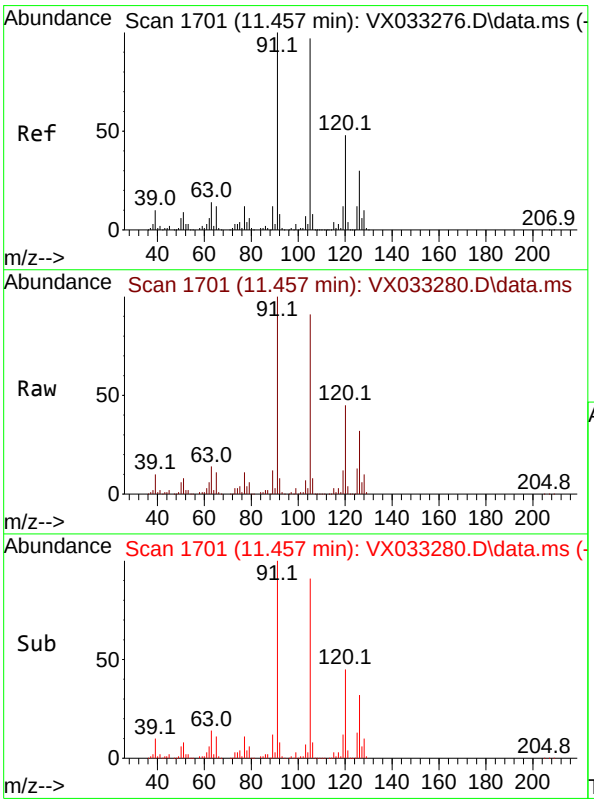
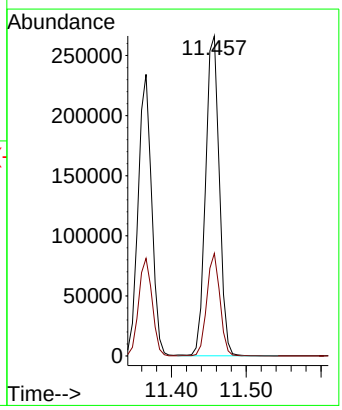
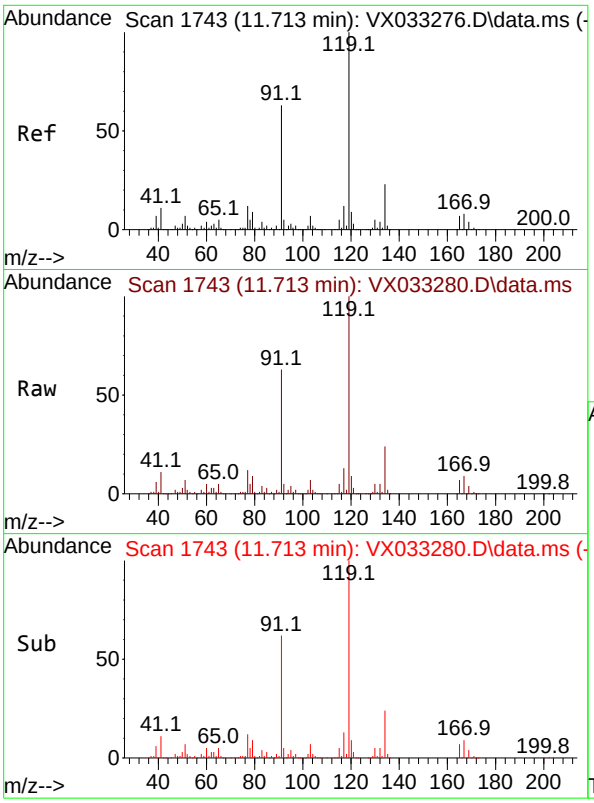



#82
4-Chlorotoluene
Concen: 48.600 ug/l
RT: 11.457 min Scan# 1701
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 339915

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.7 | 14.8 | 44.4 |

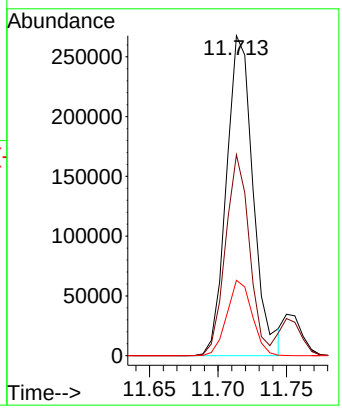





#83
tert-Butylbenzene
Concen: 50.294 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:119 Resp: 36388

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 56.4 | 29.4 | 88.2 |
| 134 | 22.2 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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Reviewed By :John Carlone 12/08/2022
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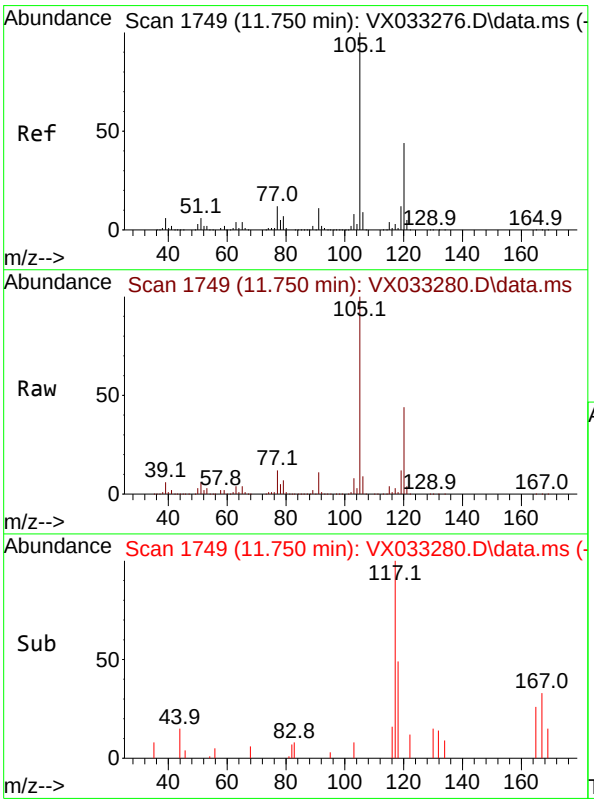
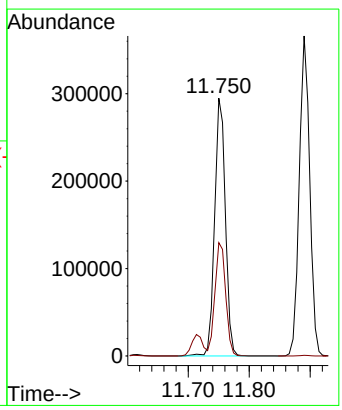
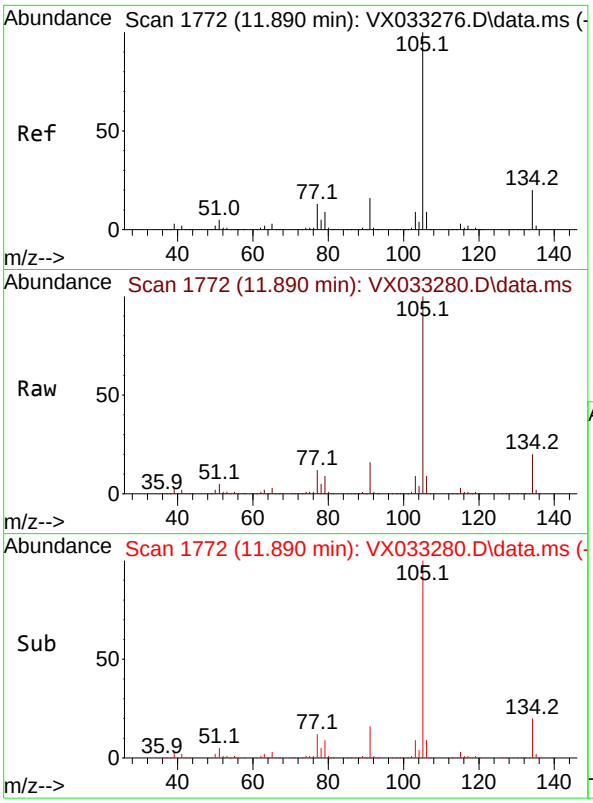



#84
1,2,4-Trimethylbenzene
Concen: 49.794 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:105 Resp: 360637

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.0 | 21.9 | 65.5 |






#85
sec-Butylbenzene
Concen: 51.640 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:105 Resp: 43592

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.0 | 9.9 | 29.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/08/2022
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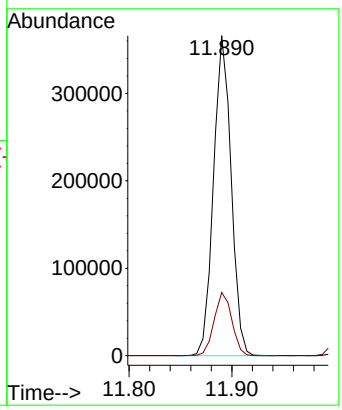
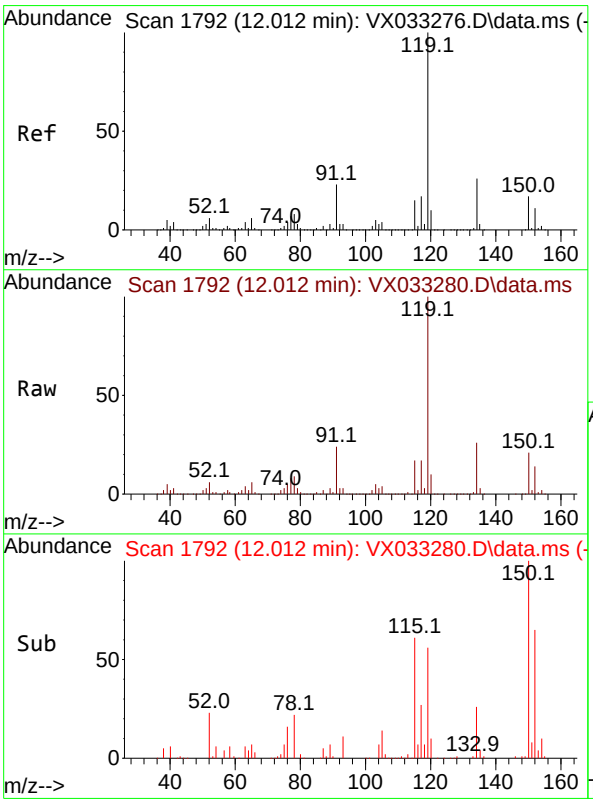
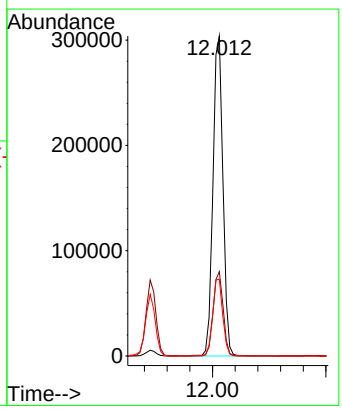


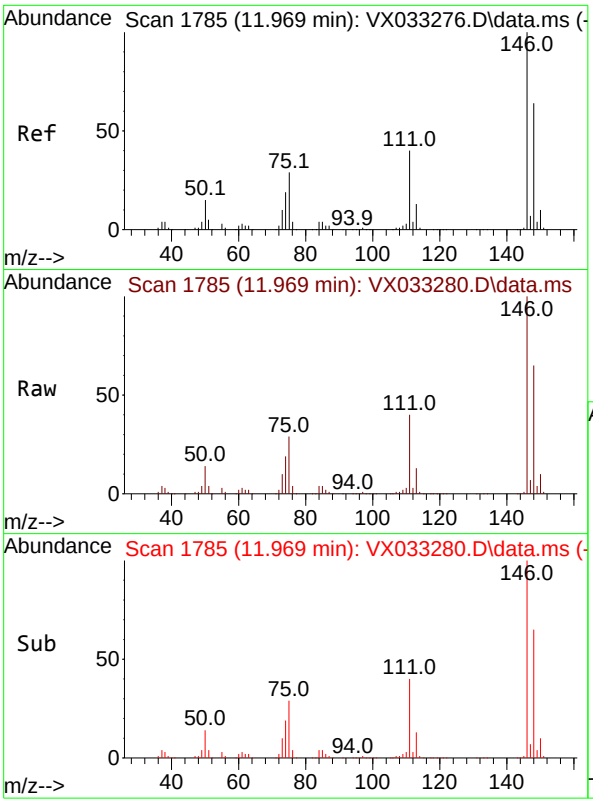




#86
p-Isopropyltoluene
Concen: 50.922 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:119 Resp: 370603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.2 | 12.9 | 38.7 |
| 91 | 24.3 | 12.5 | 37.5 |

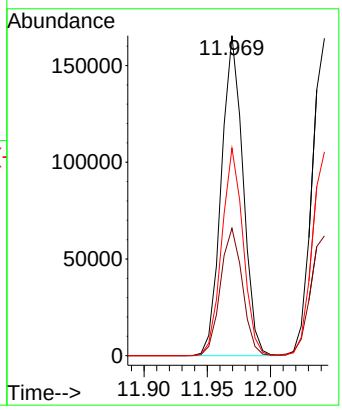





#87
1,3-Dichlorobenzene
Concen: 49.452 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:146 Resp: 19717

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.3 | 20.6 | 61.8 |
| 148 | 63.8 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

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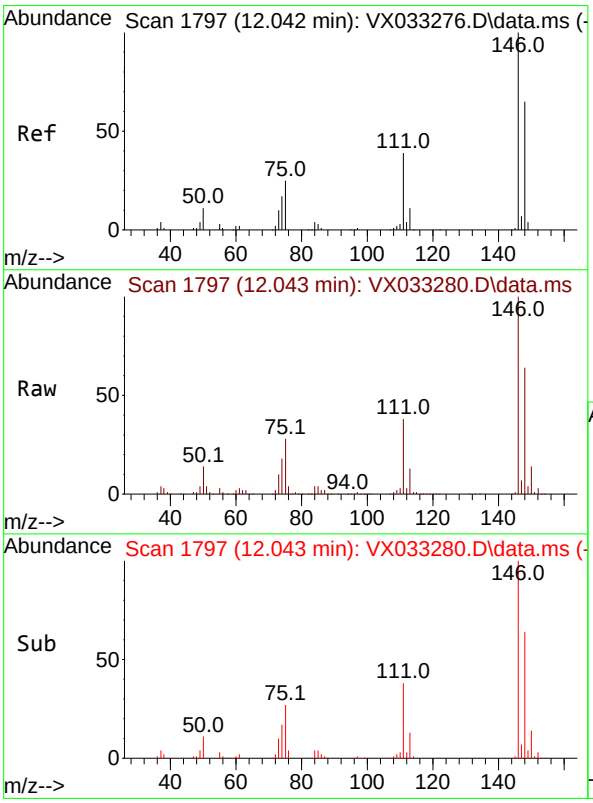
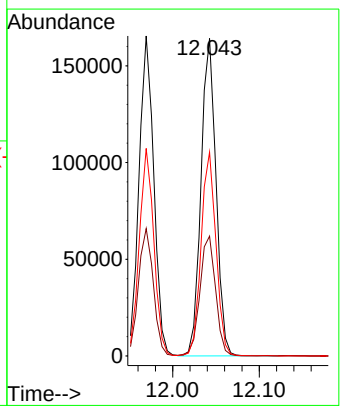
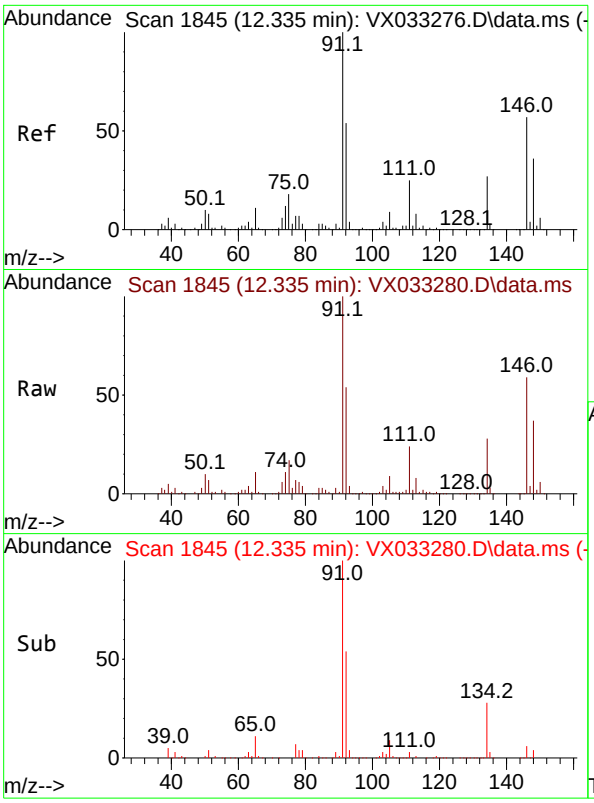



#88
1,4-Dichlorobenzene
Concen: 48.472 ug/l
RT: 12.043 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:146 Resp: 197406

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.5 | 20.5 | 61.6 |
| 148 | 64.0 | 32.2 | 96.6 |

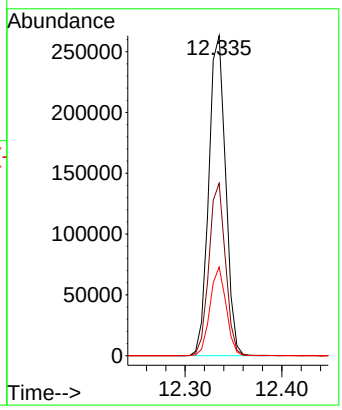





#89
n-Butylbenzene
Concen: 53.470 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 91 Resp: 31872

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.8 | 26.2 | 78.6 |
| 134 | 26.6 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

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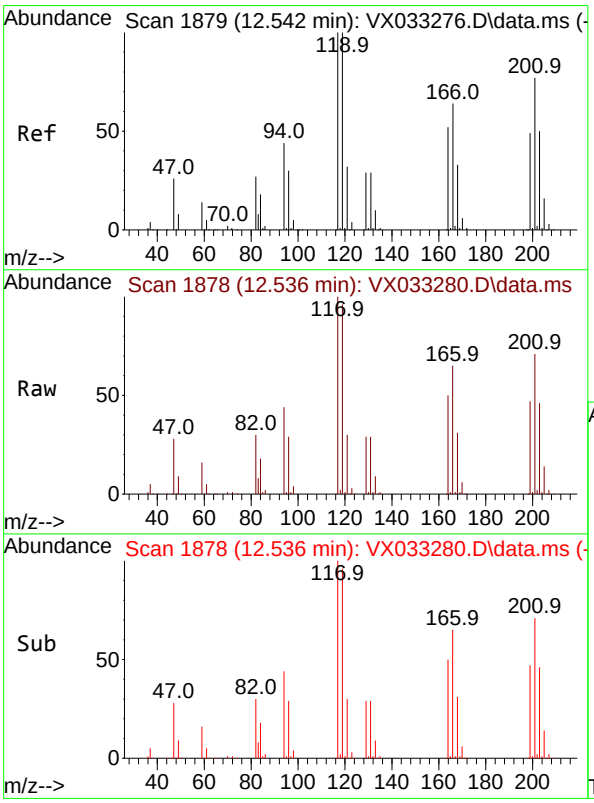
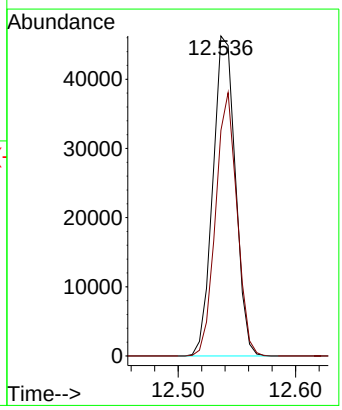
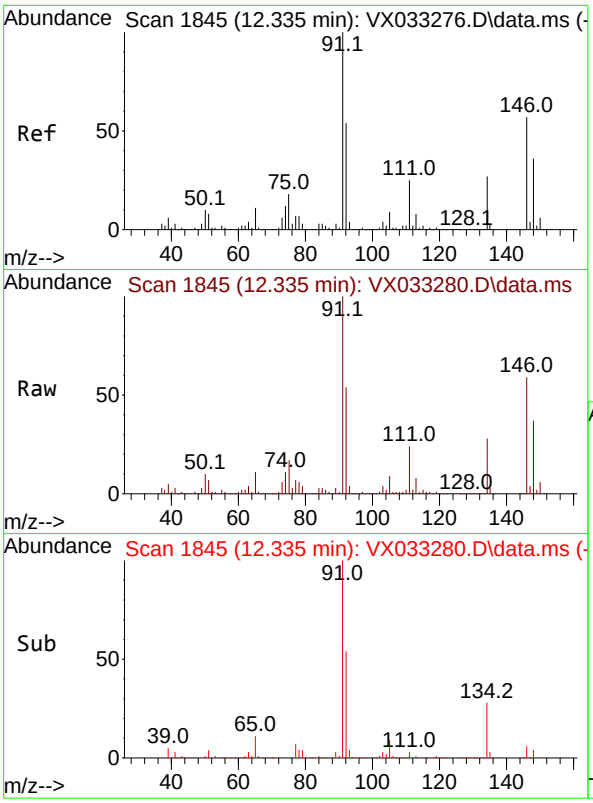



#90
Hexachloroethane
Concen: 49.829 ug/l
RT: 12.536 min Scan# 1878
Delta R.T. -0.006 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:117 Resp: 61643

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 78.0 | 37.6 | 112.9 |

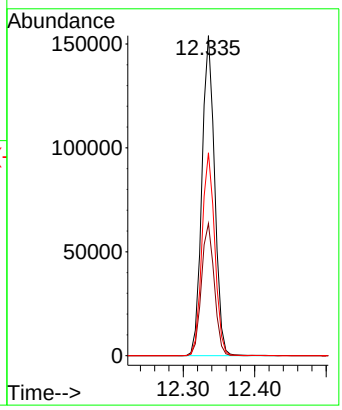





#91
1,2-Dichlorobenzene
Concen: 47.664 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:146 Resp: 19000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.6 | 21.5 | 64.5 |
| 148 | 63.8 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations**
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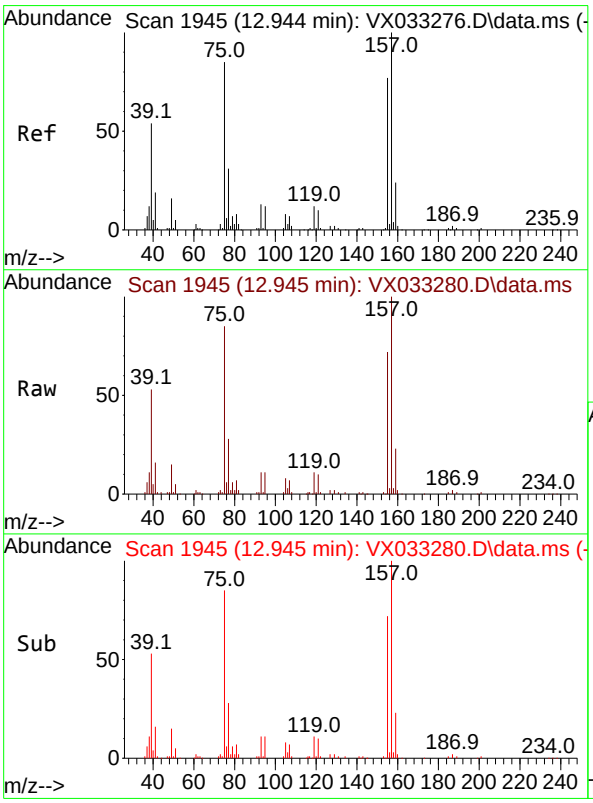
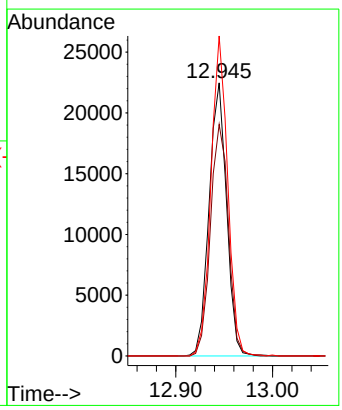
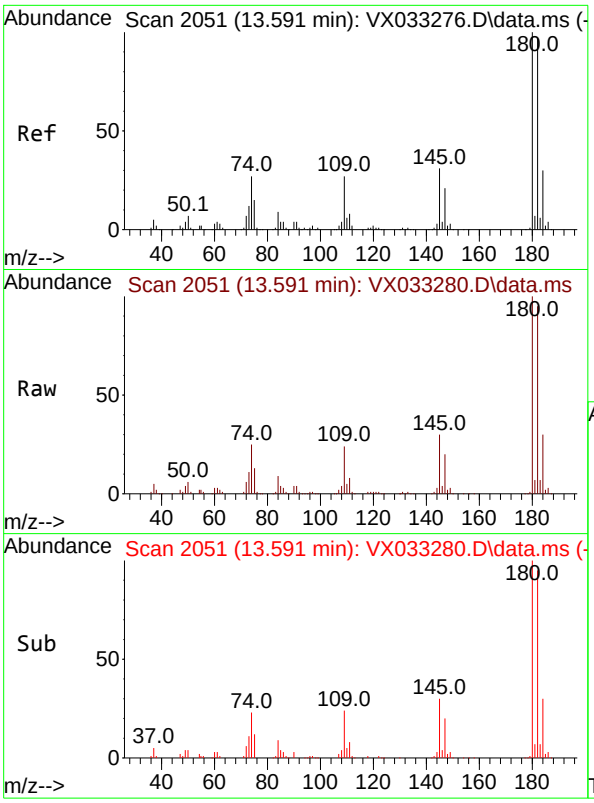



#92
1,2-Dibromo-3-Chloropropane
Concen: 47.255 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion: 75 Resp: 28225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 87.1 | 41.6 | 124.8 |
| 157 | 112.1 | 54.1 | 162.4 |

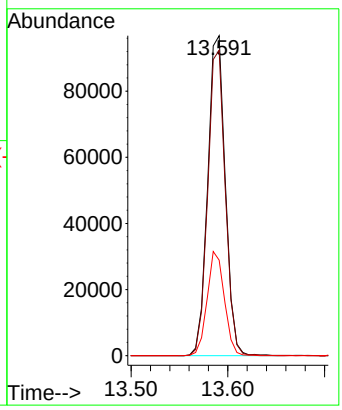





#93
1,2,4-Trichlorobenzene
Concen: 50.844 ug/l
RT: 13.591 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:180 Resp: 12240

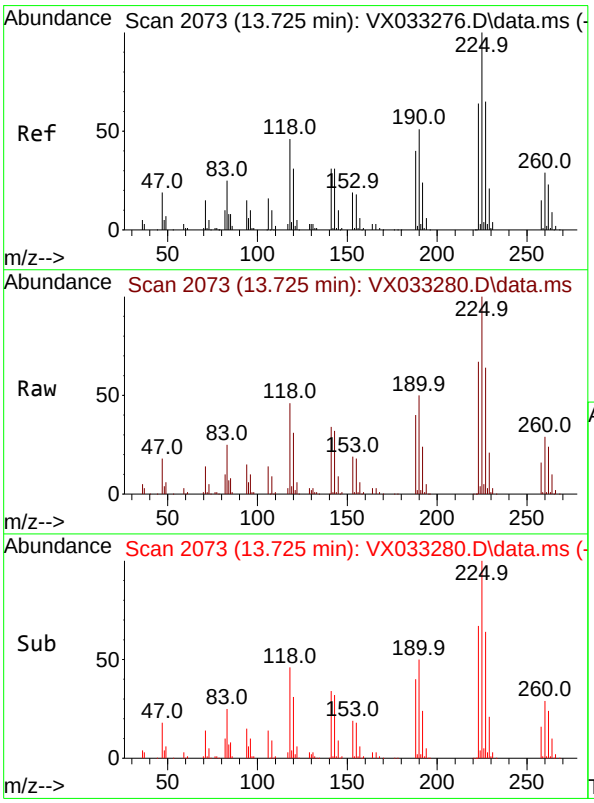
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.2 | 48.4 | 145.0 |
| 145 | 31.9 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

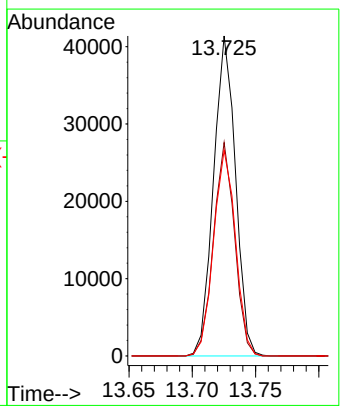
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022

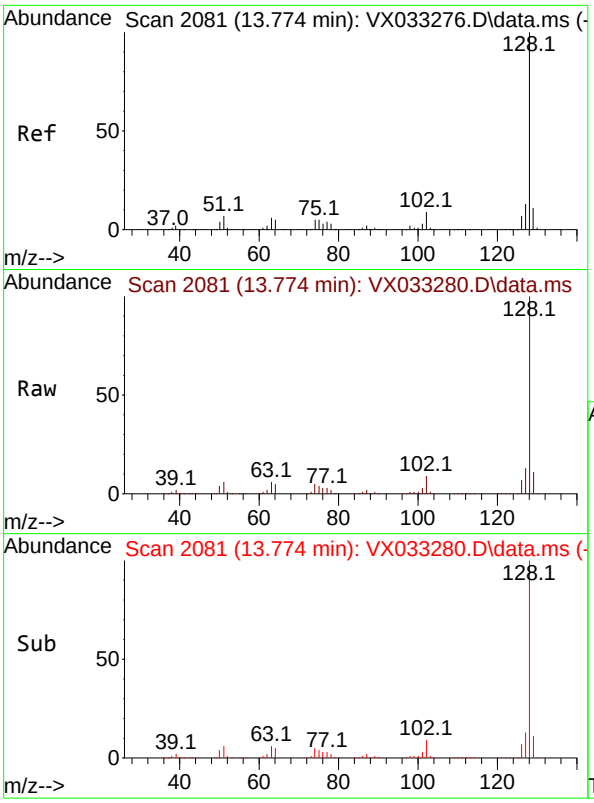



#94
Hexachlorobutadiene
Concen: 51.780 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:225 Resp: 49918

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 64.1 | 31.9 | 95.9 |
| 227 | 64.4 | 31.9 | 95.5 |

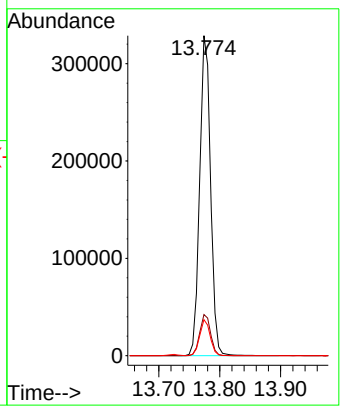





#95
Naphthalene
Concen: 50.644 ug/l
RT: 13.774 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:128 Resp: 40669

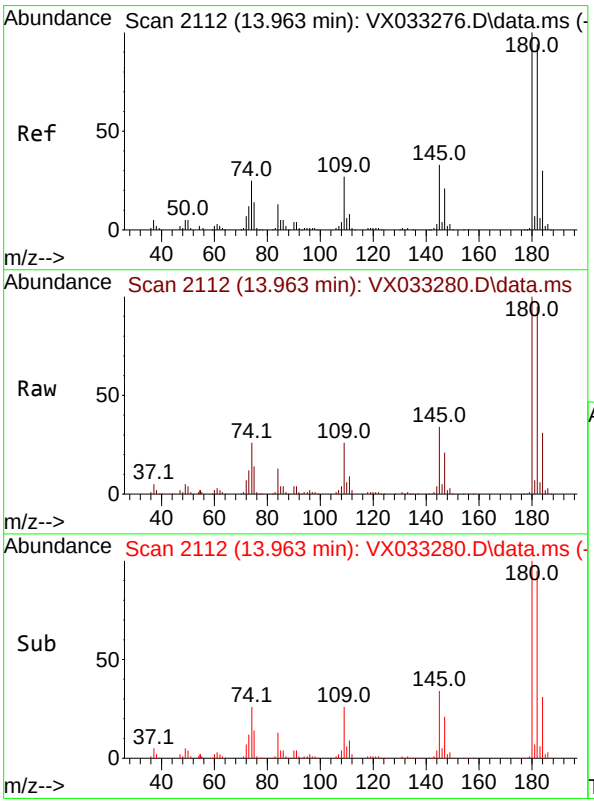
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.9 | 10.2 | 15.4 |
| 129 | 10.8 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

**Manual Integrations APPROVED**

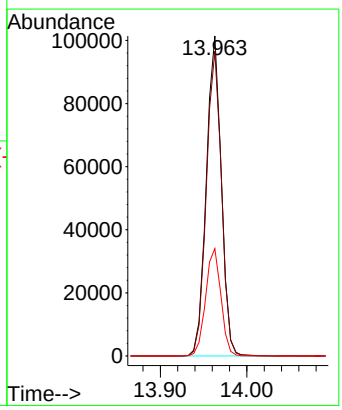
Reviewed By :John Carlone 12/08/2022
Supervised By :Mahesh Dadoda 12/08/2022




#96
1,2,3-Trichlorobenzene
Concen: 50.061 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. 0.000 min
Lab File: VX033280.D
Acq: 07 Dec 2022 12:51

Tgt Ion:180 Resp: 122061

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 96.2 | 47.5 | 142.6 |
| 145 | 34.2 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 0.349 | 0.347 | 0.6 | 108 | 0.00 |
| 3 | P | Chloromethane | 0.404 | 0.366 | 9.4 | 103 | 0.00 |
| 4 | C | Vinyl Chloride | 0.461 | 0.431 | 6.5# | 103 | 0.00 |
| 5 | T | Bromomethane | 0.338 | 0.322 | 4.7 | 110 | 0.00 |
| 6 | T | Chloroethane | 0.350 | 0.330 | 5.7 | 100 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.866 | 0.840 | 3.0 | 105 | 0.00 |
| 8 | T | Diethyl Ether | 0.313 | 0.284 | 9.3 | 106 | 0.00 |
| 9 | T | 1,1,2-Trichlorotrifluoroeth | 0.459 | 0.460 | -0.2 | 106 | 0.00 |
| 10 | T | Methyl Iodide | 0.503 | 0.439 | 12.7 | 91 | 0.00 |
| 11 | T | Tert butyl alcohol | 0.098 | 0.083 | 15.3 | 106 | 0.00 |
| 12 | CM | 1,1-Dichloroethene | 0.453 | 0.435 | 4.0# | 105 | 0.00 |
| 13 | T | Acrolein | 0.106 | 0.097 | 8.5 | 98 | 0.00 |
| 14 | T | Allyl chloride | 0.724 | 0.695 | 4.0 | 104 | 0.00 |
| 15 | T | Acrylonitrile | 0.243 | 0.221 | 9.1 | 100 | 0.00 |
| 16 | T | Acetone | 0.237 | 0.206 | 13.1 | 102 | 0.00 |
| 17 | T | Carbon Disulfide | 1.163 | 1.114 | 4.2 | 104 | 0.00 |
| 18 | T | Methyl Acetate | 0.687 | 0.631 | 8.2 | 100 | 0.00 |
| 19 | T | Methyl tert-butyl Ether | 1.570 | 1.513 | 3.6 | 105 | 0.00 |
| 20 | T | Methylene Chloride | 0.529 | 0.483 | 8.7 | 105 | 0.00 |
| 21 | T | trans-1,2-Dichloroethene | 0.496 | 0.483 | 2.6 | 105 | 0.00 |
| 22 | T | Diisopropyl ether | 1.551 | 1.502 | 3.2 | 102 | 0.00 |
| 23 | T | Vinyl Acetate | 1.204 | 1.180 | 2.0 | 103 | 0.00 |
| 24 | P | 1,1-Dichloroethane | 0.911 | 0.859 | 5.7 | 104 | 0.00 |
| 25 | T | 2-Butanone | 0.341 | 0.317 | 7.0 | 100 | 0.00 |
| 26 | T | 2,2-Dichloropropane | 0.670 | 0.667 | 0.4 | 105 | 0.00 |
| 27 | T | cis-1,2-Dichloroethene | 0.593 | 0.575 | 3.0 | 105 | 0.00 |
| 28 | T | Bromochloromethane | 0.381 | 0.366 | 3.9 | 100 | 0.00 |
| 29 | T | Tetrahydrofuran | 0.221 | 0.206 | 6.8 | 100 | -0.01 |
| 30 | C | Chloroform | 1.012 | 0.961 | 5.0# | 103 | 0.00 |
| 31 | T | Cyclohexane | 0.762 | 0.771 | -1.2 | 106 | 0.00 |
| 32 | T | 1,1,1-Trichloroethane | 0.870 | 0.867 | 0.3 | 104 | 0.00 |
| 33 | S | 1,2-Dichloroethane-d4 | 0.321 | 0.301 | 6.2 | 107 | 0.00 |
| 34 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 101 | 0.00 |
| 35 | S | Dibromofluoromethane | 0.225 | 0.216 | 4.0 | 107 | 0.00 |
| 36 | T | 1,1-Dichloropropene | 0.438 | 0.437 | 0.2 | 105 | 0.00 |
| 37 | T | Ethyl Acetate | 0.414 | 0.396 | 4.3 | 101 | 0.00 |
| 38 | T | Carbon Tetrachloride | 0.491 | 0.487 | 0.8 | 103 | 0.00 |
| 39 | T | Methylcyclohexane | 0.491 | 0.521 | -6.1 | 107 | 0.00 |
| 40 | TM | Benzene | 1.278 | 1.251 | 2.1 | 104 | 0.00 |
| 41 | T | Methacrylonitrile | 0.228 | 0.223 | 2.2 | 100 | 0.00 |
| 42 | TM | 1,2-Dichloroethane | 0.508 | 0.484 | 4.7 | 102 | 0.00 |
| 43 | T | Isopropyl Acetate | 0.667 | 0.649 | 2.7 | 102 | 0.00 |
| 44 | TM | Trichloroethene | 0.352 | 0.353 | -0.3 | 105 | 0.00 |
| 45 | C | 1,2-Dichloropropane | 0.327 | 0.318 | 2.8# | 104 | 0.00 |
| 46 | T | Dibromomethane | 0.249 | 0.238 | 4.4 | 103 | 0.00 |
| 47 | T | Bromodichloromethane | 0.485 | 0.476 | 1.9 | 103 | 0.00 |
| 48 | T | Methyl methacrylate | 0.344 | 0.334 | 2.9 | 102 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | 1,4-Dioxane | 0.008 | 0.008 | 0.0 | 103 | 0.00 |
| 50 | S | Toluene-d8 | 0.470 | 0.471 | -0.2 | 107 | 0.00 |
| 51 | T | 4-Methyl-2-Pentanone | 0.422 | 0.414 | 1.9 | 101 | 0.00 |
| 52 | CM | Toluene | 0.827 | 0.831 | -0.5# | 103 | 0.00 |
| 53 | T | t-1,3-Dichloropropene | 0.473 | 0.489 | -3.4 | 106 | 0.00 |
| 54 | T | cis-1,3-Dichloropropene | 0.517 | 0.530 | -2.5 | 105 | 0.00 |
| 55 | T | 1,1,2-Trichloroethane | 0.347 | 0.340 | 2.0 | 103 | 0.00 |
| 56 | T | Ethyl methacrylate | 0.489 | 0.502 | -2.7 | 104 | 0.00 |
| 57 | T | 1,3-Dichloropropane | 0.558 | 0.553 | 0.9 | 104 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl ether | 0.224 | 0.226 | -0.9 | 102 | 0.00 |
| 59 | T | 2-Hexanone | 0.311 | 0.310 | 0.3 | 102 | 0.00 |
| 60 | T | Dibromochloromethane | 0.383 | 0.393 | -2.6 | 105 | 0.00 |
| 61 | T | 1,2-Dibromoethane | 0.370 | 0.374 | -1.1 | 105 | 0.00 |
| 62 | S | 4-Bromofluorobenzene | 0.360 | 0.379 | -5.3 | 108 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 64 | T | Tetrachloroethene | 0.342 | 0.337 | 1.5 | 106 | 0.00 |
| 65 | PM | Chlorobenzene | 1.013 | 1.001 | 1.2 | 105 | 0.00 |
| 66 | T | 1,1,1,2-Tetrachloroethane | 0.383 | 0.377 | 1.6 | 103 | 0.00 |
| 67 | C | Ethyl Benzene | 1.764 | 1.792 | -1.6# | 105 | 0.00 |
| 68 | T | m/p-Xylenes | 0.686 | 0.705 | -2.8 | 106 | 0.00 |
| 69 | T | o-Xylene | 0.678 | 0.687 | -1.3 | 104 | 0.00 |
| 70 | T | Styrene | 1.111 | 1.157 | -4.1 | 105 | 0.00 |
| 71 | P | Bromoform | 0.303 | 0.307 | -1.3 | 103 | 0.00 |
| 72 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 104 | 0.00 |
| 73 | T | Isopropylbenzene | 3.624 | 3.587 | 1.0 | 105 | 0.00 |
| 74 | T | N-amyl acetate | 1.236 | 1.251 | -1.2 | 105 | 0.00 |
| 75 | P | 1,1,2,2-Tetrachloroethane | 1.150 | 1.083 | 5.8 | 104 | 0.00 |
| 76 | T | 1,2,3-Trichloropropane | 1.017 | 0.981 | 3.5 | 106 | 0.00 |
| 77 | T | Bromobenzene | 0.915 | 0.882 | 3.6 | 106 | 0.00 |
| 78 | T | n-propylbenzene | 4.047 | 4.115 | -1.7 | 106 | 0.00 |
| 79 | T | 2-Chlorotoluene | 2.501 | 2.431 | 2.8 | 105 | 0.00 |
| 80 | T | 1,3,5-Trimethylbenzene | 3.017 | 3.030 | -0.4 | 106 | 0.00 |
| 81 | T | trans-1,4-Dichloro-2-butene | 0.327 | 0.311 | 4.9 | 104 | 0.00 |
| 82 | T | 4-Chlorotoluene | 2.908 | 2.827 | 2.8 | 106 | 0.00 |
| 83 | T | tert-Butylbenzene | 3.008 | 3.026 | -0.6 | 106 | 0.00 |
| 84 | T | 1,2,4-Trimethylbenzene | 3.011 | 2.999 | 0.4 | 106 | 0.00 |
| 85 | T | sec-Butylbenzene | 3.510 | 3.625 | -3.3 | 107 | 0.00 |
| 86 | T | p-Isopropyltoluene | 3.026 | 3.082 | -1.9 | 107 | 0.00 |
| 87 | T | 1,3-Dichlorobenzene | 1.658 | 1.640 | 1.1 | 107 | 0.00 |
| 88 | T | 1,4-Dichlorobenzene | 1.693 | 1.642 | 3.0 | 107 | 0.00 |
| 89 | T | n-Butylbenzene | 2.478 | 2.650 | -6.9 | 110 | 0.00 |
| 90 | T | Hexachloroethane | 0.514 | 0.513 | 0.2 | 106 | 0.00 |
| 91 | T | 1,2-Dichlorobenzene | 1.657 | 1.580 | 4.6 | 106 | 0.00 |
| 92 | T | 1,2-Dibromo-3-Chloropropane | 0.248 | 0.235 | 5.2 | 105 | 0.00 |
| 93 | T | 1,2,4-Trichlorobenzene | 1.001 | 1.018 | -1.7 | 111 | 0.00 |
| 94 | T | Hexachlorobutadiene | 0.401 | 0.415 | -3.5 | 113 | 0.00 |
| 95 | T | Naphthalene | 3.339 | 3.382 | -1.3 | 106 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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) |
|---|---|---|---|---|---|---|
| 96 T | 1,2,3-Trichlorobenzene | 1.014 | 1.015 | -0.1 | 108 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 6

# Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | Pentafluorobenzene | 50.000 | 50.000 | 0.0 | 102 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 50.000 | 49.702 | 0.6 | 108 | 0.00 |
| 3 | P | Chloromethane | 50.000 | 45.367 | 9.3 | 103 | 0.00 |
| 4 | C | Vinyl Chloride | 50.000 | 46.704 | 6.6# | 103 | 0.00 |
| 5 | T | Bromomethane | 50.000 | 47.632 | 4.7 | 110 | 0.00 |
| 6 | T | Chloroethane | 50.000 | 47.236 | 5.5 | 100 | 0.00 |
| 7 | T | Trichlorofluoromethane | 50.000 | 48.490 | 3.0 | 105 | 0.00 |
| 8 | T | Diethyl Ether | 50.000 | 45.386 | 9.2 | 106 | 0.00 |
| 9 | T | 1,1,2-Trichlorotrifluoroeth | 50.000 | 50.085 | -0.2 | 106 | 0.00 |
| 10 | T | Methyl Iodide | 50.000 | 43.593 | 12.8 | 91 | 0.00 |
| 11 | T | Tert butyl alcohol | 250.000 | 211.111 | 15.6 | 106 | 0.00 |
| 12 | CM | 1,1-Dichloroethene | 50.000 | 47.939 | 4.1# | 105 | 0.00 |
| 13 | T | Acrolein | 250.000 | 228.098 | 8.8 | 98 | 0.00 |
| 14 | T | Allyl chloride | 50.000 | 48.012 | 4.0 | 104 | 0.00 |
| 15 | T | Acrylonitrile | 250.000 | 227.543 | 9.0 | 100 | 0.00 |
| 16 | T | Acetone | 250.000 | 216.519 | 13.4 | 102 | 0.00 |
| 17 | T | Carbon Disulfide | 50.000 | 47.881 | 4.2 | 104 | 0.00 |
| 18 | T | Methyl Acetate | 50.000 | 45.913 | 8.2 | 100 | 0.00 |
| 19 | T | Methyl tert-butyl Ether | 50.000 | 48.192 | 3.6 | 105 | 0.00 |
| 20 | T | Methylene Chloride | 50.000 | 45.612 | 8.8 | 105 | 0.00 |
| 21 | T | trans-1,2-Dichloroethene | 50.000 | 48.735 | 2.5 | 105 | 0.00 |
| 22 | T | Diisopropyl ether | 50.000 | 48.438 | 3.1 | 102 | 0.00 |
| 23 | T | Vinyl Acetate | 250.000 | 245.096 | 2.0 | 103 | 0.00 |
| 24 | P | 1,1-Dichloroethane | 50.000 | 47.145 | 5.7 | 104 | 0.00 |
| 25 | T | 2-Butanone | 250.000 | 232.728 | 6.9 | 100 | 0.00 |
| 26 | T | 2,2-Dichloropropane | 50.000 | 49.784 | 0.4 | 105 | 0.00 |
| 27 | T | cis-1,2-Dichloroethene | 50.000 | 48.492 | 3.0 | 105 | 0.00 |
| 28 | T | Bromochloromethane | 50.000 | 47.956 | 4.1 | 100 | 0.00 |
| 29 | T | Tetrahydrofuran | 250.000 | 233.427 | 6.6 | 100 | -0.01 |
| 30 | C | Chloroform | 50.000 | 47.482 | 5.0# | 103 | 0.00 |
| 31 | T | Cyclohexane | 50.000 | 50.601 | -1.2 | 106 | 0.00 |
| 32 | T | 1,1,1-Trichloroethane | 50.000 | 49.812 | 0.4 | 104 | 0.00 |
| 33 | S | 1,2-Dichloroethane-d4 | 50.000 | 46.866 | 6.3 | 107 | 0.00 |
| 34 | I | 1,4-Difluorobenzene | 50.000 | 50.000 | 0.0 | 101 | 0.00 |
| 35 | S | Dibromofluoromethane | 50.000 | 47.921 | 4.2 | 107 | 0.00 |
| 36 | T | 1,1-Dichloropropene | 50.000 | 49.882 | 0.2 | 105 | 0.00 |
| 37 | T | Ethyl Acetate | 50.000 | 47.728 | 4.5 | 101 | 0.00 |
| 38 | T | Carbon Tetrachloride | 50.000 | 49.578 | 0.8 | 103 | 0.00 |
| 39 | T | Methylcyclohexane | 50.000 | 53.112 | -6.2 | 107 | 0.00 |
| 40 | TM | Benzene | 50.000 | 48.914 | 2.2 | 104 | 0.00 |
| 41 | T | Methacrylonitrile | 50.000 | 48.856 | 2.3 | 100 | 0.00 |
| 42 | TM | 1,2-Dichloroethane | 50.000 | 47.637 | 4.7 | 102 | 0.00 |
| 43 | T | Isopropyl Acetate | 50.000 | 48.673 | 2.7 | 102 | 0.00 |
| 44 | TM | Trichloroethene | 50.000 | 50.085 | -0.2 | 105 | 0.00 |
| 45 | C | 1,2-Dichloropropane | 50.000 | 48.695 | 2.6# | 104 | 0.00 |
| 46 | T | Dibromomethane | 50.000 | 47.855 | 4.3 | 103 | 0.00 |
| 47 | T | Bromodichloromethane | 50.000 | 49.061 | 1.9 | 103 | 0.00 |
| 48 | T | Methyl methacrylate | 50.000 | 48.521 | 3.0 | 102 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | 1,4-Dioxane | 1000.000 | 974.422 | 2.6 | 103 | 0.00 |
| 50 | S | Toluene-d8 | 50.000 | 50.054 | -0.1 | 107 | 0.00 |
| 51 | T | 4-Methyl-2-Pentanone | 250.000 | 245.658 | 1.7 | 101 | 0.00 |
| 52 | CM | Toluene | 50.000 | 50.273 | -0.5# | 103 | 0.00 |
| 53 | T | t-1,3-Dichloropropene | 50.000 | 47.076 | 5.8 | 106 | 0.00 |
| 54 | T | cis-1,3-Dichloropropene | 50.000 | 51.268 | -2.5 | 105 | 0.00 |
| 55 | T | 1,1,2-Trichloroethane | 50.000 | 48.997 | 2.0 | 103 | 0.00 |
| 56 | T | Ethyl methacrylate | 50.000 | 51.302 | -2.6 | 104 | 0.00 |
| 57 | T | 1,3-Dichloropropane | 50.000 | 49.540 | 0.9 | 104 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl ether | 250.000 | 252.823 | -1.1 | 102 | 0.00 |
| 59 | T | 2-Hexanone | 250.000 | 249.243 | 0.3 | 102 | 0.00 |
| 60 | T | Dibromochloromethane | 50.000 | 51.356 | -2.7 | 105 | 0.00 |
| 61 | T | 1,2-Dibromoethane | 50.000 | 50.543 | -1.1 | 105 | 0.00 |
| 62 | S | 4-Bromofluorobenzene | 50.000 | 52.743 | -5.5 | 108 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 50.000 | 50.000 | 0.0 | 102 | 0.00 |
| 64 | T | Tetrachloroethene | 50.000 | 49.334 | 1.3 | 106 | 0.00 |
| 65 | PM | Chlorobenzene | 50.000 | 49.423 | 1.2 | 105 | 0.00 |
| 66 | T | 1,1,1,2-Tetrachloroethane | 50.000 | 49.209 | 1.6 | 103 | 0.00 |
| 67 | C | Ethyl Benzene | 50.000 | 50.786 | -1.6# | 105 | 0.00 |
| 68 | T | m/p-Xylenes | 100.000 | 102.791 | -2.8 | 106 | 0.00 |
| 69 | T | o-Xylene | 50.000 | 50.629 | -1.3 | 104 | 0.00 |
| 70 | T | Styrene | 50.000 | 52.086 | -4.2 | 105 | 0.00 |
| 71 | P | Bromoform | 50.000 | 50.740 | -1.5 | 103 | 0.00 |
| 72 | I | 1,4-Dichlorobenzene-d4 | 50.000 | 50.000 | 0.0 | 104 | 0.00 |
| 73 | T | Isopropylbenzene | 50.000 | 49.486 | 1.0 | 105 | 0.00 |
| 74 | T | N-amyl acetate | 50.000 | 50.590 | -1.2 | 105 | 0.00 |
| 75 | P | 1,1,2,2-Tetrachloroethane | 50.000 | 47.106 | 5.8 | 104 | 0.00 |
| 76 | T | 1,2,3-Trichloropropane | 50.000 | 48.233 | 3.5 | 106 | 0.00 |
| 77 | T | Bromobenzene | 50.000 | 48.205 | 3.6 | 106 | 0.00 |
| 78 | T | n-propylbenzene | 50.000 | 50.851 | -1.7 | 106 | 0.00 |
| 79 | T | 2-Chlorotoluene | 50.000 | 48.608 | 2.8 | 105 | 0.00 |
| 80 | T | 1,3,5-Trimethylbenzene | 50.000 | 50.214 | -0.4 | 106 | 0.00 |
| 81 | T | trans-1,4-Dichloro-2-butene | 50.000 | 47.543 | 4.9 | 104 | 0.00 |
| 82 | T | 4-Chlorotoluene | 50.000 | 48.600 | 2.8 | 106 | 0.00 |
| 83 | T | tert-Butylbenzene | 50.000 | 50.294 | -0.6 | 106 | 0.00 |
| 84 | T | 1,2,4-Trimethylbenzene | 50.000 | 49.794 | 0.4 | 106 | 0.00 |
| 85 | T | sec-Butylbenzene | 50.000 | 51.640 | -3.3 | 107 | 0.00 |
| 86 | T | p-Isopropyltoluene | 50.000 | 50.922 | -1.8 | 107 | 0.00 |
| 87 | T | 1,3-Dichlorobenzene | 50.000 | 49.452 | 1.1 | 107 | 0.00 |
| 88 | T | 1,4-Dichlorobenzene | 50.000 | 48.472 | 3.1 | 107 | 0.00 |
| 89 | T | n-Butylbenzene | 50.000 | 53.470 | -6.9 | 110 | 0.00 |
| 90 | T | Hexachloroethane | 50.000 | 49.829 | 0.3 | 106 | 0.00 |
| 91 | T | 1,2-Dichlorobenzene | 50.000 | 47.664 | 4.7 | 106 | 0.00 |
| 92 | T | 1,2-Dibromo-3-Chloropropane | 50.000 | 47.255 | 5.5 | 105 | 0.00 |
| 93 | T | 1,2,4-Trichlorobenzene | 50.000 | 50.844 | -1.7 | 111 | 0.00 |
| 94 | T | Hexachlorobutadiene | 50.000 | 51.780 | -3.6 | 113 | 0.00 |
| 95 | T | Naphthalene | 50.000 | 50.644 | -1.3 | 106 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033280.D
Acq On : 07 Dec 2022 12:51
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
ICVVX120722

Quant Time: Dec 08 01:41:57 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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) |
|---|---|---|---|---|---|---|
| 96 T | 1,2,3-Trichlorobenzene | 50.000 | 50.061 | -0.1 | 108 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

## VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: JACO05

Lab Code: CHEM Case No.: N6070 SAS No.: N6070 SDG No.: N6070

Instrument ID: MSVOA_X Calibration Date/Time: 12/15/2022 10:10

Lab File ID: VX033430.D Init. Calib. Date(s): 12/07/2022 12/07/2022

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:46 11:42

GC Column: DB-624UI ID: 0.18 (mm)

| COMPOUND | RRF | RRF050 | MIN RRF | %D | MAX%D |
|---|---|---|---|---|---|
| Vinyl Chloride | 0.461 | 0.393 | | -14.75 | 20 |
| 1,1-Dichloroethene | 0.453 | 0.431 | | -4.86 | 20 |
| 1,1-Dichloroethane | 0.911 | 0.850 | 0.1 | -6.7 | 20 |
| cis-1,2-Dichloroethene | 0.593 | 0.583 | | -1.69 | 20 |
| 1,1,1-Trichloroethane | 0.870 | 0.894 | | 2.76 | 20 |
| Benzene | 1.278 | 1.292 | | 1.1 | 20 |
| 1,2-Dichloroethane | 0.508 | 0.505 | | -0.59 | 20 |
| Trichloroethene | 0.352 | 0.369 | | 4.83 | 20 |
| 1,1,2-Trichloroethane | 0.347 | 0.365 | | 5.19 | 20 |
| Tetrachloroethene | 0.342 | 0.348 | | 1.75 | 20 |
| 1,2-Dichloroethane-d4 | 0.321 | 0.273 | | -14.95 | 20 |
| Dibromofluoromethane | 0.225 | 0.208 | | -7.56 | 20 |
| Toluene-d8 | 0.470 | 0.455 | | -3.19 | 20 |
| 4-Bromofluorobenzene | 0.360 | 0.370 | | 2.78 | 20 |

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 139266 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.757 | 114 | 214327 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 205390 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 103647 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.958 | 65 | 38081 | 42.623 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 85.240% | | | |
| 35) Dibromofluoromethane | 5.379 | 113 | 44592 | 46.257 | ug/l | -0.01 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 92.520% | | | |
| 50) Toluene-d8 | 8.647 | 98 | 97560 | 48.378 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 96.760% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 79249 | 51.395 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 102.800% | | | |
| Target Compounds | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 47530 | 48.857 | ug/l | 95 |
| 3) Chloromethane | 1.294 | 50 | 47138 | 41.907 | ug/l | 100 |
| 4) Vinyl Chloride | 1.374 | 62 | 54704 | 42.593 | ug/l | 99 |
| 5) Bromomethane | 1.618 | 94 | 35871 | 38.059 | ug/l | 97 |
| 6) Chloroethane | 1.691 | 64 | 44508 | 45.688 | ug/l | 99 |
| 7) Trichlorofluoromethane | 1.892 | 101 | 84304 | 34.963 | ug/l | 99 |
| 8) Diethyl Ether | 2.130 | 74 | 29931 | 34.367 | ug/l | 93 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 66428 | 51.935 | ug/l | 99 |
| 10) Methyl Iodide | 2.453 | 142 | 67859 | 48.441 | ug/l | 100 |
| 11) Tert butyl alcohol | 2.995 | 59 | 54282m | 198.723 | ug/l | |
| 12) 1,1-Dichloroethene | 2.325 | 96 | 59977 | 47.504 | ug/l | 94 |
| 13) Acrolein | 2.239 | 56 | 44660 | 150.751 | ug/l | 99 |
| 14) Allyl chloride | 2.666 | 41 | 92103 | 45.680 | ug/l | 97 |
| 15) Acrylonitrile | 3.062 | 53 | 147306 | 217.703 | ug/l | 99 |
| 16) Acetone | 2.386 | 43 | 174360 | 263.734 | ug/l | 99 |
| 17) Carbon Disulfide | 2.514 | 76 | 141648 | 43.713 | ug/l | 99 |
| 18) Methyl Acetate | 2.703 | 43 | 86757 | 45.331 | ug/l | 97 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 210433 | 48.117 | ug/l | 99 |
| 20) Methylene Chloride | 2.788 | 84 | 65148 | 44.186 | ug/l | 92 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 66164 | 47.906 | ug/l | 99 |
| 22) Diisopropyl ether | 3.751 | 45 | 211702 | 49.007 | ug/l # | 81 |
| 23) Vinyl Acetate | 3.721 | 43 | 796105 | 237.436 | ug/l | 97 |
| 24) 1,1-Dichloroethane | 3.605 | 63 | 118365 | 46.634 | ug/l | 99 |
| 25) 2-Butanone | 4.556 | 43 | 223330 | 235.335 | ug/l | 97 |
| 26) 2,2-Dichloropropane | 4.477 | 77 | 97132 | 52.038 | ug/l | 99 |
| 27) cis-1,2-Dichloroethene | 4.483 | 96 | 81133 | 49.154 | ug/l | 96 |
| 28) Bromochloromethane | 4.891 | 49 | 51029 | 48.028 | ug/l | 93 |
| 29) Tetrahydrofuran | 5.001 | 42 | 132245 | 215.085 | ug/l | 96 |
| 30) Chloroform | 5.086 | 83 | 138266 | 49.069 | ug/l | 100 |
| 31) Cyclohexane | 5.471 | 56 | 104151 | 49.051 | ug/l | 92 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 124544 | 51.371 | ug/l | 98 |
| 36) 1,1-Dichloropropene | 5.690 | 75 | 96432 | 51.308 | ug/l | 98 |
| 37) Ethyl Acetate | 4.708 | 43 | 81185 | 45.696 | ug/l | 99 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 109727 | 52.107 | ug/l | 99 |
| 39) Methylcyclohexane | 7.379 | 83 | 115689 | 54.993 | ug/l | 97 |
| 40) Benzene | 6.037 | 78 | 276871 | 50.524 | ug/l | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.916 | 41 | 46339 | 47.333 | ug/l | | 98 |
| 42) 1,2-Dichloroethane | 6.080 | 62 | 108334 | 49.784 | ug/l | | 98 |
| 43) Isopropyl Acetate | 6.336 | 43 | 136769 | 47.844 | ug/l | | 97 |
| 44) Trichloroethene | 7.123 | 130 | 79155 | 52.390 | ug/l | | 96 |
| 45) 1,2-Dichloropropane | 7.427 | 63 | 70651 | 50.412 | ug/l | | 99 |
| 46) Dibromomethane | 7.580 | 93 | 53766 | 50.361 | ug/l | | 99 |
| 47) Bromodichloromethane | 7.818 | 83 | 108950 | 52.352 | ug/l | | 100 |
| 48) Methyl methacrylate | 7.690 | 41 | 70703 | 47.923 | ug/l | | 93 |
| 49) 1,4-Dioxane | 7.696 | 88 | 29747 | 884.207 | ug/l | | 98 |
| 51) 4-Methyl-2-Pentanone | 8.568 | 43 | 445493 | 246.435 | ug/l | | 96 |
| 52) Toluene | 8.720 | 92 | 194022 | 54.761 | ug/l | | 99 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 109761 | 49.141 | ug/l | | 99 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 117676 | 53.138 | ug/l | | 90 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 78302 | 52.574 | ug/l | | 98 |
| 56) Ethyl methacrylate | 9.116 | 69 | 112579 | 53.687 | ug/l | # | 90 |
| 57) 1,3-Dichloropropane | 9.305 | 76 | 126034 | 52.677 | ug/l | | 100 |
| 58) 2-Chloroethyl Vinyl ether | 8.238 | 63 | 229186 | 238.862 | ug/l | | 98 |
| 59) 2-Hexanone | 9.427 | 43 | 340694 | 255.739 | ug/l | | 95 |
| 60) Dibromochloromethane | 9.519 | 129 | 90138 | 54.930 | ug/l | | 100 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 84315 | 53.222 | ug/l | | 100 |
| 64) Tetrachloroethene | 9.275 | 164 | 71561 | 50.953 | ug/l | | 98 |
| 65) Chlorobenzene | 10.079 | 112 | 214048 | 51.464 | ug/l | | 99 |
| 66) 1,1,1,2-Tetrachloroethane | 10.159 | 131 | 80870 | 51.451 | ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 381798 | 52.692 | ug/l | | 97 |
| 68) m/p-Xylenes | 10.299 | 106 | 304061 | 107.856 | ug/l | | 97 |
| 69) o-Xylene | 10.640 | 106 | 146323 | 52.510 | ug/l | | 97 |
| 70) Styrene | 10.652 | 104 | 244830 | 53.646 | ug/l | | 98 |
| 71) Bromoform | 10.799 | 173 | 63916 | 51.374 | ug/l | # | 99 |
| 73) Isopropylbenzene | 10.963 | 105 | 390064 | 51.922 | ug/l | | 99 |
| 74) N-amyl acetate | 10.841 | 43 | 125085 | 48.802 | ug/l | | 96 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 113177 | 47.488 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 102065m | 48.402 | ug/l | | |
| 77) Bromobenzene | 11.195 | 156 | 96292 | 50.759 | ug/l | | 97 |
| 78) n-propylbenzene | 11.305 | 91 | 447548 | 53.354 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 265311 | 51.178 | ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 328826 | 52.584 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 32326 | 47.686 | ug/l | | 94 |
| 82) 4-Chlorotoluene | 11.451 | 91 | 307861 | 51.072 | ug/l | | 98 |
| 83) tert-Butylbenzene | 11.713 | 119 | 325763 | 52.240 | ug/l | | 99 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 326303 | 52.274 | ug/l | | 100 |
| 85) sec-Butylbenzene | 11.890 | 105 | 400794 | 55.088 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.006 | 119 | 340165 | 54.230 | ug/l | | 98 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 177873 | 51.761 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 178208 | 50.770 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.329 | 91 | 287863 | 56.031 | ug/l | | 99 |
| 90) Hexachloroethane | 12.536 | 117 | 54653 | 51.259 | ug/l | | 96 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 170984 | 49.768 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 22473 | 43.655 | ug/l | | 91 |
| 93) 1,2,4-Trichlorobenzene | 13.585 | 180 | 109066 | 52.564 | ug/l | | 99 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 46128 | 55.517 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 347251 | 50.172 | ug/l | | 99 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 106772 | 50.808 | ug/l | | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

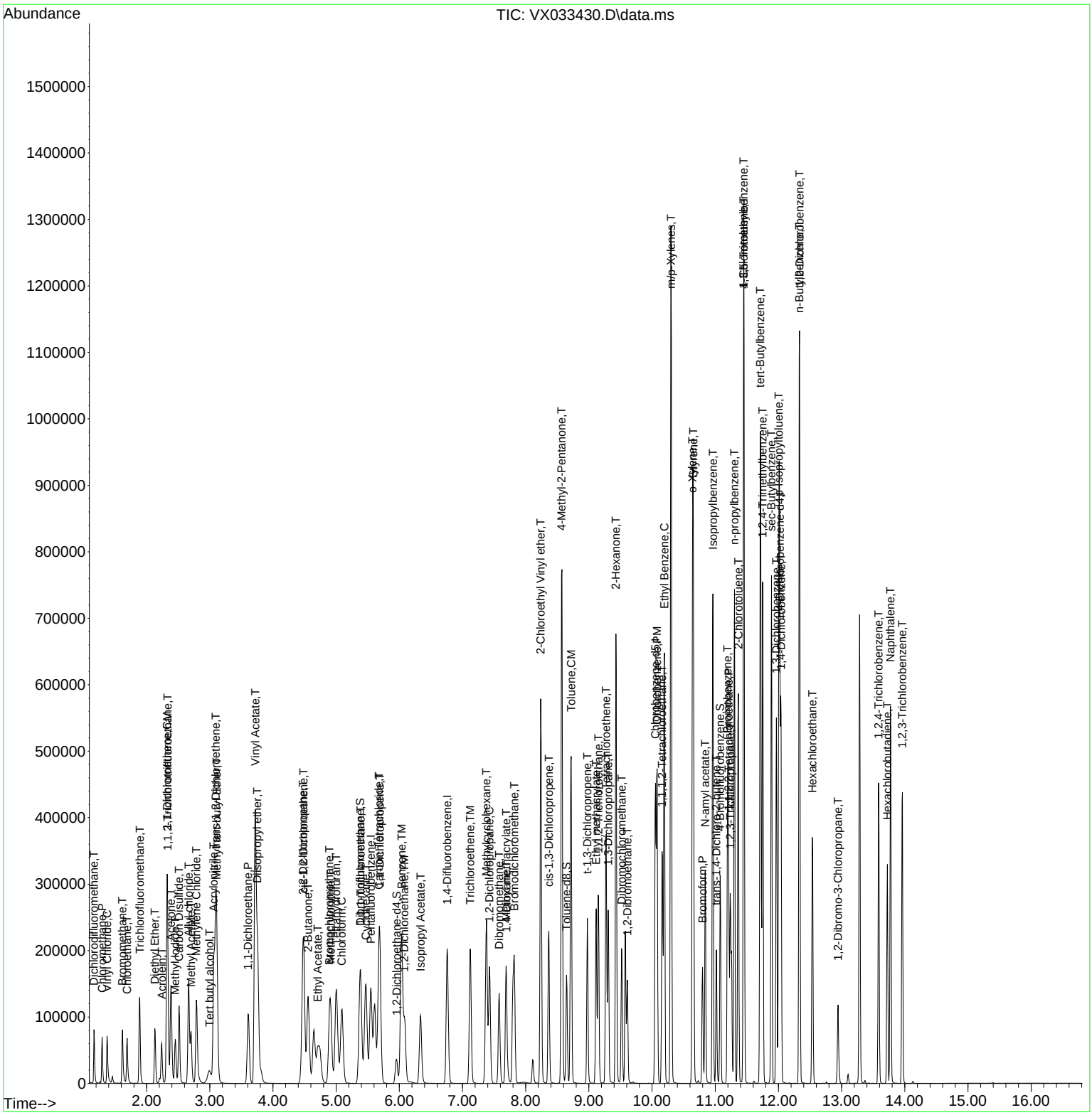
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

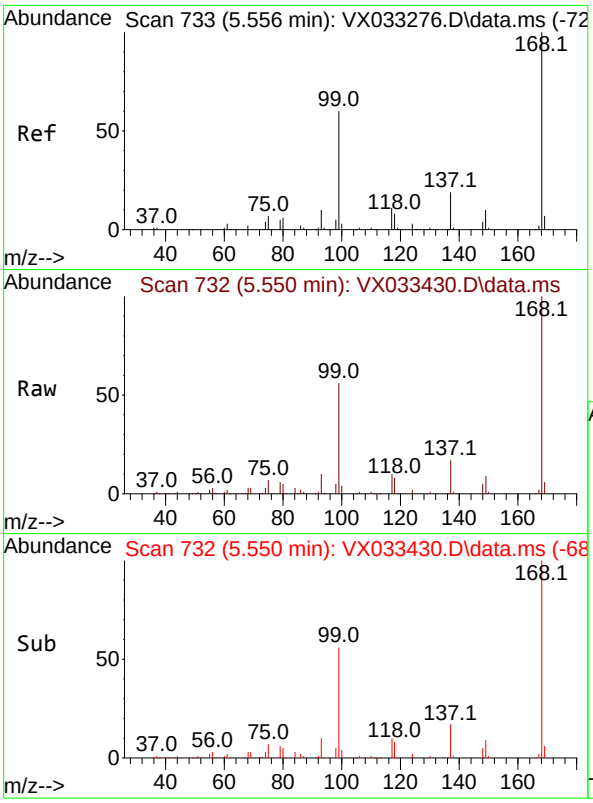
Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

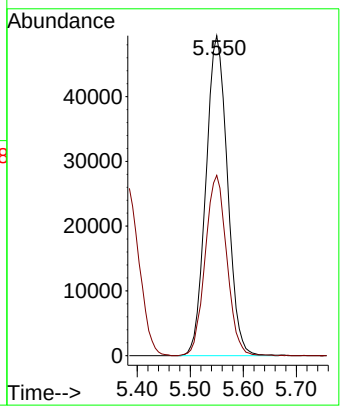





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:168 Resp: 13926

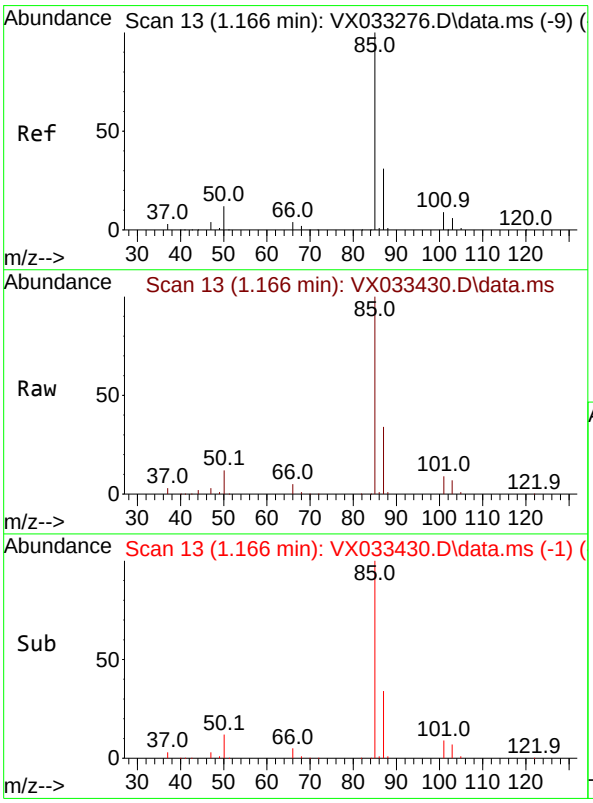
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 56.4 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

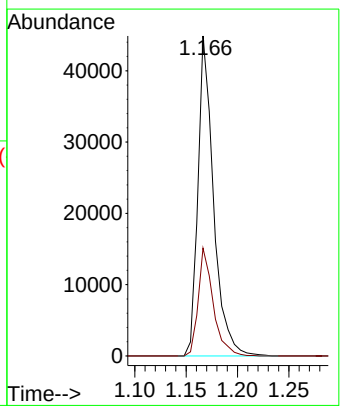
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

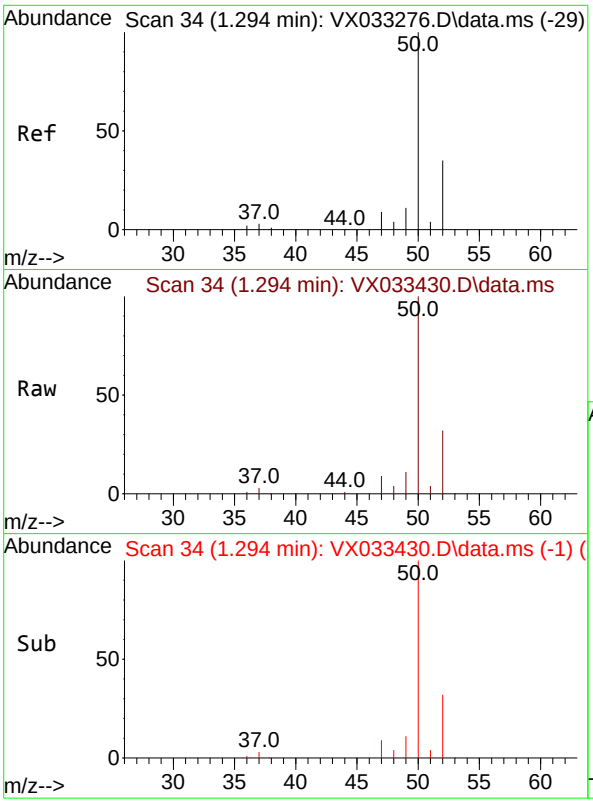



#2
Dichlorodifluoromethane
Concen: 48.857 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 85 Resp: 47530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.7 | 15.6 | 46.7 |

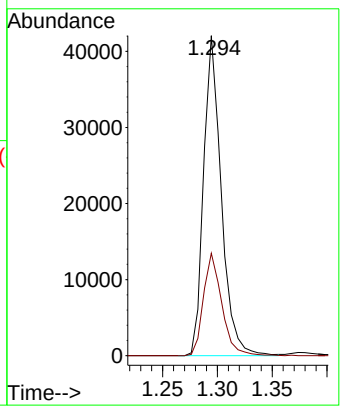





#3
Chloromethane
Concen: 41.907 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 50 Resp: 4713

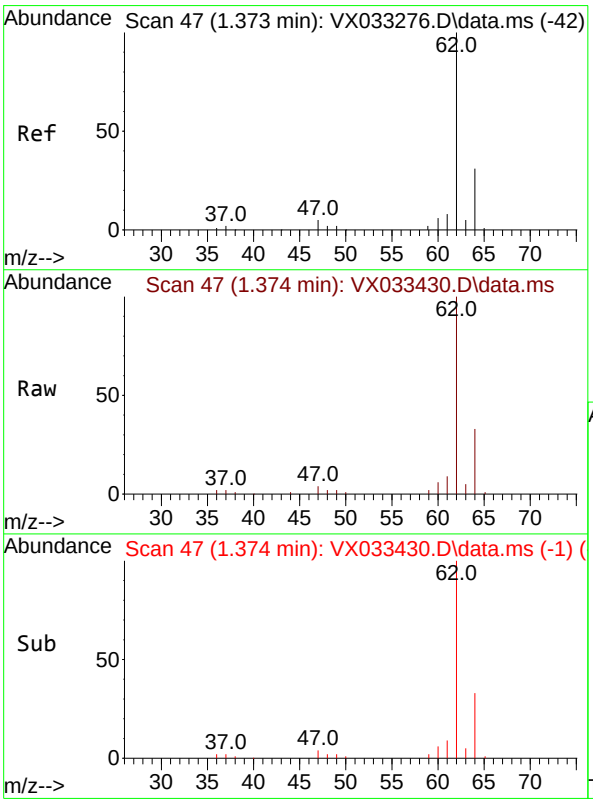
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.0 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

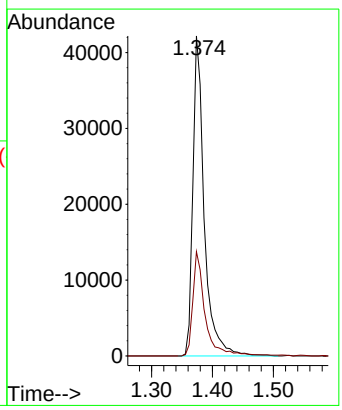
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

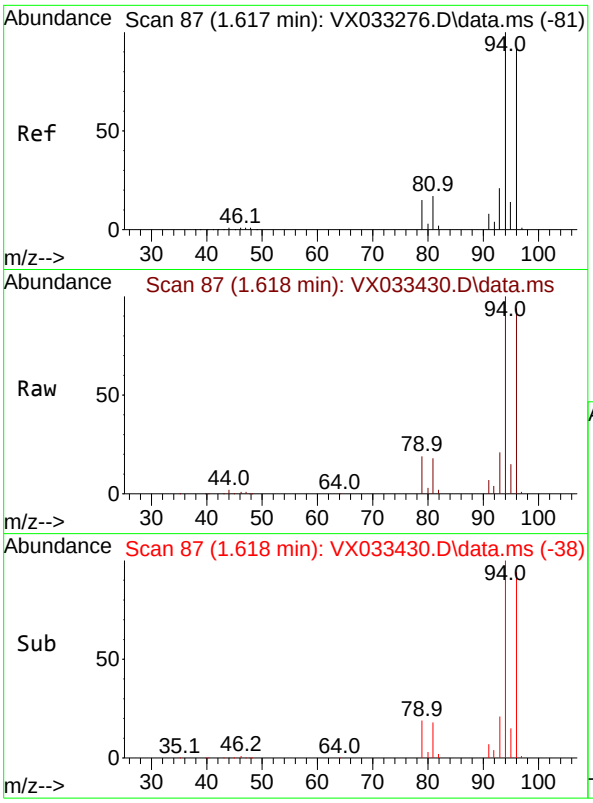



#4
Vinyl Chloride
Concen: 42.593 ug/l
RT: 1.374 min Scan# 47
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 62 Resp: 54704

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 32.6 | 25.8 | 38.6 |

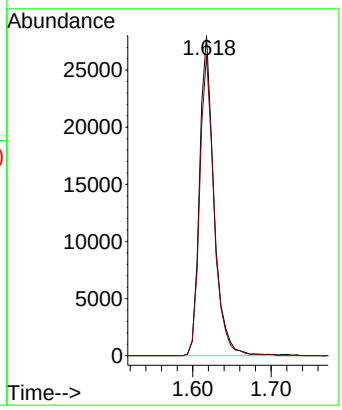





#5
Bromomethane
Concen: 38.059 ug/l
RT: 1.618 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 94 Resp: 3587

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 93.8 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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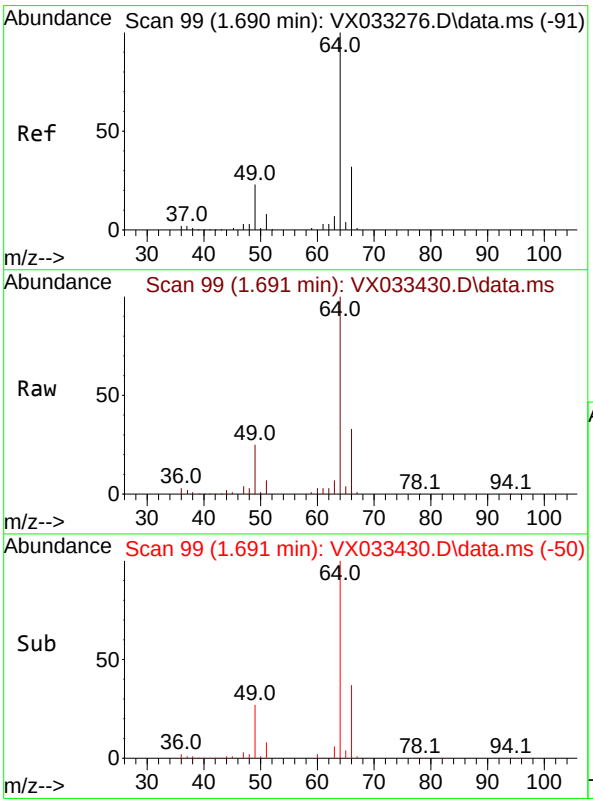
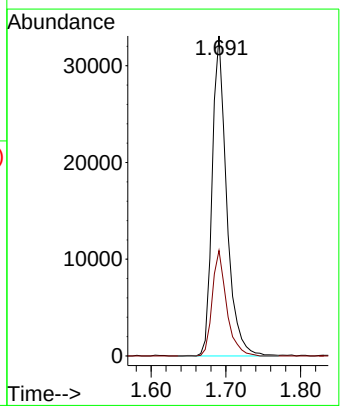
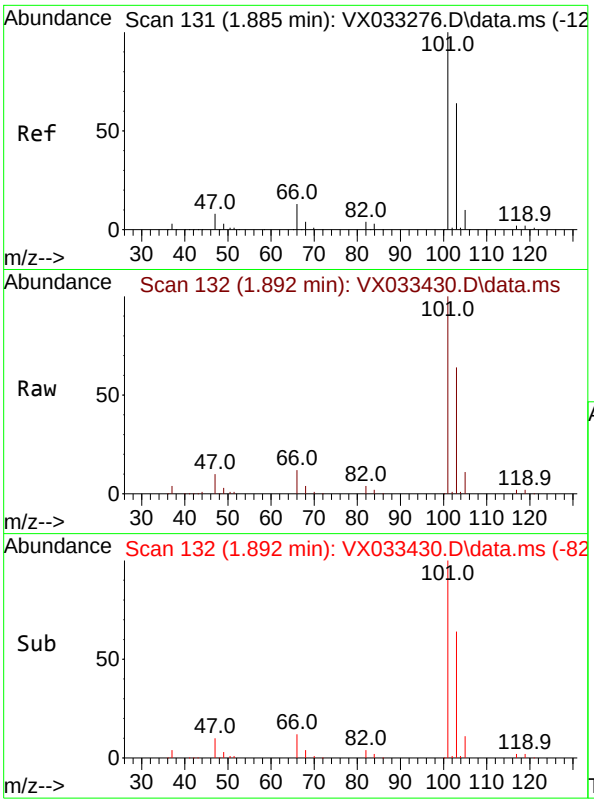



#6
Chloroethane
Concen: 45.688 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 64 Resp: 44508

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 33.0 | 26.0 | 39.0 |

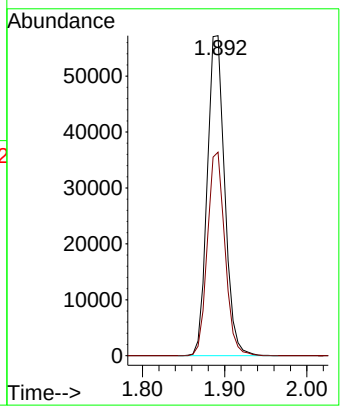





#7
Trichlorofluoromethane
Concen: 34.963 ug/l
RT: 1.892 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:101 Resp: 8430

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 63.6 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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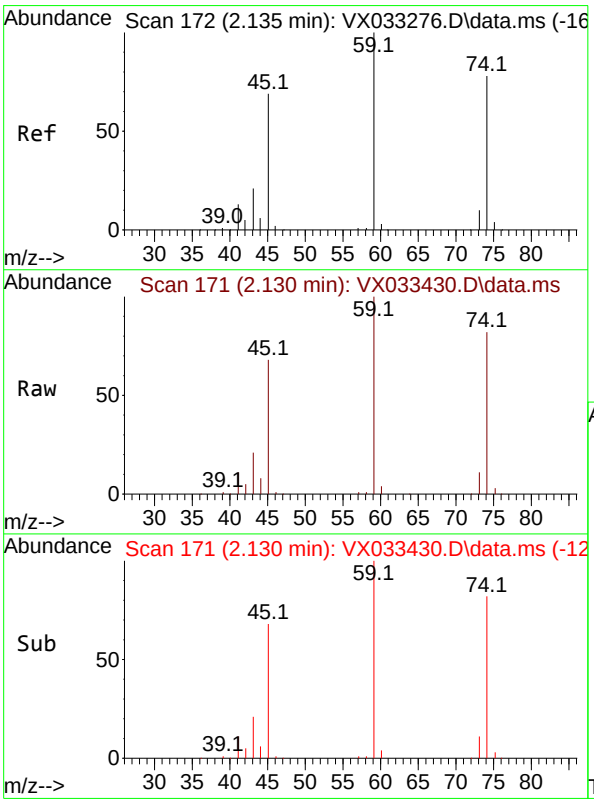
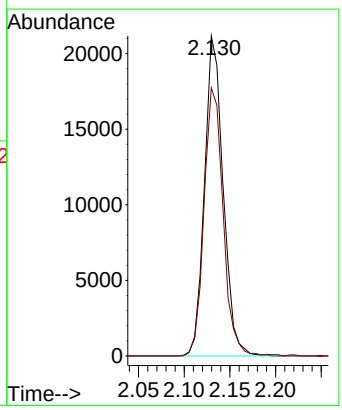
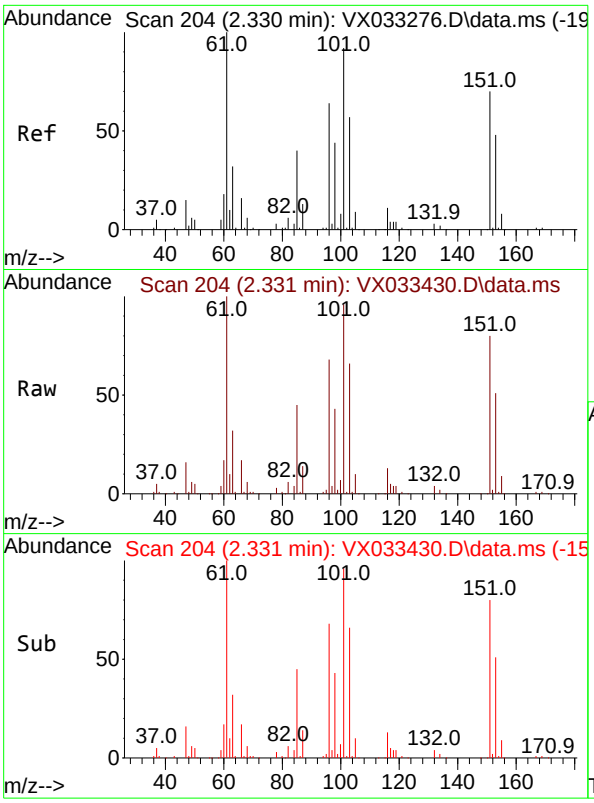



#8
Diethyl Ether
Concen: 34.367 ug/l
RT: 2.130 min Scan# 171
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 74 Resp: 29931

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 86.0 | 46.6 | 139.7 |






#9
1,1,2-Trichlorotrifluoroethane
Concen: 51.935 ug/l
RT: 2.331 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:101 Resp: 6642

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.3 | 37.0 | 55.4 |
| 151 | 80.5 | 64.4 | 96.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

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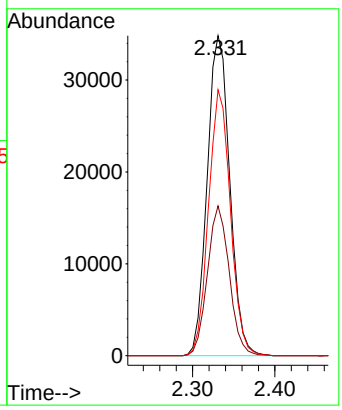
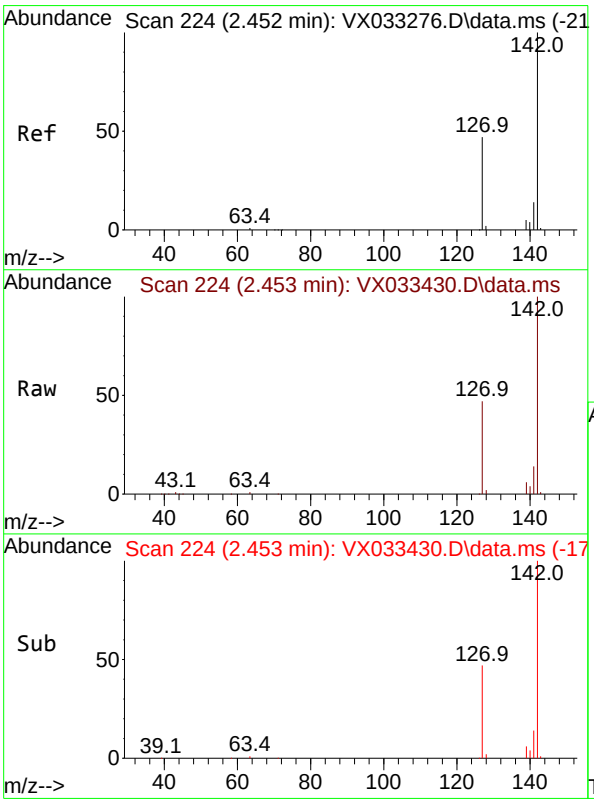
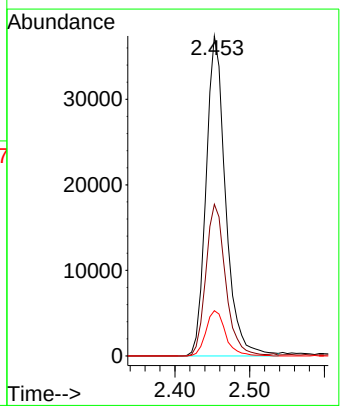


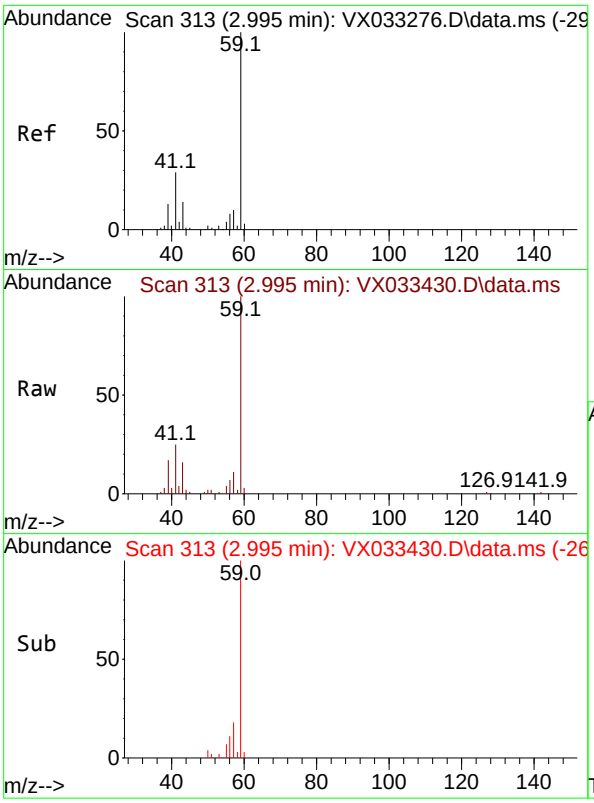




#10
Methyl Iodide
Concen: 48.441 ug/l
RT: 2.453 min Scan# 224
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:142 Resp: 67859

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.8 | 38.6 | 57.8 |
| 141 | 14.3 | 11.4 | 17.2 |






#11
Tert butyl alcohol
Concen: 198.723 ug/l m
RT: 2.995 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 59 Resp: 5428

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 7.8 | 8.2 | 12.4 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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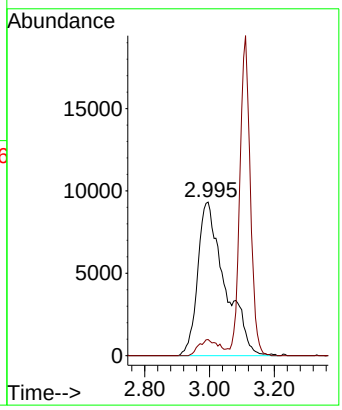
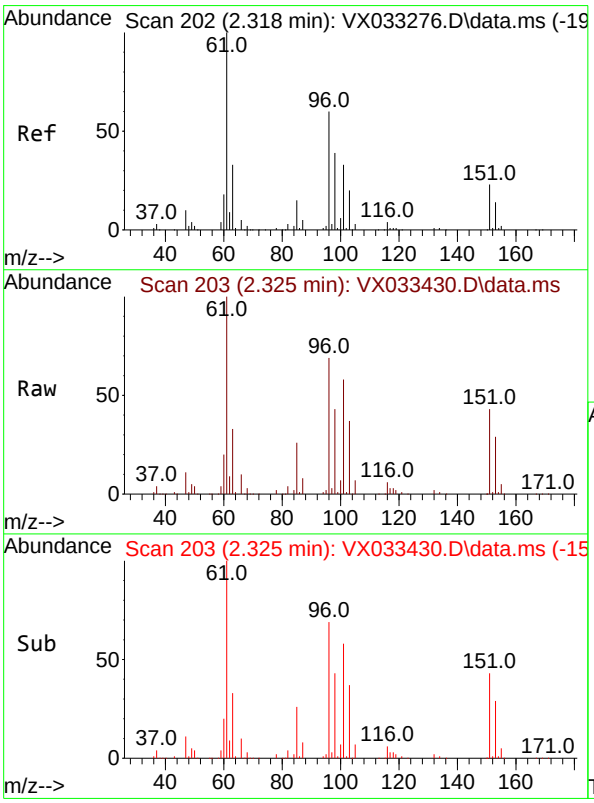
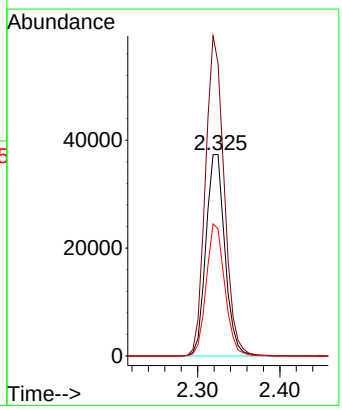


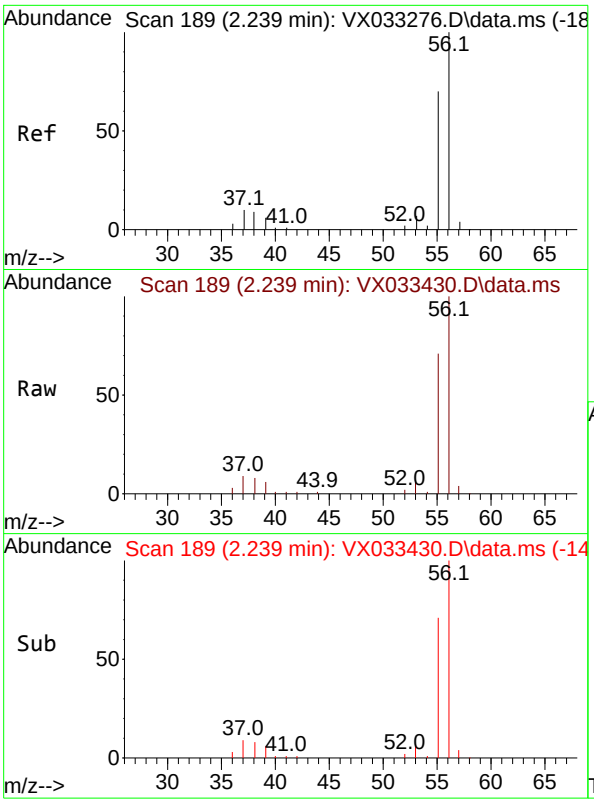




#12
1,1-Dichloroethene
Concen: 47.504 ug/l
RT: 2.325 min Scan# 203
Delta R.T. 0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 96 Resp: 59977

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 145.4 | 125.1 | 187.7 |
| 98 | 63.0 | 50.6 | 76.0 |

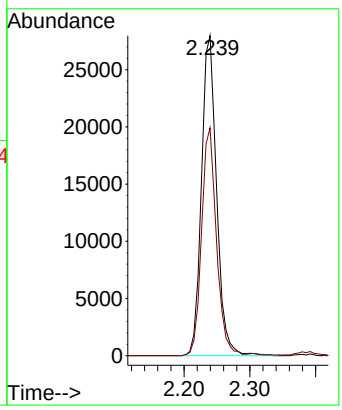





#13
Acrolein
Concen: 150.751 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 56 Resp: 4466

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.1 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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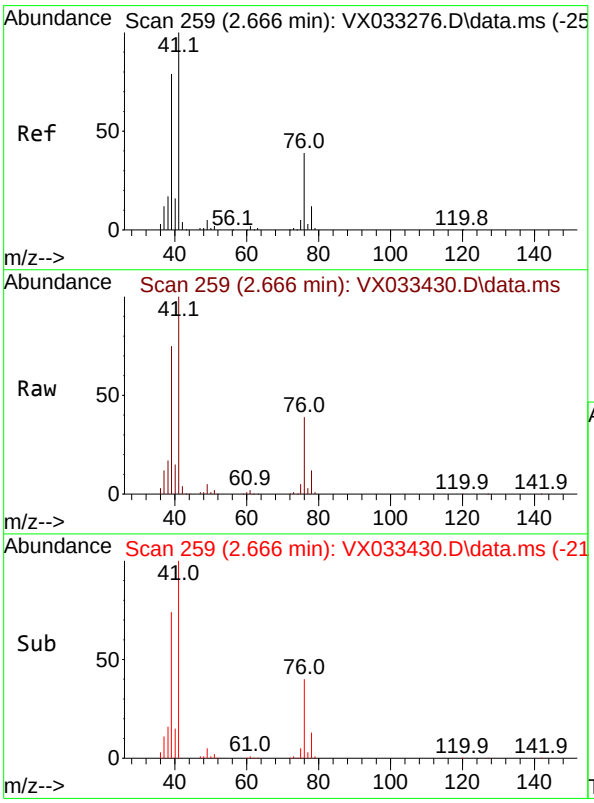
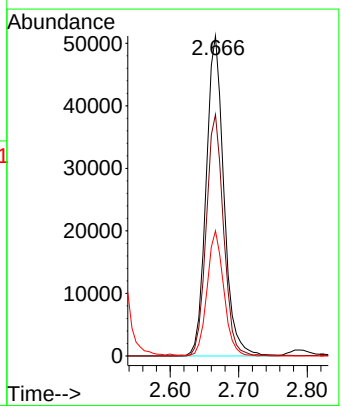
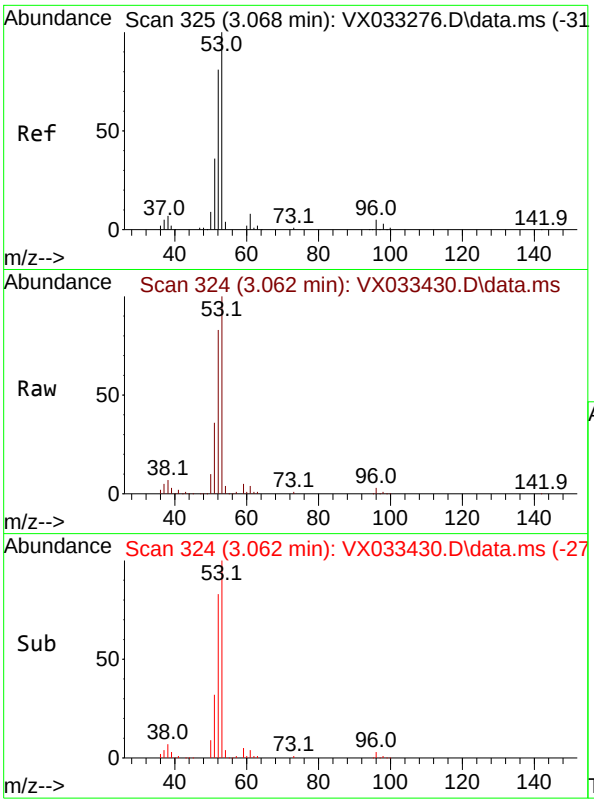



#14
Allyl chloride
Concen: 45.680 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 41 Resp: 92103

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 73.4 | 61.4 | 92.2 |
| 76 | 36.9 | 29.2 | 43.8 |

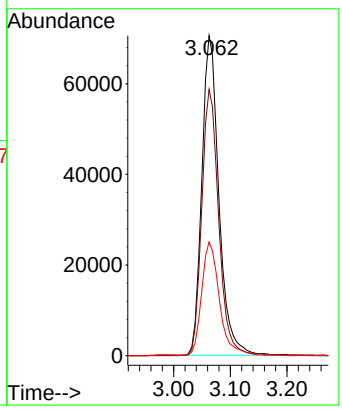





#15
Acrylonitrile
Concen: 217.703 ug/l
RT: 3.062 min Scan# 3
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 53 Resp: 14730

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 83.3 | 67.4 | 101.0 |
| 51 | 37.4 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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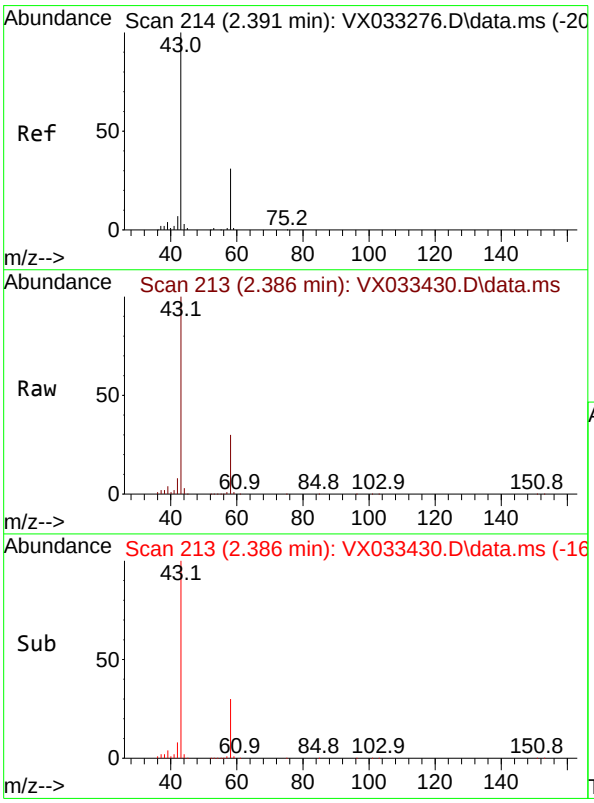
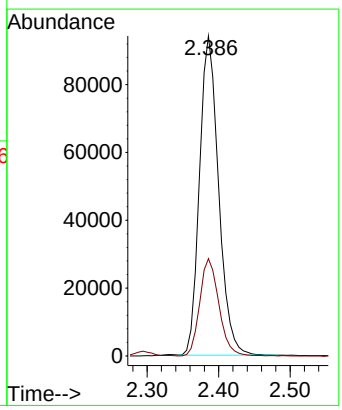
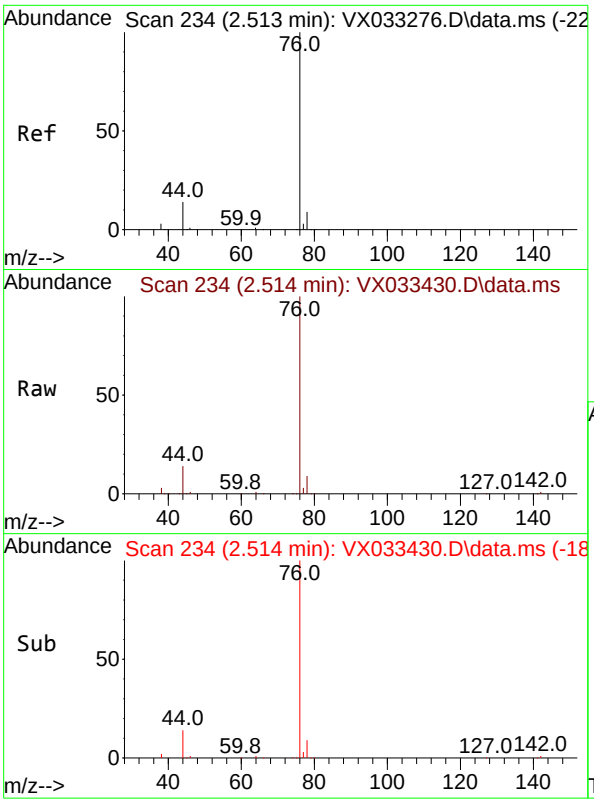



#16
Acetone
Concen: 263.734 ug/l
RT: 2.386 min Scan# 213
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 174360

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.5 | 23.8 | 35.8 |

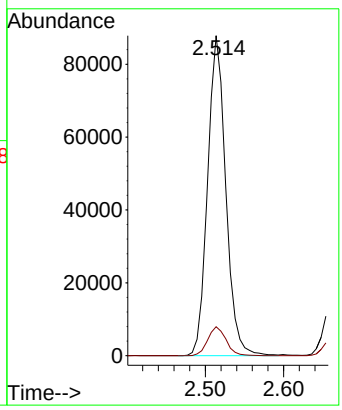





#17
Carbon Disulfide
Concen: 43.713 ug/l
RT: 2.514 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 76 Resp: 14164

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.1 | 7.5 | 11.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

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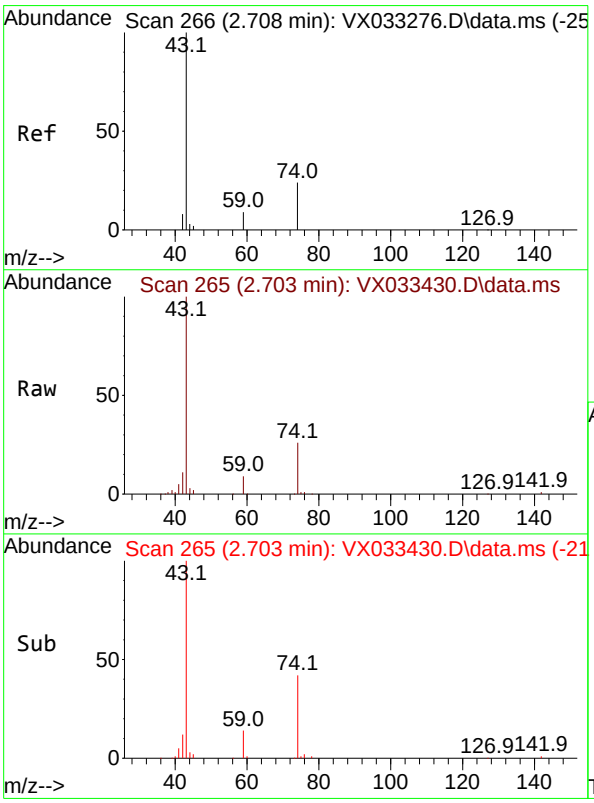
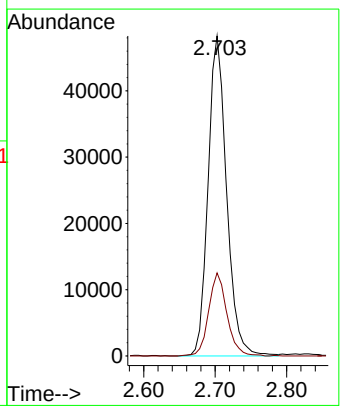
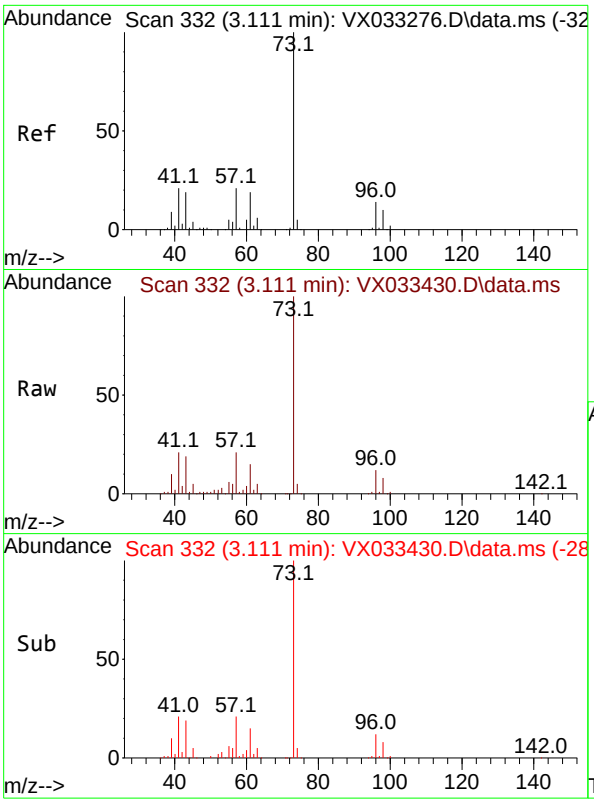



#18
Methyl Acetate
Concen: 45.331 ug/l
RT: 2.703 min Scan# 265
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 86757

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.6 | 19.4 | 29.0 |

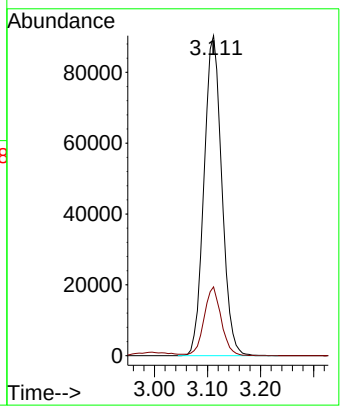





#19
Methyl tert-butyl Ether
Concen: 48.117 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 73 Resp: 21043

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 21.5 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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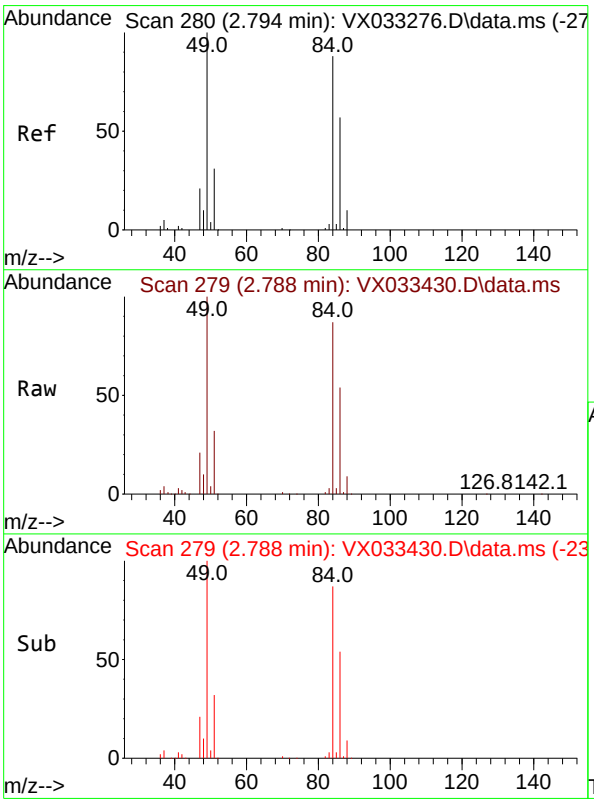
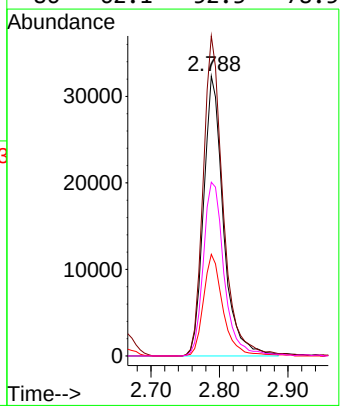
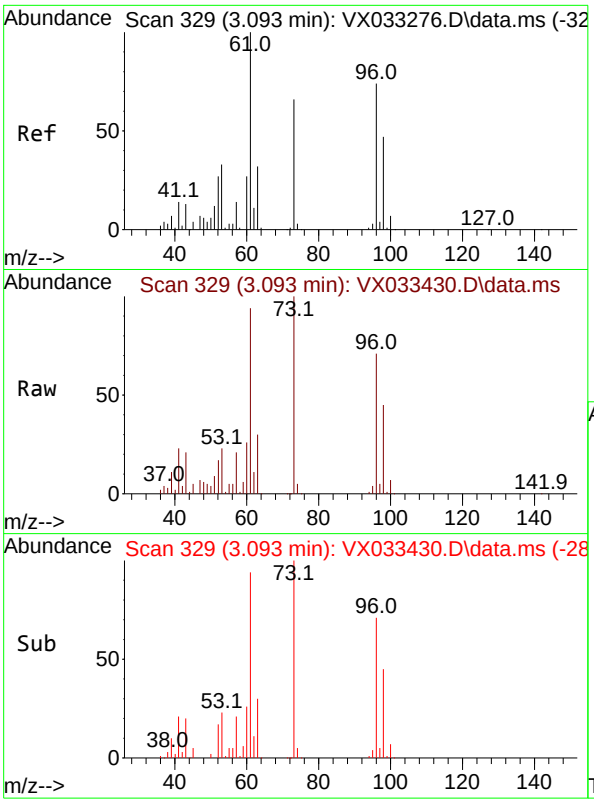



#20
Methylene Chloride
Concen: 44.186 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 84 Resp: 65148

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 114.4 | 101.0 | 151.6 |
| 51 | 36.3 | 31.1 | 46.7 |
| 86 | 62.1 | 52.3 | 78.5 |

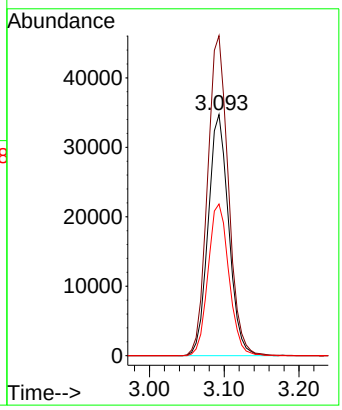





#21
trans-1,2-Dichloroethene
Concen: 47.906 ug/l
RT: 3.093 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 96 Resp: 6616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 132.7 | 106.6 | 160.0 |
| 98 | 62.9 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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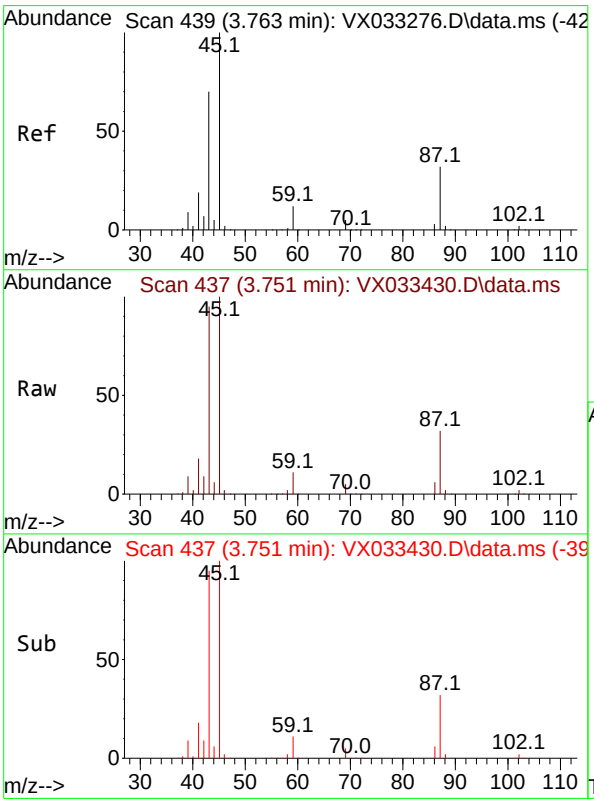
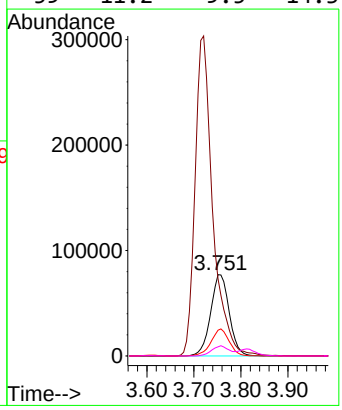
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

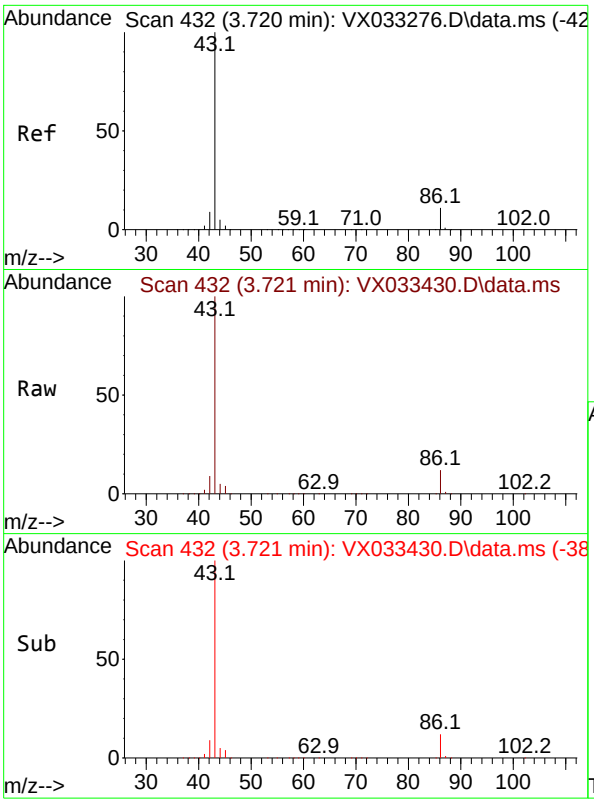



#22
Diisopropyl ether
Concen: 49.007 ug/l
RT: 3.751 min Scan# 437
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 45 Resp: 211702

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 94.6 | 56.4 | 84.6# |
| 87 | 31.8 | 24.4 | 36.6 |
| 59 | 11.2 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 237.436 ug/l
RT: 3.721 min Scan# 4
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 79610

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.7 | 8.6 | 12.8 |

**Instrument :**
MSVOA_X
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VSTDCCC050

**Manual Integrations**
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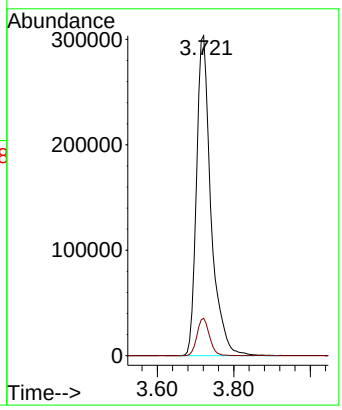
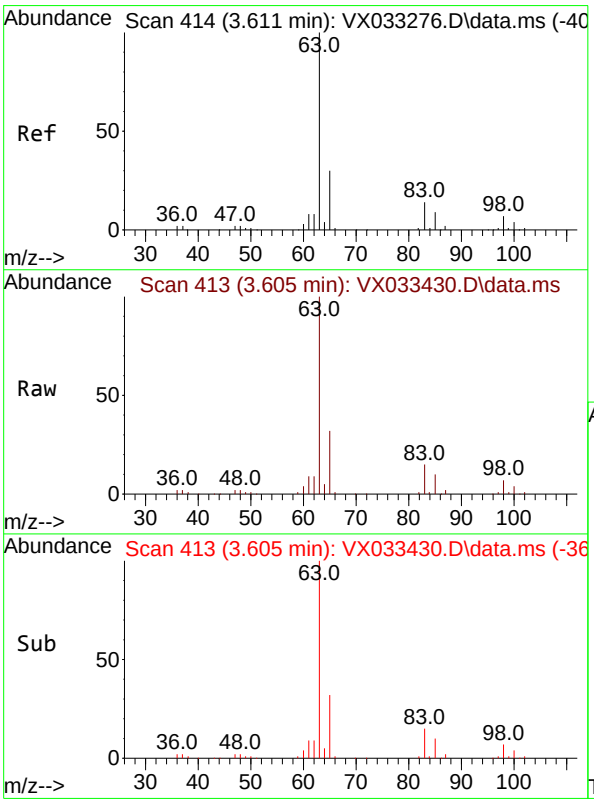
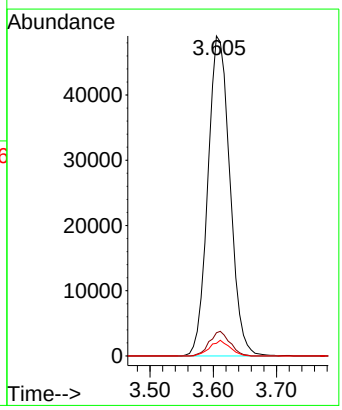


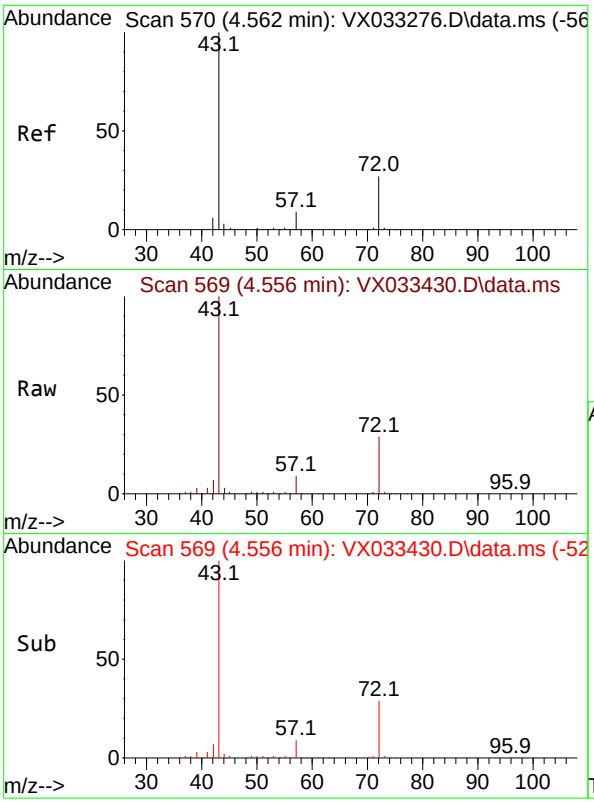




#24
1,1-Dichloroethane
Concen: 46.634 ug/l
RT: 3.605 min Scan# 413
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 63 Resp: 118365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 7.3 | 3.5 | 10.4 |
| 100 | 4.0 | 2.3 | 6.8 |






#25
2-Butanone
Concen: 235.335 ug/l
RT: 4.556 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 22333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 29.2 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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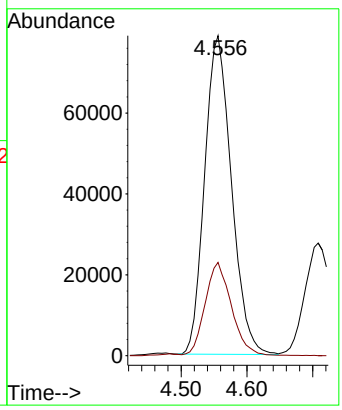
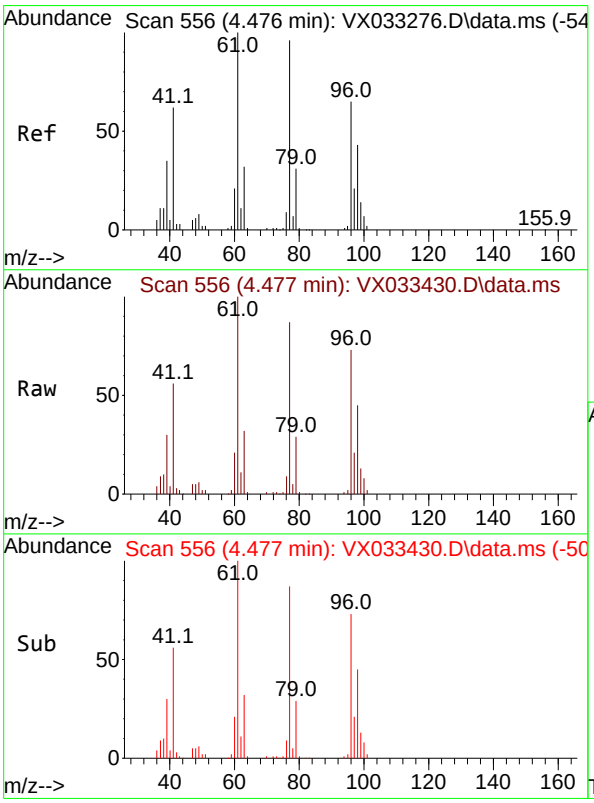
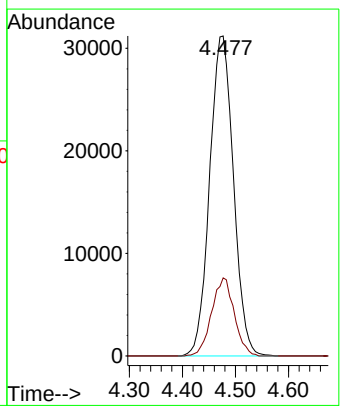


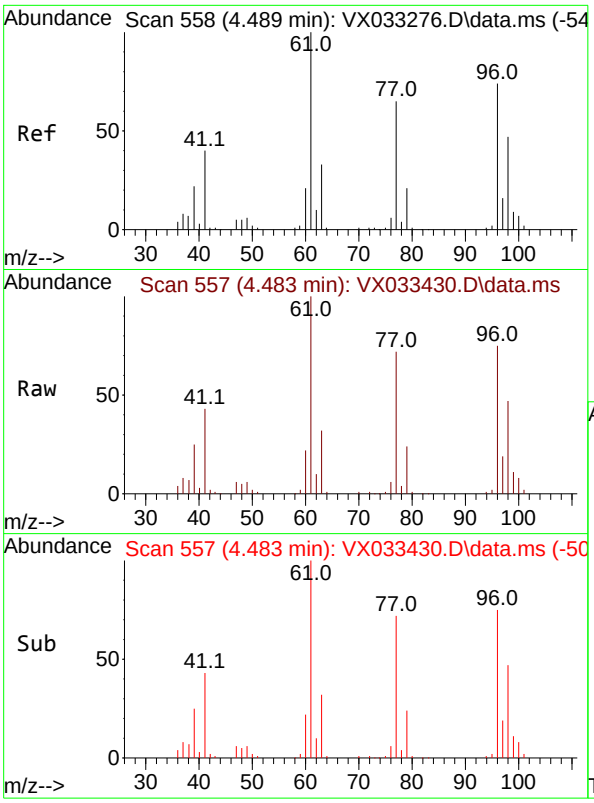




#26
2,2-Dichloropropane
Concen: 52.038 ug/l
RT: 4.477 min Scan# 556
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 77 Resp: 97132

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 23.2 | 11.4 | 34.1 |

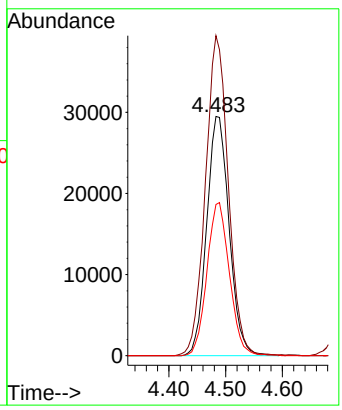





#27
cis-1,2-Dichloroethene
Concen: 49.154 ug/l
RT: 4.483 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 96 Resp: 8113

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 136.4 | 0.0 | 286.0 |
| 98 | 64.1 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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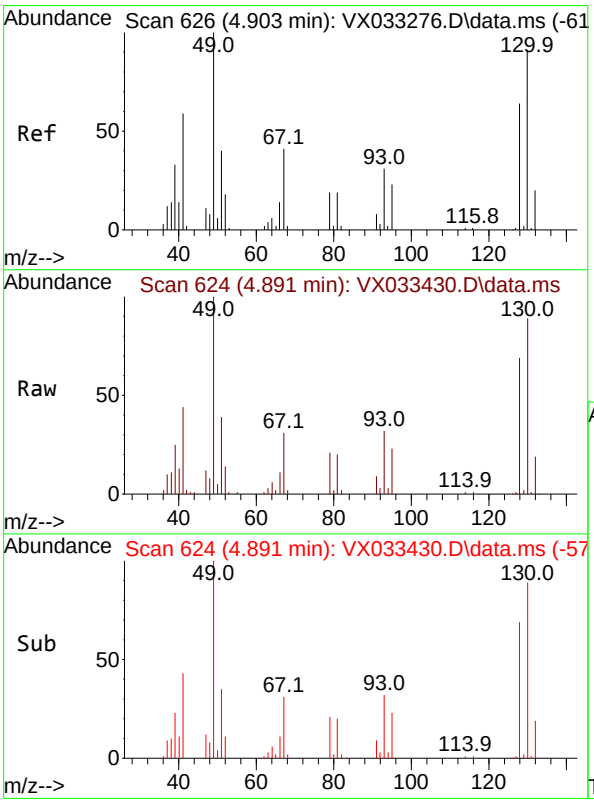
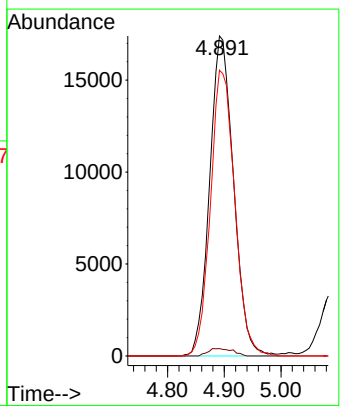
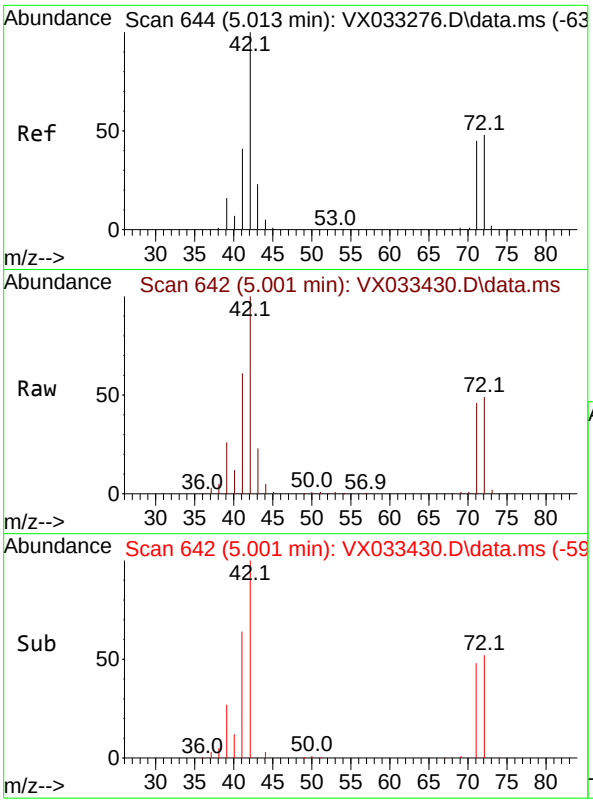



#28
Bromochloromethane
Concen: 48.028 ug/l
RT: 4.891 min Scan# 624
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 49 Resp: 51029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.4 | 0.0 | 3.8 |
| 130 | 90.5 | 67.5 | 101.3 |

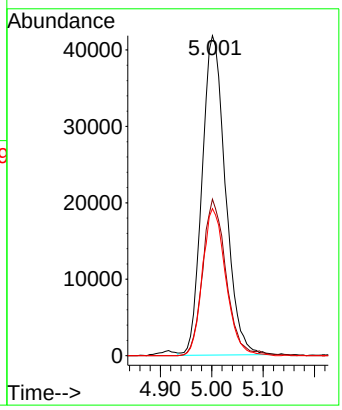





#29
Tetrahydrofuran
Concen: 215.085 ug/l
RT: 5.001 min Scan# 64
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 42 Resp: 13224

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 49.2 | 37.6 | 56.4 |
| 71 | 46.0 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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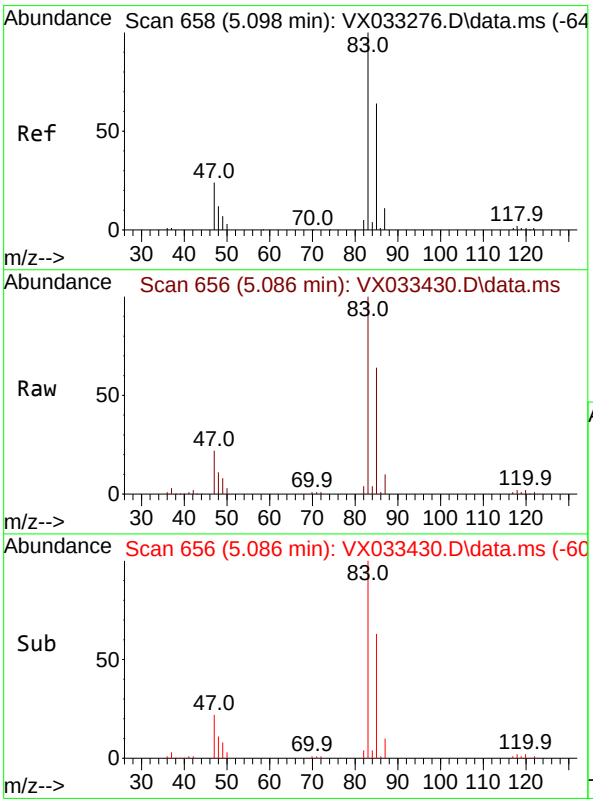
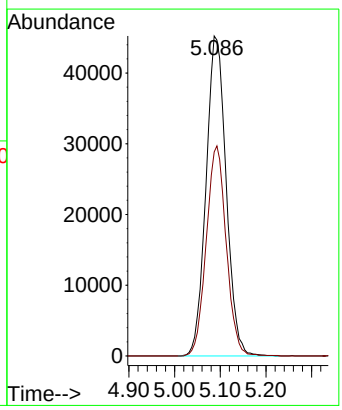
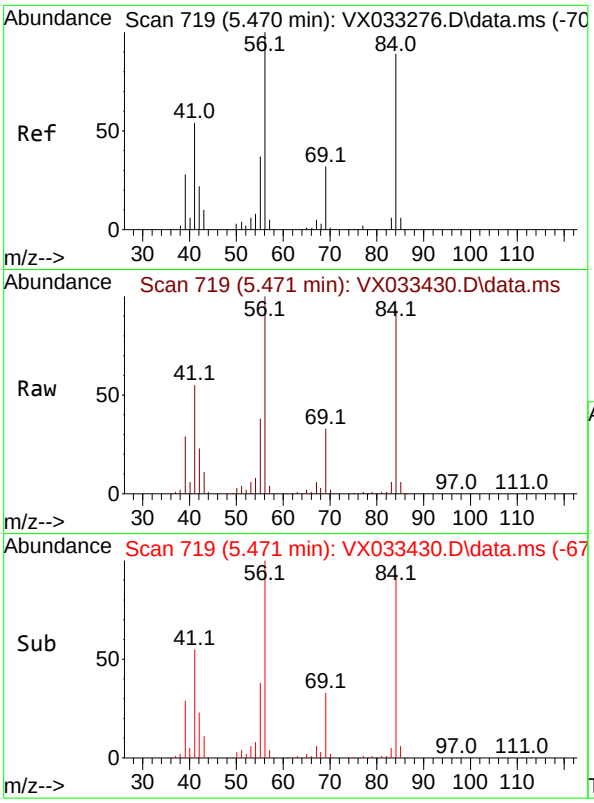



#30
Chloroform
Concen: 49.069 ug/l
RT: 5.086 min Scan# 656
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 83 Resp: 138266

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.7 | 51.1 | 76.7 |

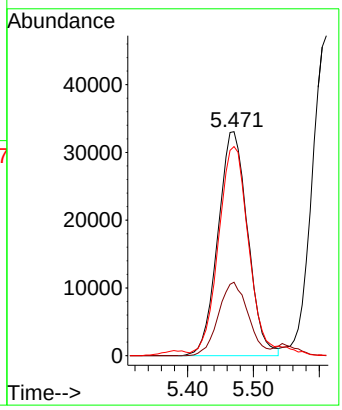





#31
Cyclohexane
Concen: 49.051 ug/l
RT: 5.471 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 56 Resp: 10415

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 32.8 | 24.1 | 36.1 |
| 84 | 91.3 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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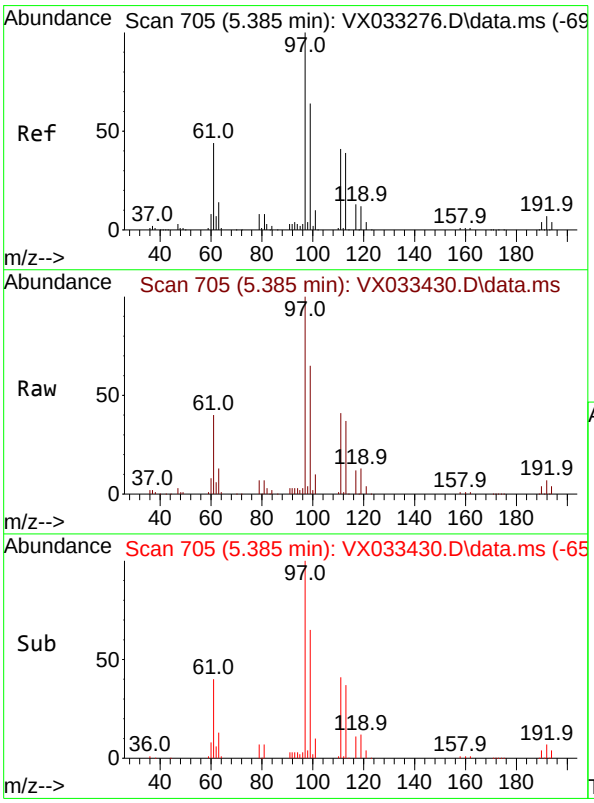
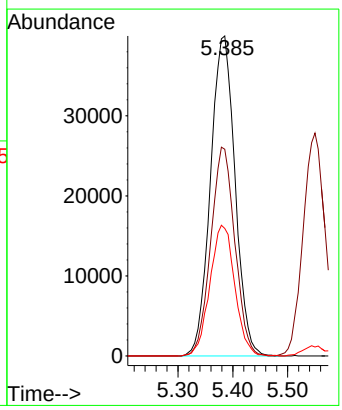
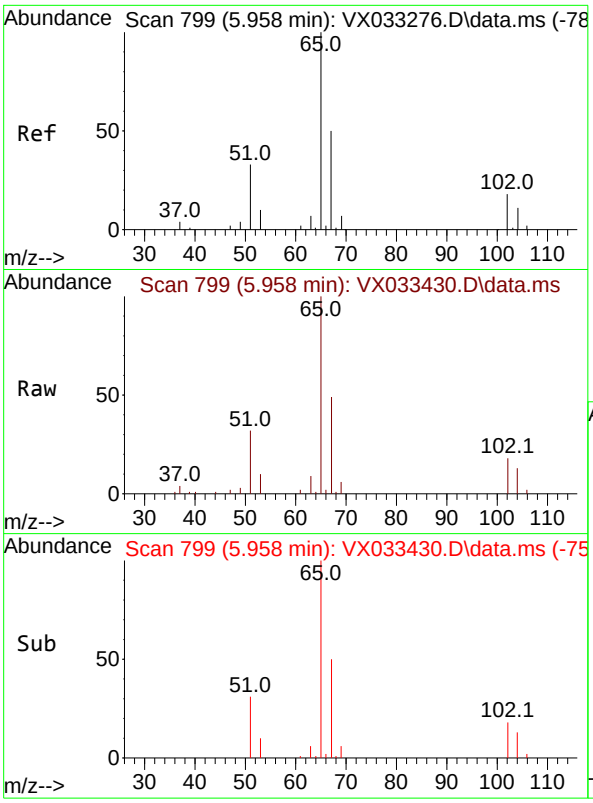



#32
1,1,1-Trichloroethane
Concen: 51.371 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 97 Resp: 124544

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.0 | 51.4 | 77.0 |
| 61 | 41.4 | 35.2 | 52.8 |

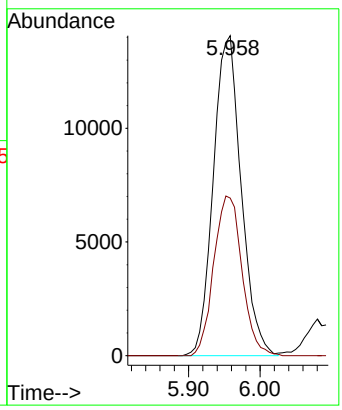





#33
1,2-Dichloroethane-d4
Concen: 42.623 ug/l
RT: 5.958 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 65 Resp: 3808

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.5 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

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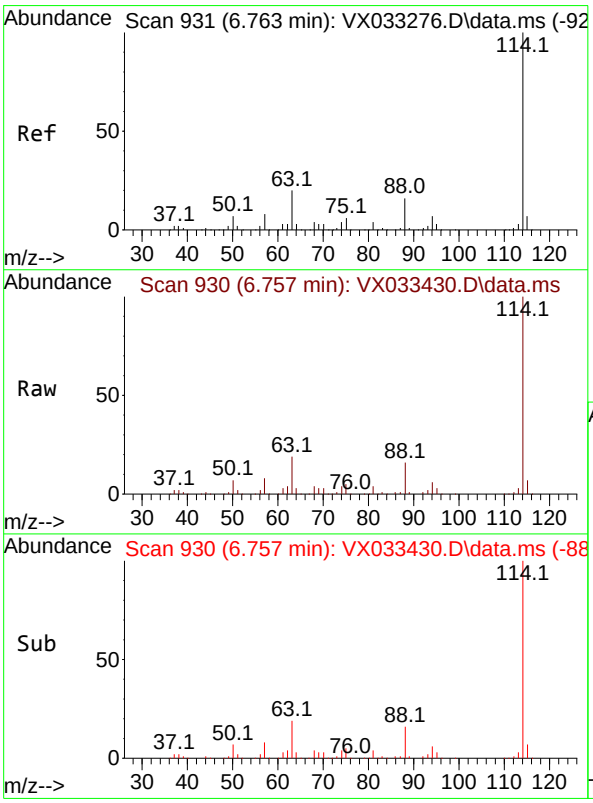
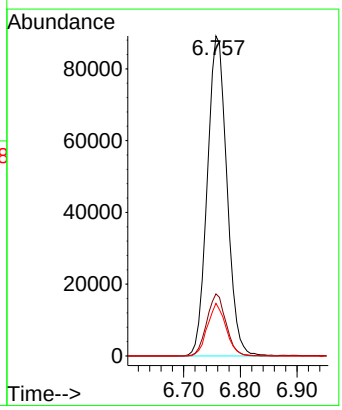
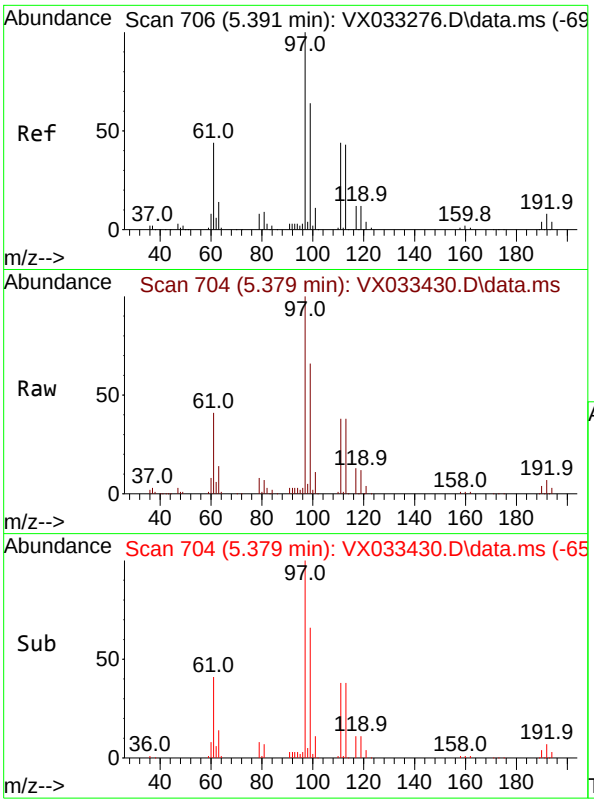



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 930
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:114 Resp: 214327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.4 | 0.0 | 41.6 |
| 88 | 16.5 | 0.0 | 33.4 |

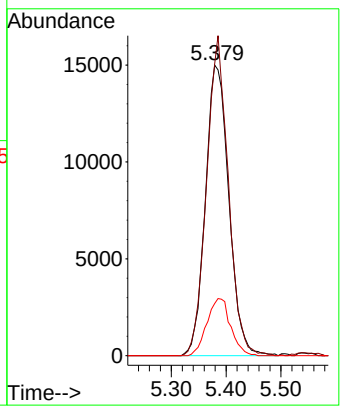





#35
Dibromofluoromethane
Concen: 46.257 ug/l
RT: 5.379 min Scan# 7
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:113 Resp: 4459

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 102.1 | 82.4 | 123.6 |
| 192 | 19.8 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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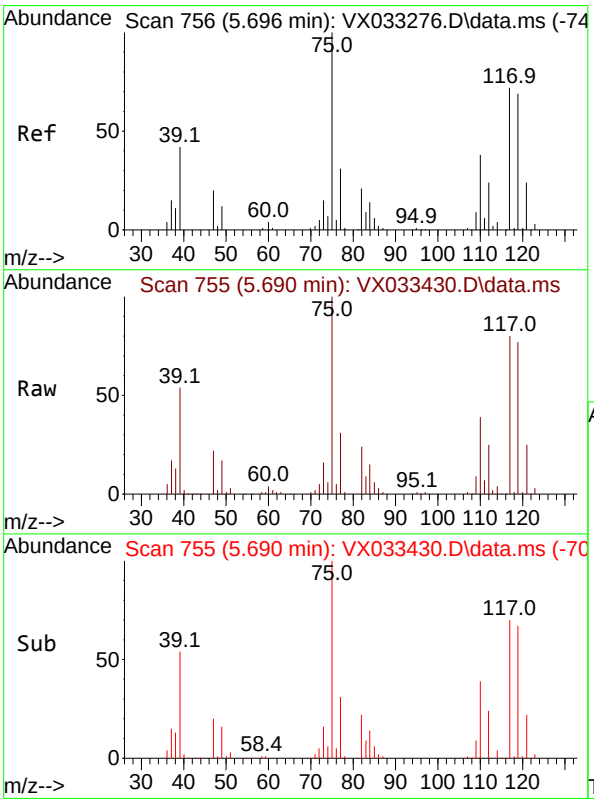
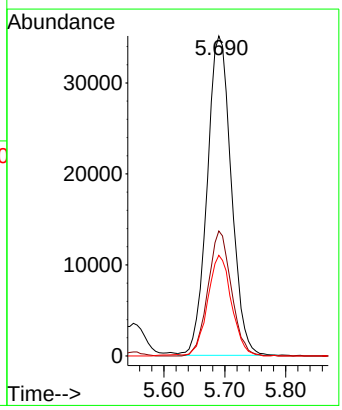
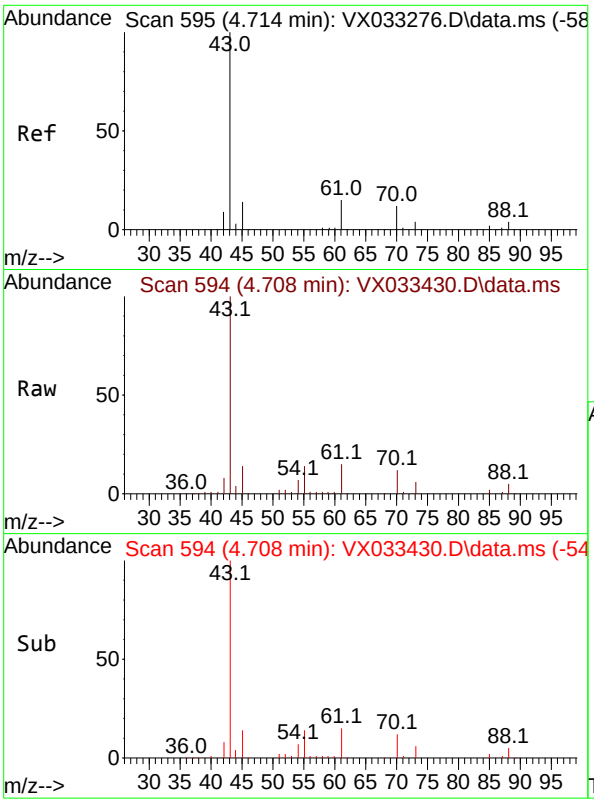



#36
1,1-Dichloropropene
Concen: 51.308 ug/l
RT: 5.690 min Scan# 755
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 75 Resp: 96432

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 38.0 | 18.4 | 55.2 |
| 77 | 31.2 | 24.5 | 36.7 |

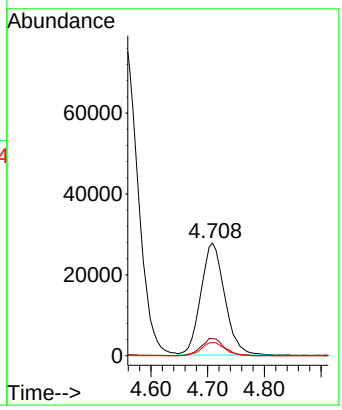





#37
Ethyl Acetate
Concen: 45.696 ug/l
RT: 4.708 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 8118

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.8 | 11.5 | 17.3 |
| 70 | 11.5 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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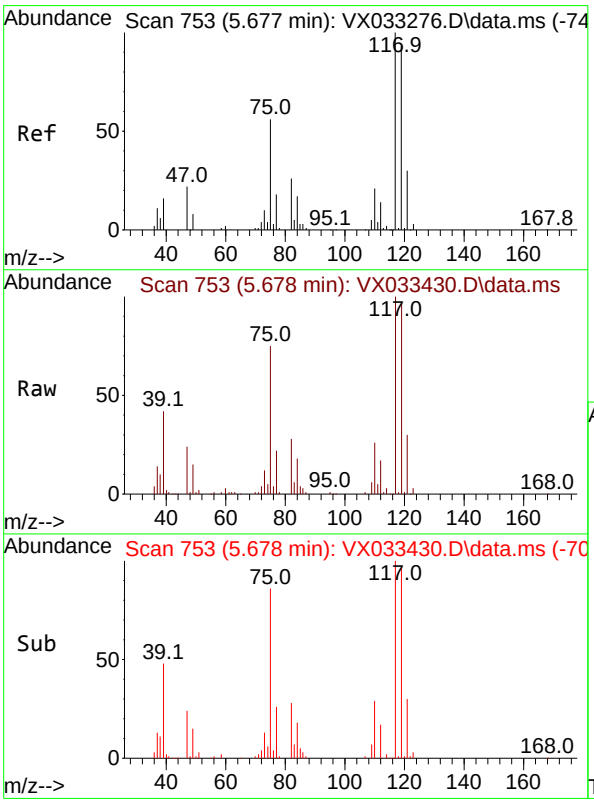
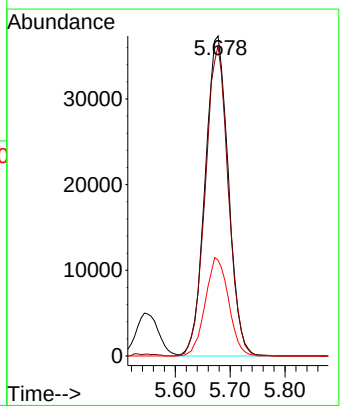
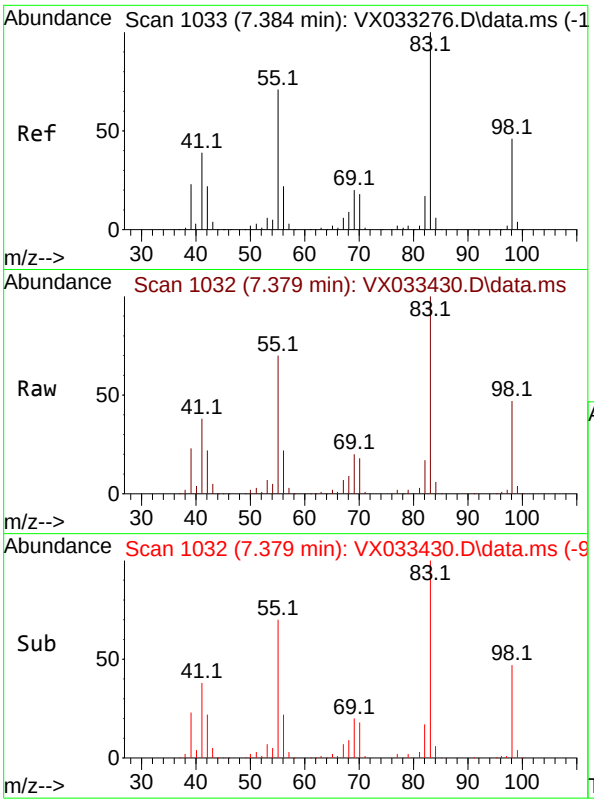



#38
Carbon Tetrachloride
Concen: 52.107 ug/l
RT: 5.678 min Scan# 753
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:117 Resp: 109727

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 97.0 | 77.2 | 115.8 |
| 121 | 30.0 | 25.8 | 38.6 |

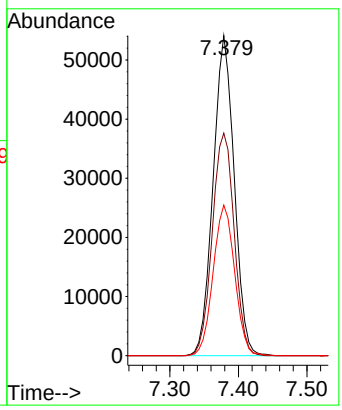





#39
Methylcyclohexane
Concen: 54.993 ug/l
RT: 7.379 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 83 Resp: 11568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 69.5 | 58.4 | 87.6 |
| 98 | 47.0 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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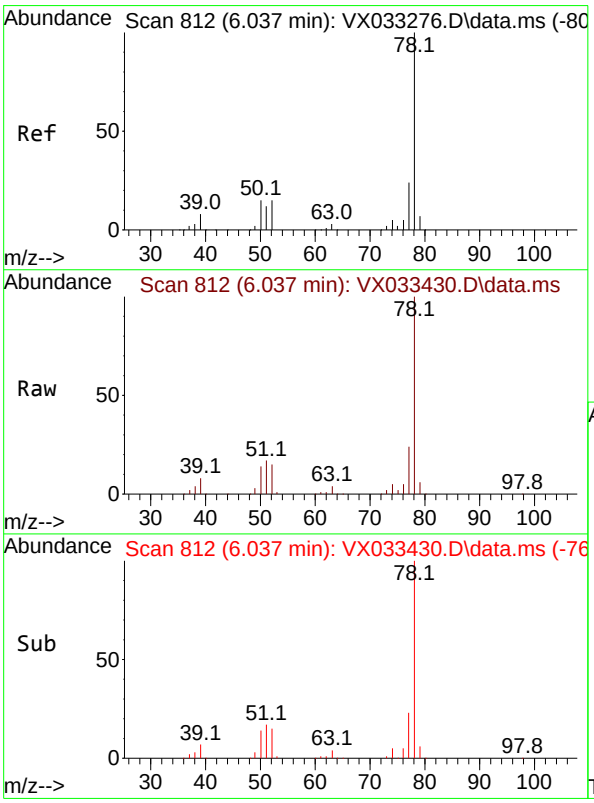
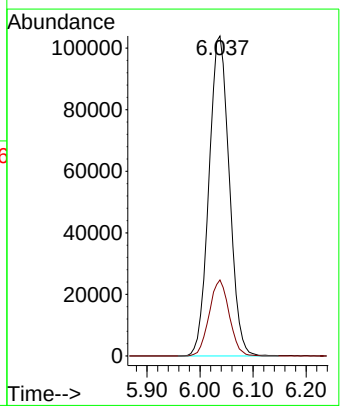
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

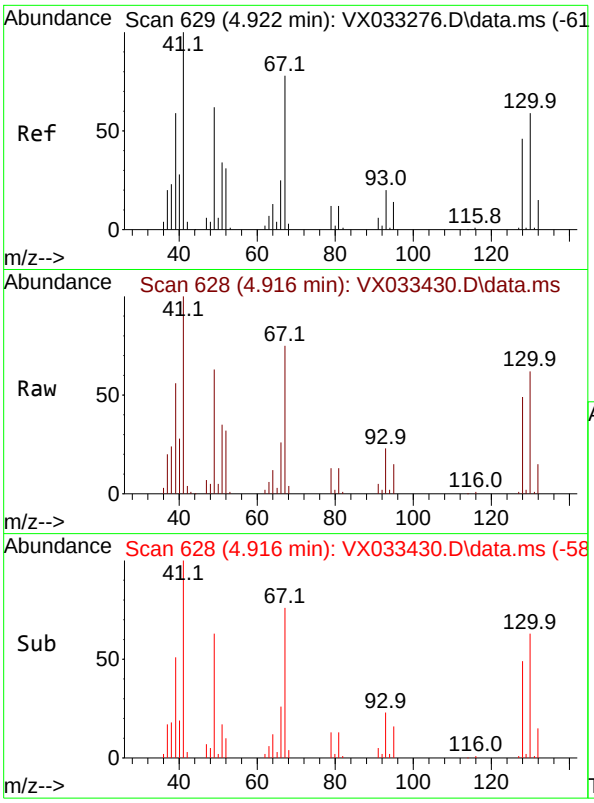



#40
Benzene
Concen: 50.524 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 78 Resp: 276871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.7 | 19.0 | 28.4 |

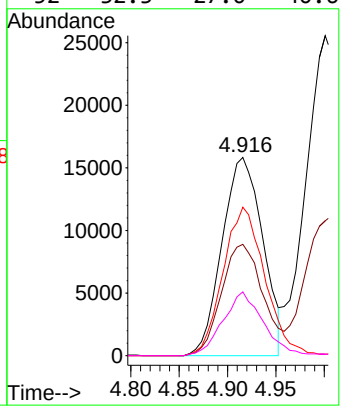





#41
Methacrylonitrile
Concen: 47.333 ug/l
RT: 4.916 min Scan# 6
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 41 Resp: 4633

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 57.9 | 47.5 | 71.3 |
| 67 | 77.1 | 60.5 | 90.7 |
| 52 | 32.3 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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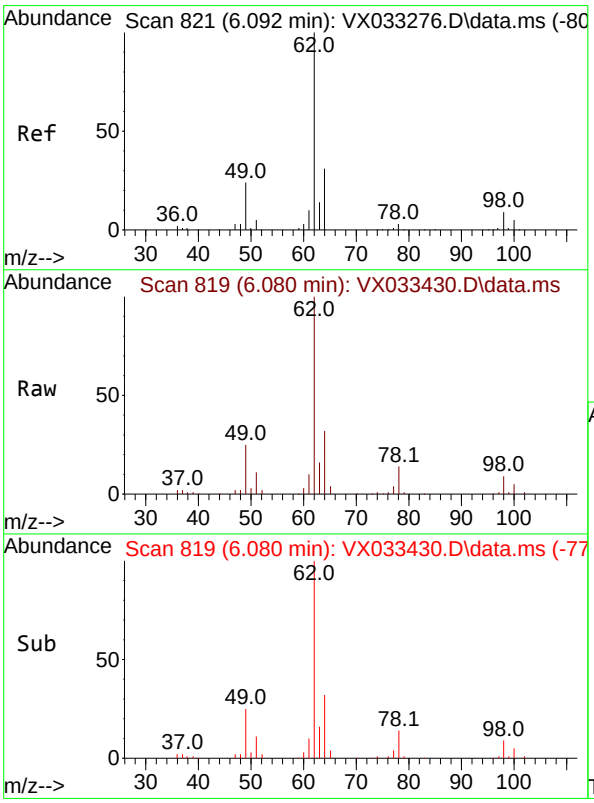
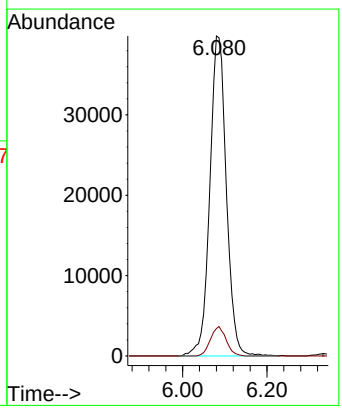
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

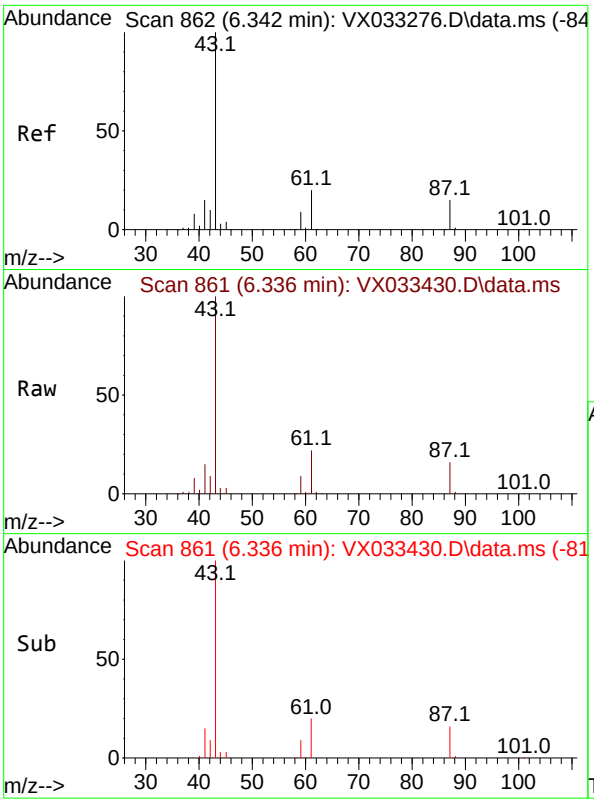



#42
1,2-Dichloroethane
Concen: 49.784 ug/l
RT: 6.080 min Scan# 819
Delta R.T. -0.012 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 62 Resp: 108334

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.7 | 0.0 | 16.0 |

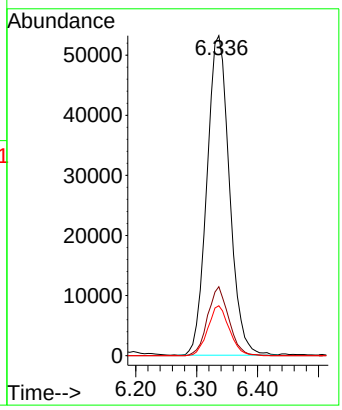





#43
Isopropyl Acetate
Concen: 47.844 ug/l
RT: 6.336 min Scan# 8
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 13676

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 20.3 | 15.4 | 23.0 |
| 87 | 14.9 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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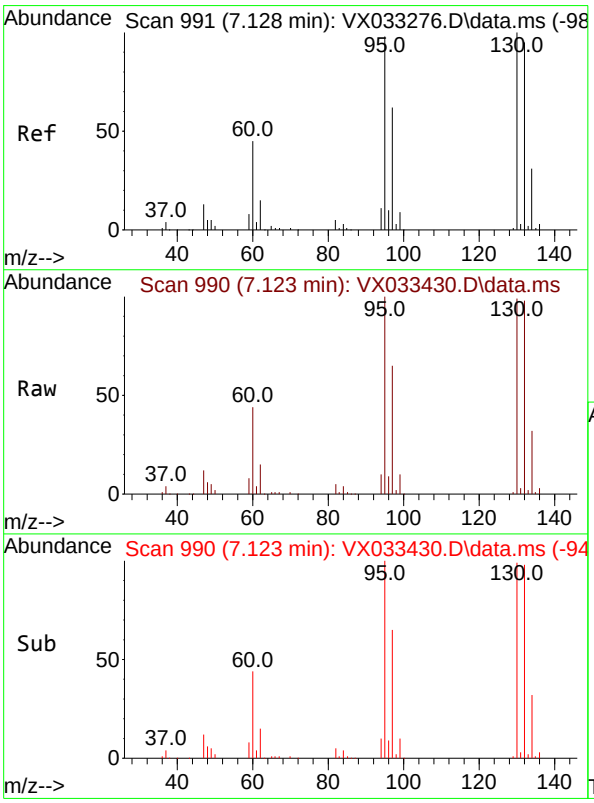
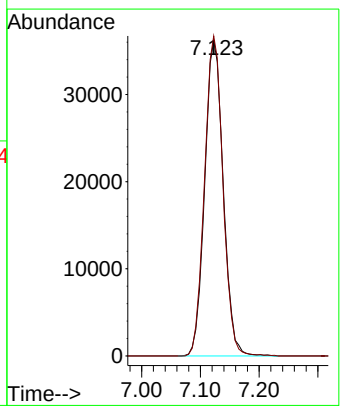
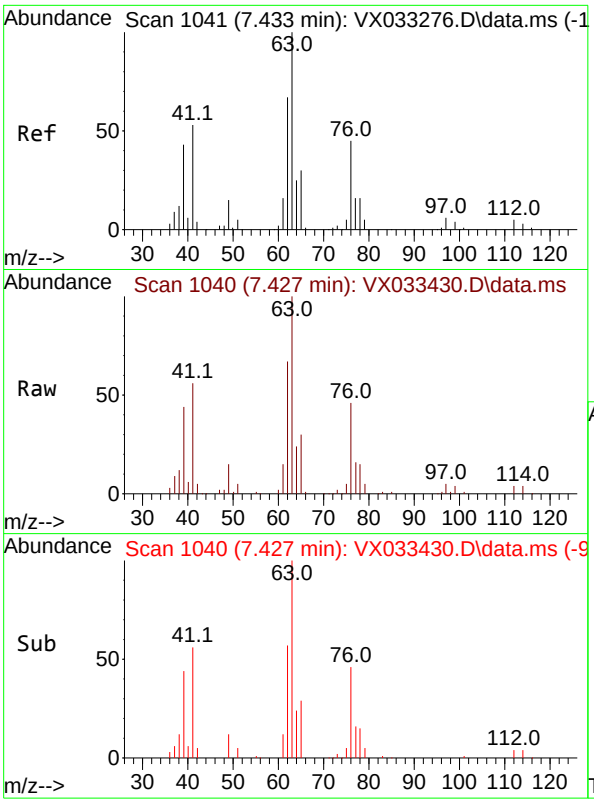



#44
Trichloroethene
Concen: 52.390 ug/l
RT: 7.123 min Scan# 990
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:130 Resp: 79155

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 101.4 | 0.0 | 195.2 |

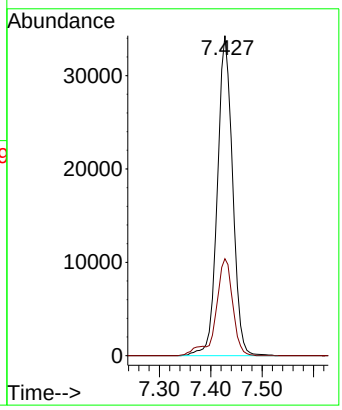





#45
1,2-Dichloropropane
Concen: 50.412 ug/l
RT: 7.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 63 Resp: 7065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.3 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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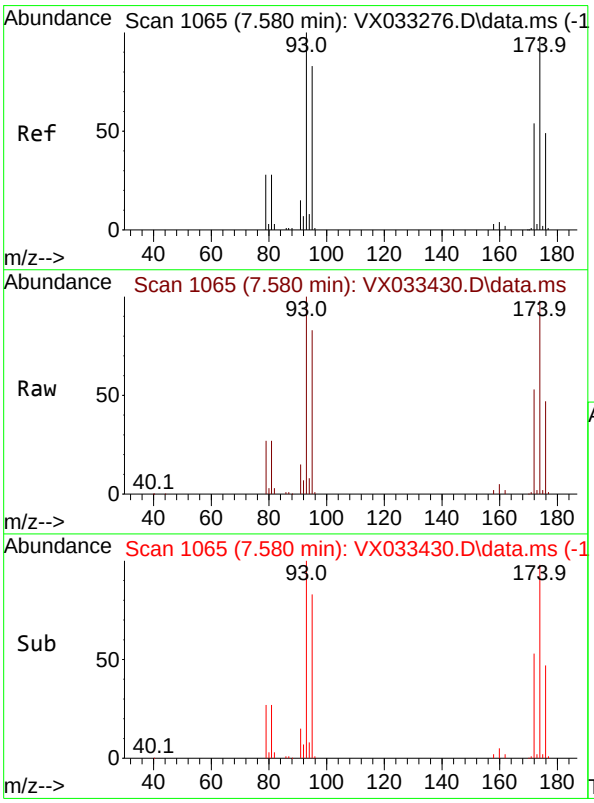
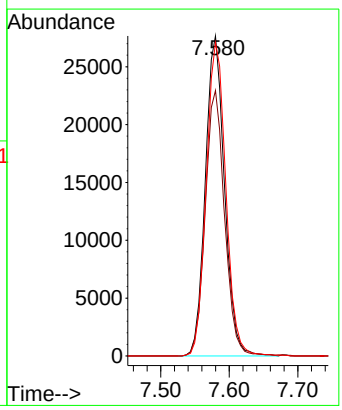
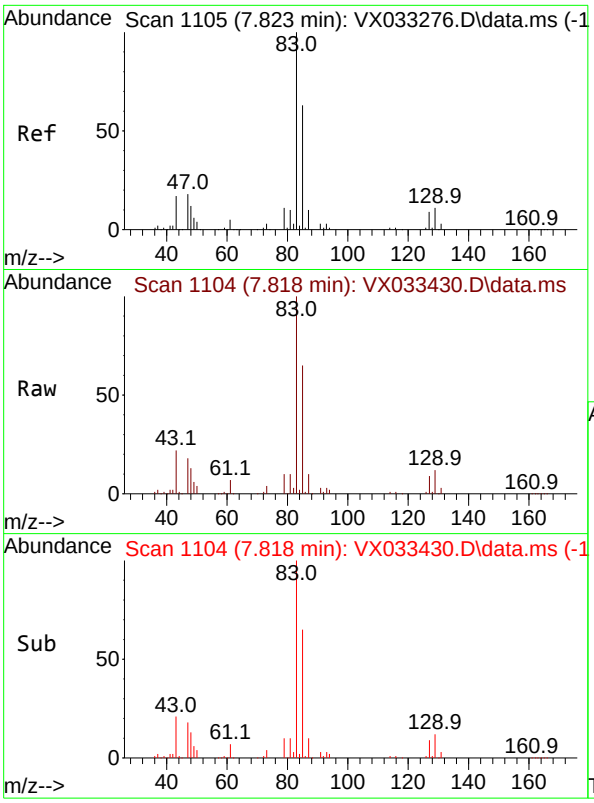



#46
Dibromomethane
Concen: 50.361 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 93 Resp: 53766

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 84.0 | 65.8 | 98.8 |
| 174 | 100.3 | 79.8 | 119.6 |

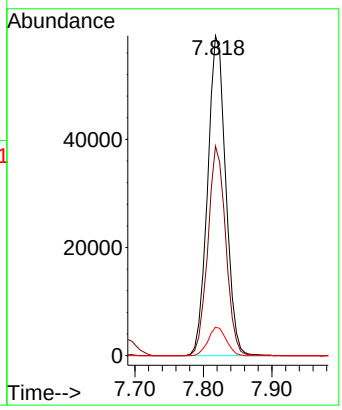





#47
Bromodichloromethane
Concen: 52.352 ug/l
RT: 7.818 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 83 Resp: 10895

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.5 | 52.2 | 78.4 |
| 127 | 8.9 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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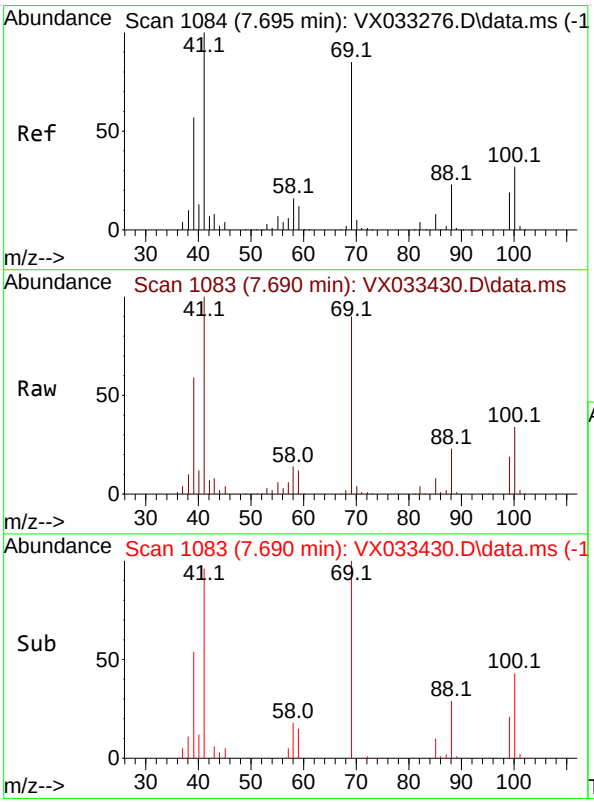
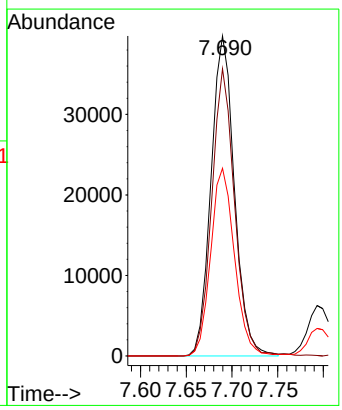
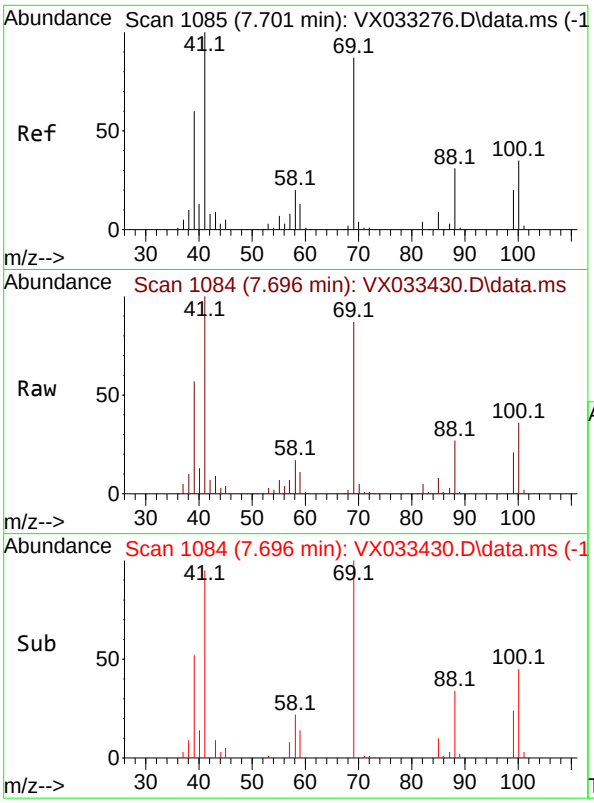



#48
Methyl methacrylate
Concen: 47.923 ug/l
RT: 7.690 min Scan# 1083
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 41 Resp: 70703

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 87.8 | 65.1 | 97.7 |
| 39 | 59.8 | 51.9 | 77.9 |

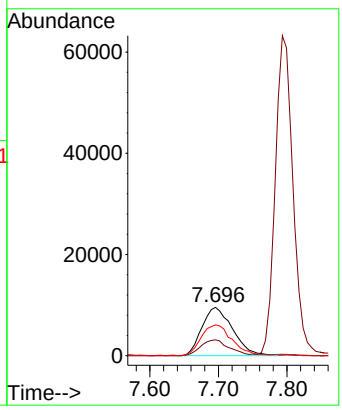





#49
1,4-Dioxane
Concen: 884.207 ug/l
RT: 7.696 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 88 Resp: 2974

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 30.2 | 26.6 | 39.8 |
| 58 | 63.8 | 51.7 | 77.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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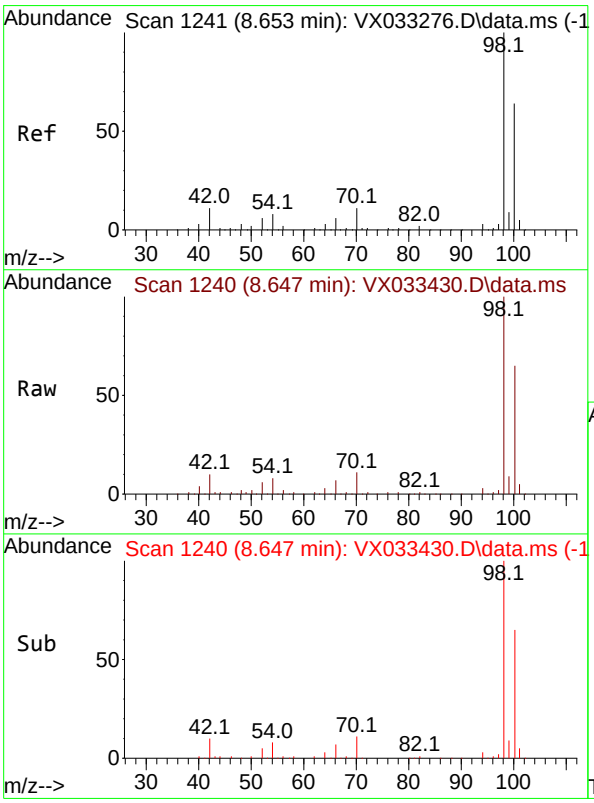
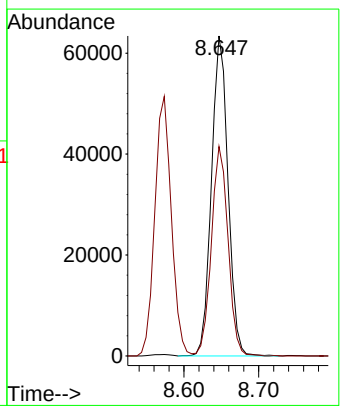
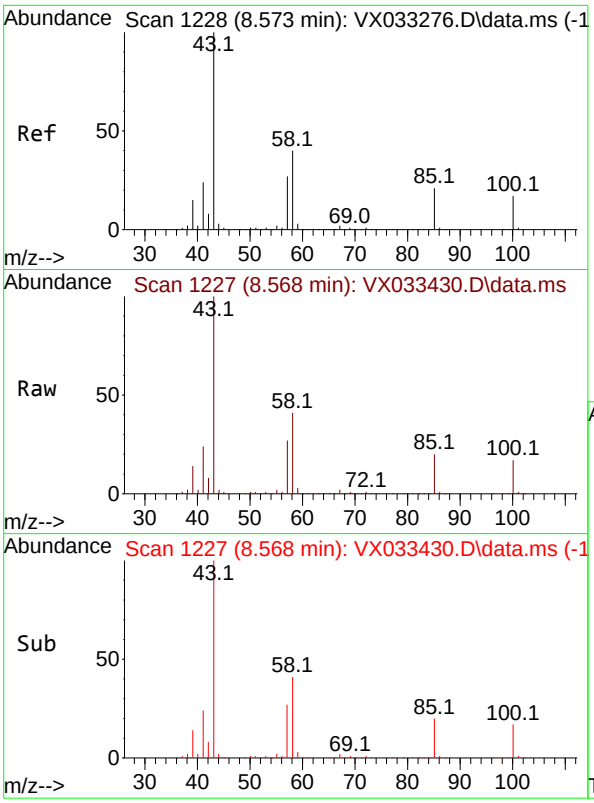



#50
Toluene-d8
Concen: 48.378 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 98 Resp: 97560

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.9 | 50.9 | 76.3 |

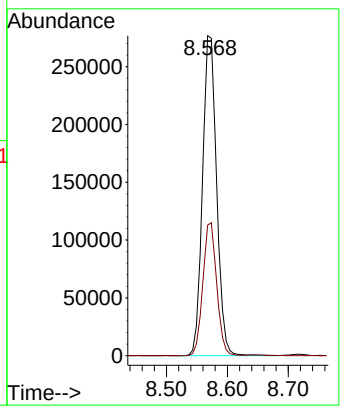





#51
4-Methyl-2-Pentanone
Concen: 246.435 ug/l
RT: 8.568 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 44549

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 40.8 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

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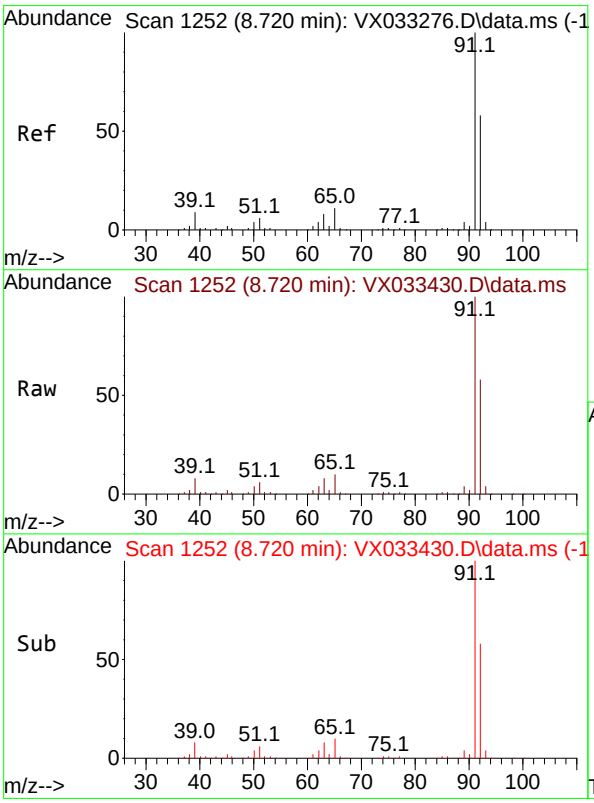
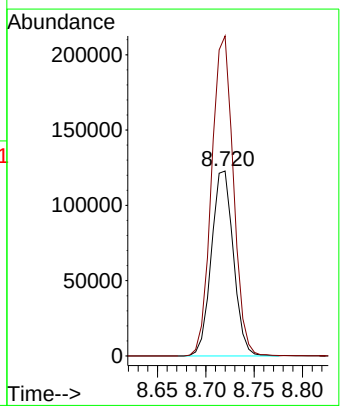
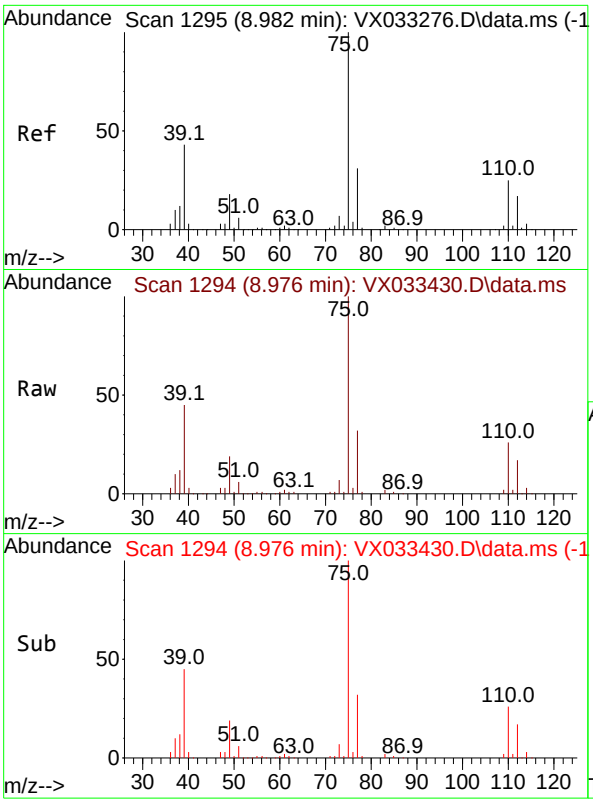



#52
Toluene
Concen: 54.761 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 92 Resp: 194022

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 171.7 | 138.3 | 207.5 |

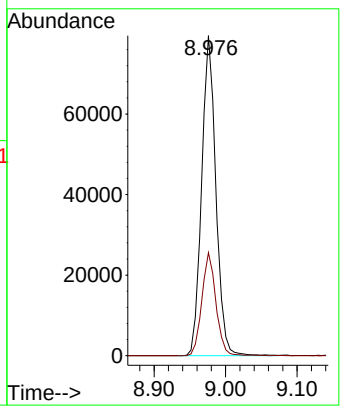





#53
t-1,3-Dichloropropene
Concen: 49.141 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 75 Resp: 10976

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.2 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

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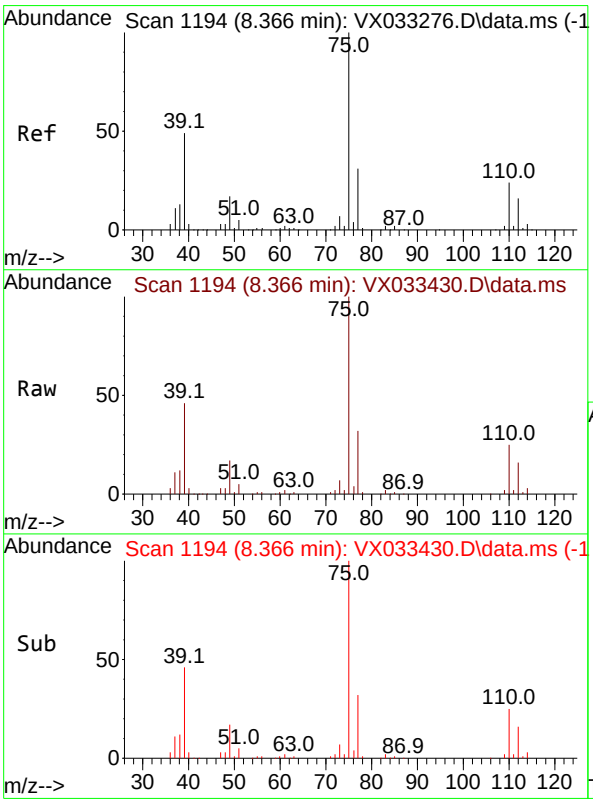
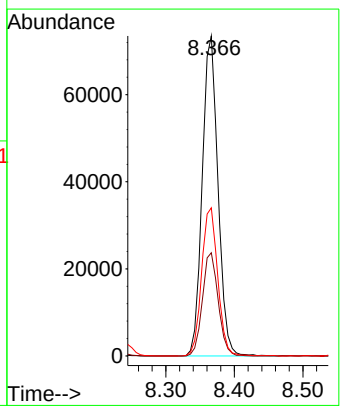
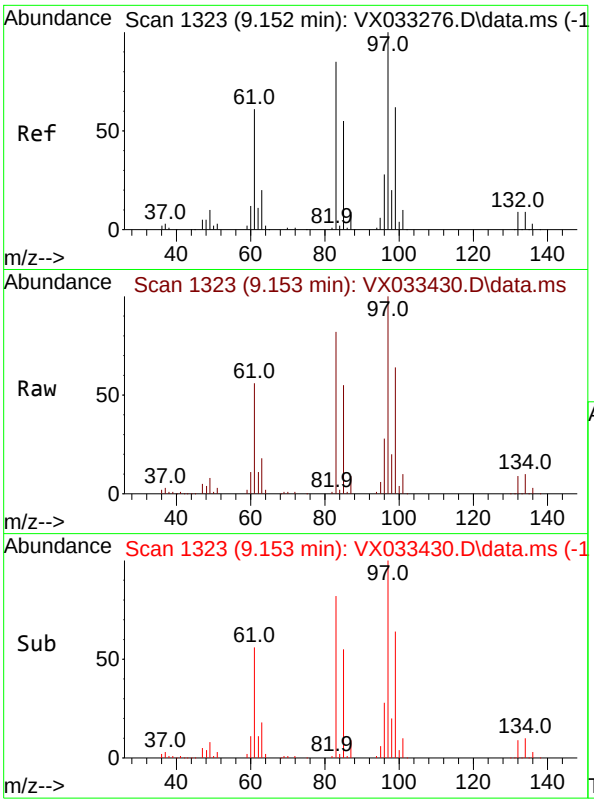



#54
cis-1,3-Dichloropropene
Concen: 53.138 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 75 Resp: 117676

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.2 | 25.1 | 37.7 |
| 39 | 46.3 | 45.5 | 68.3 |

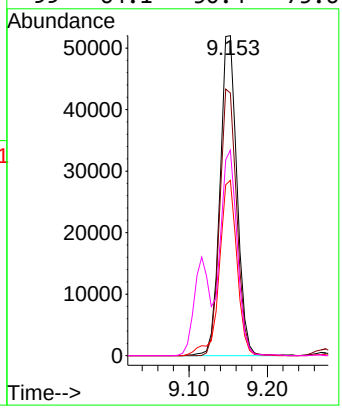





#55
1,1,2-Trichloroethane
Concen: 52.574 ug/l
RT: 9.153 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 97 Resp: 7830

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 82.1 | 68.1 | 102.1 |
| 85 | 54.8 | 43.3 | 64.9 |
| 99 | 64.1 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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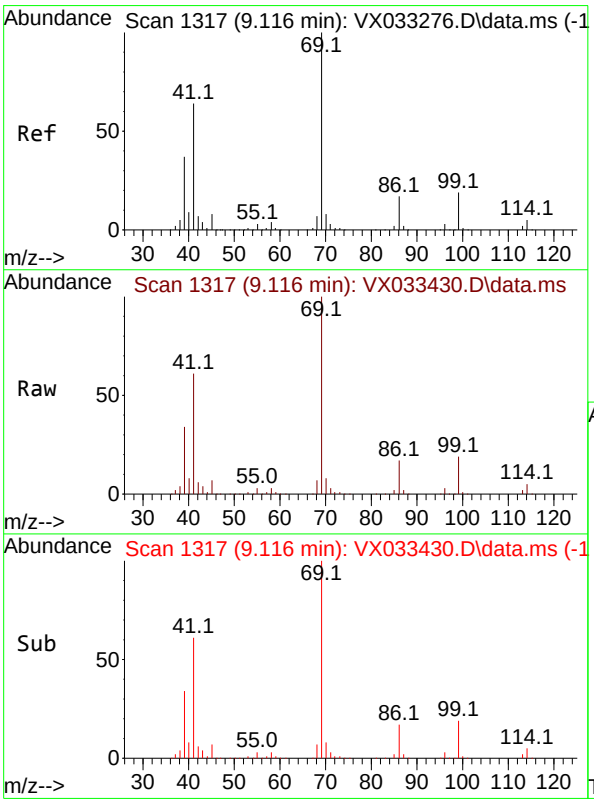
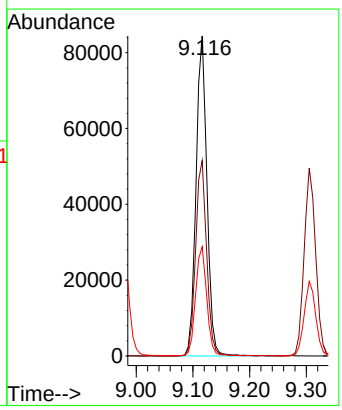
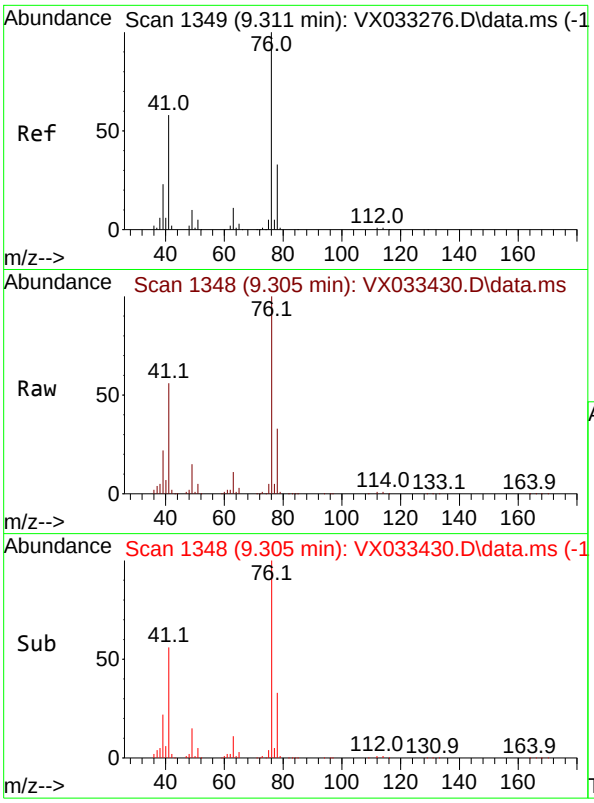



#56
Ethyl methacrylate
Concen: 53.687 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 69 Resp: 112579

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 62.0 | 54.3 | 81.5 |
| 39 | 34.9 | 35.2 | 52.8# |

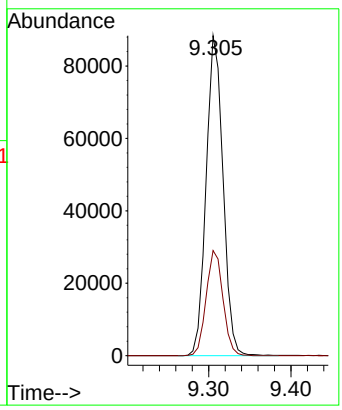





#57
1,3-Dichloropropane
Concen: 52.677 ug/l
RT: 9.305 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 76 Resp: 12603

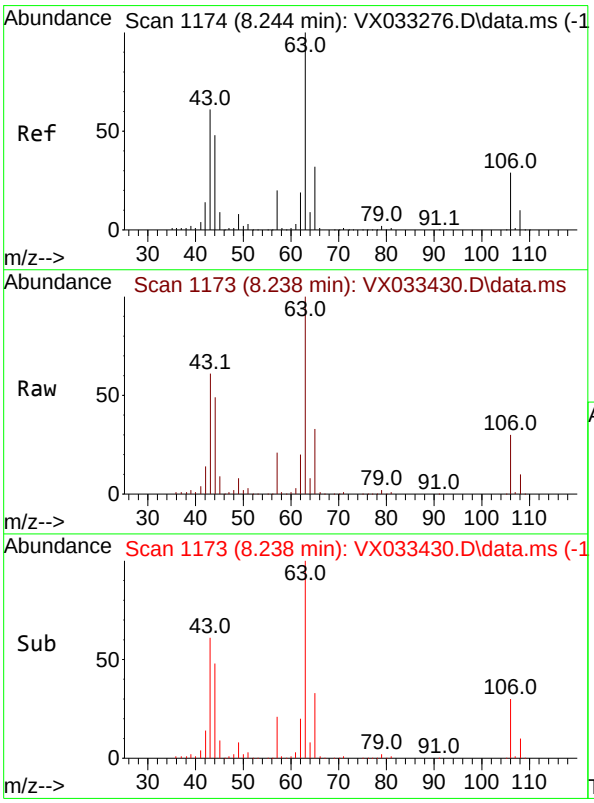
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 32.7 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

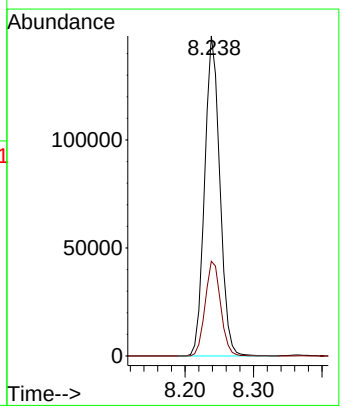
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

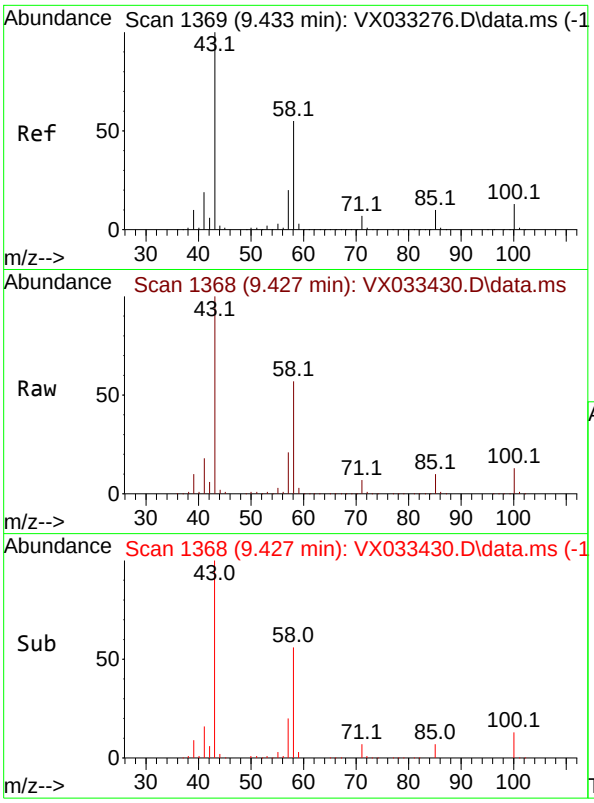



#58
2-Chloroethyl Vinyl ether
Concen: 238.862 ug/l
RT: 8.238 min Scan# 1173
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 63 Resp: 229186

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 30.1 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 255.739 ug/l
RT: 9.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 34069

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 56.8 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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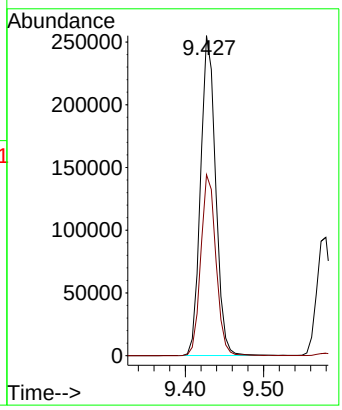
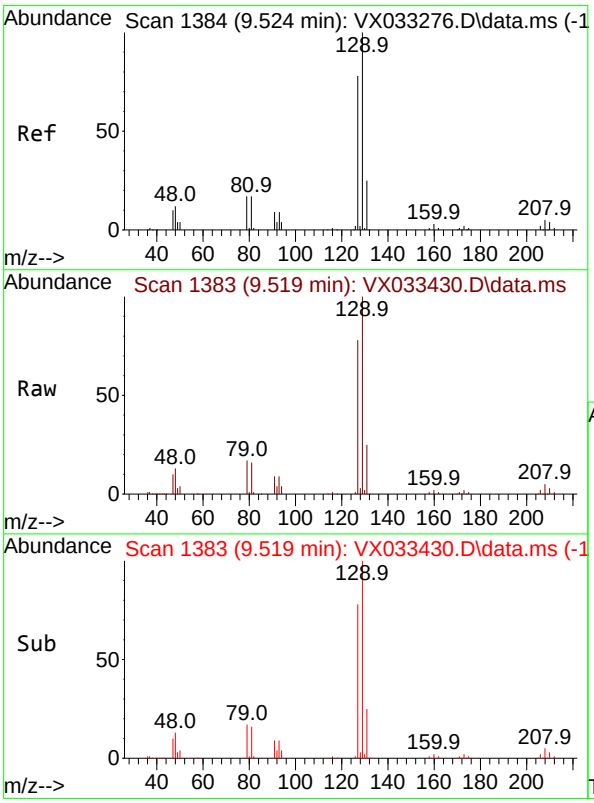
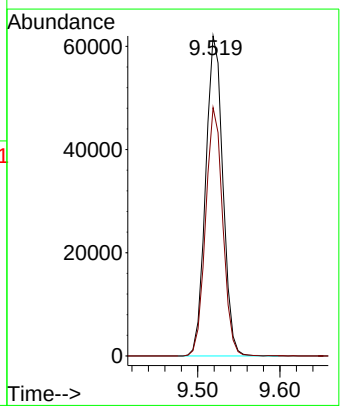


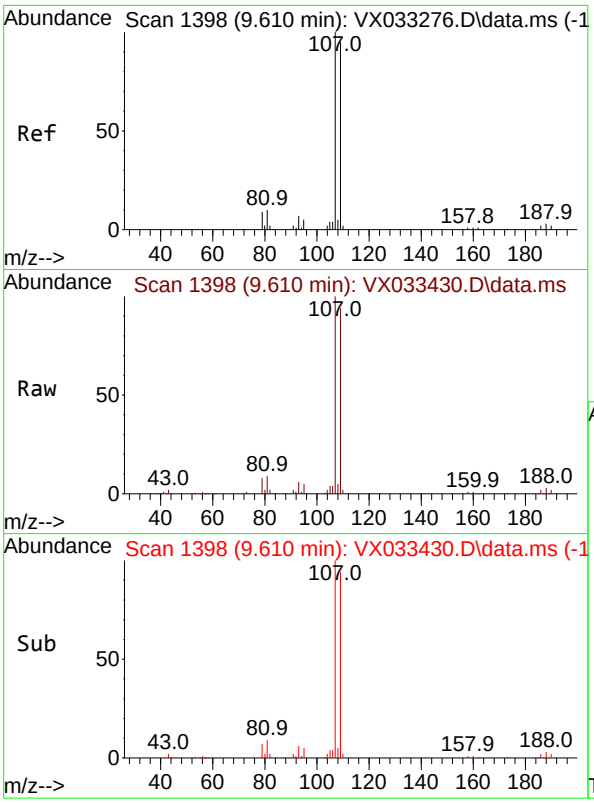




#60
Dibromochloromethane
Concen: 54.930 ug/l
RT: 9.519 min Scan# 1383
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:129 Resp: 90138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.1 | 38.6 | 115.8 |

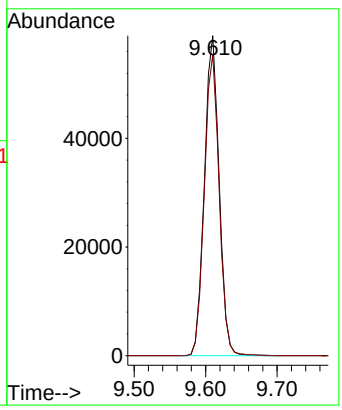





#61
1,2-Dibromoethane
Concen: 53.222 ug/l
RT: 9.610 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:107 Resp: 8431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.7 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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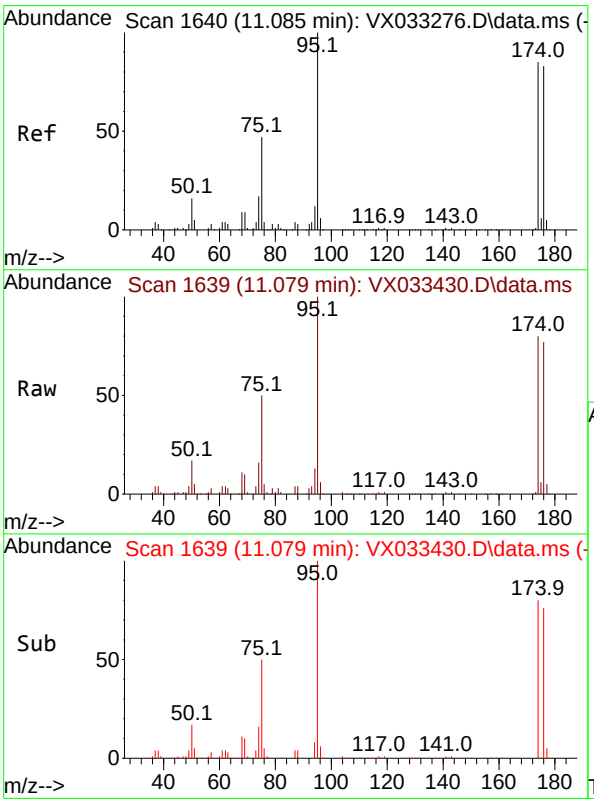
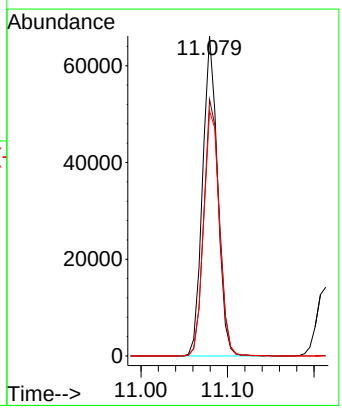
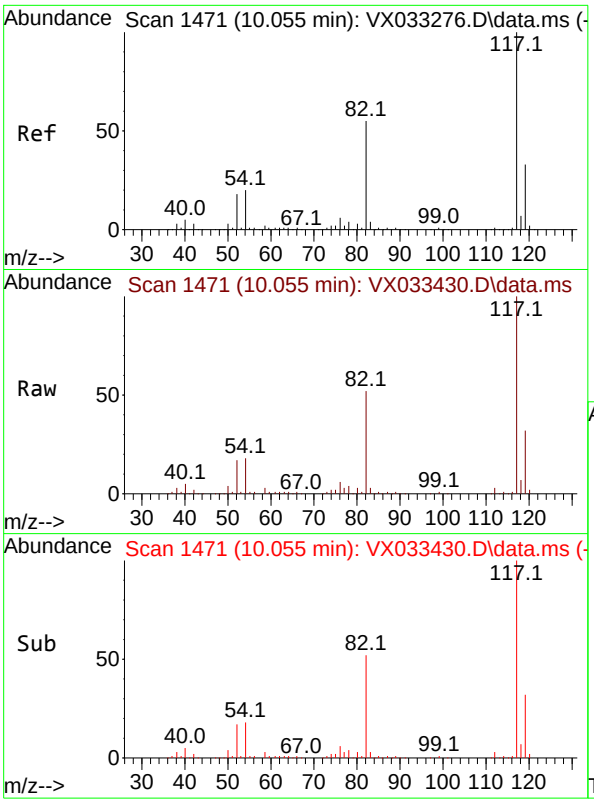



#62
4-Bromofluorobenzene
Concen: 51.395 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 95 Resp: 79249

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 83.4 | 0.0 | 164.0 |
| 176 | 81.0 | 0.0 | 154.4 |

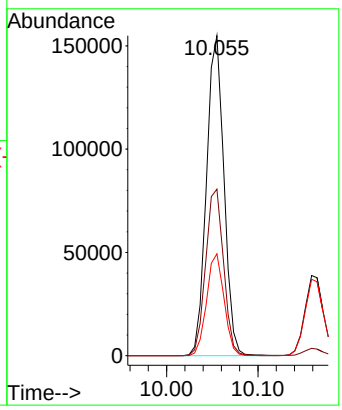





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:117 Resp: 20539

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 52.1 | 44.3 | 66.5 |
| 119 | 31.9 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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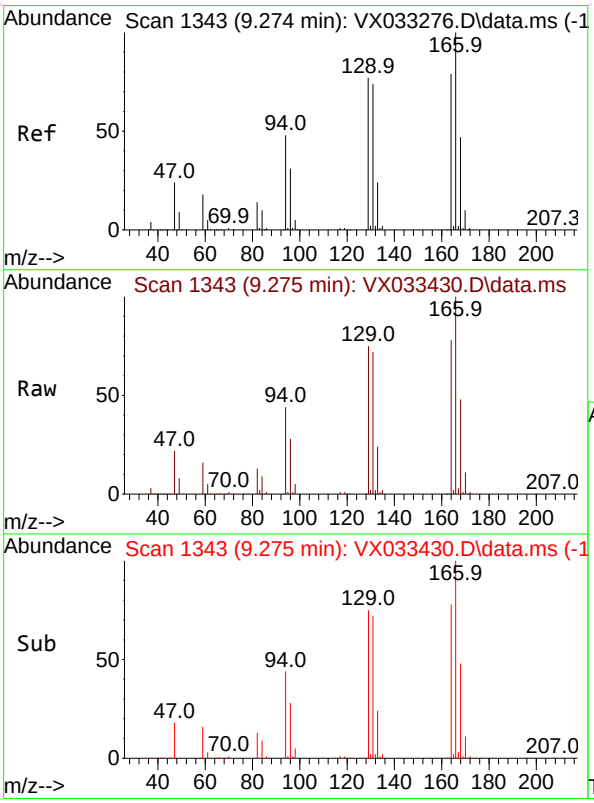
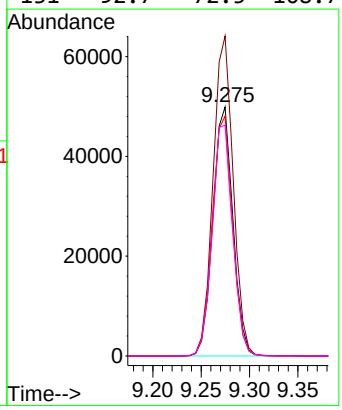
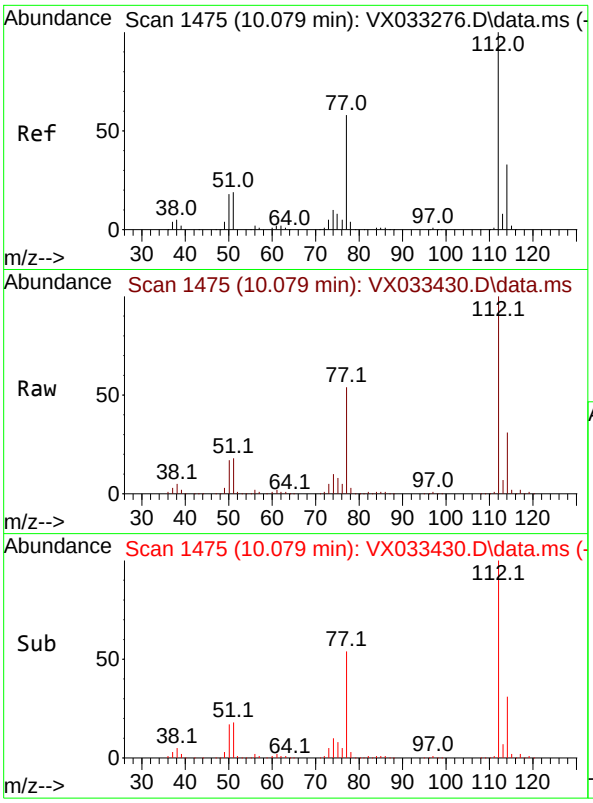



#64
Tetrachloroethene
Concen: 50.953 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:164 Resp: 71561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 128.5 | 105.4 | 158.2 |
| 129 | 96.3 | 78.2 | 117.2 |
| 131 | 92.7 | 72.5 | 108.7 |

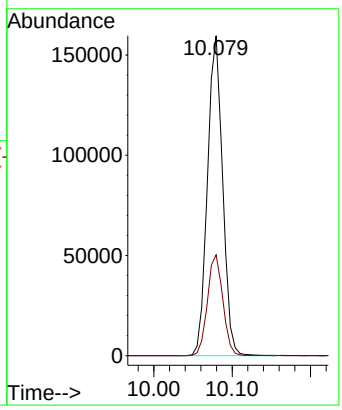





#65
Chlorobenzene
Concen: 51.464 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:112 Resp: 214048

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 31.5 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

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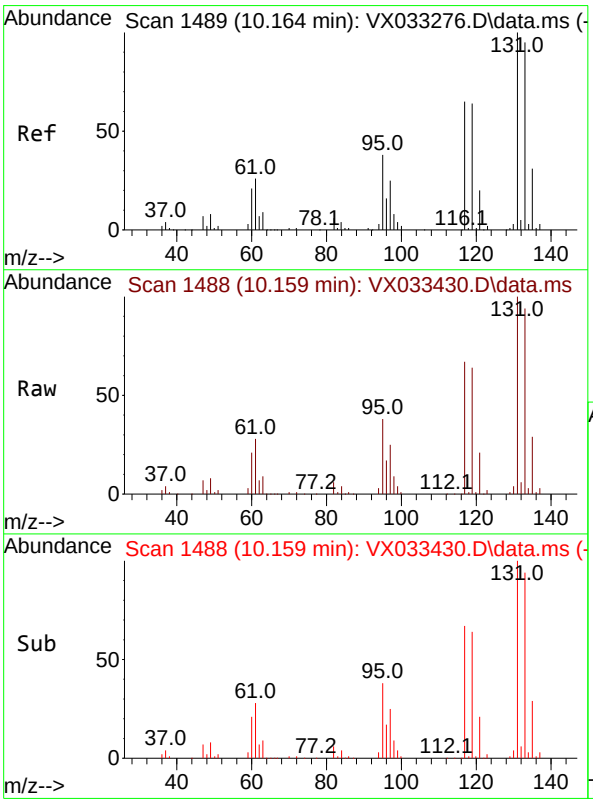
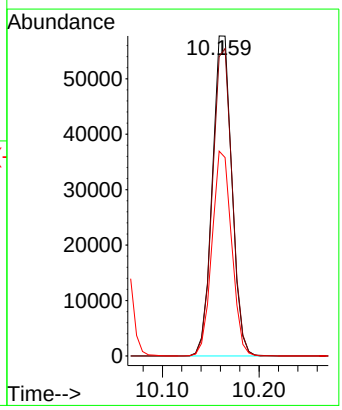
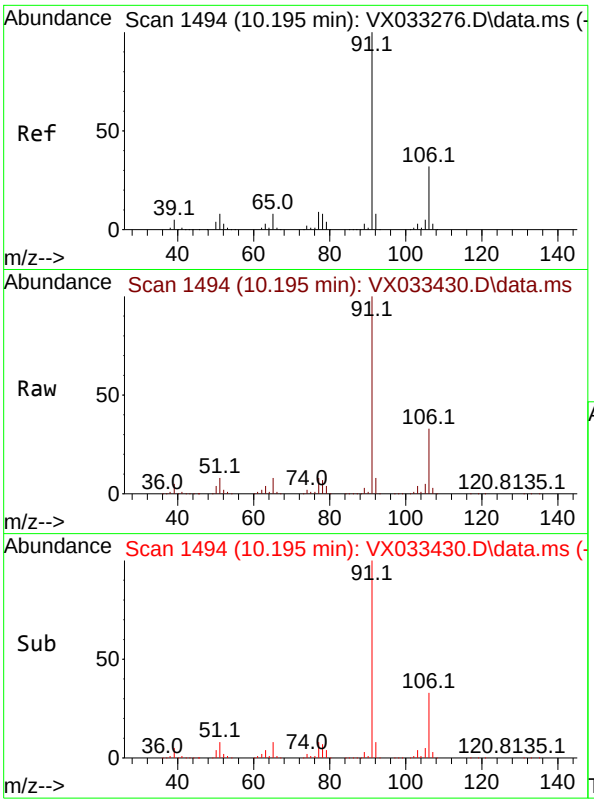



#66
1,1,1,2-Tetrachloroethane
Concen: 51.451 ug/l
RT: 10.159 min Scan# 1488
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:131 Resp: 80870

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 96.7 | 47.6 | 142.9 |
| 119 | 64.3 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 52.692 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 38179

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 33.0 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

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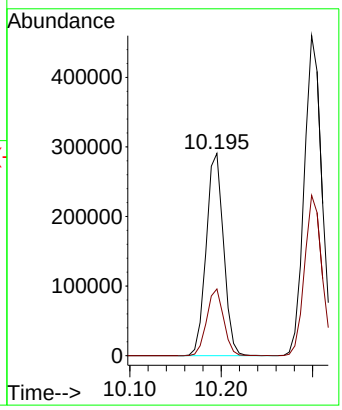
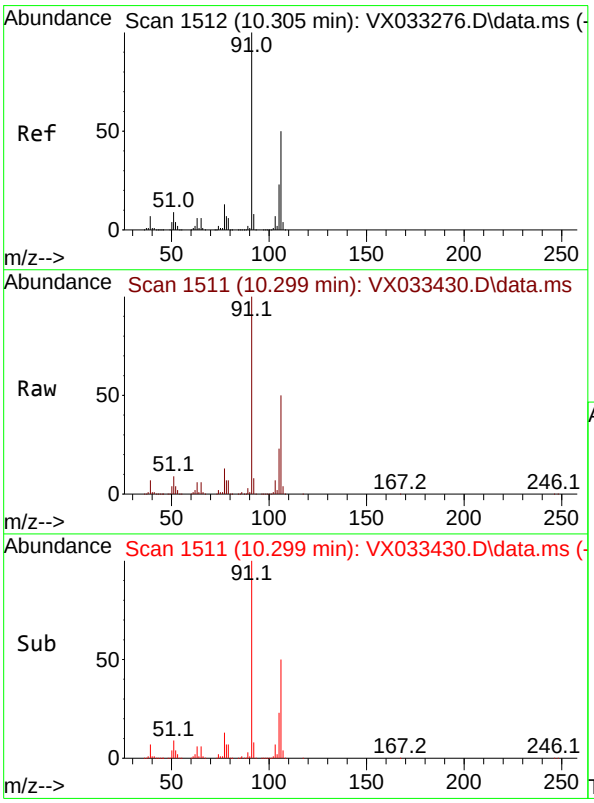
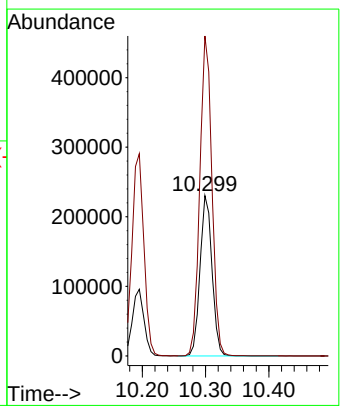


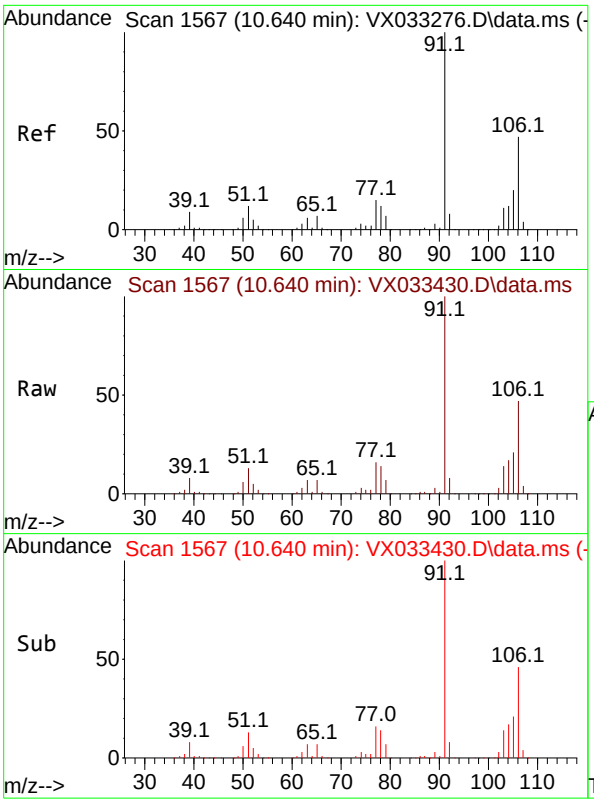




#68
m/p-Xylenes
Concen: 107.856 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:106 Resp: 304061

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 201.4 | 164.5 | 246.7 |

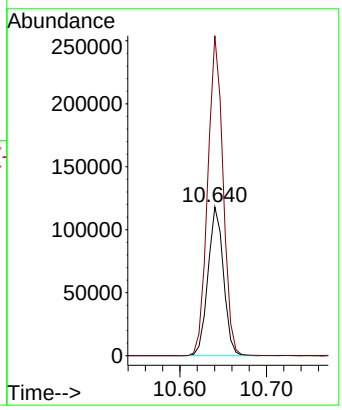





#69
o-Xylene
Concen: 52.510 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:106 Resp: 14632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 213.3 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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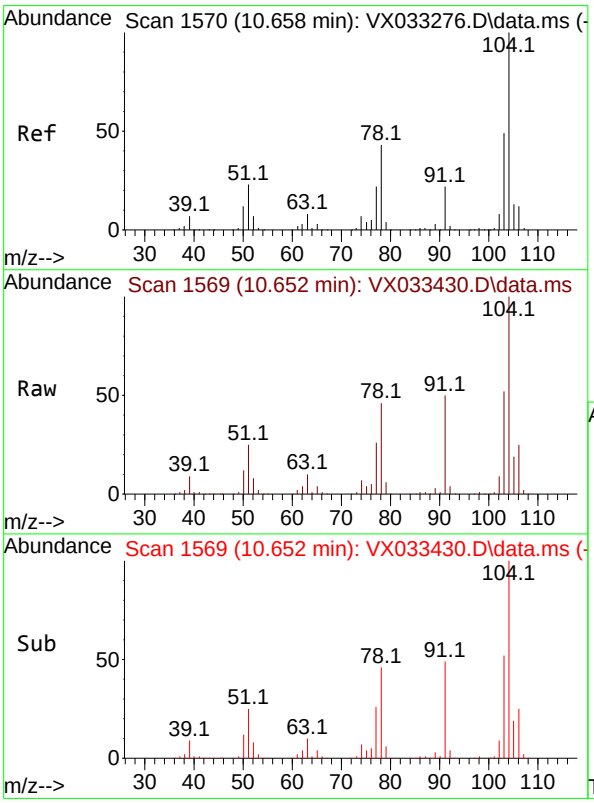
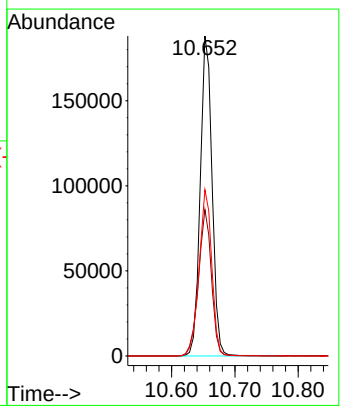
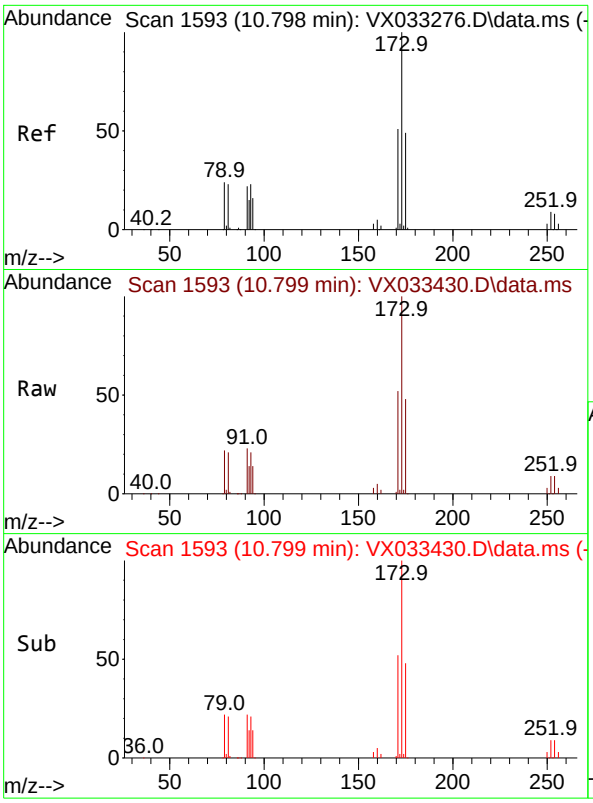



#70
Styrene
Concen: 53.646 ug/l
RT: 10.652 min Scan# 1569
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:104 Resp: 244830

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 50.0 | 41.8 | 62.8 |
| 103 | 55.8 | 44.5 | 66.7 |

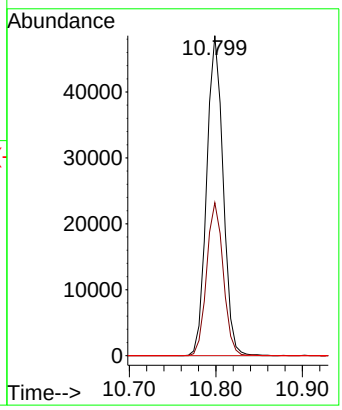





#71
Bromoform
Concen: 51.374 ug/l
RT: 10.799 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:173 Resp: 6391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.4 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**
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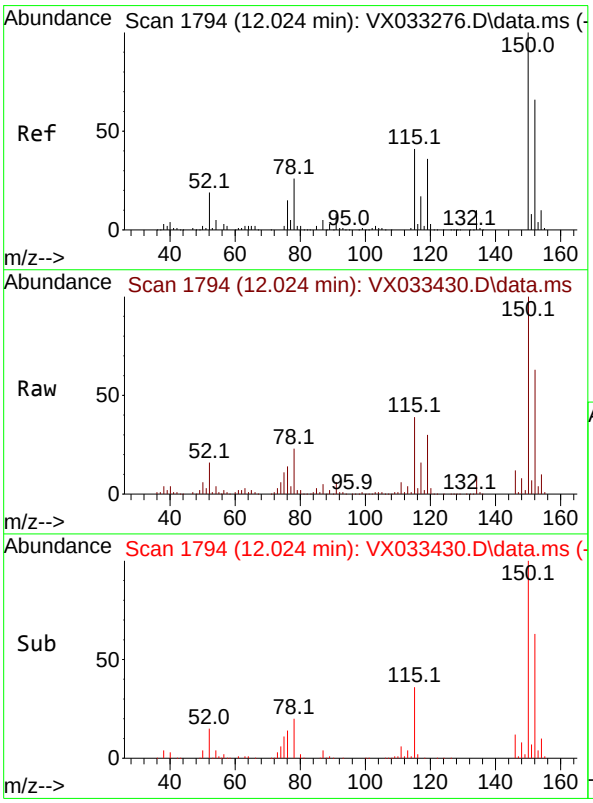
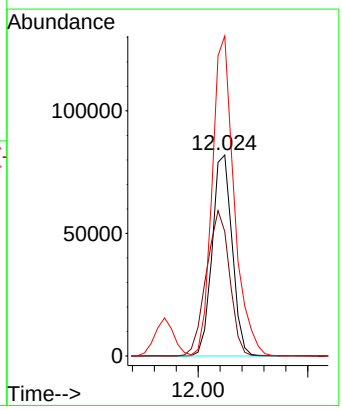
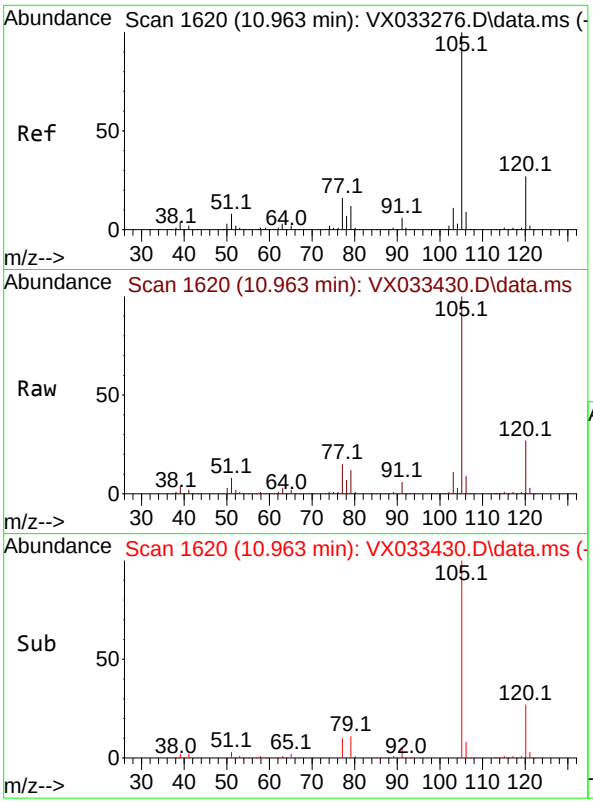



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:152 Resp: 103647

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 84.3 | 44.0 | 132.0 |
| 150 | 174.5 | 0.0 | 351.8 |






#73
Isopropylbenzene
Concen: 51.922 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:105 Resp: 39006

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.6 | 13.1 | 39.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

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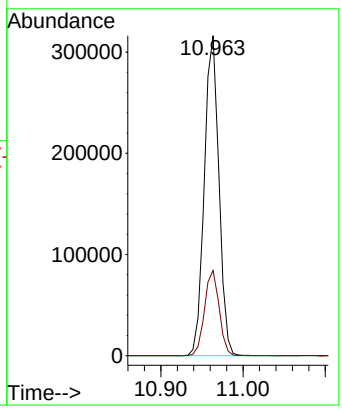
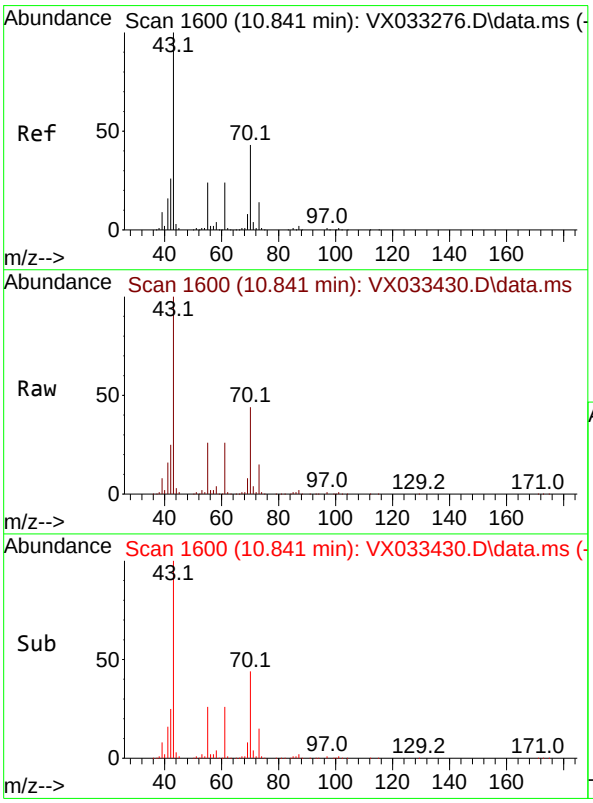
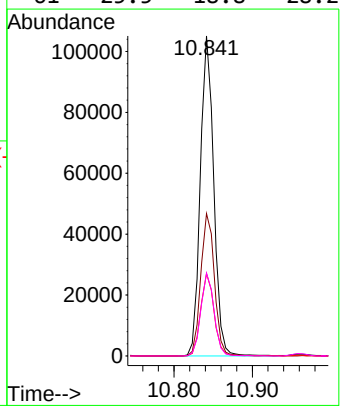


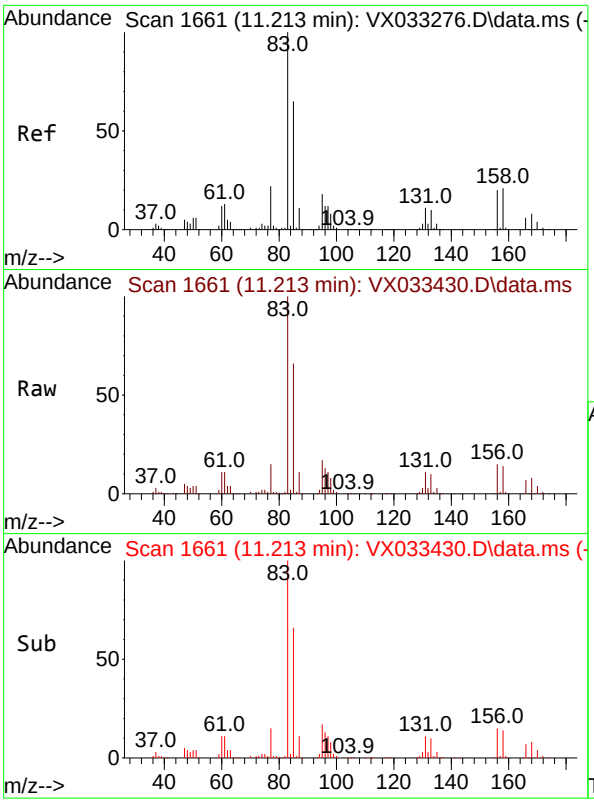




#74
N-amyl acetate
Concen: 48.802 ug/l
RT: 10.841 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 43 Resp: 125085

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 45.3 | 33.6 | 50.4 |
| 55 | 25.7 | 19.4 | 29.2 |
| 61 | 25.5 | 18.8 | 28.2 |

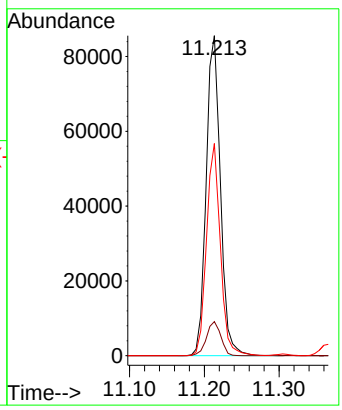





#75
1,1,2,2-Tetrachloroethane
Concen: 47.488 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 83 Resp: 11317

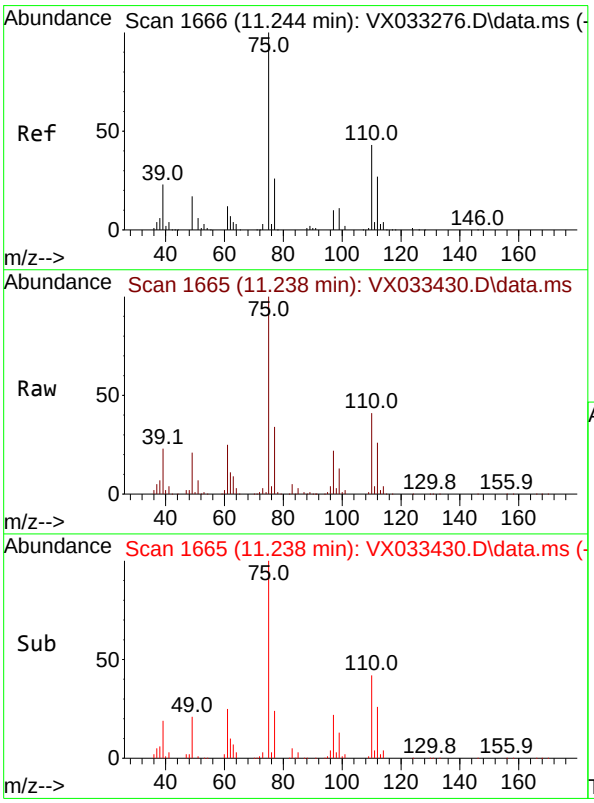
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.8 | 5.4 | 16.2 |
| 85 | 64.5 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

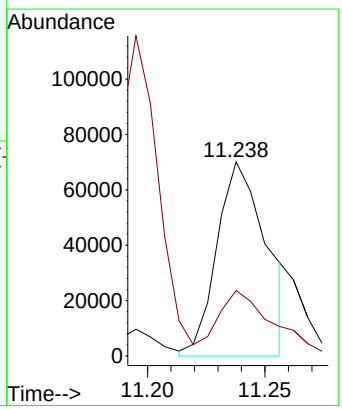
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

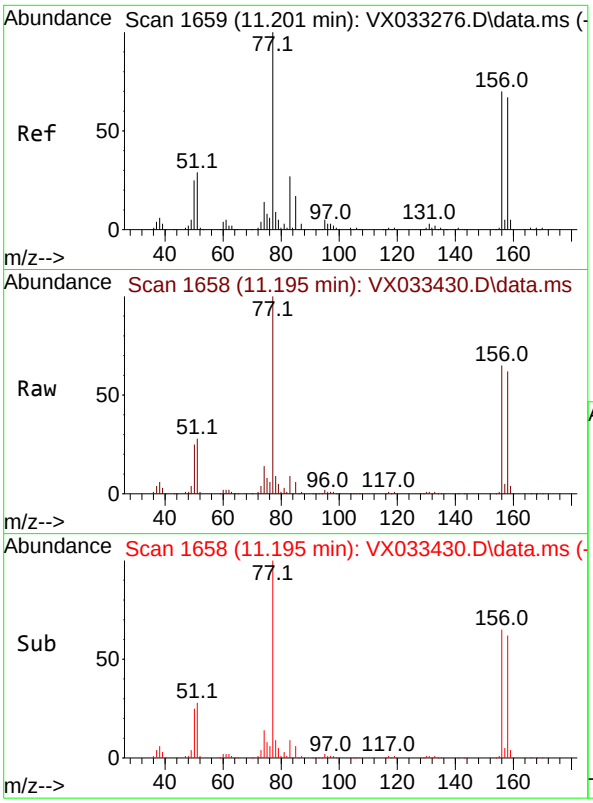



#76
1,2,3-Trichloropropane
Concen: 48.402 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 75 Resp: 102065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 38.4 | 20.0 | 60.0 |

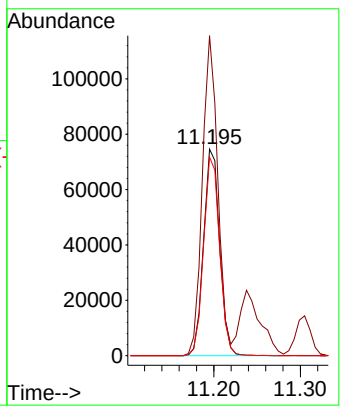





#77
Bromobenzene
Concen: 50.759 ug/l
RT: 11.195 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:156 Resp: 9629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 148.0 | 76.1 | 228.4 |
| 158 | 95.8 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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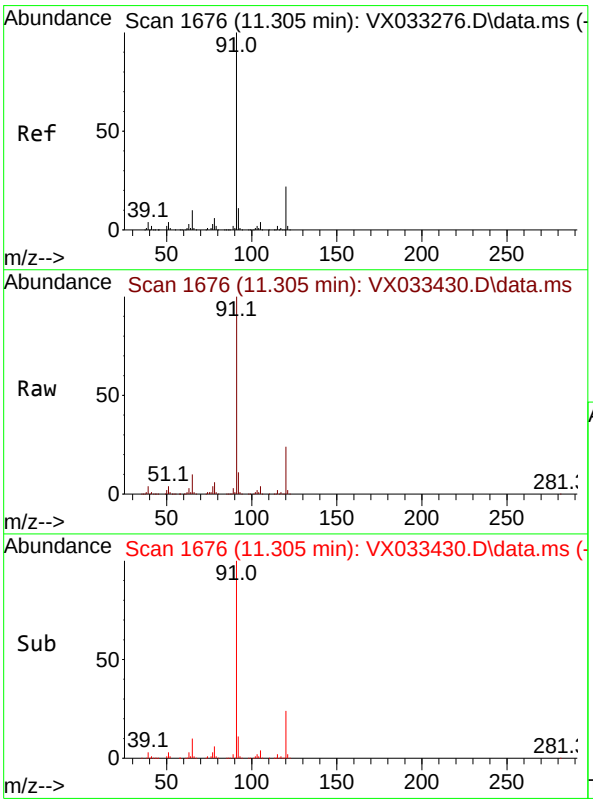
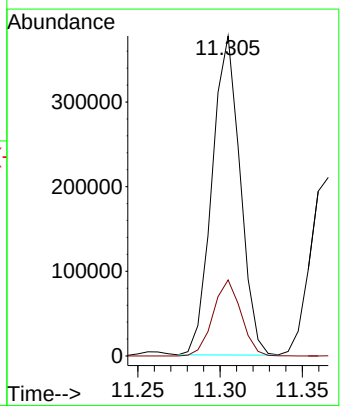
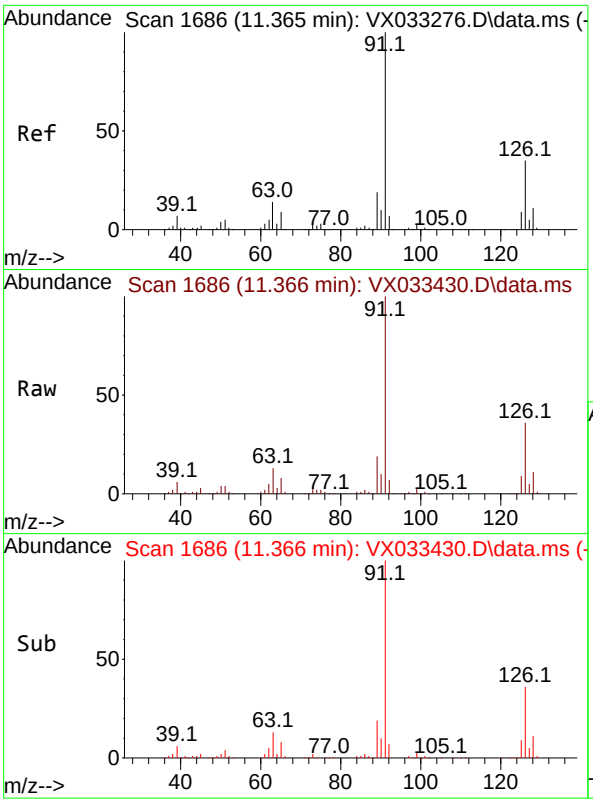



#78
n-propylbenzene
Concen: 53.354 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 447548

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.7 | 11.6 | 34.8 |






#79
2-Chlorotoluene
Concen: 51.178 ug/l
RT: 11.366 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 26531

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 35.3 | 17.1 | 51.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

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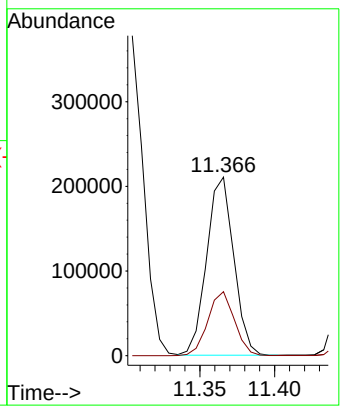
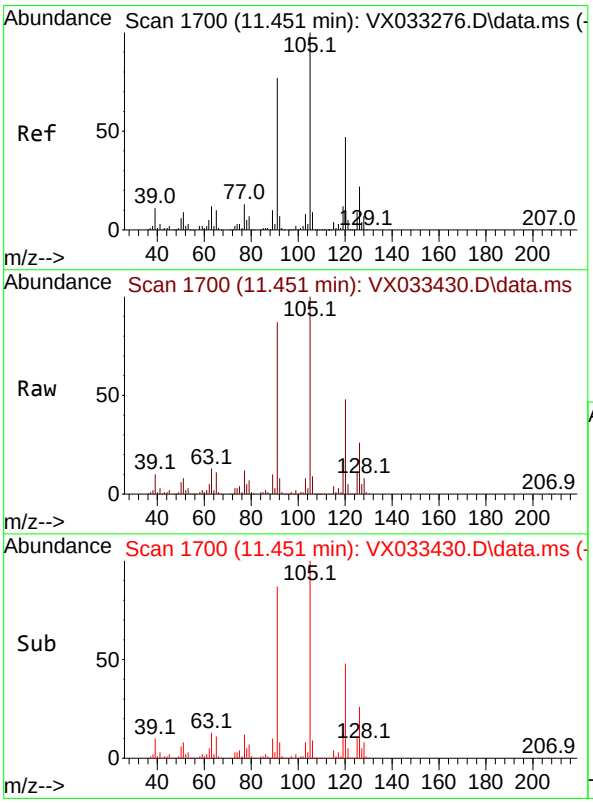
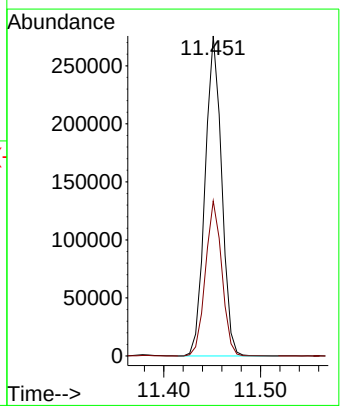


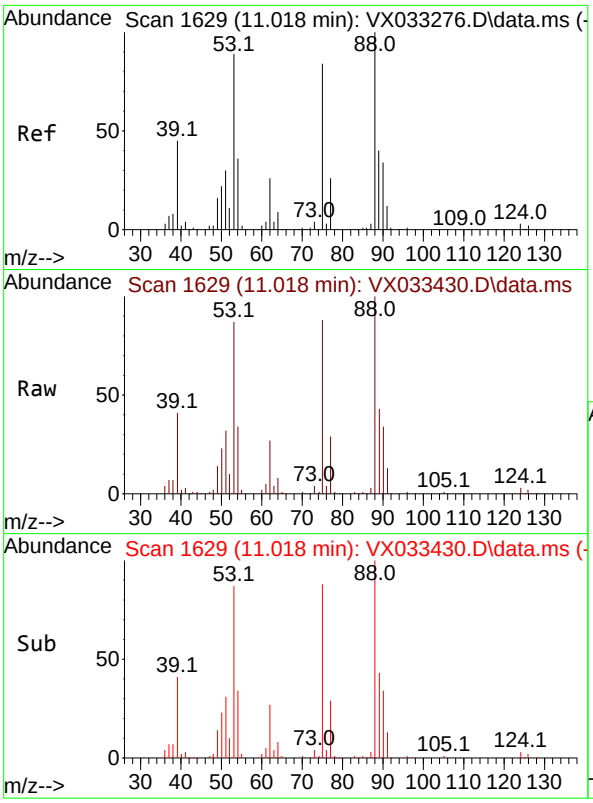




#80
1,3,5-Trimethylbenzene
Concen: 52.584 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:105 Resp: 328826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.9 | 23.6 | 71.0 |

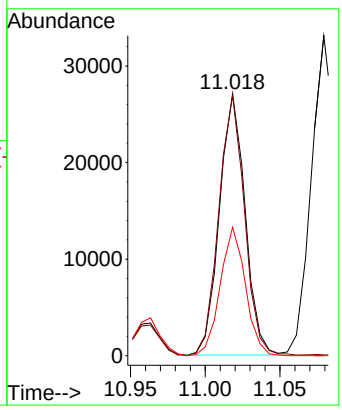





#81
trans-1,4-Dichloro-2-butene
Concen: 47.686 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

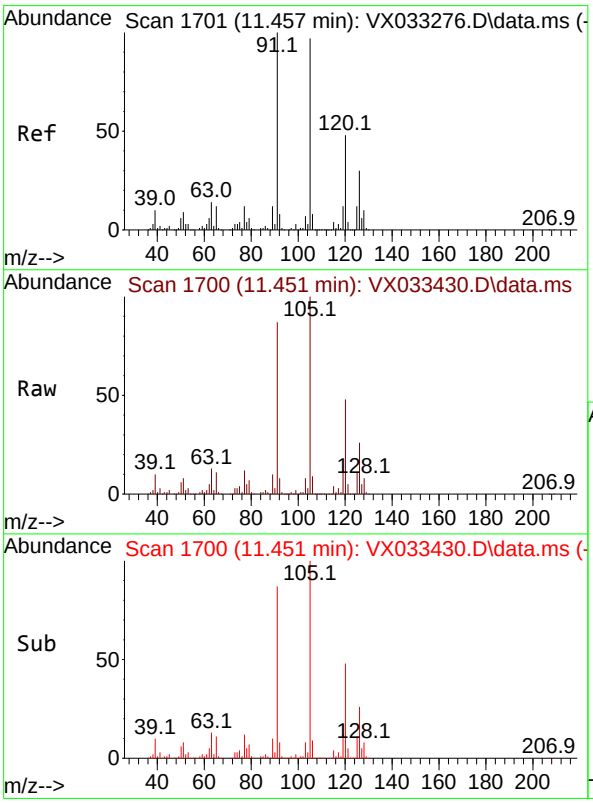
Tgt Ion: 75 Resp: 3232

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 100.0 | 86.9 | 130.3 |
| 89 | 48.3 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

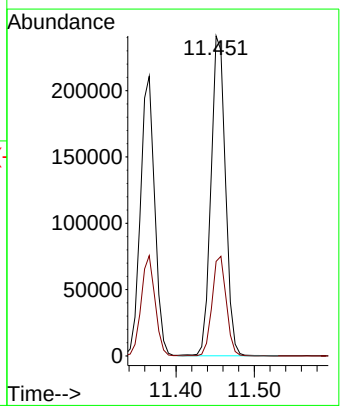
**Manual Integrations**
**APPROVED**
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

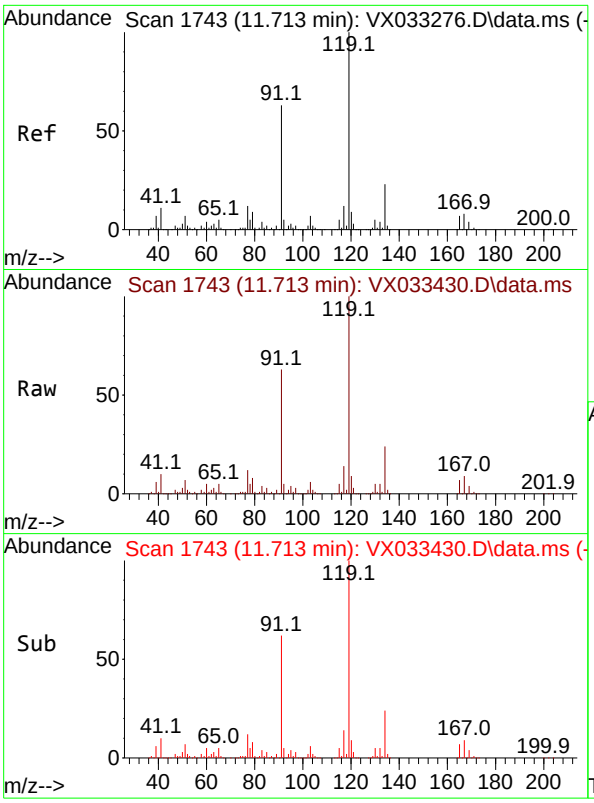



#82
4-Chlorotoluene
Concen: 51.072 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 307861

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.8 | 14.8 | 44.4 |






#83
tert-Butylbenzene
Concen: 52.240 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:119 Resp: 32576

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 58.2 | 29.4 | 88.2 |
| 134 | 22.9 | 11.0 | 33.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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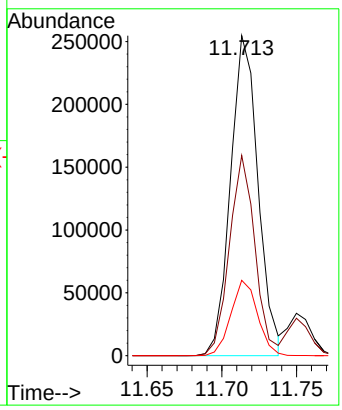
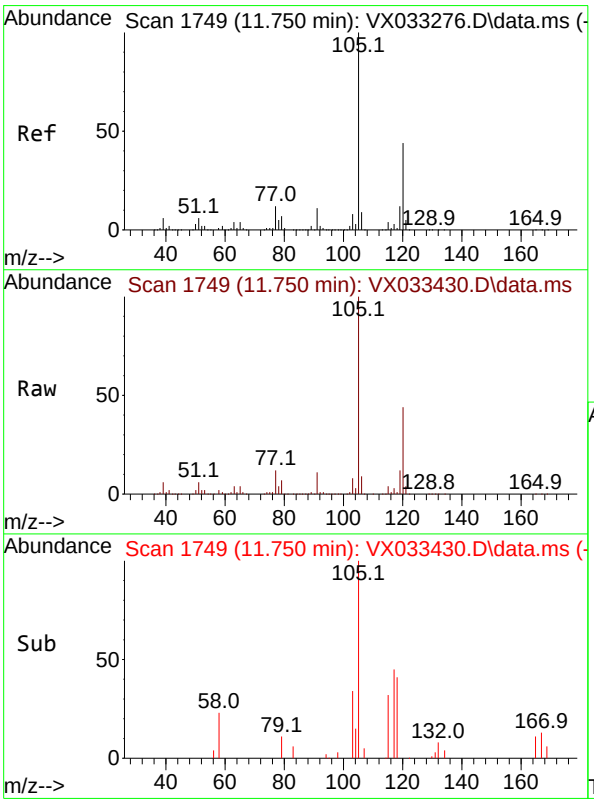
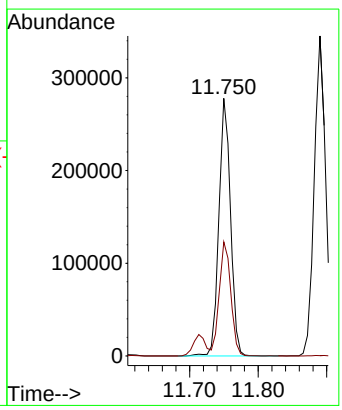


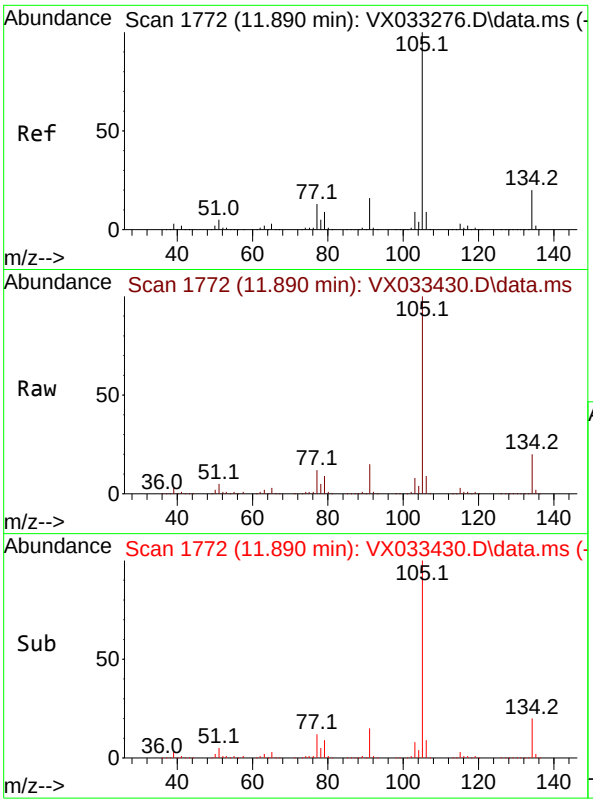




#84
1,2,4-Trimethylbenzene
Concen: 52.274 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:105 Resp: 326303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.9 | 21.9 | 65.5 |






#85
sec-Butylbenzene
Concen: 55.088 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:105 Resp: 40079

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.2 | 9.9 | 29.7 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

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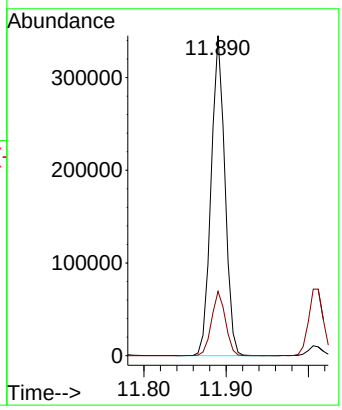
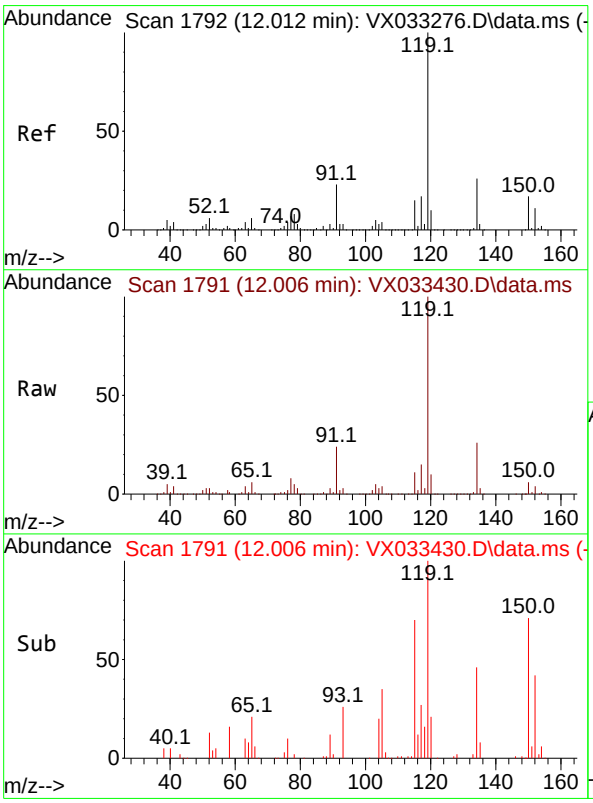
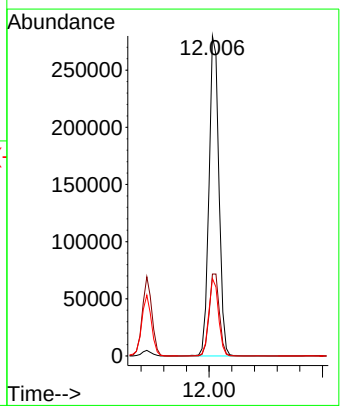


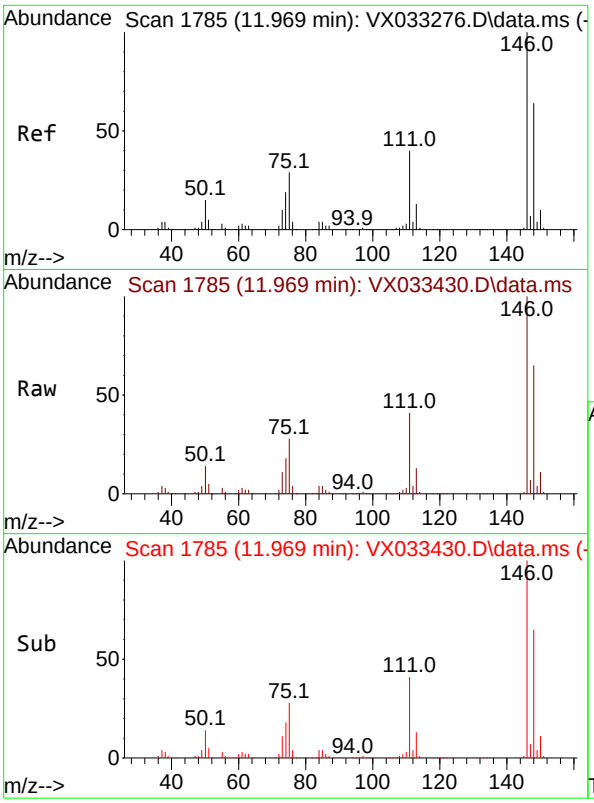




#86
p-Isopropyltoluene
Concen: 54.230 ug/l
RT: 12.006 min Scan# 1791
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:119 Resp: 340165

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.3 | 12.9 | 38.7 |
| 91 | 23.8 | 12.5 | 37.5 |

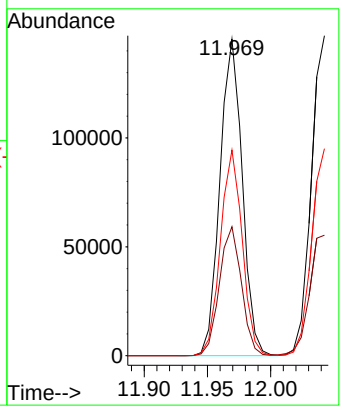





#87
1,3-Dichlorobenzene
Concen: 51.761 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:146 Resp: 17787

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.4 | 20.6 | 61.8 |
| 148 | 63.7 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
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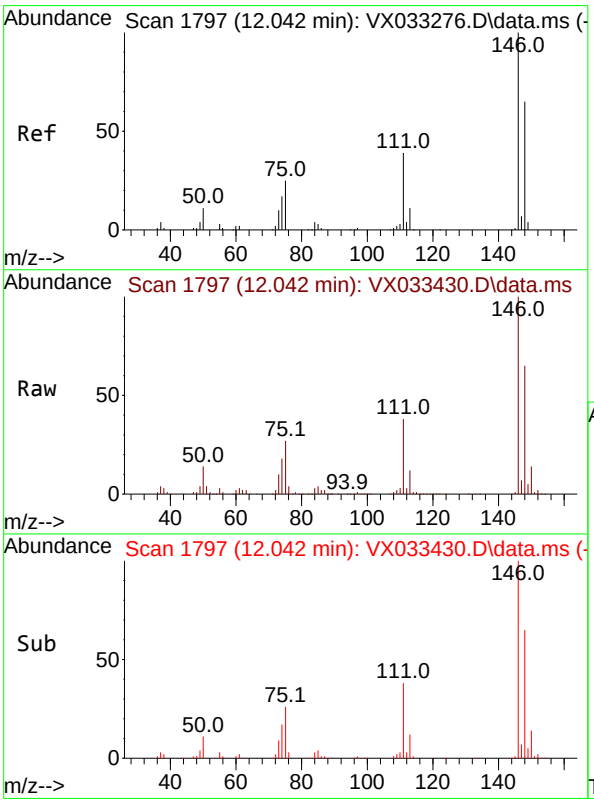
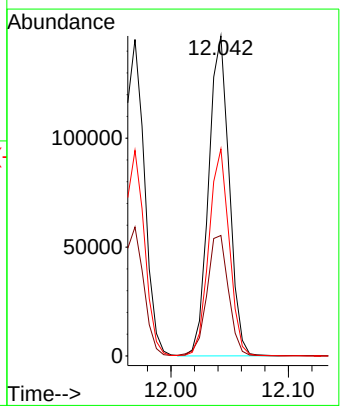
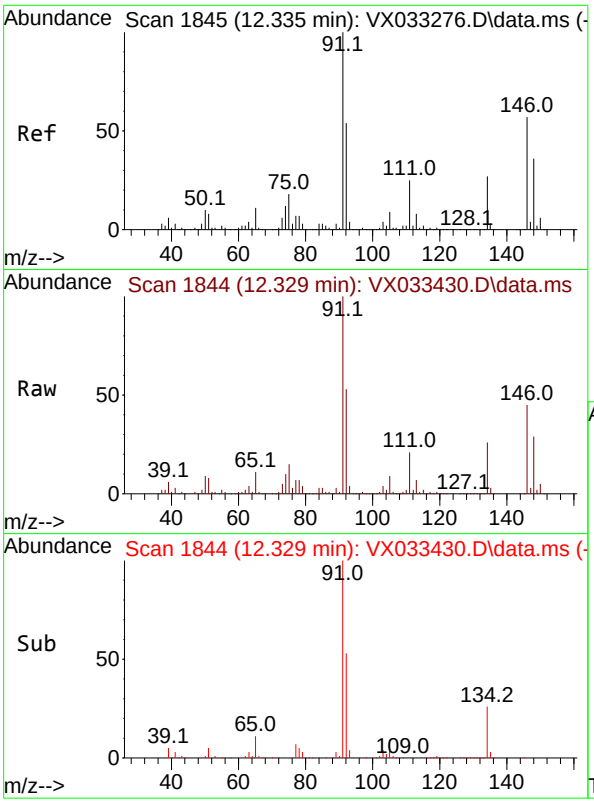



#88
1,4-Dichlorobenzene
Concen: 50.770 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:146 Resp: 178208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.5 | 20.5 | 61.6 |
| 148 | 64.3 | 32.2 | 96.6 |

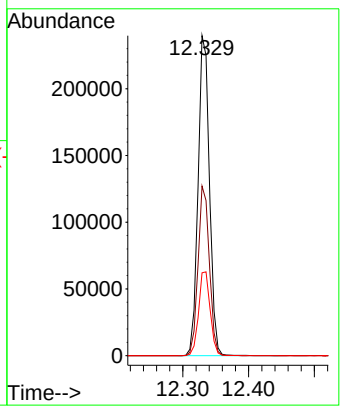





#89
n-Butylbenzene
Concen: 56.031 ug/l
RT: 12.329 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 91 Resp: 28786

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.7 | 26.2 | 78.6 |
| 134 | 26.7 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

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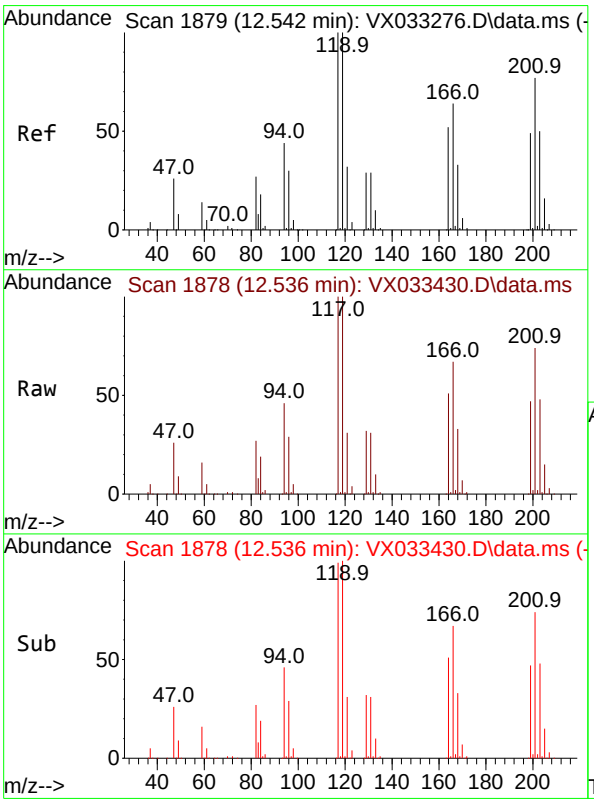
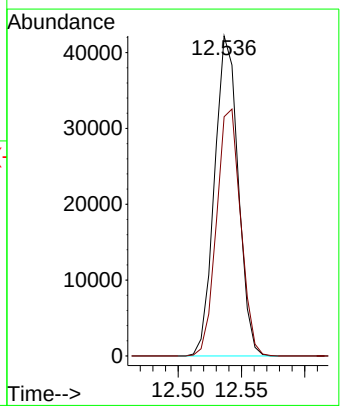
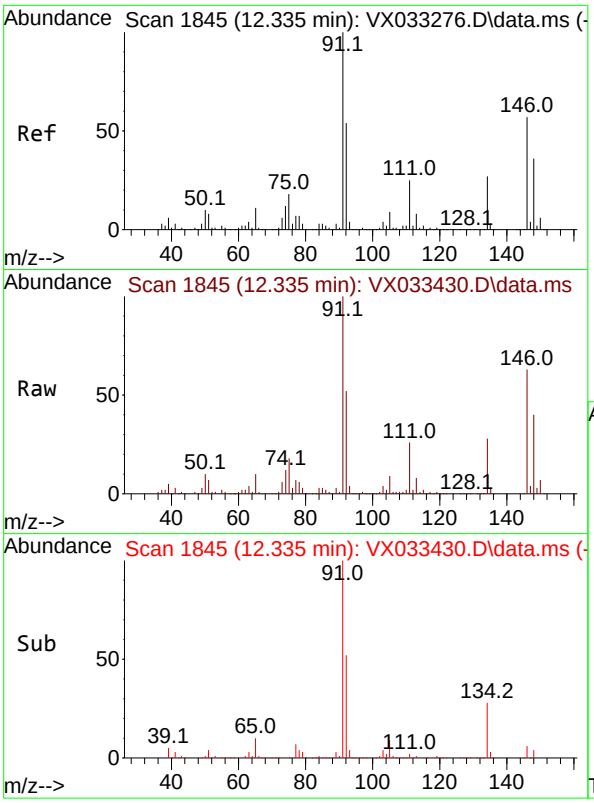



#90
Hexachloroethane
Concen: 51.259 ug/l
RT: 12.536 min Scan# 1878
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:117 Resp: 54653

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 78.8 | 37.6 | 112.9 |

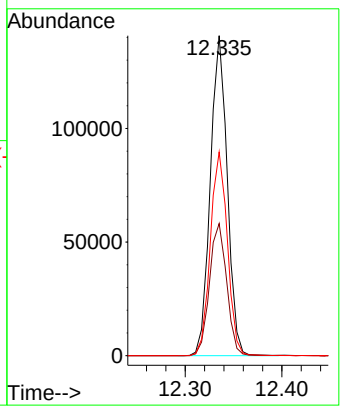





#91
1,2-Dichlorobenzene
Concen: 49.768 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:146 Resp: 17098

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 42.2 | 21.5 | 64.5 |
| 148 | 64.2 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations APPROVED**

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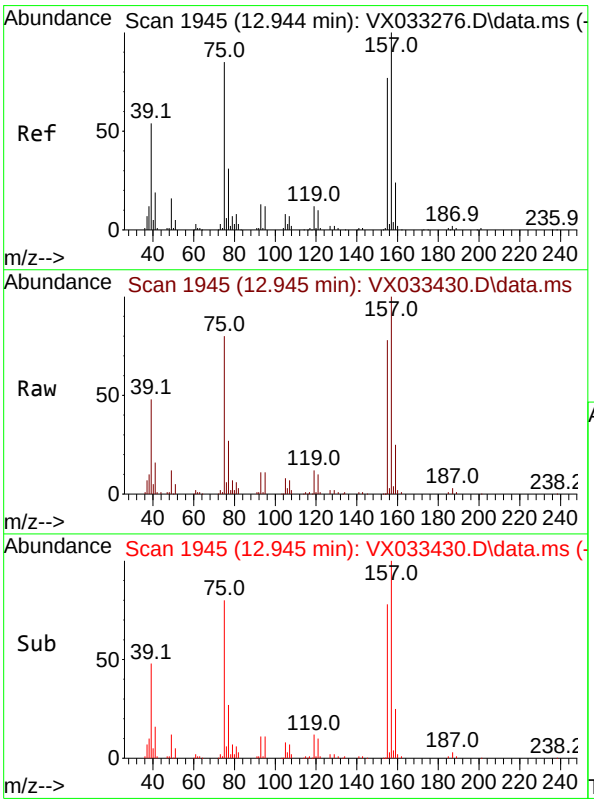
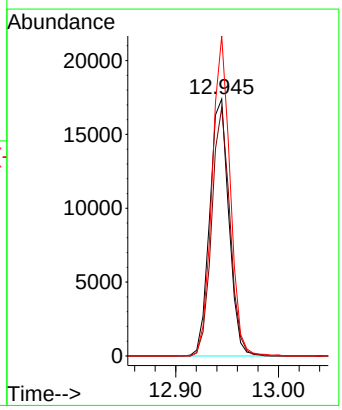
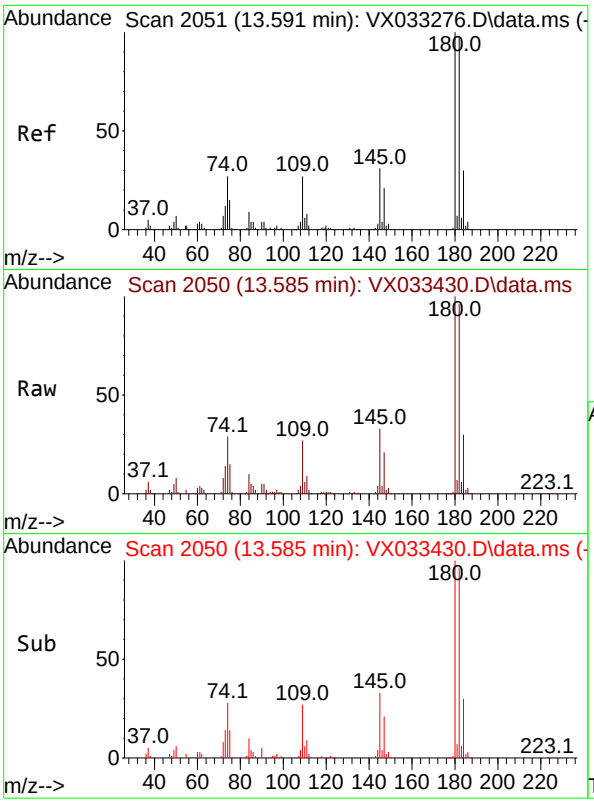



#92
1,2-Dibromo-3-Chloropropane
Concen: 43.655 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion: 75 Resp: 22473

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 91.9 | 41.6 | 124.8 |
| 157 | 117.0 | 54.1 | 162.4 |

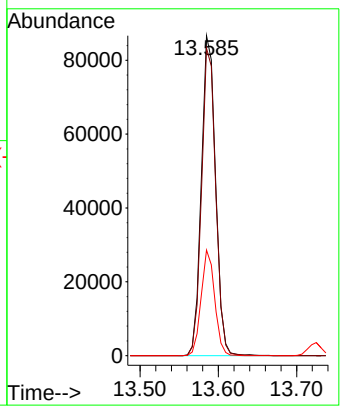





#93
1,2,4-Trichlorobenzene
Concen: 52.564 ug/l
RT: 13.585 min Scan# 2
Delta R.T. -0.006 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:180 Resp: 10906

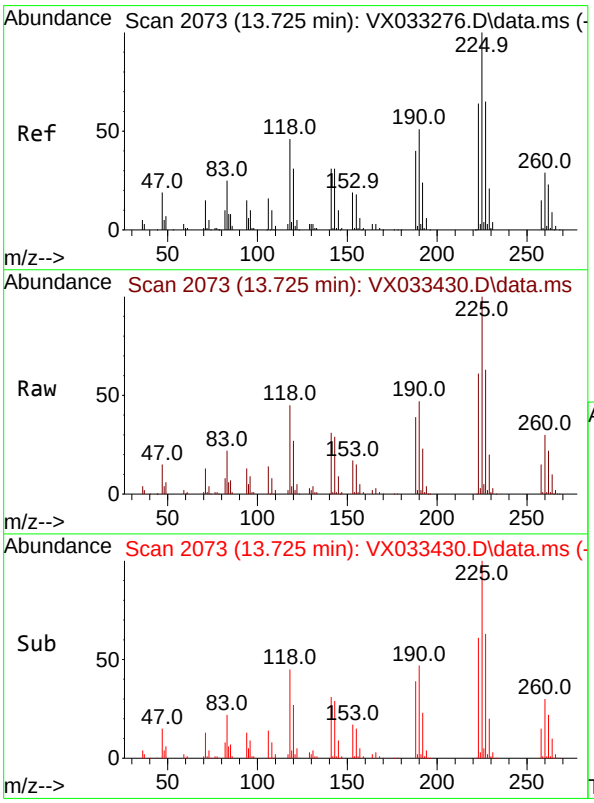
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.7 | 48.4 | 145.0 |
| 145 | 31.6 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

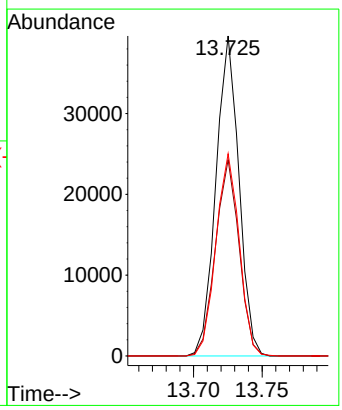
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

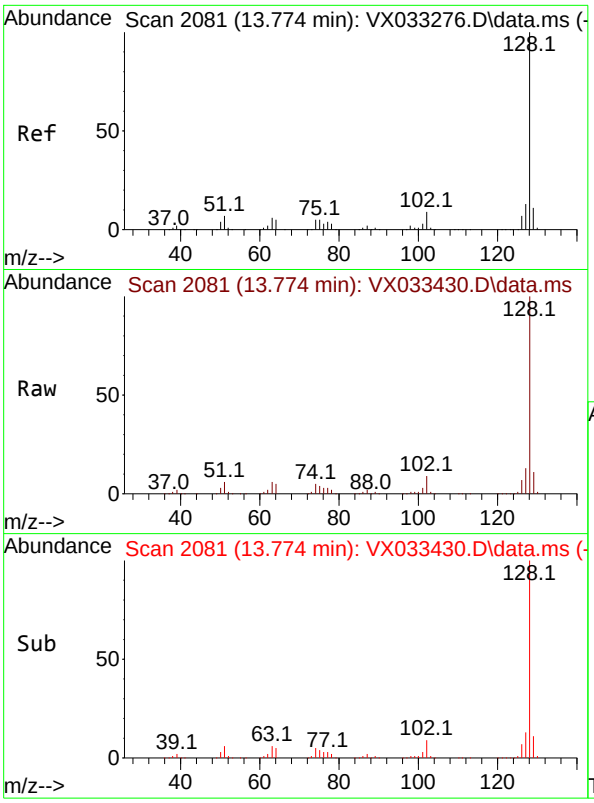



#94
Hexachlorobutadiene
Concen: 55.517 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:225 Resp: 46128

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 62.9 | 31.9 | 95.9 |
| 227 | 64.1 | 31.9 | 95.5 |

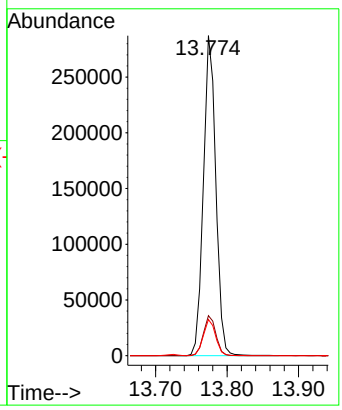





#95
Naphthalene
Concen: 50.172 ug/l
RT: 13.774 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:128 Resp: 34725

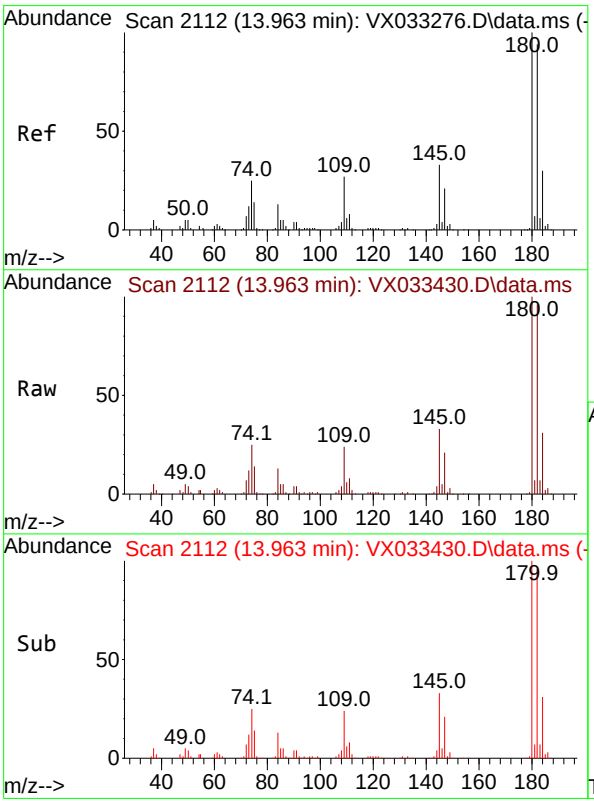
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.5 | 10.2 | 15.4 |
| 129 | 11.2 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VSTDCCC050

**Manual Integrations**
**APPROVED**

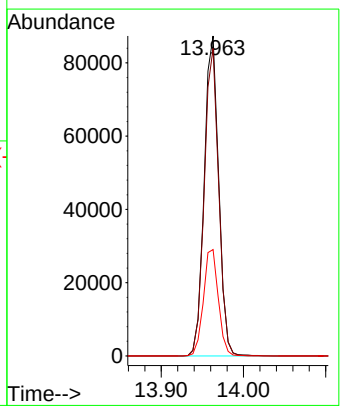
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022




#96
1,2,3-Trichlorobenzene
Concen: 50.808 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. 0.000 min
Lab File: VX033430.D
Acq: 15 Dec 2022 10:10

Tgt Ion:180 Resp: 106772

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.9 | 47.5 | 142.6 |
| 145 | 34.3 | 16.9 | 50.6 |



Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | Pentafluorobenzene | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 0.349 | 0.341 | 2.3 | 91 | 0.00 |
| 3 | P | Chloromethane | 0.404 | 0.338 | 16.3 | 82 | 0.00 |
| 4 | C | Vinyl Chloride | 0.461 | 0.393 | 14.8# | 81 | 0.00 |
| 5 | T | Bromomethane | 0.338 | 0.258 | 23.7 | 75 | 0.00 |
| 6 | T | Chloroethane | 0.350 | 0.320 | 8.6 | 83 | 0.00 |
| 7 | T | Trichlorofluoromethane | 0.866 | 0.605 | 30.1# | 65 | 0.00 |
| 8 | T | Diethyl Ether | 0.313 | 0.215 | 31.3# | 69 | 0.00 |
| 9 | T | 1,1,2-Trichlorotrifluoroeth | 0.459 | 0.477 | -3.9 | 94 | 0.00 |
| 10 | T | Methyl Iodide | 0.503 | 0.487 | 3.2 | 87 | 0.00 |
| 11 | T | Tert butyl alcohol | 0.098 | 0.078 | 20.4 | 85 | 0.00 |
| 12 | CM | 1,1-Dichloroethene | 0.453 | 0.431 | 4.9# | 89 | 0.00 |
| 13 | T | Acrolein | 0.106 | 0.064 | 39.6# | 56 | 0.00 |
| 14 | T | Allyl chloride | 0.724 | 0.661 | 8.7 | 85 | 0.00 |
| 15 | T | Acrylonitrile | 0.243 | 0.212 | 12.8 | 82 | 0.00 |
| 16 | T | Acetone | 0.237 | 0.250 | -5.5 | 107 | 0.00 |
| 17 | T | Carbon Disulfide | 1.163 | 1.017 | 12.6 | 81 | 0.00 |
| 18 | T | Methyl Acetate | 0.687 | 0.623 | 9.3 | 85 | 0.00 |
| 19 | T | Methyl tert-butyl Ether | 1.570 | 1.511 | 3.8 | 90 | 0.00 |
| 20 | T | Methylene Chloride | 0.529 | 0.468 | 11.5 | 87 | 0.00 |
| 21 | T | trans-1,2-Dichloroethene | 0.496 | 0.475 | 4.2 | 89 | 0.00 |
| 22 | T | Diisopropyl ether | 1.551 | 1.520 | 2.0 | 88 | -0.01 |
| 23 | T | Vinyl Acetate | 1.204 | 1.143 | 5.1 | 85 | 0.00 |
| 24 | P | 1,1-Dichloroethane | 0.911 | 0.850 | 6.7 | 88 | 0.00 |
| 25 | T | 2-Butanone | 0.341 | 0.321 | 5.9 | 87 | 0.00 |
| 26 | T | 2,2-Dichloropropane | 0.670 | 0.697 | -4.0 | 94 | 0.00 |
| 27 | T | cis-1,2-Dichloroethene | 0.593 | 0.583 | 1.7 | 91 | 0.00 |
| 28 | T | Bromochloromethane | 0.381 | 0.366 | 3.9 | 86 | -0.01 |
| 29 | T | Tetrahydrofuran | 0.221 | 0.190 | 14.0 | 79 | -0.01 |
| 30 | C | Chloroform | 1.012 | 0.993 | 1.9# | 91 | -0.01 |
| 31 | T | Cyclohexane | 0.762 | 0.748 | 1.8 | 88 | 0.00 |
| 32 | T | 1,1,1-Trichloroethane | 0.870 | 0.894 | -2.8 | 92 | 0.00 |
| 33 | S | 1,2-Dichloroethane-d4 | 0.321 | 0.273 | 15.0 | 83 | 0.00 |
| 34 | I | 1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 84 | 0.00 |
| 35 | S | Dibromofluoromethane | 0.225 | 0.208 | 7.6 | 86 | -0.01 |
| 36 | T | 1,1-Dichloropropene | 0.438 | 0.450 | -2.7 | 90 | 0.00 |
| 37 | T | Ethyl Acetate | 0.414 | 0.379 | 8.5 | 80 | 0.00 |
| 38 | T | Carbon Tetrachloride | 0.491 | 0.512 | -4.3 | 90 | 0.00 |
| 39 | T | Methylcyclohexane | 0.491 | 0.540 | -10.0 | 92 | 0.00 |
| 40 | TM | Benzene | 1.278 | 1.292 | -1.1 | 89 | 0.00 |
| 41 | T | Methacrylonitrile | 0.228 | 0.216 | 5.3 | 81 | 0.00 |
| 42 | TM | 1,2-Dichloroethane | 0.508 | 0.505 | 0.6 | 89 | -0.01 |
| 43 | T | Isopropyl Acetate | 0.667 | 0.638 | 4.3 | 84 | 0.00 |
| 44 | TM | Trichloroethene | 0.352 | 0.369 | -4.8 | 92 | 0.00 |
| 45 | C | 1,2-Dichloropropane | 0.327 | 0.330 | -0.9# | 90 | 0.00 |
| 46 | T | Dibromomethane | 0.249 | 0.251 | -0.8 | 90 | 0.00 |
| 47 | T | Bromodichloromethane | 0.485 | 0.508 | -4.7 | 91 | 0.00 |
| 48 | T | Methyl methacrylate | 0.344 | 0.330 | 4.1 | 84 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | 1,4-Dioxane | 0.008 | 0.007 | 12.5 | 78 | 0.00 |
| 50 | S | Toluene-d8 | 0.470 | 0.455 | 3.2 | 86 | 0.00 |
| 51 | T | 4-Methyl-2-Pentanone | 0.422 | 0.416 | 1.4 | 85 | 0.00 |
| 52 | CM | Toluene | 0.827 | 0.905 | -9.4# | 93 | 0.00 |
| 53 | T | t-1,3-Dichloropropene | 0.473 | 0.512 | -8.2 | 92 | 0.00 |
| 54 | T | cis-1,3-Dichloropropene | 0.517 | 0.549 | -6.2 | 90 | 0.00 |
| 55 | T | 1,1,2-Trichloroethane | 0.347 | 0.365 | -5.2 | 92 | 0.00 |
| 56 | T | Ethyl methacrylate | 0.489 | 0.525 | -7.4 | 90 | 0.00 |
| 57 | T | 1,3-Dichloropropane | 0.558 | 0.588 | -5.4 | 92 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl ether | 0.224 | 0.214 | 4.5 | 80 | 0.00 |
| 59 | T | 2-Hexanone | 0.311 | 0.318 | -2.3 | 87 | 0.00 |
| 60 | T | Dibromochloromethane | 0.383 | 0.421 | -9.9 | 94 | 0.00 |
| 61 | T | 1,2-Dibromoethane | 0.370 | 0.393 | -6.2 | 92 | 0.00 |
| 62 | S | 4-Bromofluorobenzene | 0.360 | 0.370 | -2.8 | 88 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 64 | T | Tetrachloroethene | 0.342 | 0.348 | -1.8 | 95 | 0.00 |
| 65 | PM | Chlorobenzene | 1.013 | 1.042 | -2.9 | 95 | 0.00 |
| 66 | T | 1,1,1,2-Tetrachloroethane | 0.383 | 0.394 | -2.9 | 93 | 0.00 |
| 67 | C | Ethyl Benzene | 1.764 | 1.859 | -5.4# | 94 | 0.00 |
| 68 | T | m/p-Xylenes | 0.686 | 0.740 | -7.9 | 96 | 0.00 |
| 69 | T | o-Xylene | 0.678 | 0.712 | -5.0 | 93 | 0.00 |
| 70 | T | Styrene | 1.111 | 1.192 | -7.3 | 94 | 0.00 |
| 71 | P | Bromoform | 0.303 | 0.311 | -2.6 | 90 | 0.00 |
| 72 | I | 1,4-Dichlorobenzene-d4 | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 73 | T | Isopropylbenzene | 3.624 | 3.763 | -3.8 | 95 | 0.00 |
| 74 | T | N-amyl acetate | 1.236 | 1.207 | 2.3 | 88 | 0.00 |
| 75 | P | 1,1,2,2-Tetrachloroethane | 1.150 | 1.092 | 5.0 | 90 | 0.00 |
| 76 | T | 1,2,3-Trichloropropane | 1.017 | 0.985 | 3.1 | 92 | 0.00 |
| 77 | T | Bromobenzene | 0.915 | 0.929 | -1.5 | 97 | 0.00 |
| 78 | T | n-propylbenzene | 4.047 | 4.318 | -6.7 | 96 | 0.00 |
| 79 | T | 2-Chlorotoluene | 2.501 | 2.560 | -2.4 | 95 | 0.00 |
| 80 | T | 1,3,5-Trimethylbenzene | 3.017 | 3.173 | -5.2 | 96 | 0.00 |
| 81 | T | trans-1,4-Dichloro-2-butene | 0.327 | 0.312 | 4.6 | 90 | 0.00 |
| 82 | T | 4-Chlorotoluene | 2.908 | 2.970 | -2.1 | 96 | 0.00 |
| 83 | T | tert-Butylbenzene | 3.008 | 3.143 | -4.5 | 95 | 0.00 |
| 84 | T | 1,2,4-Trimethylbenzene | 3.011 | 3.148 | -4.5 | 96 | 0.00 |
| 85 | T | sec-Butylbenzene | 3.510 | 3.867 | -10.2 | 98 | 0.00 |
| 86 | T | p-Isopropyltoluene | 3.026 | 3.282 | -8.5 | 98 | 0.00 |
| 87 | T | 1,3-Dichlorobenzene | 1.658 | 1.716 | -3.5 | 96 | 0.00 |
| 88 | T | 1,4-Dichlorobenzene | 1.693 | 1.719 | -1.5 | 97 | 0.00 |
| 89 | T | n-Butylbenzene | 2.478 | 2.777 | -12.1 | 100 | 0.00 |
| 90 | T | Hexachloroethane | 0.514 | 0.527 | -2.5 | 94 | 0.00 |
| 91 | T | 1,2-Dichlorobenzene | 1.657 | 1.650 | 0.4 | 95 | 0.00 |
| 92 | T | 1,2-Dibromo-3-Chloropropane | 0.248 | 0.217 | 12.5 | 84 | 0.00 |
| 93 | T | 1,2,4-Trichlorobenzene | 1.001 | 1.052 | -5.1 | 99 | 0.00 |
| 94 | T | Hexachlorobutadiene | 0.401 | 0.445 | -11.0 | 105 | 0.00 |
| 95 | T | Naphthalene | 3.339 | 3.350 | -0.3 | 91 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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) |
|---|---|---|---|---|---|---|
| 96 T | 1,2,3-Trichlorobenzene | 1.014 | 1.030 | -1.6 | 94 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | Pentafluorobenzene | 50.000 | 50.000 | 0.0 | 88 | 0.00 |
| 2 | T | Dichlorodifluoromethane | 50.000 | 48.857 | 2.3 | 91 | 0.00 |
| 3 | P | Chloromethane | 50.000 | 41.907 | 16.2 | 82 | 0.00 |
| 4 | C | Vinyl Chloride | 50.000 | 42.593 | 14.8# | 81 | 0.00 |
| 5 | T | Bromomethane | 50.000 | 38.059 | 23.9 | 75 | 0.00 |
| 6 | T | Chloroethane | 50.000 | 45.688 | 8.6 | 83 | 0.00 |
| 7 | T | Trichlorofluoromethane | 50.000 | 34.963 | 30.1# | 65 | 0.00 |
| 8 | T | Diethyl Ether | 50.000 | 34.367 | 31.3# | 69 | 0.00 |
| 9 | T | 1,1,2-Trichlorotrifluoroeth | 50.000 | 51.935 | -3.9 | 94 | 0.00 |
| 10 | T | Methyl Iodide | 50.000 | 48.441 | 3.1 | 87 | 0.00 |
| 11 | T | Tert butyl alcohol | 250.000 | 198.723 | 20.5 | 85 | 0.00 |
| 12 | CM | 1,1-Dichloroethene | 50.000 | 47.504 | 5.0# | 89 | 0.00 |
| 13 | T | Acrolein | 250.000 | 150.751 | 39.7# | 56 | 0.00 |
| 14 | T | Allyl chloride | 50.000 | 45.680 | 8.6 | 85 | 0.00 |
| 15 | T | Acrylonitrile | 250.000 | 217.703 | 12.9 | 82 | 0.00 |
| 16 | T | Acetone | 250.000 | 263.734 | -5.5 | 107 | 0.00 |
| 17 | T | Carbon Disulfide | 50.000 | 43.713 | 12.6 | 81 | 0.00 |
| 18 | T | Methyl Acetate | 50.000 | 45.331 | 9.3 | 85 | 0.00 |
| 19 | T | Methyl tert-butyl Ether | 50.000 | 48.117 | 3.8 | 90 | 0.00 |
| 20 | T | Methylene Chloride | 50.000 | 44.186 | 11.6 | 87 | 0.00 |
| 21 | T | trans-1,2-Dichloroethene | 50.000 | 47.906 | 4.2 | 89 | 0.00 |
| 22 | T | Diisopropyl ether | 50.000 | 49.007 | 2.0 | 88 | -0.01 |
| 23 | T | Vinyl Acetate | 250.000 | 237.436 | 5.0 | 85 | 0.00 |
| 24 | P | 1,1-Dichloroethane | 50.000 | 46.634 | 6.7 | 88 | 0.00 |
| 25 | T | 2-Butanone | 250.000 | 235.335 | 5.9 | 87 | 0.00 |
| 26 | T | 2,2-Dichloropropane | 50.000 | 52.038 | -4.1 | 94 | 0.00 |
| 27 | T | cis-1,2-Dichloroethene | 50.000 | 49.154 | 1.7 | 91 | 0.00 |
| 28 | T | Bromochloromethane | 50.000 | 48.028 | 3.9 | 86 | -0.01 |
| 29 | T | Tetrahydrofuran | 250.000 | 215.085 | 14.0 | 79 | -0.01 |
| 30 | C | Chloroform | 50.000 | 49.069 | 1.9# | 91 | -0.01 |
| 31 | T | Cyclohexane | 50.000 | 49.051 | 1.9 | 88 | 0.00 |
| 32 | T | 1,1,1-Trichloroethane | 50.000 | 51.371 | -2.7 | 92 | 0.00 |
| 33 | S | 1,2-Dichloroethane-d4 | 50.000 | 42.623 | 14.8 | 83 | 0.00 |
| 34 | I | 1,4-Difluorobenzene | 50.000 | 50.000 | 0.0 | 84 | 0.00 |
| 35 | S | Dibromofluoromethane | 50.000 | 46.257 | 7.5 | 86 | -0.01 |
| 36 | T | 1,1-Dichloropropene | 50.000 | 51.308 | -2.6 | 90 | 0.00 |
| 37 | T | Ethyl Acetate | 50.000 | 45.696 | 8.6 | 80 | 0.00 |
| 38 | T | Carbon Tetrachloride | 50.000 | 52.107 | -4.2 | 90 | 0.00 |
| 39 | T | Methylcyclohexane | 50.000 | 54.993 | -10.0 | 92 | 0.00 |
| 40 | TM | Benzene | 50.000 | 50.524 | -1.0 | 89 | 0.00 |
| 41 | T | Methacrylonitrile | 50.000 | 47.333 | 5.3 | 81 | 0.00 |
| 42 | TM | 1,2-Dichloroethane | 50.000 | 49.784 | 0.4 | 89 | -0.01 |
| 43 | T | Isopropyl Acetate | 50.000 | 47.844 | 4.3 | 84 | 0.00 |
| 44 | TM | Trichloroethene | 50.000 | 52.390 | -4.8 | 92 | 0.00 |
| 45 | C | 1,2-Dichloropropane | 50.000 | 50.412 | -0.8# | 90 | 0.00 |
| 46 | T | Dibromomethane | 50.000 | 50.361 | -0.7 | 90 | 0.00 |
| 47 | T | Bromodichloromethane | 50.000 | 52.352 | -4.7 | 91 | 0.00 |
| 48 | T | Methyl methacrylate | 50.000 | 47.923 | 4.2 | 84 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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 | 1,4-Dioxane | 1000.000 | 884.207 | 11.6 | 78 | 0.00 |
| 50 | S | Toluene-d8 | 50.000 | 48.378 | 3.2 | 86 | 0.00 |
| 51 | T | 4-Methyl-2-Pentanone | 250.000 | 246.435 | 1.4 | 85 | 0.00 |
| 52 | CM | Toluene | 50.000 | 54.761 | -9.5# | 93 | 0.00 |
| 53 | T | t-1,3-Dichloropropene | 50.000 | 49.141 | 1.7 | 92 | 0.00 |
| 54 | T | cis-1,3-Dichloropropene | 50.000 | 53.138 | -6.3 | 90 | 0.00 |
| 55 | T | 1,1,2-Trichloroethane | 50.000 | 52.574 | -5.1 | 92 | 0.00 |
| 56 | T | Ethyl methacrylate | 50.000 | 53.687 | -7.4 | 90 | 0.00 |
| 57 | T | 1,3-Dichloropropane | 50.000 | 52.677 | -5.4 | 92 | 0.00 |
| 58 | T | 2-Chloroethyl Vinyl ether | 250.000 | 238.862 | 4.5 | 80 | 0.00 |
| 59 | T | 2-Hexanone | 250.000 | 255.739 | -2.3 | 87 | 0.00 |
| 60 | T | Dibromochloromethane | 50.000 | 54.930 | -9.9 | 94 | 0.00 |
| 61 | T | 1,2-Dibromoethane | 50.000 | 53.222 | -6.4 | 92 | 0.00 |
| 62 | S | 4-Bromofluorobenzene | 50.000 | 51.395 | -2.8 | 88 | 0.00 |
| 63 | I | Chlorobenzene-d5 | 50.000 | 50.000 | 0.0 | 88 | 0.00 |
| 64 | T | Tetrachloroethene | 50.000 | 50.953 | -1.9 | 95 | 0.00 |
| 65 | PM | Chlorobenzene | 50.000 | 51.464 | -2.9 | 95 | 0.00 |
| 66 | T | 1,1,1,2-Tetrachloroethane | 50.000 | 51.451 | -2.9 | 93 | 0.00 |
| 67 | C | Ethyl Benzene | 50.000 | 52.692 | -5.4# | 94 | 0.00 |
| 68 | T | m/p-Xylenes | 100.000 | 107.856 | -7.9 | 96 | 0.00 |
| 69 | T | o-Xylene | 50.000 | 52.510 | -5.0 | 93 | 0.00 |
| 70 | T | Styrene | 50.000 | 53.646 | -7.3 | 94 | 0.00 |
| 71 | P | Bromoform | 50.000 | 51.374 | -2.7 | 90 | 0.00 |
| 72 | I | 1,4-Dichlorobenzene-d4 | 50.000 | 50.000 | 0.0 | 90 | 0.00 |
| 73 | T | Isopropylbenzene | 50.000 | 51.922 | -3.8 | 95 | 0.00 |
| 74 | T | N-amyl acetate | 50.000 | 48.802 | 2.4 | 88 | 0.00 |
| 75 | P | 1,1,2,2-Tetrachloroethane | 50.000 | 47.488 | 5.0 | 90 | 0.00 |
| 76 | T | 1,2,3-Trichloropropane | 50.000 | 48.402 | 3.2 | 92 | 0.00 |
| 77 | T | Bromobenzene | 50.000 | 50.759 | -1.5 | 97 | 0.00 |
| 78 | T | n-propylbenzene | 50.000 | 53.354 | -6.7 | 96 | 0.00 |
| 79 | T | 2-Chlorotoluene | 50.000 | 51.178 | -2.4 | 95 | 0.00 |
| 80 | T | 1,3,5-Trimethylbenzene | 50.000 | 52.584 | -5.2 | 96 | 0.00 |
| 81 | T | trans-1,4-Dichloro-2-butene | 50.000 | 47.686 | 4.6 | 90 | 0.00 |
| 82 | T | 4-Chlorotoluene | 50.000 | 51.072 | -2.1 | 96 | 0.00 |
| 83 | T | tert-Butylbenzene | 50.000 | 52.240 | -4.5 | 95 | 0.00 |
| 84 | T | 1,2,4-Trimethylbenzene | 50.000 | 52.274 | -4.5 | 96 | 0.00 |
| 85 | T | sec-Butylbenzene | 50.000 | 55.088 | -10.2 | 98 | 0.00 |
| 86 | T | p-Isopropyltoluene | 50.000 | 54.230 | -8.5 | 98 | 0.00 |
| 87 | T | 1,3-Dichlorobenzene | 50.000 | 51.761 | -3.5 | 96 | 0.00 |
| 88 | T | 1,4-Dichlorobenzene | 50.000 | 50.770 | -1.5 | 97 | 0.00 |
| 89 | T | n-Butylbenzene | 50.000 | 56.031 | -12.1 | 100 | 0.00 |
| 90 | T | Hexachloroethane | 50.000 | 51.259 | -2.5 | 94 | 0.00 |
| 91 | T | 1,2-Dichlorobenzene | 50.000 | 49.768 | 0.5 | 95 | 0.00 |
| 92 | T | 1,2-Dibromo-3-Chloropropane | 50.000 | 43.655 | 12.7 | 84 | 0.00 |
| 93 | T | 1,2,4-Trichlorobenzene | 50.000 | 52.564 | -5.1 | 99 | 0.00 |
| 94 | T | Hexachlorobutadiene | 50.000 | 55.517 | -11.0 | 105 | 0.00 |
| 95 | T | Naphthalene | 50.000 | 50.172 | -0.3 | 91 | 0.00 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033430.D
Acq On : 15 Dec 2022 10:10
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**LabSampleId :**
VSTDCCC050

Quant Time: Dec 16 00:54:39 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
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) |
|---|---|---|---|---|---|---|
| 96 T | 1,2,3-Trichlorobenzene | 50.000 | 50.808 | -1.6 | 94 | 0.00 |

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH

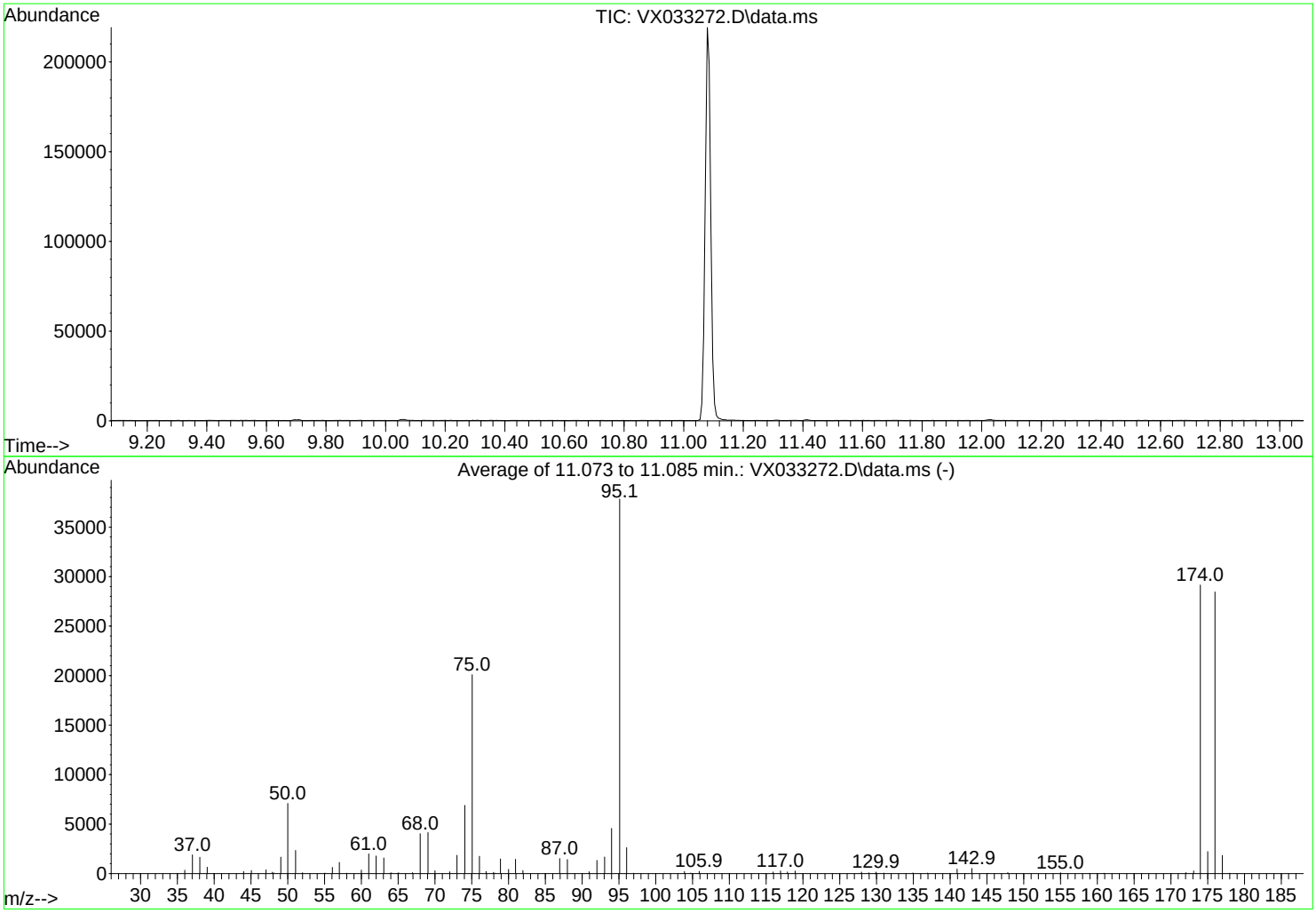
# QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX120722\
Data File : VX033272.D
Acq On : 07 Dec 2022 09:17
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Title : SW846 8260
Last Update : Wed Dec 07 12:43:54 2022




AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

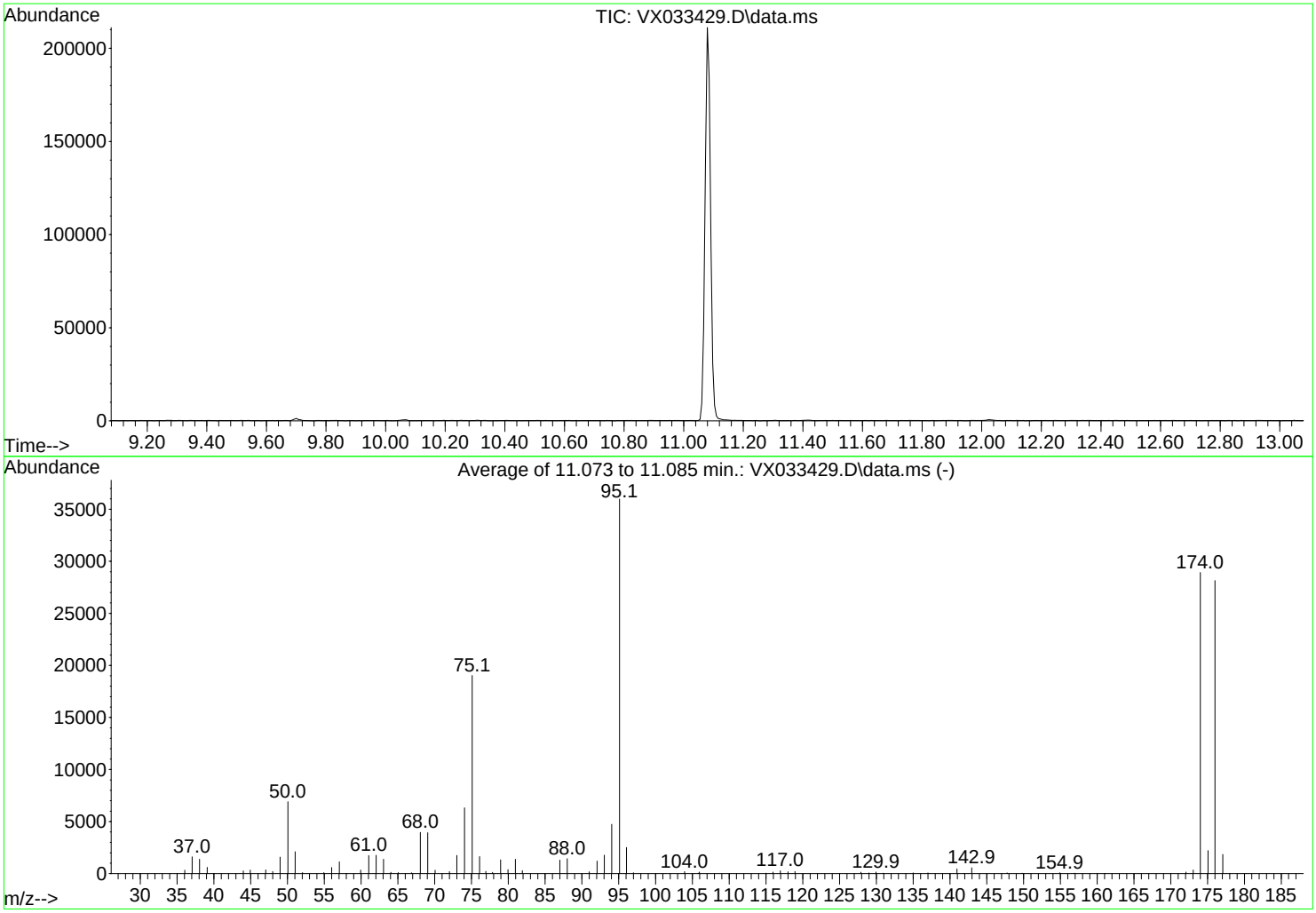
| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 18.7 | 7090 | PASS |
| 75 | 95 | 30 | 60 | 53.1 | 20095 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 37840 | PASS |
| 96 | 95 | 5 | 9 | 6.9 | 2623 | PASS |
| 173 | 174 | 0.00 | 2 | 0.9 | 270 | PASS |
| 174 | 95 | 50 | 100 | 77.0 | 29149 | PASS |
| 175 | 174 | 5 | 9 | 7.6 | 2227 | PASS |
| 176 | 174 | 95 | 101 | 97.6 | 28448 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 1841 | PASS |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033429.D
Acq On : 15 Dec 2022 09:39
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Title : SW846 8260
Last Update : Wed Dec 07 12:43:54 2022




AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 15 | 40 | 19.2 | 6908 | PASS |
| 75 | 95 | 30 | 60 | 52.9 | 19031 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 35987 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 2518 | PASS |
| 173 | 174 | 0.00 | 2 | 1.2 | 336 | PASS |
| 174 | 95 | 50 | 100 | 80.4 | 28931 | PASS |
| 175 | 174 | 5 | 9 | 7.6 | 2209 | PASS |
| 176 | 174 | 95 | 101 | 97.3 | 28149 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 1847 | PASS |

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | JACOBS Engineering Group, Inc. | Date Collected: | |
| Project: | Former Schlumberger Site Princeton NJ | Date Received: | |
| Client Sample ID: | VX1215WBL01 | SDG No.: | N6070 |
| Lab Sample ID: | VX1215WBL01 | Matrix: | Water |
| Analytical Method: | SW8260 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group3 |
| GC Column: | DB-624UI ID : 0.18 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VX033431.D | 1 | | 12/15/22 10:39 | VX121522 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-01-4 | Vinyl Chloride | 0.22 | U | 0.22 | 1.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 0.23 | U | 0.23 | 1.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 0.20 | U | 0.20 | 1.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 0.17 | U | 0.17 | 1.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 0.18 | U | 0.18 | 1.00 | ug/L |
| 71-43-2 | Benzene | 0.16 | U | 0.16 | 1.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 0.18 | U | 0.18 | 1.00 | ug/L |
| 79-01-6 | Trichloroethene | 0.27 | U | 0.27 | 1.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 0.19 | U | 0.19 | 1.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 0.18 | U | 0.18 | 1.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 43.0 | | 70 (74) - 130 (125) | 86% | SPK: 50 |
| 1868-53-7 | Dibromofluoromethane | 43.9 | | 70 (75) - 130 (124) | 88% | SPK: 50 |
| 2037-26-5 | Toluene-d8 | 42.9 | | 70 (86) - 130 (113) | 86% | SPK: 50 |
| 460-00-4 | 4-Bromofluorobenzene | 43.5 | | 70 (64) - 130 (133) | 87% | SPK: 50 |
| **INTERNAL STANDARDS** | | | | | | |
| 363-72-4 | Pentafluorobenzene | 143000 | 5.55 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 224000 | 6.757 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 198000 | 10.055 | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 92100 | 12.024 | | | |

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_X\Data\VX121522\
Data File : VX033431.D
Acq On : 15 Dec 2022 10:39
Operator : JC/MD
Sample : VX1215WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Quant Time: Dec 16 00:59:15 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

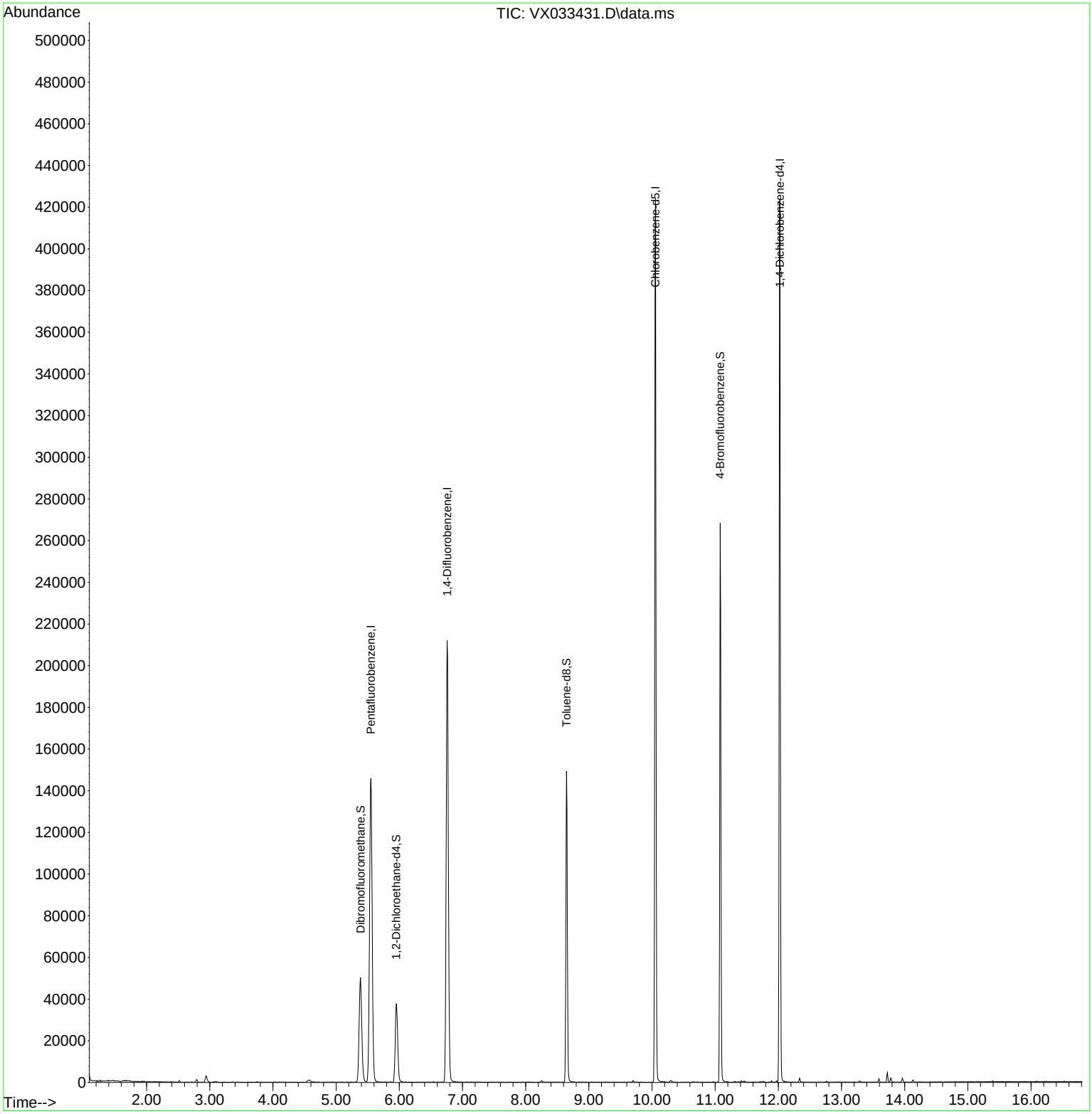
| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 143365 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.757 | 114 | 223781 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 198464 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 92099 | 50.000 | ug/l | 0.00 |
| System Monitoring Compounds | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.952 | 65 | 39540 | 42.991 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = | 85.980% | | |
| 35) Dibromofluoromethane | 5.385 | 113 | 44225 | 43.938 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = | 87.880% | | |
| 50) Toluene-d8 | 8.647 | 98 | 90233 | 42.854 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = | 85.700%# | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 70078 | 43.528 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = | 87.060% | | |
| Target Compounds | | | | | | Qvalue |

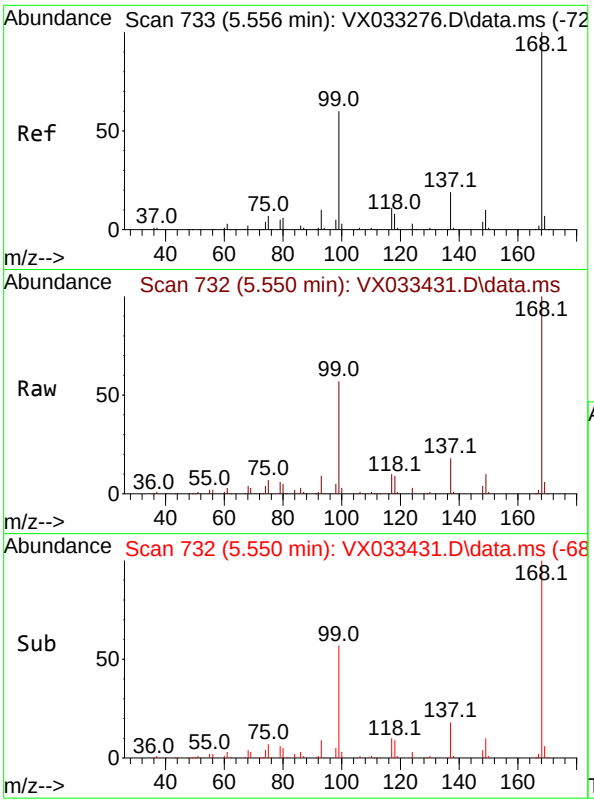
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033431.D
Acq On : 15 Dec 2022 10:39
Operator : JC/MD
Sample : VX1215WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Quant Time: Dec 16 00:59:15 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration



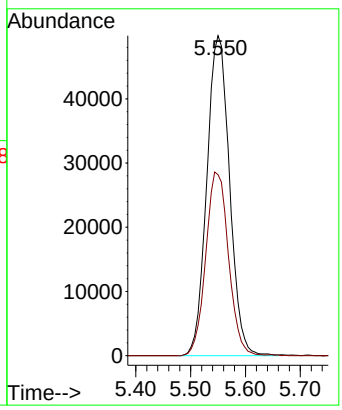


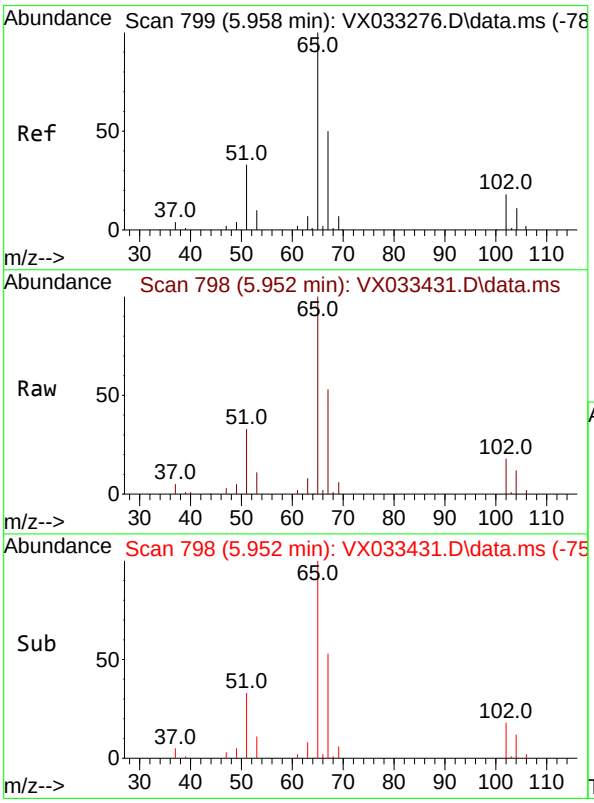

#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Tgt Ion:168 Resp: 143365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 56.5 | 46.1 | 69.1 |

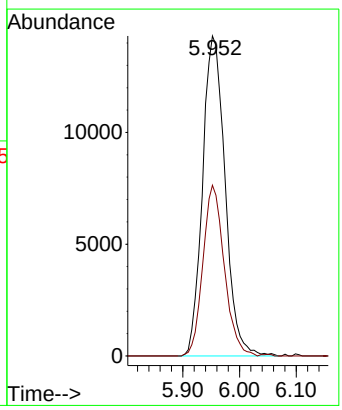


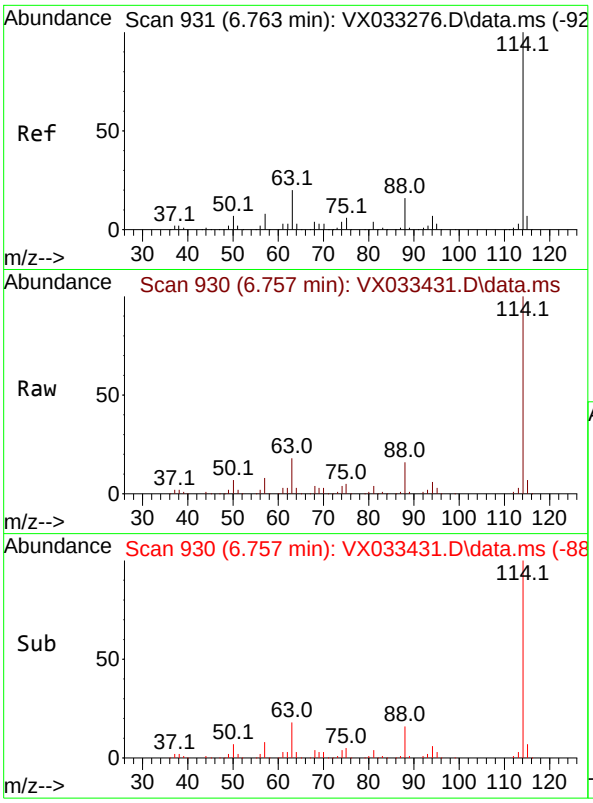




#33
1,2-Dichloroethane-d4
Concen: 42.991 ug/l
RT: 5.952 min Scan# 798
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

Tgt Ion: 65 Resp: 39540

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.6 | 0.0 | 101.8 |



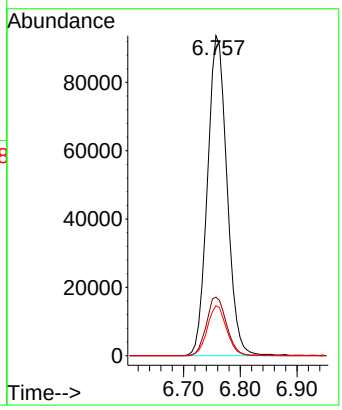


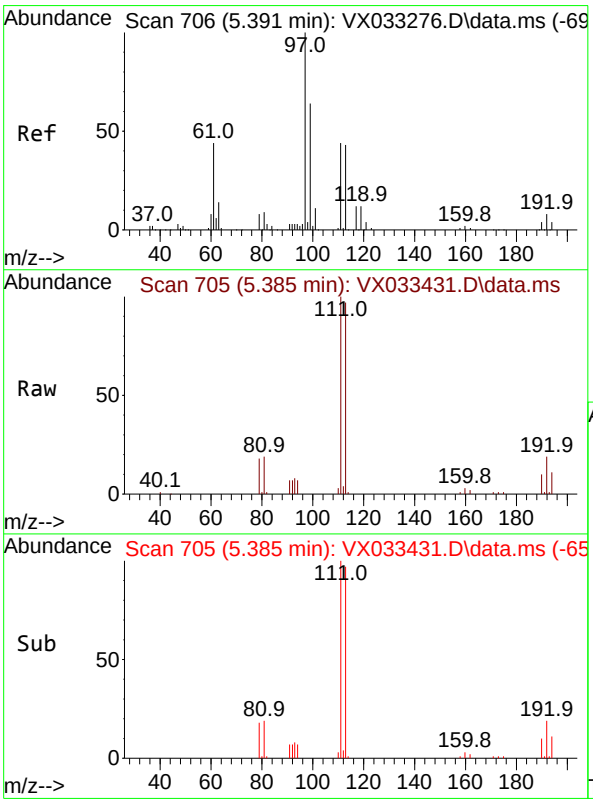

#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Tgt Ion:114 Resp: 223781

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 18.3 | 0.0 | 41.6 |
| 88 | 15.6 | 0.0 | 33.4 |

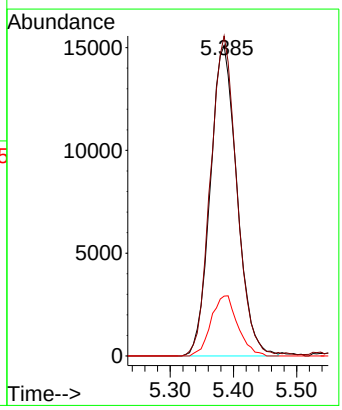


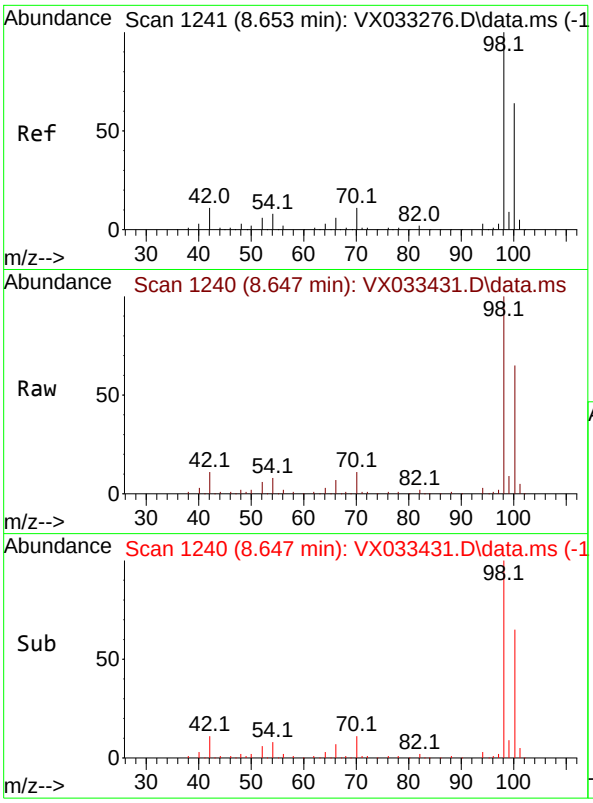




#35
Dibromofluoromethane
Concen: 43.938 ug/l
RT: 5.385 min Scan# 705
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

Tgt Ion:113 Resp: 44225

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 101.9 | 82.4 | 123.6 |
| 192 | 19.3 | 15.4 | 23.2 |



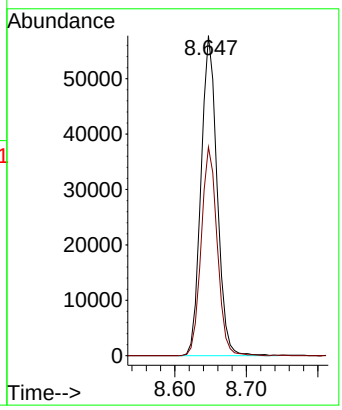


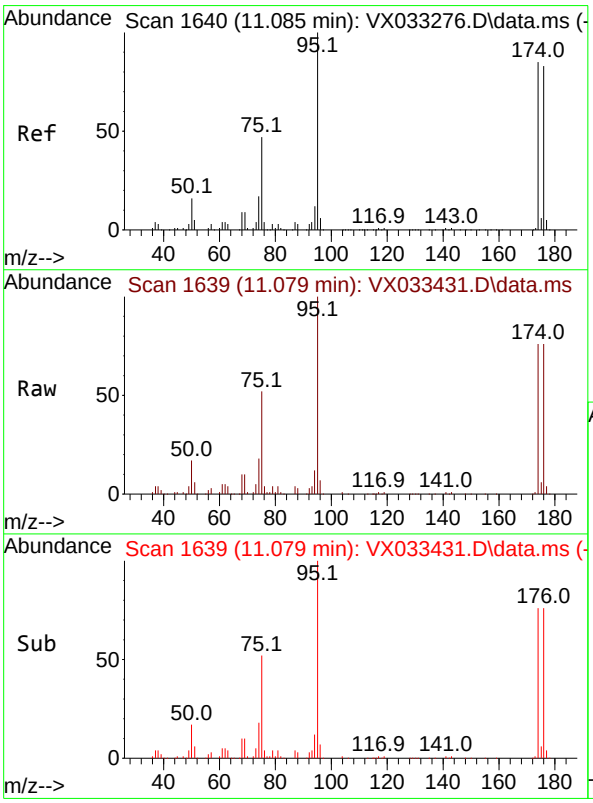

#50
Toluene-d8
Concen: 42.854 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Tgt Ion: 98 Resp: 90233

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 64.9 | 50.9 | 76.3 |

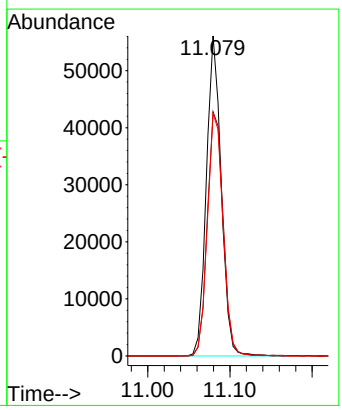


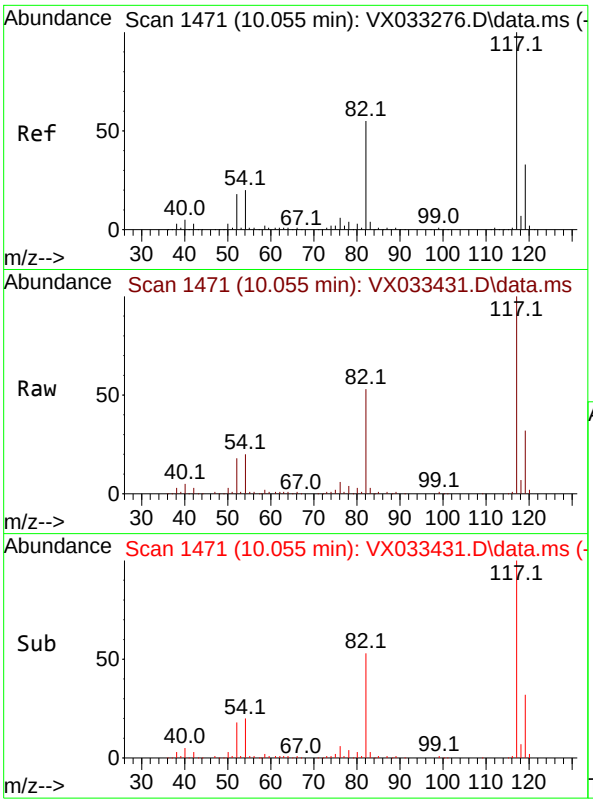




#62
4-Bromofluorobenzene
Concen: 43.528 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.006 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

Tgt Ion: 95 Resp: 70078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 81.8 | 0.0 | 164.0 |
| 176 | 80.1 | 0.0 | 154.4 |



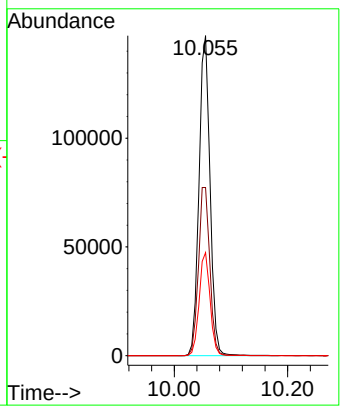


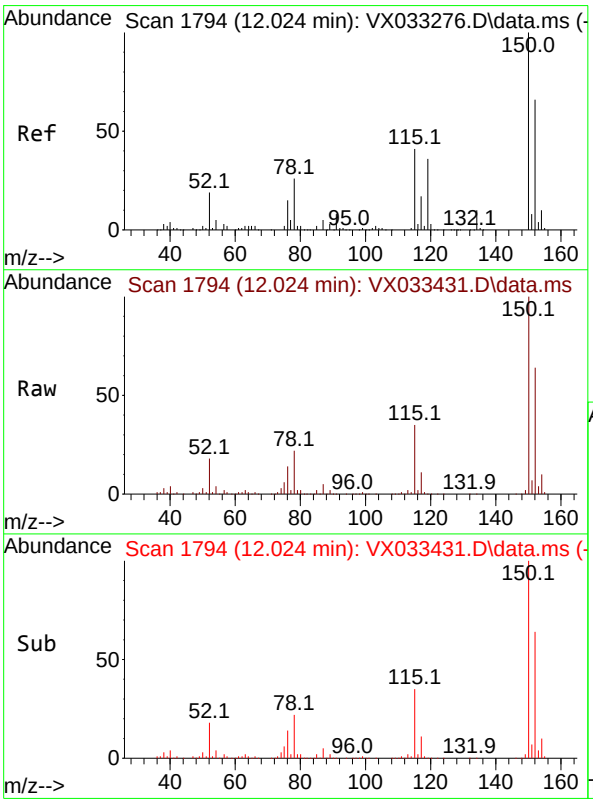

#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBL01

Tgt Ion:117 Resp: 198464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 52.6 | 44.3 | 66.5 |
| 119 | 32.2 | 25.7 | 38.5 |

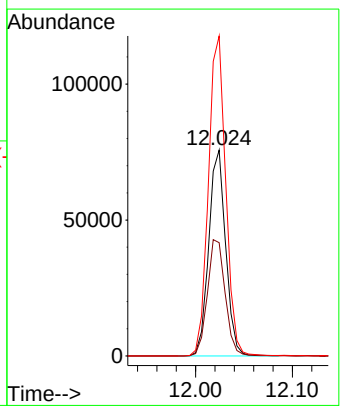



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033431.D
Acq: 15 Dec 2022 10:39

Tgt Ion:152 Resp: 92099

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 59.3 | 44.0 | 132.0 |
| 150 | 158.8 | 0.0 | 351.8 |



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | JACOBS Engineering Group, Inc. | Date Collected: | |
| Project: | Former Schlumberger Site Princeton NJ | Date Received: | |
| Client Sample ID: | VX1215WBS01 | SDG No.: | N6070 |
| Lab Sample ID: | VX1215WBS01 | Matrix: | Water |
| Analytical Method: | SW8260 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group3 |
| GC Column: | DB-624UI ID : 0.18 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VX033432.D | 1 | | 12/15/22 11:07 | VX121522 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-01-4 | Vinyl Chloride | 19.0 | | 0.22 | 1.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 14.9 | | 0.23 | 1.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 19.9 | | 0.20 | 1.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 20.6 | | 0.17 | 1.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 21.7 | | 0.18 | 1.00 | ug/L |
| 71-43-2 | Benzene | 21.3 | | 0.16 | 1.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 21.1 | | 0.18 | 1.00 | ug/L |
| 79-01-6 | Trichloroethene | 22.2 | | 0.27 | 1.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 22.0 | | 0.19 | 1.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 22.0 | | 0.18 | 1.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 48.2 | | 70 (74) - 130 (125) | 96% | SPK: 50 |
| 1868-53-7 | Dibromofluoromethane | 51.4 | | 70 (75) - 130 (124) | 103% | SPK: 50 |
| 2037-26-5 | Toluene-d8 | 54.1 | | 70 (86) - 130 (113) | 108% | SPK: 50 |
| 460-00-4 | 4-Bromofluorobenzene | 58.7 | | 70 (64) - 130 (133) | 117% | SPK: 50 |
| **INTERNAL STANDARDS** | | | | | | |
| 363-72-4 | Pentafluorobenzene | 144000 | 5.55 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 223000 | 6.757 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 208000 | 10.055 | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 106000 | 12.024 | | | |

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_X\Data\VX121522\
Data File : VX033432.D
Acq On : 15 Dec 2022 11:07
Operator : JC/MD
Sample : VX1215WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 00:59:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 144488 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.757 | 114 | 222709 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 207849 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 106397 | 50.000 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.952 | 65 | 44717 | 48.241 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 96.480% | | | |
| 35) Dibromofluoromethane | 5.379 | 113 | 51490 | 51.403 | ug/l | -0.01 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 102.800% | | | |
| 50) Toluene-d8 | 8.647 | 98 | 113403 | 54.117 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 108.240% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 93976 | 58.652 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 117.300% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.166 | 85 | 21017 | 20.823 | ug/l | 97 |
| 3) Chloromethane | 1.294 | 50 | 21492 | 18.417 | ug/l | 100 |
| 4) Vinyl Chloride | 1.374 | 62 | 25327 | 19.007 | ug/l | 99 |
| 5) Bromomethane | 1.618 | 94 | 18247 | 18.660 | ug/l | 96 |
| 6) Chloroethane | 1.691 | 64 | 17972 | 17.782 | ug/l | 98 |
| 7) Trichlorofluoromethane | 1.892 | 101 | 36958 | 14.774 | ug/l | 99 |
| 8) Diethyl Ether | 2.136 | 74 | 12542 | 13.881 | ug/l | 97 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 21618 | 16.291 | ug/l | 98 |
| 10) Methyl Iodide | 2.453 | 142 | 24387 | 16.779 | ug/l | 99 |
| 11) Tert butyl alcohol | 2.989 | 59 | 26481m | 93.442 | ug/l | |
| 12) 1,1-Dichloroethene | 2.319 | 96 | 19552 | 14.926 | ug/l | 95 |
| 13) Acrolein | 2.239 | 56 | 17586 | 57.217 | ug/l | 99 |
| 14) Allyl chloride | 2.666 | 41 | 40775 | 19.492 | ug/l | 96 |
| 15) Acrylonitrile | 3.062 | 53 | 66087 | 94.140 | ug/l | 100 |
| 16) Acetone | 2.386 | 43 | 55929 | 81.540 | ug/l | 94 |
| 17) Carbon Disulfide | 2.514 | 76 | 62011 | 18.445 | ug/l | 99 |
| 18) Methyl Acetate | 2.703 | 43 | 39105 | 19.694 | ug/l | 98 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 91597 | 20.187 | ug/l | 98 |
| 20) Methylene Chloride | 2.788 | 84 | 29965 | 19.589 | ug/l | 91 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 29486 | 20.578 | ug/l | 96 |
| 22) Diisopropyl ether | 3.757 | 45 | 90796 | 20.259 | ug/l | 95 |
| 23) Vinyl Acetate | 3.721 | 43 | 344260 | 98.964 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.611 | 63 | 52421 | 19.907 | ug/l | 99 |
| 25) 2-Butanone | 4.556 | 43 | 101104 | 102.689 | ug/l | 99 |
| 26) 2,2-Dichloropropane | 4.471 | 77 | 41358 | 21.357 | ug/l | 99 |
| 27) cis-1,2-Dichloroethene | 4.483 | 96 | 35301 | 20.614 | ug/l | 95 |
| 28) Bromochloromethane | 4.897 | 49 | 21526 | 19.528 | ug/l | 94 |
| 29) Tetrahydrofuran | 5.007 | 42 | 57659 | 90.388 | ug/l | 94 |
| 30) Chloroform | 5.093 | 83 | 60255 | 20.611 | ug/l | 99 |
| 31) Cyclohexane | 5.470 | 56 | 45256 | 20.544 | ug/l | 89 |
| 32) 1,1,1-Trichloroethane | 5.385 | 97 | 54583 | 21.700 | ug/l | 98 |
| 36) 1,1-Dichloropropene | 5.696 | 75 | 42941 | 21.987 | ug/l | 99 |
| 37) Ethyl Acetate | 4.708 | 43 | 35965 | 19.481 | ug/l | 99 |
| 38) Carbon Tetrachloride | 5.678 | 117 | 47373 | 21.650 | ug/l | 99 |
| 39) Methylcyclohexane | 7.379 | 83 | 50139 | 22.937 | ug/l | 98 |
| 40) Benzene | 6.037 | 78 | 121206 | 21.286 | ug/l | 97 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033432.D
Acq On : 15 Dec 2022 11:07
Operator : JC/MD
Sample : VX1215WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 00:59:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.922 | 41 | 20700 | 20.348 | ug/l | | 96 |
| 42) 1,2-Dichloroethane | 6.086 | 62 | 47676 | 21.085 | ug/l | | 98 |
| 43) Isopropyl Acetate | 6.336 | 43 | 59262 | 19.951 | ug/l | | 98 |
| 44) Trichloroethene | 7.123 | 130 | 34900 | 22.230 | ug/l | | 98 |
| 45) 1,2-Dichloropropane | 7.427 | 63 | 30977 | 21.271 | ug/l | | 100 |
| 46) Dibromomethane | 7.580 | 93 | 23654 | 21.322 | ug/l | | 98 |
| 47) Bromodichloromethane | 7.818 | 83 | 46317 | 21.418 | ug/l | | 98 |
| 48) Methyl methacrylate | 7.690 | 41 | 31051 | 20.255 | ug/l | | 95 |
| 49) 1,4-Dioxane | 7.696 | 88 | 13852 | 396.244 | ug/l | | 99 |
| 51) 4-Methyl-2-Pentanone | 8.574 | 43 | 196268 | 104.484 | ug/l | | 97 |
| 52) Toluene | 8.720 | 92 | 82715 | 22.467 | ug/l | | 99 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 45497 | 21.109 | ug/l | | 98 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 49946 | 21.705 | ug/l | | 91 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 34122 | 22.048 | ug/l | | 96 |
| 56) Ethyl methacrylate | 9.116 | 69 | 46679 | 21.423 | ug/l | | 92 |
| 57) 1,3-Dichloropropane | 9.311 | 76 | 53545 | 21.537 | ug/l | | 99 |
| 58) 2-Chloroethyl Vinyl ether | 8.238 | 63 | 96663 | 96.952 | ug/l | | 97 |
| 59) 2-Hexanone | 9.427 | 43 | 151387 | 109.361 | ug/l | | 95 |
| 60) Dibromochloromethane | 9.519 | 129 | 37523 | 22.006 | ug/l | | 99 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 36225 | 22.006 | ug/l | | 99 |
| 64) Tetrachloroethene | 9.275 | 164 | 31276 | 22.006 | ug/l | | 96 |
| 65) Chlorobenzene | 10.079 | 112 | 93552 | 22.227 | ug/l | | 100 |
| 66) 1,1,1,2-Tetrachloroethane | 10.165 | 131 | 34924 | 21.957 | ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 166887 | 22.759 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.299 | 106 | 130453 | 45.726 | ug/l | | 98 |
| 69) o-Xylene | 10.640 | 106 | 63279 | 22.440 | ug/l | | 98 |
| 70) Styrene | 10.659 | 104 | 107707 | 23.321 | ug/l | | 97 |
| 71) Bromoform | 10.799 | 173 | 26524 | 21.067 | ug/l | # | 98 |
| 73) Isopropylbenzene | 10.963 | 105 | 169527 | 21.983 | ug/l | | 100 |
| 74) N-amyl acetate | 10.841 | 43 | 52796 | 20.066 | ug/l | | 95 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 50578 | 20.673 | ug/l | | 98 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 45106m | 20.837 | ug/l | | |
| 77) Bromobenzene | 11.195 | 156 | 41846 | 21.489 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 193432 | 22.464 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 116212 | 21.838 | ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 142080 | 22.133 | ug/l | | 98 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 12707 | 18.260 | ug/l | | 97 |
| 82) 4-Chlorotoluene | 11.451 | 91 | 133528 | 21.579 | ug/l | | 97 |
| 83) tert-Butylbenzene | 11.713 | 119 | 143579 | 22.430 | ug/l | | 97 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 143303 | 22.364 | ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 173016 | 23.166 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.012 | 119 | 146815 | 22.801 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 79123 | 22.430 | ug/l | | 98 |
| 88) 1,4-Dichlorobenzene | 12.042 | 146 | 79025 | 21.932 | ug/l | | 100 |
| 89) n-Butylbenzene | 12.335 | 91 | 122594 | 23.246 | ug/l | | 100 |
| 90) Hexachloroethane | 12.536 | 117 | 22881 | 20.905 | ug/l | | 97 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 75848 | 21.506 | ug/l | | 98 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 9642 | 18.246 | ug/l | | 90 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 46565 | 21.862 | ug/l | | 99 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 21139 | 24.784 | ug/l | | 98 |
| 95) Naphthalene | 13.774 | 128 | 151271 | 21.291 | ug/l | | 100 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 46145 | 21.391 | ug/l | | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033432.D
Acq On : 15 Dec 2022 11:07
Operator : JC/MD
Sample : VX1215WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 00:59:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

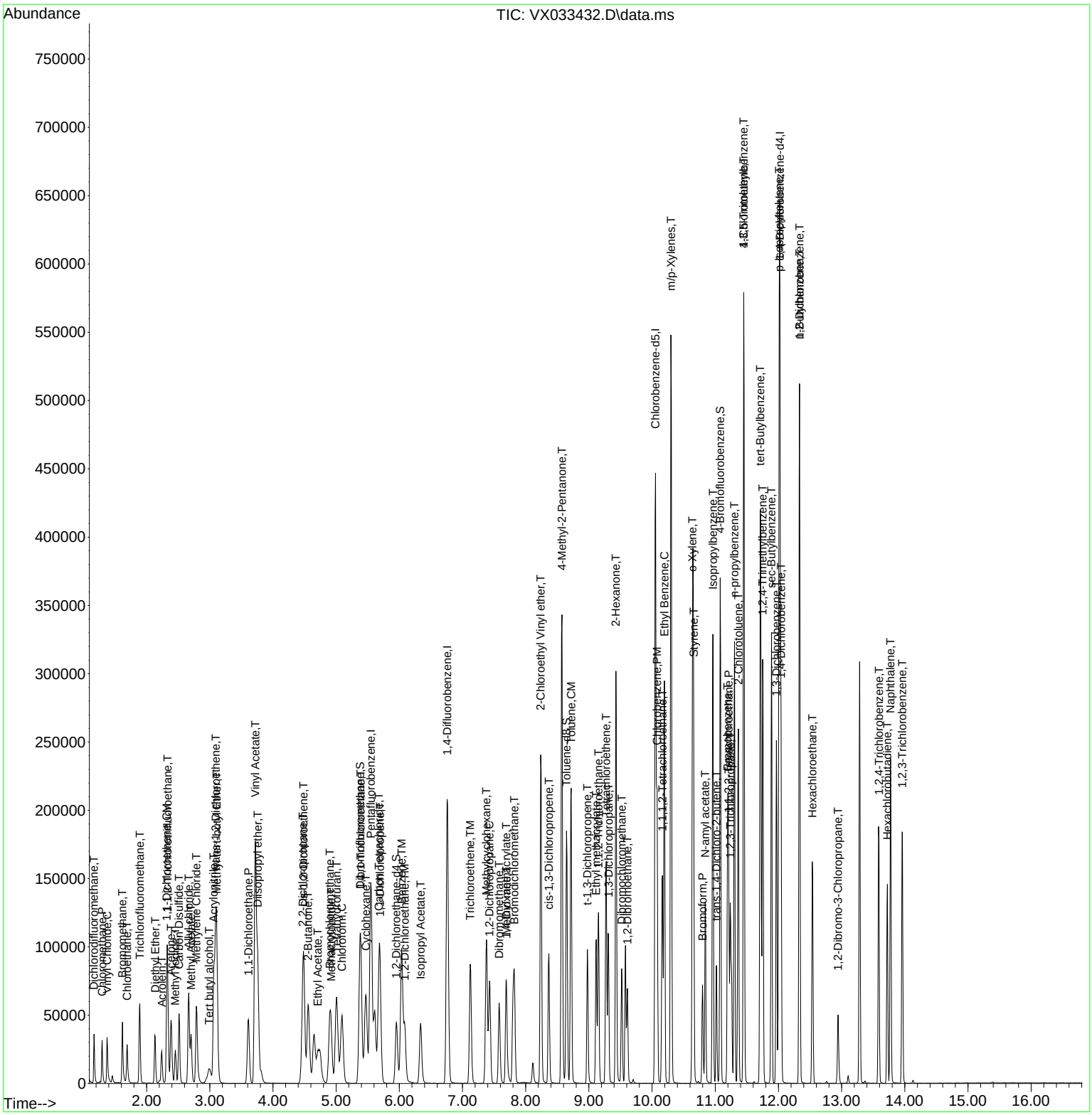
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033432.D
Acq On : 15 Dec 2022 11:07
Operator : JC/MD
Sample : VX1215WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

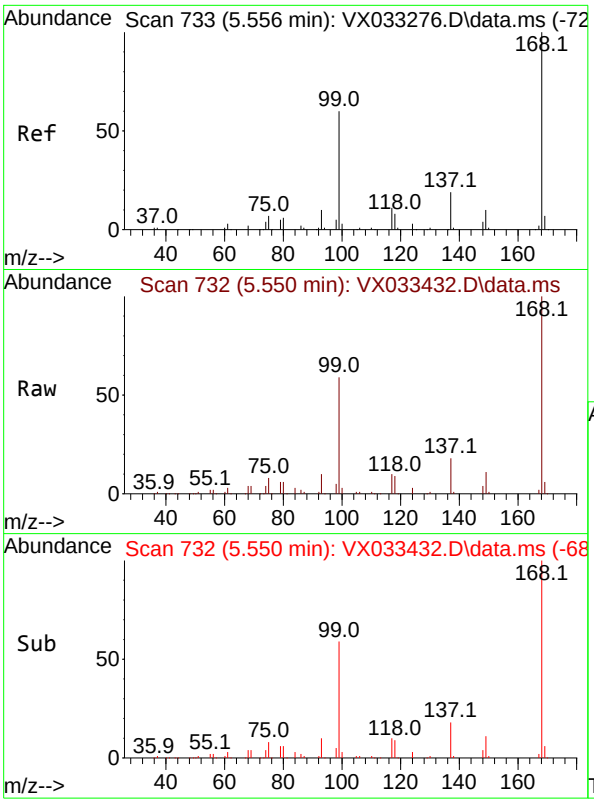
Quant Time: Dec 16 00:59:33 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

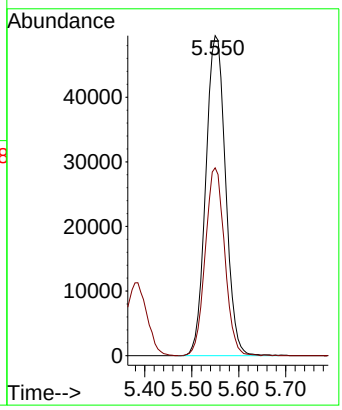





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:168 Resp: 14448

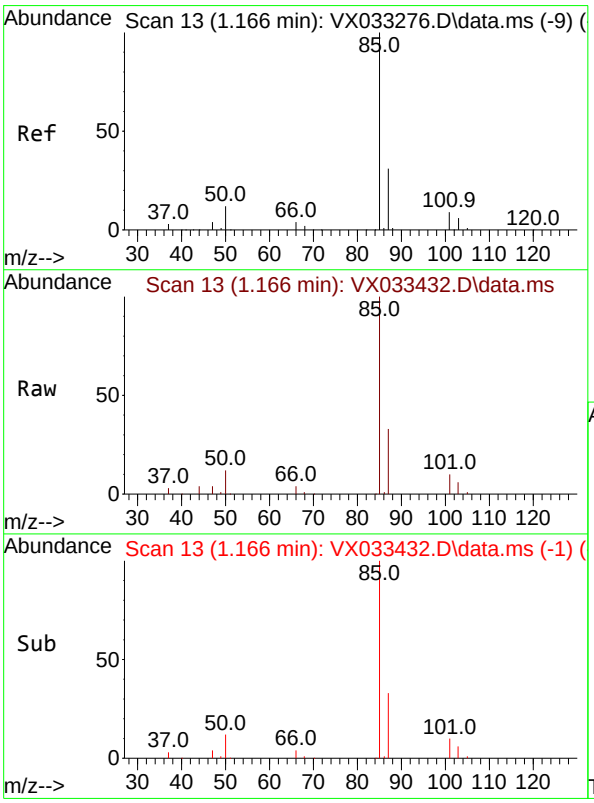
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 58.7 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

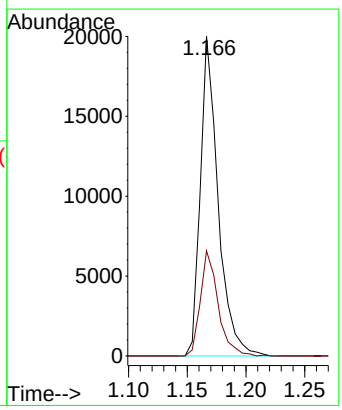
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

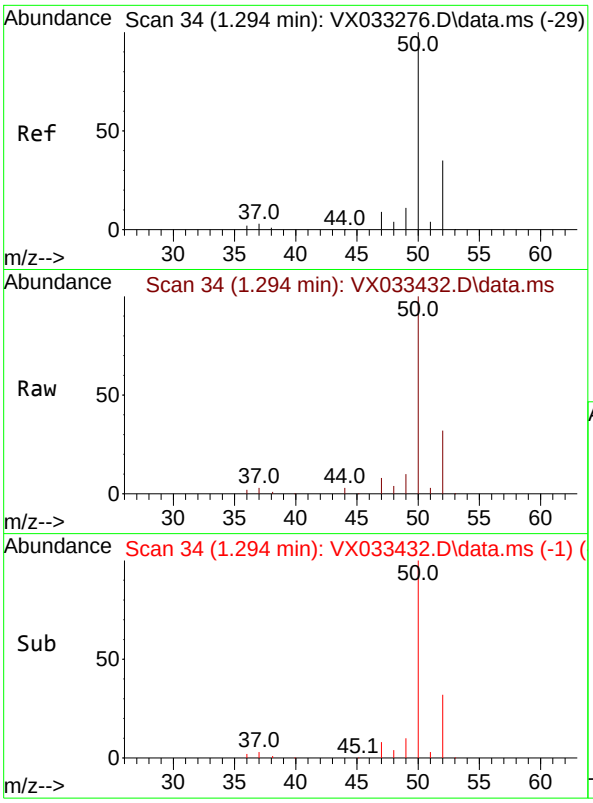



#2
Dichlorodifluoromethane
Concen: 20.823 ug/l
RT: 1.166 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 85 Resp: 21017

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.8 | 15.6 | 46.7 |

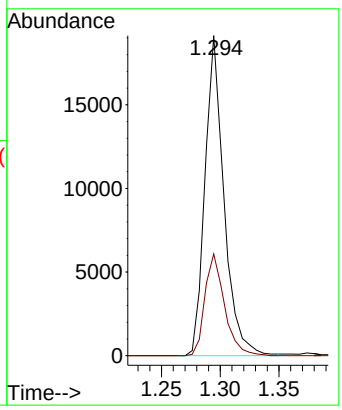





#3
Chloromethane
Concen: 18.417 ug/l
RT: 1.294 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 50 Resp: 2149

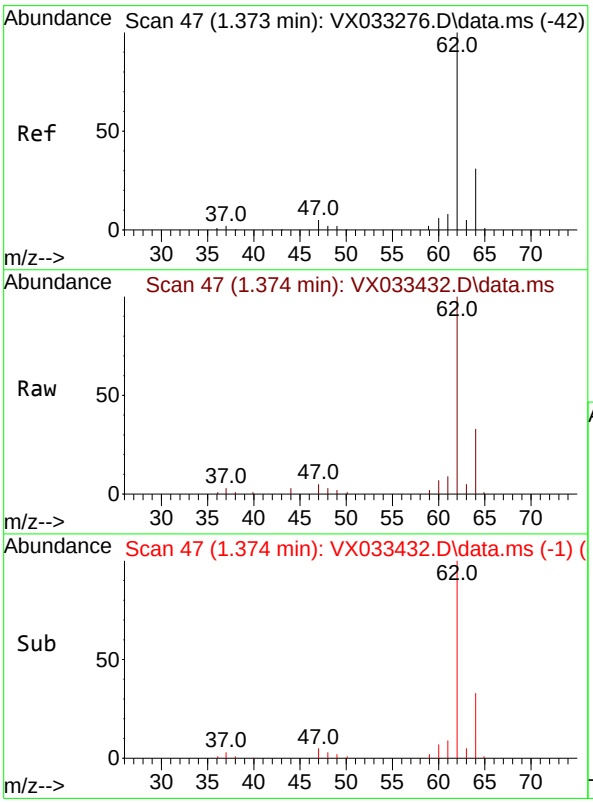
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 31.8 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

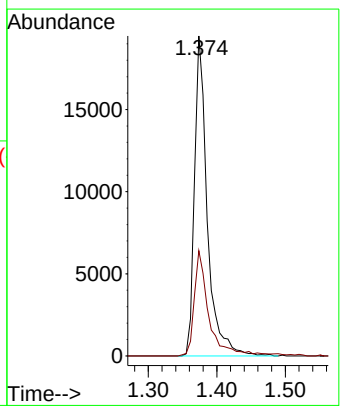
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

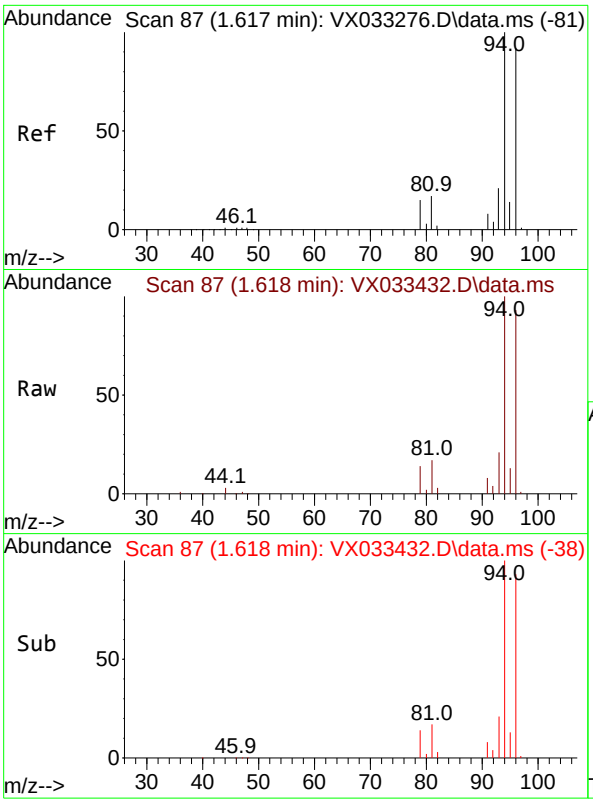



#4
Vinyl Chloride
Concen: 19.007 ug/l
RT: 1.374 min Scan# 47
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 62 Resp: 25327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 32.9 | 25.8 | 38.6 |

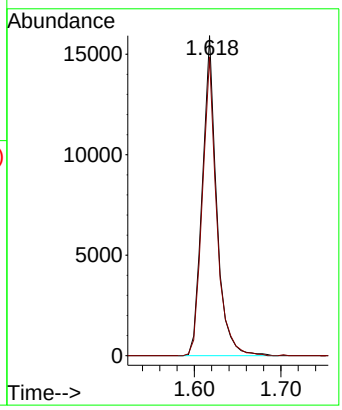





#5
Bromomethane
Concen: 18.660 ug/l
RT: 1.618 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 94 Resp: 1824

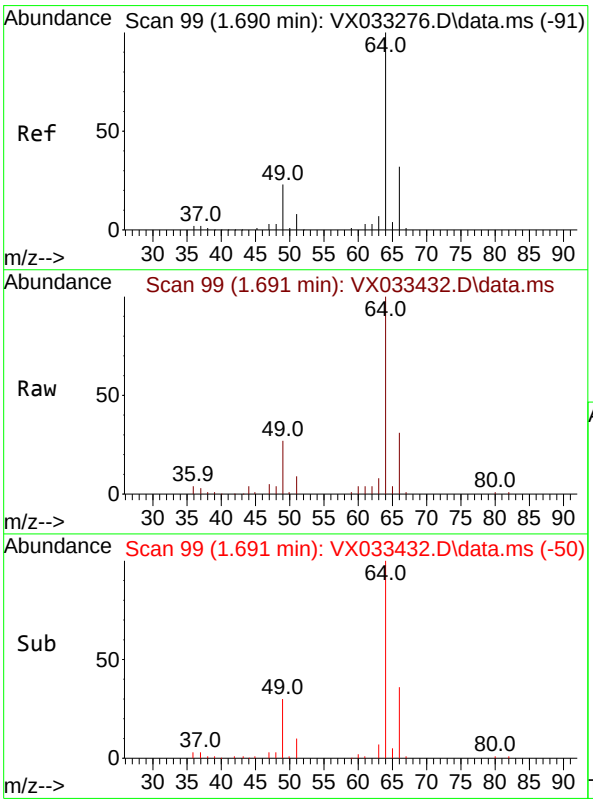
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 93.4 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

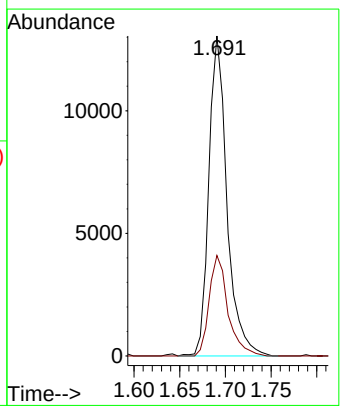
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

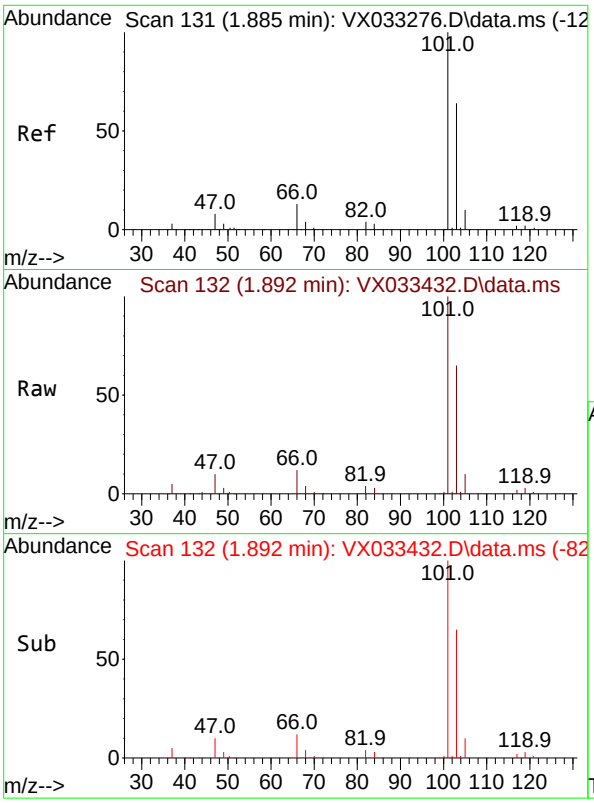



#6
Chloroethane
Concen: 17.782 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 64 Resp: 17972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 31.4 | 26.0 | 39.0 |

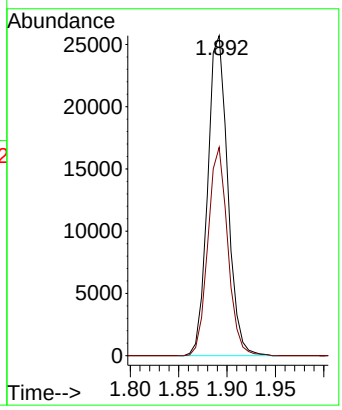





#7
Trichlorofluoromethane
Concen: 14.774 ug/l
RT: 1.892 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:101 Resp: 3695

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 65.1 | 51.4 | 77.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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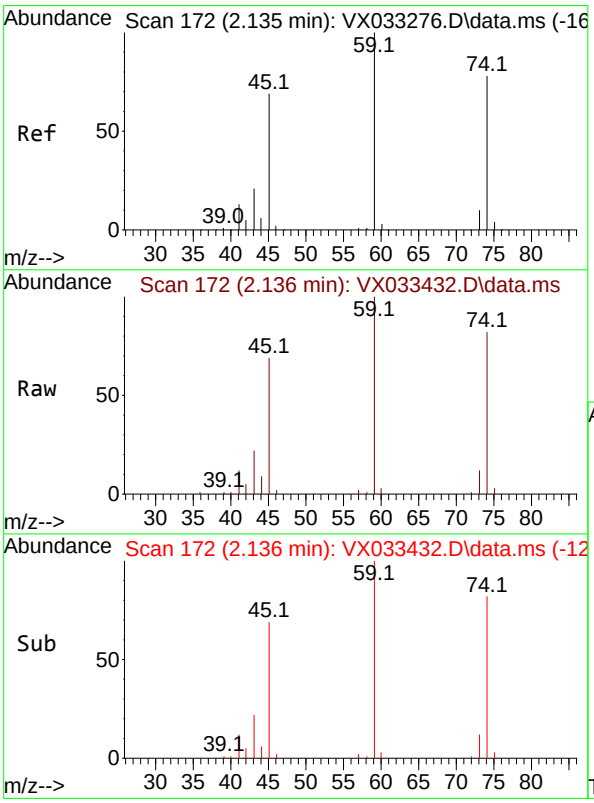
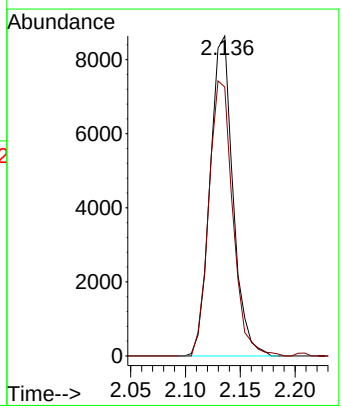
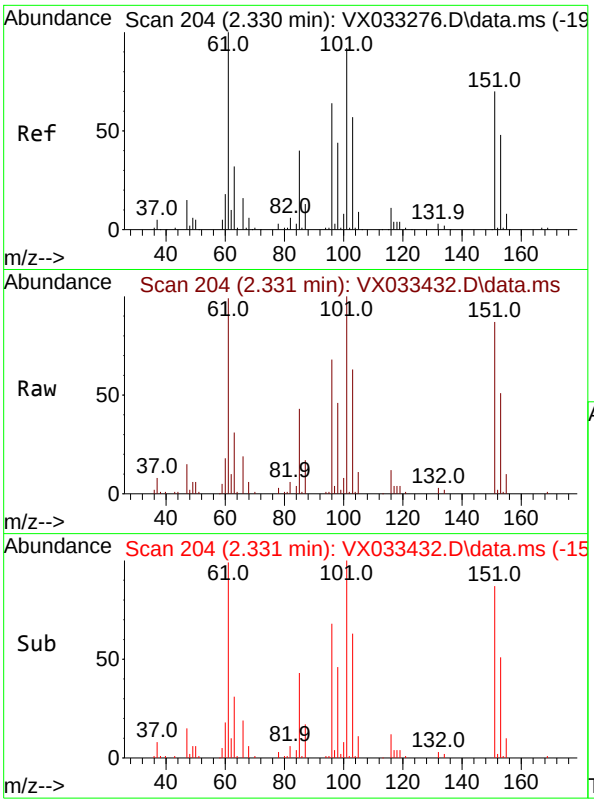



#8
Diethyl Ether
Concen: 13.881 ug/l
RT: 2.136 min Scan# 172
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 74 Resp: 12542

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 90.0 | 46.6 | 139.7 |






#9
1,1,2-Trichlorotrifluoroethane
Concen: 16.291 ug/l
RT: 2.331 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:101 Resp: 2161

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.9 | 37.0 | 55.4 |
| 151 | 83.4 | 64.4 | 96.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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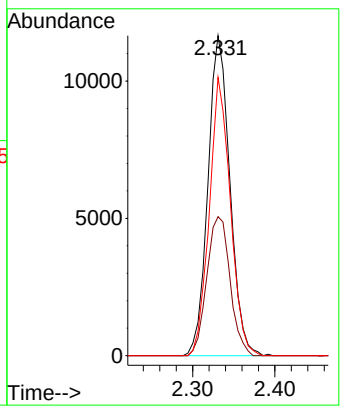
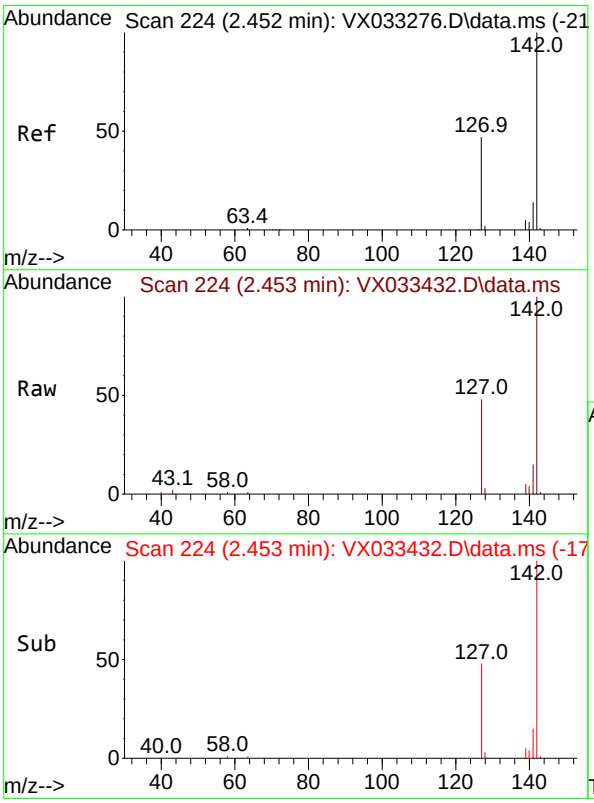
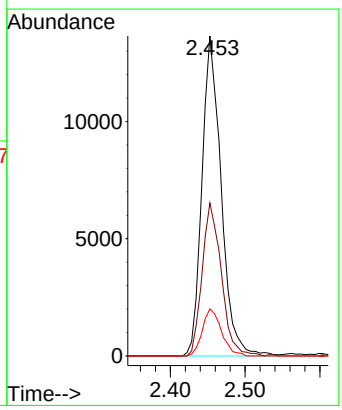


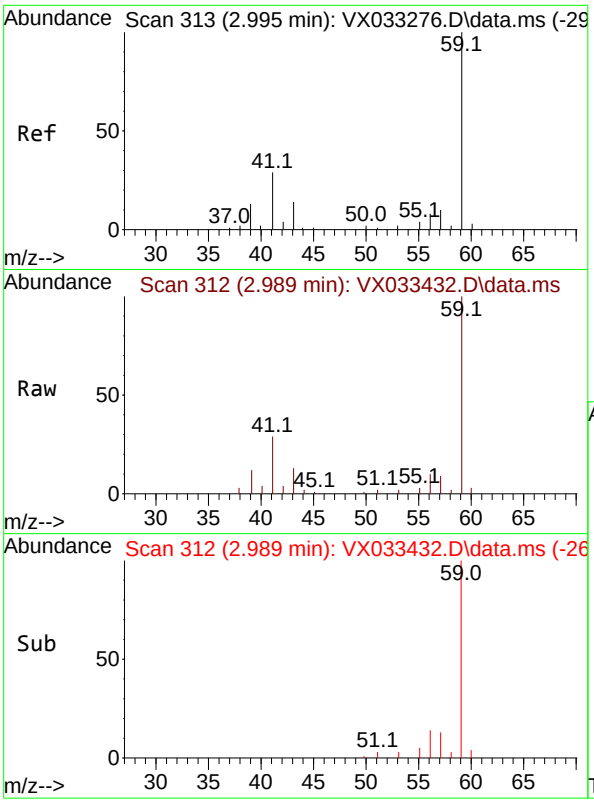




#10
Methyl Iodide
Concen: 16.779 ug/l
RT: 2.453 min Scan# 224
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:142 Resp: 24387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.7 | 38.6 | 57.8 |
| 141 | 14.6 | 11.4 | 17.2 |

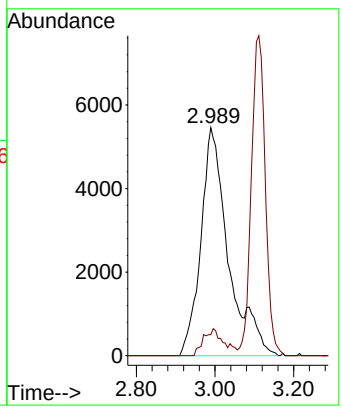





#11
Tert butyl alcohol
Concen: 93.442 ug/l m
RT: 2.989 min Scan# 3
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 59 Resp: 2648

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 7.5 | 8.2 | 12.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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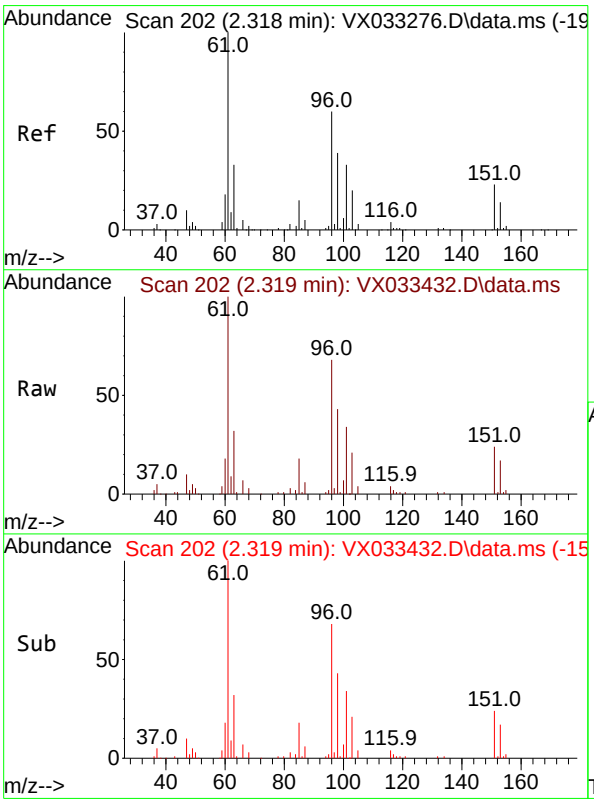
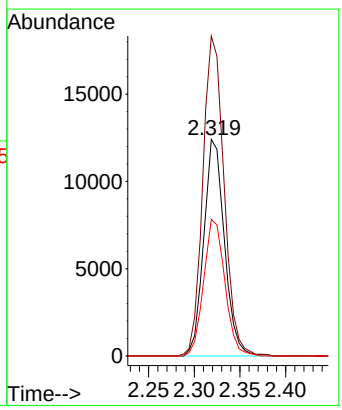
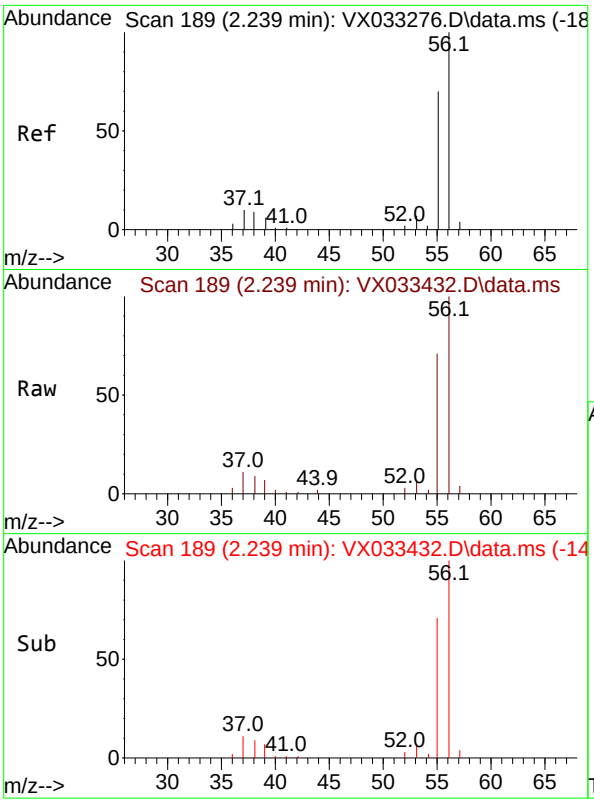



#12
1,1-Dichloroethene
Concen: 14.926 ug/l
RT: 2.319 min Scan# 202
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 96 Resp: 19552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 147.7 | 125.1 | 187.7 |
| 98 | 63.1 | 50.6 | 76.0 |

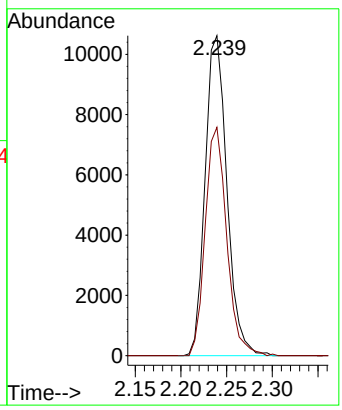





#13
Acrolein
Concen: 57.217 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 56 Resp: 1758

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 70.5 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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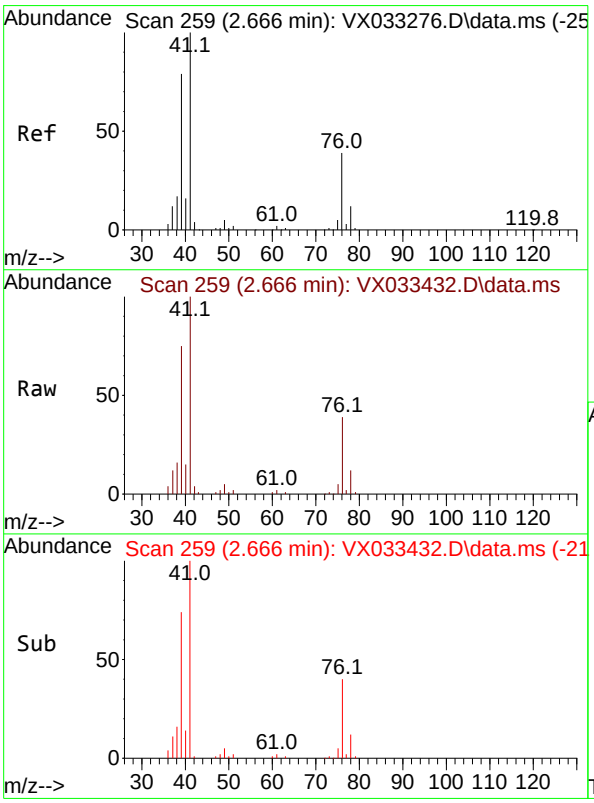
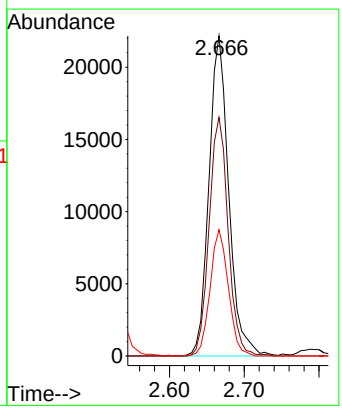
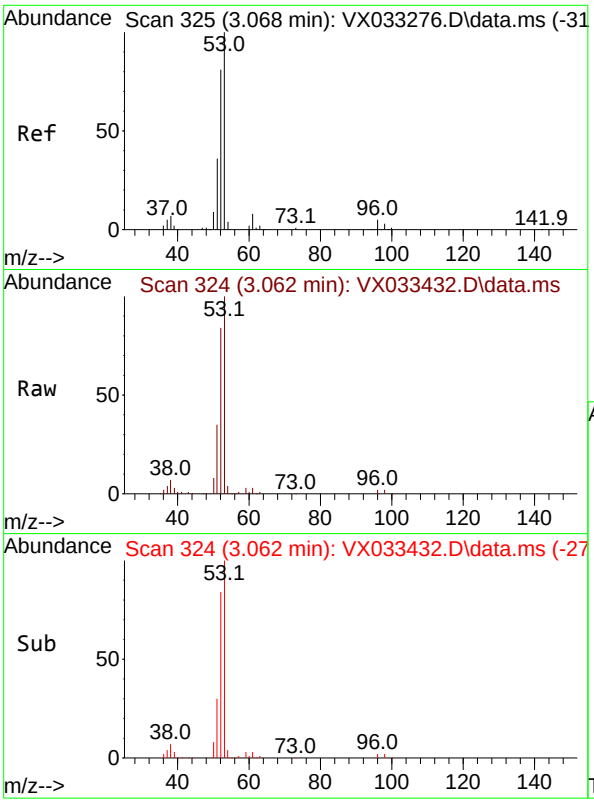



#14
Allyl chloride
Concen: 19.492 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 41 Resp: 40775

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 71.6 | 61.4 | 92.2 |
| 76 | 36.4 | 29.2 | 43.8 |

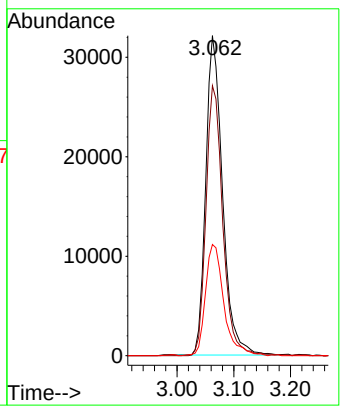





#15
Acrylonitrile
Concen: 94.140 ug/l
RT: 3.062 min Scan# 3
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 53 Resp: 6608

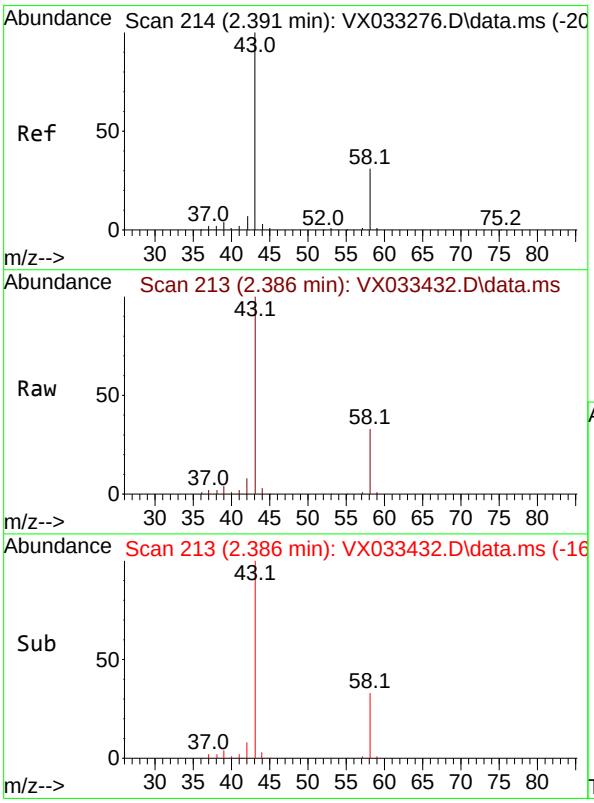
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 84.5 | 67.4 | 101.0 |
| 51 | 38.2 | 30.3 | 45.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

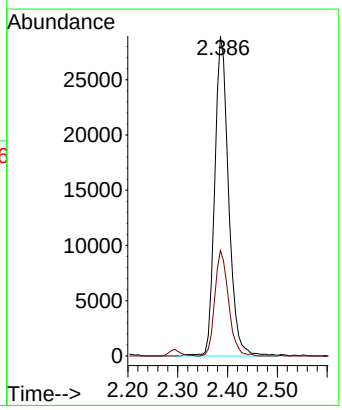
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

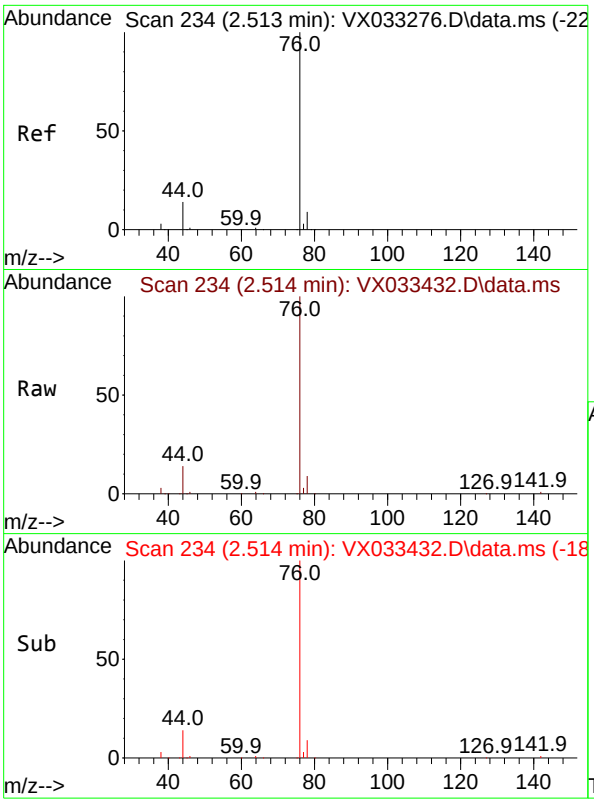



#16
Acetone
Concen: 81.540 ug/l
RT: 2.386 min Scan# 213
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 55929

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.0 | 23.8 | 35.8 |

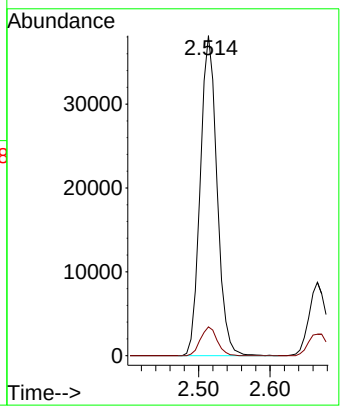





#17
Carbon Disulfide
Concen: 18.445 ug/l
RT: 2.514 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 76 Resp: 6201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.0 | 7.5 | 11.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

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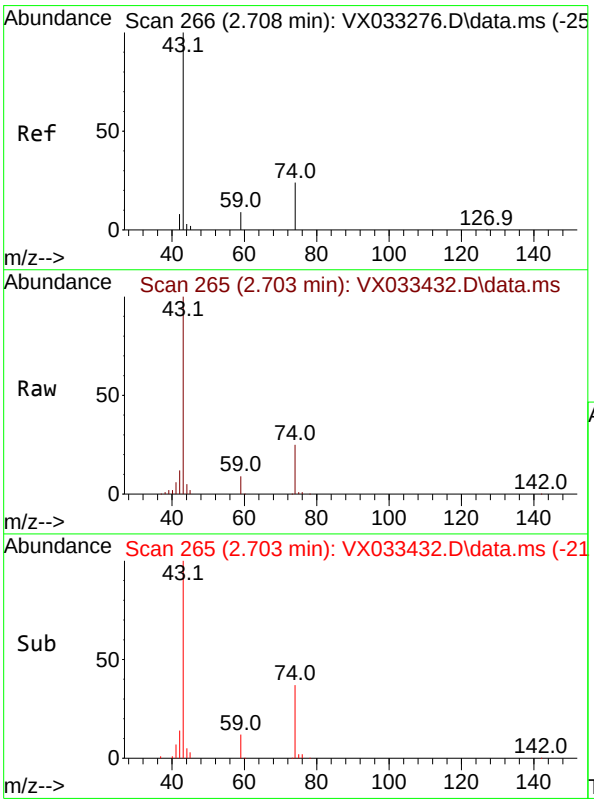
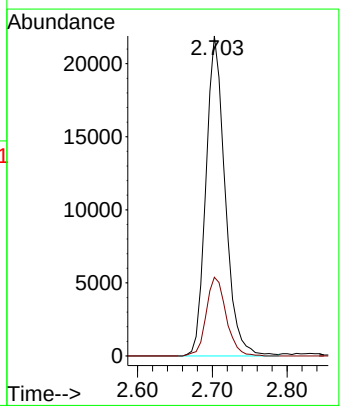
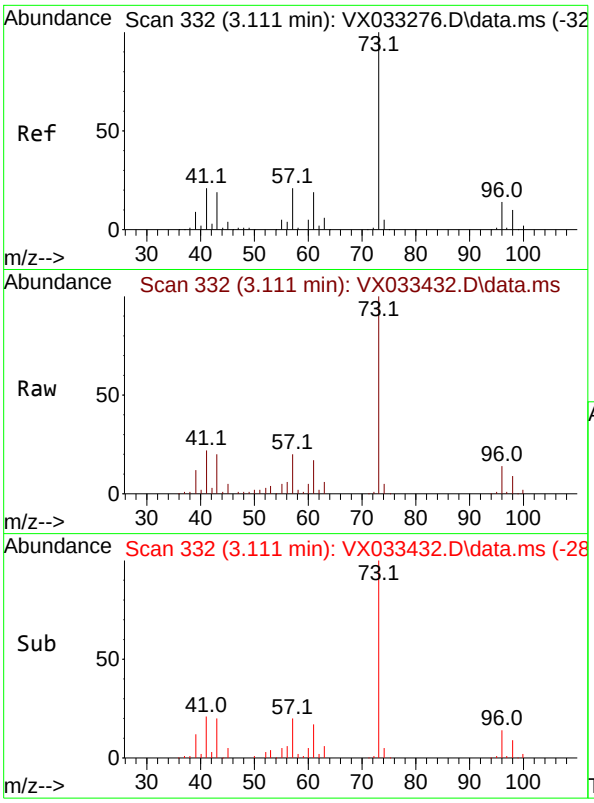



#18
Methyl Acetate
Concen: 19.694 ug/l
RT: 2.703 min Scan# 265
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 39105

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.4 | 19.4 | 29.0 |

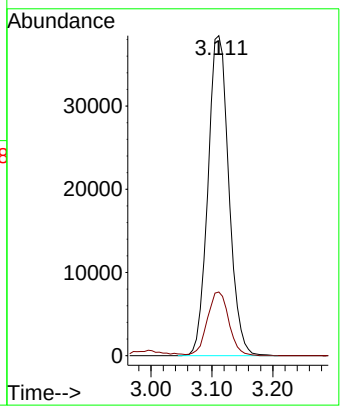





#19
Methyl tert-butyl Ether
Concen: 20.187 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 73 Resp: 9159

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 19.9 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

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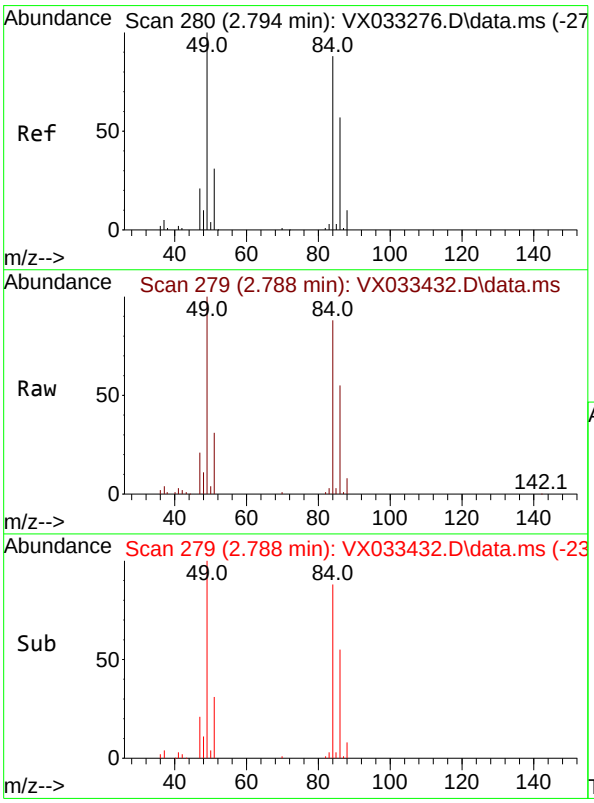
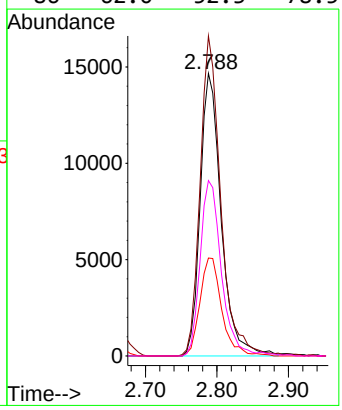
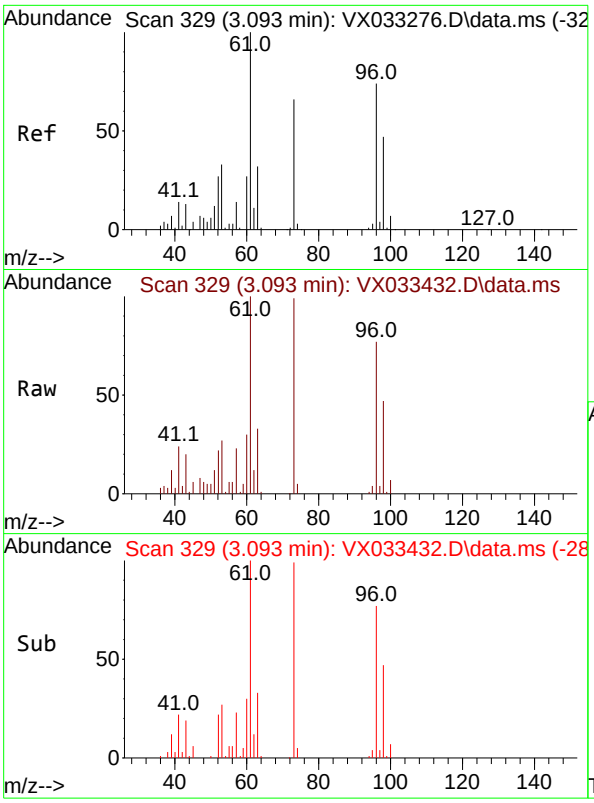



#20
Methylene Chloride
Concen: 19.589 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 84 Resp: 29965

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 113.3 | 101.0 | 151.6 |
| 51 | 34.6 | 31.1 | 46.7 |
| 86 | 62.0 | 52.3 | 78.5 |

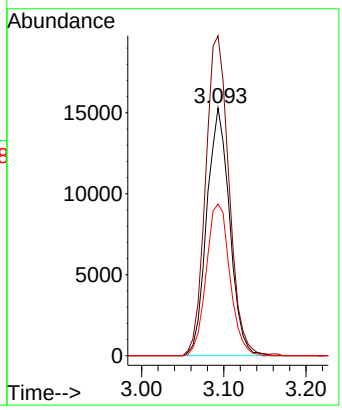





#21
trans-1,2-Dichloroethene
Concen: 20.578 ug/l
RT: 3.093 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 96 Resp: 2948

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 129.1 | 106.6 | 160.0 |
| 98 | 61.1 | 51.0 | 76.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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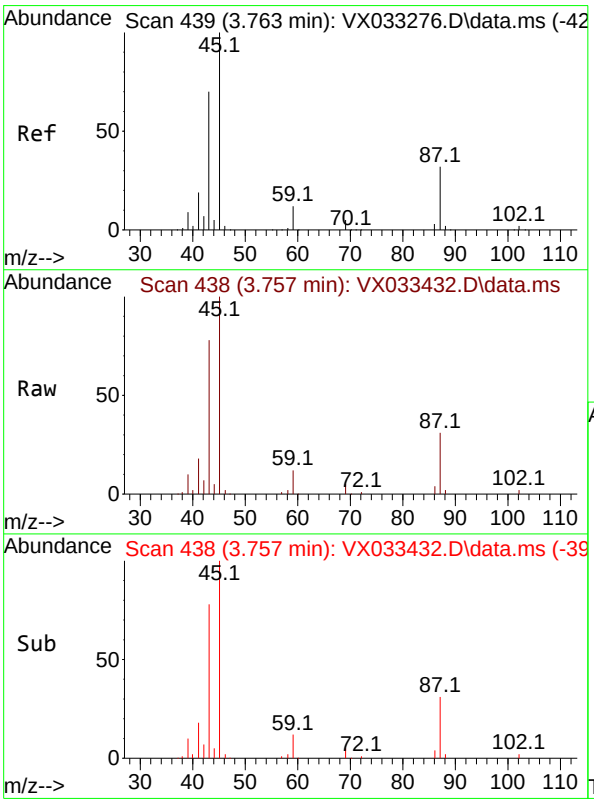
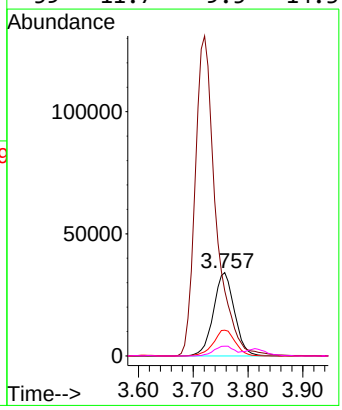
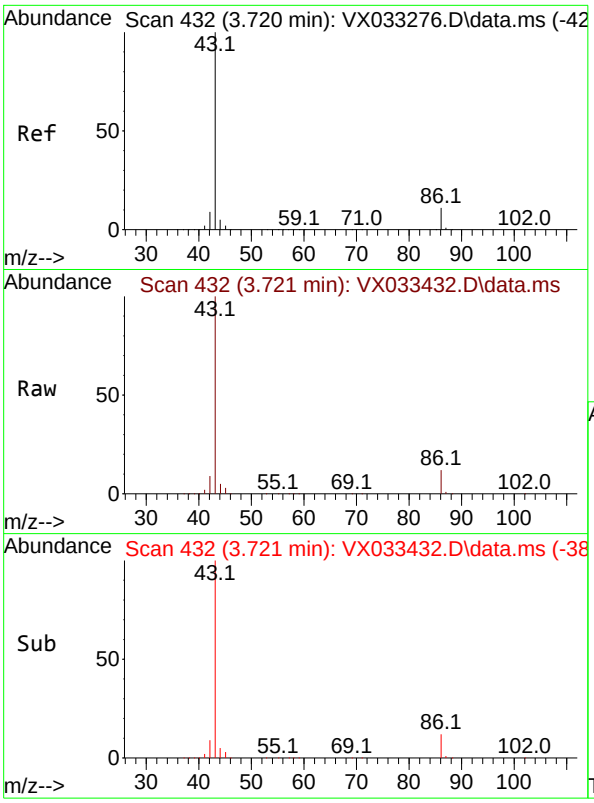



#22
Diisopropyl ether
Concen: 20.259 ug/l
RT: 3.757 min Scan# 438
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 45 Resp: 90796

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 77.4 | 56.4 | 84.6 |
| 87 | 31.0 | 24.4 | 36.6 |
| 59 | 11.7 | 9.5 | 14.3 |

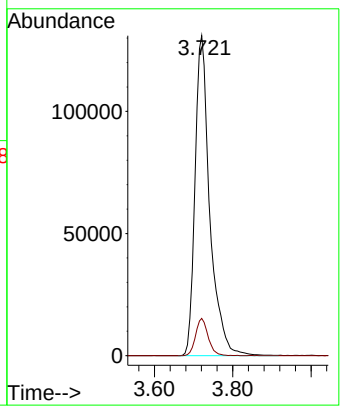





#23
Vinyl Acetate
Concen: 98.964 ug/l
RT: 3.721 min Scan# 4
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 34426

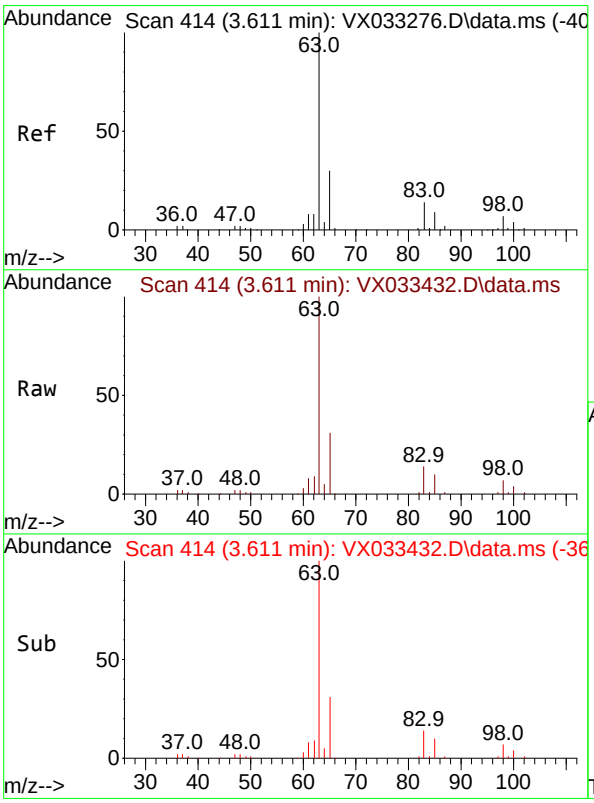
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.6 | 8.6 | 12.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

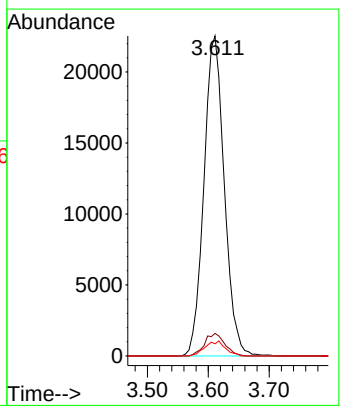
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

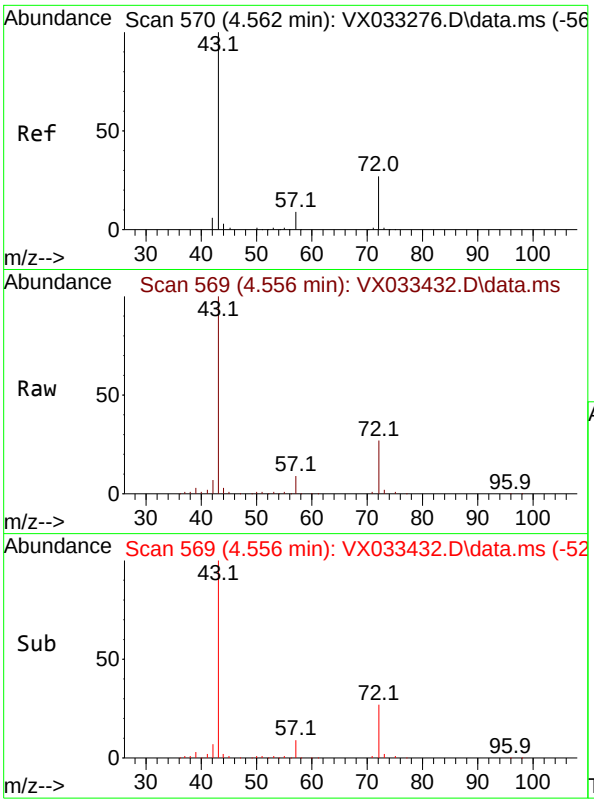



#24
1,1-Dichloroethane
Concen: 19.907 ug/l
RT: 3.611 min Scan# 414
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 63 Resp: 52421

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 7.1 | 3.5 | 10.4 |
| 100 | 3.8 | 2.3 | 6.8 |






#25
2-Butanone
Concen: 102.689 ug/l
RT: 4.556 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 10110

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 27.1 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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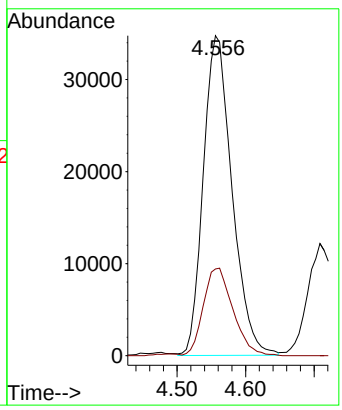
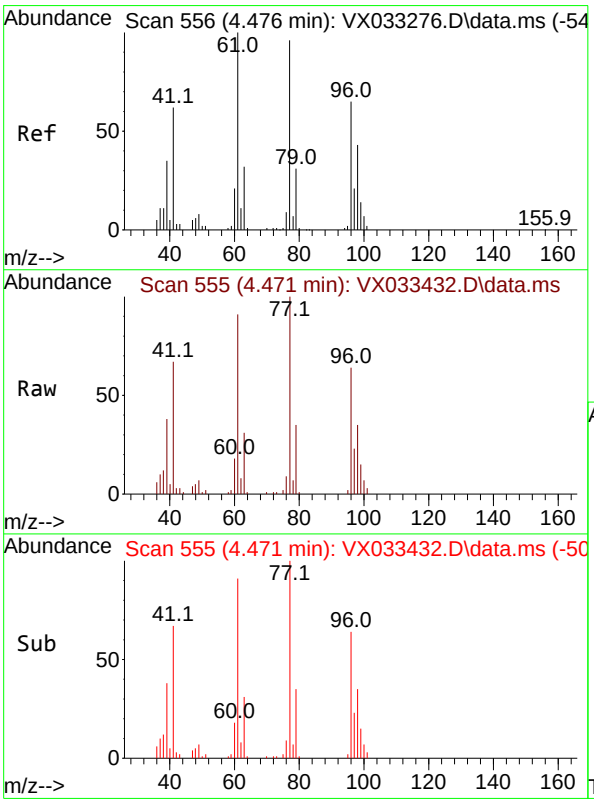
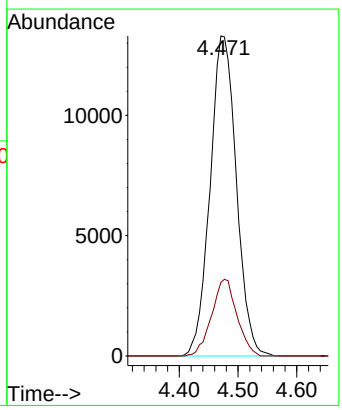


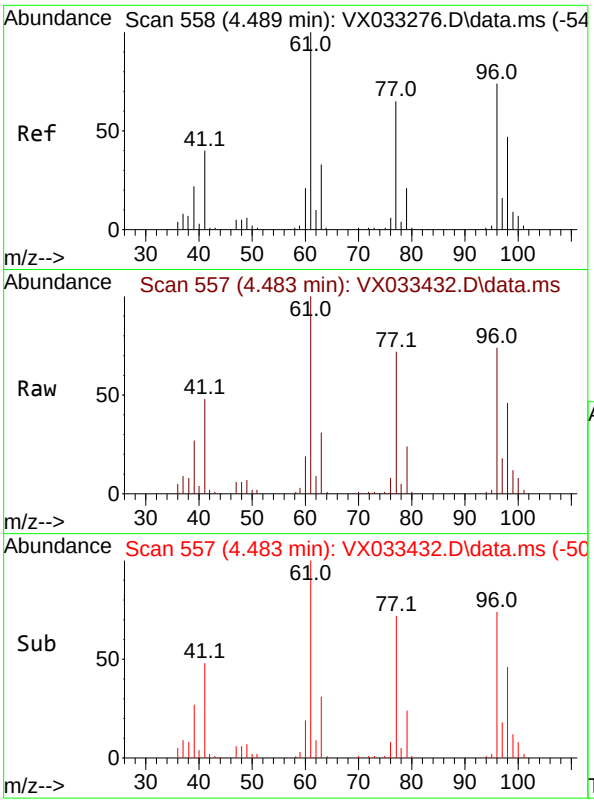




#26
2,2-Dichloropropane
Concen: 21.357 ug/l
RT: 4.471 min Scan# 555
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 77 Resp: 41358

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 23.0 | 11.4 | 34.1 |

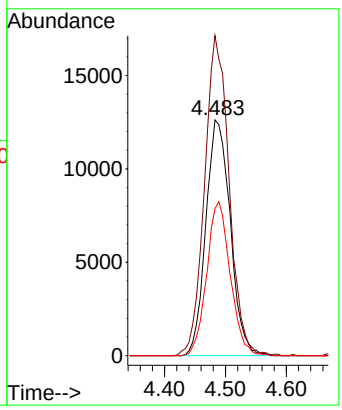





#27
cis-1,2-Dichloroethene
Concen: 20.614 ug/l
RT: 4.483 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 96 Resp: 3530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 135.7 | 0.0 | 286.0 |
| 98 | 62.6 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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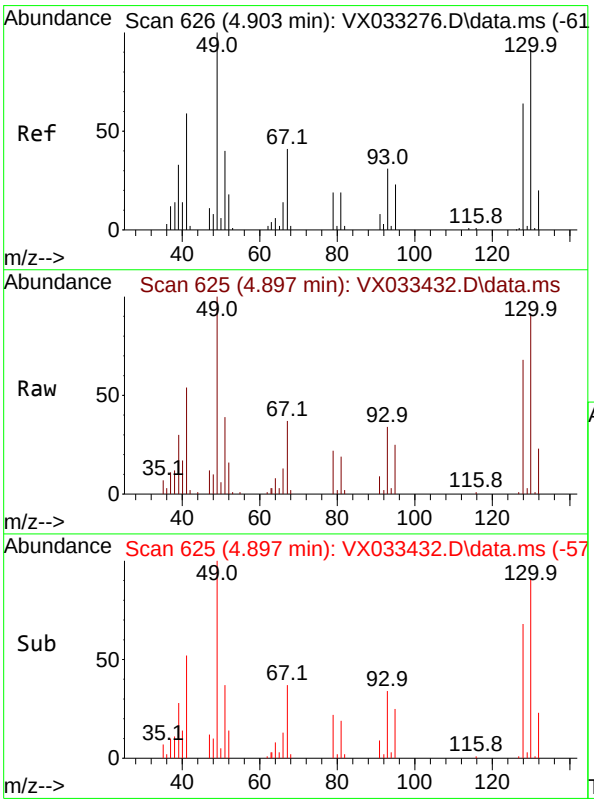
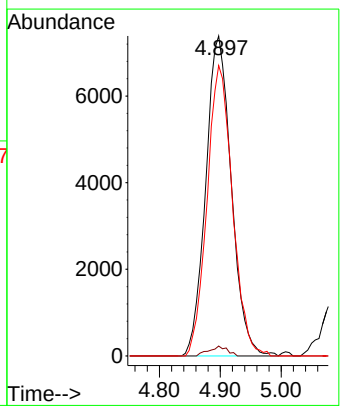
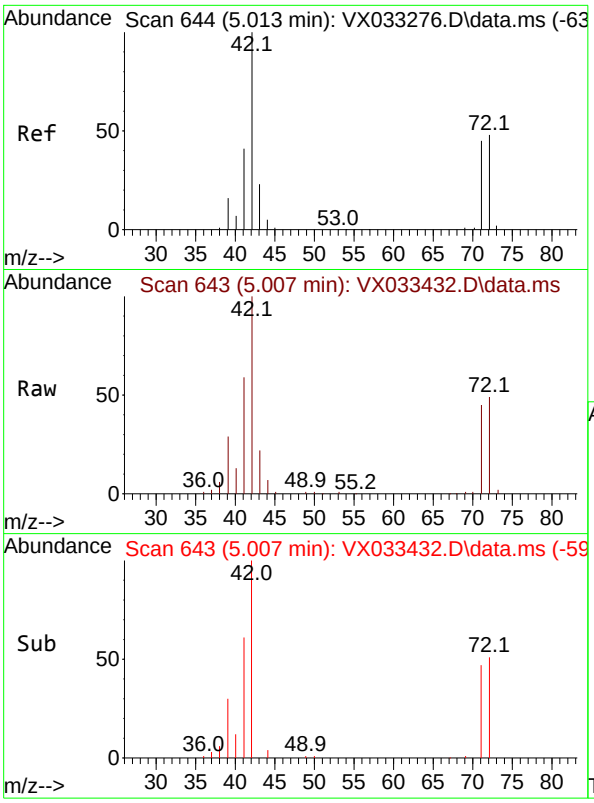



#28
Bromochloromethane
Concen: 19.528 ug/l
RT: 4.897 min Scan# 625
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 49 Resp: 21526

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.2 | 0.0 | 3.8 |
| 130 | 90.0 | 67.5 | 101.3 |

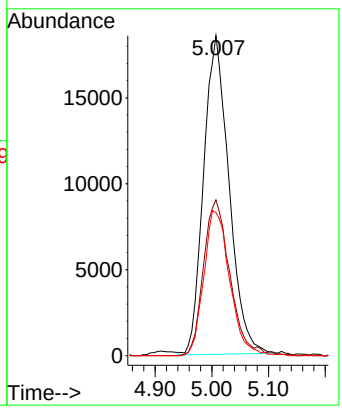





#29
Tetrahydrofuran
Concen: 90.388 ug/l
RT: 5.007 min Scan# 64
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 42 Resp: 5765

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 51.1 | 37.6 | 56.4 |
| 71 | 46.6 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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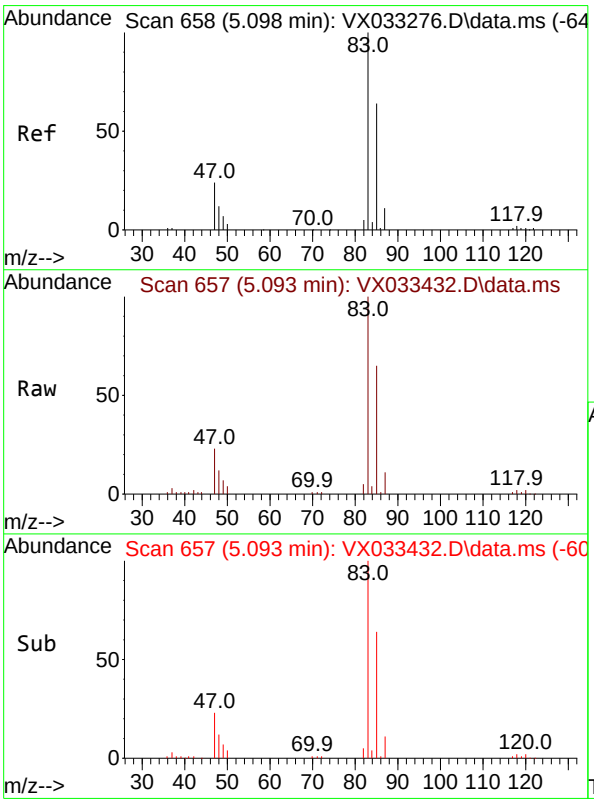
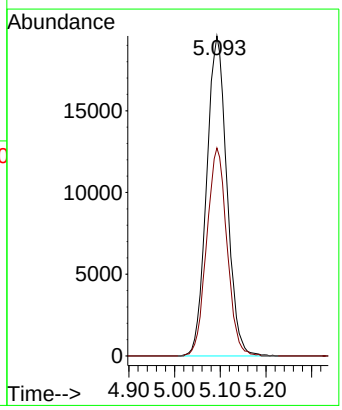
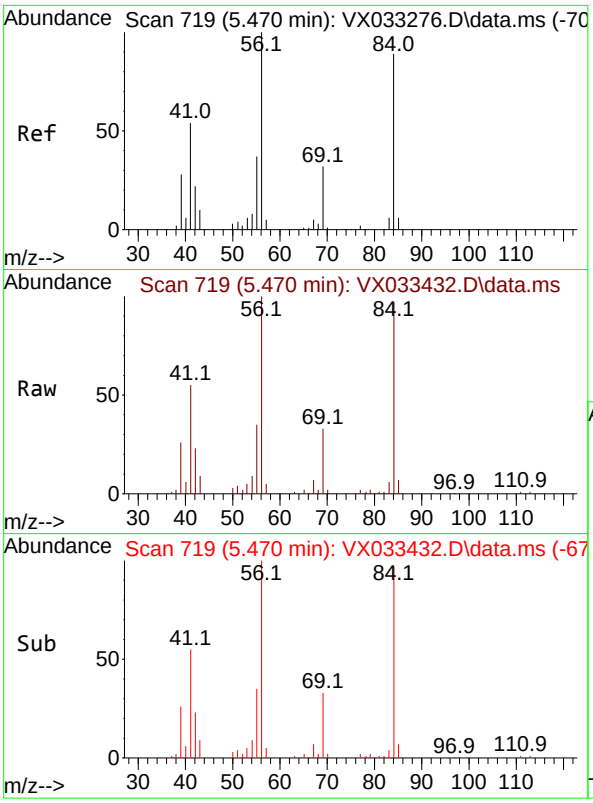



#30
Chloroform
Concen: 20.611 ug/l
RT: 5.093 min Scan# 657
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 83 Resp: 60255

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 51.1 | 76.7 |

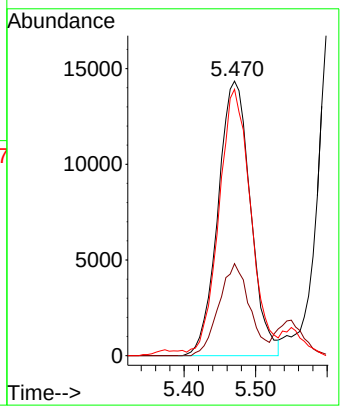





#31
Cyclohexane
Concen: 20.544 ug/l
RT: 5.470 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 56 Resp: 4525

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 33.5 | 24.1 | 36.1 |
| 84 | 95.3 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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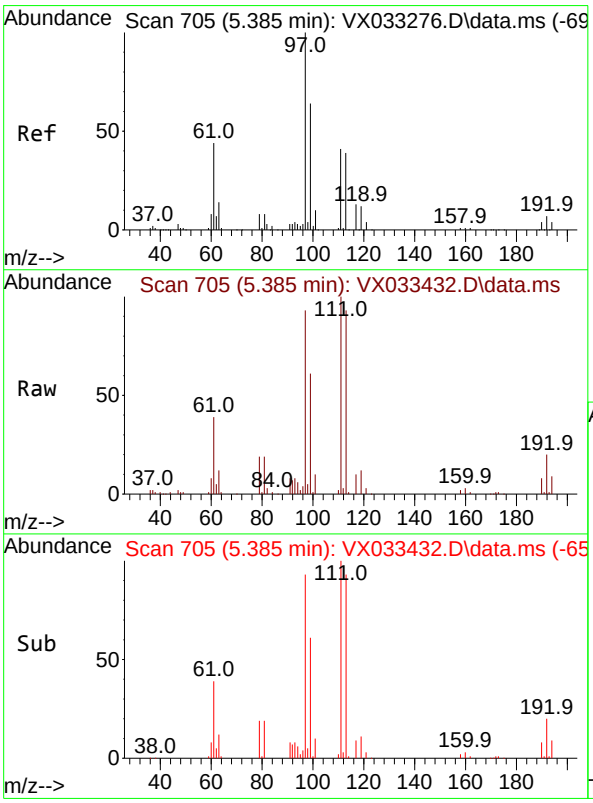
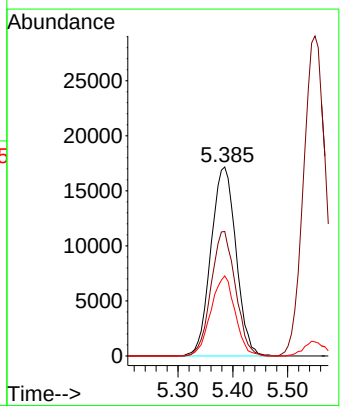
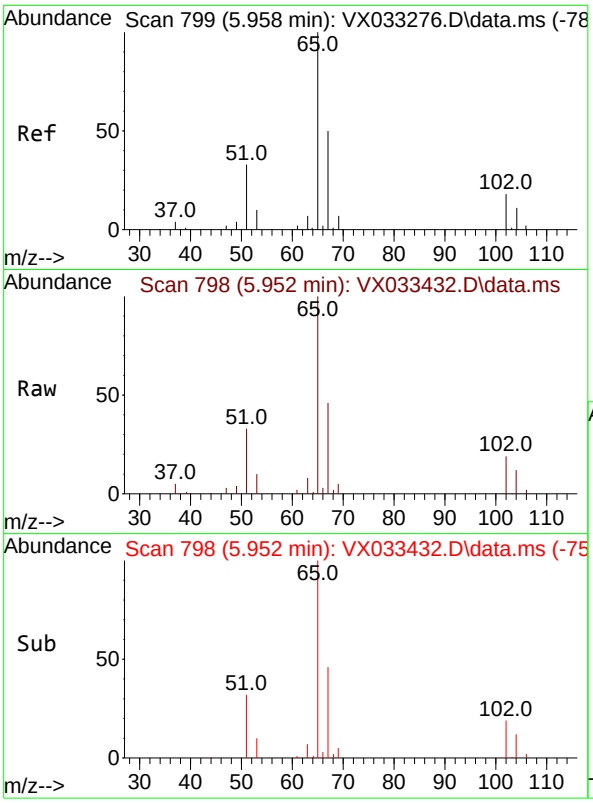



#32
1,1,1-Trichloroethane
Concen: 21.700 ug/l
RT: 5.385 min Scan# 705
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 97 Resp: 54583

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.2 | 51.4 | 77.0 |
| 61 | 40.9 | 35.2 | 52.8 |

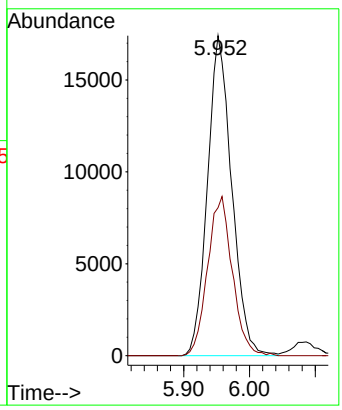





#33
1,2-Dichloroethane-d4
Concen: 48.241 ug/l
RT: 5.952 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 65 Resp: 4471

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.7 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

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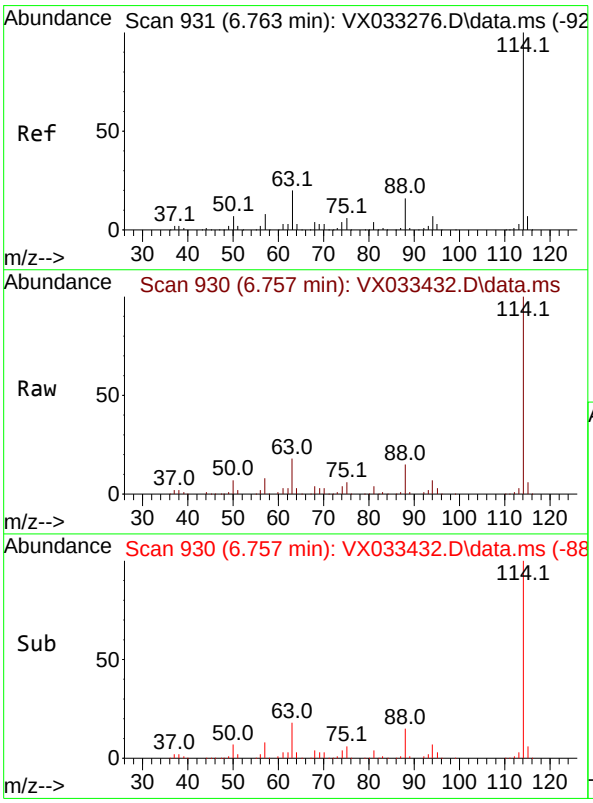
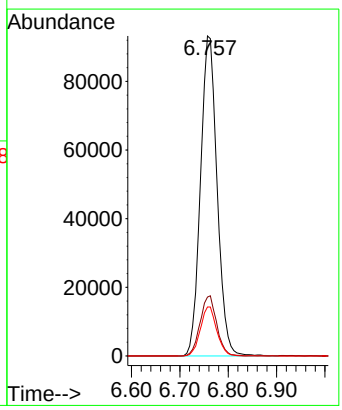
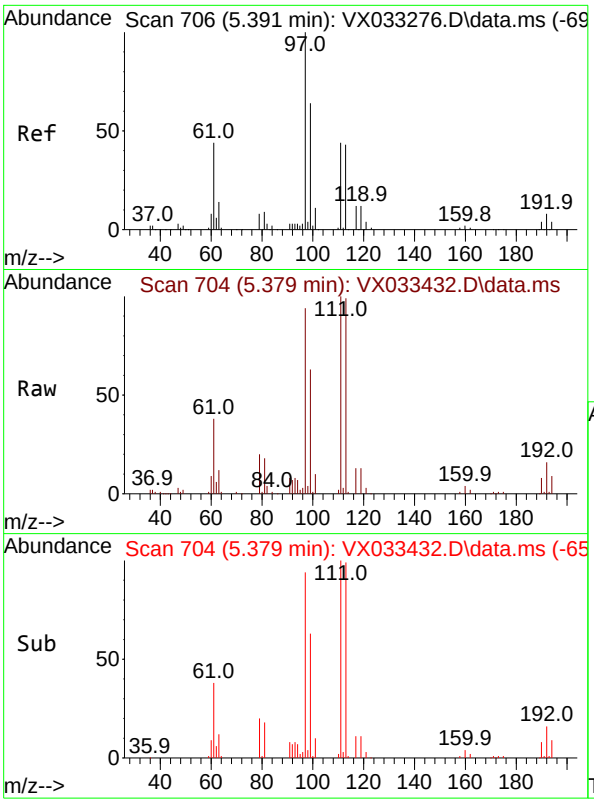



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 930
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:114 Resp: 222709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 18.4 | 0.0 | 41.6 |
| 88 | 15.3 | 0.0 | 33.4 |

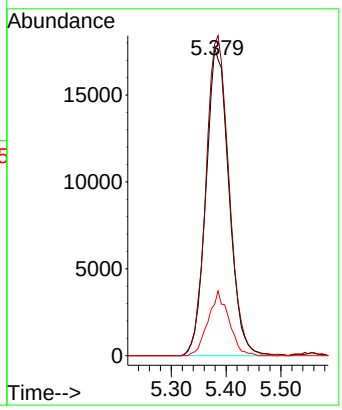





#35
Dibromofluoromethane
Concen: 51.403 ug/l
RT: 5.379 min Scan# 7
Delta R.T. -0.012 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:113 Resp: 5149

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 104.4 | 82.4 | 123.6 |
| 192 | 19.1 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

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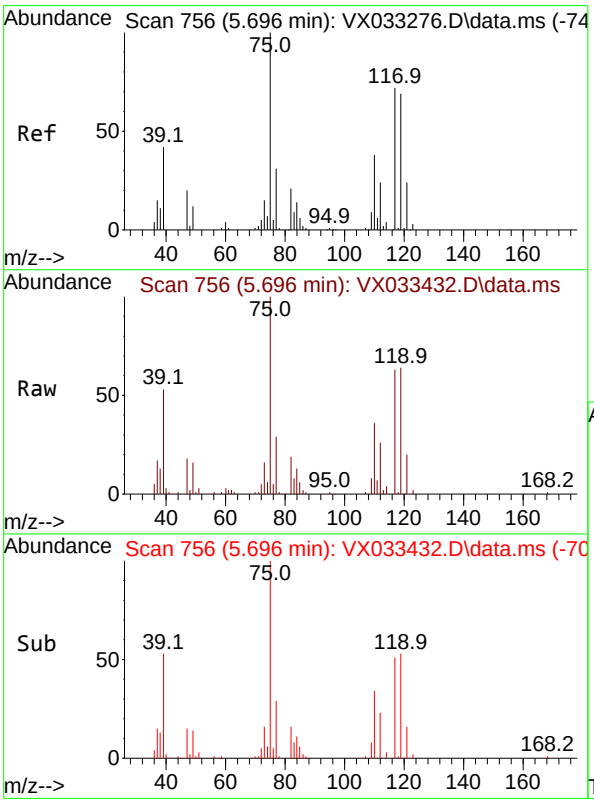
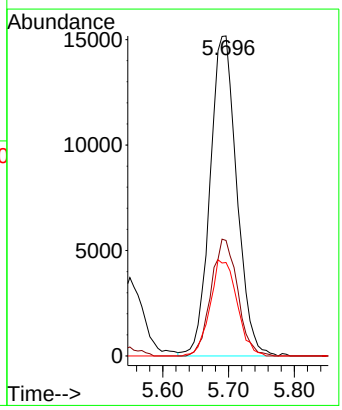
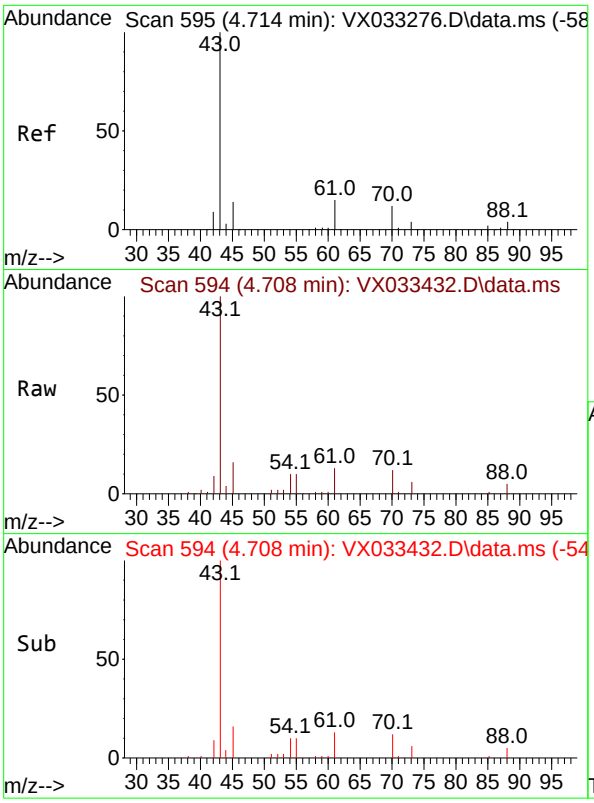



#36
1,1-Dichloropropene
Concen: 21.987 ug/l
RT: 5.696 min Scan# 756
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 42941

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 36.2 | 18.4 | 55.2 |
| 77 | 30.2 | 24.5 | 36.7 |

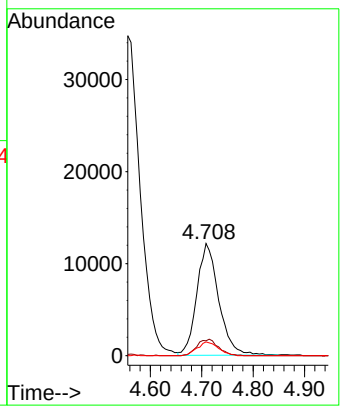





#37
Ethyl Acetate
Concen: 19.481 ug/l
RT: 4.708 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 3596

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.4 | 11.5 | 17.3 |
| 70 | 11.8 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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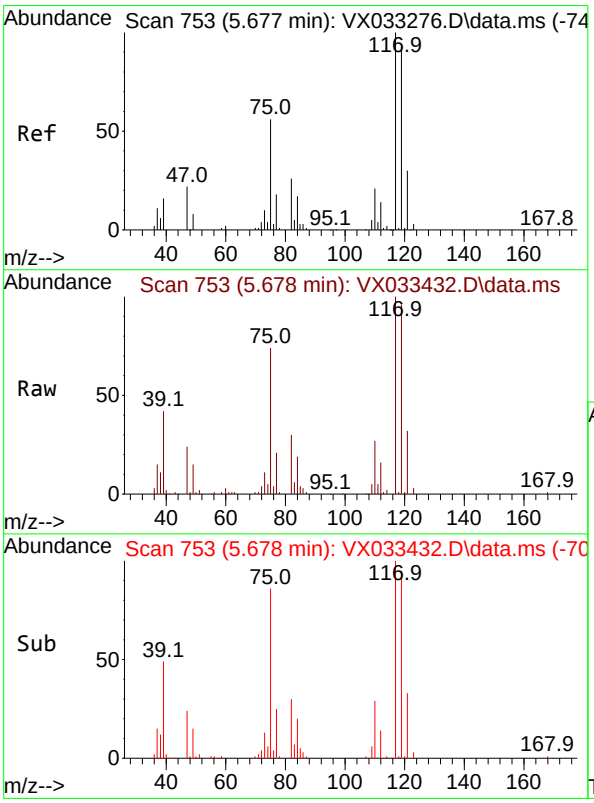
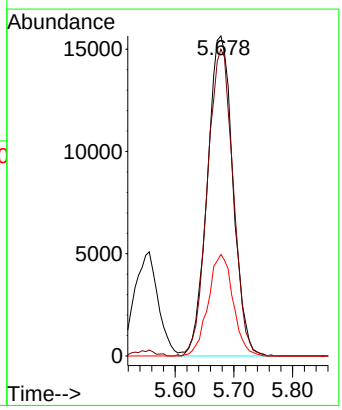
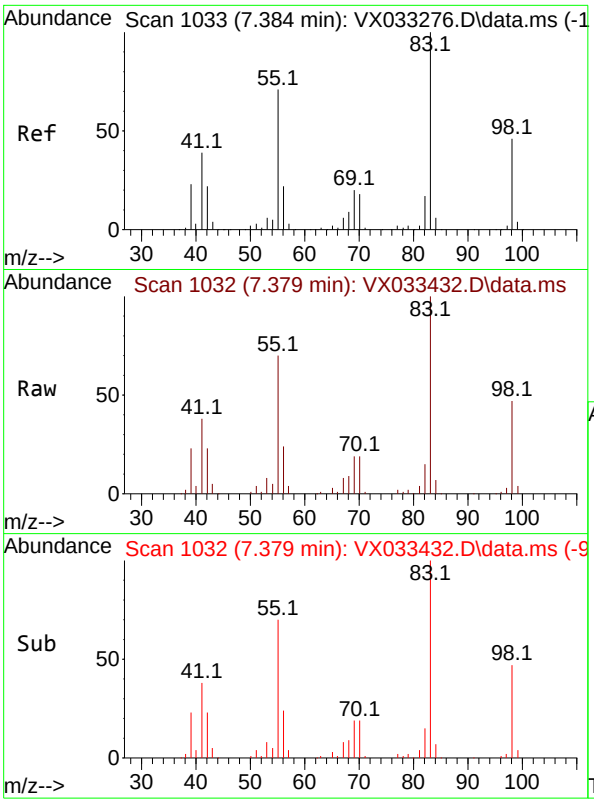



#38
Carbon Tetrachloride
Concen: 21.650 ug/l
RT: 5.678 min Scan# 753
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:117 Resp: 47373

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 95.9 | 77.2 | 115.8 |
| 121 | 31.7 | 25.8 | 38.6 |

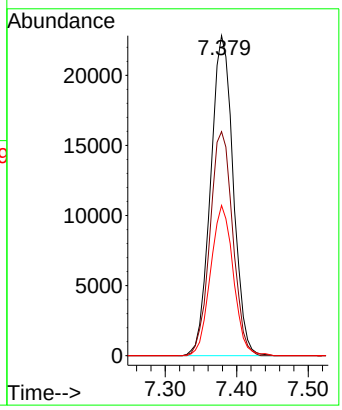





#39
Methylcyclohexane
Concen: 22.937 ug/l
RT: 7.379 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 83 Resp: 5013

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 70.0 | 58.4 | 87.6 |
| 98 | 46.9 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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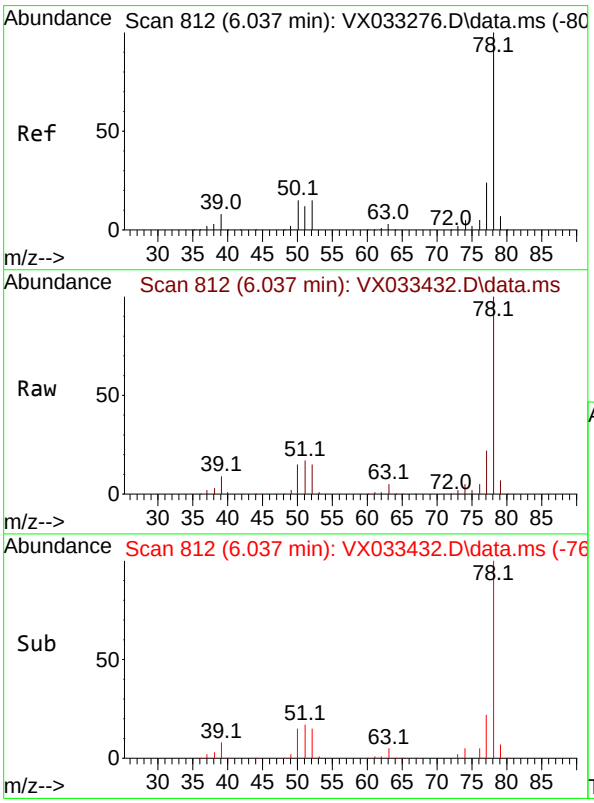
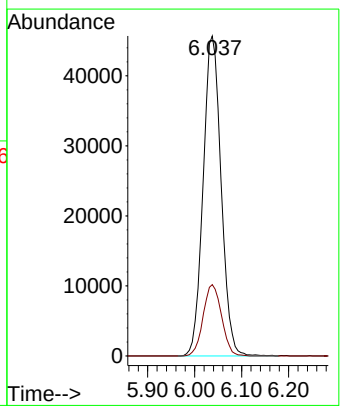
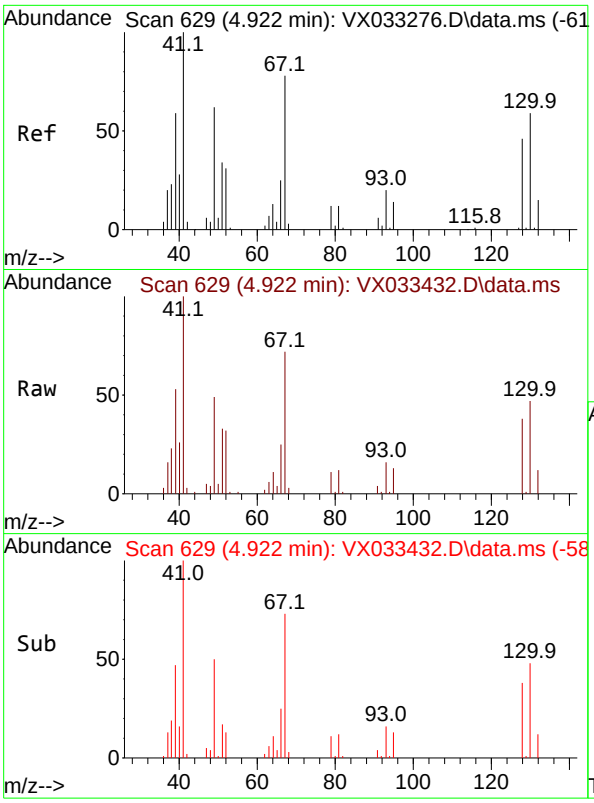



#40
Benzene
Concen: 21.286 ug/l
RT: 6.037 min Scan# 812
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 78 Resp: 121206

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 22.3 | 19.0 | 28.4 |

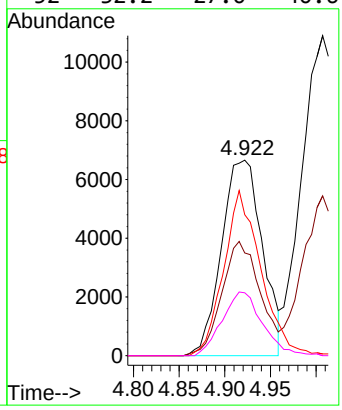





#41
Methacrylonitrile
Concen: 20.348 ug/l
RT: 4.922 min Scan# 6
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 41 Resp: 2070

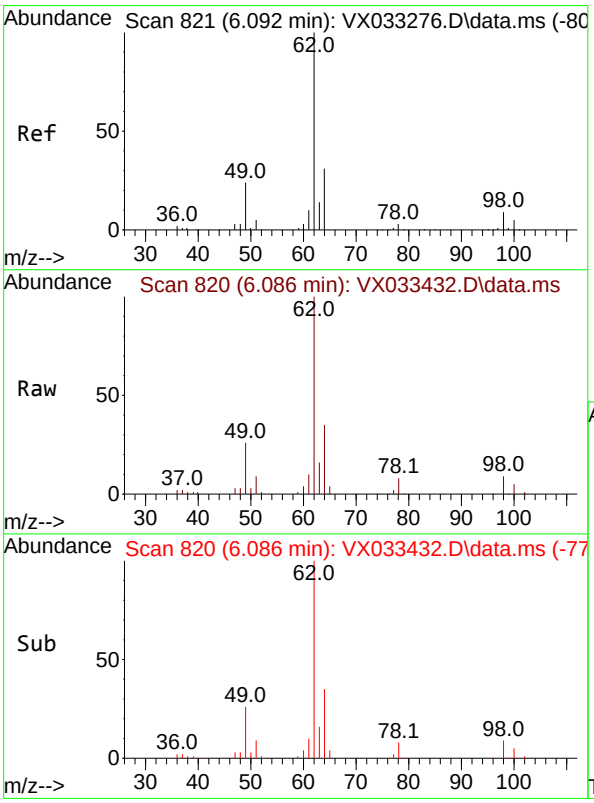
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 54.8 | 47.5 | 71.3 |
| 67 | 77.1 | 60.5 | 90.7 |
| 52 | 32.2 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

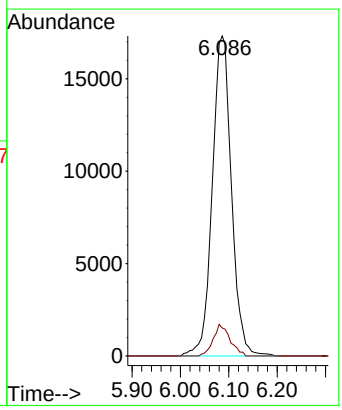
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

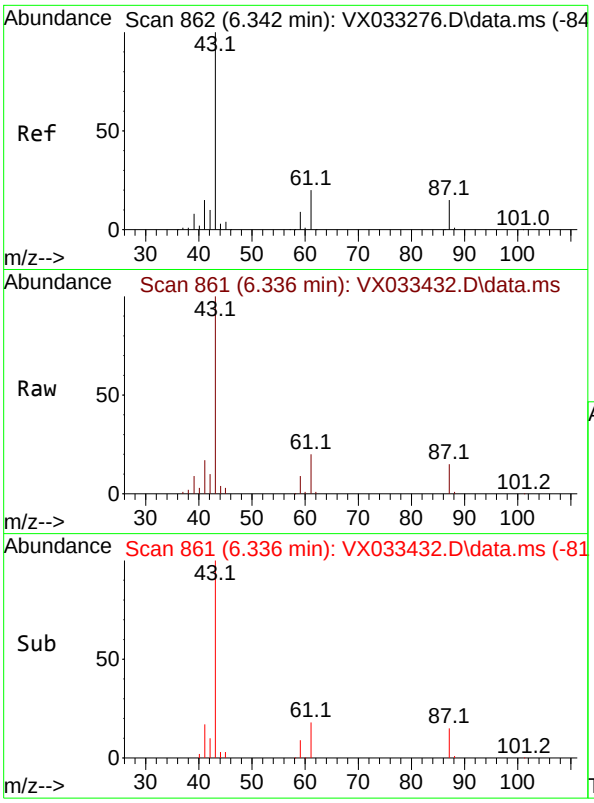



#42
1,2-Dichloroethane
Concen: 21.085 ug/l
RT: 6.086 min Scan# 820
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 62 Resp: 47676

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.6 | 0.0 | 16.0 |

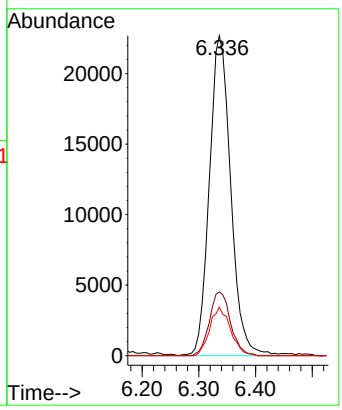





#43
Isopropyl Acetate
Concen: 19.951 ug/l
RT: 6.336 min Scan# 8
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 5926

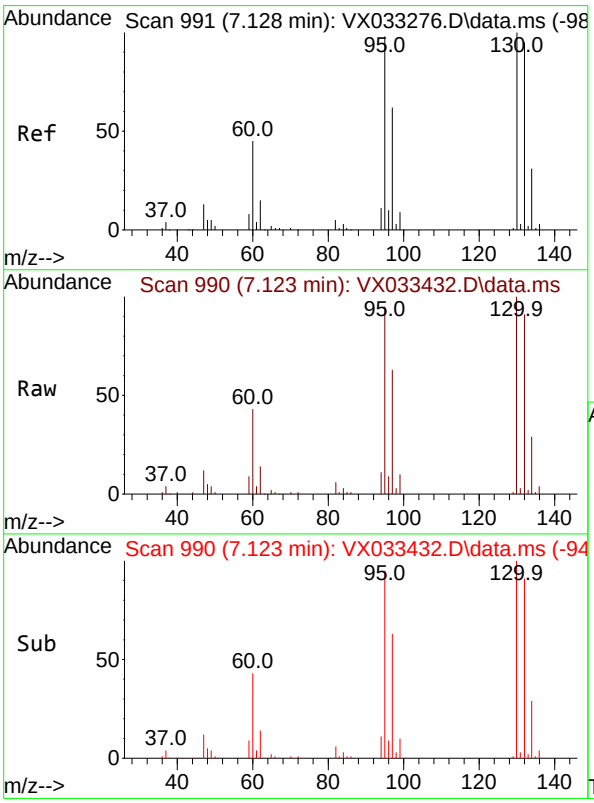
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 19.7 | 15.4 | 23.0 |
| 87 | 14.7 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

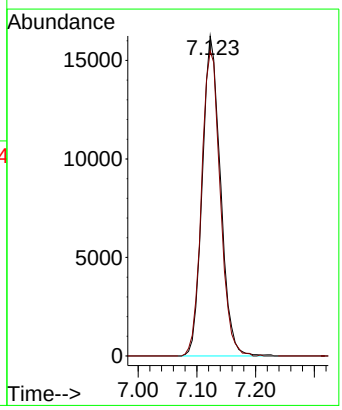
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

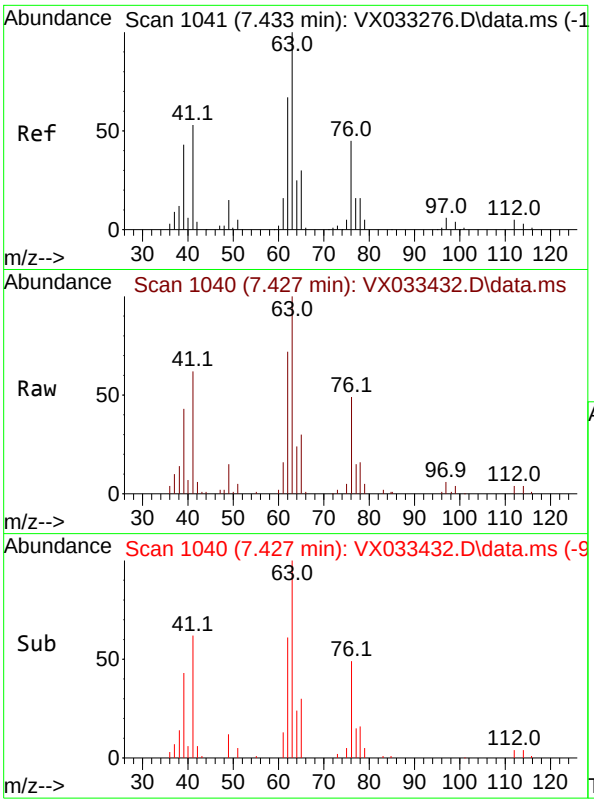



#44
Trichloroethene
Concen: 22.230 ug/l
RT: 7.123 min Scan# 990
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:130 Resp: 34900

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 95.3 | 0.0 | 195.2 |

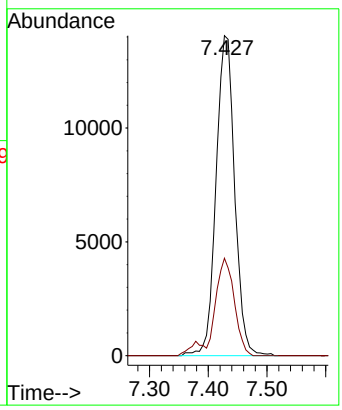





#45
1,2-Dichloropropane
Concen: 21.271 ug/l
RT: 7.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 63 Resp: 3097

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 30.4 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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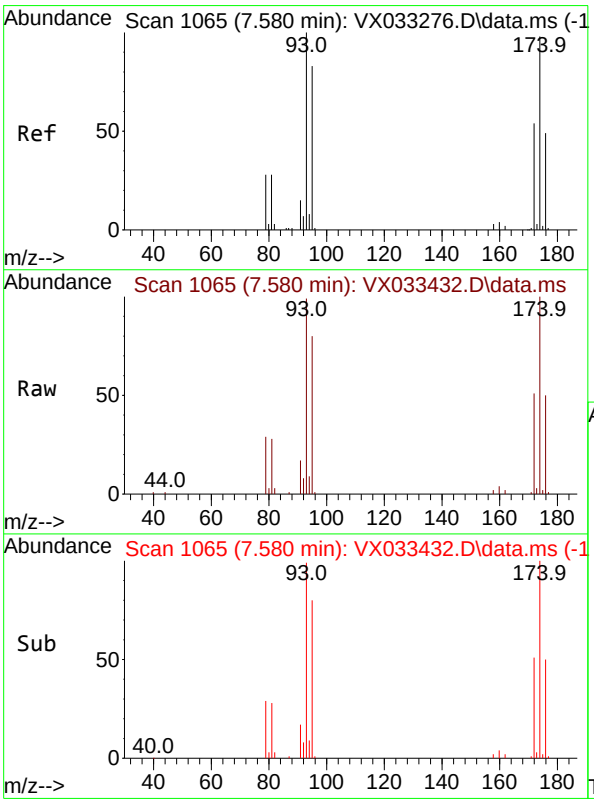
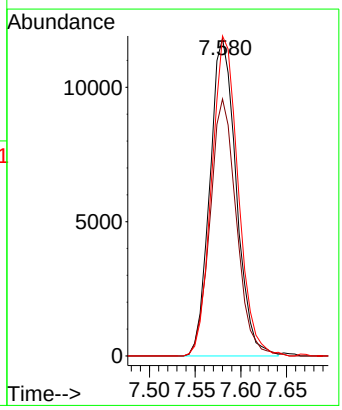
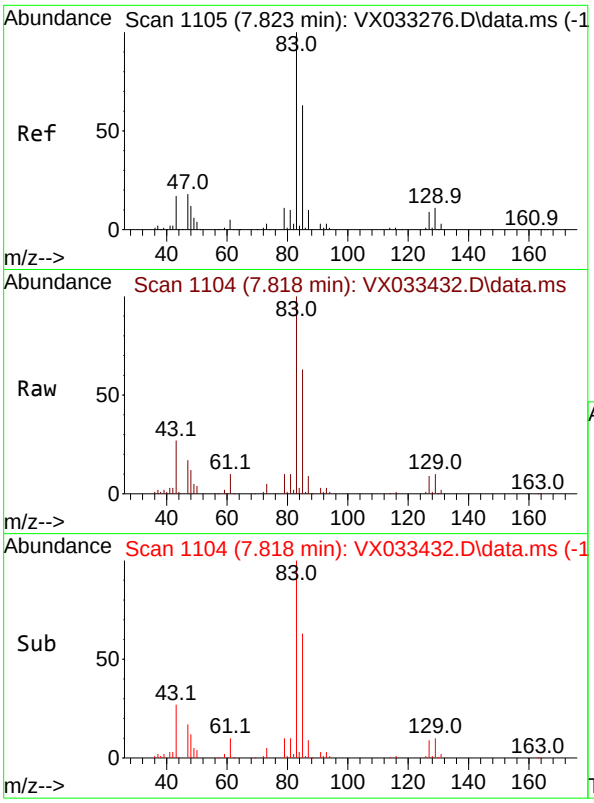



#46
Dibromomethane
Concen: 21.322 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 93 Resp: 23654

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 80.7 | 65.8 | 98.8 |
| 174 | 101.7 | 79.8 | 119.6 |

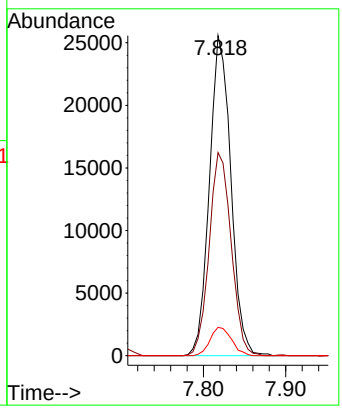





#47
Bromodichloromethane
Concen: 21.418 ug/l
RT: 7.818 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 83 Resp: 4631

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 52.2 | 78.4 |
| 127 | 8.9 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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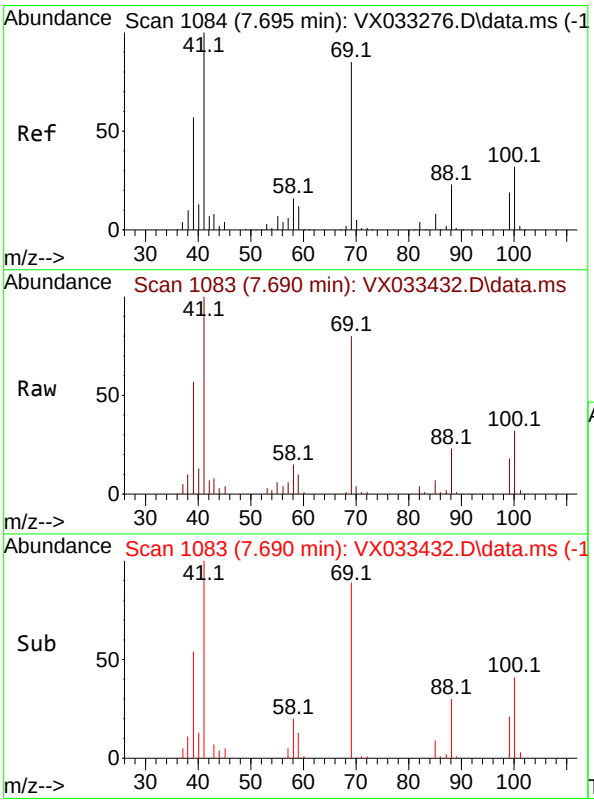
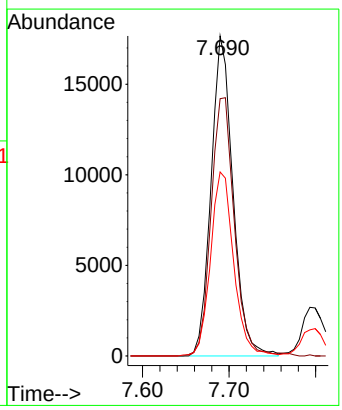
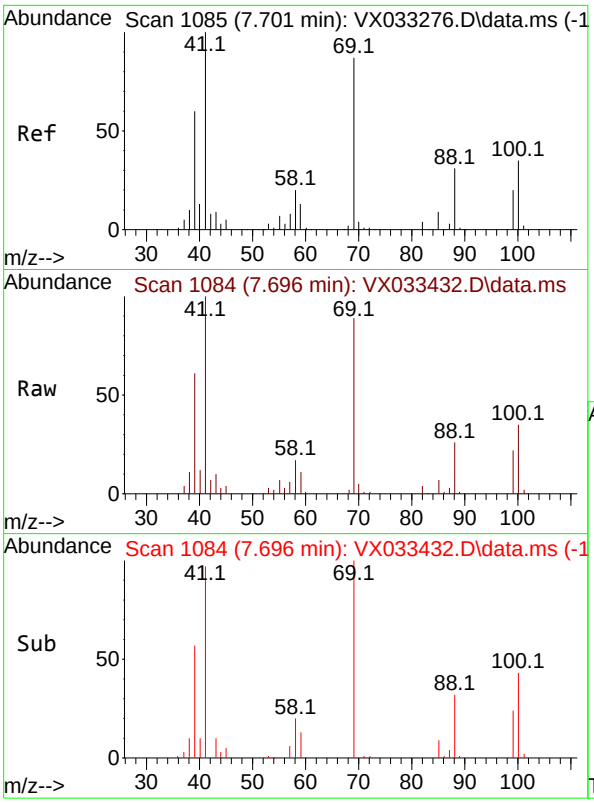



#48
Methyl methacrylate
Concen: 20.255 ug/l
RT: 7.690 min Scan# 1083
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 41 Resp: 31051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 86.0 | 65.1 | 97.7 |
| 39 | 60.8 | 51.9 | 77.9 |






#49
1,4-Dioxane
Concen: 396.244 ug/l
RT: 7.696 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 88 Resp: 1385

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 32.0 | 26.6 | 39.8 |
| 58 | 64.5 | 51.7 | 77.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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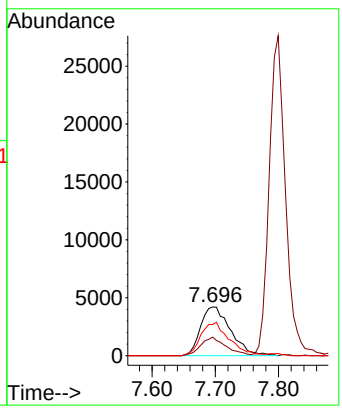
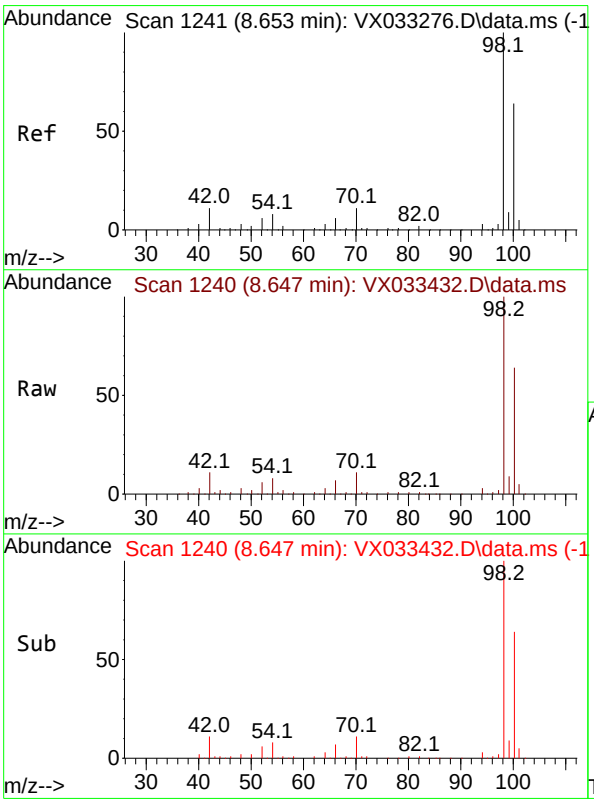
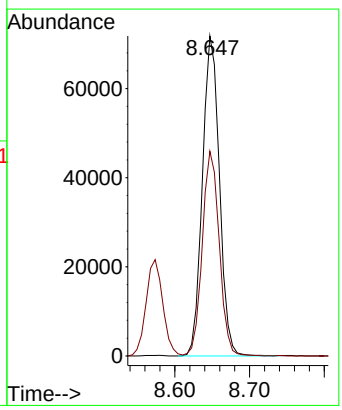


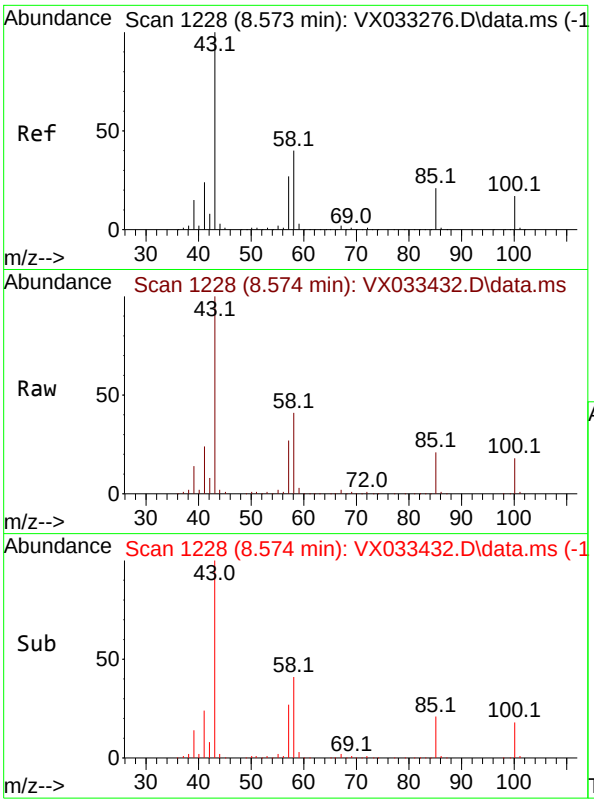




#50
Toluene-d8
Concen: 54.117 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 98 Resp: 113403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 63.8 | 50.9 | 76.3 |

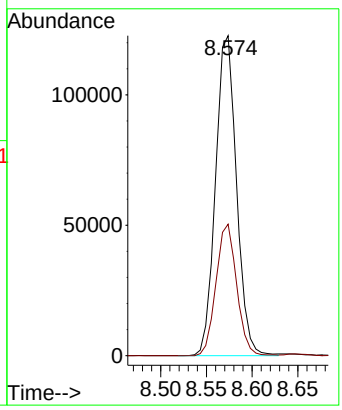





#51
4-Methyl-2-Pentanone
Concen: 104.484 ug/l
RT: 8.574 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 19626

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 40.5 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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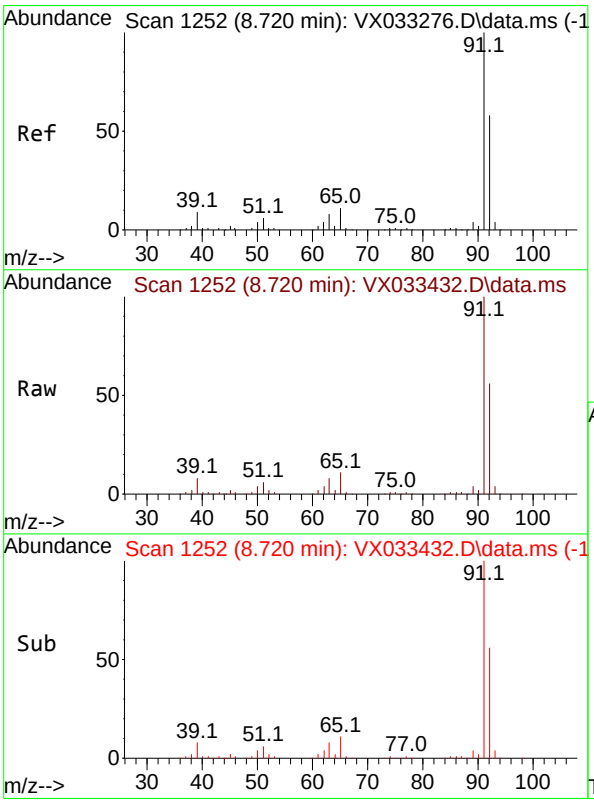
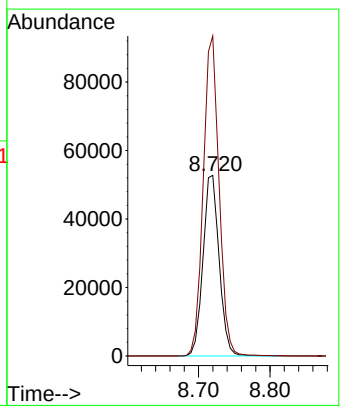
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

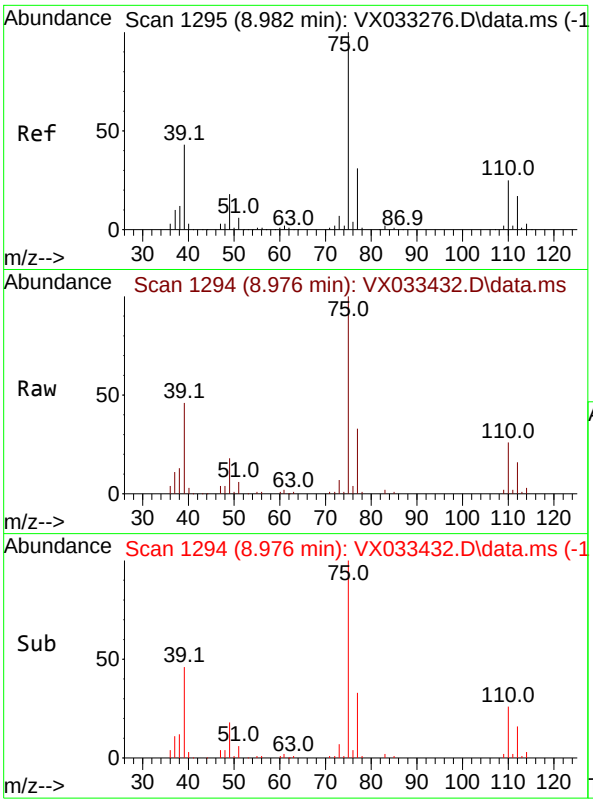



#52
Toluene
Concen: 22.467 ug/l
RT: 8.720 min Scan# 1252
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 92 Resp: 82715

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 173.9 | 138.3 | 207.5 |

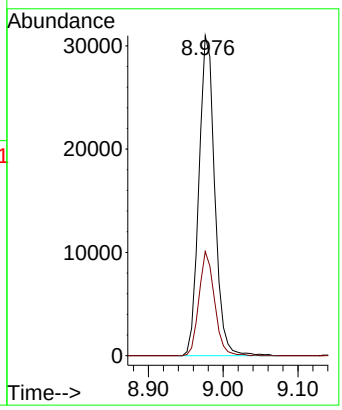





#53
t-1,3-Dichloropropene
Concen: 21.109 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 4549

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.6 | 25.1 | 37.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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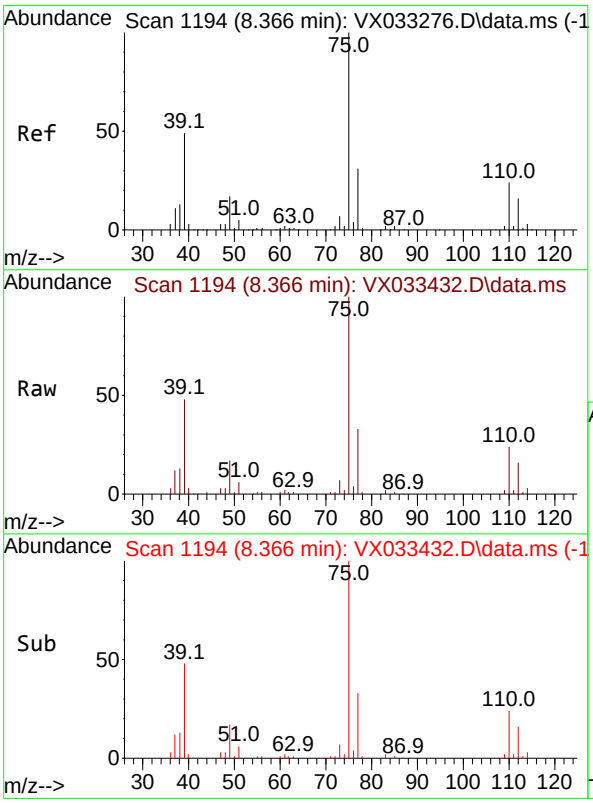
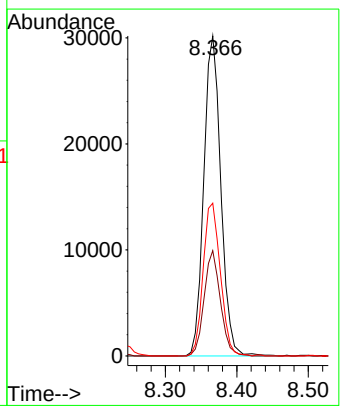
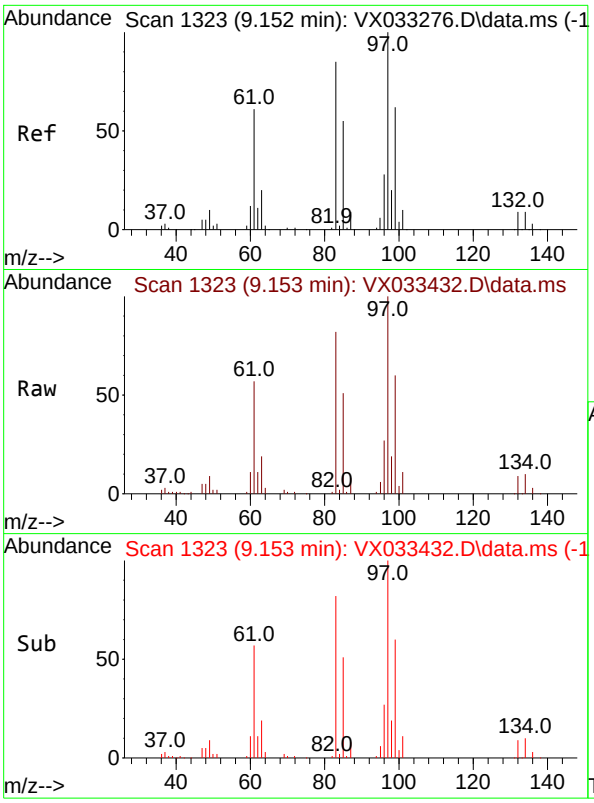



#54
cis-1,3-Dichloropropene
Concen: 21.705 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 49946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.9 | 25.1 | 37.7 |
| 39 | 47.7 | 45.5 | 68.3 |

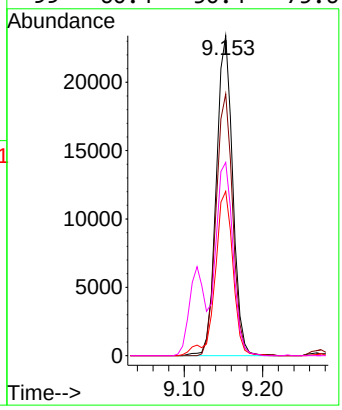





#55
1,1,2-Trichloroethane
Concen: 22.048 ug/l
RT: 9.153 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 97 Resp: 3412

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 81.8 | 68.1 | 102.1 |
| 85 | 51.4 | 43.3 | 64.9 |
| 99 | 60.4 | 50.4 | 75.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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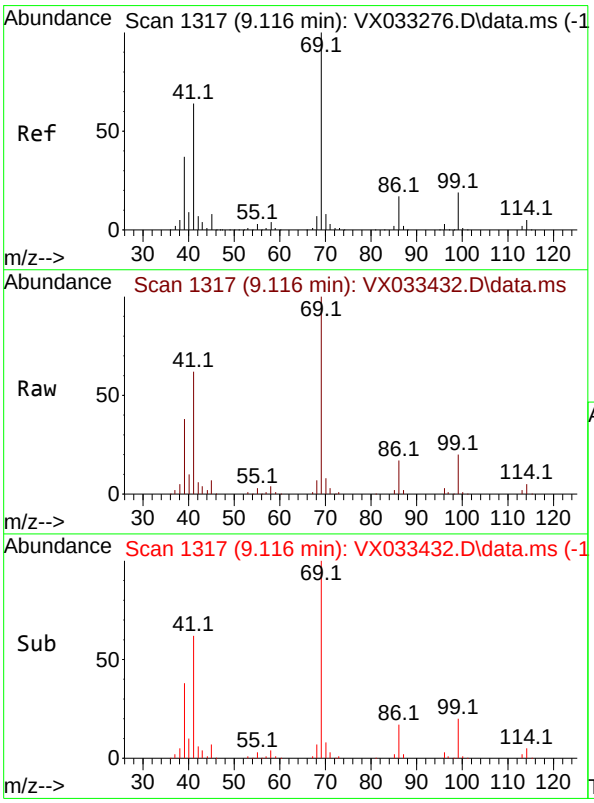
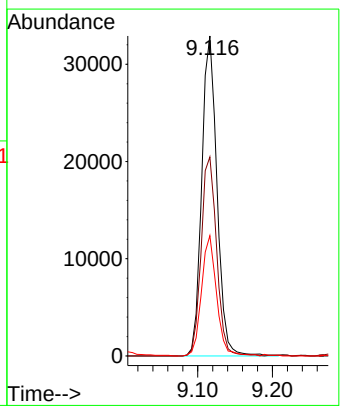
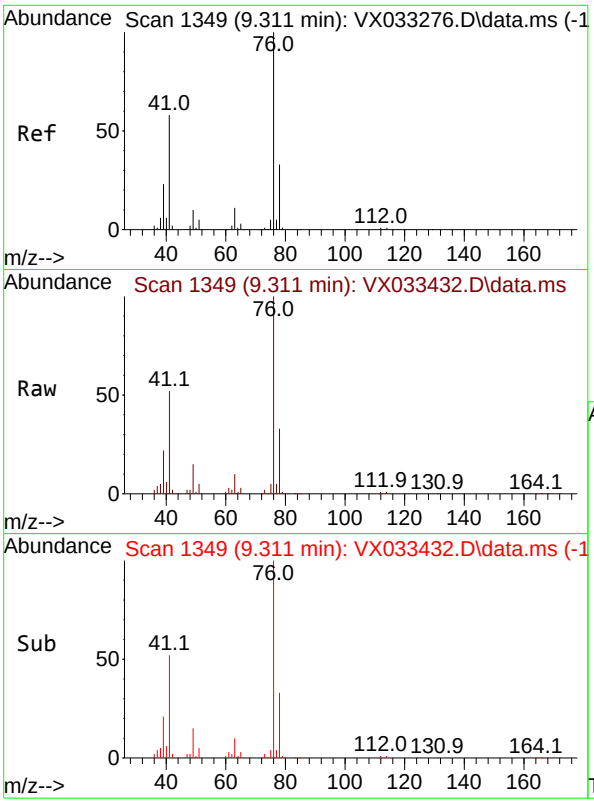



#56
Ethyl methacrylate
Concen: 21.423 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 69 Resp: 46679

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 63.0 | 54.3 | 81.5 |
| 39 | 37.1 | 35.2 | 52.8 |

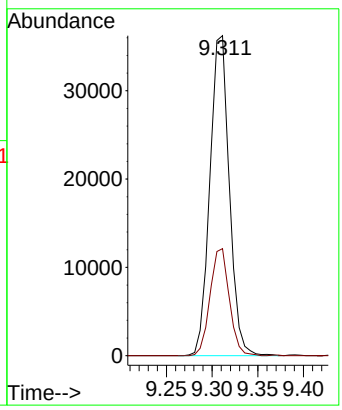





#57
1,3-Dichloropropane
Concen: 21.537 ug/l
RT: 9.311 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 76 Resp: 5354

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 33.1 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

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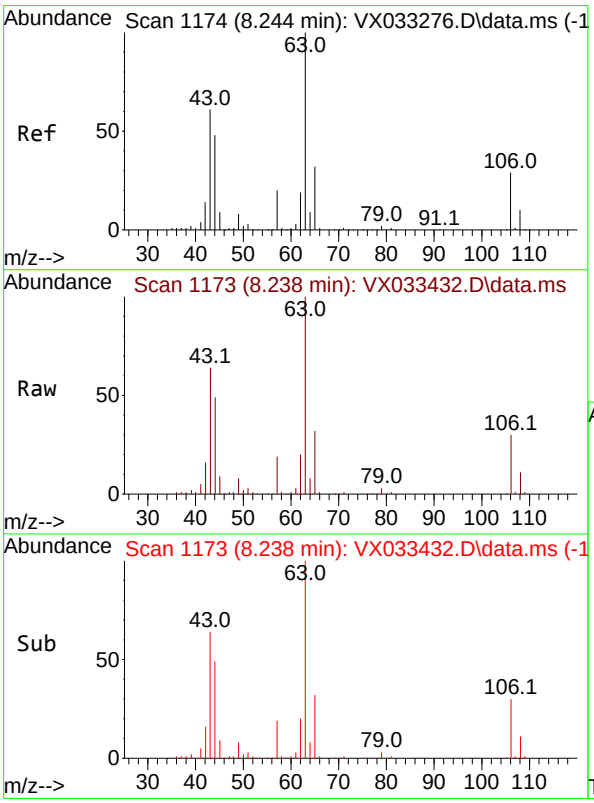
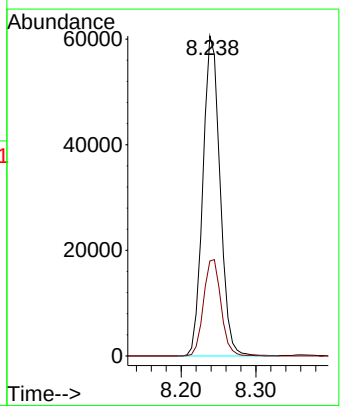
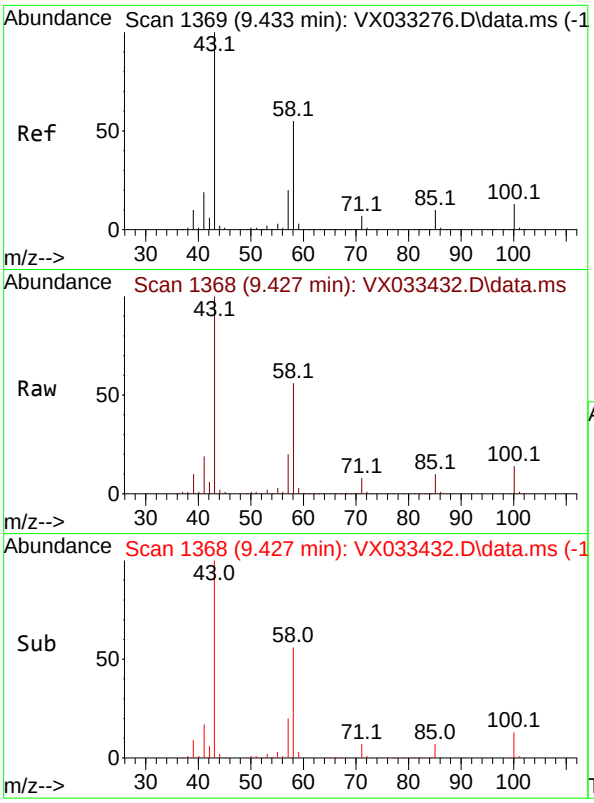



#58
2-Chloroethyl Vinyl ether
Concen: 96.952 ug/l
RT: 8.238 min Scan# 1173
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 63 Resp: 96663

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 30.7 | 23.3 | 34.9 |

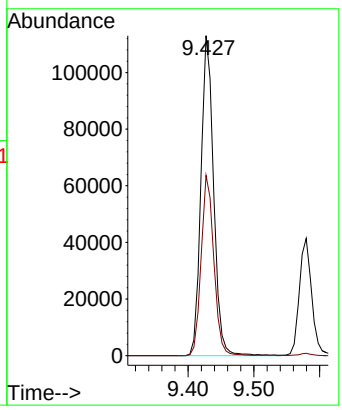





#59
2-Hexanone
Concen: 109.361 ug/l
RT: 9.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 15138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 56.4 | 26.5 | 79.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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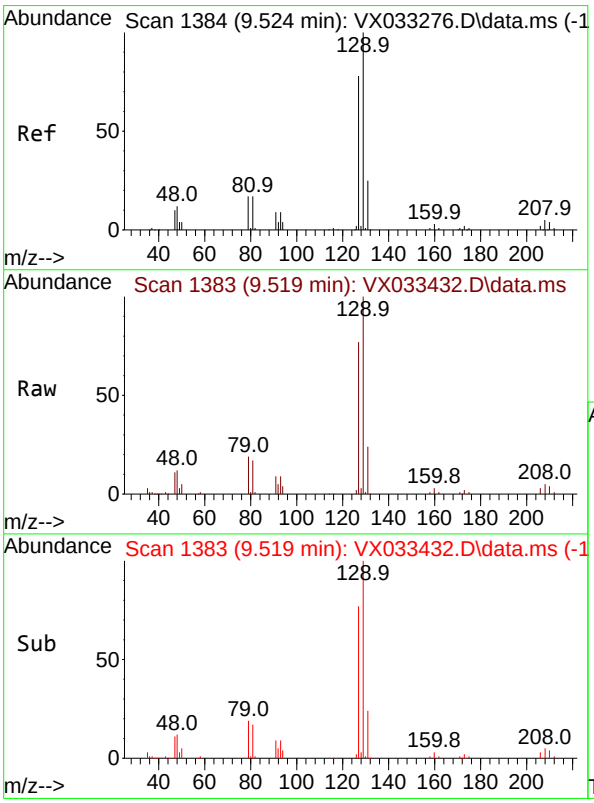
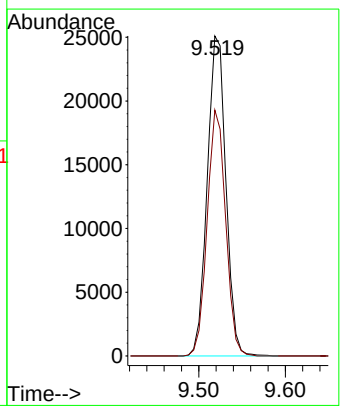
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

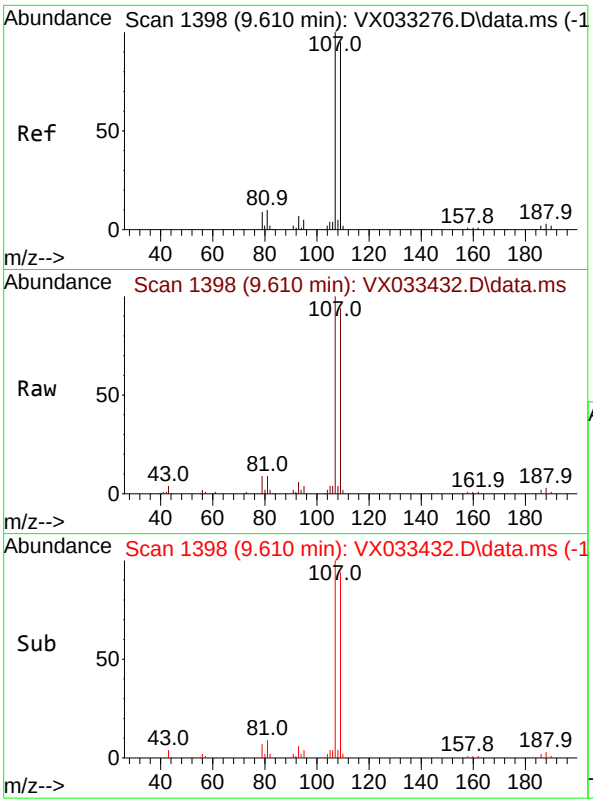



#60
Dibromochloromethane
Concen: 22.006 ug/l
RT: 9.519 min Scan# 1383
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:129 Resp: 37523

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 76.1 | 38.6 | 115.8 |

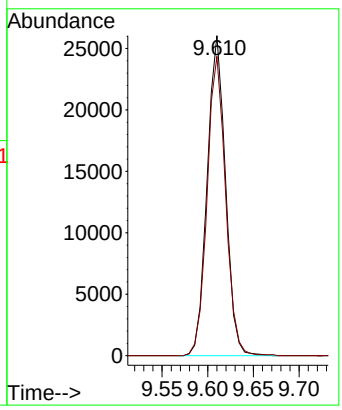





#61
1,2-Dibromoethane
Concen: 22.006 ug/l
RT: 9.610 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:107 Resp: 3622

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.4 | 76.0 | 114.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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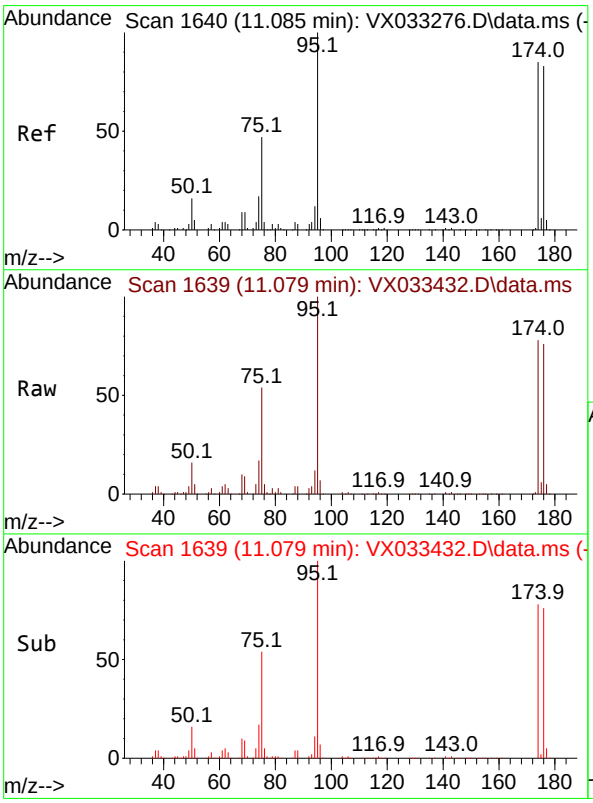
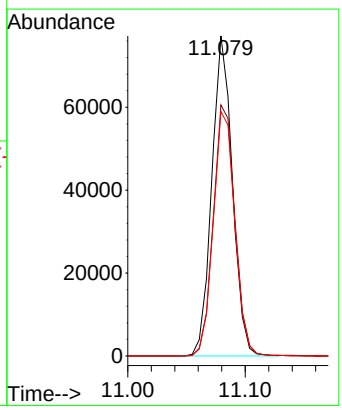
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

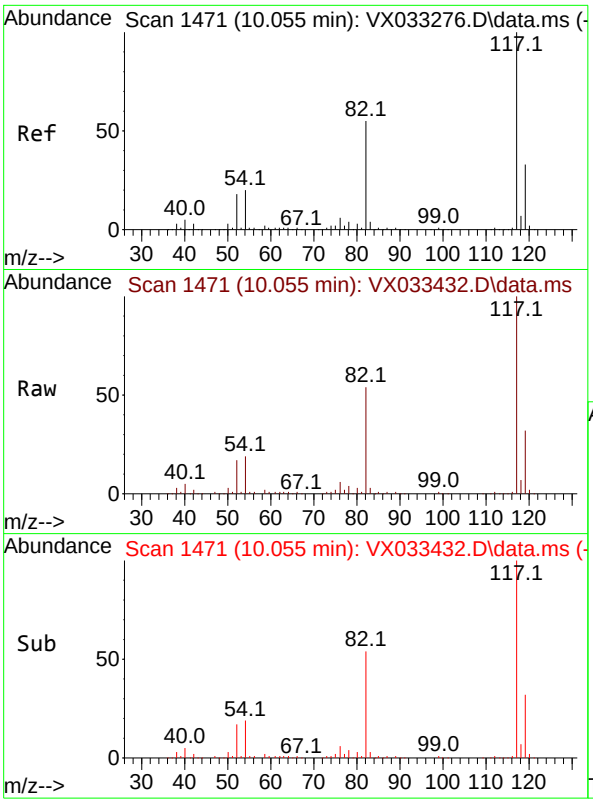



#62
4-Bromofluorobenzene
Concen: 58.652 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 95 Resp: 93976

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 82.6 | 0.0 | 164.0 |
| 176 | 80.1 | 0.0 | 154.4 |

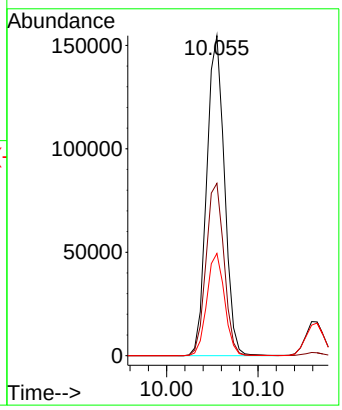





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:117 Resp: 20784

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.8 | 44.3 | 66.5 |
| 119 | 32.0 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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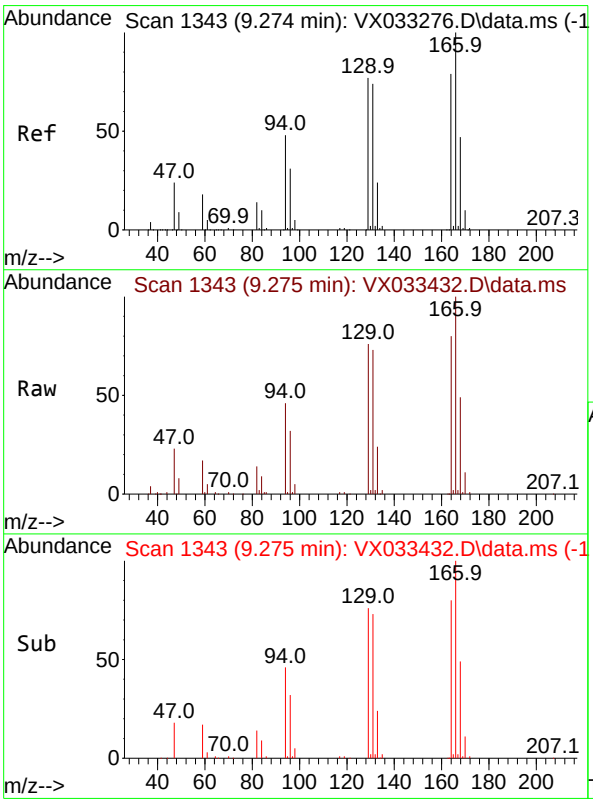
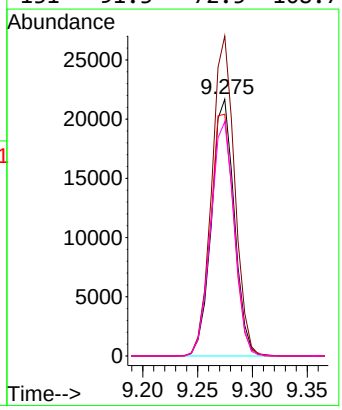
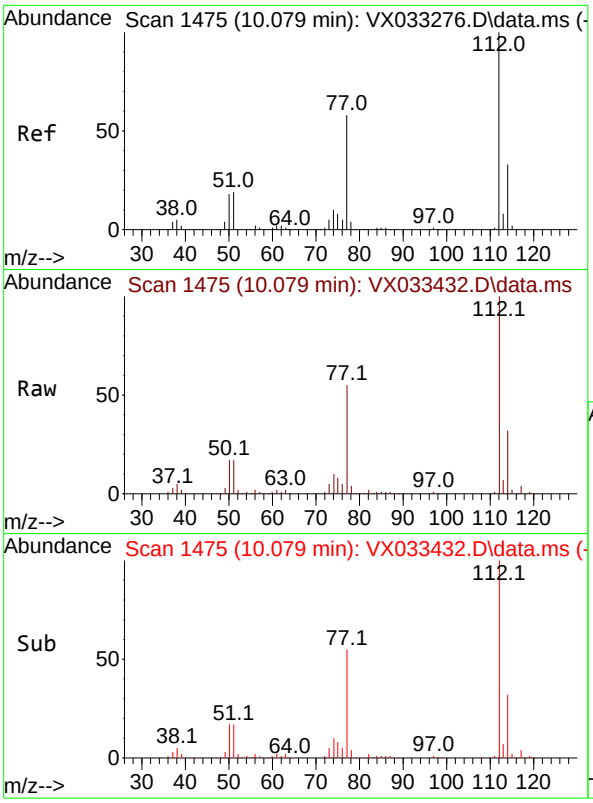



#64
Tetrachloroethene
Concen: 22.006 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:164 Resp: 31276

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 124.6 | 105.4 | 158.2 |
| 129 | 94.2 | 78.2 | 117.2 |
| 131 | 91.3 | 72.5 | 108.7 |

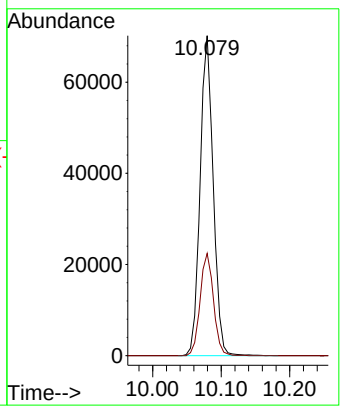





#65
Chlorobenzene
Concen: 22.227 ug/l
RT: 10.079 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:112 Resp: 9355

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 31.9 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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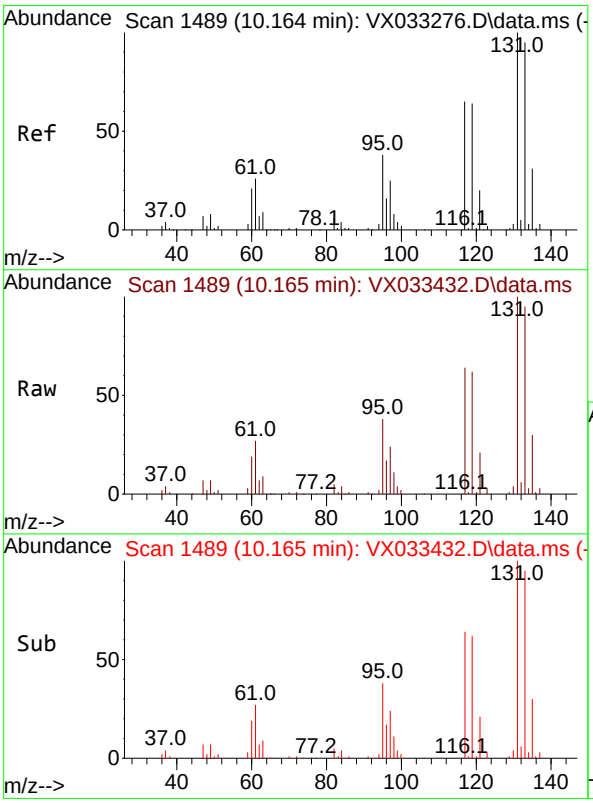
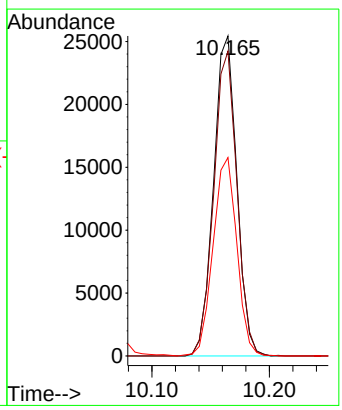
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

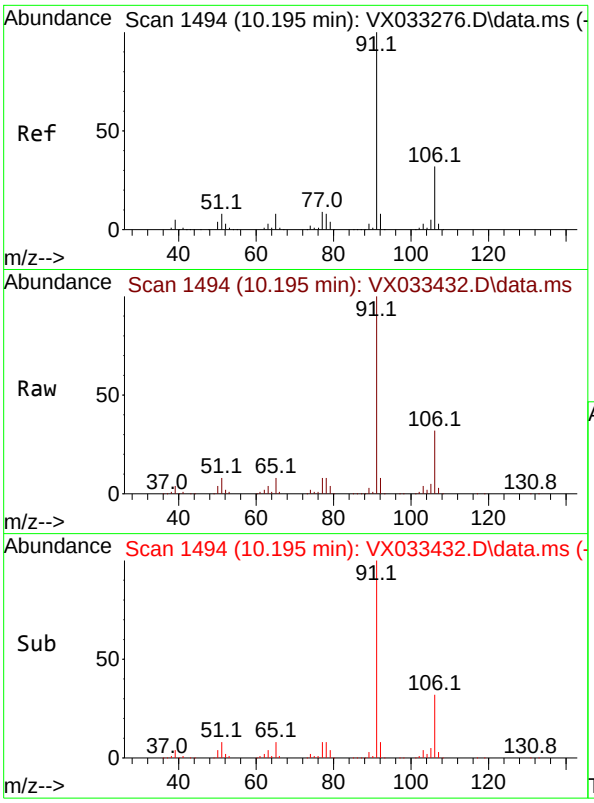



#66
1,1,1,2-Tetrachloroethane
Concen: 21.957 ug/l
RT: 10.165 min Scan# 1489
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:131 Resp: 34924

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.6 | 47.6 | 142.9 |
| 119 | 63.6 | 32.4 | 97.0 |

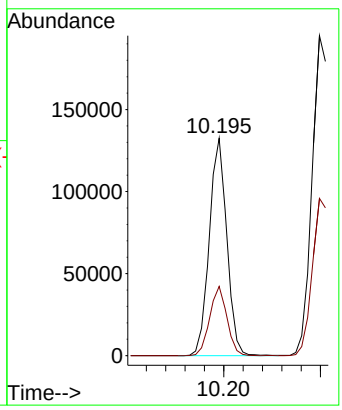





#67
Ethyl Benzene
Concen: 22.759 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 16688

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.9 | 25.0 | 37.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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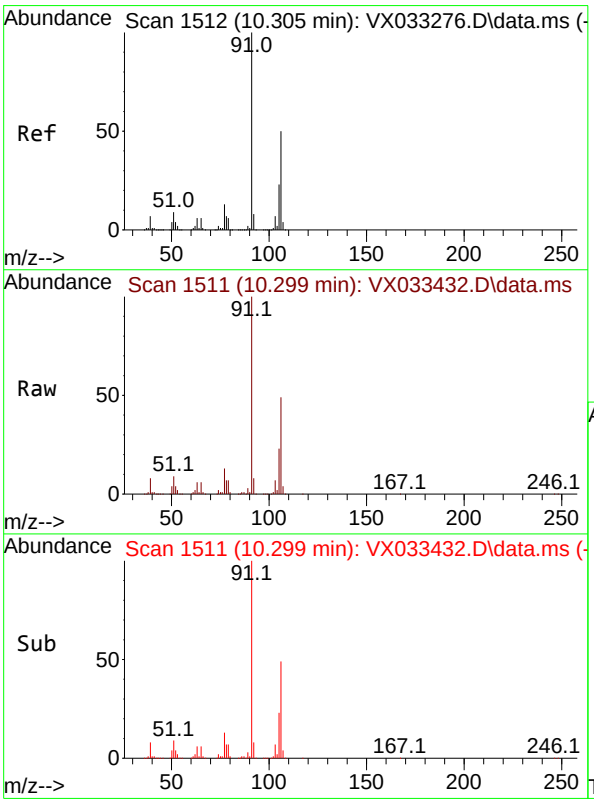
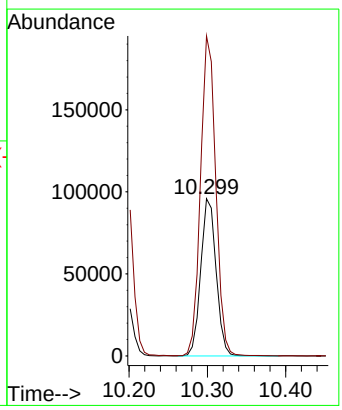
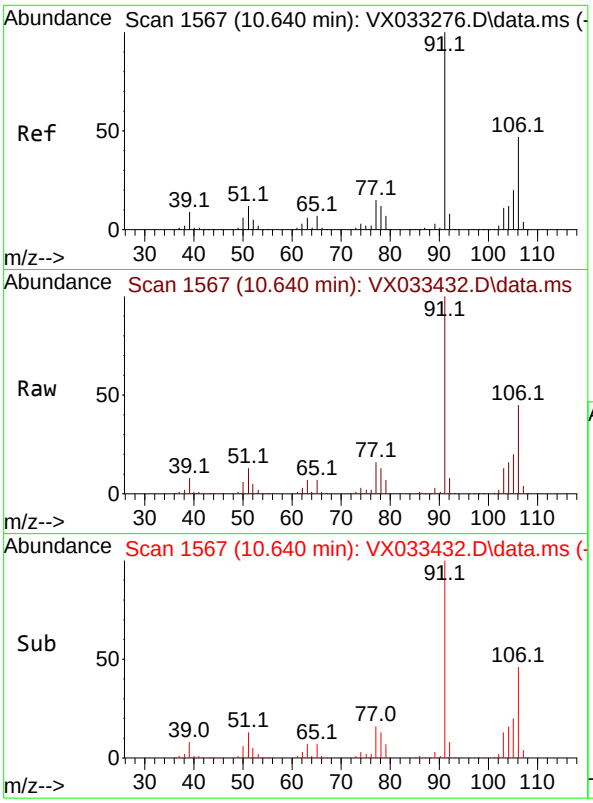



#68
m/p-Xylenes
Concen: 45.726 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:106 Resp: 130453

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 202.3 | 164.5 | 246.7 |

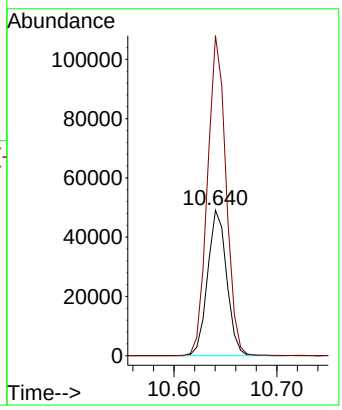





#69
o-Xylene
Concen: 22.440 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:106 Resp: 6327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 214.5 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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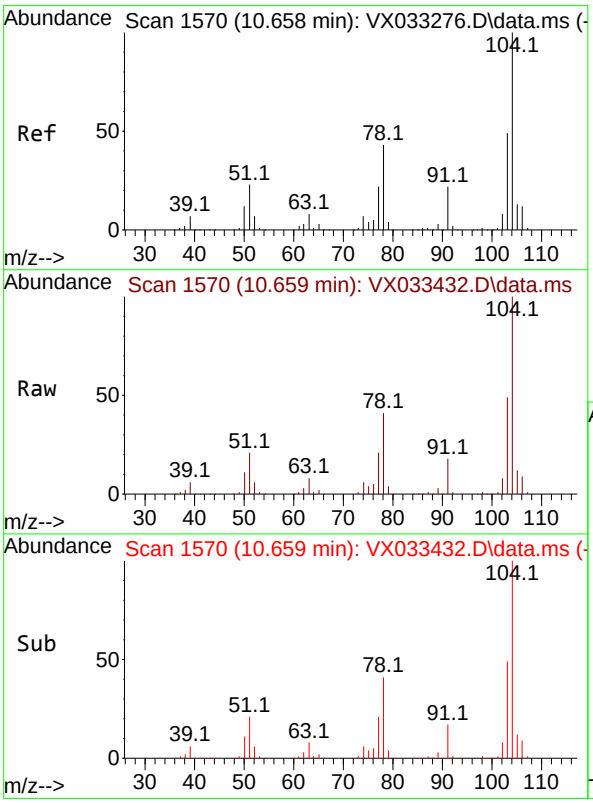
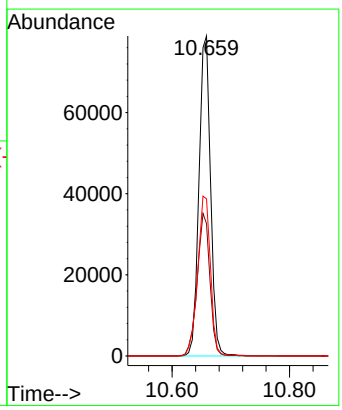
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

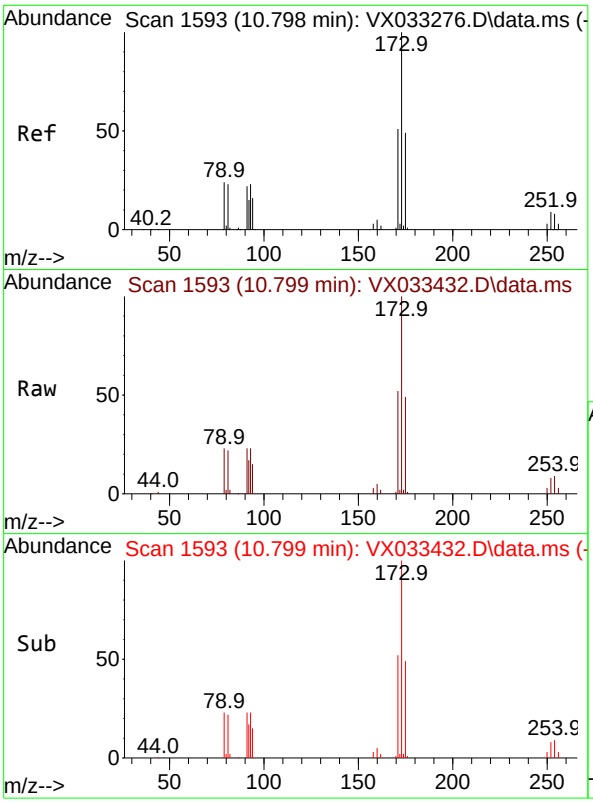



#70
Styrene
Concen: 23.321 ug/l
RT: 10.659 min Scan# 1570
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:104 Resp: 107707

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 48.8 | 41.8 | 62.8 |
| 103 | 55.0 | 44.5 | 66.7 |

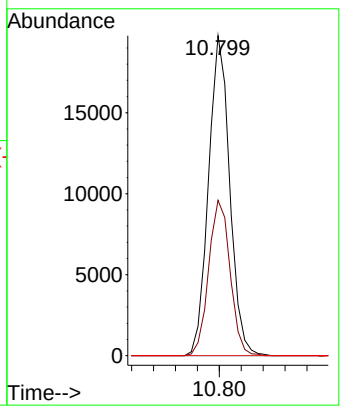





#71
Bromoform
Concen: 21.067 ug/l
RT: 10.799 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:173 Resp: 2652

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 49.1 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
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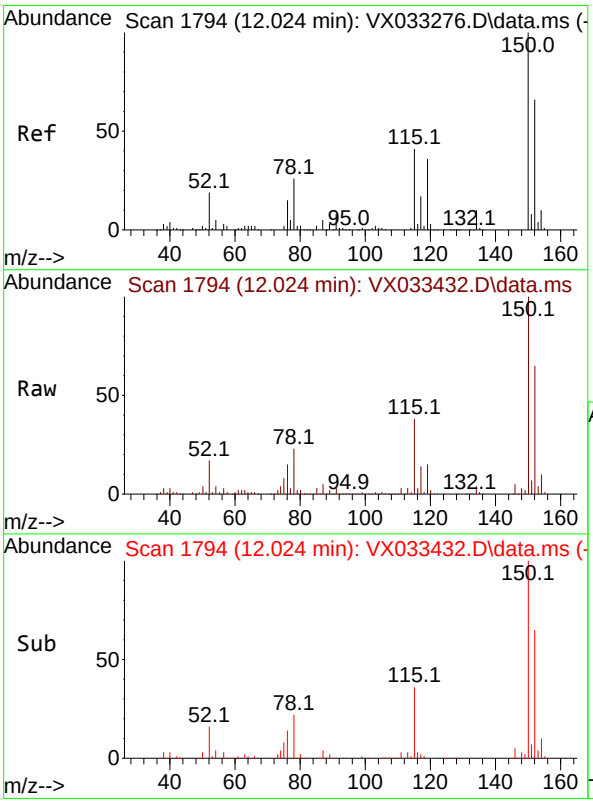
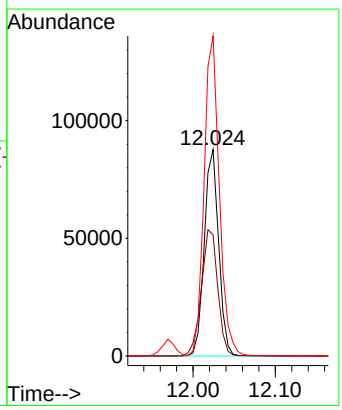
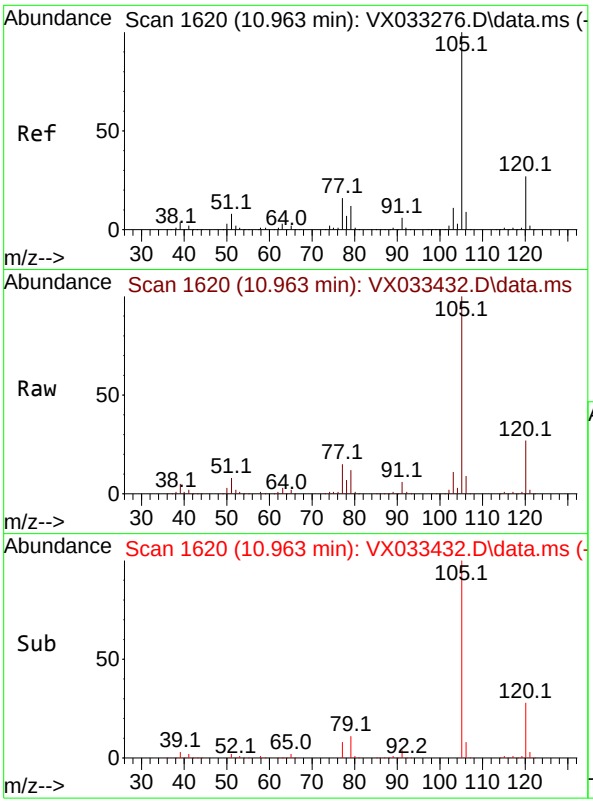



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:152 Resp: 106397

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 69.7 | 44.0 | 132.0 |
| 150 | 164.0 | 0.0 | 351.8 |

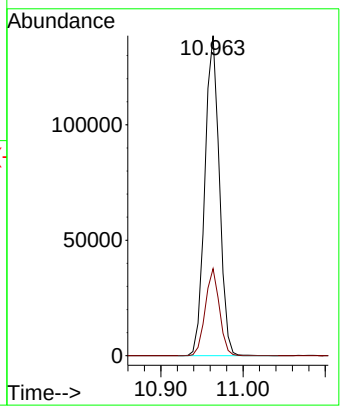





#73
Isopropylbenzene
Concen: 21.983 ug/l
RT: 10.963 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:105 Resp: 16952

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.4 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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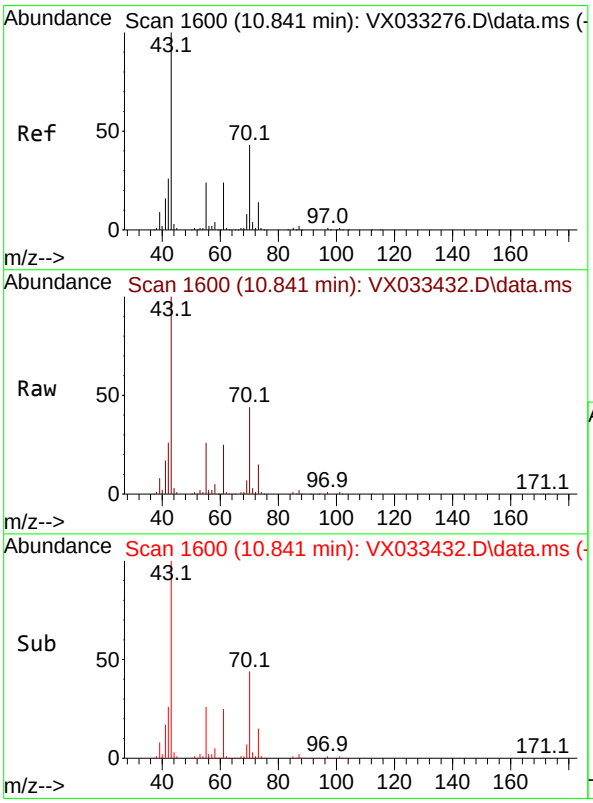
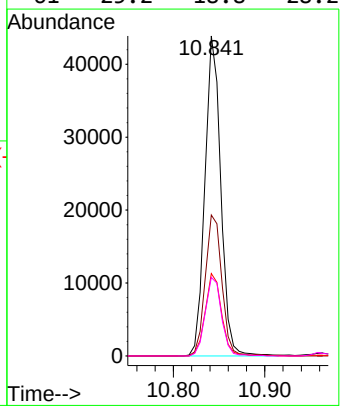
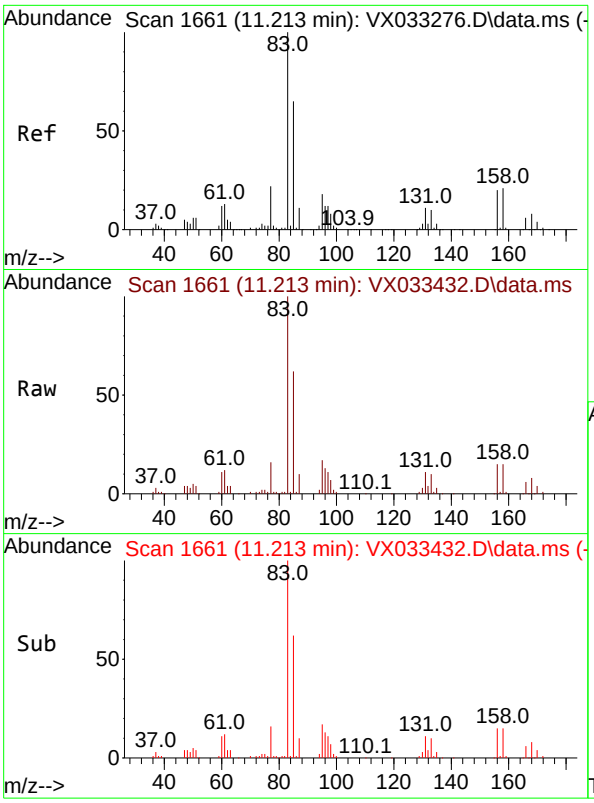



#74
N-amyl acetate
Concen: 20.066 ug/l
RT: 10.841 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 43 Resp: 52796

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 46.1 | 33.6 | 50.4 |
| 55 | 26.7 | 19.4 | 29.2 |
| 61 | 25.2 | 18.8 | 28.2 |

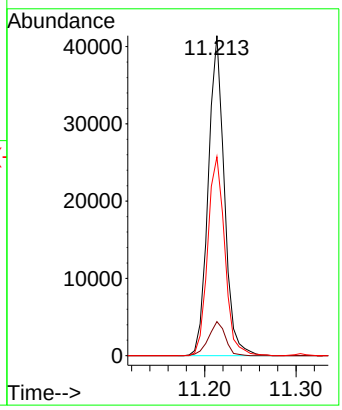





#75
1,1,2,2-Tetrachloroethane
Concen: 20.673 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 83 Resp: 5057

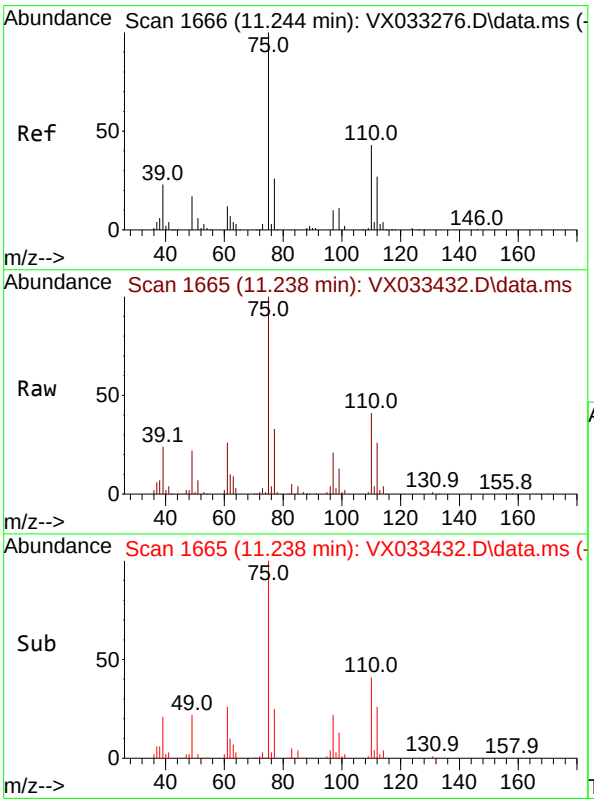
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 11.2 | 5.4 | 16.2 |
| 85 | 66.0 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

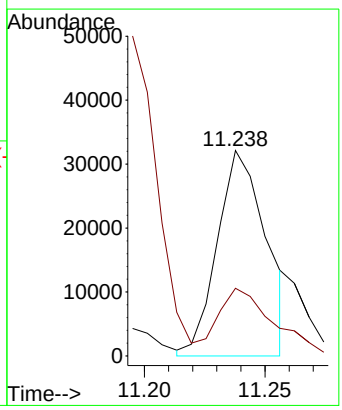
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

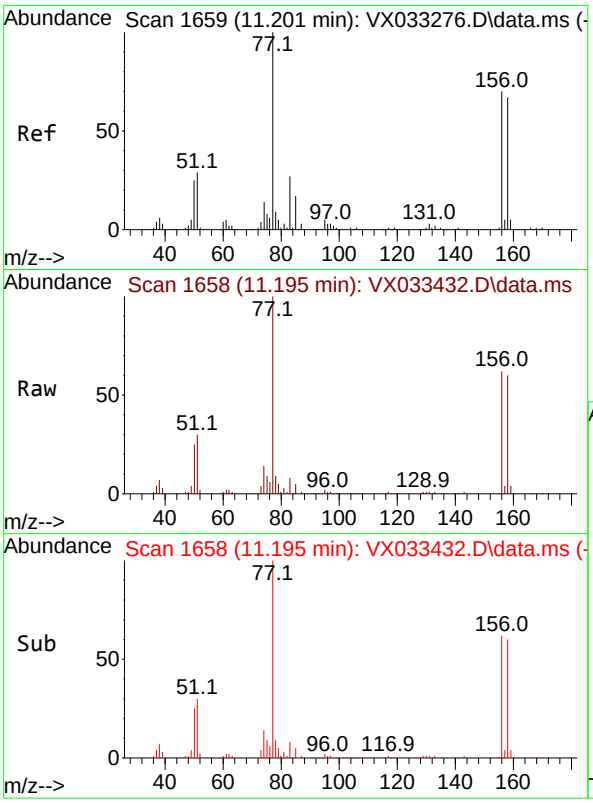



#76
1,2,3-Trichloropropane
Concen: 20.837 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 45106

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 38.1 | 20.0 | 60.0 |

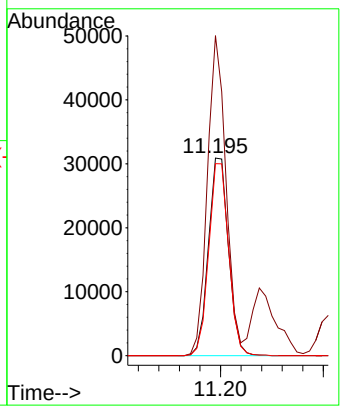





#77
Bromobenzene
Concen: 21.489 ug/l
RT: 11.195 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:156 Resp: 4184

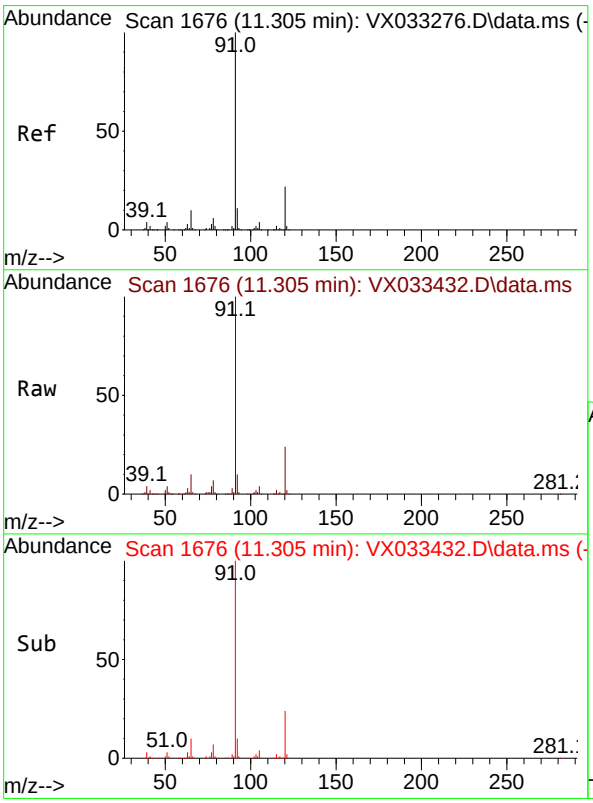
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 149.6 | 76.1 | 228.4 |
| 158 | 96.6 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

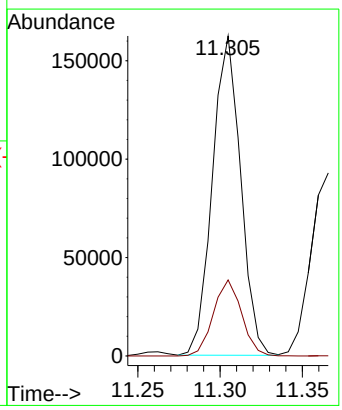
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

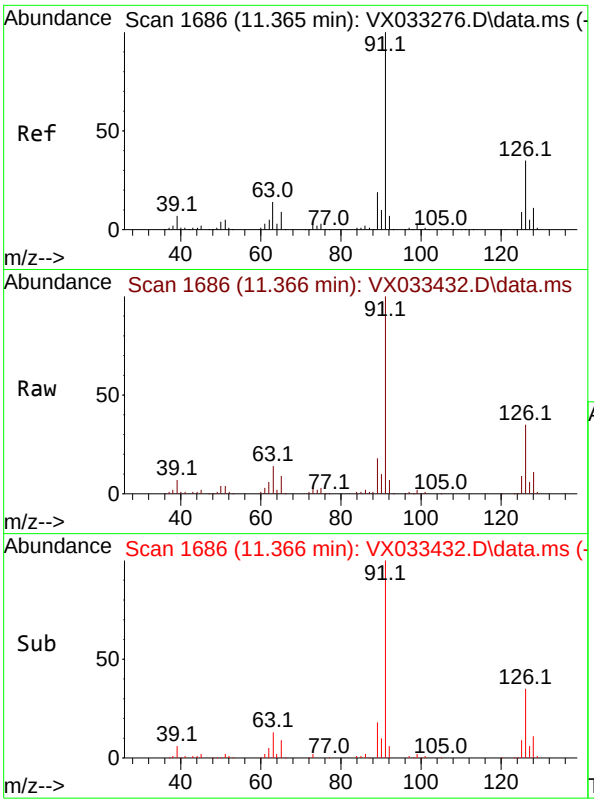



#78
n-propylbenzene
Concen: 22.464 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 193432

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.8 | 11.6 | 34.8 |






#79
2-Chlorotoluene
Concen: 21.838 ug/l
RT: 11.366 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 11621

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 35.0 | 17.1 | 51.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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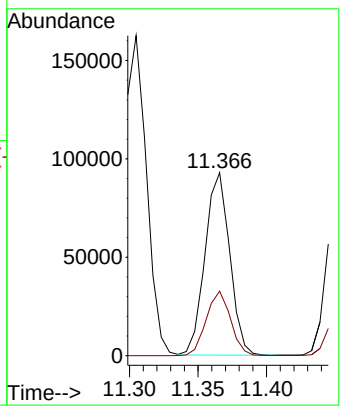
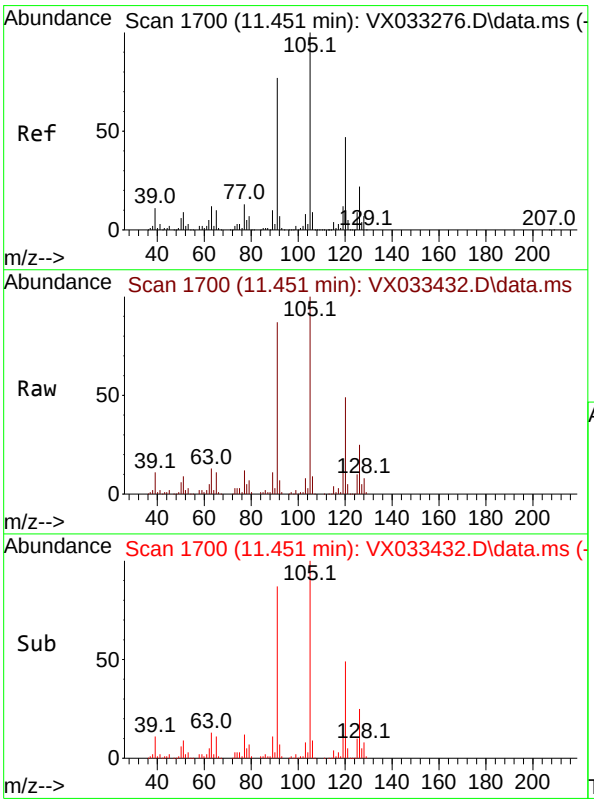
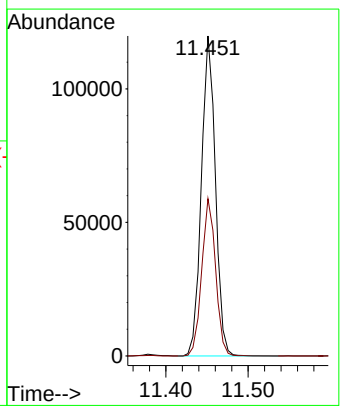


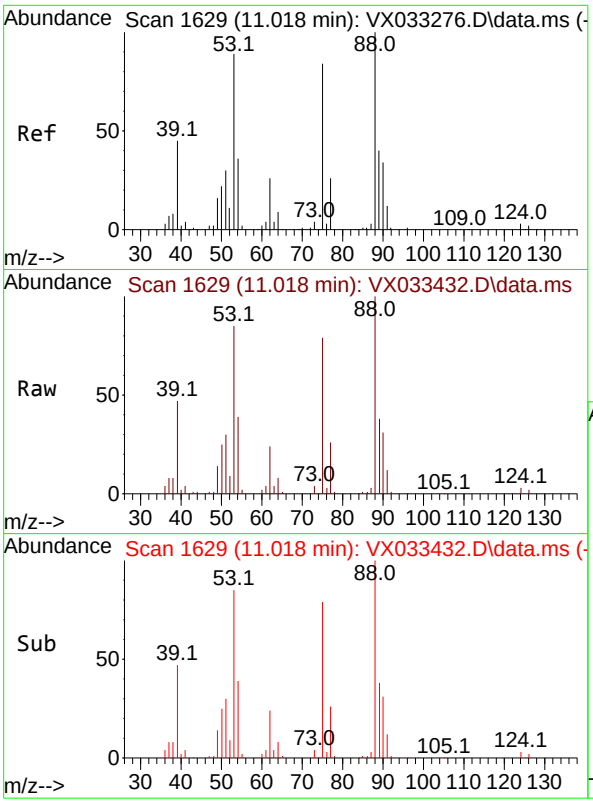




#80
1,3,5-Trimethylbenzene
Concen: 22.133 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:105 Resp: 142080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 48.7 | 23.6 | 71.0 |






#81
trans-1,4-Dichloro-2-butene
Concen: 18.260 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 1270

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 111.9 | 86.9 | 130.3 |
| 89 | 50.2 | 38.3 | 57.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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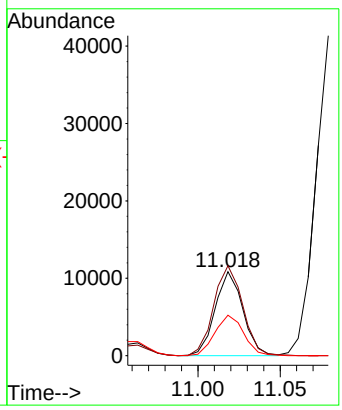
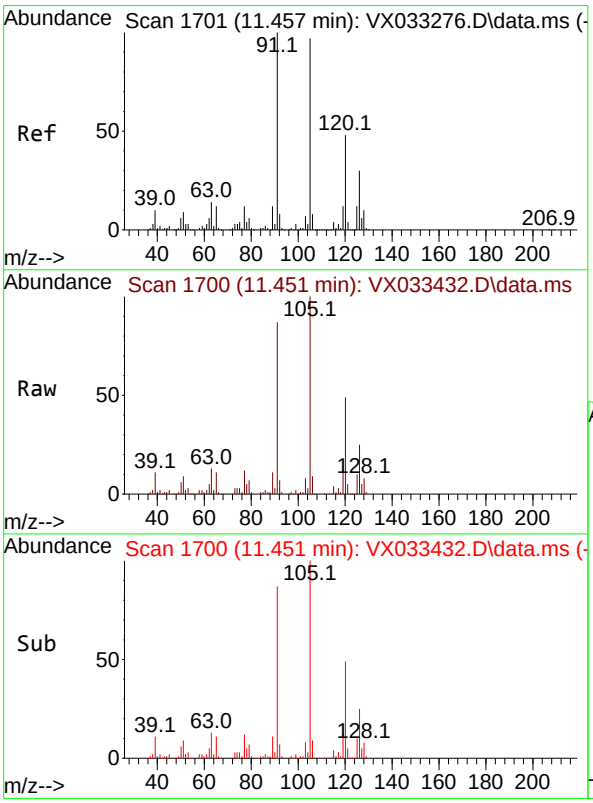
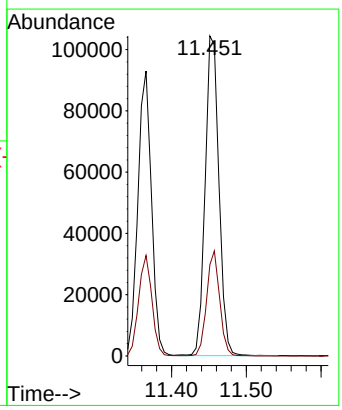


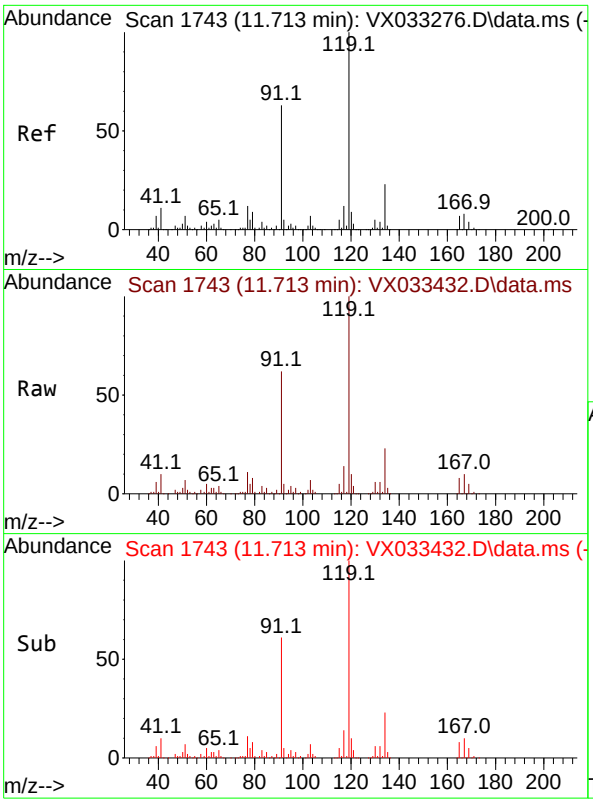




#82
4-Chlorotoluene
Concen: 21.579 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 133528

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 31.1 | 14.8 | 44.4 |

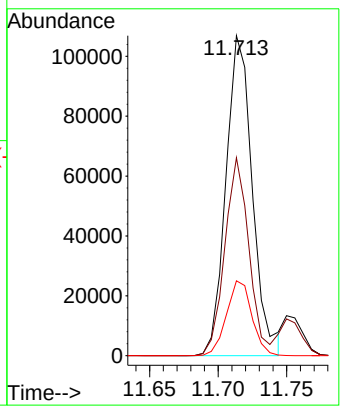





#83
tert-Butylbenzene
Concen: 22.430 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:119 Resp: 14357

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 56.5 | 29.4 | 88.2 |
| 134 | 22.6 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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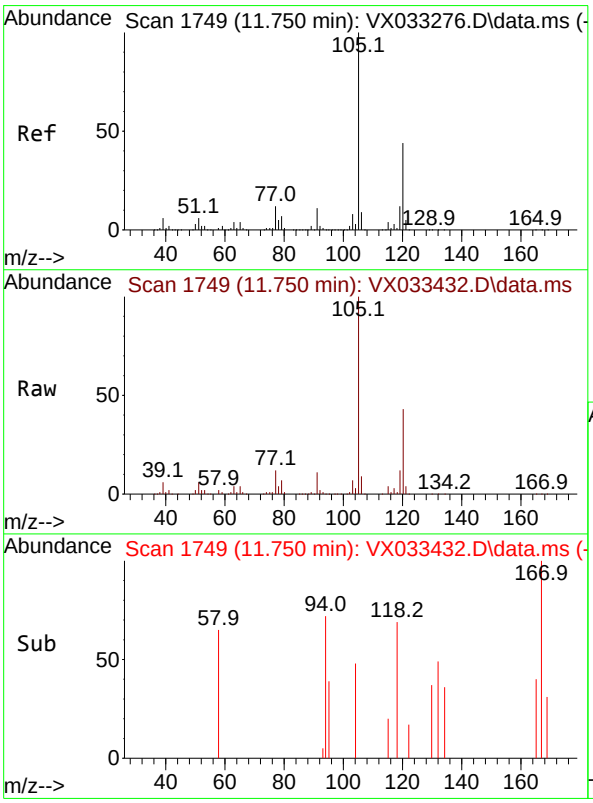
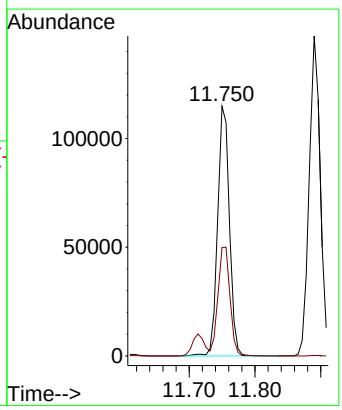
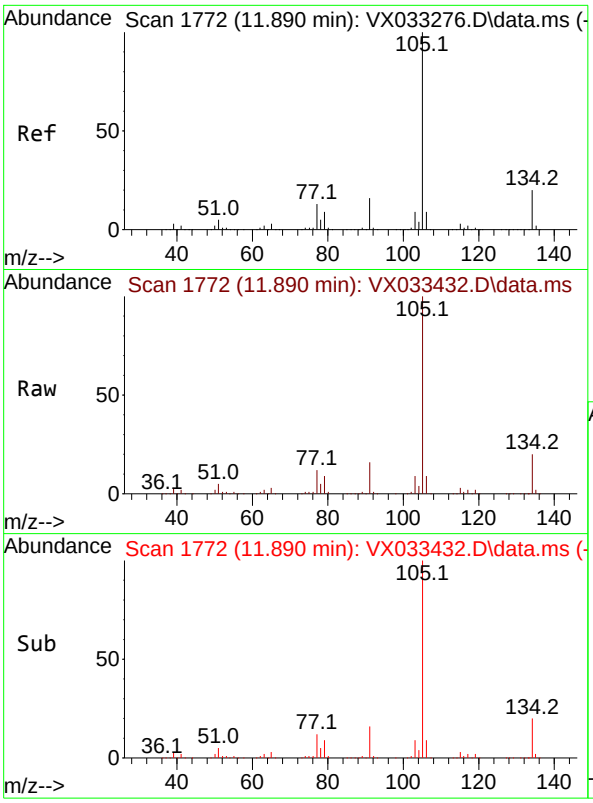



#84
1,2,4-Trimethylbenzene
Concen: 22.364 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:105 Resp: 143303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.3 | 21.9 | 65.5 |

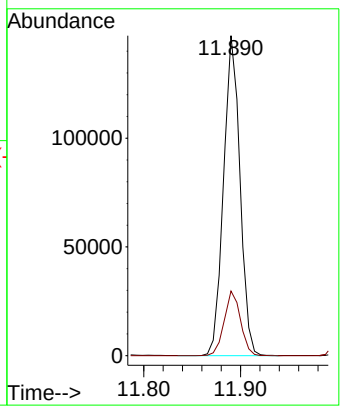





#85
sec-Butylbenzene
Concen: 23.166 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:105 Resp: 17301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.1 | 9.9 | 29.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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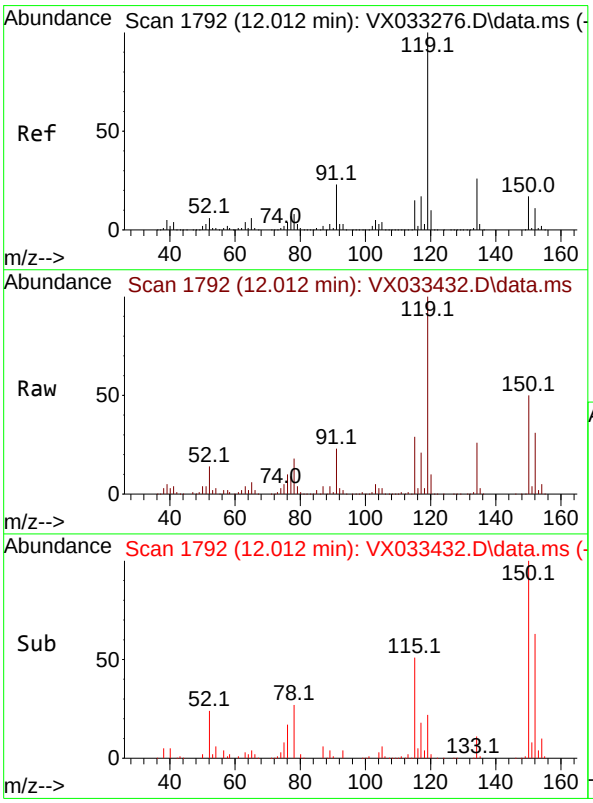
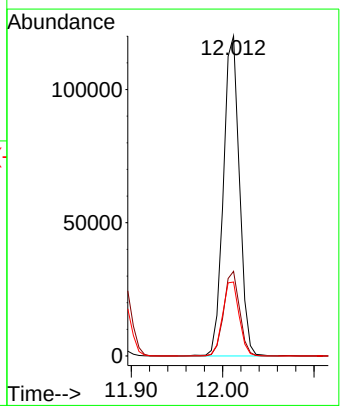
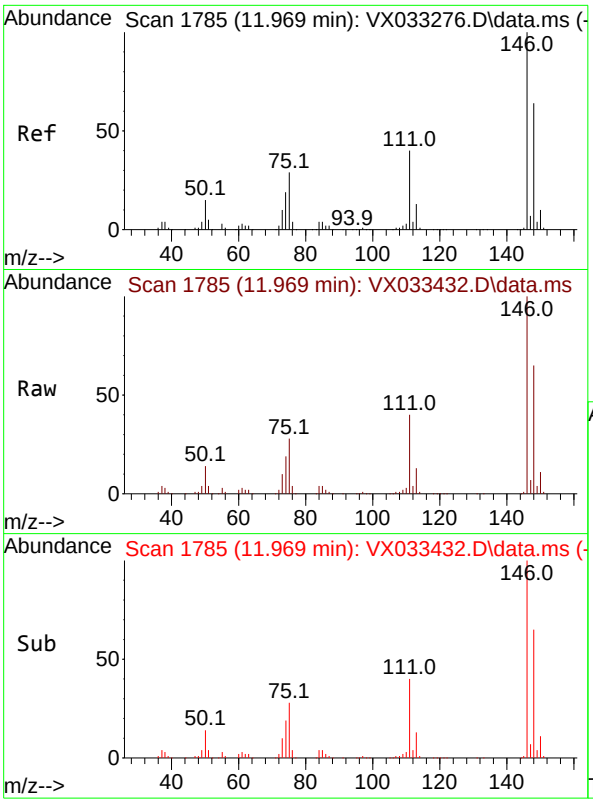



#86
p-Isopropyltoluene
Concen: 22.801 ug/l
RT: 12.012 min Scan# 1792
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:119 Resp: 146815

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.2 | 12.9 | 38.7 |
| 91 | 24.0 | 12.5 | 37.5 |

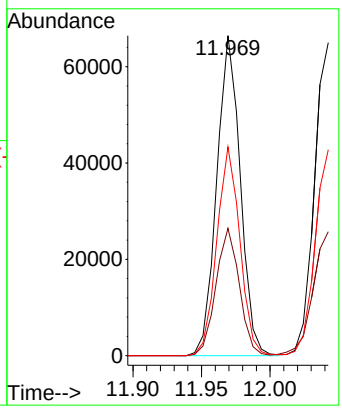





#87
1,3-Dichlorobenzene
Concen: 22.430 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:146 Resp: 7912

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.6 | 20.6 | 61.8 |
| 148 | 64.1 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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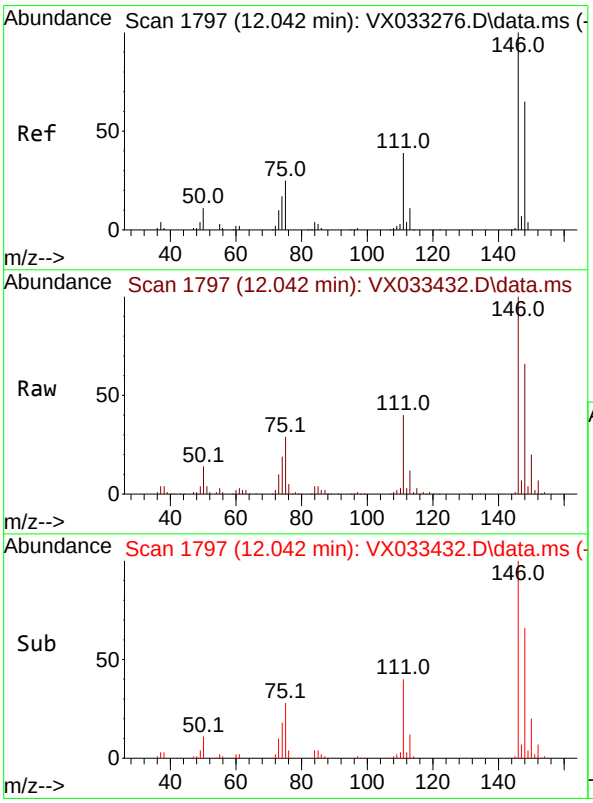
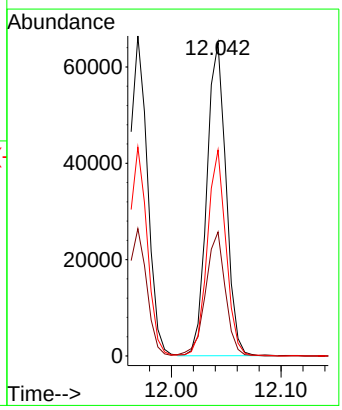
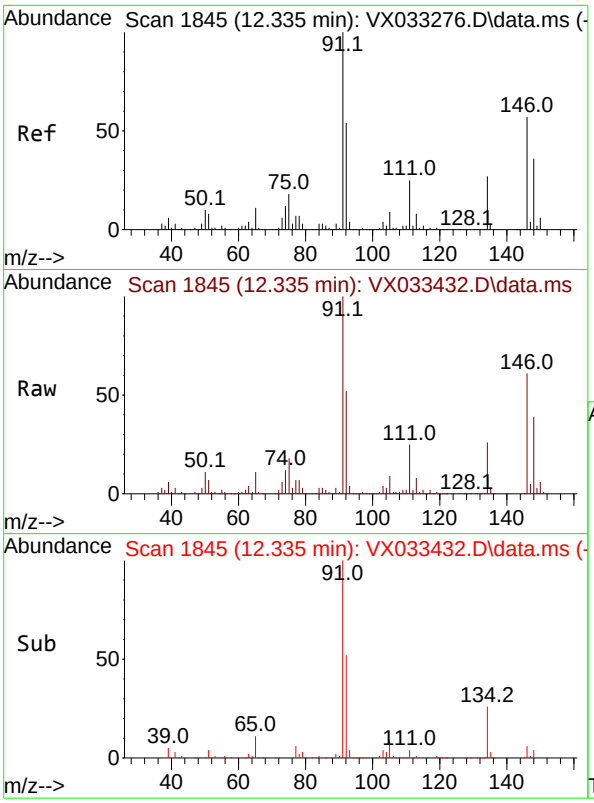



#88
1,4-Dichlorobenzene
Concen: 21.932 ug/l
RT: 12.042 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:146 Resp: 79025

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 40.8 | 20.5 | 61.6 |
| 148 | 64.1 | 32.2 | 96.6 |

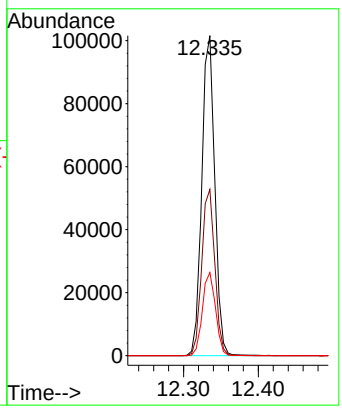





#89
n-Butylbenzene
Concen: 23.246 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 91 Resp: 12259

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.5 | 26.2 | 78.6 |
| 134 | 26.3 | 12.9 | 38.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations APPROVED**

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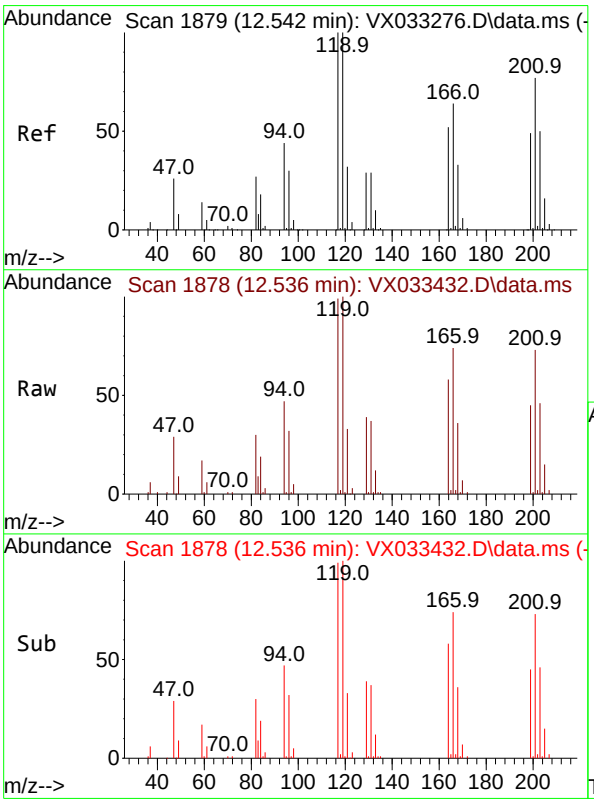
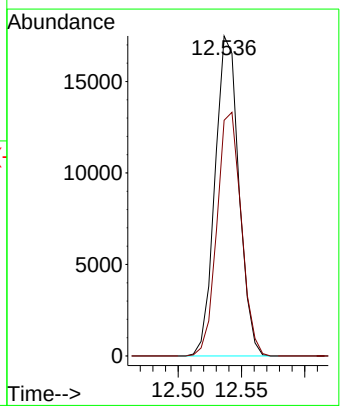
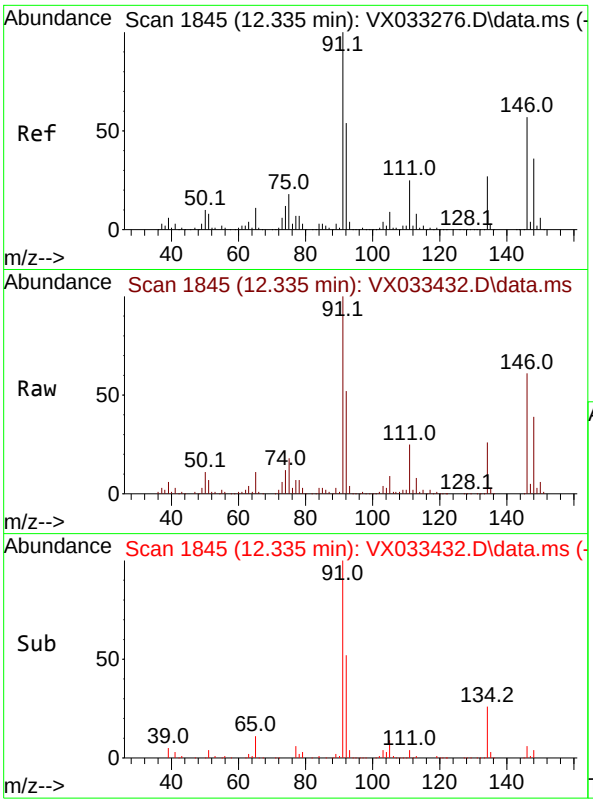



#90
Hexachloroethane
Concen: 20.905 ug/l
RT: 12.536 min Scan# 1878
Delta R.T. -0.006 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:117 Resp: 22881

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 77.6 | 37.6 | 112.9 |

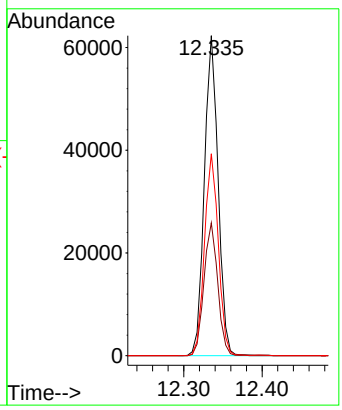





#91
1,2-Dichlorobenzene
Concen: 21.506 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:146 Resp: 7584

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.5 | 21.5 | 64.5 |
| 148 | 63.3 | 32.0 | 96.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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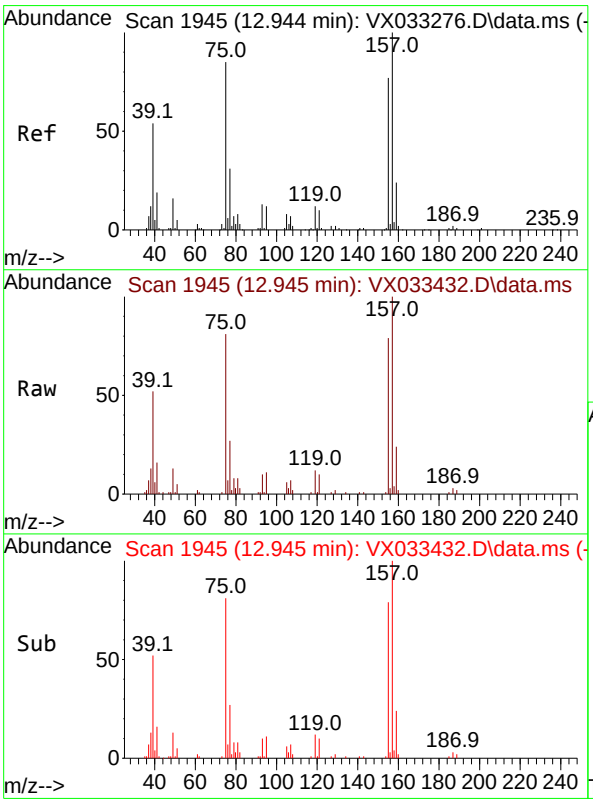
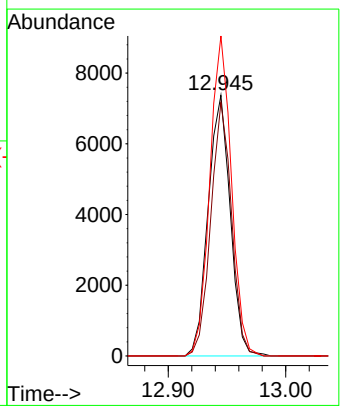
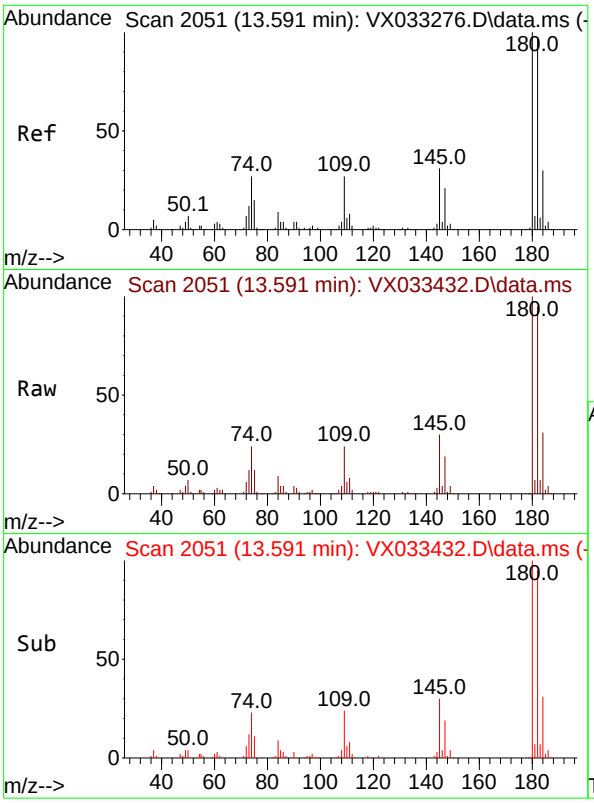



#92
1,2-Dibromo-3-Chloropropane
Concen: 18.246 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion: 75 Resp: 9642

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 91.2 | 41.6 | 124.8 |
| 157 | 119.7 | 54.1 | 162.4 |

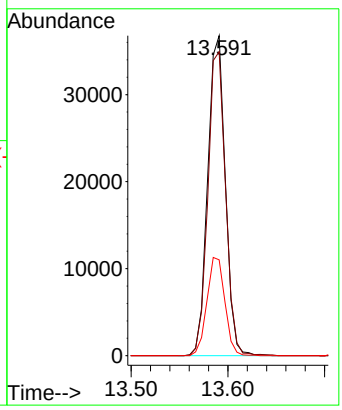





#93
1,2,4-Trichlorobenzene
Concen: 21.862 ug/l
RT: 13.591 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:180 Resp: 4656

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.7 | 48.4 | 145.0 |
| 145 | 31.4 | 16.2 | 48.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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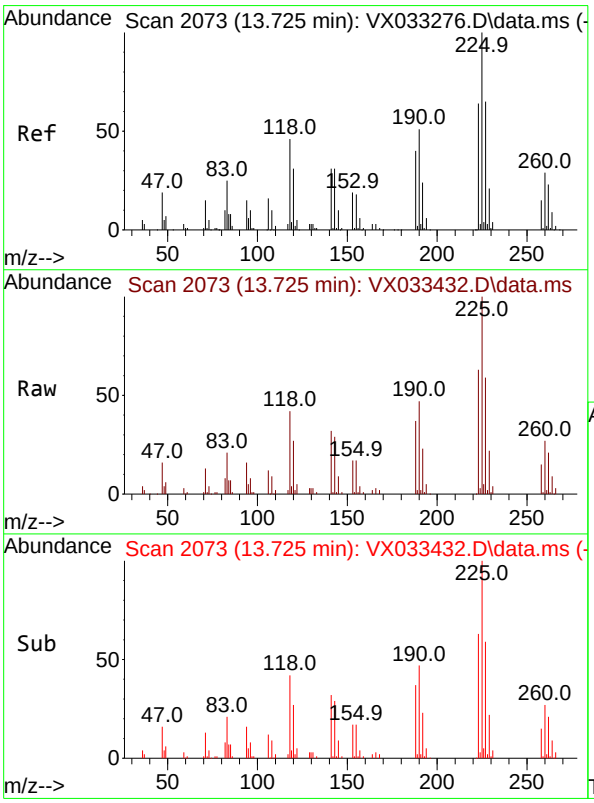
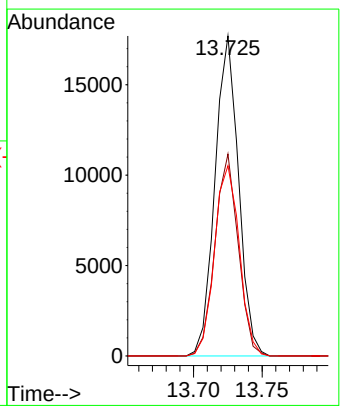
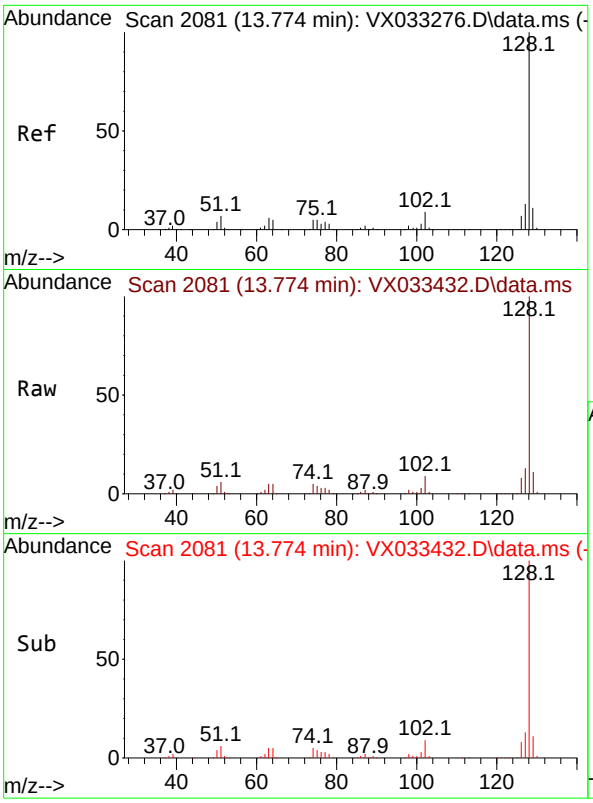



#94
Hexachlorobutadiene
Concen: 24.784 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:225 Resp: 21139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 62.3 | 31.9 | 95.9 |
| 227 | 62.6 | 31.9 | 95.5 |

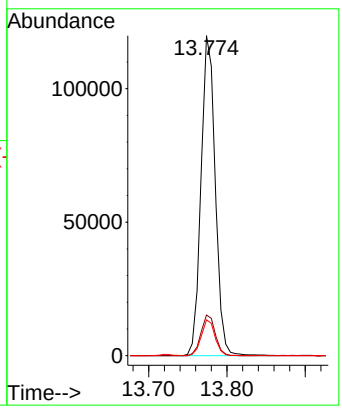





#95
Naphthalene
Concen: 21.291 ug/l
RT: 13.774 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:128 Resp: 15127

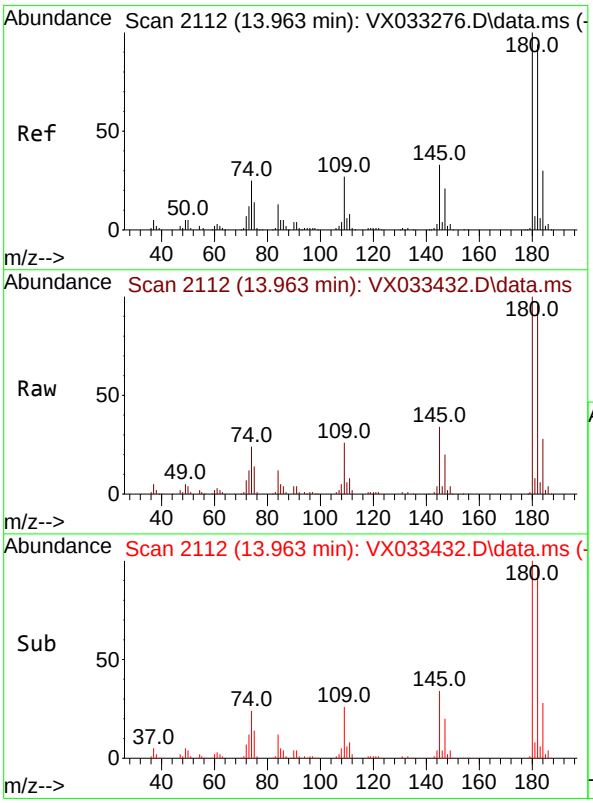
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.8 | 10.2 | 15.4 |
| 129 | 10.8 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBS01

**Manual Integrations**
**APPROVED**

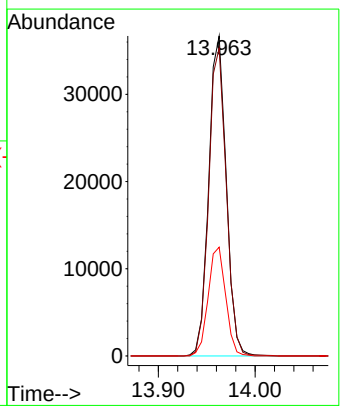
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022




#96
1,2,3-Trichlorobenzene
Concen: 21.391 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. 0.000 min
Lab File: VX033432.D
Acq: 15 Dec 2022 11:07

Tgt Ion:180 Resp: 46145

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 96.6 | 47.5 | 142.6 |
| 145 | 34.1 | 16.9 | 50.6 |



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

# Report of Analysis

| | | | |
|---|---|---|---|
| Client: | JACOBS Engineering Group, Inc. | Date Collected: | |
| Project: | Former Schlumberger Site Princeton NJ | Date Received: | |
| Client Sample ID: | VX1215WBSD01 | SDG No.: | N6070 |
| Lab Sample ID: | VX1215WBSD01 | Matrix: | Water |
| Analytical Method: | SW8260 | % Solid: | 0 |
| Sample Wt/Vol: | 5 Units: mL | Final Vol: | 5000 uL |
| Soil Aliquot Vol: | uL | Test: | VOCMS Group3 |
| GC Column: | DB-624UI ID : 0.18 | Level : | LOW |
| Prep Method : | | | |

| File ID/Qc Batch: | Dilution: | Prep Date | Date Analyzed | Prep Batch ID |
|---|---|---|---|---|
| VX033433.D | 1 | | 12/15/22 11:46 | VX121522 |

| CAS Number | Parameter | Conc. | Qualifier | MDL | LOQ / CRQL | Units |
|---|---|---|---|---|---|---|
| **TARGETS** | | | | | | |
| 75-01-4 | Vinyl Chloride | 17.6 | | 0.22 | 1.00 | ug/L |
| 75-35-4 | 1,1-Dichloroethene | 16.8 | | 0.23 | 1.00 | ug/L |
| 75-34-3 | 1,1-Dichloroethane | 18.5 | | 0.20 | 1.00 | ug/L |
| 156-59-2 | cis-1,2-Dichloroethene | 18.7 | | 0.17 | 1.00 | ug/L |
| 71-55-6 | 1,1,1-Trichloroethane | 19.8 | | 0.18 | 1.00 | ug/L |
| 71-43-2 | Benzene | 19.7 | | 0.16 | 1.00 | ug/L |
| 107-06-2 | 1,2-Dichloroethane | 19.8 | | 0.18 | 1.00 | ug/L |
| 79-01-6 | Trichloroethene | 21.0 | | 0.27 | 1.00 | ug/L |
| 79-00-5 | 1,1,2-Trichloroethane | 20.5 | | 0.19 | 1.00 | ug/L |
| 127-18-4 | Tetrachloroethene | 19.9 | | 0.18 | 1.00 | ug/L |
| **SURROGATES** | | | | | | |
| 17060-07-0 | 1,2-Dichloroethane-d4 | 43.0 | | 70 (74) - 130 (125) | 86% | SPK: 50 |
| 1868-53-7 | Dibromofluoromethane | 46.0 | | 70 (75) - 130 (124) | 92% | SPK: 50 |
| 2037-26-5 | Toluene-d8 | 47.4 | | 70 (86) - 130 (113) | 95% | SPK: 50 |
| 460-00-4 | 4-Bromofluorobenzene | 51.1 | | 70 (64) - 130 (133) | 102% | SPK: 50 |
| **INTERNAL STANDARDS** | | | | | | |
| 363-72-4 | Pentafluorobenzene | 137000 | 5.55 | | | |
| 540-36-3 | 1,4-Difluorobenzene | 211000 | 6.757 | | | |
| 3114-55-4 | Chlorobenzene-d5 | 199000 | 10.055 | | | |
| 3855-82-1 | 1,4-Dichlorobenzene-d4 | 102000 | 12.024 | | | |

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_X\Data\VX121522\
Data File : VX033433.D
Acq On : 15 Dec 2022 11:46
Operator : JC/MD
Sample : VX1215WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 16 01:00:12 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| **Internal Standards** | | | | | | |
| 1) Pentafluorobenzene | 5.550 | 168 | 137295 | 50.000 | ug/l | 0.00 |
| 34) 1,4-Difluorobenzene | 6.757 | 114 | 210886 | 50.000 | ug/l | 0.00 |
| 63) Chlorobenzene-d5 | 10.055 | 117 | 199474 | 50.000 | ug/l | 0.00 |
| 72) 1,4-Dichlorobenzene-d4 | 12.024 | 152 | 101751 | 50.000 | ug/l | 0.00 |
| **System Monitoring Compounds** | | | | | | |
| 33) 1,2-Dichloroethane-d4 | 5.952 | 65 | 37856 | 42.979 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 78 - 117 | | Recovery = 85.960% | | | |
| 35) Dibromofluoromethane | 5.379 | 113 | 43658 | 46.027 | ug/l | -0.01 |
| Spiked Amount 50.000 | Range 75 - 124 | | Recovery = 92.060% | | | |
| 50) Toluene-d8 | 8.647 | 98 | 93958 | 47.352 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 92 - 112 | | Recovery = 94.700% | | | |
| 62) 4-Bromofluorobenzene | 11.079 | 95 | 77494 | 51.077 | ug/l | 0.00 |
| Spiked Amount 50.000 | Range 83 - 123 | | Recovery = 102.160% | | | |
| **Target Compounds** | | | | | | Qvalue |
| 2) Dichlorodifluoromethane | 1.167 | 85 | 18601 | 19.395 | ug/l | 95 |
| 3) Chloromethane | 1.295 | 50 | 18825 | 16.976 | ug/l | 91 |
| 4) Vinyl Chloride | 1.374 | 62 | 22224 | 17.552 | ug/l | 98 |
| 5) Bromomethane | 1.618 | 94 | 13351 | 14.369 | ug/l | 97 |
| 6) Chloroethane | 1.691 | 64 | 15485 | 16.124 | ug/l | 98 |
| 7) Trichlorofluoromethane | 1.886 | 101 | 34159 | 14.370 | ug/l | 95 |
| 8) Diethyl Ether | 2.130 | 74 | 11537 | 13.437 | ug/l | 93 |
| 9) 1,1,2-Trichlorotrifluo... | 2.331 | 101 | 25075 | 19.886 | ug/l | 99 |
| 10) Methyl Iodide | 2.453 | 142 | 25025 | 18.120 | ug/l | 99 |
| 11) Tert butyl alcohol | 2.995 | 59 | 23307m | 86.551 | ug/l | |
| 12) 1,1-Dichloroethene | 2.325 | 96 | 20970 | 16.848 | ug/l | 94 |
| 13) Acrolein | 2.239 | 56 | 16133 | 55.239 | ug/l | 98 |
| 14) Allyl chloride | 2.666 | 41 | 35709 | 17.965 | ug/l | 98 |
| 15) Acrylonitrile | 3.063 | 53 | 59810 | 89.662 | ug/l | 98 |
| 16) Acetone | 2.386 | 43 | 68941 | 105.776 | ug/l | 96 |
| 17) Carbon Disulfide | 2.514 | 76 | 54276 | 16.990 | ug/l | 98 |
| 18) Methyl Acetate | 2.703 | 43 | 34358 | 18.210 | ug/l | 98 |
| 19) Methyl tert-butyl Ether | 3.111 | 73 | 80781 | 18.736 | ug/l | 98 |
| 20) Methylene Chloride | 2.788 | 84 | 26733 | 18.392 | ug/l | 92 |
| 21) trans-1,2-Dichloroethene | 3.093 | 96 | 25379 | 18.640 | ug/l | 97 |
| 22) Diisopropyl ether | 3.757 | 45 | 79815 | 18.742 | ug/l | 94 |
| 23) Vinyl Acetate | 3.721 | 43 | 302179 | 91.418 | ug/l | 98 |
| 24) 1,1-Dichloroethane | 3.605 | 63 | 46243 | 18.481 | ug/l | 98 |
| 25) 2-Butanone | 4.556 | 43 | 88026 | 94.090 | ug/l | 99 |
| 26) 2,2-Dichloropropane | 4.471 | 77 | 36972 | 20.092 | ug/l | 99 |
| 27) cis-1,2-Dichloroethene | 4.483 | 96 | 30395 | 18.679 | ug/l | 99 |
| 28) Bromochloromethane | 4.891 | 49 | 20374 | 19.451 | ug/l | 93 |
| 29) Tetrahydrofuran | 5.007 | 42 | 50878 | 83.937 | ug/l | 96 |
| 30) Chloroform | 5.087 | 83 | 53573 | 19.285 | ug/l | 98 |
| 31) Cyclohexane | 5.471 | 56 | 39412 | 18.828 | ug/l | 90 |
| 32) 1,1,1-Trichloroethane | 5.373 | 97 | 47380 | 19.823 | ug/l | 98 |
| 36) 1,1-Dichloropropene | 5.690 | 75 | 36878 | 19.942 | ug/l | 99 |
| 37) Ethyl Acetate | 4.709 | 43 | 32990 | 18.872 | ug/l | 99 |
| 38) Carbon Tetrachloride | 5.672 | 117 | 41422 | 19.992 | ug/l | 99 |
| 39) Methylcyclohexane | 7.379 | 83 | 43709 | 21.116 | ug/l | 98 |
| 40) Benzene | 6.031 | 78 | 106012 | 19.661 | ug/l | 99 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033433.D
Acq On : 15 Dec 2022 11:46
Operator : JC/MD
Sample : VX1215WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 16 01:00:12 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations APPROVED**
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 41) Methacrylonitrile | 4.916 | 41 | 18338 | 19.037 | ug/l | | 95 |
| 42) 1,2-Dichloroethane | 6.086 | 62 | 42486 | 19.843 | ug/l | | 99 |
| 43) Isopropyl Acetate | 6.336 | 43 | 51963 | 18.474 | ug/l | | 97 |
| 44) Trichloroethene | 7.123 | 130 | 31162 | 20.962 | ug/l | | 93 |
| 45) 1,2-Dichloropropane | 7.428 | 63 | 27163 | 19.698 | ug/l | | 98 |
| 46) Dibromomethane | 7.580 | 93 | 20832 | 19.831 | ug/l | | 99 |
| 47) Bromodichloromethane | 7.818 | 83 | 40366 | 19.713 | ug/l | | 99 |
| 48) Methyl methacrylate | 7.690 | 41 | 26656 | 18.363 | ug/l | | 93 |
| 49) 1,4-Dioxane | 7.702 | 88 | 11968 | 361.544 | ug/l | | 97 |
| 51) 4-Methyl-2-Pentanone | 8.568 | 43 | 169612 | 95.356 | ug/l | | 97 |
| 52) Toluene | 8.714 | 92 | 72263 | 20.728 | ug/l | | 99 |
| 53) t-1,3-Dichloropropene | 8.976 | 75 | 39858 | 19.717 | ug/l | | 98 |
| 54) cis-1,3-Dichloropropene | 8.366 | 75 | 43520 | 19.973 | ug/l | # | 87 |
| 55) 1,1,2-Trichloroethane | 9.153 | 97 | 30012 | 20.480 | ug/l | | 99 |
| 56) Ethyl methacrylate | 9.116 | 69 | 40393 | 19.577 | ug/l | | 92 |
| 57) 1,3-Dichloropropane | 9.305 | 76 | 46997 | 19.963 | ug/l | | 98 |
| 58) 2-Chloroethyl Vinyl ether | 8.238 | 63 | 67813 | 71.829 | ug/l | | 97 |
| 59) 2-Hexanone | 9.427 | 43 | 132391 | 101.000 | ug/l | | 96 |
| 60) Dibromochloromethane | 9.519 | 129 | 32360 | 20.042 | ug/l | | 100 |
| 61) 1,2-Dibromoethane | 9.610 | 107 | 31071 | 19.933 | ug/l | | 100 |
| 64) Tetrachloroethene | 9.275 | 164 | 27206 | 19.946 | ug/l | | 97 |
| 65) Chlorobenzene | 10.080 | 112 | 81948 | 20.287 | ug/l | | 100 |
| 66) 1,1,1,2-Tetrachloroethane | 10.159 | 131 | 30166 | 19.762 | ug/l | | 99 |
| 67) Ethyl Benzene | 10.195 | 91 | 145637 | 20.695 | ug/l | | 99 |
| 68) m/p-Xylenes | 10.299 | 106 | 112373 | 41.043 | ug/l | | 98 |
| 69) o-Xylene | 10.640 | 106 | 54826 | 20.259 | ug/l | | 98 |
| 70) Styrene | 10.653 | 104 | 92716 | 20.918 | ug/l | | 97 |
| 71) Bromoform | 10.799 | 173 | 22783 | 18.856 | ug/l | # | 99 |
| 73) Isopropylbenzene | 10.964 | 105 | 145978 | 19.794 | ug/l | | 99 |
| 74) N-amyl acetate | 10.842 | 43 | 46798 | 18.599 | ug/l | | 97 |
| 75) 1,1,2,2-Tetrachloroethane | 11.213 | 83 | 43351 | 18.529 | ug/l | | 99 |
| 76) 1,2,3-Trichloropropane | 11.238 | 75 | 39670m | 19.163 | ug/l | | |
| 77) Bromobenzene | 11.195 | 156 | 36437 | 19.565 | ug/l | | 98 |
| 78) n-propylbenzene | 11.305 | 91 | 166094 | 20.170 | ug/l | | 99 |
| 79) 2-Chlorotoluene | 11.366 | 91 | 100805 | 19.808 | ug/l | | 98 |
| 80) 1,3,5-Trimethylbenzene | 11.451 | 105 | 124051 | 20.207 | ug/l | | 99 |
| 81) trans-1,4-Dichloro-2-b... | 11.018 | 75 | 10907 | 16.389 | ug/l | | 98 |
| 82) 4-Chlorotoluene | 11.451 | 91 | 116180 | 19.633 | ug/l | | 99 |
| 83) tert-Butylbenzene | 11.713 | 119 | 125736 | 20.539 | ug/l | | 97 |
| 84) 1,2,4-Trimethylbenzene | 11.750 | 105 | 123934 | 20.224 | ug/l | | 99 |
| 85) sec-Butylbenzene | 11.890 | 105 | 148096 | 20.734 | ug/l | | 99 |
| 86) p-Isopropyltoluene | 12.006 | 119 | 127436 | 20.695 | ug/l | | 99 |
| 87) 1,3-Dichlorobenzene | 11.969 | 146 | 67747 | 20.082 | ug/l | | 99 |
| 88) 1,4-Dichlorobenzene | 12.043 | 146 | 67854 | 19.691 | ug/l | | 99 |
| 89) n-Butylbenzene | 12.335 | 91 | 106000 | 21.017 | ug/l | | 100 |
| 90) Hexachloroethane | 12.536 | 117 | 19769 | 18.887 | ug/l | | 98 |
| 91) 1,2-Dichlorobenzene | 12.335 | 146 | 65946 | 19.552 | ug/l | | 99 |
| 92) 1,2-Dibromo-3-Chloropr... | 12.945 | 75 | 8253 | 16.330 | ug/l | | 93 |
| 93) 1,2,4-Trichlorobenzene | 13.591 | 180 | 40491 | 19.878 | ug/l | | 98 |
| 94) Hexachlorobutadiene | 13.725 | 225 | 18460 | 22.631 | ug/l | | 99 |
| 95) Naphthalene | 13.774 | 128 | 127000 | 18.691 | ug/l | | 99 |
| 96) 1,2,3-Trichlorobenzene | 13.963 | 180 | 39730 | 19.258 | ug/l | | 100 |

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033433.D
Acq On : 15 Dec 2022 11:46
Operator : JC/MD
Sample : VX1215WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 16 01:00:12 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|

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

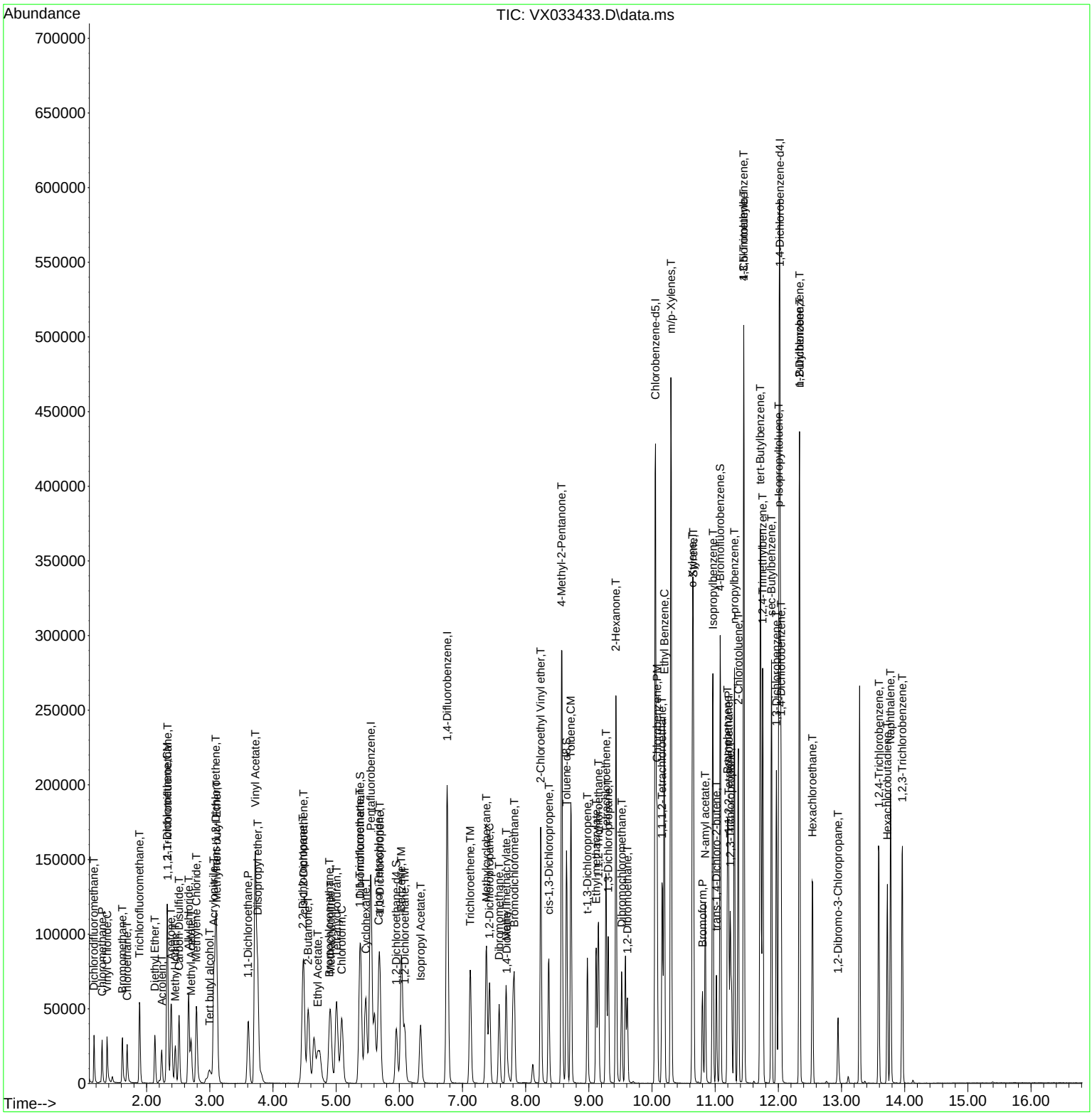
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX121522\
Data File : VX033433.D
Acq On : 15 Dec 2022 11:46
Operator : JC/MD
Sample : VX1215WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

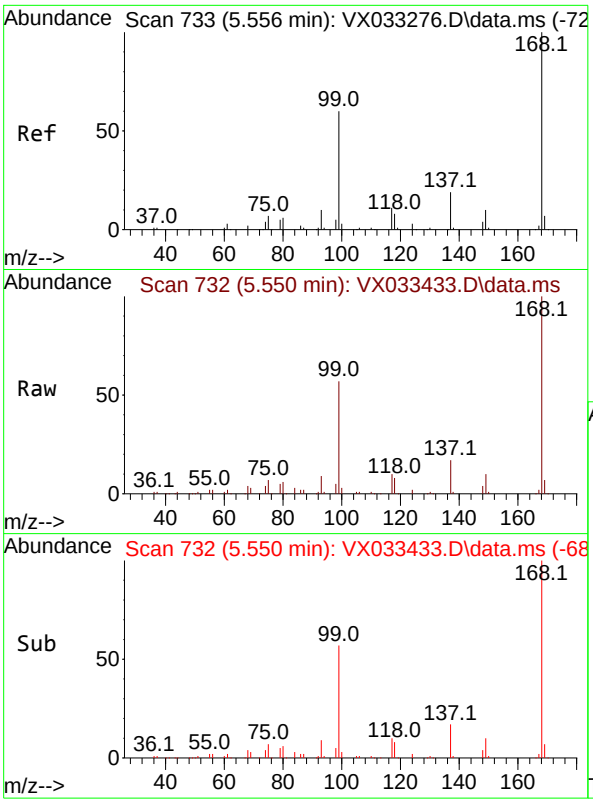
Quant Time: Dec 16 01:00:12 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X120722W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 07 12:43:54 2022
Response via : Initial Calibration

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

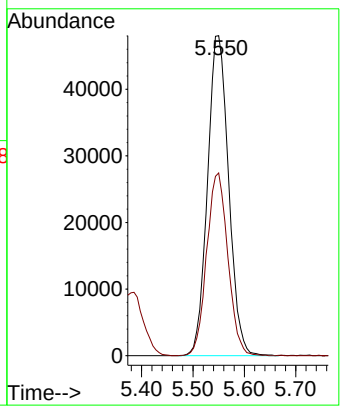





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.550 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:168 Resp: 13729

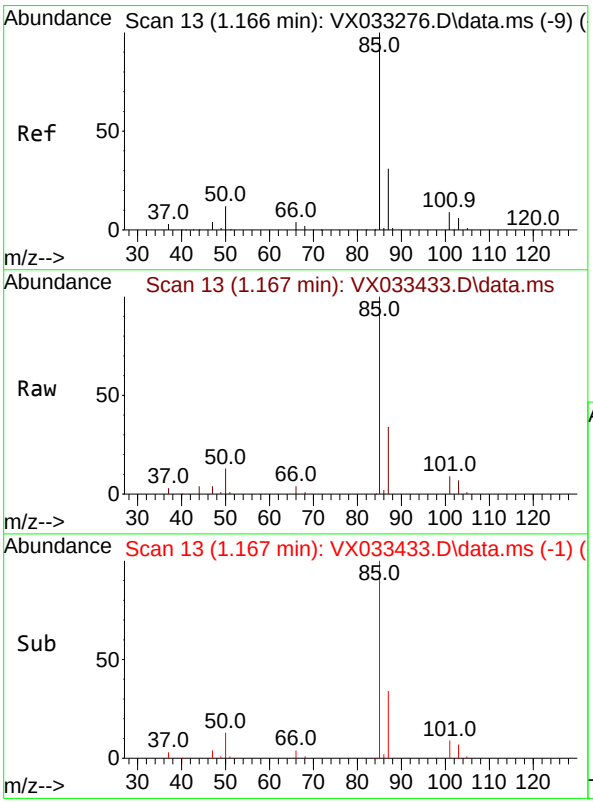
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 168 | 100 | | |
| 99 | 57.1 | 46.1 | 69.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

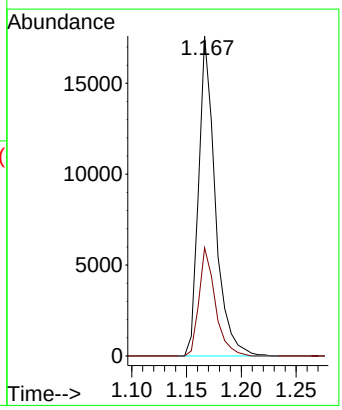
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

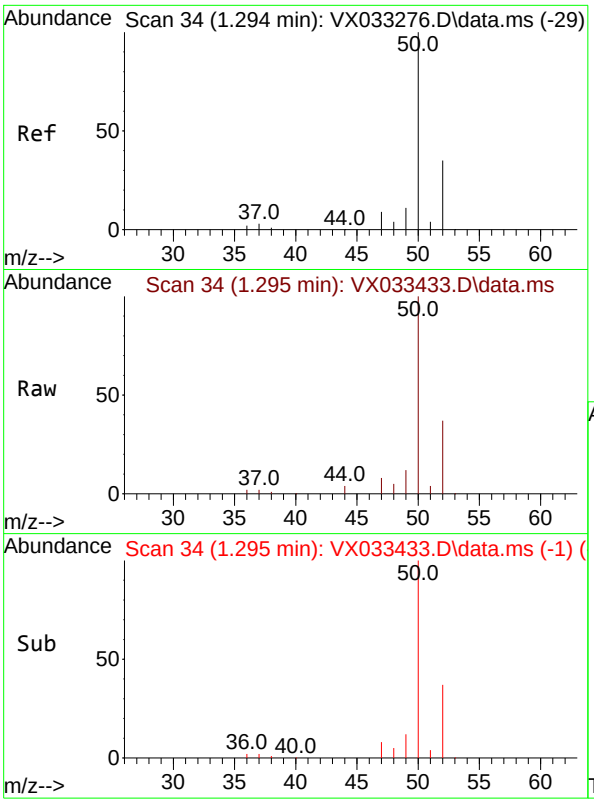



#2
Dichlorodifluoromethane
Concen: 19.395 ug/l
RT: 1.167 min Scan# 13
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 85 Resp: 18601

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 33.8 | 15.6 | 46.7 |

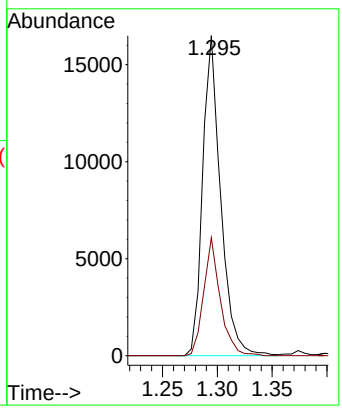





#3
Chloromethane
Concen: 16.976 ug/l
RT: 1.295 min Scan# 34
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 50 Resp: 1882

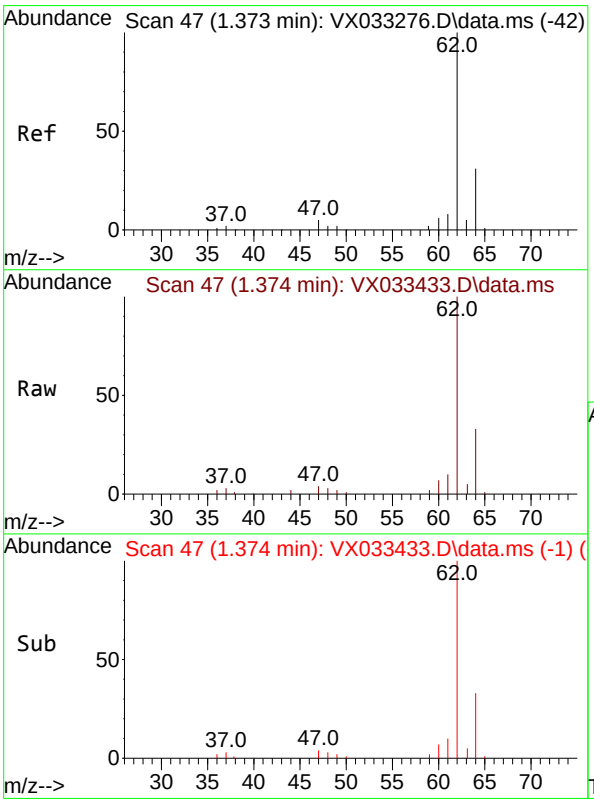
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 36.9 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

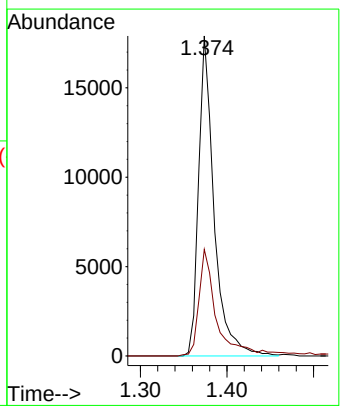
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

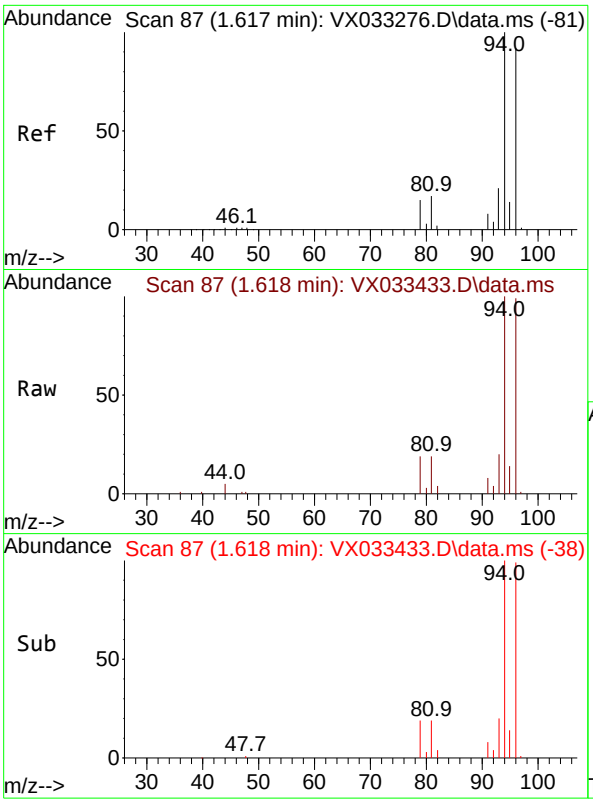



#4
Vinyl Chloride
Concen: 17.552 ug/l
RT: 1.374 min Scan# 47
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 62 Resp: 22224

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 33.3 | 25.8 | 38.6 |

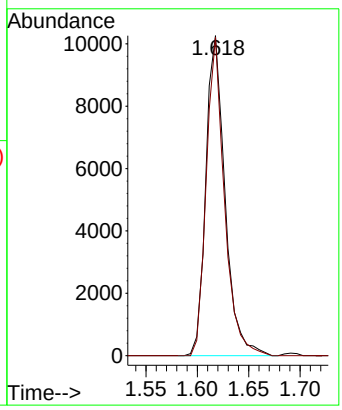





#5
Bromomethane
Concen: 14.369 ug/l
RT: 1.618 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 94 Resp: 1335

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 99.5 | 77.6 | 116.4 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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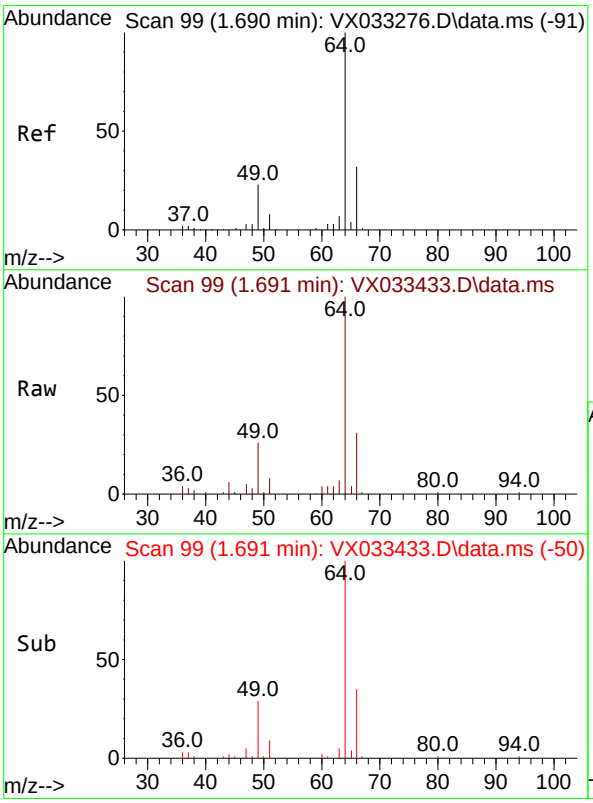
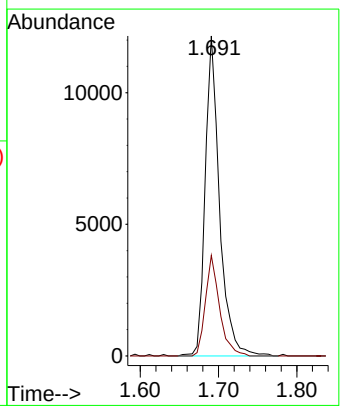
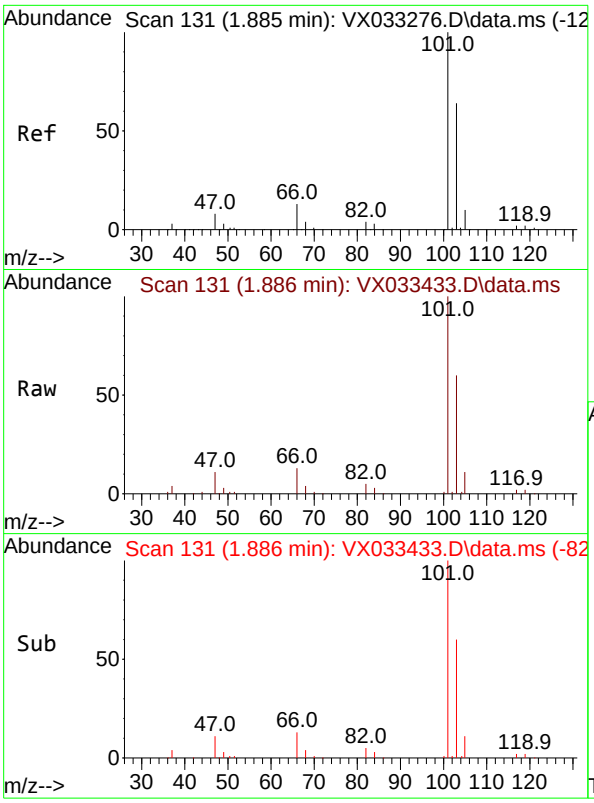



#6
Chloroethane
Concen: 16.124 ug/l
RT: 1.691 min Scan# 99
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 64 Resp: 15485

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 31.4 | 26.0 | 39.0 |






#7
Trichlorofluoromethane
Concen: 14.370 ug/l
RT: 1.886 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:101 Resp: 3415

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 60.0 | 51.4 | 77.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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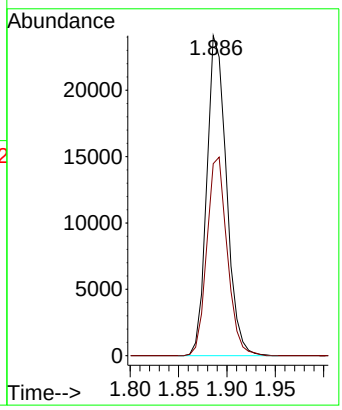
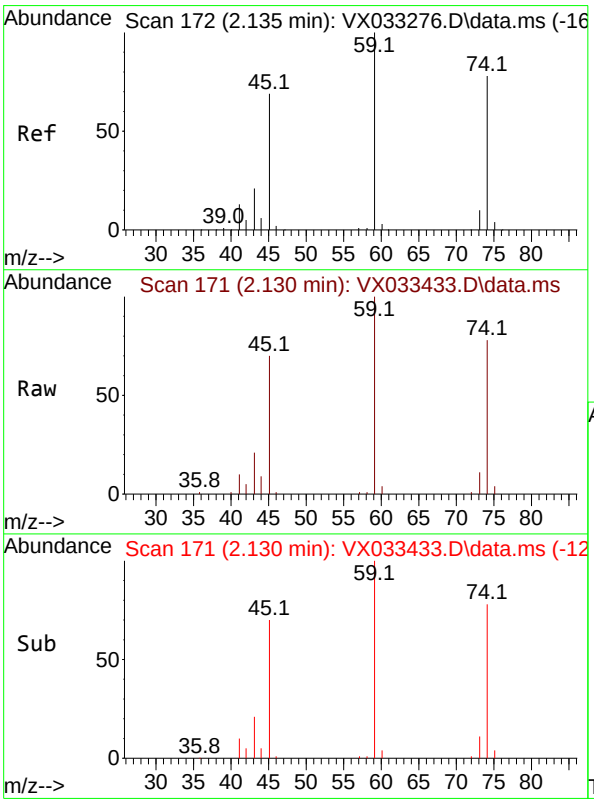
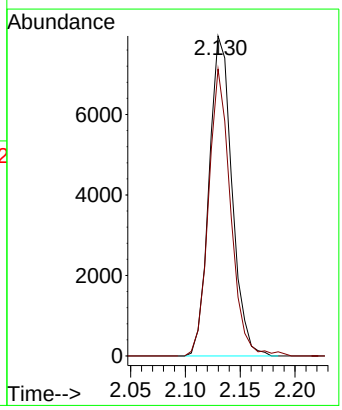


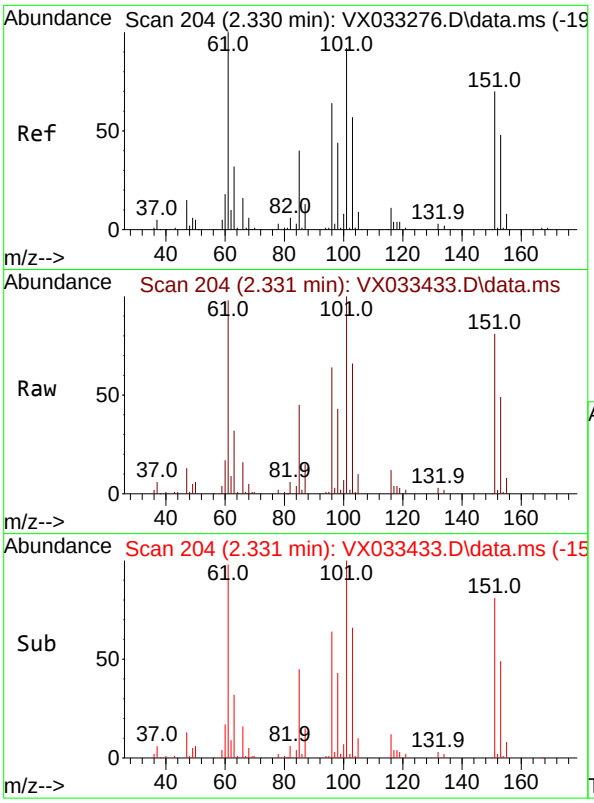




#8
Diethyl Ether
Concen: 13.437 ug/l
RT: 2.130 min Scan# 171
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 74 Resp: 11537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 74 | 100 | | |
| 45 | 86.2 | 46.6 | 139.7 |

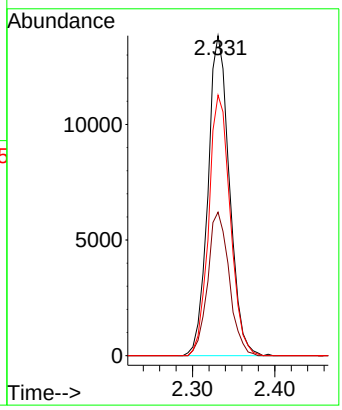





#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.886 ug/l
RT: 2.331 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:101 Resp: 2507

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 85 | 45.0 | 37.0 | 55.4 |
| 151 | 81.6 | 64.4 | 96.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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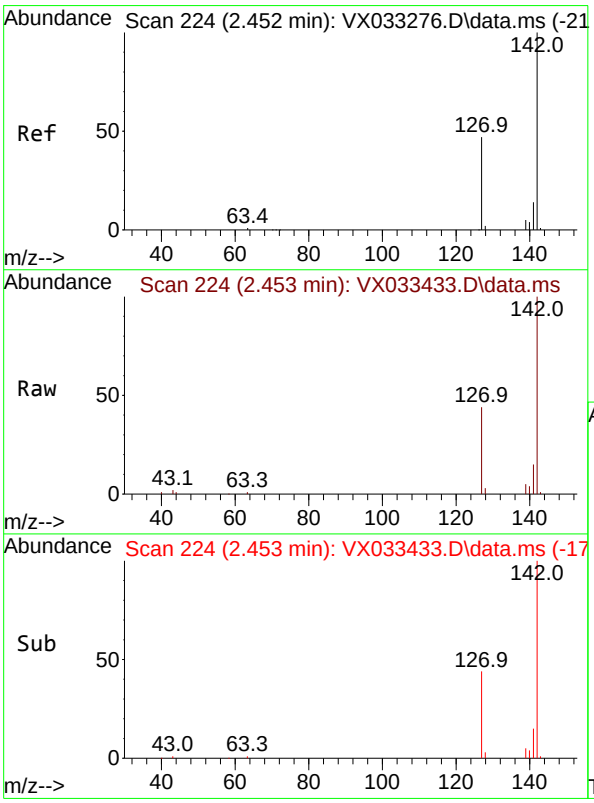
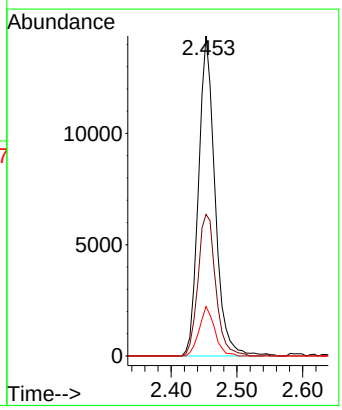
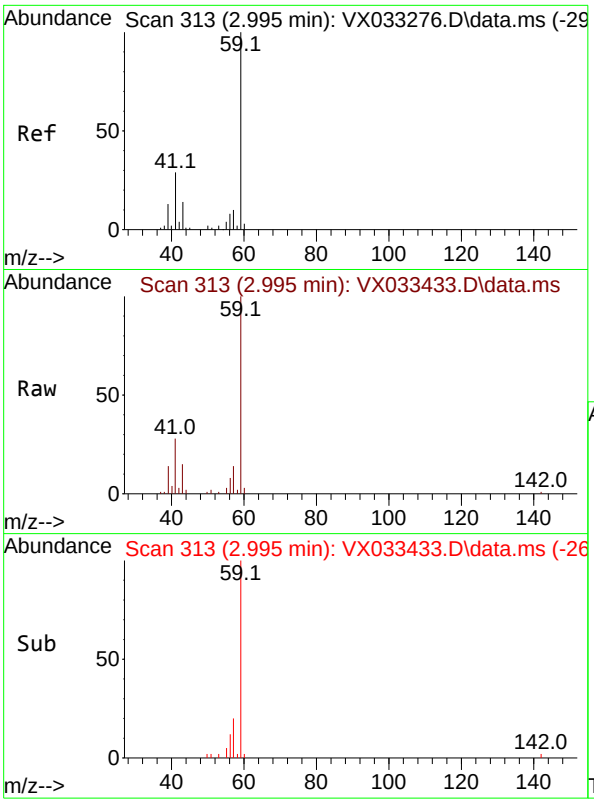



#10
Methyl Iodide
Concen: 18.120 ug/l
RT: 2.453 min Scan# 224
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:142 Resp: 25025

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 142 | 100 | | |
| 127 | 47.3 | 38.6 | 57.8 |
| 141 | 14.5 | 11.4 | 17.2 |

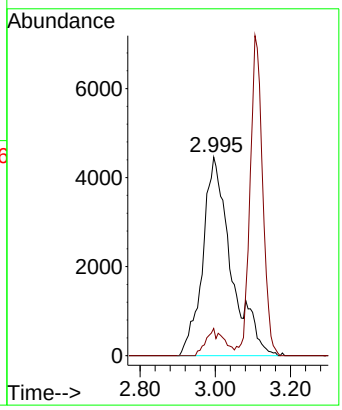





#11
Tert butyl alcohol
Concen: 86.551 ug/l m
RT: 2.995 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 59 Resp: 2330

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 57 | 8.7 | 8.2 | 12.4 |




**Instrument :**
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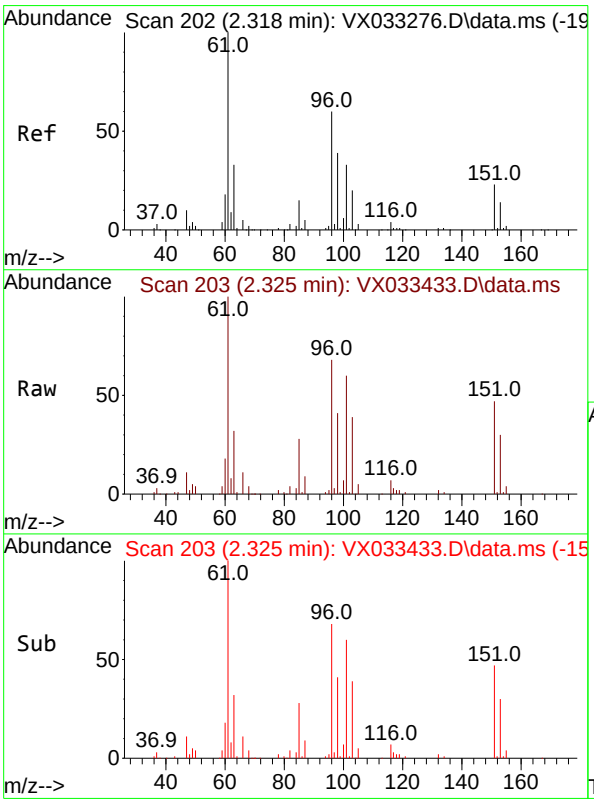
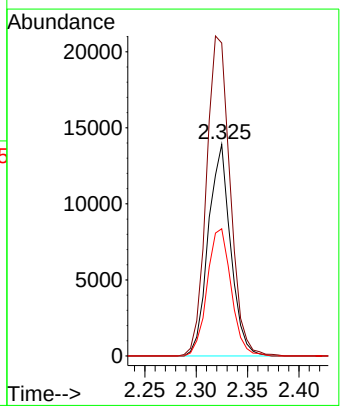
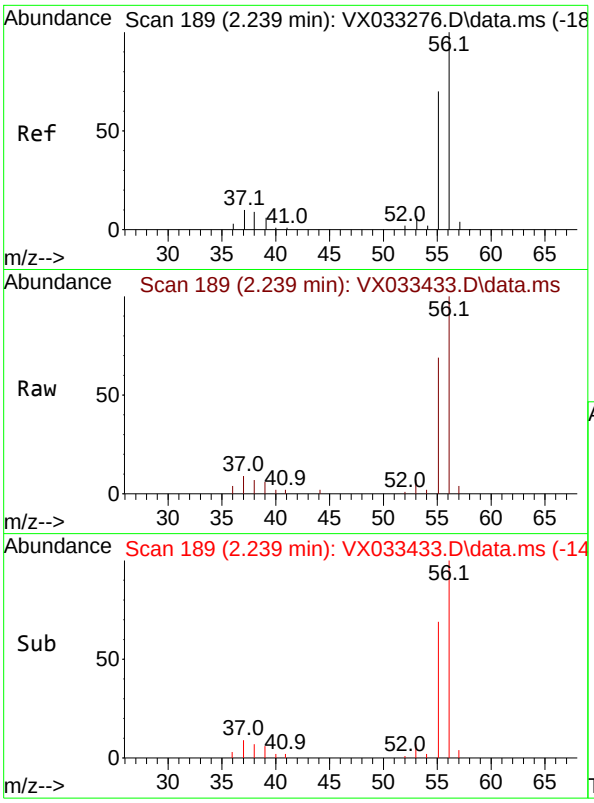



#12
1,1-Dichloroethene
Concen: 16.848 ug/l
RT: 2.325 min Scan# 203
Delta R.T. 0.007 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 96 Resp: 20970

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 147.9 | 125.1 | 187.7 |
| 98 | 60.1 | 50.6 | 76.0 |

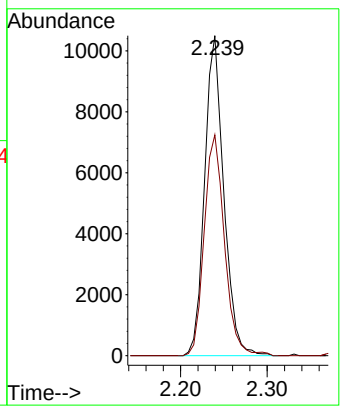





#13
Acrolein
Concen: 55.239 ug/l
RT: 2.239 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 56 Resp: 1613

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 73.0 | 56.9 | 85.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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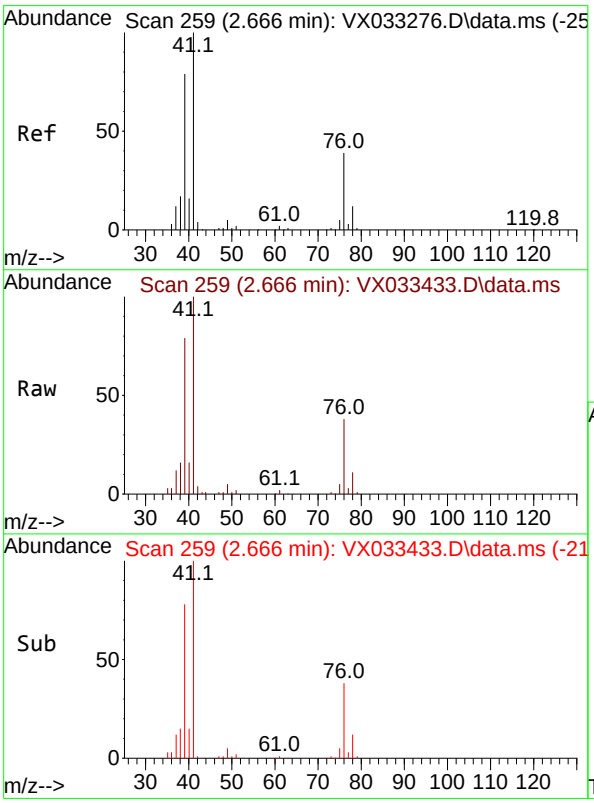
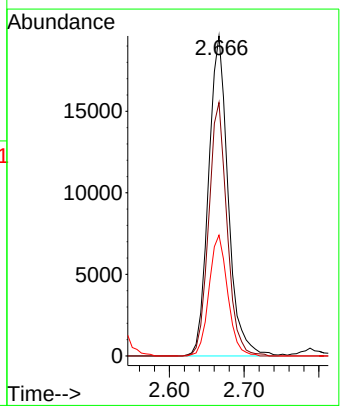
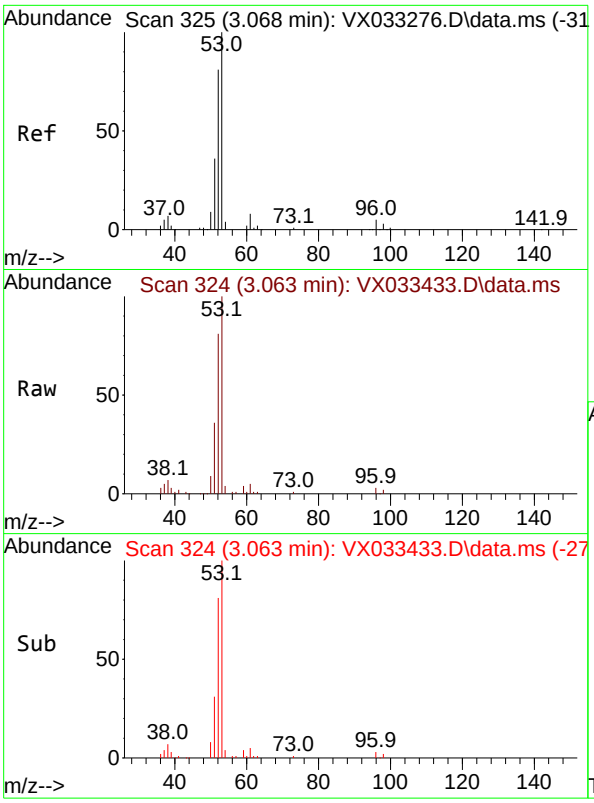



#14
Allyl chloride
Concen: 17.965 ug/l
RT: 2.666 min Scan# 259
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 41 Resp: 35709

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 74.2 | 61.4 | 92.2 |
| 76 | 35.9 | 29.2 | 43.8 |

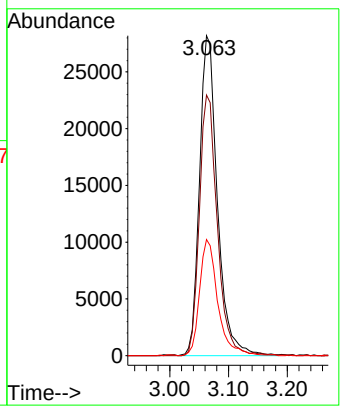





#15
Acrylonitrile
Concen: 89.662 ug/l
RT: 3.063 min Scan# 3
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 53 Resp: 5981

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 81.6 | 67.4 | 101.0 |
| 51 | 37.0 | 30.3 | 45.5 |




**Instrument :**
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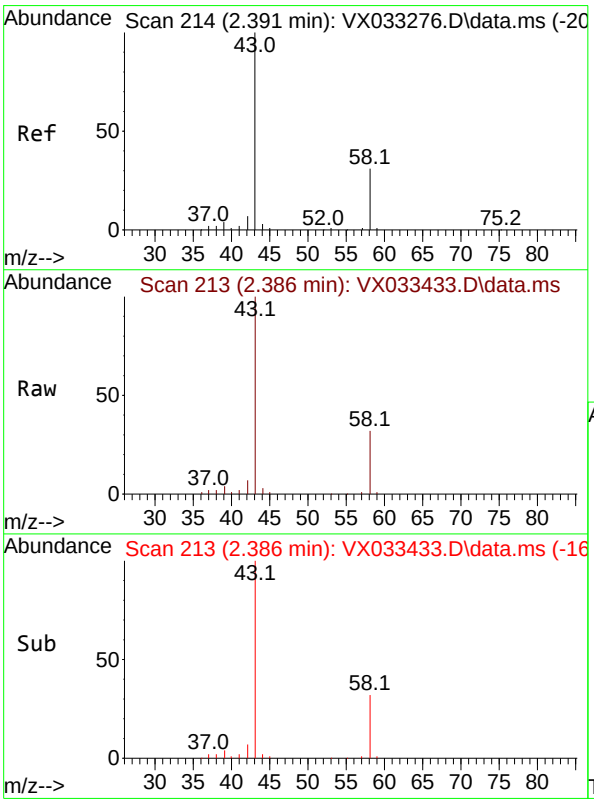
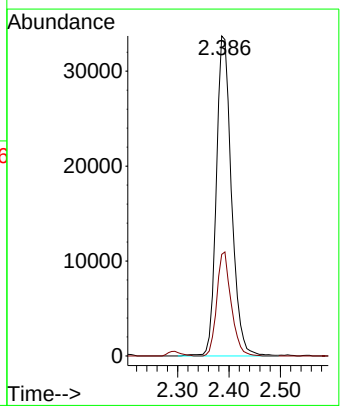
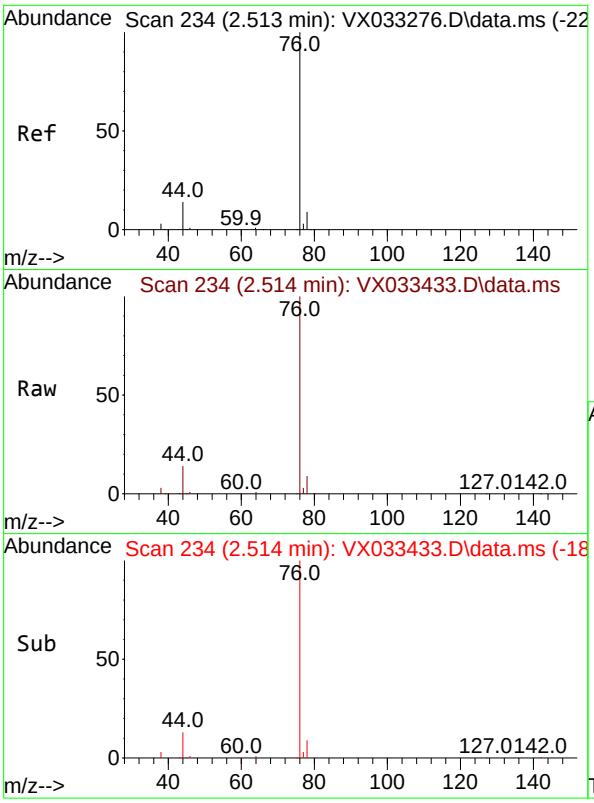



#16
Acetone
Concen: 105.776 ug/l
RT: 2.386 min Scan# 213
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 68941

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.7 | 23.8 | 35.8 |






#17
Carbon Disulfide
Concen: 16.990 ug/l
RT: 2.514 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 76 Resp: 5427

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 8.5 | 7.5 | 11.3 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
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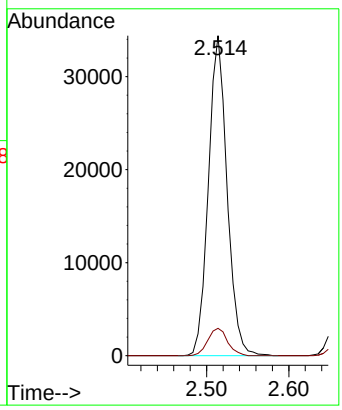
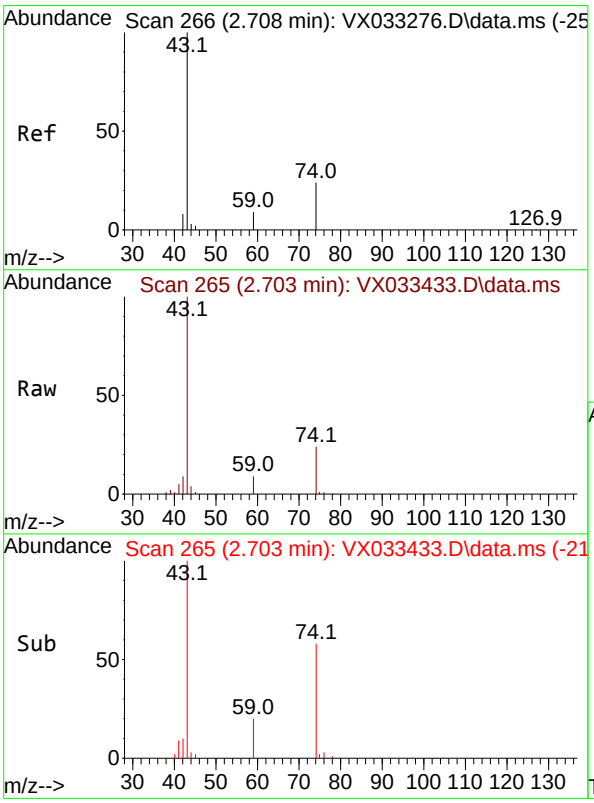
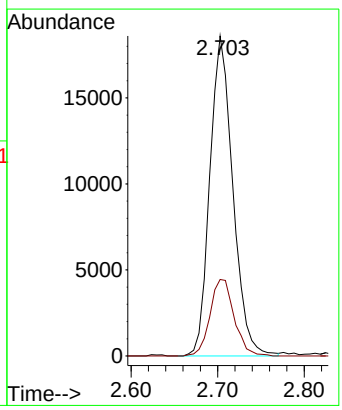


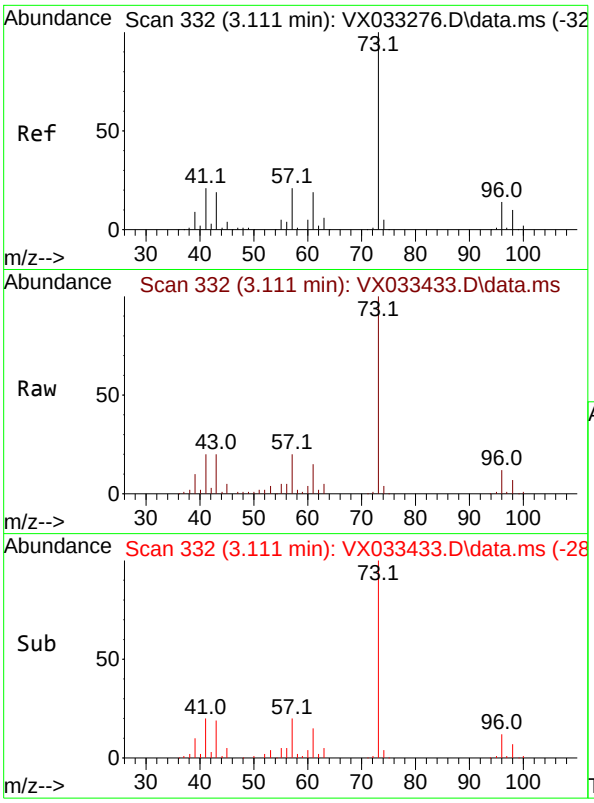




#18
Methyl Acetate
Concen: 18.210 ug/l
RT: 2.703 min Scan# 265
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 34358

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 74 | 25.0 | 19.4 | 29.0 |

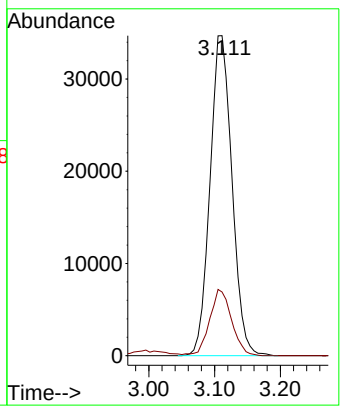





#19
Methyl tert-butyl Ether
Concen: 18.736 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 73 Resp: 8078

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 19.9 | 16.6 | 25.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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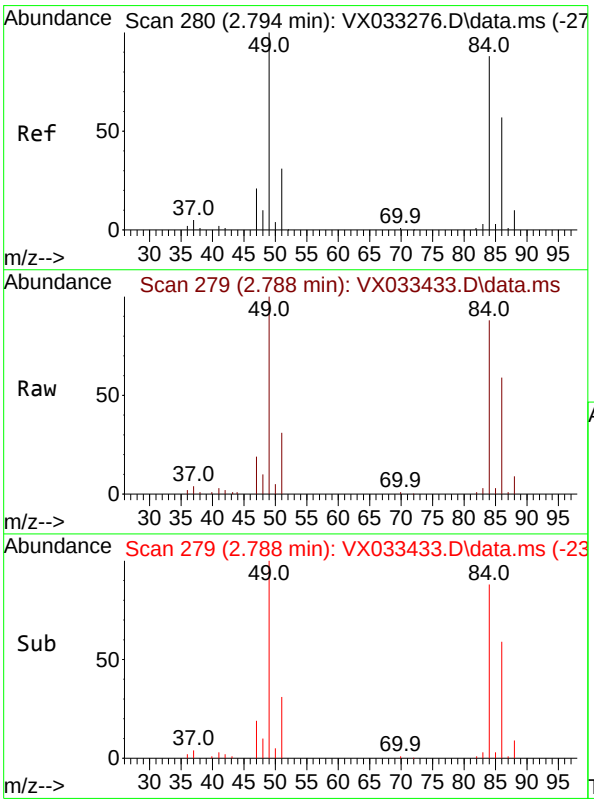
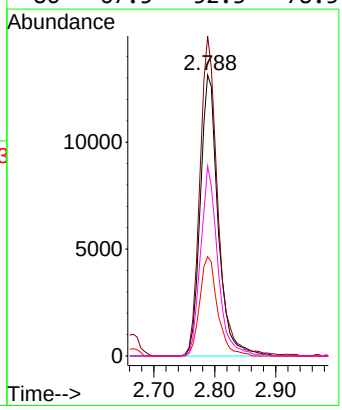
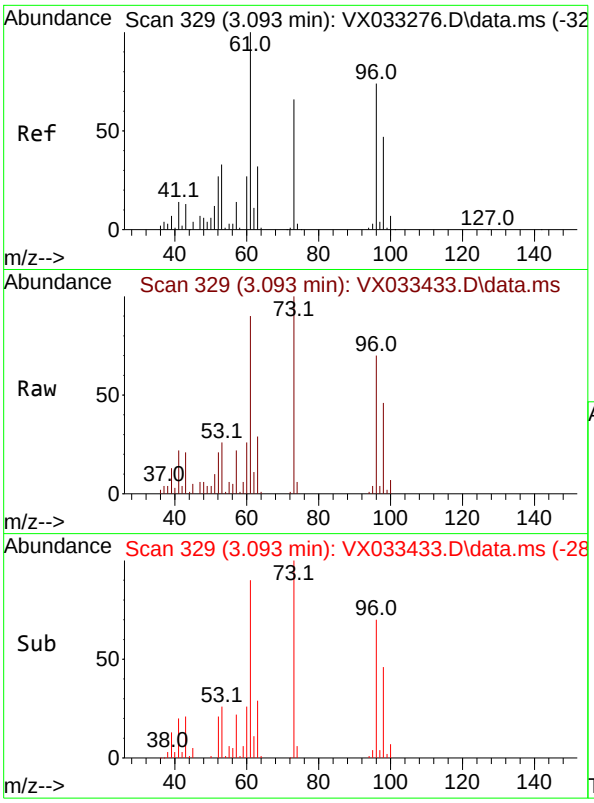



#20
Methylene Chloride
Concen: 18.392 ug/l
RT: 2.788 min Scan# 279
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 84 Resp: 26733

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 84 | 100 | | |
| 49 | 113.9 | 101.0 | 151.6 |
| 51 | 35.3 | 31.1 | 46.7 |
| 86 | 67.5 | 52.3 | 78.5 |

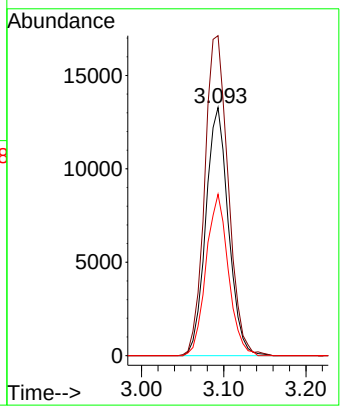





#21
trans-1,2-Dichloroethene
Concen: 18.640 ug/l
RT: 3.093 min Scan# 3
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 96 Resp: 2537

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 129.0 | 106.6 | 160.0 |
| 98 | 65.0 | 51.0 | 76.6 |

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MSVOA_X
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VX1215WBSD01

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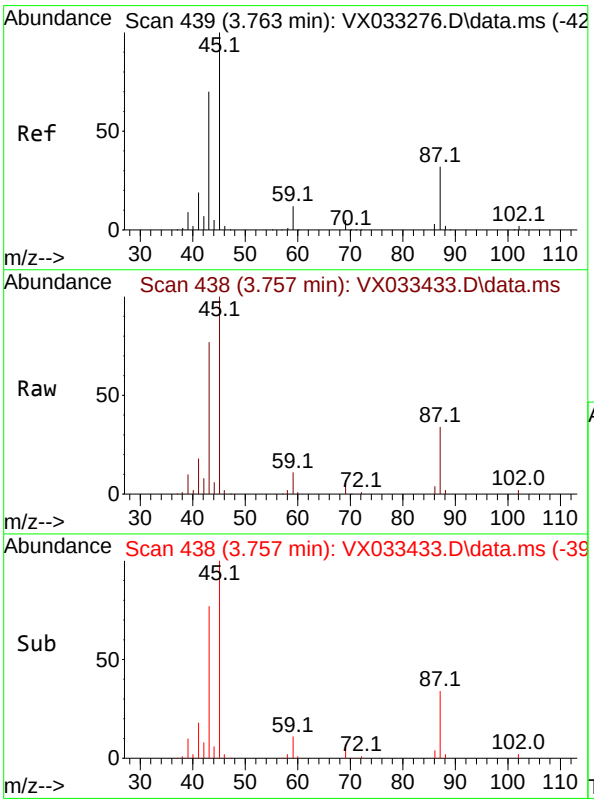
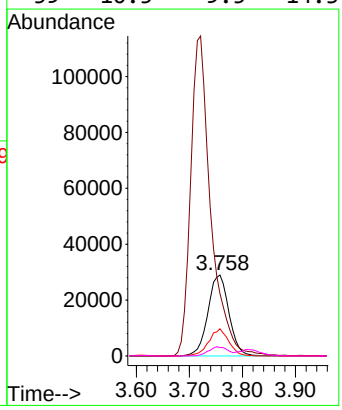
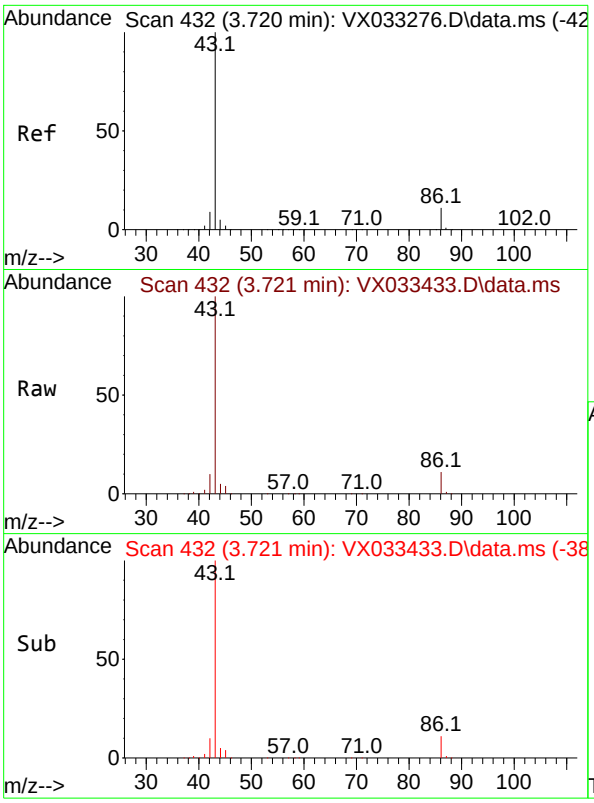



#22
Diisopropyl ether
Concen: 18.742 ug/l
RT: 3.757 min Scan# 438
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 45 Resp: 79815

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 76.3 | 56.4 | 84.6 |
| 87 | 33.6 | 24.4 | 36.6 |
| 59 | 10.5 | 9.5 | 14.3 |






#23
Vinyl Acetate
Concen: 91.418 ug/l
RT: 3.721 min Scan# 4
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

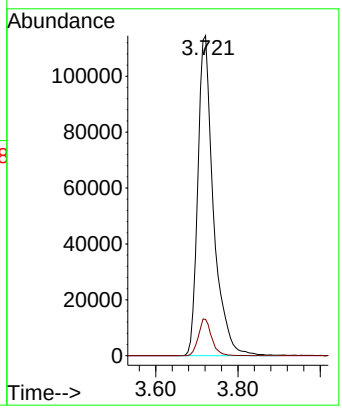
Tgt Ion: 43 Resp: 30217

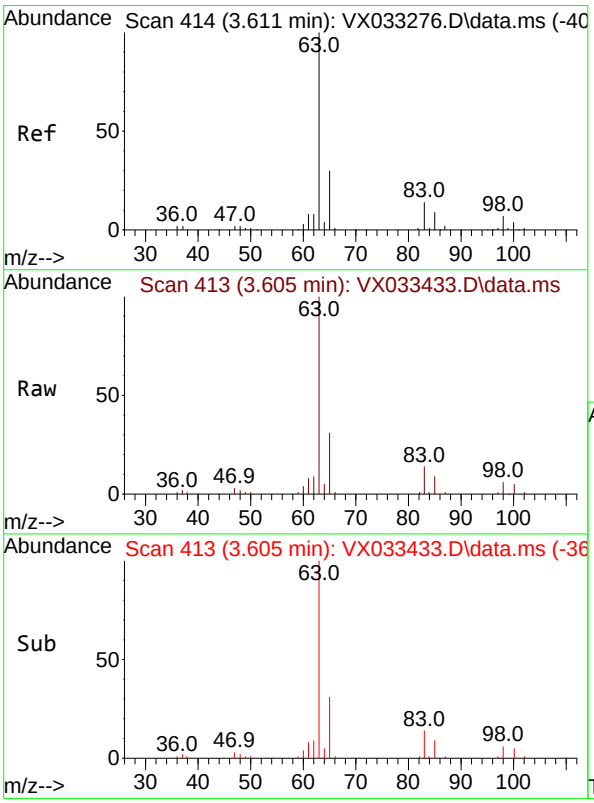
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 11.3 | 8.6 | 12.8 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

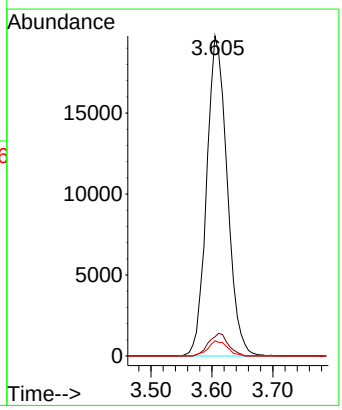


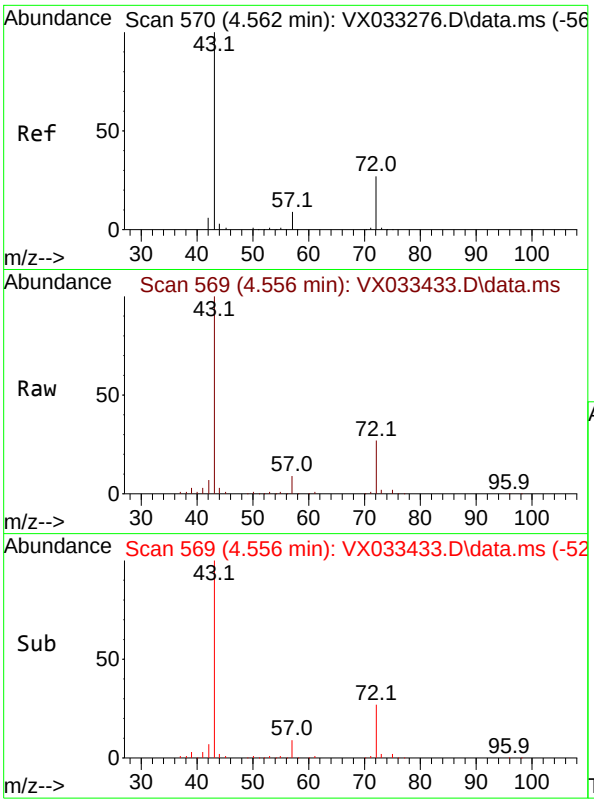




#24
1,1-Dichloroethane
Concen: 18.481 ug/l
RT: 3.605 min Scan# 413
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 63 Resp: 46243

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 98 | 6.0 | 3.5 | 10.4 |
| 100 | 4.8 | 2.3 | 6.8 |






#25
2-Butanone
Concen: 94.090 ug/l
RT: 4.556 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 8802

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 27.2 | 22.2 | 33.2 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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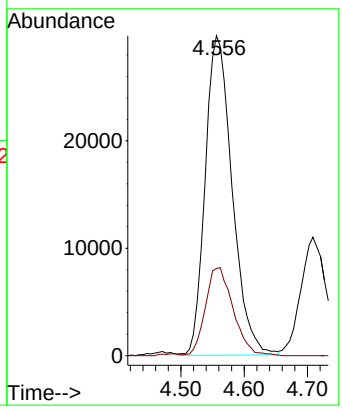
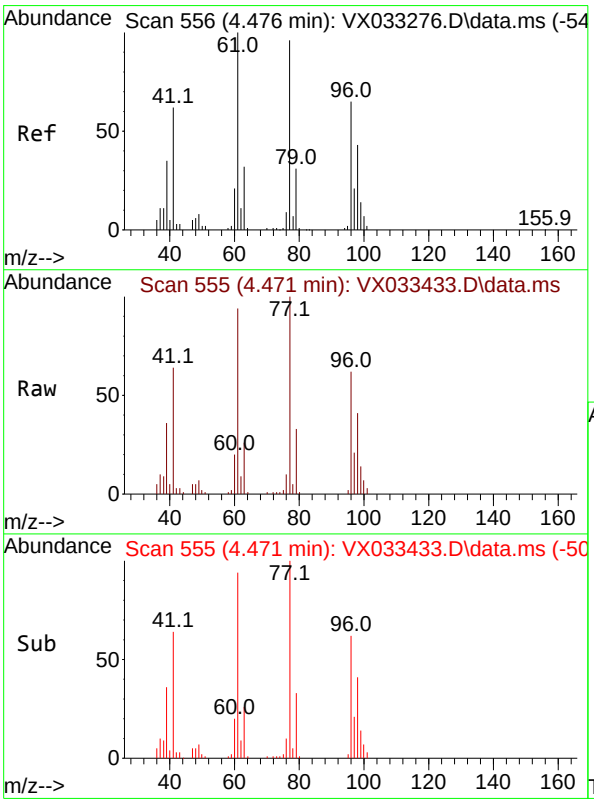
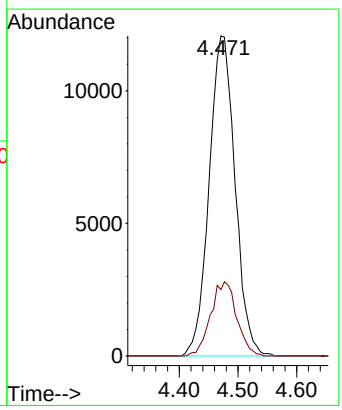


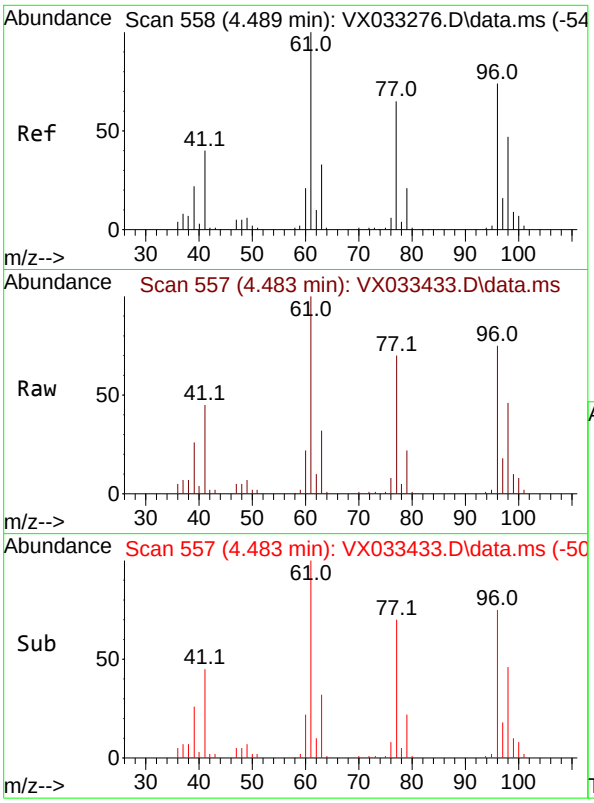




#26
2,2-Dichloropropane
Concen: 20.092 ug/l
RT: 4.471 min Scan# 555
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 77 Resp: 36972

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 77 | 100 | | |
| 97 | 23.2 | 11.4 | 34.1 |

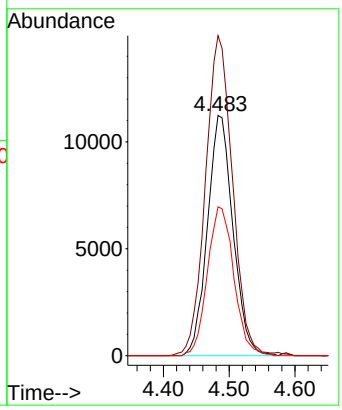





#27
cis-1,2-Dichloroethene
Concen: 18.679 ug/l
RT: 4.483 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 96 Resp: 3039

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 61 | 141.1 | 0.0 | 286.0 |
| 98 | 64.0 | 0.0 | 129.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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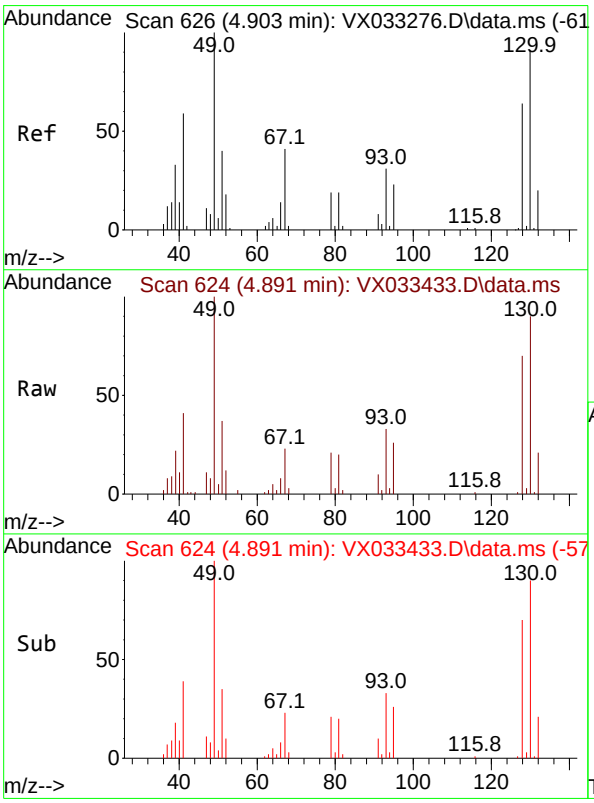
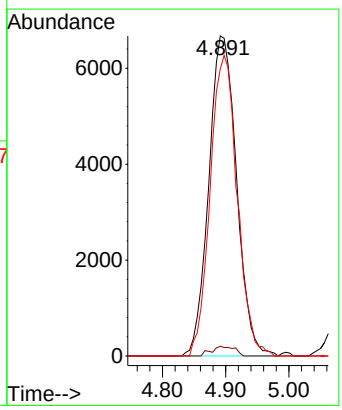
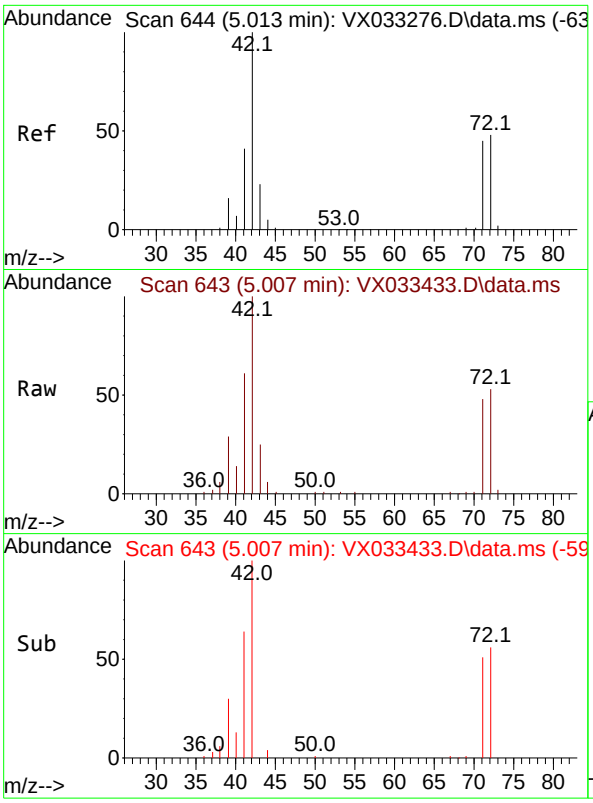



#28
Bromochloromethane
Concen: 19.451 ug/l
RT: 4.891 min Scan# 624
Delta R.T. -0.012 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 49 Resp: 20374

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 129 | 2.5 | 0.0 | 3.8 |
| 130 | 91.2 | 67.5 | 101.3 |

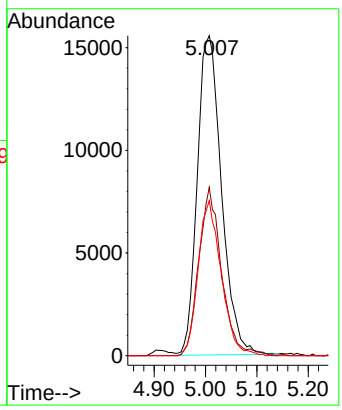





#29
Tetrahydrofuran
Concen: 83.937 ug/l
RT: 5.007 min Scan# 64
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 42 Resp: 5087

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 49.6 | 37.6 | 56.4 |
| 71 | 46.4 | 34.7 | 52.1 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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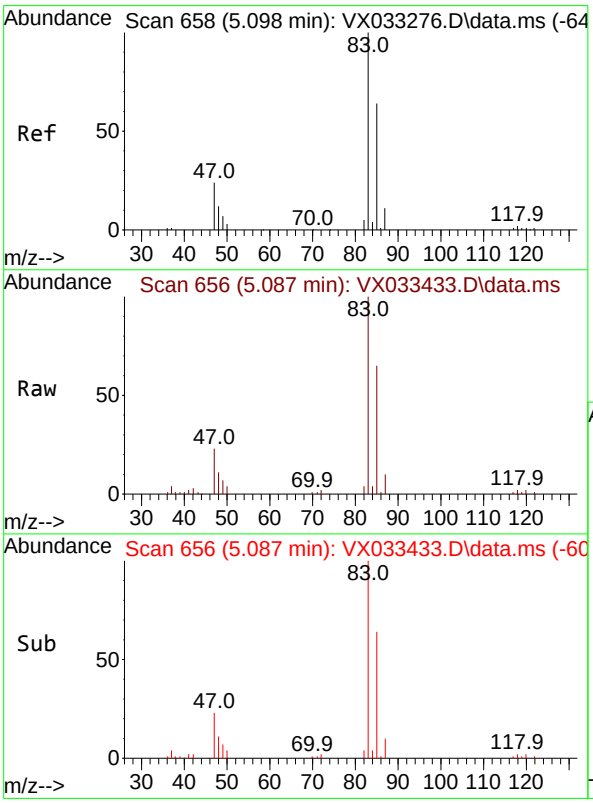
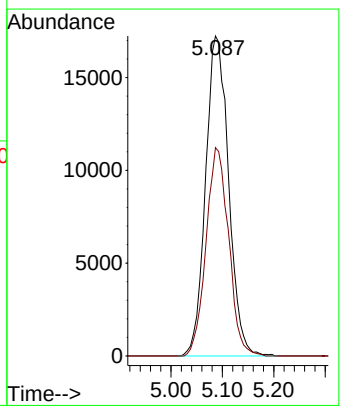
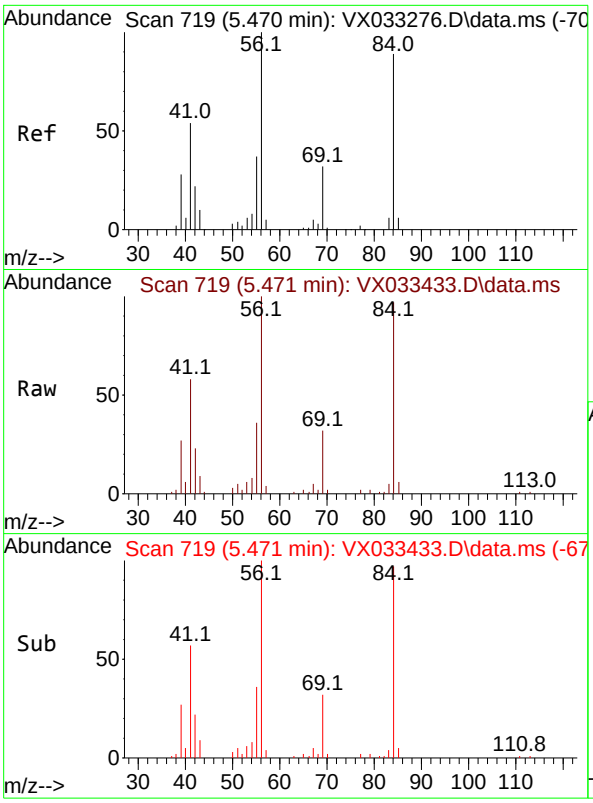



#30
Chloroform
Concen: 19.285 ug/l
RT: 5.087 min Scan# 656
Delta R.T. -0.012 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 83 Resp: 53573

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.1 | 51.1 | 76.7 |

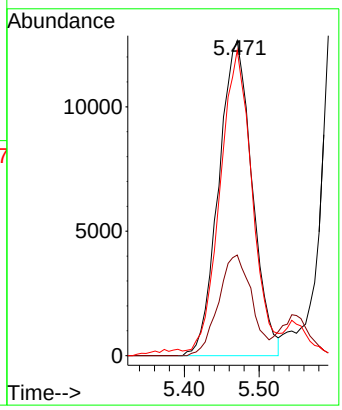





#31
Cyclohexane
Concen: 18.828 ug/l
RT: 5.471 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 56 Resp: 3941

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 69 | 32.0 | 24.1 | 36.1 |
| 84 | 95.0 | 66.9 | 100.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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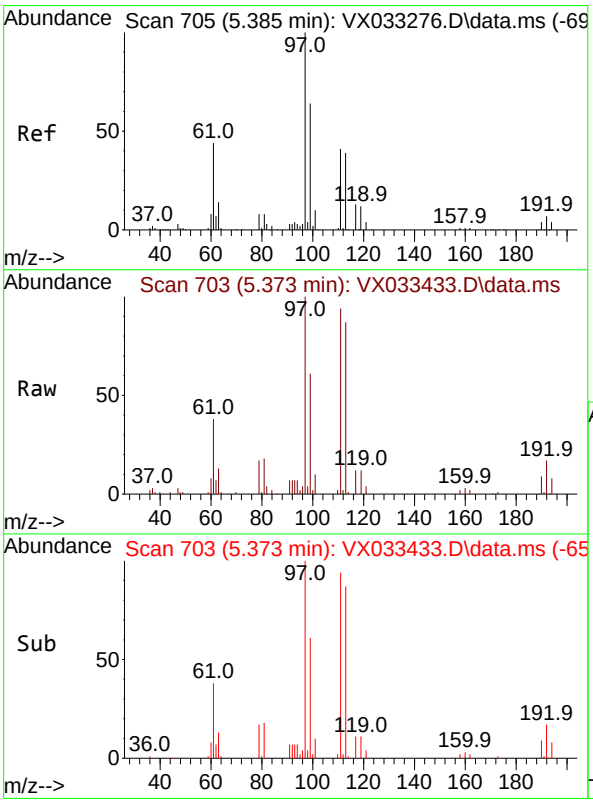
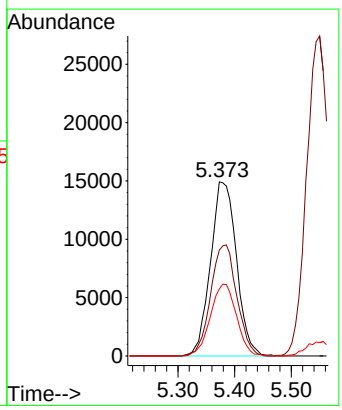
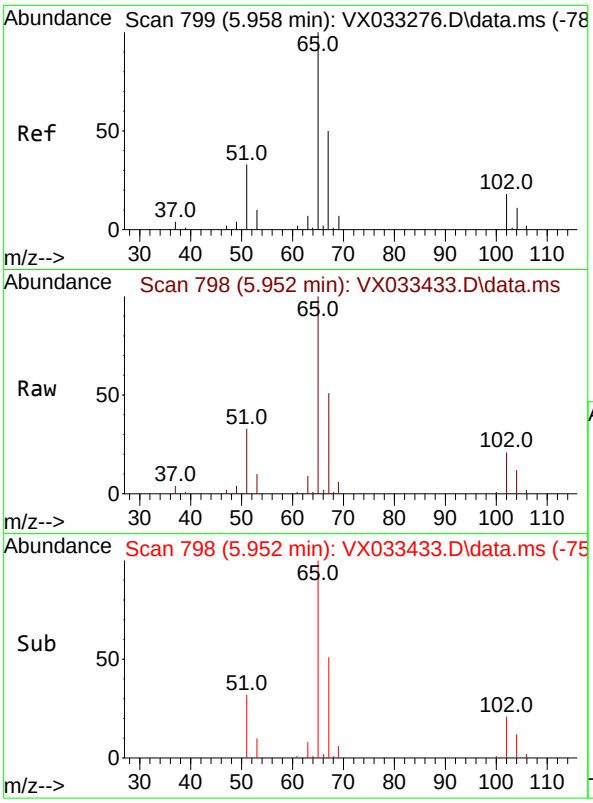



#32
1,1,1-Trichloroethane
Concen: 19.823 ug/l
RT: 5.373 min Scan# 703
Delta R.T. -0.012 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 97 Resp: 47380

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 64.3 | 51.4 | 77.0 |
| 61 | 41.2 | 35.2 | 52.8 |

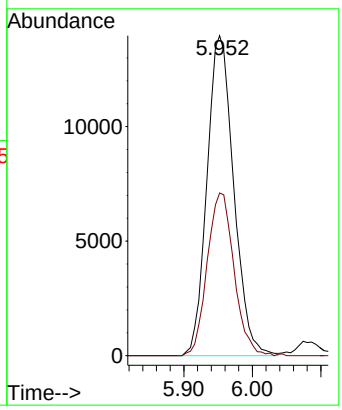





#33
1,2-Dichloroethane-d4
Concen: 42.979 ug/l
RT: 5.952 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 65 Resp: 3785

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 65 | 100 | | |
| 67 | 50.9 | 0.0 | 101.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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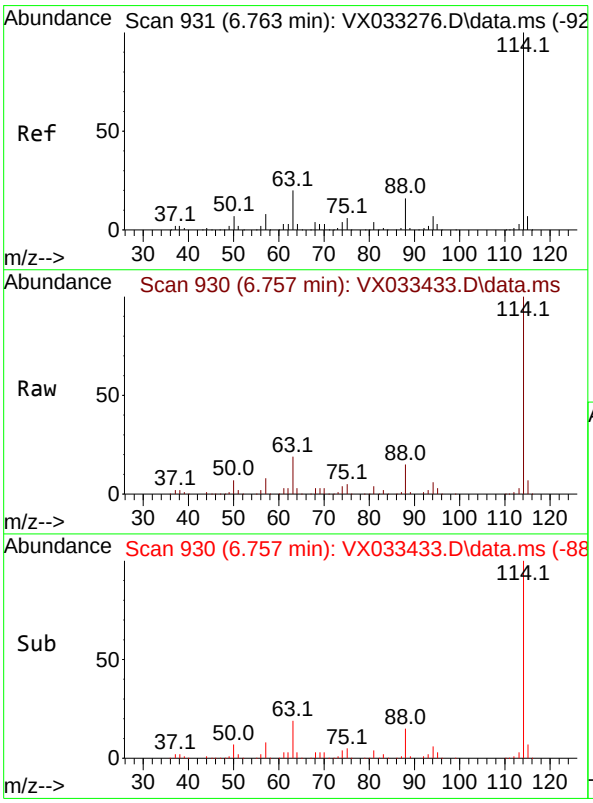
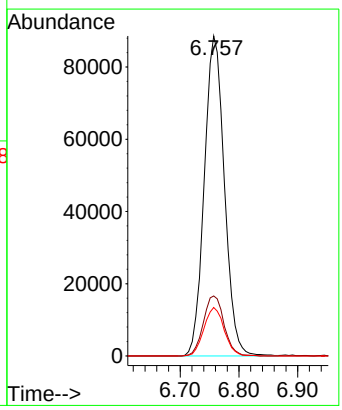
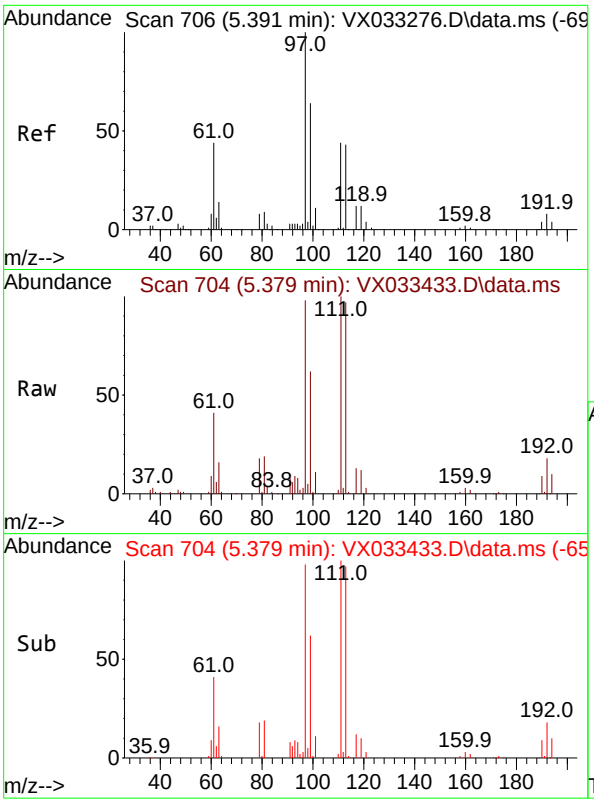



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.757 min Scan# 930
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:114 Resp: 210886

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 18.8 | 0.0 | 41.6 |
| 88 | 15.2 | 0.0 | 33.4 |

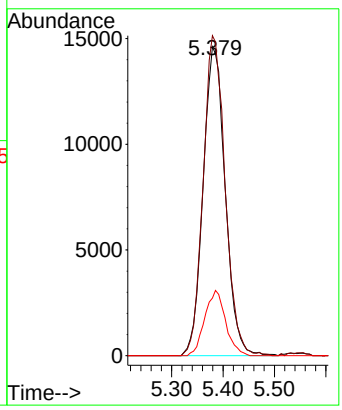





#35
Dibromofluoromethane
Concen: 46.027 ug/l
RT: 5.379 min Scan# 7
Delta R.T. -0.012 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:113 Resp: 4365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 113 | 100 | | |
| 111 | 102.8 | 82.4 | 123.6 |
| 192 | 19.9 | 15.4 | 23.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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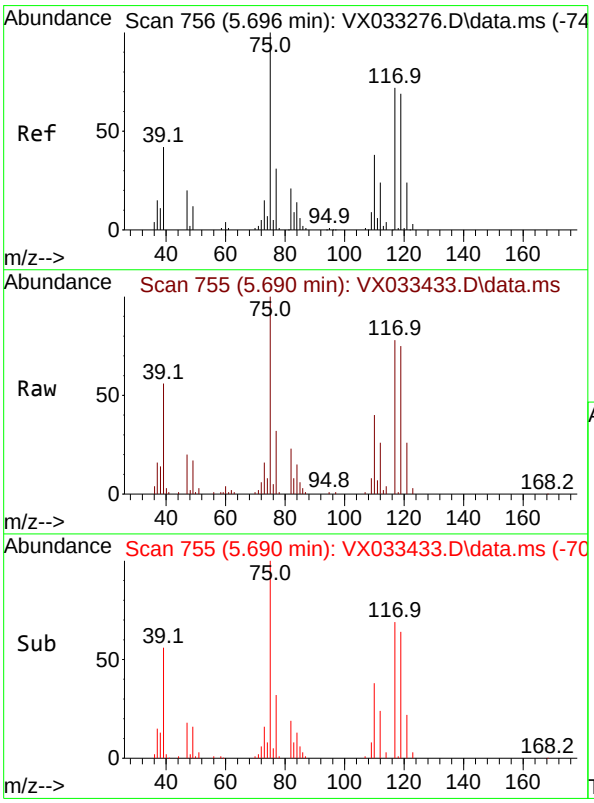
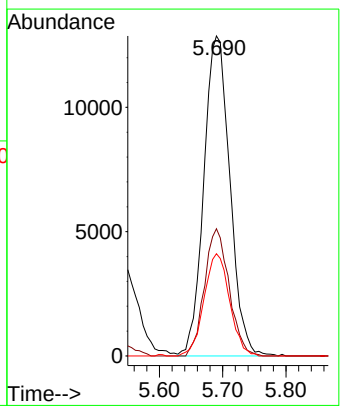
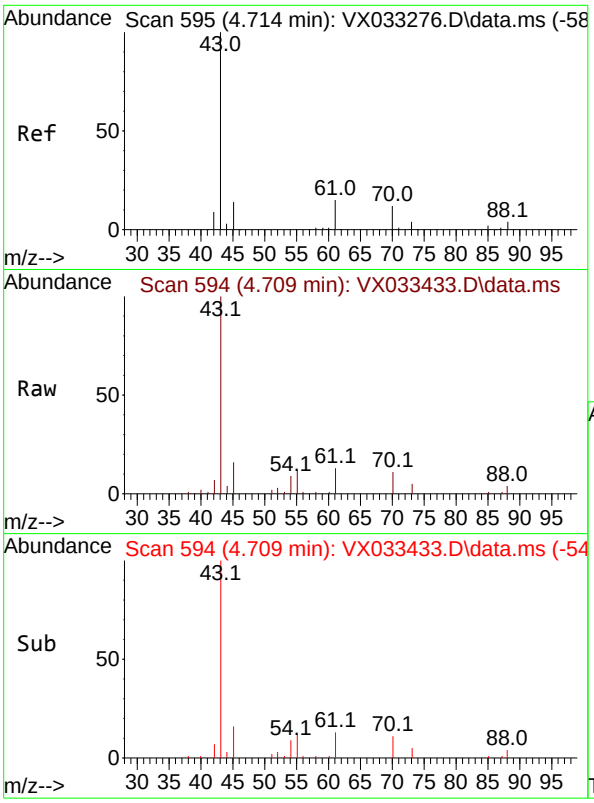



#36
1,1-Dichloropropene
Concen: 19.942 ug/l
RT: 5.690 min Scan# 755
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 36878

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 110 | 37.6 | 18.4 | 55.2 |
| 77 | 31.4 | 24.5 | 36.7 |

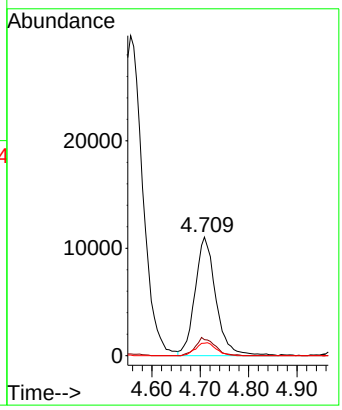





#37
Ethyl Acetate
Concen: 18.872 ug/l
RT: 4.709 min Scan# 5
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 3299

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.0 | 11.5 | 17.3 |
| 70 | 10.7 | 9.1 | 13.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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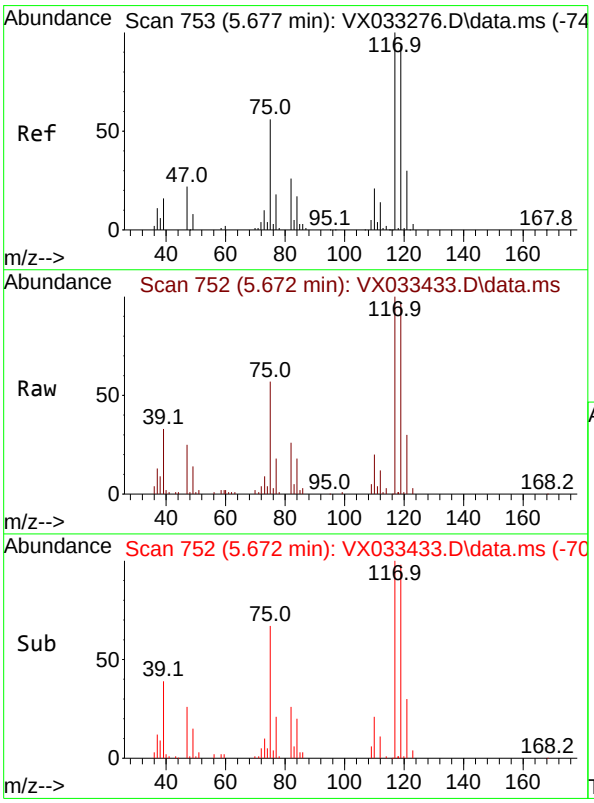
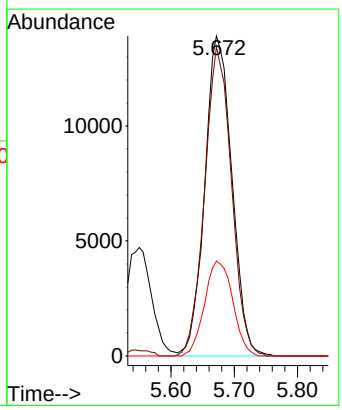
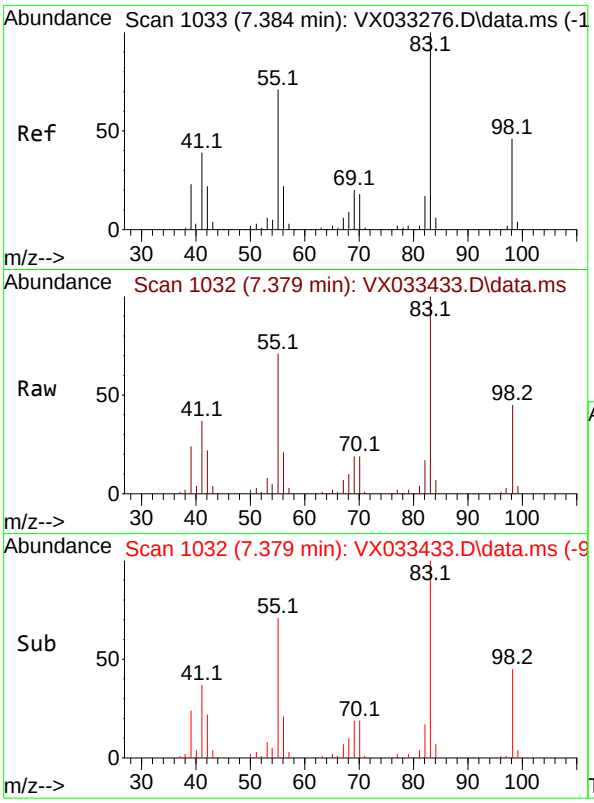



#38
Carbon Tetrachloride
Concen: 19.992 ug/l
RT: 5.672 min Scan# 752
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:117 Resp: 41422

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.6 | 77.2 | 115.8 |
| 121 | 29.7 | 25.8 | 38.6 |

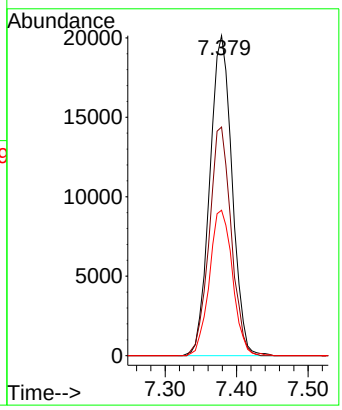





#39
Methylcyclohexane
Concen: 21.116 ug/l
RT: 7.379 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 83 Resp: 4370

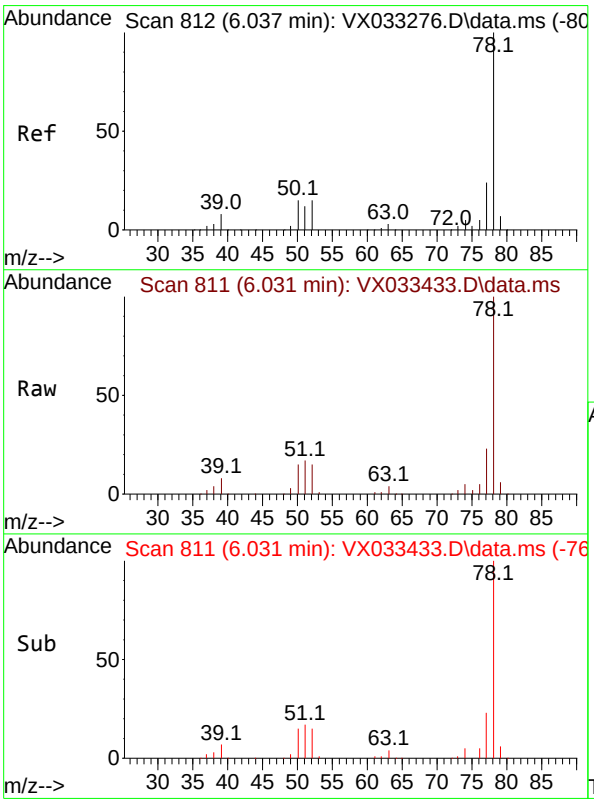
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 55 | 71.4 | 58.4 | 87.6 |
| 98 | 45.5 | 37.2 | 55.8 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

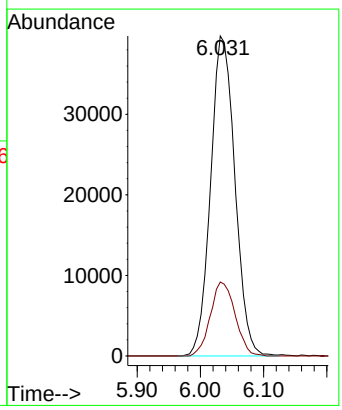
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

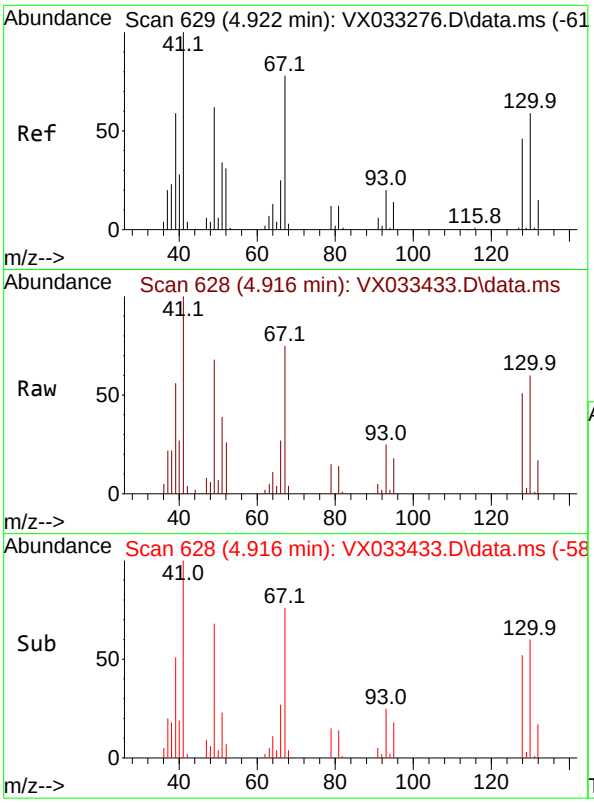



#40
Benzene
Concen: 19.661 ug/l
RT: 6.031 min Scan# 811
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 78 Resp: 106012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 23.1 | 19.0 | 28.4 |

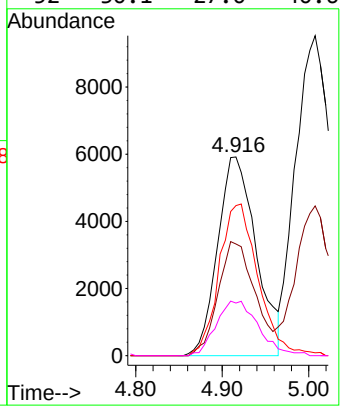





#41
Methacrylonitrile
Concen: 19.037 ug/l
RT: 4.916 min Scan# 6
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 41 Resp: 1833

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 54.4 | 47.5 | 71.3 |
| 67 | 77.3 | 60.5 | 90.7 |
| 52 | 30.1 | 27.0 | 40.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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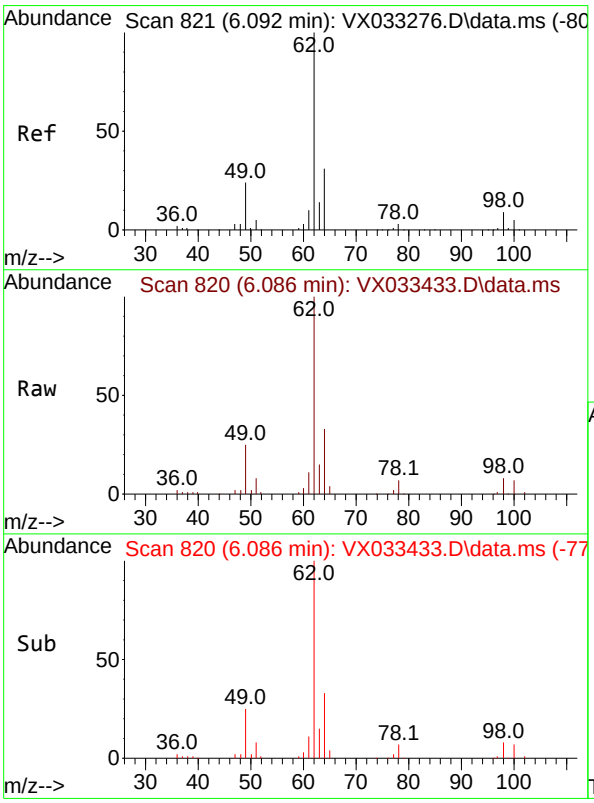
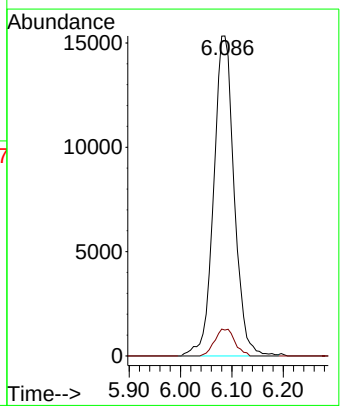
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

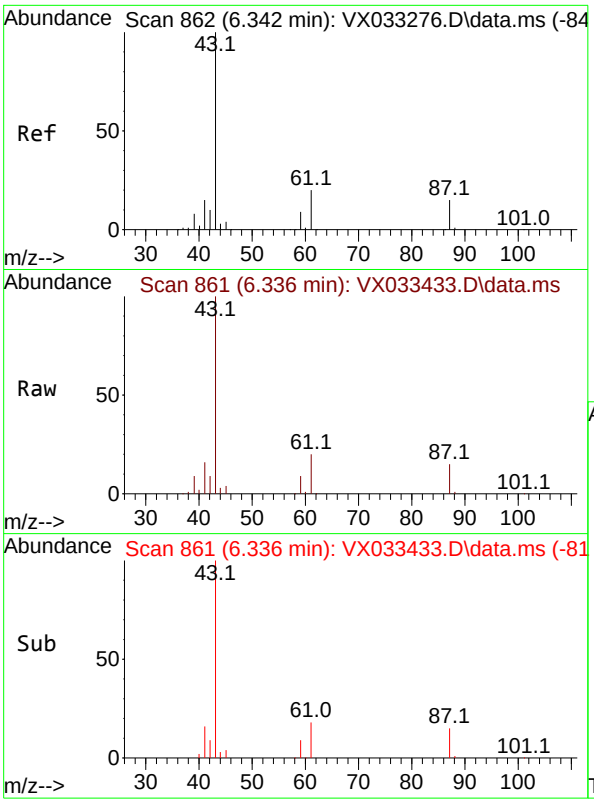



#42
1,2-Dichloroethane
Concen: 19.843 ug/l
RT: 6.086 min Scan# 820
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 62 Resp: 42486

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 8.3 | 0.0 | 16.0 |

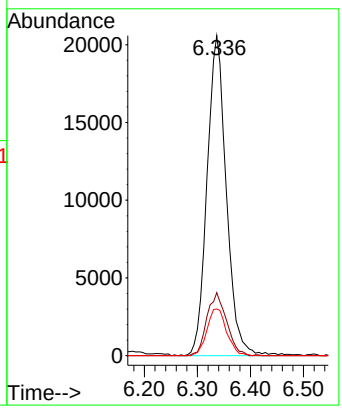





#43
Isopropyl Acetate
Concen: 18.474 ug/l
RT: 6.336 min Scan# 8
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 5196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 20.1 | 15.4 | 23.0 |
| 87 | 14.9 | 10.8 | 16.2 |




**Instrument :**
MSVOA_X
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VX1215WBSD01

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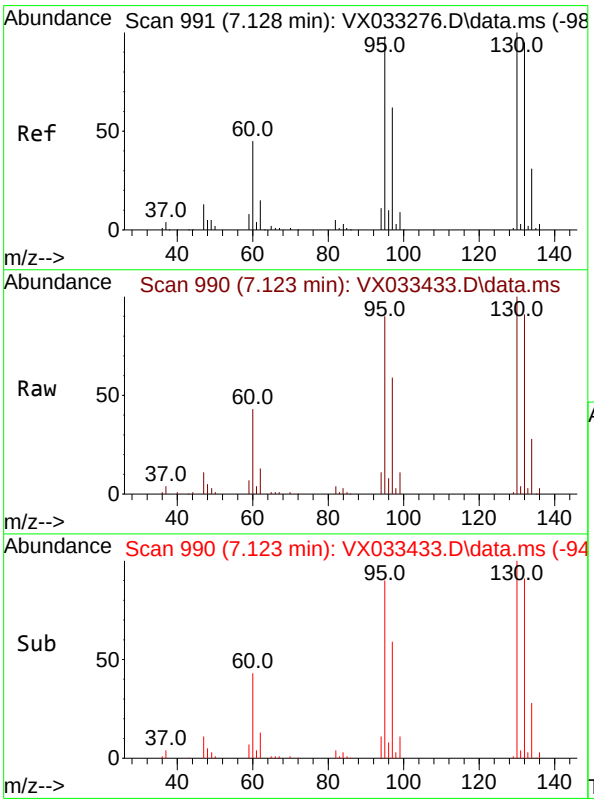
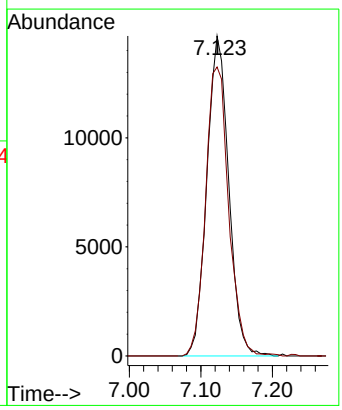
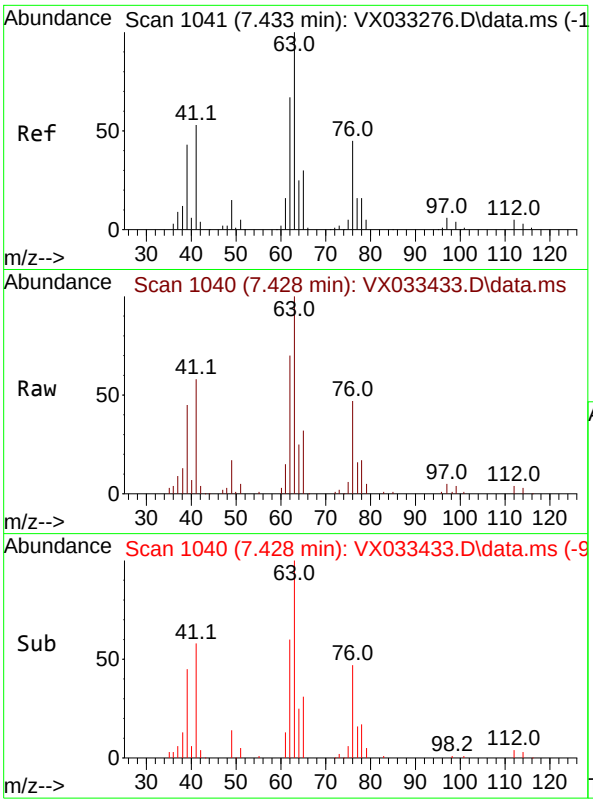



#44
Trichloroethene
Concen: 20.962 ug/l
RT: 7.123 min Scan# 990
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:130 Resp: 31162

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 90.3 | 0.0 | 195.2 |

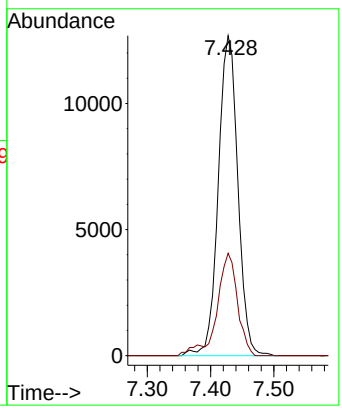





#45
1,2-Dichloropropane
Concen: 19.698 ug/l
RT: 7.428 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 63 Resp: 2716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 32.0 | 24.6 | 36.8 |




**Instrument :**
MSVOA_X
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**Manual Integrations**
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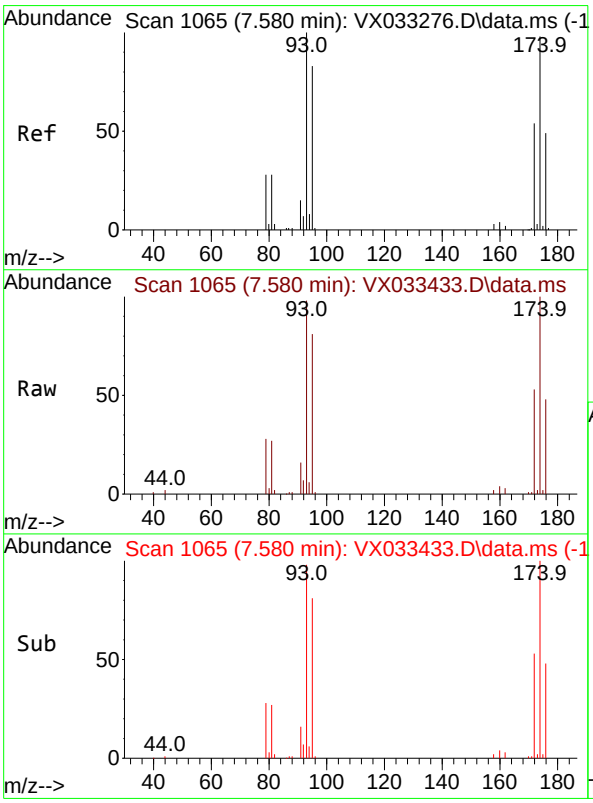
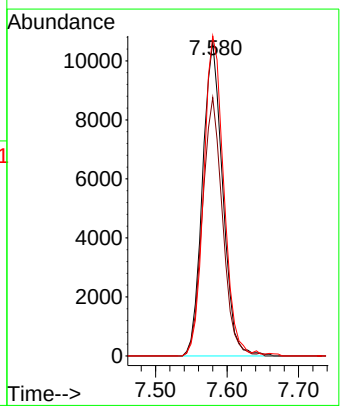
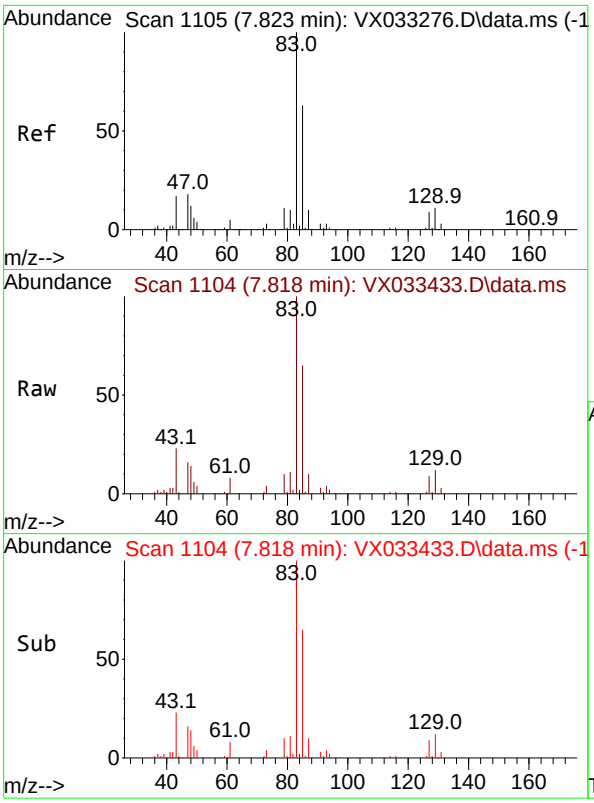



#46
Dibromomethane
Concen: 19.831 ug/l
RT: 7.580 min Scan# 1065
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 93 Resp: 20832

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 93 | 100 | | |
| 95 | 82.0 | 65.8 | 98.8 |
| 174 | 101.4 | 79.8 | 119.6 |

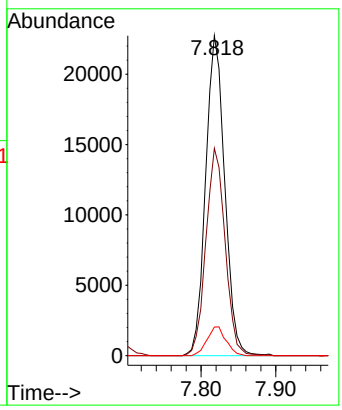





#47
Bromodichloromethane
Concen: 19.713 ug/l
RT: 7.818 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 83 Resp: 4036

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.8 | 52.2 | 78.4 |
| 127 | 8.9 | 7.4 | 11.2 |




**Instrument :**
MSVOA_X
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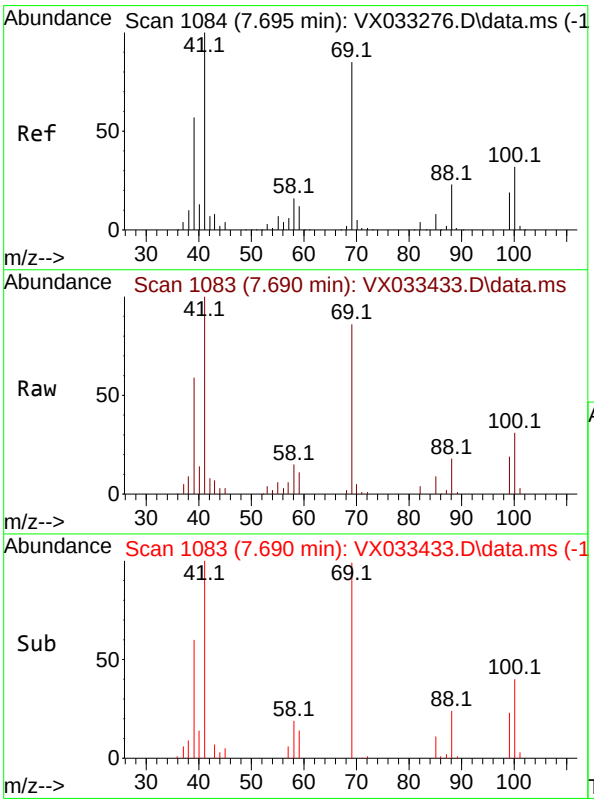
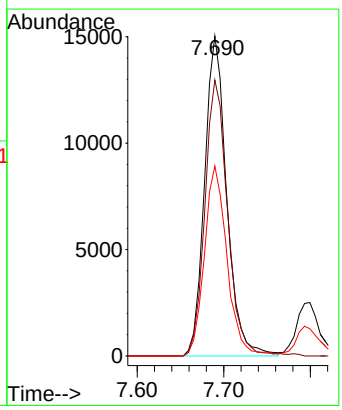
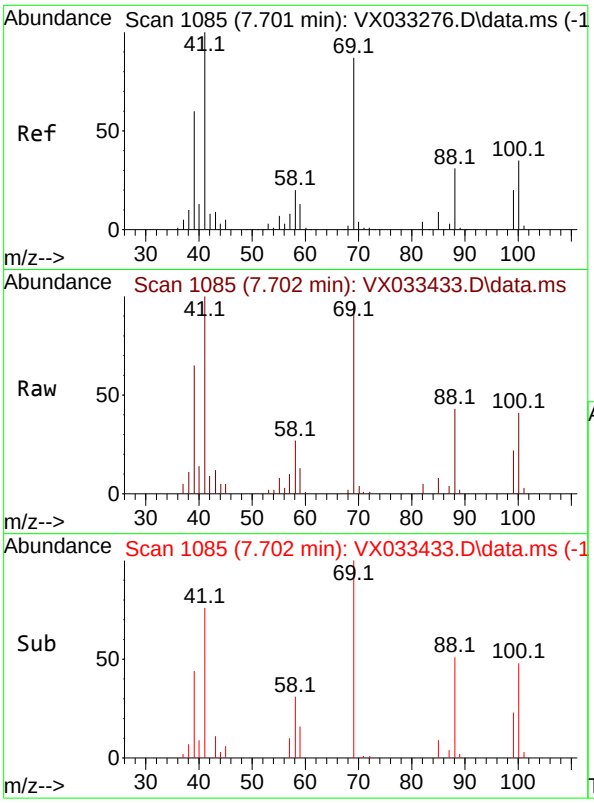



#48
Methyl methacrylate
Concen: 18.363 ug/l
RT: 7.690 min Scan# 1083
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 41 Resp: 26656

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 88.9 | 65.1 | 97.7 |
| 39 | 60.8 | 51.9 | 77.9 |

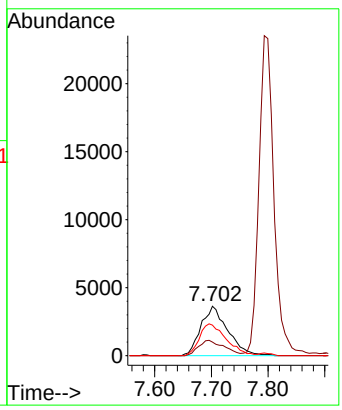





#49
1,4-Dioxane
Concen: 361.544 ug/l
RT: 7.702 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 88 Resp: 1196

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 43 | 29.7 | 26.6 | 39.8 |
| 58 | 64.0 | 51.7 | 77.5 |

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MSVOA_X
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VX1215WBSD01

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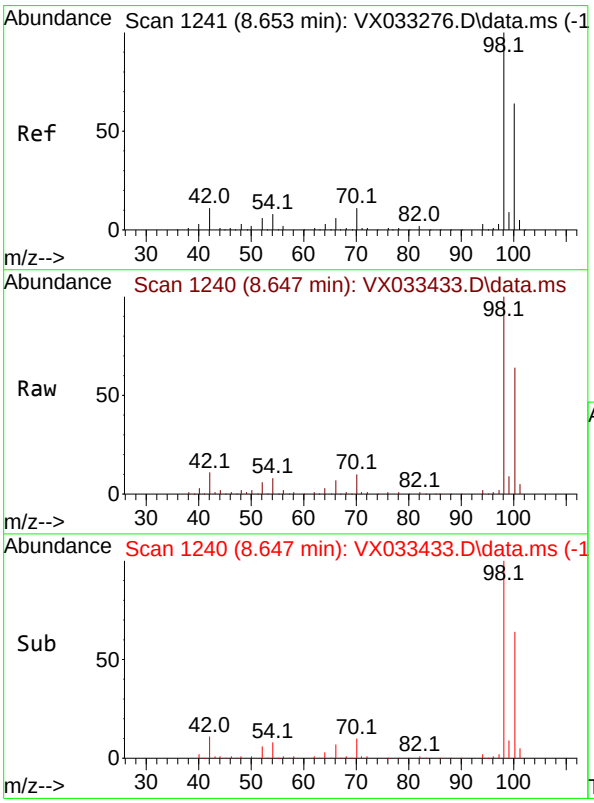
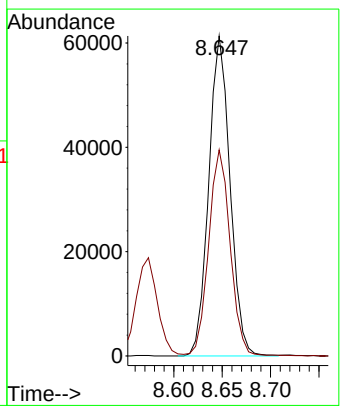
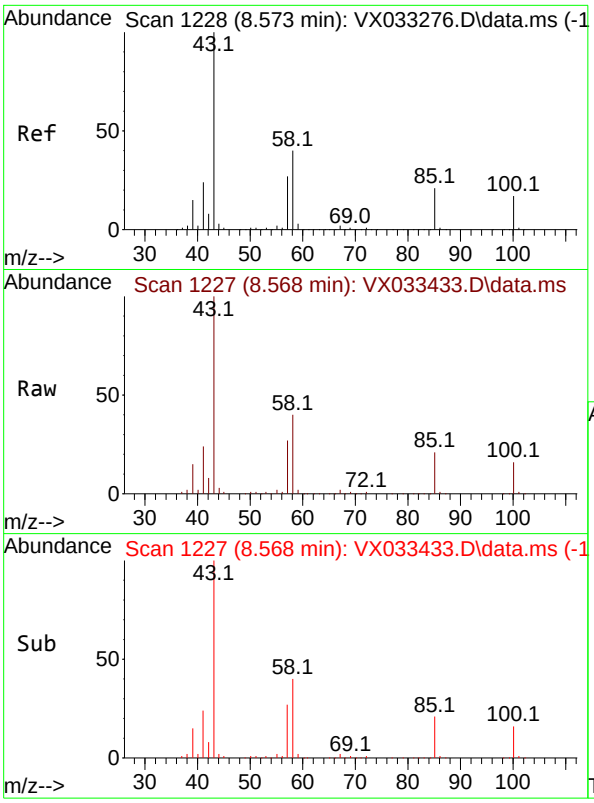



#50
Toluene-d8
Concen: 47.352 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 98 Resp: 93958

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 98 | 100 | | |
| 100 | 65.1 | 50.9 | 76.3 |

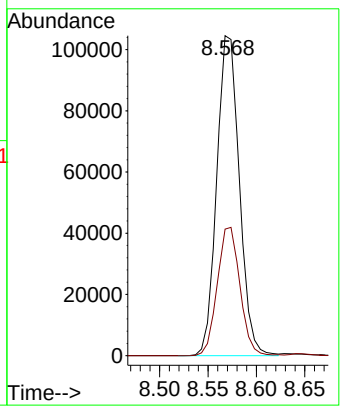





#51
4-Methyl-2-Pentanone
Concen: 95.356 ug/l
RT: 8.568 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 16961

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 40.4 | 30.9 | 46.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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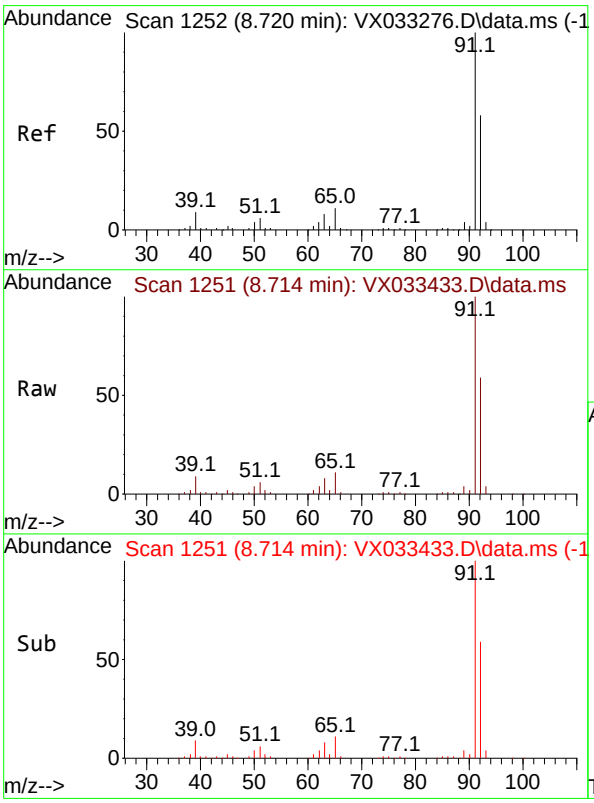
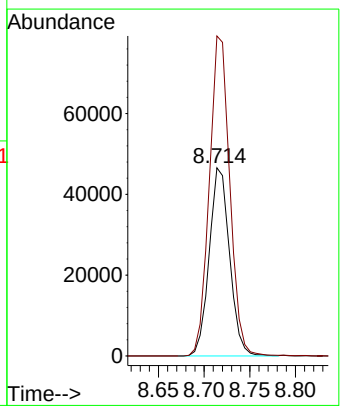
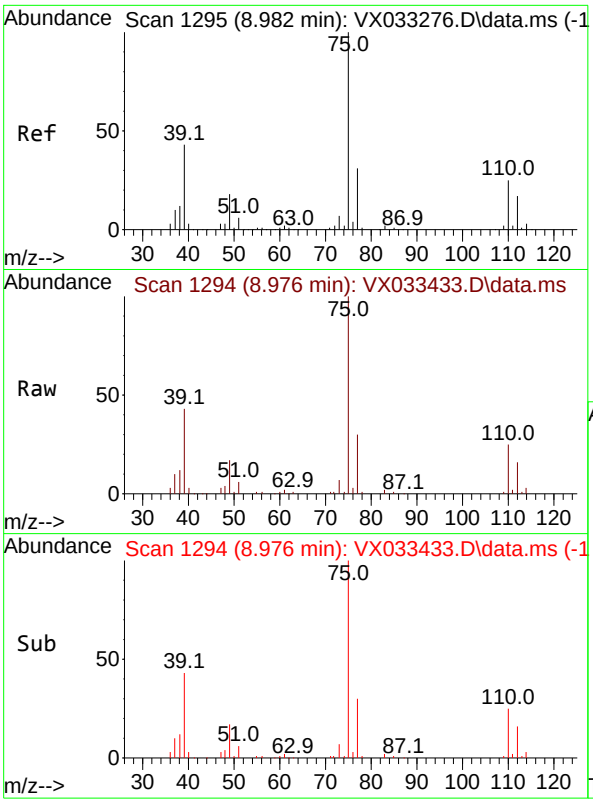



#52
Toluene
Concen: 20.728 ug/l
RT: 8.714 min Scan# 1251
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 92 Resp: 72263

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 92 | 100 | | |
| 91 | 171.0 | 138.3 | 207.5 |

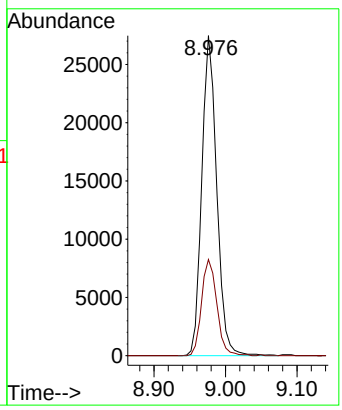





#53
t-1,3-Dichloropropene
Concen: 19.717 ug/l
RT: 8.976 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 3985

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 30.1 | 25.1 | 37.7 |




**Instrument :**
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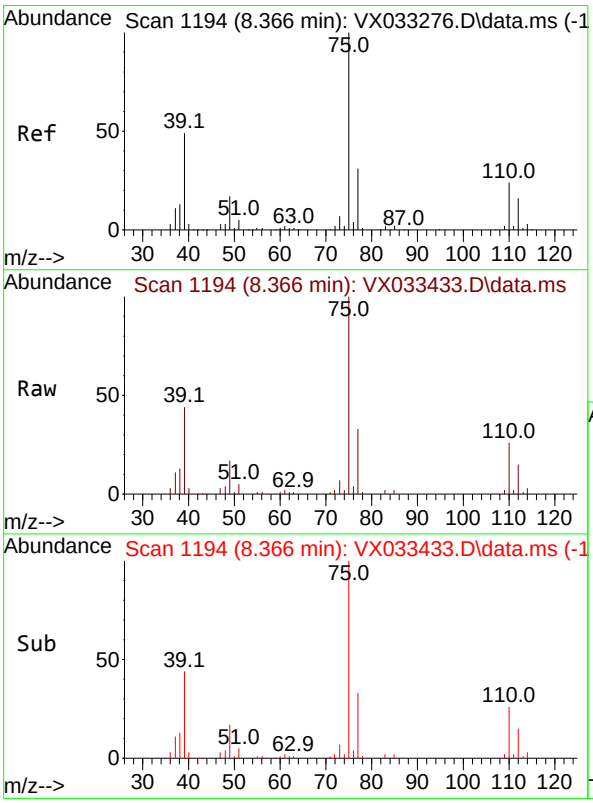
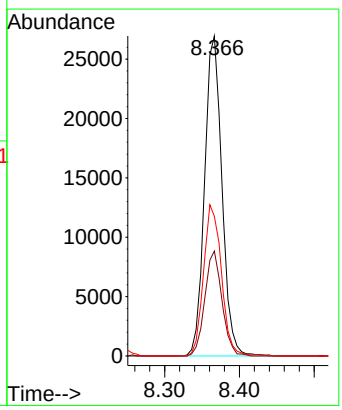
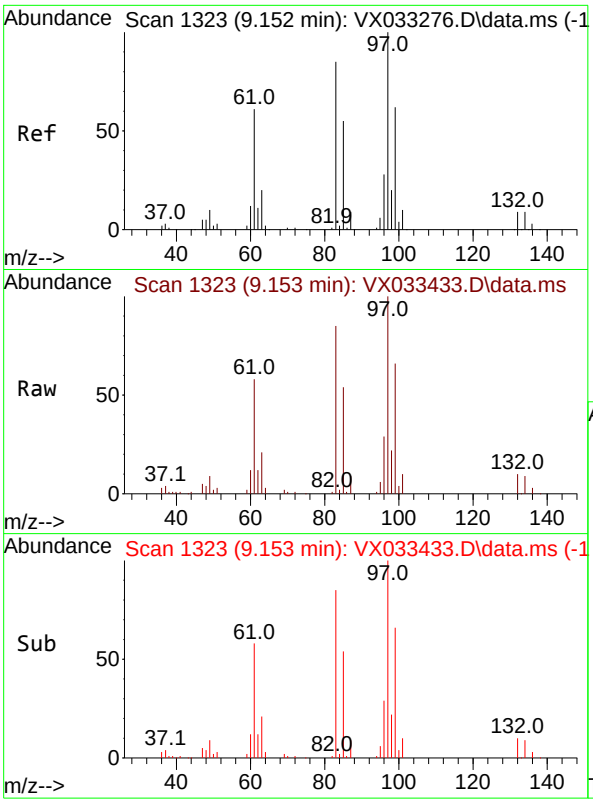



#54
cis-1,3-Dichloropropene
Concen: 19.973 ug/l
RT: 8.366 min Scan# 1194
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 43520

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 32.8 | 25.1 | 37.7 |
| 39 | 43.6 | 45.5 | 68.3# |

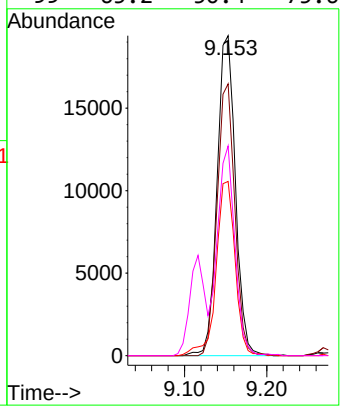





#55
1,1,2-Trichloroethane
Concen: 20.480 ug/l
RT: 9.153 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 97 Resp: 3001

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 84.9 | 68.1 | 102.1 |
| 85 | 54.5 | 43.3 | 64.9 |
| 99 | 65.2 | 50.4 | 75.6 |

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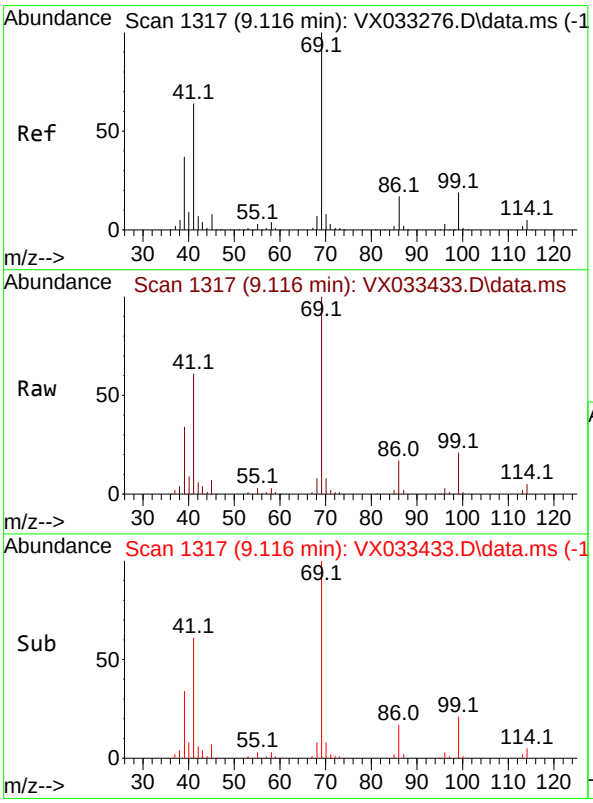
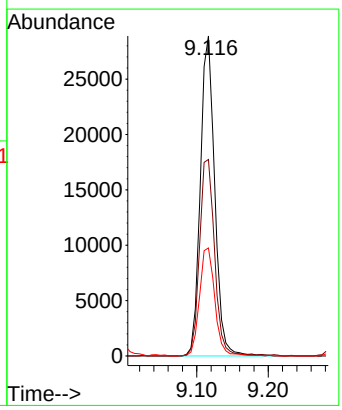
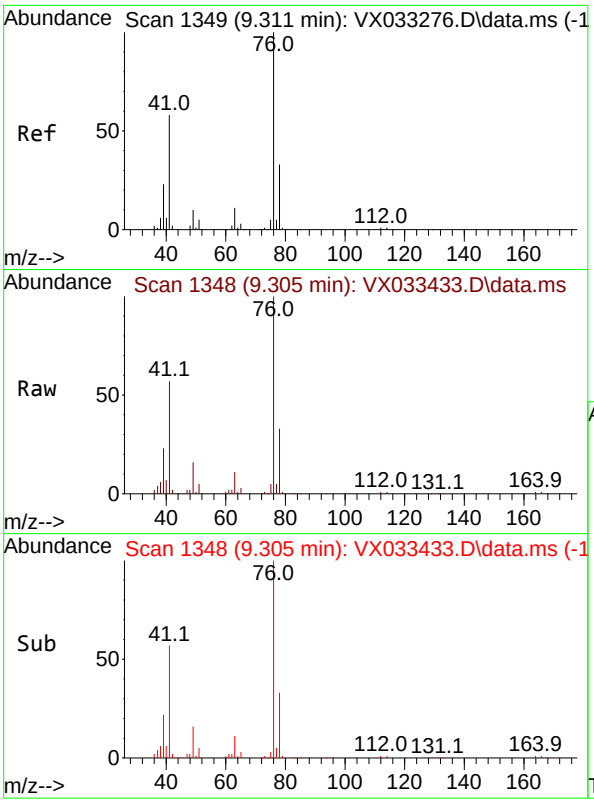



#56
Ethyl methacrylate
Concen: 19.577 ug/l
RT: 9.116 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 69 Resp: 40393

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 69 | 100 | | |
| 41 | 64.3 | 54.3 | 81.5 |
| 39 | 36.0 | 35.2 | 52.8 |

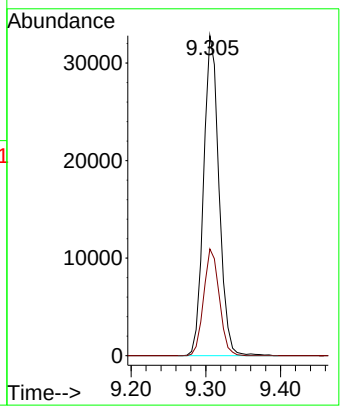





#57
1,3-Dichloropropane
Concen: 19.963 ug/l
RT: 9.305 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 76 Resp: 4699

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 33.8 | 26.0 | 39.0 |




**Instrument :**
MSVOA_X
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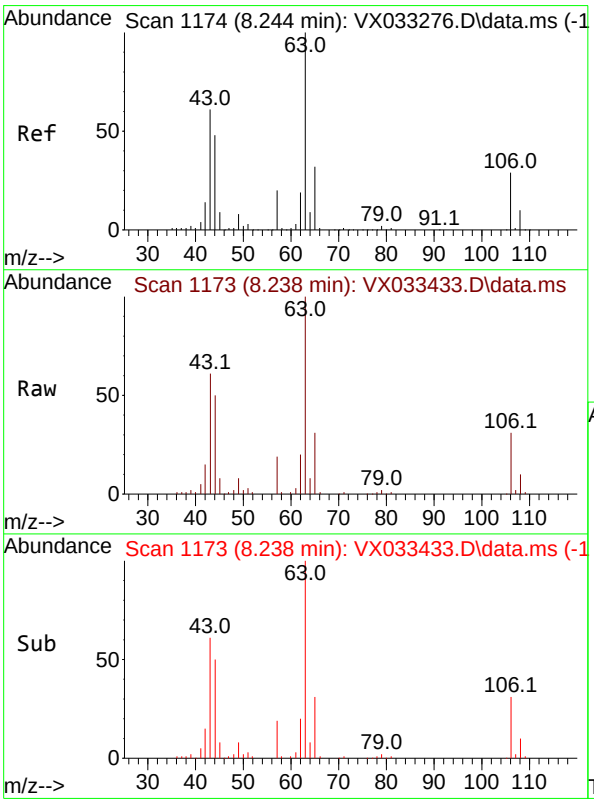
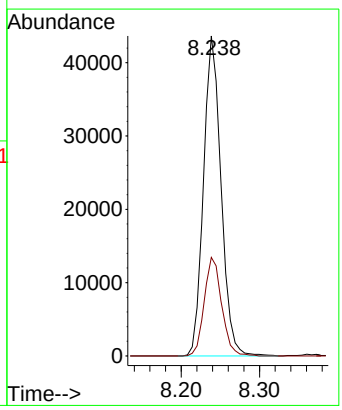
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

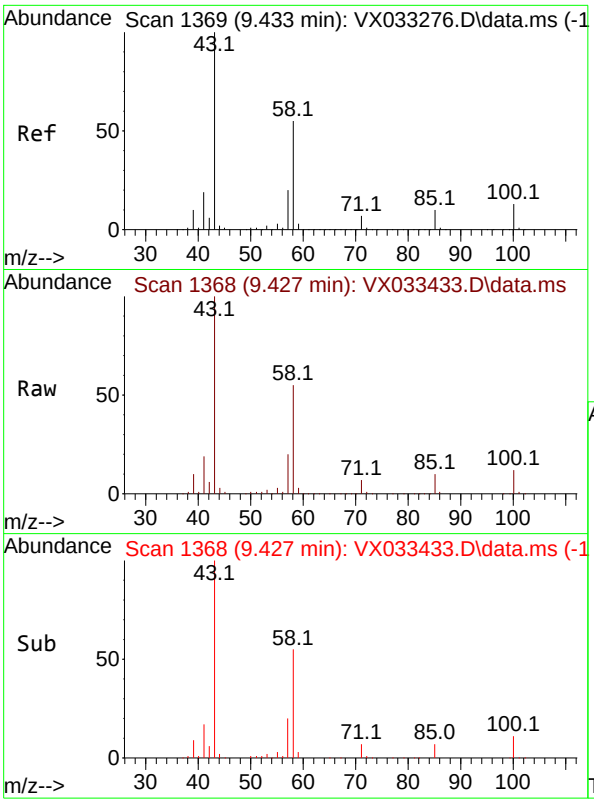



#58
2-Chloroethyl Vinyl ether
Concen: 71.829 ug/l
RT: 8.238 min Scan# 1173
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 63 Resp: 67813

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 106 | 30.6 | 23.3 | 34.9 |






#59
2-Hexanone
Concen: 101.000 ug/l
RT: 9.427 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 13239

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 55.6 | 26.5 | 79.5 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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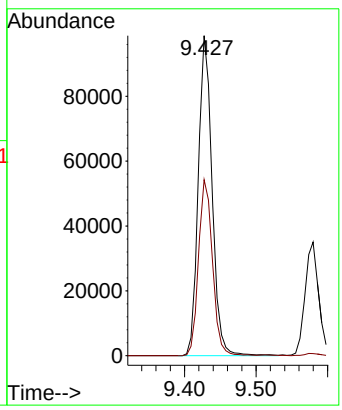
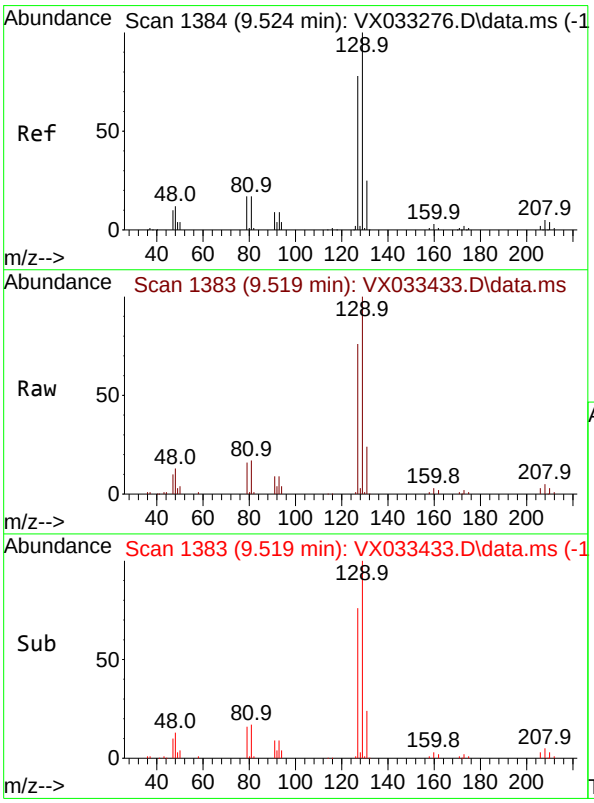
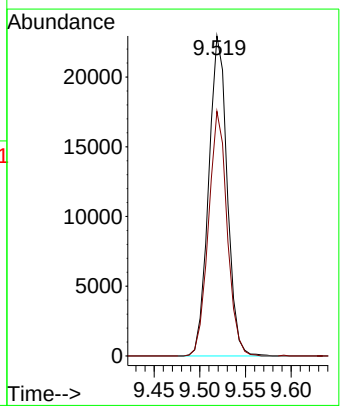


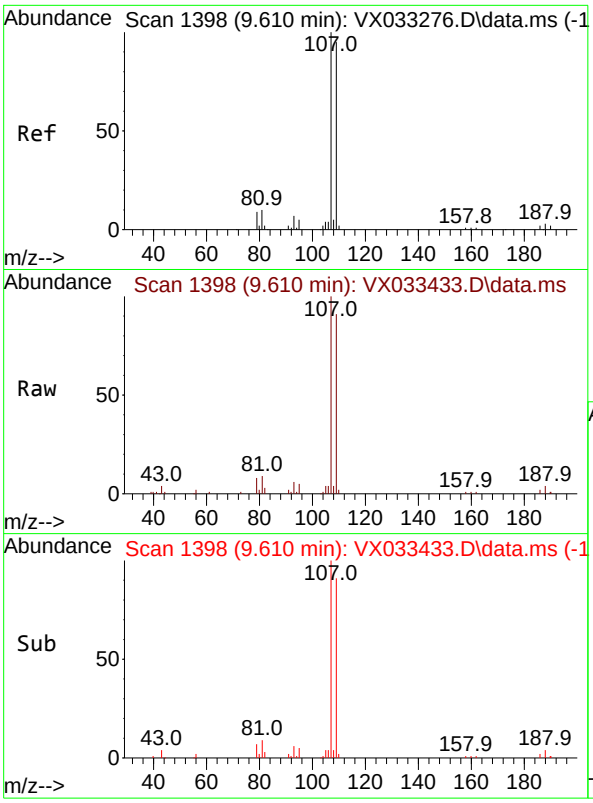




#60
Dibromochloromethane
Concen: 20.042 ug/l
RT: 9.519 min Scan# 1383
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:129 Resp: 32360

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 76.9 | 38.6 | 115.8 |






#61
1,2-Dibromoethane
Concen: 19.933 ug/l
RT: 9.610 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:107 Resp: 3107

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 95.4 | 76.0 | 114.0 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

Reviewed By :John Carlone 12/16/2022
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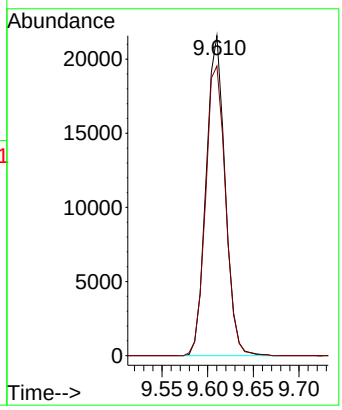
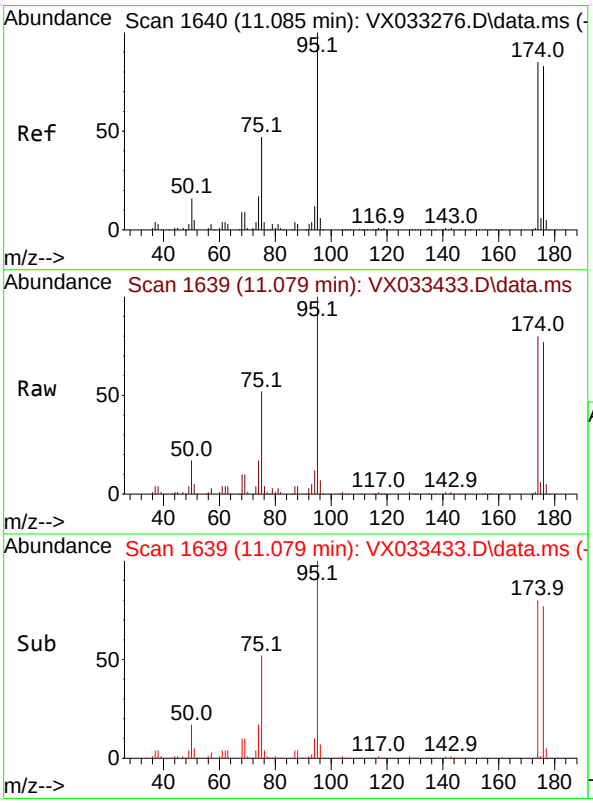
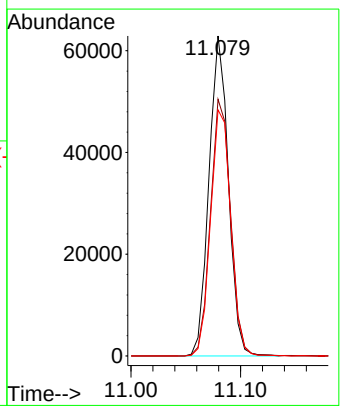


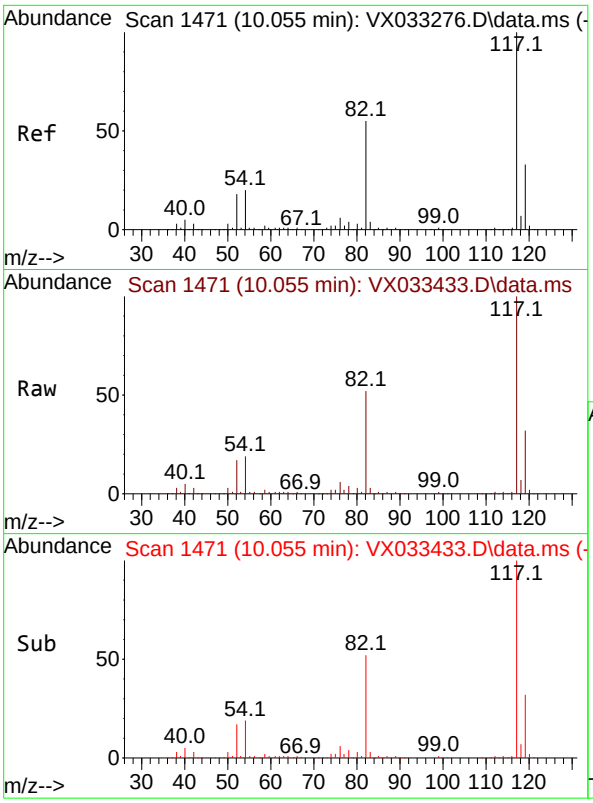




#62
4-Bromofluorobenzene
Concen: 51.077 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 95 Resp: 77494

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 95 | 100 | | |
| 174 | 83.1 | 0.0 | 164.0 |
| 176 | 80.0 | 0.0 | 154.4 |

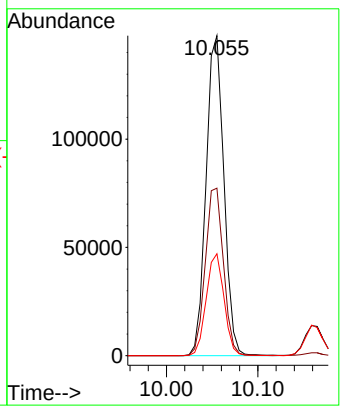





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:117 Resp: 19947

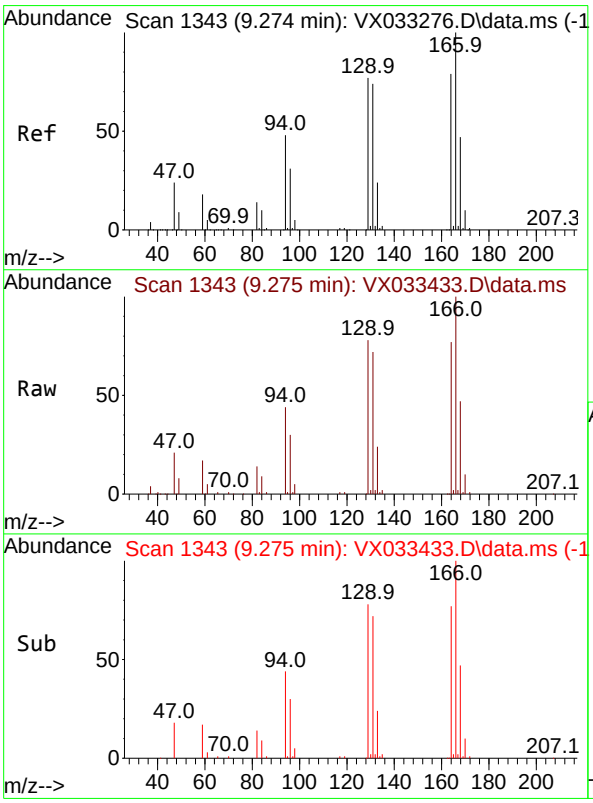
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 52.4 | 44.3 | 66.5 |
| 119 | 31.9 | 25.7 | 38.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

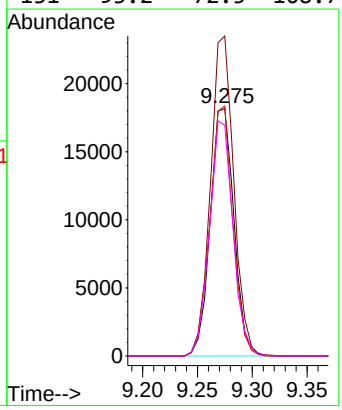
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

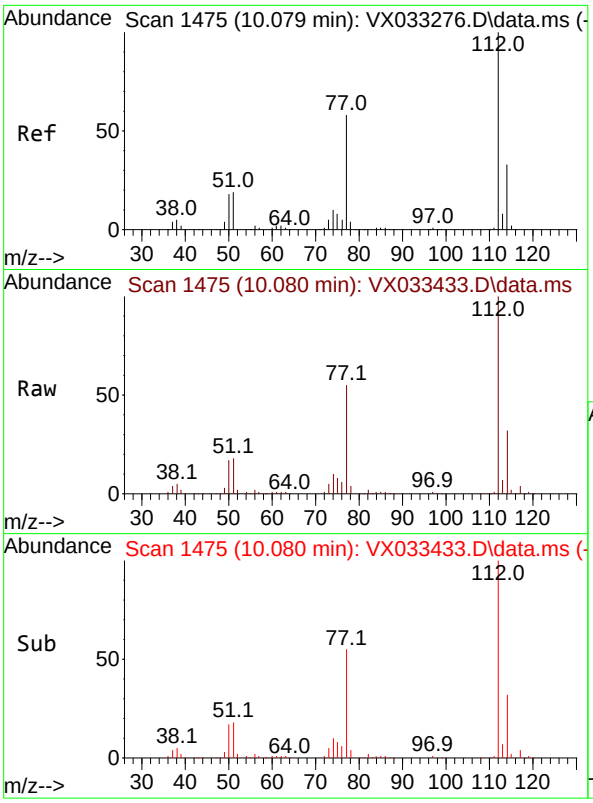



#64
Tetrachloroethene
Concen: 19.946 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:164 Resp: 27206

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 164 | 100 | | |
| 166 | 129.3 | 105.4 | 158.2 |
| 129 | 100.9 | 78.2 | 117.2 |
| 131 | 93.2 | 72.5 | 108.7 |

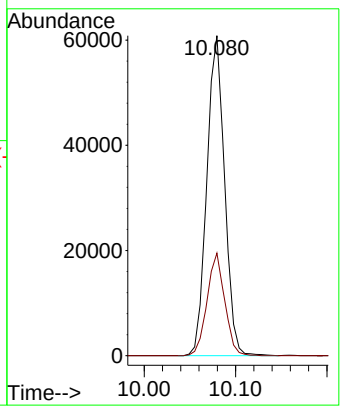





#65
Chlorobenzene
Concen: 20.287 ug/l
RT: 10.080 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:112 Resp: 8194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 114 | 32.1 | 25.4 | 38.2 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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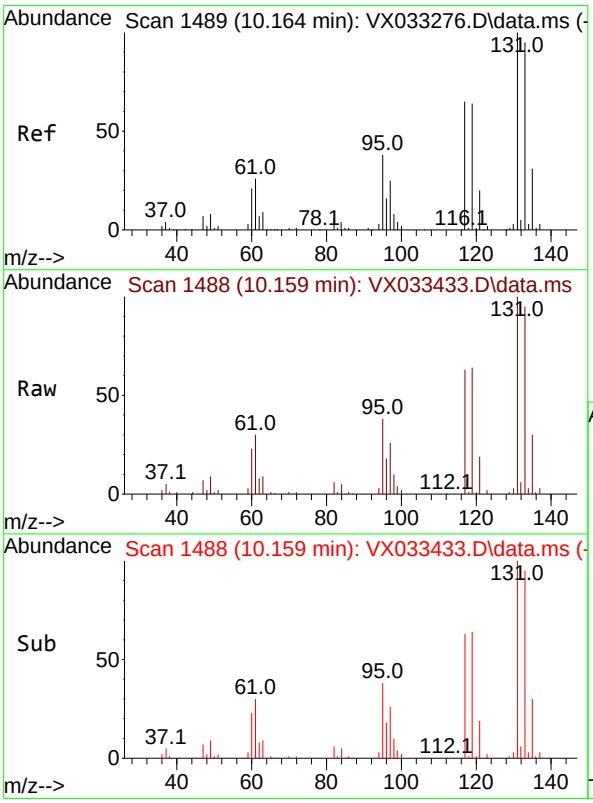
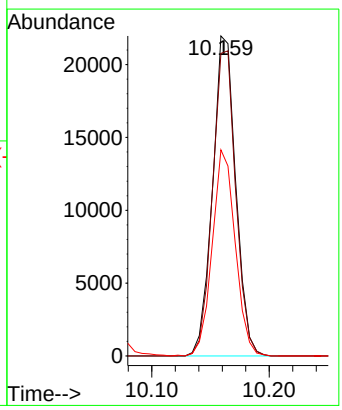
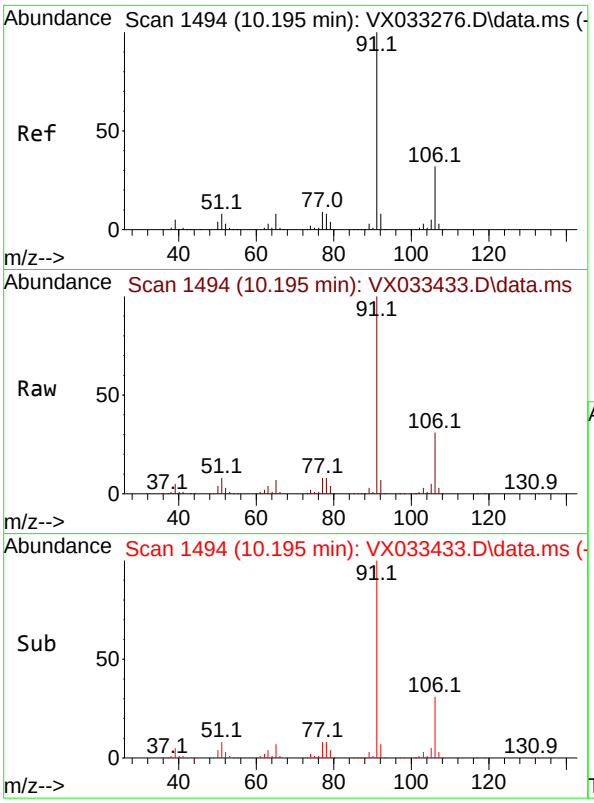



#66
1,1,1,2-Tetrachloroethane
Concen: 19.762 ug/l
RT: 10.159 min Scan# 1488
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:131 Resp: 30166

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 131 | 100 | | |
| 133 | 95.8 | 47.6 | 142.9 |
| 119 | 63.9 | 32.4 | 97.0 |






#67
Ethyl Benzene
Concen: 20.695 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 14563

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.9 | 25.0 | 37.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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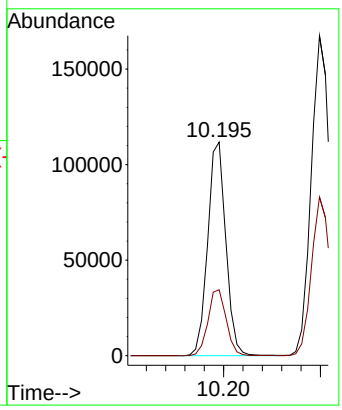
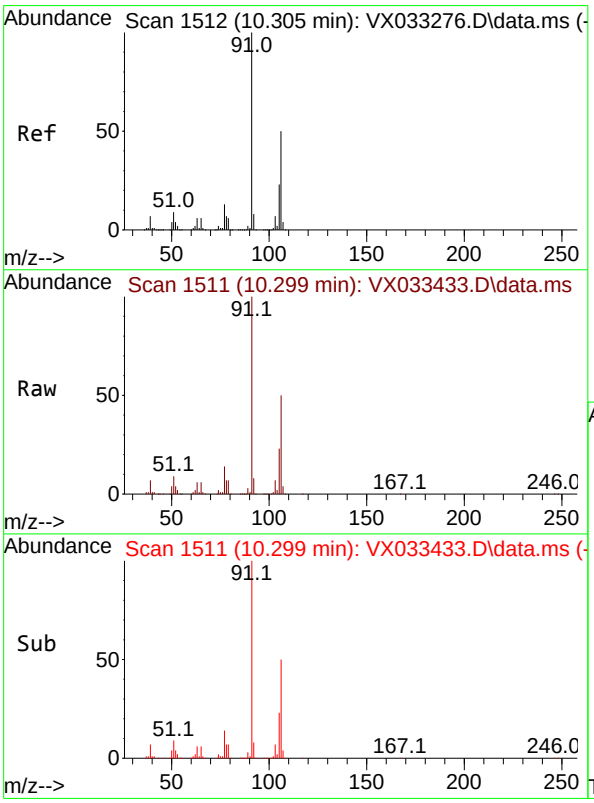
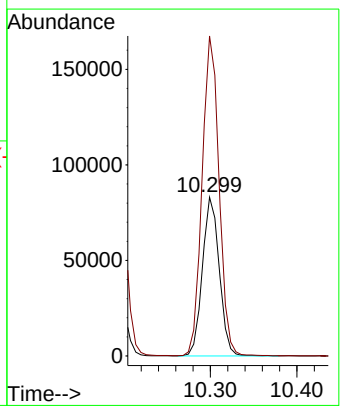


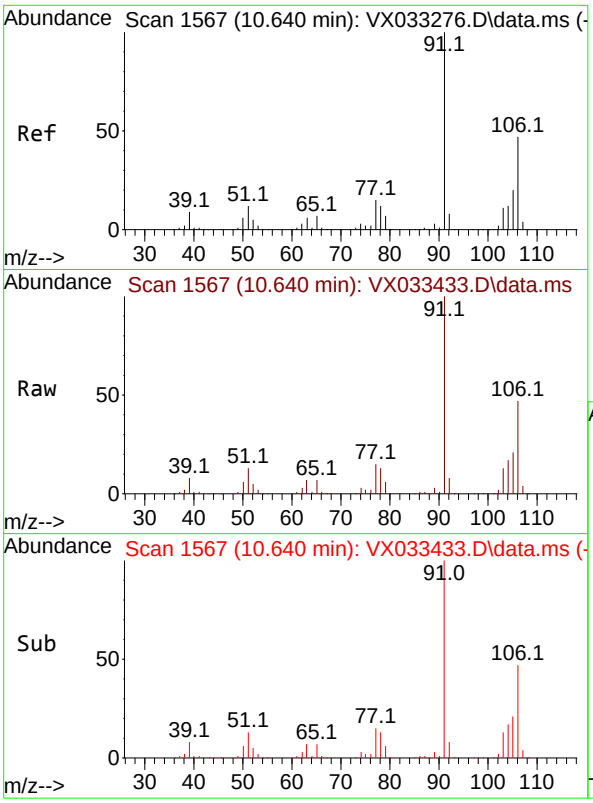




#68
m/p-Xylenes
Concen: 41.043 ug/l
RT: 10.299 min Scan# 1511
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:106 Resp: 112373

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 203.0 | 164.5 | 246.7 |

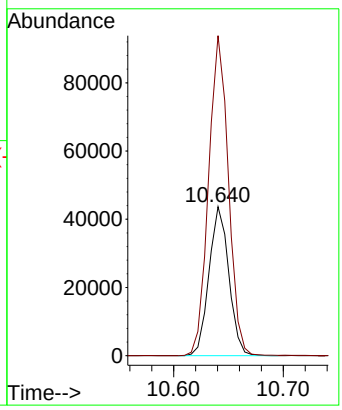





#69
o-Xylene
Concen: 20.259 ug/l
RT: 10.640 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:106 Resp: 5482

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 91 | 215.4 | 109.2 | 327.6 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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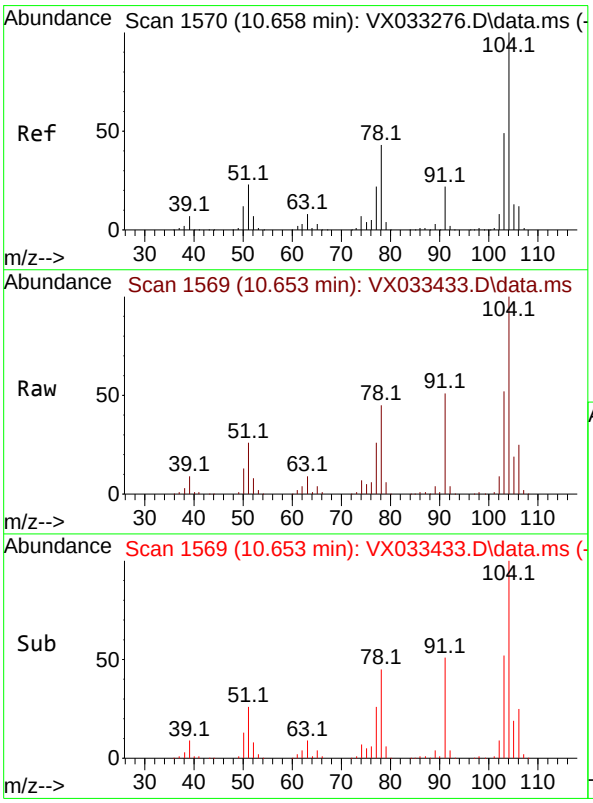
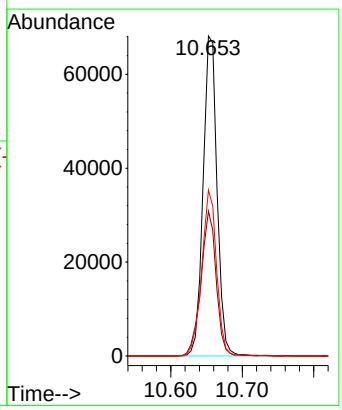
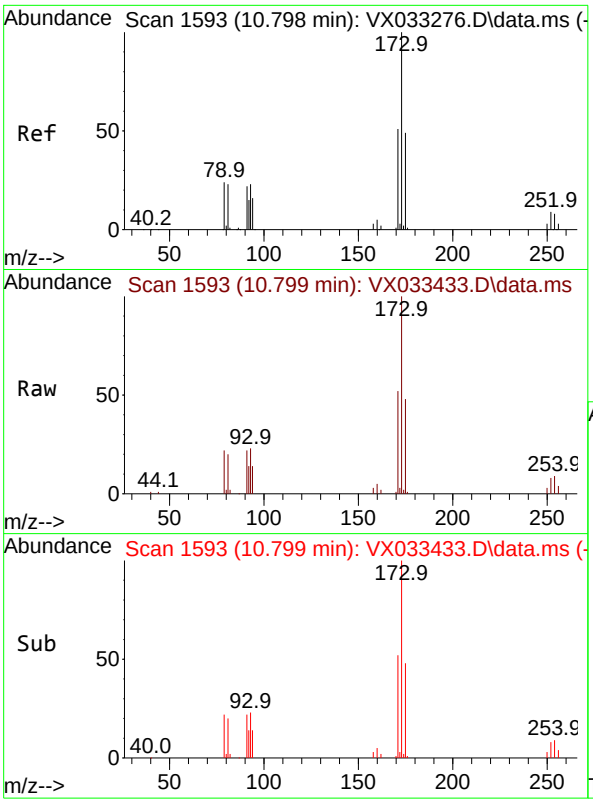



#70
Styrene
Concen: 20.918 ug/l
RT: 10.653 min Scan# 1569
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:104 Resp: 92716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 49.1 | 41.8 | 62.8 |
| 103 | 55.1 | 44.5 | 66.7 |

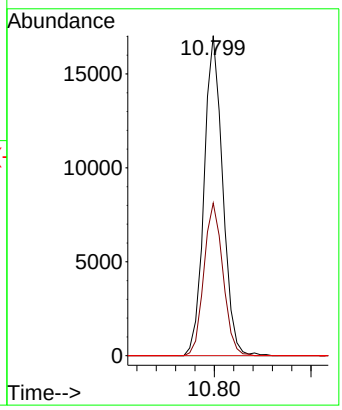





#71
Bromoform
Concen: 18.856 ug/l
RT: 10.799 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:173 Resp: 2278

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 175 | 48.8 | 23.9 | 71.8 |
| 254 | 0.0 | 0.0 | 0.0 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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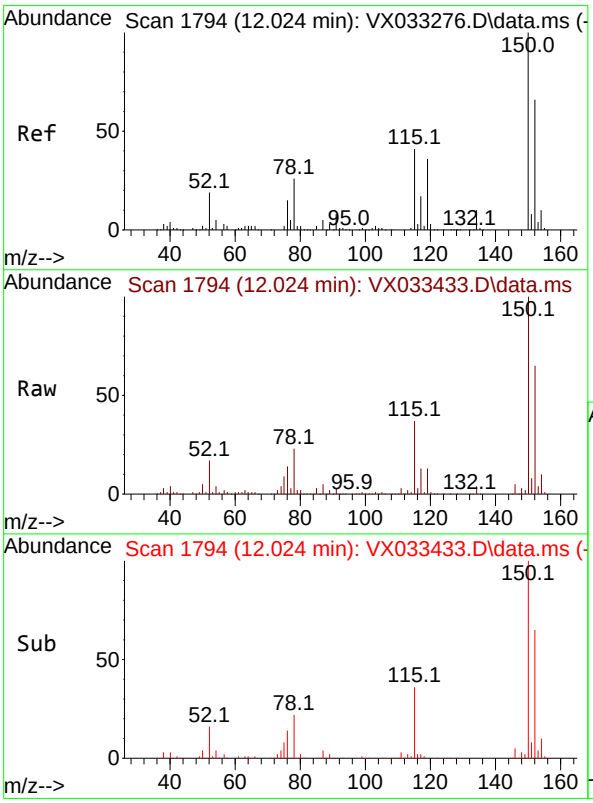
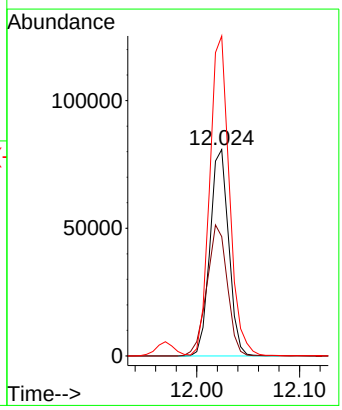
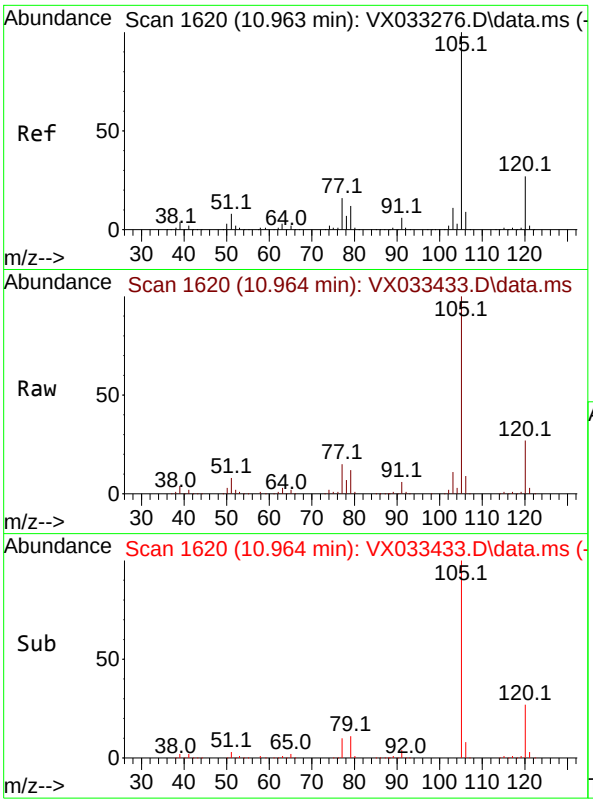



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.024 min Scan# 1794
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:152 Resp: 101751

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 152 | 100 | | |
| 115 | 69.6 | 44.0 | 132.0 |
| 150 | 162.8 | 0.0 | 351.8 |

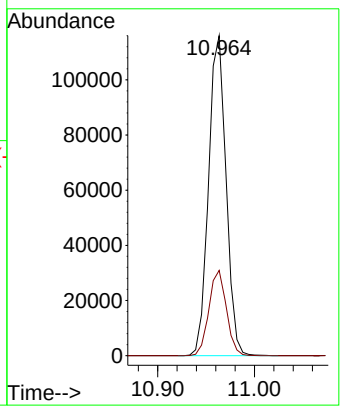





#73
Isopropylbenzene
Concen: 19.794 ug/l
RT: 10.964 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:105 Resp: 14597

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 26.6 | 13.1 | 39.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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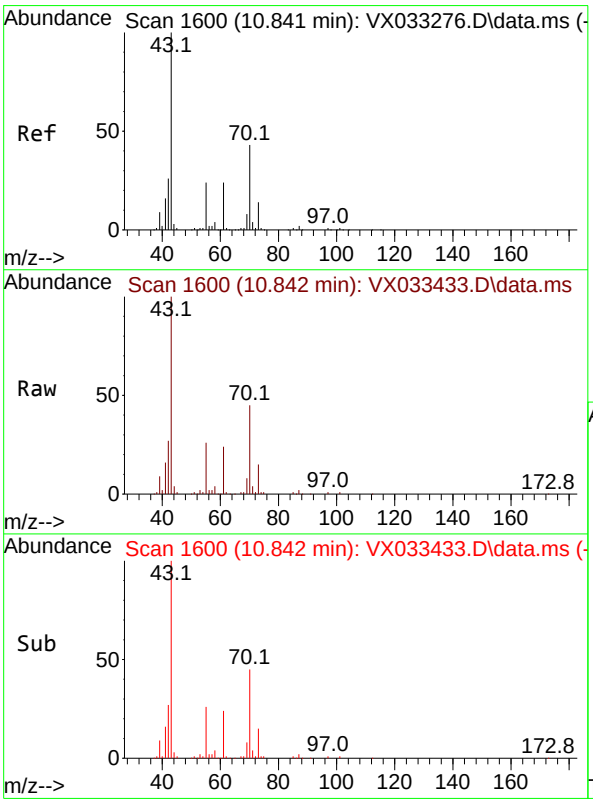
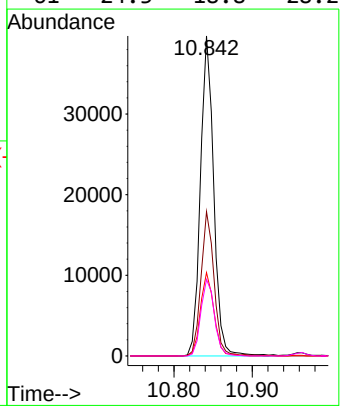
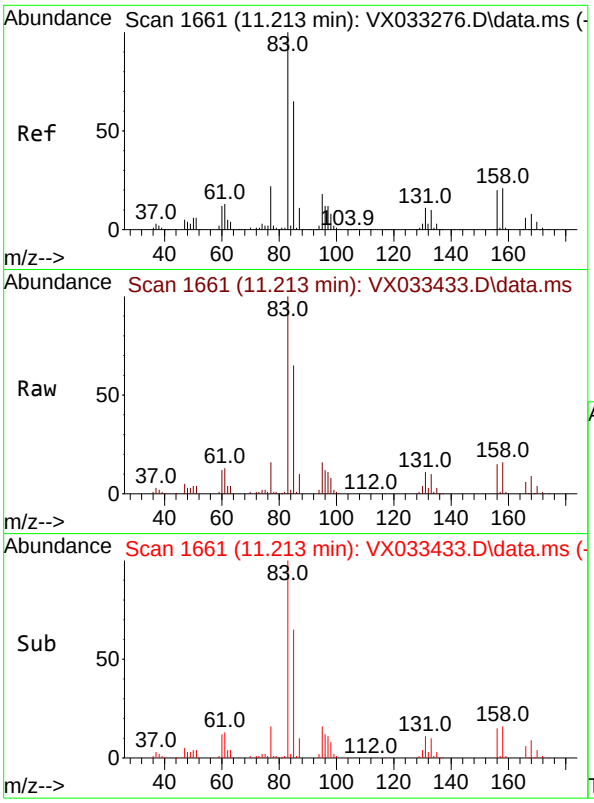



#74
N-amyl acetate
Concen: 18.599 ug/l
RT: 10.842 min Scan# 1600
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 43 Resp: 46798

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 70 | 44.4 | 33.6 | 50.4 |
| 55 | 26.5 | 19.4 | 29.2 |
| 61 | 24.3 | 18.8 | 28.2 |

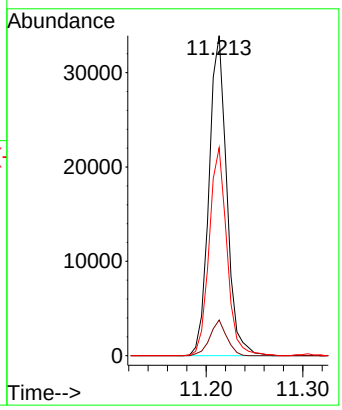





#75
1,1,2,2-Tetrachloroethane
Concen: 18.529 ug/l
RT: 11.213 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 83 Resp: 4335

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 131 | 10.6 | 5.4 | 16.2 |
| 85 | 64.8 | 31.9 | 95.9 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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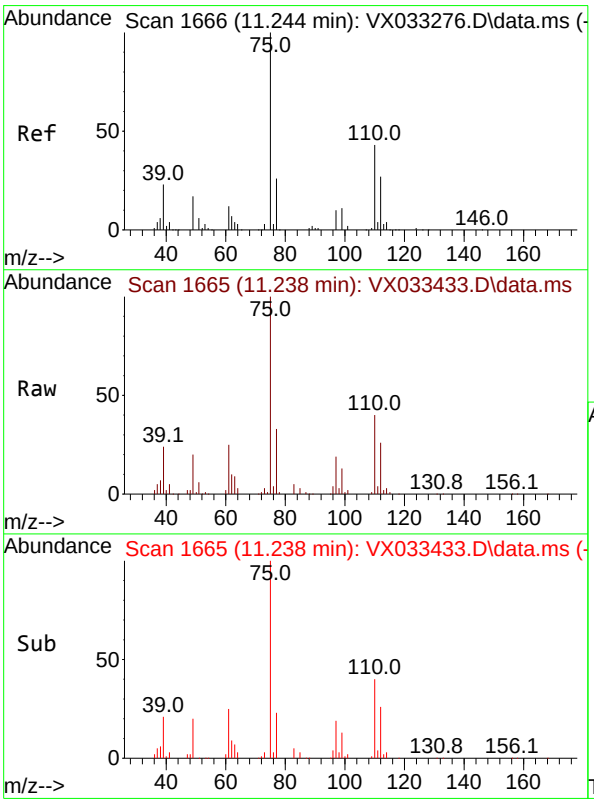
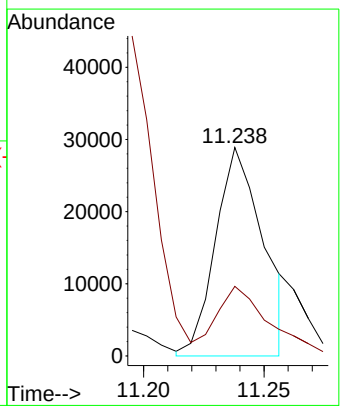
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

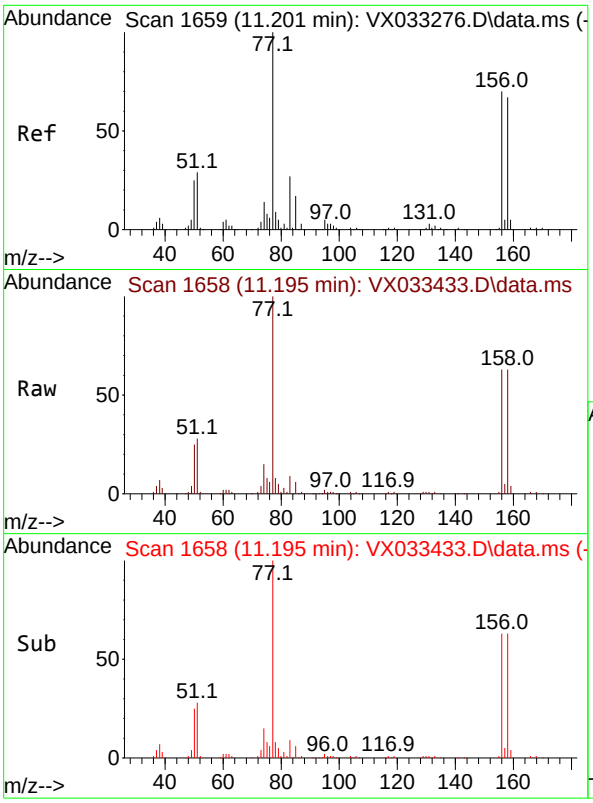



#76
1,2,3-Trichloropropane
Concen: 19.163 ug/l m
RT: 11.238 min Scan# 1665
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 39670

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 77 | 37.6 | 20.0 | 60.0 |

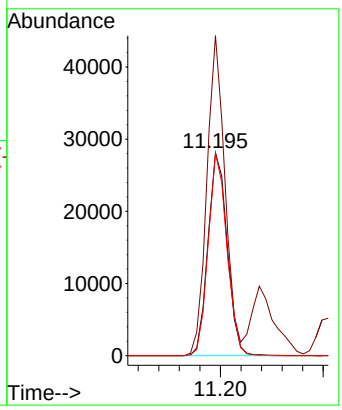





#77
Bromobenzene
Concen: 19.565 ug/l
RT: 11.195 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:156 Resp: 3643

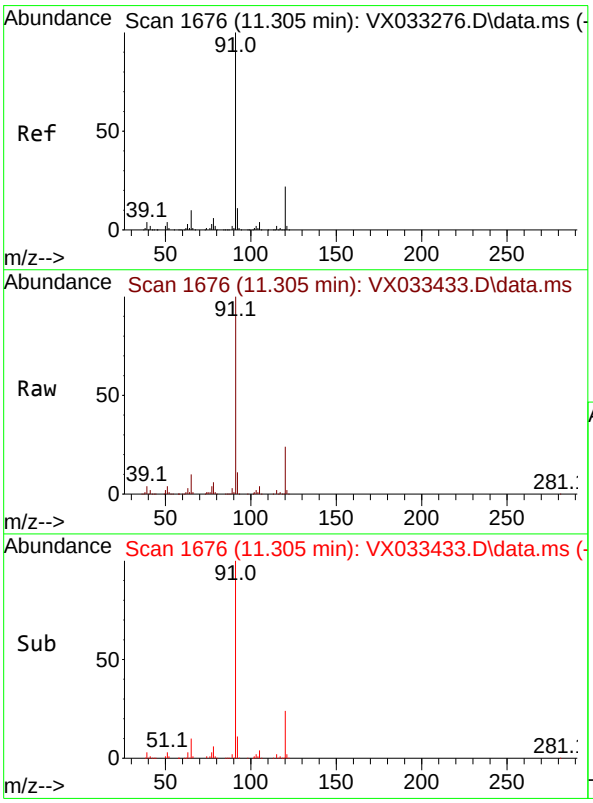
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 156 | 100 | | |
| 77 | 149.1 | 76.1 | 228.4 |
| 158 | 97.5 | 48.8 | 146.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

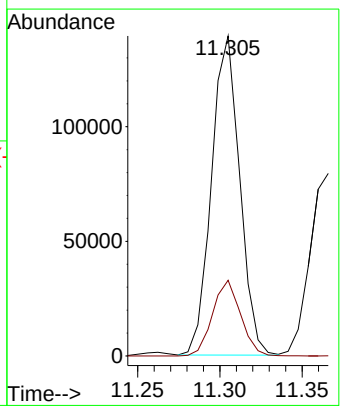
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

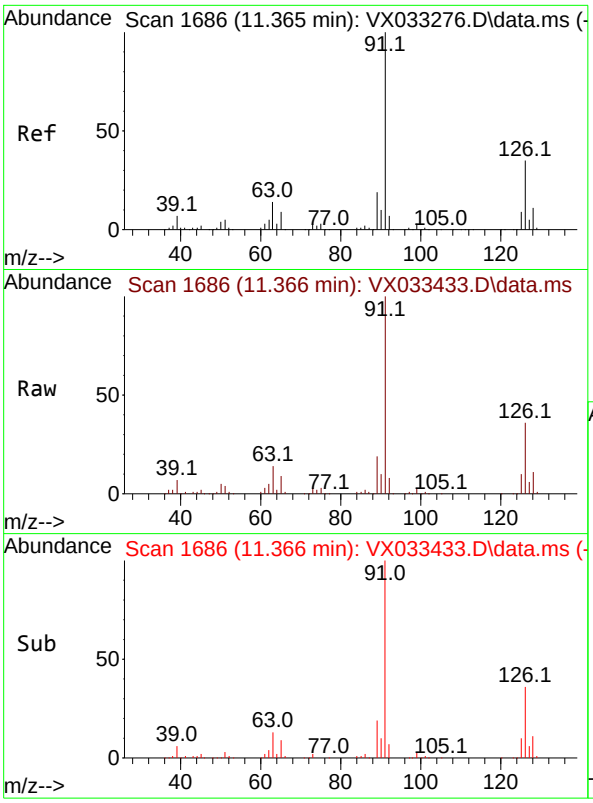



#78
n-propylbenzene
Concen: 20.170 ug/l
RT: 11.305 min Scan# 1676
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 166094

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 120 | 23.6 | 11.6 | 34.8 |






#79
2-Chlorotoluene
Concen: 19.808 ug/l
RT: 11.366 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 10080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 35.0 | 17.1 | 51.2 |

**Instrument :**
MSVOA_X
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VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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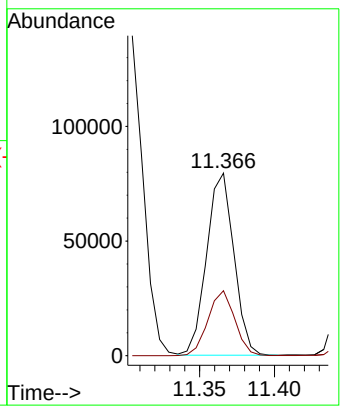
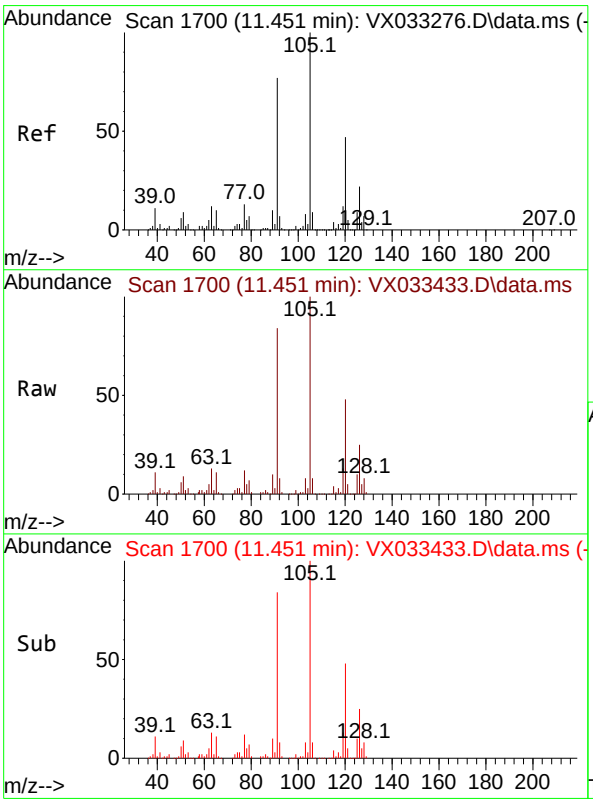
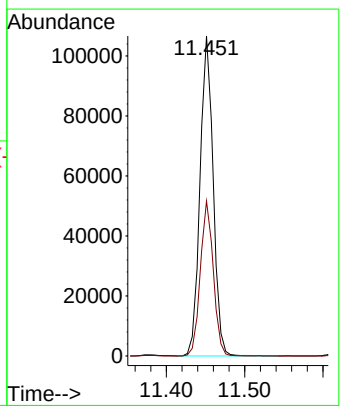


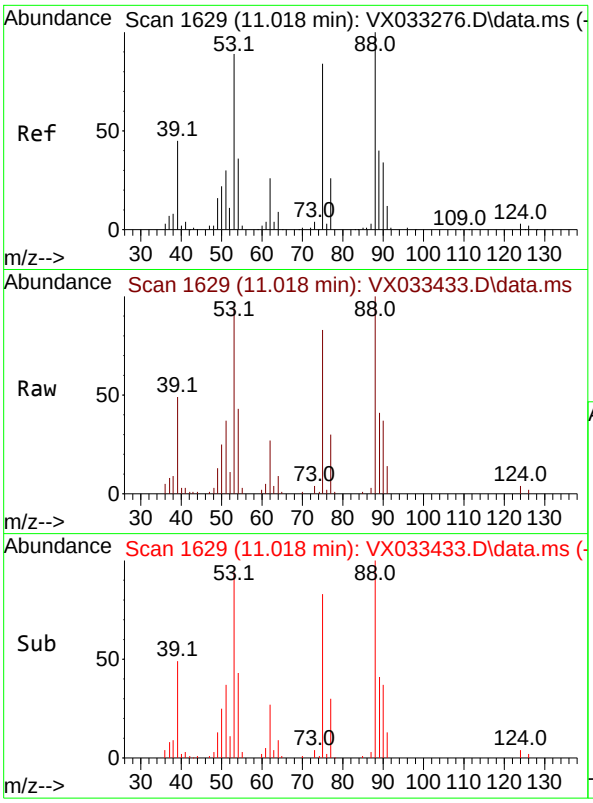




#80
1,3,5-Trimethylbenzene
Concen: 20.207 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:105 Resp: 124051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 47.7 | 23.6 | 71.0 |

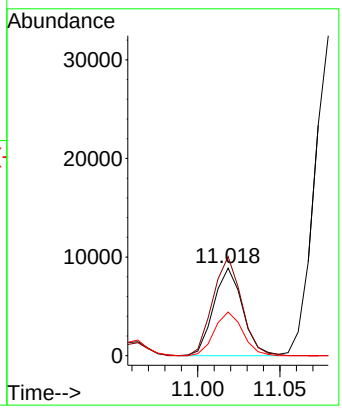





#81
trans-1,4-Dichloro-2-butene
Concen: 16.389 ug/l
RT: 11.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 1090

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 53 | 111.6 | 86.9 | 130.3 |
| 89 | 48.5 | 38.3 | 57.5 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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Reviewed By :John Carlone 12/16/2022
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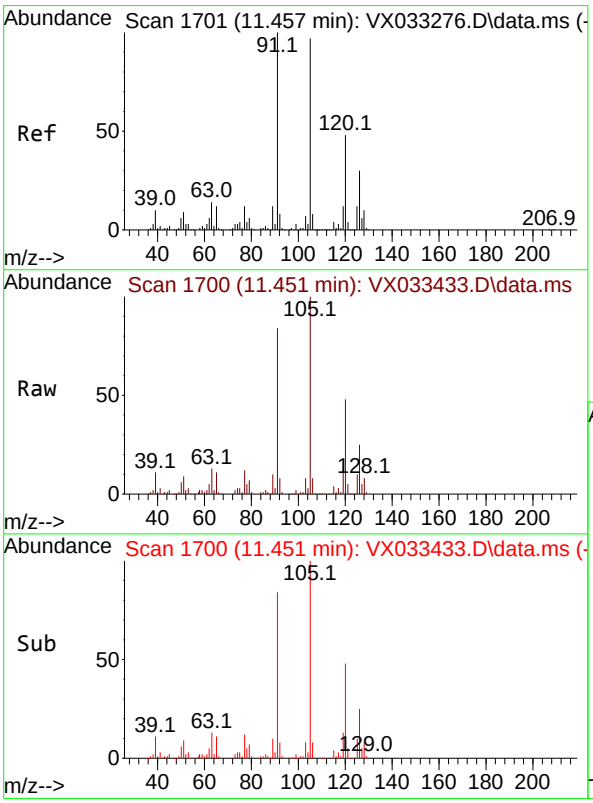
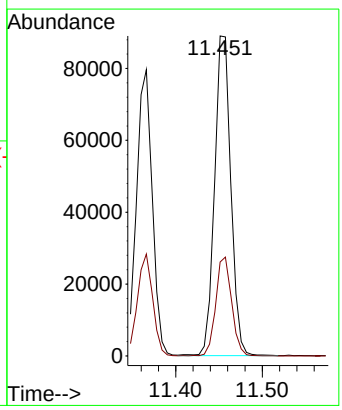
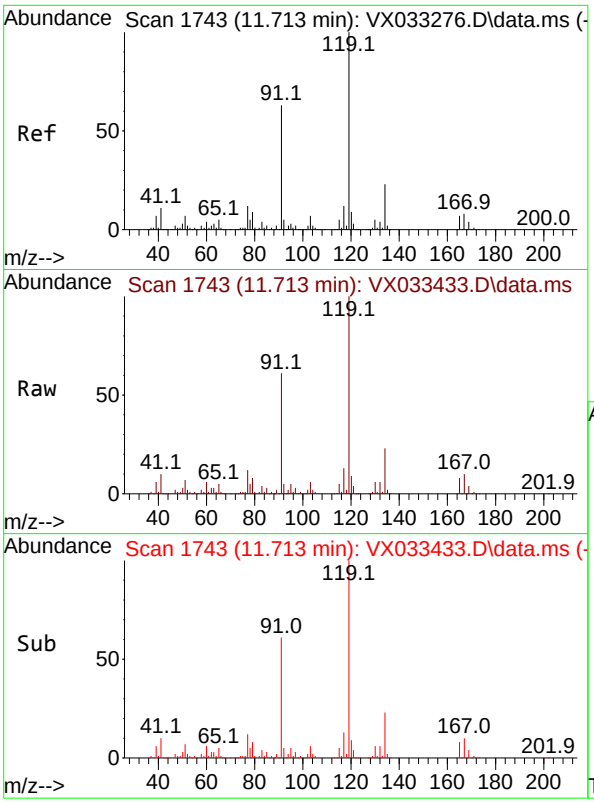



#82
4-Chlorotoluene
Concen: 19.633 ug/l
RT: 11.451 min Scan# 1700
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 116180

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 30.3 | 14.8 | 44.4 |

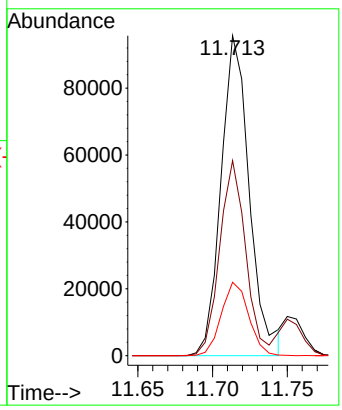





#83
tert-Butylbenzene
Concen: 20.539 ug/l
RT: 11.713 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:119 Resp: 12573

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 91 | 56.1 | 29.4 | 88.2 |
| 134 | 22.3 | 11.0 | 33.0 |




**Instrument :**
MSVOA_X
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VX1215WBSD01

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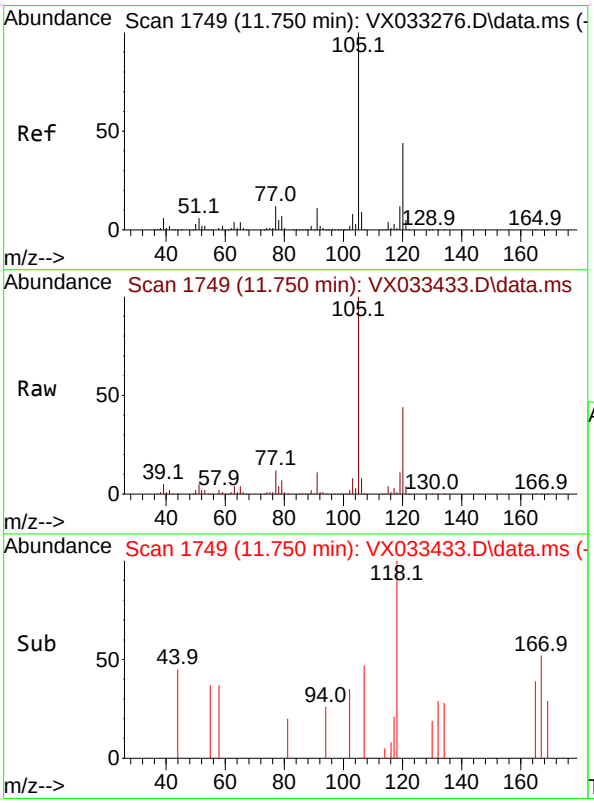
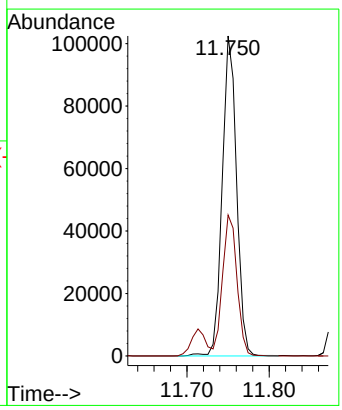
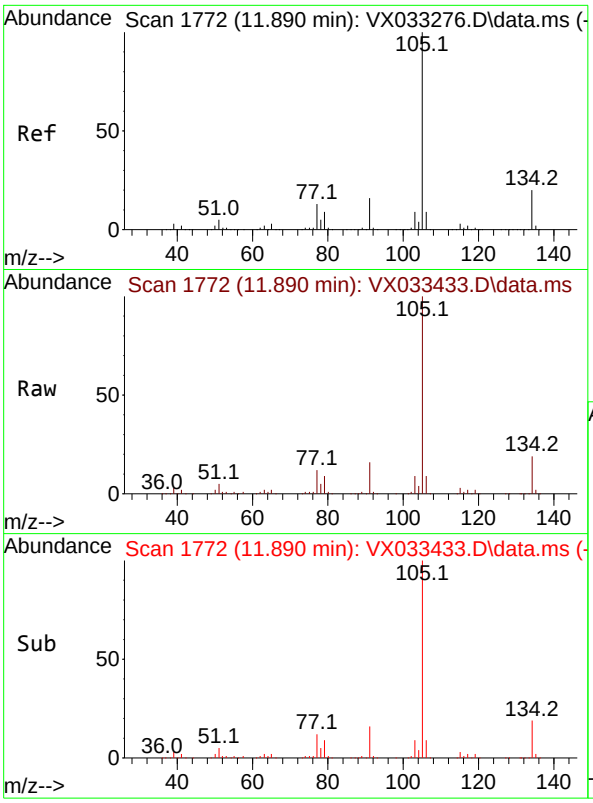



#84
1,2,4-Trimethylbenzene
Concen: 20.224 ug/l
RT: 11.750 min Scan# 1749
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:105 Resp: 123934

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.2 | 21.9 | 65.5 |

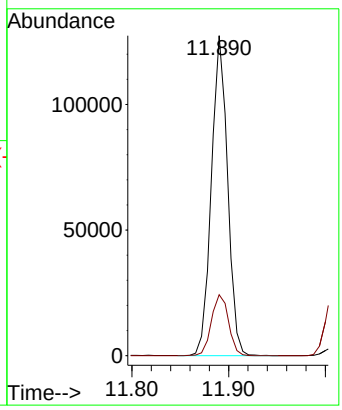





#85
sec-Butylbenzene
Concen: 20.734 ug/l
RT: 11.890 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:105 Resp: 14809

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 134 | 20.2 | 9.9 | 29.7 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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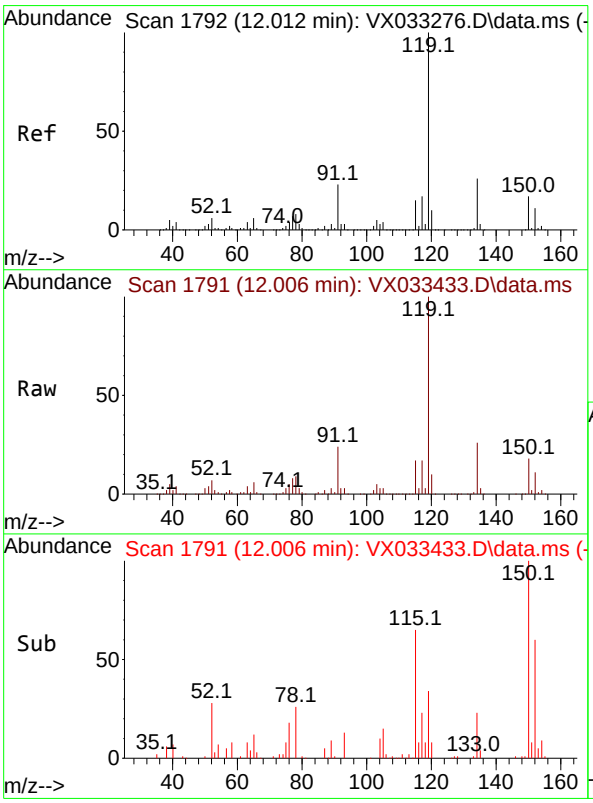
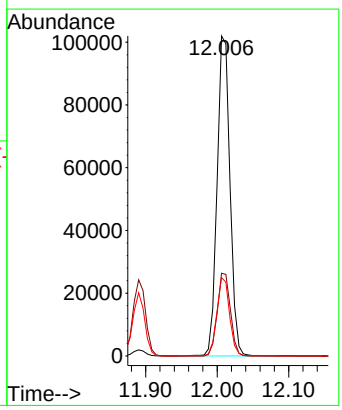
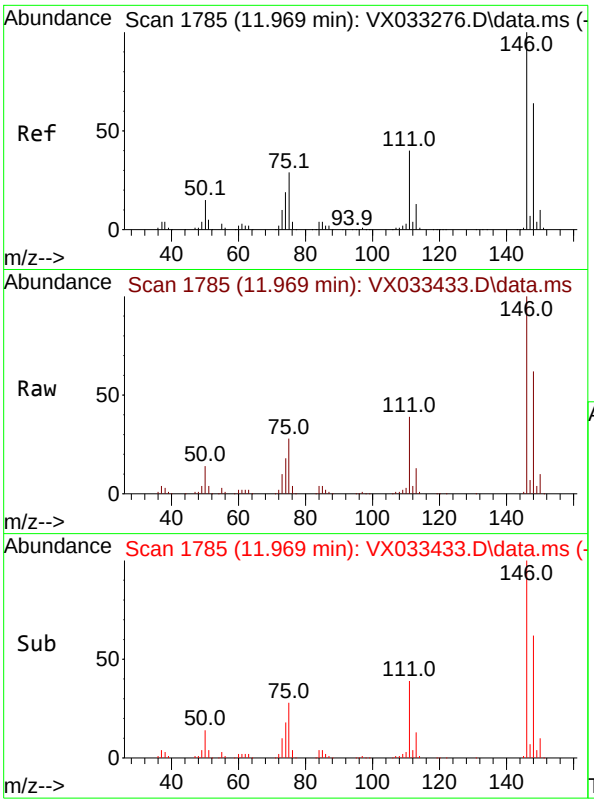



#86
p-Isopropyltoluene
Concen: 20.695 ug/l
RT: 12.006 min Scan# 1791
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:119 Resp: 127436

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 119 | 100 | | |
| 134 | 26.2 | 12.9 | 38.7 |
| 91 | 24.1 | 12.5 | 37.5 |

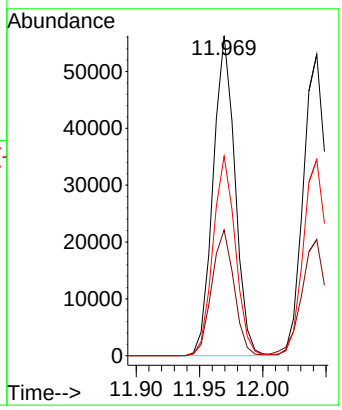





#87
1,3-Dichlorobenzene
Concen: 20.082 ug/l
RT: 11.969 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:146 Resp: 6774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.9 | 20.6 | 61.8 |
| 148 | 63.5 | 31.7 | 95.1 |




**Instrument :**
MSVOA_X
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VX1215WBSD01

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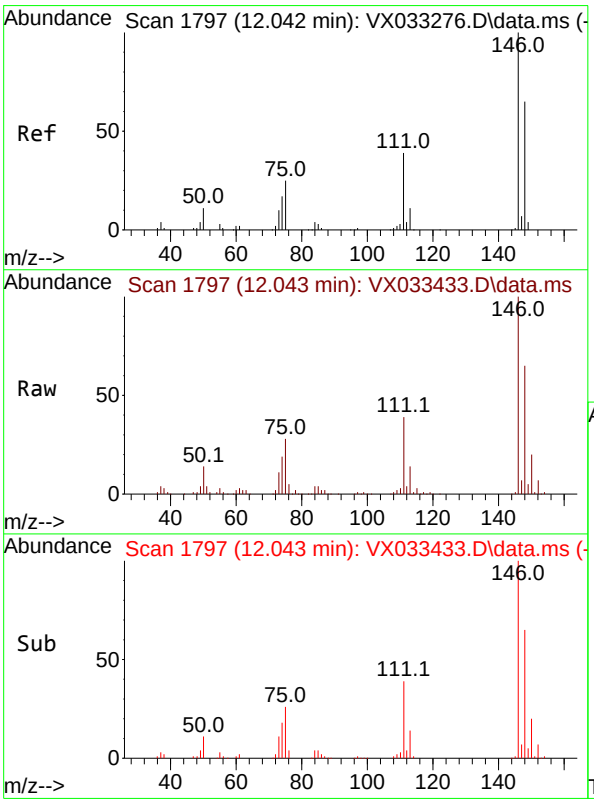
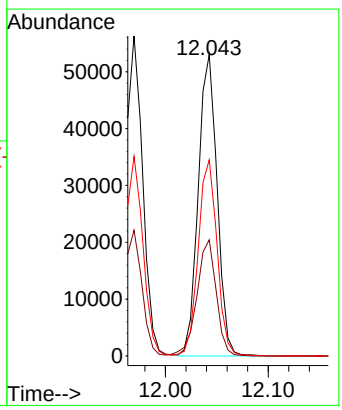
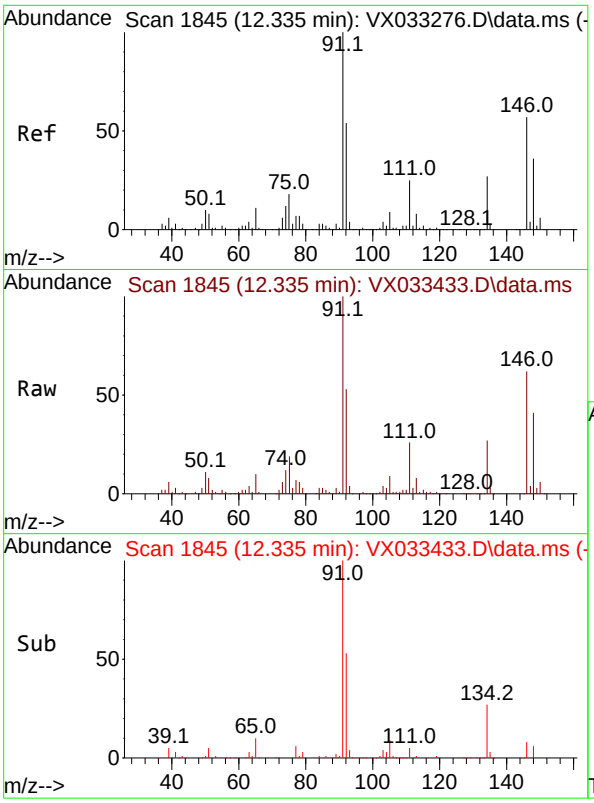



#88
1,4-Dichlorobenzene
Concen: 19.691 ug/l
RT: 12.043 min Scan# 1797
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:146 Resp: 67854

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 39.8 | 20.5 | 61.6 |
| 148 | 65.2 | 32.2 | 96.6 |






#89
n-Butylbenzene
Concen: 21.017 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 91 Resp: 10600

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.4 | 26.2 | 78.6 |
| 134 | 26.3 | 12.9 | 38.6 |

**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

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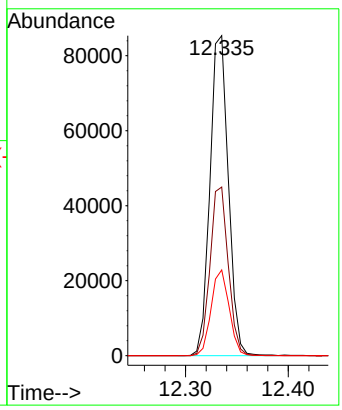
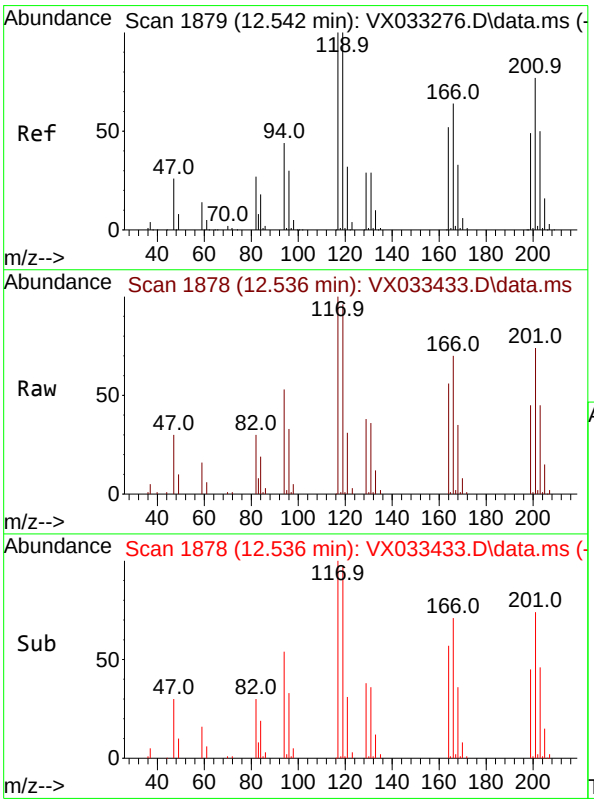
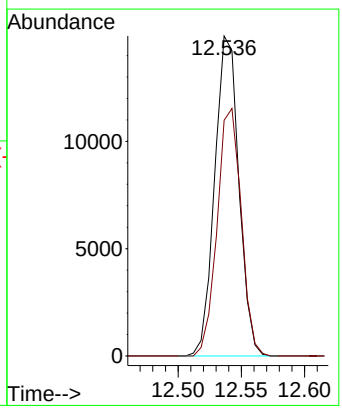


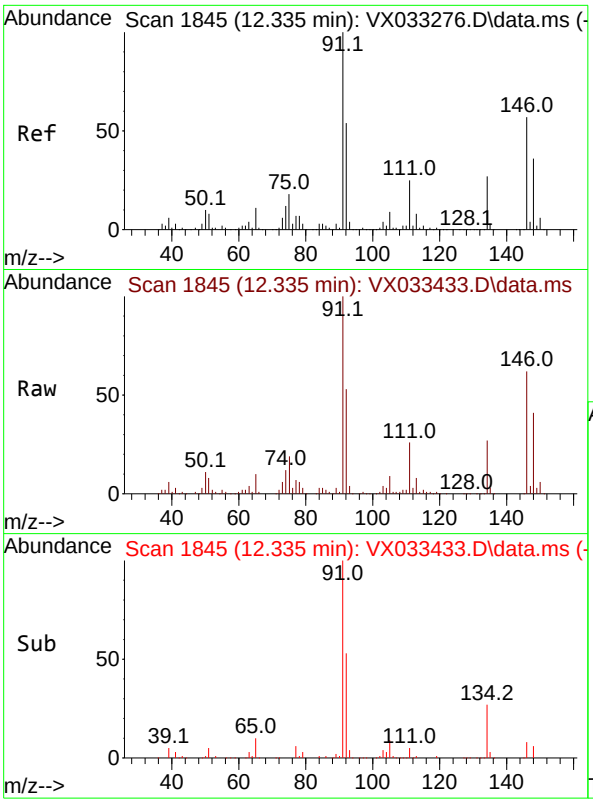




#90
Hexachloroethane
Concen: 18.887 ug/l
RT: 12.536 min Scan# 1878
Delta R.T. -0.006 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:117 Resp: 19769

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 201 | 77.2 | 37.6 | 112.9 |

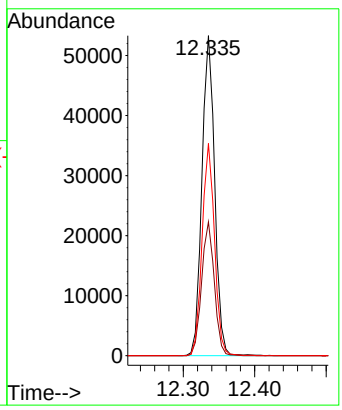





#91
1,2-Dichlorobenzene
Concen: 19.552 ug/l
RT: 12.335 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:146 Resp: 6594

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 41.6 | 21.5 | 64.5 |
| 148 | 64.8 | 32.0 | 96.2 |

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MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
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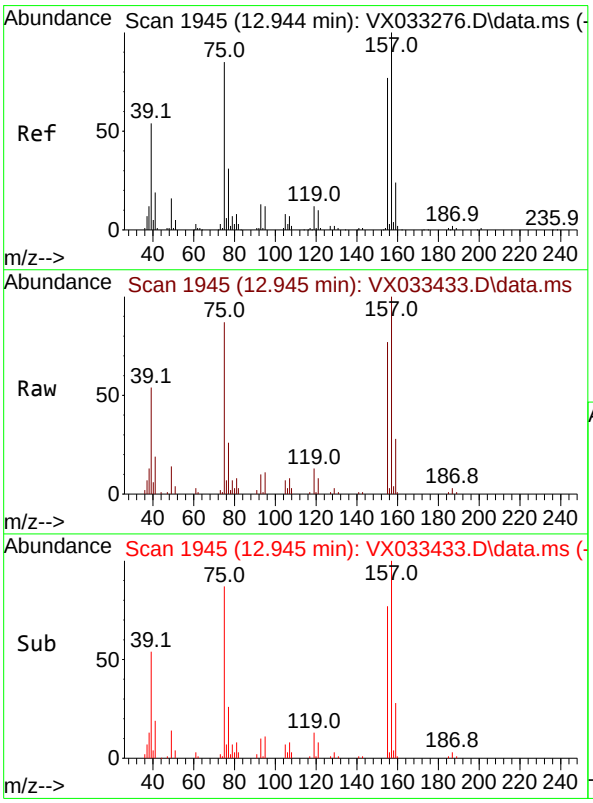
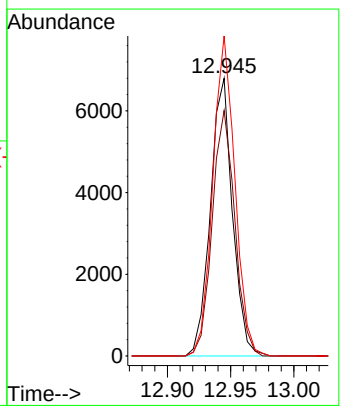
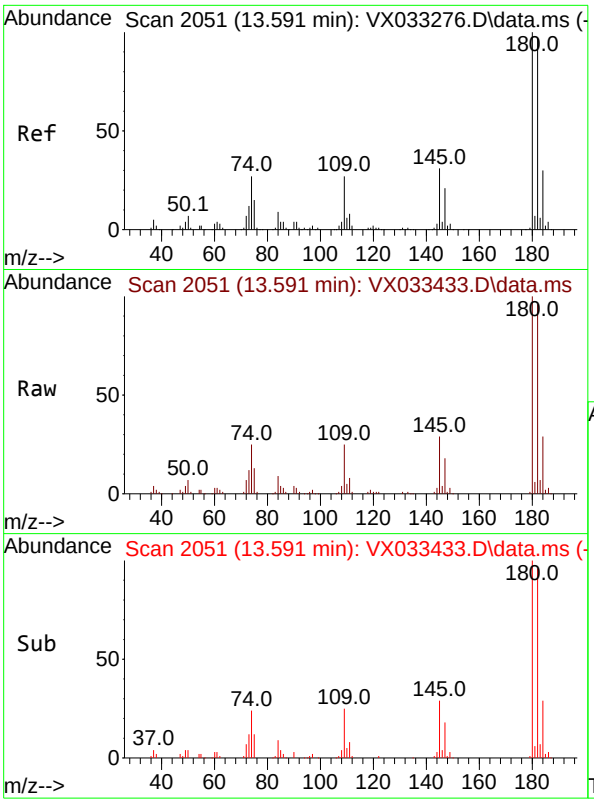



#92
1,2-Dibromo-3-Chloropropane
Concen: 16.330 ug/l
RT: 12.945 min Scan# 1945
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion: 75 Resp: 8253

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 155 | 90.1 | 41.6 | 124.8 |
| 157 | 115.1 | 54.1 | 162.4 |

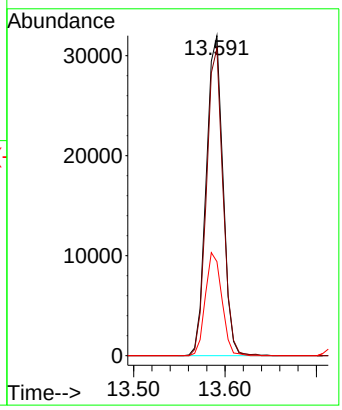





#93
1,2,4-Trichlorobenzene
Concen: 19.878 ug/l
RT: 13.591 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:180 Resp: 4049

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 94.7 | 48.4 | 145.0 |
| 145 | 31.8 | 16.2 | 48.5 |

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VX1215WBSD01

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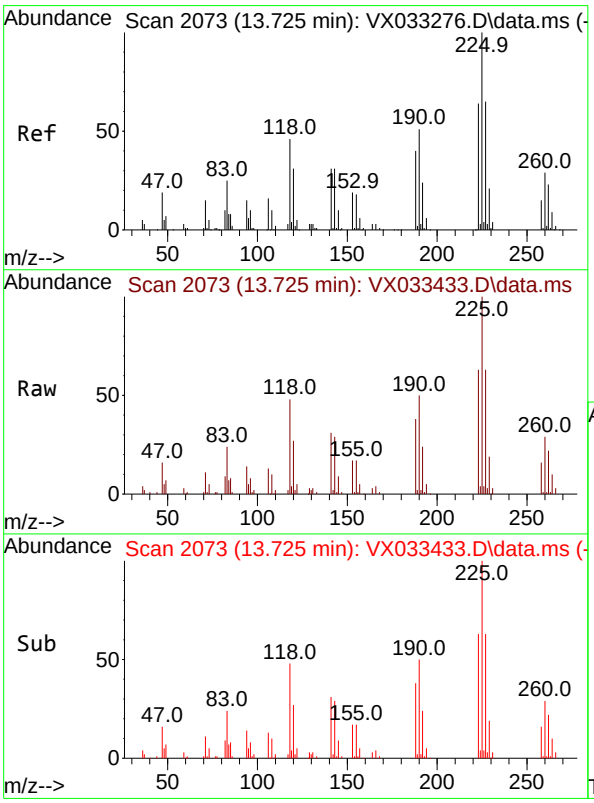
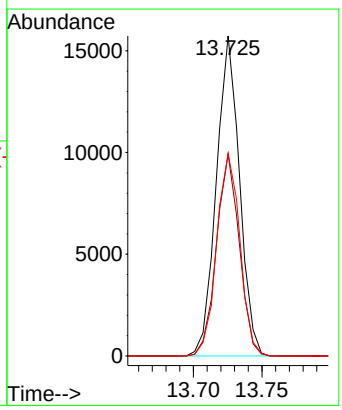
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022

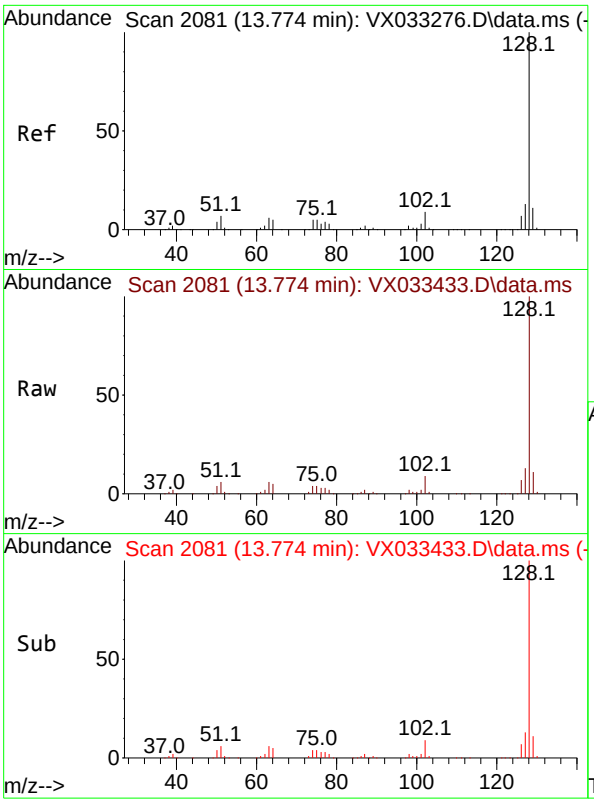



#94
Hexachlorobutadiene
Concen: 22.631 ug/l
RT: 13.725 min Scan# 2073
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:225 Resp: 18460

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 62.0 | 31.9 | 95.9 |
| 227 | 63.5 | 31.9 | 95.5 |

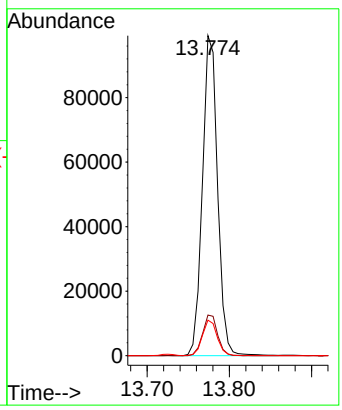





#95
Naphthalene
Concen: 18.691 ug/l
RT: 13.774 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:128 Resp: 12700

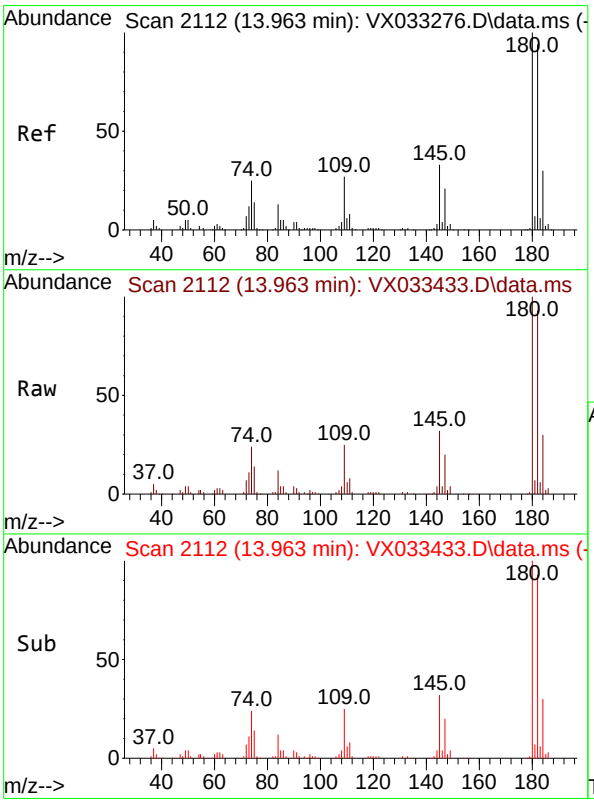
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 127 | 12.5 | 10.2 | 15.4 |
| 129 | 10.9 | 8.9 | 13.3 |




**Instrument :**
MSVOA_X
**ClientSampleId :**
VX1215WBSD01

**Manual Integrations**
**APPROVED**

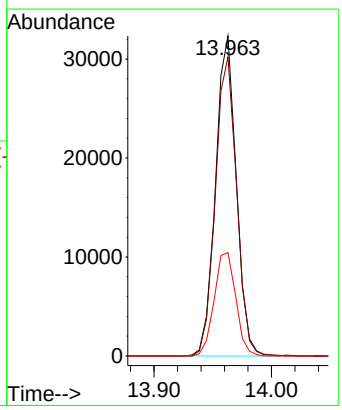
Reviewed By :John Carlone 12/16/2022
Supervised By :Mahesh Dadoda 12/16/2022




#96
1,2,3-Trichlorobenzene
Concen: 19.258 ug/l
RT: 13.963 min Scan# 2112
Delta R.T. 0.000 min
Lab File: VX033433.D
Acq: 15 Dec 2022 11:46

Tgt Ion:180 Resp: 39730

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.4 | 47.5 | 142.6 |
| 145 | 33.6 | 16.9 | 50.6 |



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# Manual Integration Report

| Sequence: | VX120722 | Instrument | MSVOA_x |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|
| VSTDICC001 | VX033273.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:12:54 AM | MMDadoda | 12/8/2022 10:30:52 AM | Peak Integrated by Software |
| VSTDICC001 | VX033273.D | 1,4-Dichlorobenzene | JOHN | 12/8/2022 10:12:54 AM | MMDadoda | 12/8/2022 10:30:52 AM | Peak Integrated by Software |
| VSTDICC001 | VX033273.D | 1,4-Dioxane | JOHN | 12/8/2022 10:12:54 AM | MMDadoda | 12/8/2022 10:30:52 AM | Peak Integrated by Software |
| VSTDICC005 | VX033274.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:00 AM | MMDadoda | 12/8/2022 10:30:54 AM | Peak Integrated by Software |
| VSTDICC005 | VX033274.D | Acrolein | JOHN | 12/8/2022 10:13:00 AM | MMDadoda | 12/8/2022 10:30:54 AM | Peak Integrated by Software |
| VSTDICC005 | VX033274.D | t-1,3-Dichloropropene | JOHN | 12/8/2022 10:13:00 AM | MMDadoda | 12/8/2022 10:30:54 AM | Peak Integrated by Software |
| VSTDICC005 | VX033274.D | Tert butyl alcohol | JOHN | 12/8/2022 10:13:00 AM | MMDadoda | 12/8/2022 10:30:54 AM | Peak Integrated by Software |
| VSTDICC020 | VX033275.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:06 AM | MMDadoda | 12/8/2022 10:30:56 AM | Peak Integrated by Software |
| VSTDICCC050 | VX033276.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:12 AM | MMDadoda | 12/8/2022 10:30:58 AM | Peak Integrated by Software |
| VSTDICC100 | VX033277.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:19 AM | MMDadoda | 12/8/2022 10:31:00 AM | Peak Integrated by Software |
| VSTDICC100 | VX033277.D | Tert butyl alcohol | JOHN | 12/8/2022 10:13:19 AM | MMDadoda | 12/8/2022 10:31:00 AM | Peak Integrated by Software |
| VSTDICC150 | VX033278.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:24 AM | MMDadoda | 12/8/2022 10:31:02 AM | Peak Integrated by Software |
| VSTDICC150 | VX033278.D | Acrolein | JOHN | 12/8/2022 10:13:24 AM | MMDadoda | 12/8/2022 10:31:02 AM | Peak Integrated by Software |

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# Manual Integration Report

| Sequence: | VX120722 | Instrument | MSVOA_x |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|
| VSTDICC150 | VX033278.D | Tert butyl alcohol | JOHN | 12/8/2022 10:13:24 AM | MMDadoda | 12/8/2022 10:31:02 AM | Peak Integrated by Software |
| VSTDICV050 | VX033280.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:30 AM | MMDadoda | 12/8/2022 10:31:05 AM | Peak Integrated by Software |
| VSTDCCC050 | VX033282.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:13:36 AM | MMDadoda | 12/8/2022 10:31:08 AM | Peak Integrated by Software |
| VSTDCCC050 | VX033307.D | 1,2,3-Trichloropropane | JOHN | 12/8/2022 10:14:25 AM | MMDadoda | 12/8/2022 10:31:17 AM | Peak Integrated by Software |

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# Manual Integration Report

| Sequence: | vx121522 | Instrument | MSVOA_x |
|---|---|---|---|

| Sample ID | File ID | Parameter | Review By | Review On | Supervised By | Supervised On | Reason |
|---|---|---|---|---|---|---|---|
| VSTDCCC050 | VX033430.D | 1,2,3-Trichloropropane | JOHN | 12/16/2022 9:42:26 AM | MMDadoda | 12/16/2022 12:26:26 PM | Peak Integrated by Software |
| VSTDCCC050 | VX033430.D | Tert butyl alcohol | JOHN | 12/16/2022 9:42:26 AM | MMDadoda | 12/16/2022 12:26:26 PM | Peak Integrated by Software |
| VX1215WBS01 | VX033432.D | 1,2,3-Trichloropropane | JOHN | 12/16/2022 9:42:32 AM | MMDadoda | 12/16/2022 12:26:27 PM | Peak Integrated by Software |
| VX1215WBS01 | VX033432.D | Tert butyl alcohol | JOHN | 12/16/2022 9:42:32 AM | MMDadoda | 12/16/2022 12:26:27 PM | Peak Integrated by Software |
| VX1215WBSD01 | VX033433.D | 1,2,3-Trichloropropane | JOHN | 12/16/2022 9:42:38 AM | MMDadoda | 12/16/2022 12:26:28 PM | Peak Integrated by Software |
| VX1215WBSD01 | VX033433.D | Tert butyl alcohol | JOHN | 12/16/2022 9:42:38 AM | MMDadoda | 12/16/2022 12:26:28 PM | Peak Integrated by Software |
| VSTDCCC050 | VX033448.D | 1,2,3-Trichloropropane | JOHN | 12/16/2022 9:42:44 AM | MMDadoda | 12/16/2022 12:26:30 PM | Peak Integrated by Software |
| VSTDCCC050 | VX033448.D | Tert butyl alcohol | JOHN | 12/16/2022 9:42:44 AM | MMDadoda | 12/16/2022 12:26:30 PM | Peak Integrated by Software |

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**Instrument ID: MSVOA_X**

## Daily Analysis Runlog For Sequence/QCBatch ID # VX120722

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/8/2022 10:16:51 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/8/2022 10:31:45 AM | | |
| SubDirectory | VX120722 | HP Acquire Method | MSVOA_X | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117343,VP117344 |
| Initial Calibration Stds | VP117345,VP117376,VP117347,VP117348,VP117349,VP117350 |
| CCC | VP117352,VP117353 |
| Internal Standard/PEM | VP115432 |
| ICV/I.BLK | VP117351 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | Data File Name | Date-Time | Operator | Status |
|---|---|---|---|---|---|
| 1 | BFB | VX033272.D | 07 Dec 2022 09:17 | JC/MD | Ok |
| 2 | VSTDICC001 | VX033273.D | 07 Dec 2022 09:46 | JC/MD | Ok,M |
| 3 | VSTDICC005 | VX033274.D | 07 Dec 2022 10:09 | JC/MD | Ok,M |
| 4 | VSTDICC020 | VX033275.D | 07 Dec 2022 10:32 | JC/MD | Ok,M |
| 5 | VSTDICCC050 | VX033276.D | 07 Dec 2022 10:55 | JC/MD | Ok,M |
| 6 | VSTDICC100 | VX033277.D | 07 Dec 2022 11:18 | JC/MD | Ok,M |
| 7 | VSTDICC150 | VX033278.D | 07 Dec 2022 11:42 | JC/MD | Ok,M |
| 8 | VIBLK | VX033279.D | 07 Dec 2022 12:05 | JC/MD | Ok |
| 9 | VSTDICV050 | VX033280.D | 07 Dec 2022 12:51 | JC/MD | Ok,M |
| 10 | BFB | VX033281.D | 07 Dec 2022 14:57 | JC/MD | Ok |
| 11 | VSTDCCC050 | VX033282.D | 07 Dec 2022 15:25 | JC/MD | Ok,M |
| 12 | VX1207MBL01 | VX033283.D | 07 Dec 2022 15:53 | JC/MD | Not Ok |
| 13 | VX1207WBL01 | VX033284.D | 07 Dec 2022 16:17 | JC/MD | Ok |
| 14 | VX1207WBL02 | VX033285.D | 07 Dec 2022 16:45 | JC/MD | Ok |
| 15 | VX1207WBS01 | VX033286.D | 07 Dec 2022 17:13 | JC/MD | Ok,M |
| 16 | VX1207WBSD01 | VX033287.D | 07 Dec 2022 17:36 | JC/MD | Ok,M |
| 17 | N5865-05 | VX033288.D | 07 Dec 2022 17:59 | JC/MD | Ok |
| 18 | N5865-07 | VX033289.D | 07 Dec 2022 18:22 | JC/MD | Ok |
| 19 | N5875-03 | VX033290.D | 07 Dec 2022 18:46 | JC/MD | Ok |
| 20 | N5875-06 | VX033291.D | 07 Dec 2022 19:09 | JC/MD | Ok |
| 21 | N5865-09DL | VX033292.D | 07 Dec 2022 19:32 | JC/MD | Ok |
| 22 | N5865-11DL | VX033293.D | 07 Dec 2022 19:55 | JC/MD | Not Ok |
| 23 | N5865-01DL | VX033294.D | 07 Dec 2022 20:18 | JC/MD | Not Ok |

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**Instrument ID: MSVOA_X**

## Daily Analysis Runlog For Sequence/QCBatch ID # VX120722

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/8/2022 10:16:51 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/8/2022 10:31:45 AM | | |
| SubDirectory | VX120722 | HP Acquire Method | MSVOA_X | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117343,VP117344 |
| Initial Calibration Stds | VP117345,VP117376,VP117347,VP117348,VP117349,VP117350 |
| CCC | VP117352,VP117353 |
| Internal Standard/PEM | VP115432 |
| ICV/I.BLK | VP117351 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| | | | | | |
|---|---|---|---|---|---|
| 24 | VIBLK | VX033295.D | 07 Dec 2022 20:41 | JC/MD | Ok |
| 25 | N5912-01 | VX033296.D | 07 Dec 2022 21:05 | JC/MD | Dilution |
| 26 | N5911-01 | VX033297.D | 07 Dec 2022 21:28 | JC/MD | ReRun |
| 27 | N5906-01 | VX033298.D | 07 Dec 2022 21:51 | JC/MD | Ok |
| 28 | N5906-02 | VX033299.D | 07 Dec 2022 22:14 | JC/MD | Ok |
| 29 | N5906-03 | VX033300.D | 07 Dec 2022 22:37 | JC/MD | Ok |
| 30 | N5906-04 | VX033301.D | 07 Dec 2022 23:00 | JC/MD | Ok |
| 31 | N5906-05 | VX033302.D | 07 Dec 2022 23:24 | JC/MD | Ok |
| 32 | N5906-06 | VX033303.D | 07 Dec 2022 23:47 | JC/MD | Dilution |
| 33 | N5906-07 | VX033304.D | 08 Dec 2022 00:10 | JC/MD | Dilution |
| 34 | N5906-08 | VX033305.D | 08 Dec 2022 00:33 | JC/MD | Ok |
| 35 | N5906-09 | VX033306.D | 08 Dec 2022 00:56 | JC/MD | Dilution |
| 36 | VSTDCCC050 | VX033307.D | 08 Dec 2022 01:19 | JC/MD | Ok,M |

M : Manual Integration

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**Instrument ID: MSVOA_X**

## Daily Analysis Runlog For Sequence/QCBatch ID # VX121522

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/16/2022 9:45:30 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/16/2022 12:26:32 PM | | |
| SubDirectory | VX121522 | HP Acquire Method | | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117542 |
| Initial Calibration Stds | |
| CCC | VP117544,VP117545 |
| Internal Standard/PEM | |
| ICV/I.BLK | |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | Data File Name | Date-Time | Operator | Status |
|---|---|---|---|---|---|
| 1 | BFB | VX033429.D | 15 Dec 2022 09:39 | JC/MD | Ok |
| 2 | VSTDCCC050 | VX033430.D | 15 Dec 2022 10:10 | JC/MD | Ok,M |
| 3 | VX1215WBL01 | VX033431.D | 15 Dec 2022 10:39 | JC/MD | Ok |
| 4 | VX1215WBS01 | VX033432.D | 15 Dec 2022 11:07 | JC/MD | Ok,M |
| 5 | VX1215WBSD01 | VX033433.D | 15 Dec 2022 11:46 | JC/MD | Ok,M |
| 6 | N6070-02 | VX033434.D | 15 Dec 2022 12:09 | JC/MD | Ok |
| 7 | N6070-01 | VX033435.D | 15 Dec 2022 12:32 | JC/MD | ReRun |
| 8 | N6070-03 | VX033436.D | 15 Dec 2022 12:55 | JC/MD | Ok |
| 9 | N6070-04 | VX033437.D | 15 Dec 2022 13:18 | JC/MD | Ok |
| 10 | N6070-05 | VX033438.D | 15 Dec 2022 13:41 | JC/MD | Ok |
| 11 | PB149669TB | VX033439.D | 15 Dec 2022 14:04 | JC/MD | Ok |
| 12 | N6051-02 | VX033440.D | 15 Dec 2022 14:27 | JC/MD | Ok |
| 13 | N6070-01 | VX033441.D | 15 Dec 2022 14:50 | JC/MD | Ok |
| 14 | PB149652TB | VX033442.D | 15 Dec 2022 15:13 | JC/MD | Ok |
| 15 | PB149654TB | VX033443.D | 15 Dec 2022 15:36 | JC/MD | Ok |
| 16 | N6065-02 | VX033444.D | 15 Dec 2022 15:59 | JC/MD | Ok |
| 17 | N6065-05 | VX033445.D | 15 Dec 2022 16:22 | JC/MD | Ok |
| 18 | N6067-02 | VX033446.D | 15 Dec 2022 16:45 | JC/MD | Ok |
| 19 | N6067-04 | VX033447.D | 15 Dec 2022 17:08 | JC/MD | Ok |
| 20 | VSTDCCC050 | VX033448.D | 15 Dec 2022 17:31 | JC/MD | Ok,M |

M : Manual Integration

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**Instrument ID:** MSVOA_X

## Daily Analysis Runlog For Sequence/QCBatch ID # VX120722

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/8/2022 10:16:51 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/8/2022 10:31:45 AM | | |
| SubDirectory | VX120722 | HP Acquire Method | MSVOA_X | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117343,VP117344 |
| Initial Calibration Stds | VP117345,VP117376,VP117347,VP117348,VP117349,VP117350 |
| CCC | VP117352,VP117353 |
| Internal Standard/PEM | VP115432 |
| ICV/I.BLK | VP117351 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | ClientID | Data File Name | Date-Time | Comment | Operator | Status |
|---|---|---|---|---|---|---|---|
| 1 | BFB | BFB | VX033272.D | 07 Dec 2022 09:17 | | JC/MD | Ok |
| 2 | VSTDICC001 | VSTDICC001 | VX033273.D | 07 Dec 2022 09:46 | | JC/MD | Ok,M |
| 3 | VSTDICC005 | VSTDICC005 | VX033274.D | 07 Dec 2022 10:09 | | JC/MD | Ok,M |
| 4 | VSTDICC020 | VSTDICC020 | VX033275.D | 07 Dec 2022 10:32 | com#13 fail | JC/MD | Ok,M |
| 5 | VSTDICCC050 | VSTDICCC050 | VX033276.D | 07 Dec 2022 10:55 | | JC/MD | Ok,M |
| 6 | VSTDICC100 | VSTDICC100 | VX033277.D | 07 Dec 2022 11:18 | | JC/MD | Ok,M |
| 7 | VSTDICC150 | VSTDICC150 | VX033278.D | 07 Dec 2022 11:42 | | JC/MD | Ok,M |
| 8 | VIBLK | VIBLK | VX033279.D | 07 Dec 2022 12:05 | | JC/MD | Ok |
| 9 | VSTDICV050 | ICVVX120722 | VX033280.D | 07 Dec 2022 12:51 | pH#Lot#V12668 | JC/MD | Ok,M |
| 10 | BFB | BFB | VX033281.D | 07 Dec 2022 14:57 | | JC/MD | Ok |
| 11 | VSTDCCC050 | VSTDCCC050 | VX033282.D | 07 Dec 2022 15:25 | | JC/MD | Ok,M |
| 12 | VX1207MBL01 | VX1207MBL01 | VX033283.D | 07 Dec 2022 15:53 | Surrogate Fail | JC/MD | Not Ok |
| 13 | VX1207WBL01 | VX1207WBL01 | VX033284.D | 07 Dec 2022 16:17 | | JC/MD | Ok |
| 14 | VX1207WBL02 | VX1207WBL02 | VX033285.D | 07 Dec 2022 16:45 | | JC/MD | Ok |
| 15 | VX1207WBS01 | VX1207WBS01 | VX033286.D | 07 Dec 2022 17:13 | | JC/MD | Ok,M |
| 16 | VX1207WBSD01 | VX1207WBSD01 | VX033287.D | 07 Dec 2022 17:36 | | JC/MD | Ok,M |
| 17 | N5865-05 | LEA-5SR | VX033288.D | 07 Dec 2022 17:59 | vial B pH<2 | JC/MD | Ok |
| 18 | N5865-07 | LEA-5D | VX033289.D | 07 Dec 2022 18:22 | vial B pH<2 | JC/MD | Ok |
| 19 | N5875-03 | MW-38 | VX033290.D | 07 Dec 2022 18:46 | vial B pH<2 | JC/MD | Ok |

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**Instrument ID:** MSVOA_X

## Daily Analysis Runlog For Sequence/QCBatch ID # VX120722

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/8/2022 10:16:51 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/8/2022 10:31:45 AM | | |
| SubDirectory | VX120722 | HP Acquire Method | MSVOA_X | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117343,VP117344 |
| Initial Calibration Stds | VP117345,VP117376,VP117347,VP117348,VP117349,VP117350 |
| CCC | VP117352,VP117353 |
| Internal Standard/PEM | VP115432 |
| ICV/I.BLK | VP117351 |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20 | N5875-06 | MW-40 | VX033291.D | 07 Dec 2022 19:09 | vial B pH<2 | JC/MD | Ok |
| 21 | N5865-09DL | LEA-5IDL | VX033292.D | 07 Dec 2022 19:32 | vial B pH<2 | JC/MD | Ok |
| 22 | N5865-11DL | DUP-01DL | VX033293.D | 07 Dec 2022 19:55 | vial B pH<2 | JC/MD | Not Ok |
| 23 | N5865-01DL | LEA-7IDL | VX033294.D | 07 Dec 2022 20:18 | Confirm concentration for cis-1,2-Dichloroethene, not matched | JC/MD | Not Ok |
| 24 | VIBLK | VIBLK | VX033295.D | 07 Dec 2022 20:41 | | JC/MD | Ok |
| 25 | N5912-01 | FMC-TOTE-1207 | VX033296.D | 07 Dec 2022 21:05 | vial A pH<2 Need 10x | JC/MD | Dilution |
| 26 | N5911-01 | A3594TOG | VX033297.D | 07 Dec 2022 21:28 | vial A pH<2 E flag in previous sample | JC/MD | ReRun |
| 27 | N5906-01 | MW-8 | VX033298.D | 07 Dec 2022 21:51 | vial A pH<2 | JC/MD | Ok |
| 28 | N5906-02 | MW-12 | VX033299.D | 07 Dec 2022 22:14 | vial A pH<2 | JC/MD | Ok |
| 29 | N5906-03 | MW-16 | VX033300.D | 07 Dec 2022 22:37 | vial A pH<2 | JC/MD | Ok |
| 30 | N5906-04 | MW-20 | VX033301.D | 07 Dec 2022 23:00 | vial A pH<2 | JC/MD | Ok |
| 31 | N5906-05 | H-3R | VX033302.D | 07 Dec 2022 23:24 | vial A pH<2 | JC/MD | Ok |
| 32 | N5906-06 | MW-3RR | VX033303.D | 07 Dec 2022 23:47 | vial A pH<2 Need 5X | JC/MD | Dilution |
| 33 | N5906-07 | MW-13R | VX033304.D | 08 Dec 2022 00:10 | vial A pH<2 Need 10x | JC/MD | Dilution |
| 34 | N5906-08 | MW-24 | VX033305.D | 08 Dec 2022 00:33 | vial A pH<2 | JC/MD | Ok |
| 35 | N5906-09 | MW-28 | VX033306.D | 08 Dec 2022 00:56 | vial A pH<2 Need 5X | JC/MD | Dilution |
| 36 | VSTDCCC050 | VSTDCCC050EC | VX033307.D | 08 Dec 2022 01:19 | | JC/MD | Ok,M |

M : Manual Integration

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**Instrument ID:** MSVOA_X

## Daily Analysis Runlog For Sequence/QCBatch ID # VX121522

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/16/2022 9:45:30 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/16/2022 12:26:32 PM | | |
| SubDirectory | VX121522 | HP Acquire Method | | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117542 |
| Initial Calibration Stds | |
| CCC | VP117544,VP117545 |
| Internal Standard/PEM | |
| ICV/I.BLK | |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| Sr# | SampleId | ClientID | Data File Name | Date-Time | Comment | Operator | Status |
|---|---|---|---|---|---|---|---|
| 1 | BFB | BFB | VX033429.D | 15 Dec 2022 09:39 | | JC/MD | Ok |
| 2 | VSTDCCC050 | VSTDCCC050 | VX033430.D | 15 Dec 2022 10:10 | pH#Lot#V12668 | JC/MD | Ok,M |
| 3 | VX1215WBL01 | VX1215WBL01 | VX033431.D | 15 Dec 2022 10:39 | | JC/MD | Ok |
| 4 | VX1215WBS01 | VX1215WBS01 | VX033432.D | 15 Dec 2022 11:07 | | JC/MD | Ok,M |
| 5 | VX1215WBSD01 | VX1215WBSD01 | VX033433.D | 15 Dec 2022 11:46 | | JC/MD | Ok,M |
| 6 | N6070-02 | TB-01-121422 | VX033434.D | 15 Dec 2022 12:09 | vial A pH<2 TB | JC/MD | Ok |
| 7 | N6070-01 | GW-BR-04-226-245-12 | VX033435.D | 15 Dec 2022 12:32 | vial A pH<2 Surrogate Fail | JC/MD | ReRun |
| 8 | N6070-03 | OWBR-01-160-180-121 | VX033436.D | 15 Dec 2022 12:55 | vial A pH<2 | JC/MD | Ok |
| 9 | N6070-04 | OWBR-02-160-180-121 | VX033437.D | 15 Dec 2022 13:18 | vial A pH<2 | JC/MD | Ok |
| 10 | N6070-05 | OWBR-03-128-148-121 | VX033438.D | 15 Dec 2022 13:41 | vial A pH<2 | JC/MD | Ok |
| 11 | PB149669TB | PB149669TB | VX033439.D | 15 Dec 2022 14:04 | vial A pH#6.0 | JC/MD | Ok |
| 12 | N6051-02 | SP-591 | VX033440.D | 15 Dec 2022 14:27 | vial A pH#6.0 | JC/MD | Ok |
| 13 | N6070-01 | GW-BR-04-226-245-12 | VX033441.D | 15 Dec 2022 14:50 | vial B pH<2 | JC/MD | Ok |
| 14 | PB149652TB | PB149652TB | VX033442.D | 15 Dec 2022 15:13 | vial A pH#5.0 | JC/MD | Ok |
| 15 | PB149654TB | PB149654TB | VX033443.D | 15 Dec 2022 15:36 | vial A pH#5.0 | JC/MD | Ok |
| 16 | N6065-02 | MH-23 | VX033444.D | 15 Dec 2022 15:59 | vial A pH#5.0 | JC/MD | Ok |
| 17 | N6065-05 | TP-S | VX033445.D | 15 Dec 2022 16:22 | vial A pH#5.0 | JC/MD | Ok |
| 18 | N6067-02 | WC-SOIL-20221214 | VX033446.D | 15 Dec 2022 16:45 | vial A pH#5.0 | JC/MD | Ok |
| 19 | N6067-04 | WC-LIQUID-20221214 | VX033447.D | 15 Dec 2022 17:08 | vial A pH#5.0 | JC/MD | Ok |

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**Instrument ID:** MSVOA_X

## Daily Analysis Runlog For Sequence/QCBatch ID # VX121522

| | | | | | |
|---|---|---|---|---|---|
| Review By | John Carlone | Review On | 12/16/2022 9:45:30 AM | | |
| Supervise By | Mahesh Dadoda | Supervise On | 12/16/2022 12:26:32 PM | | |
| SubDirectory | VX121522 | HP Acquire Method | | HP Processing Method | 82X120722W.M |

| STD. NAME | STD REF.# |
|---|---|
| Tune/Reschk | VP117542 |
| Initial Calibration Stds | |
| CCC | VP117544,VP117545 |
| Internal Standard/PEM | |
| ICV/I.BLK | |
| Surrogate Standard | |
| MS/MSD Standard | |
| LCS Standard | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20 | VSTDCCC050 | VSTDCCC050EC | VX033448.D | 15 Dec 2022 17:31 | | JC/MD | Ok,M |

M : Manual Integration

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# Prep Standard - Chemical Standard Summary

**Order ID :** N6070

**Test :** VOCMS Group3

**Prepbatch ID :**

**Sequence ID/Qc Batch ID:** vx121522,

**Standard ID :**
VP113990,VP115359,VP115432,VP115433,VP116911,VP117244,VP117471,VP117542,VP117544,VP117545,

**Chemical ID :**
V10601,V11274,V11275,V12010,V12080,V12224,V12411,V12412,V12684,V12685,V12757,V12766,V12779,V12780,V12865,V12866,V12867,V12886,V12889,V13016,V13049,V13051,V13052,V13077,V13078,V13187,V13189,V13213,V13214,V13224,V13363,V13371,V13372,V13373,V13374,W2606,

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## VOC STANDARD PREPARATION LOG

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 719 | 8260 Working STD (BCM)-First source, 400PPM | VP113990 | 07/28/2022 | 01/28/2023 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 07/29/2022 |

**FROM** 1.00000ml of V12757 + 1.00000ml of V12766 + 1.00000ml of V12865 + 1.00000ml of V12866 + 1.00000ml of V12867 + 20.00000ml of V13016 = Final Quantity: 25.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 1810 | 8260 Working Std(2-CVE)-800ppm | VP115359 | 09/14/2022 | 03/14/2023 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 09/14/2022 |

**FROM** 1.00000ml of V11274 + 1.00000ml of V11275 + 1.00000ml of V12779 + 1.00000ml of V12780 + 46.00000ml of V13224 = Final Quantity: 50.000 ml

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## VOC STANDARD PREPARATION LOG

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 247 | 8260 Internal Standard, 250PPM | VP115432 | 09/16/2022 | 01/15/2023 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 09/19/2022 |

**FROM** 0.25000ml of V12080 + 24.75000ml of V13224 = Final Quantity: 25.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 617 | 8260 Surrogate, 400PPM | VP115433 | 09/16/2022 | 03/14/2023 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 09/19/2022 |

**FROM** 0.40000ml of V12010 + 24.60000ml of V13224 = Final Quantity: 25.000 ml

# CHEMTECH

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## VOC STANDARD PREPARATION LOG

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 257 | 8260 Calibration Working STD Mix-First source, 160PPM | VP116911 | 11/15/2022 | 12/19/2022 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 11/16/2022 |

**FROM** 0.40000ml of V12224 + 1.00000ml of V12411 + 1.00000ml of V12412 + 1.00000ml of V12684 + 1.00000ml of V12685 + 1.00000ml of V12886 + 1.00000ml of V12889 + 1.00000ml of V13077 + 1.00000ml of V13078 + 1.00000ml of V13187 + 1.00000ml of V13189 + 1.30000ml of V13051 + 1.30000ml of V13052 + 1.40000ml of V13049 + 10.60000ml of V13213 = Final Quantity: 25.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 51 | 8260 Working STD (Acrolein) -first source, 800PPM | VP117244 | 11/30/2022 | 12/28/2022 | Semsettin Yesilyurt | None | None | Mahesh Dadoda 12/02/2022 |

**FROM** 0.40000ml of V13374 + 1.20000ml of V13371 + 1.20000ml of V13372 + 1.20000ml of V13373 + 21.00000ml of V13363 = Final Quantity: 25.000 ml

# CHEMTECH

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## VOC STANDARD PREPARATION LOG

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 218 | BFB, 25PPM | VP117471 | 12/12/2022 | 06/12/2023 | Semsettin Yesilyurt | None | None | Krupa Patel 12/14/2022 |

**FROM** 0.25000ml of V10601 + 24.75000ml of V13214 = Final Quantity: 25.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 589 | BFB TUNE CHECK | VP117542 | 12/15/2022 | 12/16/2022 | John Carlone | None | None | Mahesh Dadoda 12/15/2022 |

**FROM** 39.98400ml of W2606 + 0.01600ml of VP117471 = Final Quantity: 40.000 ml

# CHEMTECH

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## VOC STANDARD PREPARATION LOG

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 620 | 50 PPB CCC, 8260-Water | VP117544 | 12/15/2022 | 12/16/2022 | John Carlone | None | None | Mahesh Dadoda 12/15/2022 |

**FROM** 39.94450ml of W2606 + 0.00500ml of VP113990 + 0.00500ml of VP115433 + 0.00800ml of VP115432 + 0.01250ml of VP115359 + 0.01250ml of VP116911 + 0.01250ml of VP117244 = Final Quantity: 40.000 ml

| Recipe ID | NAME | NO. | Prep Date | Expiration Date | Prepared By | ScaleID | PipetteID | Supervised By |
|---|---|---|---|---|---|---|---|---|
| 620 | 50 PPB CCC, 8260-Water | VP117545 | 12/15/2022 | 12/16/2022 | John Carlone | None | None | Mahesh Dadoda 12/15/2022 |

**FROM** 39.94450ml of W2606 + 0.00500ml of VP113990 + 0.00500ml of VP115433 + 0.00800ml of VP115432 + 0.01250ml of VP115359 + 0.01250ml of VP116911 + 0.01250ml of VP117244 = Final Quantity: 40.000 ml

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30067 / BFB tuneing solution | A0147670 | 12/12/2023 | 12/12/2022 / SAM | 01/09/2020 / sam | V10601 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 082620 | 03/14/2023 | 09/14/2022 / SAM | 09/18/2020 / sam | V11274 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 082620 | 03/14/2023 | 09/14/2022 / SAM | 09/18/2020 / sam | V11275 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2] | A0173020 | 03/16/2023 | 09/16/2022 / SAM | 06/04/2021 / SAM | V12010 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 555581 / Custom Standard, 8260 Internal Std [CS 5179-1] | A0173600 | 01/15/2023 | 07/15/2022 / SAM | 06/22/2021 / SAM | V12080 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM | A0168291 | 01/25/2023 | 07/25/2022 / SAM | 10/15/2021 / SAM | V12224 |

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95319 / Revised Additions Mix (Min = 5) | 031921 | 04/14/2023 | 10/14/2022 / SAM | 11/30/2021 / SAM | V12411 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95319 / Revised Additions Mix (Min = 5) | 031921 | 04/14/2023 | 10/14/2022 / SAM | 11/30/2021 / SAM | V12412 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml | A0177872 | 04/14/2023 | 10/14/2022 / SAM | 03/07/2022 / SAM | V12684 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml | A0177872 | 04/14/2023 | 10/14/2022 / SAM | 03/07/2022 / SAM | V12685 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0176219 | 01/28/2023 | 07/28/2022 / SAM | 03/25/2022 / SAM | V12757 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0176219 | 01/28/2023 | 07/28/2022 / SAM | 03/25/2022 / SAM | V12766 |

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 121321 | 03/14/2023 | 09/14/2022 / SAM | 03/30/2022 / SAM | V12779 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95318 / 2-Chloroethyl Vinyl Ether (Min = 5) | 121321 | 03/14/2023 | 09/14/2022 / SAM | 03/30/2022 / SAM | V12780 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0183824 | 01/28/2023 | 07/28/2022 / SAM | 04/22/2022 / SAM | V12865 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0183824 | 01/28/2023 | 07/28/2022 / SAM | 04/22/2022 / SAM | V12866 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul | A0183824 | 01/28/2023 | 07/28/2022 / SAM | 04/22/2022 / SAM | V12867 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95317 / Universal VOA Mega Mix (Min order = 5) | 042921 | 04/14/2023 | 10/14/2022 / SAM | 04/26/2022 / SAM | V12886 |

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 95317 / Universal VOA Mega Mix (Min order = 5) | 042921 | 04/14/2023 | 10/14/2022 / SAM | 04/26/2022 / SAM | V12889 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 0000288323 | 01/28/2023 | 07/28/2022 / SAM | 07/11/2022 / SAM | V13016 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A0179406 | 04/14/2023 | 10/14/2022 / SAM | 08/12/2022 / SAM | V13049 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A0179406 | 04/14/2023 | 10/14/2022 / SAM | 08/12/2022 / SAM | V13051 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml | A0179406 | 04/14/2023 | 10/14/2022 / SAM | 08/12/2022 / SAM | V13052 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS | A0187424 | 04/14/2023 | 10/14/2022 / SAM | 08/12/2022 / SAM | V13077 |

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS | A0187424 | 04/14/2023 | 10/14/2022 / SAM | 08/12/2022 / SAM | V13078 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL | A0186868 | 04/14/2023 | 10/14/2022 / SAM | 09/01/2022 / SAM | V13187 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Restek | 30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL | A0186868 | 04/14/2023 | 10/14/2022 / SAM | 09/01/2022 / SAM | V13189 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22C2362001 | 05/11/2023 | 11/11/2022 / pedro | 09/13/2022 / SAM | V13213 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22C2362001 | 06/12/2023 | 12/12/2022 / SAM | 09/13/2022 / SAM | V13214 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 0000288323 | 03/14/2023 | 09/14/2022 / SAM | 09/13/2022 / SAM | V13224 |

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# CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | BA9077-02 / Methanol, Purge/Trap (cs=6x1L) | 22C2862010 | 05/29/2023 | 11/29/2022 / SAM | 11/28/2022 / SAM | V13363 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022 | 11/29/2022 / SAM | 11/29/2022 / SAM | V13371 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022 | 11/29/2022 / SAM | 11/29/2022 / SAM | V13372 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022 | 11/29/2022 / SAM | 11/29/2022 / SAM | V13373 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Absolute Standards, Inc. | 91980 / Acrolin Std (Min = 5) | 112822 | 12/28/2022 | 11/29/2022 / SAM | 11/29/2022 / SAM | V13374 |

| Supplier | ItemCode / ItemName | Lot # | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|---|---|---|---|---|---|---|
| Seidler Chemical | DIW / DI Water | Daily Lab-Certified | 10/24/2024 | 10/24/2019 / apatel | 10/24/2019 / apatel | W2606 |

M68A0-VOCMS Group3

CERTIFIED WEIGHT REPORT

**Part Number:** 95318
Lot Number: 082620
Description: 2-Chloroethyl vinyl ether

Expiration Date: 082623
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 23060

Weight(s) shown below were combined and diluted to (mL): 30.0

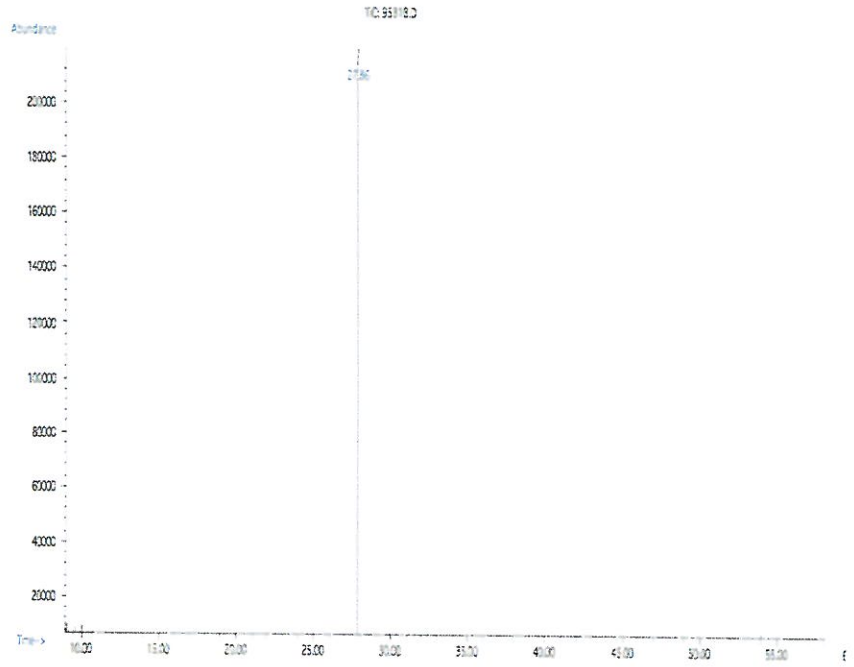
**Solvent(s):** **Lot#**
Methanol DX932-US

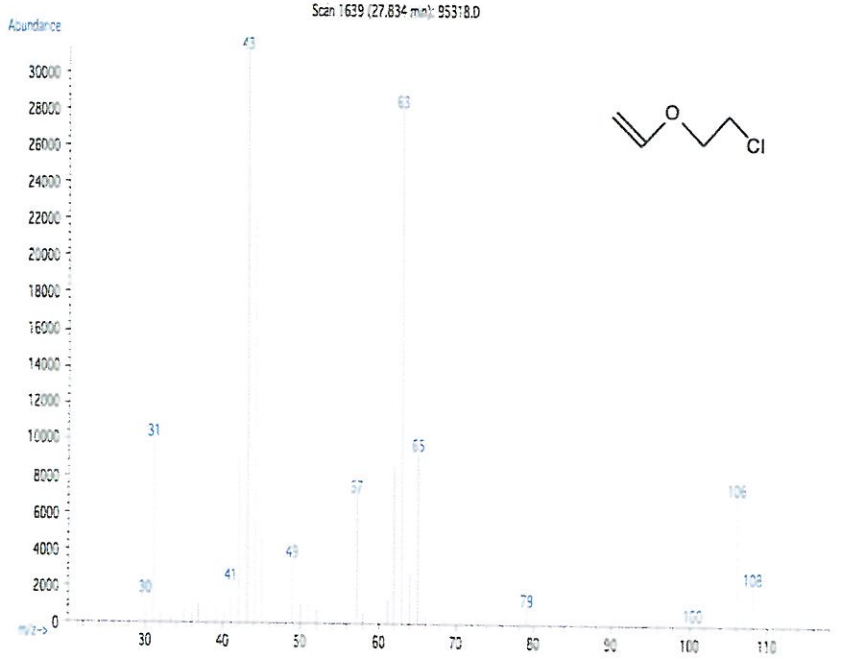
5E-05 Balance Uncertainty
0.002 Flask Uncertainty

| | | |
|---|---|---|
| Formulated By: | Benson Chan | 082620 DATE |
| Reviewed By: | Pedro L. Rentas | 082620 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc(µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. 2-Chloroethyl vinyl ether | 74 | MKCD0033 | 10000 | 99 | 0.2 | 0.30284 | 0.30289 | 10001.7 | 40.6 | 110-75-8 | N/A | orl-rat 250mg/kg |

**Method:** GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.







- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International<br>Date Prepared/Revised | **1-352-323-3500**<br>May 1, 2015 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | Vapours may form explosive mixture with air. |
| Conditions to avoid | Heat, flames, sparks, extreme temperature and sunlight. |
| Materials to avoid | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

M68A0-VOCMS Group3

CERTIFIED WEIGHT REPORT

**Part Number:** 95318
Lot Number: 082620
Description: 2-Chloroethyl vinyl ether

Expiration Date: 082623
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 23060

Weight(s) shown below were combined and diluted to (mL): 30.0

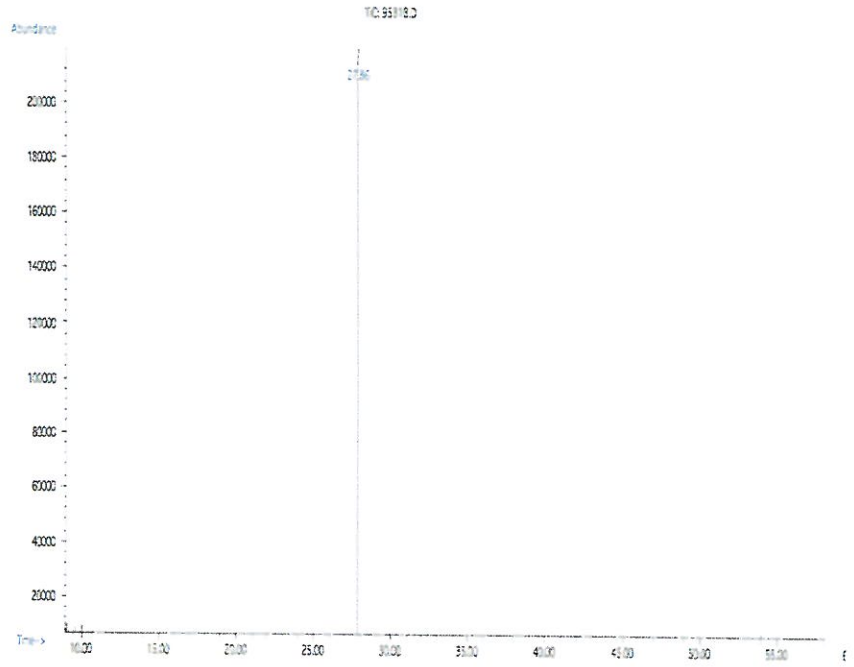
| Solvent(s): | Lot# |
|---|---|
| Methanol | DX932-US |

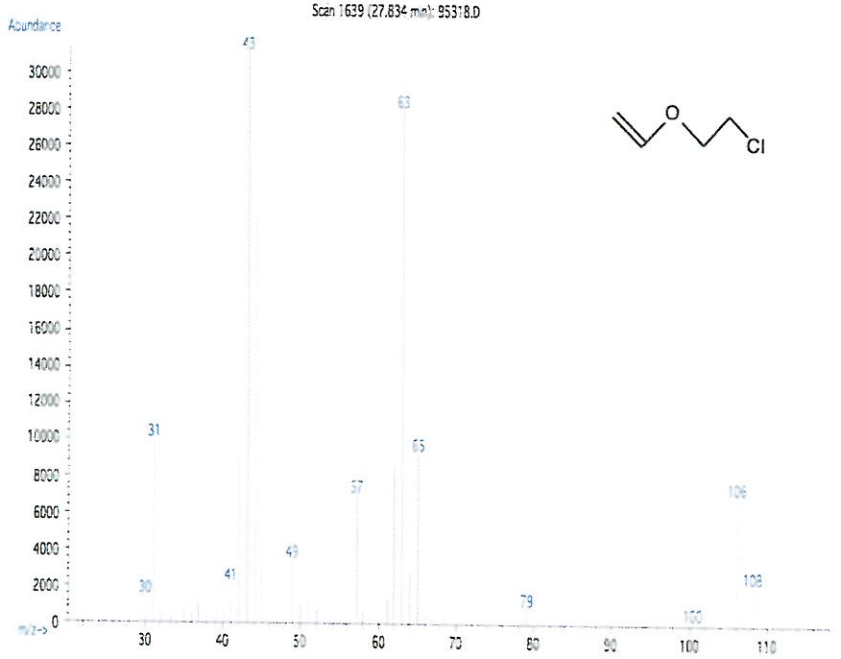
5E-05 Balance Uncertainty
0.002 Flask Uncertainty

| | | |
|---|---|---|
| Formulated By: | Benson Chan | 082620 DATE |
| Reviewed By: | Pedro L. Rentas | 082620 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc(µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. 2-Chloroethyl vinyl ether | 74 | MKCD0033 | 10000 | 99 | 0.2 | 0.30284 | 0.30289 | 10001.7 | 40.6 | 110-75-8 | N/A | orl-rat 250mg/kg |

**Method:** GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.







- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International<br>Date Prepared/Revised | **1-352-323-3500**<br>May 1, 2015 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.<br>Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

| | |
|---|---|
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | Vapours may form explosive mixture with air. |
| Conditions to avoid | Heat, flames, sparks, extreme temperature and sunlight. |
| Materials to avoid | Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids |

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

**Absolute Standards, Inc.**
800-368-1131
www.absolutestandards.com

*Certified Reference Material CRM*

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

## CERTIFIED WEIGHT REPORT

**Part Number:** 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

**Solvent(s):** Methanol **Lot#** EA899-US

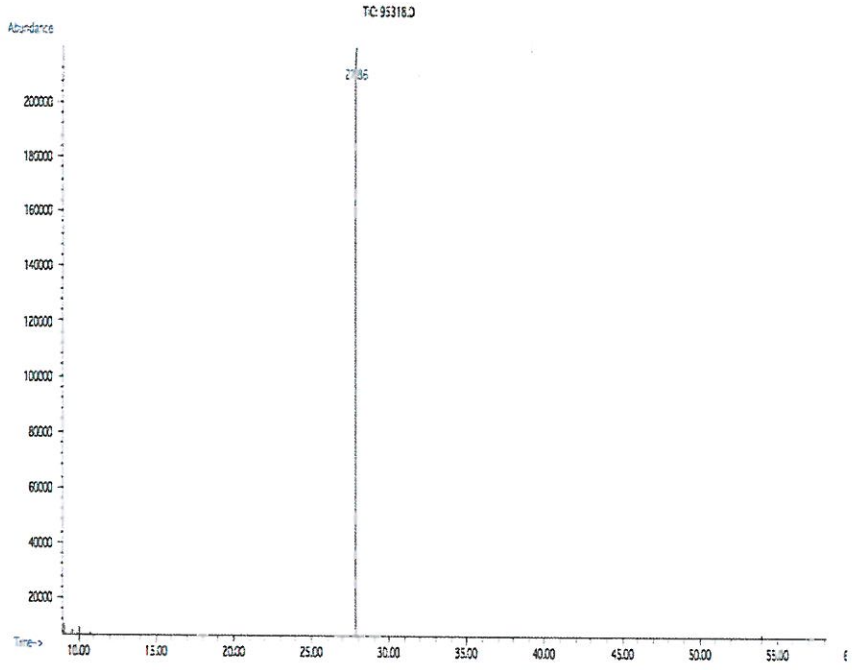
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

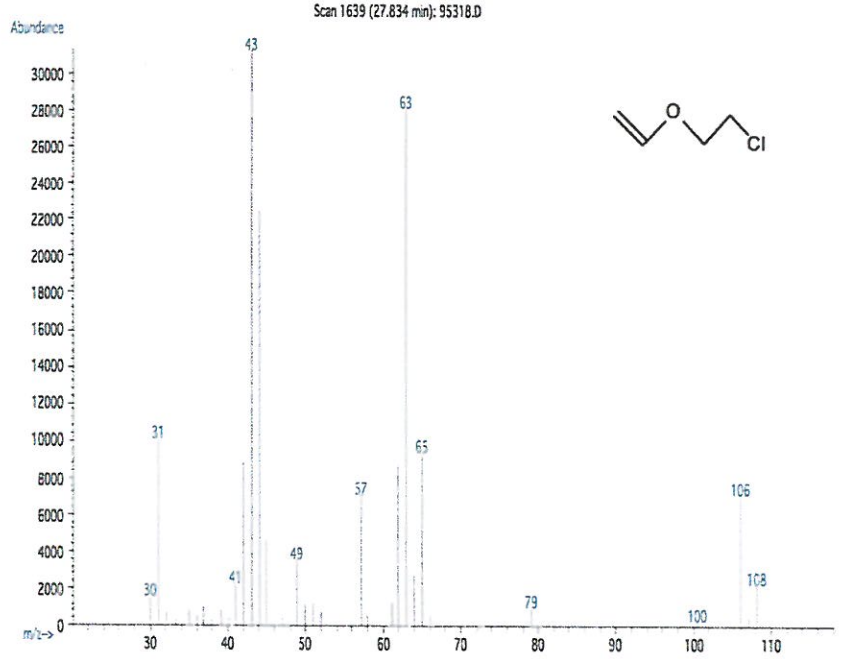
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

| | | |
|---|---|---|
| | | 121321 |
| Formulated By: | Benson Chan | DATE |
| | | 121321 |
| Reviewed By: | Pedro L. Rentas | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc(µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. 2-Chloroethyl vinyl ether | 74 | MKCD0033 | 10000 | 99 | 0.2 | 0.30320 | 0.30411 | 10030.2 | 40.7 | 110-75-8 | N/A | orl-rat 250mg/kg |

**Method:** GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.







- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



N6070-VOCMS Group3

**Absolute Standards, Inc.**
800-368-1131
www.absolutestandards.com

*Certified Reference Material CRM*

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

## CERTIFIED WEIGHT REPORT

**Part Number:** 95318
Lot Number: 121321
Description: 2-Chloroethyl vinyl ether

**Solvent(s):** Methanol **Lot#** EA899-US

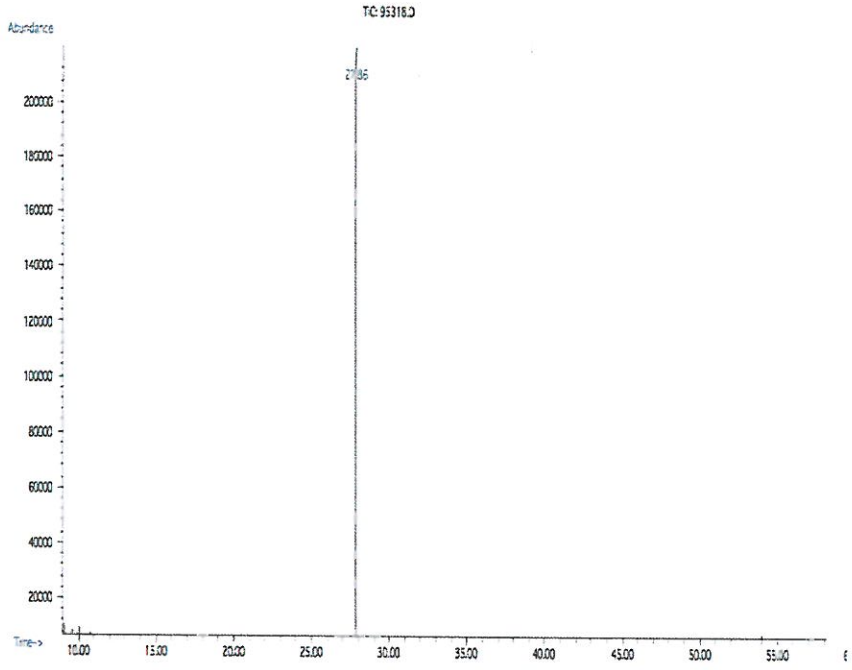
Expiration Date: 121324
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

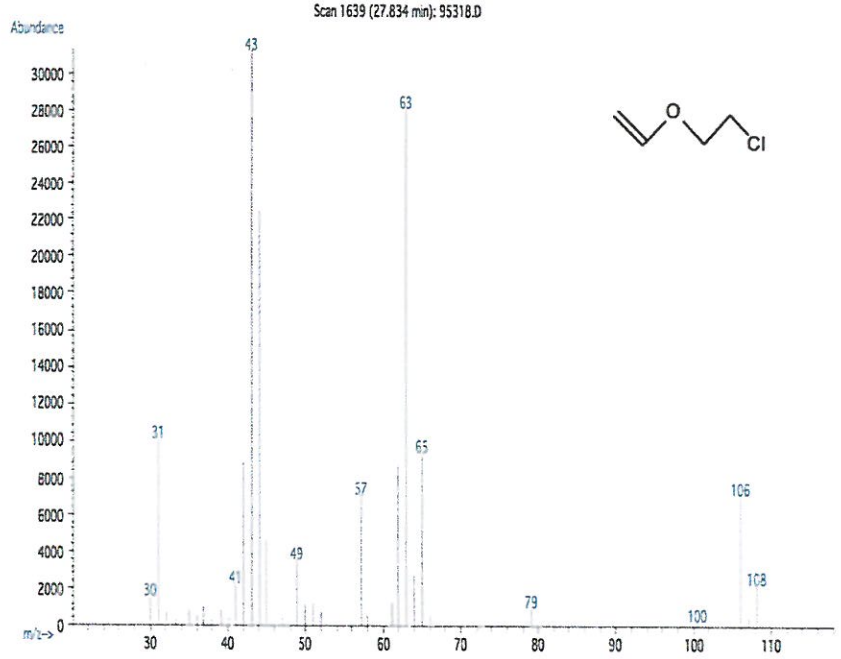
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.0003 Flask Uncertainty

| | | |
|---|---|---|
| | | 121321 |
| Formulated By: | Benson Chan | DATE |
| | | 121321 |
| Reviewed By: | Pedro L. Rentas | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight (g) | Actual Weight (g) | Actual Conc(µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. 2-Chloroethyl vinyl ether | 74 | MKCD0033 | 10000 | 99 | 0.2 | 0.30320 | 0.30411 | 10030.2 | 40.7 | 110-75-8 | N/A | orl-rat 250mg/kg |

**Method:** GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.







- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



N6070-VOCMS Group3

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 555582 **Lot No.:** A0173020

**Description :** Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2024 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,2-Dichloroethane-d4 | 25,060.0 µg/mL | +/- 231.9100 µg/mL | Gravimetric |
| | **CAS #** 17060-07-0 (Lot PR-29377) | | +/- 1,416.6261 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,449.2417 µg/mL | Stressed |
| 2 | 1-Bromo-4-fluorobenzene (BFB) | 25,188.0 µg/mL | +/- 233.0945 µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 1,423.8618 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,456.6441 µg/mL | Stressed |
| 3 | Dibromofluoromethane | 25,212.0 µg/mL | +/- 233.3166 µg/mL | Gravimetric |
| | **CAS #** 1868-53-7 (Lot 012021) | | +/- 1,425.2185 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,458.0320 µg/mL | Stressed |
| 4 | Toluene-d8 | 25,104.0 µg/mL | +/- 232.3171 µg/mL | Gravimetric |
| | **CAS #** 2037-26-5 (Lot PR-31750) | | +/- 1,419.1134 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 1,451.7863 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

Lane Kibe - Mix Technician

**Date Mixed:** 03-Jun-2021 **Balance:** B251644995

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

# Safety Data Sheet

**Revision Date: 05/24/21**
www.restek.com

2 Letter ISO country code/language code: US/EN

## 1. IDENTIFICATION

| | |
|---|---|
| **Catalog Number / Product Name:** | **555582 / Custom 8260A/B Surrogate Mix** |
| **Company:** | Restek Corporation |
| **Address:** | 110 Benner Circle<br>Bellefonte, Pa. 16823 |
| **Phone#:** | 814-353-1300 |
| **Fax#:** | 814-353-1309 |
| **Emergency#:** | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| **Email:** | www.restek.com |
| **Revision Number:** | 7 |
| **Intended use:** | For Laboratory use only |

## 2. HAZARD(S)IDENTIFICATION

**Emergency Overview:**

**GHS Hazard Symbols:**

| | |
|---|---|
| **GHS Classification:** | Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1<br>Flammable Liquid Category 2<br>Acute Toxicity - Dermal Category 3<br>Acute Toxicity - Oral Category 3 |
| **GHS Signal Word:** | Danger |
| **GHS Hazard:** | Highly flammable liquid and vapour.<br>Toxic if swallowed or in contact with skin.<br>Causes damage to organs. |
| **GHS Precautions:** | |
| **Safety Precautions:** | Keep away from heat/sparks/open flames/hot surfaces. – No smoking.<br>Keep container tightly closed.<br>Ground/bond container and receiving equipment.<br>Use explosion-proof electrical/ventilation and lighting equipment.<br>Use only non-sparking tools.<br>Take precautionary measures against static discharge.<br>Do not breathe dust/fume/gas/mist/vapours/spray.<br>Wash hands and skin thoroughly after handling.<br>Do not eat, drink or smoke when using this product.<br>Wear protective gloves/protective clothing/eye protection/face protection. |
| **First Aid Measures:** | IF SWALLOWED: Immediately call a POISON CENTER/doctor/....<br>IF ON SKIN: Wash with plenty of soap and water.<br>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>IF exposed: Call a POISON CENTER or doctor/physician.<br>Call a POISON CENTER or doctor/physician if you feel unwell.<br>Specific treatment see section 4.<br>Rinse mouth.<br>Take off immediately all contaminated clothing and wash it before reuse.<br>In case of fire: Use extinguishing media in section 5 for extinction. |

**Storage:** Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

**Disposal:** Dispose of contents/container according to section 13 of the SDS.

**Single Exposure Target Organs:** Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

**Repeated Exposure Target Organs:** No data available

## 3. COMPOSITION / INFORMATION ON INGREDIENT

| Chemical Name | CAS # | EINEC # | % Composition |
|---|---|---|---|
| P&T Methanol | 67-56-1 | 200-659-6 | 90 |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4 | 207-300-2 | 2.5 |
| 1,2-dichloroethane-d4 | 17060-07-0 | | 2.5 |
| dibromofluoromethane | 1868-53-7 | | 2.5 |
| toluene-d8 | 2037-26-5 | 218-009-5 | 2.5 |

## 4. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

## 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

**Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

**Handling Technical Measures and Precautions:** Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

**Storage Technical Measures and Conditions:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**United States:**

| Chemical Name | CAS No. | IDLH | ACGIH STEL | ACGIH TLV-TWA | OSHA Exposure Limit |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | 6000 ppm IDLH | 250 ppm STEL | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4 | Not established | None Known | Not established | No data available |
| 1,2-dichloroethane-d4 | 17060-07-0 | Not established | None Known | Not established | No data available |
| dibromofluoromethane | 1868-53-7 | Not established | None Known | Not established | No data available |
| toluene-d8 | 2037-26-5 | Not established | None Known | Not established | No data available |

**Personal Protection:**

**Engineering Measures:** Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

**Respiratory Protection:** Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

**Eye Protection:** Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

**Skin Protection:** Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance, color:** | No data available |
| **Odor:** | Mild |
| **Physical State:** | No data available |
| **pH:** | Not applicable |
| **Vapor Pressure:** | No data available |
| **Vapor Density:** | 1.1 (air = 1) |
| **Boiling Point (°C):** | 151.5 °C Boiling Point (at 1013.25 hPa) 64.7 °C at 760 mmHg (HSDB) |
| **Melting Point (°C):** | -98 °C |
| **Flash Point (°F):** | 50 |
| **Flammability:** | Highly Flammable |
| **Upper Flammable/Explosive Limit, % in air:** | 36 |
| **Lower Flammable/Explosive Limit, % in air:** | 6 |
| **Autoignition Temperature (°C):** | 464 deg C |
| **Decomposition Temperature (°C):** | No data available |
| **Specific Gravity:** | 0.791 - 0.792 g/cm3 at 20 °C |
| **Evaporation Rate:** | No data available |
| **Odor Threshold:** | No data available |
| **Solubility:** | Moderate; 50-99% |

| | |
|---|---|
| **Partition Coefficient: n-octanol in water:** | No data available |
| **VOC % by weight:** | 90 |
| **Molecular Weight:** | 32.04 |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability:** | Stable under normal conditions. |
| **Conditions to Avoid:** | None known. |
| **Materials to Avoid / Chemical Incompatiability:** | Strong oxidizing agents |
| **Hazardous Decomposition Products:** | Carbon dioxide Carbon monoxide |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Routes of Entry:** | Inhalation, Skin Contact, Eye Contact, Ingestion |
| **Target Organs Potentially Affected By Exposure:** | Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract |
| **Chemical Interactions That Change Toxicity:** | None Known |

**Immediate (Acute) Health Effects by Route of Exposure:**

| | |
|---|---|
| **Inhalation Irritation:** | Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. |
| **Inhalation Toxicity:** | Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness. |
| **Skin Contact:** | Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Eye Contact:** | Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. |
| **Ingestion Irritation:** | Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed. |
| **Ingestion Toxicity:** | Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed. |

**Long-Term (Chronic) Health Effects:**

| | |
|---|---|
| **Carcinogenicity:** | No data. |
| **Reproductive and Developmental Toxicity:** | No data available to indicate product or any components present at greater than 0.1% may cause birth defects. |
| **Inhalation:** | Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs) |
| **Skin Contact:** | Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Ingestion:** | Toxic if swallowed. May cause target organ failure and/or death. |

**Component Toxicological Data:**

**NIOSH:**

| Chemical Name | CAS No. | LD50/LC50 |
|---|---|---|
| Benzene, 1-bromo-4-fluoro- | 460-00-4 | Inhalation LC50 Rat 18 g/m3 4 h; Oral LD50 Rat 2700 mg/kg |
| Methanol | 67-56-1 | Inhalation LC50 Rat 22500 ppm 8 h |

**Component Carcinogenic Data:**

**OSHA:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**ACGIH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NIOSH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

NTP:

| Chemical Name | CAS No. |
|---|---|
| No data available | |

IARC:

| Chemical Name | CAS No. | Group No. |
|---|---|---|

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| **Overview:** | Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. |
| **Mobility:** | No data |
| **Persistence:** | No data |
| **Bioaccumulation:** | No data |
| **Degradability:** | Biodegrades slowly. |
| **Ecological Toxicity Data:** | No data available |

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Waste Description of Spent Product:** | Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures. |
| **Disposal Methods:** | Dispose of by incineration following Federal, State, Local, or Provincial regulations. |
| **Waste Disposal of Packaging:** | Comply with all Local, State, Federal, and Provincial Environmental Regulations. |

## 14. TRANSPORTATION INFORMATION

| | |
|---|---|
| **United States:** | |
| **DOT Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |
| | |
| **International:** | |
| **IATA Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**Marine Pollutant:** No

| Chemical Name | CAS# | Marine Pollutant | Severe Marine Pollutant |
|---|---|---|---|
| No data available | | | |

## 15. REGULATORY INFORMATION

**United States:**

| Chemical Name | CAS# | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | - | X |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4 | - | - | - | X |
| 1,2-dichloroethane-d4 | 17060-07-0 | - | - | - | - |
| dibromofluoromethane | 1868-53-7 | - | - | - | - |
| toluene-d8 | 2037-26-5 | - | - | - | - |

**The following chemicals are listed on CA Prop 65:**

| Chemical Name | CAS # | Regulation |
|---|---|---|
| Methanol | 67-56-1 | Prop 65 Devolop Tox |

**State Right To Know Listing:**

| Chemical Name | CAS# | New Jersey | Massachusetts | Pennsylvania | California |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | X | X |
| 1-Bromo-4-fluorobenzene (BFB) | 460-00-4 | - | - | - | - |
| 1,2-dichloroethane-d4 | 17060-07-0 | - | - | - | - |
| dibromofluoromethane | 1868-53-7 | - | - | - | - |
| toluene-d8 | 2037-26-5 | - | - | - | - |

## 16. OTHER INFORMATION

**Prior Version Date:** 07/20/18

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available

**Disclaimer:** Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

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www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 555581 **Lot No.:** A0173600

**Description :** Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2024 **Storage:** 10°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Component # | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,4-Dichlorobenzene-d4<br>**CAS #** 3855-82-1 (Lot PR-30447)<br>**Purity** 99% | 25,040.0 µg/mL | +/- 231.7249 µg/mL<br>+/- 1,415.4955 µg/mL<br>+/- 1,448.0851 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 1,4-Difluorobenzene<br>**CAS #** 540-36-3 (Lot MKBN8571V)<br>**Purity** 99% | 25,216.0 µg/mL | +/- 233.3536 µg/mL<br>+/- 1,425.4447 µg/mL<br>+/- 1,458.2633 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Chlorobenzene-d5<br>**CAS #** 3114-55-4 (Lot PR-29571)<br>**Purity** 99% | 25,120.0 µg/mL | +/- 232.4652 µg/mL<br>+/- 1,420.0178 µg/mL<br>+/- 1,452.7116 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | Pentafluorobenzene<br>**CAS #** 363-72-4 (Lot MKCK2250)<br>**Purity** 99% | 25,092.0 µg/mL | +/- 232.2061 µg/mL<br>+/- 1,418.4350 µg/mL<br>+/- 1,451.0923 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

Walker Workman - Operations Technician I

**Date Mixed:** 18-Jun-2021 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

# Safety Data Sheet

**Revision Date: 05/24/21**
www.restek.com

2 Letter ISO country code/language code: US/EN

## 1. IDENTIFICATION

| | |
|---|---|
| **Catalog Number / Product Name:** | **555581 / Custom 8260 Internal Standard Mix** |
| **Company:** | Restek Corporation |
| **Address:** | 110 Benner Circle<br>Bellefonte, Pa. 16823 |
| **Phone#:** | 814-353-1300 |
| **Fax#:** | 814-353-1309 |
| **Emergency#:** | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| **Email:** | www.restek.com |
| **Revision Number:** | 8 |
| **Intended use:** | For Laboratory use only |

## 2. HAZARD(S)IDENTIFICATION

**Emergency Overview:**

**GHS Hazard Symbols:**

| | |
|---|---|
| **GHS Classification:** | Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1<br>Flammable Liquid Category 2<br>Acute Toxicity - Dermal Category 3<br>Acute Toxicity - Oral Category 3 |
| **GHS Signal Word:** | Danger |
| **GHS Hazard:** | Highly flammable liquid and vapour.<br>Toxic if swallowed or in contact with skin.<br>Causes damage to organs. |
| **GHS Precautions:** | |
| **Safety Precautions:** | Keep away from heat/sparks/open flames/hot surfaces. – No smoking.<br>Keep container tightly closed.<br>Ground/bond container and receiving equipment.<br>Use explosion-proof electrical/ventilation and lighting equipment.<br>Use only non-sparking tools.<br>Take precautionary measures against static discharge.<br>Do not breathe dust/fume/gas/mist/vapours/spray.<br>Wash hands and skin thoroughly after handling.<br>Do not eat, drink or smoke when using this product.<br>Wear protective gloves/protective clothing/eye protection/face protection. |
| **First Aid Measures:** | IF SWALLOWED: Immediately call a POISON CENTER/doctor/....<br>IF ON SKIN: Wash with plenty of soap and water.<br>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>IF exposed: Call a POISON CENTER or doctor/physician.<br>Call a POISON CENTER or doctor/physician if you feel unwell.<br>Specific treatment see section 4.<br>Rinse mouth.<br>Take off immediately all contaminated clothing and wash it before reuse.<br>In case of fire: Use extinguishing media in section 5 for extinction. |

| | |
|---|---|
| **Storage:** | Keep container tightly closed.<br>Store in a well-ventilated place. Keep cool.<br>Store locked up. |
| **Disposal:** | Dispose of contents/container according to section 13 of the SDS. |
| **Single Exposure Target Organs:** | Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given) |
| **Repeated Exposure Target Organs:** | No data available |

## 3. COMPOSITION / INFORMATION ON INGREDIENT

| Chemical Name | CAS # | EINEC # | % Composition |
|---|---|---|---|
| P&T Methanol | 67-56-1 | 200-659-6 | 90 |
| 1,4-difluorobenzene | 540-36-3 | 208-742-9 | 2.5 |
| pentafluorobenzene | 363-72-4 | 206-658-7 | 2.5 |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | | 2.5 |
| chlorobenzene-d5 | 3114-55-4 | 221-482-0 | 2.5 |

## 4. FIRST-AID MEASURES

| | |
|---|---|
| **Inhalation:** | Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately |
| **Eyes:** | Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. |
| **Skin Contact:** | Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists. |
| **Ingestion:** | Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. |

## 5. FIRE- FIGHTING MEASURES

| | |
|---|---|
| **Extinguishing Media:** | Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid. |
| **Fire and/or Explosion Hazards:** | Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back. |
| **Fire Fighting Methods and Protection:** | Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. |
| **Hazardous Combustion Products:** | Carbon dioxide, Carbon monoxide |

## 6. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| **Personal Precautions and Equipment:** | Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the |

area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

**Handling Technical Measures and Precautions:** Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

**Storage Technical Measures and Conditions:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**United States:**

| Chemical Name | CAS No. | IDLH | ACGIH STEL | ACGIH TLV-TWA | OSHA Exposure Limit |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | 6000 ppm IDLH | 250 ppm STEL | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA |
| 1,4-difluorobenzene | 540-36-3 | Not established | None Known | Not established | No data available |
| pentafluorobenzene | 363-72-4 | Not established | None Known | Not established | No data available |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | Not established | None Known | Not established | No data available |
| chlorobenzene-d5 | 3114-55-4 | Not established | None Known | Not established | No data available |

**Personal Protection:**

**Engineering Measures:** Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

**Respiratory Protection:** Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

**Eye Protection:** Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

**Skin Protection:** Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance, color:** | No data available |
| **Odor:** | Mild |
| **Physical State:** | No data available |
| **pH:** | Not applicable |
| **Vapor Pressure:** | No data available |
| **Vapor Density:** | 1.1 (air = 1) |
| **Boiling Point (°C):** | 64.7 °C at 760 mmHg (HSDB) |
| **Melting Point (°C):** | -98 °C |
| **Flash Point (°F):** | 36 |
| **Flammability:** | Highly Flammable |
| **Upper Flammable/Explosive Limit, % in air:** | 36 |
| **Lower Flammable/Explosive Limit, % in air:** | 6 |
| **Autoignition Temperature (°C):** | 464 deg C |
| **Decomposition Temperature (°C):** | No data available |
| **Specific Gravity:** | 0.791 - 0.792 g/cm3 at 20 °C |
| **Evaporation Rate:** | No data available |

| | |
|---|---|
| **Odor Threshold:** | No data available |
| **Solubility:** | Moderate; 50-99% |
| **Partition Coefficient: n-octanol in water:** | No data available |
| **VOC % by weight:** | 90 |
| **Molecular Weight:** | 32.04 |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability:** | Stable under normal conditions. |
| **Conditions to Avoid:** | None known. |
| **Materials to Avoid / Chemical Incompatiability:** | Strong oxidizing agents |
| **Hazardous Decomposition Products:** | Carbon dioxide Carbon monoxide |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Routes of Entry:** | Inhalation, Skin Contact, Eye Contact, Ingestion |
| **Target Organs Potentially Affected By Exposure:** | Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract |
| **Chemical Interactions That Change Toxicity:** | None Known |

**Immediate (Acute) Health Effects by Route of Exposure:**

| | |
|---|---|
| **Inhalation Irritation:** | Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. |
| **Inhalation Toxicity:** | Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness. |
| **Skin Contact:** | Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Eye Contact:** | Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. |
| **Ingestion Irritation:** | Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed. |
| **Ingestion Toxicity:** | Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed. |

**Long-Term (Chronic) Health Effects:**

| | |
|---|---|
| **Carcinogenicity:** | No data. |
| **Reproductive and Developmental Toxicity:** | No data available to indicate product or any components present at greater than 0.1% may cause birth defects. |
| **Inhalation:** | Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs) |
| **Skin Contact:** | Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Skin Absorption:** | Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage |
| **Ingestion:** | Toxic if swallowed. May cause target organ failure and/or death. |

**Component Toxicological Data:**
**NIOSH:**

| Chemical Name | CAS No. | LD50/LC50 |
|---|---|---|
| Benzene, 1,2,3,4,5-pentafluoro- | 363-72-4 | Oral LD50 Rat 2 g/kg |
| Methanol | 67-56-1 | Inhalation LC50 Rat 22500 ppm 8 h |

**Component Carcinogenic Data:**
**OSHA:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**ACGIH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NIOSH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NTP:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**IARC:**

| Chemical Name | CAS No. | Group No. |
|---|---|---|

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| **Overview:** | Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. |
| **Mobility:** | No data |
| **Persistence:** | No data |
| **Bioaccumulation:** | No data |
| **Degradability:** | Biodegrades slowly. |
| **Ecological Toxicity Data:** | No data available |

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Waste Description of Spent Product:** | Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures. |
| **Disposal Methods:** | Dispose of by incineration following Federal, State, Local, or Provincial regulations. |
| **Waste Disposal of Packaging:** | Comply with all Local, State, Federal, and Provincial Environmental Regulations. |

## 14. TRANSPORTATION INFORMATION

**United States:**

| | |
|---|---|
| **DOT Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**International:**

| | |
|---|---|
| **IATA Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**Marine Pollutant:** No

| Chemical Name | CAS# | Marine Pollutant | Severe Marine Pollutant |
|---|---|---|---|
| No data available | | | |

## 15. REGULATORY INFORMATION

**United States:**

| Chemical Name | CAS# | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | - | X |
| 1,4-difluorobenzene | 540-36-3 | - | - | - | - |
| pentafluorobenzene | 363-72-4 | - | - | - | X |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | - | - | - | - |
| chlorobenzene-d5 | 3114-55-4 | - | - | - | - |

**The following chemicals are listed on CA Prop 65:**

| Chemical Name | CAS # | Regulation |
|---|---|---|
| Methanol | 67-56-1 | Prop 65 Devolop Tox |

**State Right To Know Listing:**

| Chemical Name | CAS# | New Jersey | Massachusetts | Pennsylvania | California |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | X | X |
| 1,4-difluorobenzene | 540-36-3 | - | - | - | - |
| pentafluorobenzene | 363-72-4 | - | - | - | - |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | - | - | - | - |
| chlorobenzene-d5 | 3114-55-4 | - | - | - | - |

## 16. OTHER INFORMATION

**Prior Version Date:** 12/15/16

**Other Information:** Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

**References:** No data available

**Disclaimer:** Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

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Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30225 **Lot No.:** A0176219

**Description :** Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2026 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Bromochloromethane | 2,016.0 µg/mL | +/- 11.9744 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 (Lot 00008541) | | +/- 113.0617 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 115.7059 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

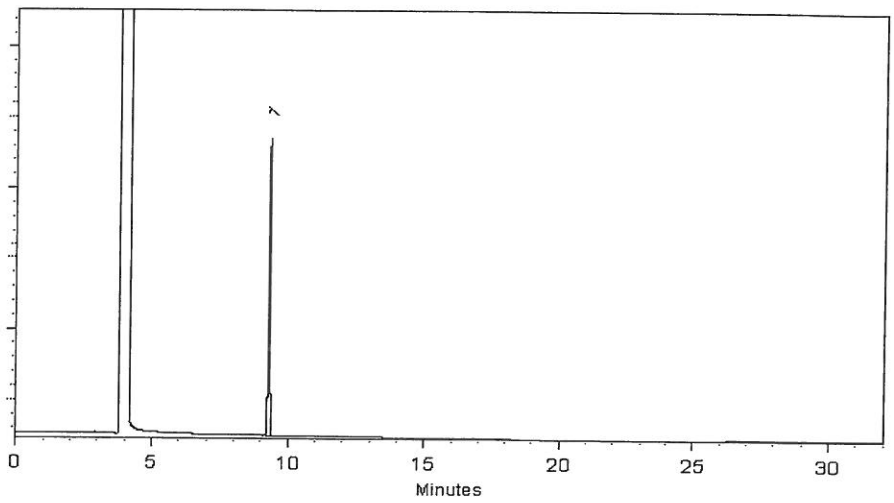
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

**Date Mixed:** 08-Sep-2021 **Balance:** 1128353505

Marlina Cowan - Operations Tech I

**Date Passed:** 10-Sep-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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CERTIFIED VALUES

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**Purity** 99%

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**Det. Temp:**
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**Det. Type:**
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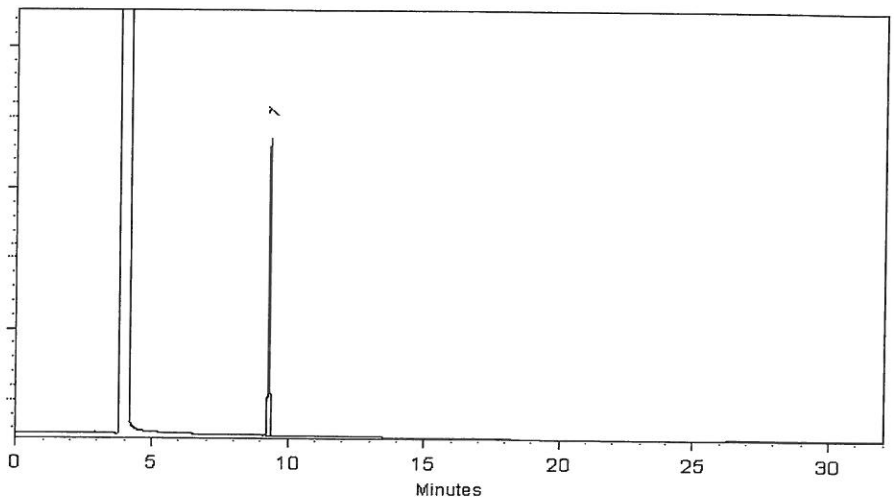


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- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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Certificate #3222.01

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Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30042 **Lot No.:** A0177872

**Description :** 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2028 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12)<br>**CAS #** 75-71-8 (Lot 00012554)<br>**Purity** 99% | 2,000.9 µg/mL | +/- 13.9607 µg/mL<br>+/- 112.4514 µg/mL<br>+/- 115.0704 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Chloromethane (methyl chloride)<br>**CAS #** 74-87-3 (Lot SHBK6571)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 13.2566 µg/mL<br>+/- 112.3274 µg/mL<br>+/- 114.9474 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Vinyl chloride<br>**CAS #** 75-01-4 (Lot 00015559)<br>**Purity** 99% | 2,001.1 µg/mL | +/- 13.8225 µg/mL<br>+/- 112.4449 µg/mL<br>+/- 115.0645 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | Bromomethane (methyl bromide)<br>**CAS #** 74-83-9 (Lot 101604)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 13.6930 µg/mL<br>+/- 112.3836 µg/mL<br>+/- 115.0025 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Chloroethane (ethyl chloride)<br>**CAS #** 75-00-3 (Lot 107-401039114-1)<br>**Purity** 99% | 2,000.5 µg/mL | +/- 15.6153 µg/mL<br>+/- 112.6506 µg/mL<br>+/- 115.2642 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Trichlorofluoromethane (CFC-11)<br>**CAS #** 75-69-4 (Lot MKCL8411)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 15.8709 µg/mL<br>+/- 112.6692 µg/mL<br>+/- 115.2815 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

**Date Mixed:** 27-Oct-2021 **Balance:** B707717271

Marlina Cowan - Operations Tech I

**Date Passed:** 02-Nov-2021

**Manufactured under Restek's ISO 9001:2015**
**Registered Quality System**
**Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30042 **Lot No.:** A0177872

**Description :** 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2028 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12)<br>**CAS #** 75-71-8 (Lot 00012554)<br>**Purity** 99% | 2,000.9 µg/mL | +/- 13.9607 µg/mL<br>+/- 112.4514 µg/mL<br>+/- 115.0704 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Chloromethane (methyl chloride)<br>**CAS #** 74-87-3 (Lot SHBK6571)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 13.2566 µg/mL<br>+/- 112.3274 µg/mL<br>+/- 114.9474 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Vinyl chloride<br>**CAS #** 75-01-4 (Lot 00015559)<br>**Purity** 99% | 2,001.1 µg/mL | +/- 13.8225 µg/mL<br>+/- 112.4449 µg/mL<br>+/- 115.0645 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | Bromomethane (methyl bromide)<br>**CAS #** 74-83-9 (Lot 101604)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 13.6930 µg/mL<br>+/- 112.3836 µg/mL<br>+/- 115.0025 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Chloroethane (ethyl chloride)<br>**CAS #** 75-00-3 (Lot 107-401039114-1)<br>**Purity** 99% | 2,000.5 µg/mL | +/- 15.6153 µg/mL<br>+/- 112.6506 µg/mL<br>+/- 115.2642 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Trichlorofluoromethane (CFC-11)<br>**CAS #** 75-69-4 (Lot MKCL8411)<br>**Purity** 99% | 2,000.2 µg/mL | +/- 15.8709 µg/mL<br>+/- 112.6692 µg/mL<br>+/- 115.2815 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

**Carrier Gas:**
helium-constant flow 2.0 mL/min.

**Temp. Program:**
40°C (hold 6 min.) to 100°C
@ 6°C/min.

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 27-Oct-2021 Balance: B707717271

Marlina Cowan - Operations Tech I

Date Passed: 02-Nov-2021

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30006 **Lot No.:** A0179406

**Description :** VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone<br>**CAS #** 67-64-1 (Lot SHBN3661)<br>**Purity** 99% | 5,037.5 µg/mL | +/- 29.2885 µg/mL<br>+/- 303.9347 µg/mL<br>+/- 304.6563 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 2-Butanone (MEK)<br>**CAS #** 78-93-3 (Lot SHBL5543)<br>**Purity** 99% | 5,034.3 µg/mL | +/- 29.2700 µg/mL<br>+/- 303.7436 µg/mL<br>+/- 304.4648 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK)<br>**CAS #** 108-10-1 (Lot SHBM7956)<br>**Purity** 99% | 5,032.2 µg/mL | +/- 29.2575 µg/mL<br>+/- 303.6129 µg/mL<br>+/- 304.3337 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2-Hexanone<br>**CAS #** 591-78-6 (Lot MKCL1599)<br>**Purity** 99% | 5,033.7 µg/mL | +/- 29.2662 µg/mL<br>+/- 303.7034 µg/mL<br>+/- 304.4245 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

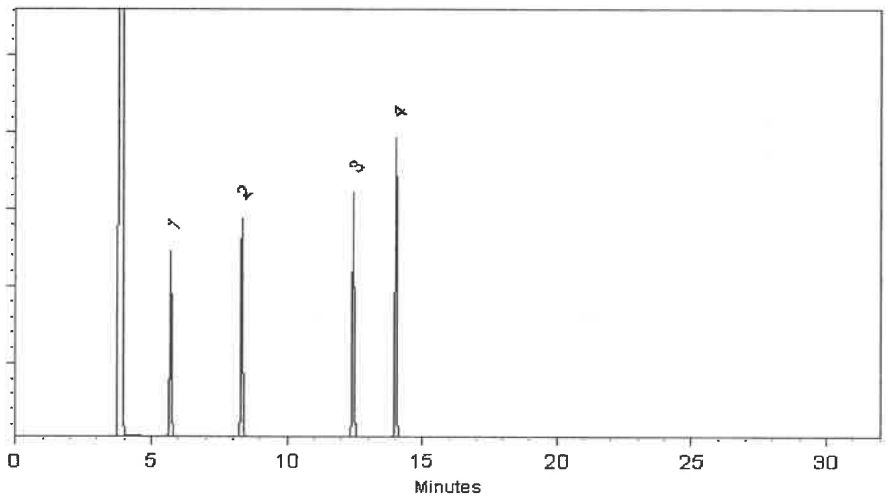
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

**Date Mixed:** 09-Dec-2021 **Balance:** B707717271

Clara Windle - Operations Technician I

**Date Passed:** 13-Dec-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
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**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

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**Catalog No. :** 30006 **Lot No.:** A0179406

**Description :** VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone<br>**CAS #** 67-64-1 (Lot SHBN3661)<br>**Purity** 99% | 5,037.5 µg/mL | +/- 29.2885 µg/mL<br>+/- 303.9347 µg/mL<br>+/- 304.6563 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 2-Butanone (MEK)<br>**CAS #** 78-93-3 (Lot SHBL5543)<br>**Purity** 99% | 5,034.3 µg/mL | +/- 29.2700 µg/mL<br>+/- 303.7436 µg/mL<br>+/- 304.4648 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK)<br>**CAS #** 108-10-1 (Lot SHBM7956)<br>**Purity** 99% | 5,032.2 µg/mL | +/- 29.2575 µg/mL<br>+/- 303.6129 µg/mL<br>+/- 304.3337 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2-Hexanone<br>**CAS #** 591-78-6 (Lot MKCL1599)<br>**Purity** 99% | 5,033.7 µg/mL | +/- 29.2662 µg/mL<br>+/- 303.7034 µg/mL<br>+/- 304.4245 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

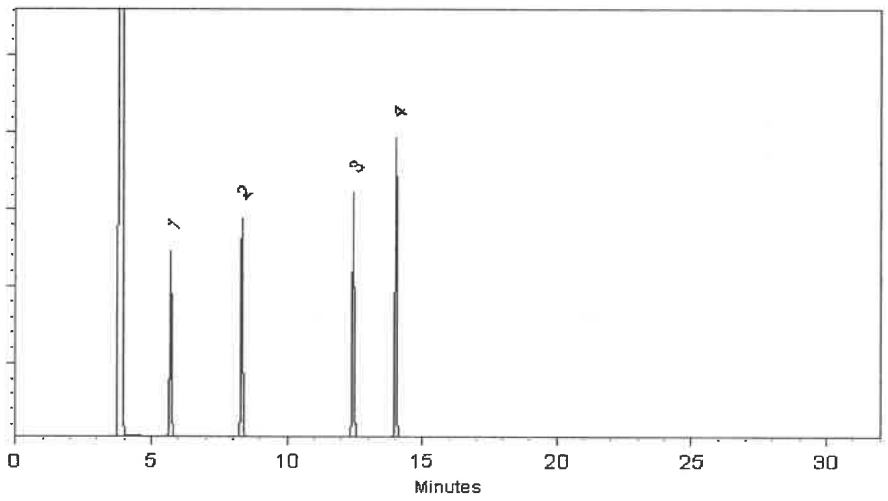
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID

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Sam Moodler - Operations Tech I

**Date Mixed:** 09-Dec-2021 **Balance:** B707717271

Clara Windle - Operations Technician I

**Date Passed:** 13-Dec-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30006 **Lot No.:** A0179406

**Description :** VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone<br>**CAS #** 67-64-1 (Lot SHBN3661)<br>**Purity** 99% | 5,037.5 µg/mL | +/- 29.2885 µg/mL<br>+/- 303.9347 µg/mL<br>+/- 304.6563 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 2-Butanone (MEK)<br>**CAS #** 78-93-3 (Lot SHBL5543)<br>**Purity** 99% | 5,034.3 µg/mL | +/- 29.2700 µg/mL<br>+/- 303.7436 µg/mL<br>+/- 304.4648 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK)<br>**CAS #** 108-10-1 (Lot SHBM7956)<br>**Purity** 99% | 5,032.2 µg/mL | +/- 29.2575 µg/mL<br>+/- 303.6129 µg/mL<br>+/- 304.3337 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2-Hexanone<br>**CAS #** 591-78-6 (Lot MKCL1599)<br>**Purity** 99% | 5,033.7 µg/mL | +/- 29.2662 µg/mL<br>+/- 303.7034 µg/mL<br>+/- 304.4245 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

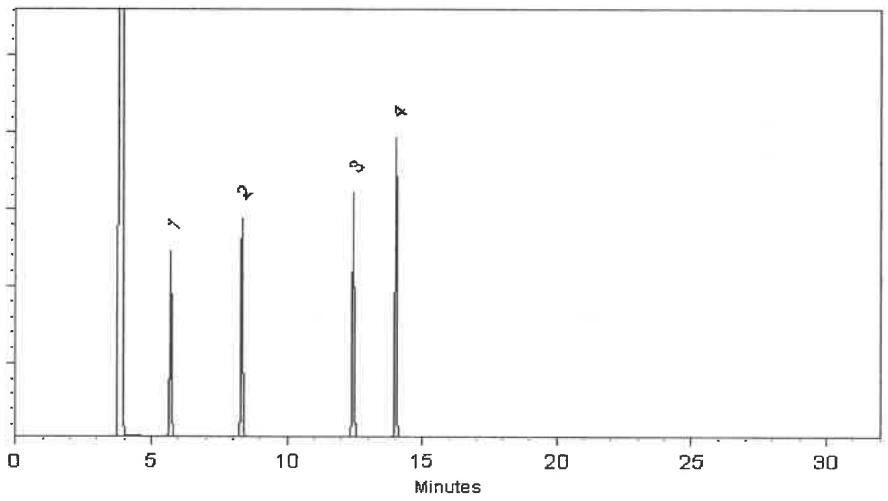
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

**Date Mixed:** 09-Dec-2021 **Balance:** B707717271

Clara Windle - Operations Technician I

**Date Passed:** 13-Dec-2021

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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|---|---|---|
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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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**Manufacturing Notes:**

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**Handling Notes:**

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Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30225 **Lot No.:** A0183824

**Description :** Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | Bromochloromethane | | 2,000.0 µg/mL | +/- 11.8794 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | +/- 112.1643 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 114.7876 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

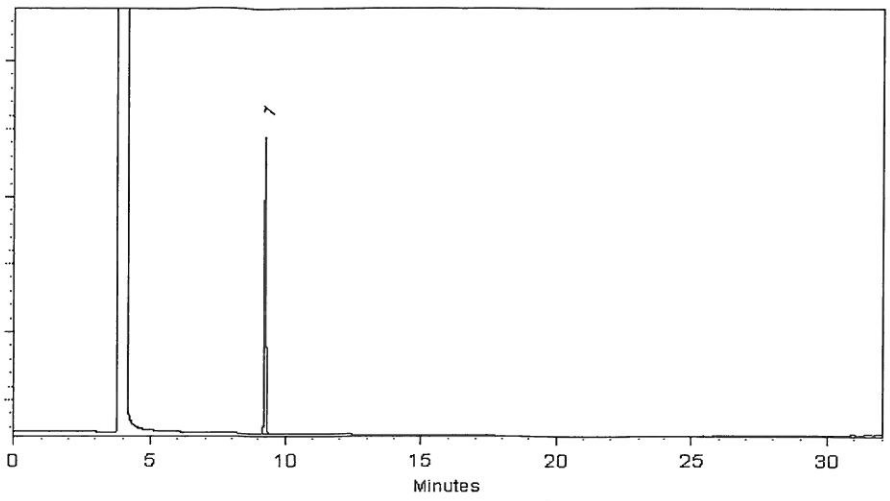
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

**Date Mixed:** 07-Apr-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 11-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30225 **Lot No.:** A0183824

**Description :** Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | Bromochloromethane | | 2,000.0 µg/mL | +/- 11.8794 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | +/- 112.1643 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 114.7876 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

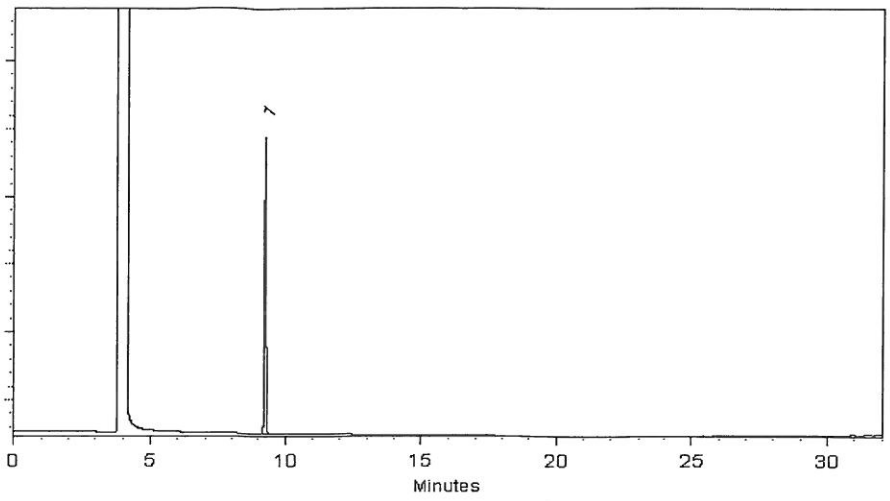
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jess Hoy - Operations Tech I

**Date Mixed:** 07-Apr-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 11-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

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Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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**Catalog No. :** 30225 **Lot No.:** A0183824

**Description :** Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | Bromochloromethane | | 2,000.0 µg/mL | +/- 11.8794 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | +/- 112.1643 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 114.7876 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
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**Inj. Temp:**
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**Det. Temp:**
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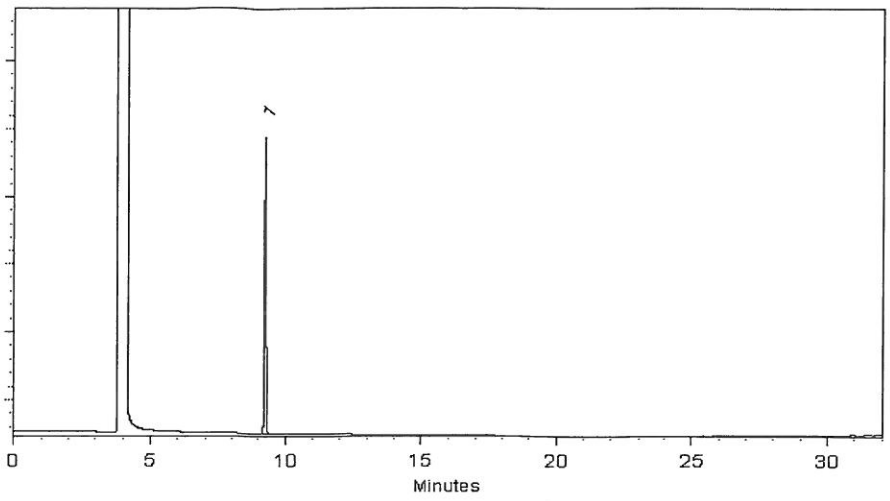
**Det. Type:**
FID

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Jess Hoy - Operations Tech I

**Date Mixed:** 07-Apr-2022 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 11-Apr-2022

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

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| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

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ISO/IEC 17025 Accredited
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Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 555408-SL **Lot No.:** A0187421

**Description :** Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Vinyl acetate<br>**CAS #** 108-05-4 (Lot RD220630)<br>**Purity** 99% | 8,078.0 µg/mL | +/- 47.4062 µg/mL<br>+/- 487.4241 µg/mL<br>+/- 488.5812 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

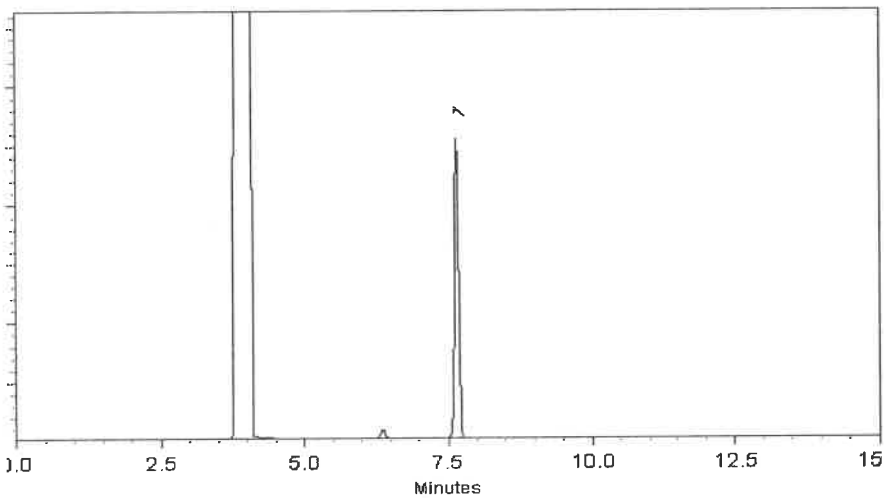
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bethany Lowery - Operations Tech I

**Date Mixed:** 18-Jul-2022 **Balance:** B251644995

Fang-Yun Weaver - Operations Lead Tech - ARM QC

**Date Passed:** 26-Jul-2022

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

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- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 555408-SL **Lot No.:** A0187421

**Description :** Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

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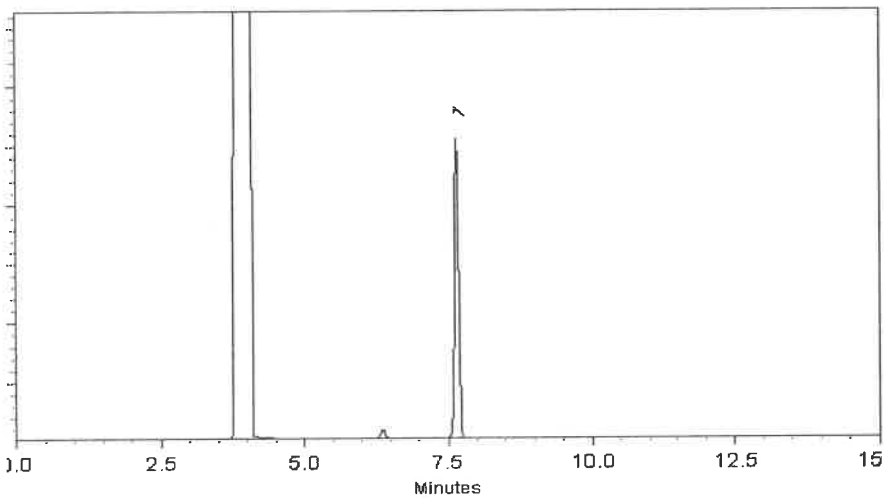
**Det. Type:**
FID

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Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22C2362001
Manufactured Date: 2022-02-15
Expiration Date: 2025-02-14
Revision No.: 0

# Certificate of Analysis

| Test | Specification | Result |
|---|---|---|
| Assay ($CH_3OH$) (by GC, corrected for water) | ≥ 99.9 % | 100.0 % |
| Residue after Evaporation | ≤ 1.0 ppm | < 0.1 ppm |
| Titrable Acid (µeq/g) | ≤ 0.3 | 0.3 |
| Titrable Base (µeq/g) | ≤ 0.10 | 0.03 |
| Water (by KF, coulometric) | ≤ 0.08 % | < 0.01 % |
| Volatile Organic Trace Analysis – Below EPA 8260B CRQL | Conforms | Conforms |

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Methanol
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500 Series for Drinking Water
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James T Ethier
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Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 0000288323
Manufactured Date: 2021-06-11
Expiration Date: 2024-06-10
Revision No.: 0

# Certificate of Analysis

| Test | Specification | Result |
|---|---|---|
| Assay ($CH_3OH$) (by GC, corrected for water) | ≥ 99.9 % | < 0.1 % |
| Residue after Evaporation | ≤ 1.0 ppm | < 0.1 ppm |
| Titrable Acid (µeq/g) | ≤ 0.3 | < 0.1 |
| Titrable Base (µeq/g) | ≤ 0.10 | < 0.01 |
| Water (by KF, coulometric) | ≤ 0.08 % | < 0.01 % |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL | Conforms | Fails |

For Laboratory,Research,or Manufacturing Use
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500 Series for Drinking Water
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Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

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100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 042921
Description: Universal VOA Megamix
69 components
Expiration Date: 042924
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Methanol Lot# DY186-USQ8

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By: Eli Aliaga 042921 DATE
Reviewed By: Pedro L. Rentas 042921 DATE

| | Compound | (RM#) Part Number | Lot Number | Dil. Factor | Initial Vol. (mL) | Initial Conc.(ug/mL) | Nominal Conc (µg/mL) | Purity (%) | Purity Uncertainty | Uncertainty Pipette (mL) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Acetonitrile | (0324) | 060812 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20041 | 2002.0 | 8.1 | 75-05-8 | 40 ppm (70mg/m3/8H) | orl-rat 2460mg/kg |
| 2. | Allyl chloride (3-Chloropropene) | (0325) | 102396 | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20233 | 2003.0 | 8.2 | 107-05-1 | 1 ppm (3mg/m3/8H) | orl-rat 700mg/kg |
| 3. | Carbon disulphide | (0060) | MKCD9604 | NA | NA | NA | 2000 | 100 | 0.2 | NA | 0.20001 | 0.20015 | 2001.4 | 8.1 | 75-15-0 | 4 ppm (12mg/m3) (skin) | orl-rat 1200mg/kg |
| 4. | cis-1,4-Dichloro-2-butene | (1196) | 14718EF | NA | NA | NA | 2000 | 95 | 0.2 | NA | 0.21054 | 0.21060 | 2000.6 | 8.5 | 1476-11-5 | N/A | N/A |
| 5. | trans-1,4-Dichloro-2-butene | (0486) | MKBP6041V | NA | NA | NA | 2000 | 96.5 | 0.2 | NA | 0.20726 | 0.20751 | 2002.4 | 8.4 | 110-57-6 | N/A | N/A |
| 6. | Diethyl ether (Ethyl ether) | (0153) | SHBK1918 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20023 | 0.20046 | 2002.3 | 8.1 | 60-29-7 | 400ppm (1200mg/m3/8H) | orl-rat 1215mg/kg |
| 7. | Ethyl methacrylate | (0381) | 06126PX | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20230 | 2002.7 | 8.2 | 97-63-2 | N/A | orl-rat 14800mg/kg |
| 8. | Iodomethane | (0489) | SHBF8718V | NA | NA | NA | 2000 | 99.5 | 0.2 | NA | 0.20101 | 0.20130 | 2002.8 | 8.1 | 74-88-4 | 5 ppm(28mg/m3/8H)(skin) | orl-rat 76mg/kg |
| 9. | 2-Methyl-1-propanol | (0445) | 15241EB | NA | NA | NA | 2000 | 99.5 | 0.2 | NA | 0.20101 | 0.20123 | 2002.1 | 8.1 | 78-83-1 | 50 ppm (150mg/m3/8H) | orl-rat 2460mg/kg |
| 10. | Methacrylonitrile | (0442) | 00427ET | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20220 | 2001.7 | 8.2 | 126-98-7 | 1 ppm (3mg/m3/8H)(skin) | orl-rat 120mg/kg |
| 11. | Methyl acrylate | (1075) | SHBK0679 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20046 | 2002.5 | 8.1 | 96-33-3 | 10 ppm(35mg/m3/8H)(skin) | orl-rat 277mg/kg |
| 12. | Methyl methacrylate | (0404) | MKBW5137V | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20048 | 2002.7 | 8.1 | 80-62-6 | 100 ppm (410mg/m3/8H) | orl-rat 7872mg/kg |
| 13. | Nitrobenzene | (0228) | 01213TV | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20218 | 2001.5 | 8.2 | 98-95-3 | 1 ppm (5mg/m3/8H)(skin) | orl-rat 780mg/kg |
| 14. | 2-Nitropropane | (0461) | 14002JX | NA | NA | NA | 2000 | 97.3 | 0.2 | NA | 0.20556 | 0.20566 | 2001.0 | 8.3 | 79-46-9 | 10 ppm (35mg/m3/8H) | orl-rat 720mg/kg |
| 15. | Pentachloroethane | (0450) | HGA01 | NA | NA | NA | 2000 | 98 | 0.2 | NA | 0.20409 | 0.20418 | 2000.9 | 8.2 | 76-01-7 | N/A | N/A |
| 16. | 1,1,2-Trichlorotrifluoroethane | (0474) | 18930 | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20221 | 2001.8 | 8.2 | 76-13-1 | 1000 ppm (7600mg/m3/8H) | orl-rat 43g/kg |
| 17. | Bromodichloromethane | 35171 | 100220 | 0.05 | 5.00 | 40018.8 | 2000 | NA | NA | 0.017 | NA | NA | 2000.8 | 18.4 | 75-27-4 | N/A | orl-rat 916mg/kg |
| 18. | Dibromochloromethane | 35171 | 100220 | 0.05 | 5.00 | 40007.7 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 124-48-1 | N/A | orl-rat 848mg/kg |
| 19. | cis-1,2-Dichloroethene | 35171 | 100220 | 0.05 | 5.00 | 40012.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 156-59-2 | N/A | N/A |
| 20. | trans-1,2-Dichloroethene | 35171 | 100220 | 0.05 | 5.00 | 40005.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 156-60-5 | N/A | orl-rat 1235mg/kg |
| 21. | Methylene chloride | 35171 | 100220 | 0.05 | 5.00 | 40013.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.6 | 18.4 | 75-09-2 | 500 ppm | orl-rat 820mg/kg |
| 22. | 1,1-Dichloroethene | 32251 | 031821 | 0.10 | 10.00 | 20009.1 | 2000 | NA | NA | 0.042 | NA | NA | 2000.8 | 19.3 | 75-35-4 | 1 ppm (4mg/m3/8H) | orl-rat 200mg/kg |
| 23. | Bromoform | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 75-25-2 | 0.5 ppm (5mg/m3) (skin) | orl-rat 933mg/kg |
| 24. | Carbon tetrachloride | 95321 | 010419 | 0.10 | 10.00 | 20001.3 | 2000 | NA | NA | 0.042 | NA | NA | 2000.0 | 19.2 | 56-23-5 | 2 ppm (12.6mg/m3/8H) | orl-rat 2350mg/kg |
| 25. | Chloroform | 95321 | 010419 | 0.10 | 10.00 | 20001.8 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.2 | 67-66-3 | 50 ppm (240mg/m3) (CL) | orl-rat 908mg/kg |
| 26. | Dibromomethane | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 74-95-3 | N/A | orl-rat 108mg/kg |
| 27. | 1,1-Dichloroethane | 95321 | 010419 | 0.10 | 10.00 | 20000.8 | 2000 | NA | NA | 0.042 | NA | NA | 2000.0 | 19.3 | 75-34-3 | 100 ppm | orl-rat 725mg/kg |
| 28. | 2,2-Dichloropropane | 95321 | 010419 | 0.10 | 10.00 | 20002.1 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 594-20-7 | N/A | N/A |
| 29. | Tetrachloroethene | 95321 | 010419 | 0.10 | 10.00 | 20002.2 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 127-18-4 | 25 ppm (170mg/m3/8H)(final) | orl-rat 2629mg/kg |
| 30. | 1,1,1-Trichloroethane | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 71-55-6 | 350 ppm (1900mg/m3/8H) | orl-rat 10300mg/kg |
| 31. | 1,2-Dibromo-3-chloropropane | 35161 | 011421 | 0.05 | 5.00 | 40001.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 96-12-8 | 0.001 ppm | orl-rat 170mg/kg |
| 32. | 1,2-Dibromoethane | 35161 | 011421 | 0.05 | 5.00 | 40003.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 106-93-4 | 20 ppm (8H) | orl-rat 108mg/kg |
| 33. | 1,2-Dichloroethane | 35161 | 011421 | 0.05 | 5.00 | 40004.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 107-06-2 | 50 ppm (8H) | orl-rat 670mg/kg |
| 34. | 1,2-Dichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40002.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 78-87-5 | 75 ppm (350mg/m3/8H) | orl-rat 1947mg/kg |
| 35. | 1,3-Dichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40013.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.6 | 18.4 | 142-28-9 | N/A | unr-mus 3600mg/kg |
| 36. | 1,1-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40015.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.7 | 26.1 | 563-58-6 | N/A | N/A |
| 37. | cis-1,3-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40004.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 10061-01-5 | N/A | N/A |
| 38. | trans-1,3-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40009.1 | 2000 | NA | NA | 0.017 | NA | NA | 2000.4 | 18.5 | 10061-02-6 | N/A | N/A |
| 39. | Hexachloro-1,3-butadiene | 35161 | 011421 | 0.05 | 5.00 | 40003.5 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 26.4 | 87-68-3 | 0.02 ppm (0.24mg/m3/8H) | orl-rat 82mg/kg |
| 40. | 1,1,1,2-Tetrachloroethane | 35161 | 011421 | 0.05 | 5.00 | 40011.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 630-20-6 | N/A | orl-rat 670mg/kg |
| 41. | 1,1,2,2-Tetrachloroethane | 35161 | 011421 | 0.05 | 5.00 | 40011.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 79-34-5 | 5 ppm (35mg/m3/9H)(skin) | orl-rat 800mg/kg |
| 42. | 1,1,2-Trichloroethane | 35161 | 011421 | 0.05 | 5.00 | 40000.8 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 79-00-5 | 10 ppm (45mg/m3/8H)(skin) | orl-rat 836mg/kg |
| 43. | Trichloroethene | 35161 | 011421 | 0.05 | 5.00 | 40003.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 79-01-6 | 50 ppm (270mg/m3/8H) | orl-mus 2402mg/kg |
| 44. | 1,2,3-Trichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40015.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.7 | 18.4 | 96-18-4 | 10 ppm (60mg/m3/8H) | orl-rat 149.6mg/kg |
| 45. | Benzene | 35162 | 020821 | 0.05 | 5.00 | 40008.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 71-43-2 | 1 ppm | orl-rat 4894mg/kg |
| 46. | Bromobenzene | 35162 | 020821 | 0.05 | 5.00 | 40019.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.9 | 18.4 | 108-86-1 | N/A | orl-rat 2699mg/kg |
| 47. | n-Butyl benzene | 35162 | 020821 | 0.05 | 5.00 | 40019.8 | 2000 | NA | NA | 0.017 | NA | NA | 2000.9 | 18.4 | 104-51-8 | N/A | N/A |
| 48. | Ethyl benzene | 35162 | 020821 | 0.05 | 5.00 | 40000.9 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 100-41-4 | 100 ppm (435mg/m3/8H) | orl-rat >2000mg/kg |
| 49. | p-Isopropyl toluene | 35162 | 020821 | 0.05 | 5.00 | 40056.4 | 2000 | NA | NA | 0.017 | NA | NA | 2002.7 | 18.4 | 99-87-6 | N/A | orl-rat 4750mg/kg |
| 50. | Naphthalene | 35162 | 020821 | 0.05 | 5.00 | 40005.1 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.3 | 91-20-3 | 10 ppm (50mg/m3/8H) | orl-rat 490mg/kg |
| 51. | Styrene | 35162 | 020821 | 0.05 | 5.00 | 40022.8 | 2000 | NA | NA | 0.017 | NA | NA | 2001.0 | 18.4 | 100-42-5 | 100 ppm | orl-rat 5000mg/kg |
| 52. | Toluene | 35162 | 020821 | 0.05 | 5.00 | 40008.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 108-88-3 | 200 ppm | orl-rat 5000mg/kg |
| 53. | 1,2,3-Trichlorobenzene | 35162 | 020821 | 0.05 | 5.00 | 40002.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 87-61-6 | N/A | ipr-mus 1390mg/kg |
| 54. | 1,2,4-Trichlorobenzene | 35162 | 020821 | 0.05 | 5.00 | 40027.4 | 2000 | NA | NA | 0.017 | NA | NA | 2001.3 | 18.4 | 120-82-1 | 5 ppm (CL) (40mg/m3) | orl-rat 756mg/kg |
| 55. | 1,2,4-Trimethylbenzene | 35162 | 020821 | 0.05 | 5.00 | 40012.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 95-63-6 | N/A | orl-rat 5g/kg |
| 56. | 1,3,5-Trimethylbenzene | 35162 | 020821 | 0.05 | 5.00 | 40011.5 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.5 | 108-67-8 | N/A | orl-rat 5000mg/kg |
| 57. | m-Xylene | 35162 | 020821 | 0.05 | 5.00 | 40021.8 | 2000 | NA | NA | 0.017 | NA | NA | 2001.0 | 18.4 | 108-38-3 | 100 ppm (435mg/m3/8H) | orl-rat 5g/kg |
| 58. | tert-Butyl benzene | 35163 | 022521 | 0.05 | 5.00 | 40005.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 98-06-6 | N/A | N/A |
| 59. | sec-Butyl benzene | 35163 | 022521 | 0.05 | 5.00 | 40011.7 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 135-98-8 | N/A | orl-rat 2240mg/kg |
| 60. | Chlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40009.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.4 | 18.4 | 108-90-7 | 75 ppm (350mg/m3/8H) | orl-rat 2290mg/kg |
| 61. | 2-Chlorotoluene | 35163 | 022521 | 0.05 | 5.00 | 40002.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 95-49-8 | 50 ppm (250mg/m3/8H) | orl-rat 3900mg/kg |
| 62. | 4-Chlorotoluene | 35163 | 022521 | 0.05 | 5.00 | 40000.4 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 106-43-4 | N/A | orl-rat 2100mg/kg |
| 63. | 1,2-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40004.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 95-50-1 | 50 ppm (300mg/m3) (CL) | orl-rat 500mg/kg |
| 64. | 1,3-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40003.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 541-73-1 | N/A | ipr-mus 1062mg/kg |
| 65. | 1,4-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40005.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 106-46-7 | 75 ppm (450mg/m3/8H) | orl-rat 500mg/kg |
| 66. | Isopropylbenzene | 35163 | 022521 | 0.05 | 5.00 | 40007.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 98-82-8 | 50 ppm (245mg/m3/8H) | orl-rat 1400mg/kg |
| 67. | n-Propylbenzene | 35163 | 022521 | 0.05 | 5.00 | 40004.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 103-65-1 | N/A | orl-rat 6040mg/kg |
| 68. | o-Xylene | 35163 | 022521 | 0.05 | 5.00 | 40003.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 95-47-6 | 100 ppm (435mg/m3/8H) | ipr-mus 1364mg/kg |
| 69. | p-Xylene | 35163 | 022521 | 0.05 | 5.00 | 40005.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 106-42-3 | 100 ppm (435mg/m3/8H) | orl-rat 5g/kg |

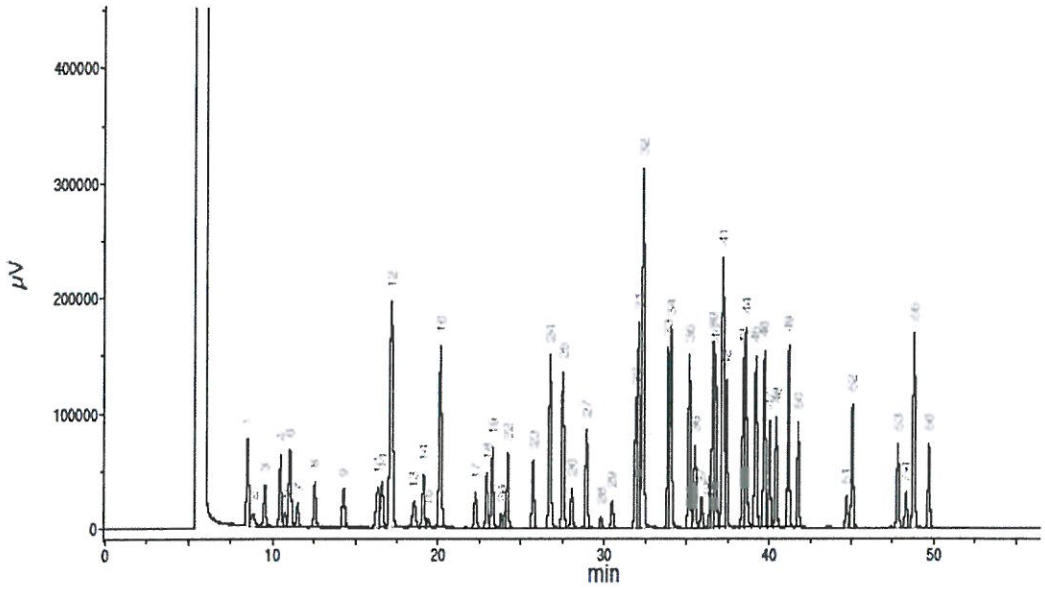
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

## Run 22, "P95317 L042921 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Thu, Apr 29, 2021 at 3:49:30 PM.
Sampled: Sequence "042521-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

### Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=4




| Peak # | Analyte | FID RT (min.) |
|---|---|---|
| 1 | Ether | 8.48 |
| 2 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.80 |
| 3 | 1,1-Dichloroethene | 9.51 |
| 4 | Acetonitrile | 10.44 |
| 5 | Iodomethane | 10.71 |
| 6 | Allyl chloride | 11.02 |
| 7 | **Carbon disulfide/Methylene chloride** | 11.51 |
| 8 | trans-1,2-Dichloroethene | 12.55 |
| 9 | 1,1-Dichloroethane | 14.28 |
| 10 | 2,2-Dichloropropane | 16.33 |
| 11 | cis-1,2-Dichloroethene | 16.59 |
| 12 | **Methacrylonitrile/Methyl acrylate/Chloroform** | 17.14 |
| 13 | **Isobutanol/1,1,1-Trichloroethane** | 18.52 |
| 14 | 1,1-Dichloropropene | 19.08 |
| 15 | Carbon tetrachloride | 19.39 |
| 16 | **Benzene/1,2-Dichloroethane** | 20.10 |
| 17 | Trichloroethene | 22.23 |
| 18 | 1,2-Dichloropropane | 22.92 |
| 19 | Methyl methacrylate | 23.26 |
| 20 | Bromodichloromethane | 23.79 |
| 21 | Dibromomethane | 23.98 |
| 22 | 2-Nitropropane | 24.18 |
| 23 | cis-1,3-Dichloropropene | 25.71 |
| 24 | Toluene | 26.71 |
| 25 | **Ethyl methacrylate/trans-1,3-Dichloropropene** | 27.50 |
| 26 | 1,1,2-Trichloroethane | 28.04 |
| 27 | **Tetrachloroethene/1,3-Dichloropropane** | 29.92 |
| 28 | Dibromochloromethane | 29.79 |
| 29 | 1,2-Dibromoethane | 30.46 |
| 30 | Chlorobenzene | 31.89 |
| 31 | **Ethylbenzene/1,1,1,2-Tetrachloroethane** | 32.07 |
| 32 | **m-Xylene/p-Xylene** | 32.33 |
| 33 | o-Xylene | 33.87 |
| 34 | Styrene | 34.04 |
| 35 | **Isopropylbenzene/Bromoform** | 35.14 |
| 36 | cis-1,4-Dichloro-2-butene | 35.49 |
| 37 | 1,1,2,2-Tetrachloroethane | 35.90 |
| 38 | **1,2,3-Trichloropropane** | 36.34 |
| 39 | **n-Propylbenzene** | 36.58 |
| 40 | **trans-1,4-Dichloro-2-butene/Bromobenzene** | 36.73 |
| 41 | **1,3,5-Trimethylbenzene/2-Chlorotoluene** | 37.17 |
| 42 | 4-Chlorotoluene | 37.38 |
| 43 | tert-Butylbenzene | 38.41 |
| 44 | **1,2,4-Trimethylbenzene/Pentachloroethane** | 38.55 |
| 45 | sec-Butylbenzene | 39.16 |
| 46 | p-Isopropyltoluene | 39.68 |
| 47 | 1,3-Dichlorobenzene | 40.01 |
| 48 | 1,4-Dichlorobenzene | 40.42 |
| 49 | n-Butylbenzene | 41.16 |
| 50 | 1,2-Dichlorobenzene | 41.74 |
| 51 | 1,2-Dibromo-3-chloropropane | 44.68 |
| 52 | Nitrobenzene | 45.04 |
| 53 | 1,2,4-Trichlorobenzene | 47.80 |
| 54 | Hexachlorobutadiene | 48.29 |
| 55 | Naphthalene | 48.76 |
| 56 | 1,2,3-Trichlorobenzene | 49.66 |

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International<br>Date Prepared/Revised | **1-352-323-3500**<br>May 1, 2019 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

**Absolute Standards, Inc.**
800-368-1131
www.absolutestandards.com

*Certified Reference Material CRM*

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 042921
Description: Universal VOA Megamix
69 components
Expiration Date: 042924
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Methanol Lot# DY186-USQ8

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By: Eli Aliaga 042921 DATE
Reviewed By: Pedro L. Rentas 042921 DATE

| | Compound | (RM#) Part Number | Lot Number | Dil. Factor | Initial Vol. (mL) | Initial Conc.(ug/mL) | Nominal Conc (µg/mL) | Purity (%) | Purity Uncertainty | Uncertainty Pipette (mL) | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Acetonitrile | (0324) | 060812 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20041 | 2002.0 | 8.1 | 75-05-8 | 40 ppm (70mg/m3/8H) | orl-rat 2460mg/kg |
| 2. | Allyl chloride (3-Chloropropene) | (0325) | 102396 | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20233 | 2003.0 | 8.2 | 107-05-1 | 1 ppm (3mg/m3/8H) | orl-rat 700mg/kg |
| 3. | Carbon disulphide | (0060) | MKCD9604 | NA | NA | NA | 2000 | 100 | 0.2 | NA | 0.20001 | 0.20015 | 2001.4 | 8.1 | 75-15-0 | 4 ppm (12mg/m3) (skin) | orl-rat 1200mg/kg |
| 4. | cis-1,4-Dichloro-2-butene | (1196) | 14718EF | NA | NA | NA | 2000 | 95 | 0.2 | NA | 0.21054 | 0.21060 | 2000.6 | 8.5 | 1476-11-5 | N/A | N/A |
| 5. | trans-1,4-Dichloro-2-butene | (0486) | MKBP6041V | NA | NA | NA | 2000 | 96.5 | 0.2 | NA | 0.20726 | 0.20751 | 2002.4 | 8.4 | 110-57-6 | N/A | N/A |
| 6. | Diethyl ether (Ethyl ether) | (0153) | SHBK1918 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20023 | 0.20046 | 2002.3 | 8.1 | 60-29-7 | 400ppm (1200mg/m3/8H) | orl-rat 1215mg/kg |
| 7. | Ethyl methacrylate | (0381) | 06126PX | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20230 | 2002.7 | 8.2 | 97-63-2 | N/A | orl-rat 14800mg/kg |
| 8. | Iodomethane | (0489) | SHBF8718V | NA | NA | NA | 2000 | 99.5 | 0.2 | NA | 0.20101 | 0.20130 | 2002.8 | 8.1 | 74-88-4 | 5 ppm(28mg/m3/8H)(skin) | orl-rat 76mg/kg |
| 9. | 2-Methyl-1-propanol | (0445) | 15241EB | NA | NA | NA | 2000 | 99.5 | 0.2 | NA | 0.20101 | 0.20123 | 2002.1 | 8.1 | 78-83-1 | 50 ppm (150mg/m3/8H) | orl-rat 2460mg/kg |
| 10. | Methacrylonitrile | (0442) | 00427ET | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20220 | 2001.7 | 8.2 | 126-98-7 | 1 ppm (3mg/m3/8H)(skin) | orl-rat 120mg/kg |
| 11. | Methyl acrylate | (1075) | SHBK0679 | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20046 | 2002.5 | 8.1 | 96-33-3 | 10 ppm(35mg/m3/8H)(skin) | orl-rat 277mg/kg |
| 12. | Methyl methacrylate | (0404) | MKBW5137V | NA | NA | NA | 2000 | 99.9 | 0.2 | NA | 0.20021 | 0.20048 | 2002.7 | 8.1 | 80-62-6 | 100 ppm (410mg/m3/8H) | orl-rat 7872mg/kg |
| 13. | Nitrobenzene | (0228) | 01213TV | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20218 | 2001.5 | 8.2 | 98-95-3 | 1 ppm (5mg/m3/8H)(skin) | orl-rat 780mg/kg |
| 14. | 2-Nitropropane | (0461) | 14002JX | NA | NA | NA | 2000 | 97.3 | 0.2 | NA | 0.20556 | 0.20566 | 2001.0 | 8.3 | 79-46-9 | 10 ppm (35mg/m3/8H) | orl-rat 720mg/kg |
| 15. | Pentachloroethane | (0450) | HGA01 | NA | NA | NA | 2000 | 98 | 0.2 | NA | 0.20409 | 0.20418 | 2000.9 | 8.2 | 76-01-7 | N/A | N/A |
| 16. | 1,1,2-Trichlorotrifluoroethane | (0474) | 18930 | NA | NA | NA | 2000 | 99 | 0.2 | NA | 0.20203 | 0.20221 | 2001.8 | 8.2 | 76-13-1 | 1000 ppm (7600mg/m3/8H) | orl-rat 43g/kg |
| 17. | Bromodichloromethane | 35171 | 100220 | 0.05 | 5.00 | 40018.8 | 2000 | NA | NA | 0.017 | NA | NA | 2000.8 | 18.4 | 75-27-4 | N/A | orl-rat 916mg/kg |
| 18. | Dibromochloromethane | 35171 | 100220 | 0.05 | 5.00 | 40007.7 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 124-48-1 | N/A | orl-rat 848mg/kg |
| 19. | cis-1,2-Dichloroethene | 35171 | 100220 | 0.05 | 5.00 | 40012.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 156-59-2 | N/A | N/A |
| 20. | trans-1,2-Dichloroethene | 35171 | 100220 | 0.05 | 5.00 | 40005.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 156-60-5 | N/A | orl-rat 1235mg/kg |
| 21. | Methylene chloride | 35171 | 100220 | 0.05 | 5.00 | 40013.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.6 | 18.4 | 75-09-2 | 500 ppm | orl-rat 820mg/kg |
| 22. | 1,1-Dichloroethene | 32251 | 031821 | 0.10 | 10.00 | 20009.1 | 2000 | NA | NA | 0.042 | NA | NA | 2000.8 | 19.3 | 75-35-4 | 1 ppm (4mg/m3/8H) | orl-rat 200mg/kg |
| 23. | Bromoform | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 75-25-2 | 0.5 ppm (5mg/m3) (skin) | orl-rat 933mg/kg |
| 24. | Carbon tetrachloride | 95321 | 010419 | 0.10 | 10.00 | 20001.3 | 2000 | NA | NA | 0.042 | NA | NA | 2000.0 | 19.2 | 56-23-5 | 2 ppm (12.6mg/m3/8H) | orl-rat 2350mg/kg |
| 25. | Chloroform | 95321 | 010419 | 0.10 | 10.00 | 20001.8 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.2 | 67-66-3 | 50 ppm (240mg/m3) (CL) | orl-rat 908mg/kg |
| 26. | Dibromomethane | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 74-95-3 | N/A | orl-rat 108mg/kg |
| 27. | 1,1-Dichloroethane | 95321 | 010419 | 0.10 | 10.00 | 20000.8 | 2000 | NA | NA | 0.042 | NA | NA | 2000.0 | 19.3 | 75-34-3 | 100 ppm | orl-rat 725mg/kg |
| 28. | 2,2-Dichloropropane | 95321 | 010419 | 0.10 | 10.00 | 20002.1 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 594-20-7 | N/A | N/A |
| 29. | Tetrachloroethene | 95321 | 010419 | 0.10 | 10.00 | 20002.2 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 127-18-4 | 25 ppm (170mg/m3/8H)(final) | orl-rat 2629mg/kg |
| 30. | 1,1,1-Trichloroethane | 95321 | 010419 | 0.10 | 10.00 | 20001.7 | 2000 | NA | NA | 0.042 | NA | NA | 2000.1 | 19.3 | 71-55-6 | 350 ppm (1900mg/m3/8H) | orl-rat 10300mg/kg |
| 31. | 1,2-Dibromo-3-chloropropane | 35161 | 011421 | 0.05 | 5.00 | 40001.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 96-12-8 | 0.001 ppm | orl-rat 170mg/kg |
| 32. | 1,2-Dibromoethane | 35161 | 011421 | 0.05 | 5.00 | 40003.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 106-93-4 | 20 ppm (8H) | orl-rat 108mg/kg |
| 33. | 1,2-Dichloroethane | 35161 | 011421 | 0.05 | 5.00 | 40004.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 107-06-2 | 50 ppm (8H) | orl-rat 670mg/kg |
| 34. | 1,2-Dichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40002.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 78-87-5 | 75 ppm (350mg/m3/8H) | orl-rat 1947mg/kg |
| 35. | 1,3-Dichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40013.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.6 | 18.4 | 142-28-9 | N/A | unr-mus 3600mg/kg |
| 36. | 1,1-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40015.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.7 | 26.1 | 563-58-6 | N/A | N/A |
| 37. | cis-1,3-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40004.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 10061-01-5 | N/A | N/A |
| 38. | trans-1,3-Dichloropropene | 35161 | 011421 | 0.05 | 5.00 | 40009.1 | 2000 | NA | NA | 0.017 | NA | NA | 2000.4 | 18.5 | 10061-02-6 | N/A | N/A |
| 39. | Hexachloro-1,3-butadiene | 35161 | 011421 | 0.05 | 5.00 | 40003.5 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 26.4 | 87-68-3 | 0.02 ppm (0.24mg/m3/8H) | orl-rat 82mg/kg |
| 40. | 1,1,1,2-Tetrachloroethane | 35161 | 011421 | 0.05 | 5.00 | 40011.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 630-20-6 | N/A | orl-rat 670mg/kg |
| 41. | 1,1,2,2-Tetrachloroethane | 35161 | 011421 | 0.05 | 5.00 | 40011.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 79-34-5 | 5 ppm (35mg/m3/9H)(skin) | orl-rat 800mg/kg |
| 42. | 1,1,2-Trichloroethane | 35161 | 011421 | 0.05 | 5.00 | 40000.8 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 79-00-5 | 10 ppm (45mg/m3/8H)(skin) | orl-rat 836mg/kg |
| 43. | Trichloroethene | 35161 | 011421 | 0.05 | 5.00 | 40003.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 79-01-6 | 50 ppm (270mg/m3/8H) | orl-mus 2402mg/kg |
| 44. | 1,2,3-Trichloropropane | 35161 | 011421 | 0.05 | 5.00 | 40015.2 | 2000 | NA | NA | 0.017 | NA | NA | 2000.7 | 18.4 | 96-18-4 | 10 ppm (60mg/m3/8H) | orl-rat 149.6mg/kg |
| 45. | Benzene | 35162 | 020821 | 0.05 | 5.00 | 40008.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 71-43-2 | 1 ppm | orl-rat 4894mg/kg |
| 46. | Bromobenzene | 35162 | 020821 | 0.05 | 5.00 | 40019.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.9 | 18.4 | 108-86-1 | N/A | orl-rat 2699mg/kg |
| 47. | n-Butyl benzene | 35162 | 020821 | 0.05 | 5.00 | 40019.8 | 2000 | NA | NA | 0.017 | NA | NA | 2000.9 | 18.4 | 104-51-8 | N/A | N/A |
| 48. | Ethyl benzene | 35162 | 020821 | 0.05 | 5.00 | 40000.9 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 100-41-4 | 100 ppm (435mg/m3/8H) | orl-rat >2000mg/kg |
| 49. | p-Isopropyl toluene | 35162 | 020821 | 0.05 | 5.00 | 40056.4 | 2000 | NA | NA | 0.017 | NA | NA | 2002.7 | 18.4 | 99-87-6 | N/A | orl-rat 4750mg/kg |
| 50. | Naphthalene | 35162 | 020821 | 0.05 | 5.00 | 40005.1 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.3 | 91-20-3 | 10 ppm (50mg/m3/8H) | orl-rat 490mg/kg |
| 51. | Styrene | 35162 | 020821 | 0.05 | 5.00 | 40022.8 | 2000 | NA | NA | 0.017 | NA | NA | 2001.0 | 18.4 | 100-42-5 | 100 ppm | orl-rat 5000mg/kg |
| 52. | Toluene | 35162 | 020821 | 0.05 | 5.00 | 40008.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 108-88-3 | 200 ppm | orl-rat 5000mg/kg |
| 53. | 1,2,3-Trichlorobenzene | 35162 | 020821 | 0.05 | 5.00 | 40002.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 87-61-6 | N/A | ipr-mus 1390mg/kg |
| 54. | 1,2,4-Trichlorobenzene | 35162 | 020821 | 0.05 | 5.00 | 40027.4 | 2000 | NA | NA | 0.017 | NA | NA | 2001.3 | 18.4 | 120-82-1 | 5 ppm (CL) (40mg/m3) | orl-rat 756mg/kg |
| 55. | 1,2,4-Trimethylbenzene | 35162 | 020821 | 0.05 | 5.00 | 40012.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 95-63-6 | N/A | orl-rat 5g/kg |
| 56. | 1,3,5-Trimethylbenzene | 35162 | 020821 | 0.05 | 5.00 | 40011.5 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.5 | 108-67-8 | N/A | orl-rat 5000mg/kg |
| 57. | m-Xylene | 35162 | 020821 | 0.05 | 5.00 | 40021.8 | 2000 | NA | NA | 0.017 | NA | NA | 2001.0 | 18.4 | 108-38-3 | 100 ppm (435mg/m3/8H) | orl-rat 5g/kg |
| 58. | tert-Butyl benzene | 35163 | 022521 | 0.05 | 5.00 | 40005.9 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 98-06-6 | N/A | N/A |
| 59. | sec-Butyl benzene | 35163 | 022521 | 0.05 | 5.00 | 40011.7 | 2000 | NA | NA | 0.017 | NA | NA | 2000.5 | 18.4 | 135-98-8 | N/A | orl-rat 2240mg/kg |
| 60. | Chlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40009.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.4 | 18.4 | 108-90-7 | 75 ppm (350mg/m3/8H) | orl-rat 2290mg/kg |
| 61. | 2-Chlorotoluene | 35163 | 022521 | 0.05 | 5.00 | 40002.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.0 | 18.4 | 95-49-8 | 50 ppm (250mg/m3/8H) | orl-rat 3900mg/kg |
| 62. | 4-Chlorotoluene | 35163 | 022521 | 0.05 | 5.00 | 40000.4 | 2000 | NA | NA | 0.017 | NA | NA | 1999.9 | 18.4 | 106-43-4 | N/A | orl-rat 2100mg/kg |
| 63. | 1,2-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40004.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 95-50-1 | 50 ppm (300mg/m3) (CL) | orl-rat 500mg/kg |
| 64. | 1,3-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40003.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 541-73-1 | N/A | ipr-mus 1062mg/kg |
| 65. | 1,4-Dichlorobenzene | 35163 | 022521 | 0.05 | 5.00 | 40005.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 106-46-7 | 75 ppm (450mg/m3/8H) | orl-rat 500mg/kg |
| 66. | Isopropylbenzene | 35163 | 022521 | 0.05 | 5.00 | 40007.4 | 2000 | NA | NA | 0.017 | NA | NA | 2000.3 | 18.4 | 98-82-8 | 50 ppm (245mg/m3/8H) | orl-rat 1400mg/kg |
| 67. | n-Propylbenzene | 35163 | 022521 | 0.05 | 5.00 | 40004.6 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 103-65-1 | N/A | orl-rat 6040mg/kg |
| 68. | o-Xylene | 35163 | 022521 | 0.05 | 5.00 | 40003.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.1 | 18.4 | 95-47-6 | 100 ppm (435mg/m3/8H) | ipr-mus 1364mg/kg |
| 69. | p-Xylene | 35163 | 022521 | 0.05 | 5.00 | 40005.0 | 2000 | NA | NA | 0.017 | NA | NA | 2000.2 | 18.4 | 106-42-3 | 100 ppm (435mg/m3/8H) | orl-rat 5g/kg |

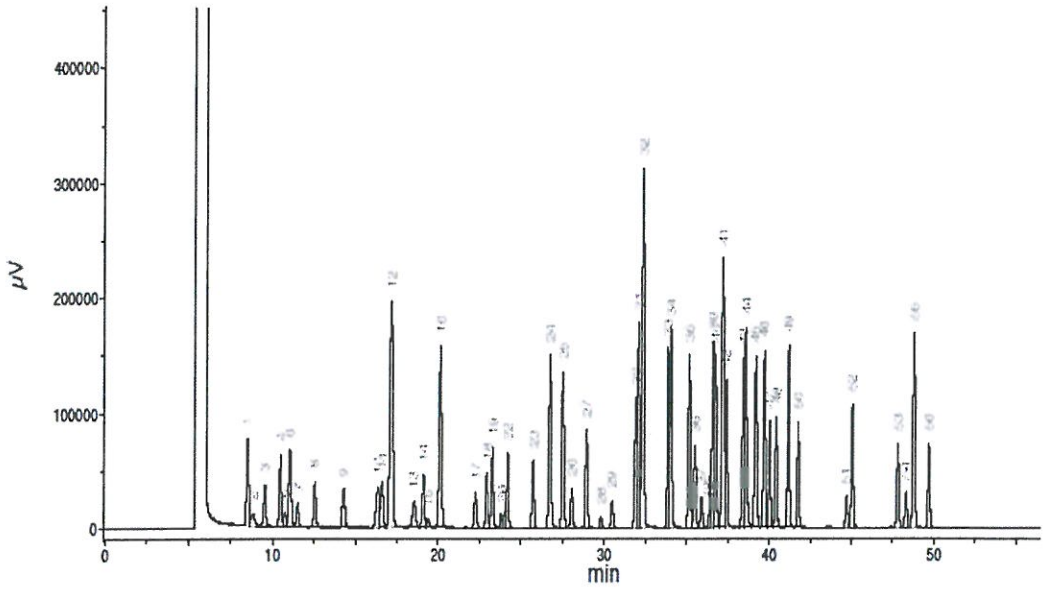
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

## Run 22, "P95317 L042921 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Thu, Apr 29, 2021 at 3:49:30 PM.
Sampled: Sequence "042521-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

### Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=4




| Peak # | Analyte | FID RT (min.) |
|---|---|---|
| 1 | Ether | 8.48 |
| 2 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.80 |
| 3 | 1,1-Dichloroethene | 9.51 |
| 4 | Acetonitrile | 10.44 |
| 5 | Iodomethane | 10.71 |
| 6 | Allyl chloride | 11.02 |
| 7 | **Carbon disulfide/Methylene chloride** | 11.51 |
| 8 | trans-1,2-Dichloroethene | 12.55 |
| 9 | 1,1-Dichloroethane | 14.28 |
| 10 | 2,2-Dichloropropane | 16.33 |
| 11 | cis-1,2-Dichloroethene | 16.59 |
| 12 | **Methacrylonitrile/Methyl acrylate/Chloroform** | 17.14 |
| 13 | **Isobutanol/1,1,1-Trichloroethane** | 18.52 |
| 14 | 1,1-Dichloropropene | 19.08 |
| 15 | Carbon tetrachloride | 19.39 |
| 16 | **Benzene/1,2-Dichloroethane** | 20.10 |
| 17 | Trichloroethene | 22.23 |
| 18 | 1,2-Dichloropropane | 22.92 |
| 19 | Methyl methacrylate | 23.26 |
| 20 | Bromodichloromethane | 23.79 |
| 21 | Dibromomethane | 23.98 |
| 22 | 2-Nitropropane | 24.18 |
| 23 | cis-1,3-Dichloropropene | 25.71 |
| 24 | Toluene | 26.71 |
| 25 | **Ethyl methacrylate/trans-1,3-Dichloropropene** | 27.50 |
| 26 | 1,1,2-Trichloroethane | 28.04 |
| 27 | **Tetrachloroethene/1,3-Dichloropropane** | 29.92 |
| 28 | Dibromochloromethane | 29.79 |
| 29 | 1,2-Dibromoethane | 30.46 |
| 30 | Chlorobenzene | 31.89 |
| 31 | **Ethylbenzene/1,1,1,2-Tetrachloroethane** | 32.07 |
| 32 | **m-Xylene/p-Xylene** | 32.33 |
| 33 | o-Xylene | 33.87 |
| 34 | Styrene | 34.04 |
| 35 | **Isopropylbenzene/Bromoform** | 35.14 |
| 36 | cis-1,4-Dichloro-2-butene | 35.49 |
| 37 | 1,1,2,2-Tetrachloroethane | 35.90 |
| 38 | **1,2,3-Trichloropropane** | 36.34 |
| 39 | **n-Propylbenzene** | 36.58 |
| 40 | **trans-1,4-Dichloro-2-butene/Bromobenzene** | 36.73 |
| 41 | **1,3,5-Trimethylbenzene/2-Chlorotoluene** | 37.17 |
| 42 | 4-Chlorotoluene | 37.38 |
| 43 | tert-Butylbenzene | 38.41 |
| 44 | **1,2,4-Trimethylbenzene/Pentachloroethane** | 38.55 |
| 45 | sec-Butylbenzene | 39.16 |
| 46 | p-Isopropyltoluene | 39.68 |
| 47 | 1,3-Dichlorobenzene | 40.01 |
| 48 | 1,4-Dichlorobenzene | 40.42 |
| 49 | n-Butylbenzene | 41.16 |
| 50 | 1,2-Dichlorobenzene | 41.74 |
| 51 | 1,2-Dibromo-3-chloropropane | 44.68 |
| 52 | Nitrobenzene | 45.04 |
| 53 | 1,2,4-Trichlorobenzene | 47.80 |
| 54 | Hexachlorobutadiene | 48.29 |
| 55 | Naphthalene | 48.76 |
| 56 | 1,2,3-Trichlorobenzene | 49.66 |

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr.<br>Hamden CT, 06514 | Emergency Telephone International<br>Date Prepared/Revised | **1-352-323-3500**<br>May 1, 2019 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

RESTEK®
110 Benner Circle
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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30067 **Lot No.:** A0147670

**Description :** 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** April 30, 2024 **Storage:** 0°C or colder

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1-Bromo-4-fluorobenzene (BFB) | 2,511.0 µg/mL | +/- 14.7360 | µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 140.8035 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.0975 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

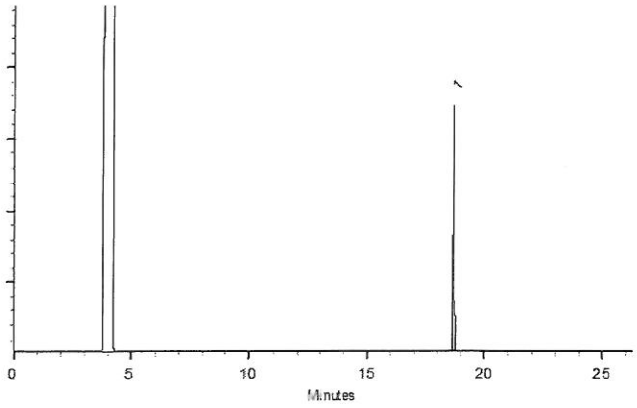
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J. Lidgett

Dustin Lidgett - Mix Technician

**Date Mixed:** 01-Apr-2019 **Balance:** 1127510105

Justine Albertson

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 04-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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800-368-1131
www.absolutestandards.com

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https://Absolutestandards.co

## CERTIFIED WEIGHT REPORT

**Part Number:** 91980
**Lot Number:** 112822
**Description:** Acrolein

**Solvent(s):** Water **Lot#** 102422Q

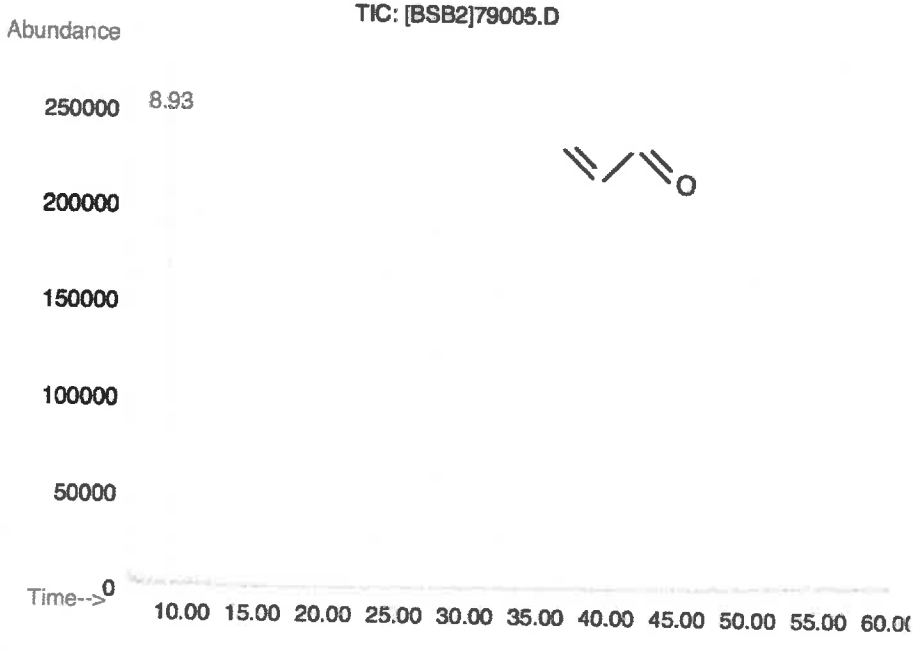
Expiration Date: 122822
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

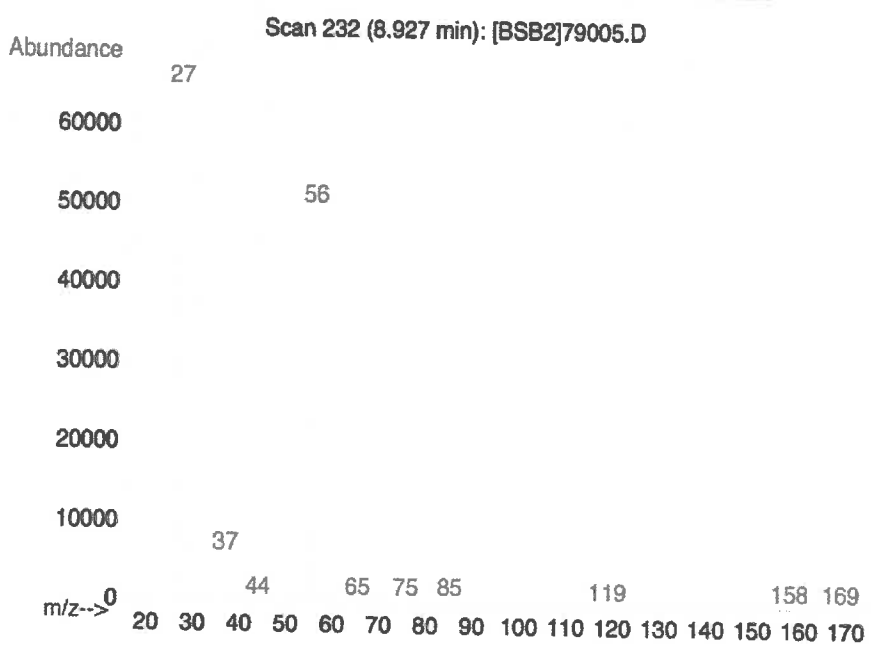
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0
0.002 Flask Uncertainty

| | | |
|---|---|---|
| | | 112822 |
| Formulated By: | Benson Chan | DATE |
| | | 112822 |
| Reviewed By: | Pedro L. Rentas | DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05167 | 5006.3 | 52.5 | 107-02-8 | 0.1 ppm | orl-rat 46mg/kg |

**Method:** GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C ( Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.




- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

**Absolute Standards Inc.**

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN WATER**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr. Hamden CT, 06514 | Emergency Telephone International | **1-352-323-3500** |
| | | Date Prepared/Revised | May 1, 2022 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **P271** | **Use in ventilated area** | **H315** | **Causes skin and eye irritation.** |
| **P302,332** | **If on skin, wash with soap and water** | **P280** | **Use gloves, eye protection/face sheild** |
| | | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | % (optional) |
|---|---|---|
| Water | CAS#: 7732-18-5 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |
| **Hazardous Decomposition products** | Carbon oxides |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|---|---|---|---|
| Boiling Point | 100°C | Specific Gravity (H2O = 1) | 1 |
| Vapor Pressure (mm Hg) | | Melting Point | |

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| | | | |
|---|---|---|---|
| | NA | | 0°C |
| Vapor Density (AIR = 1) | NA | Evaporation rate (Butyl Acetate = 1) | NA |

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

## Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

## Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

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**Solvent(s):** Water **Lot#** 102422Q

Expiration Date: 122822
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Weight(s) shown below were combined and diluted to (mL): 10.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

| | |
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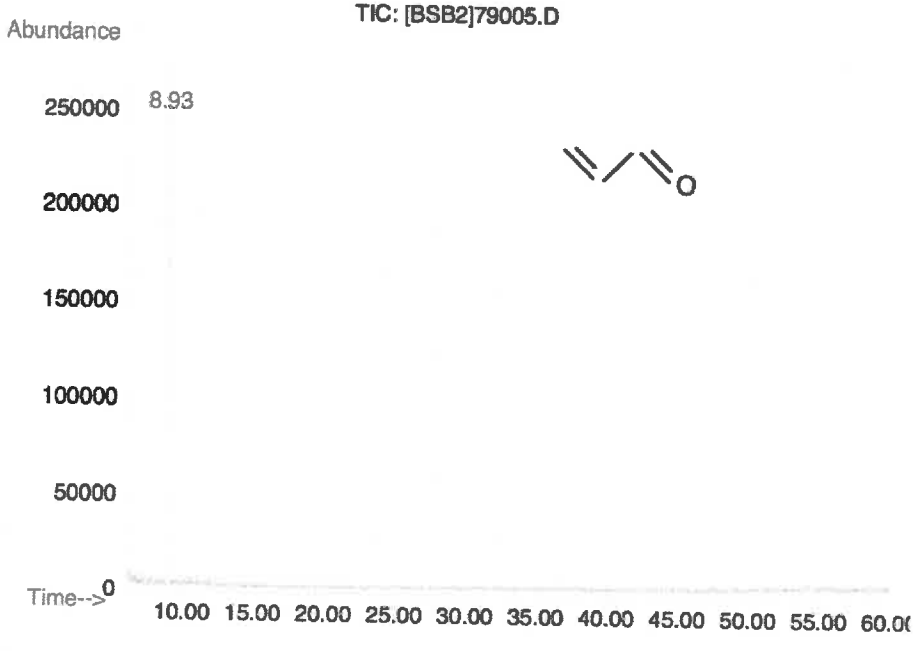


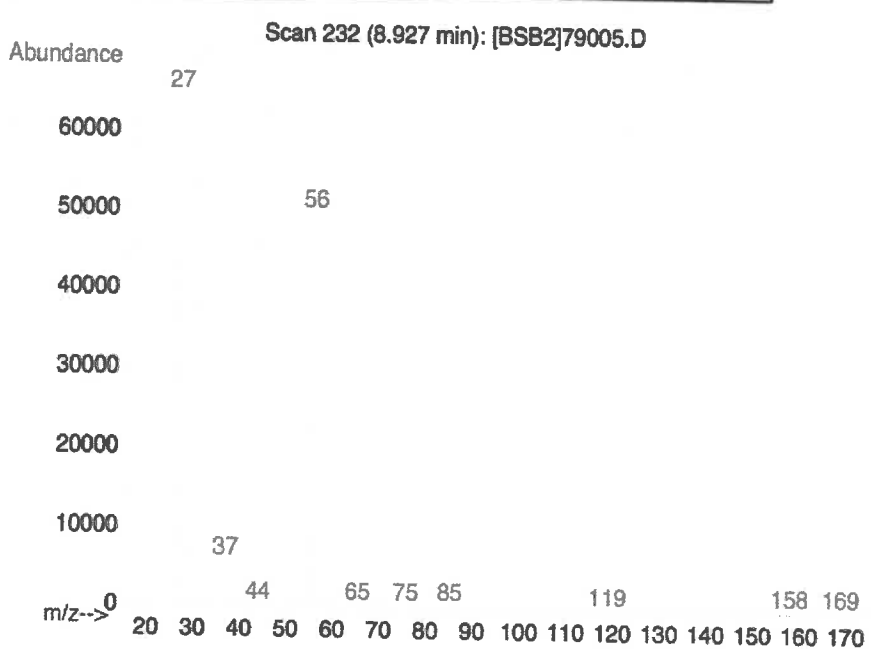


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**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | % (optional) |
|---|---|---|
| Water | CAS#: 7732-18-5 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

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| | | | |
|---|---|---|---|
| | NA | | 0°C |
| Vapor Density (AIR = 1) | NA | Evaporation rate (Butyl Acetate = 1) | NA |

Solubility in Water Completely miscible

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Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

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LD50 Oral - Rat NA
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## CERTIFIED WEIGHT REPORT

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Expiration Date: 122822
Recommended Storage: Refrigerate (4 °C)
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NIST Test ID#: 6UTB

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| | |
|---|---|
| Formulated By: Benson Chan | 112822 DATE |
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| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
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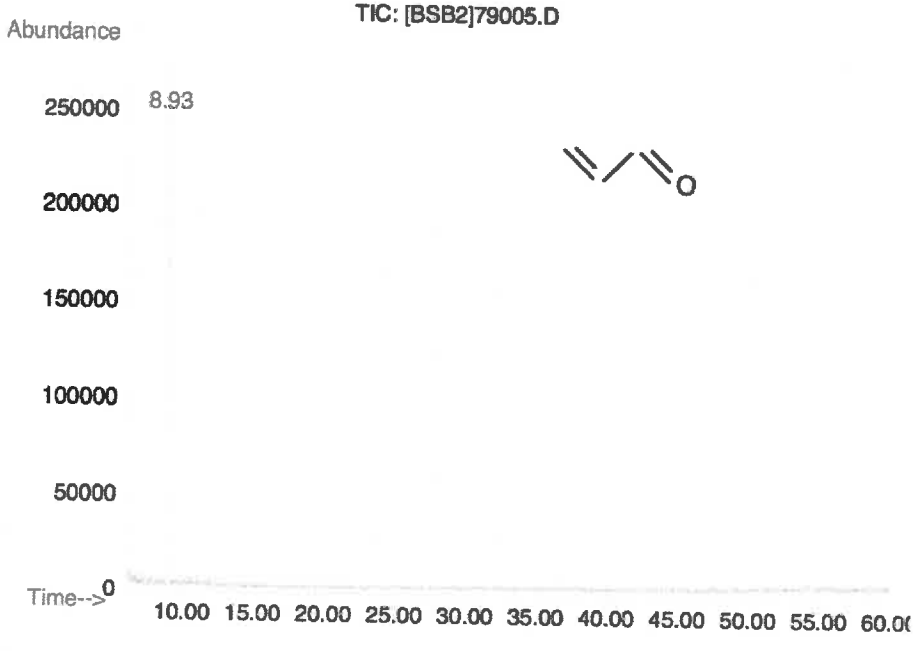


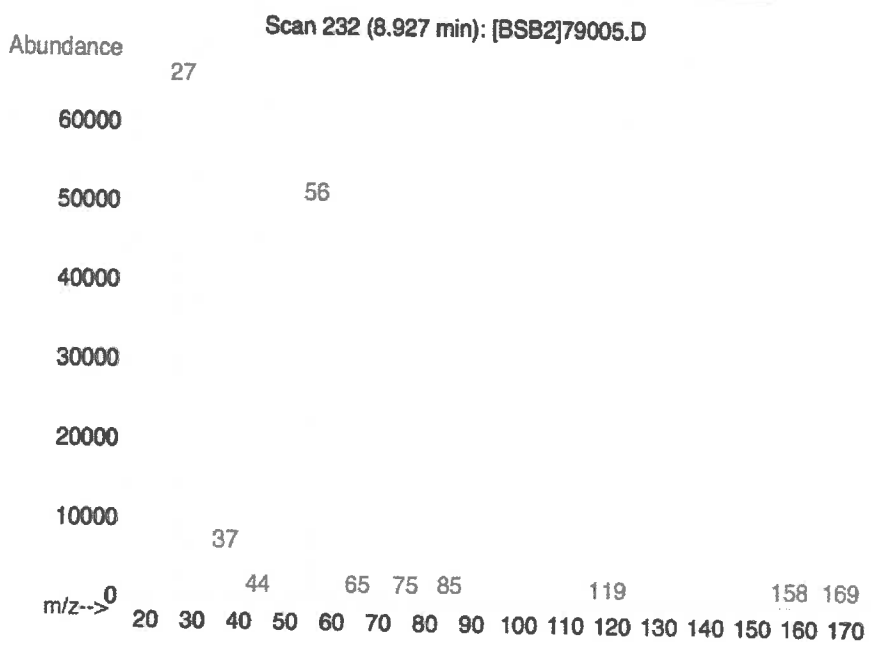


- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

**Absolute Standards Inc.**

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN WATER**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr. Hamden CT, 06514 | Emergency Telephone International | **1-352-323-3500** |
| | | Date Prepared/Revised | May 1, 2022 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **P271** | **Use in ventilated area** | **H315** | **Causes skin and eye irritation.** |
| **P302,332** | **If on skin, wash with soap and water** | **P280** | **Use gloves, eye protection/face sheild** |
| | | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | % (optional) |
|---|---|---|
| Water | CAS#: 7732-18-5 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |
| **Hazardous Decomposition products** | Carbon oxides |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|---|---|---|---|
| Boiling Point | 100°C | Specific Gravity (H2O = 1) | 1 |
| Vapor Pressure (mm Hg) | | Melting Point | |

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FAX: 203-281-2922

| | | | |
|---|---|---|---|
| | NA | | 0°C |
| Vapor Density (AIR = 1) | NA | Evaporation rate (Butyl Acetate = 1) | NA |

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

## Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

## Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

**Absolute Standards, Inc.**
800-368-1131
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***Certified Reference Material CRM***

ANAB ISO 17034 Accredit
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## CERTIFIED WEIGHT REPORT

**Part Number:** 91980
**Lot Number:** 112822
**Description:** Acrolein

**Solvent(s):** Water **Lot#** 102422Q

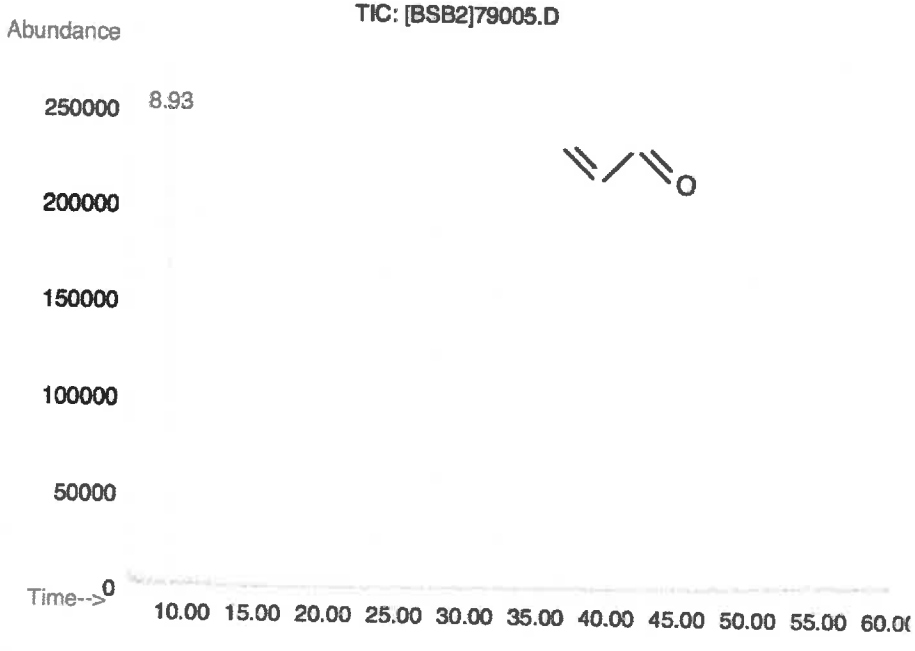
Expiration Date: 122822
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

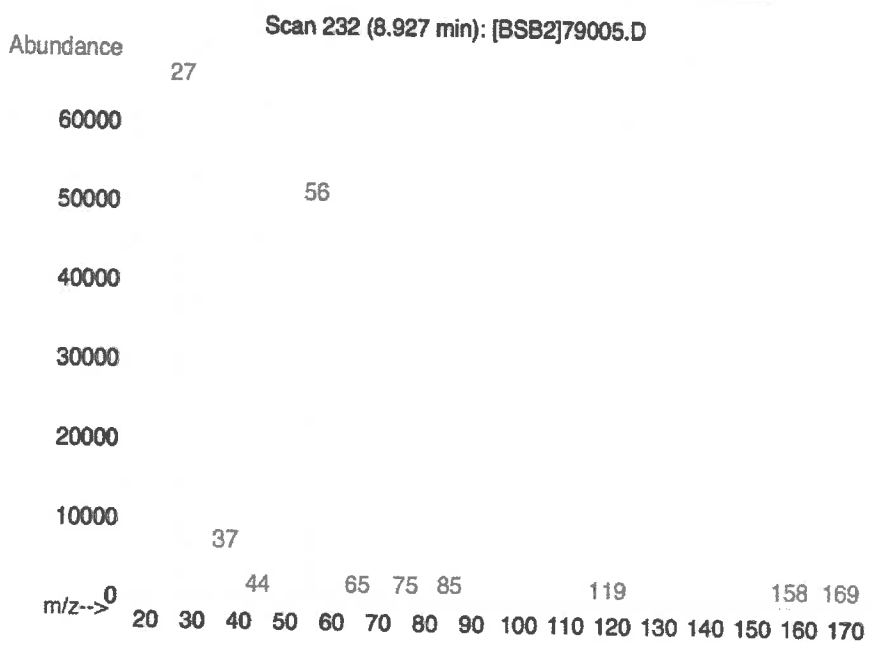
Weight(s) shown below were combined and diluted to (mL): 10.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

| | |
|---|---|
| Formulated By: Benson Chan | 112822 DATE |
| Reviewed By: Pedro L. Rentas | 112822 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Acrolein | 5 | 103755R09M | 5000 | 97.1 | 0.5 | 0.05160 | 0.05167 | 5006.3 | 52.5 | 107-02-8 | 0.1 ppm | orl-rat 46mg/kg |

**Method:** GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C ( Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.




- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN WATER**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr. Hamden CT, 06514 | Emergency Telephone International | **1-352-323-3500** |
| | | Date Prepared/Revised | May 1, 2022 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **P271** | **Use in ventilated area** | **H315** | **Causes skin and eye irritation.** |
| **P302,332** | **If on skin, wash with soap and water** | **P280** | **Use gloves, eye protection/face sheild** |
| | | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | % (optional) |
|---|---|---|
| Water | CAS#: 7732-18-5 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |
| **Hazardous Decomposition products** | Carbon oxides |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

| | | | |
|---|---|---|---|
| Boiling Point | 100°C | Specific Gravity (H2O = 1) | 1 |
| Vapor Pressure (mm Hg) | | Melting Point | |

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| | | | |
|---|---|---|---|
| | NA | | 0°C |
| Vapor Density (AIR = 1) | NA | Evaporation rate (Butyl Acetate = 1) | NA |

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

## Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

## Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

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## CERTIFIED WEIGHT REPORT

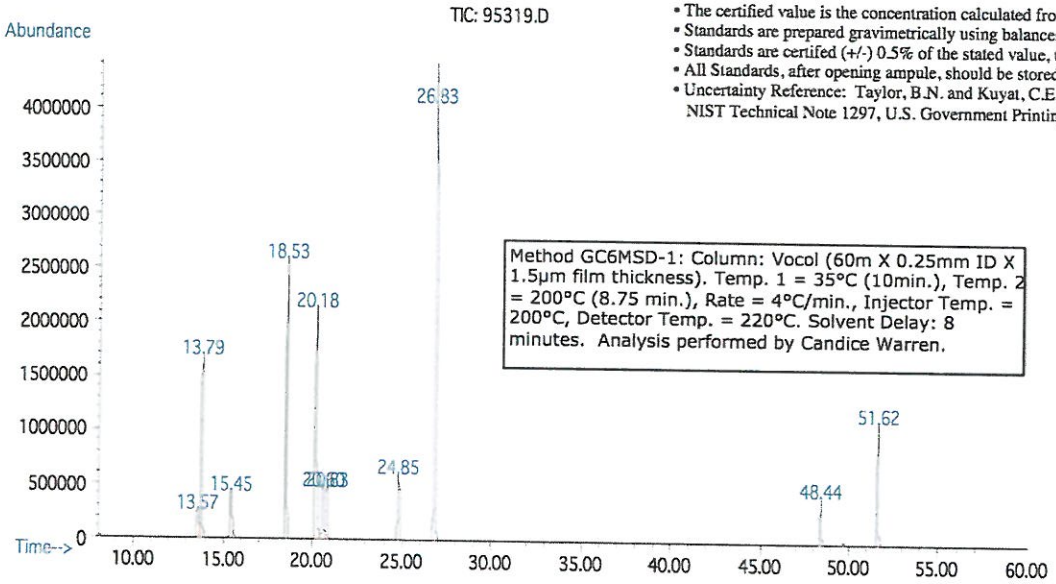
**Part Number:** 95319
Lot Number: 031921
Description: Revised Additions Mix
11 components
Expiration Date: 031924
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

**Solvent(s):** **Lot#**
Methanol DY186-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

| | | |
|---|---|---|
| Formulated By: | Prashant Chauhan | 031921 DATE |
| Reviewed By: | Pedro L. Rentas | 031921 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Acrylonitrile | 7 | 4718CK | 10000 | 99 | 0.2 | 1.01015 | 1.01040 | 10002.5 | 40.5 | 107-13-1 | N/A | orl-rat 78 mg/kg |
| 2. 1-Chlorobutane | 1072 | MKCM5711 | 2000 | 99.99 | 0.2 | 0.20003 | 0.20033 | 2003.0 | 8.1 | 109-69-3 | N/A | orl-rat 2670mg/kg |
| 3. Cyclohexane | 1023 | SHBD2795V | 2000 | 99.5 | 0.2 | 0.20101 | 0.20130 | 2002.8 | 8.1 | 110-82-7 | 300 ppm (1050mg/m3/8H) | orl-rat 12705mg/kg |
| 4. Di-isopropyl ether (DIPE) | 987 | 00412MX | 2000 | 99 | 0.2 | 0.20203 | 0.20220 | 2001.7 | 8.2 | 108-20-3 | 500 ppm (2100mg/m3/8H) | orl-rat 8470mg/kg |
| 5. 1,4-Dioxane | 373 | 03853KE | 40000 | 99 | 0.2 | 4.04060 | 4.04110 | 40005.0 | 161.9 | 123-91-1 | 25 ppm (90mg/m3/8H)(skin) | orl-mus 5700mg/kg |
| 6. Hexachloroethane | 199 | 12604HBV | 2000 | 99 | 0.2 | 0.20203 | 0.20230 | 2002.7 | 8.2 | 67-72-1 | 1 ppm (10mg/m3/8H)(skin) | orl-gpg 4970mg/kg |
| 7. Methylcyclohexane | 1627 | 08046KN | 2000 | 99 | 0.2 | 0.20203 | 0.20235 | 2003.2 | 8.2 | 108-87-2 | N/A | N/A |
| 8. Methyl tert-butyl ether (MTBE) | 209 | 02197JJ | 2000 | 99.8 | 0.2 | 0.20041 | 0.20080 | 2003.9 | 8.1 | 1634-04-4 | N/A | orl-rat 4g/kg |
| 9. Propionitrile | 349 | 1395468 | 20000 | 99 | 0.2 | 2.02030 | 2.02080 | 20005.0 | 81.0 | 107-12-0 | N/A | orl-rat 39mg/kg |
| 10. Tetrahydrofuran | 380 | 113886 | 10000 | 99.9 | 0.2 | 1.00105 | 1.00140 | 10003.5 | 40.1 | 109-99-9 | 20 ppm (590mg/m3/8H) | orl-rat 2500mg/kg |
| 11. 1,2,3,4-Tetramethylbenzene | 491 | AP01 | 2000 | 93 | 0.2 | 0.21506 | 0.21536 | 2002.8 | 8.7 | 488-23-3 | N/A | orl-rat 6408mg/kg |

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- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

| Name | MSD RT (min.) |
|---|---|
| Methyl tert-butyl ether (MTBE) | 13.56 |
| Acrylonitrile | 13.79 |
| Di-isopropyl ether | 15.44 |
| Propionitrile | 18.53 |
| Tetrahydrofuran | 20.17 |
| Cyclohexane | 20.58 |
| 1-Chlorobutane | 20.83 |
| Methylcyclohexane | 24.84 |
| 1,4-Dioxane | 26.84 |
| Hexachloroethane | 48.44 |
| 1,2,3,4-Tetramethylbenzene | 51.62 |

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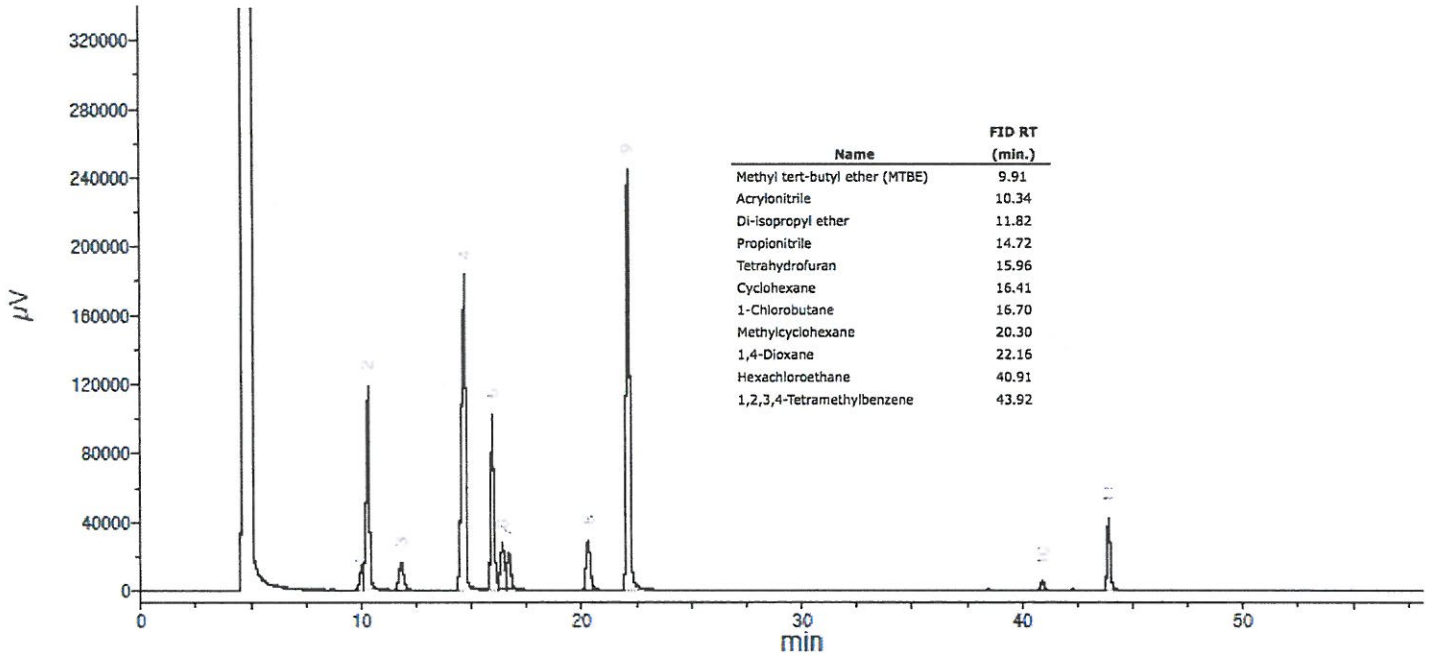
## Run 44, "P95319 L031921 [Varied in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.
Created: Sun, Mar 28, 2021 at 4:18:23 PM.
Sampled: Sequence "032421-GC13M1", Method "GC13-M1".
Analyzed using Method "GC13-M1".

### Comments

GC13-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0μm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5μL, Range=6




| Name | FID RT (min.) |
|---|---|
| Methyl tert-butyl ether (MTBE) | 9.91 |
| Acrylonitrile | 10.34 |
| Di-isopropyl ether | 11.82 |
| Propionitrile | 14.72 |
| Tetrahydrofuran | 15.96 |
| Cyclohexane | 16.41 |
| 1-Chlorobutane | 16.70 |
| Methylcyclohexane | 20.30 |
| 1,4-Dioxane | 22.16 |
| Hexachloroethane | 40.91 |
| 1,2,3,4-Tetramethylbenzene | 43.92 |

Absolute Standards Inc.
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Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr. Hamden CT, 06514 | Emergency Telephone International | **1-352-323-3500** |
| | | Date Prepared/Revised | May 1, 2019 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

**Absolute Standards, Inc.**
800-368-1131
www.absolutestandards.com

*Certified Reference Material CRM*

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

## CERTIFIED WEIGHT REPORT

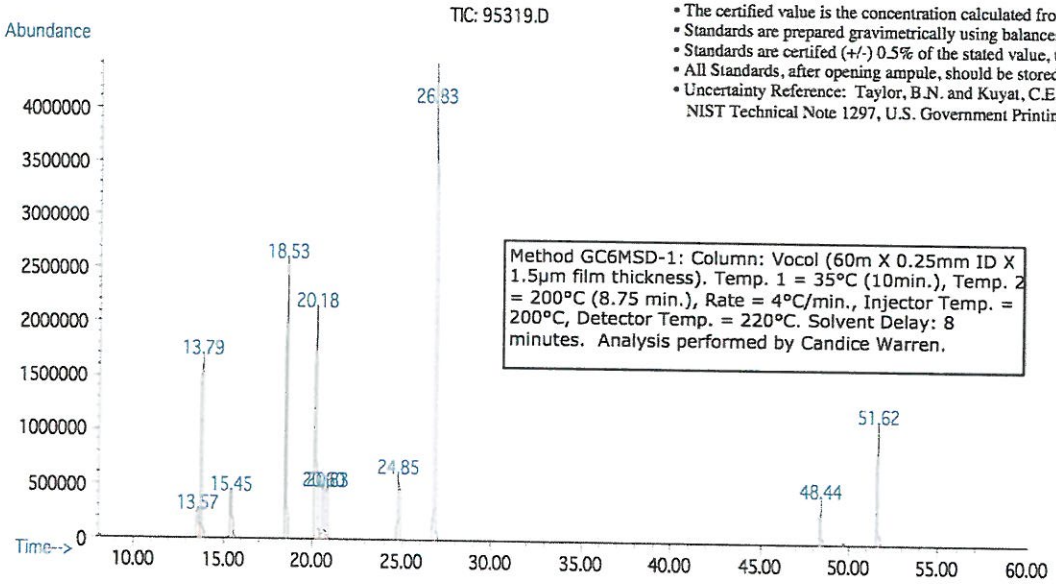
**Part Number:** 95319
Lot Number: 031921
Description: Revised Additions Mix
11 components
Expiration Date: 031924
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

**Solvent(s):** **Lot#**
Methanol DY186-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

| | | |
|---|---|---|
| Formulated By: | Prashant Chauhan | 031921 DATE |
| Reviewed By: | Pedro L. Rentas | 031921 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Acrylonitrile | 7 | 4718CK | 10000 | 99 | 0.2 | 1.01015 | 1.01040 | 10002.5 | 40.5 | 107-13-1 | N/A | orl-rat 78 mg/kg |
| 2. 1-Chlorobutane | 1072 | MKCM5711 | 2000 | 99.99 | 0.2 | 0.20003 | 0.20033 | 2003.0 | 8.1 | 109-69-3 | N/A | orl-rat 2670mg/kg |
| 3. Cyclohexane | 1023 | SHBD2795V | 2000 | 99.5 | 0.2 | 0.20101 | 0.20130 | 2002.8 | 8.1 | 110-82-7 | 300 ppm (1050mg/m3/8H) | orl-rat 12705mg/kg |
| 4. Di-isopropyl ether (DIPE) | 987 | 00412MX | 2000 | 99 | 0.2 | 0.20203 | 0.20220 | 2001.7 | 8.2 | 108-20-3 | 500 ppm (2100mg/m3/8H) | orl-rat 8470mg/kg |
| 5. 1,4-Dioxane | 373 | 03853KE | 40000 | 99 | 0.2 | 4.04060 | 4.04110 | 40005.0 | 161.9 | 123-91-1 | 25 ppm (90mg/m3/8H)(skin) | orl-mus 5700mg/kg |
| 6. Hexachloroethane | 199 | 12604HBV | 2000 | 99 | 0.2 | 0.20203 | 0.20230 | 2002.7 | 8.2 | 67-72-1 | 1 ppm (10mg/m3/8H)(skin) | orl-gpg 4970mg/kg |
| 7. Methylcyclohexane | 1627 | 08046KN | 2000 | 99 | 0.2 | 0.20203 | 0.20235 | 2003.2 | 8.2 | 108-87-2 | N/A | N/A |
| 8. Methyl tert-butyl ether (MTBE) | 209 | 02197JJ | 2000 | 99.8 | 0.2 | 0.20041 | 0.20080 | 2003.9 | 8.1 | 1634-04-4 | N/A | orl-rat 4g/kg |
| 9. Propionitrile | 349 | 1395468 | 20000 | 99 | 0.2 | 2.02030 | 2.02080 | 20005.0 | 81.0 | 107-12-0 | N/A | orl-rat 39mg/kg |
| 10. Tetrahydrofuran | 380 | 113886 | 10000 | 99.9 | 0.2 | 1.00105 | 1.00140 | 10003.5 | 40.1 | 109-99-9 | 20 ppm (590mg/m3/8H) | orl-rat 2500mg/kg |
| 11. 1,2,3,4-Tetramethylbenzene | 491 | AP01 | 2000 | 93 | 0.2 | 0.21506 | 0.21536 | 2002.8 | 8.7 | 488-23-3 | N/A | orl-rat 6408mg/kg |




- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

| Name | MSD RT (min.) |
|---|---|
| Methyl tert-butyl ether (MTBE) | 13.56 |
| Acrylonitrile | 13.79 |
| Di-isopropyl ether | 15.44 |
| Propionitrile | 18.53 |
| Tetrahydrofuran | 20.17 |
| Cyclohexane | 20.58 |
| 1-Chlorobutane | 20.83 |
| Methylcyclohexane | 24.84 |
| 1,4-Dioxane | 26.84 |
| Hexachloroethane | 48.44 |
| 1,2,3,4-Tetramethylbenzene | 51.62 |

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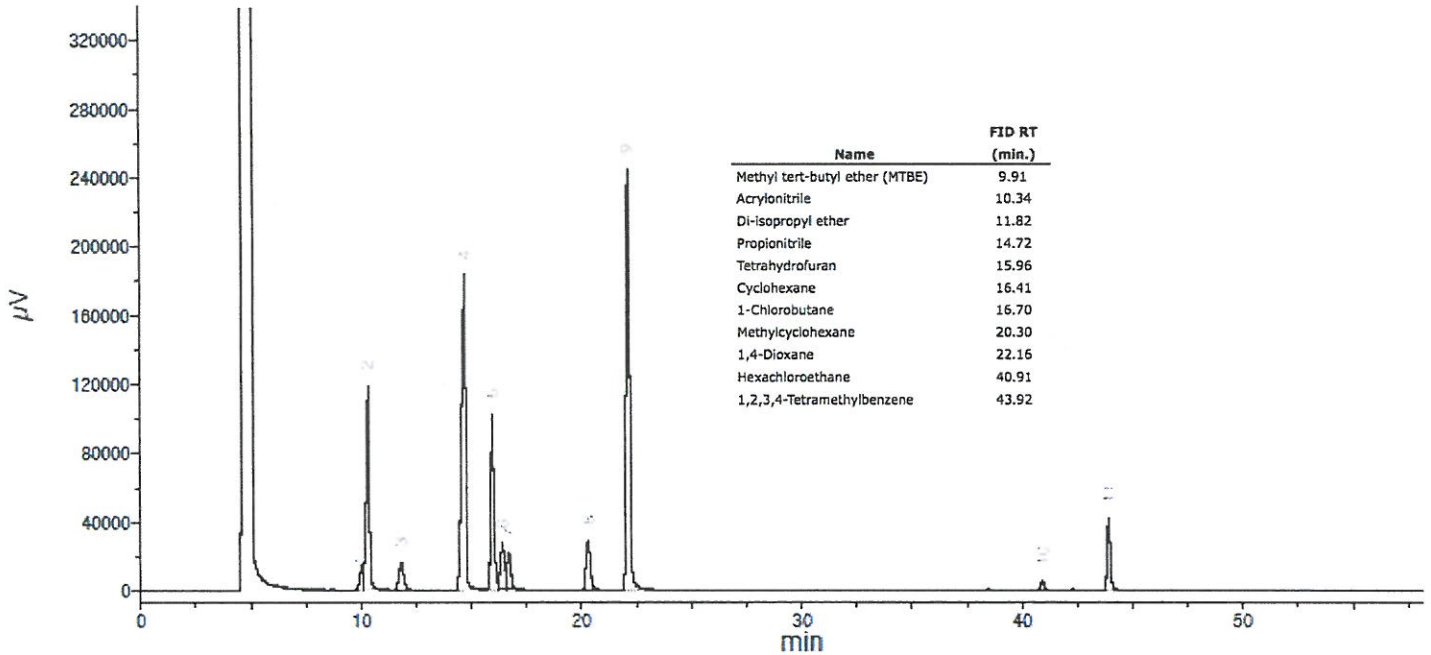
AR-1539 Certificate Number
https://Absolutestandards.com

## Run 44, "P95319 L031921 [Varied in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.
Created: Sun, Mar 28, 2021 at 4:18:23 PM.
Sampled: Sequence "032421-GC13M1", Method "GC13-M1".
Analyzed using Method "GC13-M1".

### Comments

GC13-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=6




| Name | FID RT (min.) |
|---|---|
| Methyl tert-butyl ether (MTBE) | 9.91 |
| Acrylonitrile | 10.34 |
| Di-isopropyl ether | 11.82 |
| Propionitrile | 14.72 |
| Tetrahydrofuran | 15.96 |
| Cyclohexane | 16.41 |
| 1-Chlorobutane | 16.70 |
| Methylcyclohexane | 20.30 |
| 1,4-Dioxane | 22.16 |
| Hexachloroethane | 40.91 |
| 1,2,3,4-Tetramethylbenzene | 43.92 |

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

**Safety Data Sheet (SDS)** GHS/OSHA Compliant

## Section I Product and Company Identification

**IDENTITY** **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

| | | | |
|---|---|---|---|
| Manufacturer's Name | ABSOLUTE STANDARDS INC | Emergency Telephone USA & CANADA | **1-800-535-5053** |
| Address | 44 Rossotto Dr. Hamden CT, 06514 | Emergency Telephone International | **1-352-323-3500** |
| | | Date Prepared/Revised | May 1, 2019 |

## Section II - Hazards Identification

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

| | | | |
|---|---|---|---|
| **H225** | **Highly Flammable Liquid and Vapor** | **H301, 311, 331** | **Toxic if swallowed, skin contact, inhaled** |
| **H370** | **Cause damage to organs** | **H351** | **Suspected of causing cancer** |
| **P271** | **Use in ventilated area** | **P280** | **Use gloves, eye protection/face sheild** |
| **P302,332** | **If on skin, wash with soap and water** | **P305,351,338** | **If in eyes, remove contacts, rinse with water** |

**Signal Word: DANGER**

## Section III - Composition

| Components (Specific Chemical Identity; Common Name(s)) | | | % (optional) |
|---|---|---|---|
| Methanol | METHYL ALCOHOL | CAS#: 67-56-1 | > 97 |

**See Certified Weight Report For Other Analytes Present At Trace Quantities.**

**INTENDED USE: REFERENCE MATERIAL**

## Section IV. FIRST AID MEASURES

| | |
|---|---|
| **General advice** | Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area. |
| **If inhaled** | If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **In case of skin contact** | Wash with soap and water. Consult a physician. |
| **In case of eye contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| **If swallowed** | Do NOT induce vomiting. Rinse mouth with water. Consult a physician. |

## Section V. FIREFIGHTING MEASURES

| | |
|---|---|
| **Flammability** | Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking. |
| **Suitable extinguishing media** | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Protective equipment for fire** | Wear self contained breathing apparatus for fire fighting if necessary. |

## Section VI. ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| Personal precautions | Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Clean up | Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13). |

## Section VII. HANDLING AND STORAGE

| | |
|---|---|
| Precautions for safe handling | Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. |
| Storage Conditions | Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. |

## Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

## Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

| | | | |
|---|---|---|---|
| Boiling Point | 65°C | Specific Gravity (H2O = 1) | 0.79 |
| Vapor Pressure (mm Hg) | 96 | Melting Point | -98°C |
| Vapor Density (AIR = 1) | 1.11 | Evaporation rate (Butyl Acetate = 1) | 4.6 |

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

## Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

## Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

## Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

| | |
|---|---|
| LC50 | 15,400 mg/l - 96 h |
| EC50 | 24,500.00 mg/l - 48 h |
| EC100 | 10,000.00 mg/l - 24 h |

## Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

## Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

## Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

## Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 0000288323
Manufactured Date: 2021-06-11
Expiration Date: 2024-06-10
Revision No.: 1

# Certificate of Analysis

| Test | Specification | Result |
|---|---|---|
| Assay ($CH_3OH$) (by GC, corrected for water) | ≥ 99.9 % | 100.0 % |
| Residue after Evaporation | ≤ 1.0 ppm | 0.5 ppm |
| Titrable Acid (µeq/g) | ≤ 0.3 | 0.2 |
| Titrable Base (µeq/g) | ≤ 0.10 | 0.05 |
| Water (by KF, coulometric) | ≤ 0.08 % | 0.01 % |
| Volatile Organic Trace Analysis - Below EPA 8260B CRQL | Conforms | Fails |

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste
Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

# SHIPPING DOCUMENTS

# CHEMTECH
## CHAIN OF CUSTODY RECORD

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

CHEMTECH PROJECT NO.
QUOTE NO. N6070
COC Number 2035954

### CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Jacobs
ADDRESS: 10 10th Street Suite 1400
CITY Atlanta STATE: GA ZIP: 30309
ATTENTION: Melissa Warren
PHONE: FAX:

### CLIENT PROJECT INFORMATION

PROJECT NAME: Princeton STC
PROJECT NO.: D3662225 LOCATION: Princeton Junction, NJ
PROJECT MANAGER: Chris English
e-mail: Chris.English@Jacobs.com
PHONE: FAX:

### CLIENT BILLING INFORMATION

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

### DATA TURNAROUND INFORMATION

FAX (RUSH) Rush! DAYS*
HARDCOPY (DATA PACKAGE): 24Hr VOC DAYS*
EDD: 48 Hr 1,4 DXN DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

### DATA DELIVERABLE INFORMATION

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

### ANALYSIS

Site Specific VOCs | 1,4 DXN | 3 | 4 | 5 | 6 | 7 | 8 | 9

| CHEMTECH SAMPLE ID | PROJECT SAMPLE IDENTIFICATION | SAMPLE MATRIX | SAMPLE TYPE COMP | SAMPLE TYPE GRAB | SAMPLE COLLECTION DATE | SAMPLE COLLECTION TIME | # OF BOTTLES | PRESERVATIVES 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | A E | E | | | | | | | | ← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER |
| 1. | GW-BR-04-226-245-121422 | GW | | X | 12-14-22 | 1030 | 3 | X | X | | | | | | | | Rush! |
| 2. | TB-01-121422 | DI | | X | 12-14-22 | 1035 | 2 | X | | | | | | | | | |
| 3. | GWBR-01-160-180-121422 | GW | | X | 12-14-22 | 800 | 3 | X | X | | | | | | | | Rush! |
| 4. | GW BR-02-160-180-121422 | GW | | X | 12-14-22 | 900 | 3 | X | X | | | | | | | | Rush! |
| 5. | GW BR-03-128-148-121422 | GW | | X | 12-14-22 | 1000 | 3 | X | X | | | | | | | | Rush! |
| 6. | | | | | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | | | | | |

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

| RELINQUISHED BY SAMPLER: | DATE/TIME: | RECEIVED BY: |
|---|---|---|
| 1. | 12-14-22/1600 | 1. 1600 12-14-22 |
| 2. | | 2. |
| 3. | 12-14-22 1730 | 3. SB |

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ❑ COOLER TEMP 4.2 °C
Comments: See work order for Site Specific VOC List

Page 1 of 1

CLIENT: ❑ Hand Delivered ❑ Other
CHEMTECH: ❑ Picked Up ❑ Field Sampling

Shipment Complete ☑ YES ❑ NO

2/6 WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

**From:** Ynfante, John <John.Ynfante@jacobs.com>
**Sent:** Thursday, December 22, 2022 10:14 PM
**To:** Jordan Hedvat; Samantha@chemtech.net
**Cc:** CHEMTECH-Data@chemtech.net
**Subject:** RE: [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.

Jordan and Samantha,

It was brought to my attention that this report N6070 has some incorrect sample IDs. The first sample GW-BR-04-226-245-121422 is correct, but the other 3 samples need to be corrected to match the chain as listed below:
GW-BR-01-160-180-121422 should be “OWBR-01-160-180-121422”
GW-BR-02-160-180-121422 should be “OWBR-02-160-180-121422”
GW-BR-03-128-148-121422 should be “OWBR-03-128-148-121422”

Please revise and reissue the data. Thanks!

- John Y.

---

**From:** CHEMTECH-Data@chemtech.net <CHEMTECH-Data@chemtech.net>
**Sent:** Monday, December 19, 2022 5:35 PM
**To:** Murphy, Mary <Mary.Murphy@jacobs.com>; Warren, Melissa <Melissa.Warren@jacobs.com>; Scott, Doug <Doug.Scott@jacobs.com>; Bingeman, Ian <Ian.Bingeman@jacobs.com>; Jones, Philip <Philip.Jones1@jacobs.com>; Garvey, Bethany <Bethany.Garvey@jacobs.com>; khummler@chemtech.net; Ynfante, John <John.Ynfante@jacobs.com>
**Subject:** [EXTERNAL] Summary Report Details For Project Former Schlumberger Site Princeton NJ-N6070.

**To Doug Scott;**

**Please see the attached Summary Report for the following project, or download the file using your login credentials from the link below.**

| | |
|---|---|
| **Order ID** | : N6070 |
| **Project ID** | : Former Schlumberger Site Princeton NJ |
| **Download File** | : **https://chemtech.net/secureLogin.aspx** |
| **Order Date** | : 12/14/2022 4:13:00 PM |

**CHEMTECH’s Project Manager** : Samantha Beazley , Samantha@chemtech.net , Ext :

**CHEMTECH's Sales Executive** : Kurt Hummler , khummler@chemtech.net , 908-728-3143 Ext :3143

Thank you for the opportunity to provide you with our services. For any questions please feel free to contact your project manager.

Click Here for our short online customer Survey **//chemtech.net/ClientSurvey.aspx**.

**Thank you,**

**CHEMTECH**

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# Laboratory Certification

| Certified By | License No. |
|---|---|
| | |
| CAS EPA CLP Contract | 68HERH20D0011 |
| | |
| Connecticut | PH-0649 |
| | |
| DOD ELAP (L-A-B) | L2219 |
| | |
| Maine | 2022022 |
| | |
| Maryland | 296 |
| | |
| New Hampshire | 255422 |
| | |
| New Jersey | 20012 |
| | |
| New York | 11376 |
| | |
| Pennsylvania | 68-00548 |
| | |
| Soil Permit | P330-21-00137 |
| | |
| Texas | T104704488-23-16 |

CHEMTECH

# LOGIN REPORT/SAMPLE TRANSFER

**Order ID :** N6070 JACO05
**Client Name :** JACOBS Engineering Grou
**Client Contact :** Doug Scott
**Invoice Name :** JACOBS Engineering Grou
**Invoice Contact :** Doug Scott

**Order Date :** 12/14/2022 4:13:00 PM
**Project Name :** Former Schlumberger Site F
**Receive DateTime :** 12/14/2022 ~~12:00:00 AM~~ 5:30pm
**Purchase Order :** SB 12-19

**Project Mgr :**
**Report Type :** Level 4
**EDD Type :** CH2MHILL
**Hard Copy Date :**
**Date Signoff :**

| LAB ID | CLIENT ID | MATRIX | SAMPLE DATE | SAMPLE TIME | TEST | TEST GROUP | METHOD | FAX DATE | DUE DATES |
|---|---|---|---|---|---|---|---|---|---|
| N6070-01 | GW-BR-04-226-245-121422 | Water | 12/14/2022 | 10:30 | | | | | |
| | | | | | VOCMS Group3 | | 8260-Low | | 1 Bus. Day |
| N6070-02 | TB-01-121422 | Water | 12/14/2022 | 10:35 | | | | | |
| | | | | | VOCMS Group3 | | 8260-Low | | 10 Bus. Days |
| N6070-03 | OWBR ~~GW-BR~~-01-160-180-121422 | Water | 12/14/2022 | 08:00 | | | | | |
| | | | | | VOCMS Group3 | | 8260-Low | | 1 Bus. Day |
| N6070-04 | OWBR ~~GW-BR~~-02-160-180-121422 | Water | 12/14/2022 | 09:00 | | | | | |
| | | | | | VOCMS Group3 | | 8260-Low | | 1 Bus. Day |
| N6070-05 | OWBR ~~GW-BR~~-03-128-148-121422 | Water | 12/14/2022 | 10:00 | | | | | |
| | SB 12/28/2022 | | | | VOCMS Group3 | | 8260-Low | | 1 Bus. Day |

**Relinguished By :**
**Date / Time :** 12-14-22 1740

**Received By :**
**Date / Time :** 12/14/22 1740
**Storage Area :** VOA Refridgerator Room