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# United States Environmental Protection Agency
## Region 9 Laboratory

**1337 S. 46th Street Building 201**
**Richmond, CA 94804**

**Date:** **2/13/2014**

**Subject:** **Analytical Testing Results - Project R14S39**
**SDG: 14029A**

**From:** **Brenda Bettencourt, Director**
**EPA Region 9 Laboratory**
**MTS-2**

**To:** **Alana Lee**
**California Site Cleanup Section 3**
**SFD-7-3**

Attached are the results from the analysis of samples from the **MEW 2014 Manhole Screening Investigation** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Electronic CC: Laura Levine, CH2M-Hill

**Analyses included in this report:**

Volatile Organic Compounds by GC/MS

# United States Environmental Protection Agency
# Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302


| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| MH01 | 1401049-01 | Air | 01/28/14 15:05 | 01/29/14 09:25 |
| MH02 | 1401049-02 | Air | 01/28/14 15:16 | 01/29/14 09:25 |
| MH03 | 1401049-03 | Air | 01/28/14 15:36 | 01/29/14 09:25 |
| MH04 | 1401049-04 | Air | 01/28/14 15:53 | 01/29/14 09:25 |
| MH05 | 1401049-05 | Air | 01/28/14 15:59 | 01/29/14 09:25 |
| MH06 | 1401049-06 | Air | 01/28/14 16:30 | 01/29/14 09:25 |
| MH07 | 1401049-07 | Air | 01/28/14 16:39 | 01/29/14 09:25 |
| MH08 | 1401049-08 | Air | 01/28/14 16:51 | 01/29/14 09:25 |
| MH09 | 1401049-09 | Air | 01/28/14 16:59 | 01/29/14 09:25 |
| MH10 | 1401049-10 | Air | 01/28/14 17:10 | 01/29/14 09:25 |
| MH11 | 1401049-11 | Air | 01/28/14 17:25 | 01/29/14 09:25 |
| MH12 | 1401049-12 | Air | 01/28/14 17:34 | 01/29/14 09:25 |

**SDG ID 14029A**

**Work Order(s)**

**1401049**

# United States Environmental Protection Agency
# Region 9 Laboratory

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| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-01** | | | | | | | | | **Air - Sampled: 01/28/14 15:05** |
| **Sample ID: MH01** | | | | | | | | | **Volatile Organic Compounds by TO-15** |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Chloromethane | | 3 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 800 | | 100 | " | " | " | 01/29/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | " | " | 01/29/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 10 | | 8 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | 6 | C1, J | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

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|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-02** | | | | | | | | | **Air - Sampled: 01/28/14 15:16** |
| **Sample ID: MH02** | | | | | | | | | |
| | | | | | | | **Volatile Organic Compounds by TO-15** | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Chloromethane | | ND | U | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 10 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 200 | | 40 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | 20 | J, Q5 | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | 20 | J, Q5 | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

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| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-03** — **Air - Sampled: 01/28/14 15:36**

**Sample ID: MH03**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by TO-15** | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Chloromethane | | 2 | J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 400 | | 70 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 8 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

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| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-04** | | | | | | | | | **Air - Sampled: 01/28/14 15:53** |
| **Sample ID: MH04** | | | | | | | | | |
| | | | | | | | **Volatile Organic Compounds by TO-15** | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Chloromethane | | 2 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 400 | | 70 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/29/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 20 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

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| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-05** — **Air - Sampled: 01/28/14 15:59**

**Sample ID: MH05**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by TO-15** | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | 2 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 500 | | 80 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 20 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

United States Environmental Protection Agency
# Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

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|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-06** — **Air - Sampled: 01/28/14 16:30**

**Sample ID: MH06**

**Volatile Organic Compounds by TO-15**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | 2 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 500 | | 60 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 20 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-07** — **Air - Sampled: 01/28/14 16:39**

**Sample ID: MH07** — **Volatile Organic Compounds by TO-15**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | 3 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 20 | J, Q3 | 6 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 500 | | 70 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 10 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | 6 | C1, J | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-08** | | | | | | | | | **Air - Sampled: 01/28/14 16:51** |
| **Sample ID: MH08** | | | | | | | | | |
| | | | | | | | **Volatile Organic Compounds by TO-15** | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | 2 | C1, J | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 10 | J, Q3 | 6 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 300 | | 60 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 30 | | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | 5 | C1, J | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-09** — **Air - Sampled: 01/28/14 16:59**

**Sample ID: MH09**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by TO-15** | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | ND | U | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 6 | C1, J | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | RE1 | 200 | | 30 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | 5 | C1, J | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

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# Region 9 Laboratory

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| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-10** | | | | | | | | | **Air - Sampled: 01/28/14 17:10** |
| **Sample ID: MH10** | | | | | | | | | |
| | | | | | | | **Volatile Organic Compounds by TO-15** | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | ND | U | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 4 | C1, J | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | | 60 | | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | 10 | | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

# United States Environmental Protection Agency
# Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302


| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

**Lab ID: 1401049-11** — **Air - Sampled: 01/28/14 17:25**

**Sample ID: MH11**

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by TO-15** | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | ND | U | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | 10 | | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | 7 | J, Q3 | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | RE1 | 900 | | 60 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| Chloroform | RE1 | 300 | | 70 | " | " | " | " | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | RE1 | 1,000 | | 80 | " | B14A086 | 01/30/14 | 01/30/14 | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | 200 | | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

United States Environmental Protection Agency
# Region 9 Laboratory
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Phone:(510) 412-2300 Fax:(510) 412-2302

| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Sample Results

| Analyte | Reanalysis / Extract | Result | Qualifiers / Comments | Quantitation Limit | Units | Batch | Prepared | Analyzed | Method |
|---|---|---|---|---|---|---|---|---|---|
| **Lab ID: 1401049-12** | | | | | | | | | **Air - Sampled: 01/28/14 17:34** |
| **Sample ID: MH12** | | | | | | | | | |
| | | | | | | | **Volatile Organic Compounds by TO-15** | | |
| 1,2-Dichlorotetrafluoroethane | | ND | U | 10 | ug/m³ Air | B14A073 | 01/29/14 | 01/30/14 | TO-15/SOP311 |
| Chloromethane | | ND | U | 4 | " | " | " | " | TO-15/SOP311 |
| Vinyl chloride | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Bromomethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| Chloroethane | | ND | U | 5 | " | " | " | " | TO-15/SOP311 |
| Trichlorofluoromethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Dichloromethane | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| 1,1-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| cis-1,2-Dichloroethene | | 40 | | 8 | " | " | " | " | TO-15/SOP311 |
| Chloroform | | 10 | | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,1-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Carbon tetrachloride | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Benzene | | ND | U | 6 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloroethane | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Trichloroethene | | 50 | | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichloropropane | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| cis-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Toluene | | ND | U | 7 | " | " | " | " | TO-15/SOP311 |
| trans-1,3-Dichloropropene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,1,2-Trichloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Tetrachloroethene | | 10 | | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dibromoethane (EDB) | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Chlorobenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| Ethylbenzene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| m&p-Xylene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |
| o-Xylene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| Styrene | | ND | U | 8 | " | " | " | " | TO-15/SOP311 |
| 1,1,2,2-Tetrachloroethane | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,3,5-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trimethylbenzene | | ND | U | 9 | " | " | " | " | TO-15/SOP311 |
| 1,3-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,4-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2-Dichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| 1,2,4-Trichlorobenzene | | ND | U | 10 | " | " | " | " | TO-15/SOP311 |
| Hexachlorobutadiene | | ND | U | 20 | " | " | " | " | TO-15/SOP311 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

**Batch B14A073 - - General Air prep - VOCs, Soil Gas** — **Prepared & Analyzed: 01/29/14**

**Volatile Organic Compounds by TO-15 - Quality Control**

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (B14A073-BLK1)** | | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | ND | U | 7 | ug/m³ Air | | | | | | |
| Chloromethane | ND | U | 2.1 | " | | | | | | |
| Vinyl chloride | ND | U | 2.6 | " | | | | | | |
| Bromomethane | ND | U | 3.9 | " | | | | | | |
| Chloroethane | ND | U | 2.6 | " | | | | | | |
| Trichlorofluoromethane | ND | U | 5.6 | " | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | U | 7.7 | " | | | | | | |
| 1,1-Dichloroethene | ND | U | 4 | " | | | | | | |
| Dichloromethane | ND | U | 3.5 | " | | | | | | |
| 1,1-Dichloroethane | ND | U | 4 | " | | | | | | |
| cis-1,2-Dichloroethene | ND | U | 4 | " | | | | | | |
| Chloroform | ND | U | 4.9 | " | | | | | | |
| 1,1,1-Trichloroethane | ND | U | 5.5 | " | | | | | | |
| Carbon tetrachloride | ND | U | 6.3 | " | | | | | | |
| Benzene | ND | U | 3.2 | " | | | | | | |
| 1,2-Dichloroethane | ND | U | 4 | " | | | | | | |
| Trichloroethene | ND | U | 5.4 | " | | | | | | |
| 1,2-Dichloropropane | ND | U | 4.6 | " | | | | | | |
| cis-1,3-Dichloropropene | ND | U | 4.5 | " | | | | | | |
| Toluene | ND | U | 3.8 | " | | | | | | |
| trans-1,3-Dichloropropene | ND | U | 4.5 | " | | | | | | |
| 1,1,2-Trichloroethane | ND | U | 5.5 | " | | | | | | |
| Tetrachloroethene | ND | U | 6.8 | " | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | U | 7.7 | " | | | | | | |
| Chlorobenzene | ND | U | 4.6 | " | | | | | | |
| Ethylbenzene | ND | U | 4.3 | " | | | | | | |
| m&p-Xylene | ND | U | 8.7 | " | | | | | | |
| o-Xylene | ND | U | 4.3 | " | | | | | | |
| Styrene | ND | U | 4.3 | " | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | U | 6.9 | " | | | | | | |
| 1,3,5-Trimethylbenzene | ND | U | 4.9 | " | | | | | | |
| 1,2,4-Trimethylbenzene | ND | U | 4.9 | " | | | | | | |
| 1,3-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,4-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,2-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,2,4-Trichlorobenzene | ND | U | 7.4 | " | | | | | | |
| Hexachlorobutadiene | ND | U | 11 | " | | | | | | |
| **LCS (B14A073-BS1)** | | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | 69 | | 7 | ug/m³ Air | 73.3 | | 94 | 68-147 | | 200 |
| Chloromethane | 21 | | 2.1 | " | 21.7 | | 97 | 64-141 | | 200 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B14A073 - - General Air prep - VOCs, Soil Gas** | | | | | | | | | | **Prepared & Analyzed: 01/29/14** |
| | | | | | | | | **Volatile Organic Compounds by TO-15 - Quality Control** | | |
| **LCS (B14A073-BS1)** | | | | | | | | | | |
| Vinyl chloride | 25 | | 2.6 | " | 26.8 | | 95 | 65-141 | | 200 |
| Bromomethane | 37 | | 3.9 | " | 40.0 | | 93 | 71-132 | | 200 |
| Chloroethane | 26 | | 2.6 | " | 27.2 | | 94 | 70-134 | | 200 |
| Trichlorofluoromethane | 58 | | 5.6 | " | 60.1 | | 97 | 72-141 | | 200 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 70 | | 7.7 | " | 74.3 | | 94 | 68-134 | | 200 |
| 1,1-Dichloroethene | 37 | | 4 | " | 38.0 | | 97 | 81-127 | | 200 |
| Dichloromethane | 31 | | 3.5 | " | 34.0 | | 91 | 74-116 | | 200 |
| 1,1-Dichloroethane | 38 | | 4 | " | 39.2 | | 96 | 82-123 | | 200 |
| cis-1,2-Dichloroethene | 39 | | 4 | " | 40.0 | | 97 | 83-126 | | 200 |
| Chloroform | 48 | | 4.9 | " | 49.8 | | 96 | 81-127 | | 200 |
| 1,1,1-Trichloroethane | 53 | | 5.5 | " | 55.1 | | 97 | 80-131 | | 200 |
| Carbon tetrachloride | 63 | | 6.3 | " | 64.7 | | 97 | 77-136 | | 200 |
| Benzene | 32 | | 3.2 | " | 32.2 | | 99 | 77-131 | | 200 |
| 1,2-Dichloroethane | 40 | | 4 | " | 39.6 | | 100 | 70-149 | | 200 |
| Trichloroethene | 54 | | 5.4 | " | 54.2 | | 99 | 81-125 | | 200 |
| 1,2-Dichloropropane | 47 | | 4.6 | " | 47.6 | | 99 | 74-135 | | 200 |
| cis-1,3-Dichloropropene | 47 | | 4.5 | " | 46.7 | | 100 | 77-129 | | 200 |
| Toluene | 40 | | 3.8 | " | 38.4 | | 103 | 79-126 | | 200 |
| trans-1,3-Dichloropropene | 52 | | 4.5 | " | 48.5 | | 108 | 81-137 | | 200 |
| 1,1,2-Trichloroethane | 57 | | 5.5 | " | 56.2 | | 102 | 76-124 | | 200 |
| Tetrachloroethene | 69 | | 6.8 | " | 67.8 | | 102 | 80-122 | | 200 |
| 1,2-Dibromoethane (EDB) | 81 | | 7.7 | " | 79.1 | | 102 | 78-124 | | 200 |
| Chlorobenzene | 49 | | 4.6 | " | 47.8 | | 102 | 76-120 | | 200 |
| Ethylbenzene | 46 | | 4.3 | " | 44.3 | | 104 | 75-125 | | 200 |
| m&p-Xylene | 93 | | 8.7 | " | 88.5 | | 105 | 75-128 | | 200 |
| o-Xylene | 47 | | 4.3 | " | 44.7 | | 105 | 74-128 | | 200 |
| Styrene | 46 | | 4.3 | " | 43.0 | | 107 | 69-122 | | 200 |
| 1,1,2,2-Tetrachloroethane | 72 | | 6.9 | " | 70.0 | | 102 | 70-130 | | 200 |
| 1,3,5-Trimethylbenzene | 53 | | 4.9 | " | 50.6 | | 105 | 70-134 | | 200 |
| 1,2,4-Trimethylbenzene | 52 | | 4.9 | " | 49.6 | | 106 | 65-129 | | 200 |
| 1,3-Dichlorobenzene | 62 | | 6 | " | 59.5 | | 105 | 62-130 | | 200 |
| 1,4-Dichlorobenzene | 63 | | 6 | " | 59.5 | | 105 | 61-131 | | 200 |
| 1,2-Dichlorobenzene | 62 | | 6 | " | 59.5 | | 104 | 60-130 | | 200 |
| 1,2,4-Trichlorobenzene | 70 | | 7.4 | " | 67.5 | | 103 | 38-128 | | 200 |
| Hexachlorobutadiene | 104 | | 11 | " | 101 | | 102 | 37-124 | | 200 |
| **Duplicate (B14A073-DUP2)** | | **Source: 1401049-02** | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | ND | U | 13 | ug/m³ Air | | ND | | | | 20 |
| Chloromethane | ND | U | 3.9 | " | | ND | | | | 20 |
| Vinyl chloride | ND | U | 4.9 | " | | ND | | | | 20 |
| Bromomethane | ND | U | 7.4 | " | | ND | | | | 20 |
| Chloroethane | ND | U | 5 | " | | ND | | | | 20 |

# United States Environmental Protection Agency
# Region 9 Laboratory

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|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B14A073 - - General Air prep - VOCs, Soil Gas** | | | | | | | | | | **Prepared & Analyzed: 01/29/14** |
| | | | | | | | | | | **Volatile Organic Compounds by TO-15 - Quality Control** |
| **Duplicate (B14A073-DUP2)** | | **Source: 1401049-02** | | | | | | | | |
| Trichlorofluoromethane | ND | U | 11 | " | | ND | | | | 20 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | U | 15 | " | | ND | | | | 20 |
| 1,1-Dichloroethene | ND | U | 7.6 | " | | ND | | | | 20 |
| Dichloromethane | 10 | | 6.6 | " | | 11.3 | | | 14 | 20 |
| 1,1-Dichloroethane | ND | U | 7.7 | " | | ND | | | | 20 |
| cis-1,2-Dichloroethene | ND | U | 7.6 | " | | ND | | | | 20 |
| Chloroform | 228 | | 9.3 | " | | 284 | | | **22** | 20 |
| 1,1,1-Trichloroethane | ND | U | 10 | " | | ND | | | | 20 |
| Carbon tetrachloride | ND | U | 12 | " | | ND | | | | 20 |
| Benzene | ND | U | 6.1 | " | | ND | | | | 20 |
| 1,2-Dichloroethane | ND | U | 7.7 | " | | ND | | | | 20 |
| Trichloroethene | 18 | | 10 | " | | 23.3 | | | **27** | 20 |
| 1,2-Dichloropropane | ND | U | 8.8 | " | | ND | | | | 20 |
| cis-1,3-Dichloropropene | ND | U | 8.7 | " | | ND | | | | 20 |
| Toluene | ND | U | 7.2 | " | | ND | | | | 20 |
| trans-1,3-Dichloropropene | ND | U | 8.7 | " | | ND | | | | 20 |
| 1,1,2-Trichloroethane | ND | U | 10 | " | | ND | | | | 20 |
| Tetrachloroethene | 14 | | 13 | " | | 17.5 | | | **22** | 20 |
| 1,2-Dibromoethane (EDB) | ND | U | 15 | " | | ND | | | | 20 |
| Chlorobenzene | ND | U | 8.8 | " | | ND | | | | 20 |
| Ethylbenzene | ND | U | 8.3 | " | | ND | | | | 20 |
| m&p-Xylene | ND | U | 17 | " | | ND | | | | 20 |
| o-Xylene | ND | U | 8.3 | " | | ND | | | | 20 |
| Styrene | ND | U | 8.1 | " | | ND | | | | 20 |
| 1,1,2,2-Tetrachloroethane | ND | U | 13 | " | | ND | | | | 20 |
| 1,3,5-Trimethylbenzene | ND | U | 9.4 | " | | ND | | | | 20 |
| 1,2,4-Trimethylbenzene | ND | U | 9.4 | " | | ND | | | | 20 |
| 1,3-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,4-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,2-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,2,4-Trichlorobenzene | ND | U | 14 | " | | ND | | | | 20 |
| Hexachlorobutadiene | ND | U | 20 | " | | ND | | | | 20 |
| **Duplicate (B14A073-DUP3)** | | **Source: 1401049-12** | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | ND | U | 13 | ug/m³ Air | | ND | | | | 20 |
| Chloromethane | ND | U | 3.9 | " | | ND | | | | 20 |
| Vinyl chloride | ND | U | 4.9 | " | | ND | | | | 20 |
| Bromomethane | ND | U | 7.4 | " | | ND | | | | 20 |
| Chloroethane | ND | U | 5 | " | | ND | | | | 20 |
| Trichlorofluoromethane | ND | U | 11 | " | | ND | | | | 20 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | U | 15 | " | | ND | | | | 20 |
| 1,1-Dichloroethene | ND | U | 7.6 | " | | ND | | | | 20 |

United States Environmental Protection Agency
# Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B14A073 - - General Air prep - VOCs, Soil Gas** | | | | | | | | | **Prepared: 01/29/14 Analyzed: 01/30/14** | |
| | | | | | | | | | **Volatile Organic Compounds by TO-15 - Quality Control** | |
| **Duplicate (B14A073-DUP3)** | | **Source: 1401049-12** | | | | | | | | |
| Dichloromethane | ND | U | 6.6 | " | | ND | | | | 20 |
| 1,1-Dichloroethane | ND | U | 7.7 | " | | ND | | | | 20 |
| cis-1,2-Dichloroethene | 36 | | 7.6 | " | | 43.7 | | | 19 | 20 |
| Chloroform | 10 | | 9.3 | " | | 12.4 | | | 18 | 20 |
| 1,1,1-Trichloroethane | ND | U | 10 | " | | ND | | | | 20 |
| Carbon tetrachloride | ND | U | 12 | " | | ND | | | | 20 |
| Benzene | ND | U | 6.1 | " | | ND | | | | 20 |
| 1,2-Dichloroethane | ND | U | 7.7 | " | | ND | | | | 20 |
| Trichloroethene | 39 | | 10 | " | | 45.9 | | | 17 | 20 |
| 1,2-Dichloropropane | ND | U | 8.8 | " | | ND | | | | 20 |
| cis-1,3-Dichloropropene | ND | U | 8.7 | " | | ND | | | | 20 |
| Toluene | ND | U | 7.2 | " | | ND | | | | 20 |
| trans-1,3-Dichloropropene | ND | U | 8.7 | " | | ND | | | | 20 |
| 1,1,2-Trichloroethane | ND | U | 10 | " | | ND | | | | 20 |
| Tetrachloroethene | 12 | C1, J | 13 | " | | 13.3 | | | 15 | 20 |
| 1,2-Dibromoethane (EDB) | ND | U | 15 | " | | ND | | | | 20 |
| Chlorobenzene | ND | U | 8.8 | " | | ND | | | | 20 |
| Ethylbenzene | ND | U | 8.3 | " | | ND | | | | 20 |
| m&p-Xylene | ND | U | 17 | " | | ND | | | | 20 |
| o-Xylene | ND | U | 8.3 | " | | ND | | | | 20 |
| Styrene | ND | U | 8.1 | " | | ND | | | | 20 |
| 1,1,2,2-Tetrachloroethane | ND | U | 13 | " | | ND | | | | 20 |
| 1,3,5-Trimethylbenzene | ND | U | 9.4 | " | | ND | | | | 20 |
| 1,2,4-Trimethylbenzene | ND | U | 9.4 | " | | ND | | | | 20 |
| 1,3-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,4-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,2-Dichlorobenzene | ND | U | 11 | " | | ND | | | | 20 |
| 1,2,4-Trichlorobenzene | ND | U | 14 | " | | ND | | | | 20 |
| Hexachlorobutadiene | ND | U | 20 | " | | ND | | | | 20 |
| **Batch B14A086 - - General Air prep - VOCs, Soil Gas** | | | | | | | | | **Prepared & Analyzed: 01/30/14** | |
| | | | | | | | | | **Volatile Organic Compounds by TO-15 - Quality Control** | |
| **Blank (B14A086-BLK1)** | | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | ND | U | 7 | ug/m³ Air | | | | | | |
| Chloromethane | ND | U | 2.1 | " | | | | | | |
| Vinyl chloride | ND | U | 2.6 | " | | | | | | |
| Bromomethane | ND | U | 3.9 | " | | | | | | |
| Chloroethane | ND | U | 2.6 | " | | | | | | |
| Trichlorofluoromethane | ND | U | 5.6 | " | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | ND | U | 7.7 | " | | | | | | |
| 1,1-Dichloroethene | ND | U | 4 | " | | | | | | |
| Dichloromethane | ND | U | 3.5 | " | | | | | | |

# United States Environmental Protection Agency
# Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302


| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

**Batch B14A086 - - General Air prep - VOCs, Soil Gas** — **Prepared & Analyzed: 01/30/14**

**Volatile Organic Compounds by TO-15 - Quality Control**

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (B14A086-BLK1)** | | | | | | | | | | |
| 1,1-Dichloroethane | ND | U | 4 | " | | | | | | |
| cis-1,2-Dichloroethene | ND | U | 4 | " | | | | | | |
| Chloroform | ND | U | 4.9 | " | | | | | | |
| 1,1,1-Trichloroethane | ND | U | 5.5 | " | | | | | | |
| Carbon tetrachloride | ND | U | 6.3 | " | | | | | | |
| Benzene | ND | U | 3.2 | " | | | | | | |
| 1,2-Dichloroethane | ND | U | 4 | " | | | | | | |
| Trichloroethene | ND | U | 5.4 | " | | | | | | |
| 1,2-Dichloropropane | ND | U | 4.6 | " | | | | | | |
| cis-1,3-Dichloropropene | ND | U | 4.5 | " | | | | | | |
| Toluene | ND | U | 3.8 | " | | | | | | |
| trans-1,3-Dichloropropene | ND | U | 4.5 | " | | | | | | |
| 1,1,2-Trichloroethane | ND | U | 5.5 | " | | | | | | |
| Tetrachloroethene | ND | U | 6.8 | " | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | U | 7.7 | " | | | | | | |
| Chlorobenzene | ND | U | 4.6 | " | | | | | | |
| Ethylbenzene | ND | U | 4.3 | " | | | | | | |
| m&p-Xylene | ND | U | 8.7 | " | | | | | | |
| o-Xylene | ND | U | 4.3 | " | | | | | | |
| Styrene | ND | U | 4.3 | " | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | U | 6.9 | " | | | | | | |
| 1,3,5-Trimethylbenzene | ND | U | 4.9 | " | | | | | | |
| 1,2,4-Trimethylbenzene | ND | U | 4.9 | " | | | | | | |
| 1,3-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,4-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,2-Dichlorobenzene | ND | U | 6 | " | | | | | | |
| 1,2,4-Trichlorobenzene | ND | U | 7.4 | " | | | | | | |
| Hexachlorobutadiene | ND | U | 11 | " | | | | | | |
| **LCS (B14A086-BS1)** | | | | | | | | | | |
| 1,2-Dichlorotetrafluoroethane | 65 | | 7 | ug/m³ Air | 73.3 | | 89 | 68-147 | | 200 |
| Chloromethane | 20 | | 2.1 | " | 21.7 | | 93 | 64-141 | | 200 |
| Vinyl chloride | 25 | | 2.6 | " | 26.8 | | 93 | 65-141 | | 200 |
| Bromomethane | 36 | | 3.9 | " | 40.0 | | 90 | 71-132 | | 200 |
| Chloroethane | 25 | | 2.6 | " | 27.2 | | 92 | 70-134 | | 200 |
| Trichlorofluoromethane | 57 | | 5.6 | " | 60.1 | | 95 | 72-141 | | 200 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 68 | | 7.7 | " | 74.3 | | 91 | 68-134 | | 200 |
| 1,1-Dichloroethene | 36 | | 4 | " | 38.0 | | 94 | 81-127 | | 200 |
| Dichloromethane | 30 | | 3.5 | " | 34.0 | | 88 | 74-116 | | 200 |
| 1,1-Dichloroethane | 37 | | 4 | " | 39.2 | | 93 | 82-123 | | 200 |
| cis-1,2-Dichloroethene | 38 | | 4 | " | 40.0 | | 94 | 83-126 | | 200 |
| Chloroform | 46 | | 4.9 | " | 49.8 | | 93 | 81-127 | | 200 |

United States Environmental Protection Agency
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| | | |
|---|---|---|
| **Project Manager:** Alana Lee | **California Site Cleanup Section 3** | **SDG:** 14029A |
| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Quality Control

| Analyte | Result | Qualifiers / Comments | Quantitation Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B14A086 - - General Air prep - VOCs, Soil Gas** | | | | | | | | | | **Prepared & Analyzed: 01/30/14** |
| | | | | | | | | | | **Volatile Organic Compounds by TO-15 - Quality Control** |
| **LCS (B14A086-BS1)** | | | | | | | | | | |
| 1,1,1-Trichloroethane | 52 | | 5.5 | " | 55.1 | | 94 | 80-131 | | 200 |
| Carbon tetrachloride | 62 | | 6.3 | " | 64.7 | | 95 | 77-136 | | 200 |
| Benzene | 32 | | 3.2 | " | 32.2 | | 98 | 77-131 | | 200 |
| 1,2-Dichloroethane | 40 | | 4 | " | 39.6 | | 100 | 70-149 | | 200 |
| Trichloroethene | 53 | | 5.4 | " | 54.2 | | 97 | 81-125 | | 200 |
| 1,2-Dichloropropane | 47 | | 4.6 | " | 47.6 | | 98 | 74-135 | | 200 |
| cis-1,3-Dichloropropene | 47 | | 4.5 | " | 46.7 | | 100 | 77-129 | | 200 |
| Toluene | 39 | | 3.8 | " | 38.4 | | 102 | 79-126 | | 200 |
| trans-1,3-Dichloropropene | 51 | | 4.5 | " | 48.5 | | 106 | 81-137 | | 200 |
| 1,1,2-Trichloroethane | 57 | | 5.5 | " | 56.2 | | 102 | 76-124 | | 200 |
| Tetrachloroethene | 69 | | 6.8 | " | 67.8 | | 101 | 80-122 | | 200 |
| 1,2-Dibromoethane (EDB) | 81 | | 7.7 | " | 79.1 | | 103 | 78-124 | | 200 |
| Chlorobenzene | 48 | | 4.6 | " | 47.8 | | 100 | 76-120 | | 200 |
| Ethylbenzene | 45 | | 4.3 | " | 44.3 | | 103 | 75-125 | | 200 |
| m&p-Xylene | 91 | | 8.7 | " | 88.5 | | 103 | 75-128 | | 200 |
| o-Xylene | 46 | | 4.3 | " | 44.7 | | 104 | 74-128 | | 200 |
| Styrene | 45 | | 4.3 | " | 43.0 | | 106 | 69-122 | | 200 |
| 1,1,2,2-Tetrachloroethane | 71 | | 6.9 | " | 70.0 | | 101 | 70-130 | | 200 |
| 1,3,5-Trimethylbenzene | 53 | | 4.9 | " | 50.6 | | 104 | 70-134 | | 200 |
| 1,2,4-Trimethylbenzene | 52 | | 4.9 | " | 49.6 | | 105 | 65-129 | | 200 |
| 1,3-Dichlorobenzene | 63 | | 6 | " | 59.5 | | 106 | 62-130 | | 200 |
| 1,4-Dichlorobenzene | 64 | | 6 | " | 59.5 | | 107 | 61-131 | | 200 |
| 1,2-Dichlorobenzene | 63 | | 6 | " | 59.5 | | 105 | 60-130 | | 200 |
| 1,2,4-Trichlorobenzene | 70 | | 7.4 | " | 67.5 | | 103 | 38-128 | | 200 |
| Hexachlorobutadiene | 99 | | 11 | " | 101 | | 98 | 37-124 | | 200 |

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| **Project Number:** R14S39 | **75 Hawthorne Street** | **Reported:** 02/13/14 15:03 |
| **Project:** MEW 2014 Manhole Screening Investigation | **San Francisco CA, 94105** | |

## Qualifiers and Comments

Q5 Sample duplicate precision criteria were not met for this analyte (see duplicate results for this batch in QC summary).

Q3 The quantitation limit standard did not meet recovery criteria for this analyte.

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.

**ICF International**
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

DATE: February ~~6~~ 13 2014

TO: Richard Bauer, Chemistry TM, EPA Region 9, Laboratory Section, MTS-2

FROM: Ziyad Rajabi, Organic Group Leader

SUBJECT: Analytical Results for TDF 10101071

As assigned under EPA Contract No. EP-W-13-029, TDF 10101071, ESAT completed analysis of 12 soil gas samples for the Middlefield-Ellis-Whisman project, Case R14S39, SDG 14029A, Work Order 1401049 for TO 15 following EPA Region 9 Laboratory SOP 311 based on method TO15. The draft analytical report and raw data package are attached.

Work on this TDF is complete. If you have any questions regarding this information please contact me at extension 22390.

# EPA Region 9 Laboratory

# DATA PACKAGE

| | |
|---|---|
| **Analysis:** | **VOCs** |
| **Project Number:** | **R14S39** |
| **SDG Number:** | **14029A** |
| **Work Order:** | **1401049** |
| **ESAT DCN:** | **16653** |

**Contents**

- **Review Forms**
- **Tracking Forms**
- ***Sample Preparation***
- **Data**
  **-Initial Calibration Data**
  **-Sample Data**
- ***Miscellaneous Data***
- ***Canister Certification Data***

*Sections in italics are included as applicable*

# REVIEW FORMS

# General Project Management and ESAT Contractor Oversight Review

Project Number: R14S39 SDG: 14029A

Analysis: TO 15 Number of Pages: 662

Reviewer: Christopher Cagwangan

- ✓ Review project notes and requirements (including TDF) and verify that correct analytical procedures and any special instructions were followed. Note any significant deviations or omissions in report narrative or return to contractor for correction.
- ✓ Review project memo field for each work order and include information pertinent to data users in report narrative. (Information important only to chemist reviewing the raw data package should be included in data package, but not in the report narrative).
- ✓ Review chain of custody documentation and verify that information in report corresponds correctly. Verify that any sample shipping or handling issues are properly documented and reported.
- ✓ Review analytical report and QC report and verify that qualifier flags for holding times, sample handling, surrogates, blanks, blank spikes, matrix QC, and calibration range have been appropriately applied.
- ✓ Review LIMS Data Entry table for unaddressed outliers.
- ✓ Verify that all major sections of data package are present.

Comments: 02/13/2014

Reviewer Signature Date 02/13/2014

G:\USER\ESAT\# LAB DATA Deliverables\R14S39\14029A-TO15-16653.docx

**ESAT Region 9** | **ICF International**
**Case:** R14S39 | **Analysis:** VOCs | **TDF:** 10101071 | **Matrix:** soil gas
**DCN:** 16653 | **Site:** Middlefield-Ellis-Whisman | **SDG:** 14029A

## ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

| Reviewer: | Package Prep (P): EM | Technical (T): [illegible] | Final (F): [illegible] |
|---|---|---|---|
| | Date: 2/5/14 | Date: 2/12/14 | Date: 2-13-14 |

P T F N/A ( indicates that the item is present and reviewed for accuracy and completeness)

**Report Section**

- ☑ ☑ ☑ ESAT Cover Memo (original)
- ☑ ☑ ☑ TDF included and requirements met (e.g. project analytes, project QLs, special procedures)
- ☑ ☑ ☑ Draft LIMS Report

**Data Package Cover**

- ☑ ☑ ☑ Case, SDG, Work Order(s), TDF#-DCN [First numbered page in the data package]

**Review Forms**

- ☑ ☑ ☑ EPA Review Form and Technical Review Guide included and complete.
- ☑ ☑ ☑ ¤ LIMS memo field; include as applicable.
- ¤ ¤ ¤ ☑ Discrepancy form(s) include as applicable
- ☑ ☑ ☑ ¤ Daily folder review forms are complete and reviewed; QC outliers noted
- ☑ ¤ ☑ ¤ Analysis matrix listing all analytical runs is included, as applicable

**Tracking Forms**

- ☑ ☑ ☑ Work Orders and Chains of Custody forms included and reviewed.
- ☑ ☑ ☑ Preparation and analyses performed within holding times. Qualify and/or explain deviations in memo field
- ¤ ¤ ¤ ☑ Cooler temperatures recorded on COC are within specification. Qualify and/or explain deviations in memo field

**Sample Preparation**

- ☑ ¤ ¤ ¤ Bench sheets and extraction logs, where applicable
- ¤ ¤ ¤ ☑ Sample cleanup data and records (e.g. GPC logs)
- ¤ ¤ ¤ ☑ Homogenization and Moisture data

**Initial Calibration Data**

Group ICAL data by instrument and analysis date:

- ☑ ☑ ¤ ¤ All ICALs associated with samples are present, reviewed, and pass SOP criteria. (If failure, discrepancy form must be included)
- ☑ ☑ ¤ ¤ Check for misidentification (e.g. isomers such as dichlorobenzene)

**Sample Data**

Group data for the following areas in sections by method, instrument, and analysis date.

Continuing Calibrations

- ☑ ¤ ¤ ¤ All CCALs associated with samples are present and meet SOP criteria. If not, discrepancy form included.
- ☑ ☑ ¤ Average RRFs from associated ICAL are correctly transposed to CCAL summary form
- ☑ ☑ ¤ CCAL RRFs and %Ds calculated correctly. Check at least 1 surrogate & 1 target analyte
- ☑ ☑ ¤ Check %Ds and RRFs against SOP criteria

**ESAT Region 9** **ICF International**
**Case:** R14S39 **Analysis:** VOCs **TDF:** 10101071 **Matrix:** soil gas
**DCN:** 16653 **Site:** Middlefield-Ellis-Whisman **SDG:** 14029A

P T F N/A ( indicates that the item is present and reviewed for accuracy and completeness)

Quantitation Limit Standards
☑ ☑ ☐ ☐ Percent recoveries of 60-140% met; outliers noted and flagged

Laboratory Control Samples
☑ ☑ ☑ Percent recoveries met. If not, discrepancy form included unless not required because: _____

Method Blanks
☑ ☑ ☑ Present and no target analyte results > ½ QL; if not, flag data as appropriate

~~MS/MSD~~ or Duplicate Data
☑ ☑ ☑ ☐ Percent recoveries and RPDs were met; outliers are noted and flagged. Note significant deviations in LIMS memo field

Sample Data
☑ ☑ ☑ ☐ Bench sheet(s) and injection or run logs present for all samples
☑ ☑ ☐ ☐ Internal standards meet SOP criteria
☑ ☑ ☐ ☑ System Monitoring Compound/Surrogate recoveries met; outliers are noted and flagged
☑ ☑ ☐ All non-detects are reported as ND on the quantitation report and explained for QC samples
☑ ☑ ☐ Quantitation results are correctly calculated. Check at least one surrogate or one target analyte
☑ ☑ ☐ Mass spectral data are present for all target analytes
☑ ☑ ☐ ☐ Check for manual integrations (m) identified on quantitation reports. Verify presence of manual integration data, initialed and dated by a supervisor
☑ ☑ ☐ ☐ Compound concentrations exceeding the upper range of the instrument are reported from the dilution run
☑ ☑ Check for carry-over contamination
☑ ☑ ☐ ☐ Dilutions and reruns appropriate.
☐ ☐ ☑ TICs properly identified; TIC report and data present; proper TIC name used (Organics)
☑ ☑ ☑ ☐ QC outliers are appropriately flagged in LIMS

***Miscellaneous Data***
☐ ☐ ☐ ☑ Storage blank data present
☐ ☐ ☐ ☑ Other data, as applicable _____

***Canister Certification Data (TO 15 only)***
☑ ☑ ☑ ☐ Data and supporting QC present

**Standards Records**
☑ ☑ ☑ ☐ LIMS Standards pdf created and filed as:
I:\PDF\Standard\ R14S39-14029A-VOCSoilGas.pdf

For ESAT Files: ESAT Review form (original) and Cover Memo (copy)

WORK ORDER NOTES - 1401049

**1401049 - California Site Cleanup Section 3**
**MEW 2014 Manhole Screening Investigation**

Edit Done

Sample Receiving: Received 6L Can 506 unused with shipment. SMS 1/29/2014

# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | 7015 | **Analyst Initial** | EM | **Reviewer Initial** | ZK | **Batch/ Sequence** | S14A082 |
| **Instrument ID** | HP5973K | **Date Analyzed** | 1/24/14 | **Date** | 1/28/14 | **Chemstation Last Update** | 1/24/14 15:09:46 |
| **Cases** | INITIAL CALIBRATION | | | **SDGs** | ICAL14020 | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | ✓ | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| ✓ | | | QLS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | ✓ | IS Areas (SOP criteria met) |
| ✓ | | | LCS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | MS/MSD |
| ✓ | | | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
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# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | TO15 | **Analyst Initial** | EM | **Reviewer Initial** | [illegible] | **Batch/ Sequence** | B14A075 Si4A101 |
| **Instrument ID** | HP5973K | **Date Analyzed** | 1/29/14 | **Date** | 2/7/14 | **Chemstation Last Update** | 1/24/14 15:09:46 |
| **Cases** | R14580, R14589 | | | **SDGs** | 14028A, 14029A, BIK CERTS, | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | ✓ | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| | ✓ | ✓ | QLS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | ✓ | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | | IS Areas (SOP criteria met) |
| | ✓ | ✓ | LCS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | ✓ | ~~MS/MSD~~ DUPLICATE |
| | ✓ | ✓ | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| CRLL | 012914K04 | 155% | 60-140% | ✓ | | | ✓ | dichloromethane |
| | | | | | | | | |
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# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | TO15 | **Analyst Initial** | EM | **Reviewer Initial** | [illegible] | **Batch/ Sequence** | B14A086 S14-A114 |
| **Instrument ID** | HP5973K | **Date Analyzed** | 1/30/14 | **Date** | 02/12/14 | **Chemstation Last Update** | 1/24/14 15:09:46 |
| **Cases** | R14539 | | | **SDGs** | 14029A, BLK CERTIFICATION | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| | ✓ | | QLS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | ✓ | IS Areas (SOP criteria met) |
| | ✓ | ✓ | LCS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | MS/MSD |
| | ✓ | ✓ | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| CR4 | 013014K04 | 152% | 60-140% | ✓ | | | ✓ | Dichloromethane |
| | | | | | | | | |
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USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R13S39
SDG: 14029A
Analysis: TO-15

Analyst: EM
Reviewed by:
Workorder: 1401049

| Sample ID | | | | | | | |
|---|---|---|---|---|---|---|---|
| Instrument: | CAN | Dilution | SAMPLE ID | HP5973K | Dilution | HP5973K | INSTRUMENT |
| Analysis Date: | | 1/29/2014 | | 1/29/2014 | 1/30/2014 | 1/30/2014 | |
| Batch: | | | | B14A073 | | B14A086 | |
| 1401049-01 | 1987 | 2.07 | MH01 | 200mL RPT CHCl3 OC<br>20mL RE1 RPT CHCl3 | | | |
| 1401049-02 | 1967 | 1.91 | MH02 | 200mL RPT CHCl3 OC<br>200mL DUP2 RPT Q5,J | 4.53 | 200mL RE1 RPT CHCl3 | |
| 1401049-03 | 2003 | 1.92 | MH03 | 200mL RPT CHCl3 OC | 1.91 | 50mL RE1 RPT CHCl3 | |
| 1401049-04 | 1108 | 1.92 | MH04 | 200mL RPT CHCl3 OC | 1.8 | 50mL RE1 RPT CHCl3 | |
| 1401049-05 | 1117 | 1.93 | MH05 | 200mL RPT CHCl3 OC | 2.05 | 50mL RE1 RPT CHCl3 | |
| 1401049-06 | 1112 | 1.92 | MH06 | 200mL RPT CHCl3 OC | 1.54 | 50mL RE1 RPT CHCl3 | |
| 1401049-07 | 863 | 1.81 | MH07 | 200mL RPT CHCl3 OC | 1.85 | 50mL RE1 RPT CHCl3 | |
| 1401049-08 | 1978 | 1.81 | MH08 | 200mL RPT CHCl3 OC | 1.77 | 50mL RE1 RPT CHCl3 | |
| 1401049-09 | 1095 | 1.94 | MH09 | 200mL RPT CHCl3 OC | 1.57 | 100mL RE1 RPT CHCl3 | |
| 1401049-10 | 636 | 1.92 | MH10 | 200mL RPT | | | |
| 1401049-11 | 1969 | 1.92 | MH11 | 200mL RPT cis 1,2-DCE, CHCl3 & TCE OC | 1.86 | 50mL RE1 RPT cis 1,2-DCE, CHCl3 & TCE | |
| 1401049-12 | 1970 | 1.91 | MH12 | 200mL RPT<br>200mL DUP3 RPT | | | |
| Blank | | | | B14A073-BLK1 | | B14A086-BLK1 | -BLK1 |
| Blank Spike | | | | B14A073-BS1 | | B14A086-BS1 | -BS1 |
| Duplicate | | | | B14A073-DUP2 | | | |
| Duplicate | | | | B14A073-DUP3 | | | |

Definitions

| | |
|---|---|
| RPT | Report |
| NU | Not Used |
| OC | Over calibration |
| OTT | Out of tune time |
| nX | Dilution, where n is dilution factor |

| Loop Method | SPLIT FLOW | SAMPLE SIZE |
|---|---|---|
| Loop.CTD | 0 | 1 |
| Loop5.CTD | 5 | 0.67 |
| Loop10.CTD | 10 | 0.5 |
| Loop15.CTD | 15 | 0.4 |
| Loop20.CTD | 20 | 0.33 |
| Loop40.CTD | 40 | 0.2 |



00016

# SAMPLE TRACKING FORMS

WORK ORDER

Printed: 1/29/2014 12:51:49PM

# 1401049

## EPA Region 9 Laboratory

**Client:** California Site Cleanup Section 3
**Project:** MEW 2014 Manhole Screening Investigation
**Project Number:** R14S39

**Report To:**
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3141
Fax: (415) 947-3526

**Project Contact**
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone :(415) 972-3141
Fax: (415) 947-3526

| Shipping Containers | Description | Temp C | Custody Seals? | Containers Intact? | Labels COC Agree? | Preservation Confirmed? | Received on Ice? | Comments |
|---|---|---|---|---|---|---|---|---|
| 1 Box | Box | 23 | No | Yes | Yes | No | No | |

| | | | |
|---|---|---|---|
| Date Due: | 02/28/14 15:00 (30 day TAT) | SDG: | 14029A |
| Received By: | Susan Sturges | Date Received: | 01/29/14 09:25 |
| Logged In By: | Susan Sturges | Date Logged In: | 01/29/14 10:53 |

| Analysis | Hold Time Expires | Comments |
|---|---|---|
| **1401049-01 MH01 [Air] Sampled 01/28/14 15:05 Pacific** | | **Can 1987** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-02 MH02 [Air] Sampled 01/28/14 15:16 Pacific** | | **Can 1967** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-03 MH03 [Air] Sampled 01/28/14 15:36 Pacific** | | **Can 2003** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-04 MH04 [Air] Sampled 01/28/14 15:53 Pacific** | | **Can 1108** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-05 MH05 [Air] Sampled 01/28/14 15:59 Pacific** | | **Can 1117** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-06 MH06 [Air] Sampled 01/28/14 16:30 Pacific** | | **Can 1112** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-07 MH07 [Air] Sampled 01/28/14 16:39 Pacific** | | **Can 863** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-08 MH08 [Air] Sampled 01/28/14 16:51 Pacific** | | **Can 1978** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |



00012

WORK ORDER

Printed: 1/29/2014 12:51:49PM

**1401049**

# EPA Region 9 Laboratory

**Client:** California Site Cleanup Section 3 **Project Number:** R14S39
**Project:** MEW 2014 Manhole Screening Investigation

| Analysis | Hold Time Expires | Comments |
|---|---|---|

| Analysis | Expires | Comments |
|---|---|---|
| **1401049-09 MH09 [Air] Sampled 01/28/14 16:59 Pacific** | | **Can 1095** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-10 MH10 [Air] Sampled 01/28/14 17:10 Pacific** | | **Can 636** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-11 MH11 [Air] Sampled 01/28/14 17:25 Pacific** | | **Can 1969** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |
| **1401049-12 MH12 [Air] Sampled 01/28/14 17:34 Pacific** | | **Can 1970** |
| VOCs, Soil Gas | 02/27/14 | 14 day prelim - 28 day final |

Reviewed By

Date



00019

Office of Enforcement

# CHAIN OF CUSTODY RECORD

75 Hawthorne Street
San Francisco, California 94105

PROJ. NO.: .

PROJECT NAME: MEW MANHOLE - JAN 2014

SAMPLERS: (Signature) Anbel, Mariam Tawos, Karl Bayle

| STA. NO. | DATE | TIME | COMP. | GRAB | STATION LOCATION | CAN | NO. OF CONTAINERS | TOXS SCAN | | | | | | REMARKS Final P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MH01 | 1/28/14 | 1505 | | X | MH01 | 1987 | 1 | X | | | | | | -2" Hg |
| MH02 | ↓ | 1516 | | X | MH02 | 1967 | 1 | X | | | | | | -2 |
| MH03 | | 1536 | | X | MH03 | 2003 | 1 | X | | | | | | -2 |
| MH04 | | 1553 | | X | MH04 | 1108 | 1 | X | | | | | | -2 |
| MH05 | | 1559 | | X | MH05 | 1117 | 1 | X | | | | | | -2 |
| MH06 | | 1630 | | X | MH06 | 1112 | 1 | X | | | | | | -2 |
| MH07 | | 1639 | | X | MH07 | 863 | 1 | X | | | | | | -2 |
| MH08 | | 1651 | | X | MH08 | 1978 | 1 | X | | | | | | -2 |
| MH09 | | 1659 | | X | MH09 | 1095 | 1 | X | | | | | | 0 |
| MH10 | | 1710 | | X | MH10 | 636 | 1 | X | | | | | | -1 |
| MH11 | | 1725 | | X | MH11 | 1969 | 1 | X | | | | | | -1 |
| MH12 | ↓ | 1734 | | X | MH12 | 1970 | 1 | X | | | | | | 0 |
| | | | | | | | | | | | | | | Can 506 Rec'd unused (GL) 1/29/14 GLS |

| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
|---|---|---|---|---|---|
| Karl Bayle | 1/29/14 9:25 | | | | |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| | | | | | |
| Relinquished by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks | |
| | | | 1/29/14 9:25 | Hand delivered | Rec'd at 23°C |

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

9 29034

# SAMPLE PREPARATION

# PREPARATION BENCH SHEET

## B14A073

### EPA Region 9 Laboratory

'rinted: 1/30/2014 1:09:07PM

**Project: R14S30 - Modesto 2014 Rebound Study**

**Matrix: Air** **Analysis: VOCs, Soil Gas** **Prepared using: Air - - General Air prep** **(No Surrogate)**

| Lab Number | SampleName | Prepared | Initial (mL) | Final (mL) | Spike ID | Source ID | ul Spike | ul Surrogate | Prepared By | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1401046-02 A | 931-SS-01-A | 01/29/14 12:55 | 200 | 200 | | | | | EM | no TICs |
| 1401046-02RE1 A | 931-SS-01-A | 01/29/14 12:55 | 50 | 200 | | | | | EM | no TICs |
| 1401046-03 A | 939-SS-01-A | 01/29/14 12:55 | 200 | 200 | | | | | EM | no TICs |
| 1401049-01 A | MH01 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-01RE1 A | MH01 | 01/29/14 12:55 | 20 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-02 A | MH02 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-03 A | MH03 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-04 A | MH04 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-05 A | MH05 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-06 A | MH06 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-07 A | MH07 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-08 A | MH08 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-09 A | MH09 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-10 A | MH10 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-11 A | MH11 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-12 A | MH12 | 01/29/14 12:55 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| B14A073-BLK1 | Blank | 01/29/14 12:55 | 200 | 200 | | | | | EM | |
| B14A073-BS1 | LCS | 01/29/14 12:55 | 200 | 200 | 1402115 | | 100000 | | EM | |
| B14A073-DUP1 | Duplicate | 01/29/14 12:55 | 50 | 200 | | 401046-02RE | | | EM | |
| B14A073-DUP2 | Duplicate | 01/29/14 12:55 | 200 | 200 | | 1401049-02 | | | EM | |
| B14A073-DUP3 | Duplicate | 01/29/14 12:55 | 200 | 200 | | 1401049-12 | | | EM | |

Preparation Reviewed By — Date: 01/31/14

# PREPARATION BENCH SHEET

## B14A086

### EPA Region 9 Laboratory

'rinted: 1/30/2014 5:29:05PM

**Project: R14S39 - MEW 2014 Manhole Screening Investigation**

**Matrix: Air** **Analysis: VOCs, Soil Gas** **Prepared using: Air - - General Air prep** **(No Surrogate)**

| Lab Number | SampleName | Prepared | Initial (mL) | Final (mL) | Spike ID | Source ID | ul Spike | ul Surrogate | Prepared By | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1401049-02RE1 A | MH02 | 01/30/14 12:53 | 200 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-03RE1 A | MH03 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-04RE1 A | MH04 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-05RE1 A | MH05 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-06RE1 A | MH06 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-07RE1 A | MH07 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-08RE1 A | MH08 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-09RE1 A | MH09 | 01/30/14 12:53 | 100 | 200 | | | | | EM | 14 day prelim - 28 day final |
| 1401049-11RE1 A | MH11 | 01/30/14 12:53 | 50 | 200 | | | | | EM | 14 day prelim - 28 day final |
| B14A086-BLK1 | Blank | 01/30/14 12:53 | 200 | 200 | | | | | EM | |
| B14A086-BS1 | LCS | 01/30/14 12:53 | 200 | 200 | 1402115 | | 100000 | | EM | |

**Reagents**

| Reagent # | Description |
|---|---|

2/12/14

Preparation Reviewed By Date

# SOIL GAS DILUTION LOG

| DATE/ INITIAL | TIME | LAB SAMPLE # | CLIENT SAMPLE # | CAN ID | INITIAL PRESSURE (PSI) | INITIAL VOL (mL) | FINAL VOL (mL) | FINAL PRESSURE (PSI) | AMBIENT PRESSURE (PSI) | DILUTION FACTOR |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/29/14 EM | 14:06 | 1401049-01 | MH01 | 1987 | 14.5 | 400 | 400 | 30.1 | 30.15/14.81 | 2.07 |
| | 14:09 | -02 | MH02 | 1967 | 14.8 | 400 | 400 | 28.4 | – | 1.91 |
| | 14:12 | -03 | MH03 | 2008 | 14.9 | 400 | 400 | 28.7 | – | 1.92 |
| | 14:14 | -04 | MH04 | 1108 | 14.9 | 400 | 400 | 28.7 | – | 1.92 |
| | 14:17 | -05 | MH05 | 1117 | 14.8 | 400 | 400 | 28.7 | – | 1.93 |
| | 14:19 | -06 | MH06 | 1112 | 14.8 | 400 | 400 | 28.5 | – | 1.92 |
| | 14:22 | -07 | MH07 | 863 | 14.8 | 400 | 400 | 26.8 | – | 1.81 |
| | 14:24 | -08 | MH08 | 1978 | 14.9 | 400 | 400 | 27.0 | – | 1.81 |
| | 14:26 | -09 | MH09 | 1095 | 14.8 | 400 | 400 | 28.8 | – | 1.94 |
| | 14:29 | -10 | MH10 | 636 | 14.9 | 400 | 400 | 28.7 | – | 1.92 |
| | 14:31 | -11 | MH11 | EM ~~696~~ 1069 | 15.0 | 400 | 400 | 28.8 | – | 1.92 |
| | 14:33 | -12 | MH12 | 1970 | 14.9 | 400 | 400 | 28.6 | – | 1.91 |

EMI 1/29/14

USEPA REGION 9 LABORATORY

SOIL GAS DILUTION LOG 2-6.xls

Reviewed by: [illegible]

Date: 01/30/14

# SOIL GAS DILUTION LOG

| DATE/ INITIAL | TIME | LAB SAMPLE # | CLIENT SAMPLE # | CAN ID | INITIAL PRESSURE (PSI) | INITIAL VOL (mL) | FINAL VOL (mL) | FINAL PRESSURE (PSI) | AMBIENT PRESSURE (PSI) | DILUTION FACTOR |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/30/14EM | 12:30 | 1401049-02 | MH02 | 1967 | 4.7 | 400 | 400 | 21.4 | 29.88/14.68 | 4.53 |
| | 1318 | 1401049-03 | MH03 | 2008 | 11.2 | 400 | 400 | 21.4 | – | 1.91 |
| | 1322 | -04 | MH04 | 1108 | 12.5 | 400 | 400 | 22.6 | – | 1.8 |
| | 1324 | -05 | MH05 | 1117 | 11.6 | 400 | 400 | 23.8 | – | 2.05 |
| | 1327 | -06 | MH06 | 1112 | 15.0 | 400 | 400 | 23.1 | – | 1.54 |
| | 1534 | -07 | MH07 | 863 | 12 | 400 | 400 | 22.6 | – | 1.85 |
| | 1541 | -08 | MH08 | 1978 | 13.1 | 400 | 400 | 23.2 | – | 1.77 |
| | 1544 | -09 | MH09 | 1095 | 14.3 | 400 | 400 | 22.5 | – | 1.57 |
| | 1553 | -11 | MH11 | 1969 | 11.9 | 400 | 400 | 22.2 | – | 1.86 |

EM 1/30/14

USEPA REGION 9 LABORATORY

SOIL GAS DILUTION LOG 2-6.xls

Reviewed by: RN

Date: 1/30/14

Instrument: HP5973K

Analysis Date: 1/24/14

# INITIAL CALIBRATION DATA

# ANALYSIS SEQUENCE

**S14A082**

Instrument: HP5973K

Calibration ID: 1401020

**Printed: 1/25/2014 4:17:15PM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| S14A082-TUN1 | QC | | 1 | | 1311118 | | | |
| S14A082-CAL1 | QC | | 2 | | 1402074 | | | |
| S14A082-CAL2 | QC | | 3 | | 1402075 | | | |
| S14A082-CAL3 | QC | | 4 | | 1402076 | | | |
| S14A082-CAL4 | QC | | 5 | | 1402077 | | | |
| S14A082-CAL5 | QC | | 6 | | 1402078 | | | |
| S14A082-CAL6 | QC | | 7 | | 1402079 | | | |
| S14A082-SCV1 | QC | | 8 | | 1402080 | | | |
| B14A053-BS1 | QC | | 9 | | | | | |
| B14A053-BLK1 | QC | | 10 | | | 1350050 | | |
| 1401033-19 | VOCs, Soil Gas | A | 11 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-20 | VOCs, Soil Gas | A | 12 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| S14A082-IBL1 | QC | | 13 | | | 1350050 | | |
| 1401033-16 | VOCs, Soil Gas | A | 14 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-17 | VOCs, Soil Gas | A | 15 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-18 | VOCs, Soil Gas | A | 16 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-21 | VOCs, Soil Gas | A | 17 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-02RE1 | VOCs, Soil Gas | A | 18 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-15RE1 | VOCs, Soil Gas | A | 19 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| B14A053-DUP1 | QC | | 20 | | | 1350050 | | |
| 1401033-19RE1 | VOCs, Soil Gas | A | 21 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401033-20RE1 | VOCs, Soil Gas | A | 22 | | | 1350050 | California Site Cleanup Section 2 | no TICs |

Samples Loaded By: [illegible] Date: 1/24/14

Data Processed By: [illegible] Date: 1/24/14

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2014\012414KAA.SEQ
Date: 01-25-2014
Time: 12:54:04
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Samp Pos | Cal Vol. | Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| BFB 1311118 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv 1402036 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 1 ppbv 1402115 | 3 | 3 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 2 ppbv 1402115 | 3 | 3 | 40 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 5 ppbv 1402115 | 3 | 3 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 15 ppbv 1402036 | 3 | 2 | 150 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 20 ppbv 1402036 | 3 | 2 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv SCV | 3 | 4 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv LCS | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 628 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-19 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-20 | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL1 | 3 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-16 | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-17 | 3 | 10 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-18 | 3 | 11 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-21 | 3 | 12 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-02RE1 | 4 | 1 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-15RE1 | 4 | 2 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-15DUP | 4 | 2 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-19RE1 | 3 | 6 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401033-20RE1 | 3 | 7 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 633 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 635 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 646 | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 647 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 868 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 869 | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 874 | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| CAN 900 | 3 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2014\012414KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 012414K01.D | 1. | S14A082-TUN1 | BFB STD 1311118/IS 1328060/10ppbv STD | 24 Jan 2014 09:47 |
| 2 | 32 | 012414K02.D | 1. | S14A082-CAL4 | 10 ppbv 1402036 | 24 Jan 2014 10:36 |
| 3 | 32 | 012414K03.D | 1. | S14A082-CAL1 | 10 ppbv 1402036 | 24 Jan 2014 11:24 |
| 4 | 33 | 012414K04.D | 1. | S14A082-CAL2 | 2.0 ppbv 1402081 | 24 Jan 2014 12:10 |
| 5 | 33 | 012414K05.D | 1. | S14A082-CAL3 | 5.0 ppbv 1402081 | 24 Jan 2014 12:57 |
| 6 | 32 | 012414K06.D | 1. | S14A082-CAL5 | 15 ppbv 1402036 | 24 Jan 2014 13:46 |
| 7 | 32 | 012414K07.D | 1. | S14A082-CAL6 | 20 ppbv 1402036 | 24 Jan 2014 14:35 |
| 8 | 34 | 012414K08.D | 1. | S14A082-SCV1 | 10 ppbv SCV | 24 Jan 2014 15:23 |
| 9 | 32 | 012414K09.D | 1. | B14A053-BS1 | 10 ppbv LCS | 24 Jan 2014 16:10 |
| 10 | 35 | 012414K10.D | 1. | B14A053-BLK1 | 200mL CAN 628 | 24 Jan 2014 17:22 |
| 11 | 36 | 012414K11.D | 2.2 | 1401033-19 | 200mL SVE-03-A Can 1054 | 24 Jan 2014 18:12 |
| 12 | 37 | 012414K12.D | 2.33 | 1401033-20 | 200mL SVE-03-B Can 662 | 24 Jan 2014 19:02 |
| 13 | 38 | 012414K13.D | 1. | BLK CAN 896 | 200mL CAN 896 | 24 Jan 2014 19:52 |
| 14 | 39 | 012414K14.D | 2.3 | 1401033-16 | 200mL OSVE-11-A Can 2004 | 24 Jan 2014 20:42 |
| 15 | 10 | 012414K15.D | 2.38 | 1401033-17 | 200mL SVE-01-A Can 1995 | 24 Jan 2014 21:33 |
| 16 | 11 | 012414K16.D | 2.34 | 1401033-18 | 200mL SVE-02-A Can 1098 | 24 Jan 2014 22:25 |
| 17 | 12 | 012414K17.D | 2.34 | 1401033-21 | 200mL SVE-04-A Can 862 | 24 Jan 2014 23:17 |
| 18 | 41 | 012414K18.D | 3.79 | 1401033-02RE1 | 50mL DP-01B-A Can 1985 | 25 Jan 2014 00:05 |
| 19 | 42 | 012414K19.D | 4.32 | 1401033-15RE1 | 20mL OSVE-10-A Can 1097 | 25 Jan 2014 00:53 |
| 20 | 42 | 012414K20.D | 4.32 | B14A053-DUP1 | 20mL OSVE-10-A Can 1097 | 25 Jan 2014 01:41 |
| 21 | 36 | 012414K21.D | 2.2 | 1401033-19RE1 | 20mL SVE-03-A Can 1054 | 25 Jan 2014 02:28 |
| 22 | 37 | 012414K22.D | 2.33 | 1401033-20RE1 | 20mL SVE-03-B Can 662 | 25 Jan 2014 03:15 |
| 23 | 43 | 012414K23.D | 1. | BLK CAN 633 | BLK CAN 633 | 25 Jan 2014 04:05 |
| 24 | 44 | 012414K24.D | 1. | BLK CAN 635 | BLK CAN 635 | 25 Jan 2014 04:55 |
| 25 | 45 | 012414K25.D | 1. | BLK CAN 646 | BLK CAN 646 | 25 Jan 2014 05:46 |
| 26 | 46 | 012414K26.D | 1. | BLK CAN 647 | BLK CAN 647 | 25 Jan 2014 06:36 |
| 27 | 47 | 012414K27.D | 1. | BLK CAN 868 | BLK CAN 868 | 25 Jan 2014 07:25 |
| 28 | 48 | 012414K28.D | 1. | BLK CAN 869 | BLK CAN 869 | 25 Jan 2014 08:15 |
| 29 | 49 | 012414K29.D | 1. | BLK CAN 874 | BLK CAN 874 | 25 Jan 2014 09:05 |
| 30 | 31 | 012414K30.D | 1. | BLK CAN 900 | BLK CAN 900 | 25 Jan 2014 09:55 |

# Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012414KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014
Response Via : Initial Calibration

Calibration Files
1 =012414K03.D 2 =012414K04.D 5 =012414K05.D 10 =012414K02.D 15 =012414K06.D
20 =012414K07.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.803 | 0.648 | 0.607 | 0.575 | 0.593 | 0.587 | 0.636 | 13.46 |
| 3) | T | Dichlorodifluo... | 2.114 | 1.815 | 1.700 | 1.587 | 1.600 | 1.535 | 1.725 | 12.44 |
| 4) | T | 1,2-Dichlorote... | 2.105 | 1.795 | 1.697 | 1.636 | 1.709 | 1.678 | 1.770 | 9.72 |
| 5) | T | Chloromethane | 0.878 | 0.752 | 0.713 | 0.676 | 0.701 | 0.692 | 0.735 | 10.14 |
| 6) | T | Vinyl chloride | 0.915 | 0.775 | 0.757 | 0.732 | 0.751 | 0.752 | 0.780 | 8.63 |
| 7) | T | 1,3-Butadiene | 0.668 | 0.578 | 0.562 | 0.548 | 0.573 | 0.575 | 0.584 | 7.28 |
| 8) | T | Bromomethane | 0.687 | 0.594 | 0.559 | 0.531 | 0.557 | 0.550 | 0.580 | 9.75 |
| 9) | T | Chloroethane | 0.475 | 0.416 | 0.392 | 0.373 | 0.389 | 0.387 | 0.405 | 9.03 |
| 10) | T | Bromoethene | 0.619 | 0.549 | 0.520 | 0.505 | 0.528 | 0.525 | 0.541 | 7.53 |
| 11) | T | Trichlorofluor... | 1.758 | 1.515 | 1.449 | 1.373 | 1.438 | 1.420 | 1.492 | 9.25 |
| 12) | T | 1,1,2-Trichlor... | 1.201 | 1.068 | 1.006 | 0.986 | 1.001 | 1.006 | 1.045 | 7.83 |
| 13) | T | 1,1-Dichloroet... | 1.312 | 1.137 | 1.119 | 1.084 | 1.134 | 1.134 | 1.153 | 6.96 |
| 14) | T | Acetone | 1.139 | 1.082 | 1.000 | 0.975 | 1.001 | 0.984 | 1.030 | 6.35 |
| 15) | T | Carbon disulfide | 1.932 | 1.705 | 1.624 | 1.571 | 1.633 | 1.613 | 1.680 | 7.79 |
| 16) | T | 2-Propanol | 1.135 | 1.047 | 1.013 | 1.020 | 1.057 | 1.052 | 1.054 | 4.13 |
| 17) | T | Allyl chloride | 0.910 | 0.838 | 0.831 | 0.817 | 0.859 | 0.849 | 0.851 | 3.83 |
| 18) | T | Dichloromethane | 1.364 | 1.080 | 0.928 | 0.858 | 0.868 | 0.857 | 0.992 | 20.26 |
| 19) | T | tert-Butyl met... | 1.754 | 1.701 | 1.681 | 1.640 | 1.741 | 1.735 | 1.708 | 2.53 |
| 20) | T | trans-1,2-Dich... | 1.022 | 0.952 | 0.929 | 0.890 | 0.932 | 0.917 | 0.940 | 4.79 |
| 21) | T | Hexane | 1.227 | 1.130 | 1.130 | 1.097 | 1.158 | 1.144 | 1.148 | 3.81 |
| 22) | T | 1,1-Dichloroet... | 1.585 | 1.418 | 1.356 | 1.293 | 1.356 | 1.345 | 1.392 | 7.36 |
| 23) | T | Vinyl acetate | 1.523 | 1.446 | 1.495 | 1.507 | 1.605 | 1.602 | 1.530 | 4.11 |
| 24) | T | cis-1,2-Dichlo... | 1.128 | 1.020 | 0.999 | 0.968 | 1.013 | 1.008 | 1.023 | 5.34 |
| 25) | T | 2-Butanone (MEK) | 1.134 | 1.316 | 1.344 | 1.430 | 1.356 | 1.350 | 1.322 | 7.51 |
| 26) | T | Ethyl acetate | 1.912 | 1.815 | 1.734 | 1.575 | 1.807 | 1.788 | 1.772 | 6.34 |
| 27) | T | Tetrahydrofuran | 0.950 | 0.898 | 0.888 | 0.866 | 0.907 | 0.892 | 0.900 | 3.11 |
| 28) | T | Chloroform | 1.563 | 1.437 | 1.370 | 1.314 | 1.387 | 1.366 | 1.406 | 6.14 |
| 29) | T | Cyclohexane | 1.233 | 1.173 | 1.152 | 1.112 | 1.176 | 1.167 | 1.169 | 3.37 |
| 30) | T | 1,1,1-Trichlor... | 1.535 | 1.408 | 1.372 | 1.300 | 1.382 | 1.370 | 1.394 | 5.55 |
| 31) | T | Carbon tetrach... | 1.472 | 1.387 | 1.307 | 1.264 | 1.342 | 1.341 | 1.352 | 5.30 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.977 | 0.894 | 0.859 | 0.821 | 0.862 | 0.848 | 0.877 | 6.21 |
| 34) | T | 2,2,4-Trimethy... | 1.406 | 1.330 | 1.342 | 1.304 | 1.378 | 1.362 | 1.354 | 2.68 |
| 35) | T | 1,2-Dichloroet... | 0.394 | 0.359 | 0.350 | 0.333 | 0.348 | 0.341 | 0.354 | 5.97 |
| 36) | T | Heptane | 0.538 | 0.498 | 0.507 | 0.495 | 0.519 | 0.515 | 0.512 | 3.09 |
| 37) | T | Trichloroethene | 0.370 | 0.342 | 0.326 | 0.313 | 0.331 | 0.327 | 0.335 | 5.87 |
| 38) | T | 1,2-Dichloropr... | 0.376 | 0.344 | 0.330 | 0.314 | 0.328 | 0.322 | 0.336 | 6.49 |
| 39) | T | 1,4-Dioxane | 0.144 | 0.145 | 0.159 | 0.164 | 0.175 | 0.173 | 0.160 | 8.25 |
| 40) | T | Bromodichlorom... | 0.597 | 0.547 | 0.534 | 0.512 | 0.539 | 0.530 | 0.543 | 5.31 |
| 41) | T | cis-1,3-Dichlo... | 0.496 | 0.469 | 0.462 | 0.451 | 0.477 | 0.472 | 0.471 | 3.24 |
| 42) | T | 4-Methyl-2-pen... | 0.641 | 0.655 | 0.665 | 0.651 | 0.685 | 0.678 | 0.663 | 2.55 |
| 43) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 44) | T | Toluene | 1.148 | 1.094 | 1.059 | 1.017 | 1.103 | 1.087 | 1.085 | 4.06 |
| 45) | T | trans-1,3-Dich... | 0.482 | 0.453 | 0.451 | 0.451 | 0.484 | 0.481 | 0.467 | 3.59 |
| 46) | T | 1,1,2-Trichlor... | 0.388 | 0.370 | 0.353 | 0.330 | 0.356 | 0.352 | 0.358 | 5.37 |
| 47) | T | Tetrachloroethene | 0.549 | 0.514 | 0.485 | 0.459 | 0.506 | 0.503 | 0.503 | 5.95 |
| 48) | T | 2-Hexanone | 0.620 | 0.639 | 0.653 | 0.652 | 0.711 | 0.699 | 0.662 | 5.32 |
| 49) | T | Chlorodibromom... | 0.583 | 0.550 | 0.532 | 0.506 | 0.554 | 0.551 | 0.546 | 4.66 |
| 50) | T | 1,2-Dibromoeth... | 0.523 | 0.508 | 0.492 | 0.467 | 0.504 | 0.497 | 0.499 | 3.81 |
| 51) | T | Chlorobenzene | 0.898 | 0.839 | 0.797 | 0.764 | 0.823 | 0.812 | 0.822 | 5.48 |
| 52) | T | Ethylbenzene | 1.491 | 1.425 | 1.390 | 1.350 | 1.460 | 1.453 | 1.428 | 3.59 |
| 53) | T | m&p-Xylene | 1.078 | 1.060 | 1.057 | 1.041 | 1.151 | 1.155 | 1.090 | 4.57 |
| 54) | T | o-Xylene | 1.071 | 1.066 | 1.045 | 1.024 | 1.124 | 1.126 | 1.076 | 3.86 |
| 55) | T | Styrene | 0.837 | 0.841 | 0.848 | 0.844 | 0.939 | 0.936 | 0.874 | 5.64 |
| 56) | T | Bromoform | 0.571 | 0.555 | 0.553 | 0.544 | 0.610 | 0.614 | 0.575 | 5.27 |

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012414KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | 1,1,2,2-Tetrac... | 0.890 | 0.869 | 0.829 | 0.797 | 0.862 | 0.850 | 0.849 | 3.85 |
| 58) | T | 4-Ethyltoluene | 1.338 | 1.361 | 1.354 | 1.336 | 1.478 | 1.480 | 1.391 | 4.94 |
| 59) | T | 1,3,5-Trimethy... | 1.195 | 1.187 | 1.185 | 1.195 | 1.314 | 1.322 | 1.233 | 5.35 |
| 60) | T | 1,2,4-Trimethy... | 1.168 | 1.207 | 1.187 | 1.198 | 1.330 | 1.334 | 1.237 | 6.02 |
| 61) | T | 1,3-Dichlorobe... | 0.848 | 0.839 | 0.806 | 0.810 | 0.911 | 0.909 | 0.854 | 5.44 |
| 62) | T | 1,4-Dichlorobe... | 0.801 | 0.809 | 0.796 | 0.807 | 0.899 | 0.899 | 0.835 | 5.93 |
| 63) | T | Benzyl chloride | 0.876 | 0.887 | 0.907 | 0.908 | 1.003 | 1.002 | 0.930 | 6.13 |
| 64) | T | 1,2-Dichlorobe... | 0.837 | 0.820 | 0.796 | 0.786 | 0.875 | 0.874 | 0.831 | 4.59 |
| 65) | T | 1,2,4-Trichlor... | 0.770 | 0.777 | 0.752 | 0.795 | 0.914 | 0.914 | 0.820 | 9.02 |
| 66) | T | Hexachlorobuta... | 0.680 | 0.741 | 0.705 | 0.663 | 0.745 | 0.724 | 0.710 | 4.67 |

(#) = Out of Range

# CALIBRATION AREA REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 844512 | 843979 | 847034 | 907783 | 873689 | 911927 |
| 2) | Propene | 32971 | 53251 | 125098 | 253988 | 378273 | 521044 |
| 3) | Dichlorodifluoromethane | 83591 | 143479 | 337174 | 674855 | 982163 | 1311139 |
| 4) | 1,2-Dichlorotetrafluoroethane | 84866 | 144608 | 343159 | 709115 | 1069478 | 1461016 |
| 5) | Chloromethane | 35417 | 60578 | 144204 | 292845 | 438705 | 602652 |
| 6) | Vinyl chloride | 36893 | 62473 | 152977 | 317201 | 470123 | 654934 |
| 7) | 1,3-Butadiene | 26154 | 45222 | 110454 | 230720 | 348356 | 485924 |
| 8) | Bromomethane | 27172 | 46993 | 110794 | 225784 | 341889 | 469401 |
| 9) | Chloroethane | 18767 | 32860 | 77796 | 158635 | 238793 | 330445 |
| 10) | Bromoethene | 24475 | 43403 | 103074 | 214707 | 323876 | 448331 |
| 11) | Trichlorofluoromethane | 72235 | 124411 | 298488 | 606557 | 916992 | 1259854 |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 44745 | 79492 | 187827 | 394929 | 578642 | 808648 |
| 13) | 1,1-Dichloroethene | 48366 | 83773 | 206774 | 429541 | 648849 | 902427 |
| 14) | Acetone | 46348 | 87996 | 204201 | 426489 | 632190 | 864417 |
| 15) | Carbon disulfide | 75653 | 133493 | 318891 | 661500 | 992772 | 1364032 |
| 16) | 2-Propanol | 41412 | 76302 | 185395 | 400022 | 598175 | 828250 |
| 17) | Allyl chloride | 35308 | 64937 | 161627 | 340721 | 517098 | 711272 |
| 18) | Dichloromethane | 51334 | 81247 | 175110 | 347070 | 506602 | 696167 |
| 19) | tert-Butyl methyl ether (MTBE) | 73406 | 142326 | 352726 | 737662 | 1130461 | 1567538 |
| 20) | trans-1,2-Dichloroethene | 37296 | 69398 | 169959 | 348954 | 527298 | 722563 |
| 21) | Hexane | 48045 | 88418 | 221897 | 462024 | 703961 | 967172 |
| 22) | 1,1-Dichloroethane | 59035 | 105590 | 253260 | 517542 | 783926 | 1081986 |
| 23) | Vinyl acetate | 58462 | 110965 | 287755 | 621919 | 956208 | 1328447 |
| 24) | cis-1,2-Dichloroethene | 43754 | 79028 | 194328 | 403683 | 609845 | 844394 |
| 25) | 2-Butanone (MEK) | 45298 | 105068 | 269141 | 613689 | 840266 | 1163614 |
| 26) | Ethyl acetate | 76351 | 144837 | 347326 | 676154 | 1119941 | 1541832 |
| 27) | Tetrahydrofuran | 37581 | 70986 | 176186 | 368304 | 556891 | 761754 |
| 28) | Chloroform | 61214 | 112487 | 269115 | 553333 | 842796 | 1155436 |
| 29) | Cyclohexane | 49238 | 93632 | 230630 | 477116 | 728479 | 1005839 |
| 30) | 1,1,1-Trichloroethane | 59517 | 109126 | 266803 | 542056 | 831542 | 1147239 |
| 31) | Carbon tetrachloride | 58213 | 109611 | 259188 | 537139 | 823891 | 1145137 |
| 32) | 1,4-DIFLUOROBENZENE | 2213579 | 2231980 | 2220261 | 2392845 | 2308725 | 2423118 |
| 33) | Benzene | 99281 | 183307 | 437938 | 901781 | 1370061 | 1886512 |
| 34) | 2,2,4-Trimethylpentane | 148626 | 283449 | 711155 | 1489662 | 2277985 | 3149645 |
| 35) | 1,2-Dichloroethane | 38814 | 71391 | 172879 | 355533 | 536286 | 736558 |
| 36) | Heptane | 56839 | 106032 | 268444 | 565457 | 857656 | 1190463 |
| 37) | Trichloroethene | 37660 | 70113 | 166240 | 344388 | 526029 | 727641 |
| 38) | 1,2-Dichloropropane | 38931 | 71811 | 171415 | 352373 | 532292 | 731003 |
| 39) | 1,4-Dioxane | 15411 | 31244 | 84888 | 189208 | 292181 | 403750 |
| 40) | Bromodichloromethane | 63661 | 117714 | 285717 | 590251 | 899780 | 1236698 |
| 41) | cis-1,3-Dichloropropene | 51425 | 98040 | 240347 | 505029 | 774212 | 1071037 |
| 42) | 4-Methyl-2-pentanone (MIBK) | 67718 | 139529 | 352535 | 743712 | 1132547 | 1568954 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 43) | CHLOROBENZENE-d5 | 2058015 | 2067465 | 2069734 | 2251153 | 2127333 | 2238196 |
| 44) | Toluene | 109521 | 209790 | 508200 | 1061291 | 1631953 | 2256642 |
| 45) | trans-1,3-Dichloropropene | 48237 | 91159 | 227087 | 493938 | 751524 | 1046946 |
| 46) | 1,1,2-Trichloroethane | 37352 | 71737 | 171031 | 348352 | 531621 | 738604 |
| 47) | Tetrachloroethene | 51397 | 96554 | 228261 | 470251 | 734383 | 1023965 |
| 48) | 2-Hexanone | 59765 | 123664 | 316540 | 686900 | 1062014 | 1464517 |
| 49) | Chlorodibromomethane | 56756 | 107602 | 260438 | 539101 | 835554 | 1165618 |
| 50) | 1,2-Dibromoethane (EDB) | 50446 | 98328 | 238487 | 491961 | 753861 | 1041669 |
| 51) | Chlorobenzene | 87411 | 163993 | 390072 | 813598 | 1242123 | 1717998 |
| 52) | Ethylbenzene | 142343 | 273214 | 667267 | 1409640 | 2160928 | 3015746 |
| 53) | m&p-Xylene | 205795 | 406492 | 1014125 | 2173327 | 3405371 | 4793848 |
| 54) | o-Xylene | 103174 | 206436 | 506388 | 1079607 | 1680188 | 2359839 |
| 55) | Styrene | 79090 | 159665 | 402796 | 872583 | 1375493 | 1924268 |
| 56) | Bromoform | 55065 | 107532 | 267829 | 574011 | 911785 | 1286997 |
| 57) | 1,1,2,2-Tetrachloroethane | 84935 | 166640 | 397895 | 832089 | 1275411 | 1764245 |
| 58) | 4-Ethyltoluene | 131500 | 268734 | 669029 | 1435763 | 2252147 | 3162118 |
| 59) | 1,3,5-Trimethylbenzene | 115211 | 229792 | 574314 | 1260166 | 1962983 | 2771126 |
| 60) | 1,2,4-Trimethylbenzene | 110351 | 229159 | 564225 | 1238531 | 1948345 | 2742334 |
| 61) | 1,3-Dichlorobenzene | 78554 | 156071 | 375525 | 820841 | 1309046 | 1830560 |
| 62) | 1,4-Dichlorobenzene | 74227 | 150567 | 370759 | 817897 | 1291451 | 1810189 |
| 63) | Benzyl chloride | 84388 | 171775 | 439427 | 957301 | 1498122 | 2099717 |
| 64) | 1,2-Dichlorobenzene | 77492 | 152588 | 370835 | 796007 | 1257420 | 1760927 |
| 65) | 1,2,4-Trichlorobenzene | 65557 | 132867 | 321862 | 740327 | 1206652 | 1692540 |
| 66) | Hexachlorobutadiene | 60424 | 132278 | 315206 | 644849 | 1026859 | 1400097 |

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2014\012414KA\012414K01.D
Tune Time : 24 Jan 2014 9:47

Daily Calibration File : C:\msdchem\1\DATA\2014\012414KA\012414K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| | | 907783 | 2392850 | 2251150 |
| 012414K02.D | | | | |
| | S14A082-CAL4 | 907783 | 2392845 | 2251153 |
| 012414K03.D | | | | |
| | S14A082-CAL1 | 844512 | 2213579 | 2058015 |
| 012414K04.D | | | | |
| | S14A082-CAL2 | 843979 | 2231980 | 2067465 |
| 012414K05.D | | | | |
| | S14A082-CAL3 | 847034 | 2220261 | 2069734 |
| 012414K06.D | | | | |
| | S14A082-CAL5 | 873689 | 2308725 | 2127333 |
| 012414K07.D | | | | |
| | S14A082-CAL6 | 911927 | 2423118 | 2238196 |
| 012414K08.D | | | | |
| | S14A082-SCV1 | 910394 | 2416906 | 2206787 |
| 012414K09.D | | | | |
| | B14A053-BS1 | 922460 | 2474350 | 2288282 |
| 012414K10.D | | | | |
| | B14A053-BLK1 | 901677 | 2425208 | 2167573 |
| 012414K11.D | | | | |
| | 1401033-19 | 871748 | 2347536 | 2126943 |
| 012414K12.D | | | | |
| | 1401033-20 | 847771 | 2303389 | 2075902 |
| 012414K13.D | | | | |
| | S14A082-IBL1 | 829137 | 2239091 | 2019404 |
| 012414K14.D | | | | |
| | 1401033-16 | 813698 | 2139500 | 1928544 |
| 012414K15.D | | | | |
| | 1401033-17 | 823278 | 2182106 | 1958791 |
| 012414K16.D | | | | |
| | 1401033-18 | 808333 | 2118716 | 1886474 |
| 012414K17.D | | | | |
| | 1401033-21 | 810515 | 2142600 | 1937016 |
| 012414K18.D | | | | |
| | 1401033-02RE1 | 802484 | 2138710 | 1896001 |
| 012414K19.D | | | | |
| | 1401033-15RE1 | 775392 | 2031872 | 1824425 |
| 012414K20.D | | | | |
| | B14A053-DUP1 | 775603 | 2052119 | 1836092 |

| | | | |
|---|---|---|---|
| 012414K21.D | | | |
| 1401033-19 | 770260 | 2057524 | 1837216 |
| 012414K22.D | | | |
| 1401033-20 | 755389 | 1999460 | 1783328 |
| 012414K23.D | | | |
| BLK CAN 633 | 773181 | 2050704 | 1847340 |
| 012414K24.D | | | |
| BLK CAN 635 | 771897 | 2051913 | 1842298 |
| 012414K25.D | | | |
| BLK CAN 646 | 759593 | 2003627 | 1794557 |
| 012414K26.D | | | |
| BLK CAN 647 | 751022 | 1983755 | 1774421 |
| 012414K27.D | | | |
| BLK CAN 868 | 749626 | 1974891 | 1762619 |
| 012414K28.D | | | |
| BLK CAN 869 | 749541 | 1987045 | 1782720 |
| 012414K29.D | | | |
| BLK CAN 874 | 743325 | 1940487 | 1740710 |
| 012414K30.D | | | |
| BLK CAN 900 | 746731 | 1959117 | 1751050 |

(fails) - fails 24hr time check  * - fails criteria

Created: Sat Jan 25 14:46:18 2014  HP5973K

# RT DUPLICATE REPORT

Instrument Name: HP5973K
Sample Name: S14A082-CAL4
Misc Info: 10 ppbv 1402036
Date Acquired: 1/24/2014 10:36
QLast Update: Thu Jan 23 17:30:00 2014
Operator: EM

| # | Name | RT | CONC | Qion | |
|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.444 | 22.000 | 49.1 | 15.049 |
| 2) | Propene | 4.372 | 10.222 | 41.2 | |
| 3) | Dichlorodifluoromethane | 4.463 | 9.709 | 85 | |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.816 | 9.979 | 85.1 | |
| 5) | Chloromethane | 5.011 | 10.168 | 50.1 | |
| 6) | Vinyl chloride | 5.333 | 10.170 | 62.1 | |
| 7) | 1,3-Butadiene | 5.437 | 9.929 | 54.2 | |
| 8) | Bromomethane | 6.368 | 9.480 | 94 | |
| 9) | Chloroethane | 6.696 | 9.624 | 64.1 | |
| 10) | Bromoethene | 7.262 | 9.721 | 106 | |
| 11) | Trichlorofluoromethane | 7.408 | 10.039 | 101 | |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.227 | 9.279 | 151 | |
| 13) | 1,1-Dichloroethene | 9.306 | 9.409 | 61.1 | |
| 14) | Acetone | 9.829 | 10.355 | 43.1 | |
| 15) | Carbon disulfide | 10.024 | 9.833 | 76 | |
| 16) | 2-Propanol | 10.444 | 9.488 | 45.2 | |
| 17) | Allyl chloride | 10.851 | 10.128 | 41.2 | |
| 18) | Dichloromethane | 11.387 | 8.773 | 49.1 | |
| 19) | tert-Butyl methyl ether (MTBE) | 12.086 | 10.936 | 73.2 | |
| 20) | trans-1,2-Dichloroethene | 12.111 | 9.251 | 61.1 | |
| 21) | Hexane | 12.719 | 10.132 | 57.2 | |
| 22) | 1,1-Dichloroethane | 13.455 | 9.282 | 63.1 | |
| 23) | Vinyl acetate | 13.595 | 10.320 | 43.1 | |
| 24) | cis-1,2-Dichloroethene | 14.903 | 9.869 | 61.1 | |
| 25) | 2-Butanone (MEK) | 15.000 | 11.459 | 43.1 | |
| 26) | Ethyl acetate | 15.049 | 9.759 | 43.1 | |
| 27) | Tetrahydrofuran | 15.450 | 10.350 | 42.2 | |
| 28) | Chloroform | 15.602 | 9.650 | 83 | |
| 29) | Cyclohexane | 15.834 | 10.171 | 56.2 | |
| 30) | 1,1,1-Trichloroethane | 15.882 | 9.557 | 97 | |
| 31) | Carbon tetrachloride | 16.138 | 9.773 | 117 | |
| 32) | 1,4-DIFLUOROBENZENE | 17.452 | 22.000 | 114.1 | 16.977 |
| 33) | Benzene | 16.631 | 10.926 | 78.1 | 16.594 |
| 34) | 2,2,4-Trimethylpentane | 16.594 | 11.757 | 57.2 | |
| 35) | 1,2-Dichloroethane | 16.831 | 10.663 | 62.1 | |
| 36) | Heptane | 16.977 | 11.963 | 43.2 | |
| 37) | Trichloroethene | 17.866 | 10.883 | 130 | |
| 38) | 1,2-Dichloropropane | 18.364 | 11.255 | 63.1 | |
| 39) | 1,4-Dioxane | 18.559 | 12.482 | 88.1 | |
| 40) | Bromodichloromethane | 18.827 | 11.497 | 83 | |
| 41) | cis-1,3-Dichloropropene | 19.593 | 11.425 | 75.1 | |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.831 | 12.293 | 43.1 | |

| | | | | | |
|---|---|---|---|---|---|
| 43) | CHLOROBENZENE-d5 | 22.355 | 22.000 | 117.1 | 21.686 |
| 44) | Toluene | 20.074 | 15.606 | 91.1 | |
| 45) | trans-1,3-Dichloropropene | 20.542 | 16.793 | 75.1 | |
| 46) | 1,1,2-Trichloroethane | 20.847 | 15.473 | 97 | |
| 47) | Tetrachloroethene | 20.932 | 14.798 | 165.9 | |
| 48) | 2-Hexanone | 21.187 | 17.158 | 43.1 | |
| 49) | Chlorodibromomethane | 21.455 | 15.696 | 129 | |
| 50) | 1,2-Dibromoethane (EDB) | 21.686 | 15.591 | 107 | |
| 51) | Chlorobenzene | 22.404 | 15.511 | 112.1 | |
| 52) | Ethylbenzene | 22.495 | 15.734 | 91.1 | |
| 53) | m&p-Xylene | 22.678 | 31.698 | 91.1 | |
| 54) | o-Xylene | 23.323 | 16.046 | 91.1 | |
| 55) | Styrene | 23.359 | 15.952 | 104.1 | |
| 56) | Bromoform | 23.730 | 15.516 | 172.9 | |
| 57) | 1,1,2,2-Tetrachloroethane | 24.430 | 15.628 | 83 | |
| 58) | 4-Ethyltoluene | 24.673 | 16.456 | 105.1 | |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 16.370 | 105.1 | |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 15.954 | 105.1 | |
| 61) | 1,3-Dichlorobenzene | 25.902 | 15.252 | 146 | |
| 62) | 1,4-Dichlorobenzene | 26.048 | 15.600 | 146 | |
| 63) | Benzyl chloride | 26.255 | 16.246 | 91.1 | 0.000 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 15.322 | 146 | 0.000 |
| 65) | 1,2,4-Trichlorobenzene | 29.108 | 14.589 | 180 | 0.000 |
| 66) | Hexachlorobutadiene | 29.248 | 14.889 | 224.9 | 0.000 |

# CHEMSTATION CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 201
Operator: EM

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 |
| 2) | Propene | 1.070 | 2.14 | 5.35 | 10.70 | 16.05 | 21.40 |
| 3) | Dichlorodifluoromethane | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 4) | 1,2-Dichlorotetrafluoroethane | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 5) | Chloromethane | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 6) | Vinyl chloride | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 7) | 1,3-Butadiene | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 8) | Bromomethane | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 9) | Chloroethane | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 10) | Bromoethene | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 11) | Trichlorofluoromethane | 1.07 | 2.14 | 5.35 | 10.70 | 16.05 | 21.40 |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.97 | 1.94 | 4.85 | 9.70 | 14.55 | 19.40 |
| 13) | 1,1-Dichloroethene | 0.96 | 1.92 | 4.80 | 9.60 | 14.40 | 19.20 |
| 14) | Acetone | 1.06 | 2.12 | 5.30 | 10.60 | 15.90 | 21.20 |
| 15) | Carbon disulfide | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 16) | 2-Propanol | 0.95 | 1.90 | 4.75 | 9.50 | 14.25 | 19.00 |
| 17) | Allyl chloride | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 18) | Dichloromethane | 0.98 | 1.96 | 4.90 | 9.80 | 14.70 | 19.60 |
| 19) | tert-Butyl methyl ether (MTBE) | 1.09 | 2.18 | 5.45 | 10.90 | 16.35 | 21.80 |
| 20) | trans-1,2-Dichloroethene | 0.95 | 1.90 | 4.75 | 9.50 | 14.25 | 19.00 |
| 21) | Hexane | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 22) | 1,1-Dichloroethane | 0.97 | 1.94 | 4.85 | 9.70 | 14.55 | 19.40 |
| 23) | Vinyl acetate | 1.00 | 2.00 | 5.00 | 10.00 | 15.00 | 20.00 |
| 24) | cis-1,2-Dichloroethene | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 25) | 2-Butanone (MEK) | 1.04 | 2.08 | 5.20 | 10.40 | 15.60 | 20.80 |
| 26) | Ethyl acetate | 1.04 | 2.08 | 5.20 | 10.40 | 15.60 | 20.80 |
| 27) | Tetrahydrofuran | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 28) | Chloroform | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 29) | Cyclohexane | 1.04 | 2.08 | 5.20 | 10.40 | 15.60 | 20.80 |
| 30) | 1,1,1-Trichloroethane | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 31) | Carbon tetrachloride | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 32) | 1,4-DIFLUOROBENZENE | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 |
| 33) | Benzene | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 34) | 2,2,4-Trimethylpentane | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 35) | 1,2-Dichloroethane | 0.98 | 1.96 | 4.90 | 9.80 | 14.70 | 19.60 |
| 36) | Heptane | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 37) | Trichloroethene | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 38) | 1,2-Dichloropropane | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 39) | 1,4-Dioxane | 1.06 | 2.12 | 5.30 | 10.60 | 15.90 | 21.20 |
| 40) | Bromodichloromethane | 1.06 | 2.12 | 5.30 | 10.60 | 15.90 | 21.20 |
| 41) | cis-1,3-Dichloropropene | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 42) | 4-Methyl-2-pentanone (MIBK) | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 43) | CHLOROBENZENE-d5 | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 | 22.00 |
| 44) | Toluene | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 45) | trans-1,3-Dichloropropene | 1.07 | 2.14 | 5.35 | 10.70 | 16.05 | 21.40 |
| 46) | 1,1,2-Trichloroethane | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 47) | Tetrachloroethene | 1.00 | 2.00 | 5.00 | 10.00 | 15.00 | 20.00 |
| 48) | 2-Hexanone | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 49) | Chlorodibromomethane | 1.04 | 2.08 | 5.20 | 10.40 | 15.60 | 20.80 |
| 50) | 1,2-Dibromoethane (EDB) | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 51) | Chlorobenzene | 1.04 | 2.08 | 5.20 | 10.40 | 15.60 | 20.80 |
| 52) | Ethylbenzene | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 53) | m&p-Xylene | 2.04 | 4.08 | 10.20 | 20.40 | 30.60 | 40.80 |
| 54) | o-Xylene | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 55) | Styrene | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 56) | Bromoform | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 57) | 1,1,2,2-Tetrachloroethane | 1.02 | 2.04 | 5.10 | 10.20 | 15.30 | 20.40 |
| 58) | 4-Ethyltoluene | 1.05 | 2.10 | 5.25 | 10.50 | 15.75 | 21.00 |
| 59) | 1,3,5-Trimethylbenzene | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 60) | 1,2,4-Trimethylbenzene | 1.01 | 2.02 | 5.05 | 10.10 | 15.15 | 20.20 |
| 61) | 1,3-Dichlorobenzene | 0.99 | 1.98 | 4.95 | 9.90 | 14.85 | 19.80 |
| 62) | 1,4-Dichlorobenzene | 0.99 | 1.98 | 4.95 | 9.90 | 14.85 | 19.80 |
| 63) | Benzyl chloride | 1.03 | 2.06 | 5.15 | 10.30 | 15.45 | 20.60 |
| 64) | 1,2-Dichlorobenzene | 0.99 | 1.98 | 4.95 | 9.90 | 14.85 | 19.80 |
| 65) | 1,2,4-Trichlorobenzene | 0.91 | 1.82 | 4.55 | 9.10 | 13.65 | 18.20 |
| 66) | Hexachlorobutadiene | 0.95 | 1.90 | 4.75 | 9.50 | 14.25 | 19.00 |

# CHEMSTATION VS LIMS CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 20
Operator: EM

| # | Name | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 5 | 10 | 15 | 20 |
| 1) | BROMOCHLOROMETHANE | | | | | | |
| 2) | Propene | OK | OK | OK | OK | OK | OK |
| 3) | Dichlorodifluoromethane | OK | OK | OK | OK | OK | OK |
| 4) | 1,2-Dichlorotetrafluoroethane | OK | OK | OK | OK | OK | OK |
| 5) | Chloromethane | OK | OK | OK | OK | OK | OK |
| 6) | Vinyl chloride | OK | OK | OK | OK | OK | OK |
| 7) | 1,3-Butadiene | OK | OK | OK | OK | OK | OK |
| 8) | Bromomethane | OK | OK | OK | OK | OK | OK |
| 9) | Chloroethane | OK | OK | OK | OK | OK | OK |
| 10) | Bromoethene | OK | OK | OK | OK | OK | OK |
| 11) | Trichlorofluoromethane | OK | OK | OK | OK | OK | OK |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | OK | OK | OK | OK | OK | OK |
| 13) | 1,1-Dichloroethene | OK | OK | OK | OK | OK | OK |
| 14) | Acetone | OK | OK | OK | OK | OK | OK |
| 15) | Carbon disulfide | OK | OK | OK | OK | OK | OK |
| 16) | 2-Propanol | OK | OK | OK | OK | OK | OK |
| 17) | Allyl chloride | OK | OK | OK | OK | OK | OK |
| 18) | Dichloromethane | OK | OK | OK | OK | OK | OK |
| 19) | tert-Butyl methyl ether (MTBE) | OK | OK | OK | OK | OK | OK |
| 20) | trans-1,2-Dichloroethene | OK | OK | OK | OK | OK | OK |
| 21) | Hexane | OK | OK | OK | OK | OK | OK |
| 22) | 1,1-Dichloroethane | OK | OK | OK | OK | OK | OK |
| 23) | Vinyl acetate | OK | OK | OK | OK | OK | OK |
| 24) | cis-1,2-Dichloroethene | OK | OK | OK | OK | OK | OK |
| 25) | 2-Butanone (MEK) | OK | OK | OK | OK | OK | OK |
| 26) | Ethyl acetate | OK | OK | OK | OK | OK | OK |
| 27) | Tetrahydrofuran | OK | OK | OK | OK | OK | OK |
| 28) | Chloroform | OK | OK | OK | OK | OK | OK |
| 29) | Cyclohexane | OK | OK | OK | OK | OK | OK |
| 30) | 1,1,1-Trichloroethane | OK | OK | OK | OK | OK | OK |
| 31) | Carbon tetrachloride | OK | OK | OK | OK | OK | OK |
| 32) | 1,4-DIFLUOROBENZENE | | | | | | |
| 33) | Benzene | OK | OK | OK | OK | OK | OK |
| 34) | 2,2,4-Trimethylpentane | OK | OK | OK | OK | OK | OK |
| 35) | 1,2-Dichloroethane | OK | OK | OK | OK | OK | OK |
| 36) | Heptane | OK | OK | OK | OK | OK | OK |
| 37) | Trichloroethene | OK | OK | OK | OK | OK | OK |
| 38) | 1,2-Dichloropropane | OK | OK | OK | OK | OK | OK |
| 39) | 1,4-Dioxane | OK | OK | OK | OK | OK | OK |
| 40) | Bromodichloromethane | OK | OK | OK | OK | OK | OK |
| 41) | cis-1,3-Dichloropropene | OK | OK | OK | OK | OK | OK |
| 42) | 4-Methyl-2-pentanone (MIBK) | OK | OK | OK | OK | OK | OK |
| 43) | CHLOROBENZENE-d5 | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 44) | Toluene | OK | OK | OK | OK | OK | OK |
| 45) | trans-1,3-Dichloropropene | OK | OK | OK | OK | OK | OK |
| 46) | 1,1,2-Trichloroethane | OK | OK | OK | OK | OK | OK |
| 47) | Tetrachloroethene | OK | OK | OK | OK | OK | OK |
| 48) | 2-Hexanone | OK | OK | OK | OK | OK | OK |
| 49) | Chlorodibromomethane | OK | OK | OK | OK | OK | OK |
| 50) | 1,2-Dibromoethane (EDB) | OK | OK | OK | OK | OK | OK |
| 51) | Chlorobenzene | OK | OK | OK | OK | OK | OK |
| 52) | Ethylbenzene | OK | OK | OK | OK | OK | OK |
| 53) | m&p-Xylene | OK | OK | OK | OK | OK | OK |
| 54) | o-Xylene | OK | OK | OK | OK | OK | OK |
| 55) | Styrene | OK | OK | OK | OK | OK | OK |
| 56) | Bromoform | OK | OK | OK | OK | OK | OK |
| 57) | 1,1,2,2-Tetrachloroethane | OK | OK | OK | OK | OK | OK |
| 58) | 4-Ethyltoluene | OK | OK | OK | OK | OK | OK |
| 59) | 1,3,5-Trimethylbenzene | OK | OK | OK | OK | OK | OK |
| 60) | 1,2,4-Trimethylbenzene | OK | OK | OK | OK | OK | OK |
| 61) | 1,3-Dichlorobenzene | OK | OK | OK | OK | OK | OK |
| 62) | 1,4-Dichlorobenzene | OK | OK | OK | OK | OK | OK |
| 63) | Benzyl chloride | OK | OK | OK | OK | OK | OK |
| 64) | 1,2-Dichlorobenzene | OK | OK | OK | OK | OK | OK |
| 65) | 1,2,4-Trichlorobenzene | OK | OK | OK | OK | OK | OK |
| 66) | Hexachlorobutadiene | OK | OK | OK | OK | OK | OK |

# LIMS CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 20
Operator: EM

| # | Name | Amount | L1 | L2 | L3 | L4 | L5 | L6 |
|---|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 5 | 10 | 15 | 20 |
| 1) | BROMOCHLOROMETHANE | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A |
| 2) | Propene | 0.0214 | 1.070 | 2.14 | 5.35 | 10.7 | 16.05 | 21.4 |
| 3) | Dichlorodifluoromethane | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 4) | 1,2-Dichlorotetrafluoroethane | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 5) | Chloromethane | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 6) | Vinyl chloride | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 7) | 1,3-Butadiene | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 8) | Bromomethane | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 9) | Chloroethane | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 10) | Bromoethene | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 11) | Trichlorofluoromethane | 0.0214 | 1.07 | 2.14 | 5.35 | 10.7 | 16.05 | 21.4 |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.0194 | 0.97 | 1.94 | 4.85 | 9.7 | 14.55 | 19.4 |
| 13) | 1,1-Dichloroethene | 0.0192 | 0.96 | 1.92 | 4.8 | 9.6 | 14.4 | 19.2 |
| 14) | Acetone | 0.0212 | 1.06 | 2.12 | 5.3 | 10.6 | 15.9 | 21.2 |
| 15) | Carbon disulfide | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 16) | 2-Propanol | 0.019 | 0.95 | 1.9 | 4.75 | 9.5 | 14.25 | 19 |
| 17) | Allyl chloride | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 18) | Dichloromethane | 0.0196 | 0.98 | 1.96 | 4.9 | 9.8 | 14.7 | 19.6 |
| 19) | tert-Butyl methyl ether (MTBE) | 0.0218 | 1.09 | 2.18 | 5.45 | 10.9 | 16.35 | 21.8 |
| 20) | trans-1,2-Dichloroethene | 0.019 | 0.95 | 1.9 | 4.75 | 9.5 | 14.25 | 19 |
| 21) | Hexane | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 22) | 1,1-Dichloroethane | 0.0194 | 0.97 | 1.94 | 4.85 | 9.7 | 14.55 | 19.4 |
| 23) | Vinyl acetate | 0.02 | 1 | 2 | 5 | 10 | 15 | 20 |
| 24) | cis-1,2-Dichloroethene | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 25) | 2-Butanone (MEK) | 0.0208 | 1.04 | 2.08 | 5.2 | 10.4 | 15.6 | 20.8 |
| 26) | Ethyl acetate | 0.0208 | 1.04 | 2.08 | 5.2 | 10.4 | 15.6 | 20.8 |
| 27) | Tetrahydrofuran | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 28) | Chloroform | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 29) | Cyclohexane | 0.0208 | 1.04 | 2.08 | 5.2 | 10.4 | 15.6 | 20.8 |
| 30) | 1,1,1-Trichloroethane | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 31) | Carbon tetrachloride | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 32) | 1,4-DIFLUOROBENZENE | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A |
| 33) | Benzene | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 34) | 2,2,4-Trimethylpentane | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 35) | 1,2-Dichloroethane | 0.0196 | 0.98 | 1.96 | 4.9 | 9.8 | 14.7 | 19.6 |
| 36) | Heptane | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 37) | Trichloroethene | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 38) | 1,2-Dichloropropane | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 39) | 1,4-Dioxane | 0.0212 | 1.06 | 2.12 | 5.3 | 10.6 | 15.9 | 21.2 |
| 40) | Bromodichloromethane | 0.0212 | 1.06 | 2.12 | 5.3 | 10.6 | 15.9 | 21.2 |
| 41) | cis-1,3-Dichloropropene | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 42) | 4-Methyl-2-pentanone (MIBK) | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 43) | CHLOROBENZENE-d5 | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A | #N/A |
| 44) | Toluene | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 45) | trans-1,3-Dichloropropene | 0.0214 | 1.07 | 2.14 | 5.35 | 10.7 | 16.05 | 21.4 |
| 46) | 1,1,2-Trichloroethane | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 47) | Tetrachloroethene | 0.02 | 1 | 2 | 5 | 10 | 15 | 20 |
| 48) | 2-Hexanone | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 49) | Chlorodibromomethane | 0.0208 | 1.04 | 2.08 | 5.2 | 10.4 | 15.6 | 20.8 |

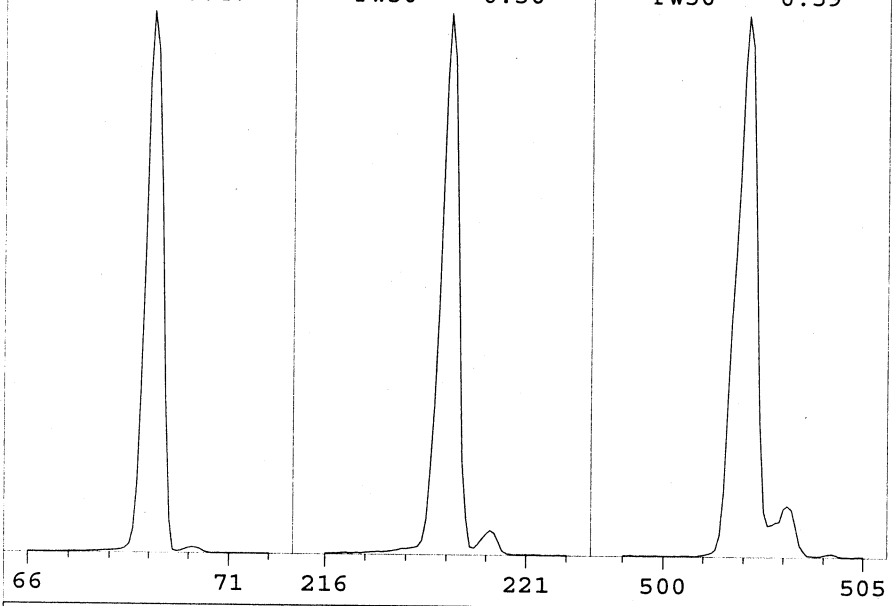
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 50) | 1,2-Dibromoethane (EDB) | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 51) | Chlorobenzene | 0.0208 | 1.04 | 2.08 | 5.2 | 10.4 | 15.6 | 20.8 |
| 52) | Ethylbenzene | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 53) | m&p-Xylene | 0.0408 | 2.04 | 4.08 | 10.2 | 20.4 | 30.6 | 40.8 |
| 54) | o-Xylene | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 55) | Styrene | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 56) | Bromoform | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 57) | 1,1,2,2-Tetrachloroethane | 0.0204 | 1.02 | 2.04 | 5.1 | 10.2 | 15.3 | 20.4 |
| 58) | 4-Ethyltoluene | 0.021 | 1.05 | 2.1 | 5.25 | 10.5 | 15.75 | 21 |
| 59) | 1,3,5-Trimethylbenzene | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 60) | 1,2,4-Trimethylbenzene | 0.0202 | 1.01 | 2.02 | 5.05 | 10.1 | 15.15 | 20.2 |
| 61) | 1,3-Dichlorobenzene | 0.0198 | 0.99 | 1.98 | 4.95 | 9.9 | 14.85 | 19.8 |
| 62) | 1,4-Dichlorobenzene | 0.0198 | 0.99 | 1.98 | 4.95 | 9.9 | 14.85 | 19.8 |
| 63) | Benzyl chloride | 0.0206 | 1.03 | 2.06 | 5.15 | 10.3 | 15.45 | 20.6 |
| 64) | 1,2-Dichlorobenzene | 0.0198 | 0.99 | 1.98 | 4.95 | 9.9 | 14.85 | 19.8 |
| 65) | 1,2,4-Trichlorobenzene | 0.0182 | 0.91 | 1.82 | 4.55 | 9.1 | 13.65 | 18.2 |
| 66) | Hexachlorobutadiene | 0.019 | 0.95 | 1.9 | 4.75 | 9.5 | 14.25 | 19 |

5973N

Sat Jan 25 13:00:53 2014
C:\msdchem\1\5973N\BFB012414KA.u

Instrument: HP5973K
US03960556

| Mass | 69.10 | Mass | 219.10 | Mass | 502.10 |
|---|---|---|---|---|---|
| Ab | 357932 | Ab | 145983 | Ab | 14353 |
| Pw50 | 0.47 | Pw50 | 0.50 | Pw50 | 0.59 |

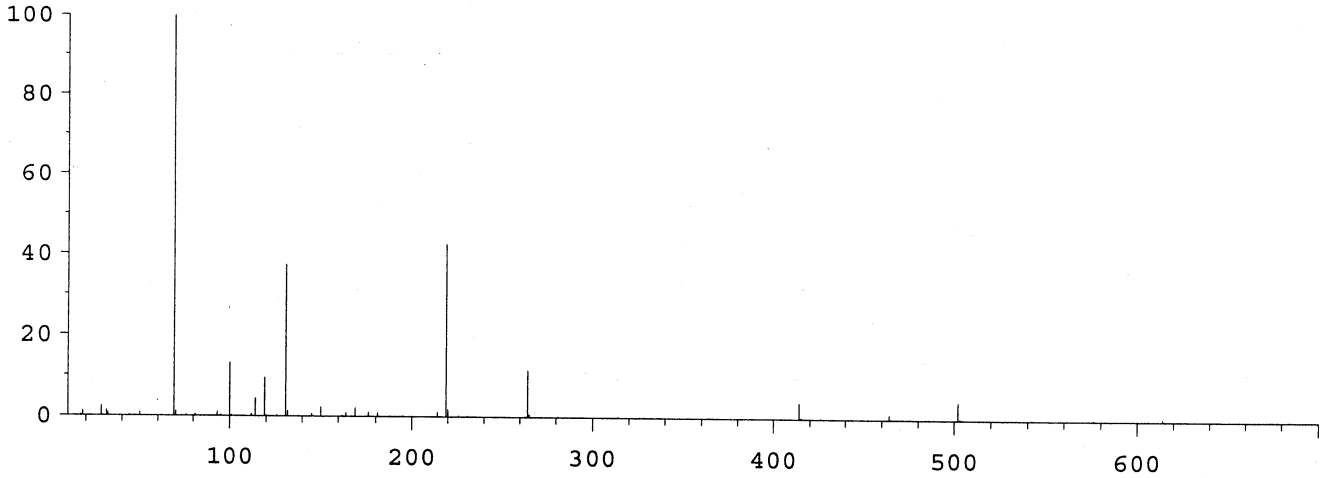



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 99 |
| | | MassOffs | -8 |
| Emission | 34.6 | AmuGain | 2003 |
| EIEnrgy | 69.9 | AmuOffs | 125 |
| Filament | 1 | Wid219 | -0.016 |
| | | DC Pol | Pos |
| Repeller | 32.97 | | |
| IonFcus | 86.4 | HEDEnab | On |
| EntLens | 16.5 | EMVolts | 1482 |
| EntOffs | 19.07 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
92 peaks Base: 69.10 Abundance: 278016




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 278016 | 100.00 | 70.10 | 3183 | 1.14 |
| 219.10 | 118400 | 42.59 | 220.10 | 5271 | 4.45 |
| 502.10 | 11905 | 4.28 | 503.10 | 1071 | 9.00 |

Air/Water Check: H20~1.19% N2~2.45% O2~0.96% CO2~0.20% N2/H2O~206.21%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 53697
Repeller Maximum 35 volts using ion 219; Gain Factor 0.54

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

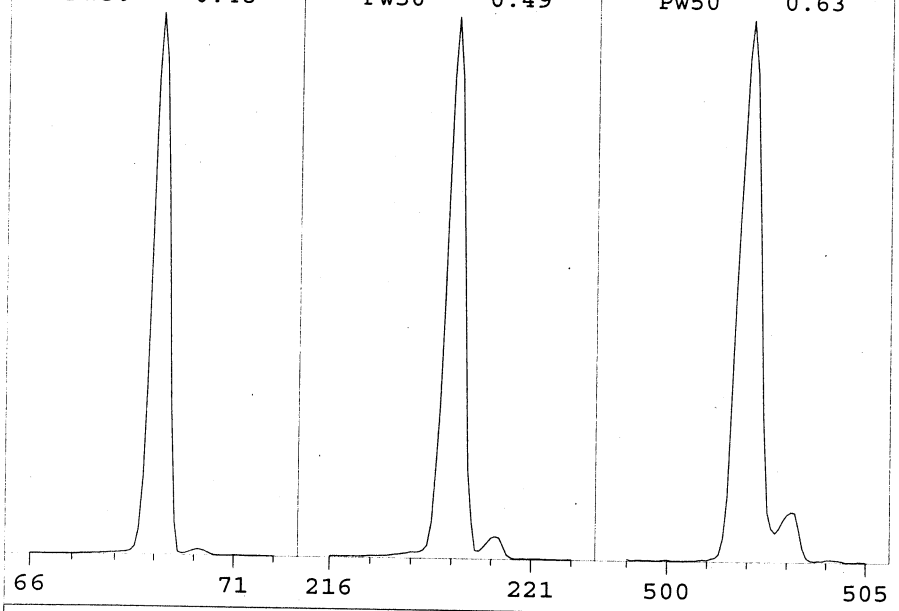
| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 |
| Entrance Lens Offset: | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 |

5973N

Sat Jan 25 13:04:50 2014
C:\MSDCHEM\1\5973N\atune.u

Instrument: HP5973K
US03960556

| | | | | | |
|---|---|---|---|---|---|
| Mass | 69.10 | Mass | 219.10 | Mass | 502.10 |
| Ab | 338445 | Ab | 138578 | Ab | 13468 |
| Pw50 | 0.48 | Pw50 | 0.49 | Pw50 | 0.63 |

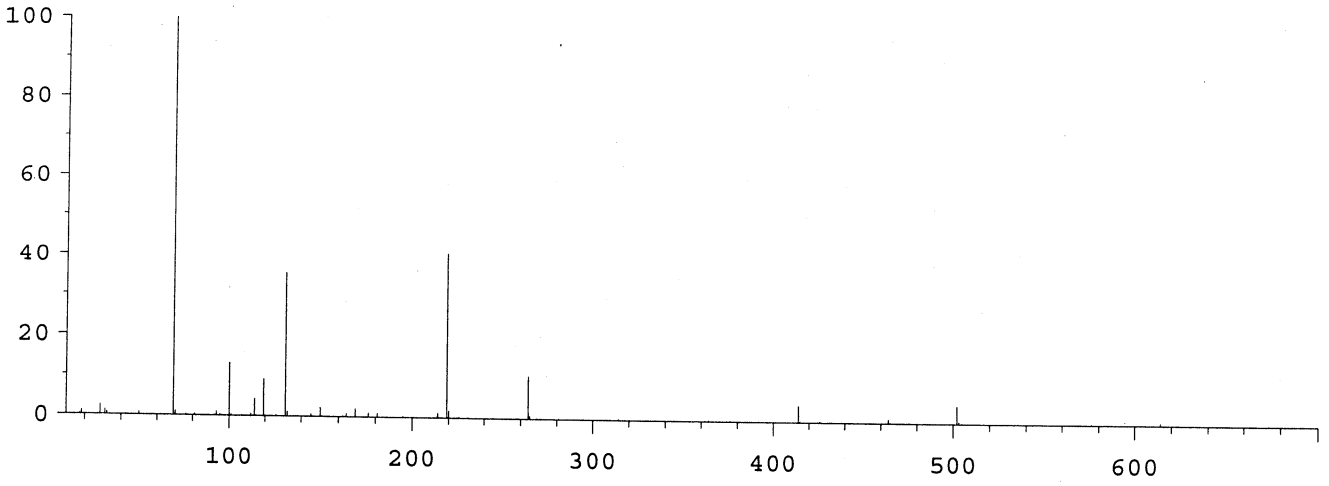



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 99 |
| | | MassOffs | -8 |
| Emission | 34.6 | AmuGain | 2003 |
| EIEnrgy | 69.9 | AmuOffs | 125 |
| Filament | 1 | Wid219 | -0.016 |
| | | DC Pol | Pos |
| Repeller | 32.97 | | |
| IonFcus | 86.4 | HEDEnab | On |
| EntLens | 16.5 | EMVolts | 1482 |
| EntOffs | 19.07 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
95 peaks Base: 69.10 Abundance: 274624




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 274624 | 100.00 | 70.10 | 2967 | 1.08 |
| 219.10 | 111888 | 40.74 | 220.10 | 4799 | 4.29 |
| 502.10 | 11935 | 4.35 | 503.10 | 1339 | 11.22 |

Air/Water Check: H20~1.08% N2~2.31% O2~0.73% CO2~0.10% N2/H2O~213.52%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 51440
Repeller Maximum 35 volts using ion 219; Gain Factor 0.51

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

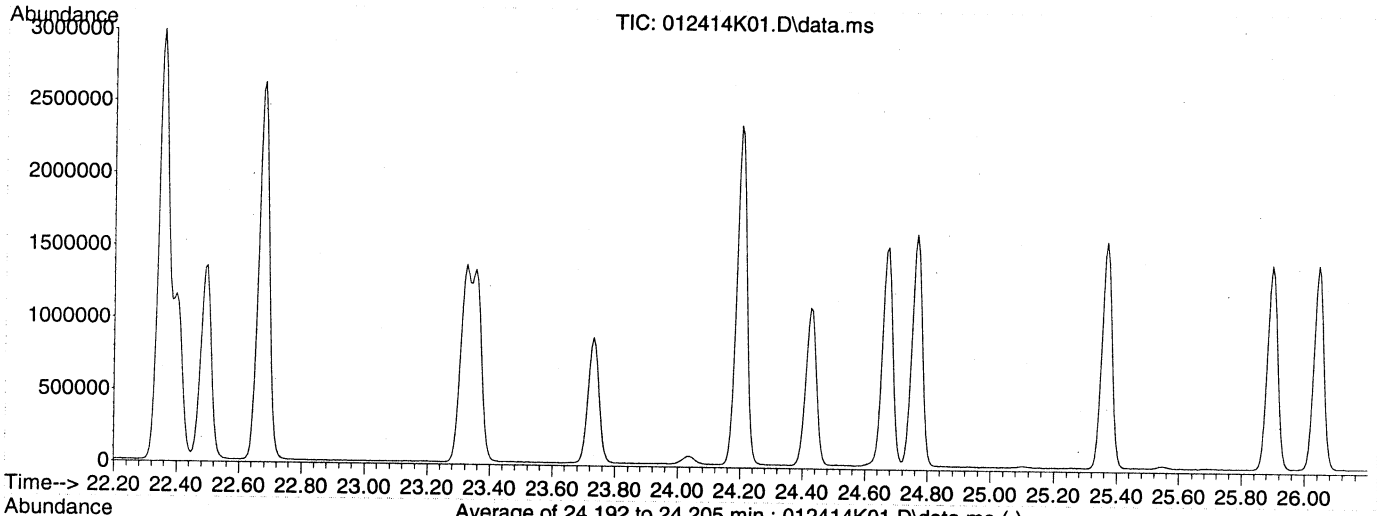
| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 |
| Entrance Lens Offset: | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 |

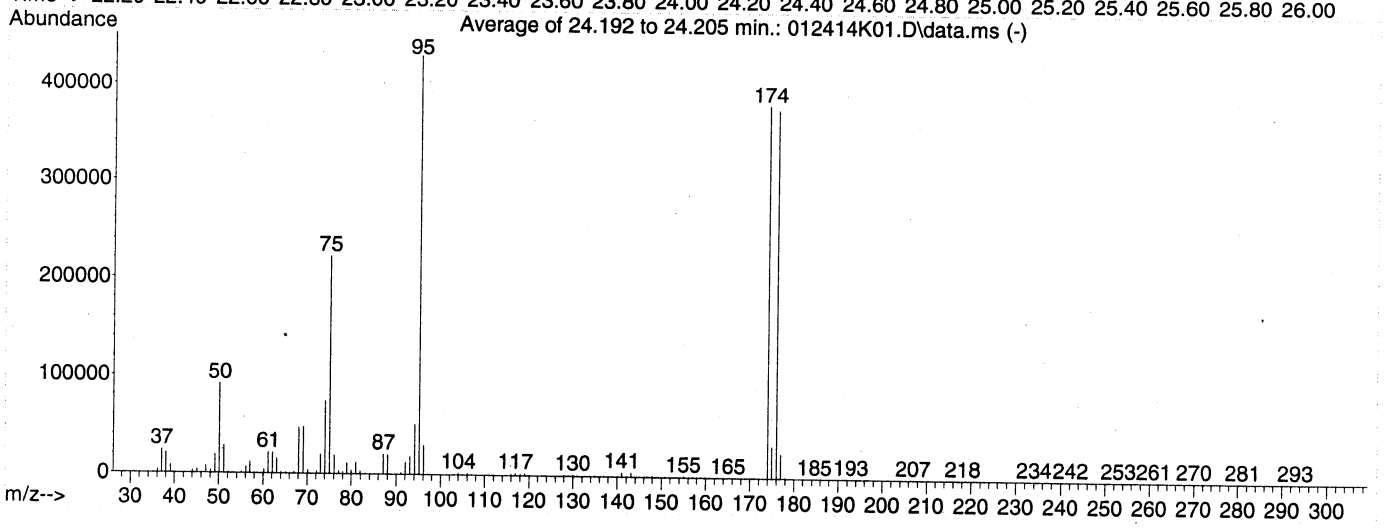
BFB

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K01.D
Acq On : 24 Jan 2014 9:47
Operator : EM
Sample : S14A082-TUN1
Misc : BFB STD 1311118/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15
Last Update : Thu Jan 23 17:30:00 2014




AutoFind: Scans 3388, 3389, 3390; Background Corrected with Scan 3375

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 21.3 | 91648 | PASS |
| 75 | 95 | 30 | 66 | 51.6 | 222143 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 430848 | PASS |
| 96 | 95 | 5 | 9 | 6.8 | 29219 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 88.5 | 381461 | PASS |
| 175 | 174 | 4 | 9 | 8.4 | 31944 | PASS |
| 176 | 174 | 93 | 101 | 98.8 | 376829 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 25044 | PASS |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.05 | 4223 | 49.10 | 19035 | 59.00 | 39 | 69.10 | 47400 |
| 37.05 | 23782 | 50.10 | 91648 | 59.15 | 33 | 70.10 | 3550 |
| 38.05 | 21138 | 51.10 | 27999 | 60.10 | 4546 | 71.00 | 126 |
| 39.10 | 8181 | 52.10 | 1046 | 61.10 | 21289 | 72.10 | 2524 |
| 40.15 | 315 | 53.00 | 55 | 62.10 | 21237 | 73.10 | 19683 |
| 42.20 | 40 | 53.40 | 27 | 63.05 | 15647 | 74.10 | 74524 |
| 44.10 | 2638 | 54.15 | 132 | 64.05 | 1343 | 75.05 | 222143 |
| 45.10 | 4088 | 55.10 | 1273 | 65.15 | 705 | 76.10 | 19003 |
| 46.10 | 293 | 56.10 | 6654 | 66.20 | 80 | 77.10 | 2850 |
| 47.05 | 7656 | 57.05 | 11836 | 67.10 | 1329 | 78.00 | 2145 |
| 48.10 | 2998 | 58.00 | 537 | 68.10 | 46658 | 79.00 | 11217 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 80.00 | 3725 | 92.10 | 12167 | 104.00 | 1822 | 116.00 | 1464 |
| 81.00 | 12052 | 93.10 | 18286 | 104.95 | 632 | 116.95 | 2508 |
| 81.95 | 2860 | 94.05 | 50993 | 106.00 | 1648 | 118.05 | 1549 |
| 83.05 | 357 | 95.10 | 430848 | 107.05 | 402 | 119.00 | 2043 |
| 84.20 | 64 | 96.10 | 29219 | 107.80 | 23 | 120.00 | 38 |
| 85.05 | 19 | 97.10 | 787 | 107.95 | 28 | 120.95 | 14 |
| 86.15 | 594 | 98.10 | 73 | 109.90 | 263 | 121.95 | 128 |
| 87.10 | 20437 | 99.10 | 37 | 111.00 | 386 | 122.95 | 171 |
| 88.05 | 19724 | 100.20 | 13 | 112.00 | 180 | 123.95 | 246 |
| 89.60 | 86 | 101.20 | 52 | 113.00 | 320 | 124.90 | 86 |
| 91.05 | 1714 | 103.00 | 254 | 114.90 | 513 | 125.90 | 6 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 126.20 | 90 | 136.00 | 132 | 143.80 | 120 | 152.00 | 214 |
| 127.05 | 106 | 137.00 | 761 | 144.00 | 248 | 153.00 | 306 |
| 127.95 | 1291 | 137.80 | 13 | 144.95 | 441 | 154.00 | 337 |
| 129.00 | 690 | 137.95 | 36 | 145.95 | 586 | 154.95 | 1031 |
| 129.95 | 1504 | 138.75 | 104 | 146.90 | 360 | 156.00 | 136 |
| 131.00 | 559 | 139.10 | 21 | 147.95 | 1000 | 156.20 | 62 |
| 132.05 | 85 | 139.85 | 354 | 148.95 | 301 | 157.00 | 777 |
| 132.30 | 28 | 141.00 | 4490 | 149.95 | 444 | 158.15 | 138 |
| 133.15 | 157 | 142.00 | 383 | 150.80 | 18 | 158.90 | 400 |
| 133.90 | 73 | 142.20 | 194 | 151.00 | 33 | 159.95 | 80 |
| 134.95 | 764 | 143.00 | 4408 | 151.20 | 32 | 161.00 | 398 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 161.90 | 12 | 168.75 | 49 | 178.95 | 19 | 192.05 | 105 |
| 162.00 | 14 | 169.30 | 85 | 180.40 | 14 | 192.90 | 149 |
| 162.90 | 46 | 170.40 | 90 | 180.90 | 5 | 194.00 | 12 |
| 165.00 | 48 | 170.70 | 116 | 182.70 | 12 | 195.00 | 63 |
| 165.60 | 29 | 170.95 | 42 | 183.20 | 11 | 196.20 | 11 |
| 165.85 | 32 | 172.20 | 615 | 184.70 | 13 | 196.50 | 24 |
| 166.40 | 13 | 174.00 | 381461 | 187.90 | 14 | 196.85 | 24 |
| 166.60 | 13 | 174.95 | 31944 | 188.85 | 31 | 198.70 | 8 |
| 166.90 | 13 | 176.00 | 376829 | 189.30 | 8 | 199.50 | 7 |
| 167.20 | 40 | 177.00 | 25044 | 189.90 | 23 | 202.05 | 23 |
| 168.00 | 27 | 177.95 | 688 | 191.00 | 102 | 202.65 | 4 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 204.10 | 18 | 211.40 | 8 | 219.95 | 19 | 227.20 | 15 |
| 204.70 | 8 | 212.00 | 8 | 220.80 | 12 | 229.20 | 12 |
| 205.20 | 27 | 212.50 | 10 | 222.80 | 20 | 230.70 | 8 |
| 205.70 | 10 | 213.60 | 11 | 223.05 | 31 | 232.80 | 18 |
| 206.15 | 43 | 214.90 | 15 | 223.40 | 14 | 234.10 | 53 |
| 207.00 | 117 | 215.40 | 14 | 224.00 | 22 | 234.70 | 14 |
| 208.05 | 88 | 216.00 | 15 | 224.20 | 22 | 234.90 | 10 |
| 208.80 | 44 | 217.20 | 38 | 224.80 | 11 | 236.00 | 10 |
| 209.05 | 78 | 218.10 | 42 | 225.10 | 11 | 236.40 | 8 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 209.80 | 12 | 218.40 | 9 | 226.20 | 8 | 238.15 | 27 |
| 210.30 | 17 | 219.10 | 25 | 226.90 | 15 | 238.80 | 23 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 239.20 | 42 | 247.30 | 30 | 256.40 | 13 | 266.00 | 7 |
| 240.00 | 25 | 248.30 | 10 | 257.10 | 13 | 266.30 | 17 |
| 240.90 | 8 | 248.95 | 61 | 257.70 | 9 | 267.20 | 132 |
| 241.30 | 7 | 249.70 | 8 | 258.10 | 13 | 267.50 | 26 |
| 242.20 | 16 | 250.60 | 16 | 258.55 | 22 | 268.10 | 55 |
| 243.90 | 8 | 250.95 | 36 | 260.05 | 148 | 269.05 | 243 |
| 244.50 | 10 | 252.00 | 38 | 260.80 | 31 | 270.10 | 263 |
| 244.70 | 10 | 253.00 | 190 | 261.05 | 56 | 272.10 | 14 |
| 245.10 | 7 | 254.10 | 52 | 261.60 | 23 | 272.35 | 65 |
| 246.00 | 16 | 254.90 | 47 | 262.20 | 16 | 272.90 | 49 |
| 246.85 | 52 | 255.00 | 46 | 263.00 | 21 | 273.60 | 10 |

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 275.00 | 8 | 291.10 | 31 | | | | |
| 275.80 | 7 | 292.95 | 48 | | | | |
| 279.00 | 10 | 293.30 | 9 | | | | |
| 280.00 | 9 | 294.20 | 12 | | | | |
| 281.10 | 68 | 294.70 | 12 | | | | |
| 283.05 | 16 | 295.10 | 12 | | | | |
| 285.00 | 33 | 298.90 | 17 | | | | |
| 286.00 | 7 | | | | | | |
| 286.30 | 7 | | | | | | |
| 287.80 | 9 | | | | | | |
| 290.05 | 16 | | | | | | |

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 2 | T | Propene | 0.636 | 0.575 | 9.6 | 100 | 0.00 |
| 3 | T | Dichlorodifluoromethane | 1.725 | 1.587 | 8.0 | 100 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 1.770 | 1.636 | 7.6 | 100 | 0.00 |
| 5 | T | Chloromethane | 0.735 | 0.676 | 8.0 | 100 | 0.00 |
| 6 | T | Vinyl chloride | 0.780 | 0.732 | 6.2 | 100 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.584 | 0.548 | 6.2 | 100 | 0.00 |
| 8 | T | Bromomethane | 0.580 | 0.531 | 8.4 | 100 | 0.00 |
| 9 | T | Chloroethane | 0.405 | 0.373 | 7.9 | 100 | 0.00 |
| 10 | T | Bromoethene | 0.541 | 0.505 | 6.7 | 100 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.492 | 1.373 | 8.0 | 100 | 0.00 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 1.045 | 0.986 | 5.6 | 100 | 0.00 |
| 13 | T | 1,1-Dichloroethene | 1.153 | 1.084 | 6.0 | 100 | 0.00 |
| 14 | T | Acetone | 1.030 | 0.975 | 5.3 | 100 | 0.00 |
| 15 | T | Carbon disulfide | 1.680 | 1.571 | 6.5 | 100 | 0.00 |
| 16 | T | 2-Propanol | 1.054 | 1.020 | 3.2 | 100 | 0.00 |
| 17 | T | Allyl chloride | 0.851 | 0.817 | 4.0 | 100 | 0.00 |
| 18 | T | Dichloromethane | 0.992 | 0.858 | 13.5 | 100 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 1.708 | 1.640 | 4.0 | 100 | 0.00 |
| 20 | T | trans-1,2-Dichloroethene | 0.940 | 0.890 | 5.3 | 100 | 0.00 |
| 21 | T | Hexane | 1.148 | 1.097 | 4.4 | 100 | 0.00 |
| 22 | T | 1,1-Dichloroethane | 1.392 | 1.293 | 7.1 | 100 | 0.00 |
| 23 | T | Vinyl acetate | 1.530 | 1.507 | 1.5 | 100 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 1.023 | 0.968 | 5.4 | 100 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.322 | 1.430 | -8.2 | 100 | 0.00 |
| 26 | T | Ethyl acetate | 1.772 | 1.575 | 11.1 | 100 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.900 | 0.866 | 3.8 | 100 | 0.00 |
| 28 | T | Chloroform | 1.406 | 1.314 | 6.5 | 100 | 0.00 |
| 29 | T | Cyclohexane | 1.169 | 1.112 | 4.9 | 100 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 1.394 | 1.300 | 6.7 | 100 | 0.00 |
| 31 | T | Carbon tetrachloride | 1.352 | 1.264 | 6.5 | 100 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 33 | T | Benzene | 0.877 | 0.821 | 6.4 | 100 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 1.354 | 1.304 | 3.7 | 100 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.354 | 0.333 | 5.9 | 100 | 0.00 |
| 36 | T | Heptane | 0.512 | 0.495 | 3.3 | 100 | 0.00 |
| 37 | T | Trichloroethene | 0.335 | 0.313 | 6.6 | 100 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.336 | 0.314 | 6.5 | 100 | 0.00 |
| 39 | T | 1,4-Dioxane | 0.160 | 0.164 | -2.5 | 100 | 0.00 |
| 40 | T | Bromodichloromethane | 0.543 | 0.512 | 5.7 | 100 | 0.00 |
| 41 | T | cis-1,3-Dichloropropene | 0.471 | 0.451 | 4.2 | 100 | 0.00 |
| 42 | T | 4-Methyl-2-pentanone (MIBK) | 0.663 | 0.651 | 1.8 | 100 | 0.00 |
| 43 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 44 | T | Toluene | 1.085 | 1.017 | 6.3 | 100 | 0.00 |
| 45 | T | trans-1,3-Dichloropropene | 0.467 | 0.451 | 3.4 | 100 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | 1,1,2-Trichloroethane | 0.358 | 0.330 | 7.8 | 100 | 0.00 |
| 47 | T | Tetrachloroethene | 0.503 | 0.459 | 8.7 | 100 | 0.00 |
| 48 | T | 2-Hexanone | 0.662 | 0.652 | 1.5 | 100 | 0.00 |
| 49 | T | Chlorodibromomethane | 0.546 | 0.506 | 7.3 | 100 | 0.00 |
| 50 | T | 1,2-Dibromoethane (EDB) | 0.499 | 0.467 | 6.4 | 100 | 0.00 |
| 51 | T | Chlorobenzene | 0.822 | 0.764 | 7.1 | 100 | 0.00 |
| 52 | T | Ethylbenzene | 1.428 | 1.350 | 5.5 | 100 | 0.00 |
| 53 | T | m&p-Xylene | 1.090 | 1.041 | 4.5 | 100 | 0.00 |
| 54 | T | o-Xylene | 1.076 | 1.024 | 4.8 | 100 | 0.00 |
| 55 | T | Styrene | 0.874 | 0.844 | 3.4 | 100 | 0.00 |
| 56 | T | Bromoform | 0.575 | 0.544 | 5.4 | 100 | 0.00 |
| 57 | T | 1,1,2,2-Tetrachloroethane | 0.849 | 0.797 | 6.1 | 100 | 0.00 |
| 58 | T | 4-Ethyltoluene | 1.391 | 1.336 | 4.0 | 100 | 0.00 |
| 59 | T | 1,3,5-Trimethylbenzene | 1.233 | 1.195 | 3.1 | 100 | 0.00 |
| 60 | T | 1,2,4-Trimethylbenzene | 1.237 | 1.198 | 3.2 | 100 | 0.00 |
| 61 | T | 1,3-Dichlorobenzene | 0.854 | 0.810 | 5.2 | 100 | 0.00 |
| 62 | T | 1,4-Dichlorobenzene | 0.835 | 0.807 | 3.4 | 100 | 0.00 |
| 63 | T | Benzyl chloride | 0.930 | 0.908 | 2.4 | 100 | 0.00 |
| 64 | T | 1,2-Dichlorobenzene | 0.831 | 0.786 | 5.4 | 100 | 0.00 |
| 65 | T | 1,2,4-Trichlorobenzene | 0.820 | 0.795 | 3.0 | 100 | 0.00 |
| 66 | T | Hexachlorobutadiene | 0.710 | 0.663 | 6.6 | 100 | 0.00 |

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

$$\%Dev_{HCB} = \frac{0.710 - 0.663}{0.710} \times 100 = 6.6\%$$

$$RF_{HCB} = \frac{644849\ (22)}{2251153\ (9.58)} = 0.663$$

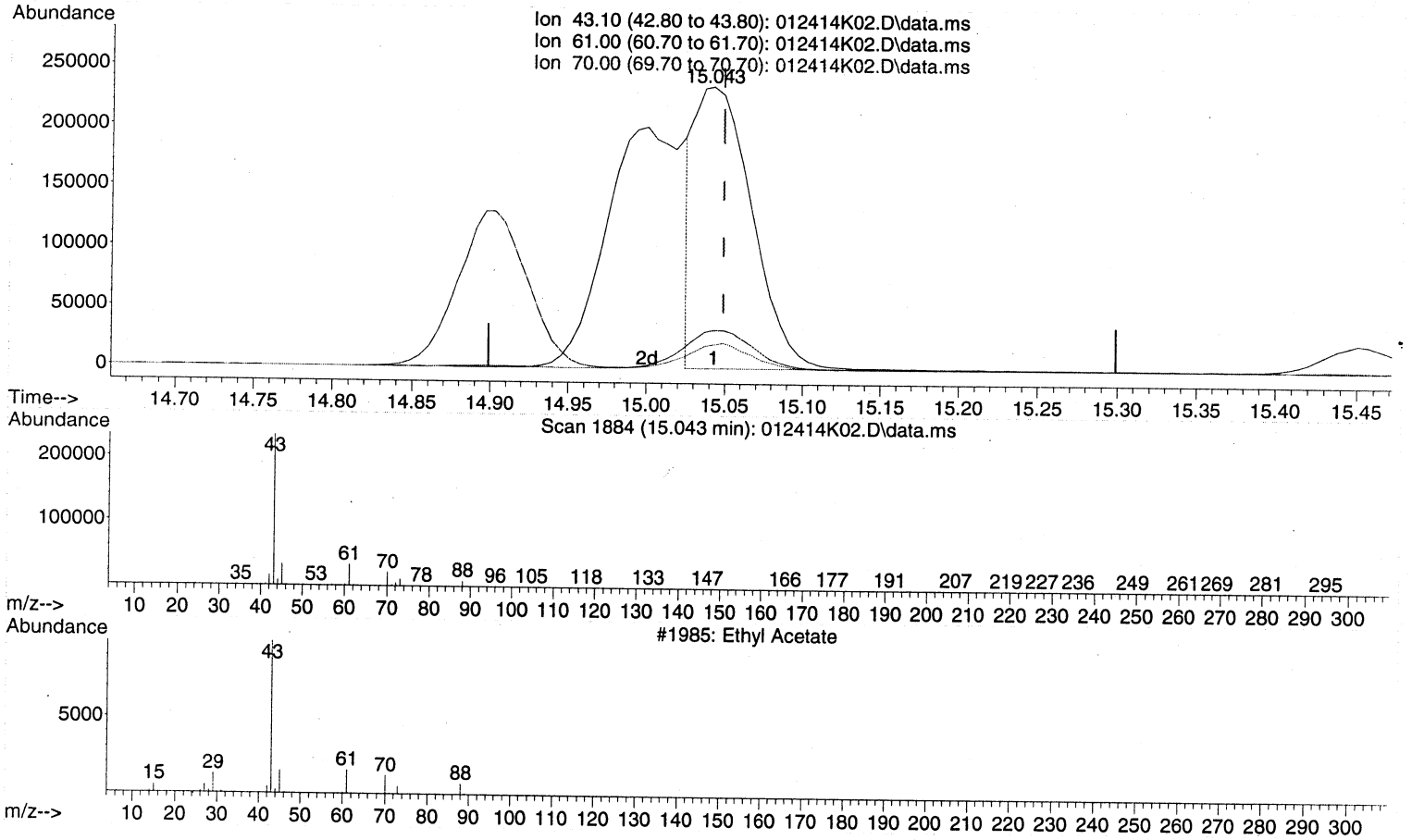
em 1/25/14

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.006) 8.71 ppbv

response 603445

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 0.00 | 16.58# |
| 70.00 | 0.00 | 10.44# |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☑ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

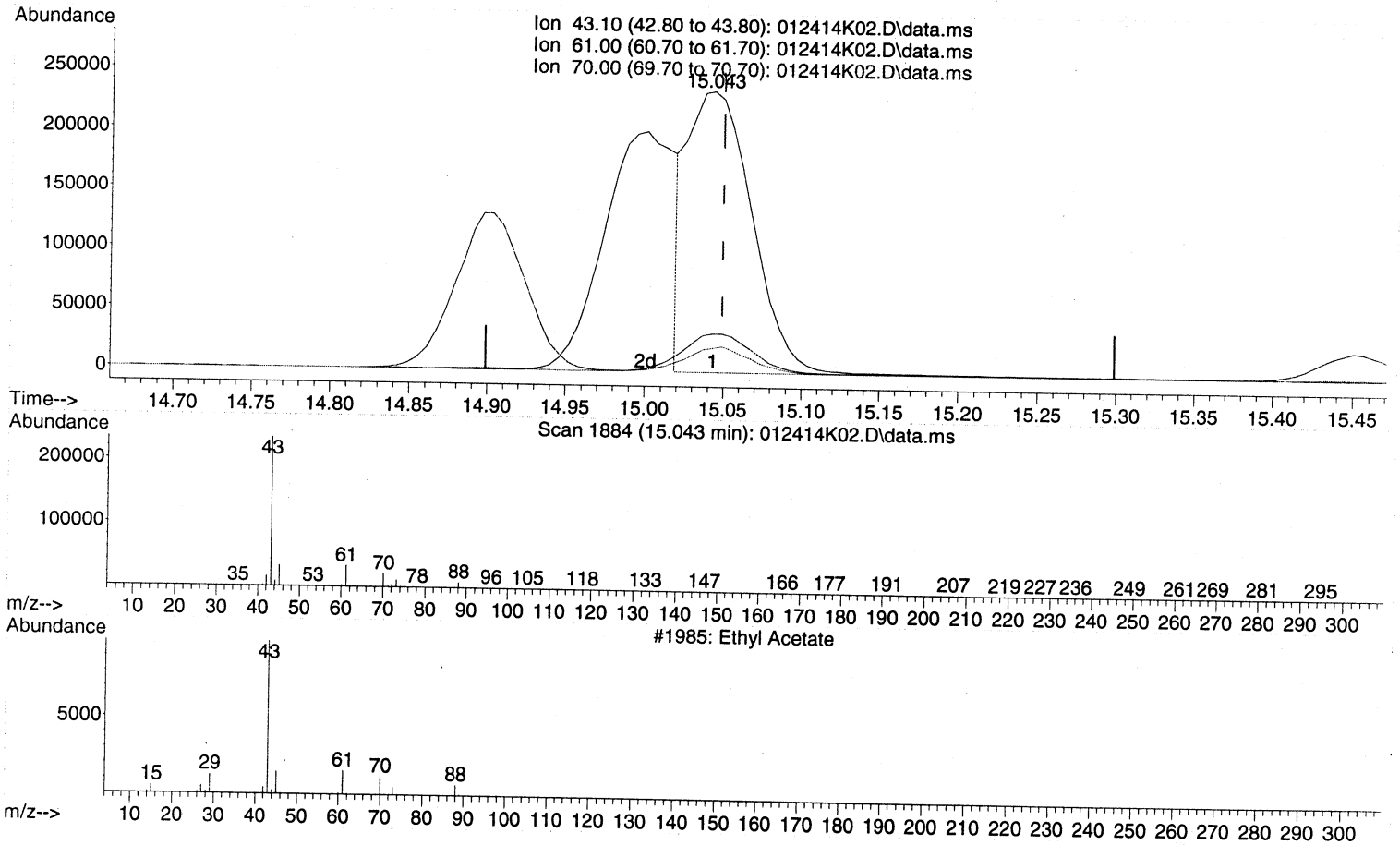
Reviewer: _____ Date: _____

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.006) 9.76 ppbv m

response 676154

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 0.00 | 14.80# |
| 70.00 | 0.00 | 9.32 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EW Date: 1/24/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

012414KAA.M Fri Jan 24 12:46:43 2014 HP5973K



000115

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Rec NT
em 1/24/14

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 907783 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2392845 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2251153 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 253988 | 10.22 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 674855 | 9.71 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 709115 | 9.98 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 292845 | 10.17 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 317201 | 10.17 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.431 | 54 | 230720 | 9.93 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 225784 | 9.48 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 158635 | 9.62 | ppbv | 99 |
| 10) Bromoethene | 7.268 | 106 | 214707 | 9.72 | ppbv | 100 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 606557 | 10.04 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 394929 | 9.28 | ppbv | 96 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 429541 | 9.41 | ppbv | 100 |
| 14) Acetone | 9.823 | 43 | 426489 | 10.35 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 661500 | 9.83 | ppbv | 99 |
| 16) 2-Propanol | 10.444 | 45 | 400022 | 9.49 | ppbv | 100 |
| 17) Allyl chloride | 10.845 | 41 | 340721 | 10.13 | ppbv | 98 |
| 18) Dichloromethane | 11.387 | 49 | 347070 | 8.77 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.074 | 73 | 737662 | 10.94 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.098 | 61 | 348954 | 9.25 | ppbv | 98 |
| 21) Hexane | 12.713 | 57 | 462024 | 10.13 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 517542 | 9.28 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 621919 | 10.32 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 403683 | 9.87 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 613689 | 11.46 | ppbv | 97 |
| 26) Ethyl acetate | 15.043 | 43 | 603445 | 8.71 | ppbv # | 100 |
| 27) Tetrahydrofuran | 15.451 | 42 | 368304 | 10.35 | ppbv | 99 |
| 28) Chloroform | 15.603 | 83 | 553333 | 9.65 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 477116 | 10.17 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 542056 | 9.56 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 537139 | 9.77 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 901781 | 10.93 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1489662 | 11.76 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 355533 | 10.66 | ppbv | 100 |
| 36) Heptane | 16.971 | 43 | 565457 | 11.96 | ppbv | 99 |
| 37) Trichloroethene | 17.860 | 130 | 344388 | 10.88 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 352373 | 11.25 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.559 | 88 | 189208 | 12.48 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 590251 | 11.50 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 505029 | 11.43 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 743712 | 12.29 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1061291 | 15.61 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 493938 | 16.79 | ppbv | 99 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 348352 | 15.47 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 470251 | 14.80 | ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 686900 | 17.16 | ppbv | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 539101 | 15.70 ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 491961 | 15.59 ppbv | 100 |
| 51) Chlorobenzene | 22.398 | 112 | 813598 | 15.51 ppbv | 99 |
| 52) Ethylbenzene | 22.495 | 91 | 1409640 | 15.73 ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 2173327 | 31.70 ppbv | 100 |
| 54) o-Xylene | 23.317 | 91 | 1079607 | 16.05 ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 872583 | 15.95 ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 574011 | 15.52 ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 832089 | 15.63 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 1435763 | 16.46 ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1260166 | 16.37 ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1238531 | 15.95 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 820841 | 15.25 ppbv | 100 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 817897 | 15.60 ppbv | 99 |
| 63) Benzyl chloride | 26.255 | 91 | 957301 | 16.25 ppbv | 99 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 796007 | 15.32 ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 740327 | 14.59 ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 644849 | 14.89 ppbv | 100 |

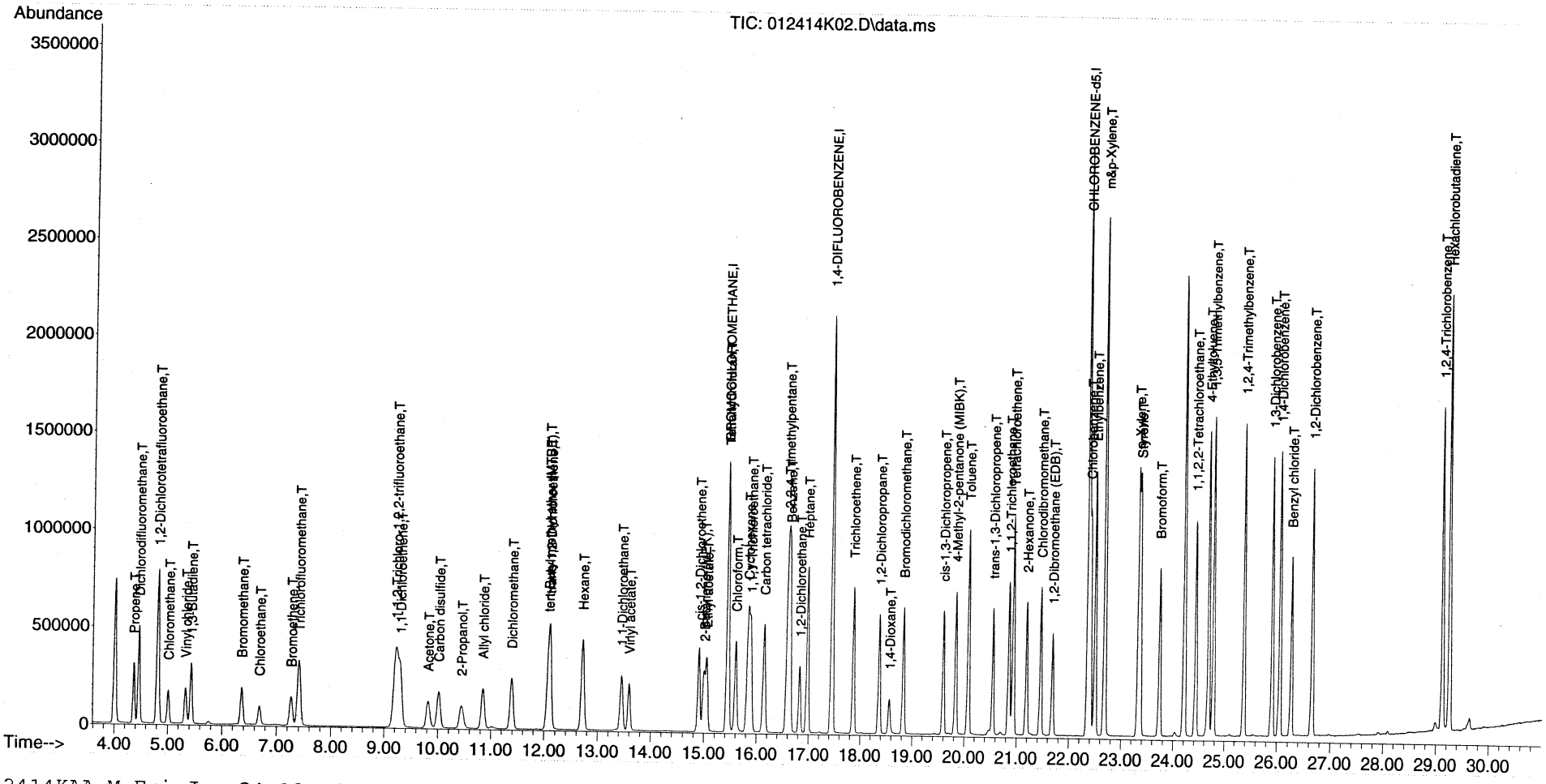
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




012414KAA.M Fri Jan 24 12:46:14 2014 HP5973K

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☑ After Manual Integration
Manual integration(s) performed by
Analyst: EM Date: 1/24/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 907783 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2392845 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2251153 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 253988 | 10.22 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 674855 | 9.71 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 709115 | 9.98 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 292845 | 10.17 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 317201 | 10.17 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.431 | 54 | 230720 | 9.93 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 225784 | 9.48 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 158635 | 9.62 | ppbv | 99 |
| 10) Bromoethene | 7.268 | 106 | 214707 | 9.72 | ppbv | 100 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 606557 | 10.04 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 394929 | 9.28 | ppbv | 96 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 429541 | 9.41 | ppbv | 100 |
| 14) Acetone | 9.823 | 43 | 426489 | 10.35 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 661500 | 9.83 | ppbv | 99 |
| 16) 2-Propanol | 10.444 | 45 | 400022 | 9.49 | ppbv | 100 |
| 17) Allyl chloride | 10.845 | 41 | 340721 | 10.13 | ppbv | 98 |
| 18) Dichloromethane | 11.387 | 49 | 347070 | 8.77 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.074 | 73 | 737662 | 10.94 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.098 | 61 | 348954 | 9.25 | ppbv | 98 |
| 21) Hexane | 12.713 | 57 | 462024 | 10.13 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 517542 | 9.28 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 621919 | 10.32 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 403683 | 9.87 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 613689 | 11.46 | ppbv | 97 |
| 26) Ethyl acetate | 15.043 | 43 | 676154m | 9.76 | ppbv | |
| 27) Tetrahydrofuran | 15.451 | 42 | 368304 | 10.35 | ppbv | 99 |
| 28) Chloroform | 15.603 | 83 | 553333 | 9.65 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 477116 | 10.17 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 542056 | 9.56 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 537139 | 9.77 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 901781 | 10.93 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1489662 | 11.76 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 355533 | 10.66 | ppbv | 100 |
| 36) Heptane | 16.971 | 43 | 565457 | 11.96 | ppbv | 99 |
| 37) Trichloroethene | 17.860 | 130 | 344388 | 10.88 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 352373 | 11.25 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.559 | 88 | 189208 | 12.48 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 590251 | 11.50 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 505029 | 11.43 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 743712 | 12.29 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1061291 | 15.61 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 493938 | 16.79 | ppbv | 99 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 348352 | 15.47 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 470251 | 14.80 | ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 686900 | 17.16 | ppbv | 99 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 539101 | 15.70 | ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 491961 | 15.59 | ppbv | 100 |
| 51) Chlorobenzene | 22.398 | 112 | 813598 | 15.51 | ppbv | 99 |
| 52) Ethylbenzene | 22.495 | 91 | 1409640 | 15.73 | ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 2173327 | 31.70 | ppbv | 100 |
| 54) o-Xylene | 23.317 | 91 | 1079607 | 16.05 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 872583 | 15.95 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 574011 | 15.52 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 832089 | 15.63 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 1435763 | 16.46 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1260166 | 16.37 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1238531 | 15.95 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 820841 | 15.25 | ppbv | 100 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 817897 | 15.60 | ppbv | 99 |
| 63) Benzyl chloride | 26.255 | 91 | 957301 | 16.25 | ppbv | 99 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 796007 | 15.32 | ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 740327 | 14.59 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 644849 | 14.89 | ppbv | 100 |

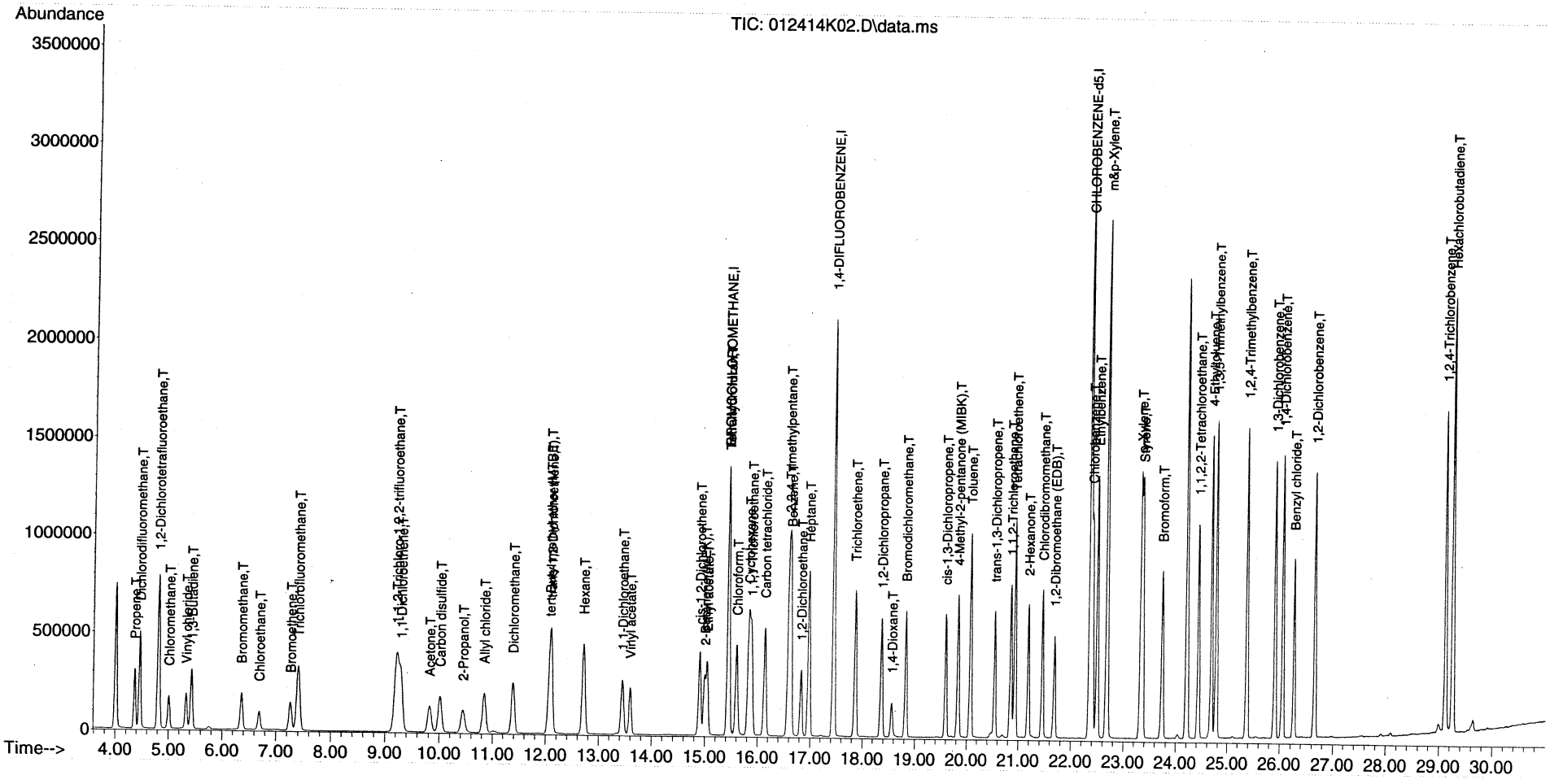
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

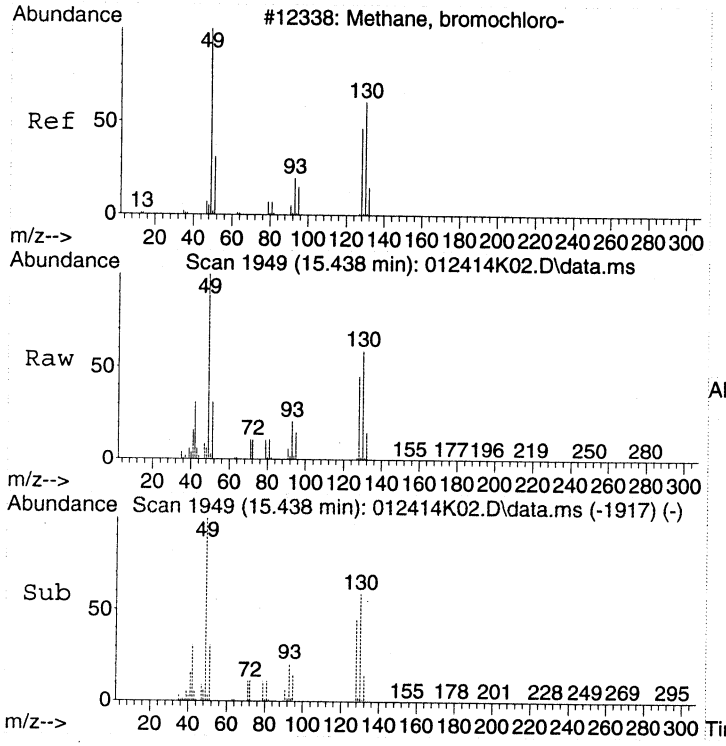
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



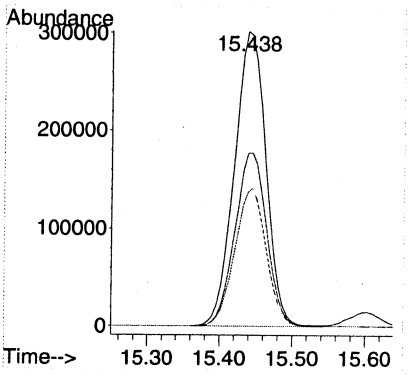

012414KAA.M Fri Jan 24 15:10:44 2014 HP5973K

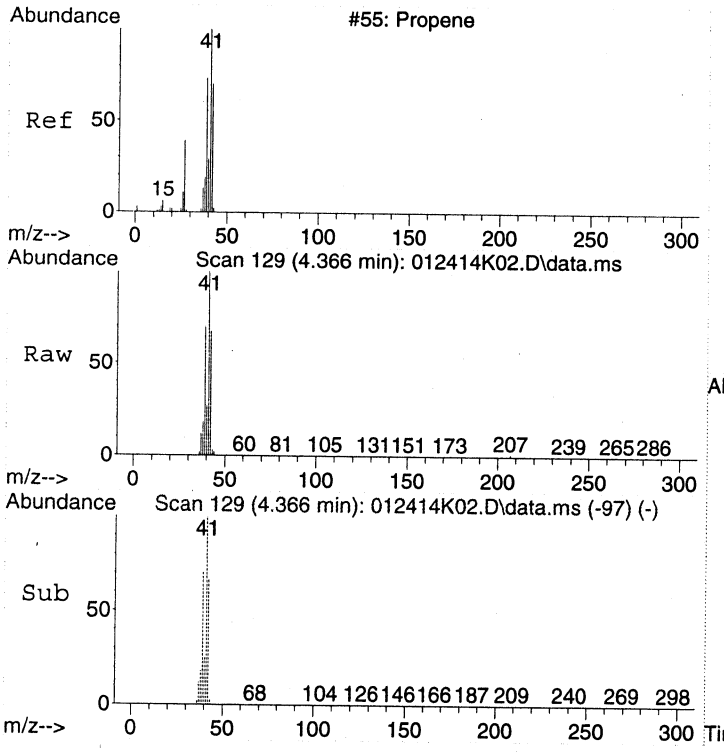



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 49 Resp: 907783

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.6 | 42.2 | 82.2 |
| 128 | 46.9 | 29.2 | 69.2 |

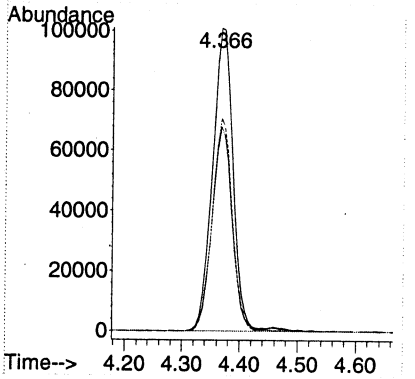


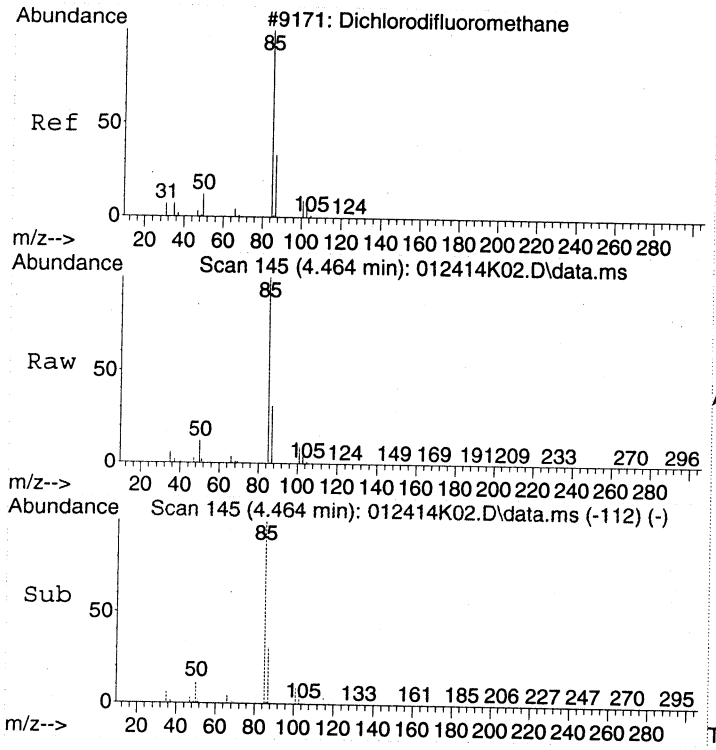




#2
Propene
Concen: 10.22 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 41 Resp: 253988

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 66.8 | 46.1 | 86.1 |
| 39 | 68.3 | 46.5 | 86.5 |

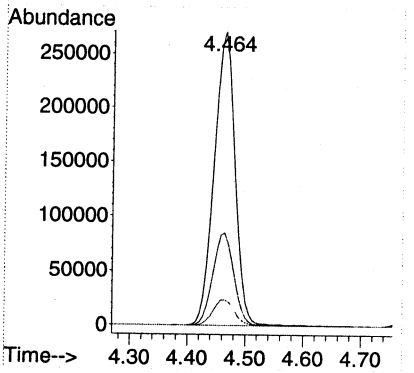


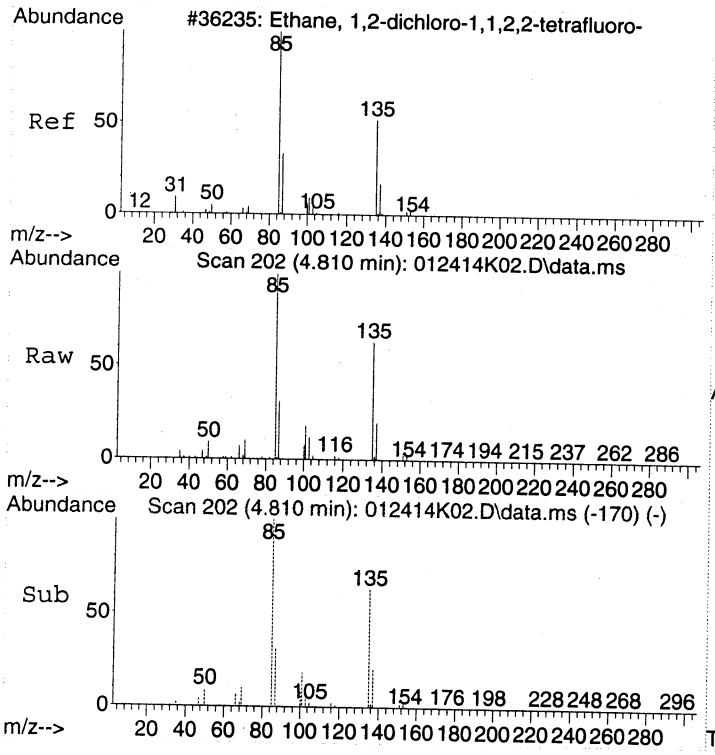



#3
Dichlorodifluoromethane
Concen: 9.71 ppbv
RT: 4.464 min Scan# 145
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 85 Resp: 674855

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 31.9 | 11.5 | 51.5 |
| 101 | 9.2 | 0.0 | 28.7 |

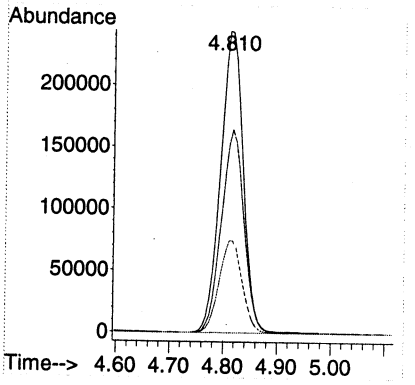


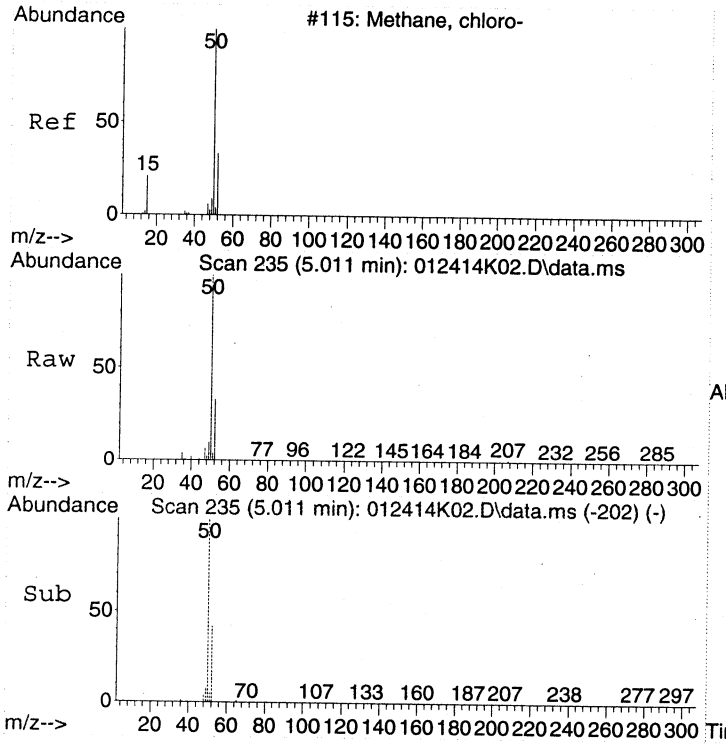




#4
1,2-Dichlorotetrafluoroethane
Concen: 9.98 ppbv
RT: 4.810 min Scan# 202
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 85 Resp: 709115

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 135 | 67.5 | 48.3 | 88.3 |
| 87 | 31.1 | 11.3 | 51.3 |

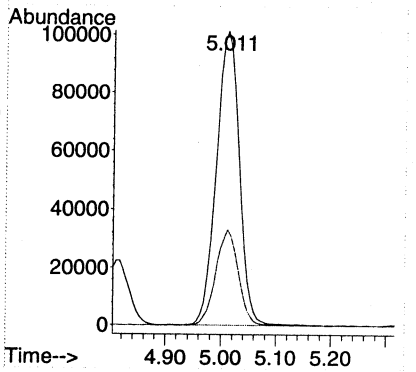


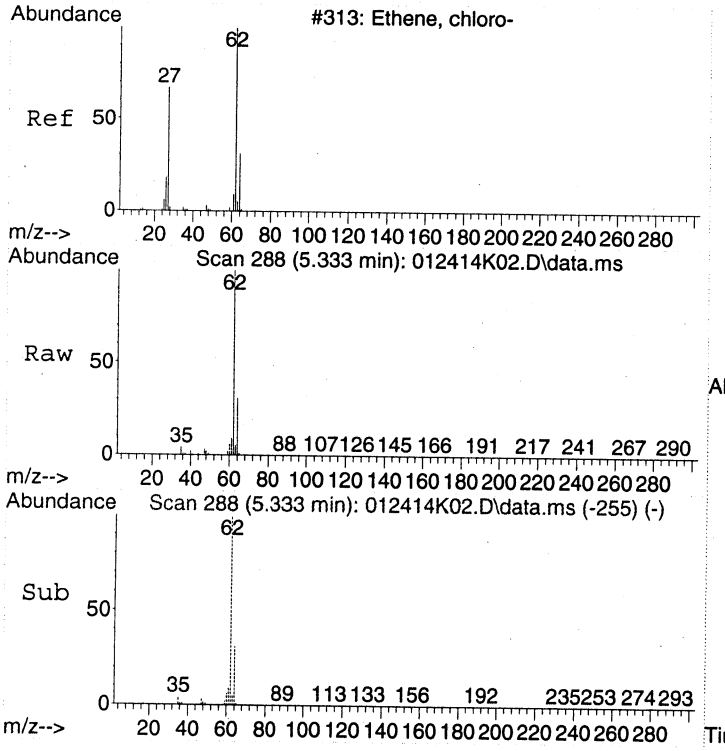



#5
Chloromethane
Concen: 10.17 ppbv
RT: 5.011 min Scan# 235
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 50 Resp: 292845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.7 | 12.1 | 52.1 |

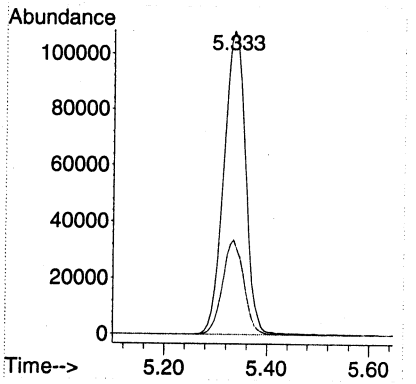


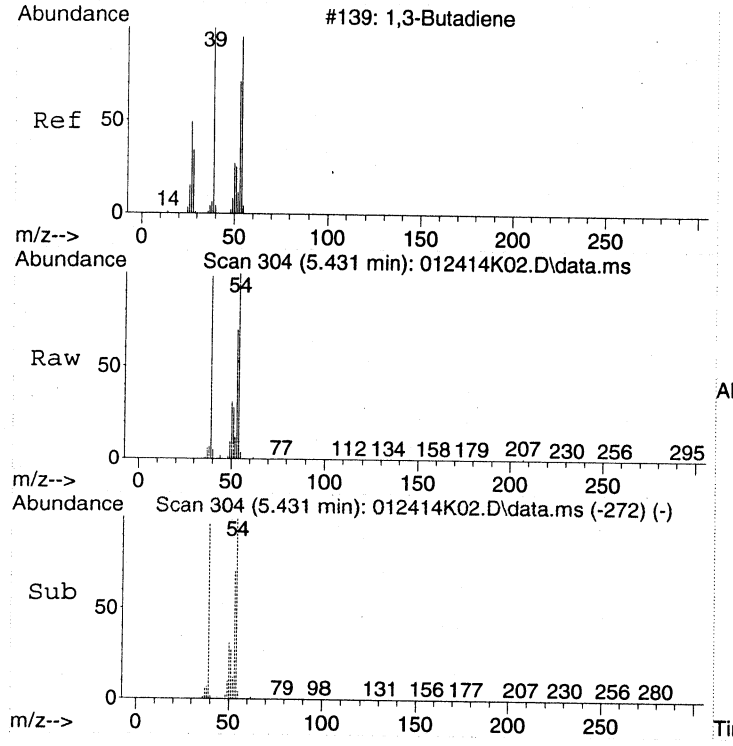




#6
Vinyl chloride
Concen: 10.17 ppbv
RT: 5.333 min Scan# 288
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 62 Resp: 317201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 30.8 | 11.6 | 51.6 |

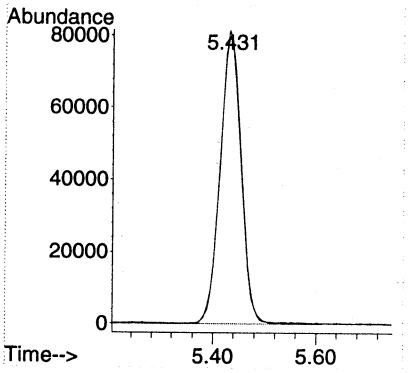


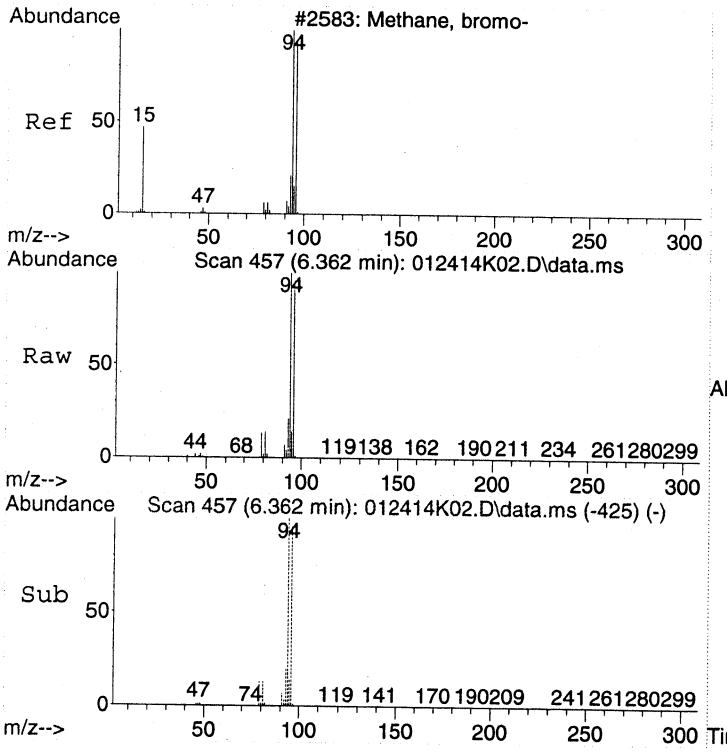



#7
1,3-Butadiene
Concen: 9.93 ppbv
RT: 5.431 min Scan# 304
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 54 Resp: 230720

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 97.5 | 75.2 | 115.2 |

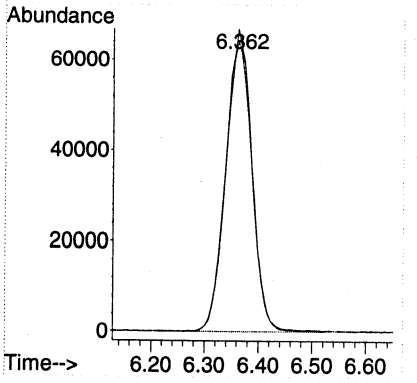


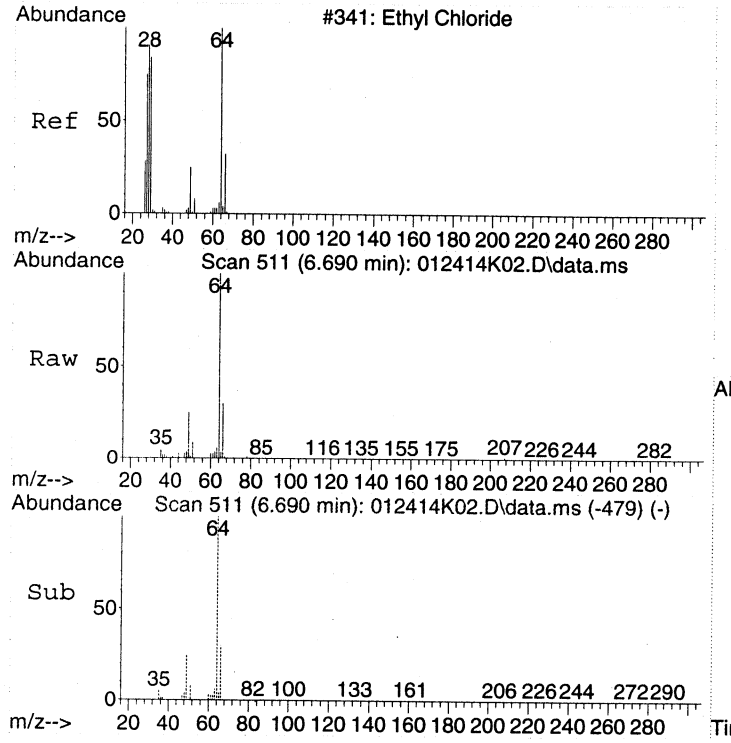




#8
Bromomethane
Concen: 9.48 ppbv
RT: 6.362 min Scan# 457
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 94 Resp: 225784

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 96.0 | 74.6 | 114.6 |

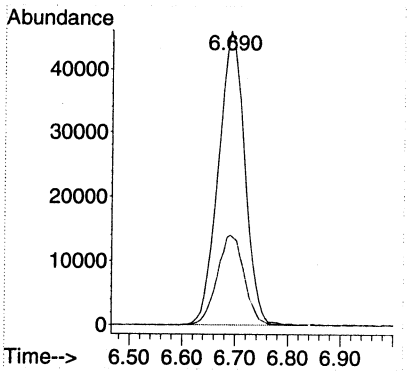


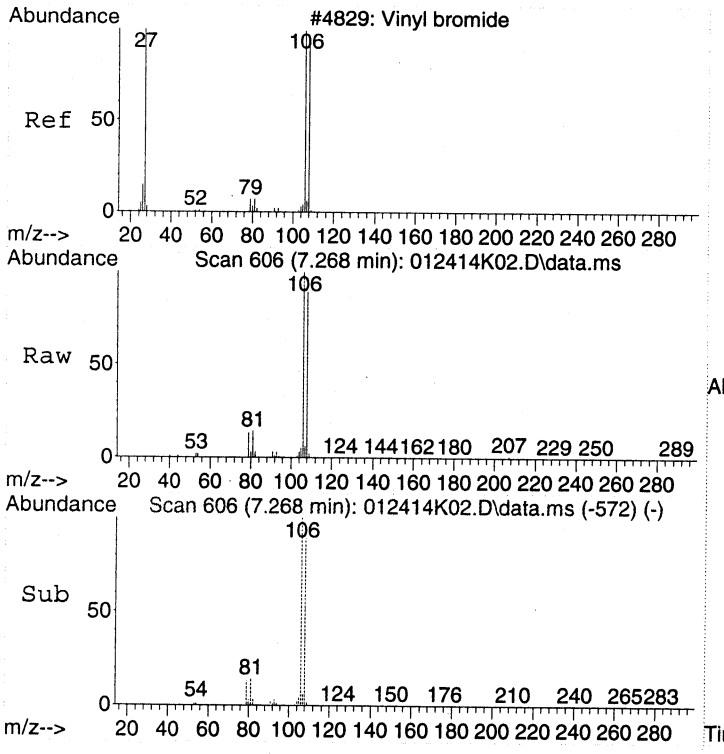



#9
Chloroethane
Concen: 9.62 ppbv
RT: 6.690 min Scan# 511
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 64 Resp: 158635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 31.9 | 11.6 | 51.6 |

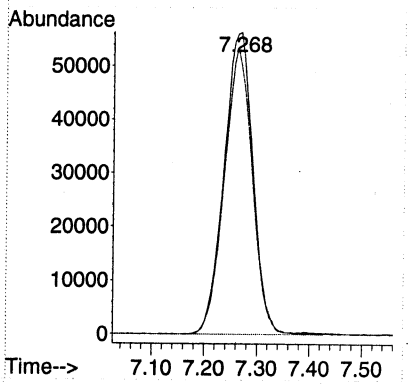


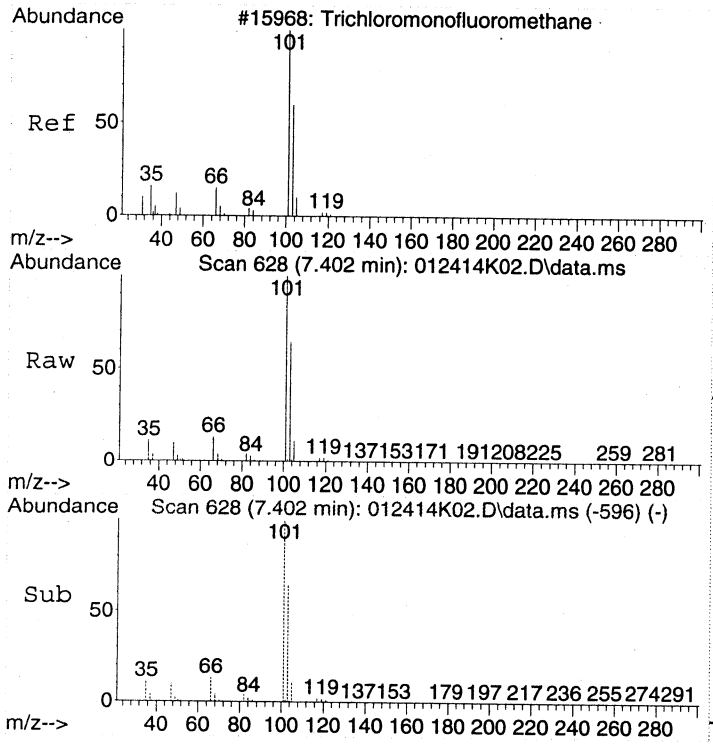




#10
Bromoethene
Concen: 9.72 ppbv
RT: 7.268 min Scan# 606
Delta R.T. 0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:106 Resp: 214707

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 106 | 100 | | |
| 108 | 91.2 | 0.0 | 210.8 |

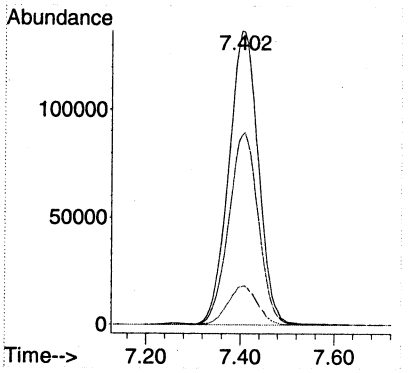


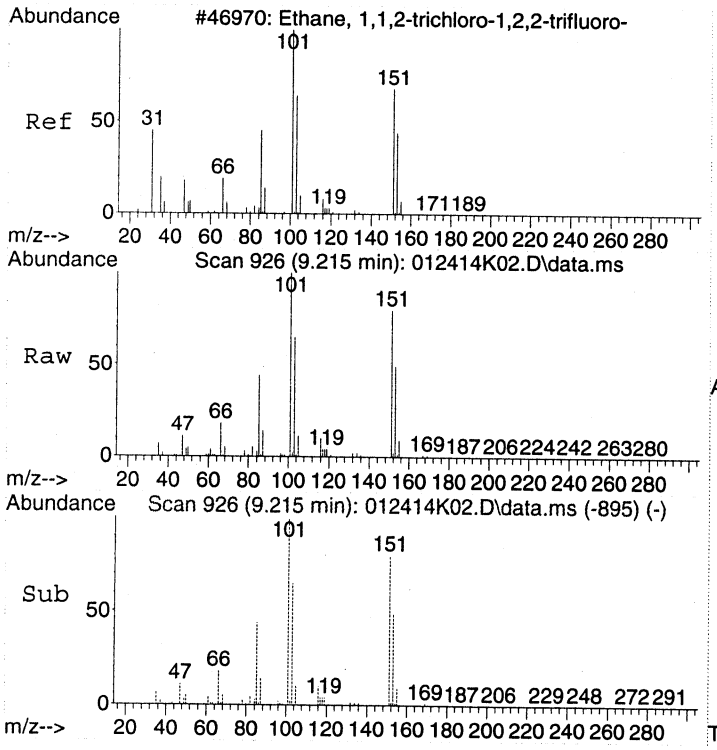



#11
Trichlorofluoromethane
Concen: 10.04 ppbv
RT: 7.402 min Scan# 628
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:101 Resp: 606557

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.7 | 44.4 | 84.4 |
| 66 | 13.4 | 0.0 | 33.2 |

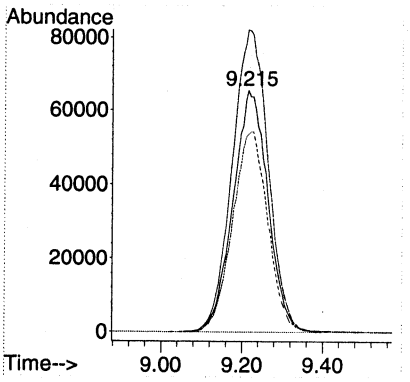


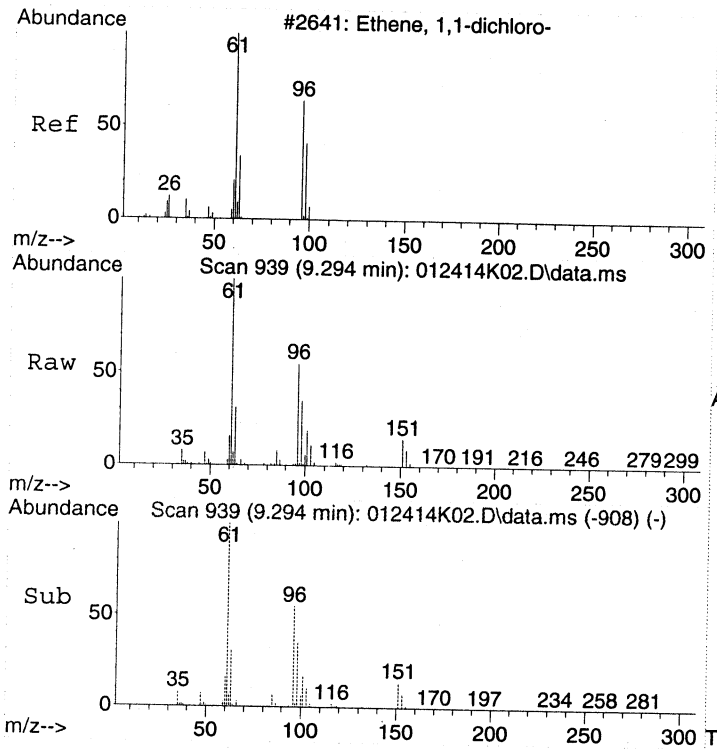




#12
1,1,2-Trichloro-1,2,2-trifluoroethane
Concen: 9.28 ppbv
RT: 9.215 min Scan# 926
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:151 Resp: 394929

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 151 | 100 | | |
| 101 | 129.4 | 104.2 | 144.2 |
| 103 | 84.1 | 61.9 | 101.9 |

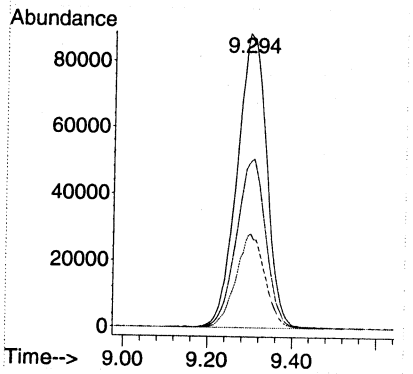


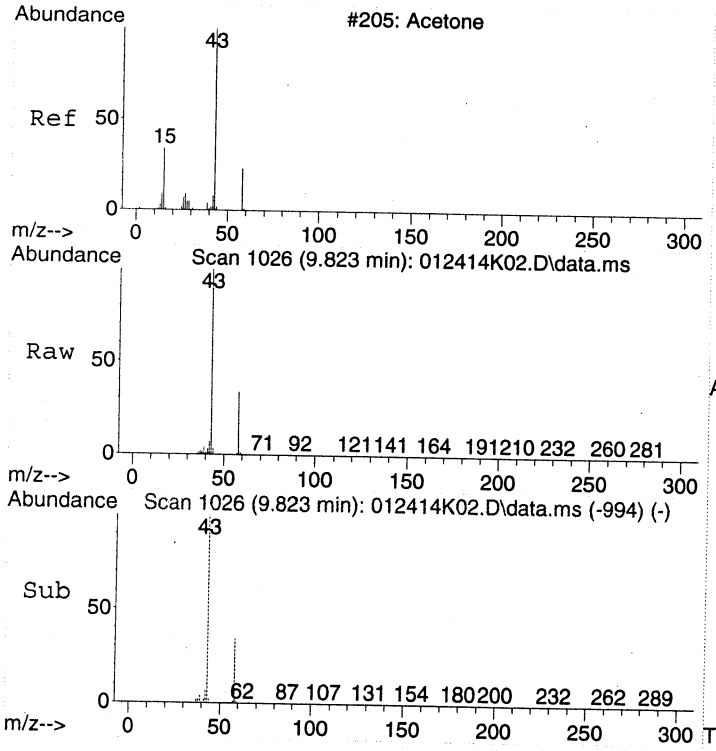



#13
1,1-Dichloroethene
Concen: 9.41 ppbv
RT: 9.294 min Scan# 939
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 429541

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 56.5 | 36.9 | 76.9 |
| 63 | 31.3 | 11.4 | 51.4 |

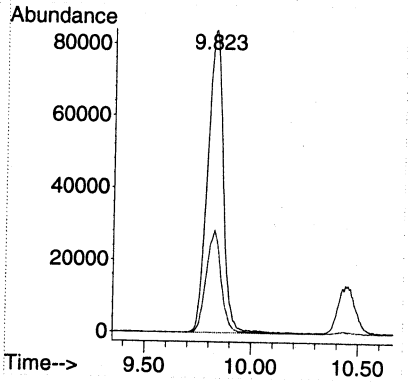


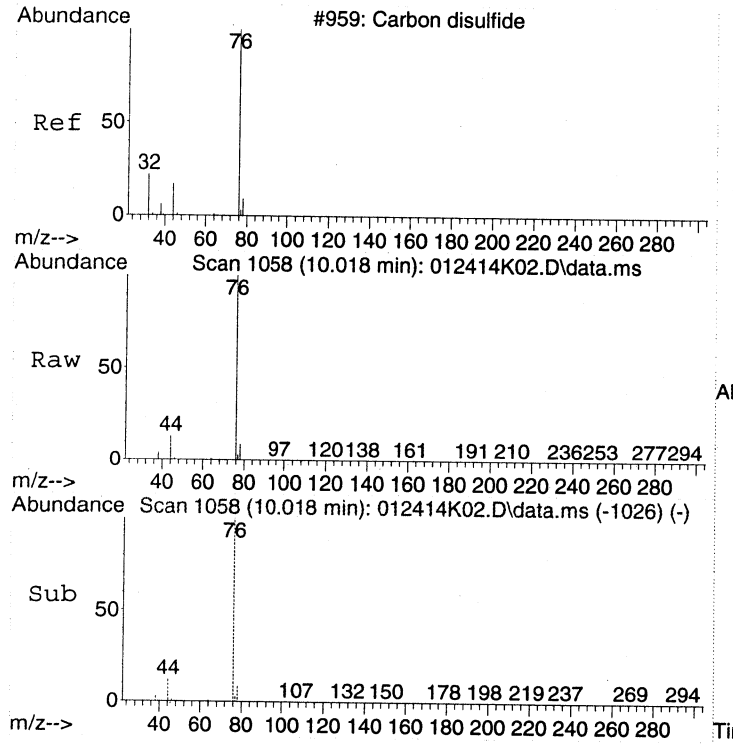




#14
Acetone
Concen: 10.35 ppbv
RT: 9.823 min Scan# 1026
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 426489

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 32.5 | 12.6 | 52.6 |

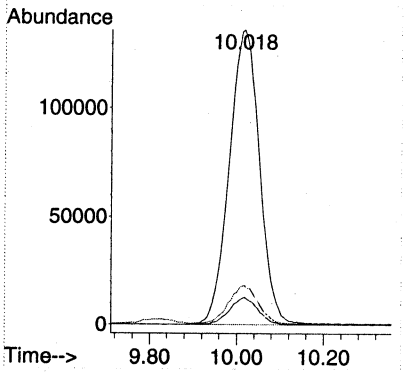


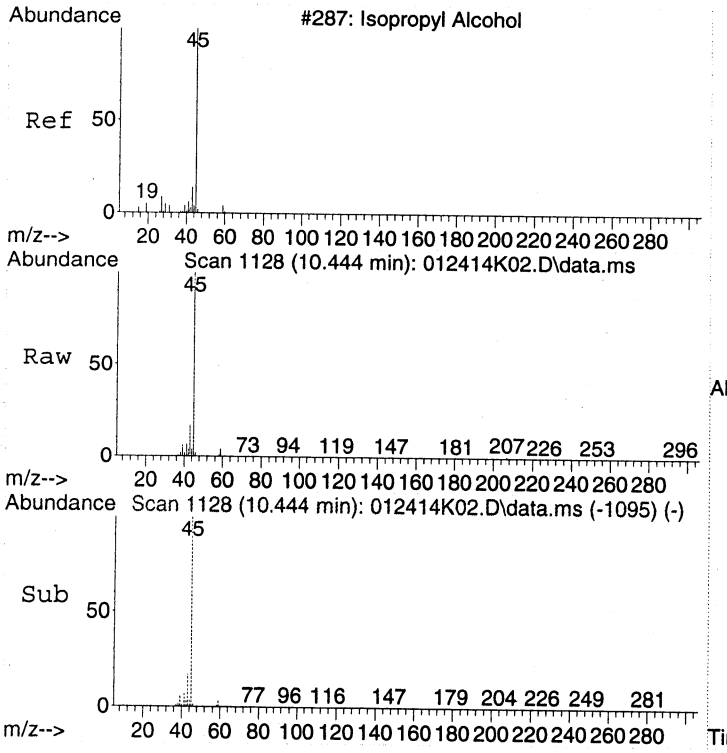



#15
Carbon disulfide
Concen: 9.83 ppbv
RT: 10.018 min Scan# 1058
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 76 Resp: 661500

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 8.7 | 0.0 | 28.9 |
| 44 | 12.7 | 0.0 | 32.3 |

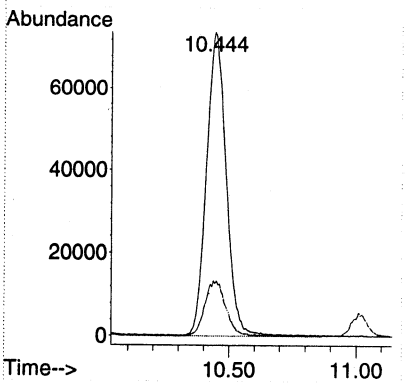


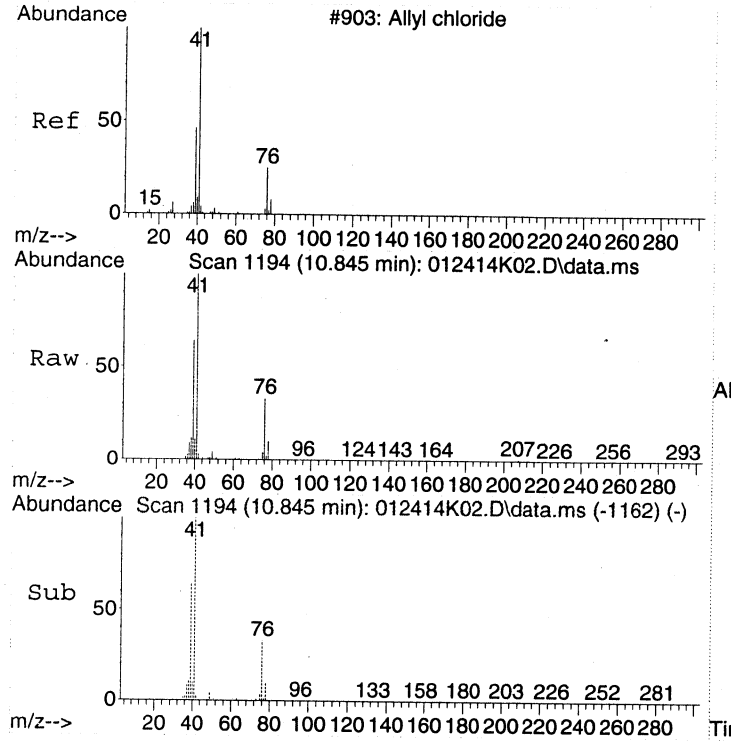




#16
2-Propanol
Concen: 9.49 ppbv
RT: 10.444 min Scan# 1128
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 45 Resp: 400022

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 19.1 | 0.0 | 39.2 |

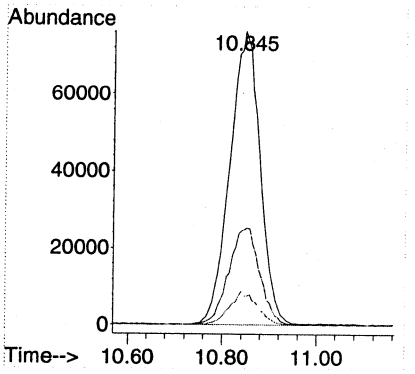


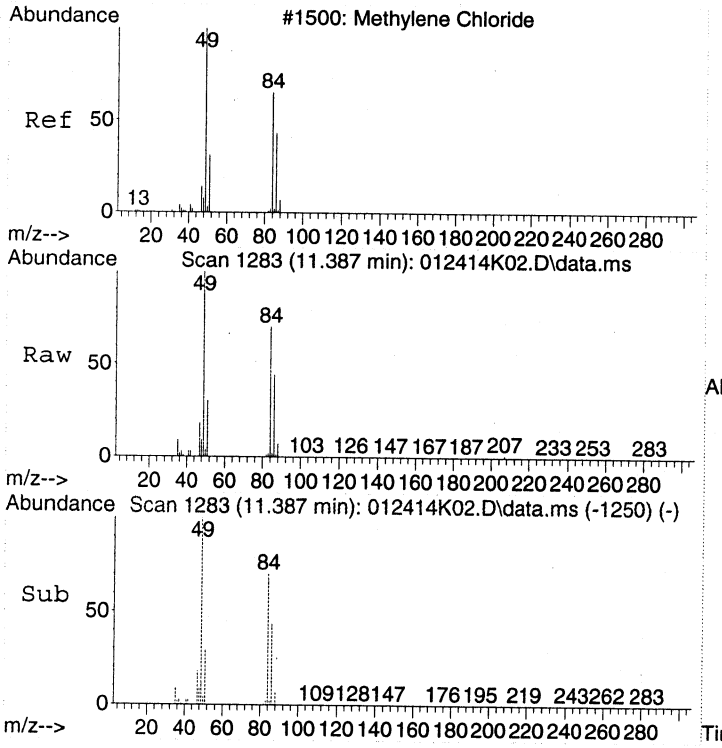



#17
Allyl chloride
Concen: 10.13 ppbv
RT: 10.845 min Scan# 1194
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 41 Resp: 340721

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 76 | 33.9 | 14.9 | 54.9 |
| 78 | 10.6 | 0.0 | 31.0 |

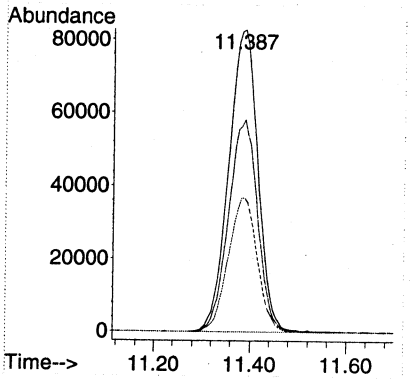


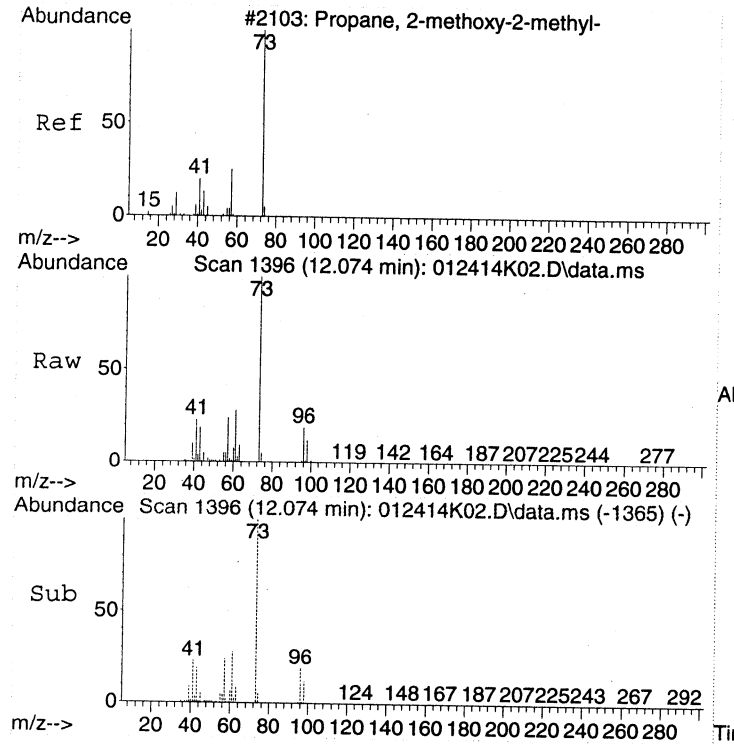




#18
Dichloromethane
Concen: 8.77 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 49 Resp: 347070

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 70.0 | 51.8 | 91.8 |
| 86 | 44.4 | 25.1 | 65.1 |

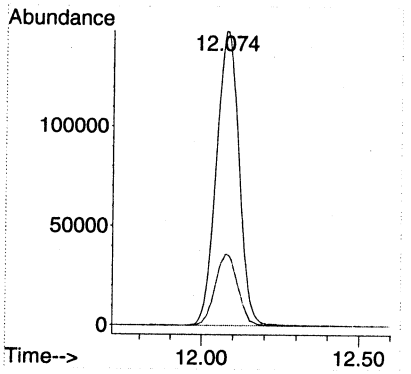


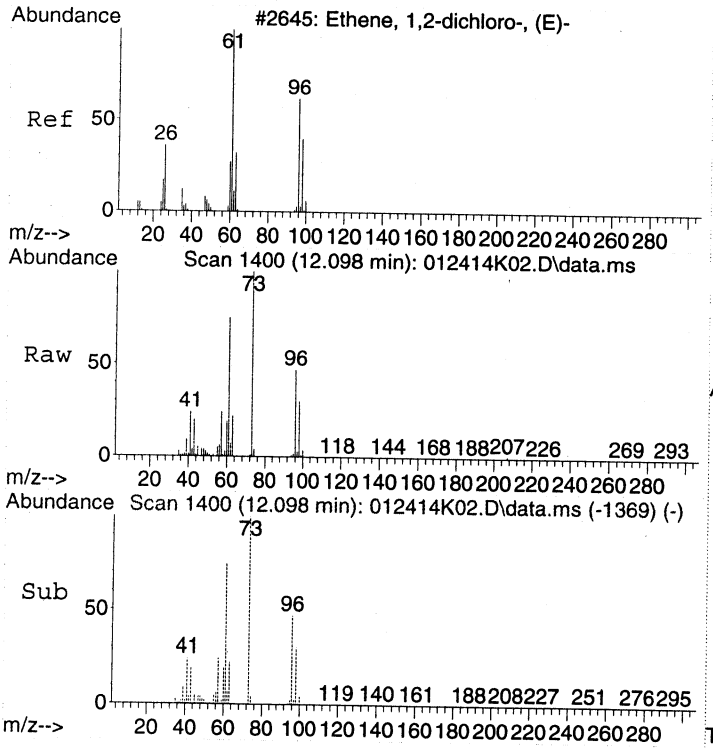



#19
tert-Butyl methyl ether (MTBE)
Concen: 10.94 ppbv
RT: 12.074 min Scan# 1396
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 73 Resp: 737662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 24.4 | 4.2 | 44.2 |

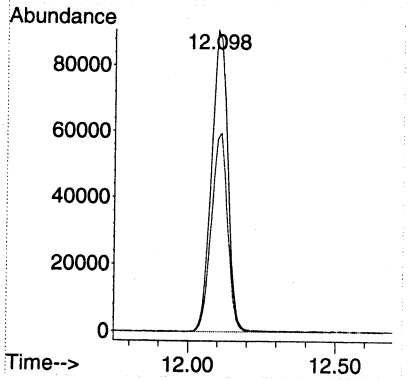


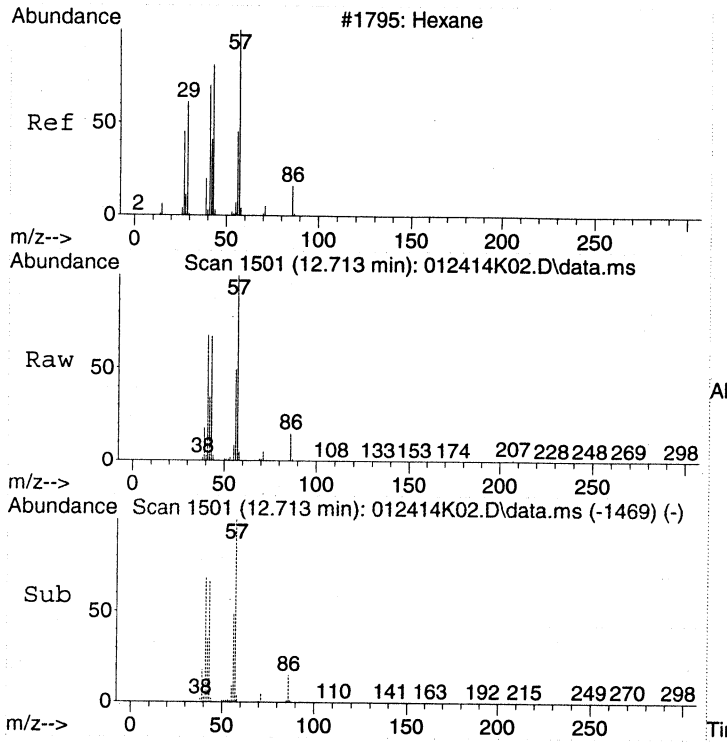




#20
trans-1,2-Dichloroethene
Concen: 9.25 ppbv
RT: 12.098 min Scan# 1400
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 348954

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 65.4 | 46.8 | 86.8 |

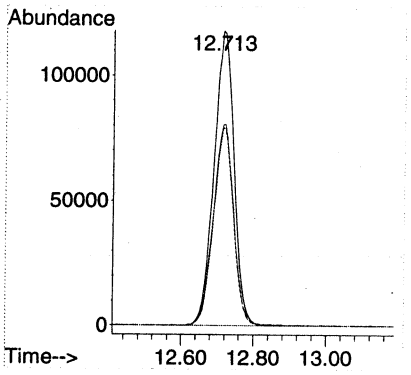


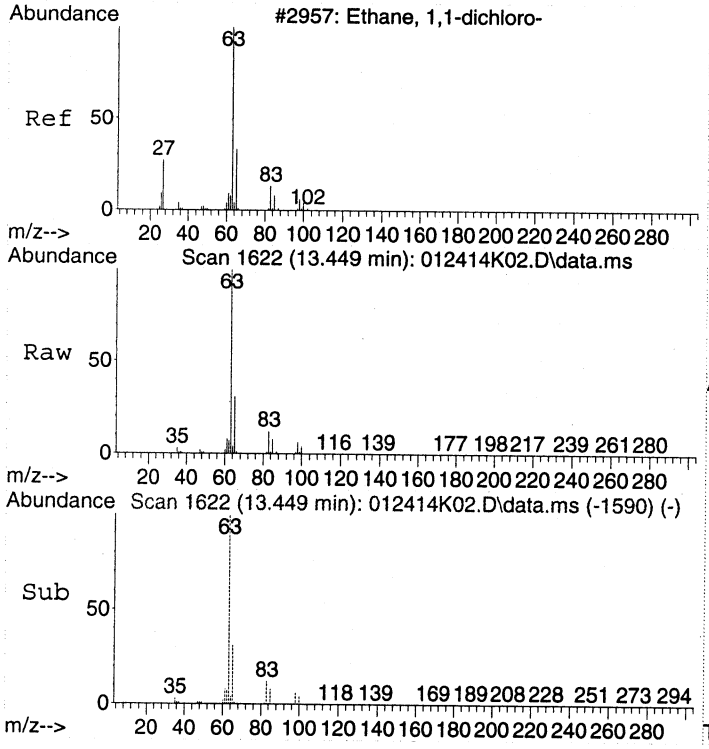



#21
Hexane
Concen: 10.13 ppbv
RT: 12.713 min Scan# 1501
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 57 Resp: 462024

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 69.3 | 48.5 | 88.5 |
| 43 | 66.6 | 45.6 | 85.6 |

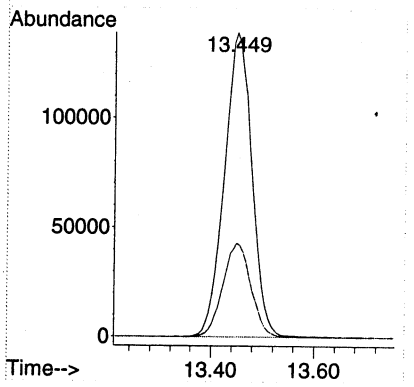


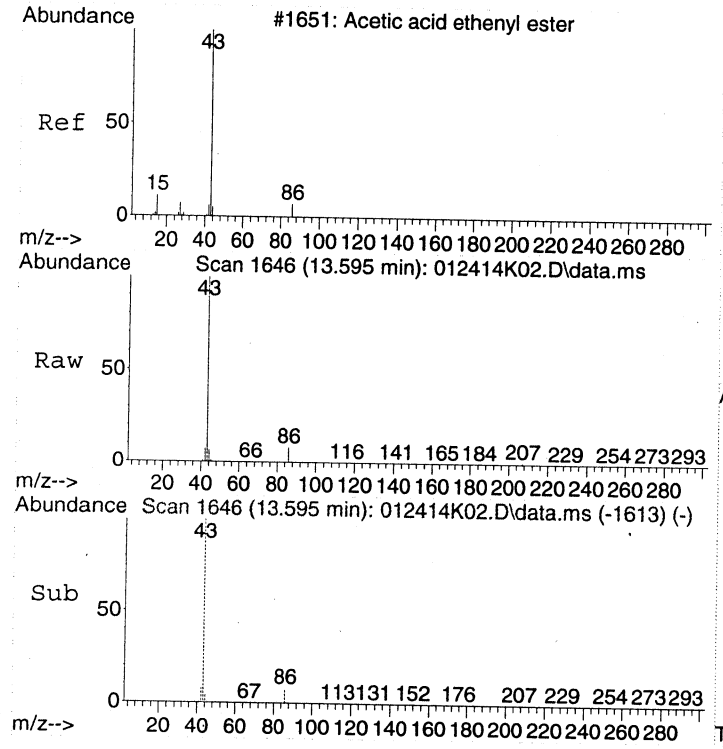




#22
1,1-Dichloroethane
Concen: 9.28 ppbv
RT: 13.449 min Scan# 1622
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 63 Resp: 517542

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 31.7 | 11.2 | 51.2 |

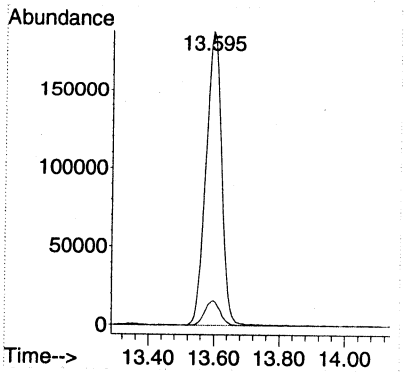


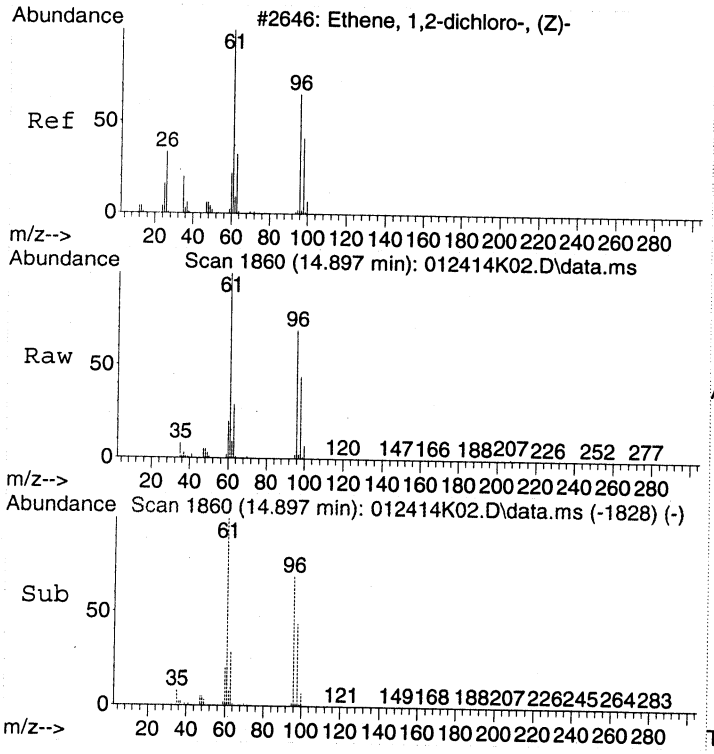



#23
Vinyl acetate
Concen: 10.32 ppbv
RT: 13.595 min Scan# 1646
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 621919

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 86 | 8.3 | 0.0 | 28.5 |

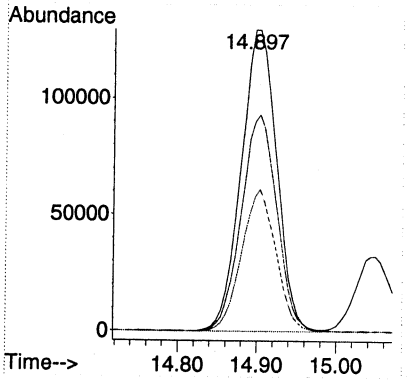


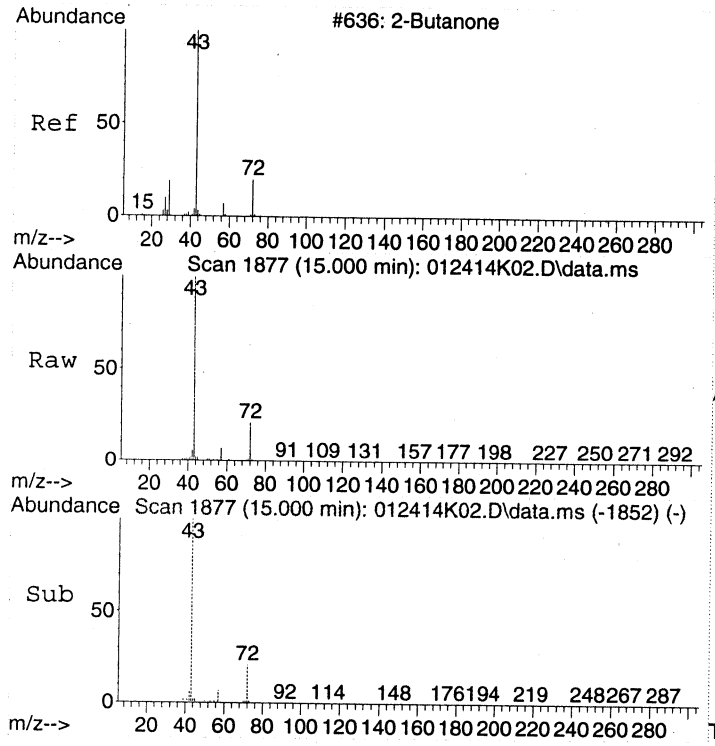




#24
cis-1,2-Dichloroethene
Concen: 9.87 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 403683

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 71.7 | 52.5 | 92.5 |
| 98 | 45.4 | 26.3 | 66.3 |

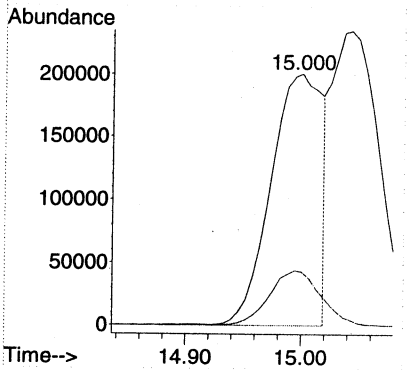


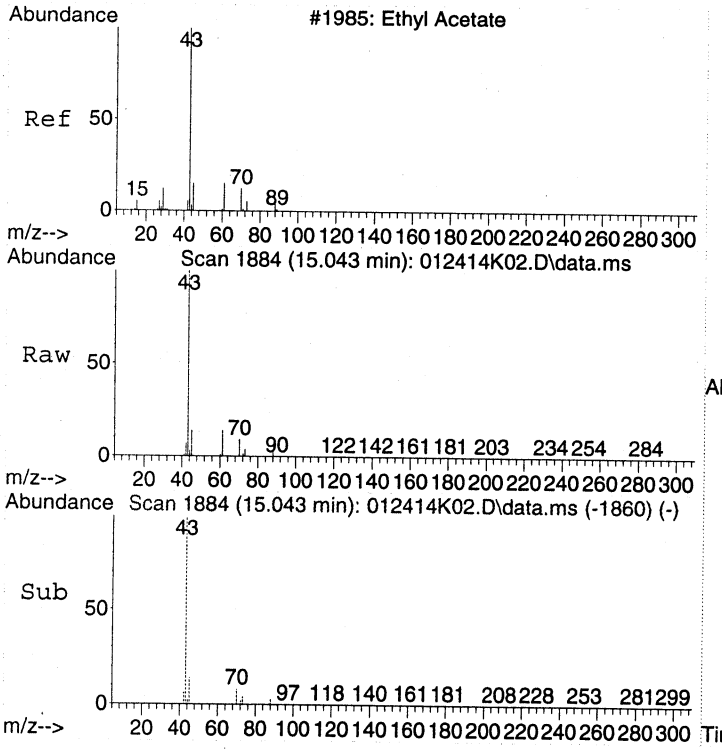



#25
2-Butanone (MEK)
Concen: 11.46 ppbv
RT: 15.000 min Scan# 1877
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 613689

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 21.1 | 12.6 | 32.6 |

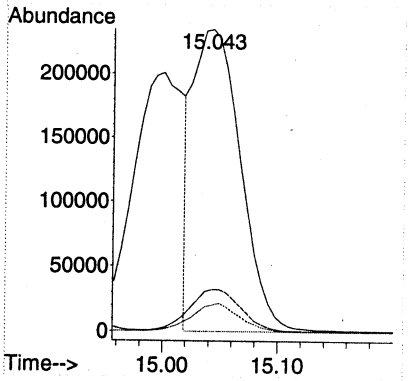


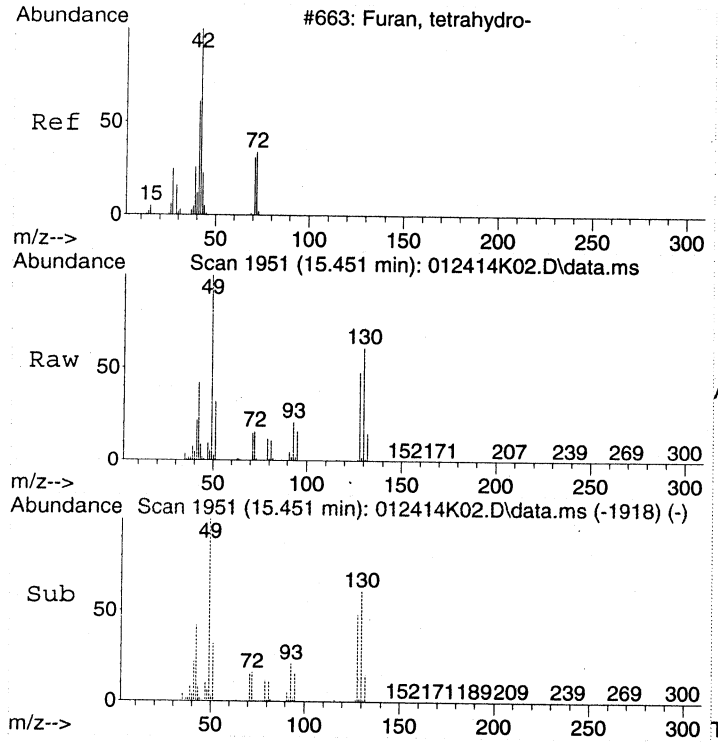




#26
Ethyl acetate
Concen: 9.76 ppbv m
RT: 15.043 min Scan# 1884
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 676154

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 14.8 | 0.0 | 10.0# |
| 70 | 9.3 | 0.0 | 10.0 |

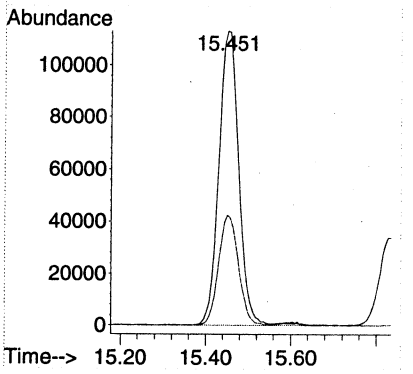


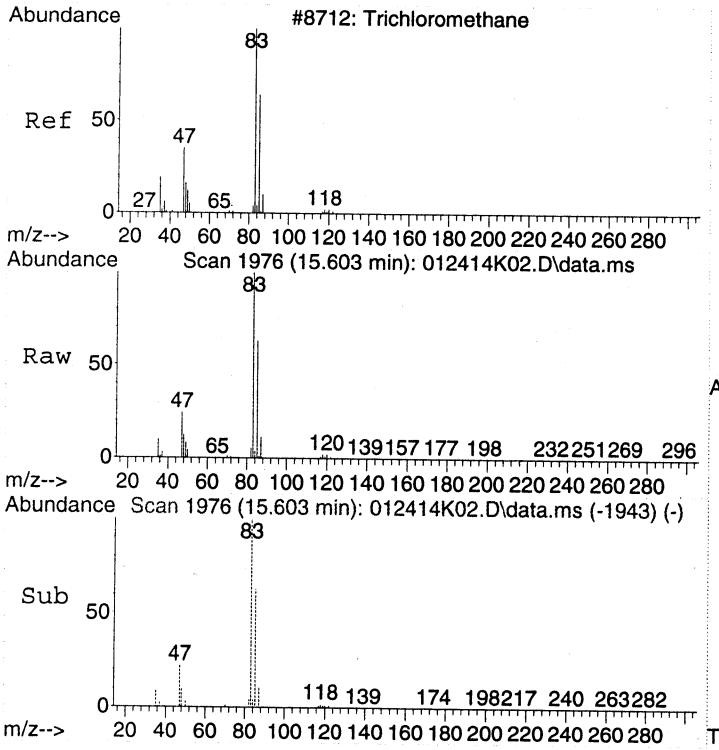



#27
Tetrahydrofuran
Concen: 10.35 ppbv
RT: 15.451 min Scan# 1951
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 42 Resp: 368304

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 38.4 | 18.7 | 58.7 |

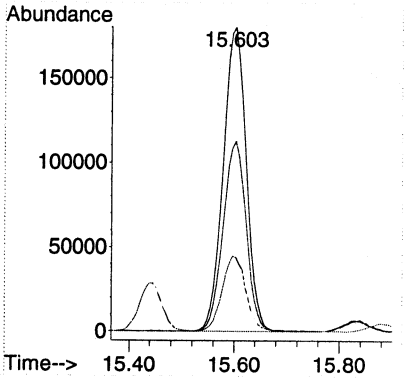


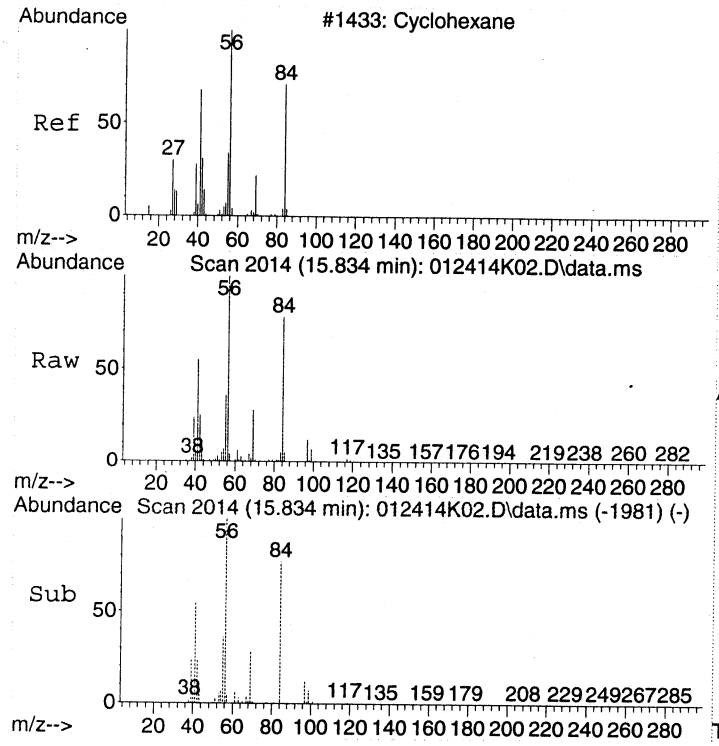




#28
Chloroform
Concen: 9.65 ppbv
RT: 15.603 min Scan# 1976
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 553333

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.7 | 43.4 | 83.4 |
| 47 | 25.3 | 4.7 | 44.7 |

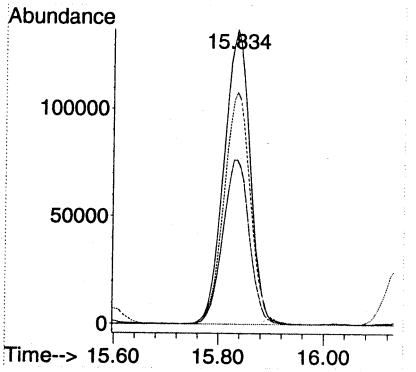


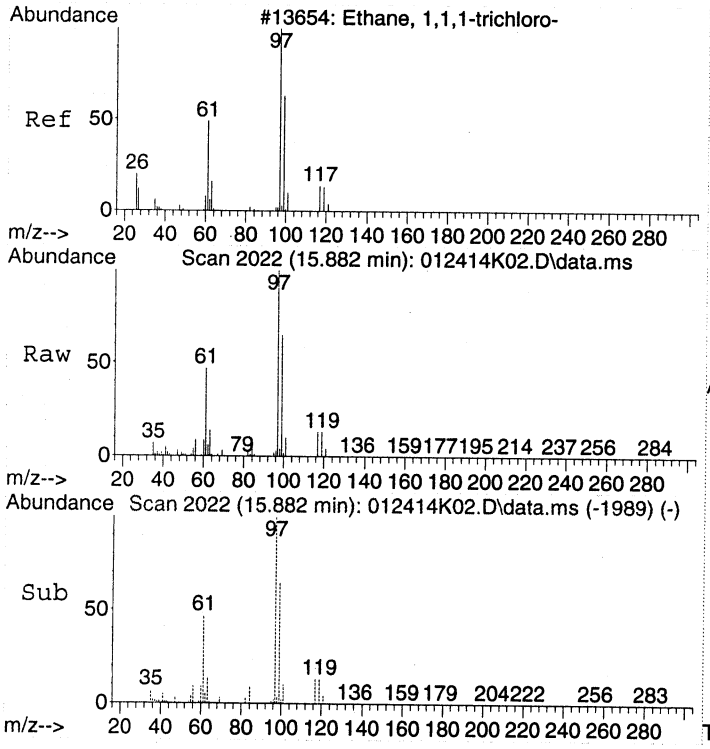



#29
Cyclohexane
Concen: 10.17 ppbv
RT: 15.834 min Scan# 2014
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 56 Resp: 477116

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 41 | 56.3 | 34.9 | 74.9 |
| 84 | 79.5 | 60.7 | 100.7 |

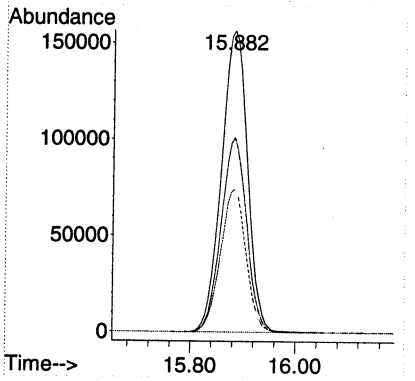


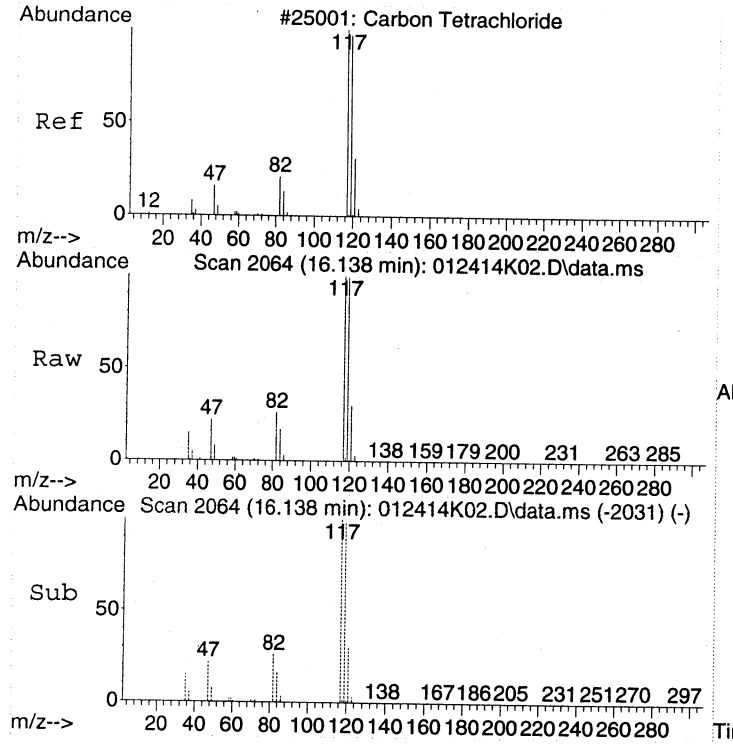




#30
1,1,1-Trichloroethane
Concen: 9.56 ppbv
RT: 15.882 min Scan# 2022
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 97 Resp: 542056

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 99 | 63.2 | 43.4 | 83.4 |
| 61 | 46.6 | 25.9 | 65.9 |

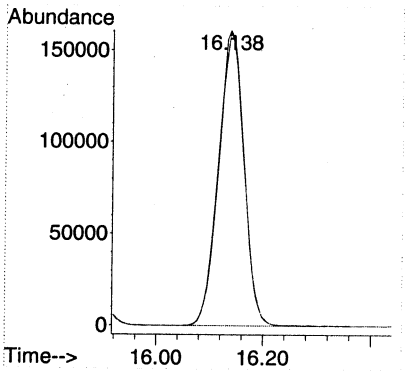


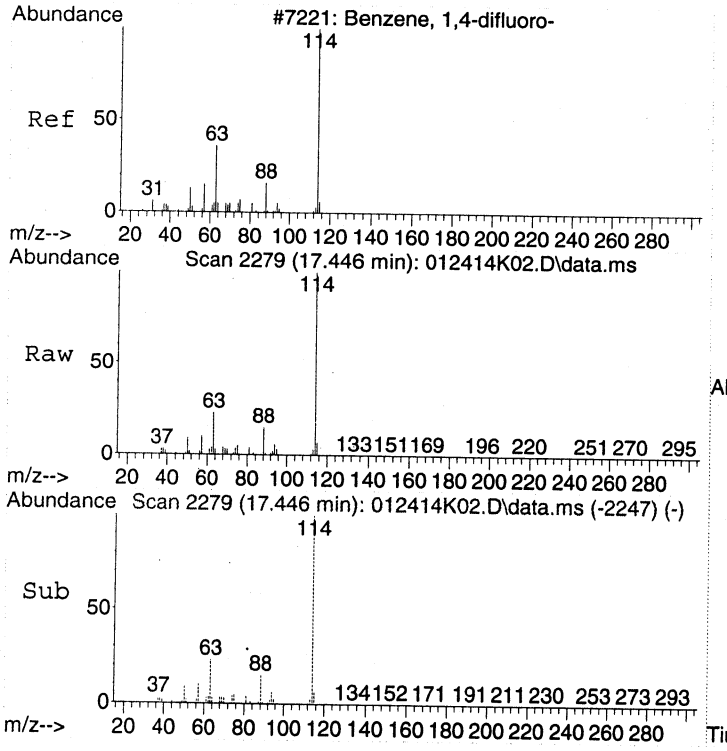



#31
Carbon tetrachloride
Concen: 9.77 ppbv
RT: 16.138 min Scan# 2064
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:117 Resp: 537139

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 97.3 | 76.9 | 116.9 |

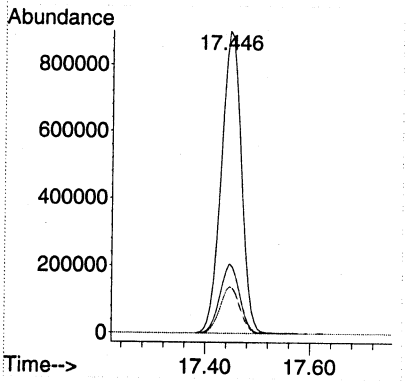


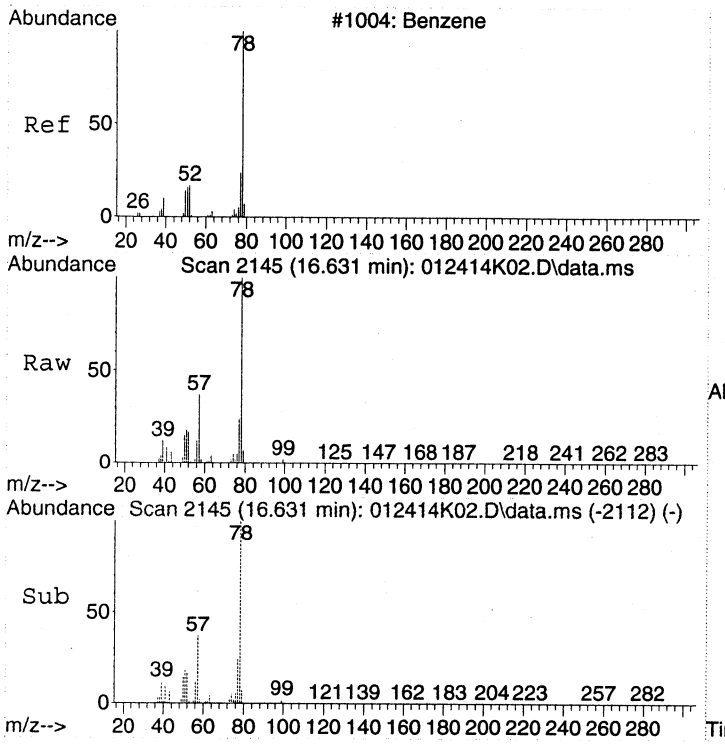




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:114 Resp: 2392845

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.3 | 1.9 | 41.9 |
| 88 | 15.2 | 0.0 | 35.1 |

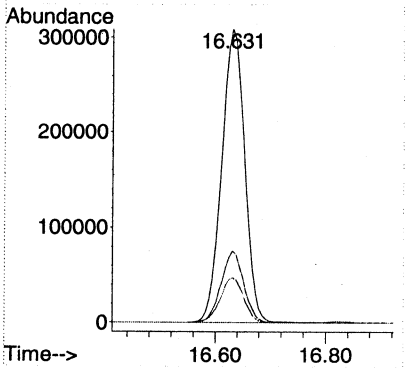


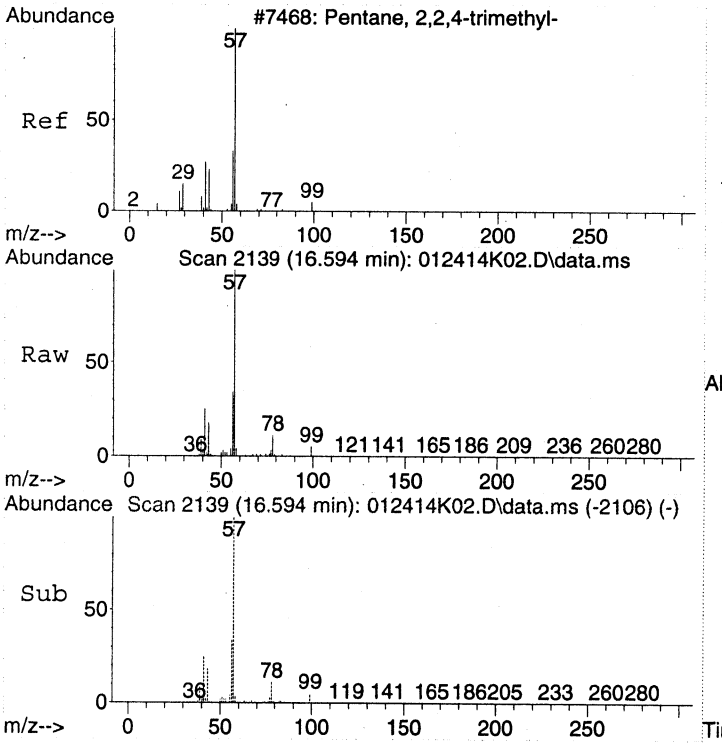



#33
Benzene
Concen: 10.93 ppbv
RT: 16.631 min Scan# 2145
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 78 Resp: 901781

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 24.2 | 4.2 | 44.2 |
| 50 | 15.8 | 0.0 | 35.7 |

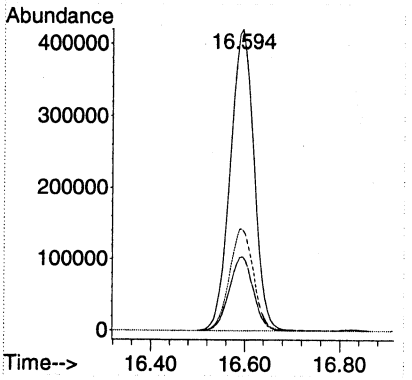


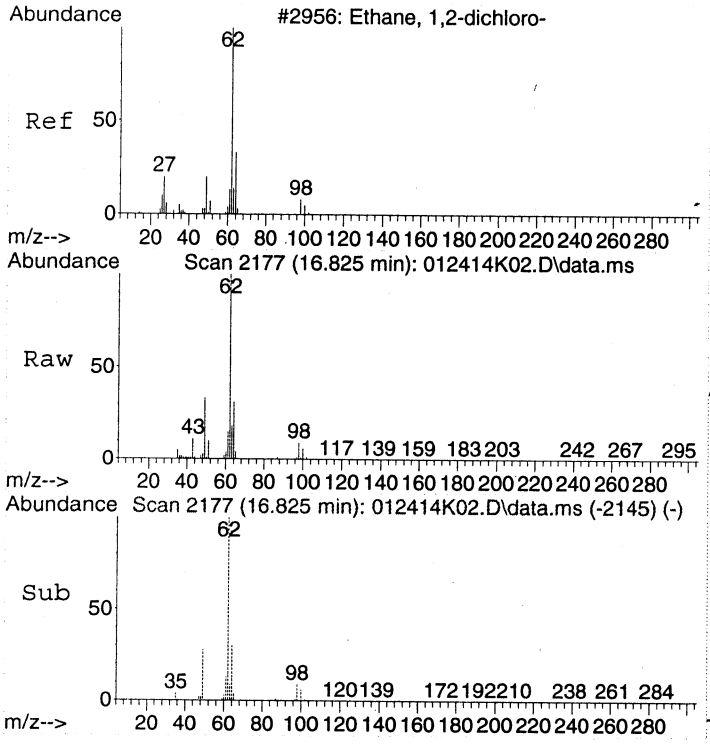




#34
2,2,4-Trimethylpentane
Concen: 11.76 ppbv
RT: 16.594 min Scan# 2139
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 57 Resp: 1489662

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 57 | 100 | | |
| 41 | 24.9 | 4.8 | 44.8 |
| 56 | 34.3 | 14.0 | 54.0 |

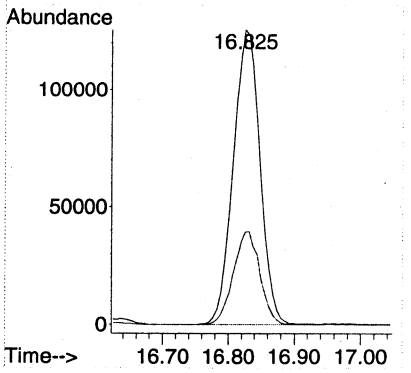


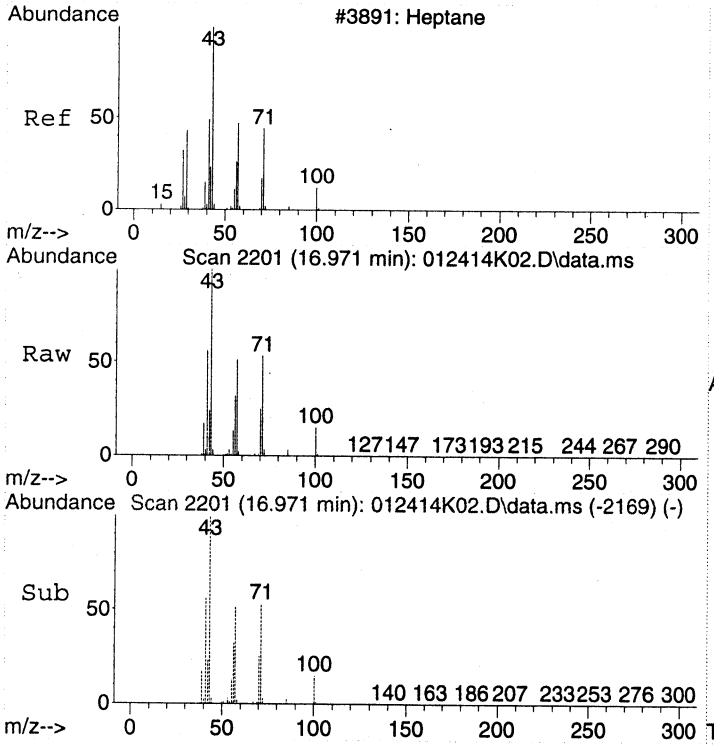



#35
1,2-Dichloroethane
Concen: 10.66 ppbv
RT: 16.825 min Scan# 2177
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 62 Resp: 355533

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.5 | 11.7 | 51.7 |

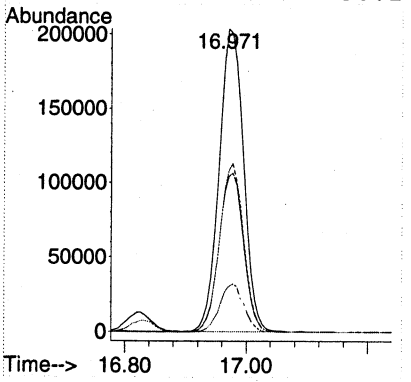


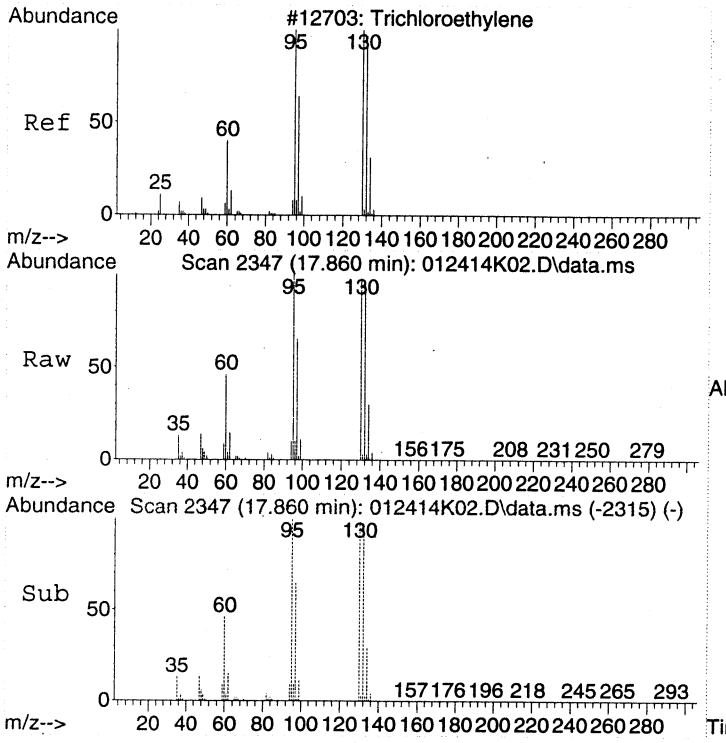




#36
Heptane
Concen: 11.96 ppbv
RT: 16.971 min Scan# 2201
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 565457

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 57 | 52.5 | 33.1 | 73.1 |
| 71 | 54.4 | 35.7 | 75.7 |
| 100 | 15.6 | 0.0 | 36.1 |

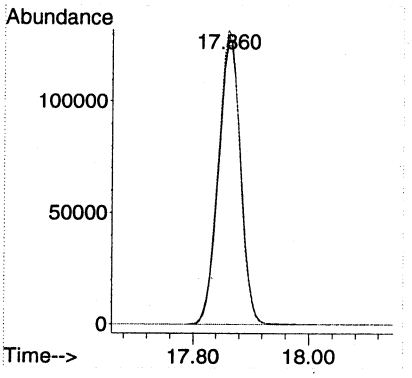


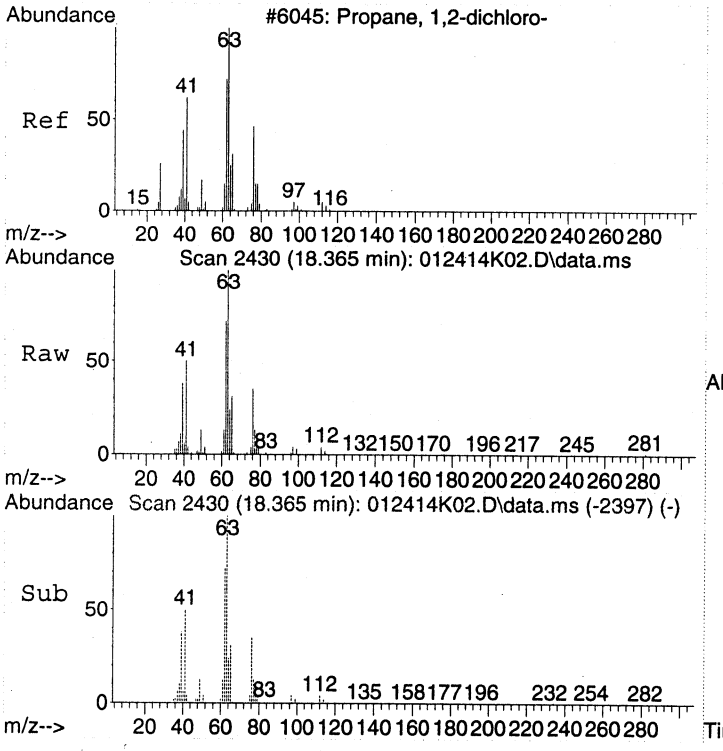



#37
Trichloroethene
Concen: 10.88 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:130 Resp: 344388

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.9 | 78.5 | 118.5 |
| 95 | 102.3 | 80.9 | 120.9 |

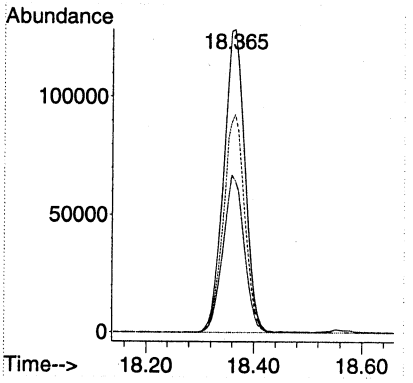


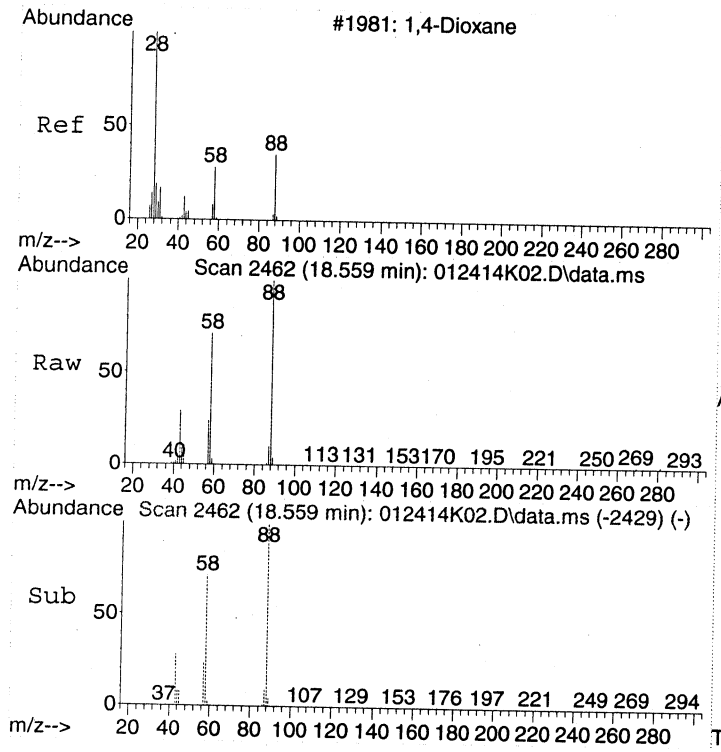




#38
1,2-Dichloropropane
Concen: 11.25 ppbv
RT: 18.365 min Scan# 2430
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 63 Resp: 352373

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 41 | 52.0 | 31.8 | 71.8 |
| 62 | 72.3 | 52.2 | 92.2 |

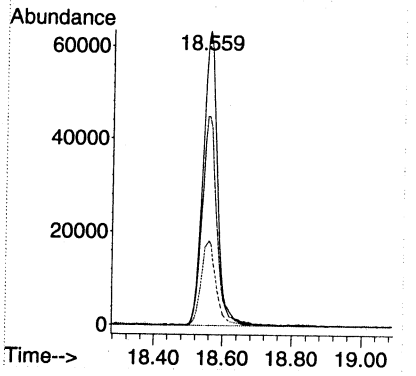


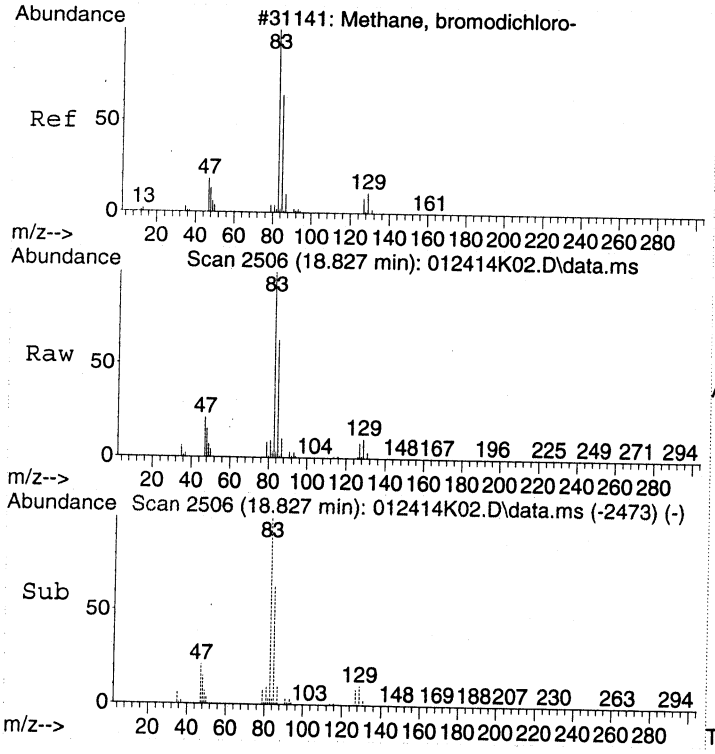



#39
1,4-Dioxane
Concen: 12.48 ppbv
RT: 18.559 min Scan# 2462
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 88 Resp: 189208

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 88 | 100 | | |
| 58 | 71.8 | 49.8 | 89.8 |
| 43 | 28.7 | 7.9 | 47.9 |

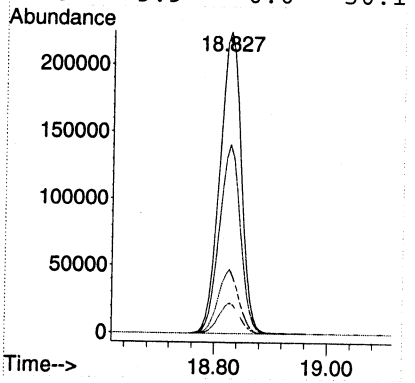


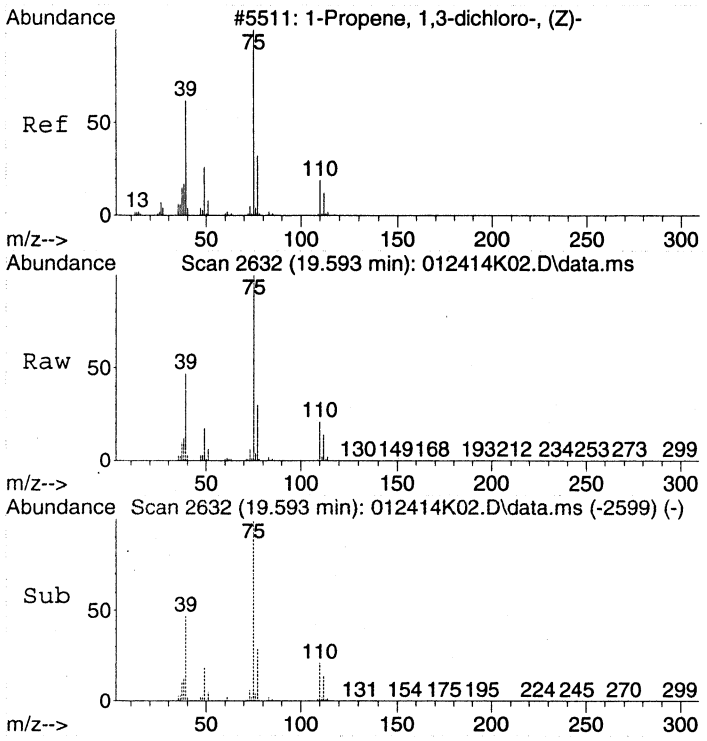




#40
Bromodichloromethane
Concen: 11.50 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 590251

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 61.8 | 42.4 | 82.4 |
| 47 | 20.4 | 0.2 | 40.2 |
| 129 | 9.9 | 0.0 | 30.1 |

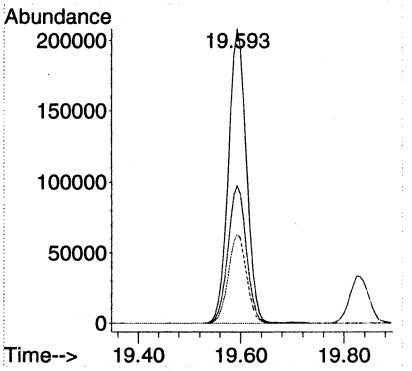


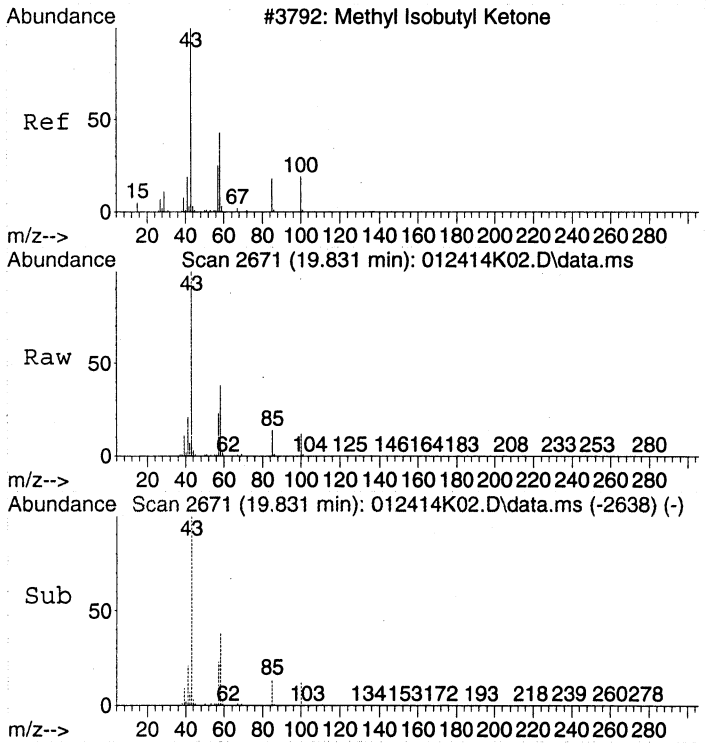



#41
cis-1,3-Dichloropropene
Concen: 11.43 ppbv
RT: 19.593 min Scan# 2632
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 75 Resp: 505029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 48.0 | 26.8 | 66.8 |
| 77 | 30.6 | 11.1 | 51.1 |

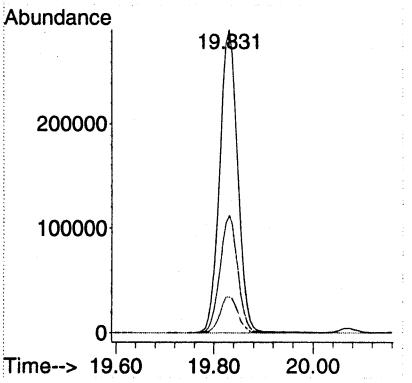


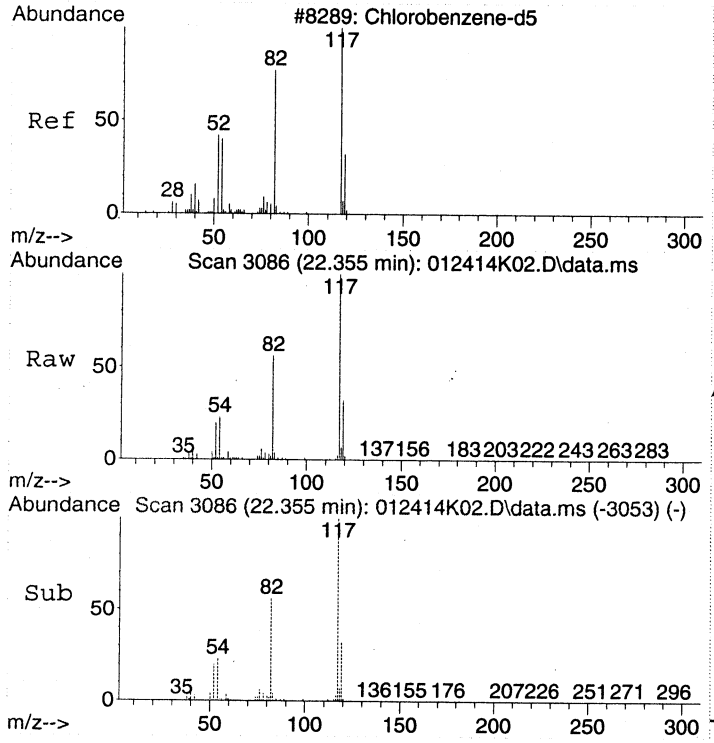




#42
4-Methyl-2-pentanone (MIBK)
Concen: 12.29 ppbv
RT: 19.831 min Scan# 2671
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 743712

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 38.3 | 19.1 | 59.1 |
| 100 | 12.1 | 0.0 | 32.8 |

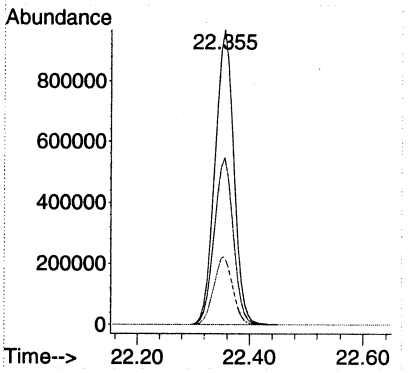


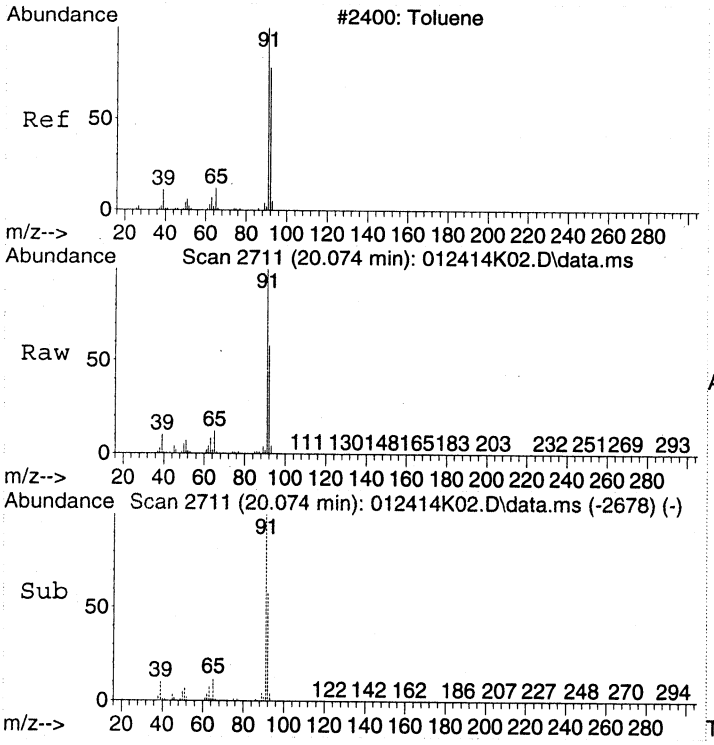



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:117 Resp: 2251153

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.1 | 36.4 | 76.4 |
| 54 | 23.3 | 2.6 | 42.6 |

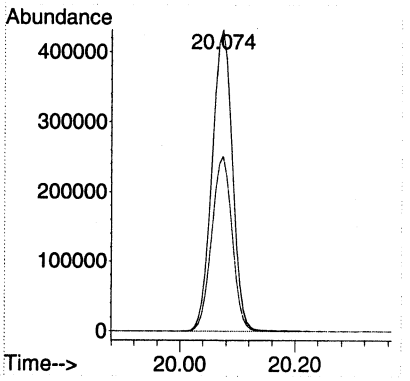


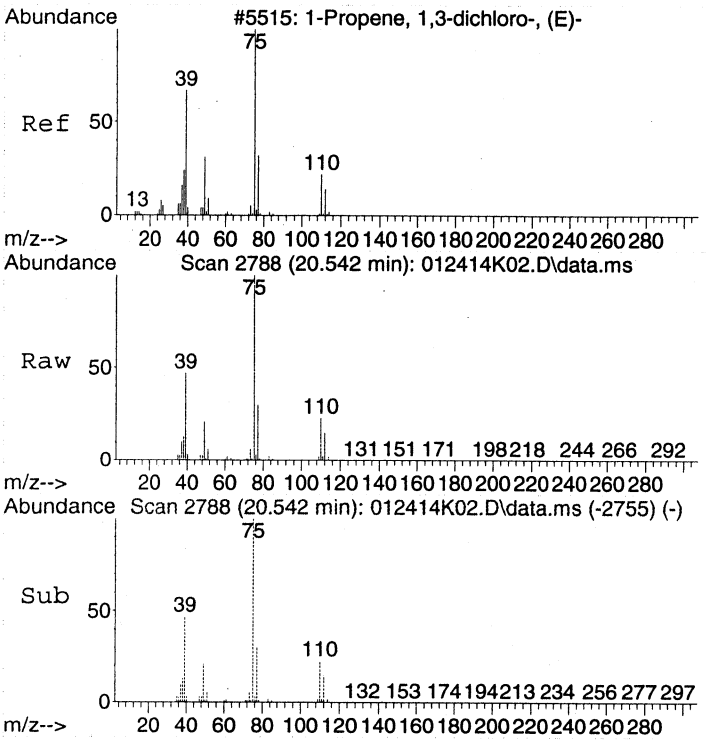




#44
Toluene
Concen: 15.61 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1061291

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.2 | 38.1 | 78.1 |

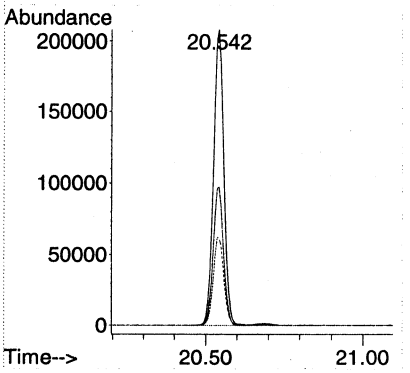


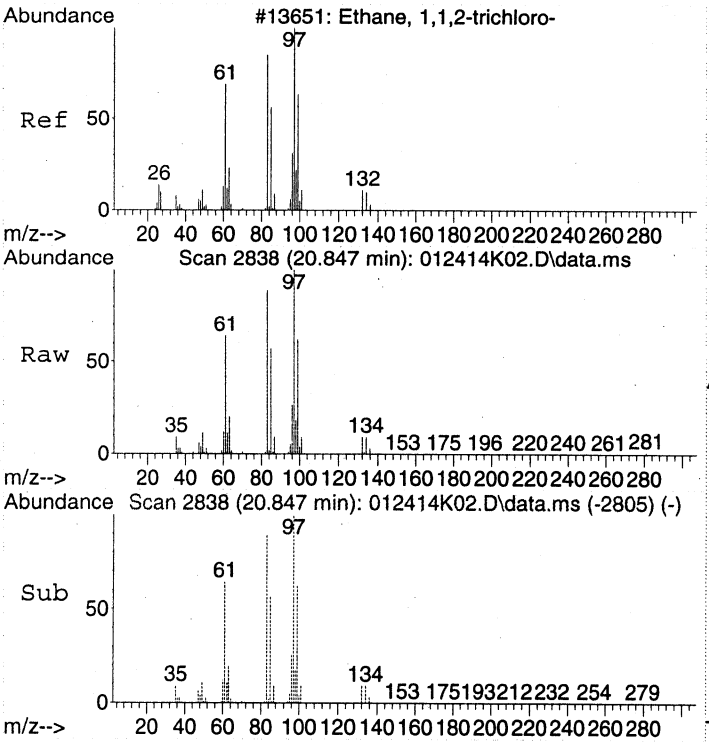



#45
trans-1,3-Dichloropropene
Concen: 16.79 ppbv
RT: 20.542 min Scan# 2788
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 75 Resp: 493938

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 46.3 | 25.7 | 65.7 |
| 77 | 30.4 | 11.1 | 51.1 |

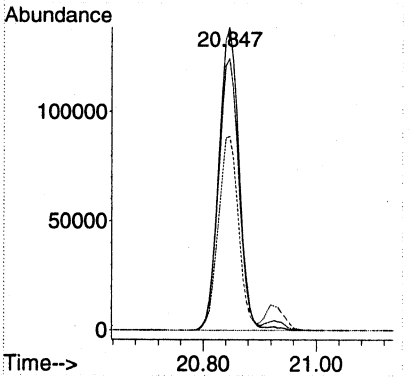


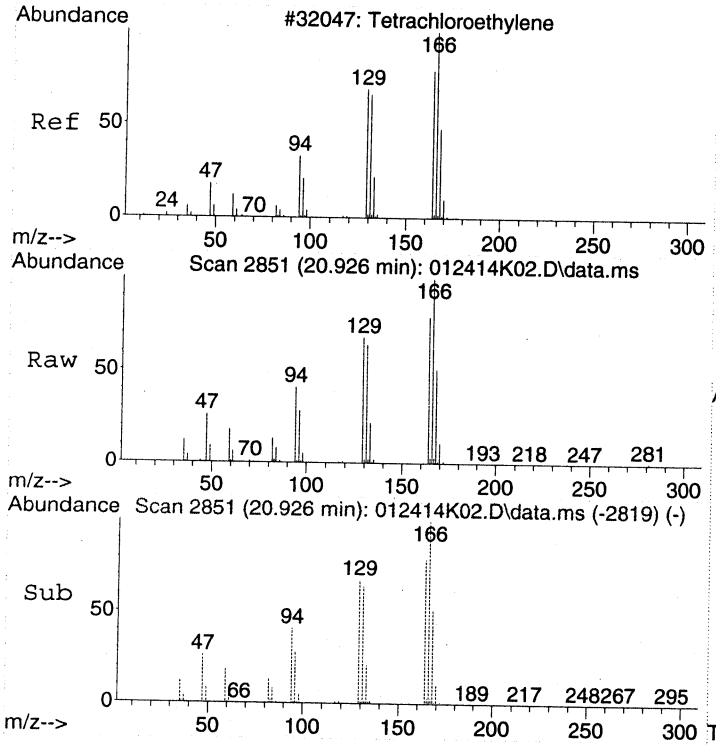




#46
1,1,2-Trichloroethane
Concen: 15.47 ppbv
RT: 20.847 min Scan# 2838
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 97 Resp: 348352

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 92.1 | 70.6 | 110.6 |
| 61 | 63.4 | 42.5 | 82.5 |

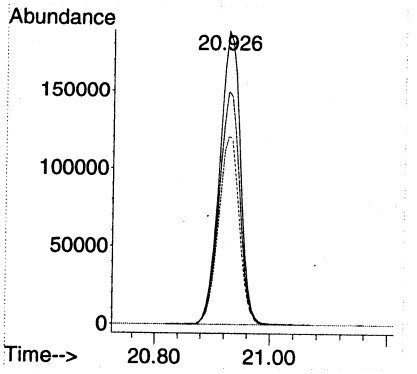


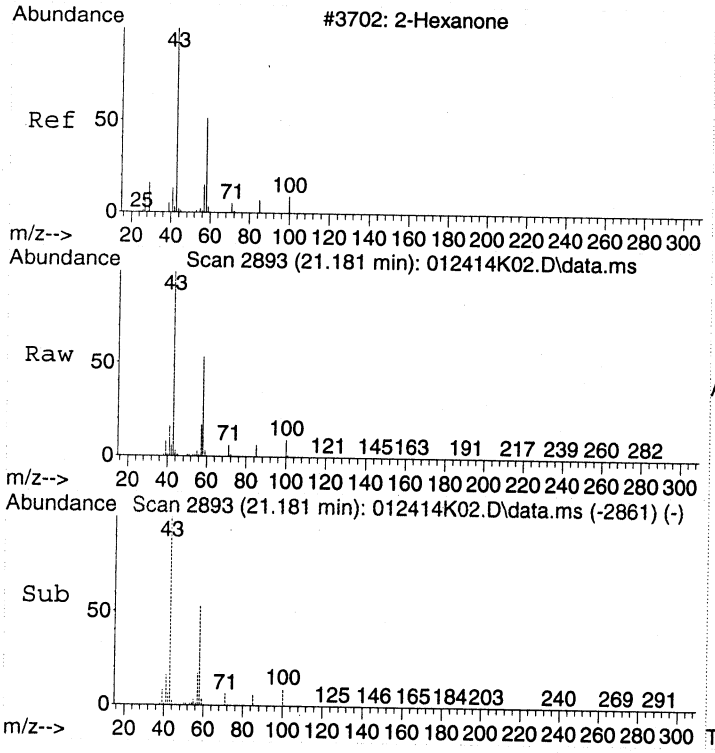



#47
Tetrachloroethene
Concen: 14.80 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:166 Resp: 470251

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.4 | 59.7 | 99.7 |
| 131 | 64.3 | 44.0 | 84.0 |

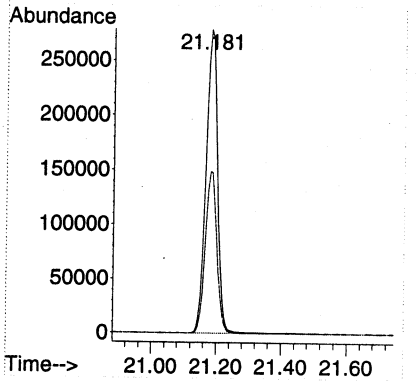


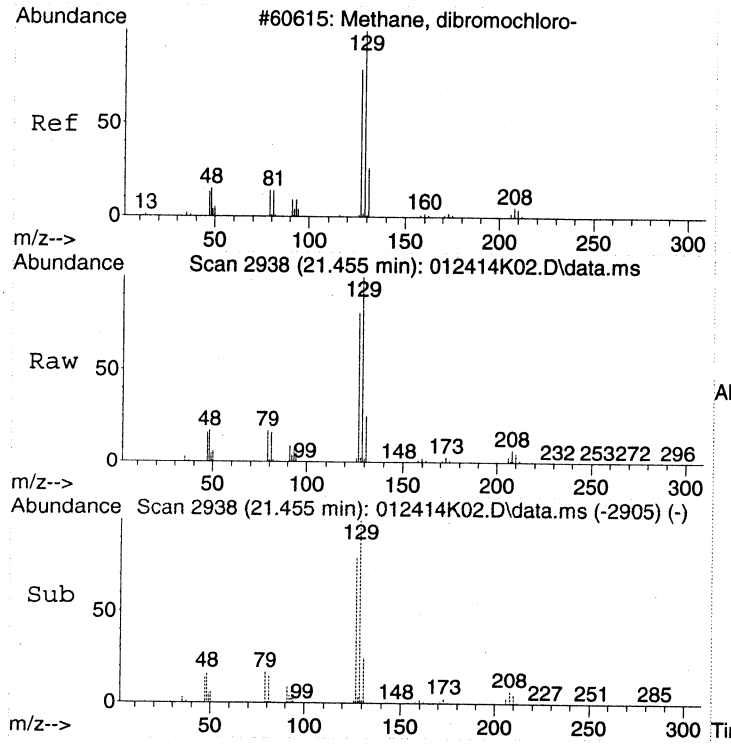




#48
2-Hexanone
Concen: 17.16 ppbv
RT: 21.181 min Scan# 2893
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 686900

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 53.6 | 34.6 | 74.6 |

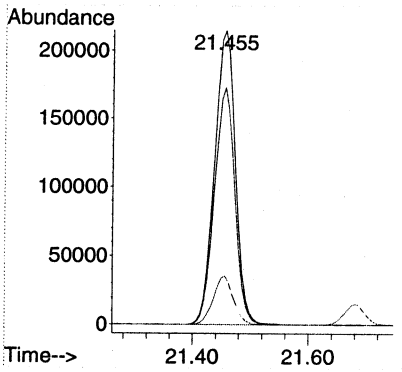


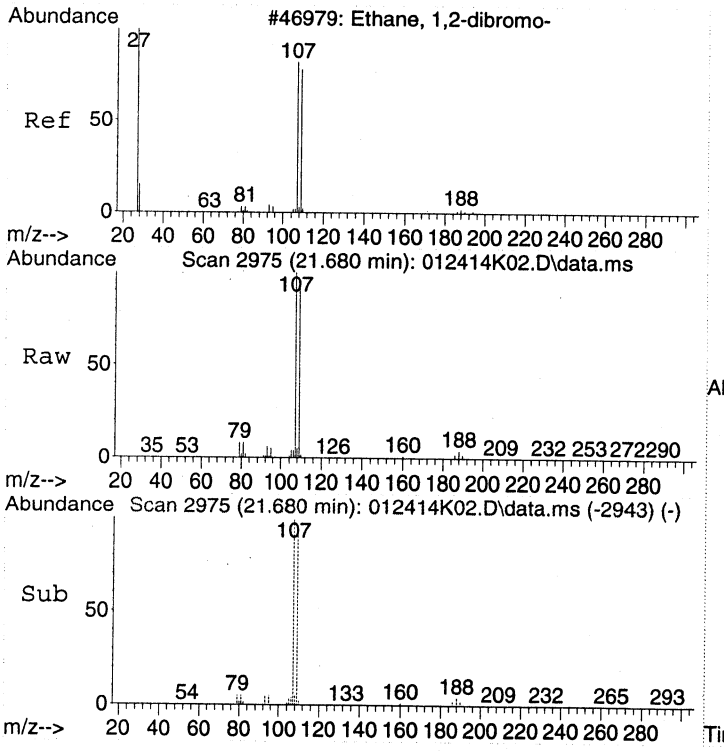



#49
Chlorodibromomethane
Concen: 15.70 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:129 Resp: 539101

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 79.2 | 59.6 | 99.6 |
| 79 | 15.9 | 0.0 | 35.7 |

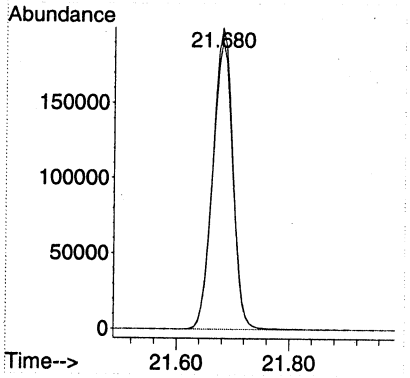


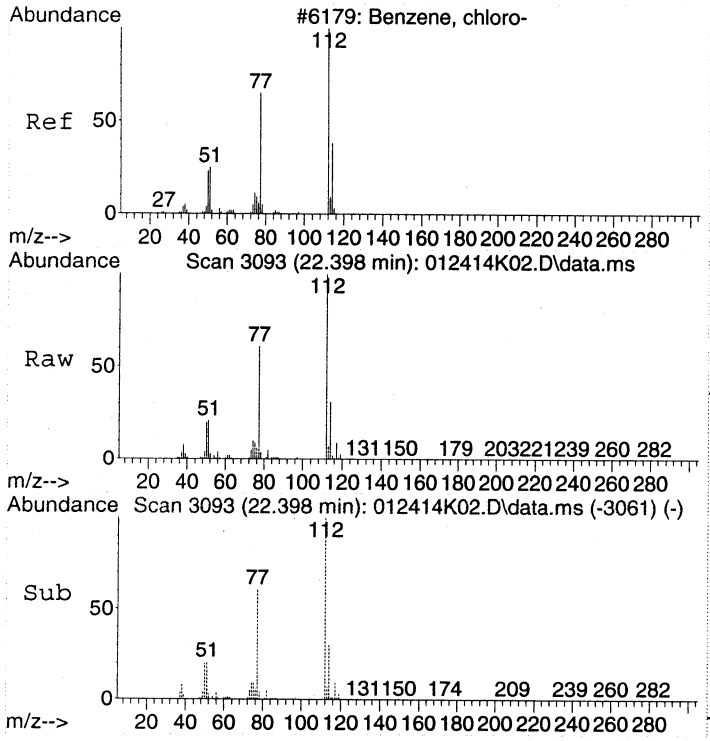




#50
1,2-Dibromoethane (EDB)
Concen: 15.59 ppbv
RT: 21.680 min Scan# 2975
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:107 Resp: 491961

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.5 | 74.2 | 114.2 |

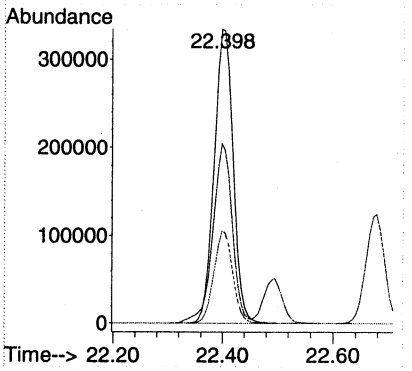


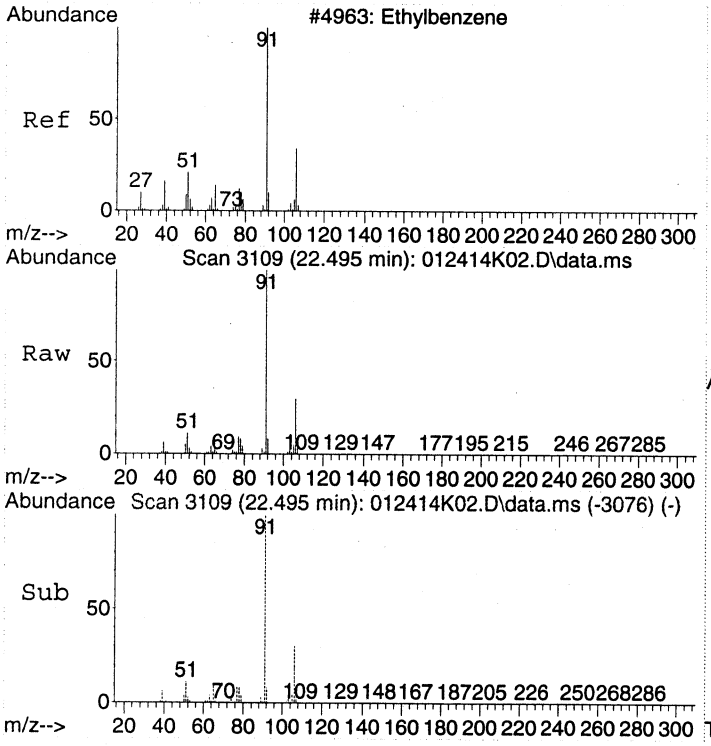



#51
Chlorobenzene
Concen: 15.51 ppbv
RT: 22.398 min Scan# 3093
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:112 Resp: 813598

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 62.6 | 42.0 | 82.0 |
| 114 | 31.3 | 11.3 | 51.3 |

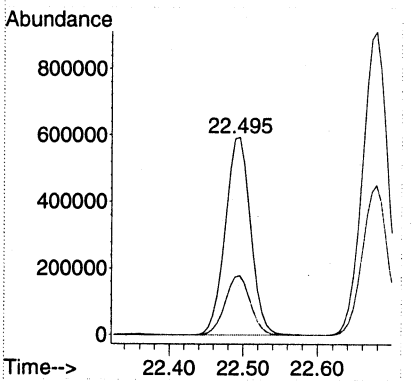


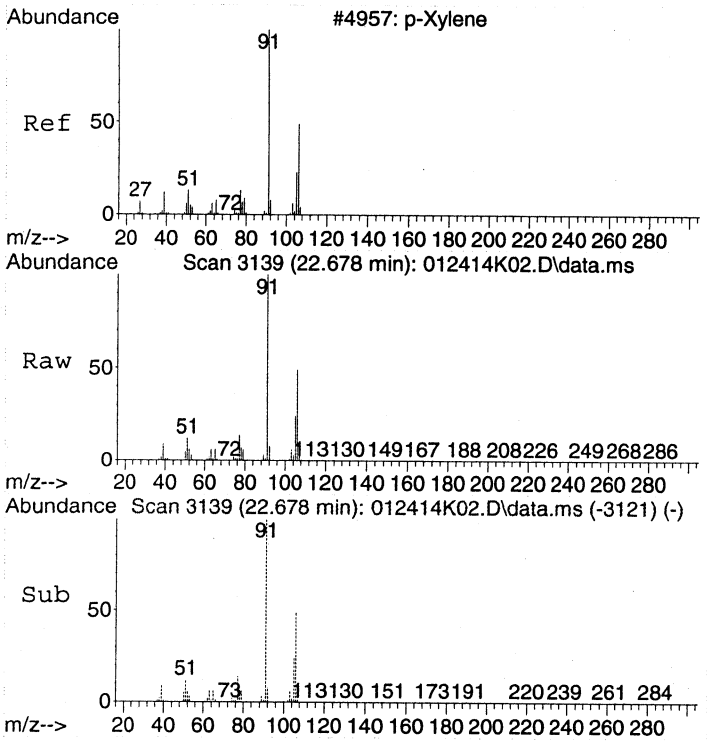




#52
Ethylbenzene
Concen: 15.73 ppbv
RT: 22.495 min Scan# 3109
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1409640

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 30.0 | 10.0 | 50.0 |

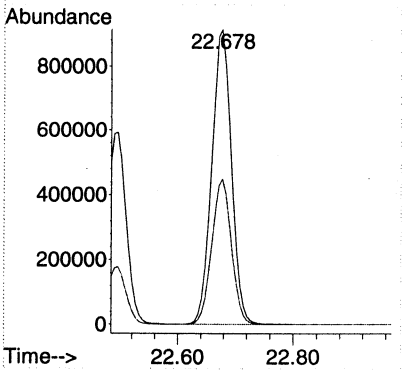


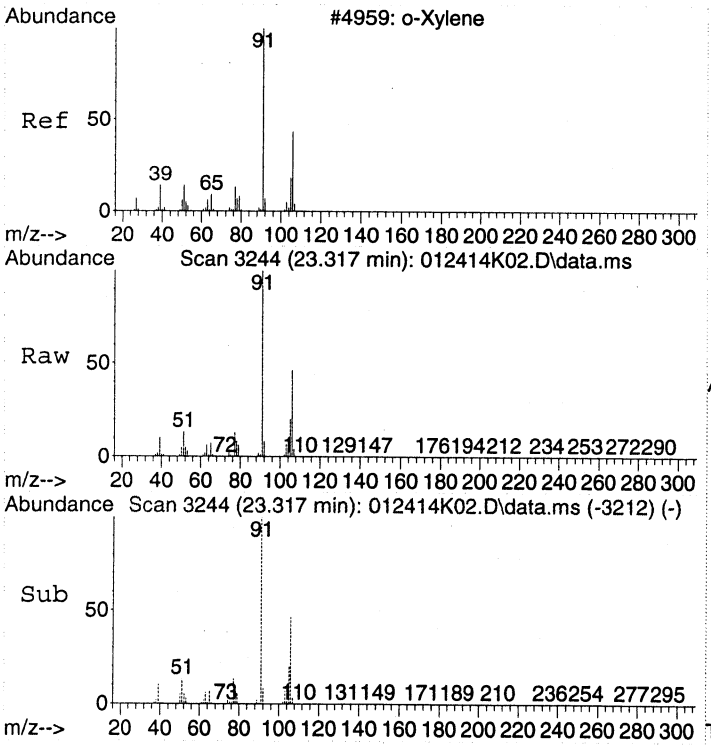



#53
m&p-Xylene
Concen: 31.70 ppbv
RT: 22.678 min Scan# 3139
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 2173327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 49.3 | 29.4 | 69.4 |

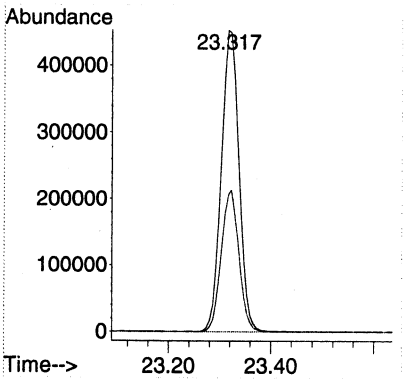


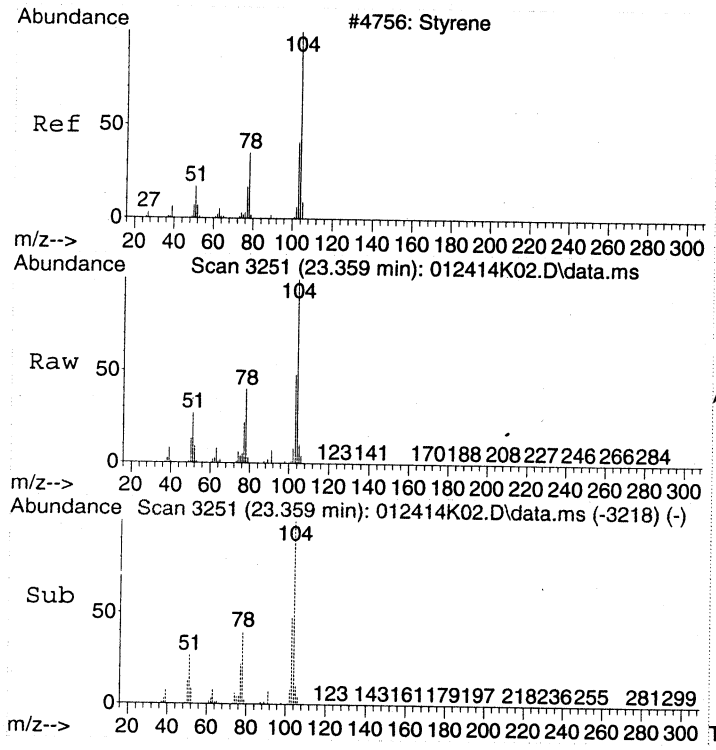




#54
o-Xylene
Concen: 16.05 ppbv
RT: 23.317 min Scan# 3244
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1079607

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 46.9 | 27.0 | 67.0 |

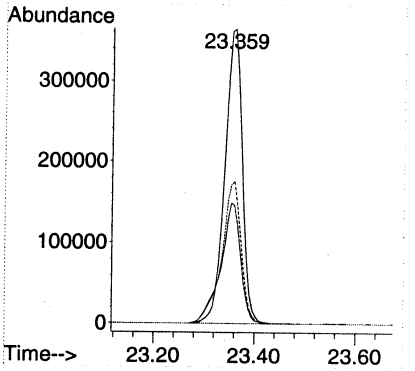


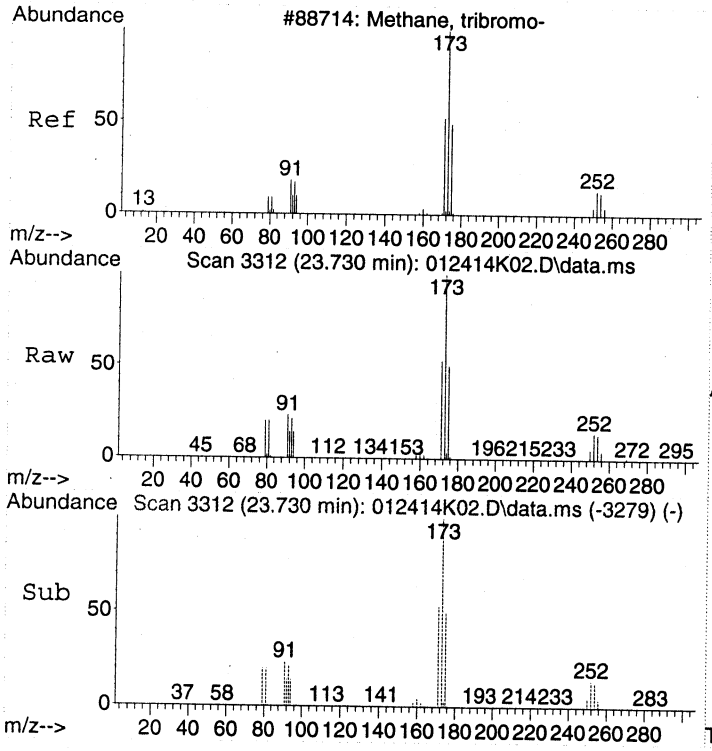



#55
Styrene
Concen: 15.95 ppbv
RT: 23.359 min Scan# 3251
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:104 Resp: 872583

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 46.8 | 26.5 | 66.5 |
| 103 | 53.8 | 33.7 | 73.7 |

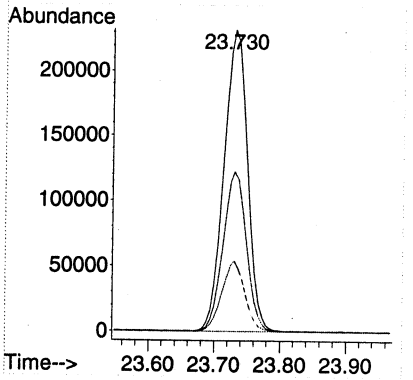


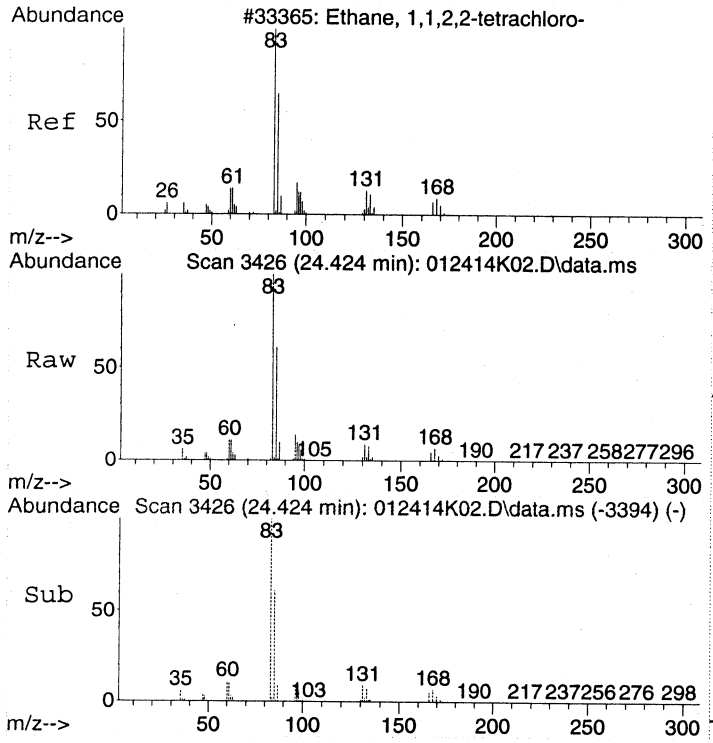




#56
Bromoform
Concen: 15.52 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:173 Resp: 574011

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 52.4 | 33.0 | 73.0 |
| 91 | 22.3 | 2.0 | 42.0 |

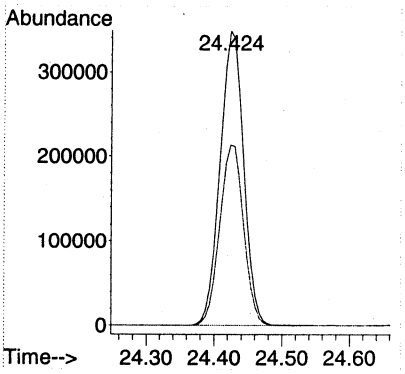


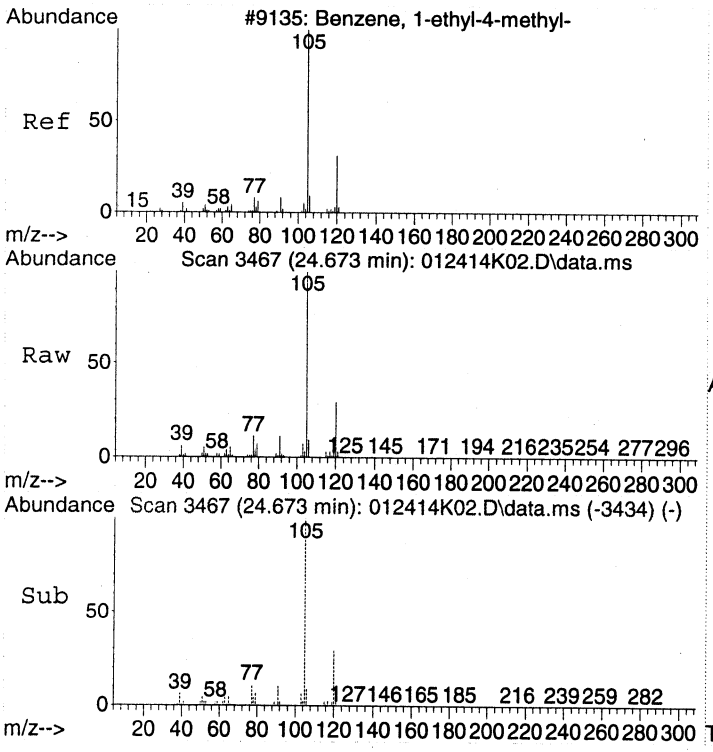



#57
1,1,2,2-Tetrachloroethane
Concen: 15.63 ppbv
RT: 24.424 min Scan# 3426
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 832089

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.3 | 42.3 | 82.3 |

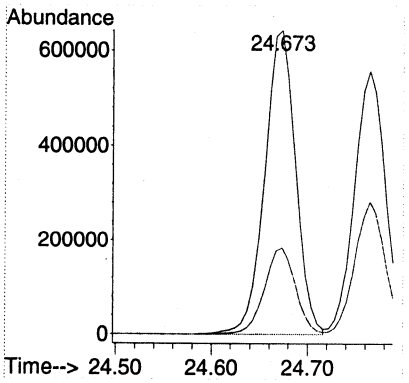


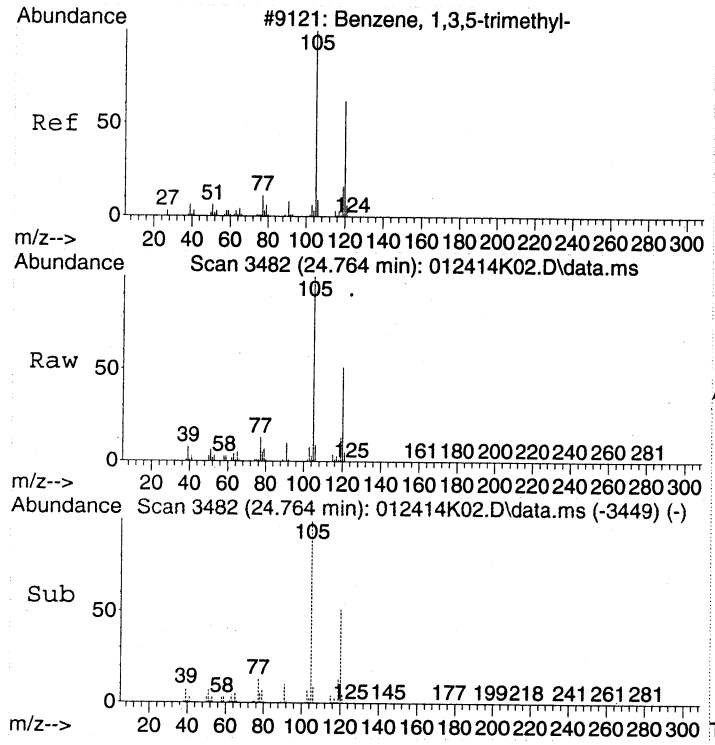




#58
4-Ethyltoluene
Concen: 16.46 ppbv
RT: 24.673 min Scan# 3467
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1435763

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 28.8 | 8.9 | 48.9 |

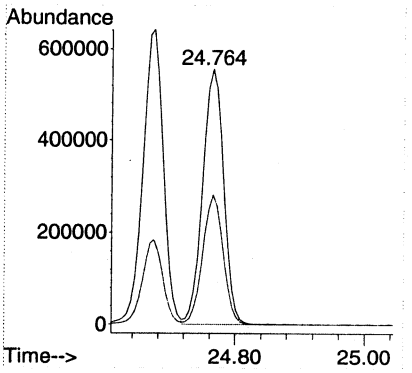


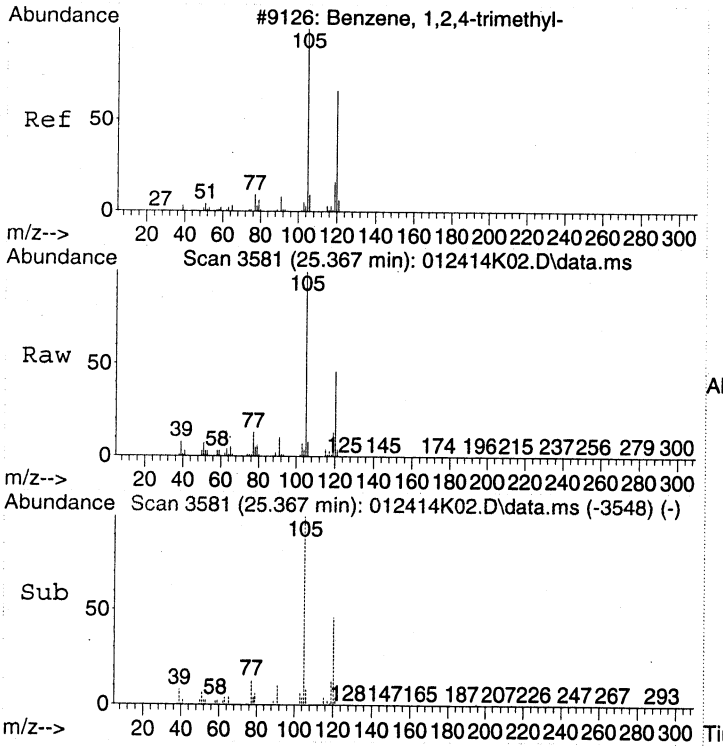



#59
1,3,5-Trimethylbenzene
Concen: 16.37 ppbv
RT: 24.764 min Scan# 3482
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1260166

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 49.6 | 30.3 | 70.3 |

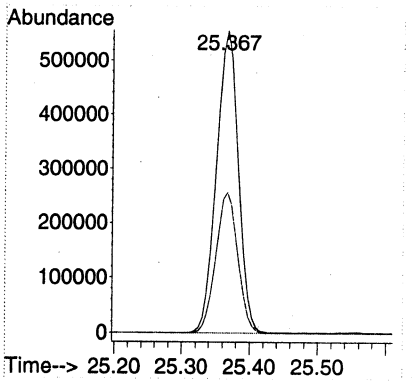


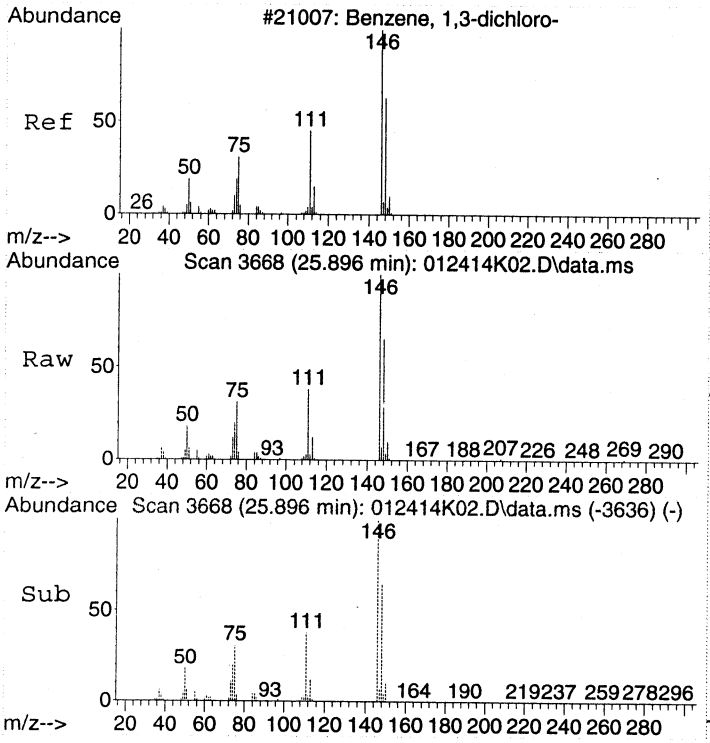




#60
1,2,4-Trimethylbenzene
Concen: 15.95 ppbv
RT: 25.367 min Scan# 3581
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1238531

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.4 | 26.3 | 66.3 |

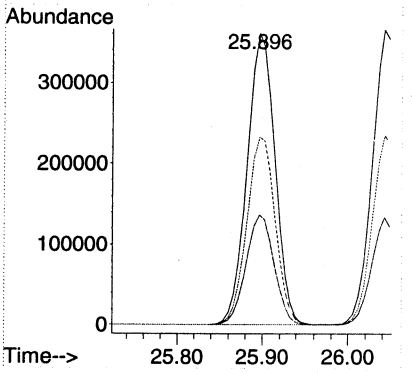


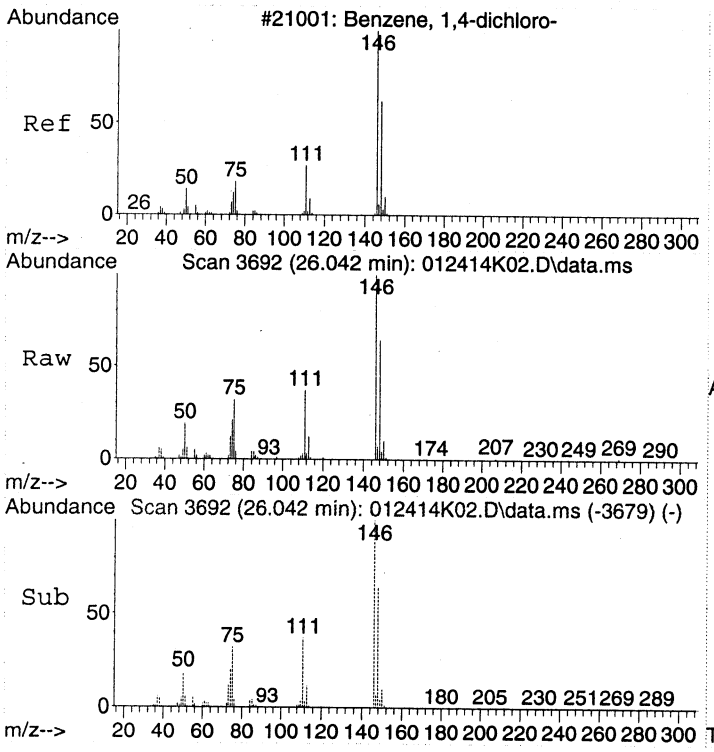



#61
1,3-Dichlorobenzene
Concen: 15.25 ppbv
RT: 25.896 min Scan# 3668
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 820841

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 111 | 38.1 | 17.6 | 57.6 |
| 148 | 65.4 | 45.2 | 85.2 |

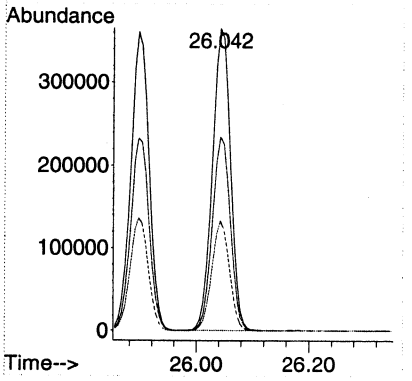


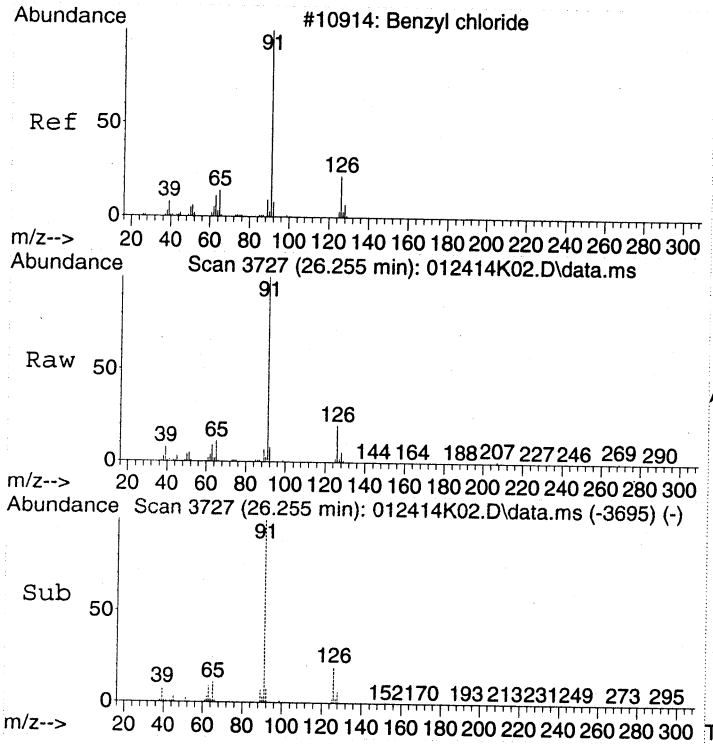




#62
1,4-Dichlorobenzene
Concen: 15.60 ppbv
RT: 26.042 min Scan# 3692
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 817897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 64.2 | 45.1 | 85.1 |
| 111 | 35.8 | 16.2 | 56.2 |

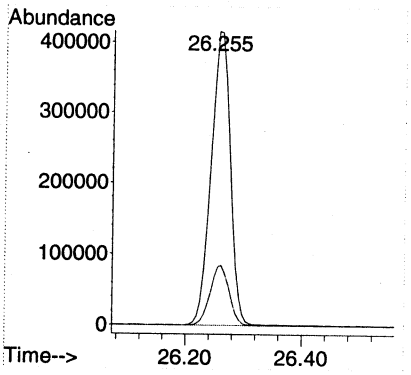


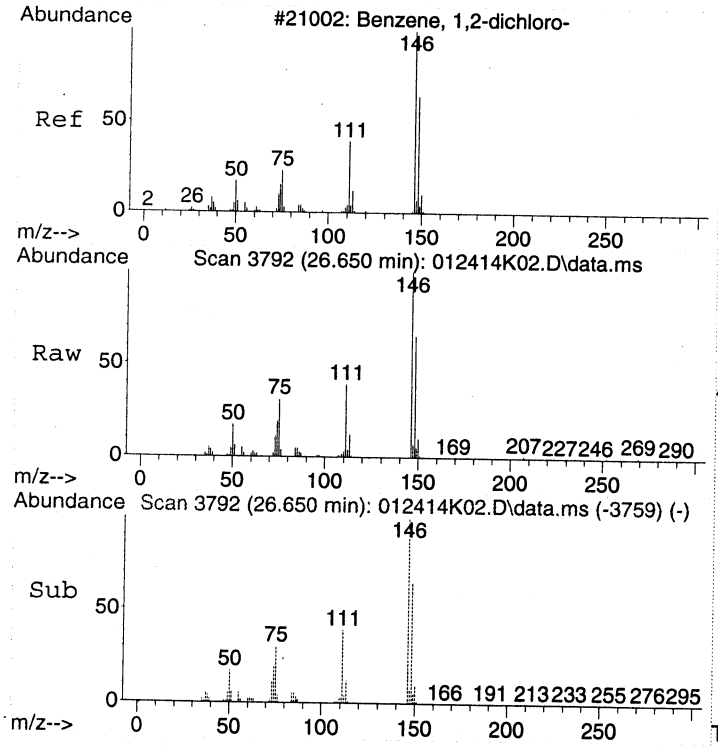



#63
Benzyl chloride
Concen: 16.25 ppbv
RT: 26.255 min Scan# 3727
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 957301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 126 | 20.1 | 0.6 | 40.6 |

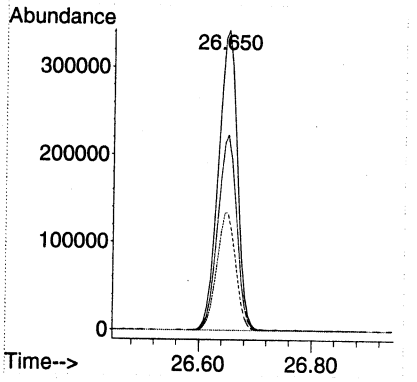


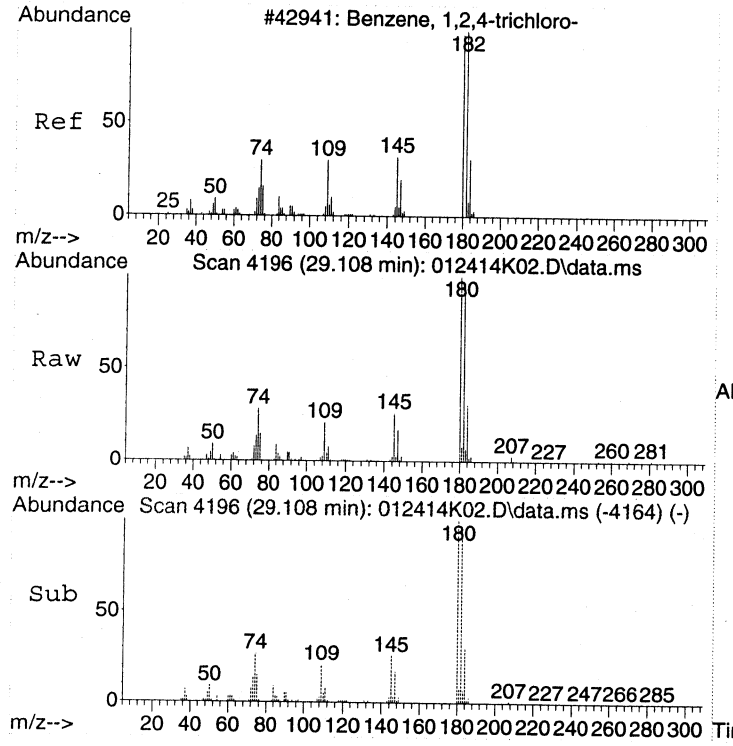




#64
1,2-Dichlorobenzene
Concen: 15.32 ppbv
RT: 26.650 min Scan# 3792
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 796007

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 64.7 | 44.6 | 84.6 |
| 111 | 39.1 | 18.9 | 58.9 |

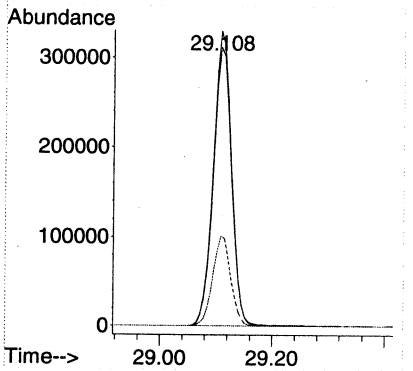


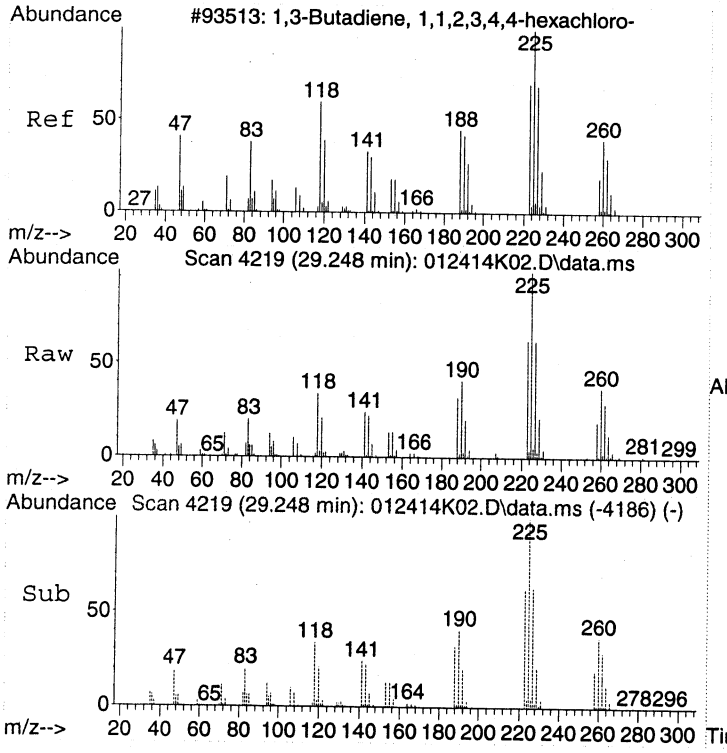



#65
1,2,4-Trichlorobenzene
Concen: 14.59 ppbv
RT: 29.108 min Scan# 4196
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:180 Resp: 740327

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 94.9 | 75.3 | 115.3 |
| 184 | 30.7 | 11.1 | 51.1 |

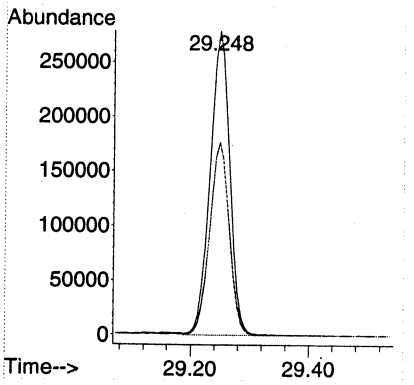



#66
Hexachlorobutadiene
Concen: 14.89 ppbv
RT: 29.248 min Scan# 4219
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:225 Resp: 644849

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 227 | 63.6 | 43.7 | 83.7 |
| 223 | 62.9 | 43.3 | 83.3 |



# LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15

Signal : TIC: 012414K02.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.366 | 118 | 129 | 137 | rBV | 303020 | 746275 | 10.04% | 0.554% |
| 2 | 4.464 | 137 | 145 | 158 | rVB | 495189 | 1275047 | 17.15% | 0.947% |
| 3 | 4.816 | 190 | 203 | 218 | rBV2 | 784826 | 2302605 | 30.98% | 1.711% |
| 4 | 5.011 | 223 | 235 | 249 | rVB | 166836 | 483141 | 6.50% | 0.359% |
| 5 | 5.333 | 279 | 288 | 296 | rBV | 178030 | 506193 | 6.81% | 0.376% |
| 6 | 5.431 | 296 | 304 | 319 | rVB | 305162 | 859903 | 11.57% | 0.639% |
| 7 | 6.362 | 445 | 457 | 471 | rVB | 184713 | 609134 | 8.19% | 0.453% |
| 8 | 6.690 | 498 | 511 | 525 | rBV2 | 93931 | 327063 | 4.40% | 0.243% |
| 9 | 7.262 | 590 | 605 | 615 | rBV2 | 144731 | 543240 | 7.31% | 0.404% |
| 10 | 7.402 | 615 | 628 | 649 | rVB | 328053 | 1449712 | 19.50% | 1.077% |
| 11 | 9.227 | 901 | 928 | 934 | rBV2 | 407205 | 2301131 | 30.96% | 1.710% |
| 12 | 9.823 | 1006 | 1026 | 1041 | rBV | 133824 | 662314 | 8.91% | 0.492% |
| 13 | 10.018 | 1043 | 1058 | 1082 | rVB | 182551 | 873260 | 11.75% | 0.649% |
| 14 | 10.444 | 1106 | 1128 | 1150 | rBV2 | 112917 | 621611 | 8.36% | 0.462% |
| 15 | 10.845 | 1179 | 1194 | 1213 | rBV2 | 200227 | 897903 | 12.08% | 0.667% |
| 16 | 11.387 | 1262 | 1283 | 1302 | rBV | 256482 | 1080391 | 14.53% | 0.803% |
| 17 | 12.098 | 1376 | 1400 | 1416 | rBV3 | 541740 | 2654686 | 35.71% | 1.972% |
| 18 | 12.713 | 1484 | 1501 | 1517 | rBV | 459891 | 1825162 | 24.55% | 1.356% |
| 19 | 13.449 | 1609 | 1622 | 1635 | rBV | 272050 | 998716 | 13.44% | 0.742% |
| 20 | 13.595 | 1635 | 1646 | 1661 | rVB | 234909 | 766256 | 10.31% | 0.569% |
| 21 | 14.903 | 1847 | 1861 | 1869 | rBV | 426092 | 1335154 | 17.96% | 0.992% |
| 22 | 15.000 | 1869 | 1877 | 1880 | rVV | 305933 | 922735 | 12.41% | 0.686% |
| 23 | 15.043 | 1881 | 1884 | 1899 | rVB2 | 374824 | 965161 | 12.98% | 0.717% |
| 24 | 15.444 | 1937 | 1950 | 1964 | rBV2 | 1375983 | 4286467 | 57.66% | 3.185% |
| 25 | 15.603 | 1964 | 1976 | 1992 | rVB | 457472 | 1451583 | 19.53% | 1.079% |
| 26 | 15.840 | 1998 | 2015 | 2036 | rBV3 | 642089 | 3706064 | 49.86% | 2.754% |
| 27 | 16.138 | 2051 | 2064 | 2081 | rVB | 549078 | 1805213 | 24.28% | 1.341% |
| 28 | 16.612 | 2124 | 2142 | 2164 | rBV2 | 1055847 | 5165546 | 69.49% | 3.838% |
| 29 | 16.825 | 2166 | 2177 | 2190 | rVV | 334357 | 952623 | 12.82% | 0.708% |
| 30 | 16.977 | 2190 | 2202 | 2216 | rVB | 842953 | 2360943 | 31.76% | 1.754% |
| 31 | 17.446 | 2267 | 2279 | 2294 | rBV | 2133096 | 5630607 | 75.75% | 4.183% |
| 32 | 17.860 | 2334 | 2347 | 2360 | rBV | 745982 | 2002538 | 26.94% | 1.488% |
| 33 | 18.365 | 2418 | 2430 | 2442 | rBV | 605993 | 1666259 | 22.42% | 1.238% |
| 34 | 18.559 | 2452 | 2462 | 2478 | rBV | 171656 | 509532 | 6.85% | 0.379% |
| 35 | 18.827 | 2495 | 2506 | 2520 | rBV | 643186 | 1669381 | 22.46% | 1.240% |
| 36 | 19.593 | 2622 | 2632 | 2643 | rBV | 628287 | 1536745 | 20.67% | 1.142% |
| 37 | 19.831 | 2660 | 2671 | 2683 | rBV | 725717 | 1842455 | 24.79% | 1.369% |
| 38 | 20.074 | 2701 | 2711 | 2722 | rBV | 1041785 | 2549348 | 34.30% | 1.894% |

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 39 | 20.542 | 2779 | 2788 | 2802 | rVV | 644880 | 1542726 | 20.75% | 1.146% |
| 40 | 20.847 | 2827 | 2838 | 2844 | rBV | 779472 | 1927135 | 25.92% | 1.432% |
| 41 | 20.926 | 2844 | 2851 | 2864 | rVB | 1111590 | 2746883 | 36.95% | 2.041% |
| 42 | 21.181 | 2881 | 2893 | 2904 | rBV | 678018 | 1680436 | 22.61% | 1.249% |
| 43 | 21.455 | 2927 | 2938 | 2956 | rVB | 755100 | 1884208 | 25.35% | 1.400% |
| 44 | 21.680 | 2965 | 2975 | 2995 | rVB | 519378 | 1277272 | 17.18% | 0.949% |
| 45 | 22.355 | 3075 | 3086 | 3091 | rBV | 2988848 | 7433552 | 100.00% | 5.523% |
| 46 | 22.495 | 3101 | 3109 | 3120 | rVB | 1342307 | 3183088 | 42.82% | 2.365% |
| 47 | 22.678 | 3128 | 3139 | 3156 | rVB | 2650759 | 6299331 | 84.74% | 4.680% |
| 48 | 23.323 | 3233 | 3245 | 3247 | rBV | 1368420 | 2963186 | 39.86% | 2.202% |
| 49 | 23.730 | 3302 | 3312 | 3324 | rVB | 852467 | 2115853 | 28.46% | 1.572% |
| 50 | 24.199 | 3379 | 3389 | 3404 | rBV | 2352625 | 5432003 | 73.07% | 4.036% |
| 51 | 24.424 | 3416 | 3426 | 3438 | rBV | 1093639 | 2628850 | 35.36% | 1.953% |
| 52 | 24.673 | 3453 | 3467 | 3474 | rBV | 1546893 | 3490102 | 46.95% | 2.593% |
| 53 | 24.764 | 3474 | 3482 | 3496 | rVB | 1620989 | 3663489 | 49.28% | 2.722% |
| 54 | 25.367 | 3571 | 3581 | 3593 | rBV | 1588175 | 3557374 | 47.86% | 2.643% |
| 55 | 25.896 | 3658 | 3668 | 3681 | rBV | 1417011 | 3250525 | 43.73% | 2.415% |
| 56 | 26.042 | 3683 | 3692 | 3708 | rVB | 1445577 | 3228783 | 43.44% | 2.399% |
| 57 | 26.261 | 3718 | 3728 | 3740 | rBV | 912479 | 2104798 | 28.31% | 1.564% |
| 58 | 26.650 | 3782 | 3792 | 3802 | rBV | 1354767 | 3162611 | 42.55% | 2.350% |
| 59 | 29.108 | 4187 | 4196 | 4209 | rVV | 1635905 | 3701591 | 49.80% | 2.750% |
| 60 | 29.248 | 4210 | 4219 | 4230 | rVB | 2221406 | 5175609 | 69.62% | 3.845% |

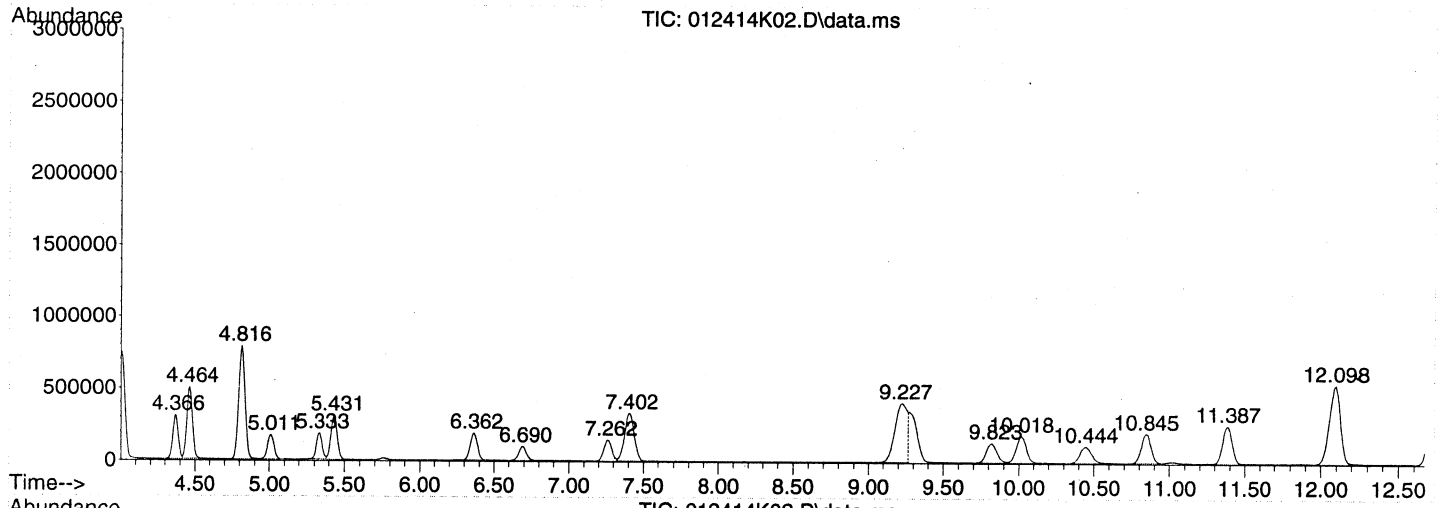
Sum of corrected areas: 134591502

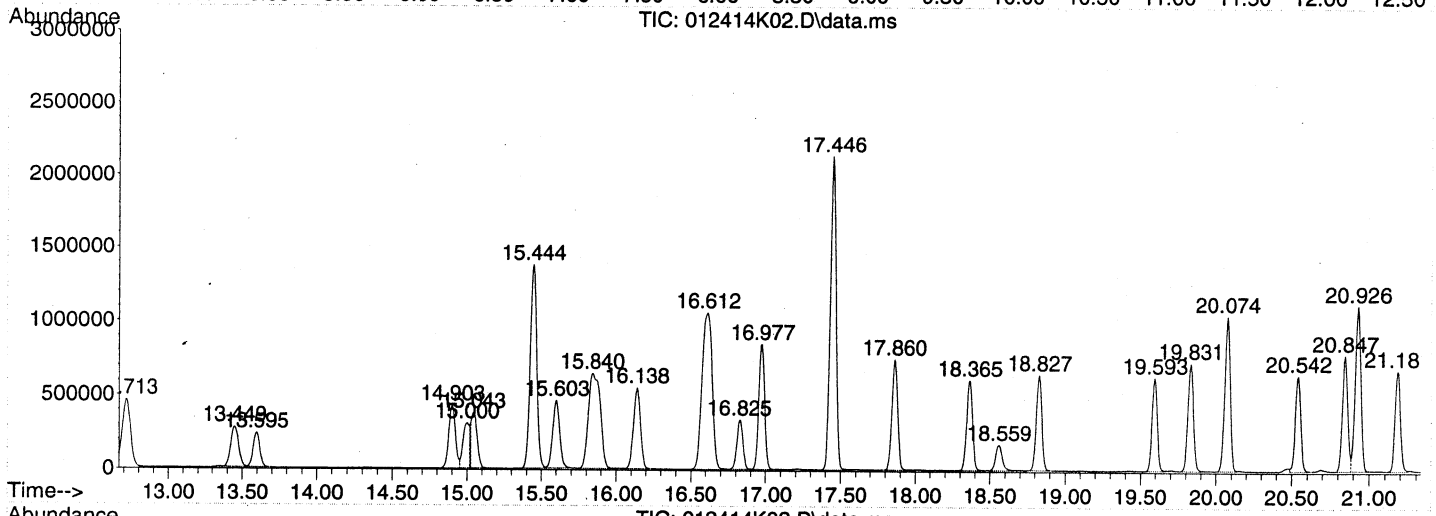
LSC Report - Integrated Chromatogram

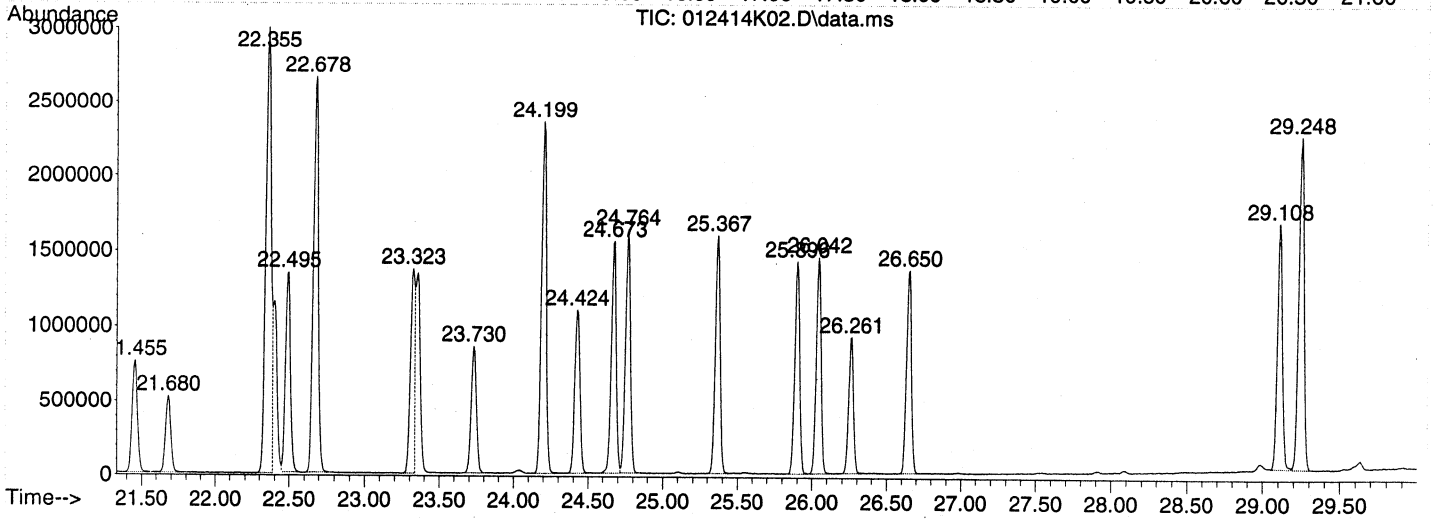
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

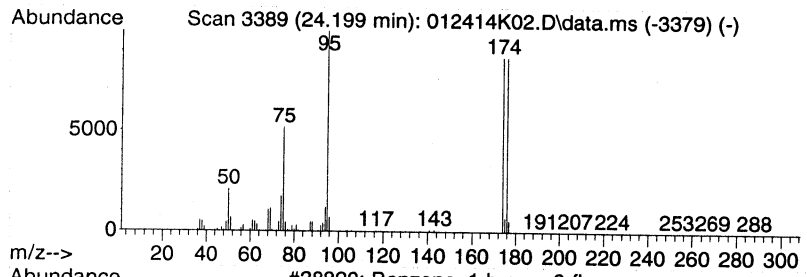
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

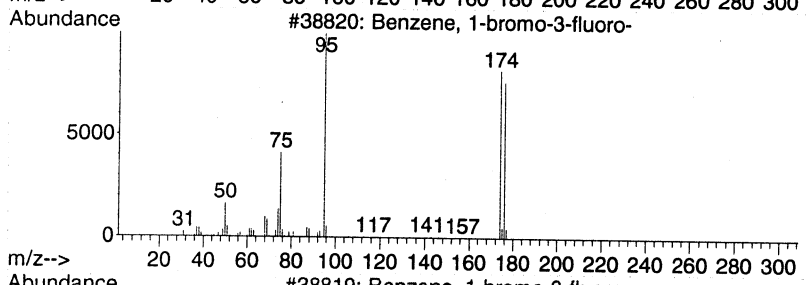
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

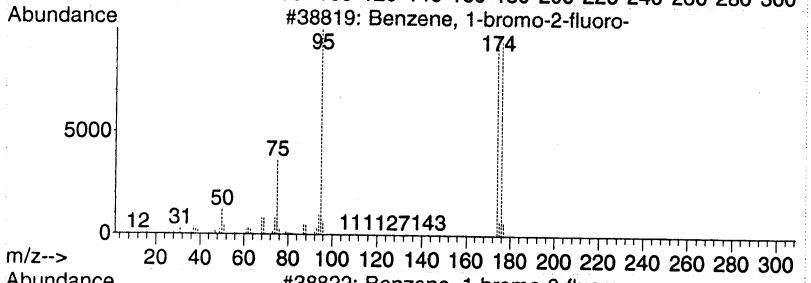
**********
Peak Number 1 Benzene, 1-bromo-3-fluoro- Concentration Rank 1

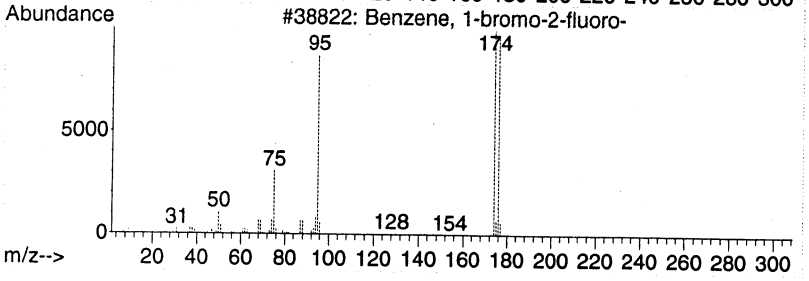
| R.T. | EstConc | Area | Relative to ISTD | R.T. |
|---|---|---|---|---|
| 24.199 | 16.08 ppbv | 5432000 | CHLOROBENZENE-d5 | 22.355 |

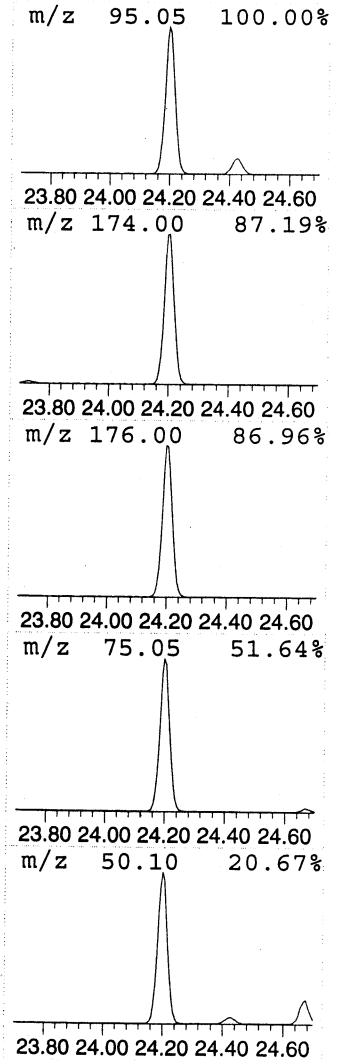
| Hit# of 5 | Tentative ID | MW | MolForm | CAS# | Qual |
|---|---|---|---|---|---|
| 1 | Benzene, 1-bromo-3-fluoro- | 174 | C6H4BrF | 001073-06-9 | 98 |
| 2 | Benzene, 1-bromo-2-fluoro- | 174 | C6H4BrF | 001072-85-1 | 94 |
| 3 | Benzene, 1-bromo-2-fluoro- | 174 | C6H4BrF | 001072-85-1 | 94 |
| 4 | p-Bromofluorobenzene | 174 | C6H4BrF | 000460-00-4 | 93 |
| 5 | Benzene, 1-bromo-3-fluoro- | 174 | C6H4BrF | 001073-06-9 | 93 |



Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|
| Benzene, 1-brom... | 24.199 | 16.1 | ppbv | 5432000 | 3 | 22.355 | 7433550 | 22.0 |

BFB

Quantitation Report (QT Reviewed)

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by
Analyst: CM Date: 1/28/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 844512 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2213579 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2058015 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 32971 | 1.44 | ppbv | | 97 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 83591 | 1.31 | ppbv | | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 84866 | 1.30 | ppbv | | 99 |
| 5) Chloromethane | 5.011 | 50 | 35417 | 1.33 | ppbv | | 96 |
| 6) Vinyl chloride | 5.333 | 62 | 36893 | 1.28 | ppbv | | 97 |
| 7) 1,3-Butadiene | 5.437 | 54 | 26154 | 1.22 | ppbv | | 100 |
| 8) Bromomethane | 6.362 | 94 | 27172 | 1.24 | ppbv | | 100 |
| 9) Chloroethane | 6.690 | 64 | 18767 | 1.24 | ppbv | | 98 |
| 10) Bromoethene | 7.262 | 106 | 24475 | 1.21 | ppbv | | 99 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 72235 | 1.30 | ppbv | | 98 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.233 | 151 | 44745 | 1.14 | ppbv | # | 32 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 48366 | 1.15 | ppbv | | 98 |
| 14) Acetone | 9.860 | 43 | 46348 | 1.21 | ppbv | | 98 |
| 15) Carbon disulfide | 10.024 | 76 | 75653 | 1.22 | ppbv | | 97 |
| 16) 2-Propanol | 10.504 | 45 | 41412 | 1.06 | ppbv | | 90 |
| 17) Allyl chloride | 10.845 | 41 | 35308 | 1.13 | ppbv | | 98 |
| 18) Dichloromethane | 11.387 | 49 | 51334 | 1.40 | ppbv | | 98 |
| 19) tert-Butyl methyl ethe... | 12.117 | 73 | 73406 | 1.18 | ppbv | | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 37296 | 1.07 | ppbv | | 91 |
| 21) Hexane | 12.707 | 57 | 48045 | 1.14 | ppbv | | 98 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 59035 | 1.15 | ppbv | | 99 |
| 23) Vinyl acetate | 13.601 | 43 | 58462 | 1.05 | ppbv | | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 43754 | 1.16 | ppbv | | 100 |
| 25) 2-Butanone (MEK) | 15.018 | 43 | 45298 | 0.91 | ppbv | | 90 |
| 26) Ethyl acetate | 15.061 | 43 | 76351m | 1.19 | ppbv | | |
| 27) Tetrahydrofuran | 15.487 | 42 | 37581 | 1.14 | ppbv | | 99 |
| 28) Chloroform | 15.596 | 83 | 61214 | 1.16 | ppbv | | 96 |
| 29) Cyclohexane | 15.834 | 56 | 49238 | 1.14 | ppbv | | 97 |
| 30) 1,1,1-Trichloroethane | 15.876 | 97 | 59517 | 1.14 | ppbv | | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 58213 | 1.15 | ppbv | | 99 |
| 33) Benzene | 16.631 | 78 | 99281 | 1.29 | ppbv | | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 148626 | 1.26 | ppbv | | 98 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 38814 | 1.25 | ppbv | | 99 |
| 36) Heptane | 16.971 | 43 | 56839 | 1.28 | ppbv | | 98 |
| 37) Trichloroethene | 17.866 | 130 | 37660 | 1.28 | ppbv | | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 38931 | 1.33 | ppbv | | 98 |
| 39) 1,4-Dioxane | 18.589 | 88 | 15411 | 1.09 | ppbv | | 96 |
| 40) Bromodichloromethane | 18.827 | 83 | 63661 | 1.33 | ppbv | | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 51425 | 1.25 | ppbv | | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 67718 | 1.19 | ppbv | | 100 |
| 44) Toluene | 20.074 | 91 | 109521 | 1.64 | ppbv | | 100 |
| 45) trans-1,3-Dichloropropene | 20.536 | 75 | 48237 | 1.66 | ppbv | | 97 |
| 46) 1,1,2-Trichloroethane | 20.840 | 97 | 37352 | 1.69 | ppbv | | 97 |
| 47) Tetrachloroethene | 20.926 | 166 | 51397 | 1.65 | ppbv | | 99 |
| 48) 2-Hexanone | 21.199 | 43 | 59765 | 1.50 | ppbv | | 97 |



00091

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 56756 | 1.69 ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 50446 | 1.63 ppbv | 93 |
| 51) Chlorobenzene | 22.398 | 112 | 87411 | 1.70 ppbv | 85 |
| 52) Ethylbenzene | 22.489 | 91 | 142343 | 1.61 ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 205795 | 3.05 ppbv | 99 |
| 54) o-Xylene | 23.316 | 91 | 103174 | 1.56 ppbv | 97 |
| 55) Styrene | 23.359 | 104 | 79090 | 1.47 ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 55065 | 1.52 ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 84935 | 1.62 ppbv | 99 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 131500 | 1.53 ppbv | 99 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 115211 | 1.52 ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 110351 | 1.44 ppbv | 98 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 78554 | 1.49 ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.048 | 146 | 74227 | 1.44 ppbv | 98 |
| 63) Benzyl chloride | 26.261 | 91 | 84388 | 1.45 ppbv | 99 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 77492 | 1.52 ppbv | 98 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 65557 | 1.31 ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 60424 | 1.41 ppbv | 93 |

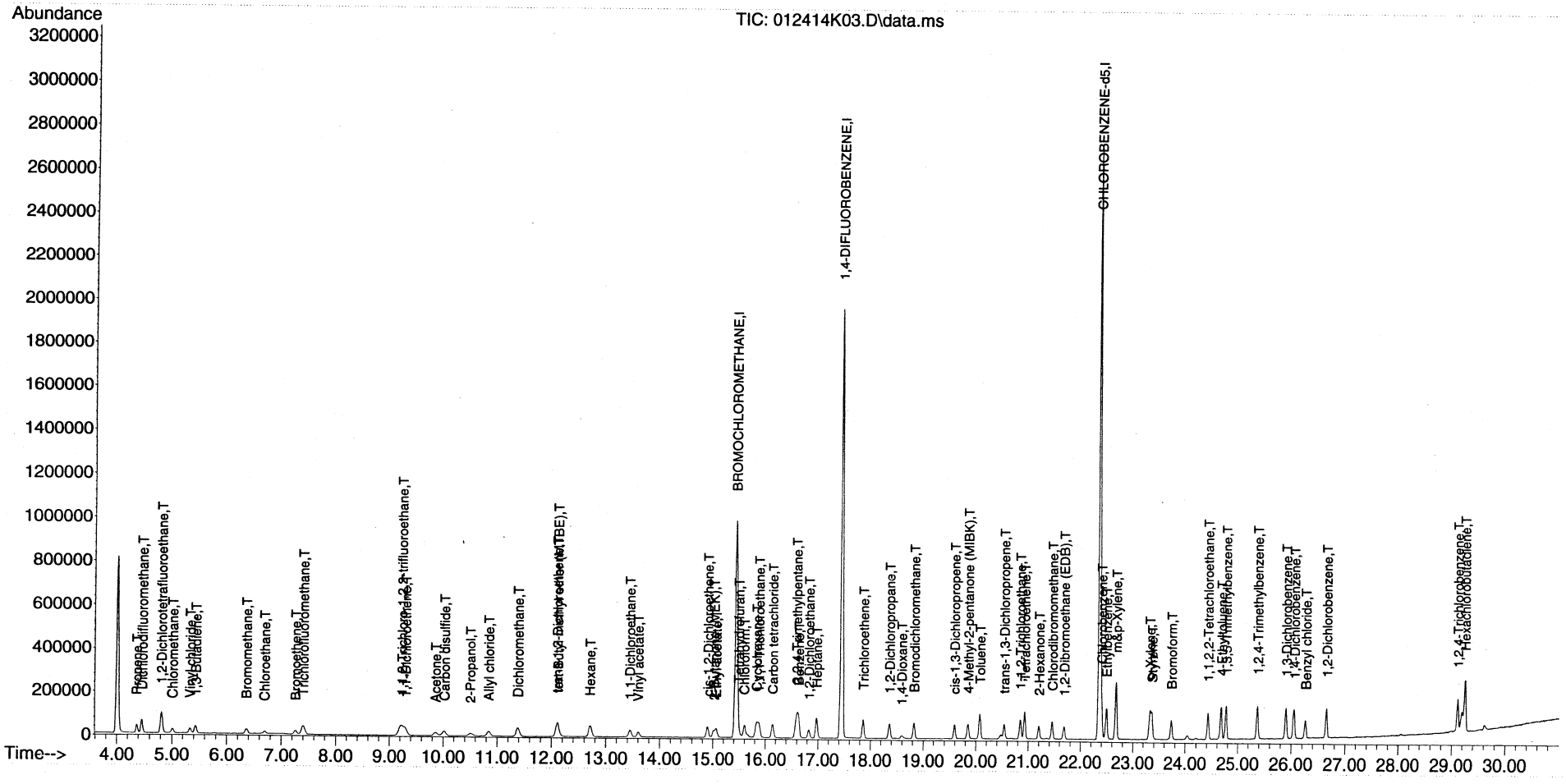
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

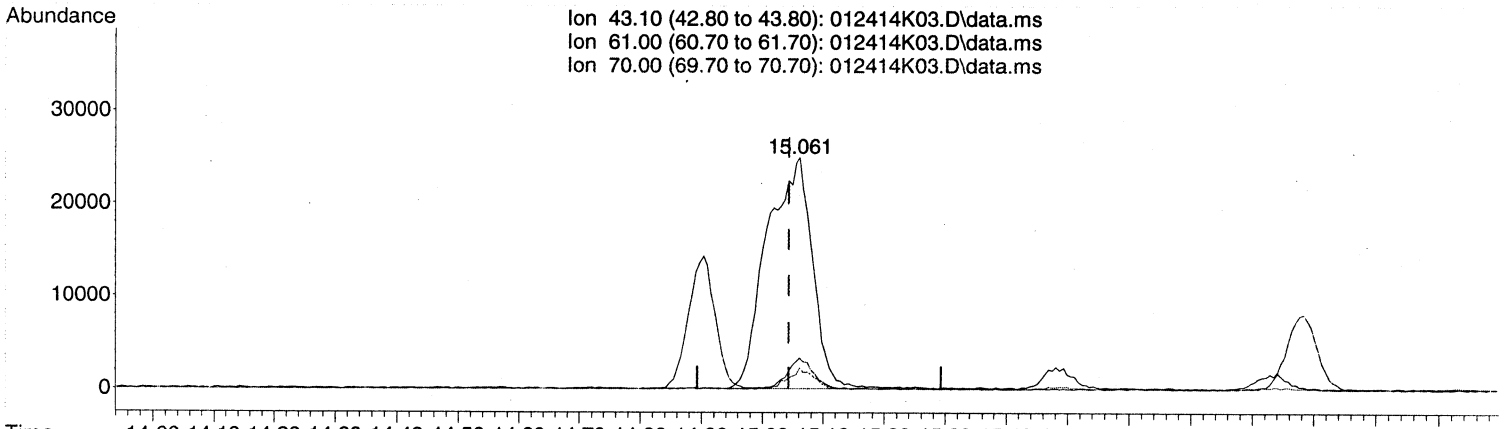


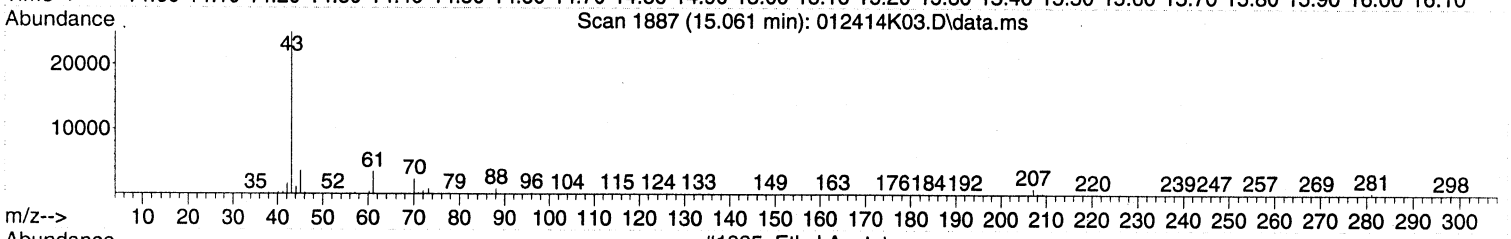
Quantitation Report (Qedit)

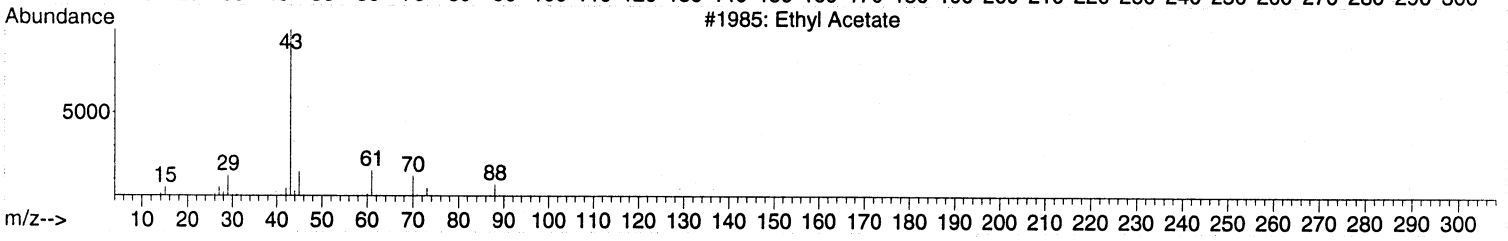
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K03.D\data.ms

(26) Ethyl acetate (T)

15.061min (+0.018) 2.01 ppbv

response 128561

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 7.53 |
| 70.00 | 9.30 | 5.16 |
| 0.00 | 0.00 | 0.00 |

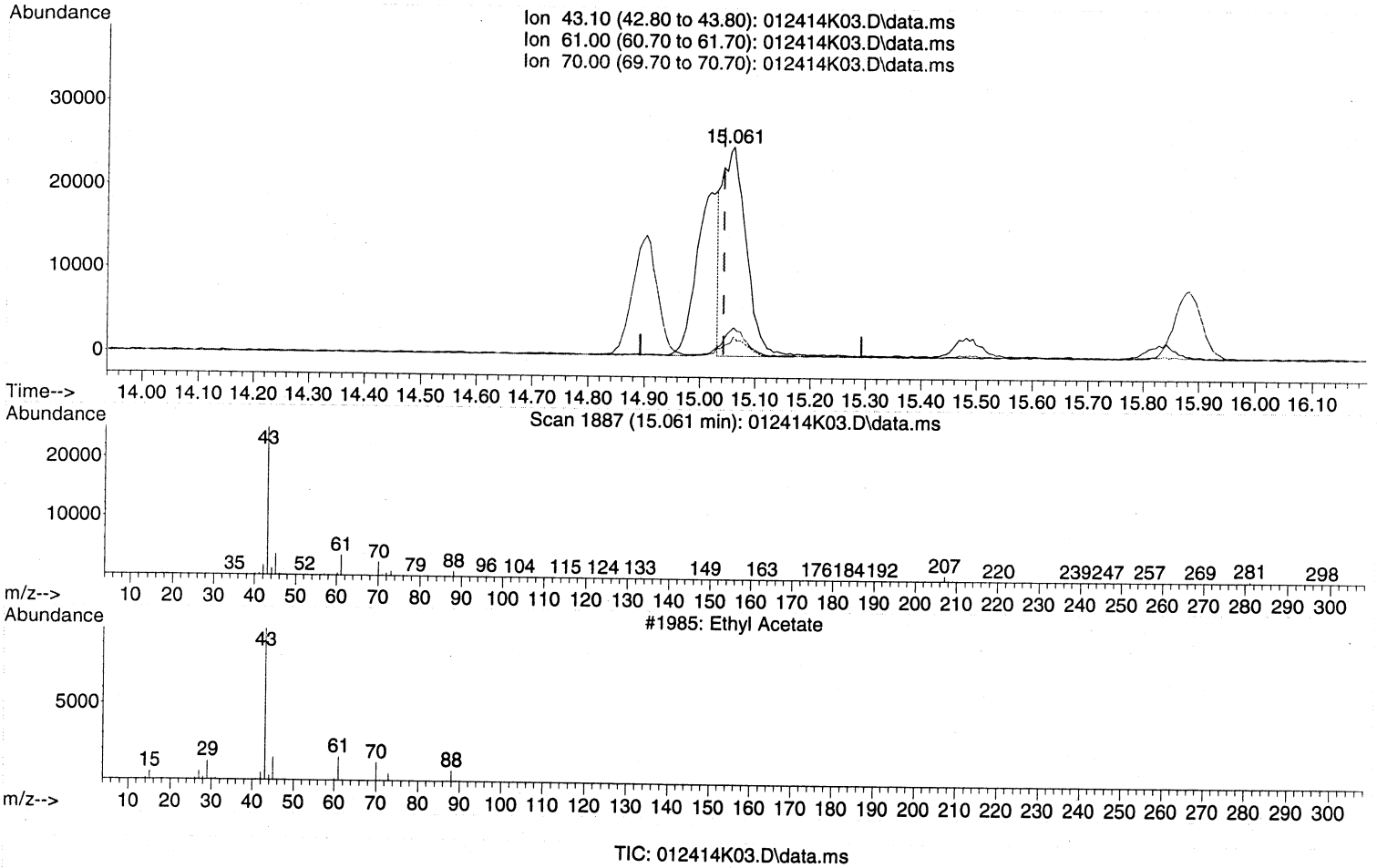
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☑ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K03.D\data.ms

(26) Ethyl acetate (T)

15.061min (+0.018) 1.19 ppbv m

response 76351

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 12.68 |
| 70.00 | 9.30 | 8.68 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other:

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/28/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

Rel MT
lm 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 844512 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2213579 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2058015 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 32971 | 1.44 | ppbv | 97 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 83591 | 1.31 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 84866 | 1.30 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 35417 | 1.33 | ppbv | 96 |
| 6) Vinyl chloride | 5.333 | 62 | 36893 | 1.28 | ppbv | 97 |
| 7) 1,3-Butadiene | 5.437 | 54 | 26154 | 1.22 | ppbv | 100 |
| 8) Bromomethane | 6.362 | 94 | 27172 | 1.24 | ppbv | 100 |
| 9) Chloroethane | 6.690 | 64 | 18767 | 1.24 | ppbv | 98 |
| 10) Bromoethene | 7.262 | 106 | 24475 | 1.21 | ppbv | 99 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 72235 | 1.30 | ppbv | 98 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.233 | 151 | 44745 | 1.14 | ppbv # | 32 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 48366 | 1.15 | ppbv | 98 |
| 14) Acetone | 9.860 | 43 | 46348 | 1.21 | ppbv | 98 |
| 15) Carbon disulfide | 10.024 | 76 | 75653 | 1.22 | ppbv | 97 |
| 16) 2-Propanol | 10.504 | 45 | 41412 | 1.06 | ppbv | 90 |
| 17) Allyl chloride | 10.845 | 41 | 35308 | 1.13 | ppbv | 98 |
| 18) Dichloromethane | 11.387 | 49 | 51334 | 1.40 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.117 | 73 | 73406 | 1.18 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 37296 | 1.07 | ppbv | 91 |
| 21) Hexane | 12.707 | 57 | 48045 | 1.14 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 59035 | 1.15 | ppbv | 99 |
| 23) Vinyl acetate | 13.601 | 43 | 58462 | 1.05 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 43754 | 1.16 | ppbv | 100 |
| 25) 2-Butanone (MEK) | 15.018 | 43 | 45298 | 0.91 | ppbv | 90 |
| 26) Ethyl acetate | 15.061 | 43 | 128561 | 2.01 | ppbv | 85 |
| 27) Tetrahydrofuran | 15.487 | 42 | 37581 | 1.14 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 61214 | 1.16 | ppbv | 96 |
| 29) Cyclohexane | 15.834 | 56 | 49238 | 1.14 | ppbv | 97 |
| 30) 1,1,1-Trichloroethane | 15.876 | 97 | 59517 | 1.14 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 58213 | 1.15 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 99281 | 1.29 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 148626 | 1.26 | ppbv | 98 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 38814 | 1.25 | ppbv | 99 |
| 36) Heptane | 16.971 | 43 | 56839 | 1.28 | ppbv | 98 |
| 37) Trichloroethene | 17.866 | 130 | 37660 | 1.28 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 38931 | 1.33 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.589 | 88 | 15411 | 1.09 | ppbv | 96 |
| 40) Bromodichloromethane | 18.827 | 83 | 63661 | 1.33 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 51425 | 1.25 | ppbv | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 67718 | 1.19 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 109521 | 1.64 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.536 | 75 | 48237 | 1.66 | ppbv | 97 |
| 46) 1,1,2-Trichloroethane | 20.840 | 97 | 37352 | 1.69 | ppbv | 97 |
| 47) Tetrachloroethene | 20.926 | 166 | 51397 | 1.65 | ppbv | 99 |
| 48) 2-Hexanone | 21.199 | 43 | 59765 | 1.50 | ppbv | 97 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 56756 | 1.69 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 50446 | 1.63 | ppbv | 93 |
| 51) | Chlorobenzene | 22.398 | 112 | 87411 | 1.70 | ppbv | 85 |
| 52) | Ethylbenzene | 22.489 | 91 | 142343 | 1.61 | ppbv | 99 |
| 53) | m&p-Xylene | 22.678 | 91 | 205795 | 3.05 | ppbv | 99 |
| 54) | o-Xylene | 23.316 | 91 | 103174 | 1.56 | ppbv | 97 |
| 55) | Styrene | 23.359 | 104 | 79090 | 1.47 | ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 55065 | 1.52 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 84935 | 1.62 | ppbv | 99 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 131500 | 1.53 | ppbv | 99 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 115211 | 1.52 | ppbv | 99 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 110351 | 1.44 | ppbv | 98 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 78554 | 1.49 | ppbv | 99 |
| 62) | 1,4-Dichlorobenzene | 26.048 | 146 | 74227 | 1.44 | ppbv | 98 |
| 63) | Benzyl chloride | 26.261 | 91 | 84388 | 1.45 | ppbv | 99 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 146 | 77492 | 1.52 | ppbv | 98 |
| 65) | 1,2,4-Trichlorobenzene | 29.108 | 180 | 65557 | 1.31 | ppbv | 99 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 60424 | 1.41 | ppbv | 93 |

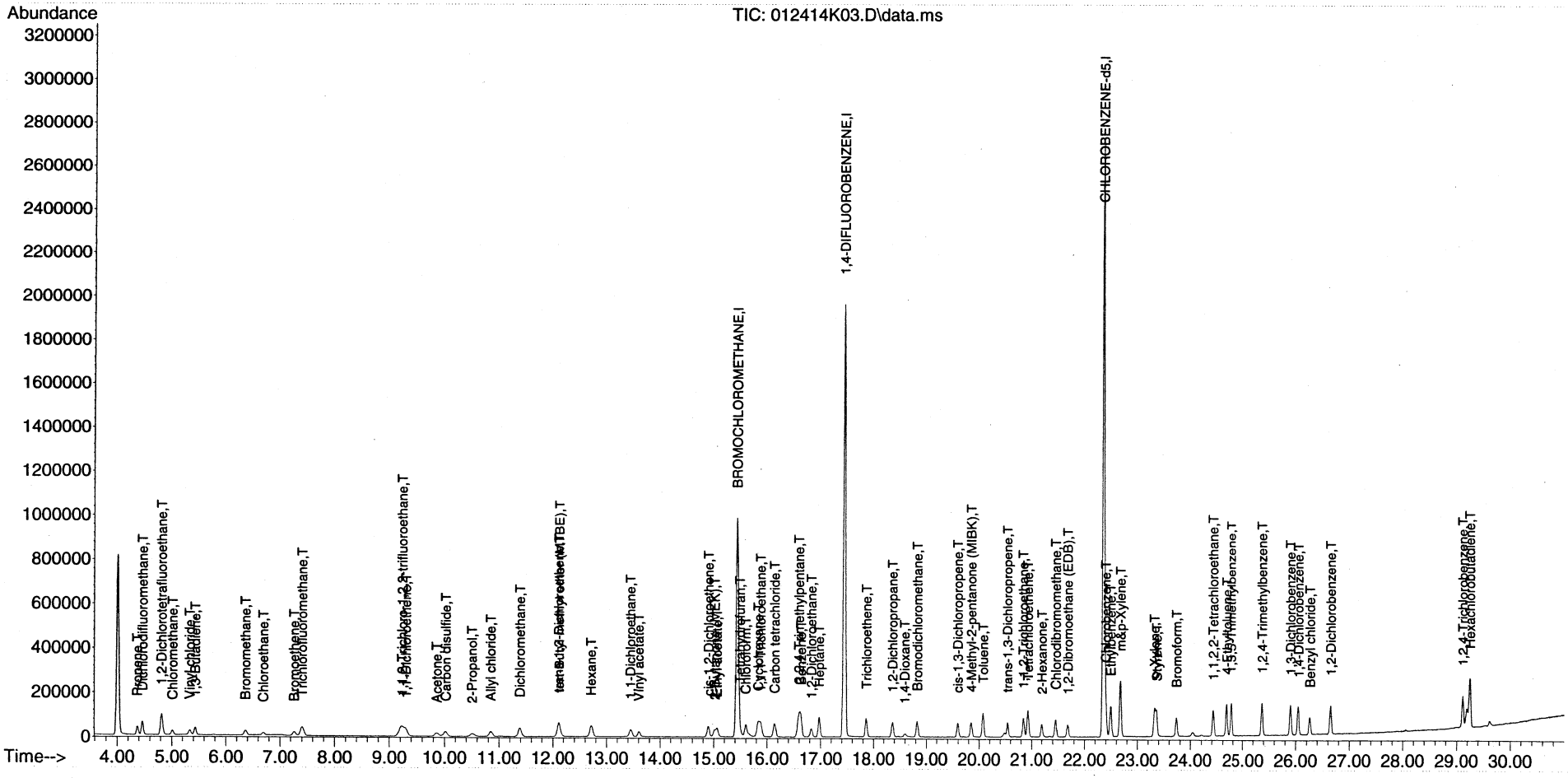
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by
Analyst: [illegible] Date: 1/28/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 843979 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2231980 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2067465 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 53251 | 2.26 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 143479 | 2.19 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 144608 | 2.15 | ppbv | 98 |
| 5) Chloromethane | 5.011 | 50 | 60578 | 2.22 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 62473 | 2.12 | ppbv | 97 |
| 7) 1,3-Butadiene | 5.431 | 54 | 45222 | 2.07 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 46993 | 2.13 | ppbv | 99 |
| 9) Chloroethane | 6.696 | 64 | 32860 | 2.13 | ppbv | 100 |
| 10) Bromoethene | 7.268 | 106 | 43403 | 2.11 | ppbv | 97 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 124411 | 2.20 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 79492 | 2.00 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 83773 | 1.95 | ppbv | 98 |
| 14) Acetone | 9.848 | 43 | 87996 | 2.30 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 133493 | 2.11 | ppbv | 92 |
| 16) 2-Propanol | 10.486 | 45 | 76302 | 1.95 | ppbv | 92 |
| 17) Allyl chloride | 10.845 | 41 | 64937 | 2.06 | ppbv | 96 |
| 18) Dichloromethane | 11.381 | 49 | 81247 | 2.19 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.098 | 73 | 142326 | 2.25 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 69398 | 1.97 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 88418 | 2.06 | ppbv | 97 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 105590 | 2.02 | ppbv | 99 |
| 23) Vinyl acetate | 13.607 | 43 | 110965 | 1.96 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 79028 | 2.06 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.012 | 43 | 105068 | 2.11 | ppbv | 95 |
| 26) Ethyl acetate | 15.049 | 43 | 144837m | 2.25 | ppbv | |
| 27) Tetrahydrofuran | 15.475 | 42 | 70986 | 2.12 | ppbv | 100 |
| 28) Chloroform | 15.603 | 83 | 112487 | 2.11 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 93632 | 2.13 | ppbv | 100 |
| 30) 1,1,1-Trichloroethane | 15.889 | 97 | 109126 | 2.07 | ppbv | 100 |
| 31) Carbon tetrachloride | 16.138 | 117 | 109611 | 2.15 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 183307 | 2.25 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 283449 | 2.27 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 71391 | 2.17 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 106032 | 2.26 | ppbv | 97 |
| 37) Trichloroethene | 17.866 | 130 | 70113 | 2.25 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 71811 | 2.32 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.584 | 88 | 31244 | 2.16 | ppbv | 97 |
| 40) Bromodichloromethane | 18.827 | 83 | 117714 | 2.34 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 98040 | 2.25 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.843 | 43 | 139529 | 2.38 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 209790 | 2.75 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 91159 | 2.76 | ppbv | 97 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 71737 | 2.86 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 96554 | 2.73 | ppbv | 99 |
| 48) 2-Hexanone | 21.193 | 43 | 123664 | 2.78 | ppbv | 100 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 107602 | 2.80 ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 98328 | 2.81 ppbv | 99 |
| 51) Chlorobenzene | 22.404 | 112 | 163993 | 2.81 ppbv | 93 |
| 52) Ethylbenzene | 22.495 | 91 | 273214 | 2.73 ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 406492 | 5.34 ppbv | 99 |
| 54) o-Xylene | 23.317 | 91 | 206436 | 2.75 ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 159665 | 2.63 ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 107532 | 2.65 ppbv | 98 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 166640 | 2.80 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 268734 | 2.78 ppbv | 99 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 229792 | 2.68 ppbv | 98 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 229159 | 2.67 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 156071 | 2.62 ppbv | 100 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 150567 | 2.60 ppbv | 99 |
| 63) Benzyl chloride | 26.255 | 91 | 171775 | 2.66 ppbv | 98 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 152588 | 2.64 ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 132867 | 2.37 ppbv | 100 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 132278 | 2.77 ppbv | 98 |

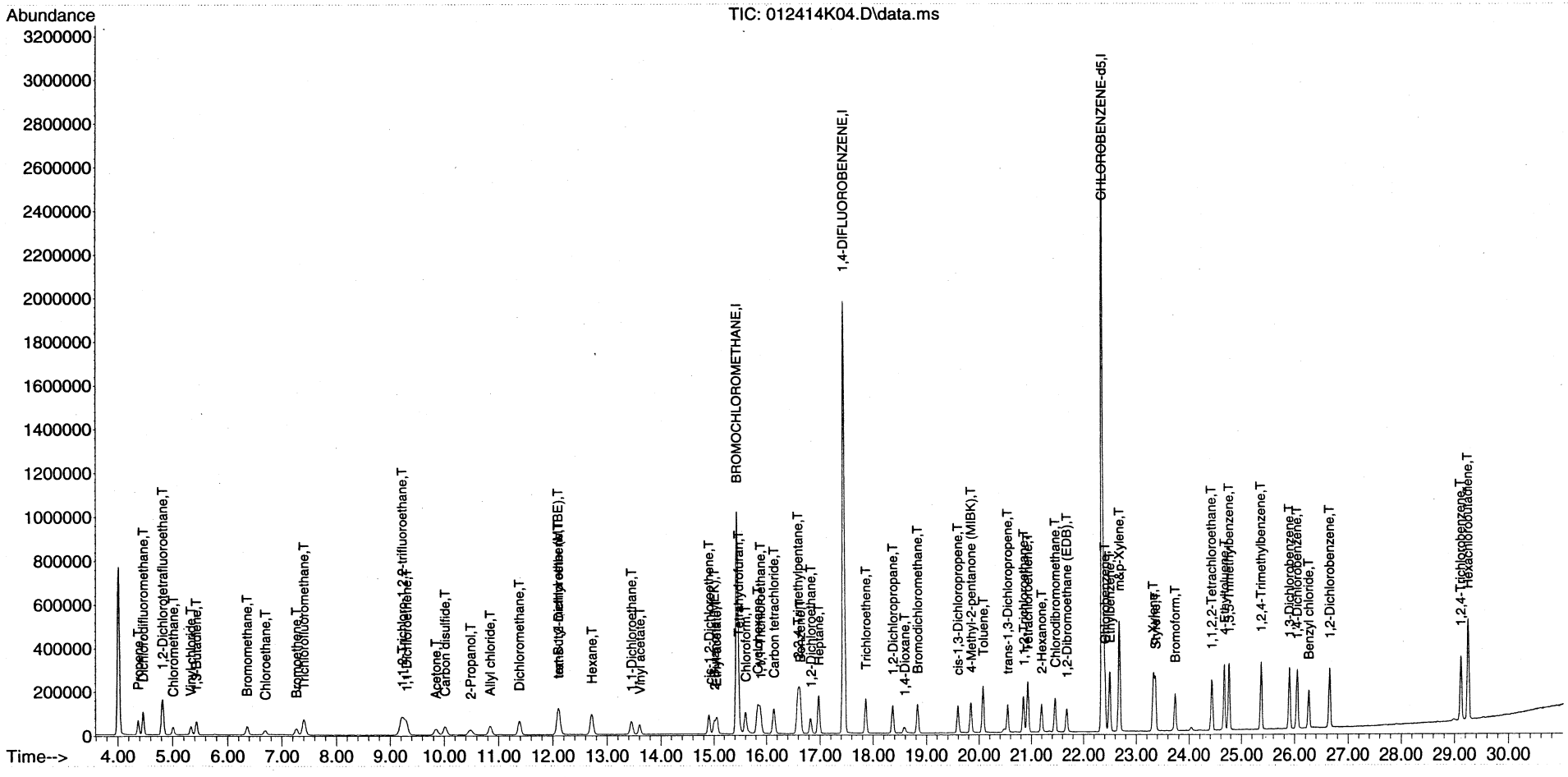
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

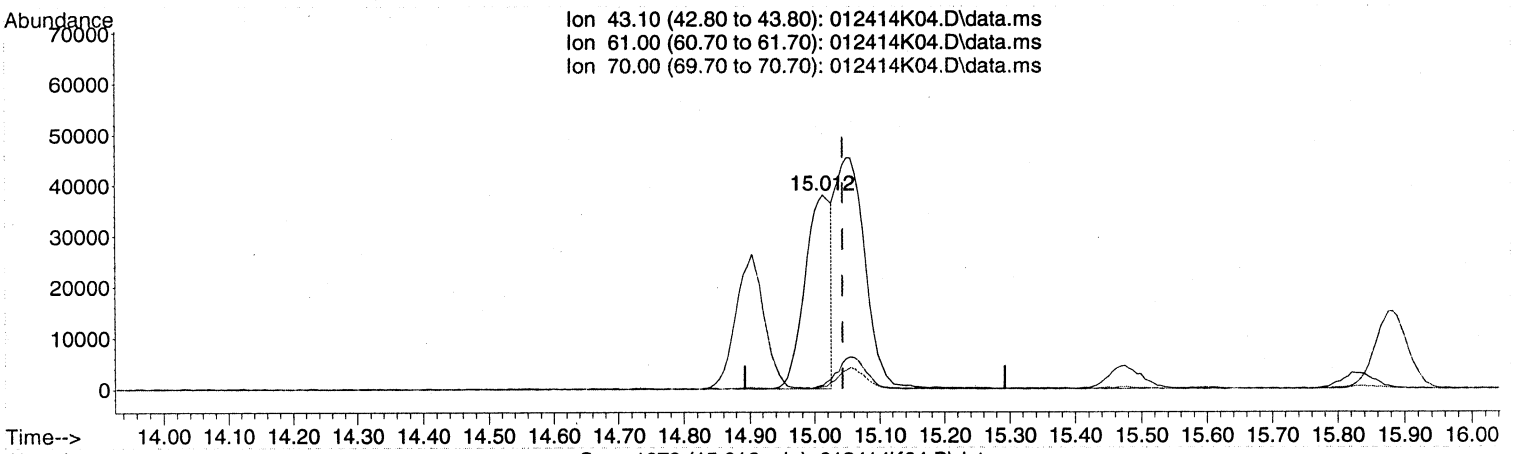


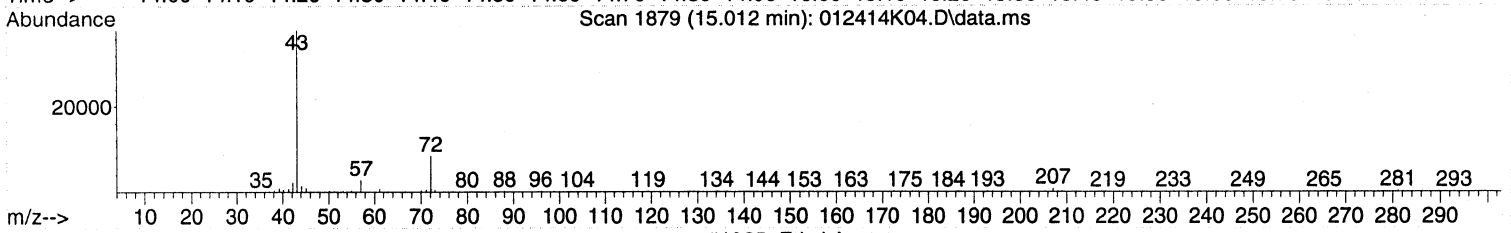
Quantitation Report (Qedit)

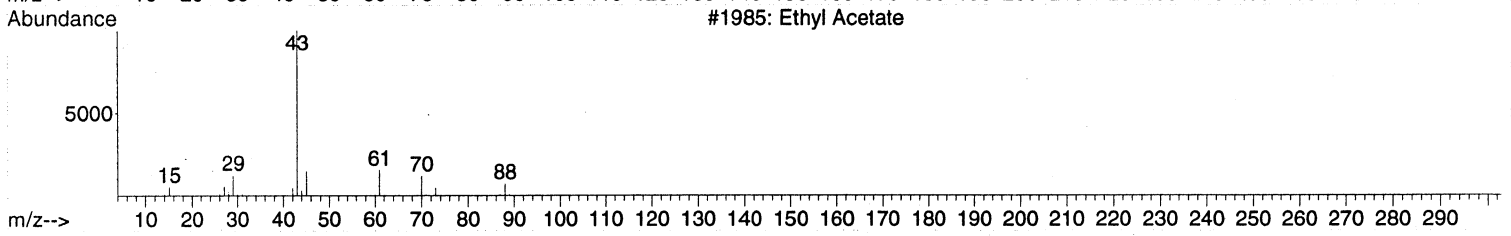
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K04.D\data.ms

(26) Ethyl acetate (T)

15.012min (-0.030) 1.63 ppbv

response 105039

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

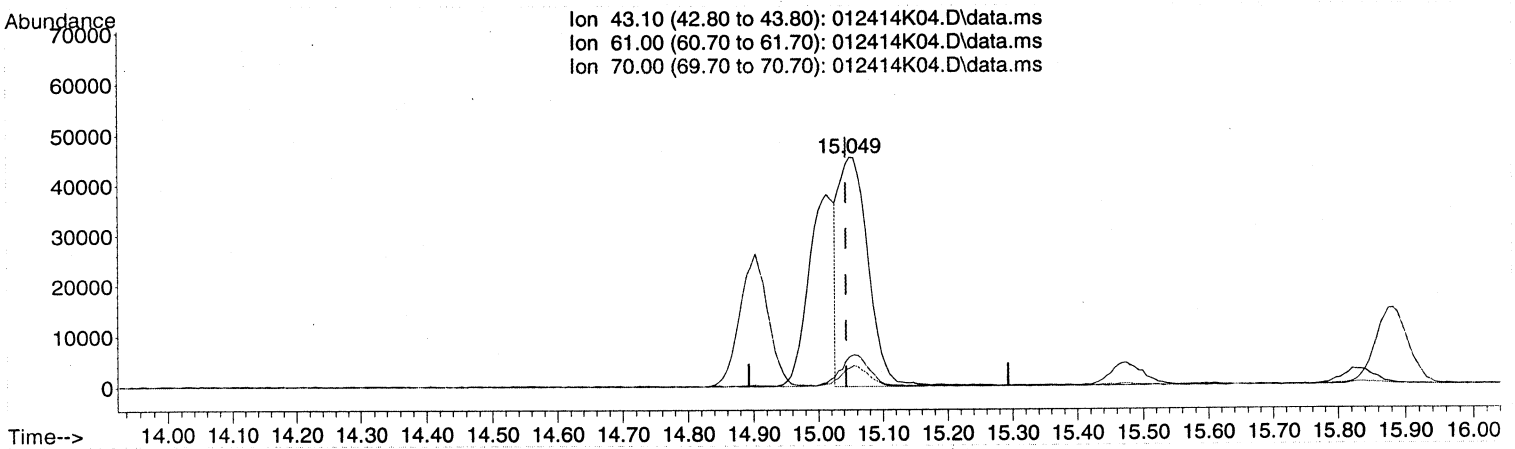
Reviewer: _____ Date: _____

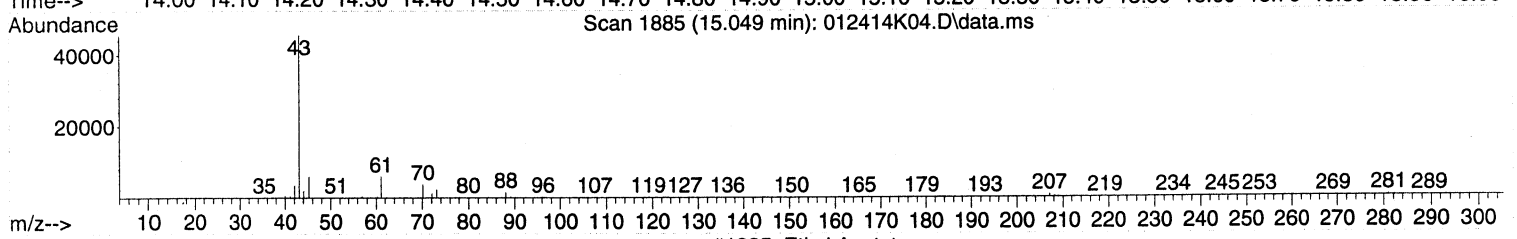
Quantitation Report (Qedit)

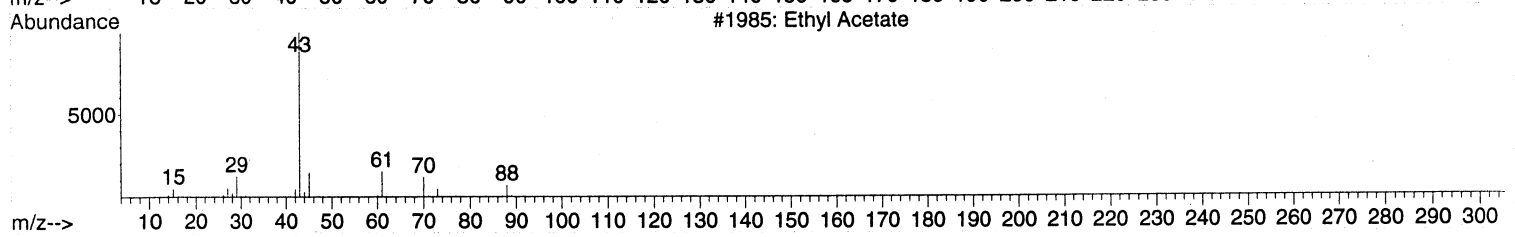
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K04.D\data.ms

(26) Ethyl acetate (T)

15.049min (+0.006) 2.25 ppbv m

response 144837

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: EM Date: 1/28/14 |
| Manual integration(s) reviewed by: |
| Reviewer: AR Date: 1/28/14 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

All MI
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 843979 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2231980 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2067465 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 53251 | 2.26 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 143479 | 2.19 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 144608 | 2.15 | ppbv | 98 |
| 5) Chloromethane | 5.011 | 50 | 60578 | 2.22 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 62473 | 2.12 | ppbv | 97 |
| 7) 1,3-Butadiene | 5.431 | 54 | 45222 | 2.07 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 46993 | 2.13 | ppbv | 99 |
| 9) Chloroethane | 6.696 | 64 | 32860 | 2.13 | ppbv | 100 |
| 10) Bromoethene | 7.268 | 106 | 43403 | 2.11 | ppbv | 97 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 124411 | 2.20 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 79492 | 2.00 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 83773 | 1.95 | ppbv | 98 |
| 14) Acetone | 9.848 | 43 | 87996 | 2.30 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 133493 | 2.11 | ppbv | 92 |
| 16) 2-Propanol | 10.486 | 45 | 76302 | 1.95 | ppbv | 92 |
| 17) Allyl chloride | 10.845 | 41 | 64937 | 2.06 | ppbv | 96 |
| 18) Dichloromethane | 11.381 | 49 | 81247 | 2.19 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.098 | 73 | 142326 | 2.25 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 69398 | 1.97 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 88418 | 2.06 | ppbv | 97 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 105590 | 2.02 | ppbv | 99 |
| 23) Vinyl acetate | 13.607 | 43 | 110965 | 1.96 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 79028 | 2.06 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.012 | 43 | 105068 | 2.11 | ppbv | 95 |
| 26) Ethyl acetate | 15.012 | 43 | 105039 | 1.63 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.475 | 42 | 70986 | 2.12 | ppbv | 100 |
| 28) Chloroform | 15.603 | 83 | 112487 | 2.11 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 93632 | 2.13 | ppbv | 100 |
| 30) 1,1,1-Trichloroethane | 15.889 | 97 | 109126 | 2.07 | ppbv | 100 |
| 31) Carbon tetrachloride | 16.138 | 117 | 109611 | 2.15 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 183307 | 2.25 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 283449 | 2.27 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 71391 | 2.17 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 106032 | 2.26 | ppbv | 97 |
| 37) Trichloroethene | 17.866 | 130 | 70113 | 2.25 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 71811 | 2.32 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.584 | 88 | 31244 | 2.16 | ppbv | 97 |
| 40) Bromodichloromethane | 18.827 | 83 | 117714 | 2.34 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 98040 | 2.25 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.843 | 43 | 139529 | 2.38 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 209790 | 2.75 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 91159 | 2.76 | ppbv | 97 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 71737 | 2.86 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 96554 | 2.73 | ppbv | 99 |
| 48) 2-Hexanone | 21.193 | 43 | 123664 | 2.78 | ppbv | 100 |



: 001911

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 107602 | 2.80 ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 98328 | 2.81 ppbv | 99 |
| 51) Chlorobenzene | 22.404 | 112 | 163993 | 2.81 ppbv | 93 |
| 52) Ethylbenzene | 22.495 | 91 | 273214 | 2.73 ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 406492 | 5.34 ppbv | 99 |
| 54) o-Xylene | 23.317 | 91 | 206436 | 2.75 ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 159665 | 2.63 ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 107532 | 2.65 ppbv | 98 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 166640 | 2.80 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 268734 | 2.78 ppbv | 99 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 229792 | 2.68 ppbv | 98 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 229159 | 2.67 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 156071 | 2.62 ppbv | 100 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 150567 | 2.60 ppbv | 99 |
| 63) Benzyl chloride | 26.255 | 91 | 171775 | 2.66 ppbv | 98 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 152588 | 2.64 ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 132867 | 2.37 ppbv | 100 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 132278 | 2.77 ppbv | 98 |

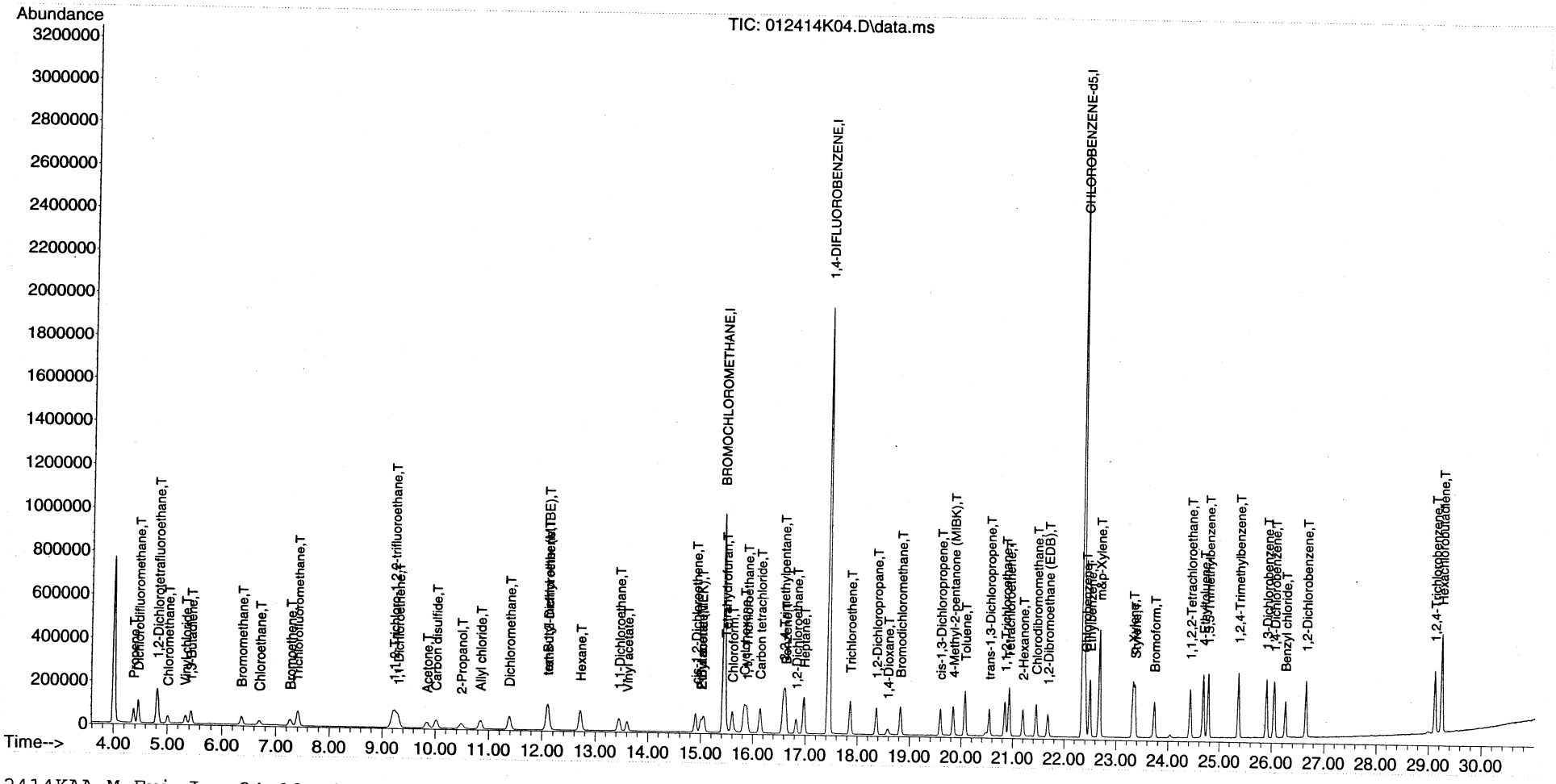
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/25/14

Manual integration(s) reviewed by:

Reviewer: JK Date: 1/28/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 847034 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2220261 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2069734 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 125098 | 4.81 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 337174 | 4.76 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 343159 | 4.83 | ppbv | 98 |
| 5) Chloromethane | 5.011 | 50 | 144204 | 4.87 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 152977 | 4.92 | ppbv | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 110454 | 4.80 | ppbv | 100 |
| 8) Bromomethane | 6.362 | 94 | 110794 | 4.76 | ppbv | 99 |
| 9) Chloroethane | 6.696 | 64 | 77796 | 4.80 | ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 103074 | 4.80 | ppbv | 100 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 298488 | 5.01 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 187827 | 4.50 | ppbv | 100 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 206774 | 4.56 | ppbv | 100 |
| 14) Acetone | 9.823 | 43 | 204201 | 4.98 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 318891 | 4.77 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 185395 | 4.51 | ppbv | 97 |
| 17) Allyl chloride | 10.839 | 41 | 161627 | 4.91 | ppbv | 100 |
| 18) Dichloromethane | 11.381 | 49 | 175110 | 4.13 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 352726 | 5.39 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 169959 | 4.62 | ppbv | 100 |
| 21) Hexane | 12.719 | 57 | 221897 | 5.01 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 253260 | 4.59 | ppbv | 100 |
| 23) Vinyl acetate | 13.601 | 43 | 287755 | 5.01 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 194328 | 4.86 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 269141 | 5.40 | ppbv | 96 |
| 26) Ethyl acetate | 15.049 | 43 | 347326m | 5.10 | ppbv | |
| 27) Tetrahydrofuran | 15.463 | 42 | 176186 | 5.06 | ppbv | 100 |
| 28) Chloroform | 15.596 | 83 | 269115 | 4.86 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 230630 | 5.11 | ppbv | 100 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 266803 | 4.90 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 259188 | 4.90 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 437938 | 4.84 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 711155 | 5.23 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 172879 | 4.73 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 268444 | 5.21 | ppbv | 99 |
| 37) Trichloroethene | 17.866 | 130 | 166240 | 4.82 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 171415 | 4.93 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.565 | 88 | 84888 | 5.56 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 285717 | 5.13 | ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 240347 | 5.05 | ppbv | 100 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 352535 | 5.38 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 508200 | 4.97 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 227087 | 5.22 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 171031 | 5.01 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 228261 | 4.78 | ppbv | 100 |
| 48) 2-Hexanone | 21.187 | 43 | 316540 | 5.28 | ppbv | 99 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 260438 | 5.06 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 238487 | 5.08 | ppbv | 99 |
| 51) | Chlorobenzene | 22.404 | 112 | 390072 | 4.97 | ppbv | 98 |
| 52) | Ethylbenzene | 22.489 | 91 | 667267 | 4.99 | ppbv | 99 |
| 53) | m&p-Xylene | 22.678 | 91 | 1014125 | 10.17 | ppbv | 100 |
| 54) | o-Xylene | 23.323 | 91 | 506388 | 5.11 | ppbv | 100 |
| 55) | Styrene | 23.359 | 104 | 402796 | 5.09 | ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 267829 | 5.11 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 397895 | 4.96 | ppbv | 99 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 669029 | 5.29 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 574314 | 5.12 | ppbv | 99 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 564225 | 5.04 | ppbv | 99 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 375525 | 4.80 | ppbv | 99 |
| 62) | 1,4-Dichlorobenzene | 26.042 | 146 | 370759 | 4.89 | ppbv | 100 |
| 63) | Benzyl chloride | 26.261 | 91 | 439427 | 5.25 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 146 | 370835 | 4.84 | ppbv | 100 |
| 65) | 1,2,4-Trichlorobenzene | 29.108 | 180 | 321862 | 4.38 | ppbv | 99 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 315206 | 4.82 | ppbv | 99 |

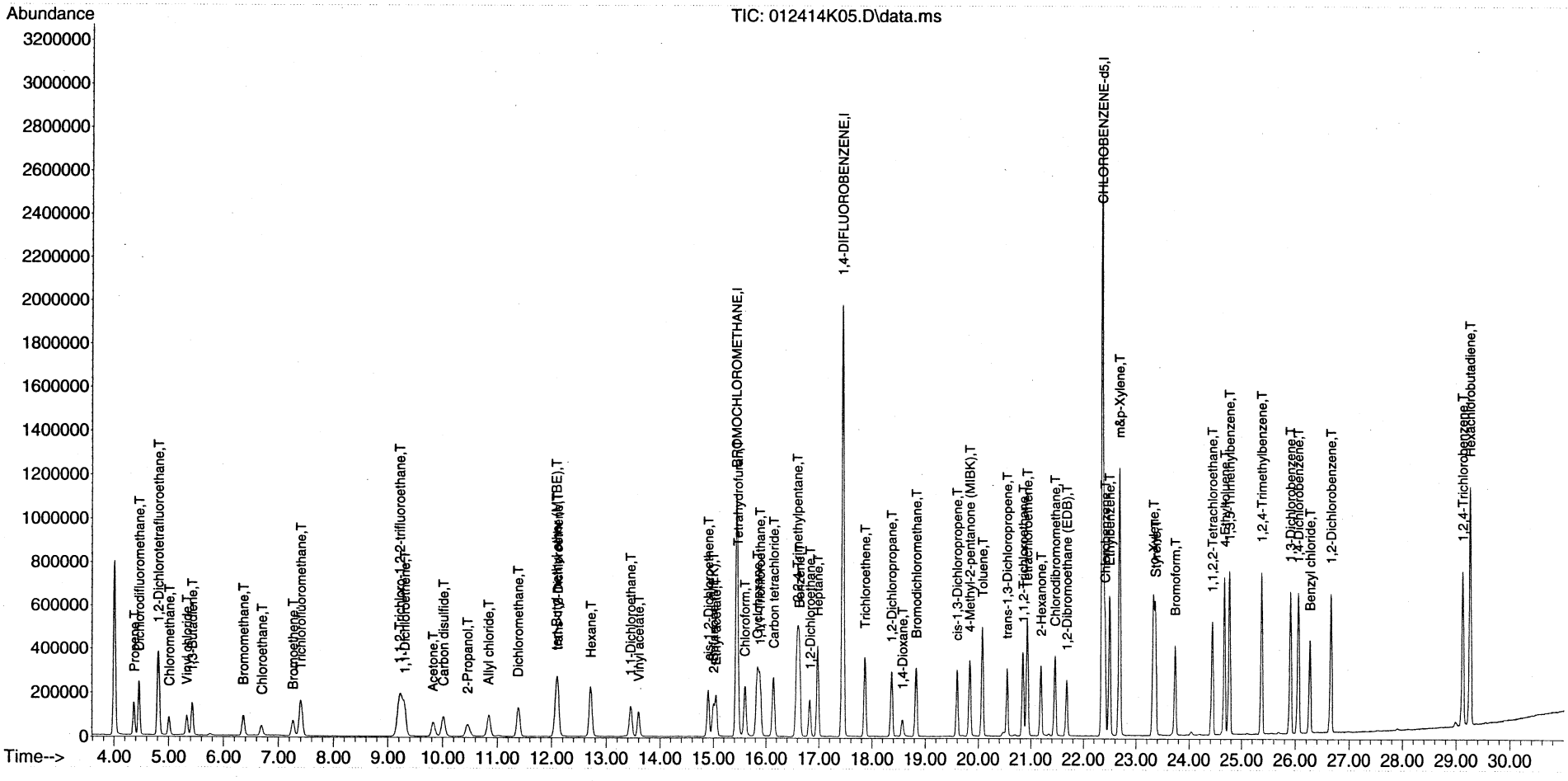
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

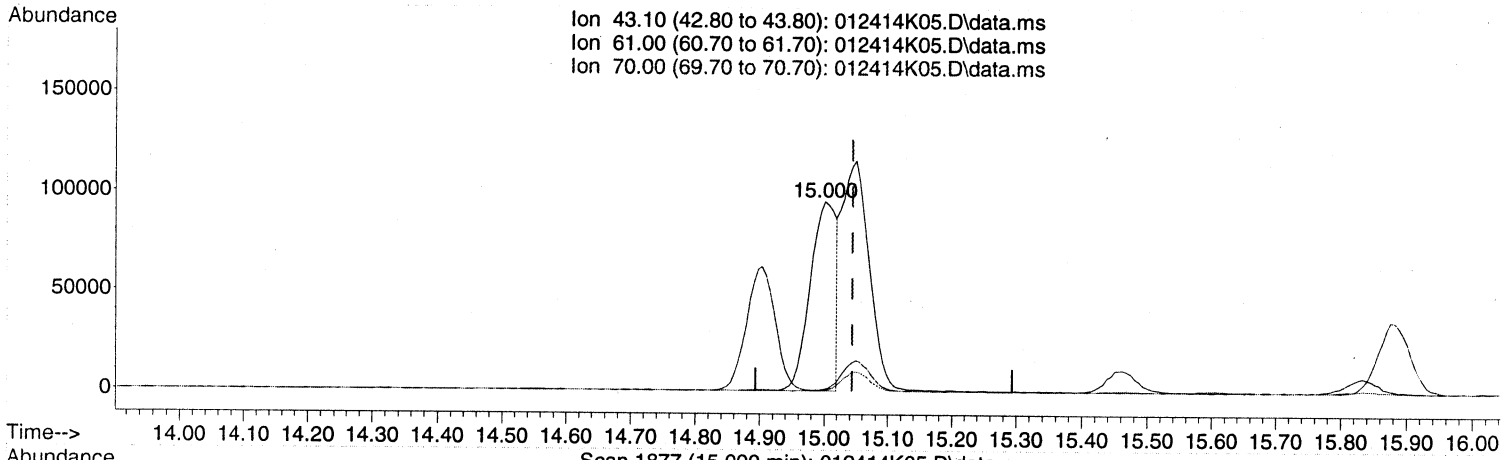


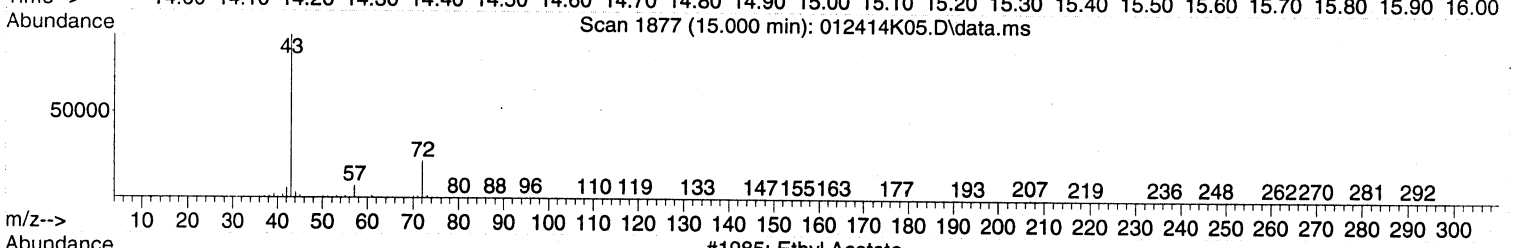
Quantitation Report (Qedit)

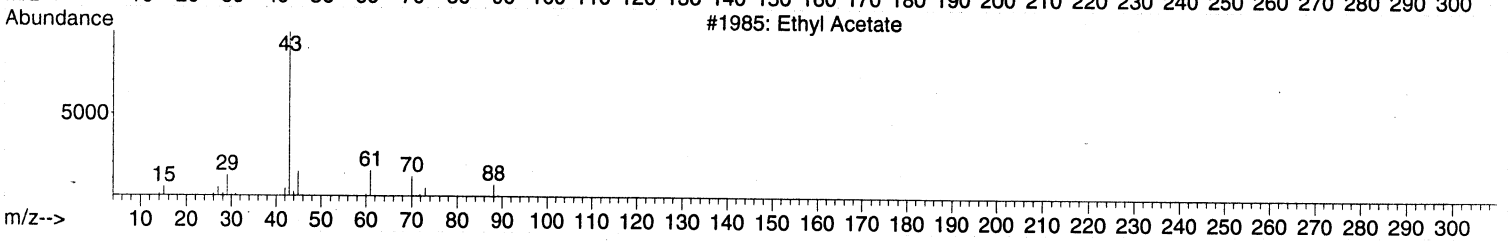
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K05.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 3.96 ppbv

response 269141

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

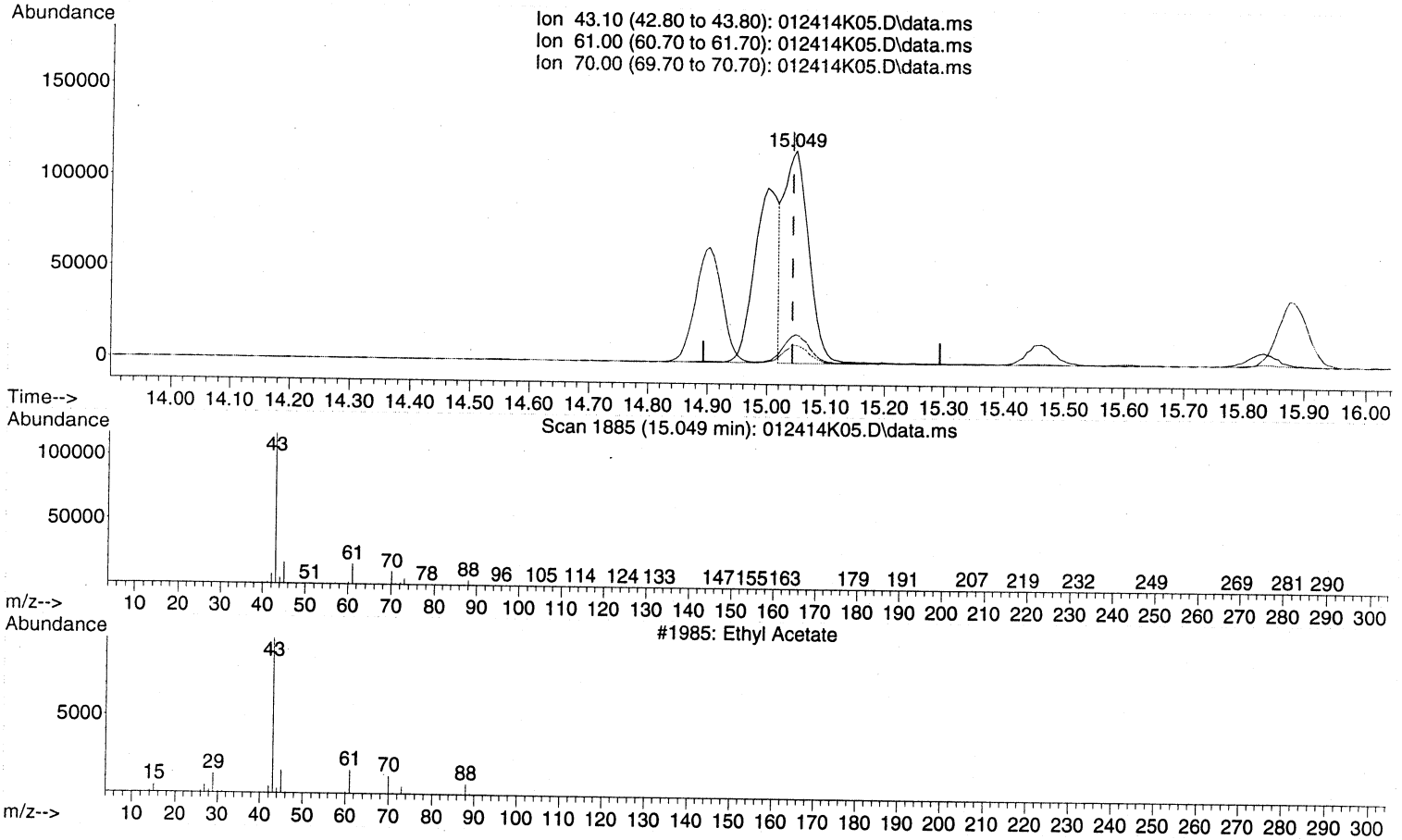
| MANUAL INTEGRATION VERIFICATION |
|---|
| ☑ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☑ Other: RT off |
| ☐ After Manual Integration |
| Manual integration(s) performed by |
| Analyst: _____ Date: _____ |
| Manual integration(s) reviewed by: |
| Reviewer: _____ Date: _____ |

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K05.D\data.ms

(26) Ethyl acetate (T)

15.049min (+0.006) 5.10 ppbv m

response 347326

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: [illegible] Date: 1/25/14 |
| Manual integration(s) reviewed by: |
| Reviewer: [illegible] Date: 1/28/14 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

All MI
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 847034 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2220261 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2069734 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 125098 | 4.81 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 337174 | 4.76 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 343159 | 4.83 | ppbv | 98 |
| 5) Chloromethane | 5.011 | 50 | 144204 | 4.87 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 152977 | 4.92 | ppbv | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 110454 | 4.80 | ppbv | 100 |
| 8) Bromomethane | 6.362 | 94 | 110794 | 4.76 | ppbv | 99 |
| 9) Chloroethane | 6.696 | 64 | 77796 | 4.80 | ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 103074 | 4.80 | ppbv | 100 |
| 11) Trichlorofluoromethane | 7.402 | 101 | 298488 | 5.01 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 187827 | 4.50 | ppbv | 100 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 206774 | 4.56 | ppbv | 100 |
| 14) Acetone | 9.823 | 43 | 204201 | 4.98 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 318891 | 4.77 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 185395 | 4.51 | ppbv | 97 |
| 17) Allyl chloride | 10.839 | 41 | 161627 | 4.91 | ppbv | 100 |
| 18) Dichloromethane | 11.381 | 49 | 175110 | 4.13 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 352726 | 5.39 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 169959 | 4.62 | ppbv | 100 |
| 21) Hexane | 12.719 | 57 | 221897 | 5.01 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 253260 | 4.59 | ppbv | 100 |
| 23) Vinyl acetate | 13.601 | 43 | 287755 | 5.01 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 194328 | 4.86 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 269141 | 5.40 | ppbv | 96 |
| 26) Ethyl acetate | 15.000 | 43 | 269141 | 3.96 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.463 | 42 | 176186 | 5.06 | ppbv | 100 |
| 28) Chloroform | 15.596 | 83 | 269115 | 4.86 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 230630 | 5.11 | ppbv | 100 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 266803 | 4.90 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 259188 | 4.90 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 437938 | 4.84 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 711155 | 5.23 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 172879 | 4.73 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 268444 | 5.21 | ppbv | 99 |
| 37) Trichloroethene | 17.866 | 130 | 166240 | 4.82 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 171415 | 4.93 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.565 | 88 | 84888 | 5.56 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 285717 | 5.13 | ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 240347 | 5.05 | ppbv | 100 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 352535 | 5.38 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 508200 | 4.97 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 227087 | 5.22 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 171031 | 5.01 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 228261 | 4.78 | ppbv | 100 |
| 48) 2-Hexanone | 21.187 | 43 | 316540 | 5.28 | ppbv | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 260438 | 5.06 | ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 238487 | 5.08 | ppbv | 99 |
| 51) Chlorobenzene | 22.404 | 112 | 390072 | 4.97 | ppbv | 98 |
| 52) Ethylbenzene | 22.489 | 91 | 667267 | 4.99 | ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 1014125 | 10.17 | ppbv | 100 |
| 54) o-Xylene | 23.323 | 91 | 506388 | 5.11 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 402796 | 5.09 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 267829 | 5.11 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 397895 | 4.96 | ppbv | 99 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 669029 | 5.29 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 574314 | 5.12 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 564225 | 5.04 | ppbv | 99 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 375525 | 4.80 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 370759 | 4.89 | ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 439427 | 5.25 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 370835 | 4.84 | ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 321862 | 4.38 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 315206 | 4.82 | ppbv | 99 |

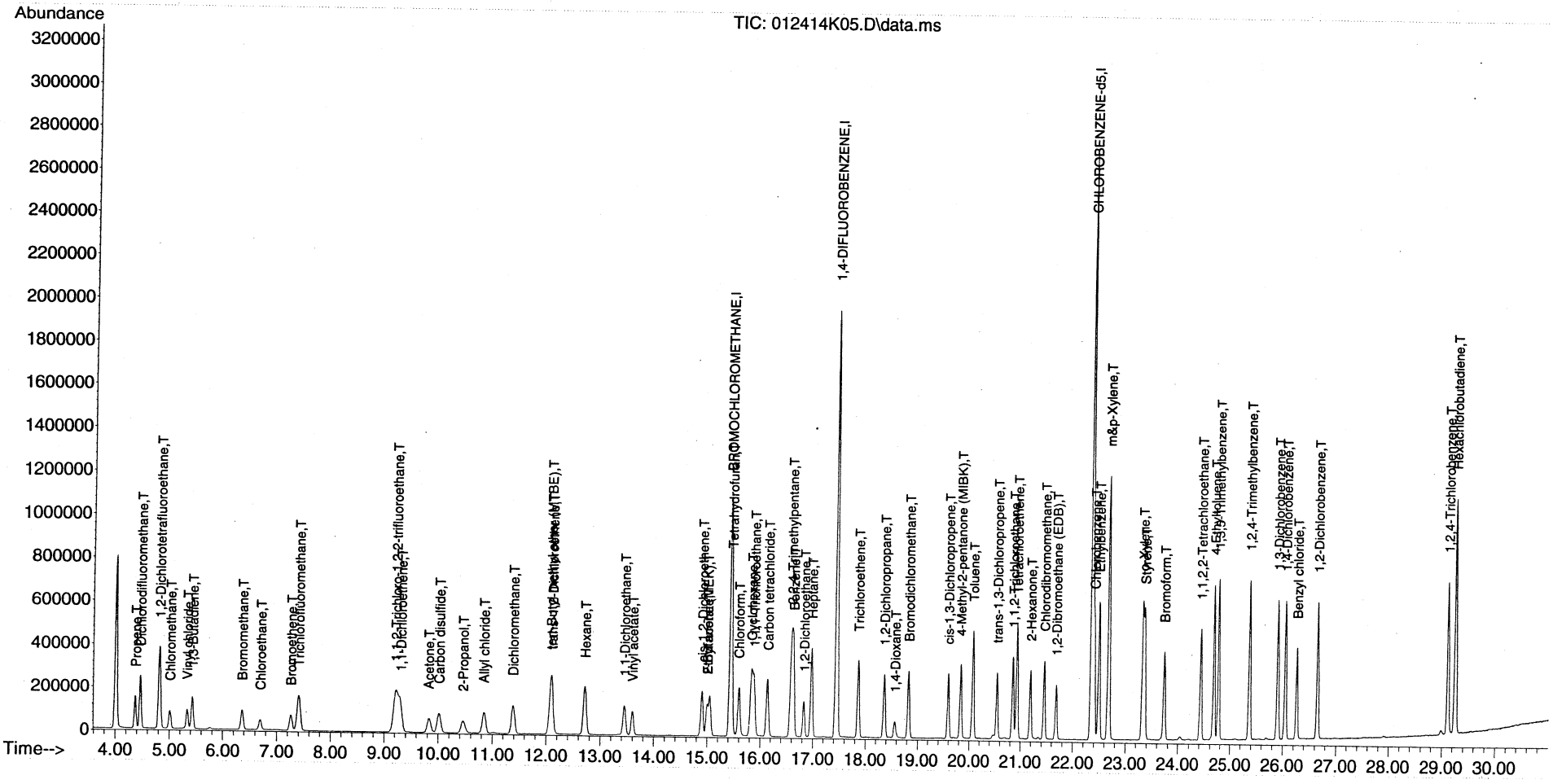
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/27/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 911927 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2423118 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2238196 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 521044 | 19.77 | ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 1311139 | 18.33 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 1461016 | 19.91 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 602652 | 19.77 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 654934 | 20.24 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 485924 | 20.07 | ppbv | 100 |
| 8) Bromomethane | 6.362 | 94 | 469401 | 19.54 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 330445 | 19.67 | ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 448331 | 20.00 | ppbv | 99 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 1259854 | 20.37 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 808648 | 18.67 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 902427 | 18.88 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 864417 | 20.25 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 1364032 | 19.59 | ppbv | 100 |
| 16) 2-Propanol | 10.438 | 45 | 828250 | 18.96 | ppbv | 98 |
| 17) Allyl chloride | 10.845 | 41 | 711272 | 20.17 | ppbv | 100 |
| 18) Dichloromethane | 11.387 | 49 | 696167 | 16.92 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.074 | 73 | 1567538 | 22.13 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 722563 | 18.54 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 967172 | 20.33 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 1081986 | 18.75 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 1328447 | 20.95 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 844394 | 19.92 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 1163614 | 21.24 | ppbv | 94 |
| 26) Ethyl acetate | 15.043 | 43 | 1541832m | 21.89 | ppbv | |
| 27) Tetrahydrofuran | 15.450 | 42 | 761754 | 20.41 | ppbv | 100 |
| 28) Chloroform | 15.602 | 83 | 1155436 | 19.82 | ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 1005839 | 20.76 | ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 1147239 | 19.85 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 1145137 | 20.43 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 1886512 | 19.54 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 3149645 | 21.12 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 736558 | 18.89 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 1190463 | 21.12 | ppbv | 99 |
| 37) Trichloroethene | 17.866 | 130 | 727641 | 19.72 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 731003 | 19.78 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.553 | 88 | 403750 | 22.90 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 1236698 | 20.67 | ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 1071037 | 20.63 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 1568954 | 21.50 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 2256642 | 20.45 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 1046946 | 22.04 | ppbv | 100 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 738604 | 20.26 | ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 1023965 | 20.02 | ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 1464517 | 21.74 | ppbv | 100 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 1165618 | 20.98 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 1041669 | 20.54 | ppbv | 99 |
| 51) | Chlorobenzene | 22.404 | 112 | 1717998 | 20.54 | ppbv | 98 |
| 52) | Ethylbenzene | 22.495 | 91 | 3015746 | 20.75 | ppbv | 100 |
| 53) | m&p-Xylene | 22.678 | 91 | 4793848 | 43.21 | ppbv | 100 |
| 54) | o-Xylene | 23.323 | 91 | 2359839 | 21.56 | ppbv | 100 |
| 55) | Styrene | 23.359 | 104 | 1924268 | 21.64 | ppbv | 100 |
| 56) | Bromoform | 23.736 | 173 | 1286997 | 22.01 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.430 | 83 | 1764245 | 20.41 | ppbv | 100 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 3162118 | 22.34 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 2771126 | 22.09 | ppbv | 100 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 2742334 | 21.79 | ppbv | 100 |
| 61) | 1,3-Dichlorobenzene | 25.902 | 146 | 1830560 | 21.07 | ppbv | 99 |
| 62) | 1,4-Dichlorobenzene | 26.048 | 146 | 1810189 | 21.30 | ppbv | 99 |
| 63) | Benzyl chloride | 26.261 | 91 | 2099717 | 22.18 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 146 | 1760927 | 20.82 | ppbv | 100 |
| 65) | 1,2,4-Trichlorobenzene | 29.114 | 180 | 1692540 | 20.28 | ppbv | 100 |
| 66) | Hexachlorobutadiene | 29.254 | 225 | 1400097 | 19.39 | ppbv | 100 |

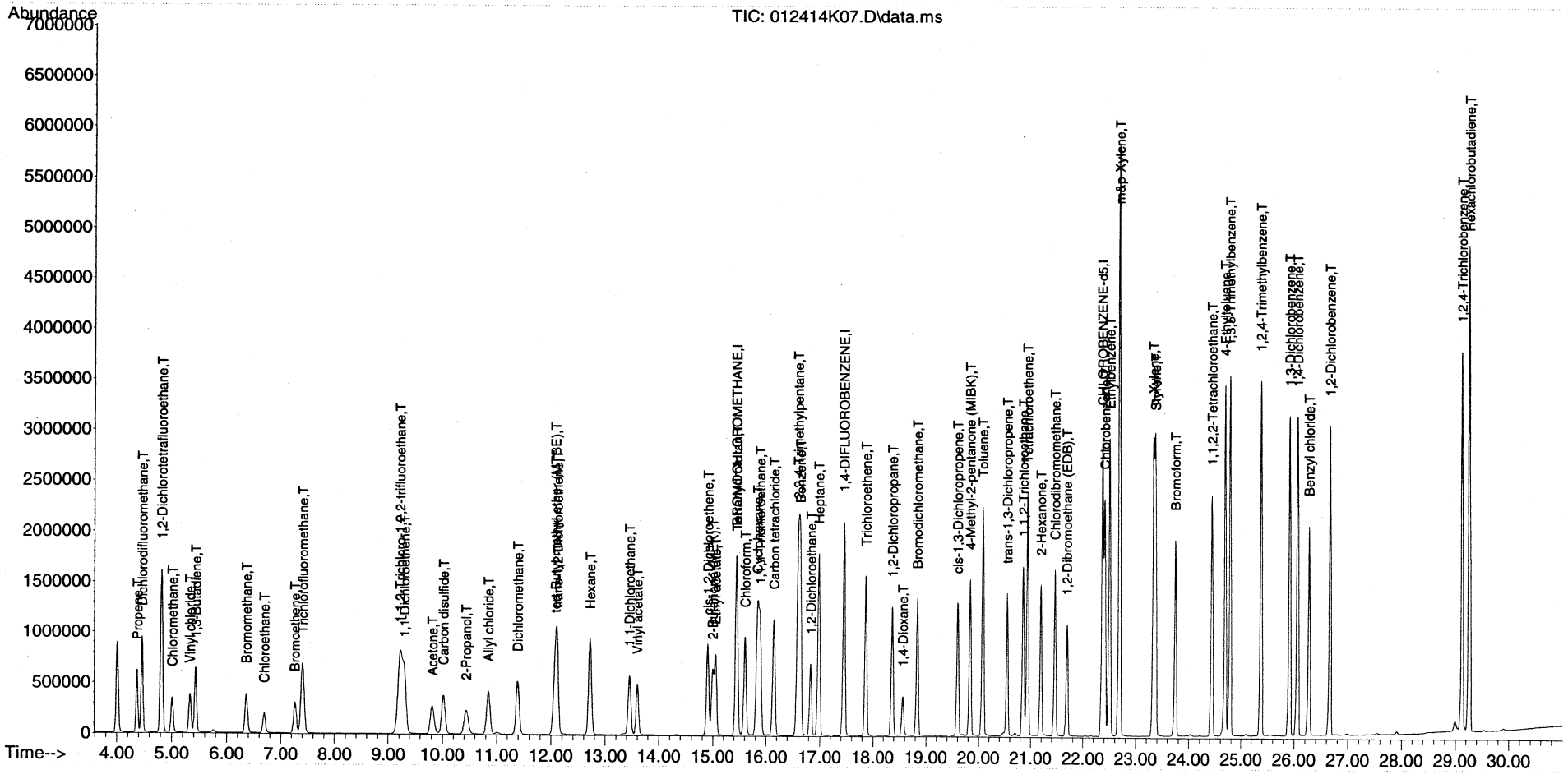
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

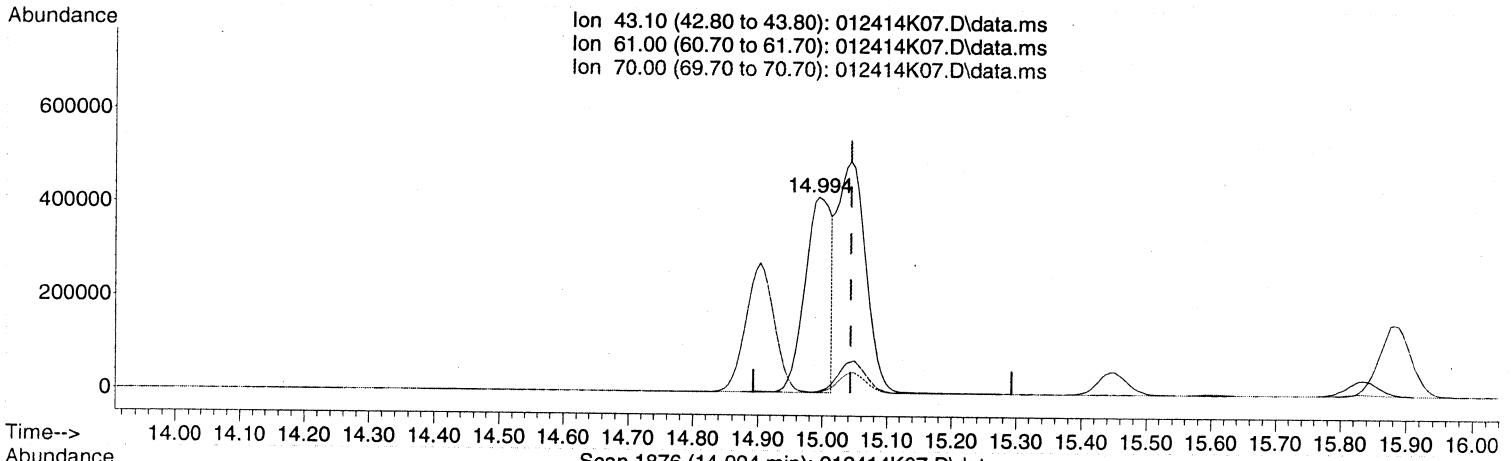


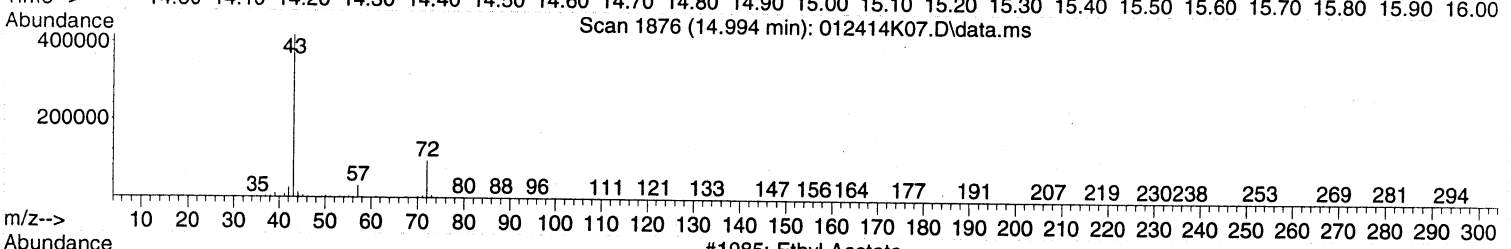
Quantitation Report (Qedit)

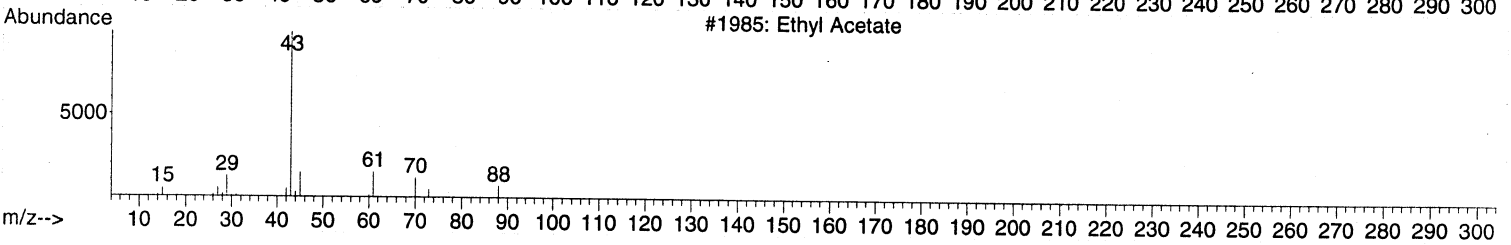
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K07.D\data.ms

(26) Ethyl acetate (T)

14.994min (-0.049) 16.52 ppbv

response 1163539

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

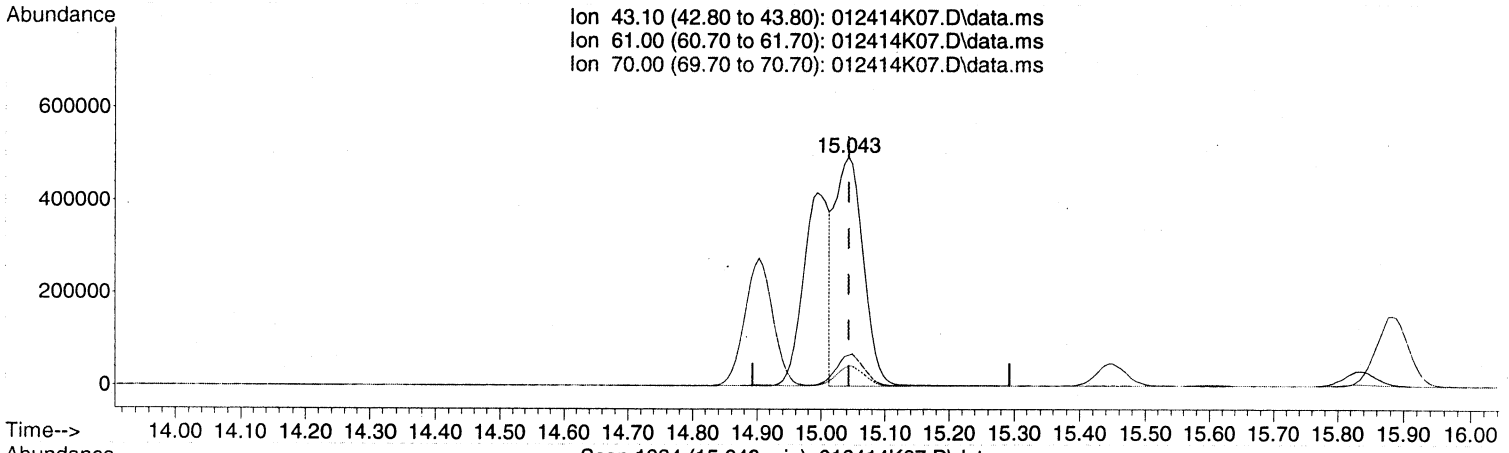
Reviewer: _____ Date: _____

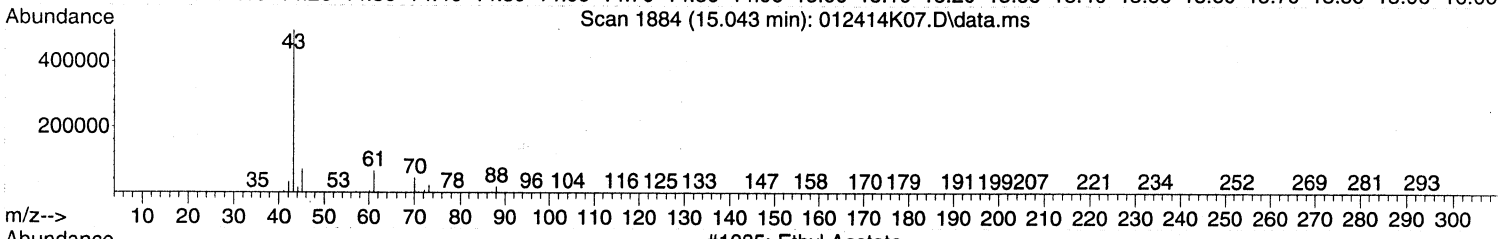
Quantitation Report (Qedit)

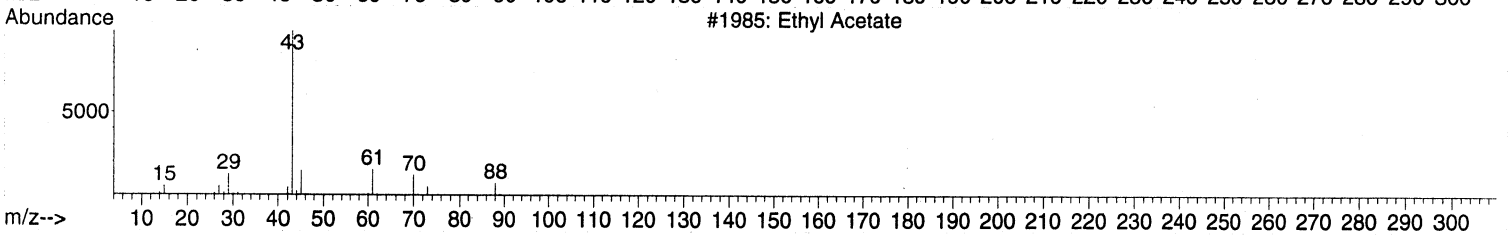
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K07.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 21.89 ppbv m

response 1541832

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/27/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

Rel MT
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 911927 | 22.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2423118 | 22.00 ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2238196 | 22.00 ppbv | 0.00 |
| Target Compounds | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 521044 | 19.77 ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 1311139 | 18.33 ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 1461016 | 19.91 ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 602652 | 19.77 ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 654934 | 20.24 ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 485924 | 20.07 ppbv | 100 |
| 8) Bromomethane | 6.362 | 94 | 469401 | 19.54 ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 330445 | 19.67 ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 448331 | 20.00 ppbv | 99 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 1259854 | 20.37 ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 808648 | 18.67 ppbv | 98 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 902427 | 18.88 ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 864417 | 20.25 ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 1364032 | 19.59 ppbv | 100 |
| 16) 2-Propanol | 10.438 | 45 | 828250 | 18.96 ppbv | 98 |
| 17) Allyl chloride | 10.845 | 41 | 711272 | 20.17 ppbv | 100 |
| 18) Dichloromethane | 11.387 | 49 | 696167 | 16.92 ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.074 | 73 | 1567538 | 22.13 ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 722563 | 18.54 ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 967172 | 20.33 ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 1081986 | 18.75 ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 1328447 | 20.95 ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 844394 | 19.92 ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 1163614 | 21.24 ppbv | 94 |
| 26) Ethyl acetate | 14.994 | 43 | 1163539 | 16.52 ppbv # | 68 |
| 27) Tetrahydrofuran | 15.450 | 42 | 761754 | 20.41 ppbv | 100 |
| 28) Chloroform | 15.602 | 83 | 1155436 | 19.82 ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 1005839 | 20.76 ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 1147239 | 19.85 ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 1145137 | 20.43 ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 1886512 | 19.54 ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 3149645 | 21.12 ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 736558 | 18.89 ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 1190463 | 21.12 ppbv | 99 |
| 37) Trichloroethene | 17.866 | 130 | 727641 | 19.72 ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 731003 | 19.78 ppbv | 100 |
| 39) 1,4-Dioxane | 18.553 | 88 | 403750 | 22.90 ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 1236698 | 20.67 ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 1071037 | 20.63 ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 1568954 | 21.50 ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 2256642 | 20.45 ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 1046946 | 22.04 ppbv | 100 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 738604 | 20.26 ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 1023965 | 20.02 ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 1464517 | 21.74 ppbv | 100 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 1165618 | 20.98 | ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 1041669 | 20.54 | ppbv | 99 |
| 51) Chlorobenzene | 22.404 | 112 | 1717998 | 20.54 | ppbv | 98 |
| 52) Ethylbenzene | 22.495 | 91 | 3015746 | 20.75 | ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 4793848 | 43.21 | ppbv | 100 |
| 54) o-Xylene | 23.323 | 91 | 2359839 | 21.56 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 1924268 | 21.64 | ppbv | 100 |
| 56) Bromoform | 23.736 | 173 | 1286997 | 22.01 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.430 | 83 | 1764245 | 20.41 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 3162118 | 22.34 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 2771126 | 22.09 | ppbv | 100 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 2742334 | 21.79 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.902 | 146 | 1830560 | 21.07 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.048 | 146 | 1810189 | 21.30 | ppbv | 99 |
| 63) Benzyl chloride | 26.261 | 91 | 2099717 | 22.18 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 1760927 | 20.82 | ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.114 | 180 | 1692540 | 20.28 | ppbv | 100 |
| 66) Hexachlorobutadiene | 29.254 | 225 | 1400097 | 19.39 | ppbv | 100 |

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



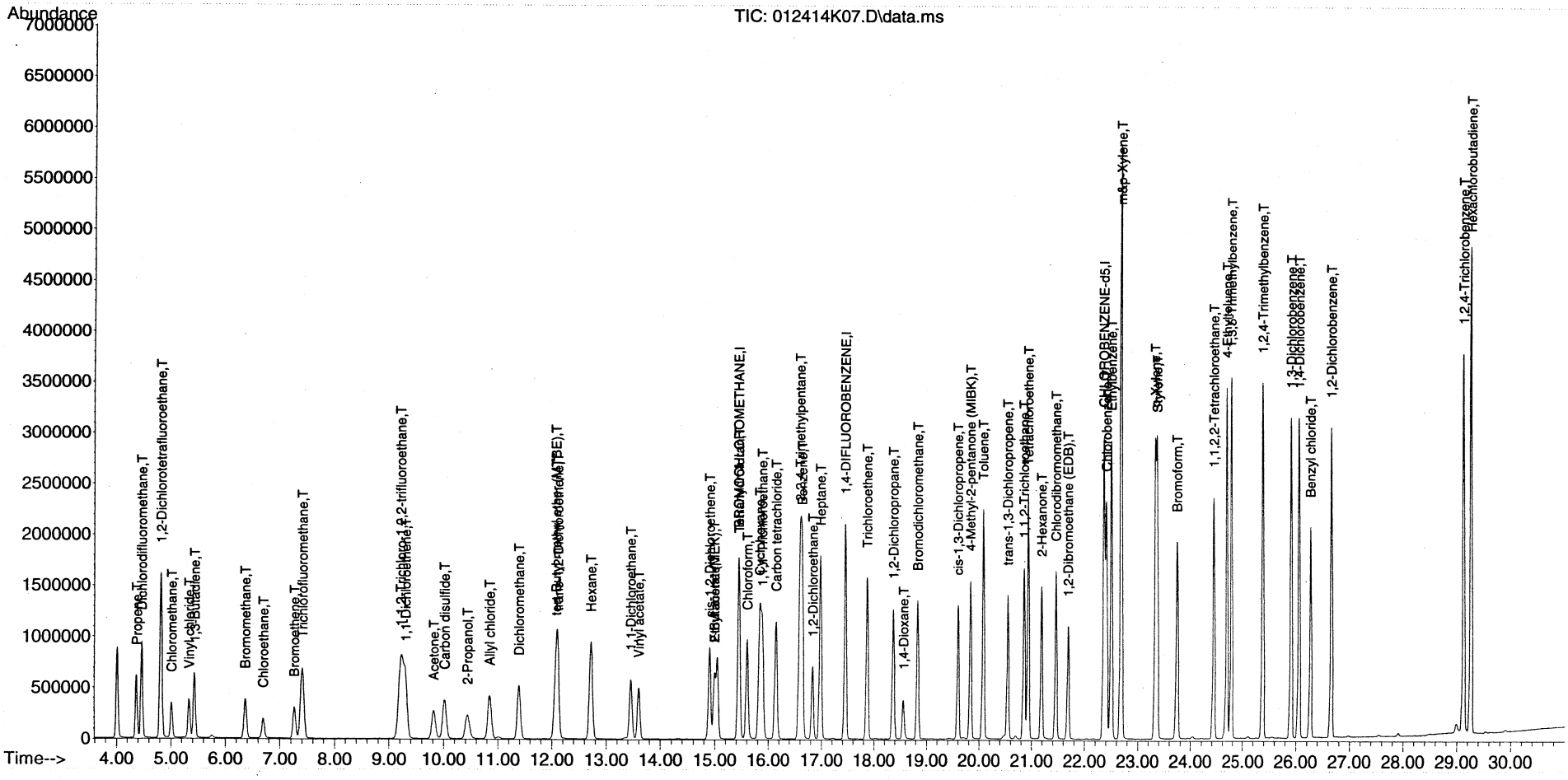
:001121

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/27/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 873689 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2308725 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2127333 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 378273 | 14.47 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 982163 | 13.71 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 1069478 | 14.89 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 438705 | 14.64 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 470123 | 14.90 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 348356 | 14.89 | ppbv | 100 |
| 8) Bromomethane | 6.361 | 94 | 341889 | 14.52 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 238793 | 14.53 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 323876 | 14.88 | ppbv | 100 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 916992 | 15.15 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.227 | 151 | 578642 | 13.68 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 648849 | 14.05 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 632190 | 15.18 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 992772 | 14.64 | ppbv | 99 |
| 16) 2-Propanol | 10.437 | 45 | 598175 | 14.29 | ppbv | 99 |
| 17) Allyl chloride | 10.851 | 41 | 517098 | 15.33 | ppbv | 100 |
| 18) Dichloromethane | 11.386 | 49 | 506602 | 12.06 | ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.080 | 73 | 1130461 | 16.80 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 527298 | 14.00 | ppbv | 100 |
| 21) Hexane | 12.719 | 57 | 703961 | 15.47 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 783926 | 13.97 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 956208 | 16.13 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 609845 | 14.93 | ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 840266 | 16.20 | ppbv | 94 |
| 26) Ethyl acetate | 15.043 | 43 | 1119941m | 16.03 | ppbv | |
| 27) Tetrahydrofuran | 15.450 | 42 | 556891 | 15.57 | ppbv | 100 |
| 28) Chloroform | 15.602 | 83 | 842796 | 14.93 | ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 728479 | 15.71 | ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 831542 | 14.92 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 823891 | 15.29 | ppbv | 99 |
| 33) Benzene | 16.630 | 78 | 1370061 | 14.71 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 2277985 | 16.13 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 536286 | 14.24 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 857656 | 16.05 | ppbv | 99 |
| 37) Trichloroethene | 17.865 | 130 | 526029 | 14.83 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 532292 | 14.88 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.553 | 88 | 292181 | 18.18 | ppbv | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 899780 | 15.66 | ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 774212 | 15.71 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.830 | 43 | 1132547 | 16.53 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 1631953 | 15.64 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 751524 | 16.92 | ppbv | 100 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 531621 | 15.26 | ppbv | 100 |
| 47) Tetrachloroethene | 20.932 | 166 | 734383 | 15.13 | ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 1062014 | 17.14 | ppbv | 100 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 835554 | 15.91 | ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 753861 | 15.67 | ppbv | 100 |
| 51) Chlorobenzene | 22.404 | 112 | 1242123 | 15.58 | ppbv | 99 |
| 52) Ethylbenzene | 22.495 | 91 | 2160928 | 15.80 | ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 3405371 | 33.25 | ppbv | 100 |
| 54) o-Xylene | 23.322 | 91 | 1680188 | 16.53 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 1375493 | 16.89 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 911785 | 16.96 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.430 | 83 | 1275411 | 15.59 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 2252147 | 17.28 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1962983 | 17.05 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.366 | 105 | 1948345 | 16.93 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.902 | 146 | 1309046 | 16.40 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.048 | 146 | 1291451 | 16.62 | ppbv | 99 |
| 63) Benzyl chloride | 26.261 | 91 | 1498122 | 17.32 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 1257420 | 16.06 | ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.114 | 180 | 1206652 | 16.14 | ppbv | 100 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 1026859 | 15.23 | ppbv | 100 |

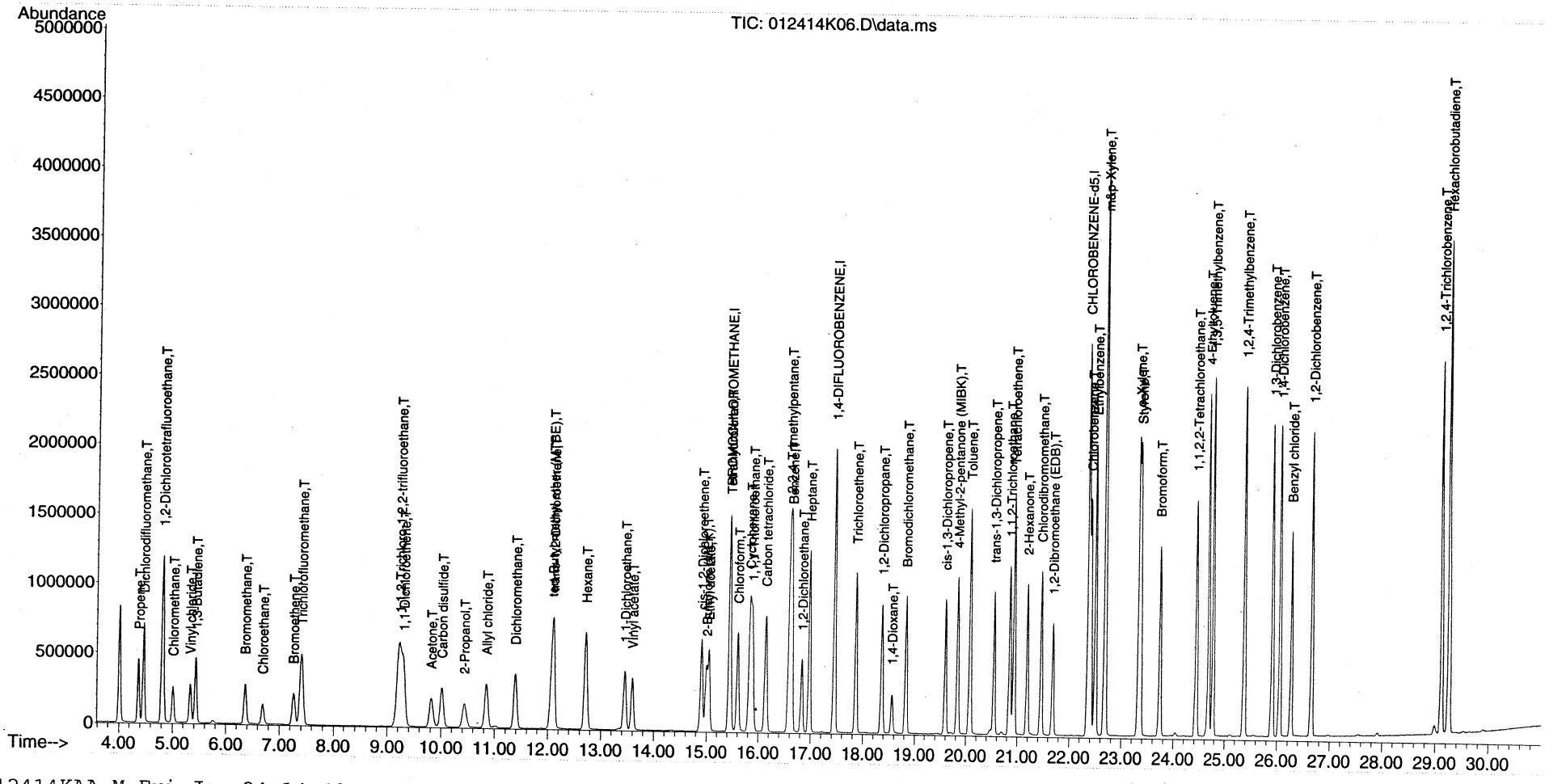
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



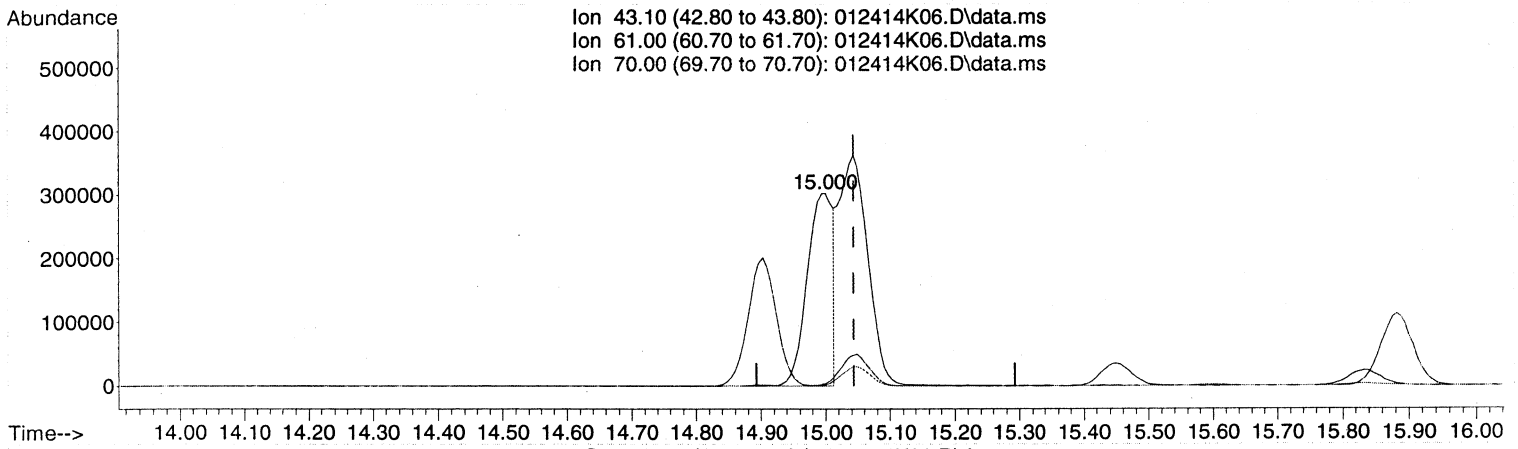

012414KAA.M Fri Jan 24 14:49:41 2014 HP5973K

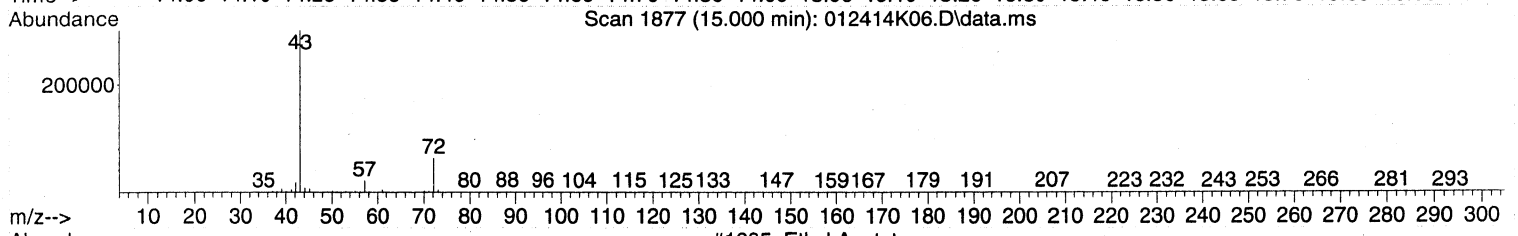
Quantitation Report (Qedit)

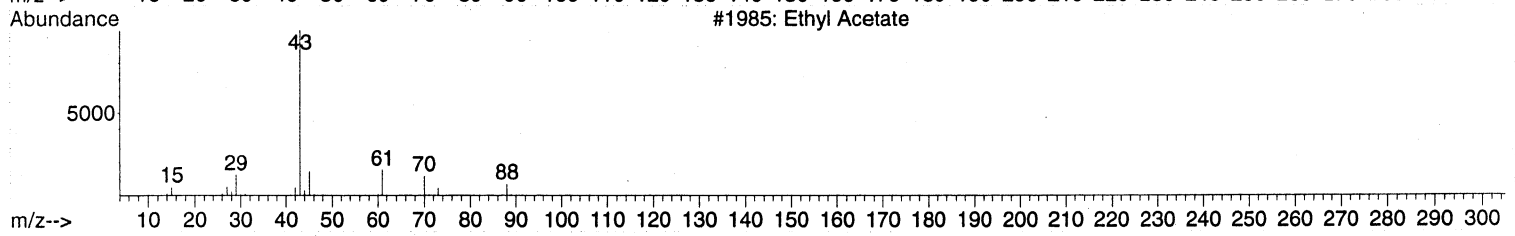
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K06.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 12.03 ppbv

response 840149

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☒ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☒ Other: RT

☐ After Manual Integration

Manual integration(s) performed by.

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

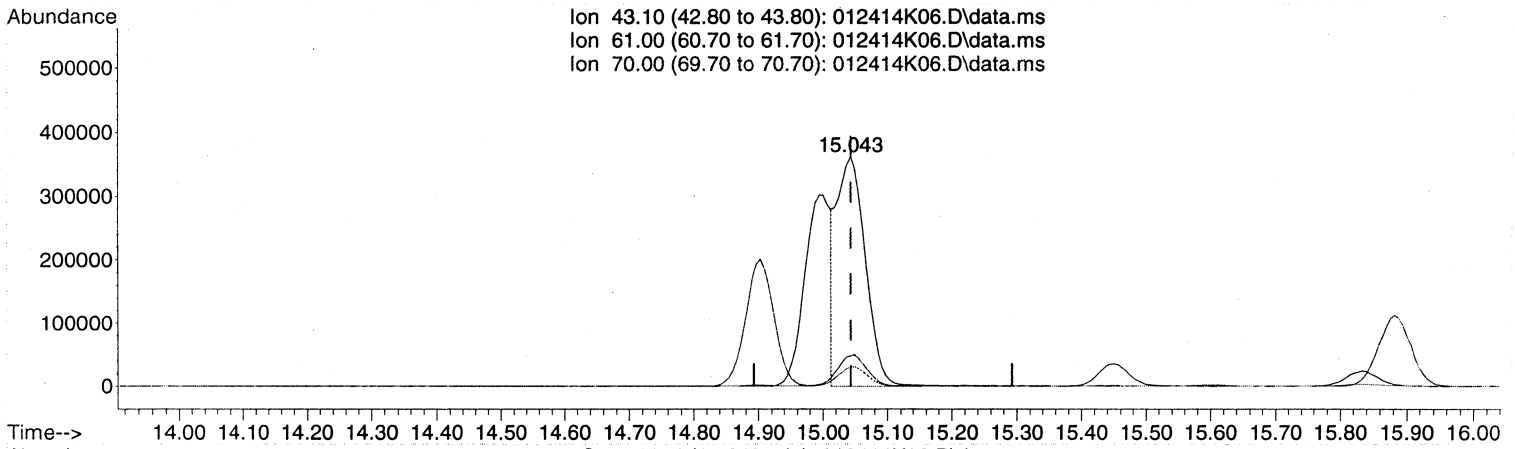
Reviewer: _____ Date: _____

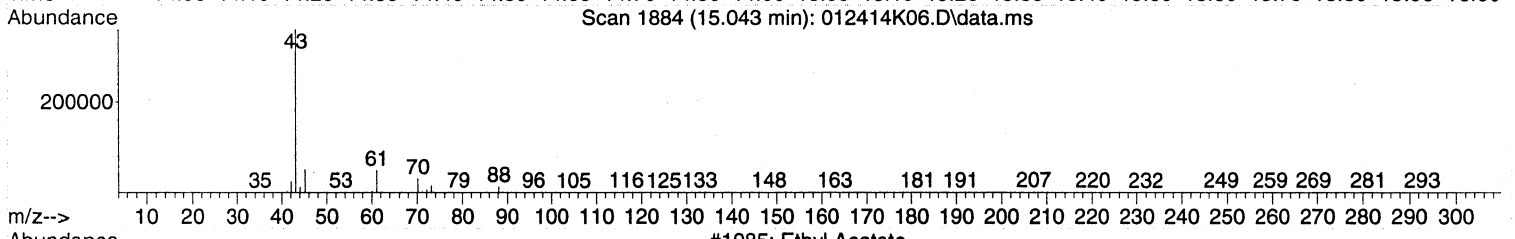
Quantitation Report (Qedit)

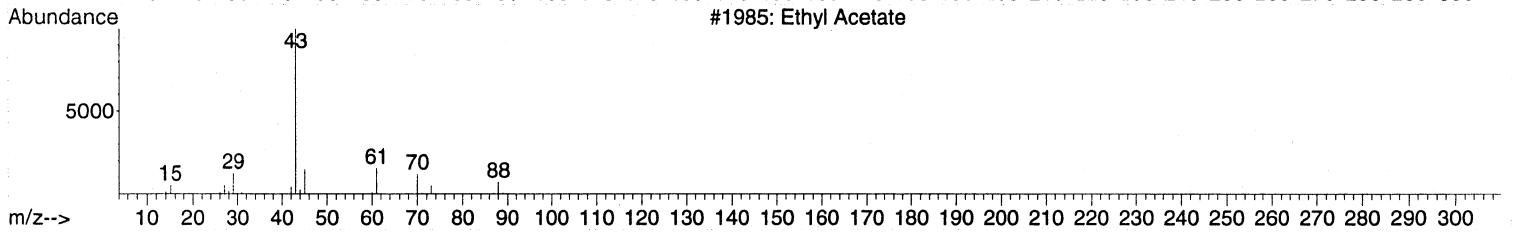
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M




TIC: 012414K06.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 16.03 ppbv m

response 1119941

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/28/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14



00127

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 873689 | 22.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2308725 | 22.00 ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2127333 | 22.00 ppbv | 0.00 |
| Target Compounds | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 378273 | 14.47 ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 982163 | 13.71 ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 1069478 | 14.89 ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 438705 | 14.64 ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 470123 | 14.90 ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 348356 | 14.89 ppbv | 100 |
| 8) Bromomethane | 6.361 | 94 | 341889 | 14.52 ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 238793 | 14.53 ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 323876 | 14.88 ppbv | 100 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 916992 | 15.15 ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.227 | 151 | 578642 | 13.68 ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 648849 | 14.05 ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 632190 | 15.18 ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 992772 | 14.64 ppbv | 99 |
| 16) 2-Propanol | 10.437 | 45 | 598175 | 14.29 ppbv | 99 |
| 17) Allyl chloride | 10.851 | 41 | 517098 | 15.33 ppbv | 100 |
| 18) Dichloromethane | 11.386 | 49 | 506602 | 12.06 ppbv | 99 |
| 19) tert-Butyl methyl ethe... | 12.080 | 73 | 1130461 | 16.80 ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 527298 | 14.00 ppbv | 100 |
| 21) Hexane | 12.719 | 57 | 703961 | 15.47 ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 783926 | 13.97 ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 956208 | 16.13 ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 609845 | 14.93 ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 840266 | 16.20 ppbv | 94 |
| 26) Ethyl acetate | 15.000 | 43 | 840149 | 12.03 ppbv # | 68 |
| 27) Tetrahydrofuran | 15.450 | 42 | 556891 | 15.57 ppbv | 100 |
| 28) Chloroform | 15.602 | 83 | 842796 | 14.93 ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 728479 | 15.71 ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 831542 | 14.92 ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 823891 | 15.29 ppbv | 99 |
| 33) Benzene | 16.630 | 78 | 1370061 | 14.71 ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 2277985 | 16.13 ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 536286 | 14.24 ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 857656 | 16.05 ppbv | 99 |
| 37) Trichloroethene | 17.865 | 130 | 526029 | 14.83 ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 532292 | 14.88 ppbv | 100 |
| 39) 1,4-Dioxane | 18.553 | 88 | 292181 | 18.18 ppbv | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 899780 | 15.66 ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 774212 | 15.71 ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.830 | 43 | 1132547 | 16.53 ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 1631953 | 15.64 ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 751524 | 16.92 ppbv | 100 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 531621 | 15.26 ppbv | 100 |
| 47) Tetrachloroethene | 20.932 | 166 | 734383 | 15.13 ppbv | 100 |
| 48) 2-Hexanone | 21.181 | 43 | 1062014 | 17.14 ppbv | 100 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 835554 | 15.91 | ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 753861 | 15.67 | ppbv | 100 |
| 51) Chlorobenzene | 22.404 | 112 | 1242123 | 15.58 | ppbv | 99 |
| 52) Ethylbenzene | 22.495 | 91 | 2160928 | 15.80 | ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 3405371 | 33.25 | ppbv | 100 |
| 54) o-Xylene | 23.322 | 91 | 1680188 | 16.53 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 1375493 | 16.89 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 911785 | 16.96 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.430 | 83 | 1275411 | 15.59 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 2252147 | 17.28 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1962983 | 17.05 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.366 | 105 | 1948345 | 16.93 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.902 | 146 | 1309046 | 16.40 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.048 | 146 | 1291451 | 16.62 | ppbv | 99 |
| 63) Benzyl chloride | 26.261 | 91 | 1498122 | 17.32 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 1257420 | 16.06 | ppbv | 100 |
| 65) 1,2,4-Trichlorobenzene | 29.114 | 180 | 1206652 | 16.14 | ppbv | 100 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 1026859 | 15.23 | ppbv | 100 |

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



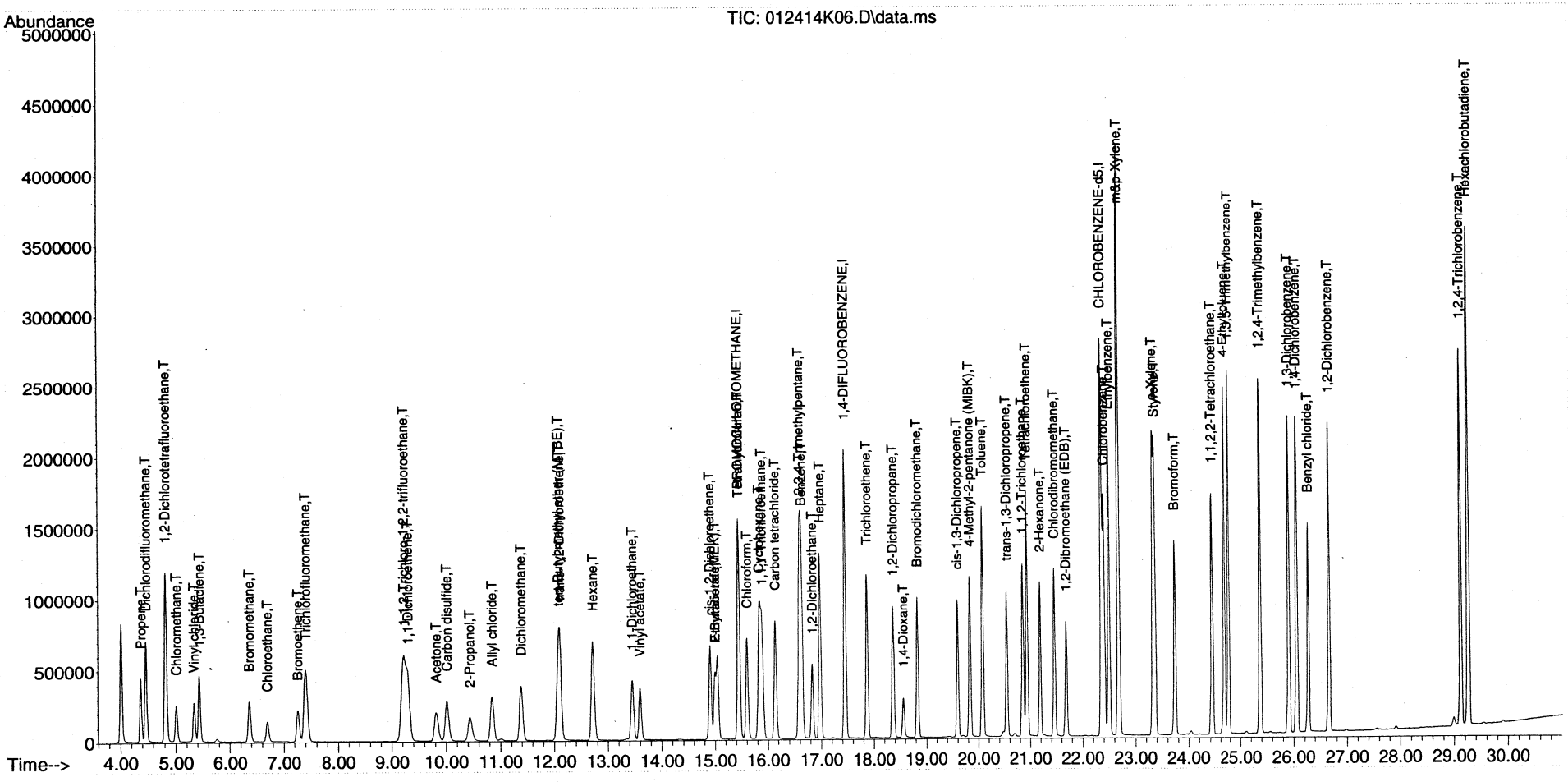
00129

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



# SCV REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.44 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.37 | 11.00 | 10.50 | 95% | 70.0 | 130.0 | pass |
| 3) | Dichlorodifluoromethane | 4.46 | 11.00 | 9.81 | 89% | 70.0 | 130.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.82 | 11.00 | 9.82 | 89% | 70.0 | 130.0 | pass |
| 5) | Chloromethane | 5.01 | 11.00 | 10.71 | 97% | 70.0 | 130.0 | pass |
| 6) | Vinyl chloride | 5.33 | 12.00 | 10.54 | 88% | 70.0 | 130.0 | pass |
| 7) | 1,3-Butadiene | 5.43 | 22.00 | 20.06 | 91% | 70.0 | 130.0 | pass |
| 8) | Bromomethane | 6.36 | 11.00 | 10.18 | 93% | 70.0 | 130.0 | pass |
| 9) | Chloroethane | 6.69 | 11.00 | 10.08 | 92% | 70.0 | 130.0 | pass |
| 10) | Bromoethene | 7.26 | 11.00 | 10.00 | 91% | 70.0 | 130.0 | pass |
| 11) | Trichlorofluoromethane | 7.41 | 11.00 | 10.01 | 91% | 70.0 | 130.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.22 | 11.00 | 9.74 | 89% | 70.0 | 130.0 | pass |
| 13) | 1,1-Dichloroethene | 9.30 | 11.00 | 9.70 | 88% | 70.0 | 130.0 | pass |
| 14) | Acetone | 9.82 | 11.00 | 9.66 | 88% | 70.0 | 130.0 | pass |
| 15) | Carbon disulfide | 10.02 | 11.00 | 12.19 | 111% | 70.0 | 130.0 | pass |
| 16) | 2-Propanol | 10.45 | 10.00 | 9.46 | 95% | 70.0 | 130.0 | pass |
| 17) | Allyl chloride | 10.85 | 22.00 | 22.58 | 103% | 70.0 | 130.0 | pass |
| 18) | Dichloromethane | 11.39 | 11.00 | 9.42 | 86% | 70.0 | 130.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 12.08 | 11.00 | 10.62 | 97% | 70.0 | 130.0 | pass |
| 20) | trans-1,2-Dichloroethene | 12.10 | 11.00 | 10.51 | 96% | 70.0 | 130.0 | pass |
| 21) | Hexane | 12.71 | 11.00 | 10.00 | 91% | 70.0 | 130.0 | pass |
| 22) | 1,1-Dichloroethane | 13.45 | 12.00 | 9.47 | 79% | 70.0 | 130.0 | pass |
| 23) | Vinyl acetate | 13.60 | 11.00 | 11.88 | 108% | 70.0 | 130.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.90 | 11.00 | 9.42 | 86% | 70.0 | 130.0 | pass |
| 25) | 2-Butanone (MEK) | 15.00 | 11.00 | 9.92 | 90% | 70.0 | 130.0 | pass |
| 26) | Ethyl acetate | 15.04 | 11.00 | 8.54 | 78% | 70.0 | 130.0 | pass |
| 27) | Tetrahydrofuran | 15.45 | 11.00 | 9.75 | 89% | 70.0 | 130.0 | pass |
| 28) | Chloroform | 15.60 | 11.00 | 9.77 | 89% | 70.0 | 130.0 | pass |
| 29) | Cyclohexane | 15.83 | 11.00 | 10.05 | 91% | 70.0 | 130.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.88 | 11.00 | 9.92 | 90% | 70.0 | 130.0 | pass |
| 31) | Carbon tetrachloride | 16.14 | 11.00 | 10.05 | 91% | 70.0 | 130.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.45 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.63 | 11.00 | 9.76 | 89% | 70.0 | 130.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.59 | 11.00 | 10.18 | 93% | 70.0 | 130.0 | pass |
| 35) | 1,2-Dichloroethane | 16.83 | 11.00 | 9.57 | 87% | 70.0 | 130.0 | pass |
| 36) | Heptane | 16.98 | 11.00 | 10.15 | 92% | 70.0 | 130.0 | pass |
| 37) | Trichloroethene | 17.87 | 11.00 | 9.73 | 88% | 70.0 | 130.0 | pass |
| 38) | 1,2-Dichloropropane | 18.36 | 11.00 | 9.85 | 90% | 70.0 | 130.0 | pass |
| 39) | 1,4-Dioxane | 18.56 | 9.50 | 8.73 | 92% | 70.0 | 130.0 | pass |
| 40) | Bromodichloromethane | 18.83 | 11.00 | 9.95 | 90% | 70.0 | 130.0 | pass |
| 41) | cis-1,3-Dichloropropene | 19.59 | 11.00 | 10.37 | 94% | 70.0 | 130.0 | pass |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.83 | 11.00 | 9.92 | 90% | 70.0 | 130.0 | pass |
| 43) | CHLOROBENZENE-d5 | 22.36 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 44) | Toluene | 20.07 | 11.00 | 9.99 | 91% | 70.0 | 130.0 | pass |
| 45) | trans-1,3-Dichloropropene | 20.54 | 11.00 | 10.27 | 93% | 70.0 | 130.0 | pass |
| 46) | 1,1,2-Trichloroethane | 20.85 | 11.00 | 9.90 | 90% | 70.0 | 130.0 | pass |
| 47) | Tetrachloroethene | 20.93 | 11.00 | 9.65 | 88% | 70.0 | 130.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 48) | 2-Hexanone | 21.19 | 11.00 | 10.10 | 92% | 70.0 | 130.0 | pass |
| 49) | Chlorodibromomethane | 21.45 | 11.00 | 9.79 | 89% | 70.0 | 130.0 | pass |
| 50) | 1,2-Dibromoethane (EDB) | 21.68 | 10.00 | 9.90 | 99% | 70.0 | 130.0 | pass |
| 51) | Chlorobenzene | 22.40 | 11.00 | 10.00 | 91% | 70.0 | 130.0 | pass |
| 52) | Ethylbenzene | 22.50 | 11.00 | 9.94 | 90% | 70.0 | 130.0 | pass |
| 53) | m&p-Xylene | 22.68 | 22.00 | 19.75 | 90% | 70.0 | 130.0 | pass |
| 54) | o-Xylene | 23.32 | 10.00 | 9.85 | 98% | 70.0 | 130.0 | pass |
| 55) | Styrene | 23.36 | 11.00 | 9.77 | 89% | 70.0 | 130.0 | pass |
| 56) | Bromoform | 23.73 | 11.00 | 9.90 | 90% | 70.0 | 130.0 | pass |
| 57) | 1,1,2,2-Tetrachloroethane | 24.43 | 10.00 | 9.29 | 93% | 70.0 | 130.0 | pass |
| 58) | 4-Ethyltoluene | 24.67 | 21.00 | 22.31 | 106% | 70.0 | 130.0 | pass |
| 59) | 1,3,5-Trimethylbenzene | 24.76 | 11.00 | 9.94 | 90% | 70.0 | 130.0 | pass |
| 60) | 1,2,4-Trimethylbenzene | 25.37 | 11.00 | 9.67 | 88% | 70.0 | 130.0 | pass |
| 61) | 1,3-Dichlorobenzene | 25.90 | 10.00 | 9.44 | 94% | 70.0 | 130.0 | pass |
| 62) | 1,4-Dichlorobenzene | 26.05 | 11.00 | 9.62 | 87% | 70.0 | 130.0 | pass |
| 63) | Benzyl chloride | 26.26 | 11.00 | 12.13 | 110% | 70.0 | 130.0 | pass |
| 64) | 1,2-Dichlorobenzene | 26.65 | 11.00 | 9.16 | 83% | 70.0 | 130.0 | pass |
| 65) | 1,2,4-Trichlorobenzene | 29.11 | 9.90 | 7.42 | 75% | 70.0 | 130.0 | pass |
| 66) | Hexachlorobutadiene | 29.25 | 10.00 | 8.05 | 80% | 70.0 | 130.0 | pass |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 910394 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2416906 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2206787 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 276320 | 10.50 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 700280 | 9.81 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 719246 | 9.82 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 326033 | 10.71 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 340305 | 10.54 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.431 | 54 | 484713 | 20.06 | ppbv | 99 |
| 8) Bromomethane | 6.362 | 94 | 244140 | 10.18 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 169115 | 10.08 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 223828 | 10.00 | ppbv | 99 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 618106 | 10.01 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 421011 | 9.74 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 463140 | 9.70 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 411810 | 9.66 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 847590 | 12.19 | ppbv | 99 |
| 16) 2-Propanol | 10.450 | 45 | 412613 | 9.46 | ppbv | 98 |
| 17) Allyl chloride | 10.845 | 41 | 795129 | 22.58 | ppbv | 100 |
| 18) Dichloromethane | 11.387 | 49 | 386940 | 9.42 | ppbv | 100 |
| 19) tert-Butyl methyl ethe... | 12.080 | 73 | 750895 | 10.62 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 409129 | 10.51 | ppbv | 99 |
| 21) Hexane | 12.713 | 57 | 475022 | 10.00 | ppbv | 100 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 545893 | 9.47 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 751909 | 11.88 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 398644 | 9.42 | ppbv | 100 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 542470 | 9.92 | ppbv | 92 |
| 26) Ethyl acetate | 15.043 | 43 | 626003 | 8.54 | ppbv | 97 |
| 27) Tetrahydrofuran | 15.450 | 42 | 363352 | 9.75 | ppbv | 99 |
| 28) Chloroform | 15.603 | 83 | 568743 | 9.77 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 485830 | 10.05 | ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 572258 | 9.92 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 562422 | 10.05 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 940108 | 9.76 | ppbv | 100 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1513768 | 10.18 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 372209 | 9.57 | ppbv | 100 |
| 36) Heptane | 16.977 | 43 | 570472 | 10.15 | ppbv | 99 |
| 37) Trichloroethene | 17.866 | 130 | 358118 | 9.73 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 363204 | 9.85 | ppbv | 100 |
| 39) 1,4-Dioxane | 18.559 | 88 | 153489 | 8.73 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 593639 | 9.95 | ppbv | 100 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 536760 | 10.37 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 721702 | 9.92 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 1086499 | 9.99 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 481230 | 10.27 | ppbv | 99 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 355695 | 9.90 | ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 486607 | 9.65 | ppbv | 100 |
| 48) 2-Hexanone | 21.187 | 43 | 670900 | 10.10 | ppbv | 100 |

Conc #2
Propene
$= \frac{276320(22)}{910394(0.636)}$
$= 11.50$ ppbv
em 1/25/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 536432 | 9.79 | ppbv | 100 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 495127 | 9.90 | ppbv | 100 |
| 51) | Chlorobenzene | 22.404 | 112 | 825183 | 10.00 | ppbv | 99 |
| 52) | Ethylbenzene | 22.495 | 91 | 1423509 | 9.94 | ppbv | 100 |
| 53) | m&p-Xylene | 22.678 | 91 | 2160590 | 19.75 | ppbv | 100 |
| 54) | o-Xylene | 23.323 | 91 | 1063080 | 9.85 | ppbv | 100 |
| 55) | Styrene | 23.359 | 104 | 856589 | 9.77 | ppbv | 100 |
| 56) | Bromoform | 23.730 | 173 | 570746 | 9.90 | ppbv | 100 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.430 | 83 | 791983 | 9.29 | ppbv | 100 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 3113820 | 22.31 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 1230064 | 9.94 | ppbv | 100 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 1200729 | 9.67 | ppbv | 100 |
| 61) | 1,3-Dichlorobenzene | 25.902 | 146 | 808177 | 9.44 | ppbv | 99 |
| 62) | 1,4-Dichlorobenzene | 26.048 | 146 | 805899 | 9.62 | ppbv | 100 |
| 63) | Benzyl chloride | 26.261 | 91 | 1131948 | 12.13 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 146 | 764054 | 9.16 | ppbv | 100 |
| 65) | 1,2,4-Trichlorobenzene | 29.114 | 180 | 610597 | 7.42 | ppbv | 100 |
| 66) | Hexachlorobutadiene | 29.254 | 225 | 572725 | 8.05 | ppbv | 99 |

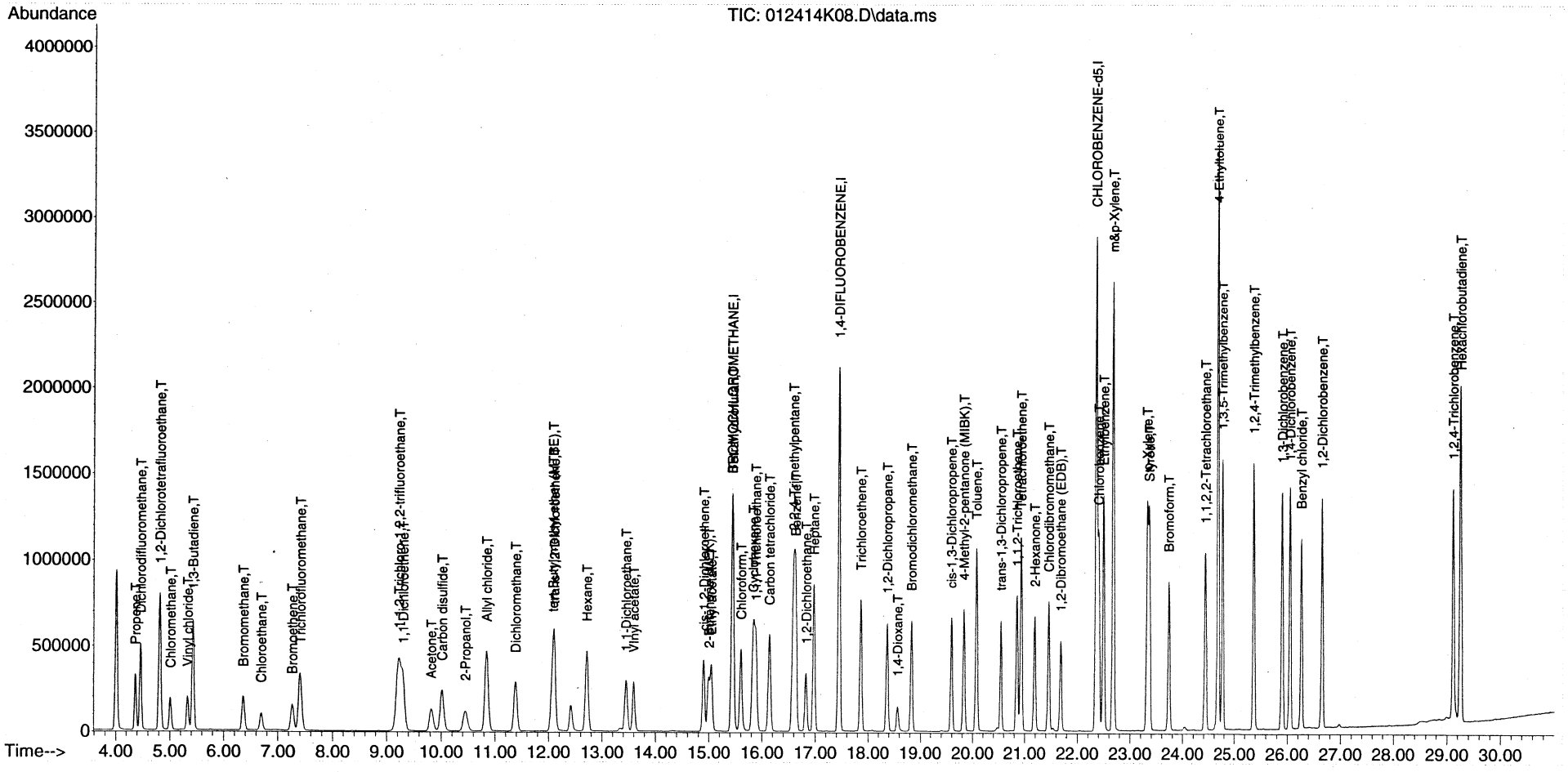
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



SDG: 14029A

Instrument: HP5973K

Analysis Date: 1/29/2014

# SAMPLE DATA

# ANALYSIS SEQUENCE

**S14A101**

Instrument: HP5973K

Calibration ID: 1401020

**Printed: 1/30/2014 1:08:55PM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| S14A101-TUN1 | QC | | 1 | | 1311118 | | | |
| S14A101-CCV1 | QC | | 2 | | 1402077 | | | |
| B14A073-BS1 | QC | | 3 | | | | | |
| S14A101-CRL1 | QC | | 4 | | 1402074 | | | |
| B14A073-BLK1 | QC | | 5 | | | 1350050 | | |
| 1401046-02 | VOCs, Soil Gas | A | 6 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401046-02RE1 | VOCs, Soil Gas | A | 7 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| B14A073-DUP1 | QC | | 8 | | | 1350050 | | |
| 1401046-03 | VOCs, Soil Gas | A | 9 | | | 1350050 | California Site Cleanup Section 2 | no TICs |
| 1401049-01 | VOCs, Soil Gas | A | 10 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-01RE1 | VOCs, Soil Gas | A | 11 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-02 | VOCs, Soil Gas | A | 12 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| B14A073-DUP2 | QC | | 13 | | | 1350050 | | |
| 1401049-03 | VOCs, Soil Gas | A | 14 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-04 | VOCs, Soil Gas | A | 15 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-05 | VOCs, Soil Gas | A | 16 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-06 | VOCs, Soil Gas | A | 17 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-07 | VOCs, Soil Gas | A | 18 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-08 | VOCs, Soil Gas | A | 19 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-09 | VOCs, Soil Gas | A | 20 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-10 | VOCs, Soil Gas | A | 21 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-11 | VOCs, Soil Gas | A | 22 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-12 | VOCs, Soil Gas | A | 23 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |

1/29/14
Samples Loaded By — Date

1/29-30/14
Data Processed By — Date

# ANALYSIS SEQUENCE

**S14A101**

Instrument: HP5973K

Calibration ID: 1401020

**Printed: 1/30/2014 1:08:55PM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| B14A073-DUP3 | QC | | 24 | | | 1350050 | | |

Samples Loaded By — Date: 1/29/14

Data Processed By — Date: 1/29-30/14

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2014\012914KAA.SEQ
Date: 01-30-2014
Time: 11:54:54
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Pos | Samp Vol. | Cal Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| BFB 1311118 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv 1402036 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv 1402036 | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1 ppbv 1402115 | 3 | 3 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN R9-129 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401046-03 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401046-02 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-01RE1 | 3 | 7 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-01 | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 3 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-02 | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-02DUP | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-03 | 3 | 10 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-04 | 3 | 11 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-05 | 3 | 12 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 4 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-06 | 4 | 2 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-07 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-08 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-09 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-10 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-11 | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-12 | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 3 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401046-02RE1 | 3 | 6 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401046-02DUP | 3 | 6 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-12 | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2014\012914KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 012914K01.D | 1. | S14A101-TUN1 | BFB STD 1311118/IS 1328060/10ppbv STD | 29 Jan 2014 12:55 |
| 2 | 32 | 012914K02.D | 1. | S14A101-CCV1 | 10 ppbv 1402036 | 29 Jan 2014 13:43 |
| 3 | 32 | 012914K03.D | 1. | B14A073-BS1 | 10 ppbv 1402036 | 29 Jan 2014 14:31 |
| 4 | 33 | 012914K04.D | 1. | S14A101-CRL1 | 10 ppbv 1402115 | 29 Jan 2014 15:17 |
| 5 | 35 | 012914K05.D | 1. | B14A073-BLK1 | 200mL CAN | 29 Jan 2014 16:07 |
| 6 | 35 | 012914K06.D | 1.48 | 1401046-03 | 200mL 939-SS-01-A Can 031 | 29 Jan 2014 16:56 |
| 7 | 36 | 012914K07.D | 1.48 | 1401046-02 | 200mL 931-SS-01-A Can 022 | 29 Jan 2014 17:46 |
| 8 | 37 | 012914K08.D | 2.07 | 1401049-01RE1 | 20mL MH01 Can 1987 | 29 Jan 2014 18:32 |
| 9 | 37 | 012914K09.D | 2.07 | 1401049-01 | 200mL MH01 Can 1987 | 29 Jan 2014 19:21 |
| 10 | 38 | 012914K10.D | 1. | BLANK CAN 851 | BLANK CAN 851 | 29 Jan 2014 20:11 |
| 11 | 39 | 012914K11.D | 1.91 | 1401049-02 | 200mL MH02 Can 1967 | 29 Jan 2014 21:01 |
| 12 | 39 | 012914K12.D | 1.91 | B14A073-DUP2 | 200mL MH02 Can 1967 | 29 Jan 2014 21:54 |
| 13 | 10 | 012914K13.D | 1.92 | 1401049-03 | 200mL MH03 Can 2003 | 29 Jan 2014 22:44 |
| 14 | 11 | 012914K14.D | 1.92 | 1401049-04 | 200mL MH04 Can 1108 | 29 Jan 2014 23:33 |
| 15 | 12 | 012914K15.D | 1.93 | 1401049-05 | 200mL MH05 Can 1117 | 30 Jan 2014 00:22 |
| 16 | 41 | 012914K16.D | 1. | BLANK CAN 878 | BLANK CAN 878 | 30 Jan 2014 01:12 |
| 17 | 42 | 012914K17.D | 1.92 | 1401049-06 | 200mL MH06 Can 1112 | 30 Jan 2014 02:01 |
| 18 | 43 | 012914K18.D | 1.81 | 1401049-07 | 200mL MH07 Can 863 | 30 Jan 2014 02:51 |
| 19 | 44 | 012914K19.D | 1.81 | 1401049-08 | 200mL MH08 Can 1978 | 30 Jan 2014 03:40 |
| 20 | 45 | 012914K20.D | 1. | BLANK CAN 882 | BLANK CAN 882 | 30 Jan 2014 04:30 |
| 21 | 46 | 012914K21.D | 1.94 | 1401049-09 | 200mL MH09 Can 1095 | 30 Jan 2014 05:19 |
| 22 | 47 | 012914K22.D | 1.92 | 1401049-10 | 200mL MH10 Can 636 | 30 Jan 2014 06:09 |
| 23 | 48 | 012914K23.D | 1.92 | 1401049-11 | 200mL MH11 Can 696 | 30 Jan 2014 06:58 |
| 24 | 49 | 012914K24.D | 1.91 | 1401049-12 | 200mL MH12 Can 1970 | 30 Jan 2014 07:48 |
| 25 | 31 | 012914K25.D | 1. | IBL4 | IBL | 30 Jan 2014 08:37 |
| 26 | 36 | 012914K26.D | 1.48 | 1401046-02RE1 | 50mL 931-SS-01-A Can 022 | 30 Jan 2014 09:23 |
| 27 | 36 | 012914K27.D | 1.48 | B14A073-DUP1 | 50mL 931-SS-01-ADUP Can 022 | 30 Jan 2014 10:10 |
| 28 | 49 | 012914K28.D | 1.91 | B14A073-DUP3 | 200mL MH12 Can 1970 | 30 Jan 2014 11:03 |

# Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012914KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014
Response Via : Initial Calibration

Calibration Files
1 =012414K03.D 2 =012414K04.D 5 =012414K05.D 10 =012414K02.D 15 =012414K06.D
20 =012414K07.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.803 | 0.648 | 0.607 | 0.575 | 0.593 | 0.587 | 0.636 | 13.46 |
| 3) | T | Dichlorodifluo... | 2.114 | 1.815 | 1.700 | 1.587 | 1.600 | 1.535 | 1.725 | 12.44 |
| 4) | T | 1,2-Dichlorote... | 2.105 | 1.795 | 1.697 | 1.636 | 1.709 | 1.678 | 1.770 | 9.72 |
| 5) | T | Chloromethane | 0.878 | 0.752 | 0.713 | 0.676 | 0.701 | 0.692 | 0.735 | 10.14 |
| 6) | T | Vinyl chloride | 0.915 | 0.775 | 0.757 | 0.732 | 0.751 | 0.752 | 0.780 | 8.63 |
| 7) | T | 1,3-Butadiene | 0.668 | 0.578 | 0.562 | 0.548 | 0.573 | 0.575 | 0.584 | 7.28 |
| 8) | T | Bromomethane | 0.687 | 0.594 | 0.559 | 0.531 | 0.557 | 0.550 | 0.580 | 9.75 |
| 9) | T | Chloroethane | 0.475 | 0.416 | 0.392 | 0.373 | 0.389 | 0.387 | 0.405 | 9.03 |
| 10) | T | Bromoethene | 0.619 | 0.549 | 0.520 | 0.505 | 0.528 | 0.525 | 0.541 | 7.53 |
| 11) | T | Trichlorofluor... | 1.758 | 1.515 | 1.449 | 1.373 | 1.438 | 1.420 | 1.492 | 9.25 |
| 12) | T | 1,1,2-Trichlor... | 1.201 | 1.068 | 1.006 | 0.986 | 1.001 | 1.006 | 1.045 | 7.83 |
| 13) | T | 1,1-Dichloroet... | 1.312 | 1.137 | 1.119 | 1.084 | 1.134 | 1.134 | 1.153 | 6.96 |
| 14) | T | Acetone | 1.139 | 1.082 | 1.000 | 0.975 | 1.001 | 0.984 | 1.030 | 6.35 |
| 15) | T | Carbon disulfide | 1.932 | 1.705 | 1.624 | 1.571 | 1.633 | 1.613 | 1.680 | 7.79 |
| 16) | T | 2-Propanol | 1.135 | 1.047 | 1.013 | 1.020 | 1.057 | 1.052 | 1.054 | 4.13 |
| 17) | T | Allyl chloride | 0.910 | 0.838 | 0.831 | 0.817 | 0.859 | 0.849 | 0.851 | 3.83 |
| 18) | T | Dichloromethane | 1.364 | 1.080 | 0.928 | 0.858 | 0.868 | 0.857 | 0.992 | 20.26 |
| 19) | T | tert-Butyl met... | 1.754 | 1.701 | 1.681 | 1.640 | 1.741 | 1.735 | 1.708 | 2.53 |
| 20) | T | trans-1,2-Dich... | 1.022 | 0.952 | 0.929 | 0.890 | 0.932 | 0.917 | 0.940 | 4.79 |
| 21) | T | Hexane | 1.227 | 1.130 | 1.130 | 1.097 | 1.158 | 1.144 | 1.148 | 3.81 |
| 22) | T | 1,1-Dichloroet... | 1.585 | 1.418 | 1.356 | 1.293 | 1.356 | 1.345 | 1.392 | 7.36 |
| 23) | T | Vinyl acetate | 1.523 | 1.446 | 1.495 | 1.507 | 1.605 | 1.602 | 1.530 | 4.11 |
| 24) | T | cis-1,2-Dichlo... | 1.128 | 1.020 | 0.999 | 0.968 | 1.013 | 1.008 | 1.023 | 5.34 |
| 25) | T | 2-Butanone (MEK) | 1.134 | 1.316 | 1.344 | 1.430 | 1.356 | 1.350 | 1.322 | 7.51 |
| 26) | T | Ethyl acetate | 1.912 | 1.815 | 1.734 | 1.575 | 1.807 | 1.788 | 1.772 | 6.34 |
| 27) | T | Tetrahydrofuran | 0.950 | 0.898 | 0.888 | 0.866 | 0.907 | 0.892 | 0.900 | 3.11 |
| 28) | T | Chloroform | 1.563 | 1.437 | 1.370 | 1.314 | 1.387 | 1.366 | 1.406 | 6.14 |
| 29) | T | Cyclohexane | 1.233 | 1.173 | 1.152 | 1.112 | 1.176 | 1.167 | 1.169 | 3.37 |
| 30) | T | 1,1,1-Trichlor... | 1.535 | 1.408 | 1.372 | 1.300 | 1.382 | 1.370 | 1.394 | 5.55 |
| 31) | T | Carbon tetrach... | 1.472 | 1.387 | 1.307 | 1.264 | 1.342 | 1.341 | 1.352 | 5.30 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.977 | 0.894 | 0.859 | 0.821 | 0.862 | 0.848 | 0.877 | 6.21 |
| 34) | T | 2,2,4-Trimethy... | 1.406 | 1.330 | 1.342 | 1.304 | 1.378 | 1.362 | 1.354 | 2.68 |
| 35) | T | 1,2-Dichloroet... | 0.394 | 0.359 | 0.350 | 0.333 | 0.348 | 0.341 | 0.354 | 5.97 |
| 36) | T | Heptane | 0.538 | 0.498 | 0.507 | 0.495 | 0.519 | 0.515 | 0.512 | 3.09 |
| 37) | T | Trichloroethene | 0.370 | 0.342 | 0.326 | 0.313 | 0.331 | 0.327 | 0.335 | 5.87 |
| 38) | T | 1,2-Dichloropr... | 0.376 | 0.344 | 0.330 | 0.314 | 0.328 | 0.322 | 0.336 | 6.49 |
| 39) | T | 1,4-Dioxane | 0.144 | 0.145 | 0.159 | 0.164 | 0.175 | 0.173 | 0.160 | 8.25 |
| 40) | T | Bromodichlorom... | 0.597 | 0.547 | 0.534 | 0.512 | 0.539 | 0.530 | 0.543 | 5.31 |
| 41) | T | cis-1,3-Dichlo... | 0.496 | 0.469 | 0.462 | 0.451 | 0.477 | 0.472 | 0.471 | 3.24 |
| 42) | T | 4-Methyl-2-pen... | 0.641 | 0.655 | 0.665 | 0.651 | 0.685 | 0.678 | 0.663 | 2.55 |
| 43) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 44) | T | Toluene | 1.148 | 1.094 | 1.059 | 1.017 | 1.103 | 1.087 | 1.085 | 4.06 |
| 45) | T | trans-1,3-Dich... | 0.482 | 0.453 | 0.451 | 0.451 | 0.484 | 0.481 | 0.467 | 3.59 |
| 46) | T | 1,1,2-Trichlor... | 0.388 | 0.370 | 0.353 | 0.330 | 0.356 | 0.352 | 0.358 | 5.37 |
| 47) | T | Tetrachloroethene | 0.549 | 0.514 | 0.485 | 0.459 | 0.506 | 0.503 | 0.503 | 5.95 |
| 48) | T | 2-Hexanone | 0.620 | 0.639 | 0.653 | 0.652 | 0.711 | 0.699 | 0.662 | 5.32 |
| 49) | T | Chlorodibromom... | 0.583 | 0.550 | 0.532 | 0.506 | 0.554 | 0.551 | 0.546 | 4.66 |
| 50) | T | 1,2-Dibromoeth... | 0.523 | 0.508 | 0.492 | 0.467 | 0.504 | 0.497 | 0.499 | 3.81 |
| 51) | T | Chlorobenzene | 0.898 | 0.839 | 0.797 | 0.764 | 0.823 | 0.812 | 0.822 | 5.48 |
| 52) | T | Ethylbenzene | 1.491 | 1.425 | 1.390 | 1.350 | 1.460 | 1.453 | 1.428 | 3.59 |
| 53) | T | m&p-Xylene | 1.078 | 1.060 | 1.057 | 1.041 | 1.151 | 1.155 | 1.090 | 4.57 |
| 54) | T | o-Xylene | 1.071 | 1.066 | 1.045 | 1.024 | 1.124 | 1.126 | 1.076 | 3.86 |
| 55) | T | Styrene | 0.837 | 0.841 | 0.848 | 0.844 | 0.939 | 0.936 | 0.874 | 5.64 |
| 56) | T | Bromoform | 0.571 | 0.555 | 0.553 | 0.544 | 0.610 | 0.614 | 0.575 | 5.27 |

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012914KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | 1,1,2,2-Tetrac... | 0.890 | 0.869 | 0.829 | 0.797 | 0.862 | 0.850 | 0.849 | 3.85 |
| 58) | T | 4-Ethyltoluene | 1.338 | 1.361 | 1.354 | 1.336 | 1.478 | 1.480 | 1.391 | 4.94 |
| 59) | T | 1,3,5-Trimethy... | 1.195 | 1.187 | 1.185 | 1.195 | 1.314 | 1.322 | 1.233 | 5.35 |
| 60) | T | 1,2,4-Trimethy... | 1.168 | 1.207 | 1.187 | 1.198 | 1.330 | 1.334 | 1.237 | 6.02 |
| 61) | T | 1,3-Dichlorobe... | 0.848 | 0.839 | 0.806 | 0.810 | 0.911 | 0.909 | 0.854 | 5.44 |
| 62) | T | 1,4-Dichlorobe... | 0.801 | 0.809 | 0.796 | 0.807 | 0.899 | 0.899 | 0.835 | 5.93 |
| 63) | T | Benzyl chloride | 0.876 | 0.887 | 0.907 | 0.908 | 1.003 | 1.002 | 0.930 | 6.13 |
| 64) | T | 1,2-Dichlorobe... | 0.837 | 0.820 | 0.796 | 0.786 | 0.875 | 0.874 | 0.831 | 4.59 |
| 65) | T | 1,2,4-Trichlor... | 0.770 | 0.777 | 0.752 | 0.795 | 0.914 | 0.914 | 0.820 | 9.02 |
| 66) | T | Hexachlorobuta... | 0.680 | 0.741 | 0.705 | 0.663 | 0.745 | 0.724 | 0.710 | 4.67 |

(#) = Out of Range

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2014\012914KA\012914K01.D
Tune Time : 29 Jan 2014 12:55

Daily Calibration File : C:\msdchem\1\DATA\2014\012914KA\012914K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| | | 924263 | 2389160 | 2113430 |
| 012914K02.D | S14A101-CCV1 | 924263 | 2389160 | 2113429 |
| 012914K03.D | B14A073-BS1 | 899663 | 2295868 | 2036787 |
| 012914K04.D | S14A101-CRL1 | 919597 | 2311933 | 2042651 |
| 012914K05.D | B14A073-BLK1 | 925126 | 2391935 | 2117265 |
| 012914K06.D | 1401046-03 | 885080 | 2267094 | 2023118 |
| 012914K07.D | 1401046-02 | 892799 | 2266702 | 2015119 |
| 012914K08.D | 1401049-01RE1 | 912277 | 2320616 | 2067365 |
| 012914K09.D | 1401049-01 | 974792 | 2332629 | 2085474 |
| 012914K10.D | BLANK CAN 851 | 926992 | 2353056 | 2081394 |
| 012914K11.D | 1401049-02 | 946381 | 2352968 | 2076432 |
| 012914K12.D | B14A073-DUP2 | 907945 | 2247588 | 1972898 |
| 012914K13.D | 1401049-03 | 955483 | 2310862 | 2063753 |
| 012914K14.D | 1401049-04 | 960956 | 2292720 | 2029550 |
| 012914K15.D | 1401049-05 | 998138 | 2385315 | 2127790 |
| 012914K16.D | BLANK CAN 878 | 939026 | 2416608 | 2127226 |
| 012914K17.D | 1401049-06 | 978773 | 2316129 | 2052387 |
| 012914K18.D | 1401049-07 | 999599 | 2396477 | 2115635 |
| 012914K19.D | 1401049-08 | 987565 | 2402692 | 2114034 |
| 012914K20.D | BLANK CAN 882 | 954298 | 2430569 | 2143750 |

| | | | | |
|---|---|---|---|---|
| 012914K21.D | | | | |
| | 1401049-09 | 944401 | 2389871 | 2111832 |
| 012914K22.D | | | | |
| | 1401049-10 | 922350 | 2296863 | 2012672 |
| 012914K23.D | | | | |
| | 1401049-11 | 933367 | 2313574 | 2010456 |
| 012914K24.D | | | | |
| | 1401049-12 | 890065 | 2225168 | 1952708 |
| 012914K25.D | | | | |
| | IBL | 881151 | 2226401 | 1960399 |
| 012914K26.D | | | | |
| | 1401046-02 | 884132 | 2274750 | 1997146 |
| 012914K27.D | | | | |
| | B14A073-DUP1 | 870686 | 2225847 | 1932524 |
| 012914K28.D | | | | |
| | B14A073-DUP3 | 869051 | 2216287 | 1936897 |

(fails) - fails 24hr time check  * - fails criteria

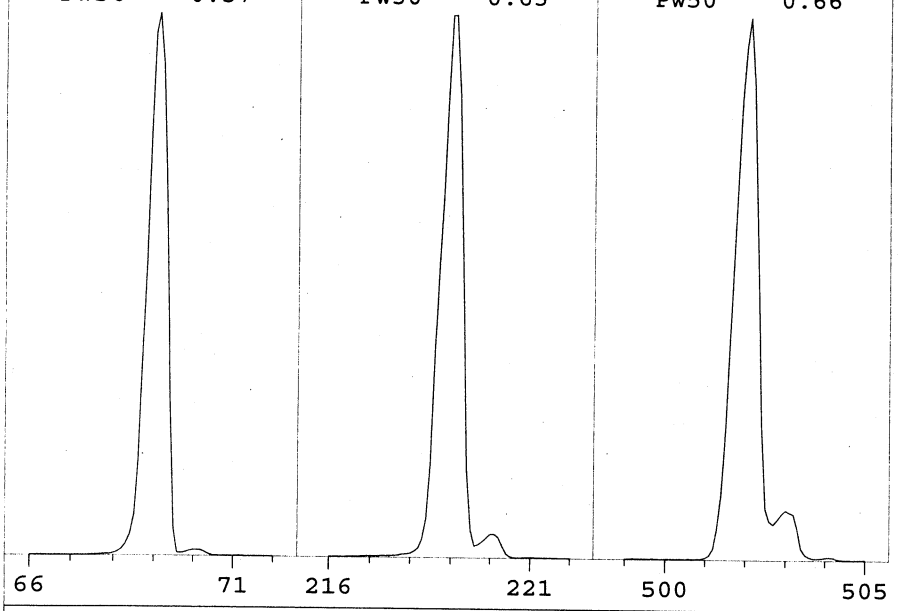
Created: Fri Jan 31 14:35:55 2014  HP5973K

5973N

Wed Jan 29 12:05:10 2014
C:\msdchem\1\5973N\BFB012914KA.u

Instrument: HP5973K
US03960556

| Mass | 69.10 | Mass | 219.10 | Mass | 502.10 |
|---|---|---|---|---|---|
| Ab | 549299 | Ab | 272915 | Ab | 30474 |
| Pw50 | 0.57 | Pw50 | 0.63 | Pw50 | 0.66 |

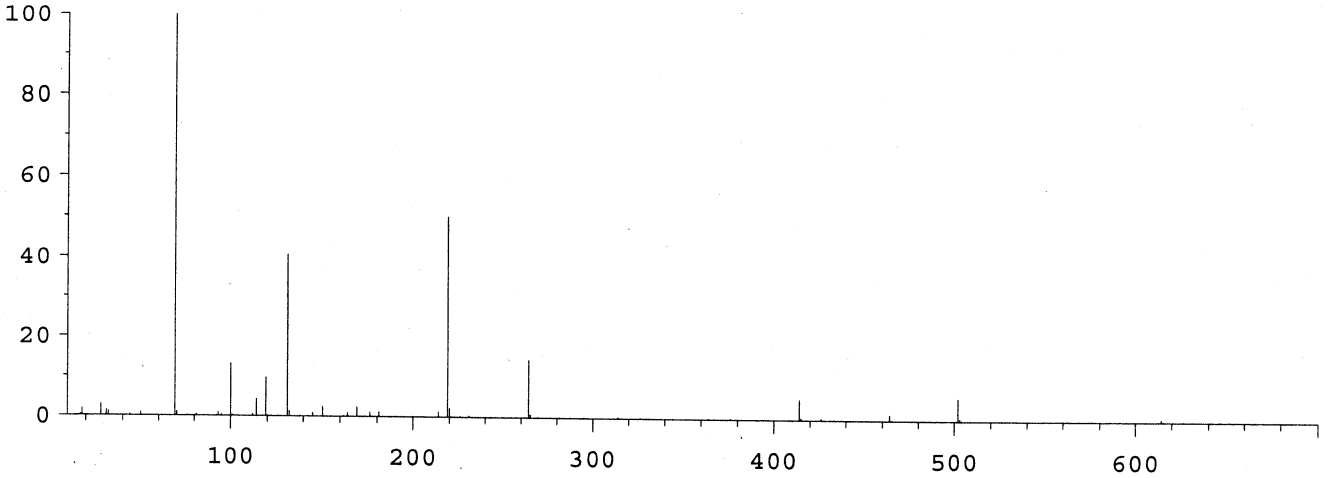



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 99 |
| | | MassOffs | -8 |
| Emission | 34.6 | AmuGain | 2003 |
| EIEnrgy | 69.9 | AmuOffs | 125 |
| Filament | 1 | Wid219 | -0.016 |
| | | DC Pol | Pos |
| Repeller | 32.97 | | |
| IonFcus | 86.4 | HEDEnab | On |
| EntLens | 16.5 | EMVolts | 1482 |
| EntOffs | 19.07 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
124 peaks Base: 69.10 Abundance: 457984




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 457984 | 100.00 | 70.10 | 5101 | 1.11 |
| 219.00 | 229312 | 50.07 | 220.00 | 9887 | 4.31 |
| 502.00 | 25720 | 5.62 | 503.10 | 2905 | 11.29 |

Air/Water Check: H20~1.67% N2~2.80% O2~1.08% CO2~0.26% N2/H2O~167.41%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 54427
Repeller Maximum 35 volts using ion 219; Gain Factor 0.54

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

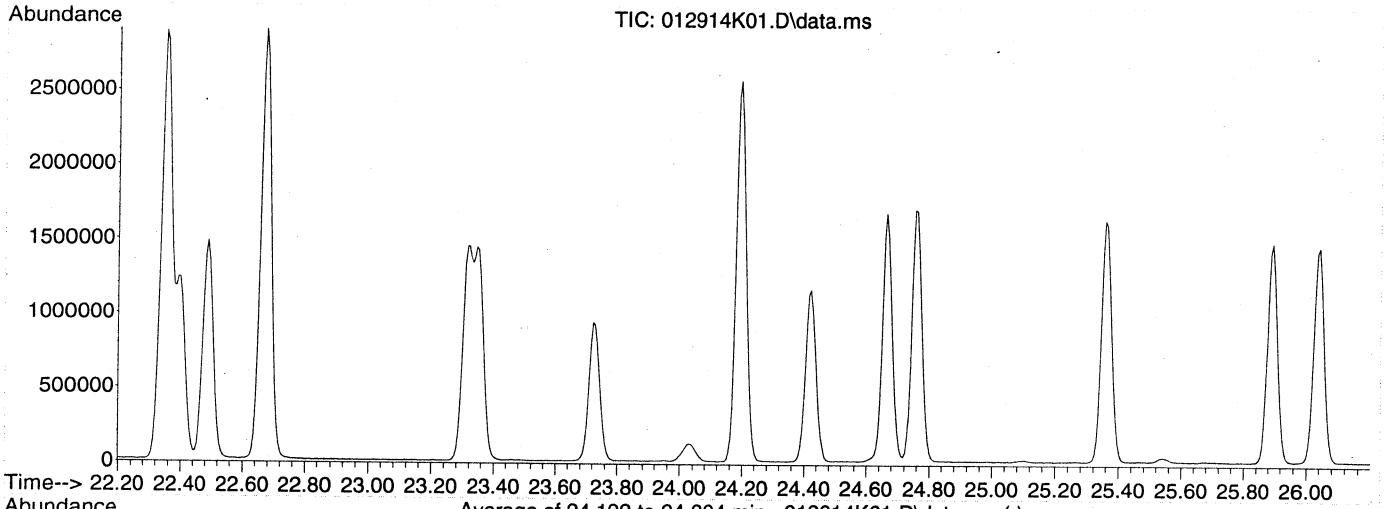
| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 |
| Entrance Lens Offset: | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 |

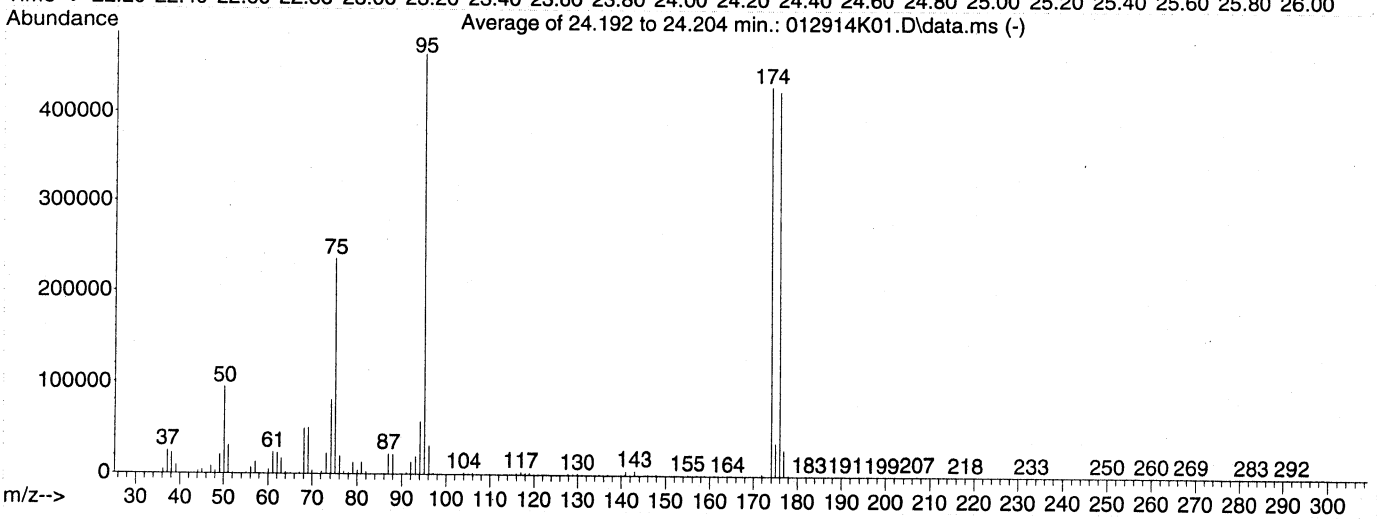
BFB

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K01.D
Acq On : 29 Jan 2014 12:55
Operator : EM
Sample : S14A101-TUN1
Misc : BFB STD 1311118/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2014\012914KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014




AutoFind: Scans 3388, 3389, 3390; Background Corrected with Scan 3376

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 20.3 | 94568 | PASS |
| 75 | 95 | 30 | 66 | 50.6 | 235729 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 466225 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 30916 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 92.3 | 430507 | PASS |
| 175 | 174 | 4 | 9 | 8.2 | 35503 | PASS |
| 176 | 174 | 93 | 101 | 98.7 | 424896 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 27727 | PASS |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 35.20 | 40 | 47.10 | 8119 | 58.10 | 492 | 69.10 | 49729 |
| 36.10 | 4743 | 48.00 | 3194 | 58.80 | 79 | 70.05 | 3765 |
| 37.10 | 24869 | 49.10 | 20575 | 60.10 | 4613 | 71.10 | 194 |
| 38.10 | 21972 | 50.10 | 94568 | 61.10 | 23069 | 72.10 | 2874 |
| 39.10 | 8880 | 51.05 | 30623 | 62.10 | 22256 | 73.10 | 22381 |
| 40.10 | 320 | 52.05 | 1045 | 63.05 | 16677 | 74.10 | 81078 |
| 42.05 | 87 | 53.05 | 233 | 64.05 | 1847 | 75.05 | 235729 |
| 43.10 | 61 | 54.20 | 81 | 65.10 | 862 | 76.05 | 19868 |
| 44.10 | 2894 | 55.00 | 1066 | 66.10 | 40 | 77.05 | 3196 |
| 45.10 | 4469 | 56.10 | 7307 | 67.05 | 1503 | 78.00 | 2096 |
| 46.10 | 113 | 57.10 | 12952 | 68.05 | 49253 | 79.00 | 12815 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 80.05 | 4029 | 91.00 | 1827 | 101.80 | 30 | 109.80 | 104 |
| 81.00 | 12970 | 92.05 | 13392 | 102.30 | 46 | 109.95 | 222 |
| 82.00 | 3171 | 93.10 | 19390 | 102.90 | 177 | 110.90 | 301 |
| 83.00 | 352 | 94.10 | 57245 | 104.00 | 2100 | 111.95 | 378 |
| 83.90 | 45 | 95.10 | 466225 | 105.00 | 783 | 112.95 | 322 |
| 84.50 | 16 | 96.10 | 30916 | 105.95 | 2017 | 113.80 | 53 |
| 85.15 | 95 | 97.15 | 954 | 106.95 | 442 | 114.15 | 0 |
| 85.95 | 447 | 97.90 | 50 | 108.00 | 71 | 114.95 | 412 |
| 87.00 | 21916 | 98.10 | 52 | 108.30 | 65 | 115.95 | 1636 |
| 88.00 | 21577 | 99.10 | 14 | 109.00 | 48 | 116.95 | 3024 |
| 90.20 | 70 | 100.75 | 9 | 109.20 | 43 | 117.95 | 1787 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 118.95 | 2465 | 129.00 | 791 | 139.95 | 501 | 149.90 | 479 |
| 119.95 | 137 | 129.95 | 1679 | 141.00 | 4734 | 151.80 | 53 |
| 121.00 | 46 | 131.00 | 678 | 141.95 | 610 | 151.95 | 179 |
| 122.00 | 26 | 132.05 | 2 | 142.90 | 5294 | 152.95 | 351 |
| 122.30 | 38 | 133.00 | 15 | 143.85 | 319 | 153.30 | 53 |
| 123.00 | 184 | 133.85 | 143 | 144.10 | 49 | 153.90 | 225 |
| 123.85 | 344 | 134.95 | 834 | 145.00 | 327 | 154.10 | 63 |
| 125.05 | 107 | 136.00 | 175 | 145.95 | 757 | 154.95 | 1237 |
| 125.95 | 259 | 136.95 | 788 | 146.95 | 302 | 156.00 | 280 |
| 126.95 | 227 | 138.10 | 59 | 147.90 | 1281 | 156.95 | 775 |
| 127.85 | 1596 | 139.05 | 109 | 148.90 | 336 | 157.95 | 108 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 158.95 | 584 | 166.15 | 25 | 170.10 | 74 | 179.20 | 53 |
| 159.70 | 17 | 166.40 | 10 | 170.50 | 89 | 179.85 | 34 |
| 160.05 | 100 | 166.70 | 24 | 170.70 | 75 | 181.00 | 17 |
| 161.00 | 607 | 166.85 | 42 | 171.00 | 115 | 181.90 | 17 |
| 162.00 | 29 | 167.25 | 72 | 171.95 | 2348 | 182.65 | 20 |
| 162.60 | 19 | 167.55 | 28 | 174.00 | 430507 | 182.90 | 11 |
| 162.95 | 43 | 168.20 | 38 | 174.95 | 35503 | 184.70 | 17 |
| 163.80 | 19 | 168.40 | 27 | 176.00 | 424896 | 185.00 | 19 |
| 164.10 | 91 | 168.95 | 77 | 176.95 | 27727 | 185.20 | 17 |
| 164.90 | 60 | 169.25 | 82 | 177.95 | 790 | 186.15 | 34 |
| 165.80 | 24 | 169.80 | 84 | 179.00 | 69 | 187.30 | 16 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 188.00 | 10 | 195.90 | 23 | 203.15 | 40 | 218.05 | 117 |
| 188.50 | 10 | 197.20 | 6 | 206.00 | 54 | 219.10 | 13 |
| 188.90 | 16 | 197.80 | 12 | 207.15 | 997 | 220.50 | 8 |
| 189.20 | 8 | 199.10 | 8 | 209.00 | 60 | 221.10 | 20 |
| 189.90 | 16 | 199.60 | 19 | 210.10 | 62 | 222.30 | 16 |
| 190.30 | 18 | 200.10 | 7 | 210.90 | 37 | 223.10 | 85 |
| 190.95 | 99 | 200.70 | 13 | 211.10 | 33 | 225.40 | 10 |
| 192.85 | 47 | 201.80 | 8 | 214.60 | 12 | 227.05 | 23 |
| 193.10 | 81 | 202.10 | 12 | 215.90 | 17 | 227.80 | 9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 193.95 | 45 | 202.30 | 9 | 216.80 | 12 | 228.80 | 9 |
| 195.05 | 30 | 202.90 | 16 | 217.20 | 16 | 230.80 | 9 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 232.05 | 90 | 250.00 | 32 | 258.75 | 34 | 269.00 | 62 |
| 233.00 | 120 | 250.55 | 14 | 260.00 | 205 | 269.70 | 31 |
| 234.05 | 42 | 251.05 | 18 | 261.15 | 129 | 269.90 | 17 |
| 236.95 | 11 | 251.30 | 11 | 262.20 | 111 | 270.15 | 23 |
| 238.00 | 12 | 251.80 | 15 | 262.80 | 8 | 271.10 | 30 |
| 238.20 | 8 | 252.95 | 57 | 263.80 | 18 | 271.65 | 37 |
| 238.95 | 53 | 253.70 | 24 | 264.40 | 14 | 274.00 | 30 |
| 240.70 | 22 | 255.15 | 58 | 265.00 | 82 | 274.70 | 9 |
| 242.90 | 9 | 256.55 | 47 | 266.05 | 44 | 276.10 | 7 |
| 245.30 | 8 | 257.10 | 11 | 266.80 | 40 | 276.50 | 9 |
| 246.10 | 9 | 257.40 | 11 | 267.05 | 40 | 282.10 | 6 |

Average of 24.192 to 24.204 min.: 012914K01.D\data.ms
S14A101-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 282.70 | 29 | 293.90 | 18 | | | | |
| 282.95 | 22 | 294.30 | 7 | | | | |
| 284.05 | 25 | 294.60 | 8 | | | | |
| 284.60 | 11 | 295.00 | 10 | | | | |
| 286.10 | 41 | 295.70 | 8 | | | | |
| 288.90 | 8 | 296.05 | 21 | | | | |
| 289.75 | 23 | 296.70 | 7 | | | | |
| 291.00 | 16 | 297.20 | 7 | | | | |
| 291.95 | 60 | 297.45 | 21 | | | | |
| 293.10 | 54 | 298.70 | 9 | | | | |
| 293.70 | 13 | | | | | | |

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:28 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 102 | 0.00 |
| 2 | T | Propene | 0.636 | 0.612 | 3.8 | 108 | 0.00 |
| 3 | T | Dichlorodifluoromethane | 1.725 | 1.585 | 8.1 | 102 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 1.770 | 1.670 | 5.6 | 104 | 0.00 |
| 5 | T | Chloromethane | 0.735 | 0.707 | 3.8 | 107 | 0.00 |
| 6 | T | Vinyl chloride | 0.780 | 0.742 | 4.9 | 103 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.584 | 0.565 | 3.3 | 105 | 0.00 |
| 8 | T | Bromomethane | 0.580 | 0.533 | 8.1 | 102 | 0.00 |
| 9 | T | Chloroethane | 0.405 | 0.375 | 7.4 | 102 | 0.00 |
| 10 | T | Bromoethene | 0.541 | 0.505 | 6.7 | 102 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.492 | 1.428 | 4.3 | 106 | 0.00 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 1.045 | 1.013 | 3.1 | 105 | 0.00 |
| 13 | T | 1,1-Dichloroethene | 1.153 | 1.092 | 5.3 | 103 | 0.00 |
| 14 | T | Acetone | 1.030 | 1.007 | 2.2 | 105 | 0.00 |
| 15 | T | Carbon disulfide | 1.680 | 1.575 | 6.2 | 102 | 0.00 |
| 16 | T | 2-Propanol | 1.054 | 1.045 | 0.9 | 104 | 0.00 |
| 17 | T | Allyl chloride | 0.851 | 0.834 | 2.0 | 104 | 0.00 |
| 18 | T | Dichloromethane | 0.992 | 0.877 | 11.6 | 104 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 1.708 | 1.669 | 2.3 | 104 | 0.00 |
| 20 | T | trans-1,2-Dichloroethene | 0.940 | 0.895 | 4.8 | 102 | 0.00 |
| 21 | T | Hexane | 1.148 | 1.107 | 3.6 | 103 | 0.00 |
| 22 | T | 1,1-Dichloroethane | 1.392 | 1.305 | 6.2 | 103 | 0.00 |
| 23 | T | Vinyl acetate | 1.530 | 1.551 | -1.4 | 105 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 1.023 | 0.955 | 6.6 | 100 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.322 | 1.369 | -3.6 | 97 | 0.00 |
| 26 | T | Ethyl acetate | 1.772 | 1.756 | 0.9 | 114 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.900 | 0.881 | 2.1 | 104 | 0.00 |
| 28 | T | Chloroform | 1.406 | 1.316 | 6.4 | 102 | 0.00 |
| 29 | T | Cyclohexane | 1.169 | 1.114 | 4.7 | 102 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 1.394 | 1.322 | 5.2 | 104 | 0.00 |
| 31 | T | Carbon tetrachloride | 1.352 | 1.281 | 5.3 | 103 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 33 | T | Benzene | 0.877 | 0.842 | 4.0 | 102 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 1.354 | 1.338 | 1.2 | 102 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.354 | 0.343 | 3.1 | 103 | 0.00 |
| 36 | T | Heptane | 0.512 | 0.515 | -0.6 | 104 | 0.00 |
| 37 | T | Trichloroethene | 0.335 | 0.320 | 4.5 | 102 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.336 | 0.316 | 6.0 | 100 | 0.00 |
| 39 | T | 1,4-Dioxane | 0.160 | 0.168 | -5.0 | 102 | 0.00 |
| 40 | T | Bromodichloromethane | 0.543 | 0.515 | 5.2 | 100 | 0.00 |
| 41 | T | cis-1,3-Dichloropropene | 0.471 | 0.452 | 4.0 | 100 | 0.00 |
| 42 | T | 4-Methyl-2-pentanone (MIBK) | 0.663 | 0.684 | -3.2 | 105 | 0.00 |
| 43 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 94 | 0.00 |
| 44 | T | Toluene | 1.085 | 1.082 | 0.3 | 100 | 0.00 |
| 45 | T | trans-1,3-Dichloropropene | 0.467 | 0.479 | -2.6 | 100 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:28 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | 1,1,2-Trichloroethane | 0.358 | 0.352 | 1.7 | 100 | 0.00 |
| 47 | T | Tetrachloroethene | 0.503 | 0.493 | 2.0 | 101 | 0.00 |
| 48 | T | 2-Hexanone | 0.662 | 0.730 | -10.3 | 105 | 0.00 |
| 49 | T | Chlorodibromomethane | 0.546 | 0.546 | 0.0 | 101 | 0.00 |
| 50 | T | 1,2-Dibromoethane (EDB) | 0.499 | 0.486 | 2.6 | 98 | 0.00 |
| 51 | T | Chlorobenzene | 0.822 | 0.814 | 1.0 | 100 | 0.00 |
| 52 | T | Ethylbenzene | 1.428 | 1.435 | -0.5 | 100 | 0.00 |
| 53 | T | m&p-Xylene | 1.090 | 1.112 | -2.0 | 100 | 0.00 |
| 54 | T | o-Xylene | 1.076 | 1.087 | -1.0 | 100 | 0.00 |
| 55 | T | Styrene | 0.874 | 0.913 | -4.5 | 102 | 0.00 |
| 56 | T | Bromoform | 0.575 | 0.582 | -1.2 | 100 | 0.00 |
| 57 | T | 1,1,2,2-Tetrachloroethane | 0.849 | 0.846 | 0.4 | 100 | 0.00 |
| 58 | T | 4-Ethyltoluene | 1.391 | 1.416 | -1.8 | 100 | 0.00 |
| 59 | T | 1,3,5-Trimethylbenzene | 1.233 | 1.267 | -2.8 | 100 | 0.00 |
| 60 | T | 1,2,4-Trimethylbenzene | 1.237 | 1.269 | -2.6 | 99 | 0.00 |
| 61 | T | 1,3-Dichlorobenzene | 0.854 | 0.867 | -1.5 | 100 | 0.00 |
| 62 | T | 1,4-Dichlorobenzene | 0.835 | 0.852 | -2.0 | 99 | 0.00 |
| 63 | T | Benzyl chloride | 0.930 | 0.947 | -1.8 | 98 | 0.00 |
| 64 | T | 1,2-Dichlorobenzene | 0.831 | 0.830 | 0.1 | 99 | 0.00 |
| 65 | T | 1,2,4-Trichlorobenzene | 0.820 | 0.830 | -1.2 | 98 | 0.00 |
| 66 | T | Hexachlorobutadiene | 0.710 | 0.692 | 2.5 | 98 | 0.00 |

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:28 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: [illegible] Date: 1/29/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/31/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 924263 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2389160 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2113429 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 275216 | 10.31 | ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 686038 | 9.46 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 736720 | 9.91 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 311936 | 10.10 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 327519 | 9.99 | ppbv | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 242298 | 9.88 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 230778 | 9.48 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 162522 | 9.55 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 218399 | 9.61 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 642250 | 10.24 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 413032 | 9.41 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 440494 | 9.09 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 448523 | 10.36 | ppbv | 99 |
| 15) Carbon disulfide | 10.012 | 76 | 675240 | 9.57 | ppbv | 99 |
| 16) 2-Propanol | 10.438 | 45 | 417170 | 9.42 | ppbv | 99 |
| 17) Allyl chloride | 10.839 | 41 | 354149 | 9.91 | ppbv | 98 |
| 18) Dichloromethane | 11.380 | 49 | 361218 | 8.66 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.068 | 73 | 764685 | 10.65 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 357443 | 9.05 | ppbv | 99 |
| 21) Hexane | 12.713 | 57 | 474396 | 9.84 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 532054 | 9.10 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 651681 | 10.14 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 405524 | 9.44 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 598207 | 10.77 | ppbv | 97 |
| 26) Ethyl acetate | 15.043 | 43 | 767449m | 10.31 | ppbv | |
| 27) Tetrahydrofuran | 15.450 | 42 | 381382 | 10.08 | ppbv | 97 |
| 28) Chloroform | 15.596 | 83 | 564261 | 9.55 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 486874 | 9.92 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 561031 | 9.58 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 554512 | 9.76 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 923541 | 9.70 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1526624 | 10.38 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 365541 | 9.51 | ppbv | 99 |
| 36) Heptane | 16.971 | 43 | 586868 | 10.56 | ppbv | 99 |
| 37) Trichloroethene | 17.859 | 130 | 351201 | 9.65 | ppbv | 100 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 353781 | 9.71 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.559 | 88 | 193352 | 11.12 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 592862 | 10.05 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 506048 | 9.89 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 779924 | 10.84 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1060057 | 10.17 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 492688 | 10.98 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 348679 | 10.13 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 474177 | 9.82 | ppbv | 99 |
| 48) 2-Hexanone | 21.181 | 43 | 722255 | 11.35 | ppbv | 98 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:28 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 545289 | 10.39 | ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 481448 | 10.05 | ppbv | 99 |
| 51) Chlorobenzene | 22.398 | 112 | 813921 | 10.30 | ppbv | 99 |
| 52) Ethylbenzene | 22.489 | 91 | 1406764 | 10.25 | ppbv | 100 |
| 53) m&p-Xylene | 22.672 | 91 | 2178570 | 20.80 | ppbv | 99 |
| 54) o-Xylene | 23.316 | 91 | 1076182 | 10.41 | ppbv | 100 |
| 55) Styrene | 23.353 | 104 | 886457 | 10.56 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 575666 | 10.43 | ppbv | 100 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 829574 | 10.17 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.667 | 105 | 1428619 | 10.69 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1254080 | 10.59 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1231284 | 10.36 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 824844 | 10.06 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 810559 | 10.10 | ppbv | 100 |
| 63) Benzyl chloride | 26.255 | 91 | 936825 | 10.48 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.644 | 146 | 789991 | 9.89 | ppbv | 99 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 725536 | 9.21 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 631650 | 9.26 | ppbv | 99 |

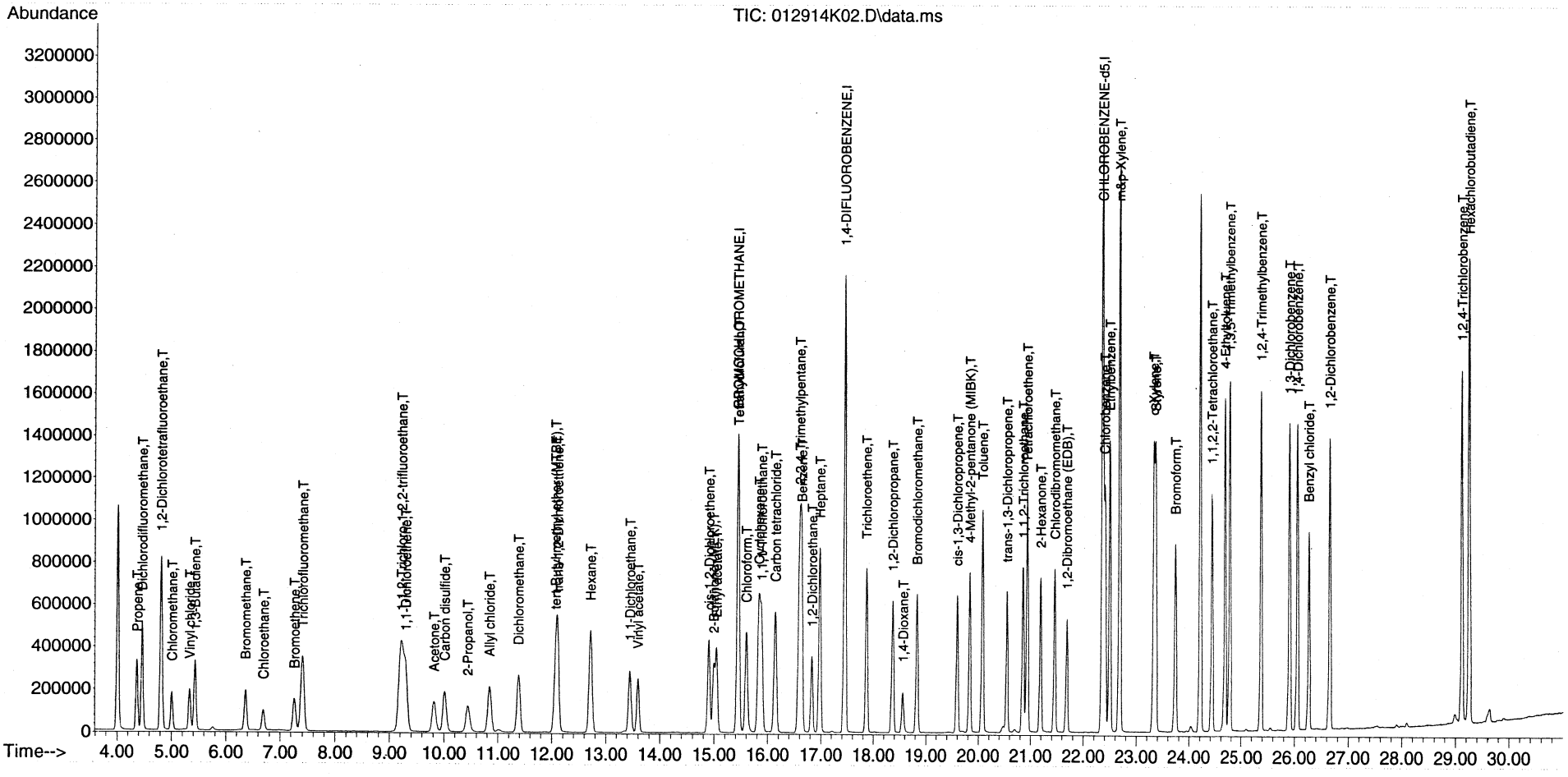
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:28 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

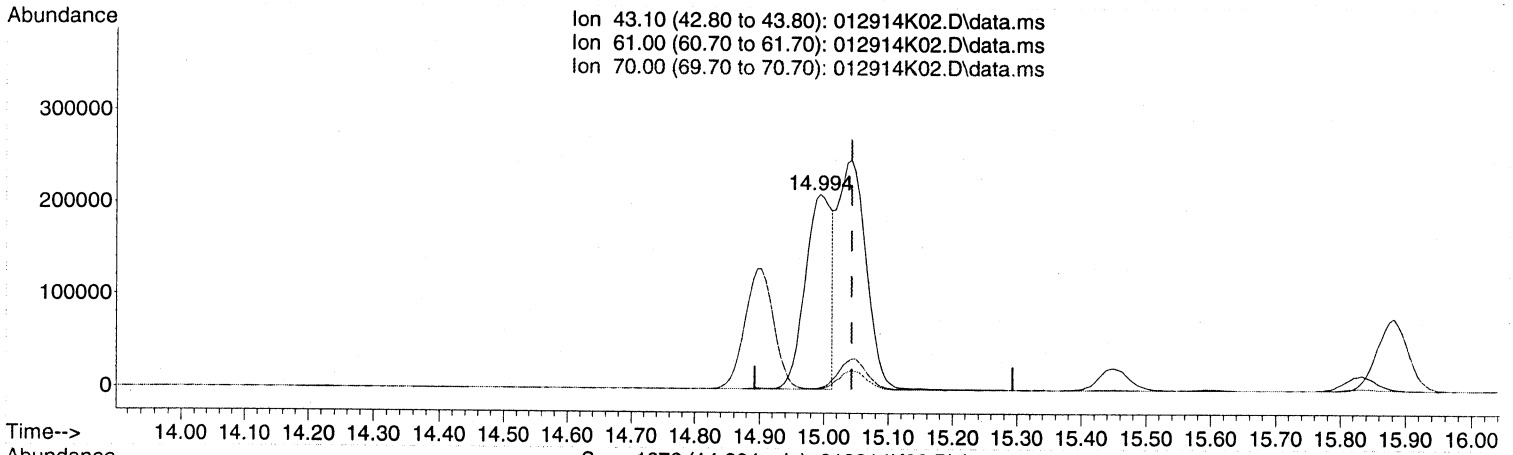


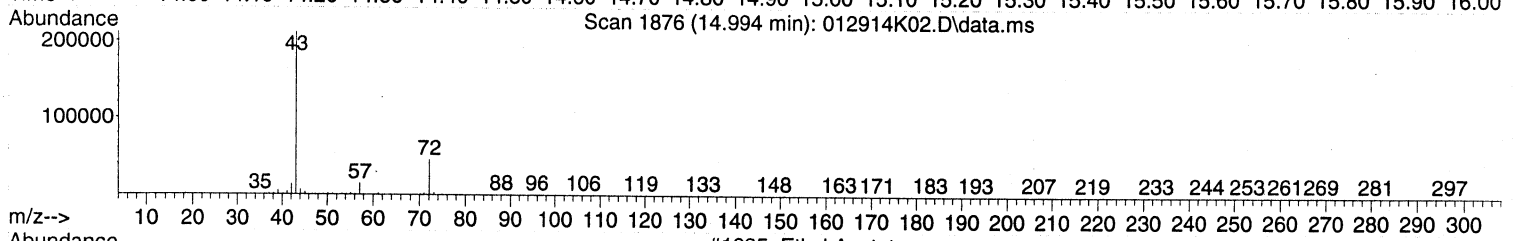
Quantitation Report (Qedit)

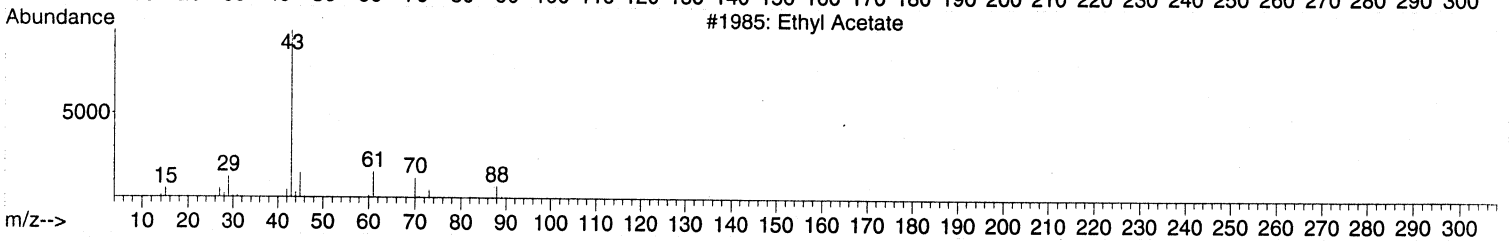
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:10 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K02.D\data.ms

(26) Ethyl acetate (T)

14.994min (-0.049) 8.04 ppbv

response 598207

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT 4.9

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

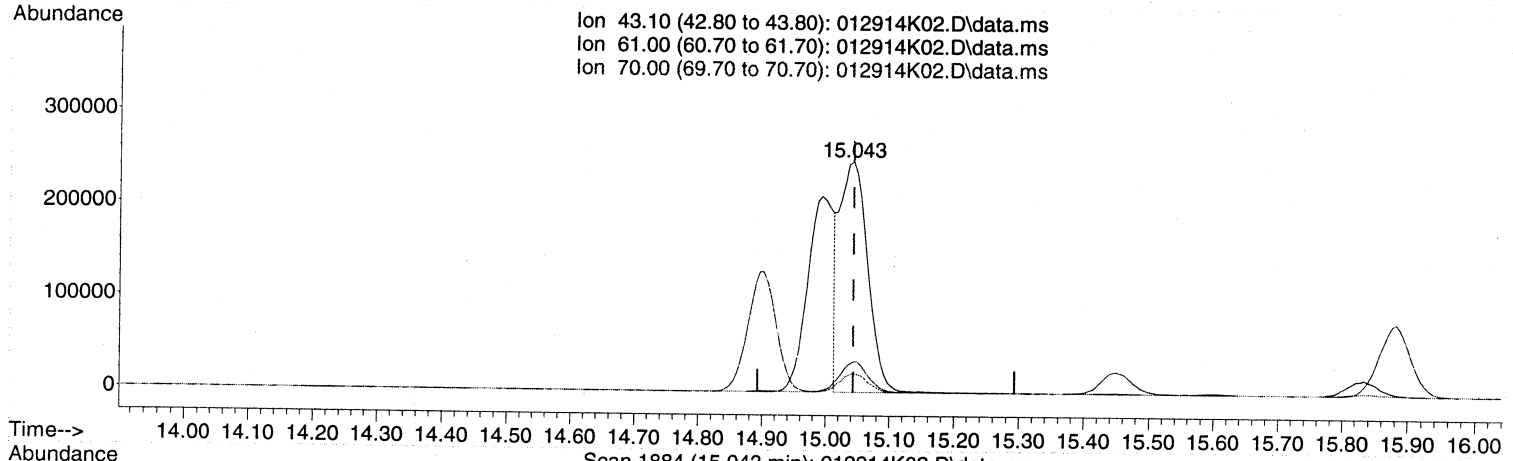
Reviewer: _____ Date: _____

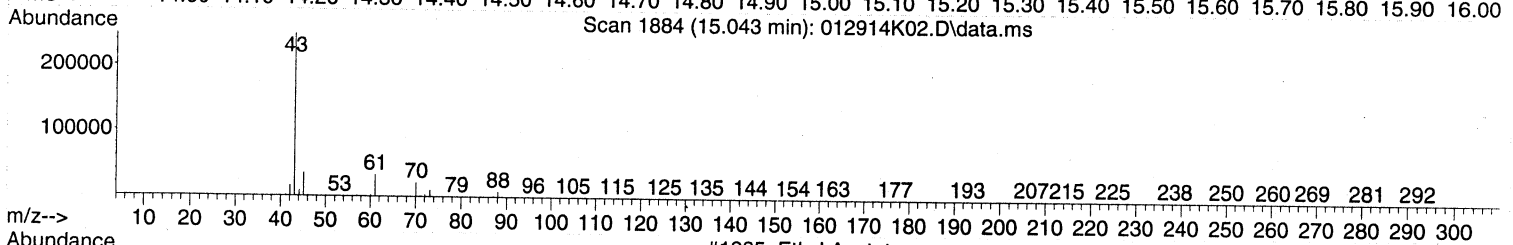
Quantitation Report (Qedit)

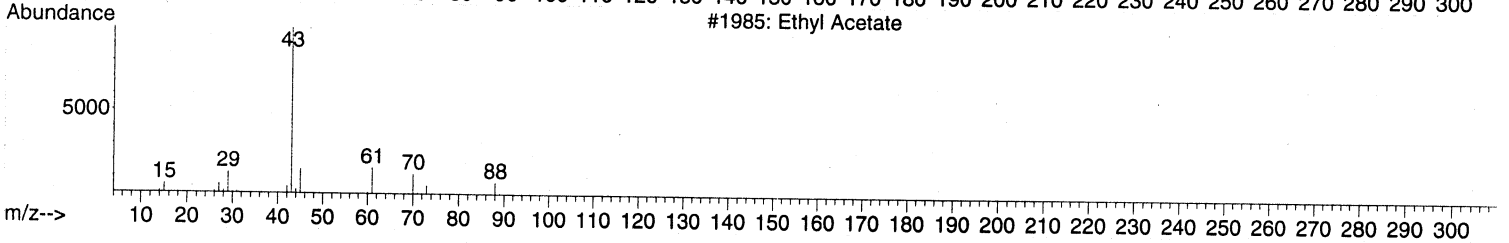
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:10 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 10.31 ppbv m

response 767449

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: [illegible] Date: 1/22/14 |
| Manual integration(s) reviewed by: |
| Reviewer: [illegible] Date: 1/31/14 |

012914KAA.M Wed Jan 29 14:35:33 2014 HP5973K

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:10 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

All MT
em 1/21/14

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 924263 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2389160 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2113429 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 275216 | 10.31 | ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 686038 | 9.46 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.810 | 85 | 736720 | 9.91 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 311936 | 10.10 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 327519 | 9.99 | ppbv | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 242298 | 9.88 | ppbv | 98 |
| 8) Bromomethane | 6.362 | 94 | 230778 | 9.48 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 162522 | 9.55 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 218399 | 9.61 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 642250 | 10.24 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 413032 | 9.41 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 440494 | 9.09 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 448523 | 10.36 | ppbv | 99 |
| 15) Carbon disulfide | 10.012 | 76 | 675240 | 9.57 | ppbv | 99 |
| 16) 2-Propanol | 10.438 | 45 | 417170 | 9.42 | ppbv | 99 |
| 17) Allyl chloride | 10.839 | 41 | 354149 | 9.91 | ppbv | 98 |
| 18) Dichloromethane | 11.380 | 49 | 361218 | 8.66 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.068 | 73 | 764685 | 10.65 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 357443 | 9.05 | ppbv | 99 |
| 21) Hexane | 12.713 | 57 | 474396 | 9.84 | ppbv | 99 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 532054 | 9.10 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 651681 | 10.14 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 405524 | 9.44 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 598207 | 10.77 | ppbv | 97 |
| 26) Ethyl acetate | 14.994 | 43 | 598207 | 8.04 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.450 | 42 | 381382 | 10.08 | ppbv | 97 |
| 28) Chloroform | 15.596 | 83 | 564261 | 9.55 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 486874 | 9.92 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 561031 | 9.58 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 554512 | 9.76 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 923541 | 9.70 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1526624 | 10.38 | ppbv | 100 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 365541 | 9.51 | ppbv | 99 |
| 36) Heptane | 16.971 | 43 | 586868 | 10.56 | ppbv | 99 |
| 37) Trichloroethene | 17.859 | 130 | 351201 | 9.65 | ppbv | 100 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 353781 | 9.71 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.559 | 88 | 193352 | 11.12 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 592862 | 10.05 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 506048 | 9.89 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 779924 | 10.84 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1060057 | 10.17 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 492688 | 10.98 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 348679 | 10.13 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 474177 | 9.82 | ppbv | 99 |
| 48) 2-Hexanone | 21.181 | 43 | 722255 | 11.35 | ppbv | 98 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:10 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 545289 | 10.39 ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 481448 | 10.05 ppbv | 99 |
| 51) Chlorobenzene | 22.398 | 112 | 813921 | 10.30 ppbv | 99 |
| 52) Ethylbenzene | 22.489 | 91 | 1406764 | 10.25 ppbv | 100 |
| 53) m&p-Xylene | 22.672 | 91 | 2178570 | 20.80 ppbv | 99 |
| 54) o-Xylene | 23.316 | 91 | 1076182 | 10.41 ppbv | 100 |
| 55) Styrene | 23.353 | 104 | 886457 | 10.56 ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 575666 | 10.43 ppbv | 100 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 829574 | 10.17 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.667 | 105 | 1428619 | 10.69 ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1254080 | 10.59 ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1231284 | 10.36 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 824844 | 10.06 ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 810559 | 10.10 ppbv | 100 |
| 63) Benzyl chloride | 26.255 | 91 | 936825 | 10.48 ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.644 | 146 | 789991 | 9.89 ppbv | 99 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 725536 | 9.21 ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 631650 | 9.26 ppbv | 99 |

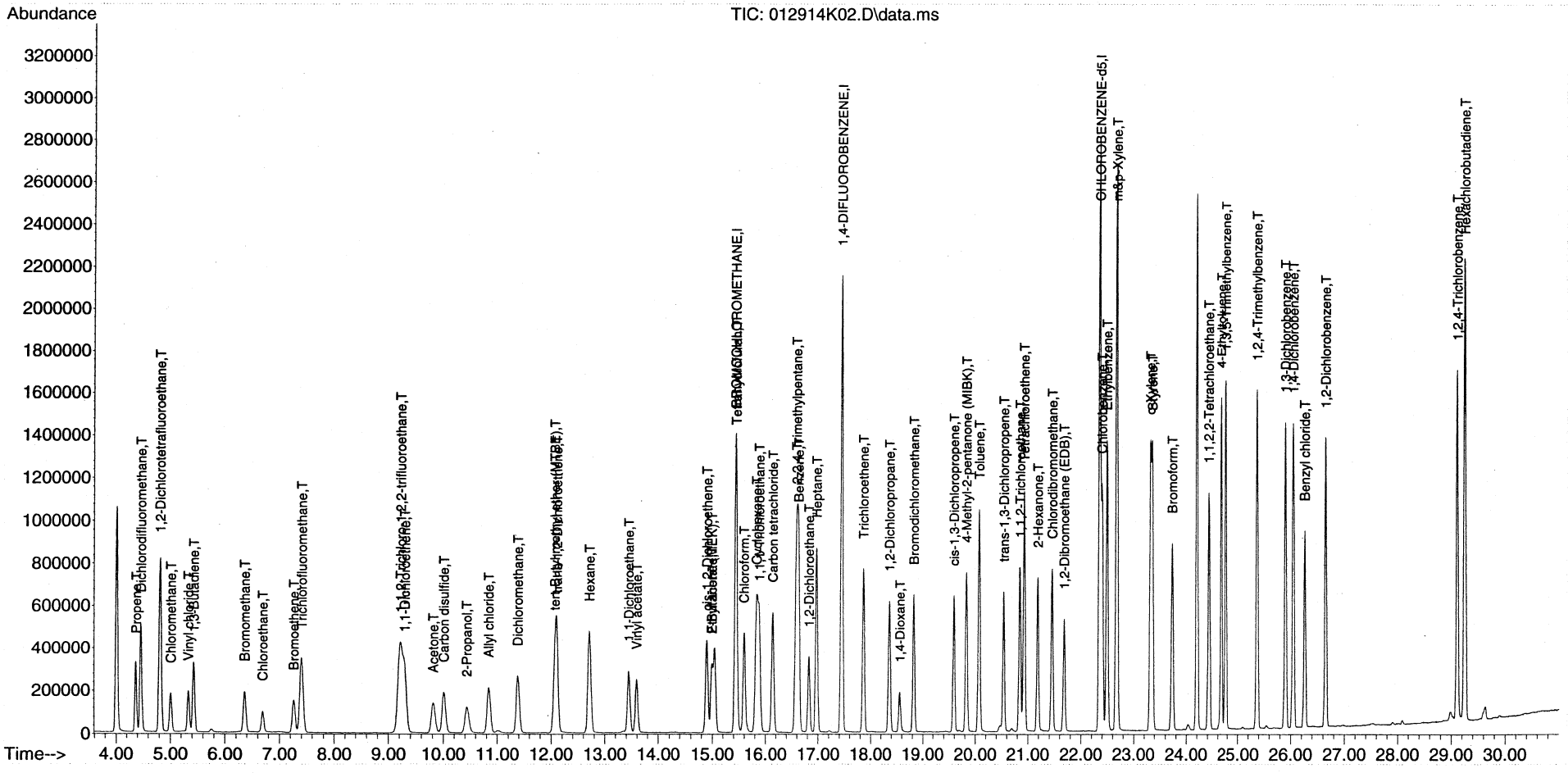
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K02.D
Acq On : 29 Jan 2014 13:43
Instrument: HP5973K
Operator : EM
Sample : S14A101-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 14:35:10 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



# LCS REPORT

Instrument Name: HP5973K
Sample Name: B14A073-BS1
Misc Info: 10 ppbv 1402036
Date Acquired: 1/29/2014 14:31
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.44 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.37 | 10.70 | 10.16 | 95% | 56.0 | 155.0 | pass |
| 3) | Dichlorodifluoromethane | 4.46 | 10.30 | 9.29 | 90% | 67.0 | 141.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.82 | 10.50 | 9.83 | 94% | 68.0 | 147.0 | pass |
| 5) | Chloromethane | 5.01 | 10.50 | 10.16 | 97% | 64.0 | 141.0 | pass |
| 6) | Vinyl chloride | 5.33 | 10.50 | 9.98 | 95% | 65.0 | 141.0 | pass |
| 7) | 1,3-Butadiene | 5.44 | 10.20 | 9.84 | 97% | 61.0 | 154.0 | pass |
| 8) | Bromomethane | 6.36 | 10.30 | 9.58 | 93% | 71.0 | 132.0 | pass |
| 9) | Chloroethane | 6.69 | 10.30 | 9.72 | 94% | 70.0 | 134.0 | pass |
| 10) | Bromoethene | 7.26 | 10.30 | 9.67 | 94% | 71.0 | 146.0 | pass |
| 11) | Trichlorofluoromethane | 7.41 | 10.70 | 10.34 | 97% | 72.0 | 141.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.22 | 9.70 | 9.12 | 94% | 68.0 | 134.0 | pass |
| 13) | 1,1-Dichloroethene | 9.29 | 9.60 | 9.30 | 97% | 81.0 | 127.0 | pass |
| 14) | Acetone | 9.82 | 10.60 | 10.45 | 99% | 77.0 | 150.0 | pass |
| 15) | Carbon disulfide | 10.02 | 10.20 | 9.65 | 95% | 75.0 | 138.0 | pass |
| 16) | 2-Propanol | 10.44 | 9.50 | 9.58 | 101% | 71.0 | 142.0 | pass |
| 17) | Allyl chloride | 10.85 | 10.10 | 10.24 | 101% | 84.0 | 143.0 | pass |
| 18) | Dichloromethane | 11.38 | 9.80 | 8.91 | 91% | 74.0 | 116.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 12.08 | 10.90 | 10.89 | 100% | 79.0 | 131.0 | pass |
| 20) | trans-1,2-Dichloroethene | 12.10 | 9.50 | 9.22 | 97% | 82.0 | 136.0 | pass |
| 21) | Hexane | 12.72 | 10.20 | 10.03 | 98% | 78.0 | 139.0 | pass |
| 22) | 1,1-Dichloroethane | 13.45 | 9.70 | 9.36 | 97% | 82.0 | 123.0 | pass |
| 23) | Vinyl acetate | 13.59 | 10.00 | 10.48 | 105% | 70.0 | 139.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.90 | 10.10 | 9.78 | 97% | 83.0 | 126.0 | pass |
| 25) | 2-Butanone (MEK) | 14.99 | 10.40 | 10.66 | 102% | 76.0 | 138.0 | pass |
| 26) | Ethyl acetate | 15.04 | 10.40 | 10.83 | 104% | 83.0 | 136.0 | pass |
| 27) | Tetrahydrofuran | 15.46 | 10.30 | 10.32 | 100% | 74.0 | 132.0 | pass |
| 28) | Chloroform | 15.60 | 10.20 | 9.79 | 96% | 81.0 | 127.0 | pass |
| 29) | Cyclohexane | 15.83 | 10.40 | 10.23 | 98% | 77.0 | 139.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.88 | 10.10 | 9.80 | 97% | 80.0 | 131.0 | pass |
| 31) | Carbon tetrachloride | 16.14 | 10.30 | 10.02 | 97% | 77.0 | 136.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.45 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.63 | 10.10 | 9.98 | 99% | 77.0 | 131.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.59 | 10.50 | 10.79 | 103% | 68.0 | 152.0 | pass |
| 35) | 1,2-Dichloroethane | 16.83 | 9.80 | 9.84 | 100% | 70.0 | 149.0 | pass |
| 36) | Heptane | 16.98 | 10.50 | 11.01 | 105% | 62.0 | 159.0 | pass |
| 37) | Trichloroethene | 17.87 | 10.10 | 10.00 | 99% | 81.0 | 125.0 | pass |
| 38) | 1,2-Dichloropropane | 18.36 | 10.30 | 10.19 | 99% | 74.0 | 135.0 | pass |
| 39) | 1,4-Dioxane | 18.56 | 10.60 | 11.49 | 108% | 67.0 | 134.0 | pass |
| 40) | Bromodichloromethane | 18.83 | 10.60 | 10.55 | 100% | 69.0 | 150.0 | pass |
| 41) | cis-1,3-Dichloropropene | 19.59 | 10.30 | 10.27 | 100% | 77.0 | 129.0 | pass |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.83 | 10.50 | 11.35 | 108% | 59.0 | 147.0 | pass |
| 43) | CHLOROBENZENE-d5 | 22.36 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 44) | Toluene | 20.07 | 10.20 | 10.50 | 103% | 79.0 | 126.0 | pass |
| 45) | trans-1,3-Dichloropropene | 20.54 | 10.70 | 11.51 | 108% | 81.0 | 137.0 | pass |
| 46) | 1,1,2-Trichloroethane | 20.85 | 10.30 | 10.48 | 102% | 76.0 | 124.0 | pass |
| 47) | Tetrachloroethene | 20.93 | 10.00 | 10.17 | 102% | 80.0 | 122.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 48) | 2-Hexanone | 21.18 | 10.30 | 11.86 | 115% | 55.0 | 149.0 | pass |
| 49) | Chlorodibromomethane | 21.45 | 10.40 | 10.78 | 104% | 76.0 | 145.0 | pass |
| 50) | 1,2-Dibromoethane (EDB) | 21.68 | 10.30 | 10.50 | 102% | 78.0 | 124.0 | pass |
| 51) | Chlorobenzene | 22.40 | 10.40 | 10.65 | 102% | 76.0 | 120.0 | pass |
| 52) | Ethylbenzene | 22.49 | 10.20 | 10.63 | 104% | 75.0 | 125.0 | pass |
| 53) | m&p-Xylene | 22.68 | 20.40 | 21.36 | 105% | 75.0 | 128.0 | pass |
| 54) | o-Xylene | 23.32 | 10.30 | 10.80 | 105% | 74.0 | 128.0 | pass |
| 55) | Styrene | 23.35 | 10.10 | 10.84 | 107% | 69.0 | 122.0 | pass |
| 56) | Bromoform | 23.73 | 10.30 | 10.86 | 105% | 72.0 | 142.0 | pass |
| 57) | 1,1,2,2-Tetrachloroethane | 24.42 | 10.20 | 10.45 | 102% | 70.0 | 130.0 | pass |
| 58) | 4-Ethyltoluene | 24.67 | 10.50 | 11.01 | 105% | 69.0 | 138.0 | pass |
| 59) | 1,3,5-Trimethylbenzene | 24.76 | 10.30 | 10.83 | 105% | 70.0 | 134.0 | pass |
| 60) | 1,2,4-Trimethylbenzene | 25.37 | 10.10 | 10.68 | 106% | 65.0 | 129.0 | pass |
| 61) | 1,3-Dichlorobenzene | 25.90 | 9.90 | 10.38 | 105% | 62.0 | 130.0 | pass |
| 62) | 1,4-Dichlorobenzene | 26.04 | 9.90 | 10.42 | 105% | 61.0 | 131.0 | pass |
| 63) | Benzyl chloride | 26.26 | 10.30 | 10.98 | 107% | 61.0 | 153.0 | pass |
| 64) | 1,2-Dichlorobenzene | 26.65 | 9.90 | 10.29 | 104% | 60.0 | 130.0 | pass |
| 65) | 1,2,4-Trichlorobenzene | 29.11 | 9.10 | 9.39 | 103% | 38.0 | 128.0 | pass |
| 66) | Hexachlorobutadiene | 29.25 | 9.50 | 9.73 | 102% | 37.0 | 124.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: EM Date 1/31/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date 1/31/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 899663 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2295868 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2036787 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 264178 | 10.16 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 655116 | 9.29 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 711326 | 9.83 | ppbv | 100 |
| 5) Chloromethane | 5.011 | 50 | 305438 | 10.16 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 318584 | 9.98 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 235082 | 9.84 | ppbv | 97 |
| 8) Bromomethane | 6.362 | 94 | 227148 | 9.58 | ppbv | 98 |
| 9) Chloroethane | 6.690 | 64 | 161085 | 9.72 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 213809 | 9.67 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 631181 | 10.34 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 389780 | 9.12 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 438647 | 9.30 | ppbv | 99 |
| 14) Acetone | 9.817 | 43 | 440240 | 10.45 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 662665 | 9.65 | ppbv | 99 |
| 16) 2-Propanol | 10.444 | 45 | 413092 | 9.58 | ppbv | 100 |
| 17) Allyl chloride | 10.845 | 41 | 356315 | 10.24 | ppbv | 95 |
| 18) Dichloromethane | 11.381 | 49 | 361667 | 8.91 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.080 | 73 | 760601 | 10.89 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 354473 | 9.22 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 470496 | 10.03 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 533069 | 9.36 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 655523 | 10.48 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 409196 | 9.78 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 576062 | 10.66 | ppbv | 95 |
| 26) Ethyl acetate | 15.043 | 43 | 784880m | 10.83 | ppbv | |
| 27) Tetrahydrofuran | 15.457 | 42 | 380041 | 10.32 | ppbv | 99 |
| 28) Chloroform | 15.603 | 83 | 563268 | 9.79 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 488956 | 10.23 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 558566 | 9.80 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 554067 | 10.02 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 912808 | 9.98 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1524070 | 10.79 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 363495 | 9.84 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 588181 | 11.01 | ppbv | 98 |
| 37) Trichloroethene | 17.866 | 130 | 349662 | 10.00 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 356993 | 10.19 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.559 | 88 | 191997 | 11.49 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 597854 | 10.55 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 505061 | 10.27 | ppbv | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 785022 | 11.35 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1054258 | 10.50 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 497807 | 11.51 | ppbv | 99 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 347467 | 10.48 | ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 473324 | 10.17 | ppbv | 99 |
| 48) 2-Hexanone | 21.181 | 43 | 726810 | 11.86 | ppbv | 99 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 545180 | 10.78 | ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 484660 | 10.50 | ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 811028 | 10.65 | ppbv | 100 |
| 52) Ethylbenzene | 22.489 | 91 | 1405109 | 10.63 | ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 2156166 | 21.36 | ppbv | 99 |
| 54) o-Xylene | 23.323 | 91 | 1076177 | 10.80 | ppbv | 100 |
| 55) Styrene | 23.353 | 104 | 877595 | 10.84 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 577580 | 10.86 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 822258 | 10.45 | ppbv | 100 |
| 58) 4-Ethyltoluene | 24.667 | 105 | 1418764 | 11.01 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1236118 | 10.83 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1223991 | 10.68 | ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 820854 | 10.38 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 805529 | 10.42 | ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 946087 | 10.98 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 792012 | 10.29 | ppbv | 99 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 712866 | 9.39 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 639314 | 9.73 | ppbv | 100 |

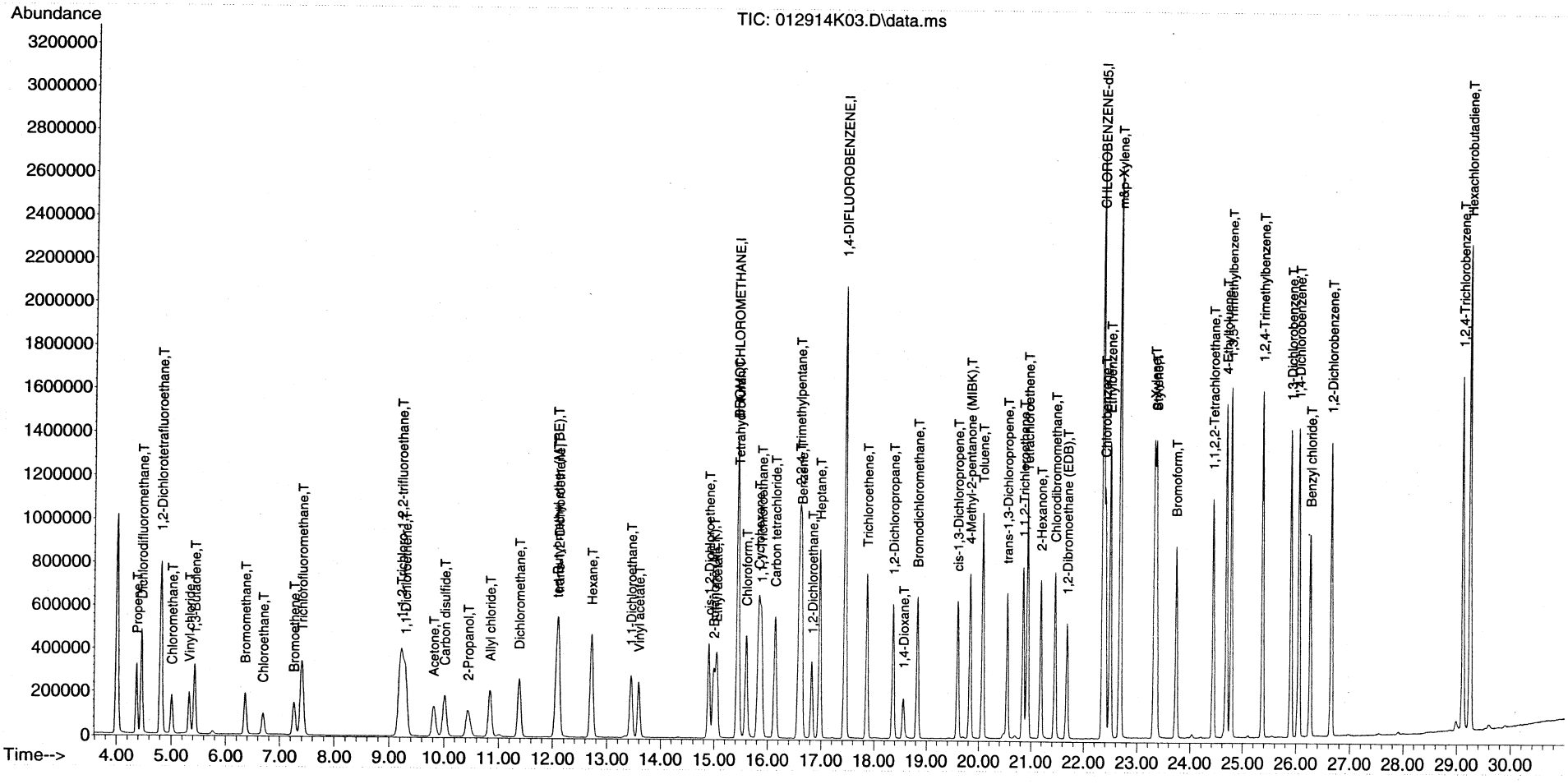
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

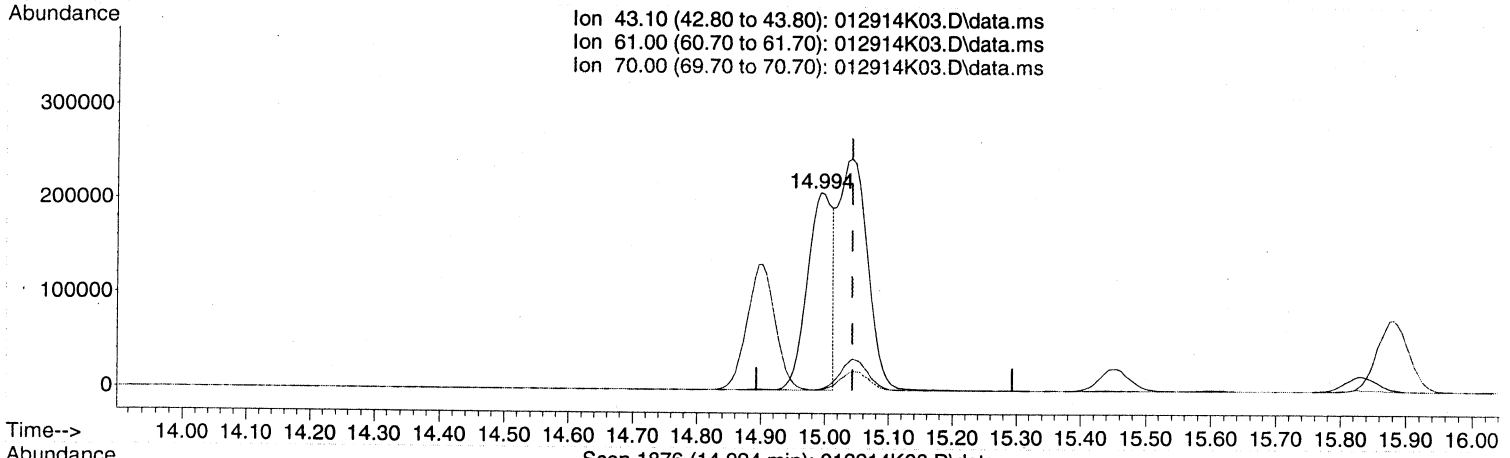


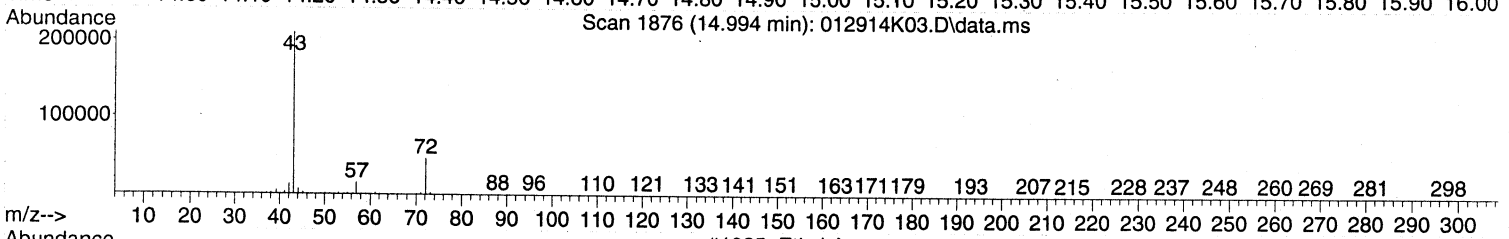
Quantitation Report (Qedit)

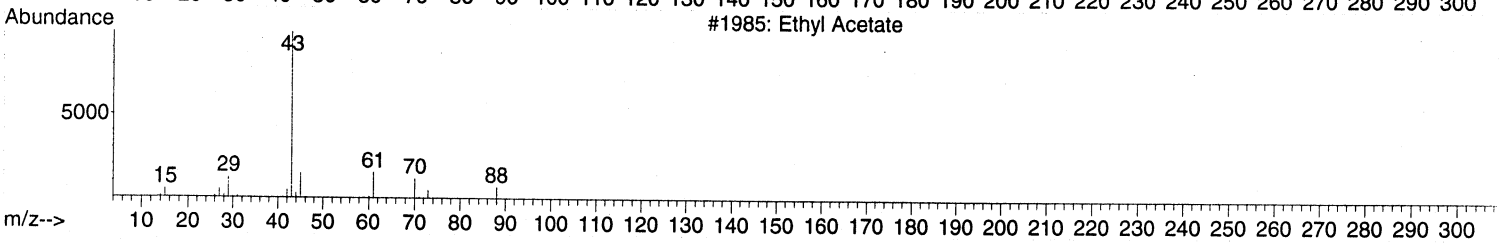
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K03.D\data.ms

(26) Ethyl acetate (T)

14.994min (-0.049) 7.96 ppbv

response 576903

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: RT

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

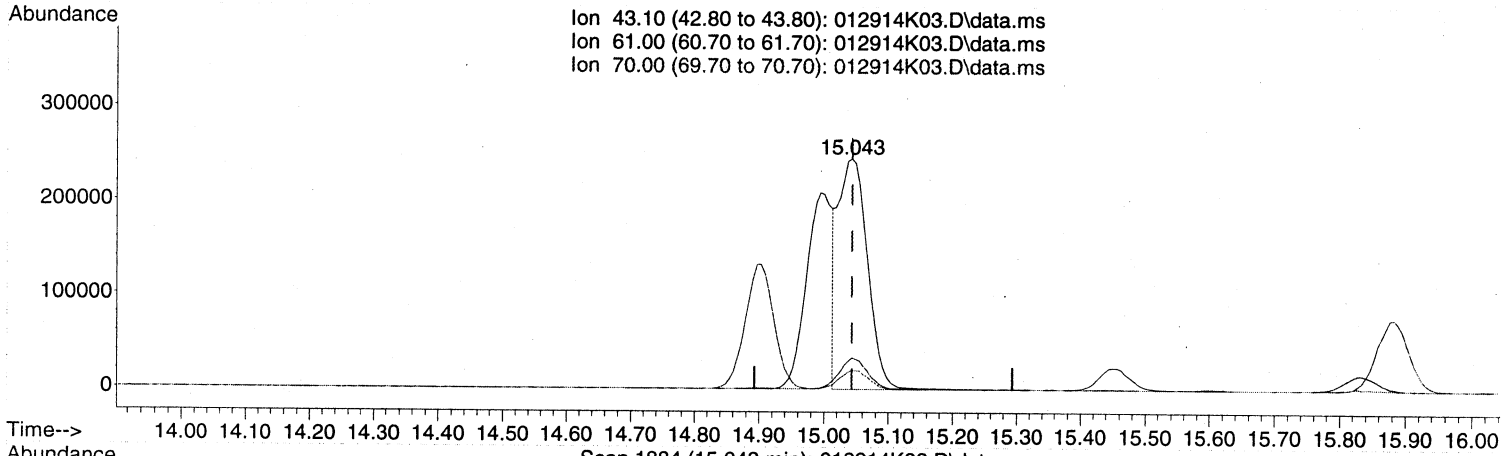
Reviewer: _____ Date: _____

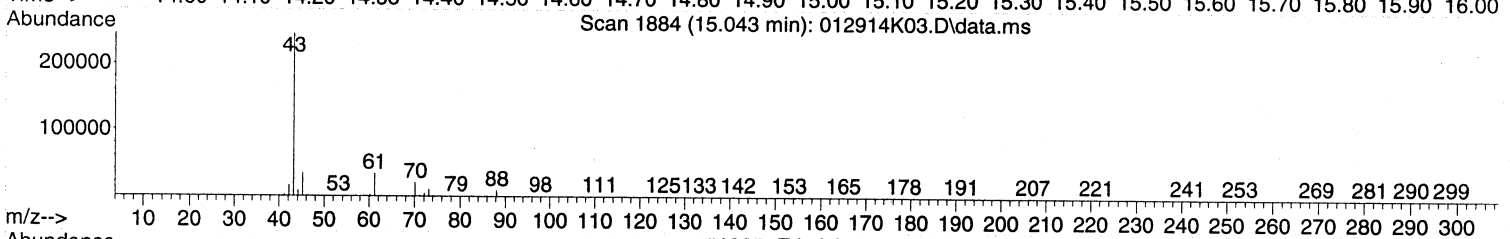
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K03.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 10.83 ppbv m

response 784880

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☐ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: EM Date: 1/31/14 |
| Manual integration(s) reviewed by: |
| Reviewer: JL Date: 1/31/14 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

Rel MT
em 1/29/14

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 899663 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2295868 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2036787 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 264178 | 10.16 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 655116 | 9.29 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 711326 | 9.83 | ppbv | 100 |
| 5) Chloromethane | 5.011 | 50 | 305438 | 10.16 | ppbv | 100 |
| 6) Vinyl chloride | 5.333 | 62 | 318584 | 9.98 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 235082 | 9.84 | ppbv | 97 |
| 8) Bromomethane | 6.362 | 94 | 227148 | 9.58 | ppbv | 98 |
| 9) Chloroethane | 6.690 | 64 | 161085 | 9.72 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 213809 | 9.67 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 631181 | 10.34 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 389780 | 9.12 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 438647 | 9.30 | ppbv | 99 |
| 14) Acetone | 9.817 | 43 | 440240 | 10.45 | ppbv | 100 |
| 15) Carbon disulfide | 10.018 | 76 | 662665 | 9.65 | ppbv | 99 |
| 16) 2-Propanol | 10.444 | 45 | 413092 | 9.58 | ppbv | 100 |
| 17) Allyl chloride | 10.845 | 41 | 356315 | 10.24 | ppbv | 95 |
| 18) Dichloromethane | 11.381 | 49 | 361667 | 8.91 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.080 | 73 | 760601 | 10.89 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 354473 | 9.22 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 470496 | 10.03 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 533069 | 9.36 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 655523 | 10.48 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 409196 | 9.78 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.994 | 43 | 576062 | 10.66 | ppbv | 95 |
| 26) Ethyl acetate | 14.994 | 43 | 576903 | 7.96 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.457 | 42 | 380041 | 10.32 | ppbv | 99 |
| 28) Chloroform | 15.603 | 83 | 563268 | 9.79 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 488956 | 10.23 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 558566 | 9.80 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 554067 | 10.02 | ppbv | 100 |
| 33) Benzene | 16.631 | 78 | 912808 | 9.98 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1524070 | 10.79 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 363495 | 9.84 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 588181 | 11.01 | ppbv | 98 |
| 37) Trichloroethene | 17.866 | 130 | 349662 | 10.00 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 356993 | 10.19 | ppbv | 99 |
| 39) 1,4-Dioxane | 18.559 | 88 | 191997 | 11.49 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 597854 | 10.55 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 505061 | 10.27 | ppbv | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 785022 | 11.35 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1054258 | 10.50 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 497807 | 11.51 | ppbv | 99 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 347467 | 10.48 | ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 473324 | 10.17 | ppbv | 99 |
| 48) 2-Hexanone | 21.181 | 43 | 726810 | 11.86 | ppbv | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 545180 | 10.78 ppbv | 100 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 484660 | 10.50 ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 811028 | 10.65 ppbv | 100 |
| 52) Ethylbenzene | 22.489 | 91 | 1405109 | 10.63 ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 2156166 | 21.36 ppbv | 99 |
| 54) o-Xylene | 23.323 | 91 | 1076177 | 10.80 ppbv | 100 |
| 55) Styrene | 23.353 | 104 | 877595 | 10.84 ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 577580 | 10.86 ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 822258 | 10.45 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.667 | 105 | 1418764 | 11.01 ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1236118 | 10.83 ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1223991 | 10.68 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 820854 | 10.38 ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 805529 | 10.42 ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 946087 | 10.98 ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 792012 | 10.29 ppbv | 99 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 712866 | 9.39 ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 639314 | 9.73 ppbv | 100 |

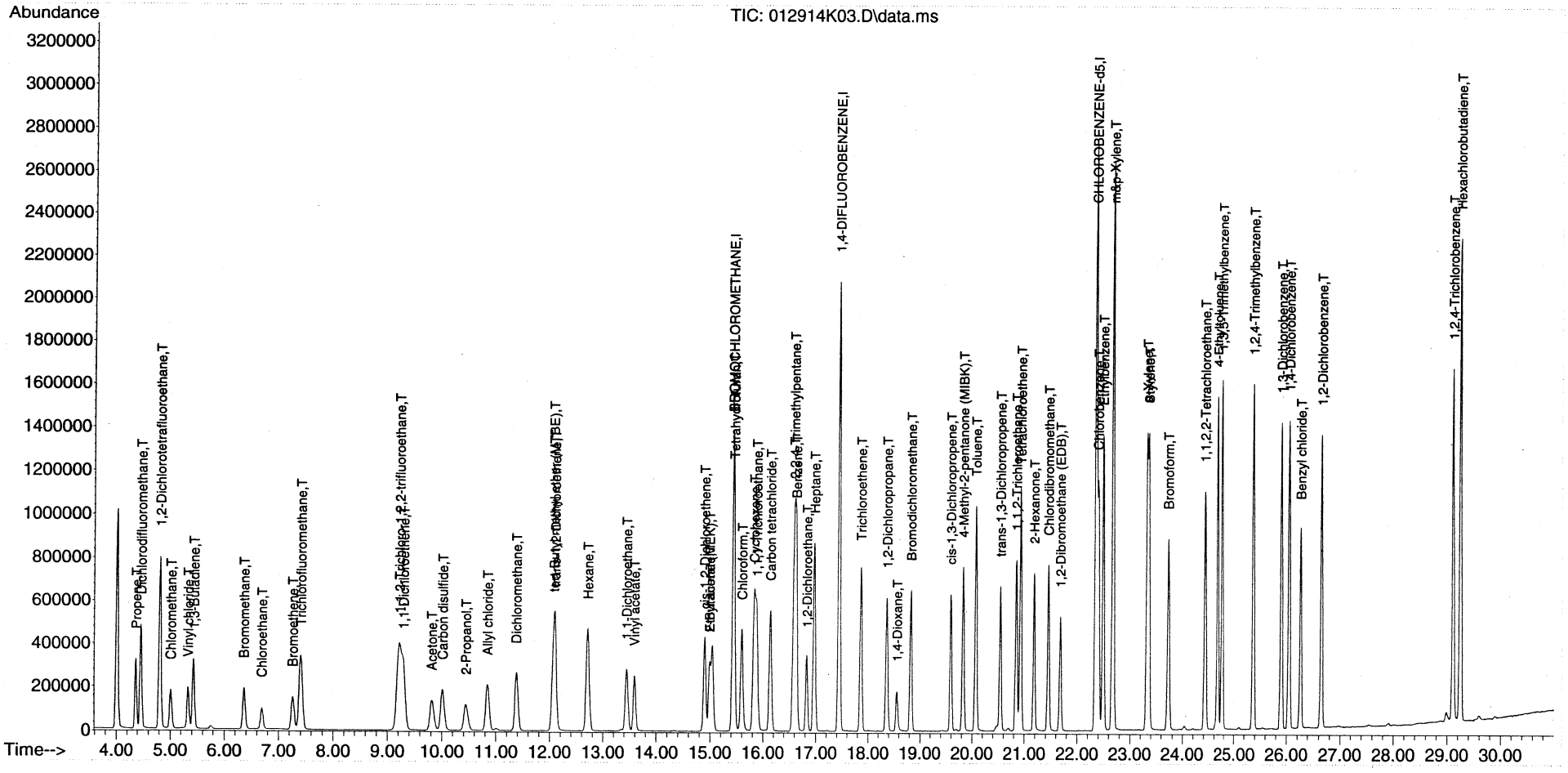
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K03.D
Acq On : 29 Jan 2014 14:31
Instrument: HP5973K
Operator : EM
Sample : B14A073-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 29 15:08:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



# QLS REPORT

rent (high)
em 1/29/14

Instrument Name: HP5973K
Sample Name: S14A101-CRL1
Misc Info: 10 ppbv 1402115
Date Acquired: 1/29/2014 15:17
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.44 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 2) | Propene | 4.37 | 1.07 | 1.39 | 130% | 60.0 | 140.0 | pass |
| 3) | Dichlorodifluoromethane | 4.46 | 1.03 | 1.27 | 123% | 60.0 | 140.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.82 | 1.05 | 1.25 | 119% | 60.0 | 140.0 | pass |
| 5) | Chloromethane | 5.01 | 1.05 | 1.32 | 125% | 60.0 | 140.0 | pass |
| 6) | Vinyl chloride | 5.33 | 1.05 | 1.28 | 122% | 60.0 | 140.0 | pass |
| 7) | 1,3-Butadiene | 5.43 | 1.02 | 1.24 | 121% | 60.0 | 140.0 | pass |
| 8) | Bromomethane | 6.36 | 1.03 | 1.21 | 117% | 60.0 | 140.0 | pass |
| 9) | Chloroethane | 6.69 | 1.03 | 1.22 | 119% | 60.0 | 140.0 | pass |
| 10) | Bromoethene | 7.26 | 1.03 | 1.21 | 117% | 60.0 | 140.0 | pass |
| 11) | Trichlorofluoromethane | 7.41 | 1.07 | 1.32 | 123% | 60.0 | 140.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.23 | 0.97 | 1.17 | 121% | 60.0 | 140.0 | pass |
| 13) | 1,1-Dichloroethene | 9.30 | 0.96 | 1.14 | 118% | 60.0 | 140.0 | pass |
| 14) | Acetone | 9.85 | 1.06 | 1.31 | 123% | 60.0 | 140.0 | pass |
| 15) | Carbon disulfide | 10.01 | 1.02 | 1.24 | 121% | 60.0 | 140.0 | pass |
| 16) | 2-Propanol | 10.49 | 0.95 | 1.11 | 117% | 60.0 | 140.0 | pass |
| 17) | Allyl chloride | 10.84 | 1.01 | 1.20 | 119% | 60.0 | 140.0 | pass |
| 18) | Dichloromethane | 11.38 | 0.98 | 1.52 | 155% | 60.0 | 140.0 | FAIL |
| 19) | tert-Butyl methyl ether (MTBE) | 12.10 | 1.09 | 1.23 | 113% | 60.0 | 140.0 | pass |
| 20) | trans-1,2-Dichloroethene | 12.10 | 0.95 | 1.14 | 120% | 60.0 | 140.0 | pass |
| 21) | Hexane | 12.71 | 1.02 | 1.17 | 115% | 60.0 | 140.0 | pass |
| 22) | 1,1-Dichloroethane | 13.44 | 0.97 | 1.17 | 120% | 60.0 | 140.0 | pass |
| 23) | Vinyl acetate | 13.61 | 1.00 | 1.14 | 114% | 60.0 | 140.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.90 | 1.01 | 1.20 | 119% | 60.0 | 140.0 | pass |
| 25) | 2-Butanone (MEK) | 15.02 | 1.04 | 1.29 | 124% | 60.0 | 140.0 | pass |
| 26) | Ethyl acetate | 15.05 | 1.04 | 1.20 | 115% | 60.0 | 140.0 | pass |
| 27) | Tetrahydrofuran | 15.48 | 1.03 | 1.20 | 116% | 60.0 | 140.0 | pass |
| 28) | Chloroform | 15.60 | 1.02 | 1.21 | 119% | 60.0 | 140.0 | pass |
| 29) | Cyclohexane | 15.83 | 1.04 | 1.20 | 115% | 60.0 | 140.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.88 | 1.01 | 1.23 | 122% | 60.0 | 140.0 | pass |
| 31) | Carbon tetrachloride | 16.13 | 1.03 | 1.26 | 123% | 60.0 | 140.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.45 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 33) | Benzene | 16.63 | 1.01 | 1.25 | 123% | 60.0 | 140.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.59 | 1.05 | 1.26 | 120% | 60.0 | 140.0 | pass |
| 35) | 1,2-Dichloroethane | 16.83 | 0.98 | 1.22 | 125% | 60.0 | 140.0 | pass |
| 36) | Heptane | 16.98 | 1.05 | 1.28 | 122% | 60.0 | 140.0 | pass |
| 37) | Trichloroethene | 17.86 | 1.01 | 1.23 | 122% | 60.0 | 140.0 | pass |
| 38) | 1,2-Dichloropropane | 18.36 | 1.03 | 1.27 | 124% | 60.0 | 140.0 | pass |
| 39) | 1,4-Dioxane | 18.59 | 1.06 | 1.16 | 110% | 60.0 | 140.0 | pass |
| 40) | Bromodichloromethane | 18.83 | 1.06 | 1.30 | 122% | 60.0 | 140.0 | pass |
| 41) | cis-1,3-Dichloropropene | 19.59 | 1.03 | 1.22 | 118% | 60.0 | 140.0 | pass |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.85 | 1.05 | 1.16 | 111% | 60.0 | 140.0 | pass |
| 43) | CHLOROBENZENE-d5 | 22.36 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 44) | Toluene | 20.07 | 1.02 | 1.26 | 124% | 60.0 | 140.0 | pass |
| 45) | trans-1,3-Dichloropropene | 20.54 | 1.07 | 1.35 | 126% | 60.0 | 140.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 46) | 1,1,2-Trichloroethane | 20.85 | 1.03 | 1.34 | 130% | 60.0 | 140.0 | pass |
| 47) | Tetrachloroethene | 20.93 | 1.00 | 1.27 | 127% | 60.0 | 140.0 | pass |
| 48) | 2-Hexanone | 21.20 | 1.03 | 1.18 | 115% | 60.0 | 140.0 | pass |
| 49) | Chlorodibromomethane | 21.45 | 1.04 | 1.31 | 126% | 60.0 | 140.0 | pass |
| 50) | 1,2-Dibromoethane (EDB) | 21.68 | 1.03 | 1.29 | 125% | 60.0 | 140.0 | pass |
| 51) | Chlorobenzene | 22.40 | 1.04 | 1.32 | 127% | 60.0 | 140.0 | pass |
| 52) | Ethylbenzene | 22.50 | 1.02 | 1.22 | 120% | 60.0 | 140.0 | pass |
| 53) | m&p-Xylene | 22.68 | 2.04 | 2.38 | 117% | 60.0 | 140.0 | pass |
| 54) | o-Xylene | 23.32 | 1.03 | 1.17 | 114% | 60.0 | 140.0 | pass |
| 55) | Styrene | 23.35 | 1.01 | 1.13 | 112% | 60.0 | 140.0 | pass |
| 56) | Bromoform | 23.73 | 1.03 | 1.21 | 118% | 60.0 | 140.0 | pass |
| 57) | 1,1,2,2-Tetrachloroethane | 24.42 | 1.02 | 1.24 | 121% | 60.0 | 140.0 | pass |
| 58) | 4-Ethyltoluene | 24.67 | 1.05 | 1.17 | 112% | 60.0 | 140.0 | pass |
| 59) | 1,3,5-Trimethylbenzene | 24.76 | 1.03 | 1.15 | 112% | 60.0 | 140.0 | pass |
| 60) | 1,2,4-Trimethylbenzene | 25.37 | 1.01 | 1.11 | 110% | 60.0 | 140.0 | pass |
| 61) | 1,3-Dichlorobenzene | 25.90 | 0.99 | 1.15 | 116% | 60.0 | 140.0 | pass |
| 62) | 1,4-Dichlorobenzene | 26.04 | 0.99 | 1.12 | 113% | 60.0 | 140.0 | pass |
| 63) | Benzyl chloride | 26.26 | 1.03 | 1.14 | 110% | 60.0 | 140.0 | pass |
| 64) | 1,2-Dichlorobenzene | 26.64 | 0.99 | 1.14 | 115% | 60.0 | 140.0 | pass |
| 65) | 1,2,4-Trichlorobenzene | 29.11 | 0.91 | 0.93 | 102% | 60.0 | 140.0 | pass |
| 66) | Hexachlorobutadiene | 29.25 | 0.95 | 1.09 | 115% | 60.0 | 140.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:40 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/29/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/31/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 919597 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2311933 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2042651 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 36897 | 1.39 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 91290 | 1.27 | ppbv | 98 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 92323 | 1.25 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 40438 | 1.32 | ppbv | 98 |
| 6) Vinyl chloride | 5.327 | 62 | 41866 | 1.28 | ppbv | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 30203 | 1.24 | ppbv | 97 |
| 8) Bromomethane | 6.361 | 94 | 29322 | 1.21 | ppbv | 98 |
| 9) Chloroethane | 6.690 | 64 | 20706 | 1.22 | ppbv | 96 |
| 10) Bromoethene | 7.262 | 106 | 27299 | 1.21 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 82361 | 1.32 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.227 | 151 | 51243 | 1.17 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 54730 | 1.14 | ppbv | 99 |
| 14) Acetone | 9.853 | 43 | 56193 | 1.31 | ppbv | 99 |
| 15) Carbon disulfide | 10.012 | 76 | 87018 | 1.24 | ppbv | 97 |
| 16) 2-Propanol | 10.492 | 45 | 49103 | 1.11 | ppbv | 90 |
| 17) Allyl chloride | 10.845 | 41 | 42789 | 1.20 | ppbv | 99 |
| 18) Dichloromethane | 11.380 | 49 | 62852 | 1.52 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.104 | 73 | 88125 | 1.23 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 44918 | 1.14 | ppbv | 100 |
| 21) Hexane | 12.713 | 57 | 56233 | 1.17 | ppbv | 96 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 67837 | 1.17 | ppbv | 98 |
| 23) Vinyl acetate | 13.607 | 43 | 72995 | 1.14 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 51501 | 1.20 | ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.024 | 43 | 70995m | 1.29 | ppbv | |
| 26) Ethyl acetate | 15.055 | 43 | 88986m | 1.20 | ppbv | |
| 27) Tetrahydrofuran | 15.481 | 42 | 45076 | 1.20 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 71402 | 1.21 | ppbv | 97 |
| 29) Cyclohexane | 15.827 | 56 | 58461 | 1.20 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 71669 | 1.23 | ppbv | 98 |
| 31) Carbon tetrachloride | 16.132 | 117 | 71339 | 1.26 | ppbv | 98 |
| 33) Benzene | 16.630 | 78 | 114833 | 1.25 | ppbv | 98 |
| 34) 2,2,4-Trimethylpentane | 16.588 | 57 | 178753 | 1.26 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 45458 | 1.22 | ppbv | 98 |
| 36) Heptane | 16.977 | 43 | 68863 | 1.28 | ppbv | 99 |
| 37) Trichloroethene | 17.859 | 130 | 43466 | 1.23 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 44920 | 1.27 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.589 | 88 | 19545 | 1.16 | ppbv | 95 |
| 40) Bromodichloromethane | 18.827 | 83 | 73973 | 1.30 | ppbv | 98 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 60324 | 1.22 | ppbv | 96 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 81074 | 1.16 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 127008 | 1.26 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 58665 | 1.35 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 44687 | 1.34 | ppbv | 100 |
| 47) Tetrachloroethene | 20.925 | 166 | 59467 | 1.27 | ppbv | 98 |
| 48) 2-Hexanone | 21.199 | 43 | 72839 | 1.18 | ppbv | 98 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:40 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 66480 | 1.31 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 59656 | 1.29 | ppbv | 99 |
| 51) | Chlorobenzene | 22.404 | 112 | 100721 | 1.32 | ppbv | 83 |
| 52) | Ethylbenzene | 22.495 | 91 | 161945 | 1.22 | ppbv | 99 |
| 53) | m&p-Xylene | 22.678 | 91 | 240816 | 2.38 | ppbv | 100 |
| 54) | o-Xylene | 23.316 | 91 | 117300 | 1.17 | ppbv | 98 |
| 55) | Styrene | 23.353 | 104 | 91462 | 1.13 | ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 64708 | 1.21 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 97618 | 1.24 | ppbv | 98 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 151722 | 1.17 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 131634 | 1.15 | ppbv | 98 |
| 60) | 1,2,4-Trimethylbenzene | 25.366 | 105 | 128008 | 1.11 | ppbv | 99 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 90779 | 1.15 | ppbv | 98 |
| 62) | 1,4-Dichlorobenzene | 26.042 | 146 | 86744 | 1.12 | ppbv | 99 |
| 63) | Benzyl chloride | 26.261 | 91 | 98275 | 1.14 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.644 | 146 | 88219 | 1.14 | ppbv | 98 |
| 65) | 1,2,4-Trichlorobenzene | 29.114 | 180 | 70712 | 0.93 | ppbv | 97 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 71899 | 1.09 | ppbv | 100 |

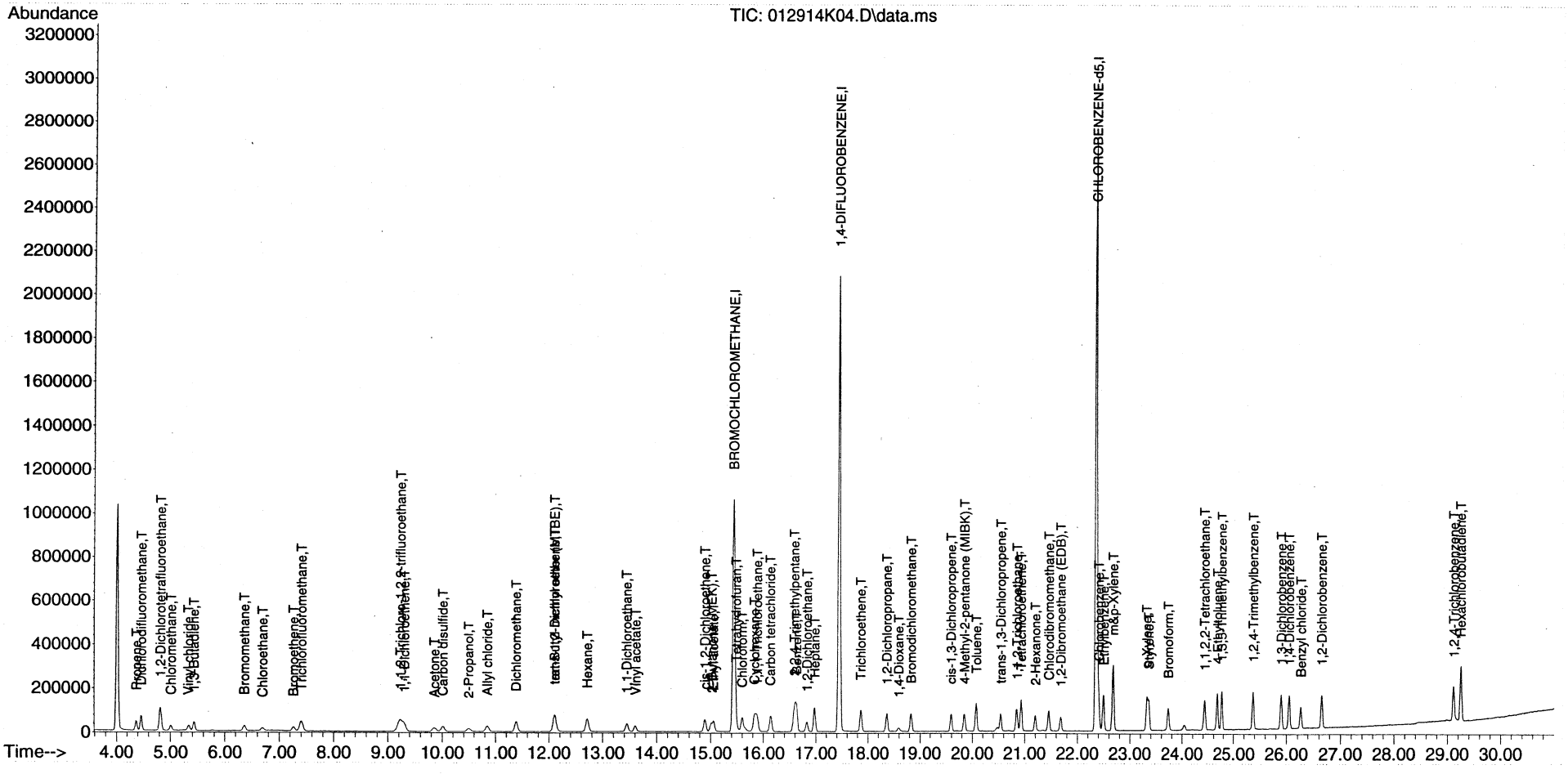
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:40 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

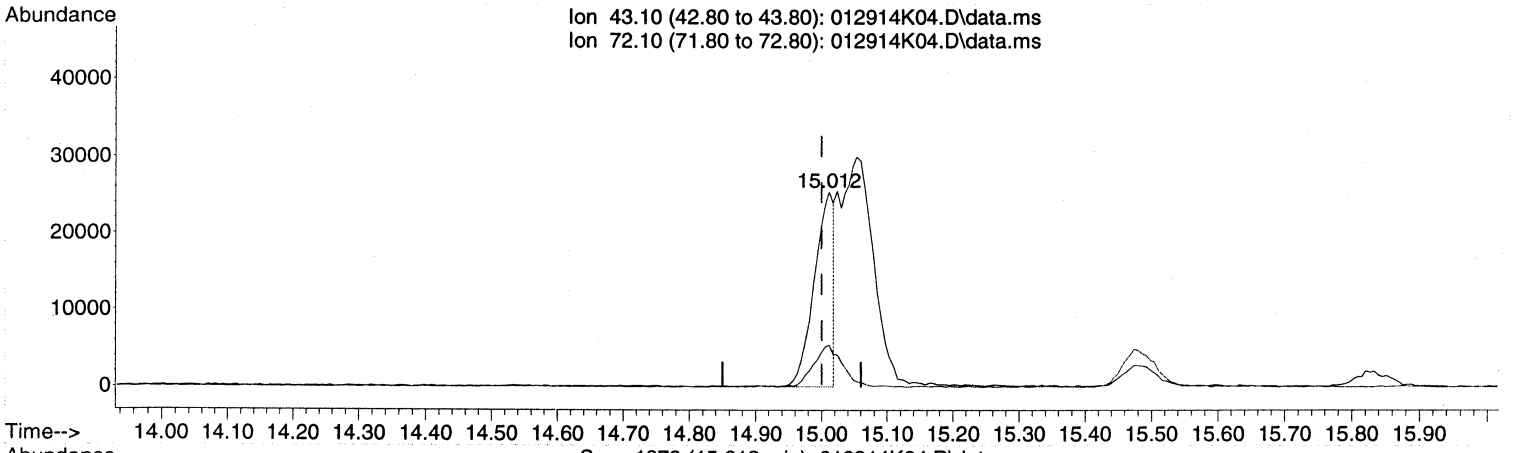


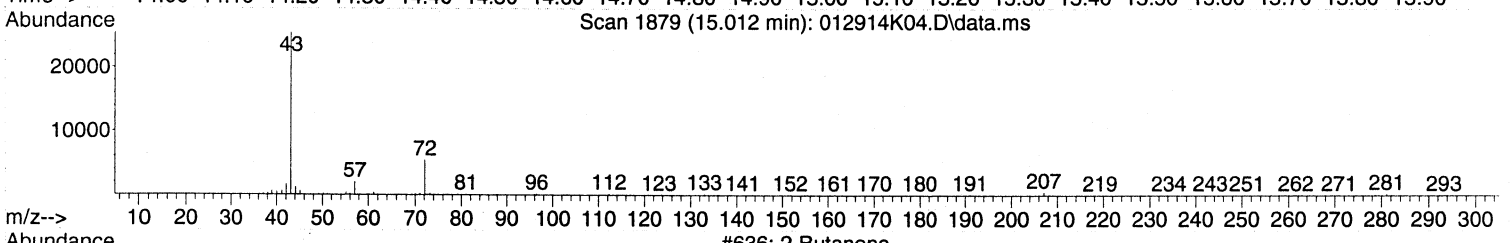
Quantitation Report (Qedit)

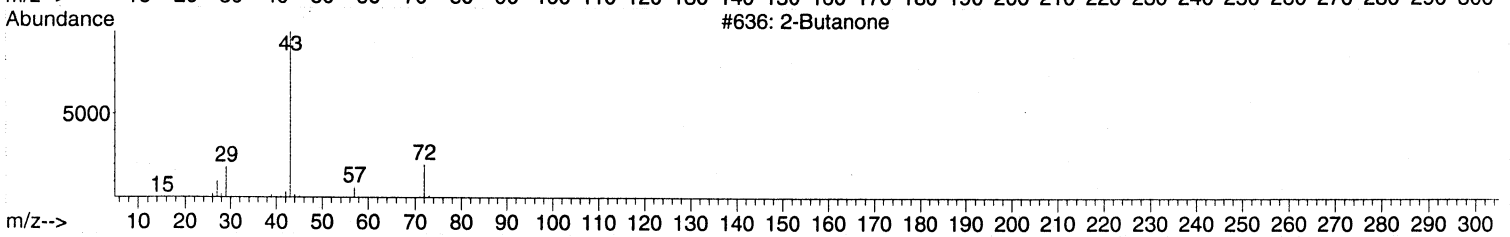
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K04.D\data.ms

(25) 2-Butanone (MEK) (T)

15.012min (+0.012) 0.96 ppbv

response 52994

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 21.10 | 28.00 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☑ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

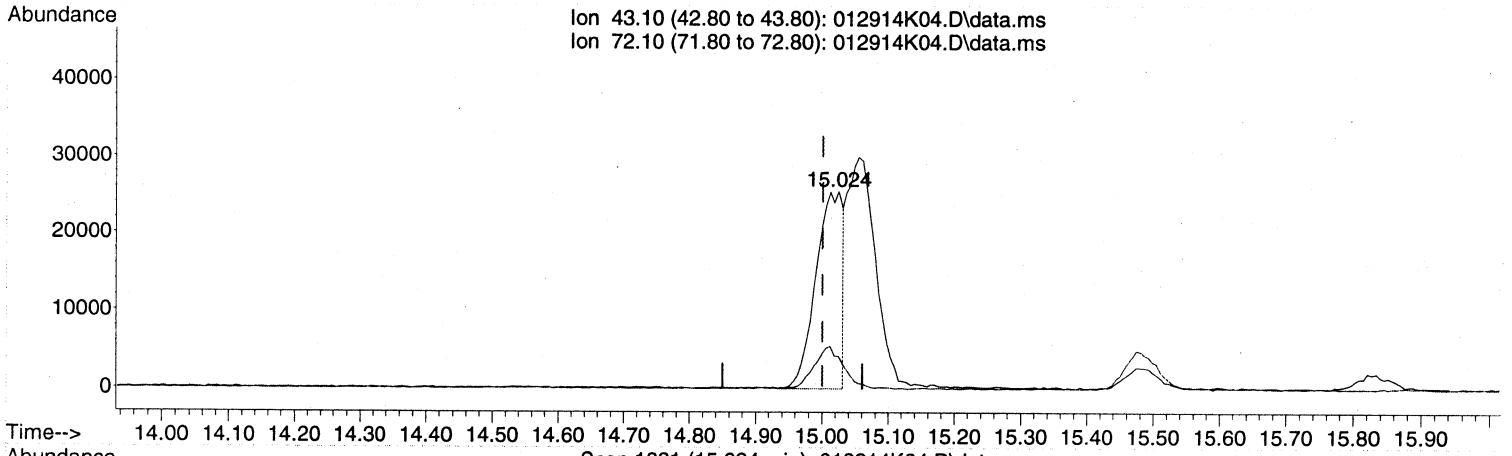
Reviewer: _____ Date: _____

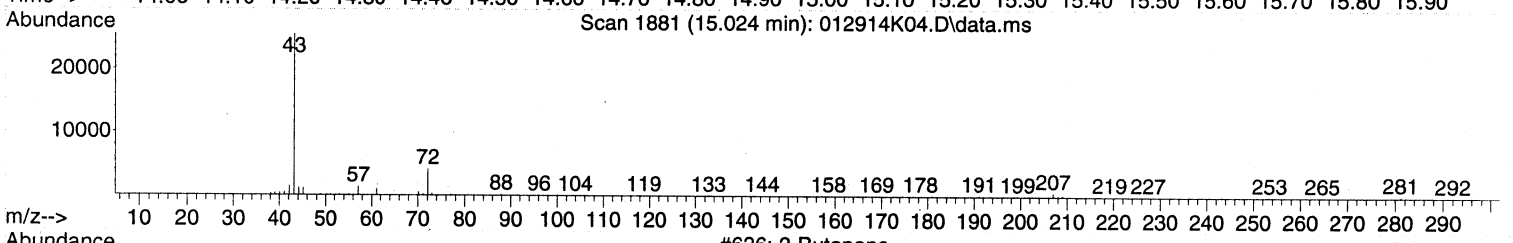
Quantitation Report (Qedit)

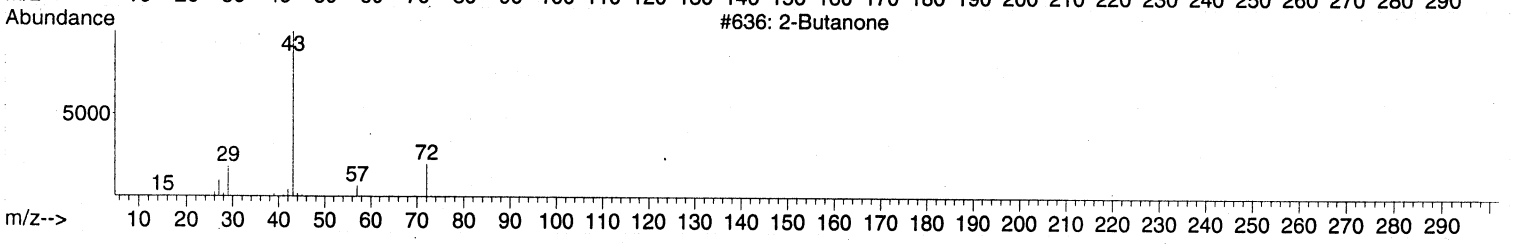
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K04.D\data.ms

(25) 2-Butanone (MEK) (T)

15.024min (+0.024) 1.29 ppbv m

response 70995

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 72.10 | 21.10 | 20.90 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/29/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/31/14



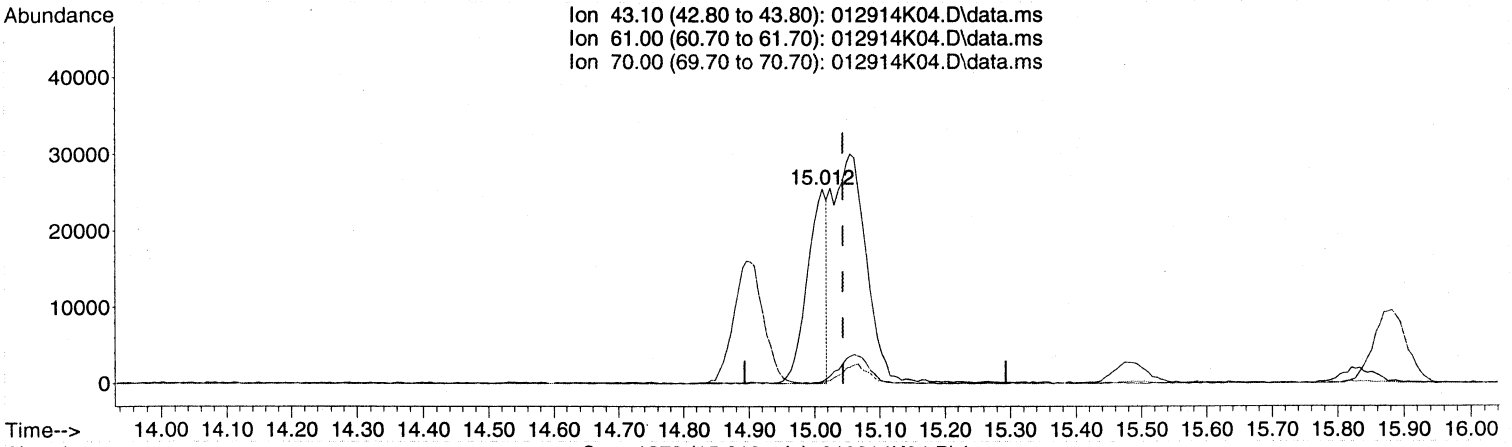
00175

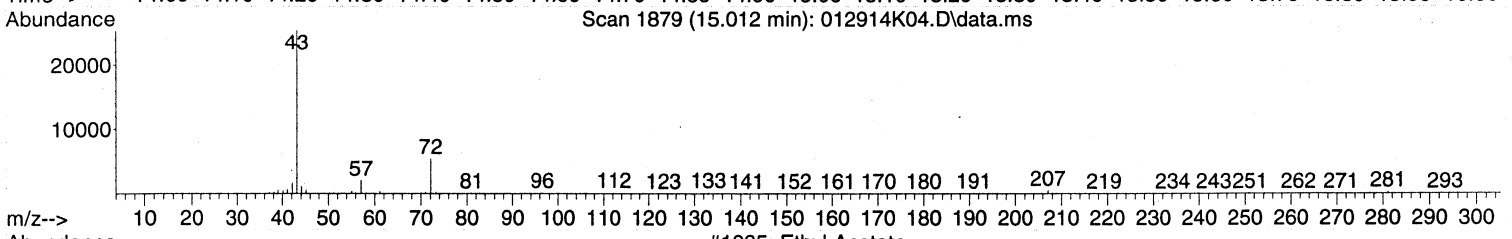
Quantitation Report (Qedit)

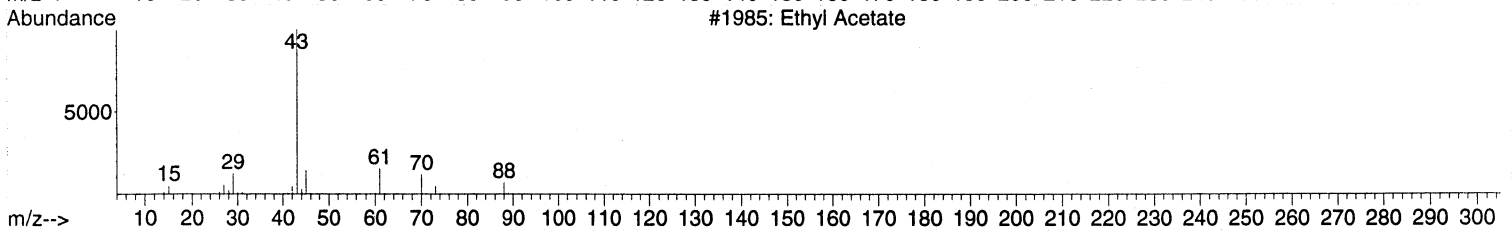
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K04.D\data.ms

(26) Ethyl acetate (T)

15.012min (-0.031) 0.72 ppbv

response 52994

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: RT 44

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____



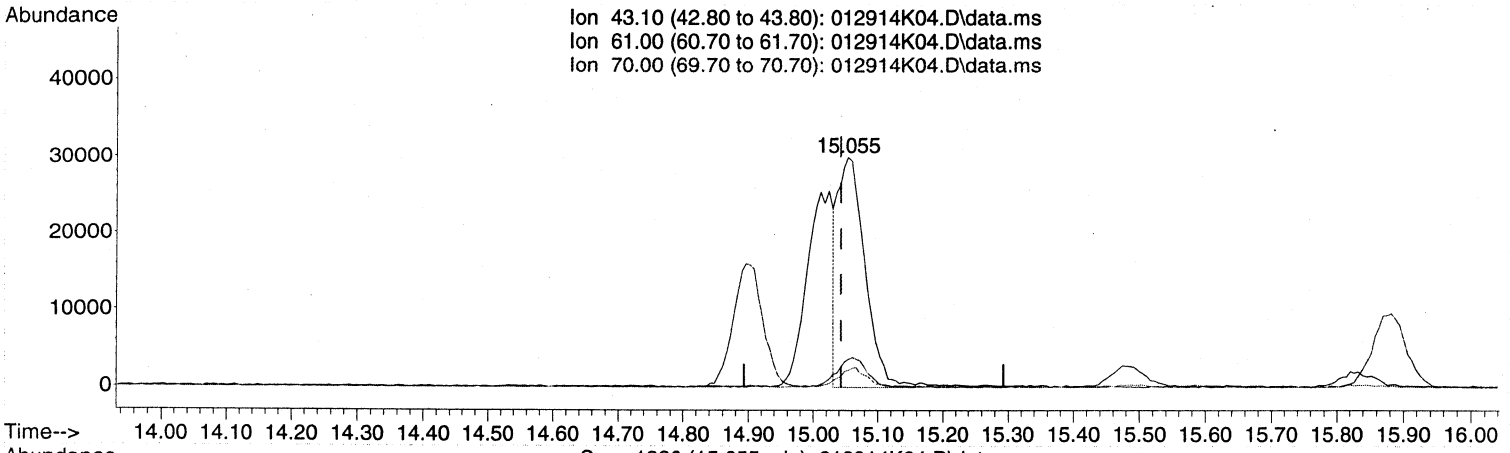
00176

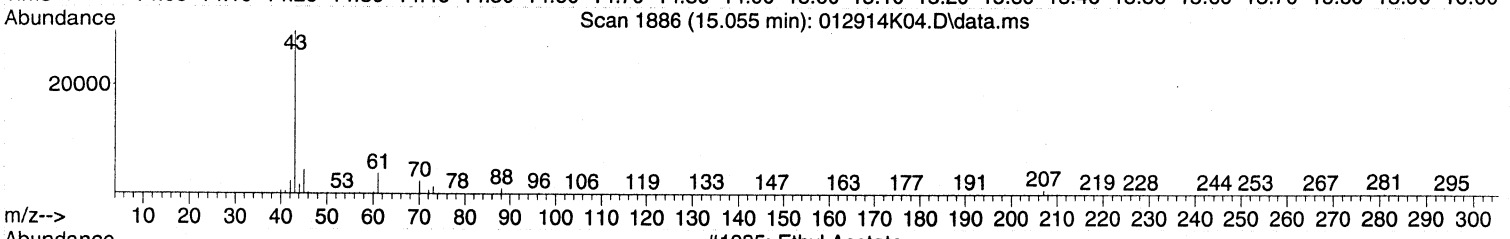
Quantitation Report (Qedit)

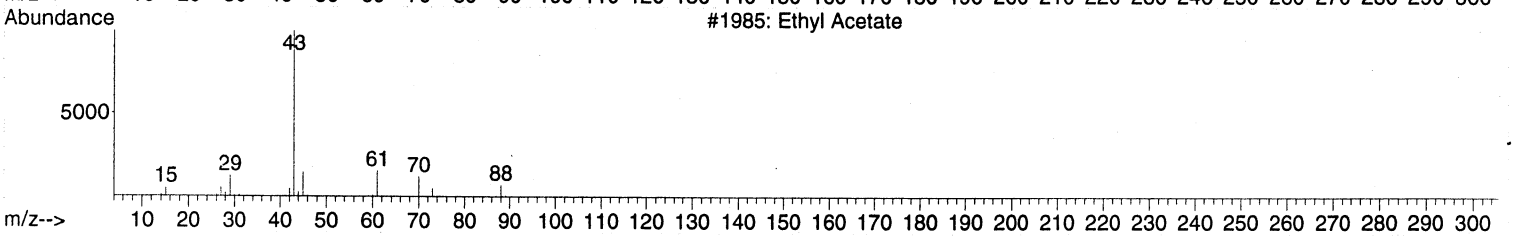
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K04.D\data.ms

(26) Ethyl acetate (T)

15.055min (+0.012) 1.20 ppbv m

response 88986

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/29/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/31/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

Rel MI
em 1/29/14

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 919597 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2311933 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2042651 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 36897 | 1.39 | ppbv | | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 91290 | 1.27 | ppbv | | 98 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 92323 | 1.25 | ppbv | | 99 |
| 5) Chloromethane | 5.011 | 50 | 40438 | 1.32 | ppbv | | 98 |
| 6) Vinyl chloride | 5.327 | 62 | 41866 | 1.28 | ppbv | | 100 |
| 7) 1,3-Butadiene | 5.431 | 54 | 30203 | 1.24 | ppbv | | 97 |
| 8) Bromomethane | 6.361 | 94 | 29322 | 1.21 | ppbv | | 98 |
| 9) Chloroethane | 6.690 | 64 | 20706 | 1.22 | ppbv | | 96 |
| 10) Bromoethene | 7.262 | 106 | 27299 | 1.21 | ppbv | | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 82361 | 1.32 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.227 | 151 | 51243 | 1.17 | ppbv | | 98 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 54730 | 1.14 | ppbv | | 99 |
| 14) Acetone | 9.853 | 43 | 56193 | 1.31 | ppbv | | 99 |
| 15) Carbon disulfide | 10.012 | 76 | 87018 | 1.24 | ppbv | | 97 |
| 16) 2-Propanol | 10.492 | 45 | 49103 | 1.11 | ppbv | | 90 |
| 17) Allyl chloride | 10.845 | 41 | 42789 | 1.20 | ppbv | | 99 |
| 18) Dichloromethane | 11.380 | 49 | 62852 | 1.52 | ppbv | | 98 |
| 19) tert-Butyl methyl ethe... | 12.104 | 73 | 88125 | 1.23 | ppbv | | 98 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 44918 | 1.14 | ppbv | | 100 |
| 21) Hexane | 12.713 | 57 | 56233 | 1.17 | ppbv | | 96 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 67837 | 1.17 | ppbv | | 98 |
| 23) Vinyl acetate | 13.607 | 43 | 72995 | 1.14 | ppbv | | 100 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 51501 | 1.20 | ppbv | | 98 |
| 25) 2-Butanone (MEK) | 15.012 | 43 | 52994 | 0.96 | ppbv | | 85 |
| 26) Ethyl acetate | 15.012 | 43 | 52994 | 0.72 | ppbv | # | 68 |
| 27) Tetrahydrofuran | 15.481 | 42 | 45076 | 1.20 | ppbv | | 98 |
| 28) Chloroform | 15.596 | 83 | 71402 | 1.21 | ppbv | | 97 |
| 29) Cyclohexane | 15.827 | 56 | 58461 | 1.20 | ppbv | | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 71669 | 1.23 | ppbv | | 98 |
| 31) Carbon tetrachloride | 16.132 | 117 | 71339 | 1.26 | ppbv | | 98 |
| 33) Benzene | 16.630 | 78 | 114833 | 1.25 | ppbv | | 98 |
| 34) 2,2,4-Trimethylpentane | 16.588 | 57 | 178753 | 1.26 | ppbv | | 97 |
| 35) 1,2-Dichloroethane | 16.831 | 62 | 45458 | 1.22 | ppbv | | 98 |
| 36) Heptane | 16.977 | 43 | 68863 | 1.28 | ppbv | | 99 |
| 37) Trichloroethene | 17.859 | 130 | 43466 | 1.23 | ppbv | | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 44920 | 1.27 | ppbv | | 98 |
| 39) 1,4-Dioxane | 18.589 | 88 | 19545 | 1.16 | ppbv | | 95 |
| 40) Bromodichloromethane | 18.827 | 83 | 73973 | 1.30 | ppbv | | 98 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 60324 | 1.22 | ppbv | | 96 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 81074 | 1.16 | ppbv | | 99 |
| 44) Toluene | 20.074 | 91 | 127008 | 1.26 | ppbv | | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 58665 | 1.35 | ppbv | | 98 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 44687 | 1.34 | ppbv | | 100 |
| 47) Tetrachloroethene | 20.925 | 166 | 59467 | 1.27 | ppbv | | 98 |
| 48) 2-Hexanone | 21.199 | 43 | 72839 | 1.18 | ppbv | | 98 |



00178

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 66480 | 1.31 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 59656 | 1.29 | ppbv | 99 |
| 51) | Chlorobenzene | 22.404 | 112 | 100721 | 1.32 | ppbv | 83 |
| 52) | Ethylbenzene | 22.495 | 91 | 161945 | 1.22 | ppbv | 99 |
| 53) | m&p-Xylene | 22.678 | 91 | 240816 | 2.38 | ppbv | 100 |
| 54) | o-Xylene | 23.316 | 91 | 117300 | 1.17 | ppbv | 98 |
| 55) | Styrene | 23.353 | 104 | 91462 | 1.13 | ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 64708 | 1.21 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 97618 | 1.24 | ppbv | 98 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 151722 | 1.17 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 131634 | 1.15 | ppbv | 98 |
| 60) | 1,2,4-Trimethylbenzene | 25.366 | 105 | 128008 | 1.11 | ppbv | 99 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 90779 | 1.15 | ppbv | 98 |
| 62) | 1,4-Dichlorobenzene | 26.042 | 146 | 86744 | 1.12 | ppbv | 99 |
| 63) | Benzyl chloride | 26.261 | 91 | 98275 | 1.14 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.644 | 146 | 88219 | 1.14 | ppbv | 98 |
| 65) | 1,2,4-Trichlorobenzene | 29.114 | 180 | 70712 | 0.93 | ppbv | 97 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 71899 | 1.09 | ppbv | 100 |

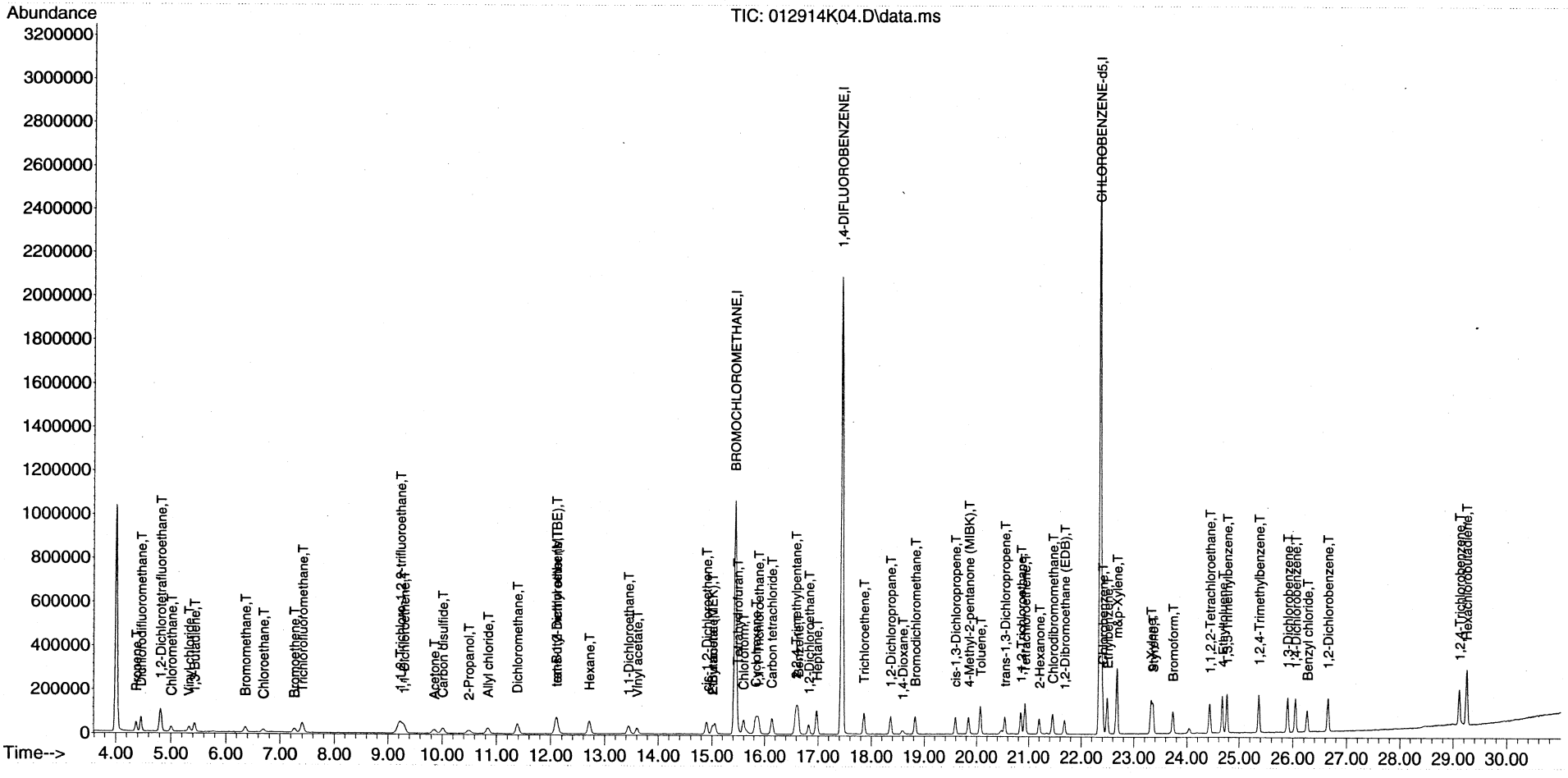
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K04.D
Acq On : 29 Jan 2014 15:17
Instrument: HP5973K
Operator : EM
Sample : S14A101-CRL1
Misc : 10 ppbv 1402115
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 29 15:51:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K05.D
Acq On : 29 Jan 2014 16:07
Instrument: HP5973K
Operator : EM
Sample : B14A073-BLK1
Misc : 200mL CAN
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 29 17:33:52 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 925126 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2391935 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2117265 | 22.00 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

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



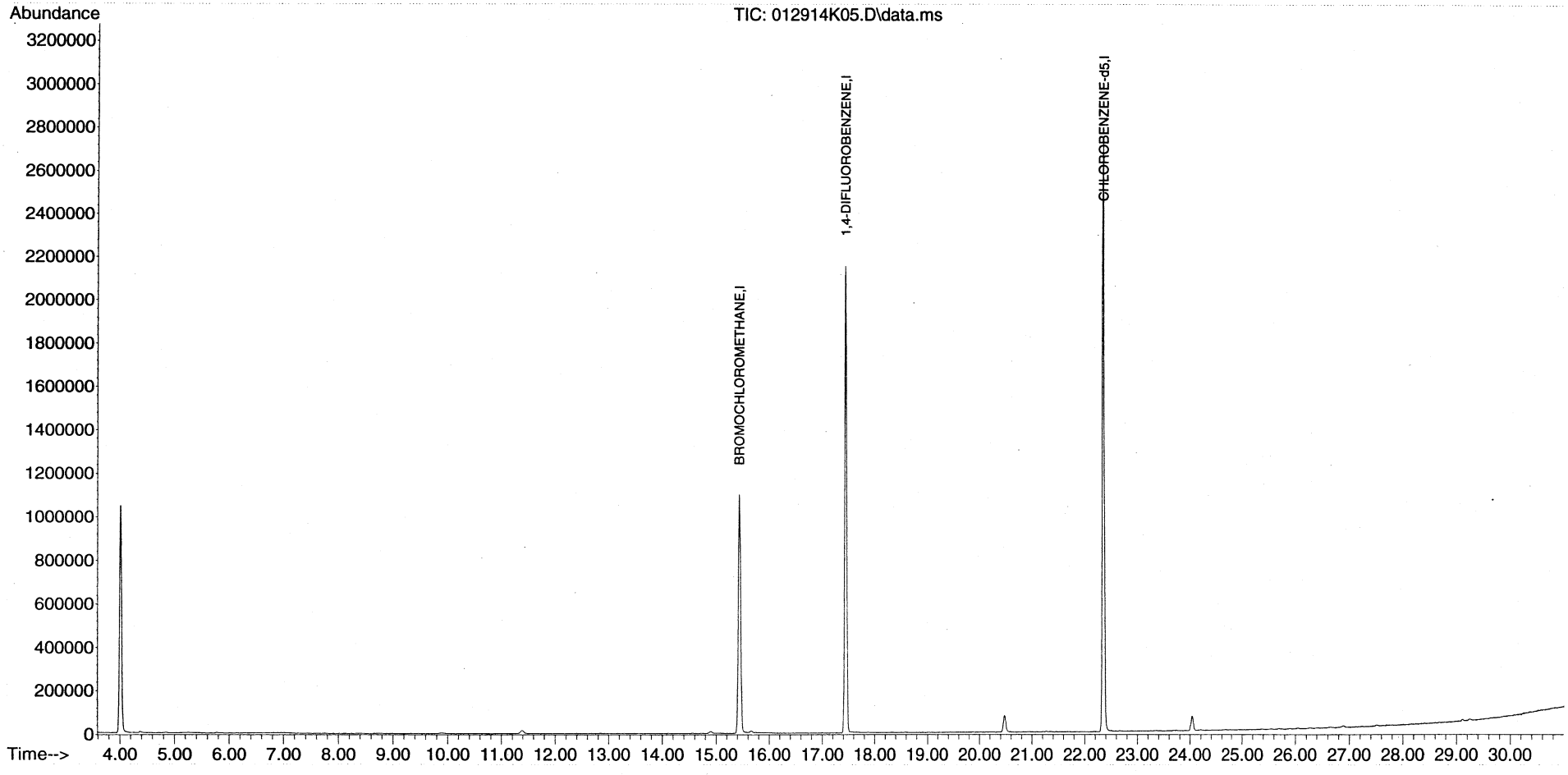
:091A1

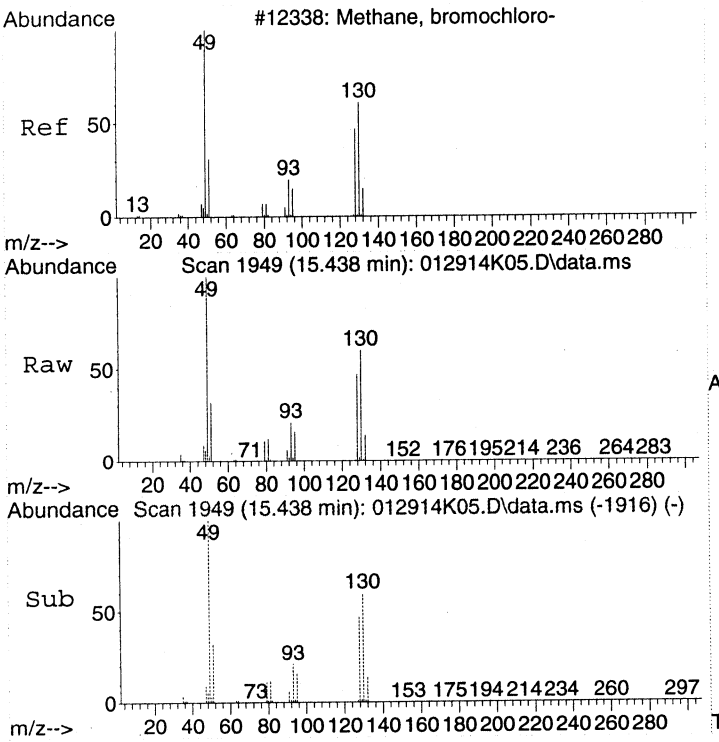
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K05.D
Acq On : 29 Jan 2014 16:07
Instrument: HP5973K
Operator : EM
Sample : B14A073-BLK1
Misc : 200mL CAN
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 29 17:33:52 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

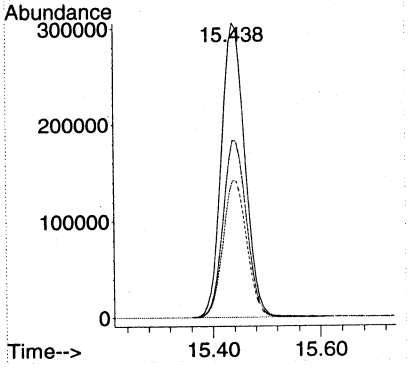


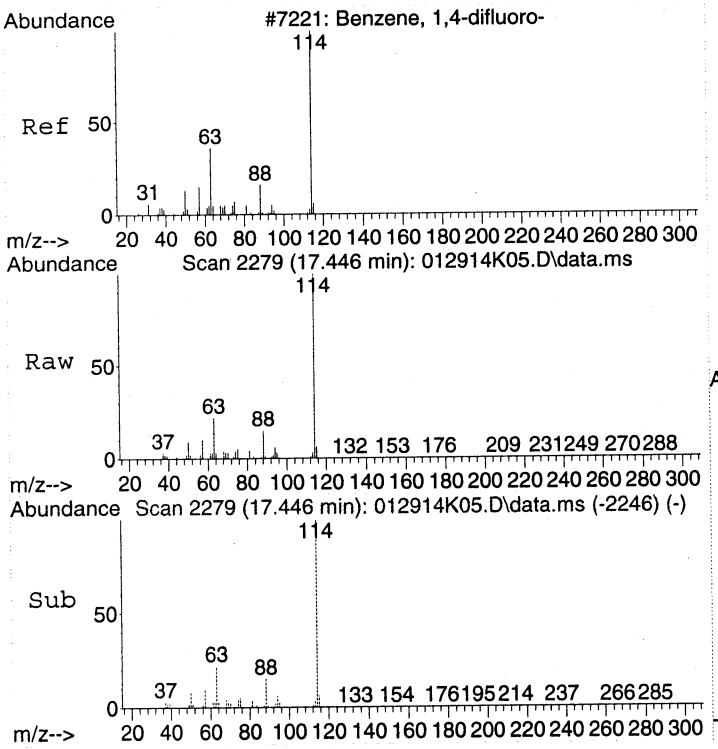



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion: 49 Resp: 925126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.3 | 39.6 | 79.6 |
| 128 | 46.9 | 26.9 | 66.9 |

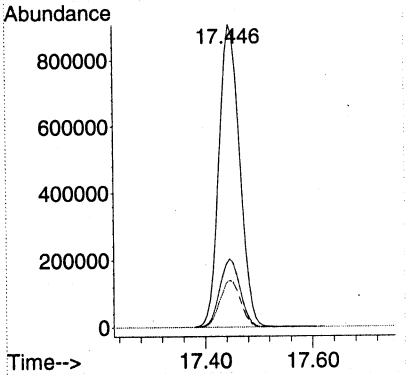


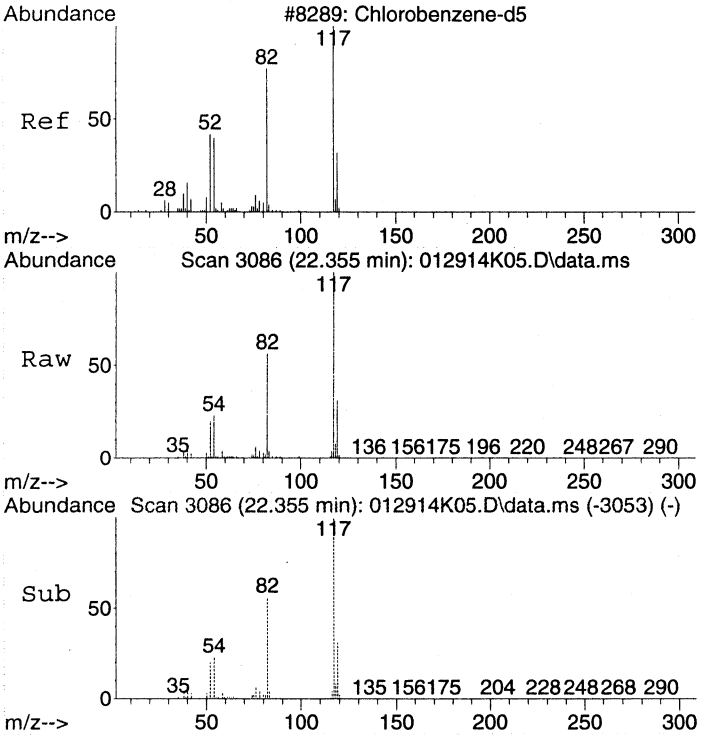




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion:114 Resp: 2391935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.2 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

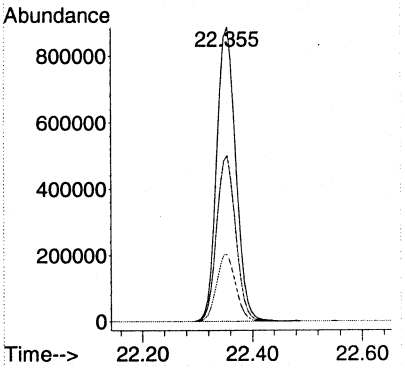





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion:117 Resp: 2117265

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.4 | 37.1 | 77.1 |
| 54 | 23.1 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K05.D
Acq On : 29 Jan 2014 16:07
Instrument: HP5973K
Operator : EM
Sample : B14A073-BLK1
Misc : 200mL CAN
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 30 10:02:32 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 925126 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2391935 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2117265 | 22.00 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

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



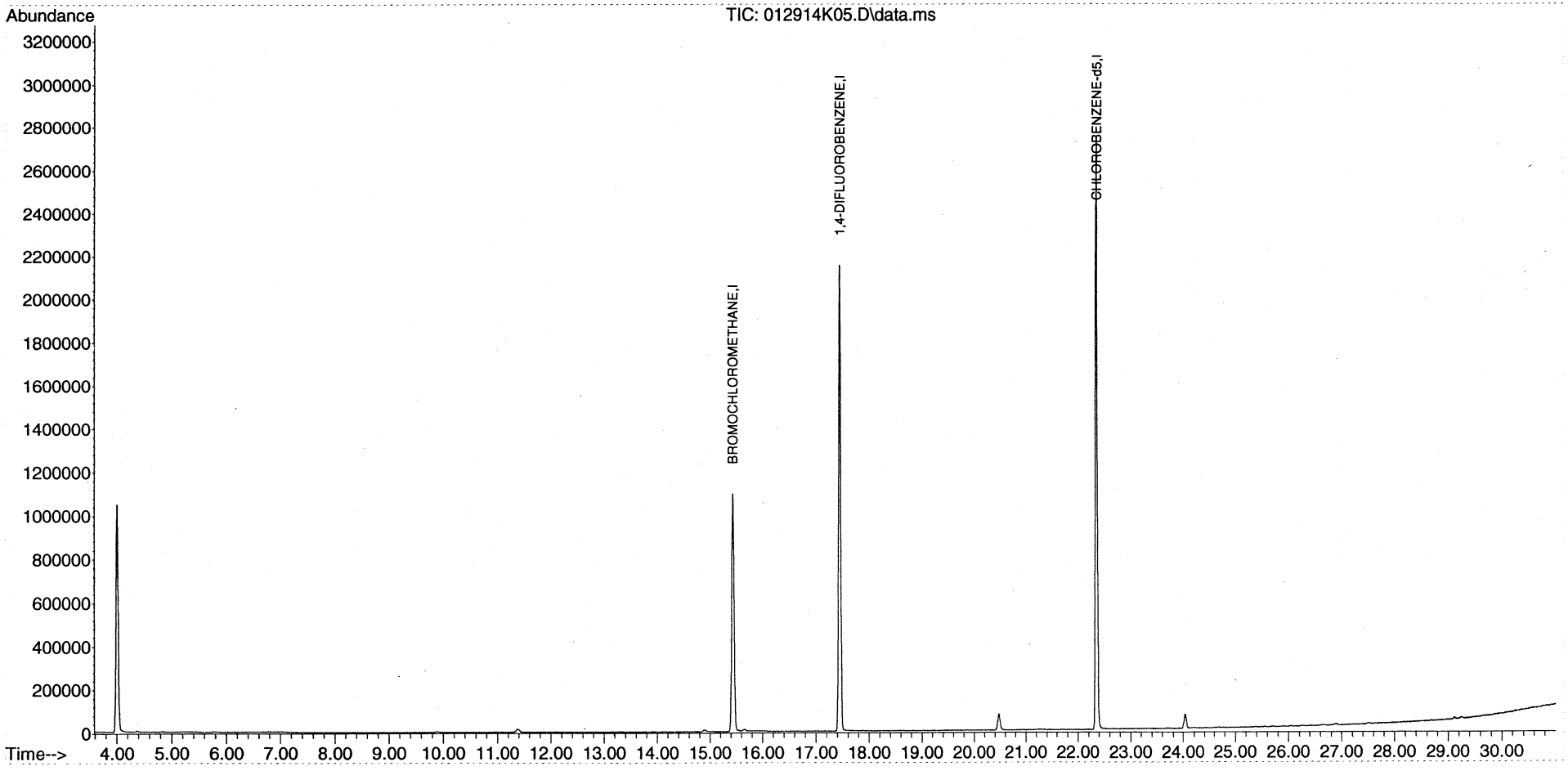
00165

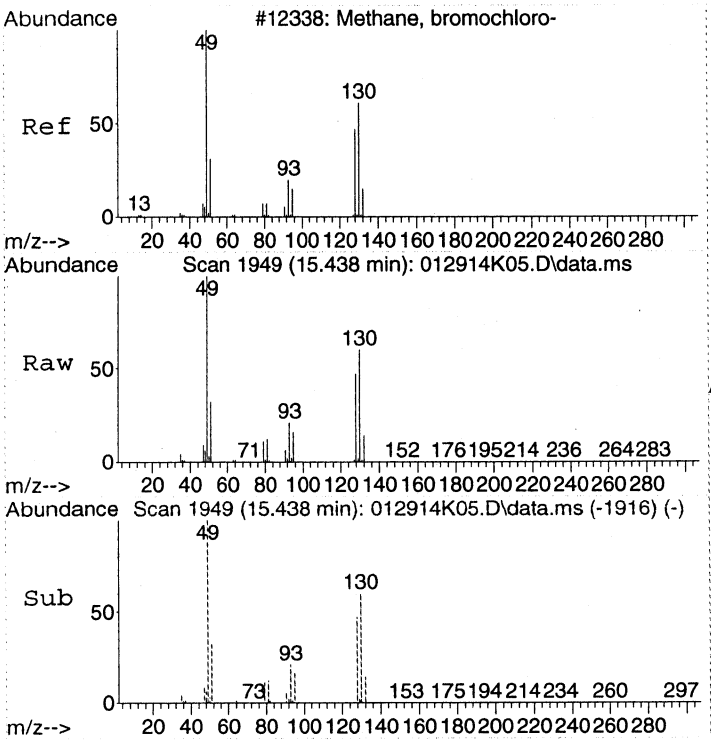
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K05.D
Acq On : 29 Jan 2014 16:07
Instrument: HP5973K
Operator : EM
Sample : B14A073-BLK1
Misc : 200mL CAN
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 30 10:02:32 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

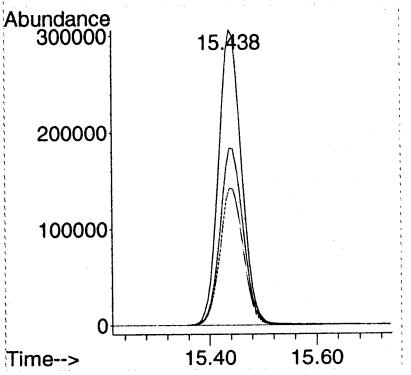


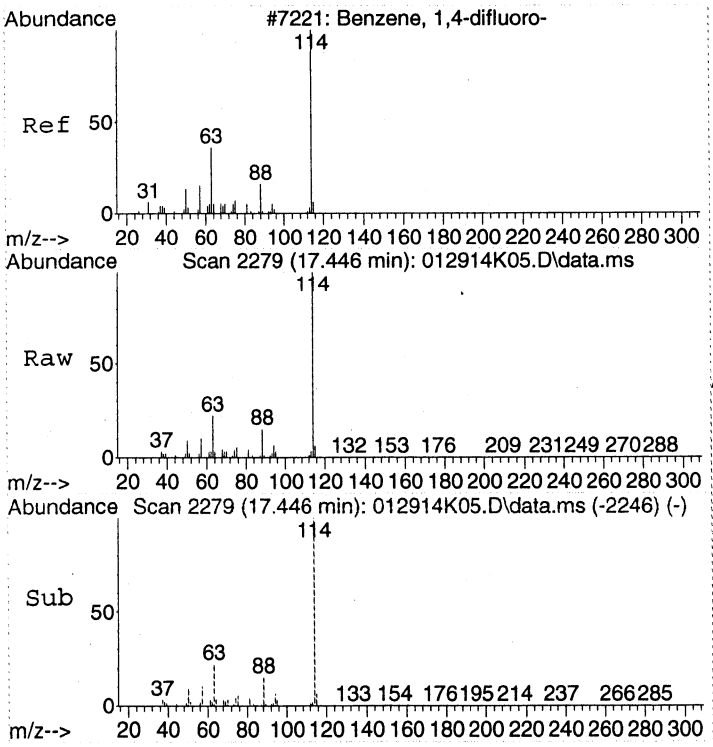



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion: 49 Resp: 925126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.3 | 39.6 | 79.6 |
| 128 | 46.9 | 26.9 | 66.9 |

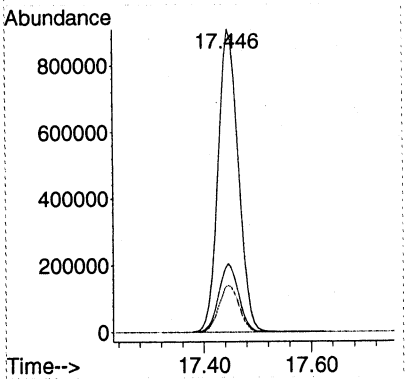


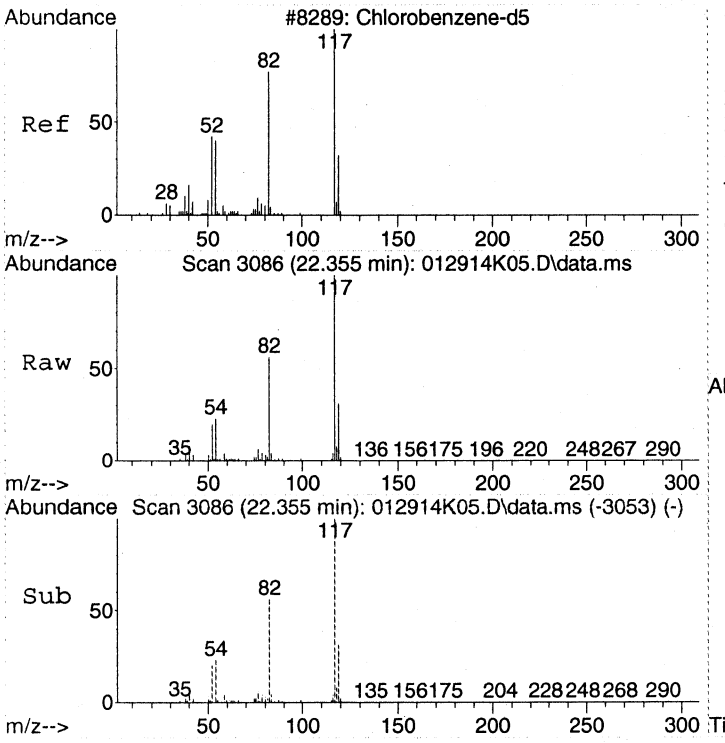




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion:114 Resp: 2391935

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.2 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

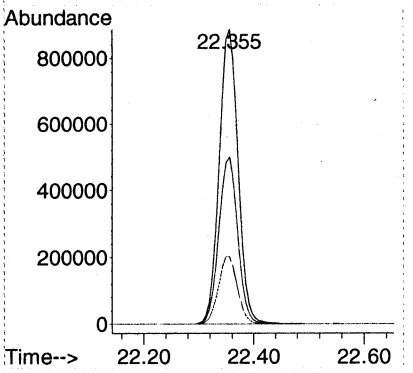





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K05.D
Acq: 29 Jan 2014 16:07

Tgt Ion:117 Resp: 2117265

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.4 | 37.1 | 77.1 |
| 54 | 23.1 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K08.D
Acq On : 29 Jan 2014 18:32
Instrument: HP5973K
Operator : EM
Sample : 1401049-01RE1
Misc : 20mL MH01 Can 1987
ALS Vial : 37
Multiplier: 2.07

for CHCl3 only
+ see 200 mL run
em 1/29/14

Quant Time: Jan 30 12:17:14 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 912277 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2320616 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2067365 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.866 | 43 | 29282 | 0.69 | ppbv | 98 |
| 18) Dichloromethane | 11.393 | 49 | 32364 | 0.79 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 441443 | 7.57 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 53661 | 0.94 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.449 | 129 | 26258 | 0.51 | ppbv | 99 |

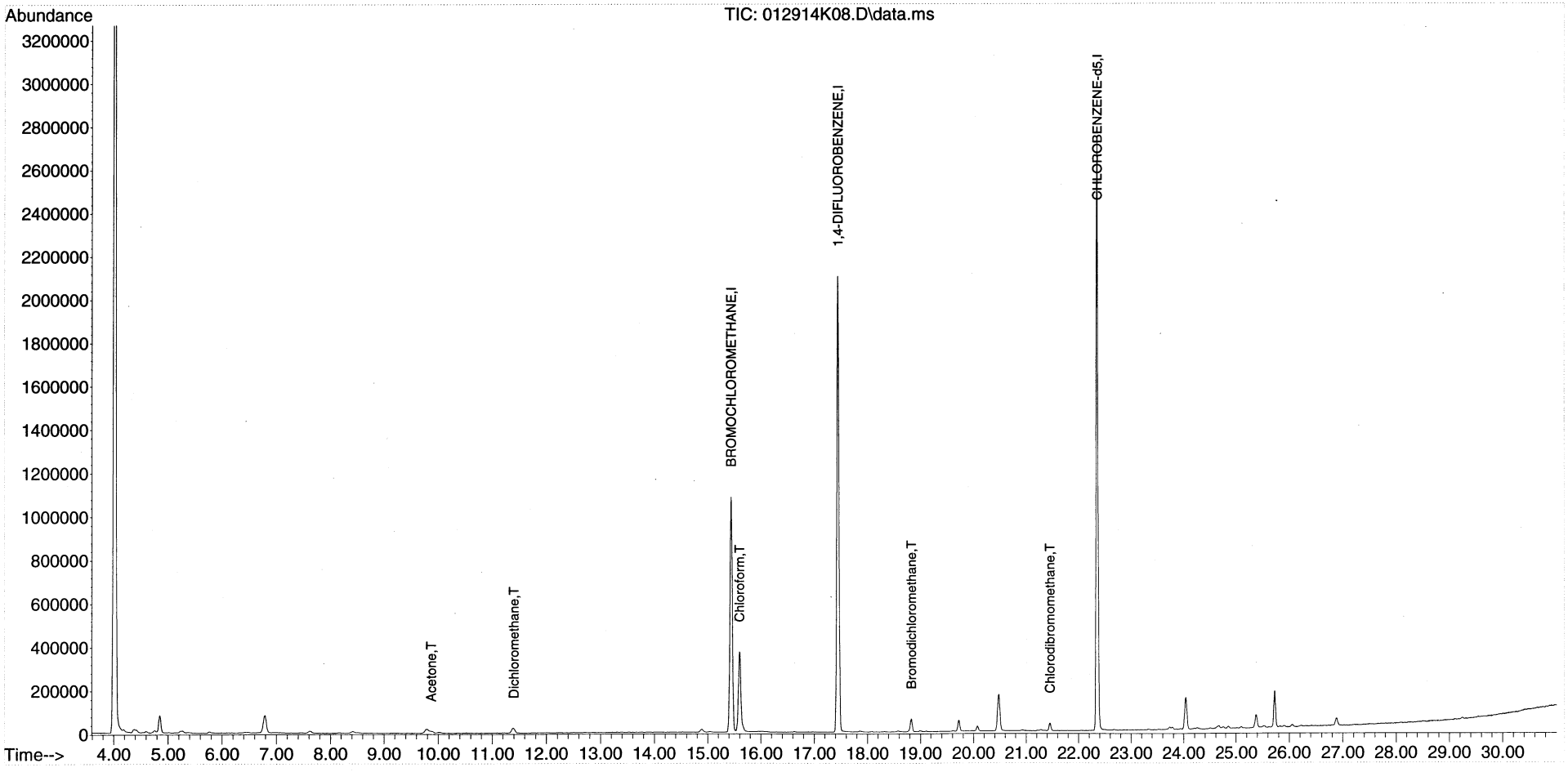
(#) = qualifier out of range (m) = manual integration (+) = signals summed

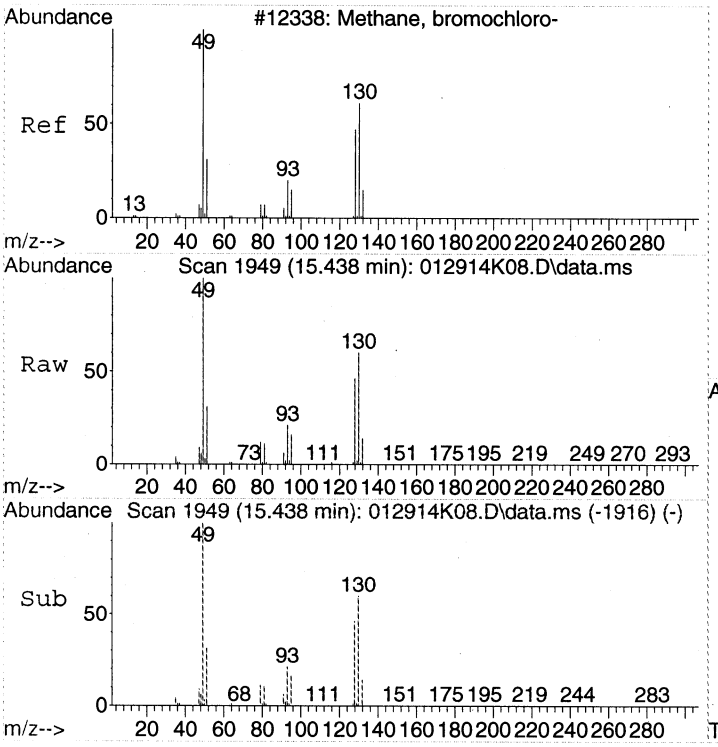
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K08.D
Acq On : 29 Jan 2014 18:32
Instrument: HP5973K
Operator : EM
Sample : 1401049-01RE1
Misc : 20mL MH01 Can 1987
ALS Vial : 37
Multiplier: 2.07

Quant Time: Jan 30 12:17:14 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

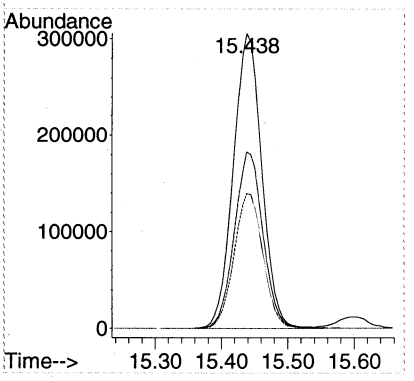


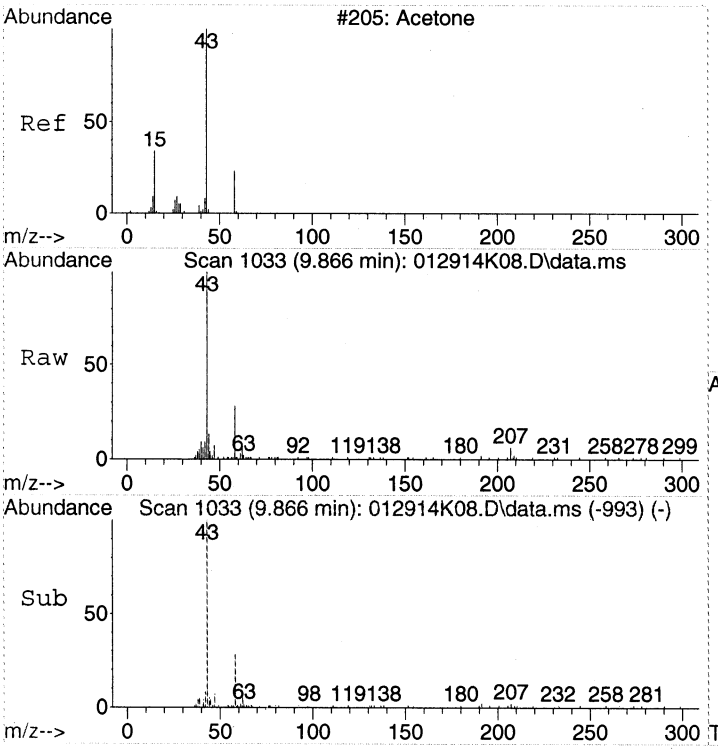



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion: 49 Resp: 912277

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.1 | 39.6 | 79.6 |
| 128 | 46.3 | 26.9 | 66.9 |

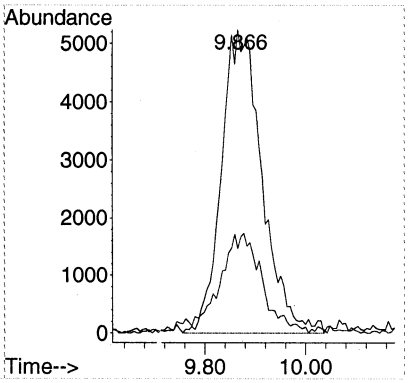


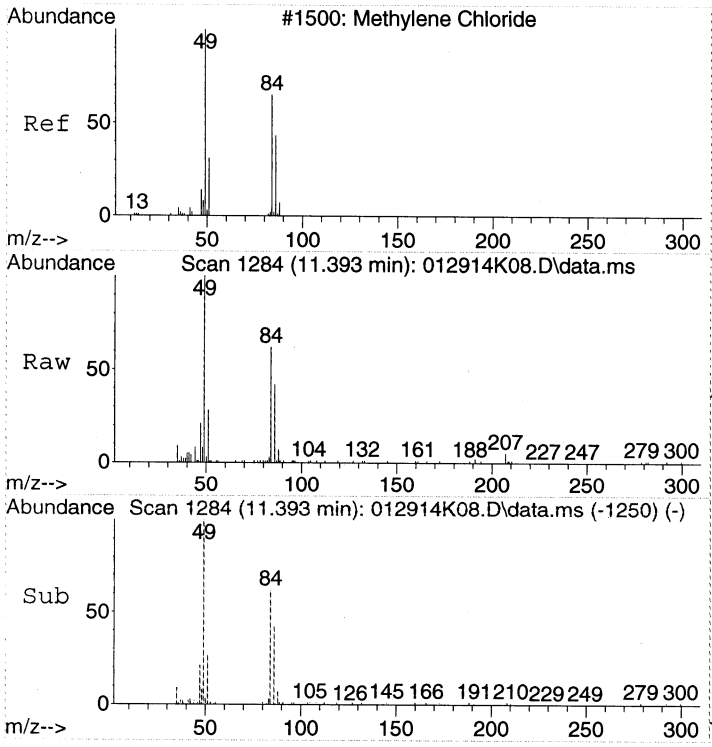




#14
Acetone
Concen: 0.69 ppbv
RT: 9.866 min Scan# 1033
Delta R.T. 0.043 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion: 43 Resp: 29282

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.9 | 12.5 | 52.5 |

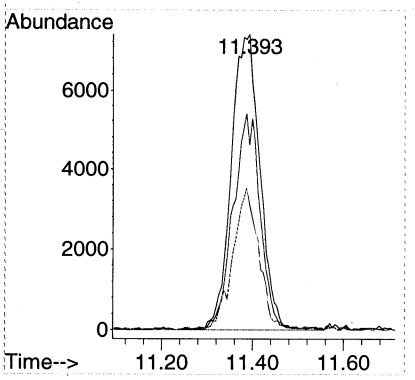


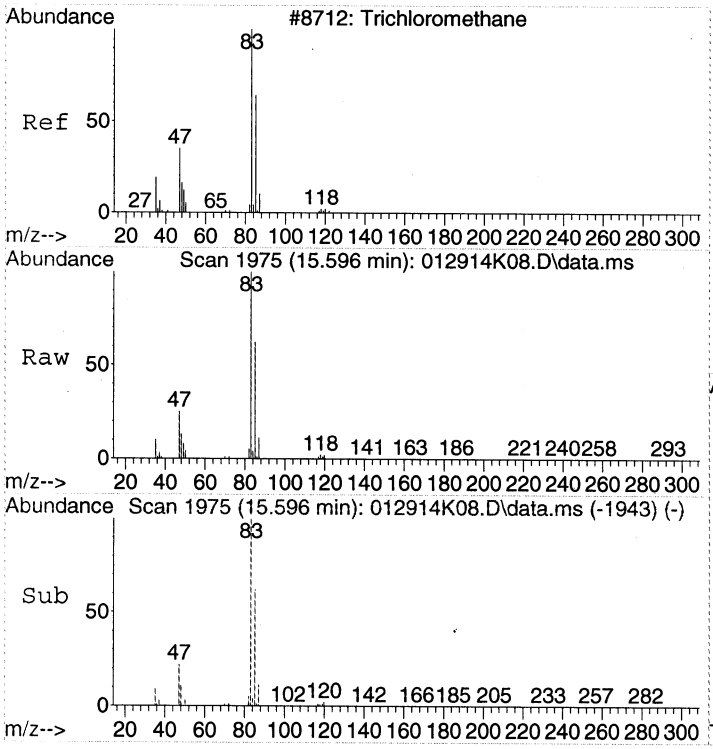



#18
Dichloromethane
Concen: 0.79 ppbv
RT: 11.393 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion: 49 Resp: 32364

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.0 | 50.0 | 90.0 |
| 86 | 43.1 | 24.4 | 64.4 |

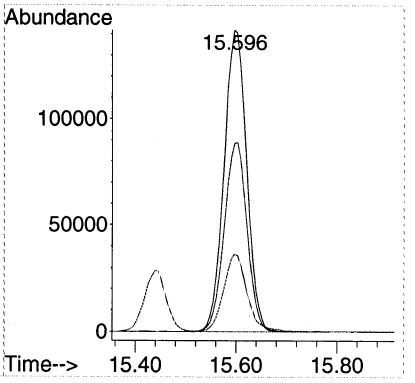


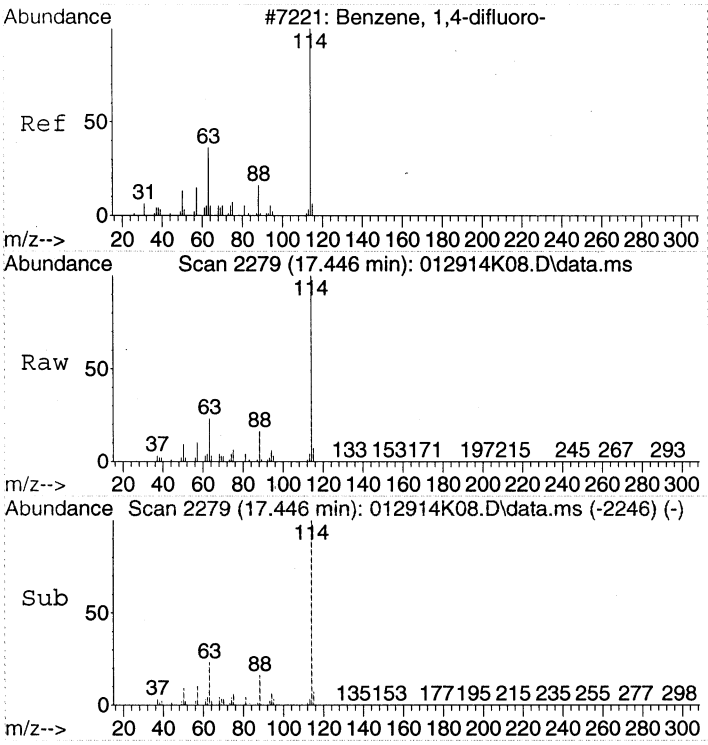




#28
Chloroform
Concen: 7.57 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion: 83 Resp: 441443

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 42.7 | 82.7 |
| 47 | 25.9 | 5.3 | 45.3 |

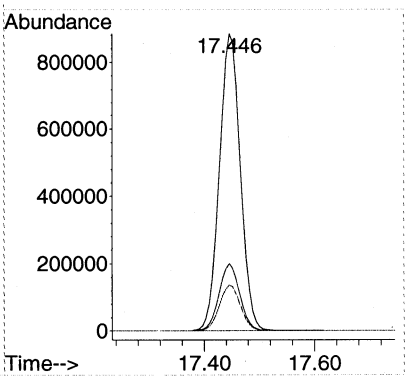


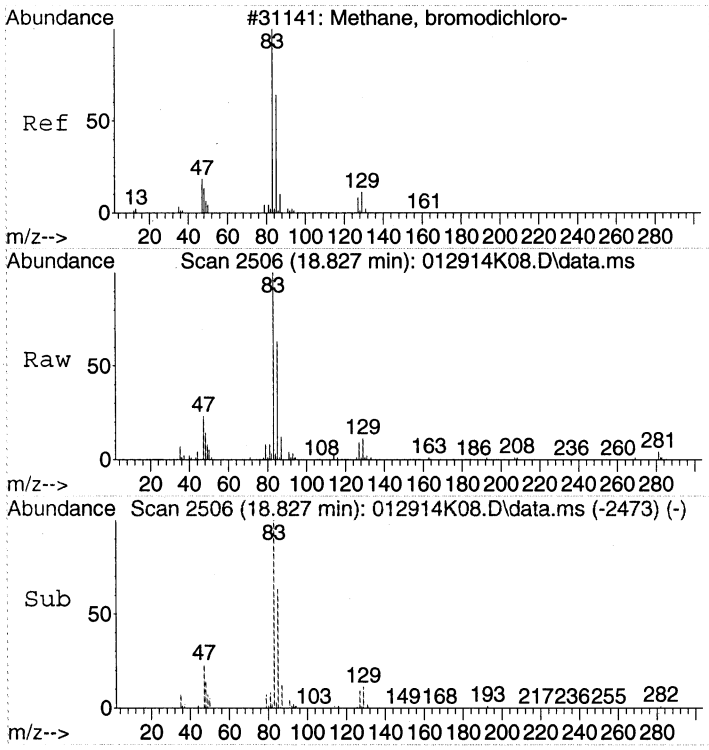



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion:114 Resp: 2320616

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.4 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

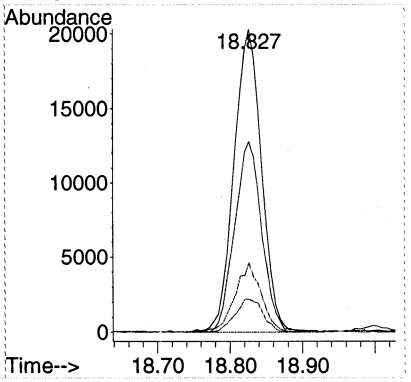


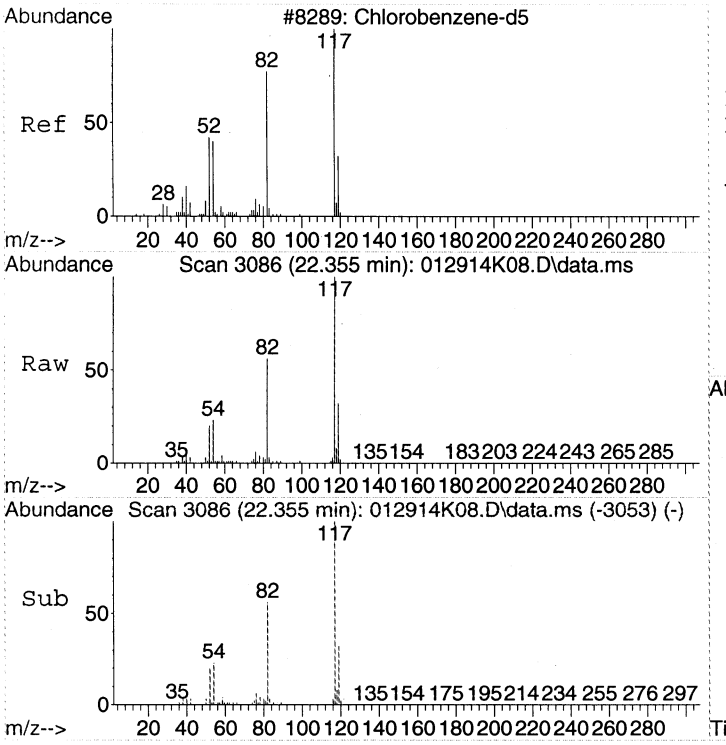




#40
Bromodichloromethane
Concen: 0.94 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion: 83 Resp: 53661

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.1 | 41.8 | 81.8 |
| 47 | 21.2 | 0.4 | 40.4 |
| 129 | 11.0 | 0.0 | 29.9 |

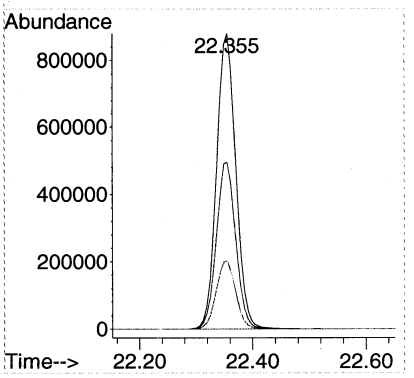


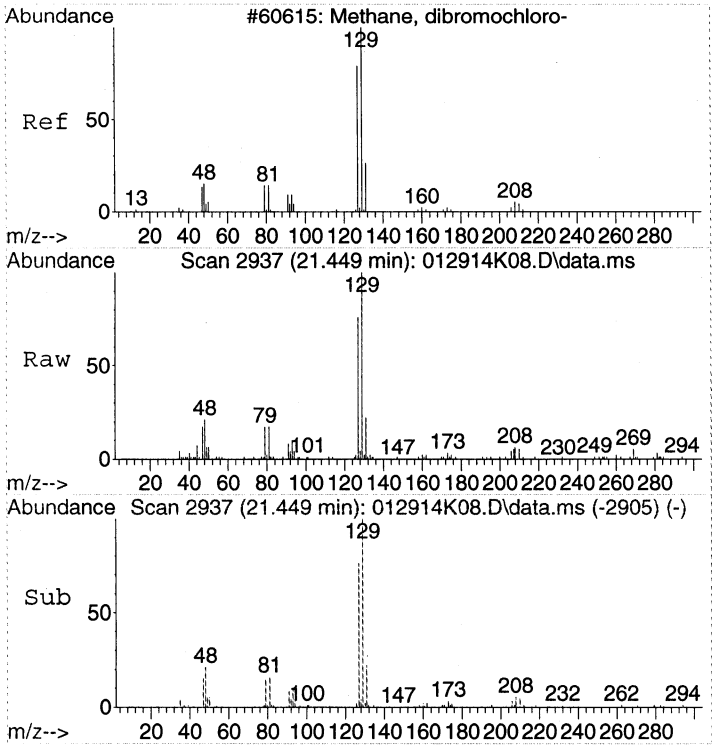



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion:117 Resp: 2067365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.8 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |

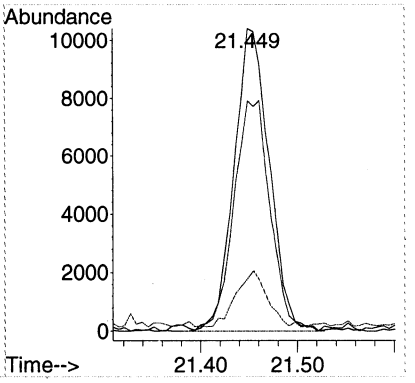



#49
Chlorodibromomethane
Concen: 0.51 ppbv
RT: 21.449 min Scan# 2937
Delta R.T. -0.006 min
Lab File: 012914K08.D
Acq: 29 Jan 2014 18:32

Tgt Ion:129 Resp: 26258

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.5 | 59.2 | 99.2 |
| 79 | 16.6 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K09.D
Acq On : 29 Jan 2014 19:21
Instrument: HP5973K
Operator : EM
Sample : 1401049-01
Misc : 200mL MH01 Can 1987
ALS Vial : 37
Multiplier: 2.07

Quant Time: Jan 30 10:03:18 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 974792 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2332629 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2085474 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 50415 | 1.79 | ppbv | # | 81 |
| 5) Chloromethane | 5.011 | 50 | 19693 | 0.60 | ppbv | | 95 |
| 14) Acetone | 9.853 | 43 | 211143 | 4.63 | ppbv | | 94 |
| 15) Carbon disulfide | 10.018 | 76 | 105670 | 1.42 | ppbv | | 91 |
| 18) Dichloromethane | 11.393 | 49 | 135041 | 3.07 | ppbv | | 98 |
| 28) Chloroform | 15.602 | 83 | 3713904 | 59.60 | ppbv | E | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 447733 | 7.78 | ppbv | | 99 |
| 44) Toluene | 20.074 | 91 | 170568 | 1.66 | ppbv | | 99 |
| 45) trans-1,3-Dichloropropene | 20.469 | 75 | 32363 | 0.73 | ppbv | # | 41 |
| 49) Chlorodibromomethane | 21.455 | 129 | 218324 | 4.22 | ppbv | | 99 |
| 56) Bromoform | 23.730 | 173 | 56526 | 1.04 | ppbv | | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 71774 | 0.61 | ppbv | | 99 |

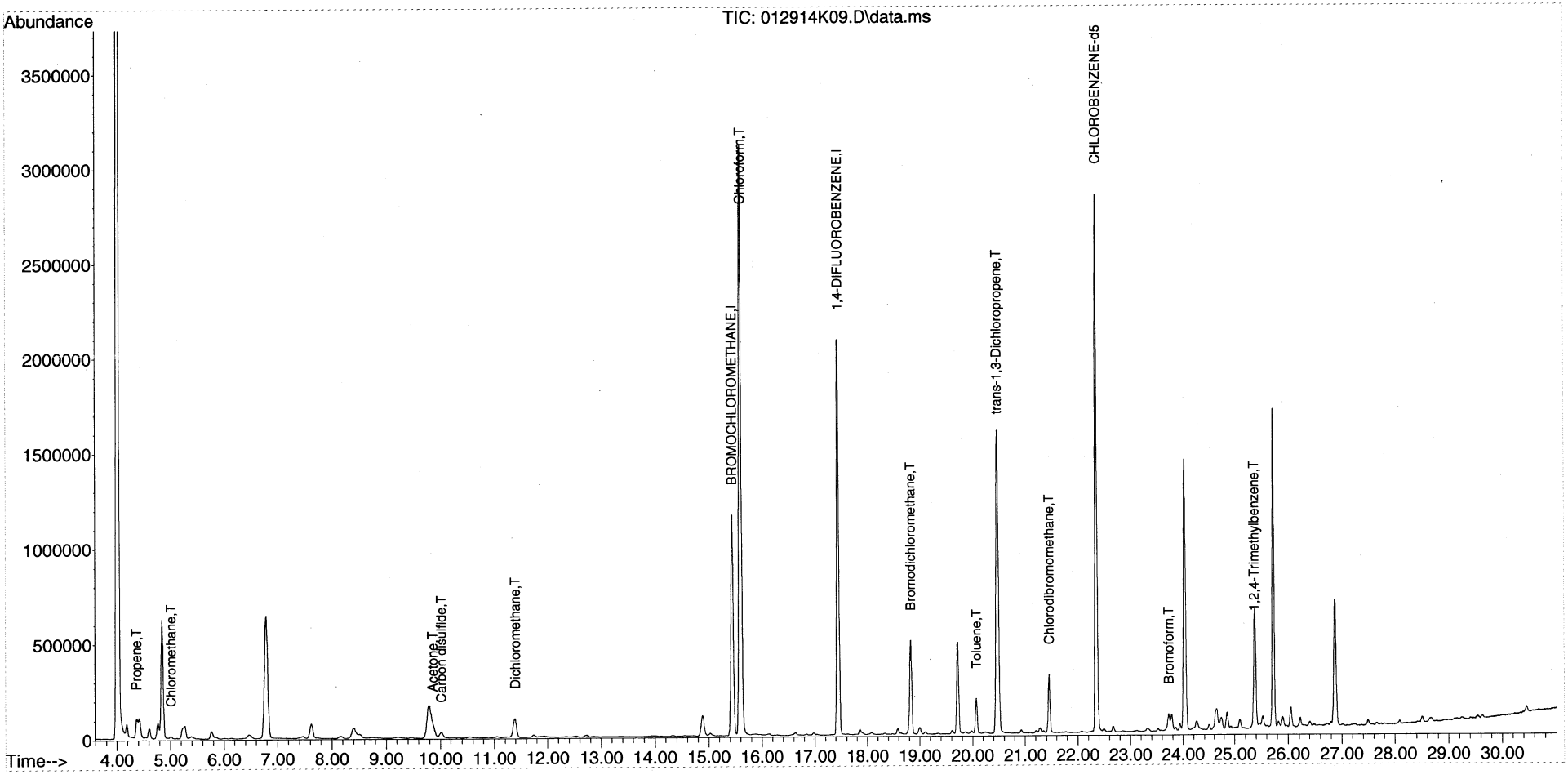
(#) = qualifier out of range (m) = manual integration (+) = signals summed

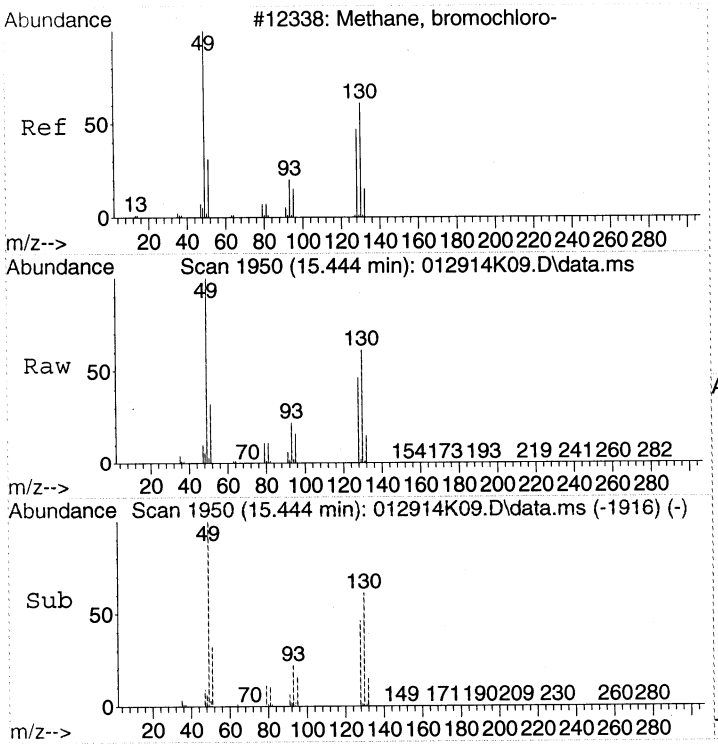
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K09.D
Acq On : 29 Jan 2014 19:21
Instrument: HP5973K
Operator : EM
Sample : 1401049-01
Misc : 200mL MH01 Can 1987
ALS Vial : 37
Multiplier: 2.07

Quant Time: Jan 30 10:03:18 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

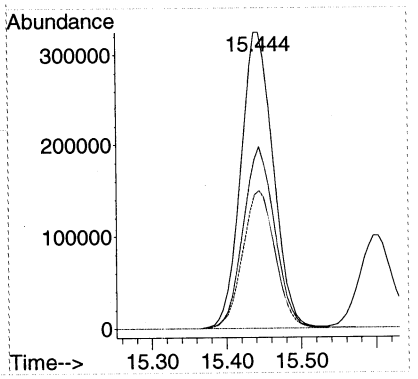


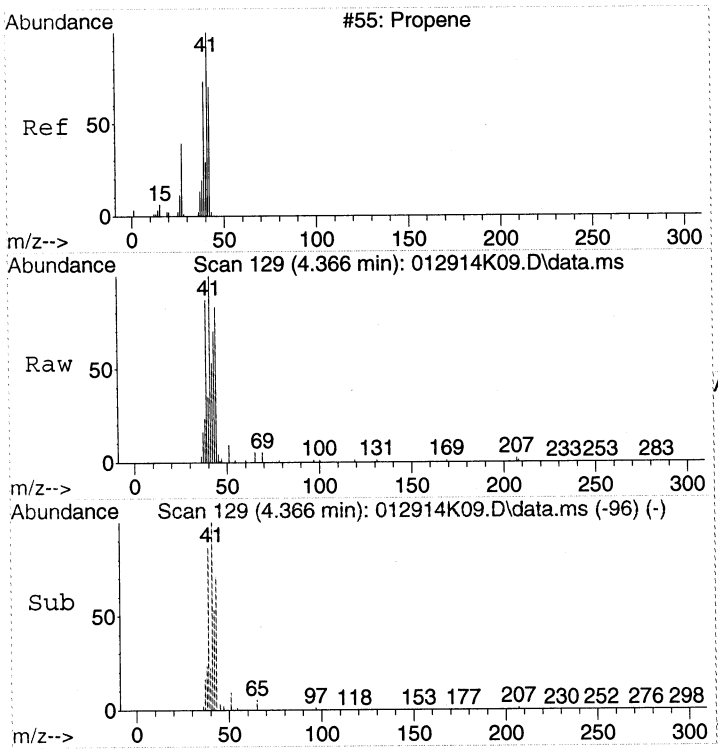



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.444 min Scan# 1950
Delta R.T. 0.006 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 49 Resp: 974792

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.6 | 39.6 | 79.6 |
| 128 | 46.5 | 26.9 | 66.9 |

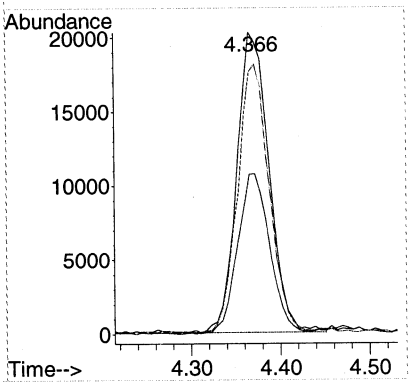



#2
Propene
Concen: 1.79 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

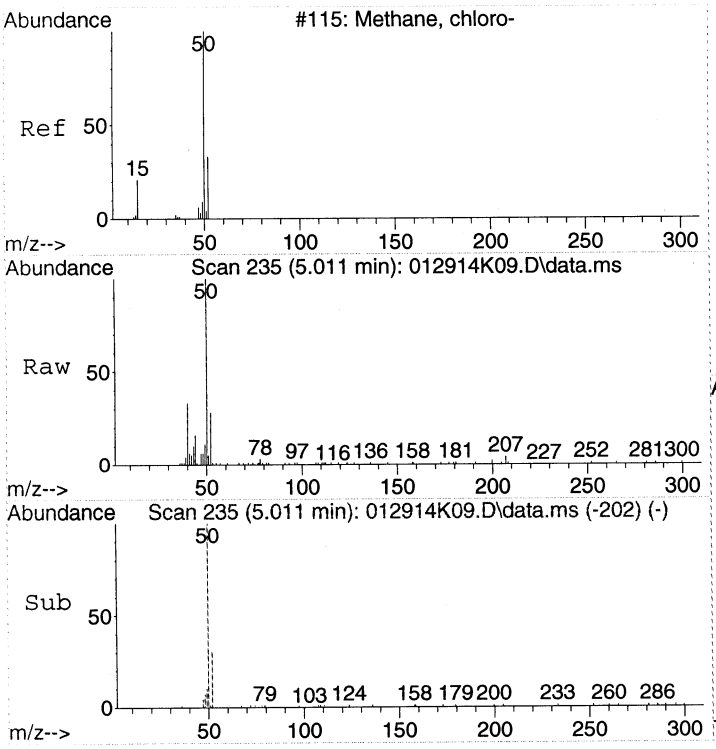
Tgt Ion: 41 Resp: 50415

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 56.7 | 46.8 | 86.8 |
| 39 | 89.3 | 48.3 | 88.3# |





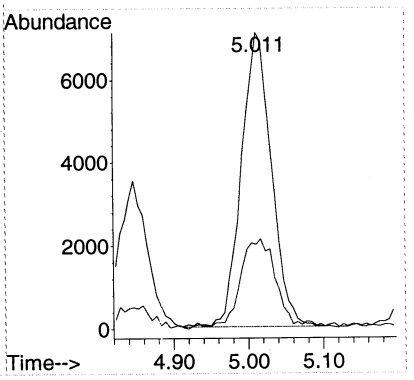

00197

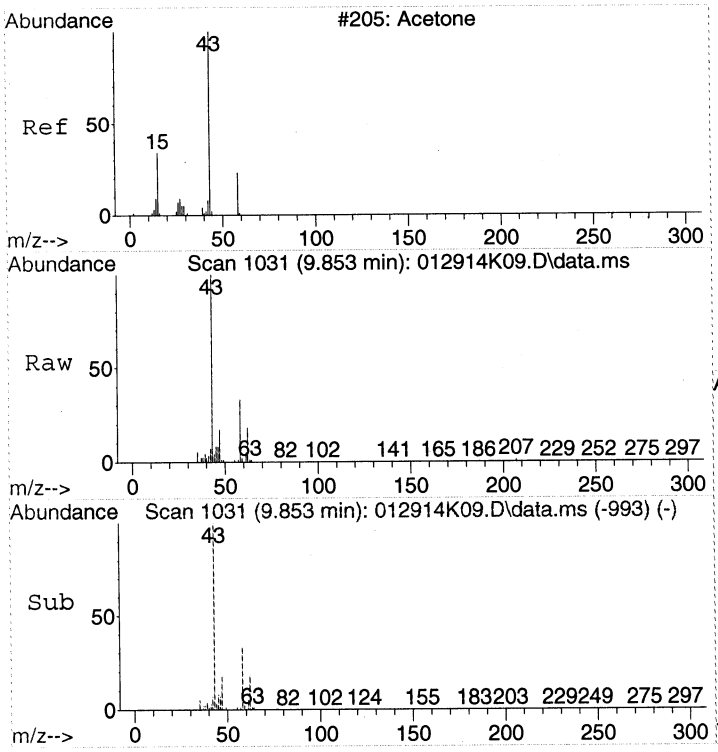



#5
Chloromethane
Concen: 0.60 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 50 Resp: 19693

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 35.6 | 12.7 | 52.7 |

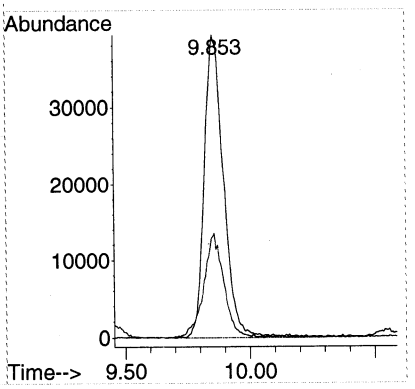


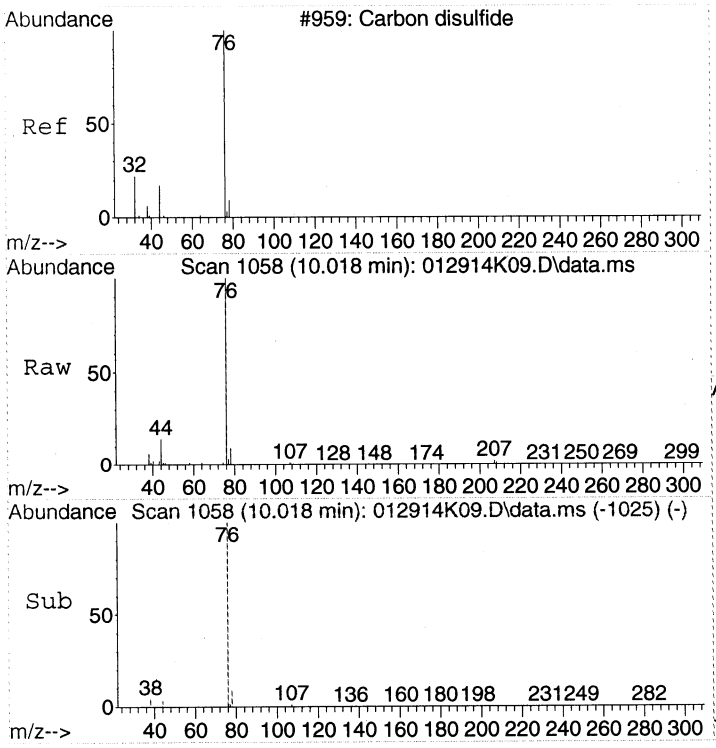




#14
Acetone
Concen: 4.63 ppbv
RT: 9.853 min Scan# 1031
Delta R.T. 0.030 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 43 Resp: 211143

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.9 | 12.5 | 52.5 |

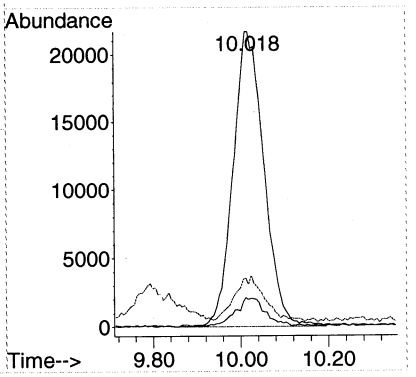


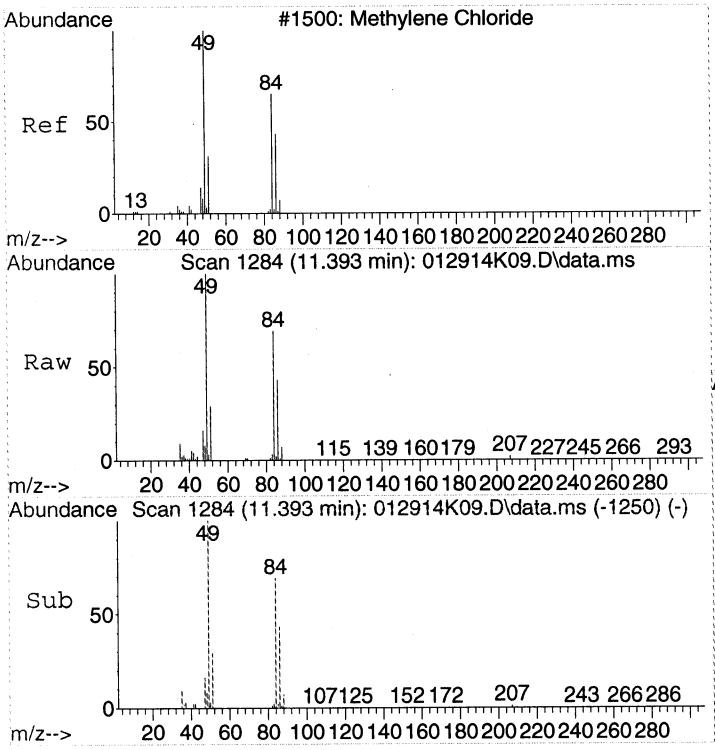



#15
Carbon disulfide
Concen: 1.42 ppbv
RT: 10.018 min Scan# 1058
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 76 Resp: 105670

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.4 | 0.0 | 28.7 |
| 44 | 6.9 | 0.0 | 32.7 |

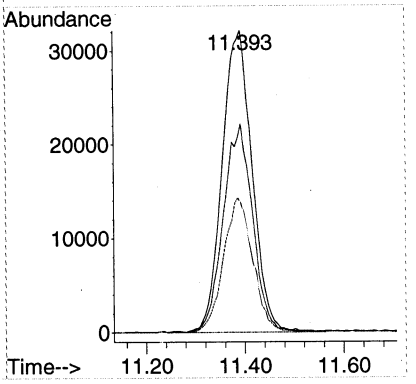


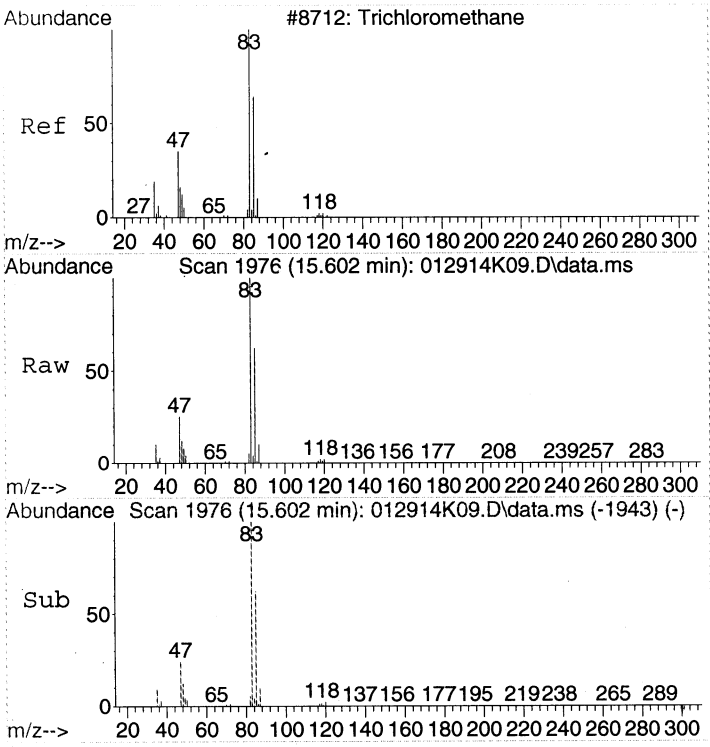




#18
Dichloromethane
Concen: 3.07 ppbv
RT: 11.393 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 49 Resp: 135041

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.6 | 50.0 | 90.0 |
| 86 | 43.5 | 24.4 | 64.4 |

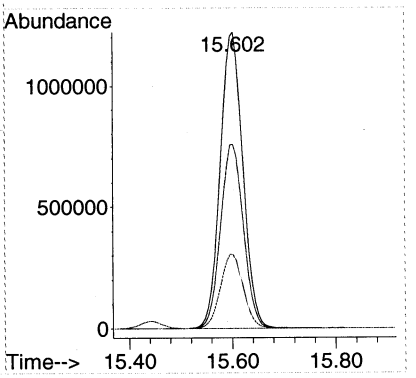


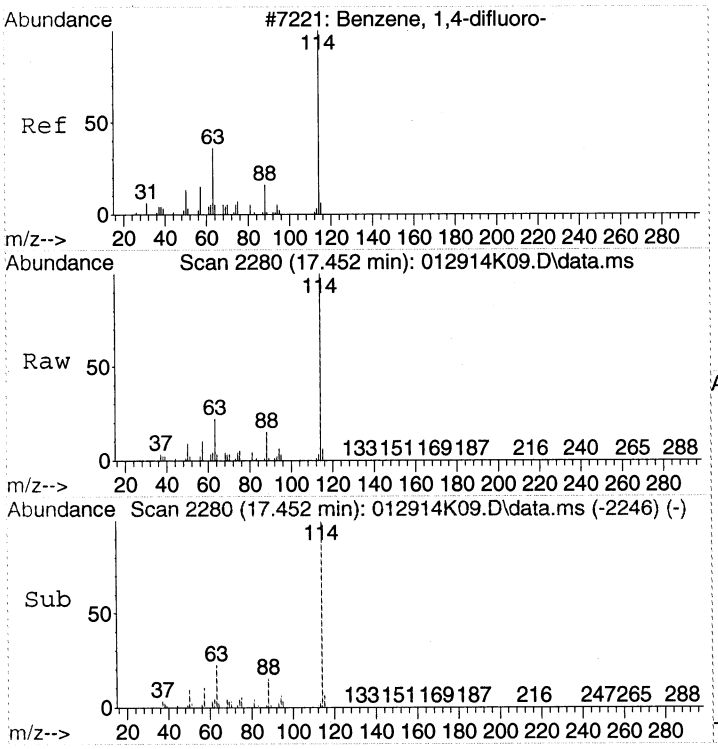



#28
Chloroform
Concen: 59.60 ppbv
RT: 15.602 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 83 Resp: 3713904

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 42.7 | 82.7 |
| 47 | 25.4 | 5.3 | 45.3 |

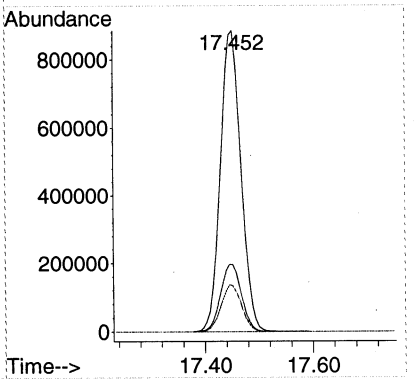


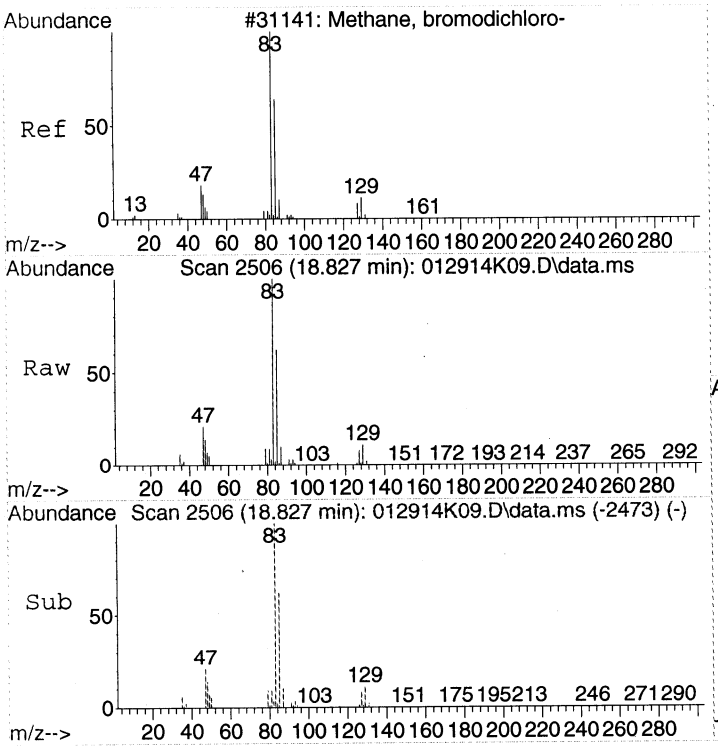




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.452 min Scan# 2280
Delta R.T. 0.006 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion:114 Resp: 2332629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.3 | 0.0 | 35.2 |

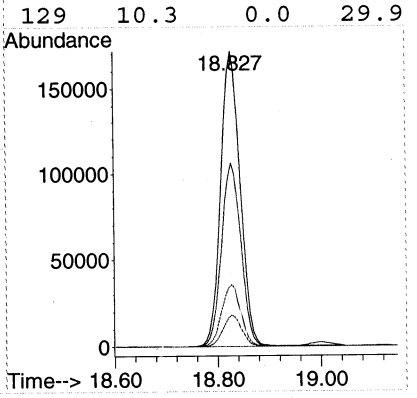


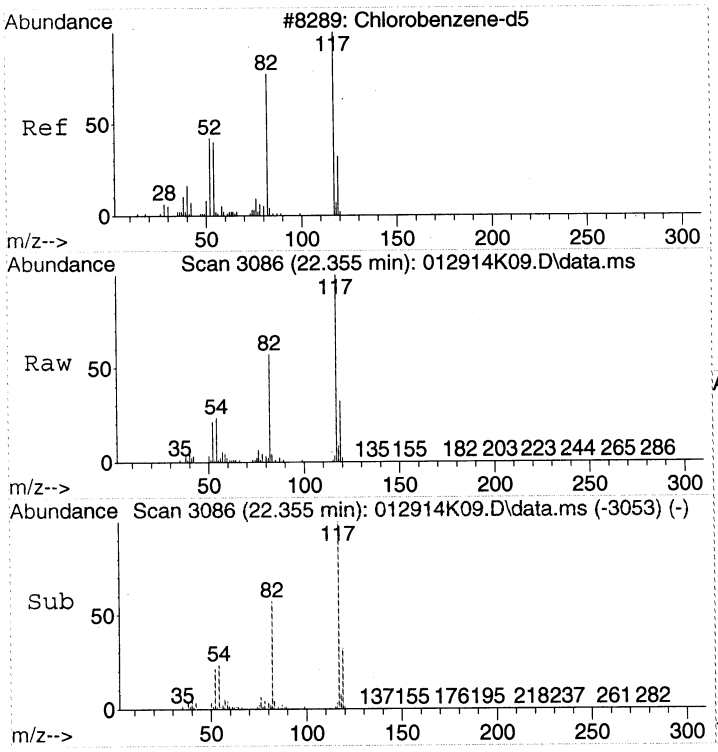



#40
Bromodichloromethane
Concen: 7.78 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 83 Resp: 447733

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.0 | 41.8 | 81.8 |
| 47 | 20.8 | 0.4 | 40.4 |
| 129 | 10.3 | 0.0 | 29.9 |

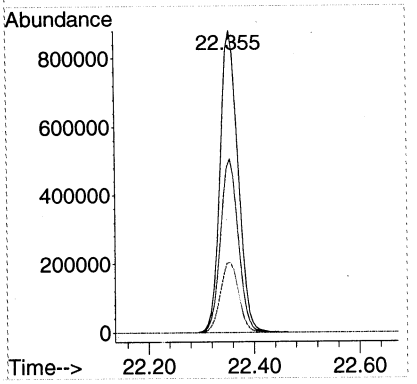


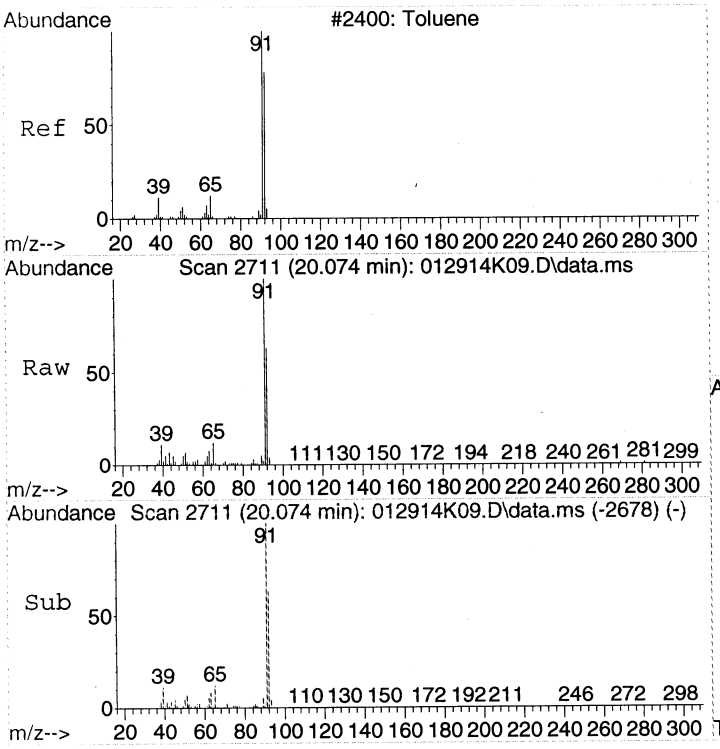




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion:117 Resp: 2085474

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

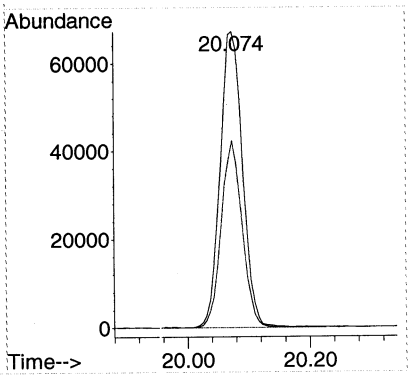


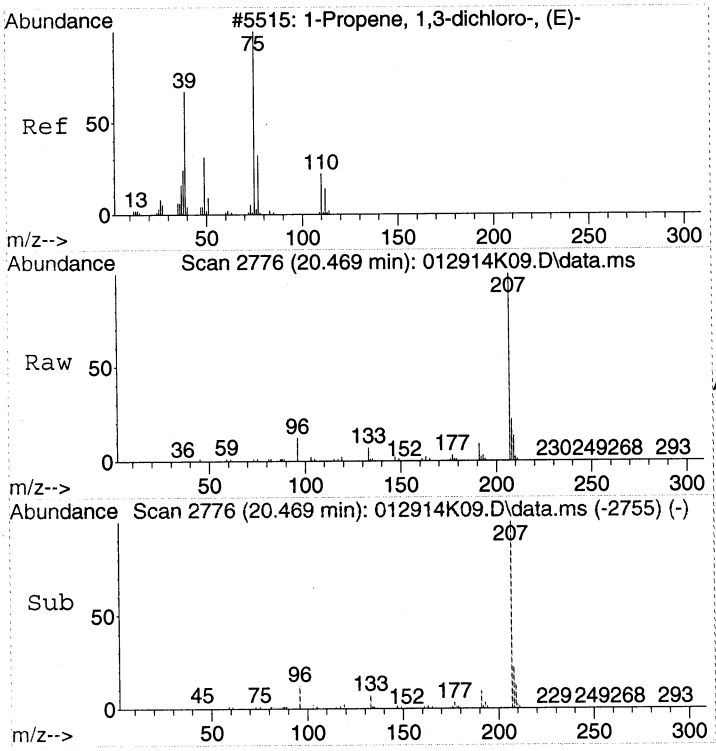



#44
Toluene
Concen: 1.66 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 91 Resp: 170568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.0 | 38.2 | 78.2 |

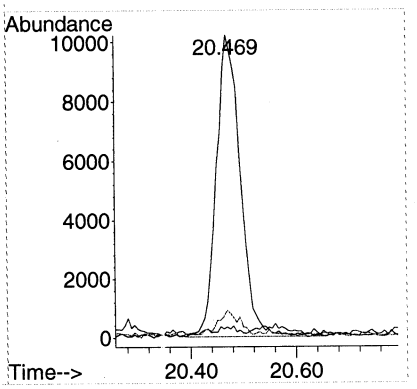


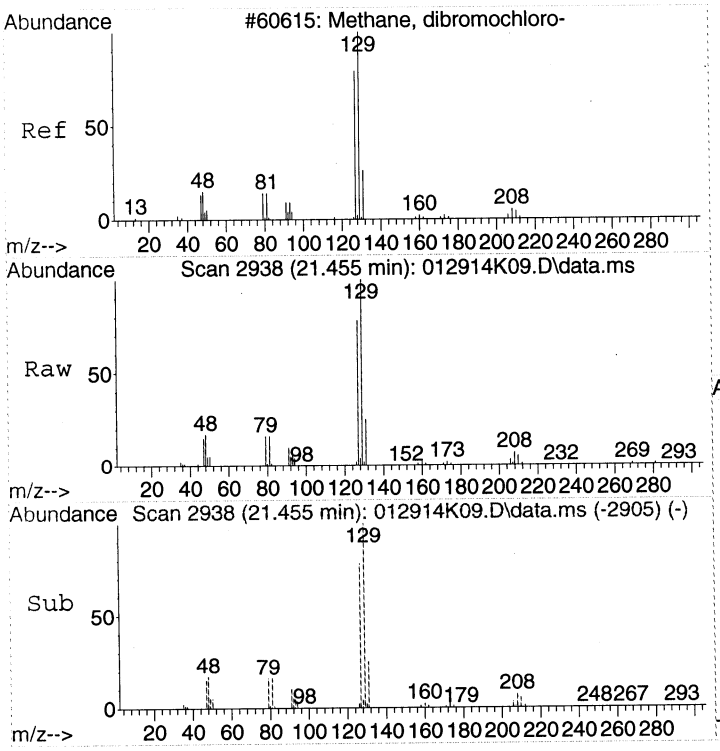




#45
trans-1,3-Dichloropropene
Concen: 0.73 ppbv
RT: 20.469 min Scan# 2776
Delta R.T. -0.073 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion: 75 Resp: 32363

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 0.0 | 26.3 | 66.3# |
| 77 | 7.9 | 10.4 | 50.4# |

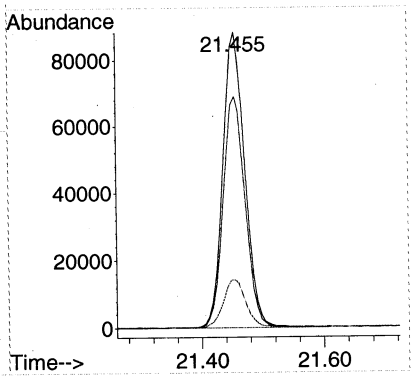


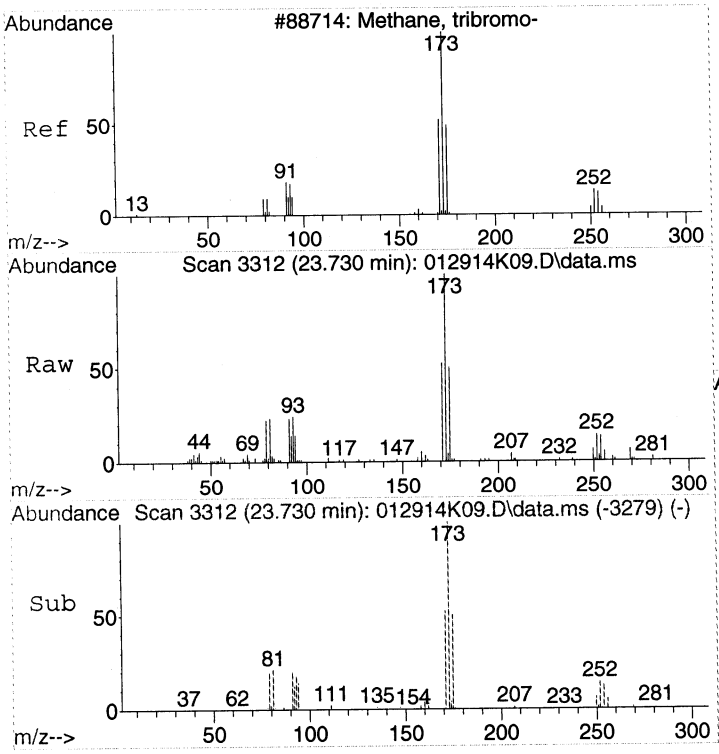



#49
Chlorodibromomethane
Concen: 4.22 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion:129 Resp: 218324

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.8 | 59.2 | 99.2 |
| 79 | 16.4 | 0.0 | 35.9 |

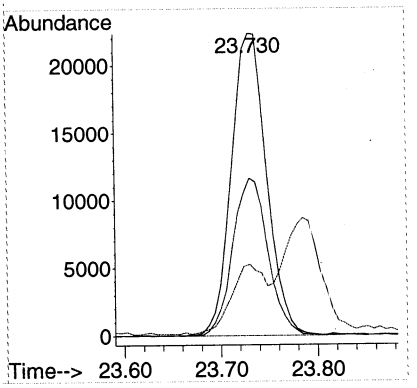


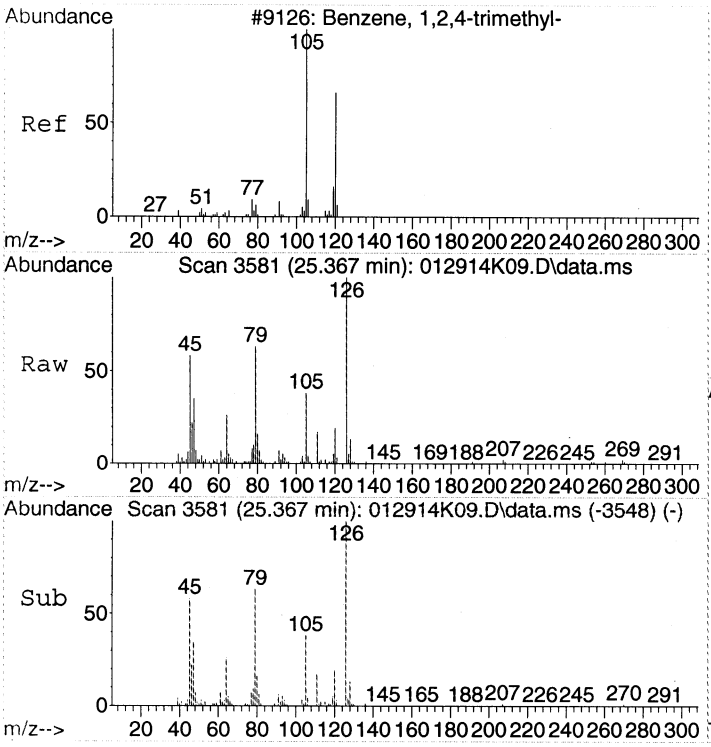




#56
Bromoform
Concen: 1.04 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion:173 Resp: 56526

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 52.1 | 32.4 | 72.4 |
| 91 | 21.7 | 2.3 | 42.3 |

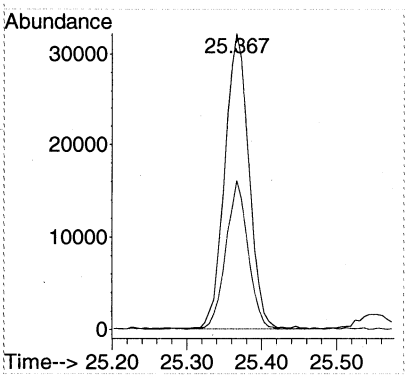





#60
1,2,4-Trimethylbenzene
Concen: 0.61 ppbv
RT: 25.367 min Scan# 3581
Delta R.T. -0.000 min
Lab File: 012914K09.D
Acq: 29 Jan 2014 19:21

Tgt Ion:105 Resp: 71774

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 46.8 | 26.4 | 66.4 |

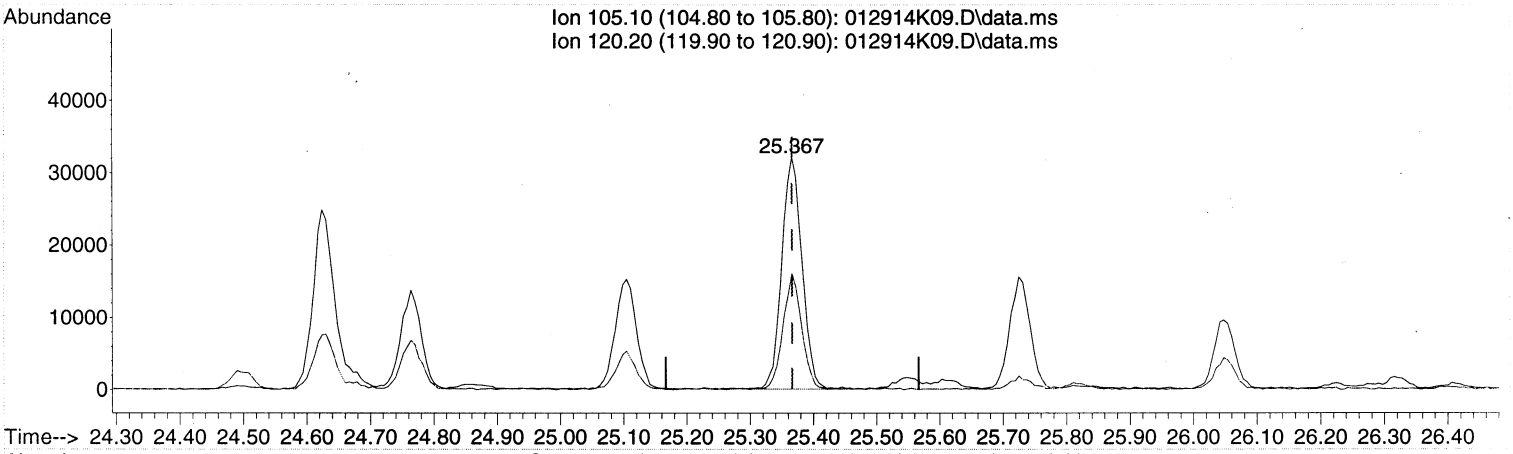


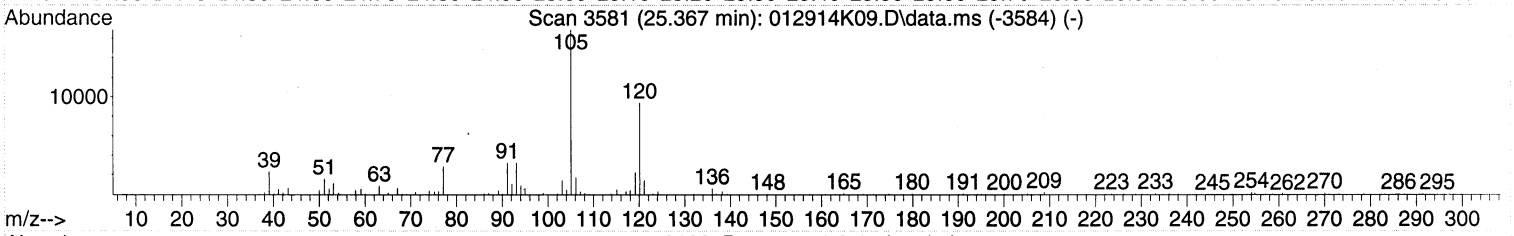
Quantitation Report (Qedit)

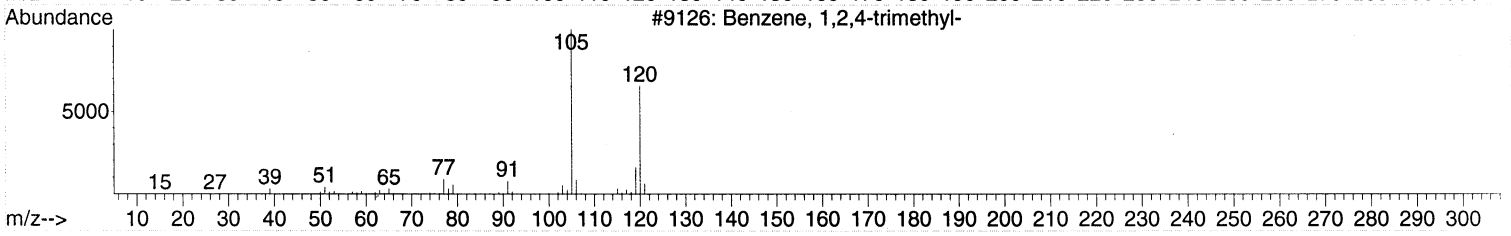
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K09.D
Acq On : 29 Jan 2014 19:21
Instrument: HP5973K
Operator : EM
Sample : 1401049-01
Misc : 200mL MH01 Can 1987
ALS Vial : 37
Multiplier: 2.07

Quant Time: Jan 30 10:03:18 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M




TIC: 012914K09.D\data.ms

(60) 1,2,4-Trimethylbenzene (T)

25.367min (-0.000) 0.61 ppbv

response 71774

| Ion | Exp% | Act% |
|---|---|---|
| 105.10 | 100 | 100 |
| 120.20 | 46.40 | 46.82 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K11.D
Acq On : 29 Jan 2014 21:01
Instrument: HP5973K
Operator : EM
Sample : 1401049-02
Misc : 200mL MH02 Can 1967
ALS Vial : 39
Multiplier: 1.91

Quant Time: Jan 30 10:03:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 946381 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.452 | 114 | 2352968 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2076432 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 27162 | 0.99 | ppbv # | 78 |
| 14) Acetone | 9.890 | 43 | 86425 | 1.95 | ppbv | 92 |
| 15) Carbon disulfide | 10.024 | 76 | 42305 | 0.59 | ppbv | 98 |
| 18) Dichloromethane | 11.393 | 49 | 73012 | 1.71 | ppbv | 99 |
| 28) Chloroform | 15.602 | 83 | 1840736 | 30.43 | ppbv E | 99 |
| 37) Trichloroethene | 17.859 | 130 | 81435 | 2.27 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 222195 | 3.83 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 63958 | 1.35 | ppbv | 100 |
| 49) Chlorodibromomethane | 21.455 | 129 | 108571 | 2.11 | ppbv | 98 |
| 56) Bromoform | 23.730 | 173 | 27623 | 0.51 | ppbv | 98 |

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



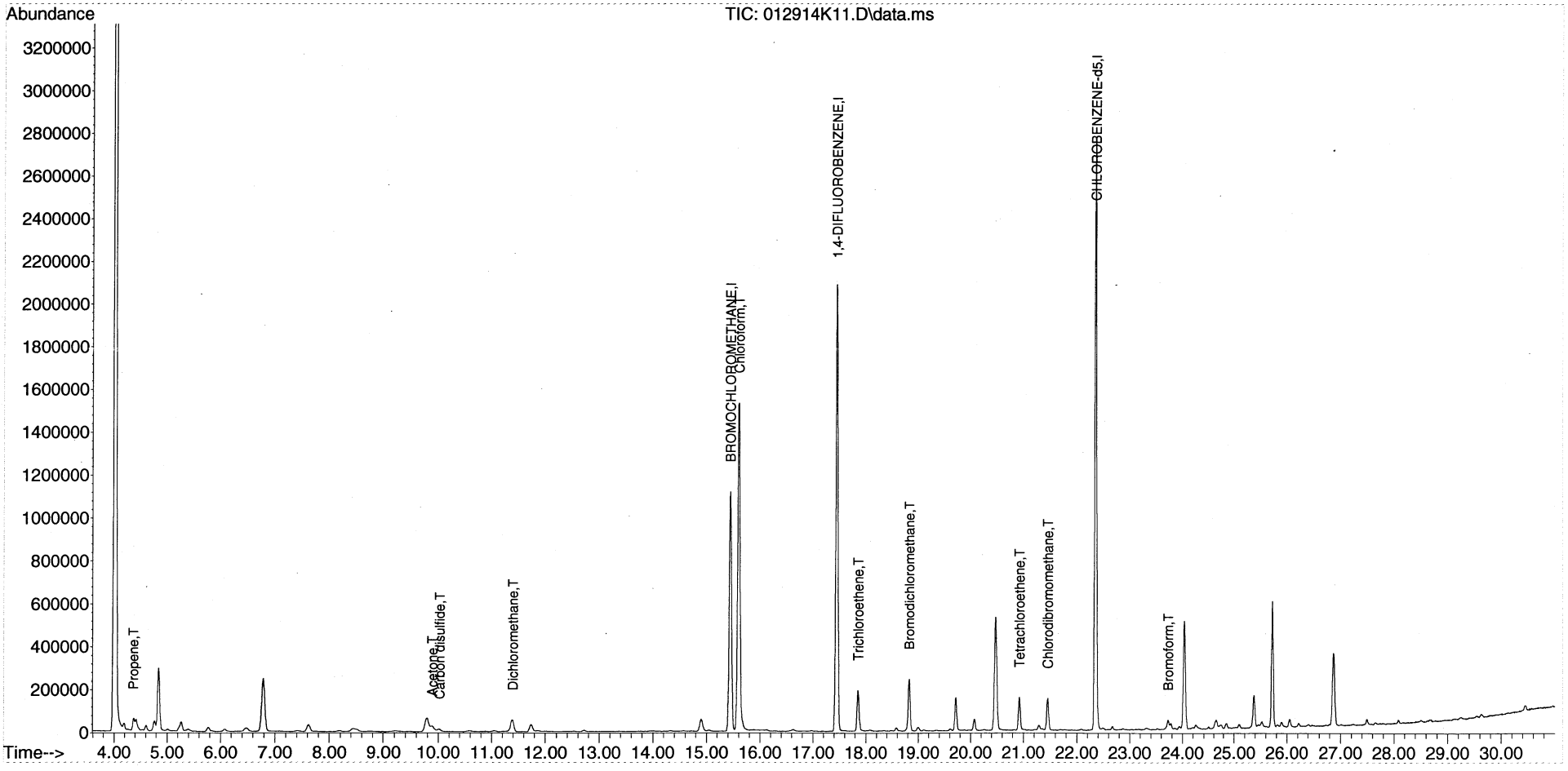
00205

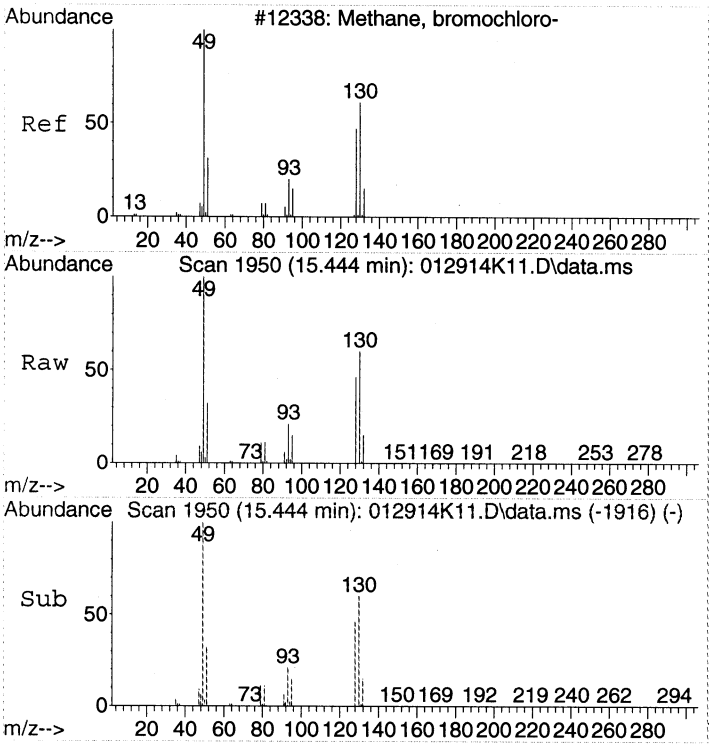
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K11.D
Acq On : 29 Jan 2014 21:01
Instrument: HP5973K
Operator : EM
Sample : 1401049-02
Misc : 200mL MH02 Can 1967
ALS Vial : 39
Multiplier: 1.91

Quant Time: Jan 30 10:03:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

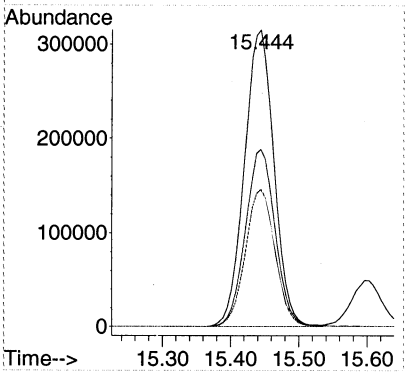


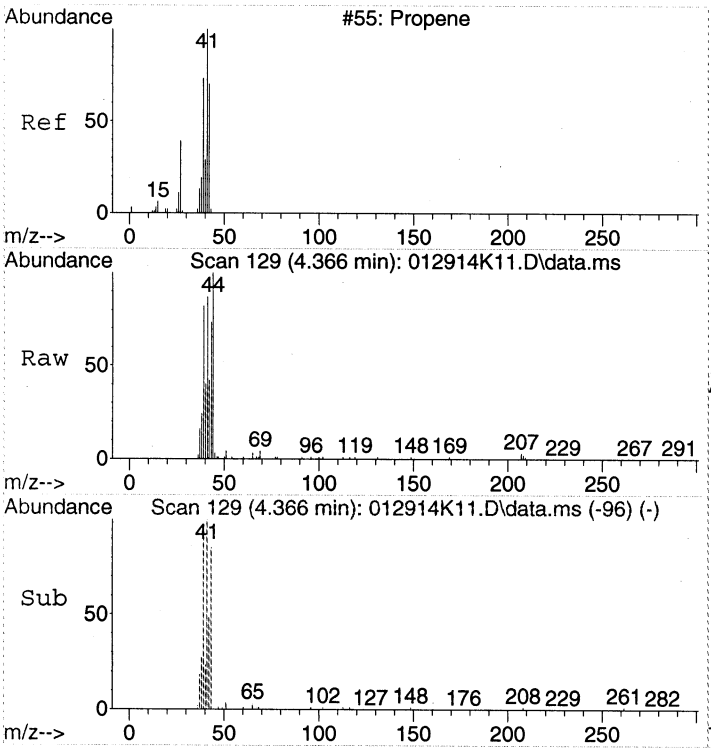



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.444 min Scan# 1950
Delta R.T. 0.006 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 49 Resp: 946381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.2 | 39.6 | 79.6 |
| 128 | 46.5 | 26.9 | 66.9 |

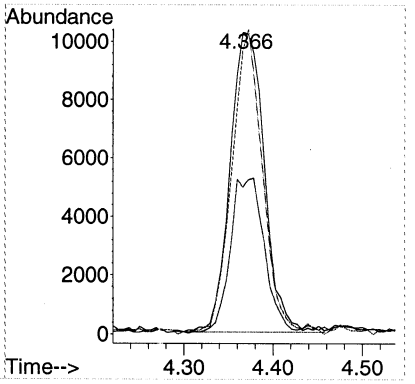


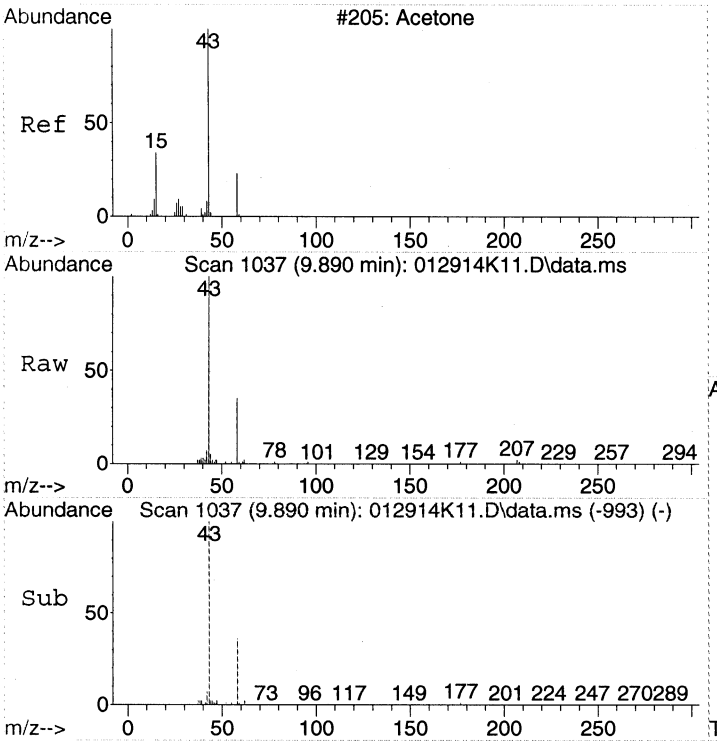




#2
Propene
Concen: 0.99 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 41 Resp: 27162

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 55.7 | 46.8 | 86.8 |
| 39 | 91.8 | 48.3 | 88.3# |

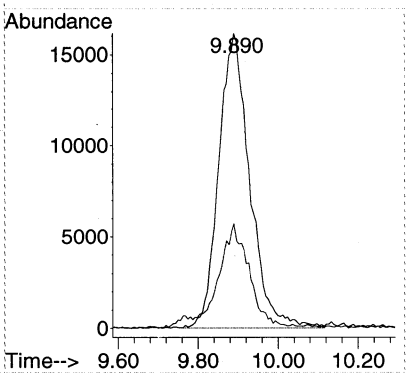


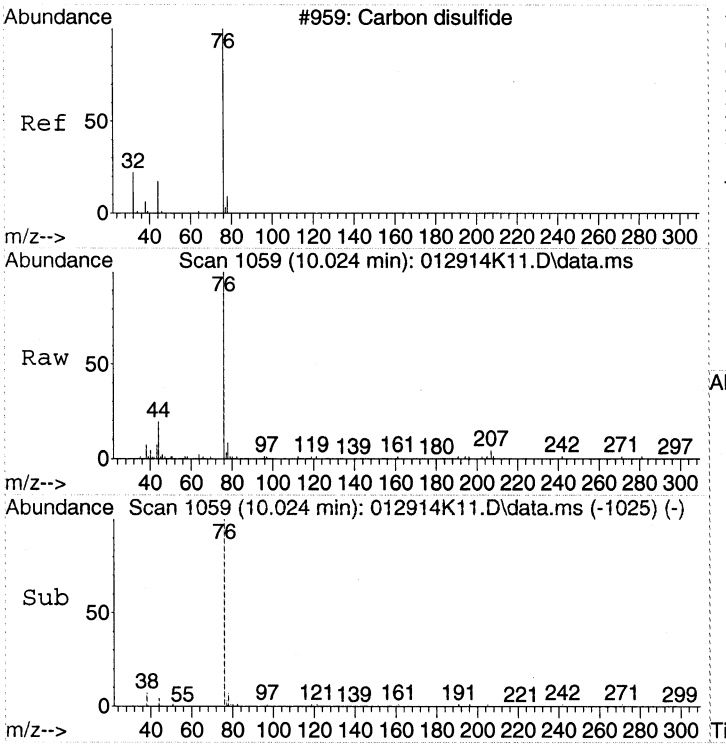



#14
Acetone
Concen: 1.95 ppbv
RT: 9.890 min Scan# 1037
Delta R.T. 0.067 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 43 Resp: 86425

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 37.2 | 12.5 | 52.5 |

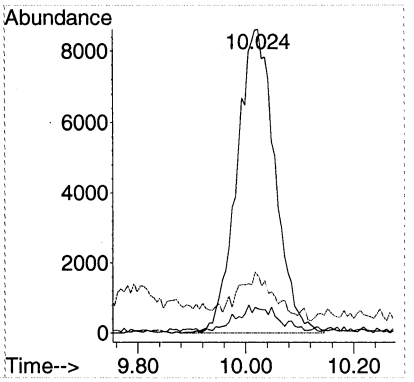


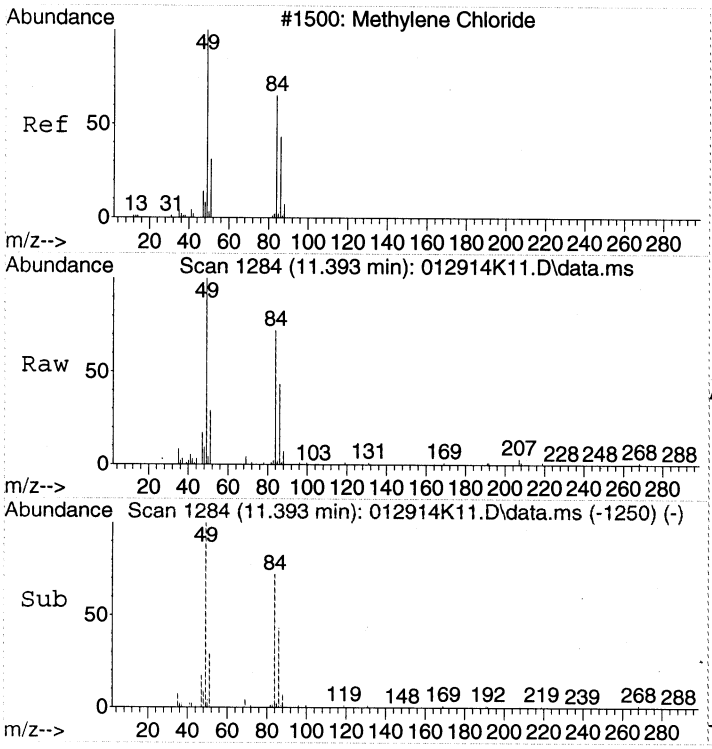




#15
Carbon disulfide
Concen: 0.59 ppbv
RT: 10.024 min Scan# 1059
Delta R.T. 0.006 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 76 Resp: 42305

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.0 | 0.0 | 28.7 |
| 44 | 11.8 | 0.0 | 32.7 |

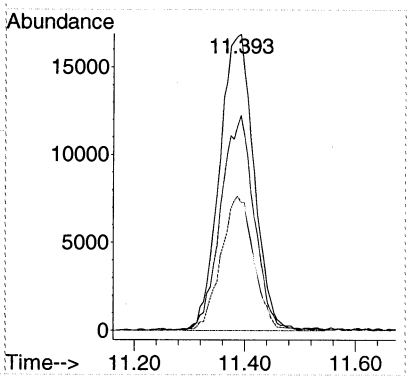


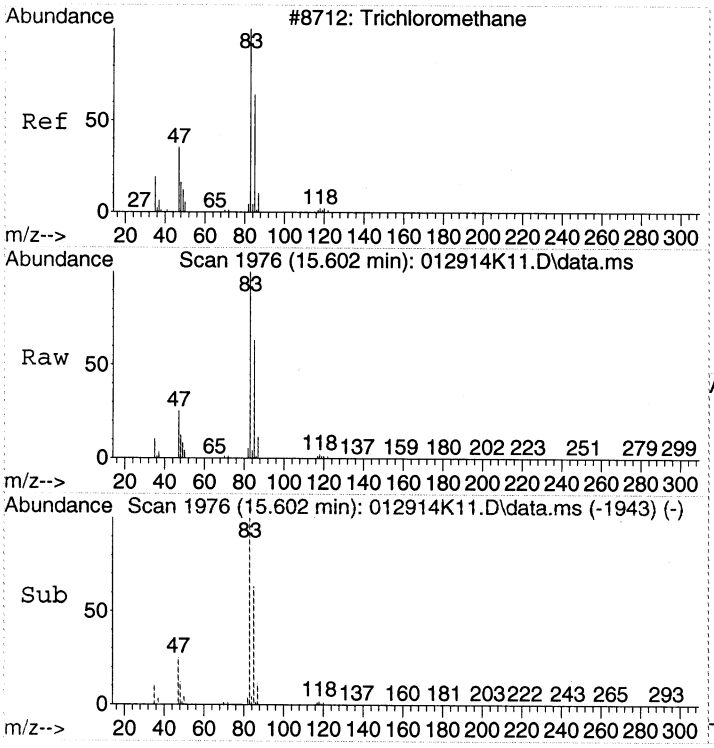



#18
Dichloromethane
Concen: 1.71 ppbv
RT: 11.393 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 49 Resp: 73012

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.7 | 50.0 | 90.0 |
| 86 | 43.2 | 24.4 | 64.4 |

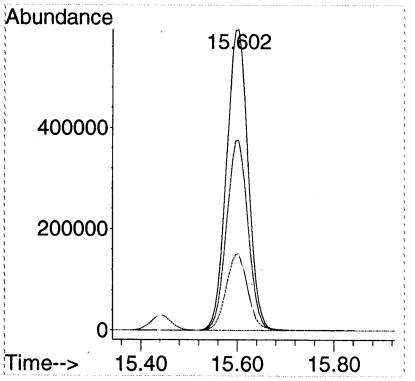


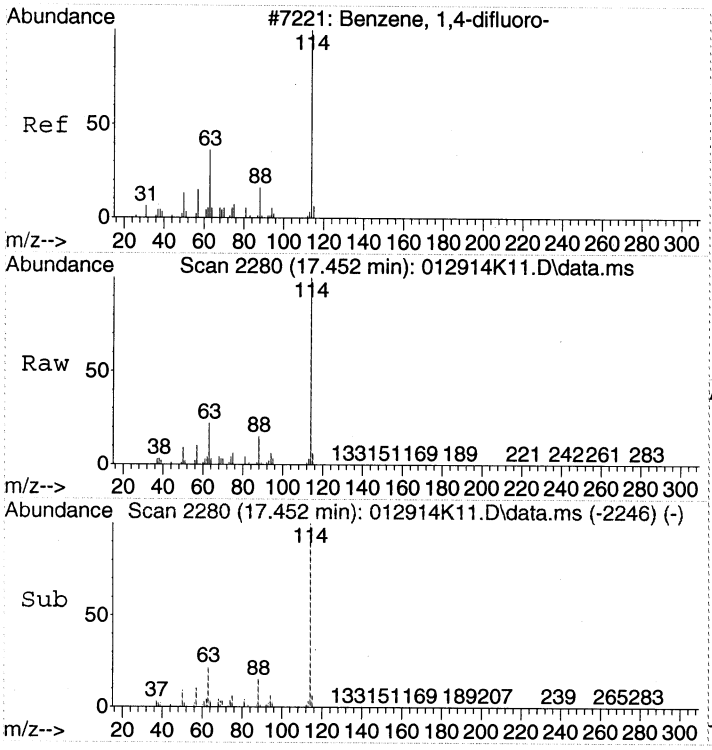




#28
Chloroform
Concen: 30.43 ppbv
RT: 15.602 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 83 Resp: 1840736

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.1 | 42.7 | 82.7 |
| 47 | 25.6 | 5.3 | 45.3 |

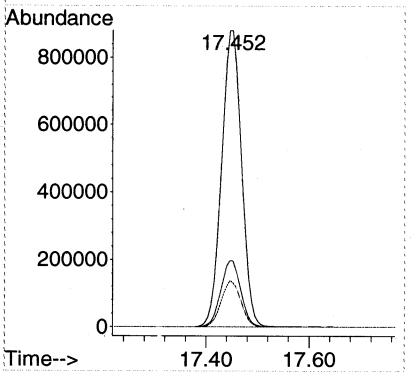


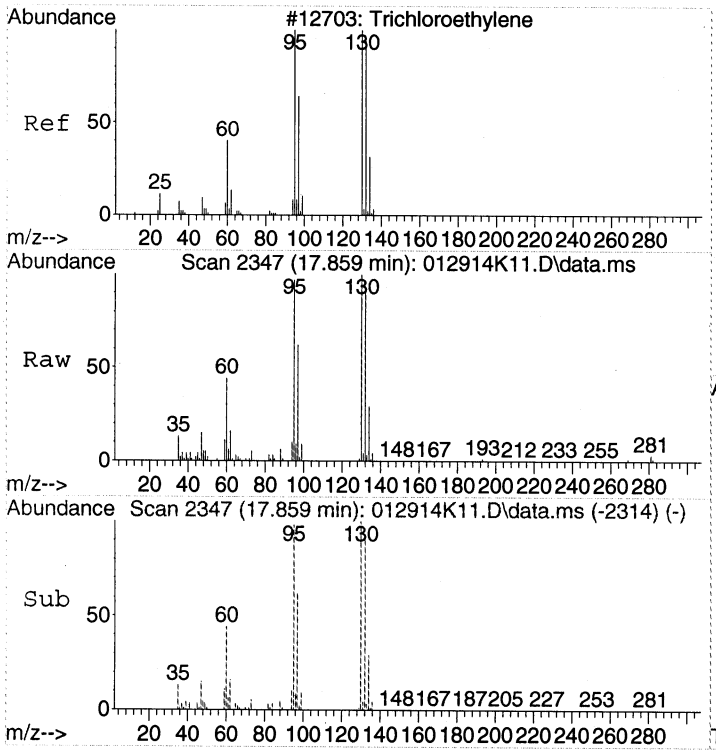



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.452 min Scan# 2280
Delta R.T. 0.006 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:114 Resp: 2352968

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.4 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

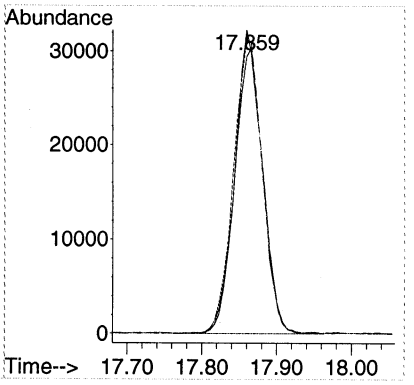


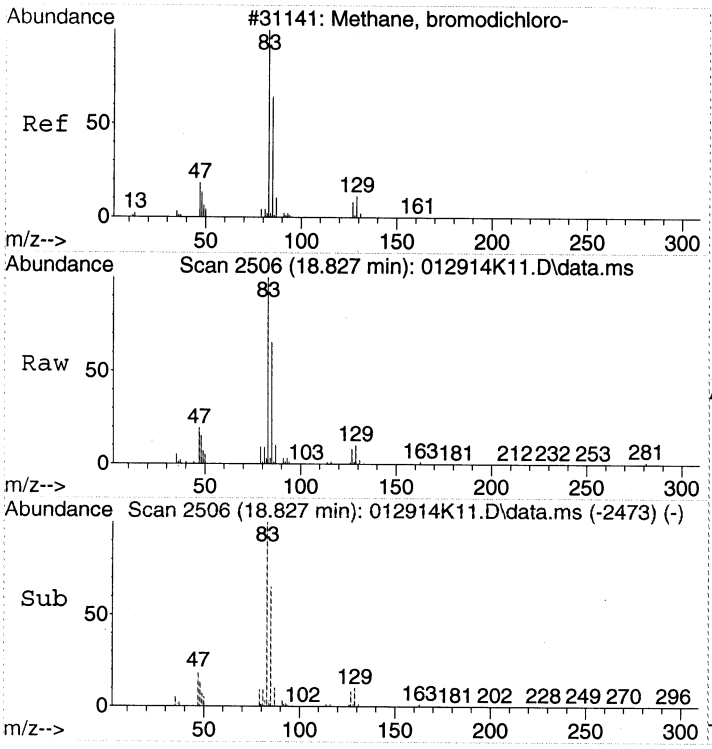




#37
Trichloroethene
Concen: 2.27 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:130 Resp: 81435

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 98.2 | 78.9 | 118.9 |
| 95 | 102.9 | 82.3 | 122.3 |

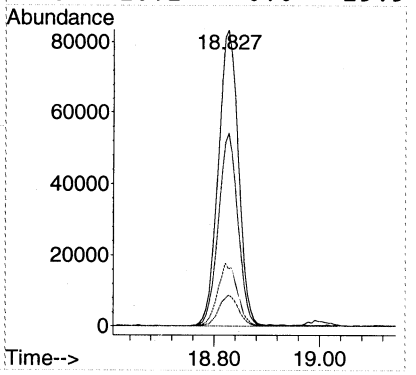


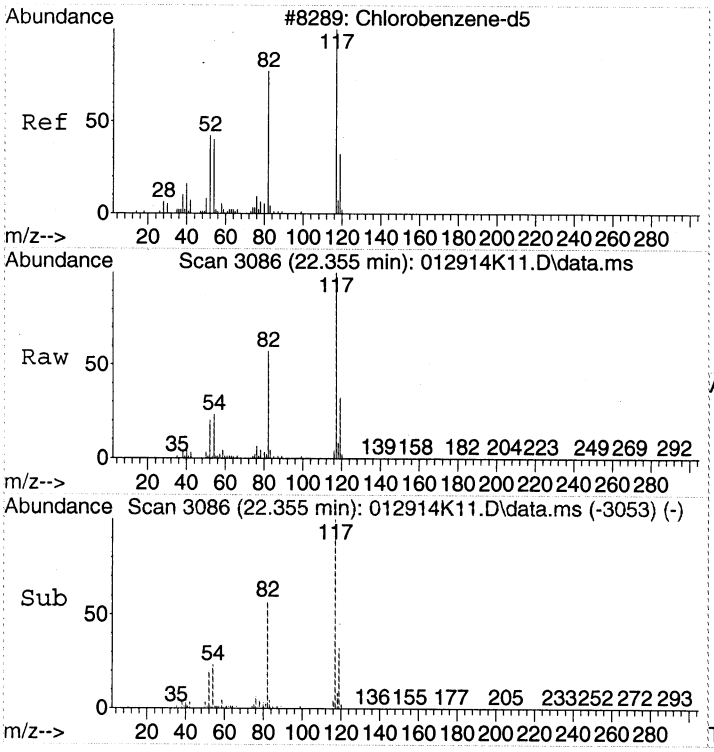



#40
Bromodichloromethane
Concen: 3.83 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion: 83 Resp: 222195

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.7 | 41.8 | 81.8 |
| 47 | 20.5 | 0.4 | 40.4 |
| 129 | 10.1 | 0.0 | 29.9 |

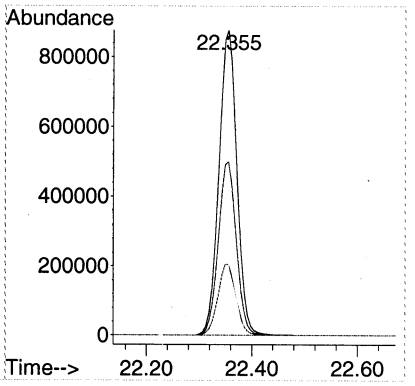


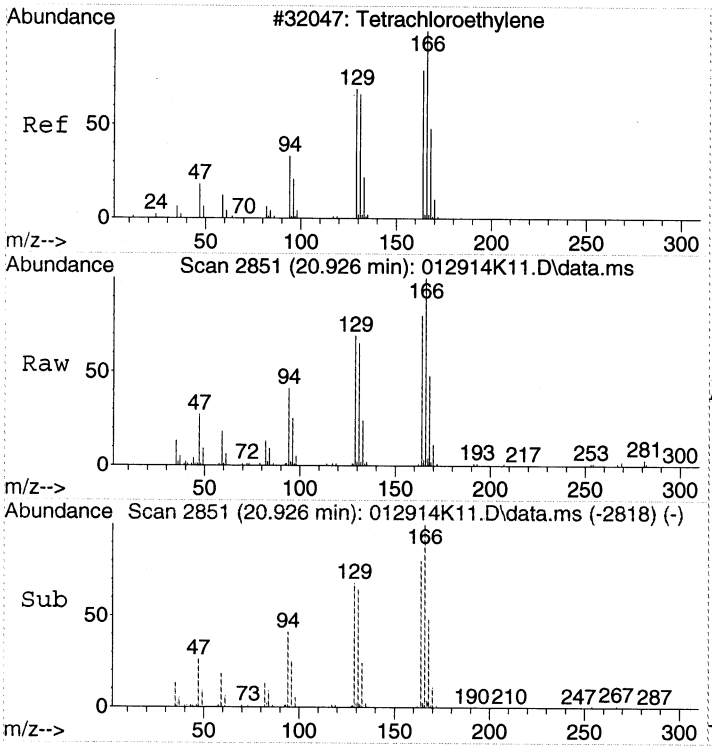




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:117 Resp: 2076432

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.2 | 37.1 | 77.1 |
| 54 | 23.6 | 3.3 | 43.3 |

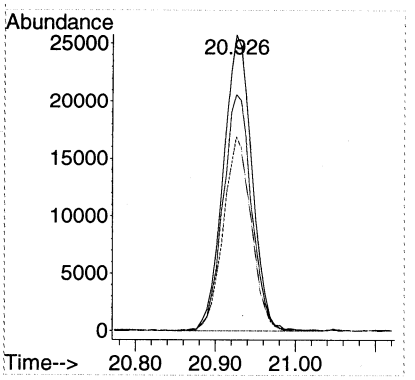


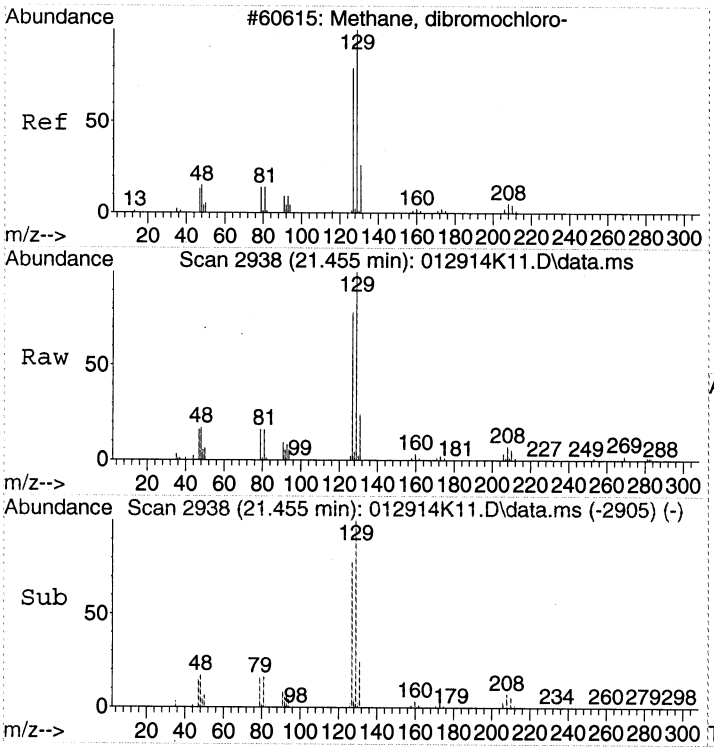



#47
Tetrachloroethene
Concen: 1.35 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:166 Resp: 63958

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 79.9 | 59.4 | 99.4 |
| 131 | 64.2 | 44.3 | 84.3 |

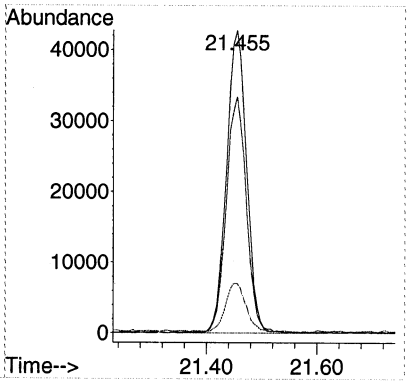


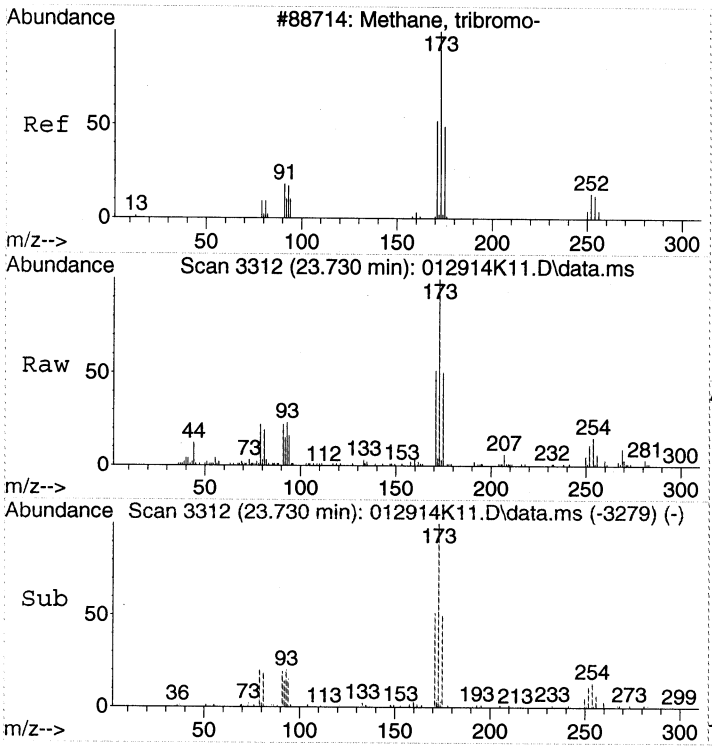




#49
Chlorodibromomethane
Concen: 2.11 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:129 Resp: 108571

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.6 | 59.2 | 99.2 |
| 79 | 16.2 | 0.0 | 35.9 |

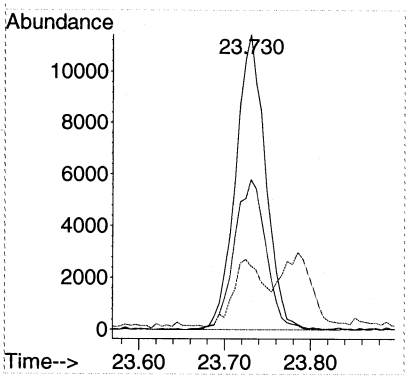





#56
Bromoform
Concen: 0.51 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K11.D
Acq: 29 Jan 2014 21:01

Tgt Ion:173 Resp: 27623

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 53.7 | 32.4 | 72.4 |
| 91 | 23.9 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K12.D
Acq On : 29 Jan 2014 21:54
Instrument: HP5973K
Operator : EM
Sample : B14A073-DUP2
Misc : 200mL MH02 Can 1967
ALS Vial : 39
Multiplier: 1.91

49.02

Quant Time: Jan 30 10:03:51 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 907945 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2247588 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1972898 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 22520 | 0.86 | ppbv | 82 |
| 14) Acetone | 9.854 | 43 | 69395 | 1.63 | ppbv | 95 |
| 18) Dichloromethane | 11.381 | 49 | 60622 | 1.48 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 1421553 | 24.49 | ppbv E | 100 |
| 37) Trichloroethene | 17.860 | 130 | 59343 | 1.73 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 171527 | 3.09 | ppbv | 99 |
| 47) Tetrachloroethene | 20.932 | 166 | 48640 | 1.08 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.455 | 129 | 82768 | 1.69 | ppbv | 99 |

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



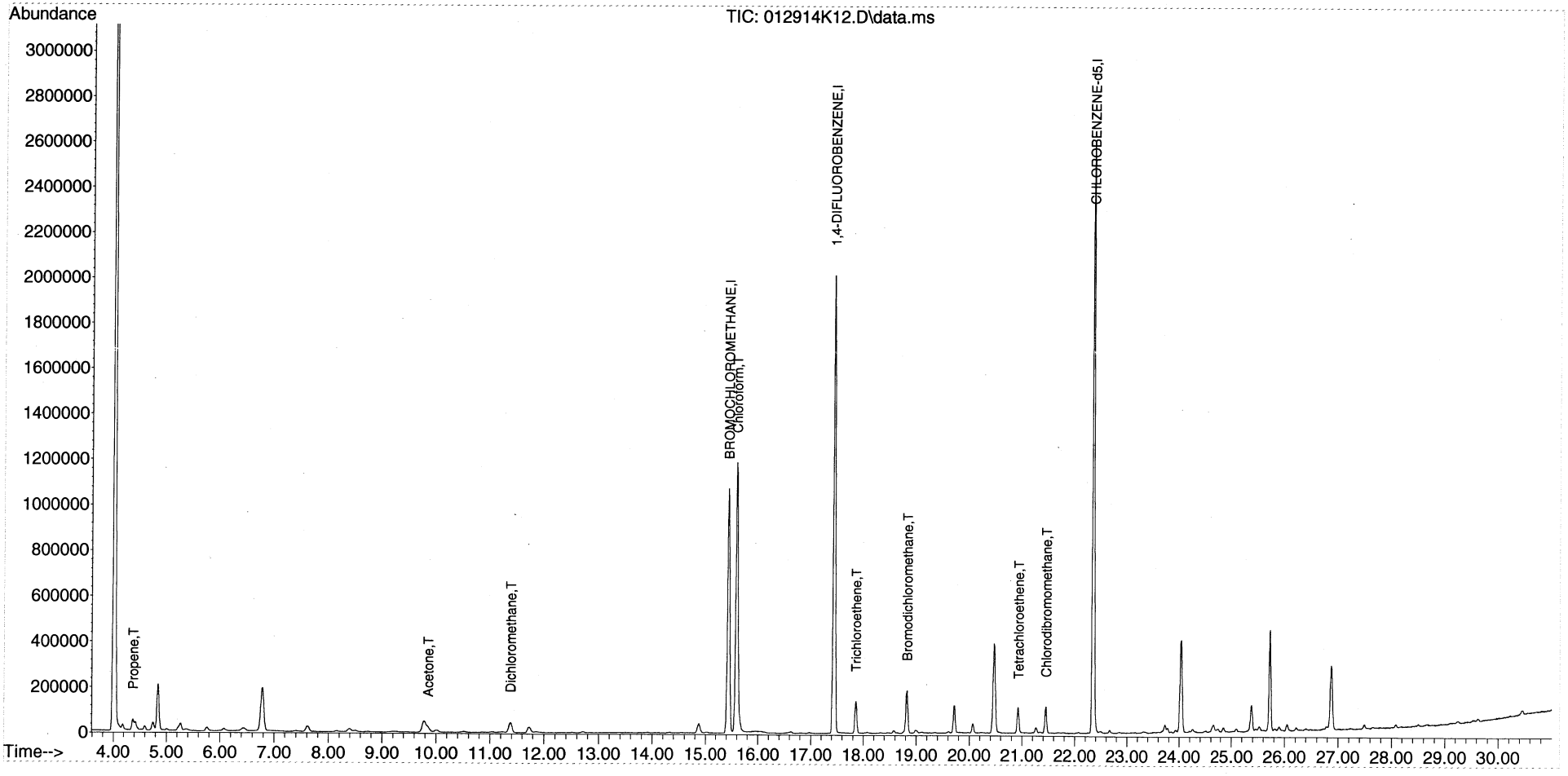
00214

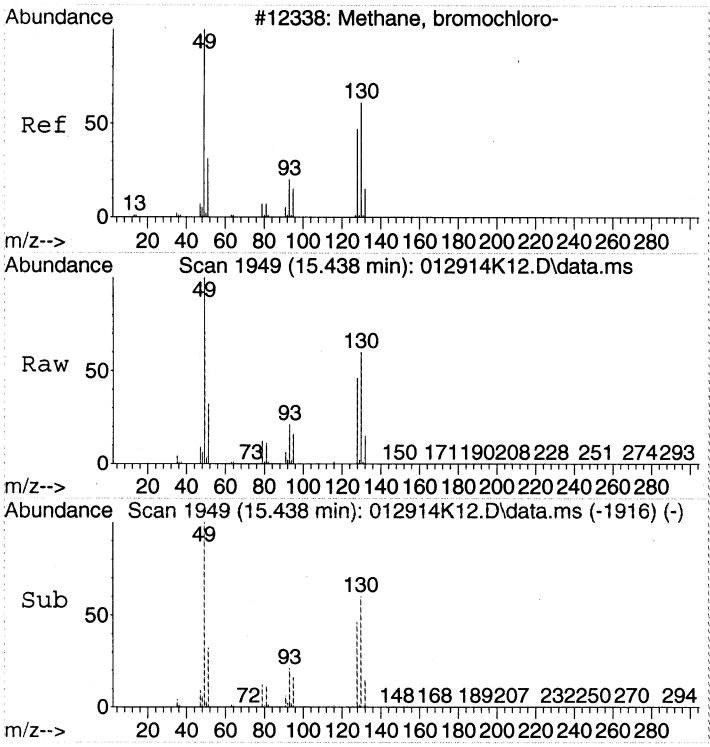
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K12.D
Acq On : 29 Jan 2014 21:54
Instrument: HP5973K
Operator : EM
Sample : B14A073-DUP2
Misc : 200mL MH02 Can 1967
ALS Vial : 39
Multiplier: 1.91

Quant Time: Jan 30 10:03:51 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

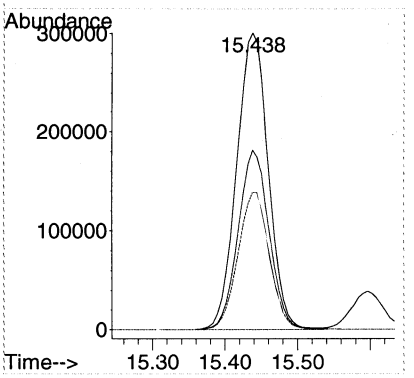


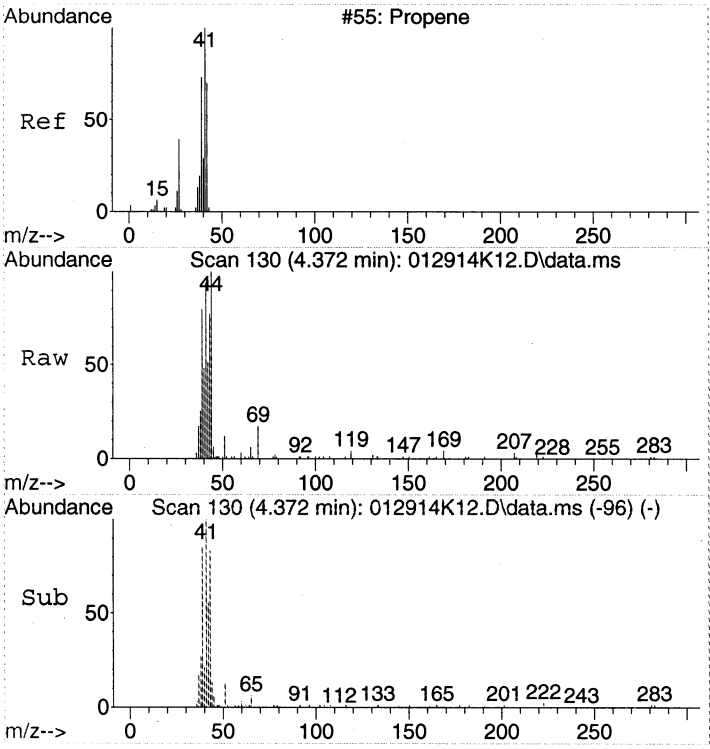



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 49 Resp: 907945

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.3 | 39.6 | 79.6 |
| 128 | 45.8 | 26.9 | 66.9 |

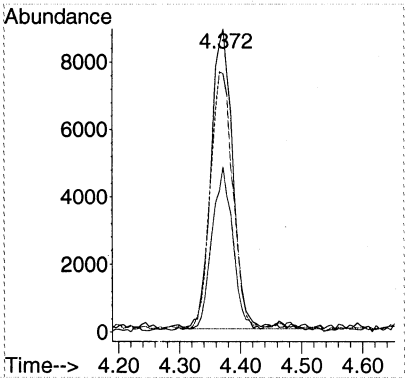


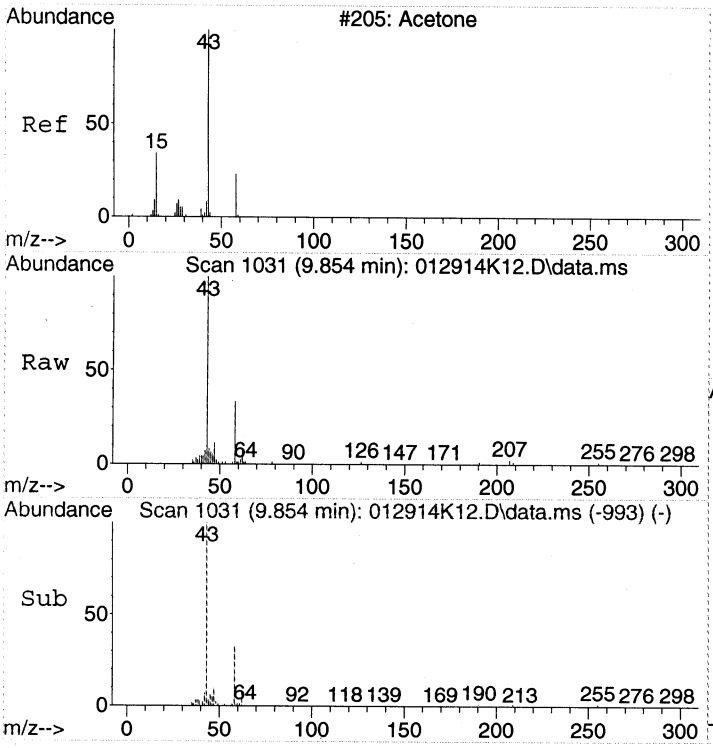




#2
Propene
Concen: 0.86 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 41 Resp: 22520

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 55.2 | 46.8 | 86.8 |
| 39 | 86.3 | 48.3 | 88.3 |

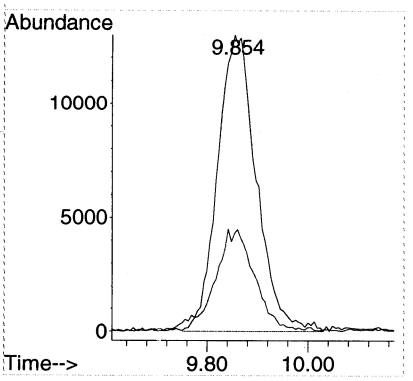


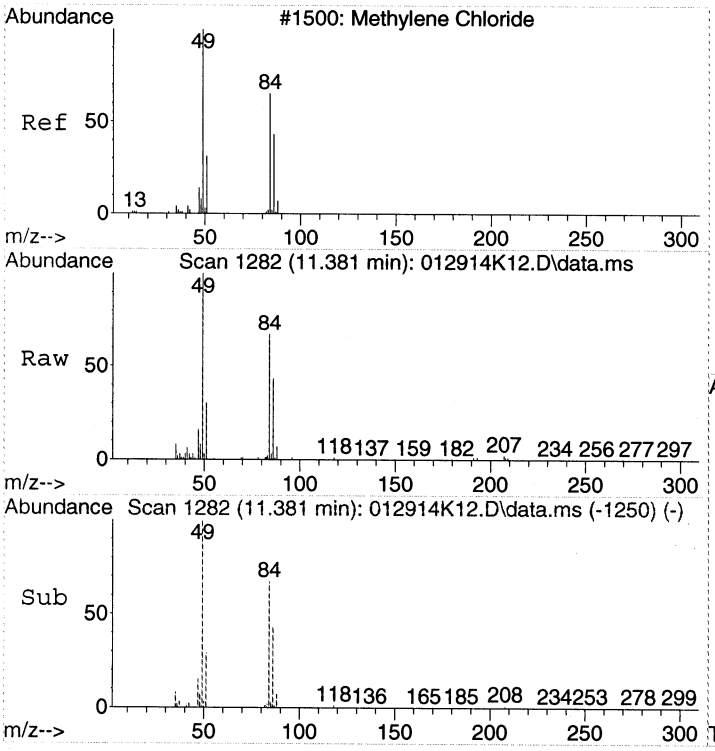



#14
Acetone
Concen: 1.63 ppbv
RT: 9.854 min Scan# 1031
Delta R.T. 0.030 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 43 Resp: 69395

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.4 | 12.5 | 52.5 |

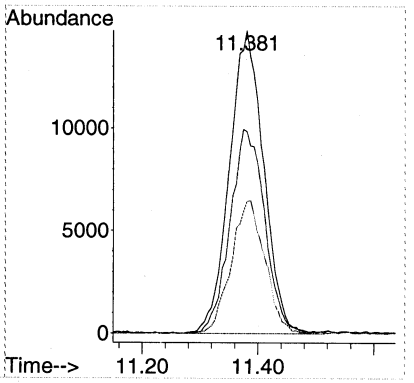


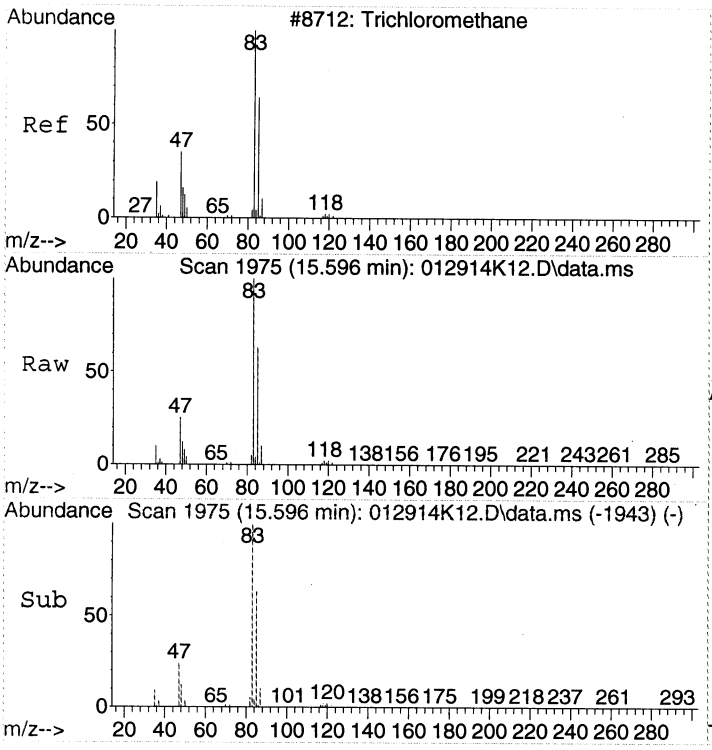




#18
Dichloromethane
Concen: 1.48 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 49 Resp: 60622

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.4 | 50.0 | 90.0 |
| 86 | 43.1 | 24.4 | 64.4 |

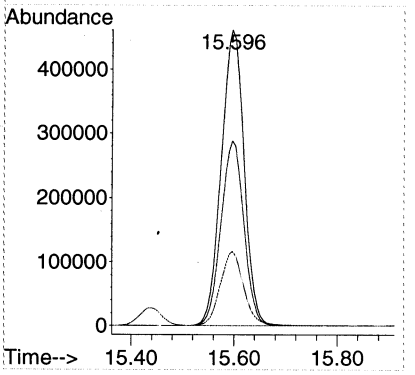


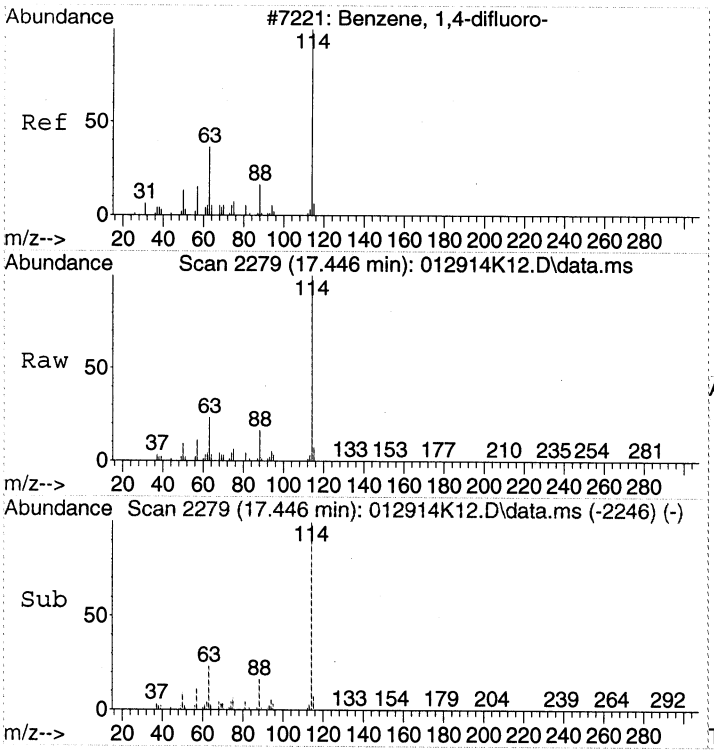



#28
Chloroform
Concen: 24.49 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 83 Resp: 1421553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.7 | 42.7 | 82.7 |
| 47 | 25.7 | 5.3 | 45.3 |

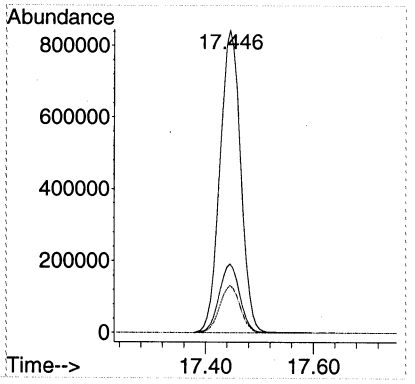


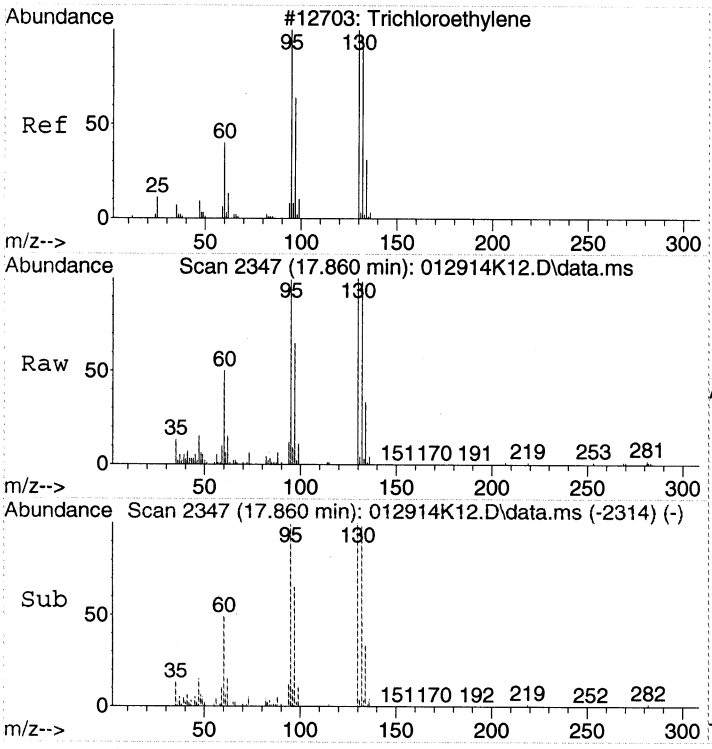




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion:114 Resp: 2247588

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

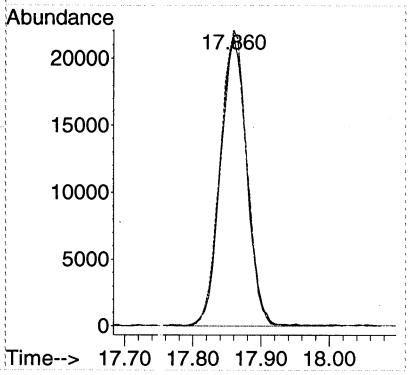


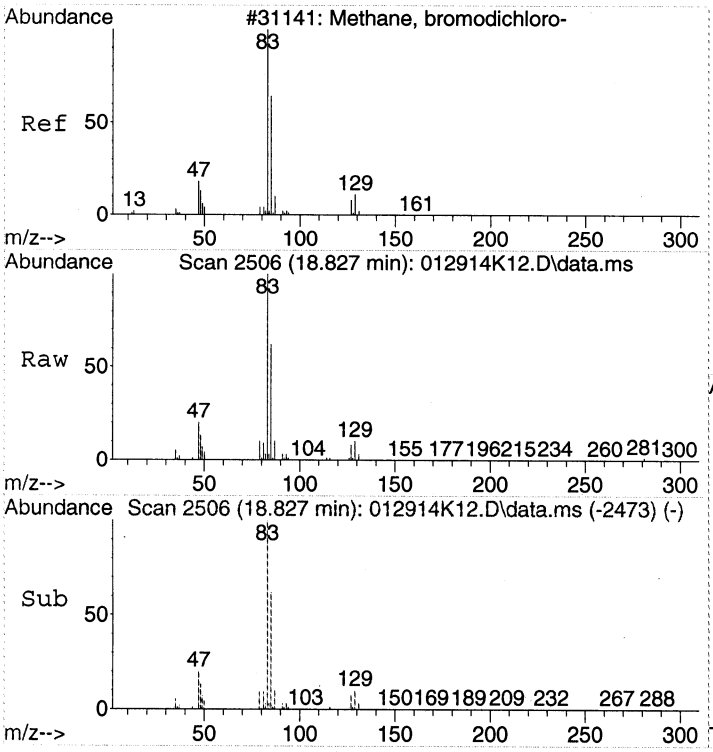



#37
Trichloroethene
Concen: 1.73 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion:130 Resp: 59343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.2 | 78.9 | 118.9 |
| 95 | 100.4 | 82.3 | 122.3 |

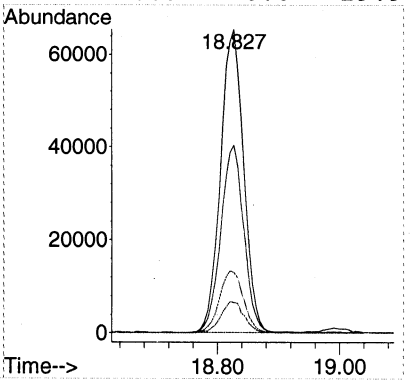


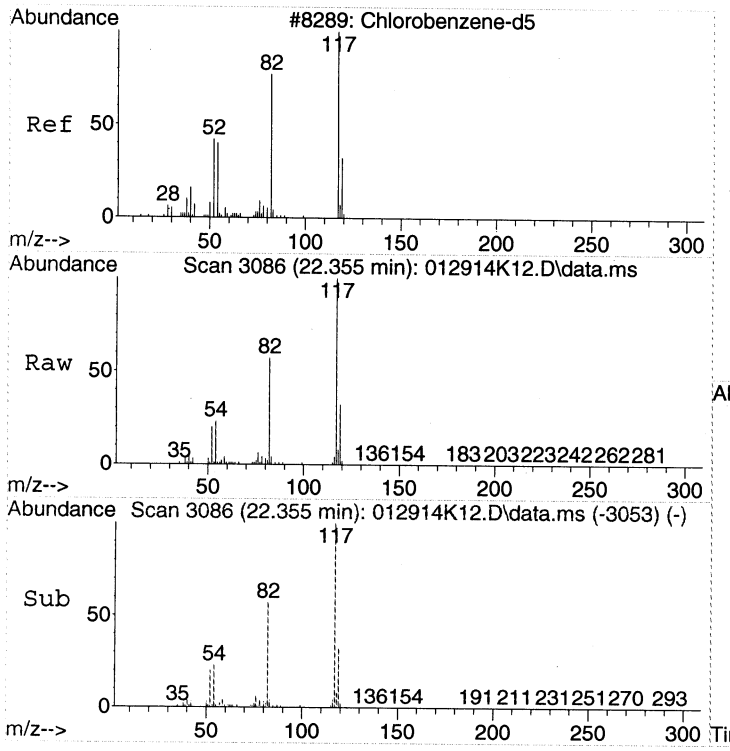




#40
Bromodichloromethane
Concen: 3.09 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion: 83 Resp: 171527

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 61.7 | 41.8 | 81.8 |
| 47 | 21.1 | 0.4 | 40.4 |
| 129 | 10.3 | 0.0 | 29.9 |

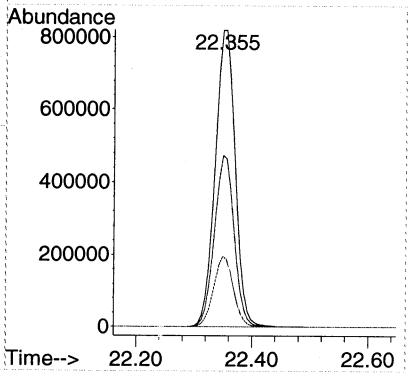


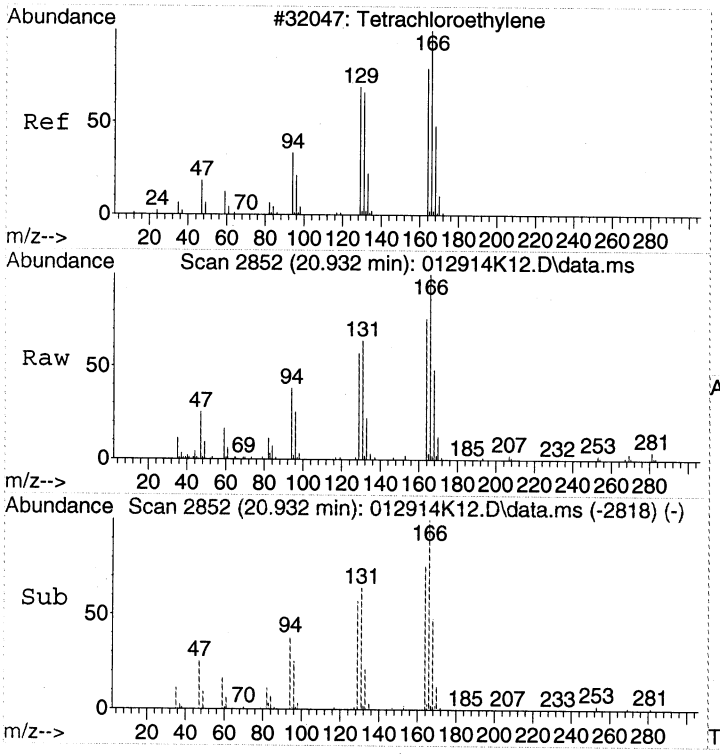



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion:117 Resp: 1972898

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.2 | 37.1 | 77.1 |
| 54 | 23.6 | 3.3 | 43.3 |

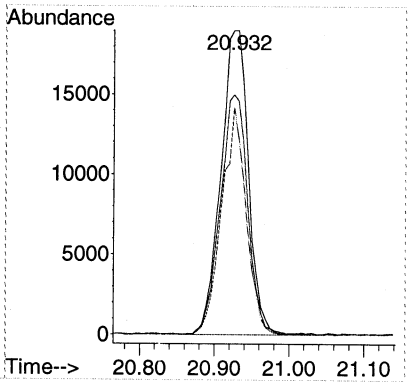


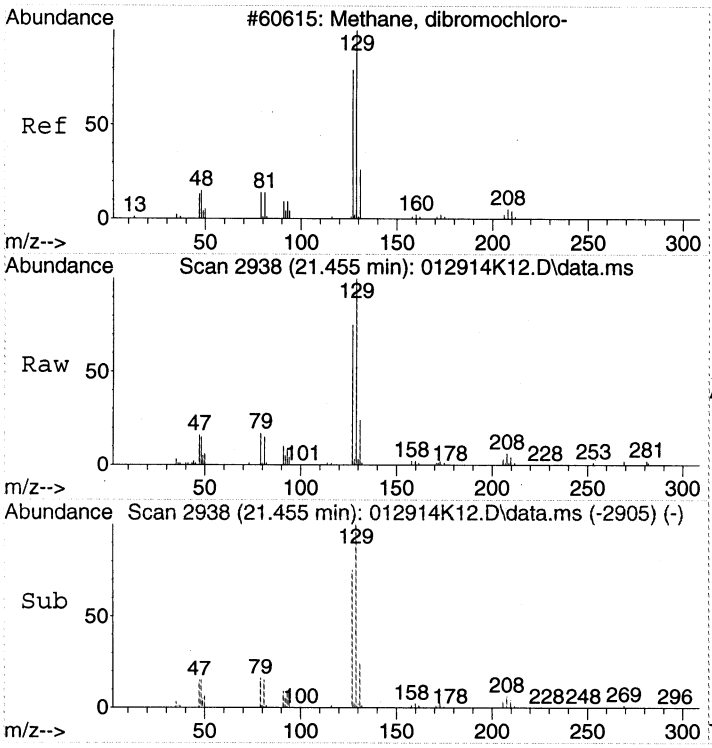




#47
Tetrachloroethene
Concen: 1.08 ppbv
RT: 20.932 min Scan# 2852
Delta R.T. 0.006 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion:166 Resp: 48640

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.6 | 59.4 | 99.4 |
| 131 | 66.1 | 44.3 | 84.3 |

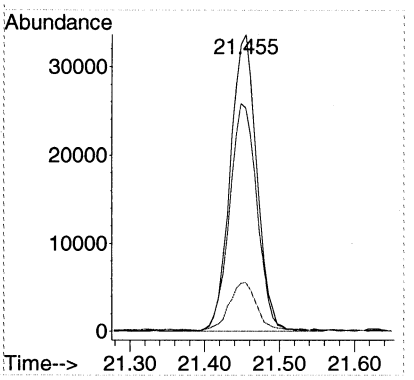





#49
Chlorodibromomethane
Concen: 1.69 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K12.D
Acq: 29 Jan 2014 21:54

Tgt Ion:129 Resp: 82768

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 79.9 | 59.2 | 99.2 |
| 79 | 16.9 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K13.D
Acq On : 29 Jan 2014 22:44
Instrument: HP5973K
Operator : EM
Sample : 1401049-03
Misc : 200mL MH03 Can 2003
ALS Vial : 10
Multiplier: 1.92

Quant Time: Jan 30 10:04:05 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 955483 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2310862 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2063753 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 29069 | 1.05 | ppbv # | 79 |
| 5) Chloromethane | 5.011 | 50 | 15754 | 0.49 | ppbv | 98 |
| 14) Acetone | 9.853 | 43 | 99874 | 2.23 | ppbv | 94 |
| 15) Carbon disulfide | 10.018 | 76 | 59527 | 0.82 | ppbv | 95 |
| 18) Dichloromethane | 11.380 | 49 | 102574 | 2.38 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 2496126 | 40.87 | ppbv E | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 304323 | 5.33 | ppbv | 100 |
| 44) Toluene | 20.074 | 91 | 111347 | 1.09 | ppbv | 100 |
| 49) Chlorodibromomethane | 21.449 | 129 | 150310 | 2.93 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 38862 | 0.72 | ppbv | 98 |

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



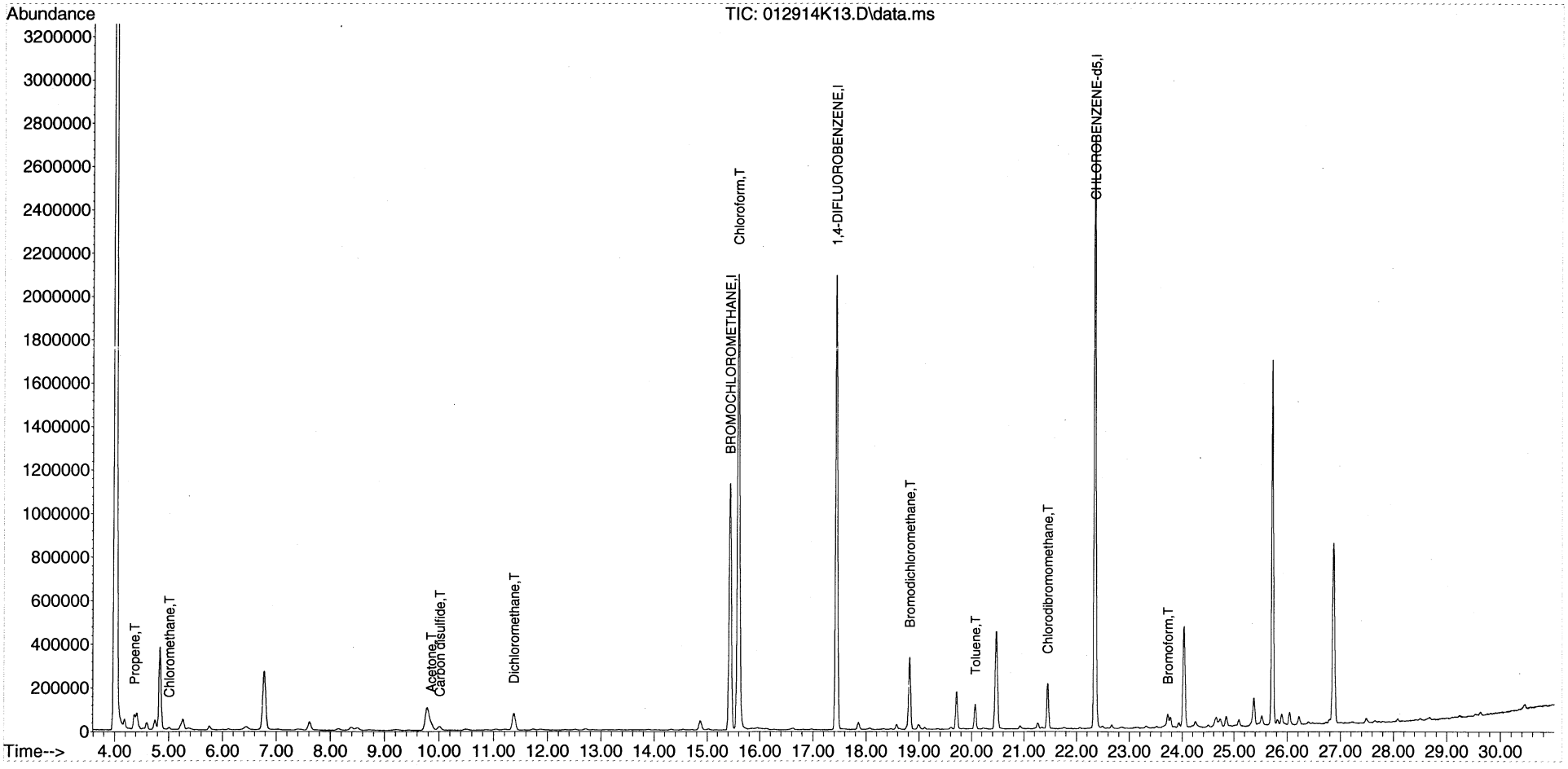
: 00222

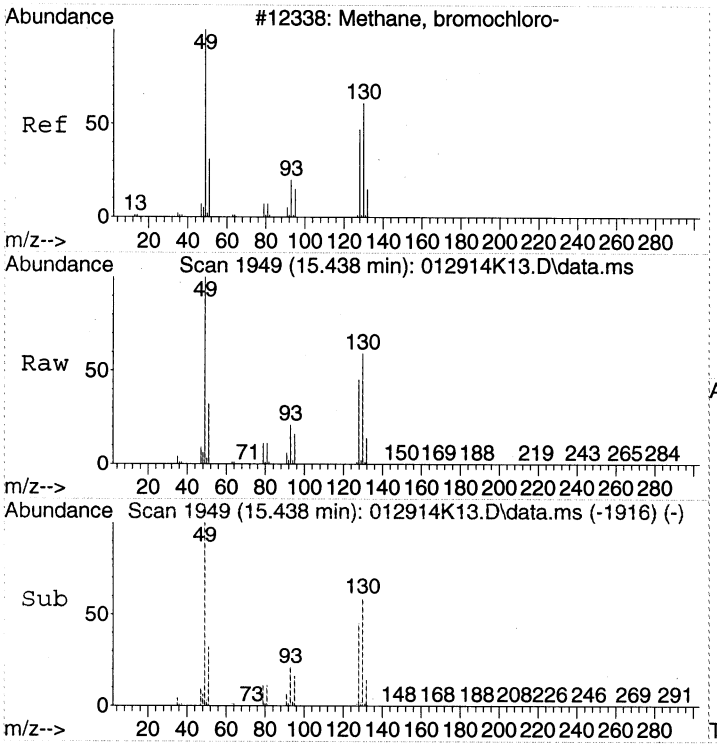
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K13.D
Acq On : 29 Jan 2014 22:44
Instrument: HP5973K
Operator : EM
Sample : 1401049-03
Misc : 200mL MH03 Can 2003
ALS Vial : 10
Multiplier: 1.92

Quant Time: Jan 30 10:04:05 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

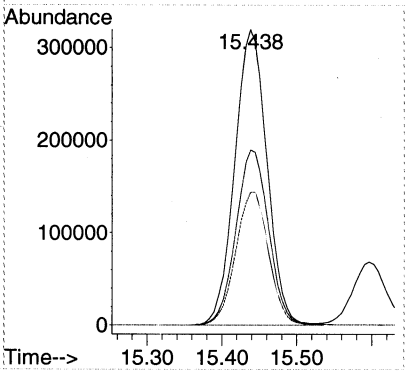


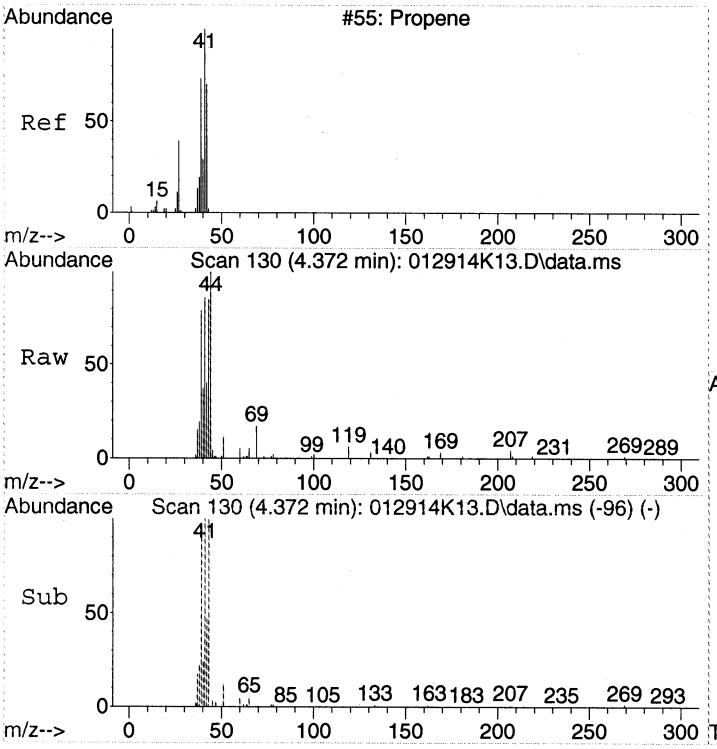



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 49 Resp: 955483

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.2 | 39.6 | 79.6 |
| 128 | 45.9 | 26.9 | 66.9 |

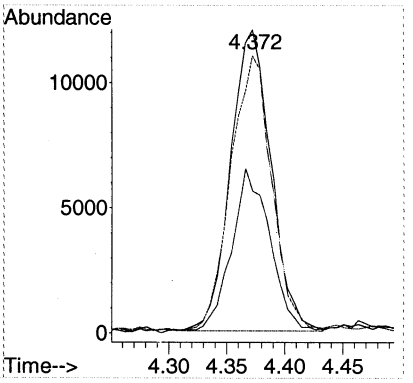


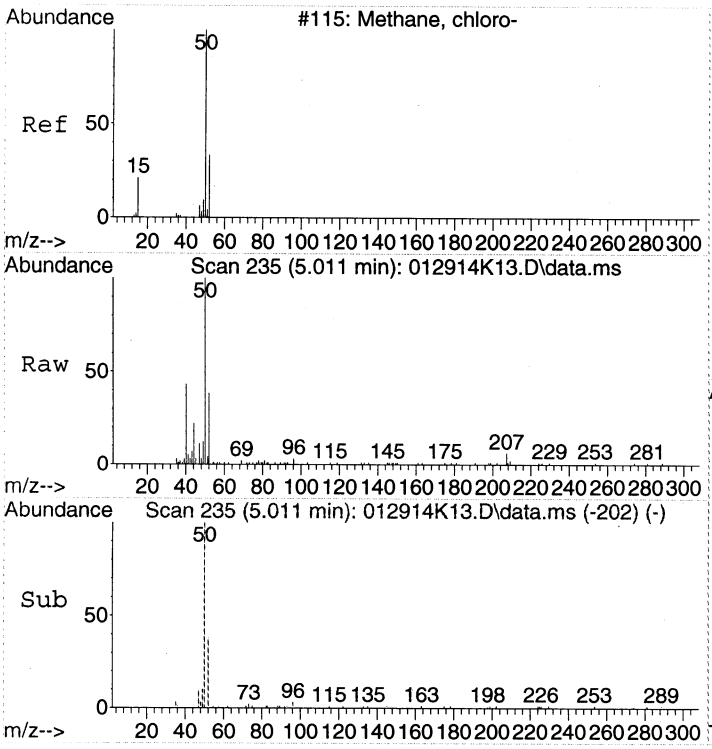




#2
Propene
Concen: 1.05 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 41 Resp: 29069

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 58.7 | 46.8 | 86.8 |
| 39 | 93.3 | 48.3 | 88.3# |

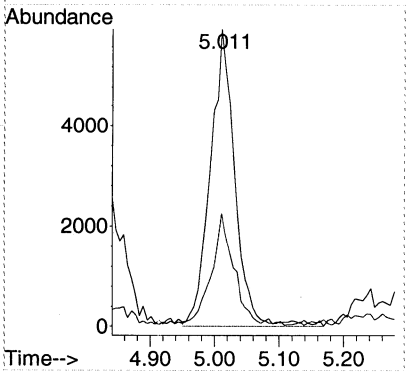


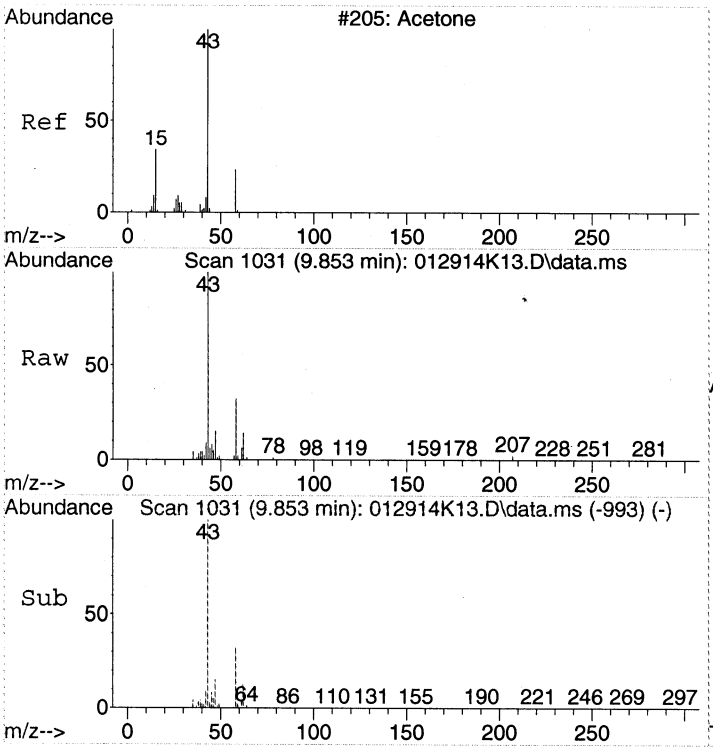



#5
Chloromethane
Concen: 0.49 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 50 Resp: 15754

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 34.0 | 12.7 | 52.7 |

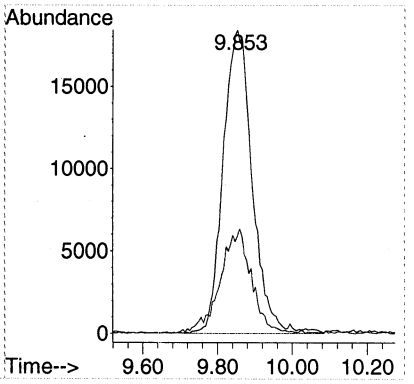


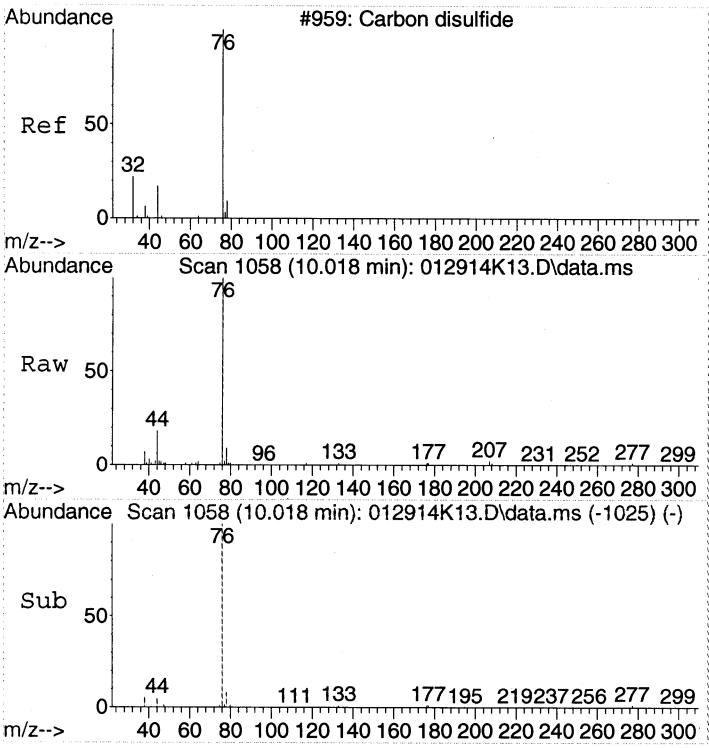




#14
Acetone
Concen: 2.23 ppbv
RT: 9.853 min Scan# 1031
Delta R.T. 0.030 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 43 Resp: 99874

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.9 | 12.5 | 52.5 |

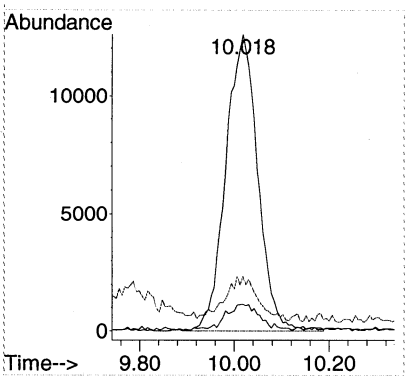


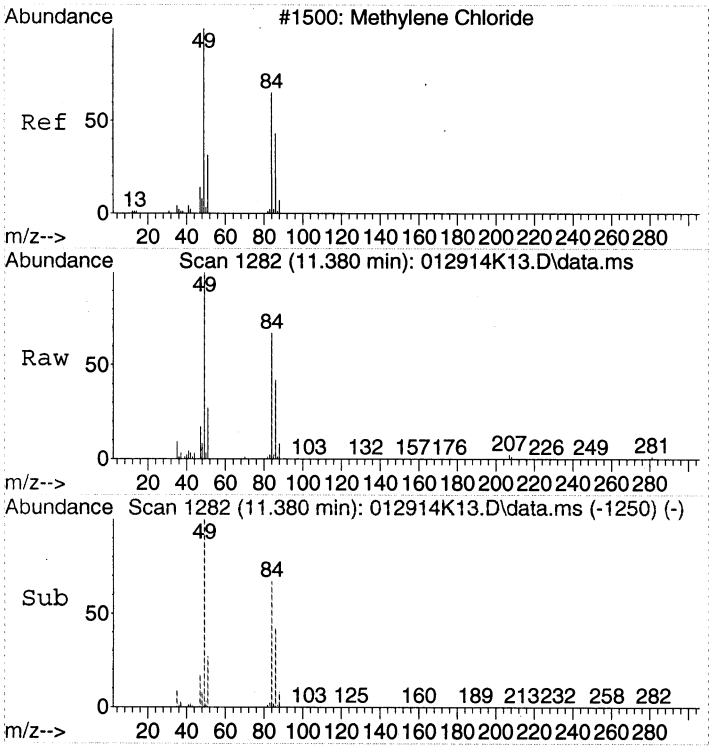



#15
Carbon disulfide
Concen: 0.82 ppbv
RT: 10.018 min Scan# 1058
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 76 Resp: 59527

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 10.1 | 0.0 | 28.7 |
| 44 | 15.2 | 0.0 | 32.7 |

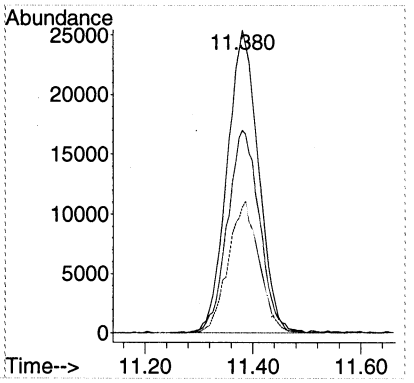


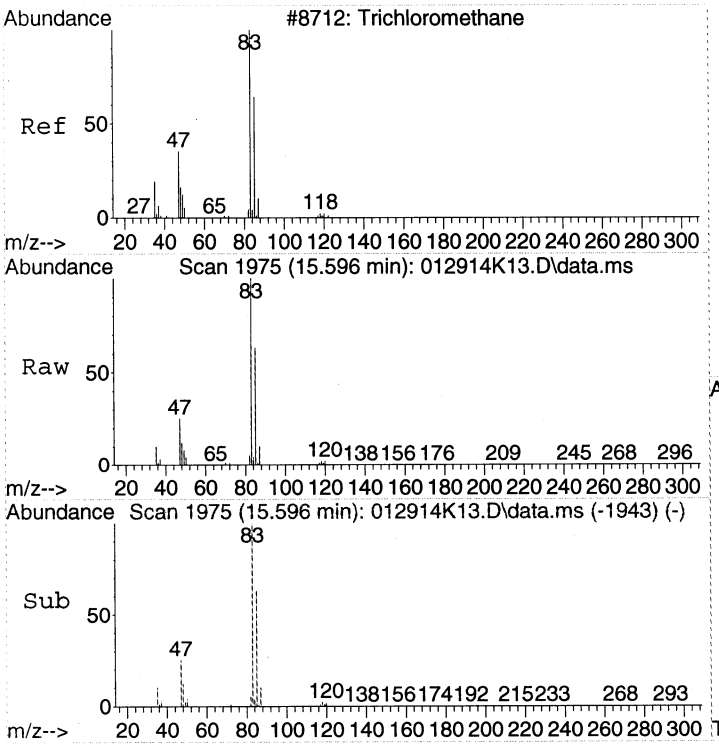




#18
Dichloromethane
Concen: 2.38 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 49 Resp: 102574

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.8 | 50.0 | 90.0 |
| 86 | 43.2 | 24.4 | 64.4 |

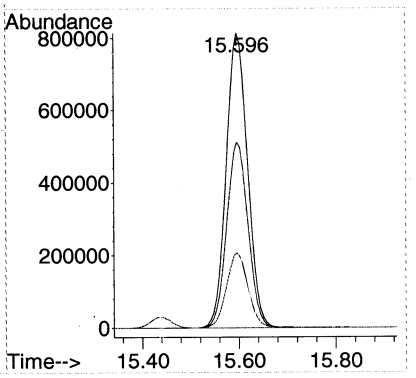


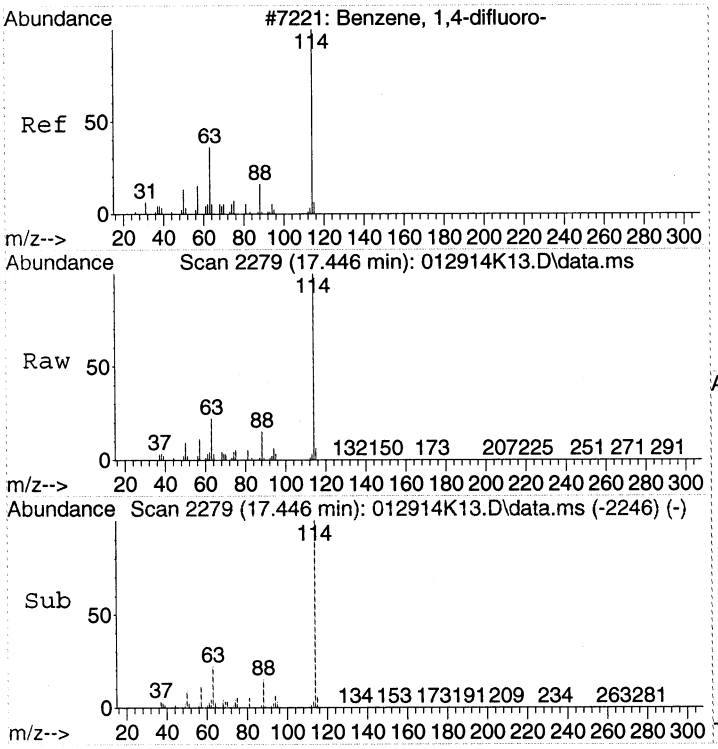



#28
Chloroform
Concen: 40.87 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 83 Resp: 2496126

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 42.7 | 82.7 |
| 47 | 25.4 | 5.3 | 45.3 |

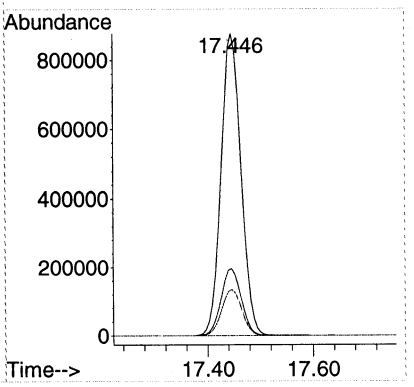



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

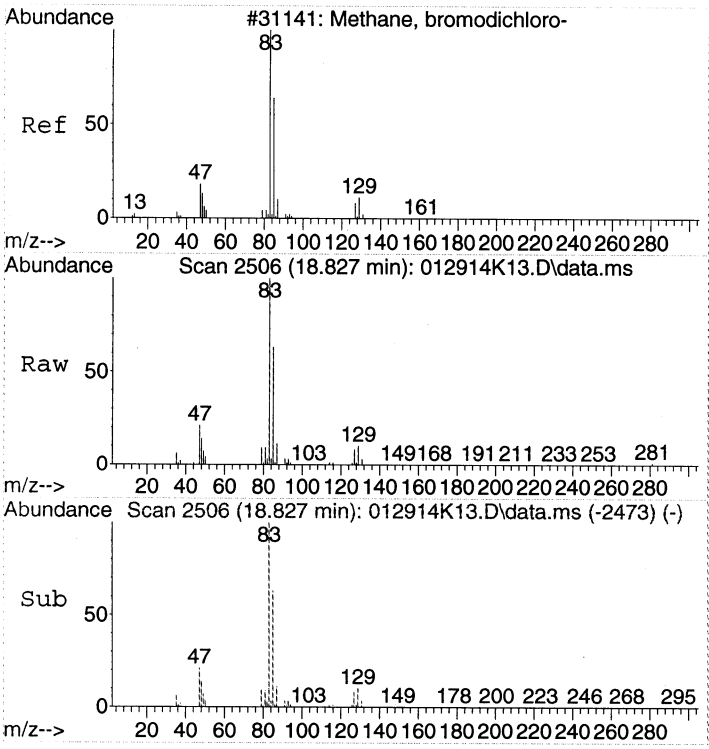
Tgt Ion:114 Resp: 2310862

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |





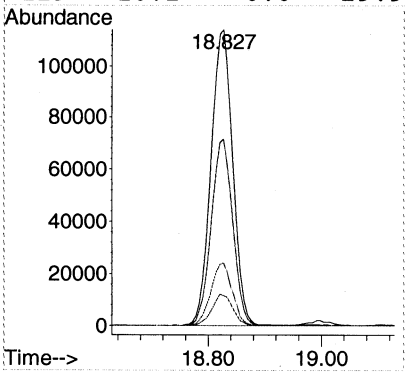

00227

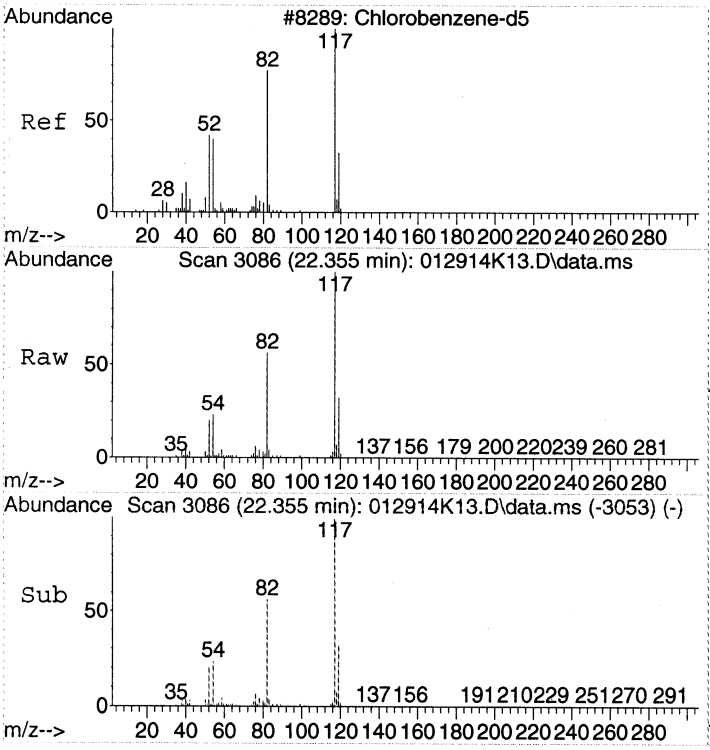



#40
Bromodichloromethane
Concen: 5.33 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 83 Resp: 304323

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.0 | 41.8 | 81.8 |
| 47 | 20.8 | 0.4 | 40.4 |
| 129 | 10.1 | 0.0 | 29.9 |

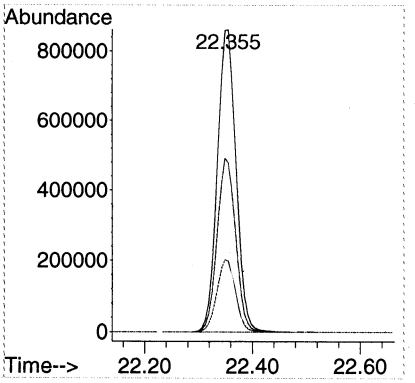


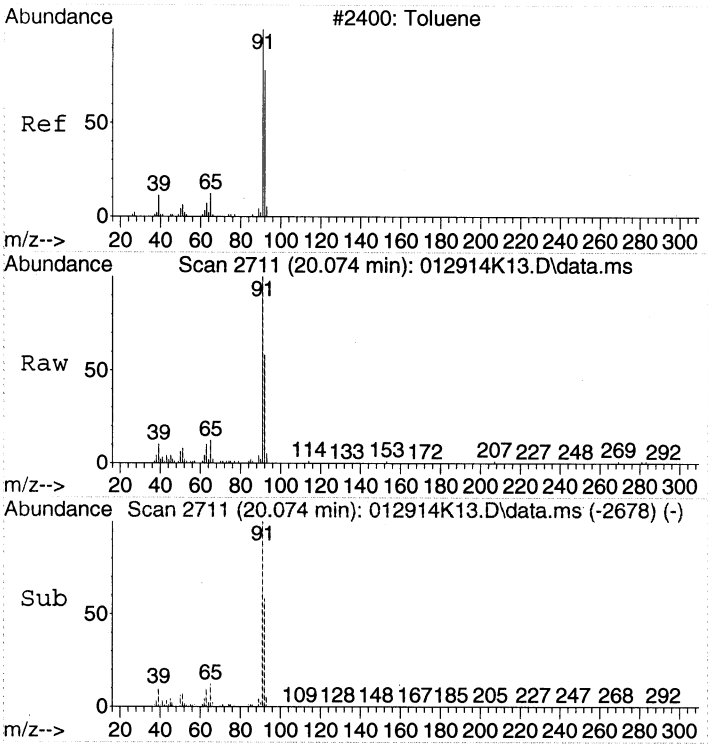




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion:117 Resp: 2063753

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.7 | 37.1 | 77.1 |
| 54 | 23.4 | 3.3 | 43.3 |

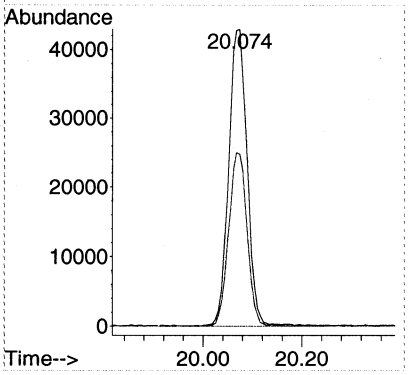


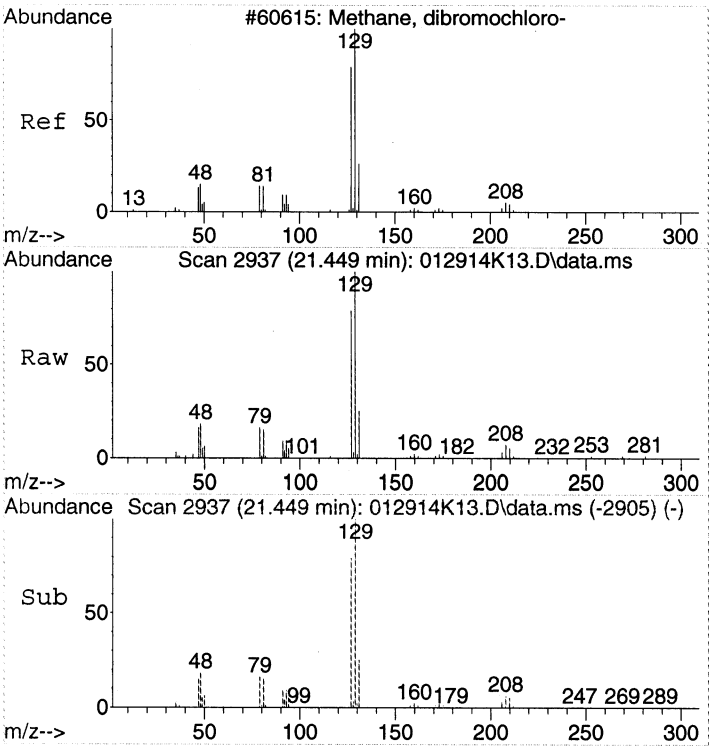



#44
Toluene
Concen: 1.09 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion: 91 Resp: 111347

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 57.8 | 38.2 | 78.2 |

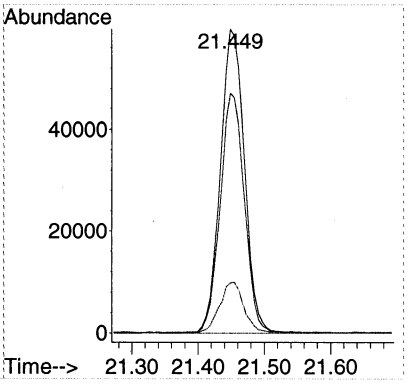


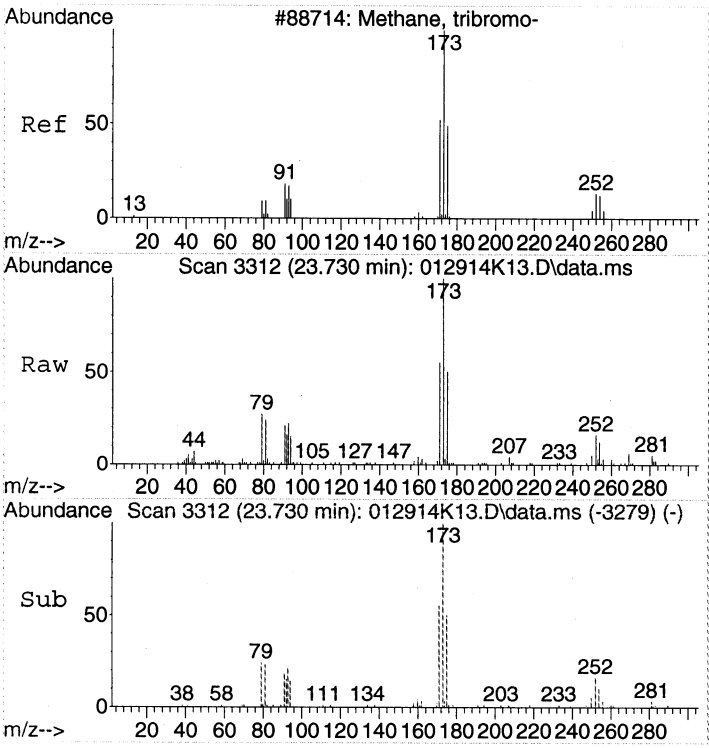




#49
Chlorodibromomethane
Concen: 2.93 ppbv
RT: 21.449 min Scan# 2937
Delta R.T. -0.006 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion:129 Resp: 150310

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 79.1 | 59.2 | 99.2 |
| 79 | 16.3 | 0.0 | 35.9 |

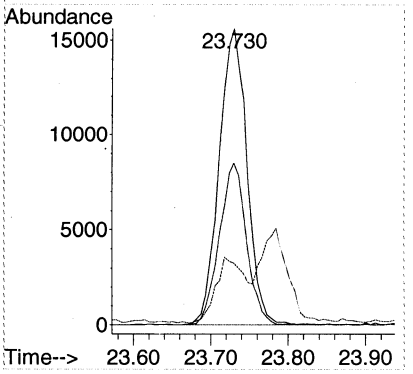





#56
Bromoform
Concen: 0.72 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K13.D
Acq: 29 Jan 2014 22:44

Tgt Ion:173 Resp: 38862

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 53.4 | 32.4 | 72.4 |
| 91 | 24.0 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K14.D
Acq On : 29 Jan 2014 23:33
Instrument: HP5973K
Operator : EM
Sample : 1401049-04
Misc : 200mL MH04 Can 1108
ALS Vial : 11
Multiplier: 1.92

Quant Time: Jan 30 10:04:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 960956 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2292720 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2029550 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 44891 | 1.62 | ppbv | # | 74 |
| 5) Chloromethane | 5.011 | 50 | 18927 | 0.59 | ppbv | | 96 |
| 14) Acetone | 9.841 | 43 | 224201 | 4.98 | ppbv | | 97 |
| 15) Carbon disulfide | 10.005 | 76 | 58121 | 0.79 | ppbv | # | 80 |
| 16) 2-Propanol | 10.480 | 45 | 118036 | 2.56 | ppbv | | 95 |
| 18) Dichloromethane | 11.380 | 49 | 109495 | 2.53 | ppbv | | 97 |
| 28) Chloroform | 15.596 | 83 | 2872170 | 46.76 | ppbv | E | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 350064 | 6.19 | ppbv | | 99 |
| 44) Toluene | 20.068 | 91 | 272573 | 2.72 | ppbv | | 100 |
| 49) Chlorodibromomethane | 21.455 | 129 | 170520 | 3.38 | ppbv | | 98 |
| 56) Bromoform | 23.730 | 173 | 43900 | 0.83 | ppbv | | 96 |

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



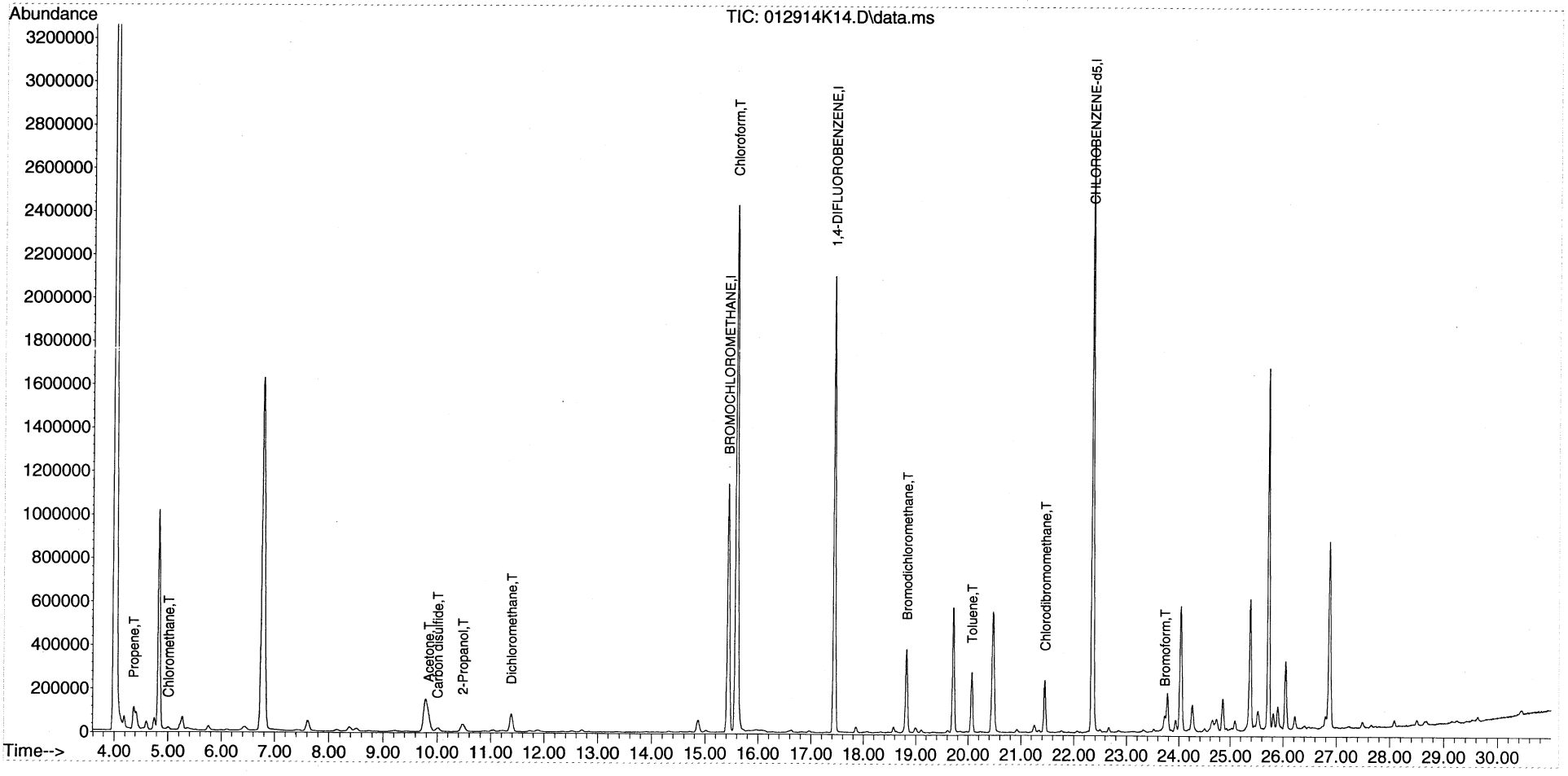
00231

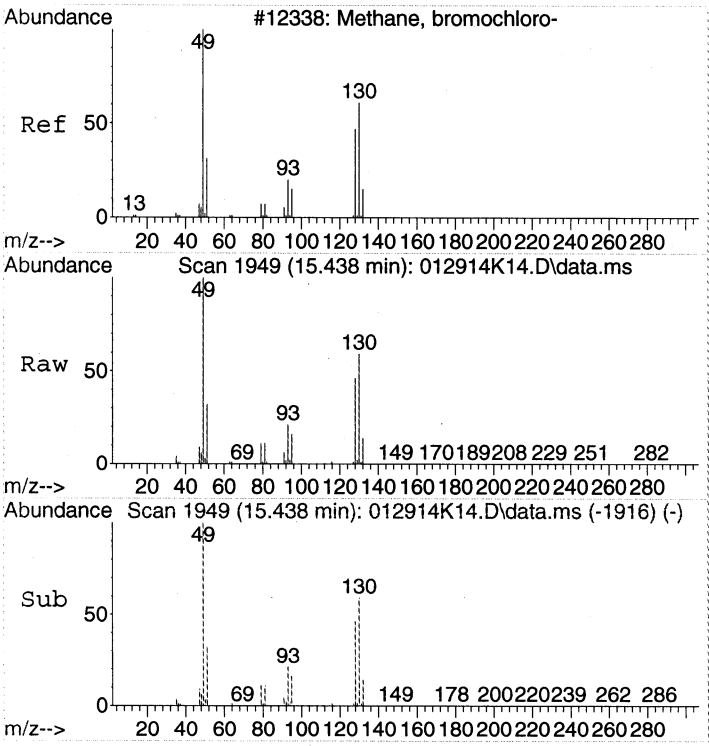
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K14.D
Acq On : 29 Jan 2014 23:33
Instrument: HP5973K
Operator : EM
Sample : 1401049-04
Misc : 200mL MH04 Can 1108
ALS Vial : 11
Multiplier: 1.92

Quant Time: Jan 30 10:04:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

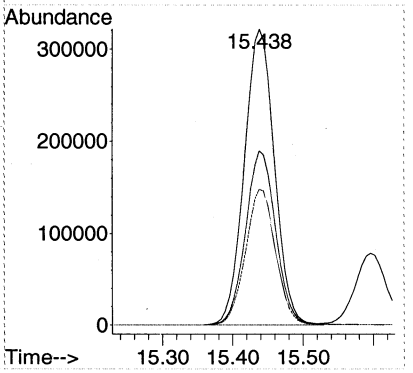


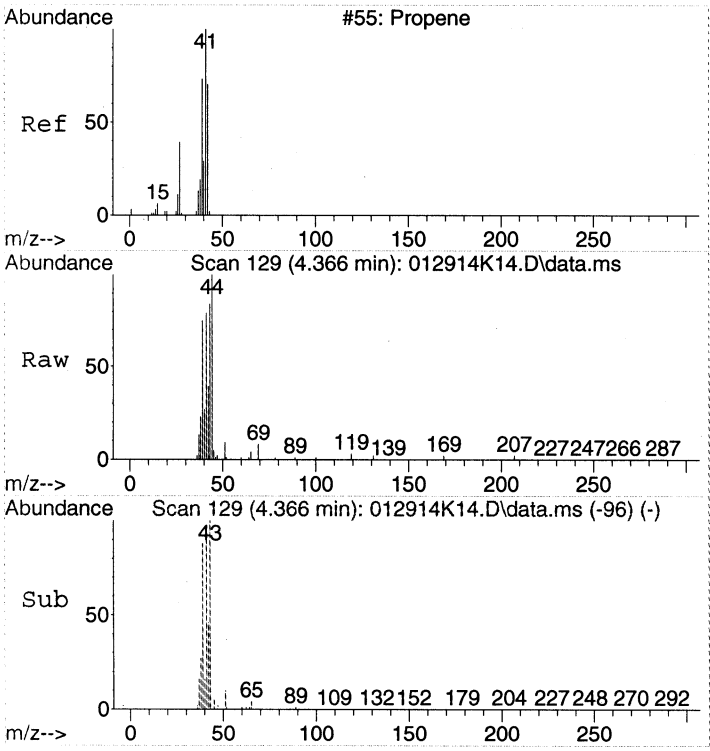



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 49 Resp: 960956

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.0 | 39.6 | 79.6 |
| 128 | 46.0 | 26.9 | 66.9 |

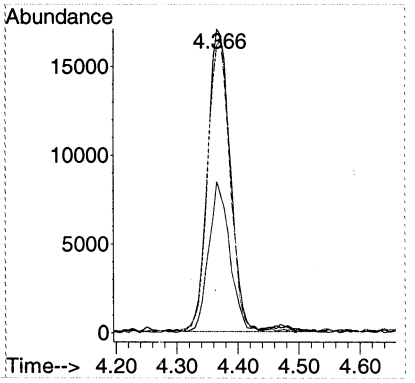


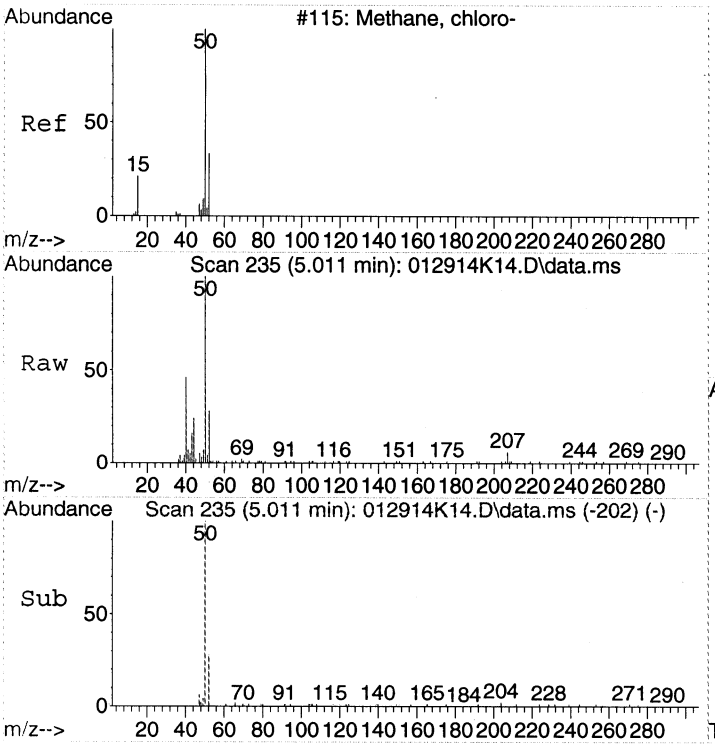




#2
Propene
Concen: 1.62 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 41 Resp: 44891

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 48.3 | 46.8 | 86.8 |
| 39 | 92.0 | 48.3 | 88.3# |

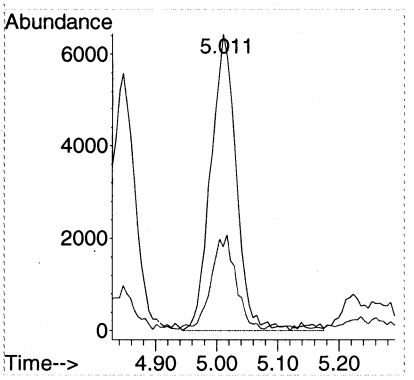


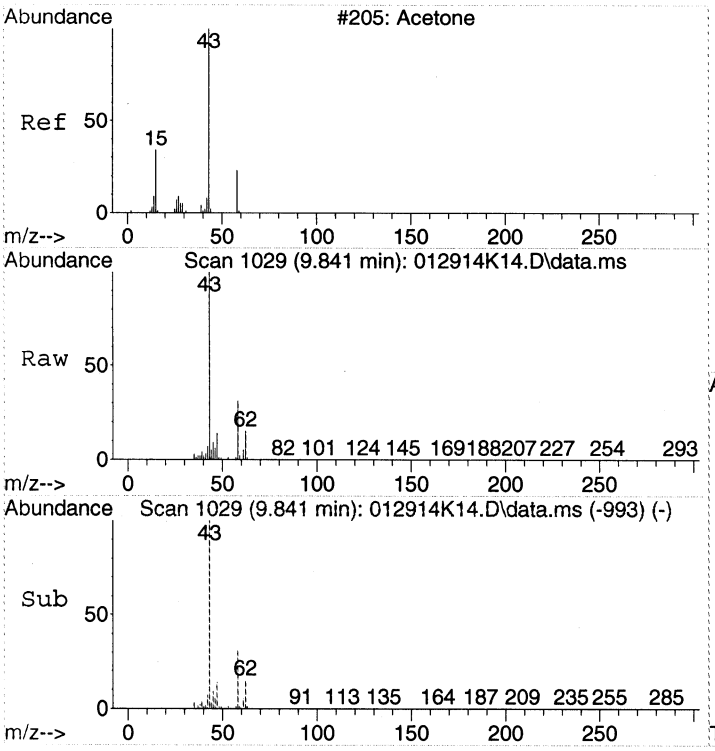



#5
Chloromethane
Concen: 0.59 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 50 Resp: 18927

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 30.2 | 12.7 | 52.7 |

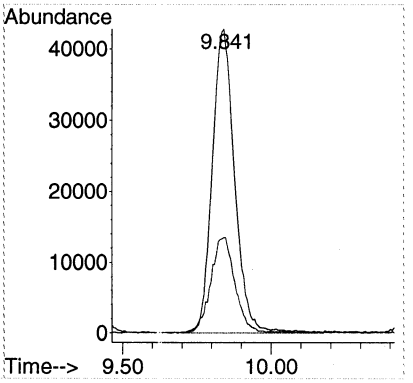


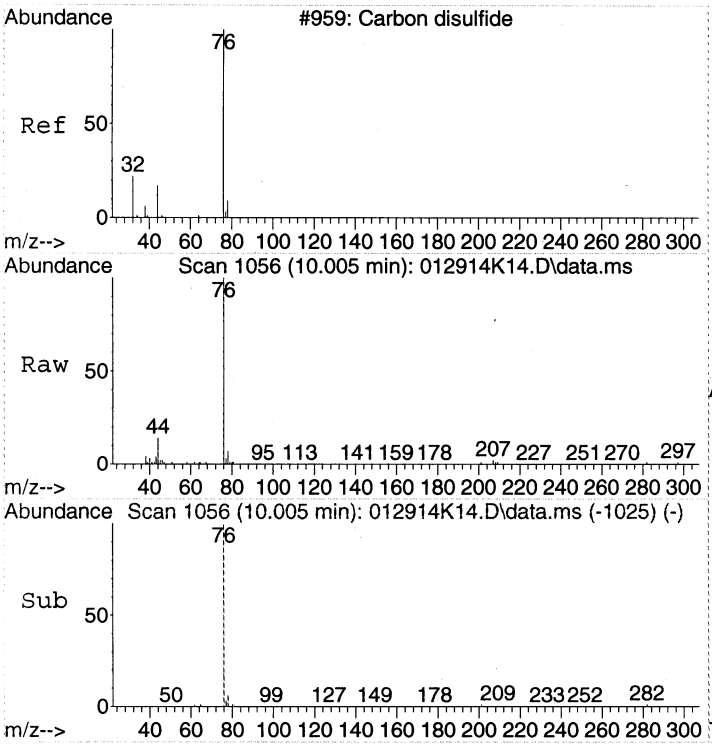




#14
Acetone
Concen: 4.98 ppbv
RT: 9.841 min Scan# 1029
Delta R.T. 0.018 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 43 Resp: 224201

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 34.2 | 12.5 | 52.5 |

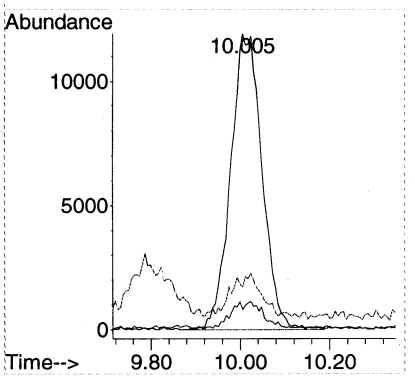


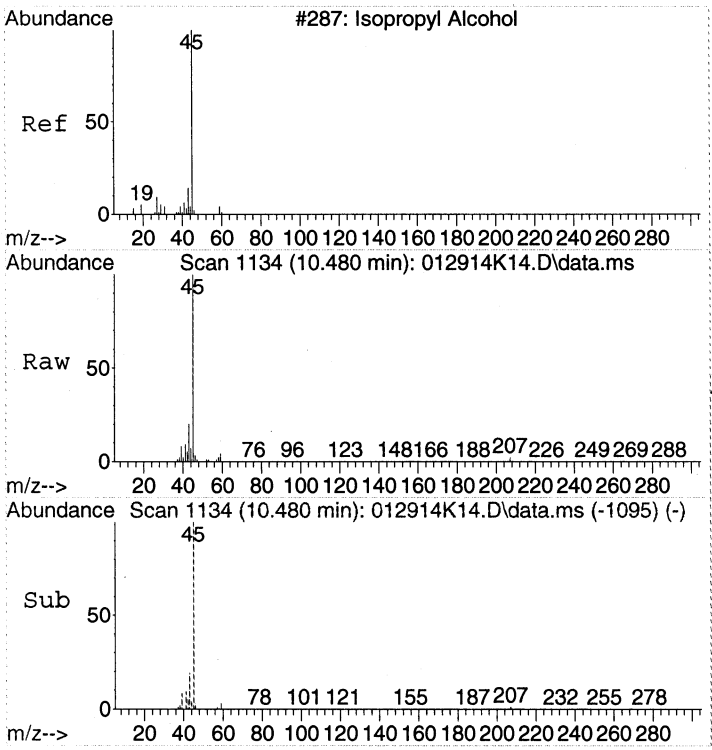



#15
Carbon disulfide
Concen: 0.79 ppbv
RT: 10.005 min Scan# 1056
Delta R.T. -0.012 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 76 Resp: 58121

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 0.0 | 0.0 | 28.7 |
| 44 | 5.7 | 0.0 | 32.7 |

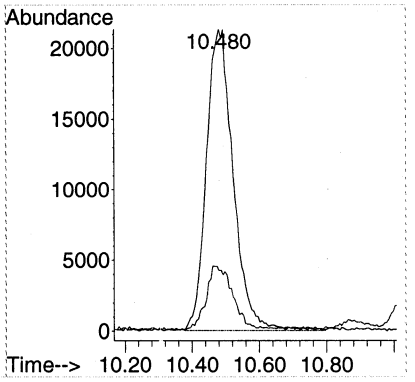


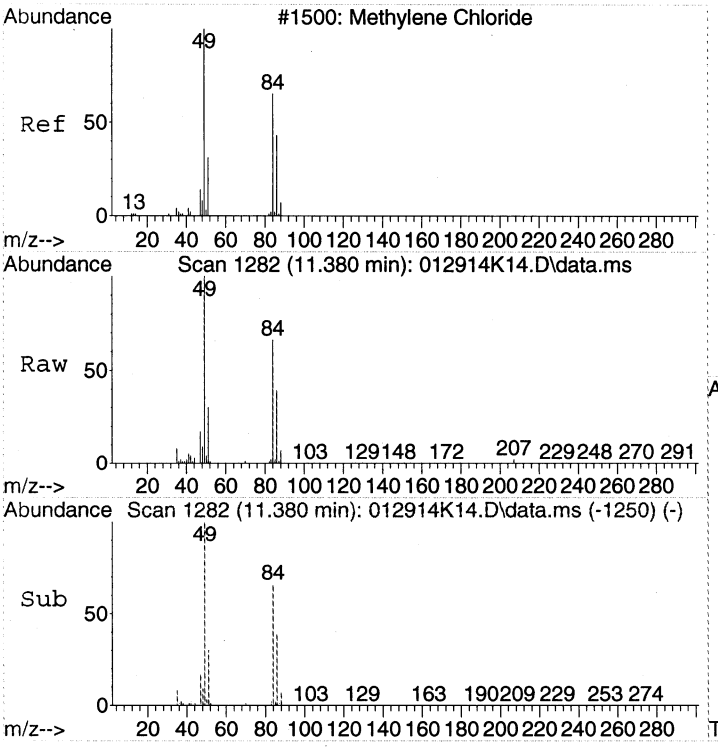




#16
2-Propanol
Concen: 2.56 ppbv
RT: 10.480 min Scan# 1134
Delta R.T. 0.036 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 45 Resp: 118036

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 21.3 | 0.0 | 39.1 |

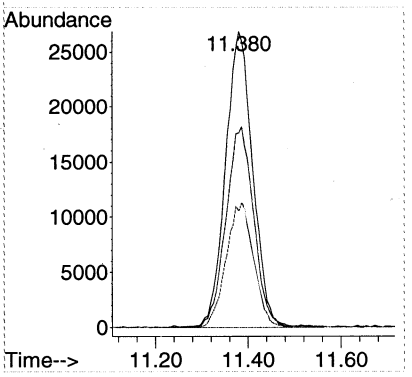


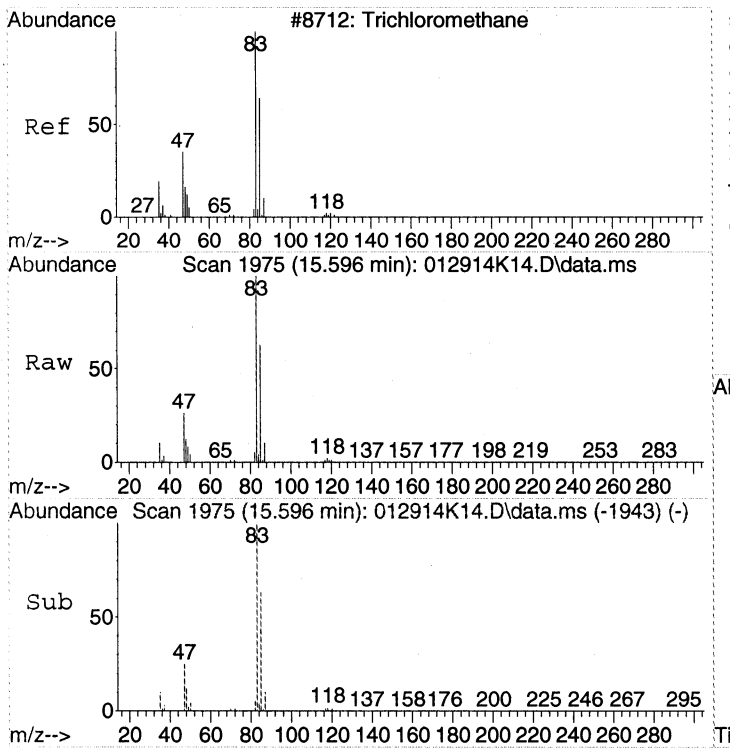



#18
Dichloromethane
Concen: 2.53 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 49 Resp: 109495

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.2 | 50.0 | 90.0 |
| 86 | 42.3 | 24.4 | 64.4 |

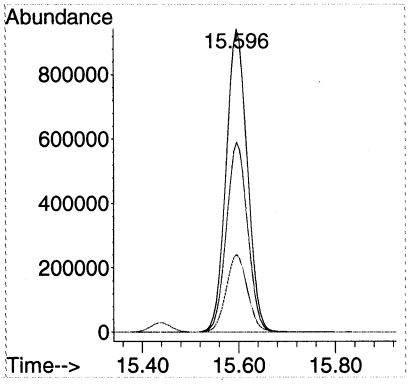


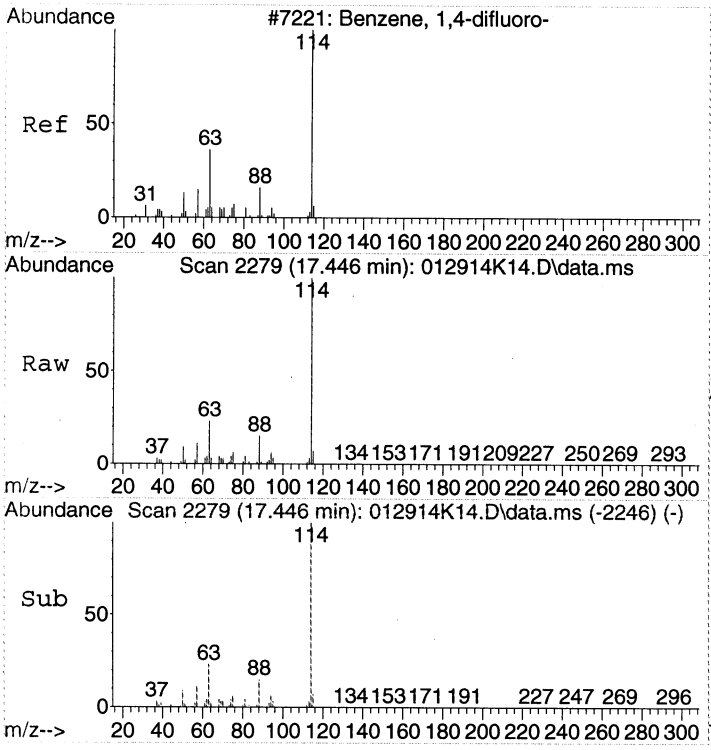




#28
Chloroform
Concen: 46.76 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 83 Resp: 2872170

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.8 | 42.7 | 82.7 |
| 47 | 25.8 | 5.3 | 45.3 |

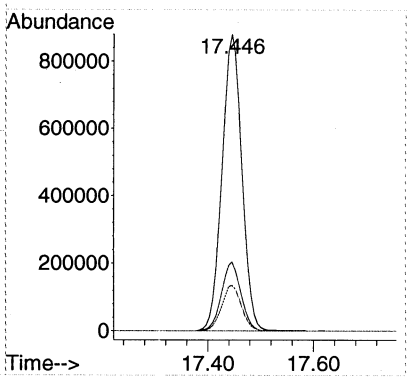


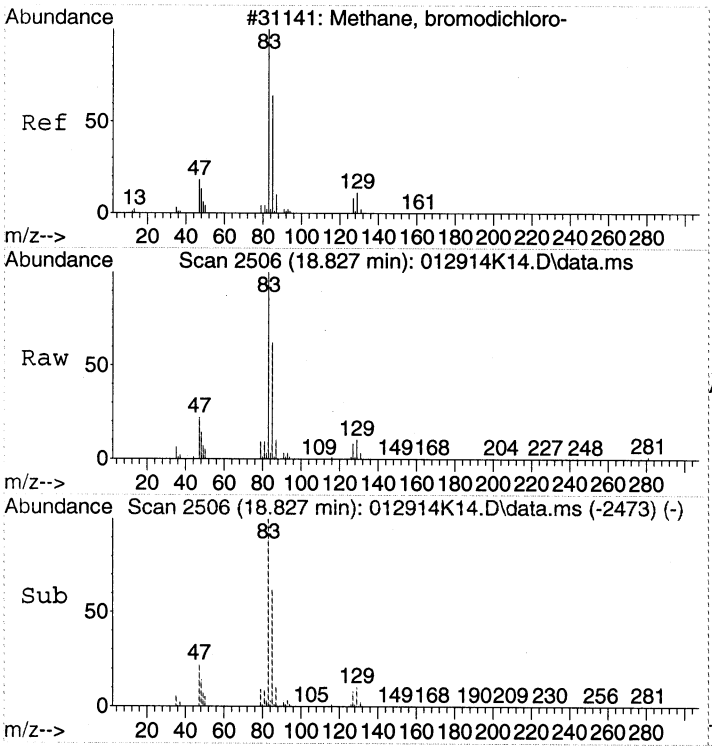



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion:114 Resp: 2292720

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

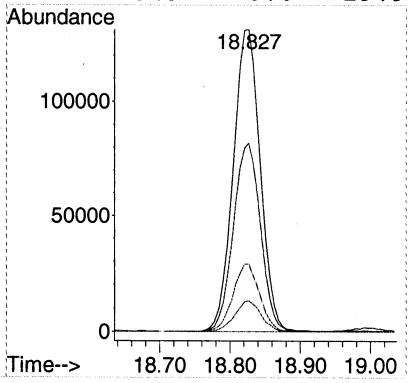


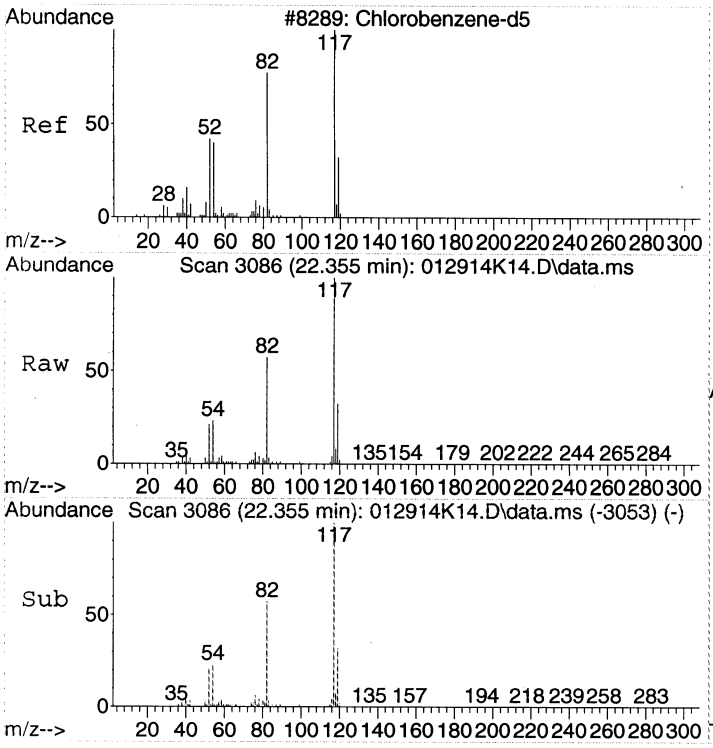




#40
Bromodichloromethane
Concen: 6.19 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 83 Resp: 350064

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.4 | 41.8 | 81.8 |
| 47 | 21.7 | 0.4 | 40.4 |
| 129 | 9.9 | 0.0 | 29.9 |

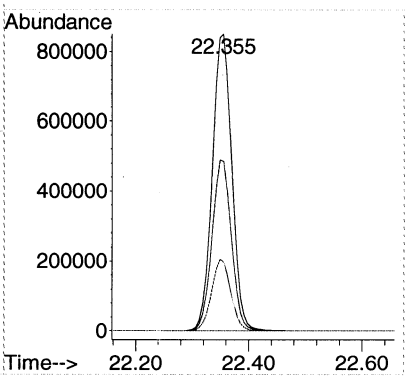


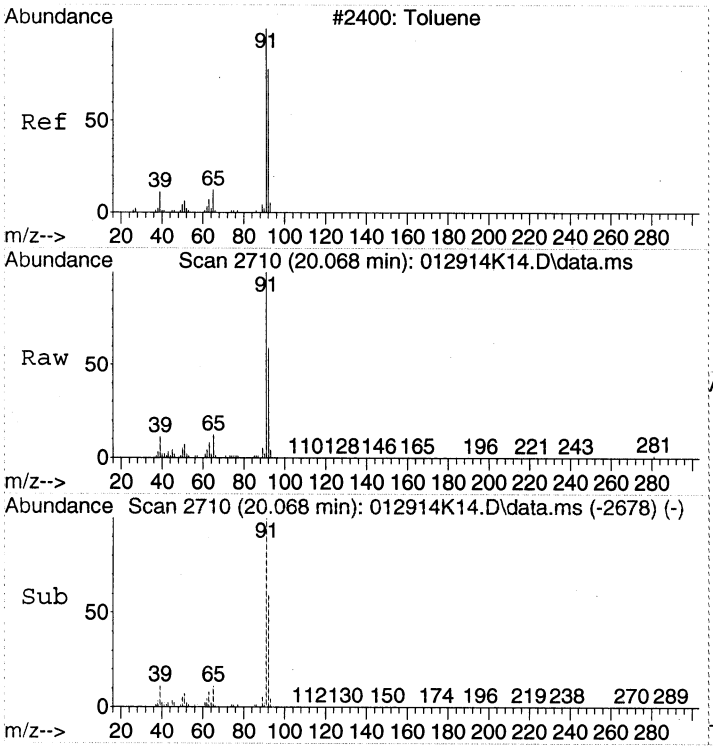



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion:117 Resp: 2029550

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.4 | 37.1 | 77.1 |
| 54 | 23.9 | 3.3 | 43.3 |

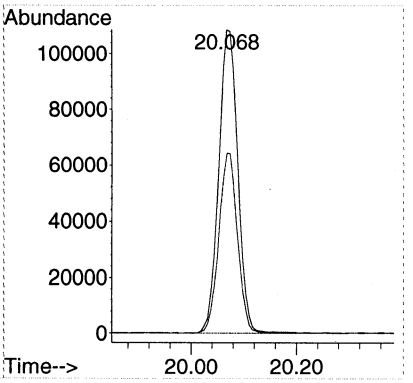


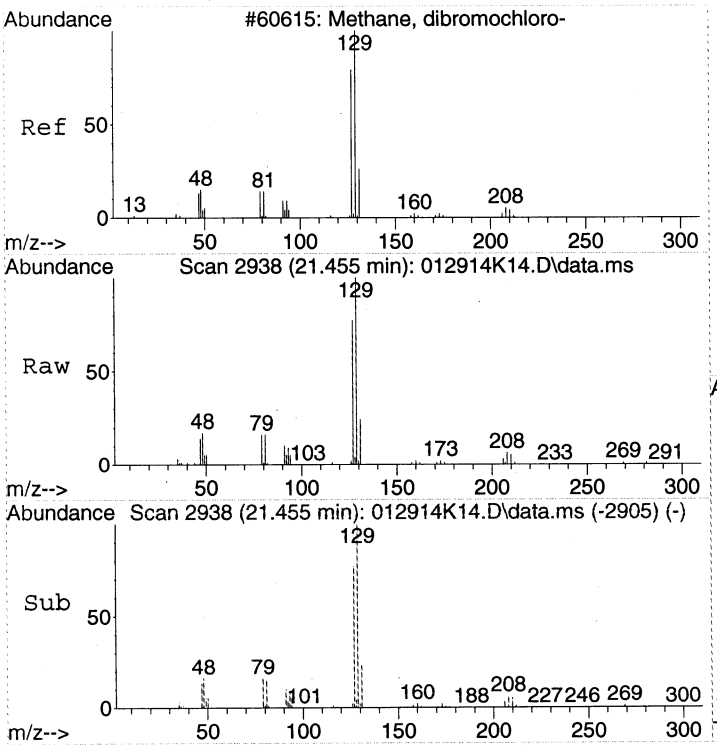




#44
Toluene
Concen: 2.72 ppbv
RT: 20.068 min Scan# 2710
Delta R.T. -0.006 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion: 91 Resp: 272573

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.1 | 38.2 | 78.2 |

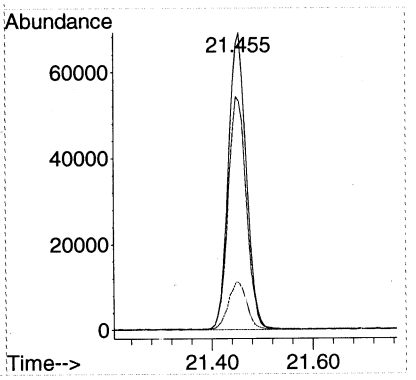


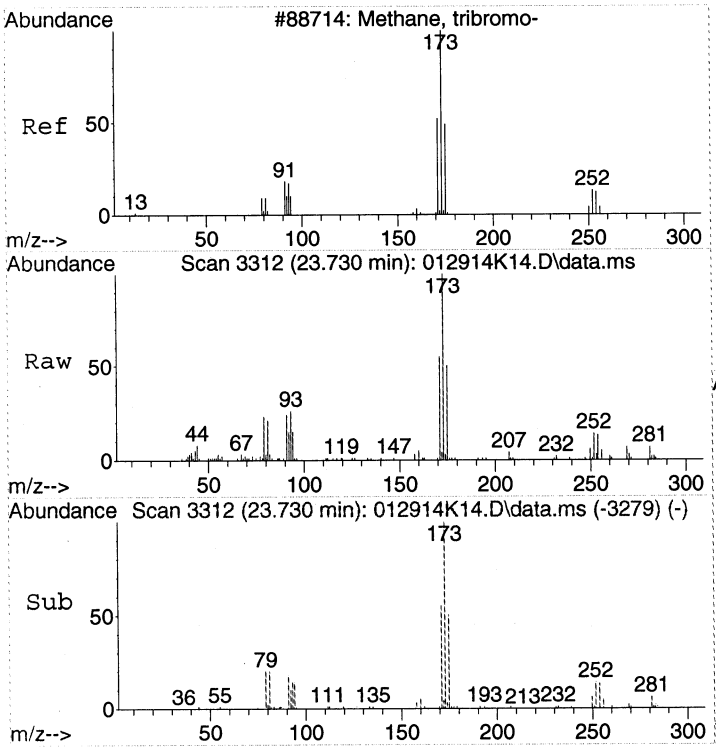



#49
Chlorodibromomethane
Concen: 3.38 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion:129 Resp: 170520

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 80.6 | 59.2 | 99.2 |
| 79 | 16.5 | 0.0 | 35.9 |

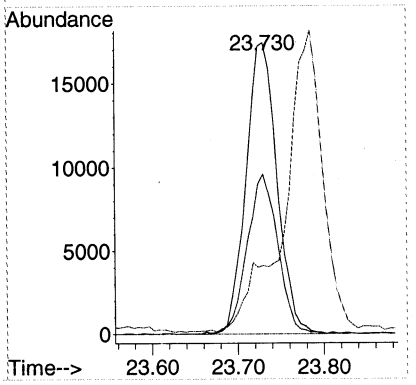



#56
Bromoform
Concen: 0.83 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K14.D
Acq: 29 Jan 2014 23:33

Tgt Ion:173 Resp: 43900

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 54.2 | 32.4 | 72.4 |
| 91 | 19.0 | 2.3 | 42.3 |



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K15.D
Acq On : 30 Jan 2014 00:22
Instrument: HP5973K
Operator : EM
Sample : 1401049-05
Misc : 200mL MH05 Can 1117
ALS Vial : 12
Multiplier: 1.93

Quant Time: Jan 30 12:34:04 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 998138 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2385315 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.349 | 117 | 2127790 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 43943 | 1.52 | ppbv | # 73 |
| 5) Chloromethane | 5.011 | 50 | 17345 | 0.52 | ppbv | 97 |
| 14) Acetone | 9.835 | 43 | 272588 | 5.83 | ppbv | 95 |
| 15) Carbon disulfide | 10.006 | 76 | 65764 | 0.86 | ppbv | 100 |
| 16) 2-Propanol | 10.480 | 45 | 91517 | 1.91 | ppbv | 91 |
| 18) Dichloromethane | 11.387 | 49 | 127739 | 2.84 | ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.012 | 43 | 43466m | 0.72 | ppbv | — non target cpd |
| 28) Chloroform | 15.596 | 83 | 3570580 | 55.96 | ppbv | 100 em 1/30/14 |
| 40) Bromodichloromethane | 18.827 | 83 | 459206 | 7.80 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 334371 | 3.19 | ppbv | 100 |
| 49) Chlorodibromomethane | 21.455 | 129 | 228267 | 4.32 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 60168 | 1.08 | ppbv | 99 |

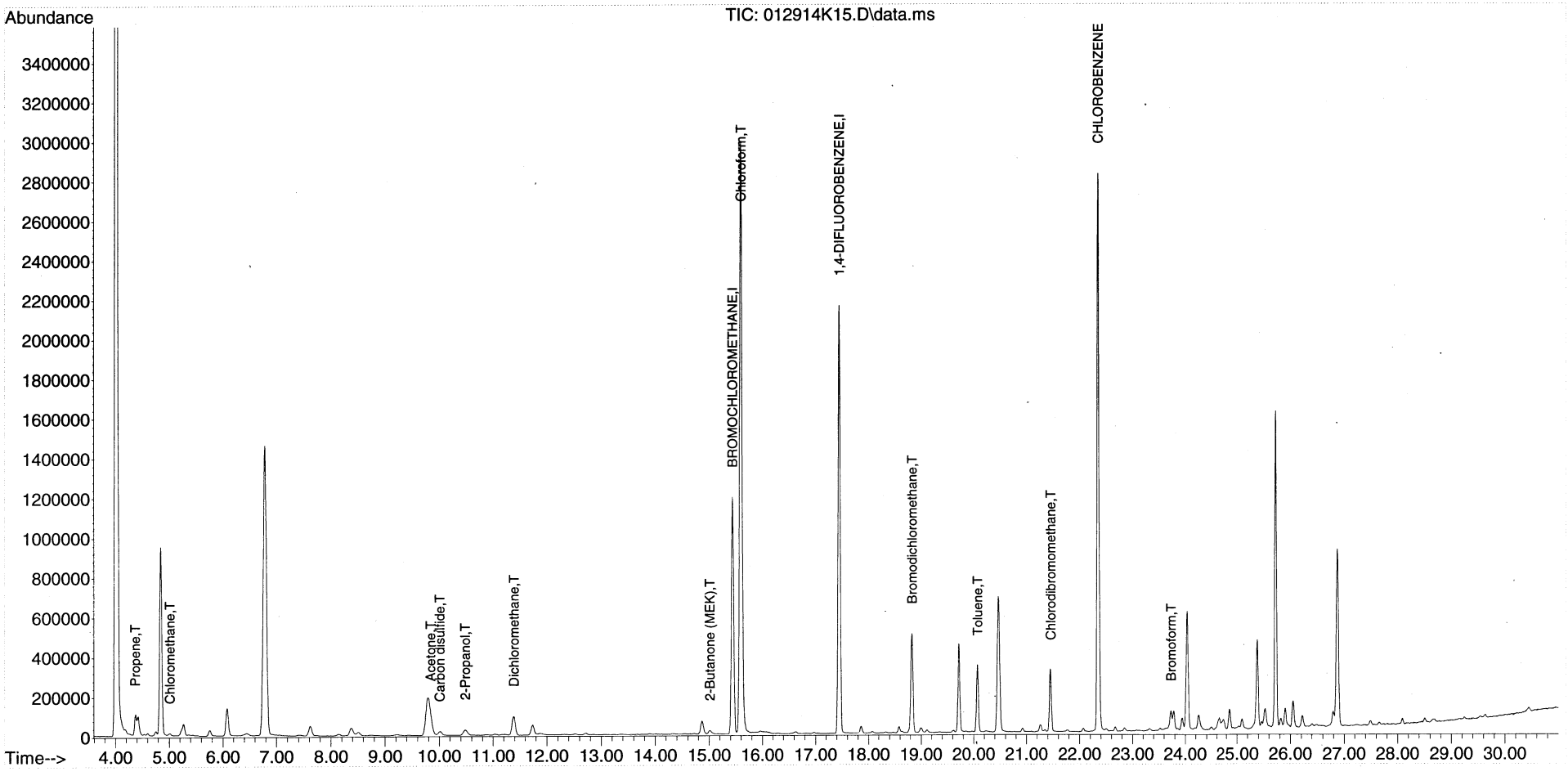
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K15.D
Acq On : 30 Jan 2014 00:22
Instrument: HP5973K
Operator : EM
Sample : 1401049-05
Misc : 200mL MH05 Can 1117
ALS Vial : 12
Multiplier: 1.93

Quant Time: Jan 30 12:34:04 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K15.D
Acq On : 30 Jan 2014 00:22
Instrument: HP5973K
Operator : EM
Sample : 1401049-05
Misc : 200mL MH05 Can 1117
ALS Vial : 12
Multiplier: 1.93

Quant Time: Jan 30 10:04:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 998138 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2385315 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.349 | 117 | 2127790 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 43943 | 1.52 | ppbv | # | 73 |
| 5) Chloromethane | 5.011 | 50 | 17345 | 0.52 | ppbv | | 97 |
| 14) Acetone | 9.835 | 43 | 272588 | 5.83 | ppbv | | 95 |
| 15) Carbon disulfide | 10.006 | 76 | 65764 | 0.86 | ppbv | | 100 |
| 16) 2-Propanol | 10.480 | 45 | 91517 | 1.91 | ppbv | | 91 |
| 18) Dichloromethane | 11.387 | 49 | 127739 | 2.84 | ppbv | | 98 |
| 25) 2-Butanone (MEK) | 15.012 | 43 | 31559 | 0.53 | ppbv | # | 62 |
| ~~26) Ethyl acetate~~ | ~~15.012~~ | ~~43~~ | ~~41632~~ | ~~0.52~~ | ~~ppbv~~ | ~~#~~ | ~~68~~ |
| 28) Chloroform | 15.596 | 83 | 3570580 | 55.96 | ppbv | E | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 459206 | 7.80 | ppbv | | 99 |
| 44) Toluene | 20.074 | 91 | 334371 | 3.19 | ppbv | | 100 |
| 49) Chlorodibromomethane | 21.455 | 129 | 228267 | 4.32 | ppbv | | 99 |
| 56) Bromoform | 23.730 | 173 | 60168 | 1.08 | ppbv | | 99 |

em 1/29/14

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



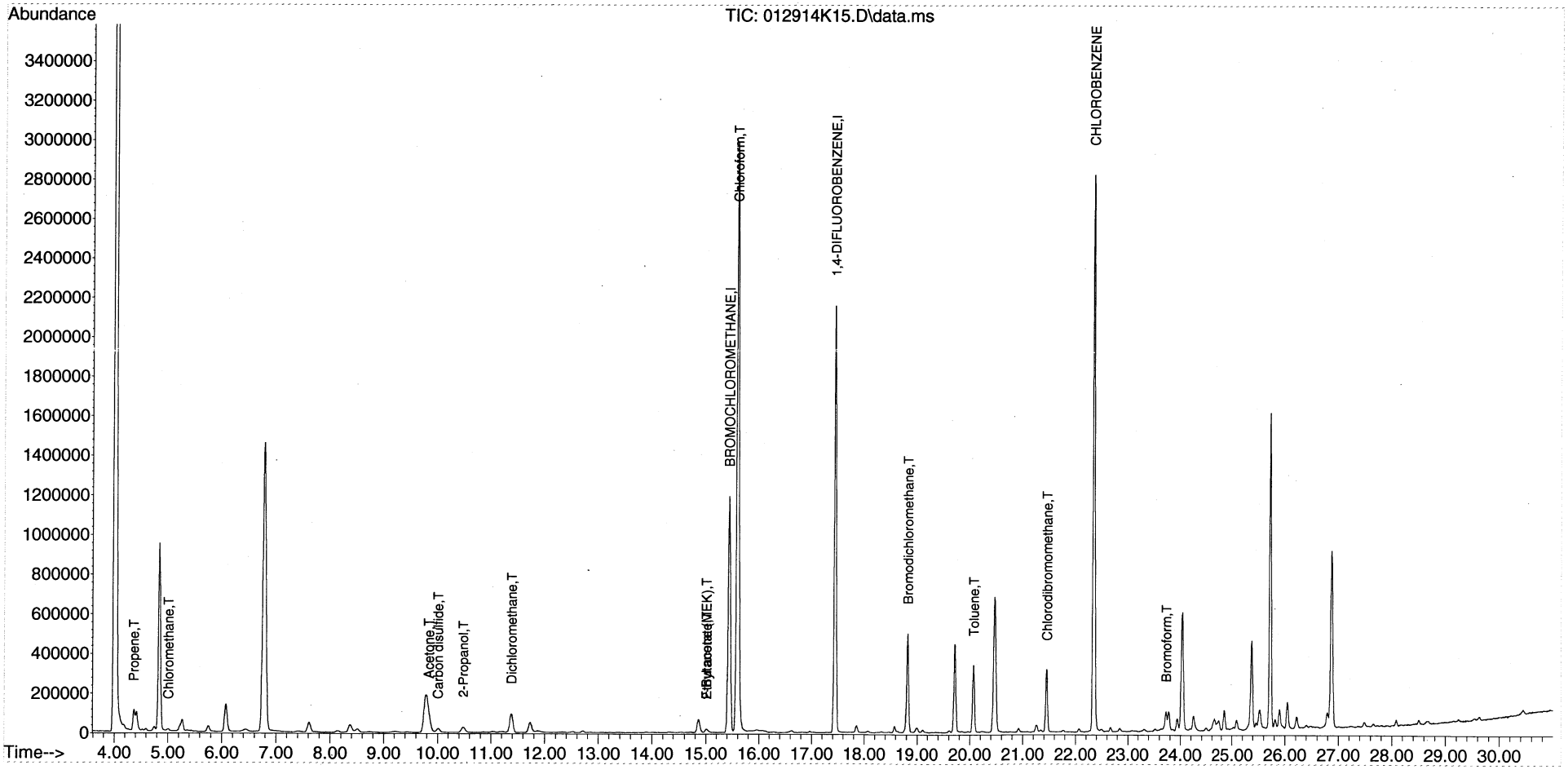
00212

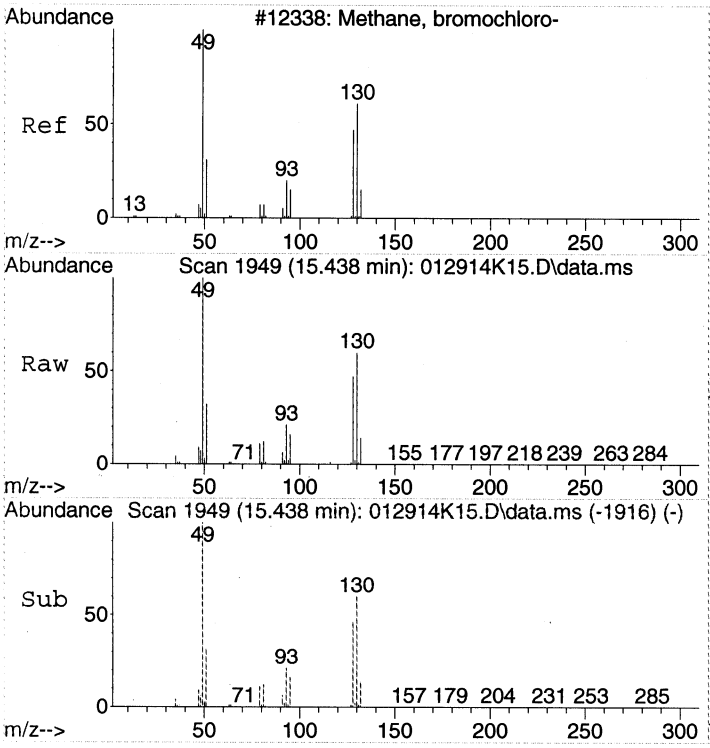
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K15.D
Acq On : 30 Jan 2014 00:22
Instrument: HP5973K
Operator : EM
Sample : 1401049-05
Misc : 200mL MH05 Can 1117
ALS Vial : 12
Multiplier: 1.93

Quant Time: Jan 30 10:04:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

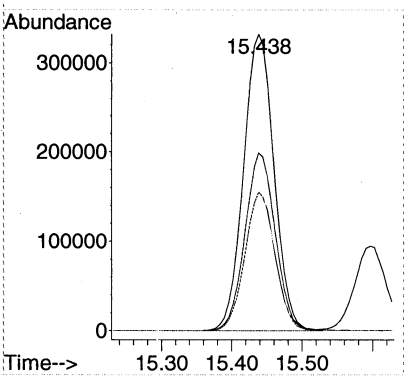


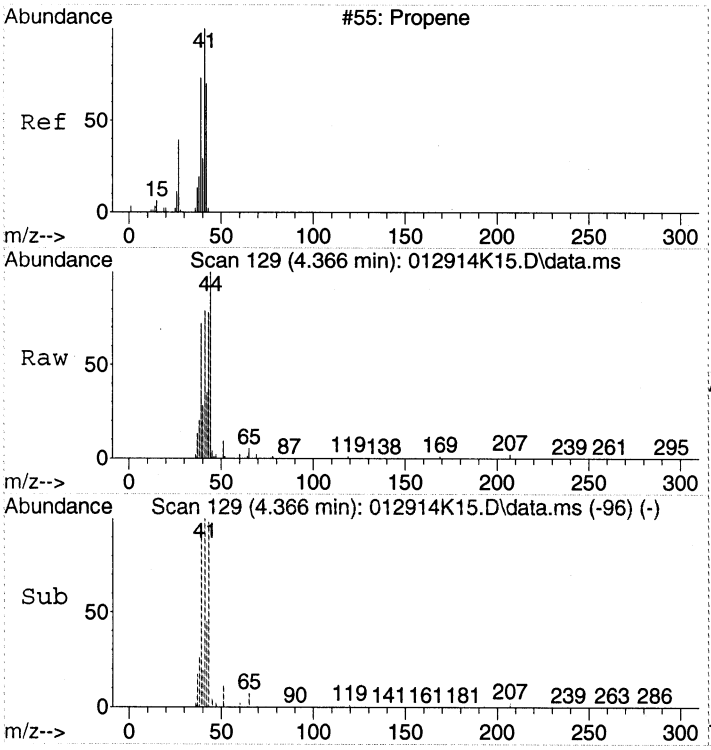



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 49 Resp: 998138

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.7 | 39.6 | 79.6 |
| 128 | 46.2 | 26.9 | 66.9 |

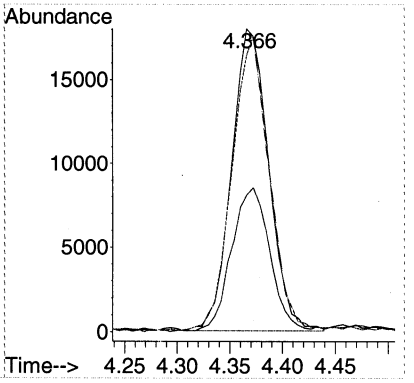


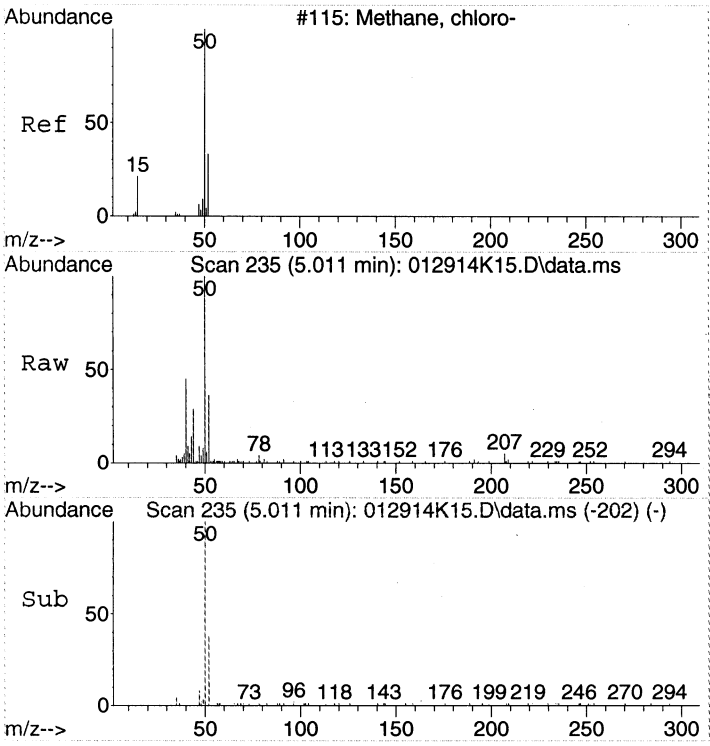




#2
Propene
Concen: 1.52 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 41 Resp: 43943

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 52.1 | 46.8 | 86.8 |
| 39 | 97.3 | 48.3 | 88.3# |

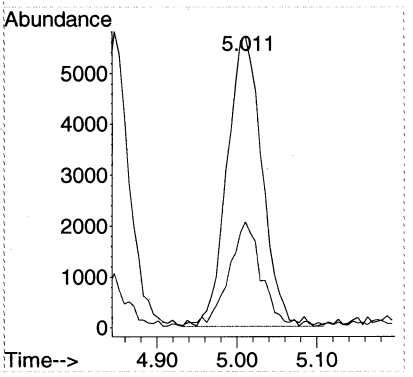


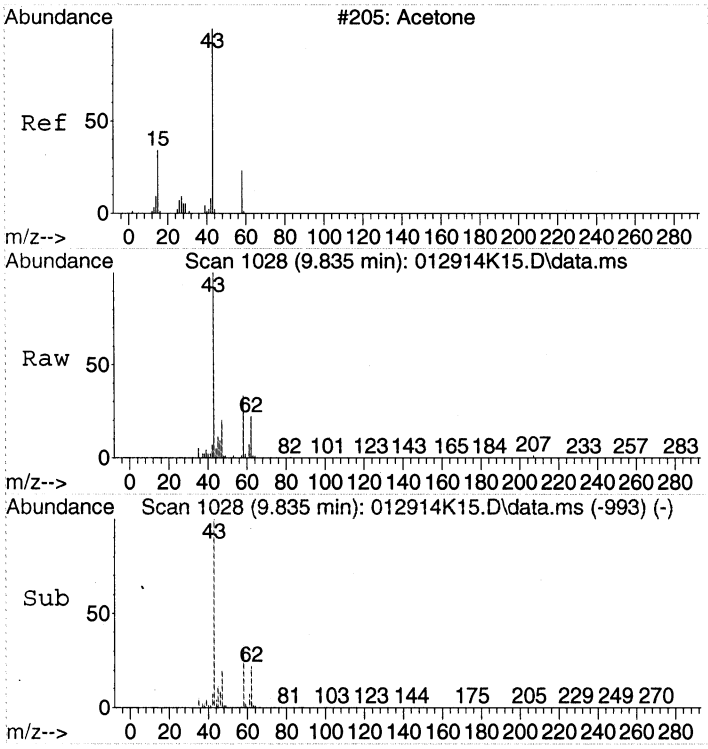



#5
Chloromethane
Concen: 0.52 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 50 Resp: 17345

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 34.4 | 12.7 | 52.7 |

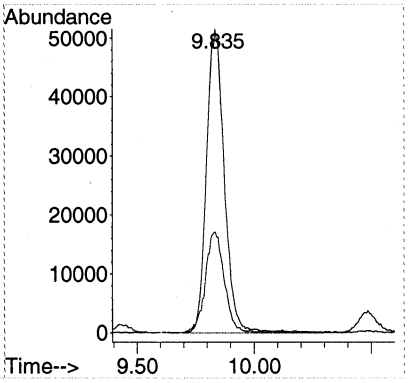



#14
Acetone
Concen: 5.83 ppbv
RT: 9.835 min Scan# 1028
Delta R.T. 0.012 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

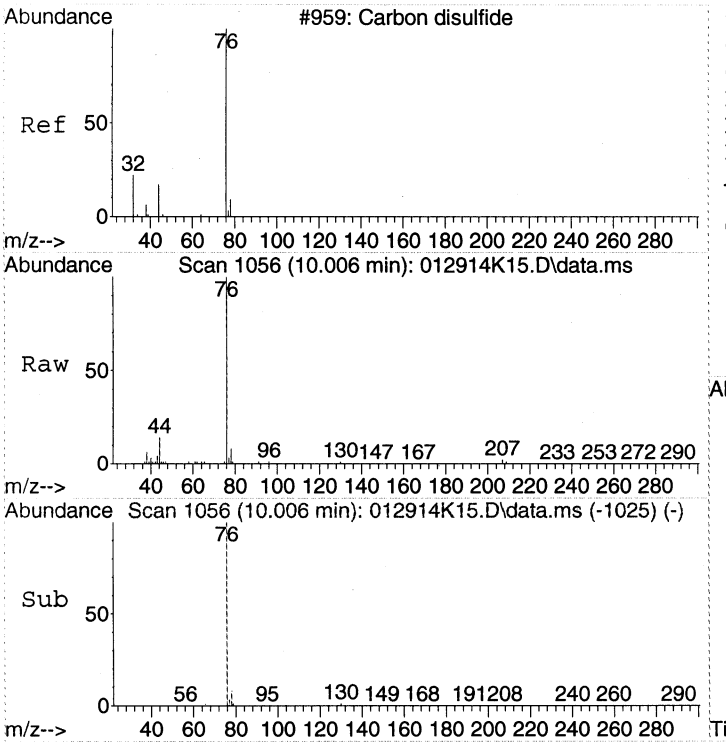
Tgt Ion: 43 Resp: 272588

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.4 | 12.5 | 52.5 |





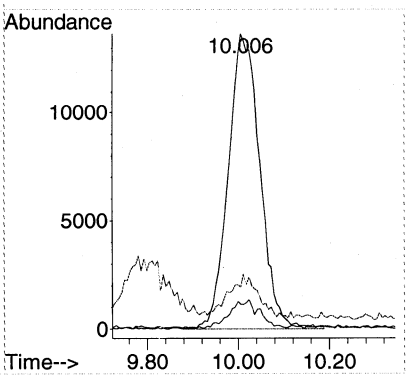

00245

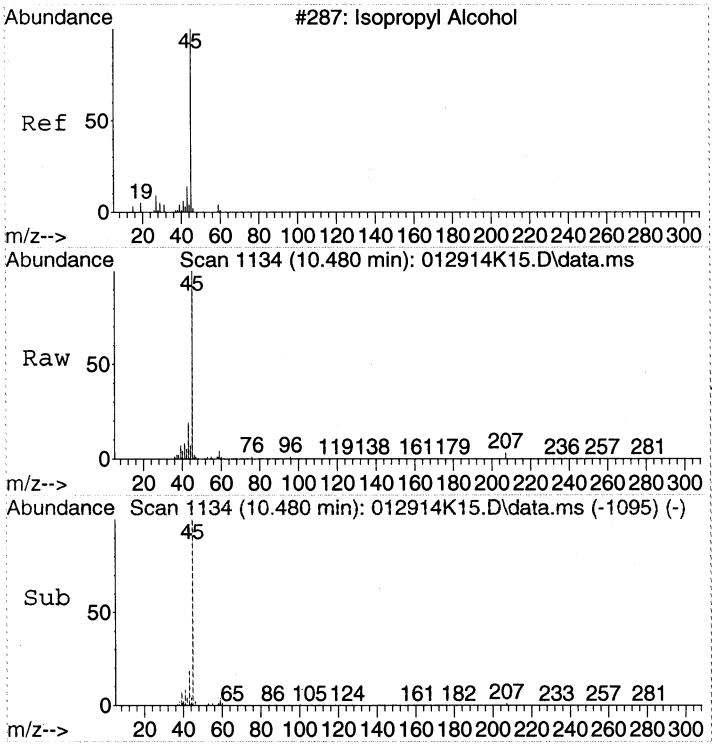



#15
Carbon disulfide
Concen: 0.86 ppbv
RT: 10.006 min Scan# 1056
Delta R.T. -0.012 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 76 Resp: 65764

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 8.6 | 0.0 | 28.7 |
| 44 | 12.6 | 0.0 | 32.7 |

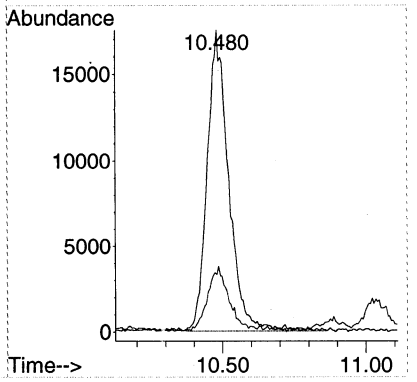


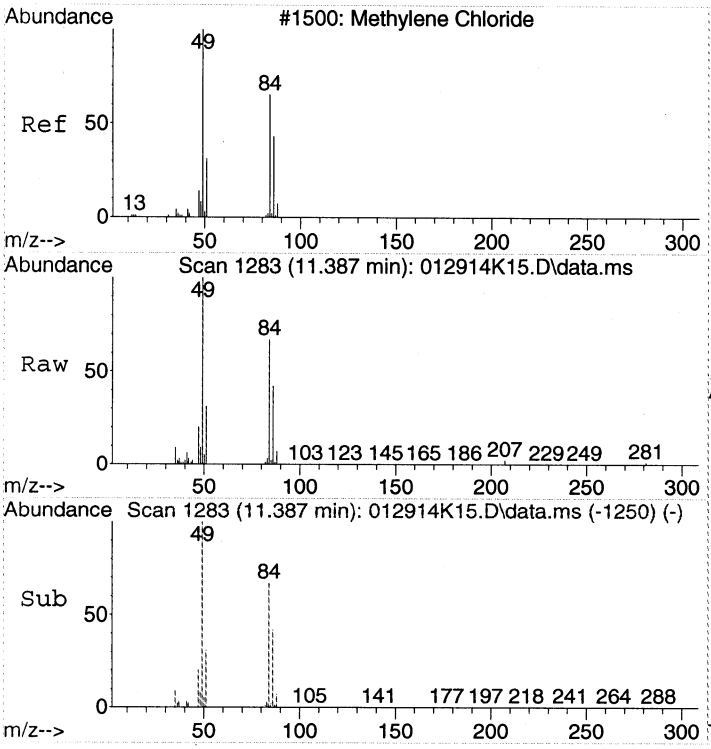




#16
2-Propanol
Concen: 1.91 ppbv
RT: 10.480 min Scan# 1134
Delta R.T. 0.036 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 45 Resp: 91517

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 23.2 | 0.0 | 39.1 |

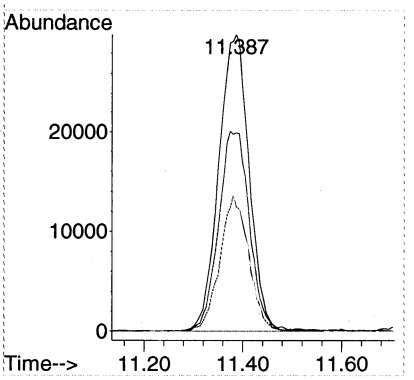


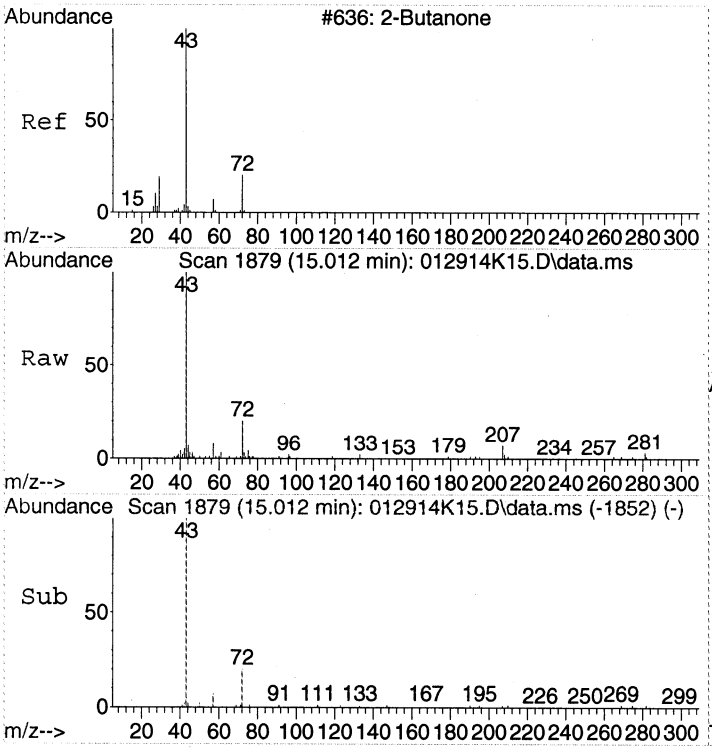



#18
Dichloromethane
Concen: 2.84 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 49 Resp: 127739

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.1 | 50.0 | 90.0 |
| 86 | 43.0 | 24.4 | 64.4 |

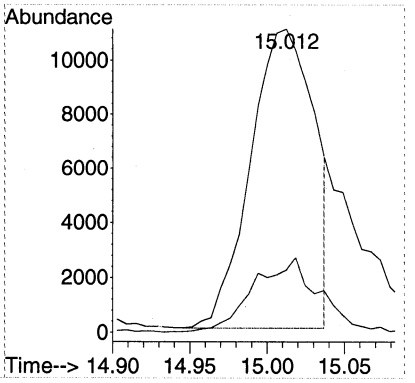



#25
2-Butanone (MEK)
Concen: 0.53 ppbv
RT: 15.012 min Scan# 1879
Delta R.T. 0.012 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 43 Resp: 31559

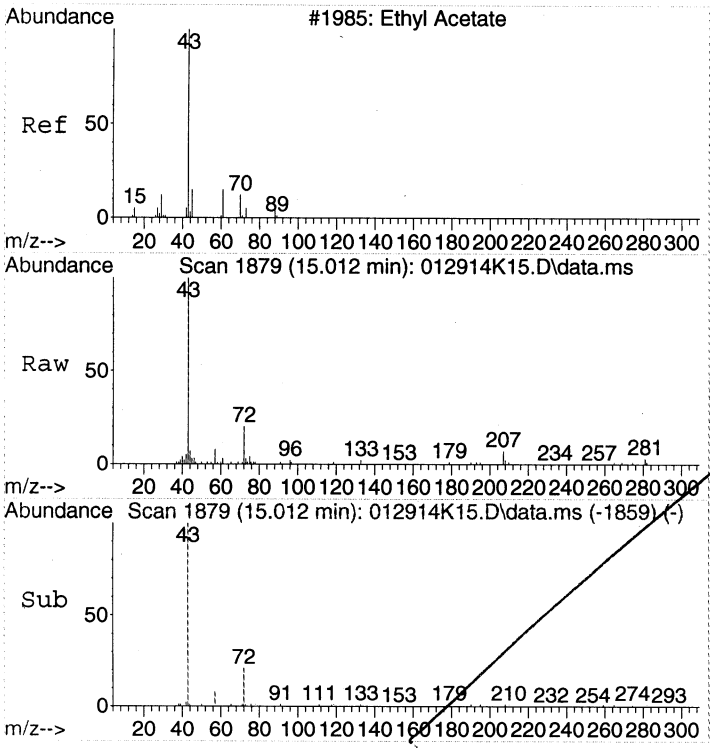
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 72 | 3.3 | 11.1 | 31.1# |




See MT



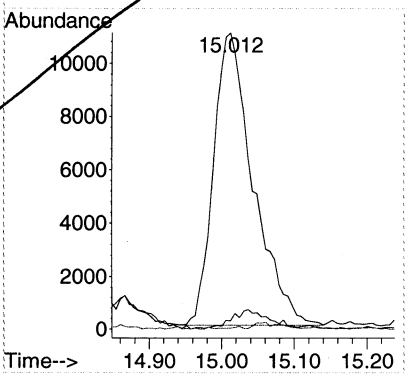
00217

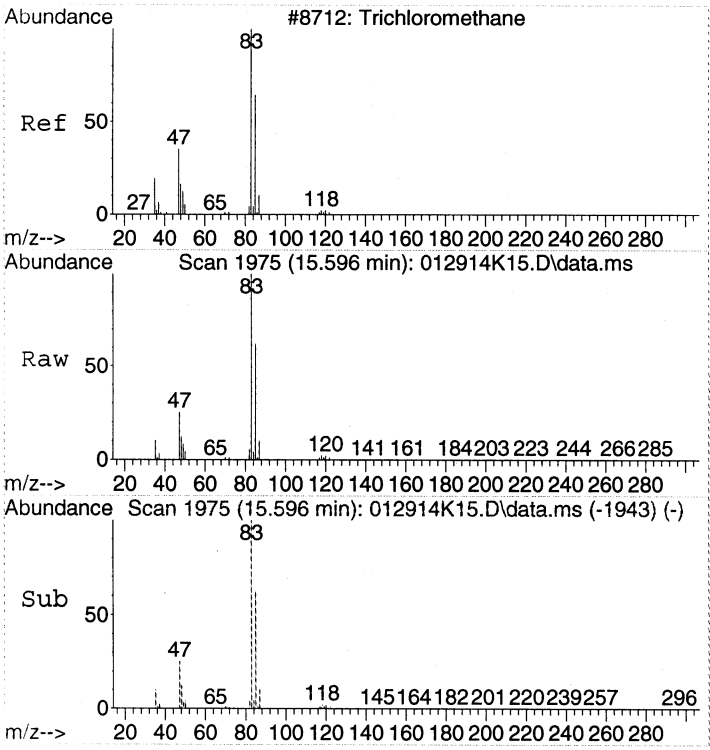



#26
Ethyl acetate
Concen: 0.52 ppbv
RT: 15.012 min Scan# 1879
Delta R.T. -0.030 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 43 Resp: 41632

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 61 | 0.0 | 4.8 | 24.8# |
| 70 | 0.0 | 0.0 | 19.3 |

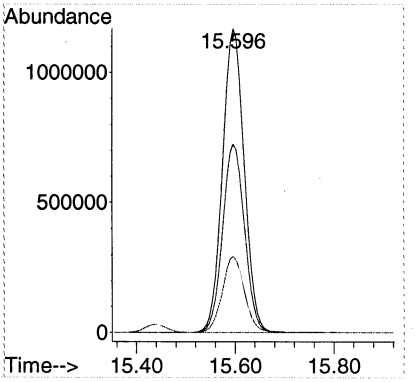


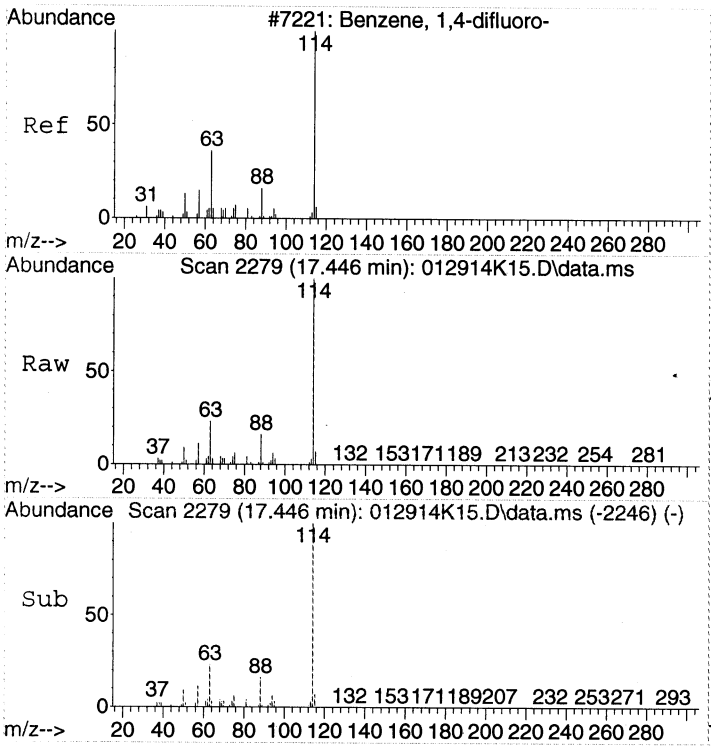




#28
Chloroform
Concen: 55.96 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 83 Resp: 3570580

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.5 | 42.7 | 82.7 |
| 47 | 25.5 | 5.3 | 45.3 |

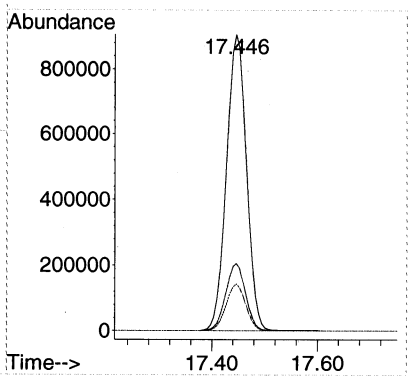


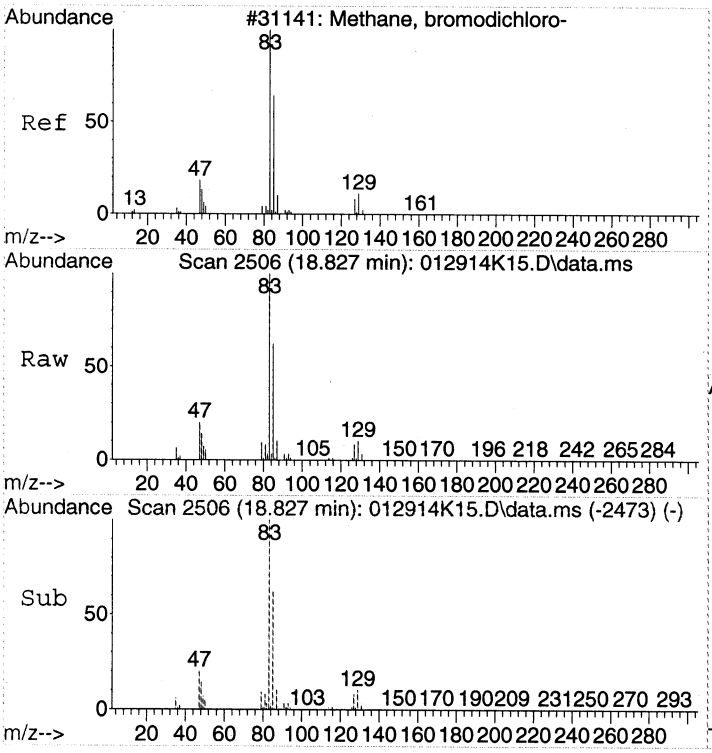



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion:114 Resp: 2385315

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.6 | 0.0 | 35.2 |

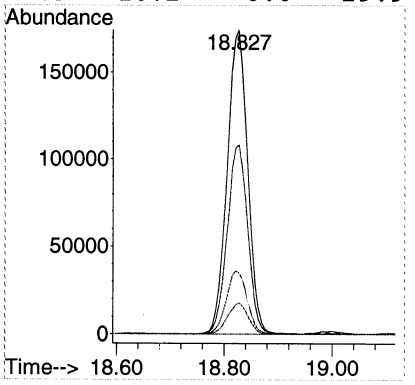


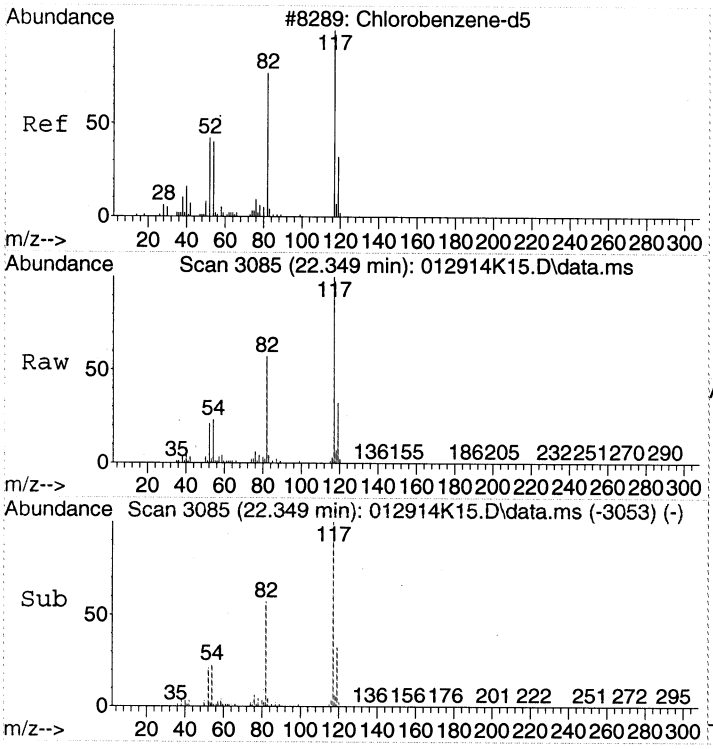




#40
Bromodichloromethane
Concen: 7.80 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 83 Resp: 459206

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.1 | 41.8 | 81.8 |
| 47 | 20.9 | 0.4 | 40.4 |
| 129 | 10.2 | 0.0 | 29.9 |

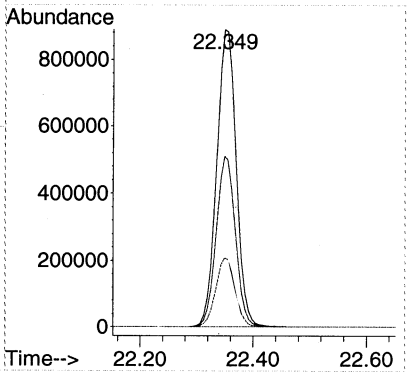


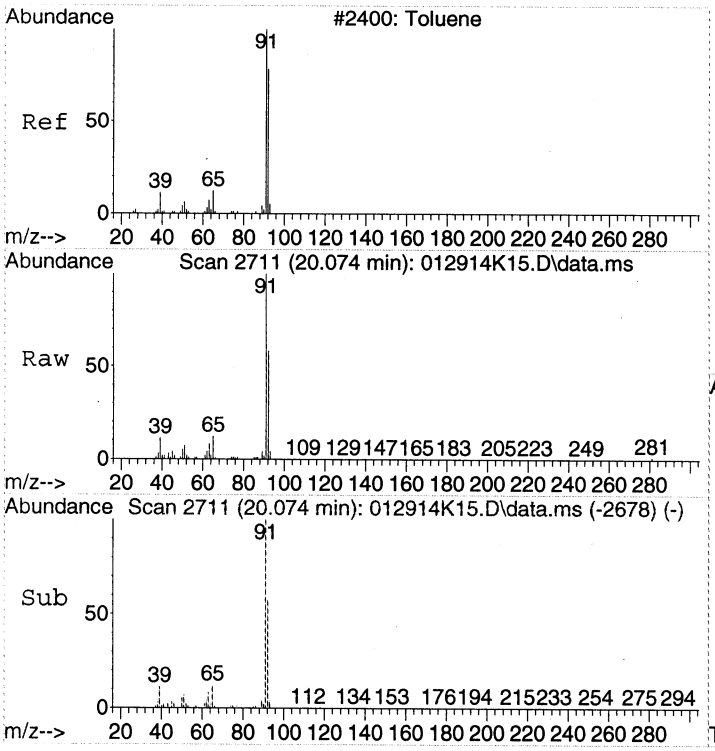



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion:117 Resp: 2127790

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |

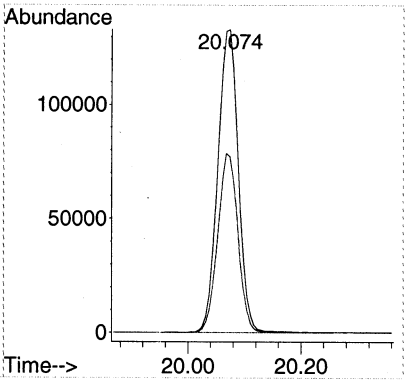


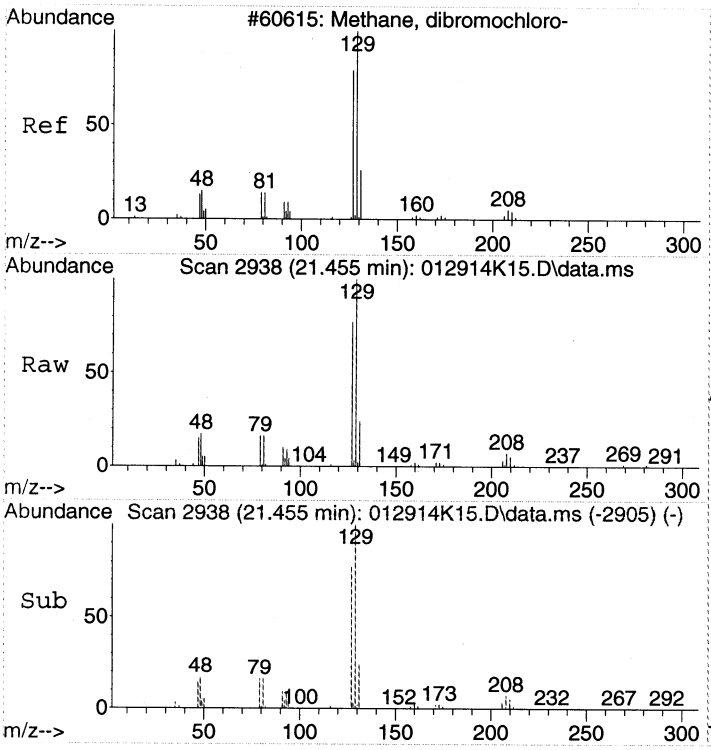




#44
Toluene
Concen: 3.19 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion: 91 Resp: 334371

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.3 | 38.2 | 78.2 |

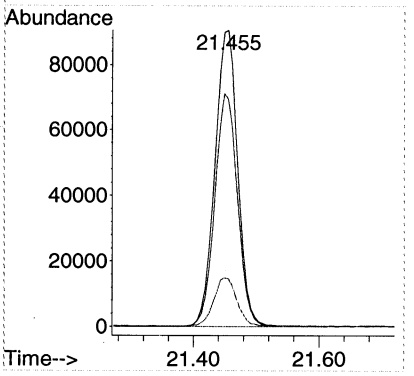


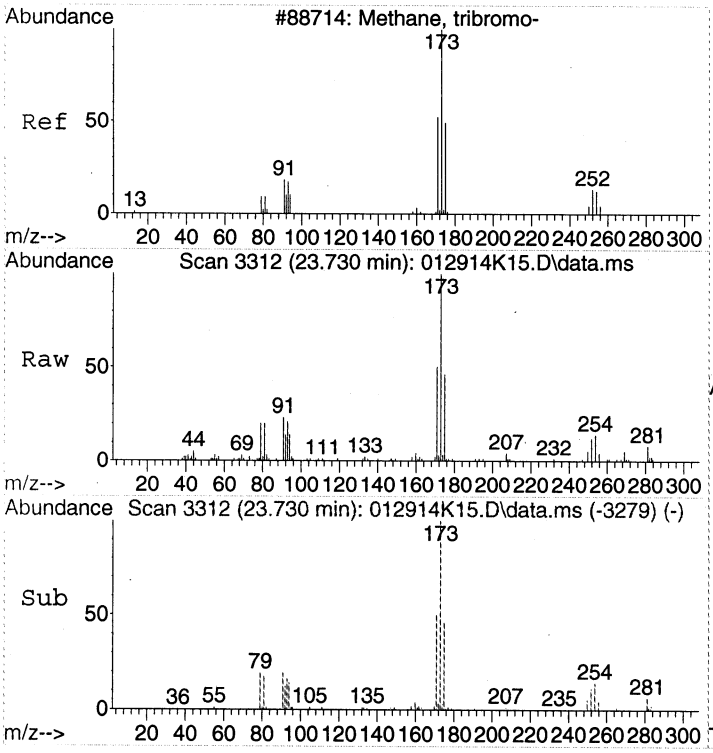



#49
Chlorodibromomethane
Concen: 4.32 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion:129 Resp: 228267

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.7 | 59.2 | 99.2 |
| 79 | 16.4 | 0.0 | 35.9 |

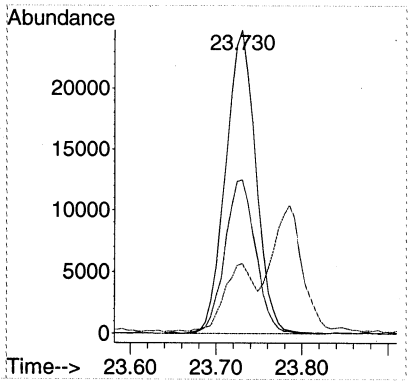



#56
Bromoform
Concen: 1.08 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K15.D
Acq: 30 Jan 2014 00:22

Tgt Ion:173 Resp: 60168

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 51.3 | 32.4 | 72.4 |
| 91 | 21.7 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K17.D
Acq On : 30 Jan 2014 2:01
Instrument: HP5973K
Operator : EM
Sample : 1401049-06
Misc : 200mL MH06 Can 1112
ALS Vial : 42
Multiplier: 1.92

Quant Time: Jan 30 10:04:56 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 978773 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2316129 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.349 | 117 | 2052387 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 41169 | 1.46 | ppbv | # | 70 |
| 5) Chloromethane | 5.011 | 50 | 19118 | 0.58 | ppbv | | 96 |
| 14) Acetone | 9.829 | 43 | 706384 | 15.41 | ppbv | | 98 |
| 15) Carbon disulfide | 10.012 | 76 | 61473 | 0.82 | ppbv | | 99 |
| 16) 2-Propanol | 10.486 | 45 | 198403 | 4.23 | ppbv | | 95 |
| 18) Dichloromethane | 11.380 | 49 | 126132 | 2.86 | ppbv | | 97 |
| 28) Chloroform | 15.596 | 83 | 3364803 | 53.78 | ppbv | E | 100 |
| 40) Bromodichloromethane | 18.821 | 83 | 417944 | 7.31 | ppbv | | 98 |
| 44) Toluene | 20.068 | 91 | 244274 | 2.41 | ppbv | | 100 |
| 45) ~~trans-1,3-Dichloropropene~~ | ~~20.463~~ | ~~75~~ | ~~30531~~ | ~~0.70~~ | ~~ppbv~~ | ~~#~~ | ~~52~~ |
| 49) Chlorodibromomethane | 21.455 | 129 | 205674 | 4.04 | ppbv | | 98 |
| 56) Bromoform | 23.724 | 173 | 53030 | 0.99 | ppbv | | 99 |

em 1/31/14

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



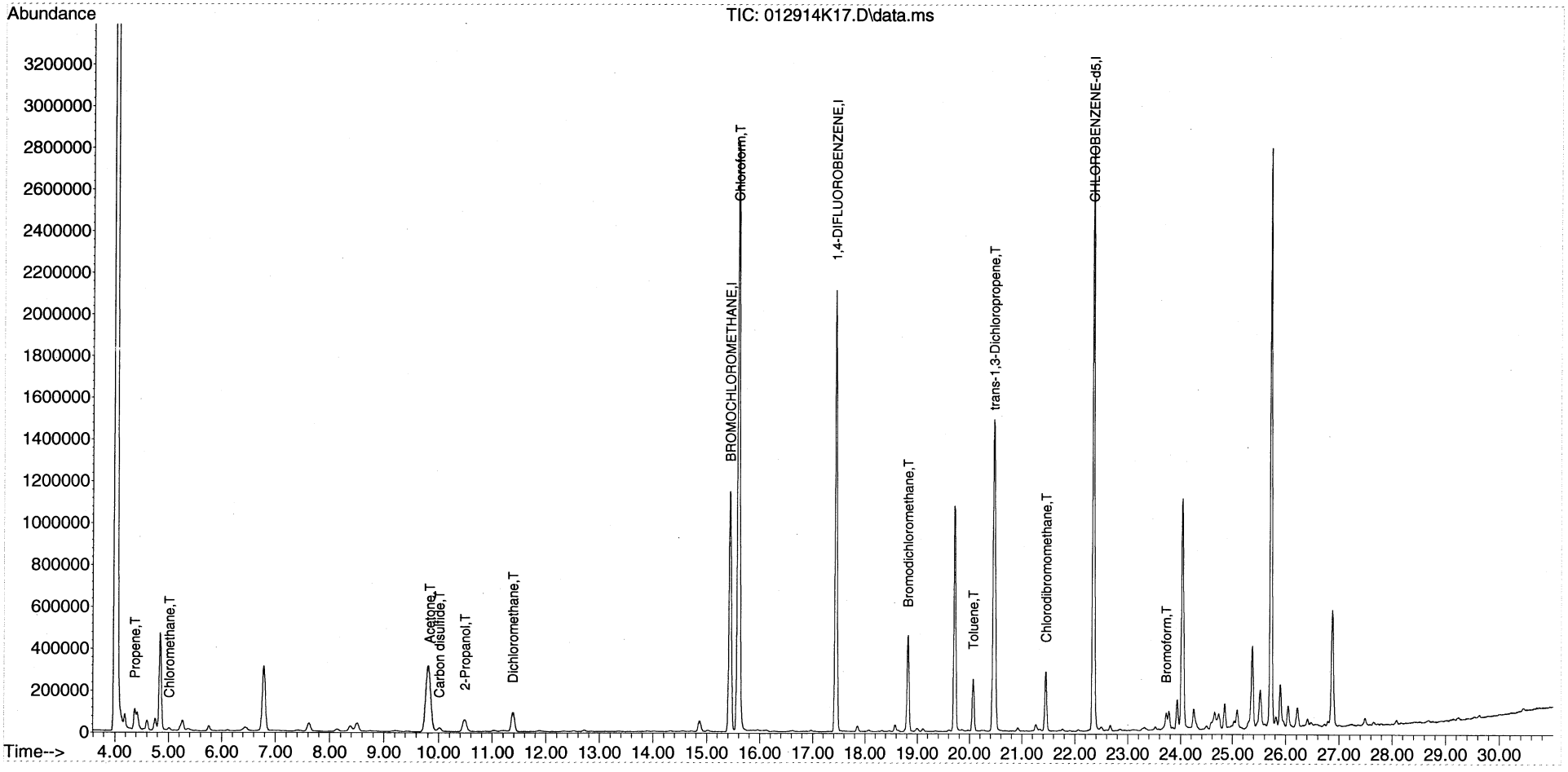
00250

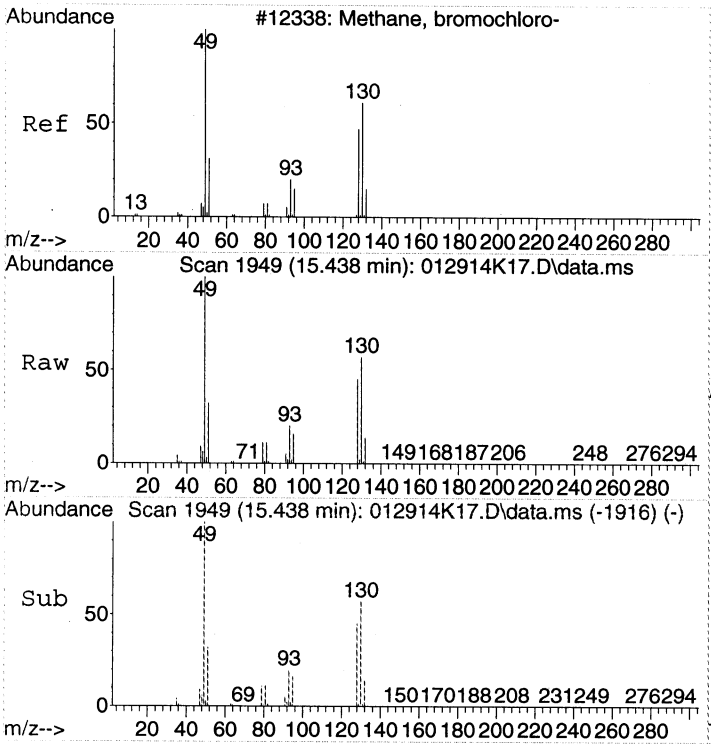
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K17.D
Acq On : 30 Jan 2014 2:01
Instrument: HP5973K
Operator : EM
Sample : 1401049-06
Misc : 200mL MH06 Can 1112
ALS Vial : 42
Multiplier: 1.92

Quant Time: Jan 30 10:04:56 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

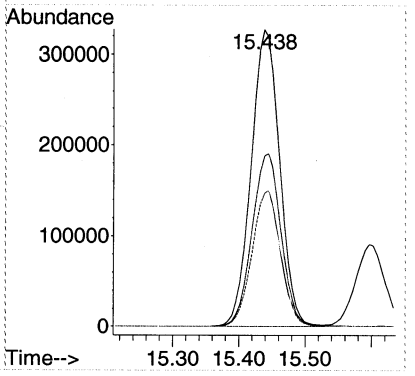


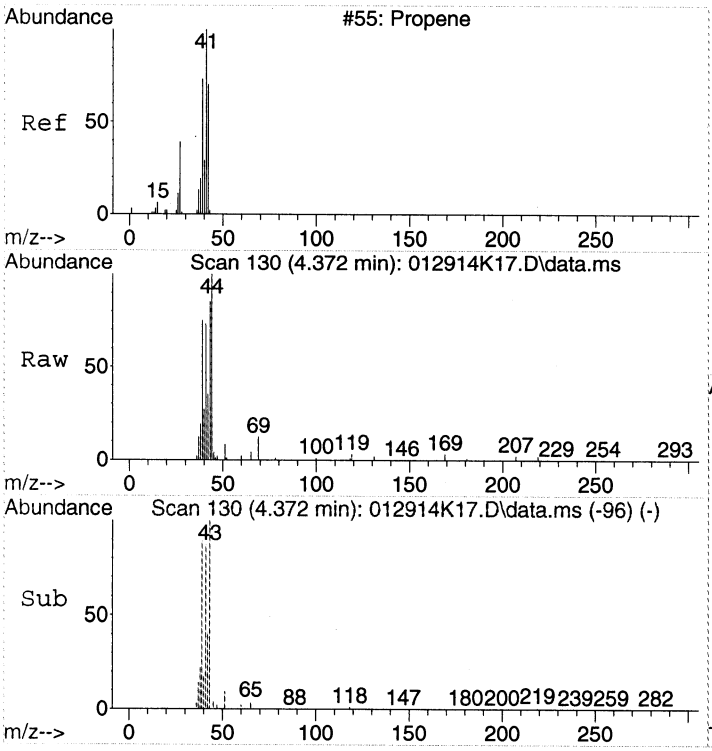



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 49 Resp: 978773

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.3 | 39.6 | 79.6 |
| 128 | 45.9 | 26.9 | 66.9 |

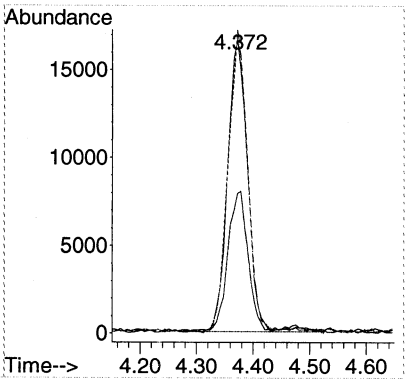


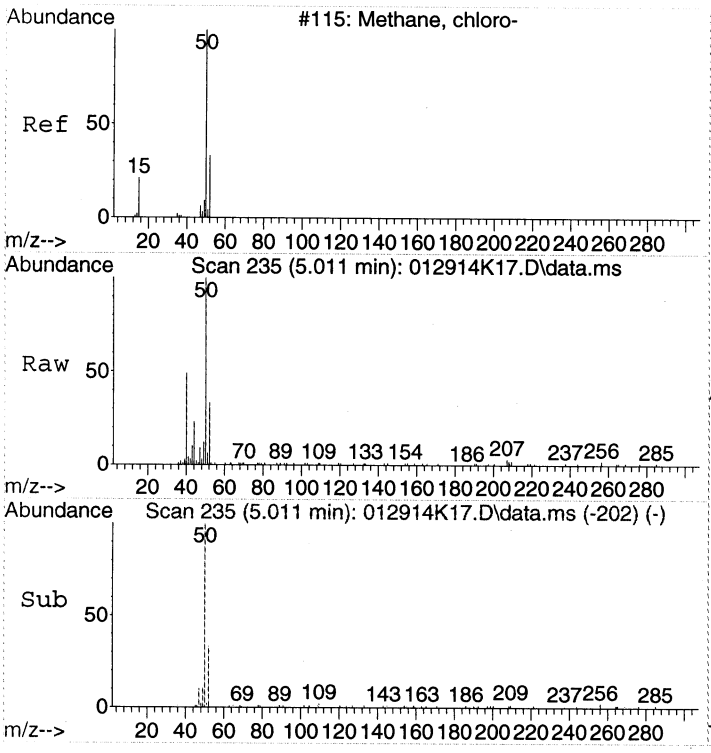




#2
Propene
Concen: 1.46 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 41 Resp: 41169

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 51.8 | 46.8 | 86.8 |
| 39 | 101.3 | 48.3 | 88.3# |

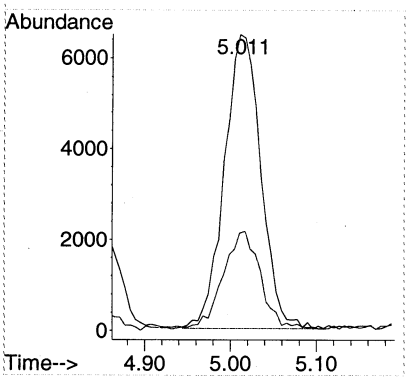


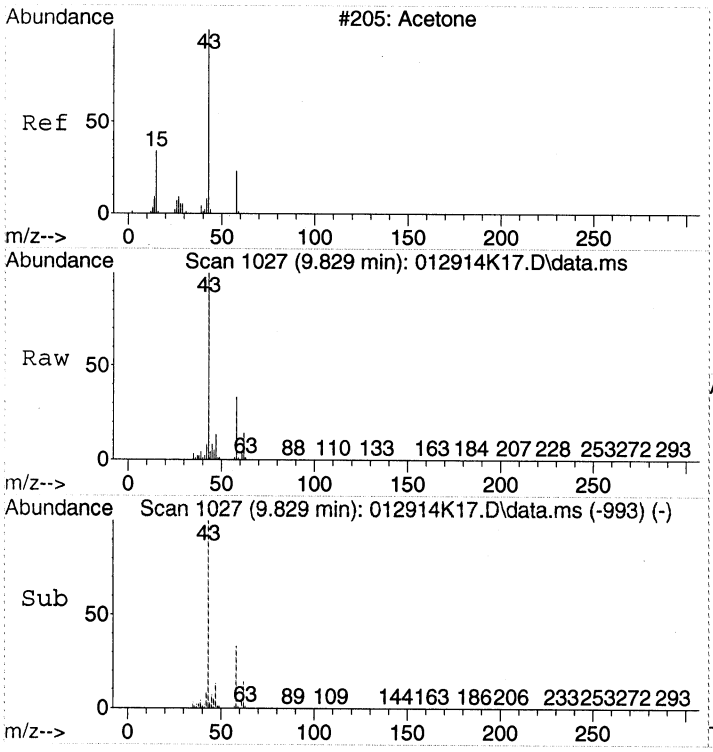



#5
Chloromethane
Concen: 0.58 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 50 Resp: 19118

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 35.1 | 12.7 | 52.7 |

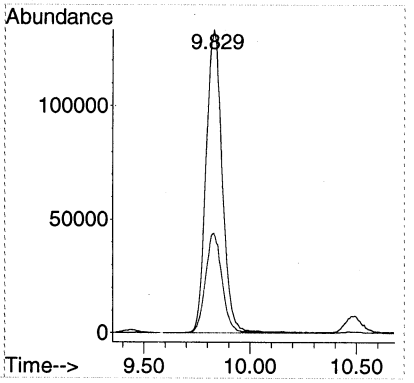



#14
Acetone
Concen: 15.41 ppbv
RT: 9.829 min Scan# 1027
Delta R.T. 0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

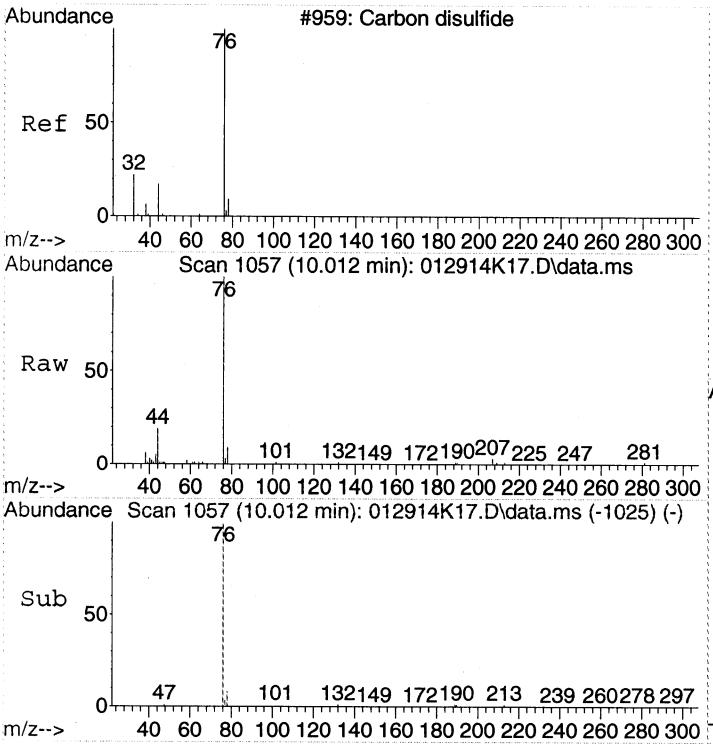
Tgt Ion: 43 Resp: 706384

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.5 | 12.5 | 52.5 |





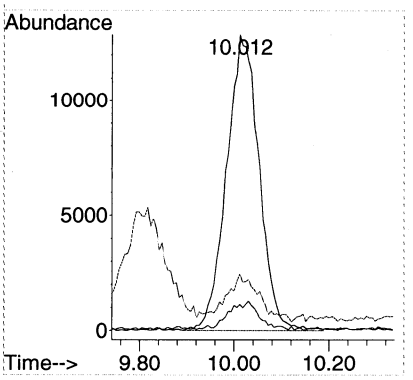

00253

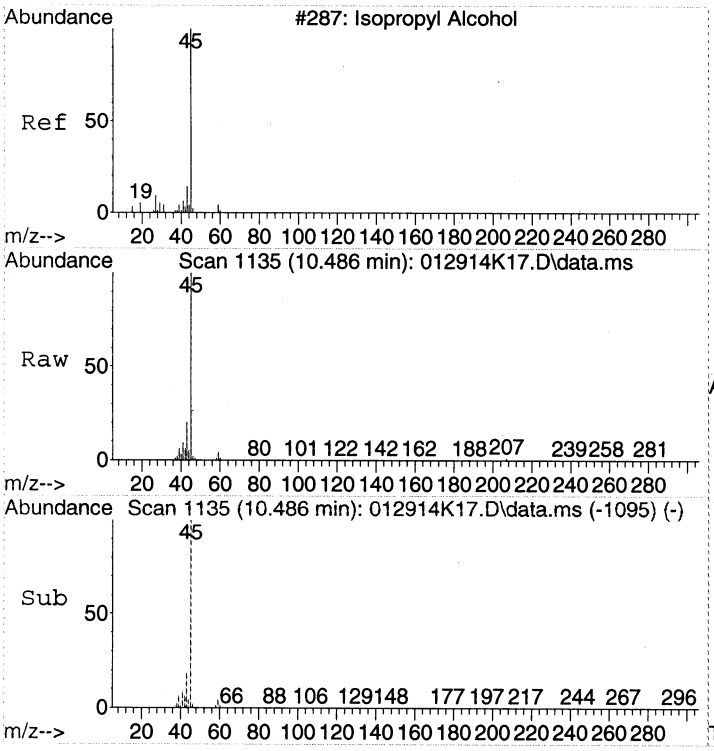



#15
Carbon disulfide
Concen: 0.82 ppbv
RT: 10.012 min Scan# 1057
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 76 Resp: 61473

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 8.7 | 0.0 | 28.7 |
| 44 | 11.8 | 0.0 | 32.7 |

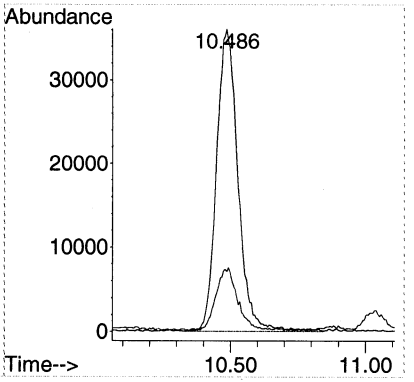


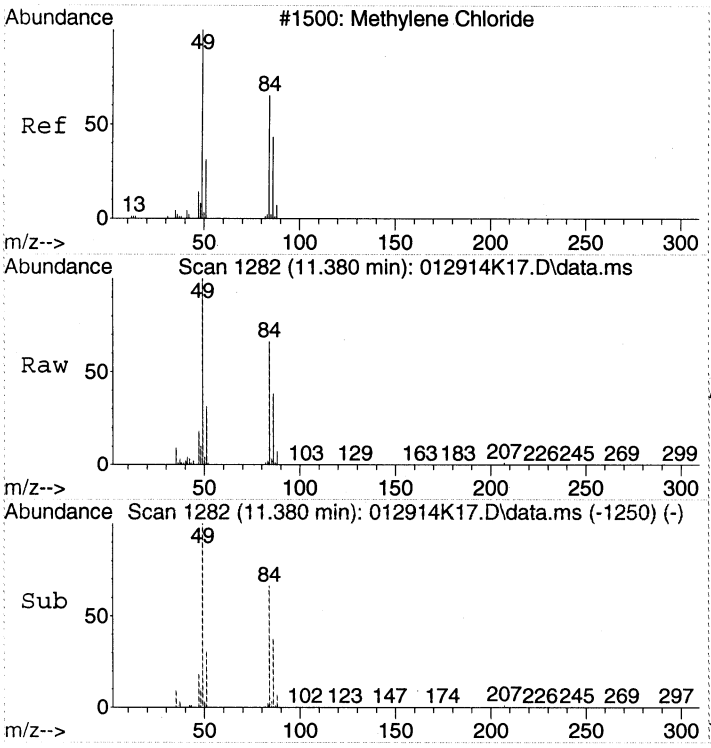




#16
2-Propanol
Concen: 4.23 ppbv
RT: 10.486 min Scan# 1135
Delta R.T. 0.042 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 45 Resp: 198403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 21.2 | 0.0 | 39.1 |

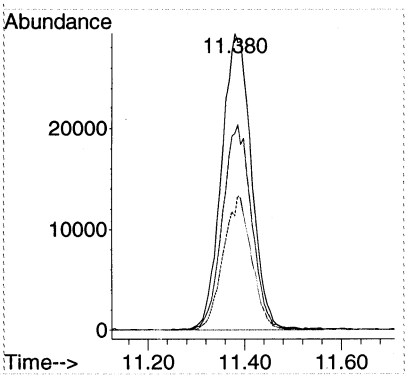


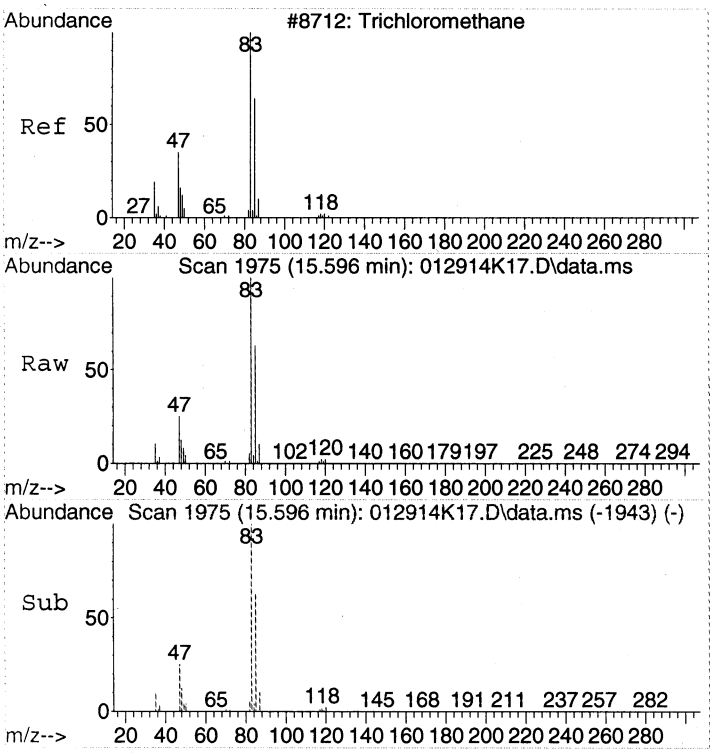



#18
Dichloromethane
Concen: 2.86 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 49 Resp: 126132

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.1 | 50.0 | 90.0 |
| 86 | 43.0 | 24.4 | 64.4 |

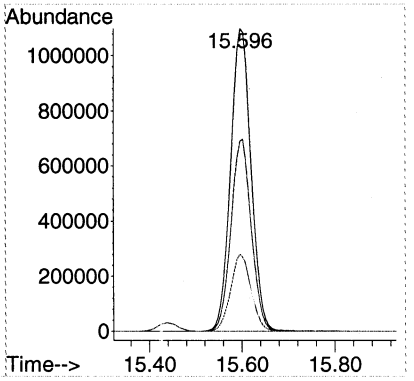


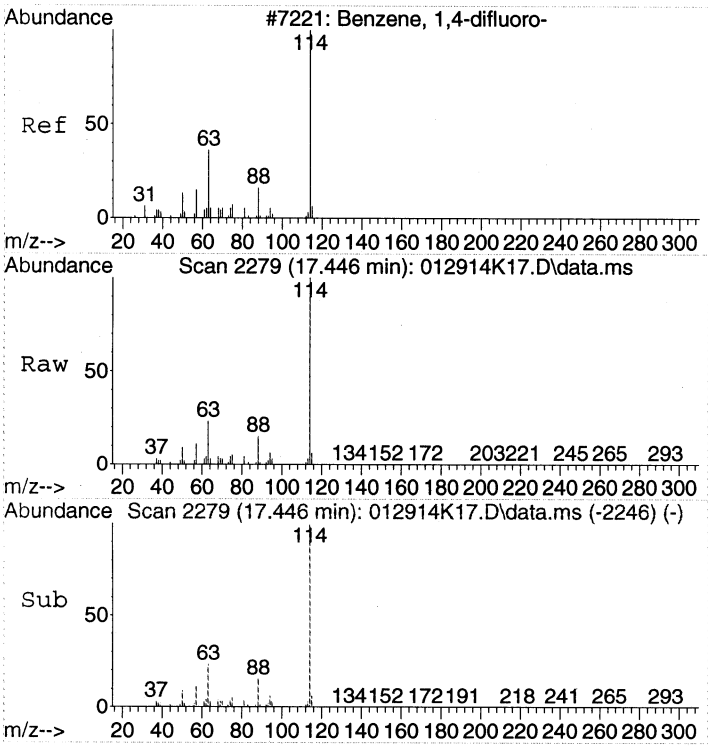




#28
Chloroform
Concen: 53.78 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 83 Resp: 3364803

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 42.7 | 82.7 |
| 47 | 25.4 | 5.3 | 45.3 |

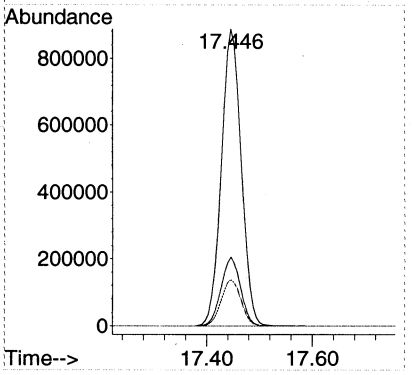


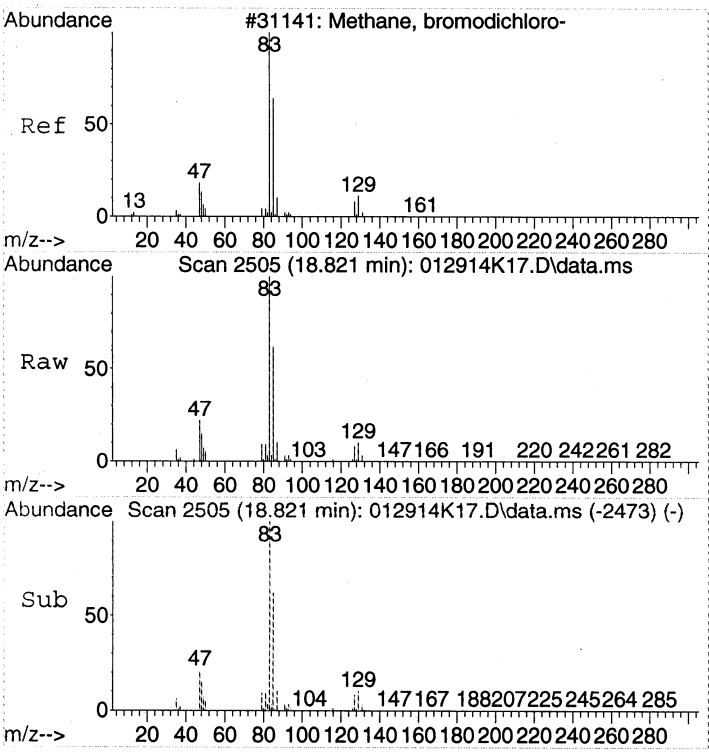



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion:114 Resp: 2316129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

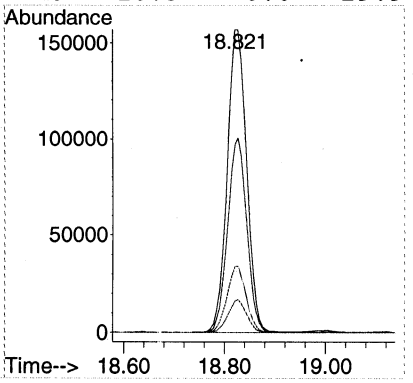


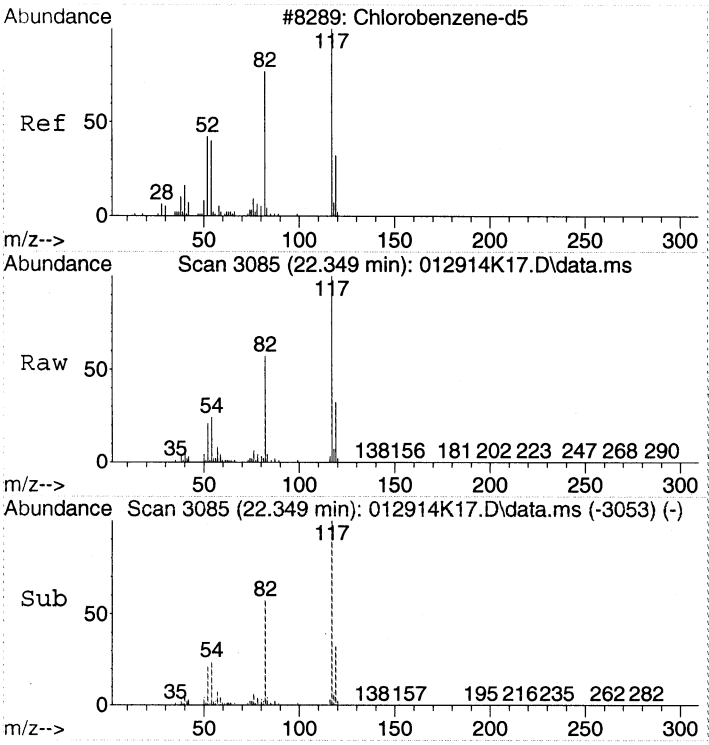




#40
Bromodichloromethane
Concen: 7.31 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 83 Resp: 417944

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 41.8 | 81.8 |
| 47 | 21.3 | 0.4 | 40.4 |
| 129 | 10.3 | 0.0 | 29.9 |

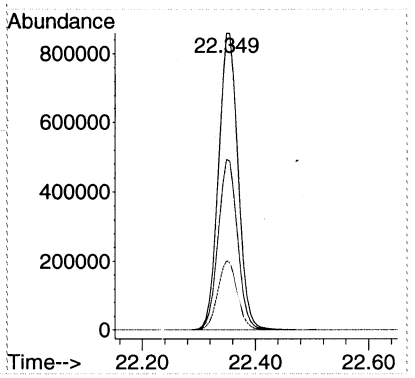


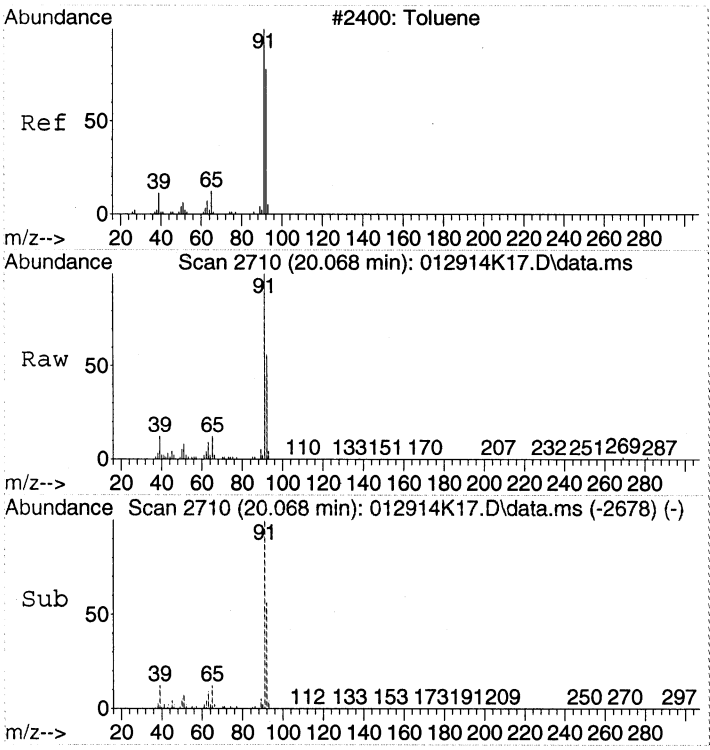



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion:117 Resp: 2052387

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.3 | 37.1 | 77.1 |
| 54 | 23.7 | 3.3 | 43.3 |

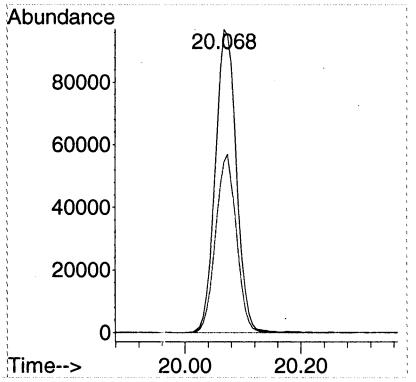


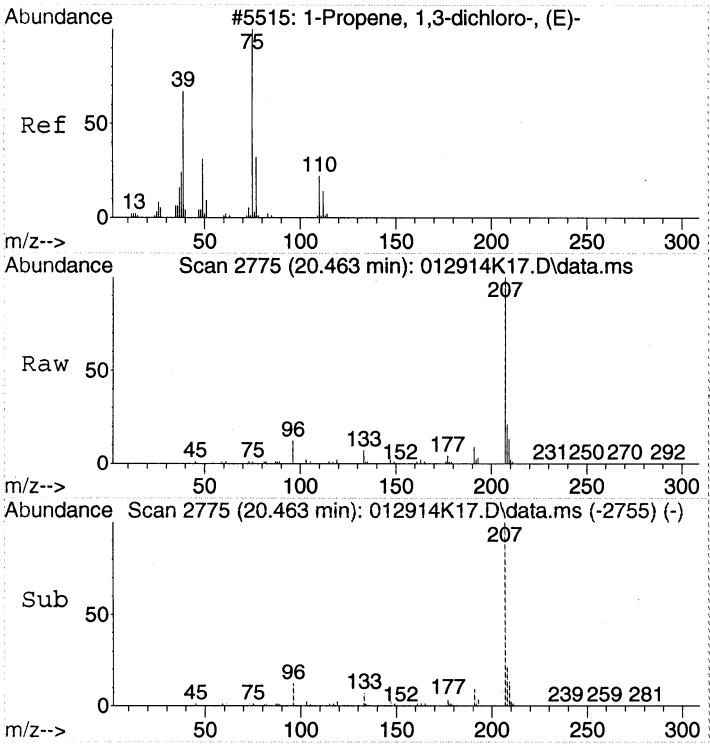




#44
Toluene
Concen: 2.41 ppbv
RT: 20.068 min Scan# 2710
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 91 Resp: 244274

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.2 | 38.2 | 78.2 |

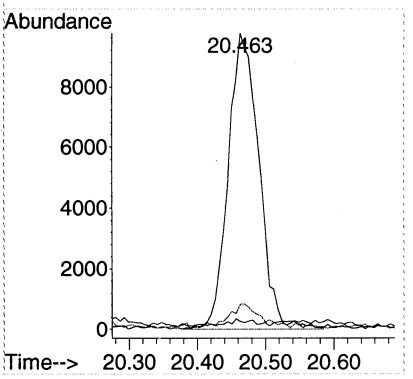


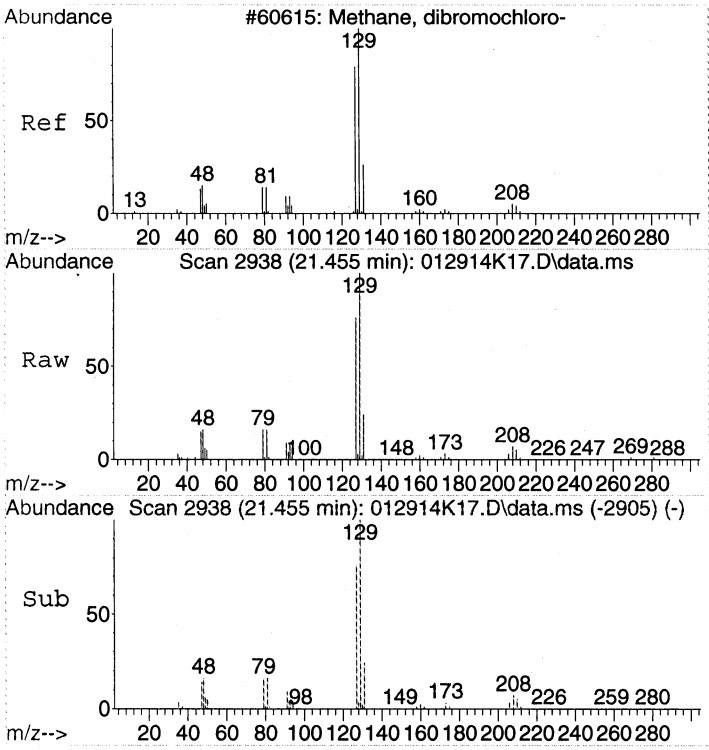



#45
trans-1,3-Dichloropropene
Concen: 0.70 ppbv
RT: 20.463 min Scan# 2775
Delta R.T. -0.079 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion: 75 Resp: 30531

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 10.7 | 26.3 | 66.3# |
| 77 | 9.0 | 10.4 | 50.4# |

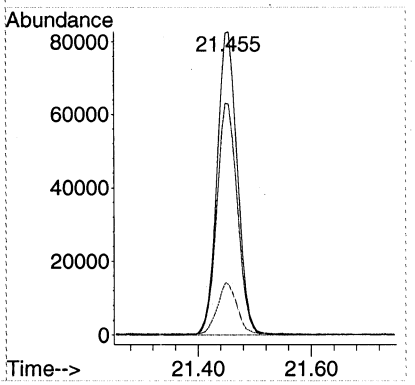


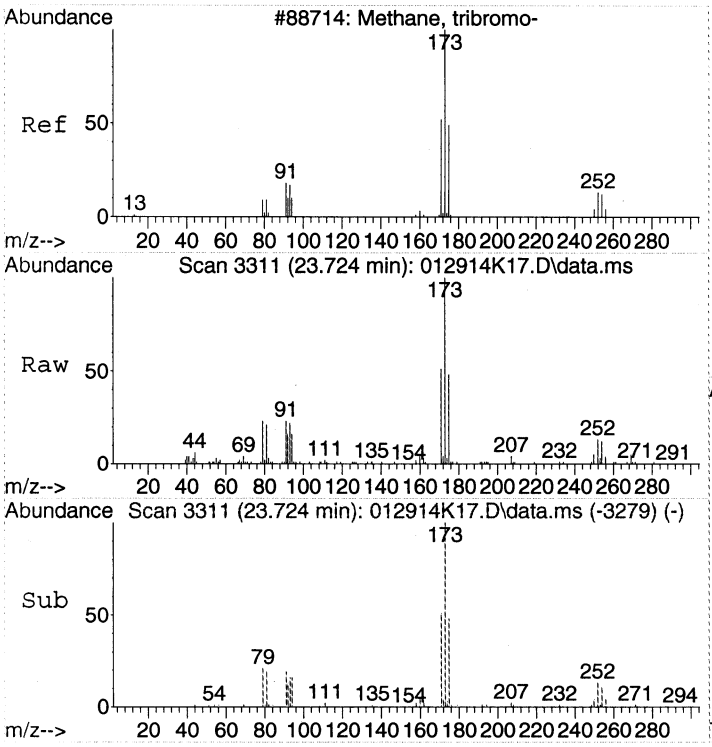




#49
Chlorodibromomethane
Concen: 4.04 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion:129 Resp: 205674

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.7 | 59.2 | 99.2 |
| 79 | 16.6 | 0.0 | 35.9 |

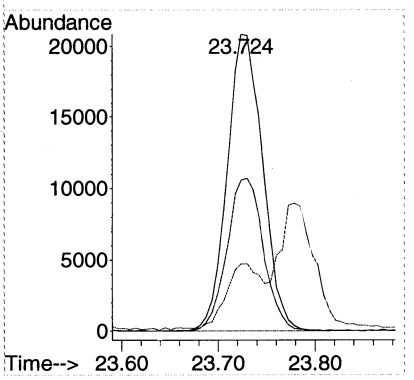





#56
Bromoform
Concen: 0.99 ppbv
RT: 23.724 min Scan# 3311
Delta R.T. -0.006 min
Lab File: 012914K17.D
Acq: 30 Jan 2014 2:01

Tgt Ion:173 Resp: 53030

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 52.9 | 32.4 | 72.4 |
| 91 | 22.4 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K18.D
Acq On : 30 Jan 2014 2:51
Instrument: HP5973K
Operator : EM
Sample : 1401049-07
Misc : 200mL MH07 Can 863
ALS Vial : 43
Multiplier: 1.81

Quant Time: Jan 30 10:05:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 999599 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2396477 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2115635 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 65173 | 2.26 | ppbv | 81 |
| 5) Chloromethane | 5.011 | 50 | 22286 | 0.67 | ppbv | 100 |
| 14) Acetone | 9.841 | 43 | 219689 | 4.69 | ppbv | 95 |
| 15) Carbon disulfide | 10.012 | 76 | 61965 | 0.81 | ppbv | 98 |
| 16) 2-Propanol | 10.486 | 45 | 52268 | 1.09 | ppbv | 88 |
| 18) Dichloromethane | 11.387 | 49 | 117721 | 2.61 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 3181194 | 49.79 | ppbv E | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 411823 | 6.96 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 192571 | 1.85 | ppbv | 99 |
| ~~45) trans-1,3-Dichloropropene~~ | ~~20.475~~ | ~~75~~ | ~~33834~~ | ~~0.75~~ | ~~ppbv #~~ | ~~42~~ em 1/30/14 |
| 47) Tetrachloroethene | 20.926 | 166 | 24328 | 0.50 | ppbv | 97 |
| 49) Chlorodibromomethane | 21.455 | 129 | 199020 | 3.79 | ppbv | 100 |
| 56) Bromoform | 23.730 | 173 | 51356 | 0.93 | ppbv | 97 |

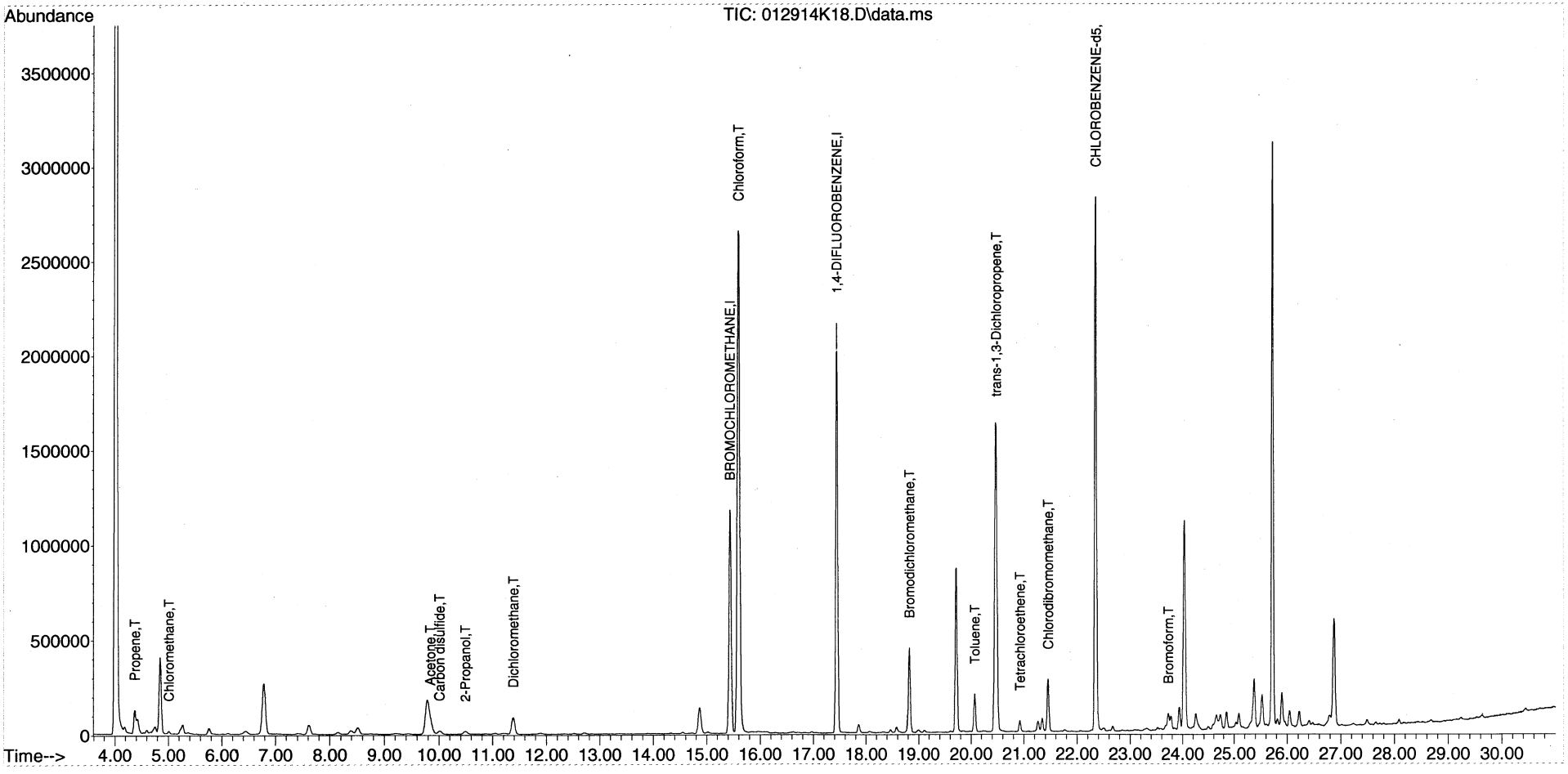
(#) = qualifier out of range (m) = manual integration (+) = signals summed

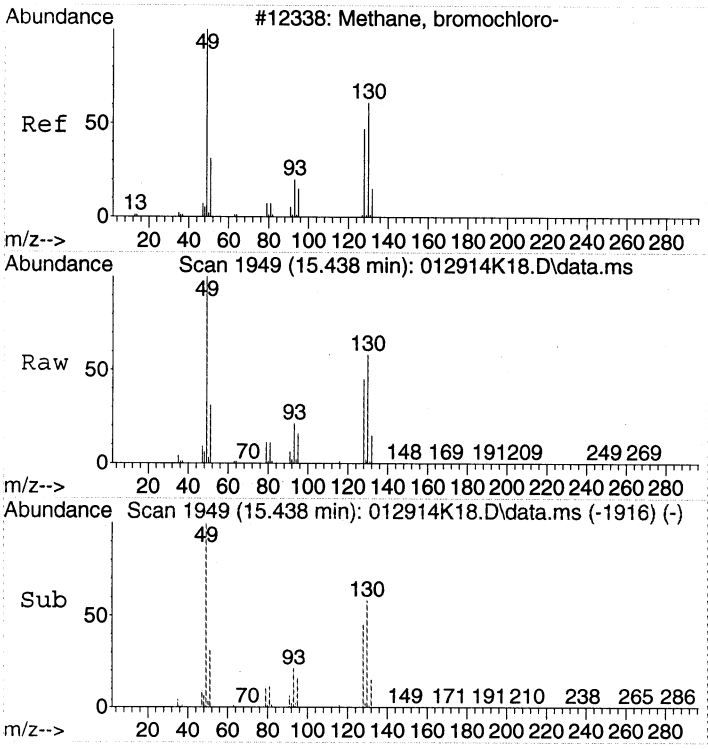
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K18.D
Acq On : 30 Jan 2014 2:51
Instrument: HP5973K
Operator : EM
Sample : 1401049-07
Misc : 200mL MH07 Can 863
ALS Vial : 43
Multiplier: 1.81

Quant Time: Jan 30 10:05:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

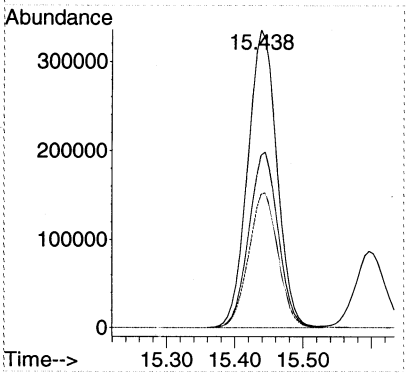


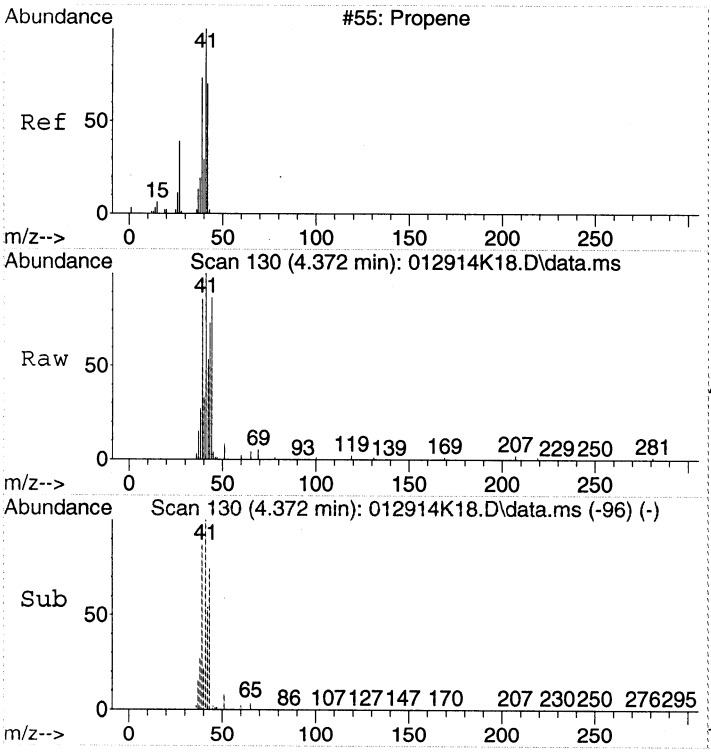



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 49 Resp: 999599

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.3 | 39.6 | 79.6 |
| 128 | 45.9 | 26.9 | 66.9 |

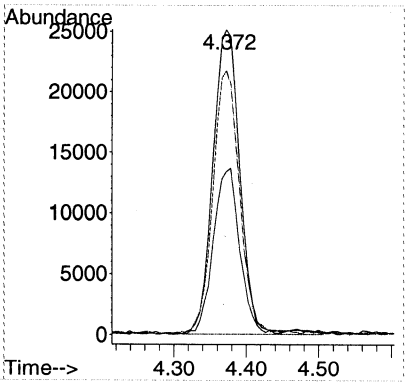


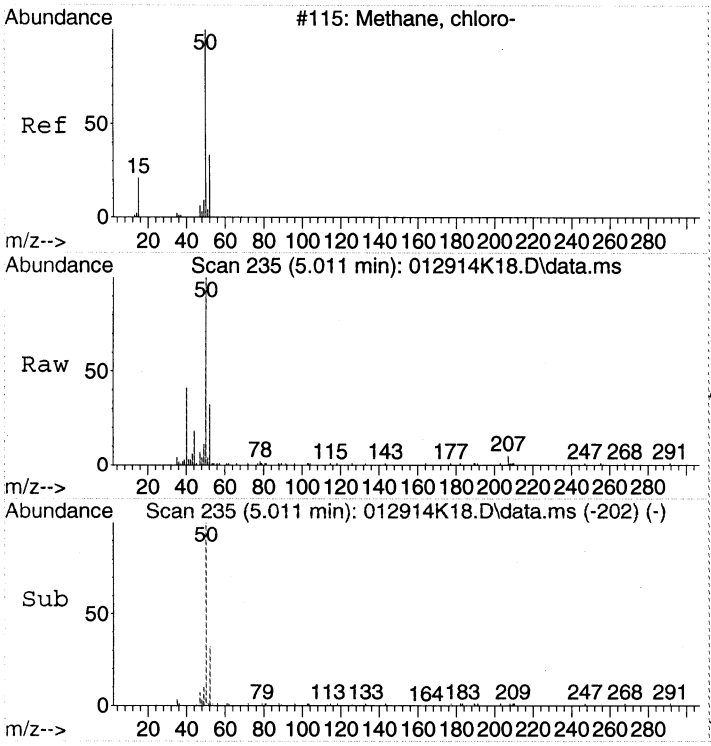




#2
Propene
Concen: 2.26 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 41 Resp: 65173

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 52.6 | 46.8 | 86.8 |
| 39 | 85.2 | 48.3 | 88.3 |

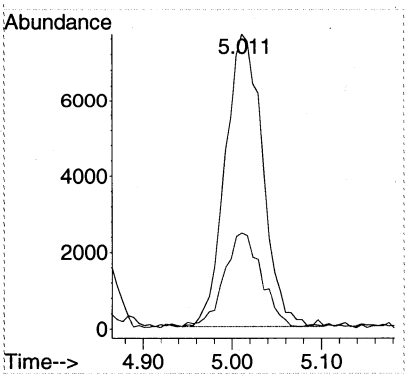


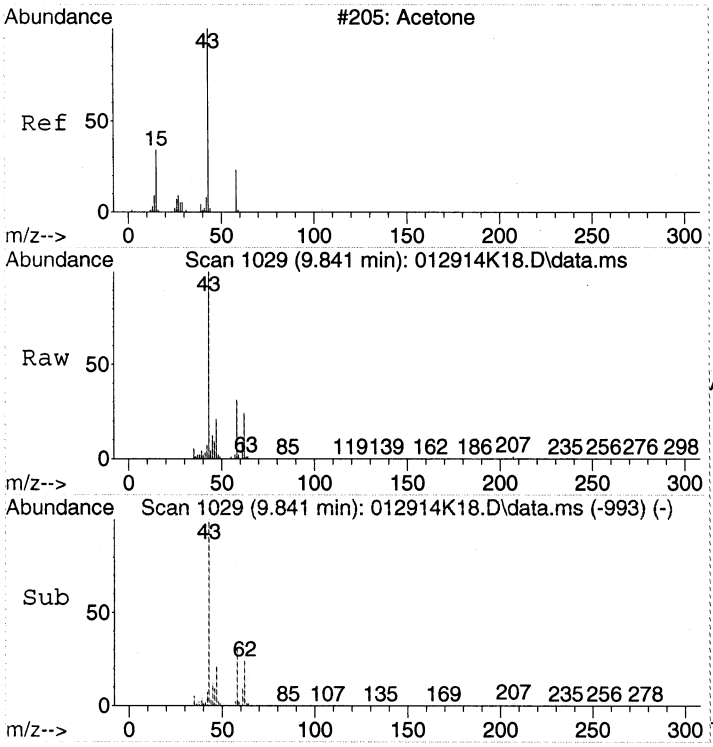



#5
Chloromethane
Concen: 0.67 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 50 Resp: 22286

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.5 | 12.7 | 52.7 |

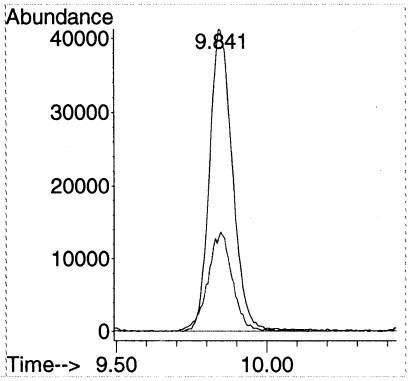


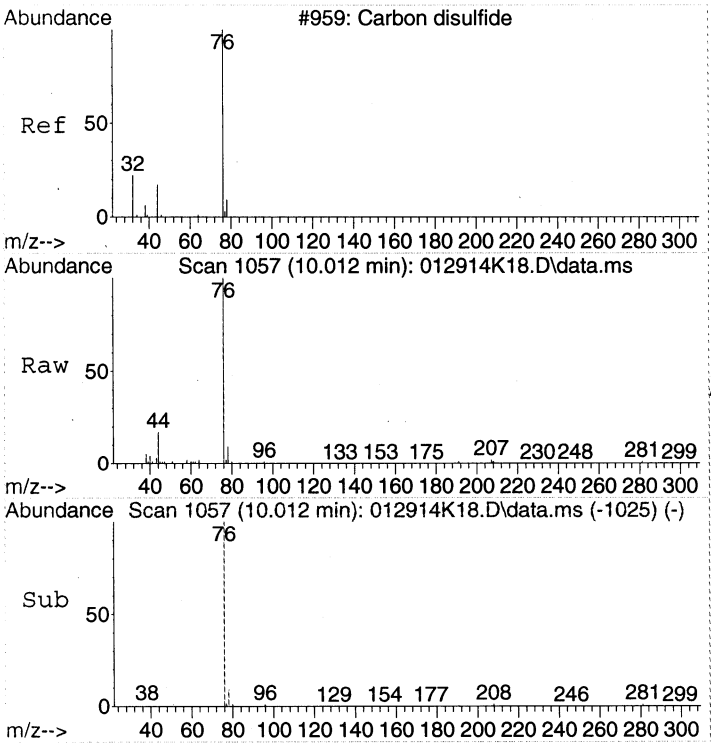




#14
Acetone
Concen: 4.69 ppbv
RT: 9.841 min Scan# 1029
Delta R.T. 0.018 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 43 Resp: 219689

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.6 | 12.5 | 52.5 |

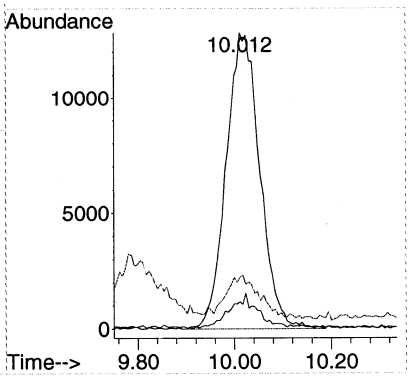


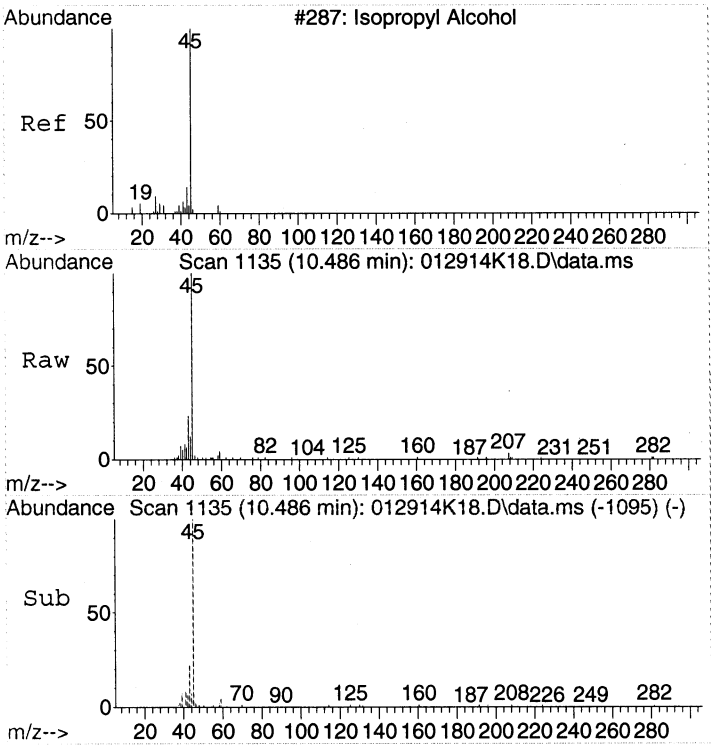



#15
Carbon disulfide
Concen: 0.81 ppbv
RT: 10.012 min Scan# 1057
Delta R.T. -0.006 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 76 Resp: 61965

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 10.7 | 0.0 | 28.7 |
| 44 | 12.8 | 0.0 | 32.7 |

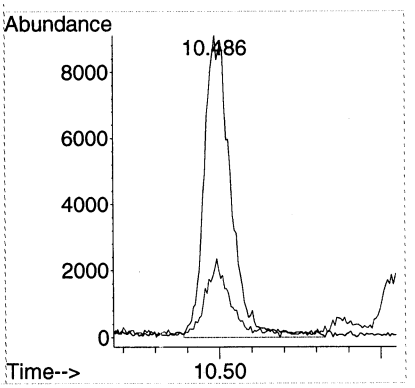


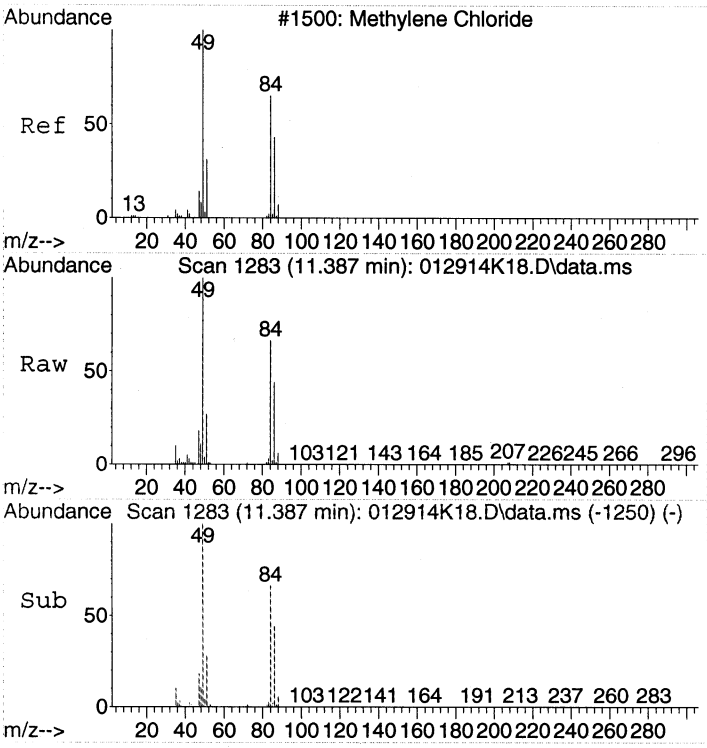




#16
2-Propanol
Concen: 1.09 ppbv
RT: 10.486 min Scan# 1135
Delta R.T. 0.043 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 45 Resp: 52268

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 24.5 | 0.0 | 39.1 |

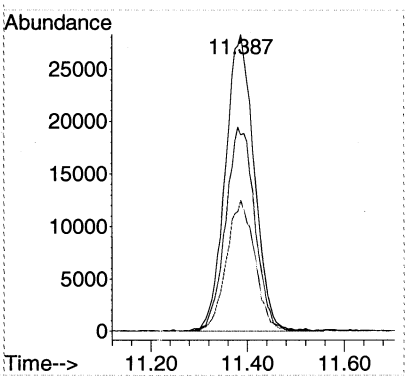


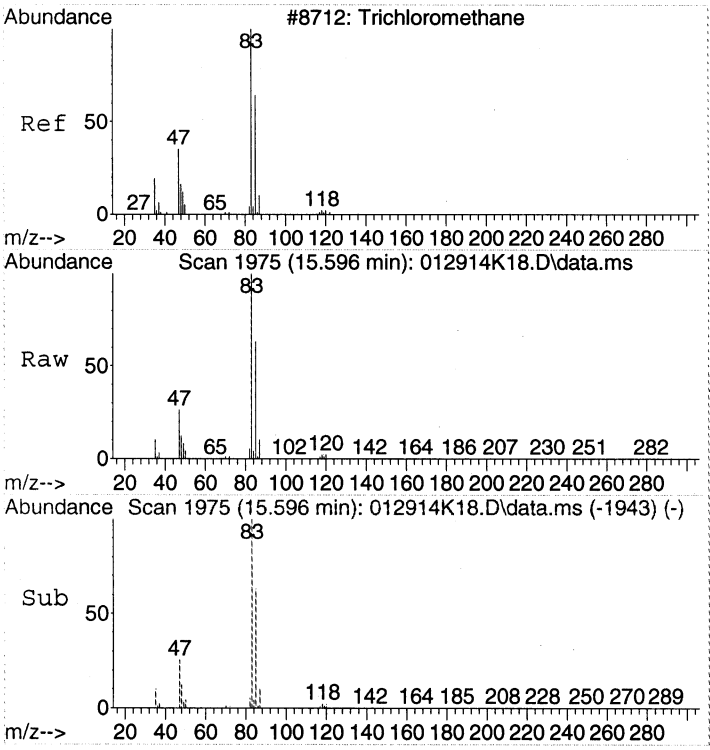



#18
Dichloromethane
Concen: 2.61 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 49 Resp: 117721

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.0 | 50.0 | 90.0 |
| 86 | 43.2 | 24.4 | 64.4 |

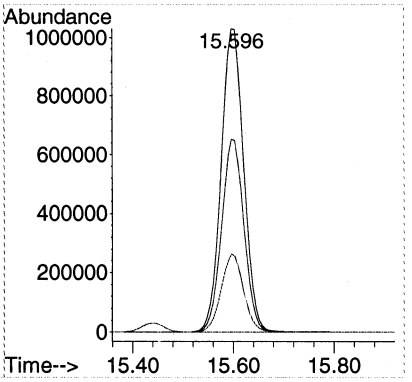


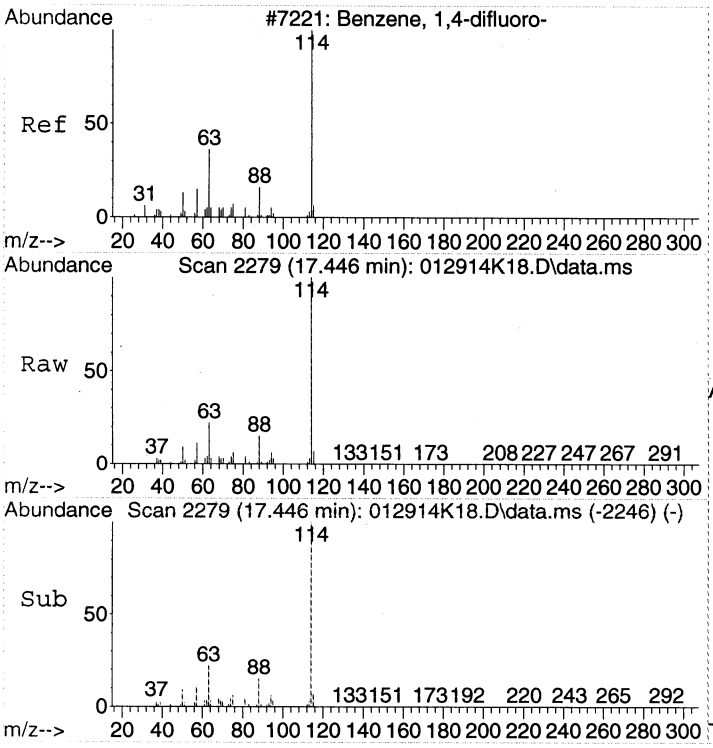




#28
Chloroform
Concen: 49.79 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 83 Resp: 3181194

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 42.7 | 82.7 |
| 47 | 25.4 | 5.3 | 45.3 |

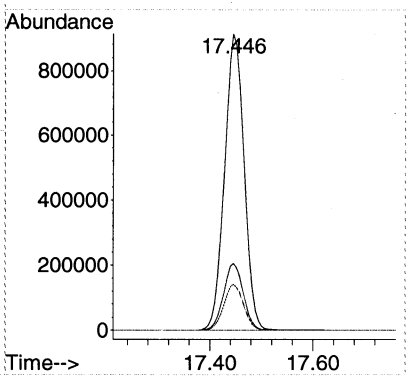


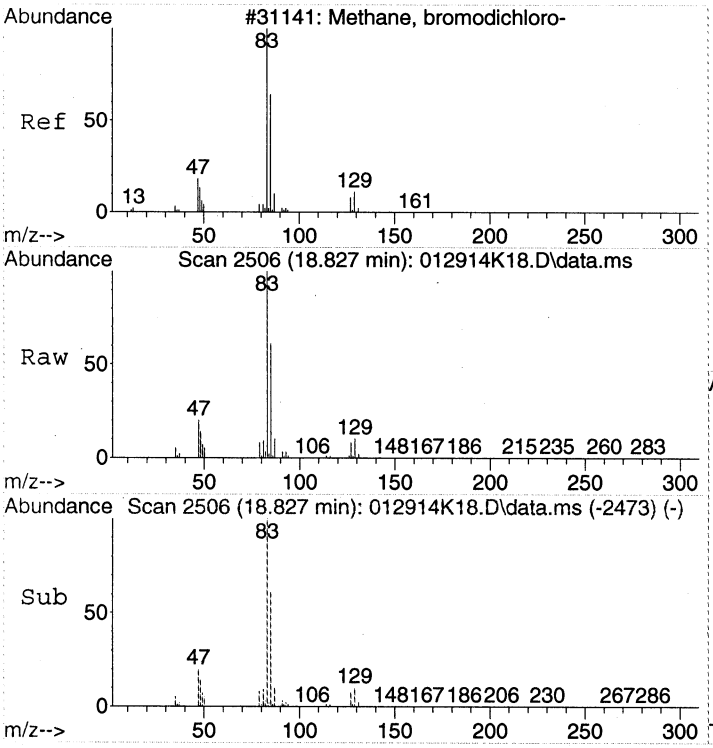



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion:114 Resp: 2396477

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.6 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

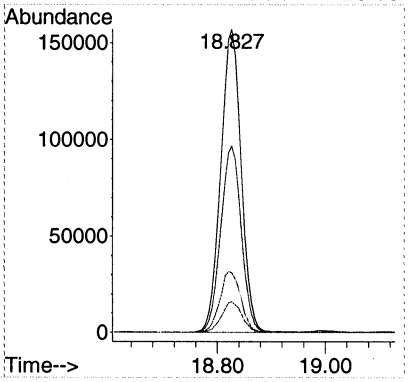


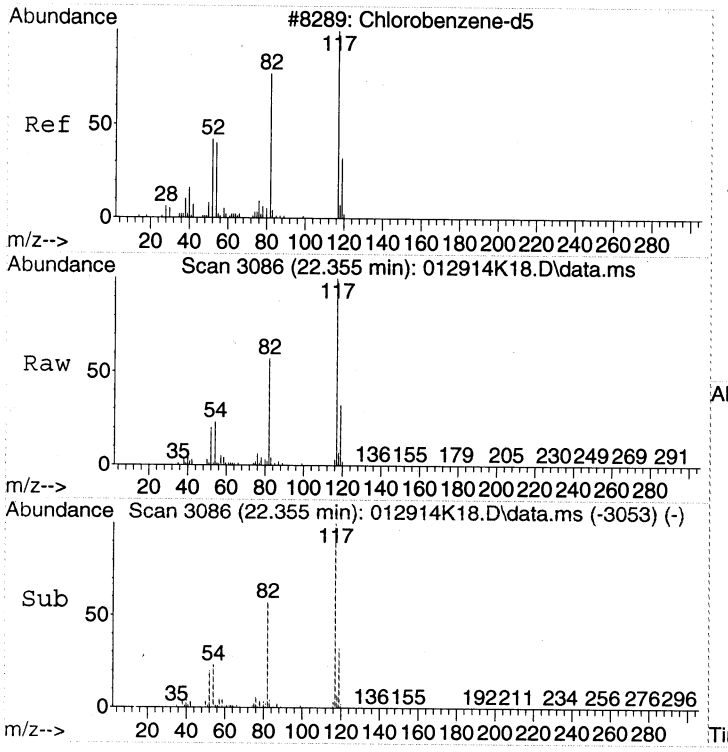




#40
Bromodichloromethane
Concen: 6.96 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 83 Resp: 411823

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.2 | 41.8 | 81.8 |
| 47 | 20.7 | 0.4 | 40.4 |
| 129 | 10.1 | 0.0 | 29.9 |

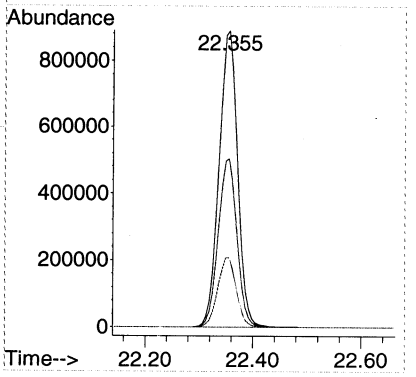


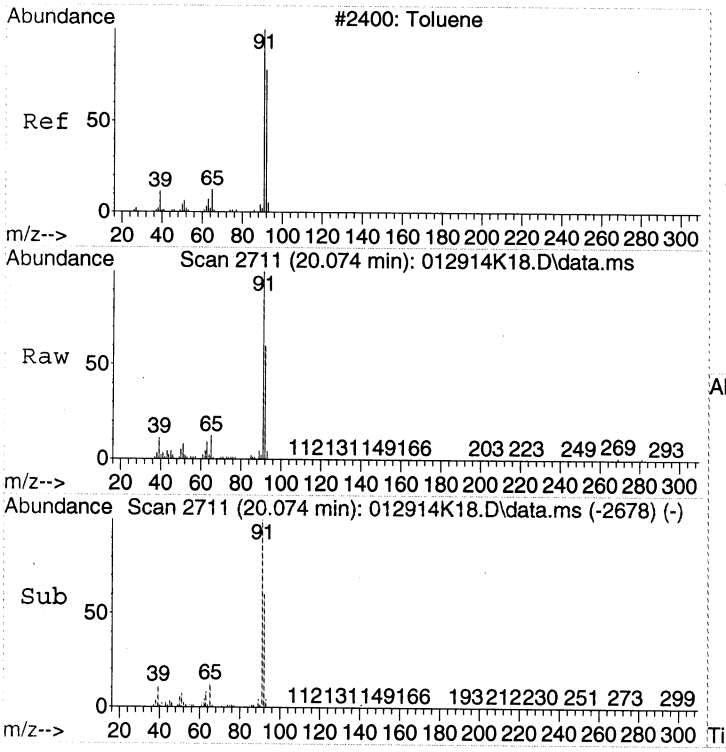



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion:117 Resp: 2115635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.1 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

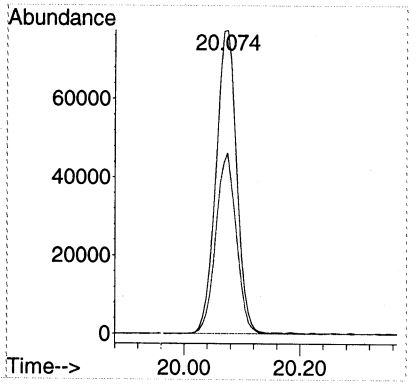


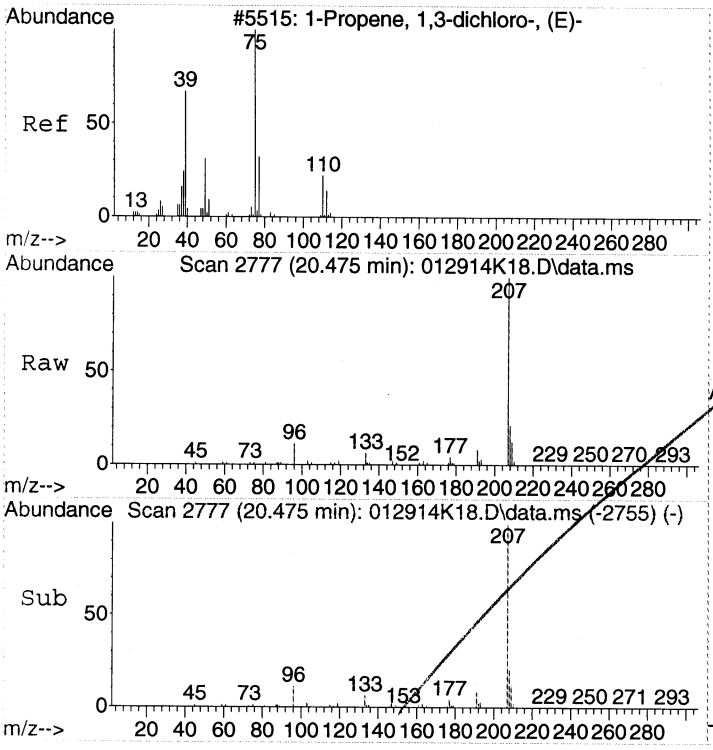




#44
Toluene
Concen: 1.85 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 91 Resp: 192571

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.2 | 38.2 | 78.2 |

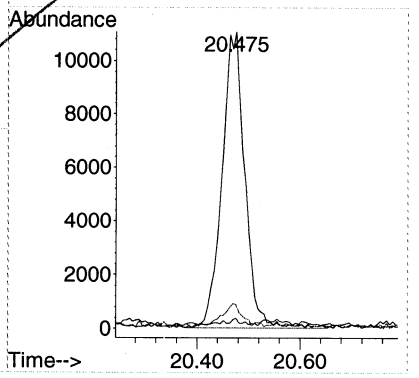


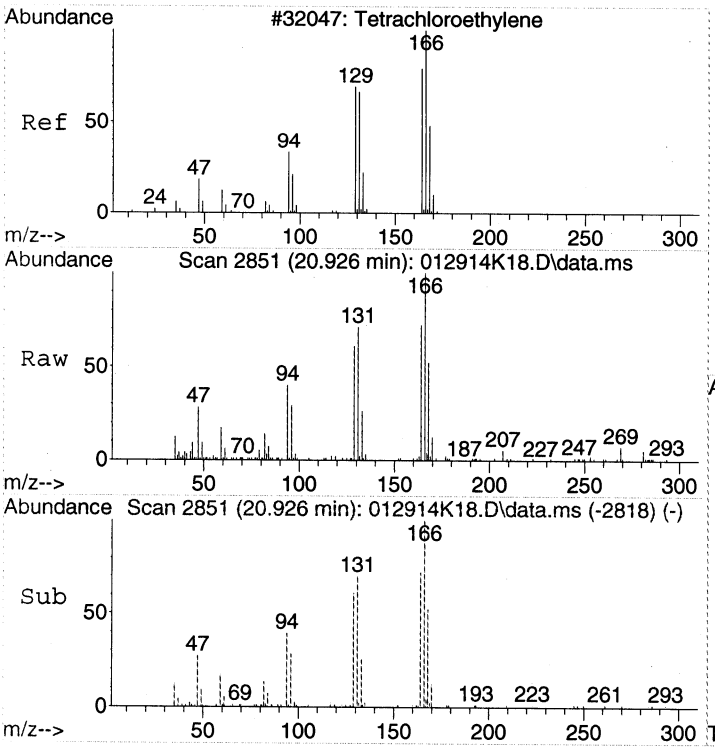



#45
trans-1,3-Dichloropropene
Concen: 0.75 ppbv
RT: 20.475 min Scan# 2777
Delta R.T. -0.067 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion: 75 Resp: 33834

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 1.2 | 26.3 | 66.3# |
| 77 | 7.6 | 10.4 | 50.4# |

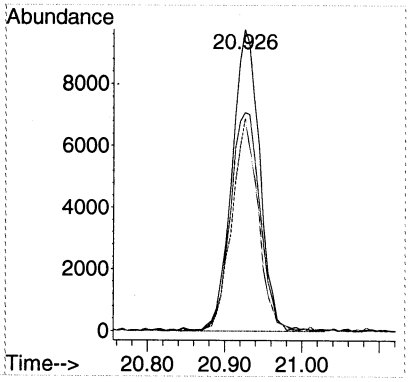



#47
Tetrachloroethene
Concen: 0.50 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

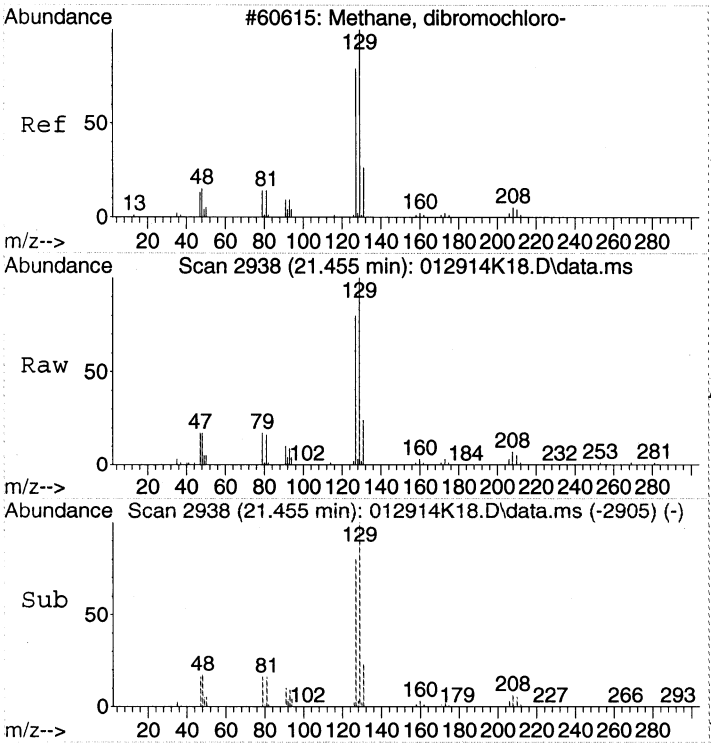
Tgt Ion:166 Resp: 24328

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.4 | 59.4 | 99.4 |
| 131 | 66.9 | 44.3 | 84.3 |





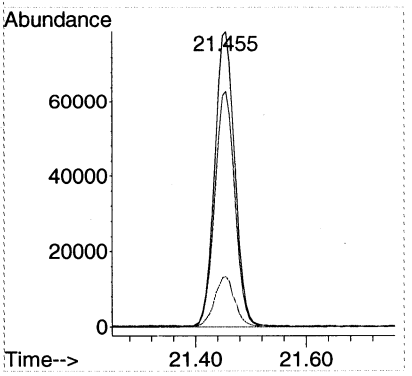

00257

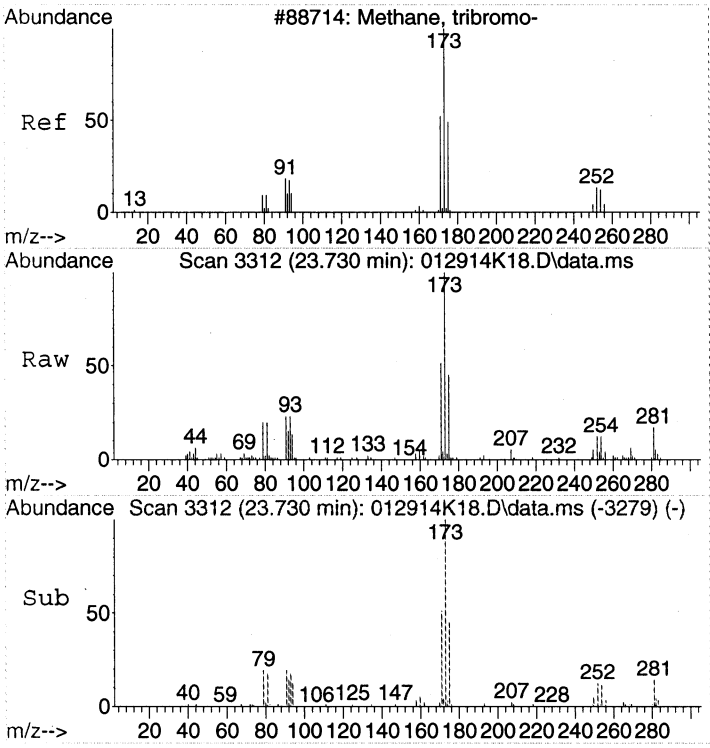



#49
Chlorodibromomethane
Concen: 3.79 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion:129 Resp: 199020

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 79.4 | 59.2 | 99.2 |
| 79 | 16.4 | 0.0 | 35.9 |

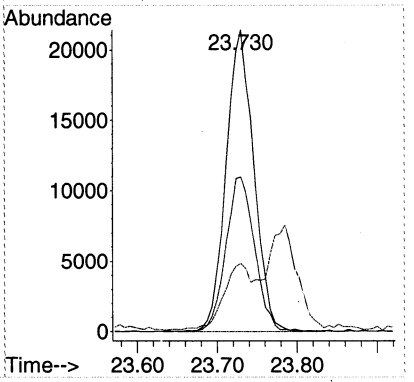



#56
Bromoform
Concen: 0.93 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K18.D
Acq: 30 Jan 2014 2:51

Tgt Ion:173 Resp: 51356

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 53.3 | 32.4 | 72.4 |
| 91 | 25.8 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K19.D
Acq On : 30 Jan 2014 3:40
Instrument: HP5973K
Operator : EM
Sample : 1401049-08
Misc : 200mL MH08 Can 1978
ALS Vial : 44
Multiplier: 1.81

Quant Time: Jan 30 10:05:31 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 987565 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2402692 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2114034 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 100644 | 3.53 | ppbv # | 62 |
| 5) Chloromethane | 5.011 | 50 | 16622 | 0.50 | ppbv | 99 |
| 14) Acetone | 9.829 | 43 | 226238 | 4.89 | ppbv | 95 |
| 15) Carbon disulfide | 10.018 | 76 | 39520 | 0.52 | ppbv | 87 |
| 16) 2-Propanol | 10.480 | 45 | 64602 | 1.37 | ppbv | 92 |
| 18) Dichloromethane | 11.387 | 49 | 81716 | 1.83 | ppbv | 98 |
| 27) Tetrahydrofuran | 15.481 | 42 | 61197 | 1.51 | ppbv | 97 |
| 28) Chloroform | 15.596 | 83 | 2137110 | 33.85 | ppbv E | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 311085 | 5.24 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 407210 | 3.91 | ppbv | 100 |
| 49) Chlorodibromomethane | 21.455 | 129 | 162270 | 3.09 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 44892 | 0.81 | ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 39965 | 0.50 | ppbv | 95 |

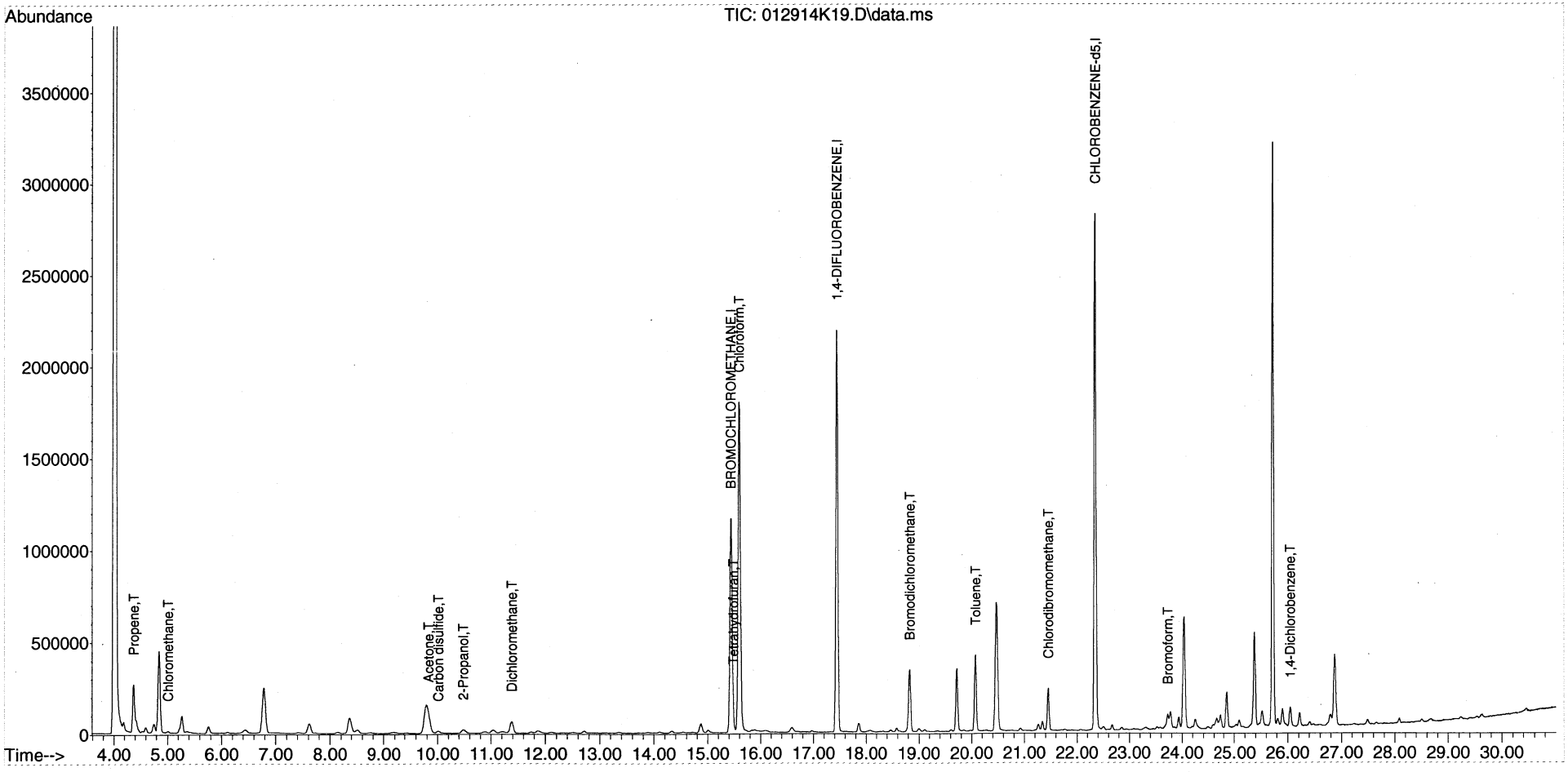
(#) = qualifier out of range (m) = manual integration (+) = signals summed

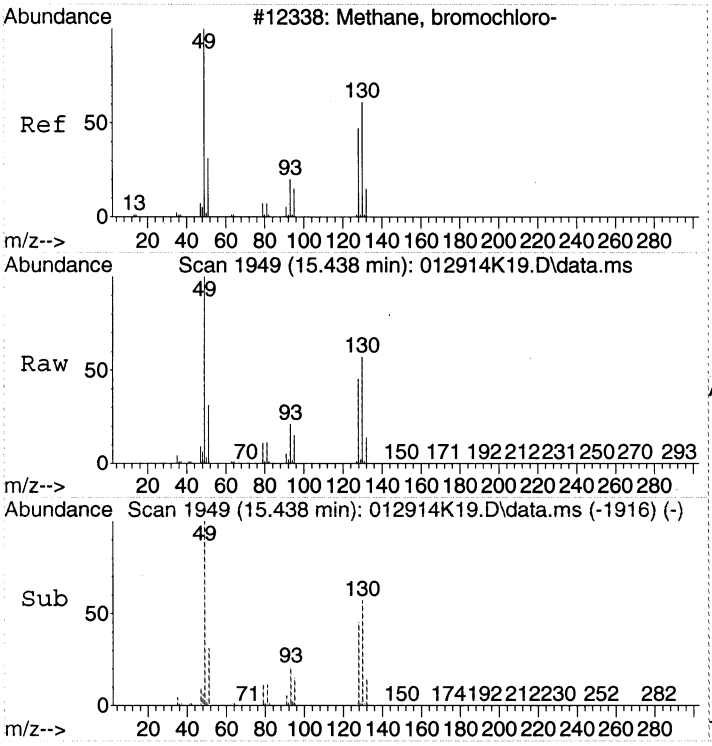
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K19.D
Acq On : 30 Jan 2014 3:40
Instrument: HP5973K
Operator : EM
Sample : 1401049-08
Misc : 200mL MH08 Can 1978
ALS Vial : 44
Multiplier: 1.81

Quant Time: Jan 30 10:05:31 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

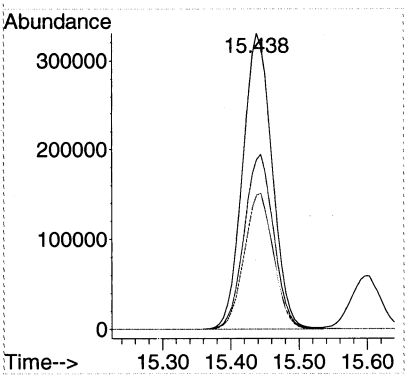


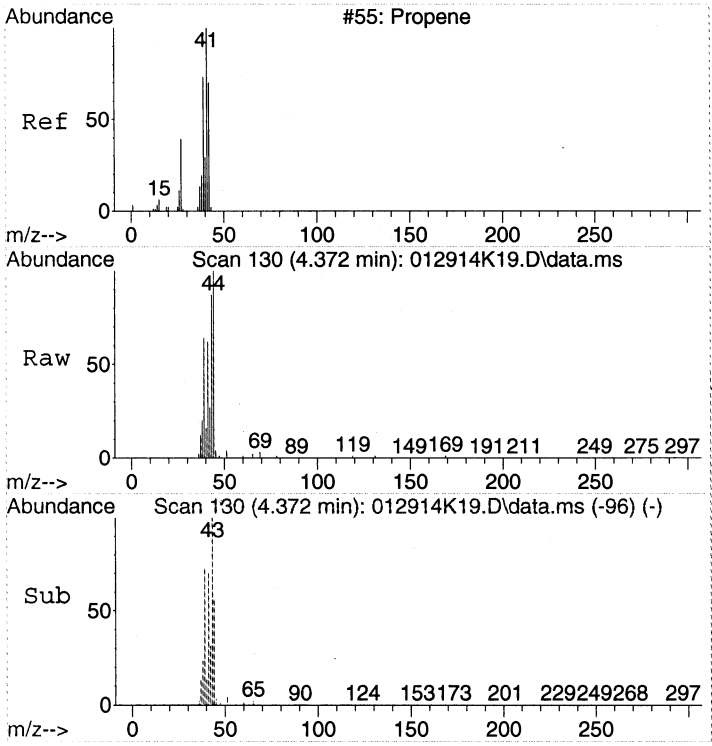



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 49 Resp: 987565

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.1 | 39.6 | 79.6 |
| 128 | 45.8 | 26.9 | 66.9 |

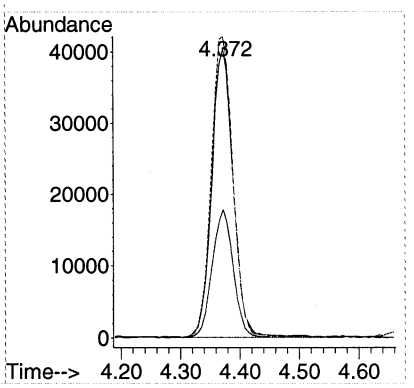


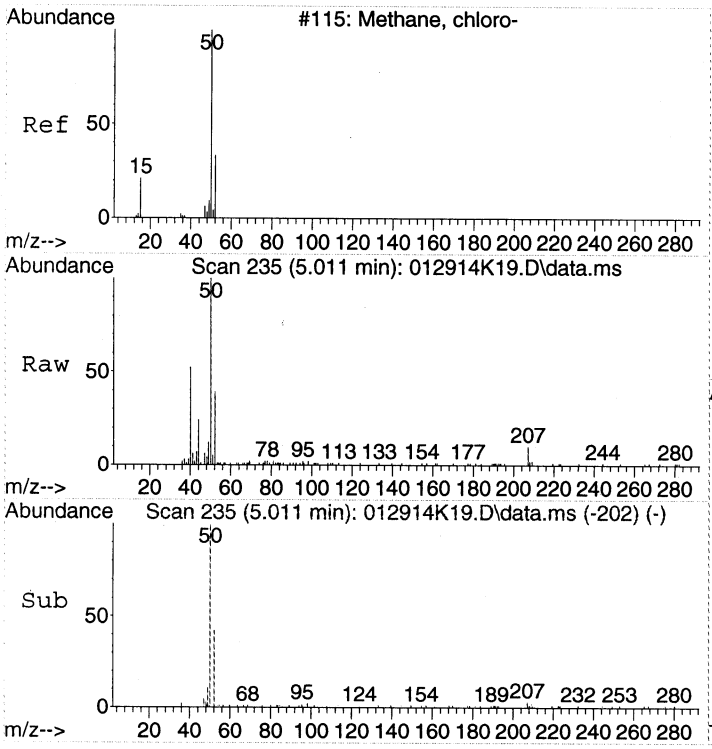




#2
Propene
Concen: 3.53 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 41 Resp: 100644

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 44.2 | 46.8 | 86.8# |
| 39 | 106.1 | 48.3 | 88.3# |

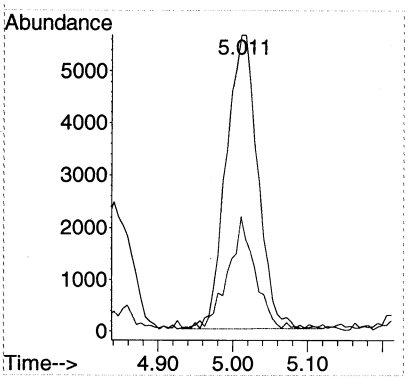


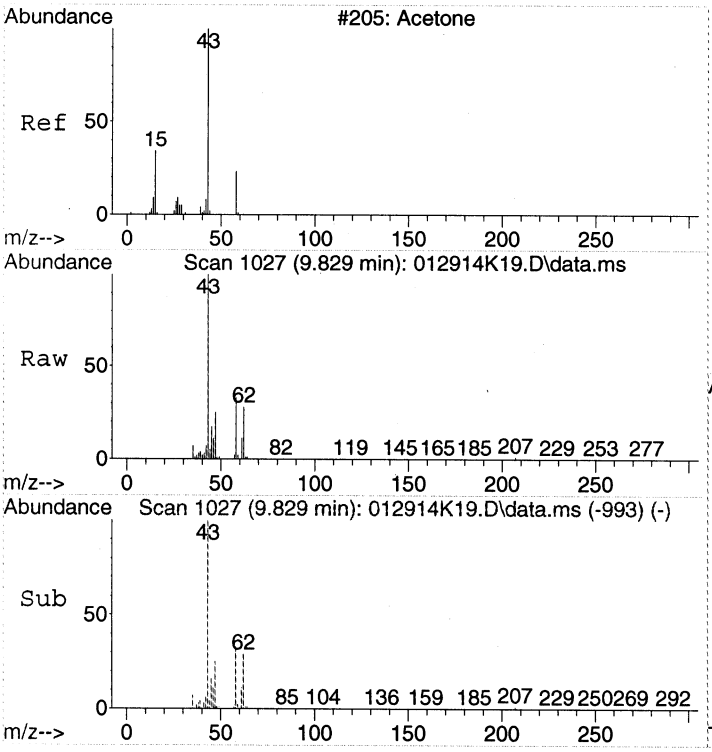



#5
Chloromethane
Concen: 0.50 ppbv
RT: 5.011 min Scan# 235
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 50 Resp: 16622

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 33.0 | 12.7 | 52.7 |

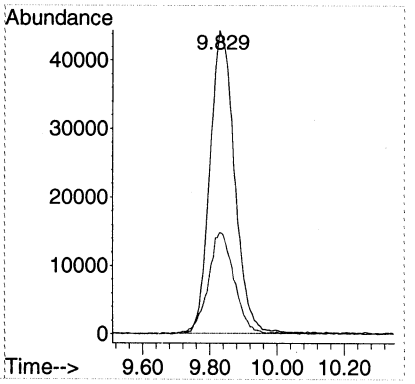


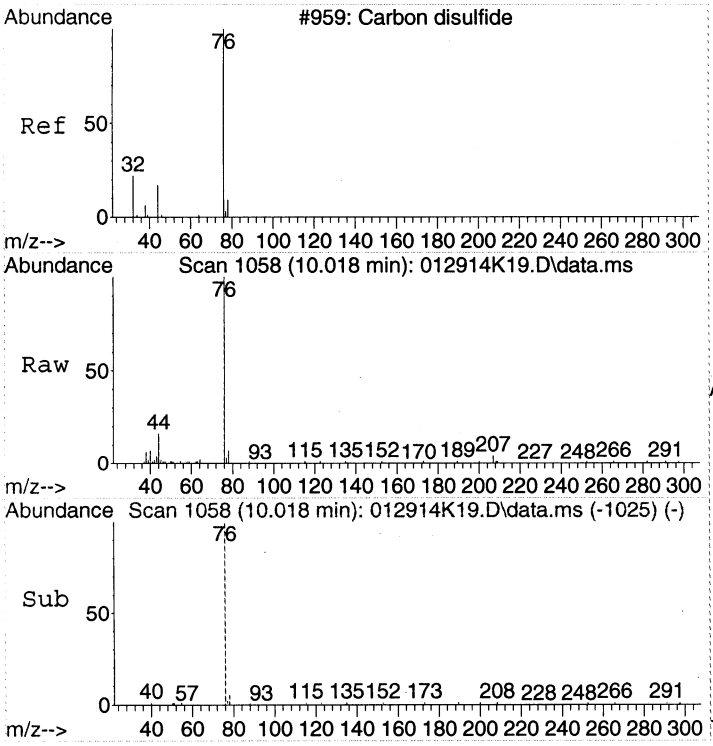




#14
Acetone
Concen: 4.89 ppbv
RT: 9.829 min Scan# 1027
Delta R.T. 0.006 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 43 Resp: 226238

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.4 | 12.5 | 52.5 |

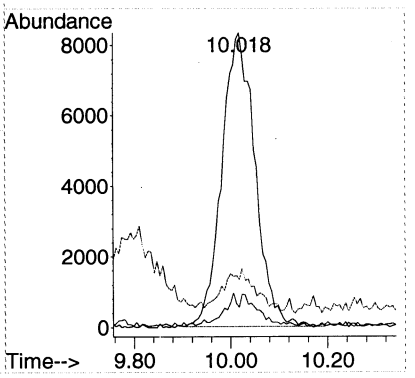


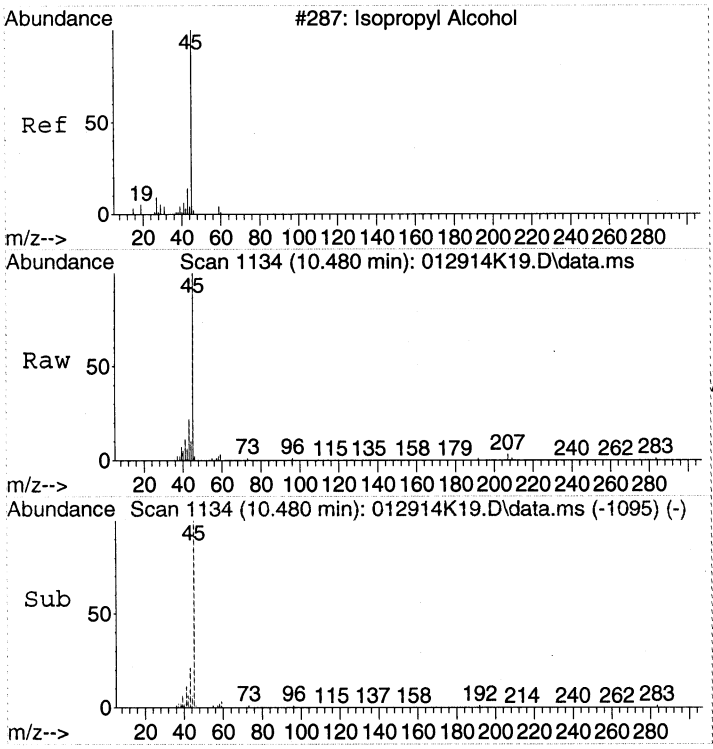



#15
Carbon disulfide
Concen: 0.52 ppbv
RT: 10.018 min Scan# 1058
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 76 Resp: 39520

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 11.6 | 0.0 | 28.7 |
| 44 | 6.1 | 0.0 | 32.7 |

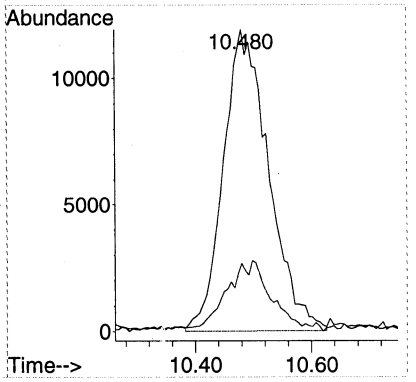


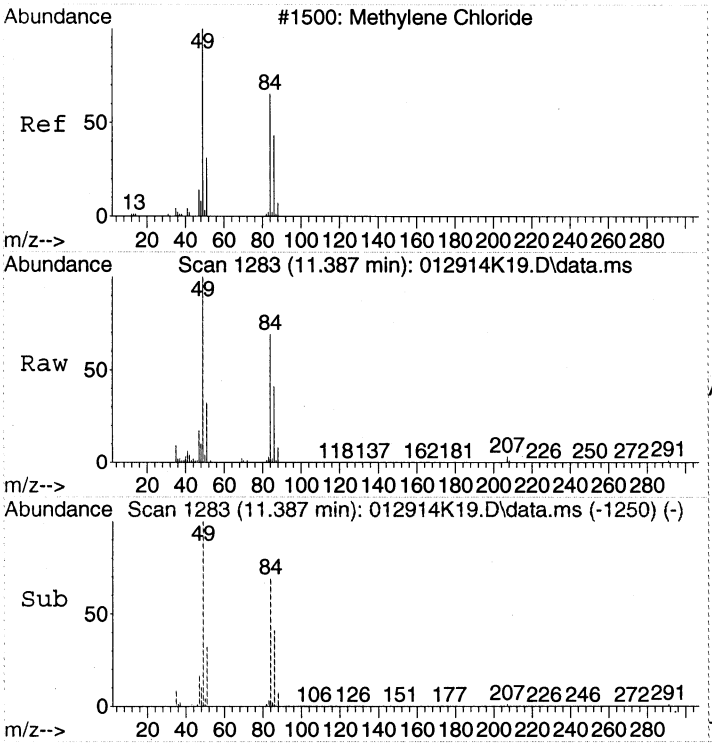




#16
2-Propanol
Concen: 1.37 ppbv
RT: 10.480 min Scan# 1134
Delta R.T. 0.036 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 45 Resp: 64602

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 22.9 | 0.0 | 39.1 |

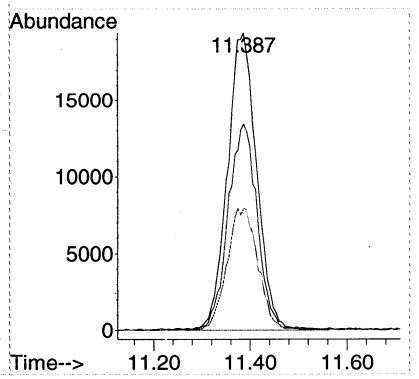


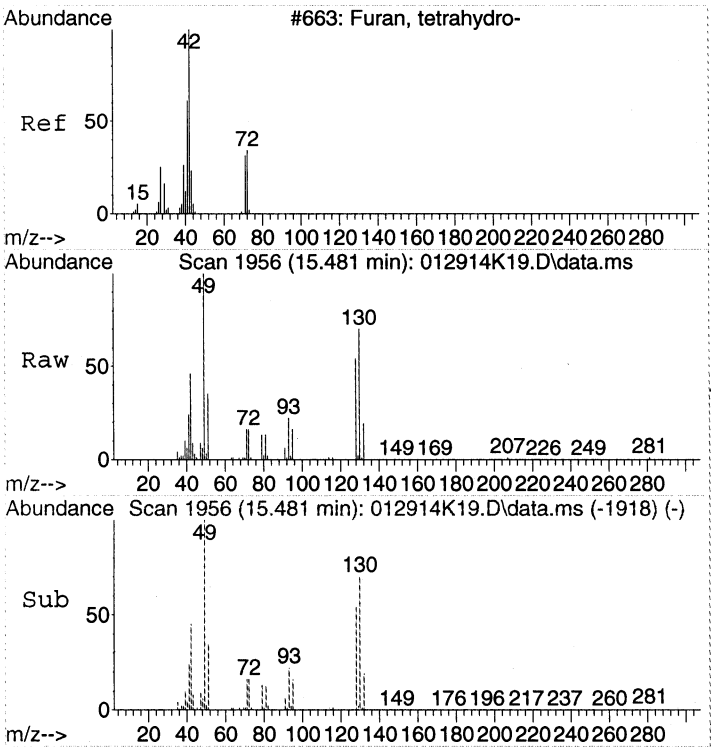



#18
Dichloromethane
Concen: 1.83 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 49 Resp: 81716

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.6 | 50.0 | 90.0 |
| 86 | 43.2 | 24.4 | 64.4 |

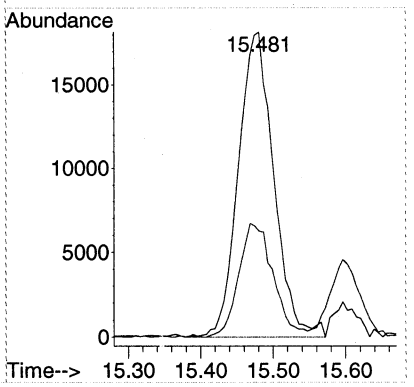


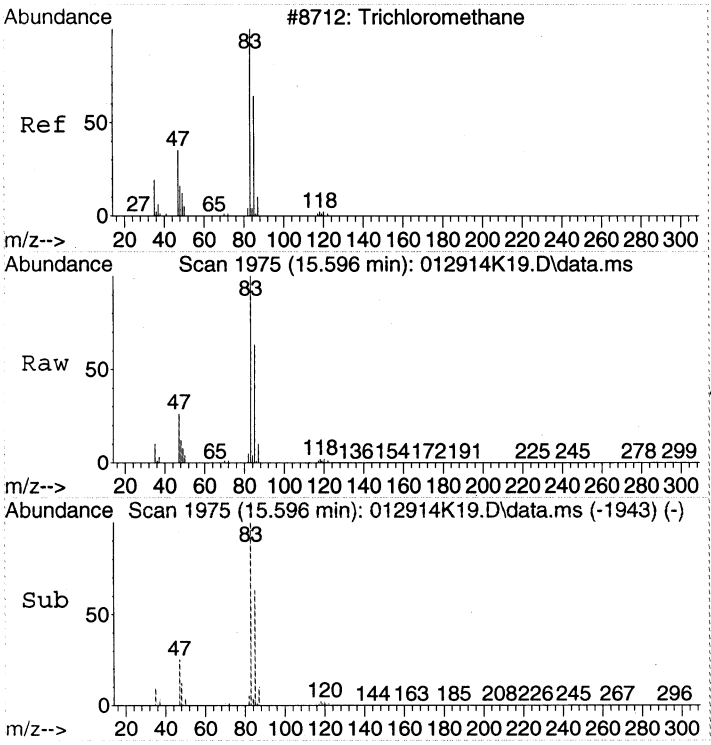




#27
Tetrahydrofuran
Concen: 1.51 ppbv
RT: 15.481 min Scan# 1956
Delta R.T. 0.030 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 42 Resp: 61197

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 42 | 100 | | |
| 72 | 36.4 | 18.4 | 58.4 |

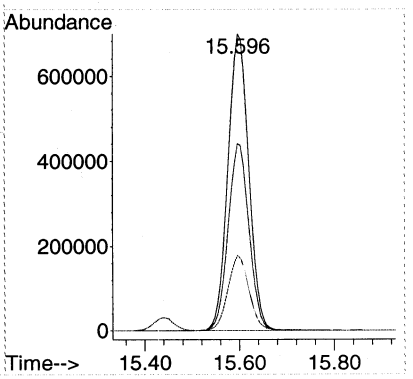


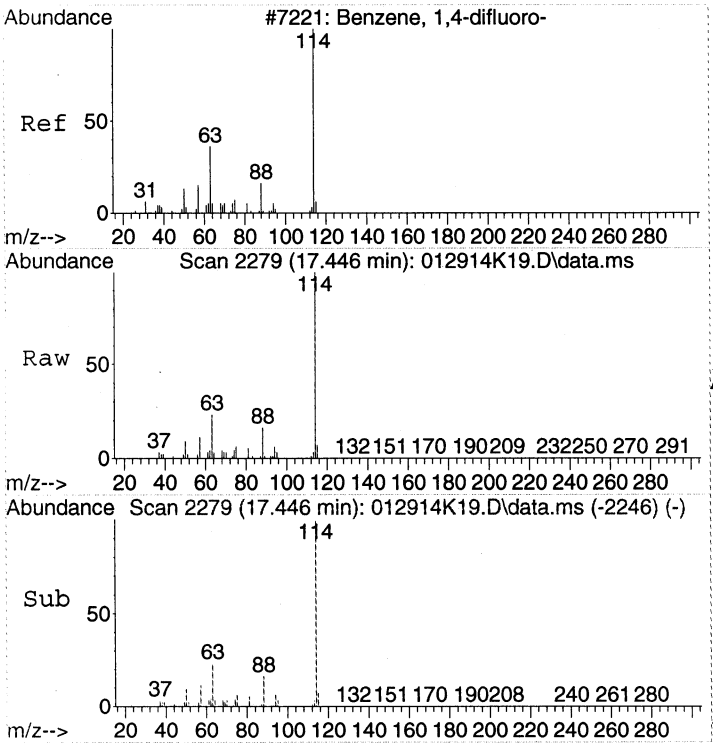



#28
Chloroform
Concen: 33.85 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 83 Resp: 2137110

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 42.7 | 82.7 |
| 47 | 25.5 | 5.3 | 45.3 |

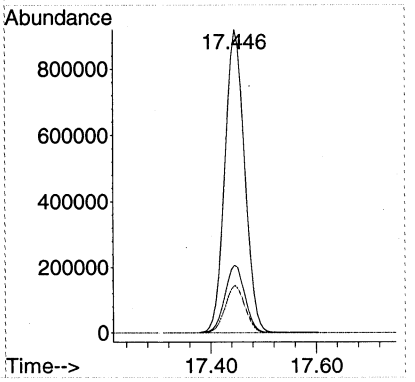


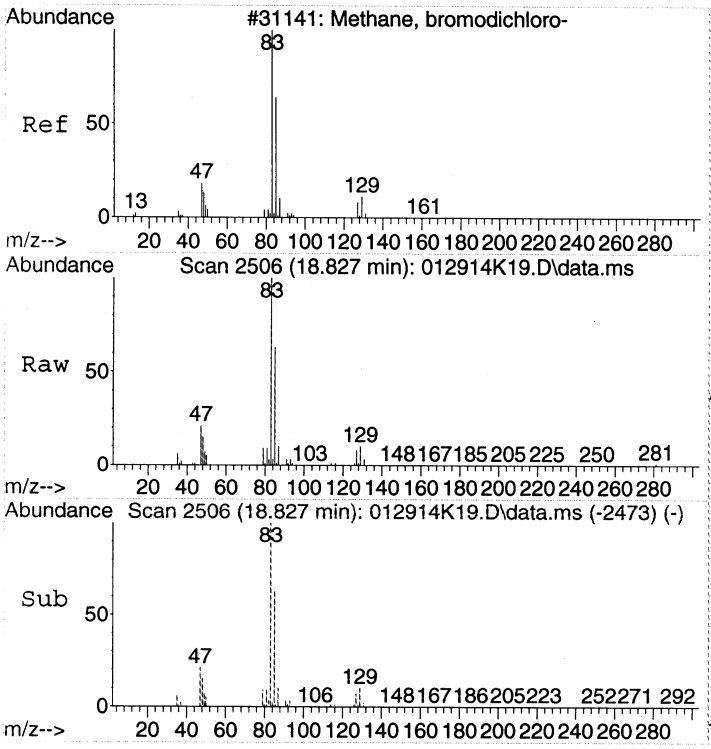




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion:114 Resp: 2402692

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.6 | 0.0 | 35.2 |

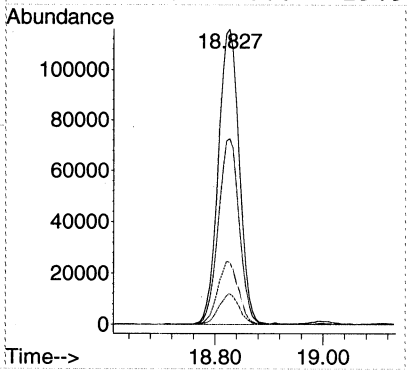


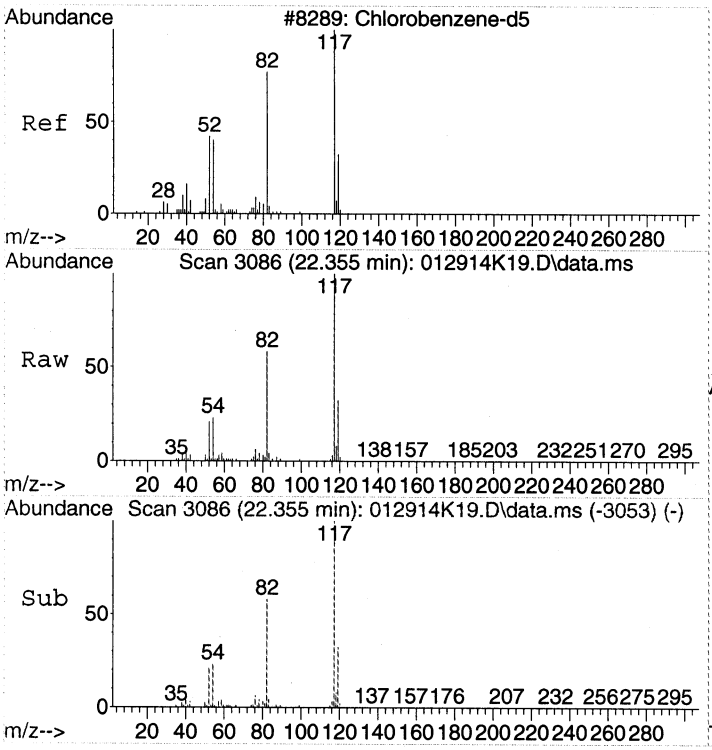



#40
Bromodichloromethane
Concen: 5.24 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 83 Resp: 311085

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.4 | 41.8 | 81.8 |
| 47 | 20.9 | 0.4 | 40.4 |
| 129 | 10.0 | 0.0 | 29.9 |

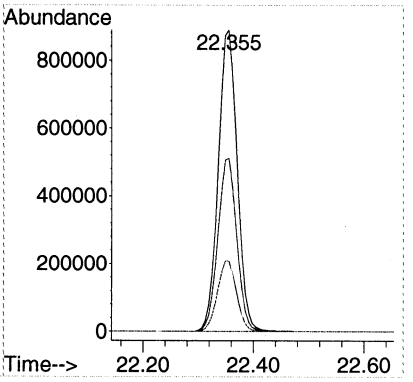


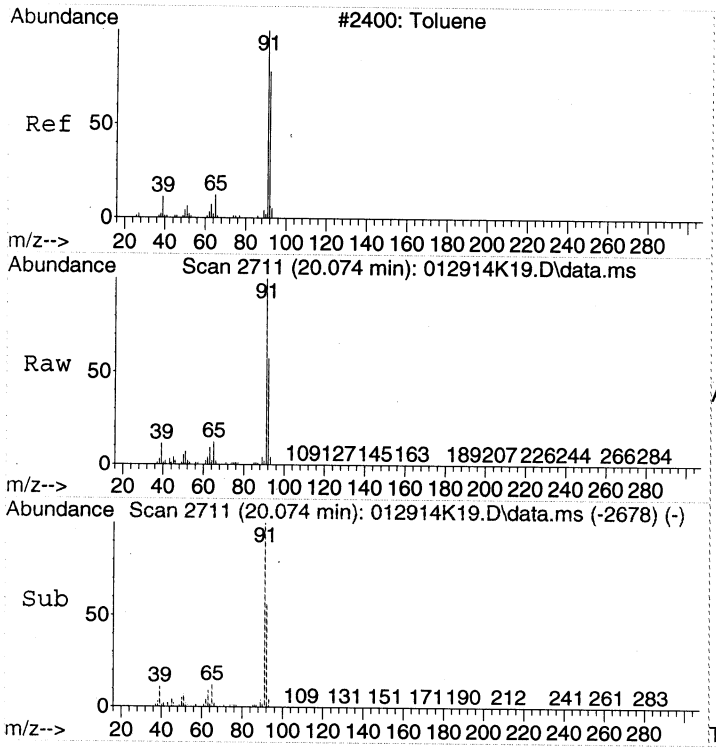




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion:117 Resp: 2114034

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.4 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

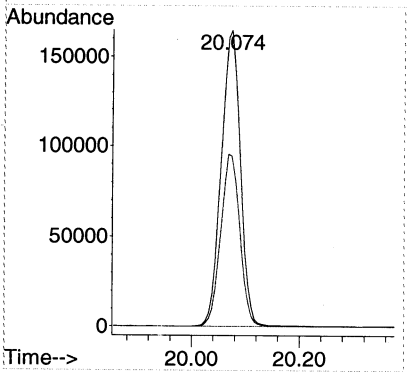


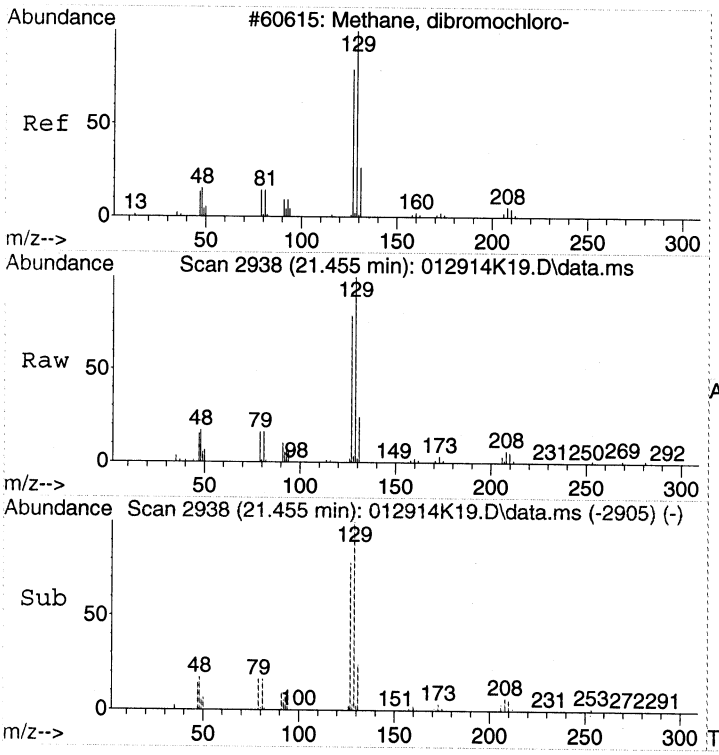



#44
Toluene
Concen: 3.91 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion: 91 Resp: 407210

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.1 | 38.2 | 78.2 |

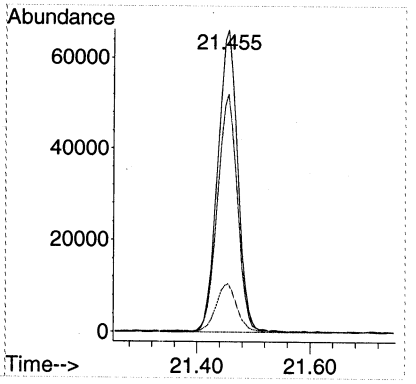



#49
Chlorodibromomethane
Concen: 3.09 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

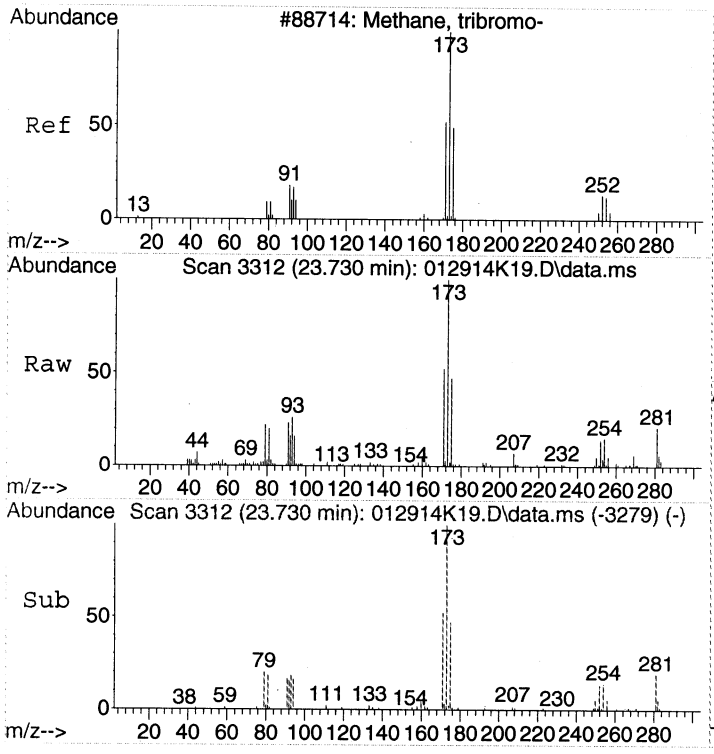
Tgt Ion:129 Resp: 162270

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.4 | 59.2 | 99.2 |
| 79 | 15.9 | 0.0 | 35.9 |





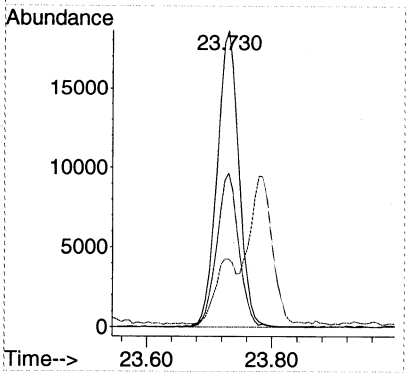

00277

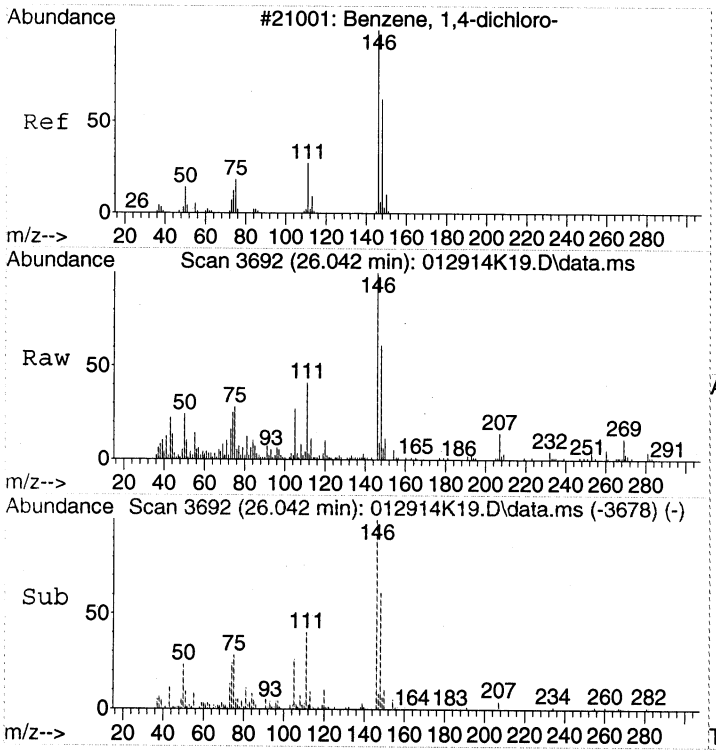



#56
Bromoform
Concen: 0.81 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion:173 Resp: 44892

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 52.5 | 32.4 | 72.4 |
| 91 | 20.3 | 2.3 | 42.3 |

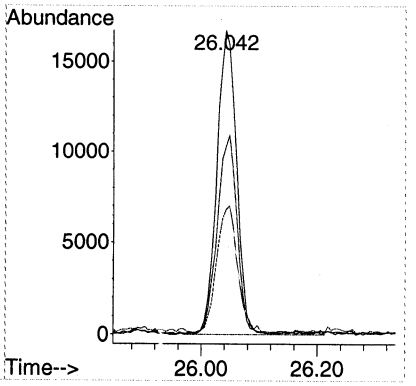



#62
1,4-Dichlorobenzene
Concen: 0.50 ppbv
RT: 26.042 min Scan# 3692
Delta R.T. -0.000 min
Lab File: 012914K19.D
Acq: 30 Jan 2014 3:40

Tgt Ion:146 Resp: 39965

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 63.9 | 44.2 | 84.2 |
| 111 | 43.8 | 15.8 | 55.8 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K21.D
Acq On : 30 Jan 2014 5:19
Instrument: HP5973K
Operator : EM
Sample : 1401049-09
Misc : 200mL MH09 Can 1095
ALS Vial : 46
Multiplier: 1.94

Quant Time: Jan 30 10:05:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 944401 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2389871 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2111832 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 36705 | 1.35 | ppbv # | 65 |
| 14) Acetone | 9.859 | 43 | 52029 | 1.18 | ppbv | 96 |
| 18) Dichloromethane | 11.392 | 49 | 39291 | 0.92 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 1279421 | 21.19 | ppbv | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 280467 | 4.75 | ppbv | 100 |
| 44) Toluene | 20.068 | 91 | 76569 | 0.74 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.455 | 129 | 154020 | 2.94 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 43359 | 0.79 | ppbv | 99 |

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



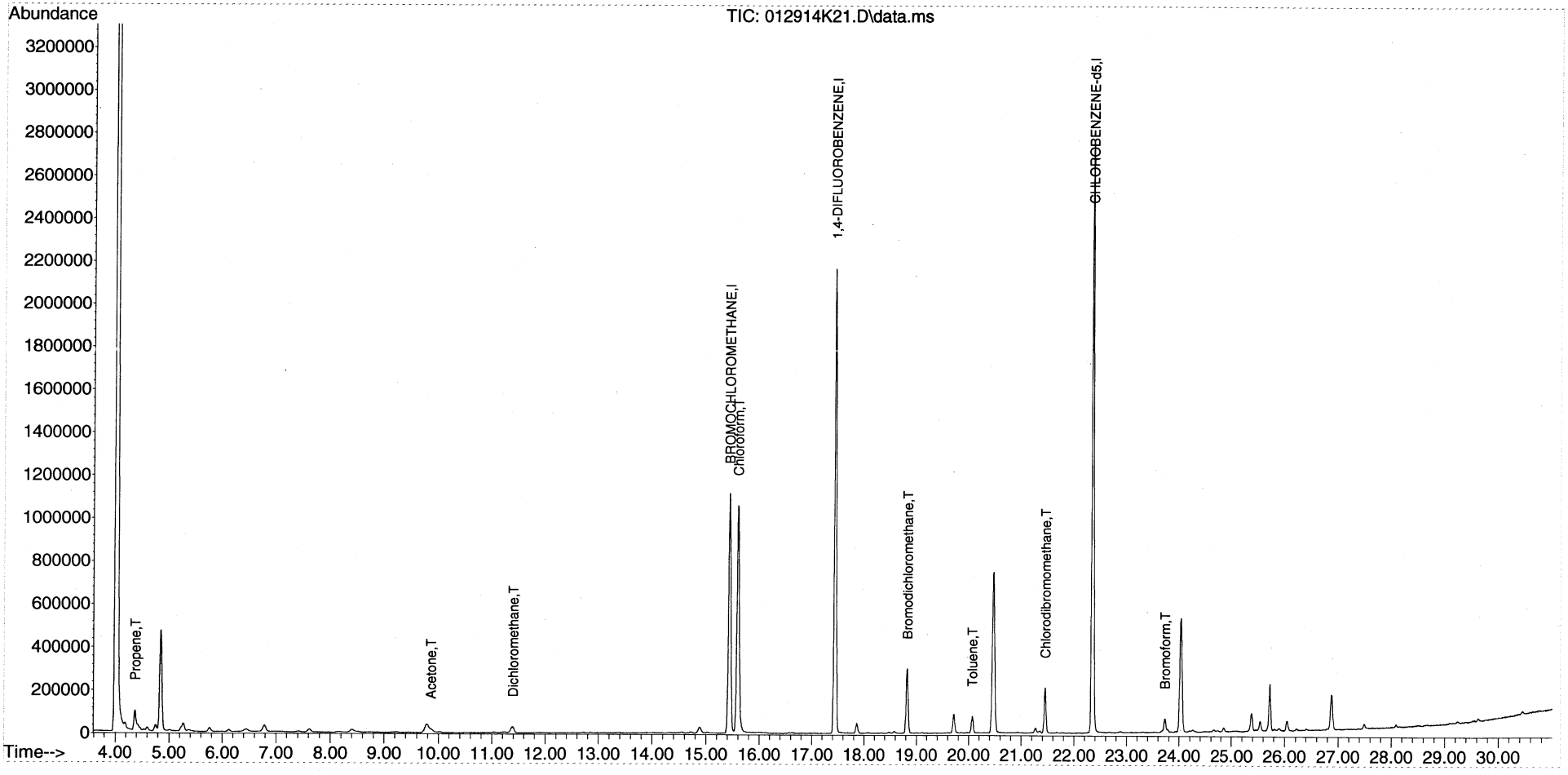
00279

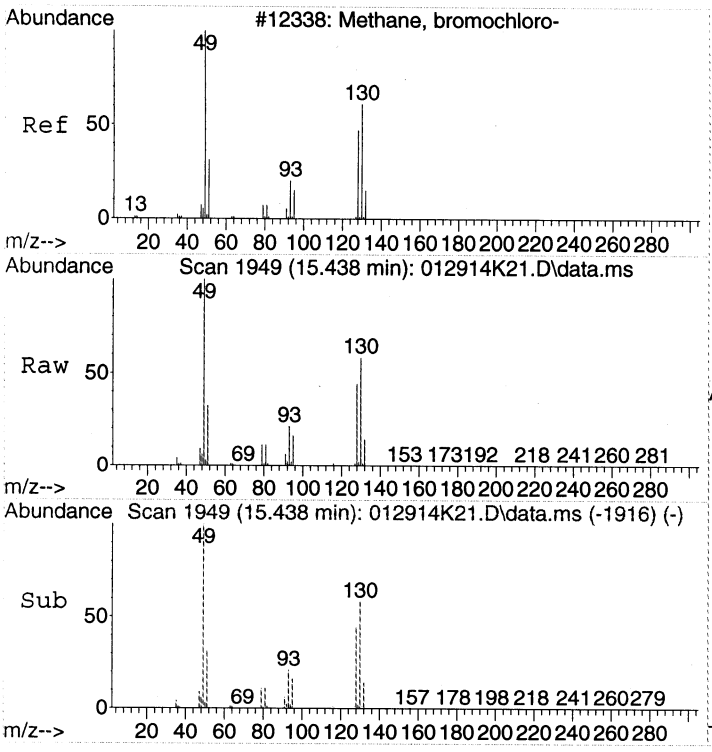
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K21.D
Acq On : 30 Jan 2014 5:19
Instrument: HP5973K
Operator : EM
Sample : 1401049-09
Misc : 200mL MH09 Can 1095
ALS Vial : 46
Multiplier: 1.94

Quant Time: Jan 30 10:05:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

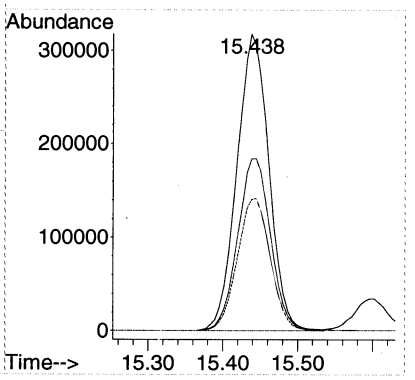


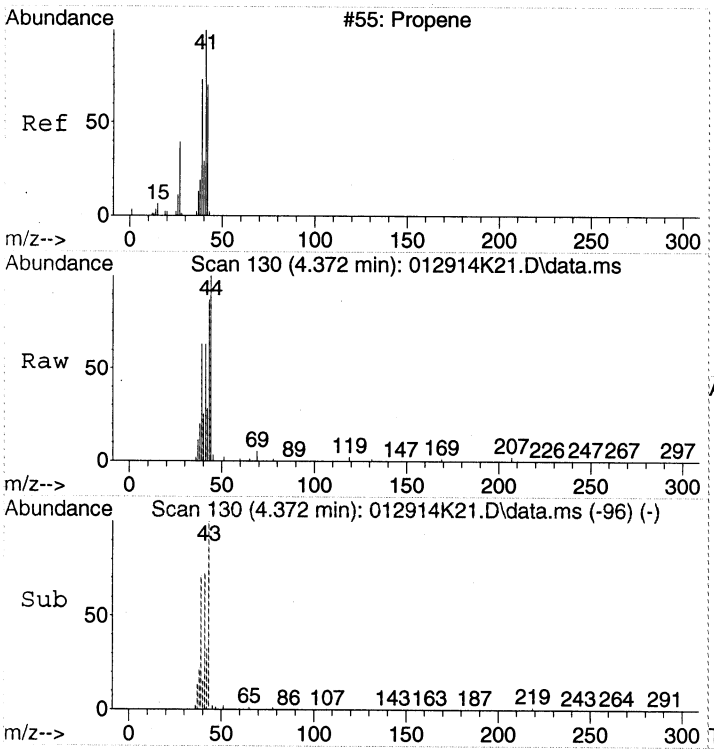



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 49 Resp: 944401

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.6 | 39.6 | 79.6 |
| 128 | 46.0 | 26.9 | 66.9 |

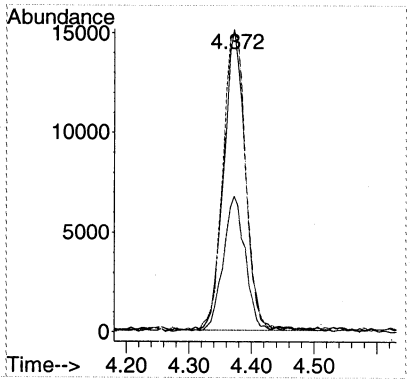


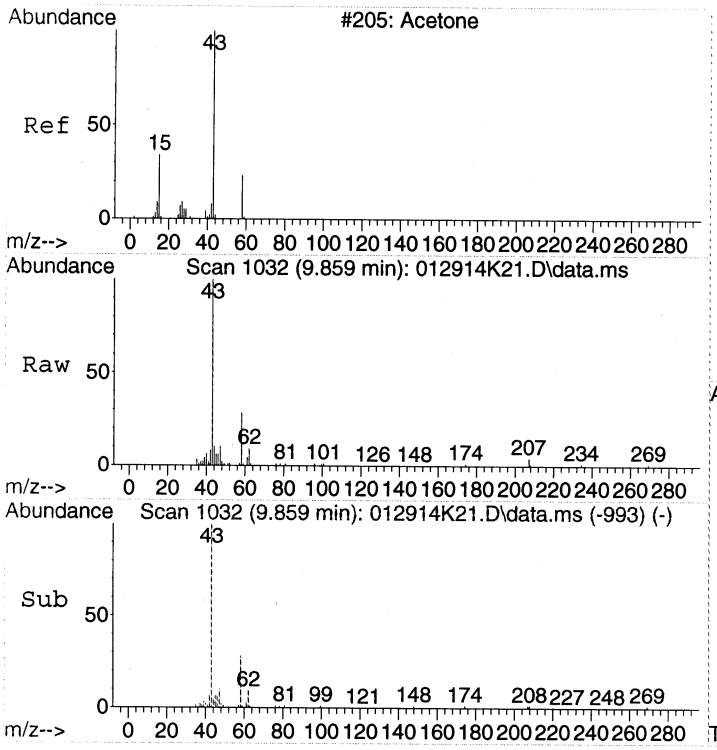




#2
Propene
Concen: 1.35 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 41 Resp: 36705

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 45.5 | 46.8 | 86.8# |
| 39 | 103.7 | 48.3 | 88.3# |

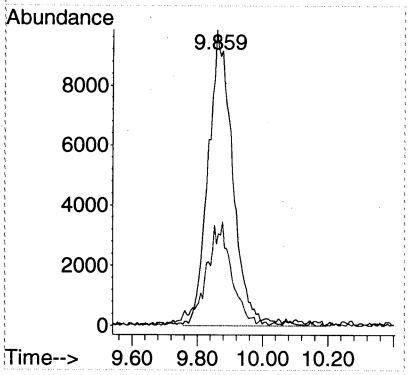


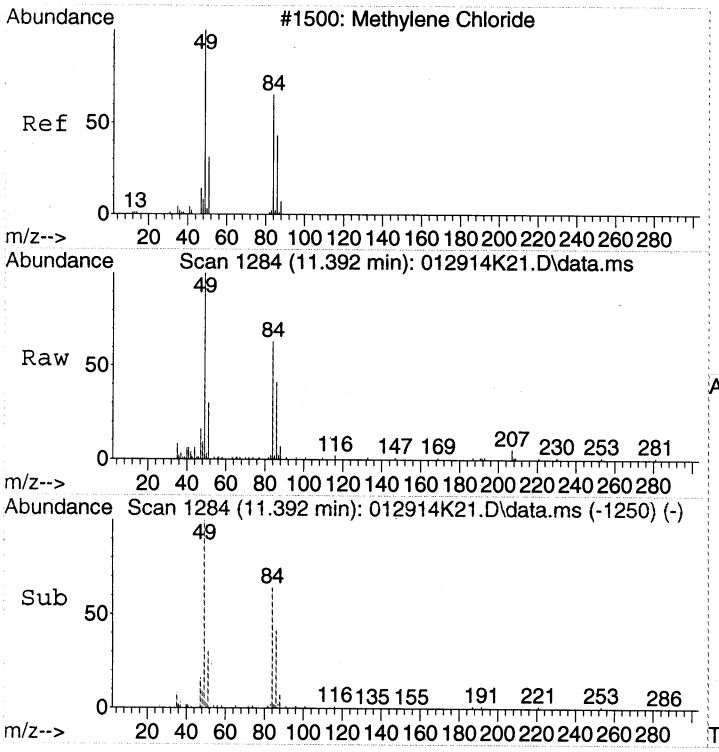



#14
Acetone
Concen: 1.18 ppbv
RT: 9.859 min Scan# 1032
Delta R.T. 0.036 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 43 Resp: 52029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.4 | 12.5 | 52.5 |

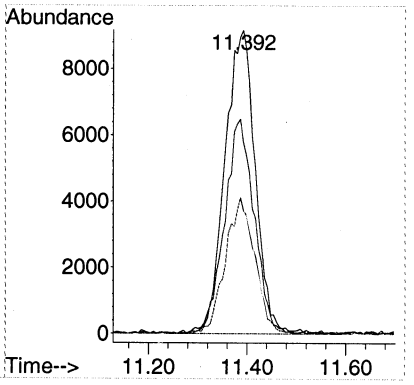


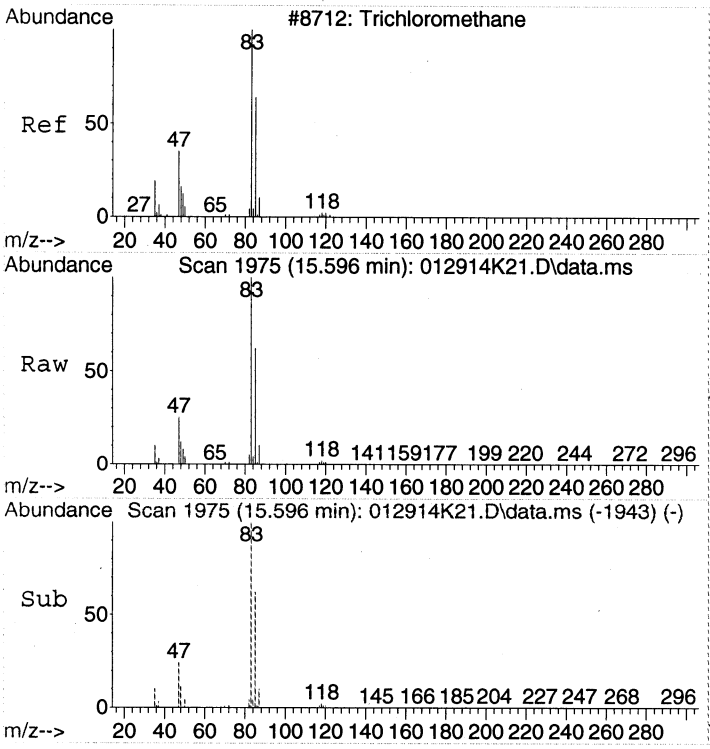




#18
Dichloromethane
Concen: 0.92 ppbv
RT: 11.392 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 49 Resp: 39291

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.5 | 50.0 | 90.0 |
| 86 | 43.2 | 24.4 | 64.4 |

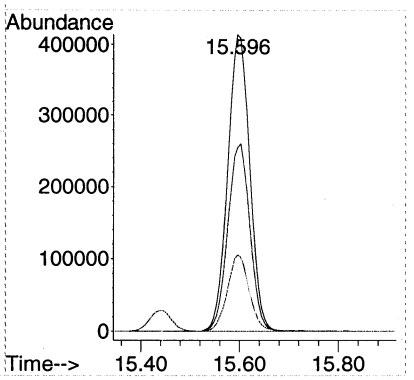


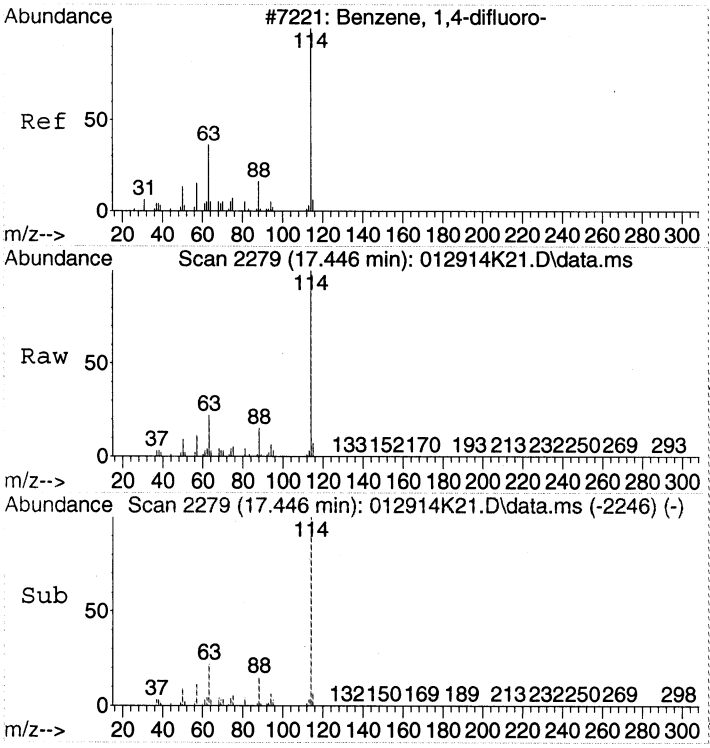



#28
Chloroform
Concen: 21.19 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 83 Resp: 1279421

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.2 | 42.7 | 82.7 |
| 47 | 25.3 | 5.3 | 45.3 |

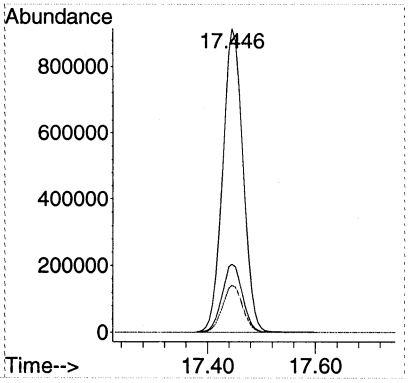


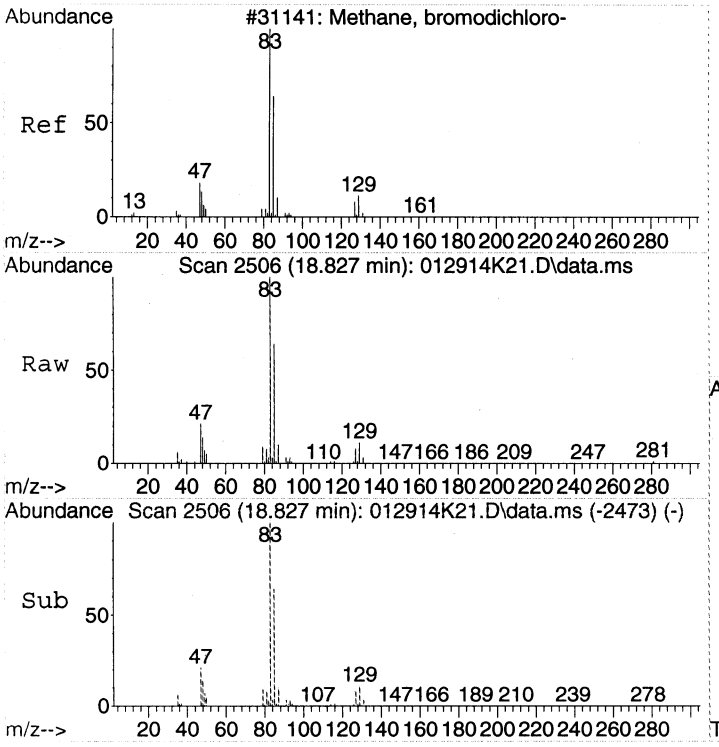




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion:114 Resp: 2389871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

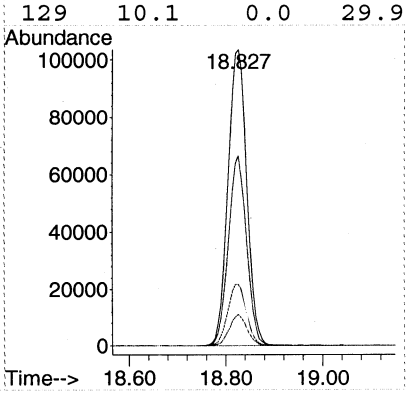


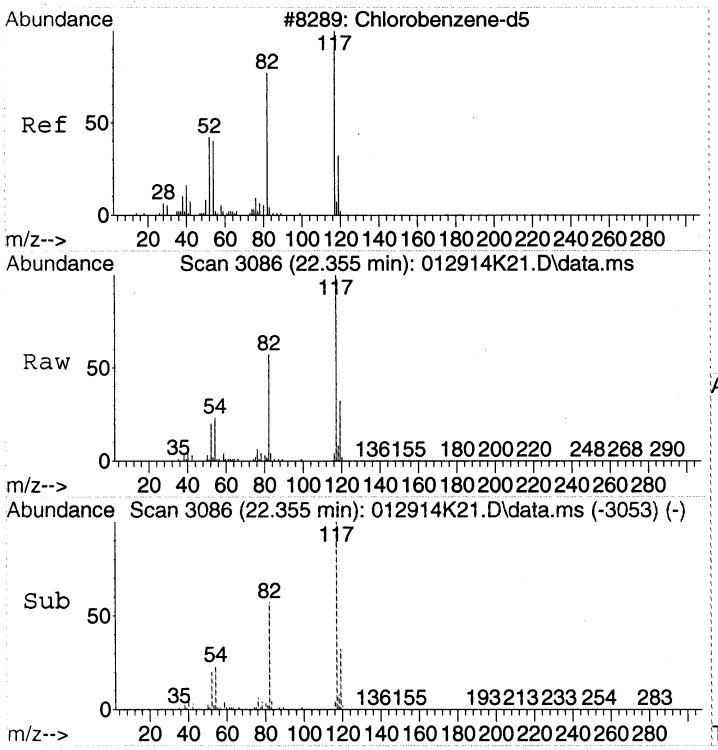



#40
Bromodichloromethane
Concen: 4.75 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 83 Resp: 280467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.1 | 41.8 | 81.8 |
| 47 | 20.8 | 0.4 | 40.4 |
| 129 | 10.1 | 0.0 | 29.9 |

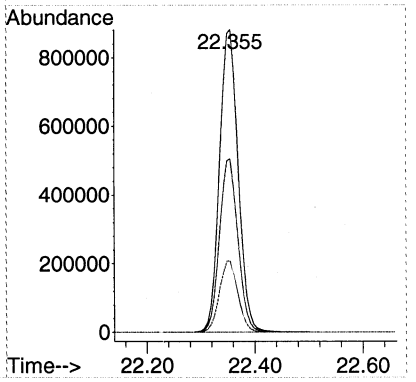



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

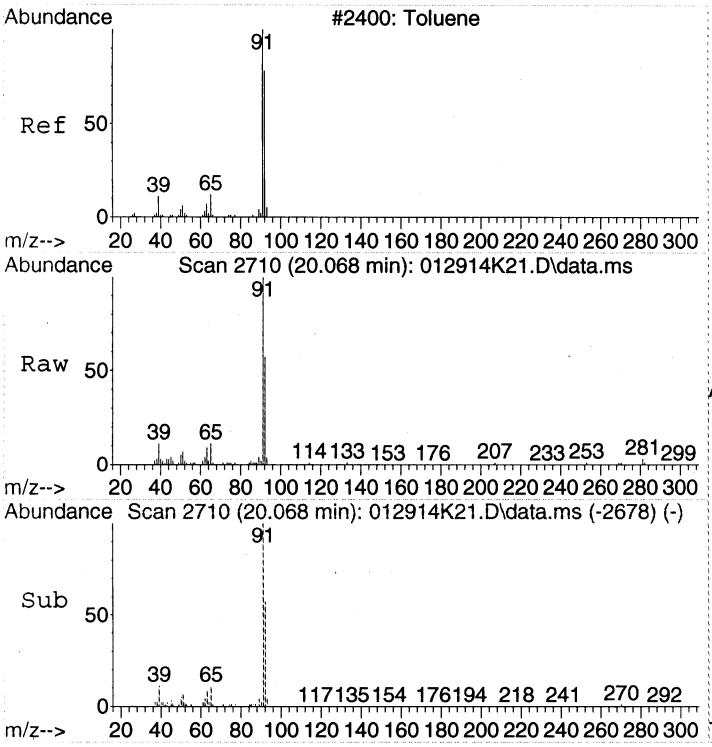
Tgt Ion:117 Resp: 2111832

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 37.1 | 77.1 |
| 54 | 23.4 | 3.3 | 43.3 |





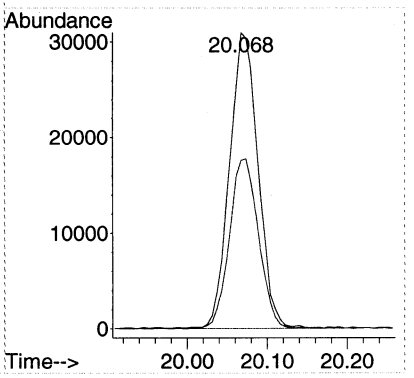

00284

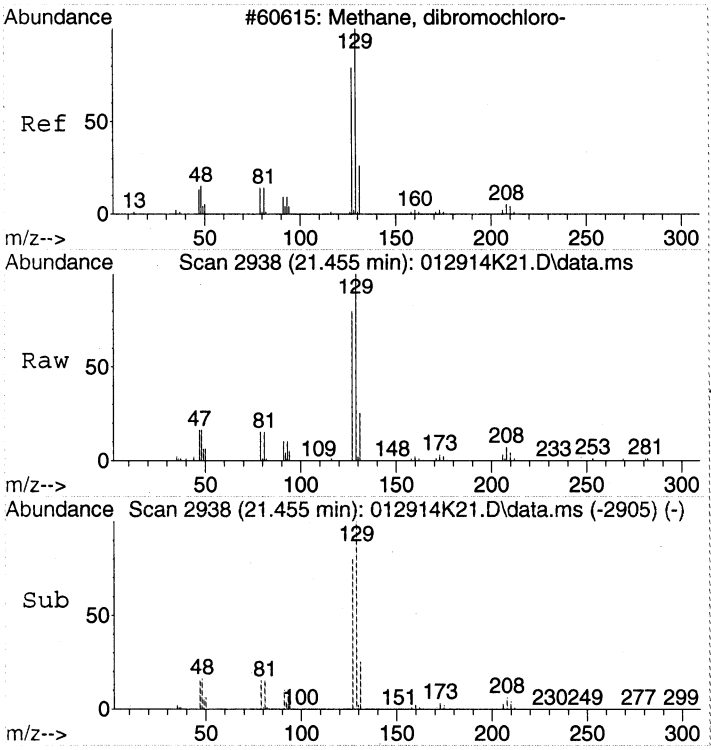



#44
Toluene
Concen: 0.74 ppbv
RT: 20.068 min Scan# 2710
Delta R.T. -0.006 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion: 91 Resp: 76569

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 59.0 | 38.2 | 78.2 |

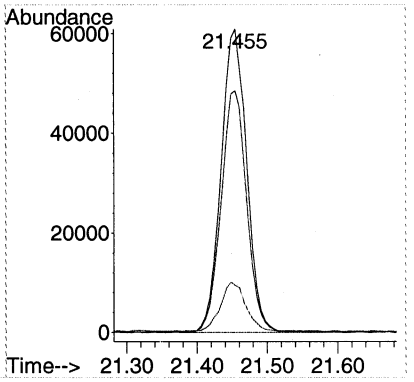


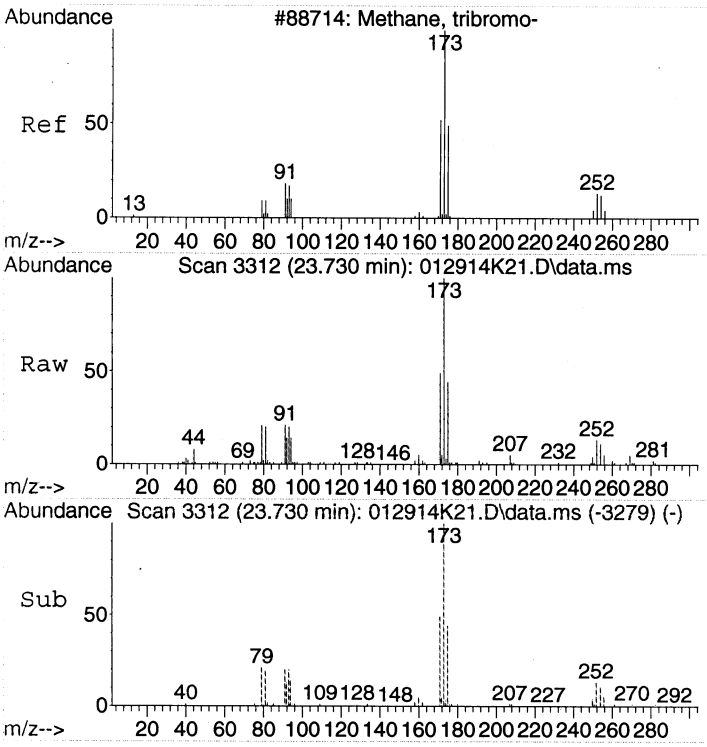




#49
Chlorodibromomethane
Concen: 2.94 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion:129 Resp: 154020

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 80.1 | 59.2 | 99.2 |
| 79 | 16.1 | 0.0 | 35.9 |

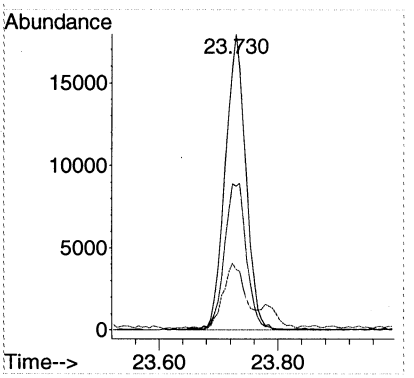





#56
Bromoform
Concen: 0.79 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K21.D
Acq: 30 Jan 2014 5:19

Tgt Ion:173 Resp: 43359

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 52.7 | 32.4 | 72.4 |
| 91 | 23.7 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K22.D
Acq On : 30 Jan 2014 6:09
Instrument: HP5973K
Operator : EM
Sample : 1401049-10
Misc : 200mL MH10 Can 636
ALS Vial : 47
Multiplier: 1.92

Quant Time: Jan 30 10:06:03 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 922350 | 22.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2296863 | 22.00 | ppbv | | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2012672 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.378 | 41 | 13360 | 0.50 | ppbv | # | 81 |
| 14) Acetone | 9.866 | 43 | 43541 | 1.01 | ppbv | | 98 |
| 18) Dichloromethane | 11.387 | 49 | 25758 | 0.62 | ppbv | | 96 |
| 24) cis-1,2-Dichloroethene | 14.860 | 61 | 36114 | 0.84 | ppbv | # | 23 |
| 28) Chloroform | 15.603 | 83 | 374727 | 6.36 | ppbv | | 98 |
| 37) Trichloroethene | 17.860 | 130 | 44669 | 1.28 | ppbv | | 99 |
| 40) Bromodichloromethane | 18.821 | 83 | 78354 | 1.38 | ppbv | | 99 |
| 45) ~~trans-1,3-Dichloropropene~~ | ~~20.469~~ | ~~75~~ | ~~85635~~ | ~~2.00~~ | ~~ppbv~~ | ~~#~~ | ~~43~~ |
| 49) Chlorodibromomethane | 21.455 | 129 | 40658 | 0.81 | ppbv | | 99 |

em 1/30/14

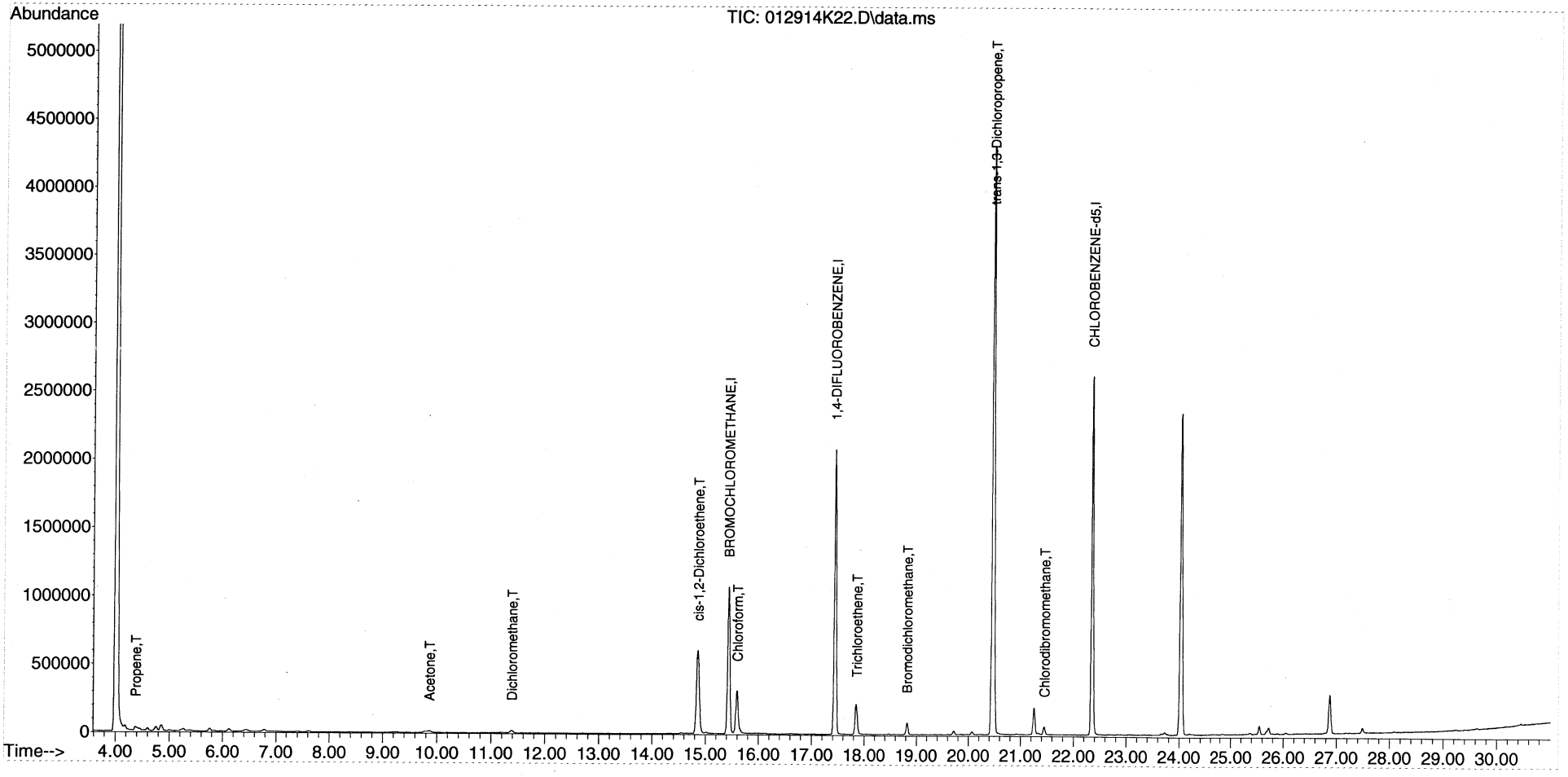
(#) = qualifier out of range (m) = manual integration (+) = signals summed

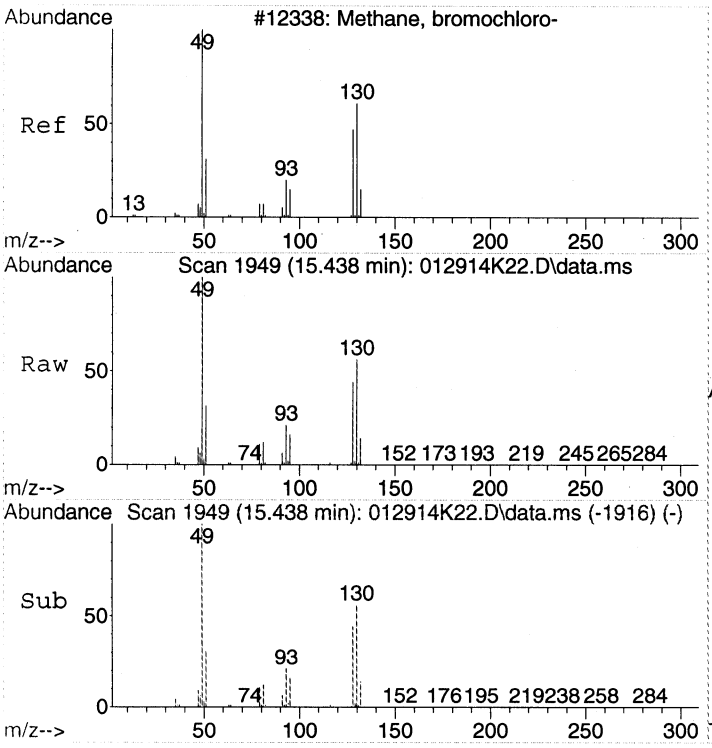
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K22.D
Acq On : 30 Jan 2014 6:09
Instrument: HP5973K
Operator : EM
Sample : 1401049-10
Misc : 200mL MH10 Can 636
ALS Vial : 47
Multiplier: 1.92

Quant Time: Jan 30 10:06:03 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

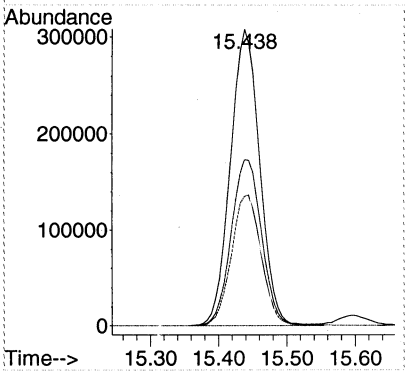


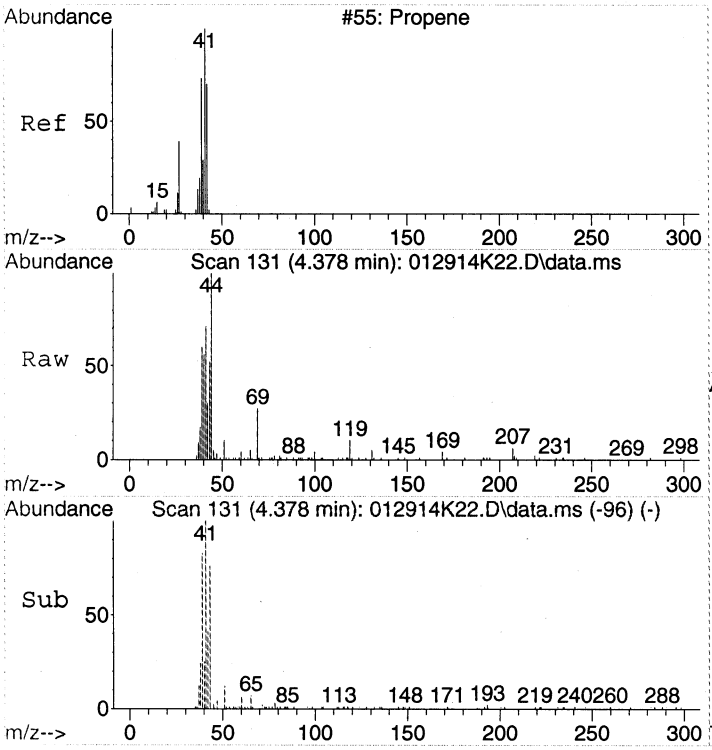



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 49 Resp: 922350

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 58.2 | 39.6 | 79.6 |
| 128 | 44.9 | 26.9 | 66.9 |

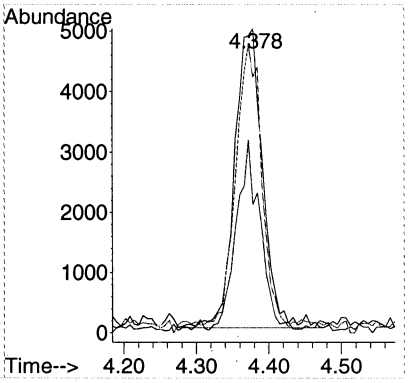


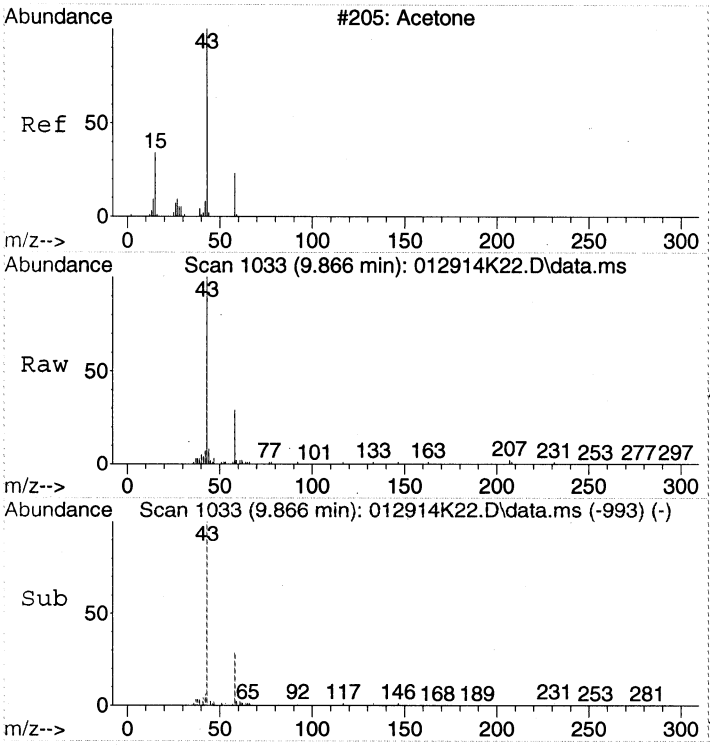




#2
Propene
Concen: 0.50 ppbv
RT: 4.378 min Scan# 131
Delta R.T. 0.012 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 41 Resp: 13360

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 56.3 | 46.8 | 86.8 |
| 39 | 89.0 | 48.3 | 88.3# |

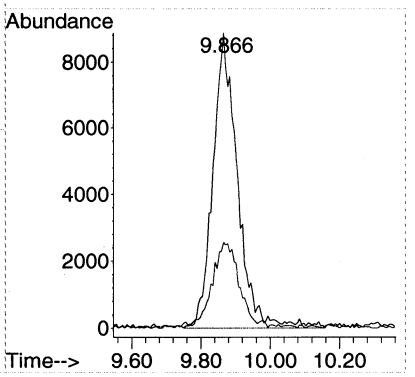


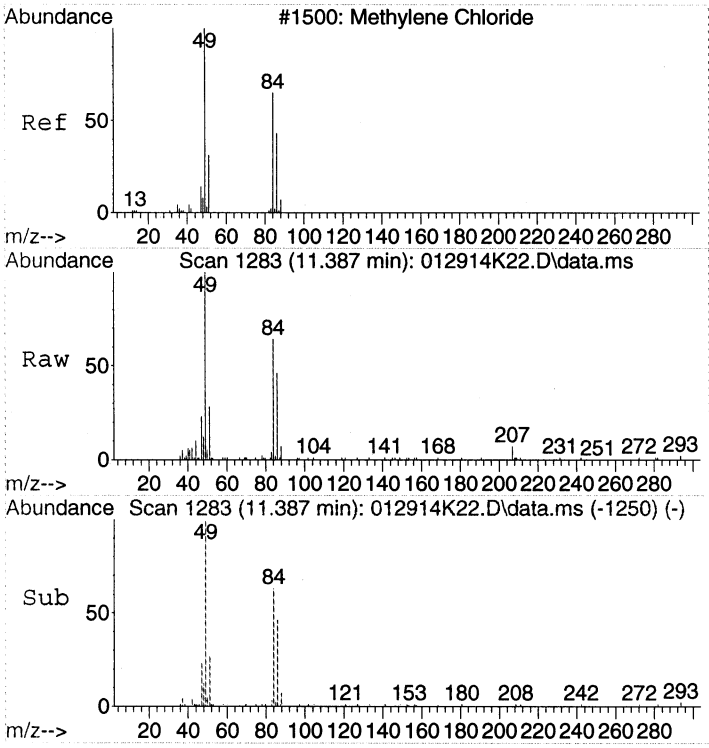



#14
Acetone
Concen: 1.01 ppbv
RT: 9.866 min Scan# 1033
Delta R.T. 0.043 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 43 Resp: 43541

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.6 | 12.5 | 52.5 |

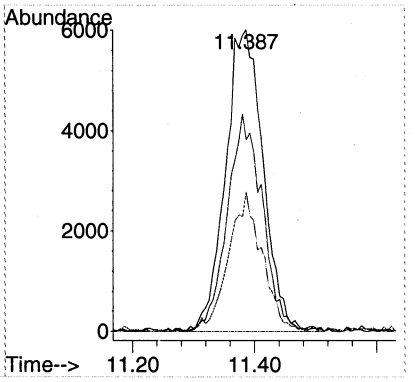


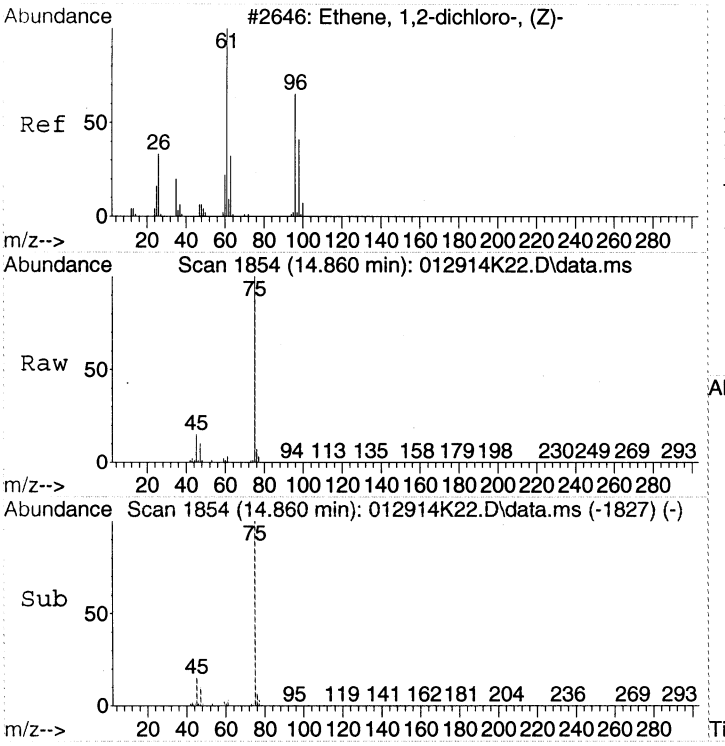




#18
Dichloromethane
Concen: 0.62 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 49 Resp: 25758

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.3 | 50.0 | 90.0 |
| 86 | 41.3 | 24.4 | 64.4 |

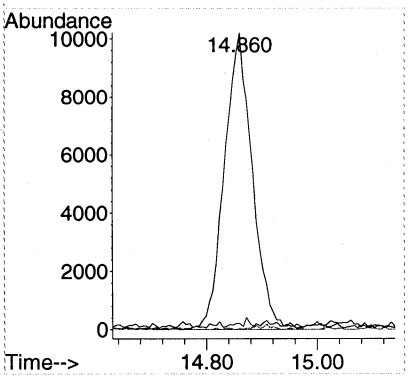


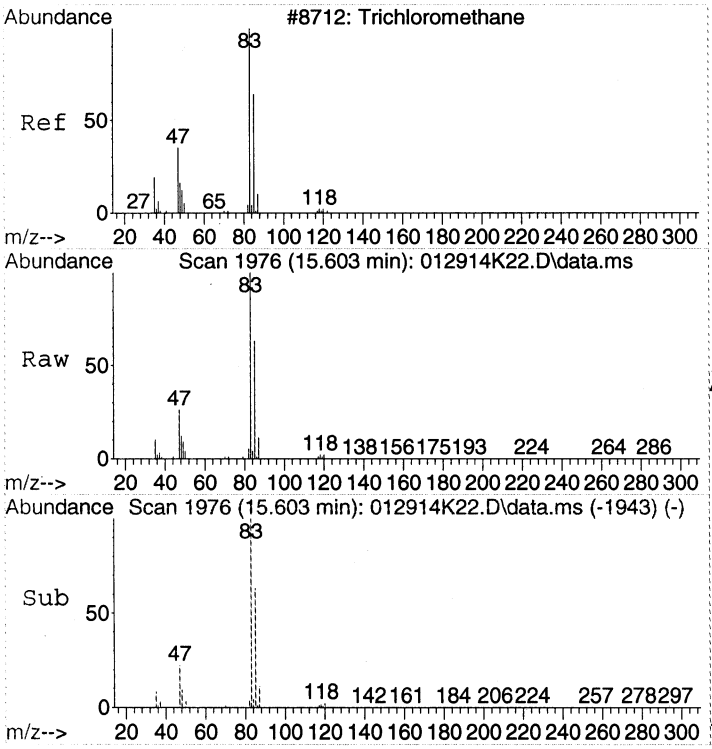



#24
cis-1,2-Dichloroethene
Concen: 0.84 ppbv
RT: 14.860 min Scan# 1854
Delta R.T. -0.037 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 61 Resp: 36114

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 3.7 | 51.7 | 91.7# |
| 98 | 0.0 | 25.4 | 65.4# |

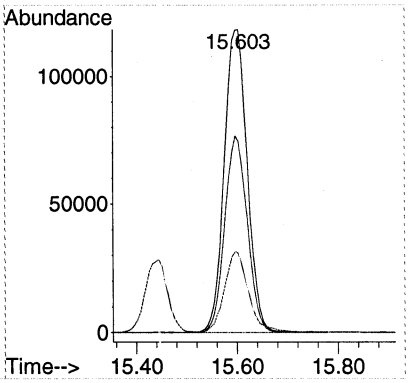


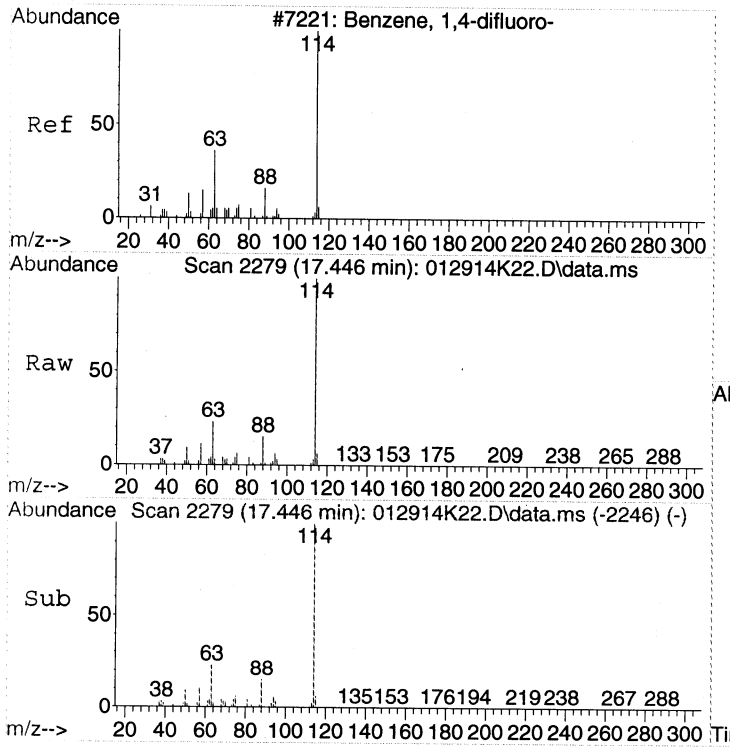




#28
Chloroform
Concen: 6.36 ppbv
RT: 15.603 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 83 Resp: 374727

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.5 | 42.7 | 82.7 |
| 47 | 27.0 | 5.3 | 45.3 |

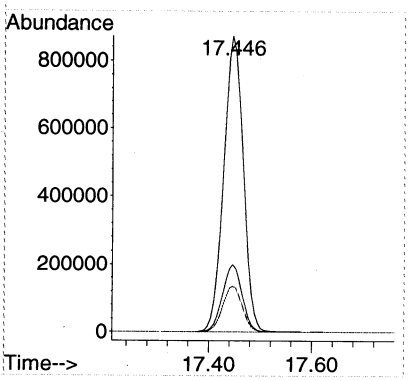


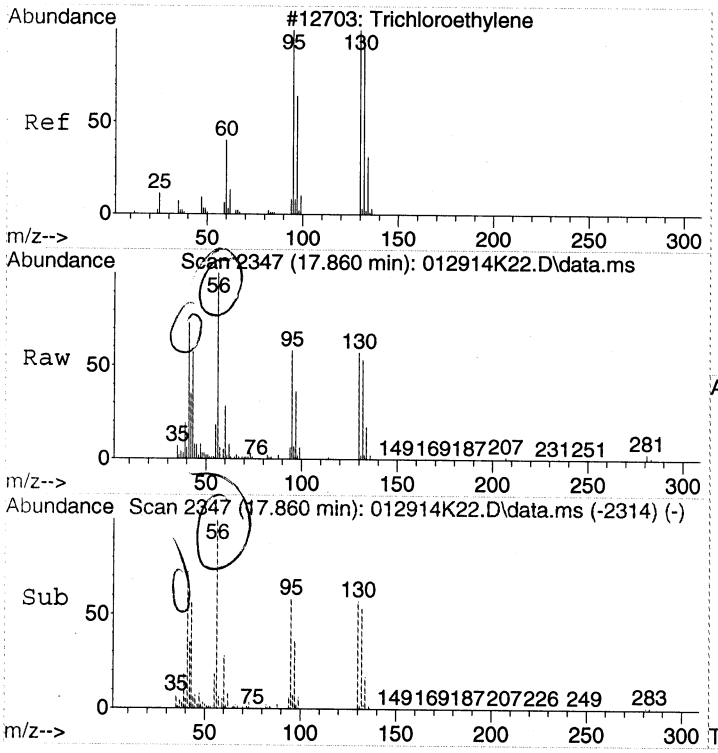



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion:114 Resp: 2296863

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.8 | 2.3 | 42.3 |
| 88 | 15.6 | 0.0 | 35.2 |

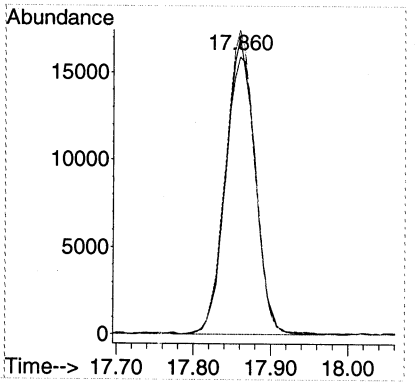



#37
Trichloroethene
Concen: 1.28 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion:130 Resp: 44669

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.7 | 78.9 | 118.9 |
| 95 | 101.8 | 82.3 | 122.3 |



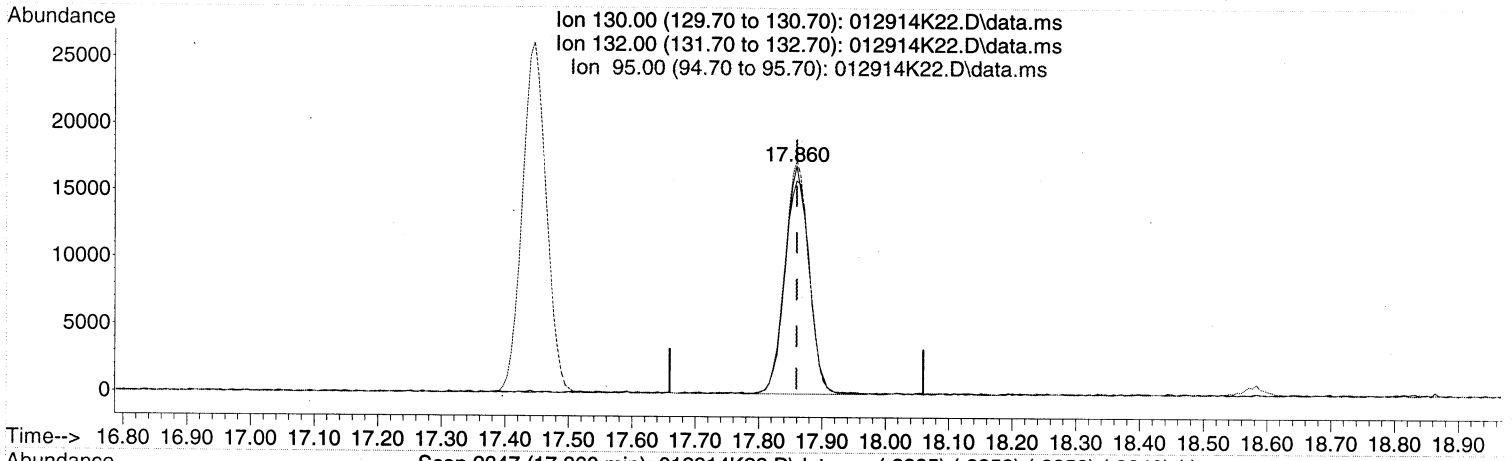

see spectra next page

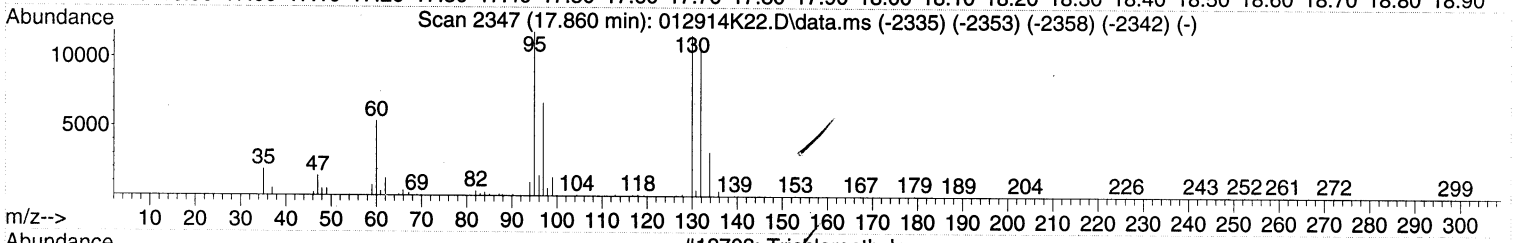
Quantitation Report (Qedit)

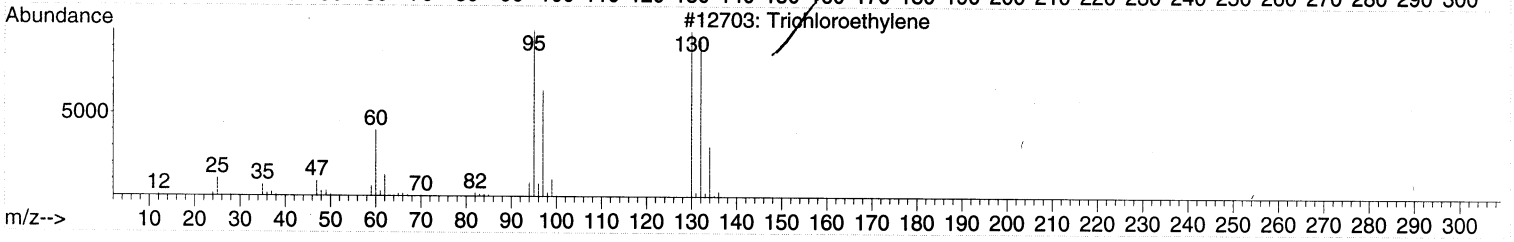
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K22.D
Acq On : 30 Jan 2014 6:09
Instrument: HP5973K
Operator : EM
Sample : 1401049-10
Misc : 200mL MH10 Can 636
ALS Vial : 47
Multiplier: 1.92

Quant Time: Jan 30 10:06:03 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



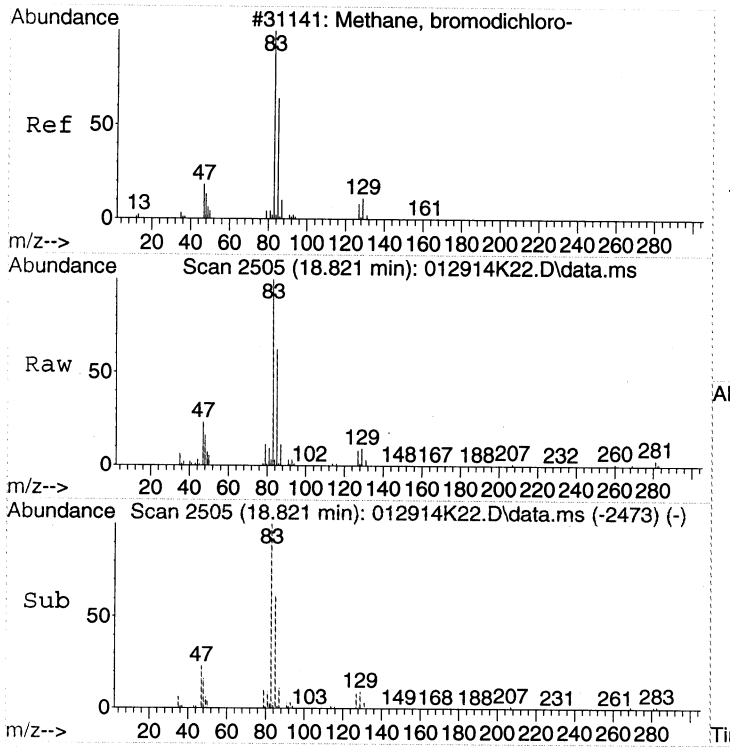

TIC: 012914K22.D\data.ms

(37) Trichloroethene (T)

17.860min (-0.000) 1.28 ppbv

response 44669

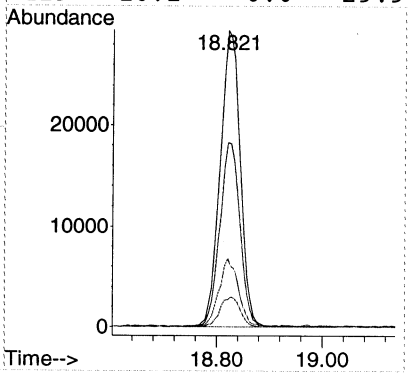
| Ion | Exp% | Act% |
|---|---|---|
| 130.00 | 100 | 100 |
| 132.00 | 98.90 | 97.75 |
| 95.00 | 102.30 | 101.79 |
| 0.00 | 0.00 | 0.00 |

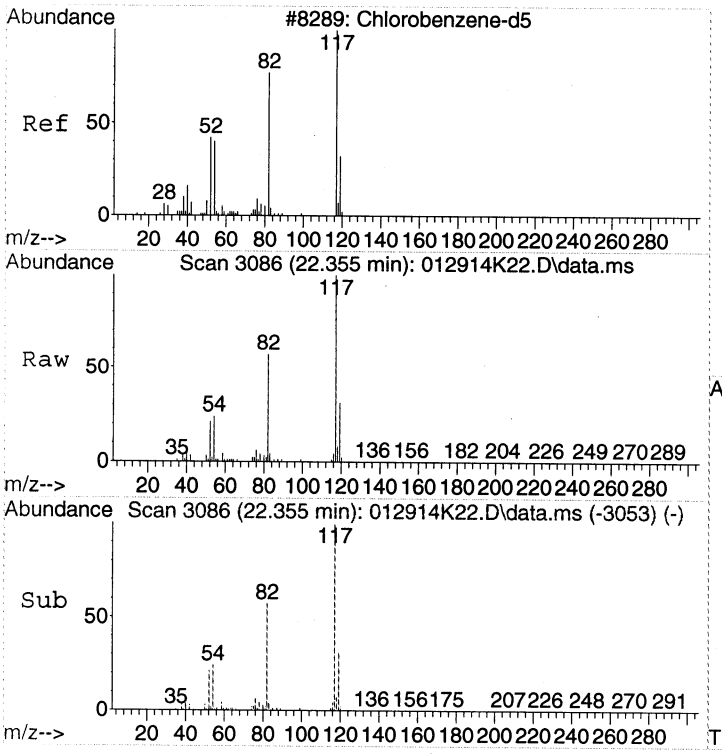



#40
Bromodichloromethane
Concen: 1.38 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 83 Resp: 78354

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.2 | 41.8 | 81.8 |
| 47 | 22.1 | 0.4 | 40.4 |
| 129 | 10.1 | 0.0 | 29.9 |

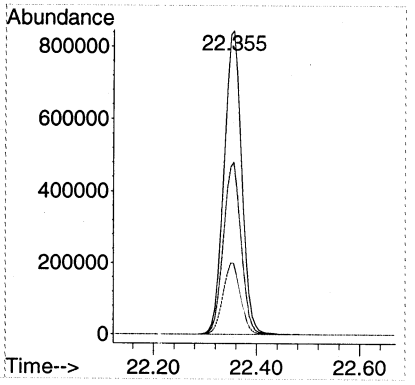


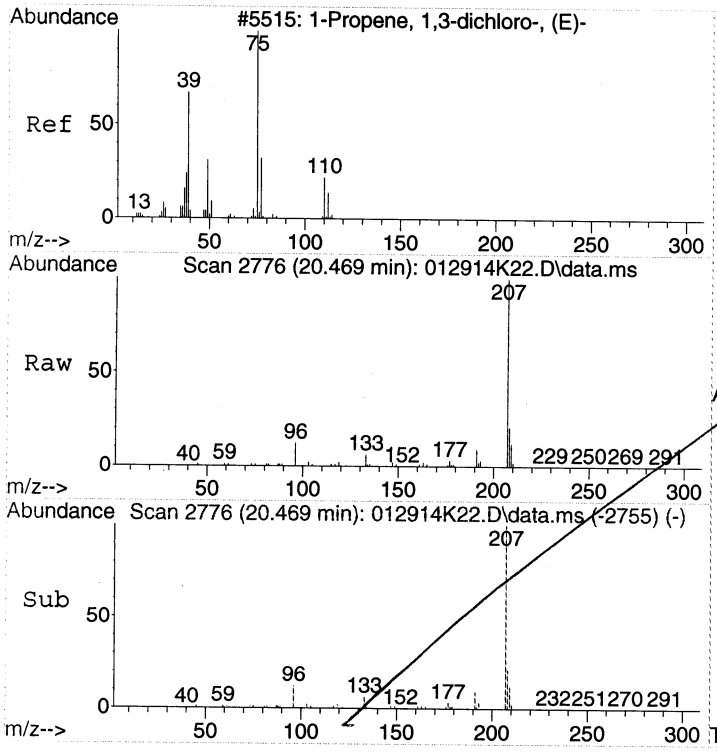




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion:117 Resp: 2012672

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 37.1 | 77.1 |
| 54 | 23.6 | 3.3 | 43.3 |

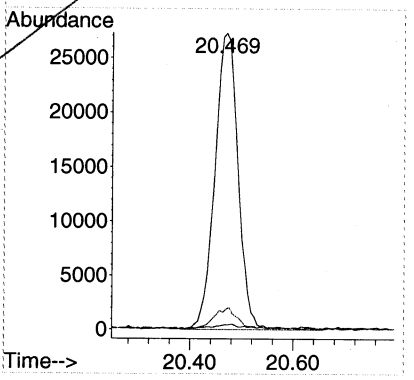


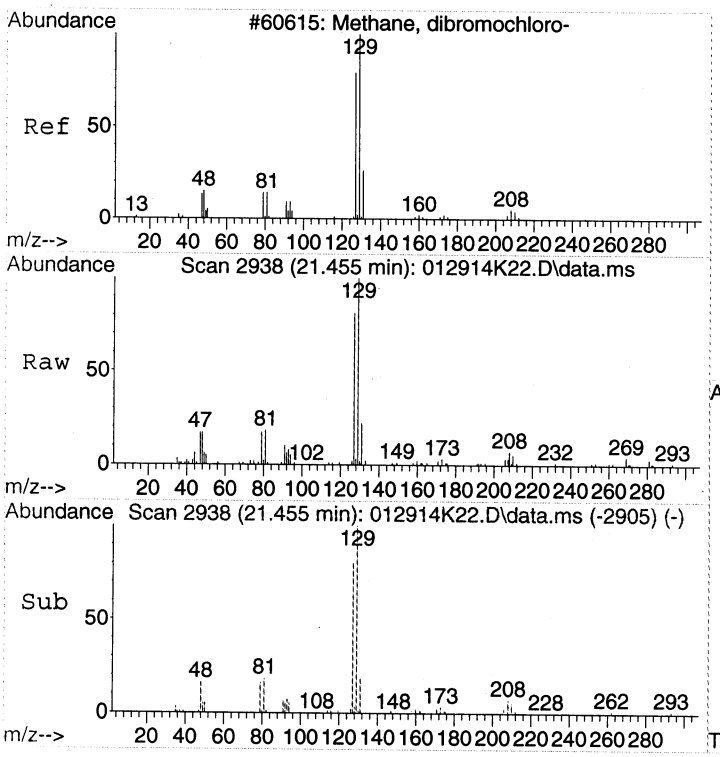



#45
trans-1,3-Dichloropropene
Concen: 2.00 ppbv
RT: 20.469 min Scan# 2776
Delta R.T. -0.073 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion: 75 Resp: 85635

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 2.2 | 26.3 | 66.3# |
| 77 | 7.6 | 10.4 | 50.4# |

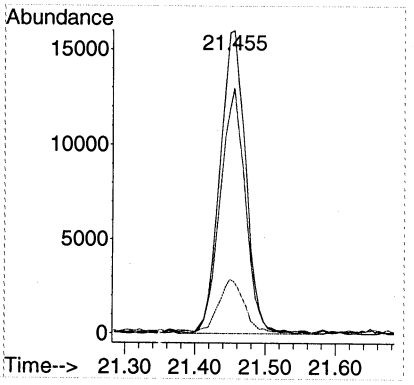



#49
Chlorodibromomethane
Concen: 0.81 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 012914K22.D
Acq: 30 Jan 2014 6:09

Tgt Ion:129 Resp: 40658

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 80.1 | 59.2 | 99.2 |
| 79 | 17.0 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K23.D
Acq On : 30 Jan 2014 6:58
Instrument: HP5973K
Operator : EM
Sample : 1401049-11
Misc : 200mL MH11 Can 696
ALS Vial : 48
Multiplier: 1.92

Quant Time: Jan 30 10:06:18 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 933367 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2313574 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2010456 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 20476 | 0.76 | ppbv | 82 |
| 6) Vinyl chloride | 5.333 | 62 | 80129 | 2.42 | ppbv | 98 |
| 14) Acetone | 9.866 | 43 | 45919 | 1.05 | ppbv | 98 |
| 18) Dichloromethane | 11.380 | 49 | 43577 | 1.03 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 135022 | 3.38 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 5171974 | 119.18 | ppbv E | 98 |
| 28) Chloroform | 15.596 | 83 | 1665885 | 27.92 | ppbv E | 99 |
| 37) Trichloroethene | 17.859 | 130 | 3623092 | 102.85 | ppbv E | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 181929 | 3.19 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 847841 | 18.45 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.449 | 129 | 91880 | 1.84 | ppbv | 98 |
| 56) Bromoform | 23.730 | 173 | 26590 | 0.51 | ppbv | 96 |

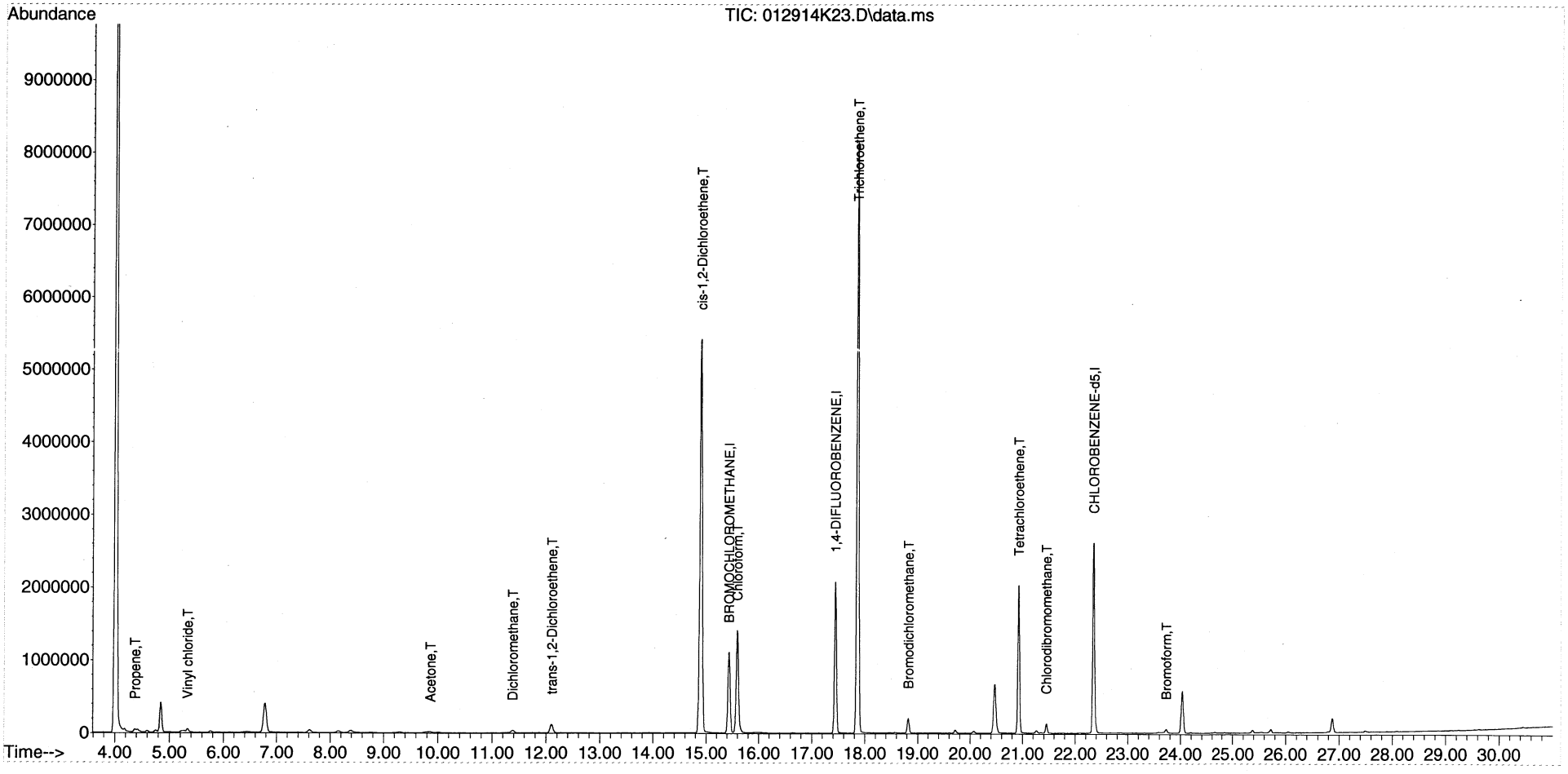
(#) = qualifier out of range (m) = manual integration (+) = signals summed

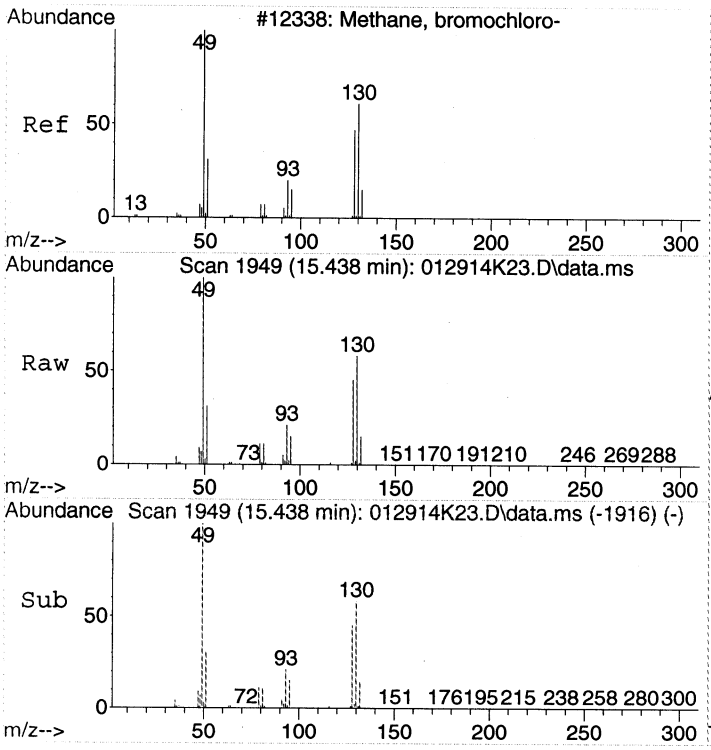
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K23.D
Acq On : 30 Jan 2014 6:58
Instrument: HP5973K
Operator : EM
Sample : 1401049-11
Misc : 200mL MH11 Can 696
ALS Vial : 48
Multiplier: 1.92

Quant Time: Jan 30 10:06:18 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

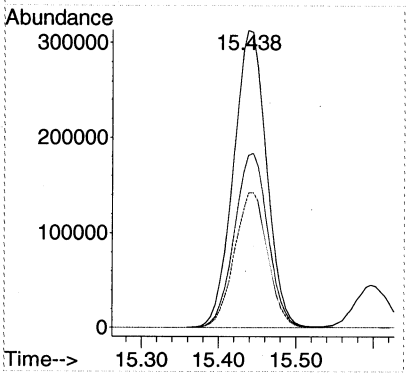


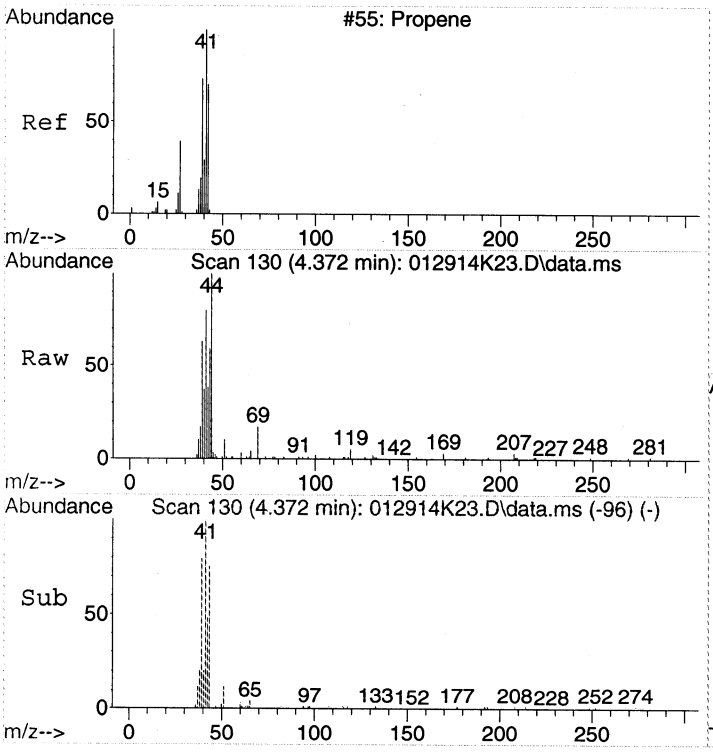



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 49 Resp: 933367

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.6 | 39.6 | 79.6 |
| 128 | 45.6 | 26.9 | 66.9 |

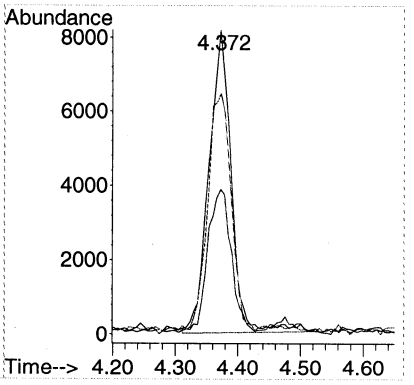


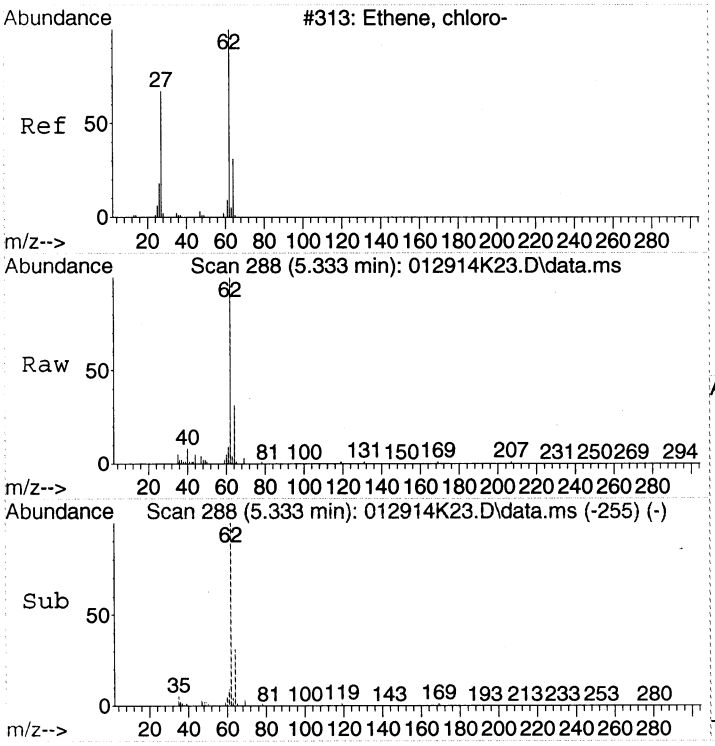




#2
Propene
Concen: 0.76 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 41 Resp: 20476

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 49.7 | 46.8 | 86.8 |
| 39 | 80.7 | 48.3 | 88.3 |

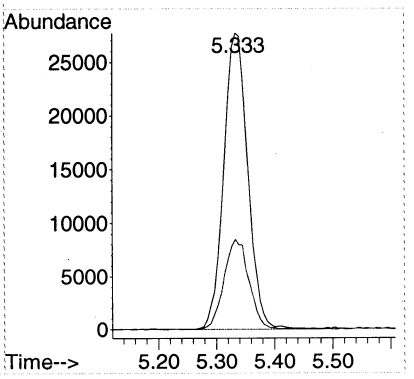


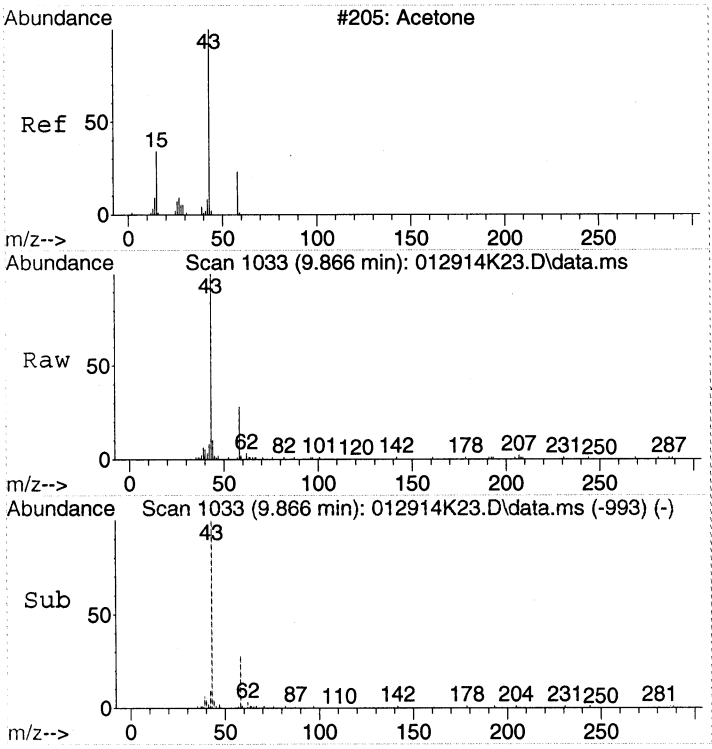



#6
Vinyl chloride
Concen: 2.42 ppbv
RT: 5.333 min Scan# 288
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 62 Resp: 80129

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.6 | 10.8 | 50.8 |

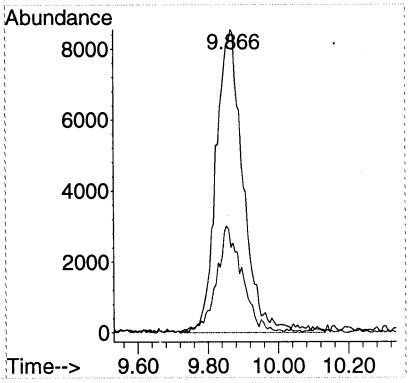


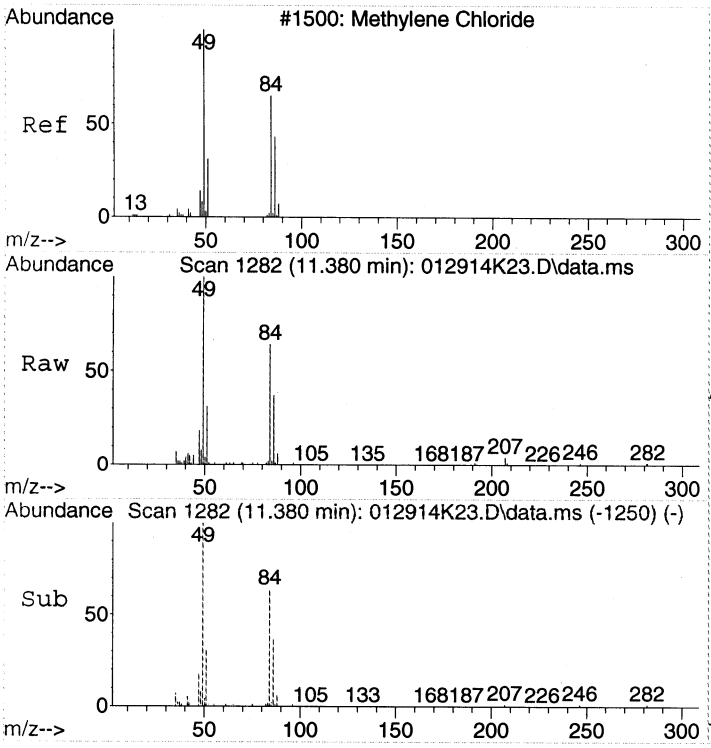




#14
Acetone
Concen: 1.05 ppbv
RT: 9.866 min Scan# 1033
Delta R.T. 0.042 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 43 Resp: 45919

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.8 | 12.5 | 52.5 |

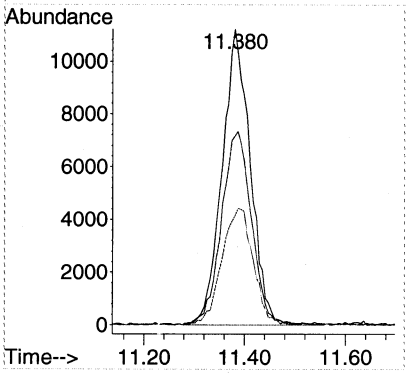


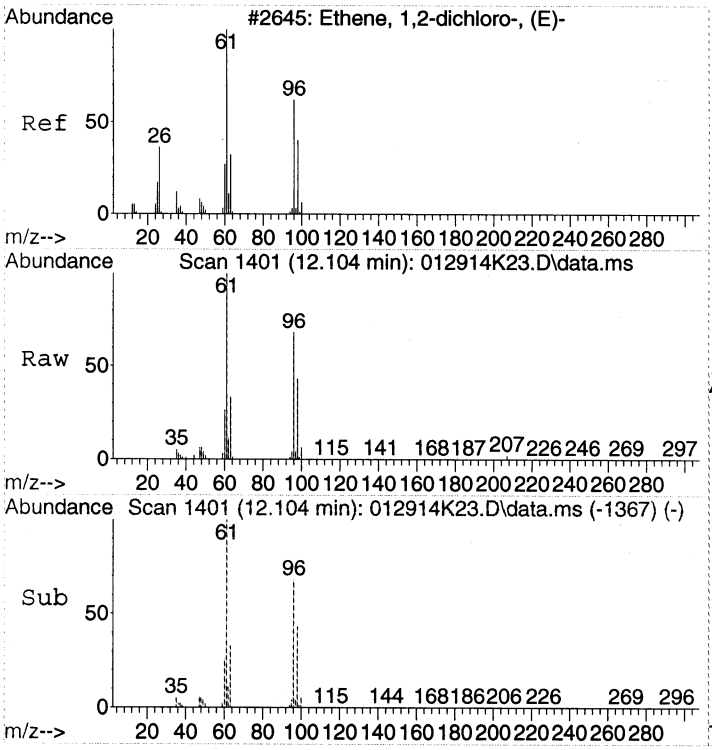



#18
Dichloromethane
Concen: 1.03 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 49 Resp: 43577

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.3 | 50.0 | 90.0 |
| 86 | 43.8 | 24.4 | 64.4 |

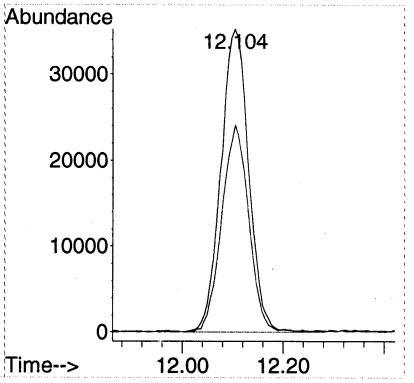


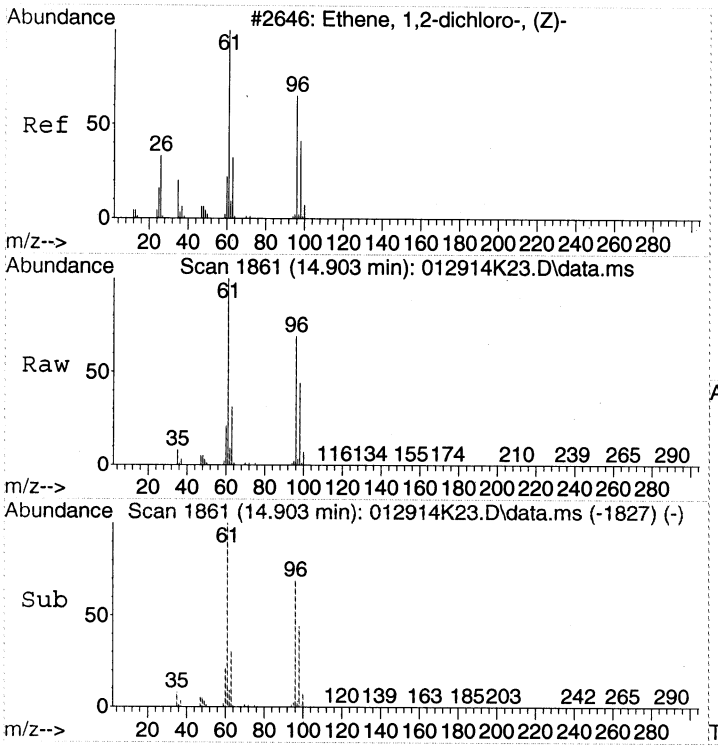




#20
trans-1,2-Dichloroethene
Concen: 3.38 ppbv
RT: 12.104 min Scan# 1401
Delta R.T. 0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 61 Resp: 135022

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 66.0 | 45.4 | 85.4 |

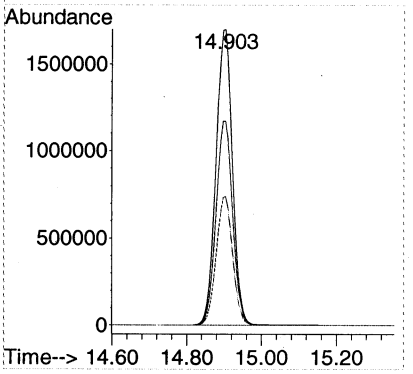


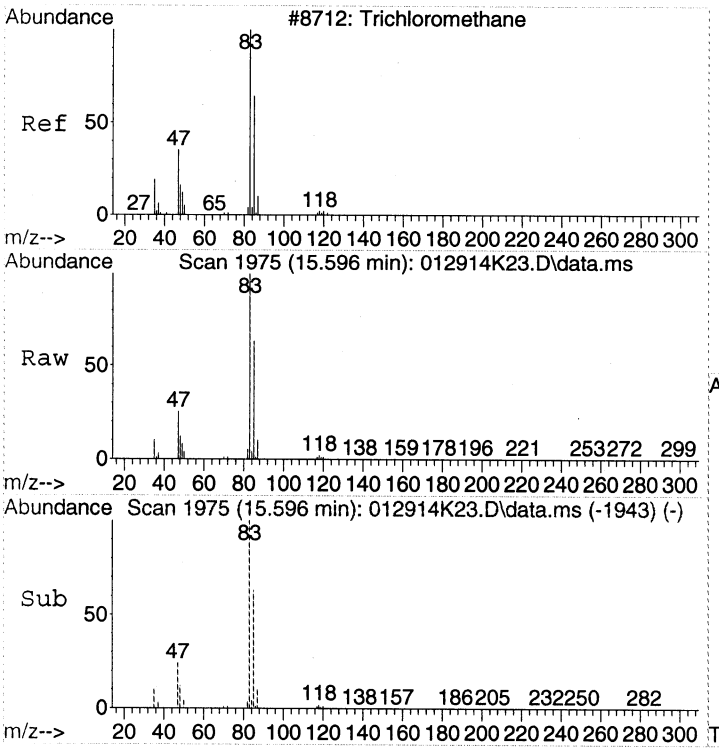



#24
cis-1,2-Dichloroethene
Concen: 119.18 ppbv
RT: 14.903 min Scan# 1861
Delta R.T. 0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 61 Resp: 5171974

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 69.8 | 51.7 | 91.7 |
| 98 | 43.8 | 25.4 | 65.4 |

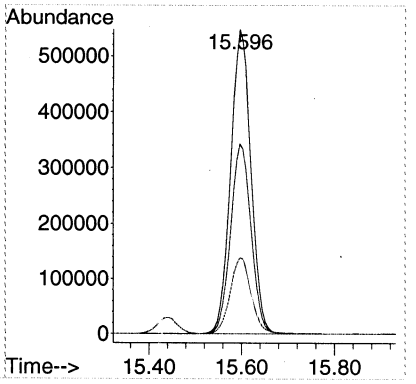


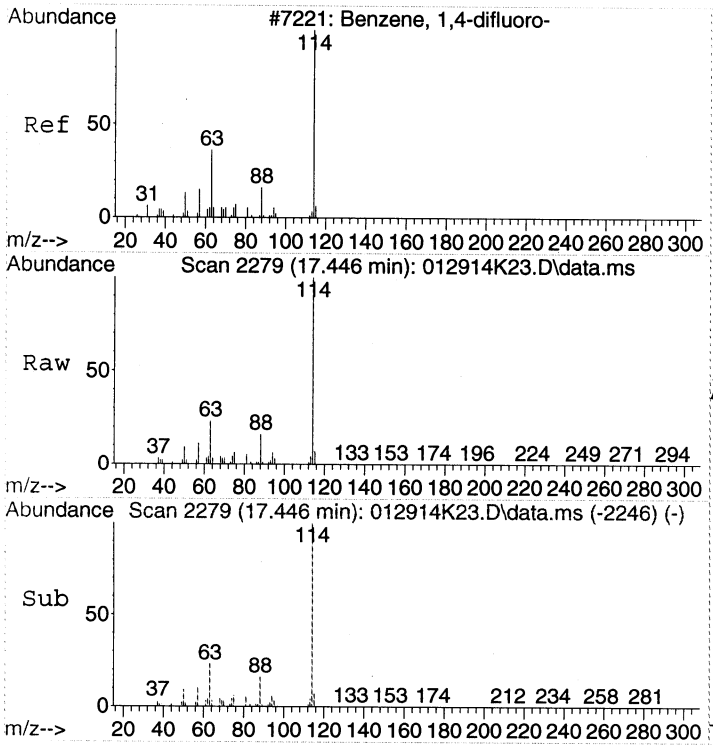




#28
Chloroform
Concen: 27.92 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 83 Resp: 1665885

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.3 | 42.7 | 82.7 |
| 47 | 26.1 | 5.3 | 45.3 |

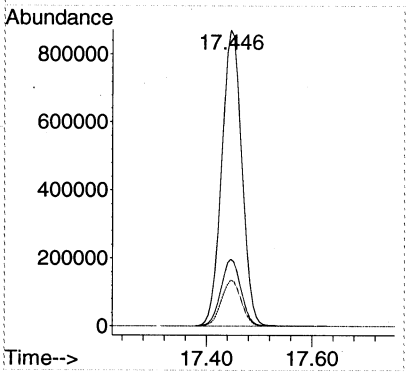


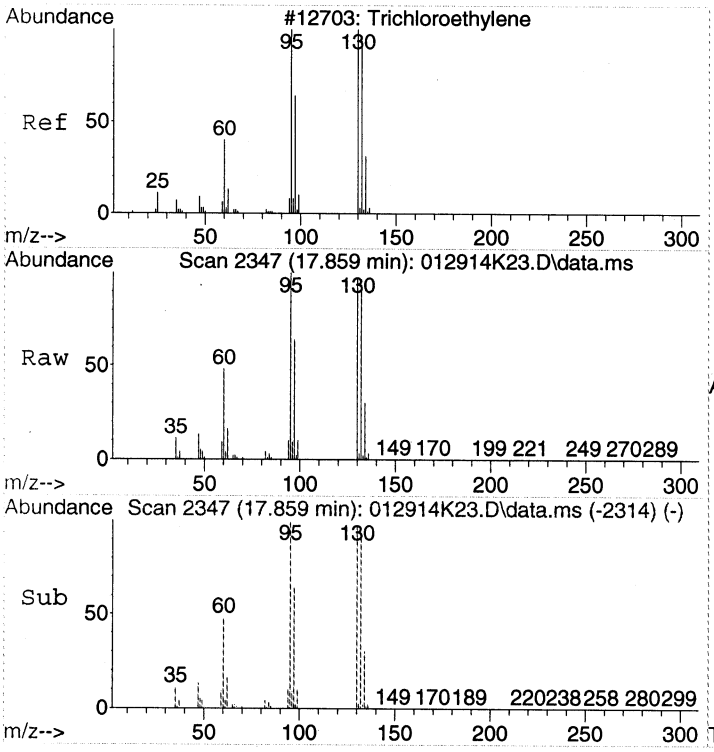



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:114 Resp: 2313574

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

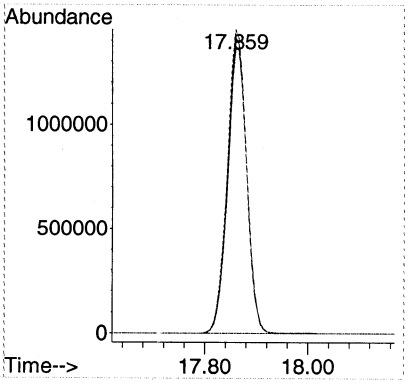


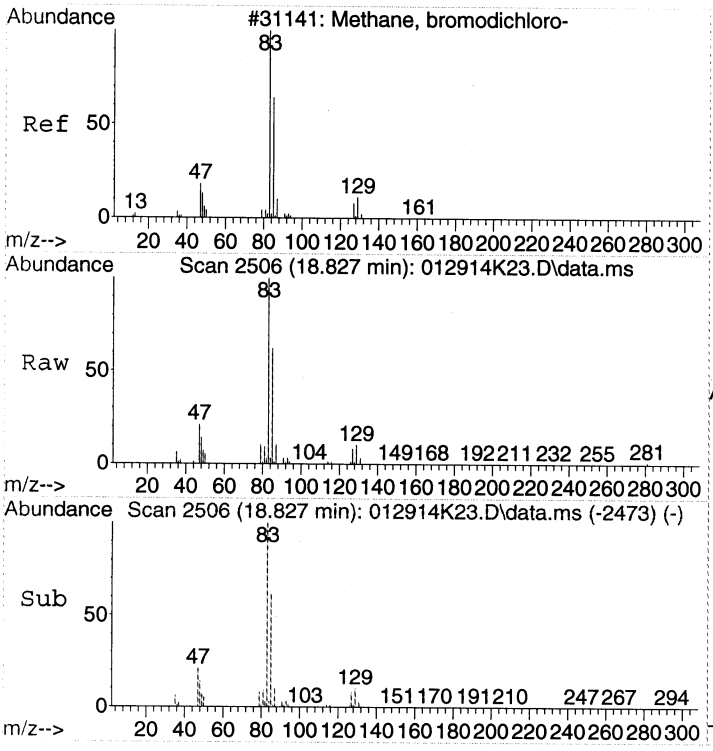




#37
Trichloroethene
Concen: 102.85 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:130 Resp: 3623092

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.9 | 78.9 | 118.9 |
| 95 | 103.3 | 82.3 | 122.3 |

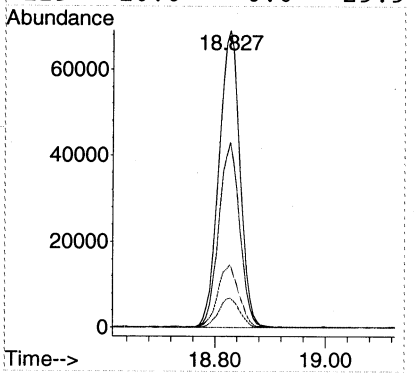


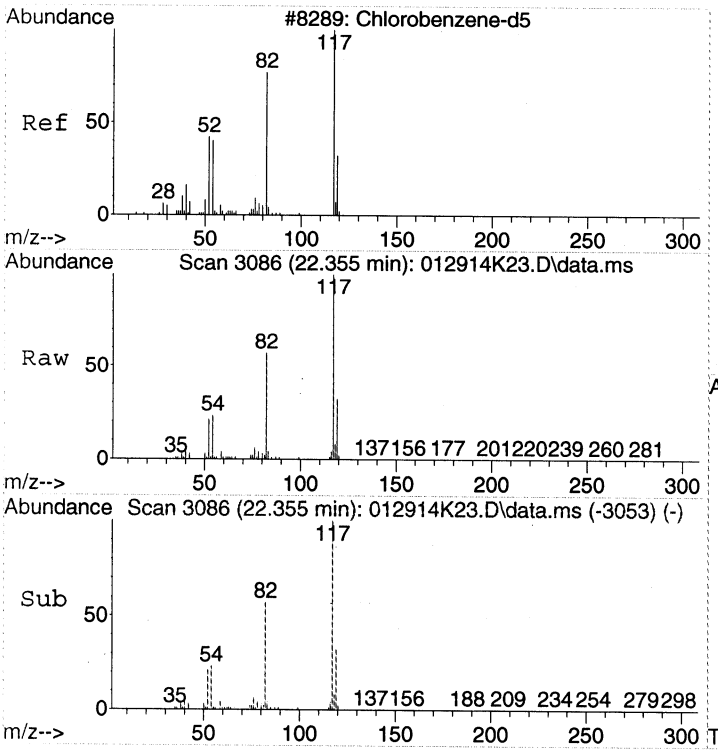



#40
Bromodichloromethane
Concen: 3.19 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion: 83 Resp: 181929

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.4 | 41.8 | 81.8 |
| 47 | 20.9 | 0.4 | 40.4 |
| 129 | 10.0 | 0.0 | 29.9 |

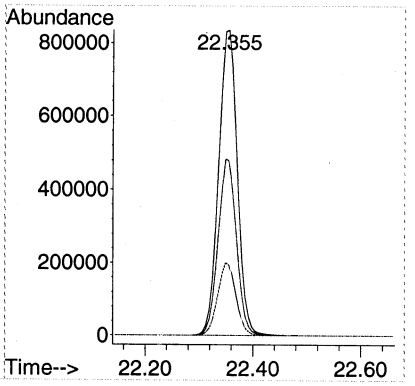


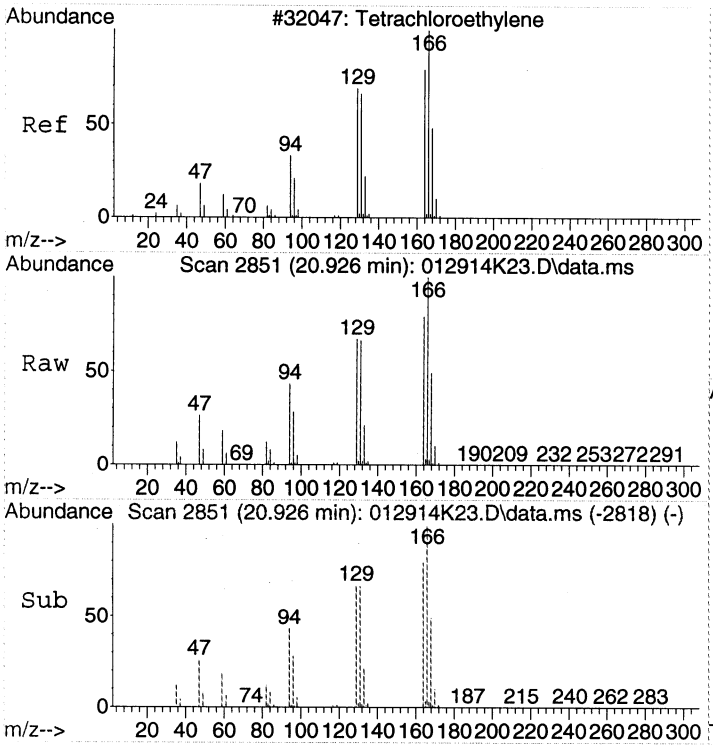




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:117 Resp: 2010456

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.9 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

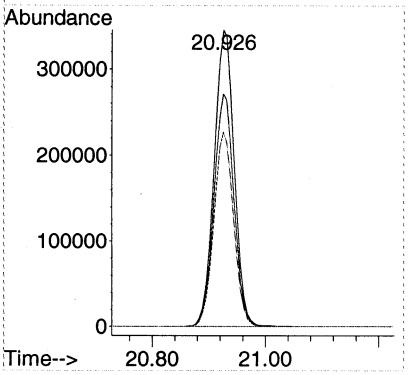


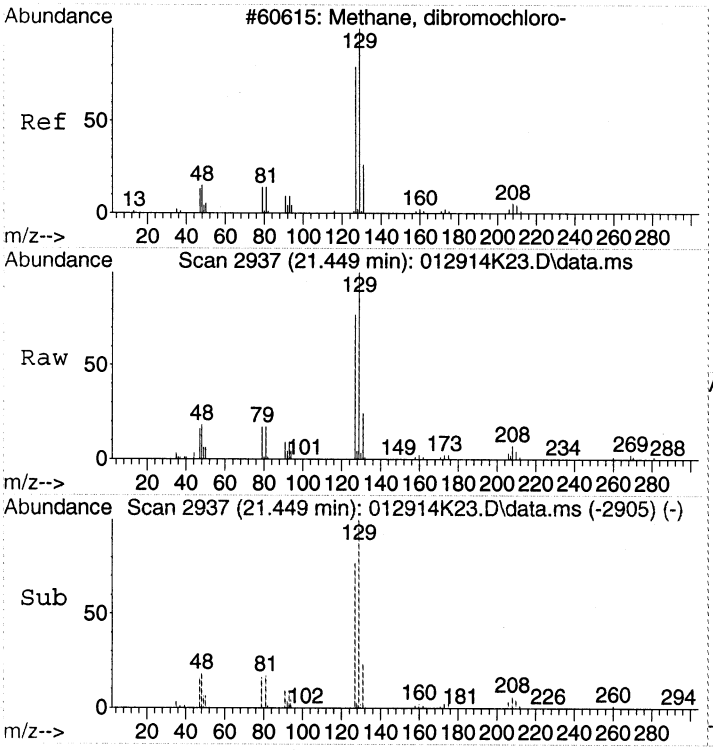



#47
Tetrachloroethene
Concen: 18.45 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:166 Resp: 847841

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.6 | 59.4 | 99.4 |
| 131 | 65.2 | 44.3 | 84.3 |

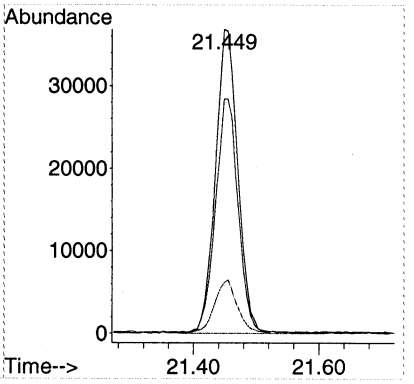


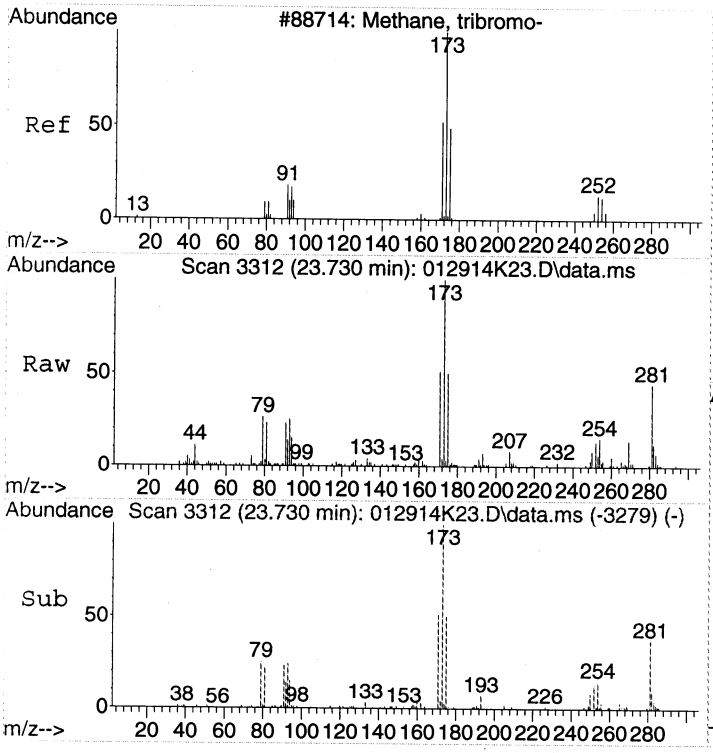




#49
Chlorodibromomethane
Concen: 1.84 ppbv
RT: 21.449 min Scan# 2937
Delta R.T. -0.006 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:129 Resp: 91880

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.5 | 59.2 | 99.2 |
| 79 | 16.9 | 0.0 | 35.9 |

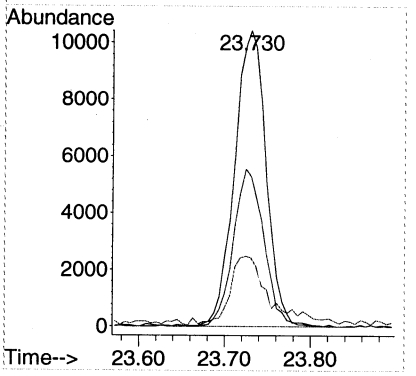





#56
Bromoform
Concen: 0.51 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. -0.000 min
Lab File: 012914K23.D
Acq: 30 Jan 2014 6:58

Tgt Ion:173 Resp: 26590

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 51.6 | 32.4 | 72.4 |
| 91 | 27.5 | 2.3 | 42.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K24.D
Acq On : 30 Jan 2014 7:48
Instrument: HP5973K
Operator : EM
Sample : 1401049-12
Misc : 200mL MH12 Can 1970
ALS Vial : 49
Multiplier: 1.91

Quant Time: Jan 30 10:06:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 890065 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2225168 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1952708 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.872 | 43 | 30988 | 0.74 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 238646 | 5.77 | ppbv | 91 |
| 28) Chloroform | 15.596 | 83 | 75574 | 1.33 | ppbv | 99 |
| 37) Trichloroethene | 17.865 | 130 | 151934 | 4.48 | ppbv | 99 |
| ~~45) trans-1,3-Dichloropropene~~ | ~~20.463~~ | ~~75~~ | ~~47177~~ | ~~1.14~~ | ~~ppbv #~~ | ~~43~~ |
| 47) Tetrachloroethene | 20.926 | 166 | 46104 | 1.03 | ppbv | 98 |

em 1/30/14

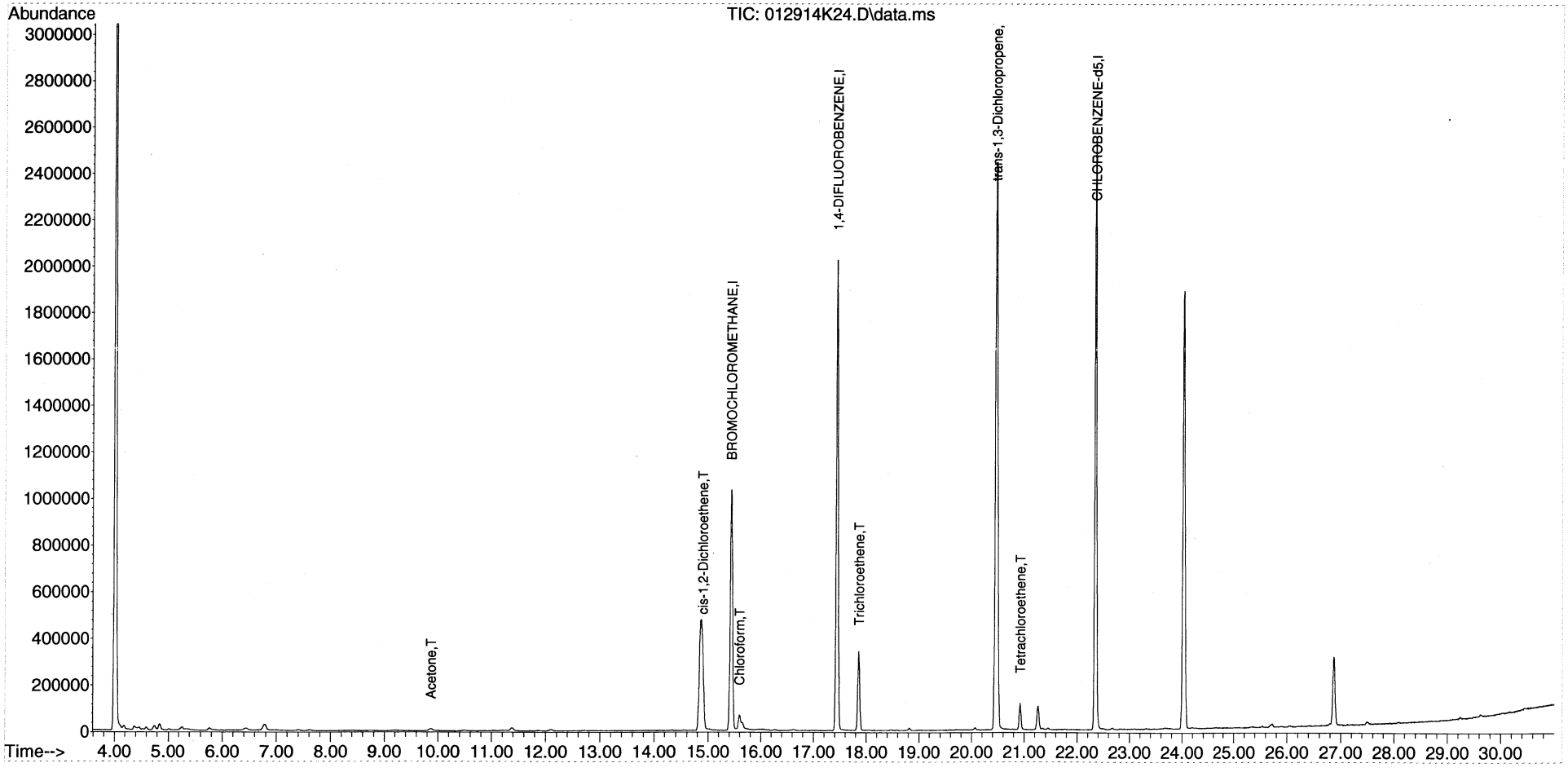
(#) = qualifier out of range (m) = manual integration (+) = signals summed

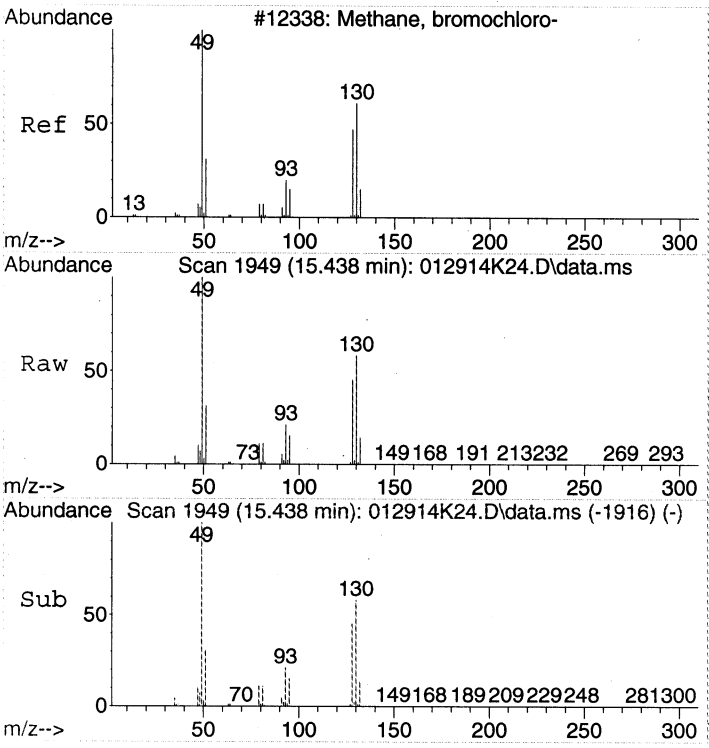
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K24.D
Acq On : 30 Jan 2014 7:48
Instrument: HP5973K
Operator : EM
Sample : 1401049-12
Misc : 200mL MH12 Can 1970
ALS Vial : 49
Multiplier: 1.91

Quant Time: Jan 30 10:06:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

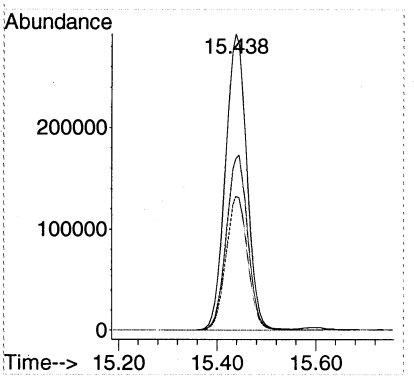


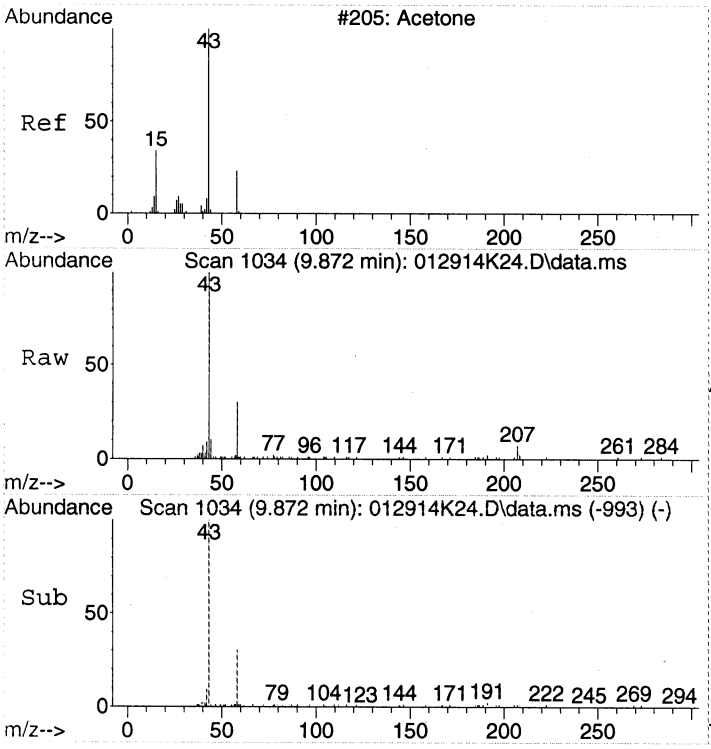



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion: 49 Resp: 890065

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 58.5 | 39.6 | 79.6 |
| 128 | 45.3 | 26.9 | 66.9 |

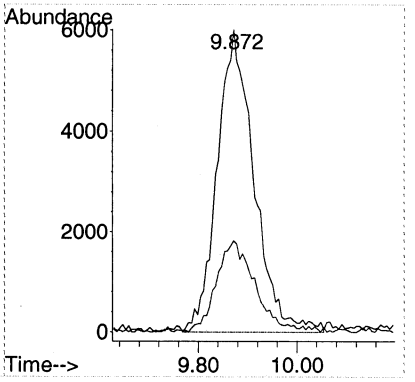


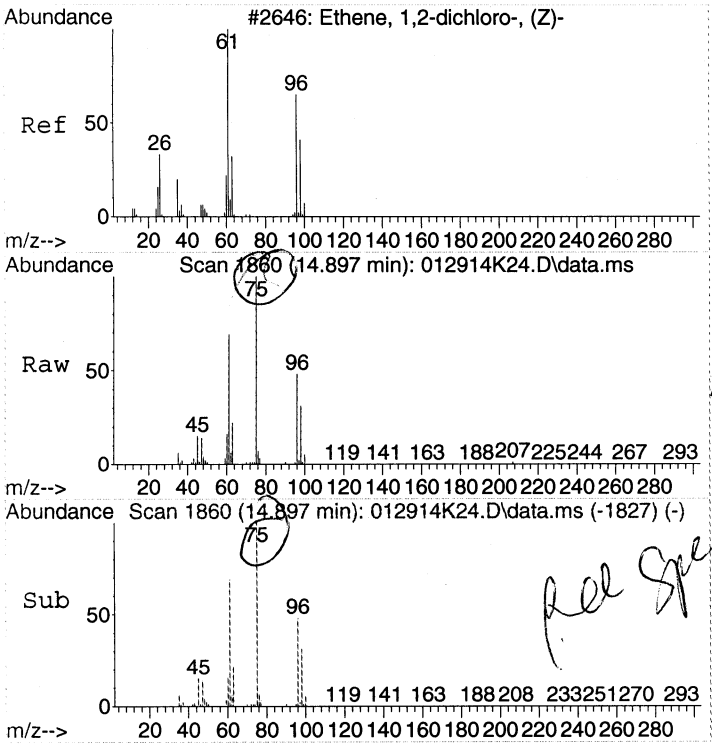




#14
Acetone
Concen: 0.74 ppbv
RT: 9.872 min Scan# 1034
Delta R.T. 0.048 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion: 43 Resp: 30988

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.7 | 12.5 | 52.5 |

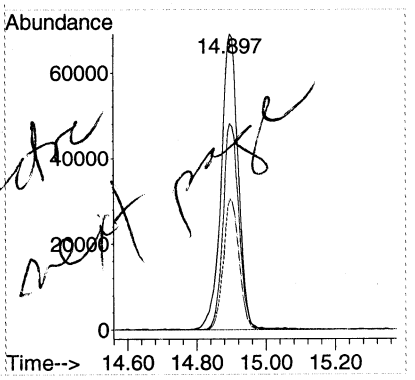




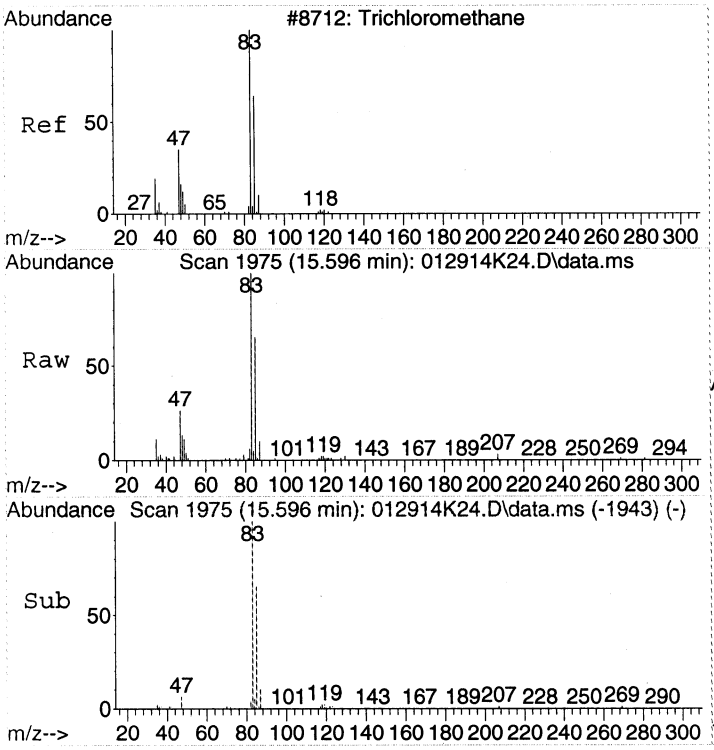

#24
cis-1,2-Dichloroethene
Concen: 5.77 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion: 61 Resp: 238646

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 64.2 | 51.7 | 91.7 |
| 98 | 40.1 | 25.4 | 65.4 |



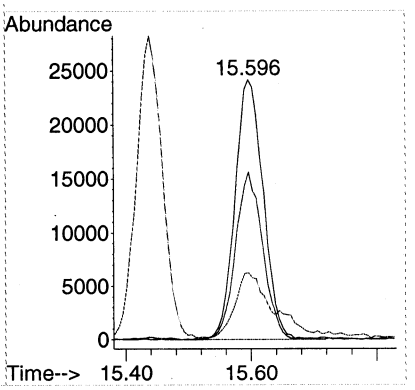

Rel Spectra next page




#28
Chloroform
Concen: 1.33 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion: 83 Resp: 75574

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.1 | 42.7 | 82.7 |
| 47 | 26.5 | 5.3 | 45.3 |

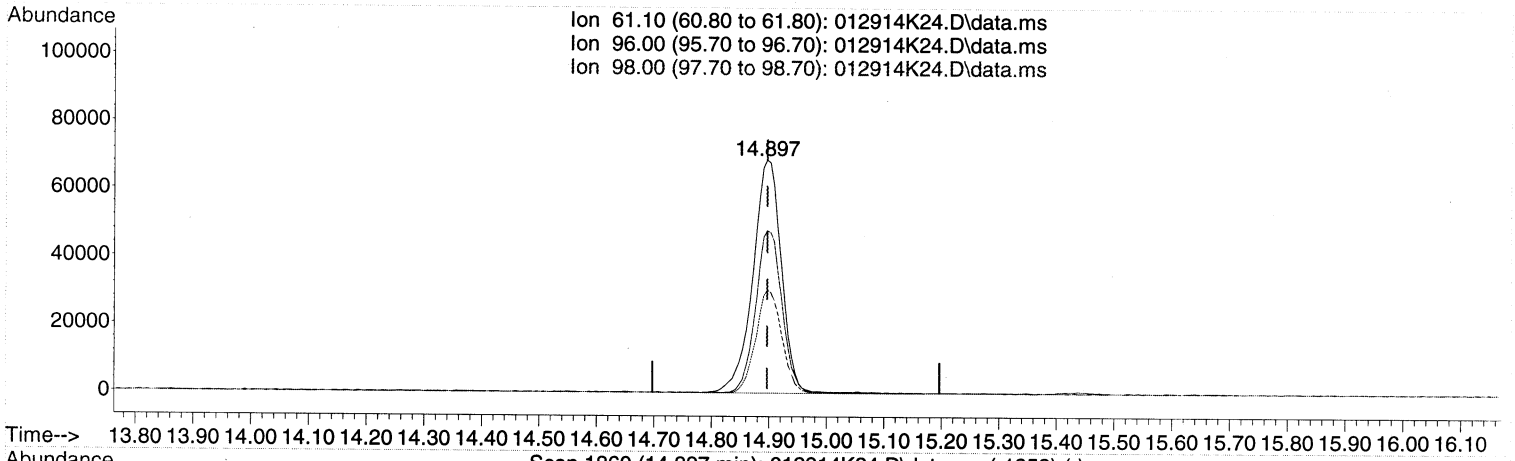


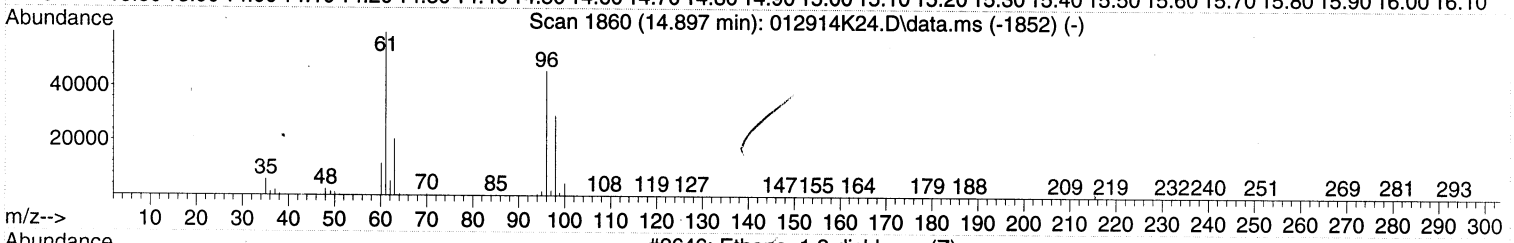
Quantitation Report (Qedit)

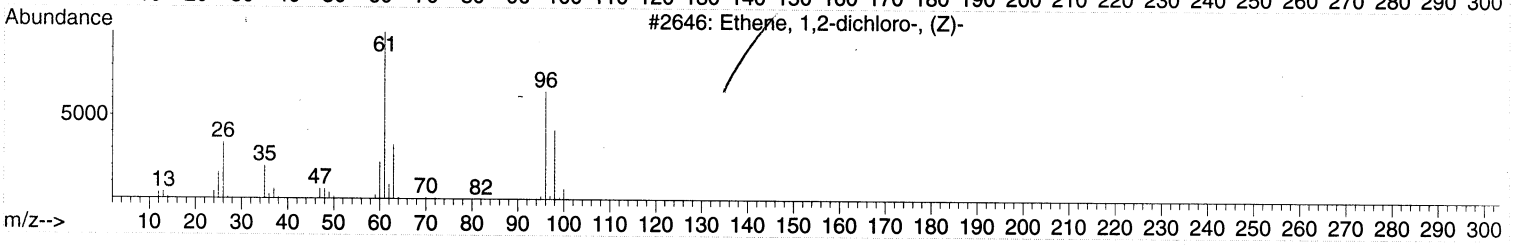
Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K24.D
Acq On : 30 Jan 2014 7:48
Instrument: HP5973K
Operator : EM
Sample : 1401049-12
Misc : 200mL MH12 Can 1970
ALS Vial : 49
Multiplier: 1.91

Quant Time: Jan 30 10:06:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



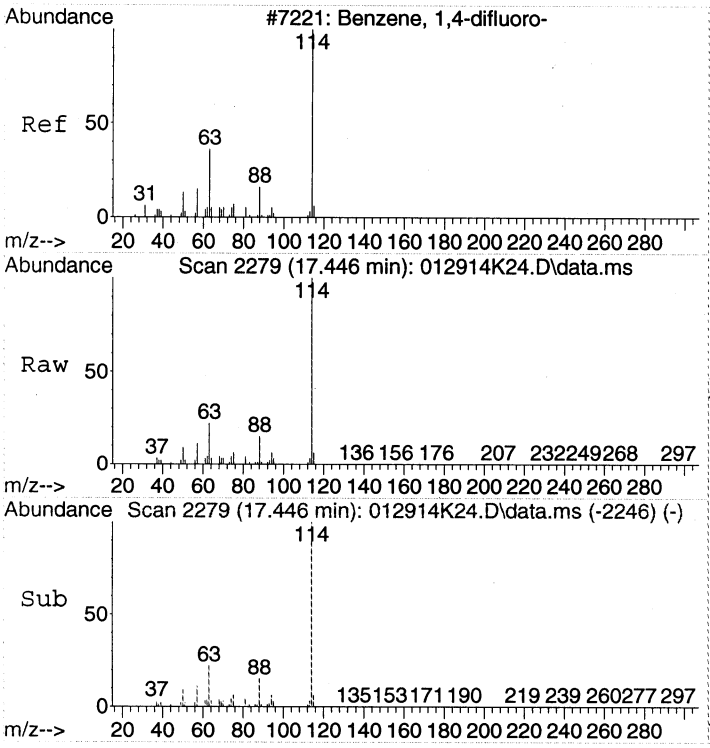

TIC: 012914K24.D\data.ms

(24) cis-1,2-Dichloroethene (T)

14.897min (-0.000) 5.77 ppbv

response 238646

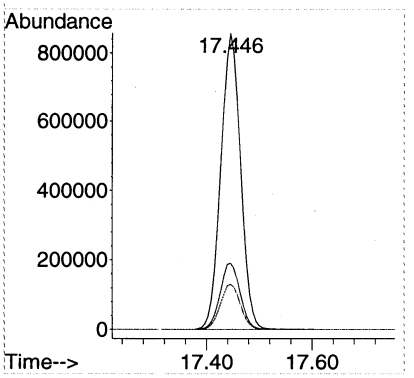
| Ion | Exp% | Act% |
|---|---|---|
| 61.10 | 100 | 100 |
| 96.00 | 71.70 | 64.20 |
| 98.00 | 45.40 | 40.13 |
| 0.00 | 0.00 | 0.00 |

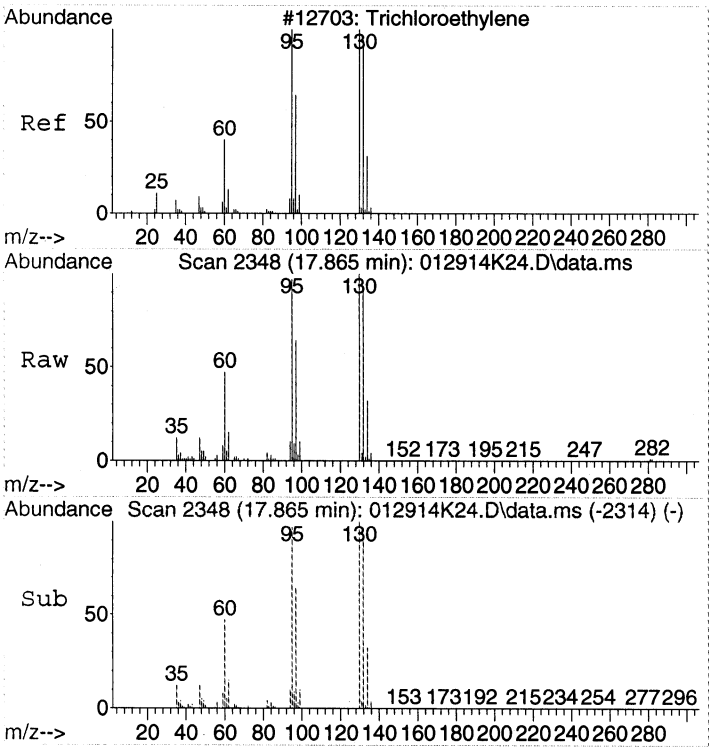



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion:114 Resp: 2225168

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.6 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

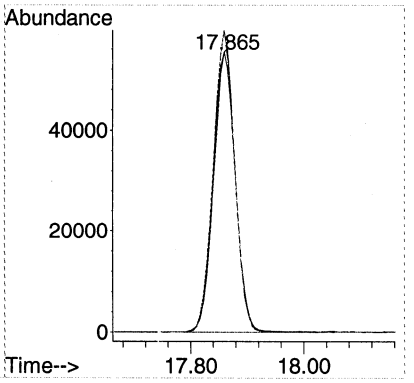


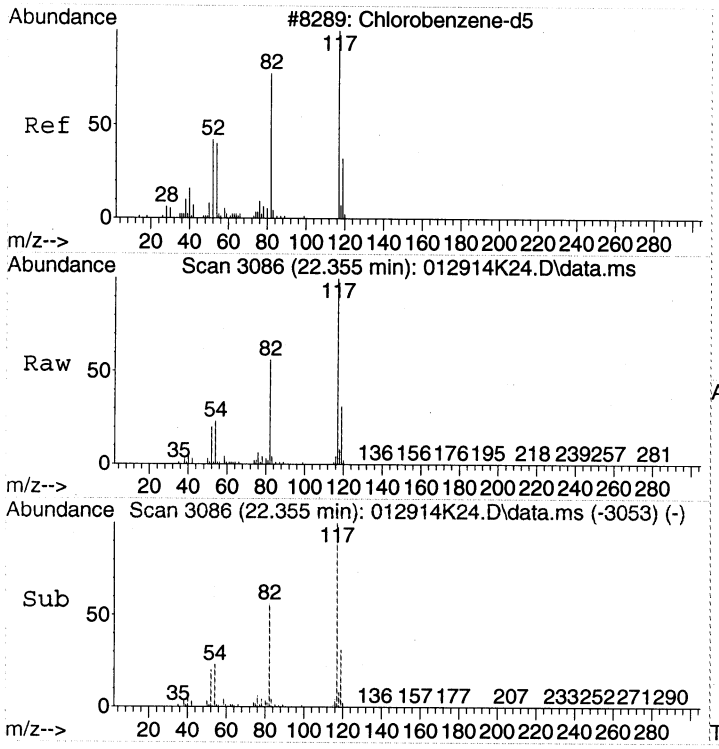




#37
Trichloroethene
Concen: 4.48 ppbv
RT: 17.865 min Scan# 2348
Delta R.T. 0.006 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion:130 Resp: 151934

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.1 | 78.9 | 118.9 |
| 95 | 103.0 | 82.3 | 122.3 |

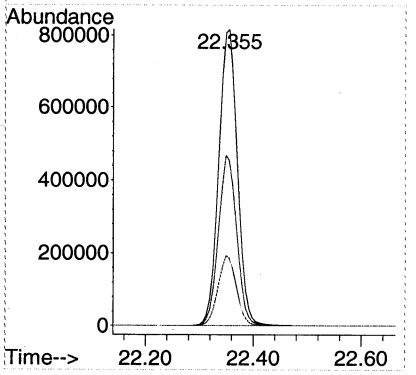


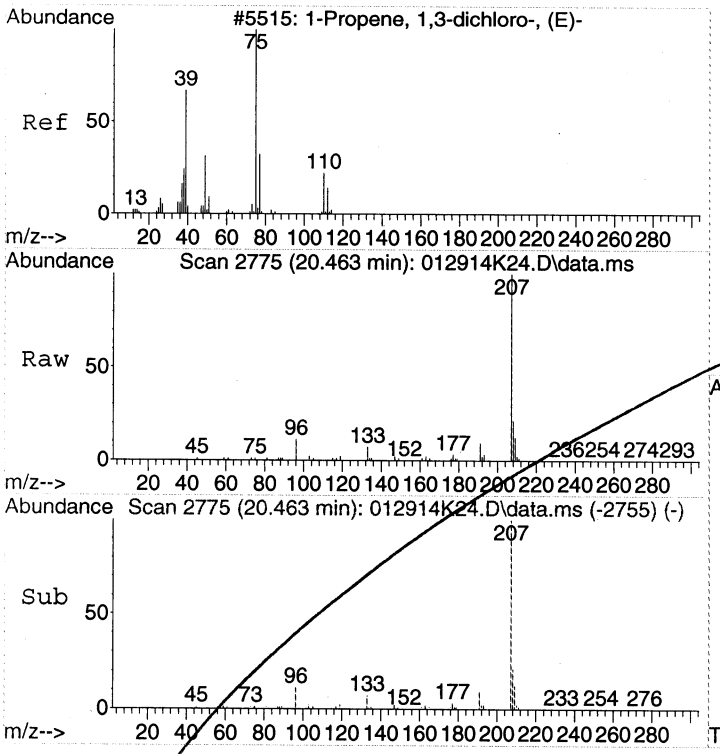



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion:117 Resp: 1952708

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.5 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |

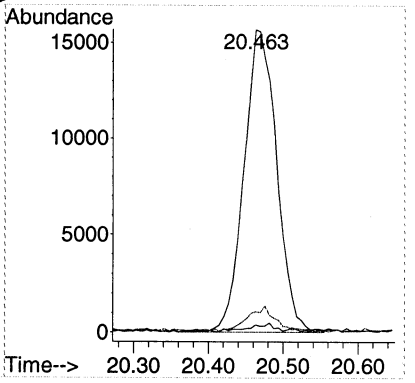


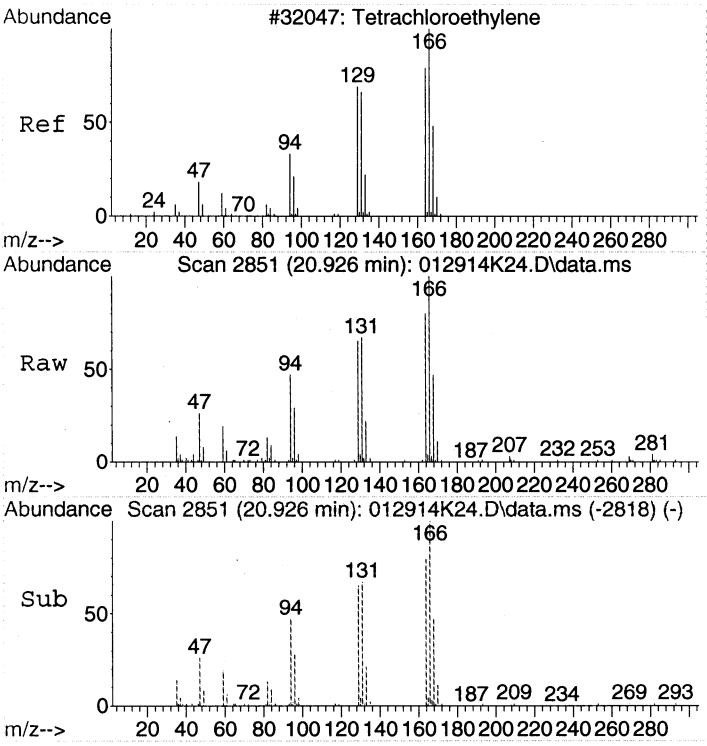




#45
trans-1,3-Dichloropropene
Concen: 1.14 ppbv
RT: 20.463 min Scan# 2775
Delta R.T. -0.079 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion: 75 Resp: 47177

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 2.7 | 26.3 | 66.3# |
| 77 | 7.2 | 10.4 | 50.4# |

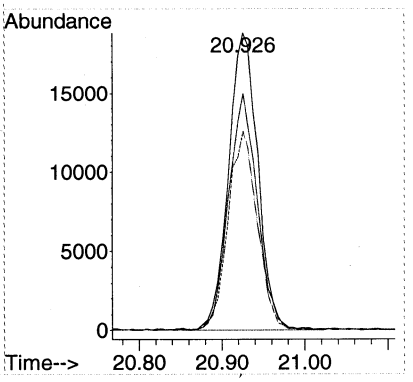





#47
Tetrachloroethene
Concen: 1.03 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 012914K24.D
Acq: 30 Jan 2014 7:48

Tgt Ion:166 Resp: 46104

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.1 | 59.4 | 99.4 |
| 131 | 66.7 | 44.3 | 84.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K25.D
Acq On : 30 Jan 2014 8:37
Instrument: HP5973K
Operator : EM
Sample : IBL4
Misc : IBL
ALS Vial : 31
Multiplier: 1

Quant Time: Jan 30 10:14:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 881151 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2226401 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1960399 | 22.00 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

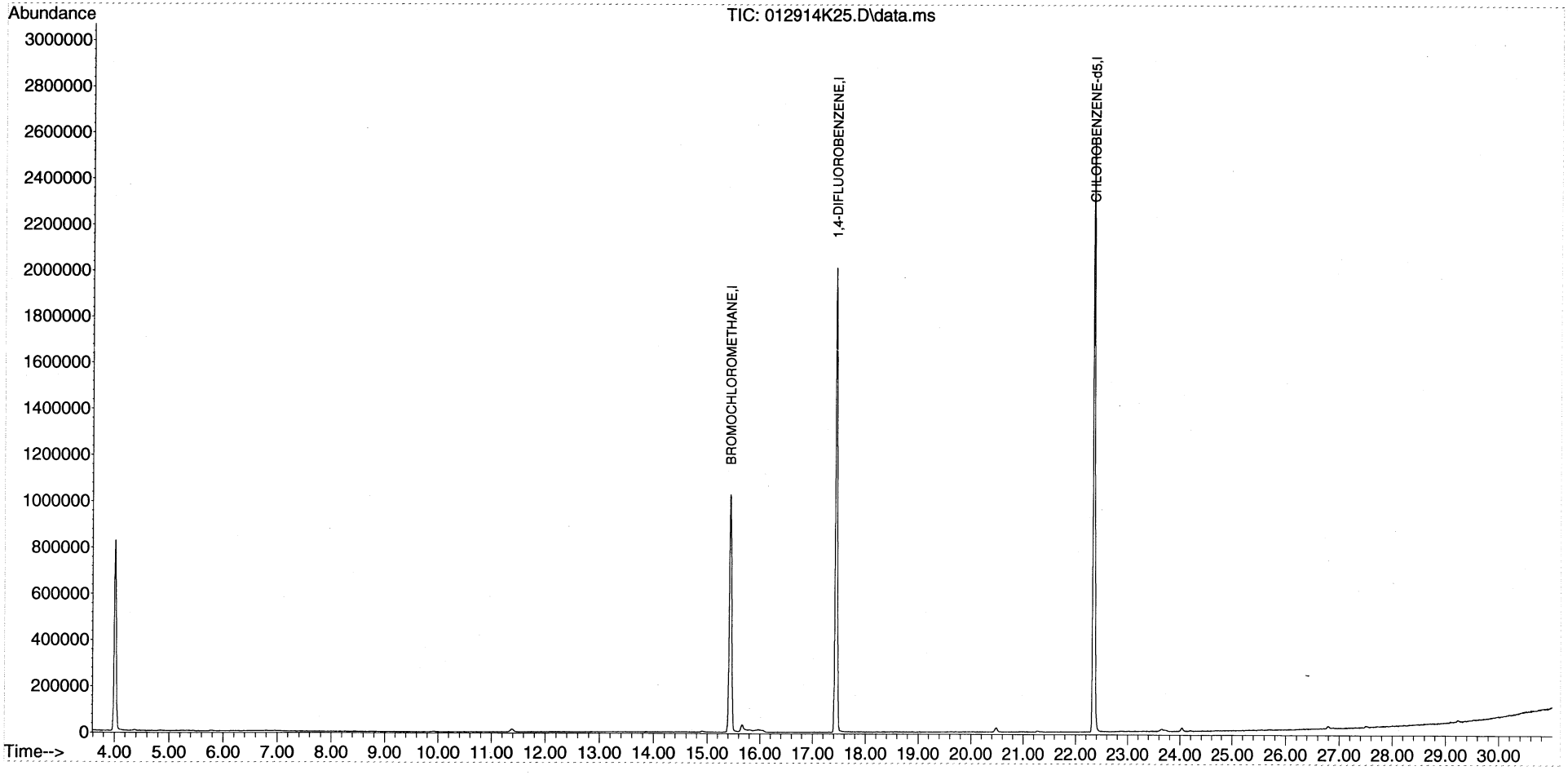
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K25.D
Acq On : 30 Jan 2014 8:37
Instrument: HP5973K
Operator : EM
Sample : IBL4
Misc : IBL
ALS Vial : 31
Multiplier: 1

Quant Time: Jan 30 10:14:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K28.D
Acq On : 30 Jan 2014 11:03
Instrument: HP5973K
Operator : EM
Sample : B14A073-DUP3
Misc : 200mL MH12 Can 1970
ALS Vial : 49
Multiplier: 1.91

Quant Time: Jan 30 12:46:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 869051 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2216287 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1936897 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.884 | 43 | 27916 | 0.69 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 193403 | 4.79 | ppbv | 90 |
| 28) Chloroform | 15.602 | 83 | 61552 | 1.11 | ppbv | 96 |
| 37) Trichloroethene | 17.860 | 130 | 127365 | 3.77 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 39601 | 0.89 | ppbv | 99 |

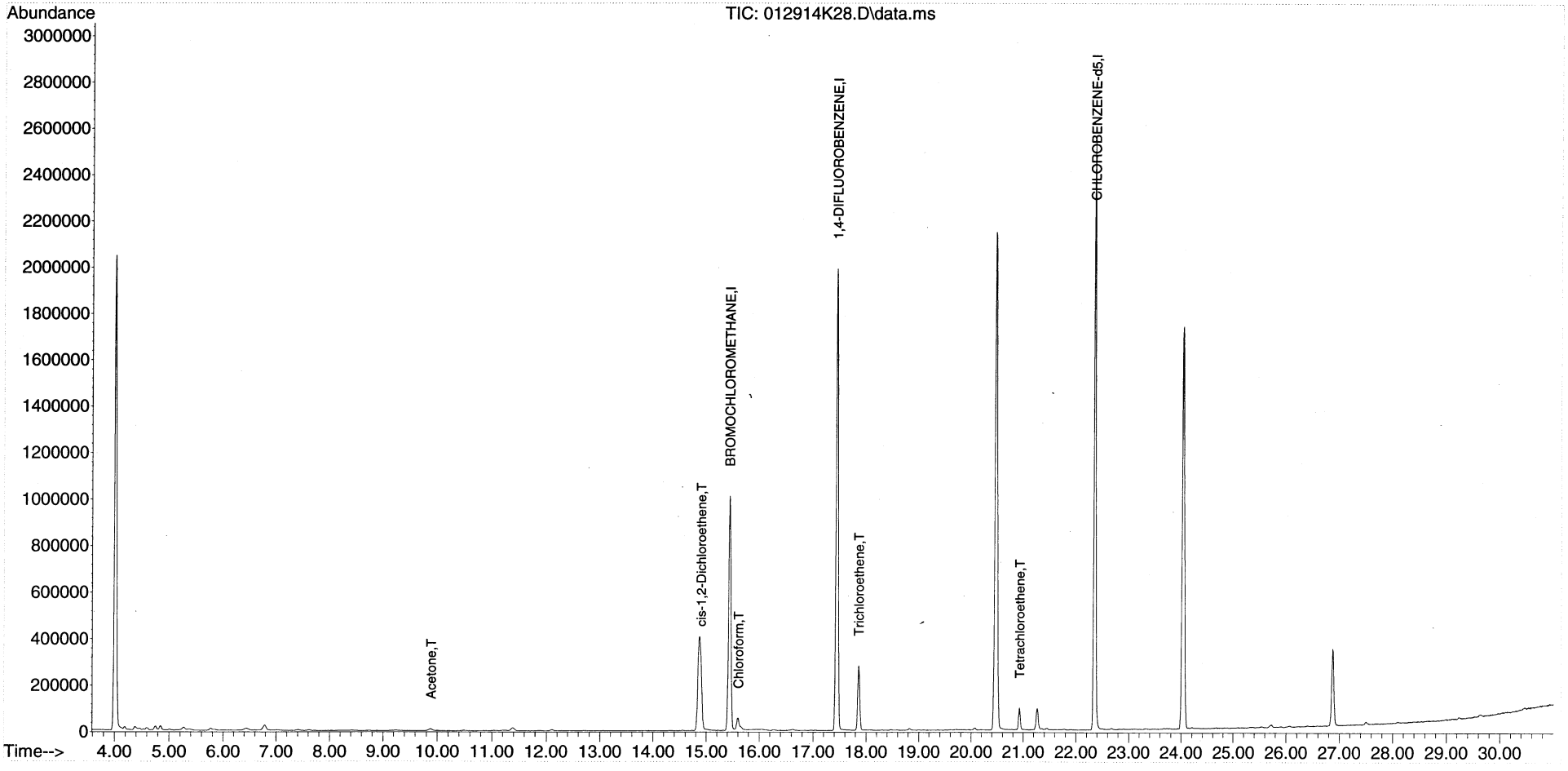
(#) = qualifier out of range (m) = manual integration (+) = signals summed

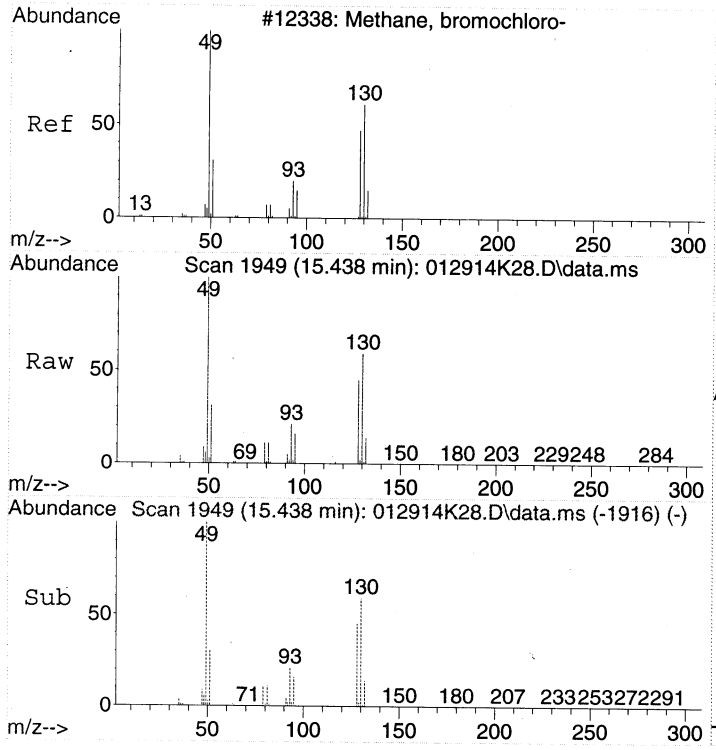
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012914KA\
Data File : 012914K28.D
Acq On : 30 Jan 2014 11:03
Instrument: HP5973K
Operator : EM
Sample : B14A073-DUP3
Misc : 200mL MH12 Can 1970
ALS Vial : 49
Multiplier: 1.91

Quant Time: Jan 30 12:46:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012914KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012914KAA.M

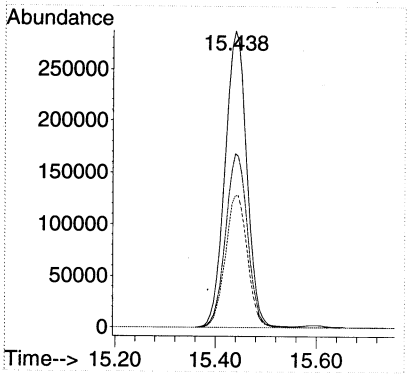


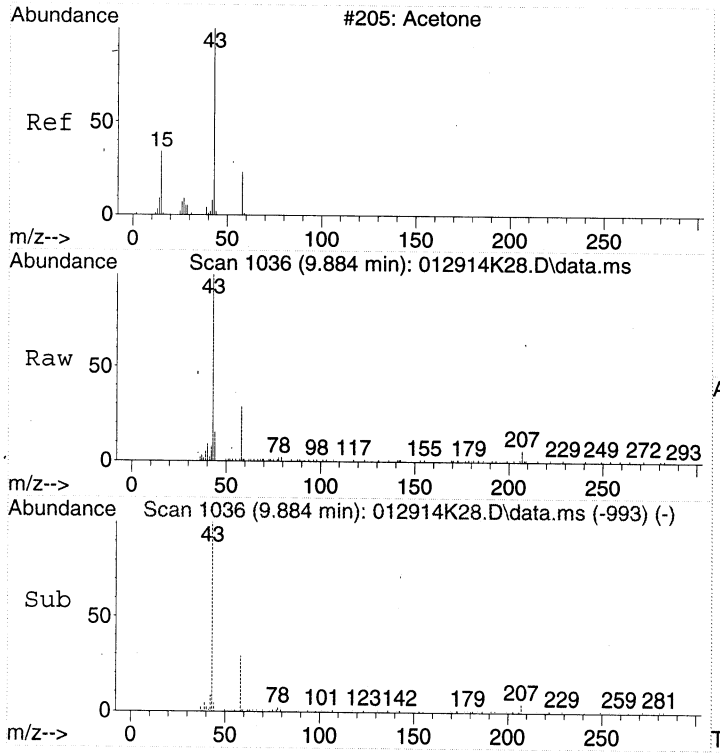



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion: 49 Resp: 869051

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.0 | 39.6 | 79.6 |
| 128 | 45.1 | 26.9 | 66.9 |

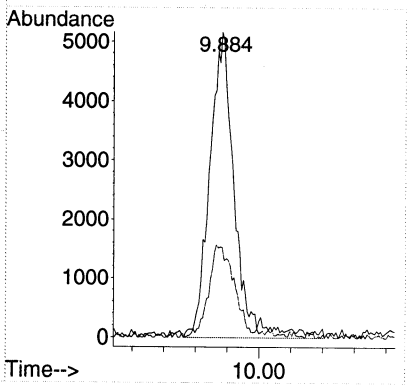



#14
Acetone
Concen: 0.69 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

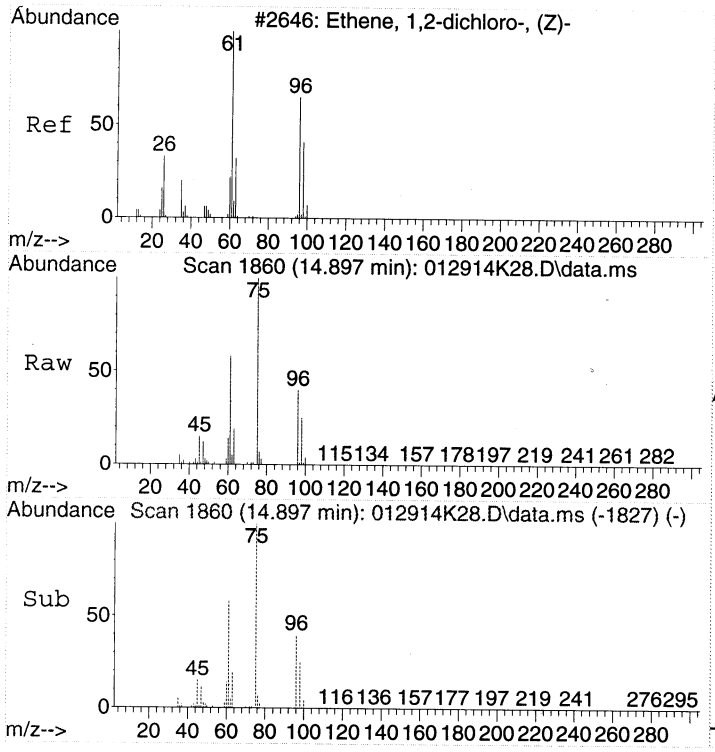
Tgt Ion: 43 Resp: 27916

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 32.4 | 12.5 | 52.5 |





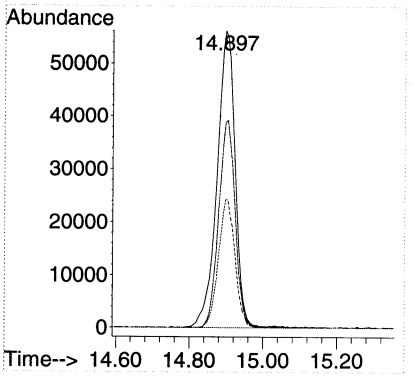

000317

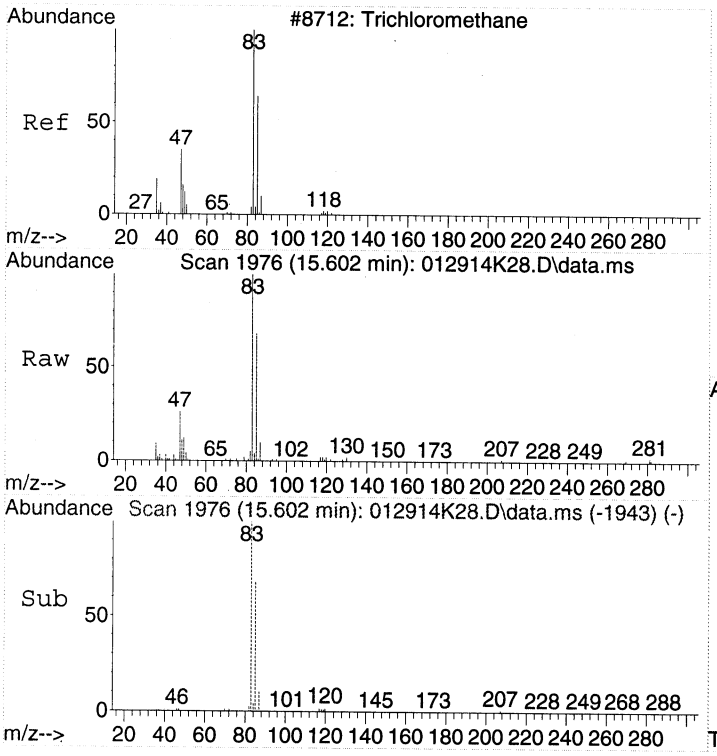



#24
cis-1,2-Dichloroethene
Concen: 4.79 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion: 61 Resp: 193403

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 63.1 | 51.7 | 91.7 |
| 98 | 39.5 | 25.4 | 65.4 |

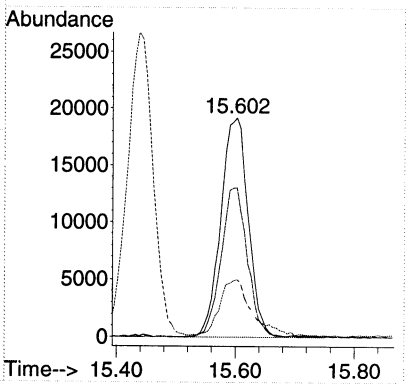


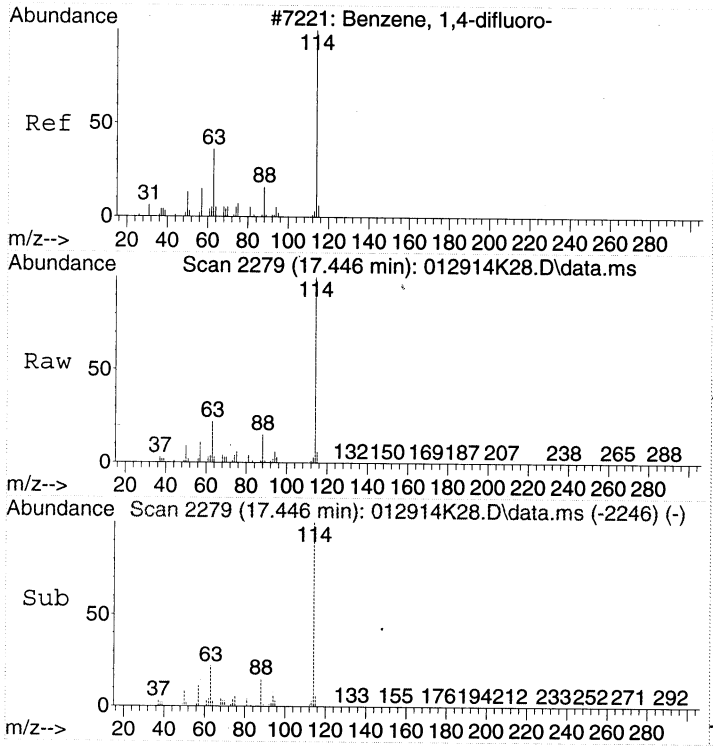




#28
Chloroform
Concen: 1.11 ppbv
RT: 15.602 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion: 83 Resp: 61552

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.9 | 42.7 | 82.7 |
| 47 | 28.1 | 5.3 | 45.3 |

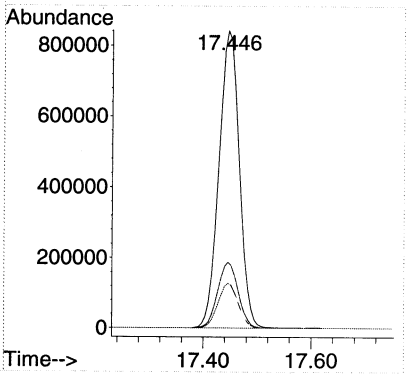


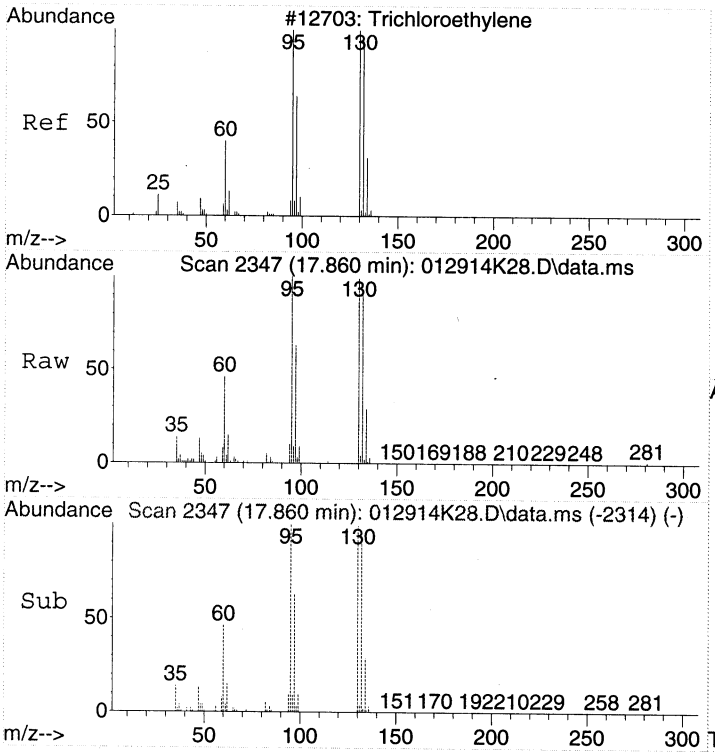



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion:114 Resp: 2216287

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.0 | 0.0 | 35.2 |

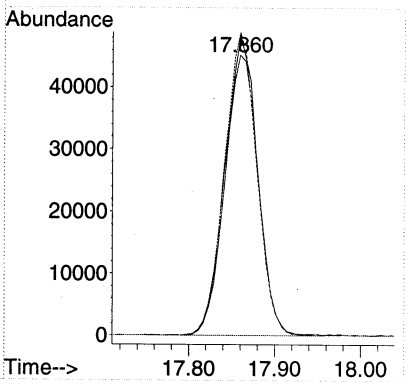


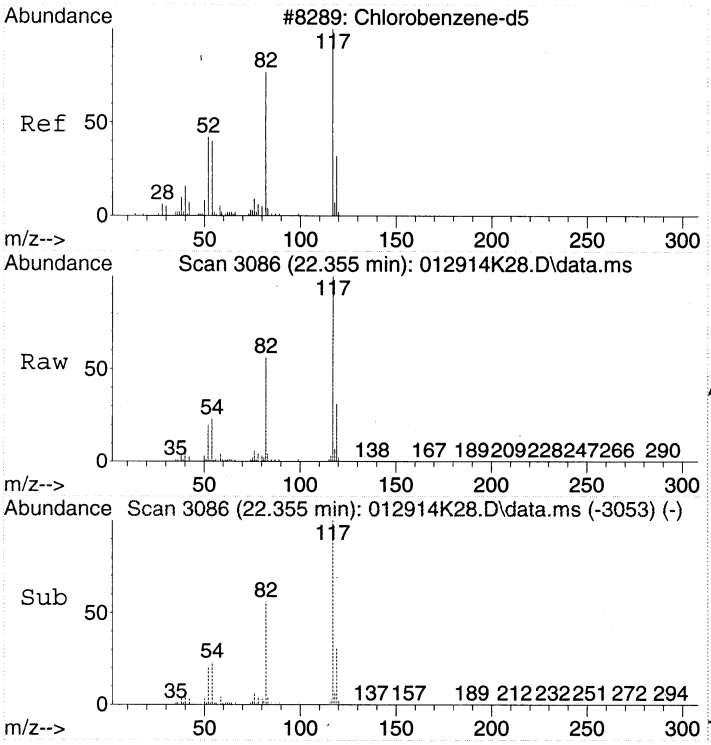




#37
Trichloroethene
Concen: 3.77 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion:130 Resp: 127365

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 95.7 | 78.9 | 118.9 |
| 95 | 100.6 | 82.3 | 122.3 |

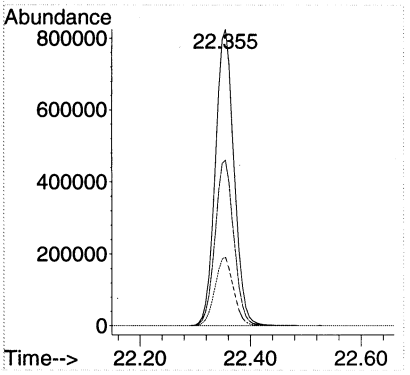


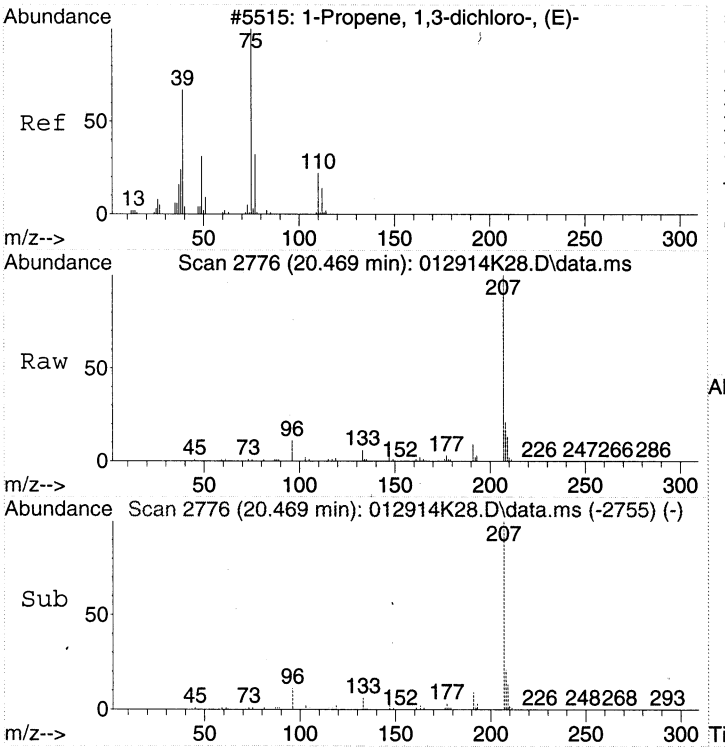



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion:117 Resp: 1936897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.1 | 37.1 | 77.1 |
| 54 | 23.2 | 3.3 | 43.3 |

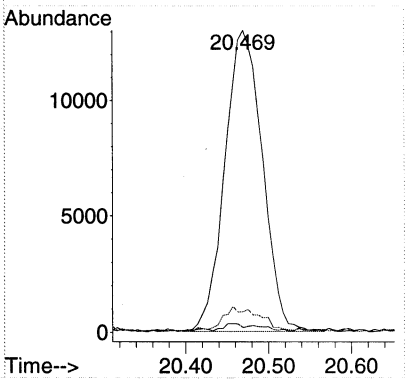


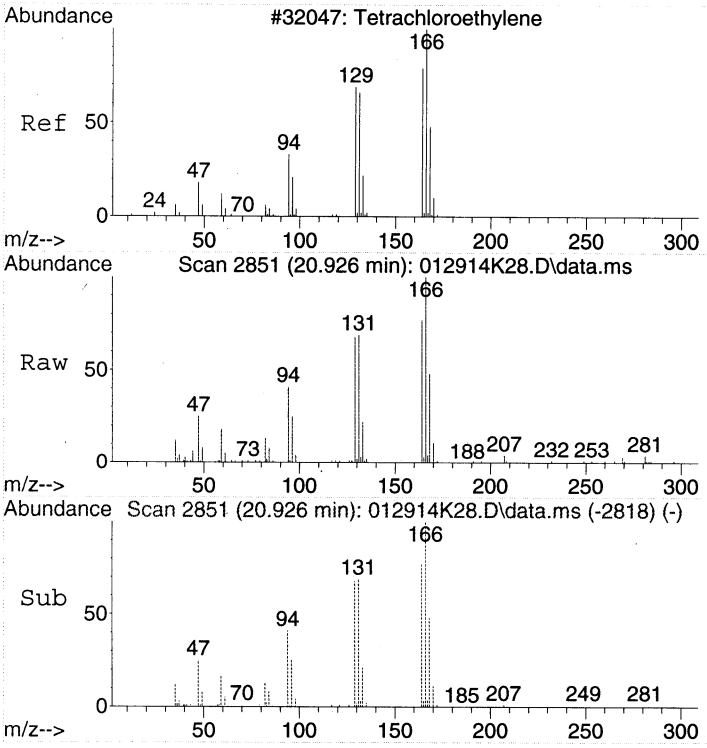




#45
trans-1,3-Dichloropropene
Concen: 1.00 ppbv
RT: 20.469 min Scan# 2776
Delta R.T. -0.073 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion: 75 Resp: 40951

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 2.4 | 26.3 | 66.3# |
| 77 | 7.8 | 10.4 | 50.4# |

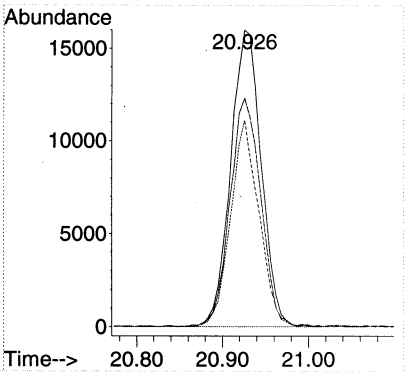





#47
Tetrachloroethene
Concen: 0.89 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 012914K28.D
Acq: 30 Jan 2014 11:03

Tgt Ion:166 Resp: 39601

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 77.3 | 59.4 | 99.4 |
| 131 | 64.4 | 44.3 | 84.3 |



SDG: 14029A

Instrument: HP5973K

Analysis Date: 1/30/2014

# SAMPLE DATA

# ANALYSIS SEQUENCE

**S14A114**

Instrument: HP5973K

Calibration ID: 1401020

**Printed: 1/30/2014 11:27:44AM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| S14A114-TUN1 | QC | | 1 | | 1311118 | | | |
| S14A114-CCV1 | QC | | 2 | | 1402077 | | | |
| B14A086-BS1 | QC | | 3 | | | | | |
| S14A114-CRL1 | QC | | 4 | | 1402074 | | | |
| B14A086-BLK1 | QC | | 5 | | | 1350050 | | |
| 1401049-02RE1 | VOCs, Soil Gas | A | 6 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-03RE1 | VOCs, Soil Gas | A | 7 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-04RE1 | VOCs, Soil Gas | A | 8 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-05RE1 | VOCs, Soil Gas | A | 9 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-06RE1 | VOCs, Soil Gas | A | 10 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-07RE1 | VOCs, Soil Gas | A | 11 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-08RE1 | VOCs, Soil Gas | A | 12 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-09RE1 | VOCs, Soil Gas | A | 13 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |
| 1401049-11RE1 | VOCs, Soil Gas | A | 14 | | | 1350050 | California Site Cleanup Section 3 | 14 day prelim - 28 day final |

TM 1/31/14

Samples Loaded By Date

TM 1/31/14

Data Processed By Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2014\013014KAA.SEQ
Date: 02-04-2014
Time: 18:05:56
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Samp Pos | Cal Vol. | Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| BFB 1311118 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv 1402036 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10 ppbv 1402036 | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1 ppbv 1402037 | 3 | 3 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 618 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-02RE1 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-03RE1 | 3 | 7 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-04RE1 | 3 | 8 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-05RE1 | 3 | 9 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-06RE1 | 3 | 10 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-07RE1 | 3 | 11 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-08RE1 | 3 | 12 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-09RE1 | 4 | 1 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1401049-11RE1 | 4 | 2 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 628 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 632 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 664 | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 668 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 669 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 864 | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 865 | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 867 | 3 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 877 | 3 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 880 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 885 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1971 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1973 | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2014\013014KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 013014K01.D | 1. | S14A114-TUN1 | BFB STD 1311118/IS 1350050/10ppbv STD | 30 Jan 2014 12:53 |
| 2 | 32 | 013014K02.D | 1. | S14A114-CCV1 | 10 ppbv 1402036 | 30 Jan 2014 13:42 |
| 3 | 32 | 013014K03.D | 1. | B14A086-BS1 | 10 ppbv 1402036 | 30 Jan 2014 14:29 |
| 4 | 33 | 013014K04.D | 1. | S14A114-CRL1 | 1.0 ppbv 1402037 | 30 Jan 2014 15:15 |
| 5 | 35 | 013014K05.D | 1. | B14A086-BLK1 | 200mL CAN 618 | 30 Jan 2014 16:05 |
| 6 | 36 | 013014K06.D | 8.65 | 1401049-02RE1 | 200mL MH02 Can 1967 | 30 Jan 2014 16:54 |
| 7 | 37 | 013014K07.D | 3.67 | 1401049-03RE1 | 50mL MH03 Can 2003 | 30 Jan 2014 17:41 |
| 8 | 38 | 013014K08.D | 3.46 | 1401049-04RE1 | 50mL MH04 Can 1108 | 30 Jan 2014 18:27 |
| 9 | 39 | 013014K09.D | 3.96 | 1401049-05RE1 | 50mL MH05 Can 1117 | 30 Jan 2014 19:14 |
| 10 | 10 | 013014K10.D | 2.96 | 1401049-06RE1 | 50mL MH06 Can 1112 | 30 Jan 2014 20:00 |
| 11 | 11 | 013014K11.D | 3.35 | 1401049-07RE1 | 50mL MH07 Can 863 | 30 Jan 2014 20:46 |
| 12 | 12 | 013014K12.D | 3.2 | 1401049-08RE1 | 50mL MH08 Can 1978 | 30 Jan 2014 21:33 |
| 13 | 41 | 013014K13.D | 3.05 | 1401049-09RE1 | 100mL MH09 Can 1095 | 30 Jan 2014 22:20 |
| 14 | 42 | 013014K14.D | 3.57 | 1401049-11RE1 | 50mL MH11 Can 696 | 30 Jan 2014 23:07 |
| 15 | 43 | 013014K15.D | 1. | CAN 628 | CAN 628 | 30 Jan 2014 23:56 |
| 16 | 44 | 013014K16.D | 1. | CAN 632 | CAN 632 | 31 Jan 2014 00:46 |
| 17 | 45 | 013014K17.D | 1. | CAN 664 Acetone | CAN 664 | 31 Jan 2014 01:36 |
| 18 | 46 | 013014K18.D | 1. | CAN 668 | CAN 668 | 31 Jan 2014 02:25 |
| 19 | 47 | 013014K19.D | 1. | CAN 669 | CAN 669 | 31 Jan 2014 03:15 |
| 20 | 48 | 013014K20.D | 1. | CAN 864 | CAN 864 | 31 Jan 2014 04:04 |
| 21 | 49 | 013014K21.D | 1. | CAN 865 | CAN 865 | 31 Jan 2014 04:54 |
| 22 | 31 | 013014K22.D | 1. | CAN 867 | CAN 867 | 31 Jan 2014 05:43 |
| 23 | 34 | 013014K23.D | 1. | CAN 877 | CAN 877 | 31 Jan 2014 06:33 |
| 24 | 35 | 013014K24.D | 1. | CAN 880 | CAN 880 | 31 Jan 2014 07:23 |
| 25 | 36 | 013014K25.D | 1. | CAN 885 | CAN 885 | 31 Jan 2014 11:11 |
| 26 | 37 | 013014K26.D | 1. | CAN 1971 | CAN 1971 | 31 Jan 2014 12:00 |
| 27 | 38 | 013014K27.D | 1. | CAN 1972 Acetone | CAN 1972 | 31 Jan 2014 12:50 |



31 Jan 2014 14:34

000025

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 013014KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014
Response Via : Initial Calibration

Calibration Files
1 =012414K03.D 2 =012414K04.D 5 =012414K05.D 10 =012414K02.D 15 =012414K06.D
20 =012414K07.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.803 | 0.648 | 0.607 | 0.575 | 0.593 | 0.587 | 0.636 | 13.46 |
| 3) | T | Dichlorodifluo... | 2.114 | 1.815 | 1.700 | 1.587 | 1.600 | 1.535 | 1.725 | 12.44 |
| 4) | T | 1,2-Dichlorote... | 2.105 | 1.795 | 1.697 | 1.636 | 1.709 | 1.678 | 1.770 | 9.72 |
| 5) | T | Chloromethane | 0.878 | 0.752 | 0.713 | 0.676 | 0.701 | 0.692 | 0.735 | 10.14 |
| 6) | T | Vinyl chloride | 0.915 | 0.775 | 0.757 | 0.732 | 0.751 | 0.752 | 0.780 | 8.63 |
| 7) | T | 1,3-Butadiene | 0.668 | 0.578 | 0.562 | 0.548 | 0.573 | 0.575 | 0.584 | 7.28 |
| 8) | T | Bromomethane | 0.687 | 0.594 | 0.559 | 0.531 | 0.557 | 0.550 | 0.580 | 9.75 |
| 9) | T | Chloroethane | 0.475 | 0.416 | 0.392 | 0.373 | 0.389 | 0.387 | 0.405 | 9.03 |
| 10) | T | Bromoethene | 0.619 | 0.549 | 0.520 | 0.505 | 0.528 | 0.525 | 0.541 | 7.53 |
| 11) | T | Trichlorofluor... | 1.758 | 1.515 | 1.449 | 1.373 | 1.438 | 1.420 | 1.492 | 9.25 |
| 12) | T | 1,1,2-Trichlor... | 1.201 | 1.068 | 1.006 | 0.986 | 1.001 | 1.006 | 1.045 | 7.83 |
| 13) | T | 1,1-Dichloroet... | 1.312 | 1.137 | 1.119 | 1.084 | 1.134 | 1.134 | 1.153 | 6.96 |
| 14) | T | Acetone | 1.139 | 1.082 | 1.000 | 0.975 | 1.001 | 0.984 | 1.030 | 6.35 |
| 15) | T | Carbon disulfide | 1.932 | 1.705 | 1.624 | 1.571 | 1.633 | 1.613 | 1.680 | 7.79 |
| 16) | T | 2-Propanol | 1.135 | 1.047 | 1.013 | 1.020 | 1.057 | 1.052 | 1.054 | 4.13 |
| 17) | T | Allyl chloride | 0.910 | 0.838 | 0.831 | 0.817 | 0.859 | 0.849 | 0.851 | 3.83 |
| 18) | T | Dichloromethane | 1.364 | 1.080 | 0.928 | 0.858 | 0.868 | 0.857 | 0.992 | 20.26 |
| 19) | T | tert-Butyl met... | 1.754 | 1.701 | 1.681 | 1.640 | 1.741 | 1.735 | 1.708 | 2.53 |
| 20) | T | trans-1,2-Dich... | 1.022 | 0.952 | 0.929 | 0.890 | 0.932 | 0.917 | 0.940 | 4.79 |
| 21) | T | Hexane | 1.227 | 1.130 | 1.130 | 1.097 | 1.158 | 1.144 | 1.148 | 3.81 |
| 22) | T | 1,1-Dichloroet... | 1.585 | 1.418 | 1.356 | 1.293 | 1.356 | 1.345 | 1.392 | 7.36 |
| 23) | T | Vinyl acetate | 1.523 | 1.446 | 1.495 | 1.507 | 1.605 | 1.602 | 1.530 | 4.11 |
| 24) | T | cis-1,2-Dichlo... | 1.128 | 1.020 | 0.999 | 0.968 | 1.013 | 1.008 | 1.023 | 5.34 |
| 25) | T | 2-Butanone (MEK) | 1.134 | 1.316 | 1.344 | 1.430 | 1.356 | 1.350 | 1.322 | 7.51 |
| 26) | T | Ethyl acetate | 1.912 | 1.815 | 1.734 | 1.575 | 1.807 | 1.788 | 1.772 | 6.34 |
| 27) | T | Tetrahydrofuran | 0.950 | 0.898 | 0.888 | 0.866 | 0.907 | 0.892 | 0.900 | 3.11 |
| 28) | T | Chloroform | 1.563 | 1.437 | 1.370 | 1.314 | 1.387 | 1.366 | 1.406 | 6.14 |
| 29) | T | Cyclohexane | 1.233 | 1.173 | 1.152 | 1.112 | 1.176 | 1.167 | 1.169 | 3.37 |
| 30) | T | 1,1,1-Trichlor... | 1.535 | 1.408 | 1.372 | 1.300 | 1.382 | 1.370 | 1.394 | 5.55 |
| 31) | T | Carbon tetrach... | 1.472 | 1.387 | 1.307 | 1.264 | 1.342 | 1.341 | 1.352 | 5.30 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.977 | 0.894 | 0.859 | 0.821 | 0.862 | 0.848 | 0.877 | 6.21 |
| 34) | T | 2,2,4-Trimethy... | 1.406 | 1.330 | 1.342 | 1.304 | 1.378 | 1.362 | 1.354 | 2.68 |
| 35) | T | 1,2-Dichloroet... | 0.394 | 0.359 | 0.350 | 0.333 | 0.348 | 0.341 | 0.354 | 5.97 |
| 36) | T | Heptane | 0.538 | 0.498 | 0.507 | 0.495 | 0.519 | 0.515 | 0.512 | 3.09 |
| 37) | T | Trichloroethene | 0.370 | 0.342 | 0.326 | 0.313 | 0.331 | 0.327 | 0.335 | 5.87 |
| 38) | T | 1,2-Dichloropr... | 0.376 | 0.344 | 0.330 | 0.314 | 0.328 | 0.322 | 0.336 | 6.49 |
| 39) | T | 1,4-Dioxane | 0.144 | 0.145 | 0.159 | 0.164 | 0.175 | 0.173 | 0.160 | 8.25 |
| 40) | T | Bromodichlorom... | 0.597 | 0.547 | 0.534 | 0.512 | 0.539 | 0.530 | 0.543 | 5.31 |
| 41) | T | cis-1,3-Dichlo... | 0.496 | 0.469 | 0.462 | 0.451 | 0.477 | 0.472 | 0.471 | 3.24 |
| 42) | T | 4-Methyl-2-pen... | 0.641 | 0.655 | 0.665 | 0.651 | 0.685 | 0.678 | 0.663 | 2.55 |
| 43) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 44) | T | Toluene | 1.148 | 1.094 | 1.059 | 1.017 | 1.103 | 1.087 | 1.085 | 4.06 |
| 45) | T | trans-1,3-Dich... | 0.482 | 0.453 | 0.451 | 0.451 | 0.484 | 0.481 | 0.467 | 3.59 |
| 46) | T | 1,1,2-Trichlor... | 0.388 | 0.370 | 0.353 | 0.330 | 0.356 | 0.352 | 0.358 | 5.37 |
| 47) | T | Tetrachloroethene | 0.549 | 0.514 | 0.485 | 0.459 | 0.506 | 0.503 | 0.503 | 5.95 |
| 48) | T | 2-Hexanone | 0.620 | 0.639 | 0.653 | 0.652 | 0.711 | 0.699 | 0.662 | 5.32 |
| 49) | T | Chlorodibromom... | 0.583 | 0.550 | 0.532 | 0.506 | 0.554 | 0.551 | 0.546 | 4.66 |
| 50) | T | 1,2-Dibromoeth... | 0.523 | 0.508 | 0.492 | 0.467 | 0.504 | 0.497 | 0.499 | 3.81 |
| 51) | T | Chlorobenzene | 0.898 | 0.839 | 0.797 | 0.764 | 0.823 | 0.812 | 0.822 | 5.48 |
| 52) | T | Ethylbenzene | 1.491 | 1.425 | 1.390 | 1.350 | 1.460 | 1.453 | 1.428 | 3.59 |
| 53) | T | m&p-Xylene | 1.078 | 1.060 | 1.057 | 1.041 | 1.151 | 1.155 | 1.090 | 4.57 |
| 54) | T | o-Xylene | 1.071 | 1.066 | 1.045 | 1.024 | 1.124 | 1.126 | 1.076 | 3.86 |
| 55) | T | Styrene | 0.837 | 0.841 | 0.848 | 0.844 | 0.939 | 0.936 | 0.874 | 5.64 |
| 56) | T | Bromoform | 0.571 | 0.555 | 0.553 | 0.544 | 0.610 | 0.614 | 0.575 | 5.27 |

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 013014KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | 1,1,2,2-Tetrac... | 0.890 | 0.869 | 0.829 | 0.797 | 0.862 | 0.850 | 0.849 | 3.85 |
| 58) | T | 4-Ethyltoluene | 1.338 | 1.361 | 1.354 | 1.336 | 1.478 | 1.480 | 1.391 | 4.94 |
| 59) | T | 1,3,5-Trimethy... | 1.195 | 1.187 | 1.185 | 1.195 | 1.314 | 1.322 | 1.233 | 5.35 |
| 60) | T | 1,2,4-Trimethy... | 1.168 | 1.207 | 1.187 | 1.198 | 1.330 | 1.334 | 1.237 | 6.02 |
| 61) | T | 1,3-Dichlorobe... | 0.848 | 0.839 | 0.806 | 0.810 | 0.911 | 0.909 | 0.854 | 5.44 |
| 62) | T | 1,4-Dichlorobe... | 0.801 | 0.809 | 0.796 | 0.807 | 0.899 | 0.899 | 0.835 | 5.93 |
| 63) | T | Benzyl chloride | 0.876 | 0.887 | 0.907 | 0.908 | 1.003 | 1.002 | 0.930 | 6.13 |
| 64) | T | 1,2-Dichlorobe... | 0.837 | 0.820 | 0.796 | 0.786 | 0.875 | 0.874 | 0.831 | 4.59 |
| 65) | T | 1,2,4-Trichlor... | 0.770 | 0.777 | 0.752 | 0.795 | 0.914 | 0.914 | 0.820 | 9.02 |
| 66) | T | Hexachlorobuta... | 0.680 | 0.741 | 0.705 | 0.663 | 0.745 | 0.724 | 0.710 | 4.67 |

(#) = Out of Range



: 00327

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2014\013014KA\013014K01.D
Tune Time : 30 Jan 2014 12:53

Daily Calibration File : C:\msdchem\1\DATA\2014\013014KA\013014K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | | |
|---|---|---|---|---|---|
| | | | 970509 | 2456630 | 2183720 |
| 013014K02.D | S14A114-CCV1 | | 970509 | 2456625 | 2183719 |
| 013014K03.D | B14A086-BS1 | | 954253 | 2395956 | 2118706 |
| 013014K04.D | S14A114-CRL1 | | 966928 | 2423251 | 2123086 |
| 013014K05.D | B14A086-BLK1 | | 954605 | 2426976 | 2138657 |
| 013014K06.D | 1401049-02RE1 | | 949467 | 2402931 | 2123343 |
| 013014K07.D | 1401049-03RE1 | | 916794 | 2269247 | 2003409 |
| 013014K08.D | 1401049-04RE1 | | 923511 | 2323793 | 2059464 |
| 013014K09.D | 1401049-05RE1 | | 915961 | 2346315 | 2065132 |
| 013014K10.D | 1401049-06RE1 | | 909076 | 2278108 | 2008134 |
| 013014K11.D | 1401049-07RE1 | | 906847 | 2289448 | 2018568 |
| 013014K12.D | 1401049-08RE1 | | 890279 | 2215142 | 1961562 |
| 013014K13.D | 1401049-09RE1 | | 897184 | 2273992 | 2005586 |
| 013014K14.D | 1401049-11RE1 | | 900652 | 2211496 | 1942125 |
| 013014K15.D | CAN 628 | | 865781 | 2160390 | 1906414 |
| 013014K16.D | CAN 632 | | 886142 | 2273757 | 2022253 |
| 013014K17.D | CAN 664 | | 865801 | 2171600 | 1915512 |
| 013014K18.D | CAN 668 | | 861220 | 2198309 | 1942982 |
| 013014K19.D | CAN 669 | | 863227 | 2235291 | 1983975 |
| 013014K20.D | CAN 864 | | 853941 | 2140340 | 1892030 |

| | | | | |
|---|---|---|---|---|
| 013014K21.D | | | | |
| | CAN 865 | 859568 | 2174834 | 1925021 |
| 013014K22.D | | | | |
| | CAN 867 | 859978 | 2200674 | 1947140 |
| 013014K23.D | | | | |
| | CAN 877 | 867152 | 2234779 | 1975216 |
| 013014K24.D | | | | |
| | CAN 880 | 850534 | 2126870 | 1884977 |
| 013014K25.D | | | | |
| | CAN 885 | 841745 | 2152766 | 1840447 |
| 013014K26.D | | | | |
| | CAN 1971 | 827861 | 2074929 | 1805863 |
| 013014K27.D | | | | |
| | CAN 1972 | 833217 | 2121072 | 1851421 |

(fails) - fails 24hr time check  * - fails criteria

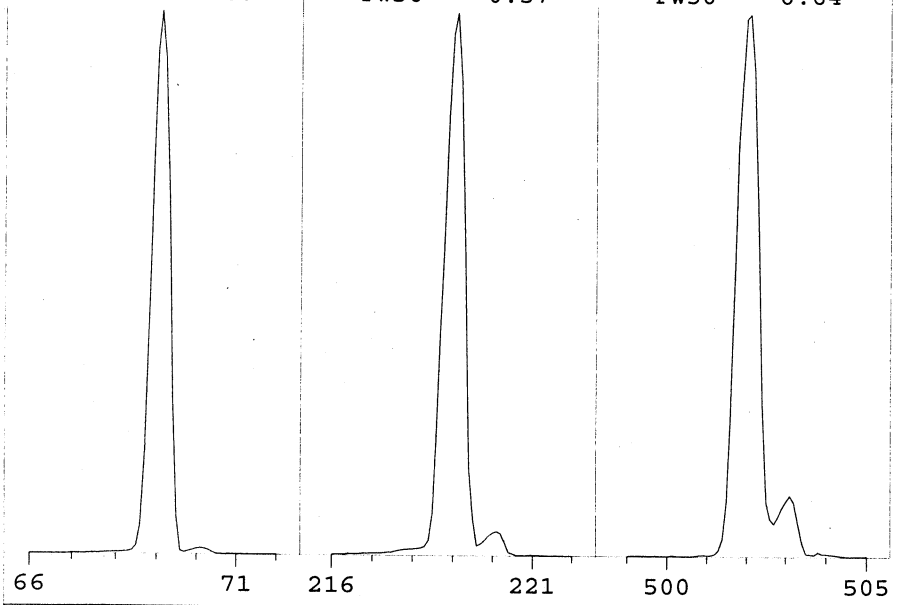
Created: Fri Jan 31 14:27:21 2014  HP5973K

5973N

Thu Jan 30 12:02:19 2014
C:\msdchem\1\5973N\BFB013014KA.u

Instrument: HP5973K
US03960556

| Mass | 69.10 | Mass | 219.10 | Mass | 502.10 |
|---|---|---|---|---|---|
| Ab | 365342 | Ab | 141991 | Ab | 16224 |
| Pw50 | 0.53 | Pw50 | 0.57 | Pw50 | 0.64 |

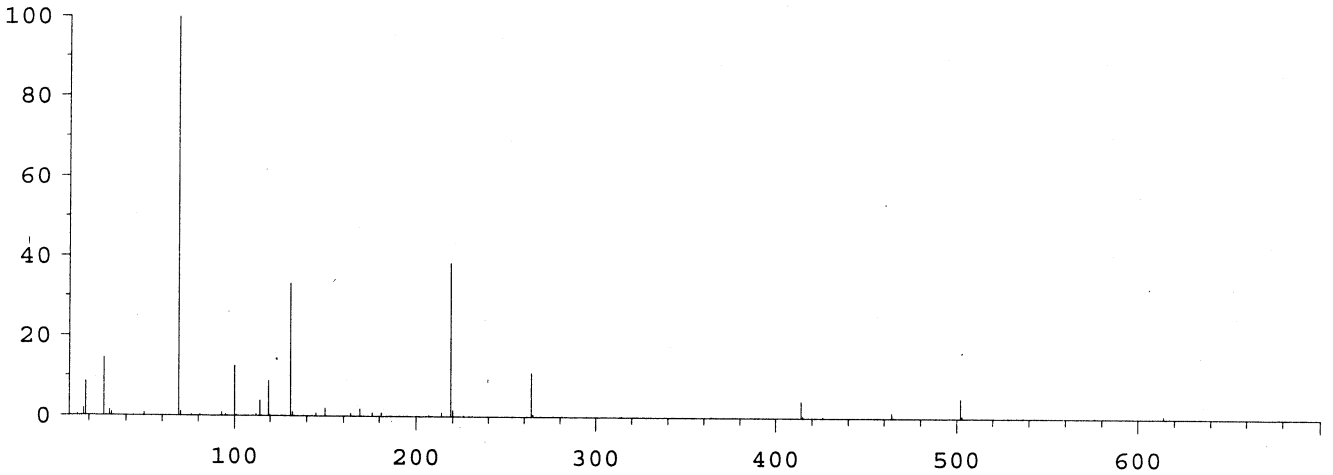



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 99 |
| | | MassOffs | -8 |
| Emission | 34.6 | AmuGain | 2003 |
| EIEnrgy | 69.9 | AmuOffs | 125 |
| Filament | 1 | Wid219 | -0.016 |
| | | DC Pol | Pos |
| Repeller | 32.97 | | |
| IonFcus | 86.4 | HEDEnab | On |
| EntLens | 16.5 | EMVolts | 1482 |
| EntOffs | 19.07 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
104 peaks Base: 69.10 Abundance: 304320




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 304320 | 100.00 | 70.10 | 3413 | 1.12 |
| 219.10 | 116944 | 38.43 | 220.10 | 4892 | 4.18 |
| 502.10 | 15105 | 4.96 | 503.00 | 1790 | 11.85 |

Air/Water Check: H20~8.59% N2~14.31% O2~1.03% CO2~0.15% N2/H2O~166.67%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 52872
Repeller Maximum 35 volts using ion 219; Gain Factor 0.53

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

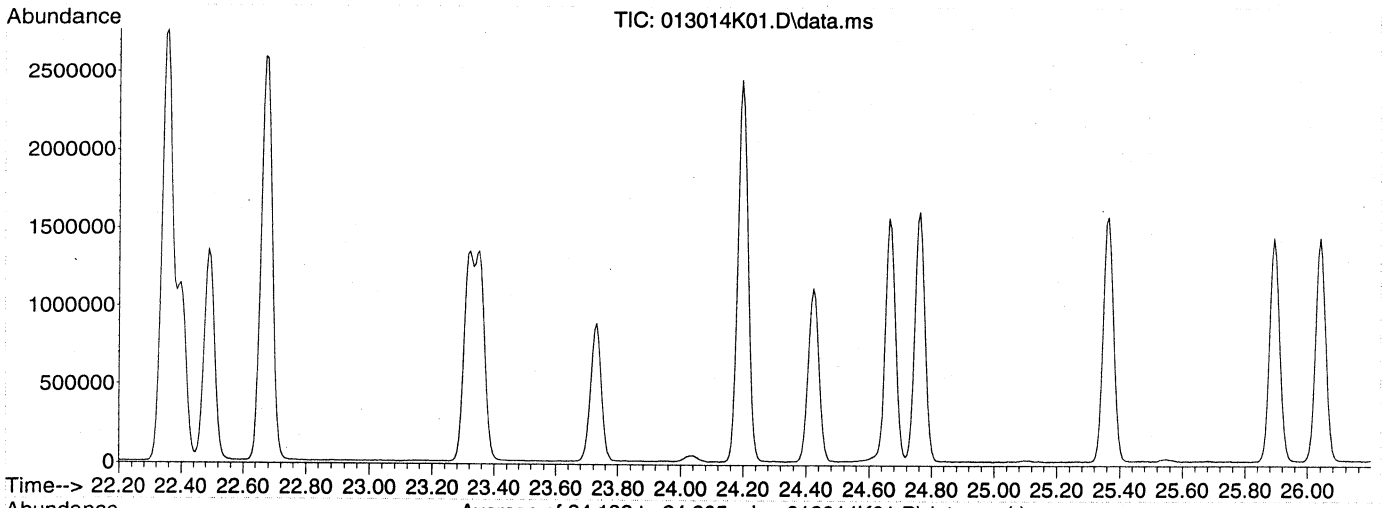
| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 | 125.0 |
| Entrance Lens Offset: | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 | 19.1 |

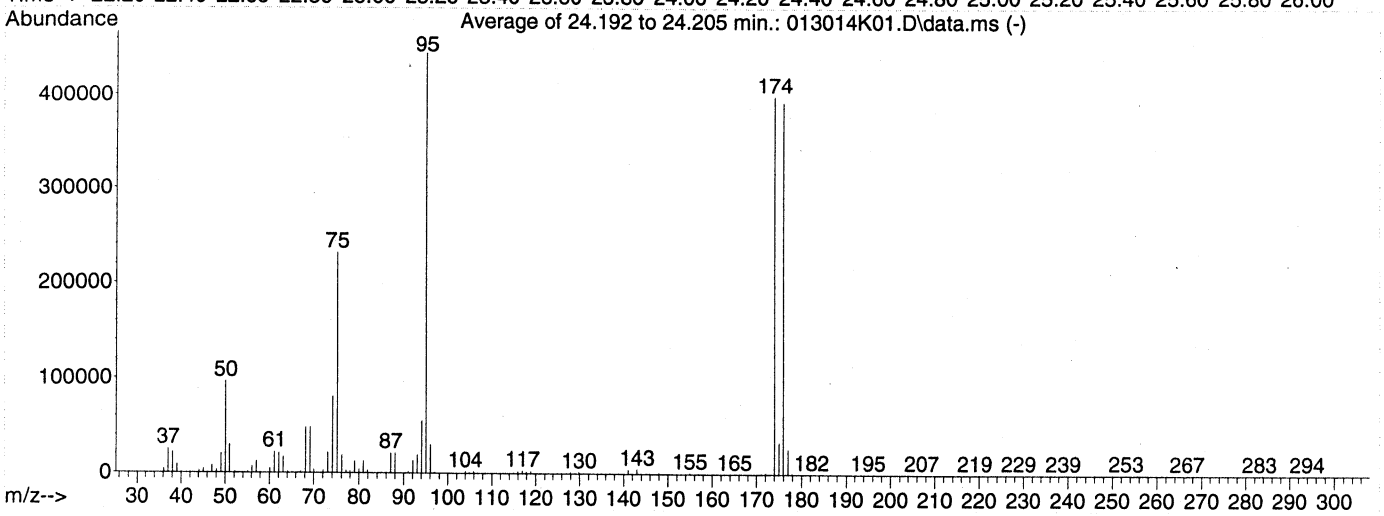
BFB

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K01.D
Acq On : 30 Jan 2014 12:53
Operator : EM
Sample : S14A114-TUN1
Misc : BFB STD 1311118/IS 1350050/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2014\013014KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014




AutoFind: Scans 3388, 3389, 3390; Background Corrected with Scan 3374

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 21.7 | 96353 | PASS |
| 75 | 95 | 30 | 66 | 52.0 | 231300 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 445035 | PASS |
| 96 | 95 | 5 | 9 | 6.7 | 29991 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 89.7 | 399275 | PASS |
| 175 | 174 | 4 | 9 | 8.4 | 33365 | PASS |
| 176 | 174 | 93 | 101 | 98.5 | 393153 | PASS |
| 177 | 176 | 5 | 9 | 6.6 | 26135 | PASS |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 35.25 | 13 | 47.05 | 7827 | 58.90 | 80 | 69.10 | 48200 |
| 36.15 | 4562 | 48.05 | 3098 | 60.10 | 4824 | 70.05 | 3481 |
| 37.10 | 24945 | 49.05 | 20361 | 61.05 | 22049 | 70.85 | 54 |
| 38.10 | 21912 | 50.05 | 96353 | 62.10 | 20980 | 71.20 | 138 |
| 39.10 | 8915 | 51.05 | 29864 | 63.10 | 16992 | 72.05 | 2688 |
| 40.05 | 422 | 52.10 | 1222 | 64.10 | 1583 | 73.10 | 21456 |
| 41.10 | 84 | 53.05 | 164 | 65.10 | 785 | 74.10 | 80323 |
| 42.05 | 40 | 55.10 | 1344 | 66.10 | 40 | 75.10 | 231300 |
| 44.10 | 2654 | 56.10 | 6967 | 66.40 | 83 | 76.10 | 18816 |
| 45.10 | 4428 | 57.10 | 12335 | 67.05 | 1414 | 77.05 | 2890 |
| 46.15 | 399 | 58.05 | 618 | 68.10 | 48107 | 78.00 | 2139 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 79.00 | 12782 | 90.10 | 68 | 100.80 | 7 | 111.00 | 439 |
| 80.00 | 3956 | 91.00 | 1612 | 101.90 | 43 | 112.00 | 349 |
| 81.00 | 12580 | 92.05 | 12942 | 103.05 | 256 | 113.05 | 364 |
| 81.95 | 2884 | 93.10 | 19126 | 104.00 | 2009 | 113.95 | 18 |
| 83.00 | 292 | 94.10 | 55004 | 104.95 | 722 | 114.90 | 466 |
| 83.90 | 10 | 95.10 | 445035 | 105.95 | 1833 | 115.95 | 1717 |
| 84.15 | 38 | 96.10 | 29991 | 106.90 | 372 | 117.00 | 2926 |
| 84.90 | 27 | 97.05 | 826 | 108.65 | 74 | 117.95 | 1729 |
| 86.05 | 616 | 97.85 | 71 | 109.00 | 41 | 118.95 | 2174 |
| 87.00 | 21136 | 98.40 | 24 | 109.30 | 74 | 119.85 | 84 |
| 88.00 | 21245 | 99.95 | 72 | 109.95 | 304 | 120.80 | 14 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 121.85 | 49 | 131.00 | 520 | 138.85 | 115 | 148.95 | 382 |
| 122.10 | 99 | 131.90 | 121 | 139.05 | 81 | 149.95 | 443 |
| 122.95 | 140 | 133.05 | 93 | 139.90 | 343 | 150.60 | 12 |
| 123.95 | 258 | 134.10 | 134 | 141.00 | 4743 | 150.95 | 70 |
| 124.20 | 81 | 134.90 | 580 | 141.95 | 626 | 152.00 | 158 |
| 125.05 | 141 | 135.10 | 314 | 143.00 | 4796 | 152.95 | 374 |
| 125.95 | 132 | 135.90 | 18 | 143.90 | 394 | 154.00 | 298 |
| 127.00 | 47 | 136.10 | 65 | 145.05 | 494 | 154.95 | 1163 |
| 127.95 | 1414 | 136.95 | 731 | 145.90 | 615 | 155.90 | 127 |
| 128.95 | 840 | 137.80 | 74 | 146.95 | 299 | 156.20 | 86 |
| 129.90 | 1540 | 138.10 | 19 | 147.95 | 1247 | 156.90 | 785 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 157.85 | 79 | 164.30 | 38 | 170.40 | 102 | 180.00 | 12 |
| 158.05 | 56 | 165.05 | 77 | 170.70 | 54 | 180.65 | 40 |
| 158.90 | 510 | 165.95 | 43 | 171.00 | 368 | 181.50 | 11 |
| 159.85 | 56 | 166.15 | 33 | 172.05 | 1355 | 182.25 | 21 |
| 160.95 | 539 | 166.60 | 38 | 174.00 | 399275 | 183.00 | 7 |
| 161.75 | 63 | 167.30 | 28 | 175.00 | 33365 | 183.80 | 9 |
| 162.40 | 16 | 167.60 | 23 | 175.95 | 393153 | 184.40 | 7 |
| 162.70 | 74 | 168.35 | 53 | 177.00 | 26135 | 185.70 | 7 |
| 163.00 | 39 | 168.70 | 38 | 177.90 | 754 | 187.20 | 23 |
| 163.80 | 34 | 169.35 | 85 | 179.00 | 2 | 187.70 | 11 |
| 164.10 | 45 | 170.00 | 61 | 179.20 | 18 | 188.00 | 7 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 189.40 | 9 | 202.80 | 19 | 211.15 | 45 | 221.50 | 13 |
| 189.70 | 9 | 203.05 | 12 | 211.60 | 7 | 222.60 | 9 |
| 190.20 | 21 | 203.95 | 16 | 213.30 | 16 | 223.20 | 12 |
| 191.00 | 48 | 204.75 | 35 | 214.40 | 13 | 223.70 | 16 |
| 192.20 | 67 | 205.25 | 39 | 215.10 | 17 | 224.00 | 10 |
| 194.10 | 67 | 205.80 | 14 | 215.70 | 52 | 225.80 | 9 |
| 195.00 | 117 | 206.10 | 21 | 216.60 | 26 | 226.60 | 16 |
| 196.20 | 13 | 207.05 | 321 | 217.20 | 29 | 227.10 | 19 |
| 198.60 | 7 | 208.05 | 89 | 218.20 | 25 | 228.90 | 20 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 201.90 | 56 | 209.05 | 28 | 219.05 | 65 | 229.50 | 8 |
| 202.50 | 22 | 210.40 | 9 | 219.95 | 34 | 231.20 | 16 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 233.95 | 15 | 246.15 | 20 | 255.05 | 75 | 261.80 | 25 |
| 234.60 | 11 | 246.95 | 53 | 255.60 | 34 | 262.05 | 58 |
| 235.05 | 11 | 247.70 | 21 | 255.80 | 41 | 262.60 | 9 |
| 236.30 | 27 | 248.10 | 11 | 256.15 | 31 | 264.95 | 49 |
| 237.10 | 34 | 249.05 | 52 | 256.85 | 22 | 265.50 | 8 |
| 239.00 | 38 | 249.80 | 23 | 257.25 | 32 | 265.80 | 9 |
| 239.70 | 19 | 251.80 | 41 | 258.00 | 9 | 266.00 | 14 |
| 240.10 | 8 | 252.05 | 41 | 258.90 | 11 | 266.80 | 127 |
| 242.90 | 8 | 253.05 | 384 | 259.20 | 9 | 268.05 | 44 |
| 244.90 | 8 | 253.95 | 96 | 260.00 | 34 | 269.05 | 81 |
| 245.20 | 9 | 254.80 | 50 | 261.10 | 68 | 270.10 | 122 |

Average of 24.192 to 24.205 min.: 013014K01.D\data.ms
S14A114-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 271.90 | 15 | 284.00 | 27 | 294.20 | 12 | | |
| 275.60 | 16 | 285.05 | 28 | 295.40 | 13 | | |
| 276.60 | 13 | 285.40 | 10 | 297.00 | 9 | | |
| 277.90 | 7 | 285.80 | 9 | 297.80 | 19 | | |
| 278.30 | 18 | 287.00 | 7 | | | | |
| 279.30 | 10 | 287.60 | 12 | | | | |
| 281.00 | 76 | 288.60 | 21 | | | | |
| 281.80 | 20 | 290.50 | 9 | | | | |
| 282.10 | 9 | 291.00 | 9 | | | | |
| 283.10 | 82 | 291.60 | 10 | | | | |
| 283.80 | 10 | 293.95 | 33 | | | | |

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 107 | 0.00 |
| 2 | T | Propene | 0.636 | 0.578 | 9.1 | 107 | 0.00 |
| 3 | T | Dichlorodifluoromethane | 1.725 | 1.458 | 15.5 | 98 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 1.770 | 1.562 | 11.8 | 102 | 0.00 |
| 5 | T | Chloromethane | 0.735 | 0.678 | 7.8 | 107 | 0.00 |
| 6 | T | Vinyl chloride | 0.780 | 0.699 | 10.4 | 102 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.584 | 0.535 | 8.4 | 104 | 0.00 |
| 8 | T | Bromomethane | 0.580 | 0.504 | 13.1 | 101 | 0.00 |
| 9 | T | Chloroethane | 0.405 | 0.355 | 12.3 | 102 | 0.00 |
| 10 | T | Bromoethene | 0.541 | 0.474 | 12.4 | 100 | 0.00 |
| 11 | T | Trichlorofluoromethane | 1.492 | 1.375 | 7.8 | 107 | 0.00 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 1.045 | 0.946 | 9.5 | 103 | 0.00 |
| 13 | T | 1,1-Dichloroethene | 1.153 | 1.048 | 9.1 | 103 | 0.00 |
| 14 | T | Acetone | 1.030 | 0.974 | 5.4 | 107 | 0.00 |
| 15 | T | Carbon disulfide | 1.680 | 1.492 | 11.2 | 102 | 0.00 |
| 16 | T | 2-Propanol | 1.054 | 1.020 | 3.2 | 107 | 0.01 |
| 17 | T | Allyl chloride | 0.851 | 0.814 | 4.3 | 107 | 0.00 |
| 18 | T | Dichloromethane | 0.992 | 0.848 | 14.5 | 106 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 1.708 | 1.610 | 5.7 | 105 | 0.01 |
| 20 | T | trans-1,2-Dichloroethene | 0.940 | 0.857 | 8.8 | 103 | 0.00 |
| 21 | T | Hexane | 1.148 | 1.071 | 6.7 | 104 | 0.00 |
| 22 | T | 1,1-Dichloroethane | 1.392 | 1.258 | 9.6 | 104 | 0.00 |
| 23 | T | Vinyl acetate | 1.530 | 1.519 | 0.7 | 108 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 1.023 | 0.931 | 9.0 | 103 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.322 | 1.381 | -4.5 | 103 | 0.00 |
| 26 | T | Ethyl acetate | 1.772 | 1.663 | 6.2 | 113 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.900 | 0.856 | 4.9 | 106 | 0.00 |
| 28 | T | Chloroform | 1.406 | 1.260 | 10.4 | 102 | 0.00 |
| 29 | T | Cyclohexane | 1.169 | 1.079 | 7.7 | 104 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 1.394 | 1.270 | 8.9 | 104 | 0.00 |
| 31 | T | Carbon tetrachloride | 1.352 | 1.248 | 7.7 | 106 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 103 | 0.00 |
| 33 | T | Benzene | 0.877 | 0.818 | 6.7 | 102 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 1.354 | 1.319 | 2.6 | 104 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.354 | 0.338 | 4.5 | 104 | 0.00 |
| 36 | T | Heptane | 0.512 | 0.516 | -0.8 | 107 | 0.00 |
| 37 | T | Trichloroethene | 0.335 | 0.315 | 6.0 | 103 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.336 | 0.315 | 6.3 | 103 | 0.00 |
| 39 | T | 1,4-Dioxane | 0.160 | 0.165 | -3.1 | 103 | 0.00 |
| 40 | T | Bromodichloromethane | 0.543 | 0.509 | 6.3 | 102 | 0.00 |
| 41 | T | cis-1,3-Dichloropropene | 0.471 | 0.442 | 6.2 | 101 | 0.00 |
| 42 | T | 4-Methyl-2-pentanone (MIBK) | 0.663 | 0.687 | -3.6 | 108 | 0.00 |
| 43 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 97 | 0.00 |
| 44 | T | Toluene | 1.085 | 1.057 | 2.6 | 101 | 0.00 |
| 45 | T | trans-1,3-Dichloropropene | 0.467 | 0.472 | -1.1 | 101 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | 1,1,2-Trichloroethane | 0.358 | 0.346 | 3.4 | 102 | 0.00 |
| 47 | T | Tetrachloroethene | 0.503 | 0.490 | 2.6 | 103 | 0.00 |
| 48 | T | 2-Hexanone | 0.662 | 0.728 | -10.0 | 108 | 0.00 |
| 49 | T | Chlorodibromomethane | 0.546 | 0.539 | 1.3 | 103 | 0.00 |
| 50 | T | 1,2-Dibromoethane (EDB) | 0.499 | 0.484 | 3.0 | 101 | 0.00 |
| 51 | T | Chlorobenzene | 0.822 | 0.794 | 3.4 | 101 | 0.00 |
| 52 | T | Ethylbenzene | 1.428 | 1.391 | 2.6 | 100 | 0.00 |
| 53 | T | m&p-Xylene | 1.090 | 1.073 | 1.6 | 100 | 0.00 |
| 54 | T | o-Xylene | 1.076 | 1.062 | 1.3 | 101 | 0.00 |
| 55 | T | Styrene | 0.874 | 0.884 | -1.1 | 102 | 0.00 |
| 56 | T | Bromoform | 0.575 | 0.578 | -0.5 | 103 | 0.00 |
| 57 | T | 1,1,2,2-Tetrachloroethane | 0.849 | 0.835 | 1.6 | 102 | 0.00 |
| 58 | T | 4-Ethyltoluene | 1.391 | 1.396 | -0.4 | 101 | 0.00 |
| 59 | T | 1,3,5-Trimethylbenzene | 1.233 | 1.241 | -0.6 | 101 | 0.00 |
| 60 | T | 1,2,4-Trimethylbenzene | 1.237 | 1.246 | -0.7 | 101 | 0.00 |
| 61 | T | 1,3-Dichlorobenzene | 0.854 | 0.871 | -2.0 | 104 | 0.00 |
| 62 | T | 1,4-Dichlorobenzene | 0.835 | 0.858 | -2.8 | 103 | 0.00 |
| 63 | T | Benzyl chloride | 0.930 | 0.946 | -1.7 | 101 | 0.00 |
| 64 | T | 1,2-Dichlorobenzene | 0.831 | 0.846 | -1.8 | 104 | 0.00 |
| 65 | T | 1,2,4-Trichlorobenzene | 0.820 | 0.794 | 3.2 | 97 | 0.00 |
| 66 | T | Hexachlorobutadiene | 0.710 | 0.649 | 8.6 | 95 | 0.00 |

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: After MI

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/31/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 2/12/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 970509 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2456625 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2183719 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 272909 | 9.73 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 662854 | 8.71 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 723581 | 9.27 | ppbv | 99 |
| 5) Chloromethane | 5.017 | 50 | 314022 | 9.68 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 324030 | 9.41 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 240948 | 9.35 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 228903 | 8.95 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 161483 | 9.03 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 215201 | 9.02 | ppbv | 97 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 649304 | 9.86 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 405094 | 8.79 | ppbv | 100 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 443767 | 8.72 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 455616 | 10.03 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 671444 | 9.06 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 427429 | 9.19 | ppbv | 98 |
| 17) Allyl chloride | 10.851 | 41 | 362941 | 9.67 | ppbv | 97 |
| 18) Dichloromethane | 11.387 | 49 | 366867 | 8.38 | ppbv | 97 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 774521 | 10.28 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 359270 | 8.66 | ppbv | 100 |
| 21) Hexane | 12.713 | 57 | 481906 | 9.52 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 538410 | 8.77 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 670068 | 9.93 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 415035 | 9.20 | ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 633784 | 10.87 | ppbv | 99 |
| 26) Ethyl acetate | 15.049 | 43 | 763364m | 9.77 | ppbv | |
| 27) Tetrahydrofuran | 15.457 | 42 | 389021 | 9.79 | ppbv | 97 |
| 28) Chloroform | 15.603 | 83 | 567033 | 9.14 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 495241 | 9.61 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 565800 | 9.20 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 567121 | 9.51 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 922813 | 9.43 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1547035 | 10.23 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 369758 | 9.35 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 604678 | 10.58 | ppbv | 97 |
| 37) Trichloroethene | 17.860 | 130 | 354849 | 9.49 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 362272 | 9.67 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.559 | 88 | 195720 | 10.95 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 602157 | 9.93 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 508656 | 9.67 | ppbv | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 806220 | 10.90 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1070659 | 9.95 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 501271 | 10.81 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 353629 | 9.94 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 486513 | 9.75 | ppbv | 100 |
| 48) 2-Hexanone | 21.187 | 43 | 744016 | 11.32 | ppbv | 98 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 556402 | 10.26 ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 494590 | 9.99 ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 819454 | 10.04 ppbv | 100 |
| 52) Ethylbenzene | 22.489 | 91 | 1408905 | 9.94 ppbv | 100 |
| 53) m&p-Xylene | 22.678 | 91 | 2172365 | 20.07 ppbv | 99 |
| 54) o-Xylene | 23.323 | 91 | 1086042 | 10.17 ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 886920 | 10.22 ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 590578 | 10.35 ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 845191 | 10.02 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 1455348 | 10.54 ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1269516 | 10.37 ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1249800 | 10.18 ppbv | 100 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 856006 | 10.10 ppbv | 98 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 843586 | 10.18 ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 967464 | 10.48 ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 831188 | 10.07 ppbv | 98 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 717555 | 8.81 ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 612536 | 8.70 ppbv | 100 |

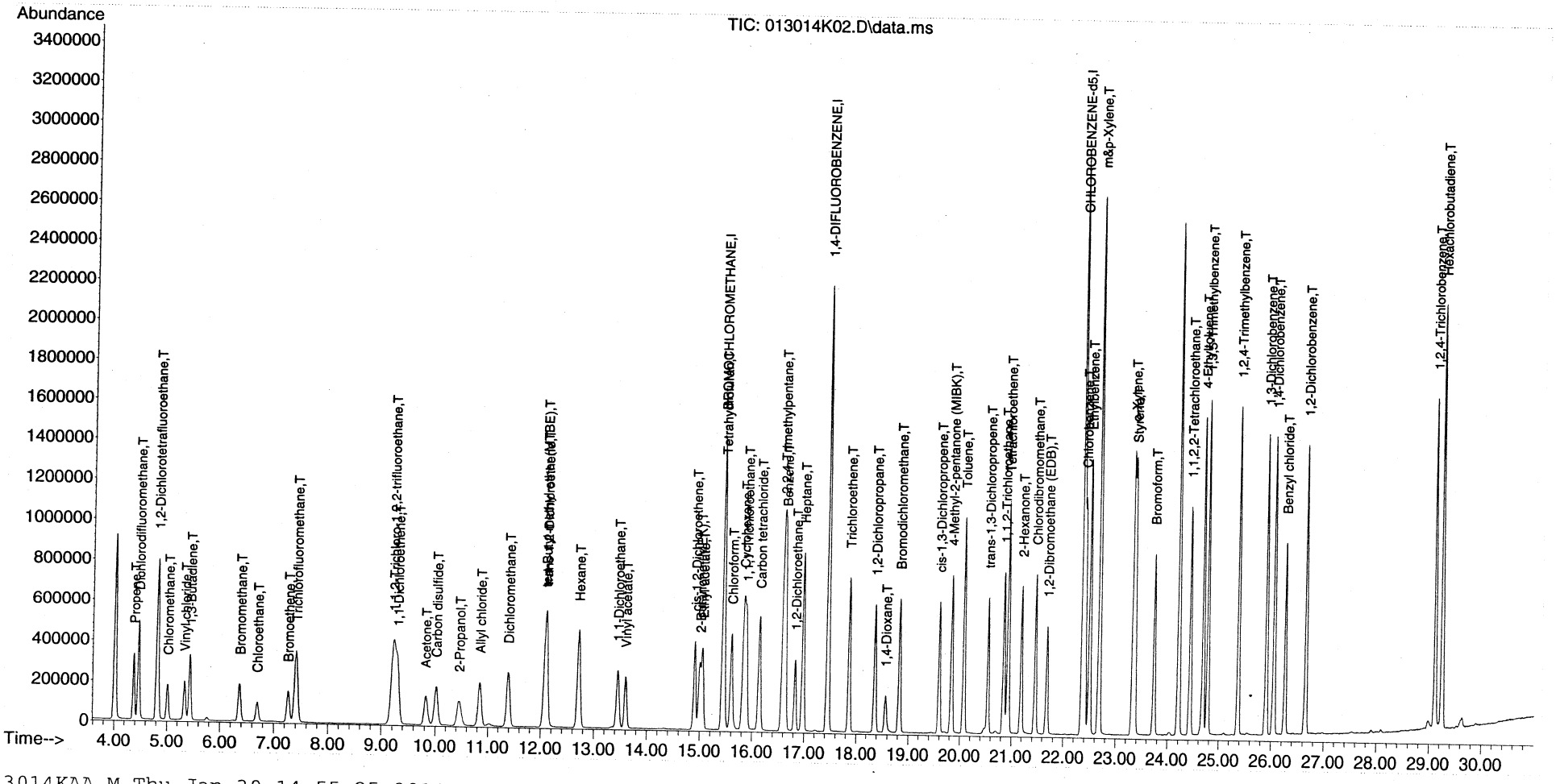
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

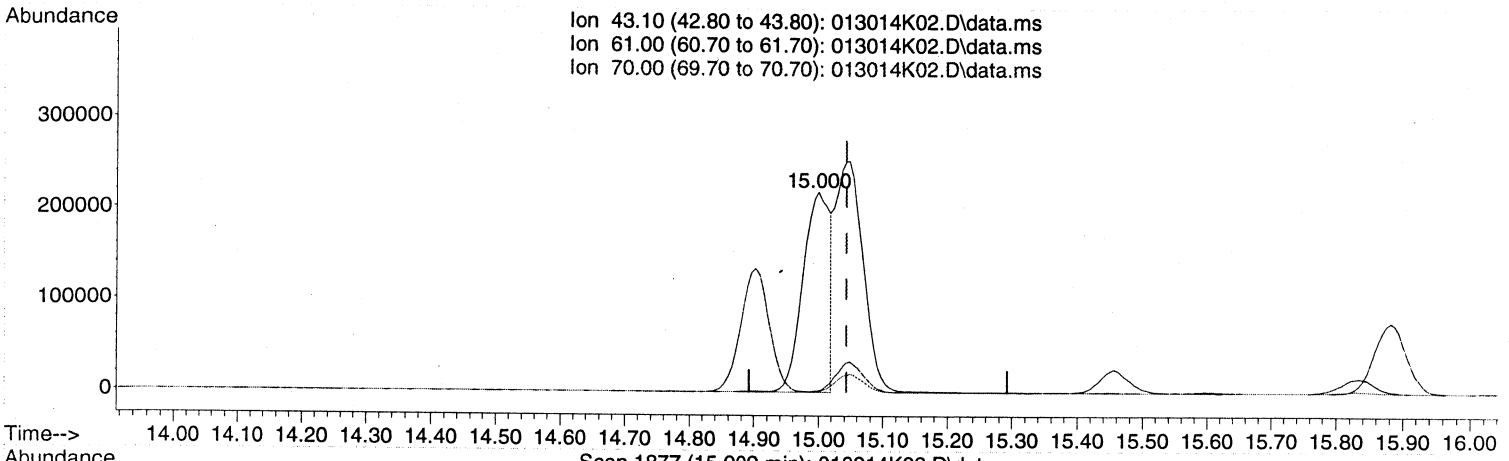


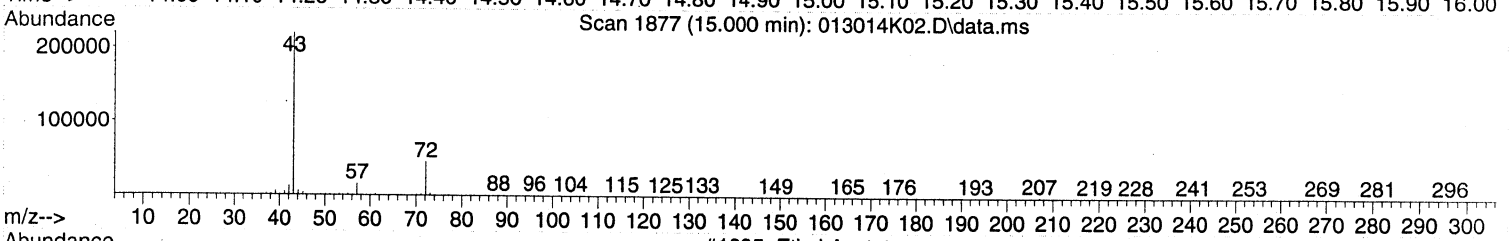
Quantitation Report (Qedit)

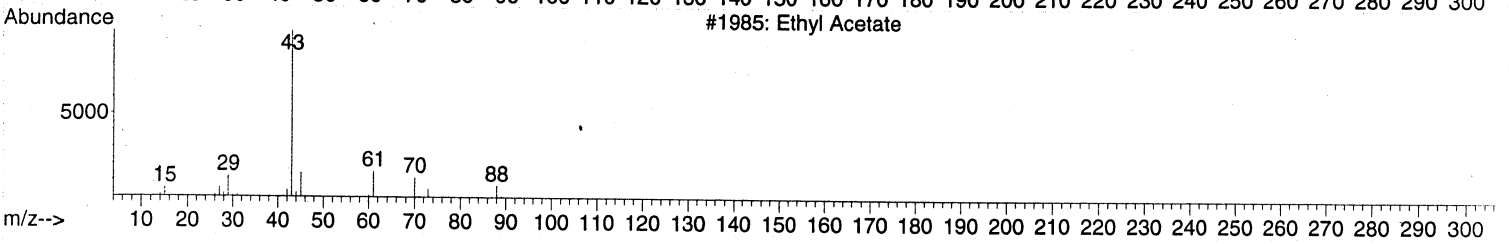
Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K02.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 8.11 ppbv

response 633784

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

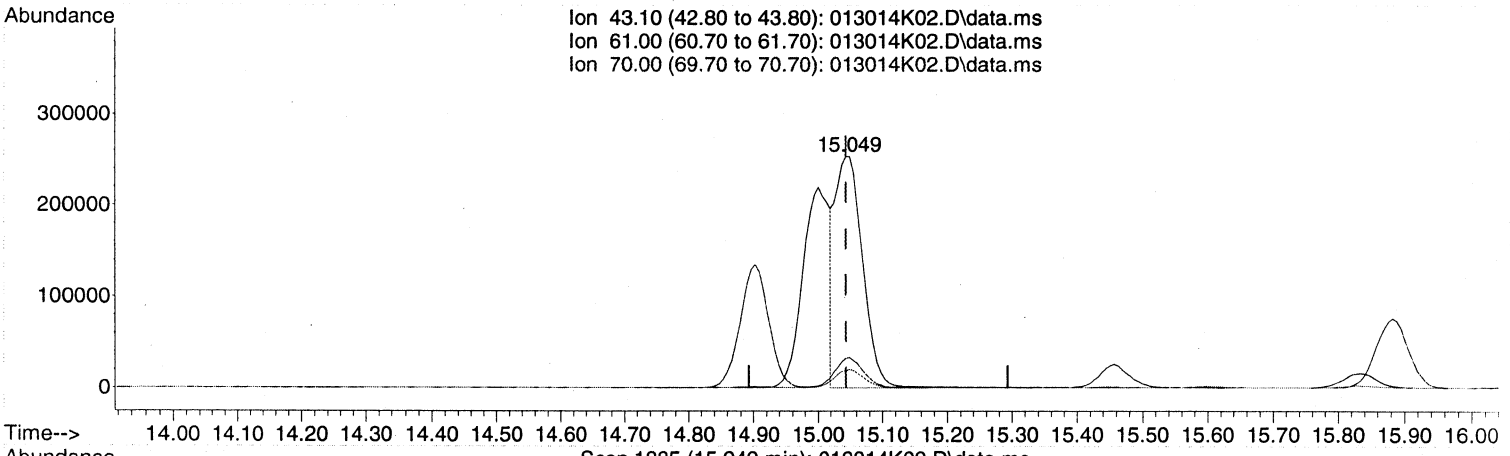
Reviewer: _____ Date: _____

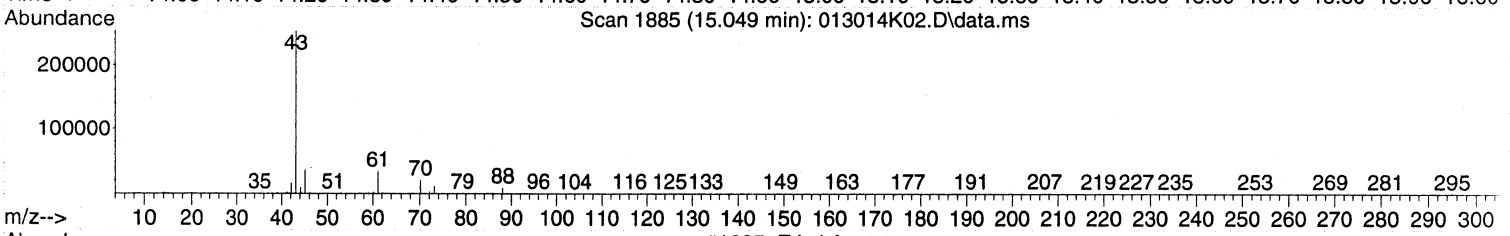
Quantitation Report (Qedit)

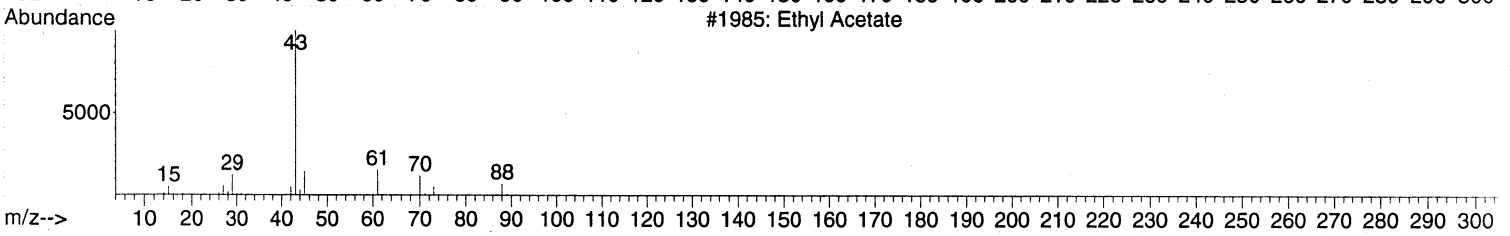
Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K02.D\data.ms

(26) Ethyl acetate (T)

15.049min (+0.006) 9.77 ppbv m

response 763364

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EW Date: 1/31/14

Manual integration(s) reviewed by:

Reviewer: ZR Date: 2/12/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.444 | 49 | 970509 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2456625 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2183719 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 272909 | 9.73 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.464 | 85 | 662854 | 8.71 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 723581 | 9.27 | ppbv | 99 |
| 5) Chloromethane | 5.017 | 50 | 314022 | 9.68 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 324030 | 9.41 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 240948 | 9.35 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 228903 | 8.95 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 161483 | 9.03 | ppbv | 100 |
| 10) Bromoethene | 7.262 | 106 | 215201 | 9.02 | ppbv | 97 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 649304 | 9.86 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 405094 | 8.79 | ppbv | 100 |
| 13) 1,1-Dichloroethene | 9.294 | 61 | 443767 | 8.72 | ppbv | 100 |
| 14) Acetone | 9.817 | 43 | 455616 | 10.03 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 671444 | 9.06 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 427429 | 9.19 | ppbv | 98 |
| 17) Allyl chloride | 10.851 | 41 | 362941 | 9.67 | ppbv | 97 |
| 18) Dichloromethane | 11.387 | 49 | 366867 | 8.38 | ppbv | 97 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 774521 | 10.28 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.105 | 61 | 359270 | 8.66 | ppbv | 100 |
| 21) Hexane | 12.713 | 57 | 481906 | 9.52 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.449 | 63 | 538410 | 8.77 | ppbv | 100 |
| 23) Vinyl acetate | 13.595 | 43 | 670068 | 9.93 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 415035 | 9.20 | ppbv | 98 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 633784 | 10.87 | ppbv | 99 |
| 26) Ethyl acetate | 15.000 | 43 | 633784 | 8.11 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.457 | 42 | 389021 | 9.79 | ppbv | 97 |
| 28) Chloroform | 15.603 | 83 | 567033 | 9.14 | ppbv | 99 |
| 29) Cyclohexane | 15.834 | 56 | 495241 | 9.61 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 565800 | 9.20 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.144 | 117 | 567121 | 9.51 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 922813 | 9.43 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1547035 | 10.23 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 369758 | 9.35 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 604678 | 10.58 | ppbv | 97 |
| 37) Trichloroethene | 17.860 | 130 | 354849 | 9.49 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.365 | 63 | 362272 | 9.67 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.559 | 88 | 195720 | 10.95 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 602157 | 9.93 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 508656 | 9.67 | ppbv | 98 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 806220 | 10.90 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1070659 | 9.95 | ppbv | 100 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 501271 | 10.81 | ppbv | 98 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 353629 | 9.94 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 486513 | 9.75 | ppbv | 100 |
| 48) 2-Hexanone | 21.187 | 43 | 744016 | 11.32 | ppbv | 98 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.455 | 129 | 556402 | 10.26 | ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 494590 | 9.99 | ppbv | 98 |
| 51) | Chlorobenzene | 22.398 | 112 | 819454 | 10.04 | ppbv | 100 |
| 52) | Ethylbenzene | 22.489 | 91 | 1408905 | 9.94 | ppbv | 100 |
| 53) | m&p-Xylene | 22.678 | 91 | 2172365 | 20.07 | ppbv | 99 |
| 54) | o-Xylene | 23.323 | 91 | 1086042 | 10.17 | ppbv | 100 |
| 55) | Styrene | 23.359 | 104 | 886920 | 10.22 | ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 590578 | 10.35 | ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 845191 | 10.02 | ppbv | 100 |
| 58) | 4-Ethyltoluene | 24.673 | 105 | 1455348 | 10.54 | ppbv | 100 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 1269516 | 10.37 | ppbv | 99 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 1249800 | 10.18 | ppbv | 100 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 856006 | 10.10 | ppbv | 98 |
| 62) | 1,4-Dichlorobenzene | 26.042 | 146 | 843586 | 10.18 | ppbv | 100 |
| 63) | Benzyl chloride | 26.261 | 91 | 967464 | 10.48 | ppbv | 100 |
| 64) | 1,2-Dichlorobenzene | 26.650 | 146 | 831188 | 10.07 | ppbv | 98 |
| 65) | 1,2,4-Trichlorobenzene | 29.108 | 180 | 717555 | 8.81 | ppbv | 99 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 612536 | 8.70 | ppbv | 100 |

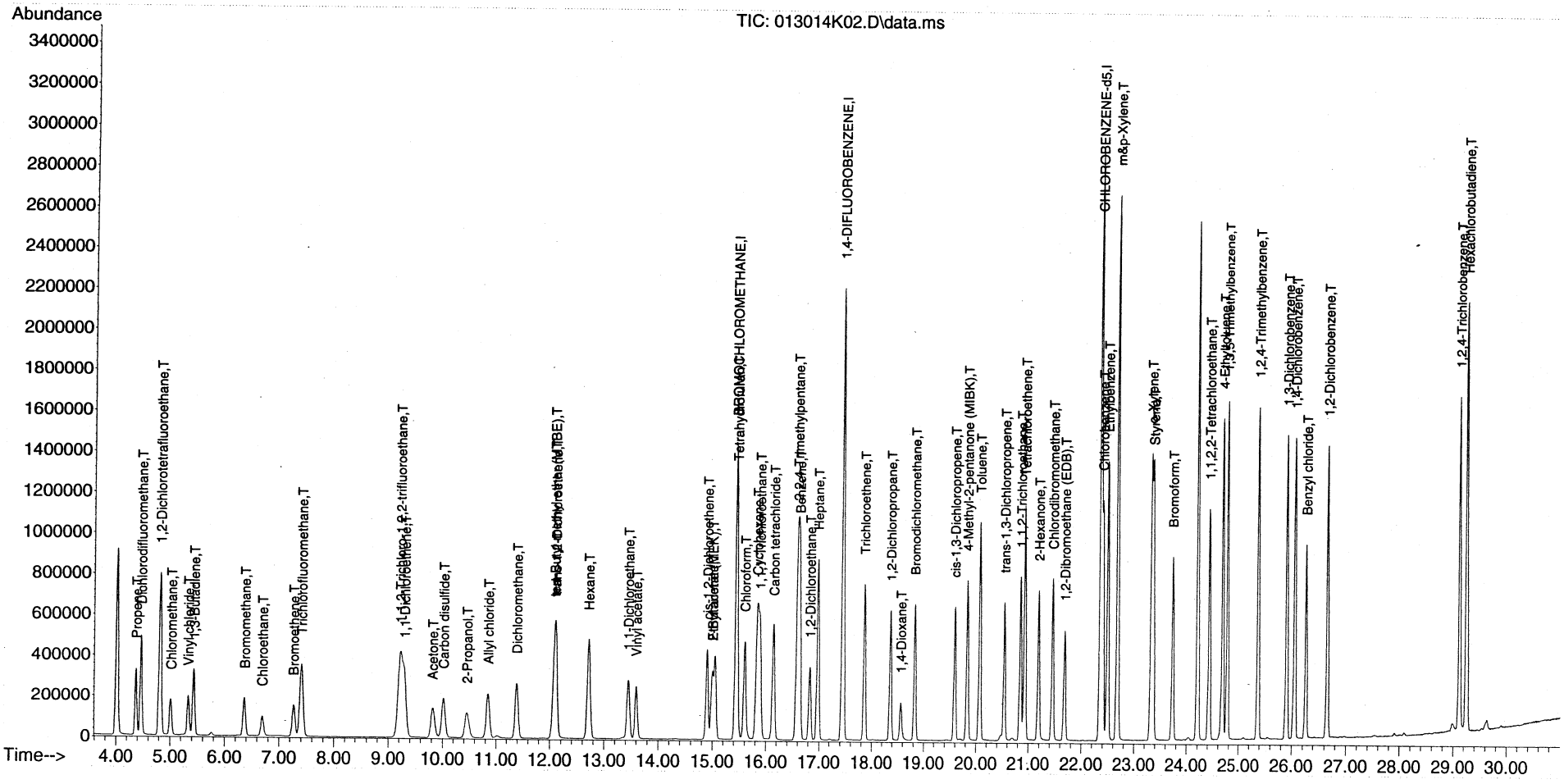
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K02.D
Acq On : 30 Jan 2014 13:42
Instrument: HP5973K
Operator : EM
Sample : S14A114-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:55:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M



# LCS REPORT

Instrument Name: HP5973K
Sample Name: B14A086-BS1
Misc Info: 10 ppbv 1402036
Date Acquired: 1/30/2014 14:29
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.44 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.37 | 10.70 | 10.05 | 94% | 56.0 | 155.0 | pass |
| 3) | Dichlorodifluoromethane | 4.46 | 10.30 | 8.88 | 86% | 67.0 | 141.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.82 | 10.50 | 9.36 | 89% | 68.0 | 147.0 | pass |
| 5) | Chloromethane | 5.01 | 10.50 | 9.80 | 93% | 64.0 | 141.0 | pass |
| 6) | Vinyl chloride | 5.33 | 10.50 | 9.79 | 93% | 65.0 | 141.0 | pass |
| 7) | 1,3-Butadiene | 5.44 | 10.20 | 9.72 | 95% | 61.0 | 154.0 | pass |
| 8) | Bromomethane | 6.37 | 10.30 | 9.24 | 90% | 71.0 | 132.0 | pass |
| 9) | Chloroethane | 6.69 | 10.30 | 9.52 | 92% | 70.0 | 134.0 | pass |
| 10) | Bromoethene | 7.26 | 10.30 | 9.37 | 91% | 71.0 | 146.0 | pass |
| 11) | Trichlorofluoromethane | 7.41 | 10.70 | 10.16 | 95% | 72.0 | 141.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.22 | 9.70 | 8.87 | 91% | 68.0 | 134.0 | pass |
| 13) | 1,1-Dichloroethene | 9.30 | 9.60 | 9.04 | 94% | 81.0 | 127.0 | pass |
| 14) | Acetone | 9.82 | 10.60 | 10.23 | 97% | 77.0 | 150.0 | pass |
| 15) | Carbon disulfide | 10.02 | 10.20 | 9.34 | 92% | 75.0 | 138.0 | pass |
| 16) | 2-Propanol | 10.46 | 9.50 | 9.54 | 100% | 71.0 | 142.0 | pass |
| 17) | Allyl chloride | 10.85 | 10.10 | 10.08 | 100% | 84.0 | 143.0 | pass |
| 18) | Dichloromethane | 11.39 | 9.80 | 8.63 | 88% | 74.0 | 116.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 12.09 | 10.90 | 10.71 | 98% | 79.0 | 131.0 | pass |
| 20) | trans-1,2-Dichloroethene | 12.10 | 9.50 | 9.07 | 95% | 82.0 | 136.0 | pass |
| 21) | Hexane | 12.72 | 10.20 | 9.92 | 97% | 78.0 | 139.0 | pass |
| 22) | 1,1-Dichloroethane | 13.45 | 9.70 | 9.04 | 93% | 82.0 | 123.0 | pass |
| 23) | Vinyl acetate | 13.59 | 10.00 | 10.37 | 104% | 70.0 | 139.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.90 | 10.10 | 9.54 | 95% | 83.0 | 126.0 | pass |
| 25) | 2-Butanone (MEK) | 15.00 | 10.40 | 11.30 | 109% | 76.0 | 138.0 | pass |
| 26) | Ethyl acetate | 15.04 | 10.40 | 10.27 | 99% | 83.0 | 136.0 | pass |
| 27) | Tetrahydrofuran | 15.46 | 10.30 | 10.26 | 100% | 74.0 | 132.0 | pass |
| 28) | Chloroform | 15.60 | 10.20 | 9.49 | 93% | 81.0 | 127.0 | pass |
| 29) | Cyclohexane | 15.83 | 10.40 | 10.03 | 96% | 77.0 | 139.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.88 | 10.10 | 9.54 | 94% | 80.0 | 131.0 | pass |
| 31) | Carbon tetrachloride | 16.14 | 10.30 | 9.82 | 95% | 77.0 | 136.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.45 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.63 | 10.10 | 9.90 | 98% | 77.0 | 131.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.59 | 10.50 | 10.81 | 103% | 68.0 | 152.0 | pass |
| 35) | 1,2-Dichloroethane | 16.83 | 9.80 | 9.81 | 100% | 70.0 | 149.0 | pass |
| 36) | Heptane | 16.98 | 10.50 | 11.18 | 106% | 62.0 | 159.0 | pass |
| 37) | Trichloroethene | 17.86 | 10.10 | 9.82 | 97% | 81.0 | 125.0 | pass |
| 38) | 1,2-Dichloropropane | 18.36 | 10.30 | 10.09 | 98% | 74.0 | 135.0 | pass |
| 39) | 1,4-Dioxane | 18.57 | 10.60 | 11.46 | 108% | 67.0 | 134.0 | pass |
| 40) | Bromodichloromethane | 18.83 | 10.60 | 10.41 | 98% | 69.0 | 150.0 | pass |
| 41) | cis-1,3-Dichloropropene | 19.59 | 10.30 | 10.27 | 100% | 77.0 | 129.0 | pass |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.83 | 10.50 | 11.48 | 109% | 59.0 | 147.0 | pass |
| 43) | CHLOROBENZENE-d5 | 22.36 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 44) | Toluene | 20.07 | 10.20 | 10.38 | 102% | 79.0 | 126.0 | pass |
| 45) | trans-1,3-Dichloropropene | 20.54 | 10.70 | 11.34 | 106% | 81.0 | 137.0 | pass |
| 46) | 1,1,2-Trichloroethane | 20.85 | 10.30 | 10.50 | 102% | 76.0 | 124.0 | pass |
| 47) | Tetrachloroethene | 20.93 | 10.00 | 10.12 | 101% | 80.0 | 122.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 48) | 2-Hexanone | 21.19 | 10.30 | 12.11 | 118% | 55.0 | 149.0 | pass |
| 49) | Chlorodibromomethane | 21.45 | 10.40 | 10.76 | 104% | 76.0 | 145.0 | pass |
| 50) | 1,2-Dibromoethane (EDB) | 21.68 | 10.30 | 10.58 | 103% | 78.0 | 124.0 | pass |
| 51) | Chlorobenzene | 22.40 | 10.40 | 10.45 | 101% | 76.0 | 120.0 | pass |
| 52) | Ethylbenzene | 22.49 | 10.20 | 10.46 | 103% | 75.0 | 125.0 | pass |
| 53) | m&p-Xylene | 22.68 | 20.40 | 21.08 | 103% | 75.0 | 128.0 | pass |
| 54) | o-Xylene | 23.32 | 10.30 | 10.71 | 104% | 74.0 | 128.0 | pass |
| 55) | Styrene | 23.36 | 10.10 | 10.68 | 106% | 69.0 | 122.0 | pass |
| 56) | Bromoform | 23.73 | 10.30 | 10.82 | 105% | 72.0 | 142.0 | pass |
| 57) | 1,1,2,2-Tetrachloroethane | 24.42 | 10.20 | 10.35 | 101% | 70.0 | 130.0 | pass |
| 58) | 4-Ethyltoluene | 24.67 | 10.50 | 10.94 | 104% | 69.0 | 138.0 | pass |
| 59) | 1,3,5-Trimethylbenzene | 24.76 | 10.30 | 10.70 | 104% | 70.0 | 134.0 | pass |
| 60) | 1,2,4-Trimethylbenzene | 25.37 | 10.10 | 10.60 | 105% | 65.0 | 129.0 | pass |
| 61) | 1,3-Dichlorobenzene | 25.90 | 9.90 | 10.53 | 106% | 62.0 | 130.0 | pass |
| 62) | 1,4-Dichlorobenzene | 26.04 | 9.90 | 10.59 | 107% | 61.0 | 131.0 | pass |
| 63) | Benzyl chloride | 26.26 | 10.30 | 10.96 | 106% | 61.0 | 153.0 | pass |
| 64) | 1,2-Dichlorobenzene | 26.65 | 9.90 | 10.44 | 105% | 60.0 | 130.0 | pass |
| 65) | 1,2,4-Trichlorobenzene | 29.11 | 9.10 | 9.38 | 103% | 38.0 | 128.0 | pass |
| 66) | Hexachlorobutadiene | 29.25 | 9.50 | 9.29 | 98% | 37.0 | 124.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:42 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/31/14

Manual integration(s) reviewed by

Reviewer: JL Date: 2/12/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 954253 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2395956 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2118706 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 277183 | 10.05 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 664718 | 8.88 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 718808 | 9.36 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 312739 | 9.80 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 331504 | 9.79 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 246131 | 9.72 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 232337 | 9.24 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 167276 | 9.52 | ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 219734 | 9.37 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 657903 | 10.16 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 401896 | 8.87 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 452414 | 9.04 | ppbv | 99 |
| 14) Acetone | 9.823 | 43 | 457052 | 10.23 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 680627 | 9.34 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 435935 | 9.54 | ppbv | 99 |
| 17) Allyl chloride | 10.845 | 41 | 371869 | 10.08 | ppbv | 97 |
| 18) Dichloromethane | 11.387 | 49 | 371624 | 8.63 | ppbv | 97 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 793955 | 10.71 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 369843 | 9.07 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 494016 | 9.92 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 545941 | 9.04 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 688260 | 10.37 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 423466 | 9.54 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 647672 | 11.30 | ppbv | 99 |
| 26) Ethyl acetate | 15.043 | 43 | 789241m | 10.27 | ppbv | |
| 27) Tetrahydrofuran | 15.456 | 42 | 400792 | 10.26 | ppbv | 99 |
| 28) Chloroform | 15.602 | 83 | 578670 | 9.49 | ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 508386 | 10.03 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 577007 | 9.54 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 575844 | 9.82 | ppbv | 98 |
| 33) Benzene | 16.631 | 78 | 945663 | 9.90 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1594083 | 10.81 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 378404 | 9.81 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 623104 | 11.18 | ppbv | 97 |
| 37) Trichloroethene | 17.859 | 130 | 358396 | 9.82 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 368927 | 10.09 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.565 | 88 | 199822 | 11.46 | ppbv | 97 |
| 40) Bromodichloromethane | 18.827 | 83 | 615772 | 10.41 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 526967 | 10.27 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 828591 | 11.48 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1083631 | 10.38 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 509889 | 11.34 | ppbv | 97 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 362281 | 10.50 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 490026 | 10.12 | ppbv | 99 |
| 48) 2-Hexanone | 21.187 | 43 | 772373 | 12.11 | ppbv | 98 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:42 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 566160 | 10.76 | ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 508110 | 10.58 | ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 827849 | 10.45 | ppbv | 100 |
| 52) Ethylbenzene | 22.489 | 91 | 1439080 | 10.46 | ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 2213547 | 21.08 | ppbv | 99 |
| 54) o-Xylene | 23.316 | 91 | 1109503 | 10.71 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 898675 | 10.68 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 598910 | 10.82 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 846621 | 10.35 | ppbv | 99 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 1465875 | 10.94 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1270661 | 10.70 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1263498 | 10.60 | ppbv | 99 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 866173 | 10.53 | ppbv | 98 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 852032 | 10.59 | ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 982183 | 10.96 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 836029 | 10.44 | ppbv | 98 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 740843 | 9.38 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 634624 | 9.29 | ppbv | 99 |

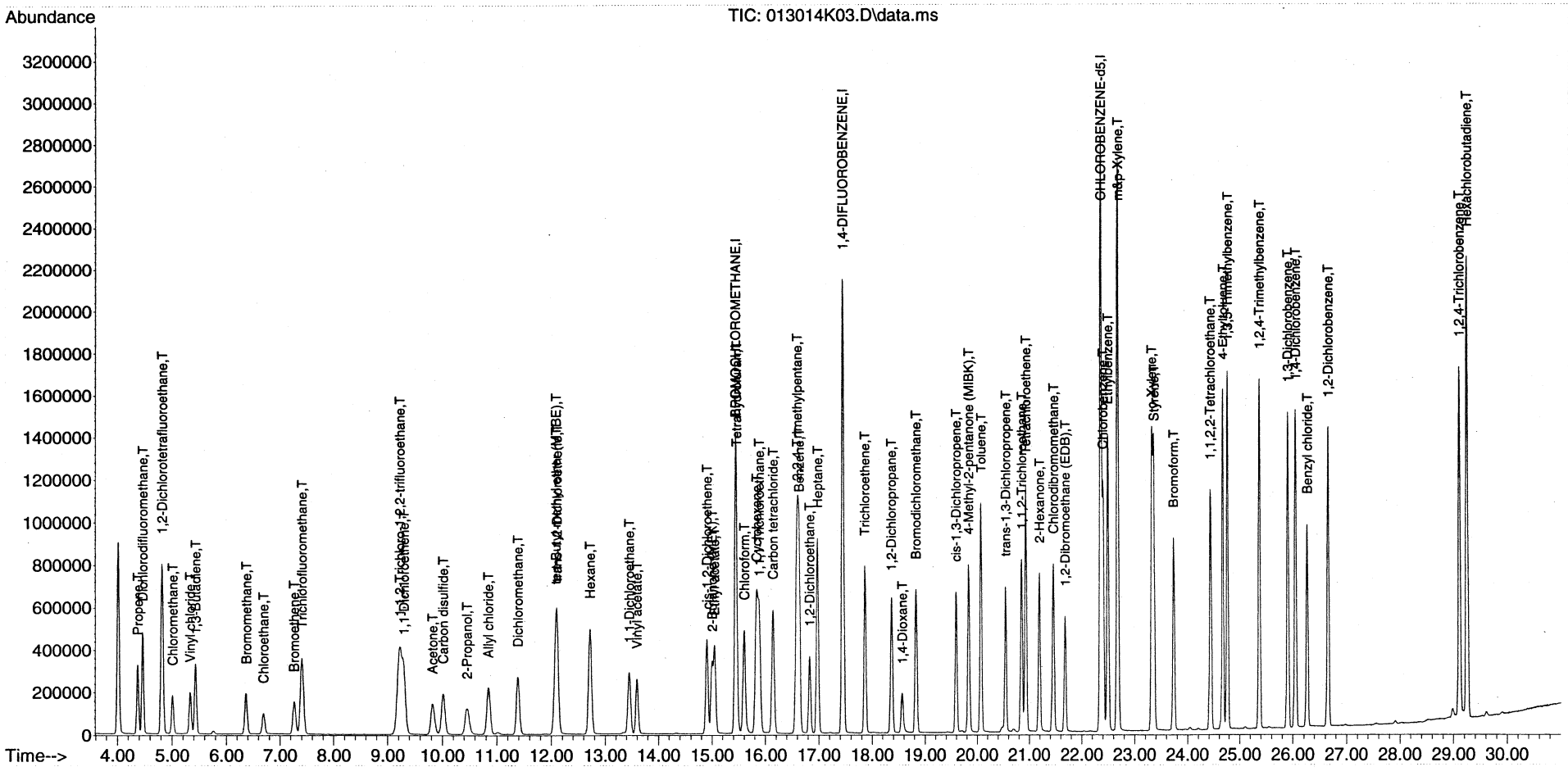
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:42 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

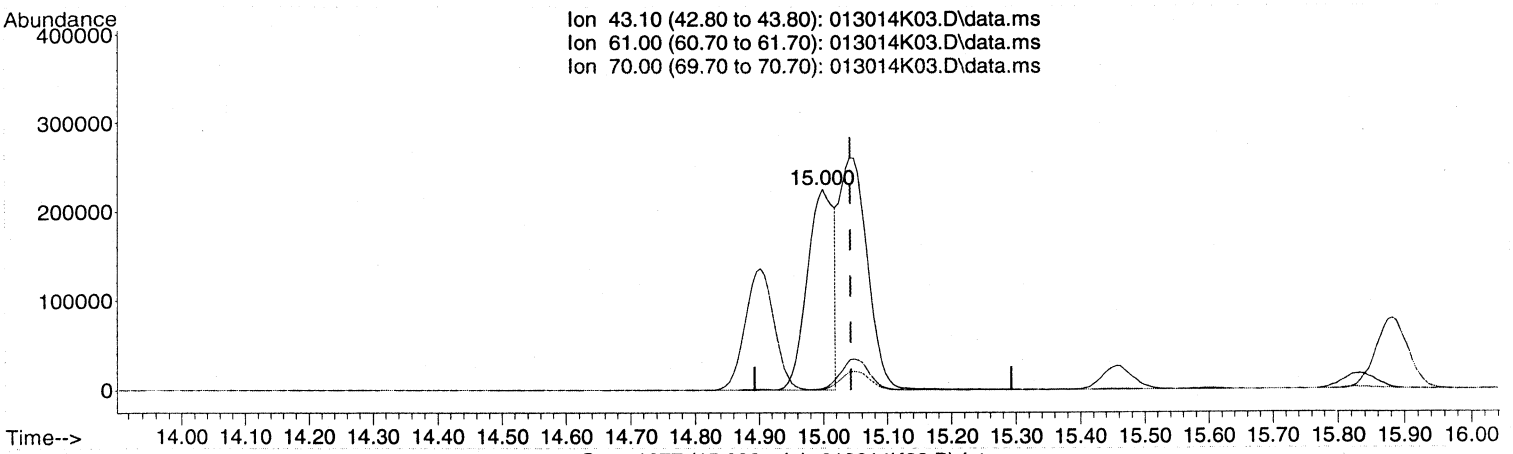


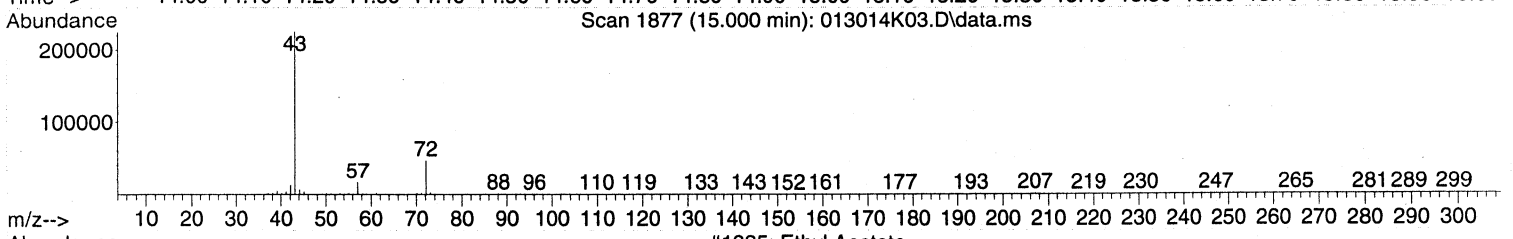
Quantitation Report (Qedit)

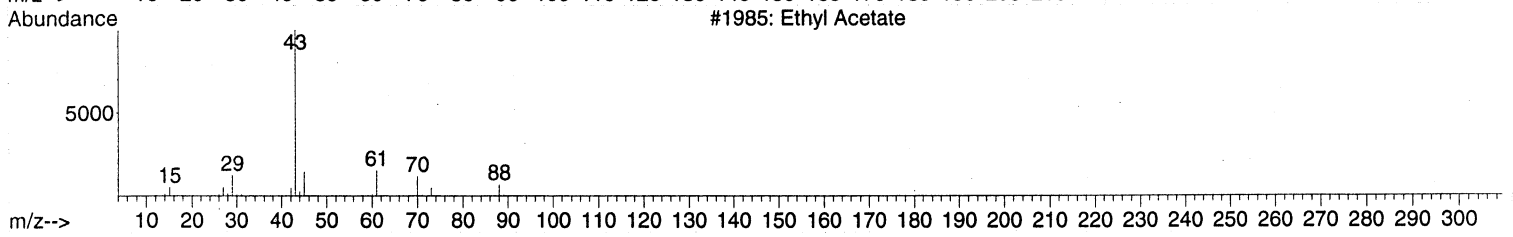
Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K03.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 8.42 ppbv

response 647480

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

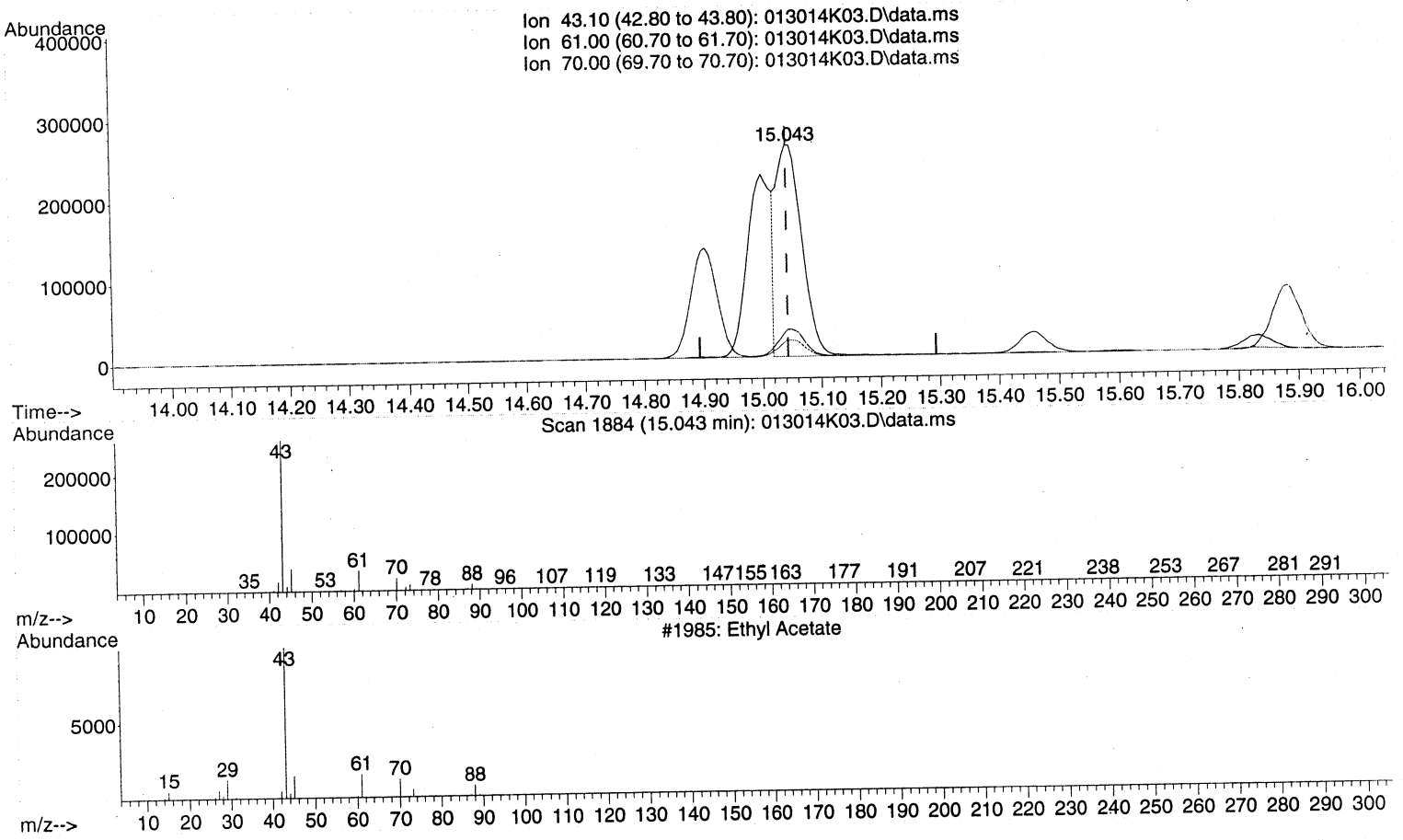
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☑ Other: RT off
☐ After Manual Integration
Manual integration(s) performed by
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K03.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 10.27 ppbv m

response 789241

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: _____ Date: 1/31/14

Manual integration(s) reviewed by:

Reviewer: _____ Date: 2/12/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

pd RIT
em 1/30/14

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 954253 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2395956 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2118706 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 277183 | 10.05 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.463 | 85 | 664718 | 8.88 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 718808 | 9.36 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 312739 | 9.80 | ppbv | 99 |
| 6) Vinyl chloride | 5.333 | 62 | 331504 | 9.79 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.437 | 54 | 246131 | 9.72 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 232337 | 9.24 | ppbv | 99 |
| 9) Chloroethane | 6.690 | 64 | 167276 | 9.52 | ppbv | 99 |
| 10) Bromoethene | 7.262 | 106 | 219734 | 9.37 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 657903 | 10.16 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.221 | 151 | 401896 | 8.87 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.300 | 61 | 452414 | 9.04 | ppbv | 99 |
| 14) Acetone | 9.823 | 43 | 457052 | 10.23 | ppbv | 99 |
| 15) Carbon disulfide | 10.018 | 76 | 680627 | 9.34 | ppbv | 99 |
| 16) 2-Propanol | 10.456 | 45 | 435935 | 9.54 | ppbv | 99 |
| 17) Allyl chloride | 10.845 | 41 | 371869 | 10.08 | ppbv | 97 |
| 18) Dichloromethane | 11.387 | 49 | 371624 | 8.63 | ppbv | 97 |
| 19) tert-Butyl methyl ethe... | 12.086 | 73 | 793955 | 10.71 | ppbv | 100 |
| 20) trans-1,2-Dichloroethene | 12.104 | 61 | 369843 | 9.07 | ppbv | 99 |
| 21) Hexane | 12.719 | 57 | 494016 | 9.92 | ppbv | 98 |
| 22) 1,1-Dichloroethane | 13.455 | 63 | 545941 | 9.04 | ppbv | 99 |
| 23) Vinyl acetate | 13.595 | 43 | 688260 | 10.37 | ppbv | 99 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 423466 | 9.54 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.000 | 43 | 647672 | 11.30 | ppbv | 99 |
| 26) Ethyl acetate | 15.000 | 43 | 647480 | 8.42 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.456 | 42 | 400792 | 10.26 | ppbv | 99 |
| 28) Chloroform | 15.602 | 83 | 578670 | 9.49 | ppbv | 100 |
| 29) Cyclohexane | 15.834 | 56 | 508386 | 10.03 | ppbv | 98 |
| 30) 1,1,1-Trichloroethane | 15.882 | 97 | 577007 | 9.54 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 575844 | 9.82 | ppbv | 98 |
| 33) Benzene | 16.631 | 78 | 945663 | 9.90 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 1594083 | 10.81 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 378404 | 9.81 | ppbv | 99 |
| 36) Heptane | 16.977 | 43 | 623104 | 11.18 | ppbv | 97 |
| 37) Trichloroethene | 17.859 | 130 | 358396 | 9.82 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.358 | 63 | 368927 | 10.09 | ppbv | 98 |
| 39) 1,4-Dioxane | 18.565 | 88 | 199822 | 11.46 | ppbv | 97 |
| 40) Bromodichloromethane | 18.827 | 83 | 615772 | 10.41 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 526967 | 10.27 | ppbv | 99 |
| 42) 4-Methyl-2-pentanone (... | 19.831 | 43 | 828591 | 11.48 | ppbv | 99 |
| 44) Toluene | 20.074 | 91 | 1083631 | 10.38 | ppbv | 99 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 509889 | 11.34 | ppbv | 97 |
| 46) 1,1,2-Trichloroethane | 20.846 | 97 | 362281 | 10.50 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 490026 | 10.12 | ppbv | 99 |
| 48) 2-Hexanone | 21.187 | 43 | 772373 | 12.11 | ppbv | 98 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.455 | 129 | 566160 | 10.76 | ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 508110 | 10.58 | ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 827849 | 10.45 | ppbv | 100 |
| 52) Ethylbenzene | 22.489 | 91 | 1439080 | 10.46 | ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 2213547 | 21.08 | ppbv | 99 |
| 54) o-Xylene | 23.316 | 91 | 1109503 | 10.71 | ppbv | 100 |
| 55) Styrene | 23.359 | 104 | 898675 | 10.68 | ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 598910 | 10.82 | ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 846621 | 10.35 | ppbv | 99 |
| 58) 4-Ethyltoluene | 24.673 | 105 | 1465875 | 10.94 | ppbv | 100 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 1270661 | 10.70 | ppbv | 99 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 1263498 | 10.60 | ppbv | 99 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 866173 | 10.53 | ppbv | 98 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 852032 | 10.59 | ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 982183 | 10.96 | ppbv | 100 |
| 64) 1,2-Dichlorobenzene | 26.650 | 146 | 836029 | 10.44 | ppbv | 98 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 740843 | 9.38 | ppbv | 99 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 634624 | 9.29 | ppbv | 99 |

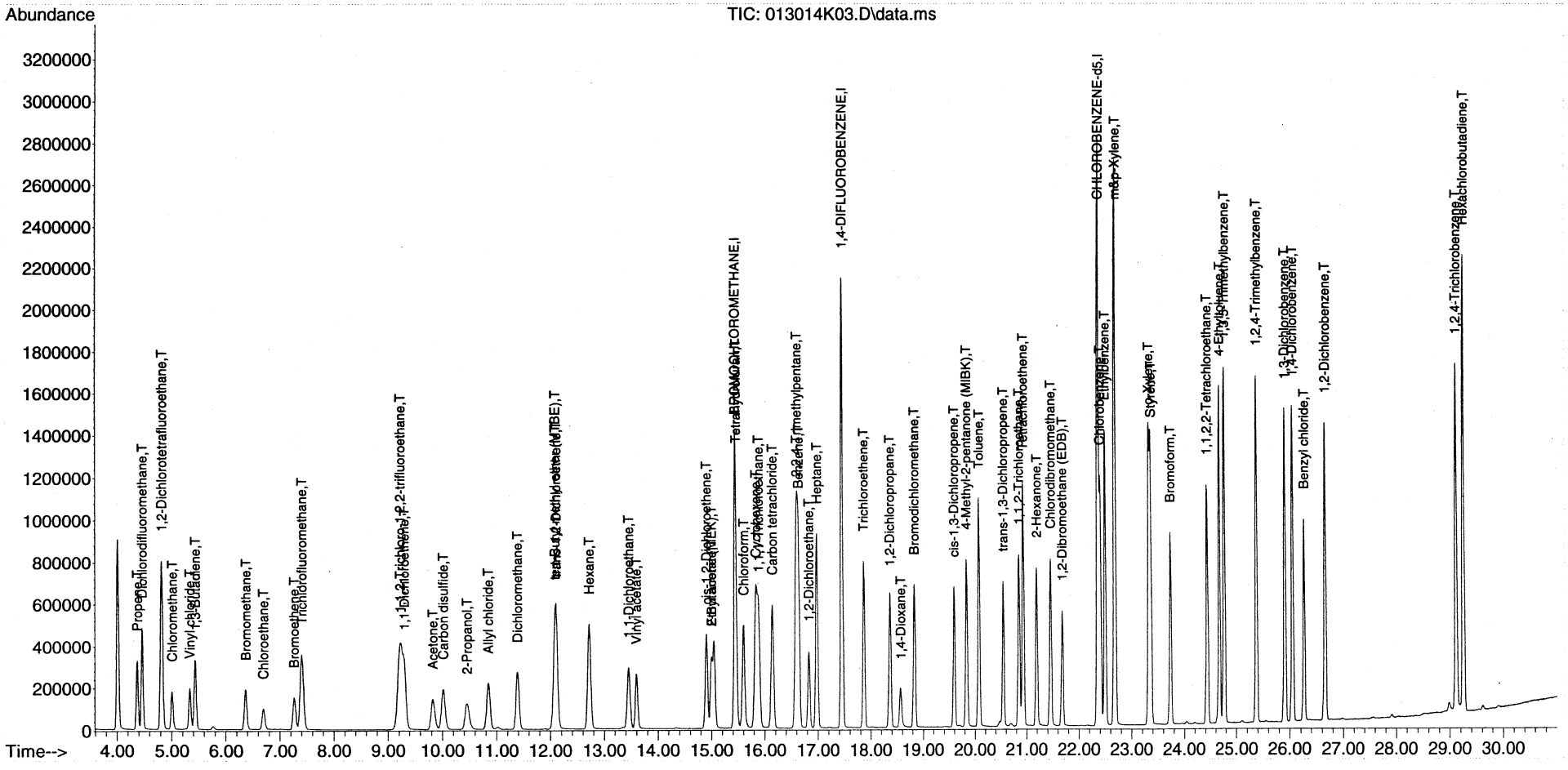
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K03.D
Acq On : 30 Jan 2014 14:29
Instrument: HP5973K
Operator : EM
Sample : B14A086-BS1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 30 14:57:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M



# QLS REPORT

1 out
em 1/30/14

Instrument Name: HP5973K
Sample Name: S14A114-CRL1
Misc Info: 1.0 ppbv 1402037
Date Acquired: 1/30/2014 15:15
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.44 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 2) | Propene | 4.37 | 1.07 | 1.35 | 126% | 60.0 | 140.0 | pass |
| 3) | Dichlorodifluoromethane | 4.47 | 1.03 | 1.26 | 122% | 60.0 | 140.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.82 | 1.05 | 1.23 | 117% | 60.0 | 140.0 | pass |
| 5) | Chloromethane | 5.01 | 1.05 | 1.31 | 125% | 60.0 | 140.0 | pass |
| 6) | Vinyl chloride | 5.34 | 1.05 | 1.29 | 123% | 60.0 | 140.0 | pass |
| 7) | 1,3-Butadiene | 5.44 | 1.02 | 1.22 | 120% | 60.0 | 140.0 | pass |
| 8) | Bromomethane | 6.37 | 1.03 | 1.26 | 122% | 60.0 | 140.0 | pass |
| 9) | Chloroethane | 6.68 | 1.03 | 1.24 | 120% | 60.0 | 140.0 | pass |
| 10) | Bromoethene | 7.26 | 1.03 | 1.24 | 120% | 60.0 | 140.0 | pass |
| 11) | Trichlorofluoromethane | 7.41 | 1.07 | 1.33 | 124% | 60.0 | 140.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 9.21 | 0.97 | 1.17 | 121% | 60.0 | 140.0 | pass |
| 13) | 1,1-Dichloroethene | 9.31 | 0.96 | 1.15 | 119% | 60.0 | 140.0 | pass |
| 14) | Acetone | 9.87 | 1.06 | 1.32 | 125% | 60.0 | 140.0 | pass |
| 15) | Carbon disulfide | 10.01 | 1.02 | 1.22 | 120% | 60.0 | 140.0 | pass |
| 16) | 2-Propanol | 10.52 | 0.95 | 1.13 | 119% | 60.0 | 140.0 | pass |
| 17) | Allyl chloride | 10.85 | 1.01 | 1.25 | 124% | 60.0 | 140.0 | ~~pass~~ |
| 18) | Dichloromethane | 11.39 | 0.98 | 1.49 | 152% | 60.0 | 140.0 | FAIL |
| 19) | tert-Butyl methyl ether (MTBE) | 12.12 | 1.09 | 1.26 | 115% | 60.0 | 140.0 | ~~pass~~ |
| 20) | trans-1,2-Dichloroethene | 12.11 | 0.95 | 1.14 | 120% | 60.0 | 140.0 | pass |
| 21) | Hexane | 12.72 | 1.02 | 1.18 | 116% | 60.0 | 140.0 | pass |
| 22) | 1,1-Dichloroethane | 13.44 | 0.97 | 1.17 | 120% | 60.0 | 140.0 | pass |
| 23) | Vinyl acetate | 13.61 | 1.00 | 1.18 | 118% | 60.0 | 140.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.90 | 1.01 | 1.21 | 120% | 60.0 | 140.0 | pass |
| 25) | 2-Butanone (MEK) | 15.02 | 1.04 | 0.97 | 93% | 60.0 | 140.0 | pass |
| 26) | Ethyl acetate | 15.06 | 1.04 | 1.08 | 104% | 60.0 | 140.0 | pass |
| 27) | Tetrahydrofuran | 15.49 | 1.03 | 1.23 | 119% | 60.0 | 140.0 | pass |
| 28) | Chloroform | 15.60 | 1.02 | 1.26 | 123% | 60.0 | 140.0 | pass |
| 29) | Cyclohexane | 15.83 | 1.04 | 1.26 | 121% | 60.0 | 140.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.88 | 1.01 | 1.23 | 122% | 60.0 | 140.0 | pass |
| 31) | Carbon tetrachloride | 16.14 | 1.03 | 1.29 | 125% | 60.0 | 140.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.45 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 33) | Benzene | 16.63 | 1.01 | 1.26 | 125% | 60.0 | 140.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.59 | 1.05 | 1.30 | 124% | 60.0 | 140.0 | pass |
| 35) | 1,2-Dichloroethane | 16.83 | 0.98 | 1.23 | 125% | 60.0 | 140.0 | pass |
| 36) | Heptane | 16.97 | 1.05 | 1.33 | 127% | 60.0 | 140.0 | pass |
| 37) | Trichloroethene | 17.86 | 1.01 | 1.28 | 127% | 60.0 | 140.0 | pass |
| 38) | 1,2-Dichloropropane | 18.36 | 1.03 | 1.29 | 125% | 60.0 | 140.0 | pass |
| 39) | 1,4-Dioxane | 18.60 | 1.06 | 1.10 | 104% | 60.0 | 140.0 | pass |
| 40) | Bromodichloromethane | 18.83 | 1.06 | 1.31 | 124% | 60.0 | 140.0 | pass |
| 41) | cis-1,3-Dichloropropene | 19.59 | 1.03 | 1.26 | 123% | 60.0 | 140.0 | pass |
| 42) | 4-Methyl-2-pentanone (MIBK) | 19.85 | 1.05 | 1.12 | 107% | 60.0 | 140.0 | pass |
| 43) | CHLOROBENZENE-d5 | 22.36 | 22.00 | 22.00 | 100% | 60.0 | 140.0 | pass |
| 44) | Toluene | 20.07 | 1.02 | 1.29 | 126% | 60.0 | 140.0 | pass |
| 45) | trans-1,3-Dichloropropene | 20.54 | 1.07 | 1.41 | 131% | 60.0 | 140.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 46) | 1,1,2-Trichloroethane | 20.85 | 1.03 | 1.38 | 134% | 60.0 | 140.0 | pass |
| 47) | Tetrachloroethene | 20.93 | 1.00 | 1.29 | 129% | 60.0 | 140.0 | pass |
| 48) | 2-Hexanone | 21.20 | 1.03 | 1.10 | 107% | 60.0 | 140.0 | pass |
| 49) | Chlorodibromomethane | 21.45 | 1.04 | 1.34 | 129% | 60.0 | 140.0 | pass |
| 50) | 1,2-Dibromoethane (EDB) | 21.68 | 1.03 | 1.33 | 129% | 60.0 | 140.0 | pass |
| 51) | Chlorobenzene | 22.40 | 1.04 | 1.36 | 131% | 60.0 | 140.0 | pass |
| 52) | Ethylbenzene | 22.49 | 1.02 | 1.27 | 124% | 60.0 | 140.0 | pass |
| 53) | m&p-Xylene | 22.68 | 2.04 | 2.42 | 118% | 60.0 | 140.0 | pass |
| 54) | o-Xylene | 23.32 | 1.03 | 1.25 | 122% | 60.0 | 140.0 | pass |
| 55) | Styrene | 23.36 | 1.01 | 1.17 | 116% | 60.0 | 140.0 | pass |
| 56) | Bromoform | 23.73 | 1.03 | 1.25 | 122% | 60.0 | 140.0 | pass |
| 57) | 1,1,2,2-Tetrachloroethane | 24.42 | 1.02 | 1.28 | 125% | 60.0 | 140.0 | pass |
| 58) | 4-Ethyltoluene | 24.67 | 1.05 | 1.23 | 117% | 60.0 | 140.0 | pass |
| 59) | 1,3,5-Trimethylbenzene | 24.76 | 1.03 | 1.19 | 116% | 60.0 | 140.0 | pass |
| 60) | 1,2,4-Trimethylbenzene | 25.37 | 1.01 | 1.16 | 114% | 60.0 | 140.0 | pass |
| 61) | 1,3-Dichlorobenzene | 25.90 | 0.99 | 1.17 | 118% | 60.0 | 140.0 | pass |
| 62) | 1,4-Dichlorobenzene | 26.04 | 0.99 | 1.15 | 116% | 60.0 | 140.0 | pass |
| 63) | Benzyl chloride | 26.26 | 1.03 | 1.15 | 111% | 60.0 | 140.0 | pass |
| 64) | 1,2-Dichlorobenzene | 26.64 | 0.99 | 1.15 | 116% | 60.0 | 140.0 | pass |
| 65) | 1,2,4-Trichlorobenzene | 29.11 | 0.91 | 0.90 | 99% | 60.0 | 140.0 | pass |
| 66) | Hexachlorobutadiene | 29.25 | 0.95 | 1.04 | 109% | 60.0 | 140.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:57:09 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/31/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 2/12/14

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 966928 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2423251 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2123086 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 37795 | 1.35 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.470 | 85 | 95231 | 1.26 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 95794 | 1.23 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 42401 | 1.31 | ppbv | 99 |
| 6) Vinyl chloride | 5.340 | 62 | 44304 | 1.29 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 31320 | 1.22 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 32090 | 1.26 | ppbv | 97 |
| 9) Chloroethane | 6.684 | 64 | 22078 | 1.24 | ppbv | 95 |
| 10) Bromoethene | 7.256 | 106 | 29462 | 1.24 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 87377 | 1.33 | ppbv | 97 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 53777 | 1.17 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 58106 | 1.15 | ppbv | 99 |
| 14) Acetone | 9.866 | 43 | 59830 | 1.32 | ppbv | 100 |
| 15) Carbon disulfide | 10.012 | 76 | 90345 | 1.22 | ppbv | 99 |
| 16) 2-Propanol | 10.517 | 45 | 52191 | 1.13 | ppbv | 91 |
| 17) Allyl chloride | 10.845 | 41 | 46816 | 1.25 | ppbv | 98 |
| 18) Dichloromethane | 11.387 | 49 | 65165 | 1.49 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.117 | 73 | 94508 | 1.26 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 46991 | 1.14 | ppbv | 98 |
| 21) Hexane | 12.719 | 57 | 59532 | 1.18 | ppbv | 93 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 71527 | 1.17 | ppbv | 98 |
| 23) Vinyl acetate | 13.607 | 43 | 79514 | 1.18 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 54336 | 1.21 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.018 | 43 | 56355 | 0.97 | ppbv | 91 |
| 26) Ethyl acetate | 15.061 | 43 | 84127m | 1.08 | ppbv | |
| 27) Tetrahydrofuran | 15.493 | 42 | 48533 | 1.23 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 77594 | 1.26 | ppbv | 98 |
| 29) Cyclohexane | 15.828 | 56 | 64476 | 1.26 | ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.876 | 97 | 75297 | 1.23 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 76472 | 1.29 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 121721 | 1.26 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 193720 | 1.30 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 47771 | 1.23 | ppbv | 98 |
| 36) Heptane | 16.971 | 43 | 74922 | 1.33 | ppbv | 98 |
| 37) Trichloroethene | 17.860 | 130 | 47256 | 1.28 | ppbv | 98 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 47540 | 1.29 | ppbv | 97 |
| 39) 1,4-Dioxane | 18.602 | 88 | 19415 | 1.10 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 78525 | 1.31 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 65572 | 1.26 | ppbv | 97 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 81826 | 1.12 | ppbv | 97 |
| 44) Toluene | 20.068 | 91 | 134850 | 1.29 | ppbv | 97 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 63405 | 1.41 | ppbv | 96 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 47751 | 1.38 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 62682 | 1.29 | ppbv | 98 |
| 48) 2-Hexanone | 21.199 | 43 | 70583 | 1.10 | ppbv | 97 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:57:09 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| | Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) | Chlorodibromomethane | 21.449 | 129 | 70797 | 1.34 ppbv | 99 |
| 50) | 1,2-Dibromoethane (EDB) | 21.680 | 107 | 64088 | 1.33 ppbv | 98 |
| 51) | Chlorobenzene | 22.398 | 112 | 108272 | 1.36 ppbv | 85 |
| 52) | Ethylbenzene | 22.489 | 91 | 174658 | 1.27 ppbv | 99 |
| 53) | m&p-Xylene | 22.678 | 91 | 254227 | 2.42 ppbv | 98 |
| 54) | o-Xylene | 23.316 | 91 | 130309 | 1.25 ppbv | 99 |
| 55) | Styrene | 23.359 | 104 | 98599 | 1.17 ppbv | 99 |
| 56) | Bromoform | 23.730 | 173 | 69492 | 1.25 ppbv | 99 |
| 57) | 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 104746 | 1.28 ppbv | 100 |
| 58) | 4-Ethyltoluene | 24.667 | 105 | 164970 | 1.23 ppbv | 99 |
| 59) | 1,3,5-Trimethylbenzene | 24.764 | 105 | 141874 | 1.19 ppbv | 100 |
| 60) | 1,2,4-Trimethylbenzene | 25.367 | 105 | 138041 | 1.16 ppbv | 99 |
| 61) | 1,3-Dichlorobenzene | 25.896 | 146 | 96666 | 1.17 ppbv | 99 |
| 62) | 1,4-Dichlorobenzene | 26.042 | 146 | 92622 | 1.15 ppbv | 100 |
| 63) | Benzyl chloride | 26.261 | 91 | 102980 | 1.15 ppbv | 99 |
| 64) | 1,2-Dichlorobenzene | 26.644 | 146 | 92113 | 1.15 ppbv | 99 |
| 65) | 1,2,4-Trichlorobenzene | 29.108 | 180 | 71313 | 0.90 ppbv | 97 |
| 66) | Hexachlorobutadiene | 29.248 | 225 | 70918 | 1.04 ppbv | 98 |

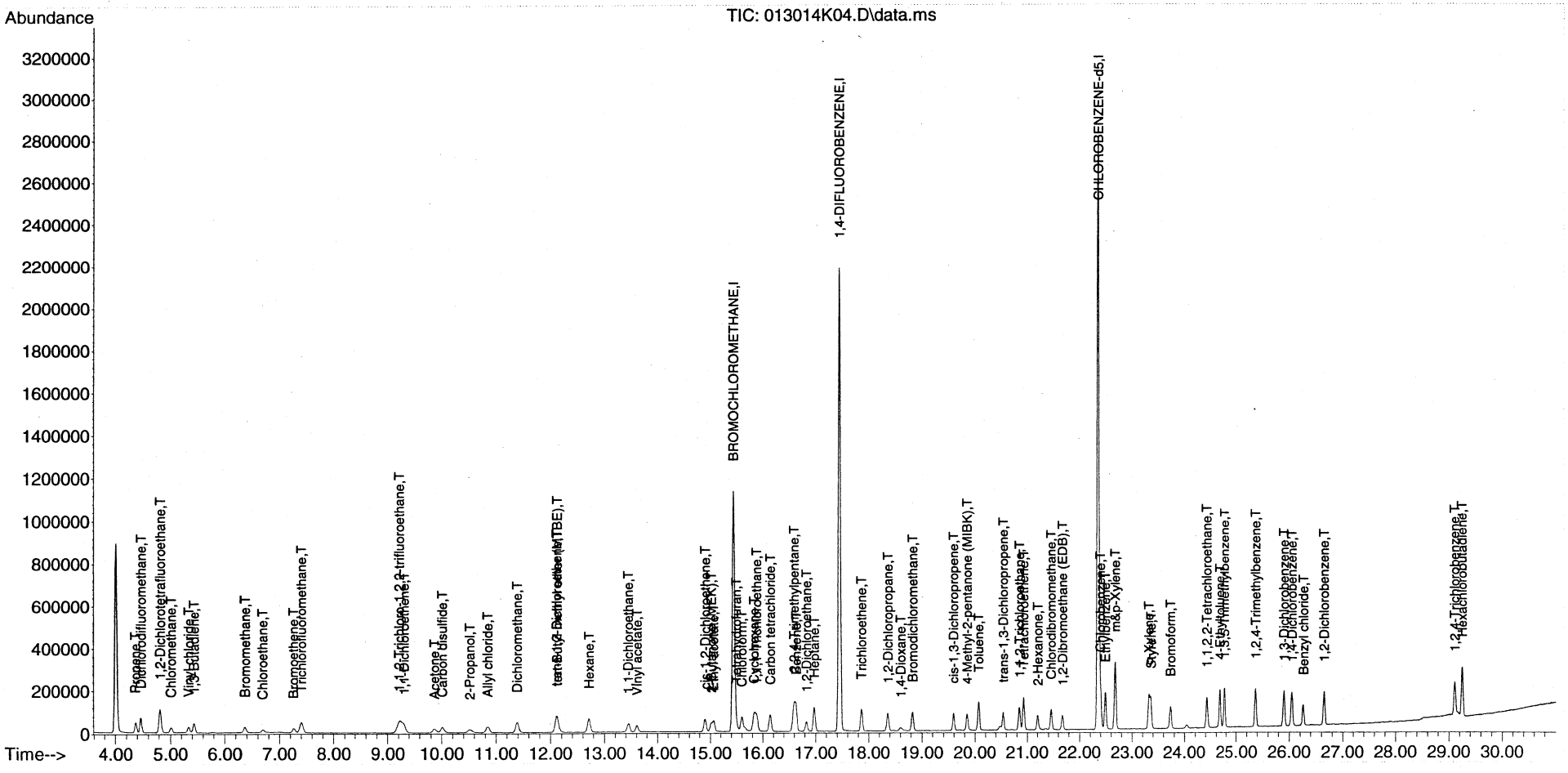
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:57:09 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

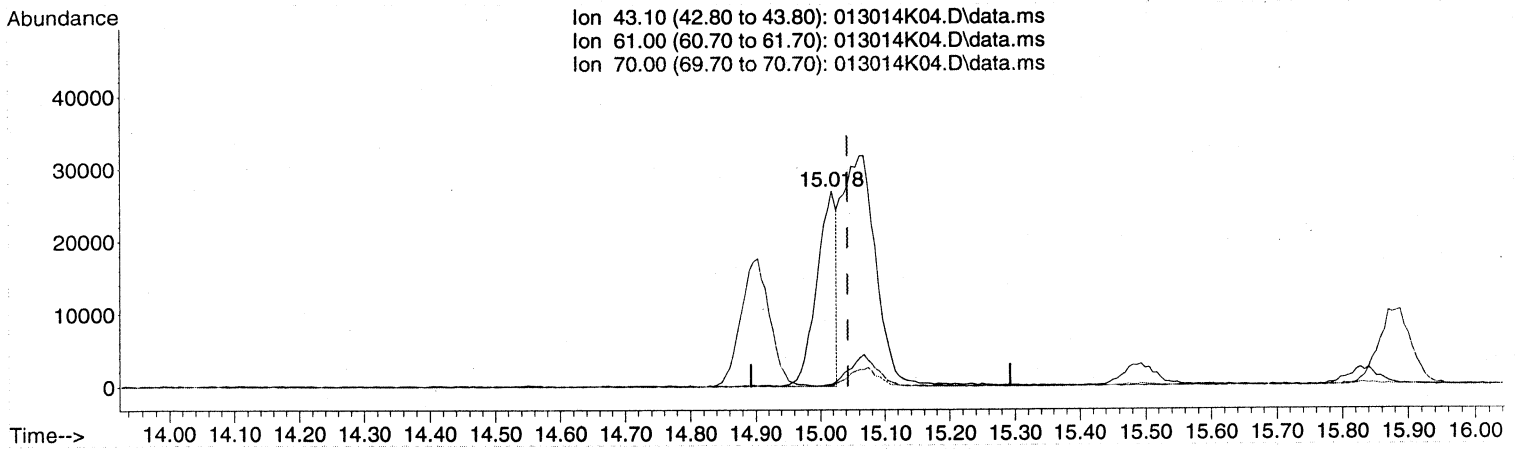


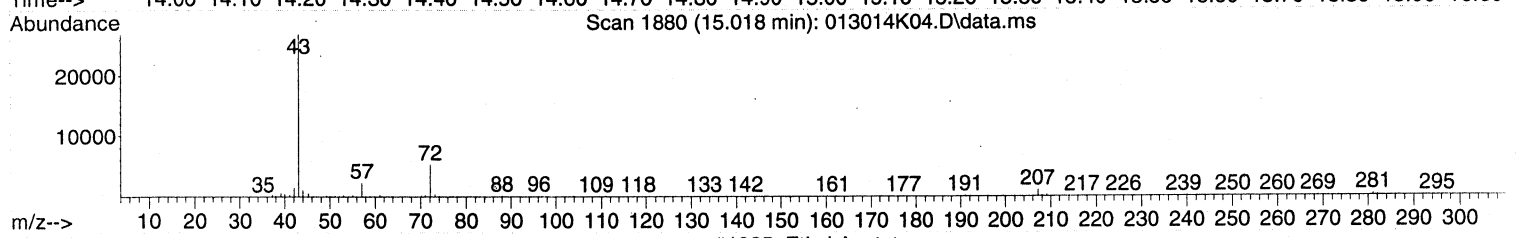
Quantitation Report (Qedit)

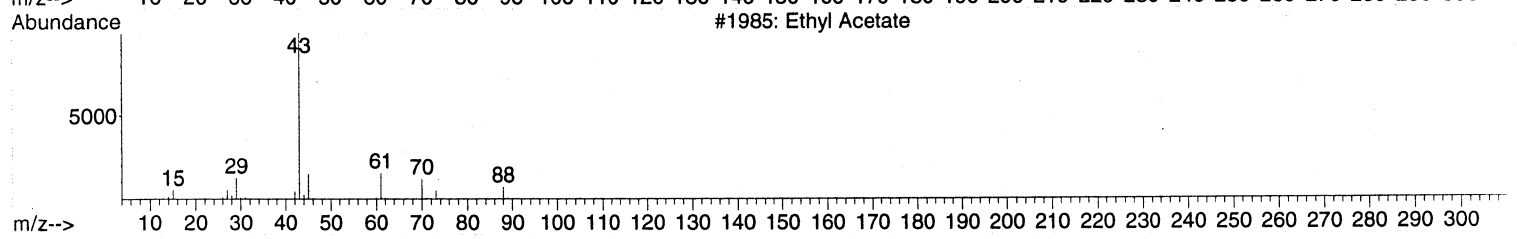
Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:56:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K04.D\data.ms

(26) Ethyl acetate (T)

15.018min (-0.024) 0.72 ppbv

response 56422

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____



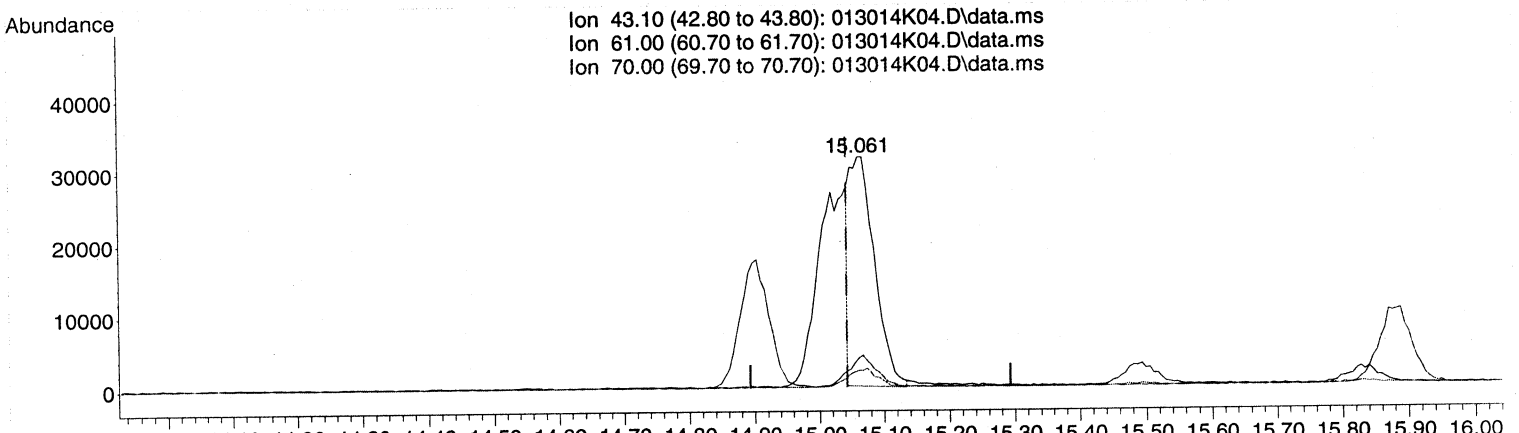
: 00059

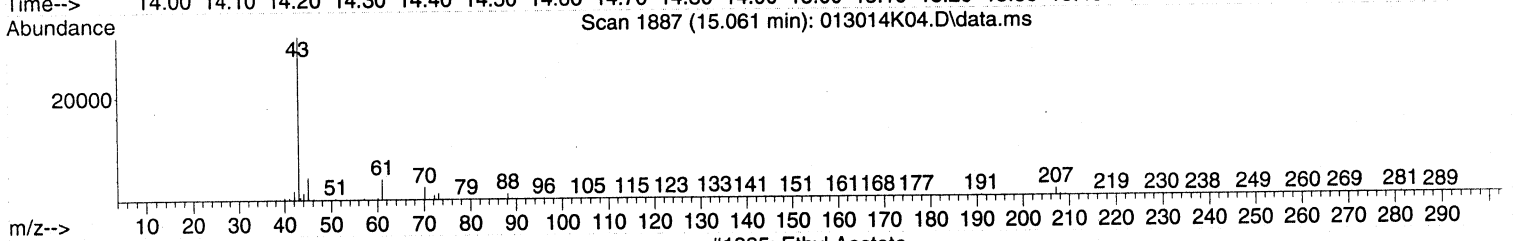
Quantitation Report (Qedit)

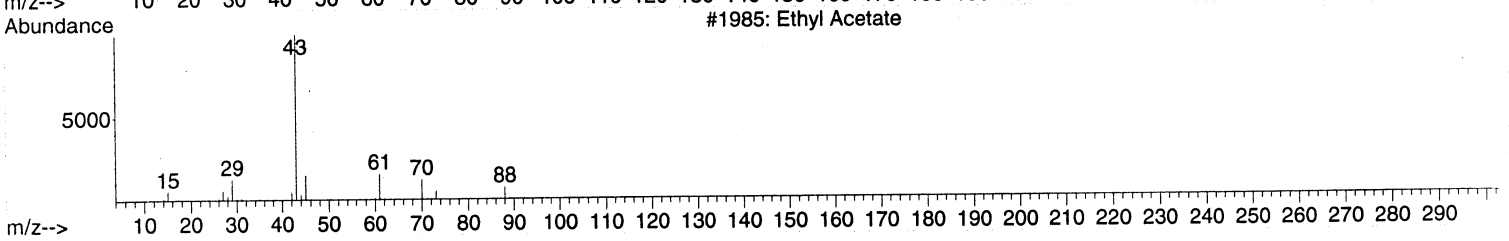
Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:56:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M




TIC: 013014K04.D\data.ms

(26) Ethyl acetate (T)

15.061min (+0.018) 1.08 ppbv m

response 84127

| Ion | Exp% | Act% |
|---|---|---|
| 43.10 | 100 | 100 |
| 61.00 | 14.80 | 0.00# |
| 70.00 | 9.30 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: EM Date: 1/31/14 |
| Manual integration(s) reviewed by: |
| Reviewer: [illegible] Date: 2/12/14 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:56:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

pel MT
em 1/30/14

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 966928 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2423251 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2123086 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.366 | 41 | 37795 | 1.35 | ppbv | 99 |
| 3) Dichlorodifluoromethane | 4.470 | 85 | 95231 | 1.26 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.816 | 85 | 95794 | 1.23 | ppbv | 99 |
| 5) Chloromethane | 5.011 | 50 | 42401 | 1.31 | ppbv | 99 |
| 6) Vinyl chloride | 5.340 | 62 | 44304 | 1.29 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.437 | 54 | 31320 | 1.22 | ppbv | 95 |
| 8) Bromomethane | 6.368 | 94 | 32090 | 1.26 | ppbv | 97 |
| 9) Chloroethane | 6.684 | 64 | 22078 | 1.24 | ppbv | 95 |
| 10) Bromoethene | 7.256 | 106 | 29462 | 1.24 | ppbv | 98 |
| 11) Trichlorofluoromethane | 7.408 | 101 | 87377 | 1.33 | ppbv | 97 |
| 12) 1,1,2-Trichloro-1,2,2-... | 9.215 | 151 | 53777 | 1.17 | ppbv | 99 |
| 13) 1,1-Dichloroethene | 9.306 | 61 | 58106 | 1.15 | ppbv | 99 |
| 14) Acetone | 9.866 | 43 | 59830 | 1.32 | ppbv | 100 |
| 15) Carbon disulfide | 10.012 | 76 | 90345 | 1.22 | ppbv | 99 |
| 16) 2-Propanol | 10.517 | 45 | 52191 | 1.13 | ppbv | 91 |
| 17) Allyl chloride | 10.845 | 41 | 46816 | 1.25 | ppbv | 98 |
| 18) Dichloromethane | 11.387 | 49 | 65165 | 1.49 | ppbv | 98 |
| 19) tert-Butyl methyl ethe... | 12.117 | 73 | 94508 | 1.26 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 12.111 | 61 | 46991 | 1.14 | ppbv | 98 |
| 21) Hexane | 12.719 | 57 | 59532 | 1.18 | ppbv | 93 |
| 22) 1,1-Dichloroethane | 13.443 | 63 | 71527 | 1.17 | ppbv | 98 |
| 23) Vinyl acetate | 13.607 | 43 | 79514 | 1.18 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.903 | 61 | 54336 | 1.21 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 15.018 | 43 | 56355 | 0.97 | ppbv | 91 |
| 26) Ethyl acetate | 15.018 | 43 | 56422 | 0.72 | ppbv # | 68 |
| 27) Tetrahydrofuran | 15.493 | 42 | 48533 | 1.23 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 77594 | 1.26 | ppbv | 98 |
| 29) Cyclohexane | 15.828 | 56 | 64476 | 1.26 | ppbv | 99 |
| 30) 1,1,1-Trichloroethane | 15.876 | 97 | 75297 | 1.23 | ppbv | 99 |
| 31) Carbon tetrachloride | 16.138 | 117 | 76472 | 1.29 | ppbv | 99 |
| 33) Benzene | 16.631 | 78 | 121721 | 1.26 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.594 | 57 | 193720 | 1.30 | ppbv | 99 |
| 35) 1,2-Dichloroethane | 16.825 | 62 | 47771 | 1.23 | ppbv | 98 |
| 36) Heptane | 16.971 | 43 | 74922 | 1.33 | ppbv | 98 |
| 37) Trichloroethene | 17.860 | 130 | 47256 | 1.28 | ppbv | 98 |
| 38) 1,2-Dichloropropane | 18.364 | 63 | 47540 | 1.29 | ppbv | 97 |
| 39) 1,4-Dioxane | 18.602 | 88 | 19415 | 1.10 | ppbv | 98 |
| 40) Bromodichloromethane | 18.827 | 83 | 78525 | 1.31 | ppbv | 99 |
| 41) cis-1,3-Dichloropropene | 19.593 | 75 | 65572 | 1.26 | ppbv | 97 |
| 42) 4-Methyl-2-pentanone (... | 19.849 | 43 | 81826 | 1.12 | ppbv | 97 |
| 44) Toluene | 20.068 | 91 | 134850 | 1.29 | ppbv | 97 |
| 45) trans-1,3-Dichloropropene | 20.542 | 75 | 63405 | 1.41 | ppbv | 96 |
| 46) 1,1,2-Trichloroethane | 20.847 | 97 | 47751 | 1.38 | ppbv | 98 |
| 47) Tetrachloroethene | 20.926 | 166 | 62682 | 1.29 | ppbv | 98 |
| 48) 2-Hexanone | 21.199 | 43 | 70583 | 1.10 | ppbv | 97 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:56:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorodibromomethane | 21.449 | 129 | 70797 | 1.34 ppbv | 99 |
| 50) 1,2-Dibromoethane (EDB) | 21.680 | 107 | 64088 | 1.33 ppbv | 98 |
| 51) Chlorobenzene | 22.398 | 112 | 108272 | 1.36 ppbv | 85 |
| 52) Ethylbenzene | 22.489 | 91 | 174658 | 1.27 ppbv | 99 |
| 53) m&p-Xylene | 22.678 | 91 | 254227 | 2.42 ppbv | 98 |
| 54) o-Xylene | 23.316 | 91 | 130309 | 1.25 ppbv | 99 |
| 55) Styrene | 23.359 | 104 | 98599 | 1.17 ppbv | 99 |
| 56) Bromoform | 23.730 | 173 | 69492 | 1.25 ppbv | 99 |
| 57) 1,1,2,2-Tetrachloroethane | 24.424 | 83 | 104746 | 1.28 ppbv | 100 |
| 58) 4-Ethyltoluene | 24.667 | 105 | 164970 | 1.23 ppbv | 99 |
| 59) 1,3,5-Trimethylbenzene | 24.764 | 105 | 141874 | 1.19 ppbv | 100 |
| 60) 1,2,4-Trimethylbenzene | 25.367 | 105 | 138041 | 1.16 ppbv | 99 |
| 61) 1,3-Dichlorobenzene | 25.896 | 146 | 96666 | 1.17 ppbv | 99 |
| 62) 1,4-Dichlorobenzene | 26.042 | 146 | 92622 | 1.15 ppbv | 100 |
| 63) Benzyl chloride | 26.261 | 91 | 102980 | 1.15 ppbv | 99 |
| 64) 1,2-Dichlorobenzene | 26.644 | 146 | 92113 | 1.15 ppbv | 99 |
| 65) 1,2,4-Trichlorobenzene | 29.108 | 180 | 71313 | 0.90 ppbv | 97 |
| 66) Hexachlorobutadiene | 29.248 | 225 | 70918 | 1.04 ppbv | 98 |

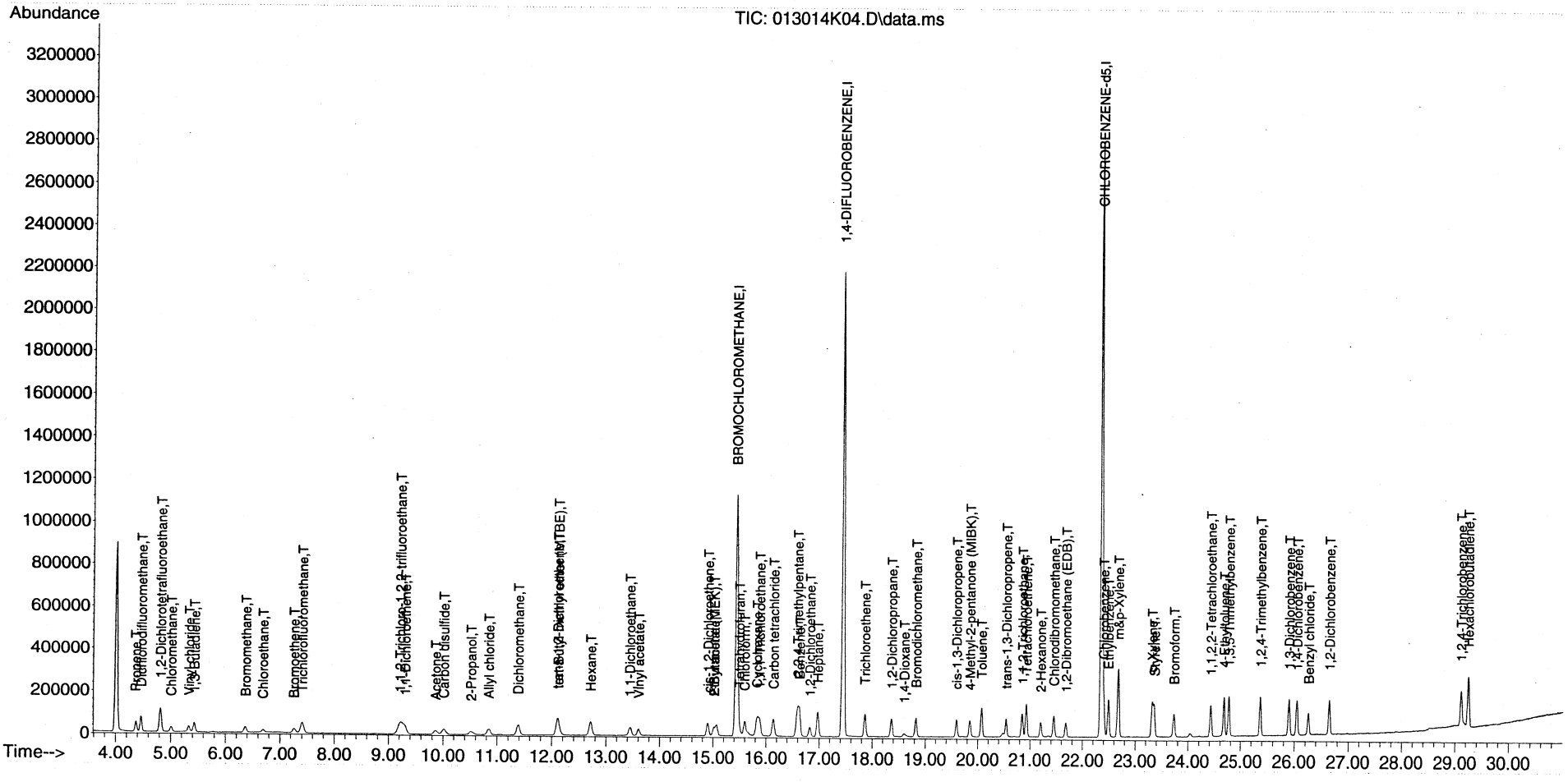
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K04.D
Acq On : 30 Jan 2014 15:15
Instrument: HP5973K
Operator : EM
Sample : S14A114-CRL1
Misc : 1.0 ppbv 1402037
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 30 15:56:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K05.D
Acq On : 30 Jan 2014 16:05
Instrument: HP5973K
Operator : EM
Sample : B14A086-BLK1
Misc : 200mL CAN 618
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 31 10:40:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 954605 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2426976 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2138657 | 22.00 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

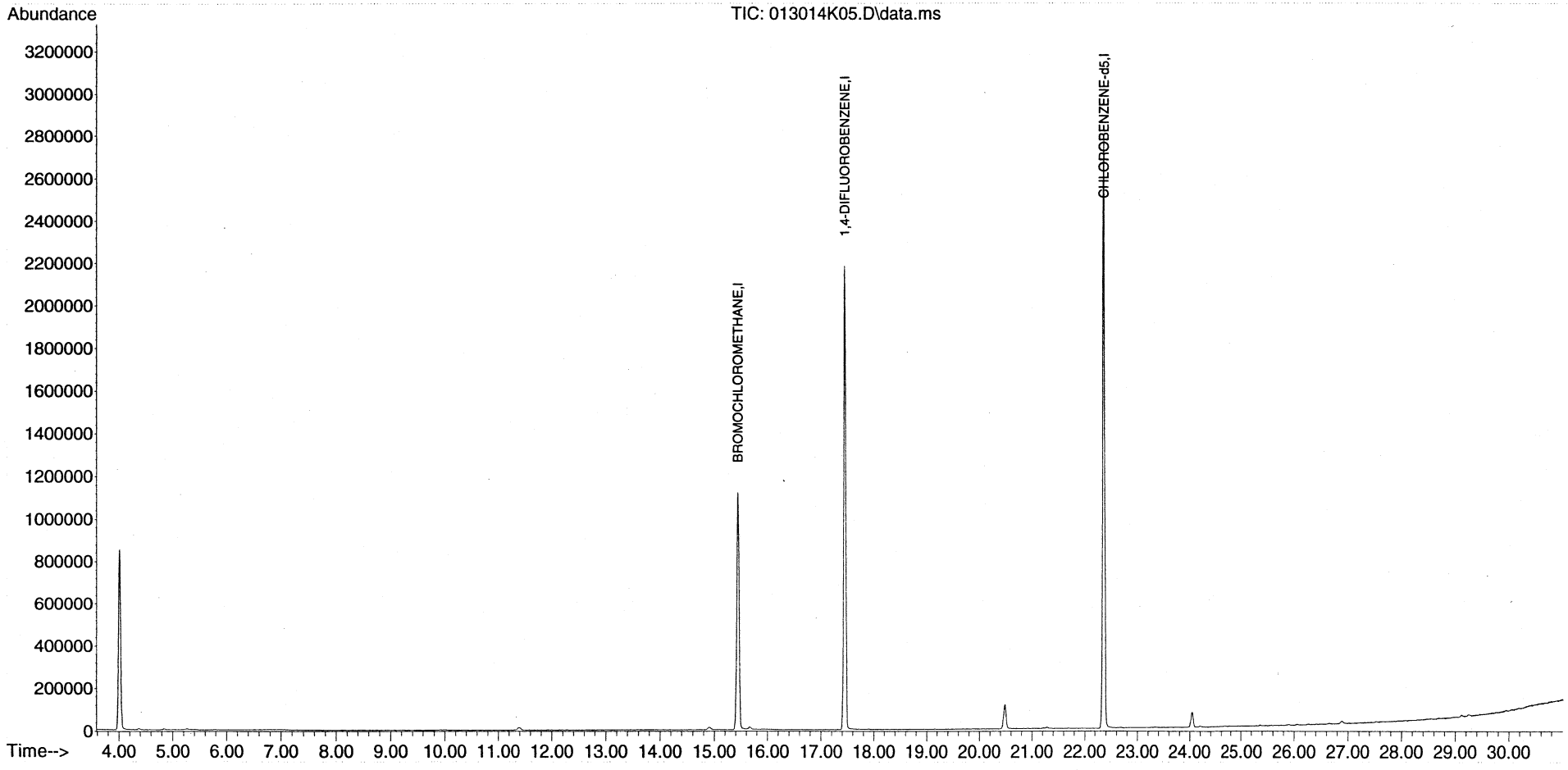
(#) = qualifier out of range (m) = manual integration (+) = signals summed

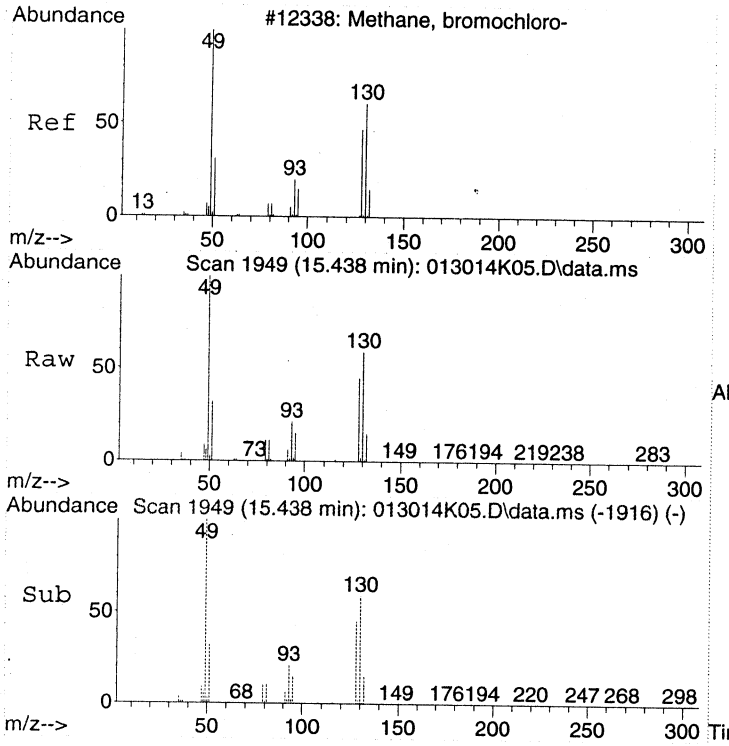
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K05.D
Acq On : 30 Jan 2014 16:05
Instrument: HP5973K
Operator : EM
Sample : B14A086-BLK1
Misc : 200mL CAN 618
ALS Vial : 35
Multiplier: 1

Quant Time: Jan 31 10:40:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

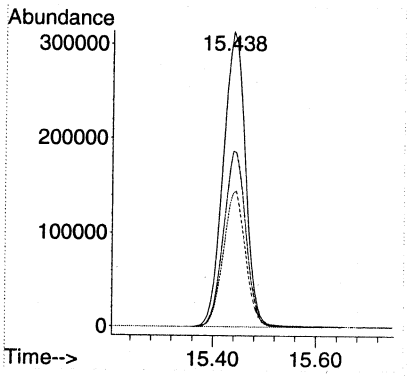


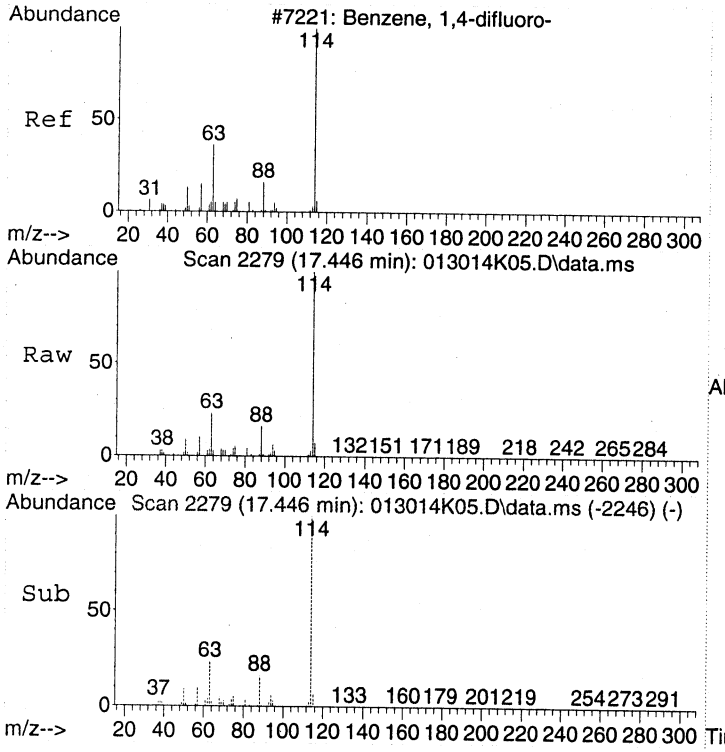



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K05.D
Acq: 30 Jan 2014 16:05

Tgt Ion: 49 Resp: 954605

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.5 | 39.6 | 79.6 |
| 128 | 45.8 | 26.9 | 66.9 |

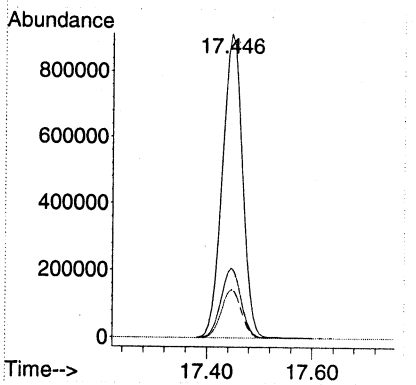


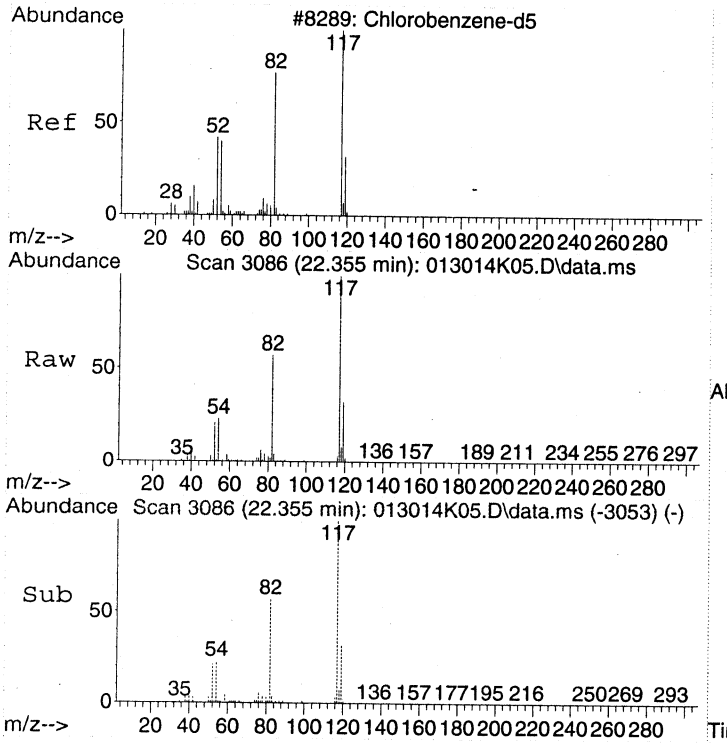




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K05.D
Acq: 30 Jan 2014 16:05

Tgt Ion:114 Resp: 2426976

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.6 | 2.3 | 42.3 |
| 88 | 15.6 | 0.0 | 35.2 |

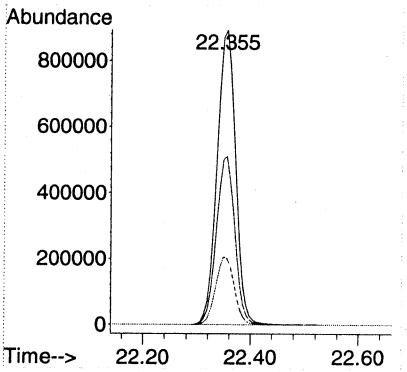





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K05.D
Acq: 30 Jan 2014 16:05

Tgt Ion:117 Resp: 2138657

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.0 | 37.1 | 77.1 |
| 54 | 23.4 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K06.D
Acq On : 30 Jan 2014 16:54
Instrument: HP5973K
Operator : EM
Sample : 1401049-02RE1
Misc : 200mL MH02 Can 1967
ALS Vial : 36
Multiplier: 8.65

Quant Time: Jan 31 10:40:25 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 949467 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2402931 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2123343 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.866 | 43 | 42603 | 0.96 | ppbv | 95 |
| 18) Dichloromethane | 11.387 | 49 | 28385 | 0.66 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 350726 | 5.78 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 43530 | 0.73 | ppbv | 96 |

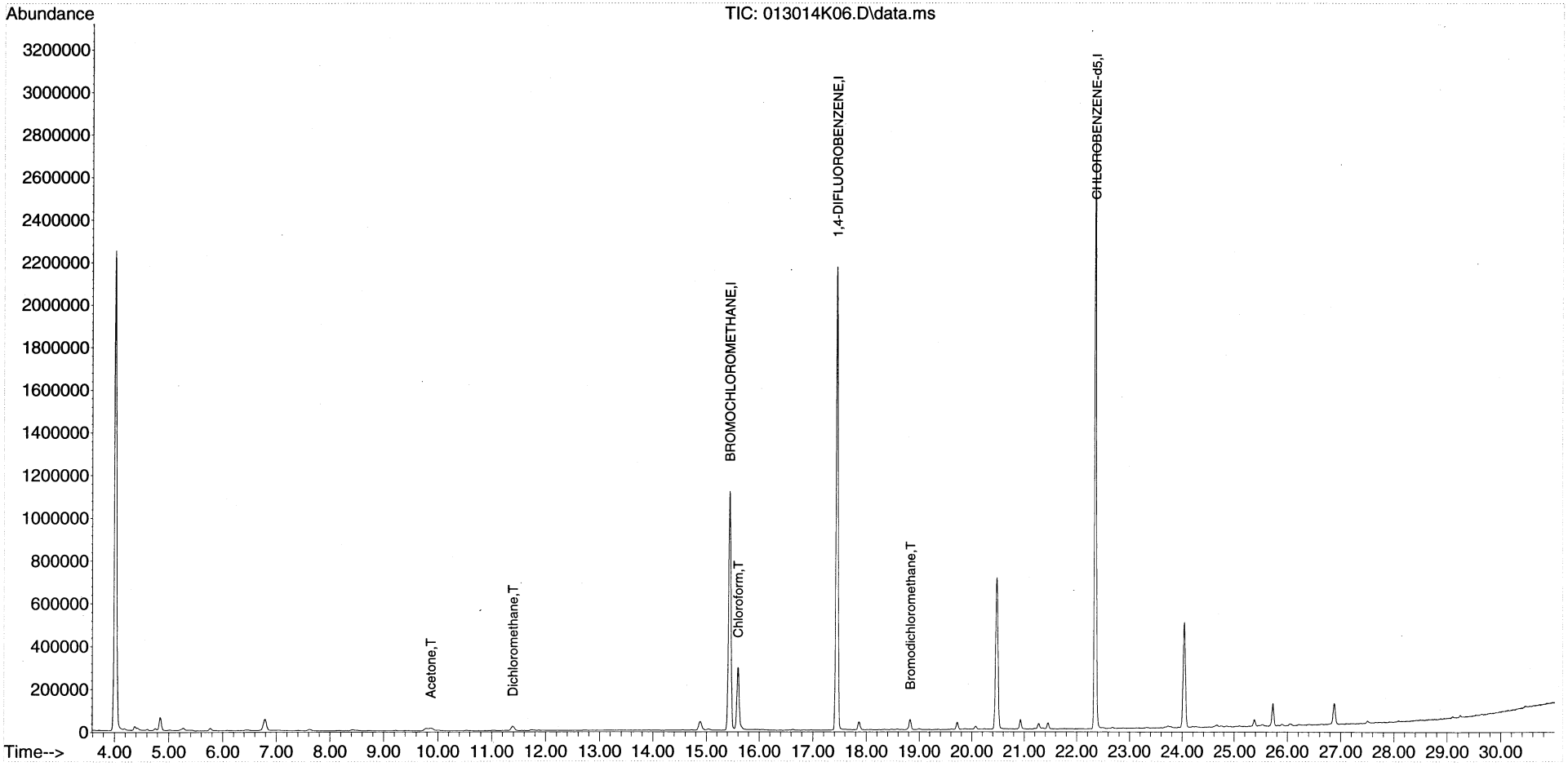
(#) = qualifier out of range (m) = manual integration (+) = signals summed

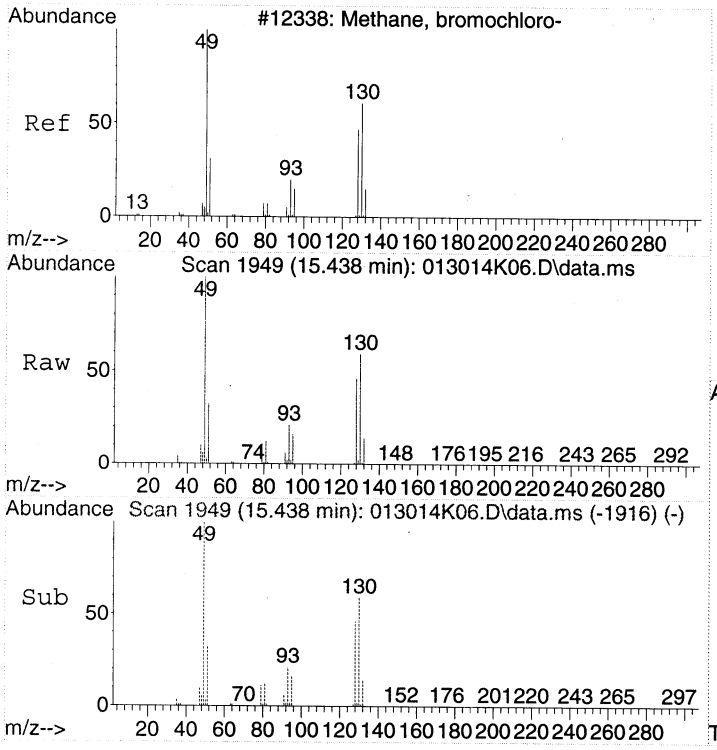
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K06.D
Acq On : 30 Jan 2014 16:54
Instrument: HP5973K
Operator : EM
Sample : 1401049-02RE1
Misc : 200mL MH02 Can 1967
ALS Vial : 36
Multiplier: 8.65

Quant Time: Jan 31 10:40:25 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

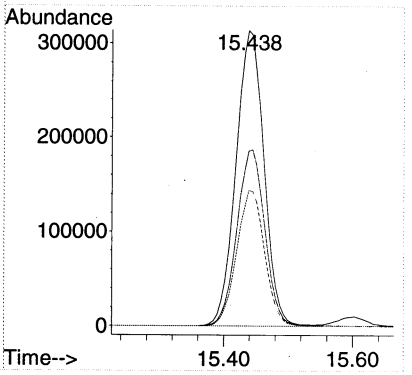


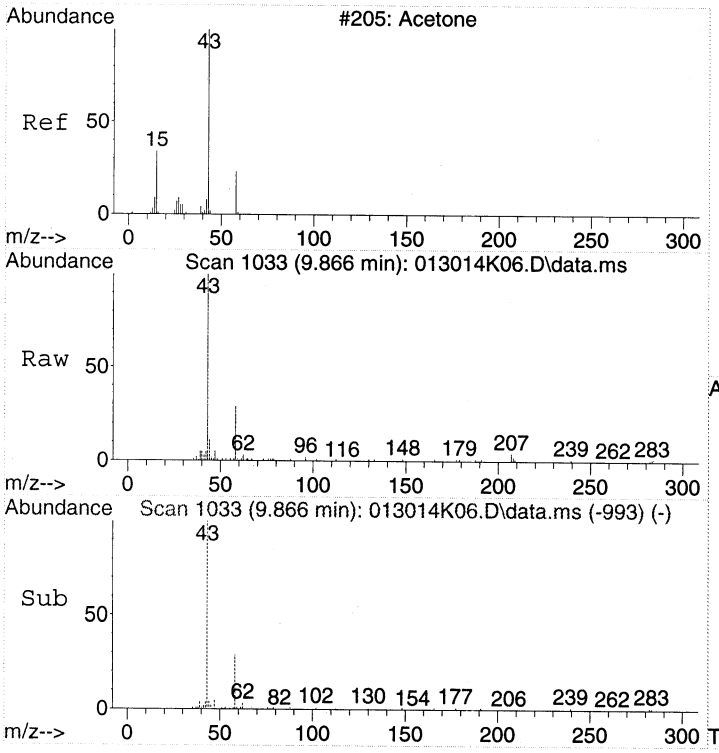



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion: 49 Resp: 949467

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.6 | 39.6 | 79.6 |
| 128 | 45.8 | 26.9 | 66.9 |

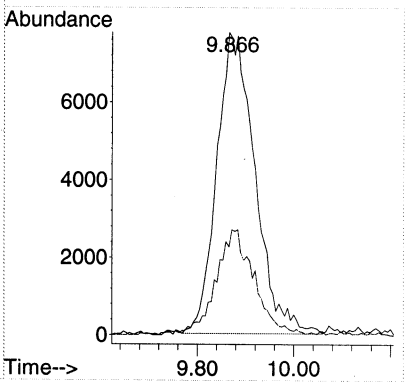


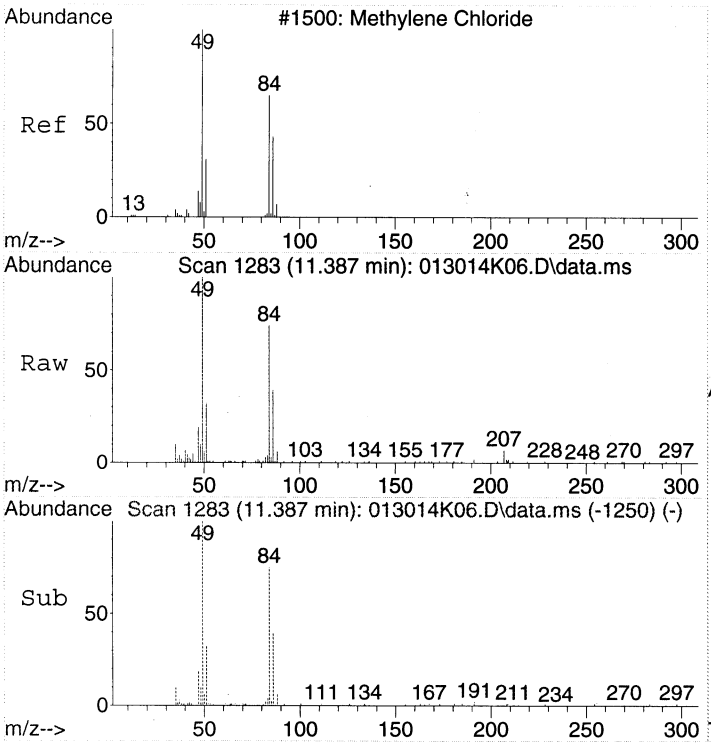




#14
Acetone
Concen: 0.96 ppbv
RT: 9.866 min Scan# 1033
Delta R.T. 0.042 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion: 43 Resp: 42603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.3 | 12.5 | 52.5 |

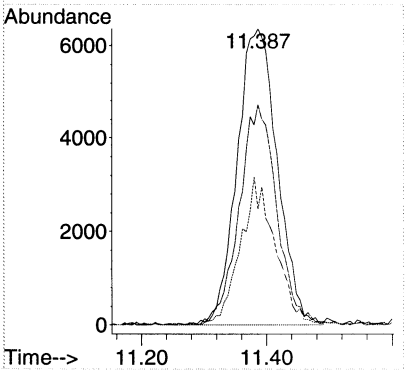


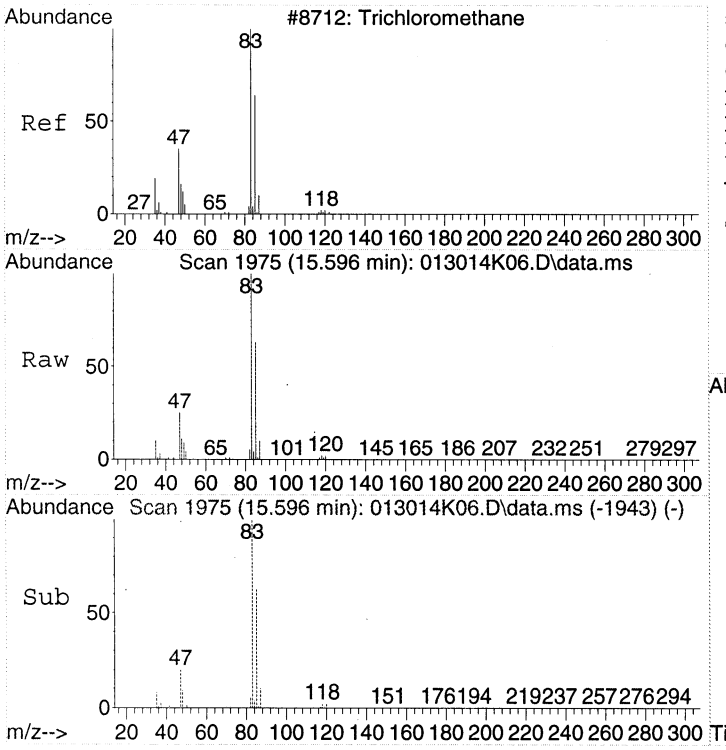



#18
Dichloromethane
Concen: 0.66 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion: 49 Resp: 28385

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.2 | 50.0 | 90.0 |
| 86 | 43.1 | 24.4 | 64.4 |

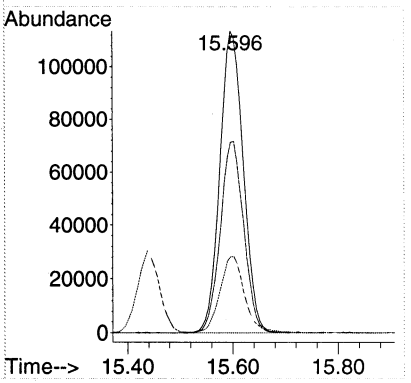



#28
Chloroform
Concen: 5.78 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

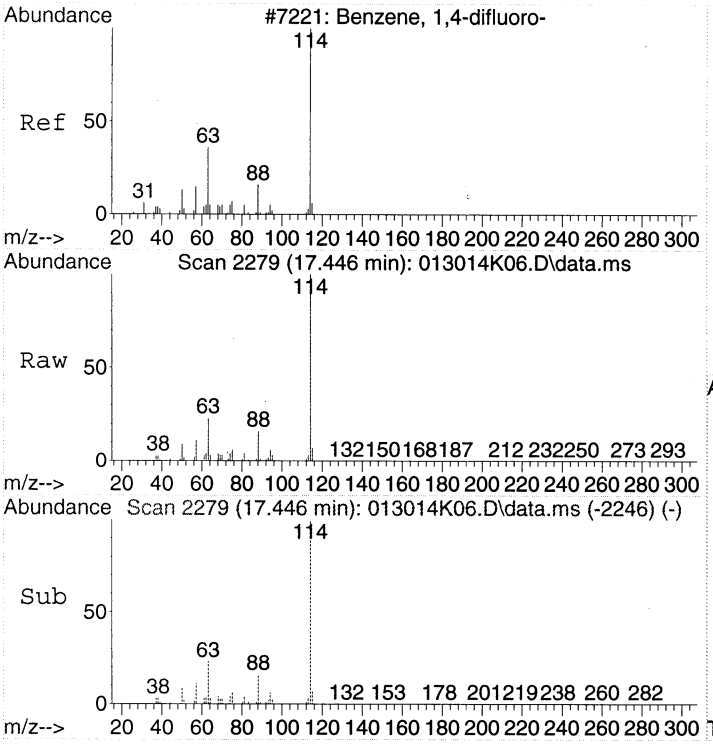
Tgt Ion: 83 Resp: 350726

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.1 | 42.7 | 82.7 |
| 47 | 25.8 | 5.3 | 45.3 |





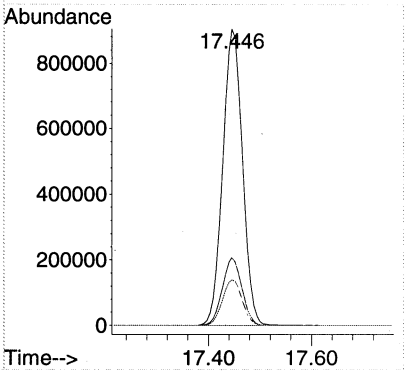

00371

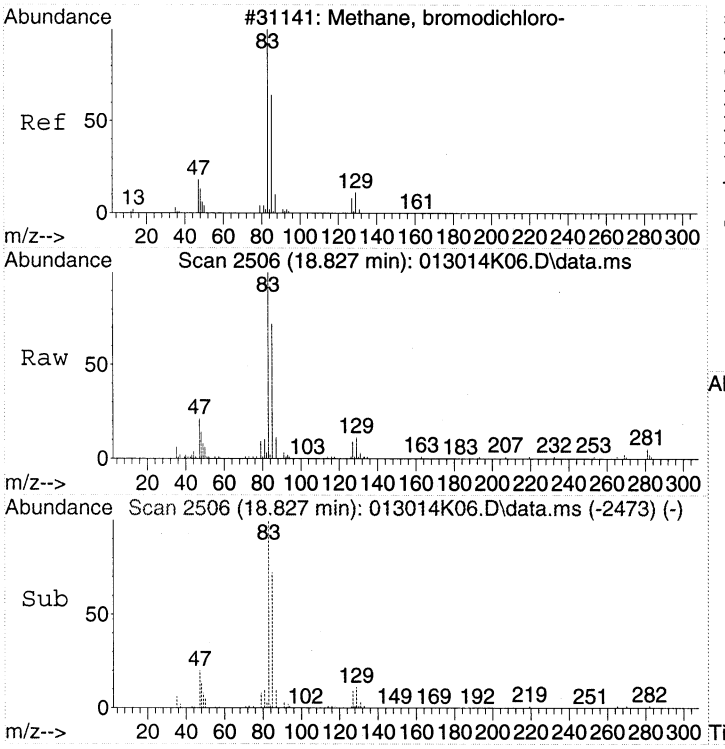



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion:114 Resp: 2402931

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

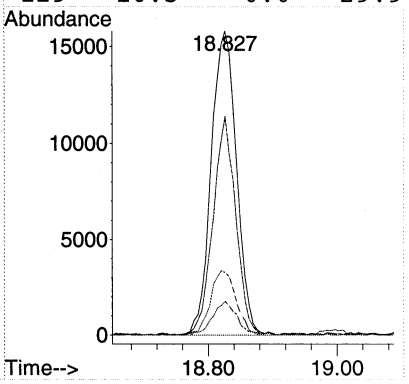


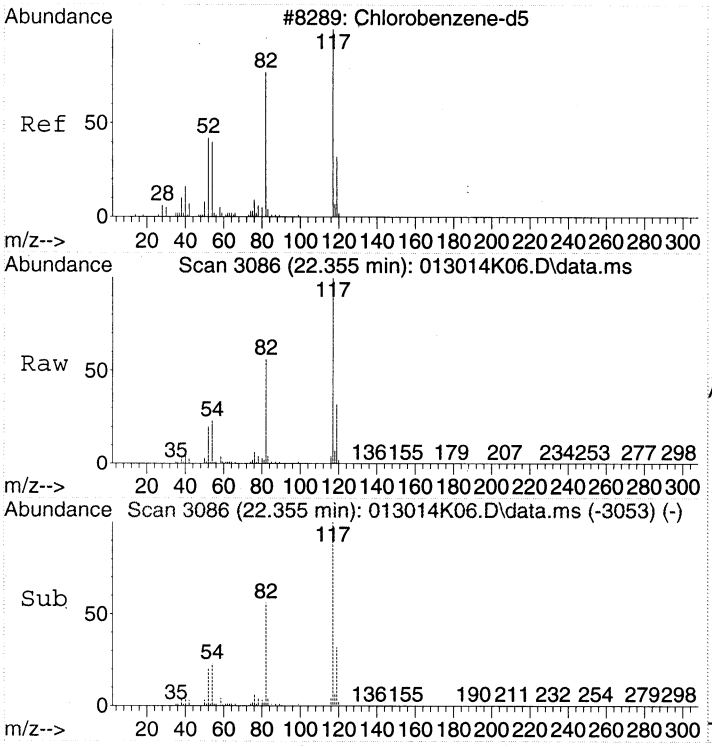




#40
Bromodichloromethane
Concen: 0.73 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion: 83 Resp: 43530

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 41.8 | 81.8 |
| 47 | 22.0 | 0.4 | 40.4 |
| 129 | 10.5 | 0.0 | 29.9 |

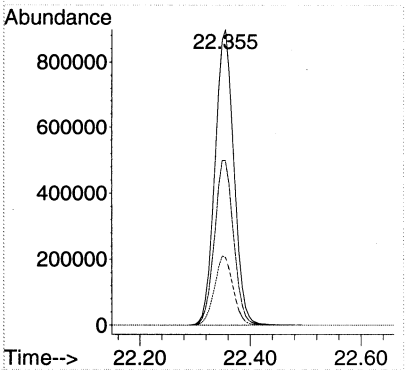





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K06.D
Acq: 30 Jan 2014 16:54

Tgt Ion:117 Resp: 2123343

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.4 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K07.D
Acq On : 30 Jan 2014 17:41
Instrument: HP5973K
Operator : EM
Sample : 1401049-03RE1
Misc : 50mL MH03 Can 2003
ALS Vial : 37
Multiplier: 3.67

Quant Time: Jan 31 10:40:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 916794 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2269247 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2003409 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.884 | 43 | 24917 | 0.58 | ppbv | 100 |
| 18) Dichloromethane | 11.380 | 49 | 28570 | 0.69 | ppbv | 96 |
| 28) Chloroform | 15.602 | 83 | 316146 | 5.39 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 38874 | 0.69 | ppbv | 97 |

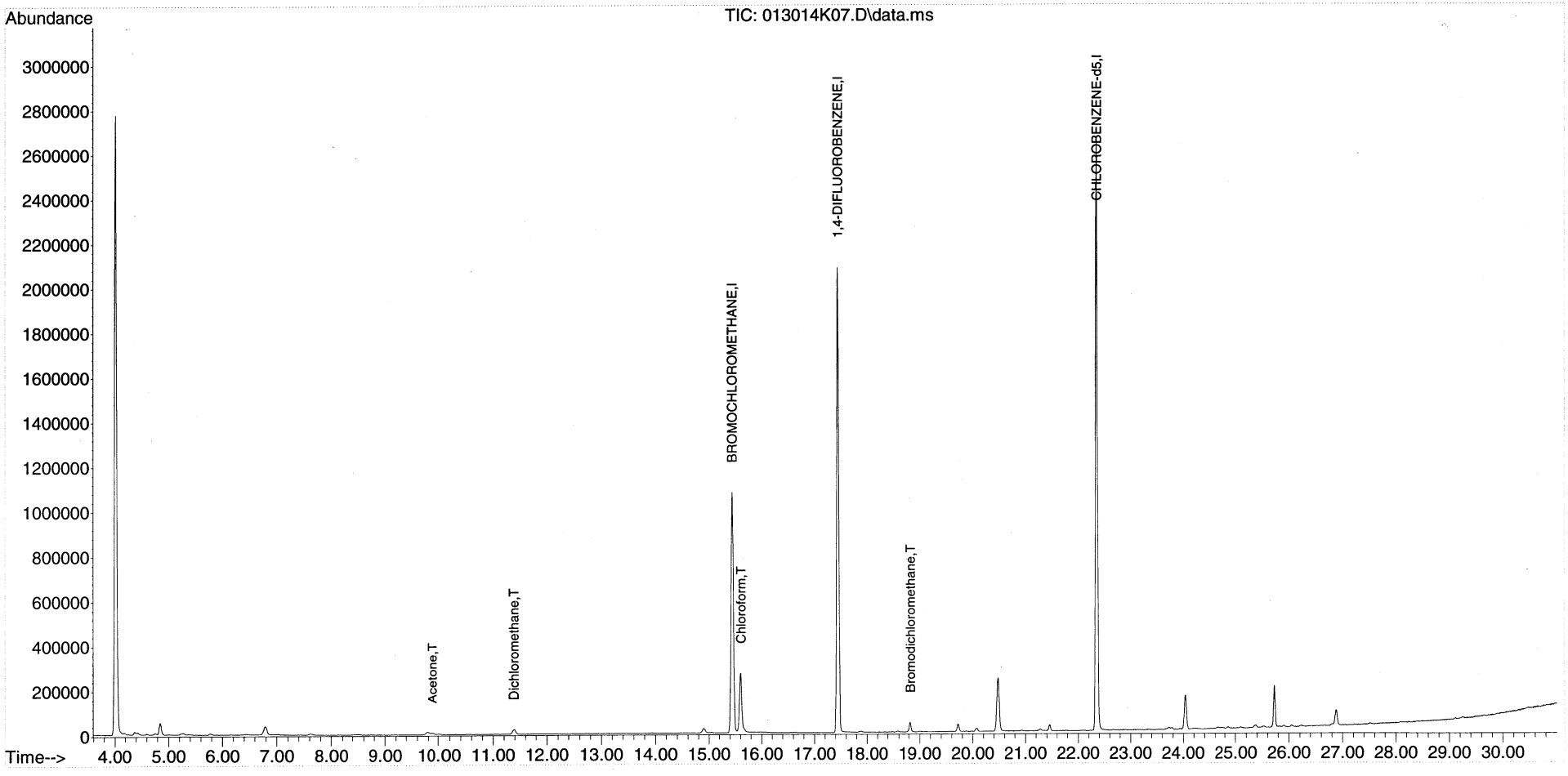
(#) = qualifier out of range (m) = manual integration (+) = signals summed

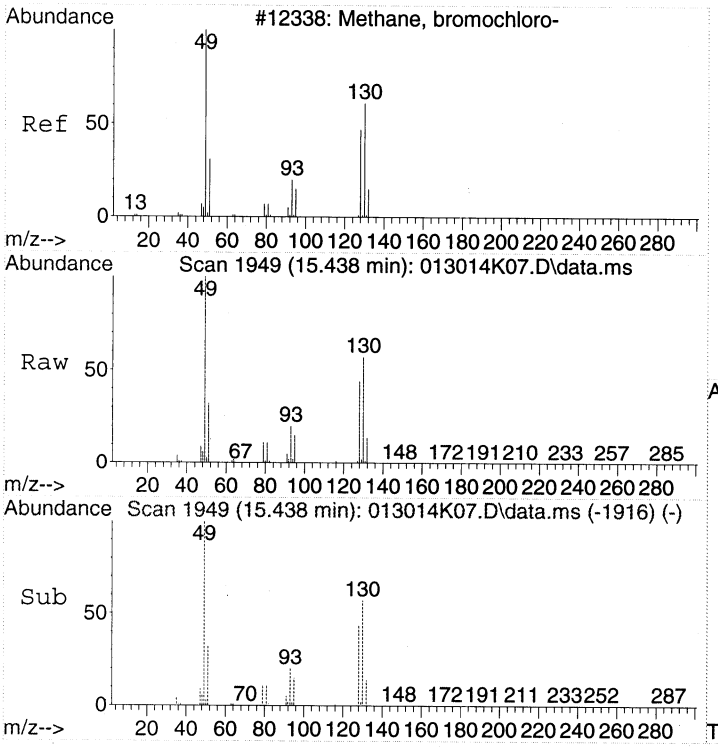
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K07.D
Acq On : 30 Jan 2014 17:41
Instrument: HP5973K
Operator : EM
Sample : 1401049-03RE1
Misc : 50mL MH03 Can 2003
ALS Vial : 37
Multiplier: 3.67

Quant Time: Jan 31 10:40:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

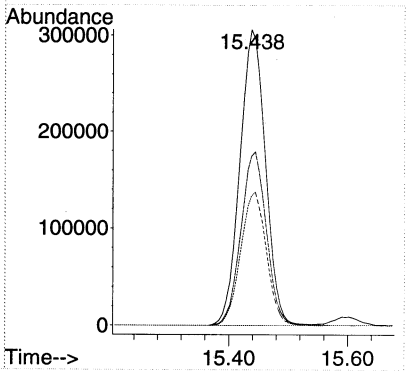


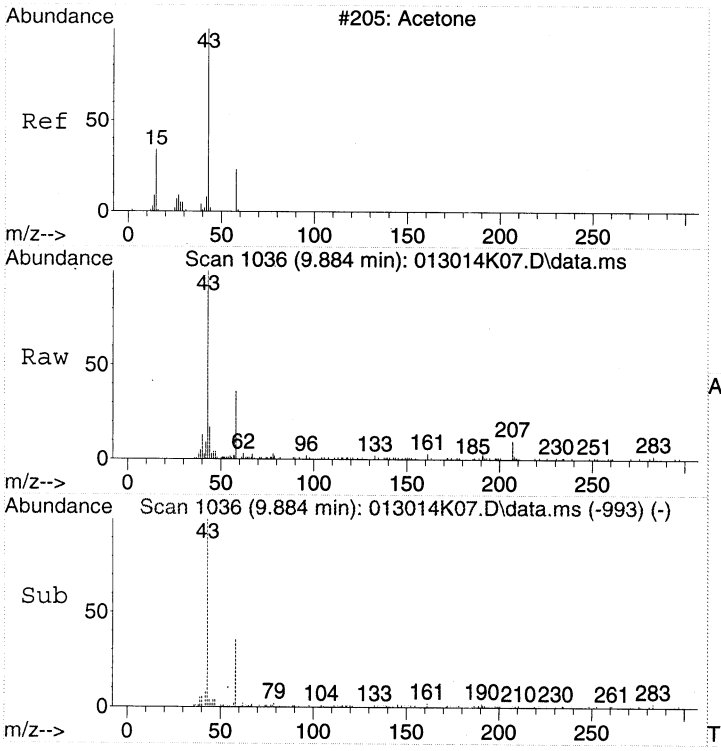



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion: 49 Resp: 916794

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 58.5 | 39.6 | 79.6 |
| 128 | 45.4 | 26.9 | 66.9 |

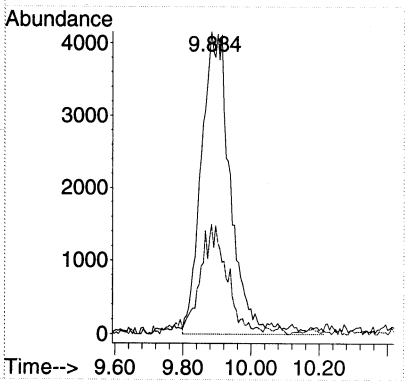


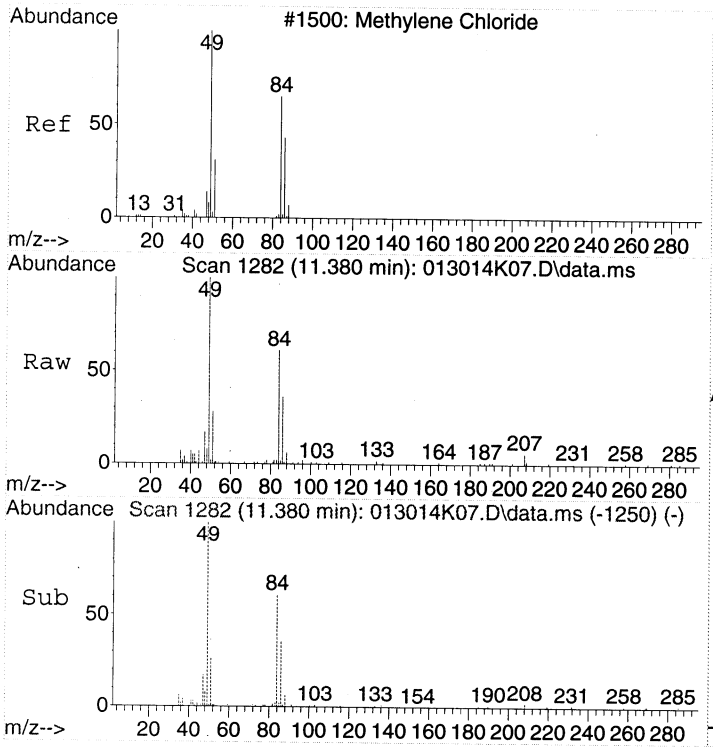




#14
Acetone
Concen: 0.58 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion: 43 Resp: 24917

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 32.3 | 12.5 | 52.5 |

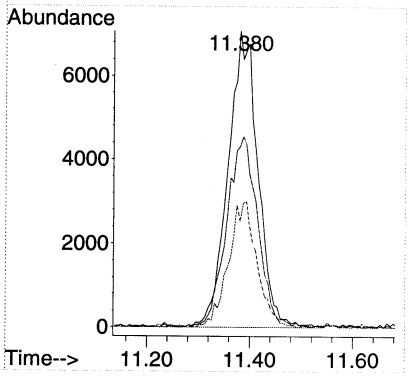


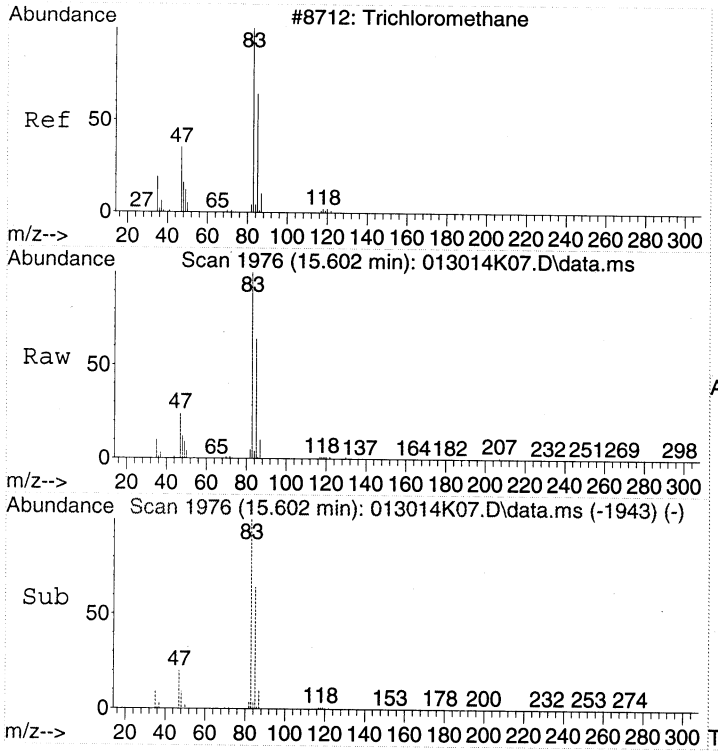



#18
Dichloromethane
Concen: 0.69 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion: 49 Resp: 28570

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.1 | 50.0 | 90.0 |
| 86 | 40.5 | 24.4 | 64.4 |

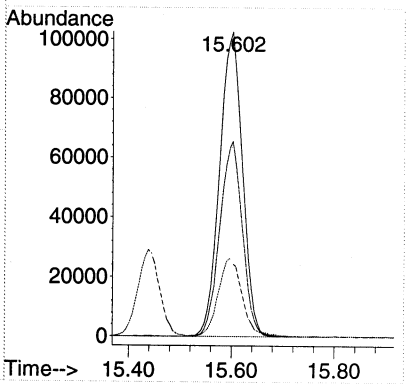


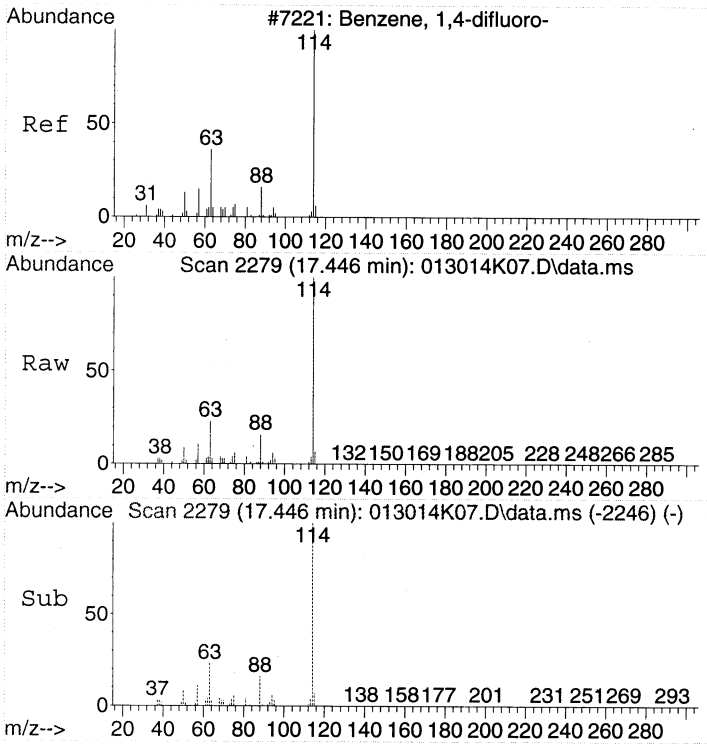




#28
Chloroform
Concen: 5.39 ppbv
RT: 15.602 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion: 83 Resp: 316146

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 42.7 | 82.7 |
| 47 | 26.5 | 5.3 | 45.3 |

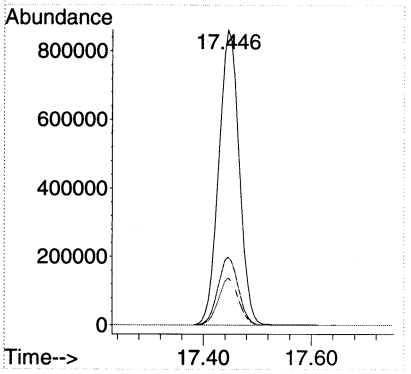


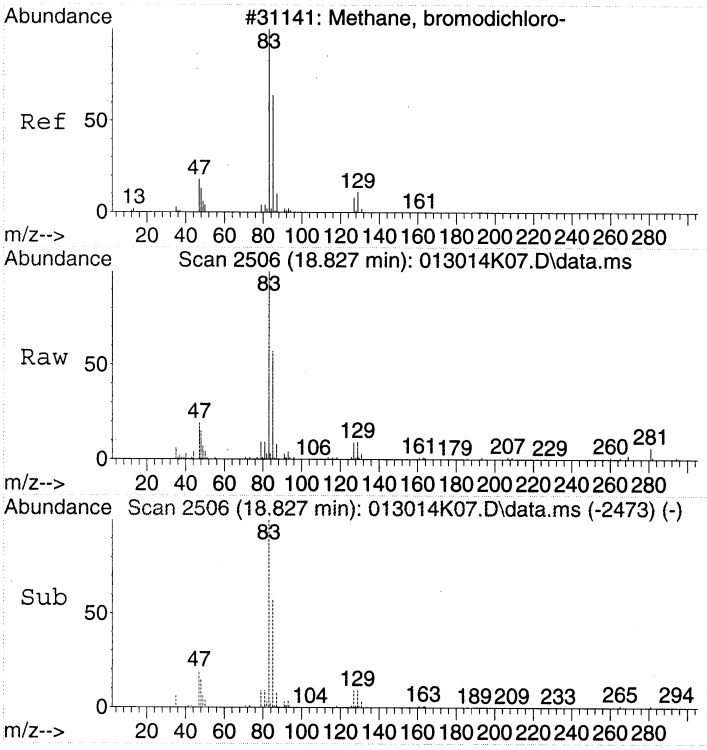



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion:114 Resp: 2269247

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 23.0 | 2.3 | 42.3 |
| 88 | 15.7 | 0.0 | 35.2 |

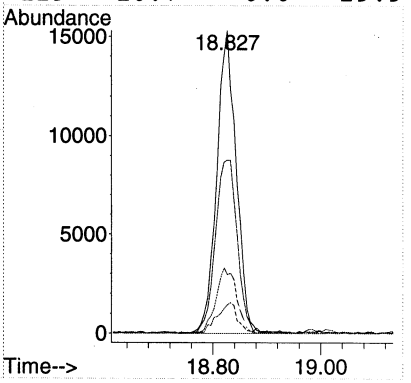


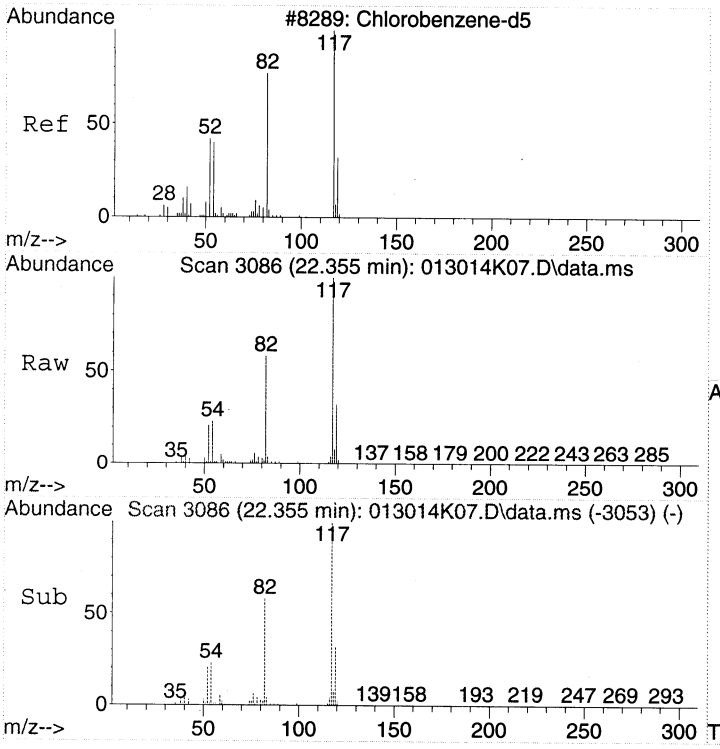




#40
Bromodichloromethane
Concen: 0.69 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion: 83 Resp: 38874

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.9 | 41.8 | 81.8 |
| 47 | 22.4 | 0.4 | 40.4 |
| 129 | 10.7 | 0.0 | 29.9 |

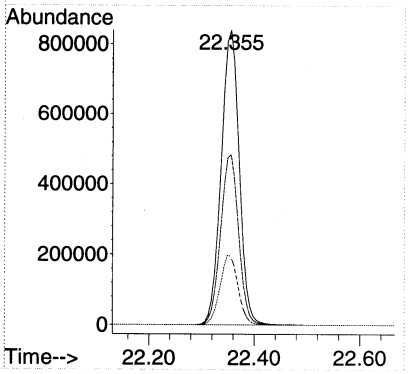





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K07.D
Acq: 30 Jan 2014 17:41

Tgt Ion:117 Resp: 2003409

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.7 | 37.1 | 77.1 |
| 54 | 23.7 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K08.D
Acq On : 30 Jan 2014 18:27
Instrument: HP5973K
Operator : EM
Sample : 1401049-04RE1
Misc : 50mL MH04 Can 1108
ALS Vial : 38
Multiplier: 3.46

Quant Time: Jan 31 10:40:52 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 923511 | 22.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2323793 | 22.00 ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2059464 | 22.00 ppbv | 0.00 |
| Target Compounds | | | | | Qvalue |
| 14) Acetone | 9.884 | 43 | 36288 | 0.84 ppbv | 95 |
| 18) Dichloromethane | 11.393 | 49 | 29630 | 0.71 ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 391276 | 6.63 ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 48822 | 0.85 ppbv | 99 |

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



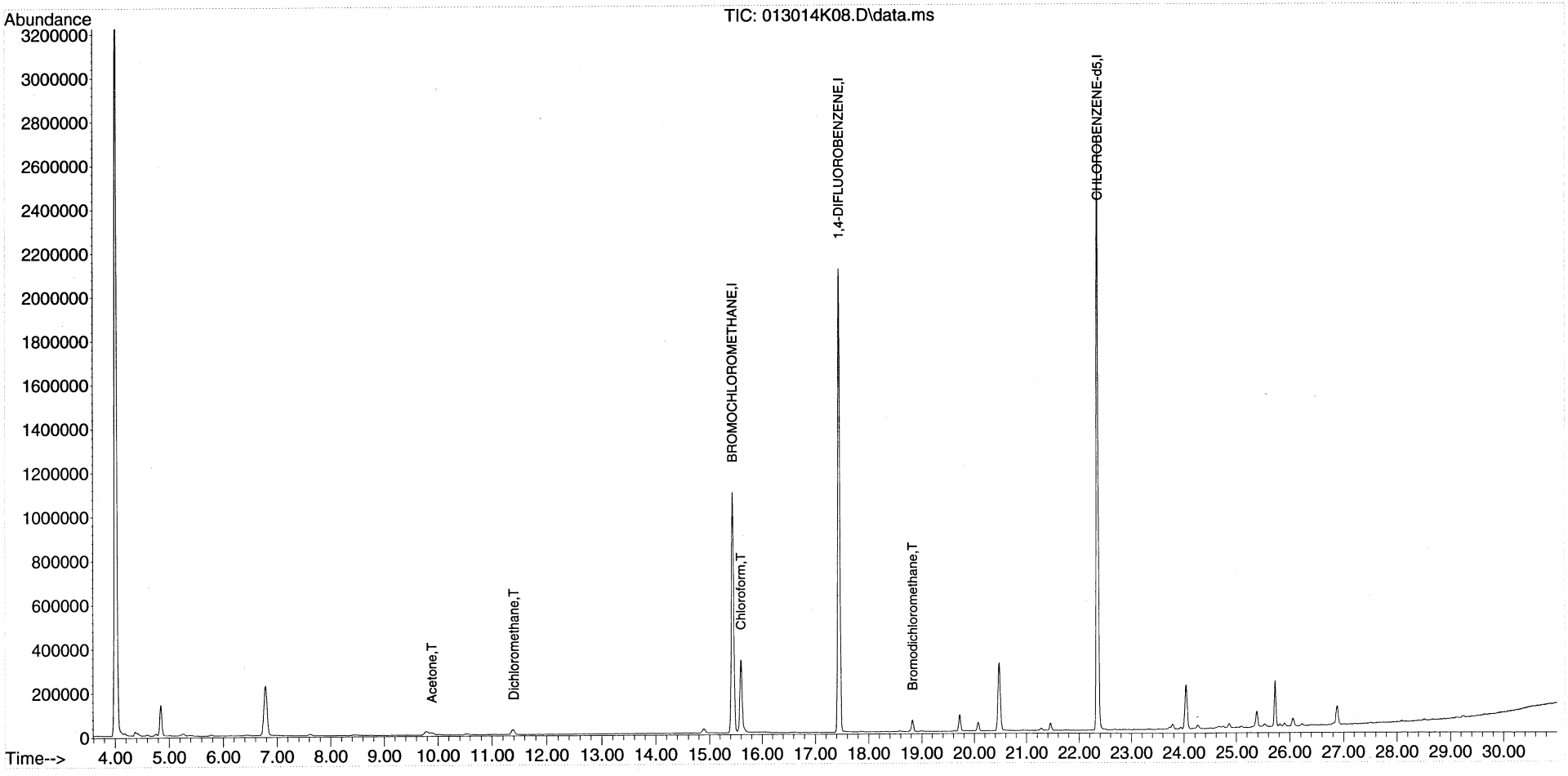
00379

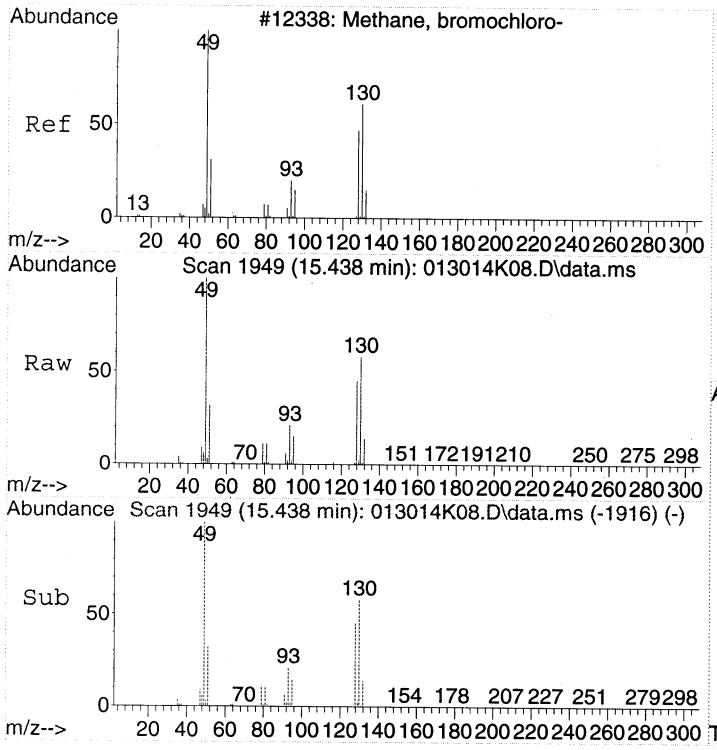
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K08.D
Acq On : 30 Jan 2014 18:27
Instrument: HP5973K
Operator : EM
Sample : 1401049-04RE1
Misc : 50mL MH04 Can 1108
ALS Vial : 38
Multiplier: 3.46

Quant Time: Jan 31 10:40:52 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

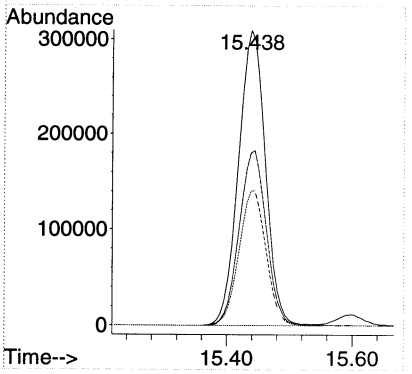


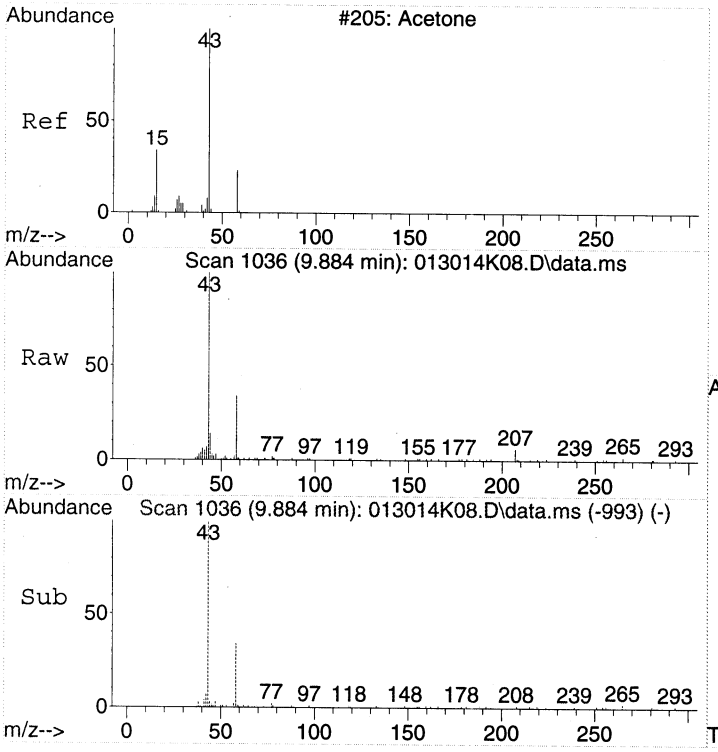



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion: 49 Resp: 923511

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.7 | 39.6 | 79.6 |
| 128 | 45.9 | 26.9 | 66.9 |

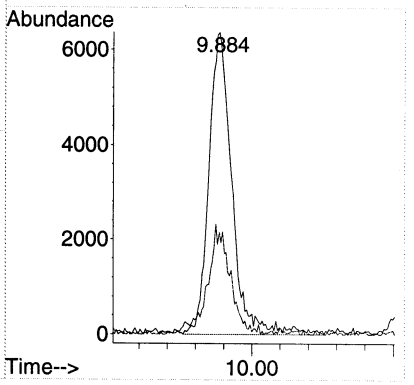


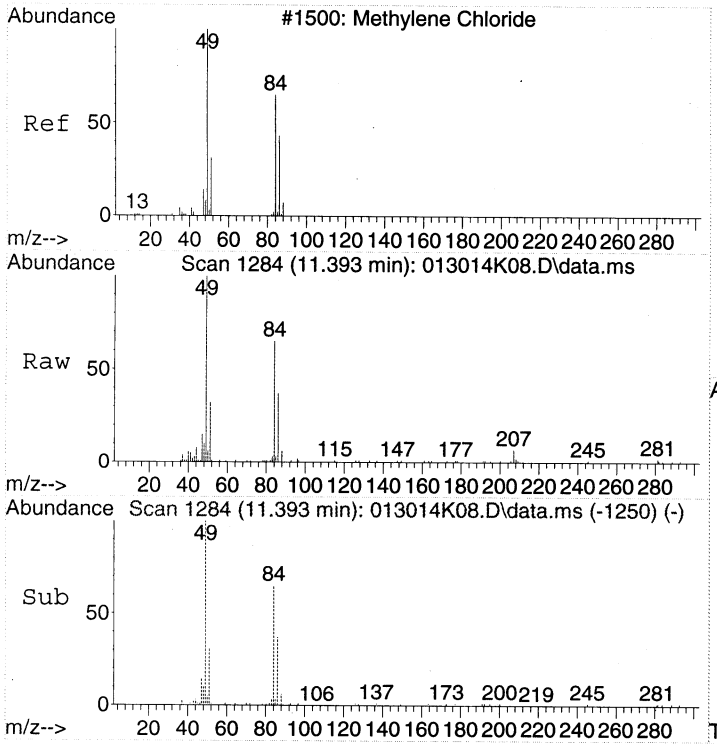




#14
Acetone
Concen: 0.84 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion: 43 Resp: 36288

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 35.4 | 12.5 | 52.5 |

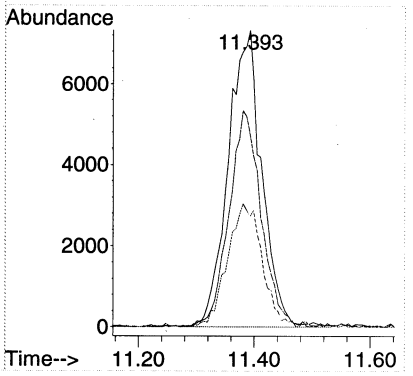


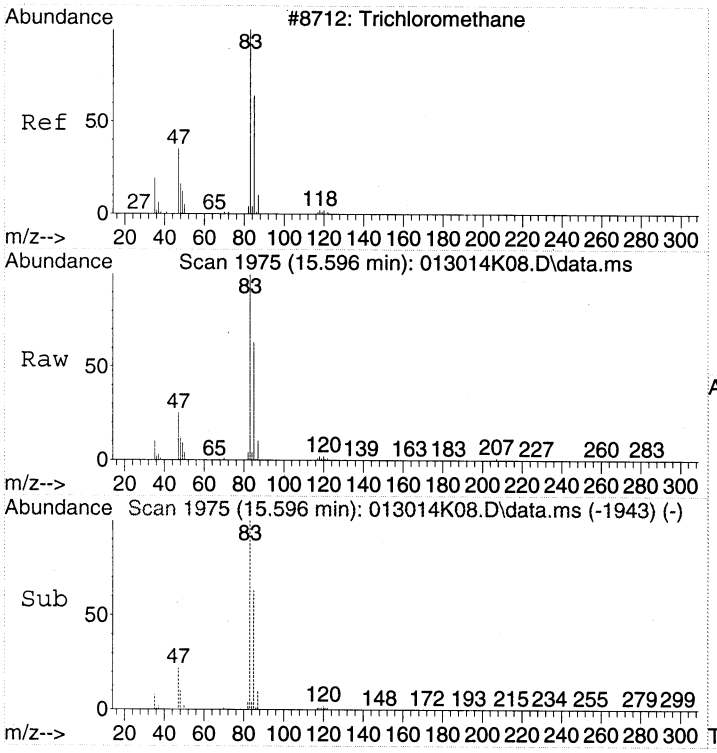



#18
Dichloromethane
Concen: 0.71 ppbv
RT: 11.393 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion: 49 Resp: 29630

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.6 | 50.0 | 90.0 |
| 86 | 42.8 | 24.4 | 64.4 |

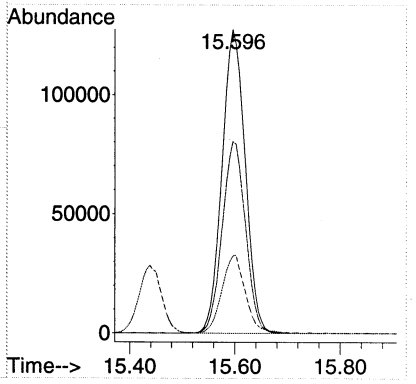


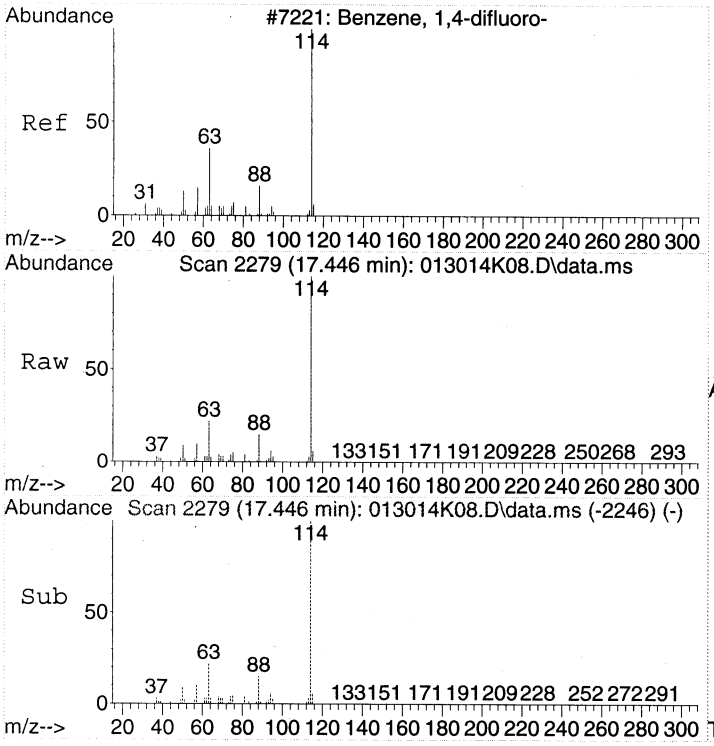




#28
Chloroform
Concen: 6.63 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion: 83 Resp: 391276

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 42.7 | 82.7 |
| 47 | 25.9 | 5.3 | 45.3 |

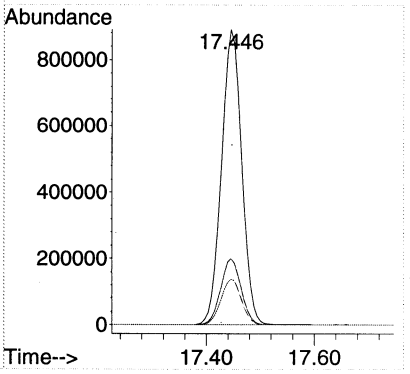


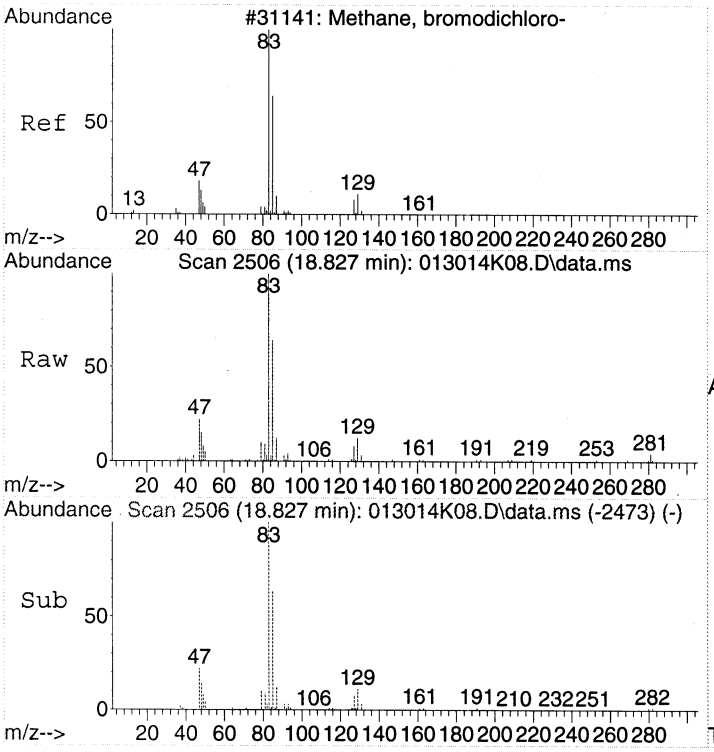



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion:114 Resp: 2323793

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.5 | 2.3 | 42.3 |
| 88 | 15.7 | 0.0 | 35.2 |

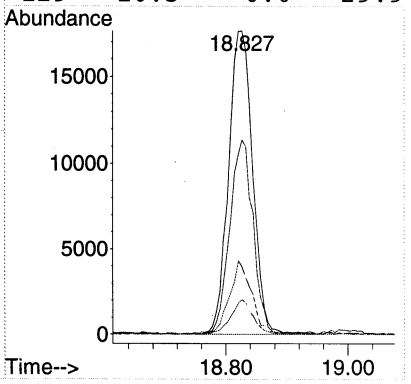


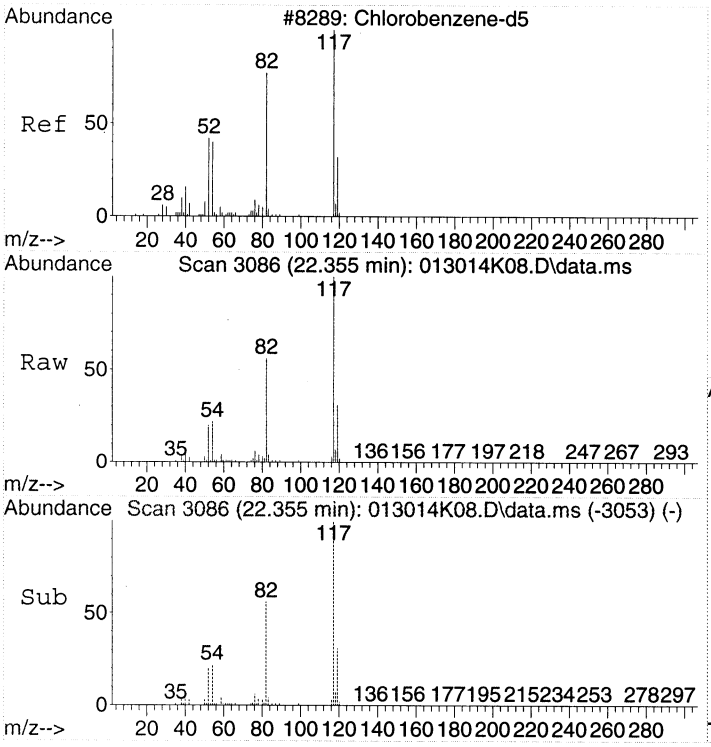




#40
Bromodichloromethane
Concen: 0.85 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion: 83 Resp: 48822

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 61.9 | 41.8 | 81.8 |
| 47 | 22.1 | 0.4 | 40.4 |
| 129 | 10.5 | 0.0 | 29.9 |

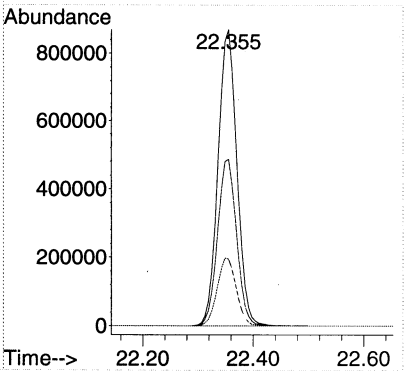





#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K08.D
Acq: 30 Jan 2014 18:27

Tgt Ion:117 Resp: 2059464

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.6 | 37.1 | 77.1 |
| 54 | 23.1 | 3.3 | 43.3 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K09.D
Acq On : 30 Jan 2014 19:14
Instrument: HP5973K
Operator : EM
Sample : 1401049-05RE1
Misc : 50mL MH05 Can 1117
ALS Vial : 39
Multiplier: 3.96

Quant Time: Jan 31 10:41:05 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 915961 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2346315 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2065132 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.884 | 43 | 38204 | 0.89 | ppbv | 97 |
| 18) Dichloromethane | 11.387 | 49 | 30034 | 0.73 | ppbv # | 83 |
| 28) Chloroform | 15.597 | 83 | 414361 | 7.08 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 54090 | 0.93 | ppbv | 98 |
| 49) Chlorodibromomethane | 21.455 | 129 | 27045 | 0.53 | ppbv | 98 |

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



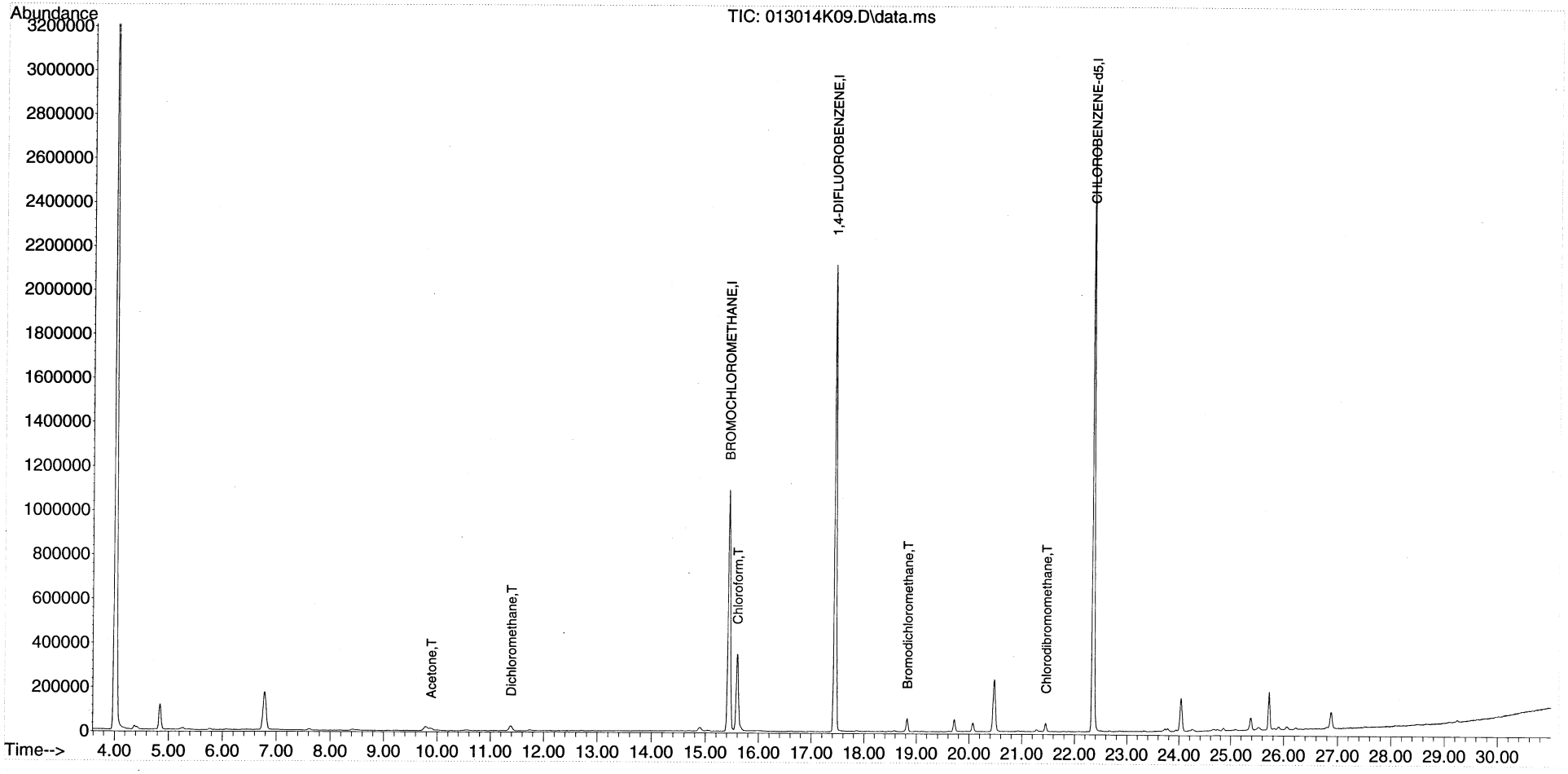
00385

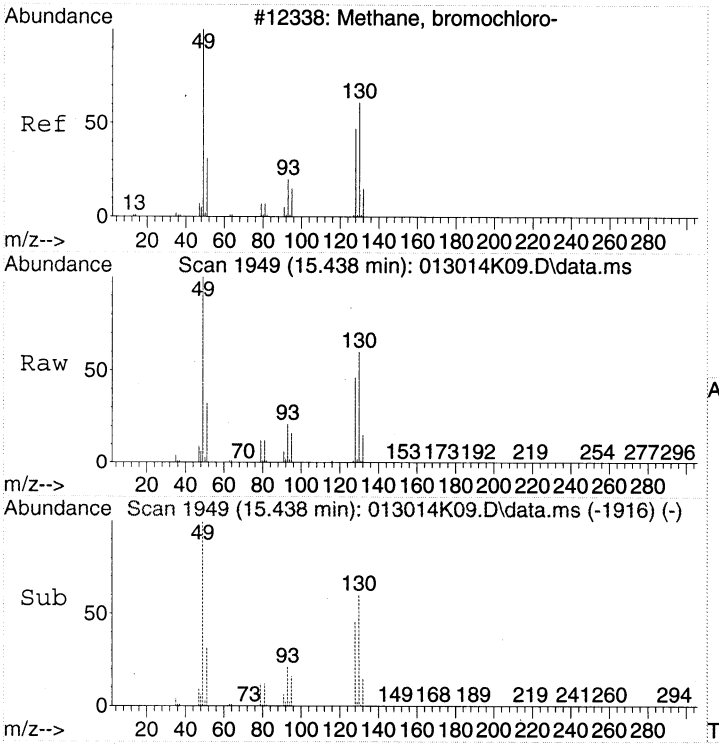
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K09.D
Acq On : 30 Jan 2014 19:14
Instrument: HP5973K
Operator : EM
Sample : 1401049-05RE1
Misc : 50mL MH05 Can 1117
ALS Vial : 39
Multiplier: 3.96

Quant Time: Jan 31 10:41:05 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

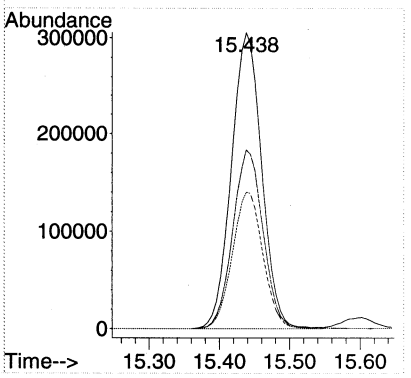


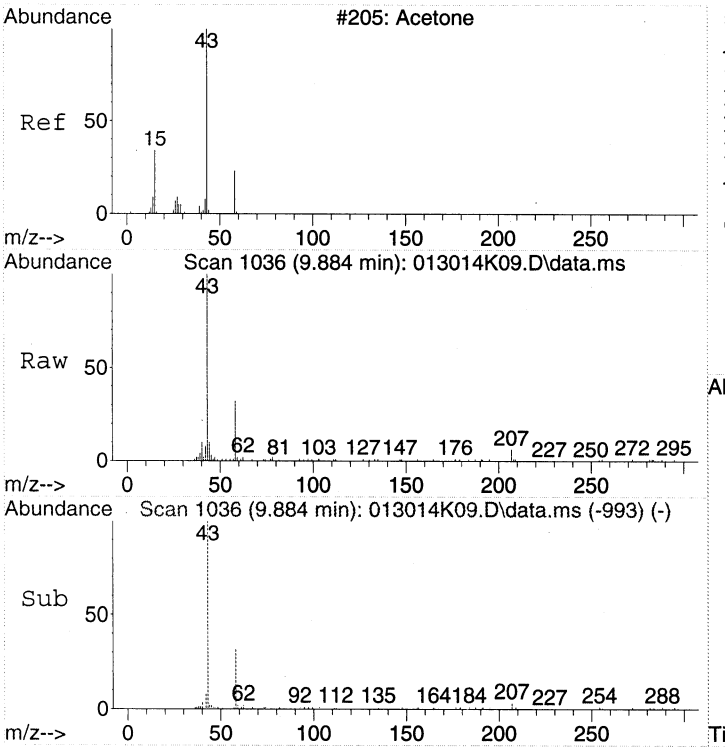



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion: 49 Resp: 915961

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.3 | 39.6 | 79.6 |
| 128 | 46.6 | 26.9 | 66.9 |

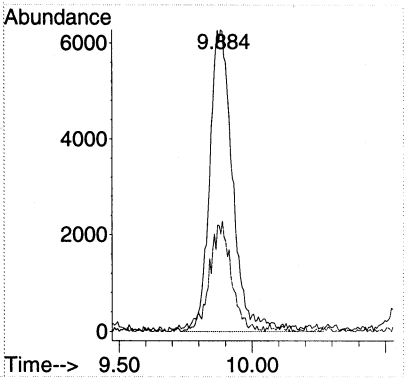


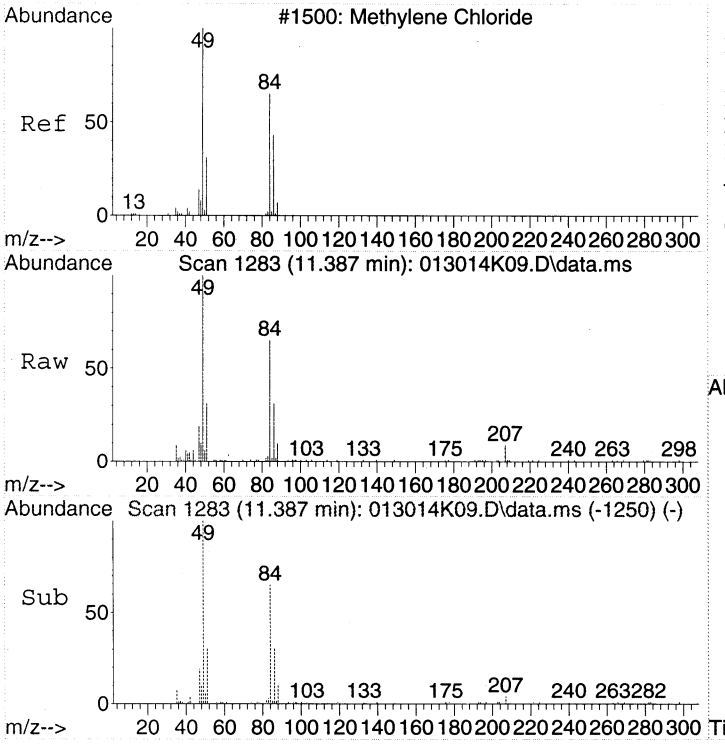




#14
Acetone
Concen: 0.89 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion: 43 Resp: 38204

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 34.0 | 12.5 | 52.5 |

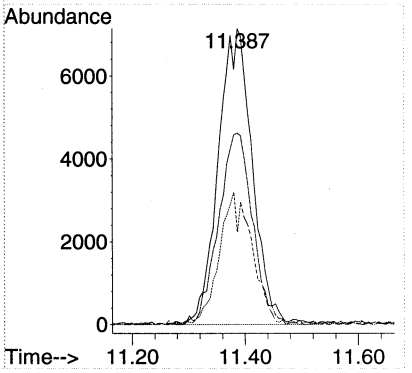


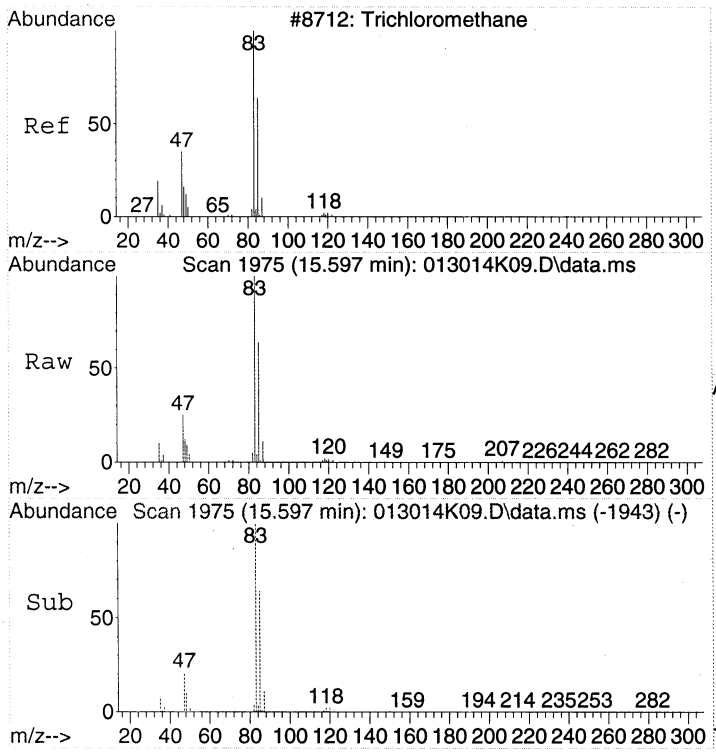



#18
Dichloromethane
Concen: 0.73 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion: 49 Resp: 30034

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 64.3 | 50.0 | 90.0 |
| 86 | 23.1 | 24.4 | 64.4# |

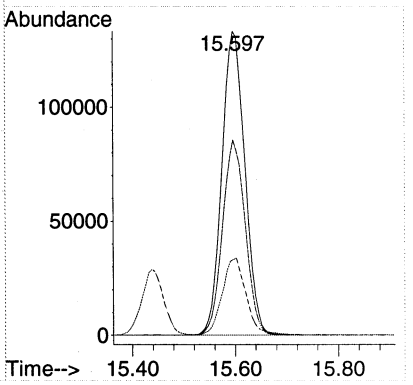


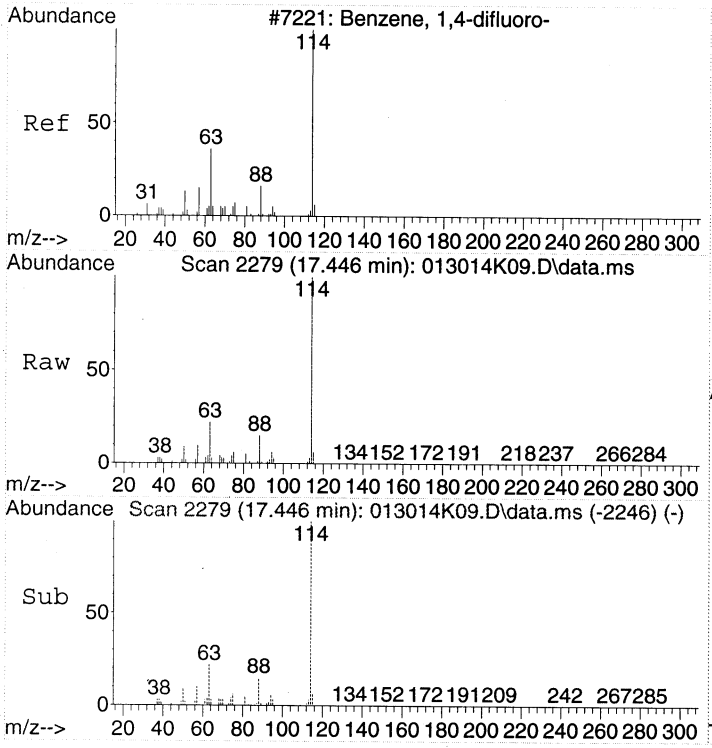




#28
Chloroform
Concen: 7.08 ppbv
RT: 15.597 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion: 83 Resp: 414361

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.8 | 42.7 | 82.7 |
| 47 | 26.1 | 5.3 | 45.3 |

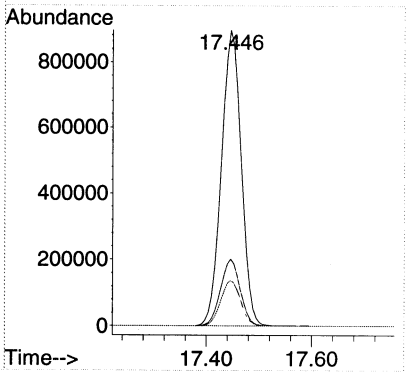


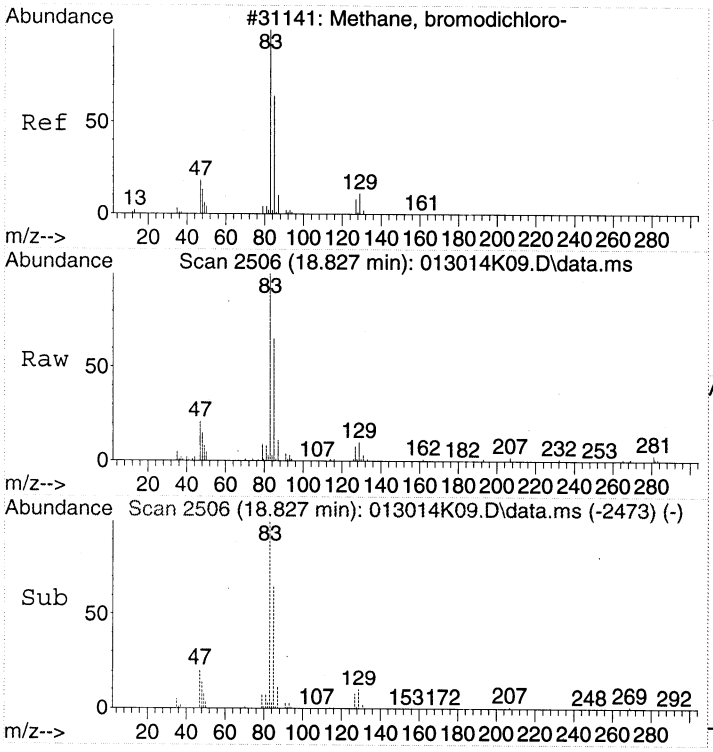



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion:114 Resp: 2346315

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.3 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

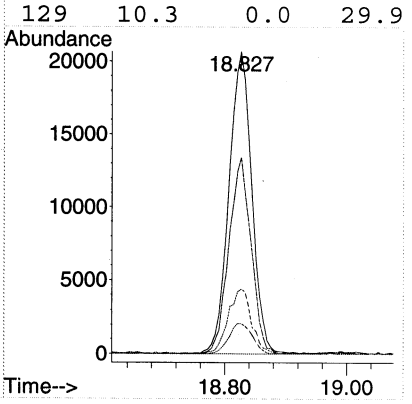


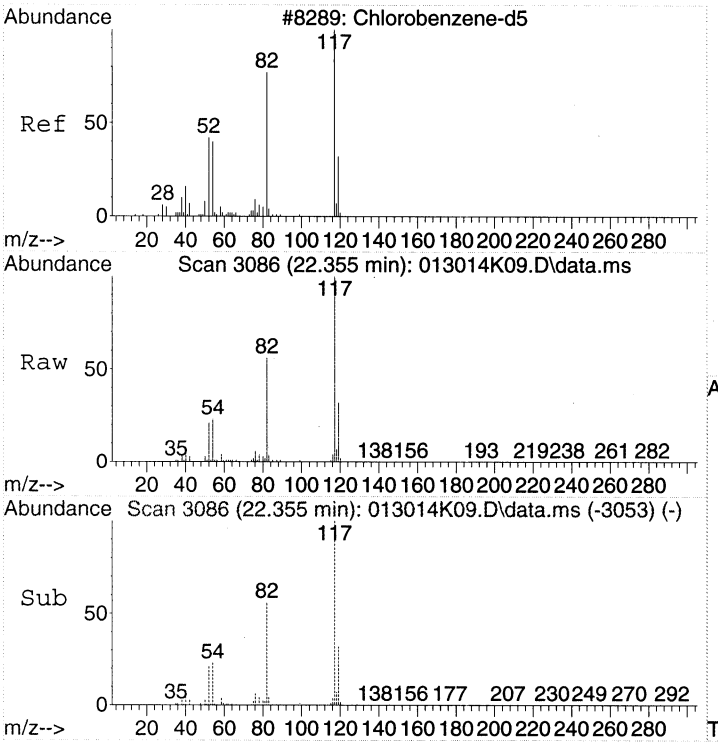




#40
Bromodichloromethane
Concen: 0.93 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion: 83 Resp: 54090

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.8 | 41.8 | 81.8 |
| 47 | 21.8 | 0.4 | 40.4 |
| 129 | 10.3 | 0.0 | 29.9 |

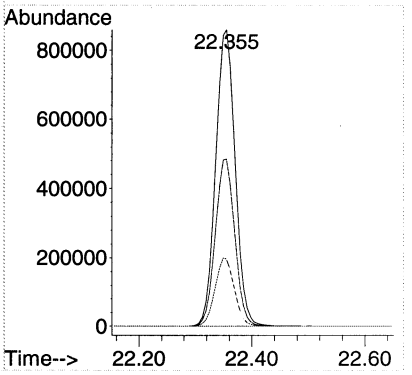


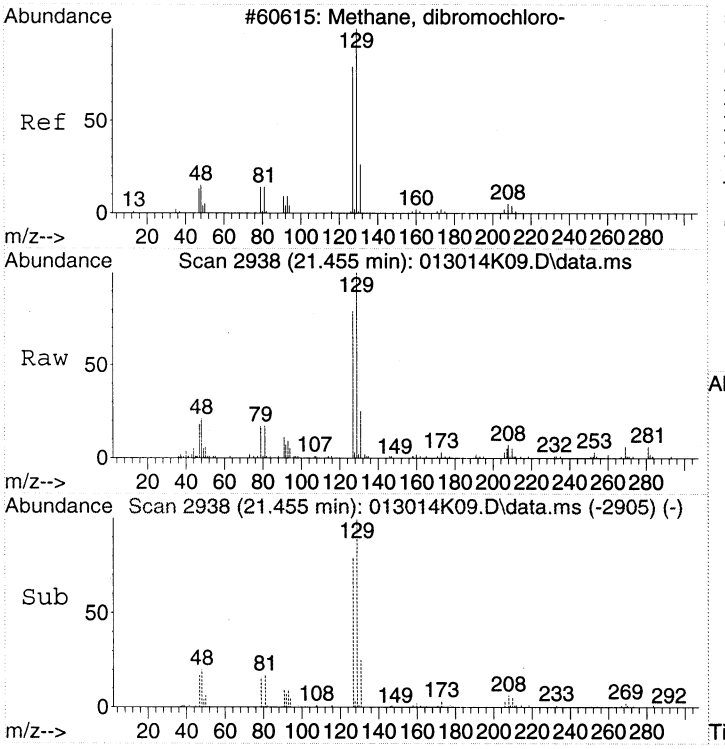



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion:117 Resp: 2065132

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.6 | 37.1 | 77.1 |
| 54 | 23.1 | 3.3 | 43.3 |

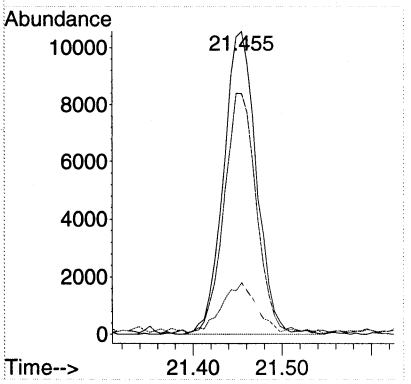



#49
Chlorodibromomethane
Concen: 0.53 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. 0.000 min
Lab File: 013014K09.D
Acq: 30 Jan 2014 19:14

Tgt Ion:129 Resp: 27045

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 77.4 | 59.2 | 99.2 |
| 79 | 17.7 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K10.D
Acq On : 30 Jan 2014 20:00
Instrument: HP5973K
Operator : EM
Sample : 1401049-06RE1
Misc : 50mL MH06 Can 1112
ALS Vial : 10
Multiplier: 2.96

Quant Time: Jan 31 10:41:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 909076 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2278108 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2008134 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.872 | 43 | 115532 | 2.71 | ppbv | 99 |
| 16) 2-Propanol | 10.523 | 45 | 31184 | 0.72 | ppbv | 93 |
| 18) Dichloromethane | 11.374 | 49 | 34006 | 0.83 | ppbv | 97 |
| 28) Chloroform | 15.596 | 83 | 524510 | 9.03 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 67411 | 1.20 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.455 | 129 | 32218 | 0.65 | ppbv | 98 |

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



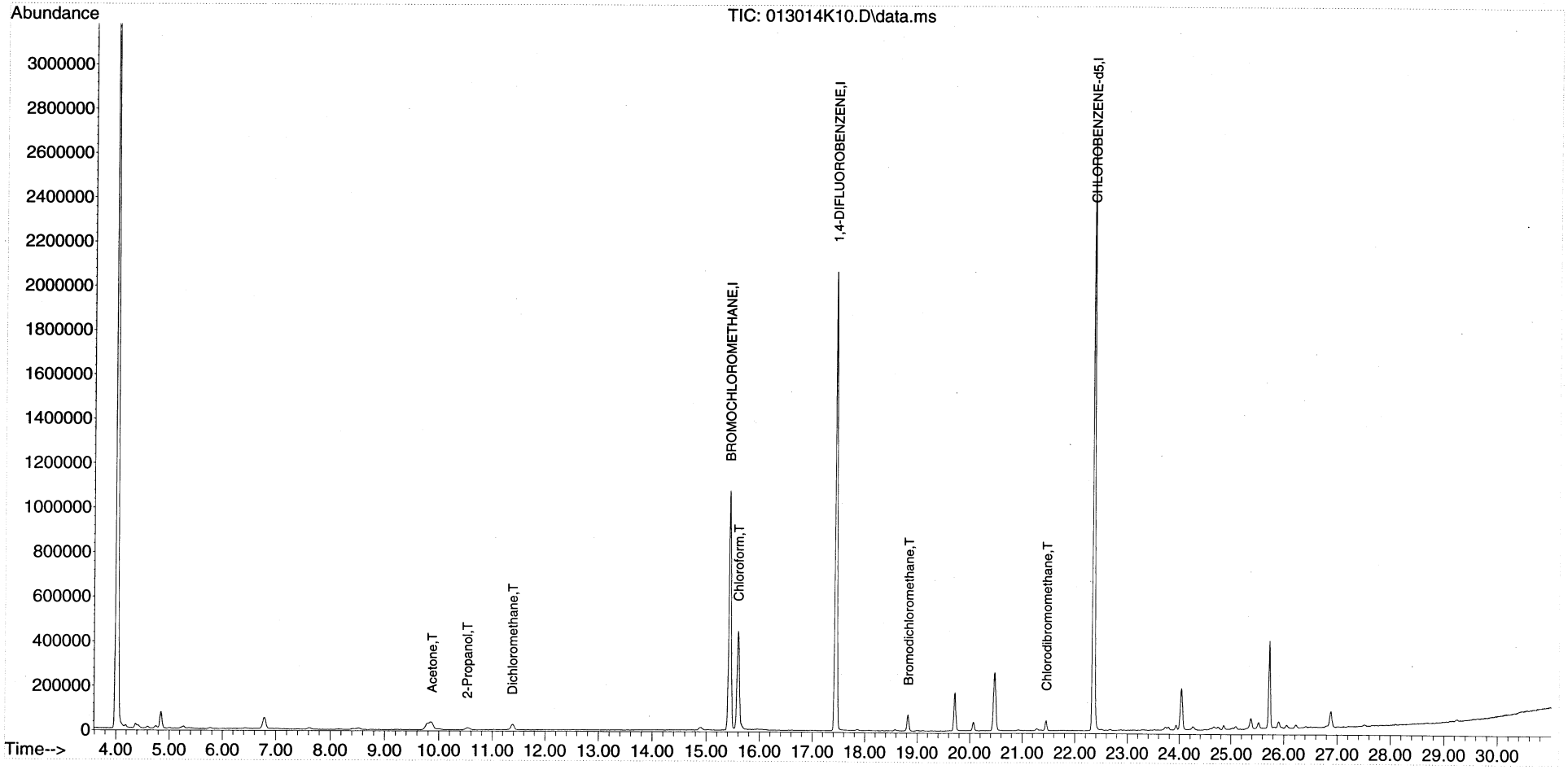
: 00391

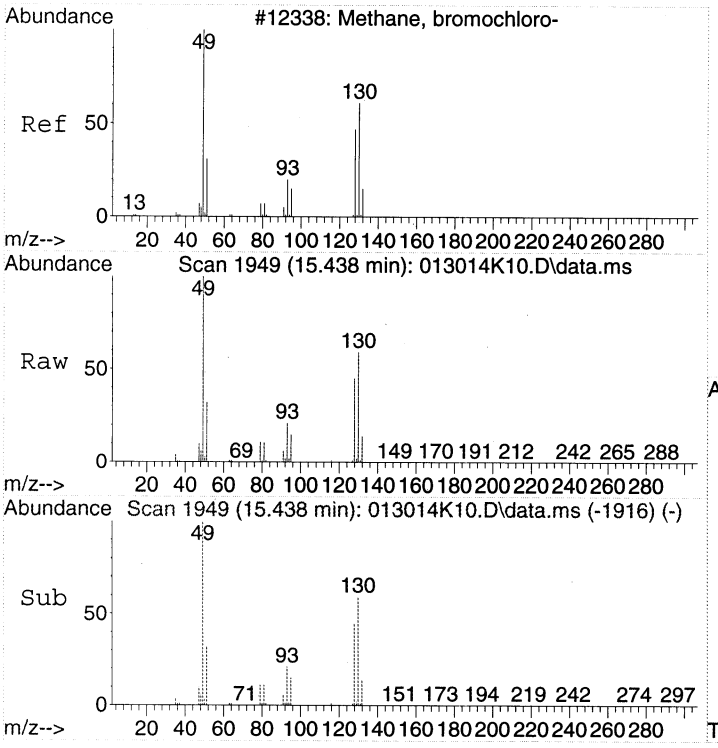
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K10.D
Acq On : 30 Jan 2014 20:00
Instrument: HP5973K
Operator : EM
Sample : 1401049-06RE1
Misc : 50mL MH06 Can 1112
ALS Vial : 10
Multiplier: 2.96

Quant Time: Jan 31 10:41:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

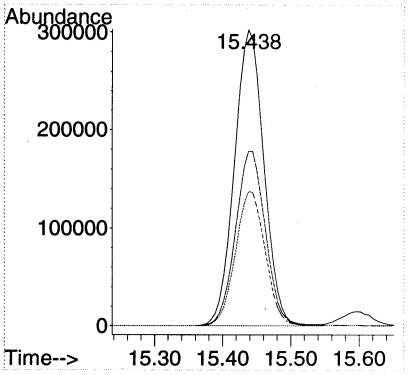


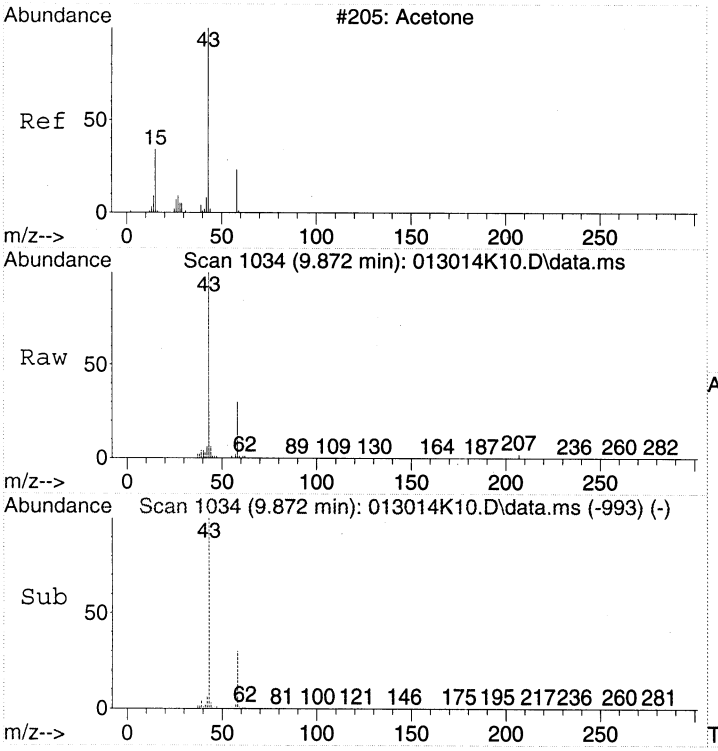



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 49 Resp: 909076

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.7 | 39.6 | 79.6 |
| 128 | 46.0 | 26.9 | 66.9 |

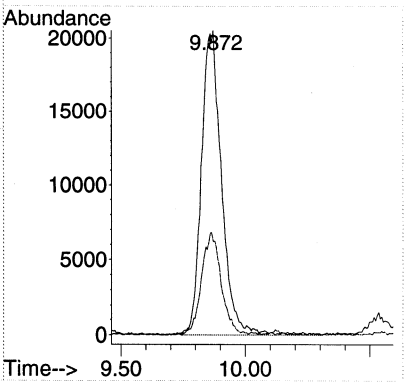


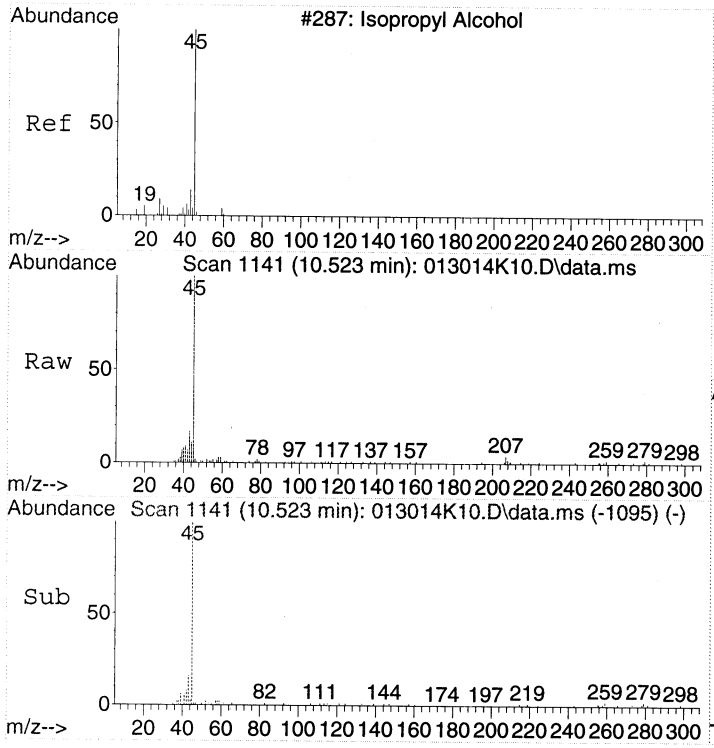




#14
Acetone
Concen: 2.71 ppbv
RT: 9.872 min Scan# 1034
Delta R.T. 0.049 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 43 Resp: 115532

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 33.3 | 12.5 | 52.5 |

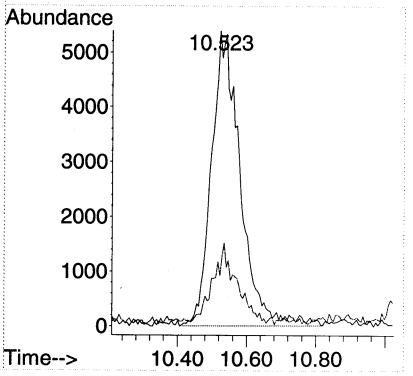


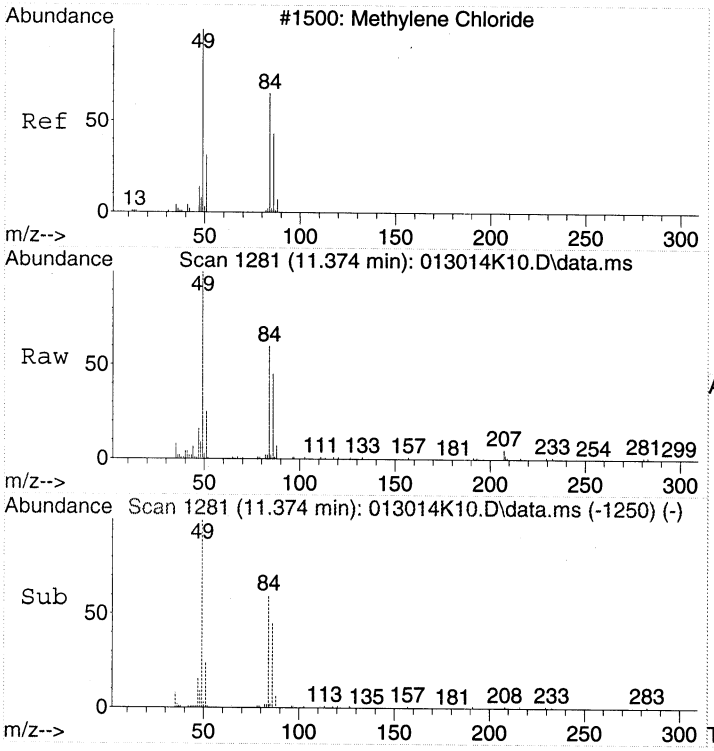



#16
2-Propanol
Concen: 0.72 ppbv
RT: 10.523 min Scan# 1141
Delta R.T. 0.079 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 45 Resp: 31184

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 45 | 100 | | |
| 43 | 22.0 | 0.0 | 39.1 |

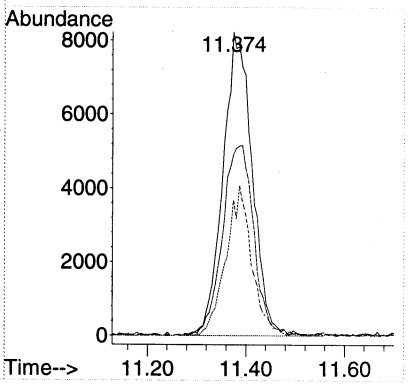


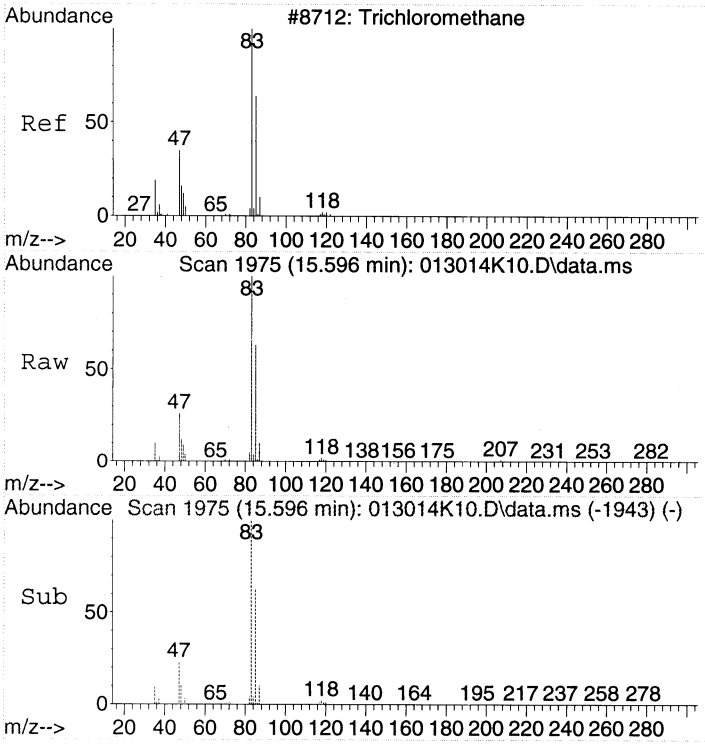




#18
Dichloromethane
Concen: 0.83 ppbv
RT: 11.374 min Scan# 1281
Delta R.T. -0.012 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 49 Resp: 34006

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.0 | 50.0 | 90.0 |
| 86 | 43.6 | 24.4 | 64.4 |

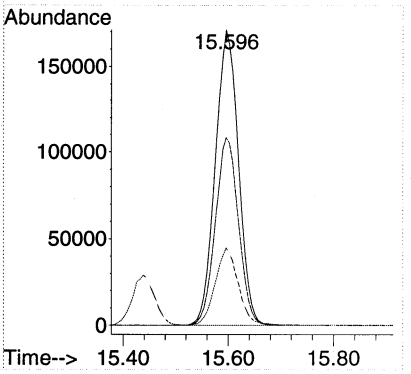


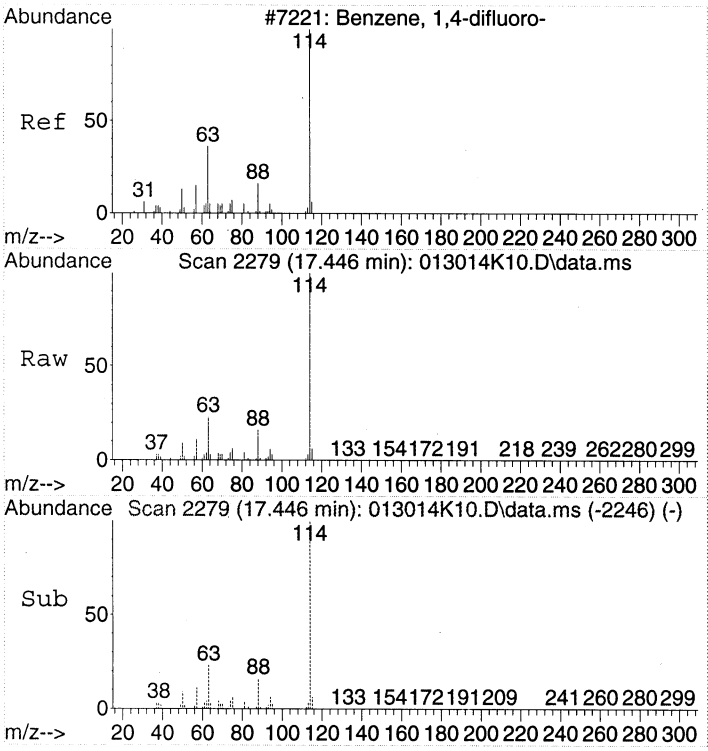



#28
Chloroform
Concen: 9.03 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 83 Resp: 524510

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.4 | 42.7 | 82.7 |
| 47 | 25.9 | 5.3 | 45.3 |

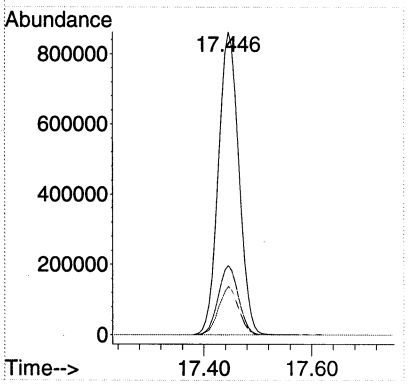


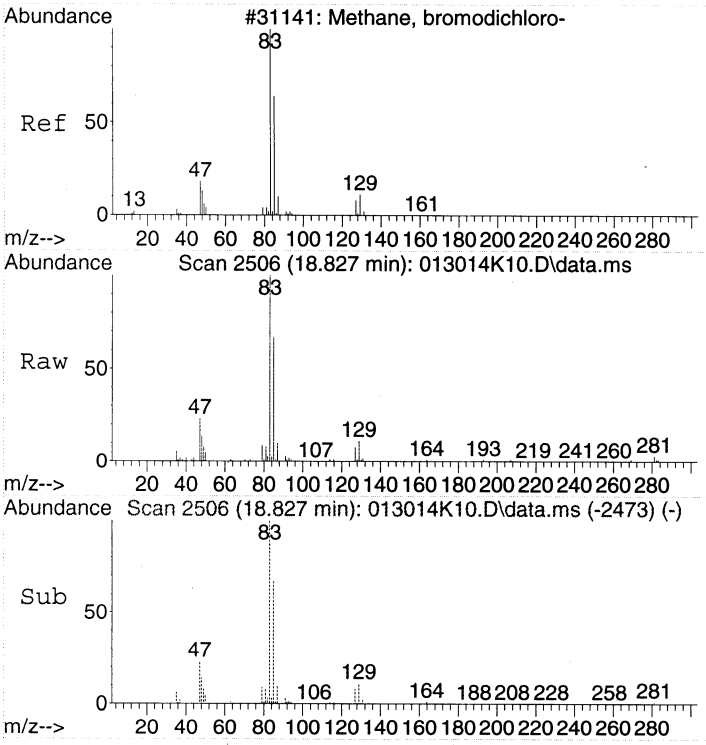




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion:114 Resp: 2278108

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.6 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

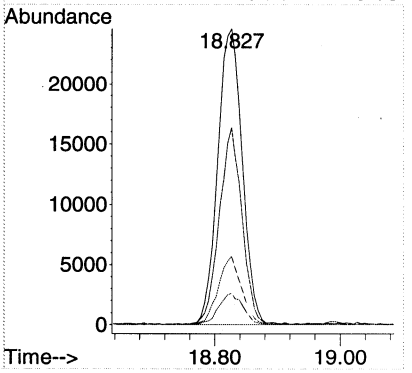


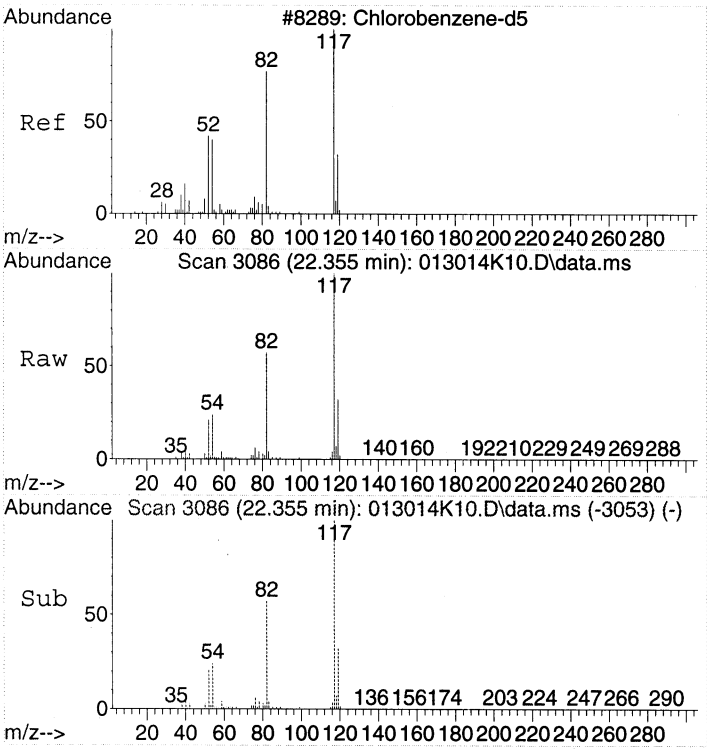



#40
Bromodichloromethane
Concen: 1.20 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion: 83 Resp: 67411

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 61.3 | 41.8 | 81.8 |
| 47 | 22.0 | 0.4 | 40.4 |
| 129 | 10.6 | 0.0 | 29.9 |

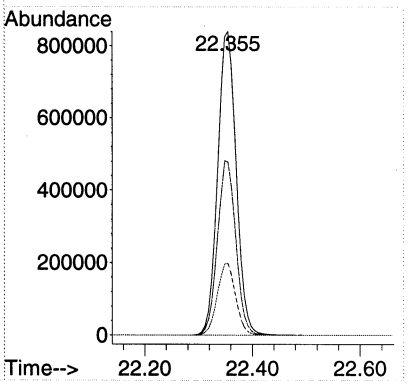


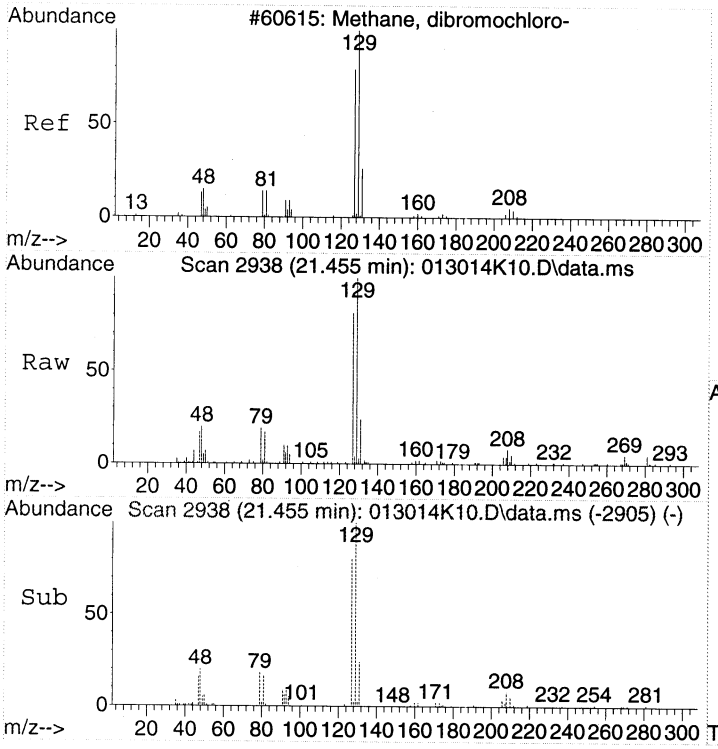




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion:117 Resp: 2008134

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 57.0 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

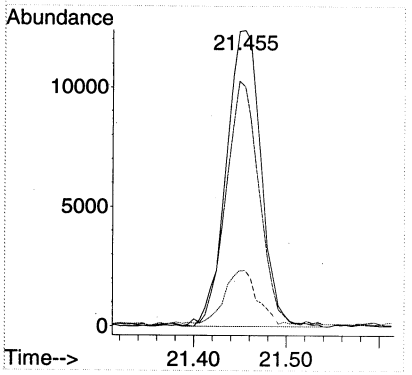





#49
Chlorodibromomethane
Concen: 0.65 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. -0.000 min
Lab File: 013014K10.D
Acq: 30 Jan 2014 20:00

Tgt Ion:129 Resp: 32218

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 80.1 | 59.2 | 99.2 |
| 79 | 17.9 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K11.D
Acq On : 30 Jan 2014 20:46
Instrument: HP5973K
Operator : EM
Sample : 1401049-07RE1
Misc : 50mL MH07 Can 863
ALS Vial : 11
Multiplier: 3.35

Quant Time: Jan 31 10:41:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 906847 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2289448 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2018568 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 14) Acetone | 9.884 | 43 | 36866 | 0.87 | ppbv | 96 |
| 18) Dichloromethane | 11.387 | 49 | 29479 | 0.72 | ppbv | 97 |
| 28) Chloroform | 15.596 | 83 | 399763 | 6.90 | ppbv | 100 |
| 40) Bromodichloromethane | 18.827 | 83 | 52391 | 0.93 | ppbv | 99 |
| 49) Chlorodibromomethane | 21.449 | 129 | 24860 | 0.50 | ppbv | 99 |

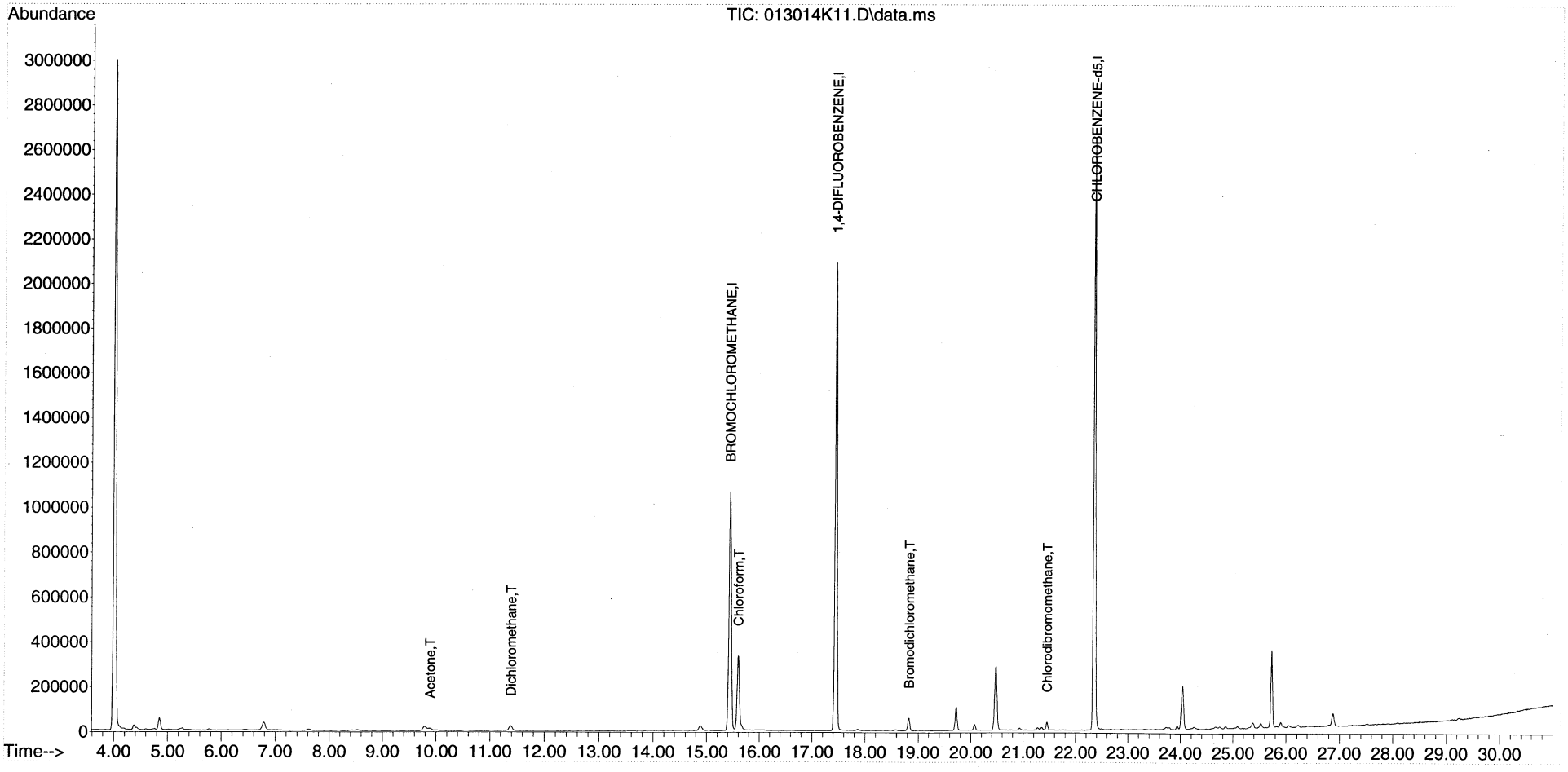
(#) = qualifier out of range (m) = manual integration (+) = signals summed

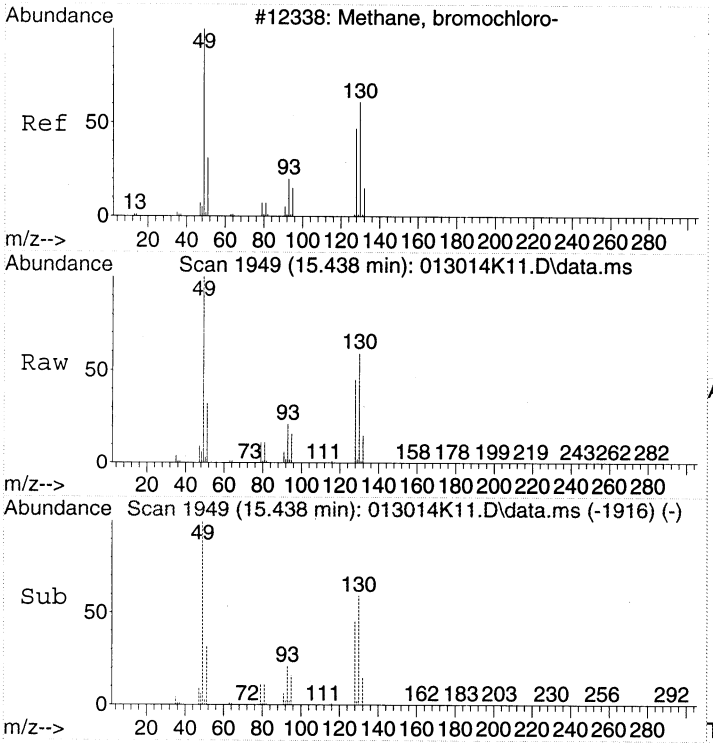
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K11.D
Acq On : 30 Jan 2014 20:46
Instrument: HP5973K
Operator : EM
Sample : 1401049-07RE1
Misc : 50mL MH07 Can 863
ALS Vial : 11
Multiplier: 3.35

Quant Time: Jan 31 10:41:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

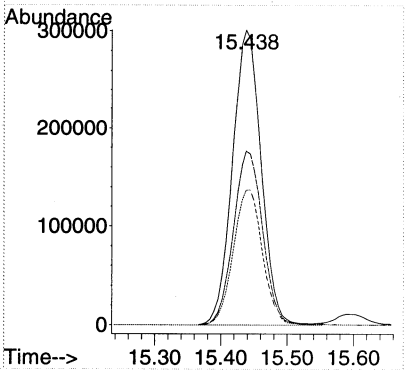


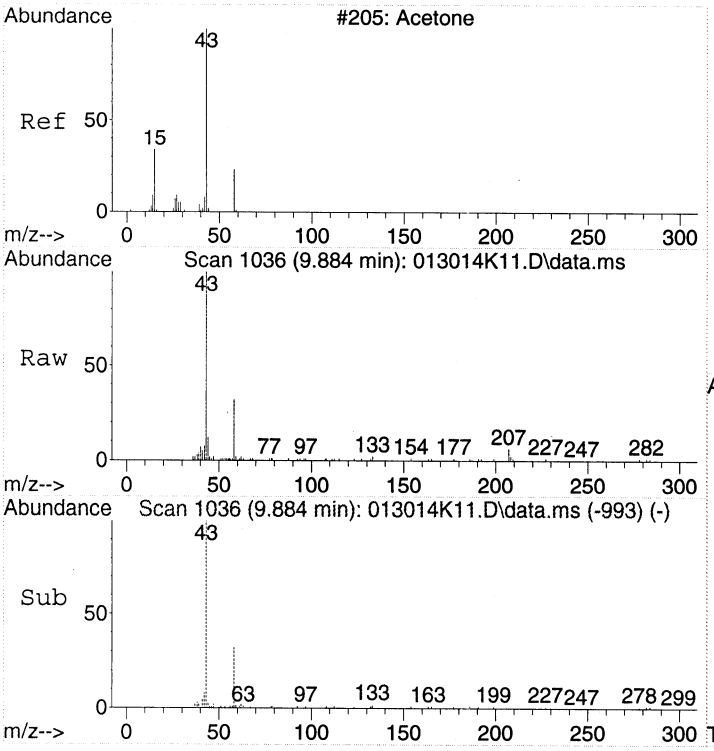



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion: 49 Resp: 906847

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.8 | 39.6 | 79.6 |
| 128 | 46.2 | 26.9 | 66.9 |

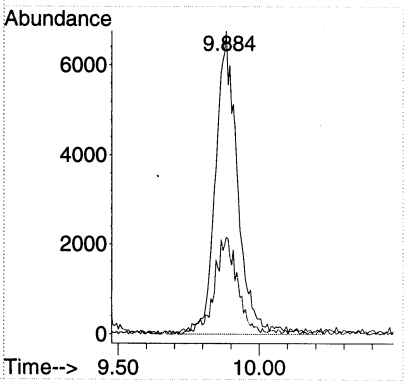


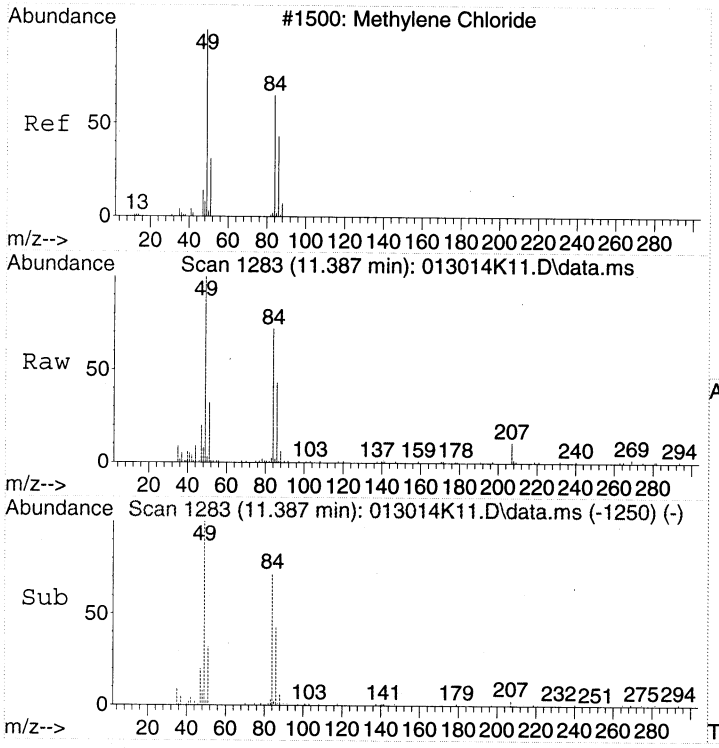




#14
Acetone
Concen: 0.87 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion: 43 Resp: 36866

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 30.3 | 12.5 | 52.5 |

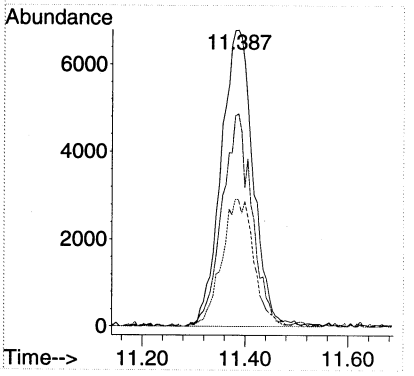


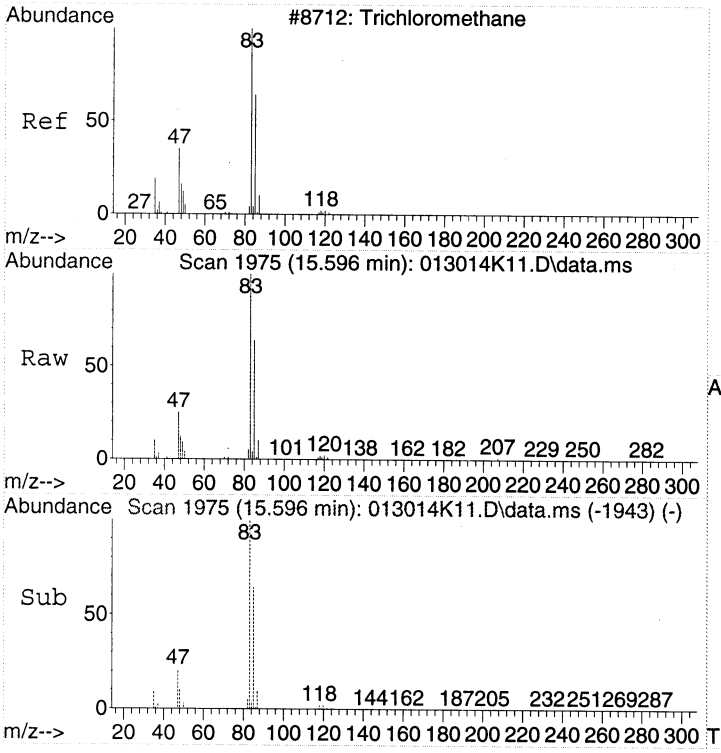



#18
Dichloromethane
Concen: 0.72 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion: 49 Resp: 29479

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 66.7 | 50.0 | 90.0 |
| 86 | 42.9 | 24.4 | 64.4 |

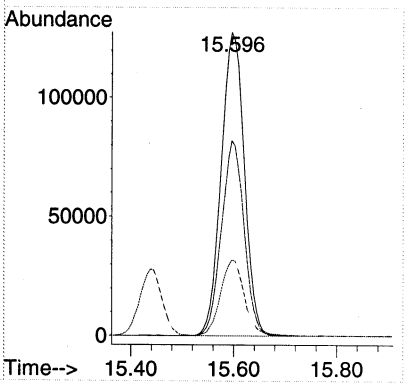


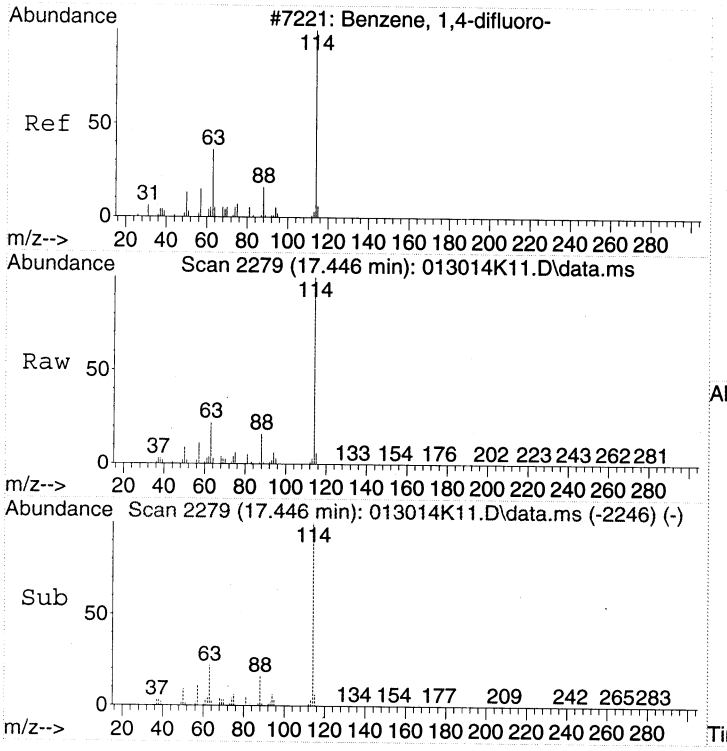




#28
Chloroform
Concen: 6.90 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion: 83 Resp: 399763

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 42.7 | 82.7 |
| 47 | 25.7 | 5.3 | 45.3 |

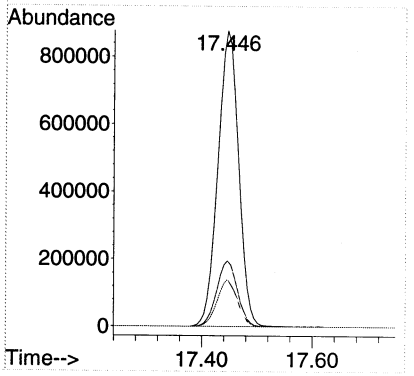


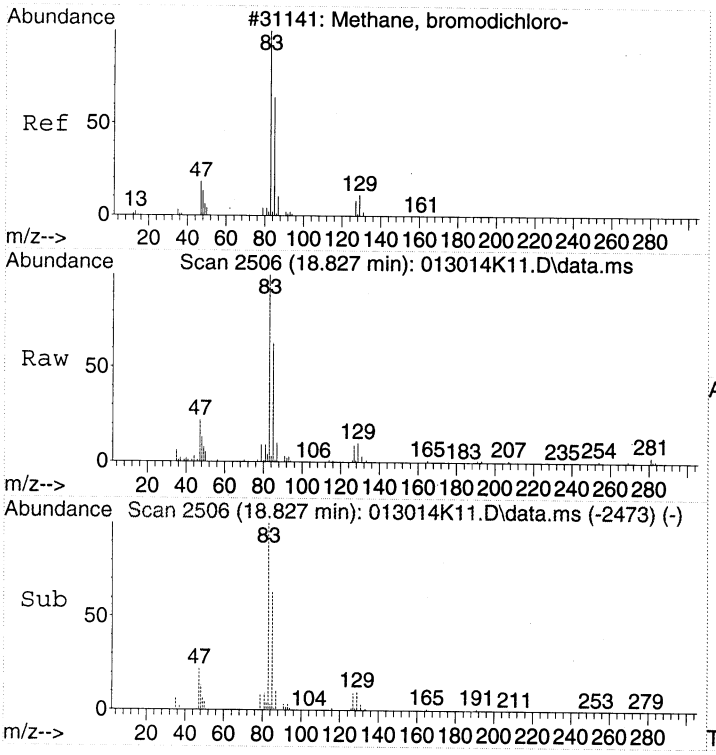



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion:114 Resp: 2289448

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.3 | 2.3 | 42.3 |
| 88 | 15.6 | 0.0 | 35.2 |

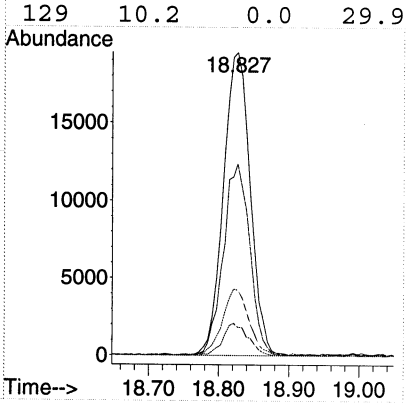


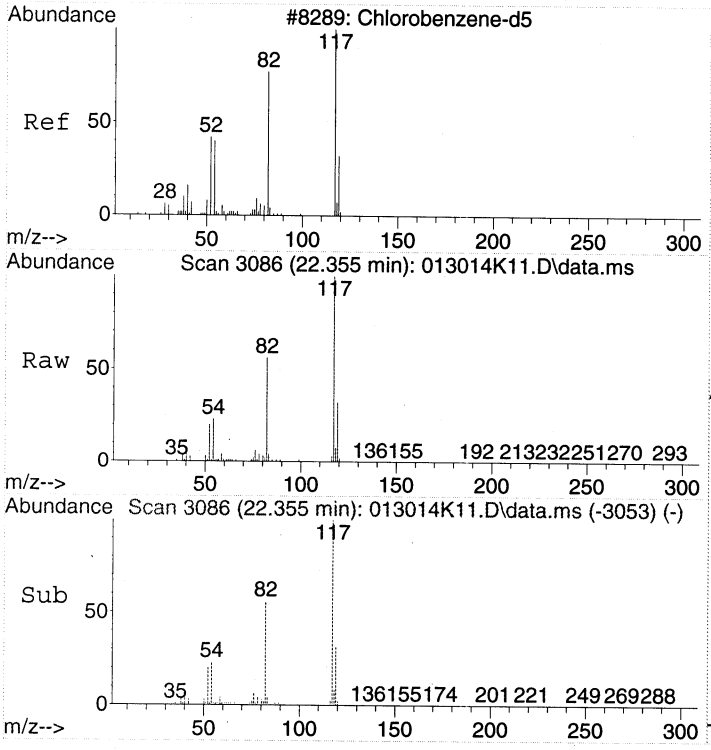




#40
Bromodichloromethane
Concen: 0.93 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion: 83 Resp: 52391

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.2 | 41.8 | 81.8 |
| 47 | 21.8 | 0.4 | 40.4 |
| 129 | 10.2 | 0.0 | 29.9 |

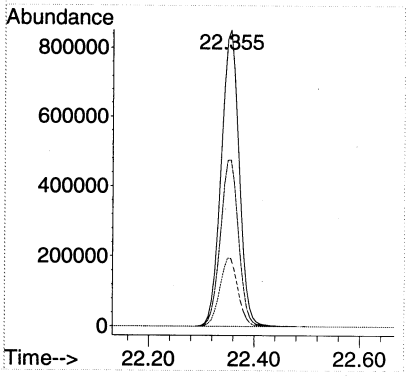


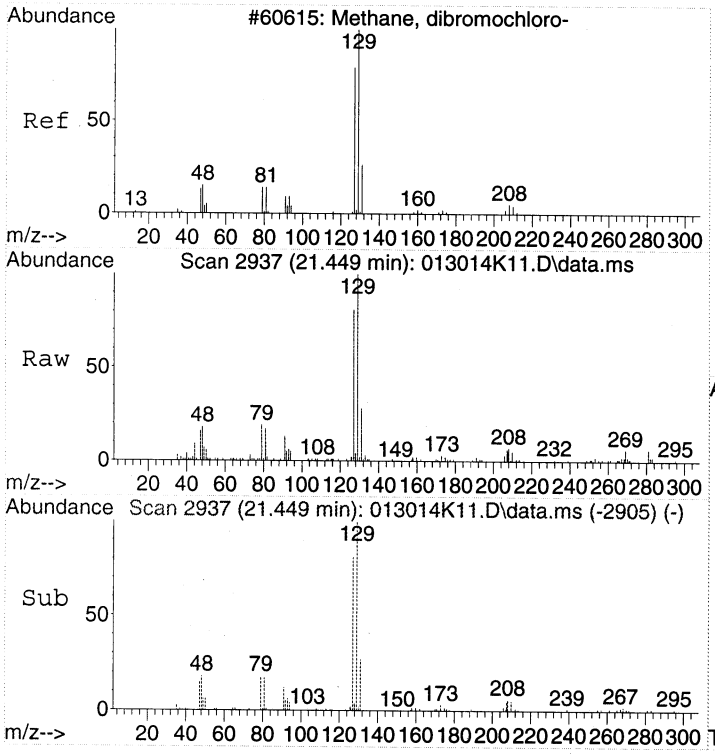



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion:117 Resp: 2018568

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.7 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |

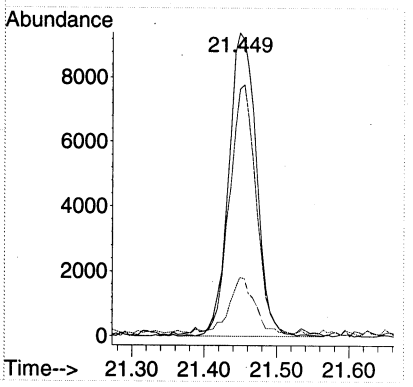



#49
Chlorodibromomethane
Concen: 0.50 ppbv
RT: 21.449 min Scan# 2937
Delta R.T. -0.006 min
Lab File: 013014K11.D
Acq: 30 Jan 2014 20:46

Tgt Ion:129 Resp: 24860

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 78.9 | 59.2 | 99.2 |
| 79 | 16.7 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K12.D
Acq On : 30 Jan 2014 21:33
Instrument: HP5973K
Operator : EM
Sample : 1401049-08RE1
Misc : 50mL MH08 Can 1978
ALS Vial : 12
Multiplier: 3.2

Quant Time: Jan 31 10:41:51 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 890279 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2215142 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1961562 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 15402 | 0.60 | ppbv # | 64 |
| 14) Acetone | 9.872 | 43 | 32659 | 0.78 | ppbv # | 42 |
| 18) Dichloromethane | 11.380 | 49 | 24969 | 0.62 | ppbv | 96 |
| 28) Chloroform | 15.602 | 83 | 274496 | 4.82 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 39908 | 0.73 | ppbv | 98 |
| 44) Toluene | 20.068 | 91 | 50145 | 0.52 | ppbv | 99 |

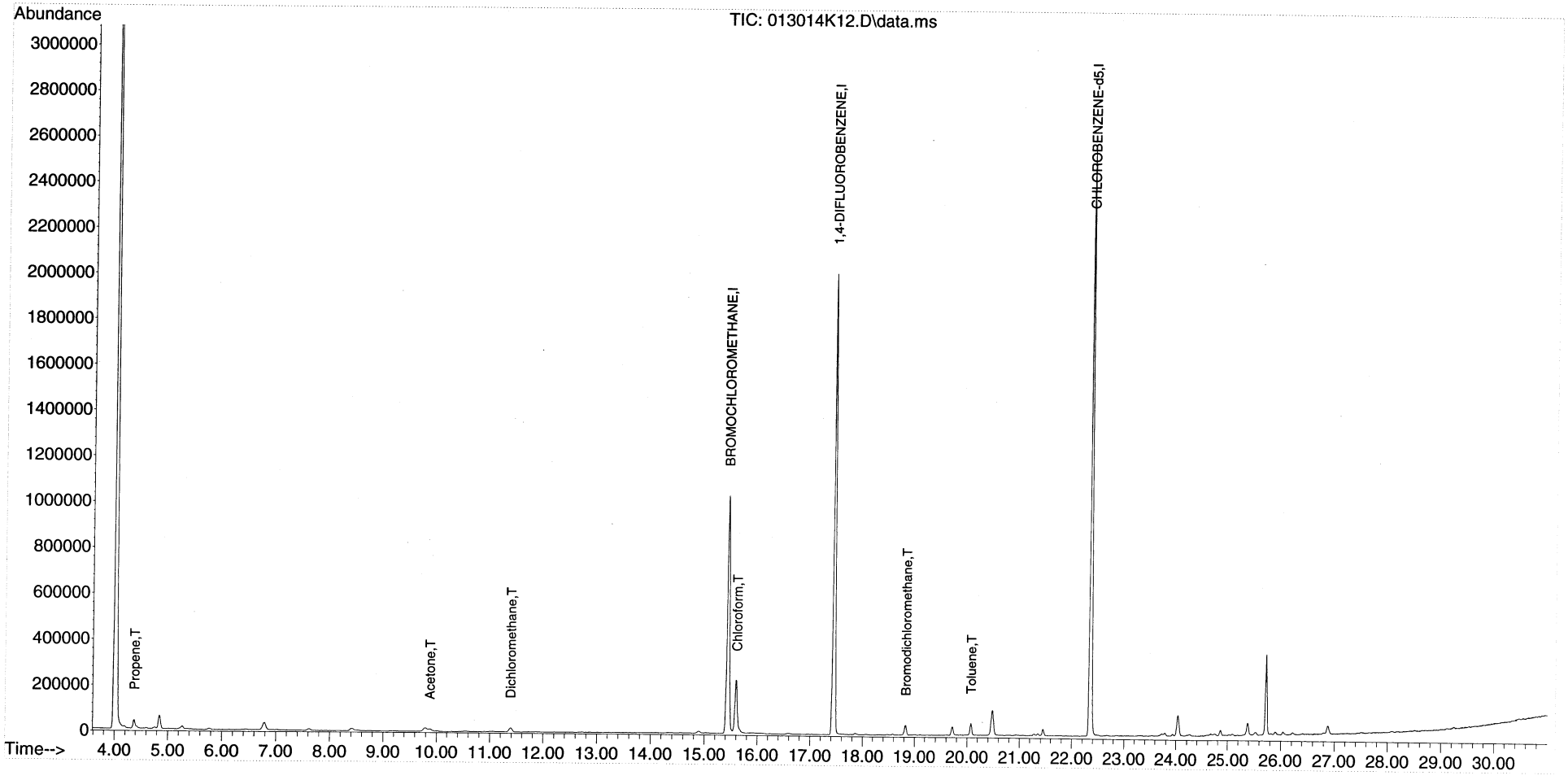
(#) = qualifier out of range (m) = manual integration (+) = signals summed

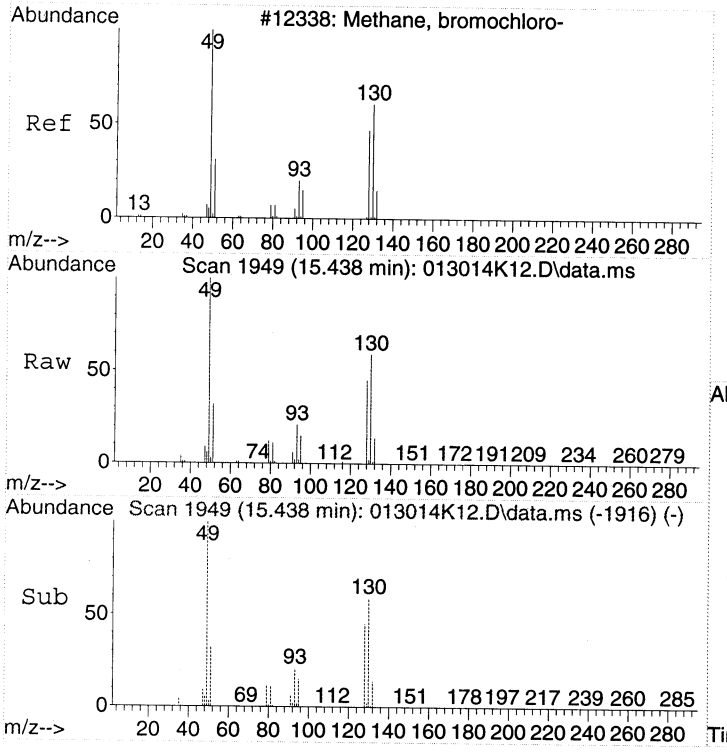
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K12.D
Acq On : 30 Jan 2014 21:33
Instrument: HP5973K
Operator : EM
Sample : 1401049-08RE1
Misc : 50mL MH08 Can 1978
ALS Vial : 12
Multiplier: 3.2

Quant Time: Jan 31 10:41:51 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

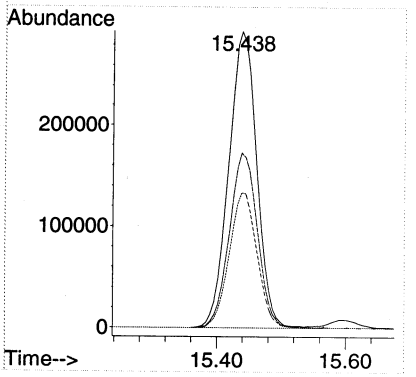


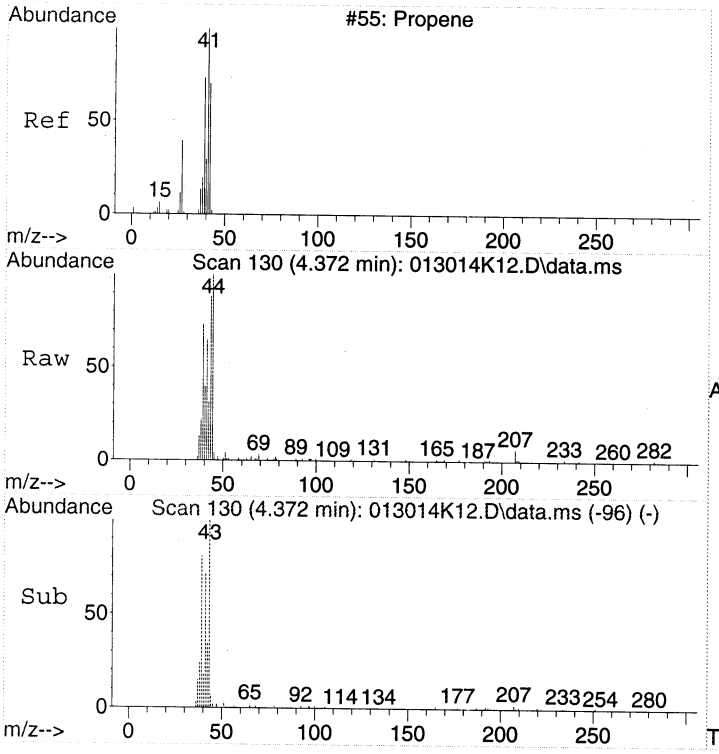



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 49 Resp: 890279

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.0 | 39.6 | 79.6 |
| 128 | 45.1 | 26.9 | 66.9 |

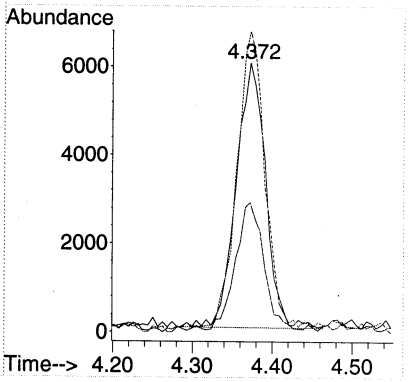


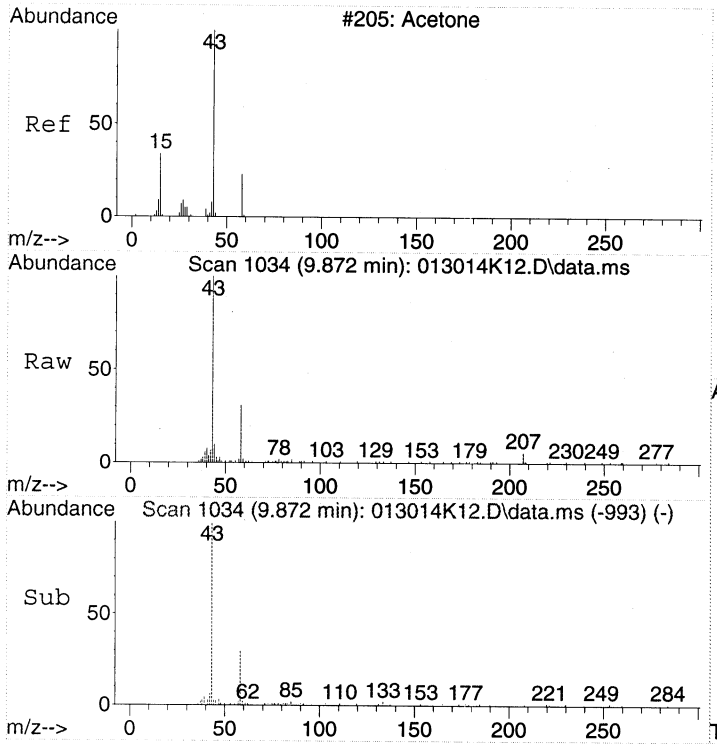




#2
Propene
Concen: 0.60 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 41 Resp: 15402

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 46.7 | 46.8 | 86.8# |
| 39 | 105.9 | 48.3 | 88.3# |

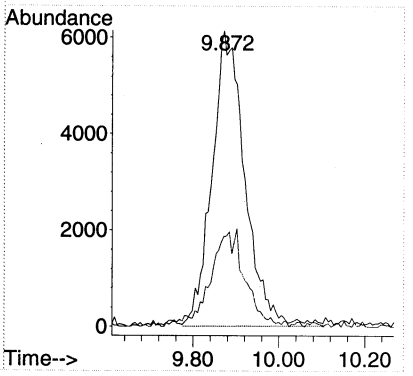


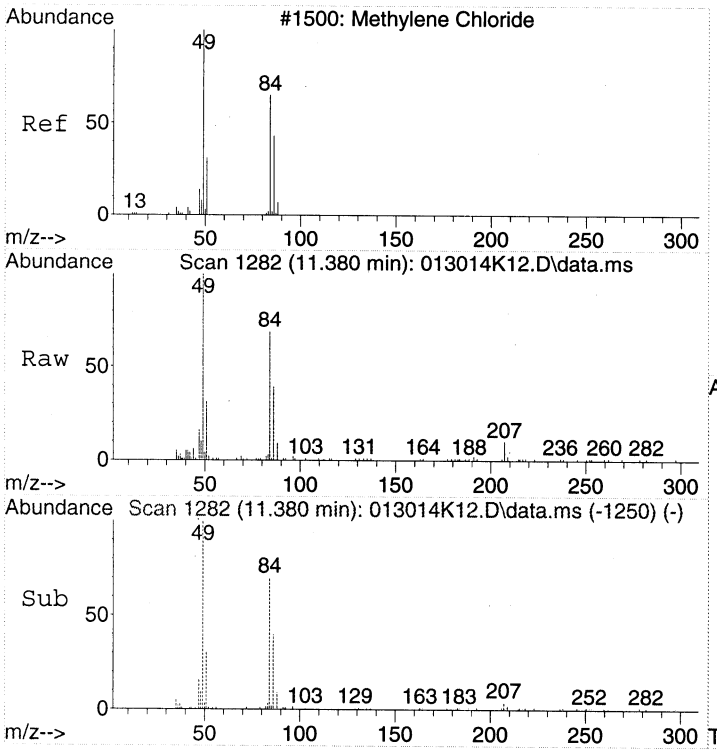



#14
Acetone
Concen: 0.78 ppbv
RT: 9.872 min Scan# 1034
Delta R.T. 0.048 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 43 Resp: 32659

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 0.0 | 12.5 | 52.5# |

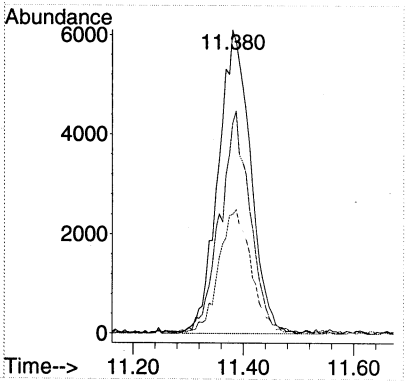


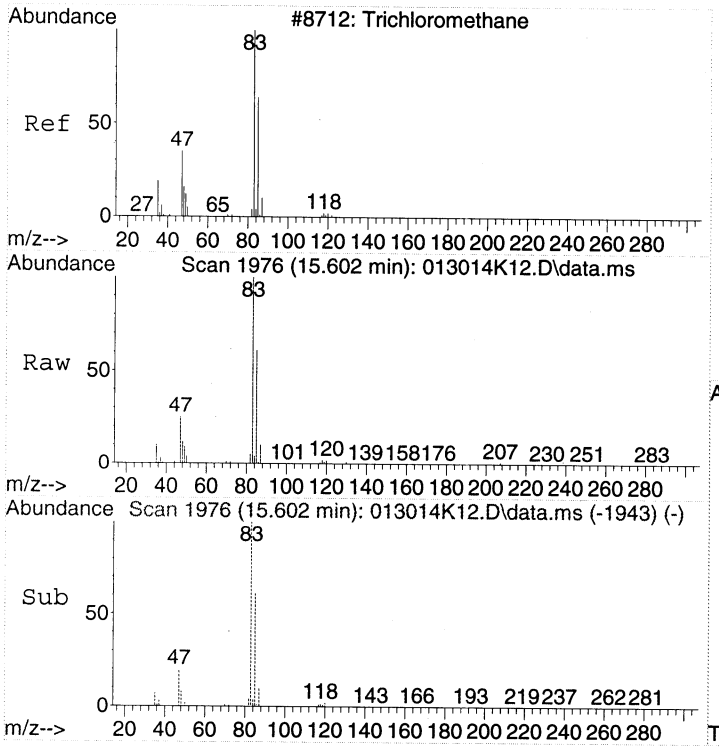




#18
Dichloromethane
Concen: 0.62 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 49 Resp: 24969

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 68.0 | 50.0 | 90.0 |
| 86 | 40.6 | 24.4 | 64.4 |

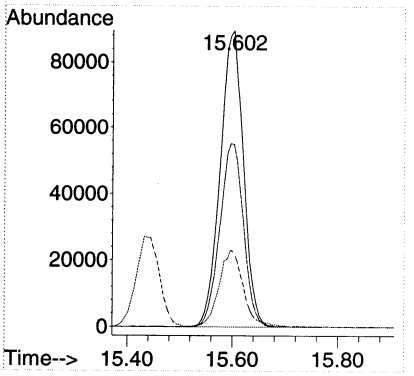


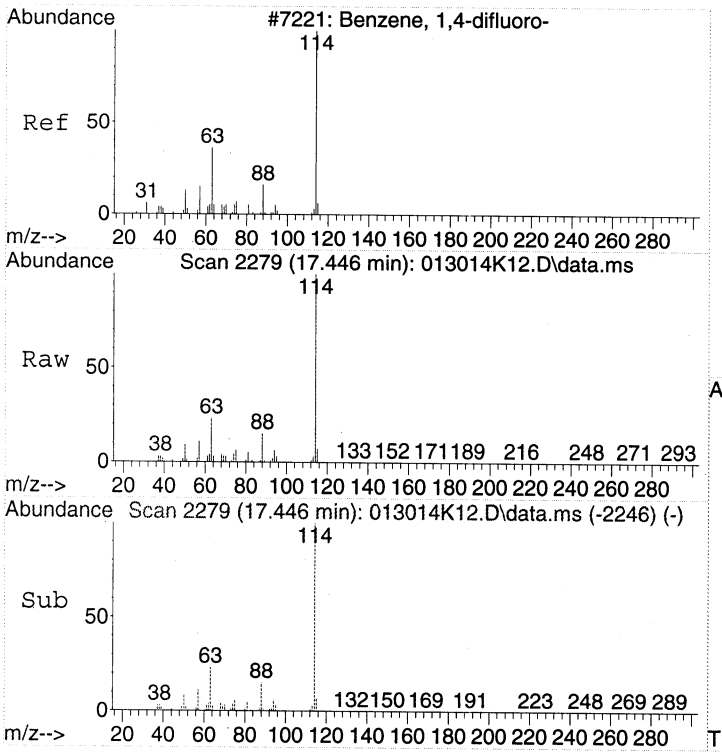



#28
Chloroform
Concen: 4.82 ppbv
RT: 15.602 min Scan# 1976
Delta R.T. -0.000 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 83 Resp: 274496

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 42.7 | 82.7 |
| 47 | 26.4 | 5.3 | 45.3 |

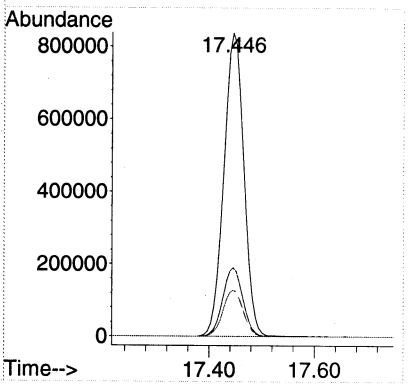


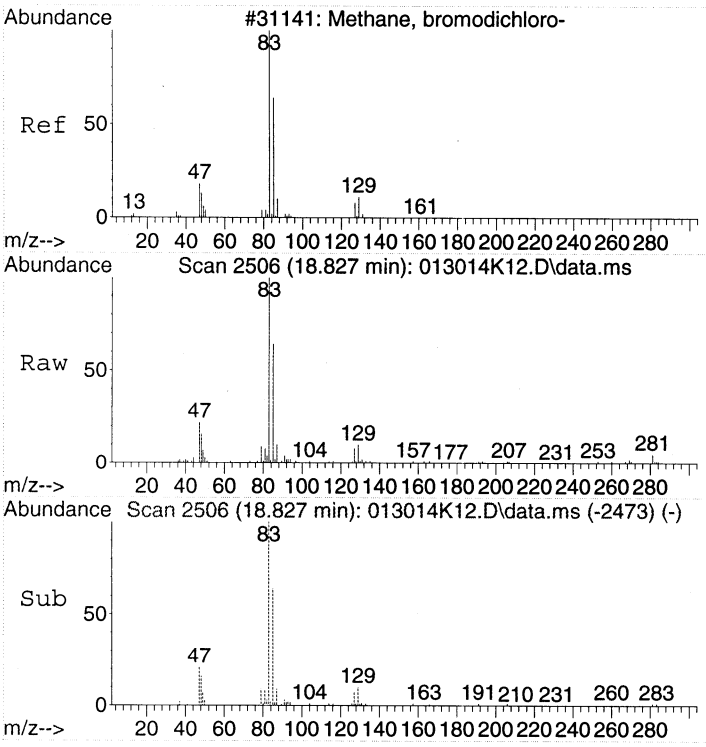




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion:114 Resp: 2215142

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

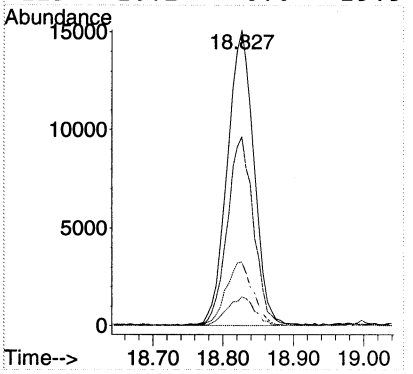


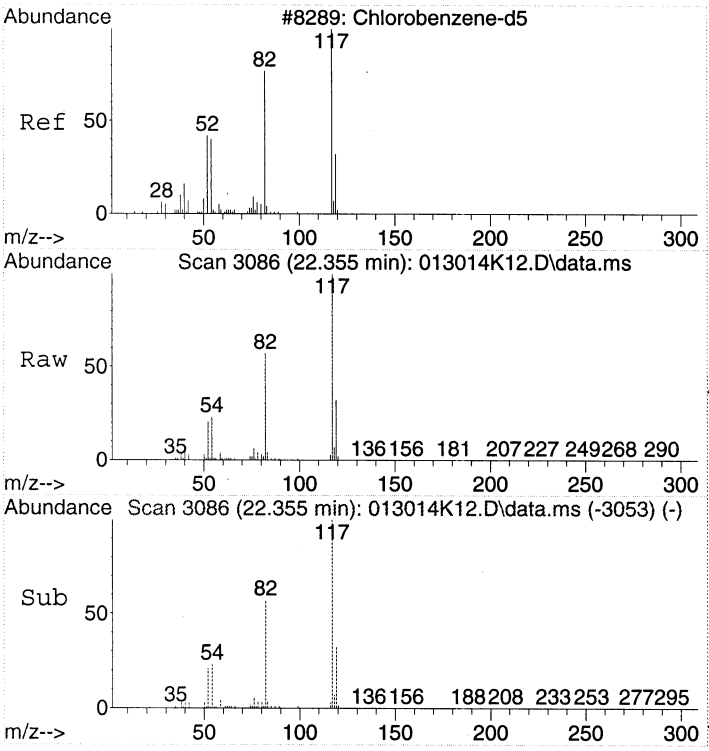



#40
Bromodichloromethane
Concen: 0.73 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 83 Resp: 39908

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.0 | 41.8 | 81.8 |
| 47 | 22.2 | 0.4 | 40.4 |
| 129 | 10.2 | 0.0 | 29.9 |

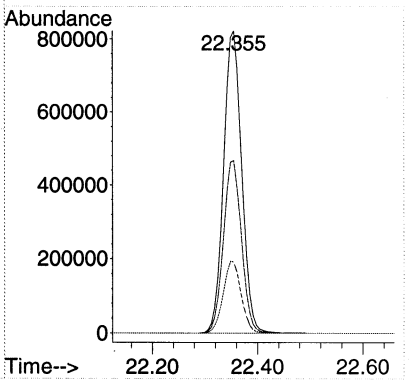


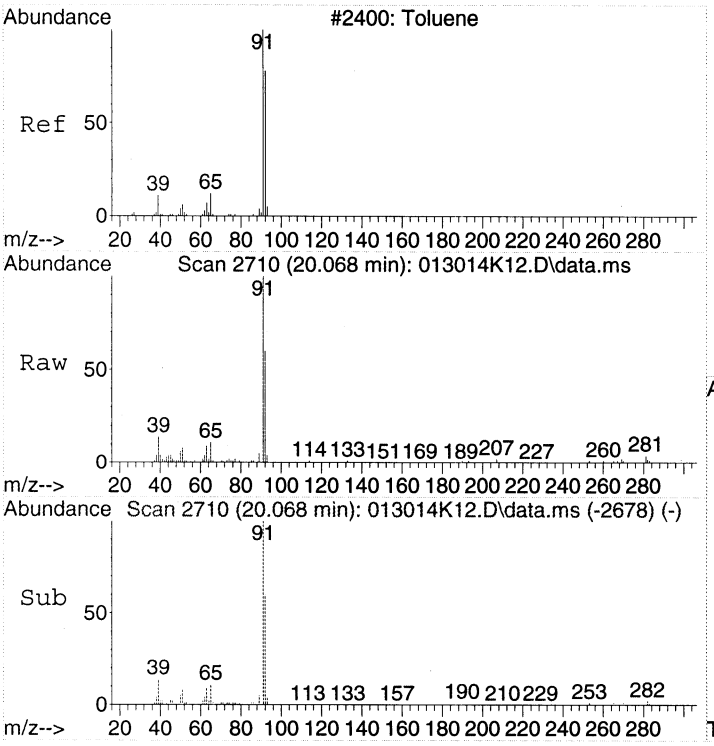




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion:117 Resp: 1961562

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.8 | 37.1 | 77.1 |
| 54 | 23.6 | 3.3 | 43.3 |

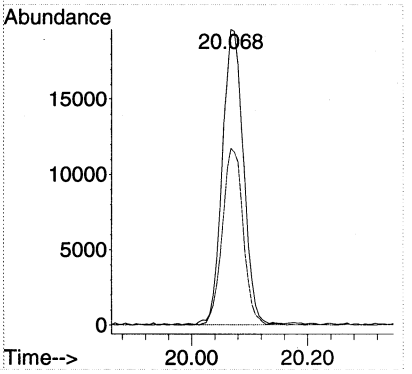





#44
Toluene
Concen: 0.52 ppbv
RT: 20.068 min Scan# 2710
Delta R.T. -0.006 min
Lab File: 013014K12.D
Acq: 30 Jan 2014 21:33

Tgt Ion: 91 Resp: 50145

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 58.8 | 38.2 | 78.2 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K13.D
Acq On : 30 Jan 2014 22:20
Instrument: HP5973K
Operator : EM
Sample : 1401049-09RE1
Misc : 100mL MH09 Can 1095
ALS Vial : 41
Multiplier: 3.05

Quant Time: Jan 31 10:42:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 897184 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2273992 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 2005586 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.372 | 41 | 13898 | 0.54 | ppbv # | 68 |
| 14) Acetone | 9.884 | 43 | 23236 | 0.55 | ppbv | 98 |
| 18) Dichloromethane | 11.399 | 49 | 23036 | 0.57 | ppbv | 98 |
| 28) Chloroform | 15.596 | 83 | 381821 | 6.66 | ppbv | 99 |
| 40) Bromodichloromethane | 18.827 | 83 | 82740 | 1.47 | ppbv | 98 |
| 49) Chlorodibromomethane | 21.449 | 129 | 45689 | 0.92 | ppbv | 98 |

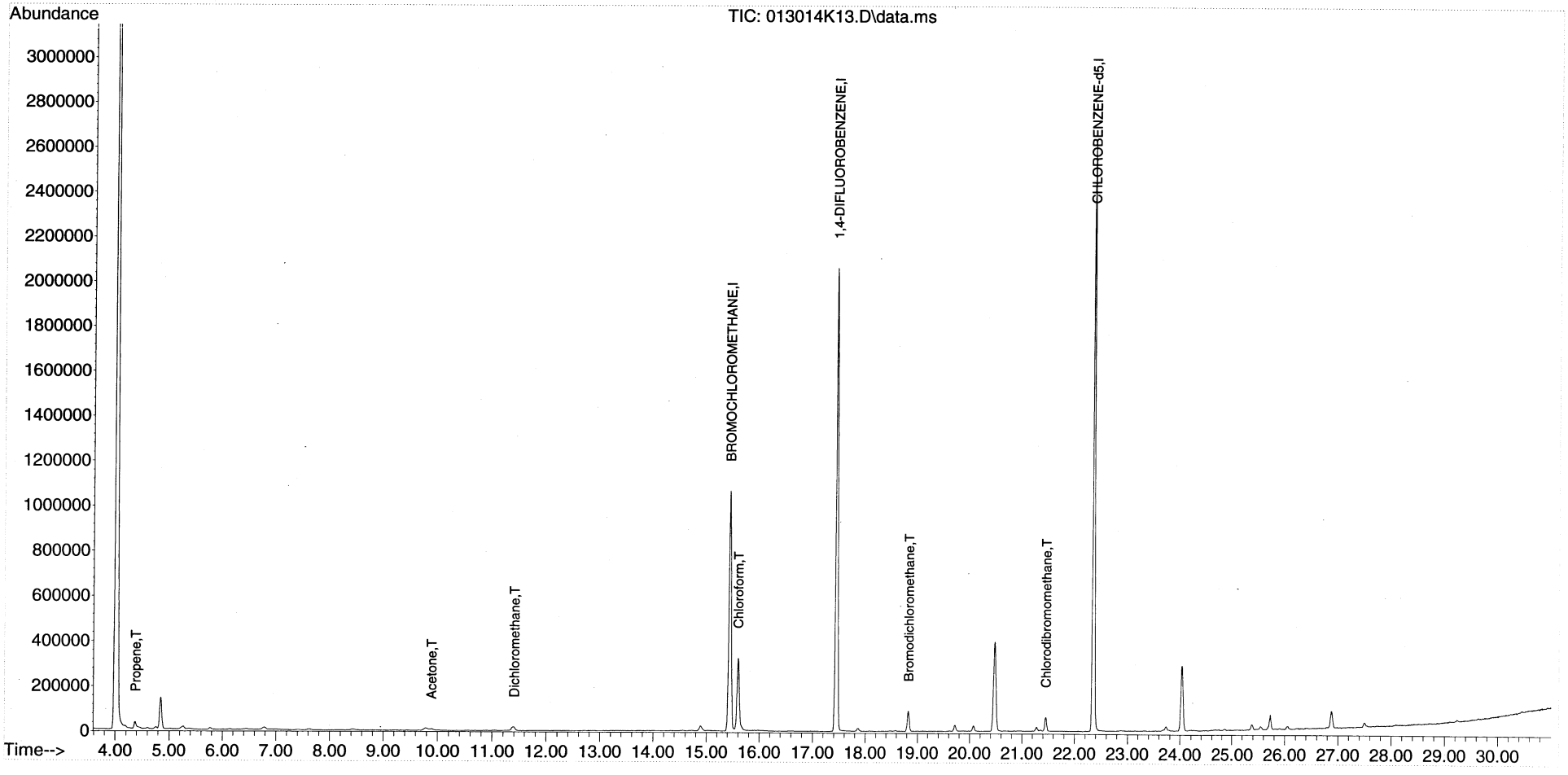
(#) = qualifier out of range (m) = manual integration (+) = signals summed

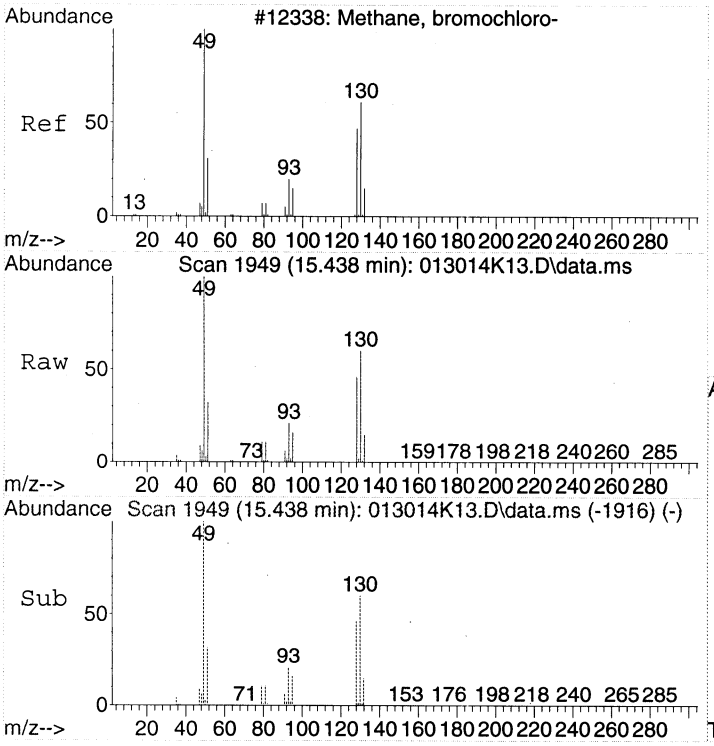
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K13.D
Acq On : 30 Jan 2014 22:20
Instrument: HP5973K
Operator : EM
Sample : 1401049-09RE1
Misc : 100mL MH09 Can 1095
ALS Vial : 41
Multiplier: 3.05

Quant Time: Jan 31 10:42:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

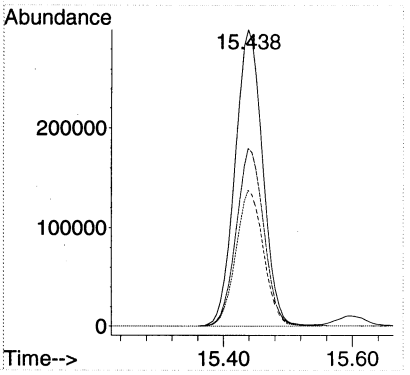


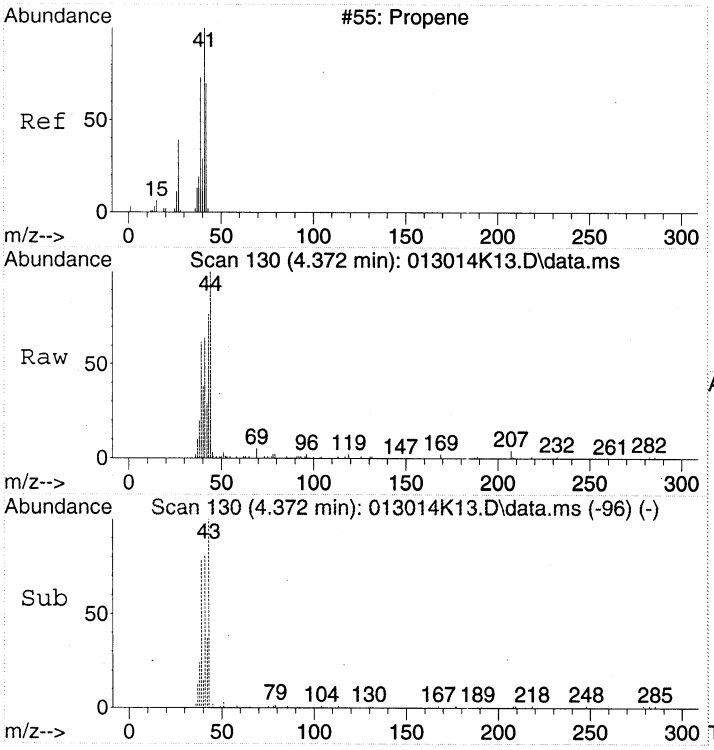



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 49 Resp: 897184

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 59.9 | 39.6 | 79.6 |
| 128 | 46.2 | 26.9 | 66.9 |

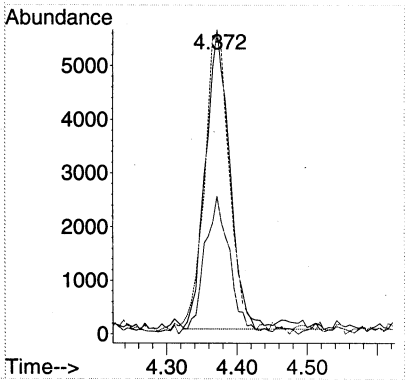


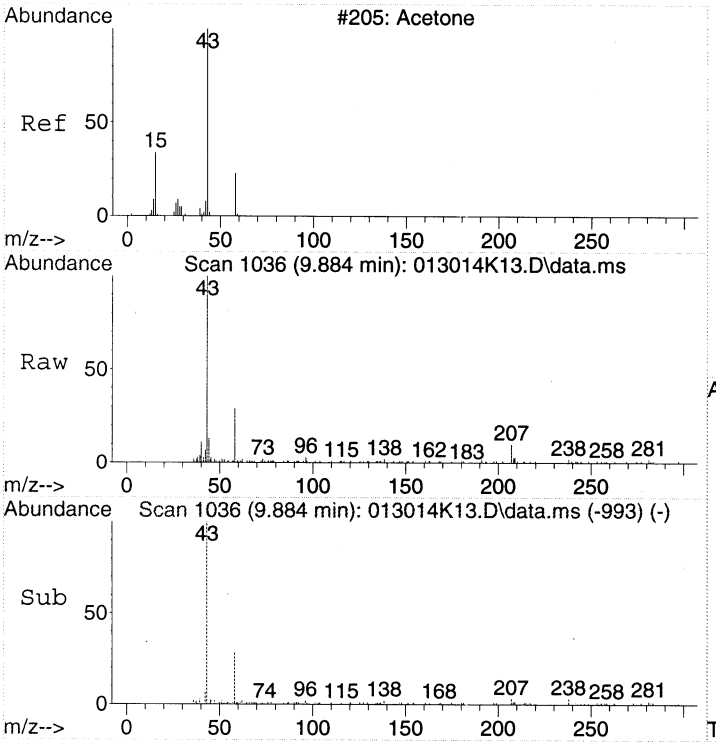




#2
Propene
Concen: 0.54 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 41 Resp: 13898

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 42 | 46.7 | 46.8 | 86.8# |
| 39 | 99.9 | 48.3 | 88.3# |

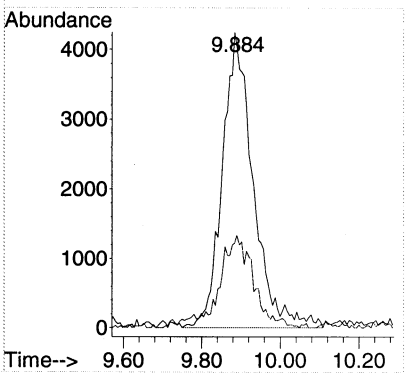


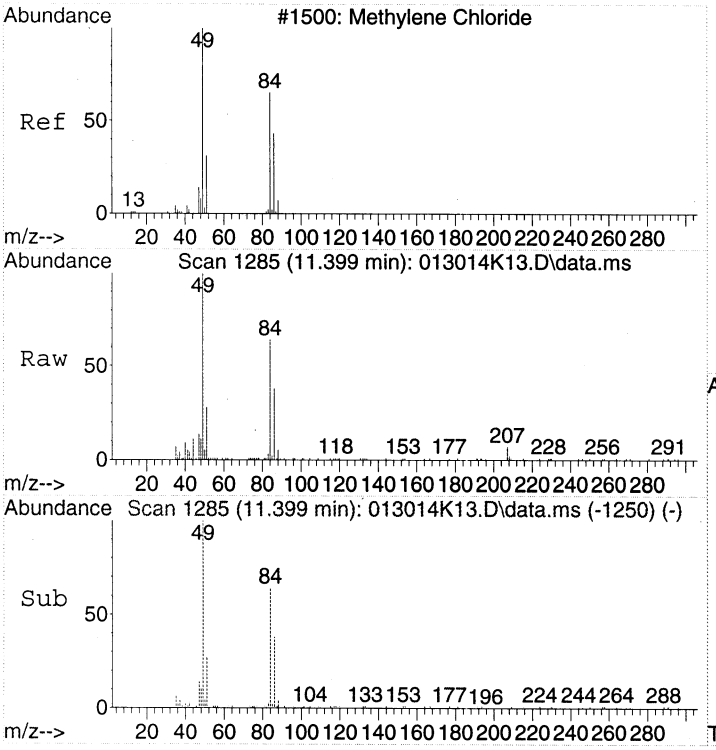



#14
Acetone
Concen: 0.55 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 43 Resp: 23236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 31.3 | 12.5 | 52.5 |

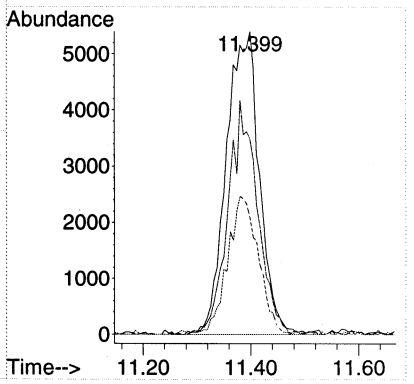


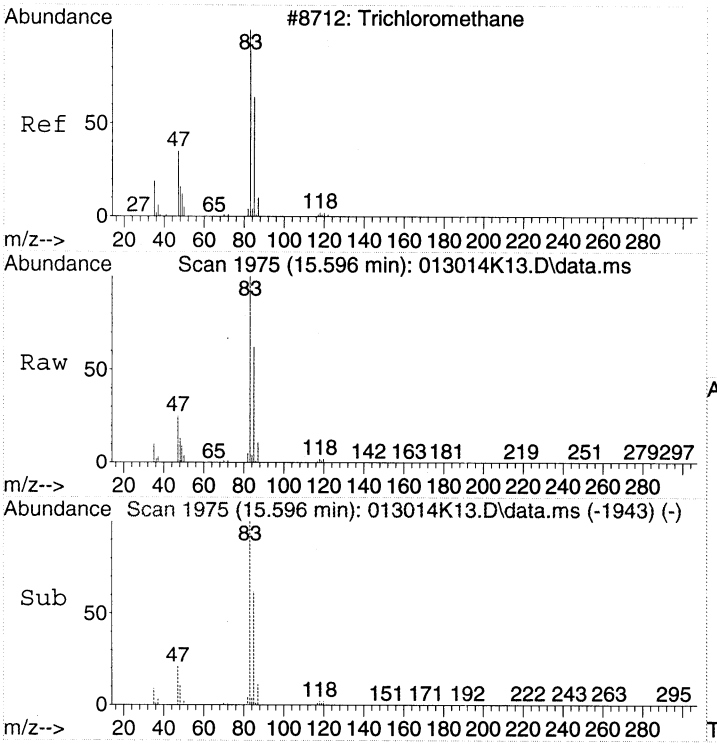




#18
Dichloromethane
Concen: 0.57 ppbv
RT: 11.399 min Scan# 1285
Delta R.T. 0.012 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 49 Resp: 23036

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 69.1 | 50.0 | 90.0 |
| 86 | 42.4 | 24.4 | 64.4 |

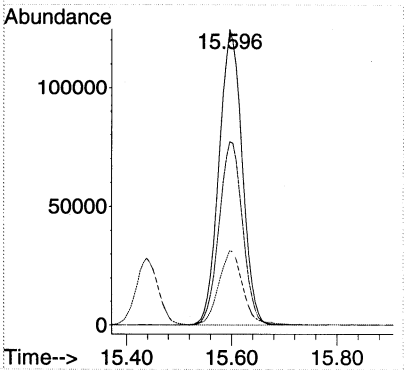


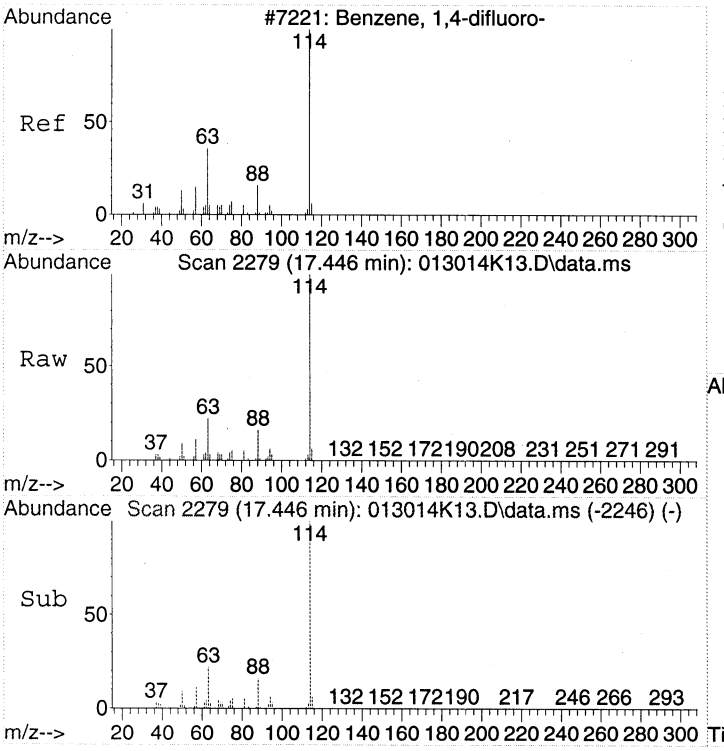



#28
Chloroform
Concen: 6.66 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 83 Resp: 381821

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 62.9 | 42.7 | 82.7 |
| 47 | 25.8 | 5.3 | 45.3 |

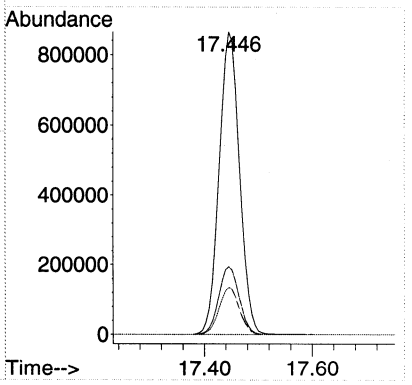


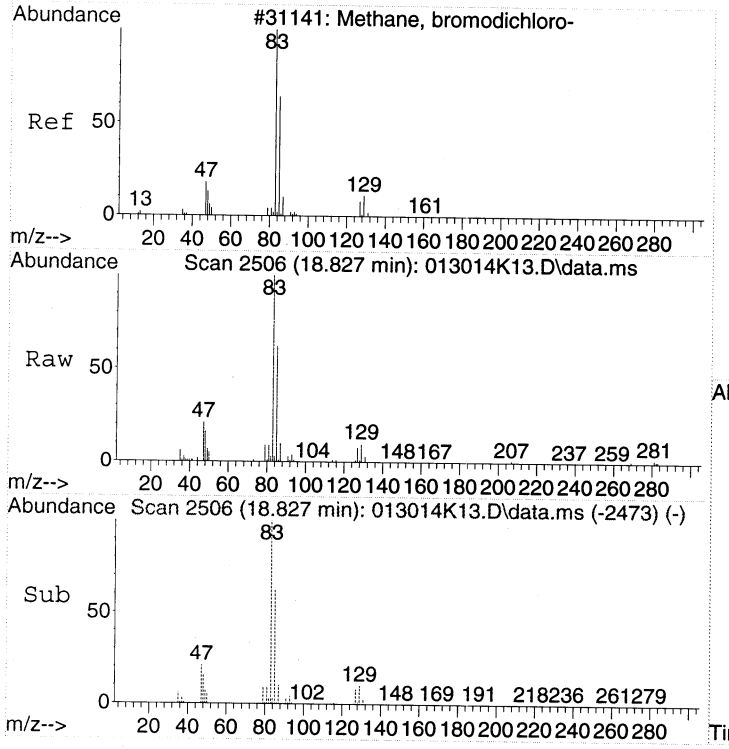




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion:114 Resp: 2273992

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.6 | 2.3 | 42.3 |
| 88 | 15.5 | 0.0 | 35.2 |

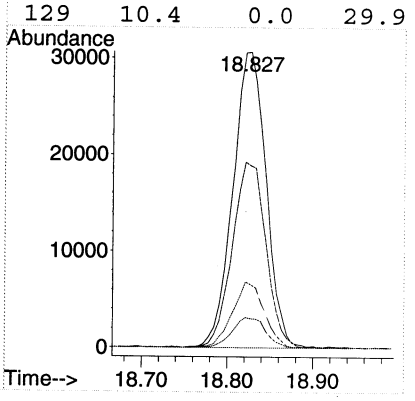


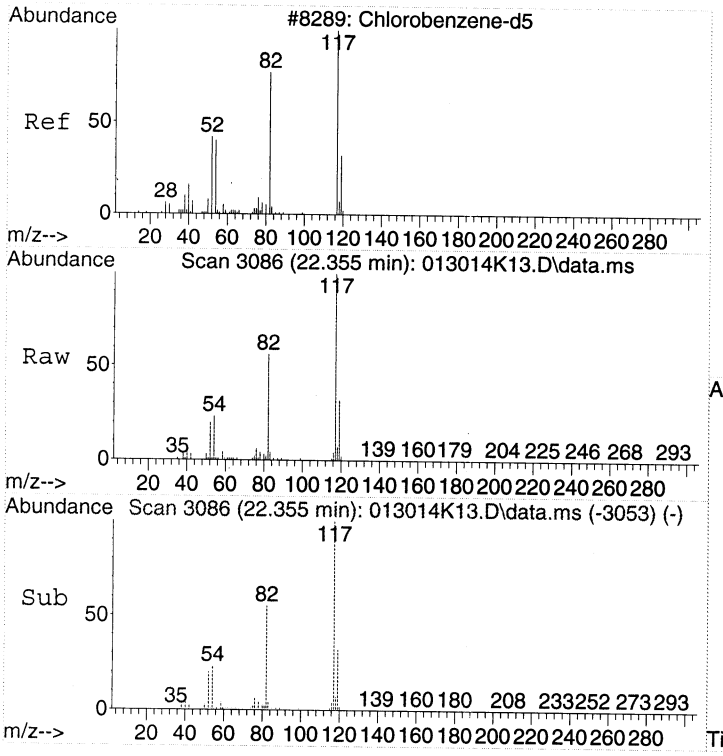



#40
Bromodichloromethane
Concen: 1.47 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion: 83 Resp: 82740

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.6 | 41.8 | 81.8 |
| 47 | 21.4 | 0.4 | 40.4 |
| 129 | 10.4 | 0.0 | 29.9 |

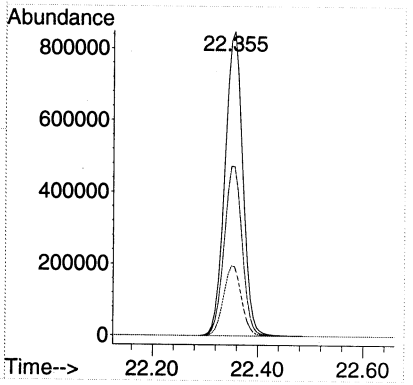


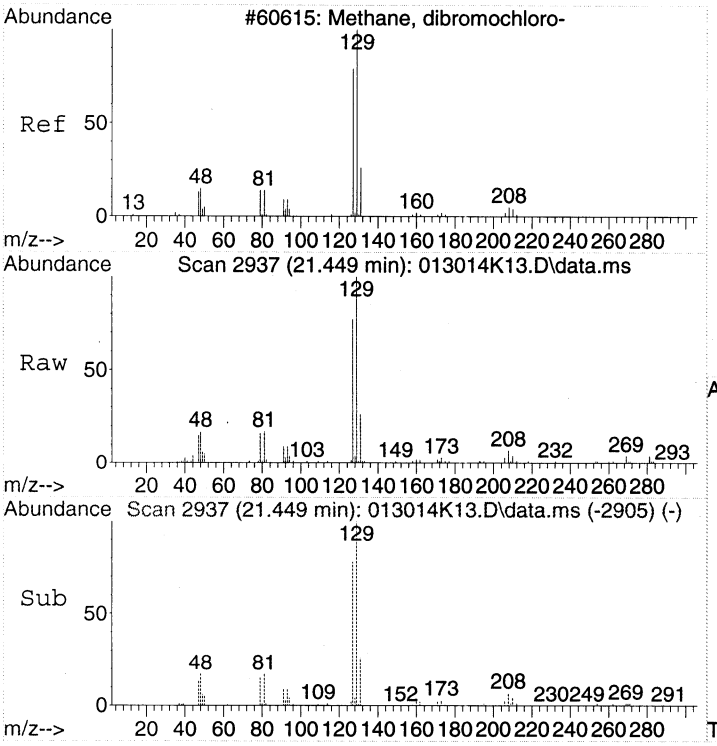




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion:117 Resp: 2005586

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.3 | 37.1 | 77.1 |
| 54 | 23.3 | 3.3 | 43.3 |

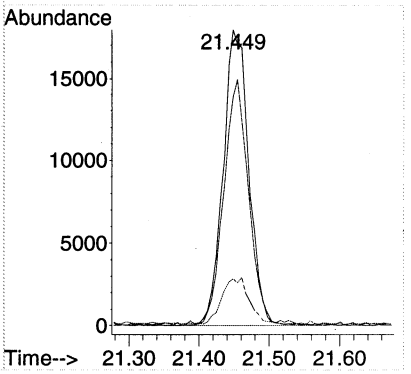





#49
Chlorodibromomethane
Concen: 0.92 ppbv
RT: 21.449 min Scan# 2937
Delta R.T. -0.006 min
Lab File: 013014K13.D
Acq: 30 Jan 2014 22:20

Tgt Ion:129 Resp: 45689

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 81.2 | 59.2 | 99.2 |
| 79 | 16.8 | 0.0 | 35.9 |



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K14.D
Acq On : 30 Jan 2014 23:07
Instrument: HP5973K
Operator : EM
Sample : 1401049-11RE1
Misc : 50mL MH11 Can 696
ALS Vial : 42
Multiplier: 3.57

Quant Time: Jan 31 10:42:23 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.438 | 49 | 900652 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.446 | 114 | 2211496 | 22.00 | ppbv | 0.00 |
| 43) CHLOROBENZENE-d5 | 22.355 | 117 | 1942125 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 18) Dichloromethane | 11.381 | 49 | 20074 | 0.49 | ppbv | 96 |
| 24) cis-1,2-Dichloroethene | 14.897 | 61 | 639728 | 15.28 | ppbv | 99 |
| 28) Chloroform | 15.596 | 83 | 223399 | 3.88 | ppbv | 98 |
| 37) Trichloroethene | 17.860 | 130 | 445093 | 13.22 | ppbv | 99 |
| 47) Tetrachloroethene | 20.926 | 166 | 111029 | 2.50 | ppbv | 99 |

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



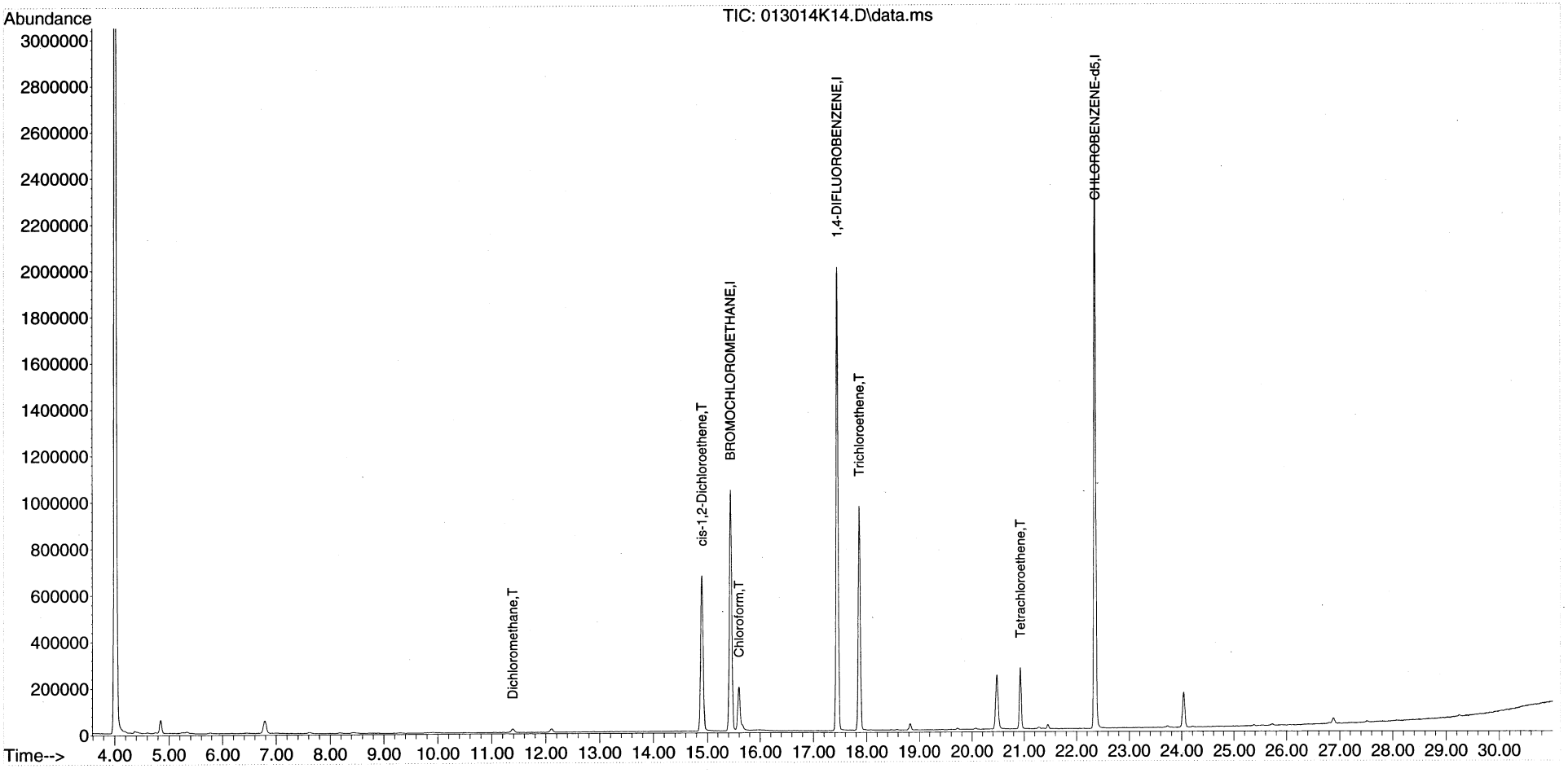
: 00018

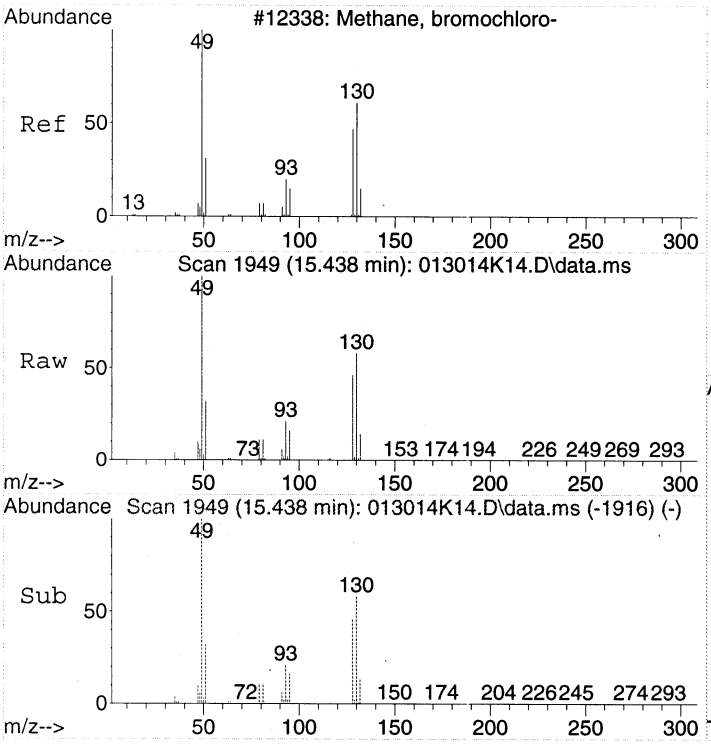
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\013014KA\
Data File : 013014K14.D
Acq On : 30 Jan 2014 23:07
Instrument: HP5973K
Operator : EM
Sample : 1401049-11RE1
Misc : 50mL MH11 Can 696
ALS Vial : 42
Multiplier: 3.57

Quant Time: Jan 31 10:42:23 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:013014KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\013014KAA.M

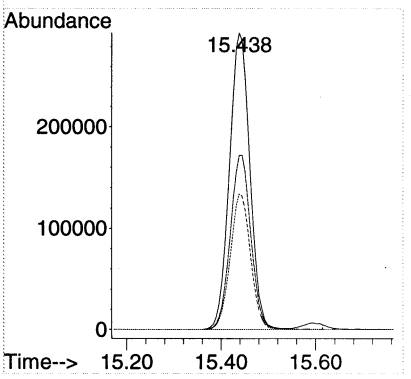


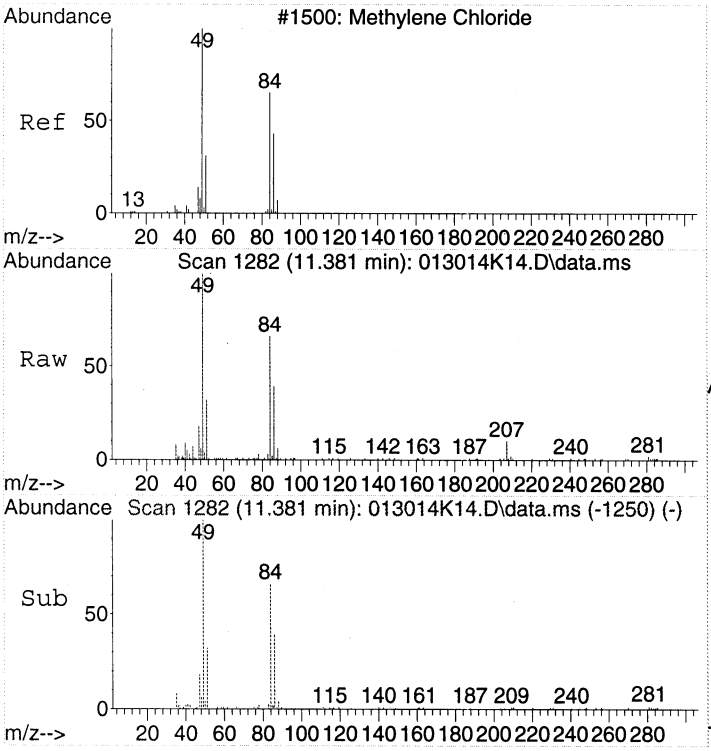



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion: 49 Resp: 900652

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 58.1 | 39.6 | 79.6 |
| 128 | 44.6 | 26.9 | 66.9 |

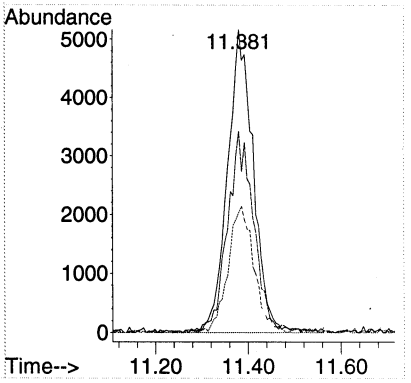


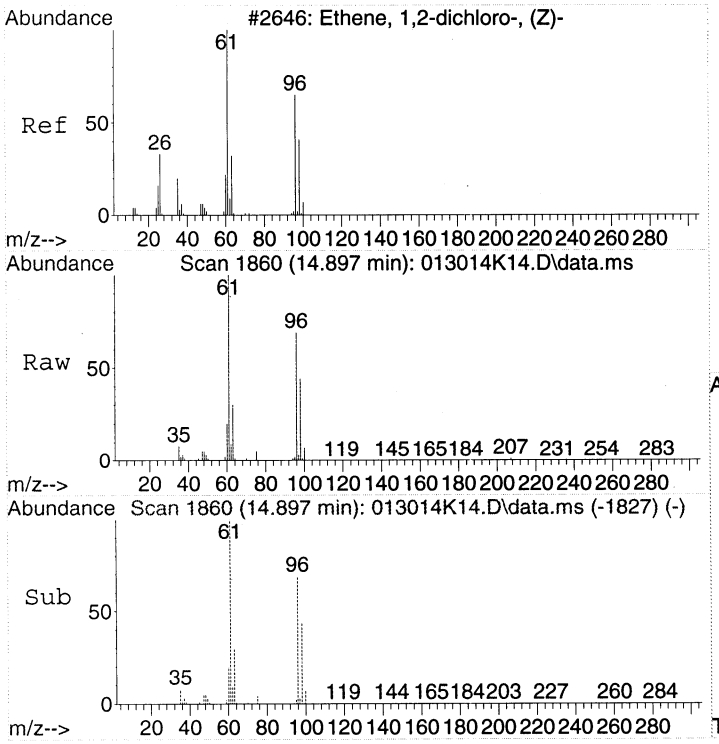




#18
Dichloromethane
Concen: 0.49 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion: 49 Resp: 20074

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 67.4 | 50.0 | 90.0 |
| 86 | 41.5 | 24.4 | 64.4 |

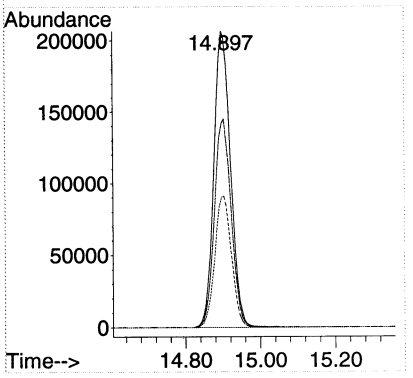


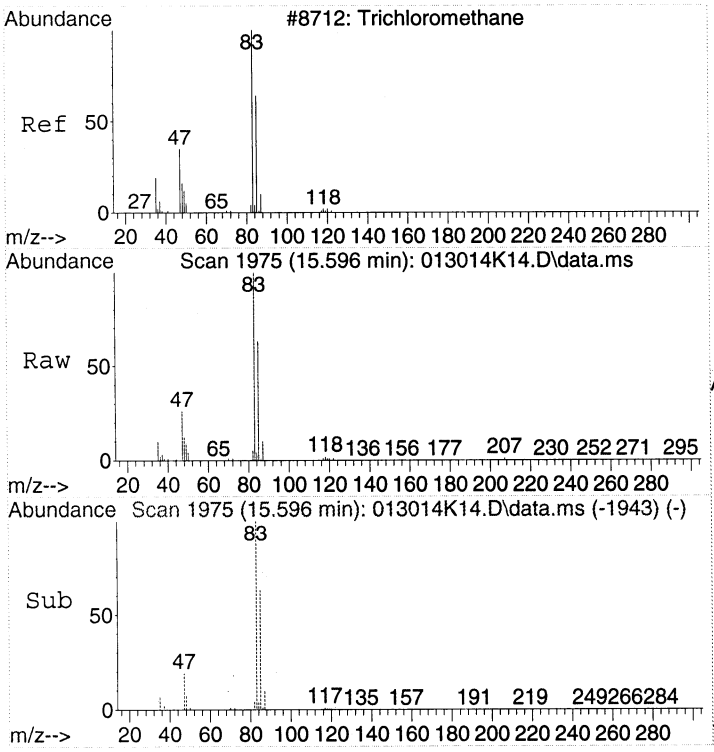



#24
cis-1,2-Dichloroethene
Concen: 15.28 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion: 61 Resp: 639728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 70.8 | 51.7 | 91.7 |
| 98 | 44.1 | 25.4 | 65.4 |

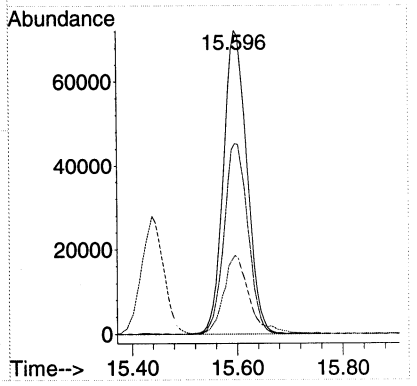


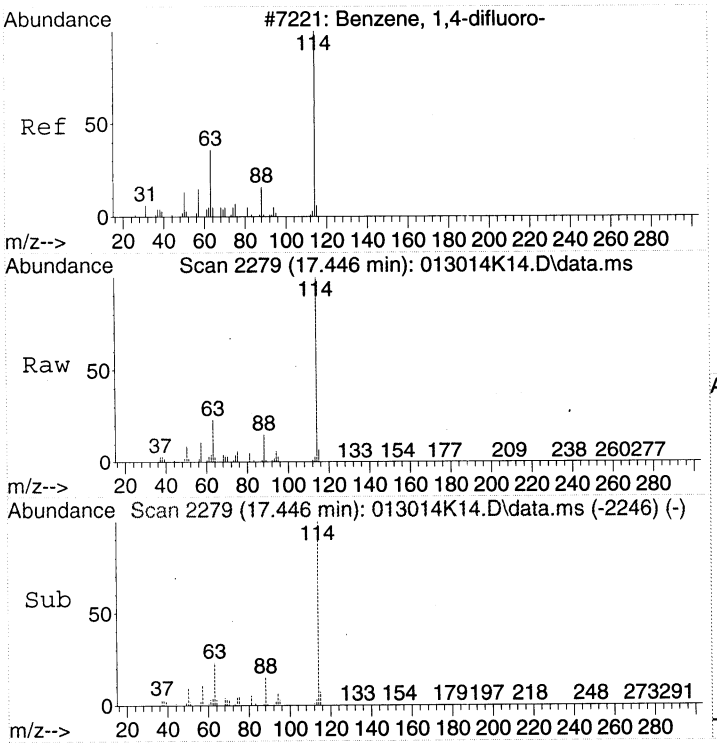




#28
Chloroform
Concen: 3.88 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion: 83 Resp: 223399

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.7 | 42.7 | 82.7 |
| 47 | 27.2 | 5.3 | 45.3 |

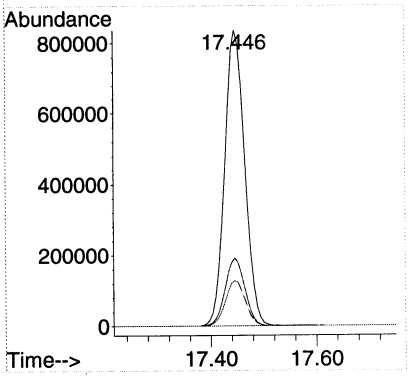


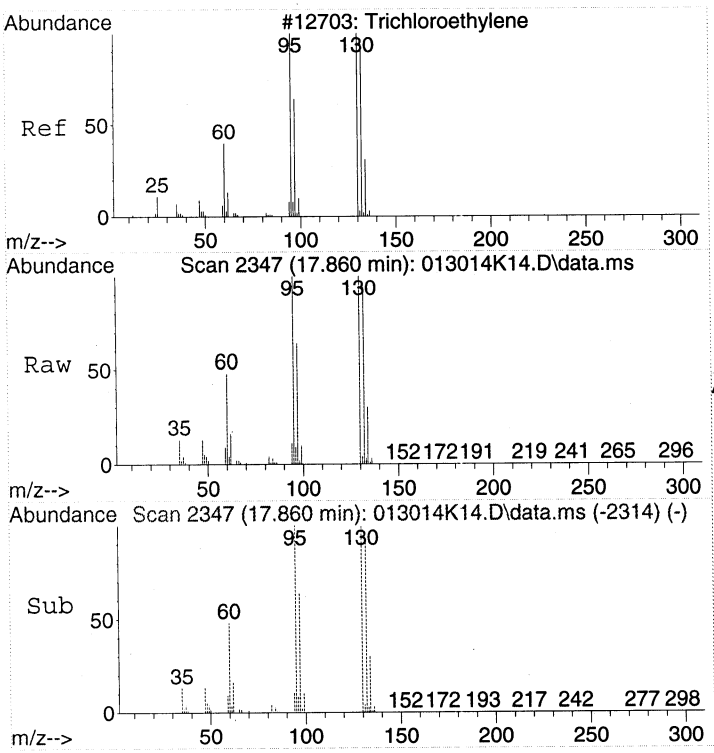



#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion:114 Resp: 2211496

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 22.7 | 2.3 | 42.3 |
| 88 | 15.4 | 0.0 | 35.2 |

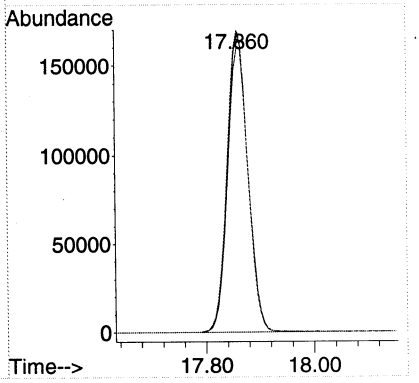


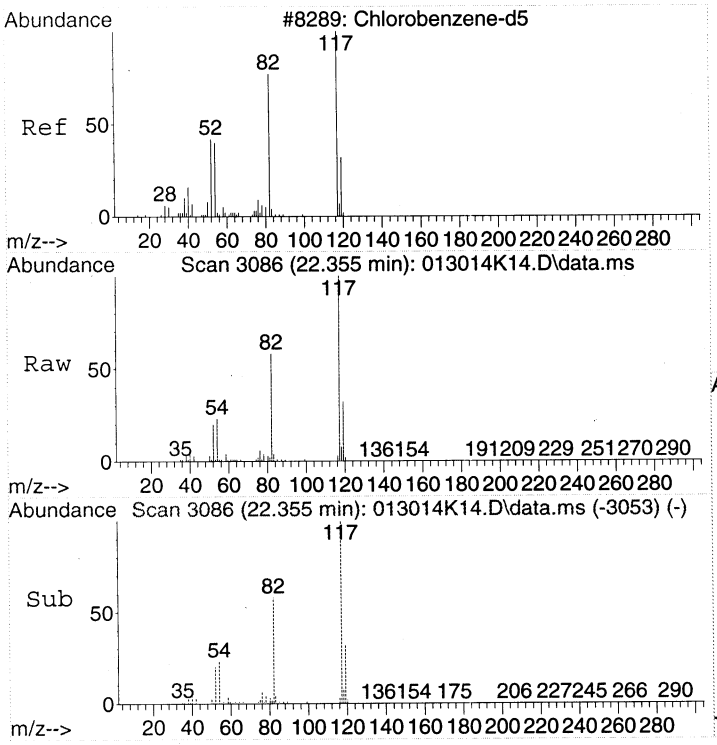




#37
Trichloroethene
Concen: 13.22 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion:130 Resp: 445093

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 132 | 97.1 | 78.9 | 118.9 |
| 95 | 101.6 | 82.3 | 122.3 |

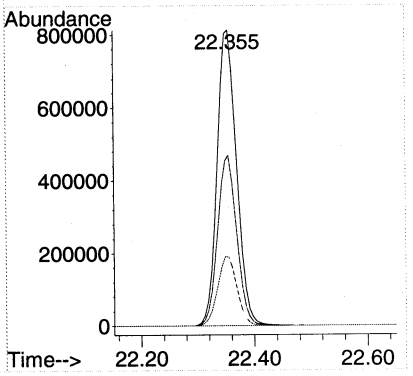


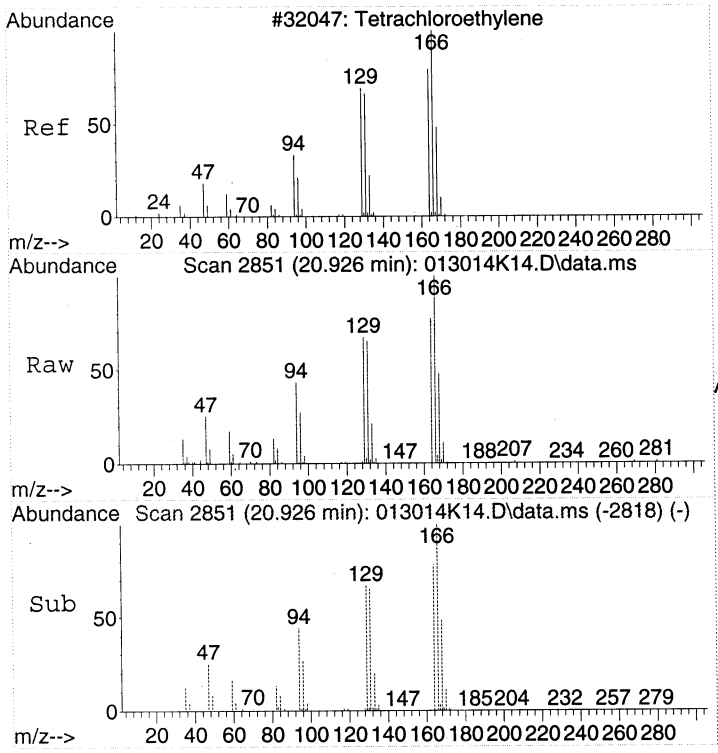



#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion:117 Resp: 1942125

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 56.8 | 37.1 | 77.1 |
| 54 | 23.5 | 3.3 | 43.3 |

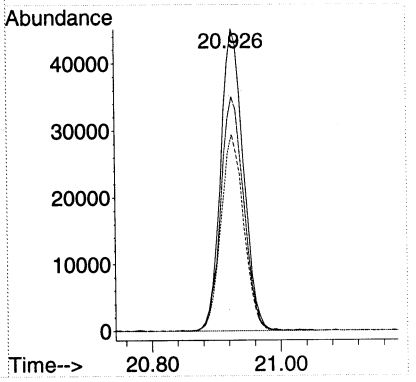



#47
Tetrachloroethene
Concen: 2.50 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 013014K14.D
Acq: 30 Jan 2014 23:07

Tgt Ion:166 Resp: 111029

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 164 | 78.3 | 59.4 | 99.4 |
| 131 | 65.3 | 44.3 | 84.3 |



# CANISTER

# CERTIFICATION

# DATA

# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | TO-15 | **Analyst Initial** | EM | **Reviewer Initial** | [illegible] | **Batch/ Sequence** | NA |
| **Instrument ID** | HP5973K | **Date Analyzed** | 8/8/13 | **Date** | 8/19/13 | **Chemstation Last Update** | 7/25/13 110448 |
| **Cases** | | | | **SDGs** | BLANK CERTIFICATION | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | ✓ | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| | ✓ | ✓ | QLS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | ✓ | IS Areas (SOP criteria met) |
| | ✓ | ✓ | LCS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | MS/MSD |
| ✓ | | | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| CRL2 | 080813K05 | 59% | 60-140% | | ✓ | ✓ | ✓ | Benzyl Chloride |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |

G:\USER\ESAT\1 Organic Group\daily review.doc

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\080813KAA.SEQ
Date: 08-15-2013
Time: 17:40:08
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Pos | Samp Vol. | Cal Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| PRIME | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 01:00 |
| BFB 1305026 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 02:00 |
| 10ppbv 1328170 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 03:00 |
| 10ppbv 1328170 | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 04:00 |
| 1.0ppbv 2K14019 | 1 | 2 | 30 | 0 | C:\Smart\Loop40.CTD | 05:00 |
| 1.0ppbv 1309037 | 1 | 3 | 30 | 0 | C:\Smart\Loop40.CTD | 06:00 |
| 1.0ppbv 1328170 | 3 | 3 | 20 | 0 | C:\Smart\TO15.CTD | 11:00 |
| BLANK CAN 656 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 899 | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 900 | 3 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1061 | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1091 | 3 | 10 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1098 | 3 | 11 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1102 | 3 | 12 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1108 | 4 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1110 | 4 | 2 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1114 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1115 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1117 | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1121 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1980 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1983 | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1987 | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1990 | 3 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1993 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 1998 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| BLANK CAN 2003 | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2013\080813KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 080813K01.D | 1. | 080813-TUN1 | BFB 1305026/IS 2K14020/10ppbv STD | 8 Aug 2013 13:29 |
| 2 | 32 | 080813K02.D | 1. | 080813-CCV1 | 10 ppbv 1328170 | 8 Aug 2013 14:18 |
| 3 | 32 | 080813K03.D | 1. | 080813-BS1 | 10 ppbv 1328170 | 8 Aug 2013 15:06 |
| 4 | 12 | 080813K04.D | 1. | 080813-CRL1 | 1.0 ppbv 2K14019 | 8 Aug 2013 15:56 |
| 5 | 13 | 080813K05.D | 1. | 080813-CRL2 | 1.0 ppbv 1309037 | 8 Aug 2013 16:46 |
| 6 | 33 | 080813K06.D | 1. | 080813-CRL3 | 1.0 ppbv 1328170 | 8 Aug 2013 17:32 |
| 7 | 36 | 080813K07.D | 1. | Blank Can 656 | Blank Can 656 | 8 Aug 2013 18:22 |
| 8 | 37 | 080813K08.D | 1. | Blank Can 899 | Blank Can 899 | 8 Aug 2013 19:12 |
| 9 | 38 | 080813K09.D | 1. | Blank Can 900 | Blank Can 900 | 8 Aug 2013 20:02 |
| 10 | 39 | 080813K10.D | 1. | Blank Can 1061 | Blank Can 1061 | 8 Aug 2013 20:52 |
| 11 | 10 | 080813K11.D | 1. | Blank Can 1091 | Blank Can 1091 | 8 Aug 2013 21:42 |
| 12 | 11 | 080813K12.D | 1. | Blank Can 1098 | Blank Can 1098 | 8 Aug 2013 22:32 |
| 13 | 12 | 080813K13.D | 1. | Blank Can 1102 | Blank Can 1102 | 8 Aug 2013 23:22 |
| 14 | 41 | 080813K14.D | 1. | Blank Can 1108 | Blank Can 1108 | 9 Aug 2013 00:13 |
| 15 | 42 | 080813K15.D | 1. | Blank Can 1110 | Blank Can 1110 | 9 Aug 2013 01:03 |
| 16 | 43 | 080813K16.D | 1. | Blank Can 1114 | Blank Can 1114 | 9 Aug 2013 01:53 |
| 17 | 44 | 080813K17.D | 1. | Blank Can 1115 | Blank Can 1115 | 9 Aug 2013 02:43 |
| 18 | 45 | 080813K18.D | 1. | Blank Can 1117 | Blank Can 1117 | 9 Aug 2013 03:33 |
| 19 | 46 | 080813K19.D | 1. | Blank Can 1121 | Blank Can 1121 | 9 Aug 2013 04:23 |
| 20 | 47 | 080813K20.D | 1. | Blank Can 1980 | Blank Can 1980 | 9 Aug 2013 05:13 |
| 21 | 48 | 080813K21.D | 1. | Blank Can 1983 | Blank Can 1983 | 9 Aug 2013 06:03 |
| 22 | 49 | 080813K22.D | 1. | Blank Can 1987 | Blank Can 1987 | 9 Aug 2013 06:53 |
| 23 | 34 | 080813K23.D | 1. | Blank Can 1990 | Blank Can 1990 | 9 Aug 2013 07:43 |
| 24 | 35 | 080813K24.D | 1. | Blank Can 1993 | Blank Can 1993 | 9 Aug 2013 08:34 |
| 25 | 36 | 080813K25.D | 1. | Blank Can 1998 | Blank Can 1998 | 9 Aug 2013 09:24 |
| 26 | 37 | 080813K26.D | 1. | Blank Can 2003 | Blank Can 2003 | 9 Aug 2013 10:16 |
| 27 | 13 | 080813K27.D | 1. | SubsetStd | 1.0 ppbv 2C13023 Restek exp 3/1/13 | 9 Aug 2013 11:08 |
| 28 | 33 | 080813K28.D | 1. | AddtionalStd | 1.0 ppbv 2H31002 Restek exp 8/16/13 | 9 Aug 2013 11:54 |
| 29 | 13 | 080813K29.D | 1. | SubsetStd | 1.0 ppbv 2C13023 Restek exp 3/1/13 | 9 Aug 2013 12:50 |
| 30 | 13 | 080813K30.D | 1. | SubsetStd | 1.0 ppbv 2C13023 Restek exp 3/1/13 | 9 Aug 2013 13:39 |
| 31 | 32 | 999913K01.D | 1. | 080813-PRM1 | BFB 1305026/IS 2K14020/10ppbv STD | 8 Aug 2013 12:40 |

Nu



09 Aug 2013 17:15

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2013\080813KA\080813K01.D
Tune Time : 8 Aug 2013 13:29

Daily Calibration File : C:\msdchem\1\DATA\2013\080813KA\080813K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| | | 821793 | 4431850 | 4140300 |
| 080813K02.D | 080813-CCV/ | 821793 | 4431848 | 4140304 |
| 080813K03.D | 080813-BS1 | 783024 | 4058089 | 3667736 |
| 080813K04.D | 080813-CRL/ | 888153 | 4783652 | 4491802 |
| 080813K05.D | 080813-CRL2 | 888502 | 4749308 | 4468653 |
| 080813K06.D | 080813-CRL3 | 756088 | 3982334 | 3580665 |
| 080813K07.D | Blank Can 656 | 767626 | 3961389 | 3616914 |
| 080813K08.D | Blank Can 899 | 751185 | 3844086 | 3515073 |
| 080813K09.D | Blank Can 900 | 725860 | 3578219 | 3292645 |
| 080813K10.D | Blank Can /061 | 743345 | 3820812 | 3536969 |
| 080813K11.D | Blank Can /091 | 745791 | 3766933 | 3475113 |
| 080813K12.D | Blank Can /098 | 738818 | 3742535 | 3443492 |
| 080813K13.D | Blank Can /102 | 736225 | 3623429 | 3359731 |
| 080813K14.D | Blank Can /108 | 712602 | 3459398 | 3157505 |
| 080813K15.D | Blank Can /110 | 724422 | 3630727 | 3288899 |
| 080813K16.D | Blank Can /114 | 733124 | 3634429 | 3332486 |
| 080813K17.D | Blank Can /115 | 733447 | 3574687 | 3240788 |
| 080813K18.D | Blank Can /117 | 714913 | 3540958 | 3280025 |
| 080813K19.D | Blank Can /121 | 727488 | 3682626 | 3399119 |
| 080813K20.D | Blank Can /980 | 714788 | 3391399 | 3089285 |

| | | | | | |
|---|---|---|---|---|---|
| 080813K21.D | Blank Can | 1983 | 723134 | 3487797 | 3220936 |
| 080813K22.D | Blank Can | 1987 | 725048 | 3488275 | 3194385 |
| 080813K23.D | Blank Can | 1990 | 713335 | 3433143 | 3175179 |
| 080813K24.D | Blank Can | 1993 | 721756 | 3609875 | 3322668 |
| 080813K25.D | Blank Can | 1998 | 713287 | 3484946 | 3258461 |
| 080813K26.D | Blank Can | 2003 | 717710 | 3472240 | 3218246 |

(fails) - fails 24hr time check  * - fails criteria

Created: Fri Aug 09 17:21:30 2013  HP5973K

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 080813KAA.M
Title : TO15
Last Update : Thu Jul 25 11:04:48 2013
Response Via : Initial Calibration

Calibration Files
1 =072413K07.D 2 =072413K08.D 5 =072413K09.D 10 =072413K14.D 15 =072413K15.D
20 =072413K16.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.674 | 0.564 | 0.426 | 0.585 | 0.572 | 0.559 | 0.563 | 14.17 |
| 3) | T | Dichlorodifluo... | 3.191 | 2.757 | 2.216 | 3.134 | 3.007 | 3.013 | 2.886 | 12.50 |
| 4) | T | 1,2-Dichlorote... | 3.568 | 3.151 | 2.509 | 3.554 | 3.442 | 3.497 | 3.287 | 12.49 |
| 5) | T | Chloromethane | 0.826 | 0.689 | 0.545 | 0.782 | 0.752 | 0.734 | 0.721 | 13.59 |
| 6) | T | Vinyl chloride | 1.021 | 0.873 | 0.696 | 0.988 | 0.969 | 0.972 | 0.920 | 13.08 |
| 7) | T | 1,3-Butadiene | 0.744 | 0.641 | 0.499 | 0.715 | 0.684 | 0.677 | 0.660 | 13.07 |
| 8) | T | Bromomethane | 1.195 | 1.034 | 0.848 | 1.171 | 1.147 | 1.156 | 1.092 | 12.08 |
| 9) | T | Chloroethane | 0.524 | 0.444 | 0.359 | 0.499 | 0.485 | 0.482 | 0.465 | 12.56 |
| 10) | T | Bromoethene | 1.227 | 1.060 | 0.831 | 1.139 | 1.100 | 1.107 | 1.077 | 12.34 |
| 11) | T | Trichlorofluor... | 2.904 | 2.561 | 2.043 | 2.858 | 2.736 | 2.774 | 2.646 | 12.03 |
| 12) | T | 1,1,2-Trichlor... | 2.248 | 1.963 | 1.523 | 2.175 | 2.089 | 2.150 | 2.025 | 13.02 |
| 13) | T | 1,1-Dichloroet... | 1.496 | 1.317 | 1.038 | 1.459 | 1.427 | 1.405 | 1.357 | 12.36 |
| 14) | T | Acetone | 1.087 | 0.914 | 0.742 | 1.033 | 1.005 | 0.987 | 0.961 | 12.65 |
| 15) | T | Carbon disulfide | 2.750 | 2.441 | 1.891 | 2.658 | 2.546 | 2.569 | 2.476 | 12.31 |
| 16) | T | 2-Propanol | 1.142 | 0.979 | 0.823 | 1.112 | 1.091 | 1.083 | 1.038 | 11.46 |
| 17) | T | Allyl chloride | 0.910 | 0.726 | 0.600 | 0.835 | 0.823 | 0.809 | 0.784 | 13.72 |
| 18) | T | Dichloromethane | 1.269 | 0.960 | 0.705 | 0.958 | 0.925 | 0.901 | 0.953 | 19.06 |
| 19) | T | tert-Butyl met... | 2.924 | 2.470 | 1.971 | 2.716 | 2.636 | 2.628 | 2.557 | 12.64 |
| 20) | T | trans-1,2-Dich... | 1.272 | 1.074 | 0.856 | 1.212 | 1.162 | 1.143 | 1.120 | 12.98 |
| 21) | T | Hexane | 1.454 | 1.281 | 1.034 | 1.453 | 1.389 | 1.387 | 1.333 | 11.96 |
| 22) | T | 1,1-Dichloroet... | 1.846 | 1.583 | 1.246 | 1.761 | 1.732 | 1.717 | 1.648 | 13.02 |
| 23) | T | Vinyl acetate | 1.690 | 1.508 | 1.254 | 1.806 | 1.762 | 1.719 | 1.623 | 12.81 |
| 24) | T | cis-1,2-Dichlo... | 1.258 | 1.121 | 0.886 | 1.308 | 1.268 | 1.265 | 1.184 | 13.48 |
| 25) | T | 2-Butanone (MEK) | 1.432 | 1.224 | 1.089 | 1.274 | 1.246 | 1.369 | 1.272 | 9.40 |
| 26) | T | Ethyl acetate | 1.785 | 1.534 | 1.118 | 1.817 | 1.733 | 1.561 | 1.591 | 16.31 |
| 27) | T | Tetrahydrofuran | 0.868 | 0.740 | 0.624 | 0.816 | 0.802 | 0.786 | 0.773 | 10.89 |
| 28) | T | Chloroform | 2.303 | 2.027 | 1.594 | 2.285 | 2.196 | 2.207 | 2.102 | 12.72 |
| 29) | T | Cyclohexane | 1.531 | 1.266 | 1.030 | 1.415 | 1.377 | 1.356 | 1.329 | 12.81 |
| 30) | T | 1,1,1-Trichlor... | 2.450 | 2.146 | 1.718 | 2.485 | 2.399 | 2.470 | 2.278 | 13.24 |
| 31) | T | Carbon tetrach... | 2.536 | 2.221 | 1.809 | 2.639 | 2.605 | 2.683 | 2.415 | 14.07 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.701 | 0.598 | 0.483 | 0.702 | 0.691 | 0.671 | 0.641 | 13.53 |
| 34) | T | 2,2,4-Trimethy... | 0.864 | 0.750 | 0.618 | 0.856 | 0.837 | 0.806 | 0.789 | 11.81 |
| 35) | T | 1,2-Dichloroet... | 0.238 | 0.204 | 0.168 | 0.242 | 0.235 | 0.226 | 0.219 | 13.02 |
| 36) | T | Heptane | 0.255 | 0.222 | 0.185 | 0.251 | 0.246 | 0.232 | 0.232 | 11.31 |
| 37) | T | Trichloroethene | 0.382 | 0.323 | 0.268 | 0.389 | 0.380 | 0.382 | 0.354 | 13.73 |
| 38) | T | 1,2-Dichloropr... | 0.231 | 0.189 | 0.155 | 0.227 | 0.223 | 0.216 | 0.207 | 14.23 |
| 39) | T | 2,3-dichloro-1... | 0.412 | 0.339 | 0.303 | 0.324 | 0.321 | 0.315 | 0.336 | 11.71 |
| 40) | T | 1,4-Dioxane | 0.164 | 0.143 | 0.121 | 0.130 | 0.130 | 0.127 | 0.136 | 11.38 |
| 41) | T | Bromodichlorom... | 0.451 | 0.386 | 0.316 | 0.454 | 0.451 | 0.439 | 0.416 | 13.26 |
| 42) | T | cis-1,3-Dichlo... | 0.349 | 0.304 | 0.251 | 0.368 | 0.364 | 0.355 | 0.332 | 13.81 |
| 43) | T | 4-Methyl-2-pen... | 0.351 | 0.312 | 0.260 | 0.316 | 0.306 | 0.289 | 0.306 | 9.87 |
| 44) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 45) | T | Toluene | 1.039 | 0.861 | 0.716 | 1.045 | 1.021 | 1.014 | 0.949 | 14.03 |
| 46) | T | trans-1,3-Dich... | 0.354 | 0.307 | 0.252 | 0.384 | 0.384 | 0.368 | 0.342 | 15.31 |
| 47) | T | 1,1,2-Trichlor... | 0.346 | 0.287 | 0.243 | 0.353 | 0.348 | 0.343 | 0.320 | 14.11 |
| 48) | T | Tetrachloroethene | 0.525 | 0.449 | 0.373 | 0.554 | 0.553 | 0.565 | 0.503 | 15.24 |
| 49) | T | 1,3-Dichloropr... | 0.526 | 0.419 | 0.370 | 0.405 | 0.399 | 0.388 | 0.418 | 13.26 |
| 50) | T | 2-Hexanone | 0.348 | 0.309 | 0.255 | 0.316 | 0.310 | 0.295 | 0.306 | 9.86 |
| 51) | T | Chlorodibromom... | 0.588 | 0.527 | 0.432 | 0.649 | 0.652 | 0.655 | 0.584 | 15.36 |
| 52) | T | 1,2-Dibromoeth... | 0.518 | 0.444 | 0.377 | 0.545 | 0.541 | 0.539 | 0.494 | 13.93 |
| 53) | T | Chlorobenzene | 0.908 | 0.762 | 0.637 | 0.903 | 0.879 | 0.874 | 0.827 | 12.97 |
| 54) | T | Ethylbenzene | 1.319 | 1.133 | 0.949 | 1.342 | 1.316 | 1.315 | 1.229 | 12.79 |
| 55) | T | m&p-Xylene | 1.002 | 0.878 | 0.742 | 1.058 | 1.070 | 1.074 | 0.971 | 13.84 |
| 56) | T | o-Xylene | 1.024 | 0.891 | 0.765 | 1.061 | 1.056 | 1.051 | 0.975 | 12.44 |

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 080813KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | Styrene | 0.901 | 0.791 | 0.680 | 0.966 | 0.968 | 0.979 | 0.881 | 13.76 |
| 58) | T | Bromoform | 0.535 | 0.475 | 0.398 | 0.623 | 0.630 | 0.649 | 0.552 | 18.21 |
| 59) | T | 1,1,2,2-Tetrac... | 0.782 | 0.654 | 0.551 | 0.754 | 0.751 | 0.738 | 0.705 | 12.34 |
| 60) | T | 1,2,3-Trichlor... | 0.613 | 0.484 | 0.443 | 0.490 | 0.484 | 0.475 | 0.498 | 11.75 |
| 61) | T | 4-Ethyltoluene | 1.563 | 1.404 | 1.153 | 1.516 | 1.509 | 1.535 | 1.447 | 10.63 |
| 62) | T | 1,3,5-Trimethy... | 1.339 | 1.180 | 1.016 | 1.334 | 1.340 | 1.376 | 1.264 | 11.05 |
| 63) | T | 1,2,4-Trimethy... | 1.337 | 1.187 | 1.027 | 1.315 | 1.321 | 1.354 | 1.257 | 10.12 |
| 64) | T | 1,3-Dichlorobe... | 1.113 | 0.980 | 0.847 | 1.096 | 1.094 | 1.118 | 1.041 | 10.38 |
| 65) | T | 1,4-Dichlorobe... | 1.086 | 0.962 | 0.829 | 1.086 | 1.082 | 1.120 | 1.027 | 10.84 |
| 66) | T | Benzyl chloride | 0.896 | 0.850 | 0.710 | 0.981 | 0.993 | 0.996 | 0.904 | 12.44 |
| 67) | T | 1,2-Dichlorobe... | 1.063 | 0.920 | 0.790 | 1.005 | 1.011 | 1.027 | 0.969 | 10.30 |
| 68) | T | 1,2-Dibromo-3-... | 0.523 | 0.413 | 0.405 | 0.464 | 0.469 | 0.482 | 0.459 | 9.63 |
| 69) | T | 1,2,4-Trichlor... | 0.898 | 0.783 | 0.639 | 0.803 | 0.811 | 0.854 | 0.798 | 11.03 |
| 70) | T | Hexachlorobuta... | 0.784 | 0.712 | 0.595 | 0.573 | 0.545 | 0.568 | 0.629 | 15.22 |

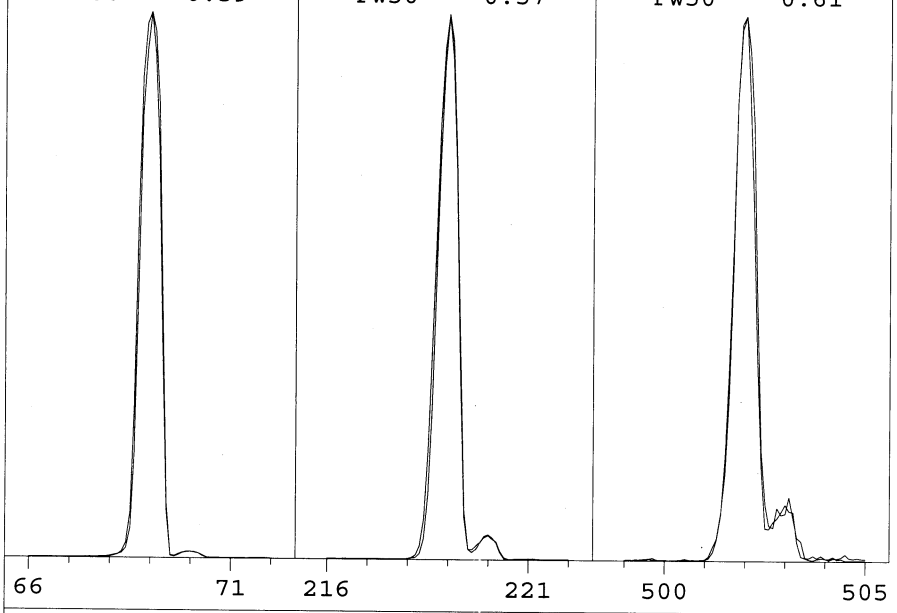
(#) = Out of Range

5973N

Thu Aug 08 11:25:32 2013
C:\msdchem\1\5973N\BFB080813KA.u

Instrument: HP5973K
US03960556

| Mass | 69.00 | Mass | 219.00 | Mass | 502.00 |
|---|---|---|---|---|---|
| Ab | 1034274 | Ab | 298394 | Ab | 30083 |
| Pw50 | 0.59 | Pw50 | 0.57 | Pw50 | 0.61 |

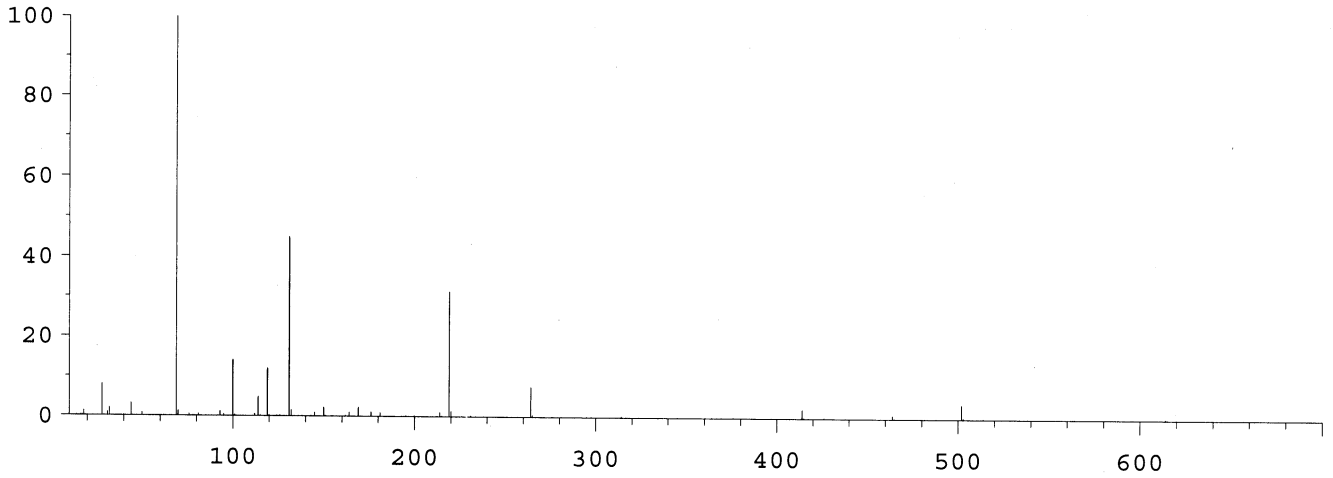



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 107 |
| | | MassOffs | -9 |
| Emission | 34.6 | AmuGain | 1983 |
| EIEnrgy | 69.9 | AmuOffs | 124 |
| Filament | 1 | Wid219 | -0.014 |
| | | DC Pol | Pos |
| Repeller | 19.90 | | |
| IonFcus | 48.4 | HEDEnab | On |
| EntLens | 0.0 | EMVolts | 2000 |
| EntOffs | Var | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
337 peaks Base: 69.00 Abundance: 8728966




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.00 | 872896 | 100.00 | 70.00 | 11165 | 1.28 |
| 219.00 | 272704 | 31.24 | 220.00 | 11644 | 4.27 |
| 501.90 | 30784 | 3.53 | 502.90 | 2611 | 8.48 |

Air/Water Check: H20~0.84% N2~7.92% O2~2.04% CO2~0.67% N2/H2O~946.73%

Printer problem
em 8/8/13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 999913K01.D
Acq On : 8 Aug 2013 12:40
Instrument: HP5973K
Operator : EM
Sample : 080813-PRM1
Misc : BFB 1305026/IS 2K14020/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:35:40 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

NW

Em 8/8/13

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 693036 | 20.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 3692453 | 21.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2845881 | 21.60 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.092 | 41 | 597982 | 30.63 | ppbv | | 98 |
| 3) Dichlorodifluoromethane | 4.183 | 85 | 2707019 | 27.07 | ppbv | | 98 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 2875422 | 25.25 | ppbv | | 87 |
| 5) Chloromethane | 4.707 | 50 | 658632 | 26.36 | ppbv | | 99 |
| 6) Vinyl chloride | 5.017 | 62 | 842507 | 26.43 | ppbv | | 98 |
| 7) 1,3-Butadiene | 5.114 | 54 | 578580 | 25.30 | ppbv | | 93 |
| 8) Bromomethane | 6.002 | 94 | 801102 | 21.18 | ppbv | | 98 |
| 9) Chloroethane | 6.319 | 64 | 342651 | 21.25 | ppbv | | 99 |
| 10) Bromoethene | 6.872 | 106 | 651631 | 17.45 | ppbv | | 99 |
| 11) Trichlorofluoromethane | 7.006 | 101 | 1736849 | 18.94 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.740 | 151 | 874118 | 12.46 | ppbv | | 87 |
| 13) 1,1-Dichloroethene | 8.819 | 61 | 692334 | 14.72 | ppbv | | 92 |
| 14) Acetone | 9.324 | 43 | 564278 | 16.94 | ppbv | | 96 |
| 15) Carbon disulfide | 9.507 | 76 | 1254264 | 14.62 | ppbv | | 98 |
| 16) 2-Propanol | 9.963 | 45 | 120708 | 3.35 | ppbv | # | 16 |
| 17) Allyl chloride | 10.364 | 41 | 187024 | 6.89 | ppbv | | 80 |
| 18) Dichloromethane | 10.930 | 49 | 431973 | 13.08 | ppbv | | 91 |
| 19) tert-Butyl methyl ethe... | 11.660 | 73 | 383953 | 4.33 | ppbv | | 92 |
| 20) trans-1,2-Dichloroethene | 11.678 | 61 | 498423 | 12.84 | ppbv | | 91 |
| 21) Hexane | 12.311 | 57 | 591649 | 12.81 | ppbv | | 94 |
| 22) 1,1-Dichloroethane | 13.066 | 63 | 477416 | 8.36 | ppbv | | 99 |
| 23) Vinyl acetate | 13.224 | 43 | 192940 | 3.43 | ppbv | | 92 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 478363 | 11.66 | ppbv | | 97 |
| 25) 2-Butanone (MEK) | 14.659 | 43 | 521955 | 11.84 | ppbv | | 88 |
| 26) Ethyl acetate | 14.659 | 43 | 521955 | 9.47 | ppbv | # | 64 |
| 27) Tetrahydrofuran | 15.128 | 42 | 328638 | 12.28 | ppbv | | 96 |
| 28) Chloroform | 15.280 | 83 | 795144 | 10.92 | ppbv | | 98 |
| 29) Cyclohexane | 15.493 | 56 | 530732 | 11.52 | ppbv | | 93 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 353846 | 4.48 | ppbv | # | 72 |
| 31) Carbon tetrachloride | 15.815 | 117 | 375901 | 4.49 | ppbv | | 100 |
| 33) Benzene | 16.302 | 78 | 1253381 | 11.12 | ppbv | | 99 |
| 34) 2,2,4-Trimethylpentane | 16.265 | 57 | 1561703 | 11.26 | ppbv | | 98 |
| 35) 1,2-Dichloroethane | 16.515 | 62 | 441581 | 11.47 | ppbv | | 100 |
| 36) Heptane | 16.661 | 43 | 490407 | 12.03 | ppbv | | 93 |
| 37) Trichloroethene | 17.561 | 130 | 626751 | 10.06 | ppbv | | 98 |
| 38) 1,2-Dichloropropane | 18.066 | 63 | 357533 | 9.83 | ppbv | | 90 |
| 39) 2,3-dichloro-1-propene | 18.133 | 75 | 495285 | 8.39 | ppbv | | 94 |
| 40) 1,4-Dioxane | 18.273 | 88 | 270688 | 11.35 | ppbv | | 97 |
| 41) Bromodichloromethane | 18.541 | 83 | 648740 | 8.86 | ppbv | | 99 |
| 42) cis-1,3-Dichloropropene | 19.313 | 75 | 351695 | 6.03 | ppbv | | 93 |
| 43) 4-Methyl-2-pentanone (... | 19.545 | 43 | 587504 | 10.93 | ppbv | | 95 |
| 45) Toluene | 19.782 | 91 | 1490210 | 11.91 | ppbv | | 100 |
| 46) trans-1,3-Dichloropropene | 20.268 | 75 | 294675 | 6.55 | ppbv | | 91 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 514727 | 12.21 | ppbv | | 97 |
| 48) Tetrachloroethene | 20.652 | 166 | 742776 | 11.21 | ppbv | | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 999913K01.D
Acq On : 8 Aug 2013 12:40
Instrument: HP5973K
Operator : EM
Sample : 080813-PRM1
Misc : BFB 1305026/IS 2K14020/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:35:40 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.852 | 76 | 569630 | 10.35 | ppbv | 93 |
| 50) 2-Hexanone | 20.907 | 43 | 531904 | 13.21 | ppbv | 92 |
| 51) Chlorodibromomethane | 21.175 | 129 | 673823 | 8.76 | ppbv | 98 |
| 52) 1,2-Dibromoethane (EDB) | 21.394 | 107 | 704425 | 10.82 | ppbv | 100 |
| 53) Chlorobenzene | 22.118 | 112 | 1213842 | 11.14 | ppbv | 97 |
| 54) Ethylbenzene | 22.215 | 91 | 1861783 | 11.50 | ppbv | 99 |
| 55) m&p-Xylene | 22.398 | 91 | 2972262 | 23.24 | ppbv | 99 |
| 56) o-Xylene | 23.049 | 91 | 1492706 | 11.62 | ppbv | 98 |
| 57) Styrene | 23.079 | 104 | 1291074 | 11.12 | ppbv | 96 |
| 58) Bromoform | 23.462 | 173 | 571865 | 7.87 | ppbv | 99 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1076944 | 11.59 | ppbv | 98 |
| 60) 1,2,3-Trichloropropane | 24.265 | 75 | 649540 | 9.90 | ppbv | 97 |
| 61) 4-Ethyltoluene | 24.393 | 105 | 1989816 | 10.44 | ppbv | 100 |
| 62) 1,3,5-Trimethylbenzene | 24.490 | 105 | 1766931 | 10.61 | ppbv | 100 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 1791760 | 10.82 | ppbv | 99 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1403313 | 10.23 | ppbv | 99 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 1380782 | 10.20 | ppbv | 99 |
| 66) Benzyl chloride | 25.987 | 91 | 583371 | 4.90 | ppbv | 92 |
| 67) 1,2-Dichlorobenzene | 26.370 | 146 | 1312750 | 10.28 | ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 421896 | 6.97 | ppbv | 90 |
| 69) 1,2,4-Trichlorobenzene | 28.828 | 180 | 871878 | 8.29 | ppbv | 99 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 698149 | 8.42 | ppbv | 99 |

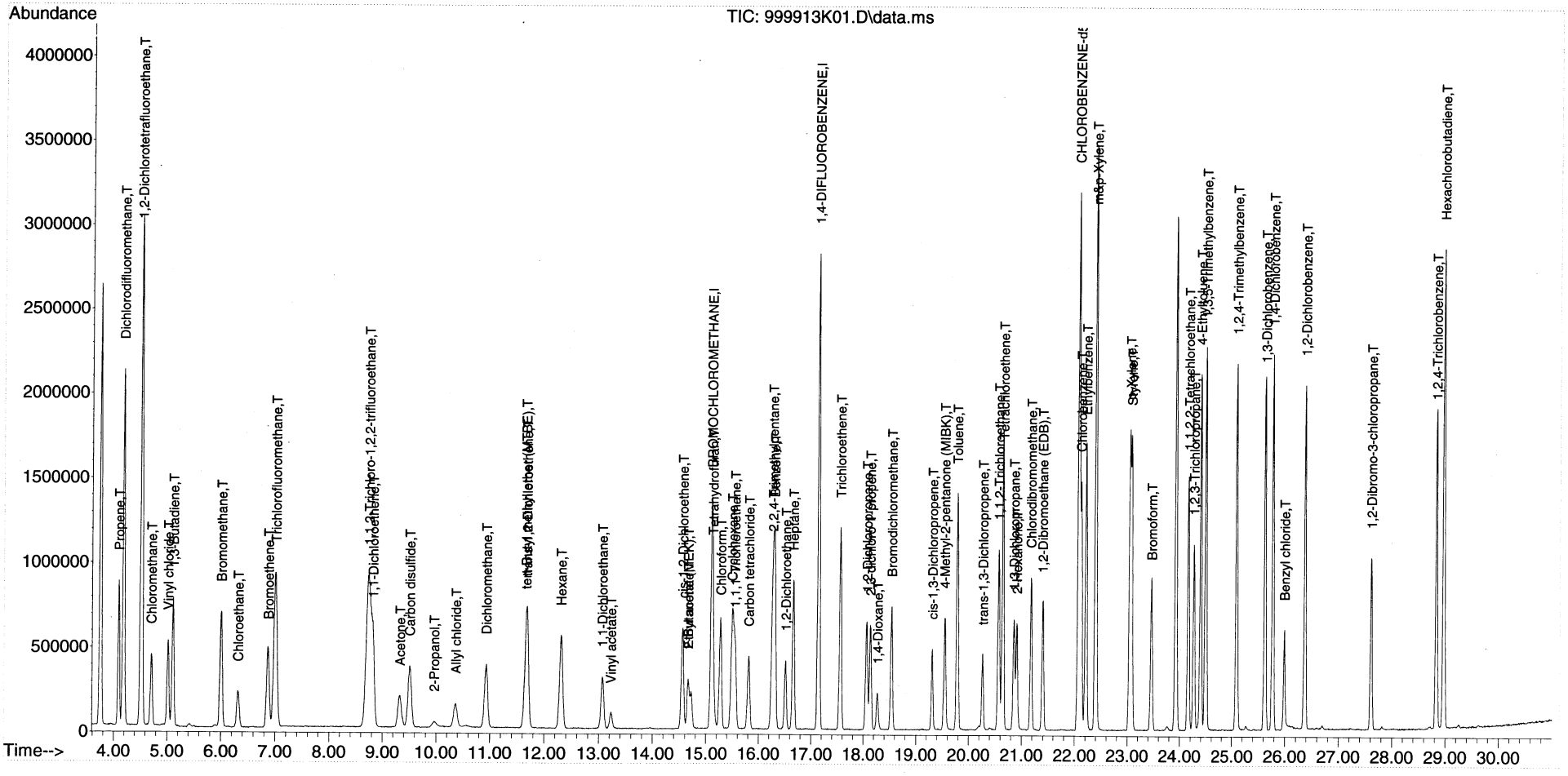
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 999913K01.D
Acq On : 8 Aug 2013 12:40
Instrument: HP5973K
Operator : EM
Sample : 080813-PRM1
Misc : BFB 1305026/IS 2K14020/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:35:40 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

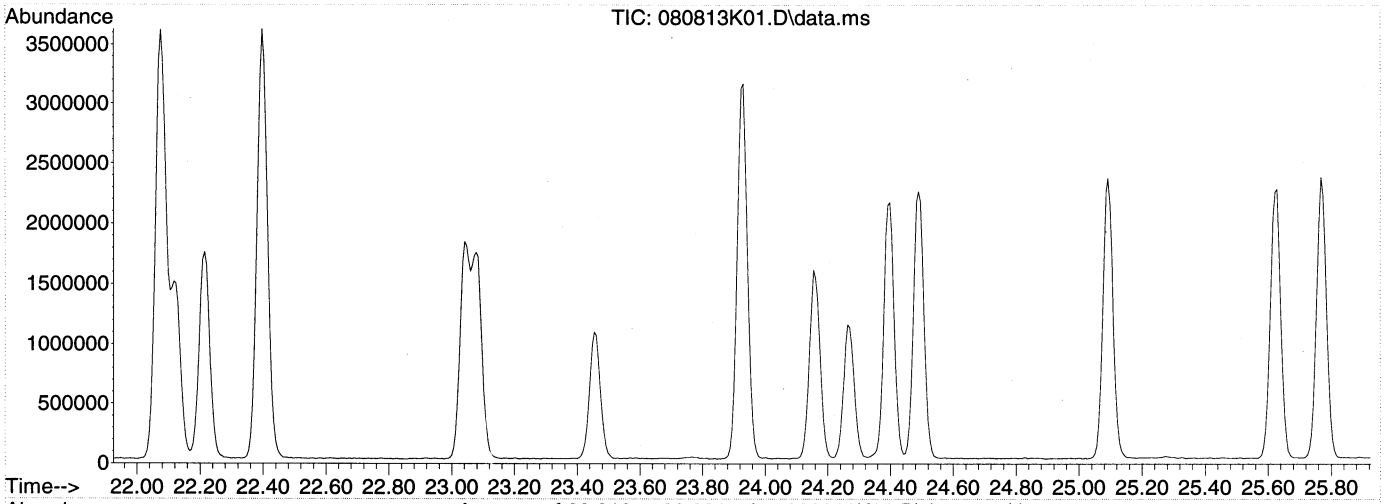


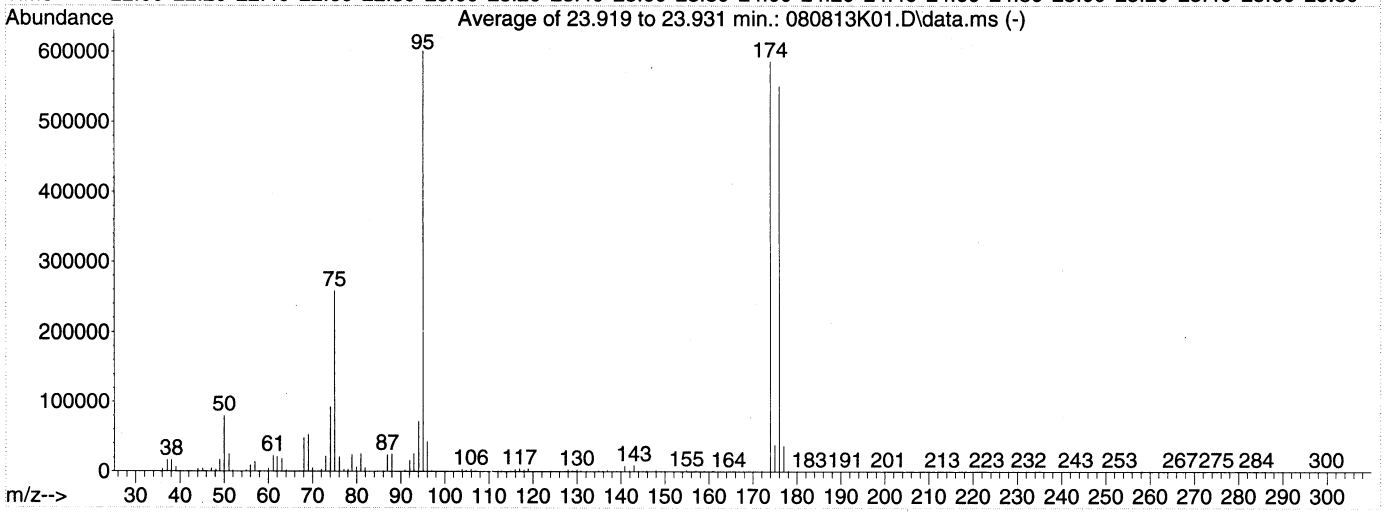
BFB

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K01.D
Acq On : 8 Aug 2013 13:29
Operator : EM
Sample : 080813-TUN1
Misc : BFB 1305026/IS 2K14020/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Title : TO15
Last Update : Thu Jul 25 11:04:48 2013




AutoFind: Scans 3343, 3344, 3345; Background Corrected with Scan 3329

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 13.3 | 79887 | PASS |
| 75 | 95 | 30 | 66 | 42.9 | 258116 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 601575 | PASS |
| 96 | 95 | 5 | 9 | 7.0 | 42126 | PASS |
| 173 | 174 | 0.00 | 2 | 0.0 | 0 | PASS |
| 174 | 95 | 50 | 120 | 97.5 | 586581 | PASS |
| 175 | 174 | 4 | 9 | 6.5 | 38029 | PASS |
| 176 | 174 | 93 | 101 | 93.9 | 550651 | PASS |
| 177 | 176 | 5 | 9 | 6.7 | 36713 | PASS |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 35.15 | 225 | 45.15 | 3843 | 56.00 | 8722 | 64.90 | 71 |
| 36.05 | 3261 | 46.00 | 368 | 57.00 | 14100 | 65.40 | 100 |
| 37.10 | 16536 | 46.25 | 457 | 57.95 | 680 | 65.70 | 45 |
| 38.05 | 16857 | 47.10 | 4188 | 58.20 | 171 | 66.00 | 232 |
| 39.10 | 6561 | 48.15 | 2459 | 58.70 | 23 | 66.20 | 143 |
| 40.05 | 378 | 49.05 | 17174 | 59.05 | 36 | 67.10 | 604 |
| 41.70 | 34 | 50.05 | 79887 | 60.05 | 4014 | 68.10 | 47973 |
| 42.05 | 115 | 51.10 | 25471 | 61.10 | 22579 | 69.10 | 53136 |
| 42.70 | 137 | 52.00 | 1375 | 62.00 | 21202 | 70.05 | 4734 |
| 42.95 | 448 | 53.40 | 15 | 63.10 | 18403 | 71.30 | 282 |
| 44.10 | 3296 | 55.05 | 1490 | 64.05 | 1678 | 72.05 | 2432 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 73.00 | 22067 | 83.15 | 346 | 92.05 | 16333 | 103.95 | 3101 |
| 74.10 | 92607 | 83.90 | 44 | 93.00 | 25553 | 104.90 | 1052 |
| 75.05 | 258116 | 84.30 | 47 | 94.05 | 71703 | 105.95 | 3231 |
| 76.10 | 21390 | 84.70 | 80 | 95.05 | 601575 | 106.90 | 511 |
| 77.10 | 2518 | 85.15 | 101 | 96.05 | 42126 | 109.15 | 128 |
| 78.05 | 2489 | 86.00 | 655 | 97.05 | 1281 | 110.00 | 369 |
| 78.90 | 24298 | 87.00 | 24491 | 97.70 | 125 | 110.90 | 922 |
| 79.95 | 6384 | 88.00 | 25272 | 98.15 | 150 | 112.05 | 582 |
| 80.95 | 25644 | 89.80 | 49 | 99.20 | 61 | 112.85 | 680 |
| 81.90 | 5130 | 90.05 | 235 | 100.00 | 116 | 114.90 | 675 |
| 82.95 | 400 | 90.95 | 2286 | 103.15 | 152 | 115.95 | 2820 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 116.95 | 3956 | 126.00 | 203 | 135.75 | 179 | 143.00 | 8711 |
| 118.00 | 2254 | 126.25 | 31 | 136.00 | 141 | 143.95 | 517 |
| 118.95 | 3750 | 128.00 | 2456 | 136.95 | 1506 | 144.90 | 421 |
| 119.60 | 100 | 128.90 | 998 | 137.75 | 134 | 145.05 | 118 |
| 121.20 | 288 | 130.00 | 2482 | 138.35 | 128 | 145.90 | 1108 |
| 122.00 | 191 | 130.90 | 1036 | 138.95 | 329 | 146.95 | 355 |
| 122.20 | 58 | 131.70 | 2 | 139.30 | 114 | 147.95 | 1582 |
| 123.05 | 244 | 132.15 | 179 | 139.60 | 5 | 148.75 | 179 |
| 124.05 | 754 | 133.10 | 342 | 139.90 | 562 | 149.10 | 209 |
| 124.95 | 192 | 133.85 | 195 | 140.90 | 7815 | 149.95 | 844 |
| 125.70 | 56 | 134.90 | 1259 | 141.95 | 1239 | 150.60 | 48 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 150.95 | 206 | 159.80 | 196 | 165.95 | 25 | 171.10 | 122 |
| 151.85 | 446 | 160.80 | 672 | 166.80 | 71 | 172.05 | 834 |
| 153.00 | 18 | 161.05 | 519 | 167.30 | 14 | 174.00 | 586581 |
| 153.90 | 99 | 162.05 | 135 | 167.80 | 64 | 175.00 | 38029 |
| 154.10 | 320 | 162.90 | 3 | 168.10 | 14 | 176.00 | 550651 |
| 154.90 | 1484 | 163.35 | 32 | 168.50 | 92 | 177.00 | 36713 |
| 155.80 | 20 | 164.20 | 30 | 168.90 | 73 | 178.00 | 780 |
| 156.00 | 222 | 164.50 | 189 | 169.30 | 91 | 178.80 | 48 |
| 157.00 | 1166 | 164.80 | 14 | 169.50 | 19 | 179.40 | 14 |
| 158.00 | 52 | 165.20 | 21 | 170.15 | 123 | 180.10 | 103 |
| 158.90 | 907 | 165.60 | 9 | 170.60 | 208 | 182.80 | 96 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 183.80 | 34 | 194.80 | 57 | 200.80 | 138 | 209.90 | 33 |
| 184.20 | 14 | 195.70 | 22 | 202.10 | 106 | 211.20 | 85 |
| 185.15 | 33 | 196.40 | 32 | 202.55 | 50 | 212.40 | 49 |
| 186.75 | 50 | 196.85 | 122 | 203.15 | 68 | 213.00 | 115 |
| 187.50 | 32 | 197.75 | 56 | 203.80 | 57 | 213.50 | 20 |
| 188.80 | 15 | 198.10 | 39 | 204.80 | 46 | 213.90 | 34 |
| 189.80 | 88 | 198.45 | 9 | 205.65 | 33 | 214.65 | 86 |
| 191.00 | 204 | 198.90 | 8 | 206.40 | 50 | 216.95 | 112 |
| 192.10 | 40 | 199.60 | 13 | 207.70 | 135 | 217.60 | 38 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 193.15 | 90 | 199.90 | 13 | 208.40 | 28 | 218.20 | 41 |
| 193.85 | 43 | 200.10 | 15 | 209.15 | 36 | 218.45 | 39 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 219.20 | 26 | 226.20 | 19 | 235.80 | 16 | 242.10 | 51 |
| 219.95 | 28 | 226.50 | 16 | 236.00 | 15 | 242.40 | 51 |
| 220.80 | 26 | 227.50 | 28 | 237.10 | 16 | 243.20 | 136 |
| 221.50 | 53 | 228.05 | 85 | 238.75 | 22 | 244.00 | 7 |
| 222.00 | 20 | 229.15 | 127 | 239.10 | 11 | 244.20 | 40 |
| 222.45 | 64 | 230.80 | 23 | 239.50 | 24 | 245.30 | 40 |
| 222.80 | 49 | 232.10 | 68 | 239.70 | 15 | 246.70 | 12 |
| 223.05 | 165 | 232.55 | 119 | 240.20 | 10 | 247.00 | 11 |
| 224.10 | 14 | 234.20 | 54 | 240.50 | 51 | 247.60 | 19 |
| 224.50 | 32 | 235.00 | 94 | 241.50 | 55 | 248.50 | 21 |
| 226.00 | 57 | 235.35 | 109 | 241.80 | 61 | 249.00 | 4 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 249.25 | 33 | 255.85 | 131 | 263.00 | 29 | 273.95 | 51 |
| 249.60 | 9 | 256.70 | 17 | 263.30 | 35 | 274.70 | 25 |
| 250.00 | 31 | 257.20 | 25 | 263.55 | 21 | 275.05 | 47 |
| 250.20 | 50 | 257.80 | 11 | 264.60 | 43 | 275.70 | 9 |
| 251.00 | 56 | 258.00 | 43 | 265.40 | 97 | 276.15 | 20 |
| 251.35 | 68 | 258.30 | 37 | 266.85 | 226 | 276.55 | 64 |
| 251.95 | 75 | 259.60 | 18 | 267.50 | 40 | 278.30 | 69 |
| 253.15 | 298 | 259.90 | 164 | 269.05 | 125 | 279.40 | 35 |
| 253.65 | 86 | 261.20 | 195 | 270.05 | 45 | 280.10 | 39 |
| 254.40 | 30 | 261.70 | 15 | 270.80 | 108 | 280.70 | 47 |
| 254.95 | 122 | 262.35 | 71 | 271.45 | 105 | 281.50 | 32 |

Average of 23.919 to 23.931 min.: 080813K01.D\data.ms
080813-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 281.70 | 47 | 289.80 | 53 | 294.90 | 40 | | |
| 282.70 | 80 | 290.30 | 26 | 296.60 | 31 | | |
| 283.40 | 39 | 290.60 | 20 | 297.25 | 92 | | |
| 283.85 | 56 | 290.90 | 19 | 298.30 | 32 | | |
| 284.05 | 126 | 291.30 | 22 | 299.30 | 6 | | |
| 284.80 | 30 | 291.50 | 33 | 299.60 | 18 | | |
| 285.45 | 62 | 291.90 | 13 | 299.90 | 128 | | |
| 285.95 | 83 | 292.60 | 7 | | | | |
| 287.10 | 21 | 292.90 | 48 | | | | |
| 287.30 | 43 | 293.10 | 26 | | | | |
| 288.90 | 41 | 293.70 | 93 | | | | |

# Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:20 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 91 | 0.00 |
| 2 | T | Propene | 0.563 | 0.504 | 10.5 | 78 | 0.01 |
| 3 | T | Dichlorodifluoromethane | 2.886 | 2.660 | 7.8 | 77 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 3.287 | 2.913 | 11.4 | 74 | 0.00 |
| 5 | T | Chloromethane | 0.721 | 0.643 | 10.8 | 74 | 0.00 |
| 6 | T | Vinyl chloride | 0.920 | 0.809 | 12.1 | 74 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.660 | 0.587 | 11.1 | 74 | 0.00 |
| 8 | T | Bromomethane | 1.092 | 1.037 | 5.0 | 80 | 0.00 |
| 9 | T | Chloroethane | 0.465 | 0.422 | 9.2 | 77 | 0.00 |
| 10 | T | Bromoethene | 1.077 | 0.972 | 9.7 | 77 | 0.00 |
| 11 | T | Trichlorofluoromethane | 2.646 | 2.564 | 3.1 | 81 | 0.00 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 2.025 | 1.836 | 9.3 | 76 | 0.01 |
| 13 | T | 1,1-Dichloroethene | 1.357 | 1.238 | 8.8 | 77 | 0.01 |
| 14 | T | Acetone | 0.961 | 0.955 | 0.6 | 84 | 0.00 |
| 15 | T | Carbon disulfide | 2.476 | 2.230 | 9.9 | 76 | 0.00 |
| 16 | T | 2-Propanol | 1.038 | 0.829 | 20.1 | 67 | 0.00 |
| 17 | T | Allyl chloride | 0.784 | 0.685 | 12.6 | 74 | 0.02 |
| 18 | T | Dichloromethane | 0.953 | 0.871 | 8.6 | 82 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 2.557 | 1.915 | 25.1 | 64 | 0.00 |
| 20 | T | trans-1,2-Dichloroethene | 1.120 | 1.036 | 7.5 | 77 | 0.00 |
| 21 | T | Hexane | 1.333 | 1.186 | 11.0 | 74 | 0.00 |
| 22 | T | 1,1-Dichloroethane | 1.648 | 1.502 | 8.9 | 77 | 0.00 |
| 23 | T | Vinyl acetate | 1.623 | 1.277 | 21.3 | 64 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 1.184 | 1.127 | 4.8 | 78 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.272 | 1.327 | -4.3 | 94 | 0.00 |
| 26 | T | Ethyl acetate | 1.591 | 1.428 | 10.2 | 71 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.773 | 0.763 | 1.3 | 85 | -0.01 |
| 28 | T | Chloroform | 2.102 | 2.002 | 4.8 | 79 | 0.00 |
| 29 | T | Cyclohexane | 1.329 | 1.209 | 9.0 | 77 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 2.278 | 1.843 | 19.1 | 67 | 0.00 |
| 31 | T | Carbon tetrachloride | 2.415 | 1.757 | 27.2 | 60 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 33 | T | Benzene | 0.641 | 0.608 | 5.1 | 78 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 0.789 | 0.724 | 8.2 | 76 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.219 | 0.222 | -1.4 | 83 | 0.01 |
| 36 | T | Heptane | 0.232 | 0.226 | 2.6 | 81 | 0.00 |
| 37 | T | Trichloroethene | 0.354 | 0.327 | 7.6 | 76 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.207 | 0.198 | 4.3 | 79 | 0.00 |
| 39 | T | 2,3-dichloro-1-propene | 0.336 | 0.271 | 19.3 | 75 | 0.00 |
| 40 | T | 1,4-Dioxane | 0.136 | 0.136 | 0.0 | 94 | 0.00 |
| 41 | T | Bromodichloromethane | 0.416 | 0.375 | 9.9 | 74 | 0.00 |
| 42 | T | cis-1,3-Dichloropropene | 0.332 | 0.289 | 13.0 | 71 | 0.00 |
| 43 | T | 4-Methyl-2-pentanone (MIBK) | 0.306 | 0.313 | -2.3 | 89 | 0.00 |
| 44 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 91 | 0.00 |
| 45 | T | Toluene | 0.949 | 0.885 | 6.7 | 77 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:20 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | trans-1,3-Dichloropropene | 0.342 | 0.283 | 17.3 | 67 | 0.00 |
| 47 | T | 1,1,2-Trichloroethane | 0.320 | 0.298 | 6.9 | 77 | 0.00 |
| 48 | T | Tetrachloroethene | 0.503 | 0.469 | 6.8 | 77 | 0.00 |
| 49 | T | 1,3-Dichloropropane | 0.418 | 0.350 | 16.3 | 79 | 0.00 |
| 50 | T | 2-Hexanone | 0.306 | 0.334 | -9.2 | 96 | 0.00 |
| 51 | T | Chlorodibromomethane | 0.584 | 0.491 | 15.9 | 69 | 0.00 |
| 52 | T | 1,2-Dibromoethane (EDB) | 0.494 | 0.459 | 7.1 | 77 | 0.00 |
| 53 | T | Chlorobenzene | 0.827 | 0.757 | 8.5 | 76 | 0.00 |
| 54 | T | Ethylbenzene | 1.229 | 1.144 | 6.9 | 78 | 0.00 |
| 55 | T | m&p-Xylene | 0.971 | 0.910 | 6.3 | 78 | 0.00 |
| 56 | T | o-Xylene | 0.975 | 0.911 | 6.6 | 78 | 0.00 |
| 57 | T | Styrene | 0.881 | 0.825 | 6.4 | 78 | 0.00 |
| 58 | T | Bromoform | 0.552 | 0.456 | 17.4 | 67 | 0.00 |
| 59 | T | 1,1,2,2-Tetrachloroethane | 0.705 | 0.676 | 4.1 | 82 | 0.00 |
| 60 | T | 1,2,3-Trichloropropane | 0.498 | 0.443 | 11.0 | 82 | 0.00 |
| 61 | T | 4-Ethyltoluene | 1.447 | 1.286 | 11.1 | 77 | 0.00 |
| 62 | T | 1,3,5-Trimethylbenzene | 1.264 | 1.152 | 8.9 | 79 | 0.00 |
| 63 | T | 1,2,4-Trimethylbenzene | 1.257 | 1.137 | 9.5 | 79 | 0.00 |
| 64 | T | 1,3-Dichlorobenzene | 1.041 | 0.953 | 8.5 | 79 | 0.00 |
| 65 | T | 1,4-Dichlorobenzene | 1.027 | 0.931 | 9.3 | 78 | 0.00 |
| 66 | T | Benzyl chloride | 0.904 | 0.669 | 26.0 | 62 | 0.00 |
| 67 | T | 1,2-Dichlorobenzene | 0.969 | 0.882 | 9.0 | 80 | 0.00 |
| 68 | T | 1,2-Dibromo-3-chloropropane | 0.459 | 0.390 | 15.0 | 77 | 0.00 |
| 69 | T | 1,2,4-Trichlorobenzene | 0.798 | 0.650 | 18.5 | 74 | 0.00 |
| 70 | T | Hexachlorobutadiene | 0.629 | 0.499 | 20.7 | 79 | 0.00 |

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

% Dev #70 HCB $= \frac{0.629 - 0.499}{0.629} \times 100 = 20.7\%$

RF #70 HCB $= \frac{985494 (21.60)}{4140304 (10.3)} = 0.499$

Em 8/8/13

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:20 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: Em Date: 8/8/13

Manual integration(s) reviewed by:

Reviewer: JL Date: 8-19-13

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 821793 | 20.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 4431848 | 21.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 4140304 | 21.60 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.098 | 41 | 221748 | 9.58 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 1104206 | 9.31 | ppbv | | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.518 | 85 | 1245103 | 9.22 | ppbv | | 99 |
| 5) Chloromethane | 4.701 | 50 | 272060 | 9.18 | ppbv | | 99 |
| 6) Vinyl chloride | 5.017 | 62 | 349233 | 9.24 | ppbv | | 97 |
| 7) 1,3-Butadiene | 5.108 | 54 | 245993 | 9.07 | ppbv | | 91 |
| 8) Bromomethane | 6.003 | 94 | 443192 | 9.88 | ppbv | | 99 |
| 9) Chloroethane | 6.319 | 64 | 180304 | 9.43 | ppbv | | 100 |
| 10) Bromoethene | 6.860 | 106 | 411307 | 9.29 | ppbv | | 100 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 1106291 | 10.18 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.746 | 151 | 701769 | 8.44 | ppbv | | 98 |
| 13) 1,1-Dichloroethene | 8.819 | 61 | 478426 | 8.58 | ppbv | | 97 |
| 14) Acetone | 9.330 | 43 | 415966 | 10.53 | ppbv | | 97 |
| 15) Carbon disulfide | 9.513 | 76 | 934939 | 9.19 | ppbv | | 98 |
| 16) 2-Propanol | 9.975 | 45 | 323532 | 7.58 | ppbv | | 87 |
| 17) Allyl chloride | 10.364 | 41 | 284174 | 8.82 | ppbv | # | 41 |
| 18) Dichloromethane | 10.936 | 49 | 343655 | 8.78 | ppbv | | 93 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 858093 | 8.17 | ppbv | | 98 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 404626 | 8.79 | ppbv | | 99 |
| 21) Hexane | 12.305 | 57 | 497069 | 9.08 | ppbv | | 93 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 604871 | 8.93 | ppbv | | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 524537 | 7.86 | ppbv | | 100 |
| 24) cis-1,2-Dichloroethene | 14.562 | 61 | 467630 | 9.61 | ppbv | | 98 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 567189 | 10.85 | ppbv | # | 67 |
| 26) Ethyl acetate | 14.726 | 43 | 610261m | 9.33 | ppbv | | |
| 27) Tetrahydrofuran | 15.128 | 42 | 322801 | 10.17 | ppbv | | 93 |
| 28) Chloroform | 15.280 | 83 | 831088 | 9.62 | ppbv | | 99 |
| 29) Cyclohexane | 15.499 | 56 | 516972 | 9.47 | ppbv | | 94 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 757302 | 8.09 | ppbv | | 97 |
| 31) Carbon tetrachloride | 15.815 | 117 | 722126 | 7.28 | ppbv | | 99 |
| 33) Benzene | 16.308 | 78 | 1322629 | 9.78 | ppbv | | 99 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1605671 | 9.65 | ppbv | | 97 |
| 35) 1,2-Dichloroethane | 16.521 | 62 | 468679 | 10.14 | ppbv | | 99 |
| 36) Heptane | 16.667 | 43 | 499965 | 10.22 | ppbv | | 97 |
| 37) Trichloroethene | 17.561 | 130 | 711236 | 9.52 | ppbv | | 99 |
| 38) 1,2-Dichloropropane | 18.066 | 63 | 443292 | 10.15 | ppbv | | 97 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 594926 | 8.40 | ppbv | | 97 |
| 40) 1,4-Dioxane | 18.273 | 88 | 304385 | 10.63 | ppbv | | 98 |
| 41) Bromodichloromethane | 18.541 | 83 | 840087 | 9.56 | ppbv | | 99 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 628505 | 8.98 | ppbv | | 95 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 693816 | 10.75 | ppbv | | 95 |
| 45) Toluene | 19.788 | 91 | 1765588 | 9.70 | ppbv | | 100 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 597229 | 9.12 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 20.573 | 97 | 616758 | 10.05 | ppbv | | 98 |
| 48) Tetrachloroethene | 20.646 | 166 | 935054 | 9.70 | ppbv | | 99 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:20 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.859 | 76 | 691064 | 8.63 | ppbv | 95 |
| 50) 2-Hexanone | 20.907 | 43 | 660164 | 11.27 | ppbv | 93 |
| 51) Chlorodibromomethane | 21.181 | 129 | 978762 | 8.75 | ppbv | 99 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 941468 | 9.94 | ppbv | 100 |
| 53) Chlorobenzene | 22.124 | 112 | 1537520 | 9.70 | ppbv | 98 |
| 54) Ethylbenzene | 22.221 | 91 | 2303150 | 9.78 | ppbv | 100 |
| 55) m&p-Xylene | 22.398 | 91 | 3699871 | 19.89 | ppbv | 99 |
| 56) o-Xylene | 23.049 | 91 | 1868504 | 10.00 | ppbv | 99 |
| 57) Styrene | 23.085 | 104 | 1644343 | 9.74 | ppbv | 99 |
| 58) Bromoform | 23.456 | 173 | 899602 | 8.50 | ppbv | 99 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1374529 | 10.17 | ppbv | 99 |
| 60) 1,2,3-Trichloropropane | 24.272 | 75 | 823079 | 8.62 | ppbv | 99 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 2589540 | 9.34 | ppbv | 99 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 2296606 | 9.48 | ppbv | 99 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 2333551 | 9.69 | ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1882461 | 9.43 | ppbv | 100 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1856734 | 9.43 | ppbv | 100 |
| 66) Benzyl chloride | 25.987 | 91 | 1320543 | 7.62 | ppbv | 94 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 1757845 | 9.46 | ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.617 | 157 | 673537 | 7.65 | ppbv | 95 |
| 69) 1,2,4-Trichlorobenzene | 28.840 | 180 | 1272052 | 8.32 | ppbv | 100 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 985494 | 8.17 | ppbv | 99 |

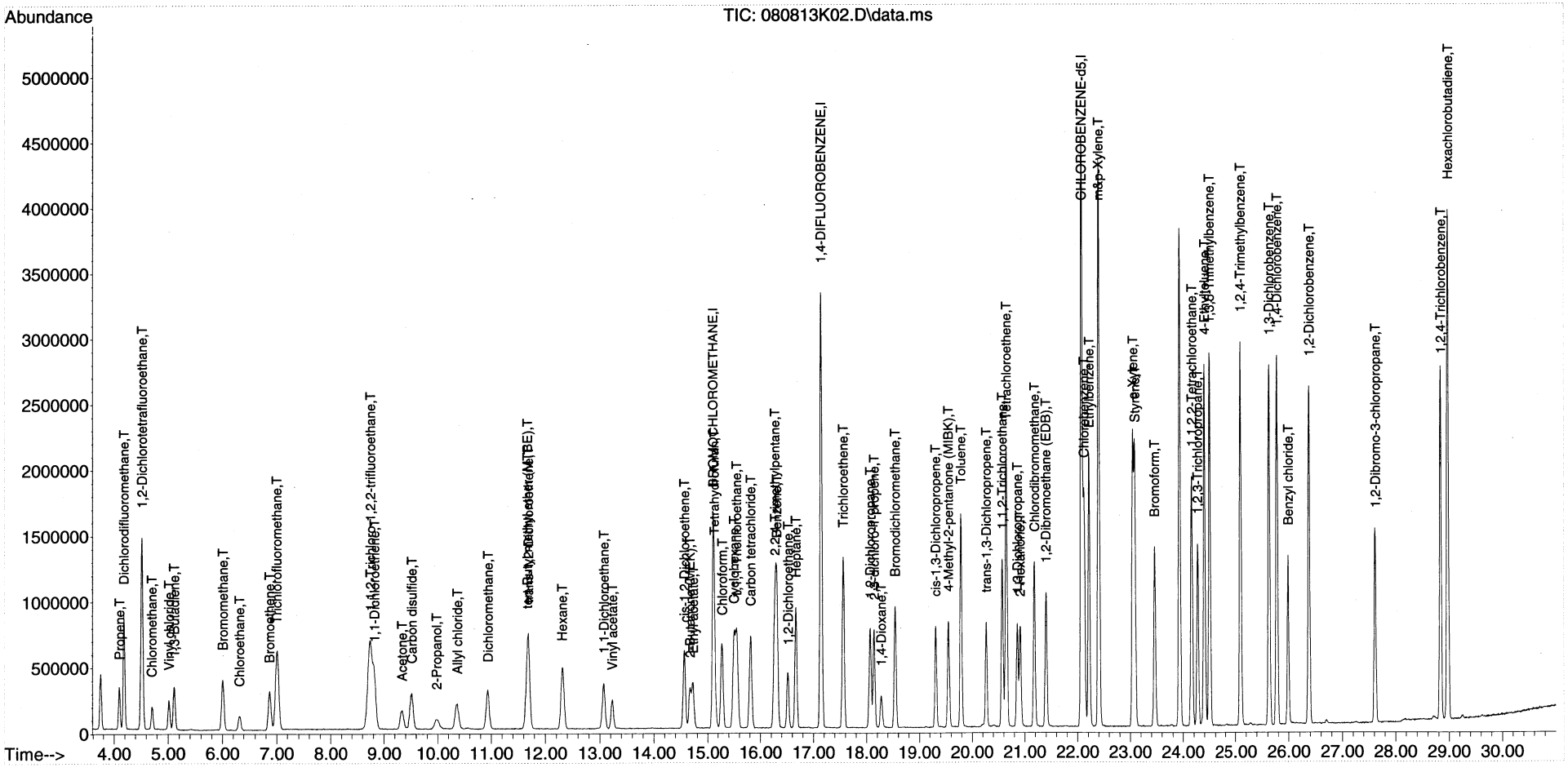
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:20 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

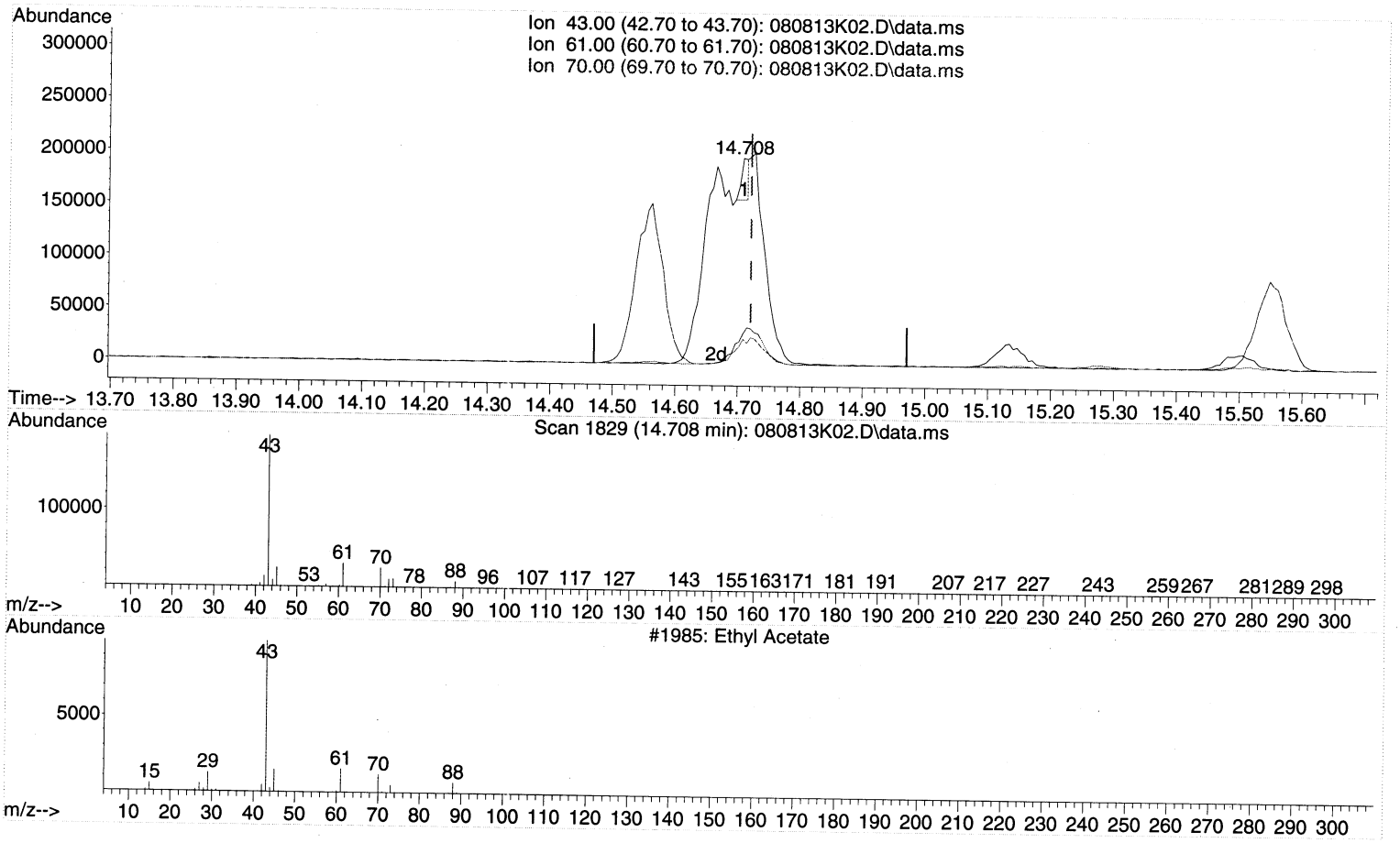


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:01 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M




TIC: 080813K02.D\data.ms

(26) Ethyl acetate (T)

14.708min (-0.012) 0.51 ppbv

response 33288

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 16.70 | 321.06# |
| 70.00 | 13.30 | 248.25# |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☑ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

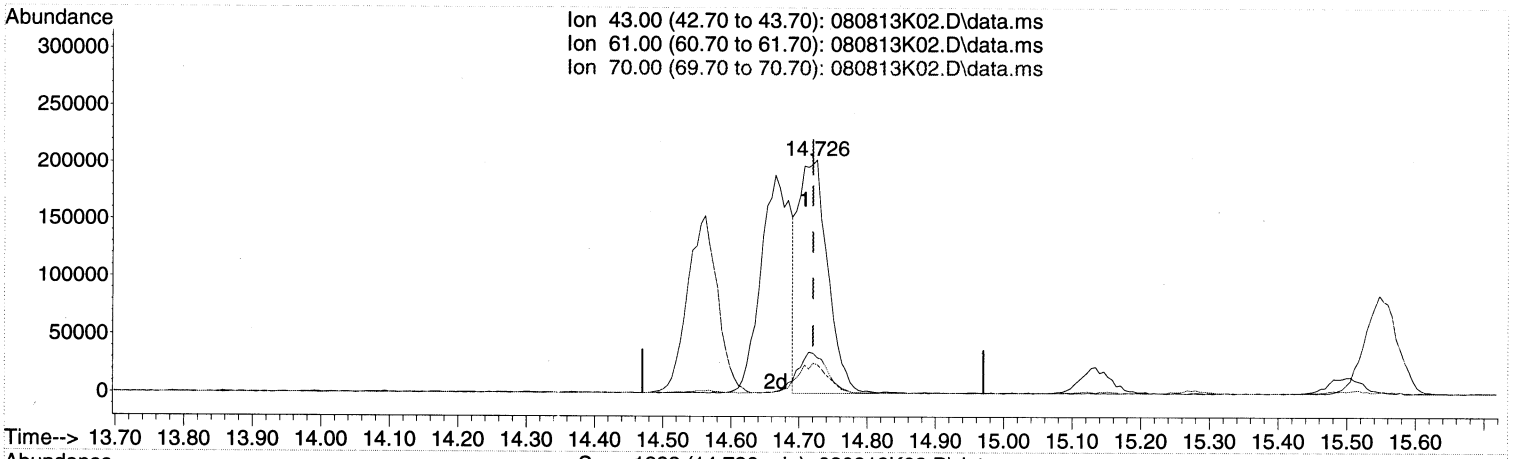
Reviewer: _____ Date: _____

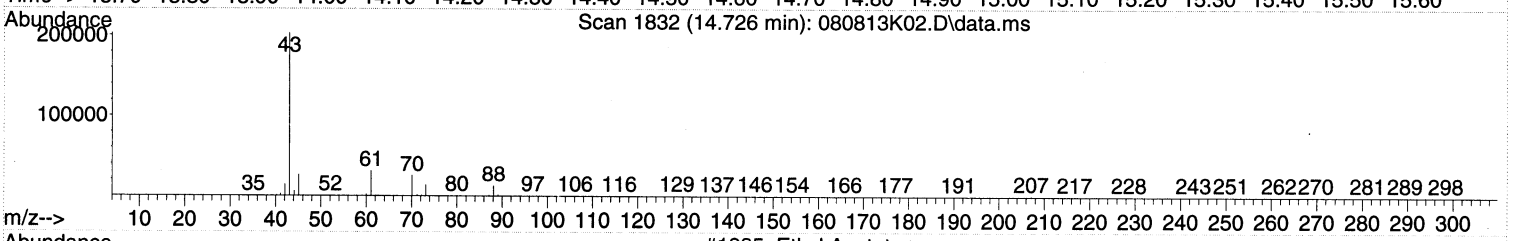
Quantitation Report (Qedit)

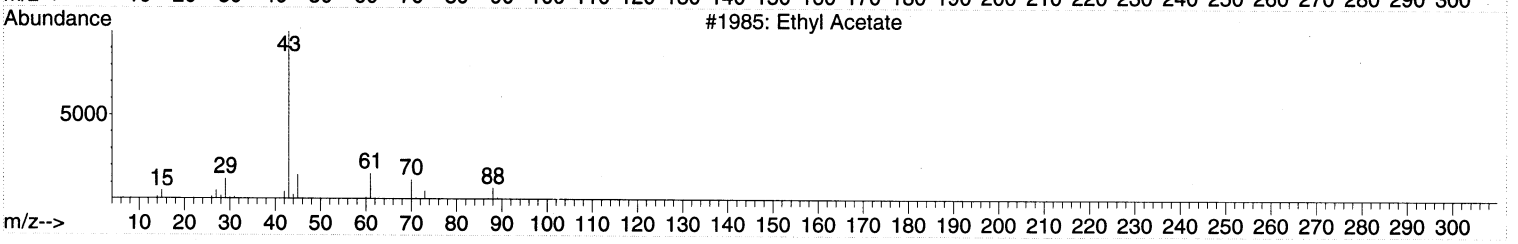
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:01 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M




TIC: 080813K02.D\data.ms

(26) Ethyl acetate (T)

14.726min (+0.006) 9.33 ppbv m

response 610261

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 16.70 | 17.51 |
| 70.00 | 13.30 | 13.54 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 8/8/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 8/19/13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:01 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

pel NST
em 8/8/10

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 821793 | 20.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 4431848 | 21.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 4140304 | 21.60 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.098 | 41 | 221748 | 9.58 | ppbv | | 96 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 1104206 | 9.31 | ppbv | | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.518 | 85 | 1245103 | 9.22 | ppbv | | 99 |
| 5) Chloromethane | 4.701 | 50 | 272060 | 9.18 | ppbv | | 99 |
| 6) Vinyl chloride | 5.017 | 62 | 349233 | 9.24 | ppbv | | 97 |
| 7) 1,3-Butadiene | 5.108 | 54 | 245993 | 9.07 | ppbv | | 91 |
| 8) Bromomethane | 6.003 | 94 | 443192 | 9.88 | ppbv | | 99 |
| 9) Chloroethane | 6.319 | 64 | 180304 | 9.43 | ppbv | | 100 |
| 10) Bromoethene | 6.860 | 106 | 411307 | 9.29 | ppbv | | 100 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 1106291 | 10.18 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.746 | 151 | 701769 | 8.44 | ppbv | | 98 |
| 13) 1,1-Dichloroethene | 8.819 | 61 | 478426 | 8.58 | ppbv | | 97 |
| 14) Acetone | 9.330 | 43 | 415966 | 10.53 | ppbv | | 97 |
| 15) Carbon disulfide | 9.513 | 76 | 934939 | 9.19 | ppbv | | 98 |
| 16) 2-Propanol | 9.975 | 45 | 323532 | 7.58 | ppbv | | 87 |
| 17) Allyl chloride | 10.364 | 41 | 284174 | 8.82 | ppbv | # | 41 |
| 18) Dichloromethane | 10.936 | 49 | 343655 | 8.78 | ppbv | | 93 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 858093 | 8.17 | ppbv | | 98 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 404626 | 8.79 | ppbv | | 99 |
| 21) Hexane | 12.305 | 57 | 497069 | 9.08 | ppbv | | 93 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 604871 | 8.93 | ppbv | | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 524537 | 7.86 | ppbv | | 100 |
| 24) cis-1,2-Dichloroethene | 14.562 | 61 | 467630 | 9.61 | ppbv | | 98 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 567189 | 10.85 | ppbv | # | 67 |
| 26) Ethyl acetate | 14.708 | 43 | 33288 | 0.51 | ppbv | # | 1 |
| 27) Tetrahydrofuran | 15.128 | 42 | 322801 | 10.17 | ppbv | | 93 |
| 28) Chloroform | 15.280 | 83 | 831088 | 9.62 | ppbv | | 99 |
| 29) Cyclohexane | 15.499 | 56 | 516972 | 9.47 | ppbv | | 94 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 757302 | 8.09 | ppbv | | 97 |
| 31) Carbon tetrachloride | 15.815 | 117 | 722126 | 7.28 | ppbv | | 99 |
| 33) Benzene | 16.308 | 78 | 1322629 | 9.78 | ppbv | | 99 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1605671 | 9.65 | ppbv | | 97 |
| 35) 1,2-Dichloroethane | 16.521 | 62 | 468679 | 10.14 | ppbv | | 99 |
| 36) Heptane | 16.667 | 43 | 499965 | 10.22 | ppbv | | 97 |
| 37) Trichloroethene | 17.561 | 130 | 711236 | 9.52 | ppbv | | 99 |
| 38) 1,2-Dichloropropane | 18.066 | 63 | 443292 | 10.15 | ppbv | | 97 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 594926 | 8.40 | ppbv | | 97 |
| 40) 1,4-Dioxane | 18.273 | 88 | 304385 | 10.63 | ppbv | | 98 |
| 41) Bromodichloromethane | 18.541 | 83 | 840087 | 9.56 | ppbv | | 99 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 628505 | 8.98 | ppbv | | 95 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 693816 | 10.75 | ppbv | | 95 |
| 45) Toluene | 19.788 | 91 | 1765588 | 9.70 | ppbv | | 100 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 597229 | 9.12 | ppbv | | 95 |
| 47) 1,1,2-Trichloroethane | 20.573 | 97 | 616758 | 10.05 | ppbv | | 98 |
| 48) Tetrachloroethene | 20.646 | 166 | 935054 | 9.70 | ppbv | | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:01 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.859 | 76 | 691064 | 8.63 | ppbv | 95 |
| 50) 2-Hexanone | 20.907 | 43 | 660164 | 11.27 | ppbv | 93 |
| 51) Chlorodibromomethane | 21.181 | 129 | 978762 | 8.75 | ppbv | 99 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 941468 | 9.94 | ppbv | 100 |
| 53) Chlorobenzene | 22.124 | 112 | 1537520 | 9.70 | ppbv | 98 |
| 54) Ethylbenzene | 22.221 | 91 | 2303150 | 9.78 | ppbv | 100 |
| 55) m&p-Xylene | 22.398 | 91 | 3699871 | 19.89 | ppbv | 99 |
| 56) o-Xylene | 23.049 | 91 | 1868504 | 10.00 | ppbv | 99 |
| 57) Styrene | 23.085 | 104 | 1644343 | 9.74 | ppbv | 99 |
| 58) Bromoform | 23.456 | 173 | 899602 | 8.50 | ppbv | 99 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1374529 | 10.17 | ppbv | 99 |
| 60) 1,2,3-Trichloropropane | 24.272 | 75 | 823079 | 8.62 | ppbv | 99 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 2589540 | 9.34 | ppbv | 99 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 2296606 | 9.48 | ppbv | 99 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 2333551 | 9.69 | ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1882461 | 9.43 | ppbv | 100 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1856734 | 9.43 | ppbv | 100 |
| 66) Benzyl chloride | 25.987 | 91 | 1320543 | 7.62 | ppbv | 94 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 1757845 | 9.46 | ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.617 | 157 | 673537 | 7.65 | ppbv | 95 |
| 69) 1,2,4-Trichlorobenzene | 28.840 | 180 | 1272052 | 8.32 | ppbv | 100 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 985494 | 8.17 | ppbv | 99 |

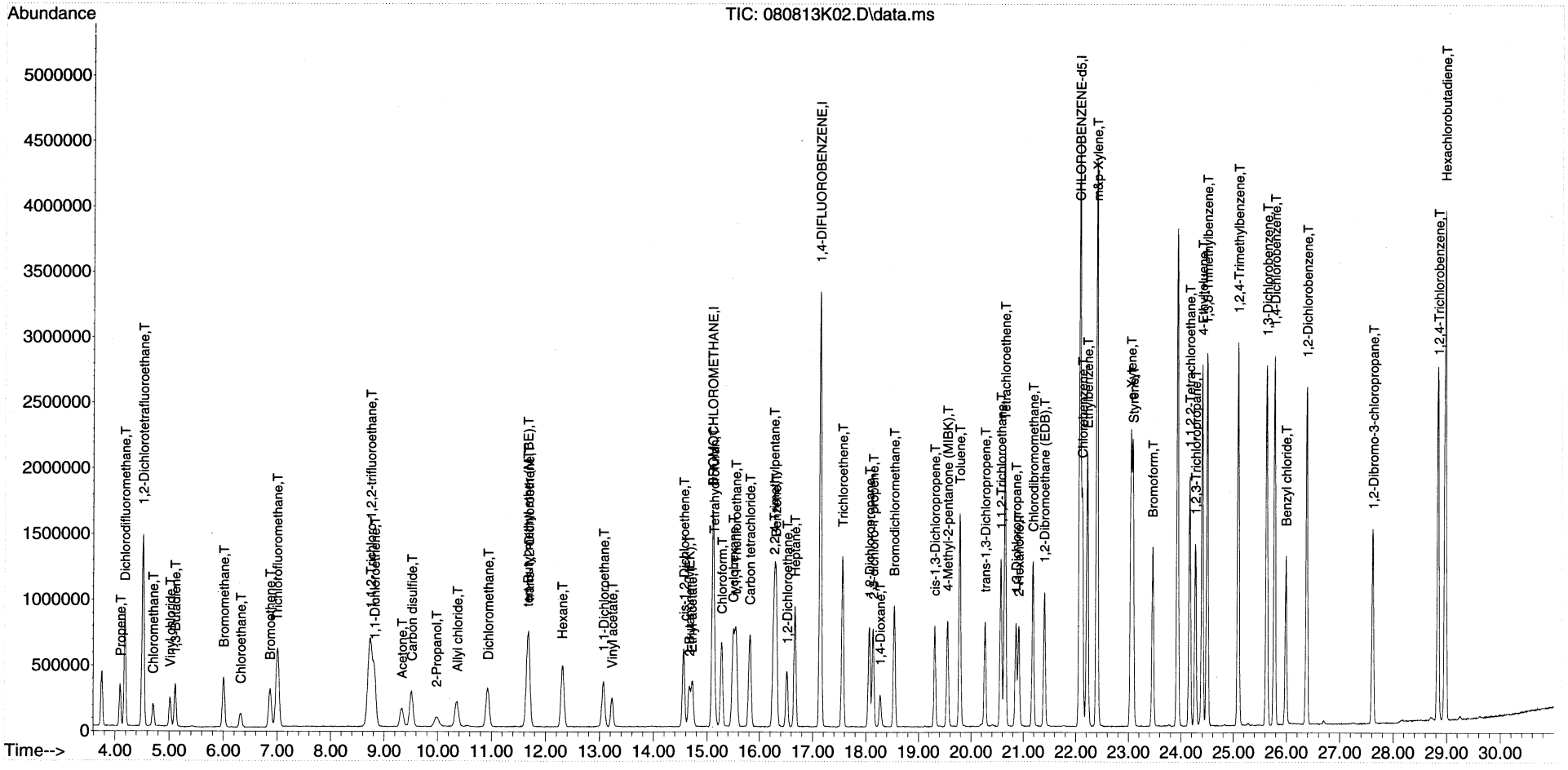
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K02.D
Acq On : 8 Aug 2013 14:18
Instrument: HP5973K
Operator : EM
Sample : 080813-CCV1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:01 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M



# LCS REPORT

Instrument Name: HP5973K
Sample Name: 080813-BS1
Misc Info: 10 ppbv 1328170
Date Acquired: 8/8/2013 15:06
QLast Update: Thu Jul 25 10:59:21 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.11 | #N/A | 20.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.09 | 10.70 | 10.51 | 98% | 56.0 | 155.0 | pass |
| 3) | Dichlorodifluoromethane | 4.18 | 10.10 | 10.42 | 103% | 67.0 | 141.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.52 | 10.40 | 10.28 | 99% | 68.0 | 147.0 | pass |
| 5) | Chloromethane | 4.70 | 10.30 | 10.22 | 99% | 64.0 | 141.0 | pass |
| 6) | Vinyl chloride | 5.02 | 10.50 | 10.13 | 96% | 65.0 | 141.0 | pass |
| 7) | 1,3-Butadiene | 5.12 | 10.20 | 10.13 | 99% | 61.0 | 154.0 | pass |
| 8) | Bromomethane | 6.00 | 10.40 | 10.73 | 103% | 71.0 | 132.0 | pass |
| 9) | Chloroethane | 6.32 | 10.40 | 10.62 | 102% | 70.0 | 134.0 | pass |
| 10) | Bromoethene | 6.86 | 10.30 | 10.37 | 101% | 71.0 | 146.0 | pass |
| 11) | Trichlorofluoromethane | 6.99 | 10.50 | 11.18 | 106% | 72.0 | 141.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.74 | 9.30 | 9.18 | 99% | 68.0 | 134.0 | pass |
| 13) | 1,1-Dichloroethene | 8.81 | 9.40 | 9.67 | 103% | 81.0 | 127.0 | pass |
| 14) | Acetone | 9.32 | 10.60 | 11.33 | 107% | 77.0 | 150.0 | pass |
| 15) | Carbon disulfide | 9.51 | 10.20 | 10.28 | 101% | 75.0 | 138.0 | pass |
| 16) | 2-Propanol | 9.97 | 9.50 | 8.77 | 92% | 71.0 | 142.0 | pass |
| 17) | Allyl chloride | 10.36 | 10.10 | 9.89 | 98% | 84.0 | 143.0 | pass |
| 18) | Dichloromethane | 10.93 | 9.60 | 9.55 | 99% | 74.0 | 116.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 11.67 | 10.90 | 9.77 | 90% | 79.0 | 131.0 | pass |
| 20) | trans-1,2-Dichloroethene | 11.68 | 9.50 | 9.78 | 103% | 82.0 | 136.0 | pass |
| 21) | Hexane | 12.31 | 10.20 | 10.09 | 99% | 78.0 | 139.0 | pass |
| 22) | 1,1-Dichloroethane | 13.08 | 9.80 | 9.83 | 100% | 82.0 | 123.0 | pass |
| 23) | Vinyl acetate | 13.23 | 10.00 | 9.11 | 91% | 70.0 | 139.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.56 | 10.10 | 10.53 | 104% | 83.0 | 126.0 | pass |
| 25) | 2-Butanone (MEK) | 14.66 | 10.40 | 11.61 | 112% | 76.0 | 138.0 | pass |
| 26) | Ethyl acetate | 14.71 | 10.40 | 10.23 | 98% | 83.0 | 136.0 | pass |
| 27) | Tetrahydrofuran | 15.14 | 10.30 | 10.92 | 106% | 74.0 | 132.0 | pass |
| 28) | Chloroform | 15.27 | 10.10 | 10.63 | 105% | 81.0 | 127.0 | pass |
| 29) | Cyclohexane | 15.50 | 10.40 | 10.64 | 102% | 77.0 | 139.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.55 | 10.00 | 9.32 | 93% | 80.0 | 131.0 | pass |
| 31) | Carbon tetrachloride | 15.82 | 10.00 | 8.44 | 84% | 77.0 | 136.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.14 | #N/A | 21.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.31 | 10.30 | 11.22 | 109% | 77.0 | 131.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 10.50 | 11.08 | 106% | 68.0 | 152.0 | pass |
| 35) | 1,2-Dichloroethane | 16.51 | 10.00 | 11.65 | 117% | 70.0 | 149.0 | pass |
| 36) | Heptane | 16.66 | 10.50 | 11.59 | 110% | 62.0 | 159.0 | pass |
| 37) | Trichloroethene | 17.56 | 10.30 | 11.24 | 109% | 81.0 | 125.0 | pass |
| 38) | 1,2-Dichloropropane | 18.06 | 10.60 | 11.38 | 107% | 74.0 | 135.0 | pass |
| 40) | 1,4-Dioxane | 18.27 | 10.60 | 12.53 | 118% | 67.0 | 134.0 | pass |
| 41) | Bromodichloromethane | 18.53 | 10.60 | 11.22 | 106% | 69.0 | 150.0 | pass |
| 42) | cis-1,3-Dichloropropene | 19.31 | 10.30 | 10.48 | 102% | 77.0 | 129.0 | pass |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.55 | 10.50 | 12.36 | 118% | 59.0 | 147.0 | pass |
| 44) | CHLOROBENZENE-d5 | 22.08 | #N/A | 21.60 | #N/A | 70.0 | 130.0 | #N/A |
| 45) | Toluene | 19.79 | 10.40 | 11.60 | 111% | 79.0 | 126.0 | pass |
| 46) | trans-1,3-Dichloropropene | 20.26 | 11.00 | 11.16 | 101% | 81.0 | 137.0 | pass |
| 47) | 1,1,2-Trichloroethane | 20.57 | 10.80 | 12.04 | 111% | 76.0 | 124.0 | pass |
| 48) | Tetrachloroethene | 20.65 | 10.40 | 11.70 | 113% | 80.0 | 122.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Hexanone | 20.91 | 10.30 | 13.26 | 129% | 55.0 | 149.0 | pass |
| 51) | Chlorodibromomethane | 21.18 | 10.40 | 10.68 | 103% | 76.0 | 145.0 | pass |
| 52) | 1,2-Dibromoethane (EDB) | 21.40 | 10.70 | 12.25 | 114% | 78.0 | 124.0 | pass |
| 53) | Chlorobenzene | 22.12 | 10.60 | 11.72 | 111% | 76.0 | 120.0 | pass |
| 54) | Ethylbenzene | 22.22 | 10.50 | 11.68 | 111% | 75.0 | 125.0 | pass |
| 55) | m&p-Xylene | 22.40 | 21.20 | 23.81 | 112% | 75.0 | 128.0 | pass |
| 56) | o-Xylene | 23.04 | 10.70 | 12.04 | 113% | 74.0 | 128.0 | pass |
| 57) | Styrene | 23.08 | 10.40 | 11.67 | 112% | 69.0 | 122.0 | pass |
| 58) | Bromoform | 23.46 | 10.30 | 10.55 | 102% | 72.0 | 142.0 | pass |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 10.60 | 12.01 | 113% | 70.0 | 130.0 | pass |
| 61) | 4-Ethyltoluene | 24.39 | 10.50 | 11.29 | 108% | 69.0 | 138.0 | pass |
| 62) | 1,3,5-Trimethylbenzene | 24.49 | 10.40 | 11.33 | 109% | 70.0 | 134.0 | pass |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 10.70 | 11.53 | 108% | 65.0 | 129.0 | pass |
| 64) | 1,3-Dichlorobenzene | 25.63 | 10.30 | 11.24 | 109% | 62.0 | 130.0 | pass |
| 65) | 1,4-Dichlorobenzene | 25.77 | 10.40 | 11.32 | 109% | 61.0 | 131.0 | pass |
| 66) | Benzyl chloride | 25.98 | 10.30 | 9.63 | 93% | 61.0 | 153.0 | pass |
| 67) | 1,2-Dichlorobenzene | 26.37 | 10.40 | 11.39 | 109% | 60.0 | 130.0 | pass |
| 69) | 1,2,4-Trichlorobenzene | 28.83 | 10.20 | 10.00 | 98% | 38.0 | 128.0 | pass |
| 70) | Hexachlorobutadiene | 28.97 | 10.30 | 10.07 | 98% | 37.0 | 124.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:37:11 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 8/8/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 8-14-13

| Compound | R.T. | QIon | Response | Conc | Units | Qvalue Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 783024 | 20.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.141 | 114 | 4058089 | 21.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3667736 | 21.60 | ppbv | 0.00 |
| Target Compounds | | | | | | |
| 2) Propene | 4.092 | 41 | 231750 | 10.51 | ppbv | 97 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 1176987 | 10.42 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.524 | 85 | 1322565 | 10.28 | ppbv | 99 |
| 5) Chloromethane | 4.701 | 50 | 288632 | 10.22 | ppbv | 100 |
| 6) Vinyl chloride | 5.017 | 62 | 364817 | 10.13 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.120 | 54 | 261717 | 10.13 | ppbv | 93 |
| 8) Bromomethane | 6.002 | 94 | 458590 | 10.73 | ppbv | 100 |
| 9) Chloroethane | 6.319 | 64 | 193551 | 10.62 | ppbv | 96 |
| 10) Bromoethene | 6.860 | 106 | 437381 | 10.37 | ppbv | 99 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 1158097 | 11.18 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.740 | 151 | 727862 | 9.18 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 513649 | 9.67 | ppbv | 97 |
| 14) Acetone | 9.324 | 43 | 426511 | 11.33 | ppbv | 100 |
| 15) Carbon disulfide | 9.507 | 76 | 996862 | 10.28 | ppbv | 99 |
| 16) 2-Propanol | 9.969 | 45 | 356577 | 8.77 | ppbv | 94 |
| 17) Allyl chloride | 10.358 | 41 | 303530 | 9.89 | ppbv | 95 |
| 18) Dichloromethane | 10.930 | 49 | 356178 | 9.55 | ppbv | 95 |
| 19) tert-Butyl methyl ethe... | 11.672 | 73 | 978356 | 9.77 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 11.684 | 61 | 428833 | 9.78 | ppbv | 99 |
| 21) Hexane | 12.311 | 57 | 526436 | 10.09 | ppbv | 94 |
| 22) 1,1-Dichloroethane | 13.078 | 63 | 634091 | 9.83 | ppbv | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 578987 | 9.11 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 488212 | 10.53 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.659 | 43 | 578197 | 11.61 | ppbv | 90 |
| 26) Ethyl acetate | 14.714 | 43 | 637581m | 10.23 | ppbv | |
| 27) Tetrahydrofuran | 15.140 | 42 | 330333 | 10.92 | ppbv | 94 |
| 28) Chloroform | 15.274 | 83 | 875197 | 10.63 | ppbv | 99 |
| 29) Cyclohexane | 15.499 | 56 | 553513 | 10.64 | ppbv | 94 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 831589 | 9.32 | ppbv | 98 |
| 31) Carbon tetrachloride | 15.821 | 117 | 797993 | 8.44 | ppbv | 100 |
| 33) Benzene | 16.308 | 78 | 1390055 | 11.22 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1689114 | 11.08 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 493093 | 11.65 | ppbv | 99 |
| 36) Heptane | 16.661 | 43 | 519154 | 11.59 | ppbv | 97 |
| 37) Trichloroethene | 17.561 | 130 | 769451 | 11.24 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 454962 | 11.38 | ppbv | 96 |
| 39) 2,3-dichloro-1-propene | 18.133 | 75 | 638853 | 9.85 | ppbv | 97 |
| 40) 1,4-Dioxane | 18.273 | 88 | 328571 | 12.53 | ppbv | 96 |
| 41) Bromodichloromethane | 18.535 | 83 | 902809 | 11.22 | ppbv | 99 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 671569 | 10.48 | ppbv | 96 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 729862 | 12.36 | ppbv | 96 |
| 45) Toluene | 19.788 | 91 | 1869314 | 11.60 | ppbv | 99 |
| 46) trans-1,3-Dichloropropene | 20.262 | 75 | 647292 | 11.16 | ppbv | 95 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 654383 | 12.04 | ppbv | 97 |
| 48) Tetrachloroethene | 20.646 | 166 | 999734 | 11.70 | ppbv | 99 |

Conc Propene

$$= \frac{231750\ (20.00)}{783024\ (0.563)} = 10.51\ \text{ppbv}$$



00151

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:37:11 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.852 | 76 | 716808 | 10.10 ppbv | 96 |
| 50) 2-Hexanone | 20.907 | 43 | 688181 | 13.26 ppbv | 95 |
| 51) Chlorodibromomethane | 21.181 | 129 | 1058354 | 10.68 ppbv | 99 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 1027530 | 12.25 ppbv | 99 |
| 53) Chlorobenzene | 22.124 | 112 | 1646041 | 11.72 ppbv | 98 |
| 54) Ethylbenzene | 22.215 | 91 | 2437910 | 11.68 ppbv | 100 |
| 55) m&p-Xylene | 22.398 | 91 | 3924744 | 23.81 ppbv | 100 |
| 56) o-Xylene | 23.043 | 91 | 1993055 | 12.04 ppbv | 100 |
| 57) Styrene | 23.079 | 104 | 1745162 | 11.67 ppbv | 99 |
| 58) Bromoform | 23.456 | 173 | 988661 | 10.55 ppbv | 99 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1438218 | 12.01 ppbv | 100 |
| 60) 1,2,3-Trichloropropane | 24.265 | 75 | 850540 | 10.06 ppbv | 99 |
| 61) 4-Ethyltoluene | 24.393 | 105 | 2773105 | 11.29 ppbv | 100 |
| 62) 1,3,5-Trimethylbenzene | 24.490 | 105 | 2432328 | 11.33 ppbv | 99 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 2461263 | 11.53 ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1986847 | 11.24 ppbv | 100 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1975390 | 11.32 ppbv | 99 |
| 66) Benzyl chloride | 25.981 | 91 | 1478664 | 9.63 ppbv | 96 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 1873708 | 11.39 ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 741745 | 9.51 ppbv | 96 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 1354663 | 10.00 ppbv | 99 |
| 70) Hexachlorobutadiene | 28.968 | 225 | 1076292 | 10.07 ppbv | 99 |

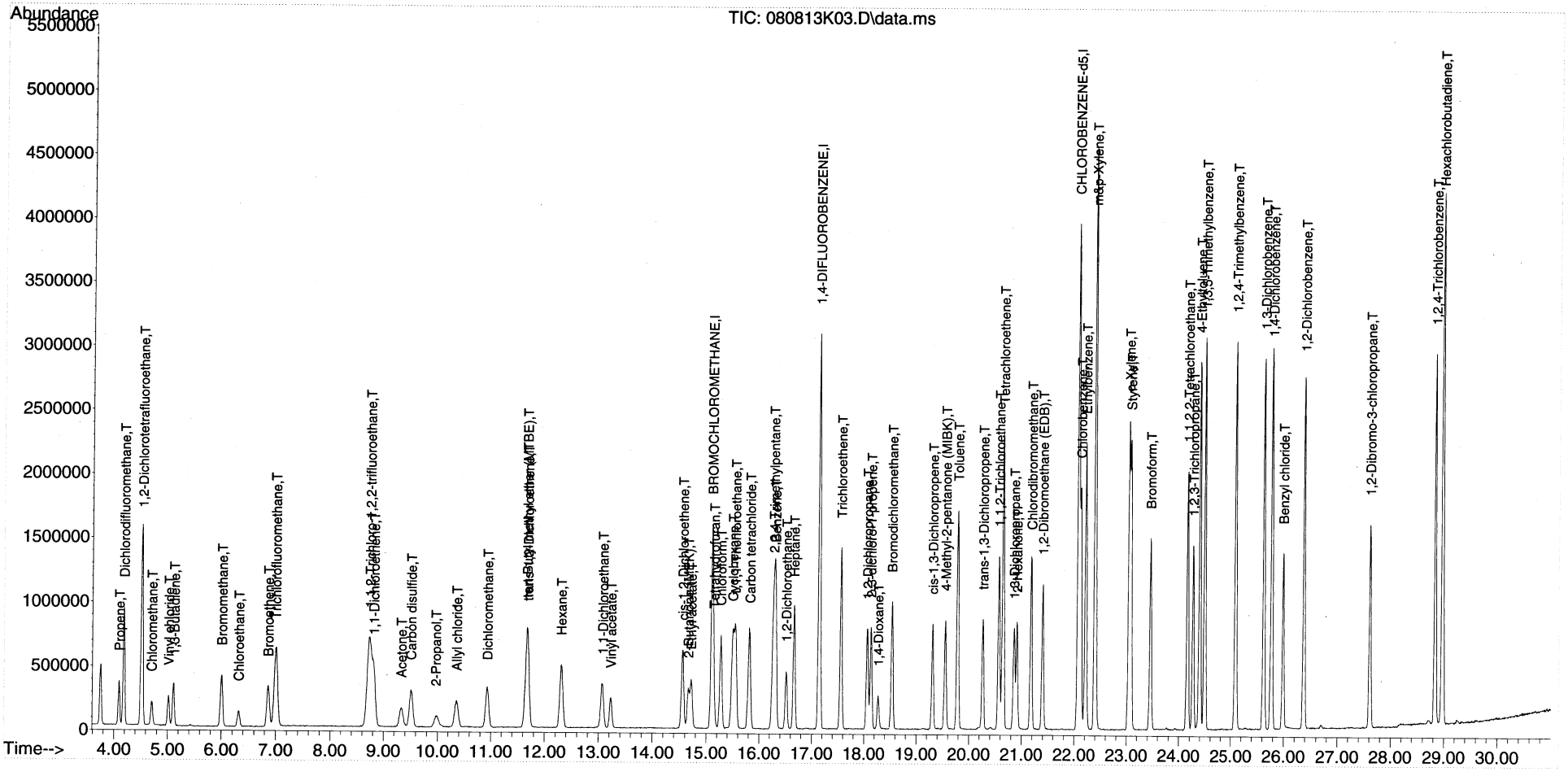
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:37:11 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

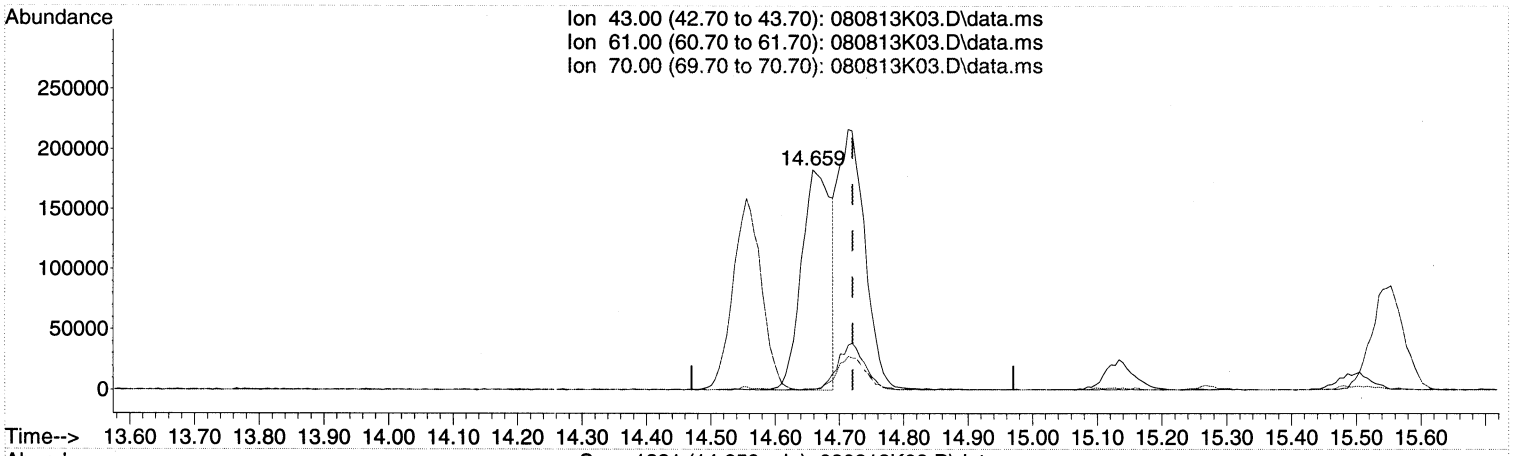


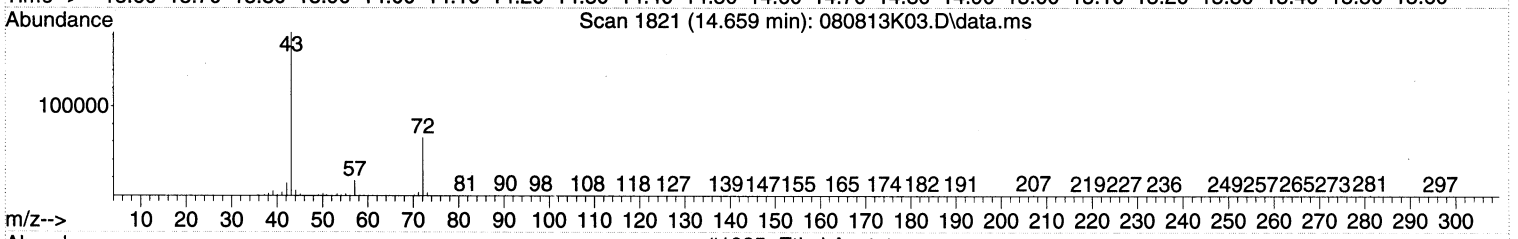
Quantitation Report (Qedit)

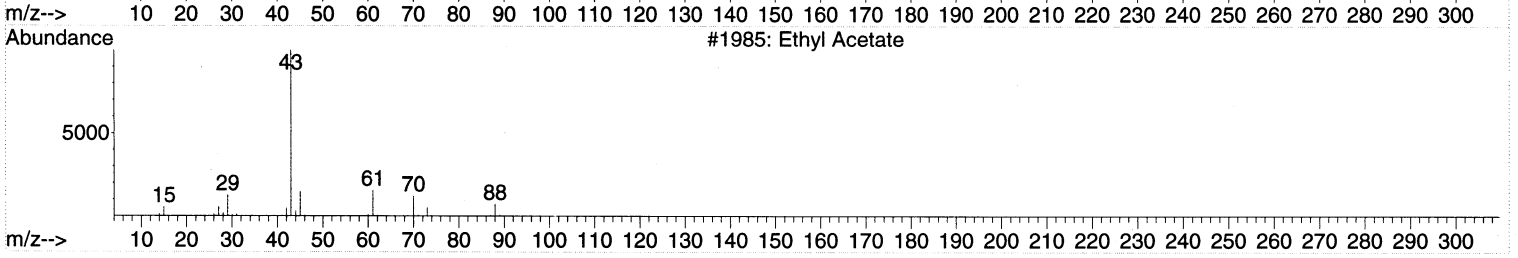
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M




TIC: 080813K03.D\data.ms

(26) Ethyl acetate (T)

14.659min (-0.061) 9.28 ppbv

response 578197

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 16.70 | 0.00# |
| 70.00 | 13.30 | 0.00# |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

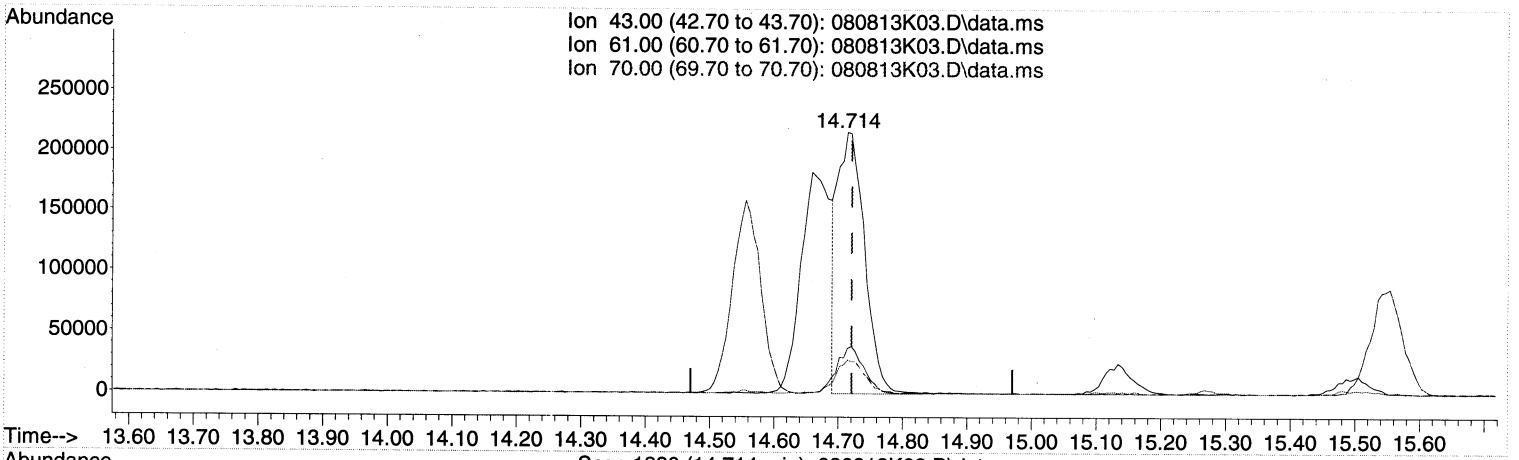
Reviewer: _____ Date: _____

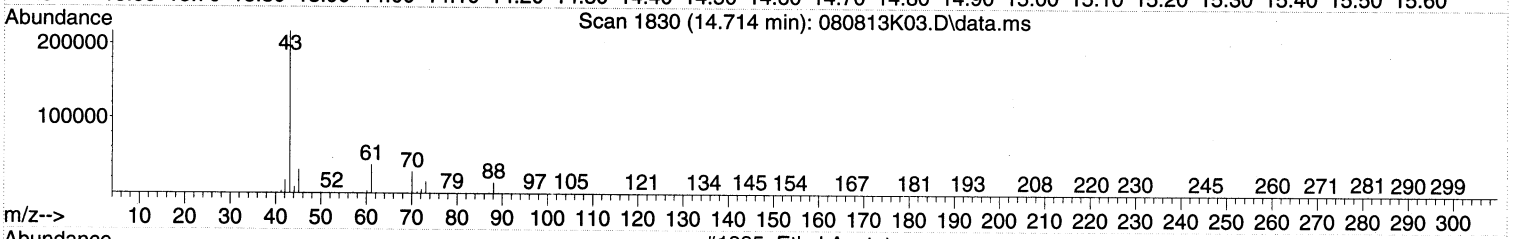
Quantitation Report (Qedit)

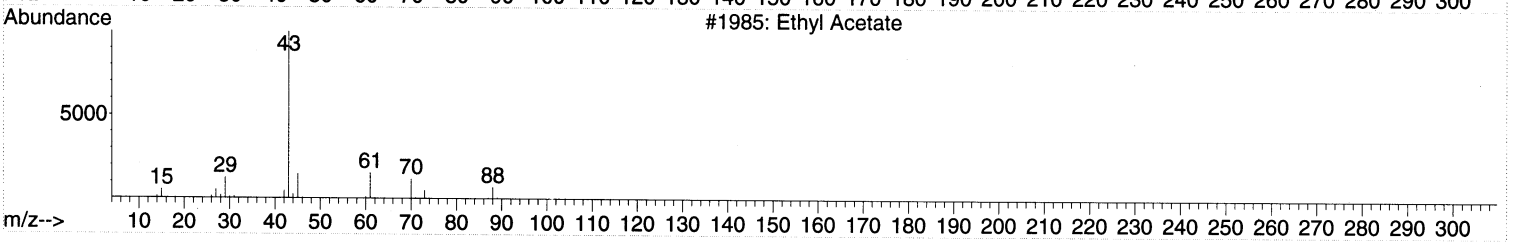
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M




TIC: 080813K03.D\data.ms

(26) Ethyl acetate (T)

14.714min (-0.006) 10.23 ppbv m

response 637581

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 16.70 | 0.00# |
| 70.00 | 13.30 | 0.00# |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 8/8/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 8/19/13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

pee NT
on 8/8/13

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 783024 | 20.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.141 | 114 | 4058089 | 21.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3667736 | 21.60 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.092 | 41 | 231750 | 10.51 | ppbv | 97 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 1176987 | 10.42 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.524 | 85 | 1322565 | 10.28 | ppbv | 99 |
| 5) Chloromethane | 4.701 | 50 | 288632 | 10.22 | ppbv | 100 |
| 6) Vinyl chloride | 5.017 | 62 | 364817 | 10.13 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.120 | 54 | 261717 | 10.13 | ppbv | 93 |
| 8) Bromomethane | 6.002 | 94 | 458590 | 10.73 | ppbv | 100 |
| 9) Chloroethane | 6.319 | 64 | 193551 | 10.62 | ppbv | 96 |
| 10) Bromoethene | 6.860 | 106 | 437381 | 10.37 | ppbv | 99 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 1158097 | 11.18 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.740 | 151 | 727862 | 9.18 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 513649 | 9.67 | ppbv | 97 |
| 14) Acetone | 9.324 | 43 | 426511 | 11.33 | ppbv | 100 |
| 15) Carbon disulfide | 9.507 | 76 | 996862 | 10.28 | ppbv | 99 |
| 16) 2-Propanol | 9.969 | 45 | 356577 | 8.77 | ppbv | 94 |
| 17) Allyl chloride | 10.358 | 41 | 303530 | 9.89 | ppbv | 95 |
| 18) Dichloromethane | 10.930 | 49 | 356178 | 9.55 | ppbv | 95 |
| 19) tert-Butyl methyl ethe... | 11.672 | 73 | 978356 | 9.77 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 11.684 | 61 | 428833 | 9.78 | ppbv | 99 |
| 21) Hexane | 12.311 | 57 | 526436 | 10.09 | ppbv | 94 |
| 22) 1,1-Dichloroethane | 13.078 | 63 | 634091 | 9.83 | ppbv | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 578987 | 9.11 | ppbv | 100 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 488212 | 10.53 | ppbv | 99 |
| 25) 2-Butanone (MEK) | 14.659 | 43 | 578197 | 11.61 | ppbv | 90 |
| 26) Ethyl acetate | 14.659 | 43 | 578197 | 9.28 | ppbv # | 64 |
| 27) Tetrahydrofuran | 15.140 | 42 | 330333 | 10.92 | ppbv | 94 |
| 28) Chloroform | 15.274 | 83 | 875197 | 10.63 | ppbv | 99 |
| 29) Cyclohexane | 15.499 | 56 | 553513 | 10.64 | ppbv | 94 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 831589 | 9.32 | ppbv | 98 |
| 31) Carbon tetrachloride | 15.821 | 117 | 797993 | 8.44 | ppbv | 100 |
| 33) Benzene | 16.308 | 78 | 1390055 | 11.22 | ppbv | 99 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1689114 | 11.08 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 493093 | 11.65 | ppbv | 99 |
| 36) Heptane | 16.661 | 43 | 519154 | 11.59 | ppbv | 97 |
| 37) Trichloroethene | 17.561 | 130 | 769451 | 11.24 | ppbv | 99 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 454962 | 11.38 | ppbv | 96 |
| 39) 2,3-dichloro-1-propene | 18.133 | 75 | 638853 | 9.85 | ppbv | 97 |
| 40) 1,4-Dioxane | 18.273 | 88 | 328571 | 12.53 | ppbv | 96 |
| 41) Bromodichloromethane | 18.535 | 83 | 902809 | 11.22 | ppbv | 99 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 671569 | 10.48 | ppbv | 96 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 729862 | 12.36 | ppbv | 96 |
| 45) Toluene | 19.788 | 91 | 1869314 | 11.60 | ppbv | 99 |
| 46) trans-1,3-Dichloropropene | 20.262 | 75 | 647292 | 11.16 | ppbv | 95 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 654383 | 12.04 | ppbv | 97 |
| 48) Tetrachloroethene | 20.646 | 166 | 999734 | 11.70 | ppbv | 99 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.852 | 76 | 716808 | 10.10 ppbv | 96 |
| 50) 2-Hexanone | 20.907 | 43 | 688181 | 13.26 ppbv | 95 |
| 51) Chlorodibromomethane | 21.181 | 129 | 1058354 | 10.68 ppbv | 99 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 1027530 | 12.25 ppbv | 99 |
| 53) Chlorobenzene | 22.124 | 112 | 1646041 | 11.72 ppbv | 98 |
| 54) Ethylbenzene | 22.215 | 91 | 2437910 | 11.68 ppbv | 100 |
| 55) m&p-Xylene | 22.398 | 91 | 3924744 | 23.81 ppbv | 100 |
| 56) o-Xylene | 23.043 | 91 | 1993055 | 12.04 ppbv | 100 |
| 57) Styrene | 23.079 | 104 | 1745162 | 11.67 ppbv | 99 |
| 58) Bromoform | 23.456 | 173 | 988661 | 10.55 ppbv | 99 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1438218 | 12.01 ppbv | 100 |
| 60) 1,2,3-Trichloropropane | 24.265 | 75 | 850540 | 10.06 ppbv | 99 |
| 61) 4-Ethyltoluene | 24.393 | 105 | 2773105 | 11.29 ppbv | 100 |
| 62) 1,3,5-Trimethylbenzene | 24.490 | 105 | 2432328 | 11.33 ppbv | 99 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 2461263 | 11.53 ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1986847 | 11.24 ppbv | 100 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1975390 | 11.32 ppbv | 99 |
| 66) Benzyl chloride | 25.981 | 91 | 1478664 | 9.63 ppbv | 96 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 1873708 | 11.39 ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 741745 | 9.51 ppbv | 96 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 1354663 | 10.00 ppbv | 99 |
| 70) Hexachlorobutadiene | 28.968 | 225 | 1076292 | 10.07 ppbv | 99 |

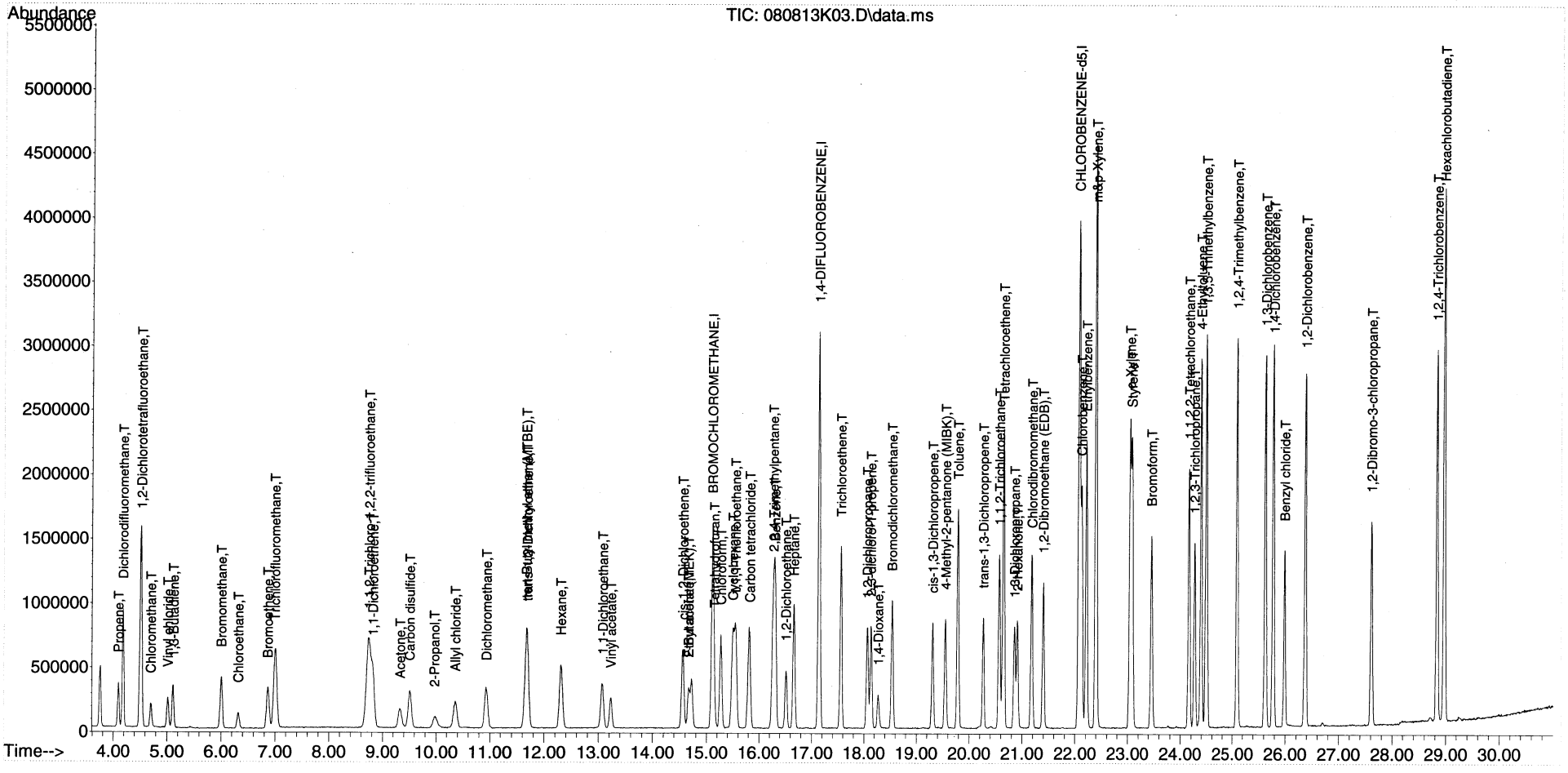
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K03.D
Acq On : 8 Aug 2013 15:06
Instrument: HP5973K
Operator : EM
Sample : 080813-BS1
Misc : 10 ppbv 1328170
ALS Vial : 32
Multiplier: 1

Quant Time: Aug 08 16:36:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M



# QLS REPORT

Instrument Name: HP5973K
Sample Name: 080813-CRL1
Misc Info: 1.0 ppbv 2K14019
Date Acquired: 8/8/2013 15:56
QLast Update: Thu Jul 25 10:59:21 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 3) | Dichlorodifluoromethane | 4.18 | 1.01 | 1.04 | 103% | 60.0 | 140.0 | pass | Primary |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.52 | 1.04 | 1.07 | 103% | 60.0 | 140.0 | pass | Primary |
| 5) | Chloromethane | 4.71 | 1.03 | 1.10 | 106% | 60.0 | 140.0 | pass | Primary |
| 6) | Vinyl chloride | 5.02 | 1.05 | 1.07 | 102% | 60.0 | 140.0 | pass | Primary |
| 8) | Bromomethane | 6.00 | 1.04 | 1.00 | 96% | 60.0 | 140.0 | pass | Primary |
| 9) | Chloroethane | 6.31 | 1.04 | 1.12 | 107% | 60.0 | 140.0 | pass | Primary |
| 11) | Trichlorofluoromethane | 7.01 | 1.05 | 1.14 | 109% | 60.0 | 140.0 | pass | Primary |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.73 | 0.93 | 0.93 | 100% | 60.0 | 140.0 | pass | Primary |
| 13) | 1,1-Dichloroethene | 8.81 | 0.94 | 0.92 | 98% | 60.0 | 140.0 | pass | Primary |
| 18) | Dichloromethane | 10.94 | 0.96 | 1.27 | 132% | 60.0 | 140.0 | pass | Primary |
| 22) | 1,1-Dichloroethane | 13.08 | 0.98 | 0.99 | 101% | 60.0 | 140.0 | pass | Primary |
| 24) | cis-1,2-Dichloroethene | 14.56 | 1.01 | 0.88 | 87% | 60.0 | 140.0 | pass | Primary |
| 28) | Chloroform | 15.27 | 1.01 | 1.03 | 102% | 60.0 | 140.0 | pass | Primary |
| 30) | 1,1,1-Trichloroethane | 15.54 | 1.00 | 0.84 | 84% | 60.0 | 140.0 | pass | Primary |
| 31) | Carbon tetrachloride | 15.82 | 1.00 | 0.66 | 66% | 60.0 | 140.0 | pass | Primary |
| 33) | Benzene | 16.30 | 1.03 | 1.00 | 97% | 60.0 | 140.0 | pass | Primary |
| 35) | 1,2-Dichloroethane | 16.51 | 1.00 | 1.10 | 110% | 60.0 | 140.0 | pass | Primary |
| 37) | Trichloroethene | 17.56 | 1.03 | 1.05 | 102% | 60.0 | 140.0 | pass | Primary |
| 38) | 1,2-Dichloropropane | 18.06 | 1.06 | 1.04 | 98% | 60.0 | 140.0 | pass | Primary |
| 42) | cis-1,3-Dichloropropene | 19.31 | 1.03 | 0.79 | 77% | 60.0 | 140.0 | pass | Primary |
| 45) | Toluene | 19.78 | 1.04 | 1.00 | 96% | 60.0 | 140.0 | pass | Primary |
| 46) | trans-1,3-Dichloropropene | 20.26 | 1.10 | 0.72 | 66% | 60.0 | 140.0 | pass | Primary |
| 47) | 1,1,2-Trichloroethane | 20.57 | 1.08 | 1.05 | 97% | 60.0 | 140.0 | pass | Primary |
| 48) | Tetrachloroethene | 20.65 | 1.04 | 1.01 | 98% | 60.0 | 140.0 | pass | Primary |
| 52) | 1,2-Dibromoethane (EDB) | 21.40 | 1.07 | 1.00 | 93% | 60.0 | 140.0 | pass | Primary |
| 53) | Chlorobenzene | 22.12 | 1.06 | 1.03 | 98% | 60.0 | 140.0 | pass | Primary |
| 54) | Ethylbenzene | 22.21 | 1.05 | 0.98 | 94% | 60.0 | 140.0 | pass | Primary |
| 55) | m&p-Xylene | 22.40 | 2.12 | 1.97 | 93% | 60.0 | 140.0 | pass | Primary |
| 56) | o-Xylene | 23.04 | 1.07 | 1.02 | 95% | 60.0 | 140.0 | pass | Primary |
| 57) | Styrene | 23.09 | 1.04 | 0.92 | 89% | 60.0 | 140.0 | pass | Primary |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 1.06 | 1.04 | 98% | 60.0 | 140.0 | pass | Primary |
| 62) | 1,3,5-Trimethylbenzene | 24.49 | 1.04 | 0.91 | 87% | 60.0 | 140.0 | pass | Primary |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 1.07 | 0.94 | 88% | 60.0 | 140.0 | pass | Primary |
| 64) | 1,3-Dichlorobenzene | 25.63 | 1.03 | 0.94 | 92% | 60.0 | 140.0 | pass | Primary |
| 65) | 1,4-Dichlorobenzene | 25.77 | 1.04 | 0.95 | 91% | 60.0 | 140.0 | pass | Primary |
| 67) | 1,2-Dichlorobenzene | 26.37 | 1.04 | 0.96 | 93% | 60.0 | 140.0 | pass | Primary |
| 69) | 1,2,4-Trichlorobenzene | 28.83 | 1.02 | 0.73 | 72% | 60.0 | 140.0 | pass | Primary |
| 70) | Hexachlorobutadiene | 28.97 | 1.03 | 0.81 | 79% | 60.0 | 140.0 | pass | Primary |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K04.D
Acq On : 8 Aug 2013 15:56
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL1
Misc : 1.0 ppbv 2K14019
ALS Vial : 12
Multiplier: 1

Quant Time: Aug 08 16:38:35 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 888153 | 20.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 4783652 | 21.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 4491802 | 21.60 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 133795 | 1.04 | ppbv | 98 |
| 4) 1,2-Dichlorotetrafluor... | 4.518 | 85 | 155969 | 1.07 | ppbv | 96 |
| 5) Chloromethane | 4.713 | 50 | 35088 | 1.10 | ppbv | 95 |
| 6) Vinyl chloride | 5.017 | 62 | 43580 | 1.07 | ppbv | 100 |
| 8) Bromomethane | 6.003 | 94 | 48541 | 1.00 | ppbv | 91 |
| 9) Chloroethane | 6.313 | 64 | 23047 | 1.12 | ppbv | 92 |
| 11) Trichlorofluoromethane | 7.006 | 101 | 134158 | 1.14 | ppbv | 98 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.734 | 151 | 83612 | 0.93 | ppbv | 98 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 55461 | 0.92 | ppbv | 90 |
| 18) Dichloromethane | 10.942 | 49 | 53821 | 1.27 | ppbv | 96 |
| 22) 1,1-Dichloroethane | 13.078 | 63 | 72167 | 0.99 | ppbv | 98 |
| 24) cis-1,2-Dichloroethene | 14.562 | 61 | 46042 | 0.88 | ppbv | 93 |
| 28) Chloroform | 15.274 | 83 | 96163 | 1.03 | ppbv | 96 |
| 30) 1,1,1-Trichloroethane | 15.542 | 97 | 84873 | 0.84 | ppbv | 95 |
| 31) Carbon tetrachloride | 15.815 | 117 | 70477 | 0.66 | ppbv | 96 |
| 33) Benzene | 16.302 | 78 | 145885 | 1.00 | ppbv | 98 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 54722 | 1.10 | ppbv | 97 |
| 37) Trichloroethene | 17.561 | 130 | 84641 | 1.05 | ppbv | 98 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 48933 | 1.04 | ppbv | 90 |
| 42) cis-1,3-Dichloropropene | 19.314 | 75 | 59964 | 0.79 | ppbv | 87 |
| 45) Toluene | 19.782 | 91 | 196806 | 1.00 | ppbv | 100 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 51265 | 0.72 | ppbv | 93 |
| 47) 1,1,2-Trichloroethane | 20.573 | 97 | 69877 | 1.05 | ppbv | 92 |
| 48) Tetrachloroethene | 20.652 | 166 | 106148 | 1.01 | ppbv | 98 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 102439 | 1.00 | ppbv | 98 |
| 53) Chlorobenzene | 22.118 | 112 | 177815 | 1.03 | ppbv # | 80 |
| 54) Ethylbenzene | 22.209 | 91 | 251397 | 0.98 | ppbv | 99 |
| 55) m&p-Xylene | 22.398 | 91 | 397009 | 1.97 | ppbv | 100 |
| 56) o-Xylene | 23.043 | 91 | 206764 | 1.02 | ppbv | 97 |
| 57) Styrene | 23.085 | 104 | 169272 | 0.92 | ppbv | 96 |
| 59) 1,1,2,2-Tetrachloroethane | 24.156 | 83 | 152762 | 1.04 | ppbv | 97 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 238407 | 0.91 | ppbv | 98 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 246418 | 0.94 | ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 204210 | 0.94 | ppbv | 99 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 202492 | 0.95 | ppbv | 97 |
| 67) 1,2-Dichlorobenzene | 26.370 | 146 | 194319 | 0.96 | ppbv | 98 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 121497 | 0.73 | ppbv | 99 |
| 70) Hexachlorobutadiene | 28.968 | 225 | 105920 | 0.81 | ppbv | 98 |

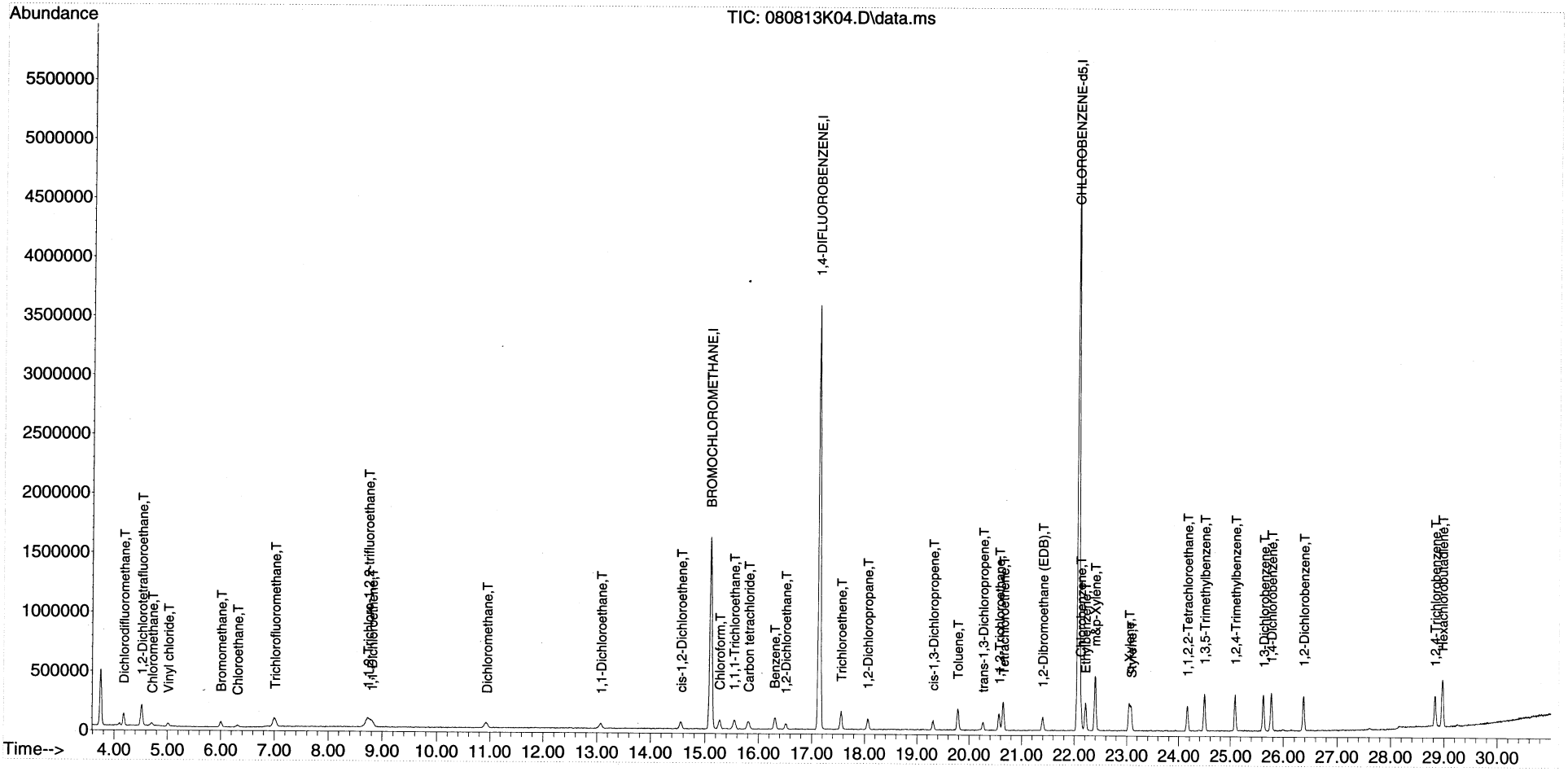
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K04.D
Acq On : 8 Aug 2013 15:56
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL1
Misc : 1.0 ppbv 2K14019
ALS Vial : 12
Multiplier: 1

Quant Time: Aug 08 16:38:35 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M



# QLS REPORT

1 out
on 8/9/13

Instrument Name: HP5973K
Sample Name: 080813-CRL2
Misc Info: 1.0 ppbv 1309037
Date Acquired: 8/8/2013 16:46
QLast Update: Thu Jul 25 10:59:21 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 2) | Propene | 4.09 | 1.07 | 1.15 | 107% | 60.0 | 140.0 | pass | Subset |
| 7) | 1,3-Butadiene | 5.11 | 1.02 | 0.98 | 96% | 60.0 | 140.0 | pass | Subset |
| 10) | Bromoethene | 6.87 | 1.03 | 1.03 | 100% | 60.0 | 140.0 | pass | Subset |
| 14) | Acetone | 9.36 | 1.06 | 1.13 | 107% | 60.0 | 140.0 | pass | Subset |
| 15) | Carbon disulfide | 9.51 | 1.02 | 0.98 | 97% | 60.0 | 140.0 | pass | Subset |
| 16) | 2-Propanol | 10.04 | 0.95 | 0.77 | 81% | 60.0 | 140.0 | pass | Subset |
| 17) | Allyl chloride | 10.35 | 1.01 | 0.96 | 95% | 60.0 | 140.0 | pass | Subset |
| 19) | tert-Butyl methyl ether (MTBE) | 11.68 | 1.09 | 0.91 | 83% | 60.0 | 140.0 | pass | Subset |
| 20) | trans-1,2-Dichloroethene | 11.68 | 0.95 | 0.98 | 103% | 60.0 | 140.0 | pass | Subset |
| 21) | Hexane | 12.31 | 1.02 | 0.92 | 90% | 60.0 | 140.0 | pass | Subset |
| 23) | Vinyl acetate | 13.24 | 1.00 | 0.71 | 71% | 60.0 | 140.0 | pass | Subset |
| 25) | 2-Butanone (MEK) | 14.68 | 1.04 | 0.90 | 87% | 60.0 | 140.0 | pass | Subset |
| 26) | Ethyl acetate | 14.74 | 1.04 | 0.83 | 80% | 60.0 | 140.0 | pass | Subset |
| 27) | Tetrahydrofuran | 15.16 | 1.03 | 1.07 | 104% | 60.0 | 140.0 | pass | Subset |
| 29) | Cyclohexane | 15.50 | 1.04 | 0.97 | 94% | 60.0 | 140.0 | pass | Subset |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 1.05 | 1.00 | 95% | 60.0 | 140.0 | pass | Subset |
| 36) | Heptane | 16.67 | 1.05 | 1.01 | 96% | 60.0 | 140.0 | pass | Subset |
| 40) | 1,4-Dioxane | 18.29 | 1.06 | 1.12 | 105% | 60.0 | 140.0 | pass | Subset |
| 41) | Bromodichloromethane | 18.54 | 1.06 | 0.96 | 91% | 60.0 | 140.0 | pass | Subset |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.56 | 1.05 | 1.07 | 102% | 60.0 | 140.0 | pass | Subset |
| 50) | 2-Hexanone | 20.93 | 1.03 | 1.02 | 99% | 60.0 | 140.0 | pass | Subset |
| 51) | Chlorodibromomethane | 21.18 | 1.04 | 0.78 | 75% | 60.0 | 140.0 | pass | Subset |
| 58) | Bromoform | 23.46 | 1.03 | 0.70 | 68% | 60.0 | 140.0 | pass | Subset |
| 61) | 4-Ethyltoluene | 24.40 | 1.05 | 0.91 | 87% | 60.0 | 140.0 | pass | Subset |
| 66) | Benzyl chloride | 25.99 | 1.03 | 0.61 | 59% | 60.0 | 140.0 | FAIL | Subset |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K05.D
Acq On : 8 Aug 2013 16:46
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL2
Misc : 1.0 ppbv 1309037
ALS Vial : 13
Multiplier: 1

Quant Time: Aug 08 17:18:10 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 888502 | 20.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 4749308 | 21.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 4468653 | 21.60 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.092 | 41 | 28789 | 1.15 | ppbv | | 95 |
| 7) 1,3-Butadiene | 5.108 | 54 | 28712 | 0.98 | ppbv | | 81 |
| 10) Bromoethene | 6.872 | 106 | 49272 | 1.03 | ppbv | | 98 |
| 14) Acetone | 9.361 | 43 | 48412 | 1.13 | ppbv | | 98 |
| 15) Carbon disulfide | 9.507 | 76 | 108291 | 0.98 | ppbv | | 97 |
| 16) 2-Propanol | 10.042 | 45 | 35517 | 0.77 | ppbv | | 90 |
| 17) Allyl chloride | 10.352 | 41 | 33478 | 0.96 | ppbv | | 91 |
| 19) tert-Butyl methyl ethe... | 11.685 | 73 | 103327 | 0.91 | ppbv | | 93 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 48678 | 0.98 | ppbv | | 97 |
| 21) Hexane | 12.311 | 57 | 54263 | 0.92 | ppbv | | 84 |
| 23) Vinyl acetate | 13.236 | 43 | 51169 | 0.71 | ppbv | | 91 |
| 25) 2-Butanone (MEK) | 14.678 | 43 | 51055 | 0.90 | ppbv | # | 69 |
| 26) Ethyl acetate | 14.739 | 43 | 58695 | 0.83 | ppbv | # | 64 |
| 27) Tetrahydrofuran | 15.164 | 42 | 36845 | 1.07 | ppbv | | 90 |
| 29) Cyclohexane | 15.499 | 56 | 57469 | 0.97 | ppbv | | 91 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 177486 | 1.00 | ppbv | | 95 |
| 36) Heptane | 16.667 | 43 | 52797 | 1.01 | ppbv | | 96 |
| 40) 1,4-Dioxane | 18.285 | 88 | 34275 | 1.12 | ppbv | | 94 |
| 41) Bromodichloromethane | 18.541 | 83 | 90483 | 0.96 | ppbv | | 97 |
| 43) 4-Methyl-2-pentanone (... | 19.557 | 43 | 74158 | 1.07 | ppbv | | 94 |
| 50) 2-Hexanone | 20.926 | 43 | 64640 | 1.02 | ppbv | | 87 |
| 51) Chlorodibromomethane | 21.181 | 129 | 93692 | 0.78 | ppbv | | 95 |
| 58) Bromoform | 23.462 | 173 | 79491 | 0.70 | ppbv | | 99 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 273214 | 0.91 | ppbv | | 98 |
| 62) 1,3,5-Trimethylbenzene | 24.399 | 105 | 273214 | 1.04 | ppbv | # | 70 |
| 66) Benzyl chloride | 25.987 | 91 | 114266 | 0.61 | ppbv | | 96 |

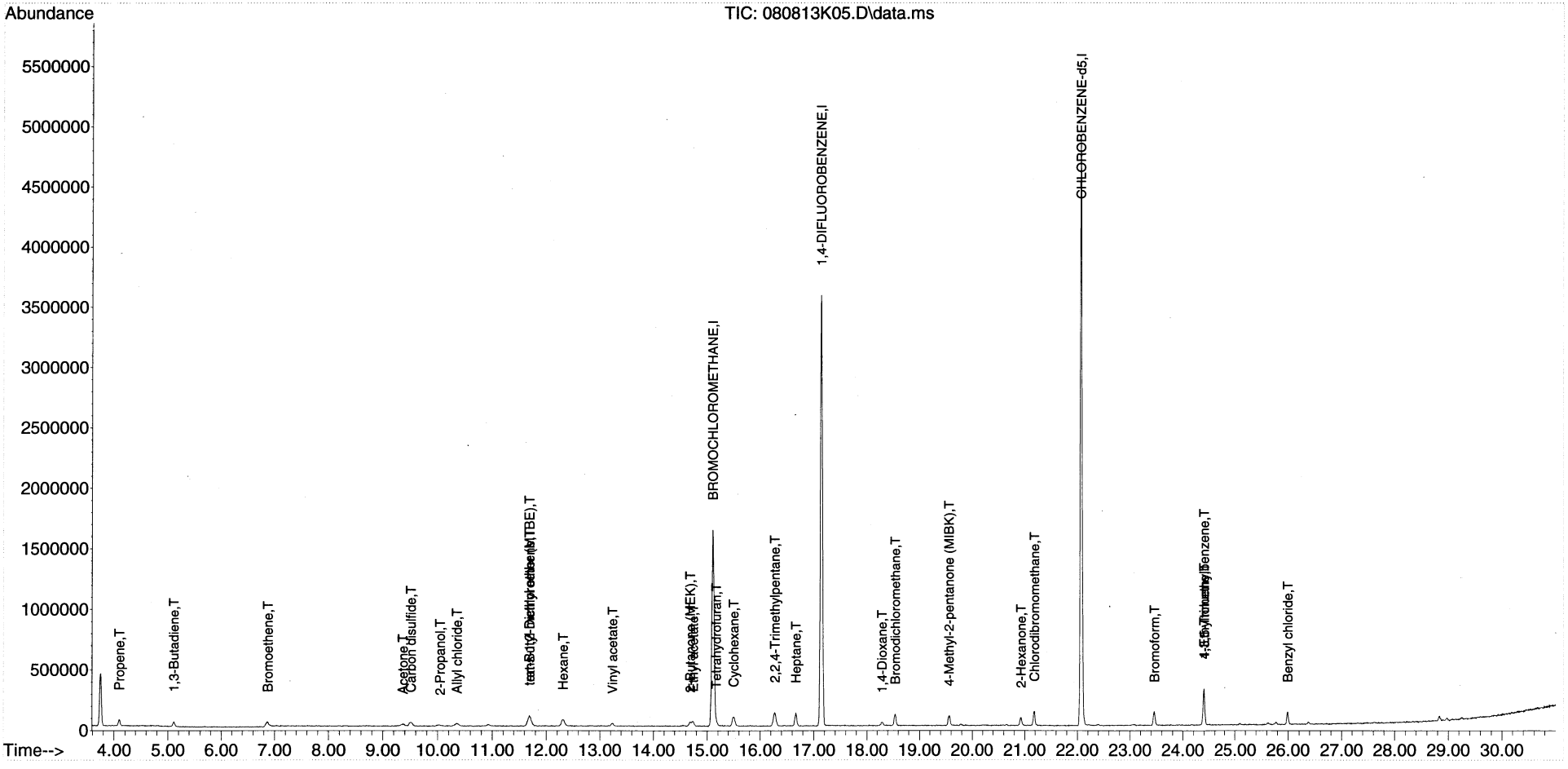
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K05.D
Acq On : 8 Aug 2013 16:46
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL2
Misc : 1.0 ppbv 1309037
ALS Vial : 13
Multiplier: 1

Quant Time: Aug 08 17:18:10 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M



# QLS REPORT

Instrument Name: HP5973K
Sample Name: 080813-CRL3
Misc Info: 1.0 ppbv 1328170
Date Acquired: 8/8/2013 17:32
QLast Update: Thu Jul 25 10:59:21 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 39) | 2,3-dichloro-1-propene | 18.14 | 1.04 | 1.11 | 107% | 60.0 | 140.0 | pass | Additional |
| 49) | 1,3-Dichloropropane | 20.86 | 1.03 | 1.20 | 117% | 60.0 | 140.0 | pass | Additional |
| 60) | 1,2,3-Trichloropropane | 24.27 | 0.97 | 1.17 | 121% | 60.0 | 140.0 | pass | Additional |
| 68) | 1,2-Dibromo-3-chloropropane | 27.61 | 0.90 | 0.80 | 88% | 60.0 | 140.0 | pass | Additional |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K06.D
Acq On : 8 Aug 2013 17:32
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL3
Misc : 1.0 ppbv 1328170
ALS Vial : 33
Multiplier: 1

Quant Time: Aug 09 11:02:32 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 756088 | 20.00 | ppbv | | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 3982334 | 21.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3580665 | 21.60 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 33376 | 1.57 | ppbv | | 98 |
| 3) Dichlorodifluoromethane | 4.184 | 85 | 162309 | 1.49 | ppbv | | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 178154 | 1.43 | ppbv | | 98 |
| 5) Chloromethane | 4.707 | 50 | 40612 | 1.49 | ppbv | | 96 |
| 6) Vinyl chloride | 5.017 | 62 | 54891 | 1.58 | ppbv | | 98 |
| 7) 1,3-Butadiene | 5.102 | 54 | 37181 | 1.49 | ppbv | | 88 |
| 8) Bromomethane | 5.996 | 94 | 63831 | 1.55 | ppbv | | 97 |
| 9) Chloroethane | 6.313 | 64 | 29586 | 1.68 | ppbv | | 98 |
| 10) Bromoethene | 6.872 | 106 | 59268 | 1.46 | ppbv | | 98 |
| 11) Trichlorofluoromethane | 7.006 | 101 | 165998 | 1.66 | ppbv | | 97 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 100609 | 1.31 | ppbv | # | 79 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 65911 | 1.28 | ppbv | | 98 |
| 14) Acetone | 9.342 | 43 | 55296 | 1.52 | ppbv | | 100 |
| 15) Carbon disulfide | 9.507 | 76 | 128623 | 1.37 | ppbv | | 98 |
| 17) Allyl chloride | 10.340 | 41 | 42804 | 1.44 | ppbv | # | 81 |
| 18) Dichloromethane | 10.930 | 49 | 60449 | 1.68 | ppbv | # | 74 |
| 19) tert-Butyl methyl ethe... | 11.685 | 73 | 116663 | 1.21 | ppbv | | 93 |
| 20) trans-1,2-Dichloroethene | 11.666 | 61 | 54957 | 1.30 | ppbv | | 94 |
| 21) Hexane | 12.305 | 57 | 66267 | 1.32 | ppbv | | 93 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 84157 | 1.35 | ppbv | | 94 |
| 23) Vinyl acetate | 13.224 | 43 | 63369 | 1.03 | ppbv | | 99 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 62238 | 1.39 | ppbv | | 98 |
| 25) 2-Butanone (MEK) | 14.678 | 43 | 45183 | 0.94 | ppbv | # | 69 |
| 26) Ethyl acetate | 14.726 | 43 | 76445 | 1.27 | ppbv | | 97 |
| 27) Tetrahydrofuran | 15.152 | 42 | 38641 | 1.32 | ppbv | | 98 |
| 28) Chloroform | 15.262 | 83 | 110940 | 1.40 | ppbv | | 93 |
| 29) Cyclohexane | 15.493 | 56 | 64591 | 1.29 | ppbv | | 94 |
| 30) 1,1,1-Trichloroethane | 15.554 | 97 | 109889 | 1.28 | ppbv | | 96 |
| 31) Carbon tetrachloride | 15.809 | 117 | 93668 | 1.03 | ppbv | | 98 |
| 33) Benzene | 16.308 | 78 | 176424 | 1.45 | ppbv | | 99 |
| 34) 2,2,4-Trimethylpentane | 16.265 | 57 | 196331 | 1.31 | ppbv | | 95 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 64159 | 1.55 | ppbv | | 97 |
| 36) Heptane | 16.667 | 43 | 57881 | 1.32 | ppbv | | 98 |
| 37) Trichloroethene | 17.561 | 130 | 90803 | 1.35 | ppbv | | 99 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 57983 | 1.48 | ppbv | | 93 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 70532 | 1.11 | ppbv | | 93 |
| 40) 1,4-Dioxane | 18.297 | 88 | 29842 | 1.16 | ppbv | | 96 |
| 41) Bromodichloromethane | 18.541 | 83 | 106033 | 1.34 | ppbv | | 99 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 70902 | 1.13 | ppbv | | 94 |
| 43) 4-Methyl-2-pentanone (... | 19.557 | 43 | 74424 | 1.28 | ppbv | | 94 |
| 45) Toluene | 19.788 | 91 | 210776 | 1.34 | ppbv | | 98 |
| 46) trans-1,3-Dichloropropene | 20.262 | 75 | 63728 | 1.13 | ppbv | | 93 |
| 47) 1,1,2-Trichloroethane | 20.573 | 97 | 77620 | 1.46 | ppbv | | 95 |
| 48) Tetrachloroethene | 20.640 | 166 | 113470 | 1.36 | ppbv | | 98 |
| 49) 1,3-Dichloropropane | 20.859 | 76 | 83255 | 1.20 | ppbv | | 96 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K06.D
Acq On : 8 Aug 2013 17:32
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL3
Misc : 1.0 ppbv 1328170
ALS Vial : 33
Multiplier: 1

Quant Time: Aug 09 11:02:32 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 50) 2-Hexanone | 20.919 | 43 | 66559 | 1.31 ppbv | 91 |
| 51) Chlorodibromomethane | 21.175 | 129 | 107358 | 1.11 ppbv | 98 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 108452 | 1.32 ppbv | 99 |
| 53) Chlorobenzene | 22.130 | 112 | 183746 | 1.34 ppbv | 84 |
| 54) Ethylbenzene | 22.221 | 91 | 257253 | 1.26 ppbv | 100 |
| 55) m&p-Xylene | 22.398 | 91 | 392673 | 2.44 ppbv | 99 |
| 56) o-Xylene | 23.049 | 91 | 204318 | 1.26 ppbv | 98 |
| 57) Styrene | 23.079 | 104 | 157931 | 1.08 ppbv | 95 |
| 58) Bromoform | 23.456 | 173 | 83934 | 0.92 ppbv | 94 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 162992 | 1.39 ppbv | 98 |
| 60) 1,2,3-Trichloropropane | 24.271 | 75 | 97010 | 1.17 ppbv | 96 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 261415 | 1.09 ppbv | 100 |
| 62) 1,3,5-Trimethylbenzene | 24.490 | 105 | 235017 | 1.12 ppbv | 99 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 221884 | 1.07 ppbv | 100 |
| 64) 1,3-Dichlorobenzene | 25.622 | 146 | 179192 | 1.04 ppbv | 99 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 181061 | 1.06 ppbv | 97 |
| 66) Benzyl chloride | 25.987 | 91 | 111355 | 0.74 ppbv | 93 |
| 67) 1,2-Dichlorobenzene | 26.370 | 146 | 172099 | 1.07 ppbv | 99 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 60528 | 0.80 ppbv | 89 |
| 69) 1,2,4-Trichlorobenzene | 28.840 | 180 | 110573 | 0.84 ppbv | 92 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 102954 | 0.99 ppbv | 97 |

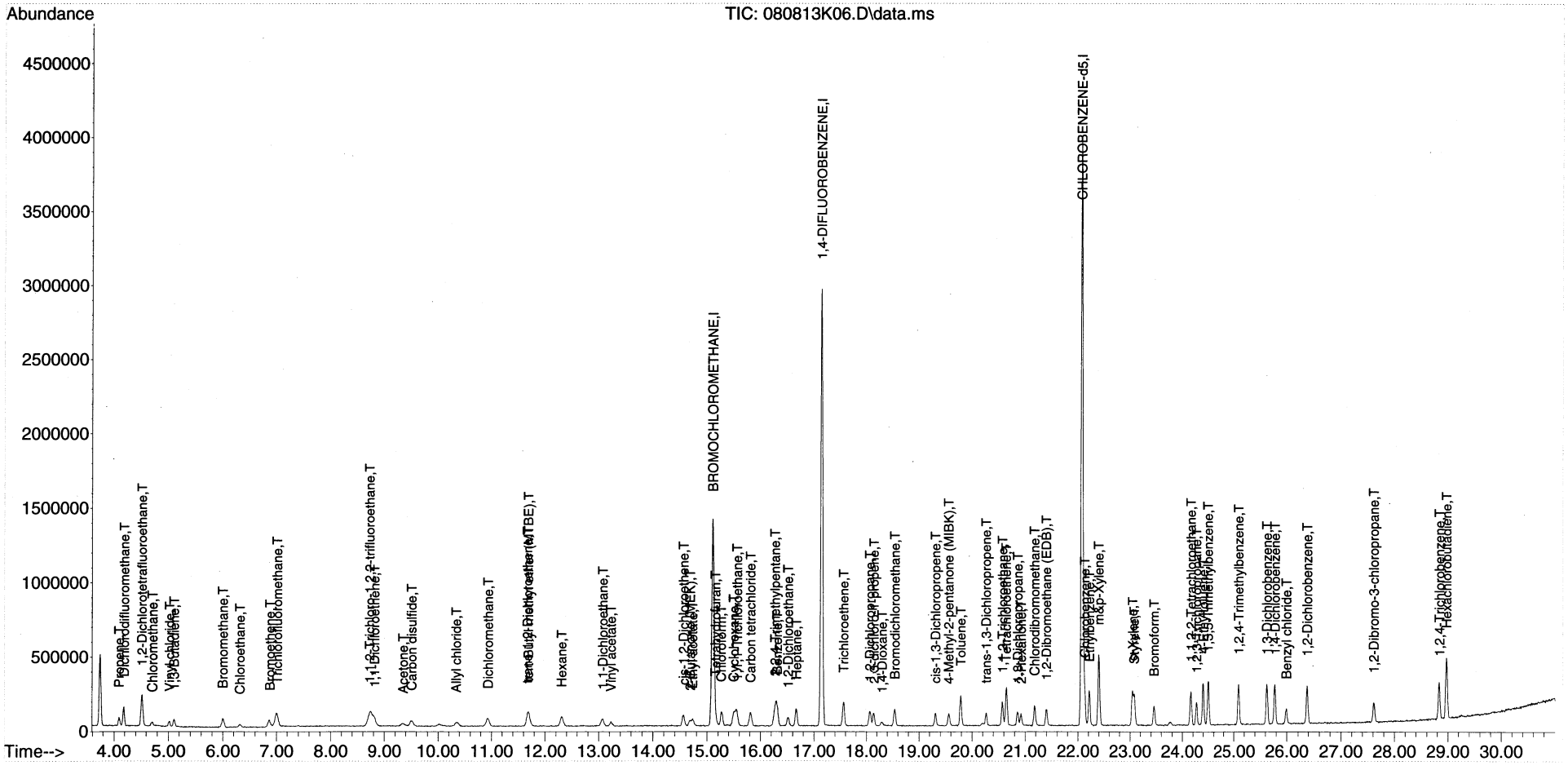
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K06.D
Acq On : 8 Aug 2013 17:32
Instrument: HP5973K
Operator : EM
Sample : 080813-CRL3
Misc : 1.0 ppbv 1328170
ALS Vial : 33
Multiplier: 1

Quant Time: Aug 09 11:02:32 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41
Multiplier: 1

Quant Time: Aug 09 09:54:29 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.103 | 49 | 712602 | 20.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.148 | 114 | 3459398 | 21.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3157505 | 21.60 ppbv | 0.00 |

Target Compounds Qvalue

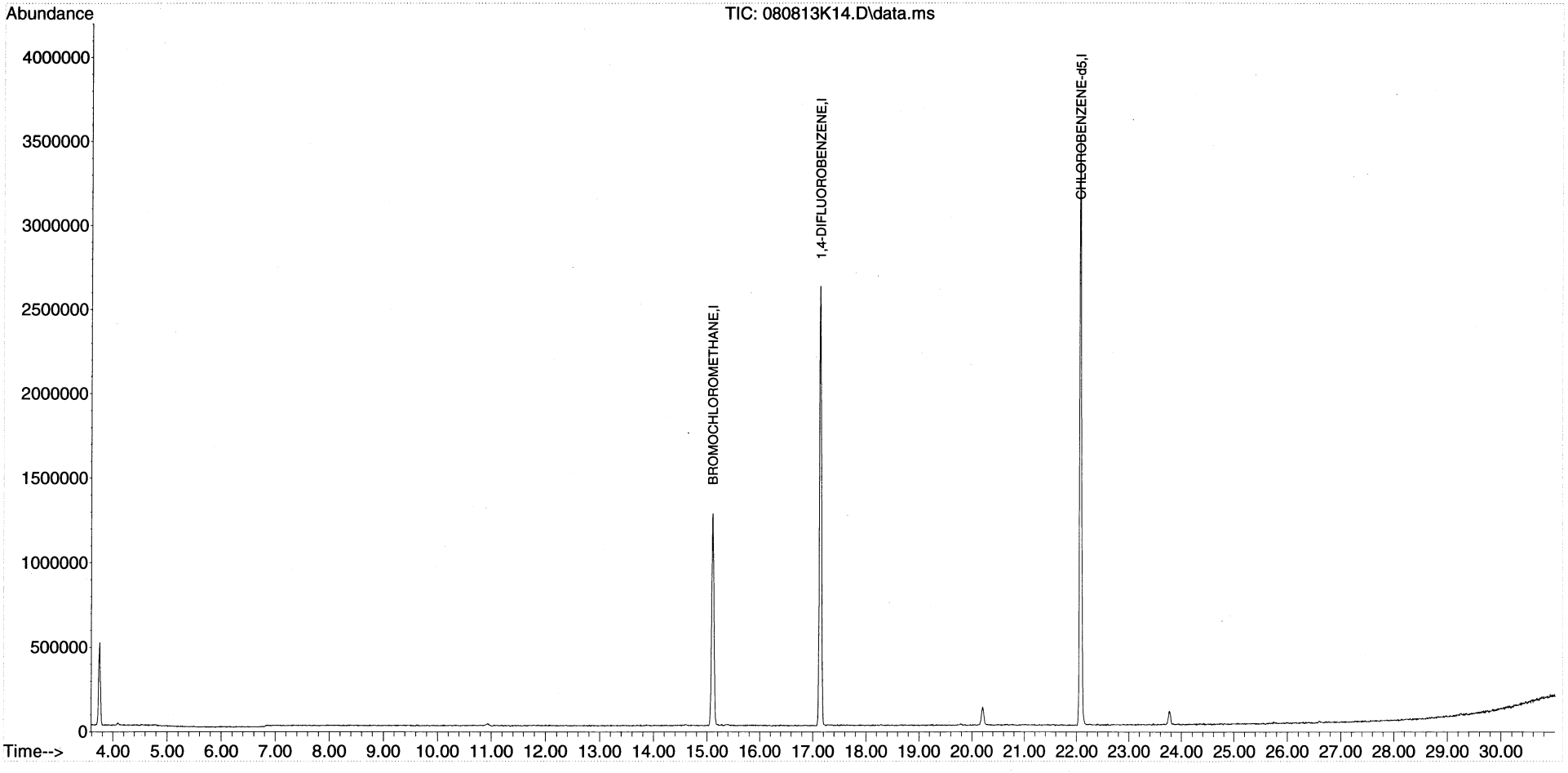
(#) = qualifier out of range (m) = manual integration (+) = signals summed

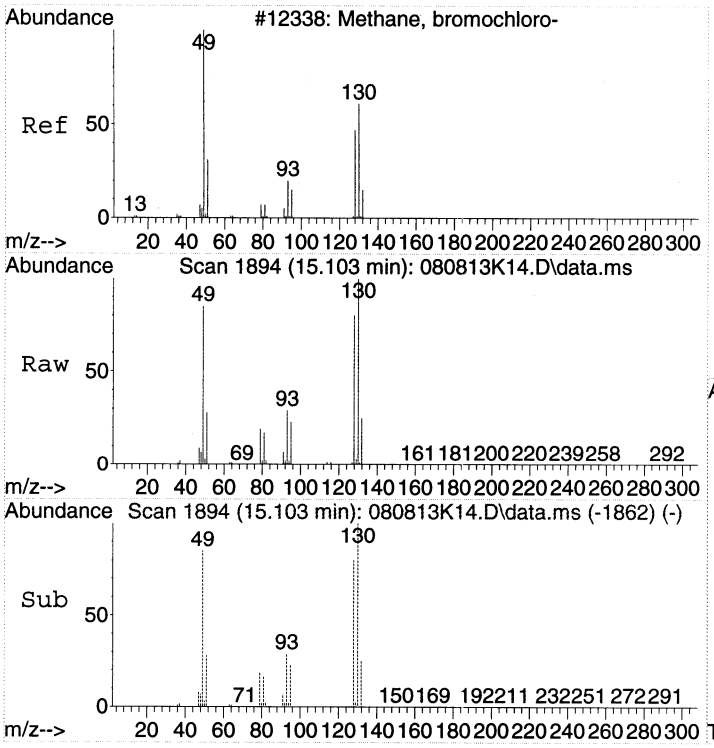
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41
Multiplier: 1

Quant Time: Aug 09 09:54:29 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

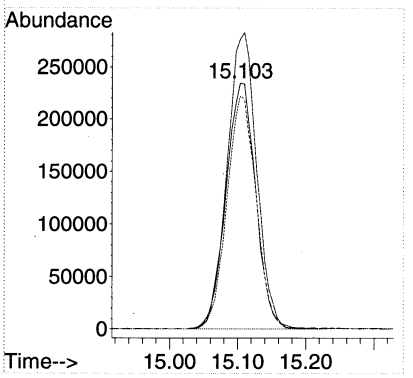


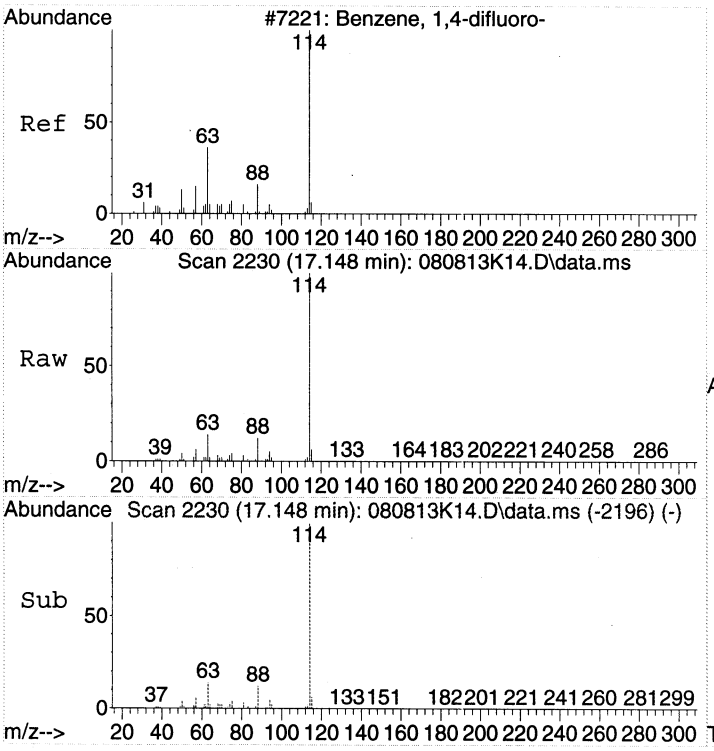



#1
BROMOCHLOROMETHANE
Concen: 20.00 ppbv
RT: 15.103 min Scan# 1894
Delta R.T. -0.007 min
Lab File: 080813K14.D
Acq: 9 Aug 2013 00:13

Tgt Ion: 49 Resp: 712602

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 119.1 | 112.7 | 152.7 |
| 128 | 92.7 | 83.1 | 123.1 |

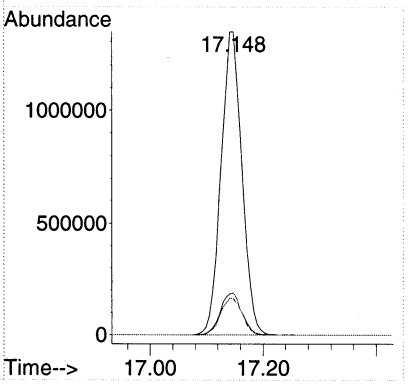


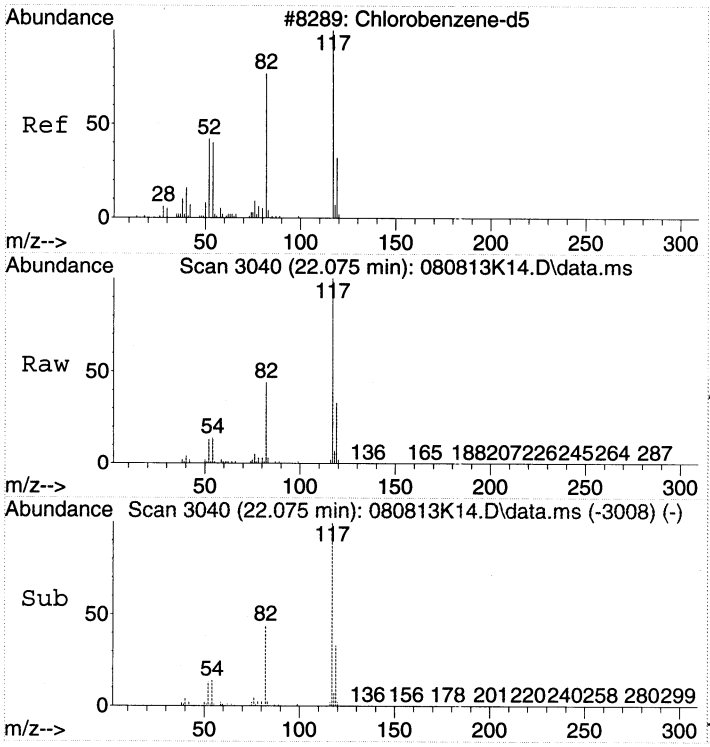




#32
1,4-DIFLUOROBENZENE
Concen: 21.00 ppbv
RT: 17.148 min Scan# 2230
Delta R.T. 0.006 min
Lab File: 080813K14.D
Acq: 9 Aug 2013 00:13

Tgt Ion:114 Resp: 3459398

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 14.3 | 0.0 | 33.1 |
| 88 | 12.6 | 0.0 | 32.5 |

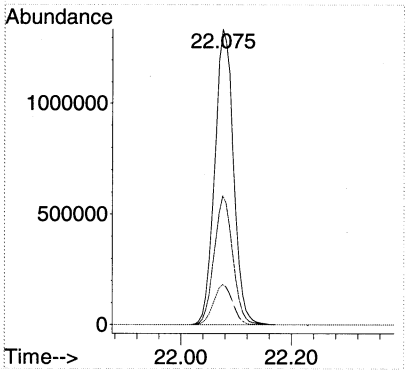





#44
CHLOROBENZENE-d5
Concen: 21.60 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.007 min
Lab File: 080813K14.D
Acq: 9 Aug 2013 00:13

Tgt Ion:117 Resp: 3157505

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 43.3 | 22.4 | 62.4 |
| 54 | 13.9 | 0.0 | 32.3 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Title : TO15

Signal : TIC: 080813K14.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.110 | 1882 | 1895 | 1906 | rBV2 | 1255500 | 3810246 | 46.55% | 19.660% |
| 2 | 17.141 | 2218 | 2229 | 2243 | rBV | 2602704 | 6829898 | 83.44% | 35.241% |
| 3 | 20.201 | 2722 | 2732 | 2743 | rBV3 | 105919 | 322025 | 3.93% | 1.662% |
| 4 | 22.075 | 3030 | 3040 | 3058 | rBV | 3465184 | 8185673 | 100.00% | 42.236% |
| 5 | 23.766 | 3308 | 3318 | 3326 | rBV3 | 79596 | 232961 | 2.85% | 1.202% |

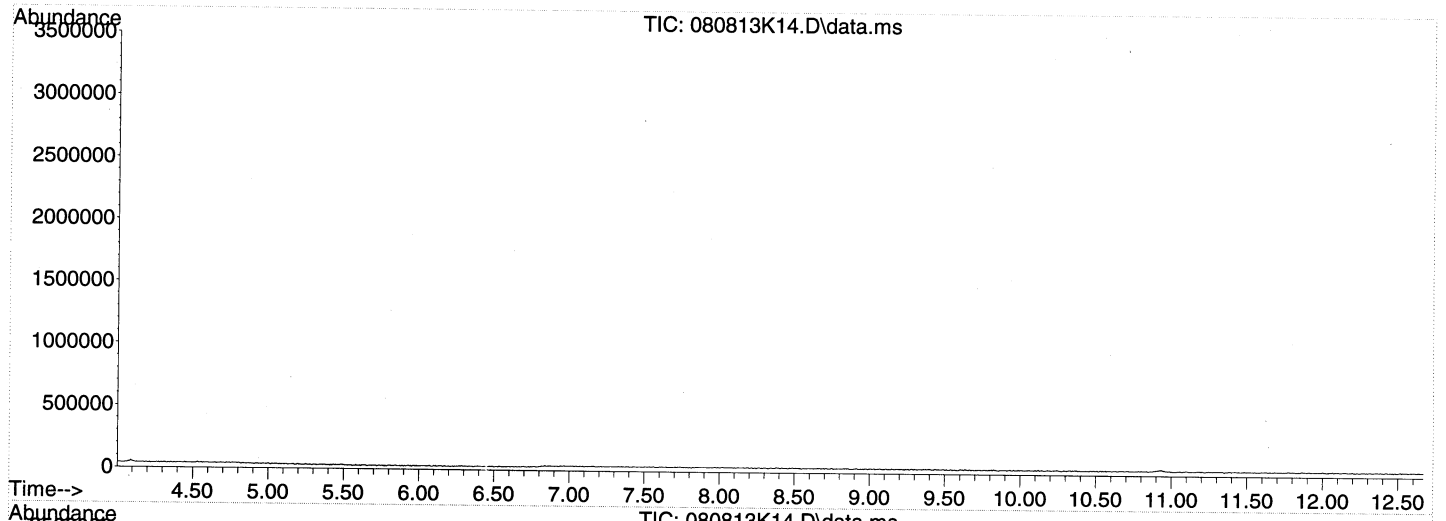
Sum of corrected areas: 19380803

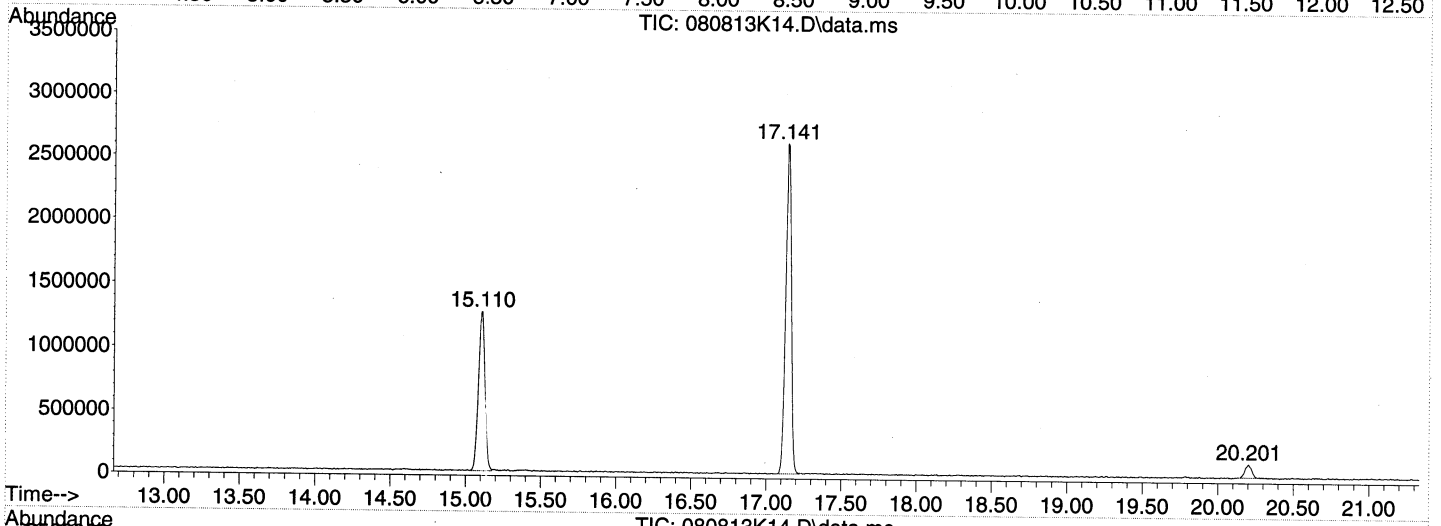
LSC Report - Integrated Chromatogram

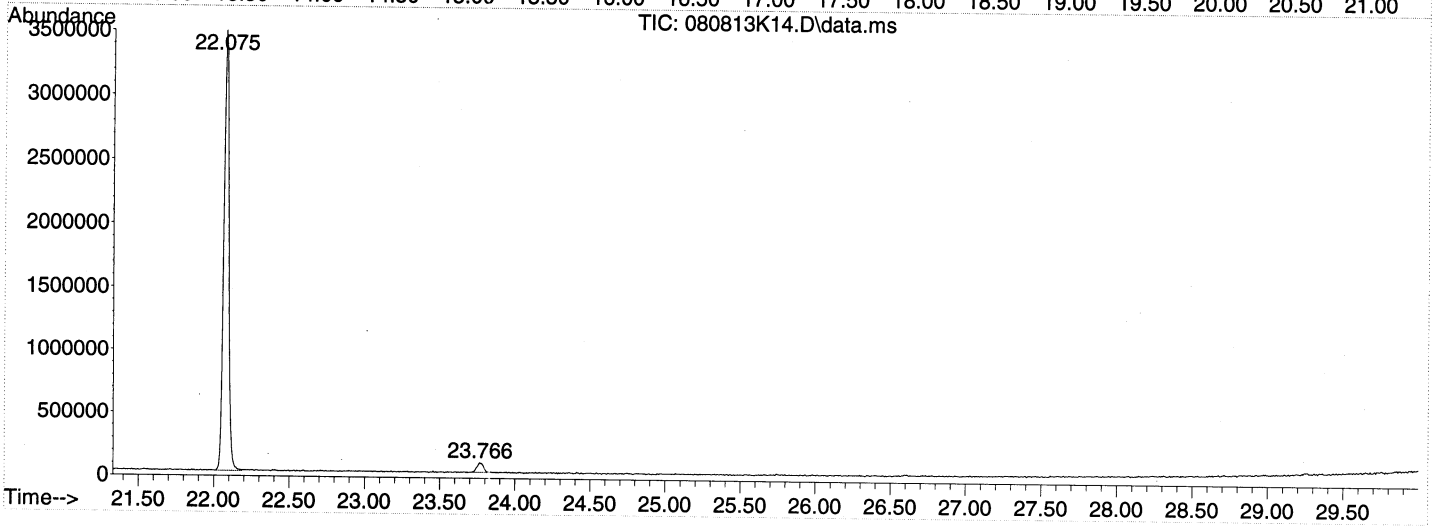
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K14.D
Acq On : 9 Aug 2013 00:13
Operator : EM
Sample : Blank Can 1108
Misc : Blank Can 1108
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45
Multiplier: 1

Quant Time: Aug 09 09:54:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 714913 | 20.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 3540958 | 21.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3280025 | 21.60 | ppbv | 0.00 |

Target Compounds Qvalue

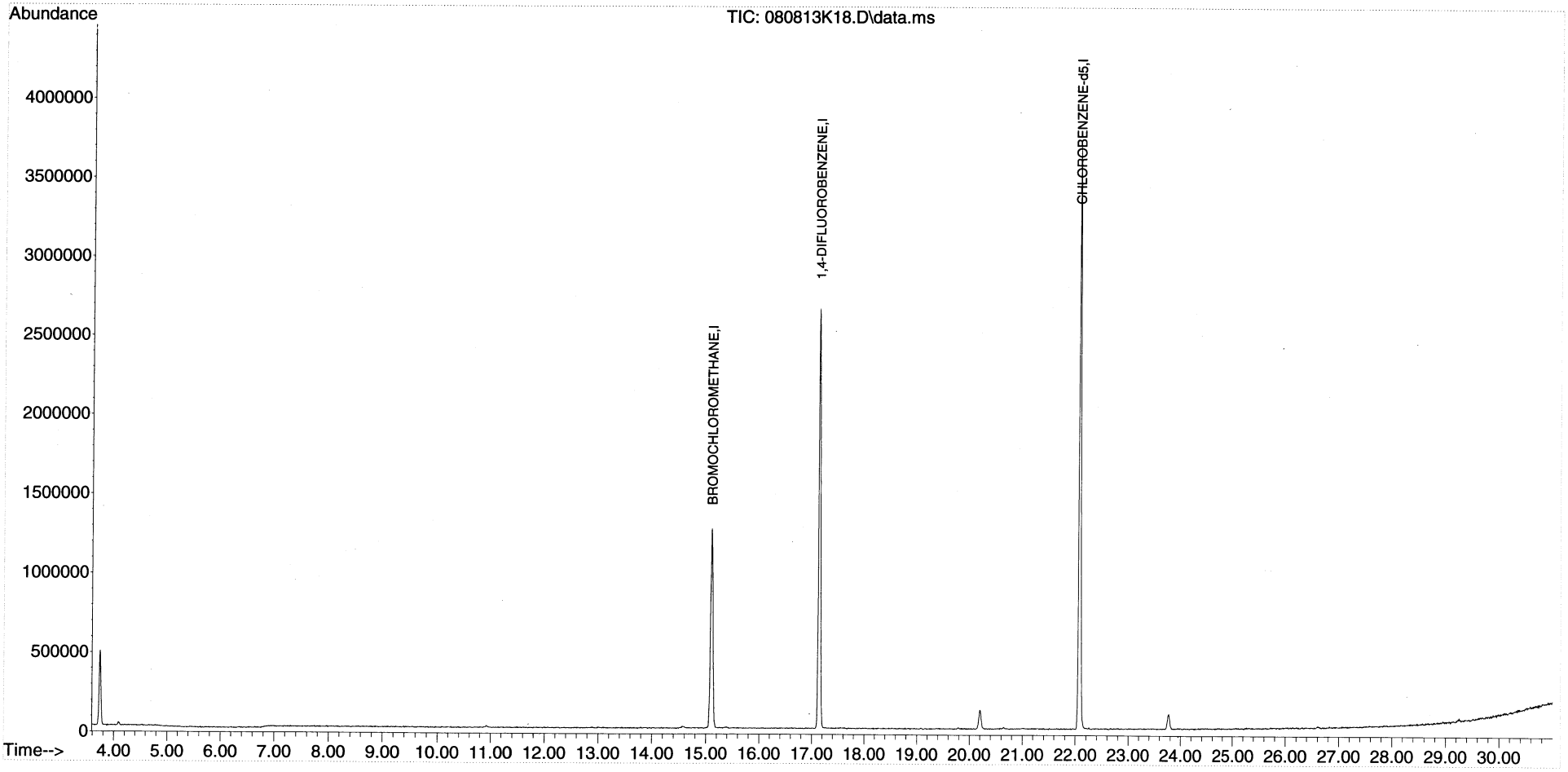
(#) = qualifier out of range (m) = manual integration (+) = signals summed

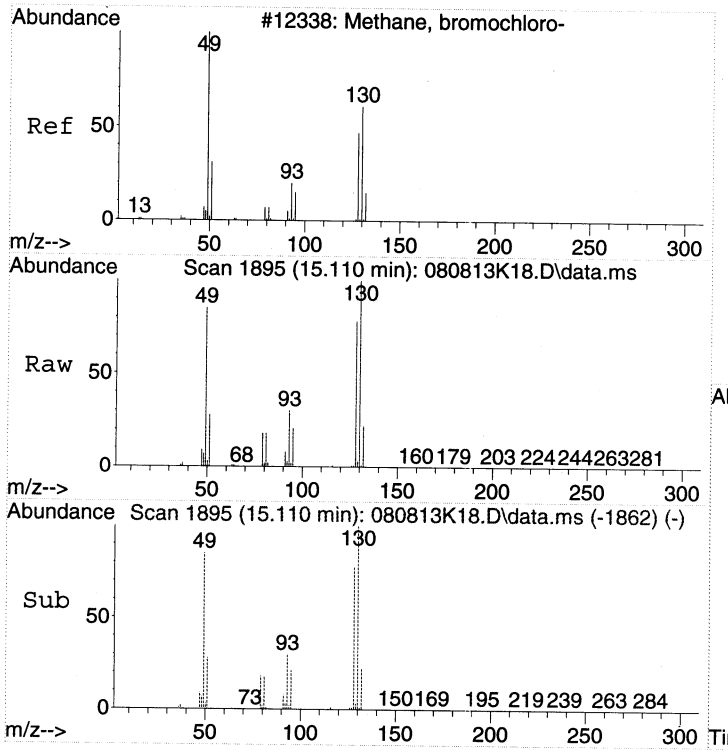
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45
Multiplier: 1

Quant Time: Aug 09 09:54:53 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

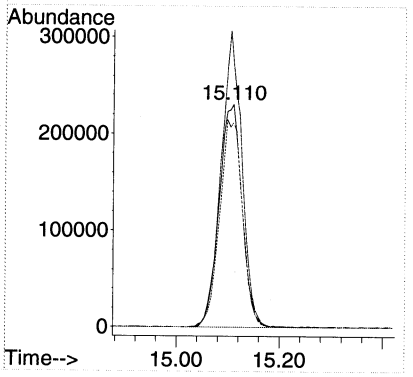


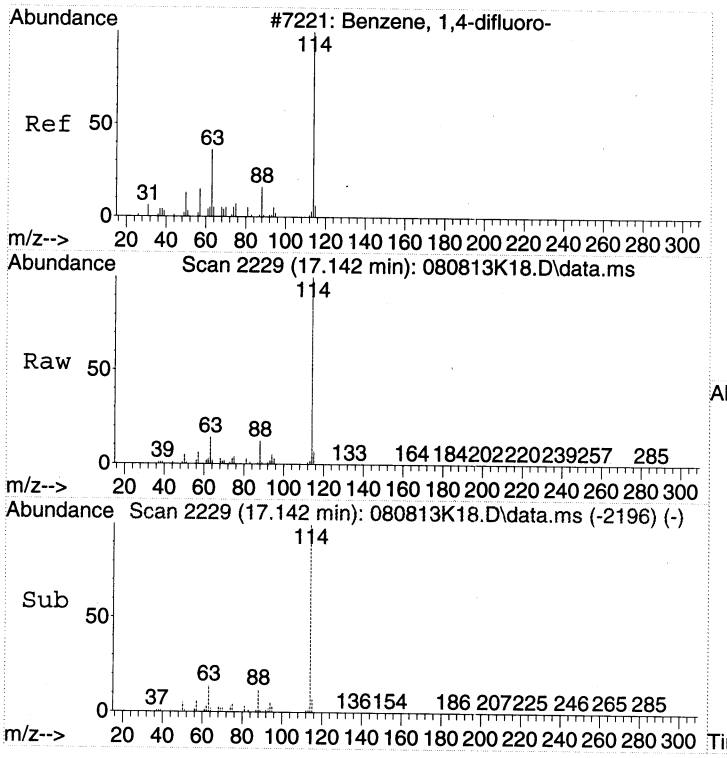



#1
BROMOCHLOROMETHANE
Concen: 20.00 ppbv
RT: 15.110 min Scan# 1895
Delta R.T. -0.000 min
Lab File: 080813K18.D
Acq: 9 Aug 2013 3:33

Tgt Ion: 49 Resp: 714913

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 120.7 | 112.7 | 152.7 |
| 128 | 92.3 | 83.1 | 123.1 |

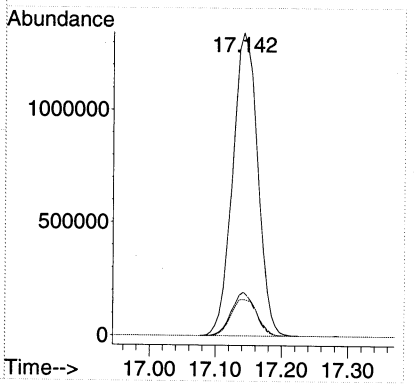


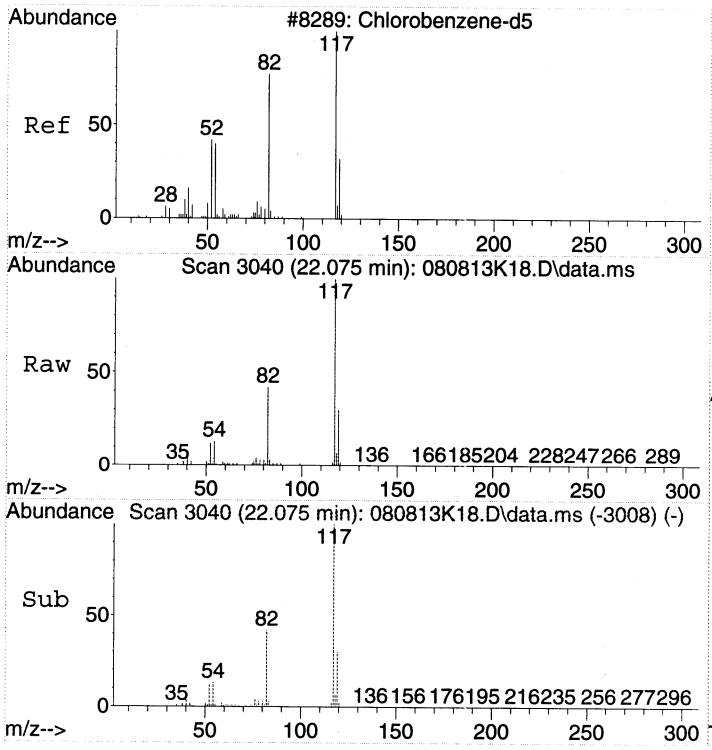




#32
1,4-DIFLUOROBENZENE
Concen: 21.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 080813K18.D
Acq: 9 Aug 2013 3:33

Tgt Ion:114 Resp: 3540958

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 14.1 | 0.0 | 33.1 |
| 88 | 12.5 | 0.0 | 32.5 |

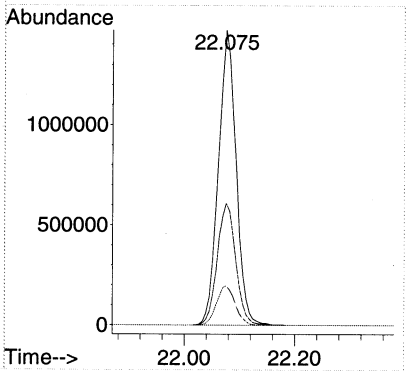





#44
CHLOROBENZENE-d5
Concen: 21.60 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.007 min
Lab File: 080813K18.D
Acq: 9 Aug 2013 3:33

Tgt Ion:117 Resp: 3280025

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 43.2 | 22.4 | 62.4 |
| 54 | 14.1 | 0.0 | 32.3 |



# LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Title : TO15

Signal : TIC: 080813K18.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1882 | 1894 | 1906 | rBV3 | 1255890 | 3813283 | 44.83% | 19.049% |
| 2 | 17.142 | 2215 | 2229 | 2242 | rBV | 2646422 | 7010540 | 82.42% | 35.020% |
| 3 | 20.202 | 2718 | 2732 | 2743 | rBV2 | 120273 | 388676 | 4.57% | 1.942% |
| 4 | 22.075 | 3029 | 3040 | 3056 | rBV | 3684121 | 8506132 | 100.00% | 42.492% |
| 5 | 23.773 | 3308 | 3319 | 3330 | rVB3 | 95628 | 299765 | 3.52% | 1.497% |

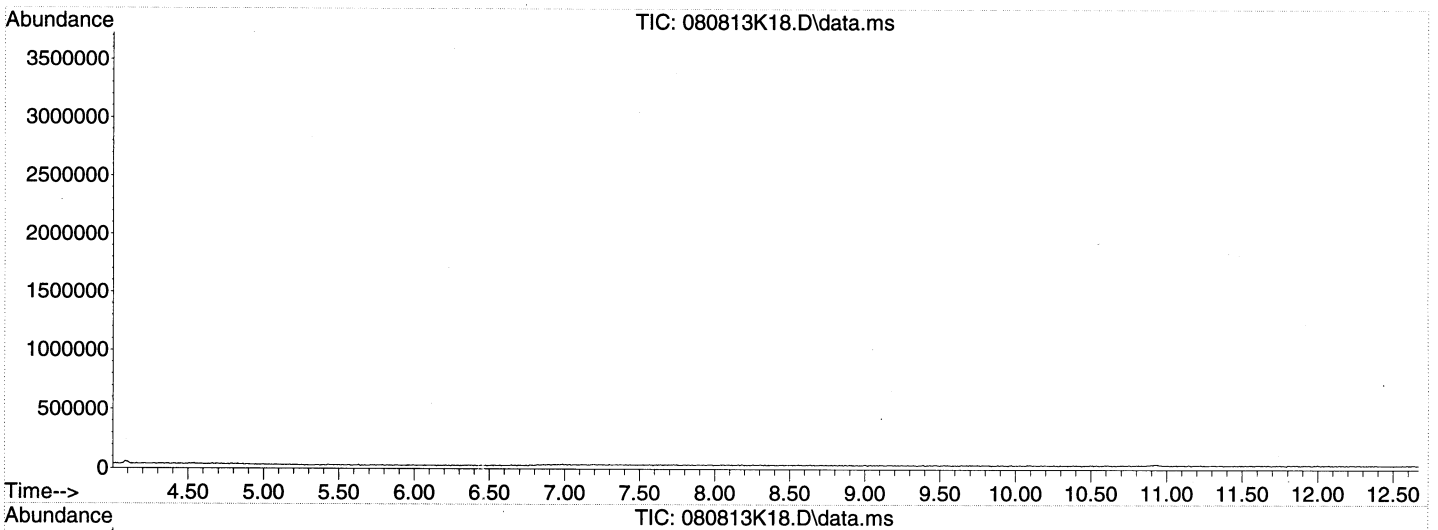
Sum of corrected areas: 20018396

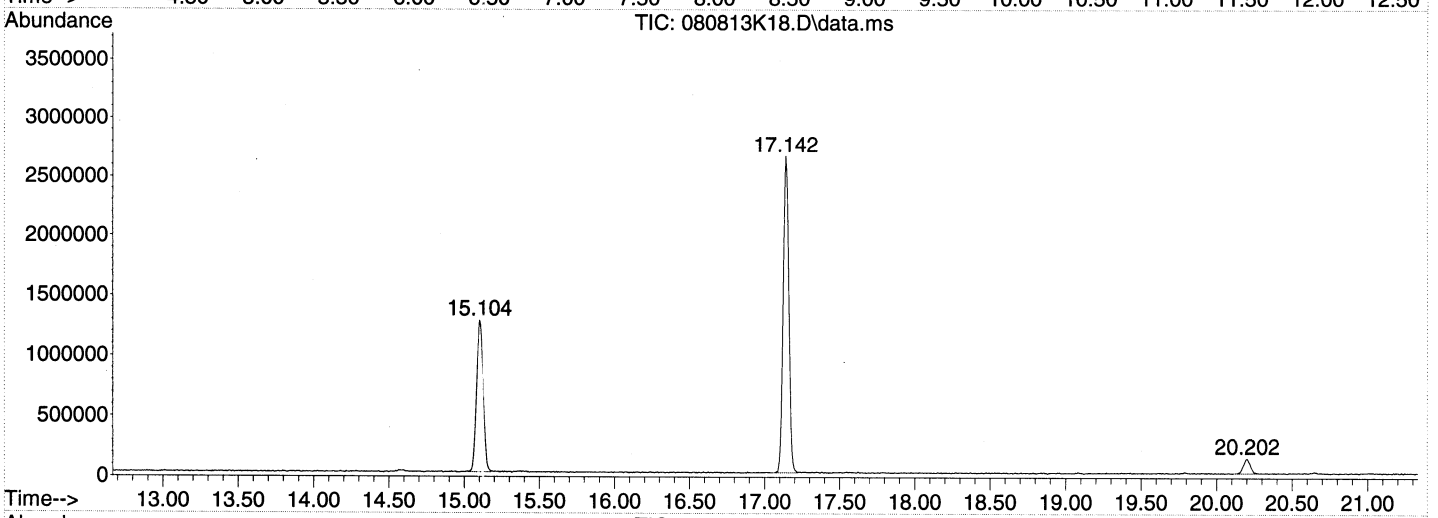
LSC Report - Integrated Chromatogram

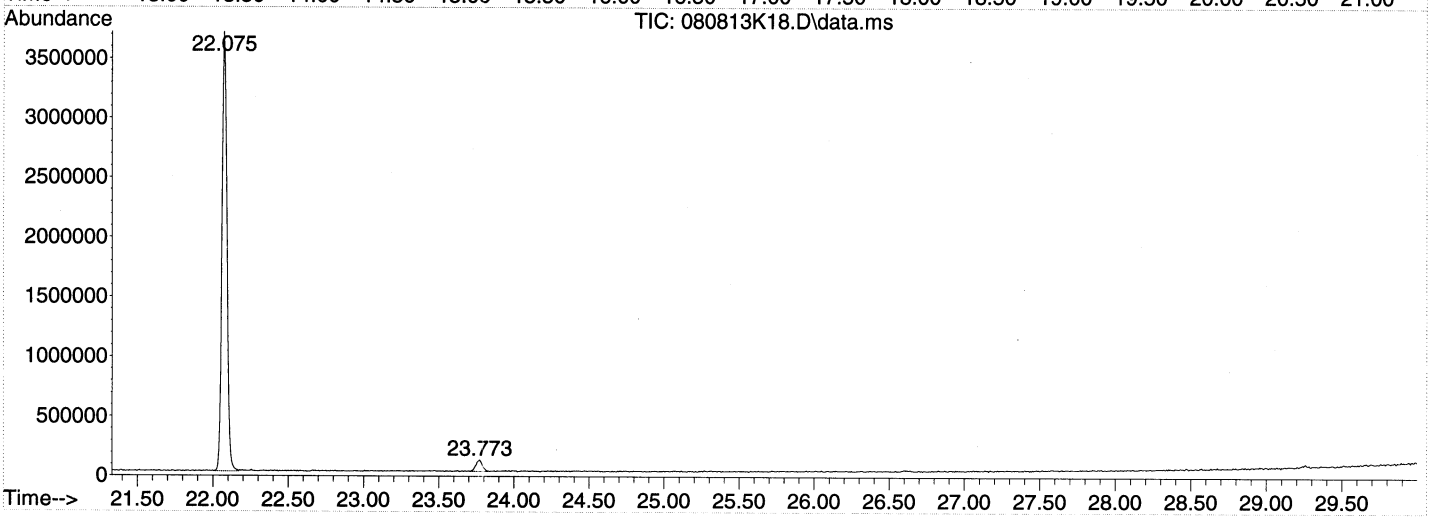
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K18.D
Acq On : 9 Aug 2013 3:33
Operator : EM
Sample : Blank Can 1117
Misc : Blank Can 1117
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49
Multiplier: 1

Quant Time: Aug 09 09:55:17 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 725048 | 20.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 3488275 | 21.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3194385 | 21.60 ppbv | 0.00 |

Target Compounds Qvalue

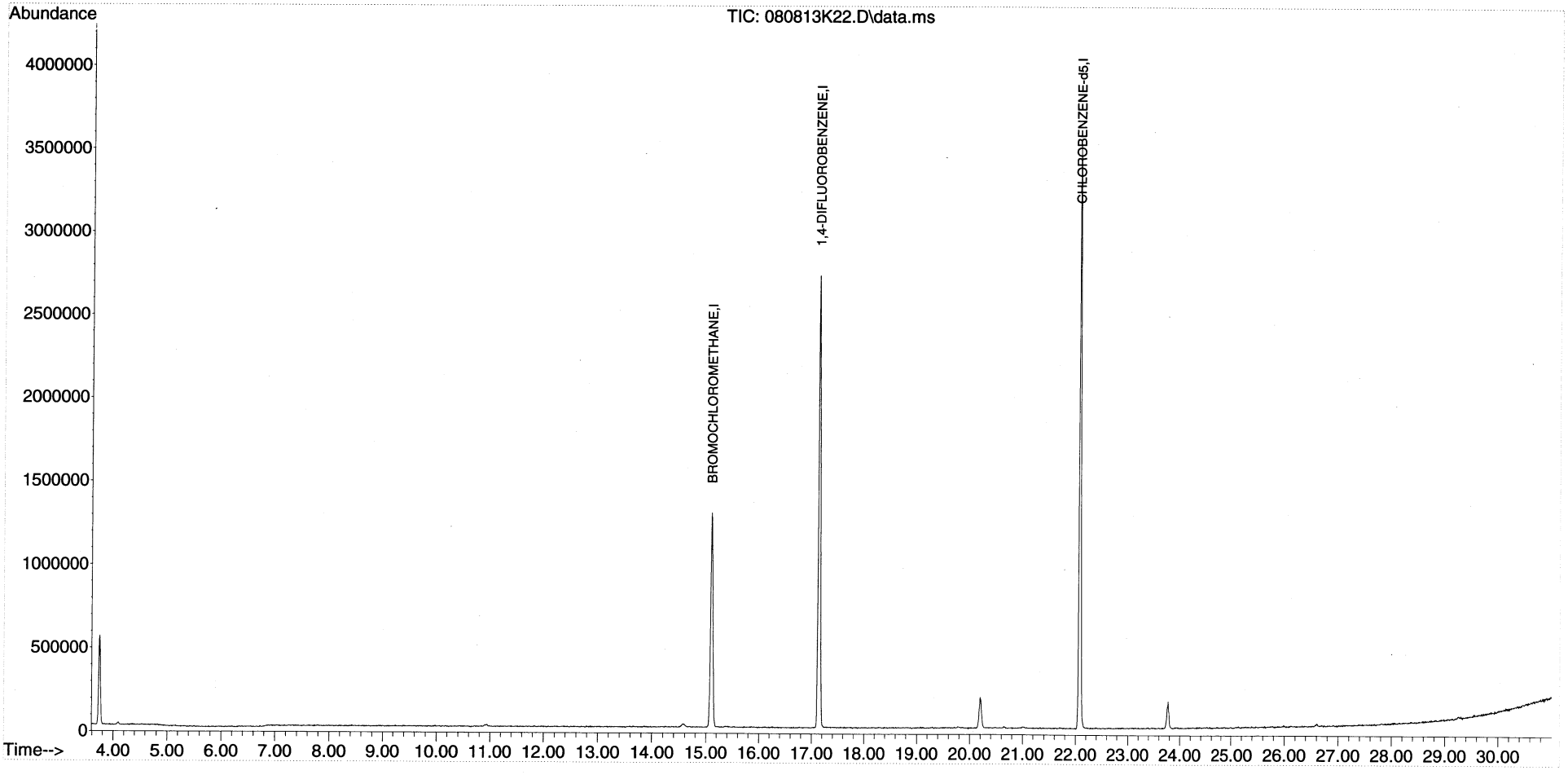
(#) = qualifier out of range (m) = manual integration (+) = signals summed

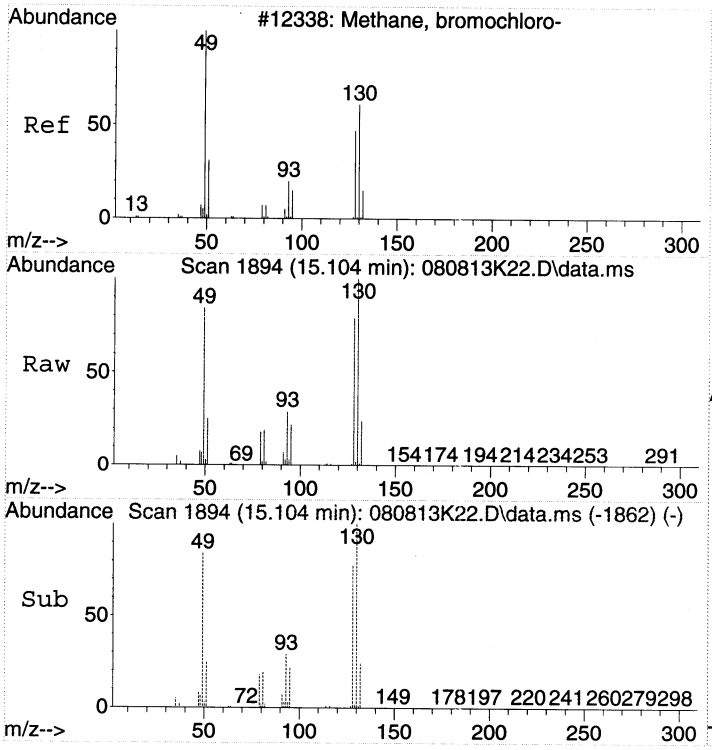
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49
Multiplier: 1

Quant Time: Aug 09 09:55:17 2013
Quant Title : TO15
QLast Update : Thu Jul 25 11:04:48 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

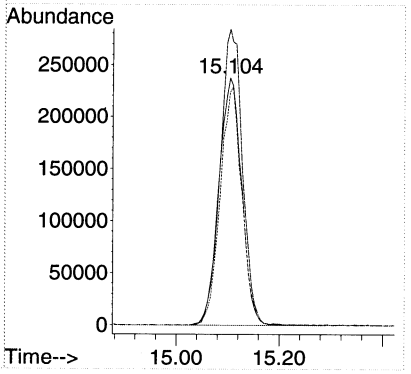


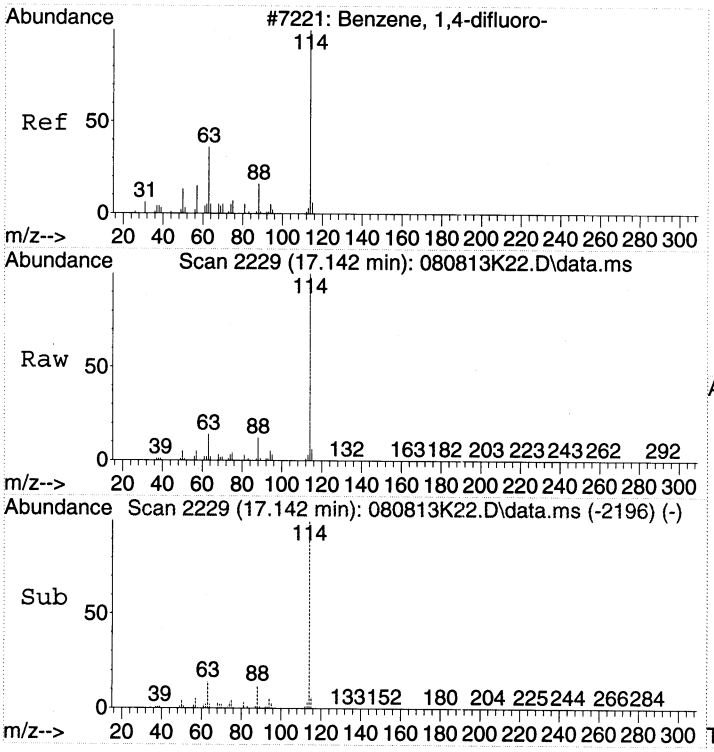



#1
BROMOCHLOROMETHANE
Concen: 20.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 080813K22.D
Acq: 9 Aug 2013 6:53

Tgt Ion: 49 Resp: 725048

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 118.3 | 112.7 | 152.7 |
| 128 | 92.0 | 83.1 | 123.1 |

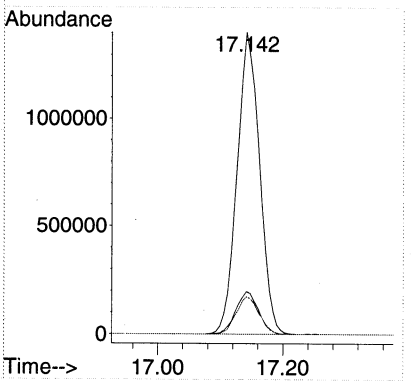


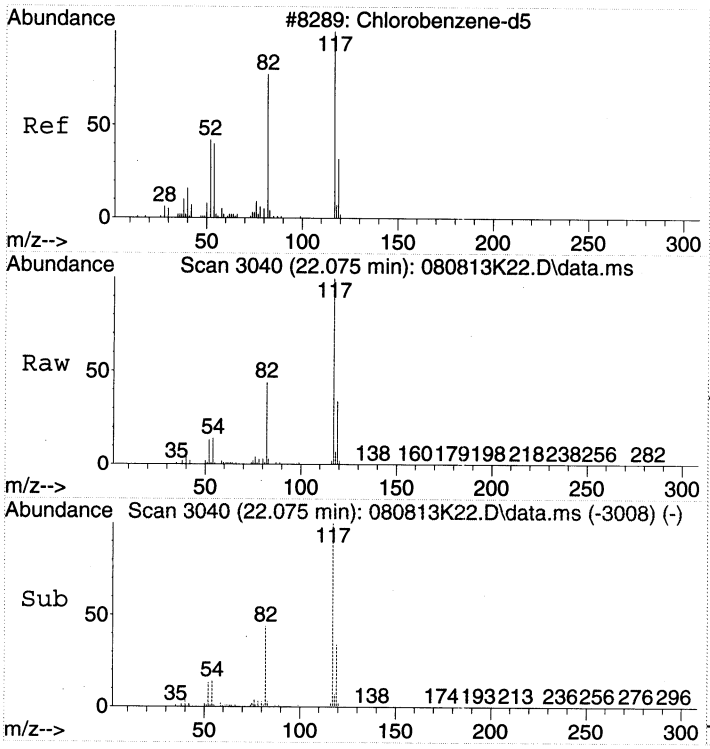




#32
1,4-DIFLUOROBENZENE
Concen: 21.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. -0.000 min
Lab File: 080813K22.D
Acq: 9 Aug 2013 6:53

Tgt Ion:114 Resp: 3488275

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 14.4 | 0.0 | 33.1 |
| 88 | 12.6 | 0.0 | 32.5 |

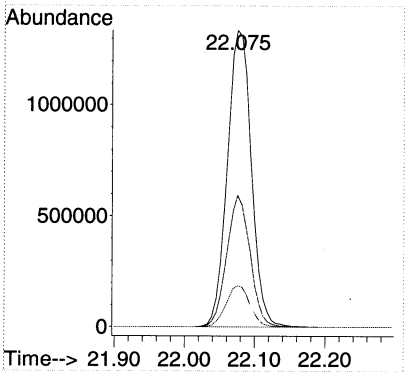





#44
CHLOROBENZENE-d5
Concen: 21.60 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.007 min
Lab File: 080813K22.D
Acq: 9 Aug 2013 6:53

Tgt Ion:117 Resp: 3194385

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 43.2 | 22.4 | 62.4 |
| 54 | 14.0 | 0.0 | 32.3 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Title : TO15

Signal : TIC: 080813K22.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1880 | 1894 | 1909 | rBV2 | 1285563 | 3889845 | 46.90% | 19.328% |
| 2 | 17.142 | 2218 | 2229 | 2245 | rBV | 2708013 | 6894240 | 83.12% | 34.256% |
| 3 | 20.196 | 2720 | 2731 | 2745 | rBV2 | 185744 | 600044 | 7.23% | 2.982% |
| 4 | 22.075 | 3028 | 3040 | 3056 | rBV | 3504392 | 8294647 | 100.00% | 41.215% |
| 5 | 23.773 | 3308 | 3319 | 3332 | rVB2 | 161318 | 446704 | 5.39% | 2.220% |

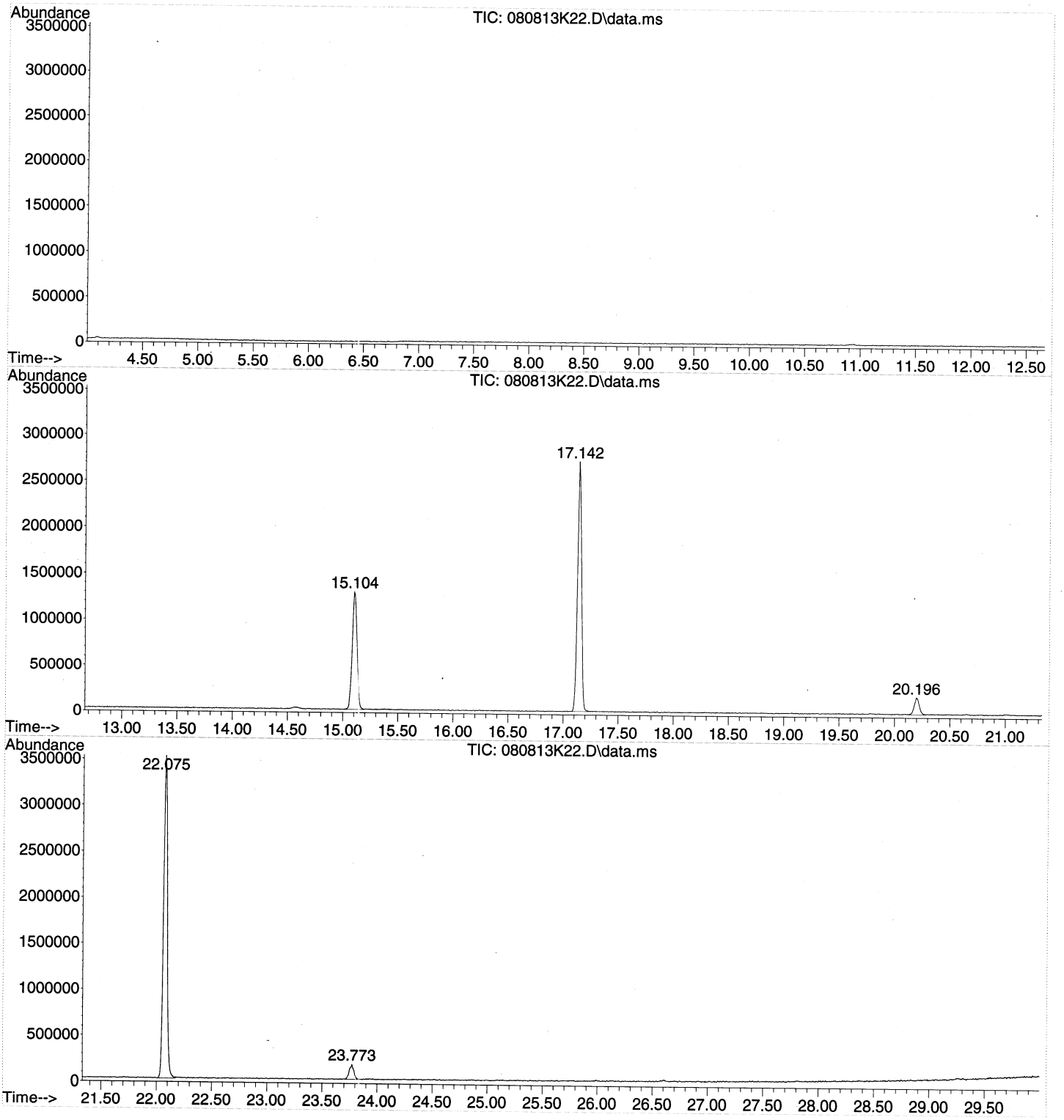
Sum of corrected areas: 20125480

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K22.D
Acq On : 9 Aug 2013 6:53
Operator : EM
Sample : Blank Can 1987
Misc : Blank Can 1987
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On : 9 Aug 2013 10:16
Instrument: HP5973K
Operator : EM
Sample : Blank Can 2003
Misc : Blank Can 2003
ALS Vial : 37
Multiplier: 1

Quant Time: Aug 09 10:56:05 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 717710 | 20.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.148 | 114 | 3472240 | 21.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 3218246 | 21.60 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

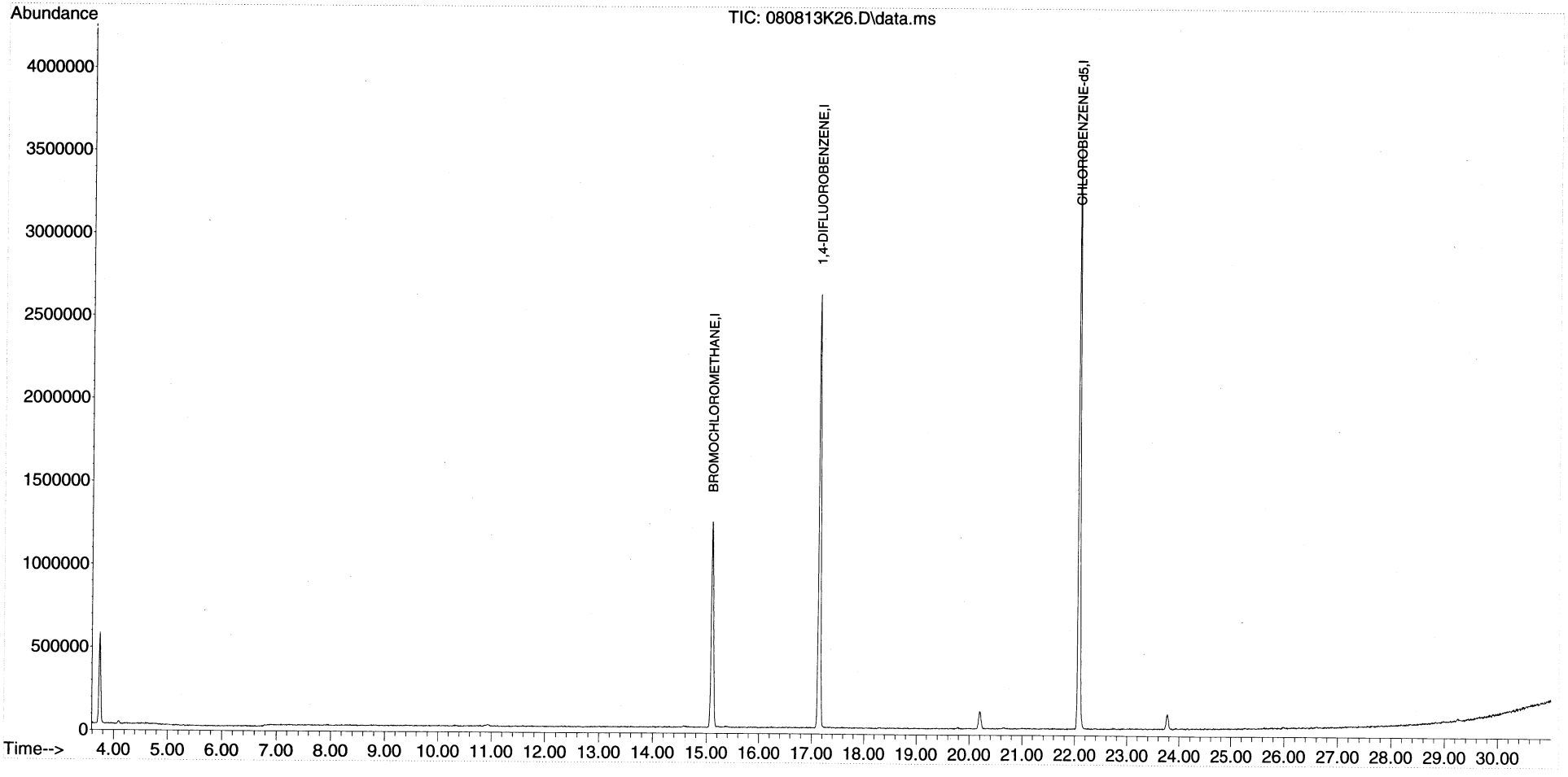
(#) = qualifier out of range (m) = manual integration (+) = signals summed

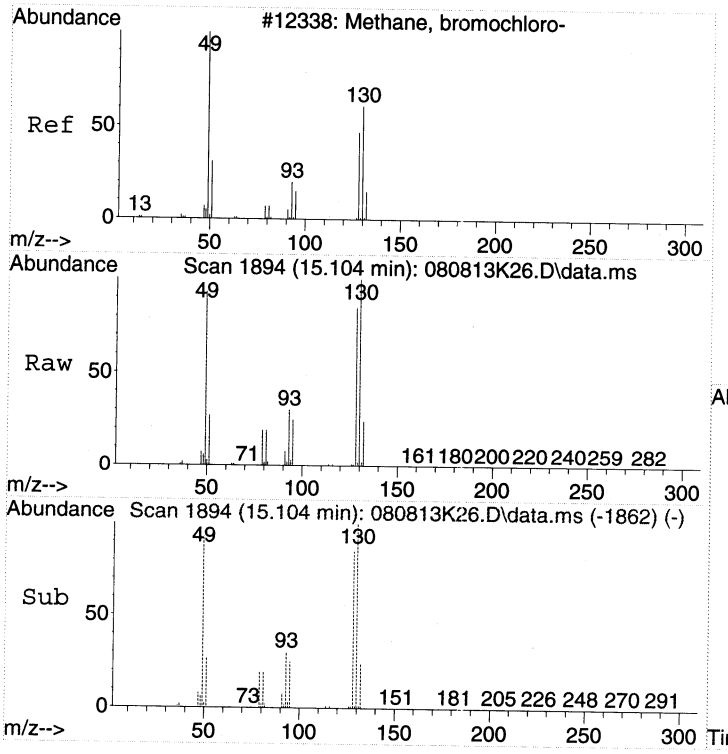
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On : 9 Aug 2013 10:16
Instrument: HP5973K
Operator : EM
Sample : Blank Can 2003
Misc : Blank Can 2003
ALS Vial : 37
Multiplier: 1

Quant Time: Aug 09 10:56:05 2013
Quant Title : TO15
QLast Update : Thu Jul 25 10:59:21 2013
Response via : Initial Calibration

DataAcq Meth:080813KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M

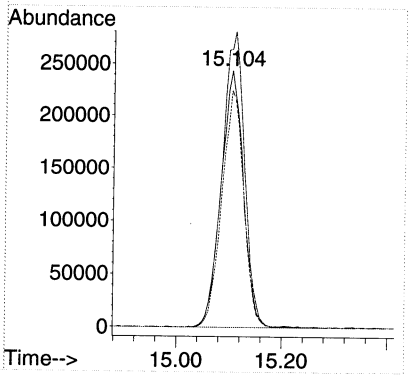


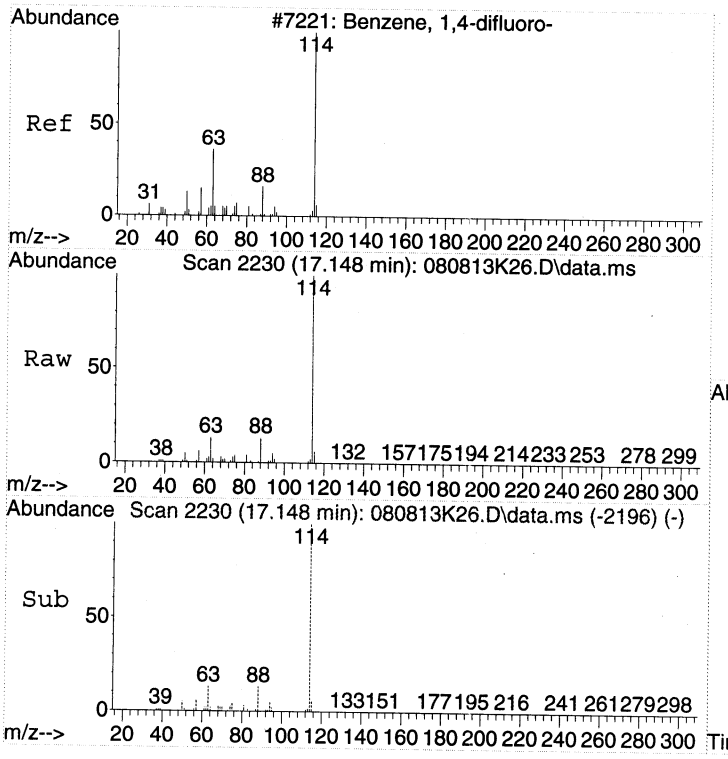



#1
BROMOCHLOROMETHANE
Concen: 20.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 080813K26.D
Acq: 9 Aug 2013 10:16

Tgt Ion: 49 Resp: 717710

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 116.0 | 112.7 | 152.7 |
| 128 | 90.5 | 83.1 | 123.1 |

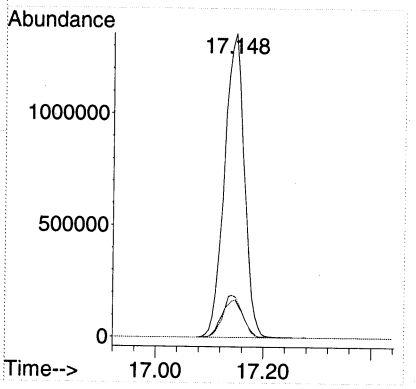


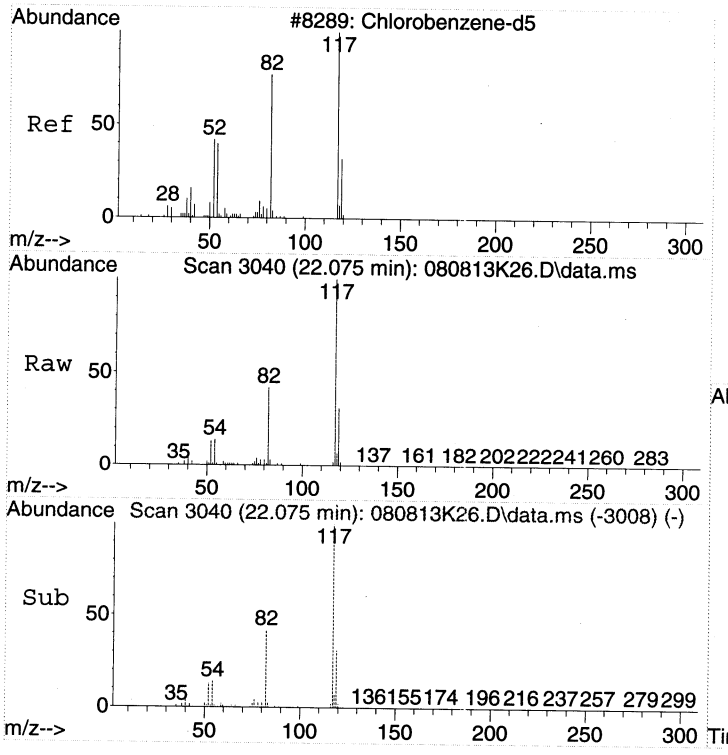




#32
1,4-DIFLUOROBENZENE
Concen: 21.00 ppbv
RT: 17.148 min Scan# 2230
Delta R.T. 0.006 min
Lab File: 080813K26.D
Acq: 9 Aug 2013 10:16

Tgt Ion:114 Resp: 3472240

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 14.3 | 0.0 | 33.1 |
| 88 | 12.7 | 0.0 | 32.5 |

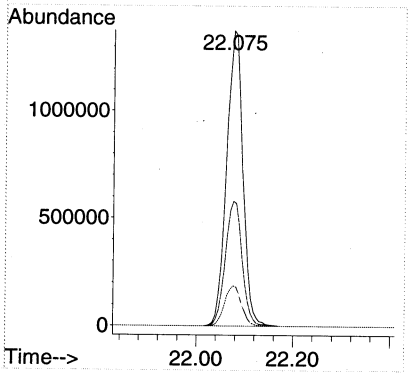





#44
CHLOROBENZENE-d5
Concen: 21.60 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.007 min
Lab File: 080813K26.D
Acq: 9 Aug 2013 10:16

Tgt Ion:117 Resp: 3218246

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 43.6 | 22.4 | 62.4 |
| 54 | 14.2 | 0.0 | 32.3 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On : 9 Aug 2013 10:16
Operator : EM
Sample : Blank Can 2003
Misc : Blank Can 2003
ALS Vial : 37 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Title : TO15

Signal : TIC: 080813K26.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1882 | 1894 | 1907 | rBV | 1235547 | 3757969 | 44.99% | 19.161% |
| 2 | 17.148 | 2216 | 2230 | 2241 | rBV2 | 2611793 | 6898036 | 82.59% | 35.172% |
| 3 | 20.196 | 2721 | 2731 | 2743 | rVB3 | 104582 | 343756 | 4.12% | 1.753% |
| 4 | 22.075 | 3029 | 3040 | 3057 | rBV | 3512565 | 8352557 | 100.00% | 42.588% |
| 5 | 23.767 | 3309 | 3318 | 3329 | rVB | 89647 | 259974 | 3.11% | 1.326% |

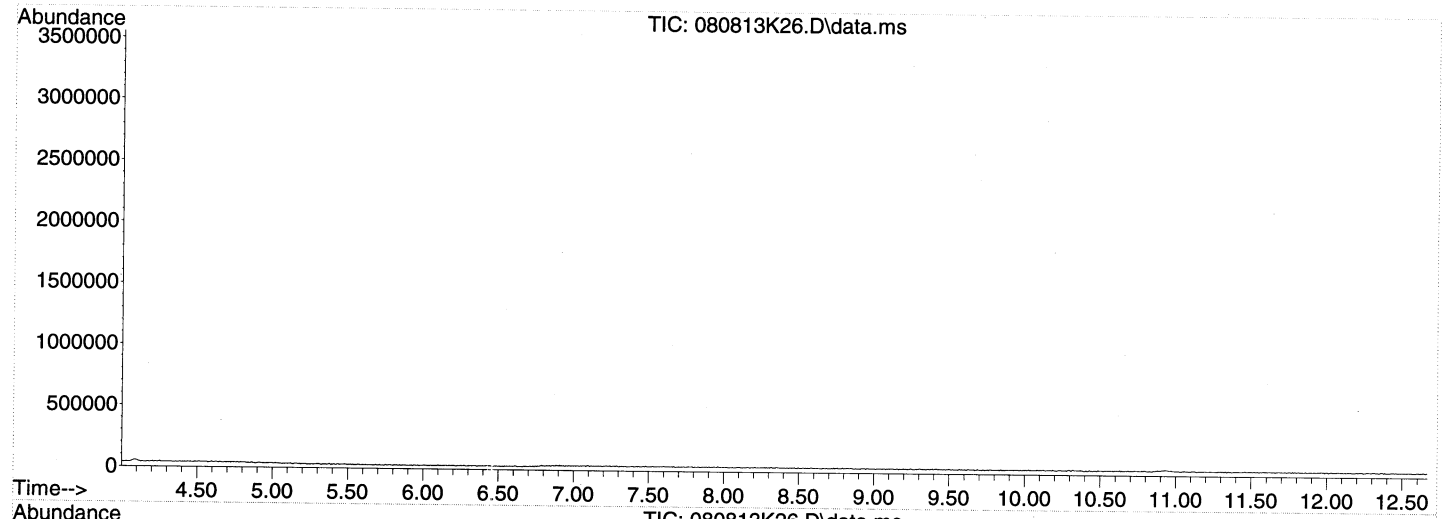
Sum of corrected areas: 19612292

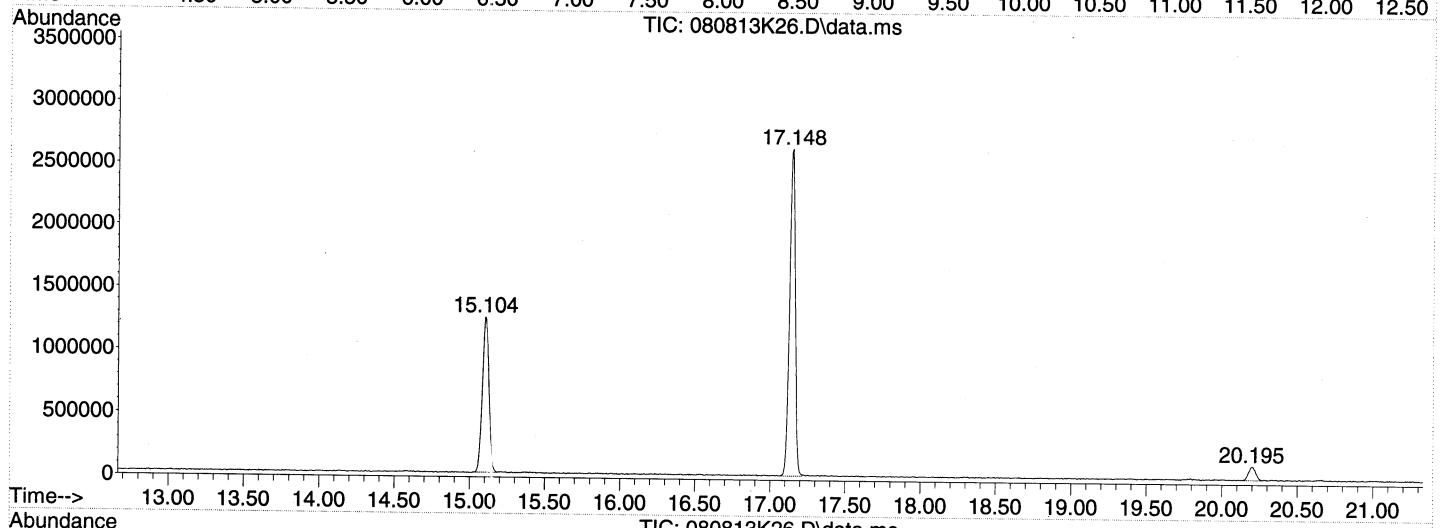
LSC Report - Integrated Chromatogram

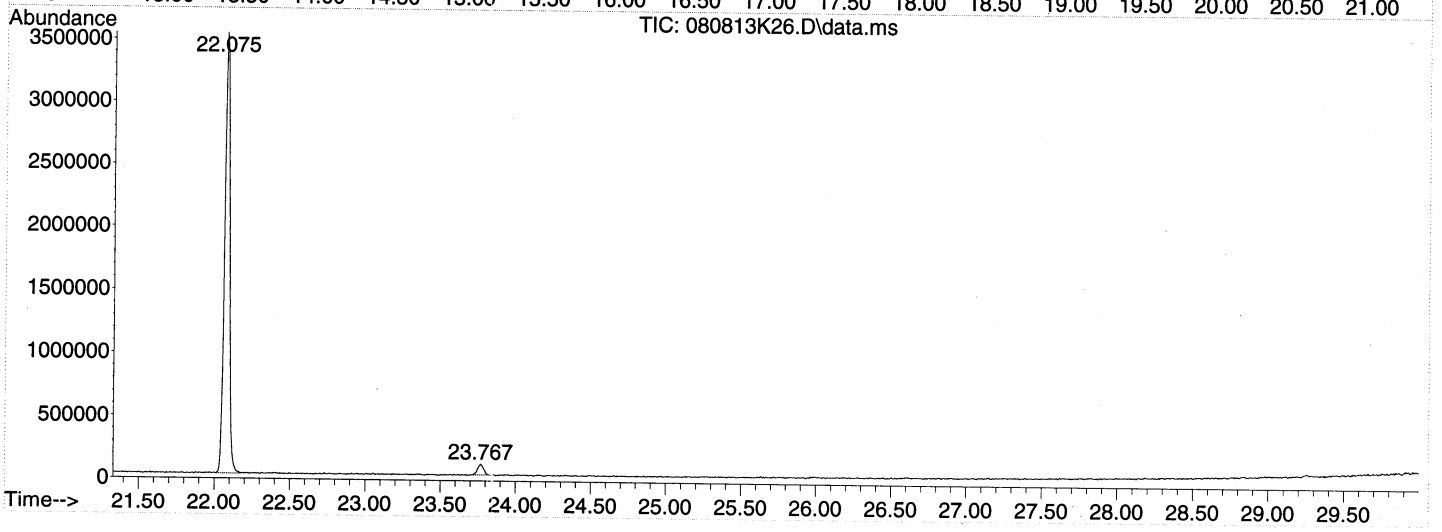
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On : 9 Aug 2013 10:16
Operator : EM
Sample : Blank Can 2003
Misc : Blank Can 2003
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On : 9 Aug 2013 10:16
Operator : EM
Sample : Blank Can 2003
Misc : Blank Can 2003
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

```
Data Path : C:\msdchem\1\DATA\2013\080813KA\
Data File : 080813K26.D
Acq On    :  9 Aug 2013  10:16
Operator  : EM
Sample    : Blank Can 2003
Misc      : Blank Can 2003
ALS Vial  : 37   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\080813KAA.M
Quant Title  : TO15

TIC Library    : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                    |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | TO-15 | **Analyst Initial** | EM | **Reviewer Initial** | SL | **Batch/ Sequence** | B13I025 S13F019 |
| **Instrument ID** | HR5973K | **Date Analyzed** | 9/5/13 | **Date** | 9/17/13 | **Chemstation Last Update** | 8/28/13 11:07:04 |
| **Cases** | R13S88 | | | **SDGs** | 13235A , 13235B, BLK CERTIFICATION | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | ✓ | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| | ✓ | ✓ | QLS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | ✓ | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | ✓ | IS Areas (SOP criteria met) |
| | ✓ | ✓ | LCS (level, frequency, and recovery) (include Chemstation summary) |
| ✓ | | | MS/MSD |
| | ✓ | ✓ | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| CCV | 070513K02 | 35.1 | ±30.0% | | ✓ | ✓ | ✓ | Hexachlorobutadiene |
| | | | | | | | | |
| | | | | | | | | |
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# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 636 | 400 mL | Certified Clean | 9/5/2013 | 090513K05.d |
| 658 | 400 mL | Certified Clean | 9/5/2013 | 090513K18.d |
| 670 | 400 mL | Certified Clean | 9/5/2013 | 090513K19.d |
| 860 | 400 mL | Certified Clean | 9/5/2013 | 090513K22.d |
| 863 | 400 mL | Certified Clean | 9/5/2013 | 090513K24.d |



: 09502

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 636 | 400 mL | Certified Clean | 9/5/2013 | 090513K05.d |
| 658 | 400 mL | Certified Clean | 9/5/2013 | 090513K18.d |
| 670 | 400 mL | Certified Clean | 9/5/2013 | 090513K19.d |
| 860 | 400 mL | Certified Clean | 9/5/2013 | 090513K22.d |
| 863 | 400 mL | Certified Clean | 9/5/2013 | 090513K24.d |



00503

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 1555E | 1L | Certified Clean | 9/5/2013 | 090513K20.d |
| 1587E | 1L | Certified Clean | 9/5/2013 | 090513K21.d |

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 1555E | 1L | Certified Clean | 9/5/2013 | 090513K20.d |
| 1587E | 1L | Certified Clean | 9/5/2013 | 090513K21.d |

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 658 | 400 mL | Certified Clean | 9/5/2013 | 090513K18.d |
| 670 | 400 mL | Certified Clean | 9/5/2013 | 090513K19.d |
| 860 | 400 mL | Certified Clean | 9/5/2013 | 090513K22.d |
| 863 | 400 mL | Certified Clean | 9/5/2013 | 090513K24.d |
| 1555E | 1L | Certified Clean | 9/5/2013 | 090513K20.d |
| 1587E | 1L | Certified Clean | 9/5/2013 | 090513K21.d |



: 00586

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 658 | 400 mL | Certified Clean | 9/5/2013 | 090513K18.d |
| 670 | 400 mL | Certified Clean | 9/5/2013 | 090513K19.d |
| 860 | 400 mL | Certified Clean | 9/5/2013 | 090513K22.d |
| 863 | 400 mL | Certified Clean | 9/5/2013 | 090513K24.d |
| 1555E | 1L | Certified Clean | 9/5/2013 | 090513K20.d |
| 1587E | 1L | Certified Clean | 9/5/2013 | 090513K21.d |



00507

# ANALYSIS SEQUENCE

**S13I019**

Instrument: HP5973K

Calibration ID: 1308013

**Printed: 9/12/2013 3:56:20PM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| S13I019-TUN1 | QC | | 1 | | 1305020 | | | |
| S13I019-CCV1 | QC | | 2 | | 1335072 | | | |
| B13I025-BS1 | QC | | 3 | | | | | |
| S13I019-CRL1 | QC | | 4 | | 1335069 | | | |
| B13I025-BLK1 | QC | | 5 | | | 1328060 | | |
| 1308031-06RE1 | VOCs, Soil Gas | A | 6 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| 1308031-09RE1 | VOCs, Soil Gas | A | 7 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| 1308031-10RE2 | VOCs, Soil Gas | A | 8 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| 1308030-02RE2 | VOCs, Soil Gas | A | 9 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| 1308030-05RE2 | VOCs, Soil Gas | A | 10 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| 1308030-06RE2 | VOCs, Soil Gas | A | 11 | | | 1328060 | California Site Cleanup Section 1 | Full list |

[illegible] 9/5/13

Samples Loaded By Date

[illegible] 9/5/13

Data Processed By Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\090513KAA.SEQ
Date: 09-06-2013
Time: 10:16:06
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Pos | Samp Vol. | Cal Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| BFB 13305020 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10ppbv 1335007 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10ppbv 1335007 | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1.0ppbv 1335007 | 3 | 2 | 10 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 636 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308031-06RE2 | 3 | 6 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308031-09RE2 | 3 | 8 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308031-10RE2 | 3 | 10 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 3 | 11 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308030-02RE2 | 3 | 12 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 4 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308030-05RE2 | 4 | 2 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308030-06RE2 | 4 | 4 | 20 | 0 | C:\Smart\TO15.CTD | 12:00 |
| IBL | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 658 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 670 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1555E | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1587E | 4 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 860 | 3 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 862 | 3 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 863 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2013\090513KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 090513K01.D | 1. | S13I019-TUN1 | BFB 1305020/IS 1328060/10ppbv STD | 5 Sep 2013 14:05 |
| 2 | 32 | 090513K02.D | 1. | S13I019-CCV1 | 10 ppbv 1335007 | 5 Sep 2013 14:55 |
| 3 | 32 | 090513K03.D | 1. | B13I025-BS1 | 10 ppbv 1335007 | 5 Sep 2013 15:44 |
| 4 | 32 | 090513K04.D | 1. | S13I019-CRL1 | 1.0 ppbv 1335007 | 5 Sep 2013 16:31 |
| 5 | 35 | 090513K05.D | 1. | B13I025-BLK1 | Blank Can 636 | 5 Sep 2013 17:22 |
| 6 | 36 | 090513K06.D | 2.94 | 1308031-06RE1 | 20mL 13-EPASV-SB41-5-01-26 can 1994 | 5 Sep 2013 18:09 |
| 7 | 37 | 090513K07.D | 1. | IBL | BLANK | 5 Sep 2013 19:00 |
| 8 | 38 | 090513K08.D | 2.82 | 1308031-09RE1 | 20mL 13-EPASV-SB37-5-01-29 can 1988 | 5 Sep 2013 19:47 |
| 9 | 39 | 090513K09.D | 1. | IBL | BLANK | 5 Sep 2013 20:38 |
| 10 | 10 | 090513K10.D | 5.85 | 1308031-10RE2 | 20mL 13-EPASV-SB37-20-01-30 can 877 | 5 Sep 2013 21:25 |
| 11 | 11 | 090513K11.D | 1. | IBL | BLANK | 5 Sep 2013 22:20 |
| 12 | 12 | 090513K12.D | 5.59 | 1308030-02RE2 | 20mL 13-EPASV-DRCVP6-05-01-002 can 1975 | 5 Sep 2013 23:07 |
| 13 | 41 | 090513K13.D | 1. | IBL | BLANK | 5 Sep 2013 23:58 |
| 14 | 42 | 090513K14.D | 5.87 | 1308030-05RE2 | 20mL 13-EPASV-DRCVP9-05-01-005 can 865 | 6 Sep 2013 00:45 |
| 15 | 43 | 090513K15.D | 1. | IBL | BLANK | 6 Sep 2013 01:35 |
| 16 | 44 | 090513K16.D | 5.55 | 1308030-06RE2 | 20mL 13-EPASV-DRCVP11-05-01-006 can 632 | 6 Sep 2013 02:22 |
| 17 | 45 | 090513K17.D | 1. | IBL | BLANK | 6 Sep 2013 03:13 |
| 18 | 46 | 090513K18.D | 1. | BLANK CAN 658 | BLANK CAN 658 | 6 Sep 2013 04:04 |
| 19 | 47 | 090513K19.D | 1. | BLANK CAN 670 | BLANK CAN 670 | 6 Sep 2013 04:55 |
| 20 | 48 | 090513K20.D | 1. | BLANK CAN 1555E | BLANK CAN 1555E | 6 Sep 2013 05:45 |
| 21 | 49 | 090513K21.D | 1. | BLANK CAN 1587E | BLANK CAN 1587E | 6 Sep 2013 06:36 |
| 22 | 33 | 090513K22.D | 1. | BLANK CAN 860 | BLANK CAN 860 | 6 Sep 2013 07:27 |
| 23 | 34 | 090513K23.D | 1. | BLANK CAN 862 NU – Bake at KK | BLANK CAN 862 | 6 Sep 2013 08:18 |
| 24 | 35 | 090513K24.D | 1. | BLANK CAN 863 | BLANK CAN 863 | 6 Sep 2013 09:09 |



12 Sep 2013 16:13

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2013\090513KA\090513K01.D
Tune Time : 5 Sep 2013 14:05

Daily Calibration File : C:\msdchem\1\DATA\2013\090513KA\090513K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| | | 869468 | 2633940 | 2481720 |
| 090513K02.D | | | | |
| | SI3I019-CCV1 | 869468 | 2633942 | 2481718 |
| 090513K03.D | | | | |
| | B13I025-BS1 | 854217 | 2587847 | 2446959 |
| 090513K04.D | | | | |
| | S13I019-CRL1 | 829472 | 2446344 | 2263408 |
| 090513K05.D | | | | |
| | B13I025-BLK1 | 791936 | 2411800 | 2310686 |
| 090513K06.D | | | | |
| | 1308031-06RE2 | 773701 | 2319162 | 2179614 |
| 090513K07.D | | | | |
| | IBL | 745577 | 2168470 | 2022393 |
| 090513K08.D | | | | |
| | 1308031-09RE2 | 733326 | 2150458 | 2035255 |
| 090513K09.D | | | | |
| | IBL | 714893 | 2035368 | 1921375 |
| 090513K10.D | | | | |
| | 1308031-10RE2 | 725500 | 2160878 | 2001076 |
| 090513K11.D | | | | |
| | IBL | 712839 | 2068828 | 1943478 |
| 090513K12.D | | | | |
| | 1308030-02RE2 | 698628 | 2017031 | 1898606 |
| 090513K13.D | | | | |
| | IBL | 685891 | 1926479 | 1815493 |
| 090513K14.D | | | | |
| | 1308030-05RE2 | 693677 | 1974595 | 1851194 |
| 090513K15.D | | | | |
| | IBL | 696486 | 2048936 | 1945273 |
| 090513K16.D | | | | |
| | 1308030-06RE2 | 672985 | 1926598 | 1823080 |
| 090513K17.D | | | | |
| | IBL | 687467 | 1975158 | 1852362 |
| 090513K18.D | | | | |
| | BLANK CAN 658 | 651847 | 1812675 | 1738633 |
| 090513K19.D | | | | |
| | BLANK CAN 670 | 672038 | 1904754 | 1785571 |
| 090513K20.D | | | | |
| | BLANK CAN 1555E | 667795 | 1965962 | 1858319 |

| | | | | |
|---|---|---|---|---|
| 090513K21.D | | | | |
| | BLANK CAN 1587E | 656382 | 1813949 | 1682573 |
| 090513K22.D | | | | |
| | BLANK CAN 860 | 649546 | 1847976 | 1722787 |
| 090513K23.D | | | | |
| | BLANK CAN 862 | 646835 | 1834870 | 1721971 |
| 090513K24.D | | | | |
| | BLANK CAN 863 | 658989 | 1885946 | 1744925 |

(fails) - fails 24hr time check  * - fails criteria

Created: Fri Sep 06 10:35:10 2013  HP5973K

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090513KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013
Response Via : Initial Calibration

Calibration Files
1 =082713K08.D 2 =082713K09.D 5 =082713K10.D 10 =082713K11.D 15 =082713K12.D
20 =082713K13.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.725 | 0.574 | 0.466 | 0.573 | 0.551 | 0.568 | 0.576 | 14.49 |
| 3) | T | Dichlorodifluo... | 2.702 | 2.137 | 1.778 | 2.387 | 2.239 | 2.272 | 2.253 | 13.44 |
| 4) | T | 1,2-Dichlorote... | 2.687 | 2.257 | 1.876 | 2.470 | 2.448 | 2.556 | 2.382 | 11.98 |
| 5) | T | Chloromethane | 0.827 | 0.650 | 0.518 | 0.679 | 0.688 | 0.693 | 0.676 | 14.62 |
| 6) | T | Vinyl chloride | 0.873 | 0.743 | 0.630 | 0.810 | 0.804 | 0.796 | 0.776 | 10.69 |
| 7) | T | 1,3-Butadiene | 0.712 | 0.581 | 0.510 | 0.619 | 0.611 | 0.625 | 0.610 | 10.75 |
| 8) | T | Bromomethane | 0.939 | 0.779 | 0.645 | 0.827 | 0.809 | 0.813 | 0.802 | 11.81 |
| 9) | T | Chloroethane | 0.487 | 0.404 | 0.334 | 0.425 | 0.416 | 0.420 | 0.414 | 11.87 |
| 10) | T | Bromoethene | 0.809 | 0.705 | 0.591 | 0.732 | 0.706 | 0.709 | 0.708 | 9.86 |
| 11) | T | Trichlorofluor... | 2.428 | 1.987 | 1.681 | 2.208 | 2.101 | 2.146 | 2.092 | 11.88 |
| 12) | T | 1,1,2-Trichlor... | 1.570 | 1.303 | 1.100 | 1.411 | 1.332 | 1.351 | 1.345 | 11.37 |
| 13) | T | 1,1-Dichloroet... | 1.143 | 0.958 | 0.816 | 1.140 | 1.148 | 1.152 | 1.059 | 13.32 |
| 14) | T | Acetone | 1.043 | 0.947 | 0.799 | 1.034 | 1.032 | 1.034 | 0.982 | 9.79 |
| 15) | T | Carbon disulfide | 2.330 | 1.881 | 1.494 | 1.820 | 1.740 | 1.746 | 1.835 | 15.03 |
| 16) | T | 2-Propanol | 0.822 | 0.756 | 0.659 | 0.923 | 0.960 | 0.970 | 0.848 | 14.74 |
| 17) | T | Allyl chloride | 0.769 | 0.660 | 0.598 | 0.787 | 0.809 | 0.817 | 0.740 | 12.15 |
| 18) | T | Dichloromethane | 1.067 | 0.836 | 0.672 | 0.859 | 0.839 | 0.833 | 0.851 | 14.80 |
| 19) | T | tert-Butyl met... | 1.699 | 1.515 | 1.343 | 1.797 | 1.813 | 1.878 | 1.674 | 12.28 |
| 20) | T | trans-1,2-Dich... | 0.991 | 0.898 | 0.760 | 0.970 | 0.960 | 0.966 | 0.924 | 9.34 |
| 21) | T | Hexane | 1.020 | 0.893 | 0.818 | 1.069 | 1.072 | 1.103 | 0.996 | 11.48 |
| 22) | T | 1,1-Dichloroet... | 1.486 | 1.225 | 1.019 | 1.335 | 1.336 | 1.358 | 1.293 | 12.21 |
| 23) | T | Vinyl acetate | 1.252 | 1.140 | 1.093 | 1.602 | 1.645 | 1.662 | 1.399 | 19.00 |
| 24) | T | cis-1,2-Dichlo... | 0.938 | 0.800 | 0.677 | 1.008 | 1.005 | 1.022 | 0.908 | 15.42 |
| 25) | T | 2-Butanone (MEK) | 1.558 | 1.109 | 0.976 | 1.359 | 1.404 | 1.417 | 1.304 | 16.66 |
| 26) | T | Ethyl acetate | 1.387 | 1.495 | 1.328 | 1.572 | 1.460 | 1.596 | 1.473 | 7.06 |
| 27) | T | Tetrahydrofuran | 0.865 | 0.764 | 0.672 | 0.813 | 0.827 | 0.829 | 0.795 | 8.60 |
| 28) | T | Chloroform | 1.850 | 1.453 | 1.212 | 1.652 | 1.614 | 1.653 | 1.572 | 13.80 |
| 29) | T | Cyclohexane | 1.088 | 0.966 | 0.872 | 1.093 | 1.105 | 1.131 | 1.043 | 9.71 |
| 30) | T | 1,1,1-Trichlor... | 1.893 | 1.565 | 1.304 | 1.825 | 1.800 | 1.849 | 1.706 | 13.37 |
| 31) | T | Carbon tetrach... | 2.020 | 1.652 | 1.423 | 1.989 | 1.964 | 2.018 | 1.844 | 13.52 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.744 | 0.624 | 0.508 | 0.723 | 0.727 | 0.724 | 0.675 | 13.68 |
| 34) | T | 2,2,4-Trimethy... | 0.989 | 0.872 | 0.795 | 1.003 | 1.022 | 1.035 | 0.953 | 10.14 |
| 35) | T | 1,2-Dichloroet... | 0.346 | 0.296 | 0.249 | 0.320 | 0.332 | 0.327 | 0.311 | 11.22 |
| 36) | T | Heptane | 0.329 | 0.332 | 0.297 | 0.357 | 0.376 | 0.372 | 0.344 | 8.78 |
| 37) | T | Trichloroethene | 0.364 | 0.290 | 0.250 | 0.340 | 0.347 | 0.361 | 0.325 | 13.98 |
| 38) | T | 1,2-Dichloropr... | 0.259 | 0.236 | 0.190 | 0.262 | 0.264 | 0.267 | 0.246 | 12.13 |
| 39) | T | 2,3-dichloro-1... | 0.429 | 0.387 | 0.367 | 0.362 | 0.374 | 0.382 | 0.384 | 6.33 |
| 40) | T | 1,4-Dioxane | 0.149 | 0.135 | 0.122 | 0.149 | 0.151 | 0.150 | 0.143 | 8.25 |
| 41) | T | Bromodichlorom... | 0.561 | 0.491 | 0.416 | 0.517 | 0.529 | 0.534 | 0.508 | 9.98 |
| 42) | T | cis-1,3-Dichlo... | 0.367 | 0.320 | 0.281 | 0.382 | 0.399 | 0.403 | 0.359 | 13.48 |
| 43) | T | 4-Methyl-2-pen... | 0.504 | 0.463 | 0.410 | 0.496 | 0.514 | 0.504 | 0.482 | 8.16 |
| 44) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 45) | T | Toluene | 0.961 | 0.830 | 0.720 | 1.000 | 1.019 | 1.026 | 0.926 | 13.39 |
| 46) | T | trans-1,3-Dich... | 0.415 | 0.349 | 0.303 | 0.426 | 0.446 | 0.454 | 0.399 | 15.01 |
| 47) | T | 1,1,2-Trichlor... | 0.364 | 0.301 | 0.261 | 0.340 | 0.352 | 0.352 | 0.328 | 12.00 |
| 48) | T | Tetrachloroethene | 0.622 | 0.515 | 0.431 | 0.573 | 0.602 | 0.621 | 0.561 | 13.42 |
| 49) | T | 1,3-Dichloropr... | 0.563 | 0.505 | 0.464 | 0.459 | 0.471 | 0.470 | 0.489 | 8.14 |
| 50) | T | 2-Hexanone | 0.518 | 0.475 | 0.435 | 0.532 | 0.552 | 0.544 | 0.509 | 8.97 |
| 51) | T | Chlorodibromom... | 0.724 | 0.619 | 0.541 | 0.659 | 0.695 | 0.718 | 0.659 | 10.65 |
| 52) | T | 1,2-Dibromoeth... | 0.573 | 0.471 | 0.401 | 0.541 | 0.568 | 0.577 | 0.522 | 13.66 |
| 53) | T | Chlorobenzene | 0.947 | 0.798 | 0.675 | 0.856 | 0.871 | 0.867 | 0.835 | 11.00 |
| 54) | T | Ethylbenzene | 1.345 | 1.191 | 1.028 | 1.305 | 1.342 | 1.383 | 1.266 | 10.58 |
| 55) | T | m&p-Xylene | 1.049 | 0.926 | 0.840 | 1.077 | 1.140 | 1.203 | 1.039 | 13.01 |
| 56) | T | o-Xylene | 1.056 | 0.936 | 0.831 | 1.091 | 1.128 | 1.185 | 1.038 | 12.63 |

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090513KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | Styrene | 0.908 | 0.790 | 0.737 | 0.937 | 0.995 | 1.034 | 0.900 | 12.88 |
| 58) | T | Bromoform | 0.785 | 0.670 | 0.618 | 0.833 | 0.884 | 0.939 | 0.788 | 15.76 |
| 59) | T | 1,1,2,2-Tetrac... | 0.927 | 0.776 | 0.676 | 0.832 | 0.871 | 0.897 | 0.830 | 11.03 |
| 60) | T | 1,2,3-Trichlor... | 0.816 | 0.693 | 0.614 | 0.614 | 0.636 | 0.648 | 0.670 | 11.51 |
| 61) | T | 4-Ethyltoluene | 1.546 | 1.443 | 1.310 | 1.504 | 1.574 | 1.673 | 1.508 | 8.19 |
| 62) | T | 1,3,5-Trimethy... | 1.327 | 1.179 | 1.101 | 1.349 | 1.431 | 1.512 | 1.316 | 11.67 |
| 63) | T | 1,2,4-Trimethy... | 1.364 | 1.209 | 1.127 | 1.360 | 1.446 | 1.542 | 1.341 | 11.34 |
| 64) | T | 1,3-Dichlorobe... | 1.192 | 1.000 | 0.924 | 1.146 | 1.213 | 1.297 | 1.129 | 12.43 |
| 65) | T | 1,4-Dichlorobe... | 1.140 | 0.983 | 0.929 | 1.141 | 1.219 | 1.305 | 1.120 | 12.62 |
| 66) | T | Benzyl chloride | 1.072 | 1.041 | 0.931 | 1.121 | 1.187 | 1.246 | 1.100 | 10.14 |
| 67) | T | 1,2-Dichlorobe... | 1.103 | 0.983 | 0.862 | 1.059 | 1.128 | 1.207 | 1.057 | 11.48 |
| 68) | T | 1,2-Dibromo-3-... | 0.645 | 0.567 | 0.535 | 0.579 | 0.628 | 0.670 | 0.604 | 8.58 |
| 69) | T | 1,2,4-Trichlor... | 1.248 | 1.040 | 0.924 | 0.933 | 1.045 | 1.157 | 1.058 | 11.96 |
| 70) | T | Hexachlorobuta... | 1.335 | 1.202 | 1.107 | 0.867 | 0.935 | 0.988 | 1.072 | 16.41 |

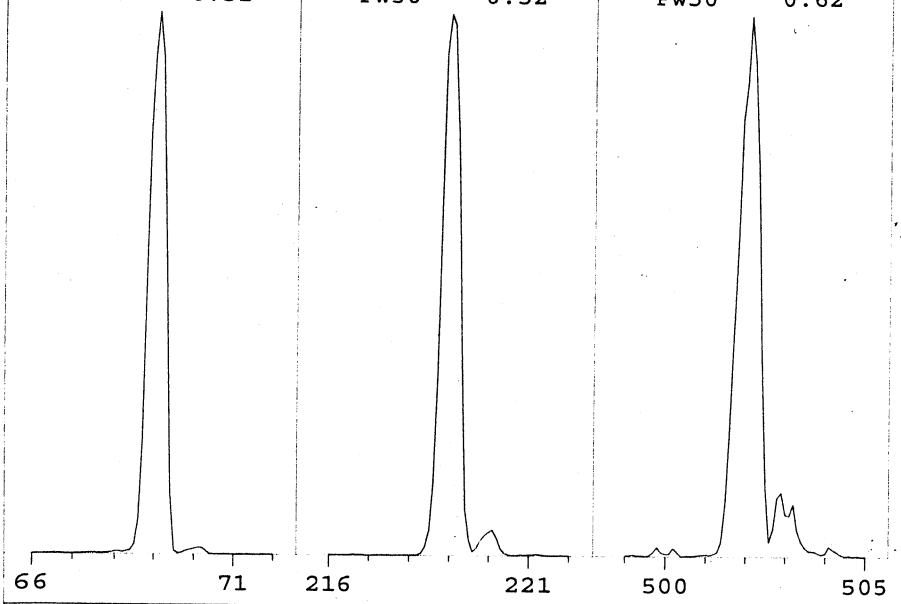
(#) = Out of Range

5973N

Thu Sep 05 13:30:39 2013
C:\msdchem\1\5973N\BFB090513KA.u

Instrument: HP5973K
US03960556

| Mass | 69.10 | Mass | 219.00 | Mass | 502.10 |
|---|---|---|---|---|---|
| Ab | 315301 | Ab | 135012 | Ab | 8033 |
| Pw50 | 0.51 | Pw50 | 0.52 | Pw50 | 0.62 |

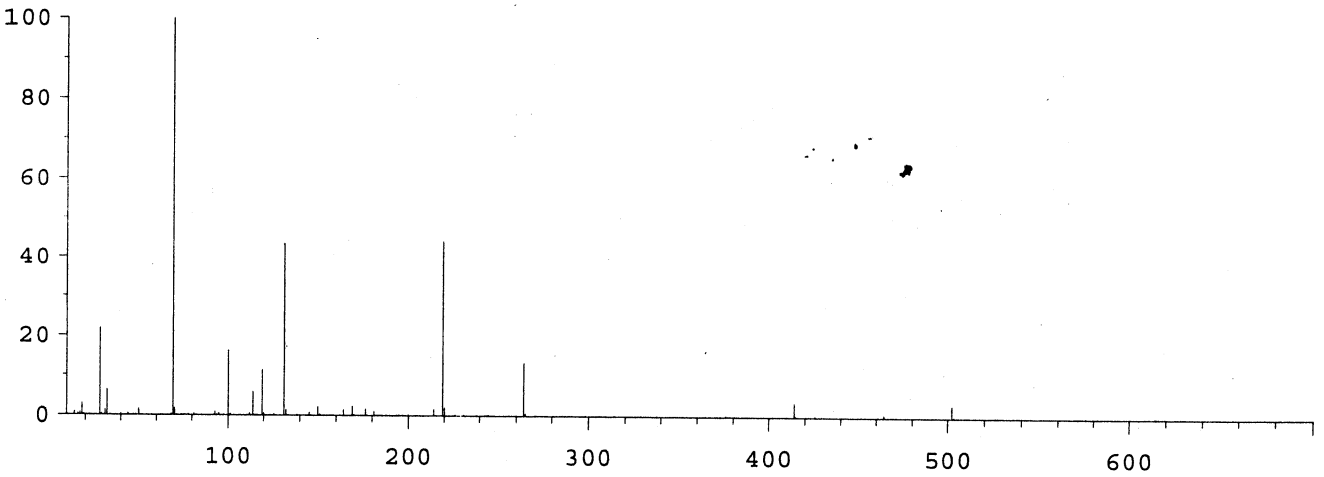



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 109 |
| | | MassOffs | -9 |
| Emission | 34.6 | AmuGain | 1987 |
| EIEnrgy | 69.9 | AmuOffs | 124 |
| Filament | 1 | Wid219 | -0.019 |
| | | DC Pol | Pos |
| Repeller | 19.90 | | |
| IonFcus | 63.6 | HEDEnab | On |
| EntLens | 9.5 | EMVolts | 2000 |
| EntOffs | 14.31 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
289 peaks Base: 69.10 Abundance: 250816




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 250816 | 100.00 | 70.00 | 4203 | 1.68 |
| 219.00 | 110680 | 44.13 | 220.00 | 5159 | 4.66 |
| 502.10 | 7498 | 2.99 | 503.10 | 950 | 12.67 |

Air/Water Check: H20~3.00% N2~21.85% O2~6.31% CO2~0.56% N2/H2O~728.54%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 584806
Repeller Maximum 20 volts using ion 219; Gain Factor 5.85

MassGain Values(Samples): 107(3) 108(2) 112(1) 106(0) 109(FS)

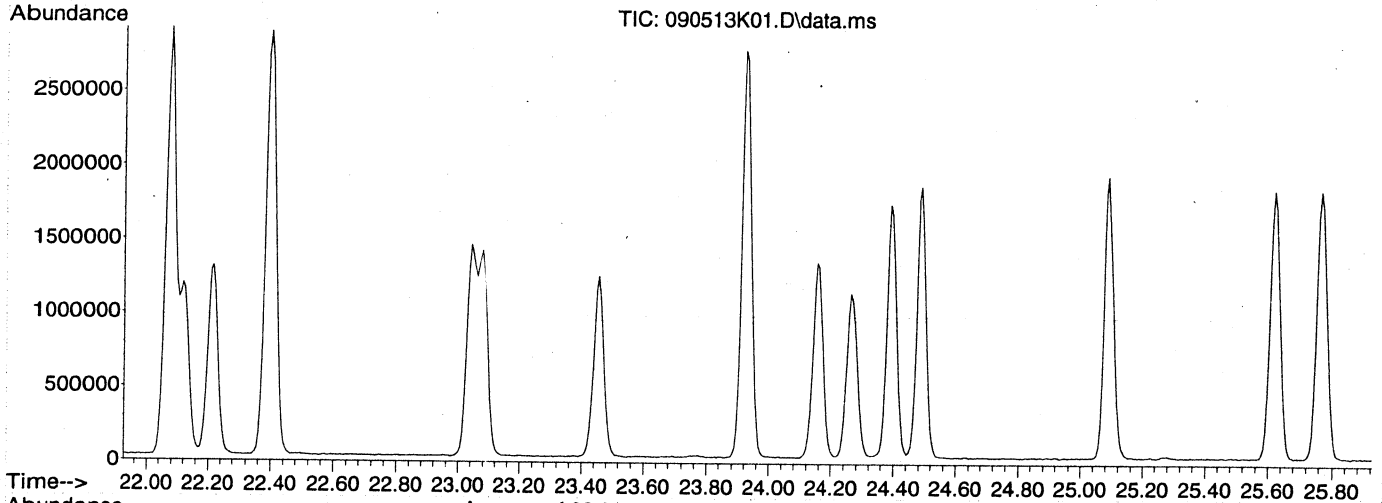
| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 |
| Entrance Lens Offset: | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 |

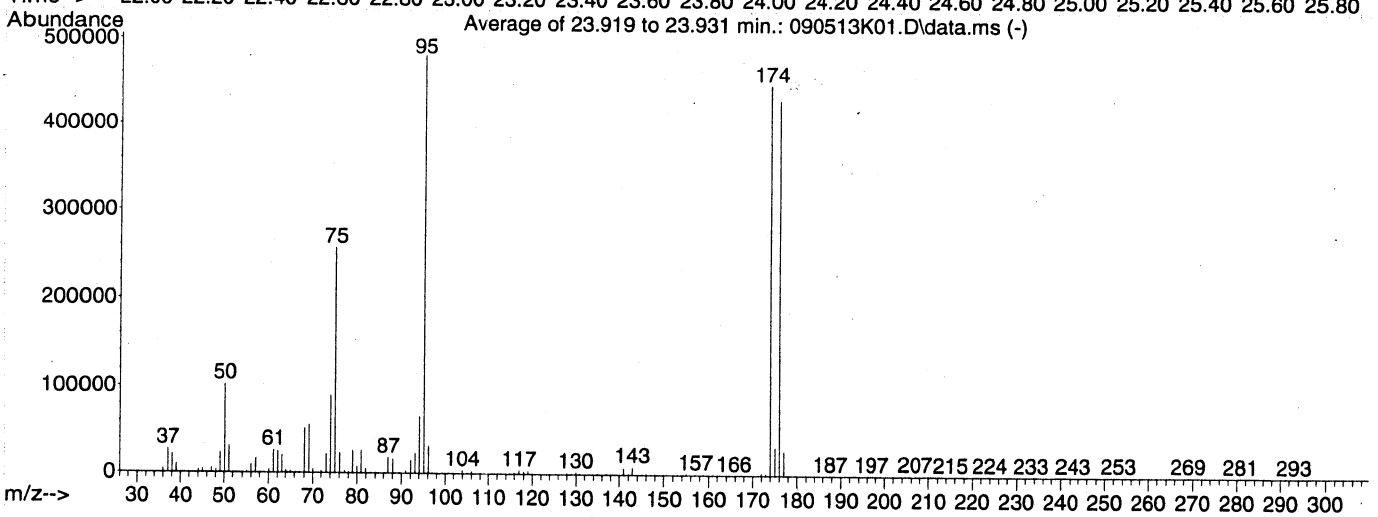
BFB

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K01.D
Acq On : 5 Sep 2013 14:05
Operator : EM
Sample : S13I019-TUN1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013




AutoFind: Scans 3343, 3344, 3345; Background Corrected with Scan 3330

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 21.2 | 101846 | PASS |
| 75 | 95 | 30 | 66 | 53.3 | 256552 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 481351 | PASS |
| 96 | 95 | 5 | 9 | 6.6 | 31920 | PASS |
| 173 | 174 | 0.00 | 2 | 0.5 | 2210 | PASS |
| 174 | 95 | 50 | 120 | 93.0 | 447644 | PASS |
| 175 | 174 | 4 | 9 | 7.1 | 31757 | PASS |
| 176 | 174 | 93 | 101 | 96.0 | 429909 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 27816 | PASS |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 36.00 | 4162 | 47.10 | 5432 | 57.80 | 253 | 66.15 | 483 |
| 37.10 | 27128 | 48.10 | 3457 | 58.00 | 173 | 66.80 | 288 |
| 38.10 | 21417 | 49.05 | 23699 | 58.15 | 536 | 67.00 | 561 |
| 39.10 | 9607 | 50.10 | 101846 | 58.70 | 136 | 67.20 | 456 |
| 40.80 | 183 | 51.10 | 31276 | 59.20 | 210 | 68.10 | 51231 |
| 41.05 | 61 | 52.10 | 1081 | 60.10 | 4393 | 69.10 | 55088 |
| 43.25 | 351 | 52.80 | 375 | 61.05 | 25959 | 70.05 | 4494 |
| 44.05 | 3650 | 54.15 | 274 | 62.10 | 25347 | 71.05 | 227 |
| 45.00 | 4590 | 55.00 | 1510 | 63.10 | 20360 | 72.05 | 2400 |
| 45.90 | 80 | 56.05 | 9410 | 64.05 | 2542 | 73.10 | 21596 |
| 46.15 | 488 | 57.10 | 16173 | 65.05 | 2123 | 74.05 | 89612 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 75.05 | 256552 | 86.10 | 972 | 96.10 | 31920 | 101.70 | 17 |
| 76.05 | 23064 | 87.00 | 18202 | 96.90 | 365 | 102.10 | 62 |
| 77.15 | 2703 | 88.05 | 15878 | 97.10 | 637 | 102.85 | 244 |
| 78.05 | 1404 | 89.25 | 130 | 98.35 | 91 | 103.10 | 263 |
| 78.95 | 25947 | 89.60 | 32 | 99.40 | 82 | 103.95 | 3474 |
| 79.95 | 7325 | 89.95 | 1 | 99.70 | 26 | 105.05 | 951 |
| 80.95 | 26366 | 90.95 | 2946 | 99.90 | 14 | 106.00 | 2825 |
| 81.95 | 5299 | 92.10 | 14532 | 100.15 | 69 | 106.95 | 690 |
| 83.05 | 1063 | 93.10 | 23459 | 100.40 | 8 | 107.75 | 87 |
| 84.00 | 105 | 94.05 | 64914 | 101.20 | 13 | 108.20 | 45 |
| 84.60 | 9 | 95.05 | 481351 | 101.40 | 52 | 109.95 | 639 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 110.70 | 230 | 120.00 | 134 | 126.00 | 58 | 134.90 | 1605 |
| 111.00 | 270 | 120.30 | 19 | 126.85 | 308 | 136.05 | 186 |
| 112.05 | 588 | 120.70 | 105 | 127.95 | 1848 | 136.95 | 1369 |
| 112.90 | 599 | 121.30 | 66 | 128.90 | 867 | 138.35 | 75 |
| 114.00 | 135 | 121.70 | 16 | 129.95 | 2489 | 138.80 | 76 |
| 114.85 | 563 | 122.05 | 5 | 130.90 | 938 | 139.05 | 354 |
| 115.90 | 1870 | 122.45 | 136 | 132.20 | 95 | 139.40 | 105 |
| 116.95 | 3890 | 122.95 | 291 | 132.50 | 18 | 139.70 | 137 |
| 117.95 | 2696 | 124.00 | 431 | 133.00 | 72 | 140.20 | 269 |
| 119.00 | 3457 | 124.85 | 266 | 133.70 | 135 | 140.90 | 7301 |
| 119.80 | 26 | 125.50 | 36 | 134.30 | 68 | 142.05 | 1195 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 142.90 | 8756 | 151.20 | 55 | 159.90 | 110 | 167.20 | 67 |
| 143.95 | 476 | 152.05 | 208 | 160.95 | 920 | 167.65 | 97 |
| 144.85 | 92 | 152.95 | 417 | 163.30 | 32 | 169.55 | 96 |
| 145.05 | 523 | 153.80 | 35 | 163.80 | 13 | 170.60 | 70 |
| 145.95 | 1251 | 154.05 | 85 | 164.10 | 15 | 170.90 | 461 |
| 147.00 | 531 | 155.00 | 1182 | 164.40 | 20 | 171.95 | 2673 |
| 147.30 | 76 | 156.00 | 47 | 164.60 | 87 | 173.00 | 2210 |
| 147.95 | 1375 | 157.05 | 1323 | 165.15 | 6 | 174.00 | 447644 |
| 148.90 | 462 | 157.80 | 26 | 165.70 | 13 | 175.00 | 31757 |
| 149.80 | 150 | 158.90 | 895 | 166.15 | 29 | 176.00 | 429909 |
| 150.10 | 279 | 159.70 | 31 | 166.40 | 37 | 177.00 | 27816 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 178.00 | 716 | 188.05 | 110 | 196.30 | 24 | 202.85 | 36 |
| 179.20 | 46 | 188.70 | 83 | 196.95 | 232 | 203.65 | 19 |
| 179.60 | 126 | 188.90 | 8 | 197.40 | 52 | 205.45 | 107 |
| 180.05 | 28 | 189.75 | 36 | 198.35 | 166 | 207.00 | 993 |
| 181.25 | 85 | 191.00 | 141 | 198.80 | 53 | 208.00 | 125 |
| 181.80 | 53 | 191.65 | 68 | 199.15 | 25 | 209.00 | 516 |
| 182.00 | 96 | 192.10 | 93 | 200.20 | 80 | 209.85 | 76 |
| 183.05 | 78 | 192.85 | 177 | 200.80 | 48 | 210.30 | 14 |
| 183.70 | 28 | 193.10 | 24 | 201.80 | 44 | 210.85 | 112 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 184.75 | 71 | 193.50 | 117 | 202.00 | 36 | 211.45 | 98 |
| 187.55 | 181 | 195.95 | 51 | 202.20 | 39 | 212.35 | 168 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 212.90 | 55 | 221.05 | 12 | 227.90 | 48 | 235.00 | 33 |
| 213.25 | 116 | 221.40 | 17 | 228.50 | 90 | 236.85 | 22 |
| 213.70 | 50 | 221.80 | 12 | 229.60 | 48 | 238.05 | 57 |
| 215.00 | 75 | 222.50 | 38 | 229.90 | 15 | 238.75 | 16 |
| 216.80 | 82 | 223.20 | 44 | 230.20 | 42 | 239.00 | 16 |
| 217.10 | 47 | 223.40 | 108 | 230.70 | 34 | 239.55 | 48 |
| 217.70 | 72 | 223.80 | 113 | 231.45 | 72 | 239.80 | 45 |
| 218.10 | 72 | 224.00 | 115 | 232.30 | 92 | 240.60 | 75 |
| 218.90 | 33 | 225.90 | 21 | 233.20 | 152 | 240.80 | 52 |
| 219.20 | 97 | 226.50 | 19 | 233.70 | 87 | 241.10 | 46 |
| 220.55 | 93 | 227.50 | 50 | 234.40 | 23 | 241.30 | 8 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 242.80 | 113 | 249.60 | 20 | 255.90 | 73 | 264.60 | 46 |
| 243.40 | 63 | 249.90 | 184 | 256.60 | 37 | 264.90 | 26 |
| 244.50 | 21 | 250.70 | 115 | 258.70 | 21 | 266.20 | 126 |
| 245.30 | 48 | 250.90 | 40 | 259.05 | 0 | 266.90 | 25 |
| 245.60 | 44 | 251.65 | 51 | 260.15 | 127 | 267.25 | 88 |
| 246.00 | 44 | 252.00 | 35 | 260.80 | 242 | 267.70 | 10 |
| 246.90 | 177 | 252.30 | 27 | 261.70 | 85 | 267.95 | 21 |
| 247.50 | 63 | 253.15 | 574 | 262.40 | 12 | 269.00 | 694 |
| 248.20 | 69 | 254.10 | 186 | 263.00 | 15 | 270.20 | 30 |
| 248.90 | 98 | 254.50 | 22 | 264.00 | 24 | 270.85 | 13 |
| 249.10 | 85 | 255.10 | 46 | 264.30 | 13 | 271.10 | 120 |

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 271.95 | 90 | 278.80 | 13 | 285.10 | 51 | 292.50 | 9 |
| 272.20 | 36 | 279.65 | 20 | 285.90 | 43 | 293.05 | 158 |
| 272.80 | 54 | 279.90 | 15 | 286.30 | 25 | 293.95 | 80 |
| 273.75 | 43 | 280.10 | 98 | 286.50 | 16 | 294.65 | 38 |
| 274.50 | 46 | 280.75 | 257 | 286.95 | 74 | 295.80 | 12 |
| 275.00 | 85 | 281.10 | 17 | 287.20 | 24 | 296.40 | 55 |
| 276.15 | 25 | 281.60 | 49 | 287.90 | 56 | 297.30 | 73 |
| 276.95 | 42 | 281.80 | 189 | 288.40 | 148 | 298.80 | 58 |
| 277.50 | 38 | 282.80 | 22 | 289.40 | 22 | 299.20 | 45 |
| 277.70 | 12 | 283.05 | 138 | 290.35 | 37 | 299.50 | 21 |
| 278.30 | 18 | 283.55 | 48 | 290.70 | 48 | | |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

1 out

em 9/6/13

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 88 | 0.00 |
| 2 | T | Propene | 0.576 | 0.482 | 16.3 | 74 | 0.00 |
| 3 | T | Dichlorodifluoromethane | 2.253 | 2.033 | 9.8 | 75 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 2.382 | 2.066 | 13.3 | 73 | 0.00 |
| 5 | T | Chloromethane | 0.676 | 0.590 | 12.7 | 76 | 0.00 |
| 6 | T | Vinyl chloride | 0.776 | 0.686 | 11.6 | 74 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.610 | 0.530 | 13.1 | 75 | 0.00 |
| 8 | T | Bromomethane | 0.802 | 0.707 | 11.8 | 75 | 0.00 |
| 9 | T | Chloroethane | 0.414 | 0.384 | 7.2 | 79 | 0.00 |
| 10 | T | Bromoethene | 0.708 | 0.550 | 22.3 | 66 | 0.00 |
| 11 | T | Trichlorofluoromethane | 2.092 | 1.889 | 9.7 | 75 | -0.01 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 1.345 | 1.073 | 20.2 | 67 | 0.00 |
| 13 | T | 1,1-Dichloroethene | 1.059 | 0.940 | 11.2 | 72 | 0.00 |
| 14 | T | Acetone | 0.982 | 0.942 | 4.1 | 80 | 0.00 |
| 15 | T | Carbon disulfide | 1.835 | 1.472 | 19.8 | 71 | 0.00 |
| 16 | T | 2-Propanol | 0.848 | 0.737 | 13.1 | 70 | 0.00 |
| 17 | T | Allyl chloride | 0.740 | 0.659 | 10.9 | 73 | 0.00 |
| 18 | T | Dichloromethane | 0.851 | 0.755 | 11.3 | 77 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 1.674 | 1.435 | 14.3 | 70 | 0.00 |
| 20 | T | trans-1,2-Dichloroethene | 0.924 | 0.836 | 9.5 | 76 | 0.00 |
| 21 | T | Hexane | 0.996 | 0.864 | 13.3 | 71 | -0.01 |
| 22 | T | 1,1-Dichloroethane | 1.293 | 1.129 | 12.7 | 74 | 0.00 |
| 23 | T | Vinyl acetate | 1.399 | 1.319 | 5.7 | 72 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 0.908 | 0.826 | 9.0 | 72 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.304 | 1.029 | 21.1 | 66 | -0.01 |
| 26 | T | Ethyl acetate | 1.473 | 1.292 | 12.3 | 72 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.795 | 0.730 | 8.2 | 79 | 0.00 |
| 28 | T | Chloroform | 1.572 | 1.399 | 11.0 | 74 | 0.00 |
| 29 | T | Cyclohexane | 1.043 | 0.920 | 11.8 | 74 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 1.706 | 1.564 | 8.3 | 75 | 0.00 |
| 31 | T | Carbon tetrachloride | 1.844 | 1.739 | 5.7 | 77 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 77 | 0.00 |
| 33 | T | Benzene | 0.675 | 0.676 | -0.1 | 72 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 0.953 | 0.954 | -0.1 | 73 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.311 | 0.339 | -9.0 | 82 | 0.00 |
| 36 | T | Heptane | 0.344 | 0.360 | -4.7 | 78 | 0.00 |
| 37 | T | Trichloroethene | 0.325 | 0.292 | 10.2 | 66 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.246 | 0.246 | 0.0 | 73 | 0.00 |
| 39 | T | 2,3-dichloro-1-propene | 0.384 | 0.355 | 7.6 | 76 | 0.00 |
| 40 | T | 1,4-Dioxane | 0.143 | 0.133 | 7.0 | 69 | 0.00 |
| 41 | T | Bromodichloromethane | 0.508 | 0.510 | -0.4 | 76 | 0.00 |
| 42 | T | cis-1,3-Dichloropropene | 0.359 | 0.360 | -0.3 | 73 | 0.00 |
| 43 | T | 4-Methyl-2-pentanone (MIBK) | 0.482 | 0.499 | -3.5 | 78 | 0.00 |
| 44 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 80 | 0.00 |
| 45 | T | Toluene | 0.926 | 0.857 | 7.5 | 69 | 0.00 |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | trans-1,3-Dichloropropene | 0.399 | 0.394 | 1.3 | 74 | 0.00 |
| 47 | T | 1,1,2-Trichloroethane | 0.328 | 0.299 | 8.8 | 71 | 0.00 |
| 48 | T | Tetrachloroethene | 0.561 | 0.468 | 16.6 | 65 | 0.00 |
| 49 | T | 1,3-Dichloropropane | 0.489 | 0.421 | 13.9 | 73 | 0.00 |
| 50 | T | 2-Hexanone | 0.509 | 0.511 | -0.4 | 77 | 0.00 |
| 51 | T | Chlorodibromomethane | 0.659 | 0.588 | 10.8 | 71 | 0.00 |
| 52 | T | 1,2-Dibromoethane (EDB) | 0.522 | 0.472 | 9.6 | 70 | 0.00 |
| 53 | T | Chlorobenzene | 0.835 | 0.733 | 12.2 | 69 | 0.00 |
| 54 | T | Ethylbenzene | 1.266 | 1.180 | 6.8 | 72 | 0.00 |
| 55 | T | m&p-Xylene | 1.039 | 0.995 | 4.2 | 74 | 0.00 |
| 56 | T | o-Xylene | 1.038 | 0.993 | 4.3 | 73 | 0.00 |
| 57 | T | Styrene | 0.900 | 0.834 | 7.3 | 71 | 0.00 |
| 58 | T | Bromoform | 0.788 | 0.701 | 11.0 | 67 | 0.00 |
| 59 | T | 1,1,2,2-Tetrachloroethane | 0.830 | 0.767 | 7.6 | 74 | 0.00 |
| 60 | T | 1,2,3-Trichloropropane | 0.670 | 0.584 | 12.8 | 76 | 0.00 |
| 61 | T | 4-Ethyltoluene | 1.508 | 1.363 | 9.6 | 73 | 0.00 |
| 62 | T | 1,3,5-Trimethylbenzene | 1.316 | 1.239 | 5.9 | 74 | 0.00 |
| 63 | T | 1,2,4-Trimethylbenzene | 1.341 | 1.234 | 8.0 | 73 | 0.00 |
| 64 | T | 1,3-Dichlorobenzene | 1.129 | 0.960 | 15.0 | 67 | 0.00 |
| 65 | T | 1,4-Dichlorobenzene | 1.120 | 0.958 | 14.5 | 67 | 0.00 |
| 66 | T | Benzyl chloride | 1.100 | 0.990 | 10.0 | 71 | 0.00 |
| 67 | T | 1,2-Dichlorobenzene | 1.057 | 0.890 | 15.8 | 67 | 0.00 |
| 68 | T | 1,2-Dibromo-3-chloropropane | 0.604 | 0.453 | 25.0 | 63 | 0.00 |
| 69 | T | 1,2,4-Trichlorobenzene | 1.058 | 0.745 | 29.6 | 64 | 0.00 |
| 70 | T | Hexachlorobutadiene | 1.072 | 0.696 | 35.1# | 64 | 0.00 |

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

#70 % Dev #70 HCB $= \frac{1.072 - 0.696}{1.072} \times 100 = 35.1\%$ ✓

#70 $CCRF = \frac{808742\ (22)}{2481718\ (10.3)} = 0.696$ ✓

9/6/13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 869468 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2633942 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.076 | 117 | 2481718 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 204008 | 8.96 | ppbv | 97 |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 811834 | 9.12 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 849341 | 9.02 | ppbv | 93 |
| 5) Chloromethane | 4.701 | 50 | 240129 | 8.99 | ppbv | 97 |
| 6) Vinyl chloride | 5.011 | 62 | 284694 | 9.28 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.108 | 54 | 213666 | 8.87 | ppbv | 90 |
| 8) Bromomethane | 5.991 | 94 | 290853 | 9.18 | ppbv | 99 |
| 9) Chloroethane | 6.313 | 64 | 157976 | 9.65 | ppbv | 99 |
| 10) Bromoethene | 6.860 | 106 | 223952 | 8.00 | ppbv | 96 |
| 11) Trichlorofluoromethane | 6.988 | 101 | 784153 | 9.48 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.734 | 151 | 394525 | 7.42 | ppbv | 91 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 349356 | 8.34 | ppbv | 86 |
| 14) Acetone | 9.312 | 43 | 394545 | 10.17 | ppbv | 93 |
| 15) Carbon disulfide | 9.507 | 76 | 593495 | 8.18 | ppbv | 94 |
| 16) 2-Propanol | 9.969 | 45 | 276663 | 8.25 | ppbv | 90 |
| 17) Allyl chloride | 10.359 | 41 | 262989 | 8.99 | ppbv | 94 |
| 18) Dichloromethane | 10.924 | 49 | 286520 | 8.52 | ppbv | 87 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 618496 | 9.35 | ppbv | 96 |
| 20) trans-1,2-Dichloroethene | 11.679 | 61 | 314042 | 8.60 | ppbv | 91 |
| 21) Hexane | 12.305 | 57 | 348189 | 8.85 | ppbv | 89 |
| 22) 1,1-Dichloroethane | 13.066 | 63 | 437421 | 8.56 | ppbv | 99 |
| 23) Vinyl acetate | 13.224 | 43 | 521475 | 9.43 | ppbv | 97 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 329902 | 9.19 | ppbv | 91 |
| 25) 2-Butanone (MEK) | 14.660 | 43 | 422880 | 8.21 | ppbv | 98 |
| 26) Ethyl acetate | 14.714 | 43 | 530972 | 9.12 | ppbv | 99 |
| 27) Tetrahydrofuran | 15.134 | 42 | 297132 | 9.46 | ppbv | 86 |
| 28) Chloroform | 15.274 | 83 | 558447 | 8.99 | ppbv | 97 |
| 29) Cyclohexane | 15.499 | 56 | 378121 | 9.18 | ppbv | 92 |
| 30) 1,1,1-Trichloroethane | 15.542 | 97 | 618374 | 9.17 | ppbv | 97 |
| 31) Carbon tetrachloride | 15.809 | 117 | 687527 | 9.43 | ppbv | 99 |
| 33) Benzene | 16.308 | 78 | 833943 | 10.32 | ppbv | 97 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1199256 | 10.51 | ppbv | 96 |
| 35) 1,2-Dichloroethane | 16.515 | 62 | 405457 | 10.87 | ppbv | 98 |
| 36) Heptane | 16.661 | 43 | 452396 | 10.99 | ppbv | 97 |
| 37) Trichloroethene | 17.561 | 130 | 360754 | 9.26 | ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 312648 | 10.59 | ppbv | 91 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 441711 | 9.62 | ppbv | 93 |
| 40) 1,4-Dioxane | 18.273 | 88 | 169280 | 9.90 | ppbv | 96 |
| 41) Bromodichloromethane | 18.535 | 83 | 646943 | 10.64 | ppbv | 99 |
| 42) cis-1,3-Dichloropropene | 19.314 | 75 | 444114 | 10.34 | ppbv | 92 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 627497 | 10.87 | ppbv | 94 |
| 45) Toluene | 19.788 | 91 | 1005229 | 9.62 | ppbv | 100 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 489445 | 10.88 | ppbv | 93 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 364894 | 9.86 | ppbv | 95 |
| 48) Tetrachloroethene | 20.646 | 166 | 549170 | 8.68 | ppbv | 96 |



86561

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.853 | 76 | 488967 | 8.87 ppbv | 92 |
| 50) 2-Hexanone | 20.907 | 43 | 593876 | 10.34 ppbv | 93 |
| 51) Chlorodibromomethane | 21.181 | 129 | 690492 | 9.28 ppbv | 98 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 569624 | 9.68 ppbv | 99 |
| 53) Chlorobenzene | 22.124 | 112 | 876431 | 9.30 ppbv | 96 |
| 54) Ethylbenzene | 22.215 | 91 | 1398079 | 9.79 ppbv | 98 |
| 55) m&p-Xylene | 22.398 | 91 | 2379300 | 20.30 ppbv | 97 |
| 56) o-Xylene | 23.043 | 91 | 1199138 | 10.24 ppbv | 95 |
| 57) Styrene | 23.079 | 104 | 978106 | 9.63 ppbv | 98 |
| 58) Bromoform | 23.456 | 173 | 815028 | 9.17 ppbv | 98 |
| 59) 1,1,2,2-Tetrachloroethane | 24.156 | 83 | 917692 | 9.80 ppbv | 99 |
| 60) 1,2,3-Trichloropropane | 24.266 | 75 | 639211 | 8.45 ppbv | 97 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 1615151 | 9.49 ppbv | 97 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 1454372 | 9.79 ppbv | 97 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 1489242 | 9.84 ppbv | 97 |
| 64) 1,3-Dichlorobenzene | 25.622 | 146 | 1115646 | 8.76 ppbv | 98 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 1124342 | 8.90 ppbv | 98 |
| 66) Benzyl chloride | 25.987 | 91 | 1151078 | 9.28 ppbv | 99 |
| 67) 1,2-Dichlorobenzene | 26.377 | 146 | 1044841 | 8.76 ppbv | 98 |
| 68) 1,2-Dibromo-3-chloropr... | 27.612 | 157 | 459855 | 6.75 ppbv # | 82 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 857978 | 7.19 ppbv | 100 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 808742 | 6.69 ppbv | 100 |

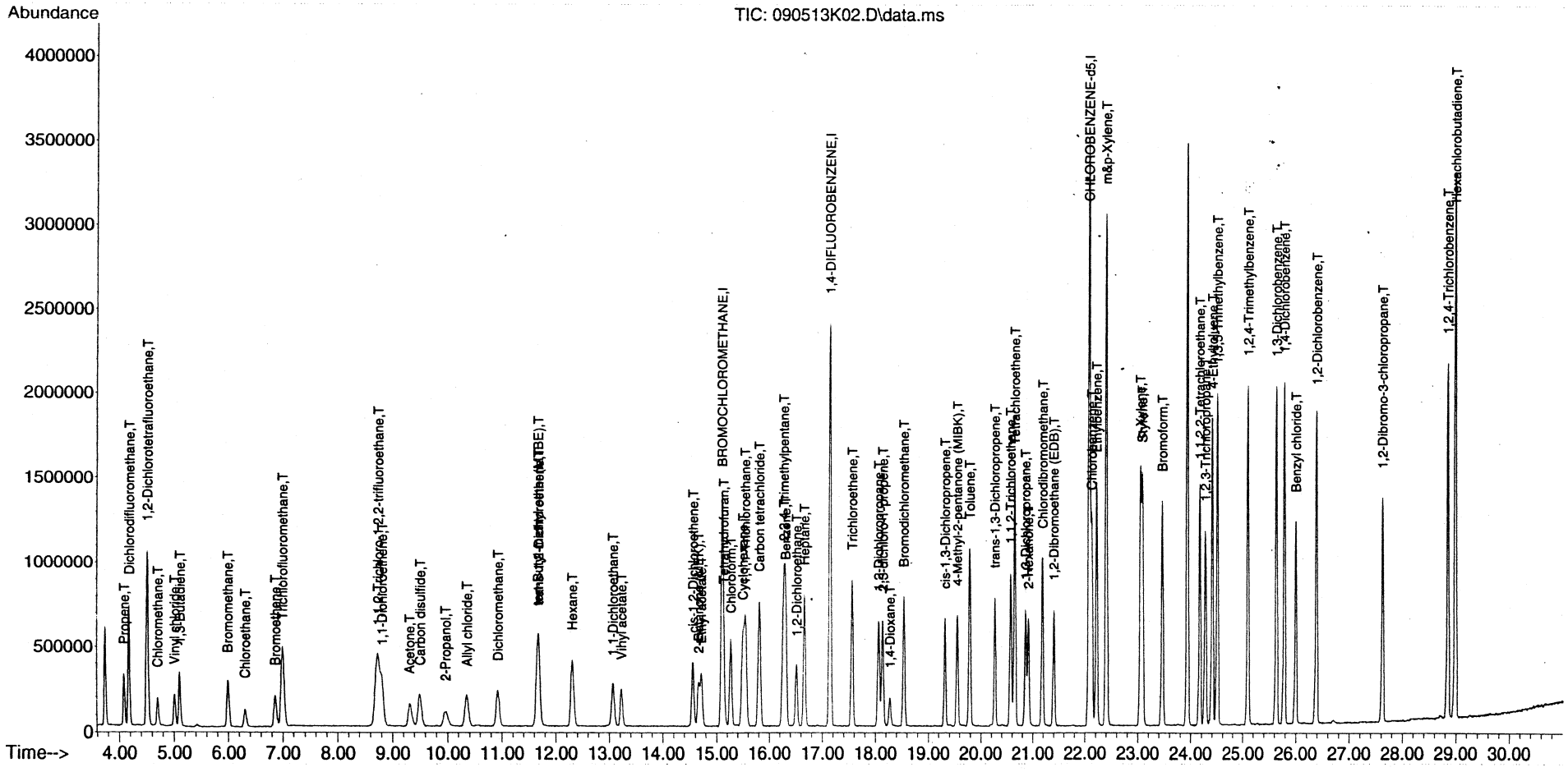
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



# LCS REPORT

Instrument Name: HP5973K
Sample Name: B13I025-BS1
Misc Info: 10 ppbv 1335007
Date Acquired: 9/5/2013 15:44
QLast Update: Wed Aug 28 11:07:04 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.10 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.09 | 10.70 | 9.39 | 88% | 56.0 | 155.0 | pass |
| 3) | Dichlorodifluoromethane | 4.18 | 10.10 | 9.79 | 97% | 67.0 | 141.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.51 | 10.40 | 9.76 | 94% | 68.0 | 147.0 | pass |
| 5) | Chloromethane | 4.70 | 10.30 | 9.31 | 90% | 64.0 | 141.0 | pass |
| 6) | Vinyl chloride | 5.00 | 10.50 | 9.86 | 94% | 65.0 | 141.0 | pass |
| 7) | 1,3-Butadiene | 5.10 | 10.20 | 9.49 | 93% | 61.0 | 154.0 | pass |
| 8) | Bromomethane | 6.00 | 10.40 | 9.77 | 94% | 71.0 | 132.0 | pass |
| 9) | Chloroethane | 6.31 | 10.40 | 9.88 | 95% | 70.0 | 134.0 | pass |
| 10) | Bromoethene | 6.86 | 10.30 | 8.16 | 79% | 71.0 | 146.0 | pass |
| 11) | Trichlorofluoromethane | 6.99 | 10.50 | 9.96 | 95% | 72.0 | 141.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.73 | 9.30 | 7.76 | 83% | 68.0 | 134.0 | pass |
| 13) | 1,1-Dichloroethene | 8.82 | 9.40 | 8.97 | 95% | 81.0 | 127.0 | pass |
| 14) | Acetone | 9.31 | 10.60 | 10.51 | 99% | 77.0 | 150.0 | pass |
| 15) | Carbon disulfide | 9.49 | 10.20 | 8.62 | 85% | 75.0 | 138.0 | pass |
| 16) | 2-Propanol | 9.97 | 9.50 | 8.91 | 94% | 71.0 | 142.0 | pass |
| 17) | Allyl chloride | 10.36 | 10.10 | 9.76 | 97% | 84.0 | 143.0 | pass |
| 18) | Dichloromethane | 10.92 | 9.60 | 9.16 | 95% | 74.0 | 116.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 11.66 | 10.90 | 10.21 | 94% | 79.0 | 131.0 | pass |
| 20) | trans-1,2-Dichloroethene | 11.68 | 9.50 | 9.09 | 96% | 82.0 | 136.0 | pass |
| 21) | Hexane | 12.31 | 10.20 | 9.62 | 94% | 78.0 | 139.0 | pass |
| 22) | 1,1-Dichloroethane | 13.07 | 9.80 | 9.30 | 95% | 82.0 | 123.0 | pass |
| 23) | Vinyl acetate | 13.22 | 10.00 | 10.00 | 100% | 70.0 | 139.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.55 | 10.10 | 9.81 | 97% | 83.0 | 126.0 | pass |
| 25) | 2-Butanone (MEK) | 14.67 | 10.40 | 9.77 | 94% | 76.0 | 138.0 | pass |
| 26) | Ethyl acetate | 14.71 | 10.40 | 10.53 | 101% | 83.0 | 136.0 | pass |
| 27) | Tetrahydrofuran | 15.13 | 10.30 | 9.67 | 94% | 74.0 | 132.0 | pass |
| 28) | Chloroform | 15.27 | 10.10 | 9.73 | 96% | 81.0 | 127.0 | pass |
| 29) | Cyclohexane | 15.49 | 10.40 | 9.53 | 92% | 77.0 | 139.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.55 | 10.00 | 9.93 | 99% | 80.0 | 131.0 | pass |
| 31) | Carbon tetrachloride | 15.81 | 10.00 | 9.99 | 100% | 77.0 | 136.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.14 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.31 | 10.30 | 10.80 | 105% | 77.0 | 131.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 10.50 | 11.06 | 105% | 68.0 | 152.0 | pass |
| 35) | 1,2-Dichloroethane | 16.51 | 10.00 | 11.34 | 113% | 70.0 | 149.0 | pass |
| 36) | Heptane | 16.66 | 10.50 | 11.41 | 109% | 62.0 | 159.0 | pass |
| 37) | Trichloroethene | 17.56 | 10.30 | 9.98 | 97% | 81.0 | 125.0 | pass |
| 38) | 1,2-Dichloropropane | 18.06 | 10.60 | 11.42 | 108% | 74.0 | 135.0 | pass |
| 40) | 1,4-Dioxane | 18.27 | 10.60 | 10.47 | 99% | 67.0 | 134.0 | pass |
| 41) | Bromodichloromethane | 18.53 | 10.60 | 11.30 | 107% | 69.0 | 150.0 | pass |
| 42) | cis-1,3-Dichloropropene | 19.31 | 10.30 | 11.08 | 108% | 77.0 | 129.0 | pass |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.55 | 10.50 | 11.52 | 110% | 59.0 | 147.0 | pass |
| 44) | CHLOROBENZENE-d5 | 22.08 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 45) | Toluene | 19.79 | 10.40 | 10.28 | 99% | 79.0 | 126.0 | pass |
| 46) | trans-1,3-Dichloropropene | 20.26 | 11.00 | 11.71 | 106% | 81.0 | 137.0 | pass |
| 47) | 1,1,2-Trichloroethane | 20.57 | 10.80 | 10.39 | 96% | 76.0 | 124.0 | pass |
| 48) | Tetrachloroethene | 20.65 | 10.40 | 9.10 | 88% | 80.0 | 122.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Hexanone | 20.91 | 10.30 | 10.82 | 105% | 55.0 | 149.0 | pass |
| 51) | Chlorodibromomethane | 21.18 | 10.40 | 9.73 | 94% | 76.0 | 145.0 | pass |
| 52) | 1,2-Dibromoethane (EDB) | 21.40 | 10.70 | 10.41 | 97% | 78.0 | 124.0 | pass |
| 53) | Chlorobenzene | 22.12 | 10.60 | 9.98 | 94% | 76.0 | 120.0 | pass |
| 54) | Ethylbenzene | 22.22 | 10.50 | 10.49 | 100% | 75.0 | 125.0 | pass |
| 55) | m&p-Xylene | 22.40 | 21.20 | 21.96 | 104% | 75.0 | 128.0 | pass |
| 56) | o-Xylene | 23.04 | 10.70 | 10.93 | 102% | 74.0 | 128.0 | pass |
| 57) | Styrene | 23.09 | 10.40 | 10.31 | 99% | 69.0 | 122.0 | pass |
| 58) | Bromoform | 23.46 | 10.30 | 9.96 | 97% | 72.0 | 142.0 | pass |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 10.60 | 10.08 | 95% | 70.0 | 130.0 | pass |
| 61) | 4-Ethyltoluene | 24.40 | 10.50 | 9.80 | 93% | 69.0 | 138.0 | pass |
| 62) | 1,3,5-Trimethylbenzene | 24.49 | 10.40 | 10.35 | 100% | 70.0 | 134.0 | pass |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 10.70 | 10.40 | 97% | 65.0 | 129.0 | pass |
| 64) | 1,3-Dichlorobenzene | 25.62 | 10.30 | 9.20 | 89% | 62.0 | 130.0 | pass |
| 65) | 1,4-Dichlorobenzene | 25.77 | 10.40 | 9.33 | 90% | 61.0 | 131.0 | pass |
| 66) | Benzyl chloride | 25.99 | 10.30 | 9.87 | 96% | 61.0 | 153.0 | pass |
| 67) | 1,2-Dichlorobenzene | 26.37 | 10.40 | 9.23 | 89% | 60.0 | 130.0 | pass |
| 68) | 1,2-Dibromo-3-chloropropane | 27.62 | 9.00 | 7.21 | 80% | 46.0 | 113.0 | pass |
| 69) | 1,2,4-Trichlorobenzene | 28.83 | 10.20 | 7.62 | 75% | 38.0 | 128.0 | pass |
| 70) | Hexachlorobutadiene | 28.97 | 10.30 | 7.56 | 73% | 37.0 | 124.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/6/13

Manual integration(s) reviewed by:

Reviewer: JR Date: 9-19-13

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 854217 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2587847 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2446959 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 210006 | 9.39 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 856418 | 9.79 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 902357 | 9.76 | ppbv | 94 |
| 5) Chloromethane | 4.701 | 50 | 244263 | 9.31 | ppbv | 99 |
| 6) Vinyl chloride | 5.005 | 62 | 297053 | 9.86 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.102 | 54 | ~~224677~~ | ~~9.49~~ | ppbv | 89 |
| 8) Bromomethane | 5.997 | 94 | 304269 | 9.77 | ppbv | 100 |
| 9) Chloroethane | 6.307 | 64 | 159022 | 9.88 | ppbv | 98 |
| 10) Bromoethene | 6.860 | 106 | 224406 | 8.16 | ppbv | 97 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 809004 | 9.96 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.734 | 151 | 404897 | 7.76 | ppbv | 92 |
| 13) 1,1-Dichloroethene | 8.819 | 61 | 369191 | 8.97 | ppbv | 93 |
| 14) Acetone | 9.312 | 43 | 400447 | 10.51 | ppbv | 95 |
| 15) Carbon disulfide | 9.495 | 76 | 614339 | 8.62 | ppbv | 93 |
| 16) 2-Propanol | 9.969 | 45 | 293568 | 8.91 | ppbv | 93 |
| 17) Allyl chloride | 10.359 | 41 | 280390 | 9.76 | ppbv | 94 |
| 18) Dichloromethane | 10.924 | 49 | 302782 | 9.16 | ppbv | 87 |
| 19) tert-Butyl methyl ethe... | 11.660 | 73 | 663426 | 10.21 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 11.679 | 61 | 326158 | 9.09 | ppbv | 91 |
| 21) Hexane | 12.305 | 57 | 371809 | 9.62 | ppbv | 93 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 467149 | 9.30 | ppbv | 98 |
| 23) Vinyl acetate | 13.218 | 43 | 543476 | 10.00 | ppbv | 98 |
| 24) cis-1,2-Dichloroethene | 14.550 | 61 | 345803 | 9.81 | ppbv | 91 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 494488 | 9.77 | ppbv | 93 |
| 26) Ethyl acetate | 14.708 | 43 | 602274m | 10.53 | ppbv | |
| 27) Tetrahydrofuran | 15.128 | 42 | 298634 | 9.67 | ppbv | 91 |
| 28) Chloroform | 15.274 | 83 | 594339 | 9.73 | ppbv | 98 |
| 29) Cyclohexane | 15.493 | 56 | 385962 | 9.53 | ppbv | 92 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 657621 | 9.93 | ppbv | 99 |
| 31) Carbon tetrachloride | 15.809 | 117 | 715166 | 9.99 | ppbv | 99 |
| 33) Benzene | 16.308 | 78 | 857610 | 10.80 | ppbv | 98 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1239090 | 11.06 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 415598 | 11.34 | ppbv | 100 |
| 36) Heptane | 16.661 | 43 | 461469 | 11.41 | ppbv | 96 |
| 37) Trichloroethene | 17.561 | 130 | 381724 | 9.98 | ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 331057 | 11.42 | ppbv | 93 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 452559 | 10.03 | ppbv | 92 |
| 40) 1,4-Dioxane | 18.273 | 88 | 175895 | 10.47 | ppbv | 94 |
| 41) Bromodichloromethane | 18.535 | 83 | 675132 | 11.30 | ppbv | 98 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 467481 | 11.08 | ppbv | 91 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 653431 | 11.52 | ppbv | 94 |
| 45) Toluene | 19.788 | 91 | 1059287 | 10.28 | ppbv | 98 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 519452 | 11.71 | ppbv | 94 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 379473 | 10.39 | ppbv | 94 |
| 48) Tetrachloroethene | 20.646 | 166 | 567619 | 9.10 | ppbv | 96 |

Conc Vinyl Chloride

$= \frac{297053(22)}{854217(0.776)}$

$= 9.86$ ppbv

EM 9/6/13



00526

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.853 | 76 | 501098 | 9.22 ppbv | 91 |
| 50) 2-Hexanone | 20.914 | 43 | 613078 | 10.82 ppbv | 93 |
| 51) Chlorodibromomethane | 21.181 | 129 | 713576 | 9.73 ppbv | 97 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 604322 | 10.41 ppbv | 98 |
| 53) Chlorobenzene | 22.124 | 112 | 927649 | 9.98 ppbv | 97 |
| 54) Ethylbenzene | 22.215 | 91 | 1476622 | 10.49 ppbv | 97 |
| 55) m&p-Xylene | 22.398 | 91 | 2538611 | 21.96 ppbv | 96 |
| 56) o-Xylene | 23.043 | 91 | 1261305 | 10.93 ppbv | 96 |
| 57) Styrene | 23.085 | 104 | 1032588 | 10.31 ppbv | 97 |
| 58) Bromoform | 23.456 | 173 | 873197 | 9.96 ppbv | 98 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 930603 | 10.08 ppbv | 99 |
| 60) 1,2,3-Trichloropropane | 24.266 | 75 | 647249 | 8.68 ppbv | 98 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 1643729 | 9.80 ppbv | 98 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 1515292 | 10.35 ppbv | 96 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 1552064 | 10.40 ppbv | 96 |
| 64) 1,3-Dichlorobenzene | 25.622 | 146 | 1154475 | 9.20 ppbv | 98 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1162186 | 9.33 ppbv | 98 |
| 66) Benzyl chloride | 25.987 | 91 | 1206705 | 9.87 ppbv | 98 |
| 67) 1,2-Dichlorobenzene | 26.377 | 146 | 1084996 | 9.23 ppbv | 98 |
| 68) 1,2-Dibromo-3-chloropr... | 27.612 | 157 | 484411 | 7.21 ppbv # | 85 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 897031 | 7.62 ppbv | 99 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 901803 | 7.56 ppbv | 99 |

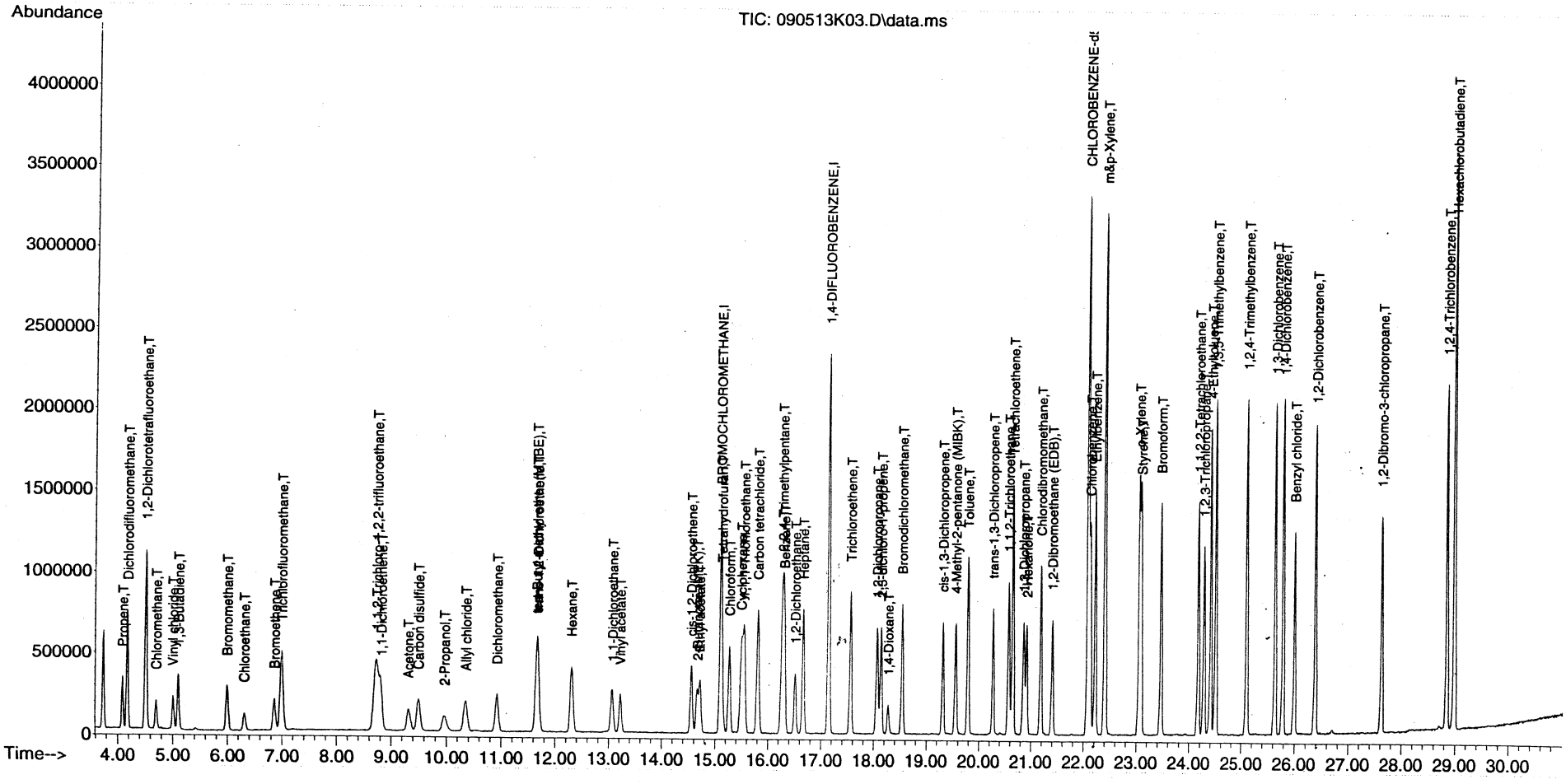
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

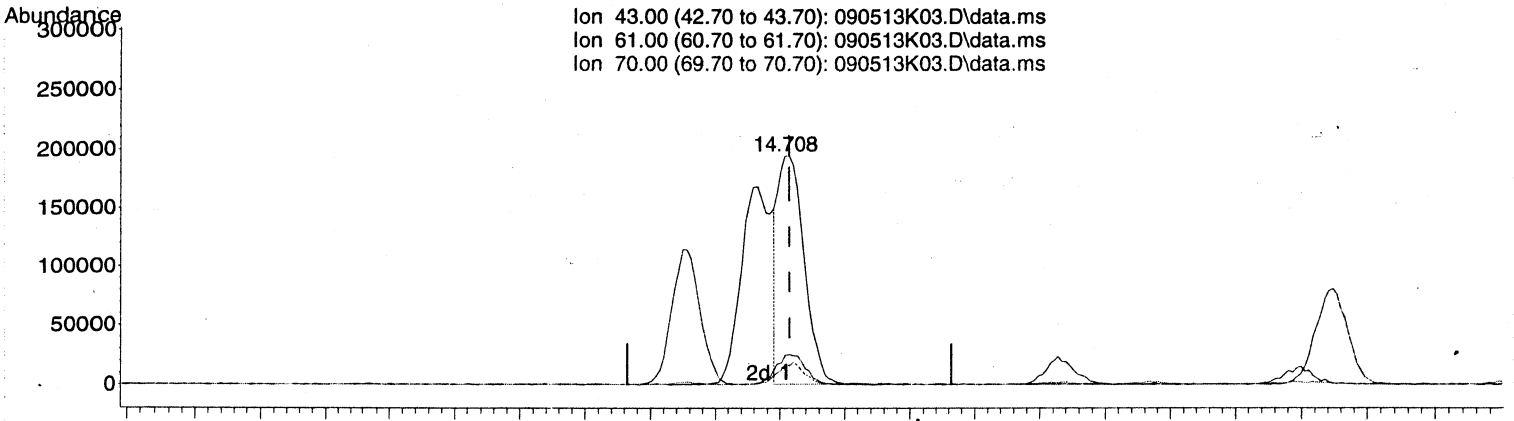


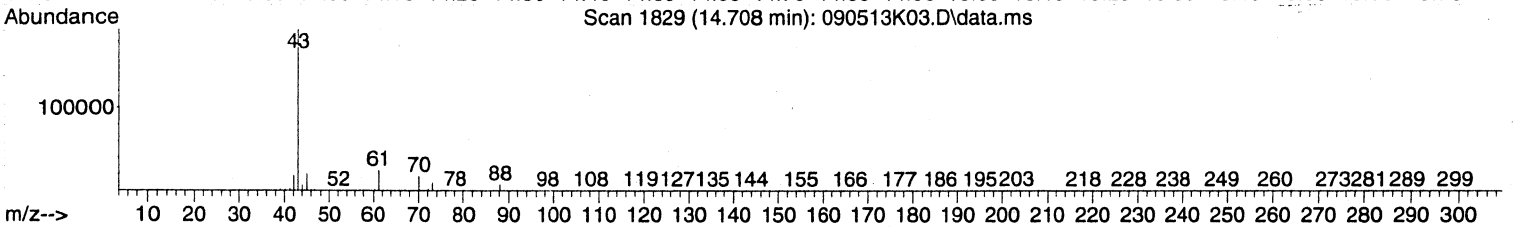
Quantitation Report (Qedit)

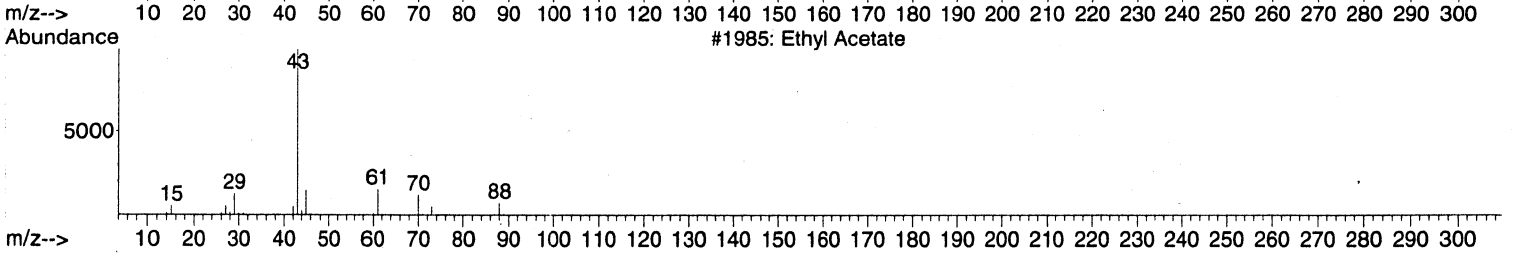
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K03.D\data.ms

(26) Ethyl acetate (T)

14.708min (-0.006) 9.51 ppbv

response 543805

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 14.67 |
| 70.00 | 9.90 | 9.84 |
| 0.00 | 0.00 | 0.00 |

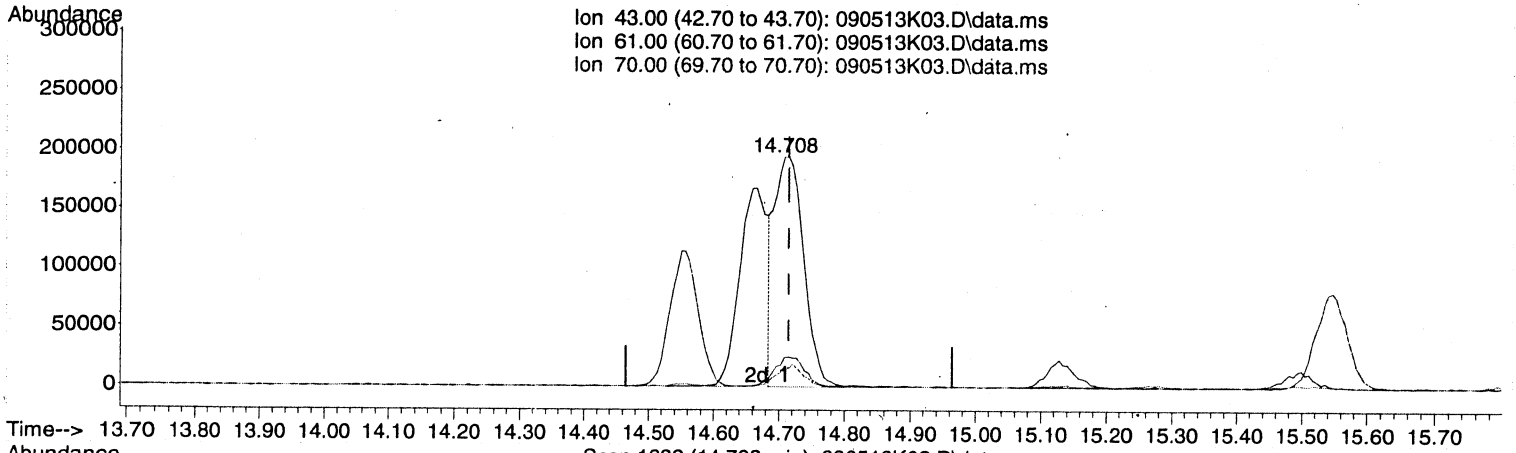
| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☑ Cropped ☐ Improper Baseline |
| ☐ Other: _____ |
| ☐ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: _____ Date: _____ |
| Manual integration(s) reviewed by: |
| Reviewer: _____ Date: _____ |

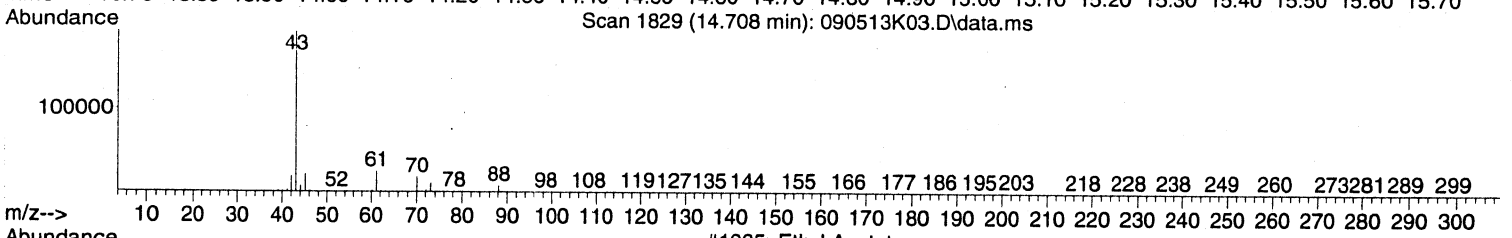
Quantitation Report (Qedit)

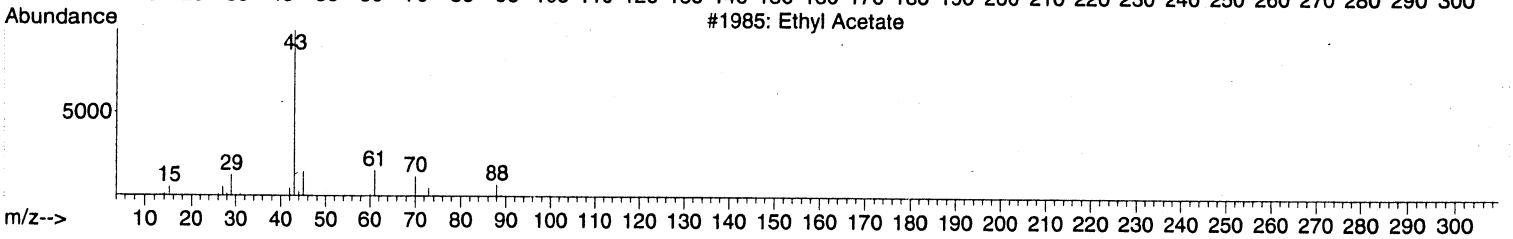
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K03.D\data.ms

(26) Ethyl acetate (T)

14.708min (-0.006) 10.53 ppbv m

response 602274

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 13.25 |
| 70.00 | 9.90 | 8.88 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: EM Date: 9/6/13 |
| Manual integration(s) reviewed by: |
| Reviewer: JL Date: 9-19-13 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Before MI
Em 9/6/13

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 854217 | 22.00 | ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2587847 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2446959 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 210006 | 9.39 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 856418 | 9.79 | ppbv | 100 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 902357 | 9.76 | ppbv | 94 |
| 5) Chloromethane | 4.701 | 50 | 244263 | 9.31 | ppbv | 99 |
| 6) Vinyl chloride | 5.005 | 62 | 297053 | 9.86 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.102 | 54 | 224677 | 9.49 | ppbv | 89 |
| 8) Bromomethane | 5.997 | 94 | 304269 | 9.77 | ppbv | 100 |
| 9) Chloroethane | 6.307 | 64 | 159022 | 9.88 | ppbv | 98 |
| 10) Bromoethene | 6.860 | 106 | 224406 | 8.16 | ppbv | 97 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 809004 | 9.96 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.734 | 151 | 404897 | 7.76 | ppbv | 92 |
| 13) 1,1-Dichloroethene | 8.819 | 61 | 369191 | 8.97 | ppbv | 93 |
| 14) Acetone | 9.312 | 43 | 400447 | 10.51 | ppbv | 95 |
| 15) Carbon disulfide | 9.495 | 76 | 614339 | 8.62 | ppbv | 93 |
| 16) 2-Propanol | 9.969 | 45 | 293568 | 8.91 | ppbv | 93 |
| 17) Allyl chloride | 10.359 | 41 | 280390 | 9.76 | ppbv | 94 |
| 18) Dichloromethane | 10.924 | 49 | 302782 | 9.16 | ppbv | 87 |
| 19) tert-Butyl methyl ethe... | 11.660 | 73 | 663426 | 10.21 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 11.679 | 61 | 326158 | 9.09 | ppbv | 91 |
| 21) Hexane | 12.305 | 57 | 371809 | 9.62 | ppbv | 93 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 467149 | 9.30 | ppbv | 98 |
| 23) Vinyl acetate | 13.218 | 43 | 543476 | 10.00 | ppbv | 98 |
| 24) cis-1,2-Dichloroethene | 14.550 | 61 | 345803 | 9.81 | ppbv | 91 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 494488 | 9.77 | ppbv | 93 |
| 26) Ethyl acetate | 14.708 | 43 | 543805 | 9.51 | ppbv | 98 |
| 27) Tetrahydrofuran | 15.128 | 42 | 298634 | 9.67 | ppbv | 91 |
| 28) Chloroform | 15.274 | 83 | 594339 | 9.73 | ppbv | 98 |
| 29) Cyclohexane | 15.493 | 56 | 385962 | 9.53 | ppbv | 92 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 657621 | 9.93 | ppbv | 99 |
| 31) Carbon tetrachloride | 15.809 | 117 | 715166 | 9.99 | ppbv | 99 |
| 33) Benzene | 16.308 | 78 | 857610 | 10.80 | ppbv | 98 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 1239090 | 11.06 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 415598 | 11.34 | ppbv | 100 |
| 36) Heptane | 16.661 | 43 | 461469 | 11.41 | ppbv | 96 |
| 37) Trichloroethene | 17.561 | 130 | 381724 | 9.98 | ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 331057 | 11.42 | ppbv | 93 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 452559 | 10.03 | ppbv | 92 |
| 40) 1,4-Dioxane | 18.273 | 88 | 175895 | 10.47 | ppbv | 94 |
| 41) Bromodichloromethane | 18.535 | 83 | 675132 | 11.30 | ppbv | 98 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 467481 | 11.08 | ppbv | 91 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 653431 | 11.52 | ppbv | 94 |
| 45) Toluene | 19.788 | 91 | 1059287 | 10.28 | ppbv | 98 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 519452 | 11.71 | ppbv | 94 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 379473 | 10.39 | ppbv | 94 |
| 48) Tetrachloroethene | 20.646 | 166 | 567619 | 9.10 | ppbv | 96 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) | 1,3-Dichloropropane | 20.853 | 76 | 501098 | 9.22 | ppbv | 91 |
| 50) | 2-Hexanone | 20.914 | 43 | 613078 | 10.82 | ppbv | 93 |
| 51) | Chlorodibromomethane | 21.181 | 129 | 713576 | 9.73 | ppbv | 97 |
| 52) | 1,2-Dibromoethane (EDB) | 21.400 | 107 | 604322 | 10.41 | ppbv | 98 |
| 53) | Chlorobenzene | 22.124 | 112 | 927649 | 9.98 | ppbv | 97 |
| 54) | Ethylbenzene | 22.215 | 91 | 1476622 | 10.49 | ppbv | 97 |
| 55) | m&p-Xylene | 22.398 | 91 | 2538611 | 21.96 | ppbv | 96 |
| 56) | o-Xylene | 23.043 | 91 | 1261305 | 10.93 | ppbv | 96 |
| 57) | Styrene | 23.085 | 104 | 1032588 | 10.31 | ppbv | 97 |
| 58) | Bromoform | 23.456 | 173 | 873197 | 9.96 | ppbv | 98 |
| 59) | 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 930603 | 10.08 | ppbv | 99 |
| 60) | 1,2,3-Trichloropropane | 24.266 | 75 | 647249 | 8.68 | ppbv | 98 |
| 61) | 4-Ethyltoluene | 24.399 | 105 | 1643729 | 9.80 | ppbv | 98 |
| 62) | 1,3,5-Trimethylbenzene | 24.491 | 105 | 1515292 | 10.35 | ppbv | 96 |
| 63) | 1,2,4-Trimethylbenzene | 25.093 | 105 | 1552064 | 10.40 | ppbv | 96 |
| 64) | 1,3-Dichlorobenzene | 25.622 | 146 | 1154475 | 9.20 | ppbv | 98 |
| 65) | 1,4-Dichlorobenzene | 25.774 | 146 | 1162186 | 9.33 | ppbv | 98 |
| 66) | Benzyl chloride | 25.987 | 91 | 1206705 | 9.87 | ppbv | 98 |
| 67) | 1,2-Dichlorobenzene | 26.377 | 146 | 1084996 | 9.23 | ppbv | 98 |
| 68) | 1,2-Dibromo-3-chloropr... | 27.612 | 157 | 484411 | 7.21 | ppbv # | 85 |
| 69) | 1,2,4-Trichlorobenzene | 28.834 | 180 | 897031 | 7.62 | ppbv | 99 |
| 70) | Hexachlorobutadiene | 28.974 | 225 | 901803 | 7.56 | ppbv | 99 |

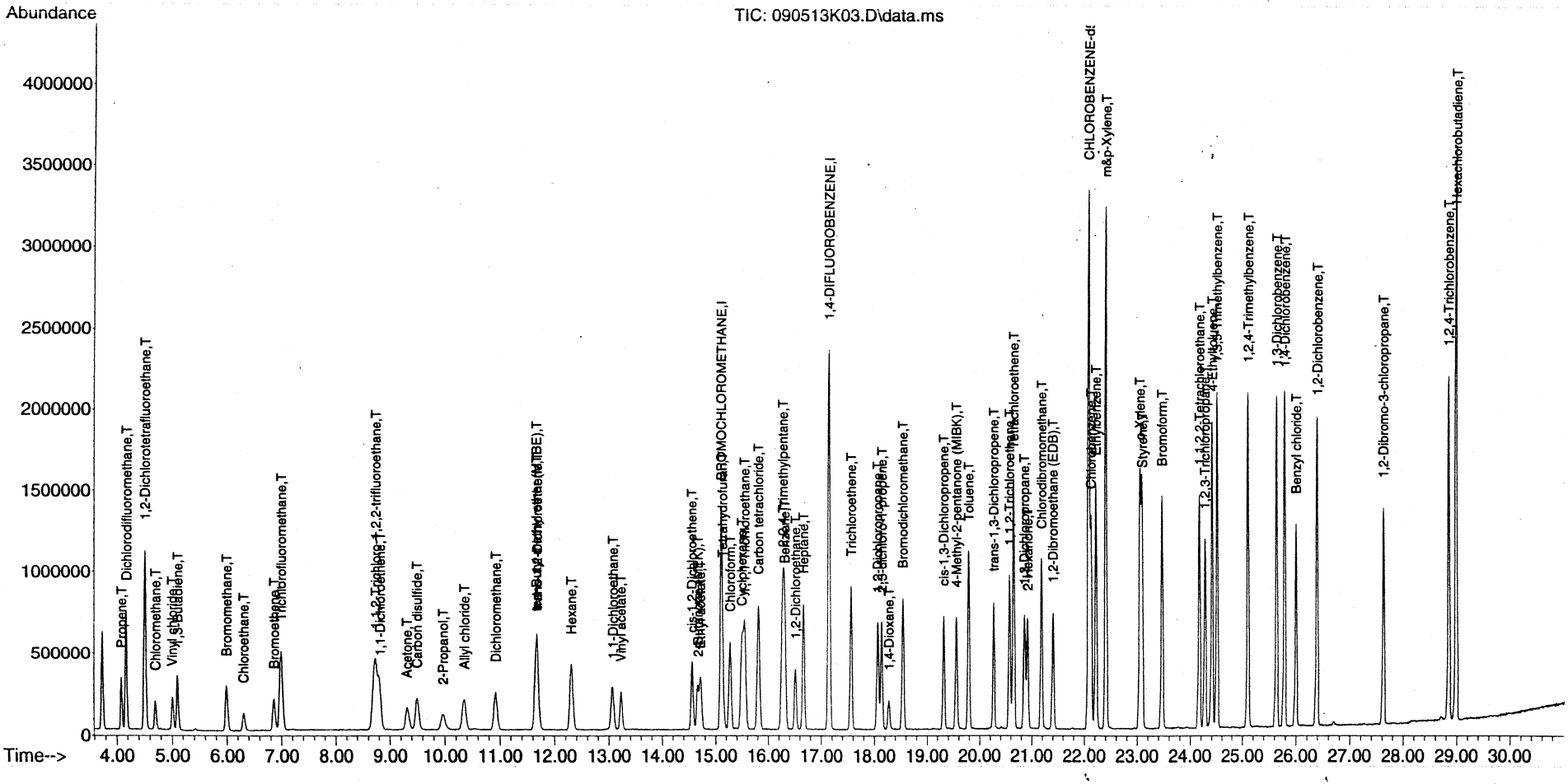
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



# QLS REPORT

Instrument Name: HP5973K
Sample Name: S13I019-CRL3
Misc Info: 1.0 ppbv 1335007
Date Acquired: 9/5/2013 16:31
QLast Update: Wed Aug 28 11:07:04 201
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 2) | Propene | 4.09 | 1.07 | 1.13 | 105% | 60.0 | 140.0 | pass | Subset |
| 3) | Dichlorodifluoromethane | 4.17 | 1.01 | 1.07 | 106% | 60.0 | 140.0 | pass | Primary |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.51 | 1.04 | 1.06 | 102% | 60.0 | 140.0 | pass | Primary |
| 5) | Chloromethane | 4.69 | 1.03 | 1.12 | 109% | 60.0 | 140.0 | pass | Primary |
| 6) | Vinyl chloride | 5.00 | 1.05 | 1.08 | 103% | 60.0 | 140.0 | pass | Primary |
| 7) | 1,3-Butadiene | 5.10 | 1.02 | 1.05 | 103% | 60.0 | 140.0 | pass | Subset |
| 8) | Bromomethane | 6.00 | 1.04 | 1.15 | 110% | 60.0 | 140.0 | pass | Primary |
| 9) | Chloroethane | 6.31 | 1.04 | 1.13 | 109% | 60.0 | 140.0 | pass | Primary |
| 10) | Bromoethene | 6.86 | 1.03 | 0.86 | 83% | 60.0 | 140.0 | pass | Subset |
| 11) | Trichlorofluoromethane | 6.99 | 1.05 | 1.10 | 105% | 60.0 | 140.0 | pass | Primary |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.72 | 0.93 | 0.86 | 92% | 60.0 | 140.0 | pass | Primary |
| 13) | 1,1-Dichloroethene | 8.81 | 0.94 | 0.84 | 89% | 60.0 | 140.0 | pass | Primary |
| 14) | Acetone | 9.35 | 1.06 | 1.17 | 110% | 60.0 | 140.0 | pass | Subset |
| 15) | Carbon disulfide | 9.50 | 1.02 | 1.02 | 100% | 60.0 | 140.0 | pass | Subset |
| 16) | 2-Propanol | 10.02 | 0.95 | 0.71 | 75% | 60.0 | 140.0 | pass | Subset |
| 17) | Allyl chloride | 10.35 | 1.01 | 0.91 | 90% | 60.0 | 140.0 | pass | Subset |
| 18) | Dichloromethane | 10.92 | 0.96 | 1.13 | 118% | 60.0 | 140.0 | pass | Primary |
| 19) | tert-Butyl methyl ether (MTBE) | 11.70 | 1.09 | 0.83 | 76% | 60.0 | 140.0 | pass | Subset |
| 20) | trans-1,2-Dichloroethene | 11.68 | 0.95 | 0.91 | 95% | 60.0 | 140.0 | pass | Subset |
| 21) | Hexane | 12.31 | 1.02 | 0.82 | 81% | 60.0 | 140.0 | pass | Subset |
| 22) | 1,1-Dichloroethane | 13.06 | 0.98 | 1.03 | 105% | 60.0 | 140.0 | pass | Primary |
| 23) | Vinyl acetate | 13.23 | 1.00 | 0.69 | 69% | 60.0 | 140.0 | pass | Subset |
| 24) | cis-1,2-Dichloroethene | 14.55 | 1.01 | 0.95 | 94% | 60.0 | 140.0 | pass | Primary |
| 25) | 2-Butanone (MEK) | 14.69 | 1.04 | 0.96 | 92% | 60.0 | 140.0 | pass | Subset |
| 26) | Ethyl acetate | 14.74 | 1.04 | 0.84 | 81% | 60.0 | 140.0 | pass | Subset |
| 27) | Tetrahydrofuran | 15.17 | 1.03 | 0.94 | 91% | 60.0 | 140.0 | pass | Subset |
| 28) | Chloroform | 15.27 | 1.01 | 1.04 | 103% | 60.0 | 140.0 | pass | Primary |
| 29) | Cyclohexane | 15.50 | 1.04 | 0.92 | 88% | 60.0 | 140.0 | pass | Subset |
| 30) | 1,1,1-Trichloroethane | 15.55 | 1.00 | 1.01 | 101% | 60.0 | 140.0 | pass | Primary |
| 31) | Carbon tetrachloride | 15.80 | 1.00 | 1.05 | 105% | 60.0 | 140.0 | pass | Primary |
| 33) | Benzene | 16.31 | 1.03 | 1.11 | 108% | 60.0 | 140.0 | pass | Primary |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 1.05 | 0.97 | 92% | 60.0 | 140.0 | pass | Subset |
| 35) | 1,2-Dichloroethane | 16.51 | 1.00 | 1.27 | 127% | 60.0 | 140.0 | pass | Primary |
| 36) | Heptane | 16.67 | 1.05 | 0.99 | 95% | 60.0 | 140.0 | pass | Subset |
| 37) | Trichloroethene | 17.56 | 1.03 | 1.01 | 98% | 60.0 | 140.0 | pass | Primary |
| 38) | 1,2-Dichloropropane | 18.06 | 1.06 | 1.26 | 119% | 60.0 | 140.0 | pass | Primary |
| 39) | 2,3-dichloro-1-propene | 18.13 | 1.04 | 0.88 | 84% | 60.0 | 140.0 | pass | Additional |
| 40) | 1,4-Dioxane | 18.30 | 1.06 | 0.87 | 82% | 60.0 | 140.0 | pass | Subset |
| 41) | Bromodichloromethane | 18.54 | 1.06 | 1.16 | 109% | 60.0 | 140.0 | pass | Subset |
| 42) | cis-1,3-Dichloropropene | 19.31 | 1.03 | 1.00 | 97% | 60.0 | 140.0 | pass | Primary |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.56 | 1.05 | 1.02 | 97% | 60.0 | 140.0 | pass | Subset |
| 45) | Toluene | 19.79 | 1.04 | 0.97 | 93% | 60.0 | 140.0 | pass | Primary |
| 46) | trans-1,3-Dichloropropene | 20.27 | 1.10 | 1.06 | 96% | 60.0 | 140.0 | pass | Primary |
| 47) | 1,1,2-Trichloroethane | 20.57 | 1.08 | 1.16 | 107% | 60.0 | 140.0 | pass | Primary |
| 48) | Tetrachloroethene | 20.65 | 1.04 | 0.95 | 91% | 60.0 | 140.0 | pass | Primary |
| 49) | 1,3-Dichloropropane | 20.86 | 1.03 | 0.95 | 92% | 60.0 | 140.0 | pass | Additional |
| 50) | 2-Hexanone | 20.93 | 1.03 | 0.91 | 89% | 60.0 | 140.0 | pass | Subset |
| 51) | Chlorodibromomethane | 21.18 | 1.04 | 0.98 | 94% | 60.0 | 140.0 | pass | Subset |
| 52) | 1,2-Dibromoethane (EDB) | 21.39 | 1.07 | 1.05 | 99% | 60.0 | 140.0 | pass | Primary |
| 53) | Chlorobenzene | 22.12 | 1.06 | 0.98 | 93% | 60.0 | 140.0 | pass | Primary |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 54) | Ethylbenzene | 22.22 | 1.05 | 0.97 | 93% | 60.0 | 140.0 | pass | Primary |
| 55) | m&p-Xylene | 22.40 | 2.12 | 1.87 | 88% | 60.0 | 140.0 | pass | Primary |
| 56) | o-Xylene | 23.04 | 1.07 | 0.89 | 83% | 60.0 | 140.0 | pass | Primary |
| 57) | Styrene | 23.08 | 1.04 | 0.88 | 84% | 60.0 | 140.0 | pass | Primary |
| 58) | Bromoform | 23.46 | 1.03 | 0.84 | 82% | 60.0 | 140.0 | pass | Subset |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 1.06 | 1.02 | 96% | 60.0 | 140.0 | pass | Primary |
| 60) | 1,2,3-Trichloropropane | 24.27 | 0.97 | 0.91 | 94% | 60.0 | 140.0 | pass | Additional |
| 61) | 4-Ethyltoluene | 24.39 | 1.05 | 0.77 | 73% | 60.0 | 140.0 | pass | Subset |
| 62) | 1,3,5-Trimethylbenzene | 24.49 | 1.04 | 0.83 | 80% | 60.0 | 140.0 | pass | Primary |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 1.07 | 0.74 | 69% | 60.0 | 140.0 | pass | Primary |
| 64) | 1,3-Dichlorobenzene | 25.62 | 1.03 | 0.79 | 76% | 60.0 | 140.0 | pass | Primary |
| 65) | 1,4-Dichlorobenzene | 25.77 | 1.04 | 0.74 | 71% | 60.0 | 140.0 | pass | Primary |
| 66) | Benzyl chloride | 25.98 | 1.03 | 0.74 | 71% | 60.0 | 140.0 | pass | Subset |
| 67) | 1,2-Dichlorobenzene | 26.37 | 1.04 | 0.76 | 73% | 60.0 | 140.0 | pass | Primary |
| 68) | 1,2-Dibromo-3-chloropropane | 27.61 | 0.90 | 0.60 | 67% | 60.0 | 140.0 | pass | Additional |
| 69) | 1,2,4-Trichlorobenzene | 28.84 | 1.02 | 0.71 | 70% | 60.0 | 140.0 | pass | Primary |
| 70) | Hexachlorobutadiene | 28.98 | 1.03 | 0.64 | 62% | 60.0 | 140.0 | pass | Primary |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/10/13

Manual integration(s) reviewed by:

Reviewer: JK Date: 9-19-13

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| **Internal Standards** | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 829472 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2446344 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2263408 | 22.00 ppbv | 0.00 |
| **Target Compounds** | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 24499 | 1.13 ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.171 | 85 | 90749 | 1.07 ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 95530 | 1.06 ppbv | 88 |
| 5) Chloromethane | 4.695 | 50 | 28501 | 1.12 ppbv | 99 |
| 6) Vinyl chloride | 5.005 | 62 | 31716 | 1.08 ppbv | 97 |
| 7) 1,3-Butadiene | 5.102 | 54 | 24130 | 1.05 ppbv | 86 |
| 8) Bromomethane | 5.996 | 94 | 34631 | 1.15 ppbv | 99 |
| 9) Chloroethane | 6.313 | 64 | 17703 | 1.13 ppbv | 96 |
| 10) Bromoethene | 6.860 | 106 | 22975 | 0.86 ppbv | 94 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 86598 | 1.10 ppbv | 97 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 43469 | 0.86 ppbv # | 77 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 33361 | 0.84 ppbv | 95 |
| 14) Acetone | 9.348 | 43 | 43182 | 1.17 ppbv # | 43 |
| 15) Carbon disulfide | 9.501 | 76 | 70689 | 1.02 ppbv | 93 |
| 16) 2-Propanol | 10.018 | 45 | 22795m | 0.71 ppbv | |
| 17) Allyl chloride | 10.352 | 41 | 25507 | 0.91 ppbv | 84 |
| 18) Dichloromethane | 10.924 | 49 | 36381 | 1.13 ppbv # | 81 |
| 19) tert-Butyl methyl ethe... | 11.703 | 73 | 52577 | 0.83 ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 11.679 | 61 | 31604 | 0.91 ppbv | 89 |
| 21) Hexane | 12.305 | 57 | 30955 | 0.82 ppbv | 89 |
| 22) 1,1-Dichloroethane | 13.059 | 63 | 50137 | 1.03 ppbv | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 36248 | 0.69 ppbv | 92 |
| 24) cis-1,2-Dichloroethene | 14.550 | 61 | 32623 | 0.95 ppbv | 93 |
| 25) 2-Butanone (MEK) | 14.690 | 43 | 47152 | 0.96 ppbv # | 51 |
| 26) Ethyl acetate | 14.739 | 43 | 46593m | 0.84 ppbv | |
| 27) Tetrahydrofuran | 15.170 | 42 | 28091 | 0.94 ppbv | 92 |
| 28) Chloroform | 15.268 | 83 | 61716 | 1.04 ppbv | 94 |
| 29) Cyclohexane | 15.499 | 56 | 36130 | 0.92 ppbv | 85 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 65051 | 1.01 ppbv | 96 |
| 31) Carbon tetrachloride | 15.803 | 117 | 72744 | 1.05 ppbv | 93 |
| 33) Benzene | 16.308 | 78 | 83428 | 1.11 ppbv | 95 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 102691 | 0.97 ppbv | 93 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 44157 | 1.27 ppbv | 97 |
| 36) Heptane | 16.667 | 43 | 38033 | 0.99 ppbv | 93 |
| 37) Trichloroethene | 17.561 | 130 | 36496 | 1.01 ppbv | 97 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 34504 | 1.26 ppbv | 89 |
| 39) 2,3-dichloro-1-propene | 18.127 | 75 | 37403 | 0.88 ppbv | 88 |
| 40) 1,4-Dioxane | 18.304 | 88 | 13789 | 0.87 ppbv | 84 |
| 41) Bromodichloromethane | 18.541 | 83 | 65511 | 1.16 ppbv | 93 |
| 42) cis-1,3-Dichloropropene | 19.313 | 75 | 39967 | 1.00 ppbv | 86 |
| 43) 4-Methyl-2-pentanone (... | 19.563 | 43 | 54835 | 1.02 ppbv | 98 |
| 45) Toluene | 19.788 | 91 | 92534 | 0.97 ppbv | 100 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 43510 | 1.06 ppbv | 88 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 39010 | 1.16 ppbv | 93 |
| 48) Tetrachloroethene | 20.646 | 166 | 54593 | 0.95 ppbv | 93 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.859 | 76 | 47731 | 0.95 ppbv | 88 |
| 50) 2-Hexanone | 20.926 | 43 | 47916 | 0.91 ppbv | 97 |
| 51) Chlorodibromomethane | 21.181 | 129 | 66446 | 0.98 ppbv | 97 |
| 52) 1,2-Dibromoethane (EDB) | 21.394 | 107 | 56621 | 1.05 ppbv | 99 |
| 53) Chlorobenzene | 22.118 | 112 | 84502 | 0.98 ppbv # | 67 |
| 54) Ethylbenzene | 22.215 | 91 | 126741 | 0.97 ppbv | 98 |
| 55) m&p-Xylene | 22.398 | 91 | 199727 | 1.87 ppbv | 98 |
| 56) o-Xylene | 23.043 | 91 | 94781 | 0.89 ppbv | 100 |
| 57) Styrene | 23.079 | 104 | 81153 | 0.88 ppbv | 95 |
| 58) Bromoform | 23.462 | 173 | 68199 | 0.84 ppbv | 94 |
| 59) 1,1,2,2-Tetrachloroethane | 24.156 | 83 | 87062 | 1.02 ppbv | 99 |
| 60) 1,2,3-Trichloropropane | 24.272 | 75 | 62654 | 0.91 ppbv | 94 |
| 61) 4-Ethyltoluene | 24.393 | 105 | 119134 | 0.77 ppbv | 99 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 112451 | 0.83 ppbv | 97 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 102602 | 0.74 ppbv | 97 |
| 64) 1,3-Dichlorobenzene | 25.622 | 146 | 91362 | 0.79 ppbv | 95 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 84858 | 0.74 ppbv | 98 |
| 66) Benzyl chloride | 25.987 | 91 | 83292 | 0.74 ppbv | 96 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 83031 | 0.76 ppbv | 97 |
| 68) 1,2-Dibromo-3-chloropr... | 27.617 | 157 | 37448 | 0.60 ppbv # | 70 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 77504 | 0.71 ppbv | 98 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 70349 | 0.64 ppbv | 95 |

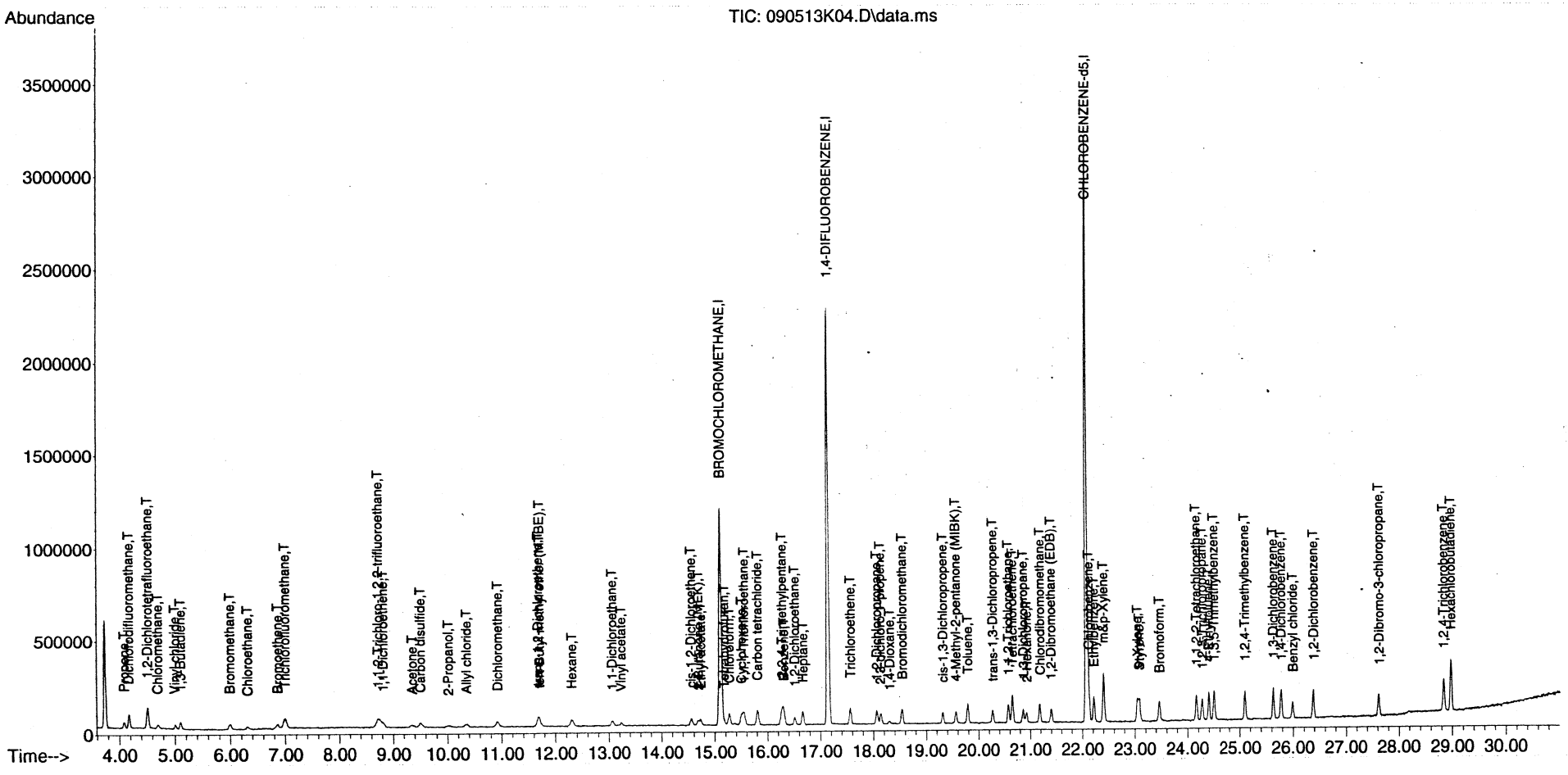
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

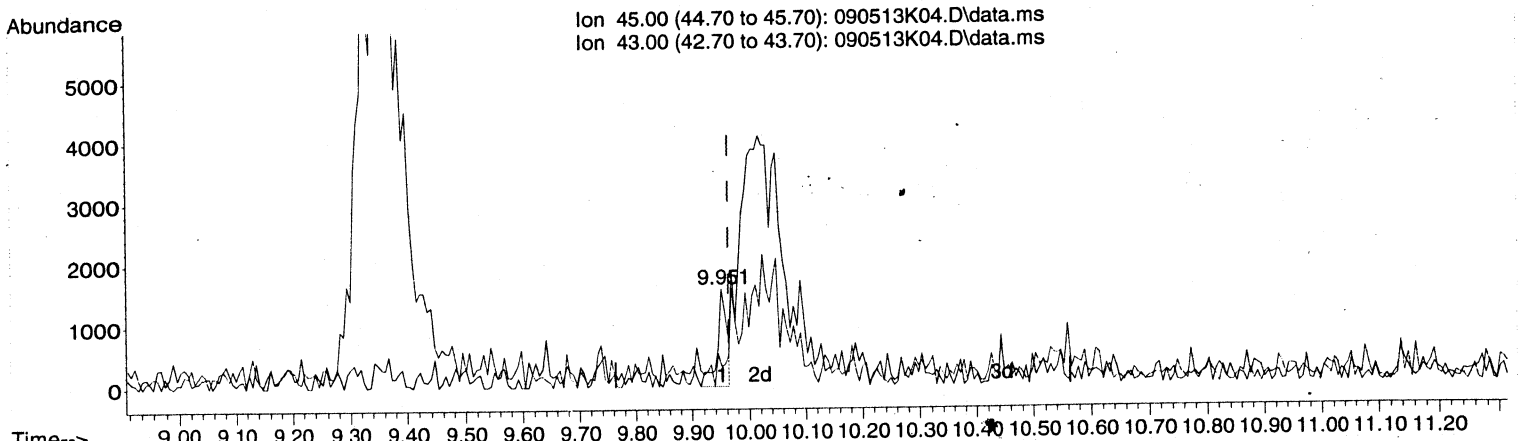


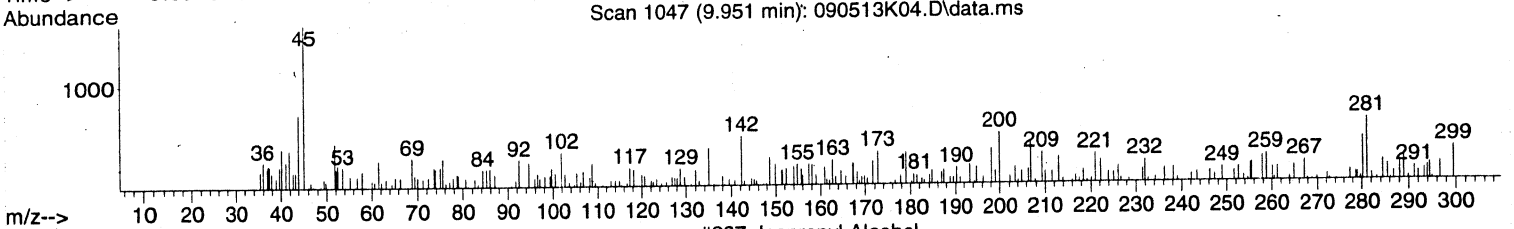
Quantitation Report (Qedit)

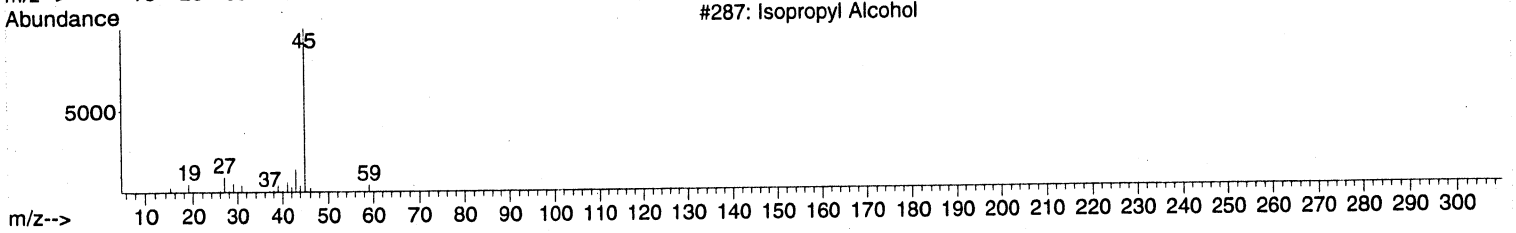
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 | em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K04.D\data.ms

(16) 2-Propanol (T)

9.951min (-0.012) 0.06 ppbv

response 1856

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 43.00 | 24.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☑ Before Manual Integration(s) (not used) |
| Peak integrated due to being |
| ☑ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: _____ |
| ☐ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: _____ Date: _____ |
| Manual integration(s) reviewed by: |
| Reviewer: _____ Date: _____ |



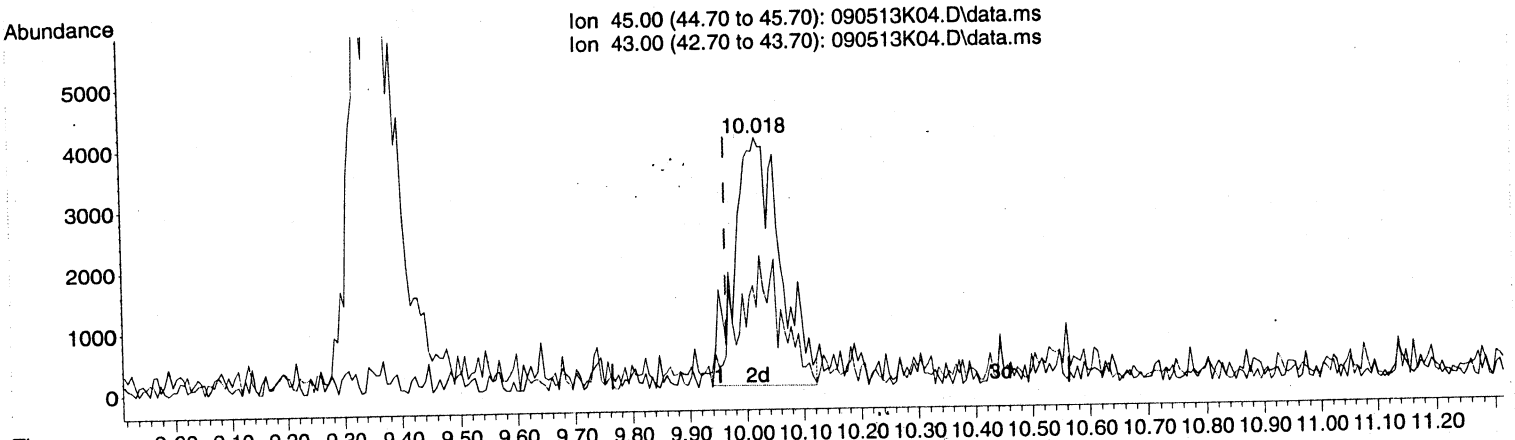
66535

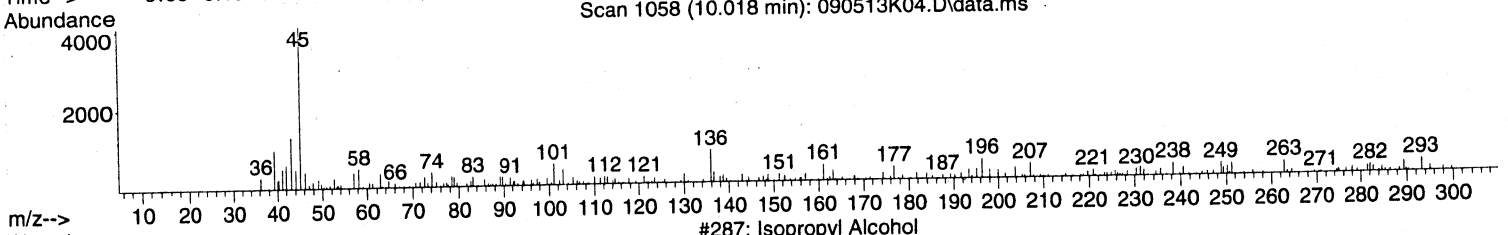
Quantitation Report (Qedit)

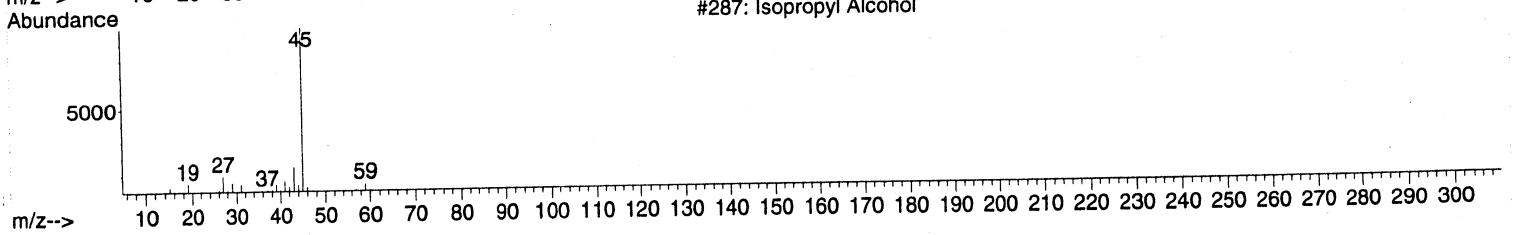
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1 / EM 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K04.D\data.ms

(16) 2-Propanol (T)

10.018min (+0.055) 0.71 ppbv m

response 22795

| Ion | Exp% | Act% |
|---|---|---|
| 45.00 | 100 | 100 |
| 43.00 | 24.60 | 0.00# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/6/13

Manual integration(s) reviewed by:

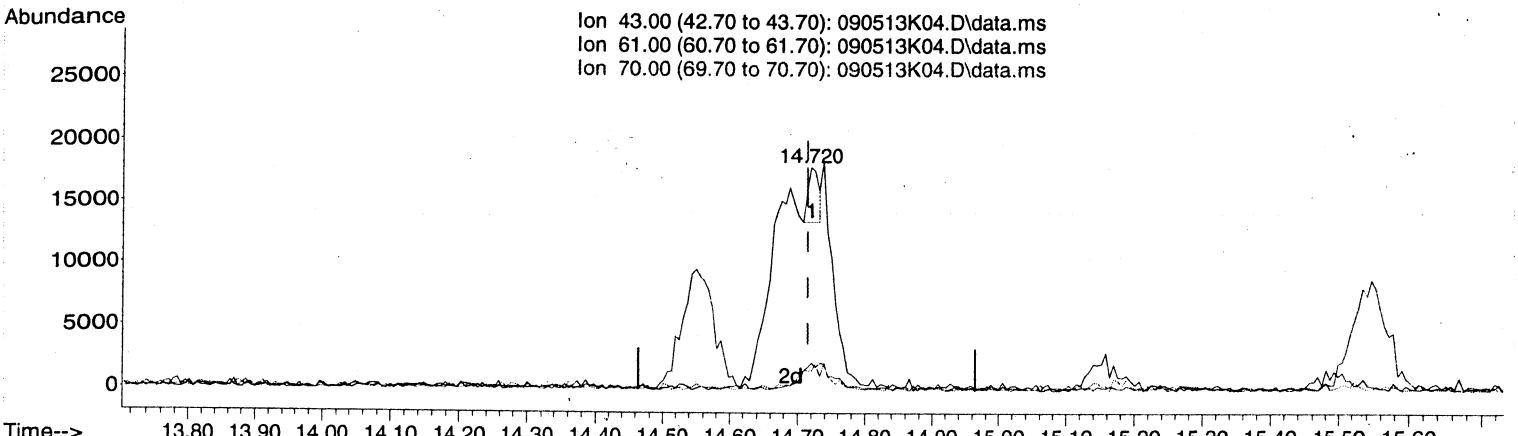
Reviewer: [illegible] Date: 9/9/13

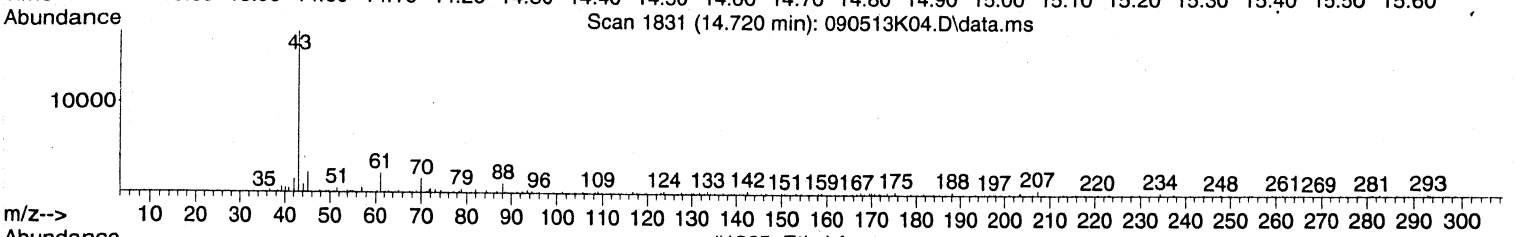
Quantitation Report (Qedit)

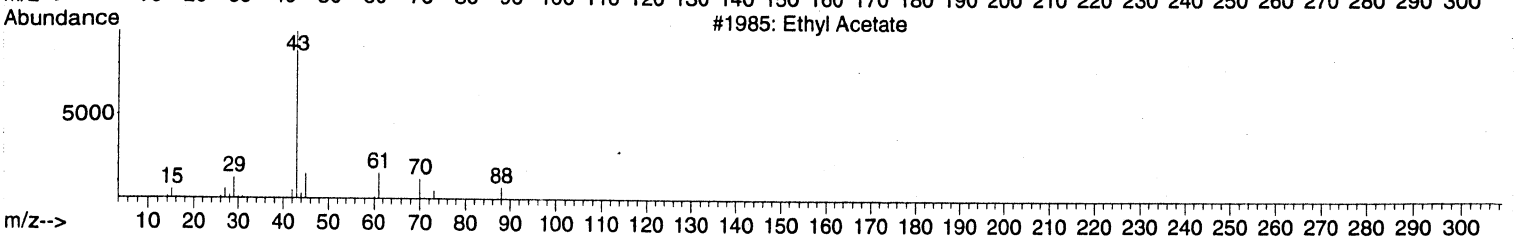
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K04.D\data.ms

(26) Ethyl acetate (T)

14.720min (+0.006) 0.09 ppbv

response 5039

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 70.35# |
| 70.00 | 9.90 | 0.00 |
| 0.00 | 0.00 | 0.00 |

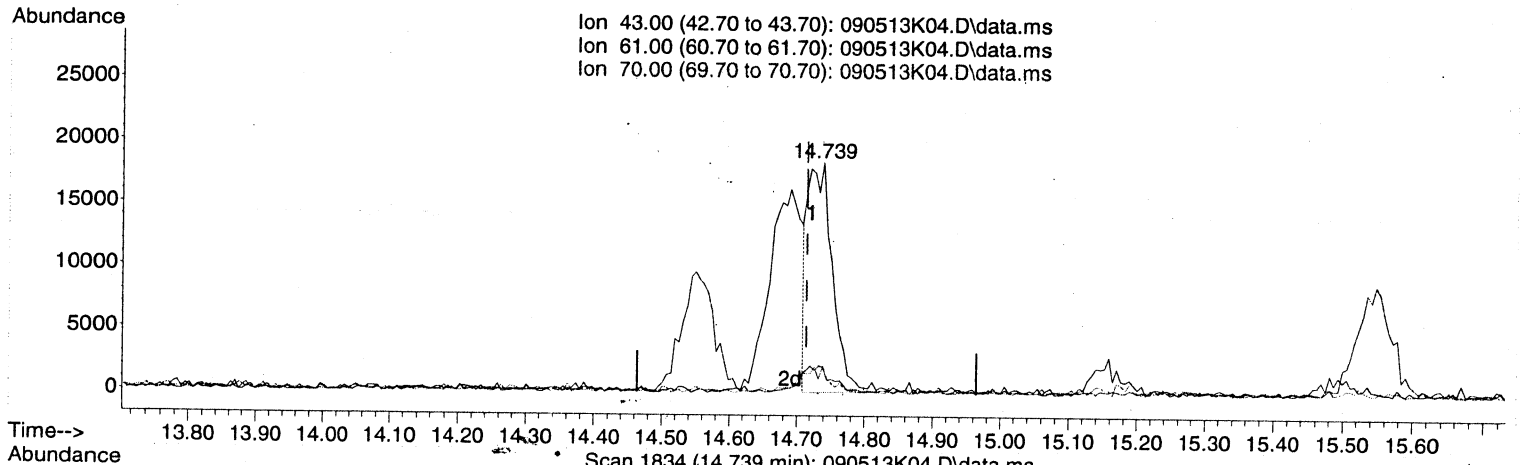
| MANUAL INTEGRATION VERIFICATION |
|---|
| ☑ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☑ Cropped ☐ Improper Baseline |
| ☐ Other: _____ |
| ☐ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: _____ Date: _____ |
| Manual integration(s) reviewed by: |
| Reviewer: _____ Date: _____ |

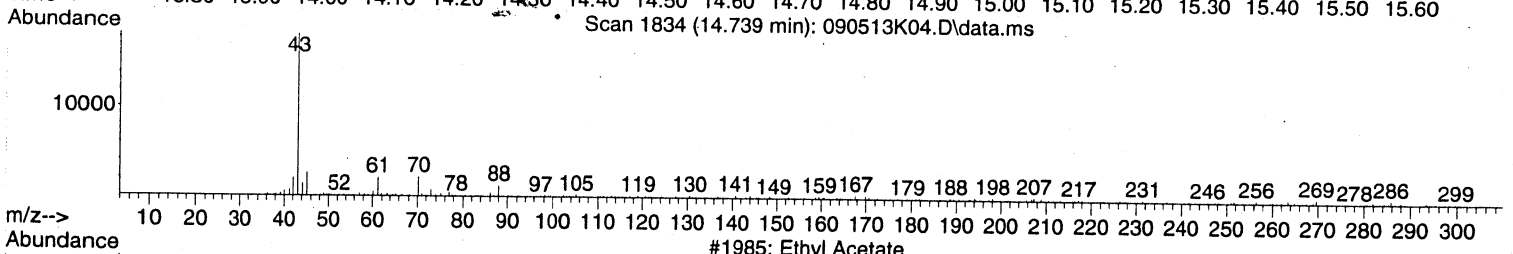
Quantitation Report (Qedit)

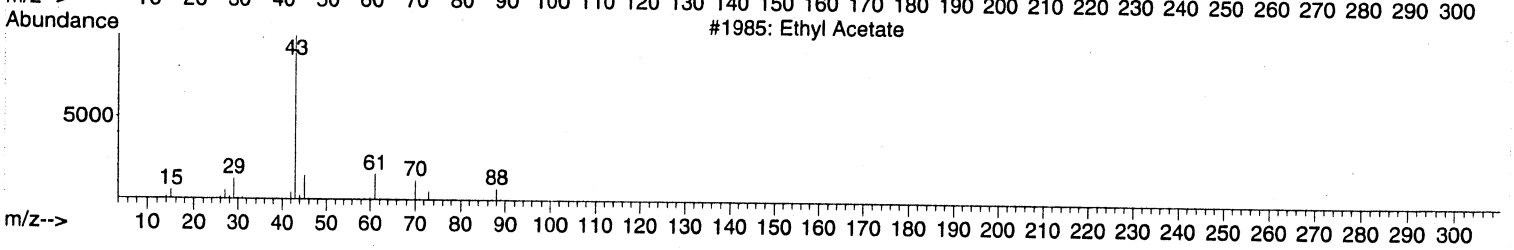
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M




TIC: 090513K04.D\data.ms

(26) Ethyl acetate (T)

14.739min (+0.024) 0.84 ppbv m

response 46593

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 7.61 |
| 70.00 | 9.90 | 0.00 |
| 0.00 | 0.00 | 0.00 |

| MANUAL INTEGRATION VERIFICATION |
|---|
| ☐ Before Manual Integration(s) (not used) |
| Peak integrated due to being: |
| ☐ Missed ☐ Summed |
| ☐ Cropped ☐ Improper Baseline |
| ☐ Other: |
| ☑ After Manual Integration |
| Manual integration(s) performed by: |
| Analyst: EM Date: 9/6/13 |
| Manual integration(s) reviewed by: |
| Reviewer: JR Date: 9-19-13 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Rec MI
em 9/6/13

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 829472 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2446344 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2263408 | 22.00 ppbv | 0.00 |
| Target Compounds | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 24499 | 1.13 ppbv | 100 |
| 3) Dichlorodifluoromethane | 4.171 | 85 | 90749 | 1.07 ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 95530 | 1.06 ppbv | 88 |
| 5) Chloromethane | 4.695 | 50 | 28501 | 1.12 ppbv | 99 |
| 6) Vinyl chloride | 5.005 | 62 | 31716 | 1.08 ppbv | 97 |
| 7) 1,3-Butadiene | 5.102 | 54 | 24130 | 1.05 ppbv | 86 |
| 8) Bromomethane | 5.996 | 94 | 34631 | 1.15 ppbv | 99 |
| 9) Chloroethane | 6.313 | 64 | 17703 | 1.13 ppbv | 96 |
| 10) Bromoethene | 6.860 | 106 | 22975 | 0.86 ppbv | 94 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 86598 | 1.10 ppbv | 97 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 43469 | 0.86 ppbv # | 77 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 33361 | 0.84 ppbv | 95 |
| 14) Acetone | 9.348 | 43 | 43182 | 1.17 ppbv # | 43 |
| 15) Carbon disulfide | 9.501 | 76 | 70689 | 1.02 ppbv | 93 |
| 17) Allyl chloride | 10.352 | 41 | 25507 | 0.91 ppbv | 84 |
| 18) Dichloromethane | 10.924 | 49 | 36381 | 1.13 ppbv # | 81 |
| 19) tert-Butyl methyl ethe... | 11.703 | 73 | 52577 | 0.83 ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 11.679 | 61 | 31604 | 0.91 ppbv | 89 |
| 21) Hexane | 12.305 | 57 | 30955 | 0.82 ppbv | 89 |
| 22) 1,1-Dichloroethane | 13.059 | 63 | 50137 | 1.03 ppbv | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 36248 | 0.69 ppbv | 92 |
| 24) cis-1,2-Dichloroethene | 14.550 | 61 | 32623 | 0.95 ppbv | 93 |
| 25) 2-Butanone (MEK) | 14.690 | 43 | 47152 | 0.96 ppbv # | 51 |
| 27) Tetrahydrofuran | 15.170 | 42 | 28091 | 0.94 ppbv | 92 |
| 28) Chloroform | 15.268 | 83 | 61716 | 1.04 ppbv | 94 |
| 29) Cyclohexane | 15.499 | 56 | 36130 | 0.92 ppbv | 85 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 65051 | 1.01 ppbv | 96 |
| 31) Carbon tetrachloride | 15.803 | 117 | 72744 | 1.05 ppbv | 93 |
| 33) Benzene | 16.308 | 78 | 83428 | 1.11 ppbv | 95 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 102691 | 0.97 ppbv | 93 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 44157 | 1.27 ppbv | 97 |
| 36) Heptane | 16.667 | 43 | 38033 | 0.99 ppbv | 93 |
| 37) Trichloroethene | 17.561 | 130 | 36496 | 1.01 ppbv | 97 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 34504 | 1.26 ppbv | 89 |
| 39) 2,3-dichloro-1-propene | 18.127 | 75 | 37403 | 0.88 ppbv | 88 |
| 40) 1,4-Dioxane | 18.304 | 88 | 13789 | 0.87 ppbv | 84 |
| 41) Bromodichloromethane | 18.541 | 83 | 65511 | 1.16 ppbv | 93 |
| 42) cis-1,3-Dichloropropene | 19.313 | 75 | 39967 | 1.00 ppbv | 86 |
| 43) 4-Methyl-2-pentanone (... | 19.563 | 43 | 54835 | 1.02 ppbv | 98 |
| 45) Toluene | 19.788 | 91 | 92534 | 0.97 ppbv | 100 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 43510 | 1.06 ppbv | 88 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 39010 | 1.16 ppbv | 93 |
| 48) Tetrachloroethene | 20.646 | 166 | 54593 | 0.95 ppbv | 93 |
| 49) 1,3-Dichloropropane | 20.859 | 76 | 47731 | 0.95 ppbv | 88 |
| 50) 2-Hexanone | 20.926 | 43 | 47916 | 0.91 ppbv | 97 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 51) | Chlorodibromomethane | 21.181 | 129 | 66446 | 0.98 | ppbv | | 97 |
| 52) | 1,2-Dibromoethane (EDB) | 21.394 | 107 | 56621 | 1.05 | ppbv | | 99 |
| 53) | Chlorobenzene | 22.118 | 112 | 84502 | 0.98 | ppbv | # | 67 |
| 54) | Ethylbenzene | 22.215 | 91 | 126741 | 0.97 | ppbv | | 98 |
| 55) | m&p-Xylene | 22.398 | 91 | 199727 | 1.87 | ppbv | | 98 |
| 56) | o-Xylene | 23.043 | 91 | 94781 | 0.89 | ppbv | | 100 |
| 57) | Styrene | 23.079 | 104 | 81153 | 0.88 | ppbv | | 95 |
| 58) | Bromoform | 23.462 | 173 | 68199 | 0.84 | ppbv | | 94 |
| 59) | 1,1,2,2-Tetrachloroethane | 24.156 | 83 | 87062 | 1.02 | ppbv | | 99 |
| 60) | 1,2,3-Trichloropropane | 24.272 | 75 | 62654 | 0.91 | ppbv | | 94 |
| 61) | 4-Ethyltoluene | 24.393 | 105 | 119134 | 0.77 | ppbv | | 99 |
| 62) | 1,3,5-Trimethylbenzene | 24.491 | 105 | 112451 | 0.83 | ppbv | | 97 |
| 63) | 1,2,4-Trimethylbenzene | 25.093 | 105 | 102602 | 0.74 | ppbv | | 97 |
| 64) | 1,3-Dichlorobenzene | 25.622 | 146 | 91362 | 0.79 | ppbv | | 95 |
| 65) | 1,4-Dichlorobenzene | 25.768 | 146 | 84858 | 0.74 | ppbv | | 98 |
| 66) | Benzyl chloride | 25.987 | 91 | 83292 | 0.74 | ppbv | | 96 |
| 67) | 1,2-Dichlorobenzene | 26.376 | 146 | 83031 | 0.76 | ppbv | | 97 |
| 68) | 1,2-Dibromo-3-chloropr... | 27.617 | 157 | 37448 | 0.60 | ppbv | # | 70 |
| 69) | 1,2,4-Trichlorobenzene | 28.834 | 180 | 77504 | 0.71 | ppbv | | 98 |
| 70) | Hexachlorobutadiene | 28.974 | 225 | 70349 | 0.64 | ppbv | | 95 |

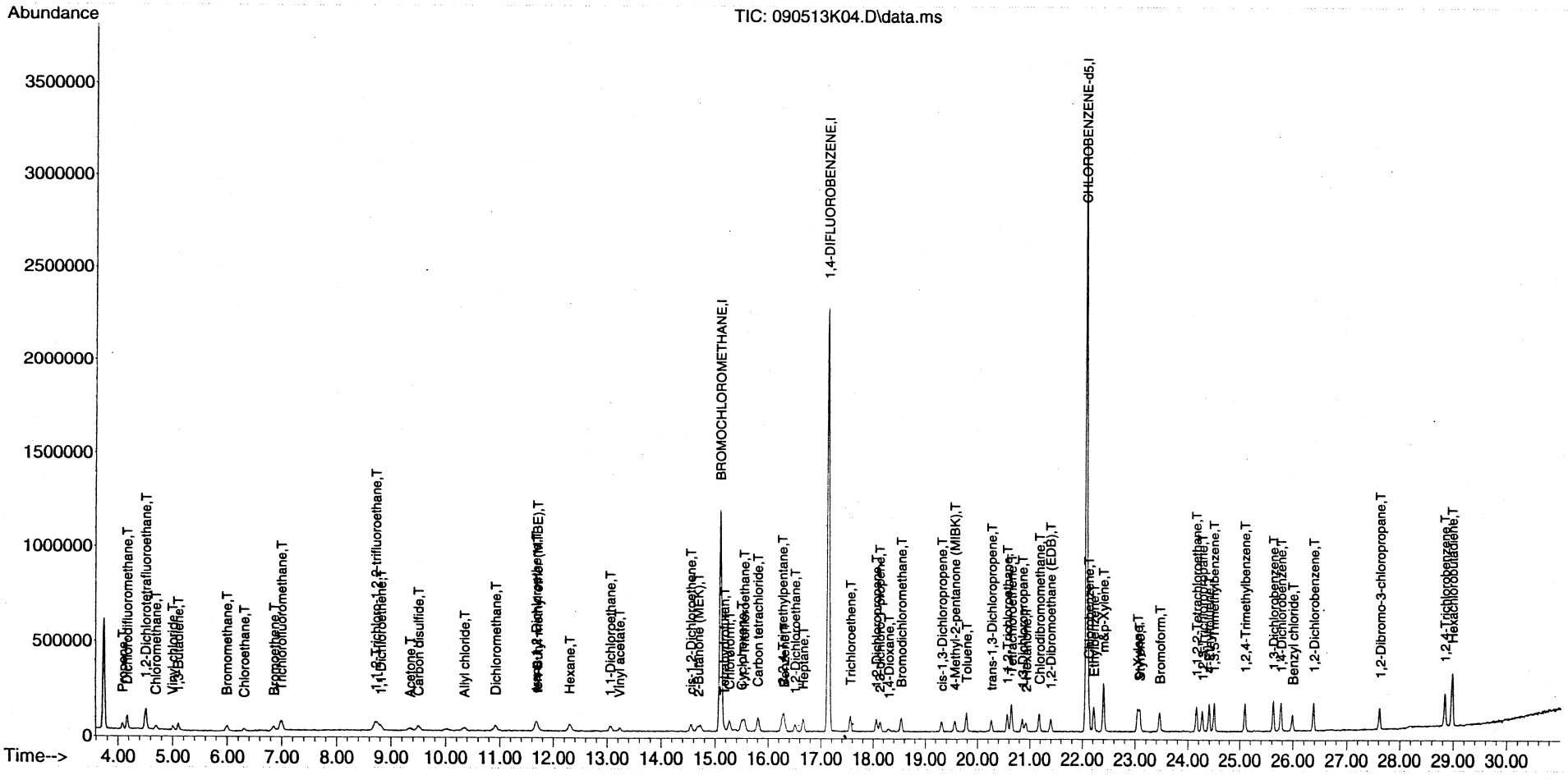
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / i em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Instrument: HP5973K
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:24:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.103 | 49 | 791936 | 22.00 ppbv | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.141 | 114 | 2411800 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2310686 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

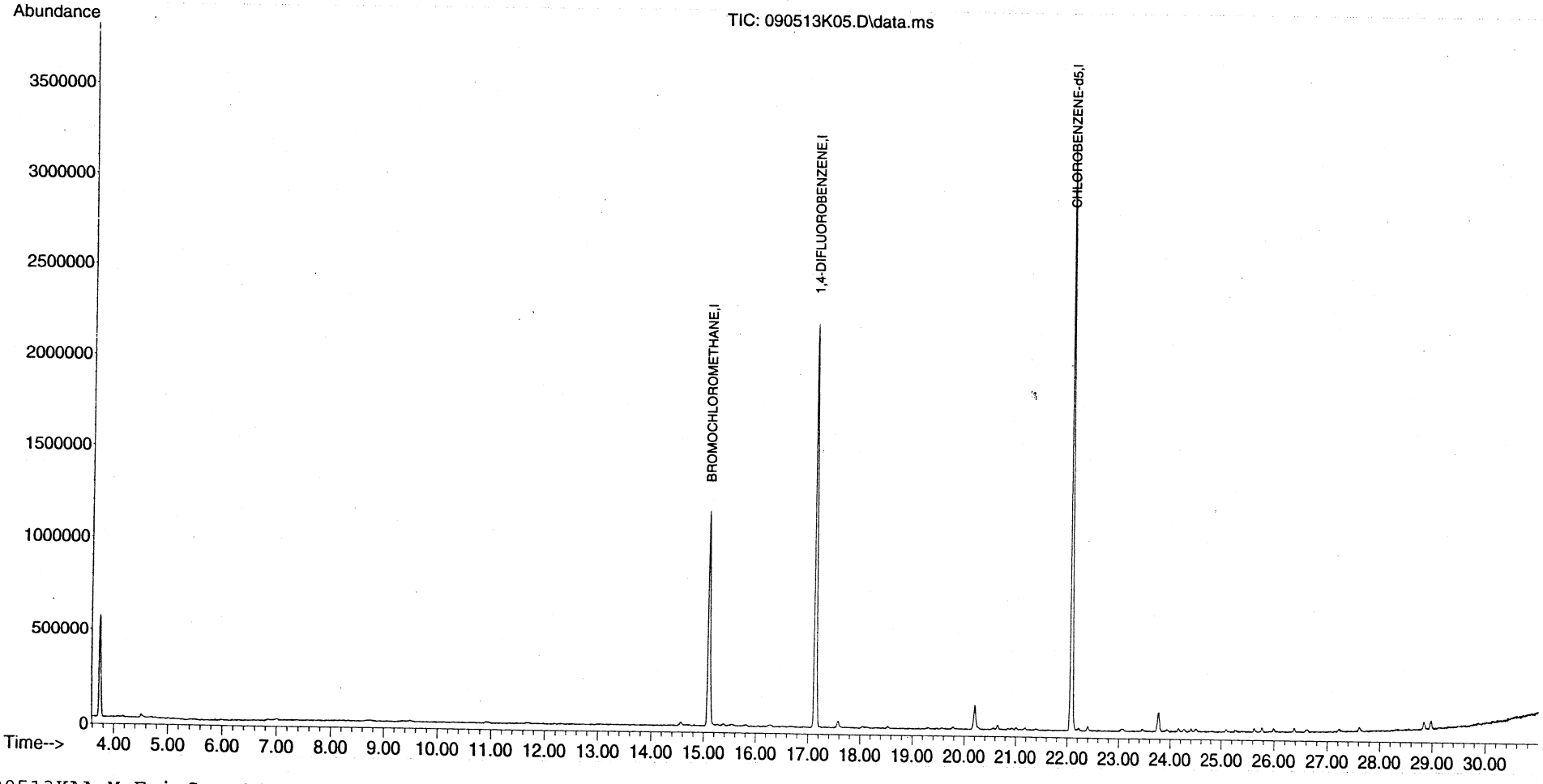
(#) = qualifier out of range (m) = manual integration (+) = signals summed

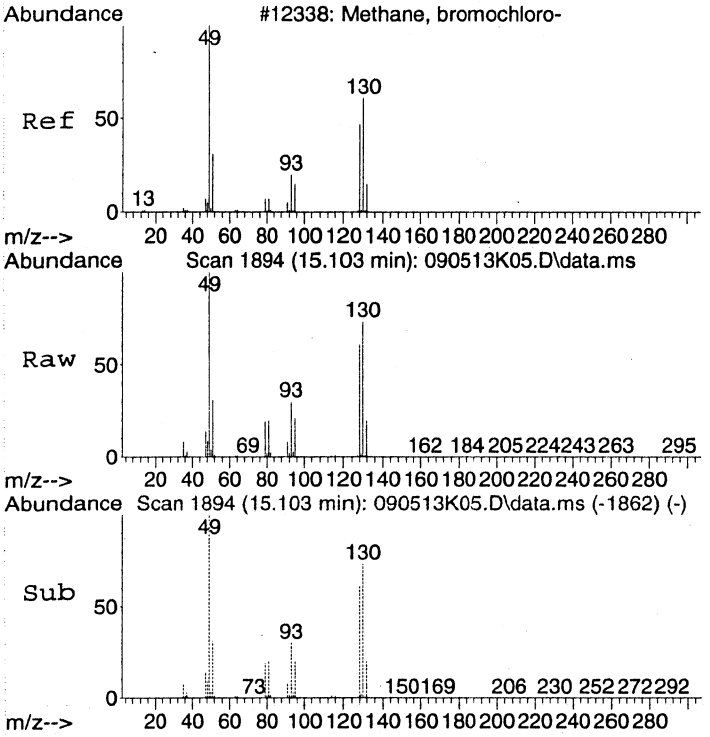
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Instrument: HP5973K
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:24:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

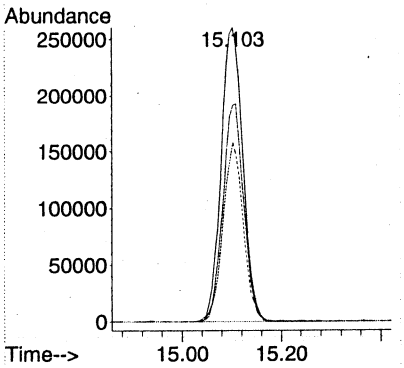


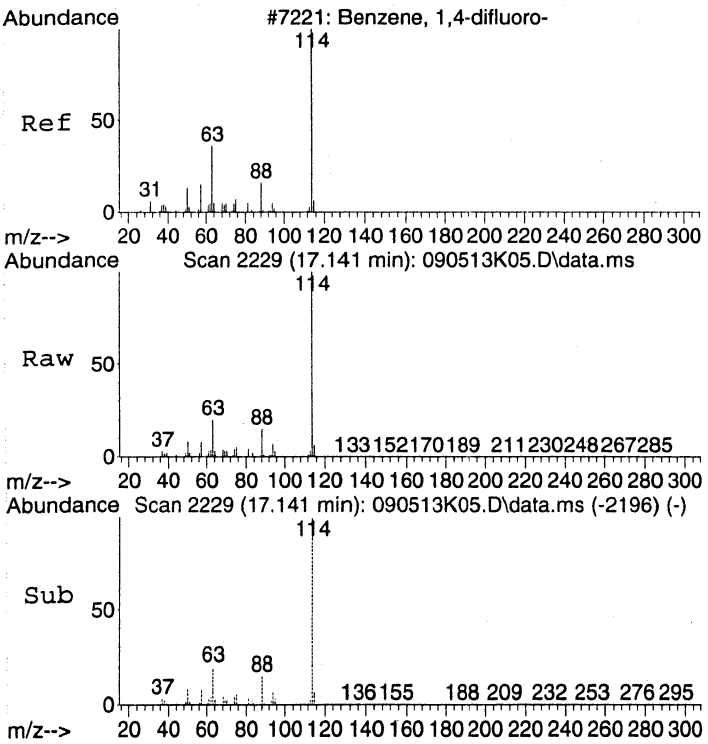



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.103 min Scan# 1894
Delta R.T. -0.007 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion: 49 Resp: 791936

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 71.5 | 70.5 | 110.5 |
| 128 | 56.4 | 50.6 | 90.6 |

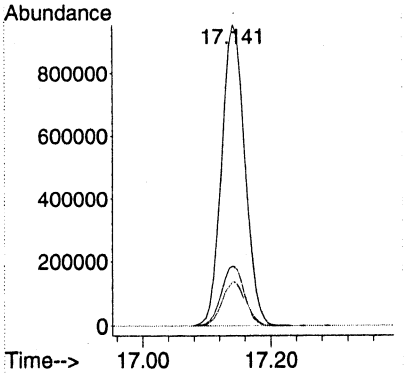


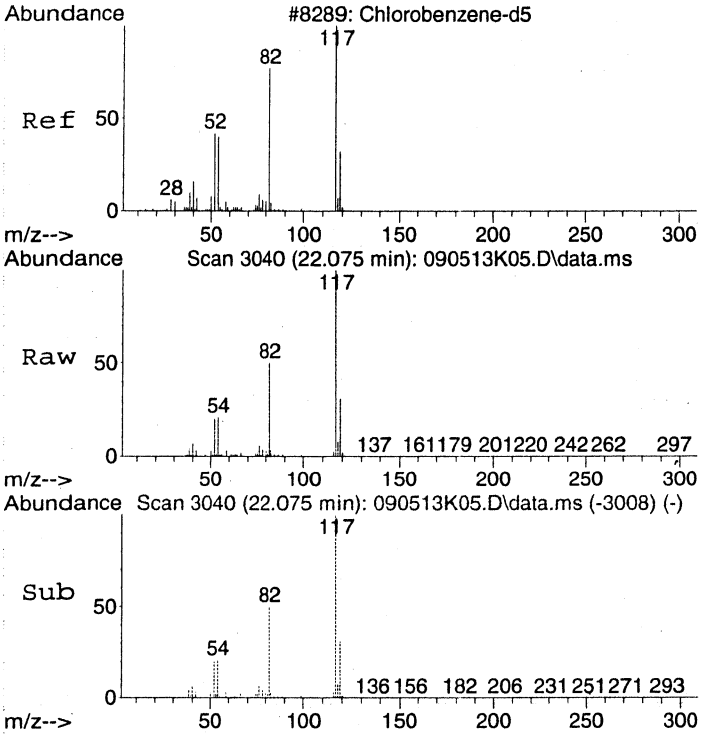




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.141 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion:114 Resp: 2411800

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 19.6 | 0.0 | 37.0 |
| 88 | 14.3 | 0.0 | 33.1 |

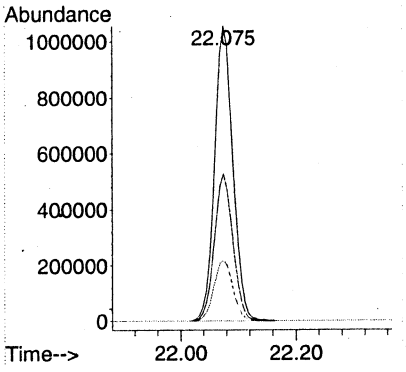





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion:117 Resp: 2310686

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 50.6 | 26.5 | 66.5 |
| 54 | 21.8 | 0.0 | 38.1 |



# LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15

Signal : TIC: 090513K05.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.103 | 1881 | 1894 | 1907 | rBV2 | 1156726 | 3397019 | 47.83% | 19.869% |
| 2 | 17.141 | 2215 | 2229 | 2241 | rBV | 2190380 | 5584749 | 78.64% | 32.665% |
| 3 | 17.579 | 2293 | 2301 | 2306 | rBV6 | 36240 | 99809 | 1.41% | 0.584% |
| 4 | 20.201 | 2720 | 2732 | 2740 | rBV | 128888 | 392714 | 5.53% | 2.297% |
| 5 | 22.075 | 3030 | 3040 | 3056 | rVB | 3151967 | 7101880 | 100.00% | 41.538% |
| 6 | 23.773 | 3309 | 3319 | 3329 | rVB3 | 102866 | 316889 | 4.46% | 1.853% |
| 7 | 28.834 | 4146 | 4151 | 4158 | rVB8 | 39434 | 88618 | 1.25% | 0.518% |
| 8 | 28.974 | 4167 | 4174 | 4181 | rBV8 | 48973 | 115538 | 1.63% | 0.676% |

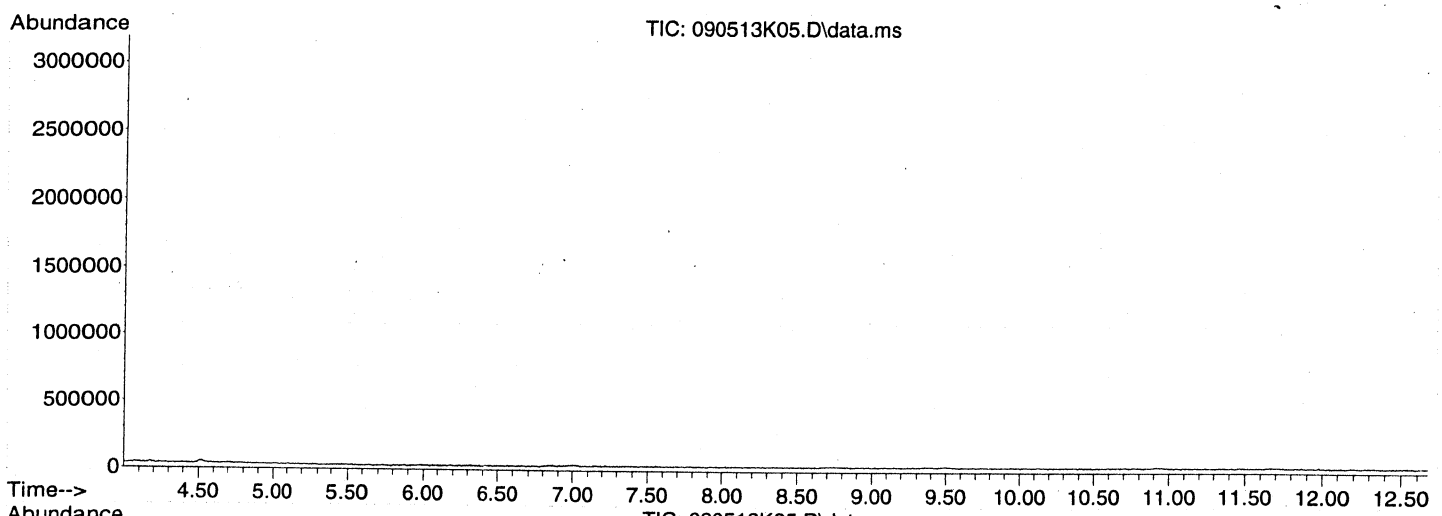
Sum of corrected areas: 17097216

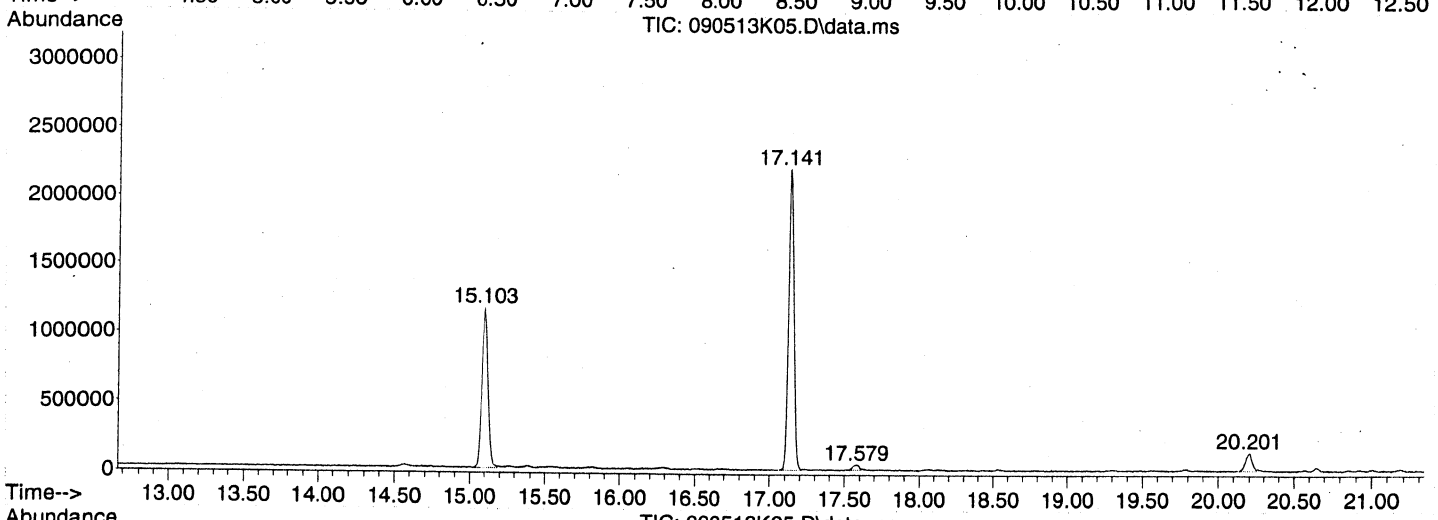
LSC Report - Integrated Chromatogram

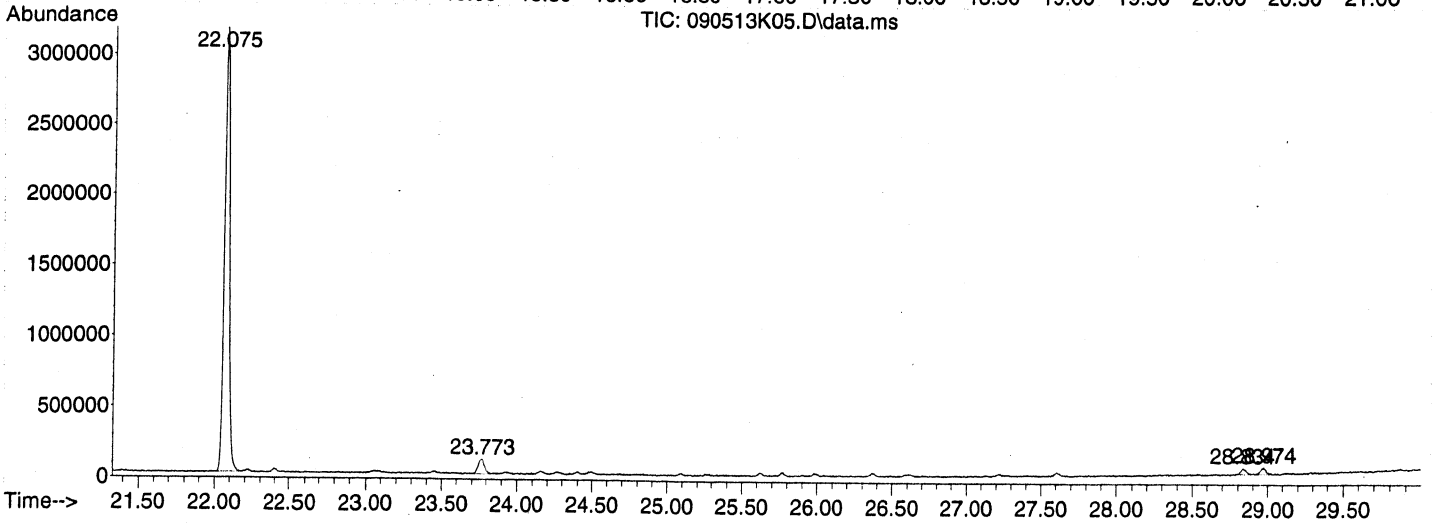
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:30:12 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 658989 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 1885946 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 1744925 | 22.00 ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

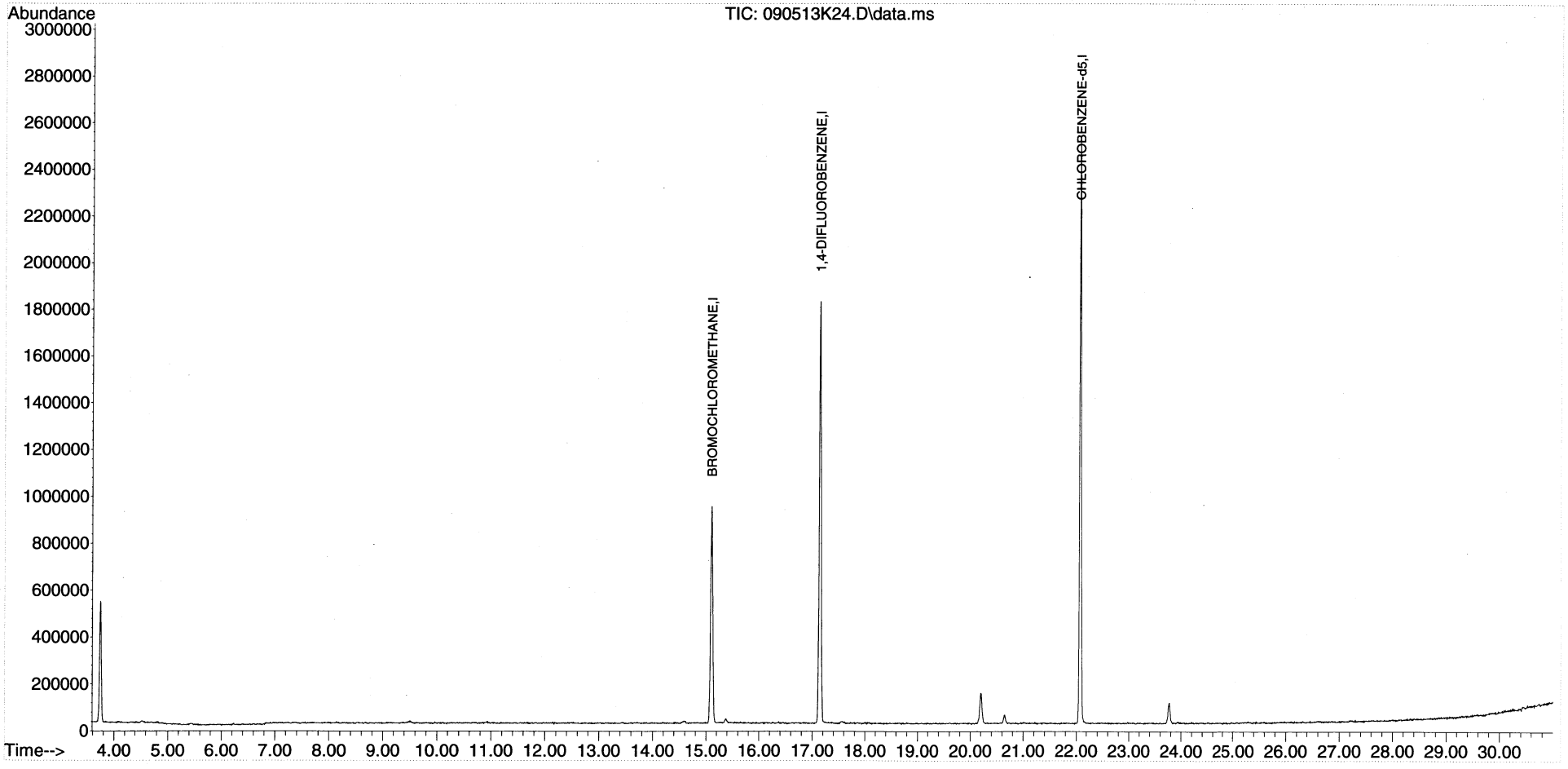
(#) = qualifier out of range (m) = manual integration (+) = signals summed

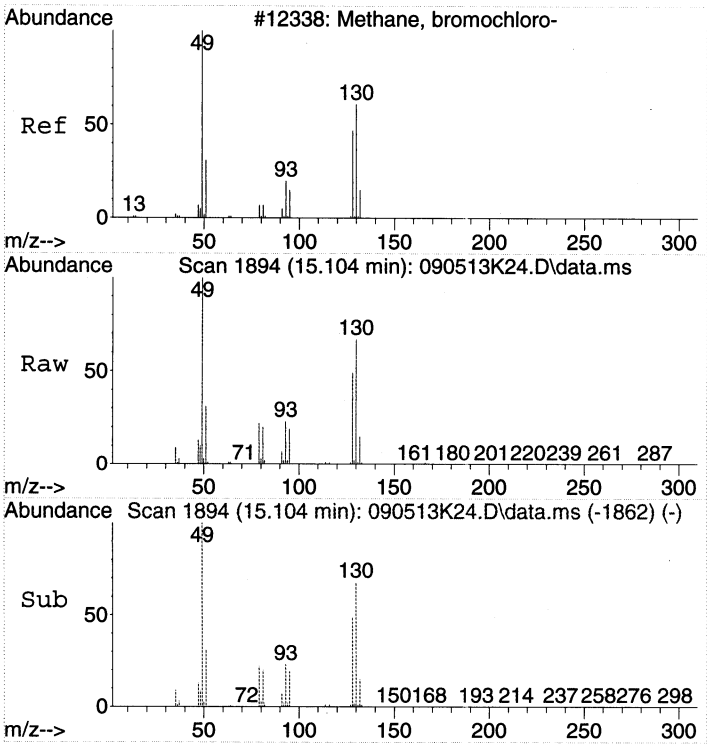
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:30:12 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

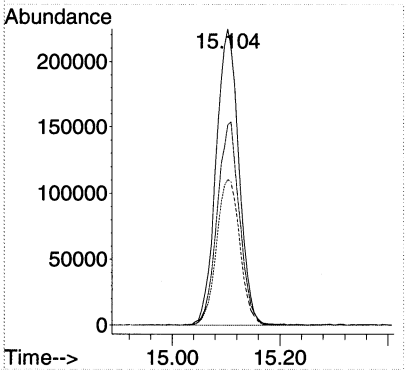


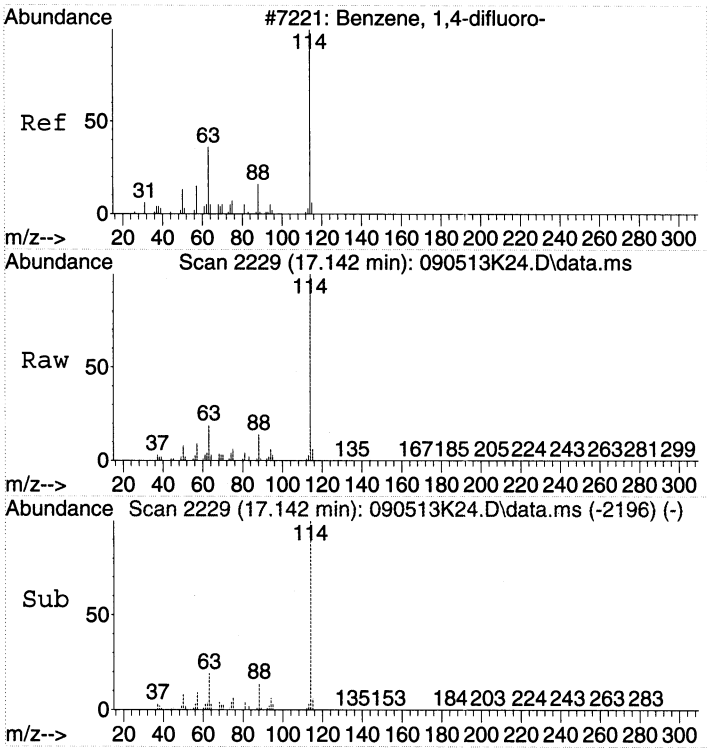



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090513K24.D
Acq: 6 Sep 2013 9:09

Tgt Ion: 49 Resp: 658989

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 67.2 | 70.5 | 110.5# |
| 128 | 50.4 | 50.6 | 90.6# |

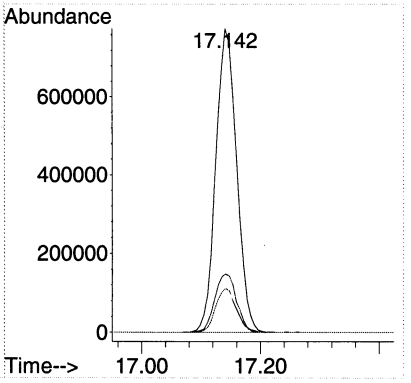


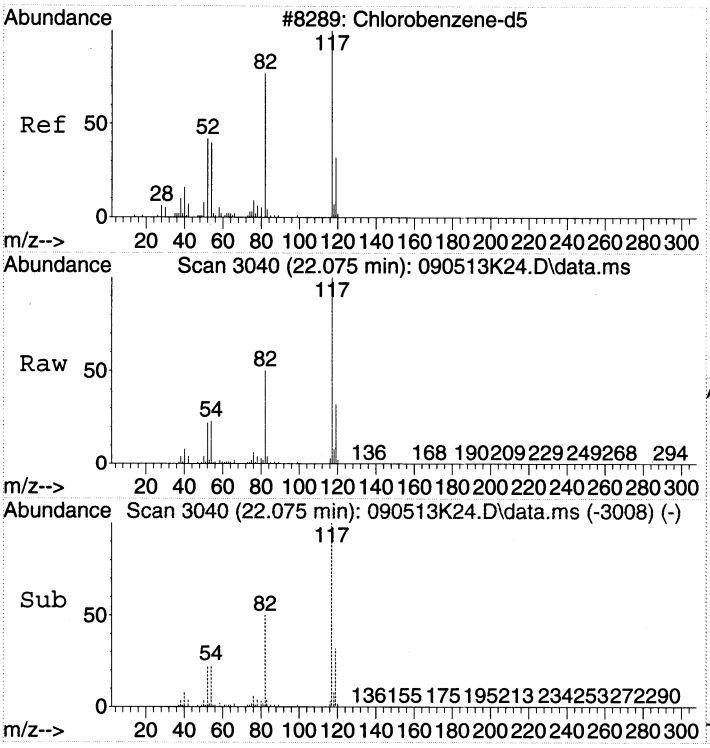




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090513K24.D
Acq: 6 Sep 2013 9:09

Tgt Ion:114 Resp: 1885946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.1 | 0.0 | 37.0 |
| 88 | 14.1 | 0.0 | 33.1 |

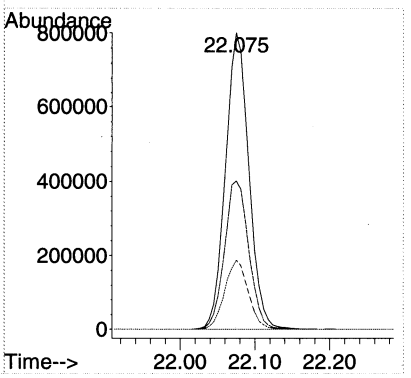





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090513K24.D
Acq: 6 Sep 2013 9:09

Tgt Ion:117 Resp: 1744925

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 52.3 | 26.5 | 66.5 |
| 54 | 23.7 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15

Signal : TIC: 090513K24.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1883 | 1894 | 1905 | rBV2 | 925649 | 2706125 | 48.82% | 20.077% |
| 2 | 17.142 | 2218 | 2229 | 2244 | rBV | 1799426 | 4450942 | 80.30% | 33.022% |
| 3 | 20.202 | 2721 | 2732 | 2746 | rVB | 130922 | 409427 | 7.39% | 3.038% |
| 4 | 20.646 | 2798 | 2805 | 2815 | rVB6 | 39084 | 106503 | 1.92% | 0.790% |
| 5 | 22.075 | 3031 | 3040 | 3052 | rBV | 2483531 | 5542793 | 100.00% | 41.122% |
| 6 | 23.773 | 3308 | 3319 | 3330 | rBV3 | 88577 | 262963 | 4.74% | 1.951% |

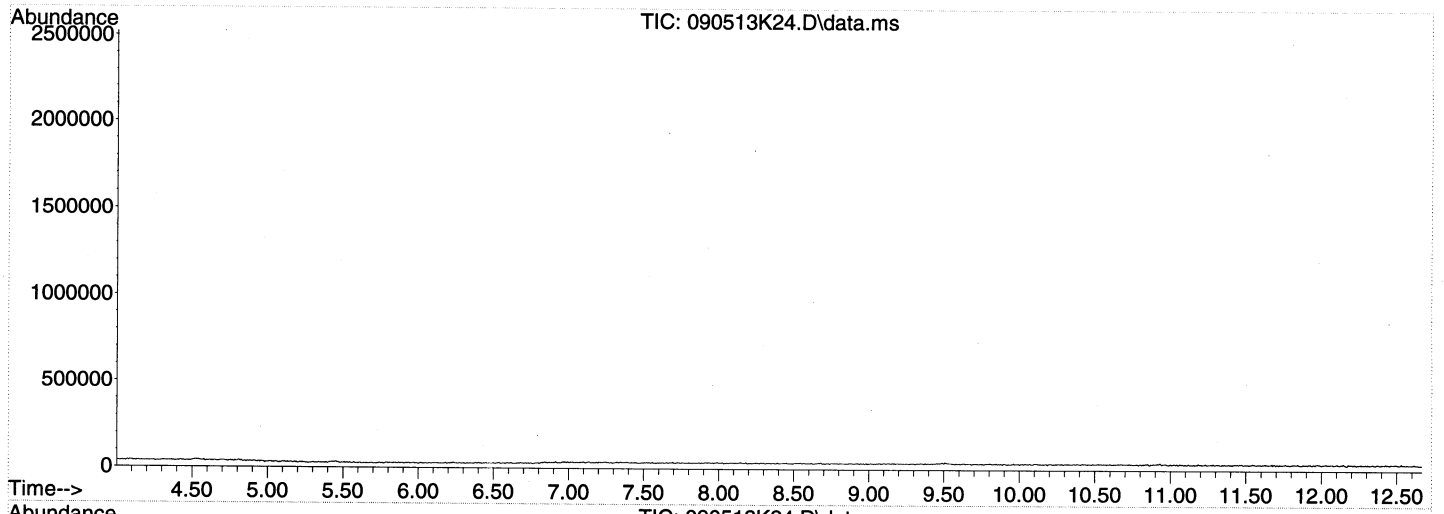
Sum of corrected areas: 13478753

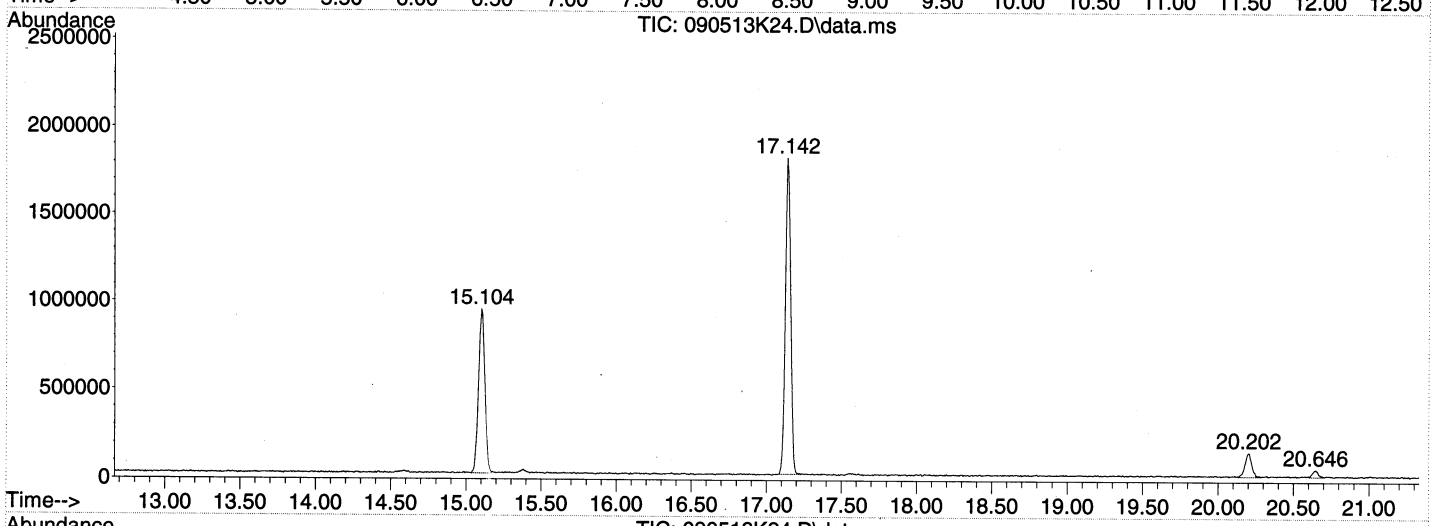
LSC Report - Integrated Chromatogram

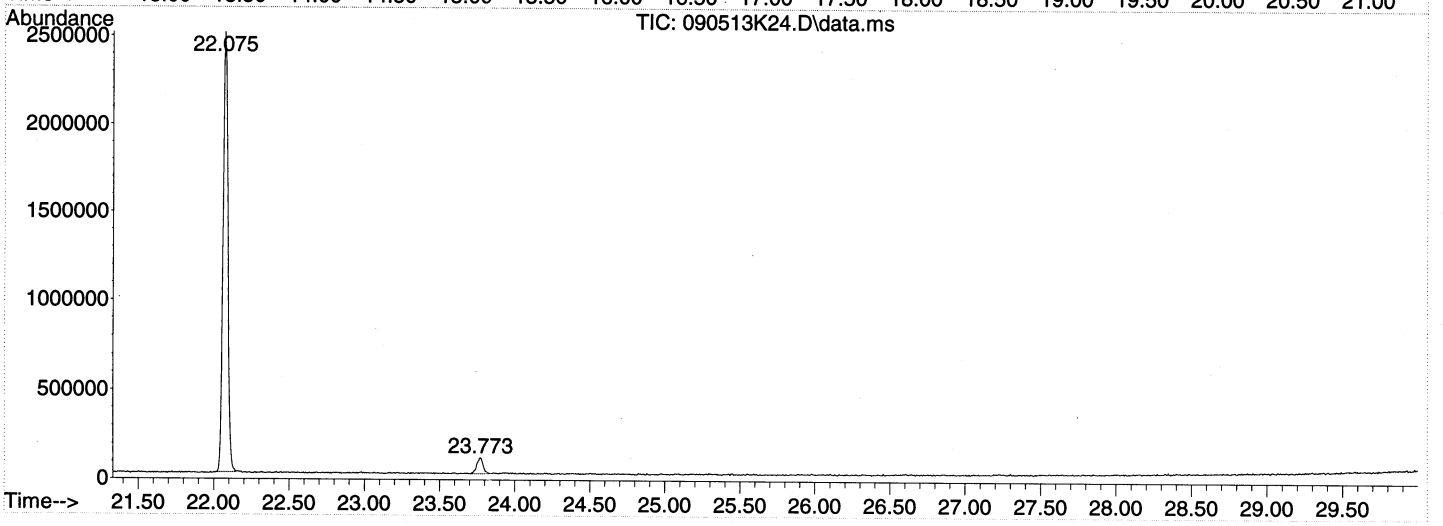
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K24.D
Acq On : 6 Sep 2013 9:09
Operator : EM
Sample : BLANK CAN 863
Misc : BLANK CAN 863
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

# Organics Daily Folder Preparation/Technical Review Guide

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Analysis Method** | TO-15 | **Analyst Initial** | EM | **Reviewer Initial** | [illegible] | **Batch/ Sequence** | B1SI031 S1SI022 |
| **Instrument ID** | HP5973K | **Date Analyzed** | 9/6/13 | **Date** | 9-12-13 | **Chemstation Last Update** | 8/28/13 11:07:04 |
| **Cases** | R15583 | | | **SDGs** | 13233B, BLANK CERTIFICATION | | |

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

| NA | A | PR | Item Description |
|---|---|---|---|
| | ✓ | ✓ | Runlog (Present, legible, peer reviewed) |
| | ✓ | ✓ | Tune/ Degradation Standard |
| | ✓ | ✓ | Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review. |
| | ✓ | ✓ | Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. |
| | ✓ | ✓ | QLS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | ✓ | Method / Extraction / Storage Blanks (frequency and contamination levels) |
| ✓ | | | Surrogate Recoveries |
| | ✓ | ✓ | IS Areas (SOP criteria met) |
| | ✓ | ✓ | LCS (level, frequency, and recovery) (include Chemstation summary) |
| | ✓ | ✓ | ~~MS/MSD~~ DUPLICATE |
| | ✓ | ✓ | Samples (within calibration range, results calculated correctly) |
| | ✓ | ✓ | Manual Integration Verified |
| ✓ | | | Standard Prep Log (all pages present, legible, peer reviewed, legible) |
| ✓ | | | Sample Prep/Extraction (all pages present, legible, peer reviewed) |
| | | | Others: |

NA = not applicable A = Analyst check PR = Peer Review Check

## Non-conformance Report

| QC | File ID | Result | QC Limit | High Bias | Low Bias | Flag ND | Flag Hits | Discussion |
|---|---|---|---|---|---|---|---|---|
| CCV1 | 090613K02 | 33.3% | ±30.0% | | ✓ | ✓ | ✓ | 1,2,4-Trichlorobenzene |
| ↓ | ↓ | 38.1% | ↓ | | ✓ | ✓ | ✓ | Hexachlorobutadiene |
| CRL1 | 090613K04 | 59% | 60-140% | | ✓ | ✓ | ✓ | Hexachlorobutadiene |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

# PREPARATION BENCH SHEET

## B13I031

### EPA Region 9 Laboratory

·inted: 9/10/2013 11:55:03AM

**Project: R13S83 - SFV Glendale Chromium 2013 Drilube Soil Vapor**

**Matrix: Air** **Analysis: VOCs, Soil Gas** **Prepared using: Air - - General Air prep** **(No Surrogate)**

| Lab Number | SampleName | Prepared | Initial (mL) | Final (mL) | Spike ID | Source ID | ul Spike | ul Surrogate | Prepared By | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1308031-08RE2 A | 13-EPASV-SB41-35-01-028 | 09/06/13 12:31 | 50 | 200 | | | | | EM | Full list |
| B13I031-BLK1 | Blank | 09/06/13 12:31 | 200 | 200 | | | | | EM | |
| B13I031-BS1 | LCS | 09/06/13 12:31 | 200 | 200 | 1335007 | | 100000 | | EM | |
| B13I031-DUP1 | Duplicate | 09/06/13 12:31 | 50 | 200 | | 308031-08RE | | | EM | |

**Reagents**

| Reagent # | Description |
|---|---|

9-12-13

Preparation Reviewed By Date

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 862 | 400 mL | Certified Clean | 9/6/2013 | 090613K21.d |
| 870 | 400 mL | Certified Clean | 9/6/2013 | 090613K05.d |
| 881 | 400 mL | Certified Clean | 9/6/2013 | 090613K22.d |
| 898 | 400 mL | Certified Clean | 9/6/2013 | 090613K08.d |
| 1095 | 400 mL | Certified Clean | 9/6/2013 | 090613K11.d |
| 1097 | 400 mL | Certified Clean | 9/6/2013 | 090613K23.d |
| 1112 | 400 mL | Certified Clean | 9/6/2013 | 090613K24.d |
| 1967 | 400 mL | Certified Clean | 9/6/2013 | 090613K13.d |
| 1968 | 400 mL | Certified Clean | 9/6/2013 | 090613K14.d |
| 1969 | 400 mL | Certified Clean | 9/6/2013 | 090613K25.d |
| 1970 | 400 mL | Certified Clean | 9/6/2013 | 090613K26.d |
| 1976 | 400 mL | Certified Clean | 9/6/2013 | 090613K16.d |
| 1978 | 400 mL | Certified Clean | 9/6/2013 | 090613K17.d |
| 1985 | 400 mL | Certified Clean | 9/6/2013 | 090613K18.d |
| 1995 | 400 mL | Certified Clean | 9/6/2013 | 090613K19.d |
| 2002 | 400 mL | Certified Clean | 9/6/2013 | 090613K20.d |



00564

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 862 | 400 mL | Certified Clean | 9/6/2013 | 090613K21.d |
| 870 | 400 mL | Certified Clean | 9/6/2013 | 090613K05.d |
| 881 | 400 mL | Certified Clean | 9/6/2013 | 090613K22.d |
| 898 | 400 mL | Certified Clean | 9/6/2013 | 090613K08.d |
| 1095 | 400 mL | Certified Clean | 9/6/2013 | 090613K11.d |
| 1097 | 400 mL | Certified Clean | 9/6/2013 | 090613K23.d |
| 1112 | 400 mL | Certified Clean | 9/6/2013 | 090613K24.d |
| 1967 | 400 mL | Certified Clean | 9/6/2013 | 090613K13.d |
| 1968 | 400 mL | Certified Clean | 9/6/2013 | 090613K14.d |
| 1969 | 400 mL | Certified Clean | 9/6/2013 | 090613K25.d |
| 1970 | 400 mL | Certified Clean | 9/6/2013 | 090613K26.d |
| 1976 | 400 mL | Certified Clean | 9/6/2013 | 090613K16.d |
| 1978 | 400 mL | Certified Clean | 9/6/2013 | 090613K17.d |
| 1985 | 400 mL | Certified Clean | 9/6/2013 | 090613K18.d |
| 1995 | 400 mL | Certified Clean | 9/6/2013 | 090613K19.d |
| 2002 | 400 mL | Certified Clean | 9/6/2013 | 090613K20.d |

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 862 | 400 mL | Certified Clean | 9/6/2013 | 090613K21.d |
| 870 | 400 mL | Certified Clean | 9/6/2013 | 090613K05.d |
| 881 | 400 mL | Certified Clean | 9/6/2013 | 090613K22.d |
| 898 | 400 mL | Certified Clean | 9/6/2013 | 090613K08.d |
| 1095 | 400 mL | Certified Clean | 9/6/2013 | 090613K11.d |
| 1097 | 400 mL | Certified Clean | 9/6/2013 | 090613K23.d |
| 1112 | 400 mL | Certified Clean | 9/6/2013 | 090613K24.d |
| 1967 | 400 mL | Certified Clean | 9/6/2013 | 090613K13.d |
| 1968 | 400 mL | Certified Clean | 9/6/2013 | 090613K14.d |
| 1969 | 400 mL | Certified Clean | 9/6/2013 | 090613K25.d |
| 1970 | 400 mL | Certified Clean | 9/6/2013 | 090613K26.d |
| 1976 | 400 mL | Certified Clean | 9/6/2013 | 090613K16.d |
| 1978 | 400 mL | Certified Clean | 9/6/2013 | 090613K17.d |
| 1985 | 400 mL | Certified Clean | 9/6/2013 | 090613K18.d |
| 1995 | 400 mL | Certified Clean | 9/6/2013 | 090613K19.d |
| 2002 | 400 mL | Certified Clean | 9/6/2013 | 090613K20.d |

# EPA Region 9 Laboratory
## Canister Certification Status

| Canister | Type | Status | Cert. Date | Cert. File |
|---|---|---|---|---|
| 862 | 400 mL | Certified Clean | 9/6/2013 | 090613K21.d |
| 870 | 400 mL | Certified Clean | 9/6/2013 | 090613K05.d |
| 881 | 400 mL | Certified Clean | 9/6/2013 | 090613K22.d |
| 898 | 400 mL | Certified Clean | 9/6/2013 | 090613K08.d |
| 1095 | 400 mL | Certified Clean | 9/6/2013 | 090613K11.d |
| 1097 | 400 mL | Certified Clean | 9/6/2013 | 090613K23.d |
| 1112 | 400 mL | Certified Clean | 9/6/2013 | 090613K24.d |
| 1967 | 400 mL | Certified Clean | 9/6/2013 | 090613K13.d |
| 1968 | 400 mL | Certified Clean | 9/6/2013 | 090613K14.d |
| 1969 | 400 mL | Certified Clean | 9/6/2013 | 090613K25.d |
| 1970 | 400 mL | Certified Clean | 9/6/2013 | 090613K26.d |
| 1976 | 400 mL | Certified Clean | 9/6/2013 | 090613K16.d |
| 1978 | 400 mL | Certified Clean | 9/6/2013 | 090613K17.d |
| 1985 | 400 mL | Certified Clean | 9/6/2013 | 090613K18.d |
| 1995 | 400 mL | Certified Clean | 9/6/2013 | 090613K19.d |
| 2002 | 400 mL | Certified Clean | 9/6/2013 | 090613K20.d |

# ANALYSIS SEQUENCE

**S13I022**

Instrument: HP5973K

Calibration ID: 1308019

**Printed: 9/10/2013 11:55:48AM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| S13I022-TUN1 | QC | | 1 | | 1305020 | | | |
| S13I022-CCV1 | QC | | 2 | | 1335072 | | | |
| B13I031-BS1 | QC | | 3 | | | | | |
| S13I022-CRL1 | QC | | 4 | | 1335069 | | | |
| B13I031-BLK1 | QC | | 5 | | | 1328060 | | |
| 1308031-08RE2 | VOCs, Soil Gas | A | 6 | | | 1328060 | California Site Cleanup Section 1 | Full list |
| B13I031-DUP1 | QC | | 7 | | | 1328060 | | |

Samples Loaded By — Date: 9/6/13

Data Processed By — Date: 9/6/13

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\090613KAA.SEQ
Date: 09-10-2013
Time: 10:18:52
Int. Std Volume: 40 cc

| Sample Name | Inlet # | Auto Pos | Samp Vol. | Cal Std Vol. | Method | Time |
|---|---|---|---|---|---|---|
| PRIME | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| BFB 13305020 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10ppbv 1335007 | 3 | 2 | 100 | 40 | C:\Smart\TO15.CTD | 12:00 |
| 10ppbv 1335007 | 3 | 2 | 100 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1.0ppbv 1335007 | 3 | 2 | 10 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 870 | 3 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308031-08 can7483 | 4 | 9 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| 1308031-08 DUP7483 | 4 | 9 | 50 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 898 | 3 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1071 | 3 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1087 | 3 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1095 | 3 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1106 | 3 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1967 | 3 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1968 | 3 | 9 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1972 | 3 | 10 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1976 | 3 | 11 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1978 | 3 | 12 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1985 | 4 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1995 | 4 | 2 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 2002 | 4 | 3 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 862 | 4 | 4 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 881 | 4 | 5 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1097 | 4 | 6 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1112 | 4 | 7 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1969 | 4 | 8 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |
| Blank Can 1970 | 3 | 1 | 200 | 0 | C:\Smart\TO15.CTD | 12:00 |

# Injection Log

Directory: C:\msdchem\1\DATA\2013\090613KA

| Line | Vial | FileName | Multiplier | SampleName | Misc Info | Injected |
|---|---|---|---|---|---|---|
| 1 | 32 | 090613K01.D | 1. | S13I022-TUN1 | BFB 1305020/IS 1328060/10ppbv STD | 6 Sep 2013 12:31 |
| 2 | 32 | 090613K02.D | 1. | S13I022-CCV1 | 10 ppbv 1335007 | 6 Sep 2013 13:21 |
| 3 | 32 | 090613K03.D | 1. | B13I031-BS1 | 10 ppbv 1335007 | 6 Sep 2013 14:10 |
| 4 | 32 | 090613K04.D | 1. | S13I022-CRL1 | 1.0 ppbv 1335007 | 6 Sep 2013 14:57 |
| 5 | 33 | 090613K05.D | 1. | Blank Can 870 | Blank Can 870 | 6 Sep 2013 15:50 |
| 6 | 49 | 090613K06.D | 536.49 | 1308031-08RE2 | 50mL of 10mL of can 1137 into 7483 | 6 Sep 2013 16:39 |
| 7 | 49 | 090613K07.D | 536.49 | B13I031-DUP1 | 50mL of 10mL of can 1137 into 7483 | 6 Sep 2013 17:34 |
| 8 | 33 | 090613K08.D | 1. | Blank Can 898 | Blank Can 898 | 6 Sep 2013 18:25 |
| 9 | 34 | 090613K09.D | 1. | Blank Can 1071 | Blank Can 1071 | 6 Sep 2013 19:16 |
| 10 | 35 | 090613K10.D | 1. | Blank Can 1087 | Blank Can 1087 | 6 Sep 2013 20:06 |
| 11 | 36 | 090613K11.D | 1. | Blank Can 1095 | Blank Can 1095 | 6 Sep 2013 20:57 |
| 12 | 37 | 090613K12.D | 1. | Blank Can 1106 | Blank Can 1106 | 6 Sep 2013 21:47 |
| 13 | 38 | 090613K13.D | 1. | Blank Can 1967 | Blank Can 1967 | 6 Sep 2013 22:38 |
| 14 | 39 | 090613K14.D | 1. | Blank Can 1968 | Blank Can 1968 | 6 Sep 2013 23:29 |
| 15 | 10 | 090613K15.D | 1. | Blank Can 1972 | Blank Can 1972 | 7 Sep 2013 00:20 |
| 16 | 11 | 090613K16.D | 1. | Blank Can 1976 | Blank Can 1976 | 7 Sep 2013 01:11 |
| 17 | 12 | 090613K17.D | 1. | Blank Can 1978 | Blank Can 1978 | 7 Sep 2013 02:01 |
| 18 | 41 | 090613K18.D | 1. | Blank Can 1985 | Blank Can 1985 | 7 Sep 2013 02:56 |
| 19 | 42 | 090613K19.D | 1. | Blank Can 1995 | Blank Can 1995 | 7 Sep 2013 03:46 |
| 20 | 43 | 090613K20.D | 1. | Blank Can 2002 | Blank Can 2002 | 7 Sep 2013 04:36 |
| 21 | 44 | 090613K21.D | 1. | Blank Can 862 | Blank Can 862 | 7 Sep 2013 05:27 |
| 22 | 45 | 090613K22.D | 1. | Blank Can 881 | Blank Can 881 | 7 Sep 2013 06:18 |
| 23 | 46 | 090613K23.D | 1. | Blank Can 1097 | Blank Can 1097 | 7 Sep 2013 07:08 |
| 24 | 47 | 090613K24.D | 1. | Blank Can 1112 | Blank Can 1112 | 7 Sep 2013 07:59 |
| 25 | 48 | 090613K25.D | 1. | Blank Can 1969 | Blank Can 1969 | 7 Sep 2013 08:49 |
| 26 | 31 | 090613K26.D | 1. | Blank Can 1970 | Blank Can 1970 | 7 Sep 2013 09:40 |
| 27 | 32 | 999913K01.D | 1. | S13I022-PRM1 | BFB 1305020/IS 1328060/10ppbv STD | 6 Sep 2013 11:41 |

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2013\090613KA\090613K01.D
Tune Time : 6 Sep 2013 12:31

Daily Calibration File : C:\msdchem\1\DATA\2013\090613KA\090613K02.D

| File | Sample | Surrogate Recovery % | Internal Standard Responses | | | |
|---|---|---|---|---|---|---|
| | | | 1039960 | 3061160 | 2872530 | |
| 090613K02.D | S13I022-CCV1 | | 1039963 | 3061159 | 2872528 | |
| 090613K03.D | B13I031-BS1 | | 1022845 | 2944157 | 2738635 | |
| 090613K04.D | S13I022-CRL1 | | 973240 | 2830339 | 2613479 | |
| 090613K05.D | B13I031-BLK1 | | 951728 | 2672794 | 2536128 | can 870 |
| 090613K06.D | 1308031-08RE2 | | 885993 | 2431958 | 2230520 | |
| 090613K07.D | B13I031-DUP1 | | 838330 | 2288492 | 2127694 | |
| 090613K08.D | Blank Can 898 | | 871827 | 2378580 | 2257381 | |
| 090613K09.D | Blank Can 1071 | | 888149 | 2509154 | 2343102 | |
| 090613K10.D | Blank Can 1087 | | 855691 | 2373172 | 2189001 | |
| 090613K11.D | Blank Can 1095 | | 860459 | 2382063 | 2223283 | |
| 090613K12.D | Blank Can 1106 | | 847306 | 2379557 | 2216613 | |
| 090613K13.D | Blank Can 1967 | | 837236 | 2375871 | 2205605 | |
| 090613K14.D | Blank Can 1968 | | 810788 | 2211126 | 2084337 | |
| 090613K15.D | Blank Can 1972 | | 839431 | 2340422 | 2202946 | |
| 090613K16.D | Blank Can 1976 | | 839728 | 2311235 | 2147637 | |
| 090613K17.D | Blank Can 1978 | | 803303 | 2213768 | 2072826 | |
| 090613K18.D | Blank Can 1985 | | 755482 | 2007562 | 1791378 | |
| 090613K19.D | Blank Can 1995 | | 787212 | 2185445 | 2057973 | |
| 090613K20.D | Blank Can 2002 | | 813539 | 2258996 | 2112442 | |

| | | | | |
|---|---|---|---|---|
| 090613K21.D | | | | |
| | Blank Can 862 | 759760 | 2024310 | 1901403 |
| 090613K22.D | | | | |
| | Blank Can 881 | 789480 | 2087215 | 1941572 |
| 090613K23.D | | | | |
| | Blank Can 1097 | 763365 | 2095533 | 1960255 |
| 090613K24.D | | | | |
| | Blank Can 1112 | 745212 | 1981450 | 1843368 |
| 090613K25.D | | | | |
| | Blank Can 1969 | 757764 | 2134156 | 2012204 |
| 090613K26.D | | | | |
| | Blank Can 1970 | 761603 | 1986450 | 1884966 |

(fails) - fails 24hr time check  * - fails criteria

Created: Tue Sep 10 10:21:16 2013  HP5973K

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090613KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013
Response Via : Initial Calibration

Calibration Files
1 =082713K08.D 2 =082713K09.D 5 =082713K10.D 10 =082713K11.D 15 =082713K12.D
20 =082713K13.D

| | | Compound | 1 | 2 | 5 | 10 | 15 | 20 | Avg | %RSD |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) | I | BROMOCHLOROMETHANE | ----------ISTD---------- | | | | | | | |
| 2) | T | Propene | 0.725 | 0.574 | 0.466 | 0.573 | 0.551 | 0.568 | 0.576 | 14.49 |
| 3) | T | Dichlorodifluo... | 2.702 | 2.137 | 1.778 | 2.387 | 2.239 | 2.272 | 2.253 | 13.44 |
| 4) | T | 1,2-Dichlorote... | 2.687 | 2.257 | 1.876 | 2.470 | 2.448 | 2.556 | 2.382 | 11.98 |
| 5) | T | Chloromethane | 0.827 | 0.650 | 0.518 | 0.679 | 0.688 | 0.693 | 0.676 | 14.62 |
| 6) | T | Vinyl chloride | 0.873 | 0.743 | 0.630 | 0.810 | 0.804 | 0.796 | 0.776 | 10.69 |
| 7) | T | 1,3-Butadiene | 0.712 | 0.581 | 0.510 | 0.619 | 0.611 | 0.625 | 0.610 | 10.75 |
| 8) | T | Bromomethane | 0.939 | 0.779 | 0.645 | 0.827 | 0.809 | 0.813 | 0.802 | 11.81 |
| 9) | T | Chloroethane | 0.487 | 0.404 | 0.334 | 0.425 | 0.416 | 0.420 | 0.414 | 11.87 |
| 10) | T | Bromoethene | 0.809 | 0.705 | 0.591 | 0.732 | 0.706 | 0.709 | 0.708 | 9.86 |
| 11) | T | Trichlorofluor... | 2.428 | 1.987 | 1.681 | 2.208 | 2.101 | 2.146 | 2.092 | 11.88 |
| 12) | T | 1,1,2-Trichlor... | 1.570 | 1.303 | 1.100 | 1.411 | 1.332 | 1.351 | 1.345 | 11.37 |
| 13) | T | 1,1-Dichloroet... | 1.143 | 0.958 | 0.816 | 1.140 | 1.148 | 1.152 | 1.059 | 13.32 |
| 14) | T | Acetone | 1.043 | 0.947 | 0.799 | 1.034 | 1.032 | 1.034 | 0.982 | 9.79 |
| 15) | T | Carbon disulfide | 2.330 | 1.881 | 1.494 | 1.820 | 1.740 | 1.746 | 1.835 | 15.03 |
| 16) | T | 2-Propanol | 0.822 | 0.756 | 0.659 | 0.923 | 0.960 | 0.970 | 0.848 | 14.74 |
| 17) | T | Allyl chloride | 0.769 | 0.660 | 0.598 | 0.787 | 0.809 | 0.817 | 0.740 | 12.15 |
| 18) | T | Dichloromethane | 1.067 | 0.836 | 0.672 | 0.859 | 0.839 | 0.833 | 0.851 | 14.80 |
| 19) | T | tert-Butyl met... | 1.699 | 1.515 | 1.343 | 1.797 | 1.813 | 1.878 | 1.674 | 12.28 |
| 20) | T | trans-1,2-Dich... | 0.991 | 0.898 | 0.760 | 0.970 | 0.960 | 0.966 | 0.924 | 9.34 |
| 21) | T | Hexane | 1.020 | 0.893 | 0.818 | 1.069 | 1.072 | 1.103 | 0.996 | 11.48 |
| 22) | T | 1,1-Dichloroet... | 1.486 | 1.225 | 1.019 | 1.335 | 1.336 | 1.358 | 1.293 | 12.21 |
| 23) | T | Vinyl acetate | 1.252 | 1.140 | 1.093 | 1.602 | 1.645 | 1.662 | 1.399 | 19.00 |
| 24) | T | cis-1,2-Dichlo... | 0.938 | 0.800 | 0.677 | 1.008 | 1.005 | 1.022 | 0.908 | 15.42 |
| 25) | T | 2-Butanone (MEK) | 1.558 | 1.109 | 0.976 | 1.359 | 1.404 | 1.417 | 1.304 | 16.66 |
| 26) | T | Ethyl acetate | 1.387 | 1.495 | 1.328 | 1.572 | 1.460 | 1.596 | 1.473 | 7.06 |
| 27) | T | Tetrahydrofuran | 0.865 | 0.764 | 0.672 | 0.813 | 0.827 | 0.829 | 0.795 | 8.60 |
| 28) | T | Chloroform | 1.850 | 1.453 | 1.212 | 1.652 | 1.614 | 1.653 | 1.572 | 13.80 |
| 29) | T | Cyclohexane | 1.088 | 0.966 | 0.872 | 1.093 | 1.105 | 1.131 | 1.043 | 9.71 |
| 30) | T | 1,1,1-Trichlor... | 1.893 | 1.565 | 1.304 | 1.825 | 1.800 | 1.849 | 1.706 | 13.37 |
| 31) | T | Carbon tetrach... | 2.020 | 1.652 | 1.423 | 1.989 | 1.964 | 2.018 | 1.844 | 13.52 |
| 32) | I | 1,4-DIFLUOROBENZENE | ----------ISTD---------- | | | | | | | |
| 33) | T | Benzene | 0.744 | 0.624 | 0.508 | 0.723 | 0.727 | 0.724 | 0.675 | 13.68 |
| 34) | T | 2,2,4-Trimethy... | 0.989 | 0.872 | 0.795 | 1.003 | 1.022 | 1.035 | 0.953 | 10.14 |
| 35) | T | 1,2-Dichloroet... | 0.346 | 0.296 | 0.249 | 0.320 | 0.332 | 0.327 | 0.311 | 11.22 |
| 36) | T | Heptane | 0.329 | 0.332 | 0.297 | 0.357 | 0.376 | 0.372 | 0.344 | 8.78 |
| 37) | T | Trichloroethene | 0.364 | 0.290 | 0.250 | 0.340 | 0.347 | 0.361 | 0.325 | 13.98 |
| 38) | T | 1,2-Dichloropr... | 0.259 | 0.236 | 0.190 | 0.262 | 0.264 | 0.267 | 0.246 | 12.13 |
| 39) | T | 2,3-dichloro-1... | 0.429 | 0.387 | 0.367 | 0.362 | 0.374 | 0.382 | 0.384 | 6.33 |
| 40) | T | 1,4-Dioxane | 0.149 | 0.135 | 0.122 | 0.149 | 0.151 | 0.150 | 0.143 | 8.25 |
| 41) | T | Bromodichlorom... | 0.561 | 0.491 | 0.416 | 0.517 | 0.529 | 0.534 | 0.508 | 9.98 |
| 42) | T | cis-1,3-Dichlo... | 0.367 | 0.320 | 0.281 | 0.382 | 0.399 | 0.403 | 0.359 | 13.48 |
| 43) | T | 4-Methyl-2-pen... | 0.504 | 0.463 | 0.410 | 0.496 | 0.514 | 0.504 | 0.482 | 8.16 |
| 44) | I | CHLOROBENZENE-d5 | ----------ISTD---------- | | | | | | | |
| 45) | T | Toluene | 0.961 | 0.830 | 0.720 | 1.000 | 1.019 | 1.026 | 0.926 | 13.39 |
| 46) | T | trans-1,3-Dich... | 0.415 | 0.349 | 0.303 | 0.426 | 0.446 | 0.454 | 0.399 | 15.01 |
| 47) | T | 1,1,2-Trichlor... | 0.364 | 0.301 | 0.261 | 0.340 | 0.352 | 0.352 | 0.328 | 12.00 |
| 48) | T | Tetrachloroethene | 0.622 | 0.515 | 0.431 | 0.573 | 0.602 | 0.621 | 0.561 | 13.42 |
| 49) | T | 1,3-Dichloropr... | 0.563 | 0.505 | 0.464 | 0.459 | 0.471 | 0.470 | 0.489 | 8.14 |
| 50) | T | 2-Hexanone | 0.518 | 0.475 | 0.435 | 0.532 | 0.552 | 0.544 | 0.509 | 8.97 |
| 51) | T | Chlorodibromom... | 0.724 | 0.619 | 0.541 | 0.659 | 0.695 | 0.718 | 0.659 | 10.65 |
| 52) | T | 1,2-Dibromoeth... | 0.573 | 0.471 | 0.401 | 0.541 | 0.568 | 0.577 | 0.522 | 13.66 |
| 53) | T | Chlorobenzene | 0.947 | 0.798 | 0.675 | 0.856 | 0.871 | 0.867 | 0.835 | 11.00 |
| 54) | T | Ethylbenzene | 1.345 | 1.191 | 1.028 | 1.305 | 1.342 | 1.383 | 1.266 | 10.58 |
| 55) | T | m&p-Xylene | 1.049 | 0.926 | 0.840 | 1.077 | 1.140 | 1.203 | 1.039 | 13.01 |
| 56) | T | o-Xylene | 1.056 | 0.936 | 0.831 | 1.091 | 1.128 | 1.185 | 1.038 | 12.63 |

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090613KAA.M
Title : TO15

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 57) | T | Styrene | 0.908 | 0.790 | 0.737 | 0.937 | 0.995 | 1.034 | 0.900 | 12.88 |
| 58) | T | Bromoform | 0.785 | 0.670 | 0.618 | 0.833 | 0.884 | 0.939 | 0.788 | 15.76 |
| 59) | T | 1,1,2,2-Tetrac... | 0.927 | 0.776 | 0.676 | 0.832 | 0.871 | 0.897 | 0.830 | 11.03 |
| 60) | T | 1,2,3-Trichlor... | 0.816 | 0.693 | 0.614 | 0.614 | 0.636 | 0.648 | 0.670 | 11.51 |
| 61) | T | 4-Ethyltoluene | 1.546 | 1.443 | 1.310 | 1.504 | 1.574 | 1.673 | 1.508 | 8.19 |
| 62) | T | 1,3,5-Trimethy... | 1.327 | 1.179 | 1.101 | 1.349 | 1.431 | 1.512 | 1.316 | 11.67 |
| 63) | T | 1,2,4-Trimethy... | 1.364 | 1.209 | 1.127 | 1.360 | 1.446 | 1.542 | 1.341 | 11.34 |
| 64) | T | 1,3-Dichlorobe... | 1.192 | 1.000 | 0.924 | 1.146 | 1.213 | 1.297 | 1.129 | 12.43 |
| 65) | T | 1,4-Dichlorobe... | 1.140 | 0.983 | 0.929 | 1.141 | 1.219 | 1.305 | 1.120 | 12.62 |
| 66) | T | Benzyl chloride | 1.072 | 1.041 | 0.931 | 1.121 | 1.187 | 1.246 | 1.100 | 10.14 |
| 67) | T | 1,2-Dichlorobe... | 1.103 | 0.983 | 0.862 | 1.059 | 1.128 | 1.207 | 1.057 | 11.48 |
| 68) | T | 1,2-Dibromo-3-... | 0.645 | 0.567 | 0.535 | 0.579 | 0.628 | 0.670 | 0.604 | 8.58 |
| 69) | T | 1,2,4-Trichlor... | 1.248 | 1.040 | 0.924 | 0.933 | 1.045 | 1.157 | 1.058 | 11.96 |
| 70) | T | Hexachlorobuta... | 1.335 | 1.202 | 1.107 | 0.867 | 0.935 | 0.988 | 1.072 | 16.41 |

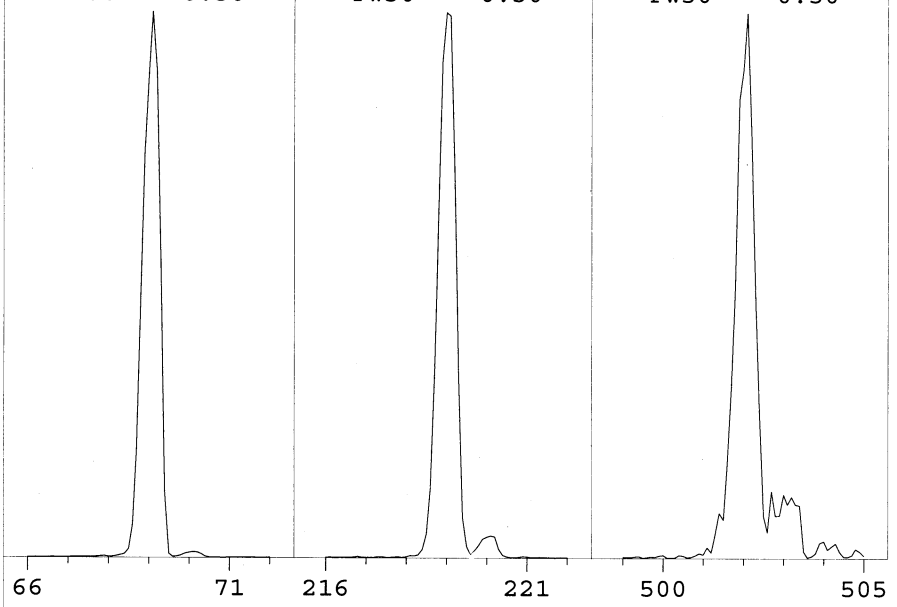
(#) = Out of Range

5973N

Fri Sep 06 10:58:10 2013
C:\msdchem\1\5973N\BFB090613KA.u

Instrument: HP5973K
US03960556

| | | | | | |
|---|---|---|---|---|---|
| Mass | 69.10 | Mass | 219.00 | Mass | 502.10 |
| Ab | 275559 | Ab | 108563 | Ab | 6138 |
| Pw50 | 0.50 | Pw50 | 0.50 | Pw50 | 0.50 |

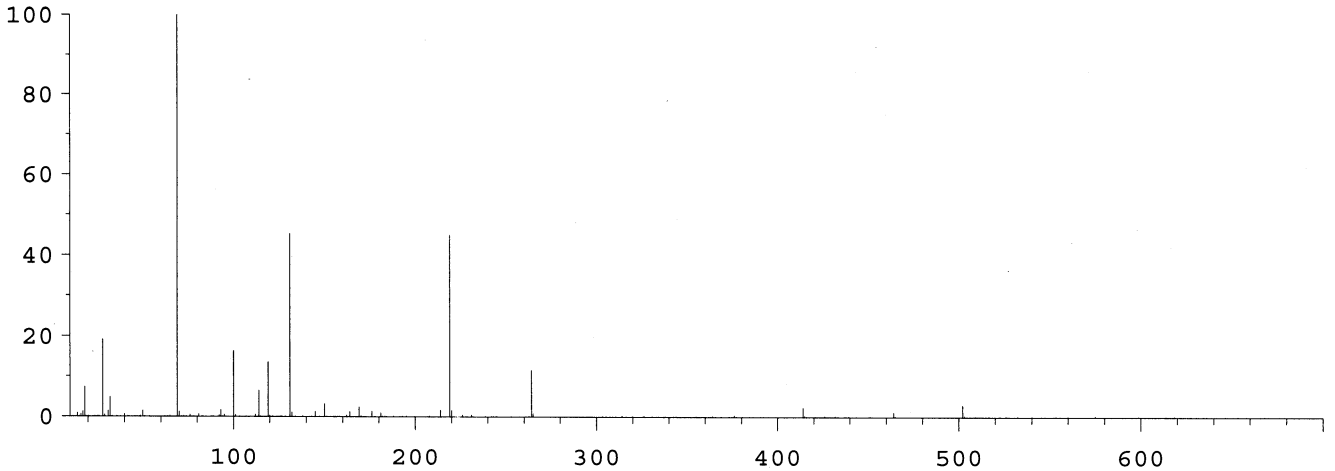



| | | | |
|---|---|---|---|
| Ion Pol | Pos | MassGain | 109 |
| | | MassOffs | -9 |
| Emission | 34.6 | AmuGain | 1987 |
| EIEnrgy | 69.9 | AmuOffs | 124 |
| Filament | 1 | Wid219 | -0.019 |
| | | DC Pol | Pos |
| Repeller | 19.90 | | |
| IonFcus | 63.6 | HEDEnab | On |
| EntLens | 9.5 | EMVolts | 2000 |
| EntOffs | 14.31 | | |
| | | Samples | 8 |
| PFTBA | Open | Averages | 3 |
| | | Stepsize | 0.10 |

Temperatures and Pressures:

| | | | |
|---|---|---|---|
| MS Source | 230 | TurboSpd | 100 |
| MS Quad | 150 | | |

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
279 peaks Base: 69.10 Abundance: 215104




| Mass | Abund | Rel Abund | Iso Mass | Iso Abund | Iso Ratio |
|---|---|---|---|---|---|
| 69.10 | 215104 | 100.00 | 70.10 | 2595 | 1.21 |
| 219.00 | 96904 | 45.05 | 220.00 | 3353 | 3.46 |
| 502.00 | 6236 | 2.90 | 503.20 | 681 | 10.92 |

Air/Water Check: H20~7.33% N2~19.18% O2~4.83% CO2~0.16% N2/H2O~261.71%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 637542
Repeller Maximum 20 volts using ion 219; Gain Factor 6.38

MassGain Values(Samples): 107(3) 108(2) 112(1) 106(0) 109(FS)

| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 800 |
|---|---|---|---|---|---|---|---|
| Amu Offset: | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 | 124.0 |
| Entrance Lens Offset: | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 999913K01.D
Acq On : 6 Sep 2013 11:41
Instrument: HP5973K
Operator : EM
Sample : S13I022-PRM1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 12:14:58 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

Nu

Em 9/6/13

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 806904 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2286922 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2057898 | 22.00 ppbv | 0.00 |
| Target Compounds | | | | | Qvalue |
| 2) Propene | 4.080 | 41 | 220189 | 10.42 ppbv | 96 |
| 3) Dichlorodifluoromethane | 4.171 | 85 | 925847 | 11.21 ppbv | 98 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 931672 | 10.66 ppbv | 91 |
| 5) Chloromethane | 4.695 | 50 | 261828 | 10.56 ppbv | 98 |
| 6) Vinyl chloride | 5.011 | 62 | 314998 | 11.07 ppbv | 98 |
| 7) 1,3-Butadiene | 5.102 | 54 | 239407 | 10.71 ppbv | 88 |
| 8) Bromomethane | 5.996 | 94 | 331312 | 11.27 ppbv | 98 |
| 9) Chloroethane | 6.307 | 64 | 187913 | 12.37 ppbv | 98 |
| 10) Bromoethene | 6.860 | 106 | 225310 | 8.67 ppbv | 96 |
| 11) Trichlorofluoromethane | 6.982 | 101 | 868503 | 11.32 ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 381333 | 7.73 ppbv | 85 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 345078 | 8.88 ppbv | 89 |
| 14) Acetone | 9.312 | 43 | 394492 | 10.96 ppbv | 93 |
| 15) Carbon disulfide | 9.494 | 76 | 599542 | 8.91 ppbv | 93 |
| 16) 2-Propanol | 9.963 | 45 | 258174 | 8.30 ppbv | 82 |
| 17) Allyl chloride | 10.346 | 41 | 258621 | 9.53 ppbv | 90 |
| 18) Dichloromethane | 10.930 | 49 | 286173 | 9.17 ppbv | 85 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 573472 | 9.34 ppbv | 97 |
| 20) trans-1,2-Dichloroethene | 11.678 | 61 | 326102 | 9.62 ppbv | 86 |
| 21) Hexane | 12.305 | 57 | 343405 | 9.40 ppbv | 88 |
| 22) 1,1-Dichloroethane | 13.066 | 63 | 432985 | 9.13 ppbv | 99 |
| 23) Vinyl acetate | 13.224 | 43 | 488737 | 9.52 ppbv | 95 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 322626 | 9.68 ppbv | 87 |
| 25) 2-Butanone (MEK) | 14.659 | 43 | 477834 | 9.99 ppbv | 92 |
| 26) Ethyl acetate | 14.708 | 43 | 454422 | 8.41 ppbv | 94 |
| 27) Tetrahydrofuran | 15.128 | 42 | 276502 | 9.48 ppbv | 90 |
| 28) Chloroform | 15.268 | 83 | 568518 | 9.86 ppbv | 96 |
| 29) Cyclohexane | 15.493 | 56 | 357673 | 9.35 ppbv | 90 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 627080 | 10.02 ppbv | 97 |
| 31) Carbon tetrachloride | 15.809 | 117 | 685761 | 10.14 ppbv | 100 |
| 33) Benzene | 16.308 | 78 | 814187 | 11.60 ppbv | 97 |
| 34) 2,2,4-Trimethylpentane | 16.265 | 57 | 1161761 | 11.73 ppbv | 96 |
| 35) 1,2-Dichloroethane | 16.515 | 62 | 409057 | 12.63 ppbv | 99 |
| 36) Heptane | 16.661 | 43 | 438694 | 12.28 ppbv | 96 |
| 37) Trichloroethene | 17.555 | 130 | 329991 | 9.76 ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 299961 | 11.71 ppbv | 90 |
| 39) 2,3-dichloro-1-propene | 18.133 | 75 | 412569 | 10.35 ppbv | 91 |
| 40) 1,4-Dioxane | 18.273 | 88 | 151693 | 10.22 ppbv | 88 |
| 41) Bromodichloromethane | 18.535 | 83 | 628097 | 11.89 ppbv | 97 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 411665 | 11.04 ppbv | 86 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 609469 | 12.16 ppbv | 93 |
| 45) Toluene | 19.788 | 91 | 955255 | 11.03 ppbv | 100 |
| 46) trans-1,3-Dichloropropene | 20.262 | 75 | 468894 | 12.57 ppbv | 91 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 339040 | 11.04 ppbv | 90 |
| 48) Tetrachloroethene | 20.646 | 166 | 496659 | 9.47 ppbv | 96 |



00576

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 999913K01.D
Acq On : 6 Sep 2013 11:41
Instrument: HP5973K
Operator : EM
Sample : S13I022-PRM1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 12:14:58 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 49) | 1,3-Dichloropropane | 20.852 | 76 | 453229 | 9.92 | ppbv | | 90 |
| 50) | 2-Hexanone | 20.907 | 43 | 585438 | 12.29 | ppbv | | 90 |
| 51) | Chlorodibromomethane | 21.175 | 129 | 656761 | 10.65 | ppbv | | 97 |
| 52) | 1,2-Dibromoethane (EDB) | 21.400 | 107 | 532399 | 10.91 | ppbv | | 99 |
| 53) | Chlorobenzene | 22.118 | 112 | 818189 | 10.47 | ppbv | | 94 |
| 54) | Ethylbenzene | 22.215 | 91 | 1314502 | 11.10 | ppbv | | 96 |
| 55) | m&p-Xylene | 22.398 | 91 | 2288661 | 23.54 | ppbv | | 96 |
| 56) | o-Xylene | 23.043 | 91 | 1121423 | 11.55 | ppbv | | 96 |
| 57) | Styrene | 23.079 | 104 | 917712 | 10.90 | ppbv | | 95 |
| 58) | Bromoform | 23.456 | 173 | 752106 | 10.20 | ppbv | | 97 |
| 59) | 1,1,2,2-Tetrachloroethane | 24.156 | 83 | 862264 | 11.11 | ppbv | | 99 |
| 60) | 1,2,3-Trichloropropane | 24.265 | 75 | 613371 | 9.78 | ppbv | | 97 |
| 61) | 4-Ethyltoluene | 24.393 | 105 | 1446516 | 10.25 | ppbv | | 97 |
| 62) | 1,3,5-Trimethylbenzene | 24.490 | 105 | 1341039 | 10.89 | ppbv | | 97 |
| 63) | 1,2,4-Trimethylbenzene | 25.087 | 105 | 1361688 | 10.85 | ppbv | | 95 |
| 64) | 1,3-Dichlorobenzene | 25.622 | 146 | 997496 | 9.45 | ppbv | | 96 |
| 65) | 1,4-Dichlorobenzene | 25.768 | 146 | 992858 | 9.48 | ppbv | | 98 |
| 66) | Benzyl chloride | 25.981 | 91 | 1076626 | 10.47 | ppbv | | 96 |
| 67) | 1,2-Dichlorobenzene | 26.370 | 146 | 915892 | 9.26 | ppbv | | 97 |
| 68) | 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 404198 | 7.15 | ppbv | # | 76 |
| 69) | 1,2,4-Trichlorobenzene | 28.834 | 180 | 684900 | 6.92 | ppbv | | 99 |
| 70) | Hexachlorobutadiene | 28.968 | 225 | 697482 | 6.95 | ppbv | | 99 |

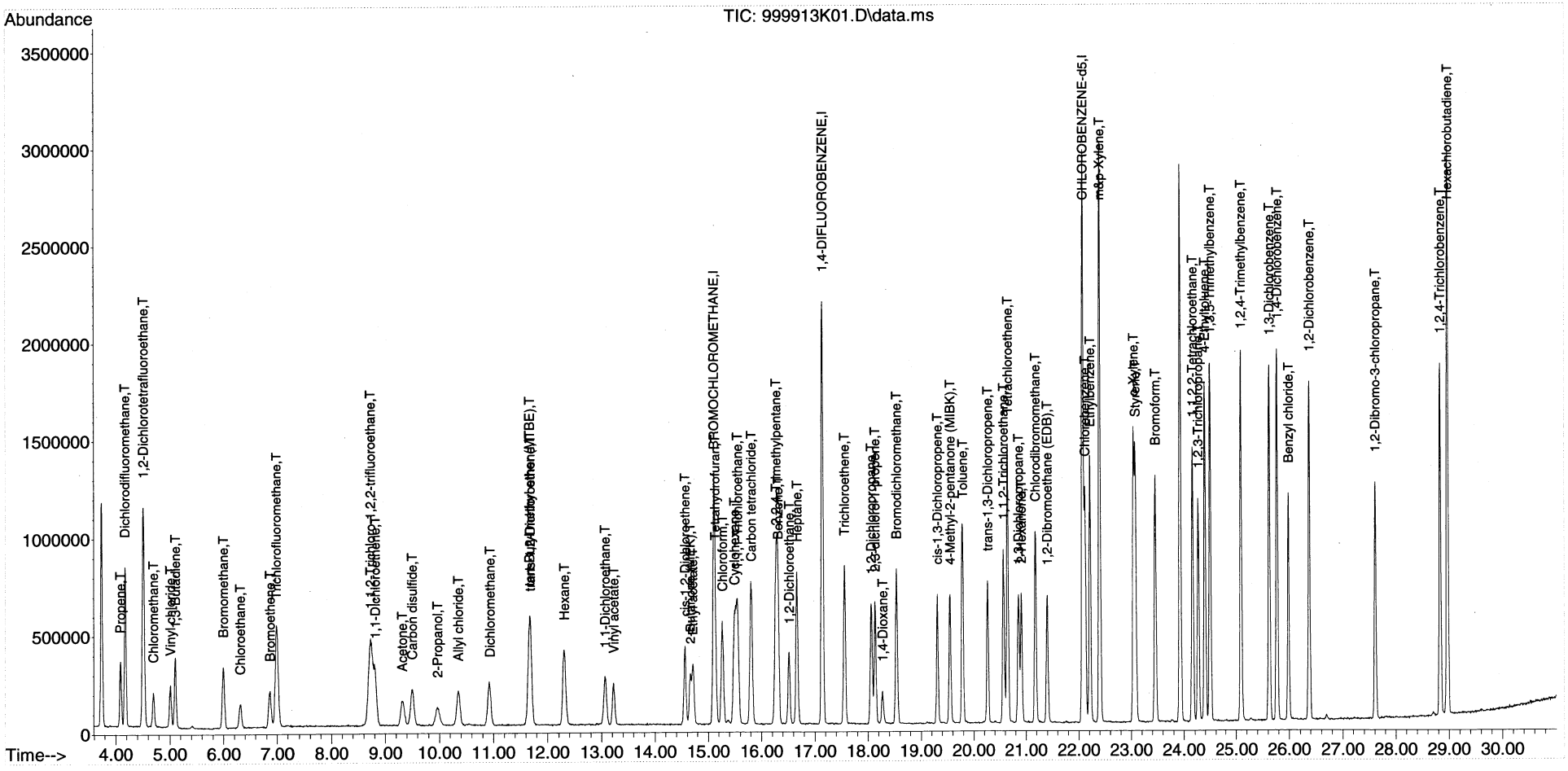
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 999913K01.D
Acq On : 6 Sep 2013 11:41
Instrument: HP5973K
Operator : EM
Sample : S13I022-PRM1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 12:14:58 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

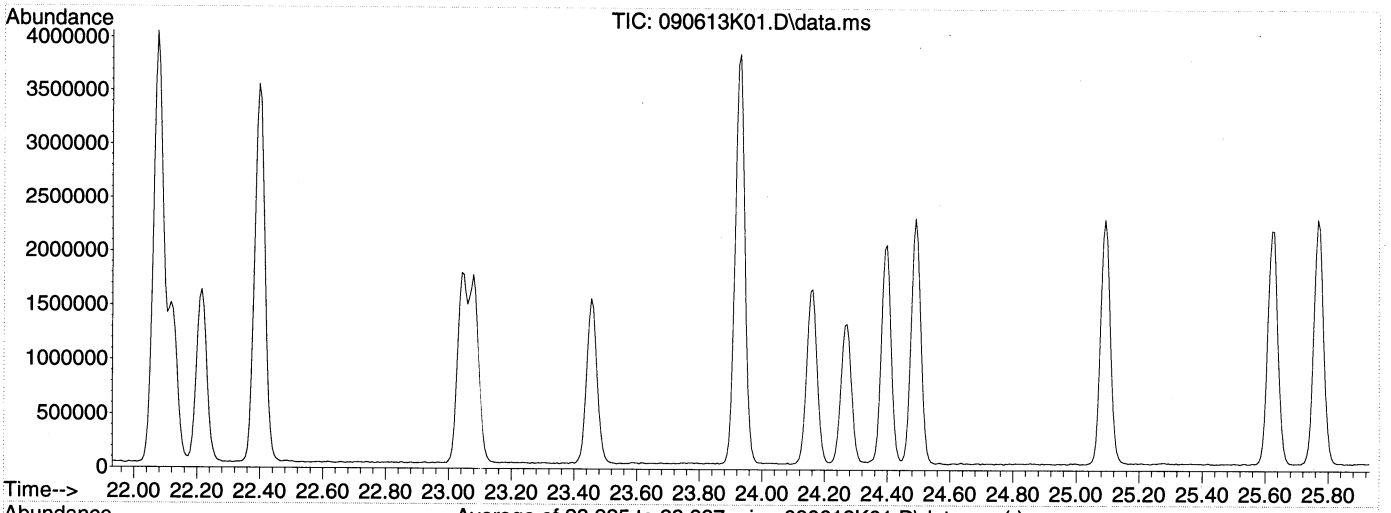


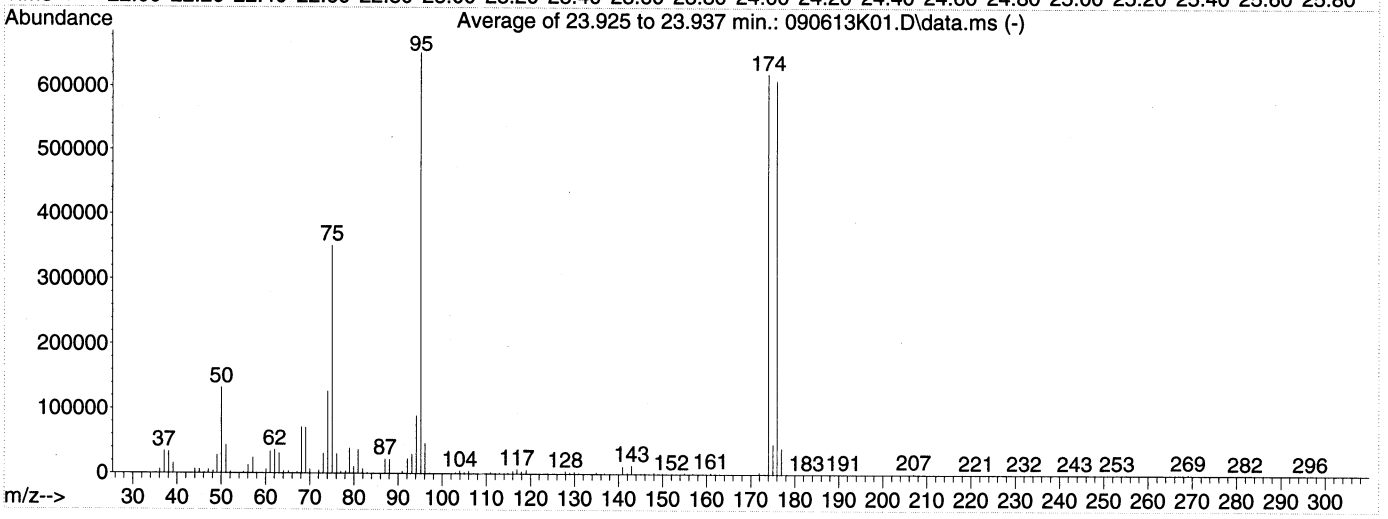
BFB

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K01.D
Acq On : 6 Sep 2013 12:31
Operator : EM
Sample : S13I022-TUN1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013




AutoFind: Scans 3344, 3345, 3346; Background Corrected with Scan 3332

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 20.2 | 132253 | PASS |
| 75 | 95 | 30 | 66 | 53.7 | 351136 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 653739 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 46097 | PASS |
| 173 | 174 | 0.00 | 2 | 0.2 | 1393 | PASS |
| 174 | 95 | 50 | 120 | 94.9 | 620373 | PASS |
| 175 | 174 | 4 | 9 | 7.5 | 46552 | PASS |
| 176 | 174 | 93 | 101 | 98.4 | 610197 | PASS |
| 177 | 176 | 5 | 9 | 6.5 | 39660 | PASS |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 35.40 | 372 | 44.00 | 6867 | 54.10 | 418 | 64.05 | 3423 |
| 36.10 | 6194 | 45.05 | 6119 | 55.05 | 1712 | 65.15 | 3078 |
| 37.05 | 33806 | 45.90 | 137 | 56.05 | 12623 | 66.10 | 687 |
| 38.10 | 33165 | 46.25 | 598 | 57.10 | 23992 | 67.15 | 2148 |
| 39.10 | 15521 | 47.10 | 5980 | 58.00 | 923 | 68.10 | 71579 |
| 40.10 | 493 | 48.15 | 3993 | 59.15 | 340 | 69.05 | 70517 |
| 41.15 | 363 | 49.05 | 28269 | 59.40 | 193 | 70.05 | 6777 |
| 41.90 | 135 | 50.05 | 132253 | 60.10 | 6333 | 72.05 | 4872 |
| 42.20 | 161 | 51.05 | 43473 | 61.05 | 33639 | 73.05 | 30886 |
| 42.40 | 152 | 52.10 | 2028 | 62.05 | 35714 | 74.10 | 126735 |
| 43.20 | 321 | 53.05 | 383 | 63.10 | 30800 | 75.05 | 351136 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 76.10 | 30316 | 86.10 | 110 | 96.10 | 46097 | 102.25 | 173 |
| 77.05 | 2729 | 87.05 | 22479 | 96.95 | 397 | 103.00 | 1032 |
| 78.10 | 3187 | 88.05 | 22232 | 97.15 | 682 | 103.95 | 4375 |
| 79.00 | 38566 | 89.20 | 315 | 98.25 | 83 | 104.95 | 1545 |
| 79.95 | 10518 | 89.60 | 260 | 98.95 | 132 | 106.00 | 3668 |
| 80.95 | 36272 | 89.80 | 50 | 99.15 | 48 | 107.05 | 709 |
| 81.95 | 7116 | 90.95 | 3470 | 100.00 | 45 | 108.00 | 209 |
| 83.05 | 1018 | 92.10 | 23016 | 100.80 | 10 | 108.95 | 255 |
| 84.15 | 91 | 93.10 | 30125 | 101.05 | 81 | 109.20 | 42 |
| 84.50 | 36 | 94.10 | 89302 | 101.30 | 298 | 110.00 | 944 |
| 85.80 | 286 | 95.10 | 653739 | 101.60 | 76 | 110.90 | 1556 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 111.75 | 138 | 120.20 | 154 | 125.50 | 43 | 133.80 | 125 |
| 112.05 | 725 | 120.50 | 70 | 125.85 | 368 | 134.05 | 400 |
| 112.95 | 1169 | 121.15 | 203 | 126.90 | 328 | 134.95 | 2282 |
| 114.00 | 569 | 121.80 | 156 | 127.15 | 293 | 135.90 | 201 |
| 114.85 | 974 | 122.00 | 94 | 127.95 | 3650 | 136.05 | 291 |
| 115.10 | 253 | 122.90 | 315 | 128.95 | 1618 | 136.80 | 1209 |
| 116.00 | 3993 | 123.30 | 142 | 129.95 | 2789 | 138.00 | 119 |
| 116.95 | 6547 | 123.50 | 146 | 130.95 | 1244 | 138.20 | 107 |
| 117.95 | 3419 | 123.85 | 550 | 131.90 | 304 | 138.85 | 338 |
| 119.00 | 5559 | 125.00 | 303 | 133.00 | 130 | 139.50 | 32 |
| 119.95 | 225 | 125.20 | 113 | 133.55 | 97 | 139.90 | 303 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 140.95 | 11819 | 149.30 | 60 | 156.90 | 1094 | 164.55 | 169 |
| 141.95 | 1899 | 150.00 | 1288 | 157.10 | 279 | 165.00 | 120 |
| 143.00 | 13255 | 150.60 | 77 | 158.10 | 189 | 165.60 | 71 |
| 143.80 | 745 | 150.85 | 128 | 158.80 | 323 | 168.20 | 25 |
| 145.05 | 698 | 152.00 | 182 | 159.10 | 719 | 168.55 | 71 |
| 145.90 | 1471 | 152.20 | 122 | 159.85 | 160 | 168.95 | 83 |
| 146.85 | 407 | 153.00 | 624 | 160.95 | 1993 | 169.70 | 189 |
| 147.05 | 1 | 154.00 | 301 | 161.75 | 95 | 170.70 | 68 |
| 148.00 | 2267 | 154.95 | 1554 | 162.05 | 87 | 171.05 | 243 |
| 148.80 | 48 | 155.70 | 53 | 162.85 | 155 | 171.95 | 3205 |
| 149.00 | 479 | 156.20 | 32 | 164.00 | 122 | 173.00 | 1393 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 174.00 | 620373 | 184.30 | 59 | 191.10 | 217 | 199.10 | 91 |
| 175.00 | 46552 | 184.70 | 15 | 191.65 | 176 | 199.80 | 51 |
| 176.00 | 610197 | 185.30 | 37 | 192.70 | 118 | 200.10 | 7 |
| 177.00 | 39660 | 185.70 | 13 | 193.10 | 158 | 200.35 | 152 |
| 178.15 | 638 | 186.20 | 24 | 193.30 | 50 | 201.50 | 105 |
| 179.60 | 11 | 186.40 | 78 | 193.80 | 85 | 202.10 | 107 |
| 179.80 | 7 | 187.20 | 56 | 195.30 | 51 | 202.60 | 75 |
| 180.15 | 200 | 187.95 | 76 | 195.80 | 98 | 203.00 | 13 |
| 180.80 | 34 | 188.70 | 68 | 196.55 | 57 | 203.30 | 51 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 182.70 | 9 | 189.15 | 120 | 197.65 | 132 | 203.75 | 118 |
| 183.70 | 52 | 190.05 | 95 | 198.25 | 72 | 204.30 | 90 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 204.60 | 55 | 213.80 | 155 | 222.20 | 8 | 229.90 | 9 |
| 205.30 | 66 | 215.30 | 7 | 223.70 | 8 | 231.20 | 90 |
| 207.05 | 1593 | 216.10 | 21 | 224.20 | 26 | 231.40 | 14 |
| 207.80 | 11 | 216.20 | 85 | 224.60 | 11 | 231.80 | 148 |
| 208.05 | 121 | 217.20 | 80 | 224.85 | 54 | 232.00 | 249 |
| 209.05 | 230 | 217.80 | 94 | 225.10 | 60 | 232.95 | 21 |
| 209.30 | 43 | 218.10 | 34 | 226.20 | 145 | 233.35 | 84 |
| 209.65 | 63 | 219.05 | 97 | 226.95 | 48 | 233.95 | 33 |
| 210.60 | 62 | 220.35 | 43 | 227.65 | 97 | 234.30 | 150 |
| 211.55 | 32 | 221.10 | 100 | 228.60 | 14 | 235.10 | 91 |
| 212.65 | 85 | 221.70 | 48 | 229.00 | 55 | 235.70 | 47 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 236.45 | 47 | 244.20 | 37 | 252.95 | 734 | 260.15 | 23 |
| 236.95 | 63 | 244.65 | 95 | 254.10 | 332 | 260.90 | 10 |
| 237.60 | 36 | 245.40 | 76 | 255.00 | 252 | 261.65 | 41 |
| 238.15 | 36 | 245.75 | 158 | 255.15 | 203 | 261.90 | 124 |
| 239.80 | 85 | 246.45 | 100 | 256.05 | 96 | 262.25 | 34 |
| 240.25 | 137 | 248.00 | 81 | 256.70 | 138 | 262.60 | 54 |
| 240.70 | 65 | 248.95 | 10 | 256.95 | 59 | 263.35 | 86 |
| 241.50 | 97 | 249.45 | 266 | 257.50 | 8 | 263.90 | 27 |
| 242.05 | 82 | 250.00 | 92 | 258.15 | 165 | 264.20 | 7 |
| 242.30 | 28 | 250.90 | 49 | 258.90 | 11 | 264.85 | 99 |
| 243.40 | 165 | 251.35 | 74 | 259.30 | 85 | 265.20 | 21 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 266.10 | 129 | 272.85 | 56 | 278.10 | 109 | 284.30 | 14 |
| 266.85 | 115 | 273.10 | 8 | 279.25 | 68 | 286.15 | 174 |
| 267.20 | 128 | 273.30 | 31 | 280.10 | 88 | 286.85 | 15 |
| 267.80 | 87 | 273.50 | 14 | 280.50 | 202 | 287.10 | 27 |
| 268.10 | 19 | 273.90 | 73 | 280.70 | 78 | 288.10 | 13 |
| 269.05 | 1836 | 274.60 | 40 | 281.25 | 149 | 288.90 | 1 |
| 269.80 | 316 | 275.40 | 85 | 281.90 | 237 | 289.20 | 43 |
| 270.90 | 9 | 275.70 | 46 | 282.25 | 4 | 289.60 | 11 |
| 271.10 | 128 | 276.80 | 167 | 282.80 | 91 | 290.35 | 104 |
| 271.40 | 28 | 277.10 | 122 | 283.20 | 32 | 291.20 | 11 |
| 271.85 | 46 | 277.70 | 19 | 284.10 | 16 | 291.70 | 31 |

Average of 23.925 to 23.937 min.: 090613K01.D\data.ms
S13I022-TUN1
Modified:subtracted

| m/z | abund. | m/z | abund. | m/z | abund. | m/z | abund. |
|---|---|---|---|---|---|---|---|
| 293.10 | 19 | | | | | | |
| 293.75 | 60 | | | | | | |
| 294.20 | 24 | | | | | | |
| 294.40 | 28 | | | | | | |
| 295.05 | 80 | | | | | | |
| 295.70 | 27 | | | | | | |
| 296.60 | 148 | | | | | | |
| 297.10 | 33 | | | | | | |
| 298.10 | 47 | | | | | | |
| 299.05 | 77 | | | | | | |
| 299.90 | 89 | | | | | | |

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K02.D
Acq On : 6 Sep 2013 13:21
Instrument: HP5973K
Operator : EM
Sample : S13I022-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

2 out (low)
Em 9/6/13

Quant Time: Sep 06 14:48:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | I | BROMOCHLOROMETHANE | 1.000 | 1.000 | 0.0 | 105 | 0.00 |
| 2 | T | Propene | 0.576 | 0.459 | 20.3 | 84 | 0.00 |
| 3 | T | Dichlorodifluoromethane | 2.253 | 1.985 | 11.9 | 87 | 0.00 |
| 4 | T | 1,2-Dichlorotetrafluoroetha | 2.382 | 1.971 | 17.3 | 84 | 0.00 |
| 5 | T | Chloromethane | 0.676 | 0.557 | 17.6 | 86 | 0.00 |
| 6 | T | Vinyl chloride | 0.776 | 0.662 | 14.7 | 86 | 0.00 |
| 7 | T | 1,3-Butadiene | 0.610 | 0.509 | 16.6 | 86 | 0.00 |
| 8 | T | Bromomethane | 0.802 | 0.681 | 15.1 | 87 | 0.00 |
| 9 | T | Chloroethane | 0.414 | 0.392 | 5.3 | 97 | 0.00 |
| 10 | T | Bromoethene | 0.708 | 0.510 | 28.0 | 73 | 0.00 |
| 11 | T | Trichlorofluoromethane | 2.092 | 1.903 | 9.0 | 91 | 0.00 |
| 12 | T | 1,1,2-Trichloro-1,2,2-trifl | 1.345 | 0.992 | 26.2 | 74 | 0.00 |
| 13 | T | 1,1-Dichloroethene | 1.059 | 0.926 | 12.6 | 85 | 0.00 |
| 14 | T | Acetone | 0.982 | 0.908 | 7.5 | 92 | 0.00 |
| 15 | T | Carbon disulfide | 1.835 | 1.399 | 23.8 | 81 | 0.00 |
| 16 | T | 2-Propanol | 0.848 | 0.732 | 13.7 | 83 | 0.00 |
| 17 | T | Allyl chloride | 0.740 | 0.642 | 13.2 | 86 | -0.01 |
| 18 | T | Dichloromethane | 0.851 | 0.746 | 12.3 | 91 | 0.00 |
| 19 | T | tert-Butyl methyl ether (MT | 1.674 | 1.393 | 16.8 | 81 | 0.00 |
| 20 | T | trans-1,2-Dichloroethene | 0.924 | 0.817 | 11.6 | 89 | 0.00 |
| 21 | T | Hexane | 0.996 | 0.840 | 15.7 | 83 | 0.00 |
| 22 | T | 1,1-Dichloroethane | 1.293 | 1.102 | 14.8 | 87 | 0.00 |
| 23 | T | Vinyl acetate | 1.399 | 1.289 | 7.9 | 84 | 0.00 |
| 24 | T | cis-1,2-Dichloroethene | 0.908 | 0.820 | 9.7 | 85 | 0.00 |
| 25 | T | 2-Butanone (MEK) | 1.304 | 1.066 | 18.3 | 82 | 0.00 |
| 26 | T | Ethyl acetate | 1.473 | 1.317 | 10.6 | 88 | 0.00 |
| 27 | T | Tetrahydrofuran | 0.795 | 0.702 | 11.7 | 91 | -0.01 |
| 28 | T | Chloroform | 1.572 | 1.396 | 11.2 | 89 | 0.00 |
| 29 | T | Cyclohexane | 1.043 | 0.898 | 13.9 | 86 | 0.00 |
| 30 | T | 1,1,1-Trichloroethane | 1.706 | 1.581 | 7.3 | 91 | 0.00 |
| 31 | T | Carbon tetrachloride | 1.844 | 1.719 | 6.8 | 91 | 0.00 |
| 32 | I | 1,4-DIFLUOROBENZENE | 1.000 | 1.000 | 0.0 | 90 | 0.00 |
| 33 | T | Benzene | 0.675 | 0.668 | 1.0 | 83 | 0.00 |
| 34 | T | 2,2,4-Trimethylpentane | 0.953 | 0.966 | -1.4 | 87 | 0.00 |
| 35 | T | 1,2-Dichloroethane | 0.311 | 0.349 | -12.2 | 98 | 0.00 |
| 36 | T | Heptane | 0.344 | 0.368 | -7.0 | 92 | 0.00 |
| 37 | T | Trichloroethene | 0.325 | 0.275 | 15.4 | 73 | 0.00 |
| 38 | T | 1,2-Dichloropropane | 0.246 | 0.246 | 0.0 | 84 | 0.00 |
| 39 | T | 2,3-dichloro-1-propene | 0.384 | 0.351 | 8.6 | 87 | 0.00 |
| 40 | T | 1,4-Dioxane | 0.143 | 0.129 | 9.8 | 78 | 0.00 |
| 41 | T | Bromodichloromethane | 0.508 | 0.516 | -1.6 | 90 | 0.00 |
| 42 | T | cis-1,3-Dichloropropene | 0.359 | 0.365 | -1.7 | 86 | 0.00 |
| 43 | T | 4-Methyl-2-pentanone (MIBK) | 0.482 | 0.506 | -5.0 | 92 | 0.00 |
| 44 | I | CHLOROBENZENE-d5 | 1.000 | 1.000 | 0.0 | 93 | 0.00 |
| 45 | T | Toluene | 0.926 | 0.866 | 6.5 | 80 | 0.00 |



: 005882

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K02.D
Acq On : 6 Sep 2013 13:21
Instrument: HP5973K
Operator : EM
Sample : S13I022-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:48:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 46 | T | trans-1,3-Dichloropropene | 0.399 | 0.408 | -2.3 | 89 | 0.00 |
| 47 | T | 1,1,2-Trichloroethane | 0.328 | 0.296 | 9.8 | 81 | 0.00 |
| 48 | T | Tetrachloroethene | 0.561 | 0.455 | 18.9 | 74 | 0.00 |
| 49 | T | 1,3-Dichloropropane | 0.489 | 0.419 | 14.3 | 85 | 0.00 |
| 50 | T | 2-Hexanone | 0.509 | 0.528 | -3.7 | 92 | 0.00 |
| 51 | T | Chlorodibromomethane | 0.659 | 0.599 | 9.1 | 84 | 0.00 |
| 52 | T | 1,2-Dibromoethane (EDB) | 0.522 | 0.484 | 7.3 | 83 | 0.00 |
| 53 | T | Chlorobenzene | 0.835 | 0.748 | 10.4 | 81 | 0.00 |
| 54 | T | Ethylbenzene | 1.266 | 1.187 | 6.2 | 84 | 0.00 |
| 55 | T | m&p-Xylene | 1.039 | 1.027 | 1.2 | 88 | 0.00 |
| 56 | T | o-Xylene | 1.038 | 1.002 | 3.5 | 85 | 0.00 |
| 57 | T | Styrene | 0.900 | 0.831 | 7.7 | 82 | 0.00 |
| 58 | T | Bromoform | 0.788 | 0.693 | 12.1 | 77 | 0.00 |
| 59 | T | 1,1,2,2-Tetrachloroethane | 0.830 | 0.777 | 6.4 | 87 | 0.00 |
| 60 | T | 1,2,3-Trichloropropane | 0.670 | 0.594 | 11.3 | 90 | 0.00 |
| 61 | T | 4-Ethyltoluene | 1.508 | 1.322 | 12.3 | 81 | 0.00 |
| 62 | T | 1,3,5-Trimethylbenzene | 1.316 | 1.254 | 4.7 | 86 | 0.00 |
| 63 | T | 1,2,4-Trimethylbenzene | 1.341 | 1.240 | 7.5 | 84 | 0.00 |
| 64 | T | 1,3-Dichlorobenzene | 1.129 | 0.938 | 16.9 | 76 | 0.00 |
| 65 | T | 1,4-Dichlorobenzene | 1.120 | 0.934 | 16.6 | 76 | 0.00 |
| 66 | T | Benzyl chloride | 1.100 | 1.004 | 8.7 | 83 | 0.00 |
| 67 | T | 1,2-Dichlorobenzene | 1.057 | 0.879 | 16.8 | 77 | 0.00 |
| 68 | T | 1,2-Dibromo-3-chloropropane | 0.604 | 0.445 | 26.3 | 71 | 0.00 |
| 69 | T | 1,2,4-Trichlorobenzene | 1.058 | 0.706 | 33.3# | 70 | 0.00 |
| 70 | T | Hexachlorobutadiene | 1.072 | 0.664 | 38.1# | 71 | 0.00 |

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

% Dev #70 HCB = $\frac{1.072 - 0.664}{1.072} \times 100 = 38.1\%$

RF #70 HCB $\frac{893341\ (10)}{2872528\ (10.3)} = 0.664$

em 9/6/13



: 000583

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K02.D
Acq On : 6 Sep 2013 13:21
Instrument: HP5973K
Operator : EM
Sample : S13I022-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:48:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.110 | 49 | 1039963 | 22.00 | ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.148 | 114 | 3061159 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2872528 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 232301 | 8.53 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 947877 | 8.90 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 969188 | 8.61 | ppbv | 92 |
| 5) Chloromethane | 4.707 | 50 | 271142 | 8.48 | ppbv | 99 |
| 6) Vinyl chloride | 5.011 | 62 | 328545 | 8.96 | ppbv | 98 |
| 7) 1,3-Butadiene | 5.102 | 54 | 245316 | 8.51 | ppbv | 85 |
| 8) Bromomethane | 5.996 | 94 | 334952 | 8.84 | ppbv | 100 |
| 9) Chloroethane | 6.307 | 64 | 192985 | 9.85 | ppbv | 99 |
| 10) Bromoethene | 6.854 | 106 | 248579 | 7.42 | ppbv | 96 |
| 11) Trichlorofluoromethane | 6.994 | 101 | 944935 | 9.56 | ppbv | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.740 | 151 | 436050 | 6.86 | ppbv | 89 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 411741 | 8.22 | ppbv | 91 |
| 14) Acetone | 9.324 | 43 | 454875 | 9.80 | ppbv | 95 |
| 15) Carbon disulfide | 9.500 | 76 | 674875 | 7.78 | ppbv | 92 |
| 16) 2-Propanol | 9.963 | 45 | 329002 | 8.20 | ppbv | 90 |
| 17) Allyl chloride | 10.346 | 41 | 306459 | 8.76 | ppbv | 91 |
| 18) Dichloromethane | 10.924 | 49 | 338690 | 8.42 | ppbv | 83 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 717792 | 9.07 | ppbv | 98 |
| 20) trans-1,2-Dichloroethene | 11.678 | 61 | 367179 | 8.41 | ppbv | 90 |
| 21) Hexane | 12.311 | 57 | 405153 | 8.61 | ppbv | 91 |
| 22) 1,1-Dichloroethane | 13.065 | 63 | 510424 | 8.35 | ppbv | 99 |
| 23) Vinyl acetate | 13.224 | 43 | 609119 | 9.21 | ppbv | 97 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 391608 | 9.12 | ppbv | 87 |
| 25) 2-Butanone (MEK) | 14.665 | 43 | 524074 | 8.50 | ppbv | 95 |
| 26) Ethyl acetate | 14.714 | 43 | 647508 | 9.30 | ppbv | 98 |
| 27) Tetrahydrofuran | 15.128 | 42 | 341934 | 9.10 | ppbv | 87 |
| 28) Chloroform | 15.274 | 83 | 666580 | 8.97 | ppbv | 96 |
| 29) Cyclohexane | 15.493 | 56 | 441623 | 8.96 | ppbv | 89 |
| 30) 1,1,1-Trichloroethane | 15.554 | 97 | 747537 | 9.27 | ppbv | 97 |
| 31) Carbon tetrachloride | 15.815 | 117 | 812765 | 9.32 | ppbv | 100 |
| 33) Benzene | 16.308 | 78 | 958317 | 10.20 | ppbv | 97 |
| 34) 2,2,4-Trimethylpentane | 16.271 | 57 | 1412009 | 10.65 | ppbv | 96 |
| 35) 1,2-Dichloroethane | 16.515 | 62 | 485236 | 11.20 | ppbv | 100 |
| 36) Heptane | 16.661 | 43 | 537368 | 11.23 | ppbv | 95 |
| 37) Trichloroethene | 17.561 | 130 | 393527 | 8.69 | ppbv | 93 |
| 38) 1,2-Dichloropropane | 18.066 | 63 | 362760 | 10.58 | ppbv | 91 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 508155 | 9.52 | ppbv | 90 |
| 40) 1,4-Dioxane | 18.267 | 88 | 189851 | 9.55 | ppbv | 92 |
| 41) Bromodichloromethane | 18.541 | 83 | 761393 | 10.77 | ppbv | 98 |
| 42) cis-1,3-Dichloropropene | 19.313 | 75 | 523619 | 10.49 | ppbv | 87 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 739921 | 11.03 | ppbv | 95 |
| 45) Toluene | 19.782 | 91 | 1176793 | 9.73 | ppbv | 98 |
| 46) trans-1,3-Dichloropropene | 20.262 | 75 | 586451 | 11.26 | ppbv | 92 |
| 47) 1,1,2-Trichloroethane | 20.573 | 97 | 417731 | 9.75 | ppbv | 93 |
| 48) Tetrachloroethene | 20.646 | 166 | 617720 | 8.44 | ppbv | 96 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K02.D
Acq On : 6 Sep 2013 13:21
Instrument: HP5973K
Operator : EM
Sample : S13I022-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:48:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.852 | 76 | 563329 | 8.83 | ppbv | | 87 |
| 50) 2-Hexanone | 20.913 | 43 | 710244 | 10.68 | ppbv | | 91 |
| 51) Chlorodibromomethane | 21.181 | 129 | 814009 | 9.46 | ppbv | | 97 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 675836 | 9.92 | ppbv | | 98 |
| 53) Chlorobenzene | 22.124 | 112 | 1035087 | 9.49 | ppbv | | 94 |
| 54) Ethylbenzene | 22.215 | 91 | 1627898 | 9.85 | ppbv | | 97 |
| 55) m&p-Xylene | 22.398 | 91 | 2842140 | 20.95 | ppbv | | 95 |
| 56) o-Xylene | 23.049 | 91 | 1400362 | 10.33 | ppbv | | 97 |
| 57) Styrene | 23.085 | 104 | 1128396 | 9.60 | ppbv | | 95 |
| 58) Bromoform | 23.456 | 173 | 932339 | 9.06 | ppbv | | 98 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1075934 | 9.93 | ppbv | | 99 |
| 60) 1,2,3-Trichloropropane | 24.271 | 75 | 752974 | 8.60 | ppbv | | 96 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 1813061 | 9.21 | ppbv | | 98 |
| 62) 1,3,5-Trimethylbenzene | 24.490 | 105 | 1703696 | 9.91 | ppbv | | 96 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 1732690 | 9.89 | ppbv | | 95 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 1261802 | 8.56 | ppbv | | 97 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 1268370 | 8.68 | ppbv | | 97 |
| 66) Benzyl chloride | 25.987 | 91 | 1349980 | 9.40 | ppbv | | 97 |
| 67) 1,2-Dichlorobenzene | 26.376 | 146 | 1193959 | 8.65 | ppbv | | 96 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 523362 | 6.64 | ppbv | # | 79 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 940410 | 6.81 | ppbv | | 99 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 893341 | 6.38 | ppbv | | 99 |

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



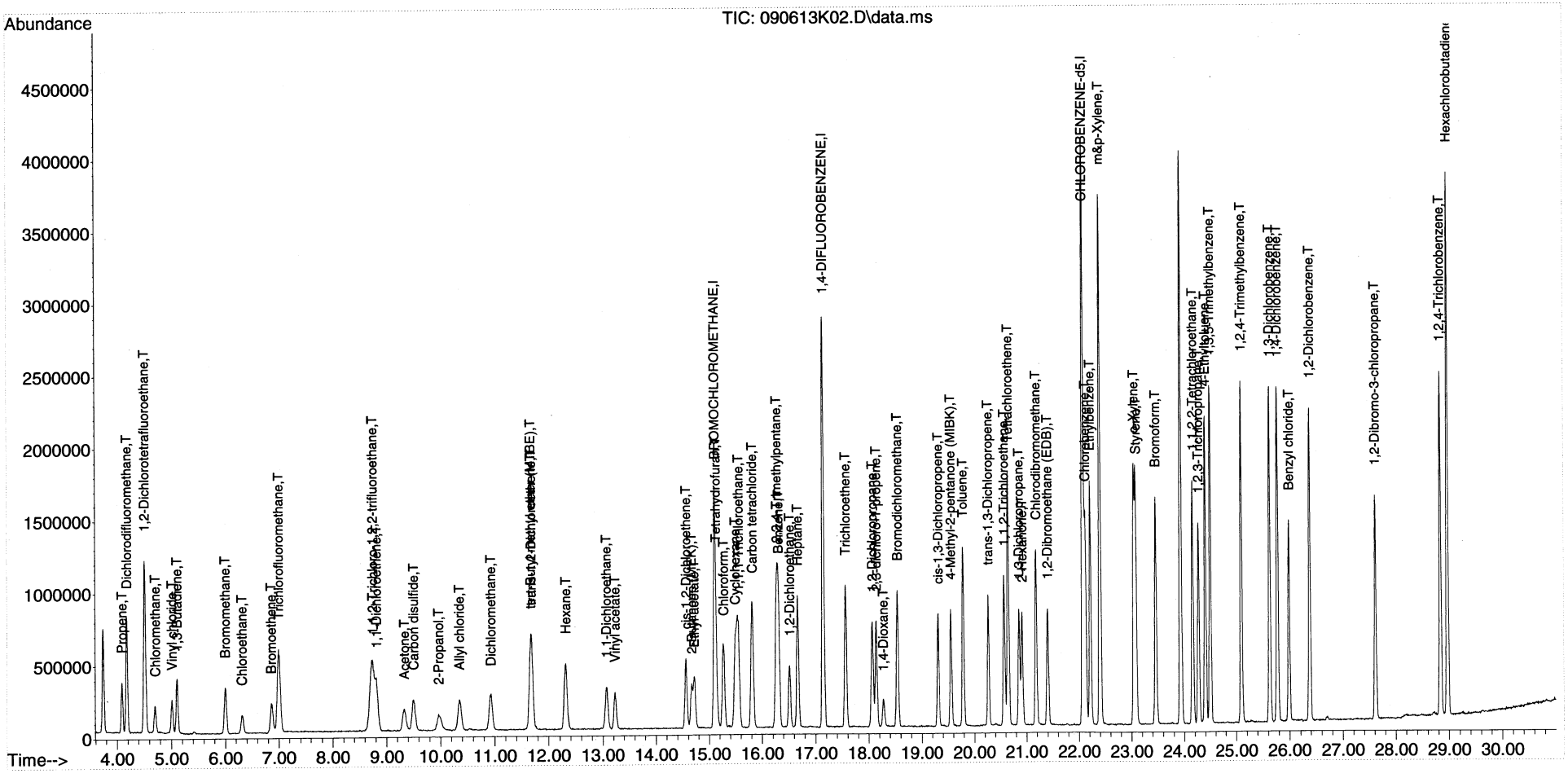
00585

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K02.D
Acq On : 6 Sep 2013 13:21
Instrument: HP5973K
Operator : EM
Sample : S13I022-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:48:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M



# LCS REPORT

Instrument Name: HP5973K
Sample Name: B13I031-BS1
Misc Info: 10 ppbv 1335007
Date Acquired: 9/6/2013 14:10
QLast Update: Wed Aug 28 11:07:04 2013
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS |
|---|---|---|---|---|---|---|---|---|
| 1) | BROMOCHLOROMETHANE | 15.10 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 2) | Propene | 4.09 | 10.70 | 9.08 | 85% | 56.0 | 155.0 | pass |
| 3) | Dichlorodifluoromethane | 4.18 | 10.10 | 9.38 | 93% | 67.0 | 141.0 | pass |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.51 | 10.40 | 9.25 | 89% | 68.0 | 147.0 | pass |
| 5) | Chloromethane | 4.70 | 10.30 | 8.94 | 87% | 64.0 | 141.0 | pass |
| 6) | Vinyl chloride | 5.01 | 10.50 | 9.70 | 92% | 65.0 | 141.0 | pass |
| 7) | 1,3-Butadiene | 5.10 | 10.20 | 9.22 | 90% | 61.0 | 154.0 | pass |
| 8) | Bromomethane | 6.00 | 10.40 | 9.48 | 91% | 71.0 | 132.0 | pass |
| 9) | Chloroethane | 6.31 | 10.40 | 10.14 | 97% | 70.0 | 134.0 | pass |
| 10) | Bromoethene | 6.86 | 10.30 | 7.95 | 77% | 71.0 | 146.0 | pass |
| 11) | Trichlorofluoromethane | 6.99 | 10.50 | 9.93 | 95% | 72.0 | 141.0 | pass |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.72 | 9.30 | 7.13 | 77% | 68.0 | 134.0 | pass |
| 13) | 1,1-Dichloroethene | 8.81 | 9.40 | 8.97 | 95% | 81.0 | 127.0 | pass |
| 14) | Acetone | 9.32 | 10.60 | 10.32 | 97% | 77.0 | 150.0 | pass |
| 15) | Carbon disulfide | 9.50 | 10.20 | 8.17 | 80% | 75.0 | 138.0 | pass |
| 16) | 2-Propanol | 9.98 | 9.50 | 8.87 | 93% | 71.0 | 142.0 | pass |
| 17) | Allyl chloride | 10.35 | 10.10 | 9.38 | 93% | 84.0 | 143.0 | pass |
| 18) | Dichloromethane | 10.92 | 9.60 | 8.72 | 91% | 74.0 | 116.0 | pass |
| 19) | tert-Butyl methyl ether (MTBE) | 11.67 | 10.90 | 9.95 | 91% | 79.0 | 131.0 | pass |
| 20) | trans-1,2-Dichloroethene | 11.68 | 9.50 | 9.10 | 96% | 82.0 | 136.0 | pass |
| 21) | Hexane | 12.31 | 10.20 | 9.42 | 92% | 78.0 | 139.0 | pass |
| 22) | 1,1-Dichloroethane | 13.06 | 9.80 | 8.98 | 92% | 82.0 | 123.0 | pass |
| 23) | Vinyl acetate | 13.22 | 10.00 | 9.94 | 99% | 70.0 | 139.0 | pass |
| 24) | cis-1,2-Dichloroethene | 14.56 | 10.10 | 9.71 | 96% | 83.0 | 126.0 | pass |
| 25) | 2-Butanone (MEK) | 14.67 | 10.40 | 9.28 | 89% | 76.0 | 138.0 | pass |
| 26) | Ethyl acetate | 14.71 | 10.40 | 10.74 | 103% | 83.0 | 136.0 | pass |
| 27) | Tetrahydrofuran | 15.13 | 10.30 | 9.70 | 94% | 74.0 | 132.0 | pass |
| 28) | Chloroform | 15.27 | 10.10 | 9.52 | 94% | 81.0 | 127.0 | pass |
| 29) | Cyclohexane | 15.50 | 10.40 | 9.60 | 92% | 77.0 | 139.0 | pass |
| 30) | 1,1,1-Trichloroethane | 15.55 | 10.00 | 9.78 | 98% | 80.0 | 131.0 | pass |
| 31) | Carbon tetrachloride | 15.81 | 10.00 | 9.97 | 100% | 77.0 | 136.0 | pass |
| 32) | 1,4-DIFLUOROBENZENE | 17.15 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 33) | Benzene | 16.30 | 10.30 | 11.18 | 109% | 77.0 | 131.0 | pass |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 10.50 | 11.56 | 110% | 68.0 | 152.0 | pass |
| 35) | 1,2-Dichloroethane | 16.51 | 10.00 | 12.44 | 124% | 70.0 | 149.0 | pass |
| 36) | Heptane | 16.66 | 10.50 | 12.28 | 117% | 62.0 | 159.0 | pass |
| 37) | Trichloroethene | 17.56 | 10.30 | 9.51 | 92% | 81.0 | 125.0 | pass |
| 38) | 1,2-Dichloropropane | 18.06 | 10.60 | 11.70 | 110% | 74.0 | 135.0 | pass |
| 40) | 1,4-Dioxane | 18.28 | 10.60 | 10.08 | 95% | 67.0 | 134.0 | pass |
| 41) | Bromodichloromethane | 18.53 | 10.60 | 11.64 | 110% | 69.0 | 150.0 | pass |
| 42) | cis-1,3-Dichloropropene | 19.31 | 10.30 | 11.51 | 112% | 77.0 | 129.0 | pass |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.55 | 10.50 | 11.97 | 114% | 59.0 | 147.0 | pass |
| 44) | CHLOROBENZENE-d5 | 22.08 | #N/A | 22.00 | #N/A | 70.0 | 130.0 | #N/A |
| 45) | Toluene | 19.79 | 10.40 | 10.74 | 103% | 79.0 | 126.0 | pass |
| 46) | trans-1,3-Dichloropropene | 20.26 | 11.00 | 12.26 | 111% | 81.0 | 137.0 | pass |
| 47) | 1,1,2-Trichloroethane | 20.57 | 10.80 | 10.62 | 98% | 76.0 | 124.0 | pass |
| 48) | Tetrachloroethene | 20.65 | 10.40 | 9.09 | 87% | 80.0 | 122.0 | pass |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 50) | 2-Hexanone | 20.91 | 10.30 | 11.55 | 112% | 55.0 | 149.0 | pass |
| 51) | Chlorodibromomethane | 21.18 | 10.40 | 10.37 | 100% | 76.0 | 145.0 | pass |
| 52) | 1,2-Dibromoethane (EDB) | 21.40 | 10.70 | 10.73 | 100% | 78.0 | 124.0 | pass |
| 53) | Chlorobenzene | 22.12 | 10.60 | 10.05 | 95% | 76.0 | 120.0 | pass |
| 54) | Ethylbenzene | 22.22 | 10.50 | 10.78 | 103% | 75.0 | 125.0 | pass |
| 55) | m&p-Xylene | 22.40 | 21.20 | 22.88 | 108% | 75.0 | 128.0 | pass |
| 56) | o-Xylene | 23.04 | 10.70 | 11.23 | 105% | 74.0 | 128.0 | pass |
| 57) | Styrene | 23.09 | 10.40 | 10.45 | 100% | 69.0 | 122.0 | pass |
| 58) | Bromoform | 23.46 | 10.30 | 9.96 | 97% | 72.0 | 142.0 | pass |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 10.60 | 10.22 | 96% | 70.0 | 130.0 | pass |
| 61) | 4-Ethyltoluene | 24.40 | 10.50 | 9.92 | 94% | 69.0 | 138.0 | pass |
| 62) | 1,3,5-Trimethylbenzene | 24.49 | 10.40 | 10.62 | 102% | 70.0 | 134.0 | pass |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 10.70 | 10.55 | 99% | 65.0 | 129.0 | pass |
| 64) | 1,3-Dichlorobenzene | 25.62 | 10.30 | 9.26 | 90% | 62.0 | 130.0 | pass |
| 65) | 1,4-Dichlorobenzene | 25.77 | 10.40 | 9.40 | 90% | 61.0 | 131.0 | pass |
| 66) | Benzyl chloride | 25.98 | 10.30 | 10.42 | 101% | 61.0 | 153.0 | pass |
| 67) | 1,2-Dichlorobenzene | 26.38 | 10.40 | 9.33 | 90% | 60.0 | 130.0 | pass |
| 68) | 1,2-Dibromo-3-chloropropane | 27.61 | 9.00 | 7.28 | 81% | 46.0 | 113.0 | pass |
| 69) | 1,2,4-Trichlorobenzene | 28.83 | 10.20 | 7.31 | 72% | 38.0 | 128.0 | pass |
| 70) | Hexachlorobutadiene | 28.97 | 10.30 | 7.09 | 69% | 37.0 | 124.0 | pass |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:35 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other:

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/12/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 9-12-13

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 1022845 | 22.00 | ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.148 | 114 | 2944157 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2738635 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 243186 | 9.08 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 982153 | 9.38 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.506 | 85 | 1024278 | 9.25 | ppbv | 92 |
| 5) Chloromethane | 4.701 | 50 | 280936 | 8.94 | ppbv | 99 |
| 6) Vinyl chloride | 5.011 | 62 | 350117 | 9.70 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.102 | 54 | 261243 | 9.22 | ppbv | 89 |
| 8) Bromomethane | 5.997 | 94 | 353541 | 9.48 | ppbv | 97 |
| 9) Chloroethane | 6.307 | 64 | 195309 | 10.14 | ppbv | 99 |
| 10) Bromoethene | 6.860 | 106 | 261726 | 7.95 | ppbv | 96 |
| 11) Trichlorofluoromethane | 6.988 | 101 | 966026 | 9.93 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 445983 | 7.13 | ppbv | 90 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 441720 | 8.97 | ppbv | 90 |
| 14) Acetone | 9.324 | 43 | 471052 | 10.32 | ppbv | 93 |
| 15) Carbon disulfide | 9.501 | 76 | 696848 | 8.17 | ppbv | 93 |
| 16) 2-Propanol | 9.975 | 45 | 349738 | 8.87 | ppbv | 93 |
| 17) Allyl chloride | 10.352 | 41 | 322649 | 9.38 | ppbv | 91 |
| 18) Dichloromethane | 10.918 | 49 | 344907 | 8.72 | ppbv | 86 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 774752 | 9.95 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 391176 | 9.10 | ppbv | 86 |
| 21) Hexane | 12.311 | 57 | 435797 | 9.42 | ppbv | 92 |
| 22) 1,1-Dichloroethane | 13.060 | 63 | 539576 | 8.98 | ppbv | 98 |
| 23) Vinyl acetate | 13.224 | 43 | 646804 | 9.94 | ppbv | 97 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 410073 | 9.71 | ppbv | 87 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 562333 | 9.28 | ppbv | 92 |
| 26) Ethyl acetate | 14.714 | 43 | 735551m | 10.74 | ppbv | |
| 27) Tetrahydrofuran | 15.128 | 42 | 358571 | 9.70 | ppbv | 88 |
| 28) Chloroform | 15.274 | 83 | 696202 | 9.52 | ppbv | 97 |
| 29) Cyclohexane | 15.499 | 56 | 465380 | 9.60 | ppbv | 90 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 775322 | 9.78 | ppbv | 98 |
| 31) Carbon tetrachloride | 15.809 | 117 | 854997 | 9.97 | ppbv | 99 |
| 33) Benzene | 16.302 | 78 | 1010519 | 11.18 | ppbv | 96 |
| 34) 2,2,4-Trimethylpentane | 16.266 | 57 | 1473864 | 11.56 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 518375 | 12.44 | ppbv | 97 |
| 36) Heptane | 16.661 | 43 | 564863 | 12.28 | ppbv | 94 |
| 37) Trichloroethene | 17.561 | 130 | 414129 | 9.51 | ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 385797 | 11.70 | ppbv | 91 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 519755 | 10.12 | ppbv | 89 |
| 40) 1,4-Dioxane | 18.279 | 88 | 192628 | 10.08 | ppbv | 91 |
| 41) Bromodichloromethane | 18.535 | 83 | 791116 | 11.64 | ppbv | 97 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 552683 | 11.51 | ppbv | 88 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 771954 | 11.97 | ppbv | 95 |
| 45) Toluene | 19.788 | 91 | 1237549 | 10.74 | ppbv | 99 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 608629 | 12.26 | ppbv | 93 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 434115 | 10.62 | ppbv | 93 |
| 48) Tetrachloroethene | 20.646 | 166 | 634474 | 9.09 | ppbv | 94 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:35 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.859 | 76 | 583322 | 9.59 | ppbv | | 91 |
| 50) 2-Hexanone | 20.907 | 43 | 732518 | 11.55 | ppbv | | 93 |
| 51) Chlorodibromomethane | 21.181 | 129 | 851249 | 10.37 | ppbv | | 97 |
| 52) 1,2-Dibromoethane (EDB) | 21.400 | 107 | 697197 | 10.73 | ppbv | | 100 |
| 53) Chlorobenzene | 22.124 | 112 | 1045478 | 10.05 | ppbv | | 93 |
| 54) Ethylbenzene | 22.215 | 91 | 1698937 | 10.78 | ppbv | | 96 |
| 55) m&p-Xylene | 22.398 | 91 | 2959605 | 22.88 | ppbv | | 95 |
| 56) o-Xylene | 23.043 | 91 | 1450738 | 11.23 | ppbv | | 95 |
| 57) Styrene | 23.085 | 104 | 1170543 | 10.45 | ppbv | | 96 |
| 58) Bromoform | 23.456 | 173 | 977278 | 9.96 | ppbv | | 97 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1056087 | 10.22 | ppbv | | 99 |
| 60) 1,2,3-Trichloropropane | 24.266 | 75 | 763234 | 9.15 | ppbv | | 96 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 1861920 | 9.92 | ppbv | | 97 |
| 62) 1,3,5-Trimethylbenzene | 24.491 | 105 | 1740160 | 10.62 | ppbv | | 96 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 1761905 | 10.55 | ppbv | | 96 |
| 64) 1,3-Dichlorobenzene | 25.622 | 146 | 1301499 | 9.26 | ppbv | | 97 |
| 65) 1,4-Dichlorobenzene | 25.774 | 146 | 1310011 | 9.40 | ppbv | | 97 |
| 66) Benzyl chloride | 25.987 | 91 | 1426293 | 10.42 | ppbv | | 96 |
| 67) 1,2-Dichlorobenzene | 26.377 | 146 | 1227676 | 9.33 | ppbv | | 97 |
| 68) 1,2-Dibromo-3-chloropr... | 27.612 | 157 | 547111 | 7.28 | ppbv | # | 79 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 962935 | 7.31 | ppbv | | 98 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 945852 | 7.09 | ppbv | | 99 |

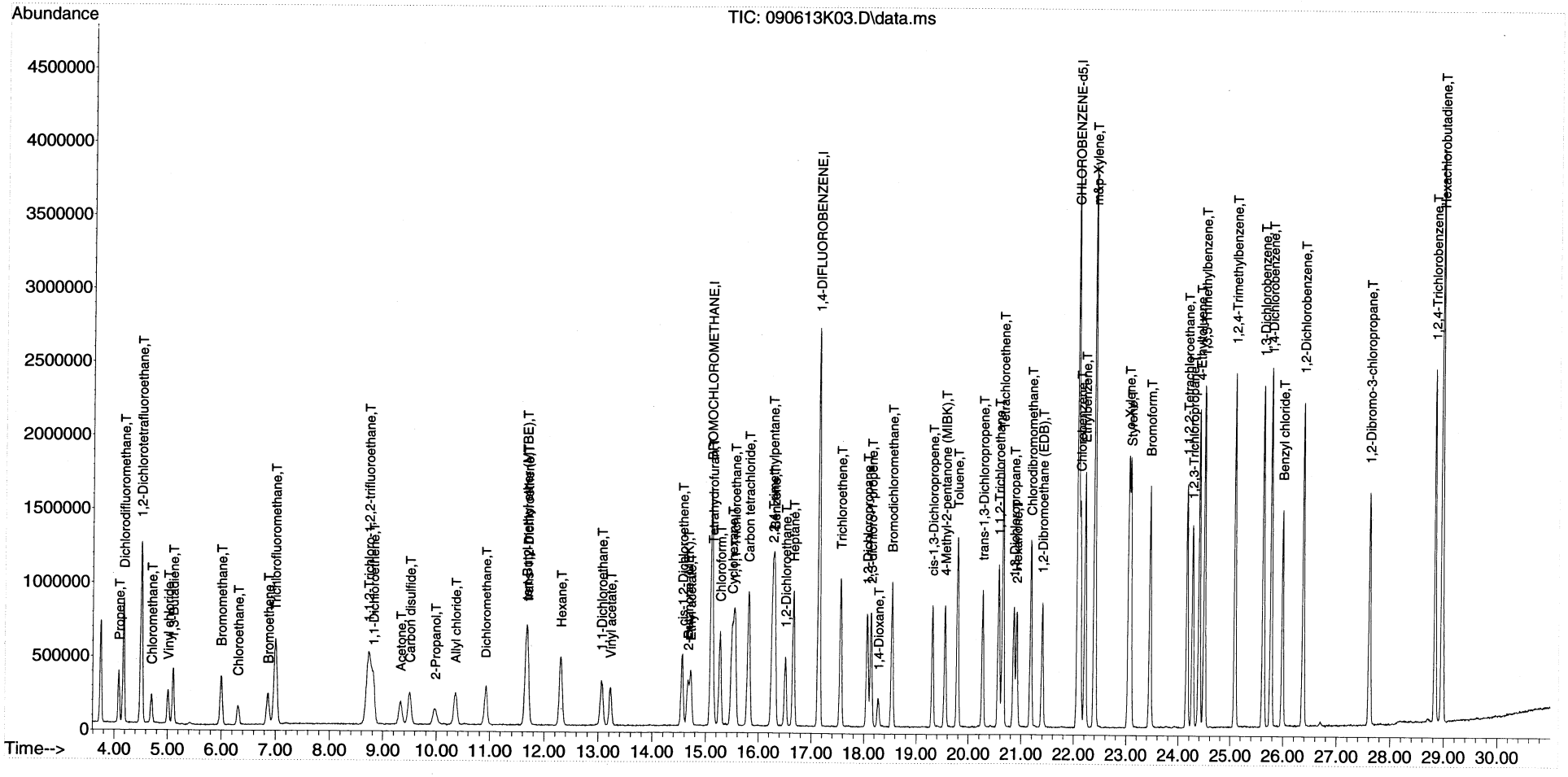
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:35 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

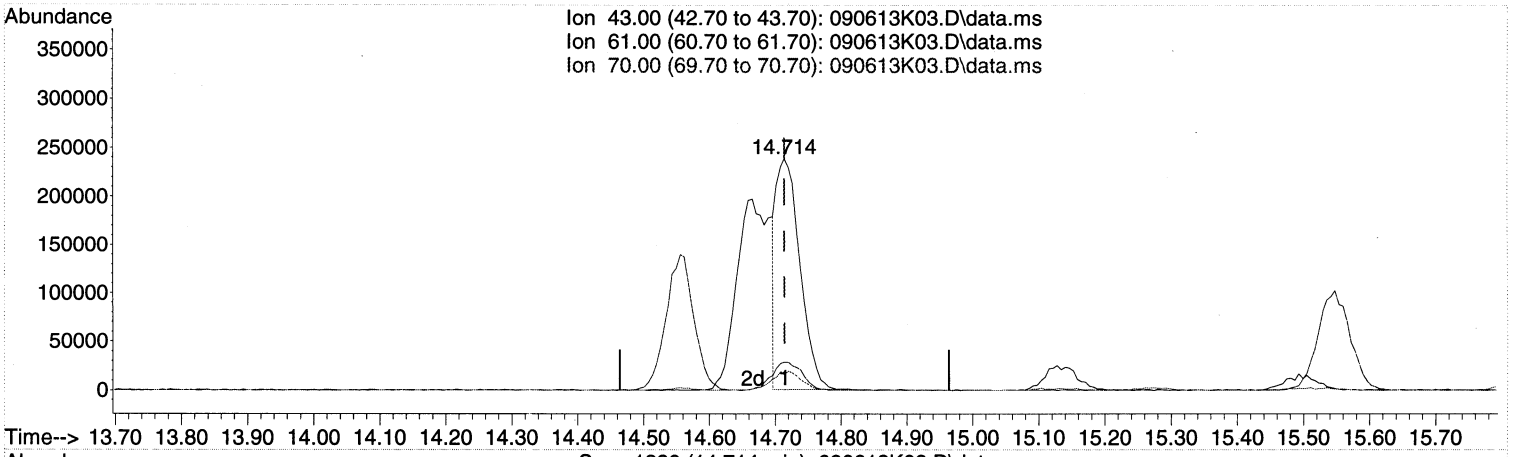


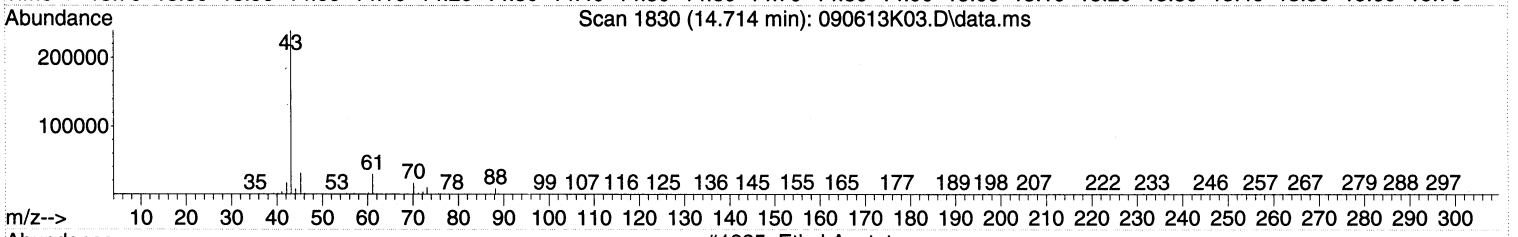
Quantitation Report (Qedit)

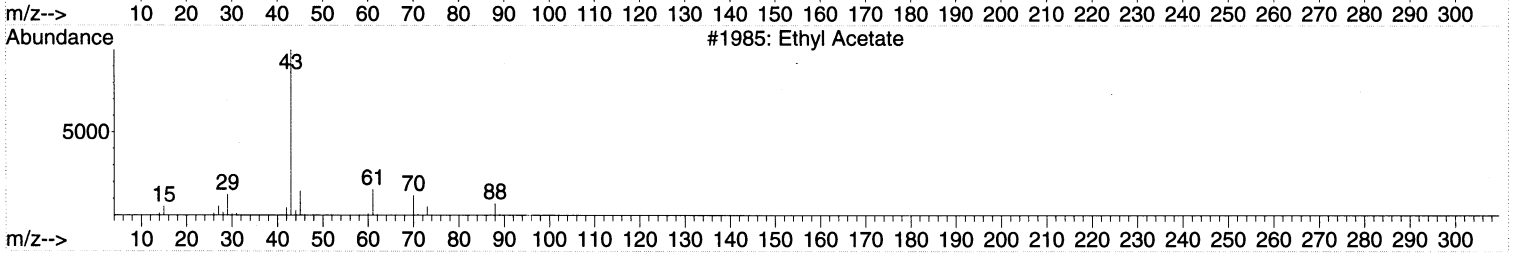
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:11 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M




TIC: 090613K03.D\data.ms

(26) Ethyl acetate (T)

14.714min (+0.000) 8.73 ppbv

response 598041

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 15.65 |
| 70.00 | 9.90 | 10.19 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☑ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____



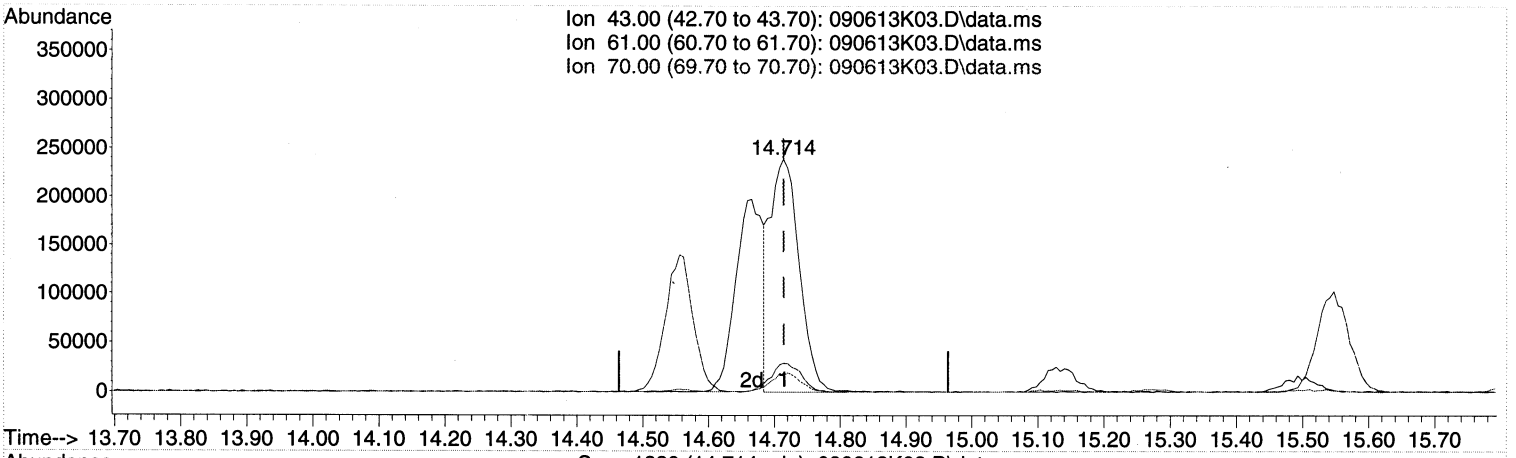
00592

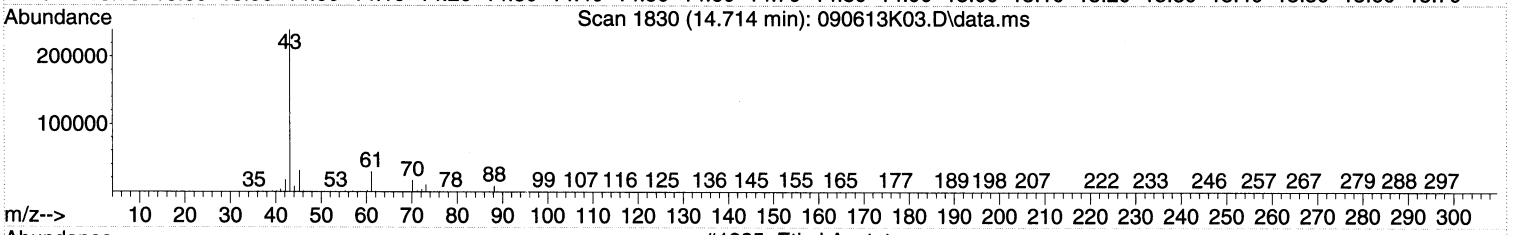
Quantitation Report (Qedit)

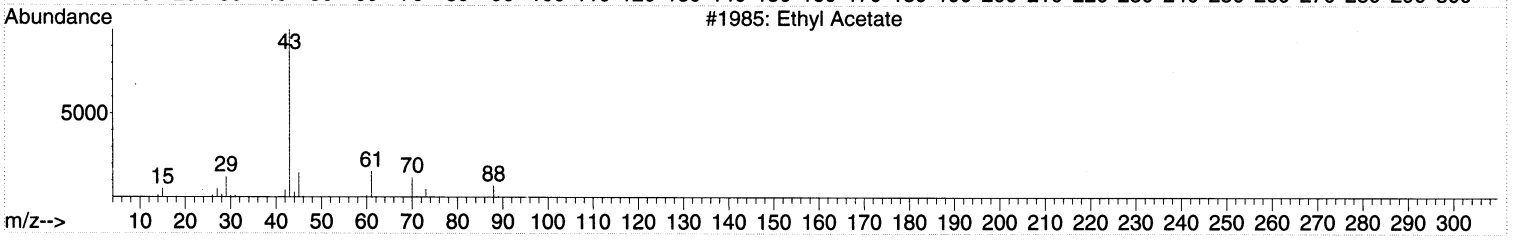
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:11 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M




TIC: 090613K03.D\data.ms

(26) Ethyl acetate (T)

14.714min (+0.000) 10.74 ppbv m

response 735551

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 61.00 | 13.60 | 12.72 |
| 70.00 | 9.90 | 8.28 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/10/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 9-12-13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:11 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

Rel MT
lm 9/10/13

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 1022845 | 22.00 | ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.148 | 114 | 2944157 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2738635 | 22.00 | ppbv | 0.00 |
| Target Compounds | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 243186 | 9.08 | ppbv | 98 |
| 3) Dichlorodifluoromethane | 4.178 | 85 | 982153 | 9.38 | ppbv | 99 |
| 4) 1,2-Dichlorotetrafluor... | 4.506 | 85 | 1024278 | 9.25 | ppbv | 92 |
| 5) Chloromethane | 4.701 | 50 | 280936 | 8.94 | ppbv | 99 |
| 6) Vinyl chloride | 5.011 | 62 | 350117 | 9.70 | ppbv | 99 |
| 7) 1,3-Butadiene | 5.102 | 54 | 261243 | 9.22 | ppbv | 89 |
| 8) Bromomethane | 5.997 | 94 | 353541 | 9.48 | ppbv | 97 |
| 9) Chloroethane | 6.307 | 64 | 195309 | 10.14 | ppbv | 99 |
| 10) Bromoethene | 6.860 | 106 | 261726 | 7.95 | ppbv | 96 |
| 11) Trichlorofluoromethane | 6.988 | 101 | 966026 | 9.93 | ppbv | 100 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.722 | 151 | 445983 | 7.13 | ppbv | 90 |
| 13) 1,1-Dichloroethene | 8.813 | 61 | 441720 | 8.97 | ppbv | 90 |
| 14) Acetone | 9.324 | 43 | 471052 | 10.32 | ppbv | 93 |
| 15) Carbon disulfide | 9.501 | 76 | 696848 | 8.17 | ppbv | 93 |
| 16) 2-Propanol | 9.975 | 45 | 349738 | 8.87 | ppbv | 93 |
| 17) Allyl chloride | 10.352 | 41 | 322649 | 9.38 | ppbv | 91 |
| 18) Dichloromethane | 10.918 | 49 | 344907 | 8.72 | ppbv | 86 |
| 19) tert-Butyl methyl ethe... | 11.666 | 73 | 774752 | 9.95 | ppbv | 99 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 391176 | 9.10 | ppbv | 86 |
| 21) Hexane | 12.311 | 57 | 435797 | 9.42 | ppbv | 92 |
| 22) 1,1-Dichloroethane | 13.060 | 63 | 539576 | 8.98 | ppbv | 98 |
| 23) Vinyl acetate | 13.224 | 43 | 646804 | 9.94 | ppbv | 97 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 410073 | 9.71 | ppbv | 87 |
| 25) 2-Butanone (MEK) | 14.666 | 43 | 562333 | 9.28 | ppbv | 92 |
| 26) Ethyl acetate | 14.714 | 43 | 598041 | 8.73 | ppbv | 97 |
| 27) Tetrahydrofuran | 15.128 | 42 | 358571 | 9.70 | ppbv | 88 |
| 28) Chloroform | 15.274 | 83 | 696202 | 9.52 | ppbv | 97 |
| 29) Cyclohexane | 15.499 | 56 | 465380 | 9.60 | ppbv | 90 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 775322 | 9.78 | ppbv | 98 |
| 31) Carbon tetrachloride | 15.809 | 117 | 854997 | 9.97 | ppbv | 99 |
| 33) Benzene | 16.302 | 78 | 1010519 | 11.18 | ppbv | 96 |
| 34) 2,2,4-Trimethylpentane | 16.266 | 57 | 1473864 | 11.56 | ppbv | 97 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 518375 | 12.44 | ppbv | 97 |
| 36) Heptane | 16.661 | 43 | 564863 | 12.28 | ppbv | 94 |
| 37) Trichloroethene | 17.561 | 130 | 414129 | 9.51 | ppbv | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 385797 | 11.70 | ppbv | 91 |
| 39) 2,3-dichloro-1-propene | 18.139 | 75 | 519755 | 10.12 | ppbv | 89 |
| 40) 1,4-Dioxane | 18.279 | 88 | 192628 | 10.08 | ppbv | 91 |
| 41) Bromodichloromethane | 18.535 | 83 | 791116 | 11.64 | ppbv | 97 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 552683 | 11.51 | ppbv | 88 |
| 43) 4-Methyl-2-pentanone (... | 19.551 | 43 | 771954 | 11.97 | ppbv | 95 |
| 45) Toluene | 19.788 | 91 | 1237549 | 10.74 | ppbv | 99 |
| 46) trans-1,3-Dichloropropene | 20.263 | 75 | 608629 | 12.26 | ppbv | 93 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 434115 | 10.62 | ppbv | 93 |
| 48) Tetrachloroethene | 20.646 | 166 | 634474 | 9.09 | ppbv | 94 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:11 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| | Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|---|
| 49) | 1,3-Dichloropropane | 20.859 | 76 | 583322 | 9.59 | ppbv | | 91 |
| 50) | 2-Hexanone | 20.907 | 43 | 732518 | 11.55 | ppbv | | 93 |
| 51) | Chlorodibromomethane | 21.181 | 129 | 851249 | 10.37 | ppbv | | 97 |
| 52) | 1,2-Dibromoethane (EDB) | 21.400 | 107 | 697197 | 10.73 | ppbv | | 100 |
| 53) | Chlorobenzene | 22.124 | 112 | 1045478 | 10.05 | ppbv | | 93 |
| 54) | Ethylbenzene | 22.215 | 91 | 1698937 | 10.78 | ppbv | | 96 |
| 55) | m&p-Xylene | 22.398 | 91 | 2959605 | 22.88 | ppbv | | 95 |
| 56) | o-Xylene | 23.043 | 91 | 1450738 | 11.23 | ppbv | | 95 |
| 57) | Styrene | 23.085 | 104 | 1170543 | 10.45 | ppbv | | 96 |
| 58) | Bromoform | 23.456 | 173 | 977278 | 9.96 | ppbv | | 97 |
| 59) | 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 1056087 | 10.22 | ppbv | | 99 |
| 60) | 1,2,3-Trichloropropane | 24.266 | 75 | 763234 | 9.15 | ppbv | | 96 |
| 61) | 4-Ethyltoluene | 24.399 | 105 | 1861920 | 9.92 | ppbv | | 97 |
| 62) | 1,3,5-Trimethylbenzene | 24.491 | 105 | 1740160 | 10.62 | ppbv | | 96 |
| 63) | 1,2,4-Trimethylbenzene | 25.093 | 105 | 1761905 | 10.55 | ppbv | | 96 |
| 64) | 1,3-Dichlorobenzene | 25.622 | 146 | 1301499 | 9.26 | ppbv | | 97 |
| 65) | 1,4-Dichlorobenzene | 25.774 | 146 | 1310011 | 9.40 | ppbv | | 97 |
| 66) | Benzyl chloride | 25.987 | 91 | 1426293 | 10.42 | ppbv | | 96 |
| 67) | 1,2-Dichlorobenzene | 26.377 | 146 | 1227676 | 9.33 | ppbv | | 97 |
| 68) | 1,2-Dibromo-3-chloropr... | 27.612 | 157 | 547111 | 7.28 | ppbv | # | 79 |
| 69) | 1,2,4-Trichlorobenzene | 28.834 | 180 | 962935 | 7.31 | ppbv | | 98 |
| 70) | Hexachlorobutadiene | 28.974 | 225 | 945852 | 7.09 | ppbv | | 99 |

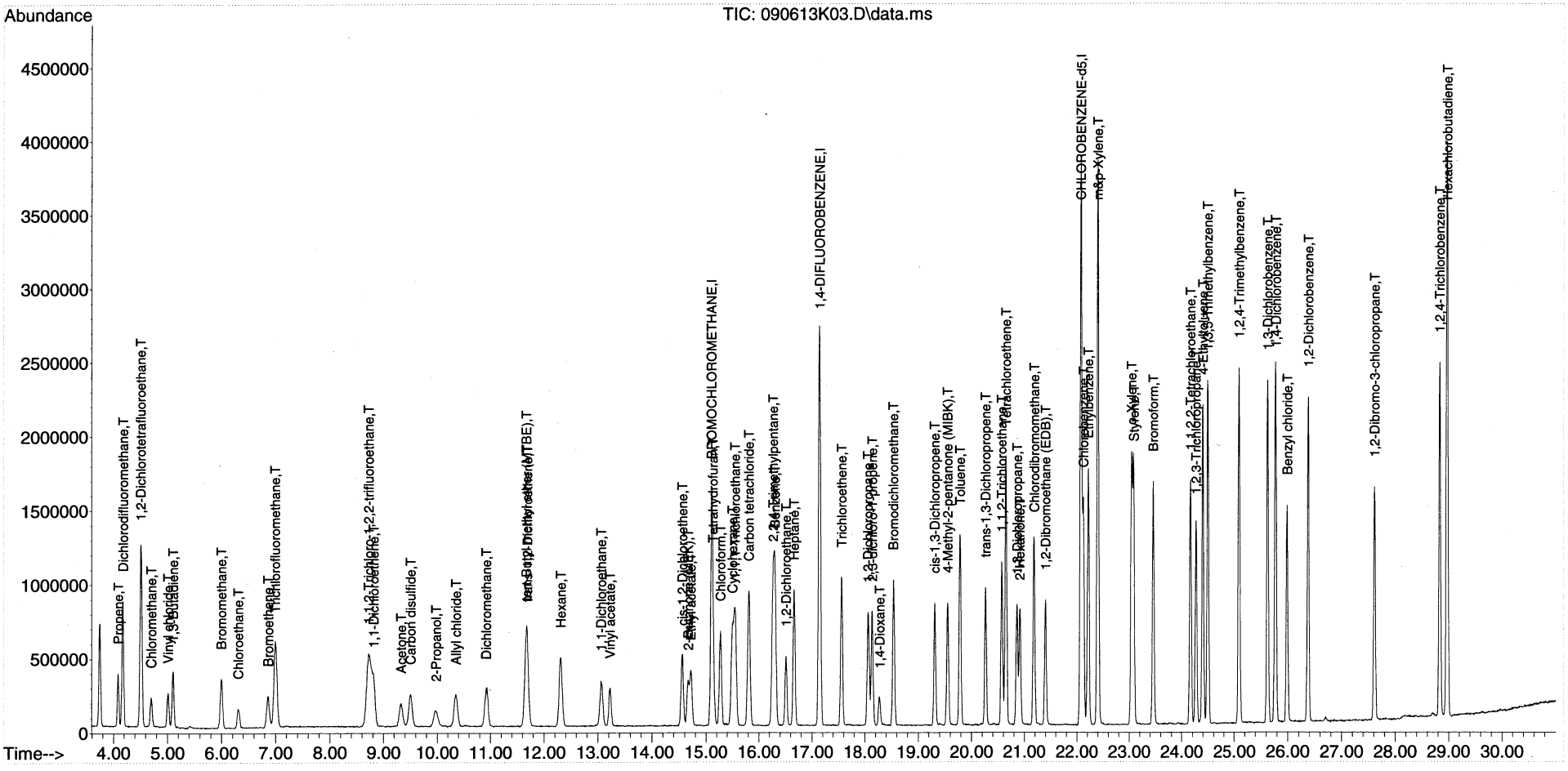
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K03.D
Acq On : 6 Sep 2013 14:10
Instrument: HP5973K
Operator : EM
Sample : B13I031-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 14:47:11 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M



# QLS REPORT

1 out (lm)

em 9/6/13

Instrument Name: HP5973K
Sample Name: S13I022-CRL1
Misc Info: 1.0 ppbv 1335007
Date Acquired: 9/6/2013 14:57
QLast Update: Wed Aug 28 11:07:04 201:
Operator: EM

| # | Name | Ret Time | Amount | Concentration | %R | QC | LIMIT | STATUS | TYPE |
|---|---|---|---|---|---|---|---|---|---|
| 2) | Propene | 4.09 | 1.07 | 0.98 | 92% | 60.0 | 140.0 | pass | Subset |
| 3) | Dichlorodifluoromethane | 4.18 | 1.01 | 0.98 | 97% | 60.0 | 140.0 | pass | Primary |
| 4) | 1,2-Dichlorotetrafluoroethane | 4.51 | 1.04 | 0.95 | 91% | 60.0 | 140.0 | pass | Primary |
| 5) | Chloromethane | 4.71 | 1.03 | 1.01 | 98% | 60.0 | 140.0 | pass | Primary |
| 6) | Vinyl chloride | 5.02 | 1.05 | 1.01 | 97% | 60.0 | 140.0 | pass | Primary |
| 7) | 1,3-Butadiene | 5.10 | 1.02 | 0.90 | 88% | 60.0 | 140.0 | pass | Subset |
| 8) | Bromomethane | 5.99 | 1.04 | 1.04 | 100% | 60.0 | 140.0 | pass | Primary |
| 9) | Chloroethane | 6.31 | 1.04 | 1.11 | 106% | 60.0 | 140.0 | pass | Primary |
| 10) | Bromoethene | 6.86 | 1.03 | 0.84 | 81% | 60.0 | 140.0 | pass | Subset |
| 11) | Trichlorofluoromethane | 6.99 | 1.05 | 1.03 | 98% | 60.0 | 140.0 | pass | Primary |
| 12) | 1,1,2-Trichloro-1,2,2-trifluoroethane | 8.73 | 0.93 | 0.73 | 78% | 60.0 | 140.0 | pass | Primary |
| 13) | 1,1-Dichloroethene | 8.81 | 0.94 | 0.77 | 81% | 60.0 | 140.0 | pass | Primary |
| 14) | Acetone | 9.35 | 1.06 | 1.10 | 104% | 60.0 | 140.0 | pass | Subset |
| 15) | Carbon disulfide | 9.50 | 1.02 | 0.96 | 94% | 60.0 | 140.0 | pass | Subset |
| 16) | 2-Propanol | 10.04 | 0.95 | 0.70 | 74% | 60.0 | 140.0 | pass | Subset |
| 17) | Allyl chloride | 10.33 | 1.01 | 0.70 | 69% | 60.0 | 140.0 | pass | Subset |
| 18) | Dichloromethane | 10.92 | 0.96 | 1.05 | 109% | 60.0 | 140.0 | pass | Primary |
| 19) | tert-Butyl methyl ether (MTBE) | 11.71 | 1.09 | 0.74 | 68% | 60.0 | 140.0 | pass | Subset |
| 20) | trans-1,2-Dichloroethene | 11.68 | 0.95 | 0.80 | 84% | 60.0 | 140.0 | pass | Subset |
| 21) | Hexane | 12.32 | 1.02 | 0.71 | 69% | 60.0 | 140.0 | pass | Subset |
| 22) | 1,1-Dichloroethane | 13.07 | 0.98 | 0.91 | 93% | 60.0 | 140.0 | pass | Primary |
| 23) | Vinyl acetate | 13.23 | 1.00 | 0.65 | 65% | 60.0 | 140.0 | pass | Subset |
| 24) | cis-1,2-Dichloroethene | 14.56 | 1.01 | 0.93 | 92% | 60.0 | 140.0 | pass | Primary |
| 25) | 2-Butanone (MEK) | 14.68 | 1.04 | 0.85 | 82% | 60.0 | 140.0 | pass | Subset |
| 26) | Ethyl acetate | 14.73 | 1.04 | 0.80 | 77% | 60.0 | 140.0 | pass | Subset |
| 27) | Tetrahydrofuran | 15.16 | 1.03 | 0.89 | 86% | 60.0 | 140.0 | pass | Subset |
| 28) | Chloroform | 15.28 | 1.01 | 0.94 | 93% | 60.0 | 140.0 | pass | Primary |
| 29) | Cyclohexane | 15.50 | 1.04 | 0.81 | 78% | 60.0 | 140.0 | pass | Subset |
| 30) | 1,1,1-Trichloroethane | 15.55 | 1.00 | 0.98 | 98% | 60.0 | 140.0 | pass | Primary |
| 31) | Carbon tetrachloride | 15.80 | 1.00 | 0.96 | 96% | 60.0 | 140.0 | pass | Primary |
| 33) | Benzene | 16.30 | 1.03 | 1.08 | 105% | 60.0 | 140.0 | pass | Primary |
| 34) | 2,2,4-Trimethylpentane | 16.27 | 1.05 | 0.85 | 81% | 60.0 | 140.0 | pass | Subset |
| 35) | 1,2-Dichloroethane | 16.51 | 1.00 | 1.27 | 127% | 60.0 | 140.0 | pass | Primary |
| 36) | Heptane | 16.67 | 1.05 | 0.86 | 82% | 60.0 | 140.0 | pass | Subset |
| 37) | Trichloroethene | 17.56 | 1.03 | 0.87 | 84% | 60.0 | 140.0 | pass | Primary |
| 38) | 1,2-Dichloropropane | 18.06 | 1.06 | 1.02 | 96% | 60.0 | 140.0 | pass | Primary |
| 39) | 2,3-dichloro-1-propene | 18.15 | 1.04 | 0.76 | 74% | 60.0 | 140.0 | pass | Additional |
| 40) | 1,4-Dioxane | 18.32 | 1.06 | 0.72 | 68% | 60.0 | 140.0 | pass | Subset |
| 41) | Bromodichloromethane | 18.53 | 1.06 | 1.09 | 103% | 60.0 | 140.0 | pass | Subset |
| 42) | cis-1,3-Dichloropropene | 19.31 | 1.03 | 0.96 | 93% | 60.0 | 140.0 | pass | Primary |
| 43) | 4-Methyl-2-pentanone (MIBK) | 19.56 | 1.05 | 0.94 | 89% | 60.0 | 140.0 | pass | Subset |
| 45) | Toluene | 19.79 | 1.04 | 0.87 | 84% | 60.0 | 140.0 | pass | Primary |
| 46) | trans-1,3-Dichloropropene | 20.27 | 1.10 | 0.97 | 88% | 60.0 | 140.0 | pass | Primary |
| 47) | 1,1,2-Trichloroethane | 20.57 | 1.08 | 0.95 | 88% | 60.0 | 140.0 | pass | Primary |
| 48) | Tetrachloroethene | 20.65 | 1.04 | 0.85 | 81% | 60.0 | 140.0 | pass | Primary |
| 49) | 1,3-Dichloropropane | 20.85 | 1.03 | 0.87 | 84% | 60.0 | 140.0 | pass | Additional |
| 50) | 2-Hexanone | 20.93 | 1.03 | 0.81 | 78% | 60.0 | 140.0 | pass | Subset |
| 51) | Chlorodibromomethane | 21.18 | 1.04 | 0.89 | 86% | 60.0 | 140.0 | pass | Subset |
| 52) | 1,2-Dibromoethane (EDB) | 21.41 | 1.07 | 0.94 | 88% | 60.0 | 140.0 | pass | Primary |
| 53) | Chlorobenzene | 22.12 | 1.06 | 0.97 | 91% | 60.0 | 140.0 | pass | Primary |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 54) | Ethylbenzene | 22.22 | 1.05 | 0.86 | 82% | 60.0 | 140.0 | pass | Primary |
| 55) | m&p-Xylene | 22.40 | 2.12 | 1.72 | 81% | 60.0 | 140.0 | pass | Primary |
| 56) | o-Xylene | 23.04 | 1.07 | 0.81 | 75% | 60.0 | 140.0 | pass | Primary |
| 57) | Styrene | 23.09 | 1.04 | 0.76 | 73% | 60.0 | 140.0 | pass | Primary |
| 58) | Bromoform | 23.46 | 1.03 | 0.76 | 74% | 60.0 | 140.0 | pass | Subset |
| 59) | 1,1,2,2-Tetrachloroethane | 24.16 | 1.06 | 0.85 | 80% | 60.0 | 140.0 | pass | Primary |
| 60) | 1,2,3-Trichloropropane | 24.27 | 0.97 | 0.83 | 85% | 60.0 | 140.0 | pass | Additional |
| 61) | 4-Ethyltoluene | 24.40 | 1.05 | 0.68 | 65% | 60.0 | 140.0 | pass | Subset |
| 62) | 1,3,5-Trimethylbenzene | 24.50 | 1.04 | 0.78 | 75% | 60.0 | 140.0 | pass | Primary |
| 63) | 1,2,4-Trimethylbenzene | 25.09 | 1.07 | 0.66 | 62% | 60.0 | 140.0 | pass | Primary |
| 64) | 1,3-Dichlorobenzene | 25.63 | 1.03 | 0.68 | 66% | 60.0 | 140.0 | pass | Primary |
| 65) | 1,4-Dichlorobenzene | 25.77 | 1.04 | 0.67 | 64% | 60.0 | 140.0 | pass | Primary |
| 66) | Benzyl chloride | 25.98 | 1.03 | 0.72 | 70% | 60.0 | 140.0 | pass | Subset |
| 67) | 1,2-Dichlorobenzene | 26.38 | 1.04 | 0.69 | 66% | 60.0 | 140.0 | pass | Primary |
| 68) | 1,2-Dibromo-3-chloropropane | 27.62 | 0.90 | 0.56 | 62% | 60.0 | 140.0 | pass | Additional |
| 69) | 1,2,4-Trichlorobenzene | 28.83 | 1.02 | 0.64 | 62% | 60.0 | 140.0 | pass | Primary |
| 70) | Hexachlorobutadiene | 28.98 | 1.03 | 0.61 | 59% | 60.0 | 140.0 | FAIL | Primary |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:30:06 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/6/13

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 973240 | 22.00 | ppbv | # | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2830339 | 22.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2613479 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 25030 | 0.98 | ppbv | | 92 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 97531 | 0.98 | ppbv | | 93 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 100209 | 0.95 | ppbv | | 91 |
| 5) Chloromethane | 4.707 | 50 | 30131 | 1.01 | ppbv | | 95 |
| 6) Vinyl chloride | 5.017 | 62 | 34805 | 1.01 | ppbv | | 94 |
| 7) 1,3-Butadiene | 5.102 | 54 | 24335 | 0.90 | ppbv | | 91 |
| 8) Bromomethane | 5.990 | 94 | 36763 | 1.04 | ppbv | | 98 |
| 9) Chloroethane | 6.307 | 64 | 20267 | 1.11 | ppbv | | 100 |
| 10) Bromoethene | 6.860 | 106 | 26231 | 0.84 | ppbv | | 96 |
| 11) Trichlorofluoromethane | 6.988 | 101 | 95415 | 1.03 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.728 | 151 | 43427 | 0.73 | ppbv | # | 84 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 35903 | 0.77 | ppbv | # | 85 |
| 14) Acetone | 9.355 | 43 | 47827 | 1.10 | ppbv | | 89 |
| 15) Carbon disulfide | 9.501 | 76 | 77856 | 0.96 | ppbv | | 87 |
| 16) 2-Propanol | 10.036 | 45 | 26442 | 0.70 | ppbv | # | 55 |
| 17) Allyl chloride | 10.334 | 41 | 22802 | 0.70 | ppbv | | 93 |
| 18) Dichloromethane | 10.924 | 49 | 39489 | 1.05 | ppbv | | 89 |
| 19) tert-Butyl methyl ethe... | 11.709 | 73 | 55060 | 0.74 | ppbv | # | 55 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 32821 | 0.80 | ppbv | | 92 |
| 21) Hexane | 12.317 | 57 | 31137 | 0.71 | ppbv | | 87 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 52249 | 0.91 | ppbv | | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 40167 | 0.65 | ppbv | | 98 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 37467 | 0.93 | ppbv | # | 66 |
| 25) 2-Butanone (MEK) | 14.684 | 43 | 48947m | 0.85 | ppbv | | |
| 26) Ethyl acetate | 14.726 | 43 | 52134 | 0.80 | ppbv | | 88 |
| 27) Tetrahydrofuran | 15.164 | 42 | 31324 | 0.89 | ppbv | | 83 |
| 28) Chloroform | 15.280 | 83 | 65116 | 0.94 | ppbv | | 95 |
| 29) Cyclohexane | 15.499 | 56 | 37443 | 0.81 | ppbv | # | 84 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 74330 | 0.98 | ppbv | | 93 |
| 31) Carbon tetrachloride | 15.803 | 117 | 78111 | 0.96 | ppbv | | 97 |
| 33) Benzene | 16.302 | 78 | 93562 | 1.08 | ppbv | | 96 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 104750 | 0.85 | ppbv | | 92 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 51039 | 1.27 | ppbv | | 100 |
| 36) Heptane | 16.667 | 43 | 37983 | 0.86 | ppbv | | 95 |
| 37) Trichloroethene | 17.555 | 130 | 36352 | 0.87 | ppbv | | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 32409 | 1.02 | ppbv | # | 85 |
| 39) 2,3-dichloro-1-propene | 18.145 | 75 | 37752 | 0.76 | ppbv | | 87 |
| 40) 1,4-Dioxane | 18.322 | 88 | 13236 | 0.72 | ppbv | # | 29 |
| 41) Bromodichloromethane | 18.535 | 83 | 71231 | 1.09 | ppbv | | 97 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 44092 | 0.96 | ppbv | | 85 |
| 43) 4-Methyl-2-pentanone (... | 19.563 | 43 | 58103 | 0.94 | ppbv | | 91 |
| 45) Toluene | 19.788 | 91 | 96221 | 0.87 | ppbv | | 97 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 46141 | 0.97 | ppbv | | 87 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 36871 | 0.95 | ppbv | | 85 |
| 48) Tetrachloroethene | 20.652 | 166 | 56287 | 0.85 | ppbv | | 94 |

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:30:06 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) 1,3-Dichloropropane | 20.853 | 76 | 50458 | 0.87 ppbv | 86 |
| 50) 2-Hexanone | 20.926 | 43 | 48731 | 0.81 ppbv | 87 |
| 51) Chlorodibromomethane | 21.181 | 129 | 69961 | 0.89 ppbv | 92 |
| 52) 1,2-Dibromoethane (EDB) | 21.406 | 107 | 58455 | 0.94 ppbv | 94 |
| 53) Chlorobenzene | 22.124 | 112 | 96062 | 0.97 ppbv # | 64 |
| 54) Ethylbenzene | 22.215 | 91 | 129931 | 0.86 ppbv | 98 |
| 55) m&p-Xylene | 22.398 | 91 | 212230 | 1.72 ppbv | 95 |
| 56) o-Xylene | 23.043 | 91 | 99577 | 0.81 ppbv | 96 |
| 57) Styrene | 23.085 | 104 | 80919 | 0.76 ppbv | 94 |
| 58) Bromoform | 23.456 | 173 | 71539 | 0.76 ppbv | 96 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 83897 | 0.85 ppbv | 98 |
| 60) 1,2,3-Trichloropropane | 24.272 | 75 | 65734 | 0.83 ppbv | 94 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 122239 | 0.68 ppbv | 97 |
| 62) 1,3,5-Trimethylbenzene | 24.497 | 105 | 121829 | 0.78 ppbv | 94 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 105057 | 0.66 ppbv | 99 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 90877 | 0.68 ppbv | 92 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 88685 | 0.67 ppbv | 96 |
| 66) Benzyl chloride | 25.987 | 91 | 94692 | 0.72 ppbv | 92 |
| 67) 1,2-Dichlorobenzene | 26.370 | 146 | 86099 | 0.69 ppbv | 95 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 39826 | 0.56 ppbv # | 67 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 80086 | 0.64 ppbv | 97 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 77301 | 0.61 ppbv | 98 |

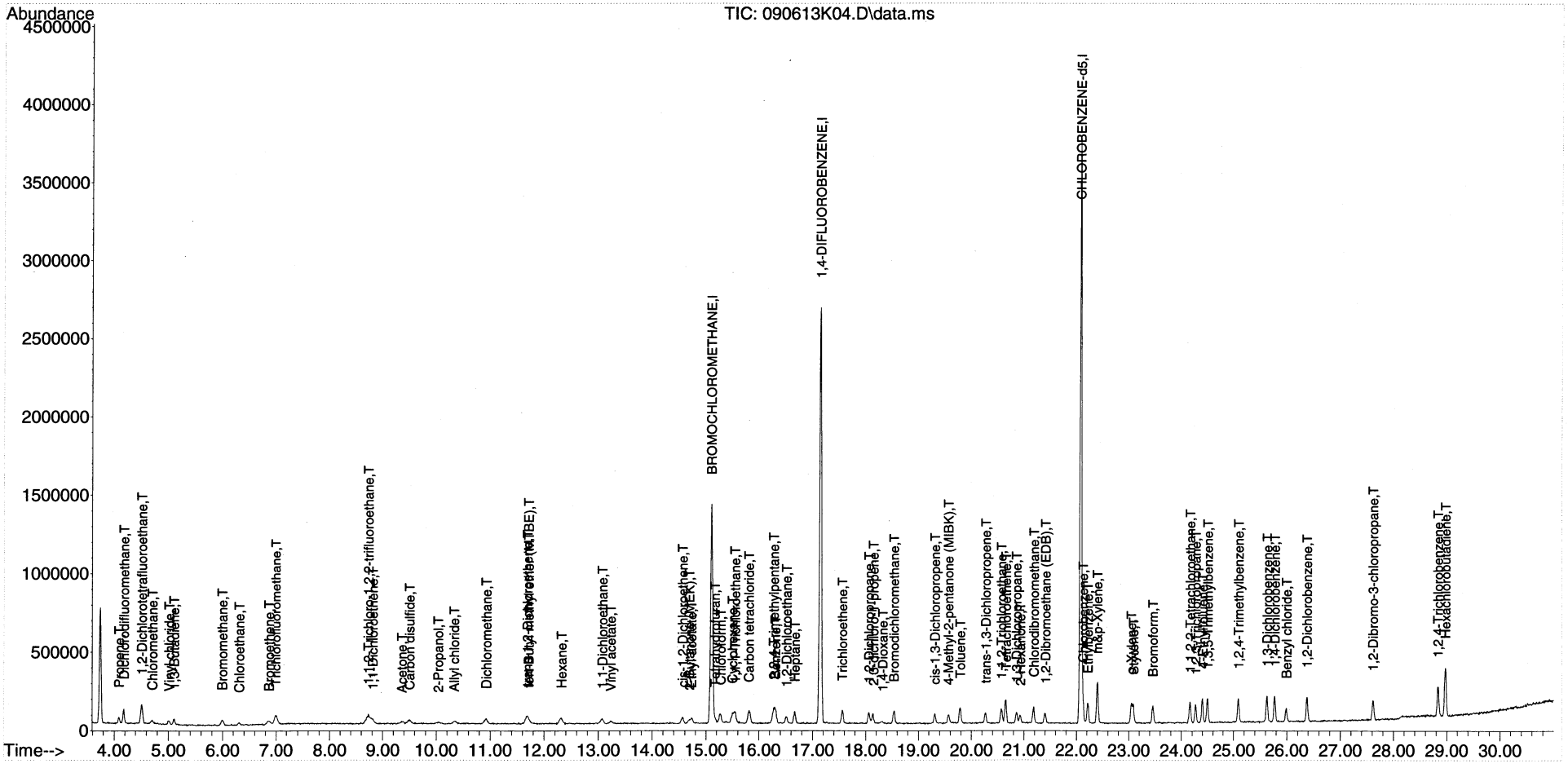
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:30:06 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

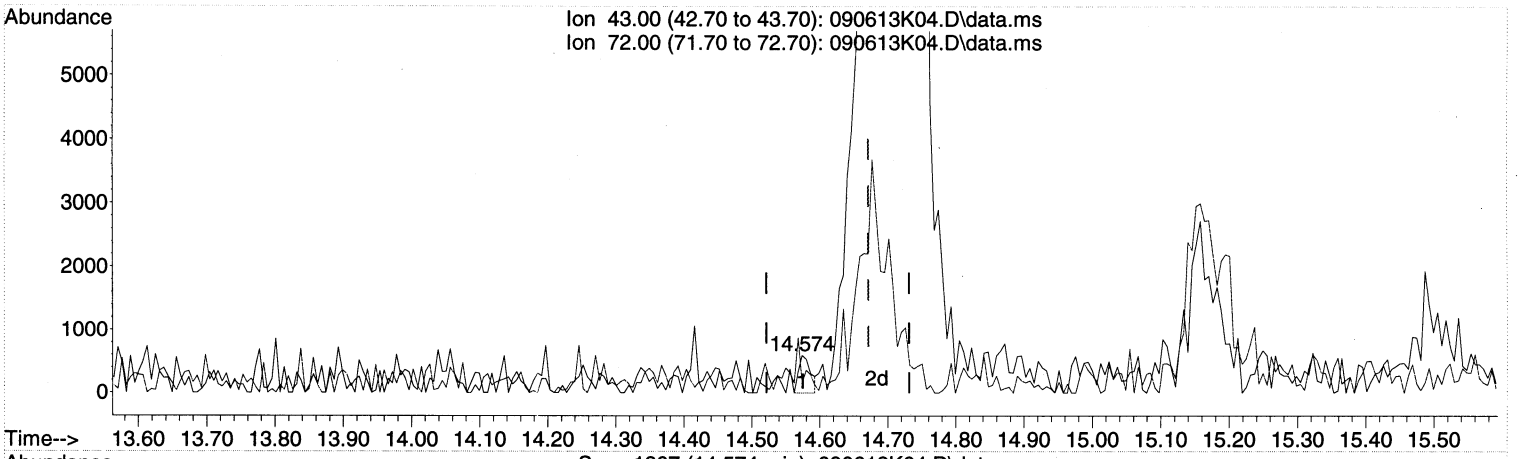


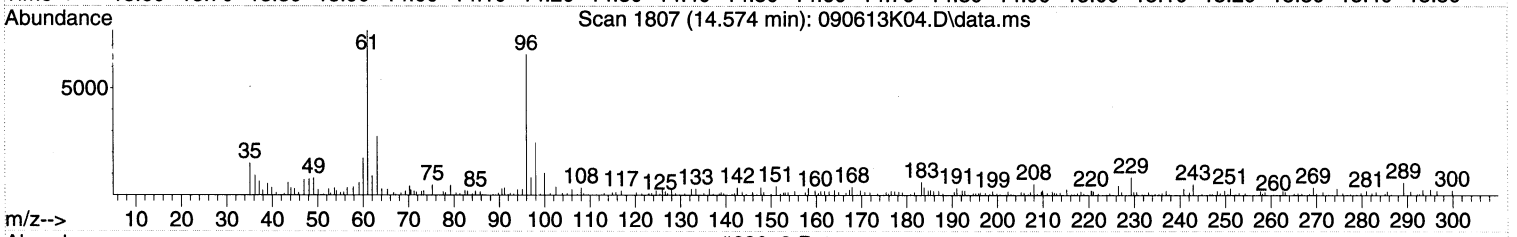
Quantitation Report (Qedit)

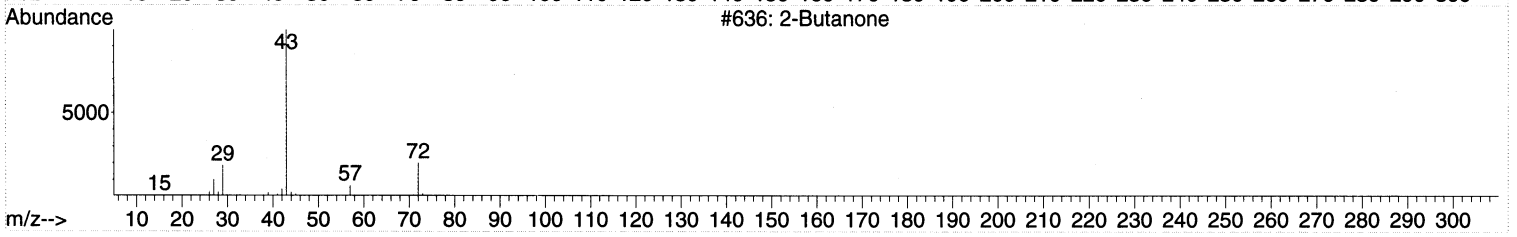
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:29:40 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M




TIC: 090613K04.D\data.ms

(25) 2-Butanone (MEK) (T)

14.574min (-0.097) 0.01 ppbv

response 742

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 72.00 | 27.90 | 32.21 |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☑ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____



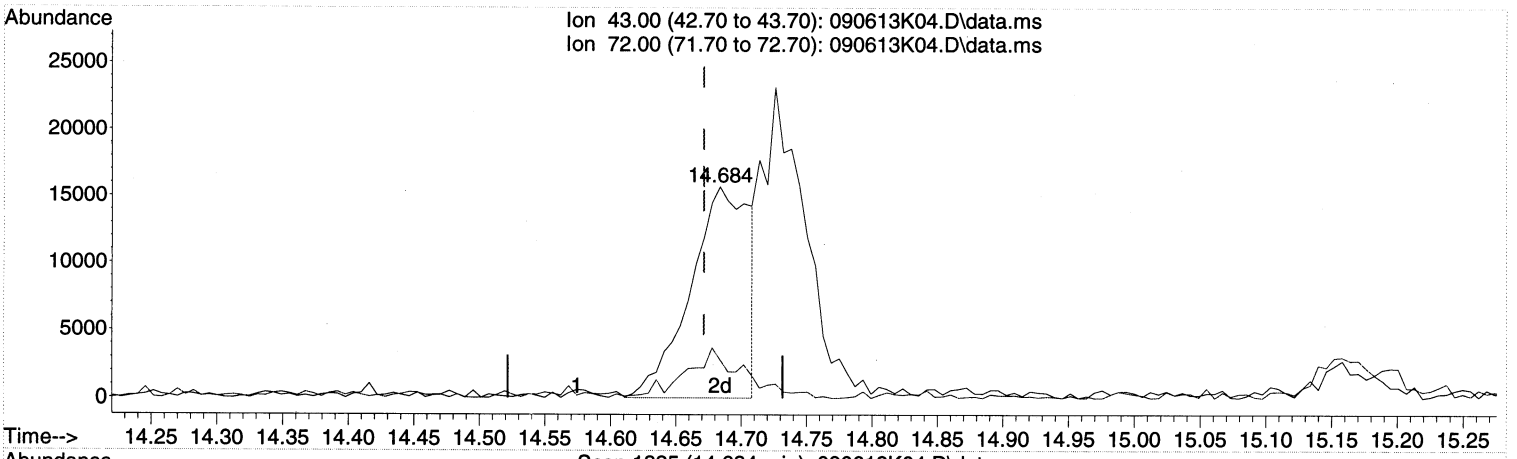
00602

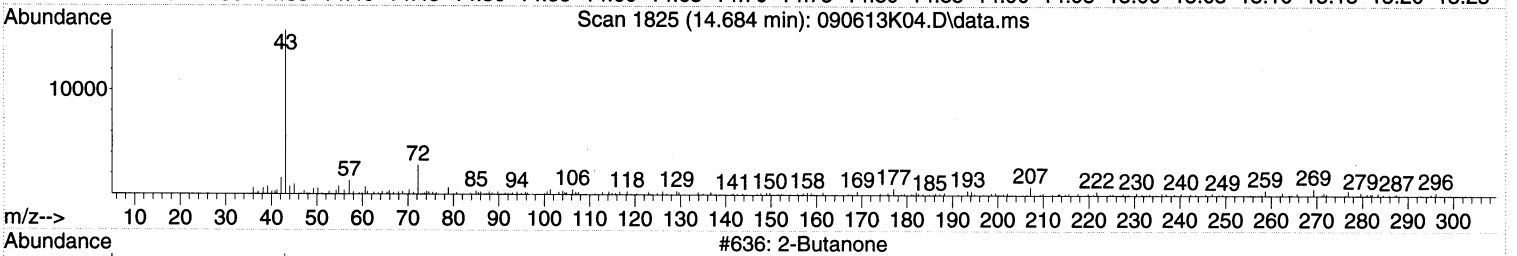
Quantitation Report (Qedit)

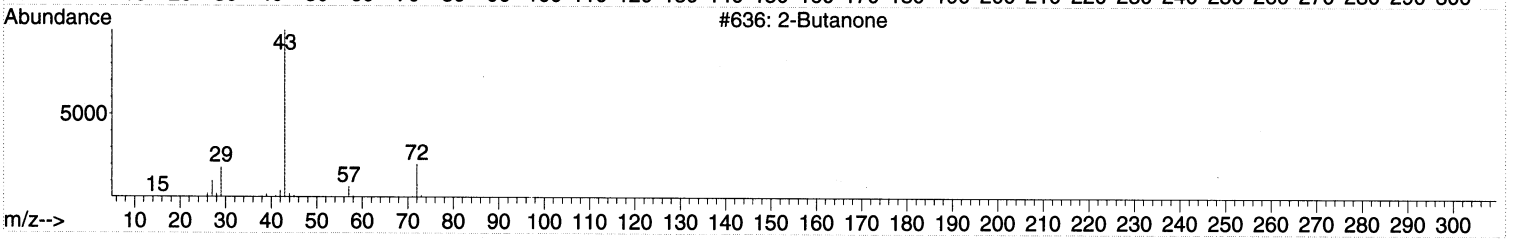
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:29:40 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M




TIC: 090613K04.D\data.ms

(25) 2-Butanone (MEK) (T)

14.684min (+0.012) 0.85 ppbv m

response 48947

| Ion | Exp% | Act% |
|---|---|---|
| 43.00 | 100 | 100 |
| 72.00 | 27.90 | 0.49# |
| 0.00 | 0.00 | 0.00 |
| 0.00 | 0.00 | 0.00 |

**MANUAL INTEGRATION VERIFICATION**

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/6/13

Manual integration(s) reviewed by:

Reviewer: ZR Date: 9-12-13



: 00003

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Rec MI
Em 9/6/13

Quant Time: Sep 06 15:29:40 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| Internal Standards | | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 973240 | 22.00 | ppbv | # | 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2830339 | 22.00 | ppbv | | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2613479 | 22.00 | ppbv | | 0.00 |
| Target Compounds | | | | | | | Qvalue |
| 2) Propene | 4.086 | 41 | 25030 | 0.98 | ppbv | | 92 |
| 3) Dichlorodifluoromethane | 4.177 | 85 | 97531 | 0.98 | ppbv | | 93 |
| 4) 1,2-Dichlorotetrafluor... | 4.512 | 85 | 100209 | 0.95 | ppbv | | 91 |
| 5) Chloromethane | 4.707 | 50 | 30131 | 1.01 | ppbv | | 95 |
| 6) Vinyl chloride | 5.017 | 62 | 34805 | 1.01 | ppbv | | 94 |
| 7) 1,3-Butadiene | 5.102 | 54 | 24335 | 0.90 | ppbv | | 91 |
| 8) Bromomethane | 5.990 | 94 | 36763 | 1.04 | ppbv | | 98 |
| 9) Chloroethane | 6.307 | 64 | 20267 | 1.11 | ppbv | | 100 |
| 10) Bromoethene | 6.860 | 106 | 26231 | 0.84 | ppbv | | 96 |
| 11) Trichlorofluoromethane | 6.988 | 101 | 95415 | 1.03 | ppbv | | 99 |
| 12) 1,1,2-Trichloro-1,2,2-... | 8.728 | 151 | 43427 | 0.73 | ppbv | # | 84 |
| 13) 1,1-Dichloroethene | 8.807 | 61 | 35903 | 0.77 | ppbv | # | 85 |
| 14) Acetone | 9.355 | 43 | 47827 | 1.10 | ppbv | | 89 |
| 15) Carbon disulfide | 9.501 | 76 | 77856 | 0.96 | ppbv | | 87 |
| 16) 2-Propanol | 10.036 | 45 | 26442 | 0.70 | ppbv | # | 55 |
| 17) Allyl chloride | 10.334 | 41 | 22802 | 0.70 | ppbv | | 93 |
| 18) Dichloromethane | 10.924 | 49 | 39489 | 1.05 | ppbv | | 89 |
| 19) tert-Butyl methyl ethe... | 11.709 | 73 | 55060 | 0.74 | ppbv | # | 55 |
| 20) trans-1,2-Dichloroethene | 11.685 | 61 | 32821 | 0.80 | ppbv | | 92 |
| 21) Hexane | 12.317 | 57 | 31137 | 0.71 | ppbv | | 87 |
| 22) 1,1-Dichloroethane | 13.072 | 63 | 52249 | 0.91 | ppbv | | 99 |
| 23) Vinyl acetate | 13.230 | 43 | 40167 | 0.65 | ppbv | | 98 |
| 24) cis-1,2-Dichloroethene | 14.556 | 61 | 37467 | 0.93 | ppbv | # | 66 |
| 26) Ethyl acetate | 14.726 | 43 | 52134 | 0.80 | ppbv | | 88 |
| 27) Tetrahydrofuran | 15.164 | 42 | 31324 | 0.89 | ppbv | | 83 |
| 28) Chloroform | 15.280 | 83 | 65116 | 0.94 | ppbv | | 95 |
| 29) Cyclohexane | 15.499 | 56 | 37443 | 0.81 | ppbv | # | 84 |
| 30) 1,1,1-Trichloroethane | 15.548 | 97 | 74330 | 0.98 | ppbv | | 93 |
| 31) Carbon tetrachloride | 15.803 | 117 | 78111 | 0.96 | ppbv | | 97 |
| 33) Benzene | 16.302 | 78 | 93562 | 1.08 | ppbv | | 96 |
| 34) 2,2,4-Trimethylpentane | 16.272 | 57 | 104750 | 0.85 | ppbv | | 92 |
| 35) 1,2-Dichloroethane | 16.509 | 62 | 51039 | 1.27 | ppbv | | 100 |
| 36) Heptane | 16.667 | 43 | 37983 | 0.86 | ppbv | | 95 |
| 37) Trichloroethene | 17.555 | 130 | 36352 | 0.87 | ppbv | | 96 |
| 38) 1,2-Dichloropropane | 18.060 | 63 | 32409 | 1.02 | ppbv | # | 85 |
| 39) 2,3-dichloro-1-propene | 18.145 | 75 | 37752 | 0.76 | ppbv | | 87 |
| 40) 1,4-Dioxane | 18.322 | 88 | 13236 | 0.72 | ppbv | # | 29 |
| 41) Bromodichloromethane | 18.535 | 83 | 71231 | 1.09 | ppbv | | 97 |
| 42) cis-1,3-Dichloropropene | 19.307 | 75 | 44092 | 0.96 | ppbv | | 85 |
| 43) 4-Methyl-2-pentanone (... | 19.563 | 43 | 58103 | 0.94 | ppbv | | 91 |
| 45) Toluene | 19.788 | 91 | 96221 | 0.87 | ppbv | | 97 |
| 46) trans-1,3-Dichloropropene | 20.269 | 75 | 46141 | 0.97 | ppbv | | 87 |
| 47) 1,1,2-Trichloroethane | 20.567 | 97 | 36871 | 0.95 | ppbv | | 85 |
| 48) Tetrachloroethene | 20.652 | 166 | 56287 | 0.85 | ppbv | | 94 |
| 49) 1,3-Dichloropropane | 20.853 | 76 | 50458 | 0.87 | ppbv | | 86 |

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:29:40 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 50) 2-Hexanone | 20.926 | 43 | 48731 | 0.81 ppbv | 87 |
| 51) Chlorodibromomethane | 21.181 | 129 | 69961 | 0.89 ppbv | 92 |
| 52) 1,2-Dibromoethane (EDB) | 21.406 | 107 | 58455 | 0.94 ppbv | 94 |
| 53) Chlorobenzene | 22.124 | 112 | 96062 | 0.97 ppbv # | 64 |
| 54) Ethylbenzene | 22.215 | 91 | 129931 | 0.86 ppbv | 98 |
| 55) m&p-Xylene | 22.398 | 91 | 212230 | 1.72 ppbv | 95 |
| 56) o-Xylene | 23.043 | 91 | 99577 | 0.81 ppbv | 96 |
| 57) Styrene | 23.085 | 104 | 80919 | 0.76 ppbv | 94 |
| 58) Bromoform | 23.456 | 173 | 71539 | 0.76 ppbv | 96 |
| 59) 1,1,2,2-Tetrachloroethane | 24.162 | 83 | 83897 | 0.85 ppbv | 98 |
| 60) 1,2,3-Trichloropropane | 24.272 | 75 | 65734 | 0.83 ppbv | 94 |
| 61) 4-Ethyltoluene | 24.399 | 105 | 122239 | 0.68 ppbv | 97 |
| 62) 1,3,5-Trimethylbenzene | 24.497 | 105 | 121829 | 0.78 ppbv | 94 |
| 63) 1,2,4-Trimethylbenzene | 25.093 | 105 | 105057 | 0.66 ppbv | 99 |
| 64) 1,3-Dichlorobenzene | 25.628 | 146 | 90877 | 0.68 ppbv | 92 |
| 65) 1,4-Dichlorobenzene | 25.768 | 146 | 88685 | 0.67 ppbv | 96 |
| 66) Benzyl chloride | 25.987 | 91 | 94692 | 0.72 ppbv | 92 |
| 67) 1,2-Dichlorobenzene | 26.370 | 146 | 86099 | 0.69 ppbv | 95 |
| 68) 1,2-Dibromo-3-chloropr... | 27.611 | 157 | 39826 | 0.56 ppbv # | 67 |
| 69) 1,2,4-Trichlorobenzene | 28.834 | 180 | 80086 | 0.64 ppbv | 97 |
| 70) Hexachlorobutadiene | 28.974 | 225 | 77301 | 0.61 ppbv | 98 |

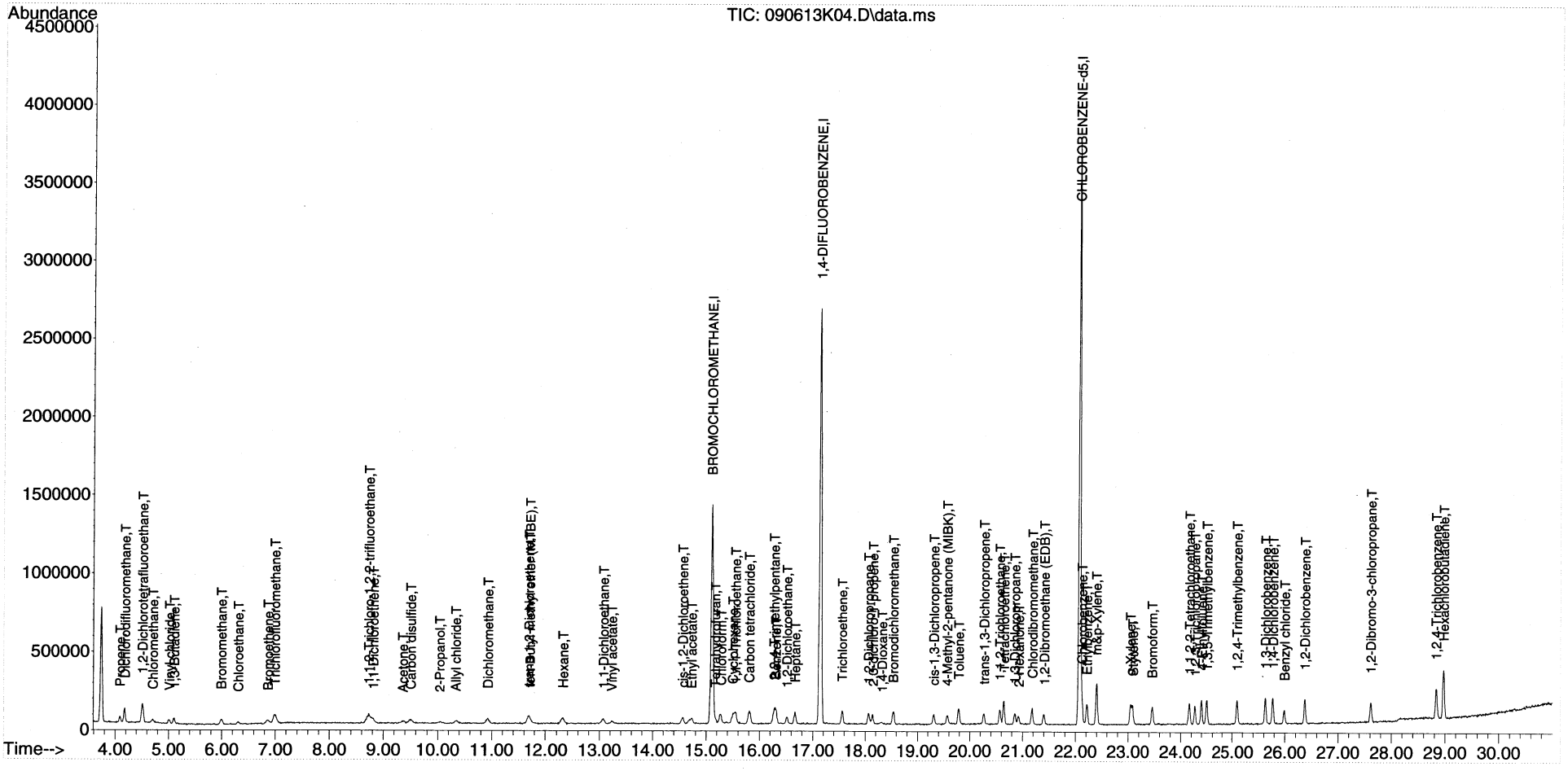
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K04.D
Acq On : 6 Sep 2013 14:57
Instrument: HP5973K
Operator : EM
Sample : S13I022-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 06 15:29:40 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Instrument: HP5973K
Operator : EM
Sample : B13I031-BLK1
Misc : Blank Can 870
ALS Vial : 33
Multiplier: 1

Quant Time: Sep 10 10:18:10 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 951728 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2672794 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2536128 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

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



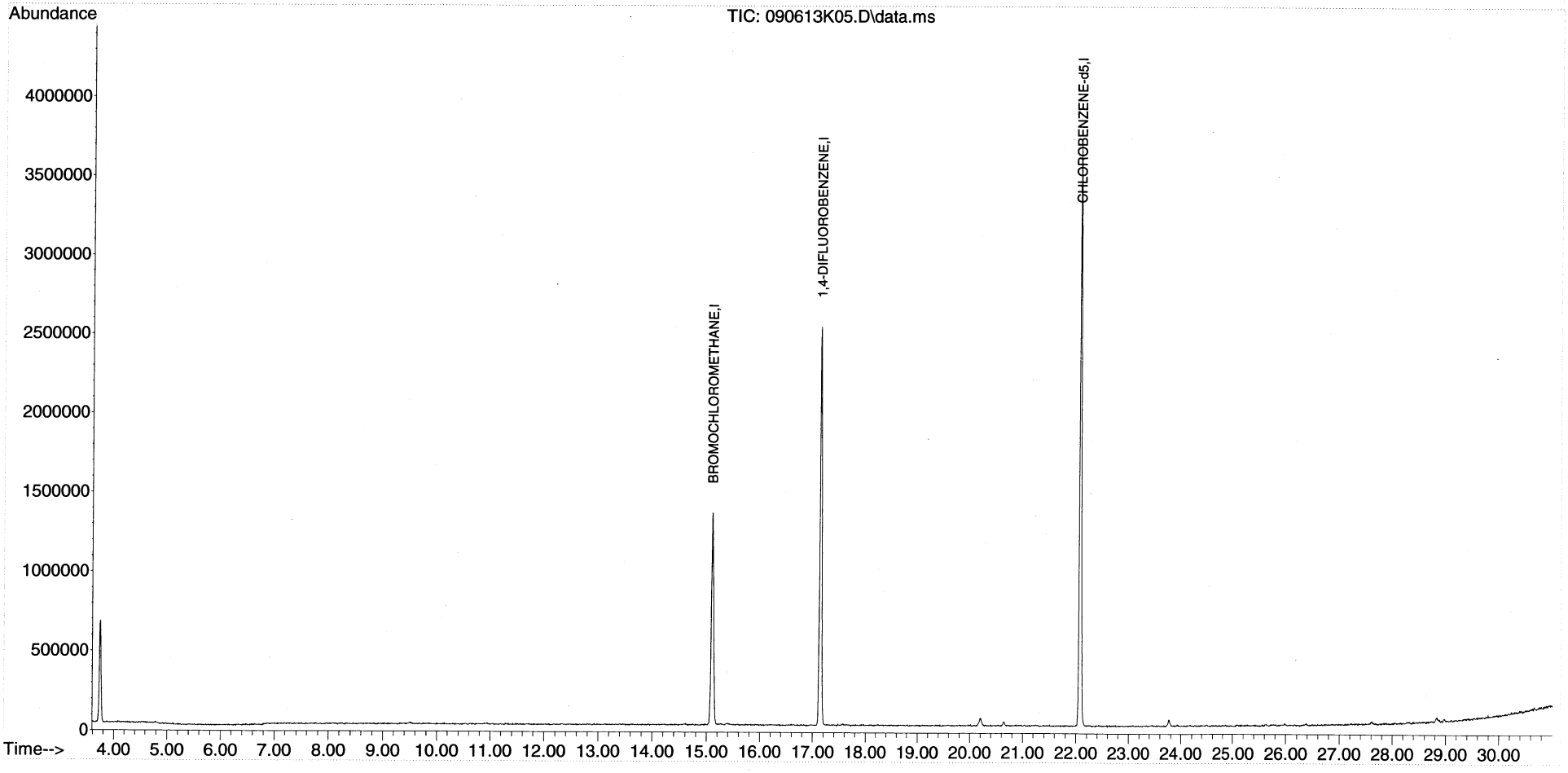
00697

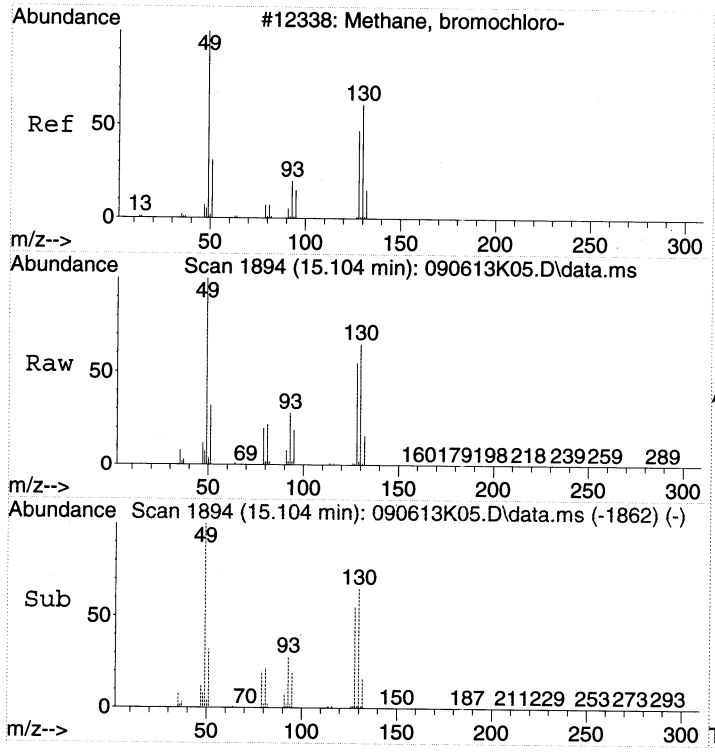
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Instrument: HP5973K
Operator : EM
Sample : B13I031-BLK1
Misc : Blank Can 870
ALS Vial : 33
Multiplier: 1

Quant Time: Sep 10 10:18:10 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

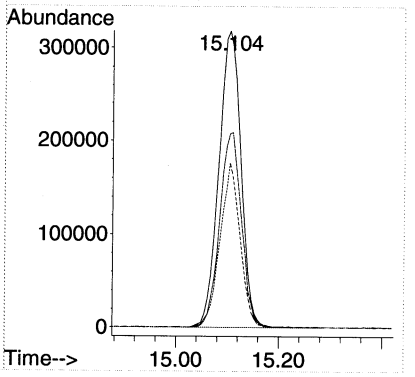


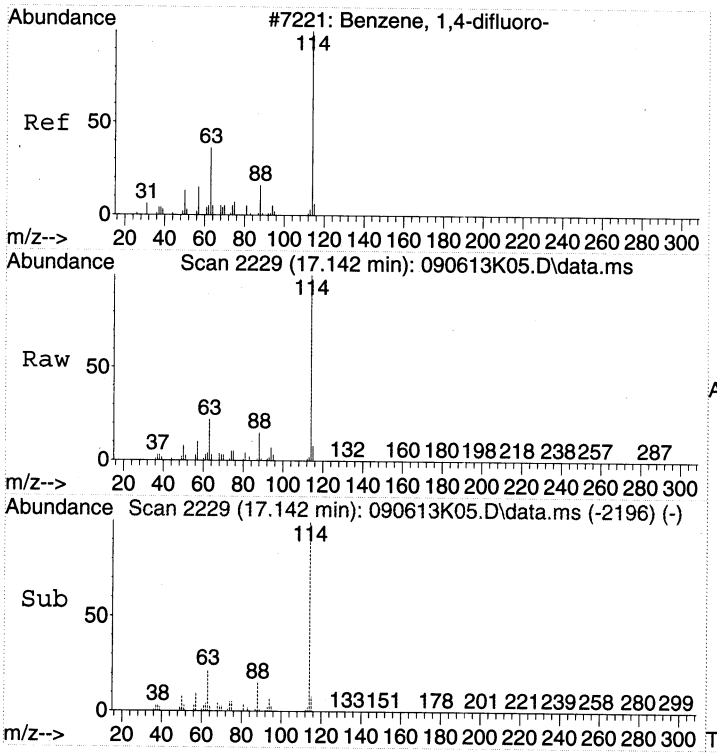



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K05.D
Acq: 6 Sep 2013 15:50

Tgt Ion: 49 Resp: 951728

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 64.9 | 70.5 | 110.5# |
| 128 | 50.2 | 50.6 | 90.6# |

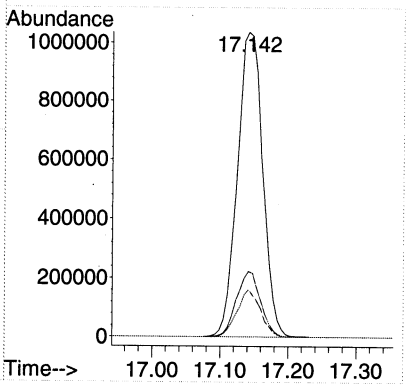


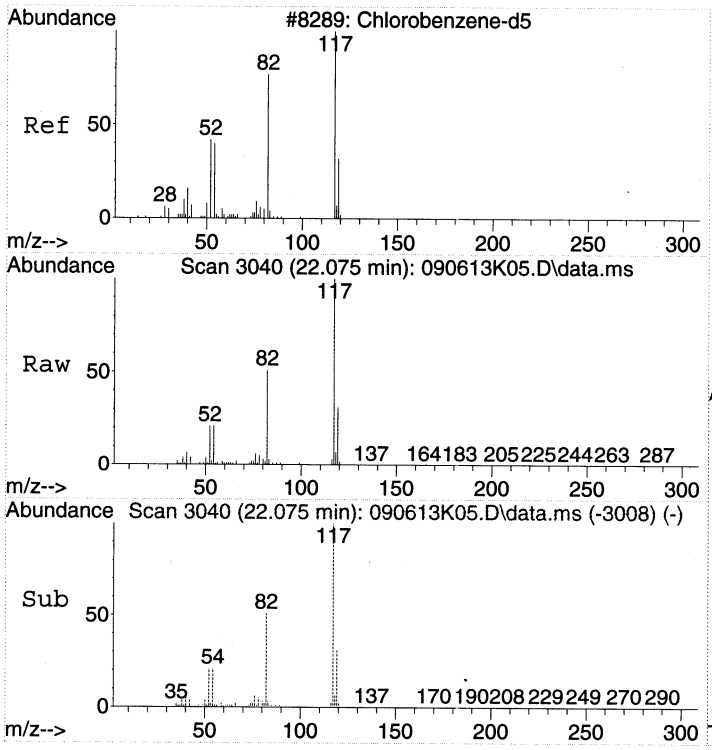




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K05.D
Acq: 6 Sep 2013 15:50

Tgt Ion:114 Resp: 2672794

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.6 | 0.0 | 37.0 |
| 88 | 14.5 | 0.0 | 33.1 |

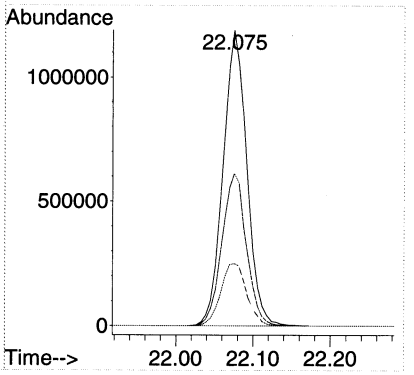





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K05.D
Acq: 6 Sep 2013 15:50

Tgt Ion:117 Resp: 2536128

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.2 | 26.5 | 66.5 |
| 54 | 23.3 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Operator : EM
Sample : Blank Can 870
Misc : Blank Can 870
ALS Vial : 33 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K05.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1880 | 1894 | 1907 | rBV2 | 1336782 | 3877804 | 48.01% | 20.906% |
| 2 | 17.142 | 2218 | 2229 | 2242 | rBV | 2508633 | 6349965 | 78.62% | 34.234% |
| 3 | 20.196 | 2722 | 2731 | 2741 | rBV2 | 47792 | 155305 | 1.92% | 0.837% |
| 4 | 22.075 | 3030 | 3040 | 3055 | rBV | 3665784 | 8076943 | 100.00% | 43.545% |
| 5 | 23.767 | 3310 | 3318 | 3323 | rBV3 | 39705 | 88671 | 1.10% | 0.478% |

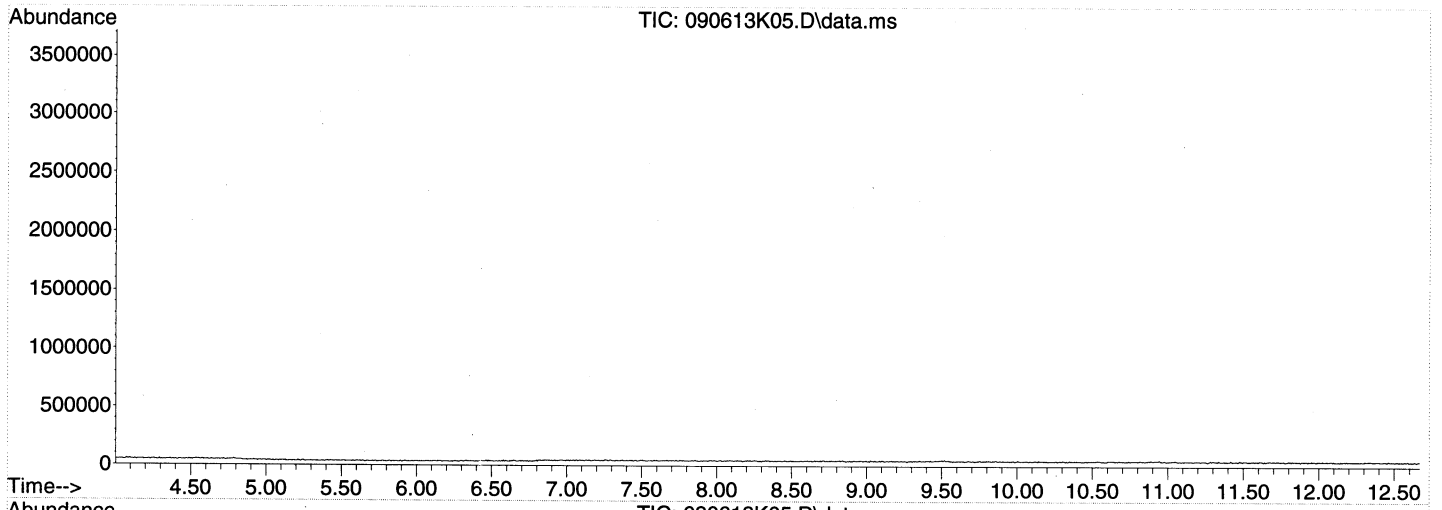
Sum of corrected areas: 18548688

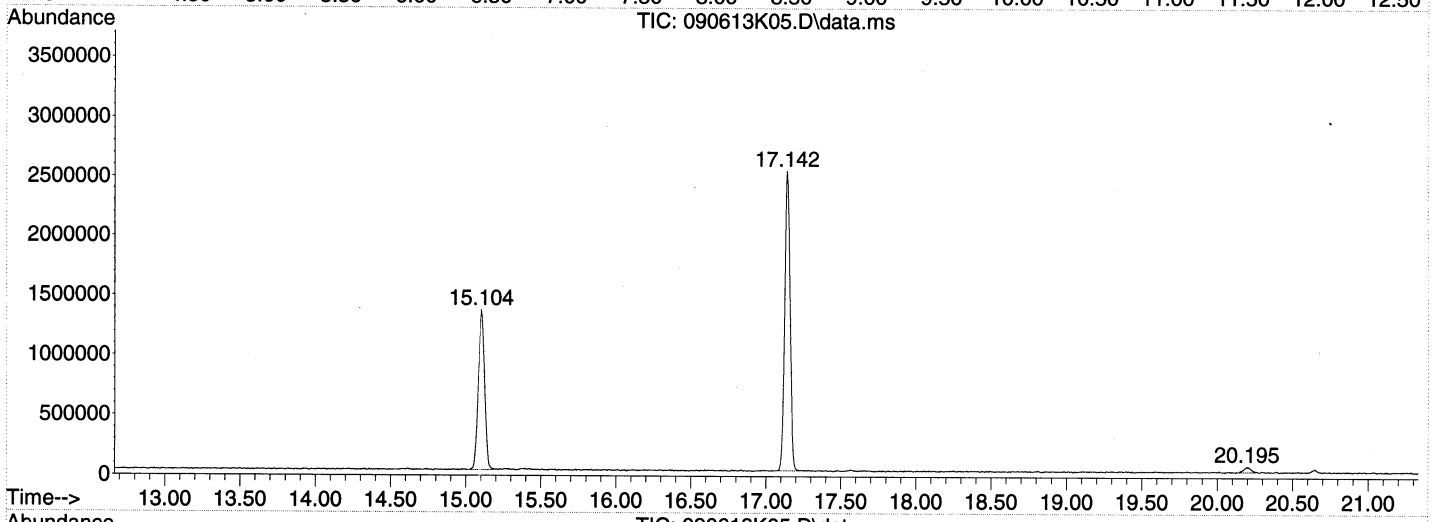
LSC Report - Integrated Chromatogram

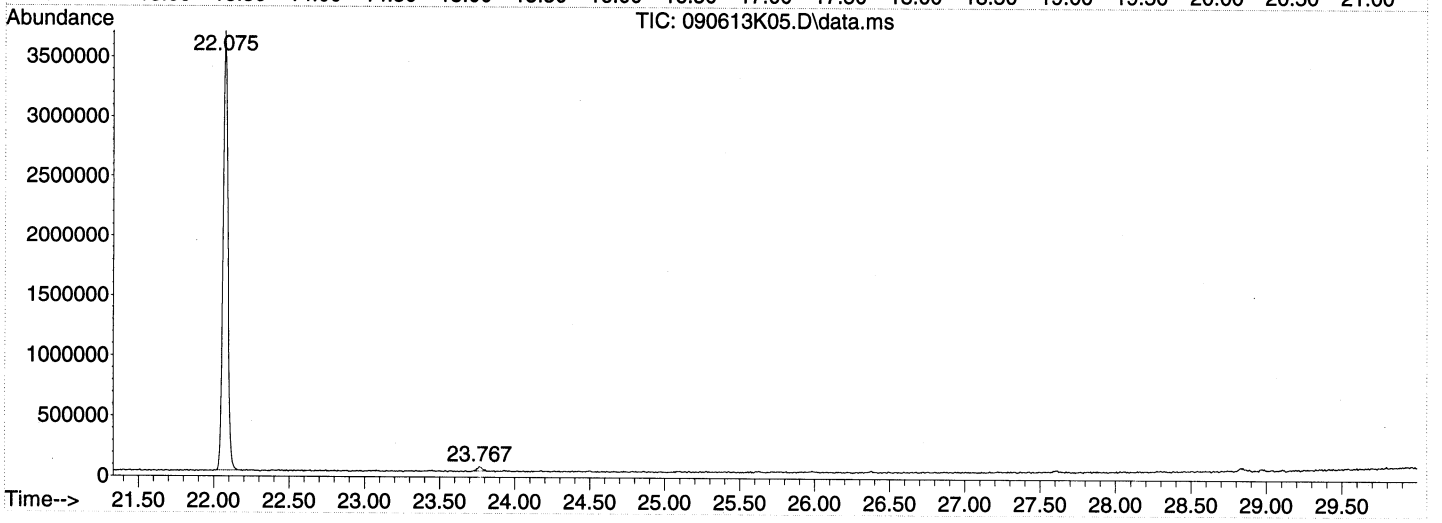
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Operator : EM
Sample : Blank Can 870
Misc : Blank Can 870
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P






:00612

Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Operator : EM
Sample : Blank Can 870
Misc : Blank Can 870
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K05.D
Acq On : 6 Sep 2013 15:50
Operator : EM
Sample : Blank Can 870
Misc : Blank Can 870
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36
Multiplier: 1

Quant Time: Sep 10 10:02:00 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 860459 | 22.00 | ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2382063 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2223283 | 22.00 | ppbv | 0.00 |

Target Compounds Qvalue

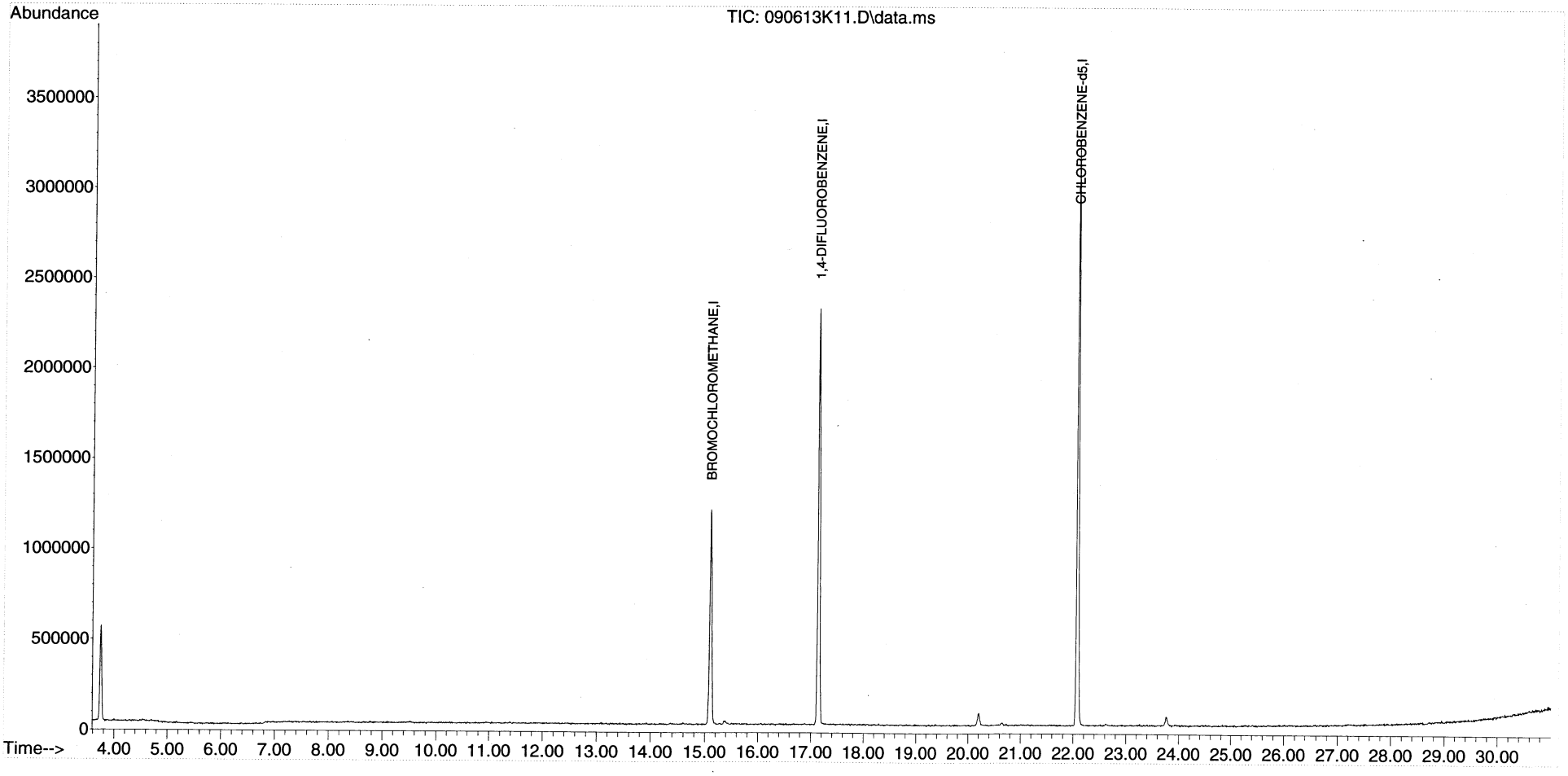
(#) = qualifier out of range (m) = manual integration (+) = signals summed

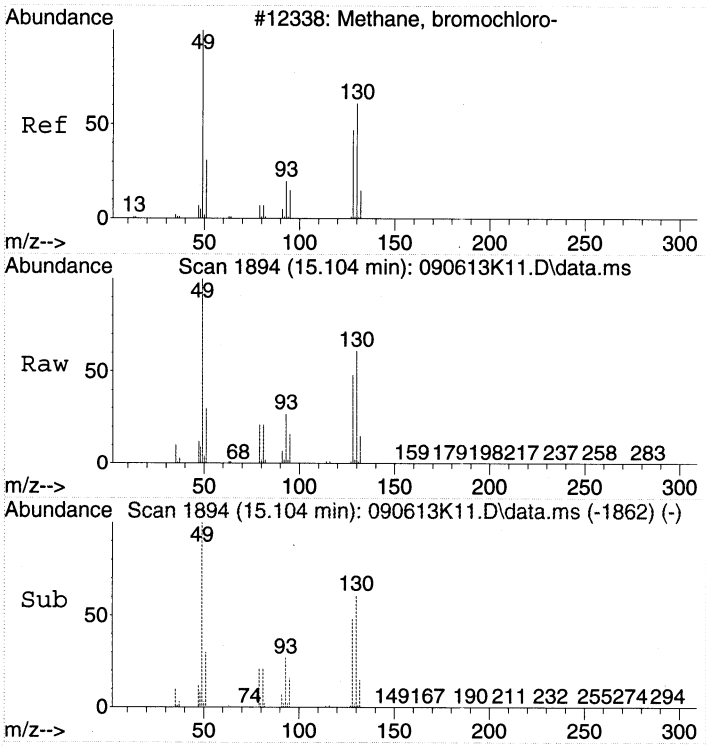
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36
Multiplier: 1

Quant Time: Sep 10 10:02:00 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

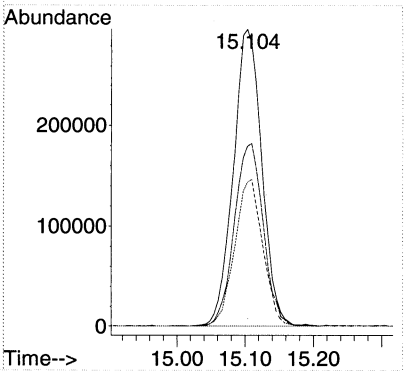


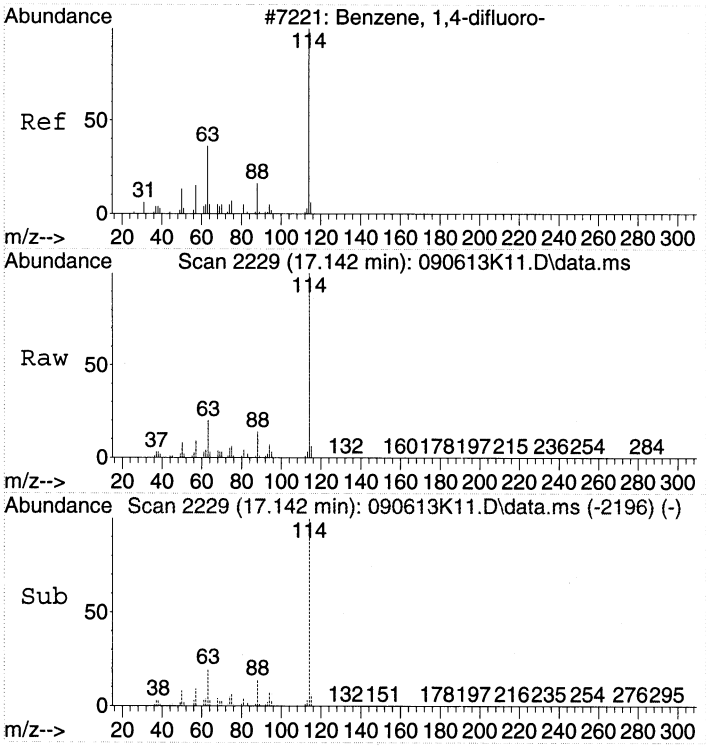



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K11.D
Acq: 6 Sep 2013 20:57

Tgt Ion: 49 Resp: 860459

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 62.6 | 70.5 | 110.5# |
| 128 | 48.8 | 50.6 | 90.6# |

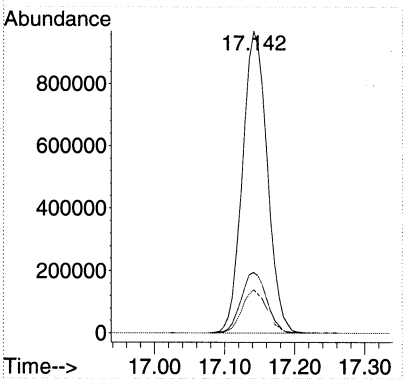


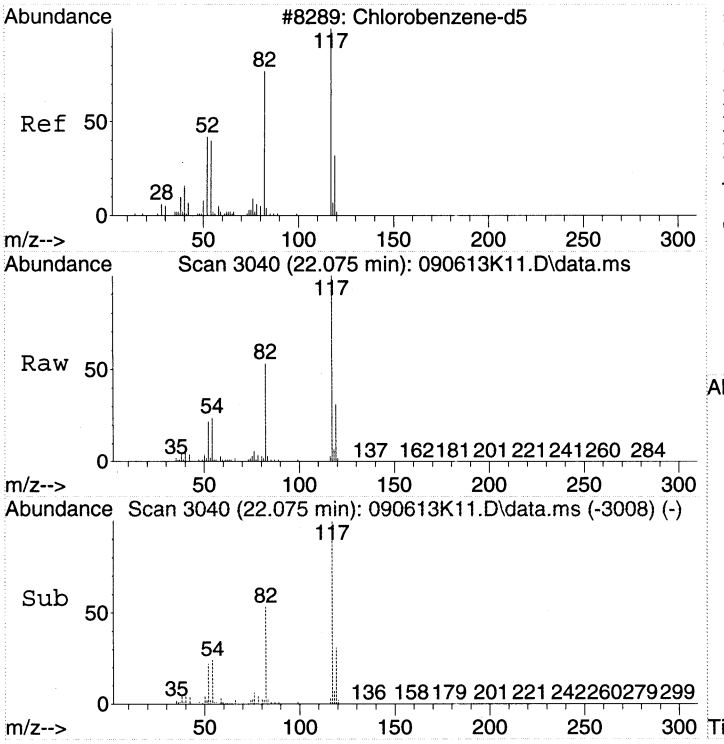




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K11.D
Acq: 6 Sep 2013 20:57

Tgt Ion:114 Resp: 2382063

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.8 | 0.0 | 37.0 |
| 88 | 14.3 | 0.0 | 33.1 |

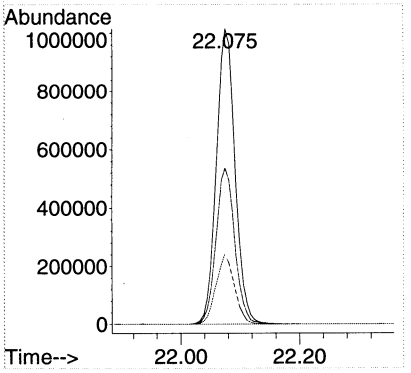





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K11.D
Acq: 6 Sep 2013 20:57

Tgt Ion:117 Resp: 2223283

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.3 | 26.5 | 66.5 |
| 54 | 23.6 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K11.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1880 | 1894 | 1906 | rBV | 1186596 | 3451008 | 48.23% | 20.731% |
| 2 | 17.142 | 2216 | 2229 | 2240 | rBV | 2301672 | 5707535 | 79.77% | 34.287% |
| 3 | 20.208 | 2725 | 2733 | 2740 | rVB3 | 64204 | 178271 | 2.49% | 1.071% |
| 4 | 22.075 | 3030 | 3040 | 3053 | rBV | 3209673 | 7155241 | 100.00% | 42.984% |
| 5 | 23.760 | 3310 | 3317 | 3329 | rVB2 | 50754 | 154177 | 2.15% | 0.926% |

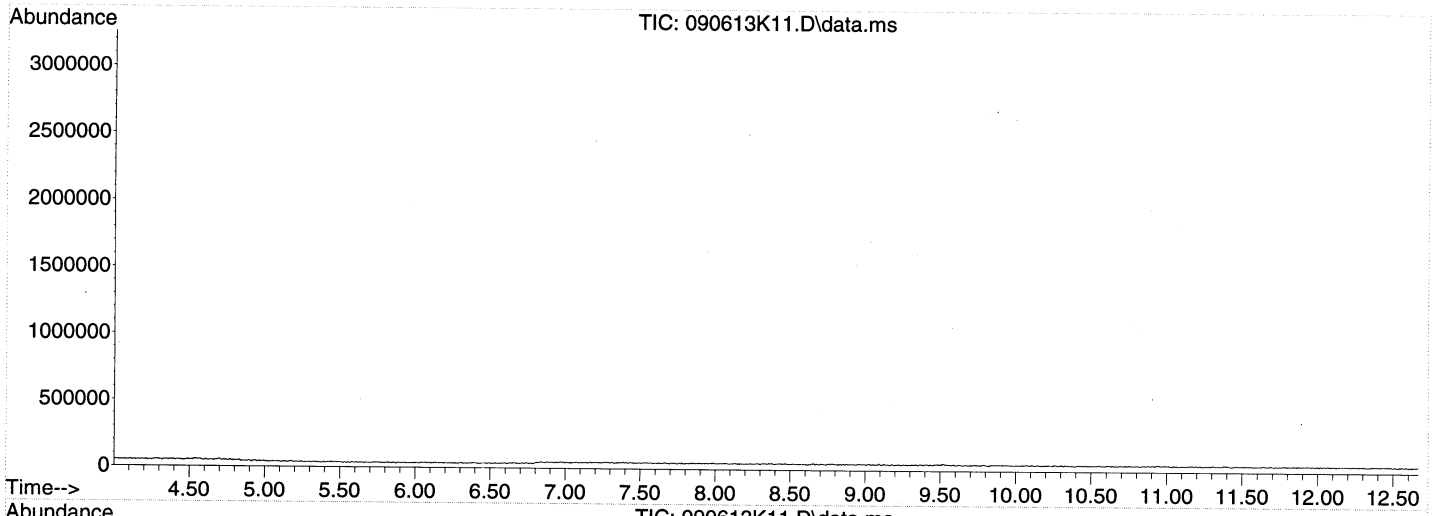
Sum of corrected areas: 16646232

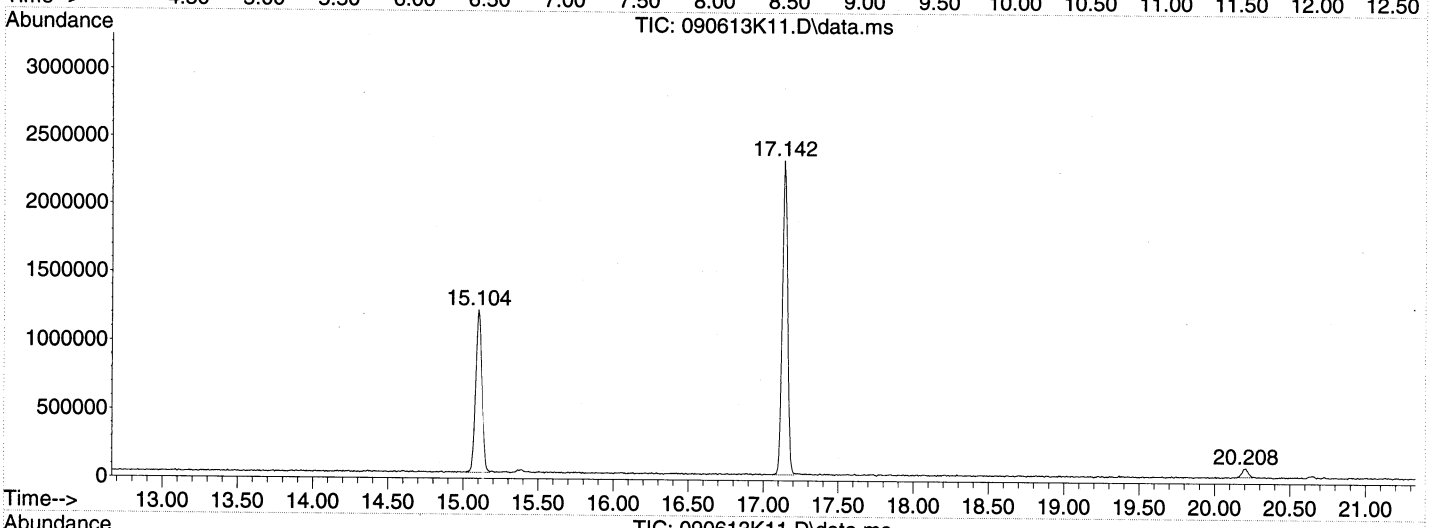
LSC Report - Integrated Chromatogram

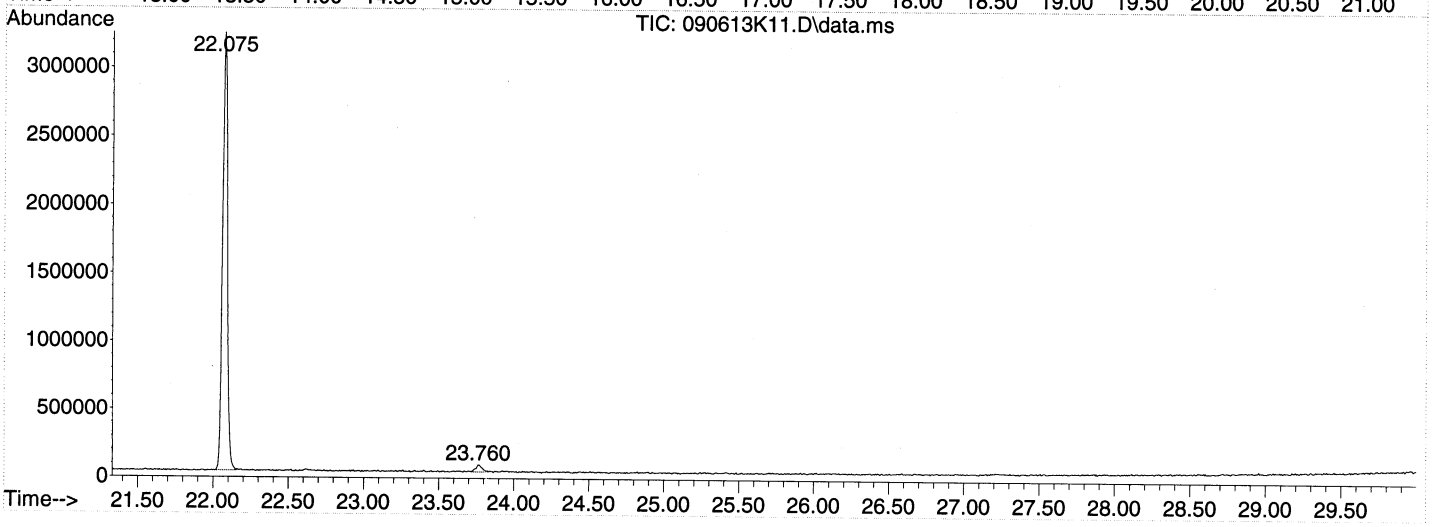
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K11.D
Acq On : 6 Sep 2013 20:57
Operator : EM
Sample : Blank Can 1095
Misc : Blank Can 1095
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38
Multiplier: 1

Quant Time: Sep 10 10:02:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 837236 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2375871 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2205605 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

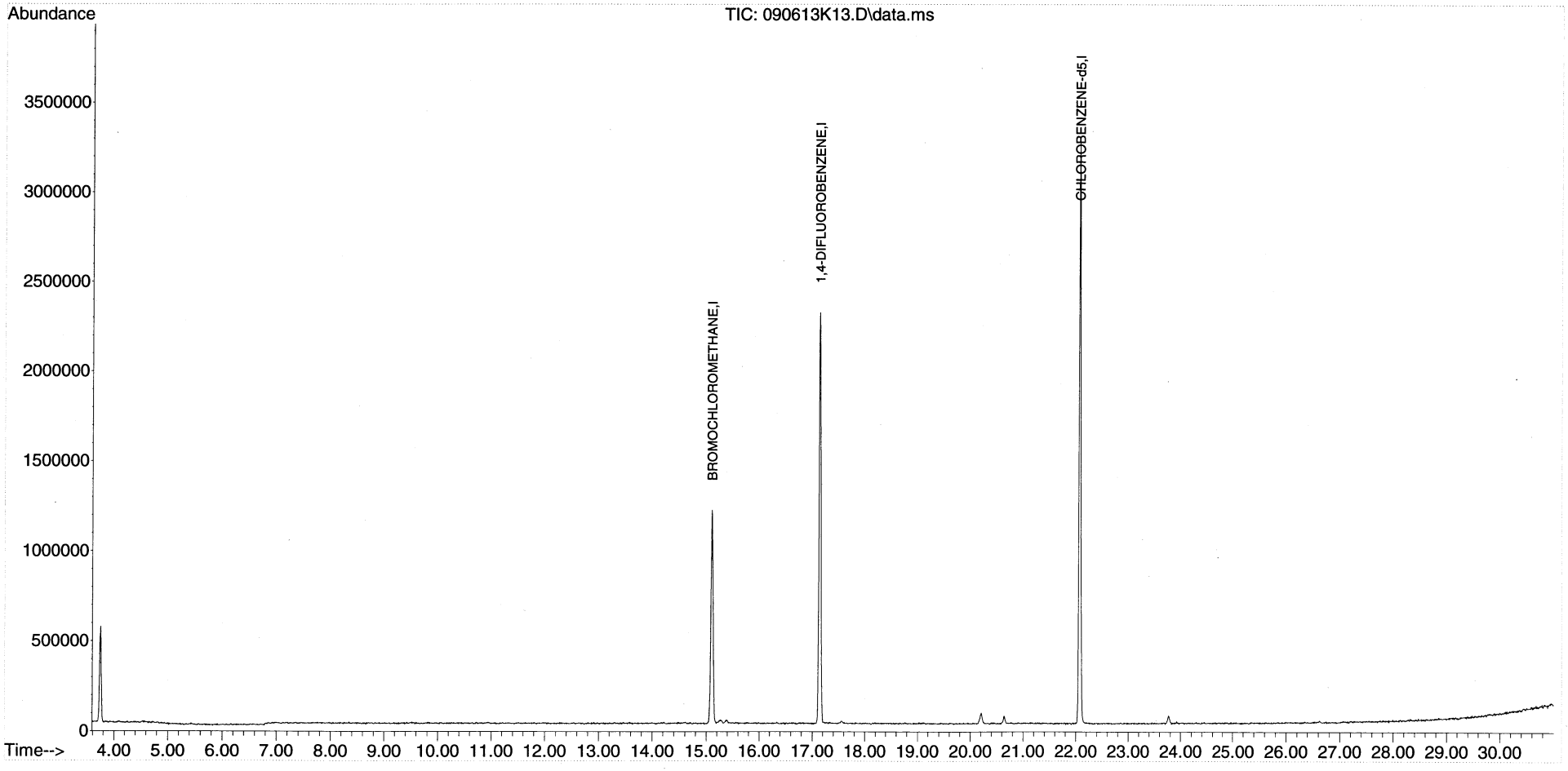
(#) = qualifier out of range (m) = manual integration (+) = signals summed

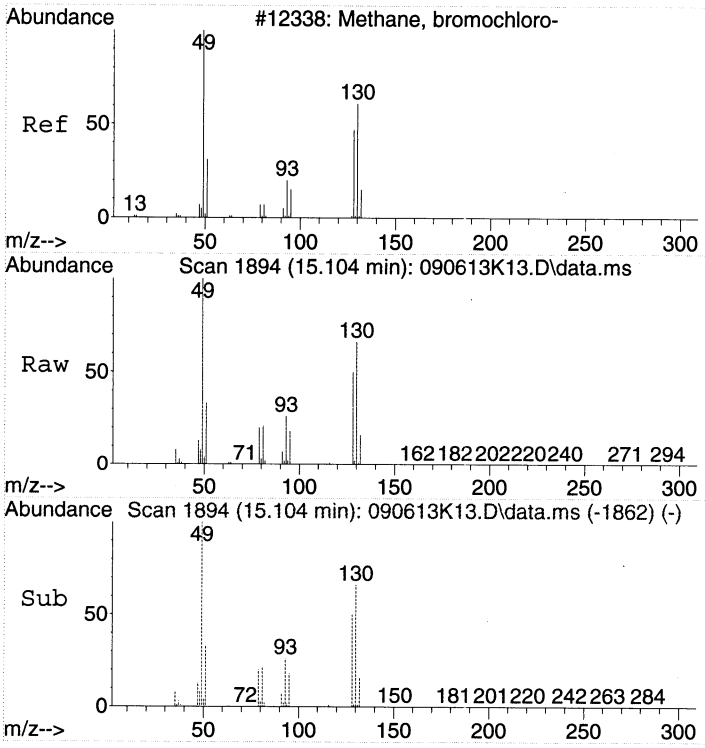
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38
Multiplier: 1

Quant Time: Sep 10 10:02:25 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

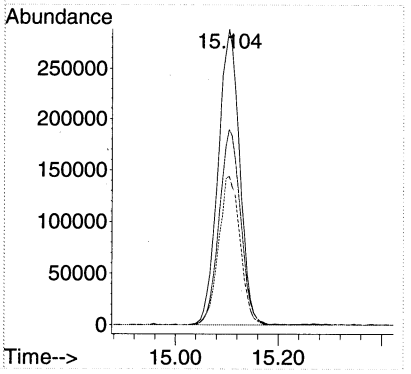


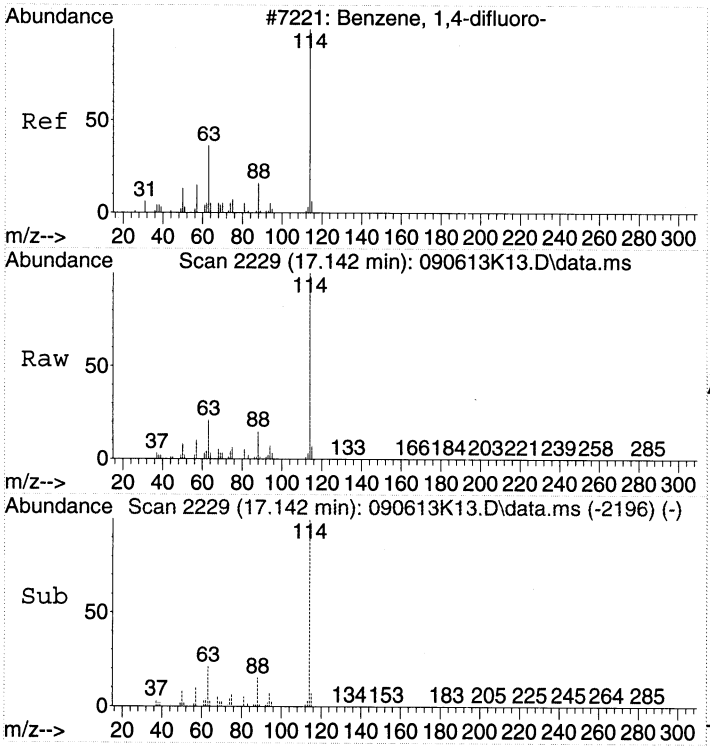



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K13.D
Acq: 6 Sep 2013 22:38

Tgt Ion: 49 Resp: 837236

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 65.4 | 70.5 | 110.5# |
| 128 | 49.9 | 50.6 | 90.6# |

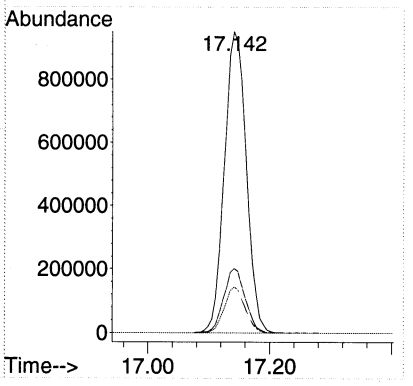


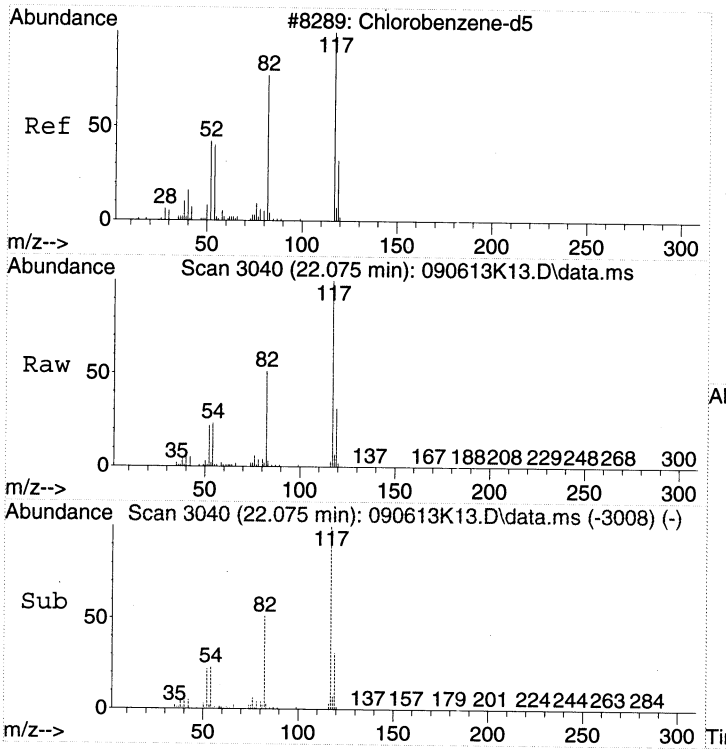




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K13.D
Acq: 6 Sep 2013 22:38

Tgt Ion:114 Resp: 2375871

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.7 | 0.0 | 37.0 |
| 88 | 14.3 | 0.0 | 33.1 |

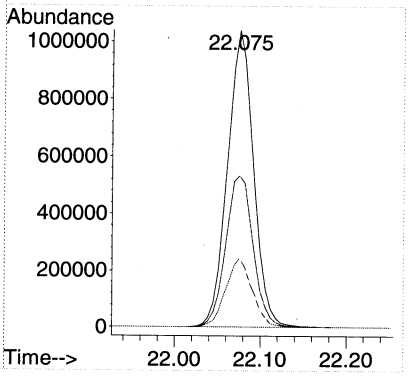





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K13.D
Acq: 6 Sep 2013 22:38

Tgt Ion:117 Resp: 2205605

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.1 | 26.5 | 66.5 |
| 54 | 23.8 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K13.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1878 | 1894 | 1908 | rBV2 | 1188487 | 3472409 | 48.92% | 20.878% |
| 2 | 17.142 | 2219 | 2229 | 2240 | rBV | 2281182 | 5681570 | 80.05% | 34.161% |
| 3 | 20.208 | 2724 | 2733 | 2744 | rVB2 | 61155 | 183659 | 2.59% | 1.104% |
| 4 | 20.646 | 2800 | 2805 | 2812 | rVB7 | 40195 | 86691 | 1.22% | 0.521% |
| 5 | 22.075 | 3030 | 3040 | 3052 | rBV | 3235838 | 7097606 | 100.00% | 42.675% |
| 6 | 23.767 | 3311 | 3318 | 3325 | rBV3 | 42910 | 109733 | 1.55% | 0.660% |

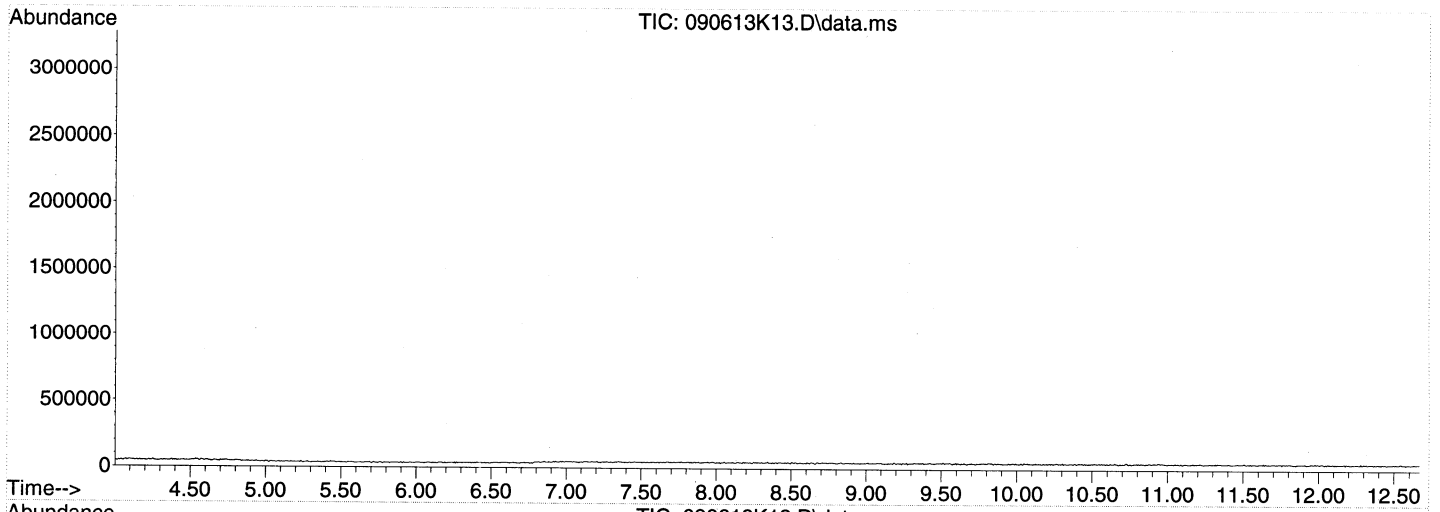
Sum of corrected areas: 16631668

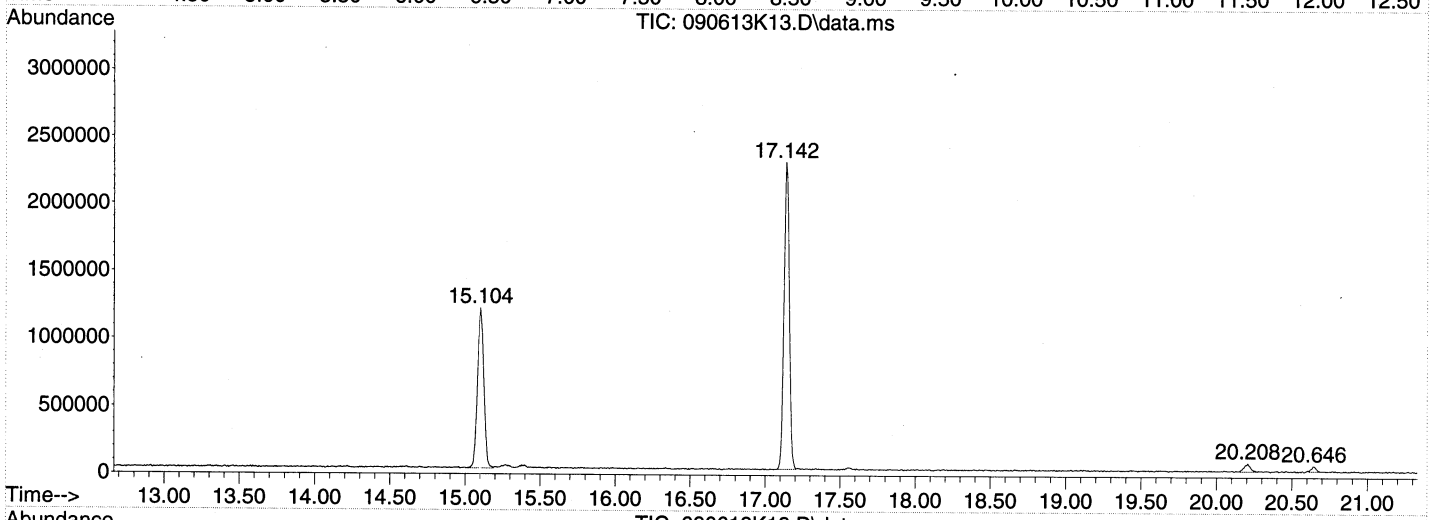
LSC Report - Integrated Chromatogram

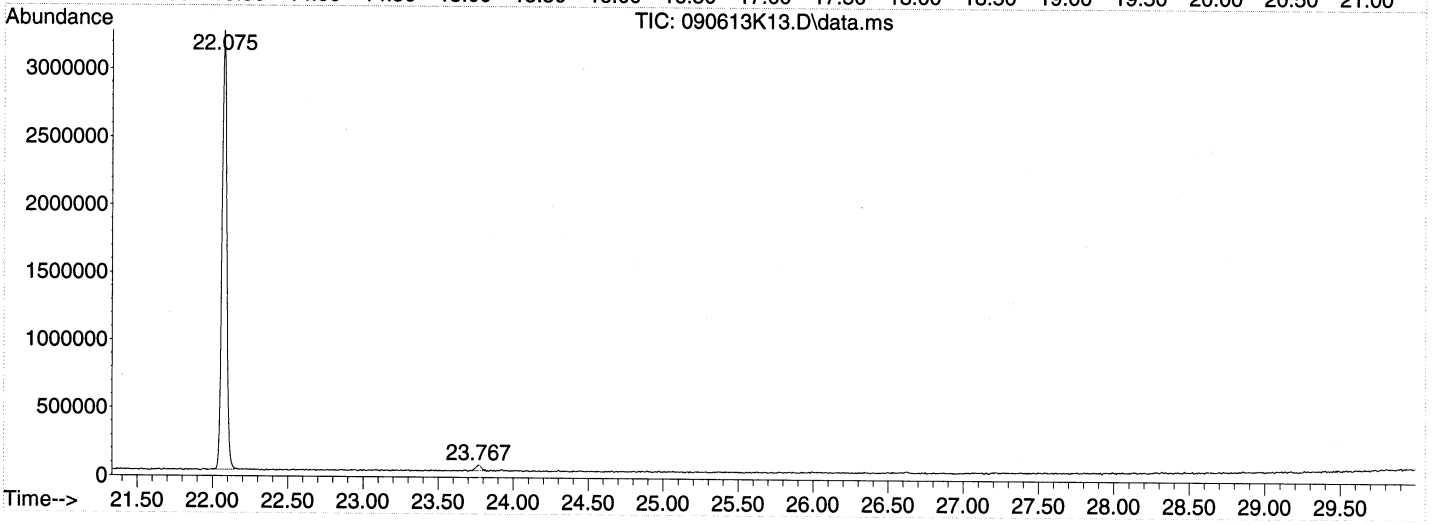
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K13.D
Acq On : 6 Sep 2013 22:38
Operator : EM
Sample : Blank Can 1967
Misc : Blank Can 1967
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12
Multiplier: 1

Quant Time: Sep 10 10:03:14 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 803303 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2213768 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2072826 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

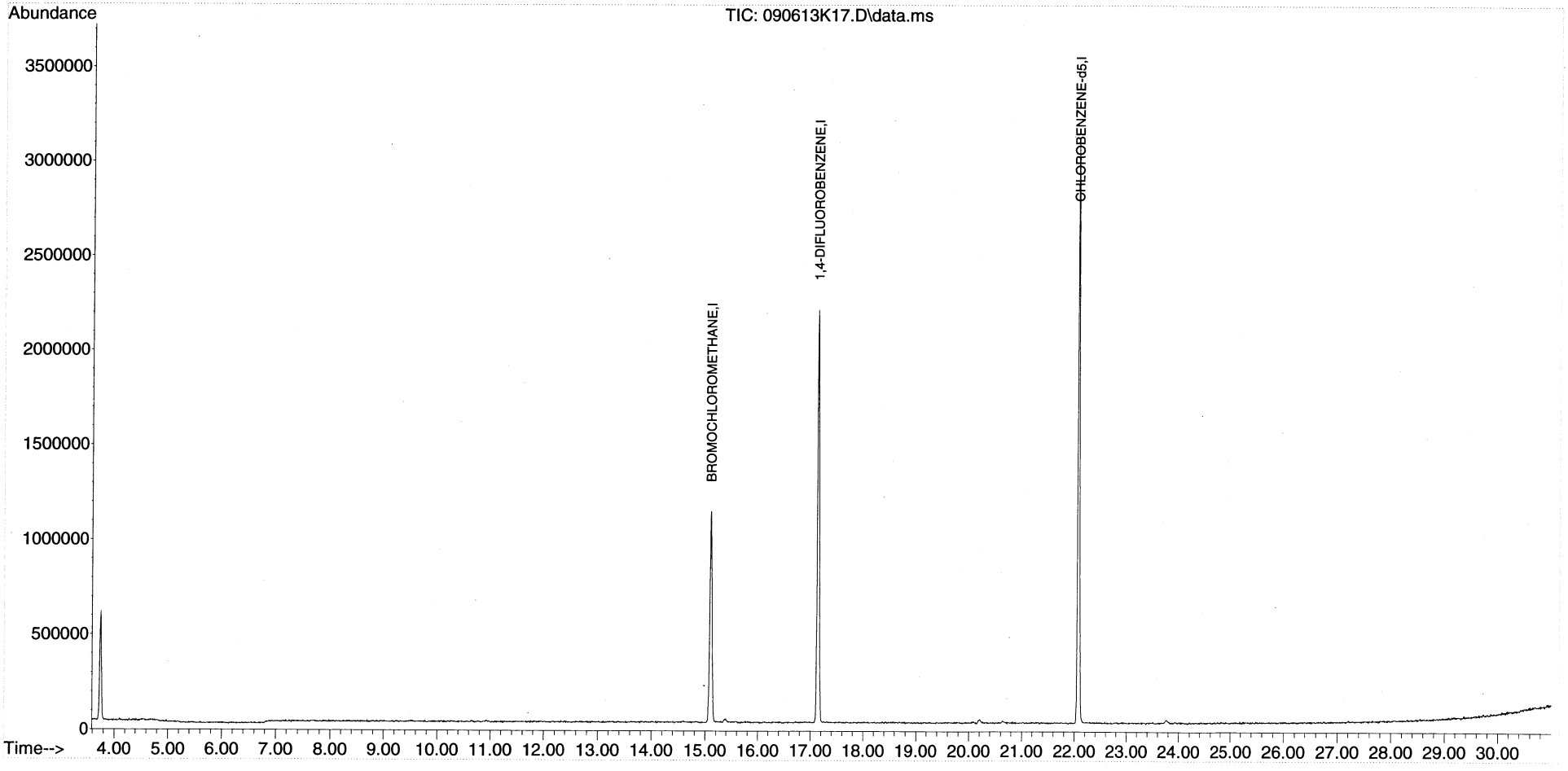
(#) = qualifier out of range (m) = manual integration (+) = signals summed

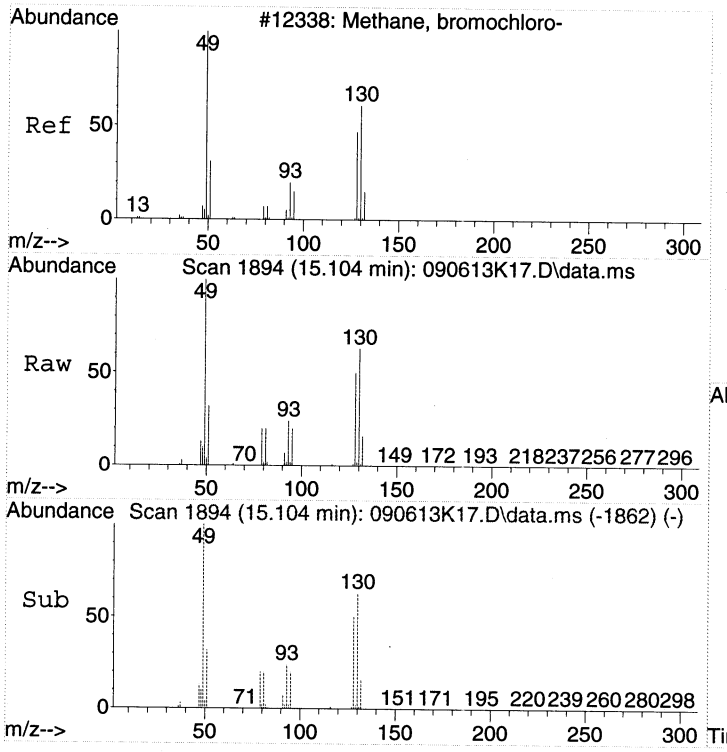
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12
Multiplier: 1

Quant Time: Sep 10 10:03:14 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

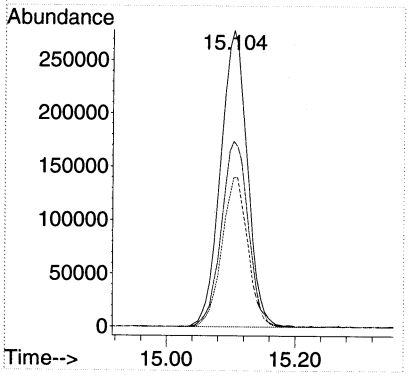


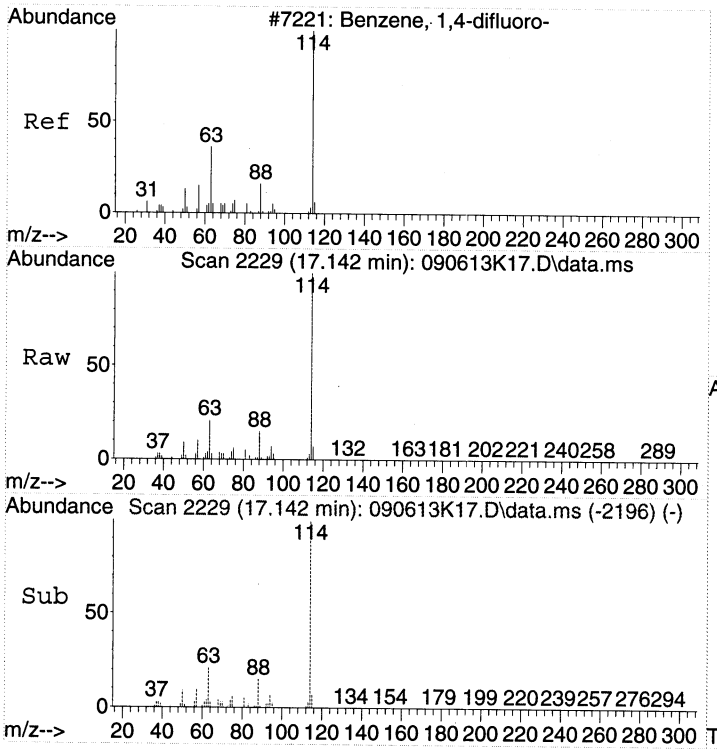



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K17.D
Acq: 7 Sep 2013 2:01

Tgt Ion: 49 Resp: 803303

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 62.8 | 70.5 | 110.5# |
| 128 | 48.7 | 50.6 | 90.6# |

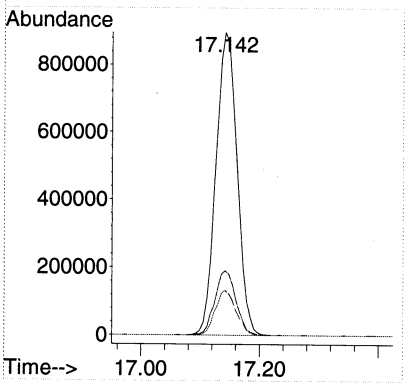


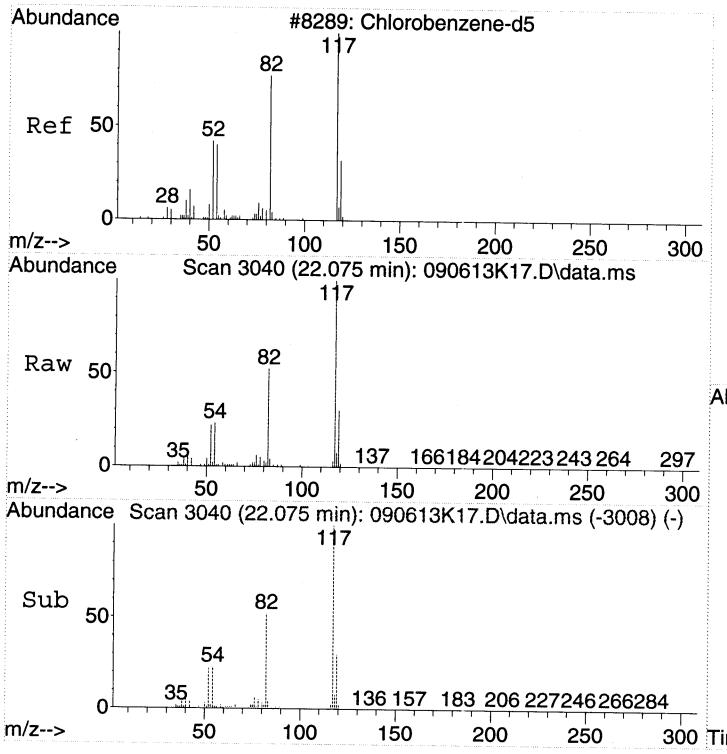




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K17.D
Acq: 7 Sep 2013 2:01

Tgt Ion:114 Resp: 2213768

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.2 | 0.0 | 37.0 |
| 88 | 14.6 | 0.0 | 33.1 |

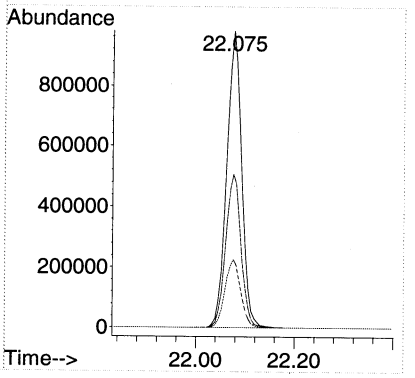





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K17.D
Acq: 7 Sep 2013 2:01

Tgt Ion:117 Resp: 2072826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.2 | 26.5 | 66.5 |
| 54 | 24.4 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K17.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1880 | 1894 | 1905 | rBV2 | 1111734 | 3262701 | 48.44% | 21.257% |
| 2 | 17.142 | 2218 | 2229 | 2243 | rBV | 2175837 | 5349848 | 79.42% | 34.856% |
| 3 | 22.075 | 3030 | 3040 | 3055 | rBV | 3061535 | 6735939 | 100.00% | 43.887% |

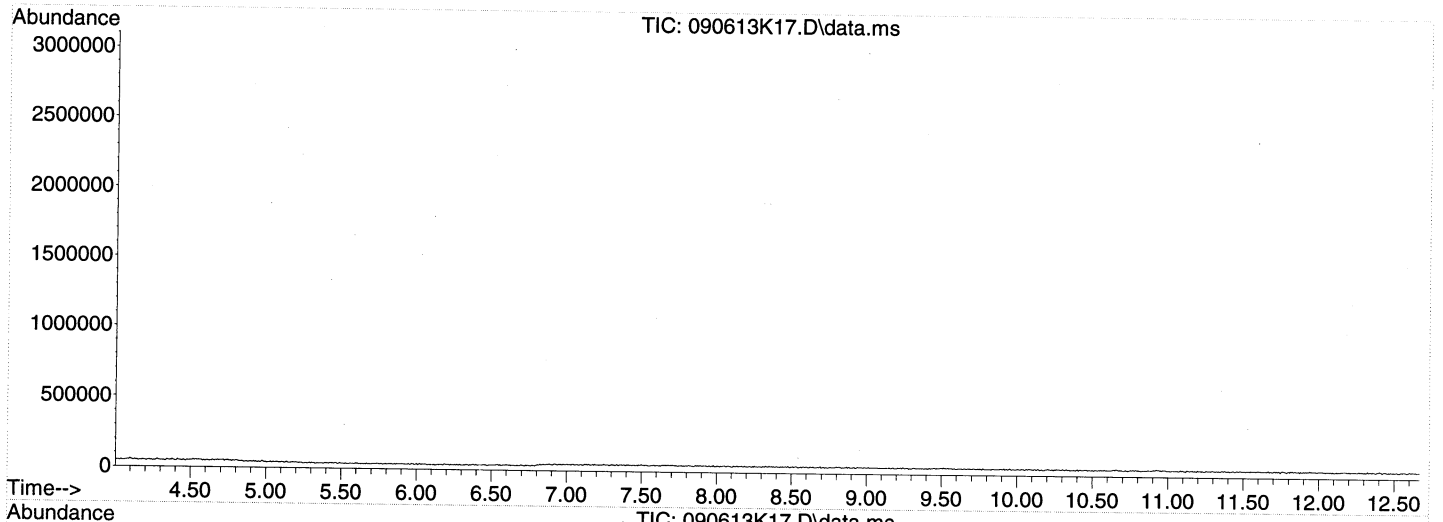
Sum of corrected areas: 15348488

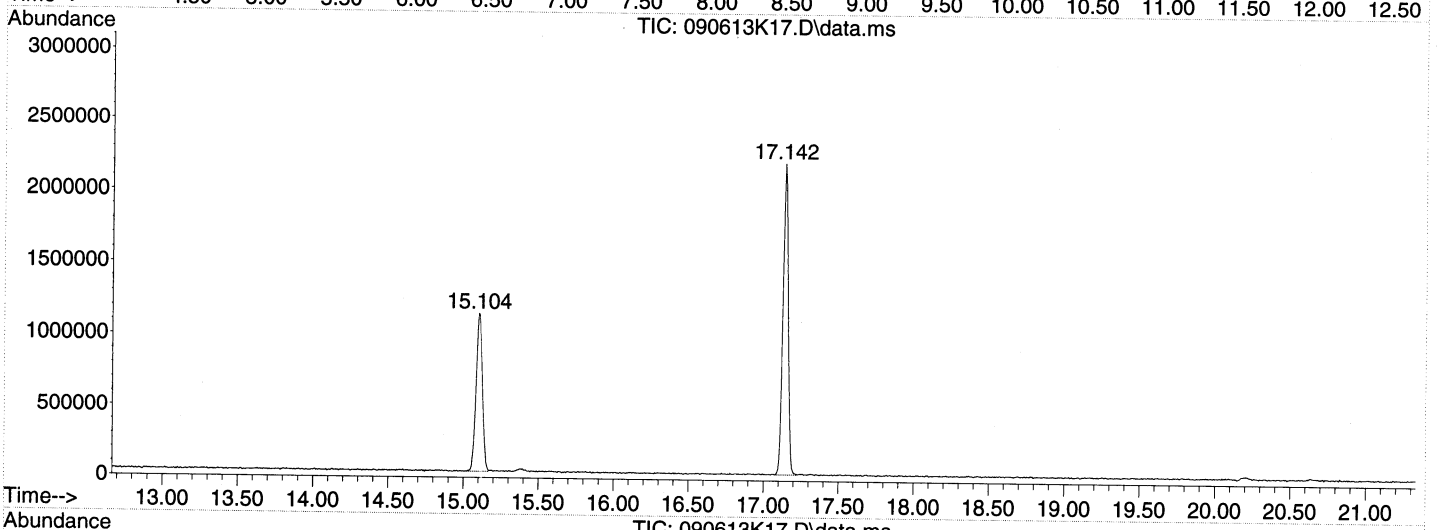
LSC Report - Integrated Chromatogram

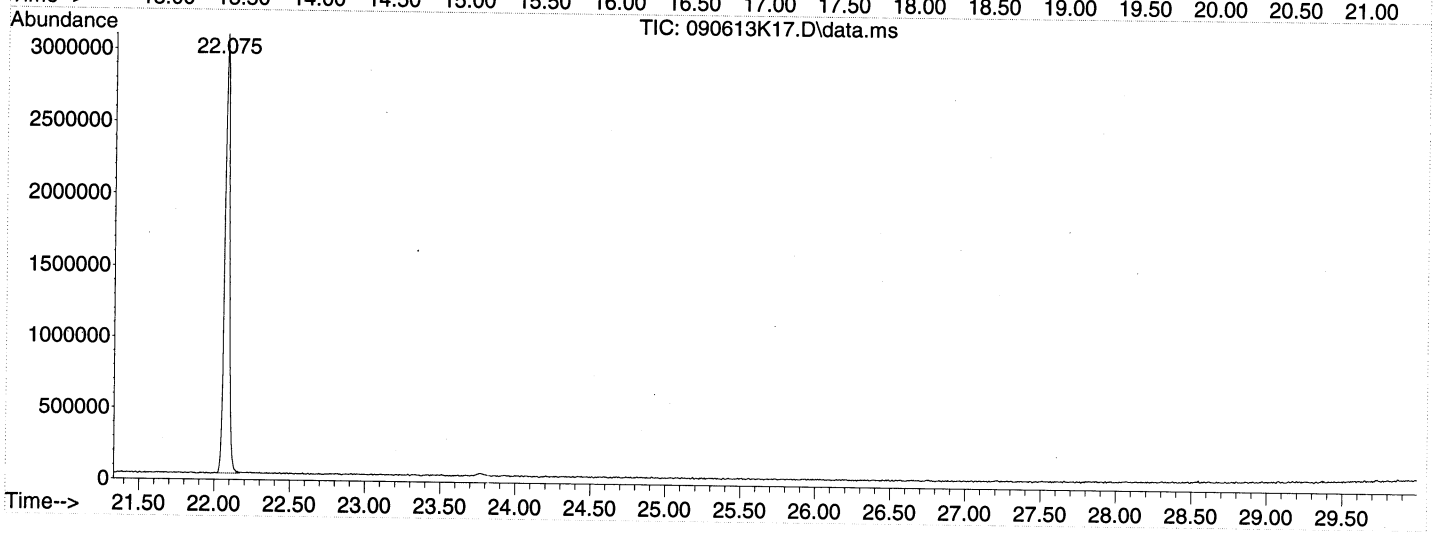
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K17.D
Acq On : 7 Sep 2013 2:01
Operator : EM
Sample : Blank Can 1978
Misc : Blank Can 1978
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47
Multiplier: 1

Quant Time: Sep 10 10:04:37 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| Internal Standards | | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 745212 | 22.00 | ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 1981450 | 22.00 | ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 1843368 | 22.00 | ppbv | 0.00 |

| Target Compounds | Qvalue |
|---|---|

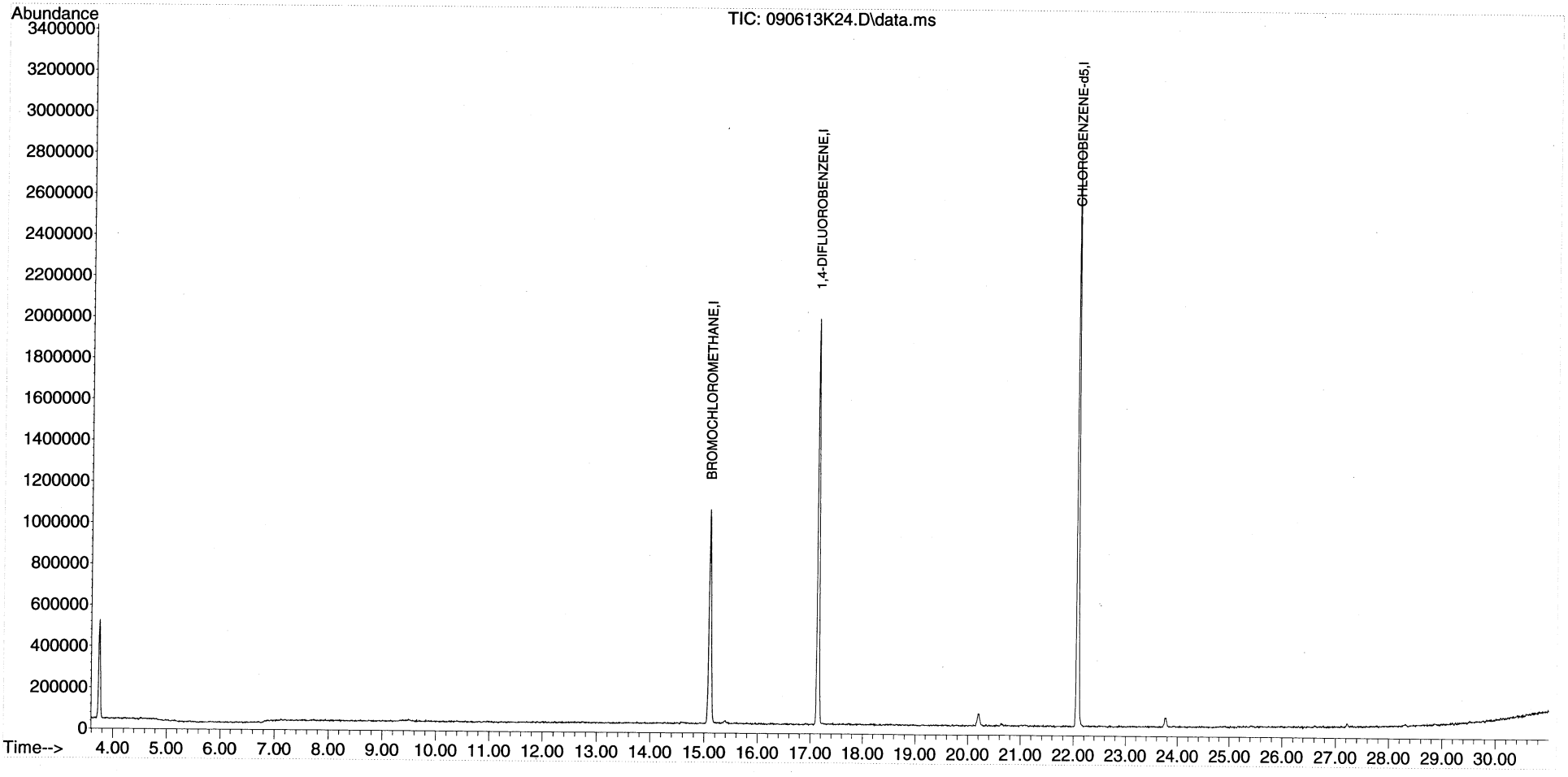
(#) = qualifier out of range (m) = manual integration (+) = signals summed

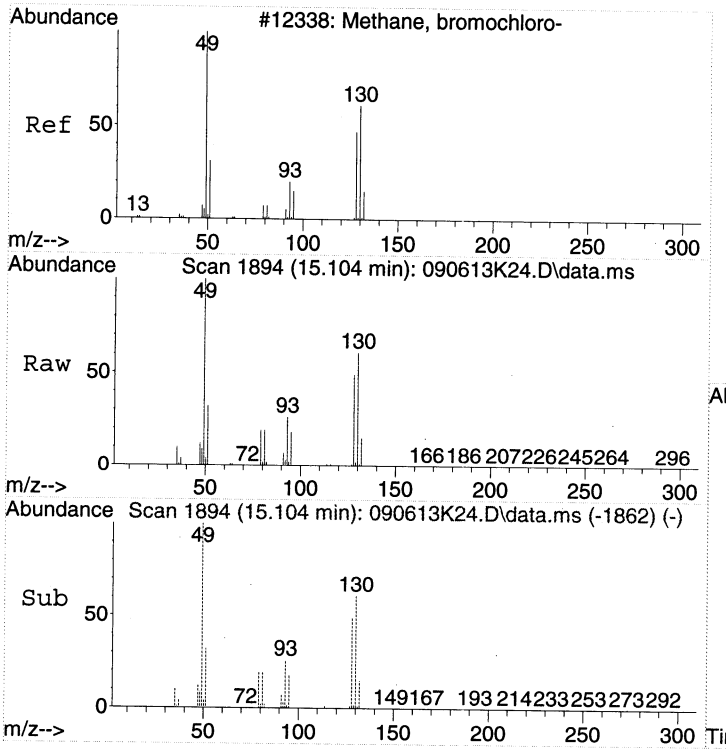
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47
Multiplier: 1

Quant Time: Sep 10 10:04:37 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

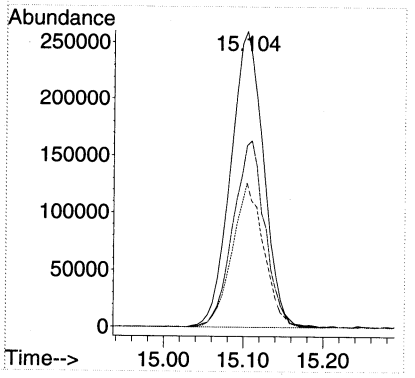


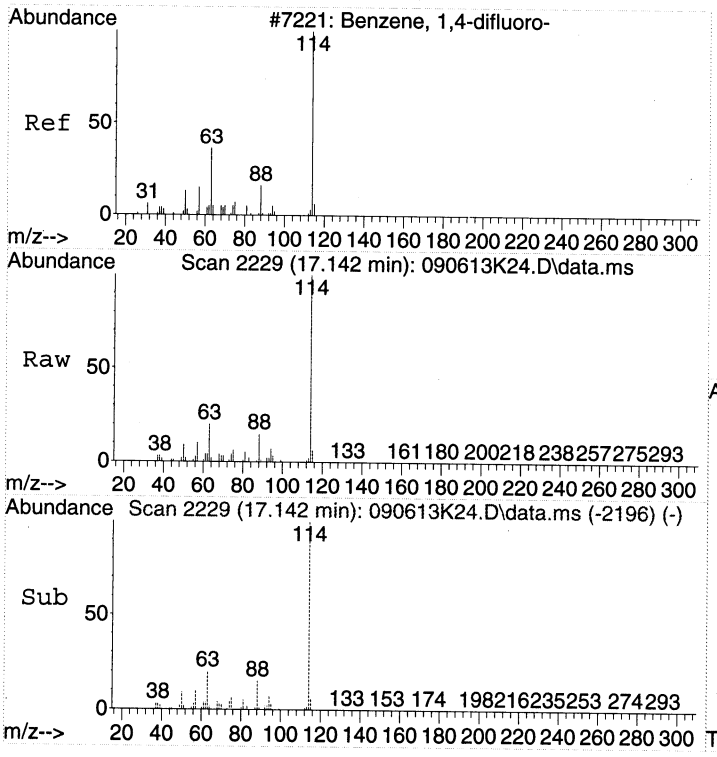



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K24.D
Acq: 7 Sep 2013 7:59

Tgt Ion: 49 Resp: 745212

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 60.6 | 70.5 | 110.5# |
| 128 | 46.3 | 50.6 | 90.6# |

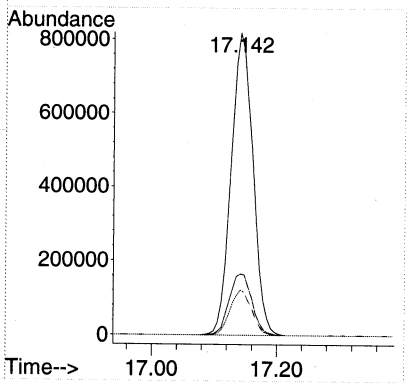


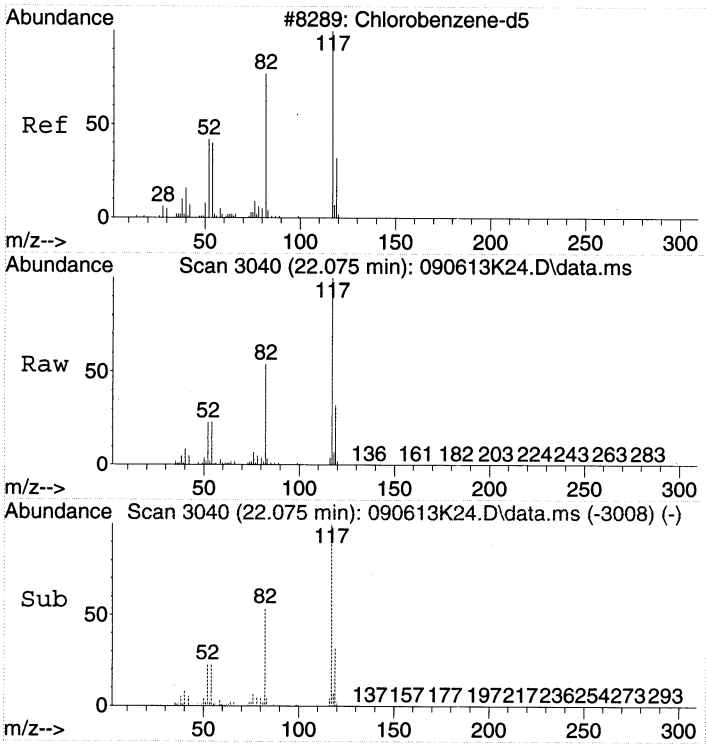




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K24.D
Acq: 7 Sep 2013 7:59

Tgt Ion:114 Resp: 1981450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.2 | 0.0 | 37.0 |
| 88 | 14.7 | 0.0 | 33.1 |

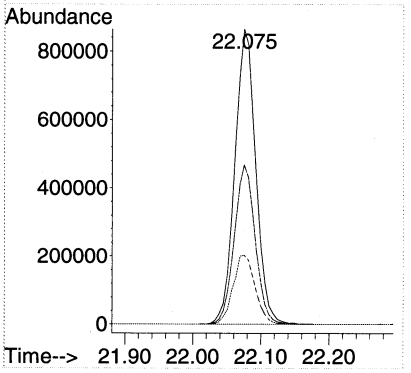





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K24.D
Acq: 7 Sep 2013 7:59

Tgt Ion:117 Resp: 1843368

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 54.3 | 26.5 | 66.5 |
| 54 | 24.9 | 0.0 | 38.1 |



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K24.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1882 | 1894 | 1906 | rBV2 | 1036335 | 2941542 | 48.21% | 20.717% |
| 2 | 17.142 | 2216 | 2229 | 2242 | rBV | 1971356 | 4893846 | 80.20% | 34.468% |
| 3 | 20.202 | 2724 | 2732 | 2742 | rBV2 | 60339 | 198618 | 3.26% | 1.399% |
| 4 | 22.075 | 3031 | 3040 | 3055 | rBV | 2805735 | 6101726 | 100.00% | 42.975% |
| 5 | 23.754 | 3309 | 3316 | 3317 | rBV7 | 44853 | 62633 | 1.03% | 0.441% |

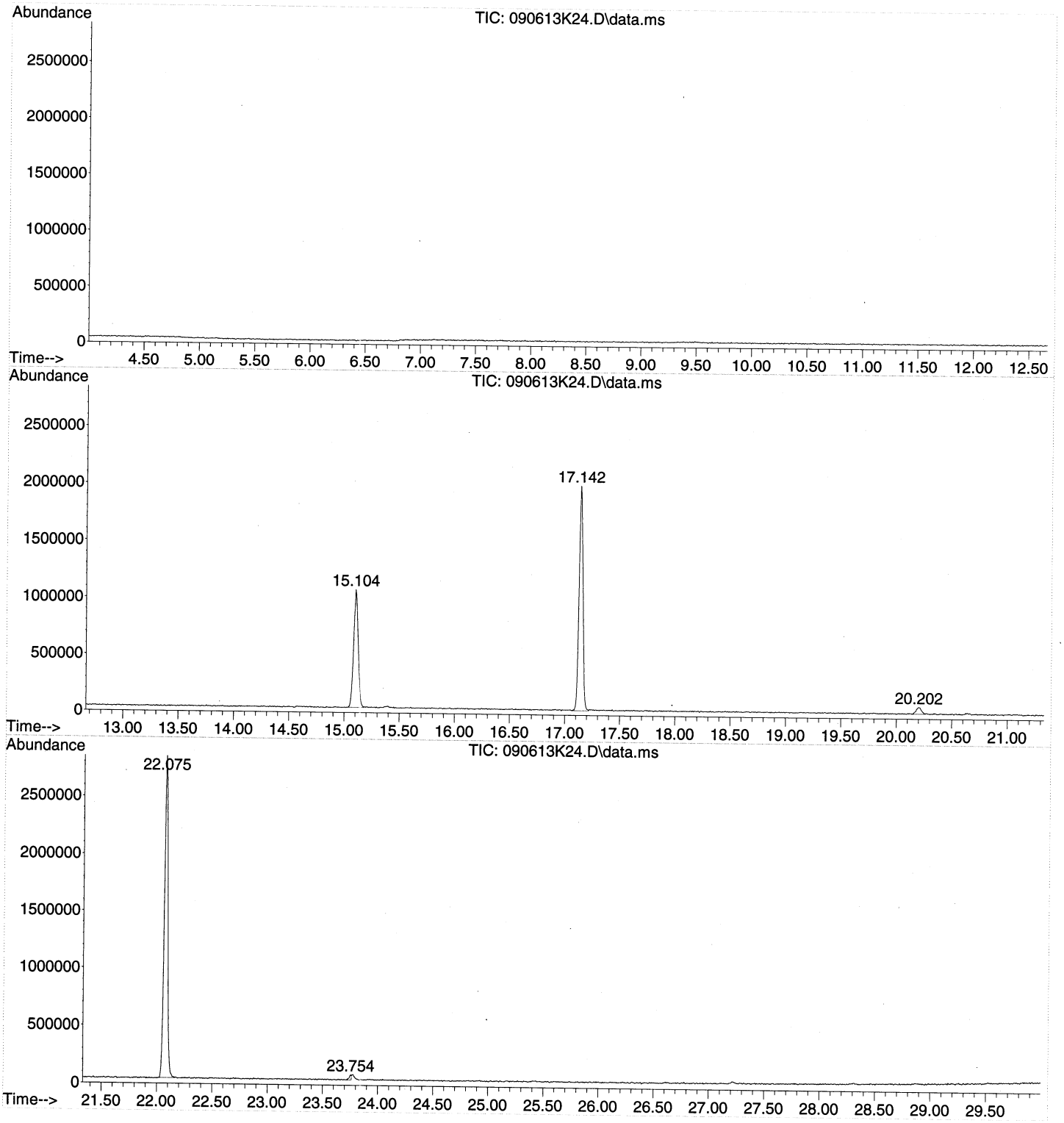
Sum of corrected areas: 14198365

LSC Report - Integrated Chromatogram

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K24.D
Acq On : 7 Sep 2013 7:59
Operator : EM
Sample : Blank Can 1112
Misc : Blank Can 1112
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48
Multiplier: 1

Quant Time: Sep 10 10:04:49 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.104 | 49 | 757764 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.142 | 114 | 2134156 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 2012204 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

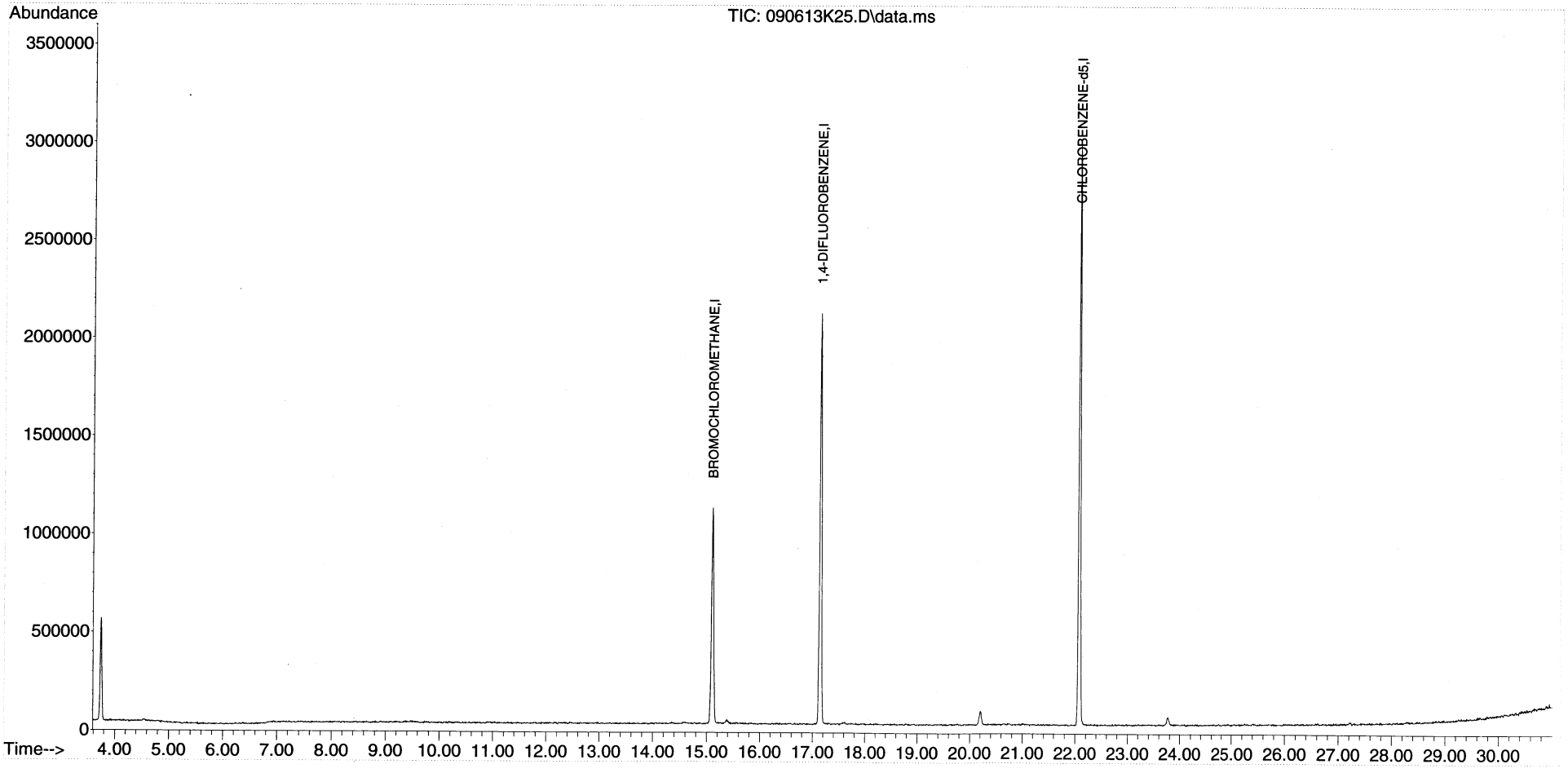
(#) = qualifier out of range (m) = manual integration (+) = signals summed

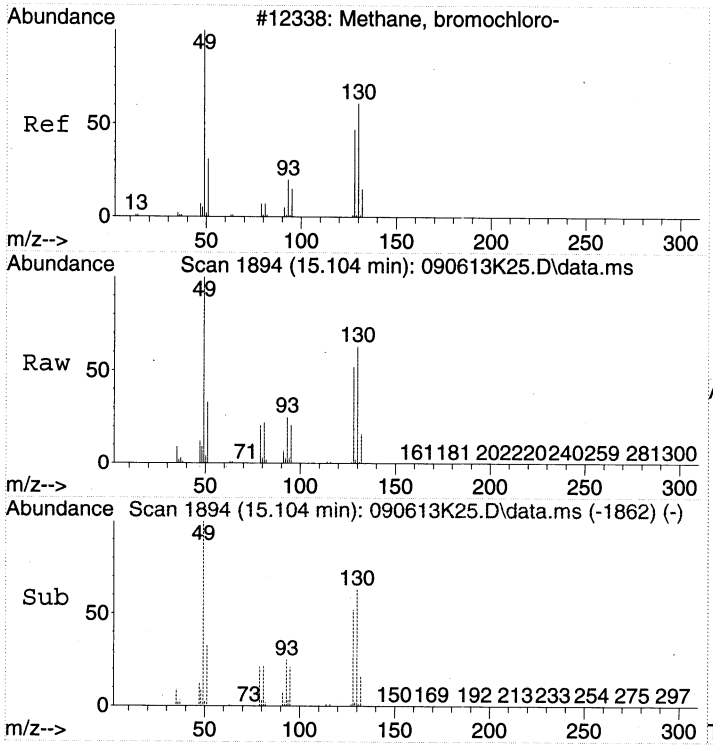
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48
Multiplier: 1

Quant Time: Sep 10 10:04:49 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

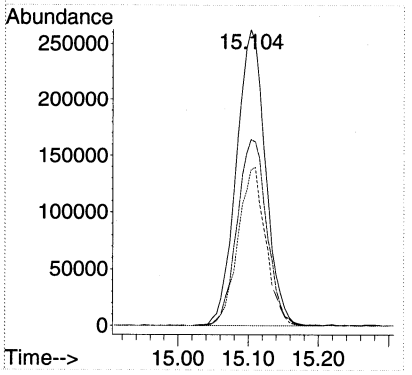


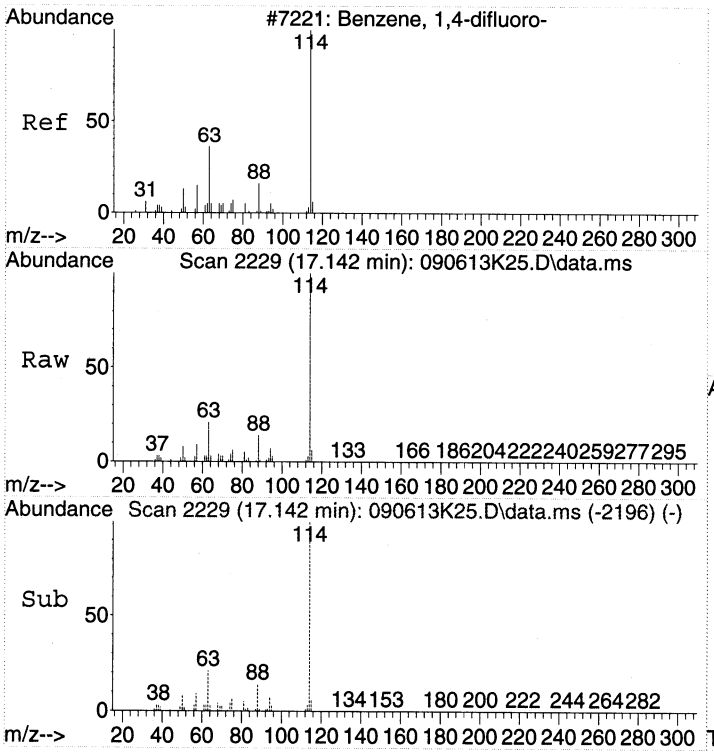



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090613K25.D
Acq: 7 Sep 2013 8:49

Tgt Ion: 49 Resp: 757764

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 63.6 | 70.5 | 110.5# |
| 128 | 50.7 | 50.6 | 90.6 |

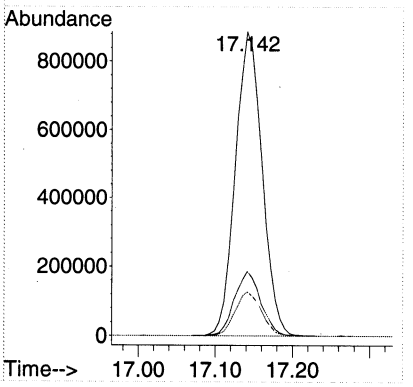


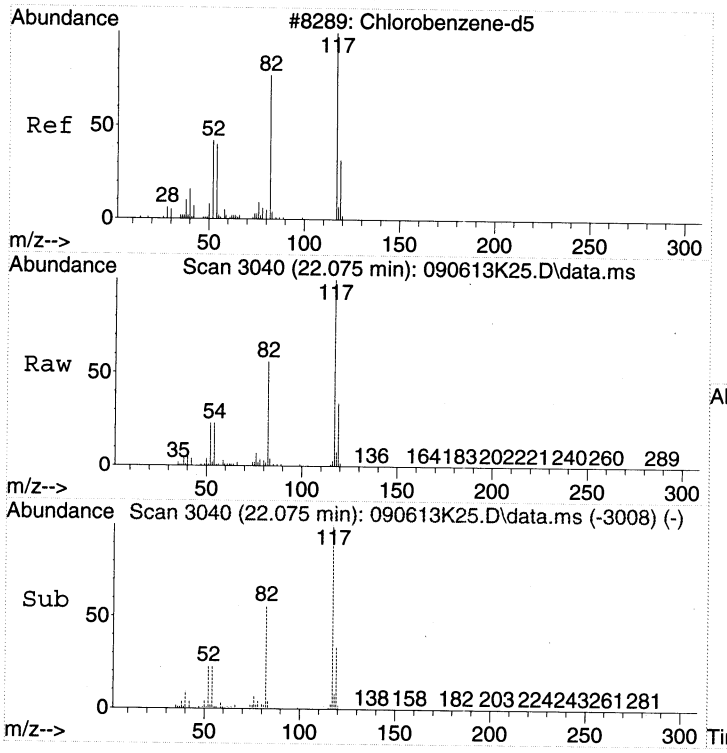




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K25.D
Acq: 7 Sep 2013 8:49

Tgt Ion:114 Resp: 2134156

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 20.7 | 0.0 | 37.0 |
| 88 | 14.2 | 0.0 | 33.1 |

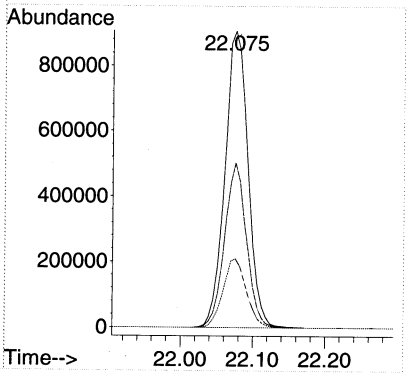





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K25.D
Acq: 7 Sep 2013 8:49

Tgt Ion:117 Resp: 2012204

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 52.6 | 26.5 | 66.5 |
| 54 | 23.3 | 0.0 | 38.1 |



# LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K25.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.104 | 1881 | 1894 | 1910 | rBV | 1095527 | 3123165 | 48.20% | 20.710% |
| 2 | 17.142 | 2217 | 2229 | 2243 | rBV | 2090518 | 5119490 | 79.02% | 33.947% |
| 3 | 20.202 | 2720 | 2732 | 2741 | rBV | 71325 | 235691 | 3.64% | 1.563% |
| 4 | 22.075 | 3030 | 3040 | 3054 | rBV | 2957941 | 6479001 | 100.00% | 42.962% |
| 5 | 23.767 | 3311 | 3318 | 3328 | rVB4 | 42373 | 123482 | 1.91% | 0.819% |

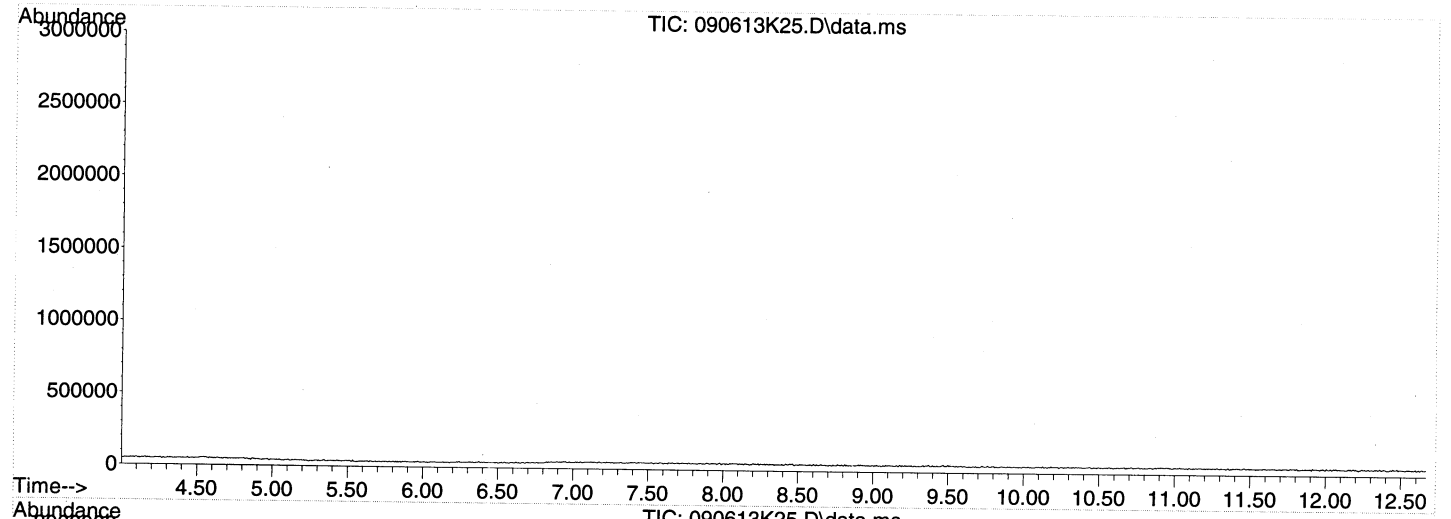
Sum of corrected areas: 15080829

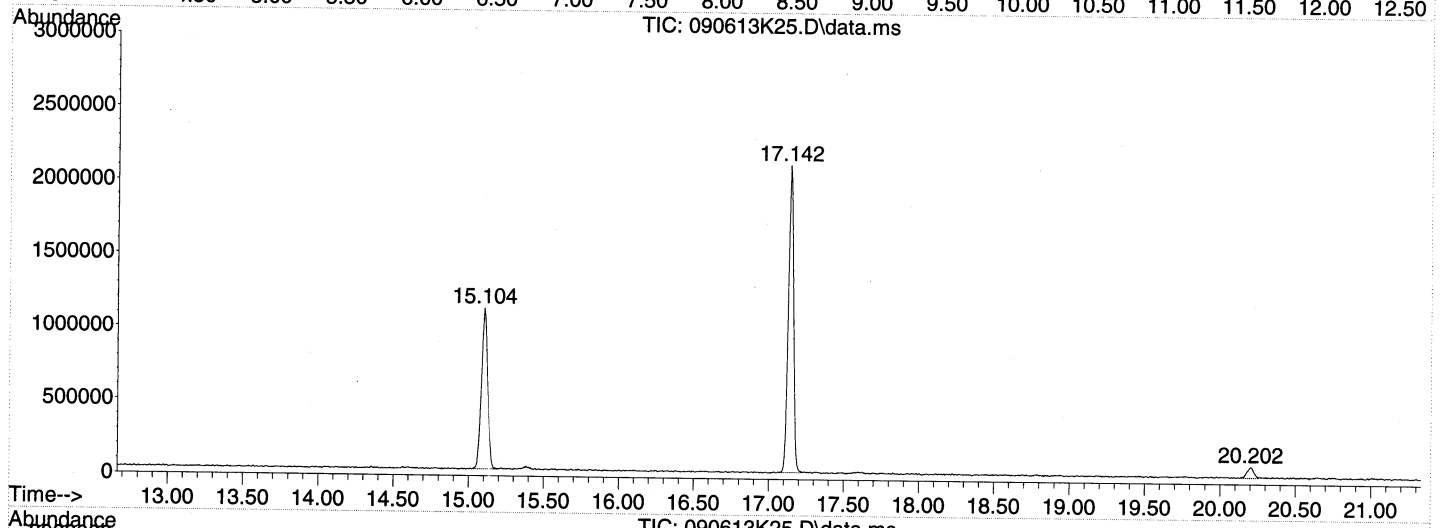
LSC Report - Integrated Chromatogram

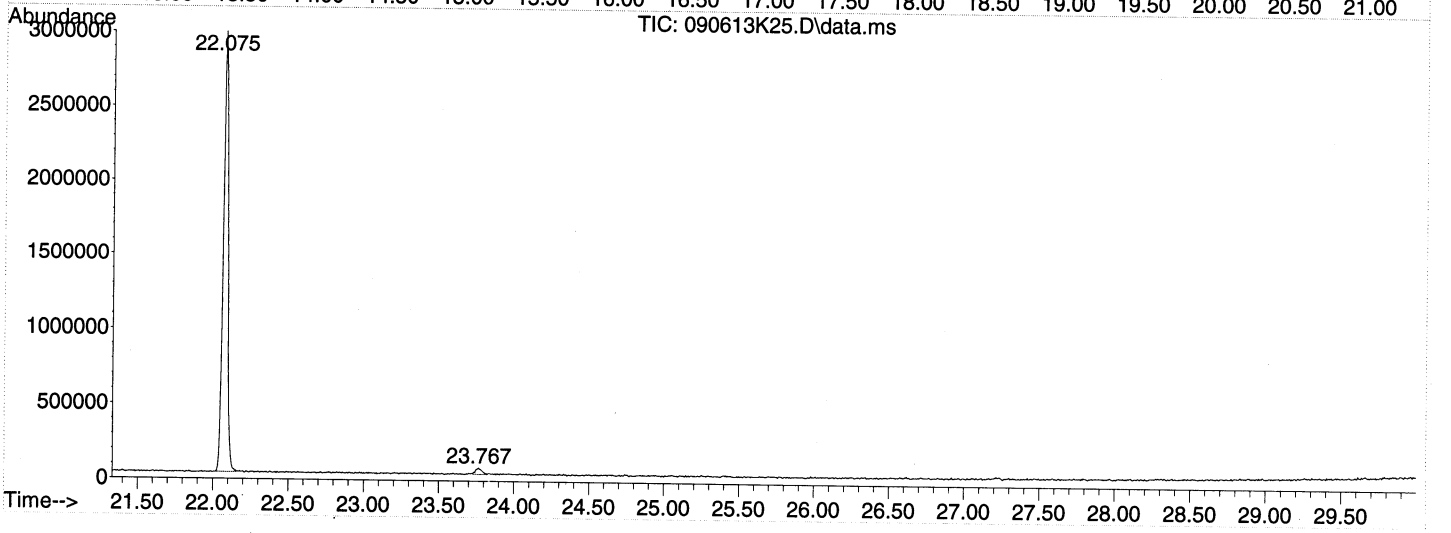
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K25.D
Acq On : 7 Sep 2013 8:49
Operator : EM
Sample : Blank Can 1969
Misc : Blank Can 1969
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31
Multiplier: 1

Quant Time: Sep 10 10:05:01 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

| Compound | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| Internal Standards | | | | | |
| 1) BROMOCHLOROMETHANE | 15.103 | 49 | 761603 | 22.00 ppbv | # 0.00 |
| 32) 1,4-DIFLUOROBENZENE | 17.141 | 114 | 1986450 | 22.00 ppbv | 0.00 |
| 44) CHLOROBENZENE-d5 | 22.075 | 117 | 1884966 | 22.00 ppbv | 0.00 |

Target Compounds Qvalue

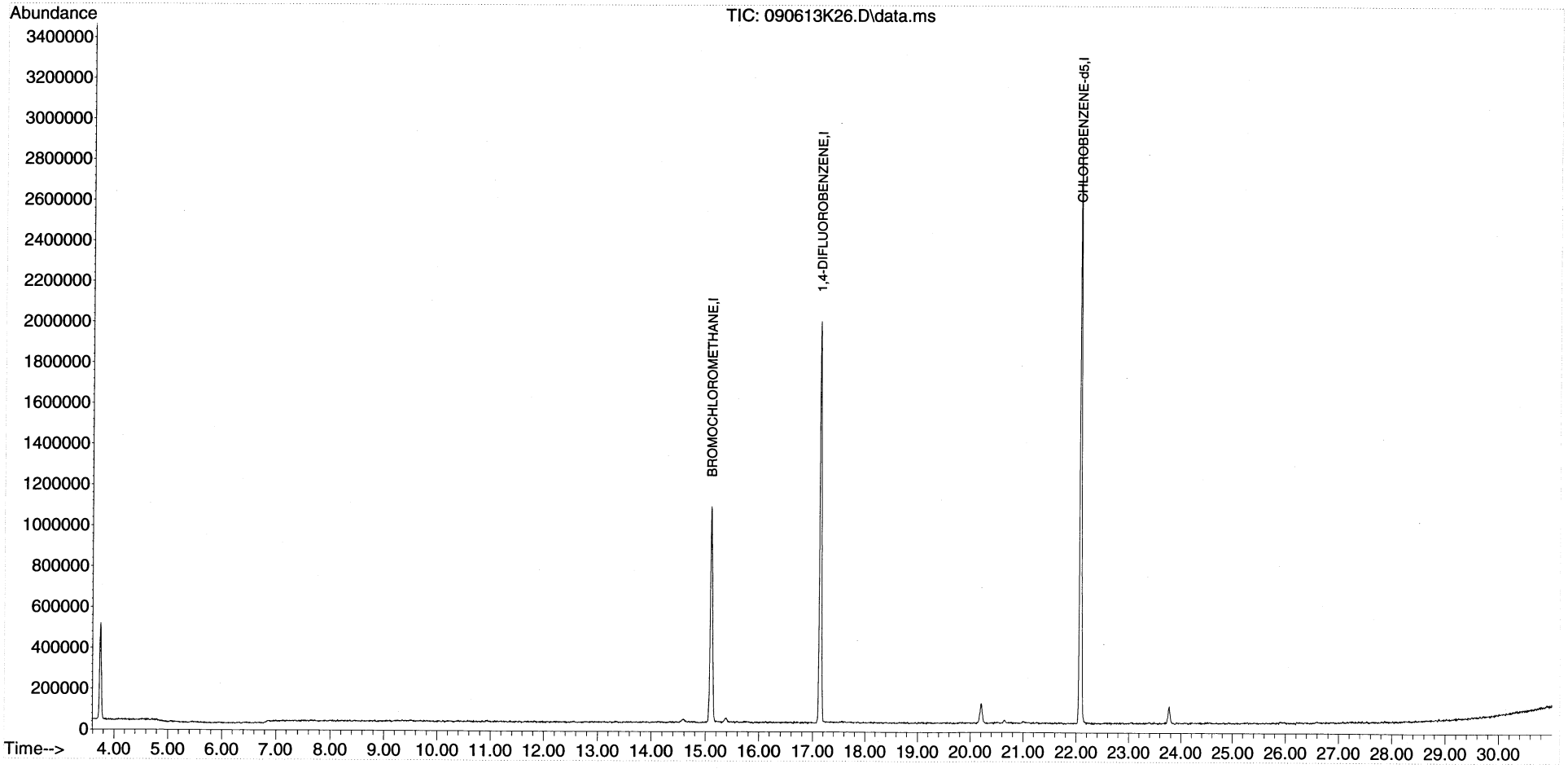
(#) = qualifier out of range (m) = manual integration (+) = signals summed

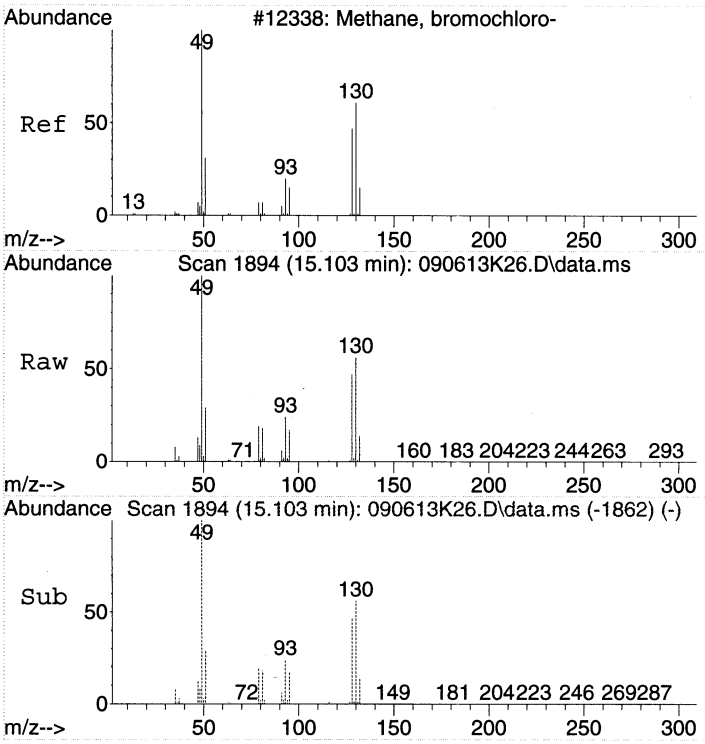
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Instrument: HP5973K
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31
Multiplier: 1

Quant Time: Sep 10 10:05:01 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090613KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M

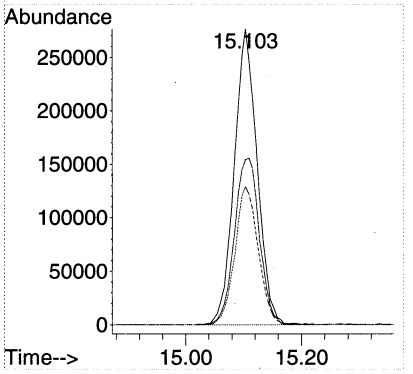


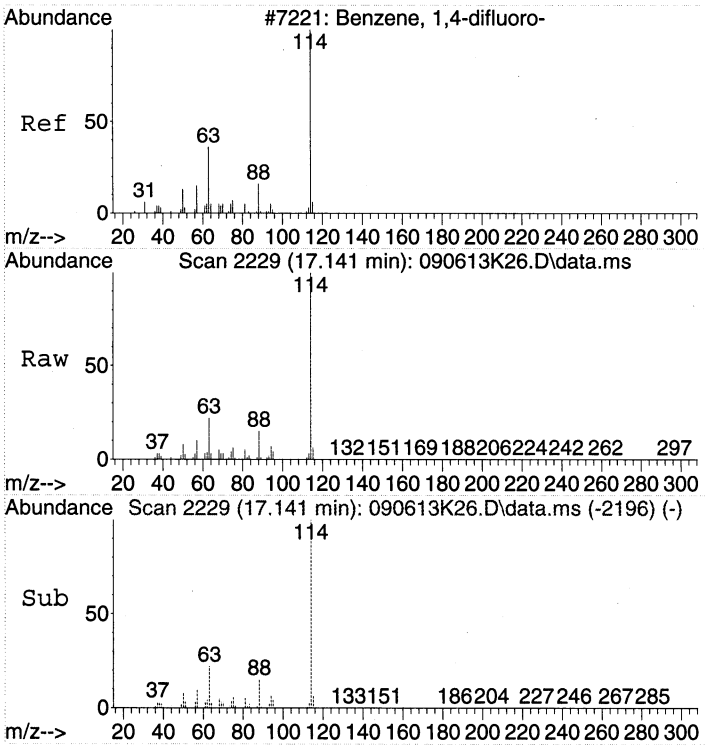



#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.103 min Scan# 1894
Delta R.T. -0.007 min
Lab File: 090613K26.D
Acq: 7 Sep 2013 9:40

Tgt Ion: 49 Resp: 761603

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 130 | 61.2 | 70.5 | 110.5# |
| 128 | 47.6 | 50.6 | 90.6# |

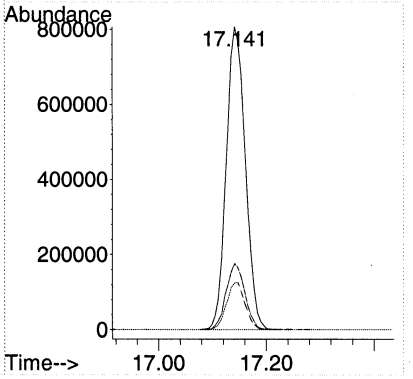


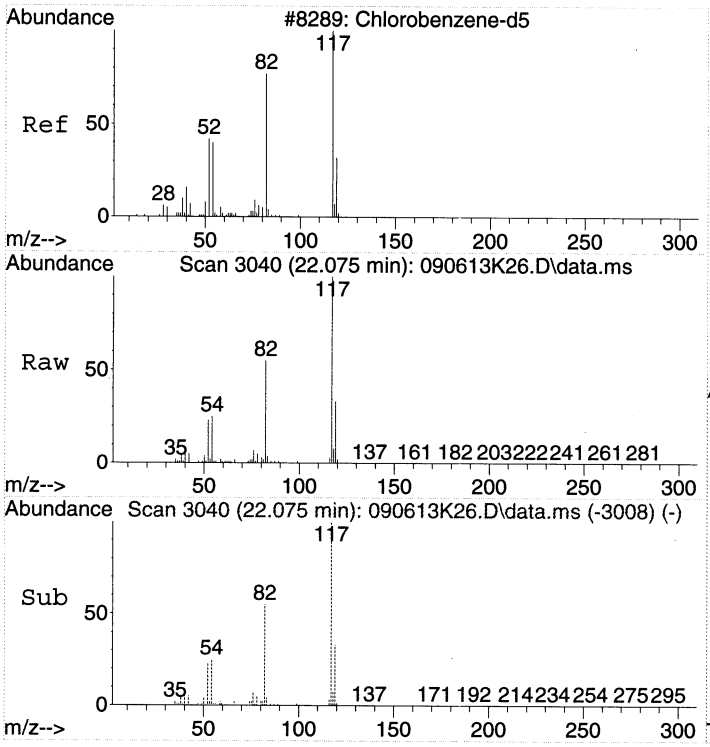




#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.141 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090613K26.D
Acq: 7 Sep 2013 9:40

Tgt Ion:114 Resp: 1986450

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 114 | 100 | | |
| 63 | 21.7 | 0.0 | 37.0 |
| 88 | 15.3 | 0.0 | 33.1 |

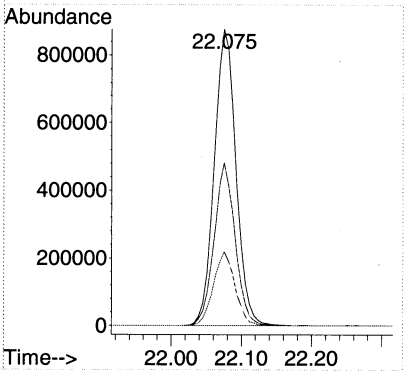





#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090613K26.D
Acq: 7 Sep 2013 9:40

Tgt Ion:117 Resp: 1884966

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 82 | 53.6 | 26.5 | 66.5 |
| 54 | 25.1 | 0.0 | 38.1 |



# LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Title : TO15

Signal : TIC: 090613K26.D\data.ms

| peak # | R.T. min | first scan | max scan | last scan | PK TY | peak height | corr. area | corr. % max. | % of total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.103 | 1884 | 1894 | 1908 | rVB2 | 1056603 | 3022492 | 48.76% | 20.590% |
| 2 | 15.389 | 1930 | 1941 | 1947 | rBV2 | 21656 | 71411 | 1.15% | 0.486% |
| 3 | 17.141 | 2217 | 2229 | 2240 | rBV | 1968668 | 4910195 | 79.21% | 33.450% |
| 4 | 20.202 | 2724 | 2732 | 2741 | rVB2 | 90923 | 253763 | 4.09% | 1.729% |
| 5 | 22.075 | 3030 | 3040 | 3056 | rBV | 2844066 | 6199140 | 100.00% | 42.231% |
| 6 | 23.773 | 3310 | 3319 | 3328 | rVB2 | 84207 | 222248 | 3.59% | 1.514% |

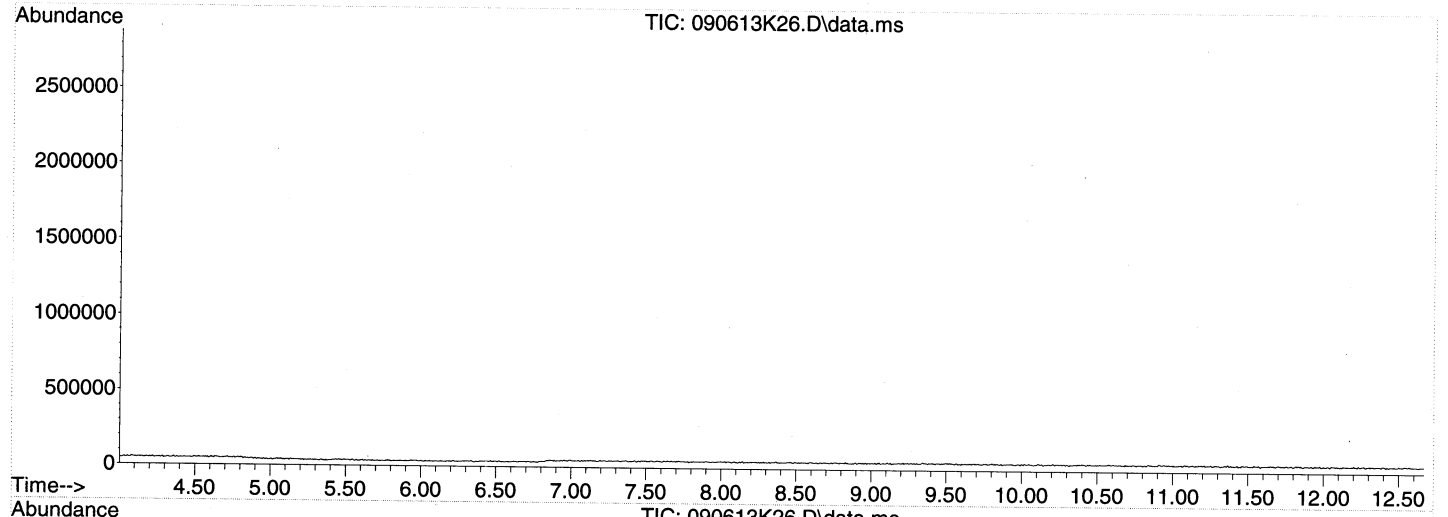
Sum of corrected areas: 14679249

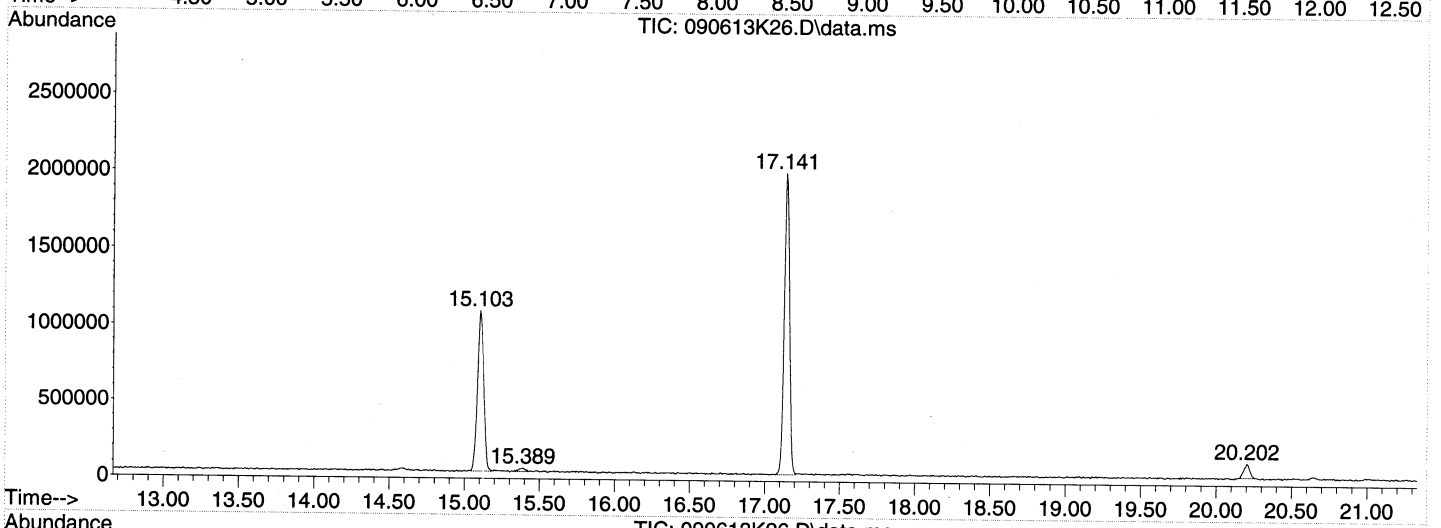
LSC Report - Integrated Chromatogram

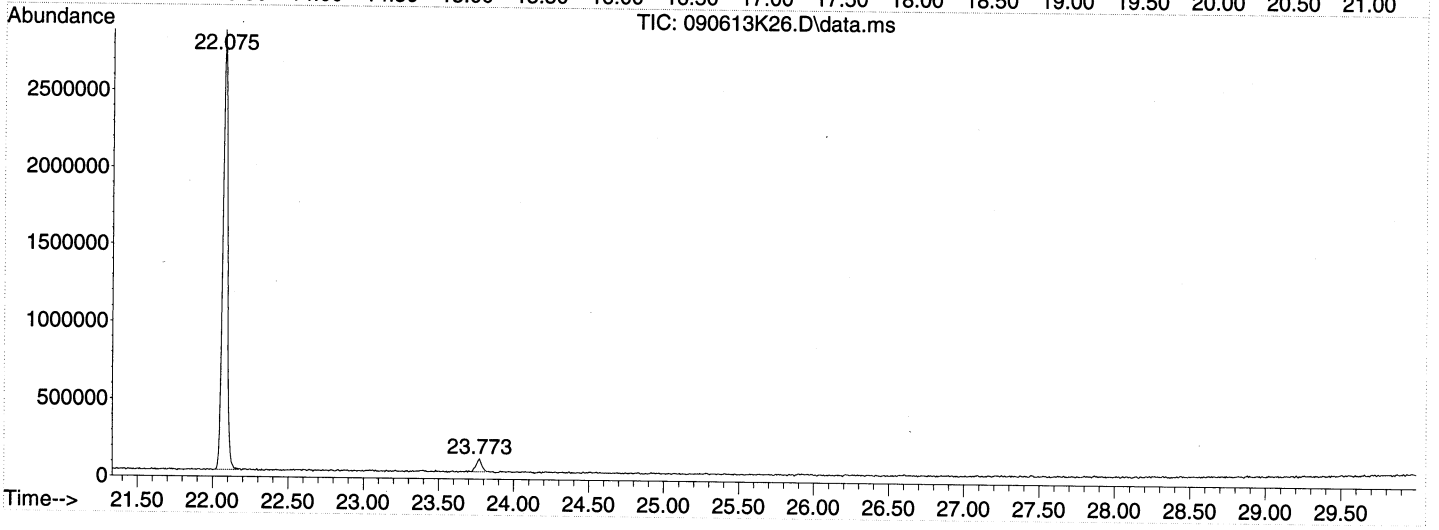
Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
**********

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090613KA\
Data File : 090613K26.D
Acq On : 7 Sep 2013 9:40
Operator : EM
Sample : Blank Can 1970
Misc : Blank Can 1970
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090613KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

| TIC Top Hit name | RT | EstConc | Units | Response | --Internal Standard--- # | RT | Resp | Conc |
|---|---|---|---|---|---|---|---|---|