



June 12, 2020

**Vista Work Order No. 2000998**

Ms. Delaney Peterson  
Anchor QEA, LLC  
720 Olive Way, Suite 1900  
Seattle, WA 98101

Dear Ms. Peterson,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on May 01, 2020 under your Project Name 'Gasco PDI'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.*

## Vista Work Order No. 2000998

### Case Narrative

#### Sample Condition on Receipt:

Six sediment samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

#### Analytical Notes:

##### EPA Method 1613B

These samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-5MS GC column.

##### Holding Times

The samples were extracted and analyzed within the method hold times.

##### Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

As requested, duplicates were performed on samples "PDI-063SC-A-09-10.2-200429" and "PDI-063SC-B-02-05-200429". The RPDs outside of the acceptance criteria are listed in bold font.

The labeled standard recoveries outside the method acceptance criteria are listed in the table below:

## QC Anomalies

| LabNumber    | SampleName   | Analysis         | Analyte                 | Flag | %Rec |
|--------------|--------------|------------------|-------------------------|------|------|
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-2,3,7,8-TCDD        | H    | 14.8 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,7,8-PeCDD     | H    | 17.5 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,4,7,8-HxCDD   | H    | 21.5 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,6,7,8-HxCDD   | H    | 20.4 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,7,8,9-HxCDD   | H    | 25.1 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,4,6,7,8-HpCDD | H    | 21.2 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-OCDD                | H    | 10.4 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-2,3,7,8-TCDF        | H    | 13.3 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,7,8-PeCDF     | H    | 17.6 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-2,3,4,7,8-PeCDF     | H    | 16.2 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,4,7,8-HxCDF   | H    | 20.7 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,6,7,8-HxCDF   | H    | 19.9 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-2,3,4,6,7,8-HxCDF   | H    | 19.2 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,7,8,9-HxCDF   | H    | 20.0 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,4,6,7,8-HpCDF | H    | 22.7 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-1,2,3,4,7,8,9-HpCDF | H    | 18.8 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 13C-OCDF                | H    | 11.9 |
| B0E0100-DUP2 | B0E0100-DUP2 | EPA Method 1613B | 37Cl-2,3,7,8-TCDD       | H    | 14.5 |

H = Recovery was outside laboratory acceptance criteria.

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# Sample Inventory Report

| <b>Vista<br/>Sample ID</b> | <b>Client<br/>Sample ID</b> | <b>Sampled</b>     | <b>Received</b> | <b>Components/Containers</b>               |
|----------------------------|-----------------------------|--------------------|-----------------|--|
| 2000998-01                 | PDI-063SC-A-08-09-200429    | 29-Apr-20 09:31    | 01-May-20 09:04 | Amber Glass, 120 mL                        |
| 2000998-02                 | PDI-063SC-A-09-10.2-200429  | DUP29-Apr-20 09:31 | 01-May-20 09:04 | Amber Glass, 120 mL<br>Amber Glass, 120 mL |
| 2000998-03                 | PDI-1063SC-A-08-09-200429   | 29-Apr-20 09:31    | 01-May-20 09:04 | Amber Glass, 120 mL                        |
| 2000998-04                 | PDI-063SC-B-00-02-200429    | 29-Apr-20 08:50    | 01-May-20 09:04 | Amber Glass, 120 mL                        |
| 2000998-05                 | PDI-063SC-B-02-05-200429    | DUP29-Apr-20 08:50 | 01-May-20 09:04 | Amber Glass, 120 mL<br>Amber Glass, 120 mL |
| 2000998-06                 | PDI-063SC-B-05-07-200429    | 29-Apr-20 08:50    | 01-May-20 09:04 | Amber Glass, 120 mL                        |

## **ANALYTICAL RESULTS**

| Sample ID: Method Blank              |              |   |      |   | EPA Method 1613B  |      |          |            |  |
|--------------------------------------|--------------|---|------|---|---|------|----------|------------|--|
| Matrix: Solid<br>Sample Size: 10.0 g |              | QC Batch: B0E0100<br>Date Extracted: 13-May-2020 6:00 |      | Lab Sample: B0E0100-BLK1<br>Date Analyzed: 04-Jun-20 14:15 Column: ZB-5MS |   |      |          |            |  |
| Analyte                              | Conc. (pg/g) | DL  | EMPC | Qualifiers  | Labeled Standard  | %R   | LCL-UCL  | Qualifiers |  |
| 2,3,7,8-TCDD                         | ND           | 0.151   |      |   | IS 13C-2,3,7,8-TCDD                                       | 74.7 | 25 - 164 |            |  |
| 1,2,3,7,8-PeCDD                      | ND           | 0.138   |      |   | 13C-1,2,3,7,8-PeCDD                                       | 72.8 | 25 - 181 |            |  |
| 1,2,3,4,7,8-HxCDD                    | ND           | 0.136   |      |   | 13C-1,2,3,4,7,8-HxCDD                                     | 82.8 | 32 - 141 |            |  |
| 1,2,3,6,7,8-HxCDD                    | ND           | 0.131   |      |   | 13C-1,2,3,6,7,8-HxCDD                                     | 77.4 | 28 - 130 |            |  |
| 1,2,3,7,8,9-HxCDD                    | ND           | 0.150   |      |   | 13C-1,2,3,7,8,9-HxCDD                                     | 80.7 | 32 - 141 |            |  |
| 1,2,3,4,6,7,8-HpCDD                  | ND           | 0.137   |      |   | 13C-1,2,3,4,6,7,8-HpCDD                                   | 73.2 | 23 - 140 |            |  |
| OCDD                                 | ND           | 0.371   |      |   | 13C-OCDD  | 70.5 | 17 - 157 |            |  |
| 2,3,7,8-TCDF                         | ND           | 0.112   |      |   | 13C-2,3,7,8-TCDF  | 70.0 | 24 - 169 |            |  |
| 1,2,3,7,8-PeCDF                      | ND           | 0.0846  |      |   | 13C-1,2,3,7,8-PeCDF                                       | 75.7 | 24 - 185 |            |  |
| 2,3,4,7,8-PeCDF                      | ND           | 0.0780  |      |   | 13C-2,3,4,7,8-PeCDF                                       | 76.3 | 21 - 178 |            |  |
| 1,2,3,4,7,8-HxCDF                    | ND           | 0.0687  |      |   | 13C-1,2,3,4,7,8-HxCDF                                     | 78.1 | 26 - 152 |            |  |
| 1,2,3,6,7,8-HxCDF                    | ND           | 0.0748  |      |   | 13C-1,2,3,6,7,8-HxCDF                                     | 72.8 | 26 - 123 |            |  |
| 2,3,4,6,7,8-HxCDF                    | ND           | 0.0773  |      |   | 13C-2,3,4,6,7,8-HxCDF                                     | 73.0 | 28 - 136 |            |  |
| 1,2,3,7,8,9-HxCDF                    | ND           | 0.107   |      |   | 13C-1,2,3,7,8,9-HxCDF                                     | 79.4 | 29 - 147 |            |  |
| 1,2,3,4,6,7,8-HpCDF                  | ND           | 0.0898  |      |   | 13C-1,2,3,4,6,7,8-HpCDF                                   | 70.6 | 28 - 143 |            |  |
| 1,2,3,4,7,8,9-HpCDF                  | ND           | 0.0962  |      |   | 13C-1,2,3,4,7,8,9-HpCDF                                   | 76.6 | 26 - 138 |            |  |
| OCDF                                 | ND           | 0.184   |      |   | 13C-OCDF  | 68.6 | 17 - 157 |            |  |
|                                      |              |   |      |   | CRS 37Cl-2,3,7,8-TCDD                                     | 65.2 | 35 - 197 |            |  |
|                                      |              |   |      |   | <b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b> |      |          |            |  |
|                                      |              |   |      |   | TEQMinWHO2005Dioxin                                       |      | 0.00     |            |  |
| <b>TOTALS</b>                        |              |   |      |   |   |      |          |            |  |
| Total TCDD                           | ND           | 0.151   |      |   |   |      |          |            |  |
| Total PeCDD                          | ND           | 0.138   |      |   |   |      |          |            |  |
| Total HxCDD                          | ND           | 0.150   |      |   |   |      |          |            |  |
| Total HpCDD                          | ND           | 0.137   |      |   |   |      |          |            |  |
| Total TCDF                           | ND           | 0.112   |      |   |   |      |          |            |  |
| Total PeCDF                          | ND           | 0.0846  |      |   |   |      |          |            |  |
| Total HxCDF                          | ND           | 0.107   |      |   |   |      |          |            |  |
| Total HpCDF                          | ND           | 0.0962  |      |   |   |      |          |            |  |

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

The results are reported in dry weight. The sample size is reported in wet weight.

Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

| Sample ID: OPR                       |                  |   |      |  | EPA Method 1613B        |      |          |
|--------------------------------------|------------------|---|------|--|-------------------------|------|----------|
| Matrix: Solid<br>Sample Size: 10.0 g |                  | QC Batch: B0E0100<br>Date Extracted: 13-May-2020 6:00 |      | Lab Sample: B0E0100-BS1<br>Date Analyzed: 04-Jun-20 12:45 Column: ZB-5MS |                         |      |          |
| Analyte                              | Amt Found (pg/g) | Spike Amt   | %R   | Limits   | Labeled Standard        | %R   | LCL-UCL  |
| 2,3,7,8-TCDD                         | 15.7             | 20.0  | 78.4 | 67 - 158   | IS 13C-2,3,7,8-TCDD     | 71.7 | 20 - 175 |
| 1,2,3,7,8-PeCDD                      | 84.6             | 100   | 84.6 | 70 - 142   | 13C-1,2,3,7,8-PeCDD     | 73.2 | 21 - 227 |
| 1,2,3,4,7,8-HxCDD                    | 88.7             | 100   | 88.7 | 70 - 164   | 13C-1,2,3,4,7,8-HxCDD   | 87.6 | 21 - 193 |
| 1,2,3,6,7,8-HxCDD                    | 87.7             | 100   | 87.7 | 76 - 134   | 13C-1,2,3,6,7,8-HxCDD   | 79.1 | 25 - 163 |
| 1,2,3,7,8,9-HxCDD                    | 89.4             | 100   | 89.4 | 64 - 162   | 13C-1,2,3,7,8,9-HxCDD   | 86.0 | 21 - 193 |
| 1,2,3,4,6,7,8-HpCDD                  | 90.2             | 100   | 90.2 | 70 - 140   | 13C-1,2,3,4,6,7,8-HpCDD | 84.5 | 26 - 166 |
| OCDD                                 | 173              | 200   | 86.6 | 78 - 144   | 13C-OCDD                | 82.0 | 13 - 199 |
| 2,3,7,8-TCDF                         | 17.0             | 20.0  | 84.8 | 75 - 158   | 13C-2,3,7,8-TCDF        | 67.8 | 22 - 152 |
| 1,2,3,7,8-PeCDF                      | 80.7             | 100   | 80.7 | 80 - 134   | 13C-1,2,3,7,8-PeCDF     | 76.2 | 21 - 192 |
| 2,3,4,7,8-PeCDF                      | 83.7             | 100   | 83.7 | 68 - 160   | 13C-2,3,4,7,8-PeCDF     | 77.0 | 13 - 328 |
| 1,2,3,4,7,8-HxCDF                    | 91.8             | 100   | 91.8 | 72 - 134   | 13C-1,2,3,4,7,8-HxCDF   | 78.8 | 19 - 202 |
| 1,2,3,6,7,8-HxCDF                    | 95.2             | 100   | 95.2 | 84 - 130   | 13C-1,2,3,6,7,8-HxCDF   | 72.6 | 21 - 159 |
| 2,3,4,6,7,8-HxCDF                    | 96.2             | 100   | 96.2 | 70 - 156   | 13C-2,3,4,6,7,8-HxCDF   | 76.0 | 22 - 176 |
| 1,2,3,7,8,9-HxCDF                    | 92.7             | 100   | 92.7 | 78 - 130   | 13C-1,2,3,7,8,9-HxCDF   | 83.1 | 17 - 205 |
| 1,2,3,4,6,7,8-HpCDF                  | 87.8             | 100   | 87.8 | 82 - 122   | 13C-1,2,3,4,6,7,8-HpCDF | 75.3 | 21 - 158 |
| 1,2,3,4,7,8,9-HpCDF                  | 90.4             | 100   | 90.4 | 78 - 138   | 13C-1,2,3,4,7,8,9-HpCDF | 83.9 | 20 - 186 |
| OCDF                                 | 191              | 200   | 95.4 | 63 - 170   | 13C-OCDF                | 77.0 | 13 - 199 |
|                                      |                  |   |      |  | CRS 37Cl-2,3,7,8-TCDD   | 65.8 | 31 - 191 |

LCL-UCL - Lower control limit - upper control limit



**Sample ID: PDI-063SC-A-08-09-200429** **EPA Method 1613B**

|                                  |                     |   |
|----------------------------------|---------------------|---|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>                                      |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-01      Date Received: 01-May-2020 9:04 |
| Project: Gasco PDI               | Sample Size: 14.4 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00     |
| Date Collected: 29-Apr-2020 9:31 | % Solids: 70.0      | Date Analyzed : 04-Jun-20 18:46      Column: ZB-5MS         |

| Analyte             | Conc. (pg/g) | DL     | EMPC | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|--------|------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | ND           | 0.101  |      |            | IS 13C-2,3,7,8-TCDD     | 95.4 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | ND           | 0.114  |      |            | 13C-1,2,3,7,8-PeCDD     | 94.1 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | ND           | 0.136  |      |            | 13C-1,2,3,4,7,8-HxCDD   | 98.6 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | ND           | 0.132  |      |            | 13C-1,2,3,6,7,8-HxCDD   | 96.0 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | ND           | 0.145  |      |            | 13C-1,2,3,7,8,9-HxCDD   | 97.8 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 0.585        |        |      | J          | 13C-1,2,3,4,6,7,8-HpCDD | 87.7 | 23 - 140 |            |
| OCDD                | 3.72         |        |      | J          | 13C-OCDD                | 85.9 | 17 - 157 |            |
| 2,3,7,8-TCDF        | ND           | 0.0819 |      |            | 13C-2,3,7,8-TCDF        | 84.1 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | ND           | 0.0588 |      |            | 13C-1,2,3,7,8-PeCDF     | 96.8 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | ND           | 0.0515 |      |            | 13C-2,3,4,7,8-PeCDF     | 99.7 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | ND           | 0.0475 |      |            | 13C-1,2,3,4,7,8-HxCDF   | 97.5 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | ND           | 0.0499 |      |            | 13C-1,2,3,6,7,8-HxCDF   | 88.7 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | ND           | 0.0525 |      |            | 13C-2,3,4,6,7,8-HxCDF   | 94.7 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | ND           | 0.0706 |      |            | 13C-1,2,3,7,8,9-HxCDF   | 104  | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | ND           | 0.0774 |      |            | 13C-1,2,3,4,6,7,8-HpCDF | 85.2 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | ND           | 0.0713 |      |            | 13C-1,2,3,4,7,8,9-HpCDF | 99.6 | 26 - 138 |            |
| OCDF                | ND           | 0.148  |      |            | 13C-OCDF                | 80.8 | 17 - 157 |            |
|                     |              |        |      |            | CRS 37Cl-2,3,7,8-TCDD   | 94.0 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00697

| <b>TOTALS</b> |       |        |
|---------------|-------|--------|
| Total TCDD    | ND    | 0.101  |
| Total PeCDD   | ND    | 0.114  |
| Total HxCDD   | 0.328 |        |
| Total HpCDD   | 1.45  |        |
| Total TCDF    | ND    | 0.0819 |
| Total PeCDF   | ND    | 0.0588 |
| Total HxCDF   | ND    | 0.0706 |
| Total HpCDF   | ND    | 0.0774 |

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-063SC-A-09-10.2-200429** **EPA Method 1613B**

|                                  |                     |   |
|----------------------------------|---------------------|---|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>                                      |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-02      Date Received: 01-May-2020 9:04 |
| Project: Gasco PDI               | Sample Size: 15.3 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00     |
| Date Collected: 29-Apr-2020 9:31 | % Solids: 66.0      | Date Analyzed: 04-Jun-20 19:31      Column: ZB-5MS          |

| Analyte             | Conc. (pg/g) | DL     | EMPC  | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|--------|-------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | ND           | 0.0917 |       |            | IS 13C-2,3,7,8-TCDD     | 80.8 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | ND           | 0.0978 |       |            | 13C-1,2,3,7,8-PeCDD     | 87.5 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | ND           | 0.183  |       |            | 13C-1,2,3,4,7,8-HxCDD   | 97.4 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | ND           | 0.179  |       |            | 13C-1,2,3,6,7,8-HxCDD   | 90.9 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | ND           | 0.195  |       |            | 13C-1,2,3,7,8,9-HxCDD   | 96.6 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 1.03         |        |       | J          | 13C-1,2,3,4,6,7,8-HpCDD | 87.6 | 23 - 140 |            |
| OCDD                | 7.60         |        |       |            | 13C-OCDD                | 84.3 | 17 - 157 |            |
| 2,3,7,8-TCDF        | ND           | 0.105  |       |            | 13C-2,3,7,8-TCDF        | 73.5 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | ND           | 0.0371 |       |            | 13C-1,2,3,7,8-PeCDF     | 88.8 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | ND           | 0.0661 |       |            | 13C-2,3,4,7,8-PeCDF     | 90.7 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | 0.0466       |        |       | J          | 13C-1,2,3,4,7,8-HxCDF   | 92.8 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | ND           | 0.0595 |       |            | 13C-1,2,3,6,7,8-HxCDF   | 86.8 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | ND           | 0.0611 |       |            | 13C-2,3,4,6,7,8-HxCDF   | 90.5 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | ND           | 0.0791 |       |            | 13C-1,2,3,7,8,9-HxCDF   | 98.3 | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | ND           | 0.0970 |       |            | 13C-1,2,3,4,6,7,8-HpCDF | 86.5 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | ND           | 0.0880 |       |            | 13C-1,2,3,4,7,8,9-HpCDF | 98.8 | 26 - 138 |            |
| OCDF                | ND           |        | 0.162 |            | 13C-OCDF                | 78.9 | 17 - 157 |            |
|                     |              |        |       |            | CRS 37Cl-2,3,7,8-TCDD   | 78.3 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0172

| <b>TOTALS</b> |        |        |        |  |  |  |  |  |
|---------------|--------|--------|--------|--|--|--|--|--|
| Total TCDD    | ND     | 0.0917 |        |  |  |  |  |  |
| Total PeCDD   | ND     |        | 0.118  |  |  |  |  |  |
| Total HxCDD   | 0.532  |        |        |  |  |  |  |  |
| Total HpCDD   | 2.49   |        |        |  |  |  |  |  |
| Total TCDF    | 0.260  |        | 0.511  |  |  |  |  |  |
| Total PeCDF   | ND     | 0.0661 |        |  |  |  |  |  |
| Total HxCDF   | 0.0466 |        | 0.0781 |  |  |  |  |  |
| Total HpCDF   | ND     | 0.0970 |        |  |  |  |  |  |

DL - Sample specific estimated detection limit  
 EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
 The results are reported in dry weight. The sample size is reported in wet weight.  
 Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

| Sample ID: Duplicate                         |              |                                  |        |   | EPA Method 1613B  |      |          |            |  |
|--|--------------|----------------------------------|--------|---|---|------|----------|------------|--|
| Source Client ID: PDI-063SC-A-09-10.2-200429 |              | QC Batch: B0E0100                |        | Lab Sample: B0E0100-DUP1                      |   |      |          |            |  |
| Source LabNumber: 2000998-02                 |              | Date Extracted: 13-May-2020 6:00 |        | Date Analyzed: 04-Jun-20 20:16 Column: ZB-5MS |   |      |          |            |  |
| Matrix: Solid                                |              |                                  |        |   |   |      |          |            |  |
| Sample Size: 15.2 g                          |              |                                  |        |   |   |      |          |            |  |
| Analyte                                      | Conc. (pg/g) | DL                               | EMPC   | Qualifiers                                    | Labeled Standard  | %R   | LCL-UCL  | Qualifiers |  |
| 2,3,7,8-TCDD                                 | ND           | 0.134                            |        |   | IS 13C-2,3,7,8-TCDD                                       | 83.5 | 25 - 164 |            |  |
| 1,2,3,7,8-PeCDD                              | ND           | 0.130                            |        |   | 13C-1,2,3,7,8-PeCDD                                       | 88.3 | 25 - 181 |            |  |
| 1,2,3,4,7,8-HxCDD                            | ND           | 0.117                            |        |   | 13C-1,2,3,4,7,8-HxCDD                                     | 97.1 | 32 - 141 |            |  |
| 1,2,3,6,7,8-HxCDD                            | ND           | 0.116                            |        |   | 13C-1,2,3,6,7,8-HxCDD                                     | 89.2 | 28 - 130 |            |  |
| 1,2,3,7,8,9-HxCDD                            | ND           |                                  | 0.103  |   | 13C-1,2,3,7,8,9-HxCDD                                     | 93.1 | 32 - 141 |            |  |
| 1,2,3,4,6,7,8-HpCDD                          | ND           |                                  | 0.621  |   | 13C-1,2,3,4,6,7,8-HpCDD                                   | 89.6 | 23 - 140 |            |  |
| OCDD   | 5.25         |                                  |        |   | 13C-OCDD  | 84.1 | 17 - 157 |            |  |
| 2,3,7,8-TCDF                                 | ND           |                                  | 0.0746 |   | 13C-2,3,7,8-TCDF  | 80.6 | 24 - 169 |            |  |
| 1,2,3,7,8-PeCDF                              | ND           | 0.0701                           |        |   | 13C-1,2,3,7,8-PeCDF                                       | 91.4 | 24 - 185 |            |  |
| 2,3,4,7,8-PeCDF                              | ND           | 0.0589                           |        |   | 13C-2,3,4,7,8-PeCDF                                       | 95.2 | 21 - 178 |            |  |
| 1,2,3,4,7,8-HxCDF                            | ND           | 0.0496                           |        |   | 13C-1,2,3,4,7,8-HxCDF                                     | 92.5 | 26 - 152 |            |  |
| 1,2,3,6,7,8-HxCDF                            | ND           | 0.0495                           |        |   | 13C-1,2,3,6,7,8-HxCDF                                     | 86.5 | 26 - 123 |            |  |
| 2,3,4,6,7,8-HxCDF                            | ND           | 0.0507                           |        |   | 13C-2,3,4,6,7,8-HxCDF                                     | 89.9 | 28 - 136 |            |  |
| 1,2,3,7,8,9-HxCDF                            | ND           | 0.0756                           |        |   | 13C-1,2,3,7,8,9-HxCDF                                     | 93.1 | 29 - 147 |            |  |
| 1,2,3,4,6,7,8-HpCDF                          | ND           |                                  | 0.0708 |   | 13C-1,2,3,4,6,7,8-HpCDF                                   | 84.4 | 28 - 143 |            |  |
| 1,2,3,4,7,8,9-HpCDF                          | ND           | 0.0743                           |        |   | 13C-1,2,3,4,7,8,9-HpCDF                                   | 93.8 | 26 - 138 |            |  |
| OCDF   | ND           | 0.143                            |        |   | 13C-OCDF  | 78.8 | 17 - 157 |            |  |
|  |              |                                  |        |   | CRS 37Cl-2,3,7,8-TCDD                                     | 89.6 | 35 - 197 |            |  |
|  |              |                                  |        |   | <b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b> |      |          |            |  |
|  |              |                                  |        |   | TEQMinWHO2005Dioxin                                       |      | 0.00158  |            |  |
| <b>TOTALS</b>                                |              |                                  |        |   |   |      |          |            |  |
| Total TCDD                                   | ND           |                                  | 0.138  |   |   |      |          |            |  |
| Total PeCDD                                  | ND           | 0.130                            |        |   |   |      |          |            |  |
| Total HxCDD                                  | 0.867        |                                  | 0.970  |   |   |      |          |            |  |
| Total HpCDD                                  | 1.17         |                                  | 1.79   |   |   |      |          |            |  |
| Total TCDF                                   | 0.270        |                                  | 0.429  |   |   |      |          |            |  |
| Total PeCDF                                  | ND           | 0.0701                           |        |   |   |      |          |            |  |
| Total HxCDF                                  | ND           | 0.0756                           |        |   |   |      |          |            |  |
| Total HpCDF                                  | ND           |                                  | 0.0708 |   |   |      |          |            |  |

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

The sample size is reported in wet weight.

| Sample ID: Duplicate                         |                   |              |             |            | EPA Method 1613B                   |        |           |          |  |
|--|-------------------|--------------|-------------|------------|------------------------------------|--------|-----------|----------|--|
| Source Client ID: PDI-063SC-A-09-10.2-200429 |                   |              |             |            | Duplicate Lab Sample: B0E0100-DUP1 |        |           |          |  |
| Source LabNumber: 2000998-02                 |                   |              |             |            |                                    |        |           |          |  |
| Matrix: Solid                                |                   |              |             |            |                                    |        |           |          |  |
| Analyte                                      | Dup Conc. (pg/g ) | Source Conc. | RPD         | RPD Limits | Labeled Standard                   | Dup %R | Source %R | LCL-UCL  |  |
| 2,3,7,8-TCDD                                 | ND                | ND           | NA          | 25         | IS 13C-2,3,7,8-TCDD                | 83.5   | 80.8      | 25 - 164 |  |
| 1,2,3,7,8-PeCDD                              | ND                | ND           | NA          | 25         | 13C-1,2,3,7,8-PeCDD                | 88.3   | 87.5      | 25 - 181 |  |
| 1,2,3,4,7,8-HxCDD                            | ND                | ND           | NA          | 25         | 13C-1,2,3,4,7,8-HxCDD              | 97.1   | 97.4      | 32 - 141 |  |
| 1,2,3,6,7,8-HxCDD                            | ND                | ND           | NA          | 25         | 13C-1,2,3,6,7,8-HxCDD              | 89.2   | 90.9      | 28 - 130 |  |
| 1,2,3,7,8,9-HxCDD                            | ND                | ND           | NA          | 25         | 13C-1,2,3,7,8,9-HxCDD              | 93.1   | 96.6      | 32 - 141 |  |
| 1,2,3,4,6,7,8-HpCDD                          | ND                | 1.03         | #           | 25         | 13C-1,2,3,4,6,7,8-HpCDD            | 89.6   | 87.6      | 23 - 140 |  |
| OCDD   | 5.25              | 7.60         | <b>36.5</b> | 25         | 13C-OCDD                           | 84.1   | 84.3      | 17 - 157 |  |
| 2,3,7,8-TCDF                                 | ND                | ND           | NA          | 25         | 13C-2,3,7,8-TCDF                   | 80.6   | 73.5      | 24 - 169 |  |
| 1,2,3,7,8-PeCDF                              | ND                | ND           | NA          | 25         | 13C-1,2,3,7,8-PeCDF                | 91.4   | 88.8      | 24 - 185 |  |
| 2,3,4,7,8-PeCDF                              | ND                | ND           | NA          | 25         | 13C-2,3,4,7,8-PeCDF                | 95.2   | 90.7      | 21 - 178 |  |
| 1,2,3,4,7,8-HxCDF                            | ND                | 0.0466       | #           | 25         | 13C-1,2,3,4,7,8-HxCDF              | 92.5   | 92.8      | 26 - 152 |  |
| 1,2,3,6,7,8-HxCDF                            | ND                | ND           | NA          | 25         | 13C-1,2,3,6,7,8-HxCDF              | 86.5   | 86.8      | 26 - 123 |  |
| 2,3,4,6,7,8-HxCDF                            | ND                | ND           | NA          | 25         | 13C-2,3,4,6,7,8-HxCDF              | 89.9   | 90.5      | 28 - 136 |  |
| 1,2,3,7,8,9-HxCDF                            | ND                | ND           | NA          | 25         | 13C-1,2,3,7,8,9-HxCDF              | 93.1   | 98.3      | 29 - 147 |  |
| 1,2,3,4,6,7,8-HpCDF                          | ND                | ND           | NA          | 25         | 13C-1,2,3,4,6,7,8-HpCDF            | 84.4   | 86.5      | 28 - 143 |  |
| 1,2,3,4,7,8,9-HpCDF                          | ND                | ND           | NA          | 25         | 13C-1,2,3,4,7,8,9-HpCDF            | 93.8   | 98.8      | 26 - 138 |  |
| OCDF   | ND                | ND           | NA          | 25         | 13C-OCDF                           | 78.8   | 78.9      | 17 - 157 |  |
|  |                   |              |             |            | CRS 37Cl-2,3,7,8-TCDD              | 89.6   | 78.3      | 35 - 197 |  |

LCL-UCL - Lower control limit - upper control limit  
The results are reported in dry weight.  
The sample size is reported in wet weight.Results reported to the MDL

**Sample ID: PDI-1063SC-A-08-09-200429** **EPA Method 1613B**

|                                  |                     |   |
|----------------------------------|---------------------|---|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>                                      |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-03      Date Received: 01-May-2020 9:04 |
| Project: Gasco PDI               | Sample Size: 14.4 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00     |
| Date Collected: 29-Apr-2020 9:31 | % Solids: 69.7      | Date Analyzed: 04-Jun-20 21:01      Column: ZB-5MS          |

| Analyte             | Conc. (pg/g) | DL     | EMPC | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|--------|------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | ND           | 0.140  |      |            | IS 13C-2,3,7,8-TCDD     | 69.8 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | ND           | 0.111  |      |            | 13C-1,2,3,7,8-PeCDD     | 72.0 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | ND           | 0.128  |      |            | 13C-1,2,3,4,7,8-HxCDD   | 81.9 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | ND           | 0.125  |      |            | 13C-1,2,3,6,7,8-HxCDD   | 77.7 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | ND           | 0.126  |      |            | 13C-1,2,3,7,8,9-HxCDD   | 88.4 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 0.403        |        |      | J          | 13C-1,2,3,4,6,7,8-HpCDD | 83.4 | 23 - 140 |            |
| OCDD                | 4.31         |        |      | J          | 13C-OCDD                | 89.2 | 17 - 157 |            |
| 2,3,7,8-TCDF        | ND           | 0.0939 |      |            | 13C-2,3,7,8-TCDF        | 61.1 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | ND           | 0.0646 |      |            | 13C-1,2,3,7,8-PeCDF     | 72.5 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | ND           | 0.0736 |      |            | 13C-2,3,4,7,8-PeCDF     | 72.4 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | ND           | 0.0490 |      |            | 13C-1,2,3,4,7,8-HxCDF   | 81.9 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | ND           | 0.0512 |      |            | 13C-1,2,3,6,7,8-HxCDF   | 78.8 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | ND           | 0.0542 |      |            | 13C-2,3,4,6,7,8-HxCDF   | 83.6 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | ND           | 0.0752 |      |            | 13C-1,2,3,7,8,9-HxCDF   | 84.3 | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | ND           | 0.0701 |      |            | 13C-1,2,3,4,6,7,8-HpCDF | 83.3 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | ND           | 0.0682 |      |            | 13C-1,2,3,4,7,8,9-HpCDF | 88.7 | 26 - 138 |            |
| OCDF                | ND           | 0.142  |      |            | 13C-OCDF                | 81.7 | 17 - 157 |            |
|                     |              |        |      |            | CRS 37Cl-2,3,7,8-TCDD   | 71.6 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      0.00532

| <b>TOTALS</b> |       |        |        |  |  |  |  |  |
|---------------|-------|--------|--------|--|--|--|--|--|
| Total TCDD    | ND    | 0.140  |        |  |  |  |  |  |
| Total PeCDD   | ND    | 0.111  |        |  |  |  |  |  |
| Total HxCDD   | 0.333 |        |        |  |  |  |  |  |
| Total HpCDD   | 0.403 |        | 1.03   |  |  |  |  |  |
| Total TCDF    | ND    | 0.0939 |        |  |  |  |  |  |
| Total PeCDF   | ND    |        | 0.0378 |  |  |  |  |  |
| Total HxCDF   | ND    | 0.0752 |        |  |  |  |  |  |
| Total HpCDF   | ND    | 0.0701 |        |  |  |  |  |  |

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-063SC-B-00-02-200429** **EPA Method 1613B**

|                                  |                     |  |
|----------------------------------|---------------------|--|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>   |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-04      Date Received: 01-May-2020 9:04                      |
| Project: Gasco PDI               | Sample Size: 15.4 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00                          |
| Date Collected: 29-Apr-2020 8:50 | % Solids: 65.2      | Date Analyzed : 04-Jun-20 21:47 Column: ZB-5MS<br>09-Jun-20 17:40 Column: DB-225 |

| Analyte             | Conc. (pg/g) | DL | EMPC  | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|----|-------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | 0.576        |    |       |            | IS 13C-2,3,7,8-TCDD     | 64.3 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | ND           |    | 0.912 |            | 13C-1,2,3,7,8-PeCDD     | 59.2 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | ND           |    | 1.17  |            | 13C-1,2,3,4,7,8-HxCDD   | 62.9 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | 10.5         |    |       |            | 13C-1,2,3,6,7,8-HxCDD   | 59.4 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | 3.52         |    |       |            | 13C-1,2,3,7,8,9-HxCDD   | 57.9 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 478          |    |       |            | 13C-1,2,3,4,6,7,8-HpCDD | 50.1 | 23 - 140 |            |
| OCDD                | 6220         |    |       | D          | 13C-OCDD                | 46.8 | 17 - 157 | D          |
| 2,3,7,8-TCDF        | 30.5         |    |       |            | 13C-2,3,7,8-TCDF        | 60.0 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | 47.2         |    |       |            | 13C-1,2,3,7,8-PeCDF     | 64.7 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | 16.0         |    |       |            | 13C-2,3,4,7,8-PeCDF     | 65.0 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | 111          |    |       |            | 13C-1,2,3,4,7,8-HxCDF   | 59.7 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | 26.2         |    |       |            | 13C-1,2,3,6,7,8-HxCDF   | 58.0 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | 7.38         |    |       |            | 13C-2,3,4,6,7,8-HxCDF   | 56.1 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | 3.72         |    |       |            | 13C-1,2,3,7,8,9-HxCDF   | 57.9 | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | 79.8         |    |       |            | 13C-1,2,3,4,6,7,8-HpCDF | 49.7 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | 17.0         |    |       |            | 13C-1,2,3,4,7,8,9-HpCDF | 53.8 | 26 - 138 |            |
| OCDF                | 203          |    |       |            | 13C-OCDF                | 40.4 | 17 - 157 |            |
|                     |              |    |       |            | CRS 37Cl-2,3,7,8-TCDD   | 67.4 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      33.7

| <b>TOTALS</b> |      |  |      |
|---------------|------|--|------|
| Total TCDD    | 3.47 |  | 4.89 |
| Total PeCDD   | 5.89 |  | 9.97 |
| Total HxCDD   | 84.2 |  | 85.4 |
| Total HpCDD   | 1130 |  |      |
| Total TCDF    | 105  |  | 114  |
| Total PeCDF   | 116  |  | 117  |
| Total HxCDF   | 225  |  |      |
| Total HpCDF   | 247  |  |      |

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

**Sample ID: PDI-063SC-B-02-05-200429** **EPA Method 1613B**

|                                  |                     |  |
|----------------------------------|---------------------|--|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>   |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-05      Date Received: 01-May-2020 9:04                      |
| Project: Gasco PDI               | Sample Size: 19.0 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00                          |
| Date Collected: 29-Apr-2020 8:50 | % Solids: 53.0      | Date Analyzed : 05-Jun-20 13:51 Column: ZB-5MS<br>09-Jun-20 19:47 Column: DB-225 |

| Analyte             | Conc. (pg/g) | DL | EMPC | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|----|------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | ND           |    | 1.13 |            | IS 13C-2,3,7,8-TCDD     | 37.1 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | 2.40         |    |      | J          | 13C-1,2,3,7,8-PeCDD     | 35.6 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | 4.18         |    |      |            | 13C-1,2,3,4,7,8-HxCDD   | 43.3 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | 21.4         |    |      |            | 13C-1,2,3,6,7,8-HxCDD   | 41.3 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | 7.45         |    |      |            | 13C-1,2,3,7,8,9-HxCDD   | 42.0 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 1200         |    |      |            | 13C-1,2,3,4,6,7,8-HpCDD | 34.6 | 23 - 140 |            |
| OCDD                | 14000        |    |      | D          | 13C-OCDD                | 33.1 | 17 - 157 | D          |
| 2,3,7,8-TCDF        | 106          |    |      |            | 13C-2,3,7,8-TCDF        | 31.3 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | 155          |    |      |            | 13C-1,2,3,7,8-PeCDF     | 41.2 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | 51.8         |    |      |            | 13C-2,3,4,7,8-PeCDF     | 36.8 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | 340          |    |      |            | 13C-1,2,3,4,7,8-HxCDF   | 40.6 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | 81.4         |    |      |            | 13C-1,2,3,6,7,8-HxCDF   | 39.2 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | 17.8         |    |      |            | 13C-2,3,4,6,7,8-HxCDF   | 37.5 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | 12.0         |    |      |            | 13C-1,2,3,7,8,9-HxCDF   | 37.3 | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | 235          |    |      |            | 13C-1,2,3,4,6,7,8-HpCDF | 33.9 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | 58.7         |    |      |            | 13C-1,2,3,4,7,8,9-HpCDF | 32.4 | 26 - 138 |            |
| OCDF                | 675          |    |      |            | 13C-OCDF                | 26.9 | 17 - 157 |            |
|                     |              |    |      |            | CRS 37Cl-2,3,7,8-TCDD   | 37.8 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      101

| <b>TOTALS</b> |      |  |      |
|---------------|------|--|------|
| Total TCDD    | 11.7 |  | 15.1 |
| Total PeCDD   | 24.7 |  | 26.6 |
| Total HxCDD   | 205  |  |      |
| Total HpCDD   | 2900 |  |      |
| Total TCDF    | 423  |  | 428  |
| Total PeCDF   | 386  |  |      |
| Total HxCDF   | 637  |  |      |
| Total HpCDF   | 719  |  |      |

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

| Sample ID: Duplicate                       |              |                                  |      |   | EPA Method 1613B  |      |          |            |  |
|--|--------------|----------------------------------|------|---|---|------|----------|------------|--|
| Source Client ID: PDI-063SC-B-02-05-200429 |              | QC Batch: B0E0100                |      | Lab Sample: B0E0100-DUP2                      |   |      |          |            |  |
| Source LabNumber: 2000998-05               |              | Date Extracted: 13-May-2020 6:00 |      | Date Analyzed: 04-Jun-20 22:32 Column: ZB-5MS |   |      |          |            |  |
| Matrix: Solid                              |              |                                  |      | 09-Jun-20 20:19 Column: ZB-5MS                |   |      |          |            |  |
| Sample Size: 18.9 g                        |              |                                  |      |   |   |      |          |            |  |
| Analyte                                    | Conc. (pg/g) | DL                               | EMPC | Qualifiers                                    | Labeled Standard  | %R   | LCL-UCL  | Qualifiers |  |
| 2,3,7,8-TCDD                               | 2.25         |                                  |      |   | IS 13C-2,3,7,8-TCDD                                       | 14.8 | 25 - 164 | H          |  |
| 1,2,3,7,8-PeCDD                            | 4.94         |                                  |      |   | 13C-1,2,3,7,8-PeCDD                                       | 17.5 | 25 - 181 | H          |  |
| 1,2,3,4,7,8-HxCDD                          | 4.26         |                                  |      |   | 13C-1,2,3,4,7,8-HxCDD                                     | 21.5 | 32 - 141 | H          |  |
| 1,2,3,6,7,8-HxCDD                          | 38.6         |                                  |      |   | 13C-1,2,3,6,7,8-HxCDD                                     | 20.4 | 28 - 130 | H          |  |
| 1,2,3,7,8,9-HxCDD                          | 12.6         |                                  |      |   | 13C-1,2,3,7,8,9-HxCDD                                     | 25.1 | 32 - 141 | H          |  |
| 1,2,3,4,6,7,8-HpCDD                        | 1870         |                                  |      |   | 13C-1,2,3,4,6,7,8-HpCDD                                   | 21.2 | 23 - 140 | H          |  |
| OCDD                                       | 21000        |                                  |      | D   | 13C-OCDD  | 10.4 | 17 - 157 | D, H       |  |
| 2,3,7,8-TCDF                               | 152          |                                  |      |   | 13C-2,3,7,8-TCDF  | 13.3 | 24 - 169 | H          |  |
| 1,2,3,7,8-PeCDF                            | 302          |                                  |      |   | 13C-1,2,3,7,8-PeCDF                                       | 17.6 | 24 - 185 | H          |  |
| 2,3,4,7,8-PeCDF                            | 106          |                                  |      |   | 13C-2,3,4,7,8-PeCDF                                       | 16.2 | 21 - 178 | H          |  |
| 1,2,3,4,7,8-HxCDF                          | 698          |                                  |      |   | 13C-1,2,3,4,7,8-HxCDF                                     | 20.7 | 26 - 152 | H          |  |
| 1,2,3,6,7,8-HxCDF                          | 197          |                                  |      |   | 13C-1,2,3,6,7,8-HxCDF                                     | 19.9 | 26 - 123 | H          |  |
| 2,3,4,6,7,8-HxCDF                          | 36.4         |                                  |      |   | 13C-2,3,4,6,7,8-HxCDF                                     | 19.2 | 28 - 136 | H          |  |
| 1,2,3,7,8,9-HxCDF                          | 20.0         |                                  |      |   | 13C-1,2,3,7,8,9-HxCDF                                     | 20.0 | 29 - 147 | H          |  |
| 1,2,3,4,6,7,8-HpCDF                        | 490          |                                  |      |   | 13C-1,2,3,4,6,7,8-HpCDF                                   | 22.7 | 28 - 143 | H          |  |
| 1,2,3,4,7,8,9-HpCDF                        | 122          |                                  |      |   | 13C-1,2,3,4,7,8,9-HpCDF                                   | 18.8 | 26 - 138 | H          |  |
| OCDF                                       | 1510         |                                  |      |   | 13C-OCDF  | 11.9 | 17 - 157 | H          |  |
|  |              |                                  |      |   | CRS 37Cl-2,3,7,8-TCDD                                     | 14.5 | 35 - 197 | H          |  |
|  |              |                                  |      |   | <b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b> |      |          |            |  |
|  |              |                                  |      |   | TEQMinWHO2005Dioxin                                       |      | 196      |            |  |
| <b>TOTALS</b>                              |              |                                  |      |   |   |      |          |            |  |
| Total TCDD                                 | 8.65         |                                  | 23.8 |   |   |      |          |            |  |
| Total PeCDD                                | 35.2         |                                  | 40.6 |   |   |      |          |            |  |
| Total HxCDD                                | 346          |                                  |      |   |   |      |          |            |  |
| Total HpCDD                                | 4670         |                                  |      |   |   |      |          |            |  |
| Total TCDF                                 | 618          |                                  | 655  |   |   |      |          |            |  |
| Total PeCDF                                | 724          |                                  |      |   |   |      |          |            |  |
| Total HxCDF                                | 1330         |                                  |      |   |   |      |          |            |  |
| Total HpCDF                                | 1430         |                                  | 1440 |   |   |      |          |            |  |

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL - Lower control limit - upper control limit

The results are reported in dry weight.

weight.

The sample size is reported in wet



| Sample ID: Duplicate                       |                   |              |      |            | EPA Method 1613B                   |        |           |          |  |
|--|-------------------|--------------|------|------------|------------------------------------|--------|-----------|----------|--|
| Source Client ID: PDI-063SC-B-02-05-200429 |                   |              |      |            | Duplicate Lab Sample: B0E0100-DUP2 |        |           |          |  |
| Source LabNumber: 2000998-05               |                   |              |      |            |                                    |        |           |          |  |
| Matrix: Solid                              |                   |              |      |            |                                    |        |           |          |  |
| Analyte                                    | Dup Conc. (pg/g ) | Source Conc. | RPD  | RPD Limits | Labeled Standard                   | Dup %R | Source %R | LCL-UCL  |  |
| 2,3,7,8-TCDD                               | 2.25              | ND           | #    | 25         | IS 13C-2,3,7,8-TCDD                | 14.8   | 37.1      | 25 - 164 |  |
| 1,2,3,7,8-PeCDD                            | 4.94              | 2.40         | 69.4 | 25         | 13C-1,2,3,7,8-PeCDD                | 17.5   | 35.6      | 25 - 181 |  |
| 1,2,3,4,7,8-HxCDD                          | 4.26              | 4.18         | 1.79 | 25         | 13C-1,2,3,4,7,8-HxCDD              | 21.5   | 43.3      | 32 - 141 |  |
| 1,2,3,6,7,8-HxCDD                          | 38.6              | 21.4         | 57.2 | 25         | 13C-1,2,3,6,7,8-HxCDD              | 20.4   | 41.3      | 28 - 130 |  |
| 1,2,3,7,8,9-HxCDD                          | 12.6              | 7.45         | 51.3 | 25         | 13C-1,2,3,7,8,9-HxCDD              | 25.1   | 42.0      | 32 - 141 |  |
| 1,2,3,4,6,7,8-HpCDD                        | 1870              | 1200         | 43.4 | 25         | 13C-1,2,3,4,6,7,8-HpCDD            | 21.2   | 34.6      | 23 - 140 |  |
| OCDD                                       | 21000             | 14000        | 39.6 | 25         | 13C-OCDD                           | 10.4   | 33.1      | 17 - 157 |  |
| 2,3,7,8-TCDF                               | 152               | 106          | 35.7 | 25         | 13C-2,3,7,8-TCDF                   | 13.3   | 31.3      | 24 - 169 |  |
| 1,2,3,7,8-PeCDF                            | 302               | 155          | 64.4 | 25         | 13C-1,2,3,7,8-PeCDF                | 17.6   | 41.2      | 24 - 185 |  |
| 2,3,4,7,8-PeCDF                            | 106               | 51.8         | 68.3 | 25         | 13C-2,3,4,7,8-PeCDF                | 16.2   | 36.8      | 21 - 178 |  |
| 1,2,3,4,7,8-HxCDF                          | 698               | 340          | 68.9 | 25         | 13C-1,2,3,4,7,8-HxCDF              | 20.7   | 40.6      | 26 - 152 |  |
| 1,2,3,6,7,8-HxCDF                          | 197               | 81.4         | 82.9 | 25         | 13C-1,2,3,6,7,8-HxCDF              | 19.9   | 39.2      | 26 - 123 |  |
| 2,3,4,6,7,8-HxCDF                          | 36.4              | 17.8         | 68.7 | 25         | 13C-2,3,4,6,7,8-HxCDF              | 19.2   | 37.5      | 28 - 136 |  |
| 1,2,3,7,8,9-HxCDF                          | 20.0              | 12.0         | 49.6 | 25         | 13C-1,2,3,7,8,9-HxCDF              | 20.0   | 37.3      | 29 - 147 |  |
| 1,2,3,4,6,7,8-HpCDF                        | 490               | 235          | 70.5 | 25         | 13C-1,2,3,4,6,7,8-HpCDF            | 22.7   | 33.9      | 28 - 143 |  |
| 1,2,3,4,7,8,9-HpCDF                        | 122               | 58.7         | 70.1 | 25         | 13C-1,2,3,4,7,8,9-HpCDF            | 18.8   | 32.4      | 26 - 138 |  |
| OCDF                                       | 1510              | 675          | 76.3 | 25         | 13C-OCDF                           | 11.9   | 26.9      | 17 - 157 |  |
|  |                   |              |      |            | CRS 37Cl-2,3,7,8-TCDD              | 14.5   | 37.8      | 35 - 197 |  |

LCL-UCL - Lower control limit - upper control limit  
The results are reported in dry weight.  
The sample size is reported in wet weight. Results reported to the MDL

**Sample ID: PDI-063SC-B-05-07-200429** **EPA Method 1613B**

|                                  |                     |  |
|----------------------------------|---------------------|--|
| <b>Client Data</b>               | <b>Sample Data</b>  | <b>Laboratory Data</b>   |
| Name: Anchor QEA, LLC            | Matrix: Sediment    | Lab Sample: 2000998-06      Date Received: 01-May-2020 9:04                      |
| Project: Gasco PDI               | Sample Size: 16.1 g | QC Batch: B0E0100      Date Extracted: 13-May-2020 6:00                          |
| Date Collected: 29-Apr-2020 8:50 | % Solids: 62.2      | Date Analyzed : 05-Jun-20 14:37 Column: ZB-5MS<br>09-Jun-20 17:09 Column: DB-225 |

| Analyte             | Conc. (pg/g) | DL | EMPC  | Qualifiers | Labeled Standard        | %R   | LCL-UCL  | Qualifiers |
|---------------------|--------------|----|-------|------------|-------------------------|------|----------|------------|
| 2,3,7,8-TCDD        | ND           |    | 0.328 |            | IS 13C-2,3,7,8-TCDD     | 71.1 | 25 - 164 |            |
| 1,2,3,7,8-PeCDD     | ND           |    | 0.658 |            | 13C-1,2,3,7,8-PeCDD     | 59.6 | 25 - 181 |            |
| 1,2,3,4,7,8-HxCDD   | 0.894        |    |       | J          | 13C-1,2,3,4,7,8-HxCDD   | 66.4 | 32 - 141 |            |
| 1,2,3,6,7,8-HxCDD   | 8.64         |    |       |            | 13C-1,2,3,6,7,8-HxCDD   | 61.3 | 28 - 130 |            |
| 1,2,3,7,8,9-HxCDD   | 3.05         |    |       |            | 13C-1,2,3,7,8,9-HxCDD   | 58.4 | 32 - 141 |            |
| 1,2,3,4,6,7,8-HpCDD | 751          |    |       |            | 13C-1,2,3,4,6,7,8-HpCDD | 49.0 | 23 - 140 |            |
| OCDD                | 6620         |    |       | D          | 13C-OCDD                | 44.4 | 17 - 157 | D          |
| 2,3,7,8-TCDF        | 16.9         |    |       |            | 13C-2,3,7,8-TCDF        | 62.8 | 24 - 169 |            |
| 1,2,3,7,8-PeCDF     | 17.3         |    |       |            | 13C-1,2,3,7,8-PeCDF     | 69.8 | 24 - 185 |            |
| 2,3,4,7,8-PeCDF     | 7.41         |    |       |            | 13C-2,3,4,7,8-PeCDF     | 66.0 | 21 - 178 |            |
| 1,2,3,4,7,8-HxCDF   | 29.9         |    |       |            | 13C-1,2,3,4,7,8-HxCDF   | 61.4 | 26 - 152 |            |
| 1,2,3,6,7,8-HxCDF   | 7.46         |    |       |            | 13C-1,2,3,6,7,8-HxCDF   | 58.5 | 26 - 123 |            |
| 2,3,4,6,7,8-HxCDF   | 2.50         |    |       |            | 13C-2,3,4,6,7,8-HxCDF   | 56.6 | 28 - 136 |            |
| 1,2,3,7,8,9-HxCDF   | 3.13         |    |       |            | 13C-1,2,3,7,8,9-HxCDF   | 56.4 | 29 - 147 |            |
| 1,2,3,4,6,7,8-HpCDF | 52.9         |    |       |            | 13C-1,2,3,4,6,7,8-HpCDF | 46.0 | 28 - 143 |            |
| 1,2,3,4,7,8,9-HpCDF | 7.03         |    |       |            | 13C-1,2,3,4,7,8,9-HpCDF | 46.3 | 26 - 138 |            |
| OCDF                | 265          |    |       |            | 13C-OCDF                | 36.3 | 17 - 157 |            |
|                     |              |    |       |            | CRS 37Cl-2,3,7,8-TCDD   | 69.3 | 35 - 197 |            |

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**

TEQMinWHO2005Dioxin      20.2

| <b>TOTALS</b> |      |      |
|---------------|------|------|
| Total TCDD    | 4.79 | 6.84 |
| Total PeCDD   | 6.90 | 10.4 |
| Total HxCDD   | 112  |      |
| Total HpCDD   | 1860 |      |
| Total TCDF    | 59.5 | 63.1 |
| Total PeCDF   | 60.6 |      |
| Total HxCDF   | 84.1 |      |
| Total HpCDF   | 255  |      |

DL - Sample specific estimated detection limit  
EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit  
The results are reported in dry weight. The sample size is reported in wet weight.  
Min-The TEQ is calculated using zero for the concentration of congeners that are not detected.

## DATA QUALIFIERS & ABBREVIATIONS

|       |   |
|-------|---|
| B     | This compound was also detected in the method blank                                     |
| Conc. | Concentration   |
| CRS   | Cleanup Recovery Standard   |
| D     | Dilution  |
| DL    | Detection limit   |
| E     | The associated compound concentration exceeded the calibration range of the instrument  |
| H     | Recovery and/or RPD was outside laboratory acceptance limits                            |
| I     | Chemical Interference   |
| IS    | Internal Standard   |
| J     | The amount detected is below the Reporting Limit/LOQ                                    |
| LOD   | Limit of Detection  |
| LOQ   | Limit of Quantitation   |
| M     | Estimated Maximum Possible Concentration (CA Region 2 projects only)                    |
| NA    | Not applicable  |
| ND    | Not Detected  |
| OPR   | Ongoing Precision and Recovery sample   |
| P     | The reported concentration may include contribution from chlorinated diphenyl ether(s). |
| Q     | The ion transition ratio is outside of the acceptance criteria.                         |
| RL    | Reporting Limit   |
| TEQ   | Toxic Equivalency   |
| U     | Not Detected (specific projects only)   |
| *     | See Cover Letter  |

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

### Vista Analytical Laboratory Certifications

| Accrediting Authority                                | Certificate Number |
|--|--------------------|
| Alaska Department of Environmental Conservation      | 17-013             |
| Arkansas Department of Environmental Quality         | 19-013-0           |
| California Department of Health – ELAP               | 2892               |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005      | 3091.01            |
| Florida Department of Health                         | E87777-23          |
| Hawaii Department of Health                          | N/A                |
| Louisiana Department of Environmental Quality        | 01977              |
| Maine Department of Health                           | 2018017            |
| Massachusetts Department of Environmental Protection | N/A                |
| Michigan Department of Environmental Quality         | 9932               |
| Minnesota Department of Health                       | 1521520            |
| New Hampshire Environmental Accreditation Program    | 207718-B           |
| New Jersey Department of Environmental Protection    | 190001             |
| New York Department of Health                        | 11411              |
| Oregon Laboratory Accreditation Program              | 4042-010           |
| Pennsylvania Department of Environmental Protection  | 016                |
| Texas Commission on Environmental Quality            | T104704189-19-10   |
| Vermont Department of Health                         | VT-4042            |
| Virginia Department of General Services              | 10272              |
| Washington Department of Ecology                     | C584-19            |
| Wisconsin Department of Natural Resources            | 998036160          |

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

## NELAP Accredited Test Methods

| MATRIX: Air  |           |
|--|-----------|
| Description of Test  | Method    |
| Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans | EPA 23    |
| Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans | EPA TO-9A |

| MATRIX: Biological Tissue   |                |
|---|----------------|
| Description of Test   | Method         |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS              | EPA 1613B      |
| Brominated Diphenyl Ethers by HRGC/HRMS   | EPA 1614A      |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS              | EPA 1668A/C    |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS                     | EPA 1699       |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS                            | EPA 537        |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS              | EPA 8280A/B    |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Drinking Water   |                |
|--|----------------|
| Description of Test  | Method         |
| 2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS      | EPA 1613/1613B |
| 1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS            | EPA 522        |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | EPA 537        |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS | ISO 25101 2009 |

| MATRIX: Non-Potable Water   |                |
|---|----------------|
| Description of Test   | Method         |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS              | EPA 1613B      |
| Brominated Diphenyl Ethers by HRGC/HRMS   | EPA 1614A      |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS              | EPA 1668A/C    |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS                     | EPA 1699       |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS                            | EPA 537        |
| Dioxin by GC/HRMS   | EPA 613        |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS              | EPA 8280A/B    |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

| MATRIX: Solids  |                |
|---|----------------|
| Description of Test   | Method         |
| Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS                       | EPA 1613       |
| Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS              | EPA 1613B      |
| Brominated Diphenyl Ethers by HRGC/HRMS   | EPA 1614A      |
| Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS              | EPA 1668A/C    |
| Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS                     | EPA 1699       |
| Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS                            | EPA 537        |
| Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS              | EPA 8280A/B    |
| Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS | EPA 8290/8290A |

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

2000998 3.8°C

COC ID: VISTA-20200429-102829  
Sample Custodian: CO  
Lab: VISTA

POC: # Delaney Peterson (360-715-2707)  
1605 Cornwall Avenue, Bellingham, WA 98225  
Project: Gasco PDI  
Client: NW Natural

| COC Sample Number | Field Sample ID            | Sample Type | Matrix | Collected Date | Time | Containers # | Lab QC*                             | Test Request                          | Method            | TAT**    | Preservative |
|-------------------|----------------------------|-------------|--------|----------------|------|--------------|-------------------------------------|---------------------------------------|-------------------|----------|--------------|
| 001               | PDI-063SC-A-08-09-200429   | N           | SE     | 04/29/2020     | 9:31 | 1            | <input type="checkbox"/>            | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |
| 002               | PDI-063SC-A-09-10 2-200429 | N           | SE     | 04/29/2020     | 9:31 | 2            | <input checked="" type="checkbox"/> | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |
| 003               | PDI-1063SC-A-08-09-200429  | FD          | SE     | 04/29/2020     |      | 1            | <input type="checkbox"/>            | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |
| 004               | PDI-063SC-B-00-02-200429   | N           | SE     | 04/29/2020     | 8:50 | 1            | <input type="checkbox"/>            | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |
| 005               | PDI-063SC-B-02-05-200429   | N           | SE     | 04/29/2020     | 8:50 | 2            | <input checked="" type="checkbox"/> | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |
| 006               | PDI-063SC-B-05-07-200429   | N           | SE     | 04/29/2020     | 8:50 | 1            | <input type="checkbox"/>            | Dioxin/Furans<br>Total solids (VISTA) | E1613B<br>SM2540G | 30<br>30 | 4°C<br>4°C   |

|                               |                               |                  |              |                  |              |
|-------------------------------|-------------------------------|------------------|--------------|------------------|--------------|
| Comment:                      |                               |                  |              |                  |              |
| Relinquished By:              | Received By:                  | Relinquished By: | Received By: | Relinquished By: | Received By: |
| Signature: <i>[Signature]</i> | Signature: <i>[Signature]</i> | Signature:       | Signature:   | Signature:       | Signature:   |
| Print Name: Lucas Henry       | Print Name: William R. Wright | Print Name:      | Print Name:  | Print Name:      | Print Name:  |
| Company: AQ                   | Company: VAL                  | Company:         | Company:     | Company:         | Company:     |
| Date/Time: 4/29/2020/1500     | Date/Time: 5-1-20 09:04       | Date/Time:       | Date/Time:   | Date/Time:       | Date/Time:   |

\* Lab QC Requested for sample when box is checked \*\* TAT = Turn Around Time in DAYS # POC = Project Point of Contact

# Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2000998 TAT 28

|                  |   |   |                                   |                                  |                                  |                              |   |                                |
|------------------|---|---|-----------------------------------|----------------------------------|----------------------------------|------------------------------|---|--------------------------------|
| Samples Arrival: | Date/Time<br><u>05/11/20 09:04</u>      |   | Initials:<br><u>WRW</u>           |                                  | Location: <u>WR-2</u>            |                              | Shelf/Rack: <u>N/A</u>                  |                                |
|                  | Delivered By:                           | <input checked="" type="checkbox"/> FedEx             | <input type="checkbox"/> UPS      | <input type="checkbox"/> On Trac | <input type="checkbox"/> GLS     | <input type="checkbox"/> DHL | <input type="checkbox"/> Hand Delivered | <input type="checkbox"/> Other |
| Preservation:    | <input checked="" type="checkbox"/> Ice |   | <input type="checkbox"/> Blue Ice |                                  | <input type="checkbox"/> Dry Ice |                              | <input type="checkbox"/> None           |                                |
| Temp °C:         | <u>3.8</u> (uncorrected)                | Probe used: Y / <input checked="" type="checkbox"/> N |                                   |                                  | Thermometer ID: <u>TR-4</u>      |                              |   |                                |
| Temp °C:         | <u>3.8</u> (corrected)                  |   |                                   |                                  |                                  |                              |   |                                |

|   | YES                                 | NO   | NA                              |                                 |   |
|---|-------------------------------------|--|---------------------------------|---------------------------------|---|
| Shipping Container(s) Intact?                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Shipping Custody Seals Intact?                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Airbill <u>3 of 3</u> Trk # <u>7703 6338 2007</u> | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Shipping Documentation Present?                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Shipping Container                                | <input type="checkbox"/> Vista      | <input checked="" type="checkbox"/> Client | <input type="checkbox"/> Retain | <input type="checkbox"/> Return | <input checked="" type="checkbox"/> Dispose |
| Chain of Custody / Sample Documentation Present?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Chain of Custody / Sample Documentation Complete? | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |
| Holding Time Acceptable?                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>                   | <input type="checkbox"/>        |                                 |   |

|            |  |  |                         |  |                       |  |                         |  |
|------------|--|--|-------------------------|--|-----------------------|--|-------------------------|--|
| Logged In: | Date/Time<br><u>017</u><br><u>05/11/20 1327</u>  |  | Initials:<br><u>WRW</u> |  | Location: <u>WR-2</u> |  | Shelf/Rack: <u>C2-5</u> |  |
|            | COC Anomaly/Sample Acceptance Form completed? <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |  |                         |  |                       |  |                         |  |

Comments:



# CoC/Label Reconciliation Report WO# 2000998

| LabNumber  | CoC Sample ID                | SampleAlias                         | Sample Date/Time | Container                               | BaseMatrix          | Sample Comments |
|------------|------------------------------|-------------------------------------|------------------|---|---------------------|-----------------|
| 2000998-01 | A PDI-063SC-A-08-09-200429   | <input checked="" type="checkbox"/> | 29-Apr-20 09:31  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid           |
| 2000998-02 | A PDI-063SC-A-09-10.2-200429 | <input checked="" type="checkbox"/> | 29-Apr-20 09:31  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid DUP       |
| 2000998-02 | B PDI-063SC-A-09-10.2-200429 | <input checked="" type="checkbox"/> | 29-Apr-20 09:31  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid DUP       |
| 2000998-03 | A PDI-1063SC-A-08-09-200429  | <input checked="" type="checkbox"/> | 29-Apr-20 09:31  | <input checked="" type="checkbox"/> (A) | Amber Glass, 120 mL | Solid           |
| 2000998-04 | A PDI-063SC-B-00-02-200429   | <input checked="" type="checkbox"/> | 29-Apr-20 08:50  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid           |
| 2000998-05 | A PDI-063SC-B-02-05-200429   | <input checked="" type="checkbox"/> | 29-Apr-20 08:50  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid DUP       |
| 2000998-05 | B PDI-063SC-B-02-05-200429   | <input checked="" type="checkbox"/> | 29-Apr-20 08:50  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid DUP       |
| 2000998-06 | A PDI-063SC-B-05-07-200429   | <input checked="" type="checkbox"/> | 29-Apr-20 08:50  | <input checked="" type="checkbox"/>     | Amber Glass, 120 mL | Solid           |

Checkmarks indicate that information on the COC reconciled with the sample label.  
Any discrepancies are noted in the following columns.

|  | Yes | No | NA |
|--|-----|----|----|
| Sample Container Intact?   | ✓   |    |    |
| Sample Custody Seals Intact?                                       |     |    | ✓  |
| Adequate Sample Volume?  | ✓   |    |    |
| Container Type Appropriate for Analysis(es)                        | ✓   |    |    |
| Preservation Documented: Na2S2O3 Trizma None Other                 |     | ✓  | ✓  |
| If Chlorinated or Drinking Water Samples, Acceptable Preservation? |     |    | ✓  |

Comments:

(A) Time on label

Verified by/Date: CM 05/01/20

## **EXTRACTION INFORMATION**

# PRIORITY

Process Sheet

Workorder: **2000998**

Prep Expiration: 2021-04-29  
Client: Anchor QEA, LLC

Workorder Due: **29-May-20 00:00**

TAT: 28

Method: **1613 Full List**  
Matrix: **Solid**  
Client Matrix: **Sediment**  
Also run: **Percent Solids**

Prep Batch: BOE0100

Prep Data Entered: AO 05/17/20  
Date and Initials

Initial Sequence: SOF0012

| LabSampleID | Recon                               | ClientSampleID             | Date Received   | Location | Comments |
|-------------|-------------------------------------|----------------------------|-----------------|----------|----------|
| 2000998-01  | <input checked="" type="checkbox"/> | PDI-063SC-A-08-09-200429   | 01-May-20 09:04 | WR-2 G-5 |          |
| 2000998-02  | <input checked="" type="checkbox"/> | PDI-063SC-A-09-10.2-200429 | 01-May-20 09:04 | WR-2 G-5 | DUP      |
| 2000998-03  | <input checked="" type="checkbox"/> | PDI-1063SC-A-08-09-200429  | 01-May-20 09:04 | WR-2 G-5 |          |
| 2000998-04  | <input checked="" type="checkbox"/> | PDI-063SC-B-00-02-200429   | 01-May-20 09:04 | WR-2 G-5 |          |
| 2000998-05  | <input checked="" type="checkbox"/> | PDI-063SC-B-02-05-200429   | 01-May-20 09:04 | WR-2 G-5 | DUP      |
| 2000998-06  | <input checked="" type="checkbox"/> | PDI-063SC-B-05-07-200429   | 01-May-20 09:04 | WR-2 G-5 |          |

**WO Comments: Dioxin - 10g (dry weight)**  
**One dup required per batch of 20 samples**

Pre-Prep Check Out: CHT 05/06/20

Prep Check Out: EM 05/13/20

Prep Reconciled Initials/Date: CHT 05/06/20

Pre-Prep Check In: CHT 05/06/20

Prep Check In: EM 05/13/20

Spike Reconciled Initials/Date: AO 05/13/20

VialBoxID: VSS Fourragut

PREPARATION BENCH SHEET

Matrix: Solid

B0E0100

Chemist: EM

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 13-May-20 06:00

| C                        | VISTA Sample ID            | G Eqv | Sample Amt. (g) | IS/NS CHEM/WIT DATE   | CRS CHEM/WIT DATE     | AP CHEM/ DATE | ABSG CHEM/ DATE | AA CHEM/ DATE | Florisil CHEM/ DATE | RS CHEM/WIT DATE |
|--------------------------|----------------------------|-------|-----------------|-----------------------|-----------------------|---------------|-----------------|---------------|---------------------|------------------|
| <input type="checkbox"/> | B0E0100-BLK1               | N/A   | (10.00)         | 00 <u>EM</u> 05/13/20 | RR <u>EM</u> 05/15/20 | RR 05/15/20   | RR 05/16/20     | RR 05/16/20   | 00 05/17/20         | <u>EM</u>        |
| <input type="checkbox"/> | B0E0100-BS1                | N/A   | (10.00)         |                       |                       | ↓             |                 |               |                     |                  |
| <input type="checkbox"/> | B0E0100-DUP1<br>2000998-02 | 15.15 | 15.21           |                       |                       | NA            | yellow          |               |                     |                  |
| <input type="checkbox"/> | B0E0100-DUP2<br>2000998-05 | 18.87 | 18.88           |                       |                       | RR 05/15/20   | ↓               |               |                     |                  |
| <input type="checkbox"/> | B0E0100-DUP3<br>2000999-09 | 15.88 | 15.92           |                       |                       | NA            | ↓               |               |                     |                  |
| <input type="checkbox"/> | 2000998-01                 | 14.28 | 14.35           |                       |                       | ↓             |                 |               |                     |                  |
| <input type="checkbox"/> | 2000998-02                 | 15.15 | 15.27           |                       |                       |               | yellow          |               |                     |                  |
| <input type="checkbox"/> | 2000998-03                 | 14.34 | 14.40           |                       |                       | ↓             |                 |               |                     |                  |
| <input type="checkbox"/> | 2000998-04 <u>(B)</u>      | 15.34 | 15.40           |                       |                       | RR 05/15/20   | yellow          |               |                     |                  |
| <input type="checkbox"/> | 2000998-05                 | 18.87 | 18.95           |                       |                       | RR 05/15/20   | ↓               |               |                     |                  |
| <input type="checkbox"/> | 2000998-06                 | 16.08 | 16.11           |                       |                       | RR 05/15/20   | ↓               |               |                     |                  |
| <input type="checkbox"/> | 2000999-01                 | 16.83 | 16.92           |                       |                       | RR 05/15/20   | ↓               |               |                     |                  |
| <input type="checkbox"/> | 2000999-02                 | 15.91 | 15.97           |                       |                       | NA            | ↓               |               |                     |                  |
| <input type="checkbox"/> | 2000999-03                 | 15.45 | 15.55           |                       |                       | ↓             | purple          |               |                     |                  |
| <input type="checkbox"/> | 2000999-04                 | 15.24 | 15.25           |                       |                       | ↓             | ↓               |               |                     |                  |

|                              |                              |                              |                              |                                       |                             |   |
|------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------------|-----------------------------|---|
| IS Name <u>V3</u>            | NS Name <u>V1</u>            | CRS Name <u>V1</u>           | RS Name <u>V1</u>            | Cycle Time                            | APP: SEFUN SOX <u>(SDS)</u> | Check Out: Chemist/Date: <u>EM 05/13/20</u> |
| PCDD/F <u>19I 2301, 10ul</u> | PCDD/F <u>18F 1913, 10ul</u> | PCDD/F <u>19I 1602, 10ul</u> | PCDD/F <u>19I 1603, 10ul</u> | Start Date/Time: <u>05/13/20 1025</u> | SOLV: <u>T01</u>            | Check In: Chemist/Date: <u>EM 05/13/20</u>  |
| PCB _____                    | PCB _____                    | PCB _____                    | PCB _____                    | Stop Date/Time: <u>05/14/20 0625</u>  | Other: <u>N/A</u>           | Balance ID: <u>HRMS-08</u>                  |
| PAH _____                    | PAH _____                    | PAH _____                    | PAH _____                    | Final Volume(s): <u>20ul</u>          | <u>C14</u>                  |   |

Comments:  
 1 = Sample approached dryness on rotovap  
 2 = Sample bumped on rotovap; lost < 5%  
 3 = Sample poured through Na2SO4 to remove water  
 4 = Precipitate present at Final Volume

5 = Sample homogenized in secondary container  
 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

(A) Samples are dark and muddy with odor before extraction EM 05/13/20  
(B) sample ejected some sample into Rotovap Reservoir  
 Page 2 of 2 05/15/20

PREPARATION BENCH SHEET

Matrix: Solid

B0E0100

Chemist: EM

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 13-May-20 06:00

| C                        | VISTA Sample ID | G Eqv | Sample Amt. (g) | IS/NS CHEM/WIT DATE   | CRS CHEM/WIT DATE     | AP CHEM/ DATE | ABSG CHEM/ DATE    | AA CHEM/ DATE | Florisol CHEM/ DATE | RS CHEM/WIT DATE |
|--------------------------|-----------------|-------|-----------------|-----------------------|-----------------------|---------------|--------------------|---------------|---------------------|------------------|
| <input type="checkbox"/> | 2000999-05 (A)  | 15.34 | 15.41           | AO <u>EM 05/13/20</u> | RR <u>DE 05/15/20</u> | NA            | RR <u>05/16/20</u> | RR 05/16/20   | AO 05/17/20         | AO <u>EM</u>     |
| <input type="checkbox"/> | 2000999-06      | 14.51 | 14.64           | ↓                     | ↓                     | ↓             | ↓                  | ↓             | ↓                   |                  |
| <input type="checkbox"/> | 2000999-07      | 15.08 | 15.10           | ↓                     | ↓                     | ↓             | ↓                  | ↓             | ↓                   |                  |
| <input type="checkbox"/> | 2000999-08      | 14.92 | 14.96           | ↓                     | ↓                     | ↓             | yellow             | ↓             | ↓                   |                  |
| <input type="checkbox"/> | 2000999-09      | 15.88 | 15.90           | ↓                     | ↓                     | ↓             | ↓                  | ↓             | ↓                   |                  |
| <input type="checkbox"/> | 2000999-10      | 14.97 | 14.99           | ↓                     | ↓                     | ↓             | ↓                  | ↓             | ↓                   |                  |
| <input type="checkbox"/> | 2000999-11      | 14.58 | 14.58*          | ↓                     | ↓                     | ↓             | yellow             | ↓             | ↓                   |                  |

\* 14.61 EM 05/13/20

(A) samples are dark and muddy with odor before extraction EM 05/13/20

|                             |                             |                             |                             |                                      |                             |                                  |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------------|-----------------------------|----------------------------------|
| IS Name <u>(S)</u>          | NS Name <u>(V1)</u>         | CRS Name <u>(V1)</u>        | RS Name <u>(V1)</u>         | Cycle Time                           | APP: SEFUN SOX <u>(SDS)</u> | Check Out: <u>EM 05/13/20</u>    |
| PCDD/F <u>19I1301, 10mL</u> | PCDD/F <u>18F1913, 10mL</u> | PCDD/F <u>19I1602, 10mL</u> | PCDD/F <u>19I1603, 10mL</u> | Start Date/Time <u>05/13/20 1025</u> | SOLV: <u>T01</u>            | Chemist/Date: <u>EM 05/13/20</u> |
| PCB _____                   | PCB _____                   | PCB _____                   | PCB _____                   | Stop Date/Time <u>05/14/20 0825</u>  | Other <u>N/A</u>            | Check In: <u>EM 05/13/20</u>     |
| PAH _____                   | PAH _____                   | PAH _____                   | PAH _____                   | Final Volume(s) <u>20mL</u>          | <u>C14</u>                  | Balance ID: <u>HRMS-08</u>       |

Comments:

- 1 = Sample approached dryness on rotovap
- 2 = Sample bumped on rotovap; lost < 5%
- 3 = Sample poured through Na2SO4 to remove water
- 4 = Precipitate present at Final Volume
- 5 = Sample homogenized in secondary container
- 6 = Sample clogged during extraction; pipetted and used Nitrogen to assist

| LabNumber           | WetWeight<br>(Initial) | % Solids<br>(Extraction Solids) | DryWeight | Final     | Extracted              | Ext By     | Spike          | SpikeAmount | ClientMatrix | Analysis       |
|---------------------|------------------------|---------------------------------|-----------|-----------|------------------------|------------|----------------|-------------|--------------|----------------|
| 2000998-01          | 14.35                  | 70.0468                         | 10.0517   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000998-02          | 15.27                  | 65.99462                        | 10.0774   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000998-03          | 14.4                   | 69.72282                        | 10.0401   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000998-04          | 15.4                   | 65.17857                        | 10.0375   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000998-05          | 18.95                  | 52.98869                        | 10.0414   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000998-06          | 16.11                  | 62.18097                        | 10.0174   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-01          | 16.92                  | 59.42858                        | 10.0553   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-02          | 15.97                  | 62.84404                        | 10.0362   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-03          | 15.55                  | 64.74258                        | 10.0675   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-04          | 15.25                  | 65.60636                        | 10.0050   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-05          | 15.41                  | 65.19721                        | 10.0469   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-06          | 14.64                  | 68.93039                        | 10.0914   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-07          | 15.1                   | 66.30137                        | 10.0115   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-08          | 14.96                  | 67.03057                        | 10.0278   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-09          | 15.9                   | 62.97118                        | 10.0124   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-10          | 14.99                  | 66.81921                        | 10.0162   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| 2000999-11          | 14.61                  | 68.59649                        | 10.0219   | 20        | 13-May-20 06:00        | EMM        |                |             | Sediment     | 1613 Full List |
| <b>B0E0100-BLK1</b> | <b>10</b>              |                                 |           | <b>20</b> | <b>13-May-20 06:00</b> | <b>EMM</b> |                |             |              | <b>QC</b>      |
| <b>B0E0100-BS1</b>  | <b>10</b>              |                                 |           | <b>20</b> | <b>13-May-20 06:00</b> | <b>EMM</b> | <b>18F1913</b> | <b>10</b>   |              | <b>QC</b>      |
| <b>B0E0100-DUP1</b> | <b>15.21</b>           |                                 |           | <b>20</b> | <b>13-May-20 06:00</b> | <b>EMM</b> |                |             |              | <b>QC</b>      |
| <b>B0E0100-DUP2</b> | <b>18.88</b>           |                                 |           | <b>20</b> | <b>13-May-20 06:00</b> | <b>EMM</b> |                |             |              | <b>QC</b>      |
| <b>B0E0100-DUP3</b> | <b>15.92</b>           |                                 |           | <b>20</b> | <b>13-May-20 06:00</b> | <b>EMM</b> |                |             |              | <b>QC</b>      |

All bolded data on report verified against written benchsheet by (initial/date) UO 05/17/20



|  |   |   |
|--|---|---|
| Analyst: <b>CHT</b><br>Analyte:<br>Oven ID: <b>01</b> 02 | Test Code: %Moist/%Solids<br>Units: %<br>Dried at 110°C+/-5°C | Data Entry Verified by:<br>(Initial and Date) <b>NA</b> |
|--|---|---|

Inst **HRMS-9**      Date/Time IN: **05/06/20 15:39**      Date/Time OUT: **05/07/20 08:25**      \* **CHT 05/07/20**

| Particle Size | SampID     | SampType | Initial and Date:  |                               | G            |              | Dry Sample Weight (g) | %Solids RawVal | K L M N O         |     |           |          | Sample Homogenized* |            |
|---------------|------------|----------|--------------------|-------------------------------|--------------|--------------|-----------------------|----------------|-------------------|-----|-----------|----------|---------------------|------------|
|               |            |          | Pan Tare Wt. (gms) | Wet Pan and Sample Weight (g) | CHT 05/06/20 | CHT 05/07/20 |                       |                | Visual Inspection | Cl- | pH Before | pH After |                     | Acid Added |
|               | 2000998-01 | Sample   | 1.30               | 7.71                          | CHT 05/06/20 | CHT 05/07/20 |                       |                |                   |     |           |          |                     | ✓          |
|               | 2000998-02 | Sample   | 1.31               | 8.75                          |              |              | 4.20 5.79             |                |                   |     |           |          |                     | ✓          |
|               | 2000998-03 | Sample   | 1.31               | 6.00                          |              |              | 4.04 6.22             |                |                   |     |           |          |                     | ✓          |
|               | 2000998-04 | Sample   | 1.30               | 5.78                          |              |              | 5.25 5.58             |                |                   |     |           |          |                     | ✓          |
|               | 2000998-05 | Sample   | 1.30               | 7.49                          |              |              | 4.22                  |                |                   |     |           |          |                     | ✓          |
|               | 2000998-06 | Sample   | 1.30               | 5.61                          |              |              | 4.58                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-01 | Sample   | 1.31               | 4.81                          |              |              | 3.88                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-02 | Sample   | 1.31               | 5.67                          |              |              | * 4.10 3.39           |                |                   |     |           |          |                     | ✓          |
|               | 2000999-03 | Sample   | 1.30               | 7.71                          |              |              | * 4.34 4.05           |                |                   |     |           |          |                     | ✓          |
|               | 2000999-04 | Sample   | 1.31               | 6.34                          |              |              | * 6.21 5.45           |                |                   |     |           |          |                     | ✓          |
|               | 2000999-05 | Sample   | 1.29               | 5.60                          |              |              | 4.61                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-06 | Sample   | 1.31               | 7.20                          |              |              | 4.10                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-07 | Sample   | 1.29               | 4.94                          |              |              | 5.37                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-08 | Sample   | 1.31               | 5.89                          |              |              | 3.71                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-09 | Sample   | 1.31               | 5.82                          |              |              | 4.38                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-10 | Sample   | 1.30               | 5.67                          |              |              | 4.15                  |                |                   |     |           |          |                     | ✓          |
|               | 2000999-11 | Sample   | 1.28               | 6.98                          |              |              | 4.22                  |                |                   |     |           |          |                     | ✓          |
|               |            |          |                    |                               |              |              | 5.19                  |                |                   |     |           |          |                     | ✓          |

\*Sample homogenized in sample container unless otherwise noted.



SAMPLE DATA – EPA METHOD 1613

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:11:05 Pacific Daylight Time

*DB 6/4/20 C706/09/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL     | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|--------|------|
| 1  | 1 2,3,7,8-TCDD             |        |      | NO  | 0.987 | 10.000 | 26.127  |       | 1.001    |       |        |      | 0.151  |      |
| 2  | 2 1,2,3,7,8-PeCDD          |        |      | NO  | 0.982 | 10.000 | 30.650  |       | 1.001    |       |        |      | 0.138  |      |
| 3  | 3 1,2,3,4,7,8-HxCDD        |        |      | NO  | 1.17  | 10.000 | 33.949  |       | 1.000    |       |        |      | 0.136  |      |
| 4  | 4 1,2,3,6,7,8-HxCDD        |        |      | NO  | 1.04  | 10.000 | 34.048  |       | 1.000    |       |        |      | 0.131  |      |
| 5  | 5 1,2,3,7,8,9-HxCDD        |        |      | NO  | 1.00  | 10.000 | 34.379  |       | 1.001    |       |        |      | 0.150  |      |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      |        |      | NO  | 0.992 | 10.000 | 37.824  |       | 1.000    |       |        |      | 0.137  |      |
| 7  | 7 OCDD                     |        |      | NO  | 1.04  | 10.000 | 41.082  |       | 1.000    |       |        |      | 0.371  |      |
| 8  | 8 2,3,7,8-TCDF             |        |      | NO  | 0.882 | 10.000 | 25.326  |       | 1.001    |       |        |      | 0.112  |      |
| 9  | 9 1,2,3,7,8-PeCDF          |        |      | NO  | 1.05  | 10.000 | 29.482  |       | 1.001    |       |        |      | 0.0846 |      |
| 10 | 10 2,3,4,7,8-PeCDF         |        |      | NO  | 1.06  | 10.000 | 30.377  |       | 1.001    |       |        |      | 0.0780 |      |
| 11 | 11 1,2,3,4,7,8-HxCDF       |        |      | NO  | 1.08  | 10.000 | 33.061  |       | 1.000    |       |        |      | 0.0687 |      |
| 12 | 12 1,2,3,6,7,8-HxCDF       |        |      | NO  | 1.04  | 10.000 | 33.191  |       | 1.000    |       |        |      | 0.0748 |      |
| 13 | 13 2,3,4,6,7,8-HxCDF       |        |      | NO  | 1.11  | 10.000 | 33.797  |       | 1.001    |       |        |      | 0.0773 |      |
| 14 | 14 1,2,3,7,8,9-HxCDF       |        |      | NO  | 1.06  | 10.000 | 34.718  |       | 1.000    |       |        |      | 0.107  |      |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     |        |      | NO  | 1.13  | 10.000 | 36.587  |       | 1.001    |       |        |      | 0.0898 |      |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     |        |      | NO  | 1.33  | 10.000 | 38.361  |       | 1.000    |       |        |      | 0.0962 |      |
| 17 | 17 OCDF                    |        |      | NO  | 0.933 | 10.000 | 41.301  |       | 1.000    |       |        |      | 0.184  |      |
| 18 | 18 13C-2,3,7,8-TCDD        | 1.17e5 | 0.79 | NO  | 1.21  | 10.000 | 26.194  | 26.10 | 1.026    | 1.022 | 149.33 | 74.7 | 0.478  |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 9.43e4 | 0.62 | NO  | 0.996 | 10.000 | 30.688  | 30.63 | 1.202    | 1.200 | 145.66 | 72.8 | 0.284  |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 7.20e4 | 1.31 | NO  | 0.679 | 10.000 | 33.935  | 33.94 | 1.014    | 1.014 | 165.67 | 82.8 | 0.587  |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 8.42e4 | 1.28 | NO  | 0.850 | 10.000 | 34.046  | 34.05 | 1.017    | 1.017 | 154.88 | 77.4 | 0.468  |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 8.25e4 | 1.26 | NO  | 0.798 | 10.000 | 34.317  | 34.34 | 1.025    | 1.026 | 161.48 | 80.7 | 0.499  |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 6.53e4 | 1.04 | NO  | 0.697 | 10.000 | 37.784  | 37.81 | 1.129    | 1.130 | 146.44 | 73.2 | 0.638  |      |
| 24 | 24 13C-OCDD                | 1.04e5 | 0.89 | NO  | 0.579 | 10.000 | 40.809  | 41.08 | 1.219    | 1.228 | 281.84 | 70.5 | 0.699  |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.46e5 | 0.77 | NO  | 1.13  | 10.000 | 25.275  | 25.30 | 0.990    | 0.991 | 139.93 | 70.0 | 0.542  |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 1.39e5 | 1.65 | NO  | 0.996 | 10.000 | 29.506  | 29.46 | 1.156    | 1.154 | 151.37 | 75.7 | 0.389  |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 1.37e5 | 1.66 | NO  | 0.969 | 10.000 | 30.407  | 30.35 | 1.191    | 1.189 | 152.62 | 76.3 | 0.400  |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 1.06e5 | 0.50 | NO  | 1.06  | 10.000 | 33.065  | 33.06 | 0.988    | 0.988 | 156.18 | 78.1 | 0.662  |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 1.10e5 | 0.51 | NO  | 1.18  | 10.000 | 33.199  | 33.18 | 0.992    | 0.991 | 145.57 | 72.8 | 0.596  |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 9.87e4 | 0.50 | NO  | 1.06  | 10.000 | 33.771  | 33.76 | 1.009    | 1.009 | 145.91 | 73.0 | 0.663  |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 8.94e4 | 0.50 | NO  | 0.879 | 10.000 | 34.672  | 34.72 | 1.036    | 1.037 | 158.81 | 79.4 | 0.796  |      |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time

Printed: Thursday, June 04, 2020 15:11:05 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

|    | # Name                     | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL     | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|--------|------|
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 8.06e4 | 0.43 | NO  | 0.893 | 10.000 | 36.378  | 36.55 | 1.087    | 1.092 | 141.12 | 70.6 | 0.628  |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 6.01e4 | 0.42 | NO  | 0.613 | 10.000 | 38.386  | 38.36 | 1.147    | 1.146 | 153.18 | 76.6 | 0.914  |      |
| 34 | 34 13C-OCDF                | 1.30e5 | 0.86 | NO  | 0.741 | 10.000 | 40.963  | 41.30 | 1.224    | 1.234 | 274.49 | 68.6 | 0.503  |      |
| 35 | 35 37Cl-2,3,7,8-TCDD       | 4.00e4 |      |     | 1.18  | 10.000 | 26.192  | 26.11 | 1.026    | 1.023 | 52.199 | 65.2 | 0.0813 |      |
| 36 | 36 13C-1,2,3,4-TCDD        | 1.30e5 | 0.80 | NO  | 1.00  | 10.000 | 25.480  | 25.53 | 1.000    | 1.000 | 200.00 | 100  | 0.576  |      |
| 37 | 37 13C-1,2,3,4-TCDF        | 1.85e5 | 0.77 | NO  | 1.00  | 10.000 | 24.020  | 24.06 | 1.000    | 1.000 | 200.00 | 100  | 0.611  |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF   | 1.28e5 | 0.50 | NO  | 1.00  | 10.000 | 33.530  | 33.47 | 1.000    | 1.000 | 200.00 | 100  | 0.700  |      |
| 39 | 39 Total Tetra-Dioxins     |        |      |     | 0.987 | 10.000 | 24.620  |       | 0.000    |       |        |      | 0.0955 |      |
| 40 | 40 Total Penta-Dioxins     |        |      |     | 0.982 | 10.000 | 29.960  |       | 0.000    |       |        |      | 0.0614 |      |
| 41 | 41 Total Hexa-Dioxins      |        |      |     | 1.04  | 10.000 | 33.635  |       | 0.000    |       |        |      | 0.0889 |      |
| 42 | 42 Total Hepta-Dioxins     |        |      |     | 0.992 | 10.000 | 37.640  |       | 0.000    |       |        |      | 0.0762 |      |
| 43 | 43 Total Tetra-Furans      |        |      |     | 0.882 | 10.000 | 23.610  |       | 0.000    |       |        |      | 0.0481 |      |
| 44 | 44 1st Func. Penta-Furans  |        |      |     | 1.05  | 10.000 | 27.090  |       | 0.000    |       |        |      | 0.0187 |      |
| 45 | 45 Total Penta-Furans      |        |      |     | 1.05  | 10.000 | 29.275  |       | 0.000    |       |        |      | 0.0245 |      |
| 46 | 46 Total Hexa-Furans       |        |      |     | 1.11  | 10.000 | 33.555  |       | 0.000    |       |        |      | 0.0452 |      |
| 47 | 47 Total Hepta-Furans      |        |      |     | 1.13  | 10.000 | 37.835  |       | 0.000    |       |        |      | 0.0532 |      |

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time

Printed: Thursday, June 04, 2020 15:11:05 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Penta-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Hexa-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Hepta-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Tetra-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Penta-Furans function 1

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time

Printed: Thursday, June 04, 2020 15:11:05 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

**Penta-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

**Hexa-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

**Hepta-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc. | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|-------|------|----|
| 1    |    |           |           |         |         |    |     |      |       |      |    |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time

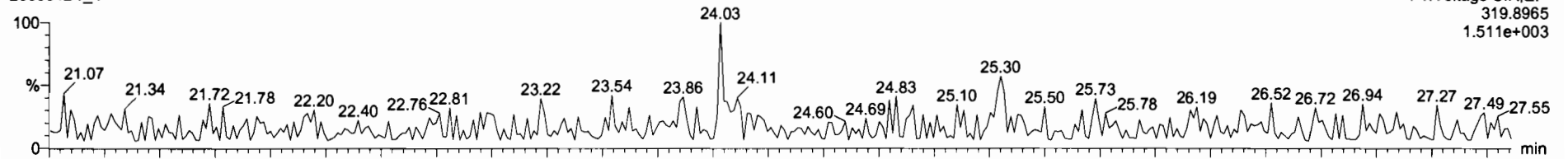
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Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
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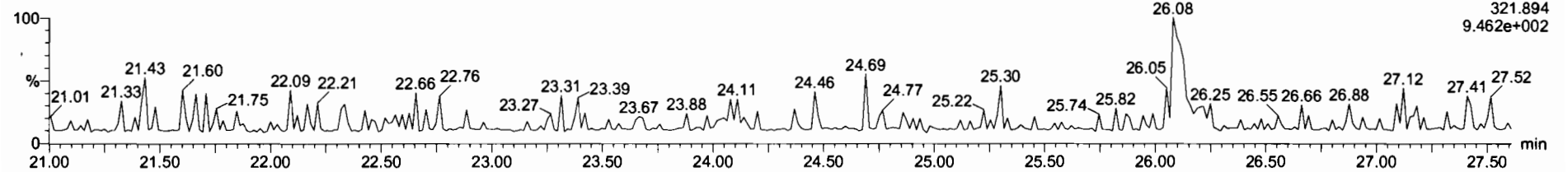
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2,3,7,8-TCDD

200604D1\_4

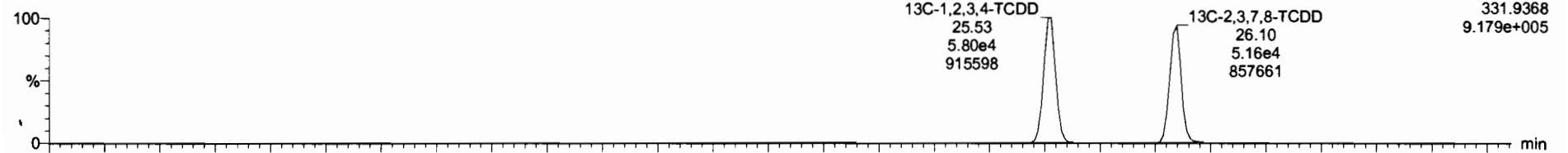


200604D1\_4

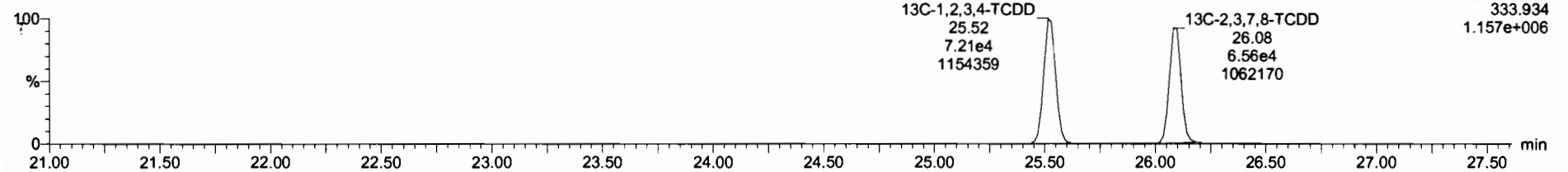


13C-2,3,7,8-TCDD

200604D1\_4



200604D1\_4

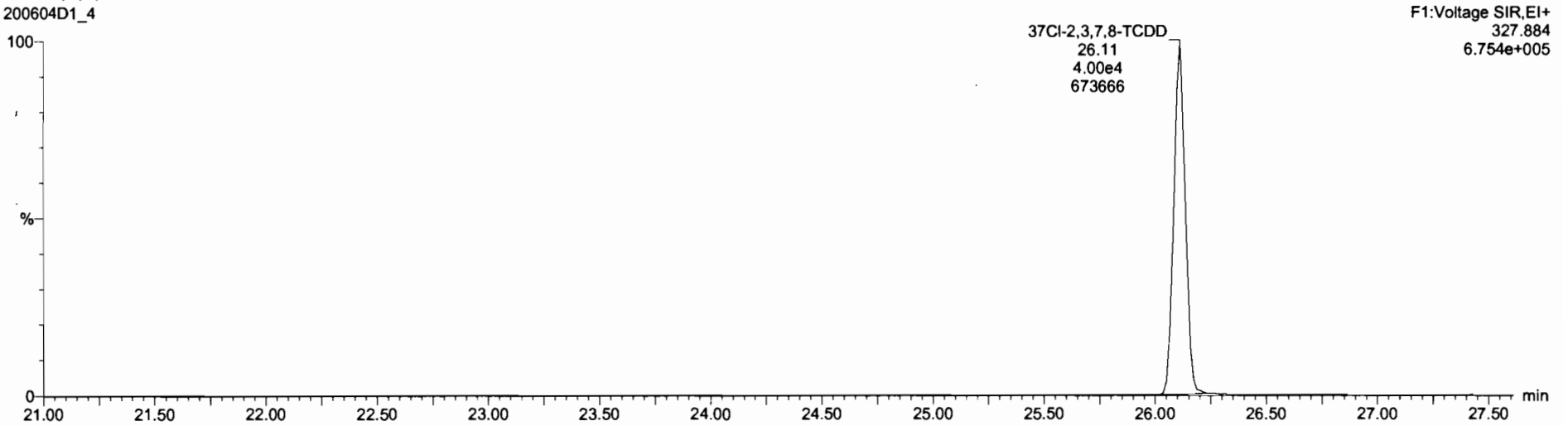


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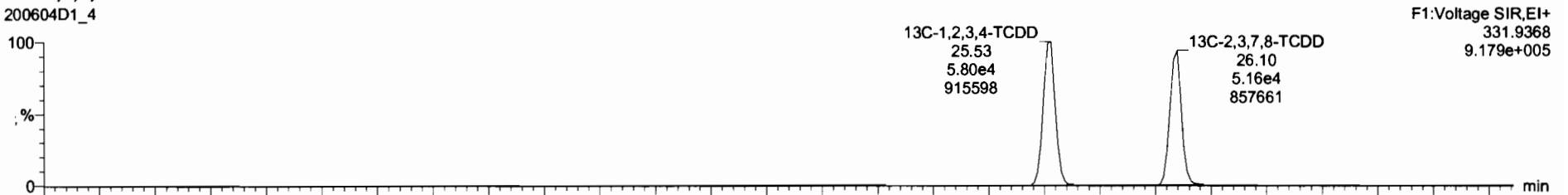
Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
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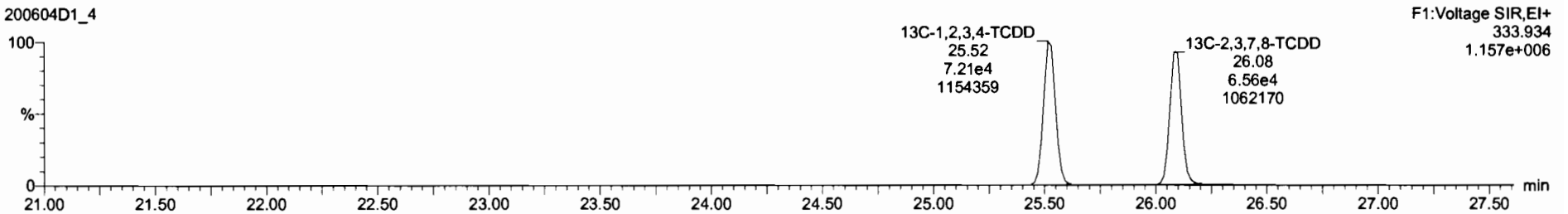
37Cl-2,3,7,8-TCDD  
200604D1\_4



13C-1,2,3,4-TCDD  
200604D1\_4



200604D1\_4



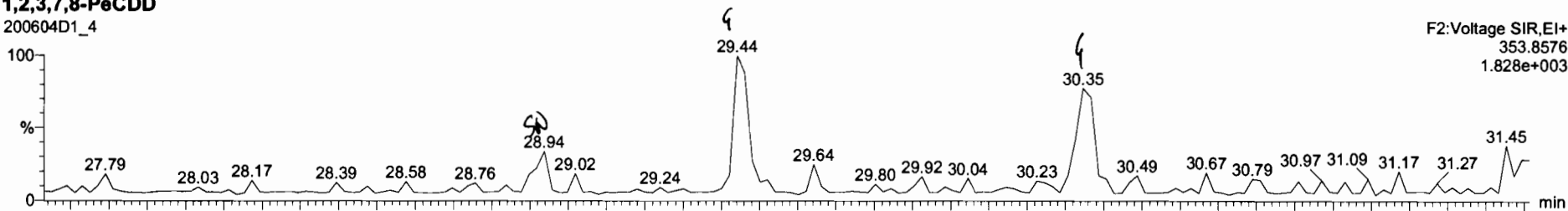
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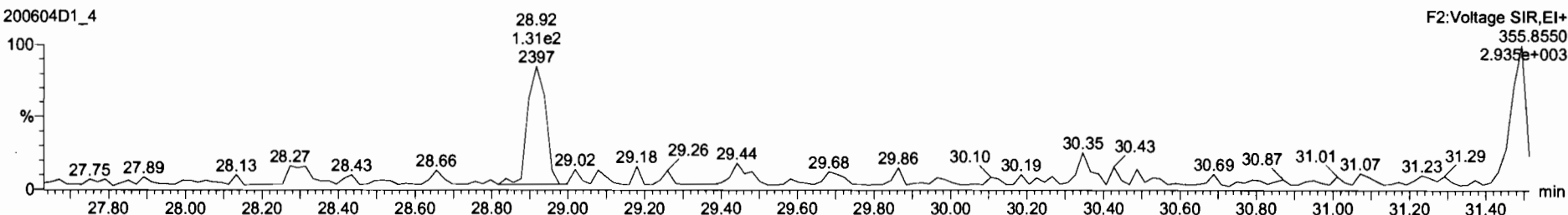
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**1,2,3,7,8-PeCDD**

200604D1\_4

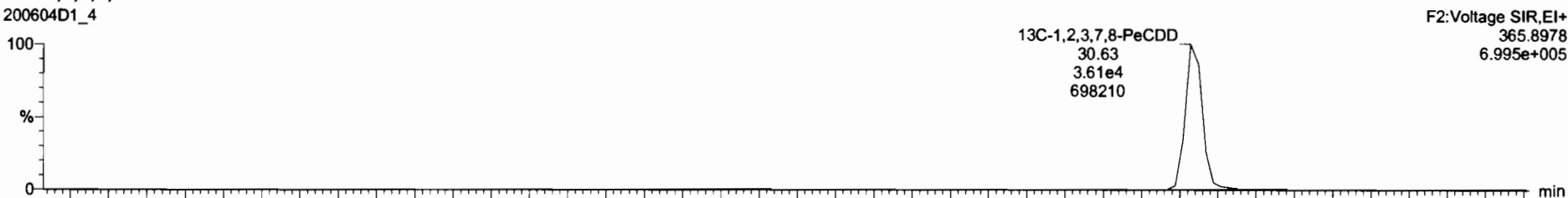


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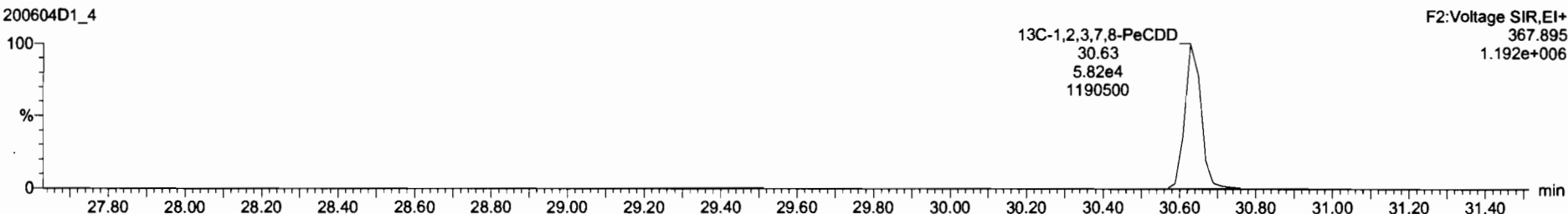


**13C-1,2,3,7,8-PeCDD**

200604D1\_4



200604D1\_4





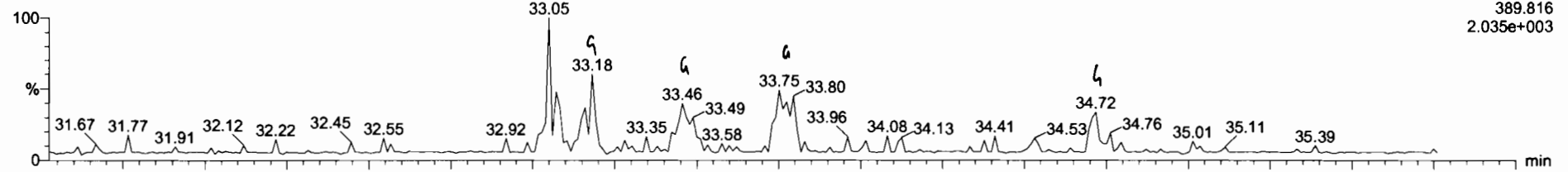
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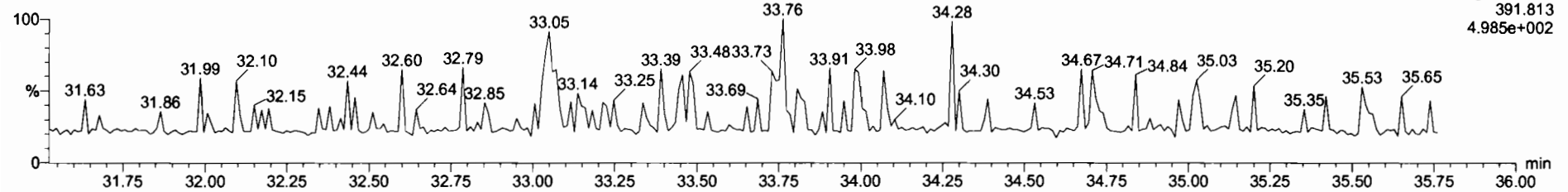
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**1,2,3,4,7,8-HxCDD**

200604D1\_4

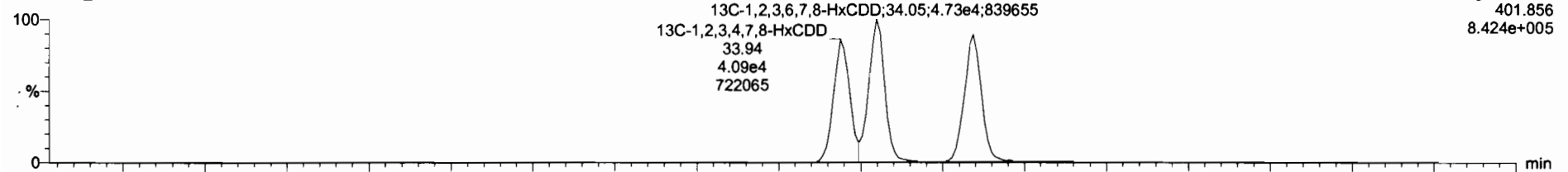


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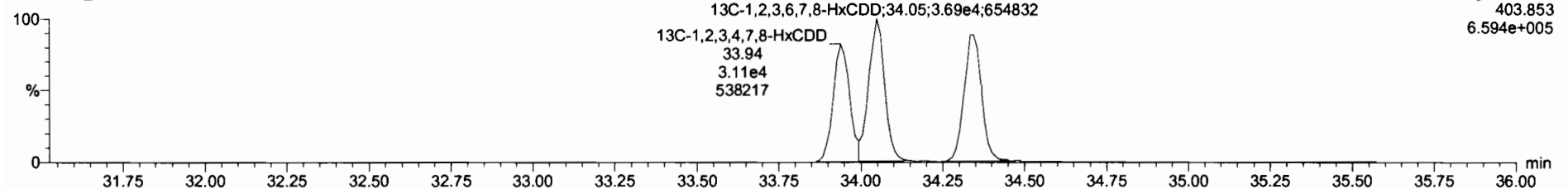


**13C-1,2,3,4,7,8-HxCDD**

200604D1\_4



200604D1\_4



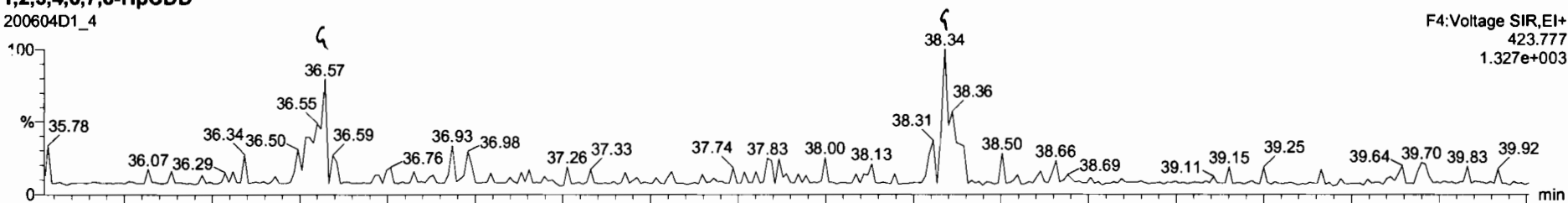
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Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

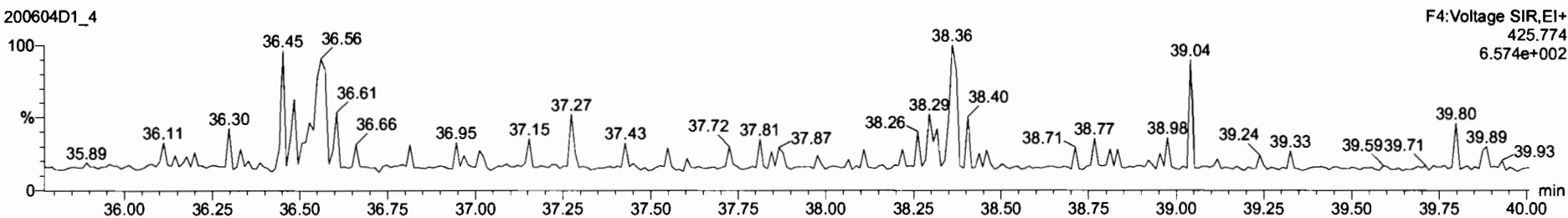
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1,2,3,4,6,7,8-HpCDD

200604D1\_4

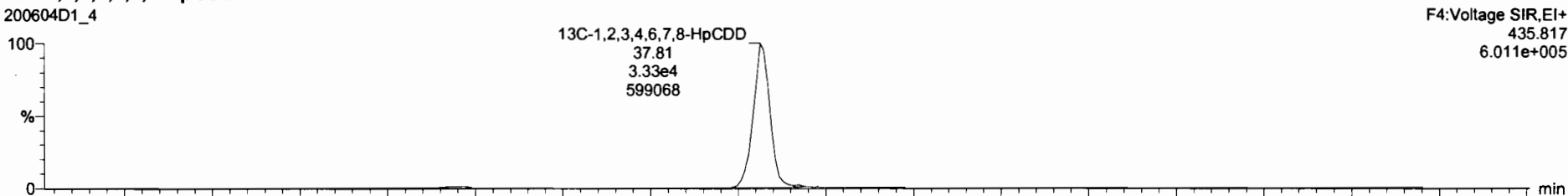


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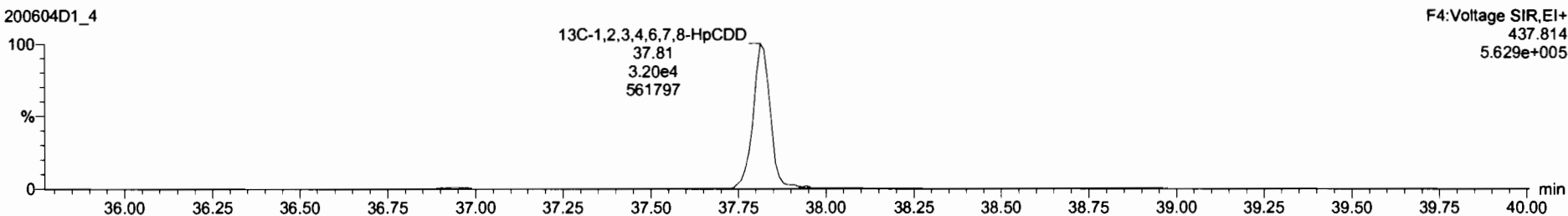


13C-1,2,3,4,6,7,8-HpCDD

200604D1\_4



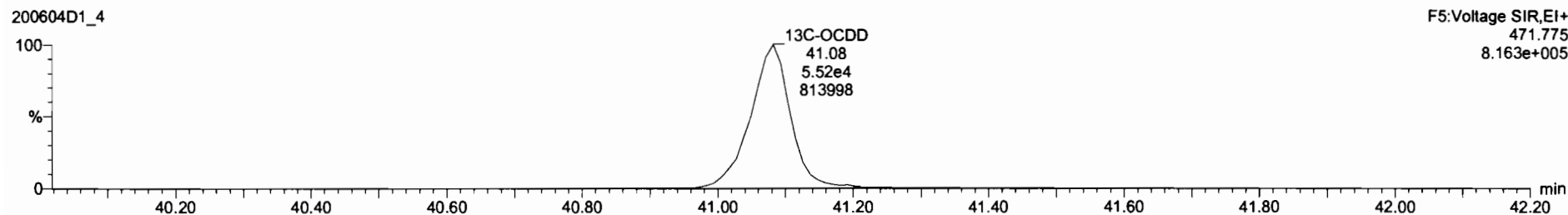
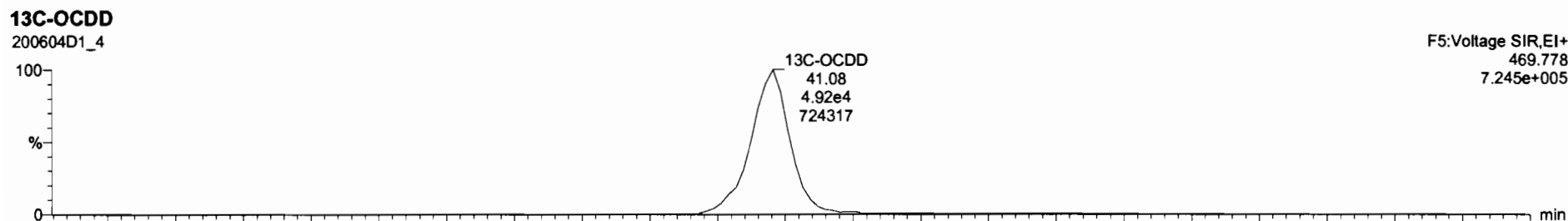
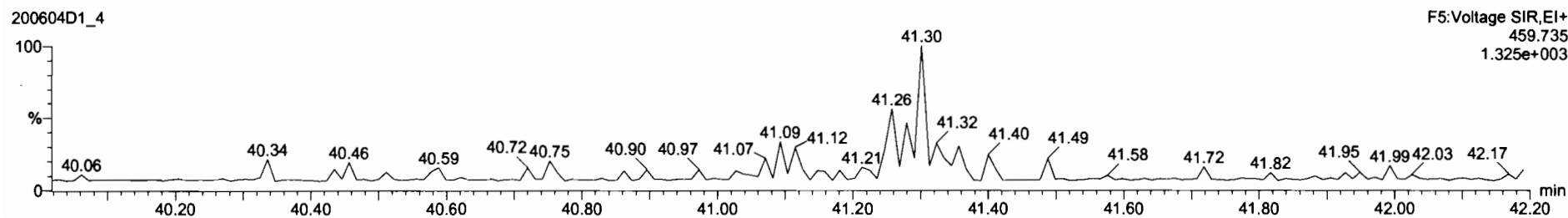
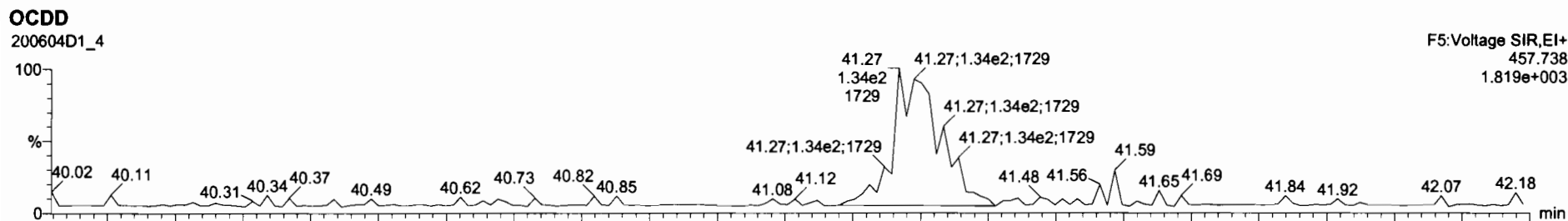
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Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank



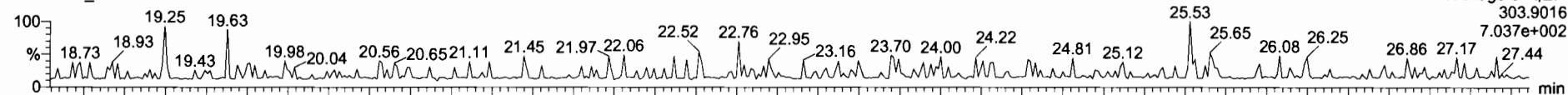
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

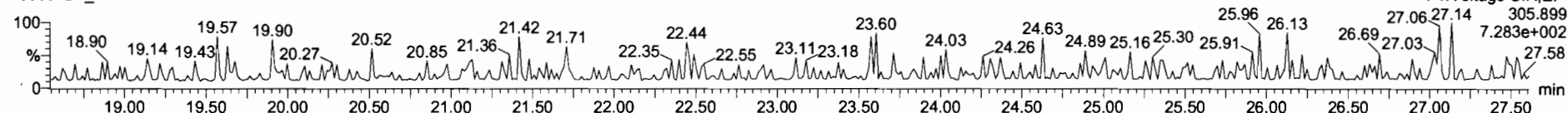
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**2,3,7,8-TCDF**

200604D1\_4

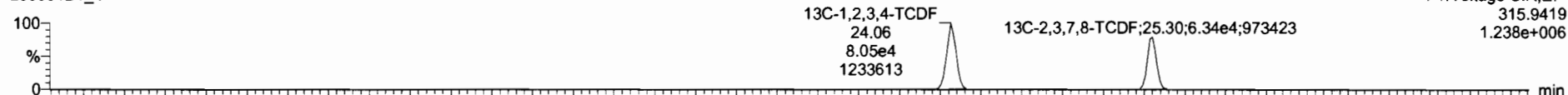


200604D1\_4

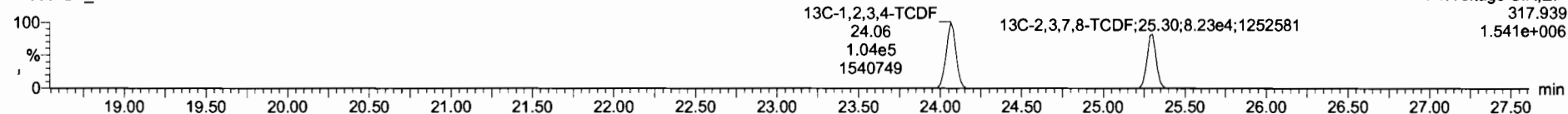


**13C-2,3,7,8-TCDF**

200604D1\_4

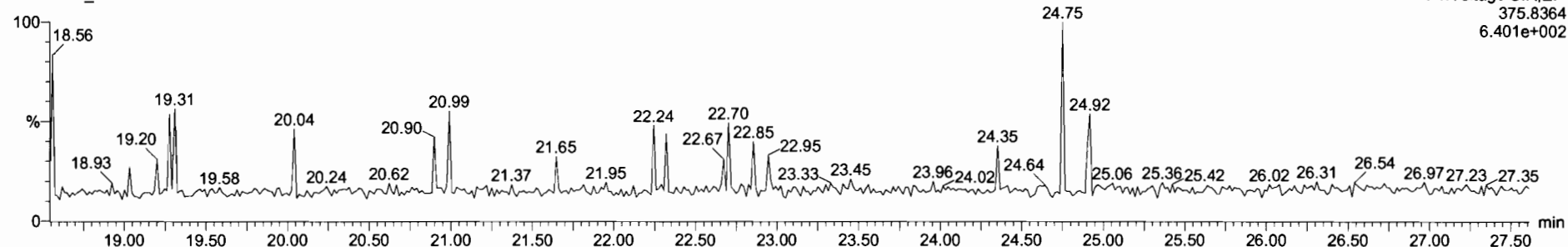


200604D1\_4



**DPE1**

200604D1\_4

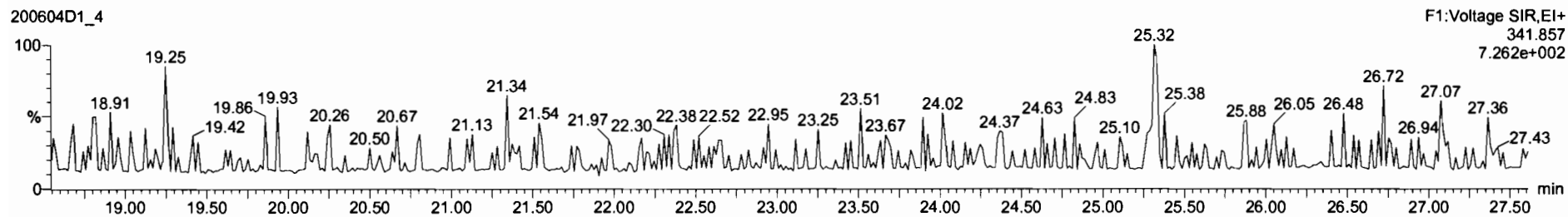
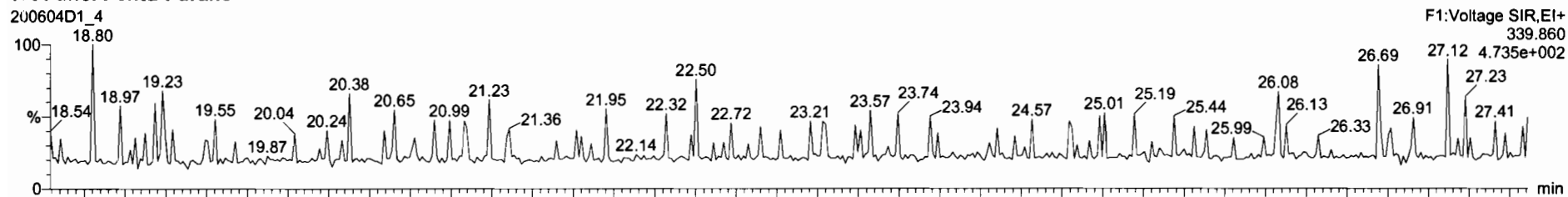


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

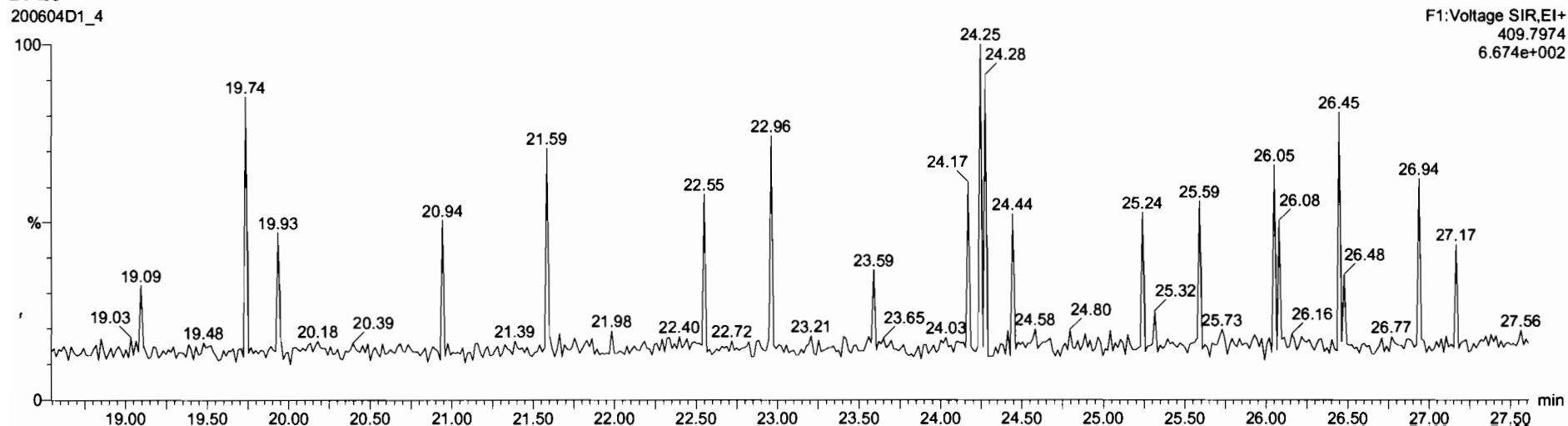
Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans



DPE6



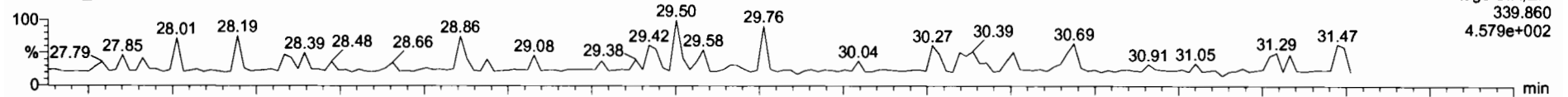
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Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

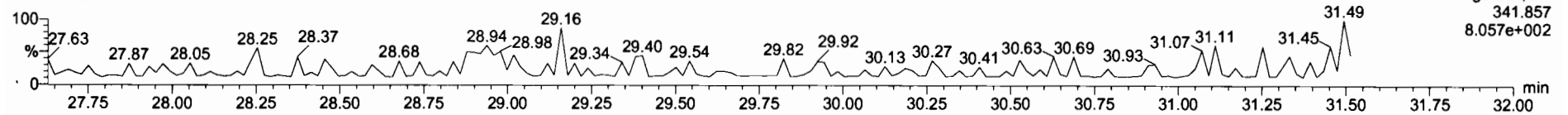
Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

**1,2,3,7,8-PeCDF**

200604D1\_4

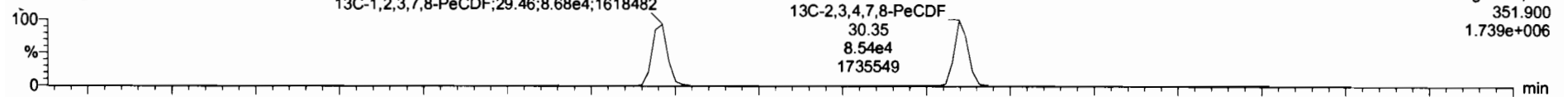


200604D1\_4

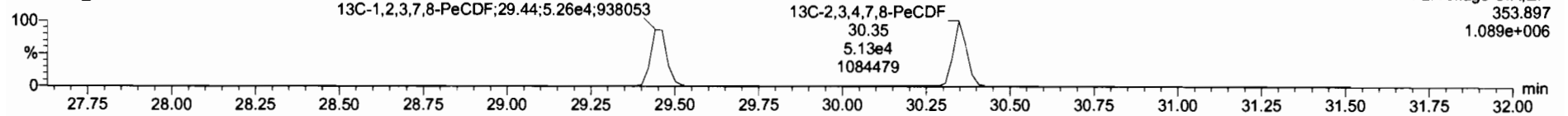


**13C-1,2,3,7,8-PeCDF**

200604D1\_4

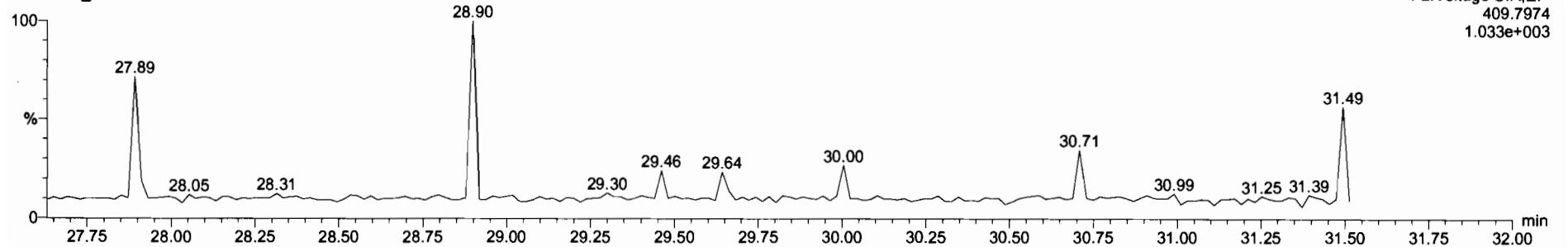


200604D1\_4



**DPE2**

200604D1\_4

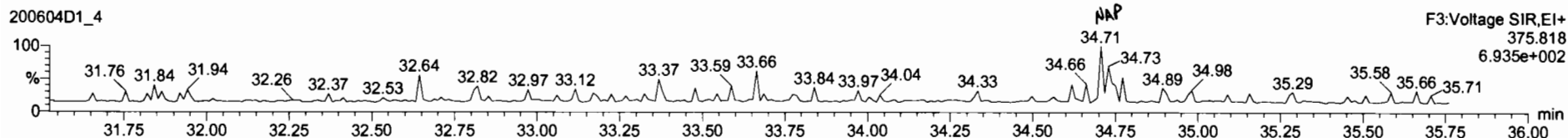
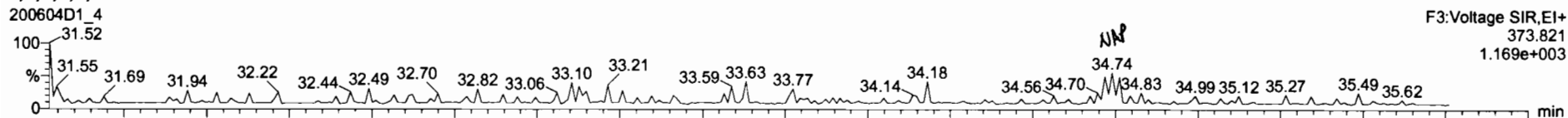


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

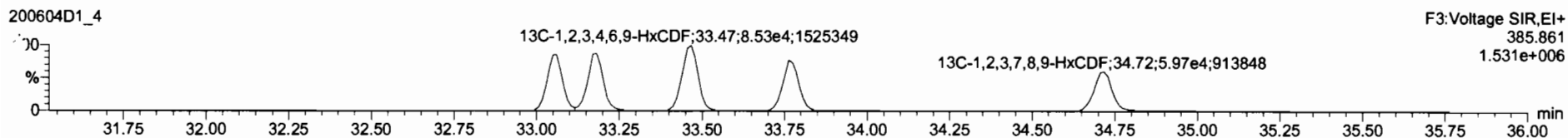
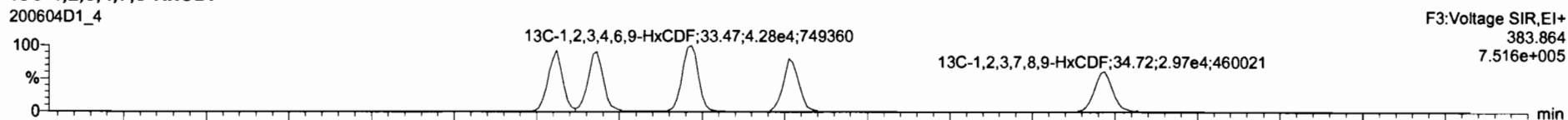
Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

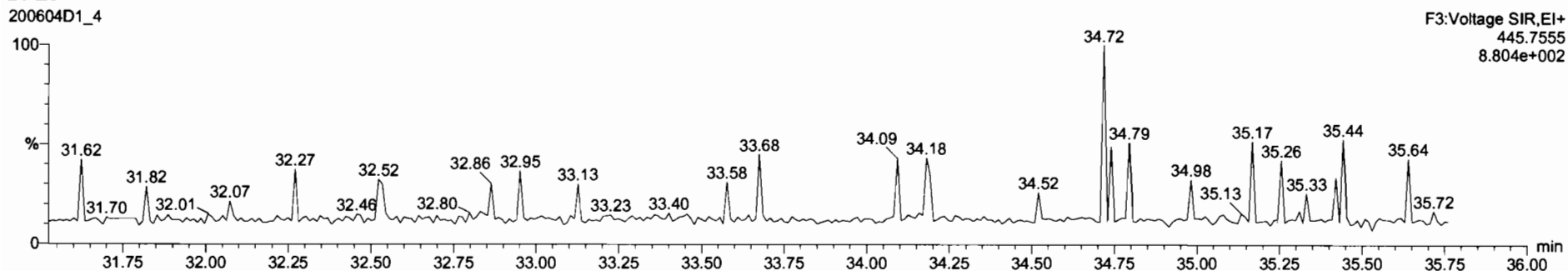
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



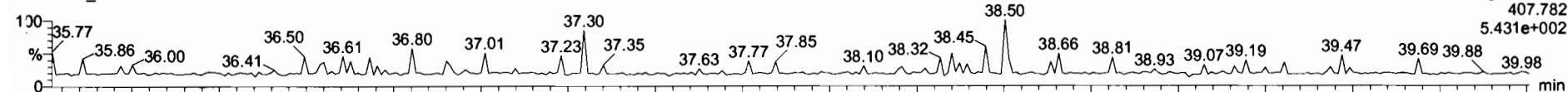
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

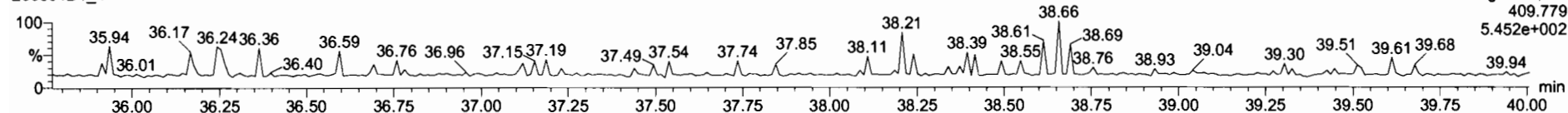
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1,2,3,4,6,7,8-HpCDF

200604D1\_4

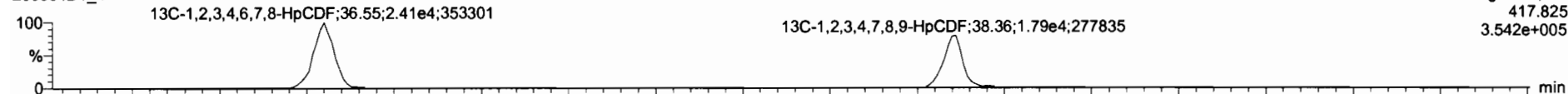


200604D1\_4

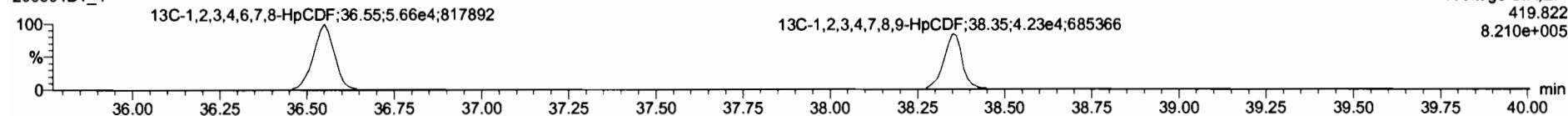


13C-1,2,3,4,6,7,8-HpCDF

200604D1\_4

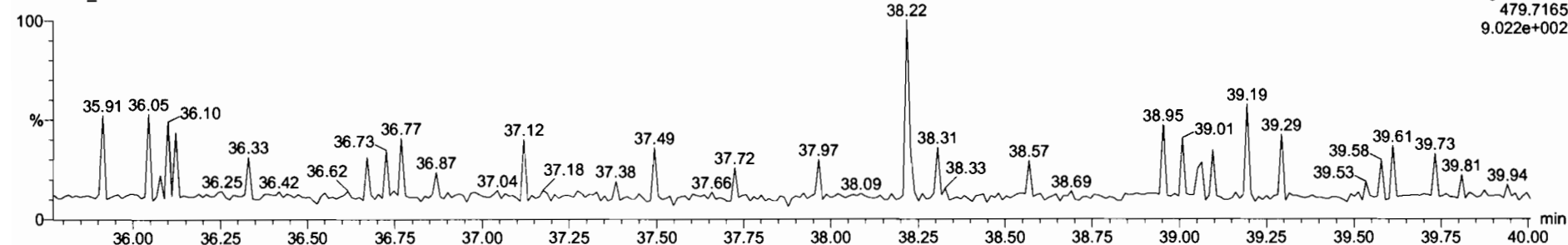


200604D1\_4



DPE4

200604D1\_4



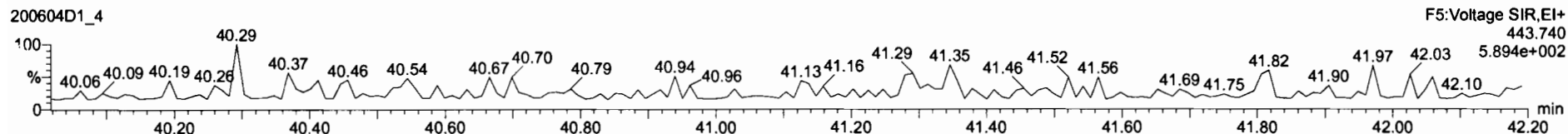
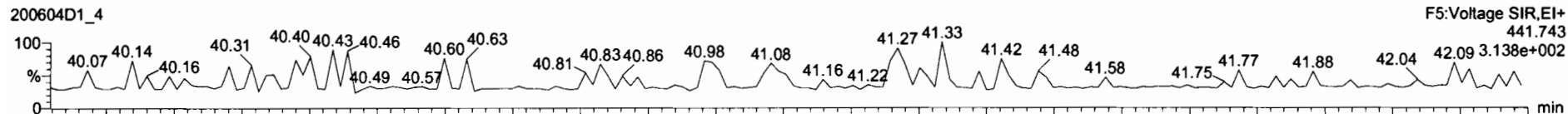


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

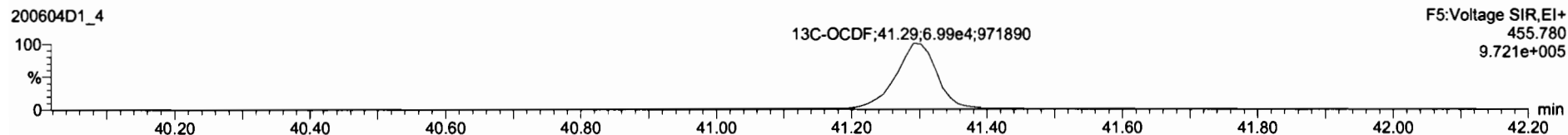
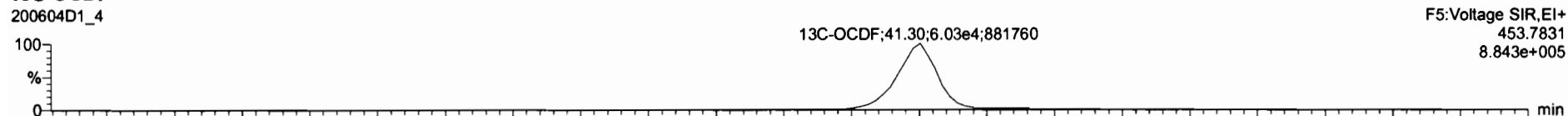
Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank

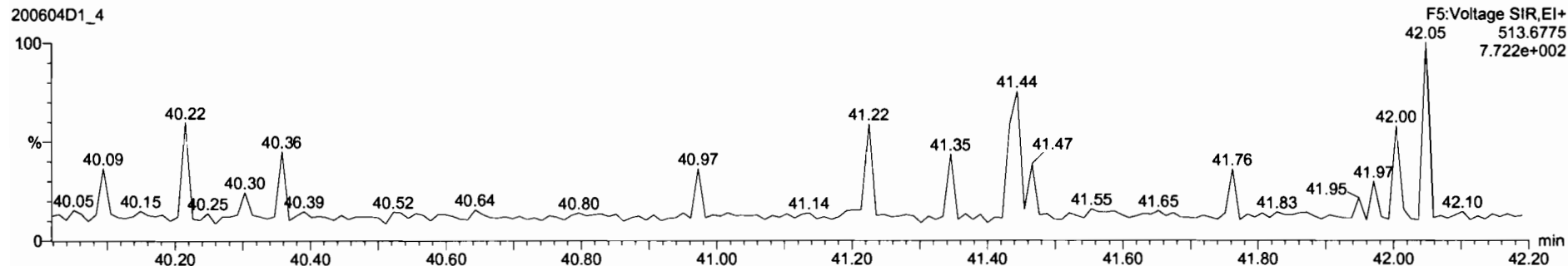
CCDF



13C-OCDF



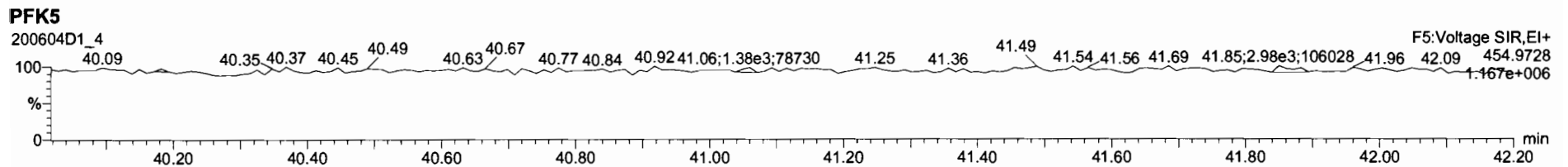
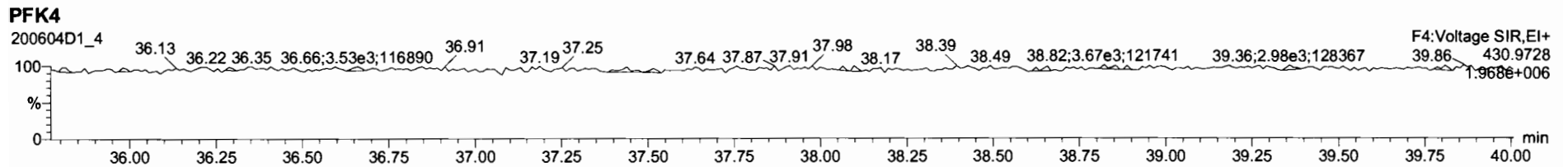
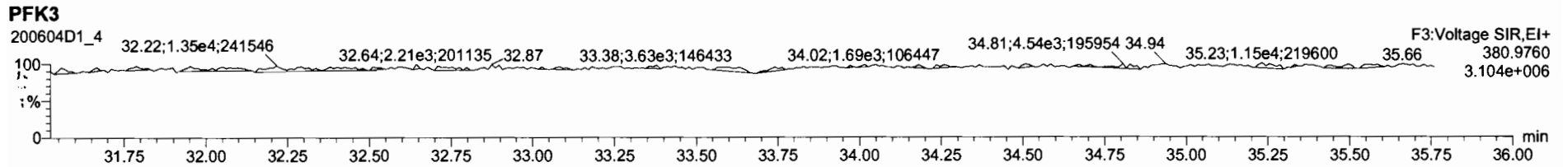
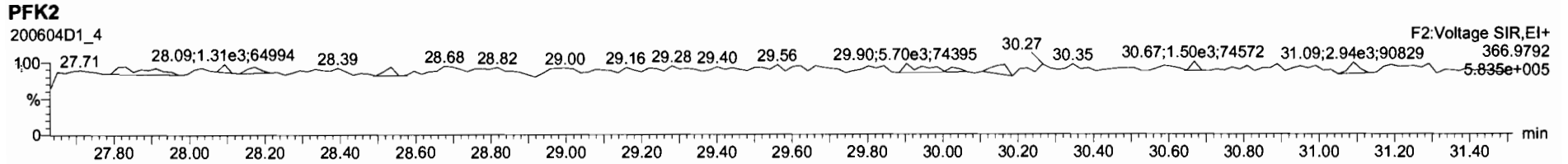
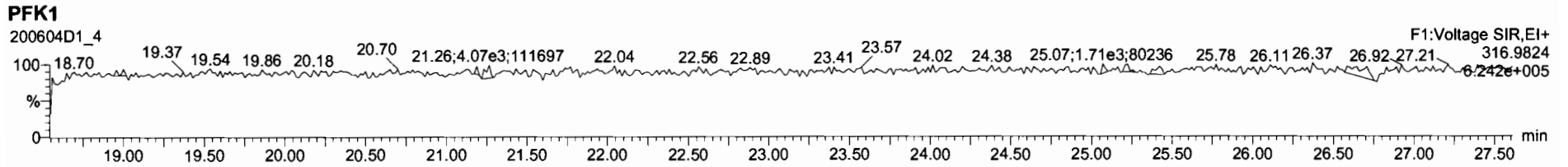
DPE5



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_4.qld

Last Altered: Thursday, June 04, 2020 15:08:46 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 15:10:09 Pacific Daylight Time

Name: 200604D1\_4, Date: 04-Jun-2020, Time: 14:15:51, ID: B0E0100-BLK1 Method Blank 10, Description: Method Blank



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 13:59:50 Pacific Daylight Time

*DB 6/4/20 C7 06/09/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\ldb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 7.48e3 | 0.77 | NO  | 0.987 | 10.000 | 26.112  | 26.11 | 1.001    | 1.001 | 15.674 | 78.4 <i>67-158</i> | 0.299 | 15.7 |
| 2  | 2 1,2,3,7,8-PeCDD          | 3.39e4 | 0.59 | NO  | 0.982 | 10.000 | 30.670  | 30.65 | 1.001    | 1.000 | 84.598 | 84.6 <i>70-142</i> | 0.231 | 84.6 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 3.22e4 | 1.24 | NO  | 1.17  | 10.000 | 33.960  | 33.96 | 1.000    | 1.000 | 88.671 | 88.7 <i>70-164</i> | 0.287 | 88.7 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 3.18e4 | 1.24 | NO  | 1.04  | 10.000 | 34.060  | 34.07 | 1.000    | 1.000 | 87.656 | 87.7 <i>76-134</i> | 0.280 | 87.7 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 3.21e4 | 1.24 | NO  | 1.00  | 10.000 | 34.379  | 34.37 | 1.001    | 1.001 | 89.388 | 89.4 <i>64-162</i> | 0.316 | 89.4 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 2.74e4 | 1.03 | NO  | 0.992 | 10.000 | 37.824  | 37.83 | 1.000    | 1.001 | 90.199 | 90.2 <i>70-140</i> | 0.466 | 90.2 |
| 7  | 7 OCDD                     | 4.43e4 | 0.86 | NO  | 1.04  | 10.000 | 41.082  | 41.09 | 1.000    | 1.000 | 173.21 | 86.6 <i>78-144</i> | 0.468 | 173  |
| 8  | 8 2,3,7,8-TCDF             | 8.77e3 | 0.77 | NO  | 0.882 | 10.000 | 25.311  | 25.32 | 1.001    | 1.001 | 16.965 | 84.8 <i>75-158</i> | 0.194 | 17.0 |
| 9  | 9 1,2,3,7,8-PeCDF          | 4.92e4 | 1.55 | NO  | 1.05  | 10.000 | 29.482  | 29.46 | 1.001    | 1.000 | 80.746 | 80.7 <i>80-134</i> | 0.178 | 80.7 |
| 10 | 10 2,3,4,7,8-PeCDF         | 5.08e4 | 1.63 | NO  | 1.06  | 10.000 | 30.397  | 30.37 | 1.001    | 1.000 | 83.706 | 83.7 <i>68-160</i> | 0.181 | 83.7 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 4.31e4 | 1.24 | NO  | 1.08  | 10.000 | 33.061  | 33.08 | 1.000    | 1.001 | 91.761 | 91.8 <i>72-134</i> | 0.312 | 91.8 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 4.41e4 | 1.25 | NO  | 1.04  | 10.000 | 33.203  | 33.20 | 1.000    | 1.000 | 95.194 | 95.2 <i>84-130</i> | 0.337 | 95.2 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 4.47e4 | 1.25 | NO  | 1.11  | 10.000 | 33.808  | 33.80 | 1.001    | 1.001 | 96.189 | 96.2 <i>70-156</i> | 0.346 | 96.2 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 3.73e4 | 1.26 | NO  | 1.06  | 10.000 | 34.718  | 34.74 | 1.000    | 1.001 | 92.728 | 92.7 <i>78-130</i> | 0.447 | 92.7 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 3.46e4 | 1.03 | NO  | 1.13  | 10.000 | 36.587  | 36.57 | 1.001    | 1.001 | 87.829 | 87.8 <i>82-122</i> | 0.514 | 87.8 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 3.23e4 | 1.03 | NO  | 1.33  | 10.000 | 38.350  | 38.37 | 1.000    | 1.001 | 90.360 | 90.4 <i>78-138</i> | 0.458 | 90.4 |
| 17 | 17 OCDF                    | 5.29e4 | 0.88 | NO  | 0.933 | 10.000 | 41.302  | 41.31 | 1.000    | 1.000 | 190.76 | 95.4 <i>63-170</i> | 0.394 | 191  |
| 18 | 18 13C-2,3,7,8-TCDD        | 9.67e4 | 0.77 | NO  | 1.21  | 10.000 | 26.179  | 26.08 | 1.026    | 1.022 | 143.43 | 71.7 <i>20-175</i> | 0.582 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 8.15e4 | 0.64 | NO  | 0.996 | 10.000 | 30.669  | 30.65 | 1.202    | 1.201 | 146.46 | 73.2 <i>21-227</i> | 0.444 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 6.19e4 | 1.31 | NO  | 0.679 | 10.000 | 33.936  | 33.95 | 1.014    | 1.014 | 175.22 | 87.6 <i>21-193</i> | 0.674 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 7.00e4 | 1.27 | NO  | 0.850 | 10.000 | 34.046  | 34.06 | 1.017    | 1.018 | 158.16 | 79.1 <i>25-163</i> | 0.538 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 7.15e4 | 1.29 | NO  | 0.798 | 10.000 | 34.317  | 34.35 | 1.025    | 1.026 | 172.06 | 86.0 <i>21-193</i> | 0.573 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 6.13e4 | 1.06 | NO  | 0.697 | 10.000 | 37.784  | 37.81 | 1.129    | 1.130 | 169.05 | 84.5 <i>26-166</i> | 0.789 |      |
| 24 | 24 13C-OCDD                | 9.89e4 | 0.87 | NO  | 0.579 | 10.000 | 40.810  | 41.08 | 1.219    | 1.228 | 327.98 | 82.0 <i>13-195</i> | 0.627 |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.17e5 | 0.79 | NO  | 1.13  | 10.000 | 25.260  | 25.29 | 0.990    | 0.991 | 135.59 | 67.8 <i>22-152</i> | 0.960 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 1.16e5 | 1.62 | NO  | 0.996 | 10.000 | 29.488  | 29.46 | 1.156    | 1.155 | 152.40 | 76.2 <i>21-192</i> | 0.485 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 1.15e5 | 1.67 | NO  | 0.969 | 10.000 | 30.389  | 30.37 | 1.191    | 1.190 | 154.06 | 77.0 <i>13-328</i> | 0.499 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 8.67e4 | 0.50 | NO  | 1.06  | 10.000 | 33.066  | 33.06 | 0.988    | 0.988 | 157.52 | 78.8 <i>19-202</i> | 0.593 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.89e4 | 0.49 | NO  | 1.18  | 10.000 | 33.199  | 33.19 | 0.992    | 0.992 | 145.24 | 72.6 <i>21-159</i> | 0.534 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 8.36e4 | 0.49 | NO  | 1.06  | 10.000 | 33.772  | 33.77 | 1.009    | 1.009 | 151.91 | 76.0 <i>22-176</i> | 0.593 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 7.61e4 | 0.50 | NO  | 0.879 | 10.000 | 34.672  | 34.72 | 1.036    | 1.037 | 166.24 | 83.1 <i>17-205</i> | 0.713 |      |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time

Printed: Thursday, June 04, 2020 13:59:50 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec                     | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------------|-------|------|
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 6.99e4 | 0.42 | NO  | 0.893 | 10.000 | 36.379  | 36.55 | 1.087    | 1.092 | 150.52 | 75.3 <del>21</del> - 158 | 0.507 |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 5.36e4 | 0.43 | NO  | 0.613 | 10.000 | 38.387  | 38.35 | 1.147    | 1.146 | 167.77 | 83.9 <del>20</del> - 186 | 0.737 |      |
| 34 | 34 13C-OCDF                | 1.19e5 | 0.88 | NO  | 0.741 | 10.000 | 40.964  | 41.30 | 1.224    | 1.234 | 308.04 | 77.0 <del>13</del> - 198 | 0.389 |      |
| 35 | 35 37Cl-2,3,7,8-TCDD       | 3.47e4 |      |     | 1.18  | 10.000 | 26.176  | 26.10 | 1.026    | 1.023 | 52.657 | 65.8 <del>31</del> - 191 | 0.116 |      |
| 36 | 36 13C-1,2,3,4-TCDD        | 1.12e5 | 0.79 | NO  | 1.00  | 10.000 | 25.480  | 25.52 | 1.000    | 1.000 | 200.00 | 100                      | 0.703 |      |
| 37 | 37 13C-1,2,3,4-TCDF        | 1.53e5 | 0.78 | NO  | 1.00  | 10.000 | 24.020  | 24.06 | 1.000    | 1.000 | 200.00 | 100                      | 1.08  |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF   | 1.04e5 | 0.49 | NO  | 1.00  | 10.000 | 33.530  | 33.47 | 1.000    | 1.000 | 200.00 | 100                      | 0.627 |      |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

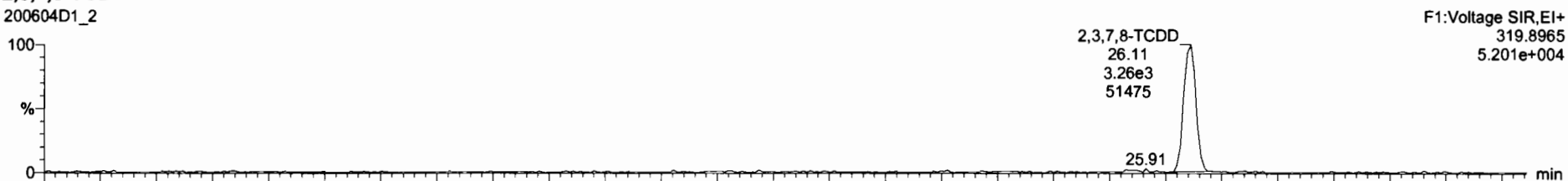
Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

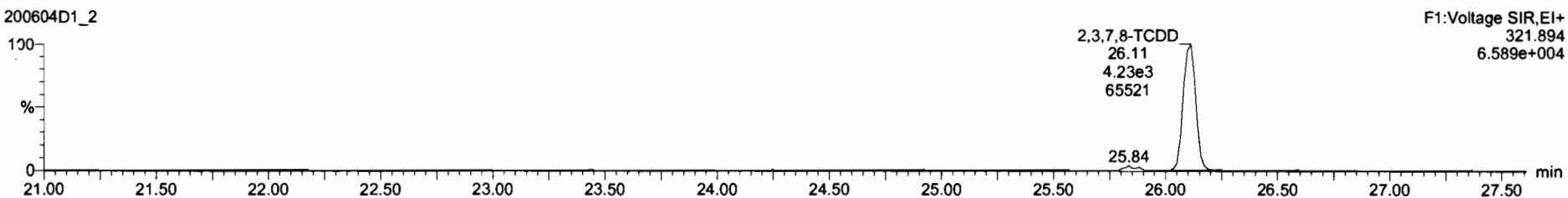
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

**2,3,7,8-TCDD**

200604D1\_2

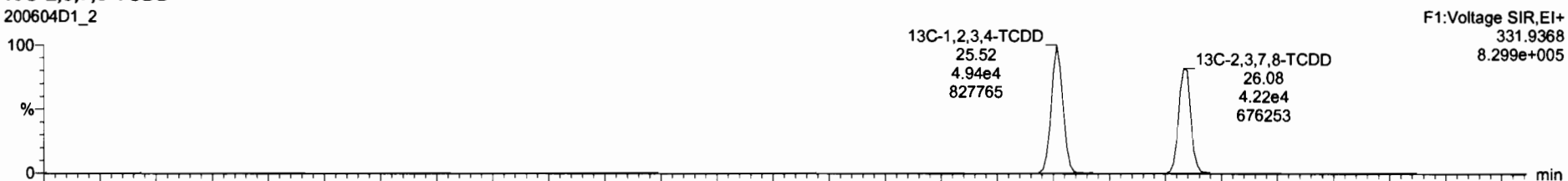


200604D1\_2

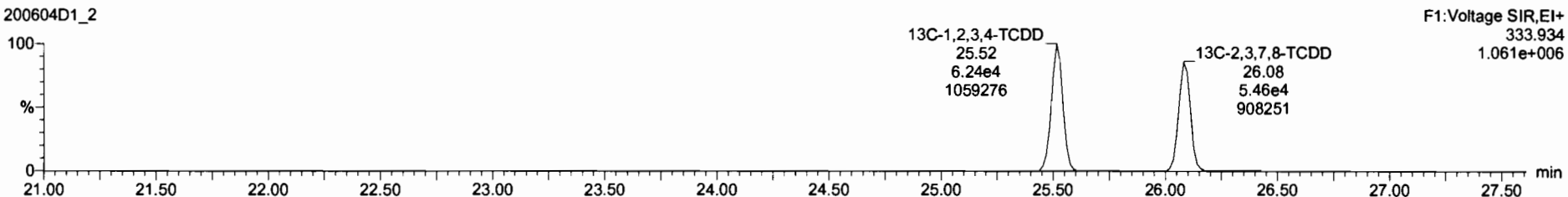


**13C-2,3,7,8-TCDD**

200604D1\_2



200604D1\_2



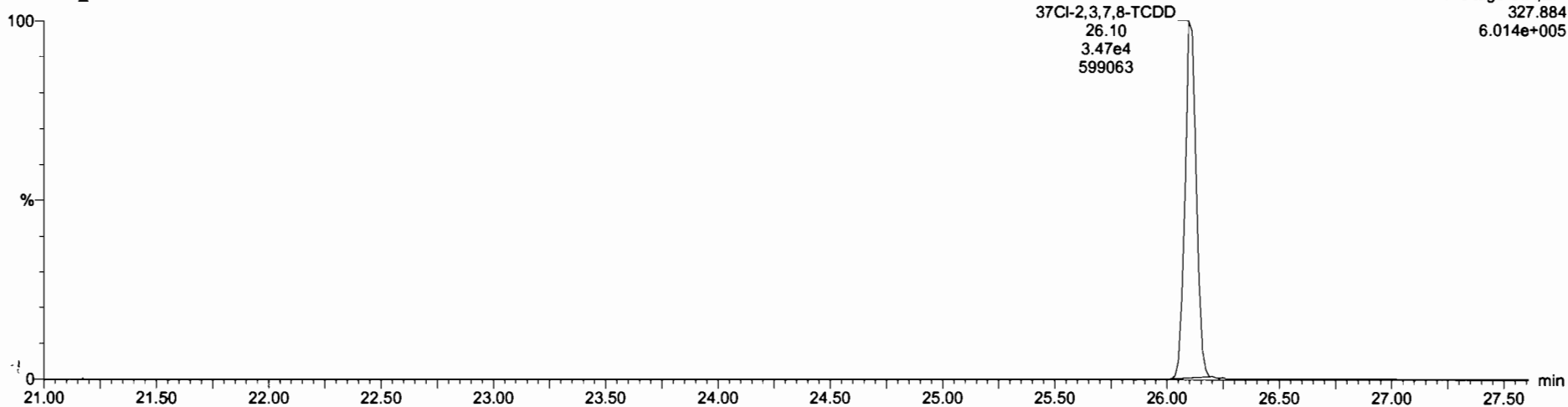
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

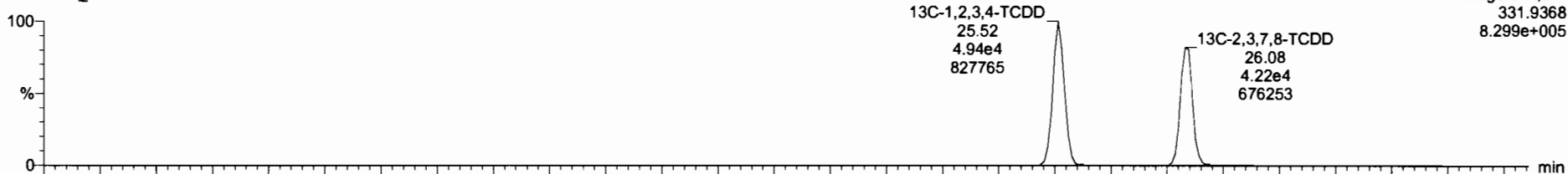
**37Cl-2,3,7,8-TCDD**

200604D1\_2

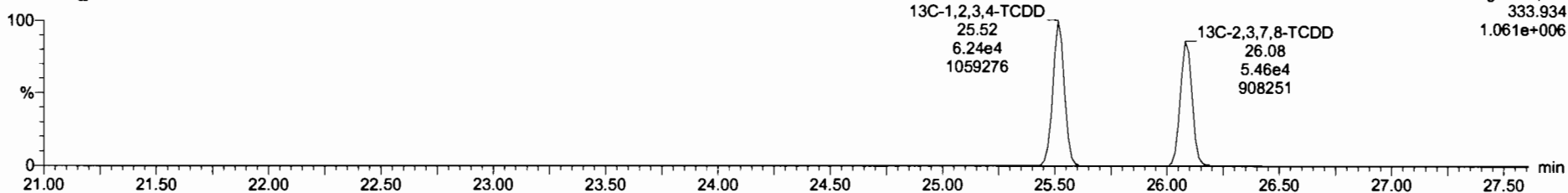


**13C-1,2,3,4-TCDD**

200604D1\_2



200604D1\_2



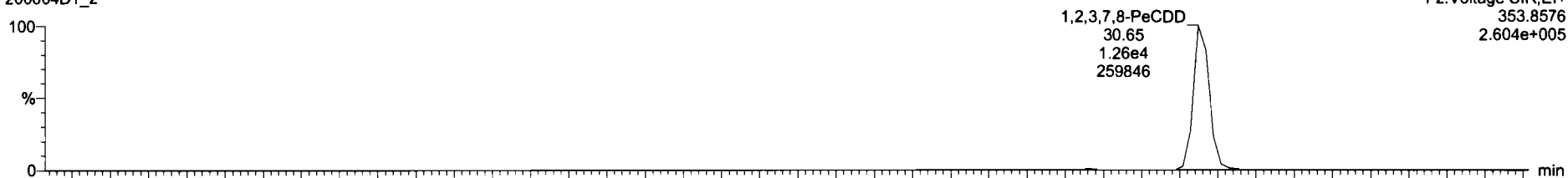
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Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

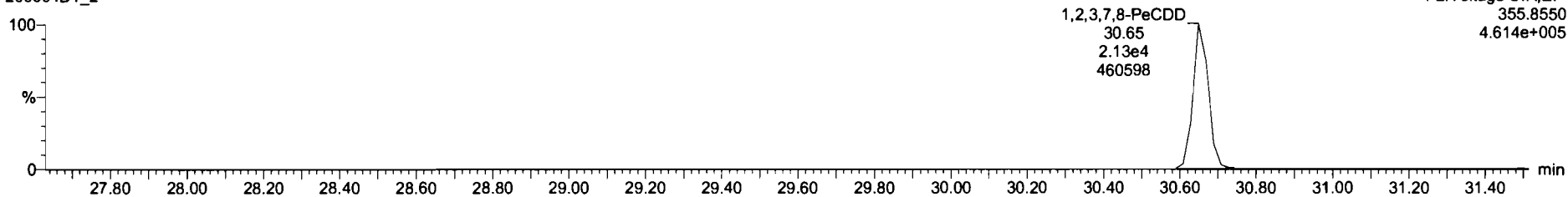
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

1,2,3,7,8-PeCDD

200604D1\_2

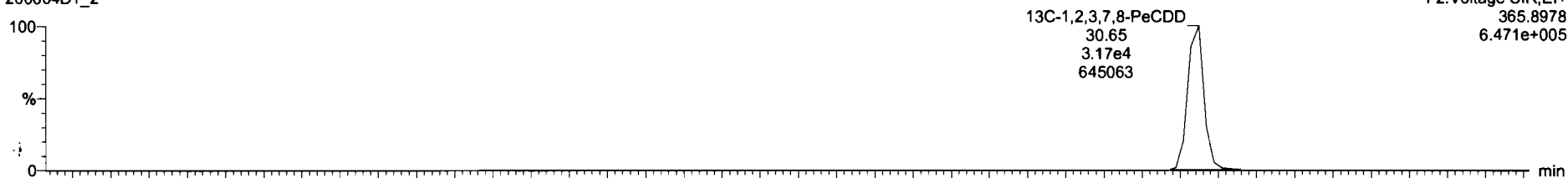


200604D1\_2

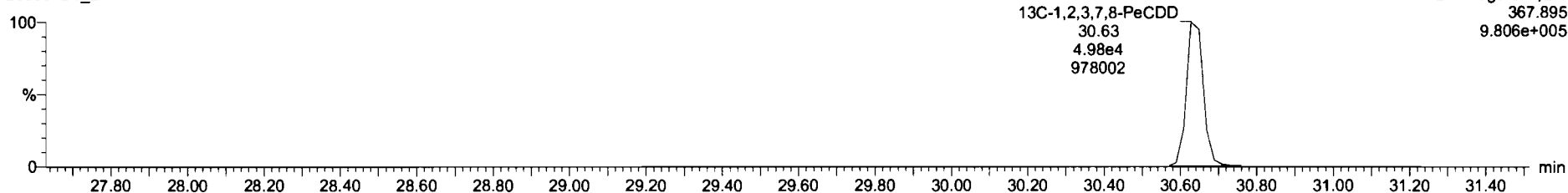


13C-1,2,3,7,8-PeCDD

200604D1\_2



200604D1\_2



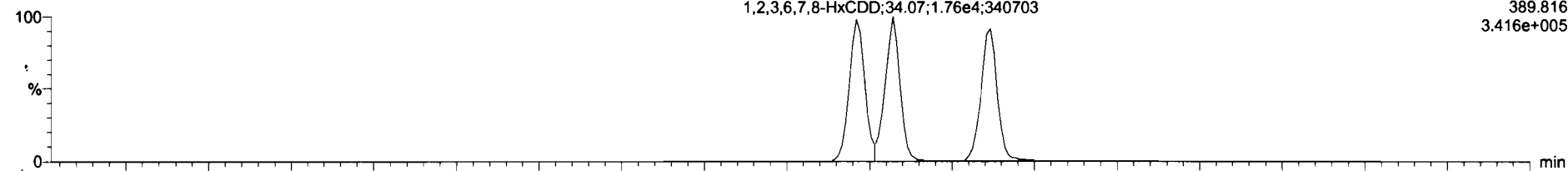
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Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

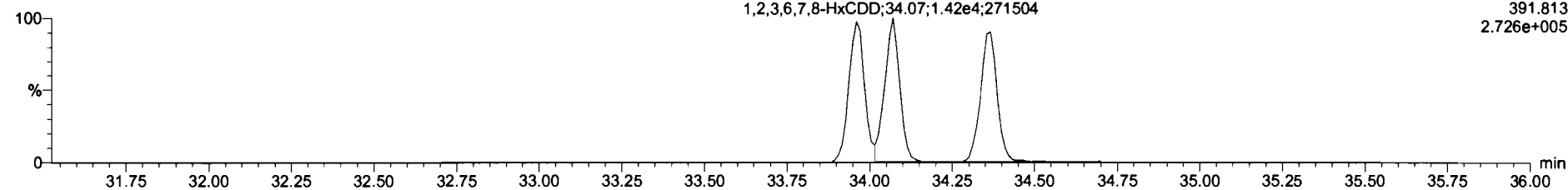
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

1,2,3,4,7,8-HxCDD

200604D1\_2

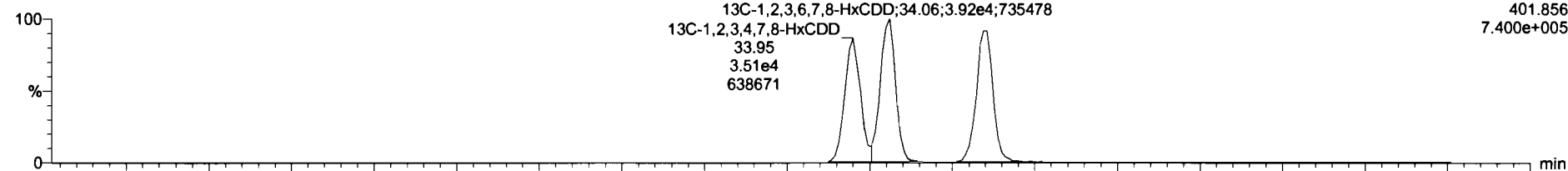


200604D1\_2

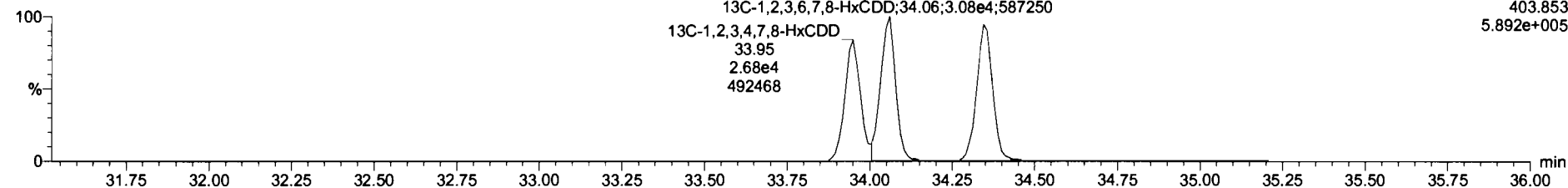


13C-1,2,3,4,7,8-HxCDD

200604D1\_2



200604D1\_2





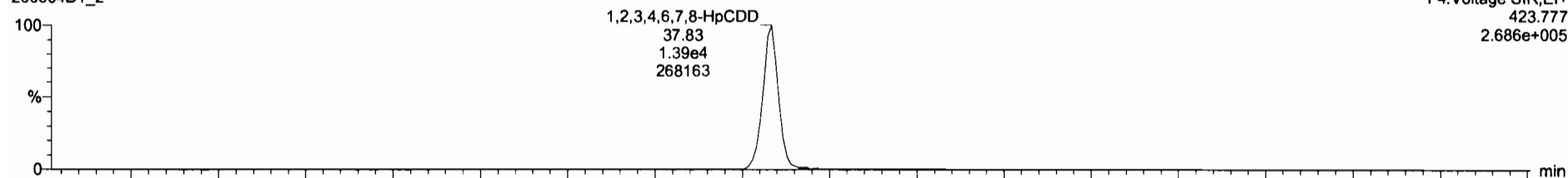
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Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

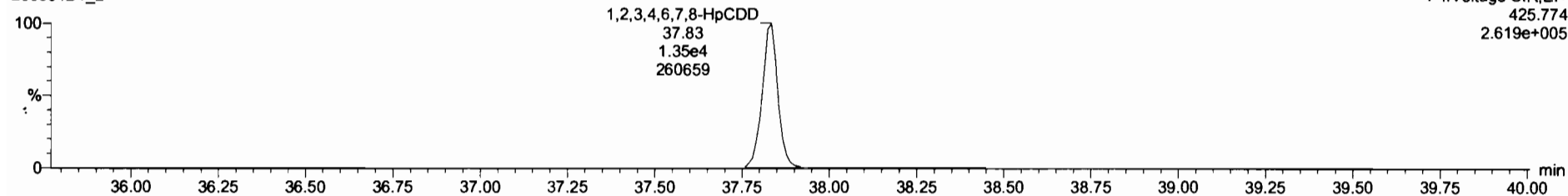
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

1,2,3,4,6,7,8-HpCDD

200604D1\_2

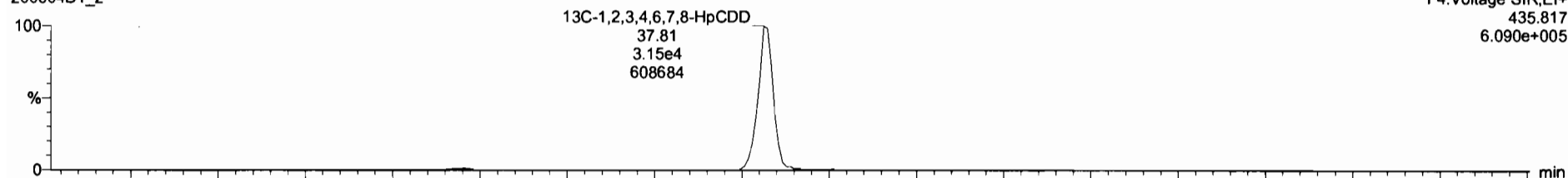


200604D1\_2

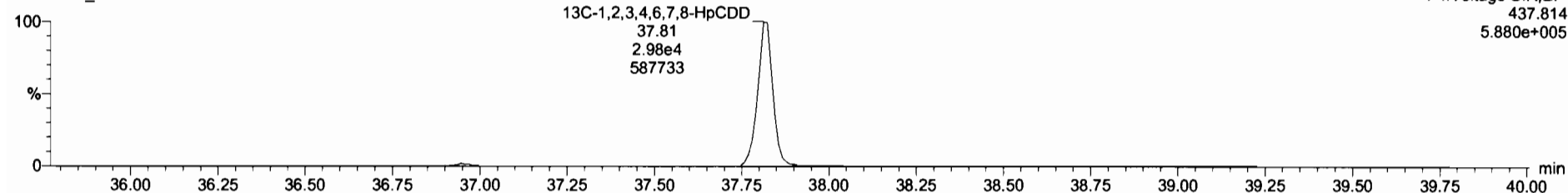


13C-1,2,3,4,6,7,8-HpCDD

200604D1\_2



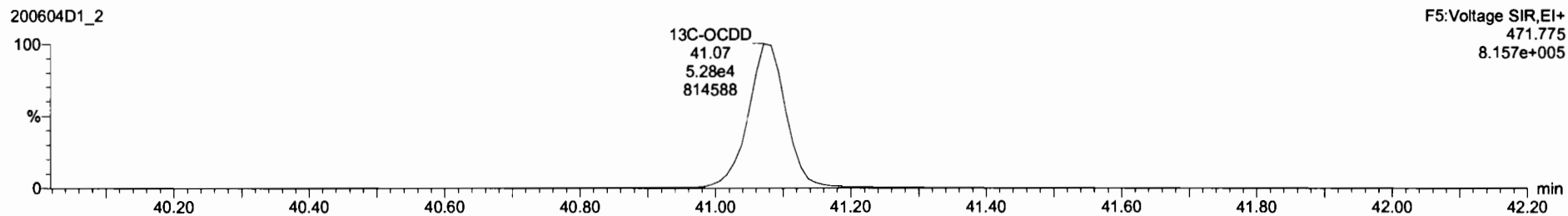
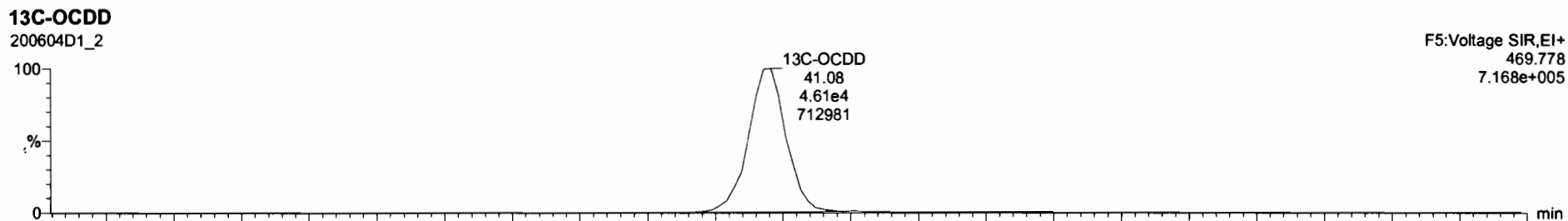
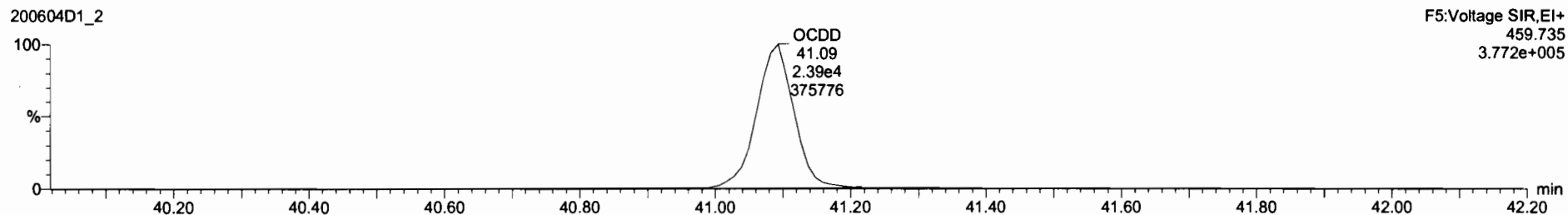
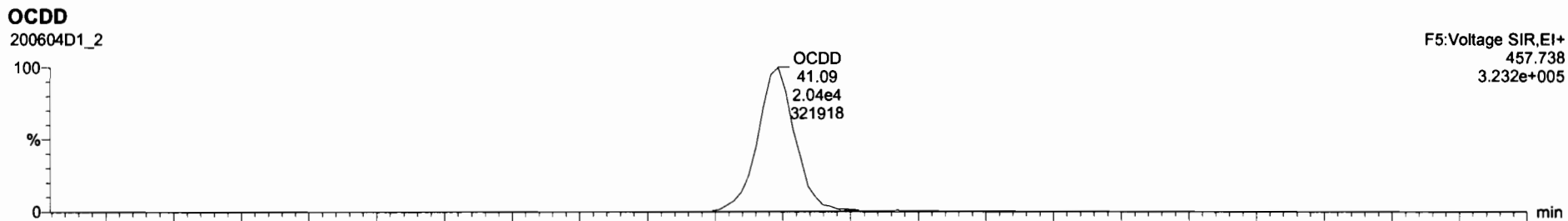
200604D1\_2



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR



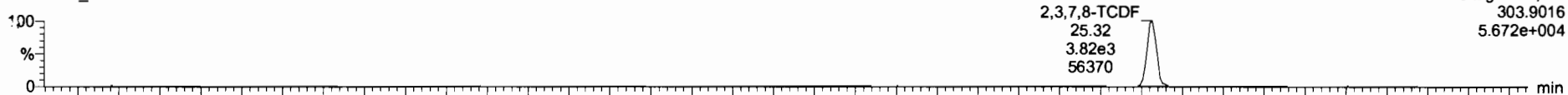
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

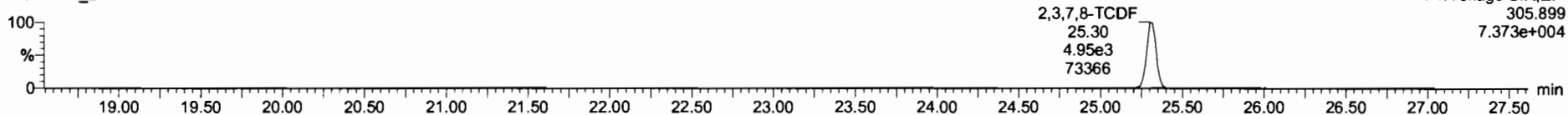
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

**2,3,7,8-TCDF**

200604D1\_2

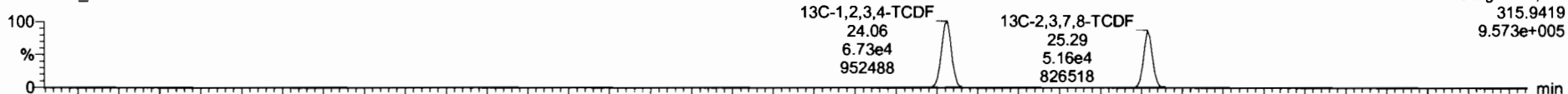


200604D1\_2

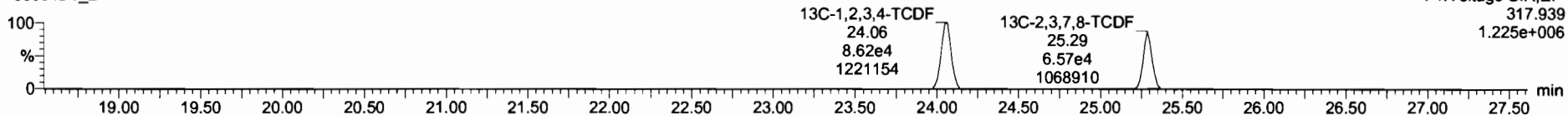


**13C-2,3,7,8-TCDF**

200604D1\_2

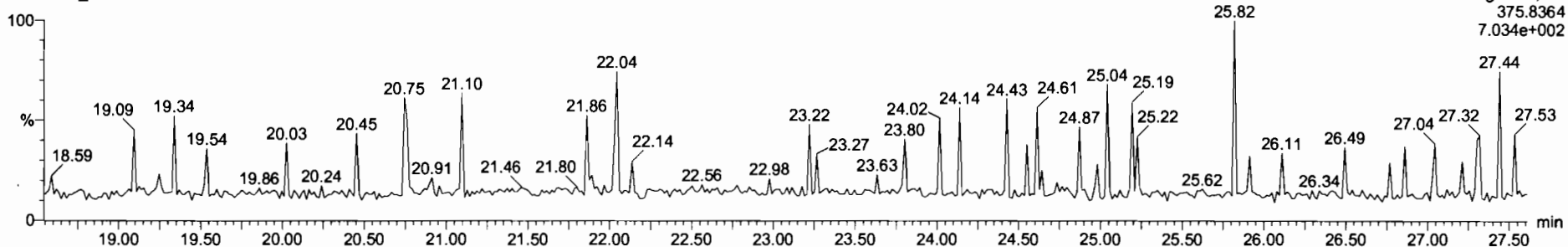


200604D1\_2



**DPE1**

200604D1\_2



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

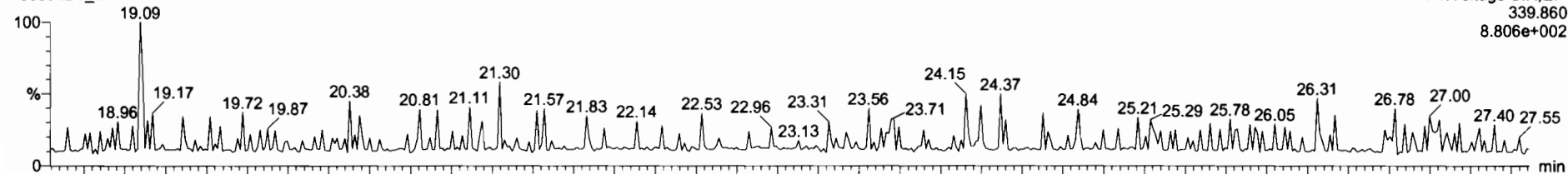
Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time

Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

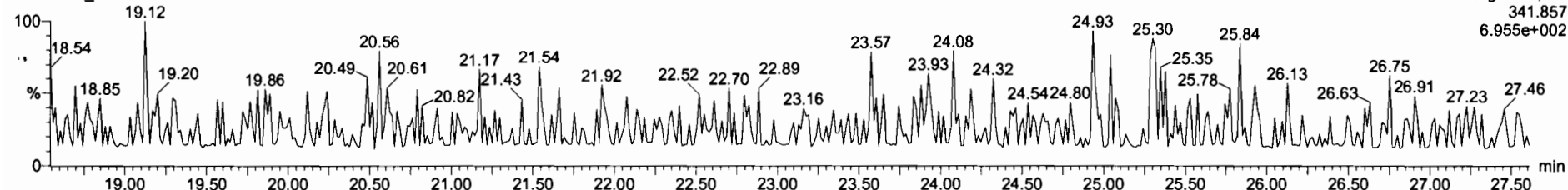
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

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200604D1\_2

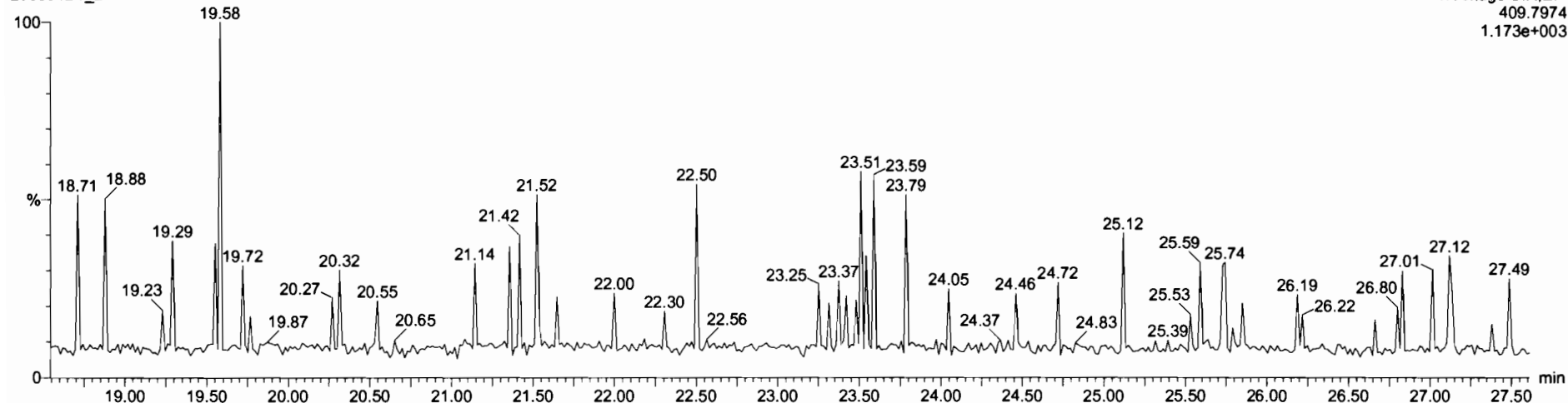


200604D1\_2



DPE6

200604D1\_2

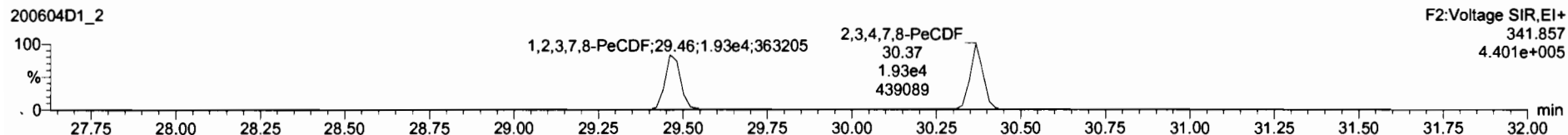
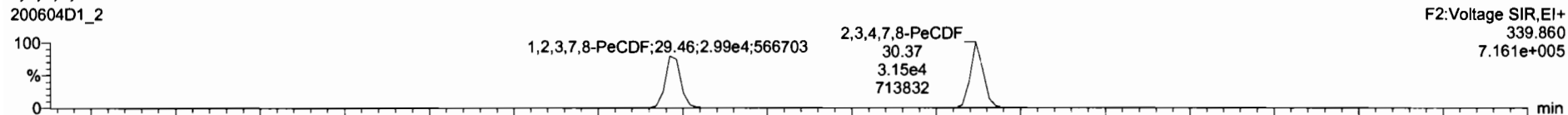


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

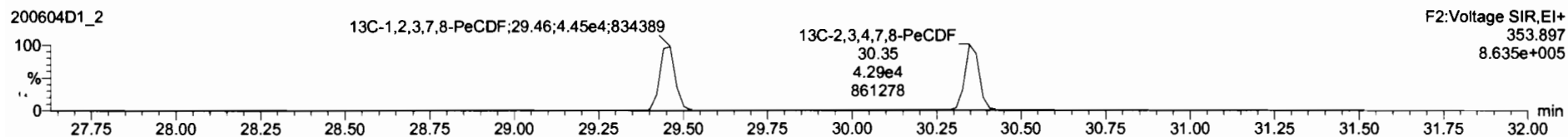
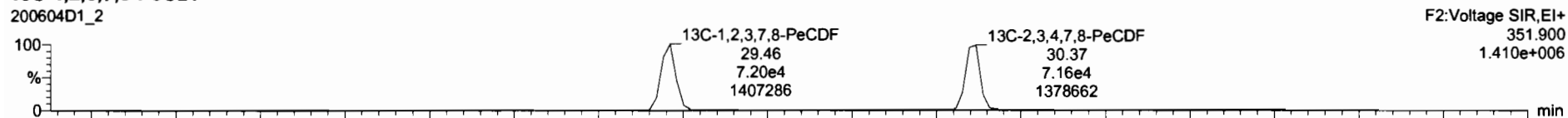
Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

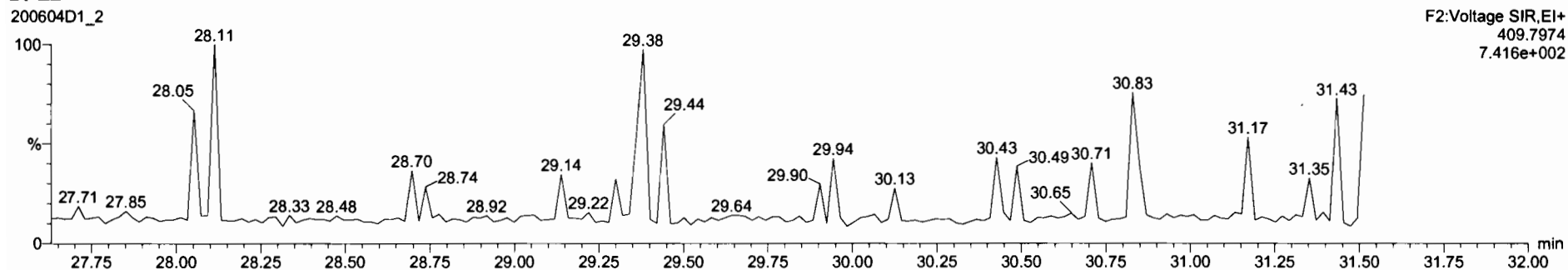
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



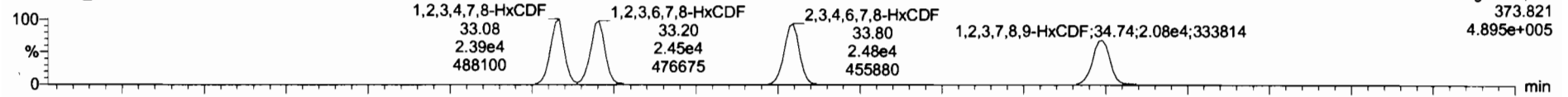
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

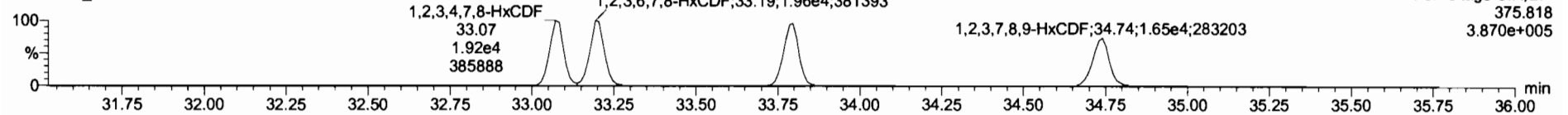
Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

**1,2,3,4,7,8-HxCDF**

200604D1\_2

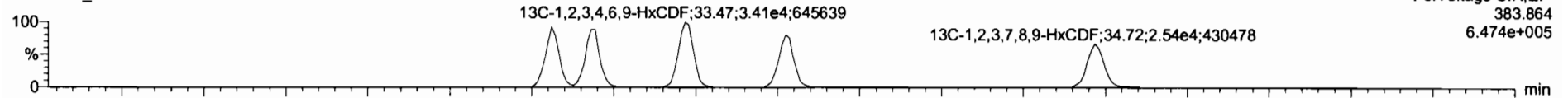


200604D1\_2

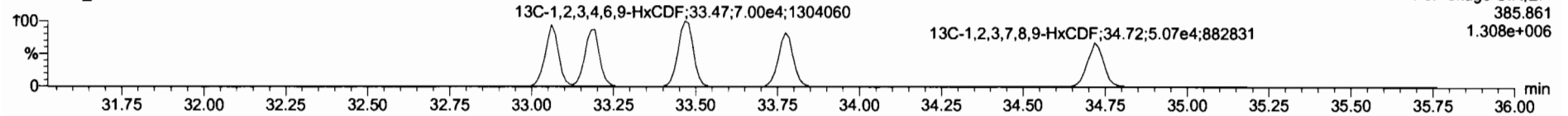


**13C-1,2,3,4,7,8-HxCDF**

200604D1\_2

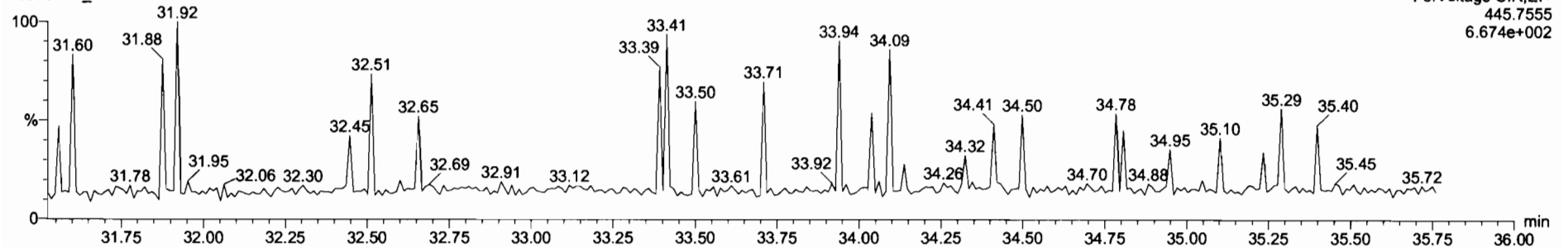


200604D1\_2



**DPE3**

200604D1\_2



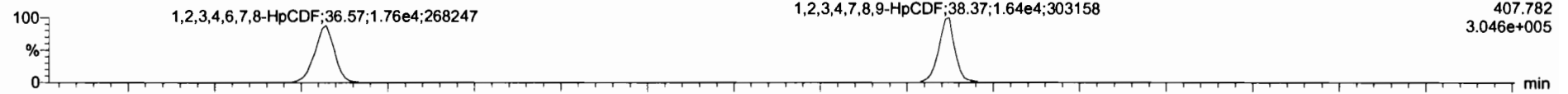
Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

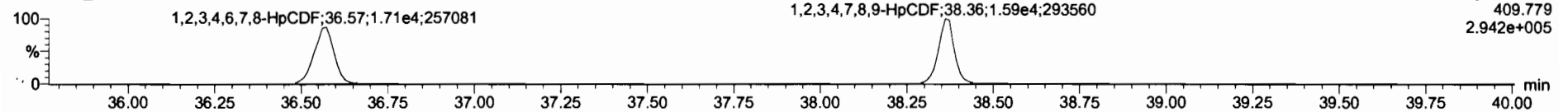
**1,2,3,4,6,7,8-HpCDF**

200604D1\_2



F4:Voltage SIR,EI+  
407.782  
3.046e+005

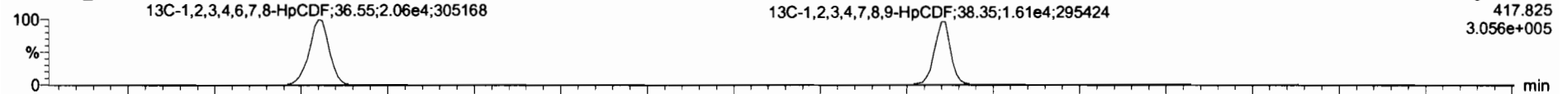
200604D1\_2



F4:Voltage SIR,EI+  
409.779  
2.942e+005

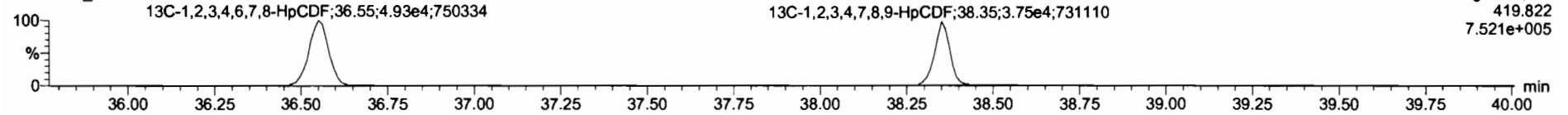
**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_2



F4:Voltage SIR,EI+  
417.825  
3.056e+005

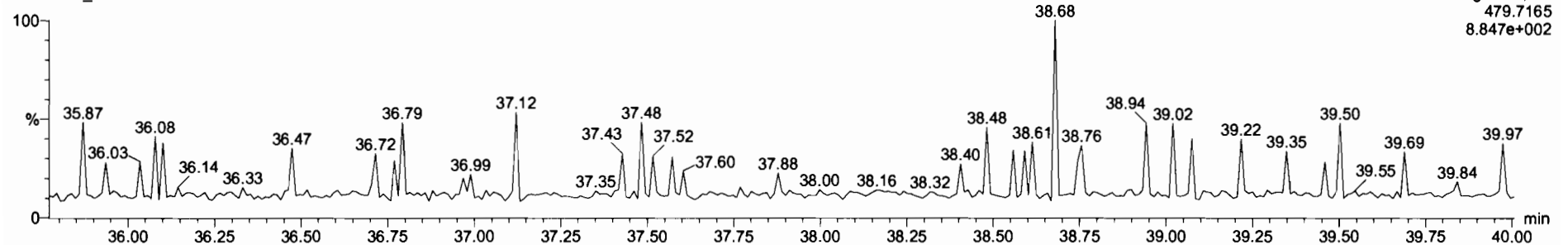
200604D1\_2



F4:Voltage SIR,EI+  
419.822  
7.521e+005

**DPE4**

200604D1\_2

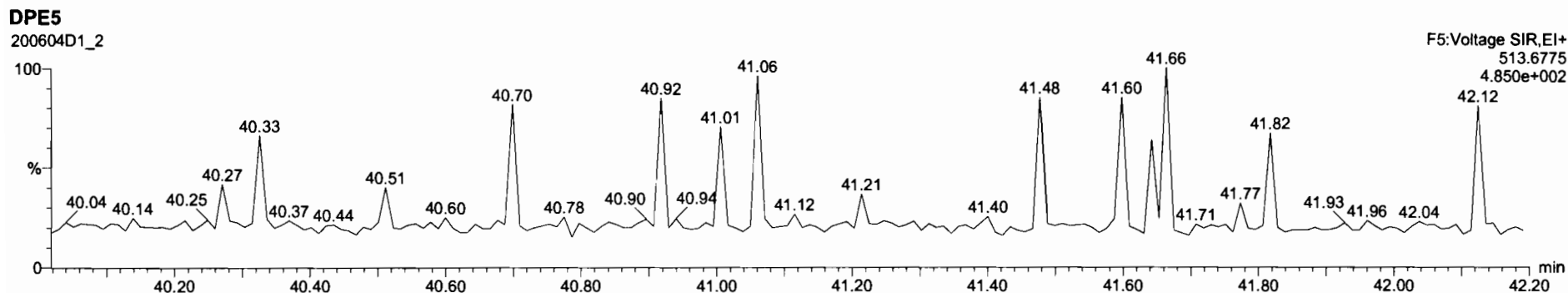
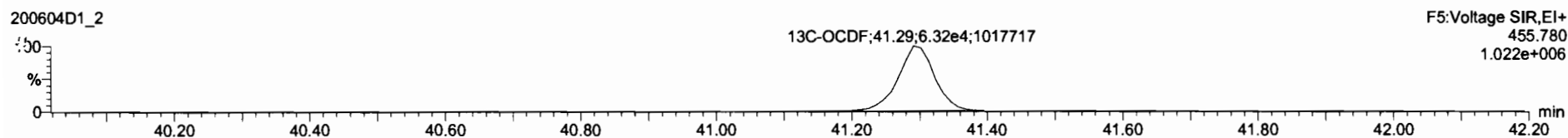
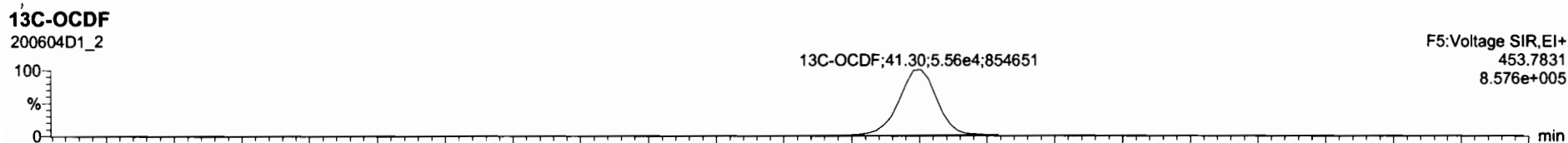
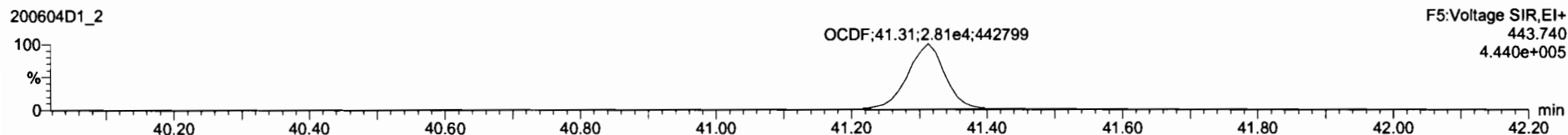
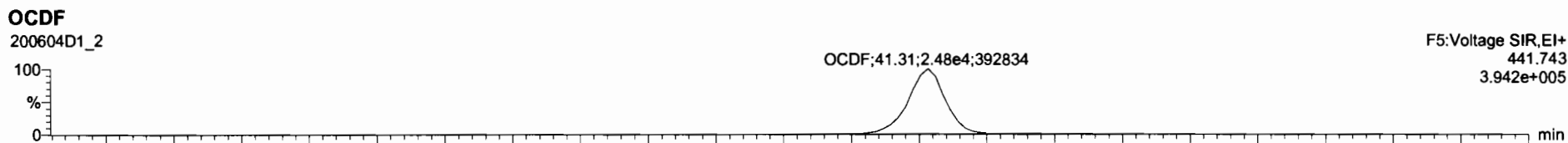


F4:Voltage SIR,EI+  
479.7165  
8.847e+002

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR



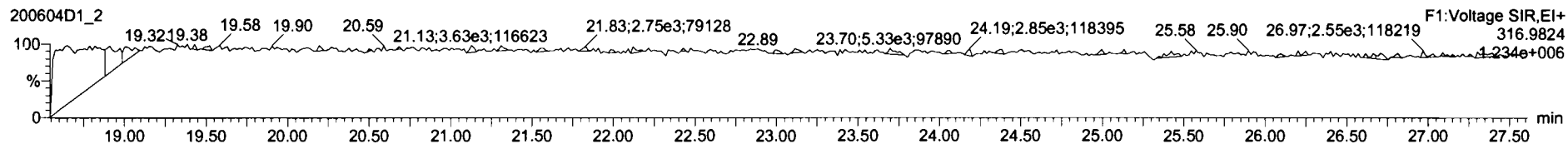


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_2.qld

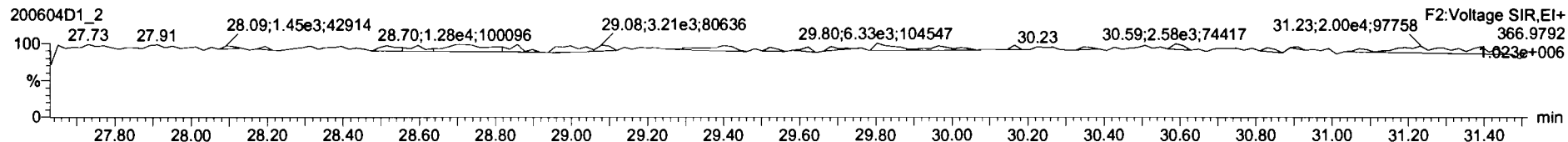
Last Altered: Thursday, June 04, 2020 13:58:38 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 14:00:13 Pacific Daylight Time

Name: 200604D1\_2, Date: 04-Jun-2020, Time: 12:45:31, ID: B0E0100-BS1 OPR 10, Description: OPR

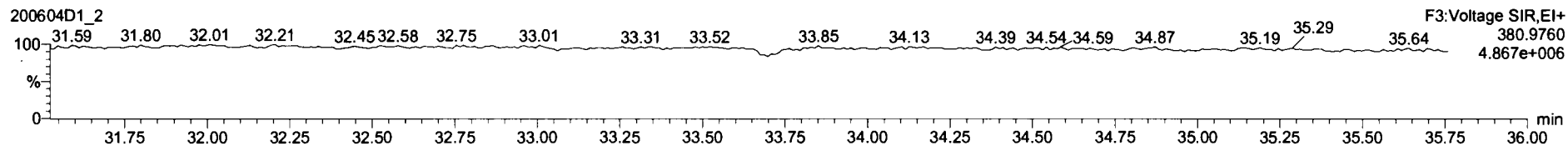
**PFK1**



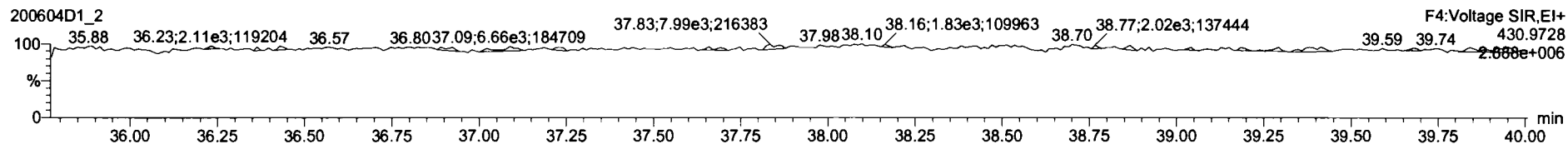
**PFK2**



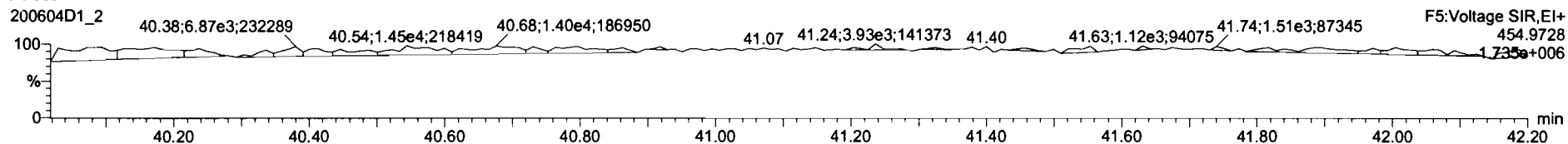
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 15:06:14 Pacific Daylight Time  
Printed: Friday, June 05, 2020 15:18:49 Pacific Daylight Time

DB 6/5/20 C7 06/11/2020

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\ldb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

| #  | Name                    | Resp   | RA   | n/y | RRF   | wt/vol | Prod.RT | RT    | Prod.RRF | RRF   | Conc    | Recy | Rel    |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|---------|------|--------|
| 1  | 2,3,7,8-TCDD            |        |      | NO  | 0.987 | 10.052 | 26.142  |       | 1.001    |       |         |      | 0.101  |
| 2  | 1,2,3,7,8-PeCDD         |        |      | NO  | 0.982 | 10.052 | 30.670  |       | 1.001    |       |         |      | 0.114  |
| 3  | 1,2,3,4,7,8-HxCDD       |        |      | NO  | 1.17  | 10.052 | 33.971  |       | 1.000    |       |         |      | 0.136  |
| 4  | 1,2,3,6,7,8-HxCDD       |        |      | NO  | 1.04  | 10.052 | 34.060  |       | 1.000    |       |         |      | 0.132  |
| 5  | 1,2,3,7,8,9-HxCDD       |        |      | NO  | 1.00  | 10.052 | 34.390  |       | 1.001    |       |         |      | 0.145  |
| 6  | 1,2,3,4,6,7,8-HpCDD     | 3.34e2 | 1.13 | NO  | 0.992 | 10.052 | 37.835  | 37.86 | 1.000    | 1.001 | 0.58460 |      | 0.165  |
| 7  | OCDD                    | 1.81e3 | 0.93 | NO  | 1.04  | 10.052 | 41.093  | 41.12 | 1.000    | 1.001 | 3.7248  |      | 0.120  |
| 8  | 2,3,7,8-TCDF            |        |      | NO  | 0.882 | 10.052 | 25.341  |       | 1.001    |       |         |      | 0.0819 |
| 9  | 1,2,3,7,8-PeCDF         |        |      | NO  | 1.05  | 10.052 | 29.502  |       | 1.001    |       |         |      | 0.0588 |
| 10 | 2,3,4,7,8-PeCDF         |        |      | NO  | 1.06  | 10.052 | 30.397  |       | 1.001    |       |         |      | 0.0515 |
| 11 | 1,2,3,4,7,8-HxCDF       |        |      | NO  | 1.08  | 10.052 | 33.072  |       | 1.000    |       |         |      | 0.0475 |
| 12 | 1,2,3,6,7,8-HxCDF       |        |      | NO  | 1.04  | 10.052 | 33.203  |       | 1.000    |       |         |      | 0.0499 |
| 13 | 2,3,4,6,7,8-HxCDF       |        |      | NO  | 1.11  | 10.052 | 33.819  |       | 1.001    |       |         |      | 0.0525 |
| 14 | 1,2,3,7,8,9-HxCDF       |        |      | NO  | 1.06  | 10.052 | 34.729  |       | 1.000    |       |         |      | 0.0706 |
| 15 | 1,2,3,4,6,7,8-HpCDF     |        |      | NO  | 1.13  | 10.052 | 36.599  |       | 1.001    |       |         |      | 0.0774 |
| 16 | 1,2,3,4,7,8,9-HpCDF     |        |      | NO  | 1.33  | 10.052 | 38.361  |       | 1.000    |       |         |      | 0.0713 |
| 17 | OCDF                    |        |      | NO  | 0.933 | 10.052 | 41.313  |       | 1.000    |       |         |      | 0.148  |
| 18 | 13C-2,3,7,8-TCDD        | 1.84e5 | 0.79 | NO  | 1.21  | 10.052 | 26.210  | 26.11 | 1.026    | 1.022 | 189.80  | 95.4 | 0.337  |
| 19 | 13C-1,2,3,7,8-PeCDD     | 1.50e5 | 0.64 | NO  | 0.996 | 10.052 | 30.706  | 30.65 | 1.202    | 1.200 | 187.19  | 94.1 | 0.290  |
| 20 | 13C-1,2,3,4,7,8-HxCDD   | 1.26e5 | 1.26 | NO  | 0.679 | 10.052 | 33.947  | 33.96 | 1.014    | 1.014 | 196.24  | 98.6 | 0.514  |
| 21 | 13C-1,2,3,6,7,8-HxCDD   | 1.53e5 | 1.25 | NO  | 0.850 | 10.052 | 34.057  | 34.06 | 1.017    | 1.017 | 191.06  | 96.0 | 0.411  |
| 22 | 13C-1,2,3,7,8,9-HxCDD   | 1.47e5 | 1.27 | NO  | 0.798 | 10.052 | 34.328  | 34.36 | 1.025    | 1.026 | 194.60  | 97.8 | 0.437  |
| 23 | 13C-1,2,3,4,6,7,8-HpCDD | 1.15e5 | 1.09 | NO  | 0.697 | 10.052 | 37.797  | 37.82 | 1.129    | 1.130 | 174.47  | 87.7 | 0.514  |
| 24 | 13C-OCDD                | 1.87e5 | 0.86 | NO  | 0.579 | 10.052 | 40.823  | 41.09 | 1.219    | 1.227 | 341.98  | 85.9 | 0.646  |
| 25 | 13C-2,3,7,8-TCDF        | 2.42e5 | 0.76 | NO  | 1.13  | 10.052 | 25.291  | 25.32 | 0.990    | 0.991 | 167.40  | 84.1 | 0.409  |
| 26 | 13C-1,2,3,7,8-PeCDF     | 2.46e5 | 1.63 | NO  | 0.996 | 10.052 | 29.524  | 29.48 | 1.156    | 1.154 | 192.64  | 96.8 | 0.434  |
| 27 | 13C-2,3,4,7,8-PeCDF     | 2.47e5 | 1.62 | NO  | 0.969 | 10.052 | 30.425  | 30.37 | 1.191    | 1.189 | 198.44  | 99.7 | 0.446  |
| 28 | 13C-1,2,3,4,7,8-HxCDF   | 1.93e5 | 0.50 | NO  | 1.06  | 10.052 | 33.076  | 33.07 | 0.988    | 0.988 | 193.92  | 97.5 | 0.576  |
| 29 | 13C-1,2,3,6,7,8-HxCDF   | 1.96e5 | 0.51 | NO  | 1.18  | 10.052 | 33.210  | 33.19 | 0.992    | 0.991 | 176.47  | 88.7 | 0.518  |
| 30 | 13C-2,3,4,6,7,8-HxCDF   | 1.88e5 | 0.52 | NO  | 1.06  | 10.052 | 33.783  | 33.78 | 1.009    | 1.009 | 188.47  | 94.7 | 0.576  |
| 31 | 13C-1,2,3,7,8,9-HxCDF   | 1.71e5 | 0.52 | NO  | 0.879 | 10.052 | 34.683  | 34.73 | 1.036    | 1.037 | 206.11  | 104  | 0.692  |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 15:06:14 Pacific Daylight Time

Printed: Friday, June 05, 2020 15:18:49 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

| #  | Name                    | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | Obs.RT | Prod.RT | RT    | Conc    | U/L  | DU     |
|----|-------------------------|--------|------|-----|-------|--------|---------|--------|---------|-------|---------|------|--------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 1.43e5 | 0.42 | NO  | 0.893 | 10.052 | 36.391  | 36.56  | 1.087   | 1.092 | 169.45  | 85.2 | 0.601  |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 1.15e5 | 0.42 | NO  | 0.613 | 10.052 | 38.399  | 38.36  | 1.147   | 1.146 | 198.22  | 99.6 | 0.875  |
| 34 | 13C-OCDF                | 2.25e5 | 0.90 | NO  | 0.741 | 10.052 | 40.977  | 41.31  | 1.224   | 1.234 | 321.72  | 80.8 | 0.391  |
| 35 | 37Cl-2,3,7,8-TCDD       | 7.08e4 |      |     | 1.18  | 10.052 | 26.208  | 26.13  | 1.026   | 1.023 | 74.829  | 94.0 | 0.0759 |
| 36 | 13C-1,2,3,4-TCDD        | 1.60e5 | 0.81 | NO  | 1.00  | 10.052 | 25.480  | 25.55  | 1.000   | 1.000 | 198.97  | 100  | 0.406  |
| 37 | 13C-1,2,3,4-TCDF        | 2.55e5 | 0.77 | NO  | 1.00  | 10.052 | 24.020  | 24.09  | 1.000   | 1.000 | 198.97  | 100  | 0.461  |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.88e5 | 0.52 | NO  | 1.00  | 10.052 | 33.530  | 33.48  | 1.000   | 1.000 | 198.97  | 100  | 0.609  |
| 39 | Total Tetra-Dioxins     |        |      |     | 0.987 | 10.052 | 24.620  |        | 0.000   |       |         |      | 0.0584 |
| 40 | Total Penta-Dioxins     |        |      |     | 0.982 | 10.052 | 29.960  |        | 0.000   |       |         |      | 0.0480 |
| 41 | Total Hexa-Dioxins      |        |      |     | 1.04  | 10.052 | 33.635  |        | 0.000   |       | 0.32780 |      | 0.141  |
| 42 | Total Hepta-Dioxins     |        |      |     | 0.992 | 10.052 | 37.640  |        | 0.000   |       | 1.4526  |      | 0.165  |
| 43 | Total Tetra-Furans      |        |      |     | 0.882 | 10.052 | 23.610  |        | 0.000   |       |         |      | 0.0328 |
| 44 | 1st Func. Penta-Furans  |        |      |     | 1.05  | 10.052 | 27.090  |        | 0.000   |       |         |      | 0.0101 |
| 45 | Total Penta-Furans      |        |      |     | 1.05  | 10.052 | 29.275  |        | 0.000   |       |         |      | 0.0249 |
| 46 | Total Hexa-Furans       |        |      |     | 1.11  | 10.052 | 33.555  |        | 0.000   |       |         |      | 0.0290 |
| 47 | Total Hepta-Furans      |        |      |     | 1.13  | 10.052 | 37.835  |        | 0.000   |       |         |      | 0.0410 |

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 15:06:14 Pacific Daylight Time

Printed: Friday, June 05, 2020 15:18:49 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\ldb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

Tetra-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
| 1    |    |           |           |         |         |    |     |      |      |      |    |

Penta-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|      |    |           |           |         |         |    |     |      |      |      |    |

Hexa-Dioxins

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL    |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hexa-Dioxins | 32.44 | 2.544e3   | 3.436e3   | 1.259e2 | 1.161e2 | 1.08 | NO  | 2.420e2 | 0.32780 | 0.32780 | 0.141 |

Hepta-Dioxins

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL    |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hepta-Dioxins | 36.98 | 4.366e3   | 3.898e3   | 2.473e2 | 2.488e2 | 0.99 | NO  | 4.961e2 | 0.86802 | 0.86802 | 0.165 |
| 1,2,3,4,6,7,8-HpCDD | 37.86 | 3.125e3   | 3.141e3   | 1.774e2 | 1.567e2 | 1.13 | NO  | 3.341e2 | 0.58460 | 0.58460 | 0.165 |

Tetra-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|      |    |           |           |         |         |    |     |      |      |      |    |

Penta-Furans function 1

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|      |    |           |           |         |         |    |     |      |      |      |    |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 15:06:14 Pacific Daylight Time  
Printed: Friday, June 05, 2020 15:18:49 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

Penta-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPG | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|

Hexa-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPG | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|

Hepta-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPG | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|

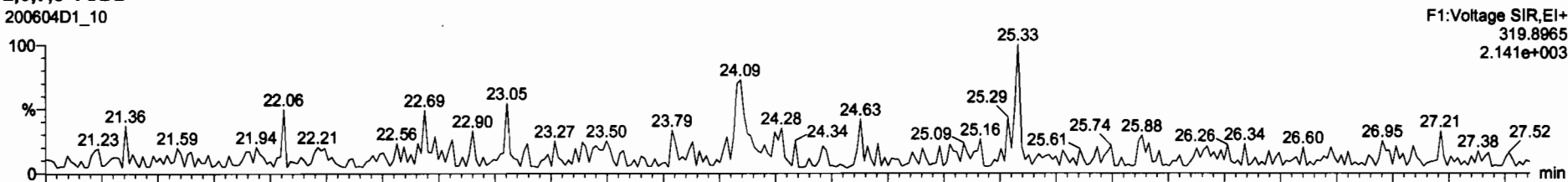
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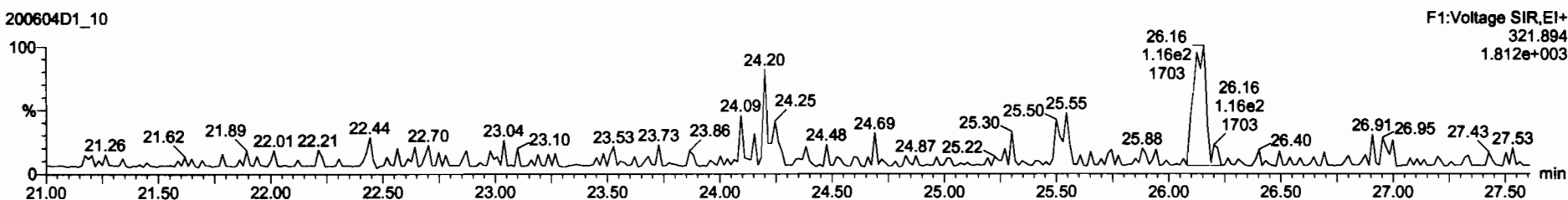
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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

2,3,7,8-TCDD  
200604D1\_10



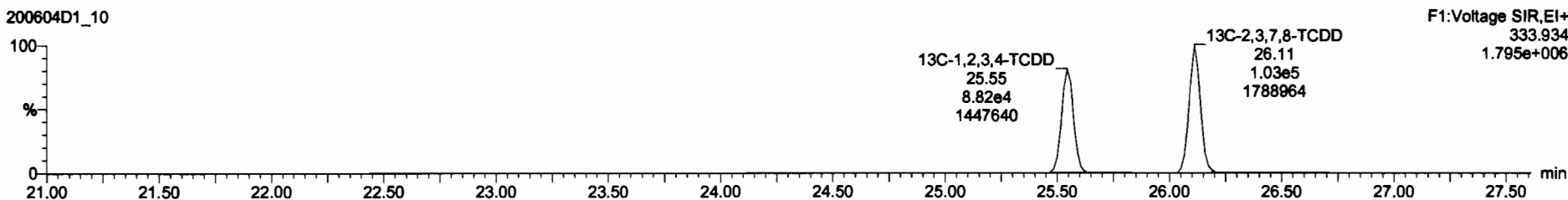
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13C-2,3,7,8-TCDD  
200604D1\_10



200604D1\_10

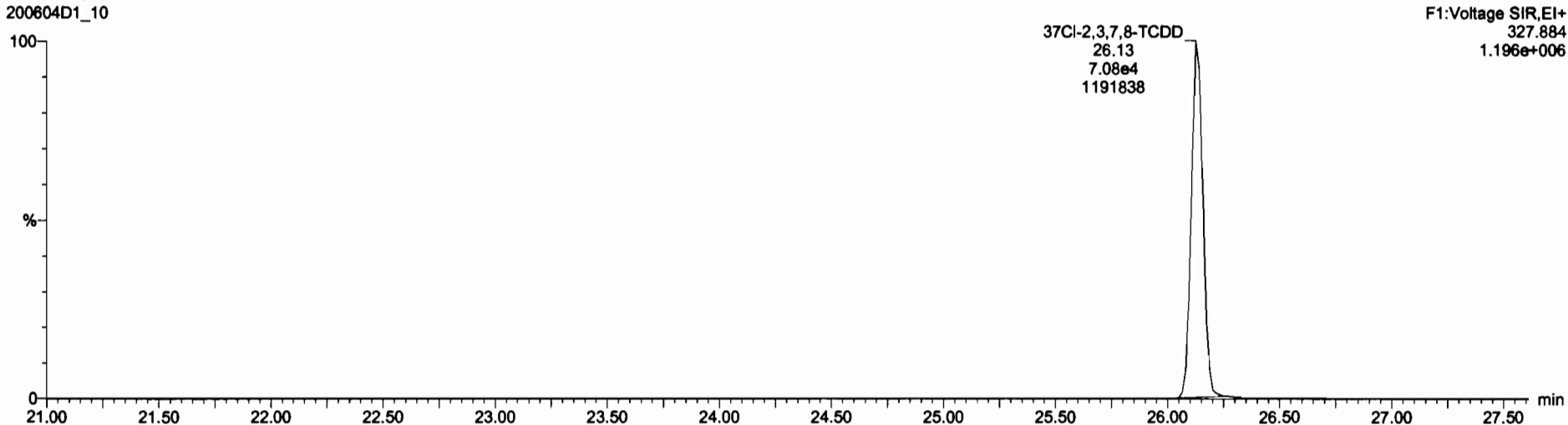


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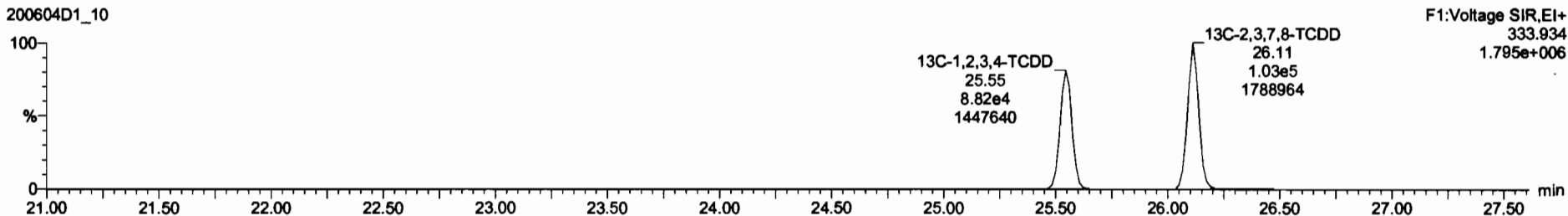
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200604D1\_10



**13C-1,2,3,4-TCDD**  
200604D1\_10



200604D1\_10



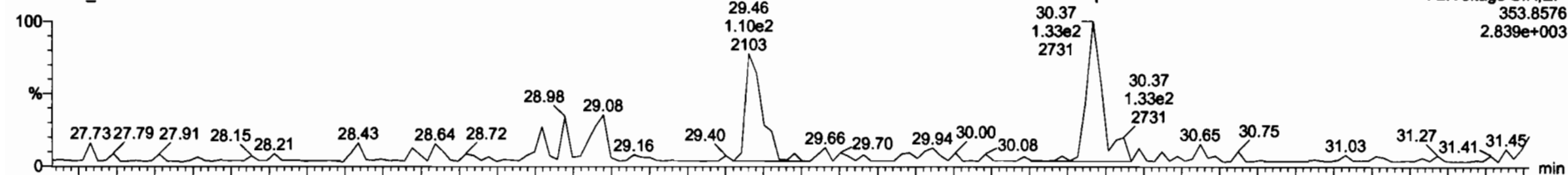
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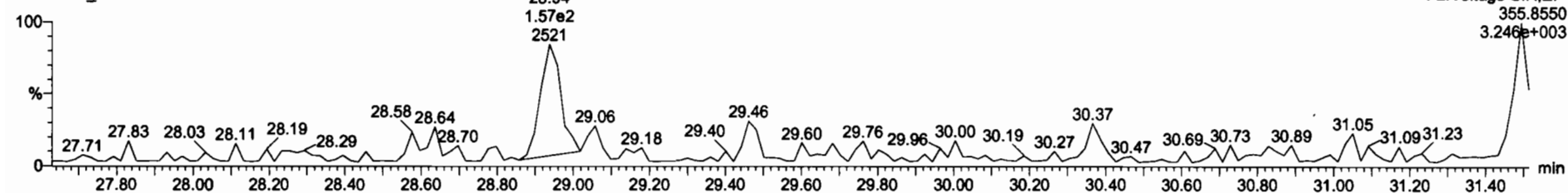
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**1,2,3,7,8-PeCDD**

200604D1\_10



200604D1\_10

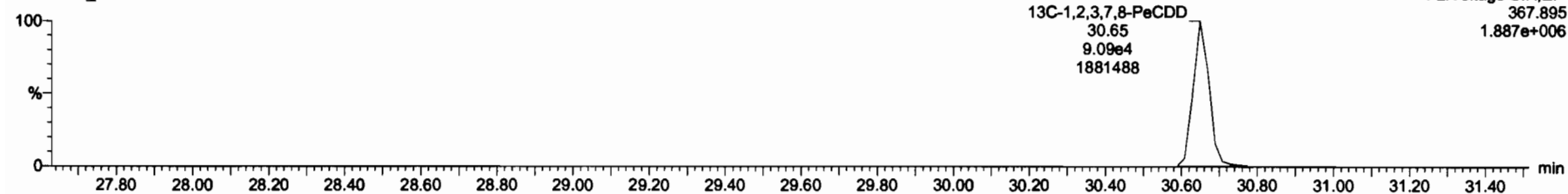


**13C-1,2,3,7,8-PeCDD**

200604D1\_10



200604D1\_10





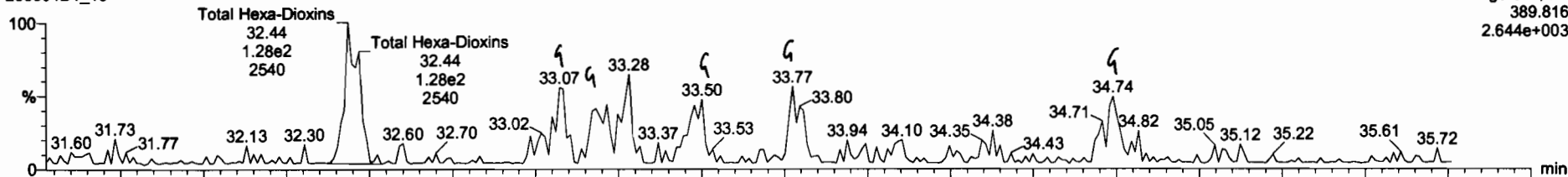
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Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

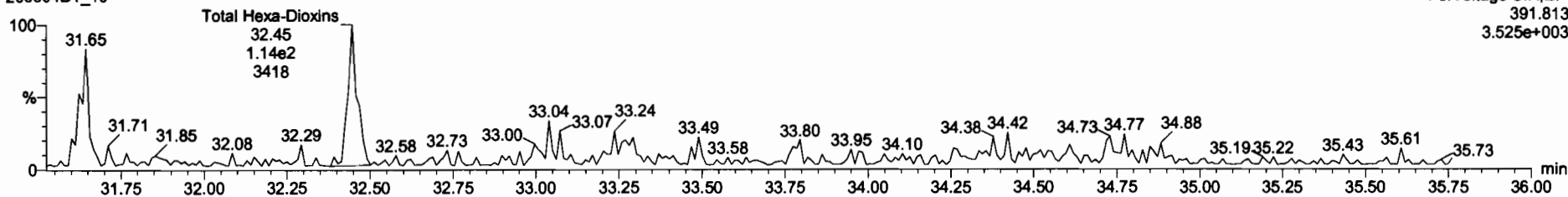
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1,2,3,4,7,8-HxCDD

200604D1\_10

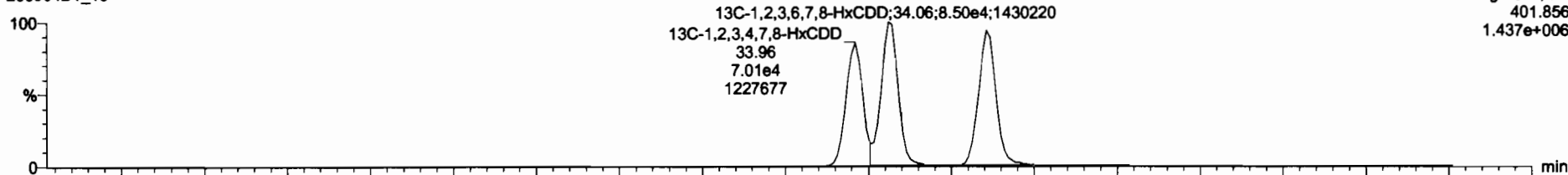


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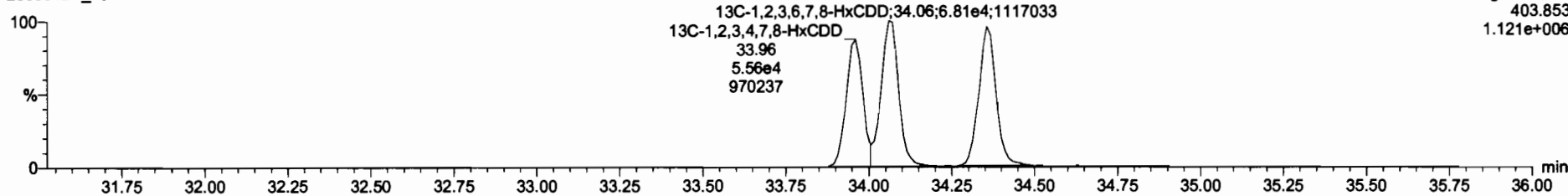


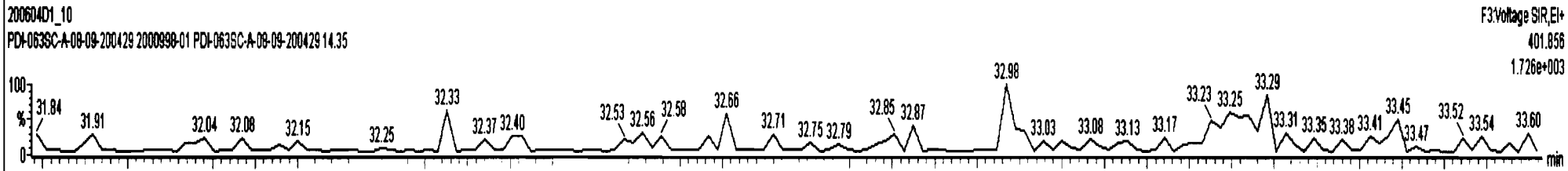
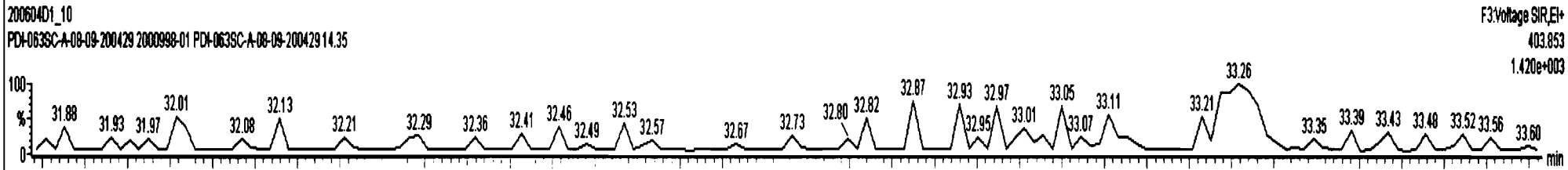
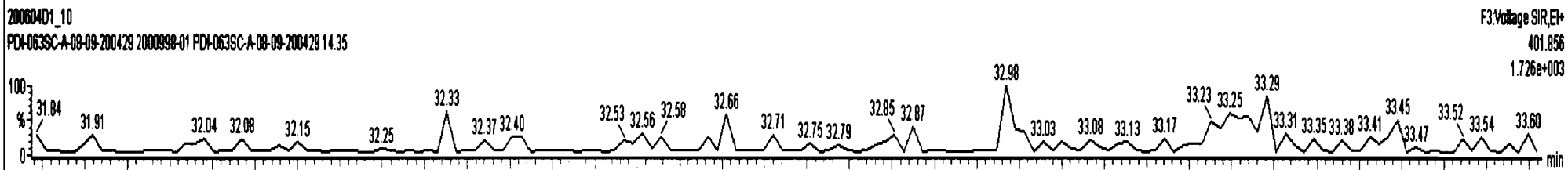
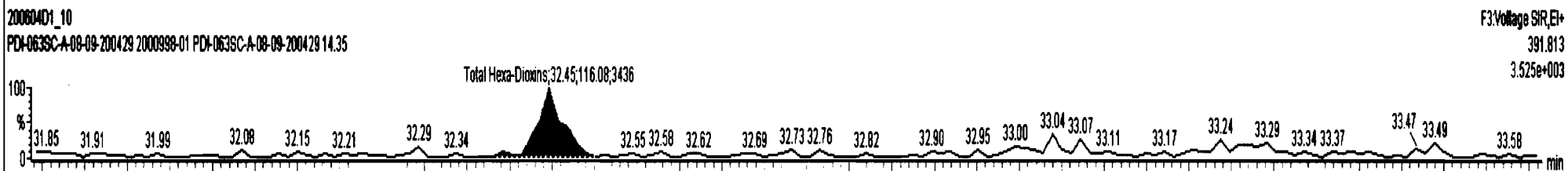
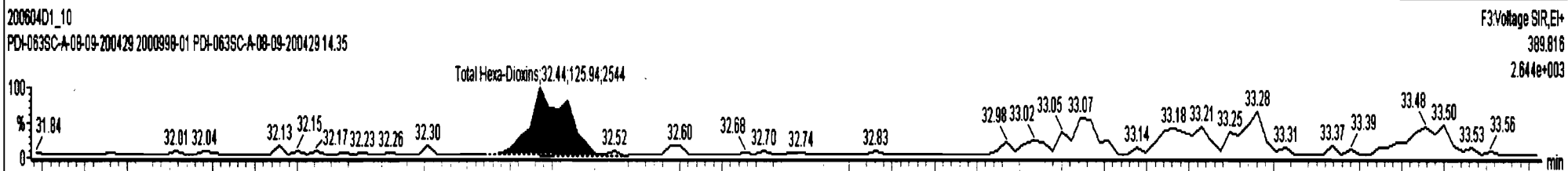
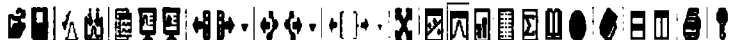
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200604D1\_10



200604D1\_10



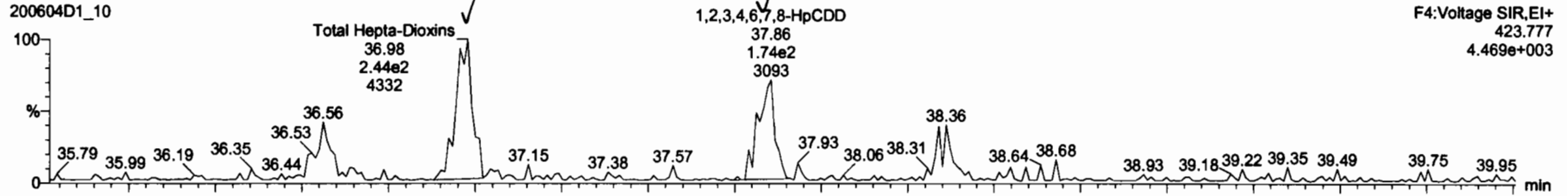


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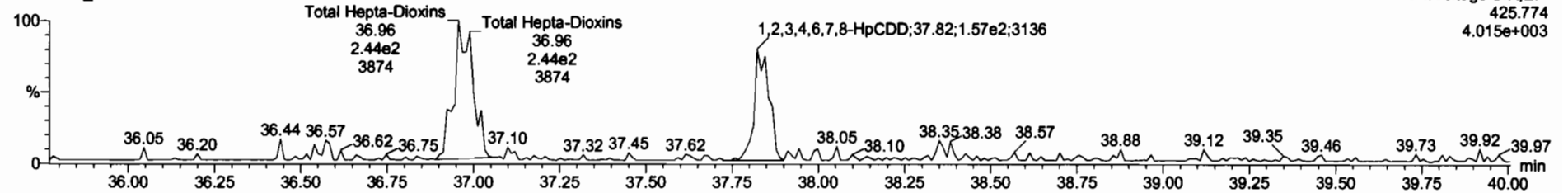
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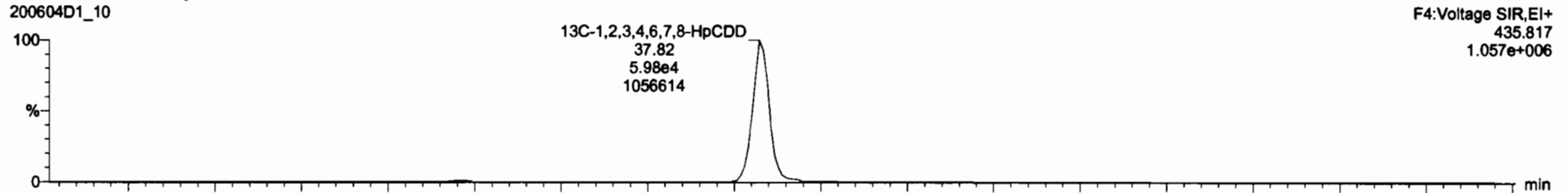
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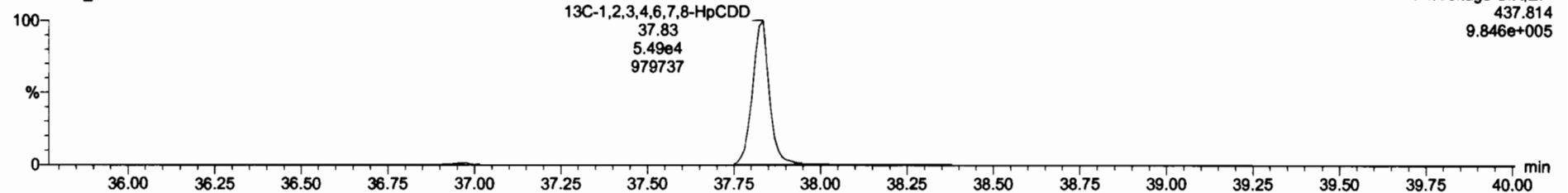
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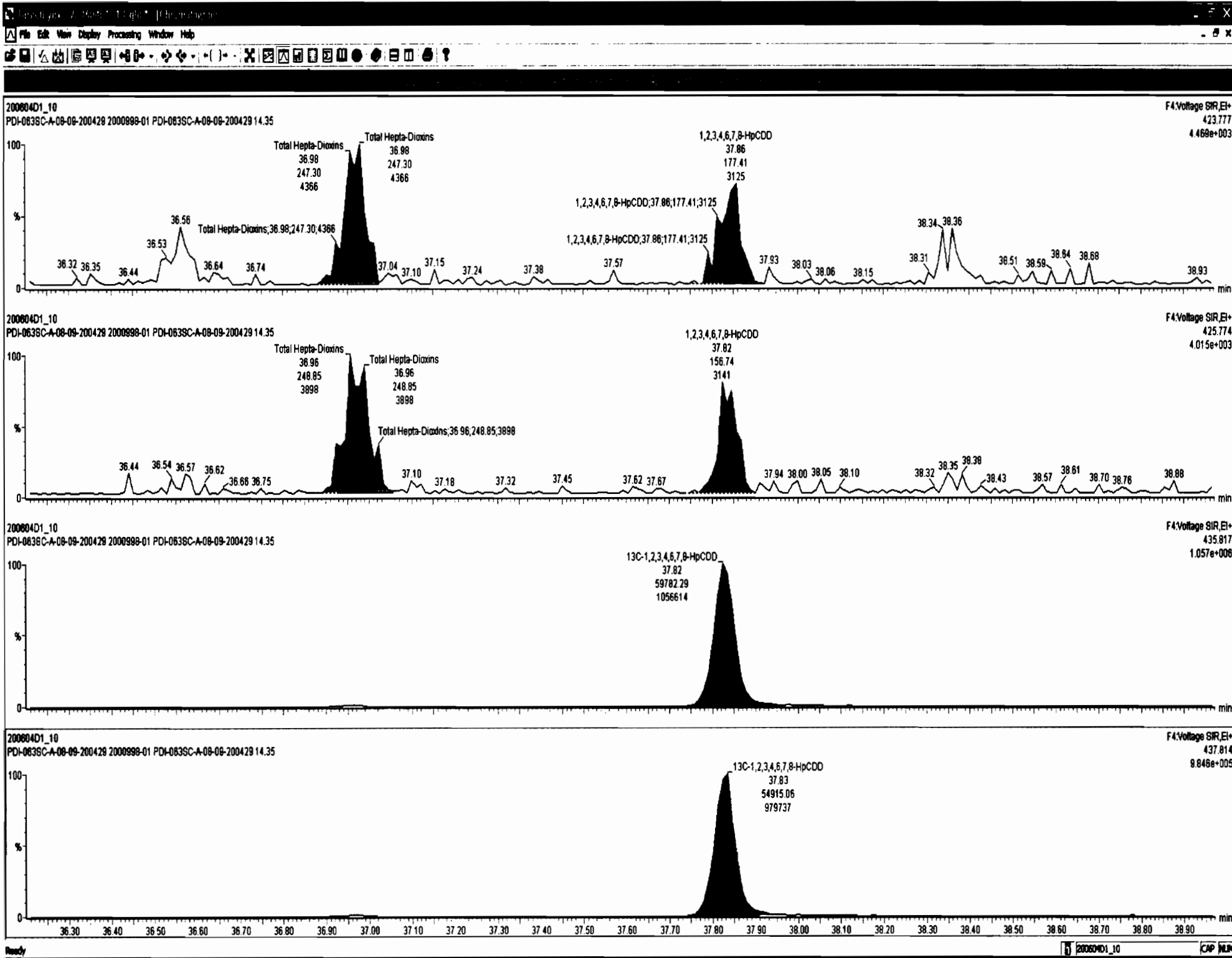


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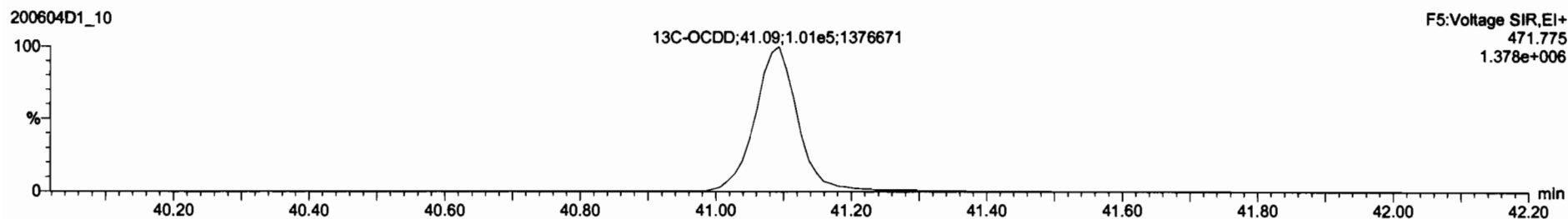
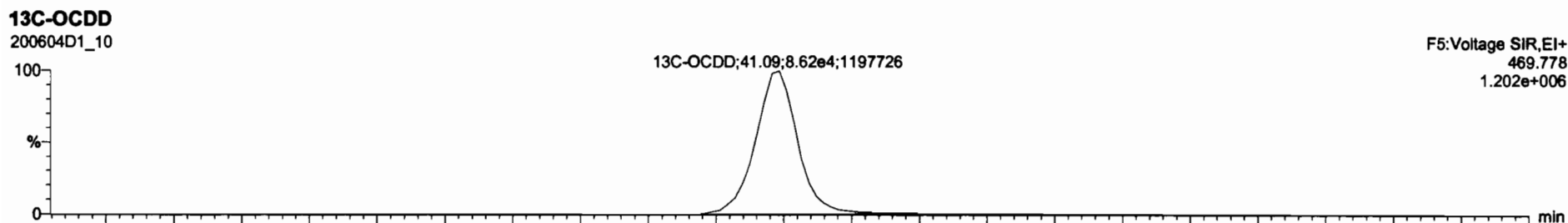
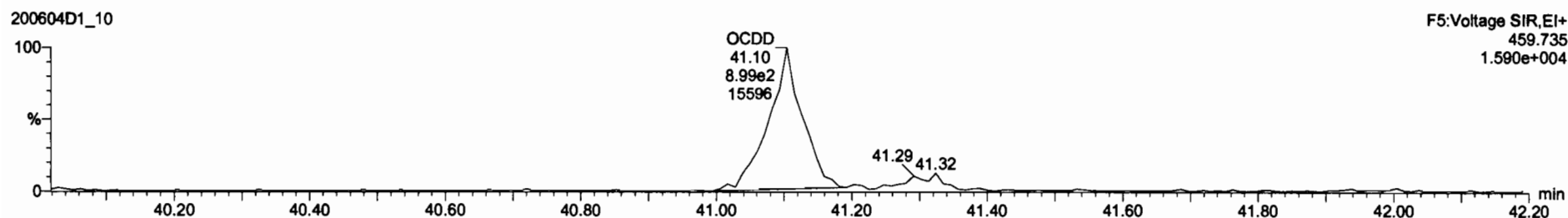
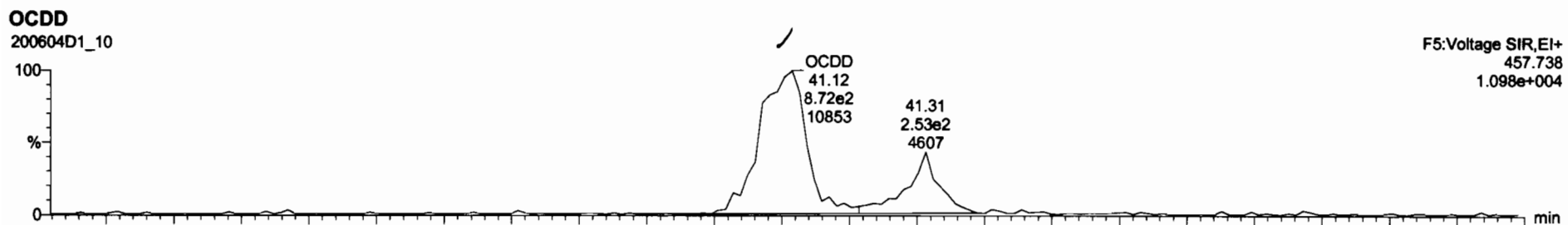


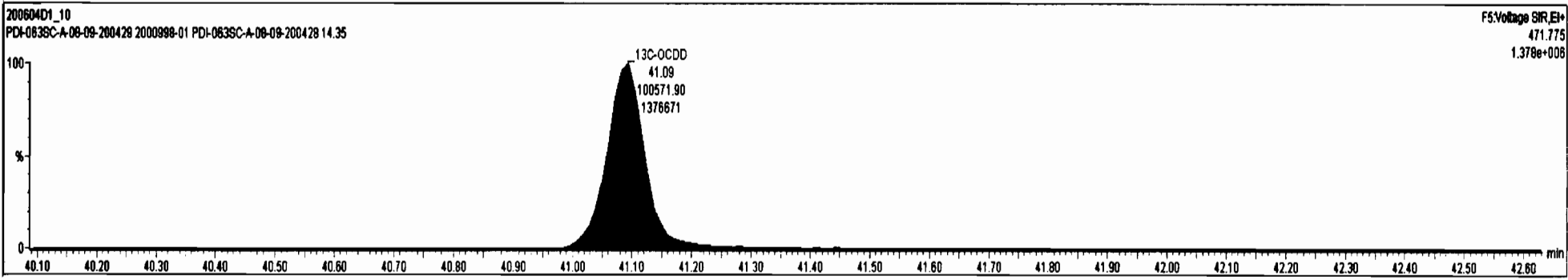
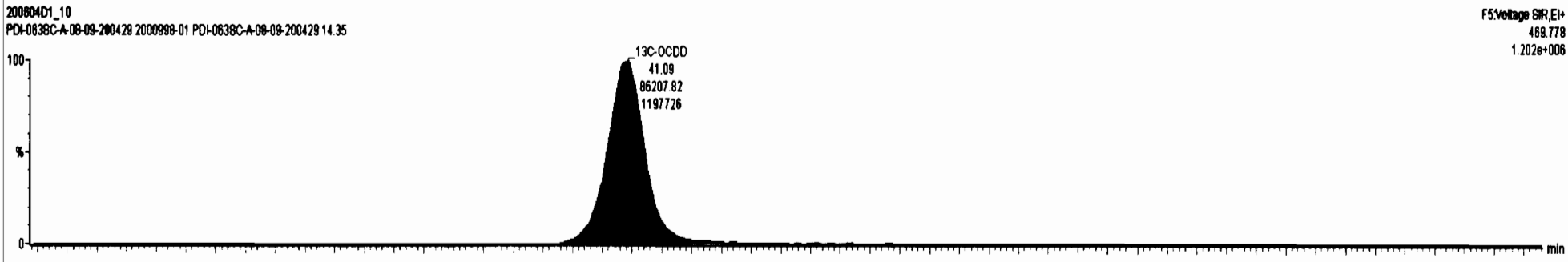
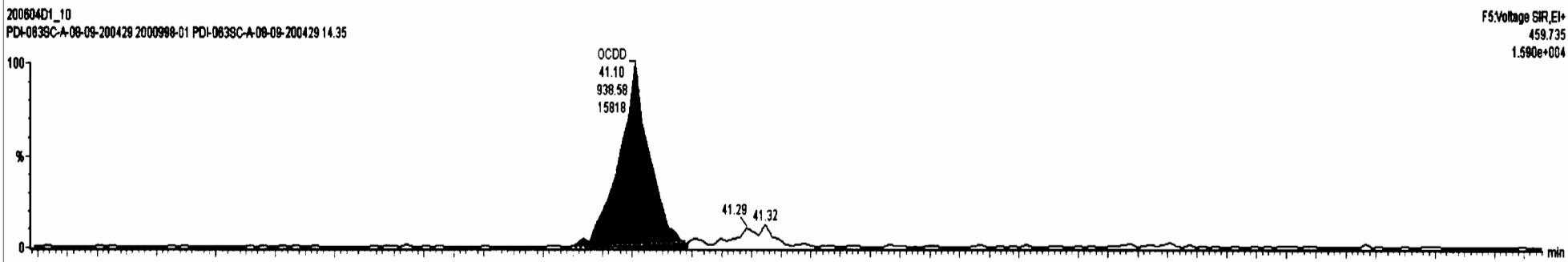
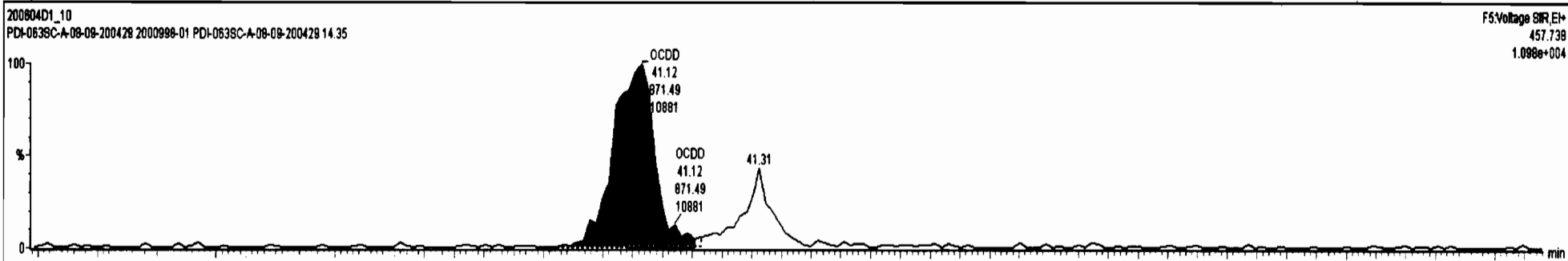


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Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429



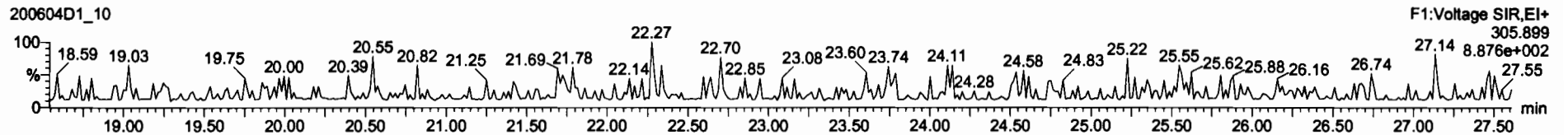
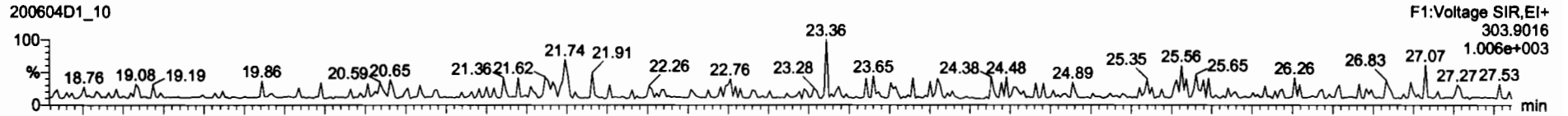


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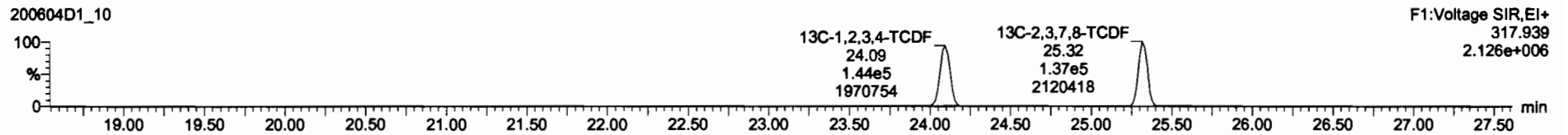
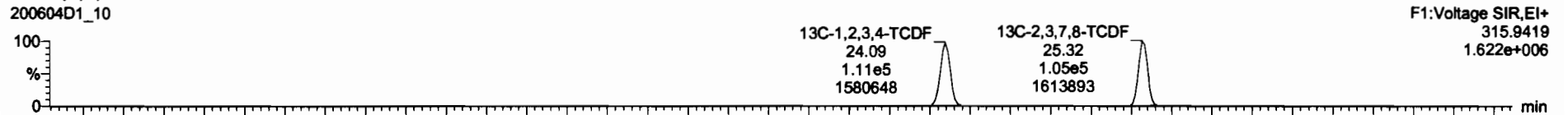
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Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

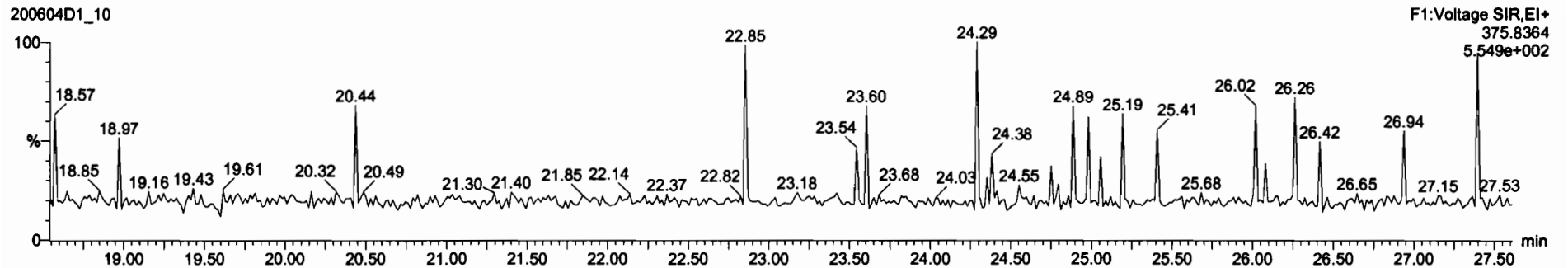
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



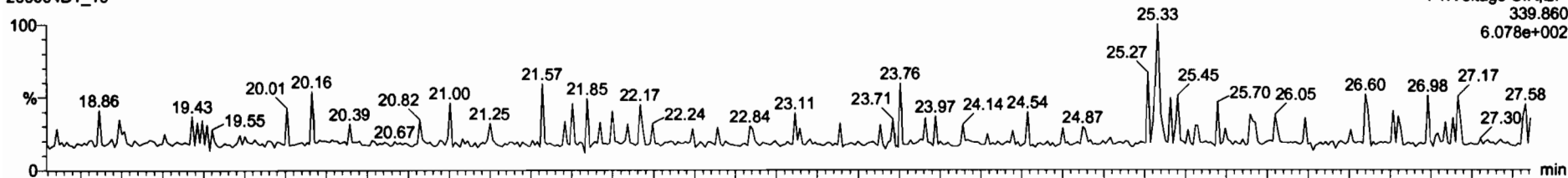
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Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

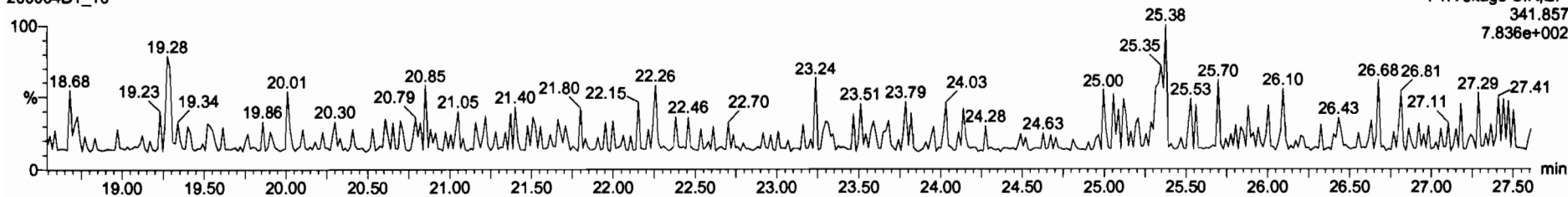
Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

1st Func. Penta-Furans

200604D1\_10

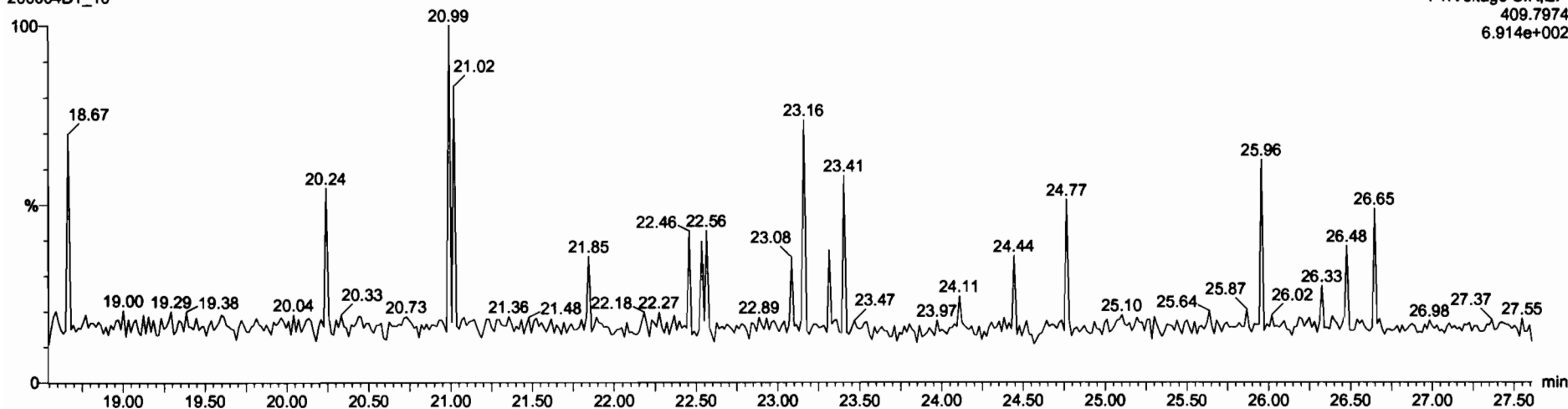


200604D1\_10



DPE6

200604D1\_10



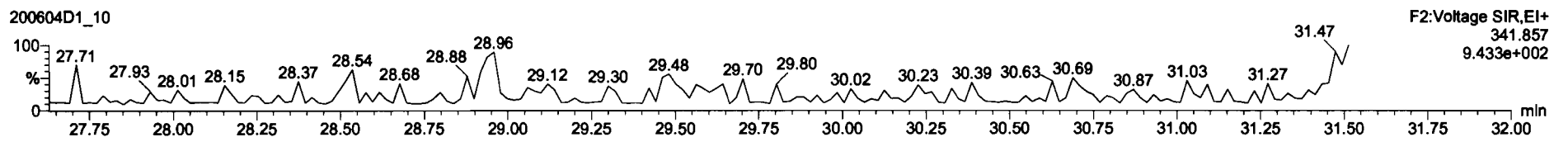
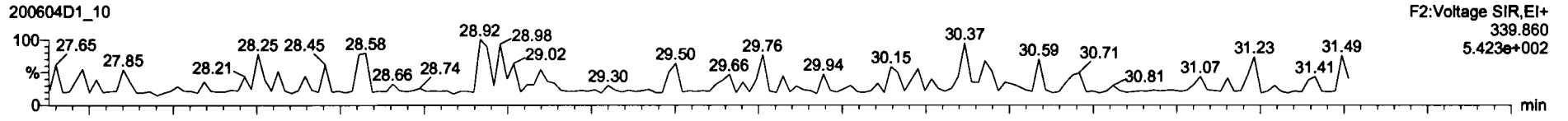


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

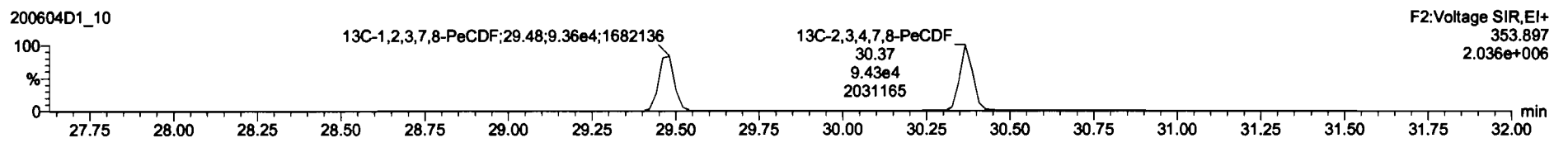
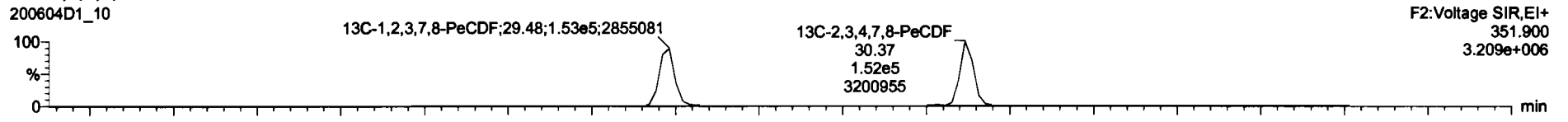
Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

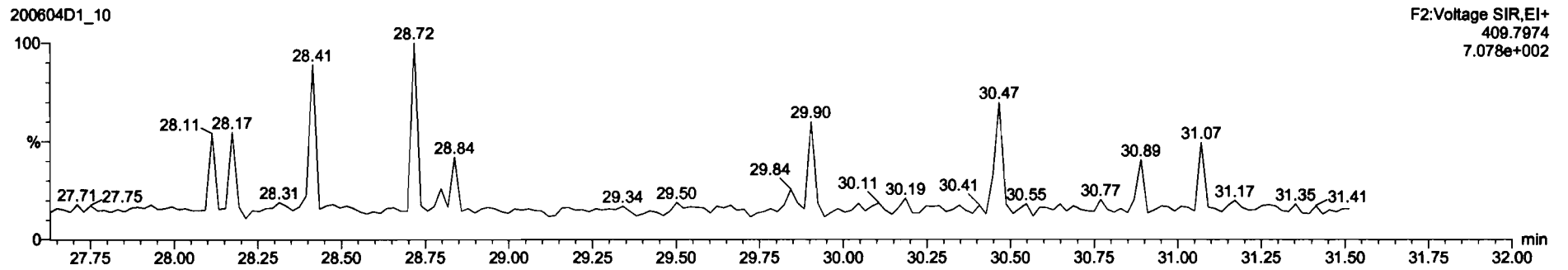
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**

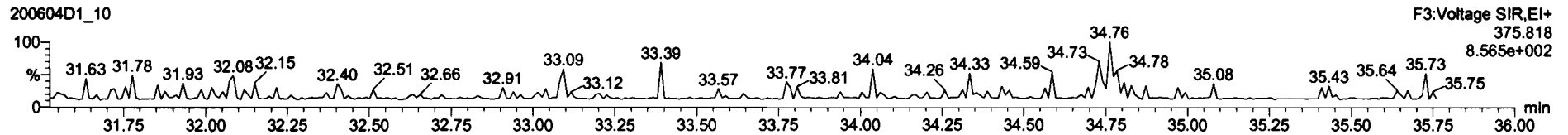
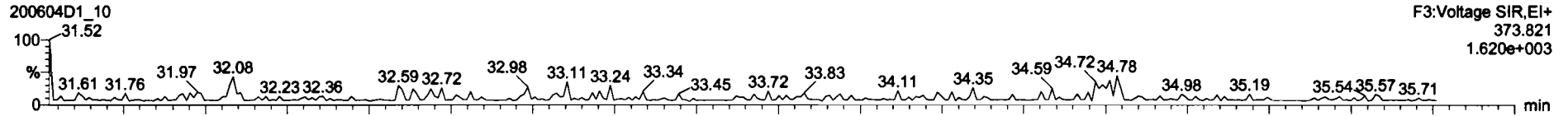


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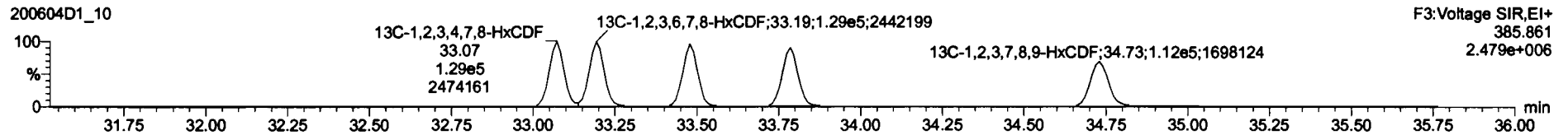
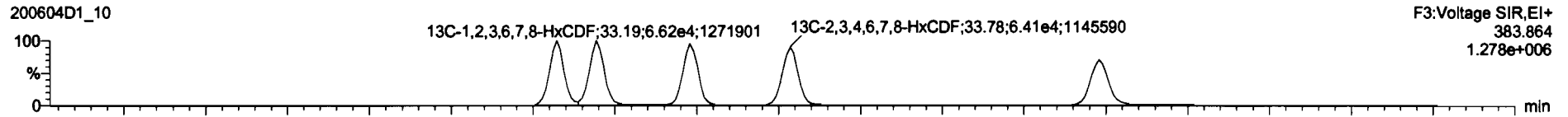
Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429

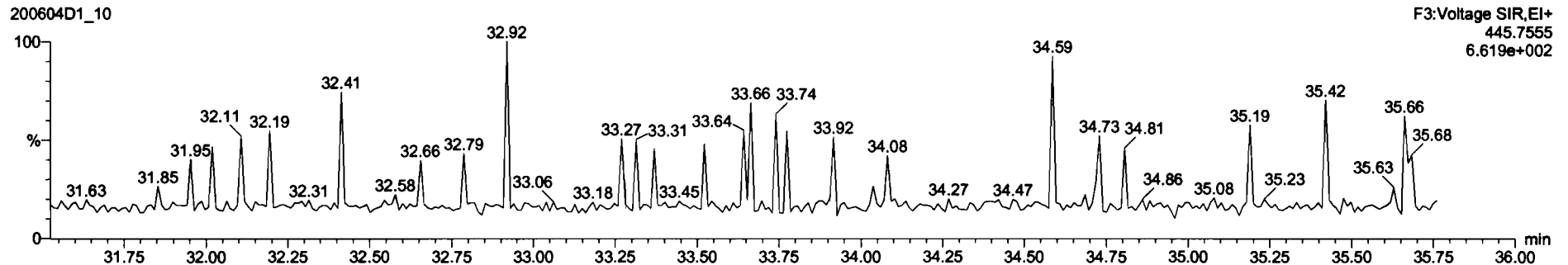
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



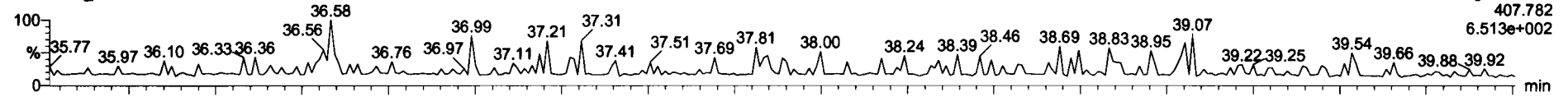
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Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

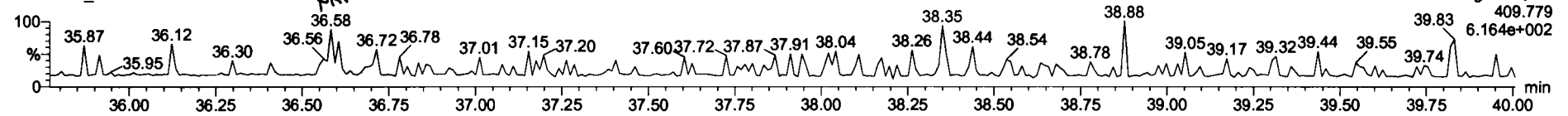
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**1,2,3,4,6,7,8-HpCDF**

200604D1\_10

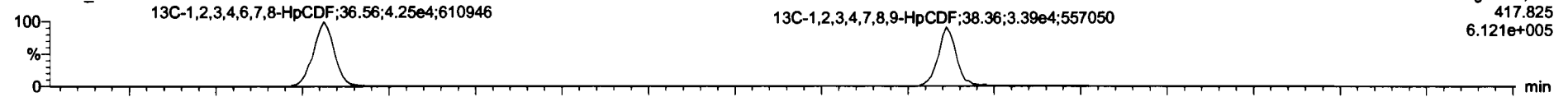


200604D1\_10

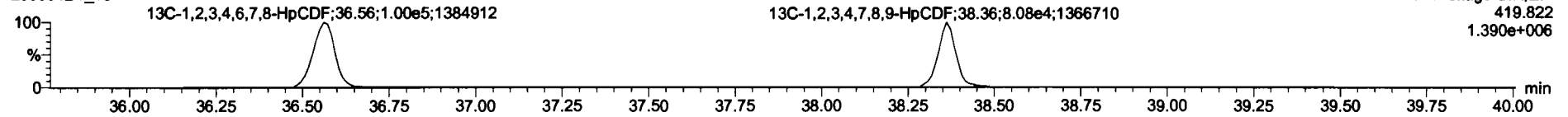


**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_10

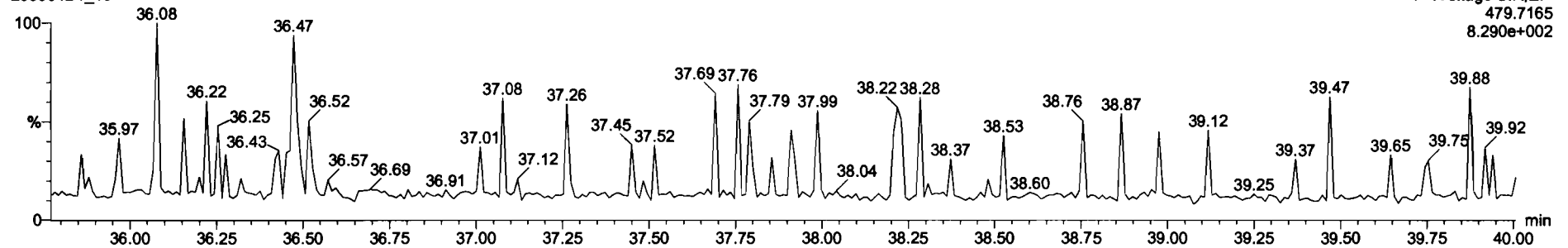


200604D1\_10



**DPE4**

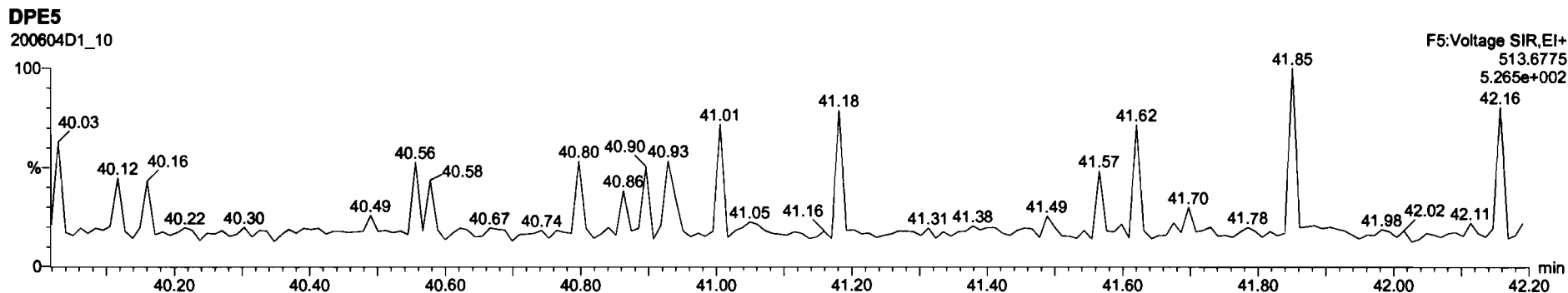
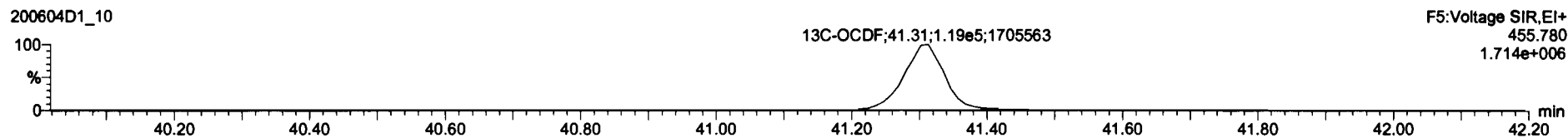
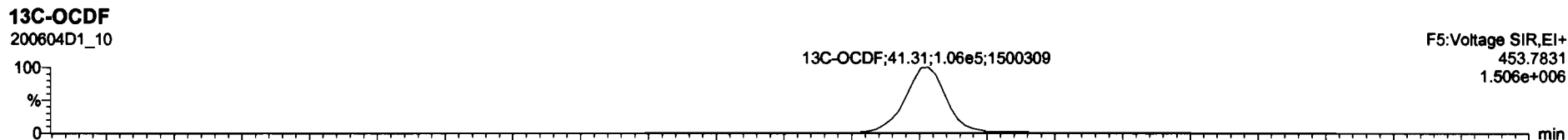
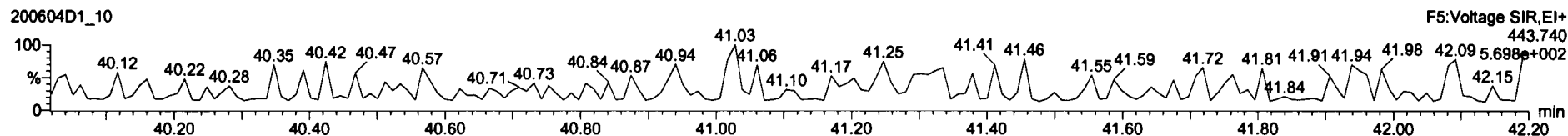
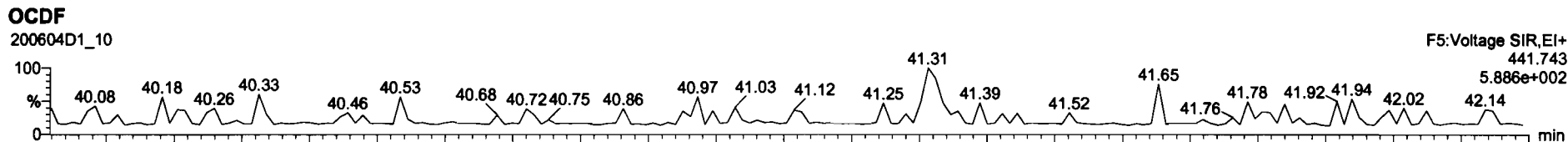
200604D1\_10



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

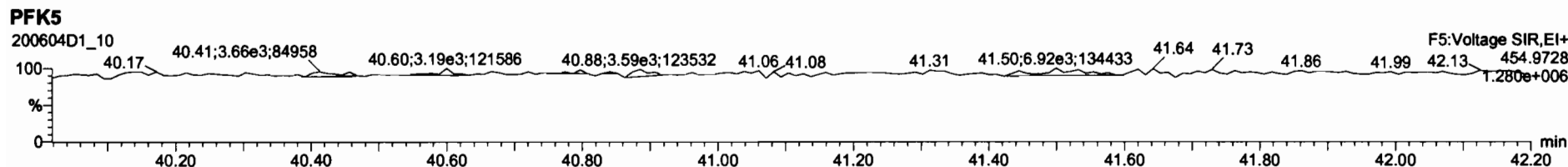
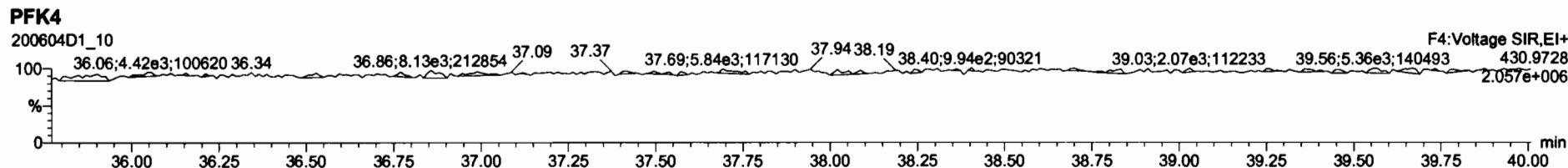
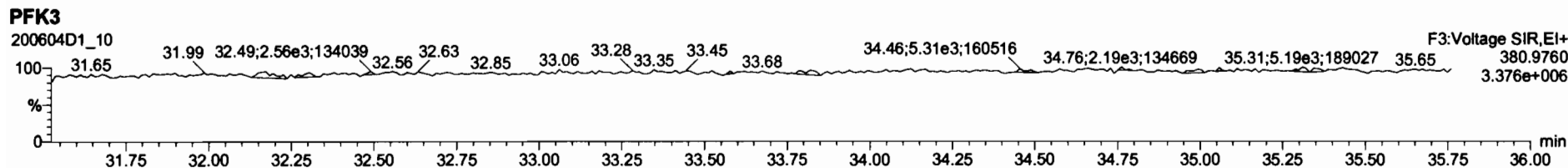
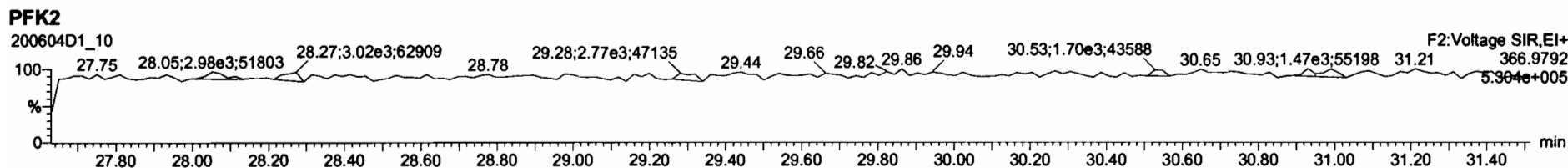
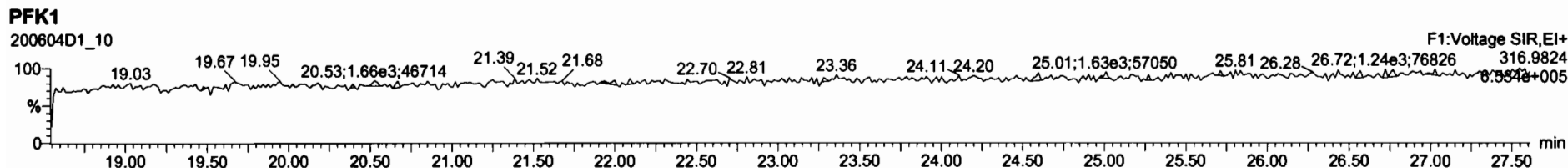
Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_10.qld

Last Altered: Friday, June 05, 2020 09:36:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:44:55 Pacific Daylight Time

Name: 200604D1\_10, Date: 04-Jun-2020, Time: 18:46:38, ID: 2000998-01 PDI-063SC-A-08-09-200429 14.35, Description: PDI-063SC-A-08-09-200429



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_11.qld

Last Altered: Friday, June 05, 2020 15:49:27 Pacific Daylight Time

Printed: Friday, June 05, 2020 15:51:00 Pacific Daylight Time

DB 6/5/20

6/12/2020

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

| Peak | Resp                    | RA     | n/y  | RRF   | W/A    | Prod. RT | Ref. RT | RRF   | RRF   | Conc.  | Conc.    |        |
|------|-------------------------|--------|------|-------|--------|----------|---------|-------|-------|--------|----------|--------|
| 1    | 2,3,7,8-TCDD            |        |      | 0.967 | 10.077 |          |         |       |       | 0.0917 |          |        |
| 2    | 1,2,3,7,8-PeCDD         |        | NO   | 0.982 | 10.077 | 30.669   |         | 1.001 |       | 0.0978 |          |        |
| 3    | 1,2,3,4,7,8-HxCDD       |        | NO   | 1.17  | 10.077 | 33.971   |         | 1.000 |       | 0.183  |          |        |
| 4    | 1,2,3,6,7,8-HxCDD       |        | NO   | 1.04  | 10.077 | 34.070   |         | 1.000 |       | 0.179  |          |        |
| 5    | 1,2,3,7,8,9-HxCDD       |        | NO   | 1.00  | 10.077 | 34.390   |         | 1.001 |       | 0.195  |          |        |
| 6    | 1,2,3,4,6,7,8-HpCDD     | 5.75e2 | 1.18 | NO    | 0.992  | 10.077   | 37.845  | 37.83 | 1.000 | 1.000  | 1.0301   | 1.03   |
| 7    | OCDD                    | 3.54e3 | 0.91 | NO    | 1.04   | 10.077   | 41.093  | 41.10 | 1.000 | 1.000  | 7.5960   | 7.60   |
| 8    | 2,3,7,8-TCDF            |        | NO   | 0.882 | 10.077 | 25.341   |         | 1.001 |       | 0.105  |          |        |
| 9    | 1,2,3,7,8-PeCDF         |        |      | 1.05  | 10.077 |          |         |       |       | 0.0371 |          |        |
| 10   | 2,3,4,7,8-PeCDF         |        | NO   | 1.06  | 10.077 | 30.397   |         | 1.001 |       | 0.0661 |          |        |
| 11   | 1,2,3,4,7,8-HxCDF       | 4.57e1 | 1.10 | NO    | 1.08   | 10.077   | 33.072  | 33.09 | 1.000 | 1.001  | 0.046566 | 0.0466 |
| 12   | 1,2,3,6,7,8-HxCDF       |        | NO   | 1.04  | 10.077 | 33.203   |         | 1.000 |       | 0.0595 |          |        |
| 13   | 2,3,4,6,7,8-HxCDF       |        | NO   | 1.11  | 10.077 | 33.819   |         | 1.001 |       | 0.0611 |          |        |
| 14   | 1,2,3,7,8,9-HxCDF       |        | NO   | 1.06  | 10.077 | 34.729   |         | 1.000 |       | 0.0791 |          |        |
| 15   | 1,2,3,4,6,7,8-HpCDF     |        | NO   | 1.13  | 10.077 | 36.609   |         | 1.001 |       | 0.0970 |          |        |
| 16   | 1,2,3,4,7,8,9-HpCDF     |        | NO   | 1.33  | 10.077 | 38.361   |         | 1.000 |       | 0.0880 |          |        |
| 17   | OCDF                    | 9.22e1 | 0.71 | YES   | 0.933  | 10.077   | 41.301  | 41.31 | 1.000 | 1.000  | 0.16334  | 0.162  |
| 18   | 13C-2,3,7,8-TCDD        | 1.59e5 | 0.78 | NO    | 1.21   | 10.077   | 26.194  | 26.10 | 1.026 | 1.022  | 160.36   | 80.8   |
| 19   | 13C-1,2,3,7,8-PeCDD     | 1.42e5 | 0.63 | NO    | 0.996  | 10.077   | 30.687  | 30.65 | 1.202 | 1.200  | 173.63   | 87.5   |
| 20   | 13C-1,2,3,4,7,8-HxCDD   | 1.21e5 | 1.35 | NO    | 0.679  | 10.077   | 33.947  | 33.96 | 1.014 | 1.014  | 193.21   | 97.4   |
| 21   | 13C-1,2,3,6,7,8-HxCDD   | 1.41e5 | 1.26 | NO    | 0.850  | 10.077   | 34.057  | 34.07 | 1.017 | 1.018  | 180.44   | 90.9   |
| 22   | 13C-1,2,3,7,8,9-HxCDD   | 1.41e5 | 1.31 | NO    | 0.798  | 10.077   | 34.328  | 34.36 | 1.025 | 1.026  | 191.76   | 96.6   |
| 23   | 13C-1,2,3,4,6,7,8-HpCDD | 1.12e5 | 1.04 | NO    | 0.697  | 10.077   | 37.797  | 37.83 | 1.129 | 1.130  | 173.85   | 87.6   |
| 24   | 13C-OCDD                | 1.79e5 | 0.91 | NO    | 0.579  | 10.077   | 40.823  | 41.09 | 1.219 | 1.227  | 334.80   | 84.3   |
| 25   | 13C-2,3,7,8-TCDF        | 2.17e5 | 0.75 | NO    | 1.13   | 10.077   | 25.275  | 25.32 | 0.990 | 0.992  | 145.93   | 73.5   |
| 26   | 13C-1,2,3,7,8-PeCDF     | 2.32e5 | 1.58 | NO    | 0.996  | 10.077   | 29.505  | 29.46 | 1.156 | 1.154  | 176.32   | 88.8   |
| 27   | 13C-2,3,4,7,8-PeCDF     | 2.30e5 | 1.61 | NO    | 0.969  | 10.077   | 30.406  | 30.37 | 1.191 | 1.189  | 160.02   | 90.7   |
| 28   | 13C-1,2,3,4,7,8-HxCDF   | 1.80e5 | 0.51 | NO    | 1.06   | 10.077   | 33.076  | 33.07 | 0.988 | 0.988  | 184.25   | 92.8   |
| 29   | 13C-1,2,3,6,7,8-HxCDF   | 1.87e5 | 0.49 | NO    | 1.18   | 10.077   | 33.210  | 33.19 | 0.992 | 0.991  | 172.25   | 86.8   |
| 30   | 13C-2,3,4,6,7,8-HxCDF   | 1.75e5 | 0.50 | NO    | 1.06   | 10.077   | 33.783  | 33.78 | 1.009 | 1.009  | 179.66   | 90.5   |
| 31   | 13C-1,2,3,7,8,9-HxCDF   | 1.58e5 | 0.49 | NO    | 0.879  | 10.077   | 34.683  | 34.73 | 1.036 | 1.037  | 195.07   | 98.3   |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_11.qld

Last Altered: Friday, June 05, 2020 15:49:27 Pacific Daylight Time

Printed: Friday, June 05, 2020 15:51:00 Pacific Daylight Time

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

| #  | Name                    | Resp   | RA   | n/y | RRF   | w/wol  | Prod.RT | RT    | Prod.RT | RRF   | Area     | Conc | W/F     | EMPS   |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|---------|-------|----------|------|---------|--------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 1.41e5 | 0.41 | NO  | 0.893 | 10.077 | 36.391  | 36.57 | 1.087   | 1.092 | 171.59   | 86.5 | 0.588   |        |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 1.11e5 | 0.41 | NO  | 0.613 | 10.077 | 38.399  | 38.36 | 1.147   | 1.146 | 196.17   | 98.8 | 0.855   |        |
| 34 | 13C-OCDF                | 2.14e5 | 0.89 | NO  | 0.741 | 10.077 | 40.977  | 41.30 | 1.224   | 1.234 | 313.11   | 78.9 | 0.503   |        |
| 35 | 37Cl-2,3,7,8-TCDD       | 6.01e4 |      |     | 1.18  | 10.077 | 26.191  | 26.13 | 1.026   | 1.023 | 62.138   | 78.3 | 0.0586  |        |
| 36 | 13C-1,2,3,4-TCDD        | 1.63e5 | 0.82 | NO  | 1.00  | 10.077 | 25.480  | 25.53 | 1.000   | 1.000 | 198.46   | 100  | 0.402   |        |
| 37 | 13C-1,2,3,4-TCDF        | 2.62e5 | 0.81 | NO  | 1.00  | 10.077 | 24.020  | 24.08 | 1.000   | 1.000 | 198.46   | 100  | 0.435   |        |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.83e5 | 0.51 | NO  | 1.00  | 10.077 | 33.530  | 33.48 | 1.000   | 1.000 | 198.46   | 100  | 0.495   |        |
| 39 | Total Tetra-Dioxins     |        |      |     | 0.987 | 10.077 | 24.620  |       | 0.000   |       |          |      | 0.0733  |        |
| 40 | Total Penta-Dioxins     |        |      |     | 0.982 | 10.077 | 29.960  |       | 0.000   |       | 0.00000  |      | 0.0322  | 0.118  |
| 41 | Total Hexa-Dioxins      |        |      |     | 1.04  | 10.077 | 33.635  |       | 0.000   |       | 0.53234  |      | 0.191   | 0.532  |
| 42 | Total Hepta-Dioxins     |        |      |     | 0.992 | 10.077 | 37.640  |       | 0.000   |       | 2.4910   |      | 0.134   | 2.49   |
| 43 | Total Tetra-Furans      |        |      |     | 0.882 | 10.077 | 23.610  |       | 0.000   |       | 0.26015  |      | 0.0431  | 0.511  |
| 44 | 1st Func. Penta-Furans  |        |      |     | 1.05  | 10.077 | 27.090  |       | 0.000   |       |          |      | 0.00950 |        |
| 45 | Total Penta-Furans      |        |      |     | 1.05  | 10.077 | 29.275  |       | 0.000   |       |          |      | 0.0354  |        |
| 46 | Total Hexa-Furans       |        |      |     | 1.11  | 10.077 | 33.555  |       | 0.000   |       | 0.046566 |      | 0.0330  | 0.0781 |
| 47 | Total Hepta-Furans      |        |      |     | 1.13  | 10.077 | 37.835  |       | 0.000   |       |          |      | 0.0493  |        |

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_11.qld

Last Altered: Friday, June 05, 2020 15:49:27 Pacific Daylight Time

Printed: Friday, June 05, 2020 15:51:00 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Callibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

Tetra-Dioxins

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|

Penta-Dioxins

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL     |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|--------|
| Total Penta-Dioxins | 28.94 | 8.970e2   | 2.242e3   | 3.210e1 | 1.367e2 | 0.23 | YES | 0.000e0 | 0.00000 | 0.11843 | 0.0322 |

Hexa-Dioxins

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL    |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hexa-Dioxins | 32.45 | 4.807e3   | 3.147e3   | 2.111e2 | 1.626e2 | 1.30 | NO  | 3.737e2 | 0.53234 | 0.53234 | 0.191 |

Hepta-Dioxins

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc   | EMPC   | DL    |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|--------|--------|-------|
| Total Hepta-Dioxins | 36.98 | 6.910e3   | 6.805e3   | 4.181e2 | 3.971e2 | 1.05 | NO  | 8.152e2 | 1.4609 | 1.4609 | 0.134 |
| 1,2,3,4,6,7,8-HpCDD | 37.83 | 5.234e3   | 4.244e3   | 3.107e2 | 2.641e2 | 1.18 | NO  | 5.749e2 | 1.0301 | 1.0301 | 0.134 |

Tetra-Furans

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL     |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|--------|
| Total Tetra-Furans | 21.72 | 1.321e3   | 1.582e3   | 1.077e2 | 1.431e2 | 0.75 | NO  | 2.509e2 | 0.26015 | 0.26015 | 0.0431 |
| Total Tetra-Furans | 24.55 | 1.424e3   | 1.773e3   | 1.009e2 | 1.408e2 | 0.72 | NO  | 0.000e0 | 0.00000 | 0.25071 | 0.105  |

Penta-Furans function 1

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_11.qld

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Printed: Friday, June 05, 2020 15:51:00 Pacific Daylight Time

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

**Penta-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Area | Integ | DA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|-------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|-------|----|

**Hexa-Furans**

| Name              | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | Y/N | Resp    | Area     | Integ    | DA     |
|-------------------|-------|-----------|-----------|---------|---------|------|-----|---------|----------|----------|--------|
| Total Hexa-Furans | 32.06 | 6.550e2   | 2.580e2   | 2.045e1 | 1.379e1 | 1.48 | YES | 0.000e0 | 0.00000  | 0.031560 | 0.0330 |
| 1,2,3,4,7,8-HxCDF | 33.09 | 7.220e2   | 5.510e2   | 2.389e1 | 2.176e1 | 1.10 | NO  | 4.565e1 | 0.046566 | 0.046566 | 0.0303 |

**Hepta-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Area | Integ | DA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|-------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|-------|----|

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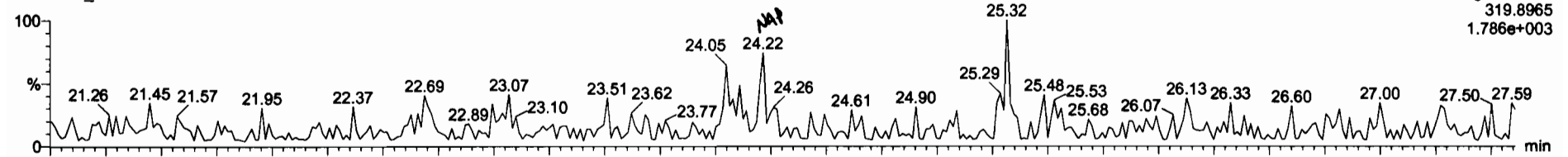
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Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

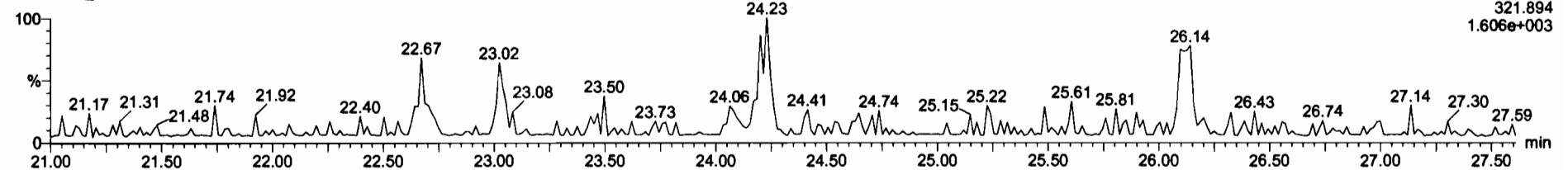
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2,3,7,8-TCDD

200604D1\_11

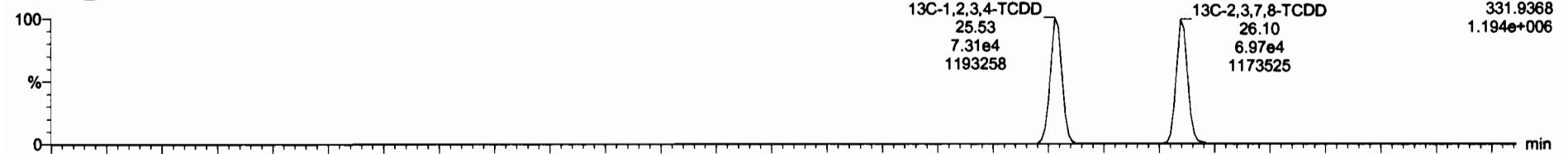


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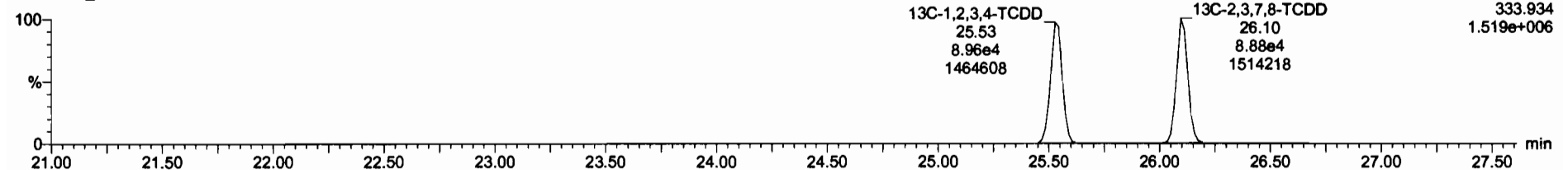


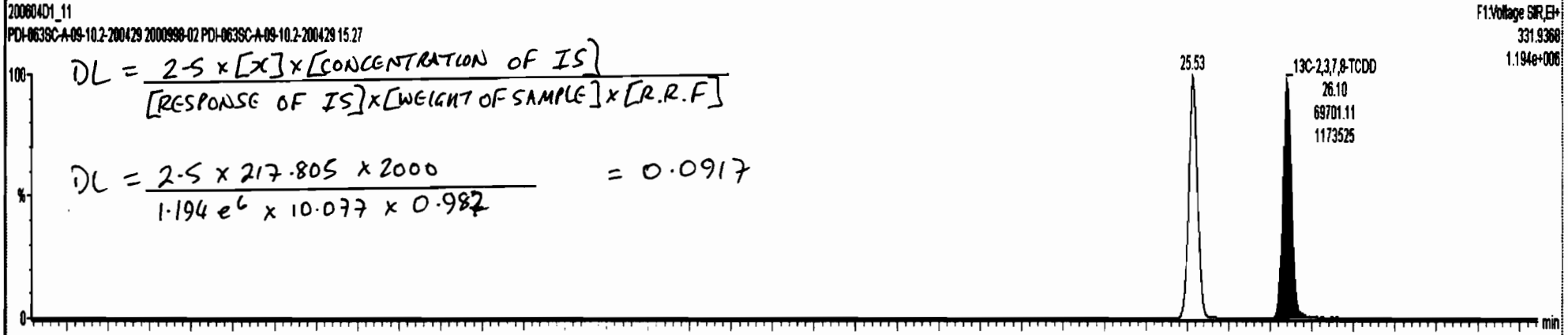
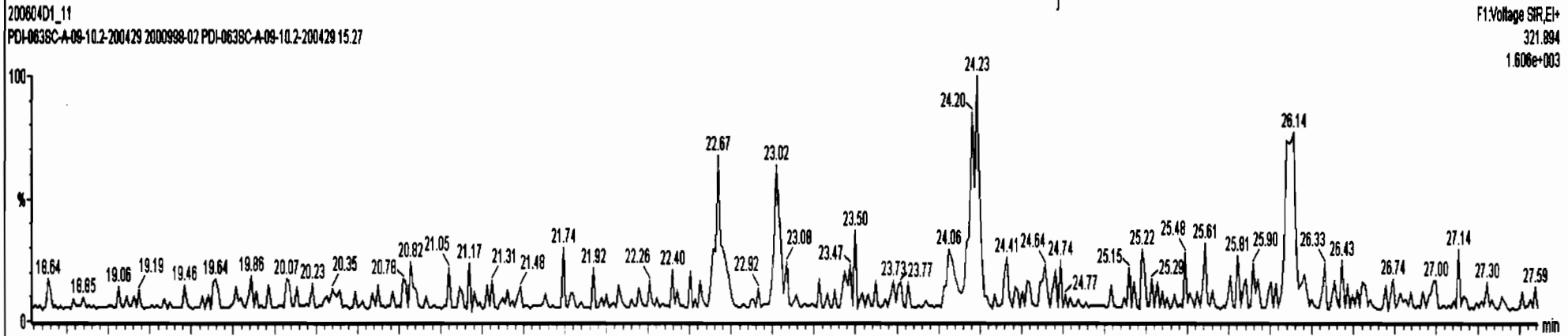
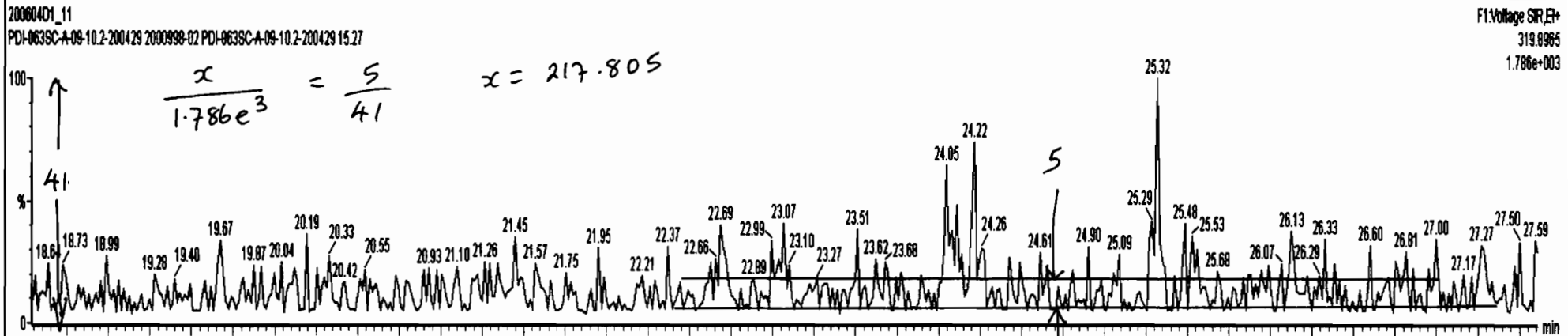
13C-2,3,7,8-TCDD

200604D1\_11



200604D1\_11



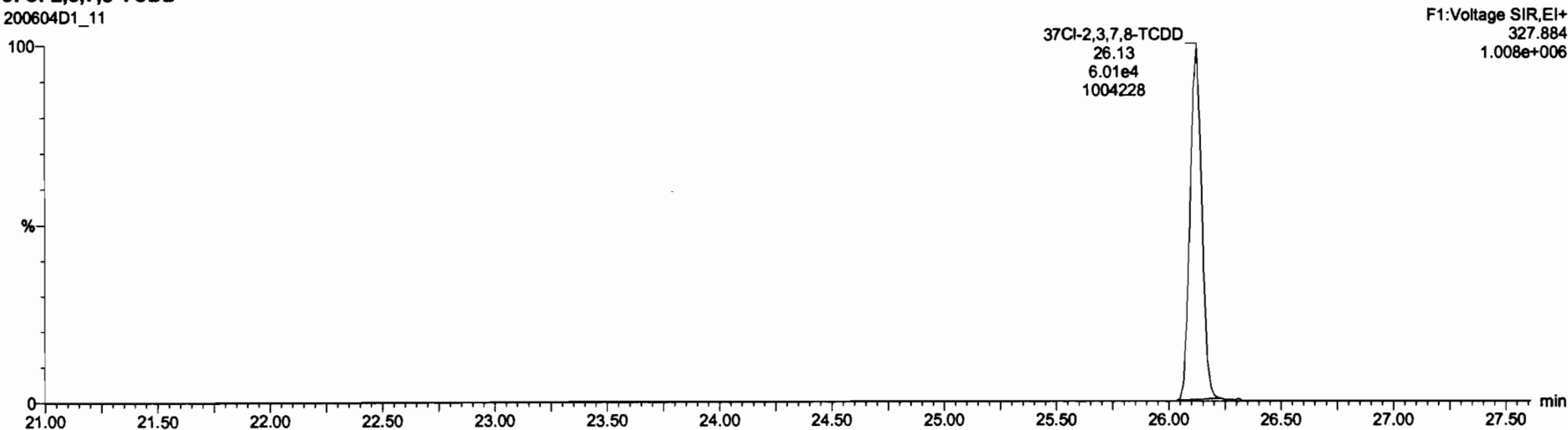


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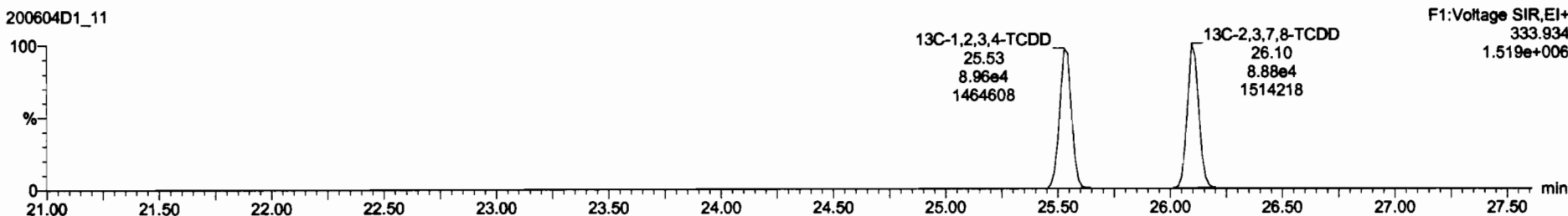
**37Cl-2,3,7,8-TCDD**  
200604D1\_11



**13C-1,2,3,4-TCDD**  
200604D1\_11



200604D1\_11



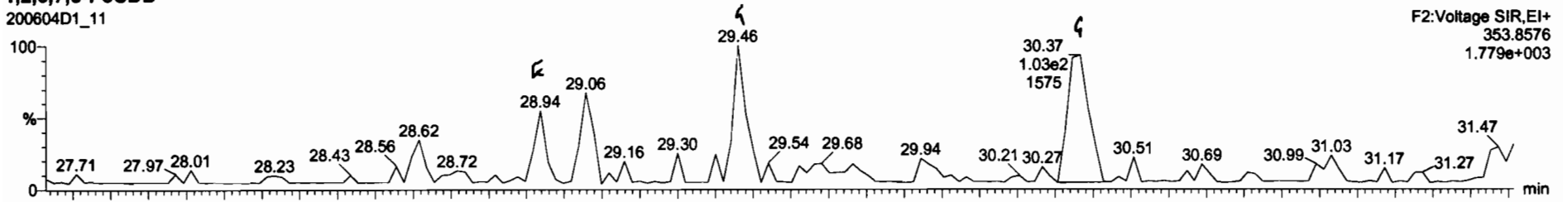
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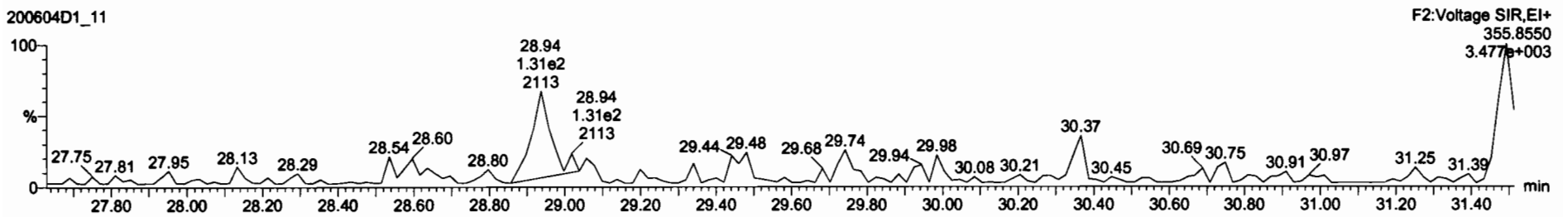
1,2,3,7,8-PeCDD

200604D1\_11



F2: Voltage SIR, EI+  
353.8576  
1.779e+003

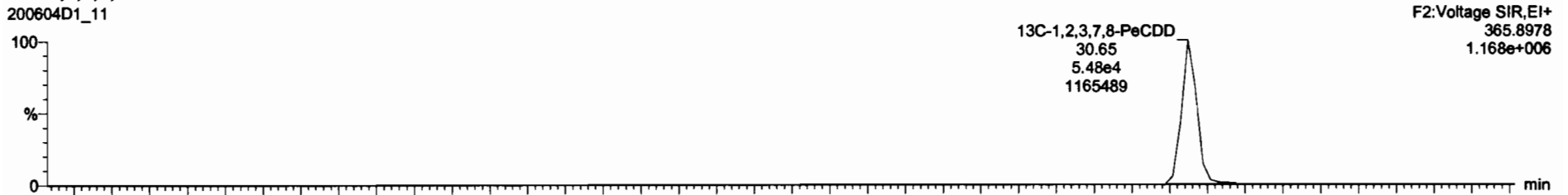
200604D1\_11



F2: Voltage SIR, EI+  
355.8550  
3.477e+003

13C-1,2,3,7,8-PeCDD

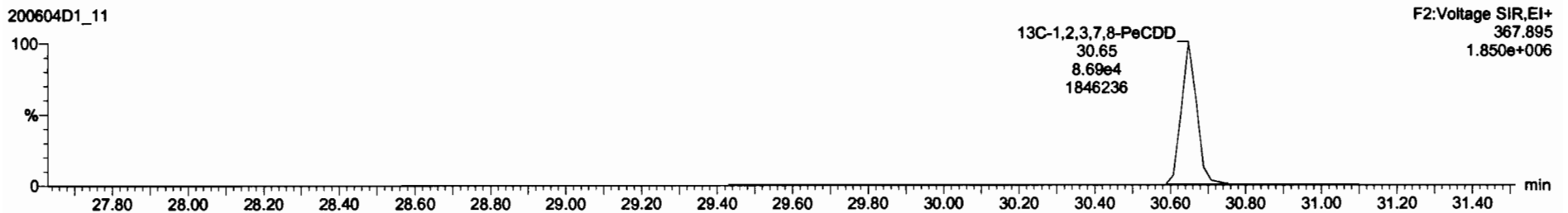
200604D1\_11



13C-1,2,3,7,8-PeCDD  
30.65  
5.48e4  
1165489

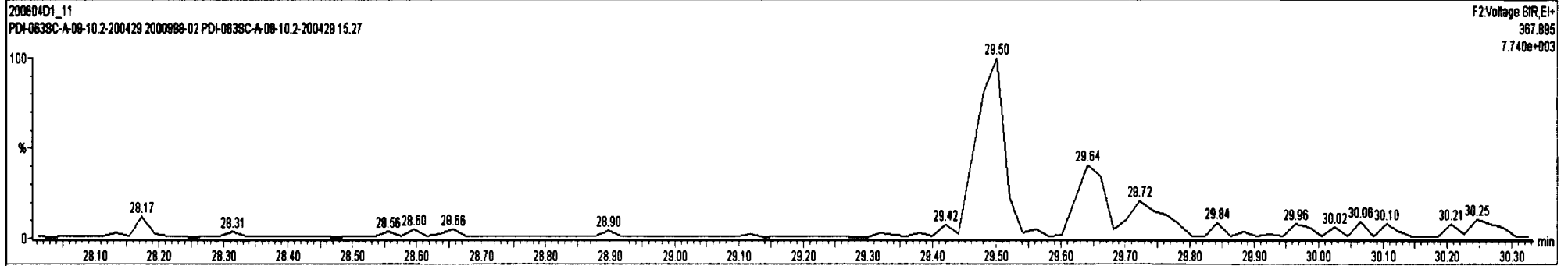
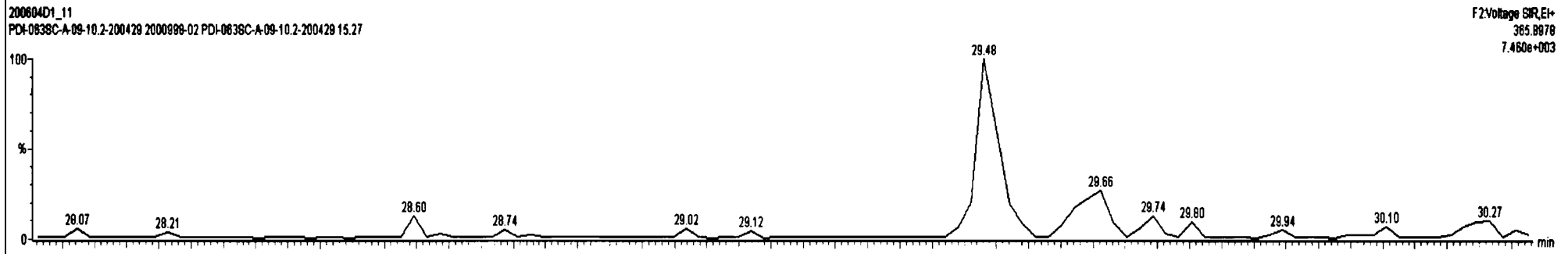
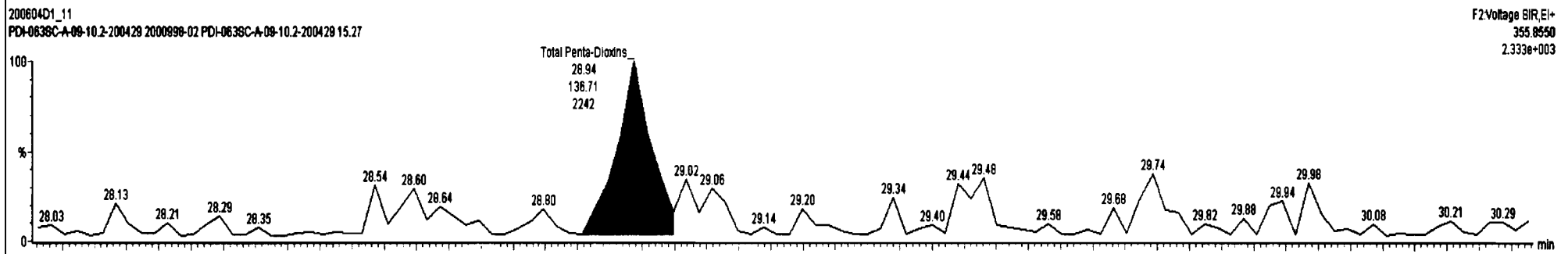
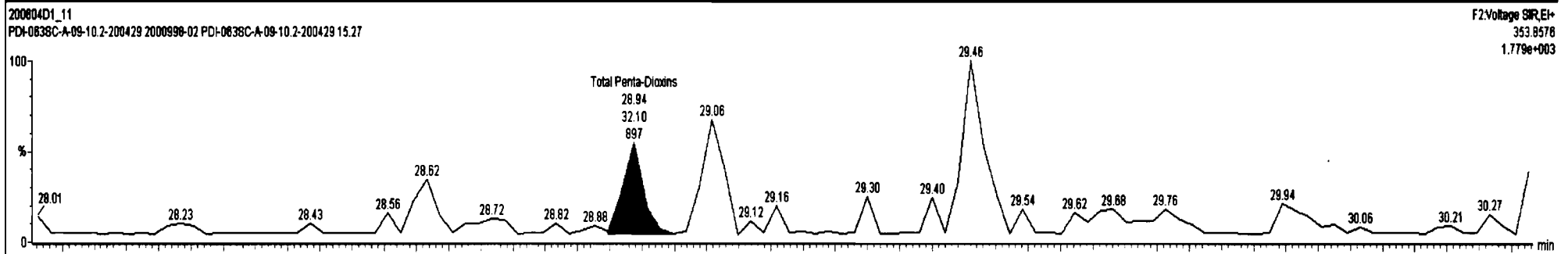
F2: Voltage SIR, EI+  
365.8978  
1.168e+006

200604D1\_11



13C-1,2,3,7,8-PeCDD  
30.65  
8.69e4  
1846236

F2: Voltage SIR, EI+  
367.895  
1.850e+006



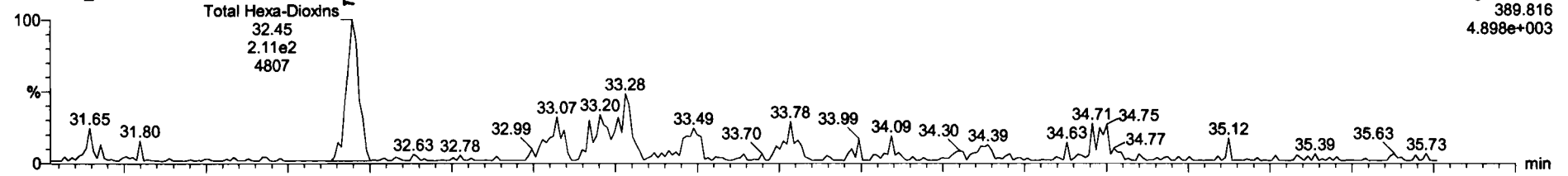
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Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

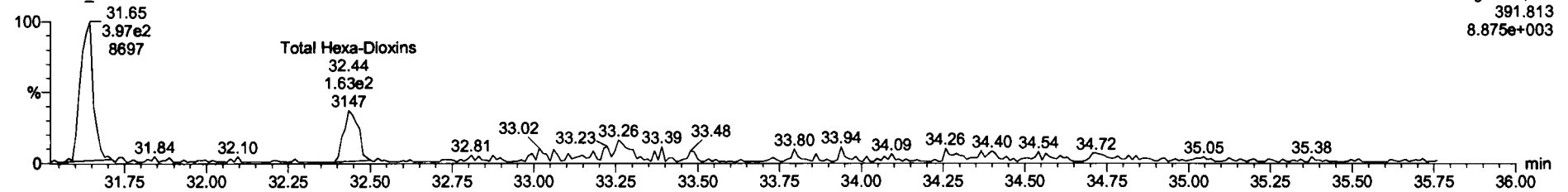
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1,2,3,4,7,8-HxCDD

200604D1\_11

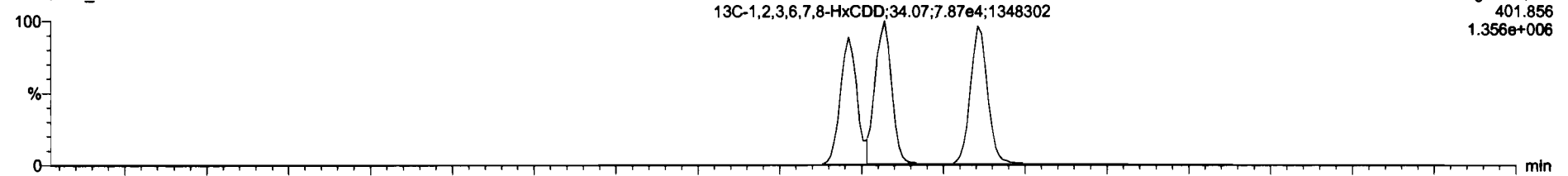


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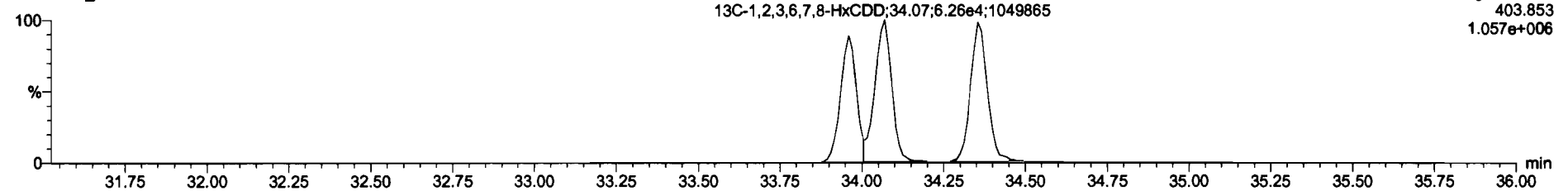


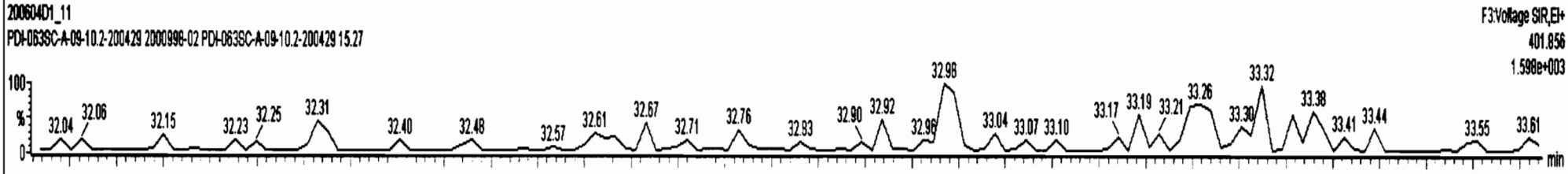
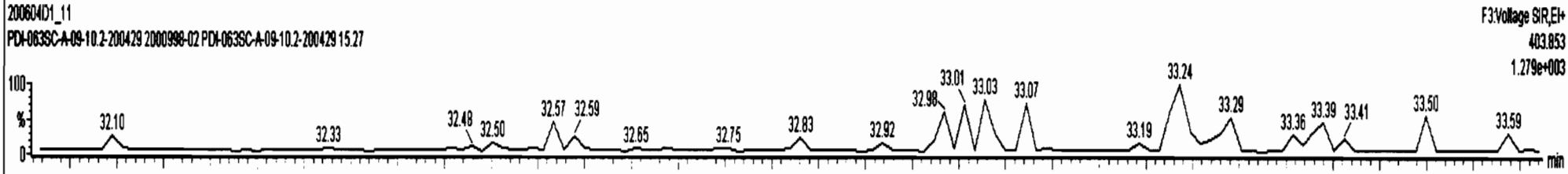
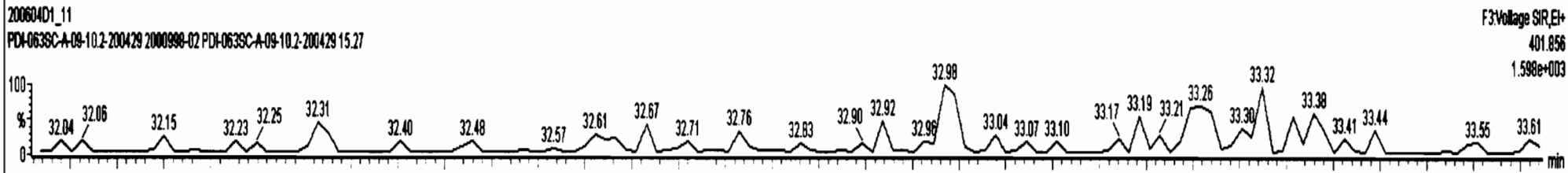
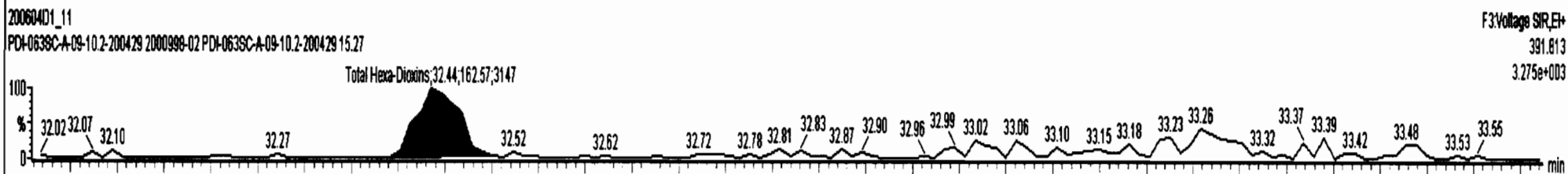
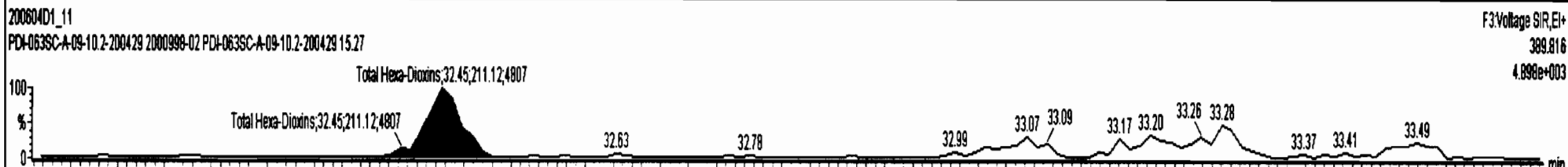
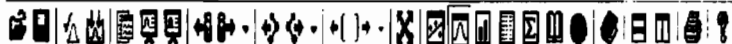
13C-1,2,3,4,7,8-HxCDD

200604D1\_11



200604D1\_11







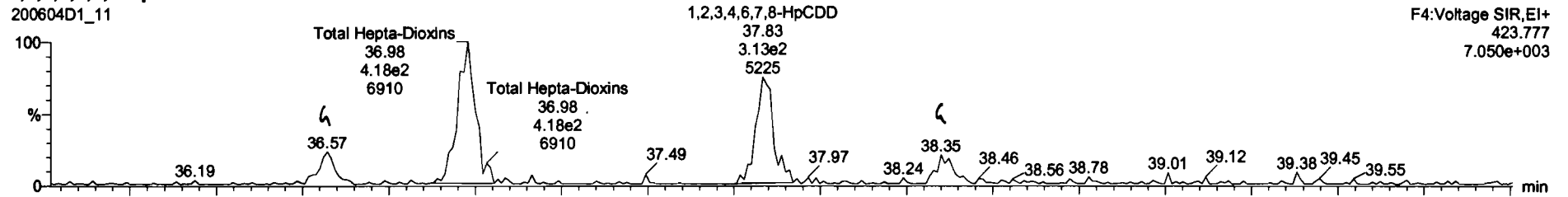
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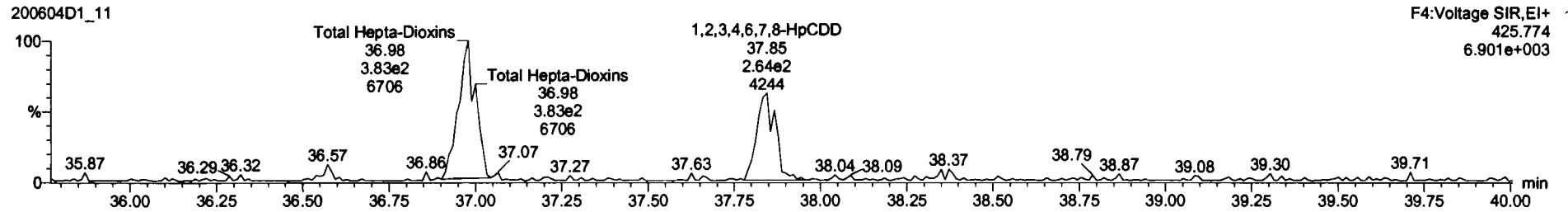
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1,2,3,4,6,7,8-HpCDD

200604D1\_11

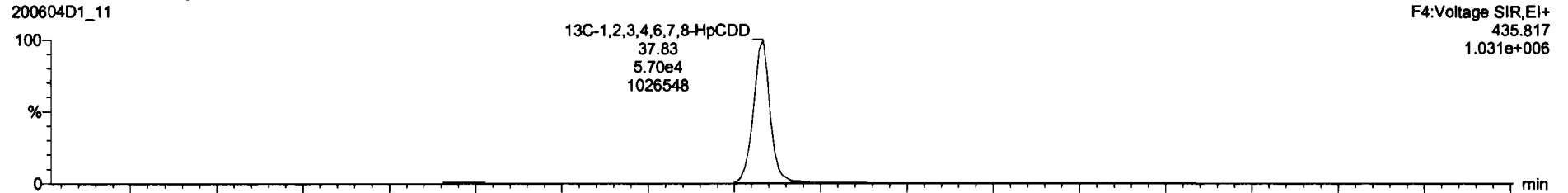


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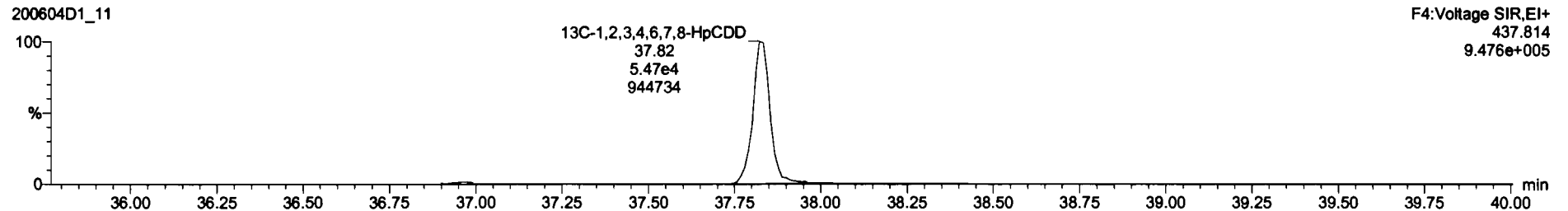


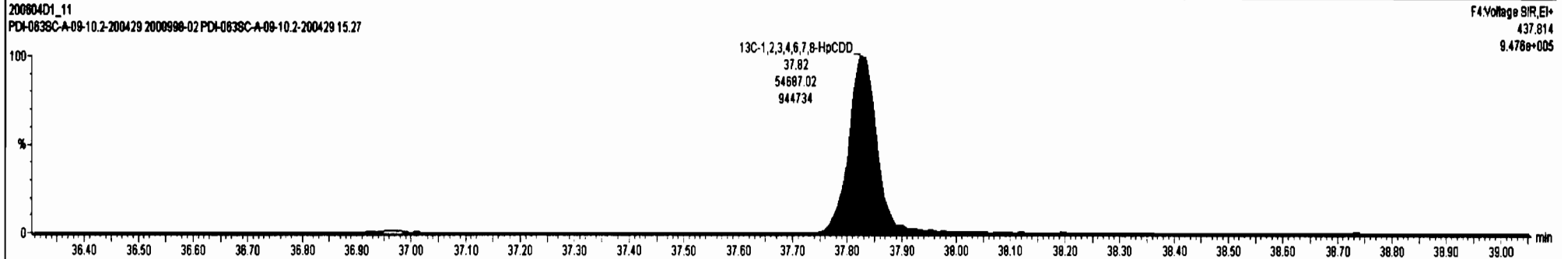
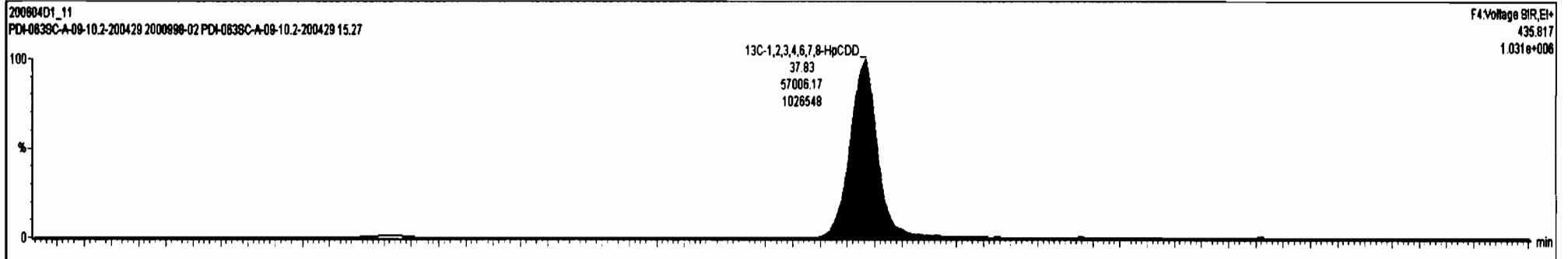
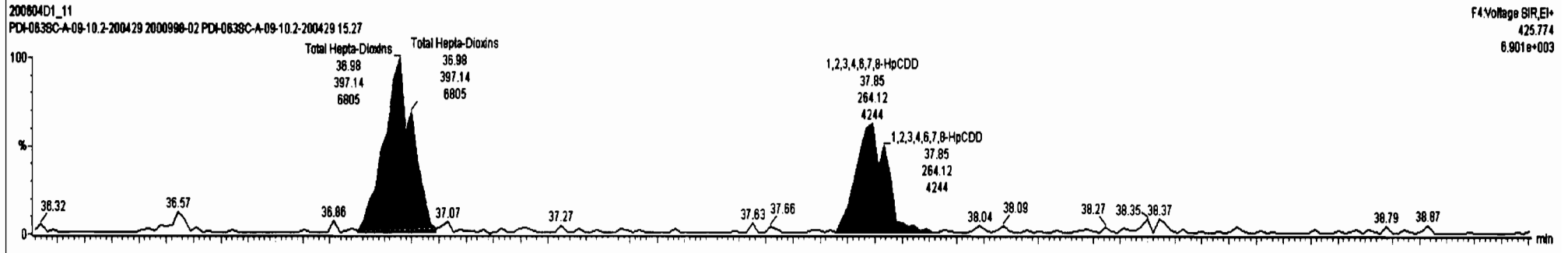
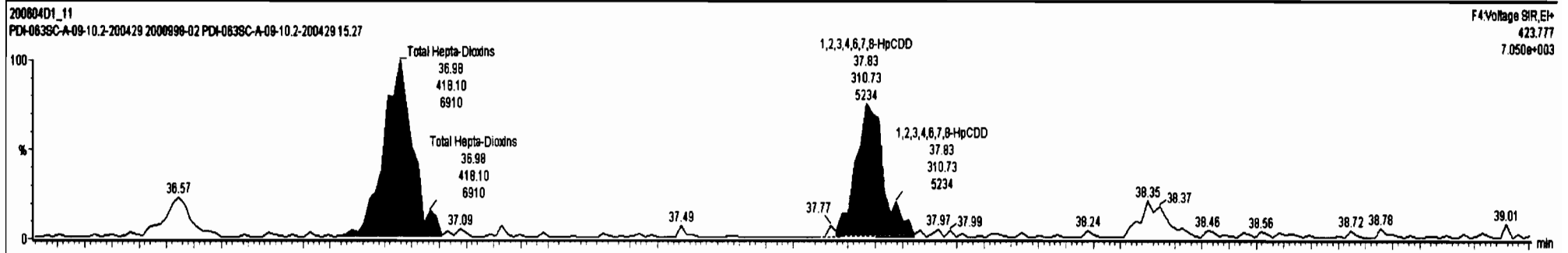
13C-1,2,3,4,6,7,8-HpCDD

200604D1\_11



200604D1\_11





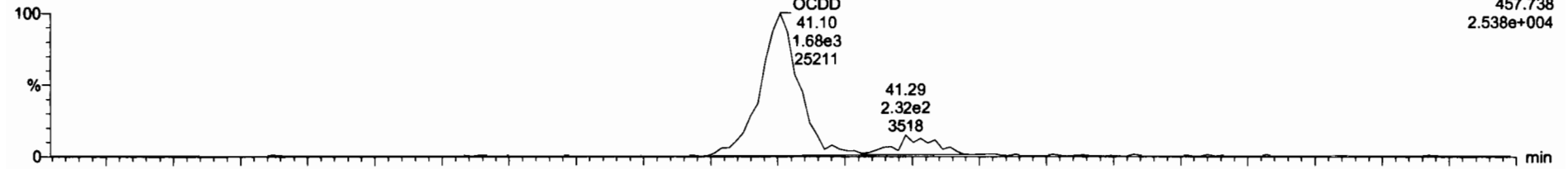
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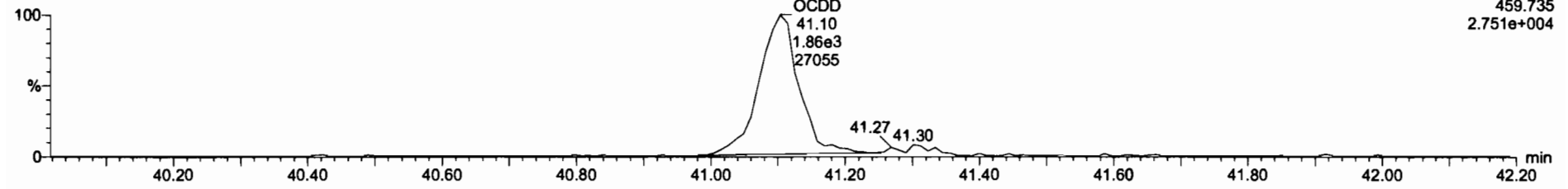
**OCDD**

200604D1\_11



F5:Voltage SIR,EI+  
457.738  
2.538e+004

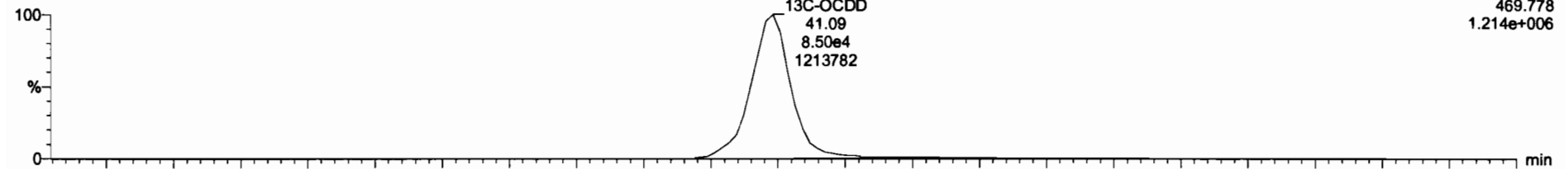
200604D1\_11



F5:Voltage SIR,EI+  
459.735  
2.751e+004

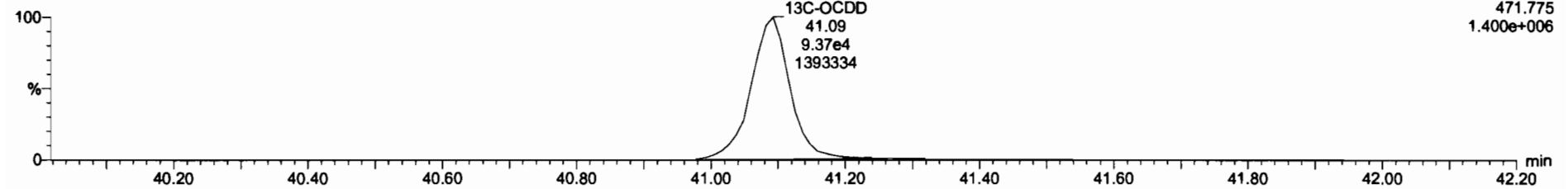
**13C-OCDD**

200604D1\_11



F5:Voltage SIR,EI+  
469.778  
1.214e+006

200604D1\_11



F5:Voltage SIR,EI+  
471.775  
1.400e+006

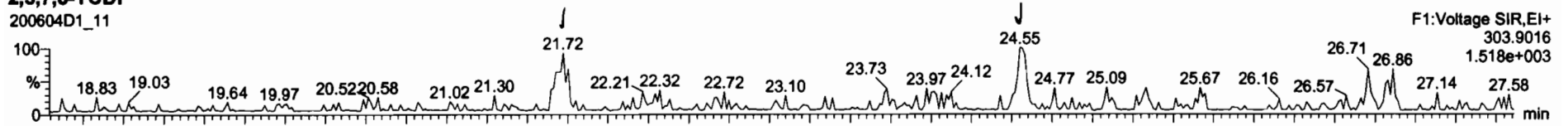
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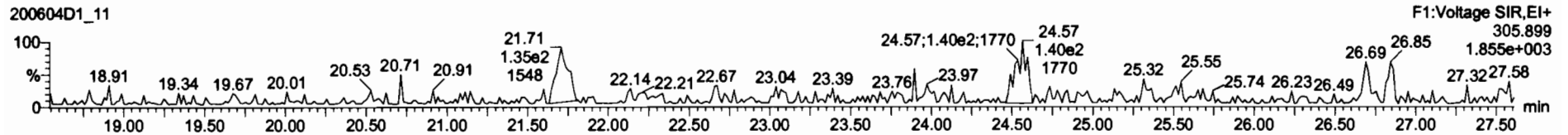
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**2,3,7,8-TCDF**

200604D1\_11

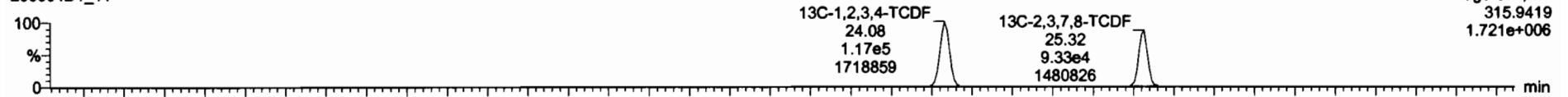


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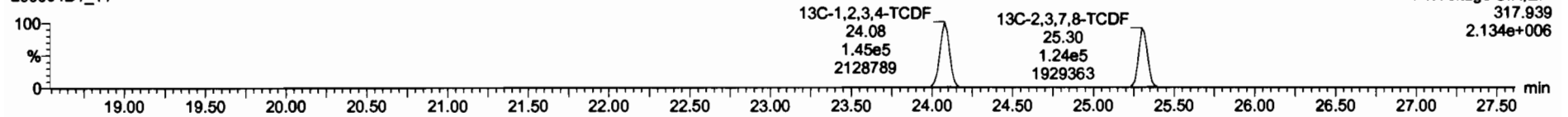


**13C-2,3,7,8-TCDF**

200604D1\_11

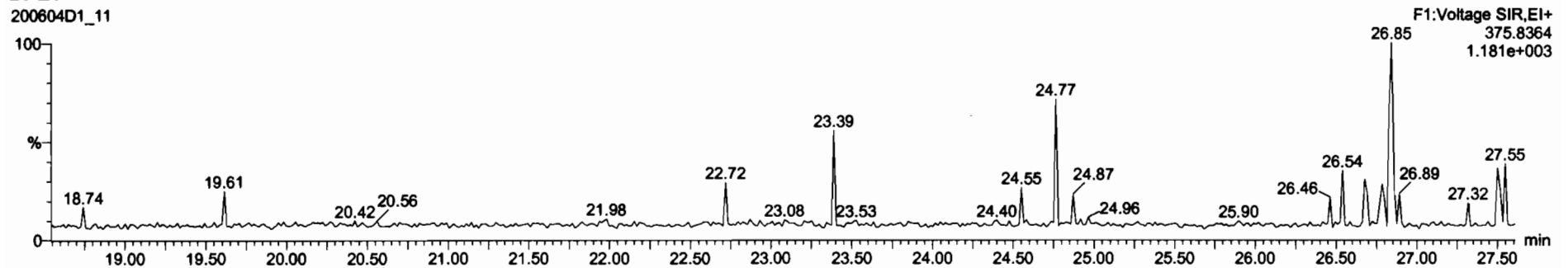


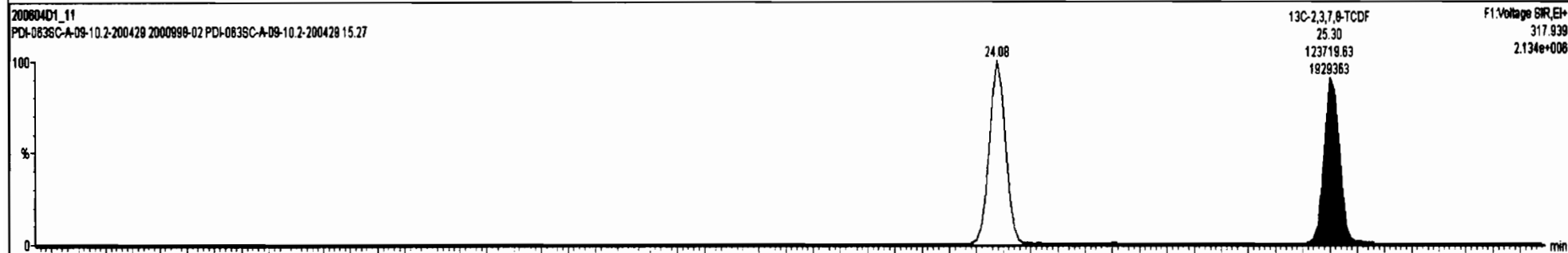
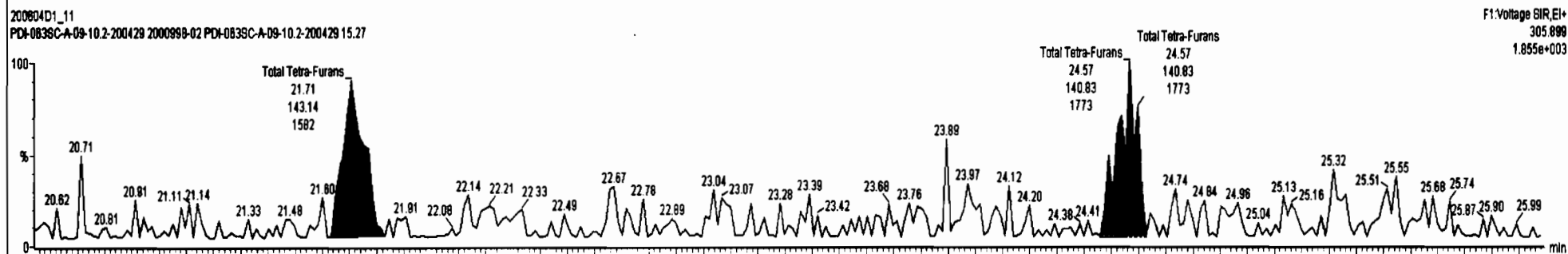
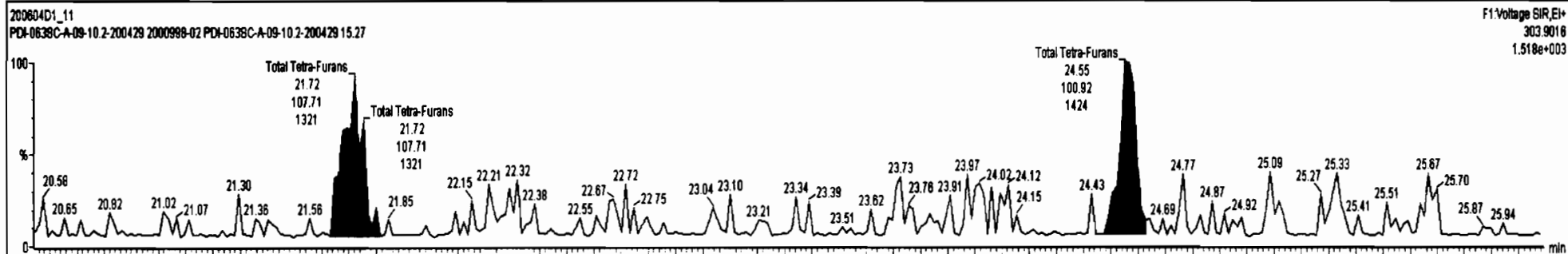
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**DPE1**

200604D1\_11





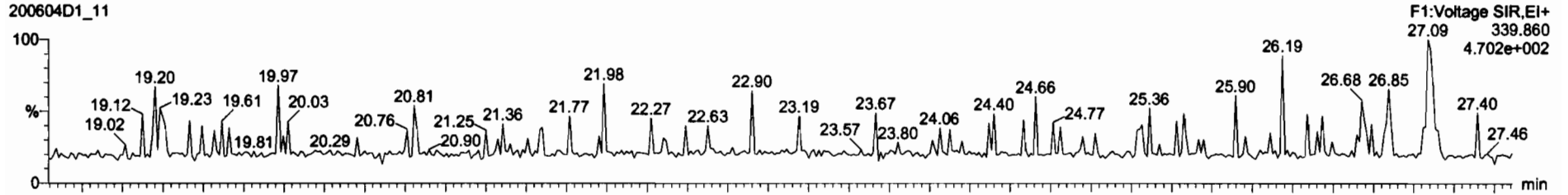
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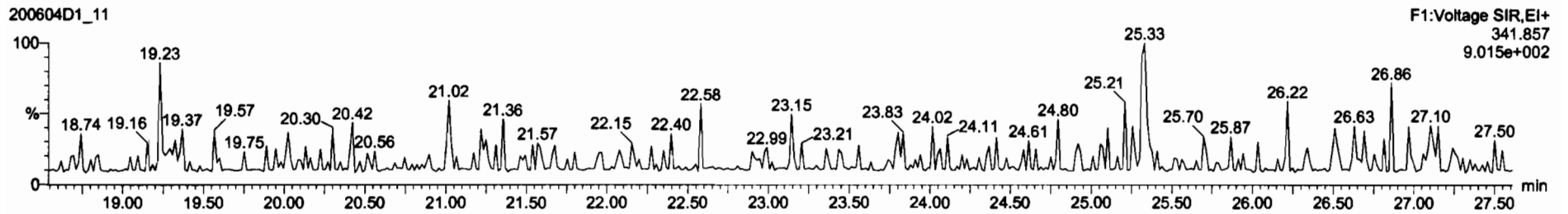
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1st Func. Penta-Furans

200604D1\_11

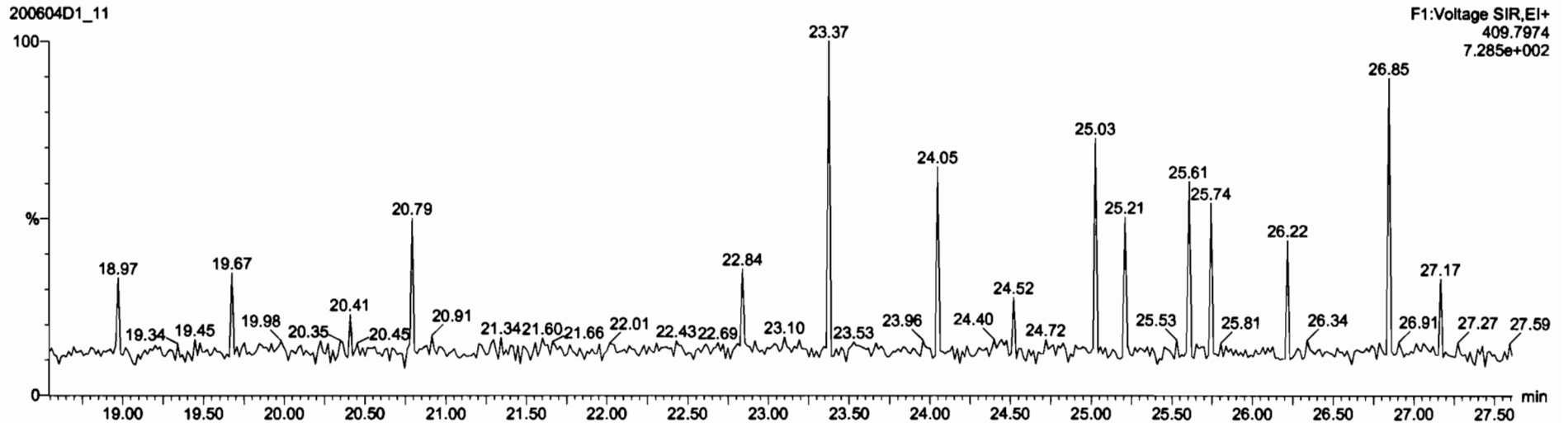


200604D1\_11



DPE6

200604D1\_11



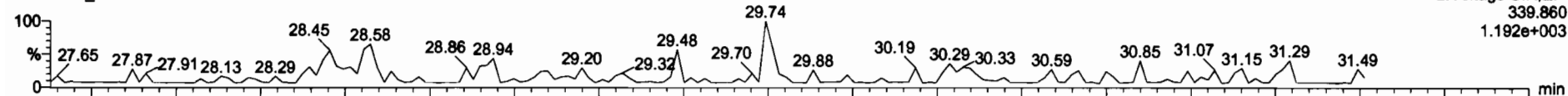
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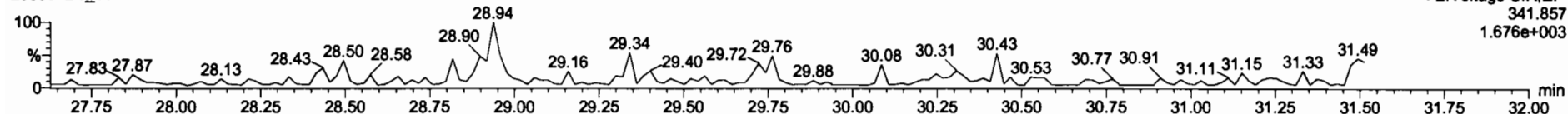
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**1,2,3,7,8-PeCDF**

200604D1\_11

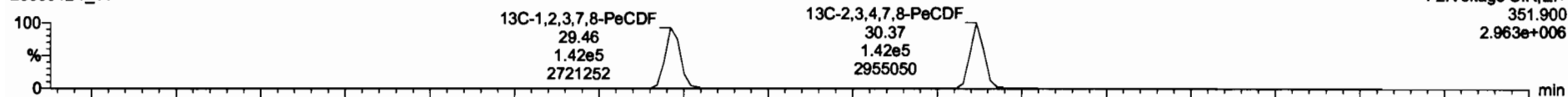


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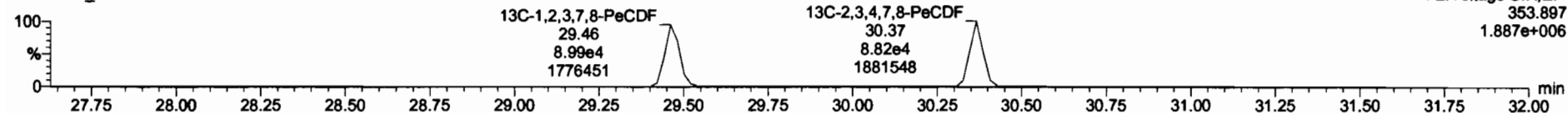


**13C-1,2,3,7,8-PeCDF**

200604D1\_11

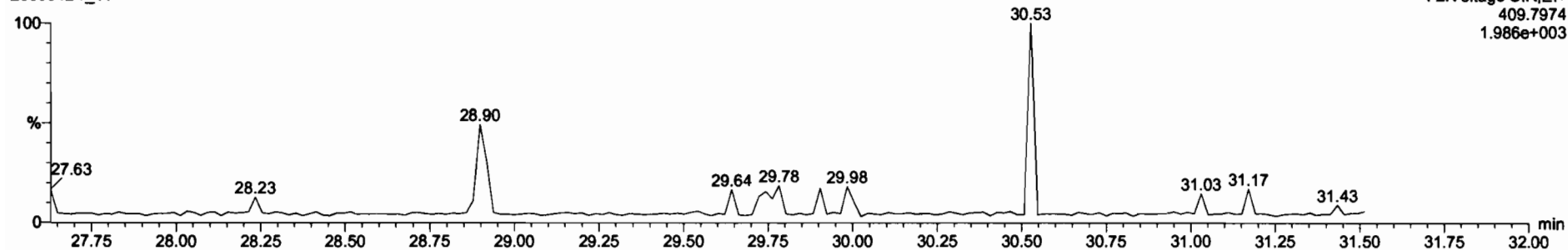


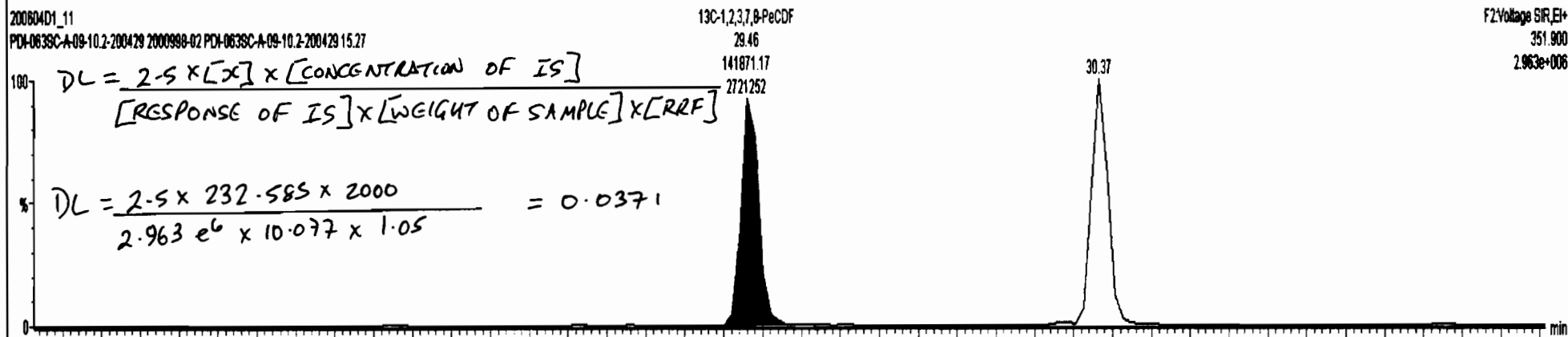
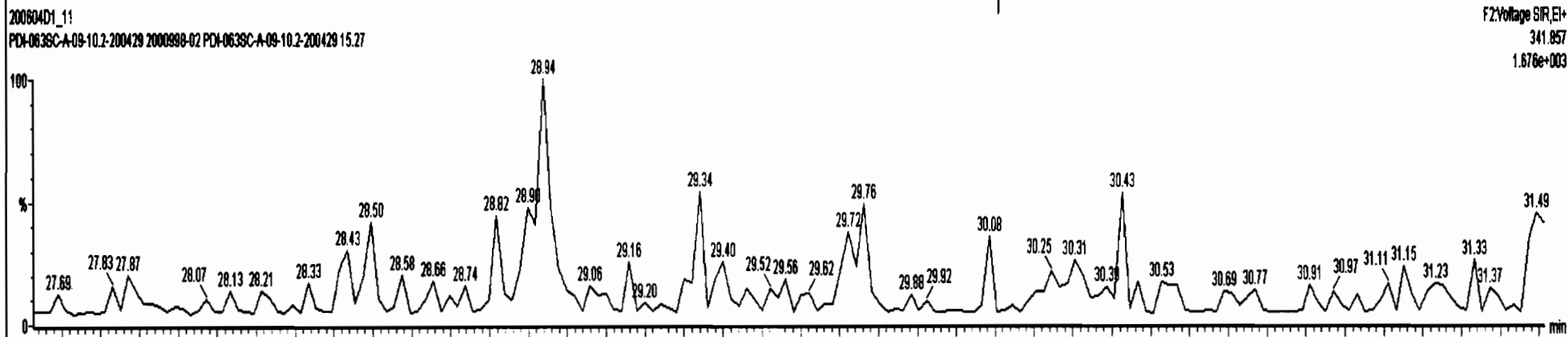
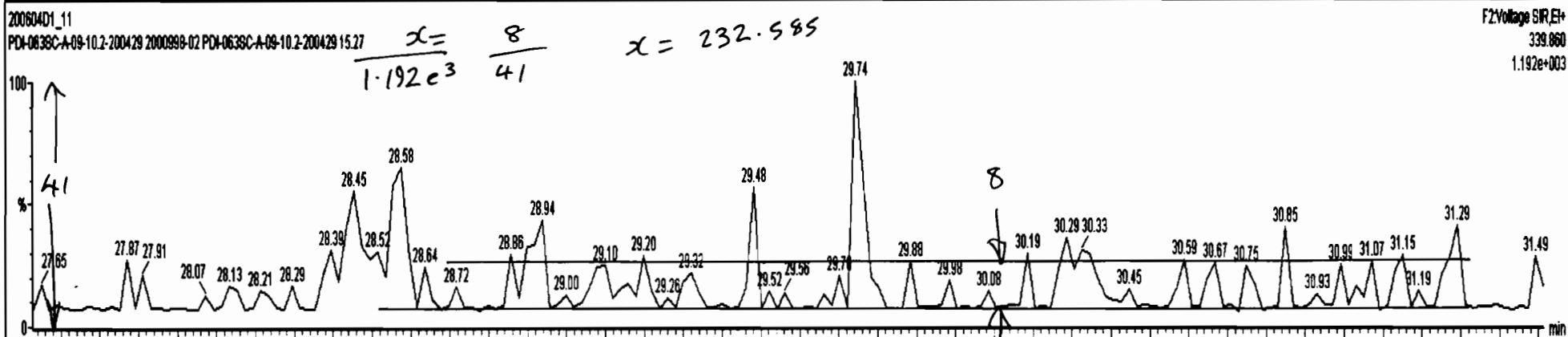
200604D1\_11



**DPE2**

200604D1\_11





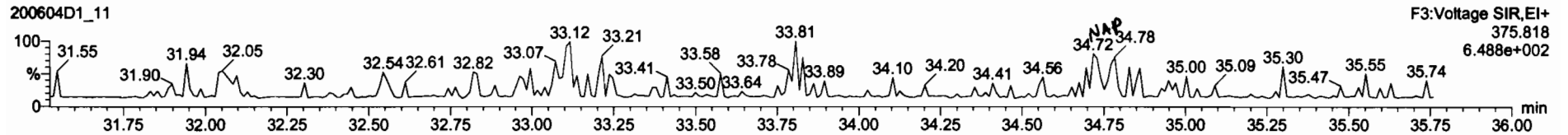
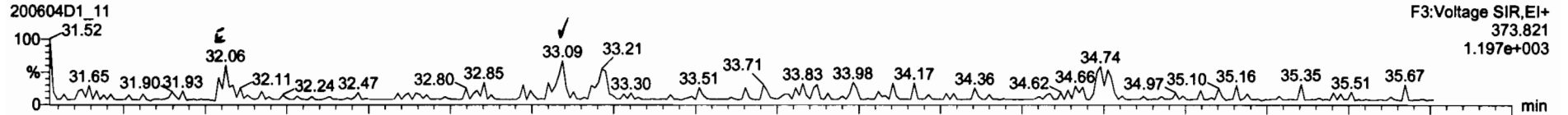


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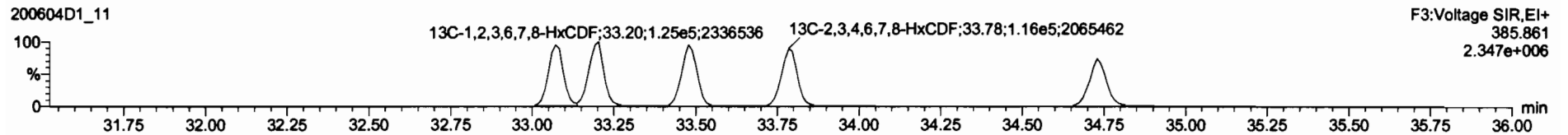
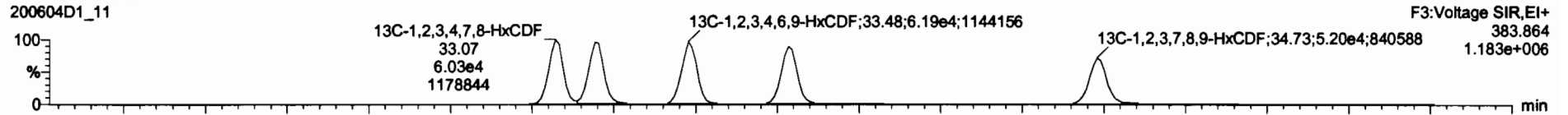
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Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

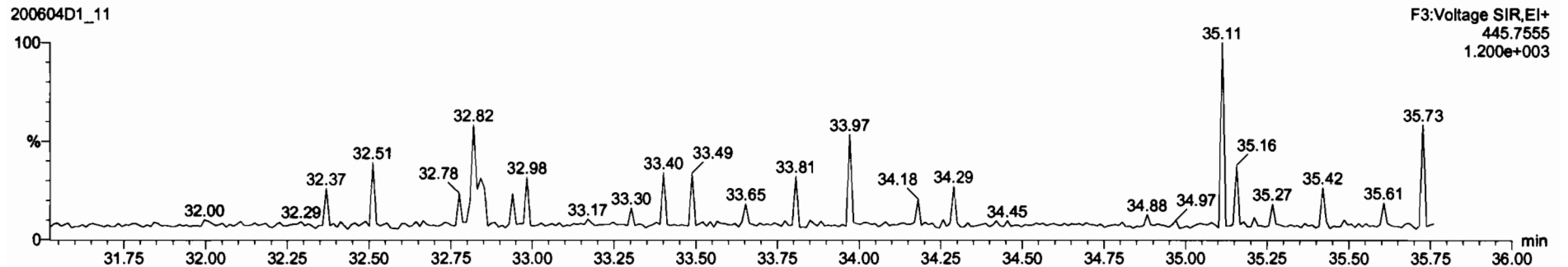
**1,2,3,4,7,8-HxCDF**

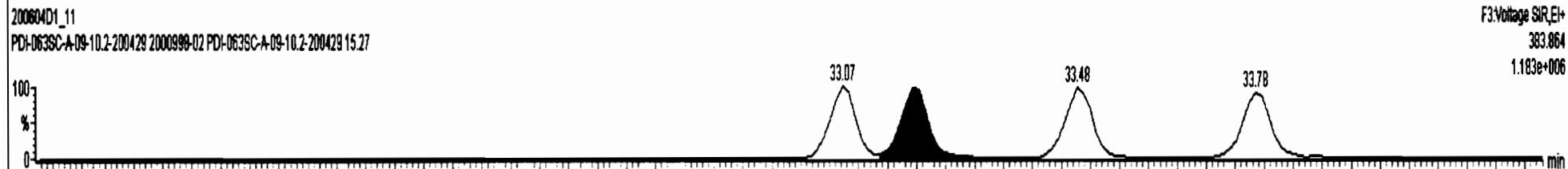
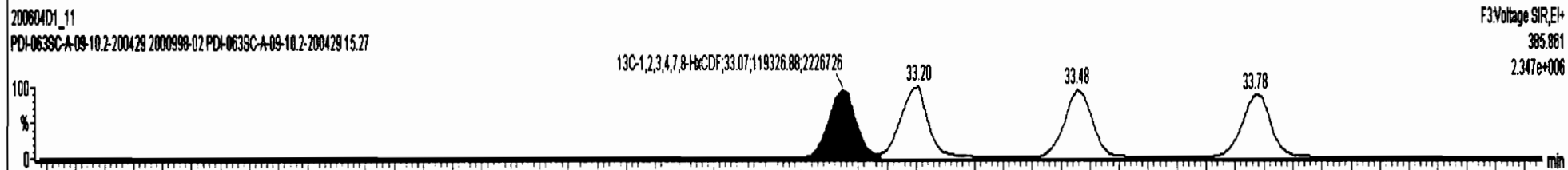
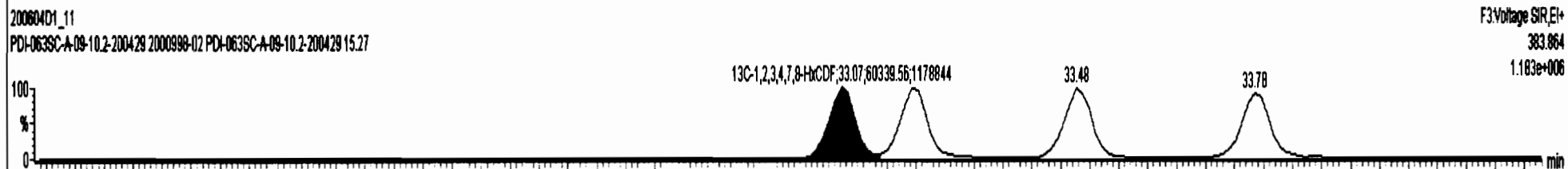
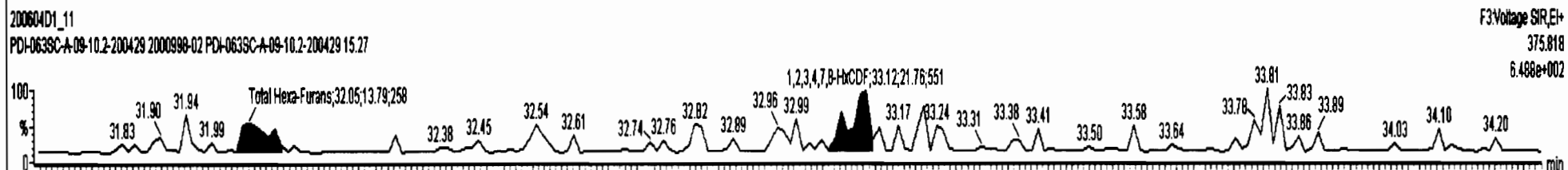
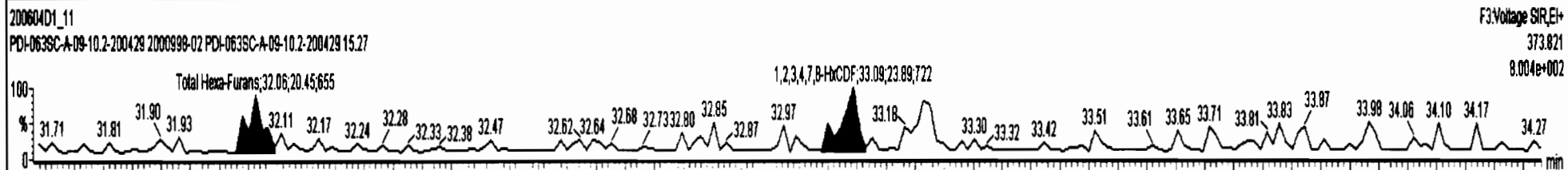
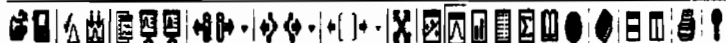


**<sup>13</sup>C-1,2,3,4,7,8-HxCDF**



**DPE3**





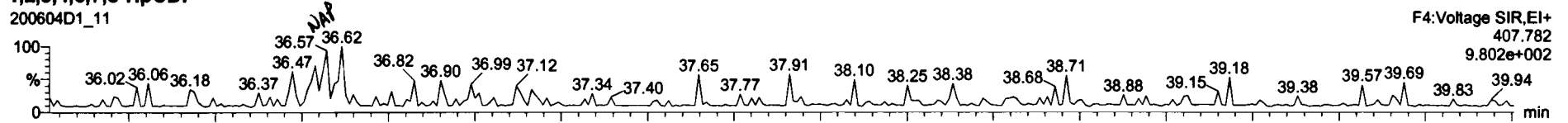
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Last Altered: Friday, June 05, 2020 09:37:29 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

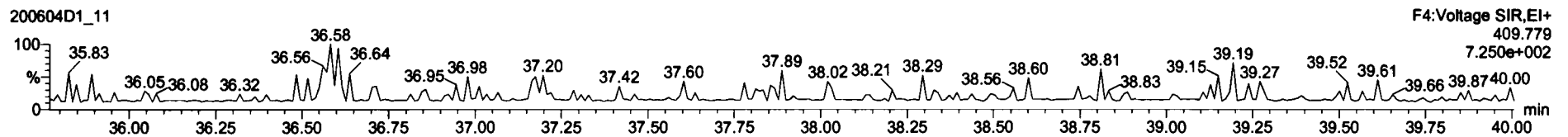
Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

**1,2,3,4,6,7,8-HpCDF**

200604D1\_11

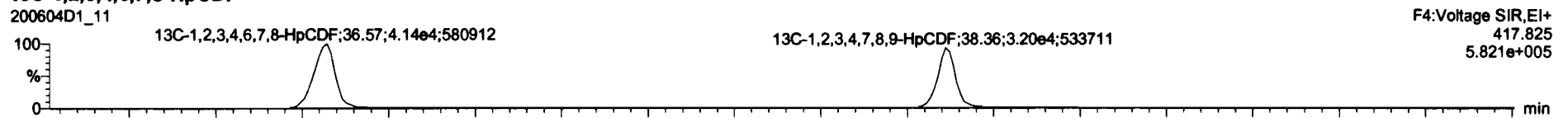


200604D1\_11

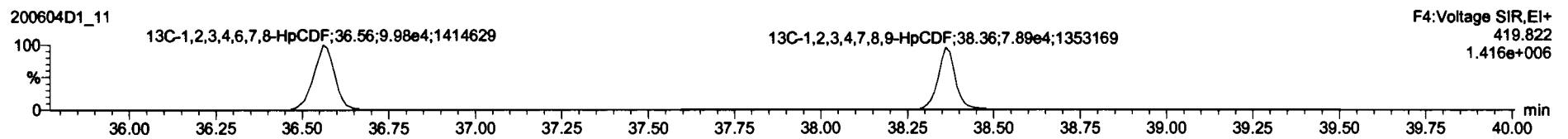


**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_11

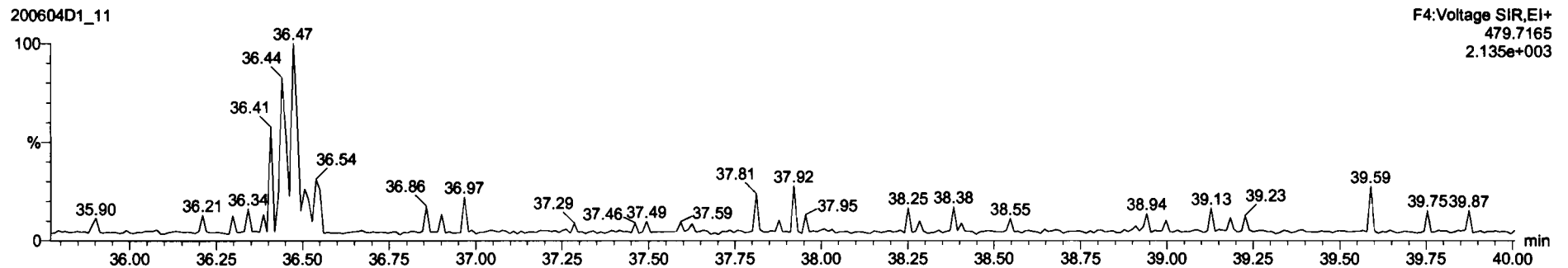


200604D1\_11



**DPE4**

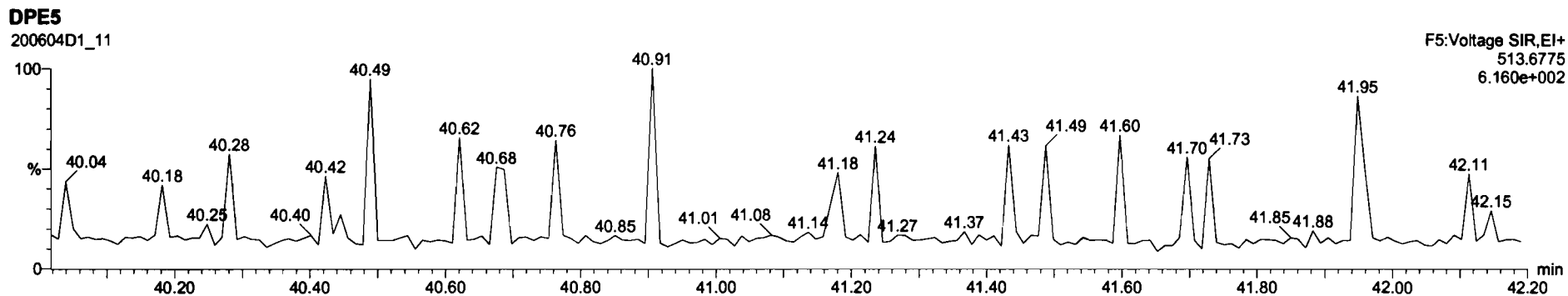
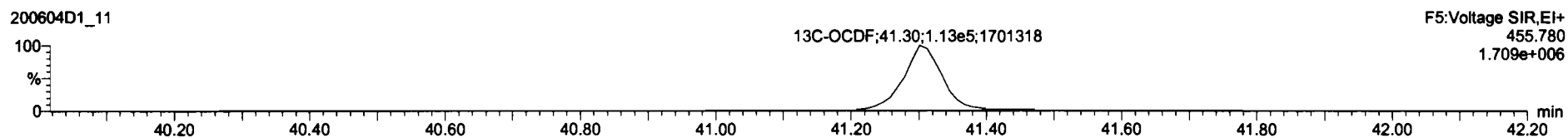
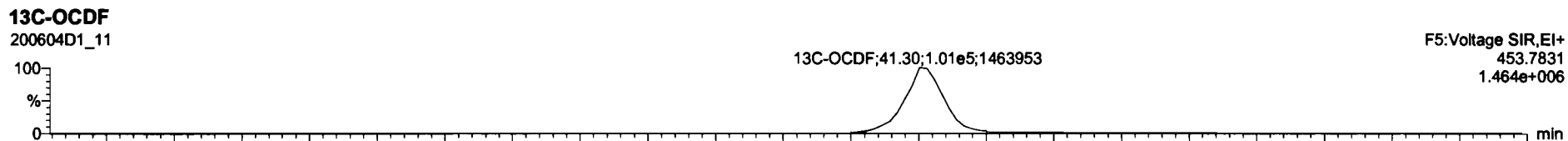
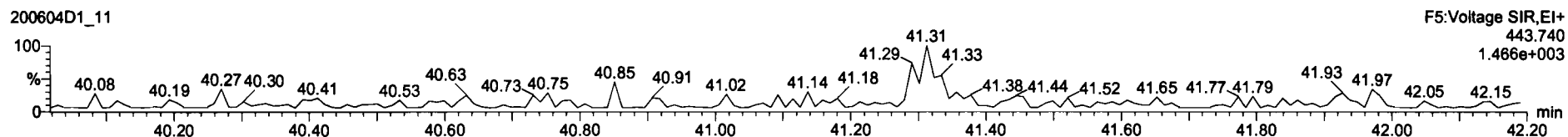
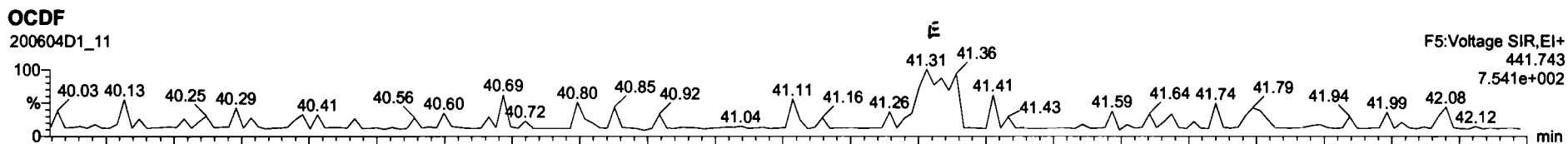
200604D1\_11

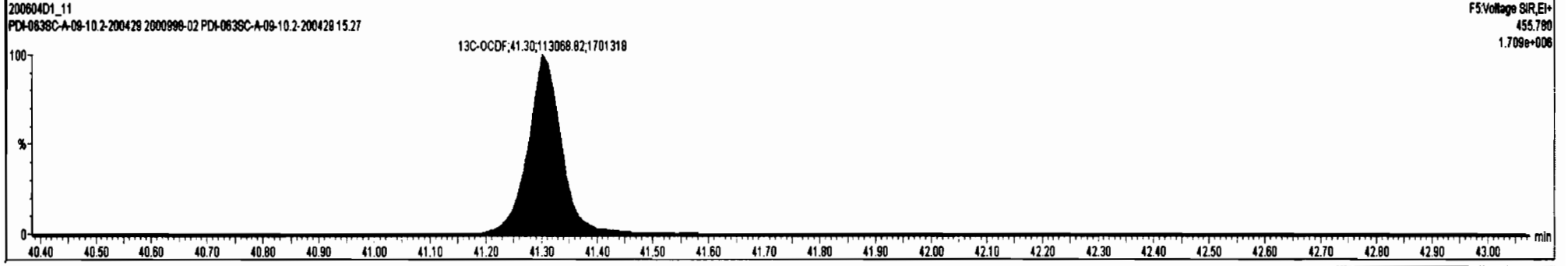
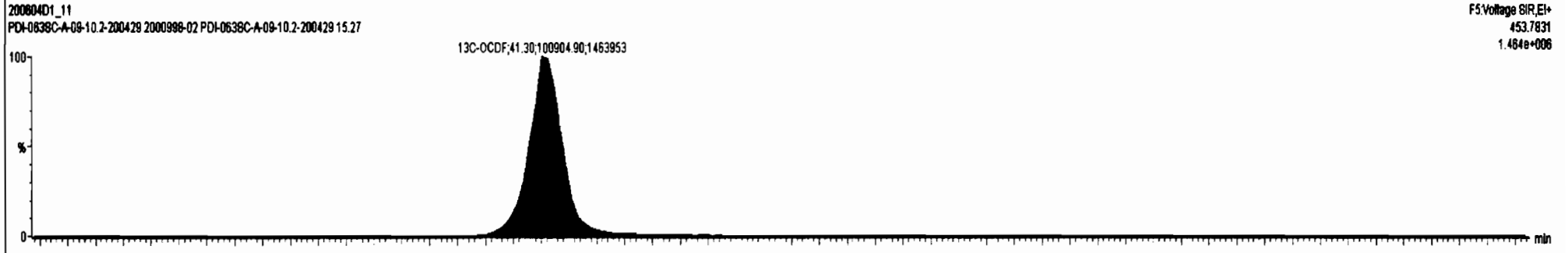
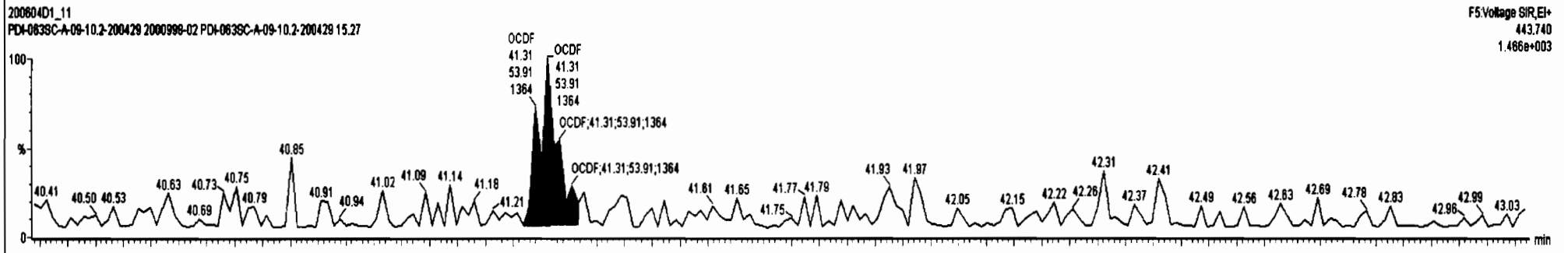
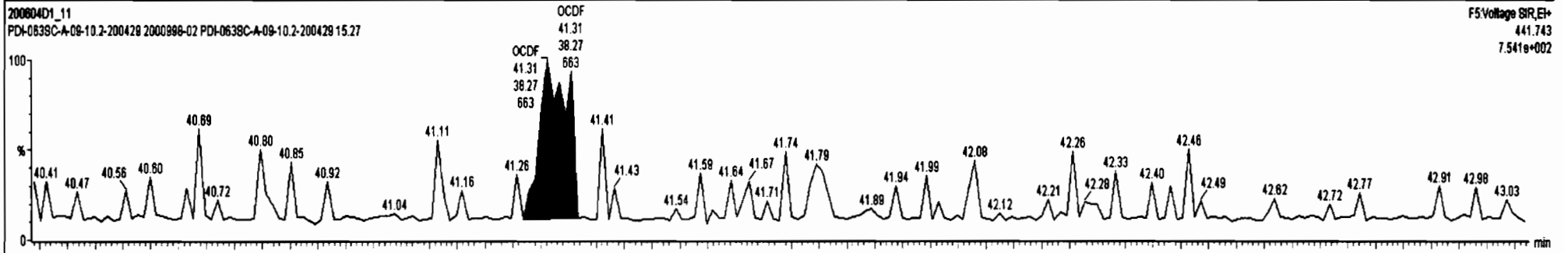


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Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429

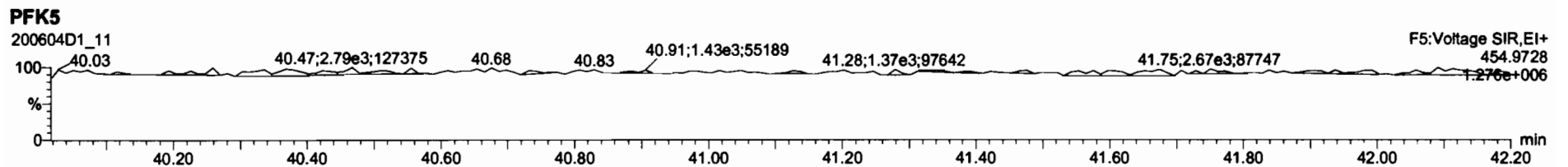
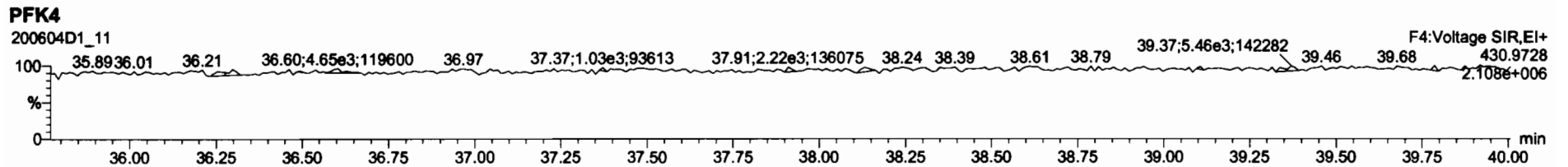
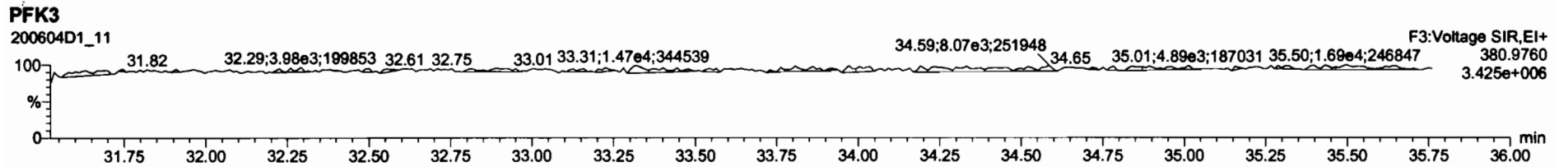
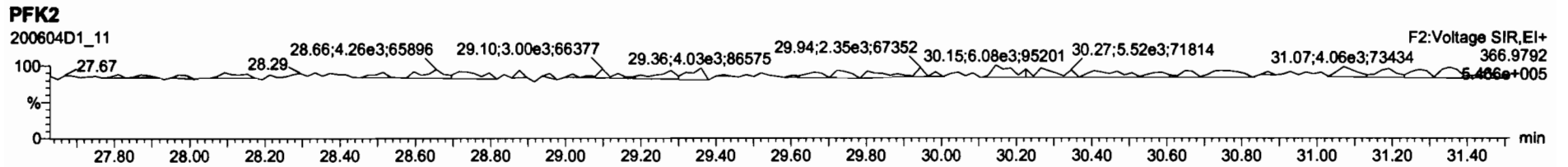
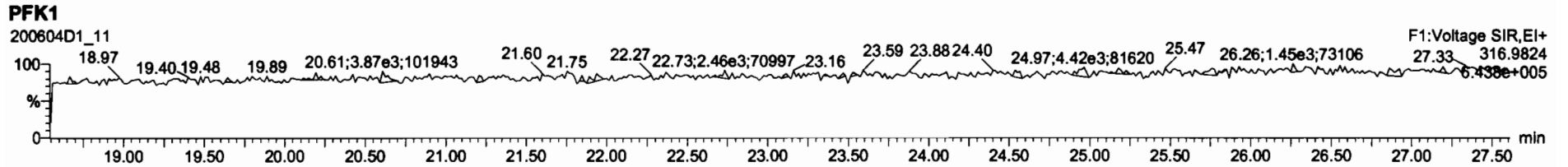




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Last Altered: Friday, June 05, 2020 09:37:29 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:45:14 Pacific Daylight Time

Name: 200604D1\_11, Date: 04-Jun-2020, Time: 19:31:44, ID: 2000998-02 PDI-063SC-A-09-10.2-200429 15.27, Description: PDI-063SC-A-09-10.2-200429



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

Last Altered: Friday, June 05, 2020 16:10:00 Pacific Daylight Time  
Printed: Friday, June 05, 2020 16:11:21 Pacific Daylight Time

*DB 6/5/20 CT 6/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_12, Date: 04-Jun-2020, Time: 20:16:51, ID: B0E0100-DUP1 Duplicate 15.21, Description: Duplicate

| #  | Name                    | Resp   | RA   | n/y | RRF   | w/wol  | Prod.RT | RT    | Prod.RRT | RRT   | Conc     | Conc   | Conc   |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|----------|--------|--------|
| 1  | 2,3,7,8-TCDD            |        |      | NO  | 0.987 | 10.038 | 26.142  |       | 1.001    |       |          | 0.134  |        |
| 2  | 1,2,3,7,8-PeCDD         |        |      | NO  | 0.982 | 10.038 | 30.669  |       | 1.001    |       |          | 0.130  |        |
| 3  | 1,2,3,4,7,8-HxCDD       |        |      | NO  | 1.17  | 10.038 | 33.971  |       | 1.000    |       |          | 0.117  |        |
| 4  | 1,2,3,6,7,8-HxCDD       |        |      | NO  | 1.04  | 10.038 | 34.070  |       | 1.000    |       |          | 0.116  |        |
| 5  | 1,2,3,7,8,9-HxCDD       | 8.86e1 | 0.72 | YES | 1.00  | 10.038 | 34.401  | 34.38 | 1.001    | 1.000 | 0.13604  | 0.130  | 0.103  |
| 6  | 1,2,3,4,6,7,8-HpCDD     | 4.21e2 | 1.55 | YES | 0.992 | 10.038 | 37.845  | 37.85 | 1.000    | 1.000 | 0.7745   | 0.101  | 0.621  |
| 7  | OCDD                    | 2.32e3 | 0.86 | NO  | 1.04  | 10.038 | 41.093  | 41.10 | 1.000    | 1.000 | 5.2528   | 0.146  | 5.25   |
| 8  | 2,3,7,8-TCDF            | 1.09e2 | 1.64 | YES | 0.882 | 10.038 | 25.341  | 25.35 | 1.001    | 1.001 | 0.1142   | 0.117  | 0.0748 |
| 9  | 1,2,3,7,8-PeCDF         |        |      | NO  | 1.05  | 10.038 | 29.482  |       | 1.001    |       |          | 0.0701 |        |
| 10 | 2,3,4,7,8-PeCDF         |        |      | NO  | 1.06  | 10.038 | 30.397  |       | 1.001    |       |          | 0.0589 |        |
| 11 | 1,2,3,4,7,8-HxCDF       |        |      | NO  | 1.08  | 10.038 | 33.072  |       | 1.000    |       |          | 0.0496 |        |
| 12 | 1,2,3,6,7,8-HxCDF       |        |      | NO  | 1.04  | 10.038 | 33.213  |       | 1.000    |       |          | 0.0495 |        |
| 13 | 2,3,4,6,7,8-HxCDF       |        |      | NO  | 1.11  | 10.038 | 33.819  |       | 1.001    |       |          | 0.0507 |        |
| 14 | 1,2,3,7,8,9-HxCDF       |        |      | NO  | 1.06  | 10.038 | 34.740  |       | 1.000    |       |          | 0.0756 |        |
| 15 | 1,2,3,4,6,7,8-HpCDF     | 6.12e1 | 1.37 | YES | 1.13  | 10.038 | 36.609  | 36.57 | 1.001    | 1.000 | 0.082515 | 0.0307 | 0.0708 |
| 16 | 1,2,3,4,7,8,9-HpCDF     |        |      | NO  | 1.33  | 10.038 | 38.372  |       | 1.000    |       |          | 0.0743 |        |
| 17 | OCDF                    |        |      | NO  | 0.933 | 10.038 | 41.313  |       | 1.000    |       |          | 0.143  |        |
| 18 | 13C-2,3,7,8-TCDD        | 1.50e5 | 0.78 | NO  | 1.21  | 10.038 | 26.210  | 26.11 | 1.026    | 1.022 | 166.44   | 83.5   | 0.365  |
| 19 | 13C-1,2,3,7,8-PeCDD     | 1.31e5 | 0.62 | NO  | 0.996 | 10.038 | 30.706  | 30.65 | 1.202    | 1.200 | 175.97   | 88.3   | 0.353  |
| 20 | 13C-1,2,3,4,7,8-HxCDD   | 1.15e5 | 1.30 | NO  | 0.679 | 10.038 | 33.958  | 33.96 | 1.014    | 1.014 | 193.43   | 97.1   | 0.566  |
| 21 | 13C-1,2,3,6,7,8-HxCDD   | 1.32e5 | 1.31 | NO  | 0.850 | 10.038 | 34.068  | 34.07 | 1.017    | 1.017 | 177.81   | 89.2   | 0.452  |
| 22 | 13C-1,2,3,7,8,9-HxCDD   | 1.29e5 | 1.31 | NO  | 0.798 | 10.038 | 34.340  | 34.37 | 1.025    | 1.026 | 185.52   | 93.1   | 0.481  |
| 23 | 13C-1,2,3,4,6,7,8-HpCDD | 1.09e5 | 1.03 | NO  | 0.697 | 10.038 | 37.809  | 37.83 | 1.129    | 1.130 | 178.52   | 89.6   | 0.675  |
| 24 | 13C-OCDD                | 1.70e5 | 0.89 | NO  | 0.579 | 10.038 | 40.836  | 41.09 | 1.219    | 1.227 | 335.28   | 84.1   | 0.687  |
| 25 | 13C-2,3,7,8-TCDF        | 2.21e5 | 0.77 | NO  | 1.13  | 10.038 | 25.291  | 25.32 | 0.990    | 0.991 | 160.54   | 80.6   | 0.475  |
| 26 | 13C-1,2,3,7,8-PeCDF     | 2.22e5 | 1.69 | NO  | 0.996 | 10.038 | 29.524  | 29.46 | 1.156    | 1.153 | 182.19   | 91.4   | 0.406  |
| 27 | 13C-2,3,4,7,8-PeCDF     | 2.25e5 | 1.61 | NO  | 0.969 | 10.038 | 30.425  | 30.37 | 1.191    | 1.189 | 189.78   | 95.2   | 0.418  |
| 28 | 13C-1,2,3,4,7,8-HxCDF   | 1.70e5 | 0.51 | NO  | 1.06  | 10.038 | 33.087  | 33.07 | 0.988    | 0.988 | 184.23   | 92.5   | 0.610  |
| 29 | 13C-1,2,3,6,7,8-HxCDF   | 1.77e5 | 0.50 | NO  | 1.18  | 10.038 | 33.221  | 33.20 | 0.992    | 0.991 | 172.36   | 86.5   | 0.549  |
| 30 | 13C-2,3,4,6,7,8-HxCDF   | 1.66e5 | 0.51 | NO  | 1.06  | 10.038 | 33.794  | 33.78 | 1.009    | 1.009 | 179.20   | 89.9   | 0.610  |
| 31 | 13C-1,2,3,7,8,9-HxCDF   | 1.42e5 | 0.53 | NO  | 0.879 | 10.038 | 34.695  | 34.74 | 1.036    | 1.037 | 185.40   | 93.1   | 0.734  |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

Last Altered: Friday, June 05, 2020 16:10:00 Pacific Daylight Time

Printed: Friday, June 05, 2020 16:11:21 Pacific Daylight Time

Name: 200604D1\_12, Date: 04-Jun-2020, Time: 20:16:51, ID: B0E0100-DUP1 Duplicate 15.21, Description: Duplicate

| #  | Name                    | Resp   | RA   | ny | RRF   | W/W01  | 36.403 | 38.412 | 40.991 | 26.208 | 25.480 | 24.020 | 33.530 | 24.620 | 29.960 | 33.635  | 37.640 | 23.610  | 27.090 | 29.275 | 33.555 | 37.835 |
|----|-------------------------|--------|------|----|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---------|--------|--------|--------|--------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 1.31e5 | 0.43 | NO | 0.893 | 10.038 | 36.403 | 38.412 | 40.991 | 26.208 | 25.480 | 24.020 | 33.530 | 24.620 | 29.960 | 33.635  | 37.640 | 23.610  | 27.090 | 29.275 | 33.555 | 37.835 |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 1.00e5 | 0.43 | NO | 0.613 | 10.038 | 36.57  | 38.37  | 41.31  | 26.13  | 25.55  | 24.09  | 33.49  | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 34 | 13C-OCDF                | 2.03e5 | 0.87 | NO | 0.741 | 10.038 | 1.087  | 1.147  | 1.224  | 1.026  | 1.000  | 1.000  | 1.000  | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 35 | 37Cl-2,3,7,8-TCDD       | 6.30e4 |      |    | 1.18  | 10.038 | 1.092  | 1.146  | 1.234  | 1.023  | 1.000  | 1.000  | 1.000  | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 36 | 13C-1,2,3,4-TCDD        | 1.49e5 | 0.83 | NO | 1.00  | 10.038 | 168.19 | 186.98 | 313.87 | 71.374 | 199.25 | 199.25 | 199.25 | 0.000  | 0.000  | 0.86663 | 1.1664 | 0.26966 | 0.000  | 0.000  | 0.000  | 0.000  |
| 37 | 13C-1,2,3,4-TCDF        | 2.43e5 | 0.77 | NO | 1.00  | 10.038 | 84.4   | 93.8   | 78.8   | 89.6   | 100    | 100    | 100    | 0.000  | 0.000  | 0.124   | 0.191  | 0.117   | 0.0111 | 0.0273 | 0.0280 | 0.0379 |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.74e5 | 0.50 | NO | 1.00  | 10.038 | 0.653  | 0.951  | 0.432  | 0.0985 | 0.440  | 0.536  | 0.645  | 0.0796 | 0.0466 | 0.124   | 0.191  | 0.117   | 0.0111 | 0.0273 | 0.0280 | 0.0379 |
| 39 | Total Tetra-Dioxins     |        |      |    | 0.987 | 10.038 | 0.0796 | 0.0466 |        |        |        |        |        | 0.0796 | 0.0466 | 0.124   | 0.191  | 0.117   | 0.0111 | 0.0273 | 0.0280 | 0.0379 |
| 40 | Total Penta-Dioxins     |        |      |    | 0.982 | 10.038 | 0.0000 | 0.000  |        |        |        |        |        | 0.0000 | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 41 | Total Hexa-Dioxins      |        |      |    | 1.04  | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 42 | Total Hepta-Dioxins     |        |      |    | 0.992 | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 43 | Total Tetra-Furans      |        |      |    | 0.882 | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 44 | 1st Func. Penta-Furans  |        |      |    | 1.05  | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 45 | Total Penta-Furans      |        |      |    | 1.05  | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 46 | Total Hexa-Furans       |        |      |    | 1.11  | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.000  | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |
| 47 | Total Hepta-Furans      |        |      |    | 1.13  | 10.038 | 0.000  | 0.000  |        |        |        |        |        | 0.0000 | 0.000  | 0.000   | 0.000  | 0.000   | 0.000  | 0.000  | 0.000  | 0.000  |



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

Last Altered: Friday, June 05, 2020 16:10:00 Pacific Daylight Time

Printed: Friday, June 05, 2020 16:11:21 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_12, Date: 04-Jun-2020, Time: 20:16:51, ID: B0E0100-DUP1 Duplicate 15.21, Description: Duplicate

**Tetra-Dioxins**

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL     |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|--------|
| Total Tetra-Dioxins | 24.25 | 1.053e3   | 7.290e2   | 5.608e1 | 5.795e1 | 0.97 | YES | 0.000e0 | 0.00000 | 0.13789 | 0.0796 |

**Penta-Dioxins**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | n/y | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|----|

**Hexa-Dioxins**

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL    |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hexa-Dioxins | 32.45 | 3.725e3   | 3.706e3   | 1.913e2 | 1.782e2 | 1.07 | NO  | 3.695e2 | 0.56651 | 0.56651 | 0.124 |
| Total Hexa-Dioxins | 33.27 | 2.078e3   | 1.186e3   | 1.057e2 | 9.007e1 | 1.17 | NO  | 1.957e2 | 0.30011 | 0.30011 | 0.124 |
| 1,2,3,7,8,9-HxCDD  | 34.38 | 1.215e3   | 1.059e3   | 3.722e1 | 5.143e1 | 0.72 | YES | 8.865e1 | 0.00000 | 0.10319 | 0.130 |

**Hepta-Dioxins**

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC    | DL    |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hepta-Dioxins | 36.98 | 4.610e3   | 5.397e3   | 3.136e2 | 3.176e2 | 0.99 | NO  | 6.312e2 | 1.1664  | 1.1664  | 0.191 |
| 1,2,3,4,6,7,8-HpCDD | 37.85 | 4.881e3   | 2.598e3   | 2.559e2 | 1.648e2 | 1.55 | YES | 4.207e2 | 0.00000 | 0.62142 | 0.191 |

**Tetra-Furans**

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | n/y | Resp    | Conc    | EMPC     | DL    |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|----------|-------|
| Total Tetra-Furans | 20.56 | 6.850e2   | 6.210e2   | 4.477e1 | 4.663e1 | 0.96 | YES | 0.000e0 | 0.00000 | 0.084355 | 0.117 |
| Total Tetra-Furans | 21.72 | 1.542e3   | 1.728e3   | 1.185e2 | 1.454e2 | 0.82 | NO  | 2.638e2 | 0.26966 | 0.26966  | 0.117 |
| 2,3,7,8-TCDF       | 25.35 | 1.202e3   | 8.740e2   | 6.779e1 | 4.122e1 | 1.64 | YES | 1.090e2 | 0.00000 | 0.074571 | 0.117 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

Last Altered: Friday, June 05, 2020 16:10:00 Pacific Daylight Time  
Printed: Friday, June 05, 2020 16:11:21 Pacific Daylight Time

Name: 200604D1\_12, Date: 04-Jun-2020, Time: 20:16:51, ID: B0E0100-DUP1 Duplicate 15.21, Description: Duplicate

Penta-Furans function 1

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | W | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|

Penta-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | W | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|

Hexa-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | W | Resp | Conc | EMPC | DL |
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|
|------|----|-----------|-----------|---------|---------|----|---|------|------|------|----|

Hepta-Furans

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | W   | Resp    | Conc    | EMPC     | DL     |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|----------|--------|
| 1,2,3,4,6,7,8-HpCDF | 36.57 | 8.280e2   | 8.780e2   | 3.537e1 | 2.578e1 | 1.37 | YES | 6.115e1 | 0.00000 | 0.070801 | 0.0367 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

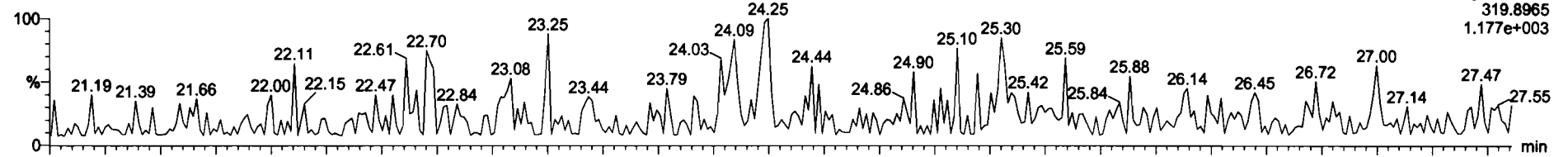
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Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

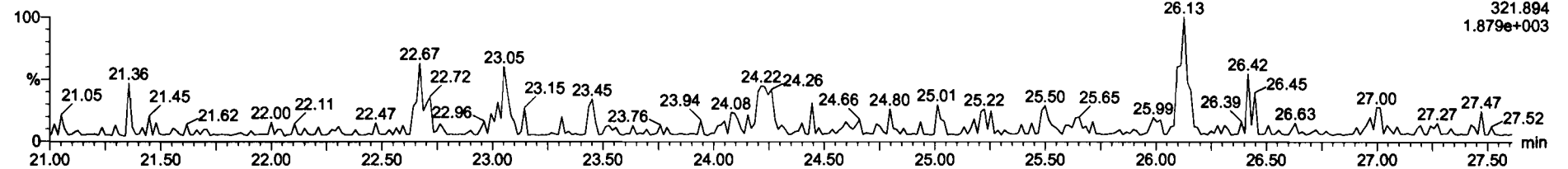
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2,3,7,8-TCDD

200604D1\_12

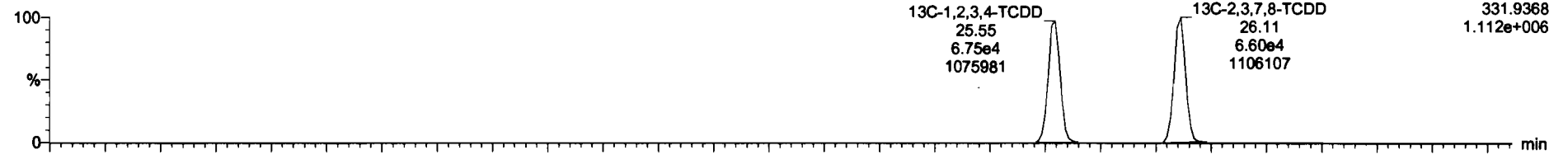


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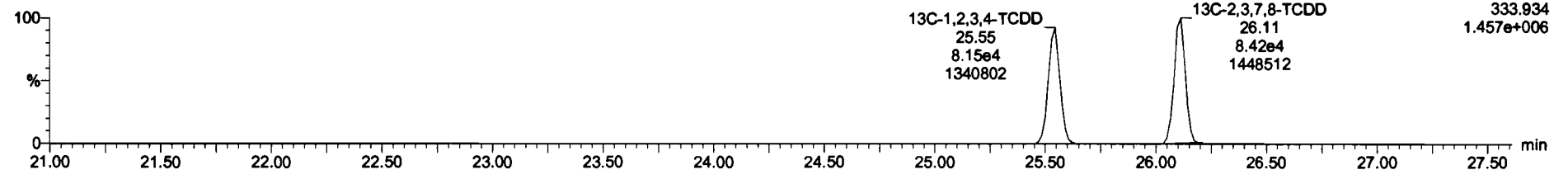


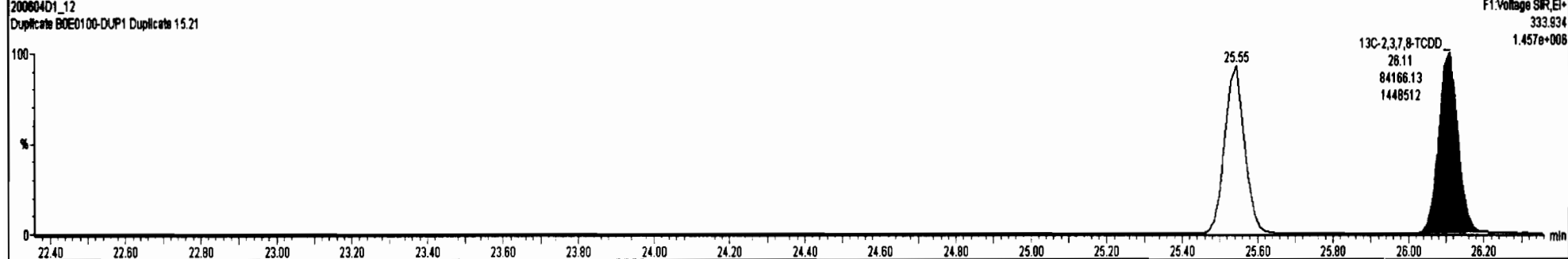
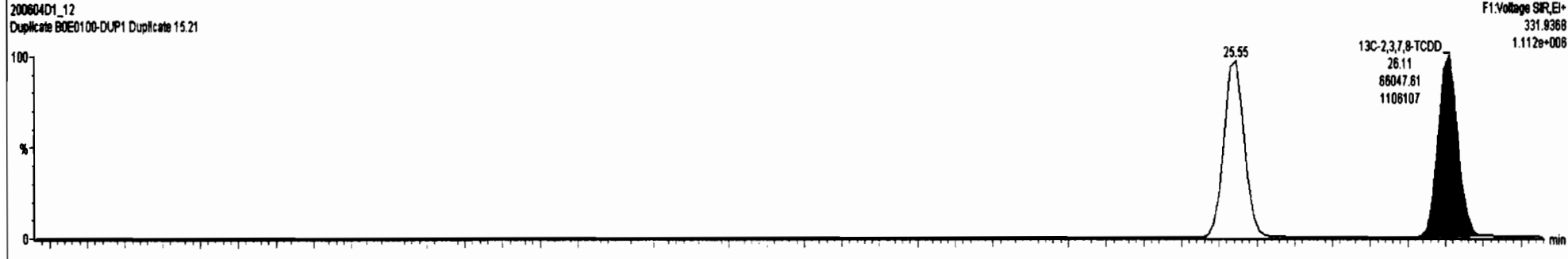
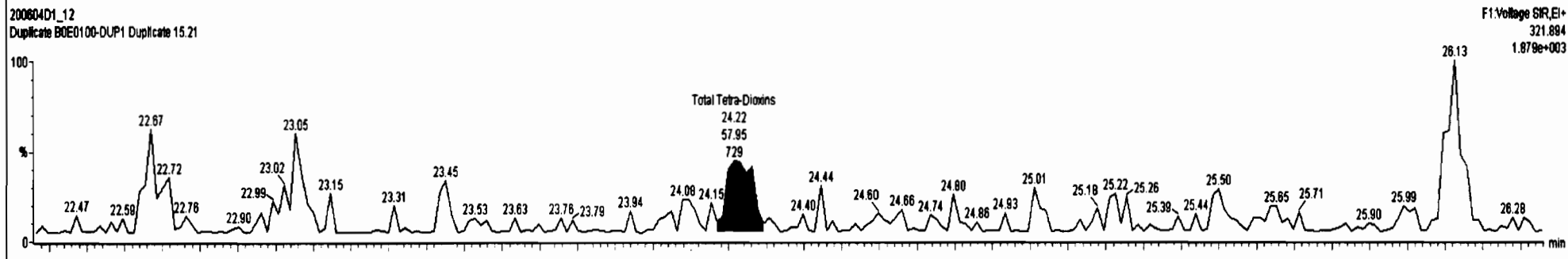
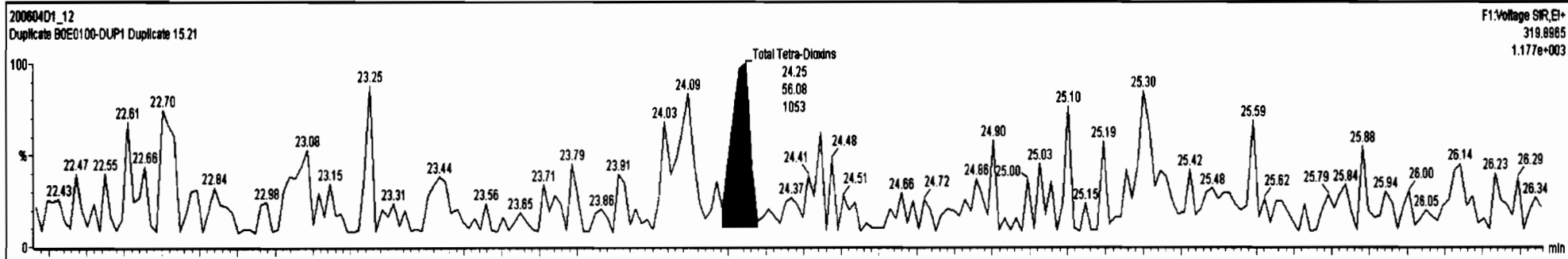
13C-2,3,7,8-TCDD

200604D1\_12



200604D1\_12



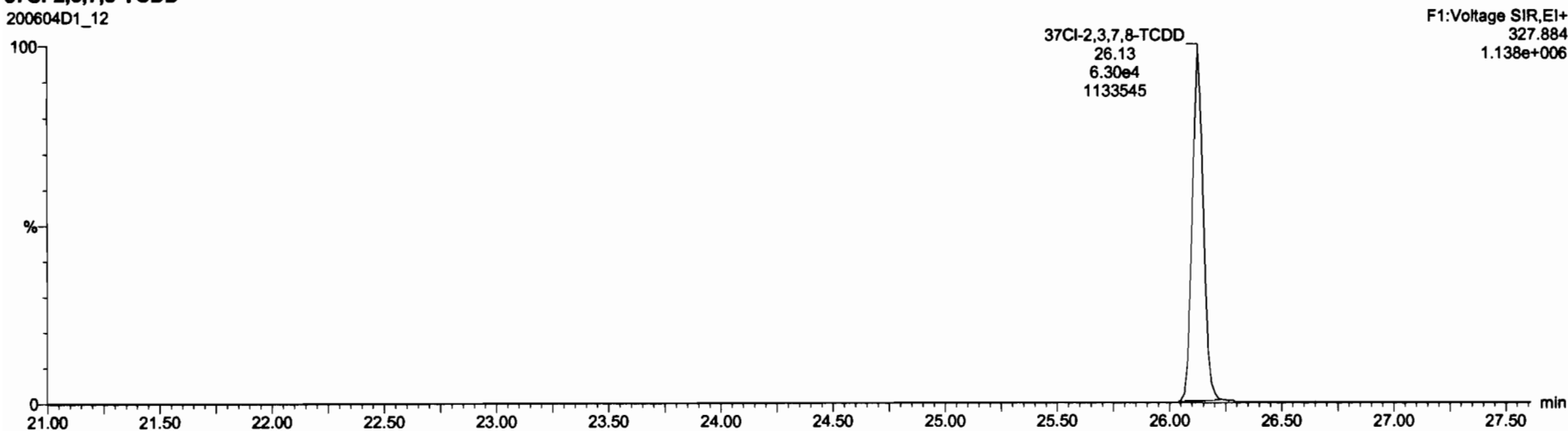


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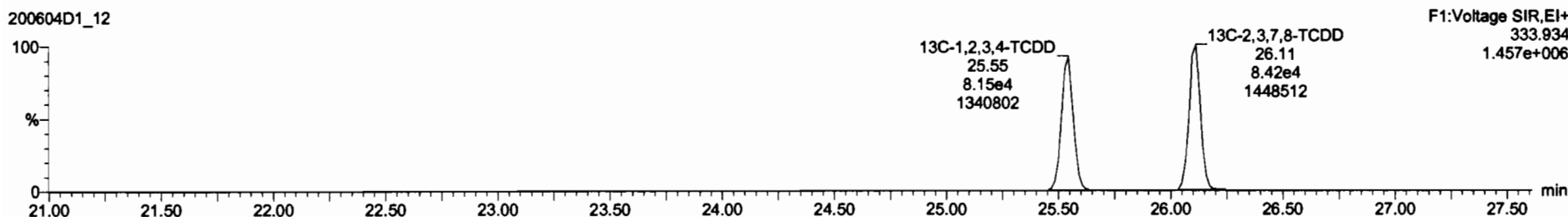
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200604D1\_12



**13C-1,2,3,4-TCDD**  
200604D1\_12



200604D1\_12



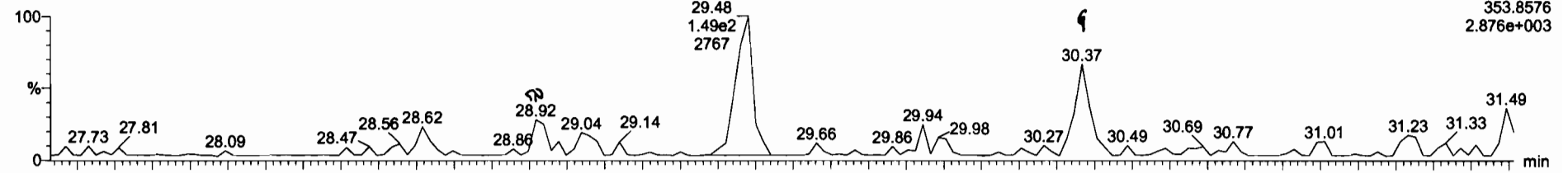
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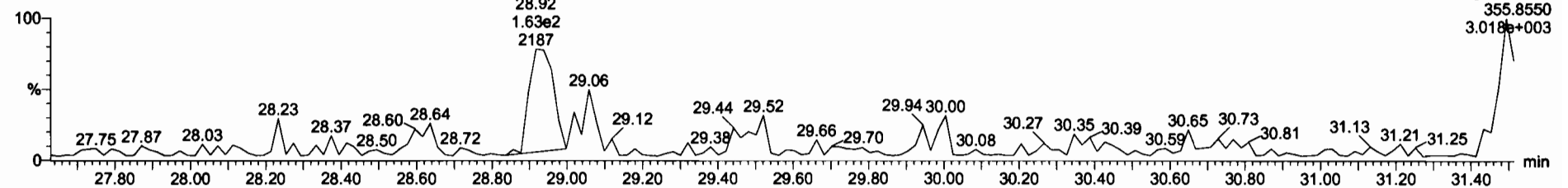
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1,2,3,7,8-PeCDD

200604D1\_12

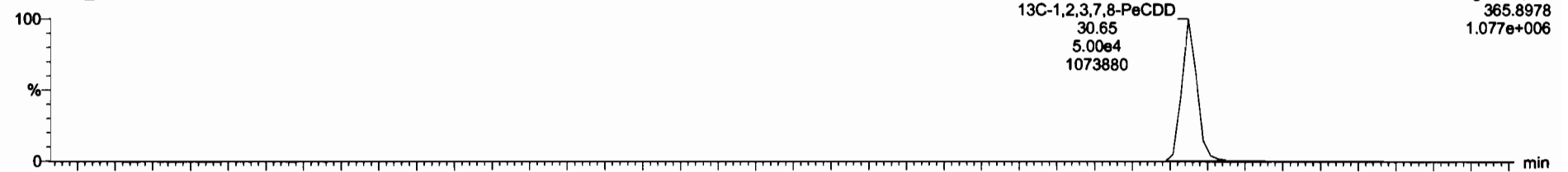


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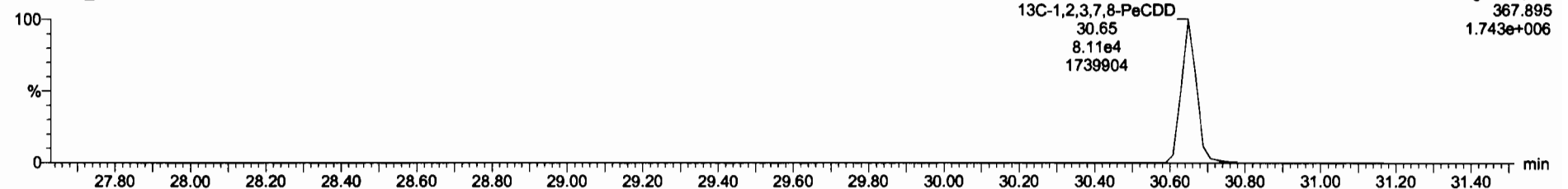


13C-1,2,3,7,8-PeCDD

200604D1\_12



200604D1\_12



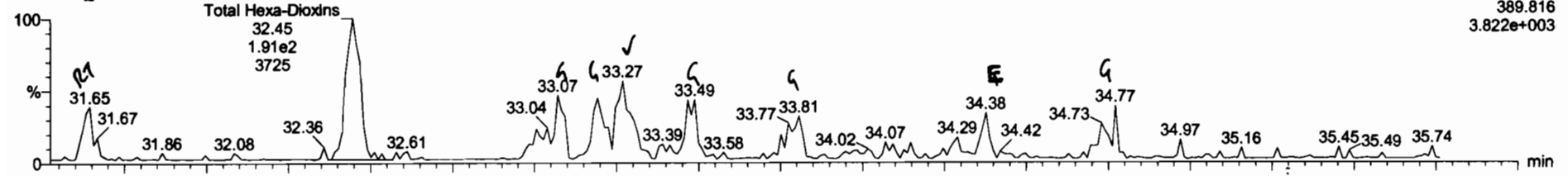
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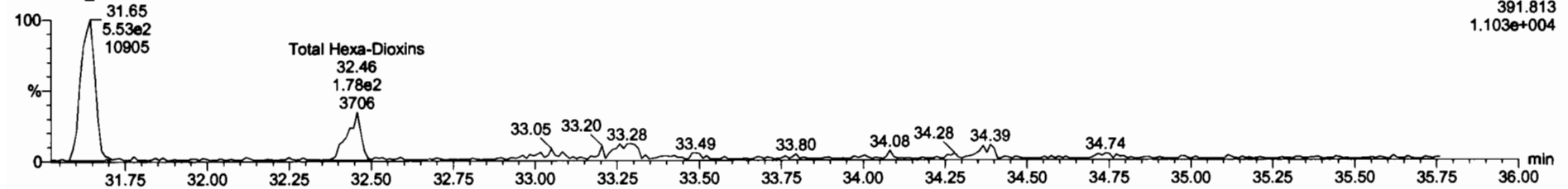
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1,2,3,4,7,8-HxCDD

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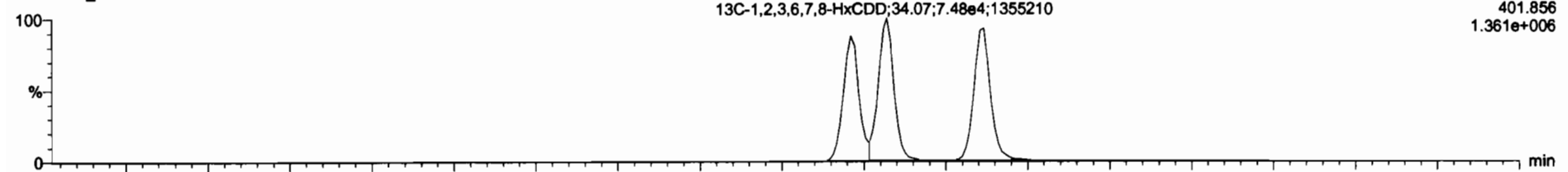


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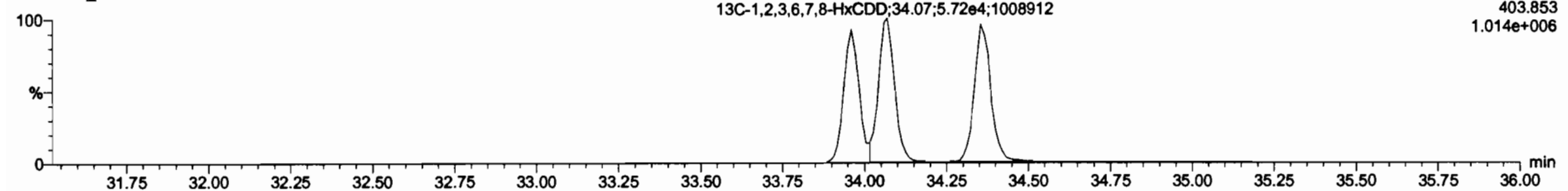


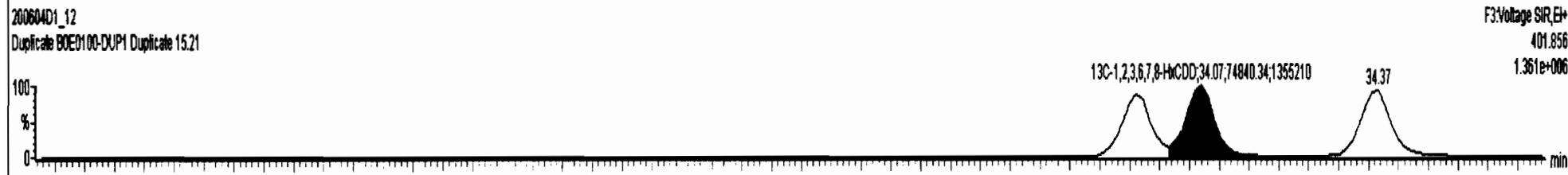
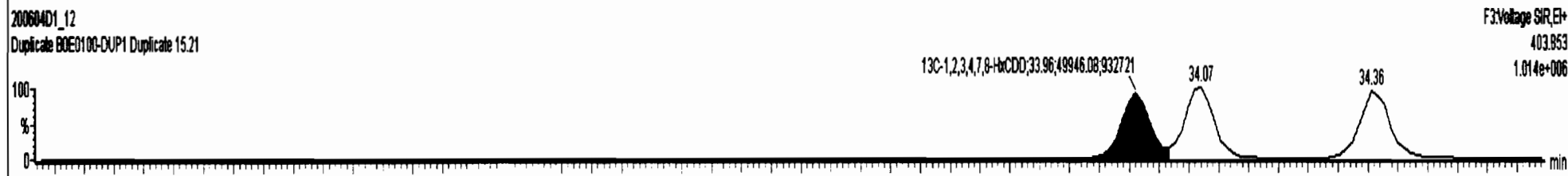
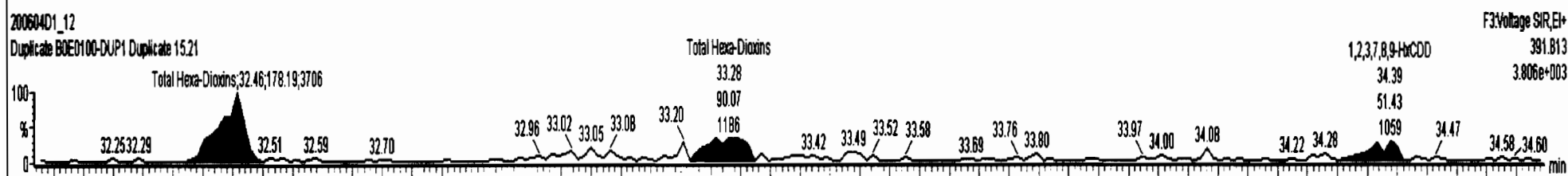
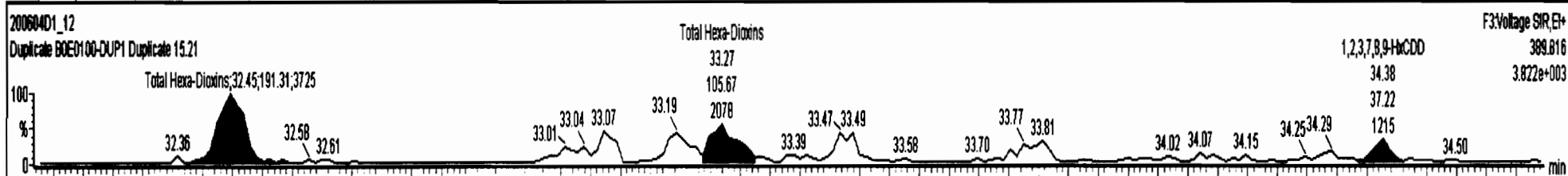
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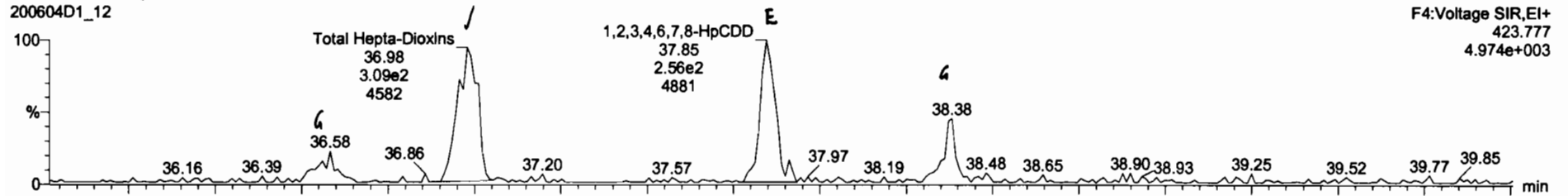
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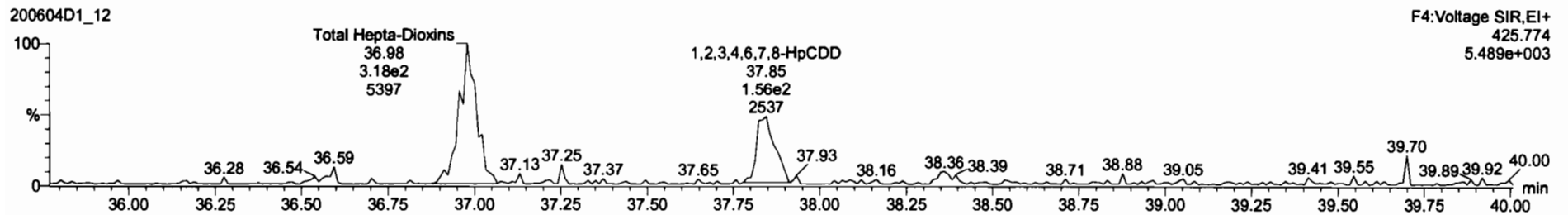
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1,2,3,4,6,7,8-HpCDD

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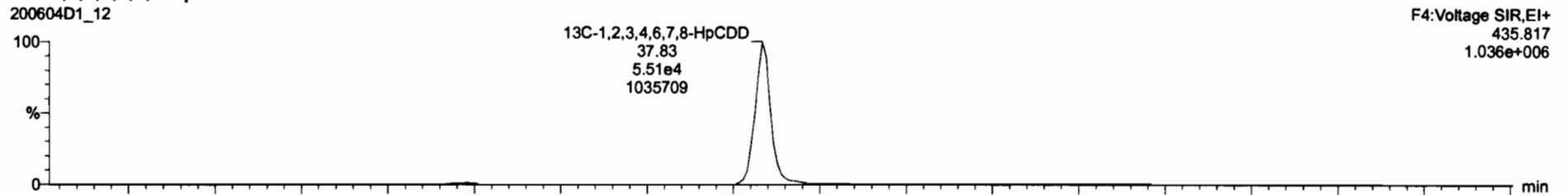


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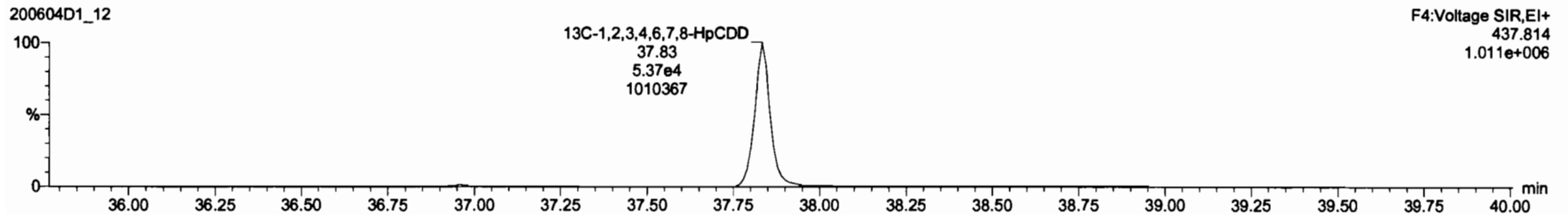


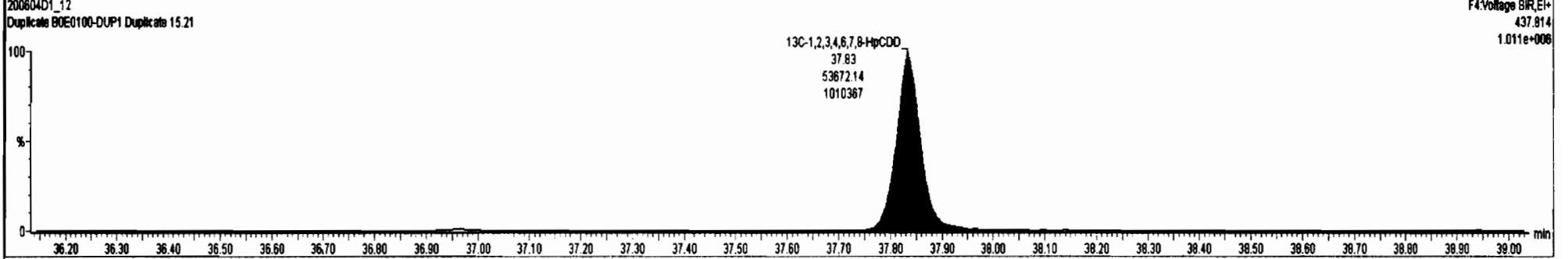
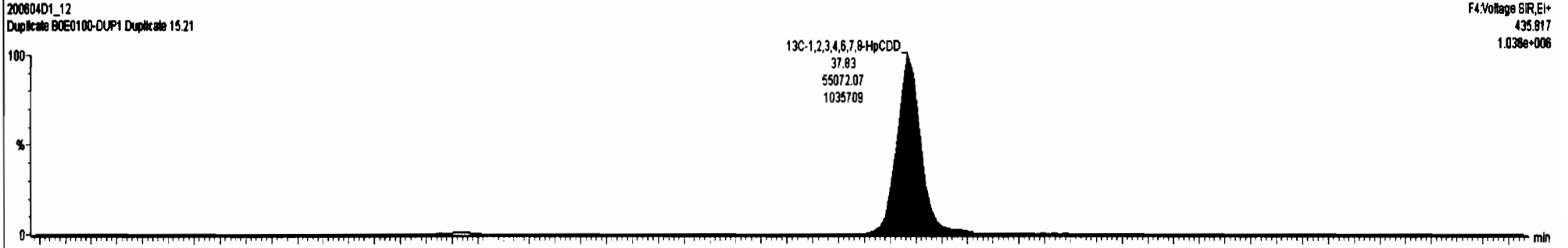
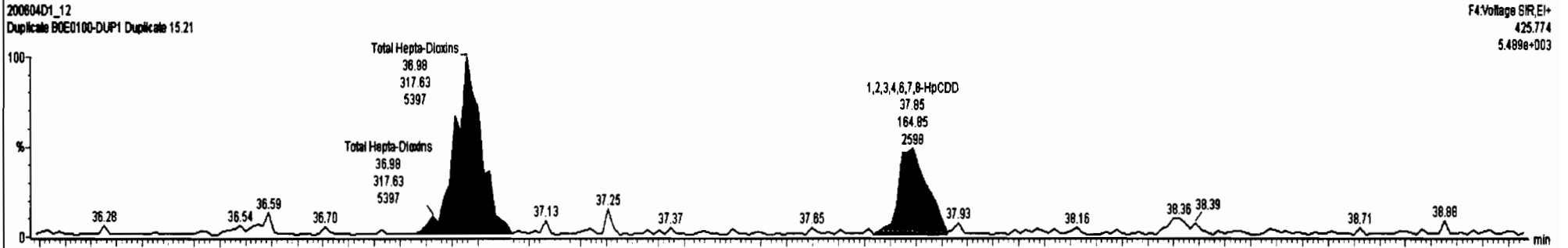
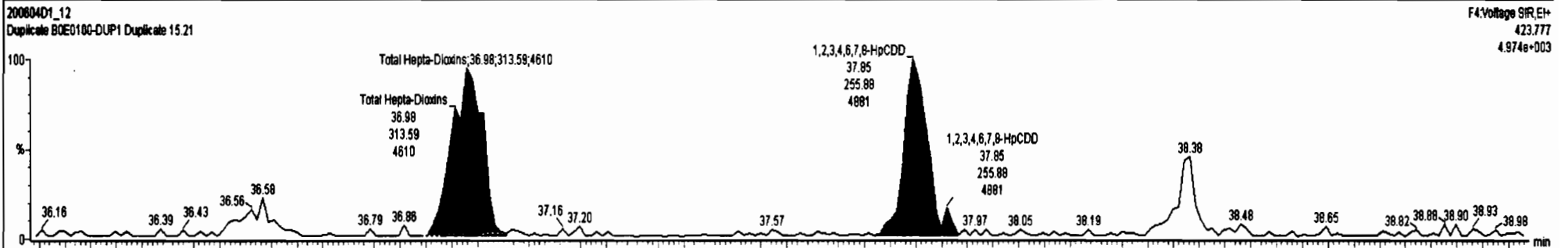
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200604D1\_12



200604D1\_12





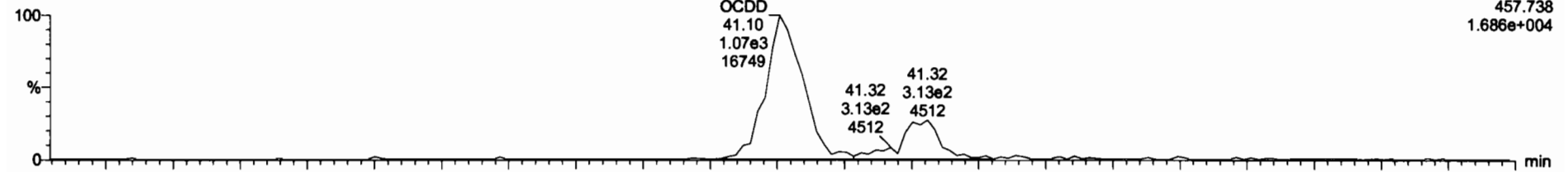
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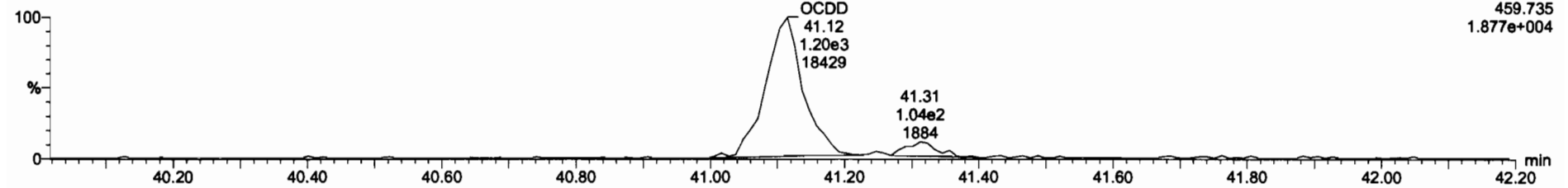
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**OCDD**

200604D1\_12

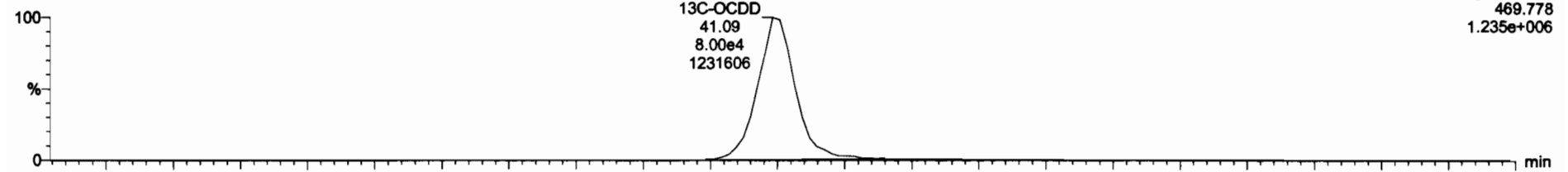


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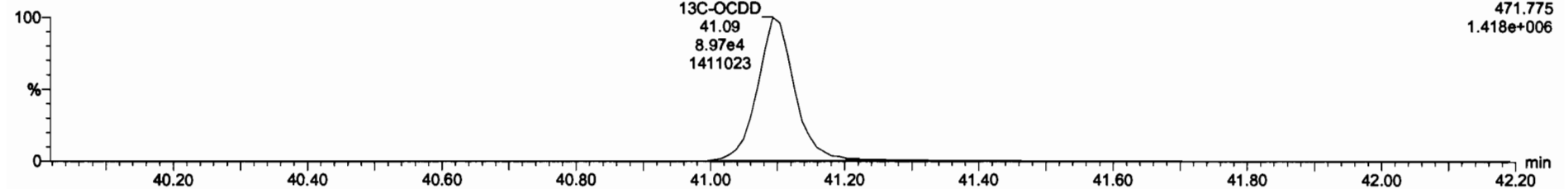


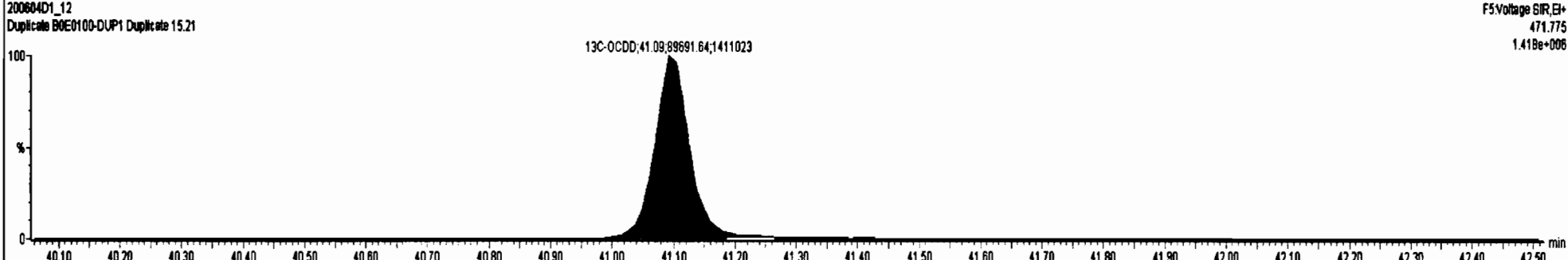
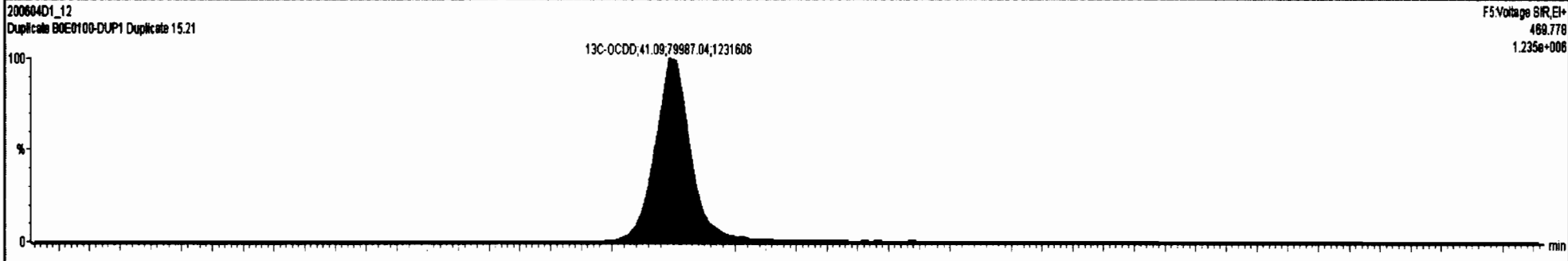
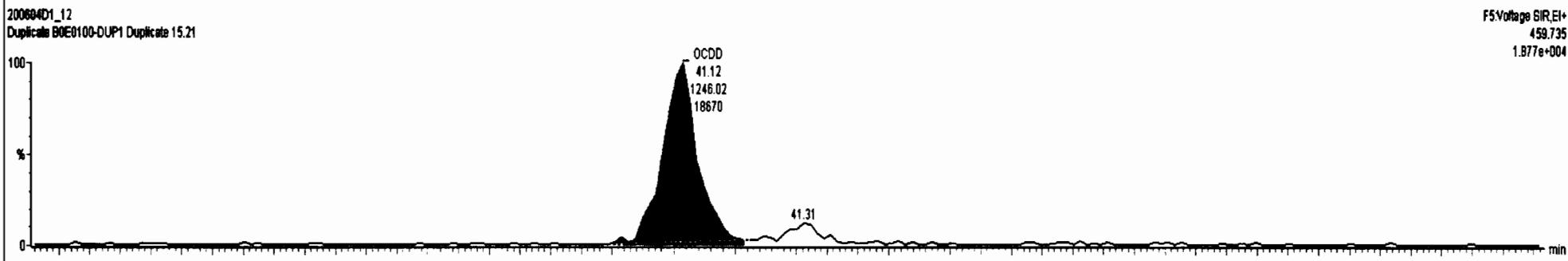
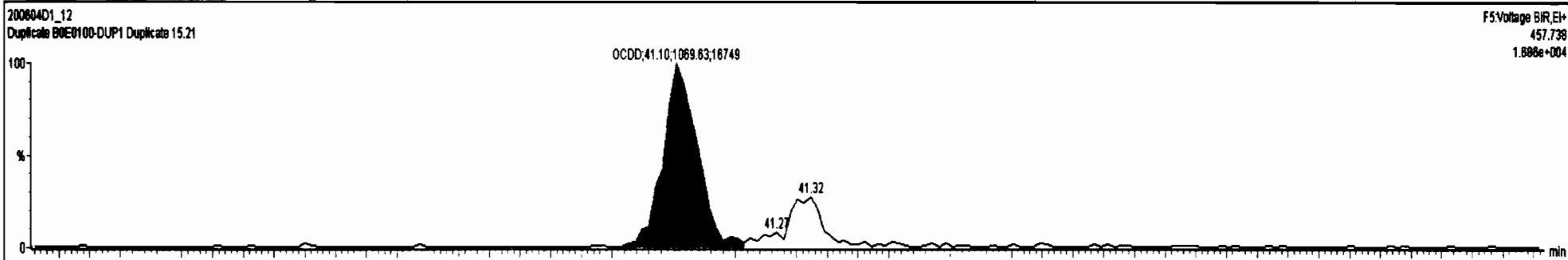
**13C-OCDD**

200604D1\_12



200604D1\_12



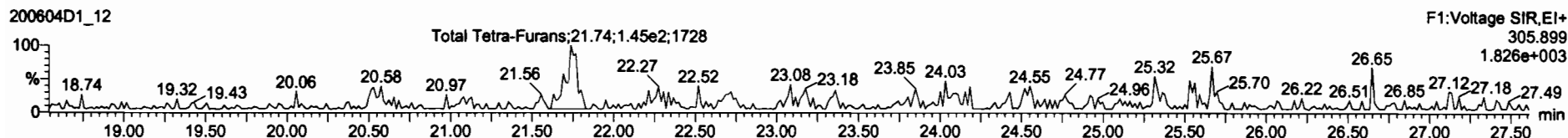
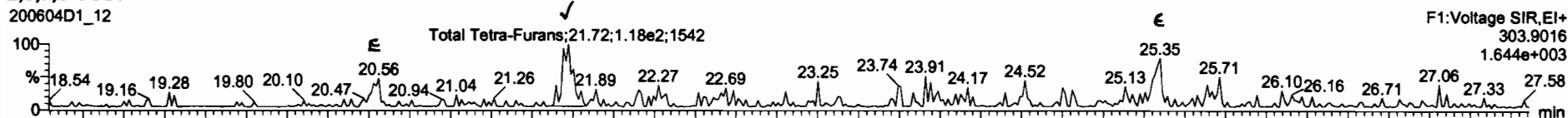


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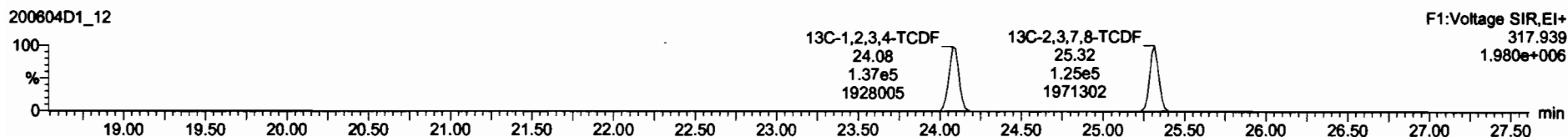
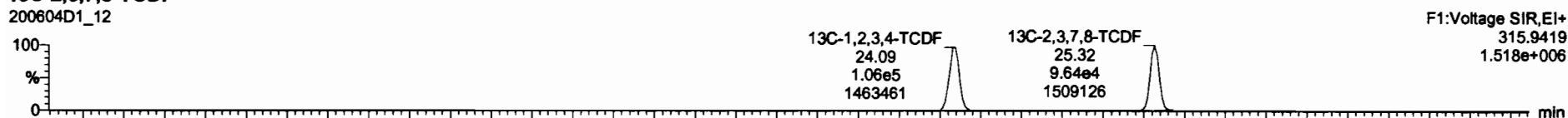
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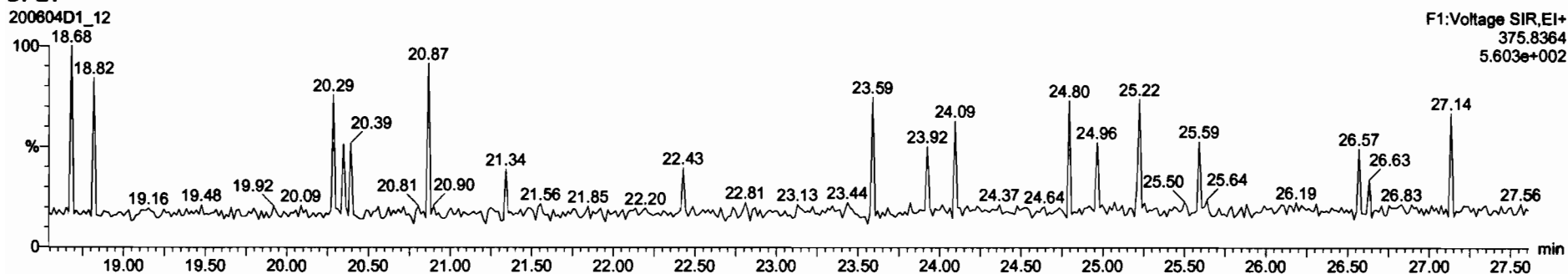
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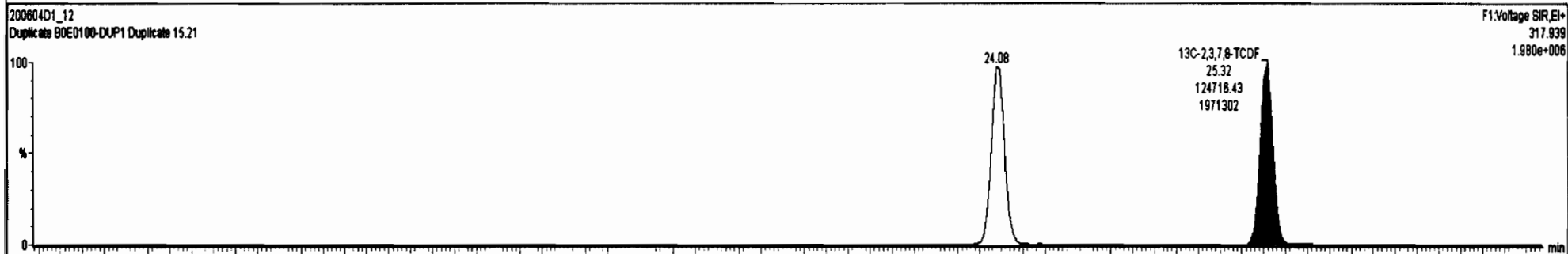
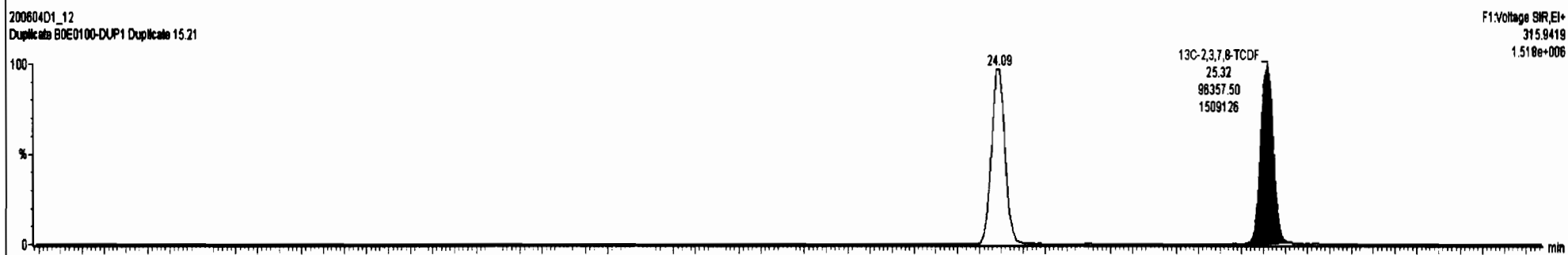
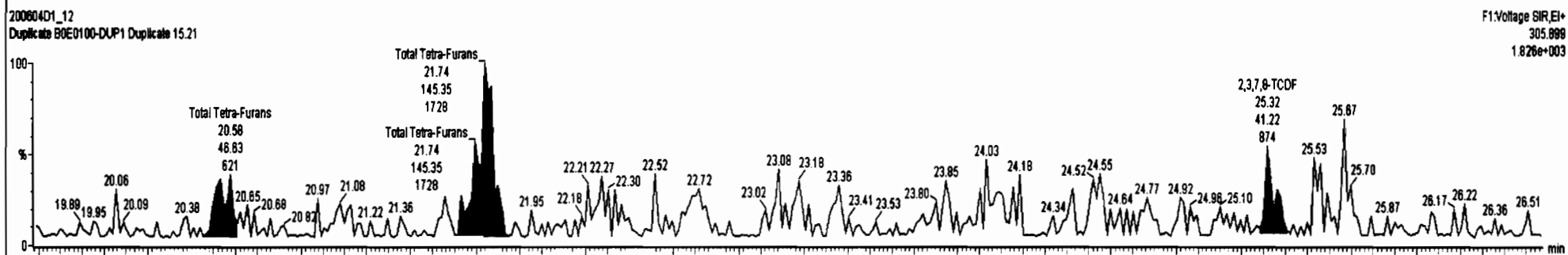
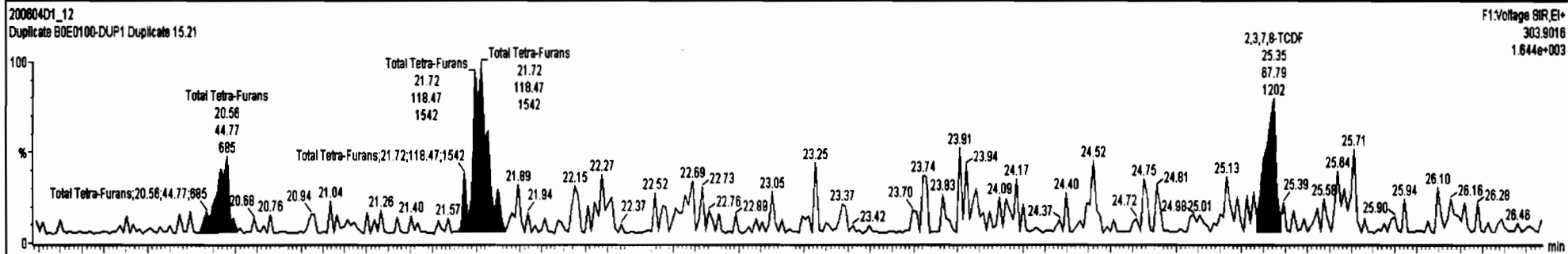


**13C-2,3,7,8-TCDF**



**DPE1**





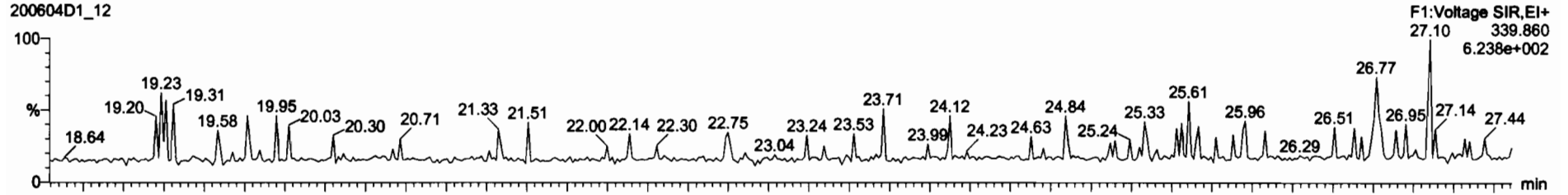
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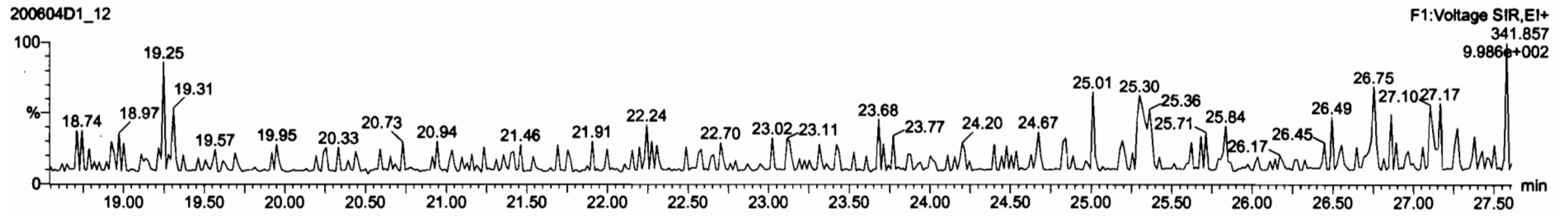
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1st Func. Penta-Furans

200604D1\_12

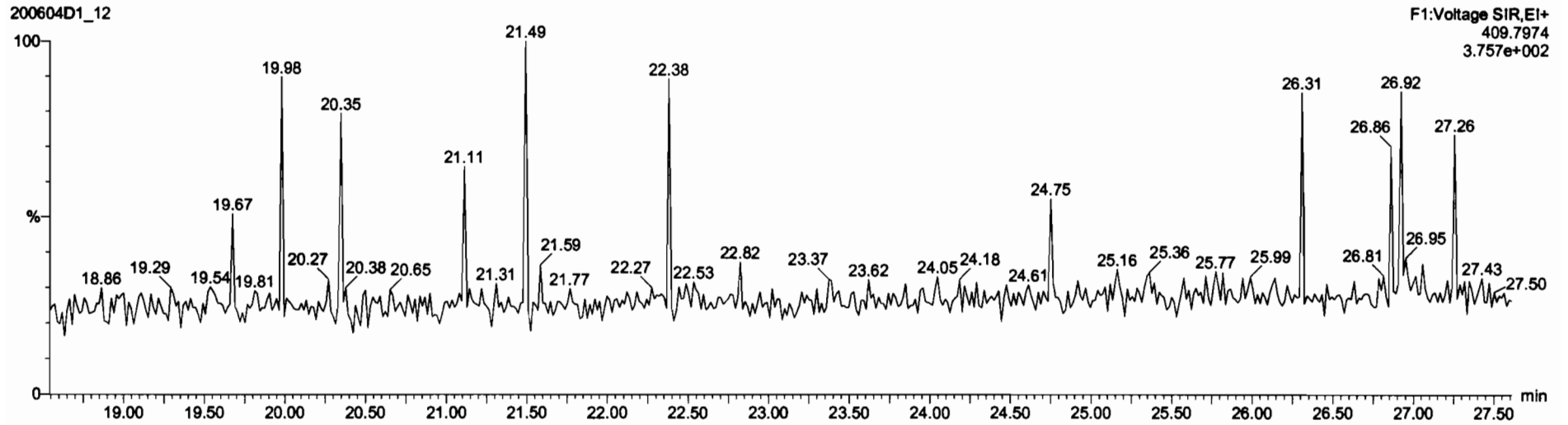


200604D1\_12



DPE6

200604D1\_12



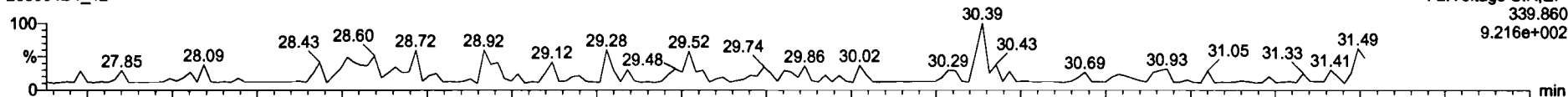
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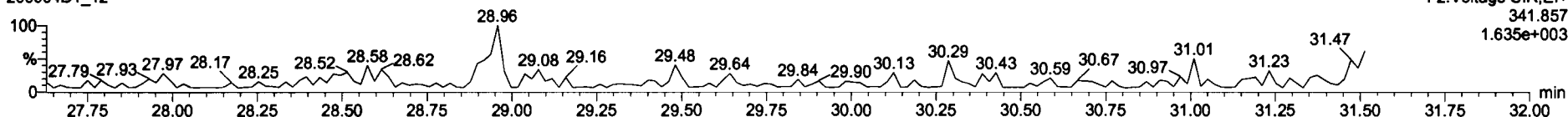
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**1,2,3,7,8-PeCDF**

200604D1\_12

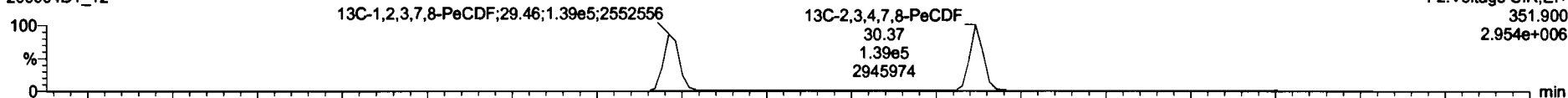


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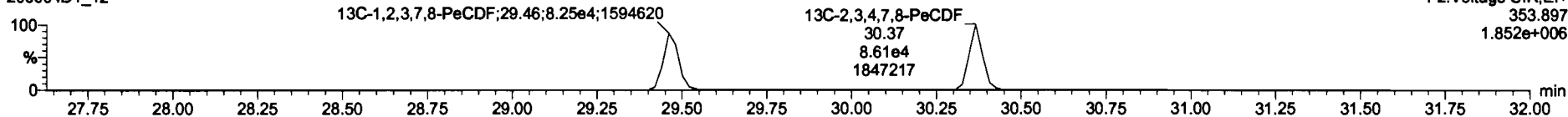


**13C-1,2,3,7,8-PeCDF**

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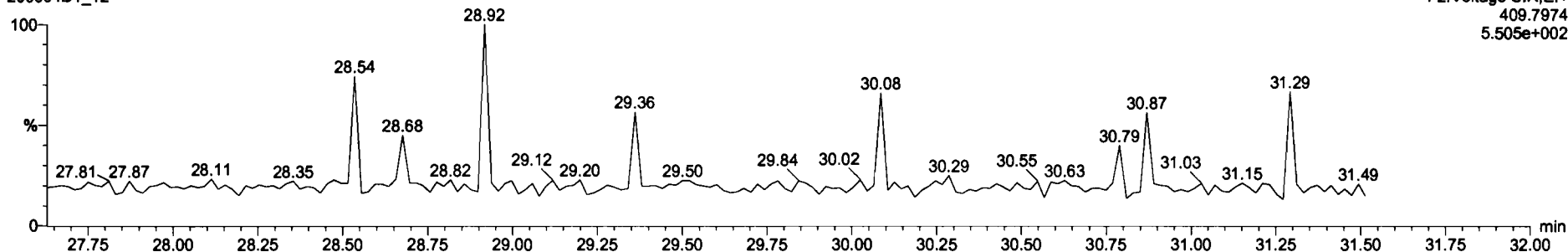


200604D1\_12



**DPE2**

200604D1\_12





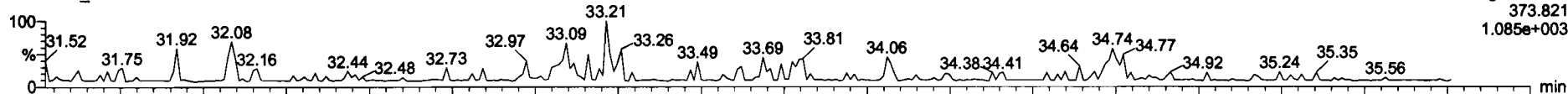
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Printed: Friday, June 05, 2020 09:45:33 Pacific Daylight Time

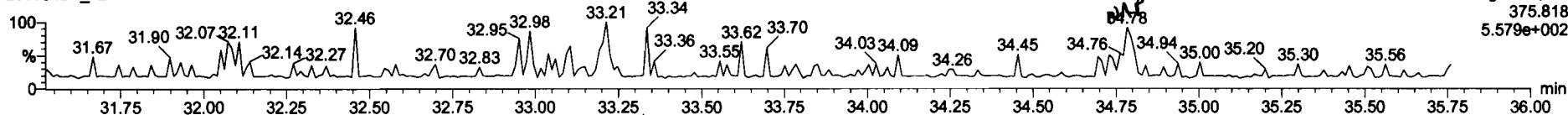
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**1,2,3,4,7,8-HxCDF**

200604D1\_12

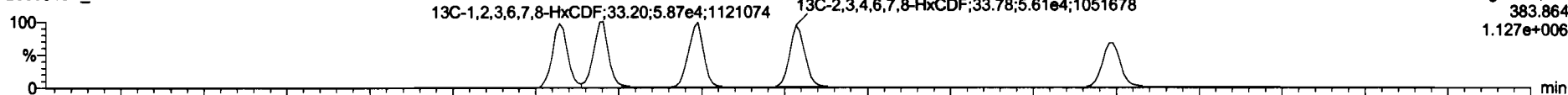


200604D1\_12

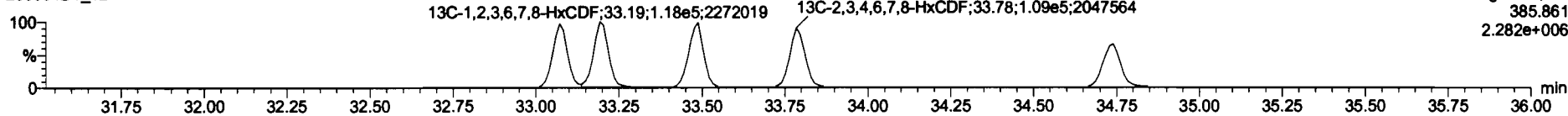


**13C-1,2,3,4,7,8-HxCDF**

200604D1\_12

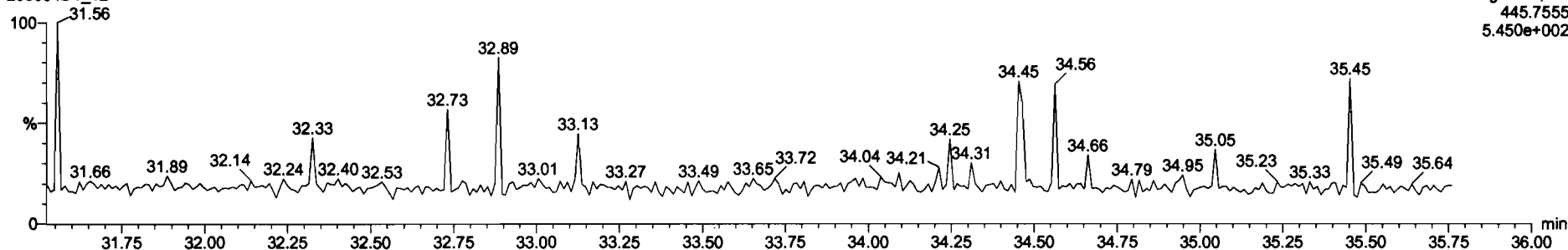


200604D1\_12



**DPE3**

200604D1\_12



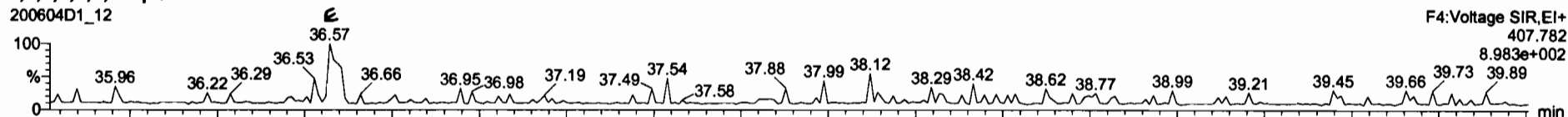
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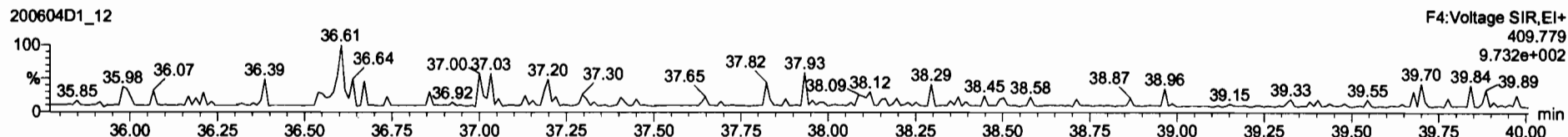
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1,2,3,4,6,7,8-HpCDF

200604D1\_12

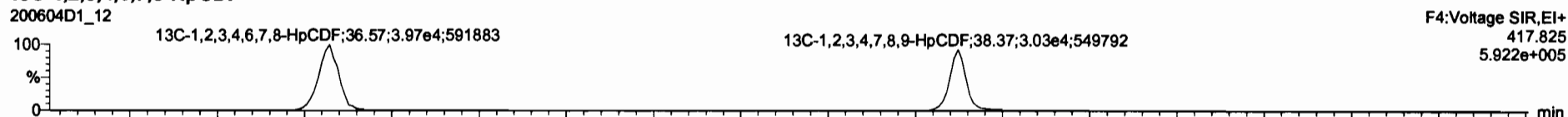


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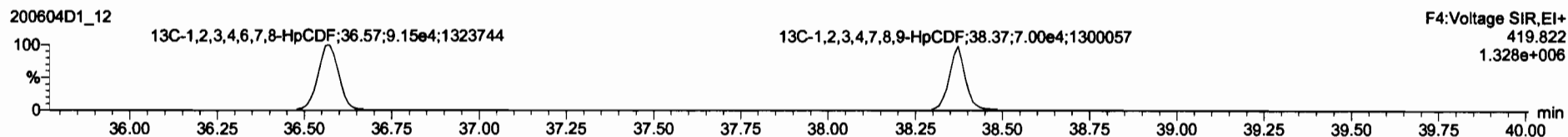


13C-1,2,3,4,6,7,8-HpCDF

200604D1\_12

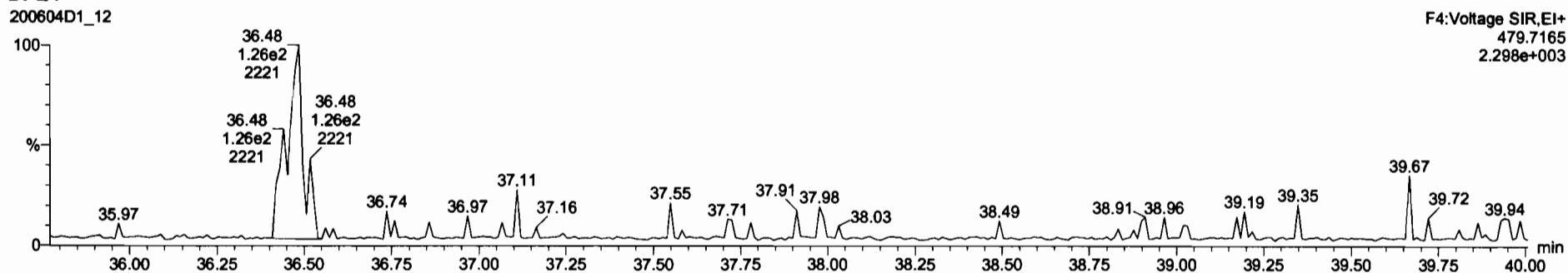


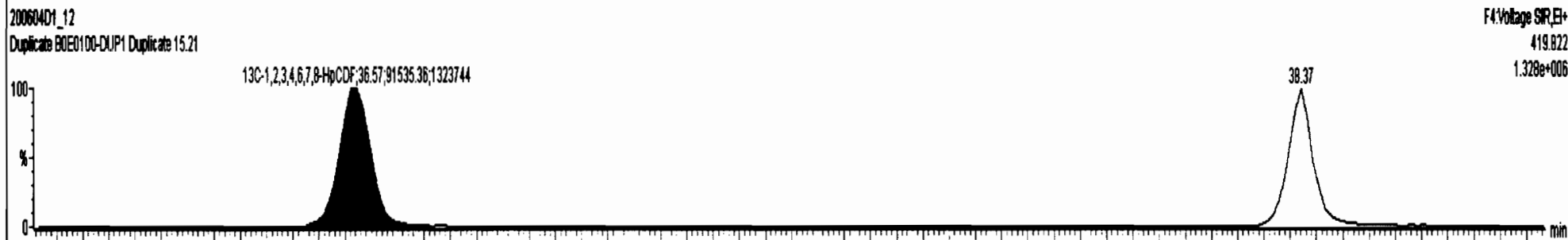
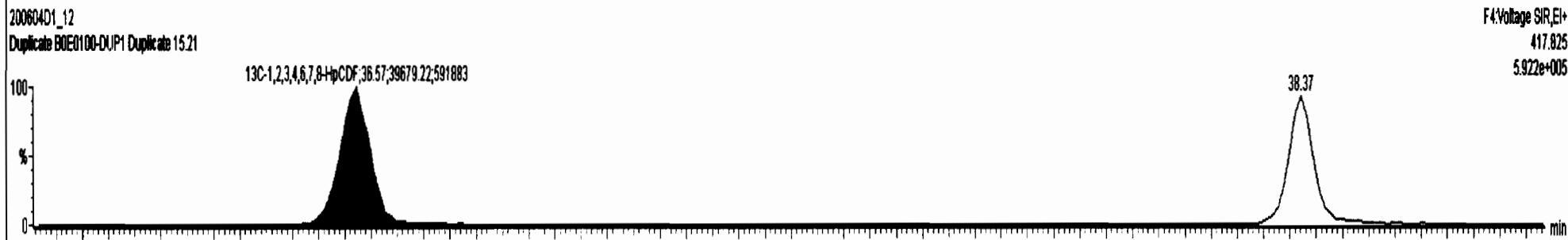
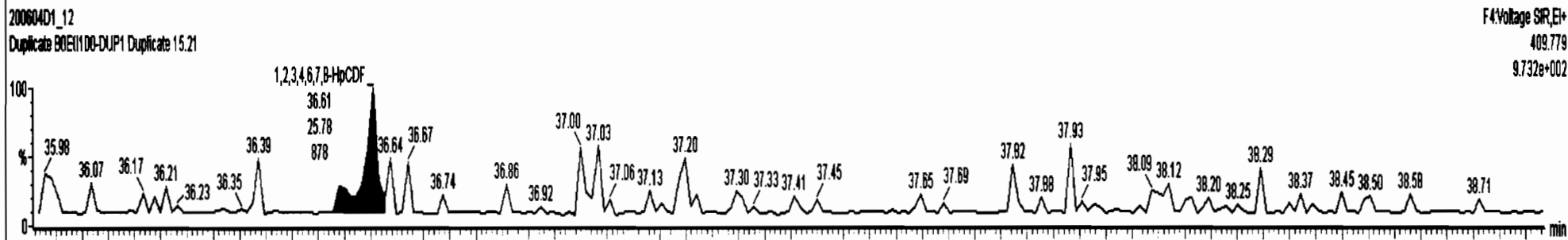
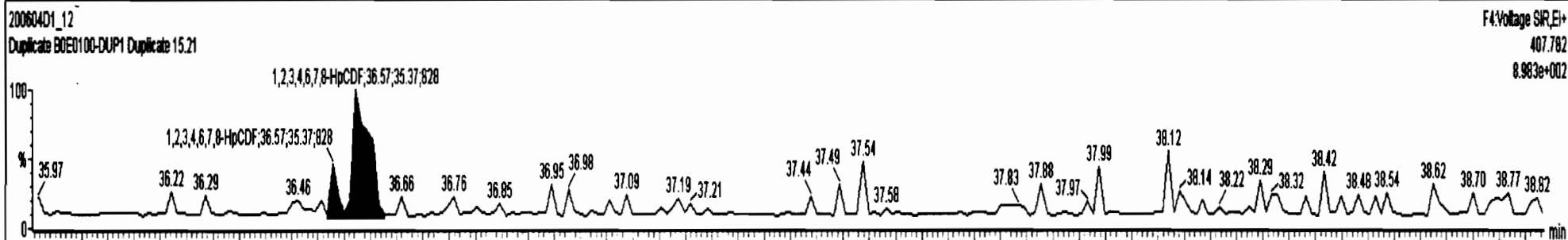
200604D1\_12



DPE4

200604D1\_12





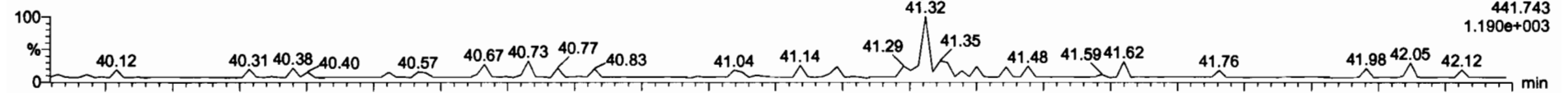
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Printed: Friday, June 05, 2020 09:45:33 Pacific Daylight Time

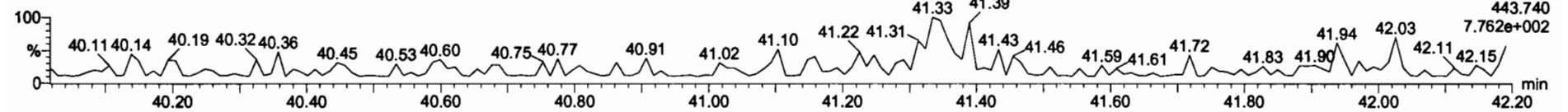
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**OCDF**

200604D1\_12

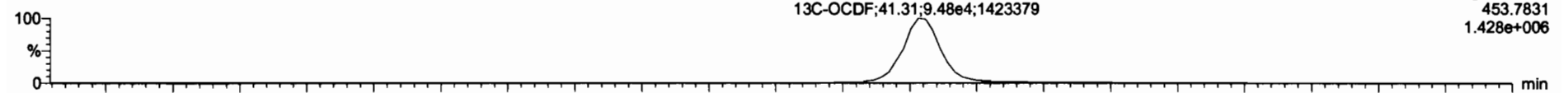


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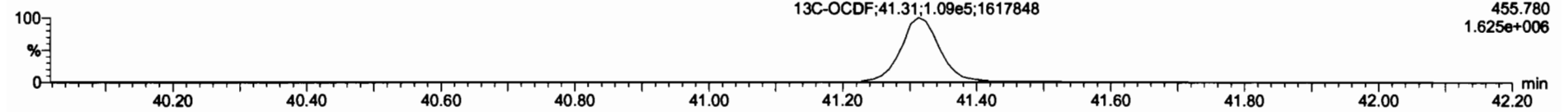


**13C-OCDF**

200604D1\_12

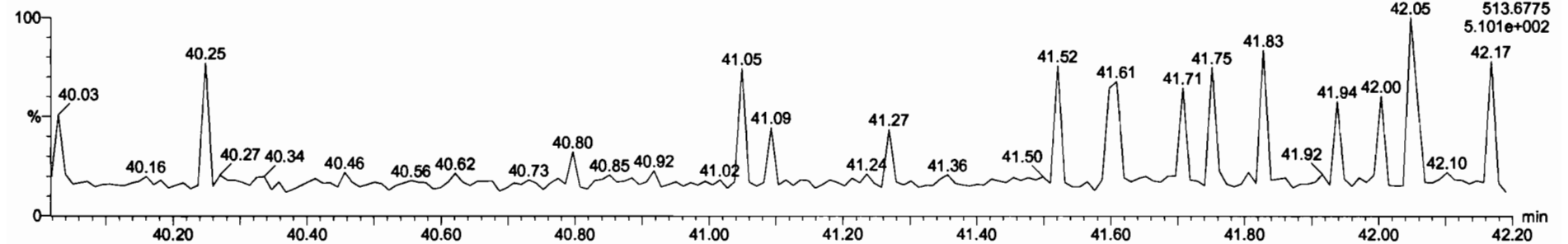


200604D1\_12



**DPES**

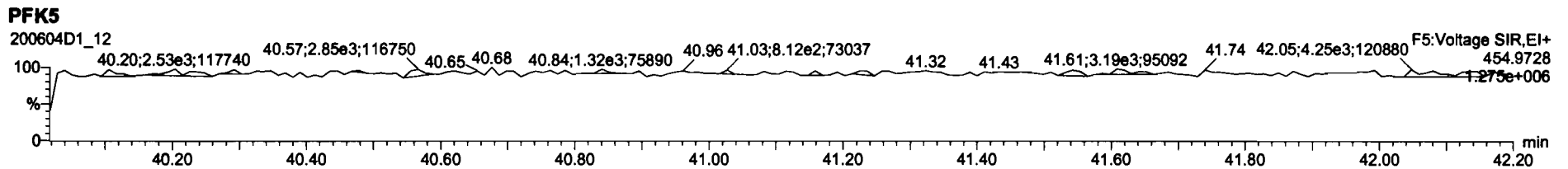
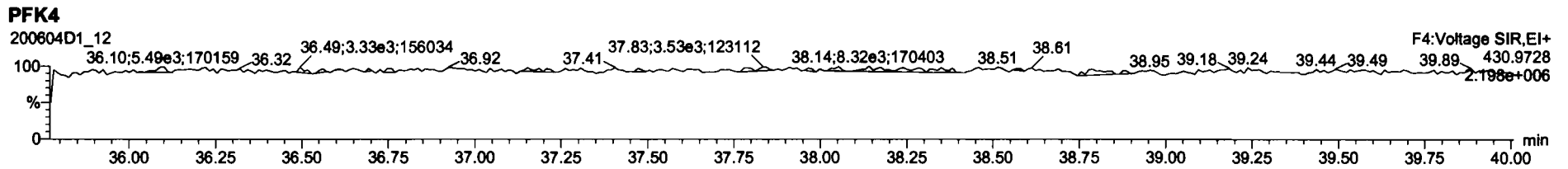
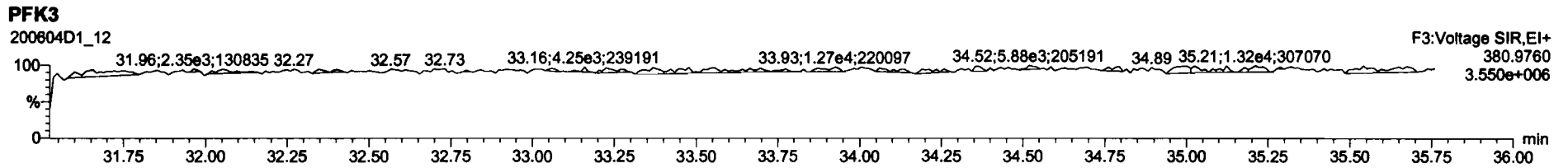
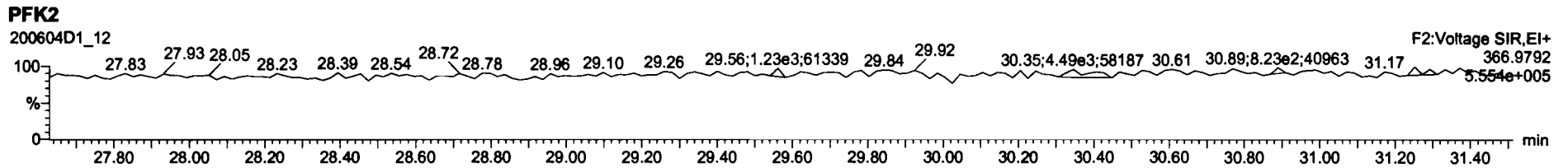
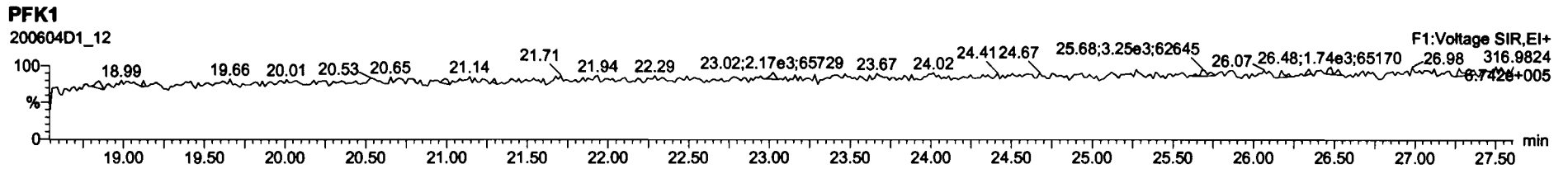
200604D1\_12



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_12.qld

Last Altered: Friday, June 05, 2020 09:38:25 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:45:33 Pacific Daylight Time

Name: 200604D1\_12, Date: 04-Jun-2020, Time: 20:16:51, ID: B0E0100-DUP1 Duplicate 15.21, Description: Duplicate



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld

Last Altered: Friday, June 05, 2020 16:17:24 Pacific Daylight Time  
Printed: Friday, June 05, 2020 16:19:07 Pacific Daylight Time

*DB 6/5/20 CT 06/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

| #  | Name                    | Resp   | RA   | n/y | RRF   | w/Vol  | Pred RT | RT    | MSD | RT    | RRF   | Area    | Yield  |       |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|-----|-------|-------|---------|--------|-------|
| 1  | 2,3,7,8-TCDD            |        |      | NO  | 0.987 | 10.040 | 26.127  |       |     | 1.001 |       |         | 0.140  |       |
| 2  | 1,2,3,7,8-PeCDD         |        |      | NO  | 0.982 | 10.040 | 30.669  |       |     | 1.001 |       |         | 0.111  |       |
| 3  | 1,2,3,4,7,8-HxCDD       |        |      | NO  | 1.17  | 10.040 | 33.960  |       |     | 1.000 |       |         | 0.128  |       |
| 4  | 1,2,3,6,7,8-HxCDD       |        |      | NO  | 1.04  | 10.040 | 34.059  |       |     | 1.000 |       |         | 0.125  |       |
| 5  | 1,2,3,7,8,9-HxCDD       |        |      | NO  | 1.00  | 10.040 | 34.379  |       |     | 1.001 |       |         | 0.126  |       |
| 6  | 1,2,3,4,6,7,8-HpCDD     | 2.01e2 | 0.91 | NO  | 0.992 | 10.040 | 37.834  | 37.86 |     | 1.000 | 1.001 | 0.40280 | 0.181  | 0.403 |
| 7  | OCDD                    | 2.00e3 | 0.95 | NO  | 1.04  | 10.040 | 41.082  | 41.10 |     | 1.000 | 1.001 | 4.3148  | 0.124  | 4.31  |
| 8  | 2,3,7,8-TCDF            |        |      | NO  | 0.882 | 10.040 | 25.326  |       |     | 1.001 |       |         | 0.0939 |       |
| 9  | 1,2,3,7,8-PeCDF         |        |      | NO  | 1.05  | 10.040 | 29.482  |       |     | 1.001 |       |         | 0.0646 |       |
| 10 | 2,3,4,7,8-PeCDF         |        |      | NO  | 1.06  | 10.040 | 30.377  |       |     | 1.001 |       |         | 0.0736 |       |
| 11 | 1,2,3,4,7,8-HxCDF       |        |      | NO  | 1.08  | 10.040 | 33.061  |       |     | 1.000 |       |         | 0.0490 |       |
| 12 | 1,2,3,6,7,8-HxCDF       |        |      | NO  | 1.04  | 10.040 | 33.203  |       |     | 1.000 |       |         | 0.0512 |       |
| 13 | 2,3,4,6,7,8-HxCDF       |        |      | NO  | 1.11  | 10.040 | 33.808  |       |     | 1.001 |       |         | 0.0542 |       |
| 14 | 1,2,3,7,8,9-HxCDF       |        |      | NO  | 1.06  | 10.040 | 34.718  |       |     | 1.000 |       |         | 0.0752 |       |
| 15 | 1,2,3,4,6,7,8-HpCDF     |        |      | NO  | 1.13  | 10.040 | 36.587  |       |     | 1.001 |       |         | 0.0701 |       |
| 16 | 1,2,3,4,7,8,9-HpCDF     |        |      | NO  | 1.33  | 10.040 | 38.350  |       |     | 1.000 |       |         | 0.0682 |       |
| 17 | OCDF                    |        |      | NO  | 0.933 | 10.040 | 41.301  |       |     | 1.000 |       |         | 0.142  |       |
| 18 | 13C-2,3,7,8-TCDD        | 1.29e5 | 0.78 | NO  | 1.21  | 10.040 | 26.194  | 26.10 |     | 1.026 | 1.022 | 139.07  | 69.8   | 0.376 |
| 19 | 13C-1,2,3,7,8-PeCDD     | 1.09e5 | 0.62 | NO  | 0.996 | 10.040 | 30.687  | 30.65 |     | 1.202 | 1.200 | 143.37  | 72.0   | 0.269 |
| 20 | 13C-1,2,3,4,7,8-HxCDD   | 9.61e4 | 1.24 | NO  | 0.679 | 10.040 | 33.936  | 33.95 |     | 1.014 | 1.014 | 163.23  | 81.9   | 0.554 |
| 21 | 13C-1,2,3,6,7,8-HxCDD   | 1.14e5 | 1.32 | NO  | 0.850 | 10.040 | 34.046  | 34.06 |     | 1.017 | 1.018 | 154.82  | 77.7   | 0.443 |
| 22 | 13C-1,2,3,7,8,9-HxCDD   | 1.22e5 | 1.25 | NO  | 0.798 | 10.040 | 34.317  | 34.35 |     | 1.025 | 1.026 | 176.04  | 88.4   | 0.471 |
| 23 | 13C-1,2,3,4,6,7,8-HpCDD | 1.00e5 | 1.06 | NO  | 0.697 | 10.040 | 37.784  | 37.82 |     | 1.129 | 1.130 | 166.19  | 83.4   | 0.705 |
| 24 | 13C-OCDD                | 1.78e5 | 0.89 | NO  | 0.579 | 10.040 | 40.810  | 41.08 |     | 1.219 | 1.228 | 355.19  | 89.2   | 0.725 |
| 25 | 13C-2,3,7,8-TCDF        | 1.78e5 | 0.73 | NO  | 1.13  | 10.040 | 25.275  | 25.30 |     | 0.990 | 0.991 | 121.71  | 61.1   | 0.419 |
| 26 | 13C-1,2,3,7,8-PeCDF     | 1.86e5 | 1.63 | NO  | 0.996 | 10.040 | 29.505  | 29.46 |     | 1.156 | 1.154 | 144.36  | 72.5   | 0.482 |
| 27 | 13C-2,3,4,7,8-PeCDF     | 1.81e5 | 1.64 | NO  | 0.969 | 10.040 | 30.406  | 30.35 |     | 1.191 | 1.189 | 144.31  | 72.4   | 0.495 |
| 28 | 13C-1,2,3,4,7,8-HxCDF   | 1.50e5 | 0.51 | NO  | 1.06  | 10.040 | 33.065  | 33.06 |     | 0.988 | 0.988 | 163.13  | 81.9   | 0.611 |
| 29 | 13C-1,2,3,6,7,8-HxCDF   | 1.60e5 | 0.50 | NO  | 1.18  | 10.040 | 33.199  | 33.19 |     | 0.992 | 0.992 | 157.01  | 78.8   | 0.550 |
| 30 | 13C-2,3,4,6,7,8-HxCDF   | 1.53e5 | 0.53 | NO  | 1.06  | 10.040 | 33.772  | 33.77 |     | 1.009 | 1.009 | 166.61  | 83.6   | 0.611 |
| 31 | 13C-1,2,3,7,8,9-HxCDF   | 1.28e5 | 0.54 | NO  | 0.879 | 10.040 | 34.672  | 34.72 |     | 1.036 | 1.037 | 167.86  | 84.3   | 0.735 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld

Last Altered: Friday, June 05, 2020 16:17:24 Pacific Daylight Time  
Printed: Friday, June 05, 2020 16:19:07 Pacific Daylight Time

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

| Comp                       | Resp   | RA   | n/y | RRF   | w/vol  | Conc   | Conc  | Conc  | Conc  | Conc    | Conc | Conc   | Conc   |
|----------------------------|--------|------|-----|-------|--------|--------|-------|-------|-------|---------|------|--------|--------|
| 32 13C-1,2,3,4,6,7,8-HpCDF | 1.28e5 | 0.42 | NO  | 0.893 | 10.040 | 36.379 | 36.55 | 1.087 | 1.092 | 165.84  | 83.3 | 0.568  |        |
| 33 13C-1,2,3,4,7,8,9-HpCDF | 9.40e4 | 0.42 | NO  | 0.613 | 10.040 | 38.387 | 38.35 | 1.147 | 1.146 | 178.69  | 88.7 | 0.826  |        |
| 34 13C-OCDF                | 2.09e5 | 0.87 | NO  | 0.741 | 10.040 | 40.964 | 41.30 | 1.224 | 1.234 | 325.43  | 81.7 | 0.470  |        |
| 35 37Cl-2,3,7,8-TCDD       | 5.16e4 |      |     | 1.18  | 10.040 | 26.191 | 26.11 | 1.026 | 1.023 | 57.051  | 71.6 | 0.0778 |        |
| 36 13C-1,2,3,4-TCDD        | 1.53e5 | 0.81 | NO  | 1.00  | 10.040 | 25.480 | 25.53 | 1.000 | 1.000 | 199.20  | 100  | 0.453  |        |
| 37 13C-1,2,3,4-TCDF        | 2.58e5 | 0.81 | NO  | 1.00  | 10.040 | 24.020 | 24.08 | 1.000 | 1.000 | 199.20  | 100  | 0.472  |        |
| 38 13C-1,2,3,4,6,9-HxCDF   | 1.73e5 | 0.51 | NO  | 1.00  | 10.040 | 33.530 | 33.47 | 1.000 | 1.000 | 199.20  | 100  | 0.646  |        |
| 39 Total Tetra-Dioxins     |        |      |     | 0.987 | 10.040 | 24.620 |       | 0.000 |       |         |      | 0.0856 |        |
| 40 Total Penta-Dioxins     |        |      |     | 0.982 | 10.040 | 29.960 |       | 0.000 |       |         |      | 0.0353 |        |
| 41 Total Hexa-Dioxins      |        |      |     | 1.04  | 10.040 | 33.635 |       | 0.000 |       | 0.33297 |      | 0.0585 | 0.333  |
| 42 Total Hepta-Dioxins     |        |      |     | 0.992 | 10.040 | 37.640 |       | 0.000 |       | 0.40280 |      | 0.181  | 1.03   |
| 43 Total Tetra-Furans      |        |      |     | 0.882 | 10.040 | 23.610 |       | 0.000 |       |         |      | 0.0391 |        |
| 44 1st Func. Penta-Furans  |        |      |     | 1.05  | 10.040 | 27.090 |       | 0.000 |       |         |      | 0.0157 |        |
| 45 Total Penta-Furans      |        |      |     | 1.05  | 10.040 | 29.275 |       | 0.000 |       | 0.00000 |      | 0.0263 | 0.0378 |
| 46 Total Hexa-Furans       |        |      |     | 1.11  | 10.040 | 33.555 |       | 0.000 |       |         |      | 0.0279 |        |
| 47 Total Hepta-Furans      |        |      |     | 1.13  | 10.040 | 37.835 |       | 0.000 |       |         |      | 0.0407 |        |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld  
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 Printed: Friday, June 05, 2020 16:19:07 Pacific Daylight Time

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 Calibration: U:\VG7.PRO\CurveDB\ldb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

**Tetra-Dioxins**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Cont | EMPA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|

**Penta-Dioxins**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Cont | EMPA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|

**Hexa-Dioxins**

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | Y/N | Resp    | Cont    | EMPA    |        |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|--------|
| Total Hexa-Dioxins | 32.45 | 2.266e3   | 2.000e3   | 1.023e2 | 8.942e1 | 1.14 | NO  | 1.917e2 | 0.33297 | 0.33297 | 0.0585 |

**Hepta-Dioxins**

| Name                | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | Y/N | Resp    | Cont    | EMPA    |       |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Hepta-Dioxins | 36.96 | 2.342e3   | 3.628e3   | 1.611e2 | 2.049e2 | 0.79 | YES | 0.000e0 | 0.00000 | 0.63192 | 0.181 |
| 1,2,3,4,6,7,8-HpCDD | 37.86 | 2.057e3   | 2.381e3   | 9.609e1 | 1.053e2 | 0.91 | NO  | 2.014e2 | 0.40280 | 0.40280 | 0.181 |

**Tetra-Furans**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Cont | EMPA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|

**Penta-Furans function 1**

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Y/N | Resp | Cont | EMPA |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|------|



Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld

Last Altered: Friday, June 05, 2020 16:17:24 Pacific Daylight Time

Printed: Friday, June 05, 2020 16:19:07 Pacific Daylight Time

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

Penta-Furans

| Name               | RT    | m1 Height | m2 Height | m1 Resp | m2 Resp | RA   | Int | Resp    | Conc    | DF       | PC     | DC |
|--------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|----------|--------|----|
| Total Penta-Furans | 28.90 | 4.470e2   | 1.047e3   | 2.212e1 | 6.892e1 | 0.32 | YES | 0.000e0 | 0.00000 | 0.037790 | 0.0263 |    |

Hexa-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Int | Resp | Conc | DF | PC | DC |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|----|----|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|----|----|----|

Hepta-Furans

| Name | RT | m1 Height | m2 Height | m1 Resp | m2 Resp | RA | Int | Resp | Conc | DF | PC | DC |
|------|----|-----------|-----------|---------|---------|----|-----|------|------|----|----|----|
|------|----|-----------|-----------|---------|---------|----|-----|------|------|----|----|----|

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Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld

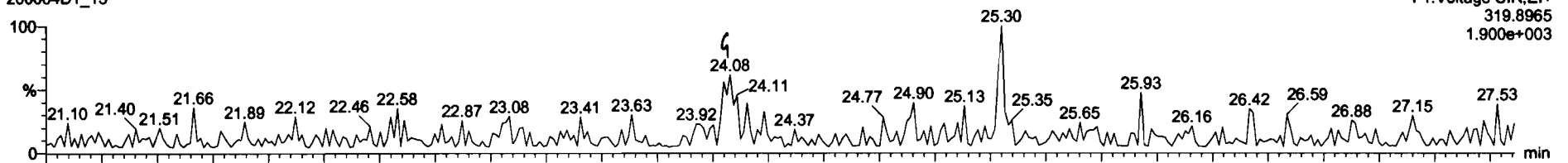
Last Altered: Friday, June 05, 2020 09:39:25 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:45:54 Pacific Daylight Time

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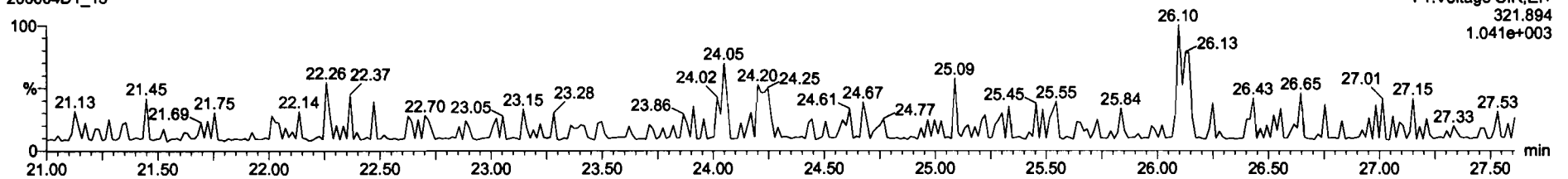
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2,3,7,8-TCDD

200604D1\_13

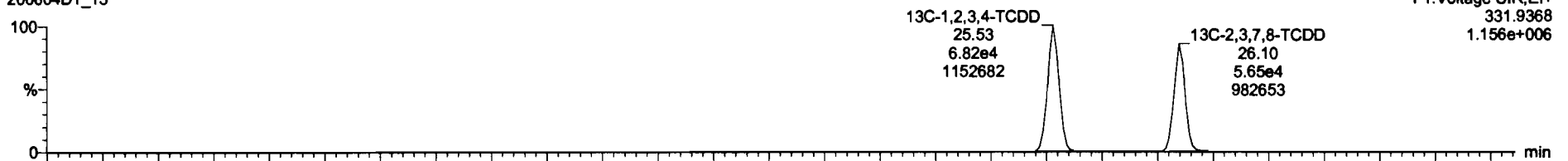


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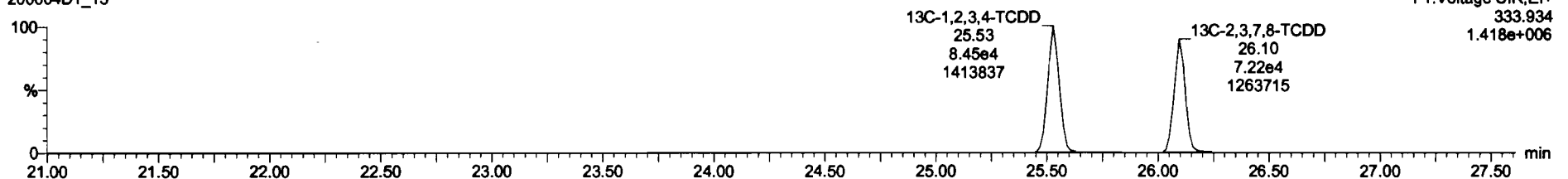


13C-2,3,7,8-TCDD

200604D1\_13



200604D1\_13

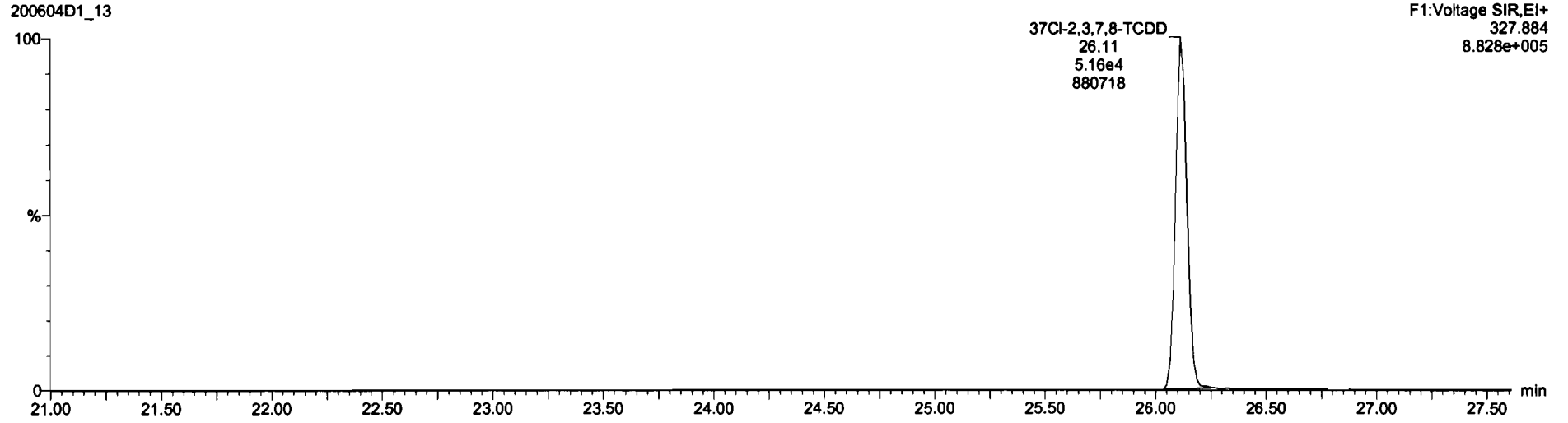


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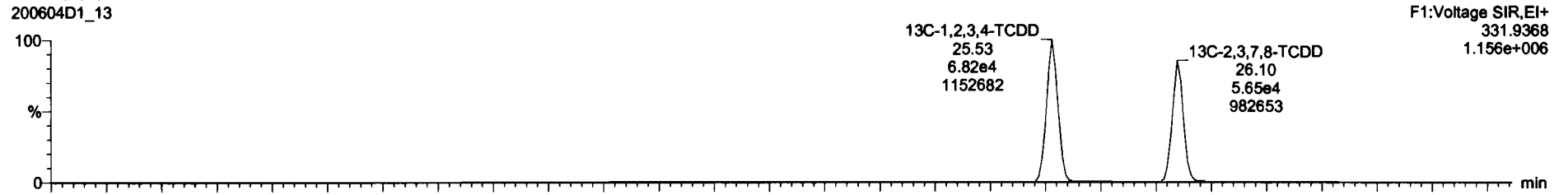
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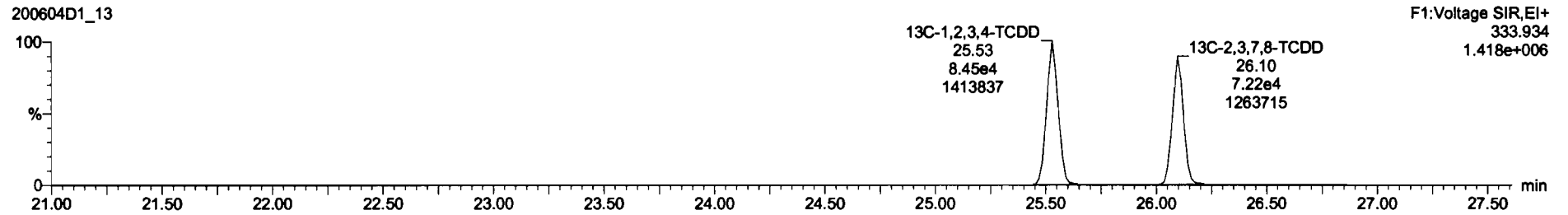
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200604D1\_13



13C-1,2,3,4-TCDD  
200604D1\_13



200604D1\_13



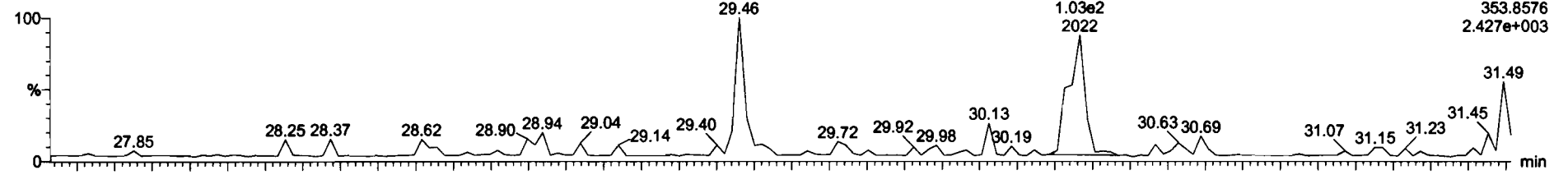
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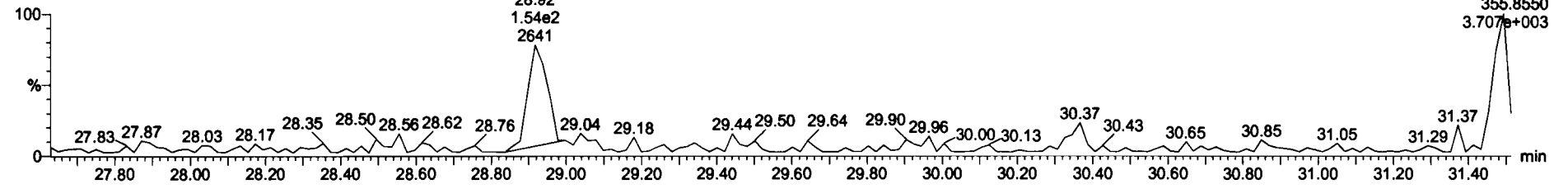
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1,2,3,7,8-PeCDD

200604D1\_13

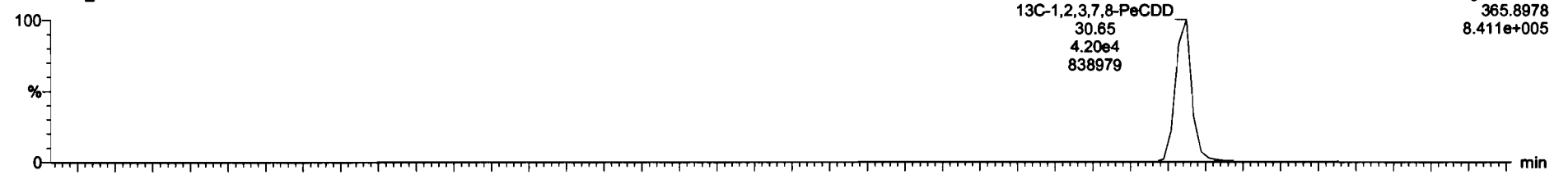


200604D1\_13

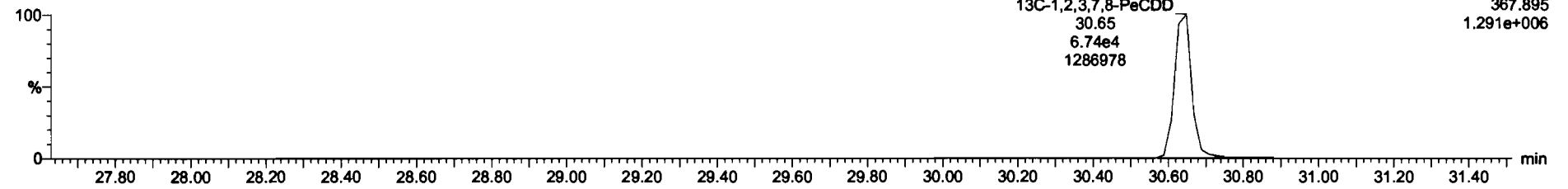


13C-1,2,3,7,8-PeCDD

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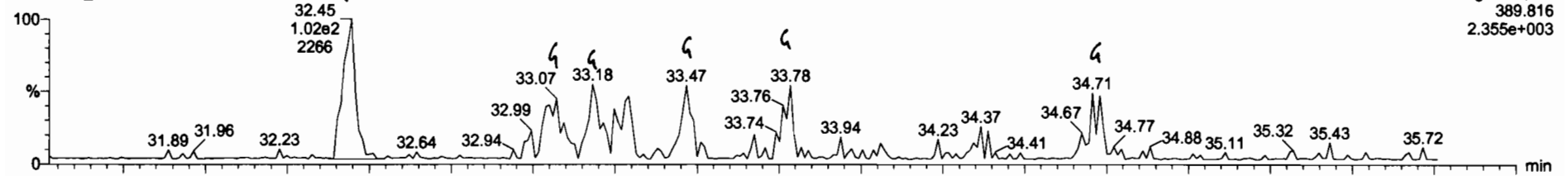
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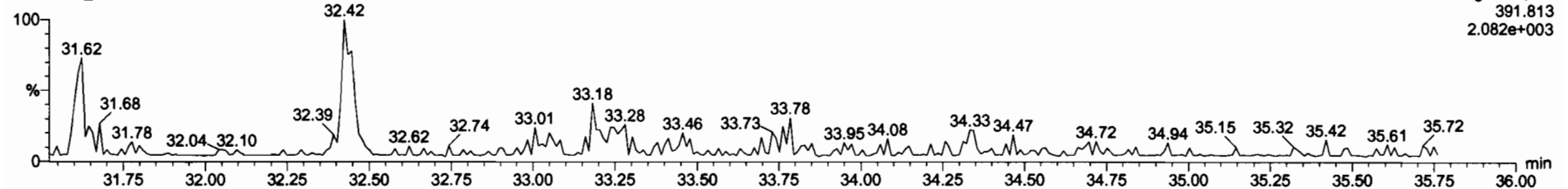
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1,2,3,4,7,8-HxCDD

200604D1\_13

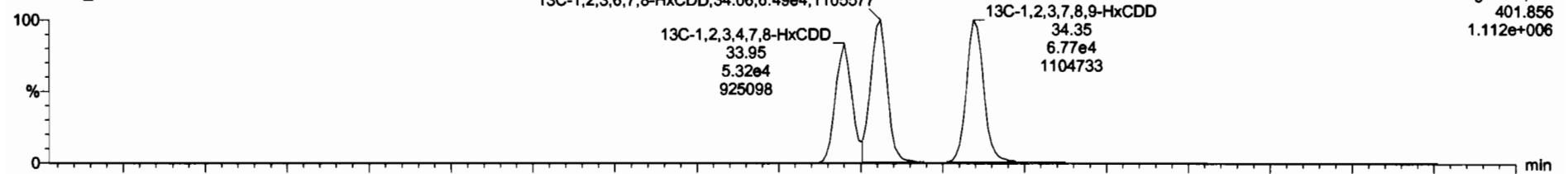


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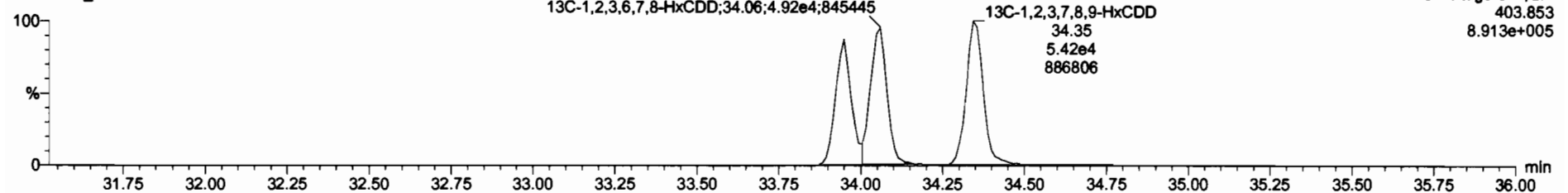


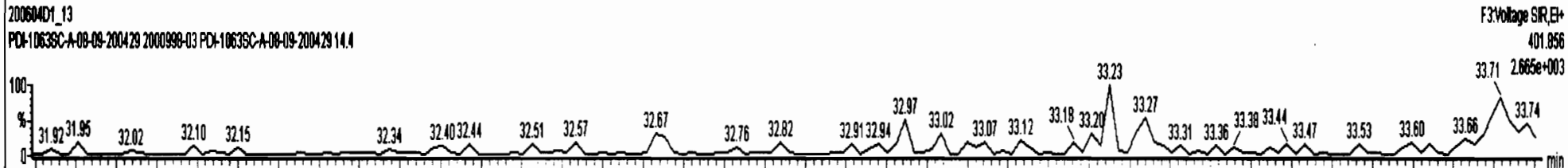
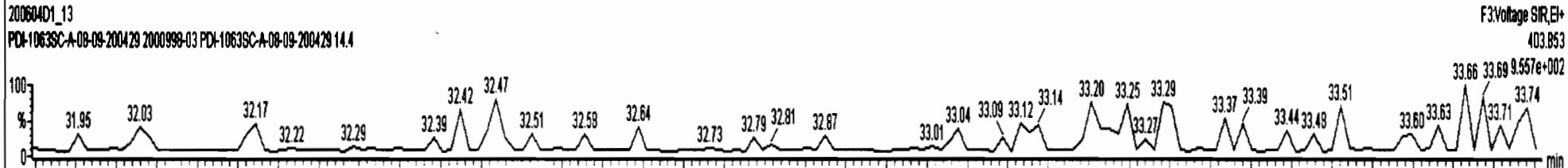
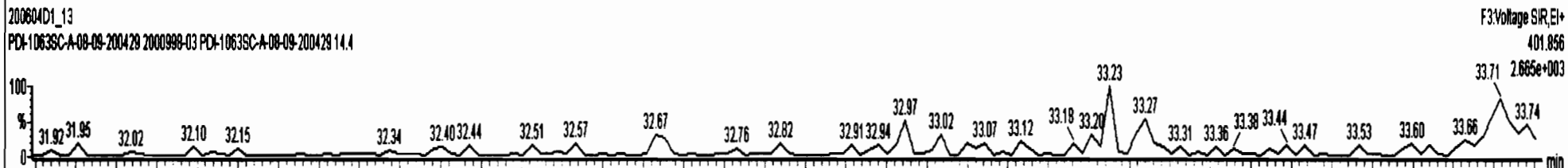
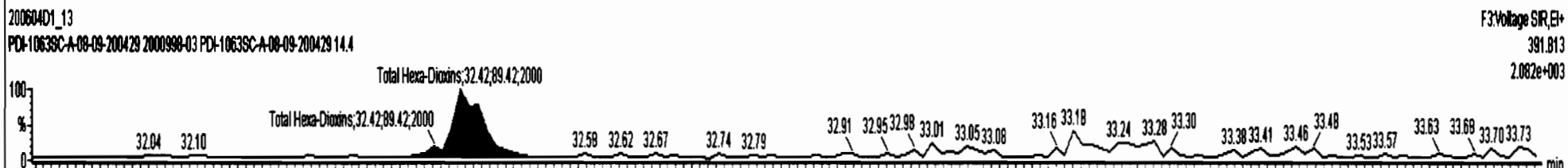
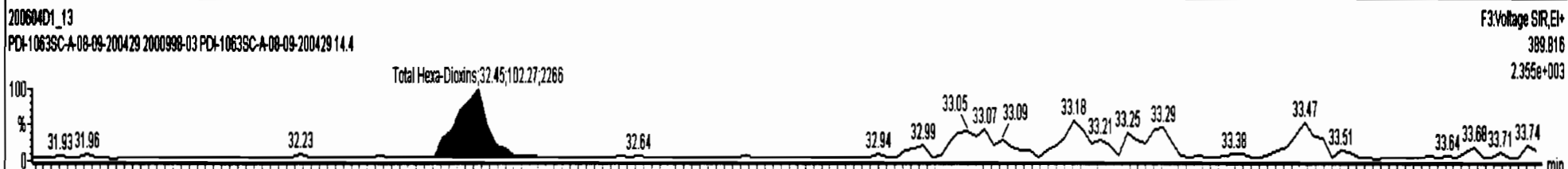
13C-1,2,3,4,7,8-HxCDD

200604D1\_13



200604D1\_13





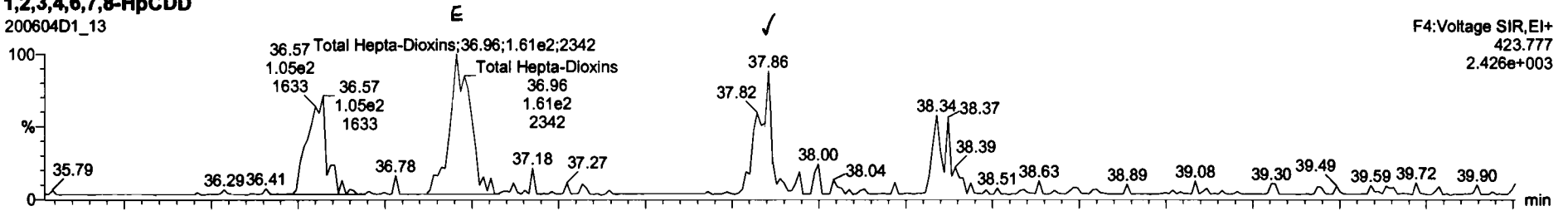
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Printed: Friday, June 05, 2020 09:45:54 Pacific Daylight Time

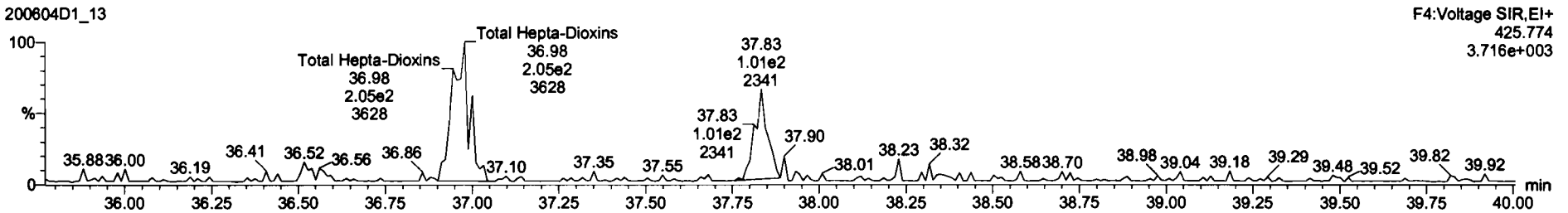
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1,2,3,4,6,7,8-HpCDD

200604D1\_13

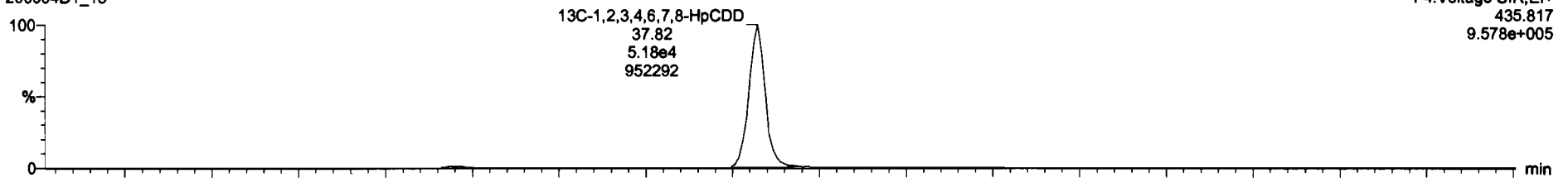


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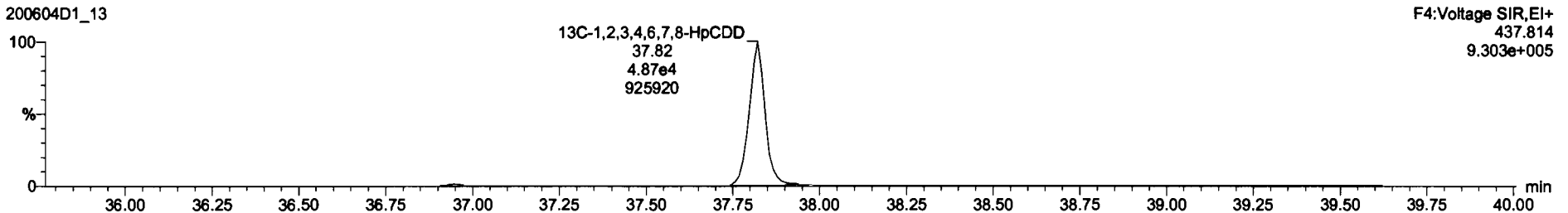


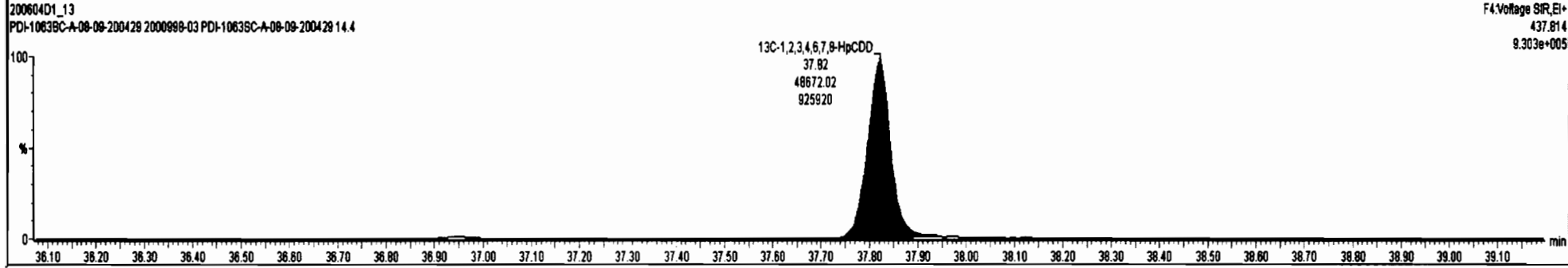
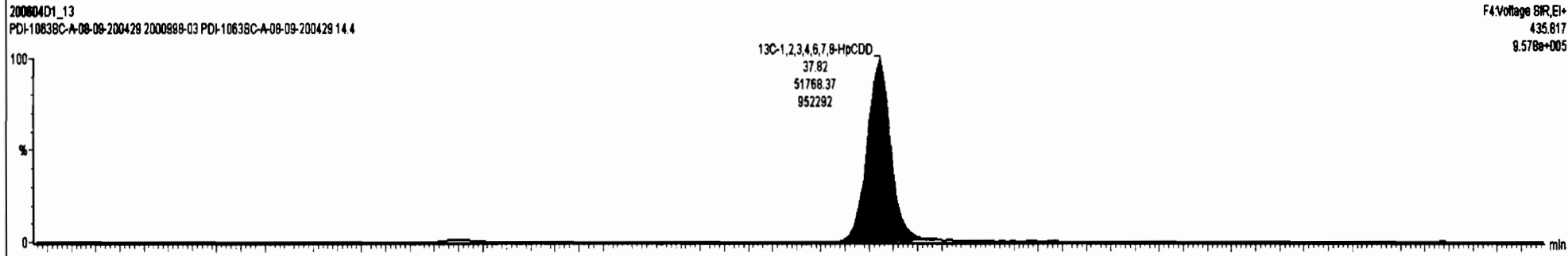
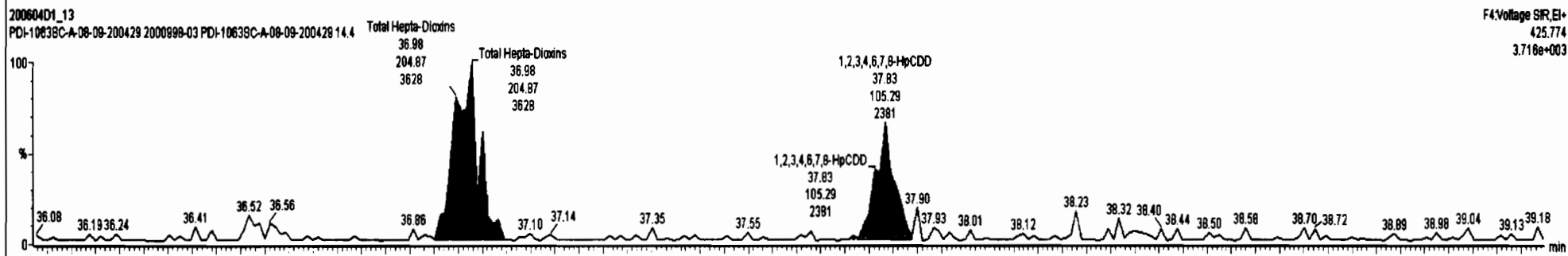
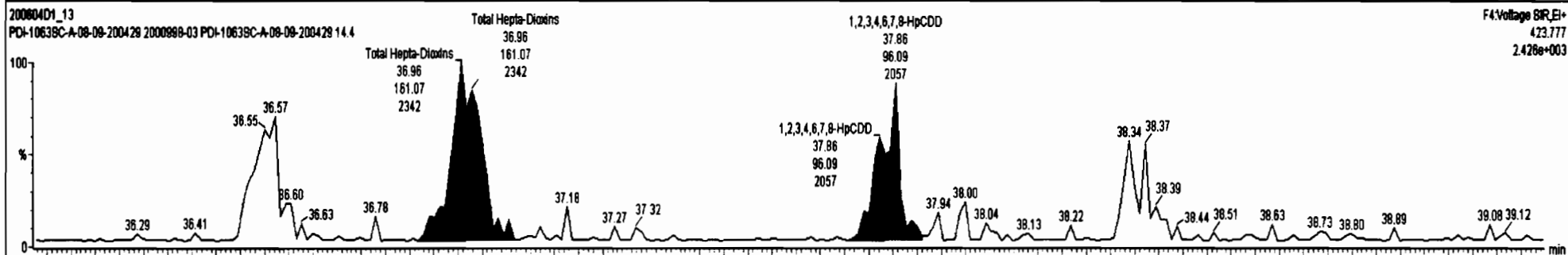
13C-1,2,3,4,6,7,8-HpCDD

200604D1\_13



200604D1\_13



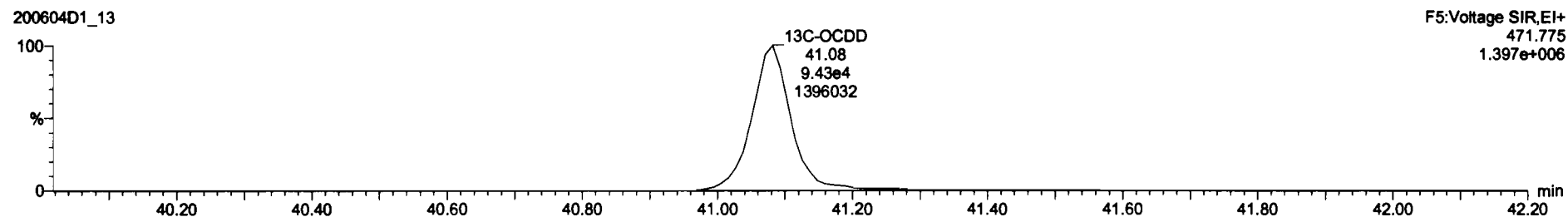
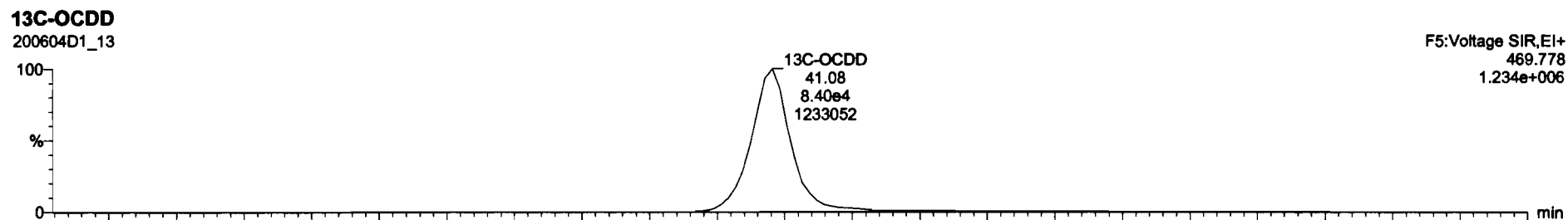
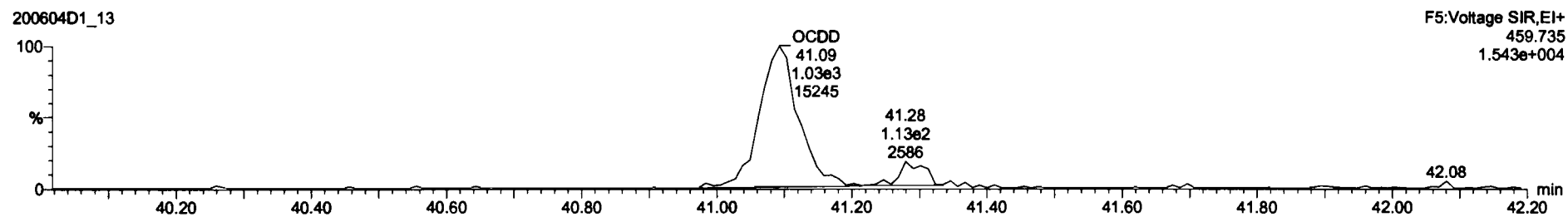
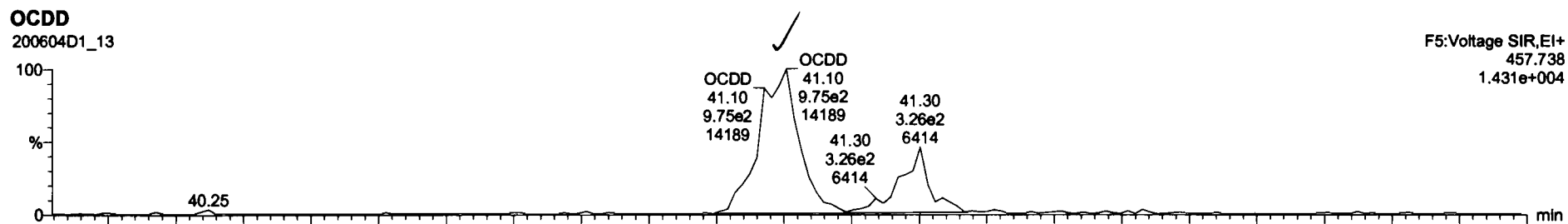




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Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

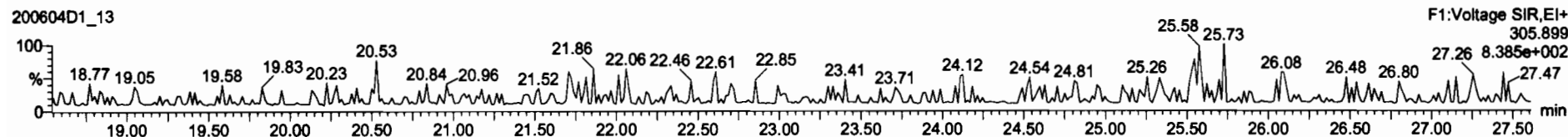
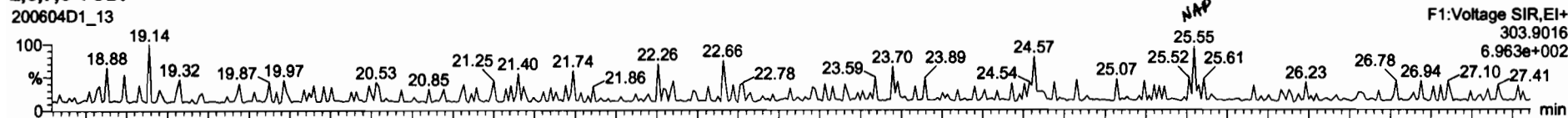


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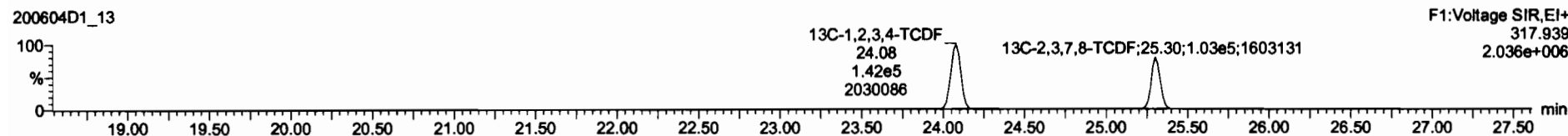
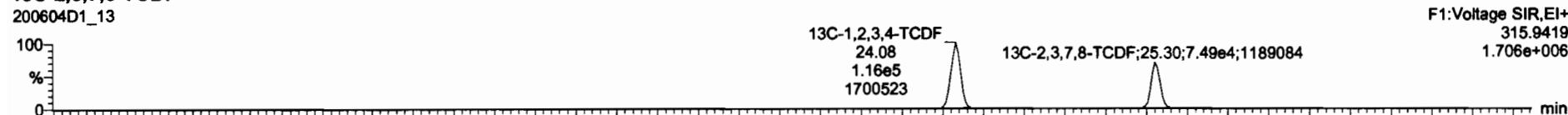
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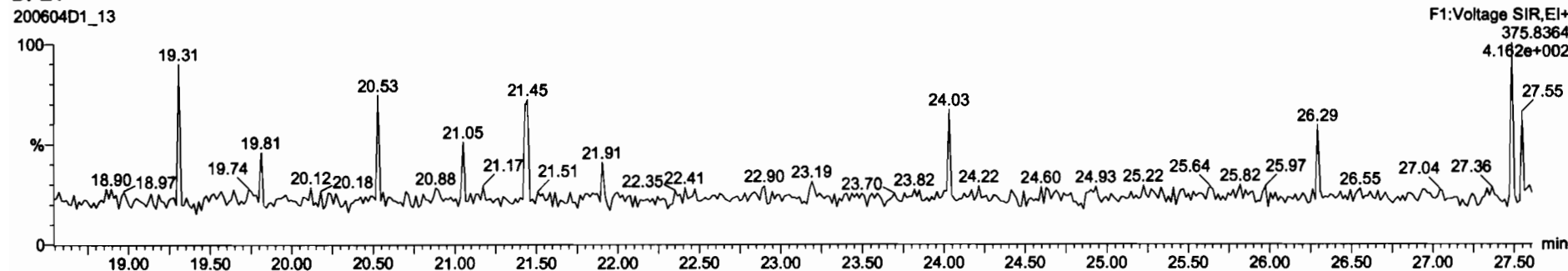
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



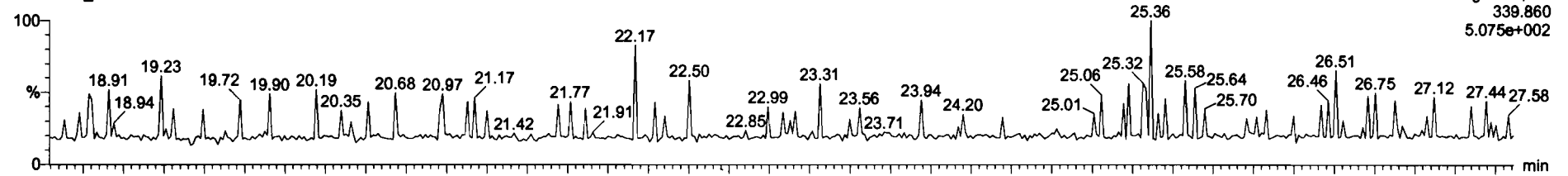
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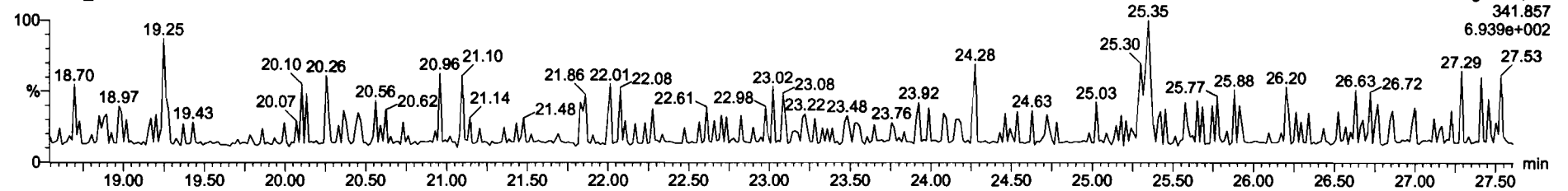
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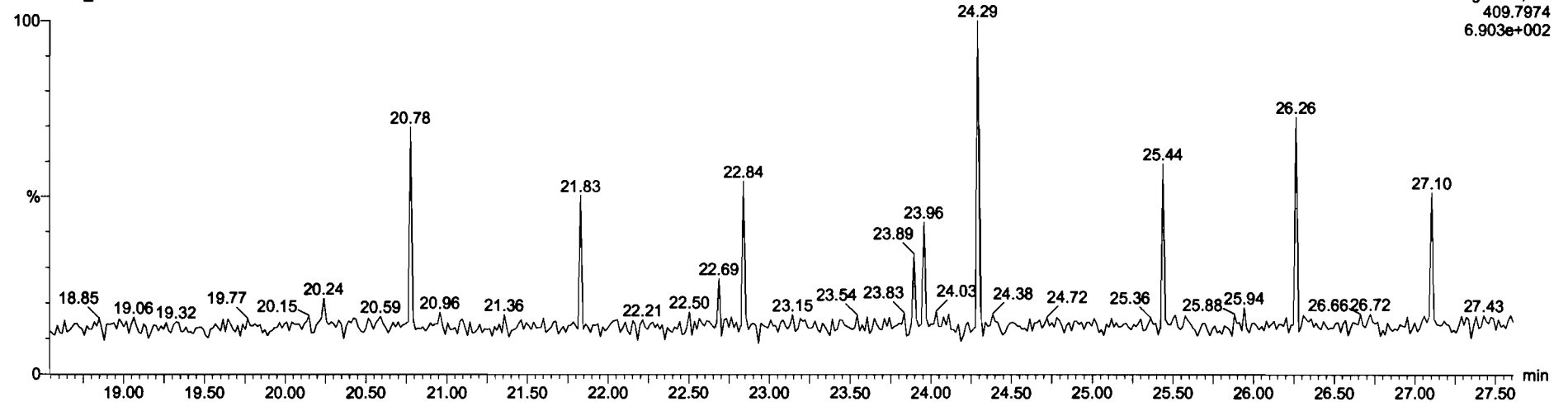


200604D1\_13



DPE6

200604D1\_13



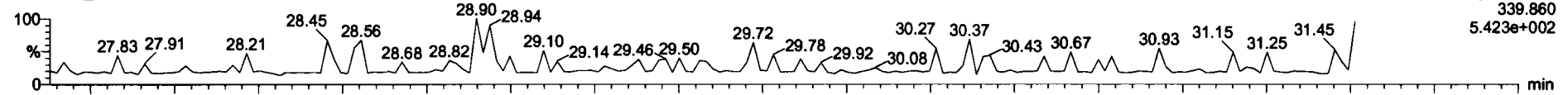
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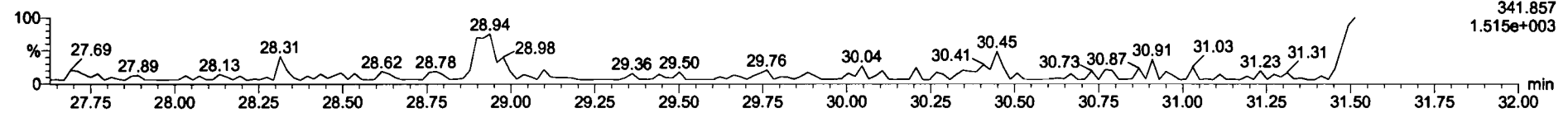
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**1,2,3,7,8-PeCDF**

200604D1\_13

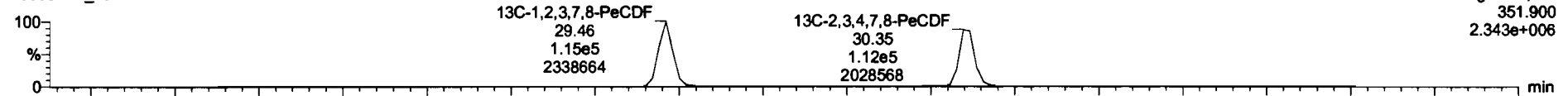


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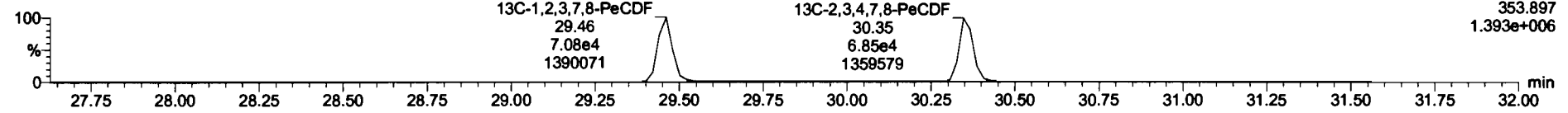


**13C-1,2,3,7,8-PeCDF**

200604D1\_13

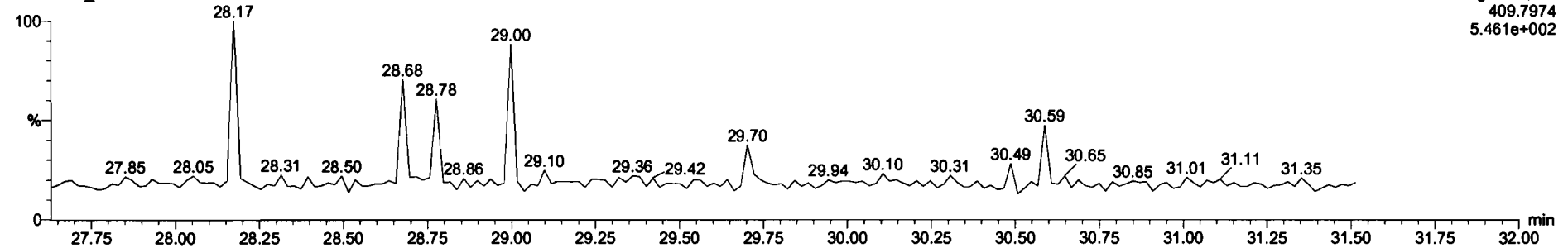


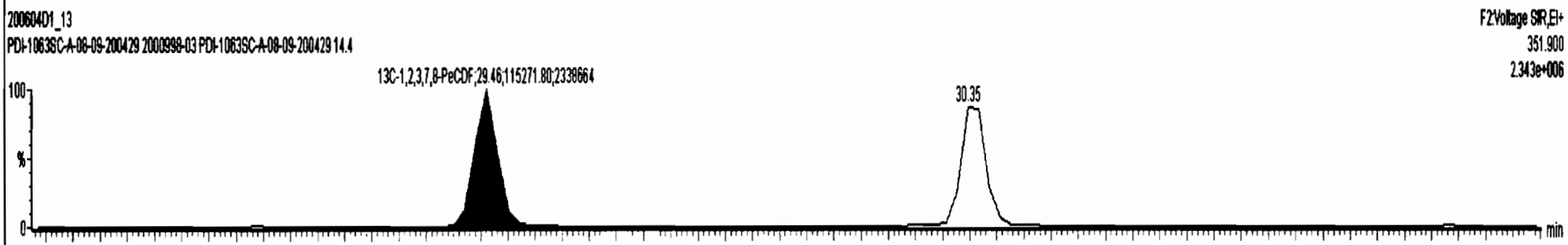
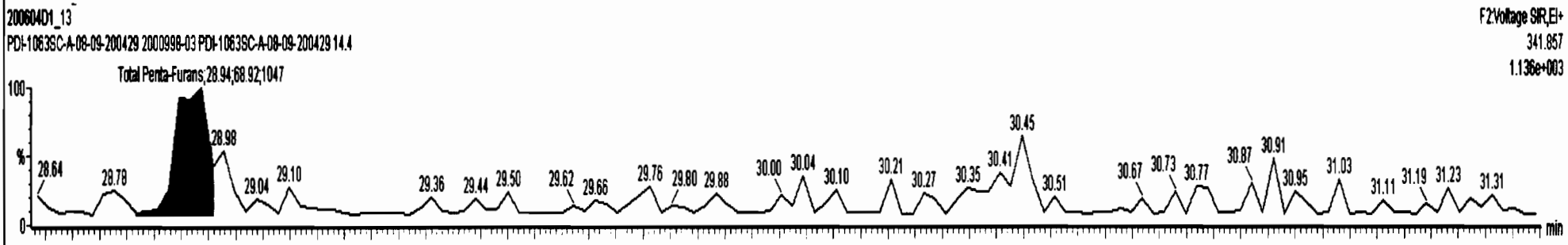
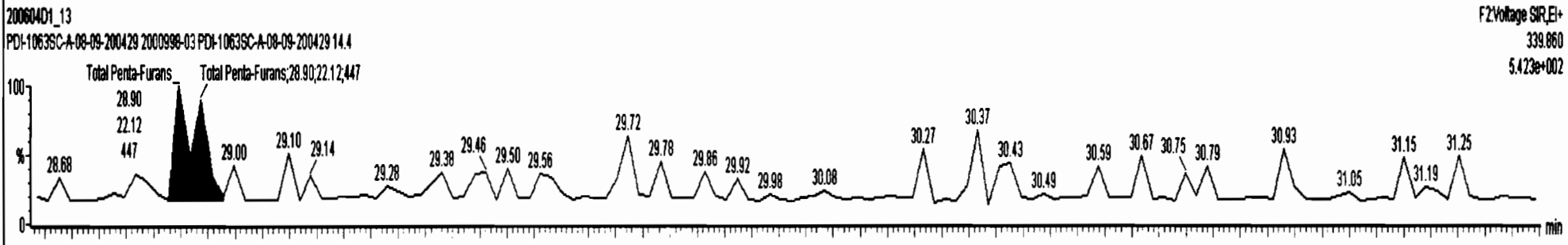
200604D1\_13



**DPE2**

200604D1\_13



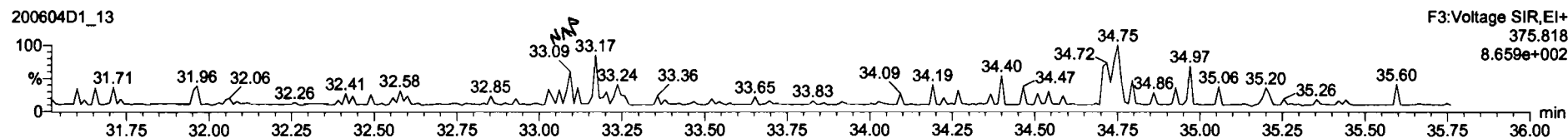
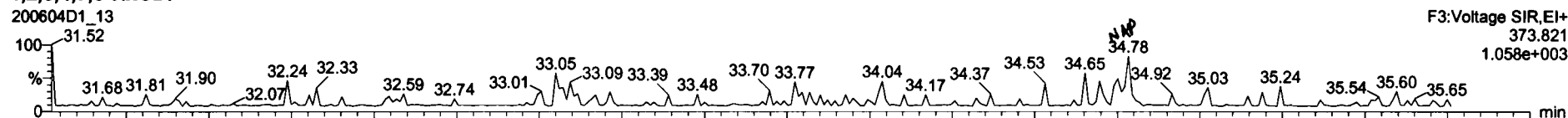


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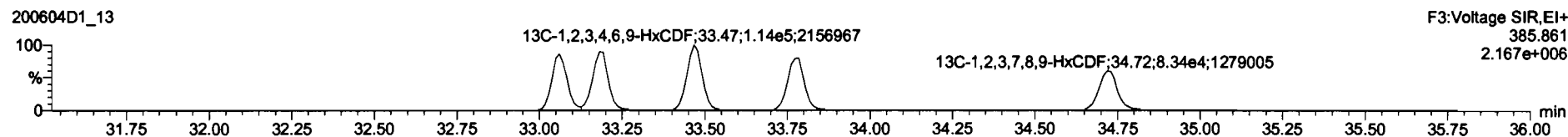
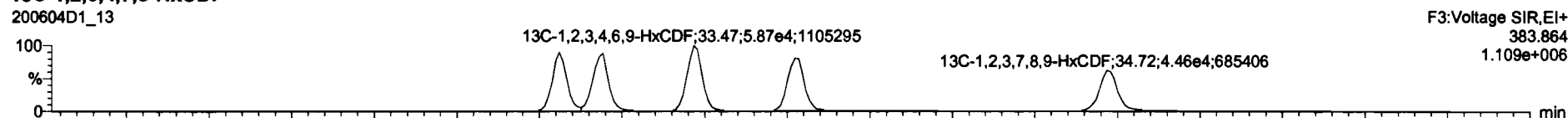
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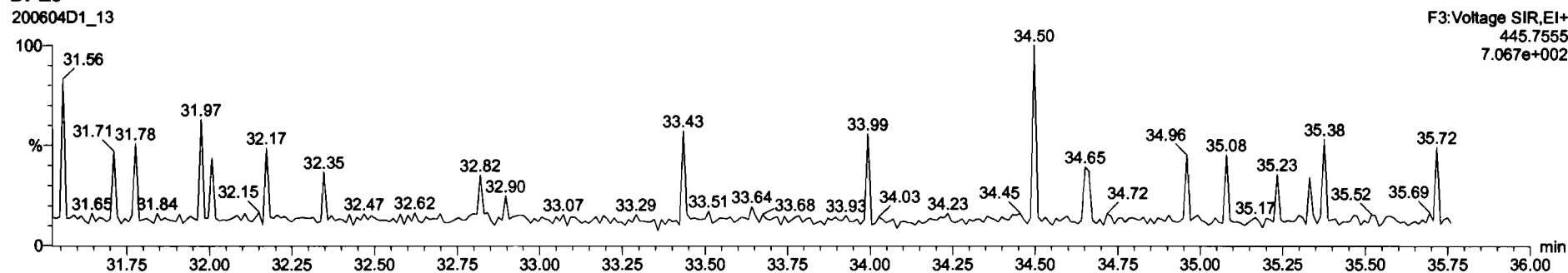
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



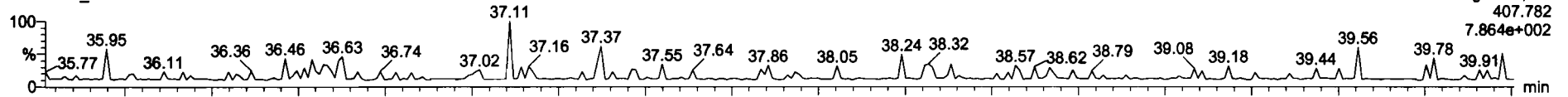
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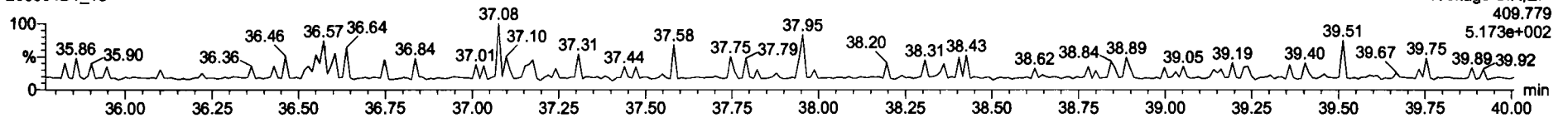
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**1,2,3,4,6,7,8-HpCDF**

200604D1\_13

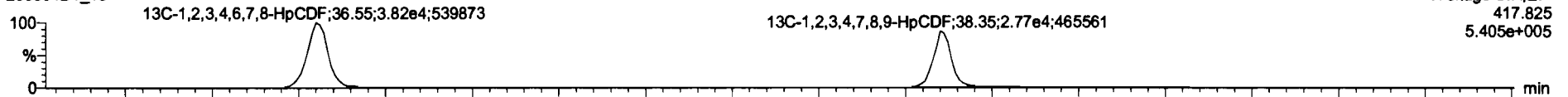


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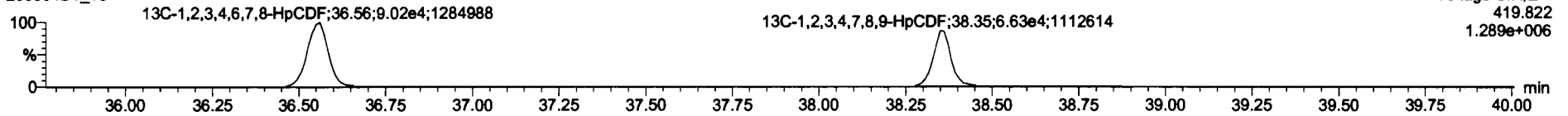


**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_13

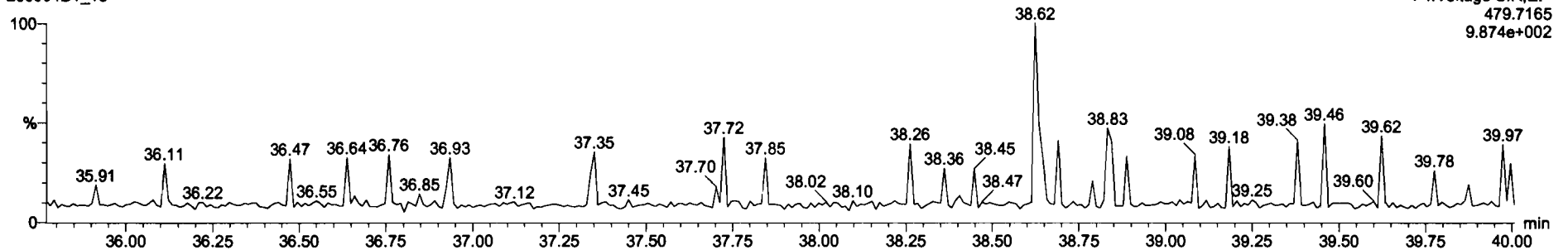


200604D1\_13



**DPE4**

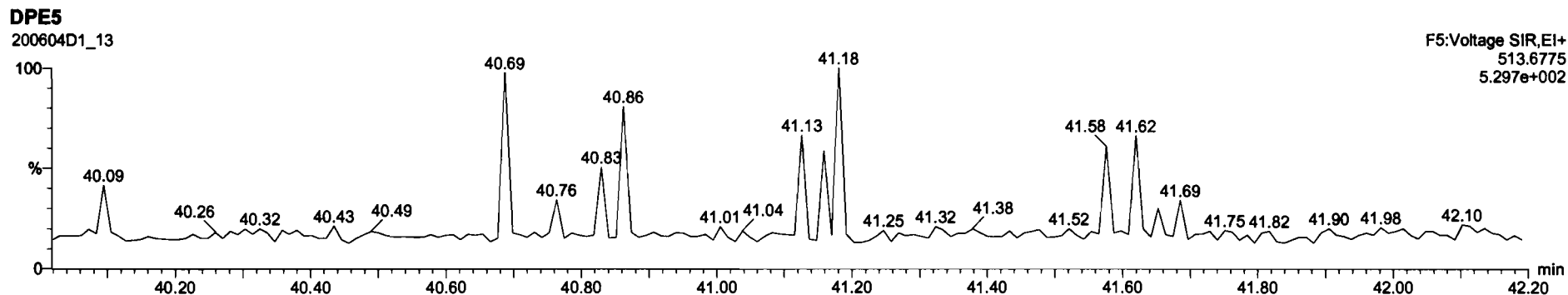
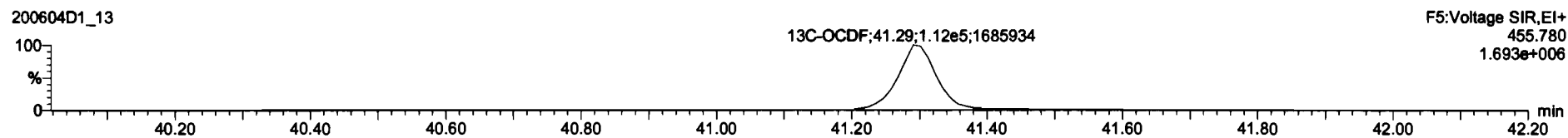
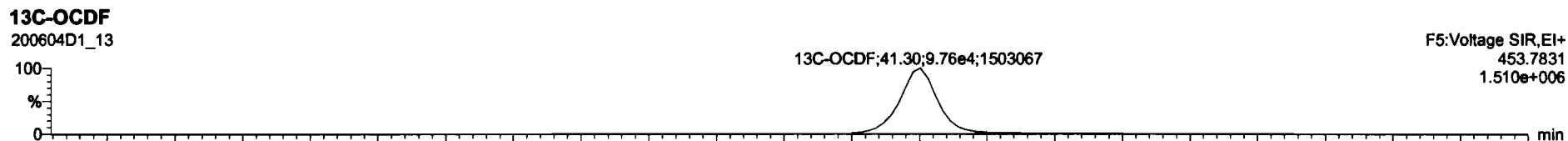
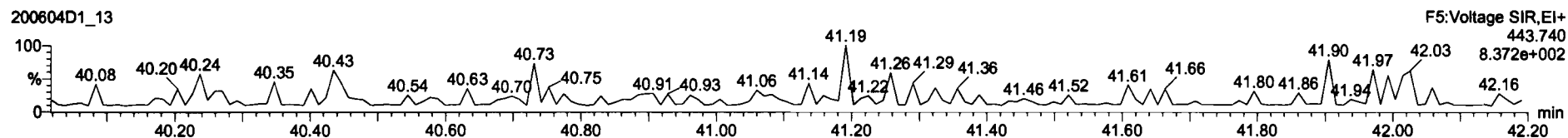
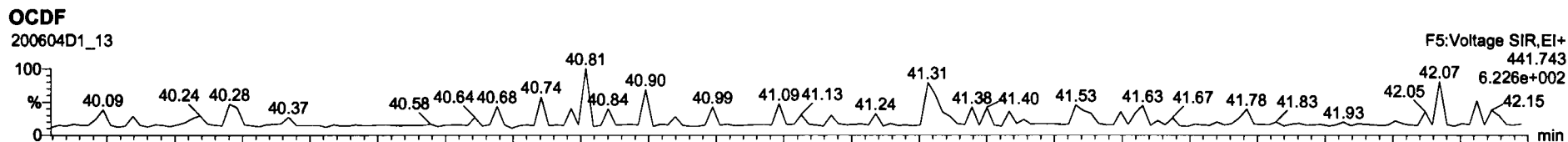
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Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_13.qld

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Printed: Friday, June 05, 2020 09:45:54 Pacific Daylight Time

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429

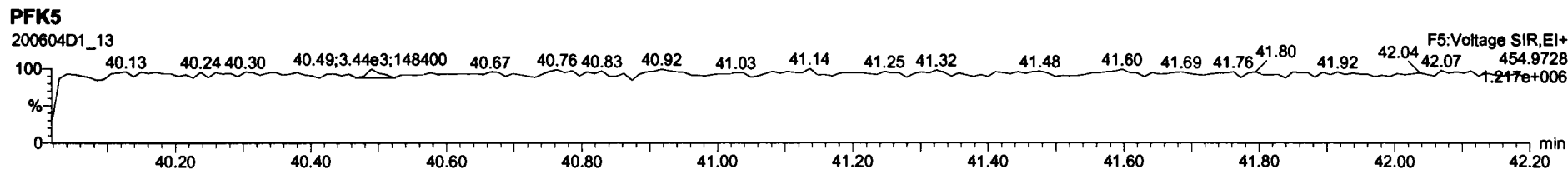
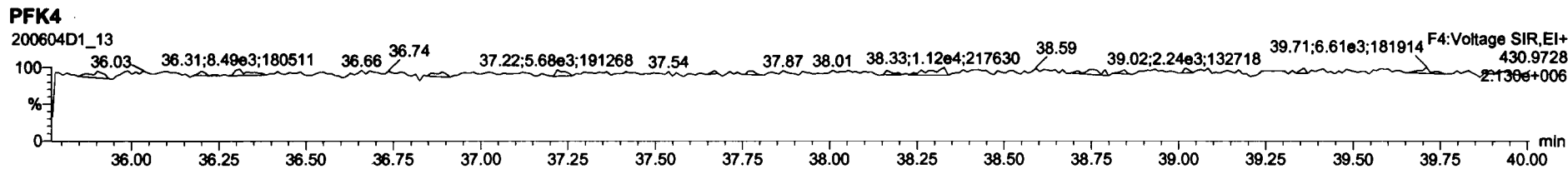
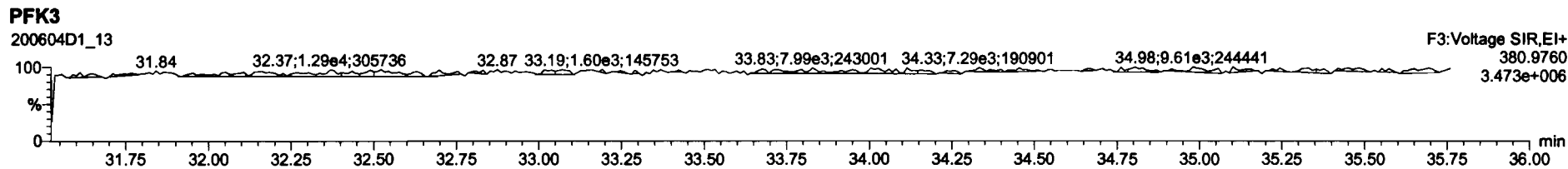
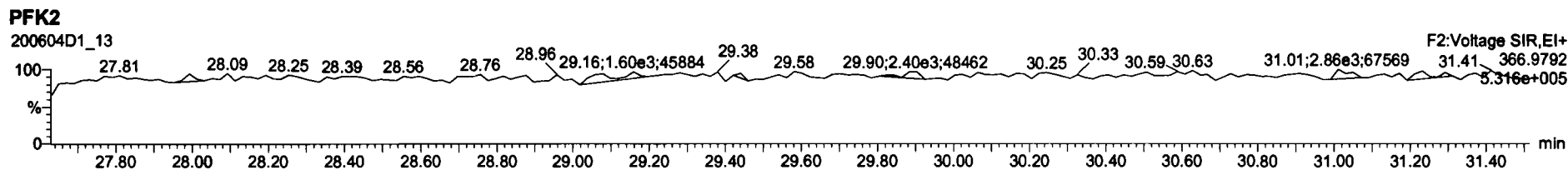
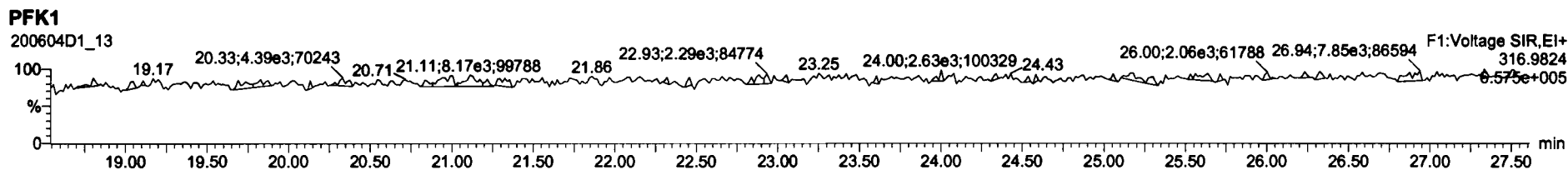




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Printed: Friday, June 05, 2020 09:45:54 Pacific Daylight Time

Name: 200604D1\_13, Date: 04-Jun-2020, Time: 21:01:58, ID: 2000998-03 PDI-1063SC-A-08-09-200429 14.4, Description: PDI-1063SC-A-08-09-200429



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

Last Altered: Thursday, June 11, 2020 15:51:10 Pacific Daylight Time  
Printed: Thursday, June 11, 2020 15:52:03 Pacific Daylight Time

*DB 6/11/20 0706/12/2020*

Method: Untitled 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

*\* see dilution*

Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

| Peak # | Compound                | Conc   | Yield | Ident | Ref   | Found  | Library | Response | Library | Response | Library       | Response |        |
|--------|-------------------------|--------|-------|-------|-------|--------|---------|----------|---------|----------|---------------|----------|--------|
| 1      | 2,3,7,8-TCDD            | 3.37e2 | 0.86  | NO    | 0.987 | 10.038 | 26.142  | 26.11    | 1.001   | 1.000    | 0.57643       | 0.207    | 0.576  |
| 2      | 1,2,3,7,8-PeCDD         | 4.88e2 | 0.47  | YES   | 0.982 | 10.038 | 30.670  | 30.67    | 1.001   | 1.001    | 1.1021        | 0.343    | 0.912  |
| 3      | 1,2,3,4,7,8-HxCDD       | 5.54e2 | 1.47  | YES   | 1.17  | 10.038 | 33.971  | 33.98    | 1.000   | 1.001    | 1.2900        | 0.528    | 1.17   |
| 4      | 1,2,3,6,7,8-HxCDD       | 4.72e3 | 1.23  | NO    | 1.04  | 10.038 | 34.070  | 34.09    | 1.000   | 1.001    | 10.529        | 0.551    | 10.5   |
| 5      | 1,2,3,7,8,9-HxCDD       | 1.40e3 | 1.16  | NO    | 1.00  | 10.038 | 34.401  | 34.38    | 1.001   | 1.000    | 3.5170        | 0.674    | 3.52   |
| 6      | 1,2,3,4,6,7,8-HpCDD     | 1.42e5 | 1.02  | NO    | 0.992 | 10.038 | 37.845  | 37.85    | 1.000   | 1.000    | 477.55        | 1.94     | 478    |
| 7      | OCDD                    | 1.44e6 | 0.88  | NO    | 1.04  | 10.038 | 41.093  | 41.12    | 1.000   | 1.001    | 6062.8E       | 2.00     | 6060 * |
| 8      | 2,3,7,8-TCDF            | 2.96e4 | 0.79  | NO    | 0.882 | 10.038 | 25.341  | 25.33    | 1.001   | 1.001    | 40.188 (30.5) | 0.319    | 40.2   |
| 9      | 1,2,3,7,8-PeCDF         | 3.92e4 | 1.57  | NO    | 1.05  | 10.038 | 29.502  | 29.48    | 1.001   | 1.000    | 47.151        | 0.148    | 47.2   |
| 10     | 2,3,4,7,8-PeCDF         | 1.32e4 | 1.50  | NO    | 1.06  | 10.038 | 30.385  | 30.39    | 1.001   | 1.001    | 16.025        | 0.123    | 16.0   |
| 11     | 1,2,3,4,7,8-HxCDF       | 6.50e4 | 1.21  | NO    | 1.08  | 10.038 | 33.072  | 33.09    | 1.000   | 1.001    | 110.85        | 0.265    | 111    |
| 12     | 1,2,3,6,7,8-HxCDF       | 1.59e4 | 1.25  | NO    | 1.04  | 10.038 | 33.213  | 33.22    | 1.000   | 1.000    | 26.184        | 0.276    | 26.2   |
| 13     | 2,3,4,6,7,8-HxCDF       | 4.16e3 | 1.29  | NO    | 1.11  | 10.038 | 33.819  | 33.81    | 1.001   | 1.001    | 7.3783        | 0.303    | 7.38   |
| 14     | 1,2,3,7,8,9-HxCDF       | 1.71e3 | 1.09  | NO    | 1.06  | 10.038 | 34.740  | 34.77    | 1.000   | 1.001    | 3.7199        | 0.443    | 3.72   |
| 15     | 1,2,3,4,6,7,8-HpCDF     | 3.42e4 | 1.03  | NO    | 1.13  | 10.038 | 36.609  | 36.58    | 1.001   | 1.000    | 79.773        | 0.553    | 79.8   |
| 16     | 1,2,3,4,7,8,9-HpCDF     | 6.40e3 | 1.07  | NO    | 1.33  | 10.038 | 38.372  | 38.38    | 1.000   | 1.000    | 16.966        | 0.515    | 17.0   |
| 17     | OCDF                    | 4.86e4 | 0.86  | NO    | 0.933 | 10.038 | 41.324  | 41.33    | 1.000   | 1.000    | 203.21        | 0.844    | 203    |
| 18     | 13C-2,3,7,8-TCDD        | 1.18e5 | 0.79  | NO    | 1.21  | 10.038 | 26.195  | 26.11    | 1.026   | 1.023    | 128.07        | 64.3     | 0.404  |
| 19     | 13C-1,2,3,7,8-PeCDD     | 8.99e4 | 0.63  | NO    | 0.996 | 10.038 | 30.688  | 30.65    | 1.202   | 1.200    | 118.04        | 59.2     | 0.248  |
| 20     | 13C-1,2,3,4,7,8-HxCDD   | 7.28e4 | 1.34  | NO    | 0.679 | 10.038 | 33.958  | 33.96    | 1.014   | 1.014    | 125.29        | 62.9     | 0.563  |
| 21     | 13C-1,2,3,6,7,8-HxCDD   | 8.62e4 | 1.28  | NO    | 0.850 | 10.038 | 34.068  | 34.07    | 1.017   | 1.017    | 118.42        | 59.4     | 0.450  |
| 22     | 13C-1,2,3,7,8,9-HxCDD   | 7.89e4 | 1.36  | NO    | 0.796 | 10.038 | 34.340  | 34.37    | 1.025   | 1.026    | 115.33        | 57.9     | 0.478  |
| 23     | 13C-1,2,3,4,6,7,8-HpCDD | 5.96e4 | 1.02  | NO    | 0.697 | 10.038 | 37.809  | 37.83    | 1.129   | 1.130    | 99.776        | 50.1     | 0.457  |
| 24     | 13C-OCDD                | 9.17e4 | 0.91  | NO    | 0.579 | 10.038 | 40.836  | 41.09    | 1.219   | 1.227    | 184.87        | 46.4     | 0.561  |
| 25     | 13C-2,3,7,8-TCDF        | 1.66e5 | 0.76  | NO    | 1.13  | 10.038 | 25.276  | 25.32    | 0.990   | 0.992    | 119.63        | 60.0     | 0.443  |
| 26     | 13C-1,2,3,7,8-PeCDF     | 1.59e5 | 1.62  | NO    | 0.996 | 10.038 | 29.506  | 29.48    | 1.156   | 1.155    | 128.97        | 64.7     | 0.482  |
| 27     | 13C-2,3,4,7,8-PeCDF     | 1.55e5 | 1.63  | NO    | 0.969 | 10.038 | 30.407  | 30.37    | 1.191   | 1.189    | 129.48        | 65.0     | 0.496  |
| 28     | 13C-1,2,3,4,7,8-HxCDF   | 1.08e5 | 0.51  | NO    | 1.06  | 10.038 | 33.087  | 33.07    | 0.988   | 0.988    | 118.98        | 59.7     | 0.534  |
| 29     | 13C-1,2,3,6,7,8-HxCDF   | 1.16e5 | 0.48  | NO    | 1.18  | 10.038 | 33.221  | 33.20    | 0.992   | 0.991    | 115.61        | 58.0     | 0.481  |
| 30     | 13C-2,3,4,6,7,8-HxCDF   | 1.01e5 | 0.49  | NO    | 1.06  | 10.038 | 33.794  | 33.78    | 1.009   | 1.009    | 111.74        | 56.1     | 0.535  |
| 31     | 13C-1,2,3,7,8,9-HxCDF   | 8.69e4 | 0.50  | NO    | 0.879 | 10.038 | 34.695  | 34.74    | 1.036   | 1.037    | 115.29        | 57.9     | 0.643  |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

|    |                         |        |      |    |       |        |        |       |       |       |        |      |        |      |
|----|-------------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|--------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 7.57e4 | 0.43 | NO | 0.893 | 10.038 | 36.403 | 36.57 | 1.087 | 1.092 | 98.962 | 49.7 | 0.670  |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 5.63e4 | 0.43 | NO | 0.613 | 10.038 | 38.412 | 38.37 | 1.147 | 1.146 | 107.19 | 53.8 | 0.975  |      |
| 34 | 13C-OCDF                | 1.02e5 | 0.90 | NO | 0.741 | 10.038 | 40.991 | 41.32 | 1.224 | 1.234 | 161.03 | 40.4 | 0.536  |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 4.85e4 |      |    | 1.18  | 10.038 | 26.192 | 26.13 | 1.026 | 1.023 | 53.721 | 67.4 | 0.120  |      |
| 36 | 13C-1,2,3,4-TCDD        | 1.52e5 | 0.81 | NO | 1.00  | 10.038 | 25.480 | 25.53 | 1.000 | 1.000 | 199.25 | 100  | 0.487  |      |
| 37 | 13C-1,2,3,4-TCDF        | 2.46e5 | 0.77 | NO | 1.00  | 10.038 | 24.020 | 24.08 | 1.000 | 1.000 | 199.25 | 100  | 0.499  |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.71e5 | 0.49 | NO | 1.00  | 10.038 | 33.530 | 33.49 | 1.000 | 1.000 | 199.25 | 100  | 0.565  |      |
| 39 | Total Tetra-Dioxins     |        |      |    | 0.987 | 10.038 | 24.620 |       | 0.000 |       | 3.4678 |      | 0.207  | 4.89 |
| 40 | Total Penta-Dioxins     |        |      |    | 0.982 | 10.038 | 29.960 |       | 0.000 |       | 5.8861 |      | 0.343  | 9.97 |
| 41 | Total Hexa-Dioxins      |        |      |    | 1.04  | 10.038 | 33.635 |       | 0.000 |       | 84.239 |      | 0.599  | 85.4 |
| 42 | Total Hepta-Dioxins     |        |      |    | 0.992 | 10.038 | 37.640 |       | 0.000 |       | 1126.5 |      | 1.94   | 1130 |
| 43 | Total Tetra-Furans      |        |      |    | 0.882 | 10.038 | 23.610 |       | 0.000 |       | 105.28 |      | 0.319  | 114  |
| 44 | 1st Func. Penta-Furans  |        |      |    | 1.05  | 10.038 | 27.090 |       | 0.000 |       | 5.1351 |      | 0.0509 | 5.14 |
| 45 | Total Penta-Furans      |        |      |    | 1.05  | 10.038 | 29.275 |       | 0.000 |       | 110.39 |      | 0.136  | 112  |
| 46 | Total Hexa-Furans       |        |      |    | 1.11  | 10.038 | 33.555 |       | 0.000 |       | 225.28 |      | 0.304  | 225  |
| 47 | Total Hepta-Furans      |        |      |    | 1.13  | 10.038 | 37.835 |       | 0.000 |       | 247.23 |      | 0.577  | 247  |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

Last Altered: Thursday, June 11, 2020 15:51:10 Pacific Daylight Time  
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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

**Tetra-Dioxins**

|                     |       |         |         |         |         |      |     |         |         |         |       |
|---------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Tetra-Dioxins | 22.70 | 3.561e3 | 4.751e3 | 3.273e2 | 3.526e2 | 0.93 | YES | 0.000e0 | 0.00000 | 1.0665  | 0.207 |
| Total Tetra-Dioxins | 23.04 | 1.699e3 | 2.528e3 | 1.245e2 | 1.595e2 | 0.78 | NO  | 2.840e2 | 0.48528 | 0.48528 | 0.207 |
| Total Tetra-Dioxins | 24.43 | 1.739e3 | 2.347e3 | 1.383e2 | 1.963e2 | 0.70 | NO  | 3.346e2 | 0.57177 | 0.57177 | 0.207 |
| Total Tetra-Dioxins | 24.61 | 1.806e3 | 2.909e3 | 1.331e2 | 1.979e2 | 0.67 | NO  | 3.310e2 | 0.56564 | 0.56564 | 0.207 |
| Total Tetra-Dioxins | 24.81 | 8.830e2 | 7.480e2 | 6.880e1 | 4.499e1 | 1.53 | YES | 0.000e0 | 0.00000 | 0.13606 | 0.207 |
| Total Tetra-Dioxins | 25.23 | 1.152e3 | 1.202e3 | 7.520e1 | 7.343e1 | 1.02 | YES | 0.000e0 | 0.00000 | 0.22206 | 0.207 |
| Total Tetra-Dioxins | 25.87 | 4.178e3 | 4.956e3 | 2.735e2 | 3.099e2 | 0.88 | NO  | 5.833e2 | 0.99671 | 0.99671 | 0.207 |
| 2,3,7,8-TCDD        | 26.11 | 2.562e3 | 3.307e3 | 1.559e2 | 1.815e2 | 0.86 | NO  | 3.374e2 | 0.57643 | 0.57643 | 0.207 |
| Total Tetra-Dioxins | 26.42 | 1.291e3 | 1.634e3 | 6.847e1 | 9.069e1 | 0.76 | NO  | 1.592e2 | 0.27195 | 0.27195 | 0.207 |

**Penta-Dioxins**

|                     |       |         |         |         |         |      |     |         |         |         |       |
|---------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Penta-Dioxins | 28.64 | 7.876e3 | 1.058e4 | 5.531e2 | 8.315e2 | 0.67 | NO  | 1.385e3 | 3.1243  | 3.1243  | 0.343 |
| Total Penta-Dioxins | 28.94 | 6.520e2 | 3.009e3 | 3.314e1 | 1.533e2 | 0.22 | YES | 0.000e0 | 0.00000 | 0.19350 | 0.343 |
| Total Penta-Dioxins | 29.06 | 2.540e3 | 4.462e3 | 1.102e2 | 2.121e2 | 0.52 | YES | 0.000e0 | 0.00000 | 0.64359 | 0.343 |
| Total Penta-Dioxins | 29.50 | 5.348e3 | 6.859e3 | 2.398e2 | 3.103e2 | 0.77 | YES | 0.000e0 | 0.00000 | 1.1412  | 0.343 |
| Total Penta-Dioxins | 29.66 | 3.417e3 | 6.864e3 | 1.483e2 | 2.904e2 | 0.51 | YES | 0.000e0 | 0.00000 | 0.86572 | 0.343 |
| Total Penta-Dioxins | 29.74 | 2.192e3 | 3.433e3 | 1.335e2 | 1.903e2 | 0.70 | NO  | 3.238e2 | 0.73057 | 0.73057 | 0.343 |
| Total Penta-Dioxins | 29.94 | 4.276e3 | 4.885e3 | 2.494e2 | 4.089e2 | 0.61 | NO  | 6.583e2 | 1.4855  | 1.4855  | 0.343 |
| Total Penta-Dioxins | 30.27 | 1.081e3 | 1.314e3 | 4.717e1 | 7.769e1 | 0.61 | NO  | 1.249e2 | 0.28174 | 0.28174 | 0.343 |
| 1,2,3,7,8-PeCDD     | 30.67 | 3.846e3 | 7.058e3 | 1.561e2 | 3.323e2 | 0.47 | YES | 4.884e2 | 0.00000 | 0.91152 | 0.343 |
| Total Penta-Dioxins | 30.73 | 6.870e2 | 1.379e3 | 4.084e1 | 7.616e1 | 0.54 | NO  | 1.170e2 | 0.26399 | 0.26399 | 0.343 |
| Total Penta-Dioxins | 31.03 | 1.299e3 | 2.375e3 | 5.551e1 | 1.261e2 | 0.44 | YES | 0.000e0 | 0.00000 | 0.32408 | 0.343 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

**Hexa-Dioxins**

|                    |       |         |         |         |         |      |     |         |         |        |       |
|--------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|--------|-------|
| Total Hexa-Dioxins | 32.45 | 1.259e5 | 1.111e5 | 6.487e3 | 5.406e3 | 1.20 | NO  | 1.189e4 | 28.834  | 28.834 | 0.599 |
| Total Hexa-Dioxins | 33.01 | 1.727e4 | 1.467e4 | 9.106e2 | 7.119e2 | 1.28 | NO  | 1.623e3 | 3.9336  | 3.9336 | 0.599 |
| Total Hexa-Dioxins | 33.27 | 1.074e5 | 9.066e4 | 7.666e3 | 6.150e3 | 1.25 | NO  | 1.382e4 | 33.495  | 33.495 | 0.599 |
| Total Hexa-Dioxins | 33.40 | 8.938e3 | 8.709e3 | 5.786e2 | 4.865e2 | 1.19 | NO  | 1.065e3 | 2.5824  | 2.5824 | 0.599 |
| 1,2,3,4,7,8-HxCDD  | 33.98 | 5.594e3 | 4.814e3 | 3.292e2 | 2.247e2 | 1.47 | YES | 5.539e2 | 0.00000 | 1.1721 | 0.528 |
| 1,2,3,6,7,8-HxCDD  | 34.09 | 4.212e4 | 3.351e4 | 2.606e3 | 2.114e3 | 1.23 | NO  | 4.720e3 | 10.529  | 10.529 | 0.551 |
| Total Hexa-Dioxins | 34.27 | 5.821e3 | 4.794e3 | 3.071e2 | 2.494e2 | 1.23 | NO  | 5.565e2 | 1.3491  | 1.3491 | 0.599 |
| 1,2,3,7,8,9-HxCDD  | 34.38 | 1.183e4 | 1.179e4 | 7.493e2 | 6.472e2 | 1.16 | NO  | 1.396e3 | 3.5170  | 3.5170 | 0.674 |

**Hepta-Dioxins**

|                     |       |         |         |         |         |      |    |         |        |        |      |
|---------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|------|
| Total Hepta-Dioxins | 36.99 | 1.491e6 | 1.402e6 | 9.830e4 | 9.410e4 | 1.04 | NO | 1.924e5 | 648.96 | 648.96 | 1.94 |
| 1,2,3,4,6,7,8-HpCDD | 37.85 | 1.337e6 | 1.310e6 | 7.159e4 | 7.000e4 | 1.02 | NO | 1.416e5 | 477.55 | 477.55 | 1.94 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

**Tetra-Furans**

|                    |       |         |         |         |         |      |     |         |         |         |       |
|--------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Tetra-Furans | 21.11 | 2.272e3 | 2.474e3 | 1.771e2 | 2.259e2 | 0.78 | NO  | 4.030e2 | 0.54715 | 0.54715 | 0.319 |
| Total Tetra-Furans | 21.72 | 1.682e4 | 1.992e4 | 1.429e3 | 1.911e3 | 0.75 | NO  | 3.340e3 | 4.5357  | 4.5357  | 0.319 |
| Total Tetra-Furans | 22.27 | 3.786e3 | 4.055e3 | 5.413e2 | 6.127e2 | 0.88 | NO  | 0.000e0 | 0.00000 | 1.5669  | 0.319 |
| Total Tetra-Furans | 22.67 | 2.140e4 | 2.855e4 | 2.077e3 | 2.737e3 | 0.76 | NO  | 4.814e3 | 6.5372  | 6.5372  | 0.319 |
| Total Tetra-Furans | 23.08 | 8.795e3 | 1.273e4 | 7.603e2 | 9.963e2 | 0.76 | NO  | 1.757e3 | 2.3852  | 2.3852  | 0.319 |
| Total Tetra-Furans | 23.22 | 2.357e3 | 3.214e3 | 1.548e2 | 2.447e2 | 0.63 | YES | 0.000e0 | 0.00000 | 0.48325 | 0.319 |
| Total Tetra-Furans | 23.36 | 7.311e3 | 6.934e3 | 5.240e2 | 5.461e2 | 0.98 | YES | 0.000e0 | 0.00000 | 1.3125  | 0.319 |
| Total Tetra-Furans | 23.99 | 8.930e3 | 1.338e4 | 5.133e2 | 7.213e2 | 0.71 | NO  | 1.235e3 | 1.6763  | 1.6763  | 0.319 |
| Total Tetra-Furans | 24.08 | 2.590e4 | 3.354e4 | 2.056e3 | 2.808e3 | 0.73 | NO  | 4.864e3 | 6.6039  | 6.6039  | 0.319 |
| Total Tetra-Furans | 24.52 | 1.487e5 | 1.959e5 | 1.057e4 | 1.363e4 | 0.78 | NO  | 2.420e4 | 32.853  | 32.853  | 0.319 |
| Total Tetra-Furans | 24.77 | 6.398e3 | 6.354e3 | 4.461e2 | 5.327e2 | 0.84 | NO  | 9.788e2 | 1.3290  | 1.3290  | 0.319 |
| Total Tetra-Furans | 24.95 | 2.681e3 | 3.334e3 | 1.741e2 | 2.465e2 | 0.71 | NO  | 4.206e2 | 0.57107 | 0.57107 | 0.319 |
| Total Tetra-Furans | 25.24 | 2.691e4 | 3.685e4 | 1.785e3 | 2.353e3 | 0.76 | NO  | 4.138e3 | 5.6180  | 5.6180  | 0.319 |
| 2,3,7,8-TCDF       | 25.33 | 2.062e5 | 2.731e5 | 1.307e4 | 1.653e4 | 0.79 | NO  | 2.960e4 | 40.188  | 40.188  | 0.319 |
| Total Tetra-Furans | 25.67 | 1.188e4 | 1.505e4 | 7.911e2 | 1.005e3 | 0.79 | NO  | 1.796e3 | 2.4381  | 2.4381  | 0.319 |
| Total Tetra-Furans | 25.88 | 2.276e3 | 2.549e3 | 1.478e2 | 1.513e2 | 0.98 | YES | 0.000e0 | 0.00000 | 0.36365 | 0.319 |
| Total Tetra-Furans | 26.63 | 1.771e3 | 1.728e3 | 1.483e2 | 1.189e2 | 1.25 | YES | 0.000e0 | 0.00000 | 0.28582 | 0.319 |
| Total Tetra-Furans | 27.12 | 3.301e4 | 3.140e4 | 1.858e3 | 1.864e3 | 1.00 | YES | 0.000e0 | 0.00000 | 4.4808  | 0.319 |

**Penta-Furans function 1**

|                        |       |         |         |         |         |      |    |         |        |        |        |
|------------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|--------|
| 1st Func. Penta-Furans | 27.12 | 4.296e4 | 2.888e4 | 2.533e3 | 1.688e3 | 1.50 | NO | 4.222e3 | 5.1351 | 5.1351 | 0.0509 |
|------------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|--------|

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14B.qld

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Printed: Thursday, June 11, 2020 15:52:03 Pacific Daylight Time

Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

**Penta-Furans**

|                    |       |         |         |         |         |      |     |         |         |         |       |
|--------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|---------|-------|
| Total Penta-Furans | 28.45 | 6.114e3 | 5.242e3 | 3.394e2 | 2.681e2 | 1.27 | YES | 0.000e0 | 0.00000 | 0.67923 | 0.136 |
| Total Penta-Furans | 28.58 | 1.572e5 | 9.656e4 | 9.342e3 | 6.102e3 | 1.53 | NO  | 1.544e4 | 18.786  | 18.786  | 0.136 |
| Total Penta-Furans | 29.10 | 2.186e4 | 1.584e4 | 1.492e3 | 1.013e3 | 1.47 | NO  | 2.505e3 | 3.0470  | 3.0470  | 0.136 |
| Total Penta-Furans | 29.32 | 3.672e4 | 2.251e4 | 1.838e3 | 1.165e3 | 1.58 | NO  | 3.002e3 | 3.6519  | 3.6519  | 0.136 |
| 1,2,3,7,8-PeCDF    | 29.48 | 5.039e5 | 3.193e5 | 2.399e4 | 1.523e4 | 1.57 | NO  | 3.922e4 | 47.151  | 47.151  | 0.148 |
| Total Penta-Furans | 29.74 | 1.214e5 | 7.806e4 | 6.531e3 | 4.207e3 | 1.55 | NO  | 1.074e4 | 13.061  | 13.061  | 0.136 |
| Total Penta-Furans | 30.29 | 4.573e3 | 3.391e3 | 2.236e2 | 1.992e2 | 1.12 | YES | 0.000e0 | 0.00000 | 0.44748 | 0.136 |
| 2,3,4,7,8-PeCDF    | 30.39 | 1.817e5 | 1.161e5 | 7.932e3 | 5.272e3 | 1.50 | NO  | 1.320e4 | 16.025  | 16.025  | 0.123 |
| Total Penta-Furans | 30.41 | 1.316e5 | 7.764e4 | 3.854e3 | 2.389e3 | 1.61 | NO  | 6.243e3 | 7.5933  | 7.5933  | 0.136 |
| Total Penta-Furans | 31.25 | 9.362e3 | 7.321e3 | 5.407e2 | 3.417e2 | 1.58 | NO  | 8.825e2 | 1.0734  | 1.0734  | 0.136 |

**Hexa-Furans**

|                   |       |         |         |         |         |      |    |         |        |        |       |
|-------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|
| Total Hexa-Furans | 31.92 | 4.410e4 | 3.257e4 | 2.029e3 | 1.610e3 | 1.26 | NO | 3.639e3 | 6.3324 | 6.3324 | 0.304 |
| Total Hexa-Furans | 32.07 | 1.615e5 | 1.251e5 | 7.352e3 | 5.954e3 | 1.23 | NO | 1.331e4 | 23.153 | 23.153 | 0.304 |
| Total Hexa-Furans | 32.62 | 2.456e5 | 2.186e5 | 1.308e4 | 1.059e4 | 1.24 | NO | 2.367e4 | 41.181 | 41.181 | 0.304 |
| 1,2,3,4,7,8-HxCDF | 33.09 | 6.649e5 | 5.640e5 | 3.563e4 | 2.933e4 | 1.21 | NO | 6.497e4 | 110.85 | 110.85 | 0.265 |
| 1,2,3,6,7,8-HxCDF | 33.22 | 1.483e5 | 1.193e5 | 8.861e3 | 7.088e3 | 1.25 | NO | 1.595e4 | 26.184 | 26.184 | 0.276 |
| 2,3,4,6,7,8-HxCDF | 33.81 | 4.049e4 | 3.019e4 | 2.349e3 | 1.814e3 | 1.29 | NO | 4.162e3 | 7.3783 | 7.3783 | 0.303 |
| 1,2,3,7,8,9-HxCDF | 34.77 | 3.567e4 | 2.918e4 | 8.952e2 | 8.182e2 | 1.09 | NO | 1.713e3 | 3.7199 | 3.7199 | 0.443 |
| Total Hexa-Furans | 34.81 | 4.024e4 | 3.422e4 | 2.086e3 | 1.641e3 | 1.27 | NO | 3.727e3 | 6.4853 | 6.4853 | 0.304 |

**Hepta-Furans**

|                     |       |         |         |         |         |      |    |         |        |        |       |
|---------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|
| 1,2,3,4,6,7,8-HpCDF | 36.58 | 2.397e5 | 2.373e5 | 1.737e4 | 1.681e4 | 1.03 | NO | 3.418e4 | 79.773 | 79.773 | 0.553 |
| Total Hepta-Furans  | 37.00 | 3.549e3 | 3.216e3 | 2.102e2 | 2.082e2 | 1.01 | NO | 4.183e2 | 1.1193 | 1.1193 | 0.577 |
| Total Hepta-Furans  | 37.19 | 4.457e5 | 4.379e5 | 2.832e4 | 2.751e4 | 1.03 | NO | 5.583e4 | 149.37 | 149.37 | 0.577 |
| 1,2,3,4,7,8,9-HpCDF | 38.38 | 5.424e4 | 4.989e4 | 3.311e3 | 3.084e3 | 1.07 | NO | 6.395e3 | 16.966 | 16.966 | 0.515 |

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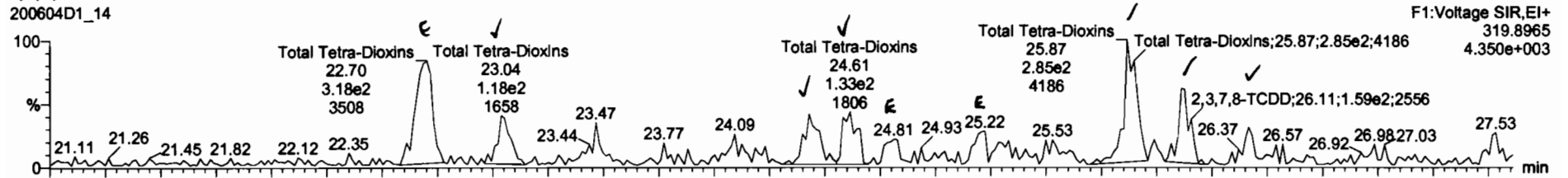
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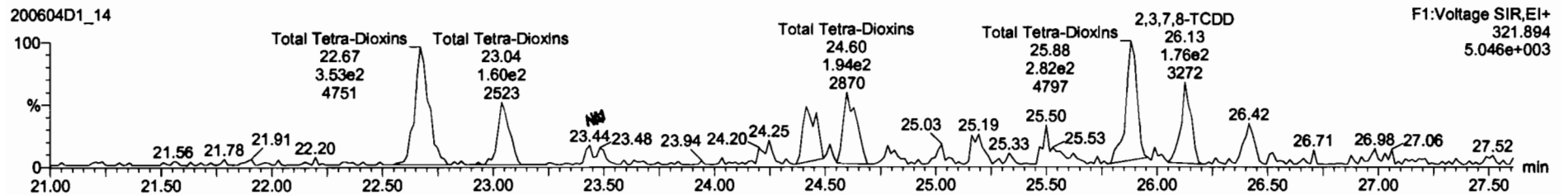
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2,3,7,8-TCDD

200604D1\_14

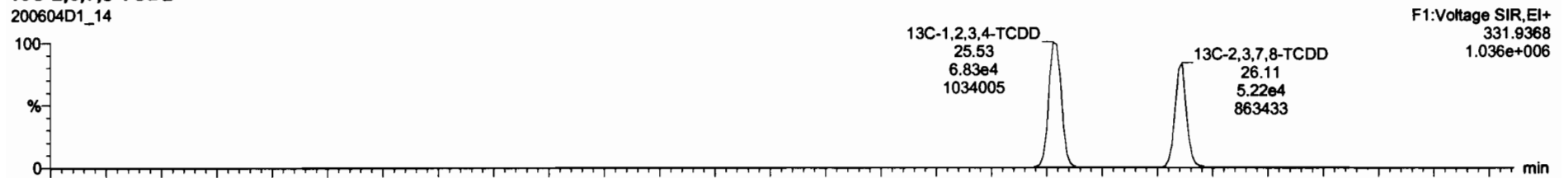


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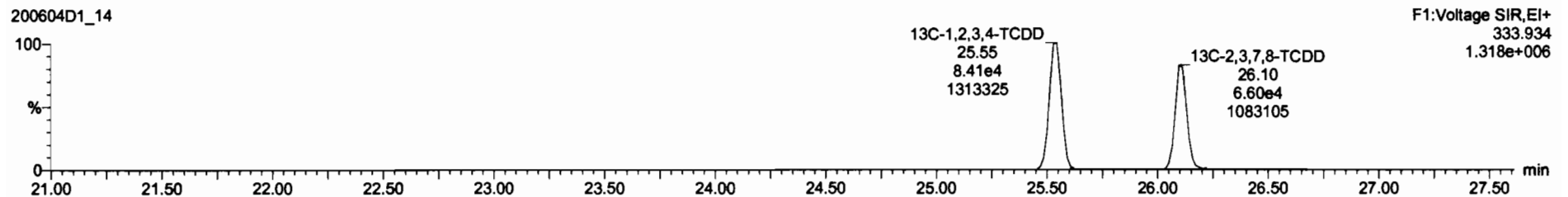


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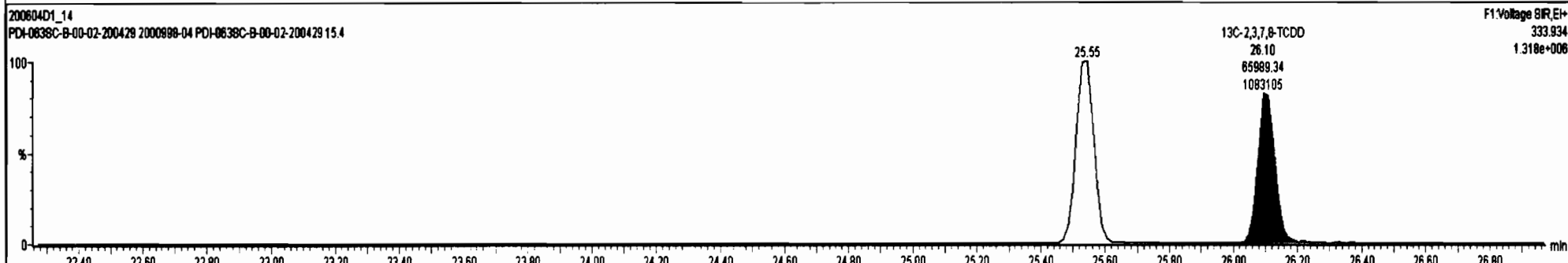
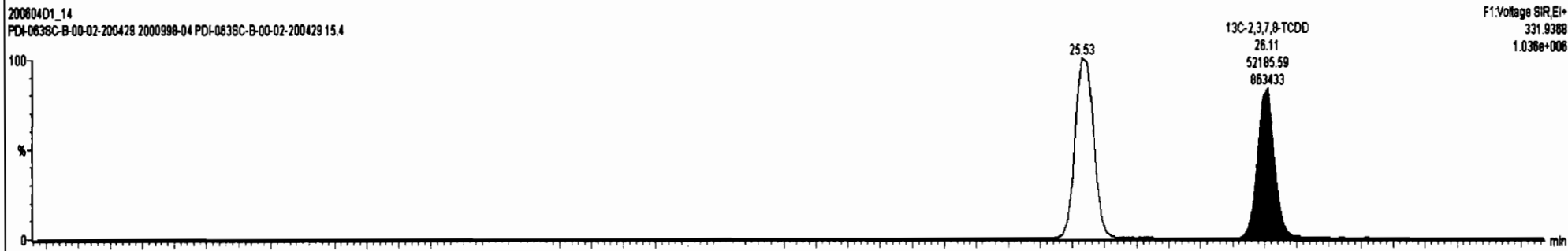
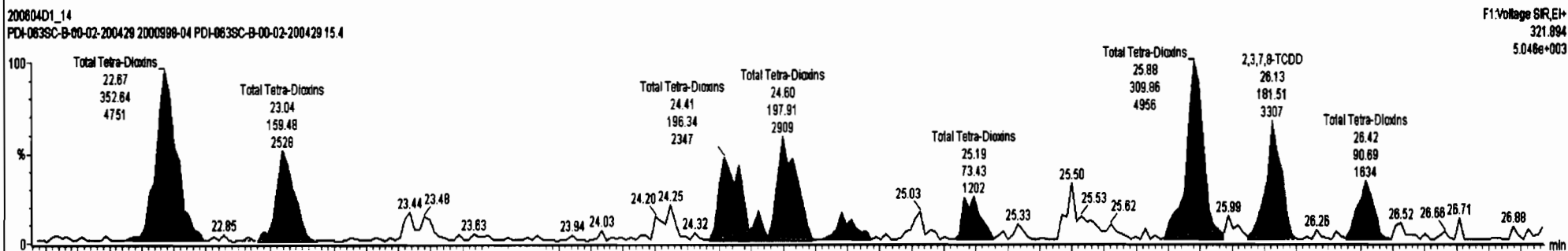
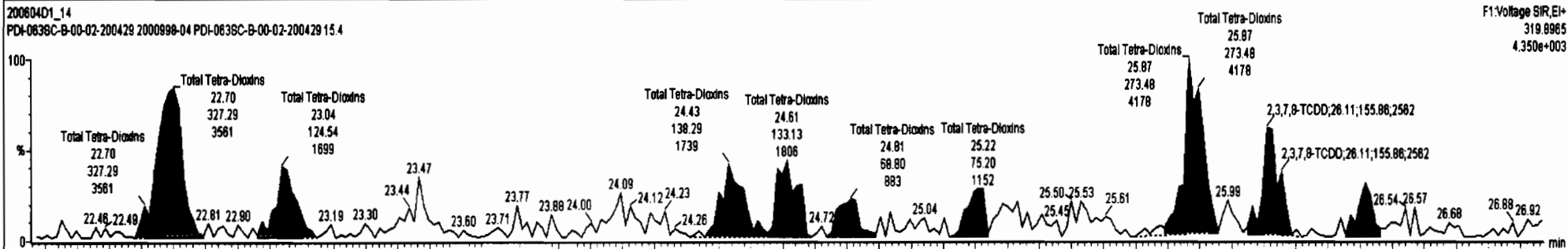
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200604D1\_14







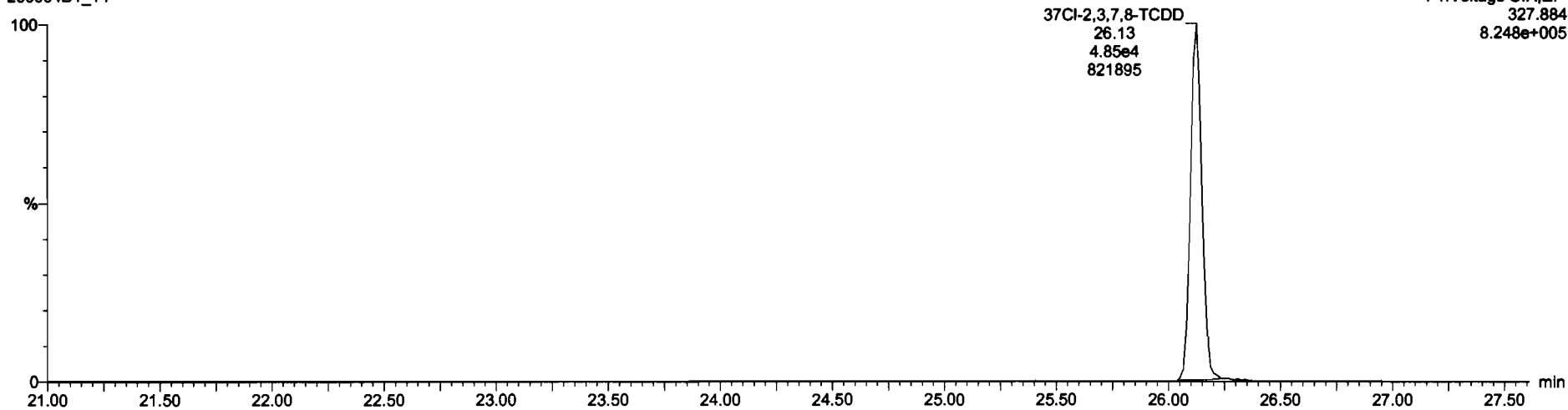
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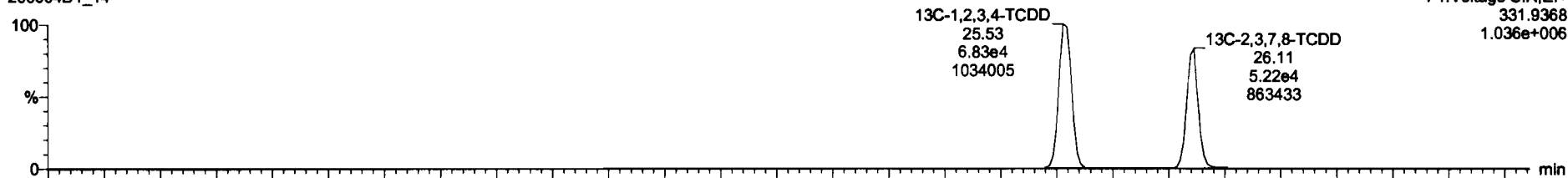
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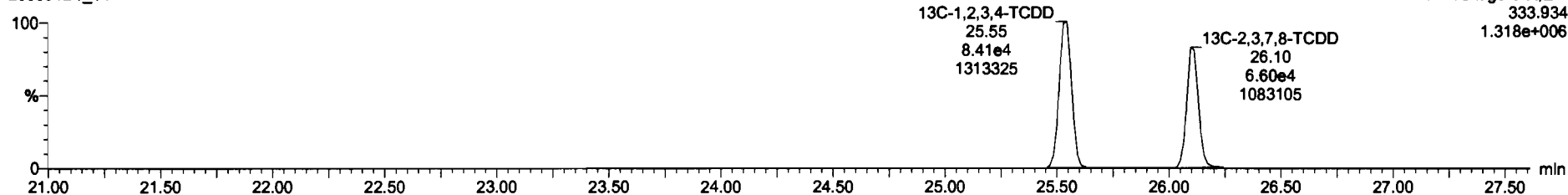


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200604D1\_14



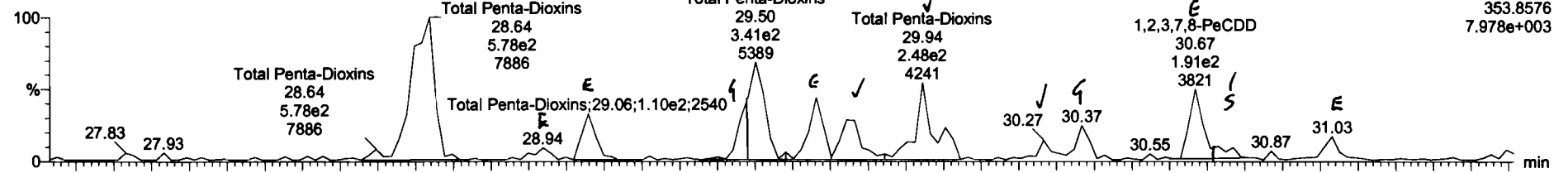
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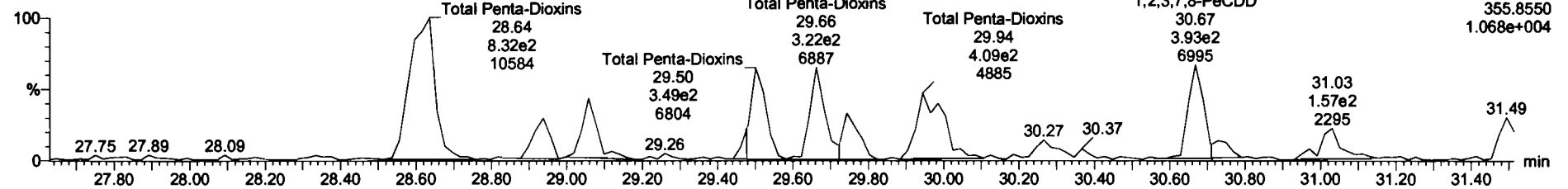
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1,2,3,7,8-PeCDD

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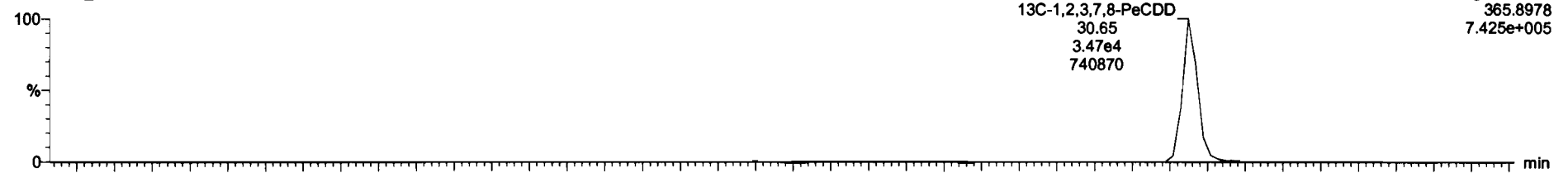


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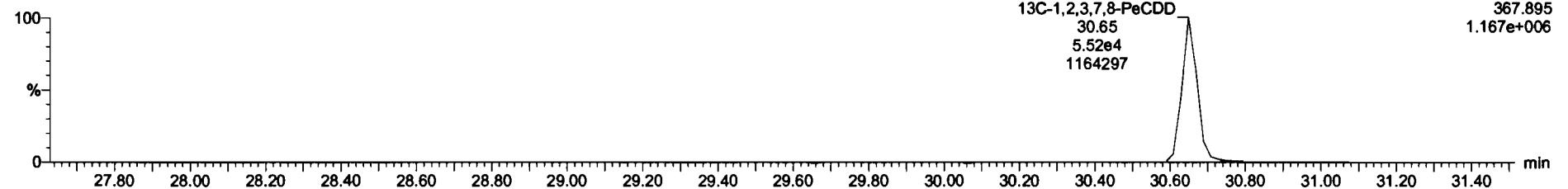


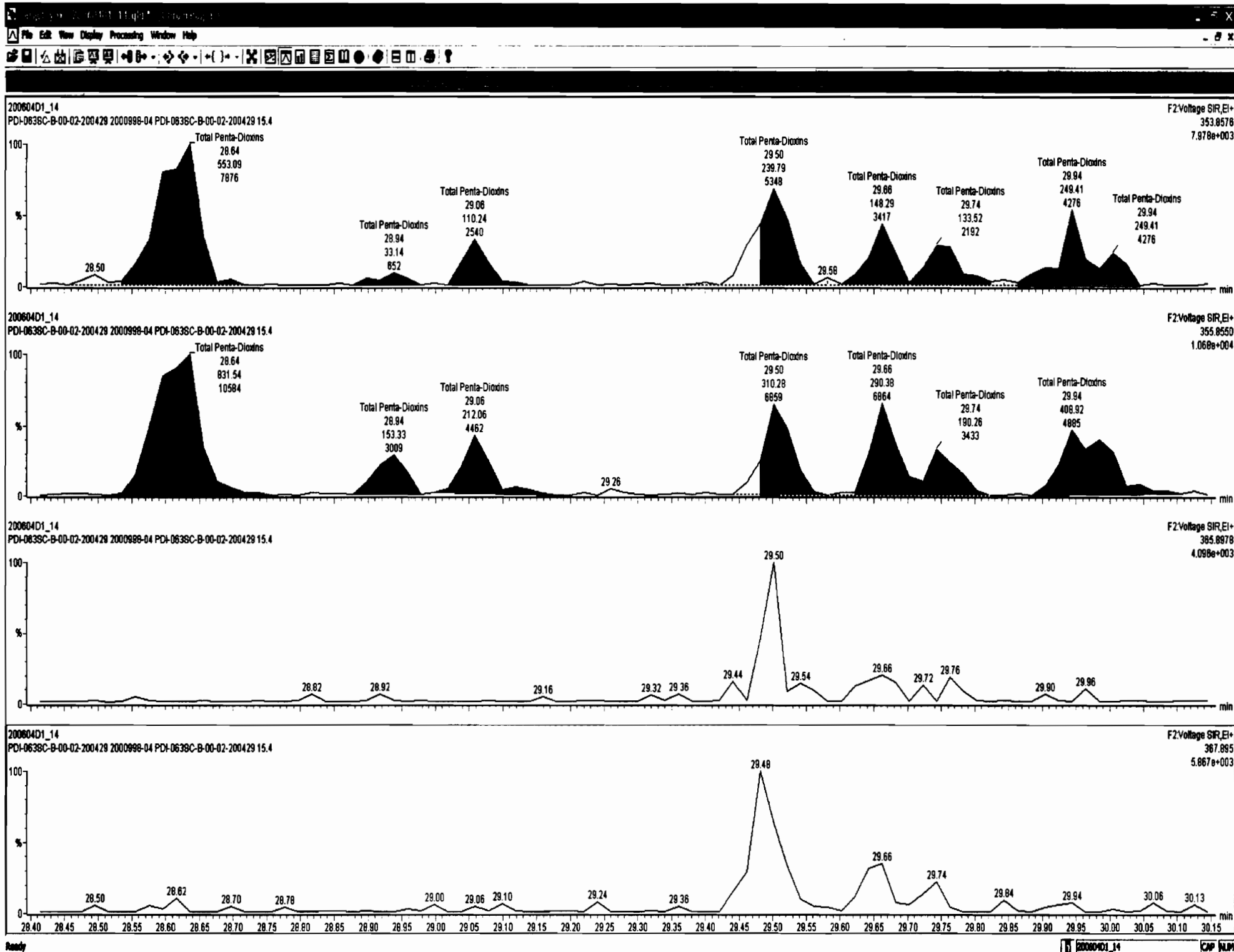
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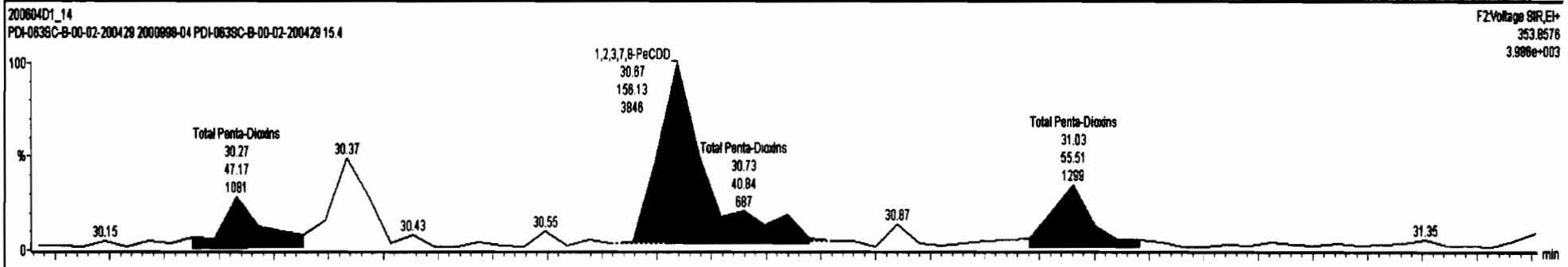
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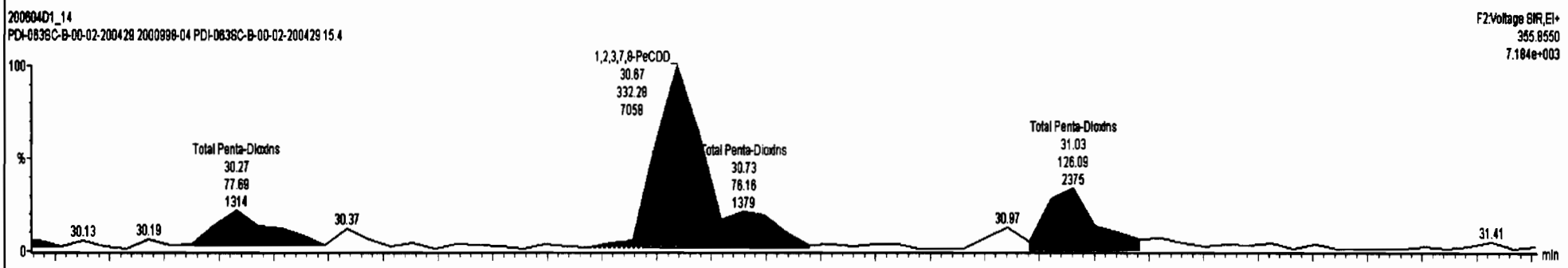
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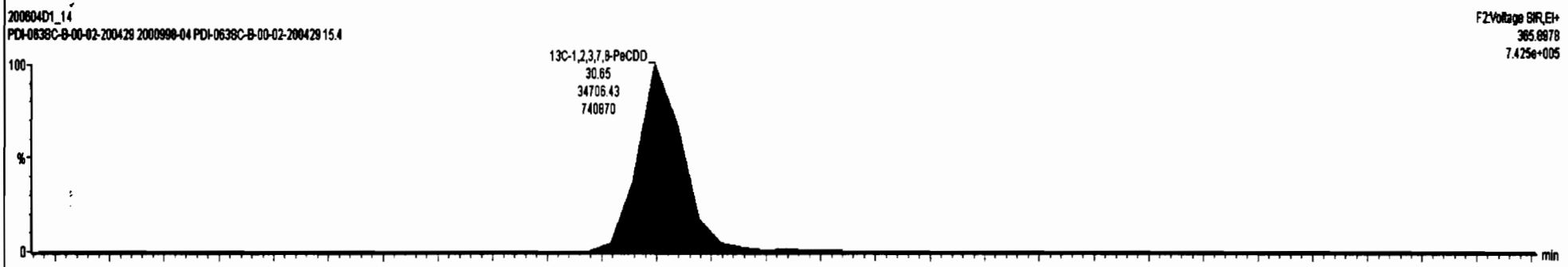




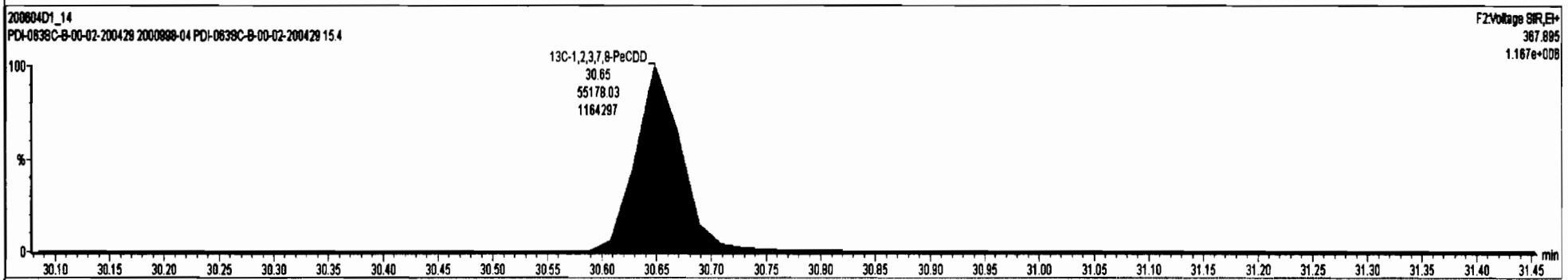
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 3.900e+003



F2:Voltage 8R,EI+  
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F2:Voltage 8R,EI+  
 365.8878  
 7.425e+005



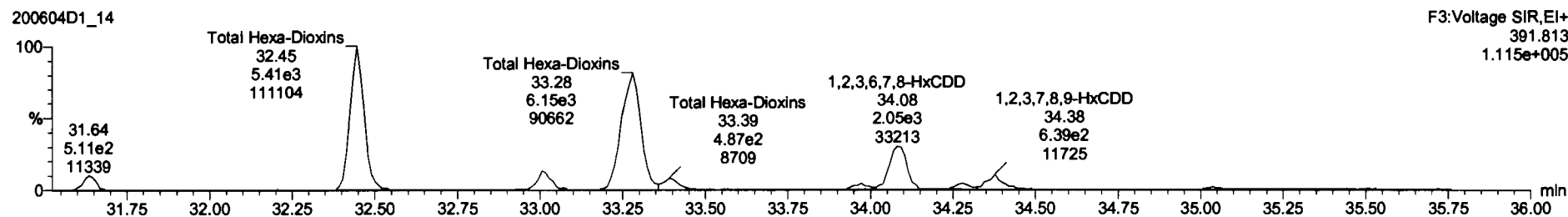
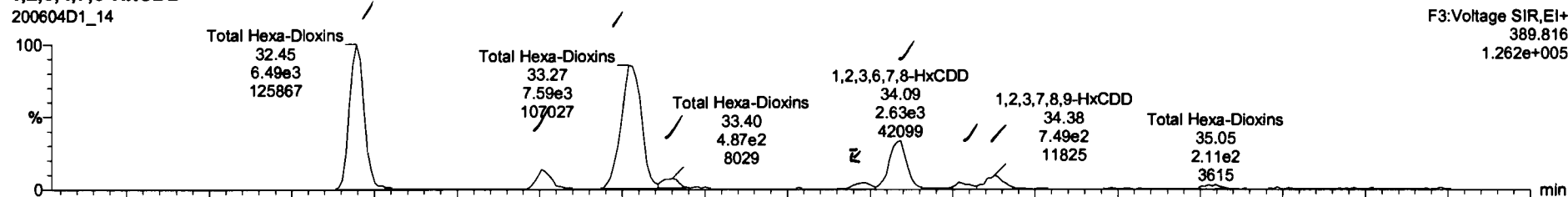
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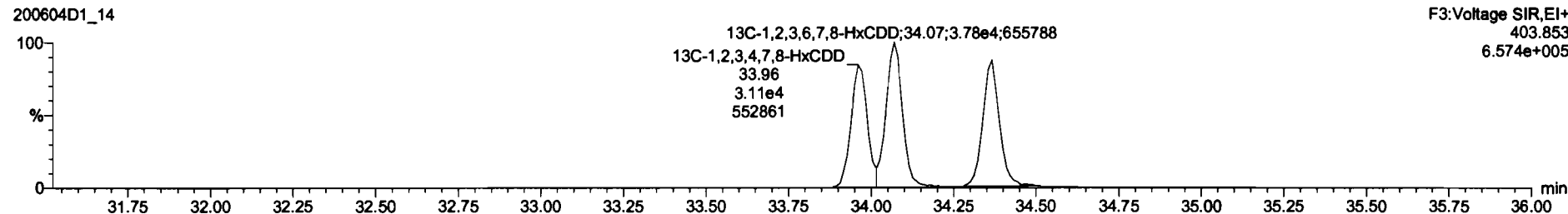
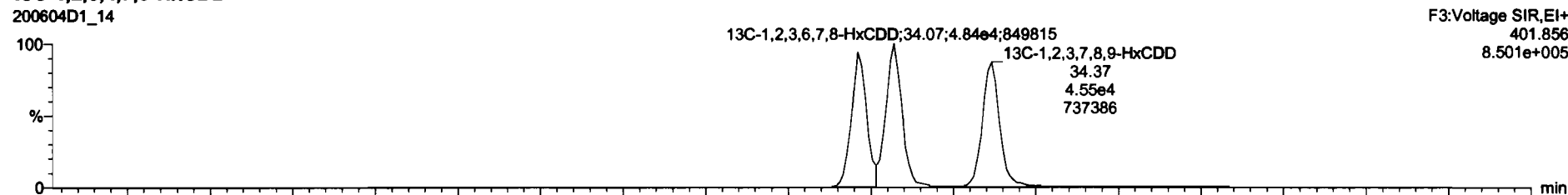
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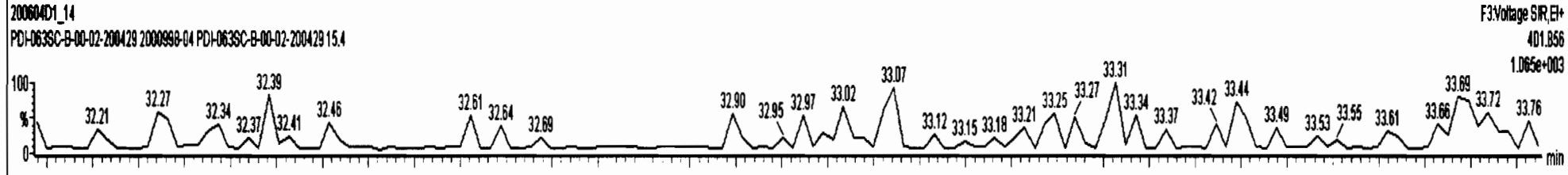
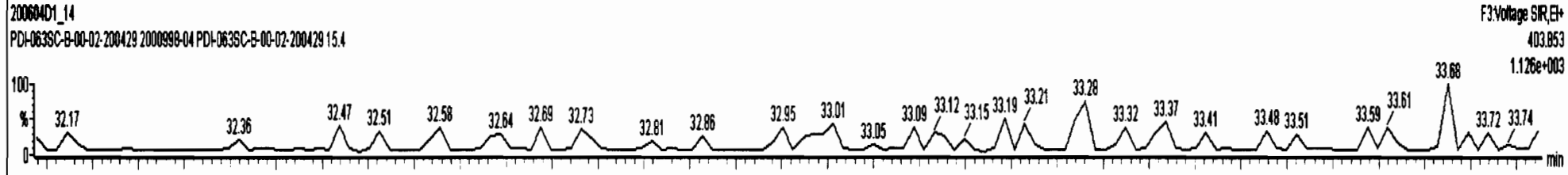
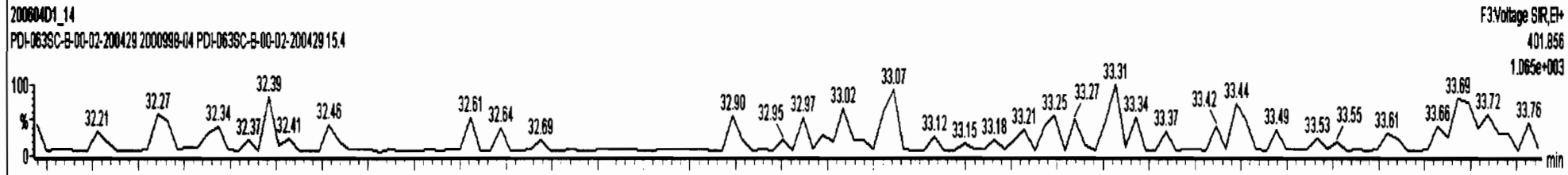
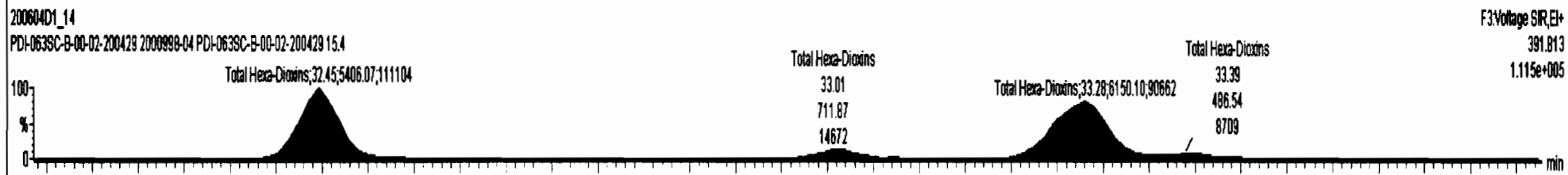
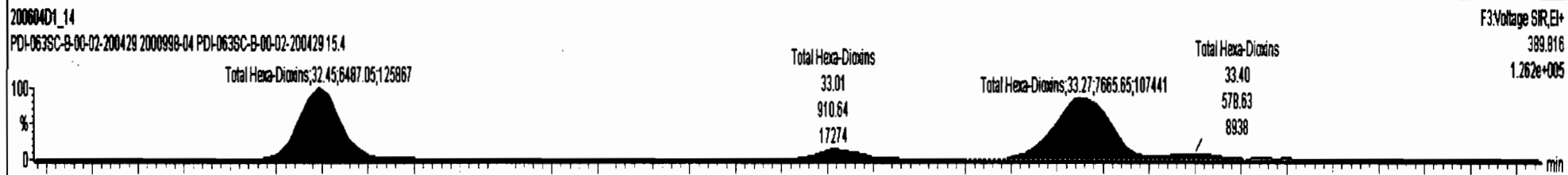
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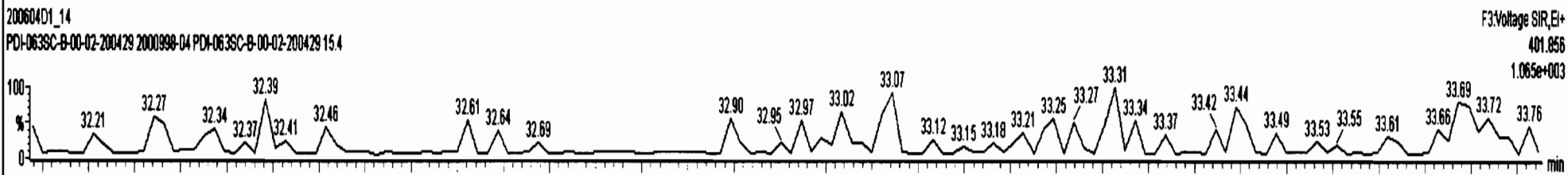
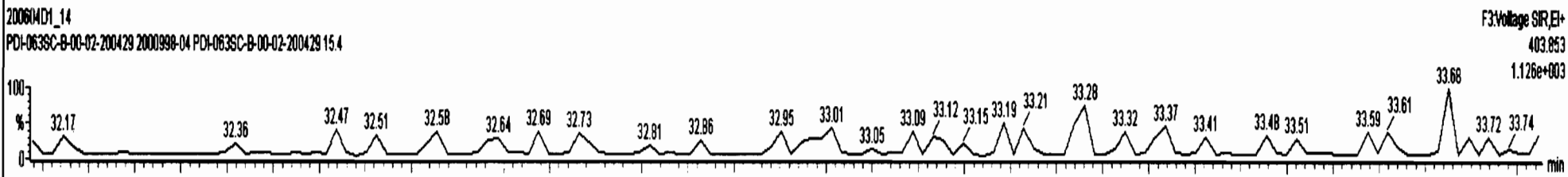
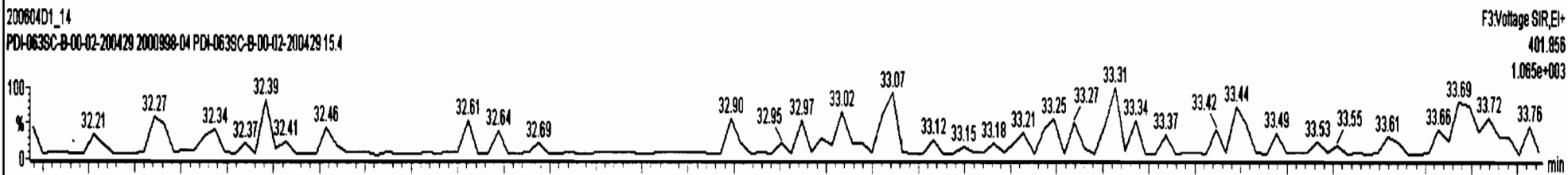
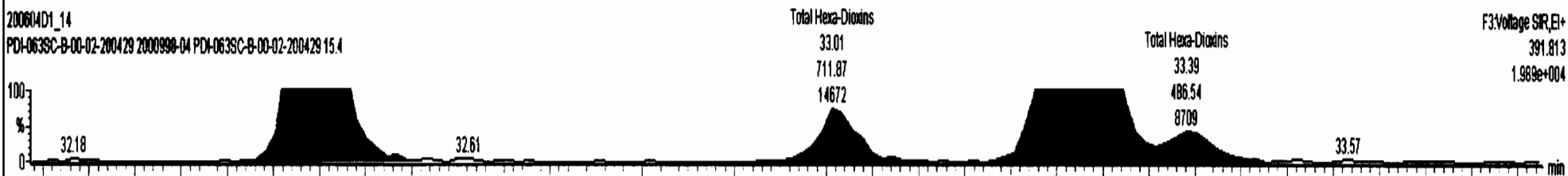
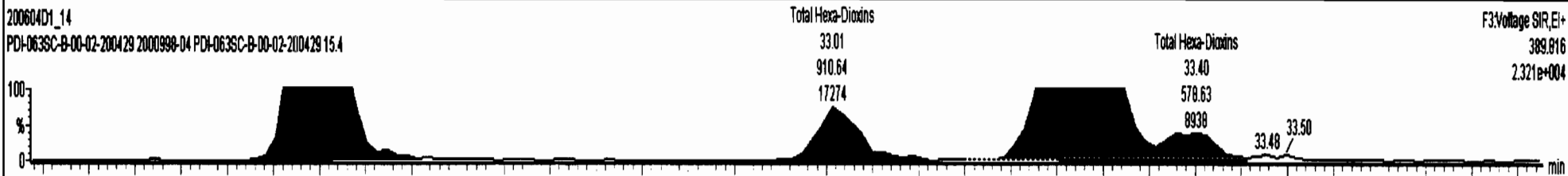
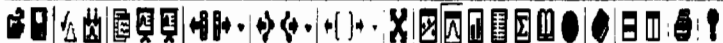
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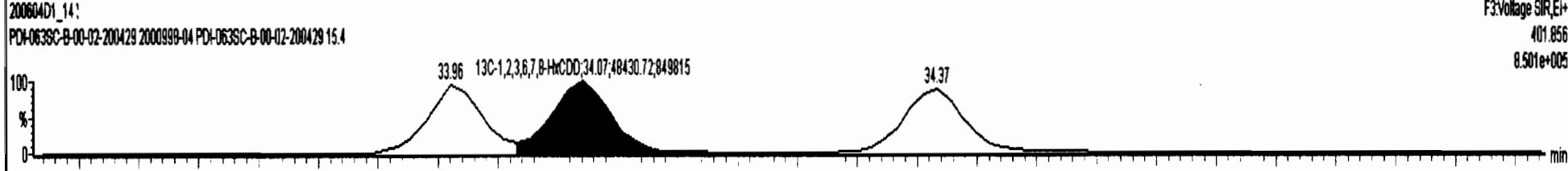
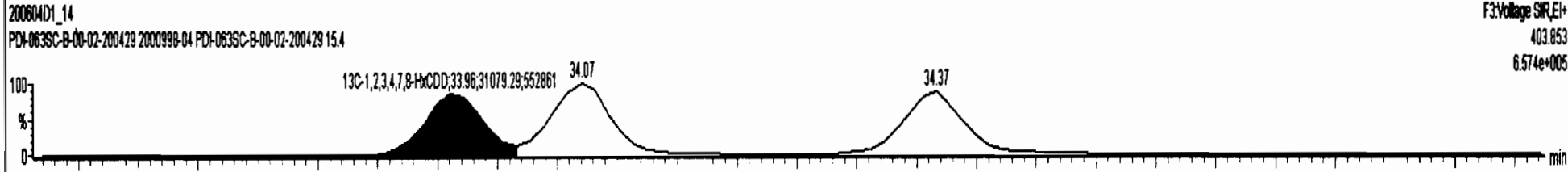
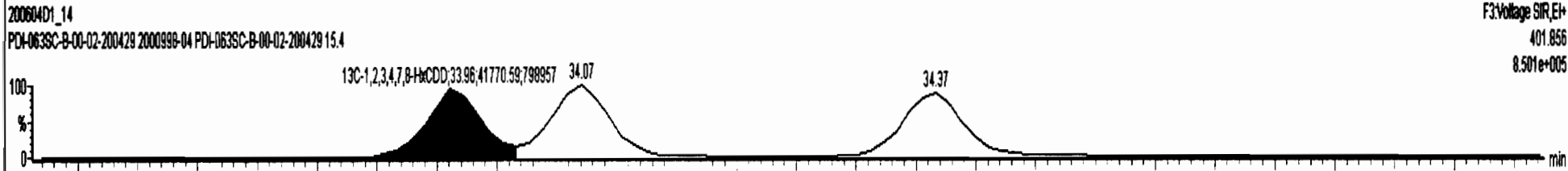
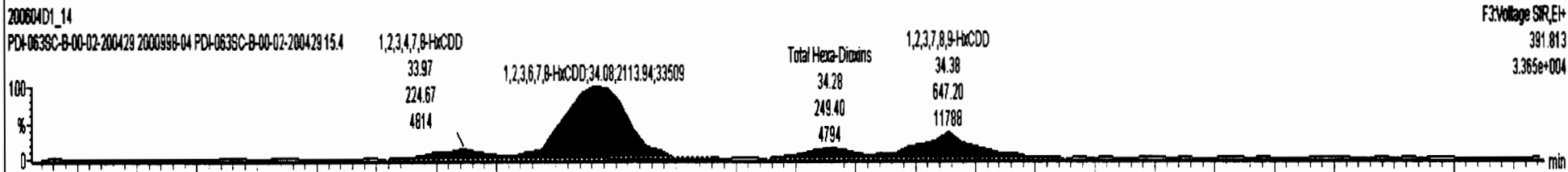
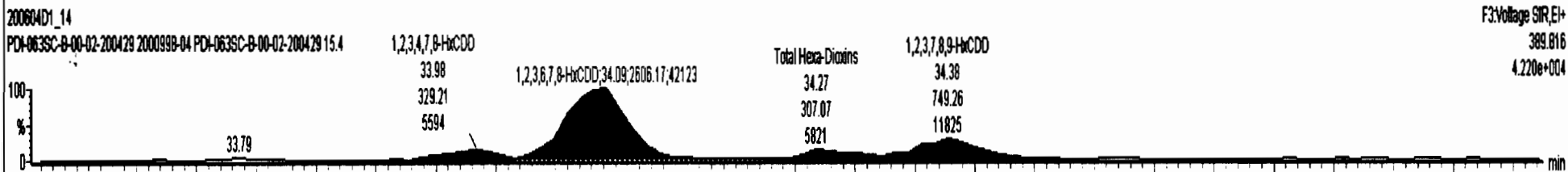
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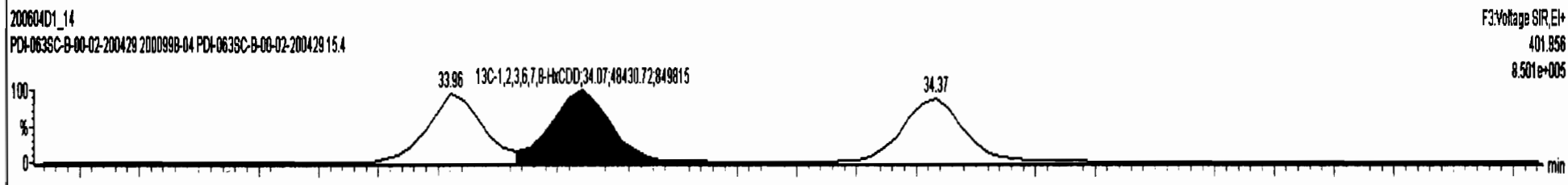
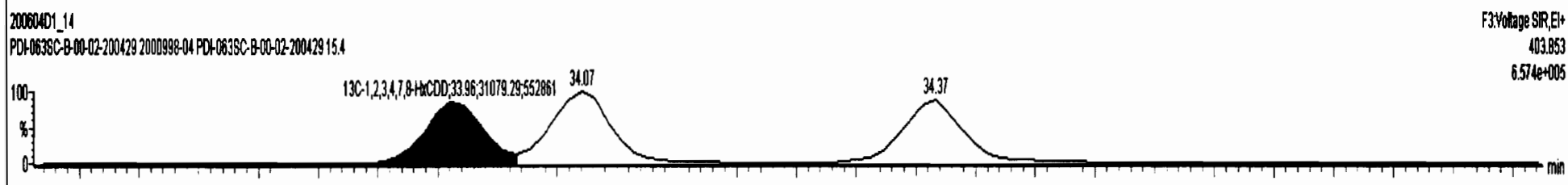
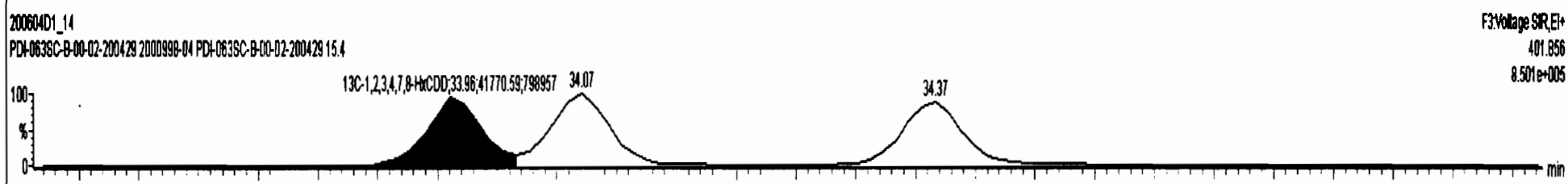
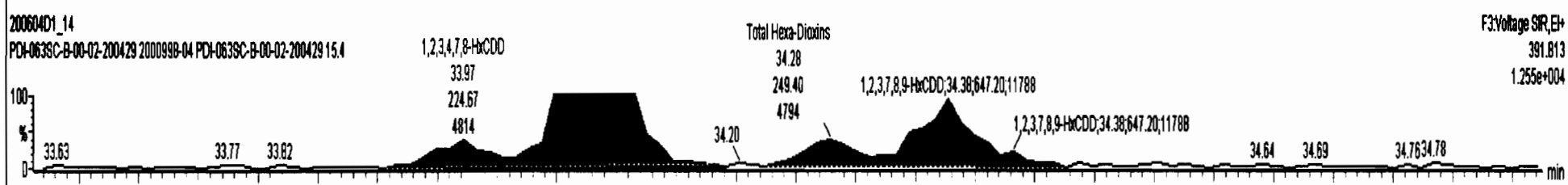
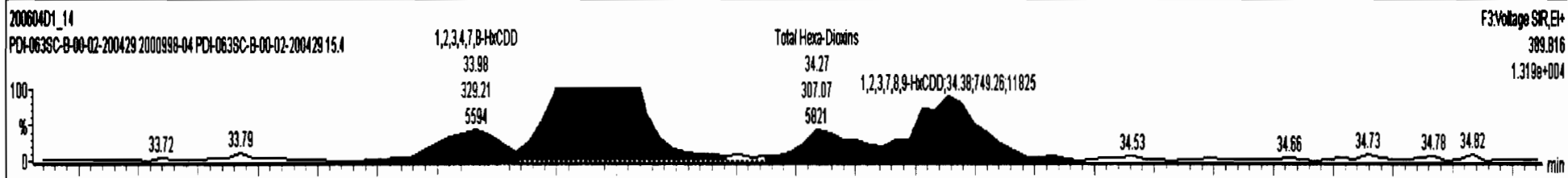










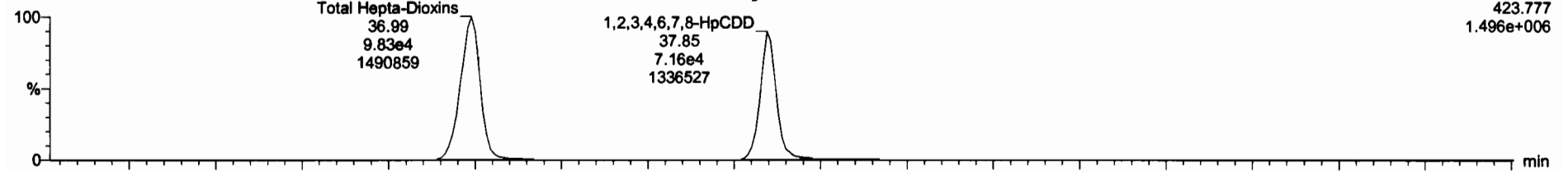


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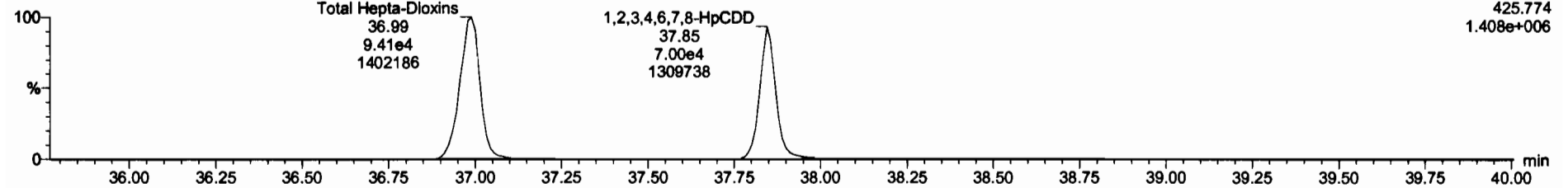
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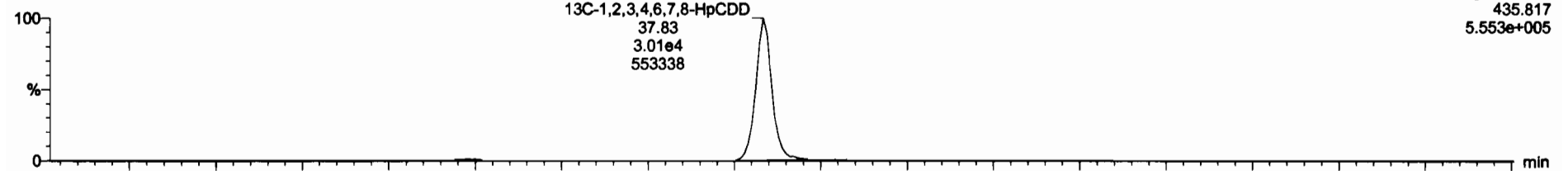
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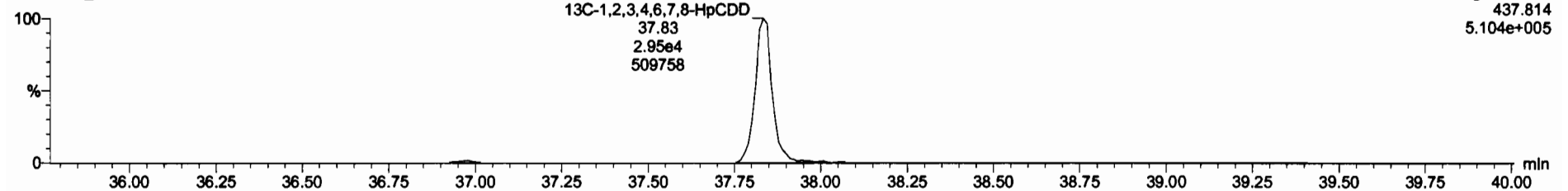
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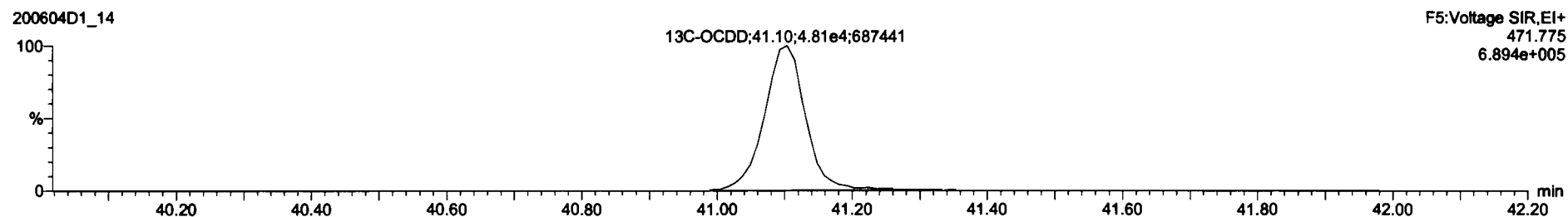
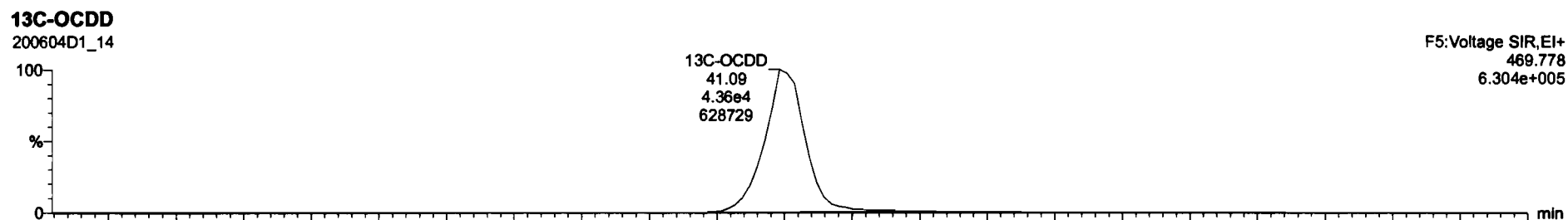
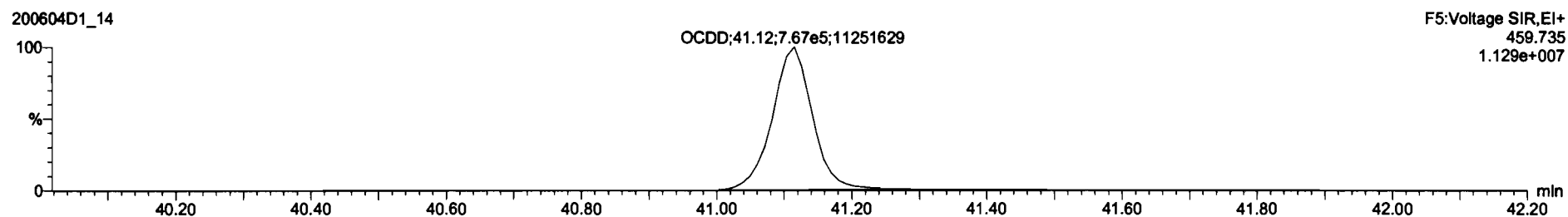
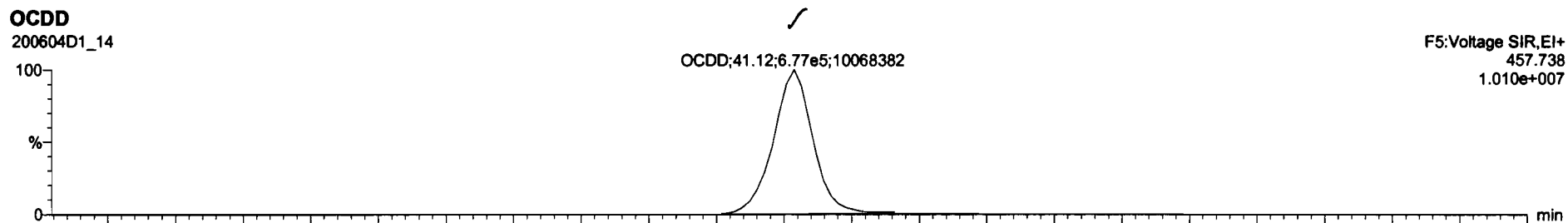
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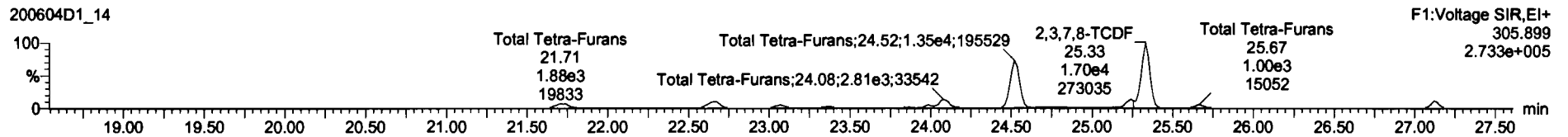
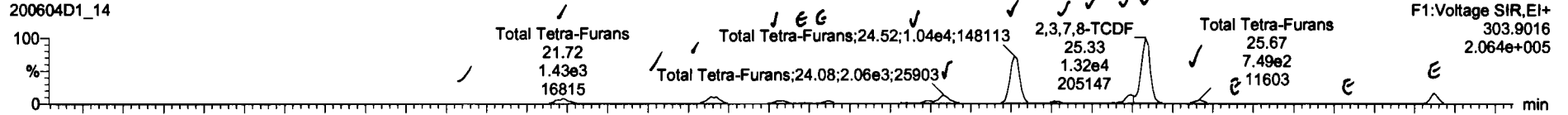


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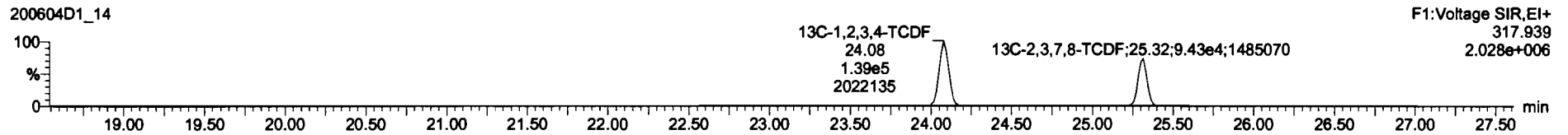
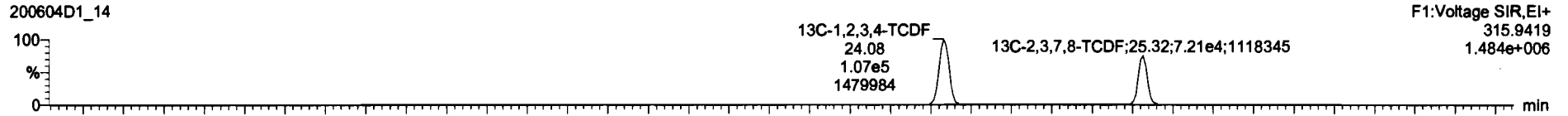
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Printed: Friday, June 05, 2020 09:46:14 Pacific Daylight Time

Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

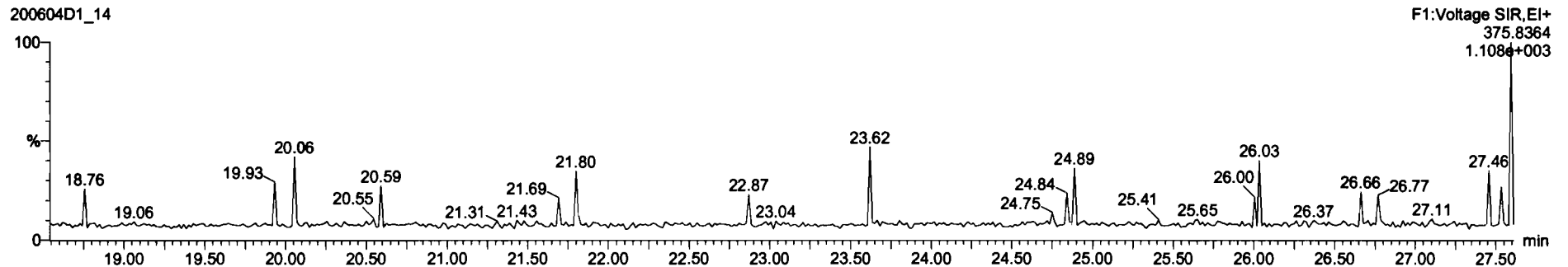
**2,3,7,8-TCDF**

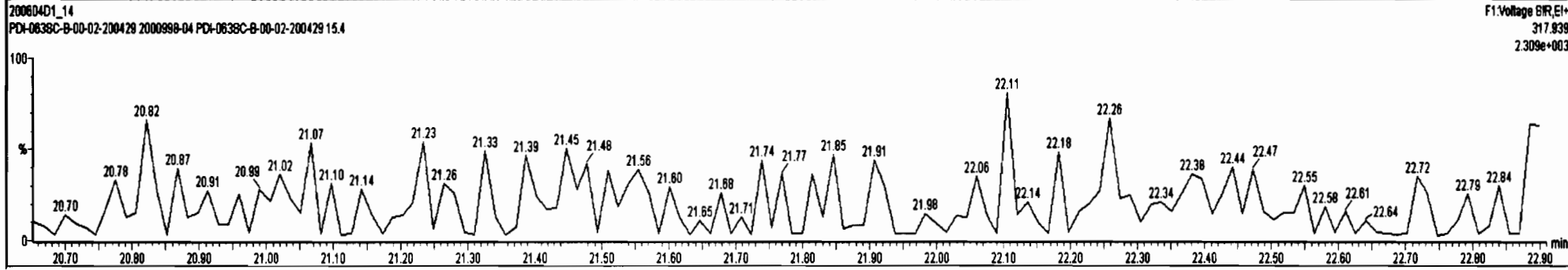
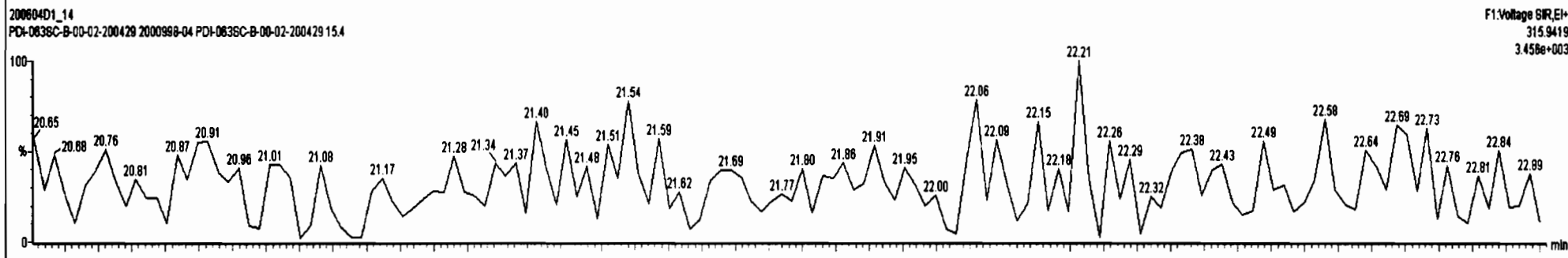
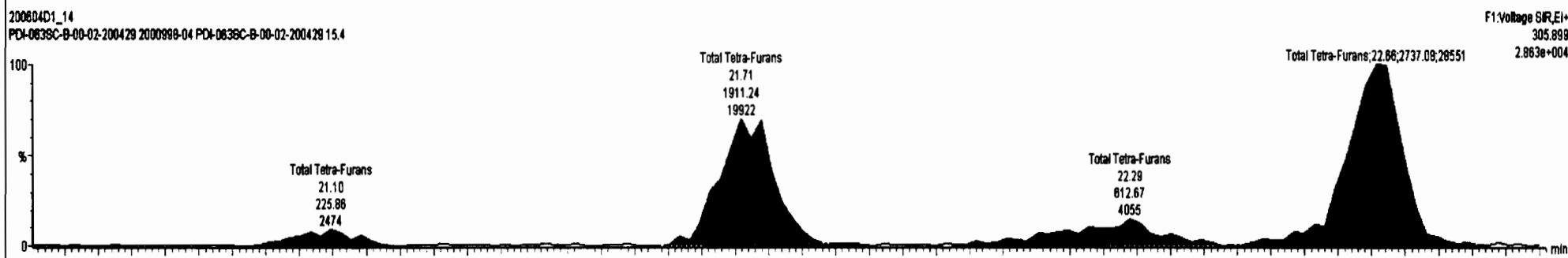
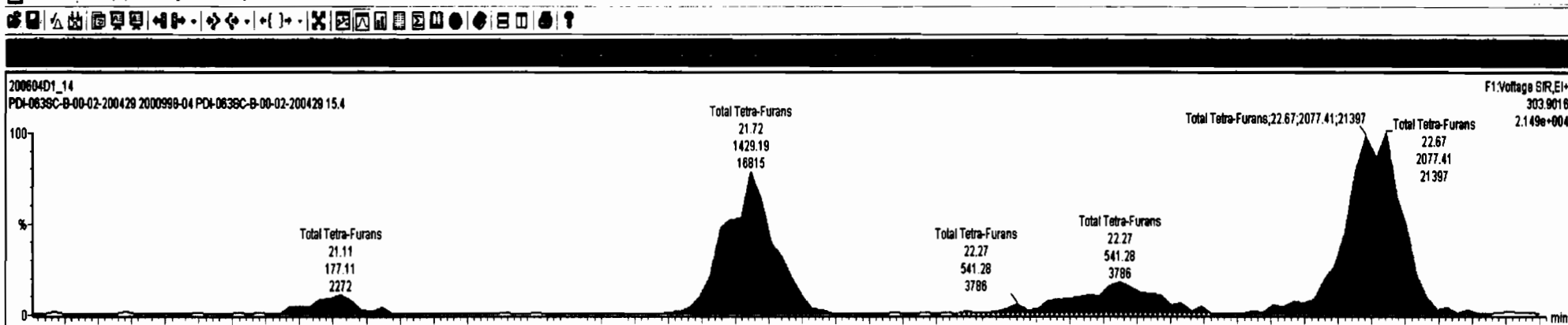


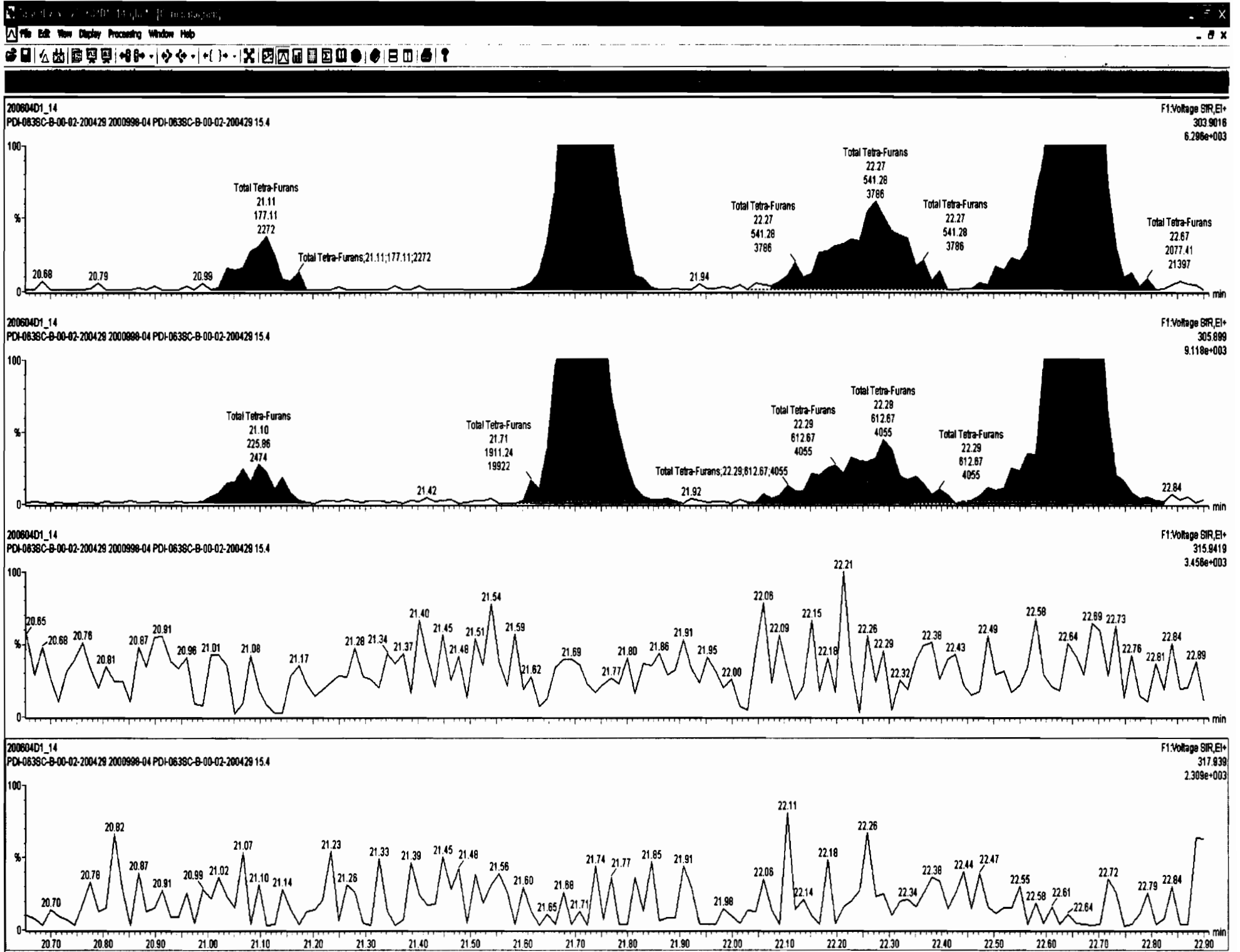
**13C-2,3,7,8-TCDF**



**DPE1**

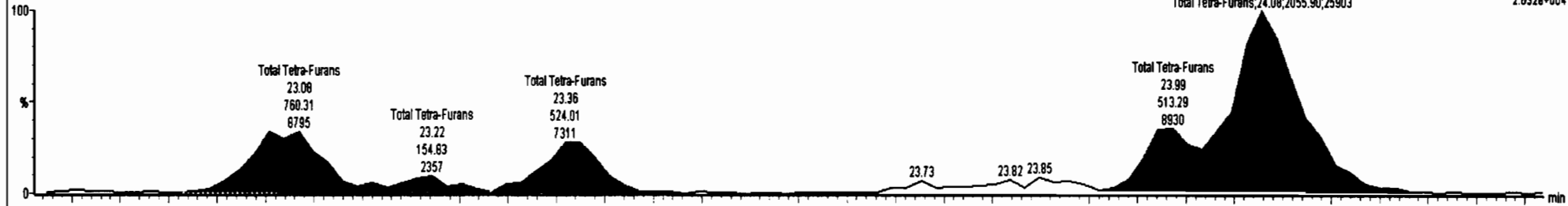




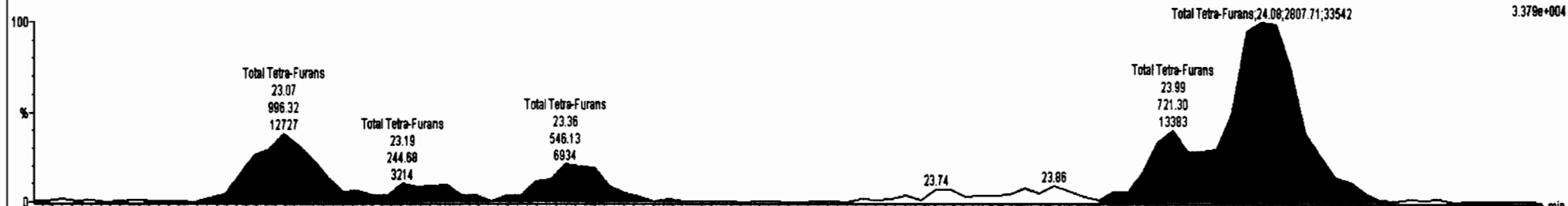




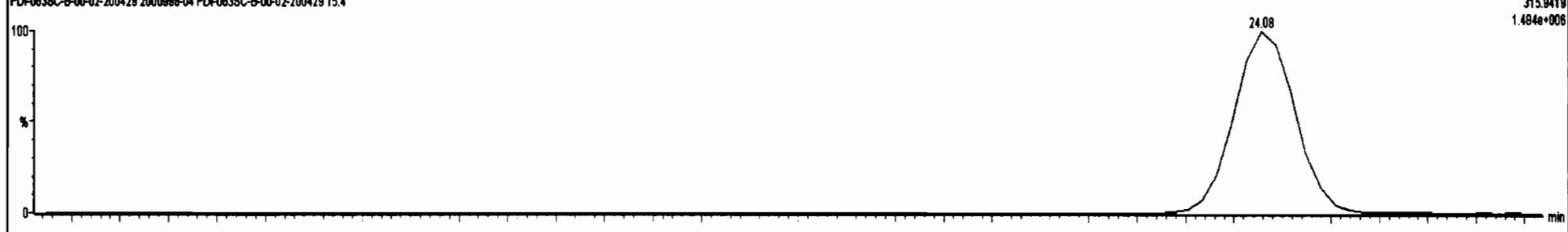
200804D1\_14  
 PDI-0638C-B-00-02-200429 2000998-04 PDI-0638C-B-00-02-200429 15.4  
 F1:Voltage SIR,EI+  
 303.9016  
 2.832e+004



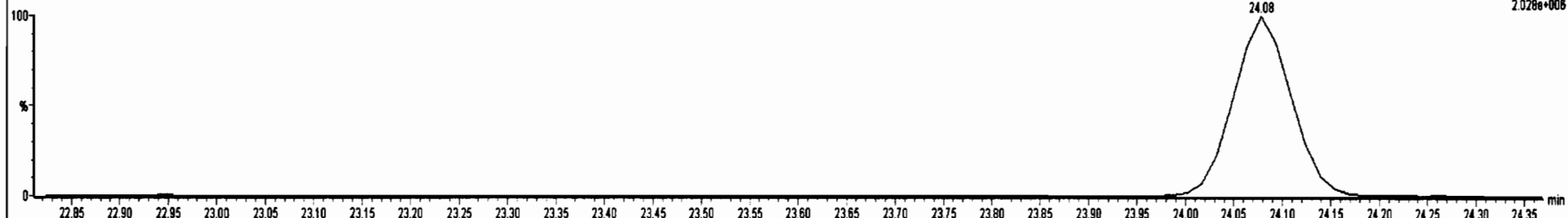
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 F1:Voltage SIR,EI+  
 305.899  
 3.379e+004



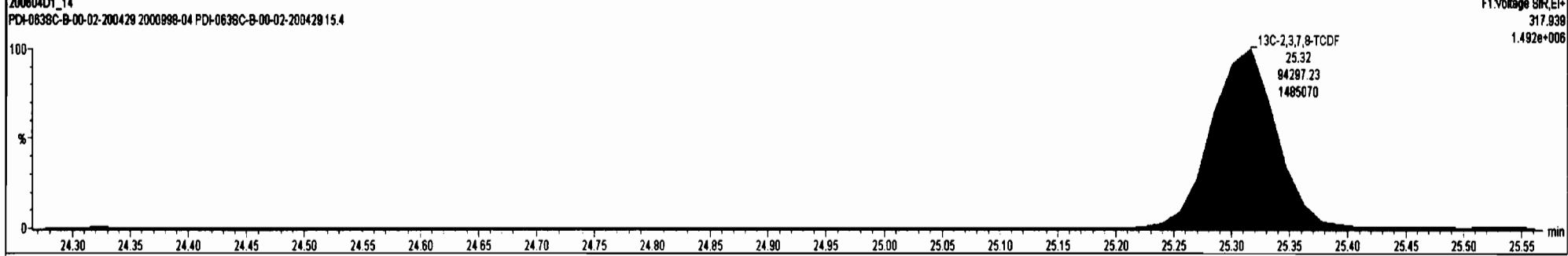
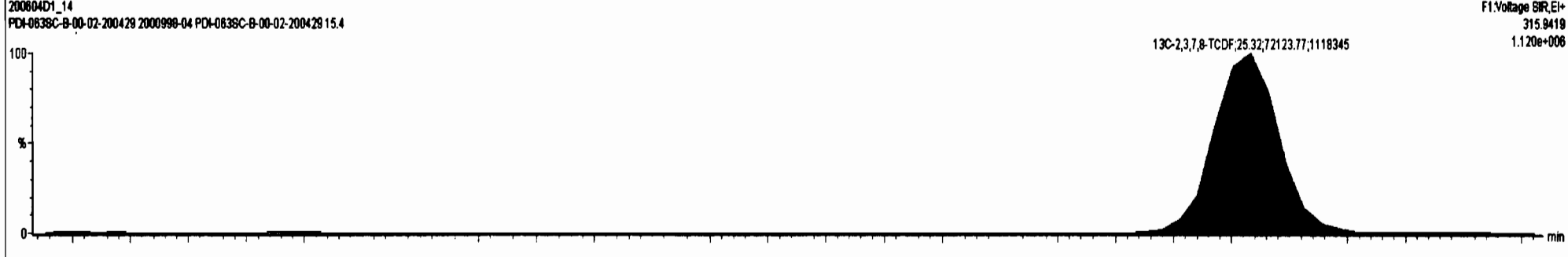
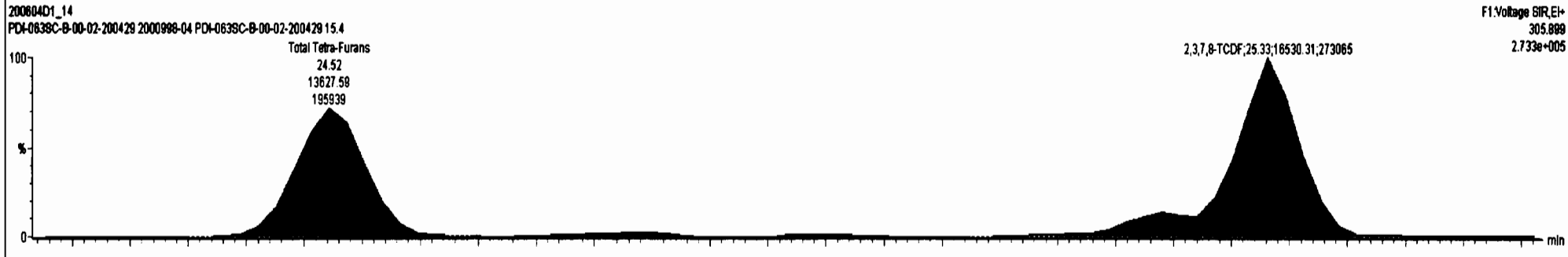
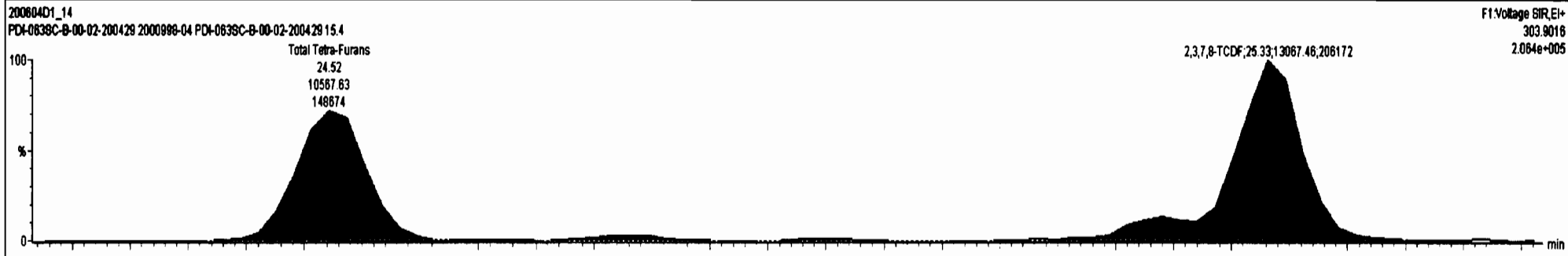
200804D1\_14  
 PDI-0638C-B-00-02-200429 2000998-04 PDI-0638C-B-00-02-200429 15.4  
 F1:Voltage SIR,EI+  
 315.9419  
 1.484e+006

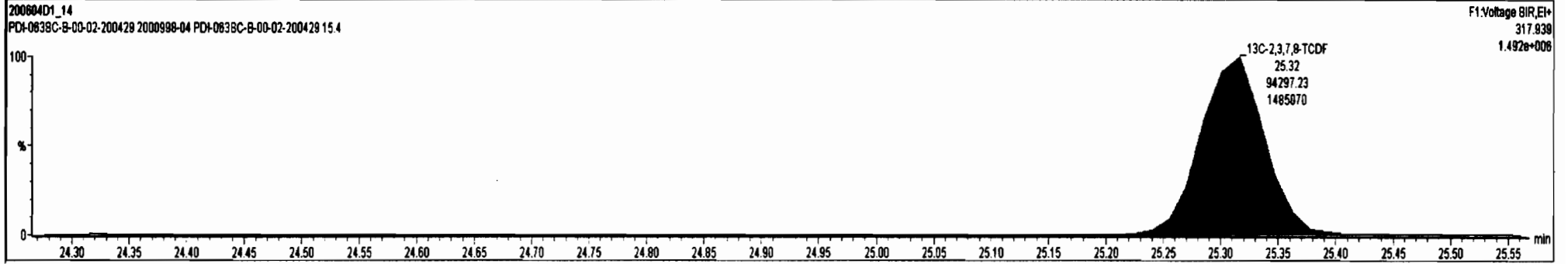
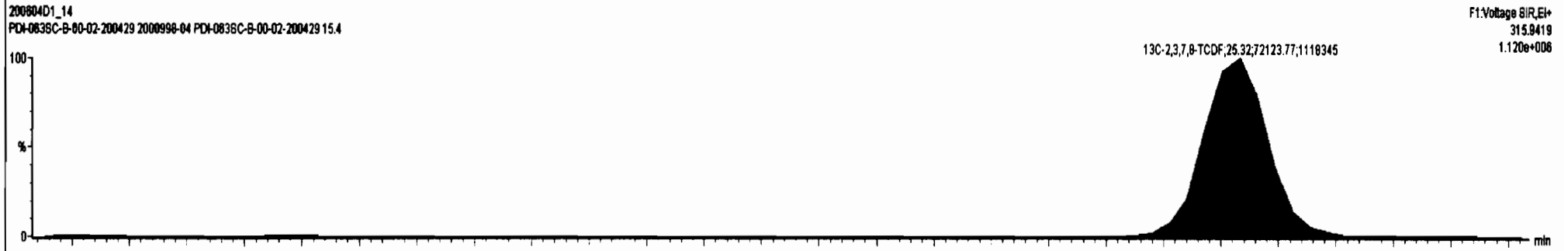
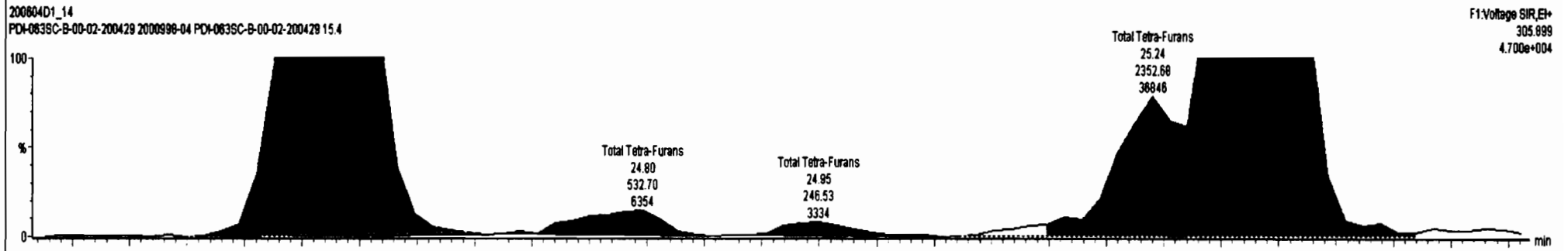
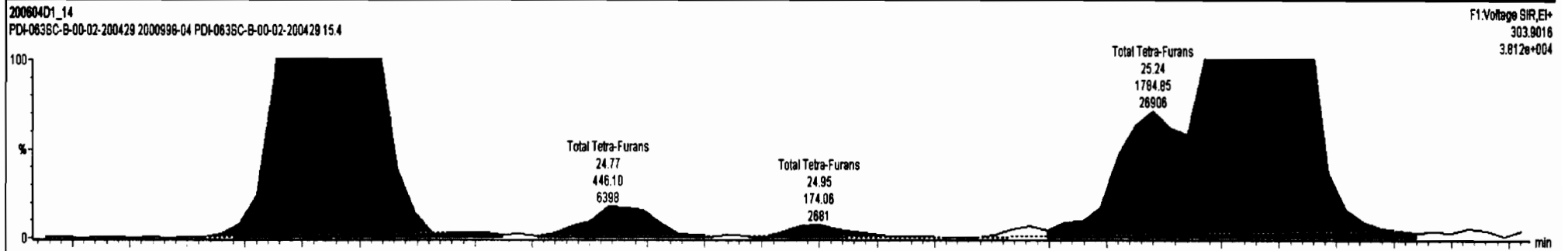


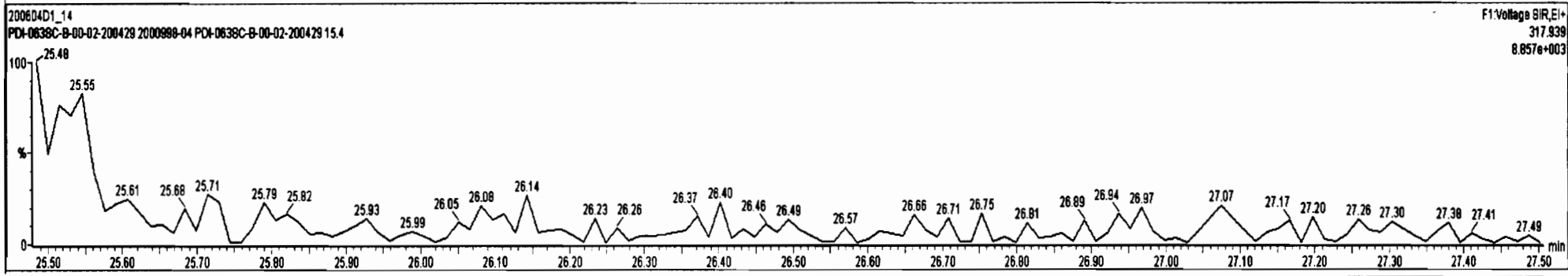
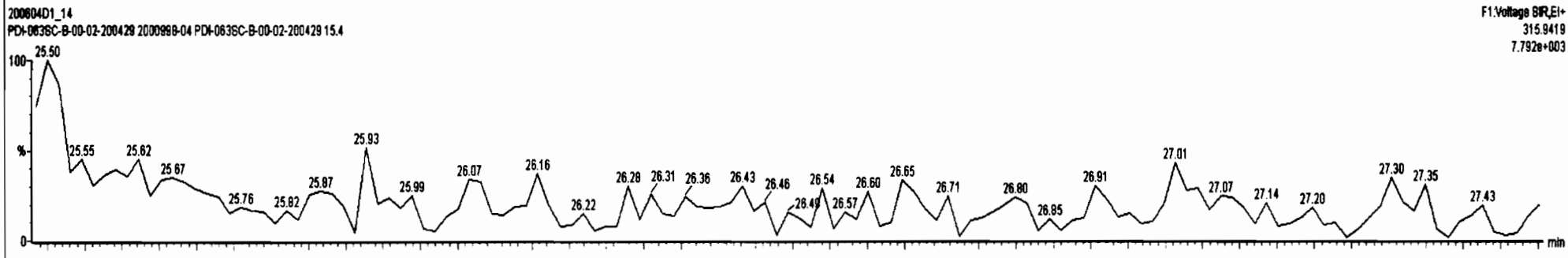
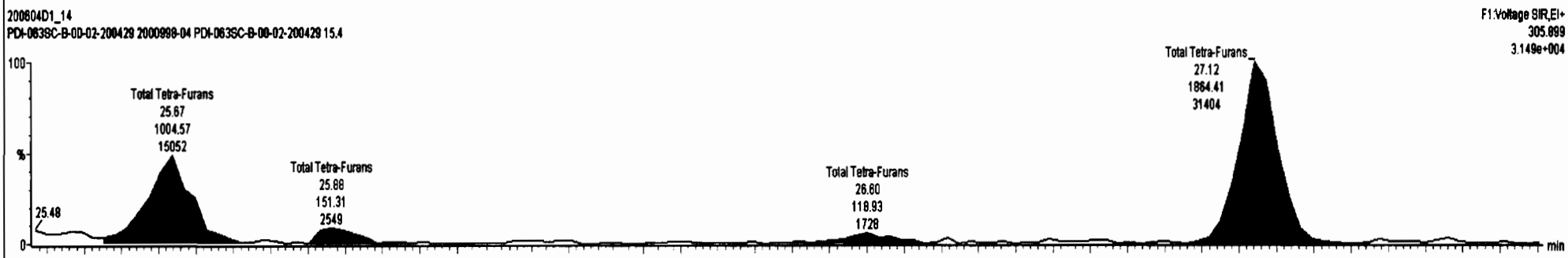
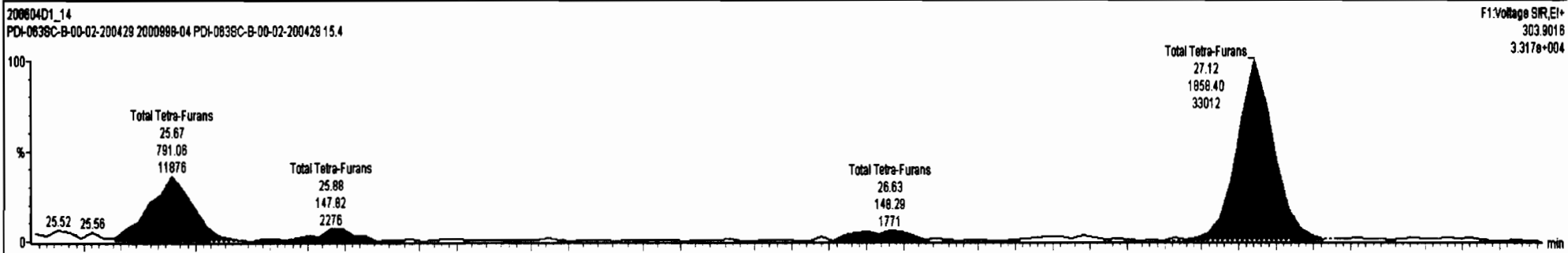
200804D1\_14  
 PDI-0638C-B-00-02-200429 2000998-04 PDI-0638C-B-00-02-200429 15.4  
 F1:Voltage SIR,EI+  
 317.939  
 2.028e+006







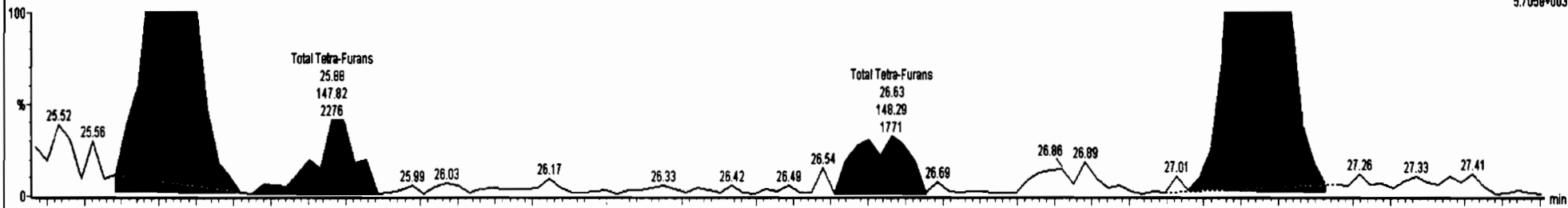






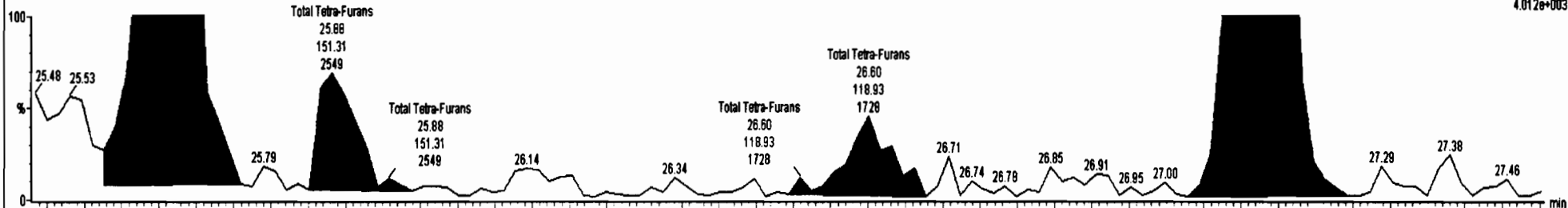
200604D1\_14  
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F1:Voltage SIR,EI+  
 303.9016  
 5.705e+003



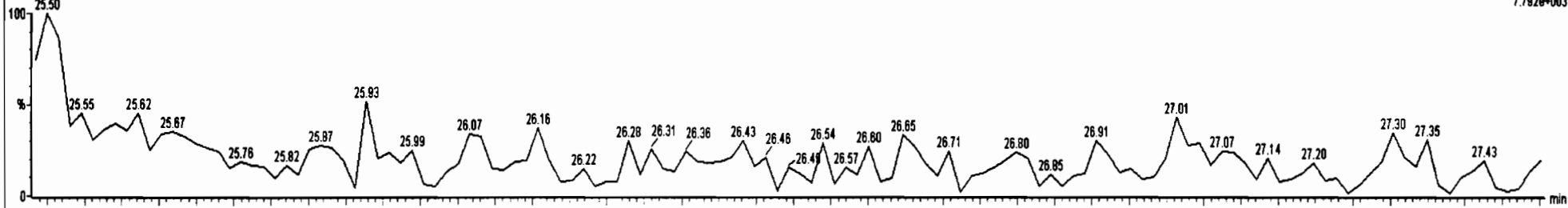
200604D1\_14  
 PDI-0638C-B-00-02-200429 2000998-04 PDI-0638C-B-00-02-200429 15.4

F1:Voltage SIR,EI+  
 305.899  
 4.012e+003



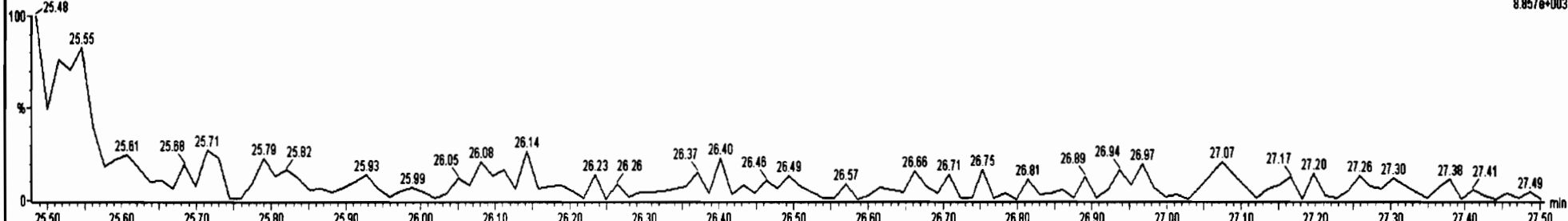
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F1:Voltage SIR,EI+  
 315.9419  
 7.792e+003



200604D1\_14  
 PDI-0638C-B-00-02-200429 2000998-04 PDI-0638C-B-00-02-200429 15.4

F1:Voltage SIR,EI+  
 317.939  
 8.957e+003



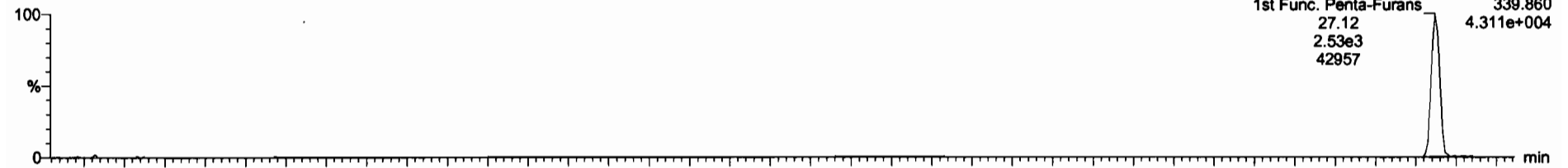
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Printed: Friday, June 05, 2020 09:46:14 Pacific Daylight Time

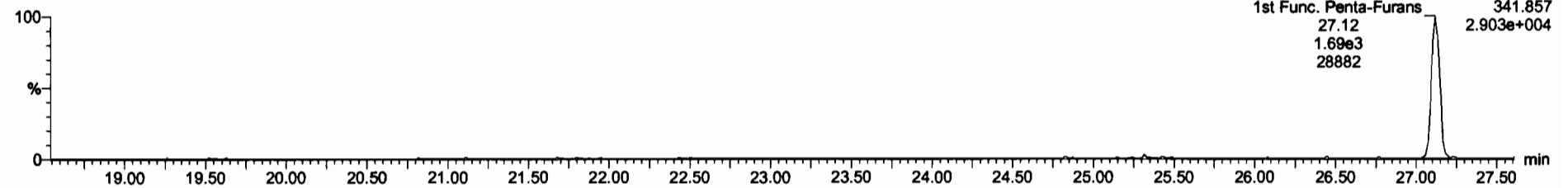
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1st Func. Penta-Furans

200604D1\_14

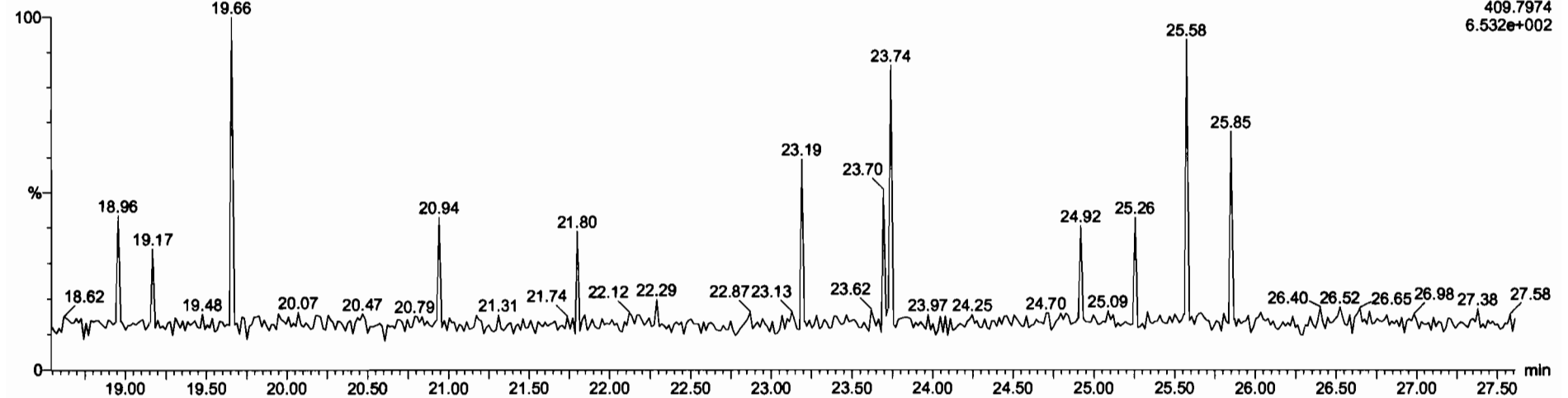


200604D1\_14



DPE6

200604D1\_14

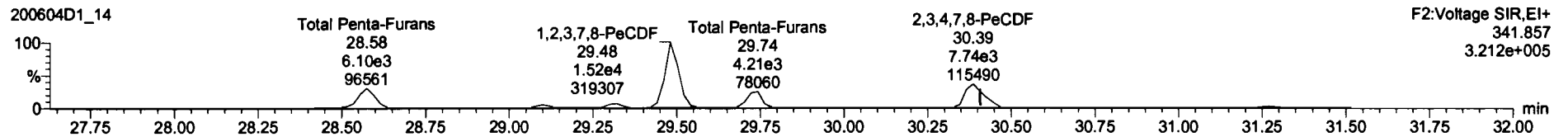
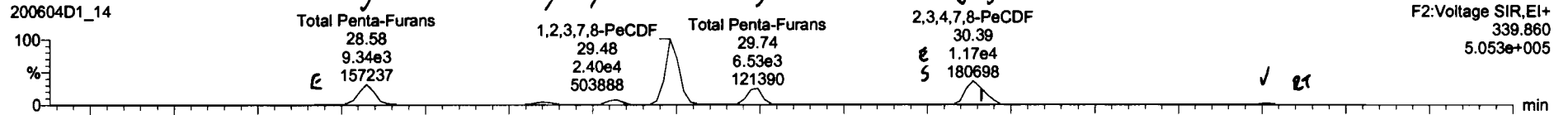


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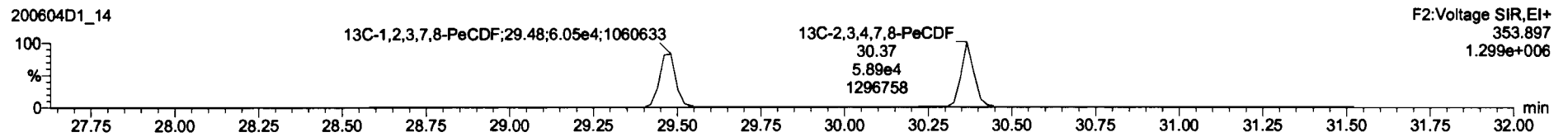
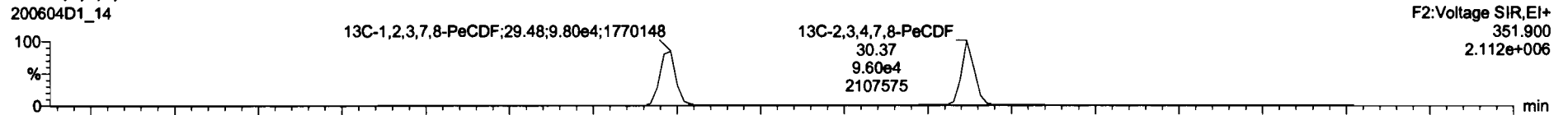
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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

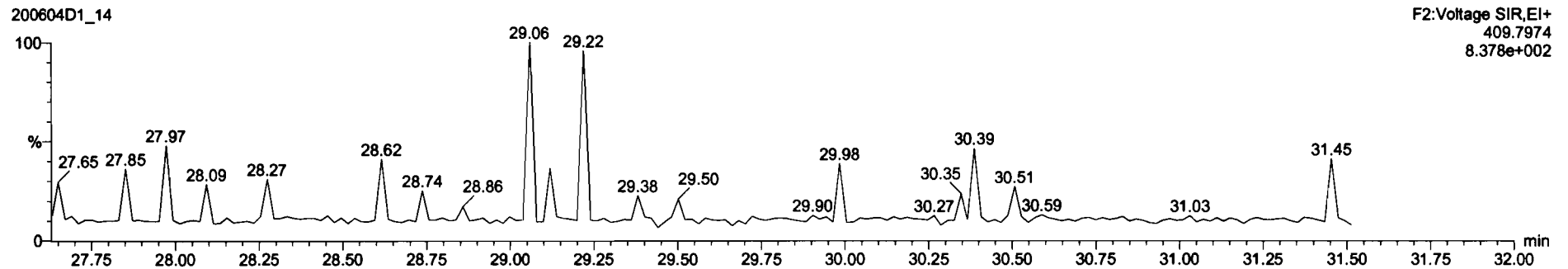
**1,2,3,7,8-PeCDF**

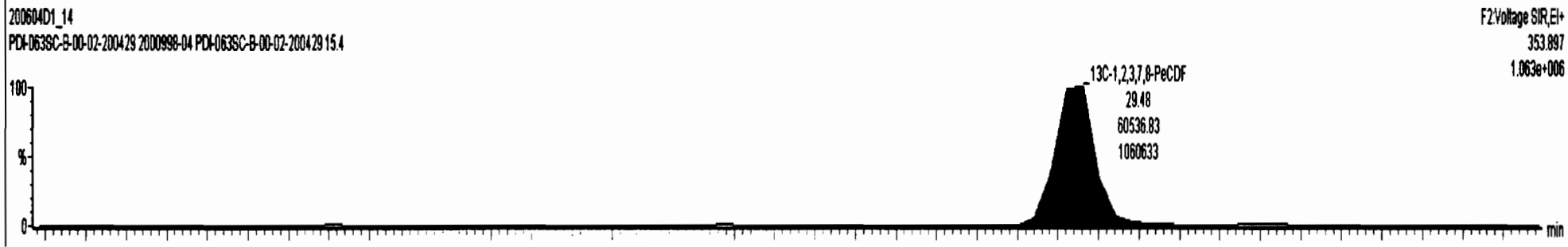
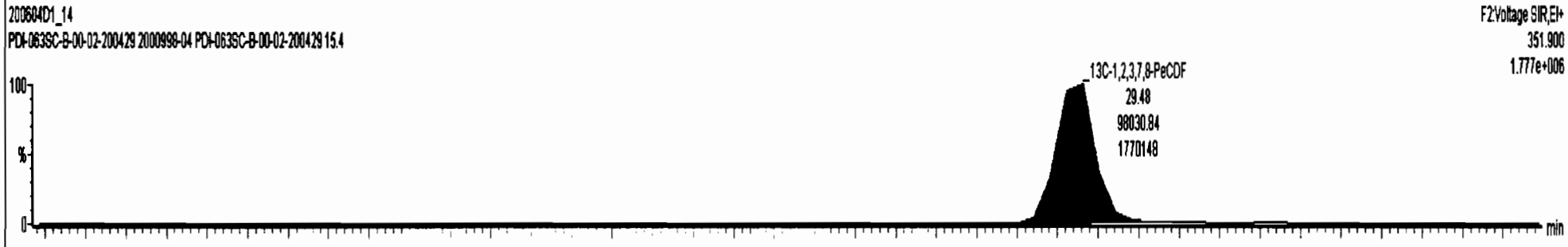
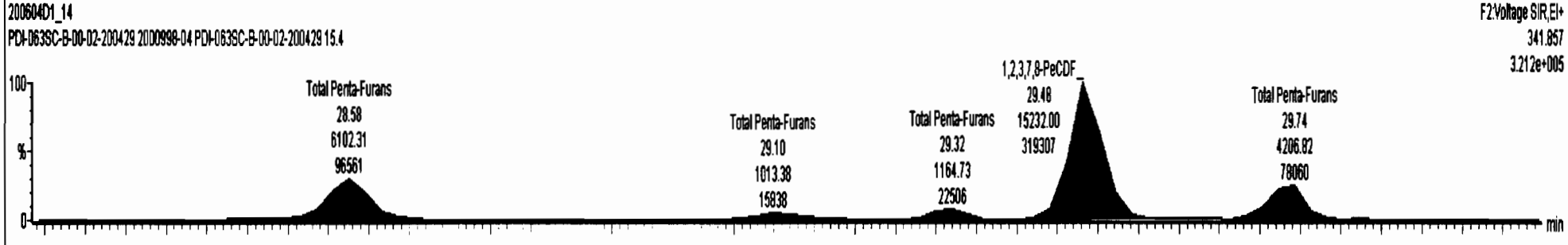
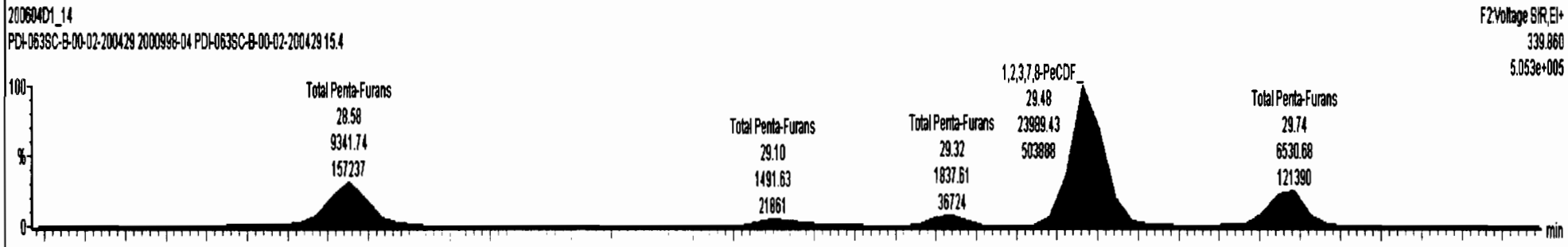


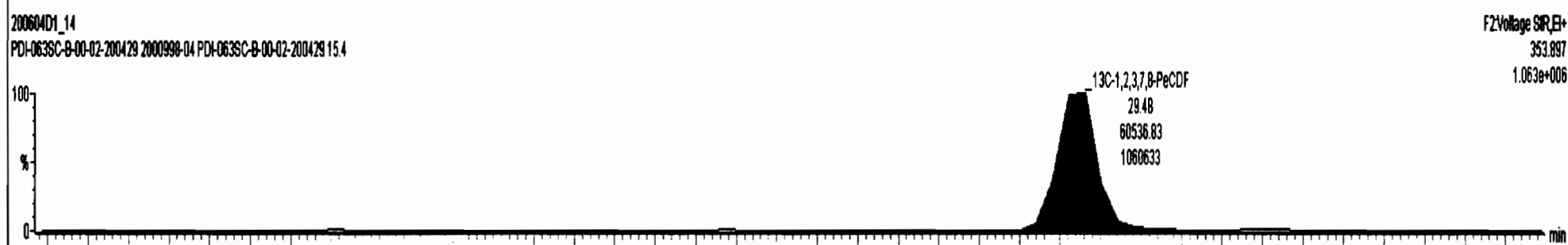
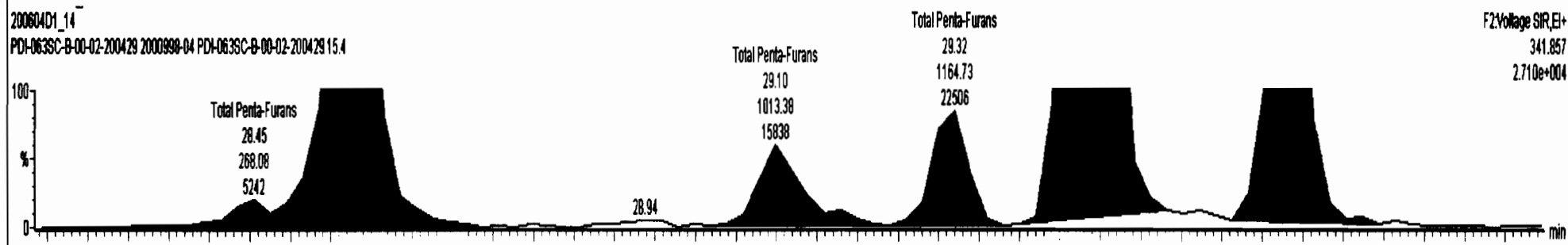
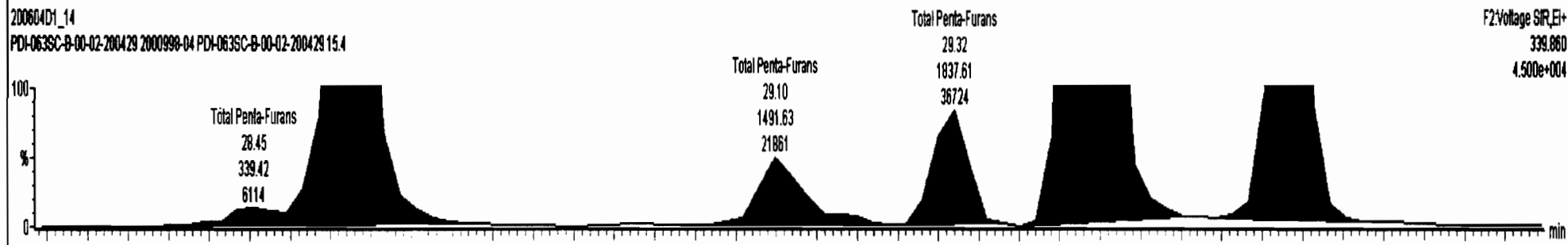
**13C-1,2,3,7,8-PeCDF**



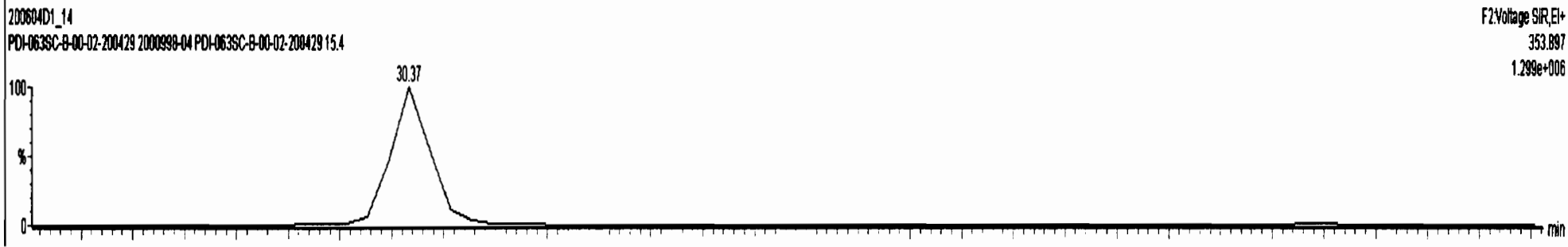
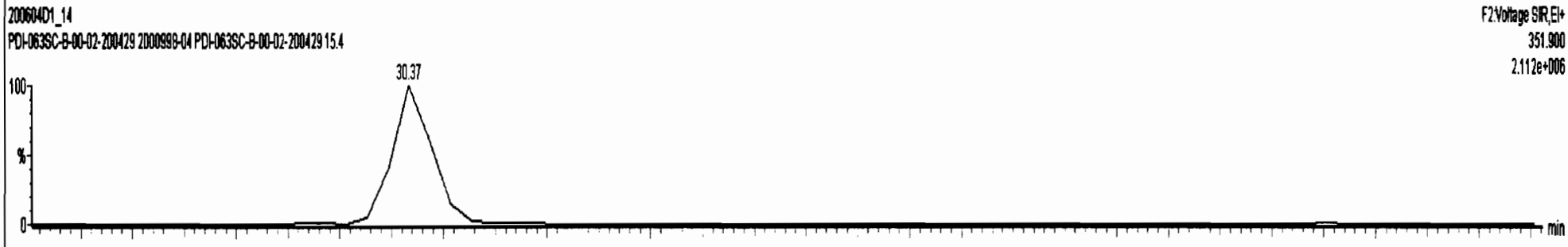
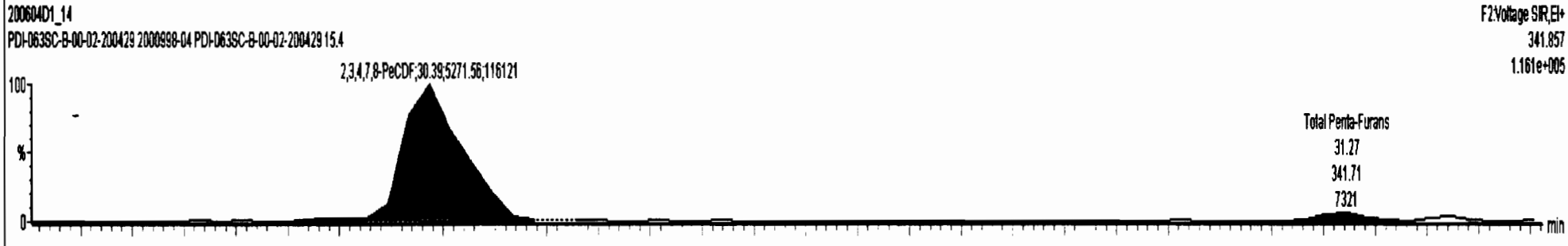
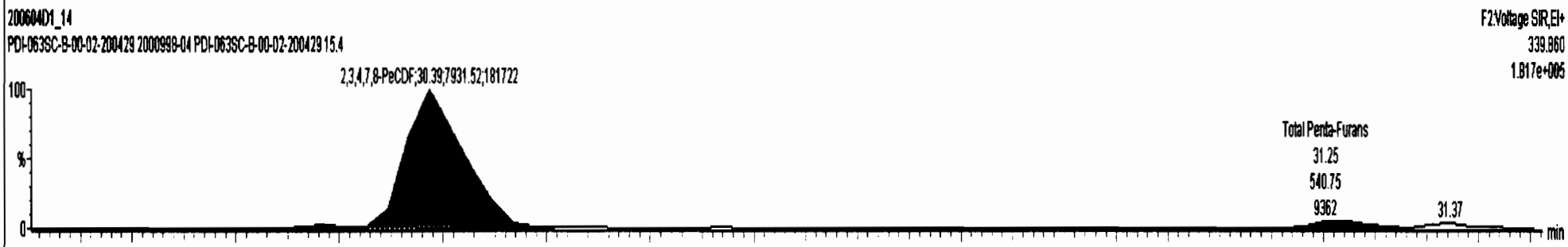
**DPE2**

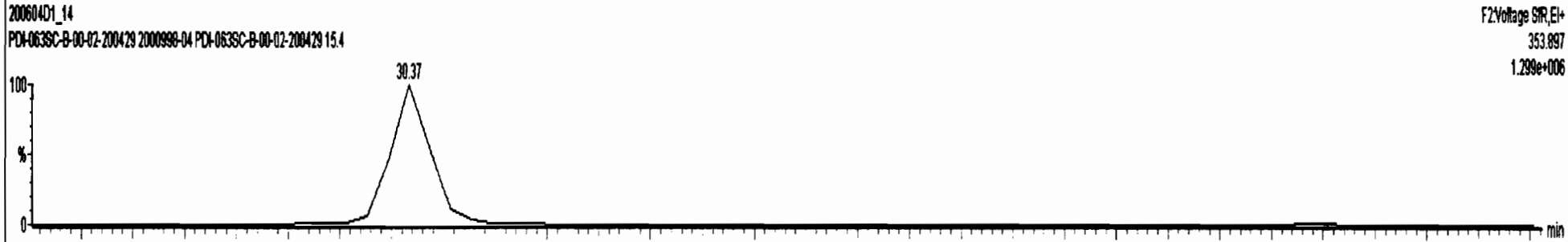
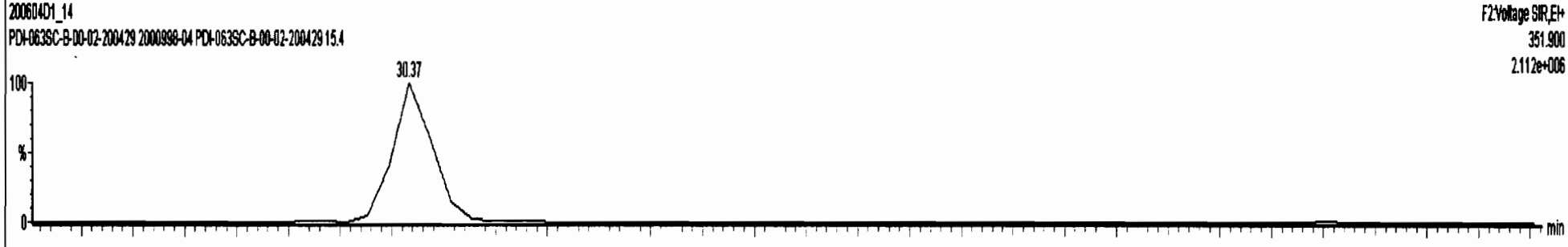
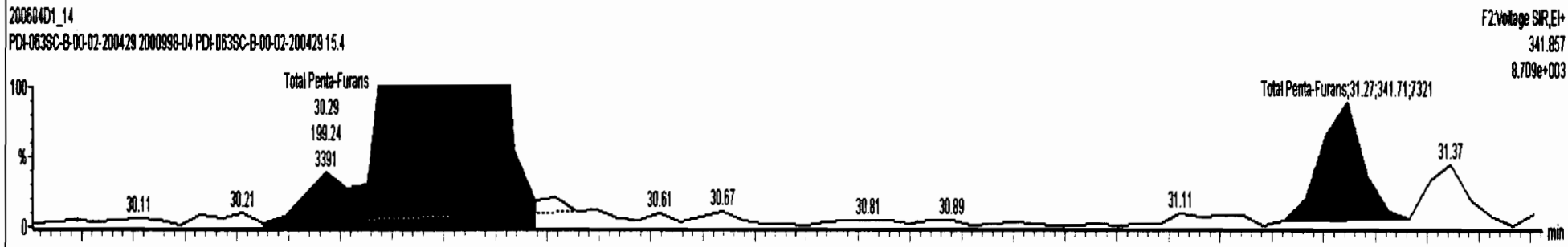
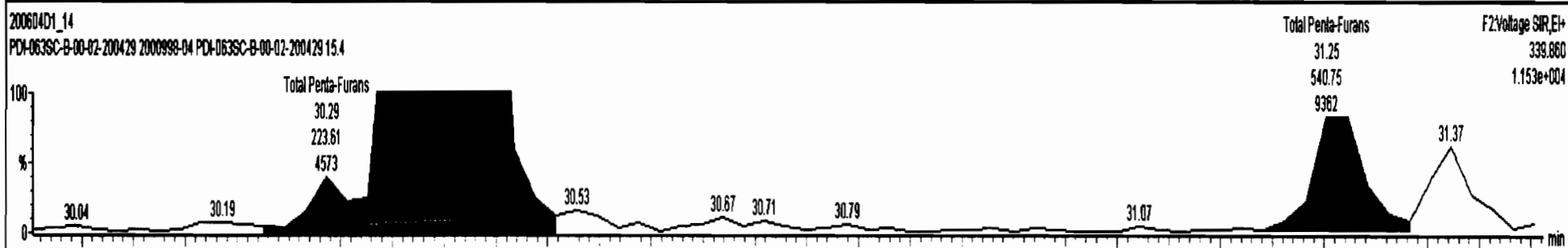










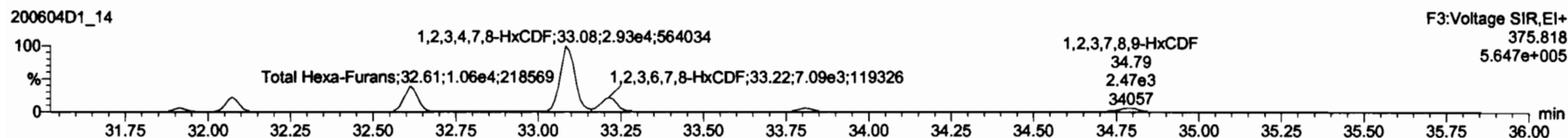
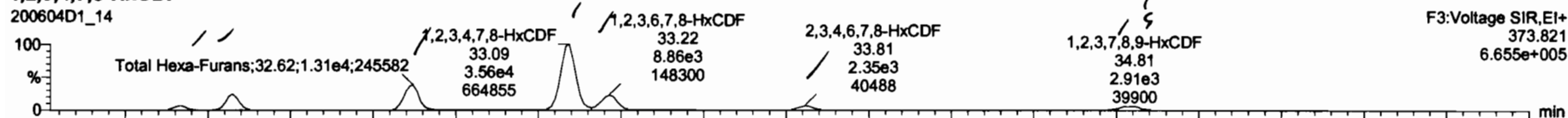


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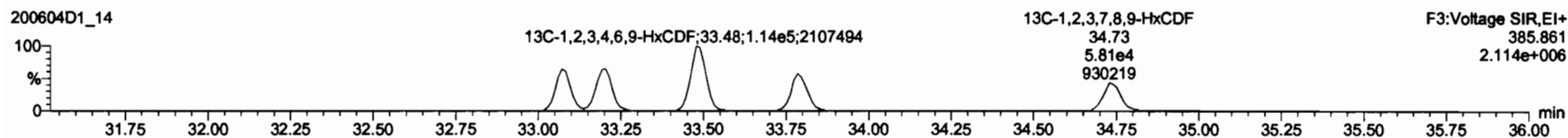
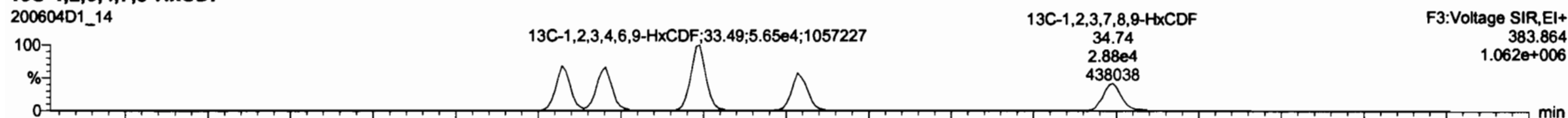
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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

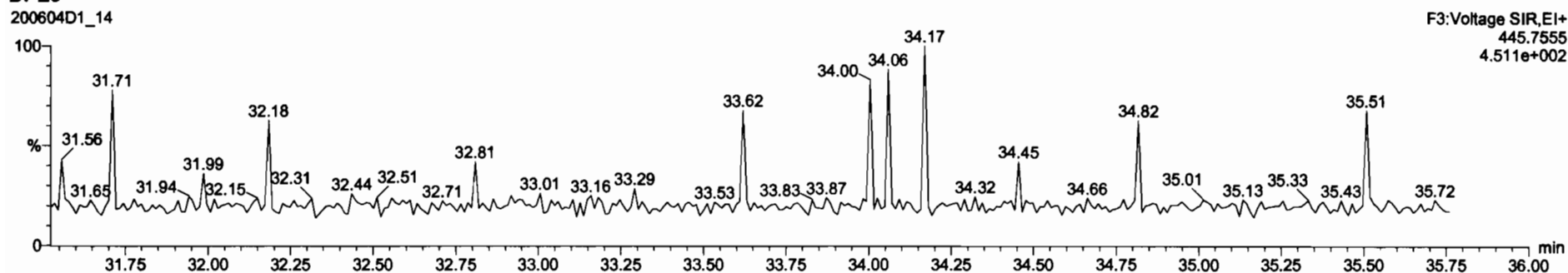
**1,2,3,4,7,8-HxCDF**

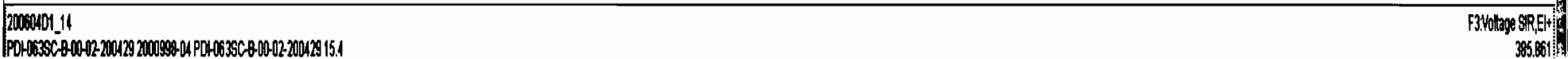
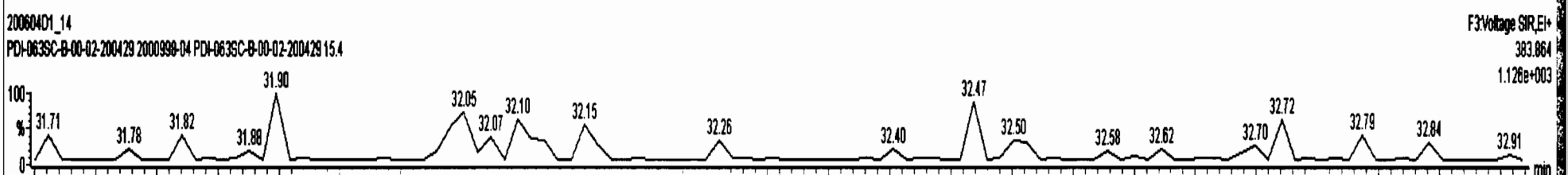
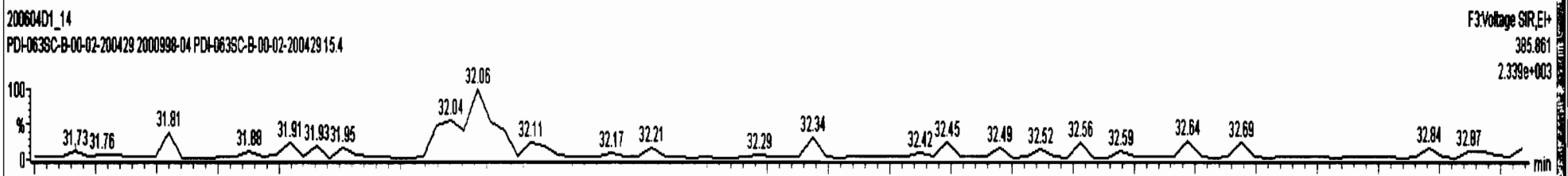
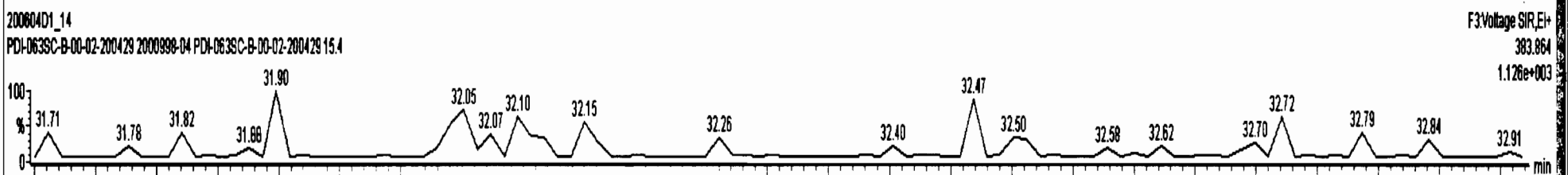
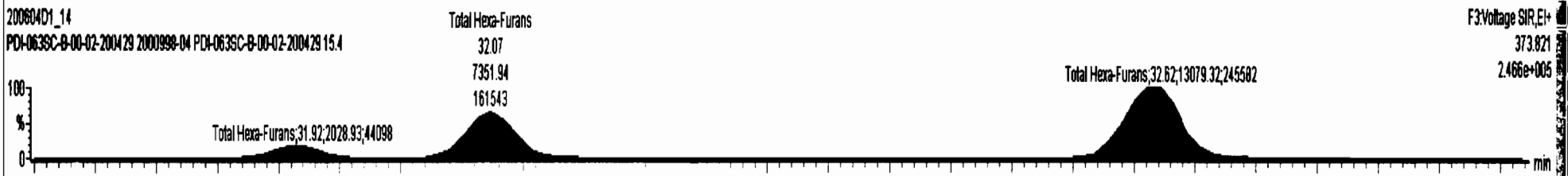
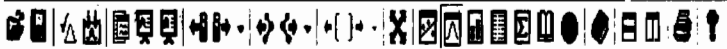


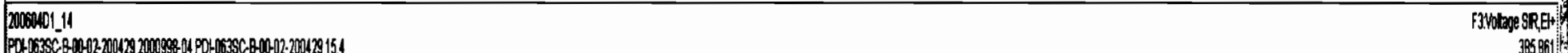
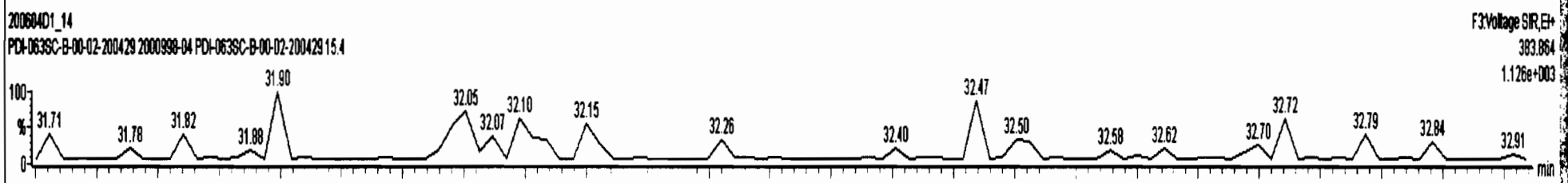
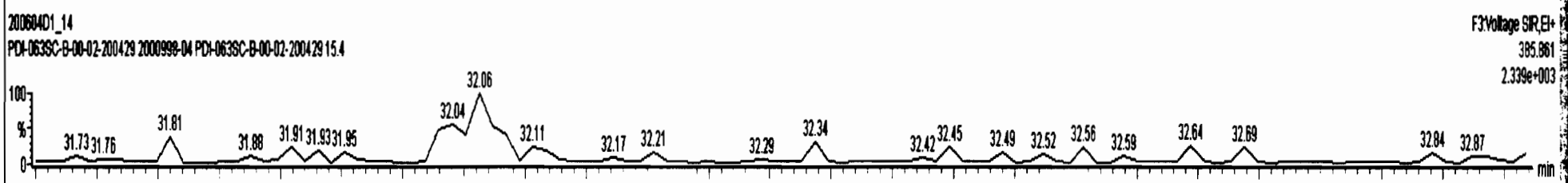
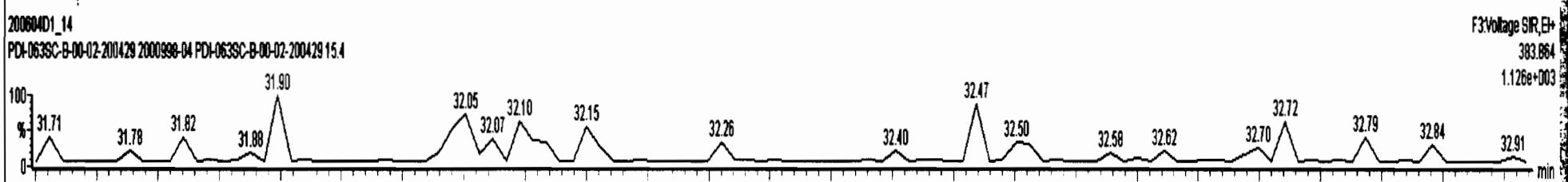
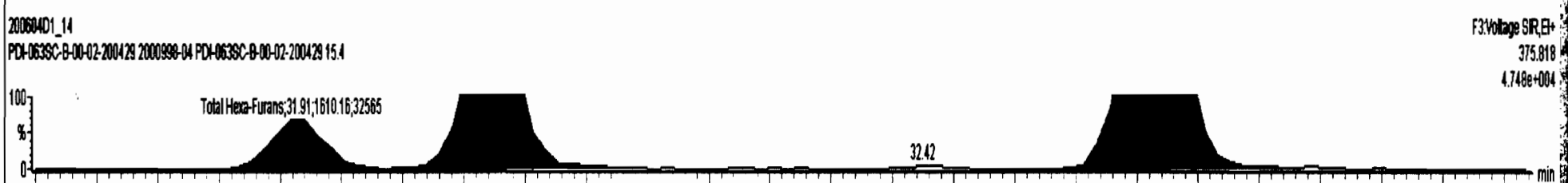
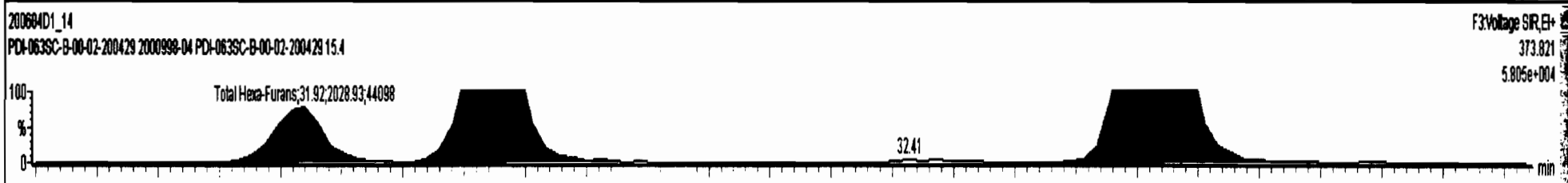
**13C-1,2,3,4,7,8-HxCDF**

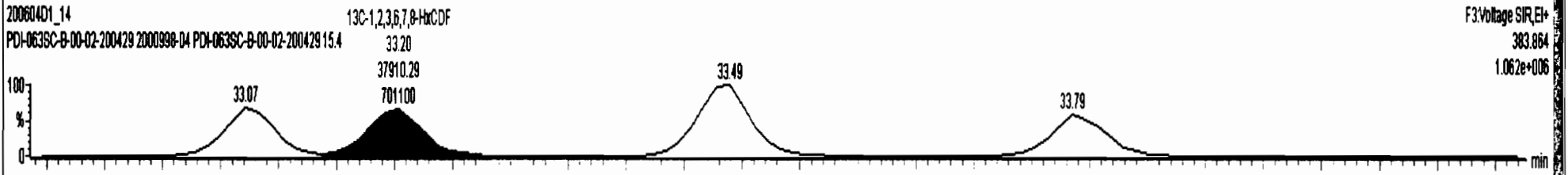
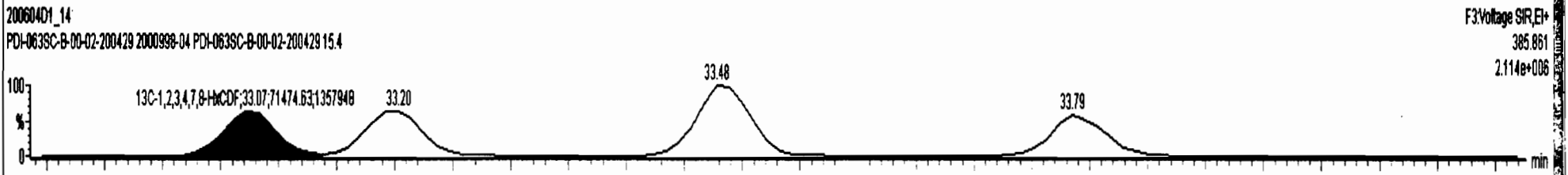
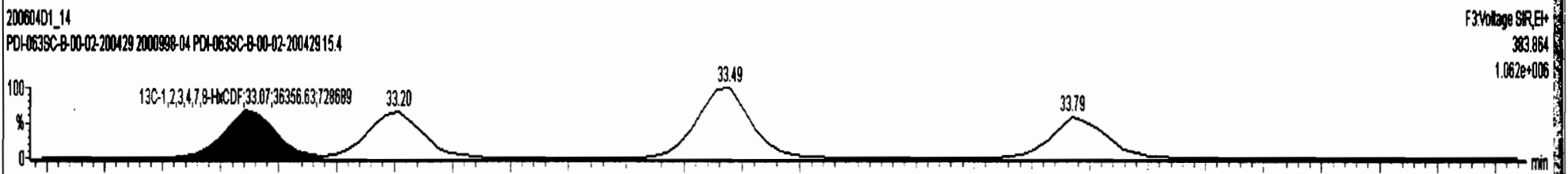
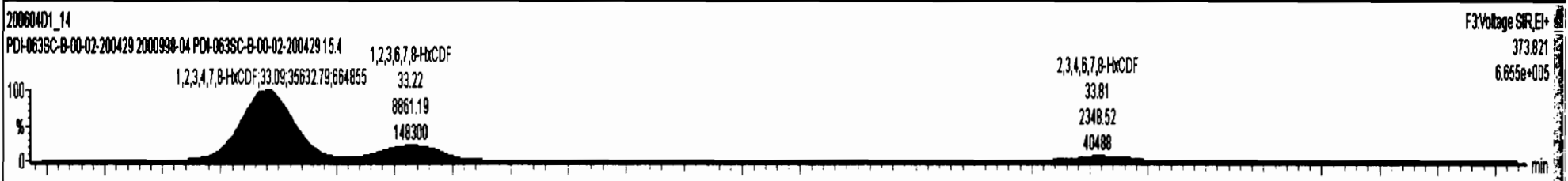


**DPE3**









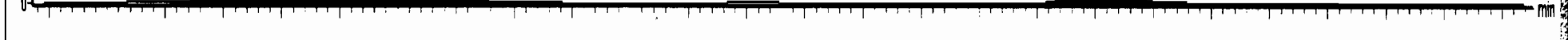


F3:Voltage SIR,EI+  
373.821  
1.839e+005

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

1,2,3,6,7,8-HxCDF;33.22;8861.19;148300

2,3,4,6,7,8-HxCDF  
33.81  
2348.52  
40488



F3:Voltage SIR,EI+  
375.818  
1.485e+005

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

1,2,3,6,7,8-HxCDF;33.22;7087.91;119326

2,3,4,6,7,8-HxCDF  
33.81  
1813.67  
30190

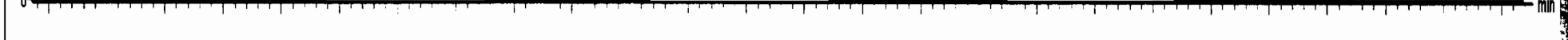


F3:Voltage SIR,EI+  
383.864  
1.062e+006

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

13C-1,2,3,4,7,8-HxCDF;33.07;36356.63;728689

33.20  
33.49  
33.79



F3:Voltage SIR,EI+  
385.861  
2.114e+006

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

13C-1,2,3,4,7,8-HxCDF;33.07;71474.63;1357948

33.20  
33.48  
33.79



F3:Voltage SIR,EI+  
383.864  
1.062e+006

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

13C-1,2,3,6,7,8-HxCDF  
33.20  
37910.29  
701100

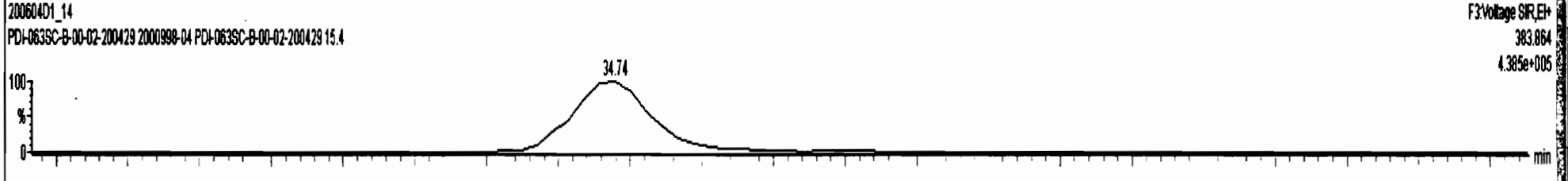
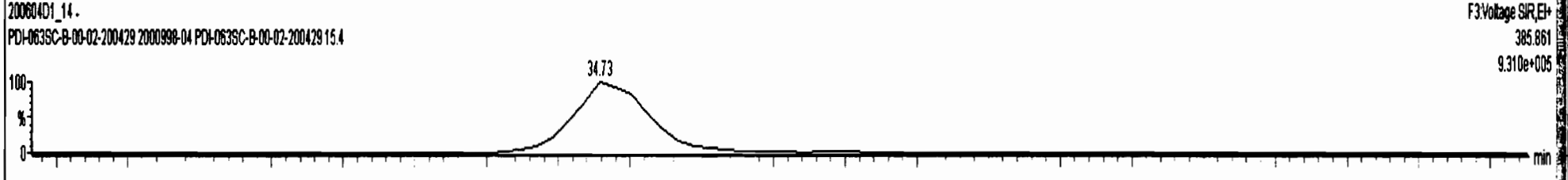
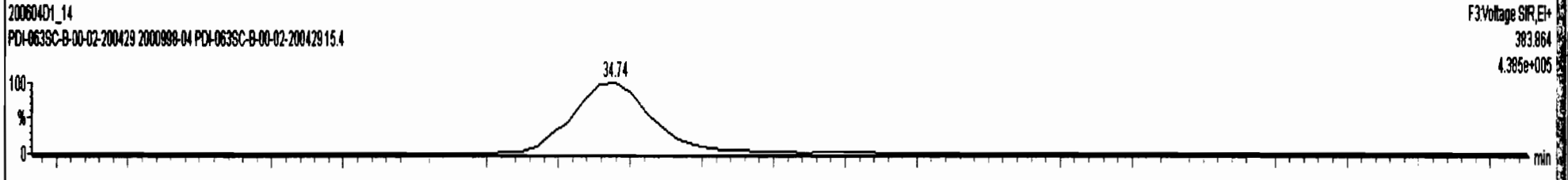
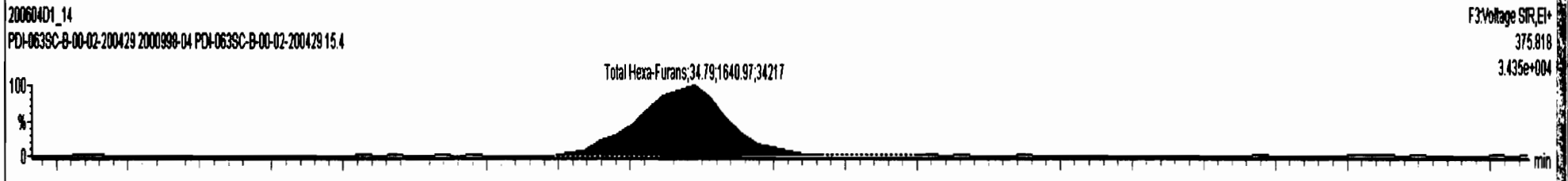
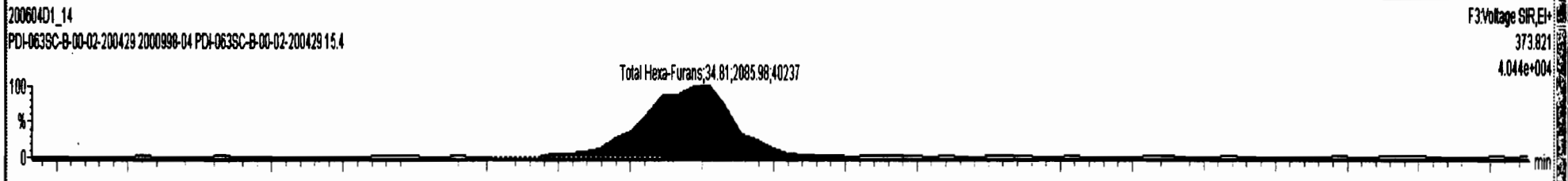
33.07  
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33.79



F3:Voltage SIR,EI+  
385.861

200604D1\_14  
PDI-063SC-B-00-02-200429 2000998-04 PDI-063SC-B-00-02-200429 15.4

13C-1,2,3,6,7,8-HxCDF  
33.20





Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_14.qld

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Printed: Friday, June 05, 2020 09:46:14 Pacific Daylight Time

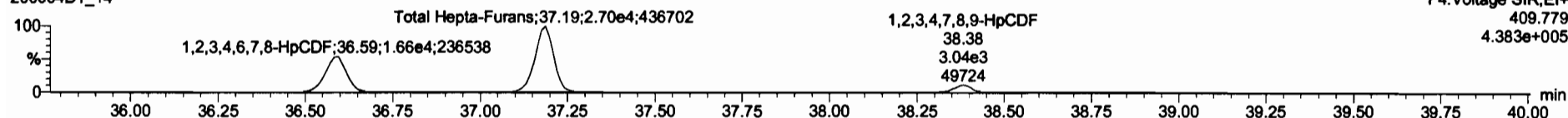
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**1,2,3,4,6,7,8-HpCDF**

200604D1\_14

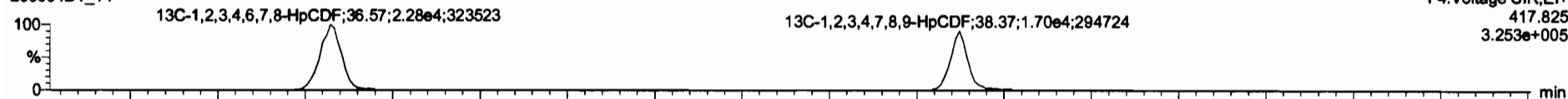


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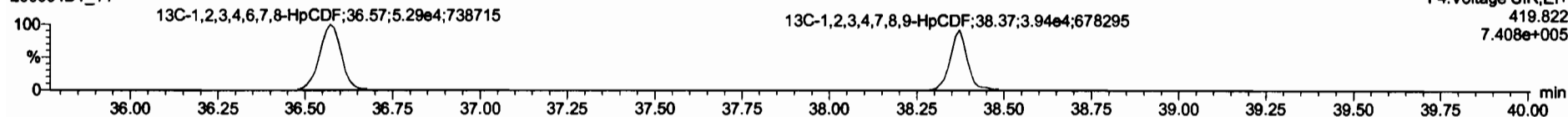


**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_14

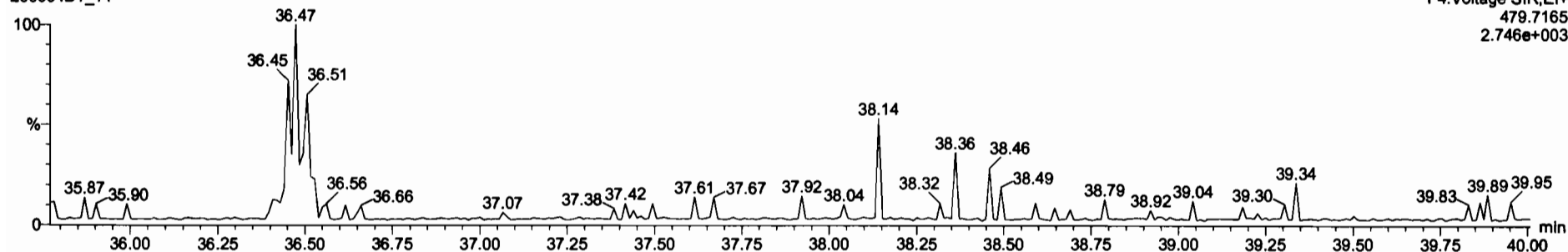


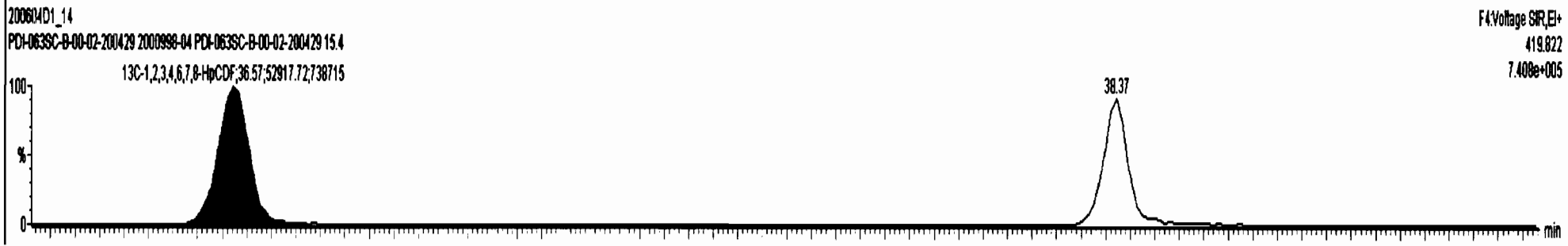
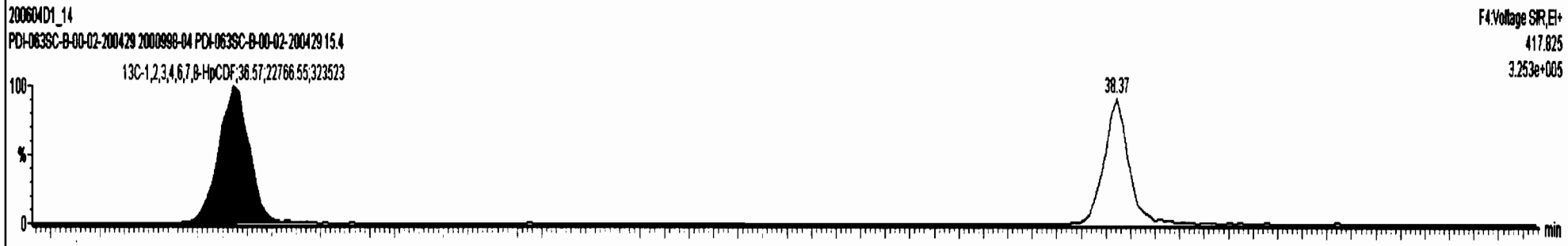
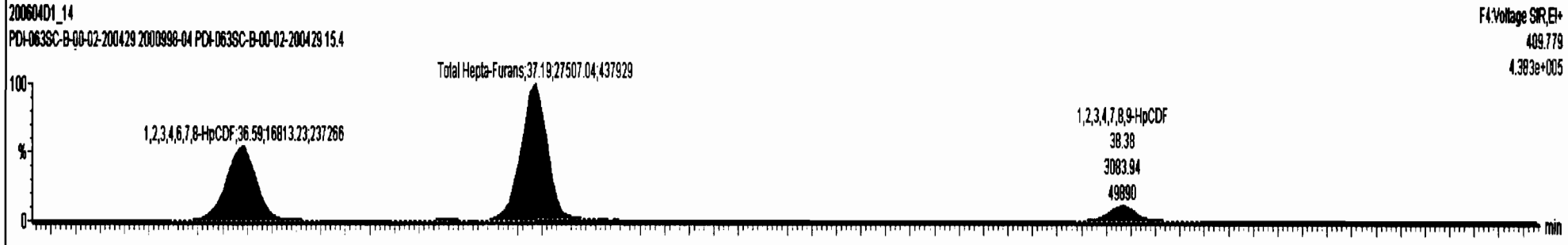
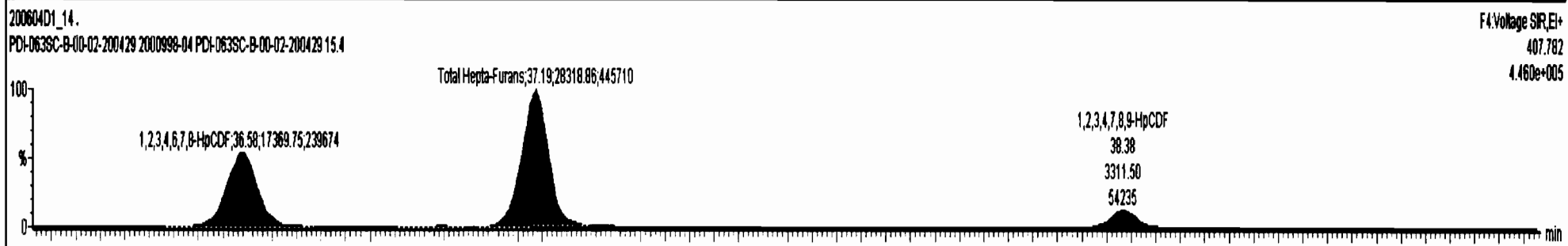
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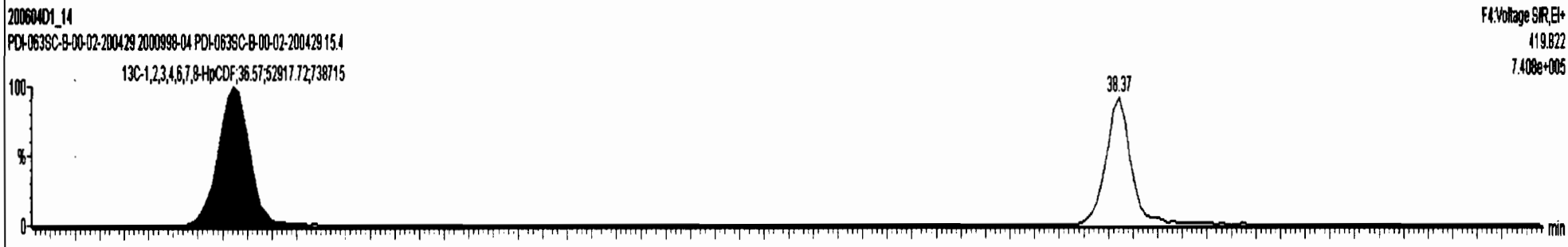
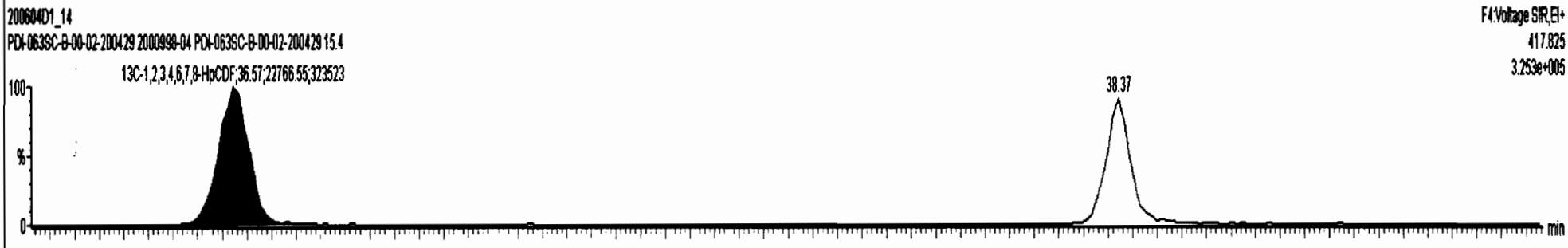
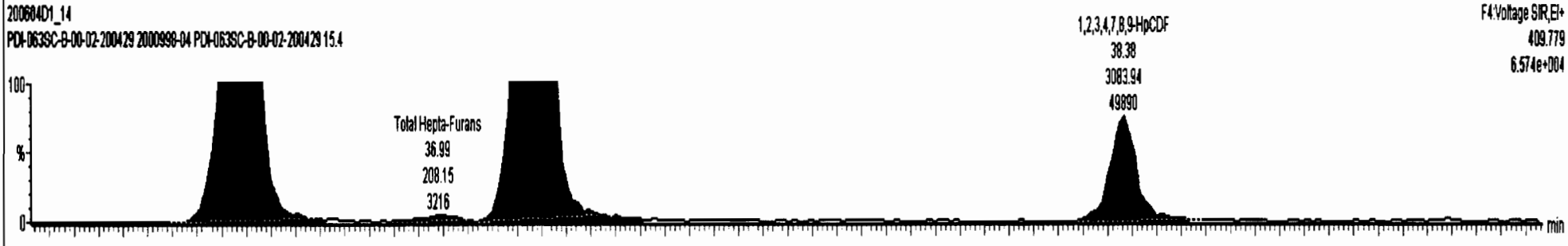
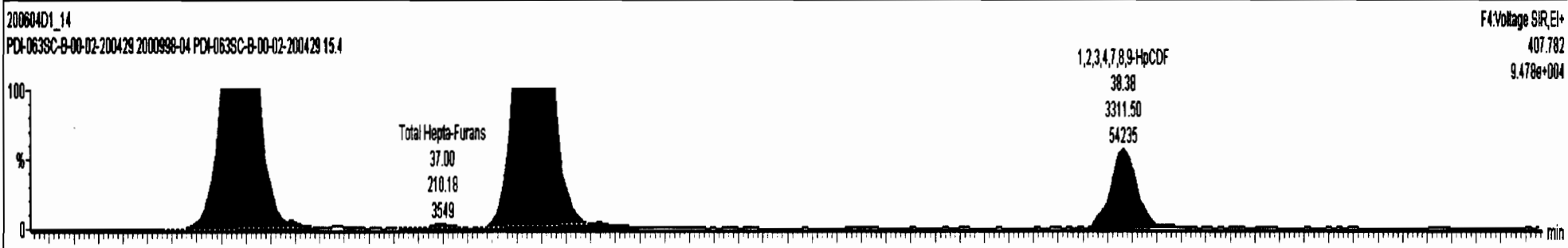


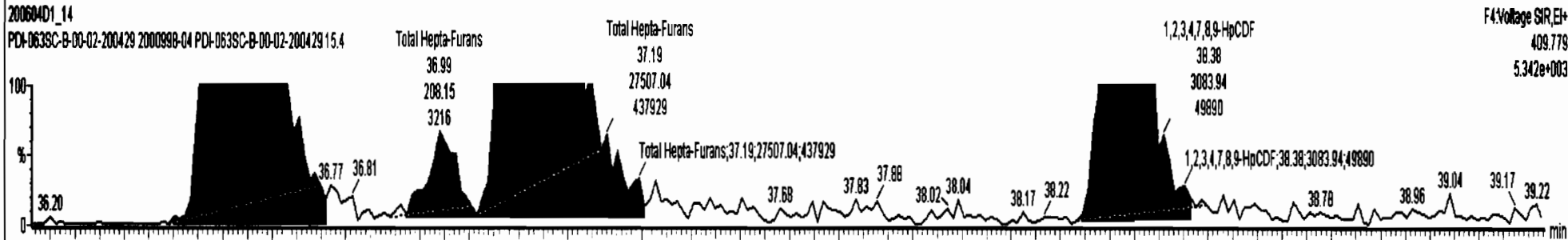
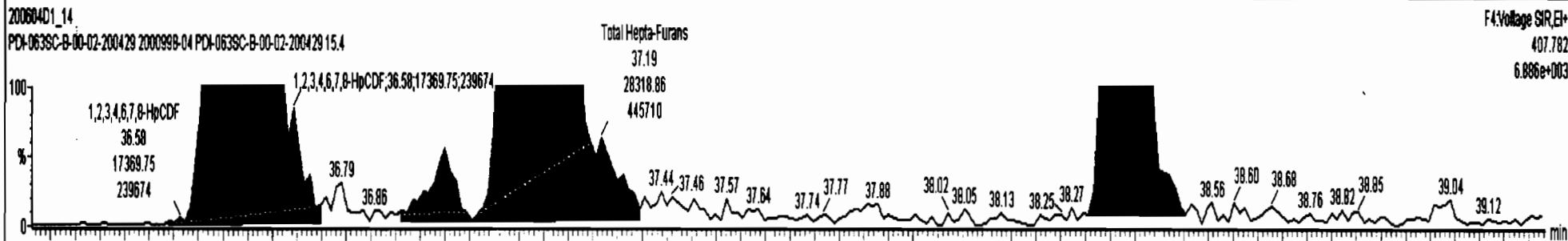
**DPE4**

200604D1\_14









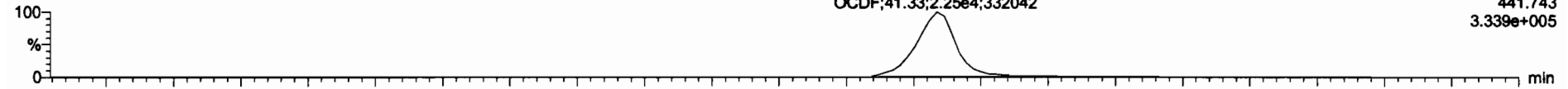
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Printed: Friday, June 05, 2020 09:46:14 Pacific Daylight Time

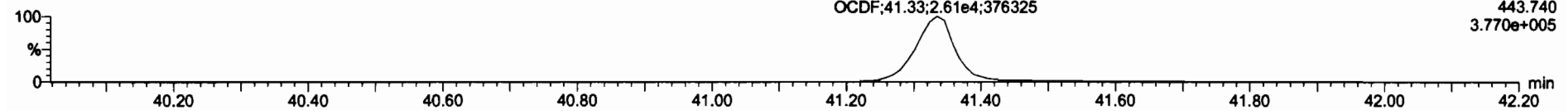
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**OCDF**

200604D1\_14

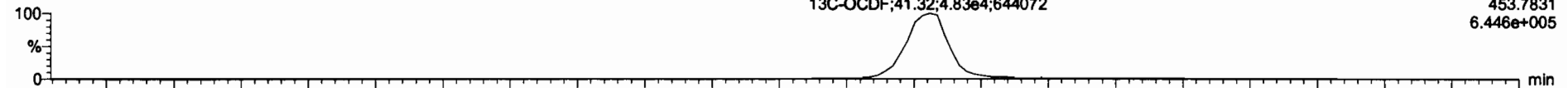


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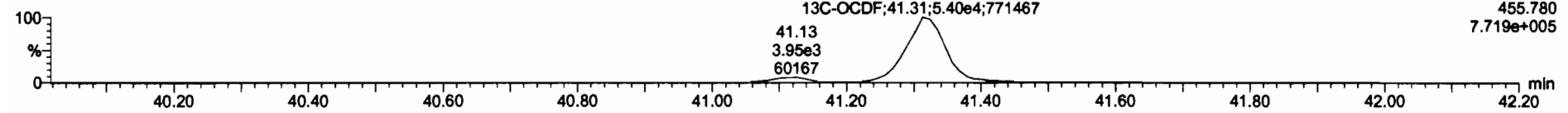


**13C-OCDF**

200604D1\_14

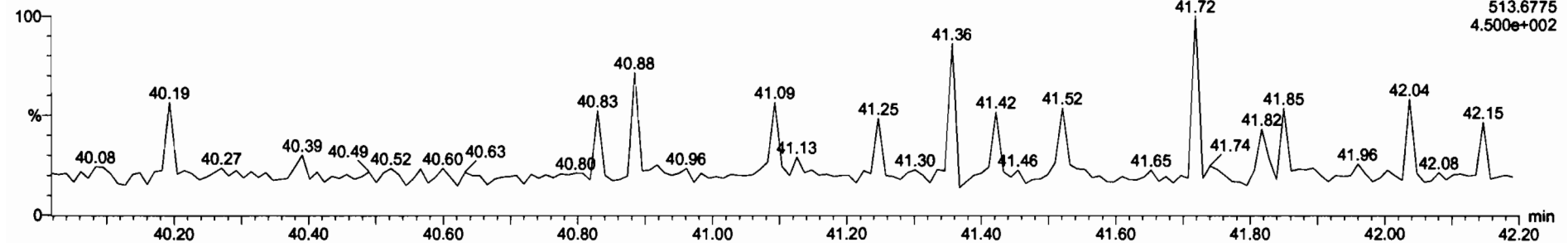


200604D1\_14



**DPES**

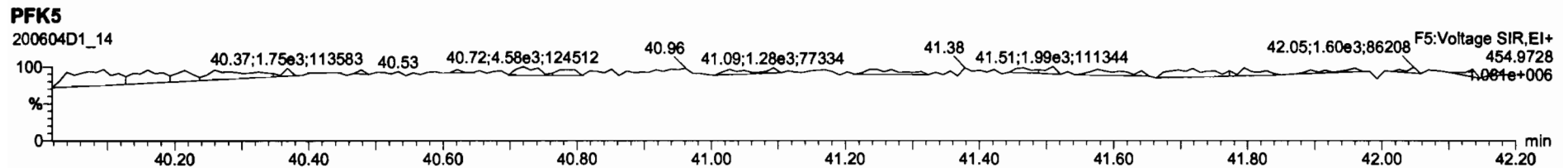
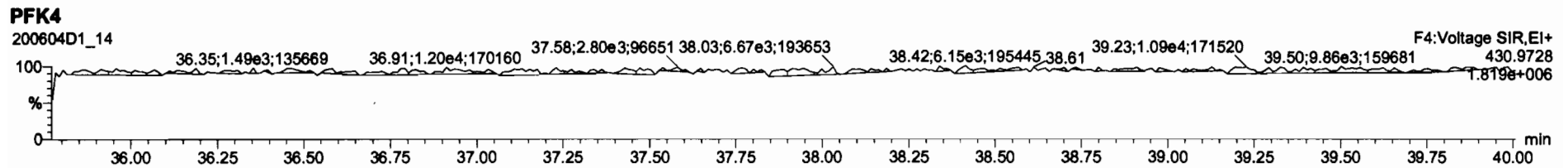
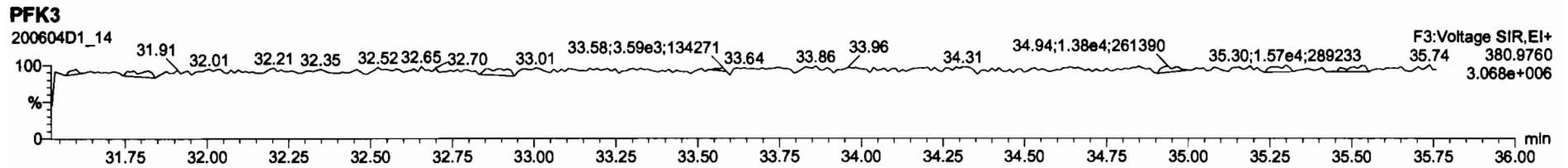
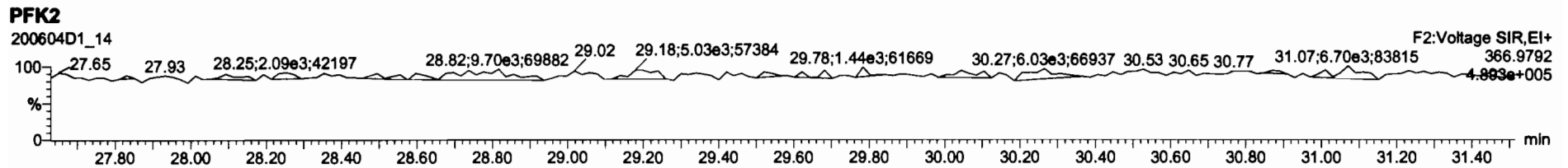
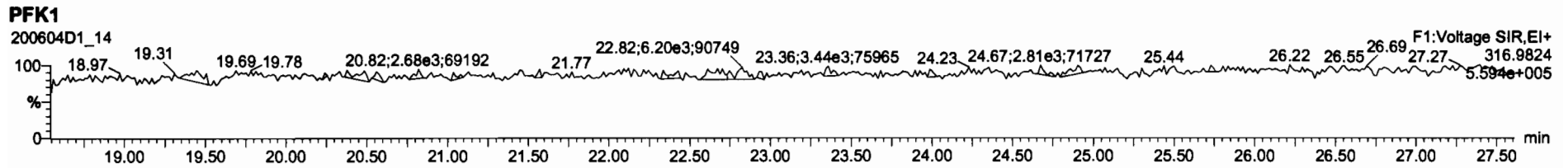
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Name: 200604D1\_14, Date: 04-Jun-2020, Time: 21:47:04, ID: 2000998-04 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_9.qld

Last Altered: Tuesday, June 09, 2020 09:43:00 Pacific Daylight Time  
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*DB 6/9/20 0706/11/2020*

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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3

|                          |        |      |    |       |        |          |       |       |       |        |      |      |
|--------------------------|--------|------|----|-------|--------|----------|-------|-------|-------|--------|------|------|
| 7 OCDD                   | 2.17e5 | 0.88 | NO | 1.04  | 10.038 | ✓ 41.039 | 41.05 | 1.000 | 1.000 | 6215.5 | 6.31 | 6220 |
| 24 13C-OCDD              | 1.34e4 | 0.92 | NO | 0.579 | 10.038 | 40.770   | 41.04 | 1.219 | 1.227 | 186.64 | 46.8 | 1.26 |
| 38 13C-1,2,3,4,6,9-HxCDF | 2.47e4 | 0.52 | NO | 1.00  | 10.038 | 33.530   | 33.43 | 1.000 | 1.000 | 199.25 | 100  | 1.51 |

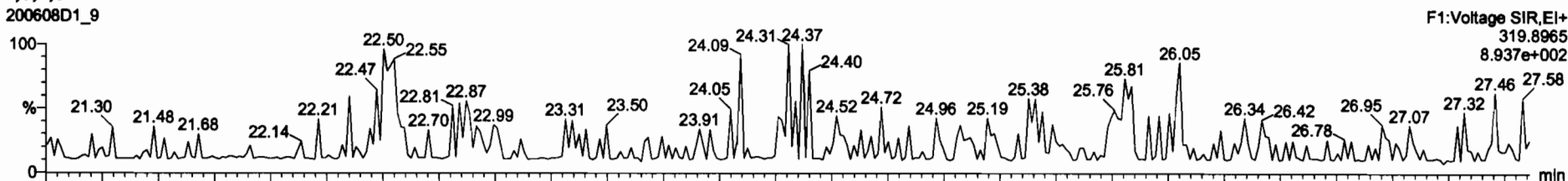
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Printed: Tuesday, June 09, 2020 09:40:25 Pacific Daylight Time

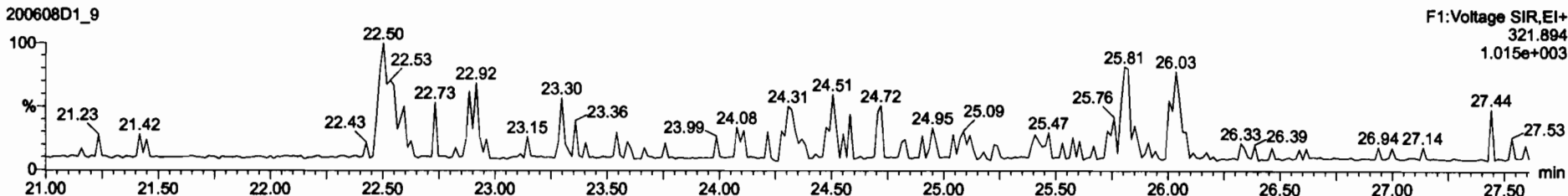
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Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3

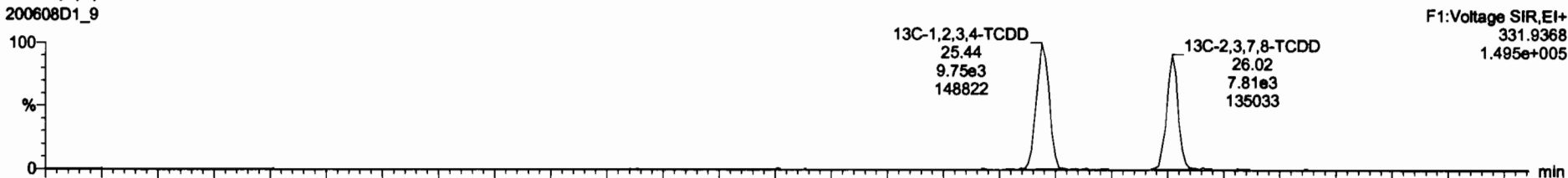
**2,3,7,8-TCDD**  
200608D1\_9



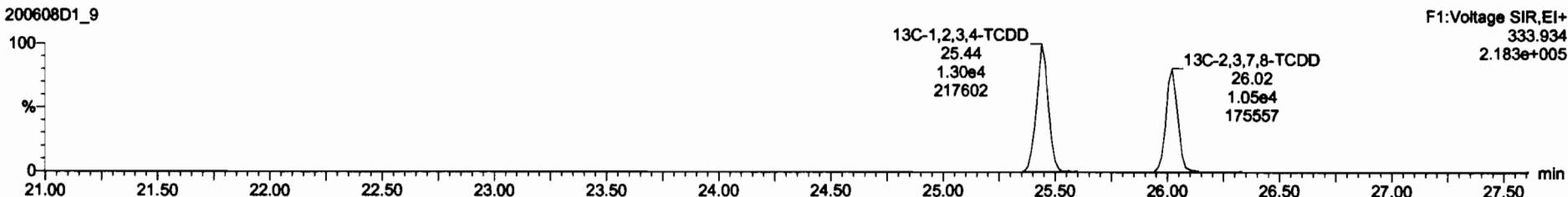
200608D1\_9



**13C-2,3,7,8-TCDD**  
200608D1\_9



200608D1\_9





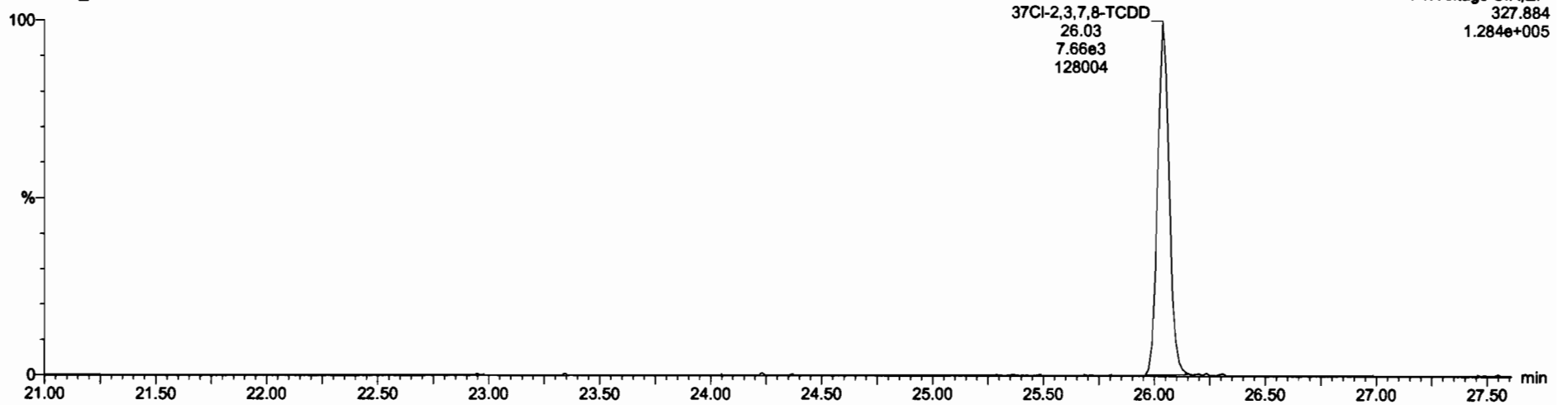
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Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3

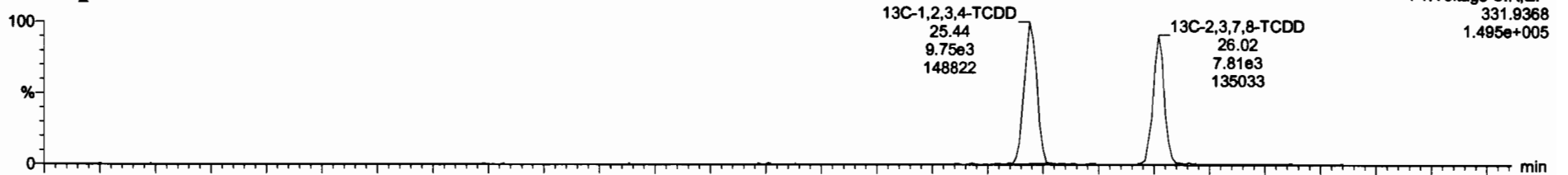
**37Cl-2,3,7,8-TCDD**

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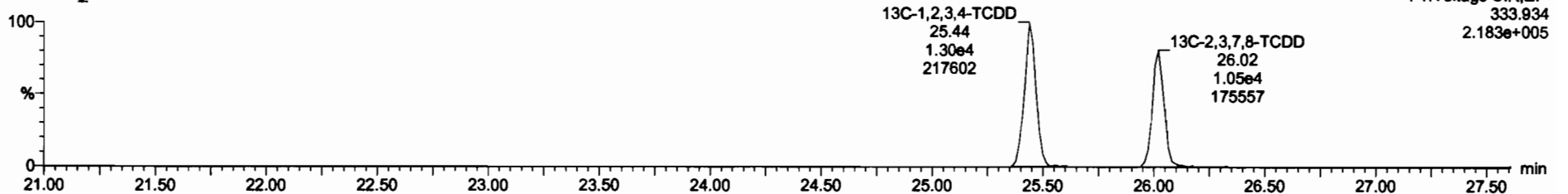


**13C-1,2,3,4-TCDD**

200608D1\_9



200608D1\_9



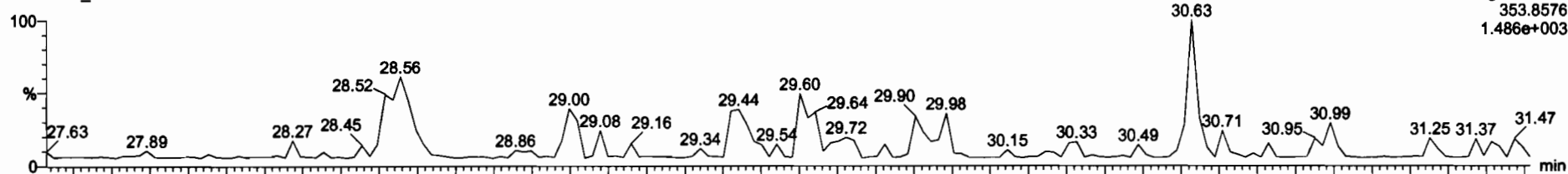
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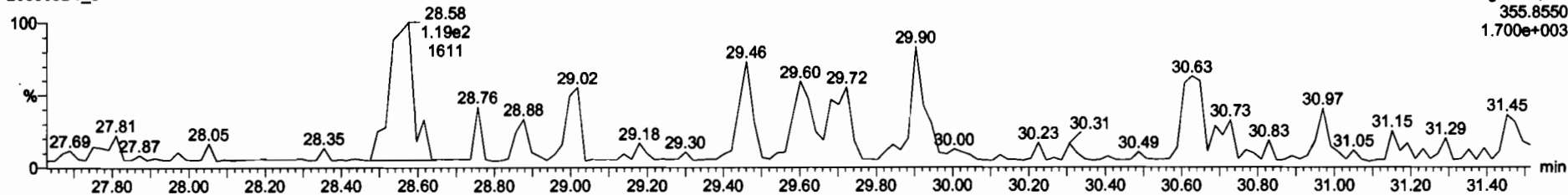
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**1,2,3,7,8-PeCDD**

200608D1\_9

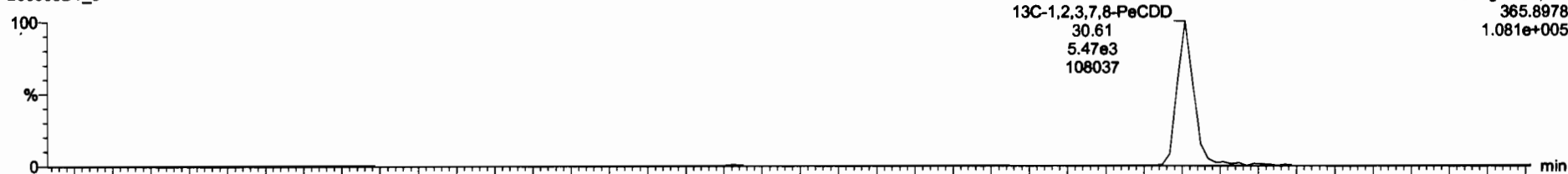


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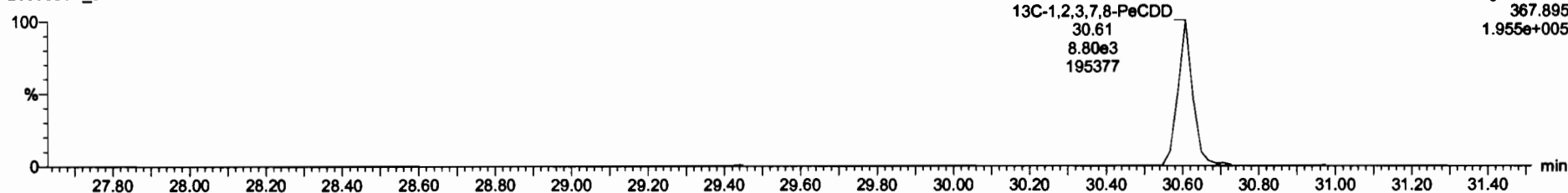


**13C-1,2,3,7,8-PeCDD**

200608D1\_9



200608D1\_9

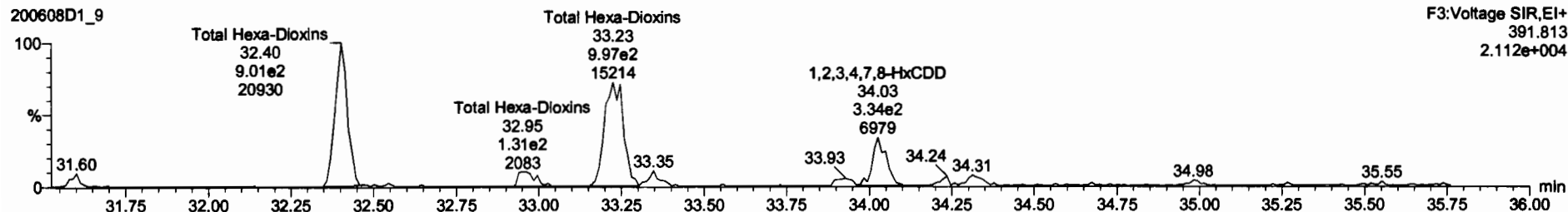
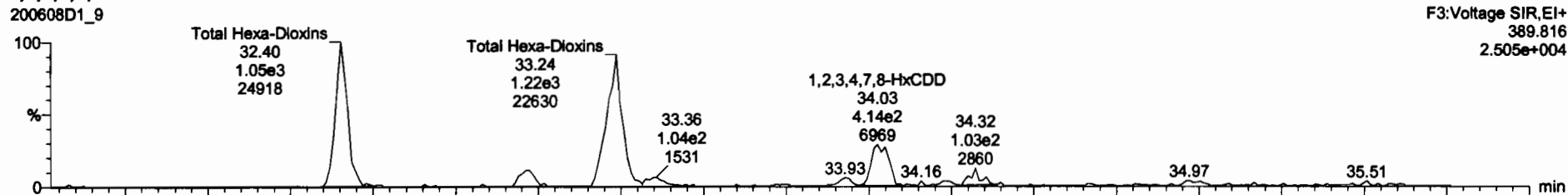


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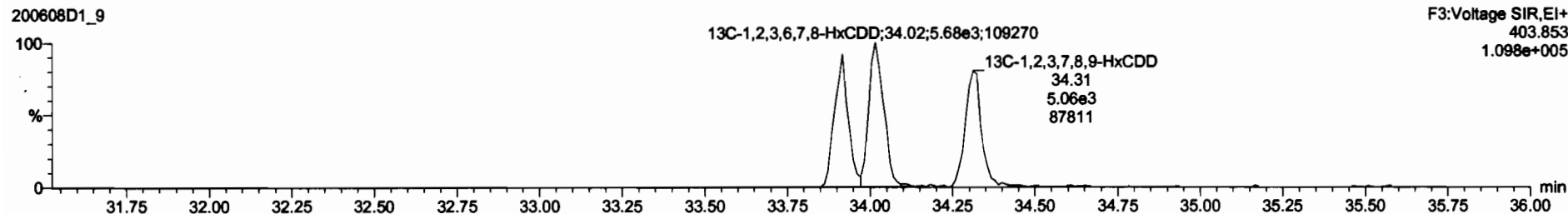
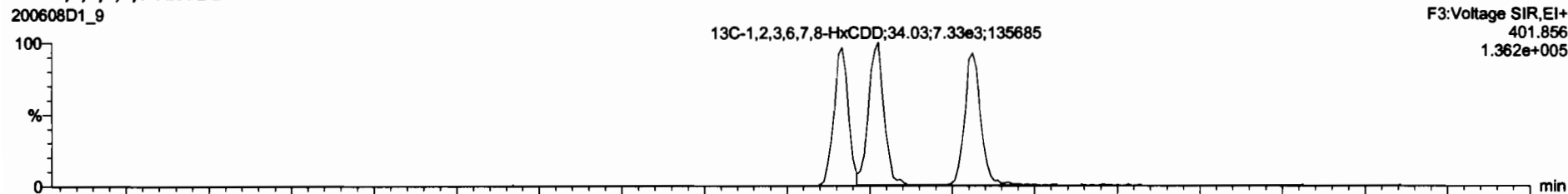
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**1,2,3,4,7,8-HxCDD**



**13C-1,2,3,4,7,8-HxCDD**



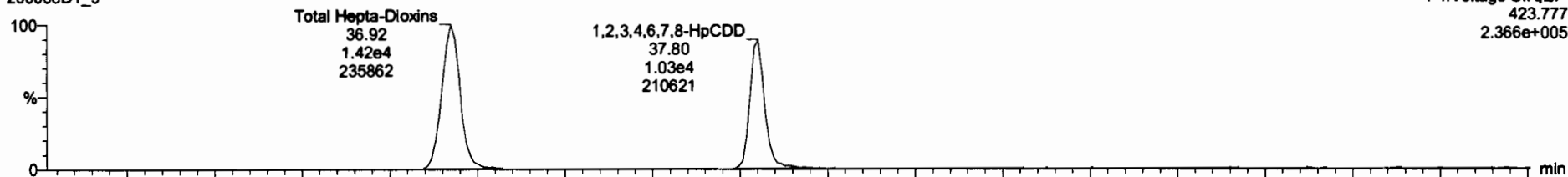
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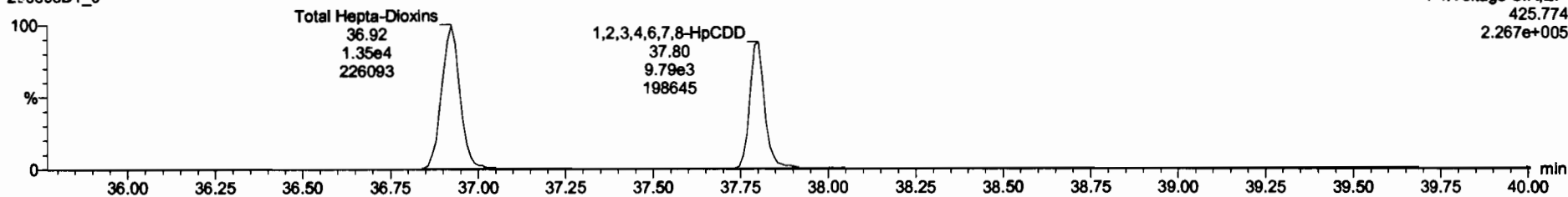
1,2,3,4,6,7,8-HpCDD

200608D1\_9



F4:Voltage SIR,EI+  
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2.366e+005

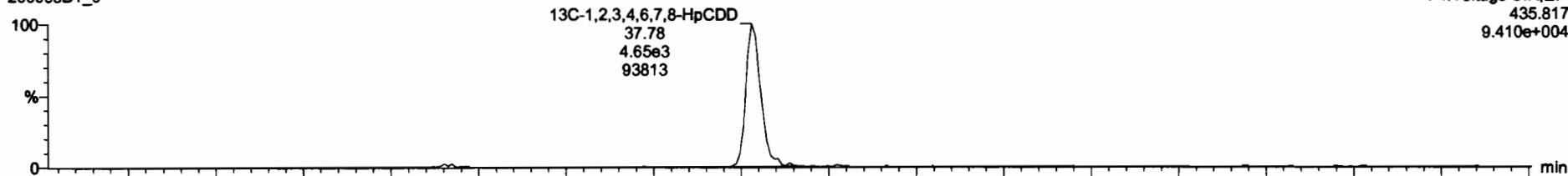
200608D1\_9



F4:Voltage SIR,EI+  
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2.267e+005

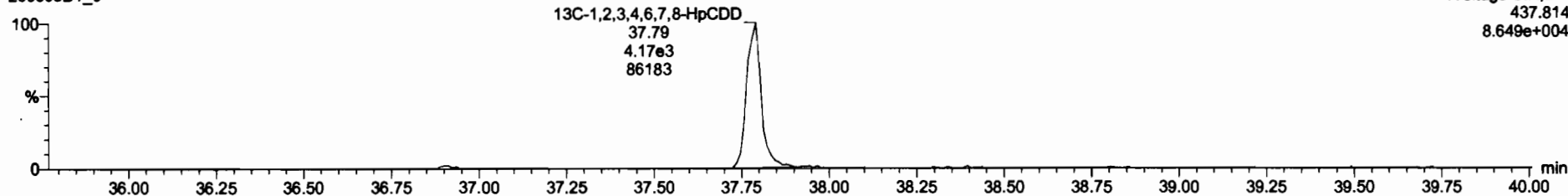
13C-1,2,3,4,6,7,8-HpCDD

200608D1\_9



F4:Voltage SIR,EI+  
435.817  
9.410e+004

200608D1\_9



F4:Voltage SIR,EI+  
437.814  
8.649e+004

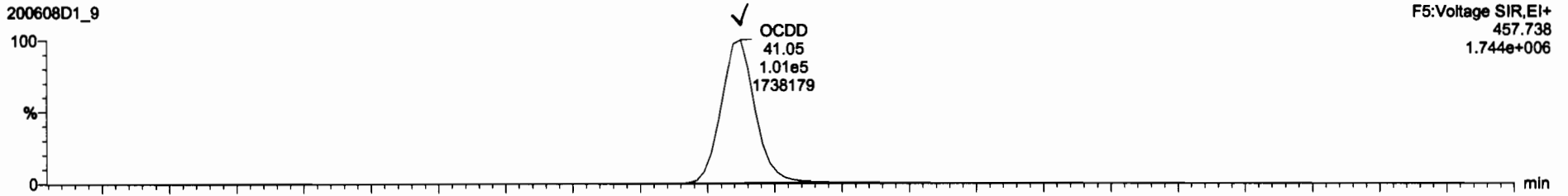
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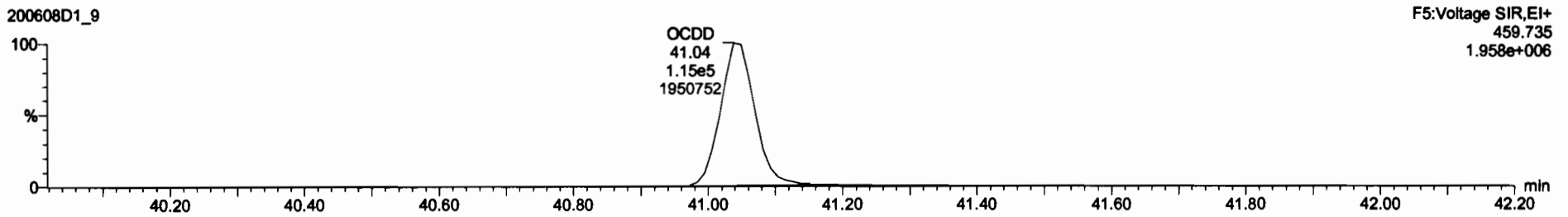
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**OCDD**

200608D1\_9

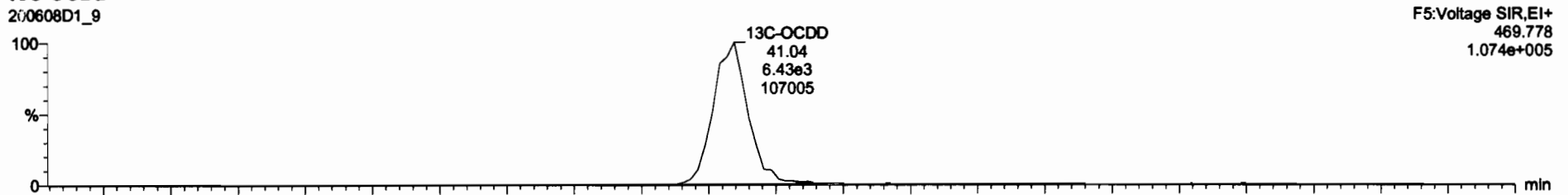


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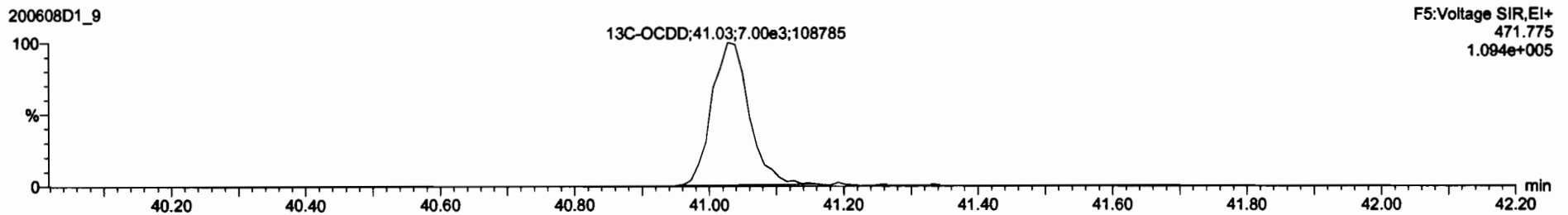


**13C-OCDD**

200608D1\_9



200608D1\_9

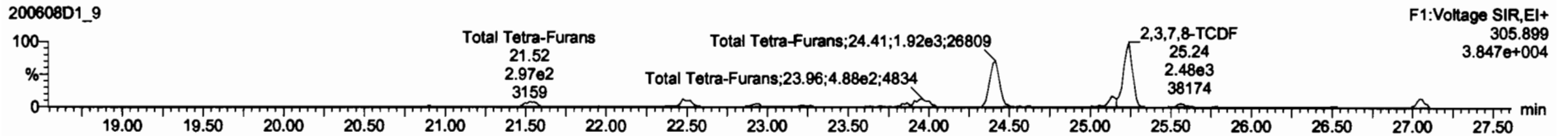
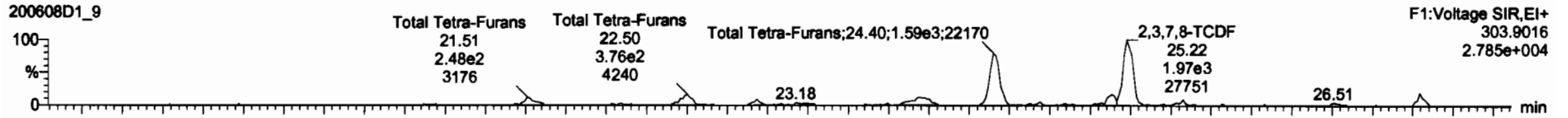


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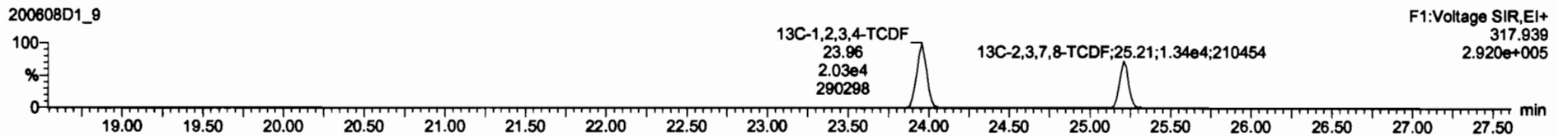
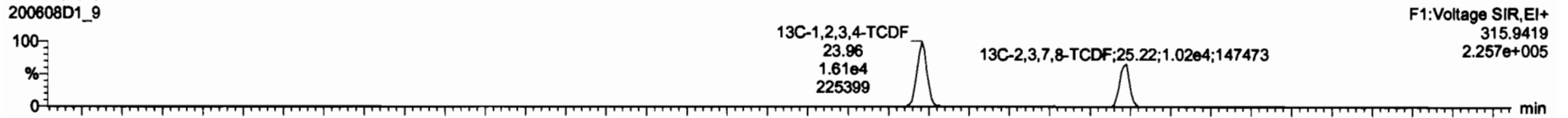
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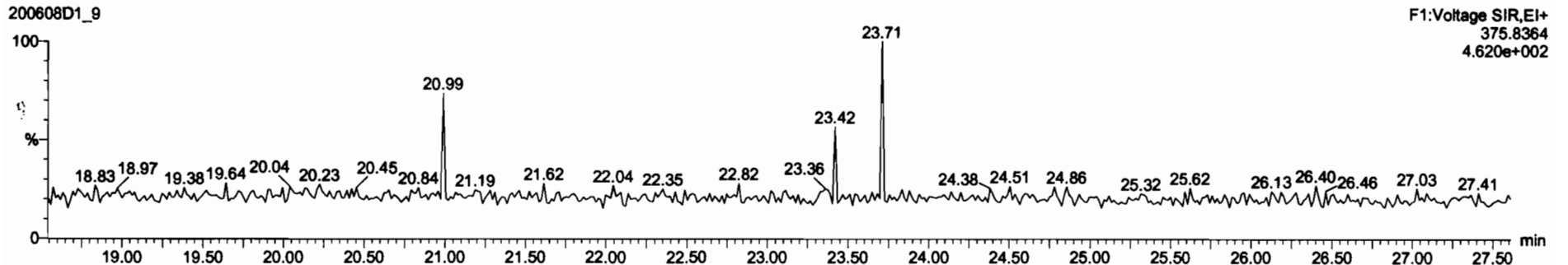
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



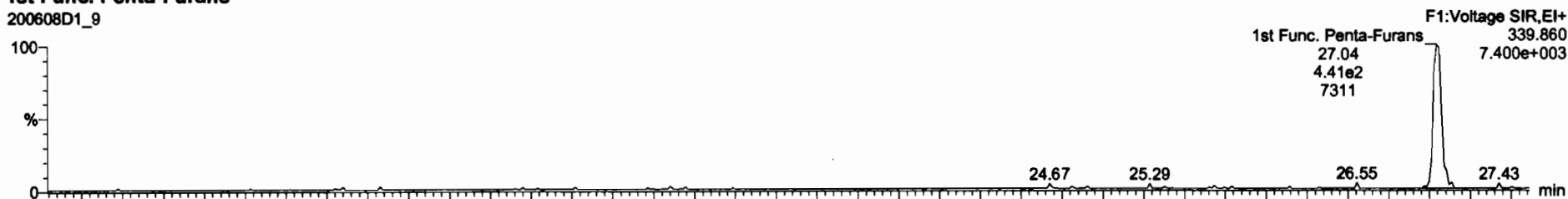
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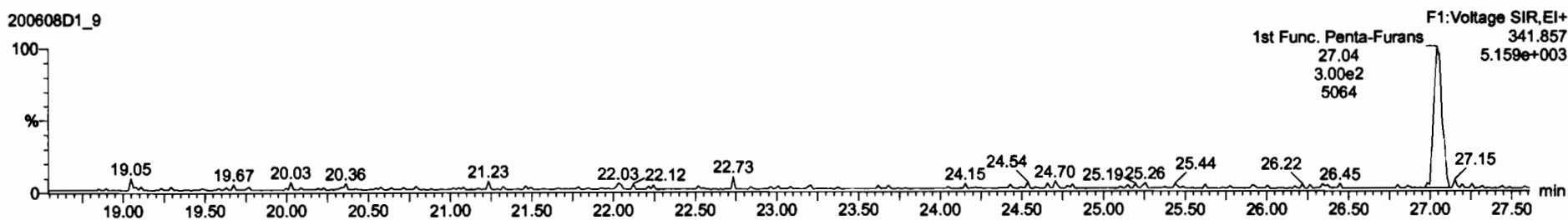
Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3

1st Func. Penta-Furans

200608D1\_9

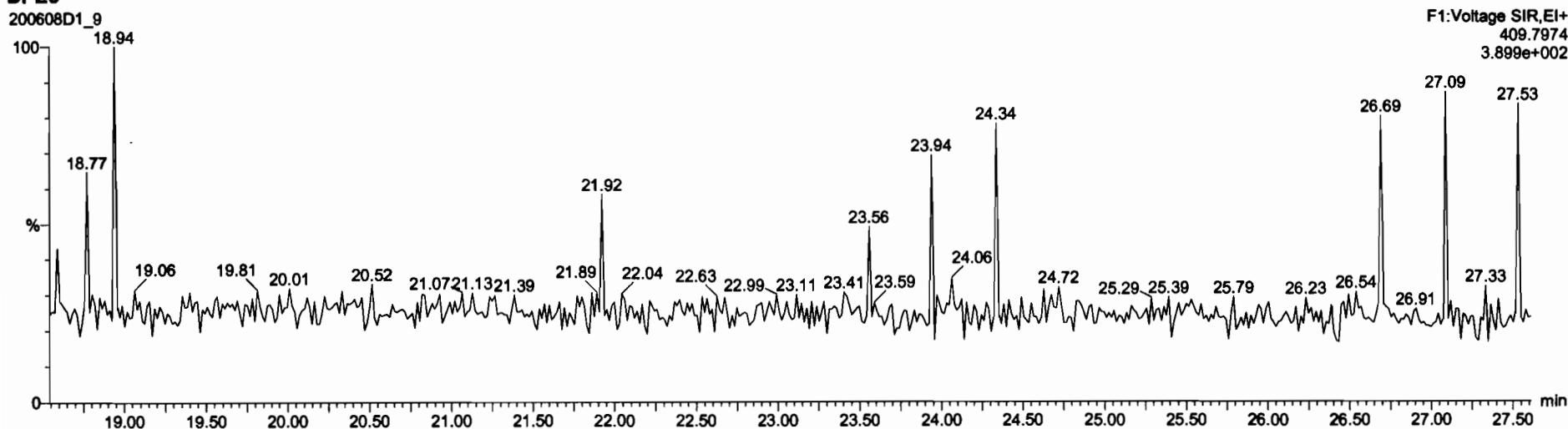


200608D1\_9



DPE6

200608D1\_9

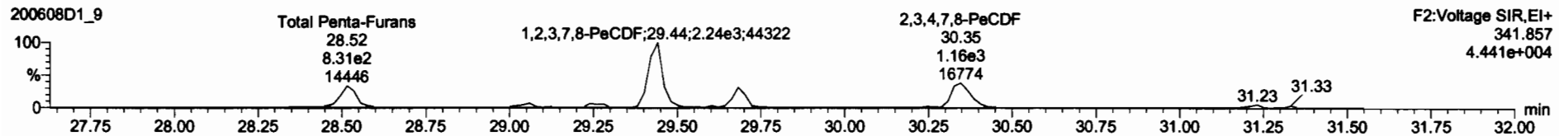
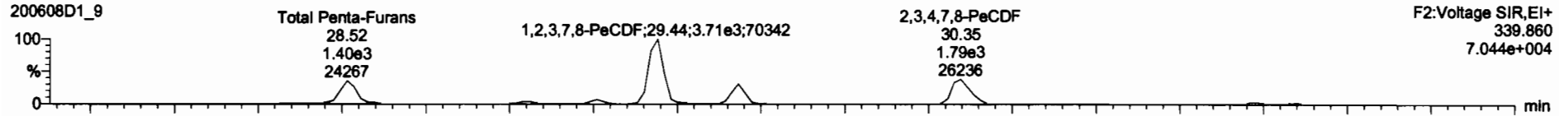


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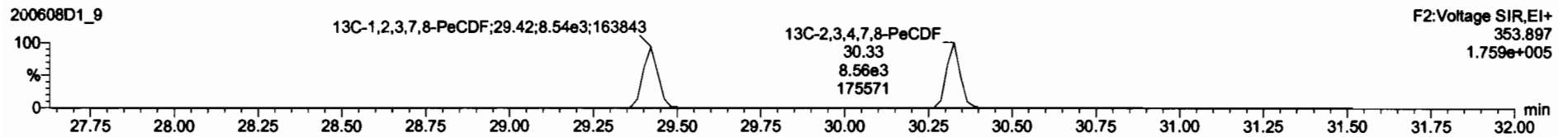
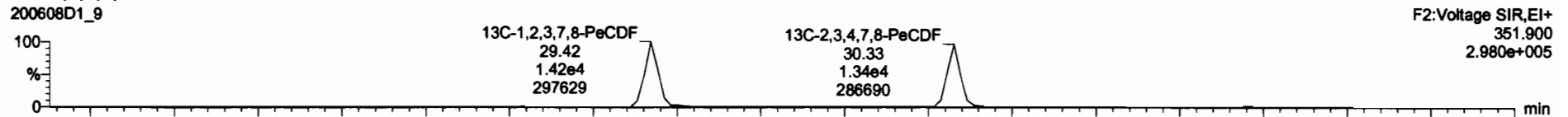
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Printed: Tuesday, June 09, 2020 09:40:25 Pacific Daylight Time

Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3

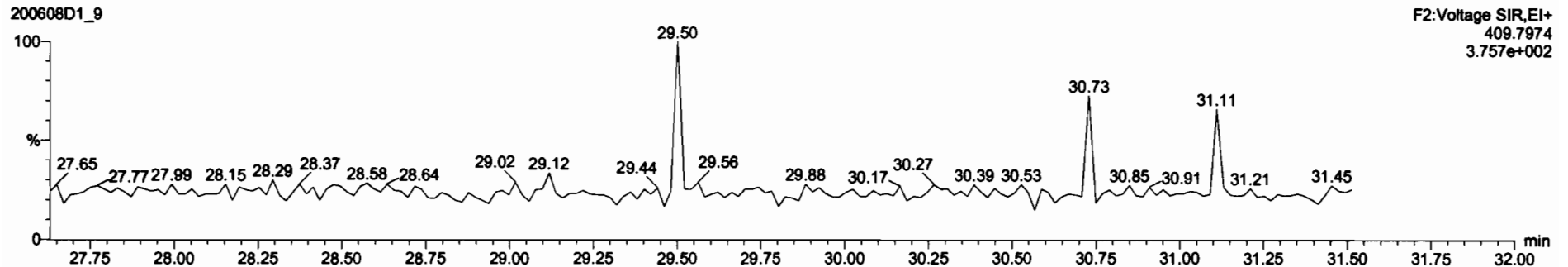
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**



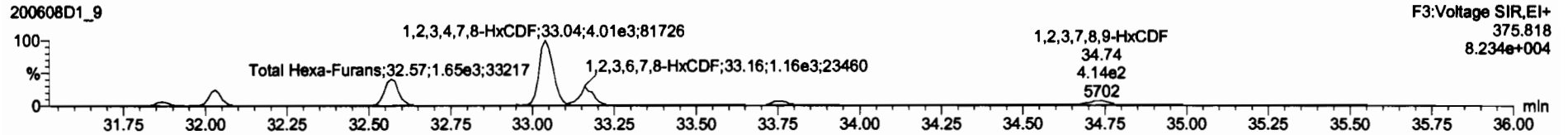
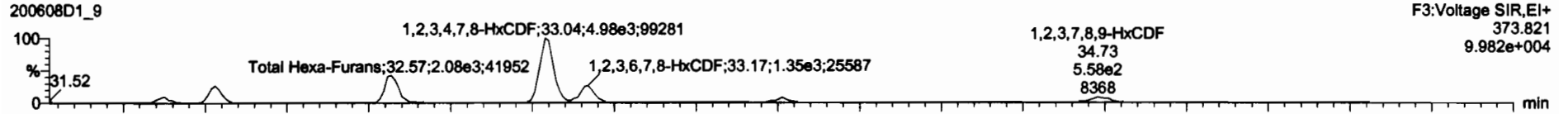


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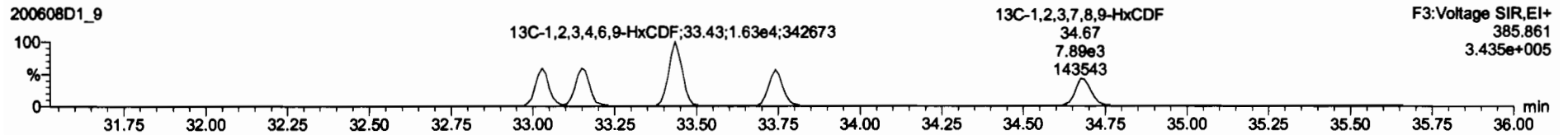
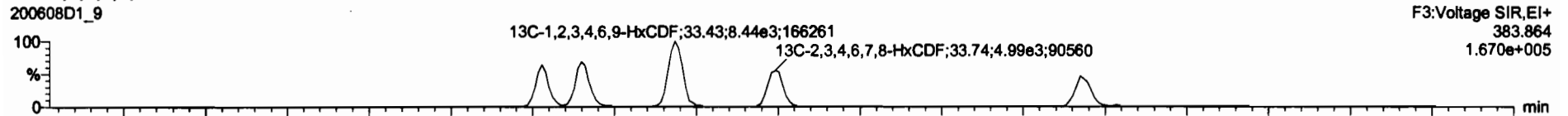
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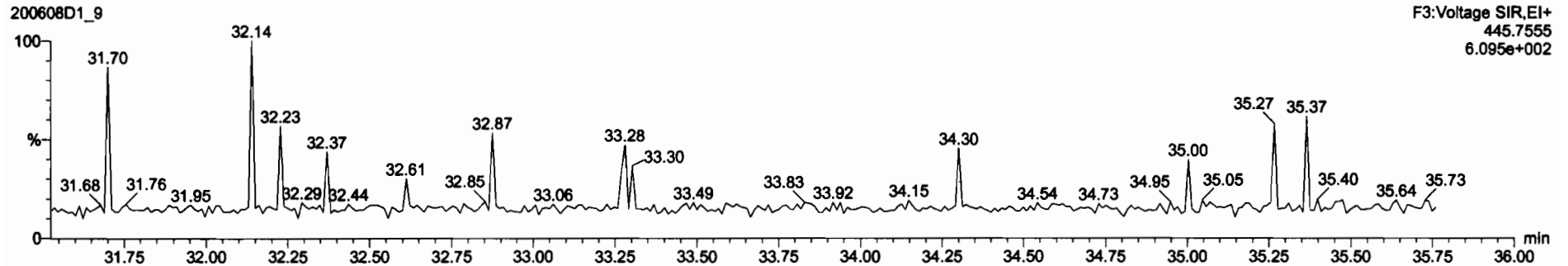
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_9.qld

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Printed: Tuesday, June 09, 2020 09:40:25 Pacific Daylight Time

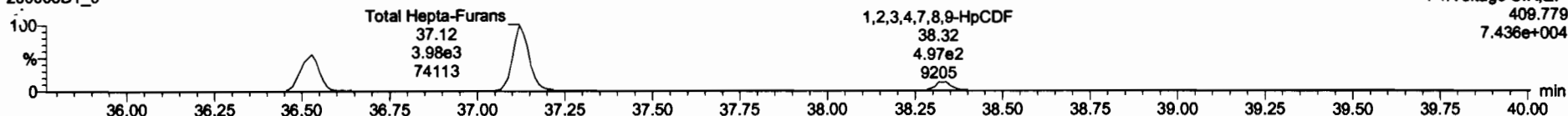
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**1,2,3,4,6,7,8-HpCDF**

200608D1\_9

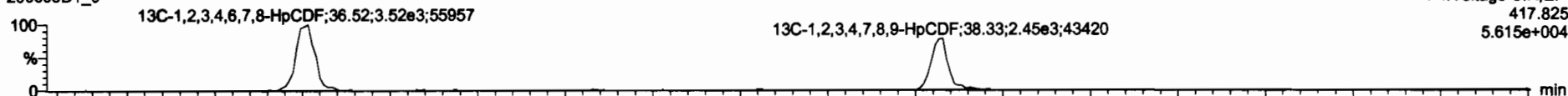


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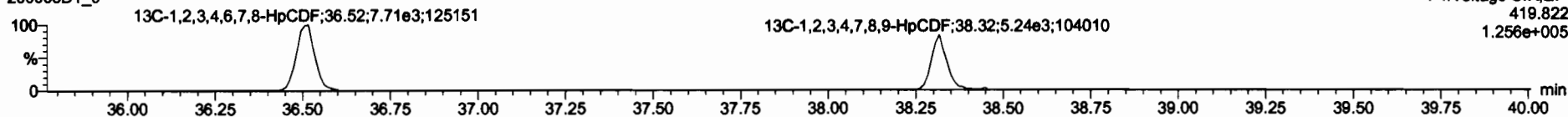


**13C-1,2,3,4,6,7,8-HpCDF**

200608D1\_9

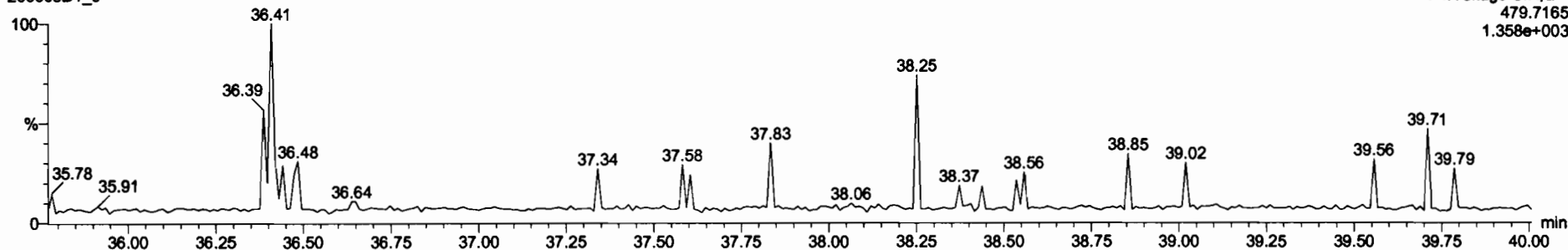


200608D1\_9



**DPE4**

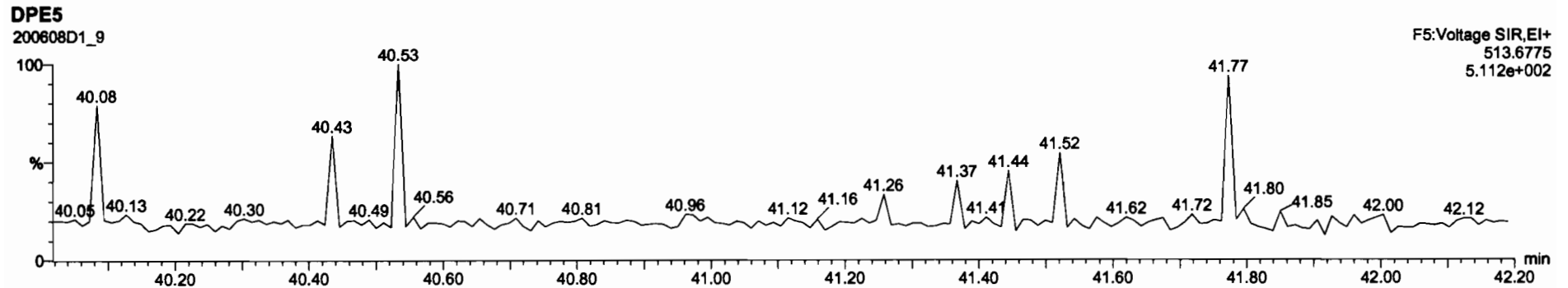
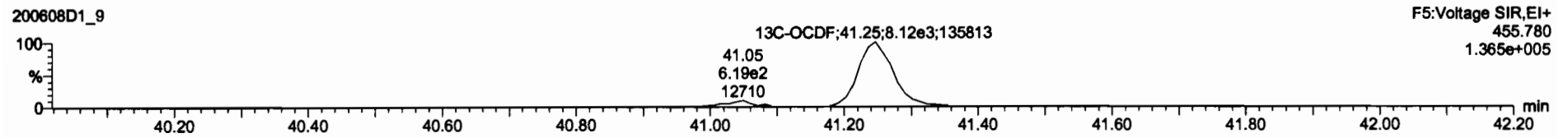
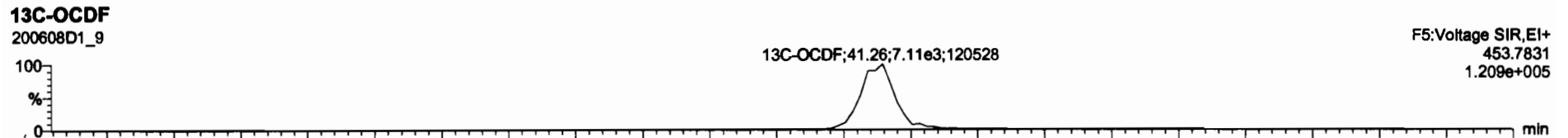
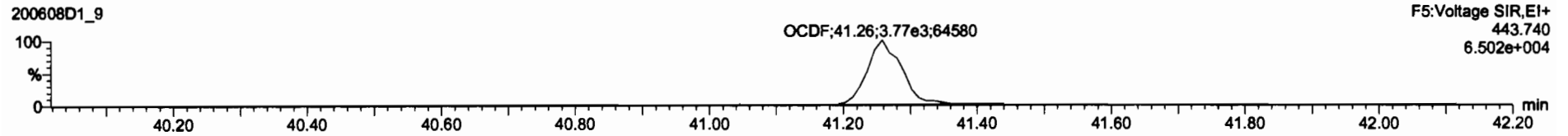
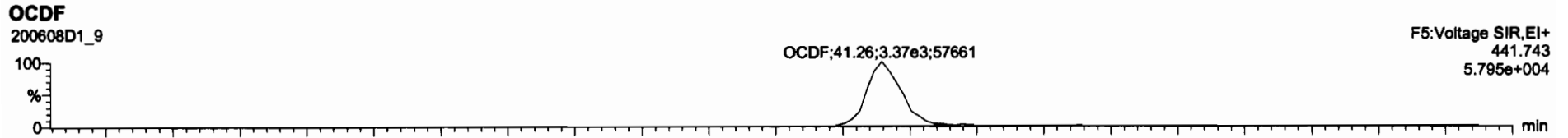
200608D1\_9



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_9.qld

Last Altered: Tuesday, June 09, 2020 09:39:02 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:40:25 Pacific Daylight Time

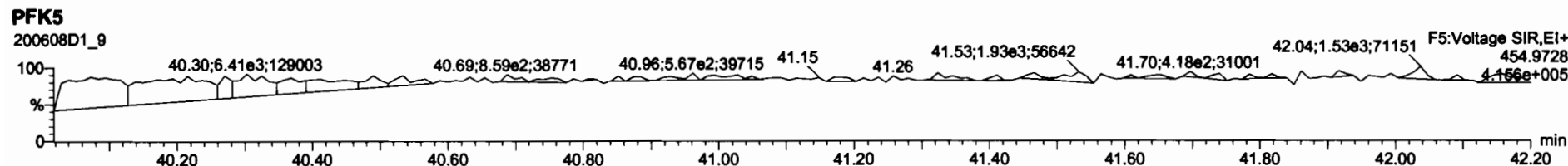
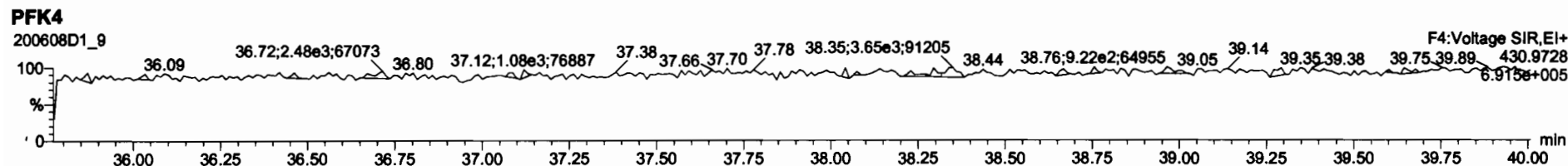
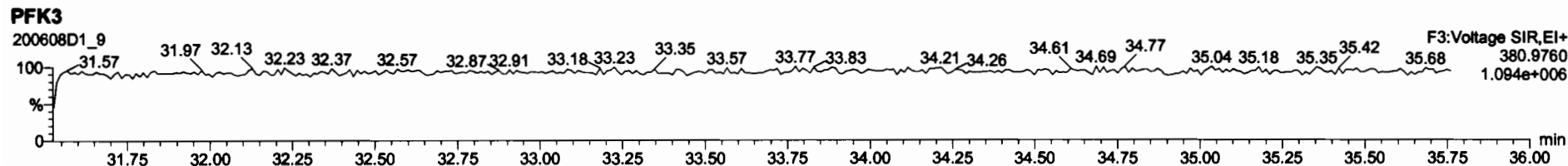
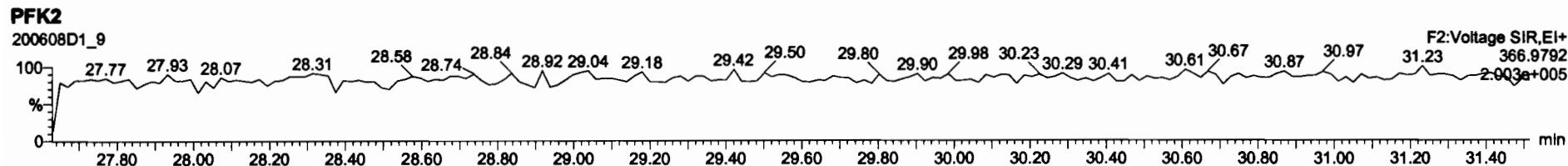
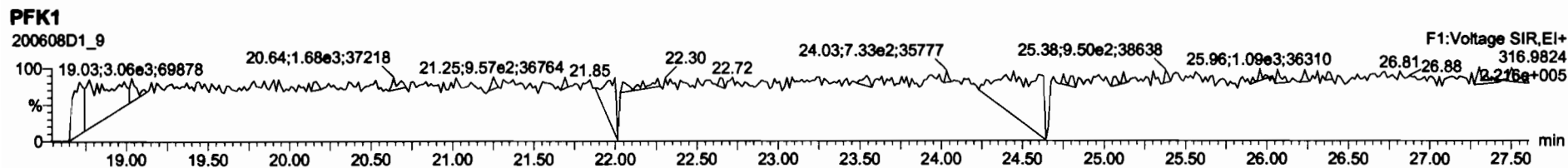
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Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_9.qld

Last Altered: Tuesday, June 09, 2020 09:39:02 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:40:25 Pacific Daylight Time

Name: 200608D1\_9, Date: 08-Jun-2020, Time: 19:01:21, ID: 2000998-04@3X PDI-063SC-B-00-02-200429 1:3 15.4, Description: PDI-063SC-B-00-02-200429 1:3



Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

Last Altered: Monday, June 08, 2020 13:41:57 Pacific Daylight Time  
Printed: Monday, June 08, 2020 13:43:45 Pacific Daylight Time

*DB 6/8/20 CT 06/11/2020*

Method: Untitled 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

*\* see dilution*

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

|    |                         |        |      |     |       |        |        |       |       |       |              |       |         |
|----|-------------------------|--------|------|-----|-------|--------|--------|-------|-------|-------|--------------|-------|---------|
| 1  | 2,3,7,8-TCDD            | 4.68e2 | 0.61 | YES | 0.987 | 10.041 | 26.142 | 26.13 | 1.001 | 1.001 | 1.2990       | 0.321 | 1.13    |
| 2  | 1,2,3,7,8-PeCDD         | 6.80e2 | 0.67 | NO  | 0.982 | 10.041 | 30.670 | 30.67 | 1.001 | 1.001 | 2.3959       | 0.350 | 2.40    |
| 3  | 1,2,3,4,7,8-HxCDD       | 1.15e3 | 1.22 | NO  | 1.17  | 10.041 | 33.971 | 33.98 | 1.000 | 1.001 | 4.1838       | 1.06  | 4.18    |
| 4  | 1,2,3,6,7,8-HxCDD       | 6.19e3 | 1.27 | NO  | 1.04  | 10.041 | 34.070 | 34.08 | 1.000 | 1.000 | 21.439       | 0.991 | 21.4    |
| 5  | 1,2,3,7,8,9-HxCDD       | 1.99e3 | 1.41 | NO  | 1.00  | 10.041 | 34.401 | 34.38 | 1.001 | 1.000 | 7.4490       | 1.11  | 7.45    |
| 6  | 1,2,3,4,6,7,8-HpCDD     | 2.28e5 | 1.00 | NO  | 0.992 | 10.041 | 37.845 | 37.85 | 1.000 | 1.000 | 1202.2       | 3.76  | 1200    |
| 7  | OCDD                    | 2.04e6 | 0.89 | NO  | 1.04  | 10.041 | 41.093 | 41.10 | 1.000 | 1.000 | 13113E       | 3.43  | 13100 * |
| 8  | 2,3,7,8-TCDF            | 5.47e4 | 0.73 | NO  | 0.882 | 10.041 | 25.341 | 25.33 | 1.001 | 1.001 | 149.47 (106) | 0.636 | 149     |
| 9  | 1,2,3,7,8-PeCDF         | 7.84e4 | 1.64 | NO  | 1.05  | 10.041 | 29.502 | 29.48 | 1.001 | 1.000 | 154.91       | 0.595 | 155     |
| 10 | 2,3,4,7,8-PeCDF         | 2.31e4 | 1.57 | NO  | 1.06  | 10.041 | 30.385 | 30.39 | 1.001 | 1.001 | 51.838       | 0.620 | 51.8    |
| 11 | 1,2,3,4,7,8-HxCDF       | 1.26e5 | 1.26 | NO  | 1.08  | 10.041 | 33.072 | 33.09 | 1.000 | 1.001 | 340.38       | 0.702 | 340     |
| 12 | 1,2,3,6,7,8-HxCDF       | 3.10e4 | 1.20 | NO  | 1.04  | 10.041 | 33.214 | 33.22 | 1.000 | 1.000 | 81.367       | 0.710 | 81.4    |
| 13 | 2,3,4,6,7,8-HxCDF       | 6.20e3 | 1.29 | NO  | 1.11  | 10.041 | 33.819 | 33.81 | 1.001 | 1.001 | 17.759       | 0.762 | 17.8    |
| 14 | 1,2,3,7,8,9-HxCDF       | 3.31e3 | 1.22 | NO  | 1.06  | 10.041 | 34.740 | 34.77 | 1.000 | 1.001 | 12.042       | 1.20  | 12.0    |
| 15 | 1,2,3,4,6,7,8-HpCDF     | 6.37e4 | 1.03 | NO  | 1.13  | 10.041 | 36.609 | 36.58 | 1.001 | 1.000 | 234.82       | 1.40  | 235     |
| 16 | 1,2,3,4,7,8,9-HpCDF     | 1.24e4 | 1.05 | NO  | 1.33  | 10.041 | 38.372 | 38.38 | 1.000 | 1.000 | 58.740       | 1.70  | 58.7    |
| 17 | OCDF                    | 9.97e4 | 0.86 | NO  | 0.933 | 10.041 | 41.313 | 41.32 | 1.000 | 1.000 | 674.87       | 2.02  | 675     |
| 18 | 13C-2,3,7,8-TCDD        | 7.28e4 | 0.79 | NO  | 1.21  | 10.041 | 26.210 | 26.11 | 1.026 | 1.022 | 73.985       | 37.1  | 0.415   |
| 19 | 13C-1,2,3,7,8-PeCDD     | 5.76e4 | 0.61 | NO  | 0.996 | 10.041 | 30.706 | 30.65 | 1.202 | 1.200 | 70.926       | 35.6  | 0.235   |
| 20 | 13C-1,2,3,4,7,8-HxCDD   | 4.65e4 | 1.25 | NO  | 0.679 | 10.041 | 33.947 | 33.96 | 1.014 | 1.014 | 86.210       | 43.3  | 0.691   |
| 21 | 13C-1,2,3,6,7,8-HxCDD   | 5.55e4 | 1.27 | NO  | 0.850 | 10.041 | 34.057 | 34.07 | 1.017 | 1.018 | 82.214       | 41.3  | 0.552   |
| 22 | 13C-1,2,3,7,8,9-HxCDD   | 5.30e4 | 1.30 | NO  | 0.798 | 10.041 | 34.328 | 34.37 | 1.025 | 1.027 | 83.574       | 42.0  | 0.588   |
| 23 | 13C-1,2,3,4,6,7,8-HpCDD | 3.81e4 | 1.02 | NO  | 0.697 | 10.041 | 37.797 | 37.83 | 1.129 | 1.130 | 68.922       | 34.6  | 0.471   |
| 24 | 13C-OCDD                | 5.98e4 | 0.86 | NO  | 0.579 | 10.041 | 40.823 | 41.09 | 1.219 | 1.227 | 130.06       | 32.6  | 0.635 * |
| 25 | 13C-2,3,7,8-TCDF        | 8.27e4 | 0.75 | NO  | 1.13  | 10.041 | 25.291 | 25.32 | 0.990 | 0.991 | 62.253       | 31.3  | 0.540   |
| 26 | 13C-1,2,3,7,8-PeCDF     | 9.64e4 | 1.55 | NO  | 0.996 | 10.041 | 29.524 | 29.48 | 1.156 | 1.154 | 62.114       | 41.2  | 0.559   |
| 27 | 13C-2,3,4,7,8-PeCDF     | 8.36e4 | 1.68 | NO  | 0.969 | 10.041 | 30.425 | 30.37 | 1.191 | 1.189 | 73.207       | 36.8  | 0.574   |
| 28 | 13C-1,2,3,4,7,8-HxCDF   | 6.79e4 | 0.51 | NO  | 1.06  | 10.041 | 33.076 | 33.07 | 0.988 | 0.988 | 80.796       | 40.6  | 0.553   |
| 29 | 13C-1,2,3,6,7,8-HxCDF   | 7.28e4 | 0.52 | NO  | 1.18  | 10.041 | 33.210 | 33.20 | 0.992 | 0.992 | 78.046       | 39.2  | 0.498   |
| 30 | 13C-2,3,4,6,7,8-HxCDF   | 6.26e4 | 0.49 | NO  | 1.06  | 10.041 | 33.783 | 33.78 | 1.009 | 1.009 | 74.612       | 37.5  | 0.554   |
| 31 | 13C-1,2,3,7,8,9-HxCDF   | 5.19e4 | 0.49 | NO  | 0.879 | 10.041 | 34.683 | 34.74 | 1.036 | 1.038 | 74.281       | 37.3  | 0.666   |

Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

Last Altered: Monday, June 08, 2020 13:41:57 Pacific Daylight Time

Printed: Monday, June 08, 2020 13:43:45 Pacific Daylight Time

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

|    | Comp                    | RA     | ly   | RRF | Wt%   |        |        |       |       |       |        |      |        |      |
|----|-------------------------|--------|------|-----|-------|--------|--------|-------|-------|-------|--------|------|--------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 4.79e4 | 0.42 | NO  | 0.893 | 10.041 | 36.391 | 36.57 | 1.087 | 1.092 | 67.517 | 33.9 | 0.623  |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 3.14e4 | 0.42 | NO  | 0.613 | 10.041 | 38.399 | 38.37 | 1.147 | 1.146 | 64.537 | 32.4 | 0.907  |      |
| 34 | 13C-OCDF                | 6.31e4 | 0.84 | NO  | 0.741 | 10.041 | 40.977 | 41.31 | 1.224 | 1.234 | 107.21 | 26.9 | 0.411  |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 2.89e4 |      |     | 1.18  | 10.041 | 26.208 | 26.13 | 1.026 | 1.023 | 30.088 | 37.8 | 0.0884 |      |
| 36 | 13C-1,2,3,4-TCDD        | 1.62e5 | 0.80 | NO  | 1.00  | 10.041 | 25.480 | 25.55 | 1.000 | 1.000 | 199.18 | 100  | 0.501  |      |
| 37 | 13C-1,2,3,4-TCDF        | 2.35e5 | 0.74 | NO  | 1.00  | 10.041 | 24.020 | 24.09 | 1.000 | 1.000 | 199.18 | 100  | 0.609  |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.58e5 | 0.49 | NO  | 1.00  | 10.041 | 33.530 | 33.48 | 1.000 | 1.000 | 199.18 | 100  | 0.585  |      |
| 39 | Total Tetra-Dioxins     |        |      |     | 0.987 | 10.041 | 24.620 |       | 0.000 |       | 11.749 |      | 0.321  | 15.1 |
| 40 | Total Penta-Dioxins     |        |      |     | 0.982 | 10.041 | 29.960 |       | 0.000 |       | 24.682 |      | 0.350  | 26.6 |
| 41 | Total Hexa-Dioxins      |        |      |     | 1.04  | 10.041 | 33.635 |       | 0.000 |       | 204.68 |      | 1.08   | 205  |
| 42 | Total Hepta-Dioxins     |        |      |     | 0.992 | 10.041 | 37.640 |       | 0.000 |       | 2900.6 |      | 3.76   | 2900 |
| 43 | Total Tetra-Furans      |        |      |     | 0.882 | 10.041 | 23.610 |       | 0.000 |       | 423.29 |      | 0.636  | 428  |
| 44 | 1st Func. Penta-Furans  |        |      |     | 1.05  | 10.041 | 27.090 |       | 0.000 |       | 20.888 |      | 0.117  | 20.9 |
| 45 | Total Penta-Furans      |        |      |     | 1.05  | 10.041 | 29.275 |       | 0.000 |       | 364.77 |      | 0.611  | 365  |
| 46 | Total Hexa-Furans       |        |      |     | 1.11  | 10.041 | 33.555 |       | 0.000 |       | 636.63 |      | 0.791  | 637  |
| 47 | Total Hepta-Furans      |        |      |     | 1.13  | 10.041 | 37.835 |       | 0.000 |       | 719.12 |      | 1.64   | 719  |

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Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

Last Altered: Monday, June 08, 2020 13:41:57 Pacific Daylight Time

Printed: Monday, June 08, 2020 13:43:45 Pacific Daylight Time

Method: Untitled 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

**Tetra-Dioxins**

|                     | RT    | m1 Height | m2 Height | m1 Ratio | m2 Ratio |      |     |         |         |         |       |
|---------------------|-------|-----------|-----------|----------|----------|------|-----|---------|---------|---------|-------|
| Total Tetra-Dioxins | 22.67 | 8.679e3   | 1.010e4   | 7.986e2  | 9.427e2  | 0.85 | NO  | 1.741e3 | 4.8306  | 4.8306  | 0.321 |
| Total Tetra-Dioxins | 23.05 | 3.766e3   | 4.952e3   | 2.535e2  | 3.865e2  | 0.66 | NO  | 6.400e2 | 1.7755  | 1.7755  | 0.321 |
| Total Tetra-Dioxins | 23.47 | 1.287e3   | 1.645e3   | 9.882e1  | 1.128e2  | 0.88 | NO  | 0.000e0 | 0.00000 | 0.58721 | 0.321 |
| Total Tetra-Dioxins | 24.44 | 2.727e3   | 2.777e3   | 1.596e2  | 2.724e2  | 0.59 | YES | 0.000e0 | 0.00000 | 1.0179  | 0.321 |
| Total Tetra-Dioxins | 24.61 | 3.342e3   | 2.558e3   | 2.129e2  | 2.414e2  | 0.88 | NO  | 4.543e2 | 1.2603  | 1.2603  | 0.321 |
| Total Tetra-Dioxins | 24.81 | 1.400e3   | 1.366e3   | 9.054e1  | 1.028e2  | 0.88 | NO  | 1.933e2 | 0.53630 | 0.53630 | 0.321 |
| Total Tetra-Dioxins | 25.04 | 9.310e2   | 6.470e2   | 4.647e1  | 3.730e1  | 1.25 | YES | 0.000e0 | 0.00000 | 0.18317 | 0.321 |
| Total Tetra-Dioxins | 25.23 | 1.634e3   | 1.519e3   | 1.111e2  | 8.109e1  | 1.37 | YES | 0.000e0 | 0.00000 | 0.39816 | 0.321 |
| Total Tetra-Dioxins | 25.51 | 1.104e3   | 1.255e3   | 5.571e1  | 7.488e1  | 0.74 | NO  | 1.306e2 | 0.36227 | 0.36227 | 0.321 |
| Total Tetra-Dioxins | 25.90 | 5.392e3   | 9.259e3   | 3.837e2  | 5.382e2  | 0.71 | NO  | 9.219e2 | 2.5575  | 2.5575  | 0.321 |
| 2,3,7,8-TCDD        | 26.13 | 3.132e3   | 4.132e3   | 1.778e2  | 2.905e2  | 0.61 | YES | 4.682e2 | 0.00000 | 1.1337  | 0.321 |
| Total Tetra-Dioxins | 26.42 | 1.557e3   | 1.841e3   | 6.521e1  | 8.842e1  | 0.74 | NO  | 1.536e2 | 0.42620 | 0.42620 | 0.321 |

**Penta-Dioxins**

|                     | RT    | m1 Height | m2 Height | m1 Ratio | m2 Ratio |      |     |         |         |         |       |
|---------------------|-------|-----------|-----------|----------|----------|------|-----|---------|---------|---------|-------|
| Total Penta-Dioxins | 28.62 | 1.241e4   | 1.948e4   | 8.370e2  | 1.339e3  | 0.62 | NO  | 2.176e3 | 7.6651  | 7.6651  | 0.350 |
| Total Penta-Dioxins | 29.06 | 5.080e3   | 6.445e3   | 2.030e2  | 3.457e2  | 0.59 | NO  | 5.487e2 | 1.9326  | 1.9326  | 0.350 |
| Total Penta-Dioxins | 29.52 | 7.126e3   | 1.232e4   | 3.976e2  | 6.105e2  | 0.65 | NO  | 1.008e3 | 3.5507  | 3.5507  | 0.350 |
| Total Penta-Dioxins | 29.66 | 3.924e3   | 9.049e3   | 2.086e2  | 3.959e2  | 0.53 | YES | 0.000e0 | 0.00000 | 1.9014  | 0.350 |
| Total Penta-Dioxins | 29.76 | 4.430e3   | 7.742e3   | 2.384e2  | 3.596e2  | 0.66 | NO  | 5.980e2 | 2.1063  | 2.1063  | 0.350 |
| Total Penta-Dioxins | 29.96 | 4.746e3   | 7.196e3   | 4.229e2  | 6.402e2  | 0.66 | NO  | 1.063e3 | 3.7443  | 3.7443  | 0.350 |
| Total Penta-Dioxins | 30.27 | 2.491e3   | 3.492e3   | 1.537e2  | 2.173e2  | 0.71 | NO  | 3.709e2 | 1.3065  | 1.3065  | 0.350 |
| 1,2,3,7,8-PeCDD     | 30.67 | 5.959e3   | 8.684e3   | 2.717e2  | 4.085e2  | 0.67 | NO  | 6.802e2 | 2.3959  | 2.3959  | 0.350 |
| Total Penta-Dioxins | 30.71 | 2.121e3   | 2.976e3   | 1.377e2  | 1.951e2  | 0.71 | NO  | 3.327e2 | 1.1719  | 1.1719  | 0.350 |
| Total Penta-Dioxins | 31.01 | 1.691e3   | 2.417e3   | 8.644e1  | 1.432e2  | 0.60 | NO  | 2.296e2 | 0.80881 | 0.80881 | 0.350 |

Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

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Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

Hexa-Dioxins

|                    | Area  | Height  | Height  | Area    | Height  | Height | Area | Height  | Height | Area   |       |
|--------------------|-------|---------|---------|---------|---------|--------|------|---------|--------|--------|-------|
| Total Hexa-Dioxins | 32.45 | 1.996e5 | 1.643e5 | 9.991e3 | 8.056e3 | 1.24   | NO   | 1.805e4 | 67.180 | 67.180 | 1.08  |
| Total Hexa-Dioxins | 33.02 | 4.122e4 | 3.440e4 | 2.366e3 | 1.993e3 | 1.19   | NO   | 4.359e3 | 16.227 | 16.227 | 1.08  |
| Total Hexa-Dioxins | 33.28 | 1.567e5 | 1.231e5 | 1.105e4 | 8.848e3 | 1.25   | NO   | 1.990e4 | 74.062 | 74.062 | 1.08  |
| Total Hexa-Dioxins | 33.39 | 2.221e4 | 1.772e4 | 1.334e3 | 1.021e3 | 1.31   | NO   | 2.355e3 | 8.7647 | 8.7647 | 1.08  |
| 1,2,3,4,7,8-HxCDD  | 33.98 | 1.079e4 | 9.598e3 | 6.306e2 | 5.155e2 | 1.22   | NO   | 1.146e3 | 4.1838 | 4.1838 | 1.06  |
| 1,2,3,6,7,8-HxCDD  | 34.08 | 5.267e4 | 4.212e4 | 3.460e3 | 2.726e3 | 1.27   | NO   | 6.187e3 | 21.439 | 21.439 | 0.991 |
| Total Hexa-Dioxins | 34.28 | 1.368e4 | 1.194e4 | 8.149e2 | 6.275e2 | 1.30   | NO   | 1.442e3 | 5.3694 | 5.3694 | 1.08  |
| 1,2,3,7,8,9-HxCDD  | 34.38 | 1.799e4 | 1.160e4 | 1.162e3 | 8.257e2 | 1.41   | NO   | 1.987e3 | 7.4490 | 7.4490 | 1.11  |

Hepta-Dioxins

|                     | Area  | Height  | Height  | Area    | Height  | Height | Area | Height  | Height | Area   |      |
|---------------------|-------|---------|---------|---------|---------|--------|------|---------|--------|--------|------|
| Total Hepta-Dioxins | 36.98 | 2.339e6 | 2.228e6 | 1.643e5 | 1.582e5 | 1.04   | NO   | 3.225e5 | 1698.5 | 1698.5 | 3.76 |
| 1,2,3,4,6,7,8-HpCDD | 37.85 | 1.929e6 | 1.888e6 | 1.143e5 | 1.140e5 | 1.00   | NO   | 2.283e5 | 1202.2 | 1202.2 | 3.76 |



Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

Last Altered: Monday, June 08, 2020 13:41:57 Pacific Daylight Time  
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Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

**Tetra-Furans**

|                    | RT    | m1 Height | m2 Height | m1      | m2      | Ratio | IS  | Area    | Area    | Area   | Area  |
|--------------------|-------|-----------|-----------|---------|---------|-------|-----|---------|---------|--------|-------|
| Total Tetra-Furans | 21.11 | 3.904e3   | 5.263e3   | 3.050e2 | 4.890e2 | 0.62  | YES | 0.000e0 | 0.00000 | 1.9147 | 0.636 |
| Total Tetra-Furans | 21.71 | 1.986e4   | 2.669e4   | 1.966e3 | 2.475e3 | 0.79  | NO  | 4.441e3 | 12.129  | 12.129 | 0.636 |
| Total Tetra-Furans | 22.30 | 6.720e3   | 7.730e3   | 9.731e2 | 1.250e3 | 0.78  | NO  | 2.223e3 | 6.0707  | 6.0707 | 0.636 |
| Total Tetra-Furans | 22.66 | 5.236e4   | 6.784e4   | 4.594e3 | 6.067e3 | 0.76  | NO  | 1.066e4 | 29.116  | 29.116 | 0.636 |
| Total Tetra-Furans | 23.08 | 1.845e4   | 2.141e4   | 1.230e3 | 1.663e3 | 0.74  | NO  | 2.892e3 | 7.8995  | 7.8995 | 0.636 |
| Total Tetra-Furans | 23.22 | 2.785e3   | 3.845e3   | 2.393e2 | 2.894e2 | 0.83  | NO  | 5.287e2 | 1.4441  | 1.4441 | 0.636 |
| Total Tetra-Furans | 23.38 | 1.336e4   | 1.606e4   | 9.138e2 | 1.154e3 | 0.79  | NO  | 2.068e3 | 5.6474  | 5.6474 | 0.636 |
| Total Tetra-Furans | 23.74 | 3.584e3   | 3.133e3   | 2.077e2 | 2.368e2 | 0.88  | NO  | 4.445e2 | 1.2139  | 1.2139 | 0.636 |
| Total Tetra-Furans | 23.85 | 3.300e3   | 4.239e3   | 2.061e2 | 3.062e2 | 0.67  | NO  | 5.123e2 | 1.3992  | 1.3992 | 0.636 |
| Total Tetra-Furans | 23.97 | 1.203e4   | 1.488e4   | 7.399e2 | 9.134e2 | 0.81  | NO  | 1.653e3 | 4.5155  | 4.5155 | 0.636 |
| Total Tetra-Furans | 24.08 | 4.244e4   | 5.676e4   | 3.806e3 | 4.963e3 | 0.77  | NO  | 8.768e3 | 23.948  | 23.948 | 0.636 |
| Total Tetra-Furans | 24.52 | 2.946e5   | 3.989e5   | 2.012e4 | 2.742e4 | 0.73  | NO  | 4.754e4 | 129.85  | 129.85 | 0.636 |
| Total Tetra-Furans | 24.77 | 1.119e4   | 1.531e4   | 8.332e2 | 1.122e3 | 0.74  | NO  | 1.956e3 | 5.3410  | 5.3410 | 0.636 |
| Total Tetra-Furans | 24.95 | 4.222e3   | 5.693e3   | 3.588e2 | 4.415e2 | 0.81  | NO  | 8.002e2 | 2.1856  | 2.1856 | 0.636 |
| Total Tetra-Furans | 25.24 | 4.393e4   | 5.742e4   | 2.720e3 | 3.904e3 | 0.70  | NO  | 6.624e3 | 18.090  | 18.090 | 0.636 |
| 2,3,7,8-TCDF       | 25.33 | 3.385e5   | 4.666e5   | 2.309e4 | 3.163e4 | 0.73  | NO  | 5.473e4 | 149.47  | 149.47 | 0.636 |
| Total Tetra-Furans | 25.50 | 3.229e3   | 3.856e3   | 1.970e2 | 2.580e2 | 0.76  | NO  | 4.549e2 | 1.2425  | 1.2425 | 0.636 |
| Total Tetra-Furans | 25.67 | 1.756e4   | 2.507e4   | 1.273e3 | 1.697e3 | 0.75  | NO  | 2.970e3 | 8.1121  | 8.1121 | 0.636 |
| Total Tetra-Furans | 25.90 | 3.635e3   | 3.789e3   | 1.869e2 | 2.969e2 | 0.63  | YES | 0.000e0 | 0.00000 | 1.1734 | 0.636 |
| Total Tetra-Furans | 26.62 | 1.366e4   | 6.275e3   | 7.141e2 | 3.703e2 | 1.93  | YES | 0.000e0 | 0.00000 | 1.7903 | 0.636 |
| Total Tetra-Furans | 27.14 | 3.937e4   | 4.930e4   | 2.655e3 | 3.061e3 | 0.87  | NO  | 5.716e3 | 15.611  | 15.611 | 0.636 |

**Penta-Furans function 1**

|                        | RT    | m1 Height | m2 Height | m1      | m2      | Ratio | IS | Area    | Area   | Area   |       |
|------------------------|-------|-----------|-----------|---------|---------|-------|----|---------|--------|--------|-------|
| 1st Func. Penta-Furans | 27.12 | 1.111e5   | 6.360e4   | 6.121e3 | 3.747e3 | 1.63  | NO | 9.868e3 | 20.888 | 20.888 | 0.117 |

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**Penta-Furans**

|                    | Area  | Height  | Height  | Area    | Height  | Height | Area | Height  | Height | Area   | Height | Height |
|--------------------|-------|---------|---------|---------|---------|--------|------|---------|--------|--------|--------|--------|
| Total Penta-Furans | 28.45 | 1.202e4 | 1.001e4 | 7.425e2 | 5.467e2 | 1.36   | NO   | 1.289e3 | 2.7291 | 2.7291 | 0.611  |        |
| Total Penta-Furans | 28.58 | 3.498e5 | 2.272e5 | 1.967e4 | 1.280e4 | 1.54   | NO   | 3.247e4 | 68.726 | 68.726 | 0.611  |        |
| Total Penta-Furans | 29.10 | 2.630e4 | 1.907e4 | 2.096e3 | 1.464e3 | 1.43   | NO   | 3.560e3 | 7.5364 | 7.5364 | 0.611  |        |
| Total Penta-Furans | 29.32 | 7.023e4 | 4.538e4 | 3.599e3 | 2.324e3 | 1.55   | NO   | 5.923e3 | 12.538 | 12.538 | 0.611  |        |
| 1,2,3,7,8-PeCDF    | 29.48 | 8.694e5 | 5.386e5 | 4.874e4 | 2.964e4 | 1.64   | NO   | 7.838e4 | 154.91 | 154.91 | 0.595  |        |
| Total Penta-Furans | 29.74 | 2.189e5 | 1.288e5 | 1.164e4 | 7.533e3 | 1.55   | NO   | 1.917e4 | 40.587 | 40.587 | 0.611  |        |
| 2,3,4,7,8-PeCDF    | 30.39 | 3.478e5 | 2.197e5 | 1.409e4 | 8.980e3 | 1.57   | NO   | 2.307e4 | 51.838 | 51.838 | 0.620  |        |
| Total Penta-Furans | 30.41 | 2.283e5 | 1.445e5 | 6.721e3 | 4.108e3 | 1.64   | NO   | 1.083e4 | 22.924 | 22.924 | 0.611  |        |
| Total Penta-Furans | 31.27 | 1.424e4 | 1.230e4 | 8.190e2 | 5.878e2 | 1.39   | NO   | 1.407e3 | 2.9780 | 2.9780 | 0.611  |        |

**Hexa-Furans**

|                   | Area  | Height  | Height  | Area    | Height  | Height | Area | Height  | Height | Area   | Height | Height |
|-------------------|-------|---------|---------|---------|---------|--------|------|---------|--------|--------|--------|--------|
| Total Hexa-Furans | 31.91 | 6.373e4 | 5.062e4 | 3.246e3 | 2.579e3 | 1.26   | NO   | 5.825e3 | 16.369 | 16.369 | 0.791  |        |
| Total Hexa-Furans | 32.07 | 2.396e5 | 1.881e5 | 1.176e4 | 9.268e3 | 1.27   | NO   | 2.102e4 | 59.082 | 59.082 | 0.791  |        |
| Total Hexa-Furans | 32.61 | 3.628e5 | 2.844e5 | 1.795e4 | 1.437e4 | 1.25   | NO   | 3.233e4 | 90.849 | 90.849 | 0.791  |        |
| Total Hexa-Furans | 32.98 | 7.745e3 | 7.170e3 | 3.401e2 | 3.226e2 | 1.05   | NO   | 6.627e2 | 1.8623 | 1.8623 | 0.791  |        |
| 1,2,3,4,7,8-HxCDF | 33.09 | 1.259e6 | 1.002e6 | 6.996e4 | 5.565e4 | 1.26   | NO   | 1.256e5 | 340.38 | 340.38 | 0.702  |        |
| 1,2,3,6,7,8-HxCDF | 33.22 | 2.763e5 | 2.326e5 | 1.691e4 | 1.411e4 | 1.20   | NO   | 3.102e4 | 81.367 | 81.367 | 0.710  |        |
| 2,3,4,6,7,8-HxCDF | 33.81 | 5.973e4 | 4.416e4 | 3.497e3 | 2.705e3 | 1.29   | NO   | 6.202e3 | 17.759 | 17.759 | 0.762  |        |
| 1,2,3,7,8,9-HxCDF | 34.77 | 5.954e4 | 5.105e4 | 1.822e3 | 1.492e3 | 1.22   | NO   | 3.314e3 | 12.042 | 12.042 | 1.20   |        |
| Total Hexa-Furans | 34.78 | 6.842e4 | 5.992e4 | 3.328e3 | 2.691e3 | 1.24   | NO   | 6.018e3 | 16.913 | 16.913 | 0.791  |        |

**Hepta-Furans**

|                     | Area  | Height  | Height  | Area    | Height  | Height | Area | Height  | Height | Area   | Height | Height |
|---------------------|-------|---------|---------|---------|---------|--------|------|---------|--------|--------|--------|--------|
| 1,2,3,4,6,7,8-HpCDF | 36.58 | 4.137e5 | 4.200e5 | 3.236e4 | 3.129e4 | 1.03   | NO   | 6.365e4 | 234.82 | 234.82 | 1.40   |        |
| Total Hepta-Furans  | 36.98 | 7.312e3 | 7.362e3 | 5.505e2 | 4.717e2 | 1.17   | NO   | 1.022e3 | 4.5521 | 4.5521 | 1.64   |        |
| Total Hepta-Furans  | 37.19 | 6.813e5 | 6.722e5 | 4.794e4 | 4.660e4 | 1.03   | NO   | 9.454e4 | 421.01 | 421.01 | 1.64   |        |
| 1,2,3,4,7,8,9-HpCDF | 38.38 | 8.666e4 | 8.545e4 | 6.335e3 | 6.026e3 | 1.05   | NO   | 1.236e4 | 58.740 | 58.740 | 1.70   |        |

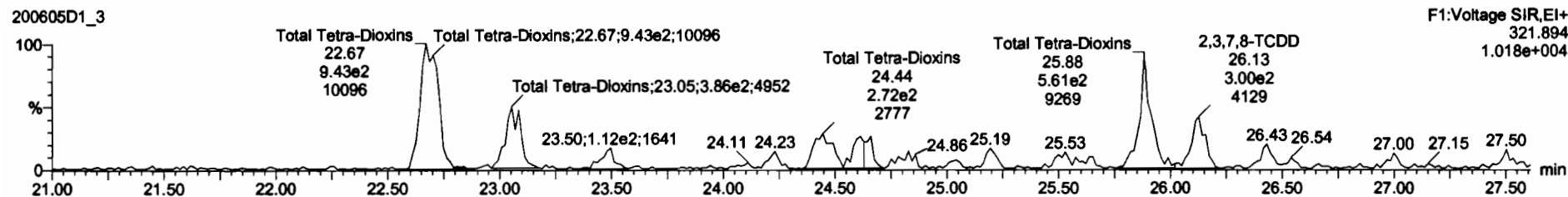
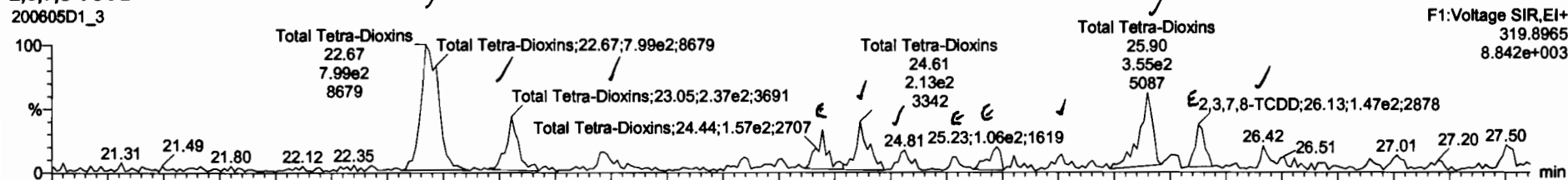
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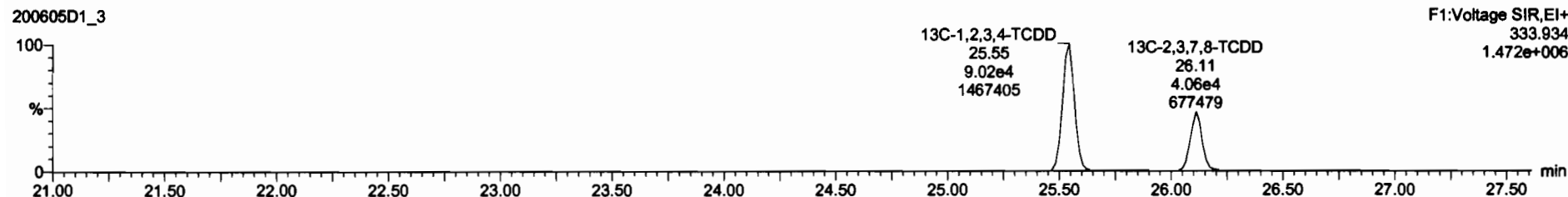
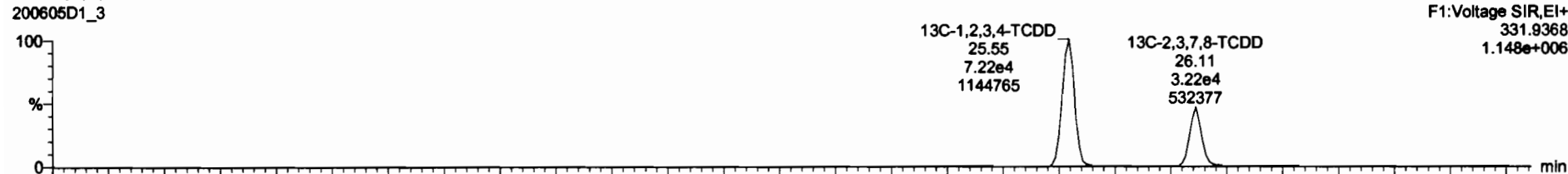
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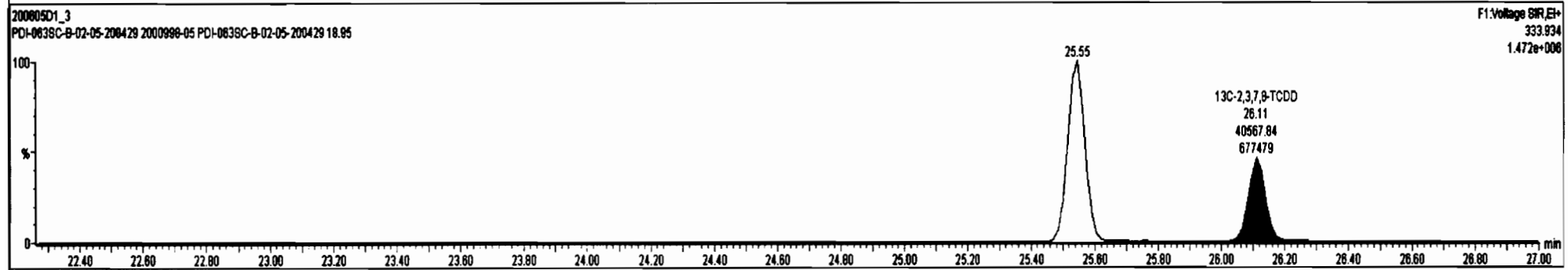
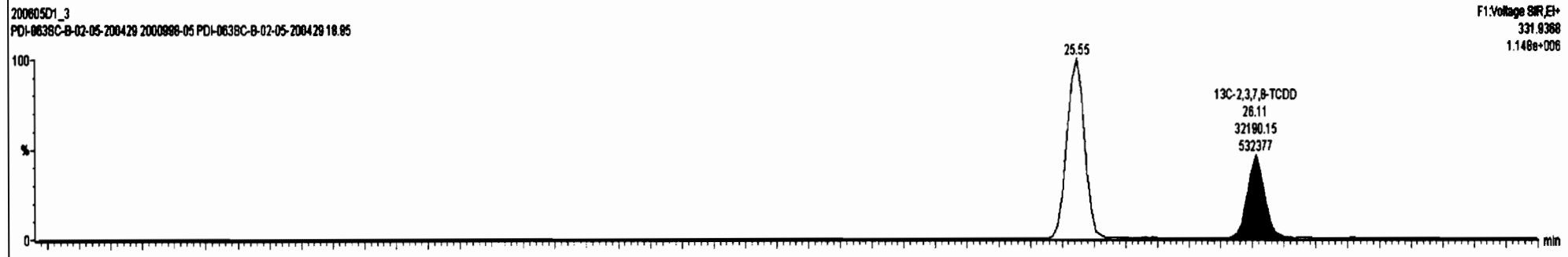
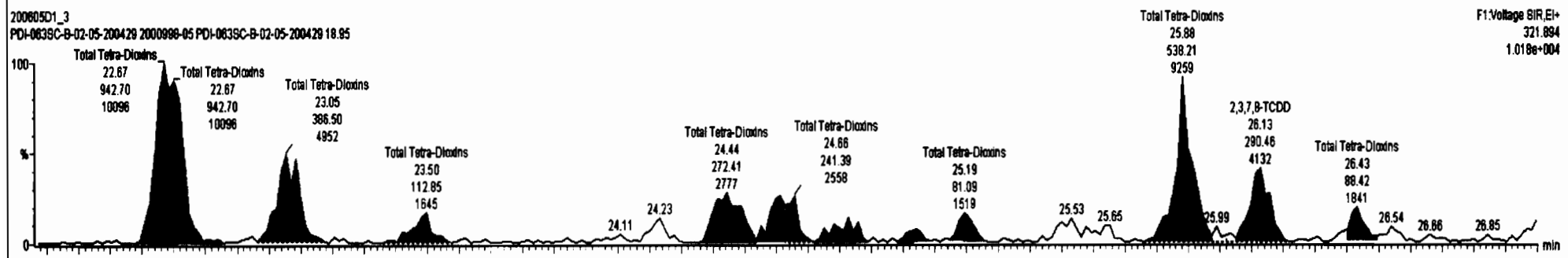
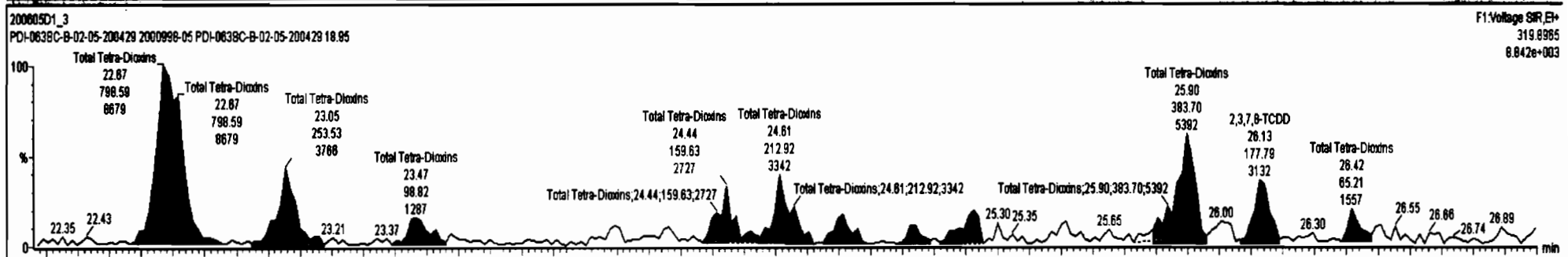
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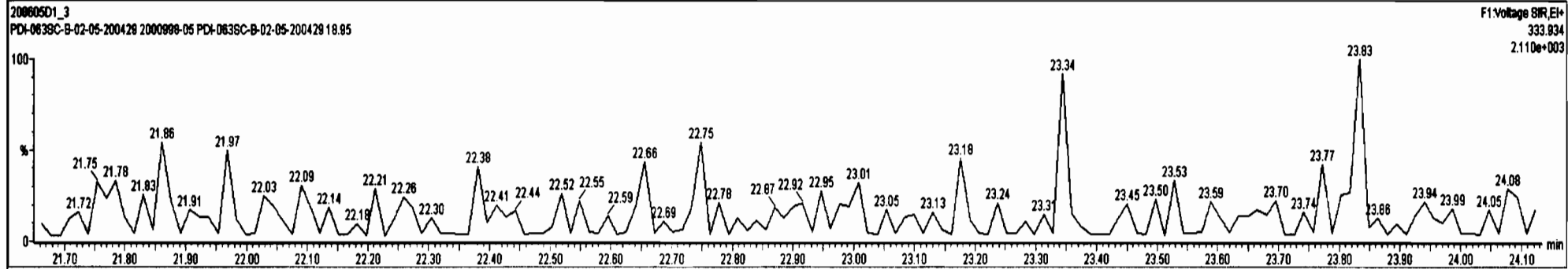
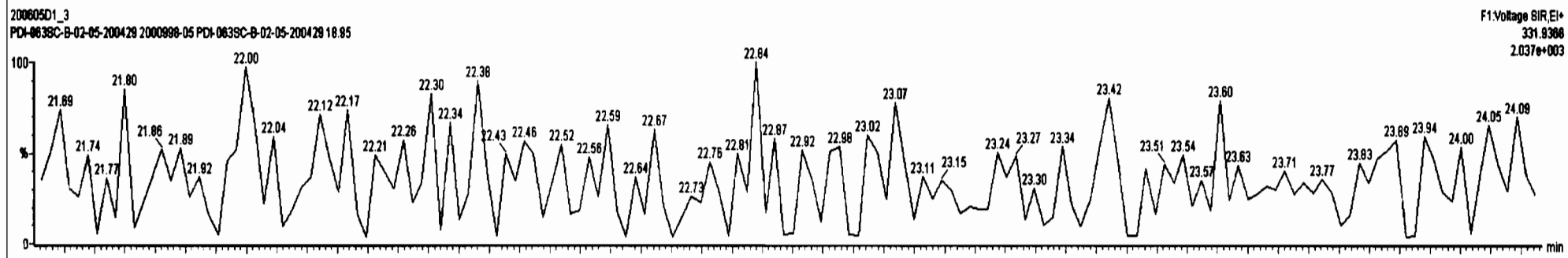
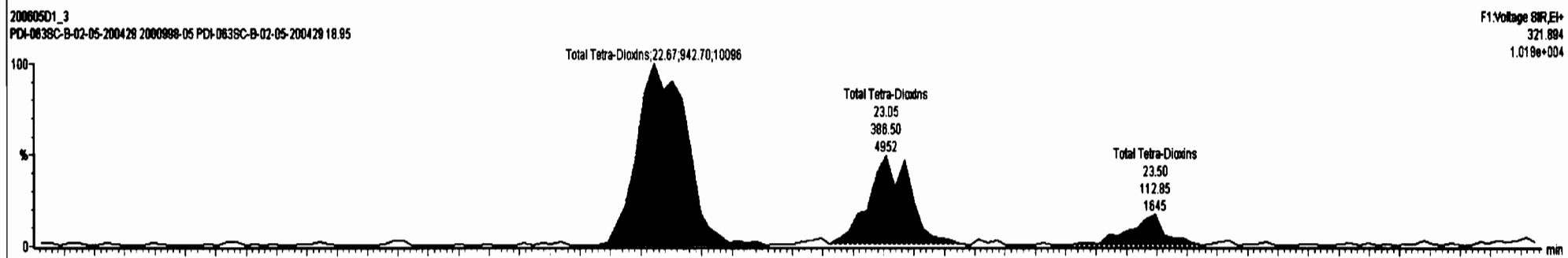
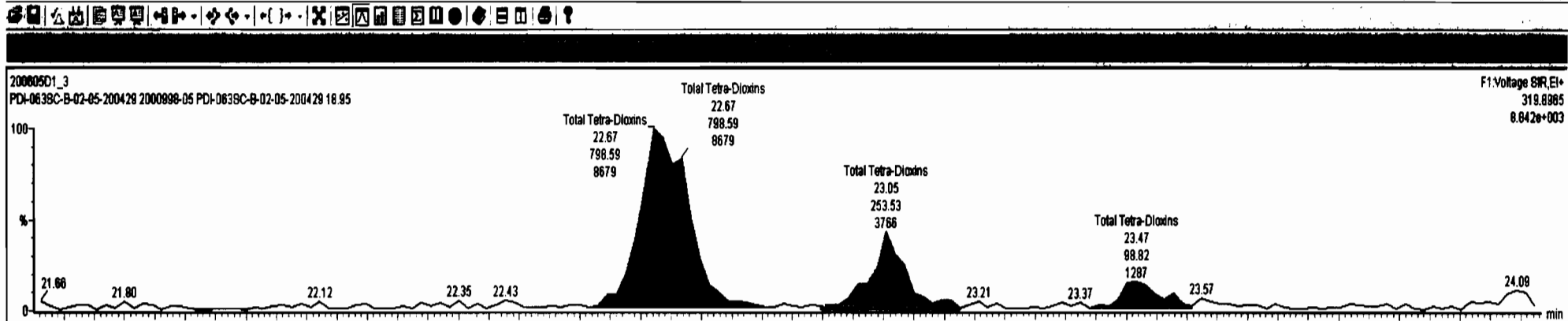
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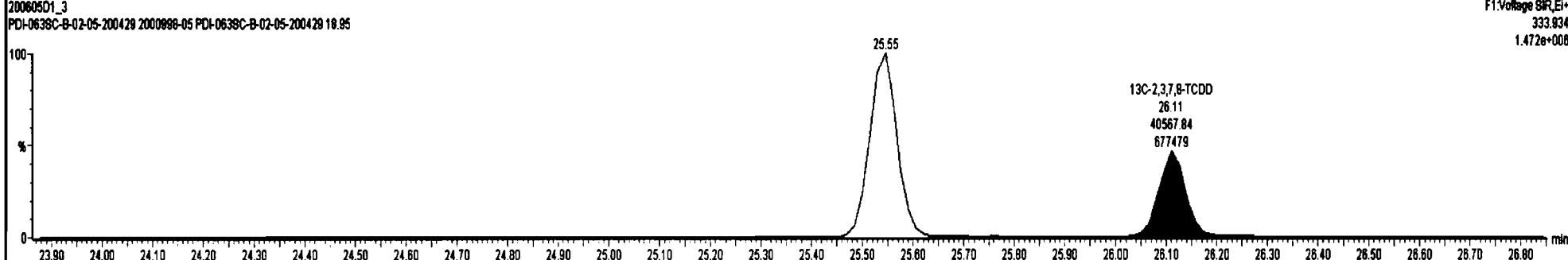
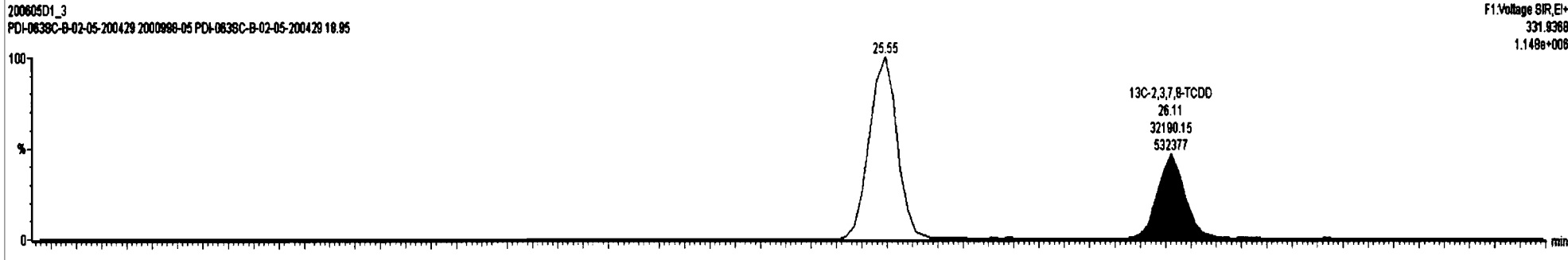
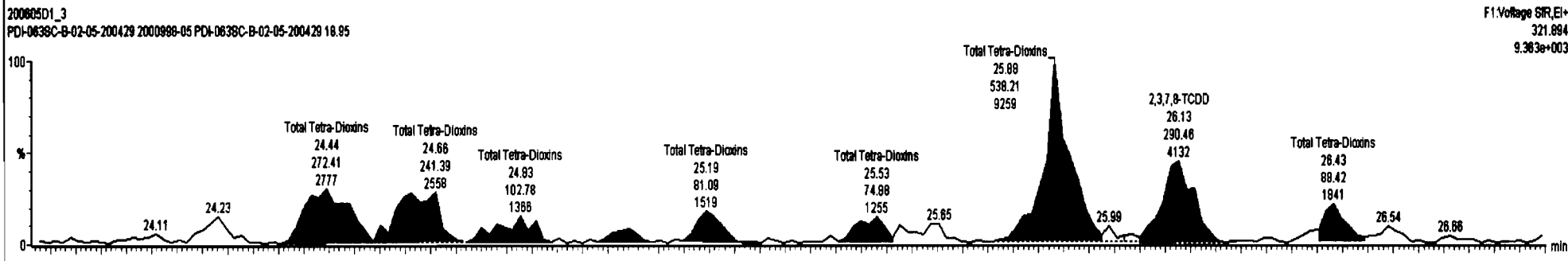
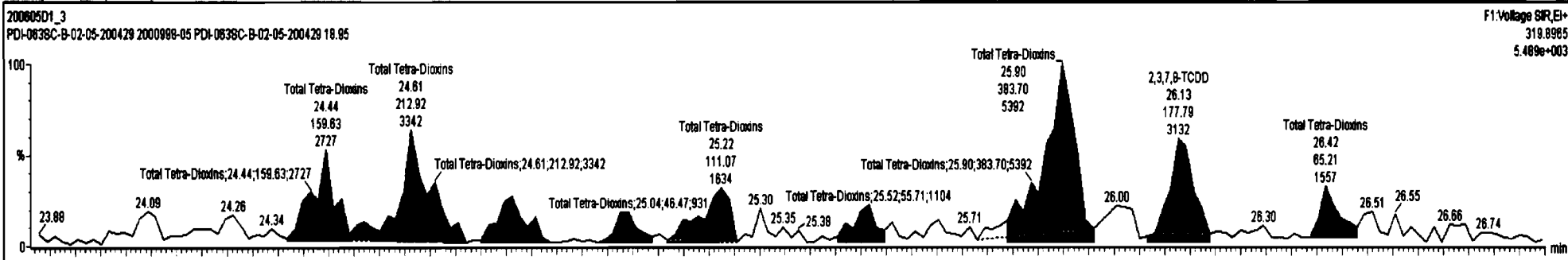


13C-2,3,7,8-TCDD









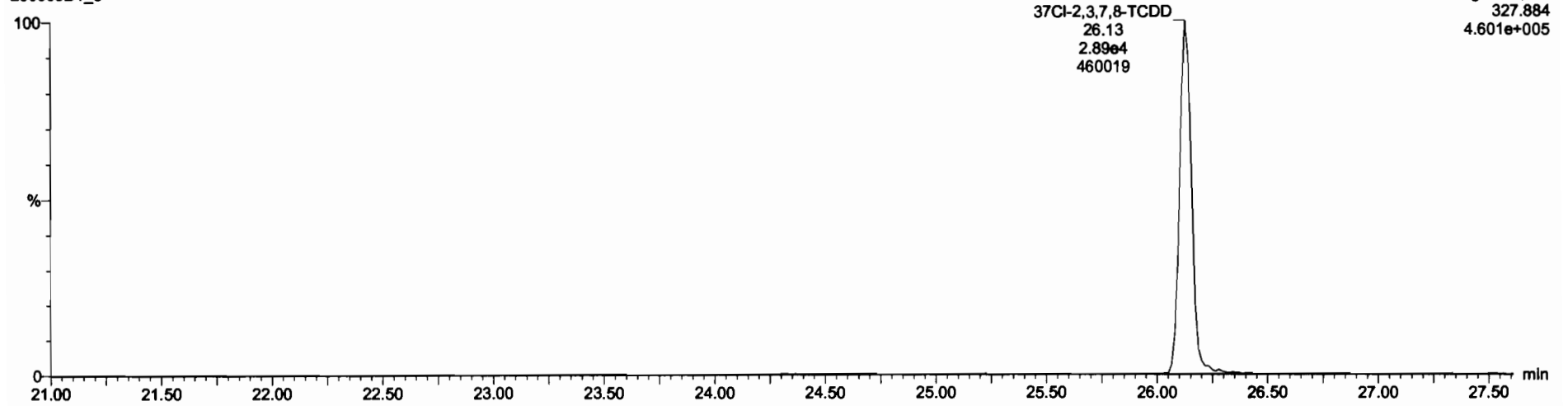
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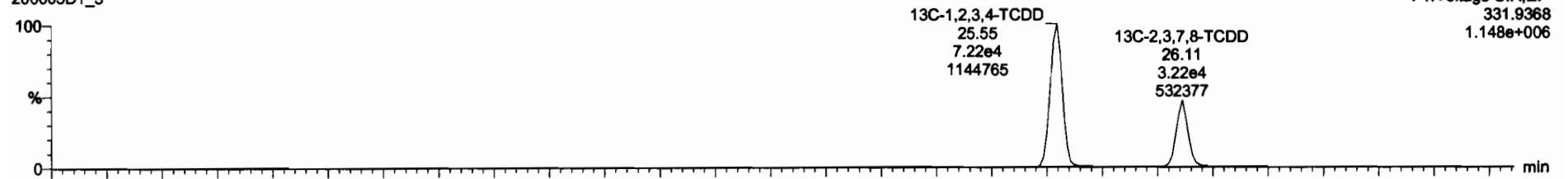
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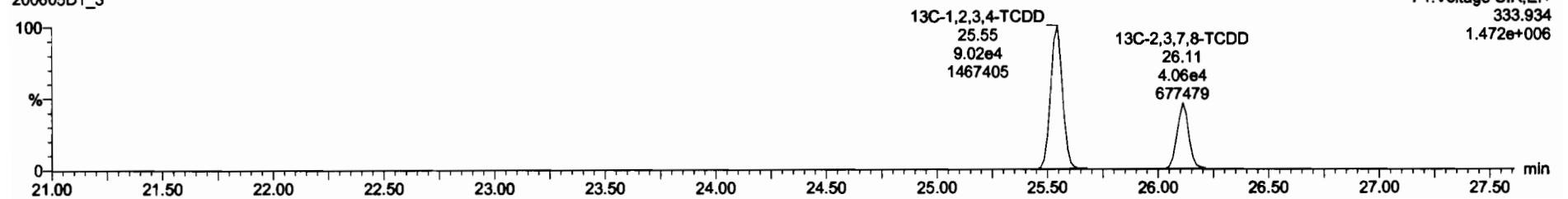


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200605D1\_3



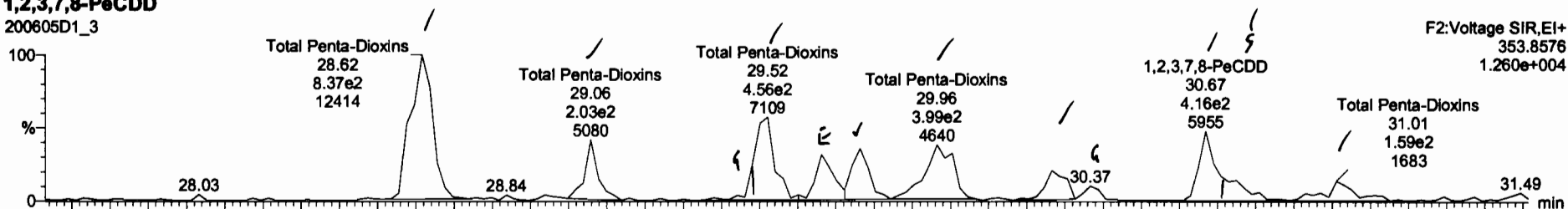
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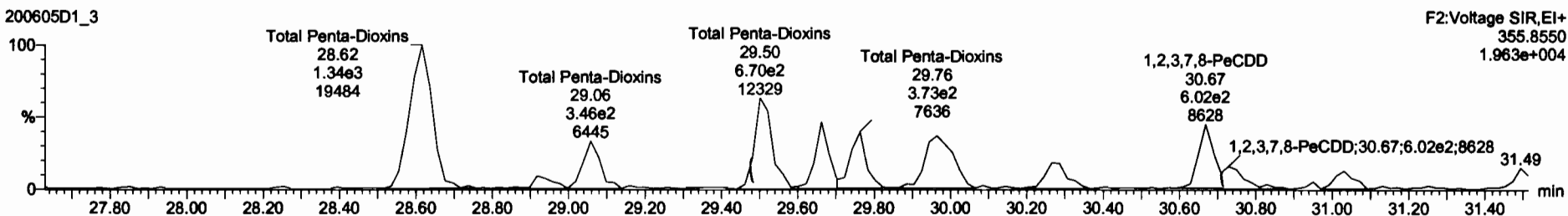
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**1,2,3,7,8-PeCDD**

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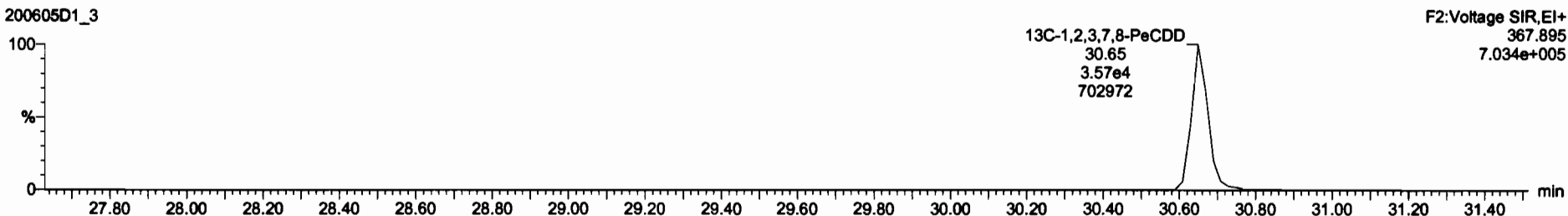


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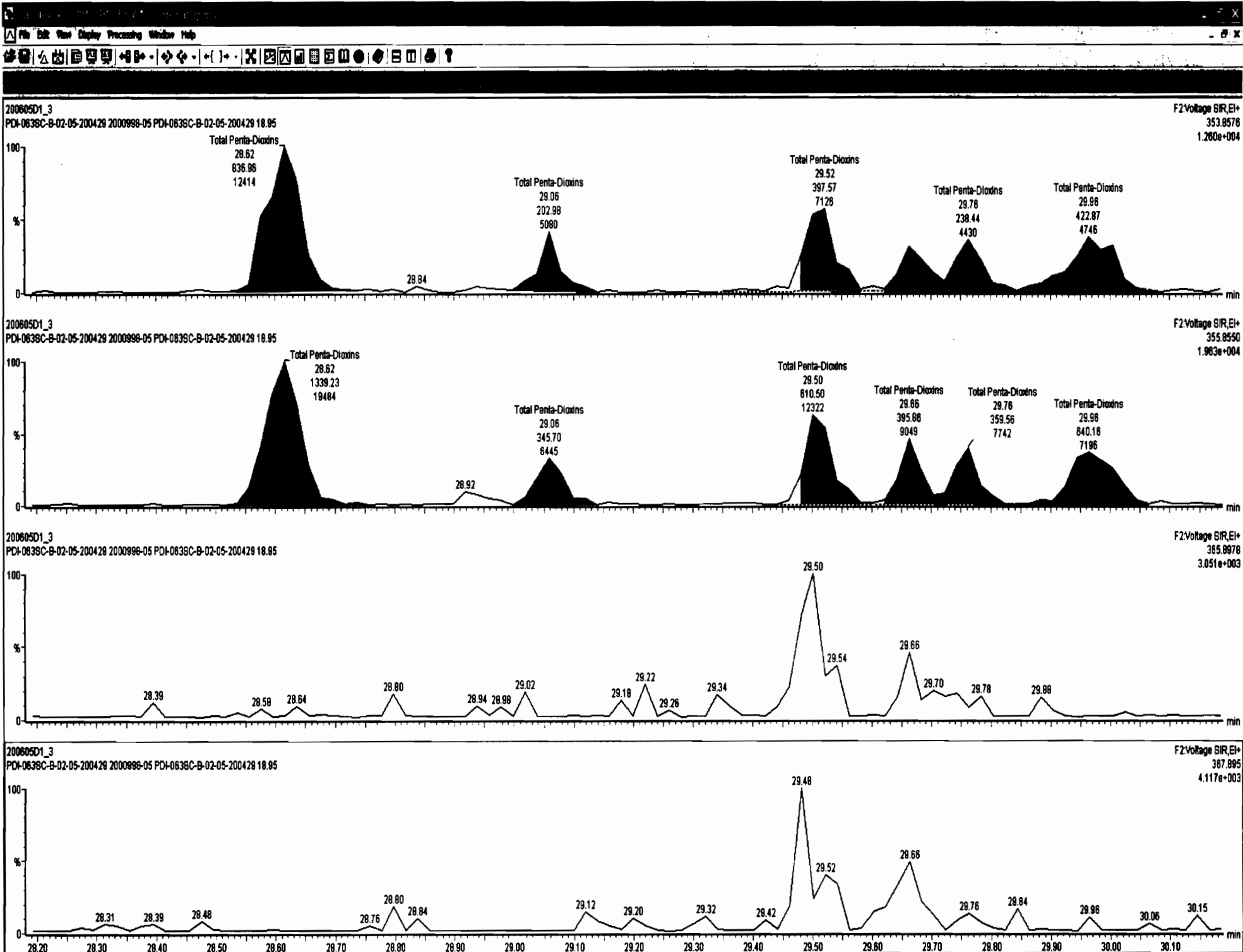
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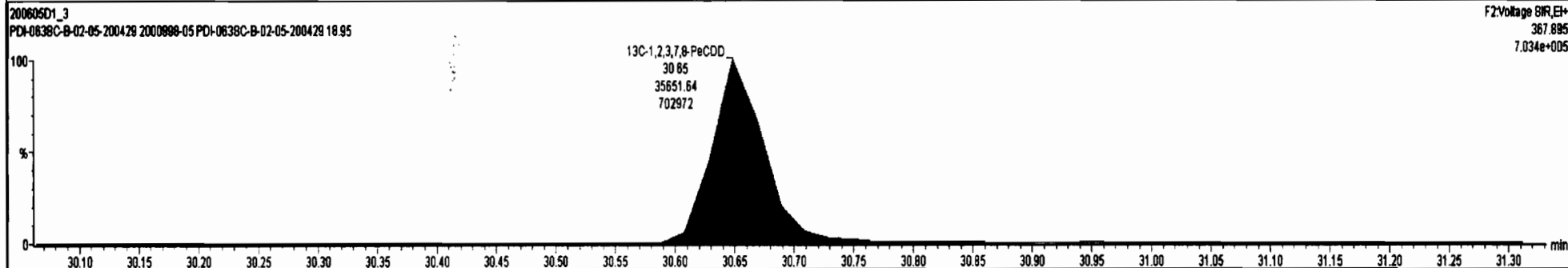
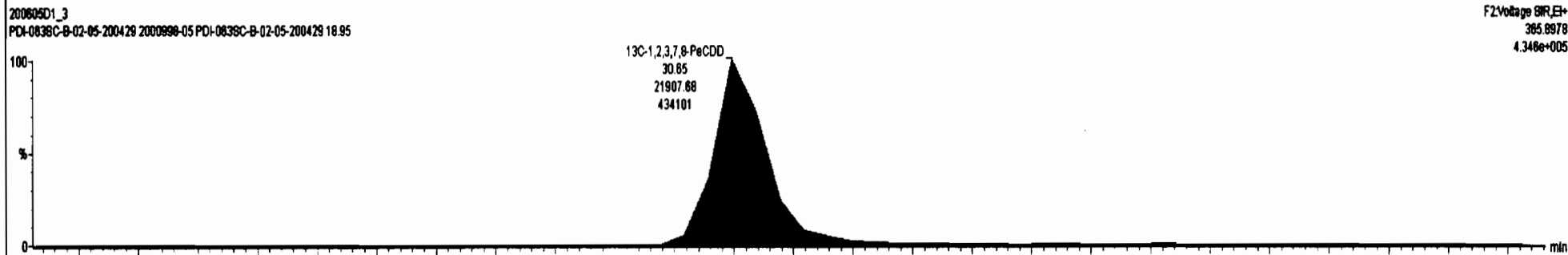
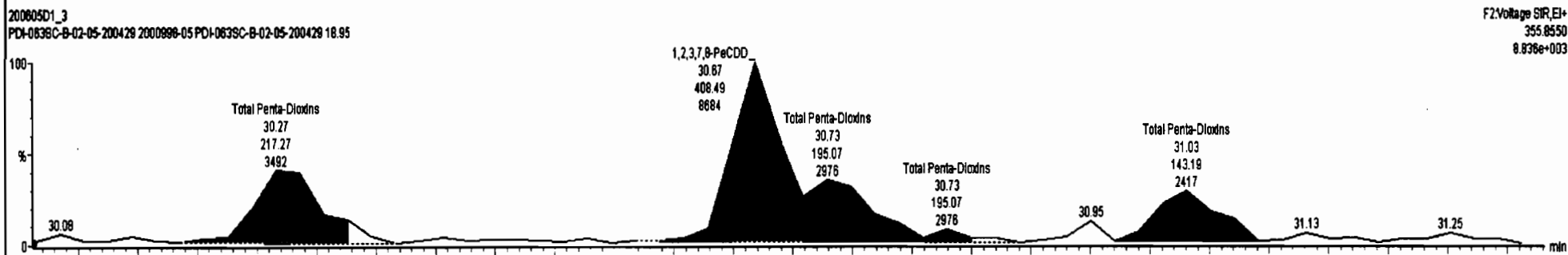
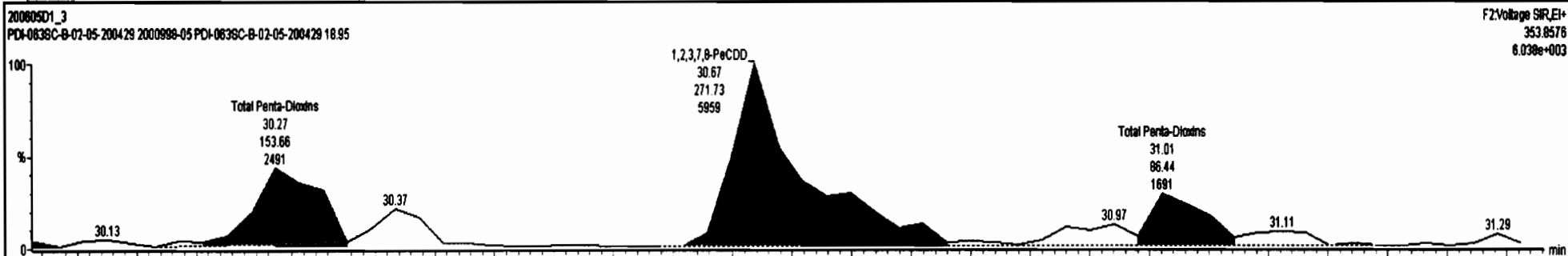


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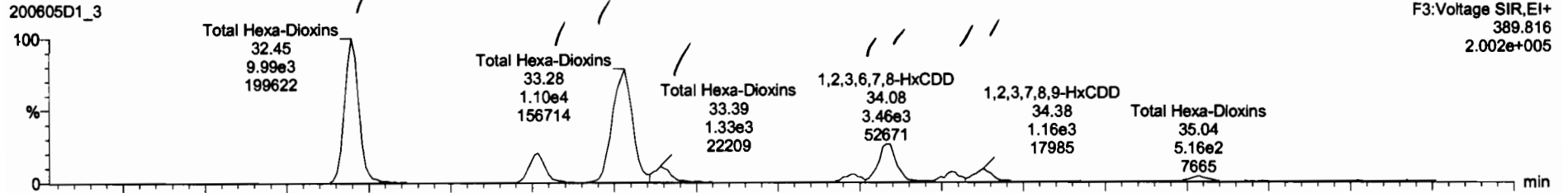


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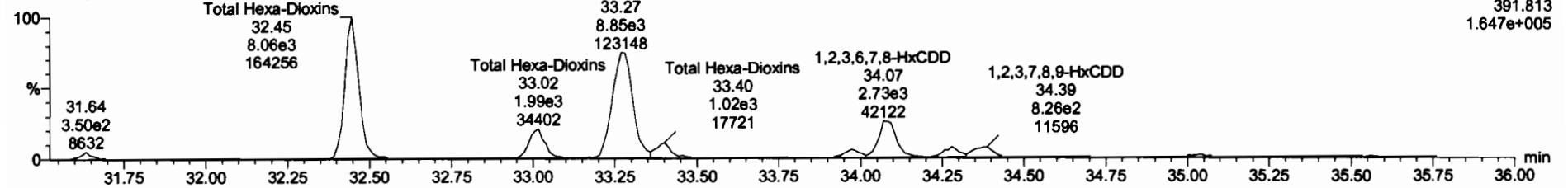
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Printed: Monday, June 08, 2020 10:25:29 Pacific Daylight Time

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

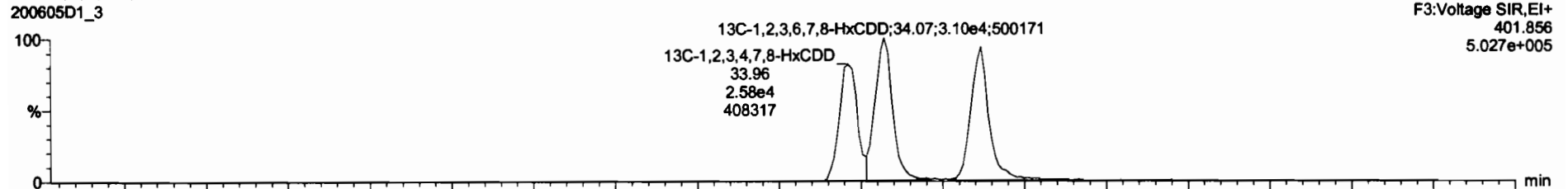
1,2,3,4,7,8-HxCDD



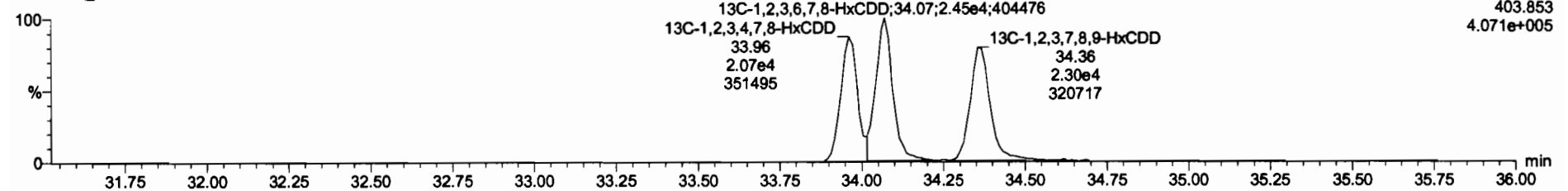
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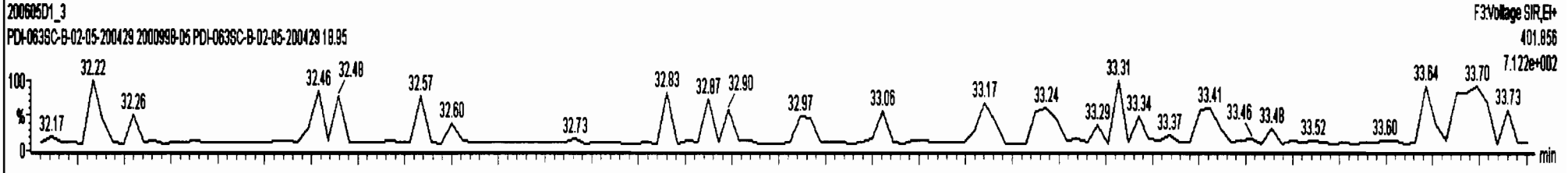
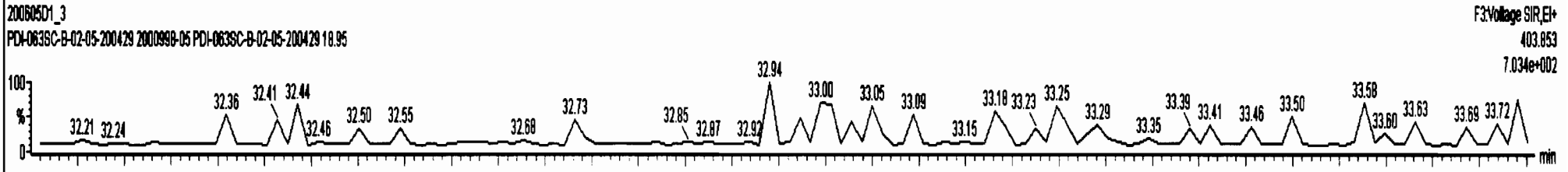
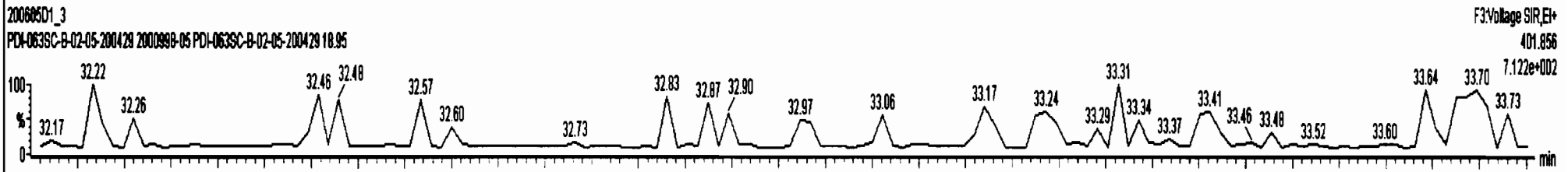
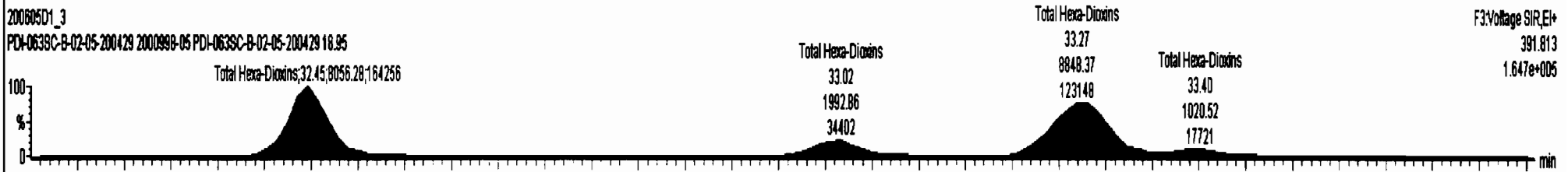
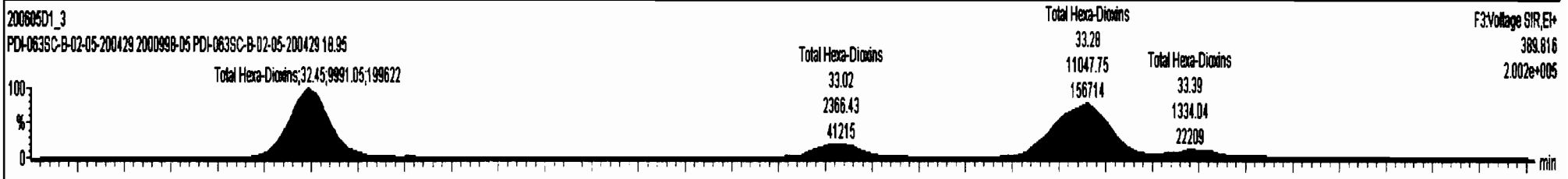


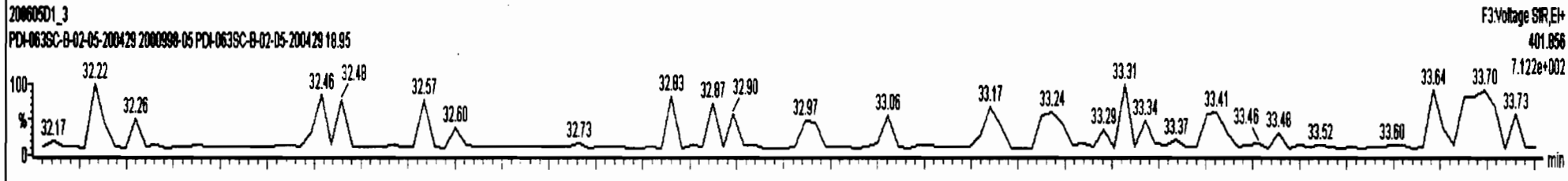
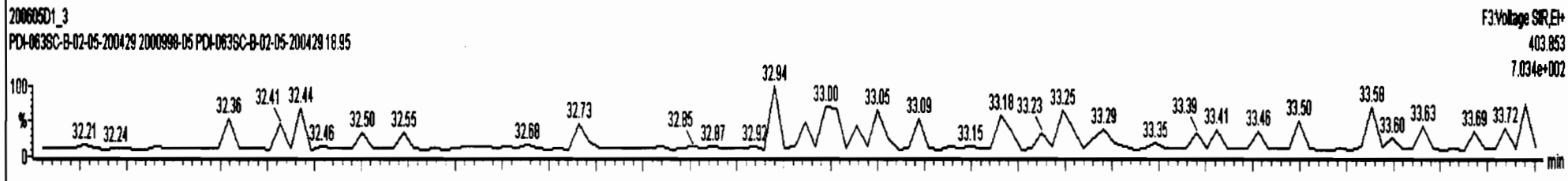
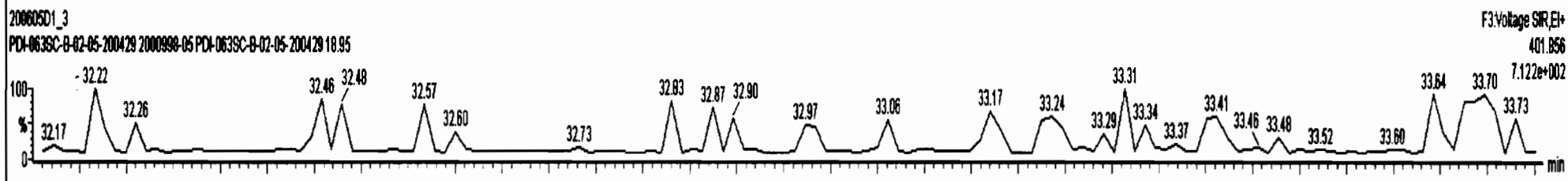
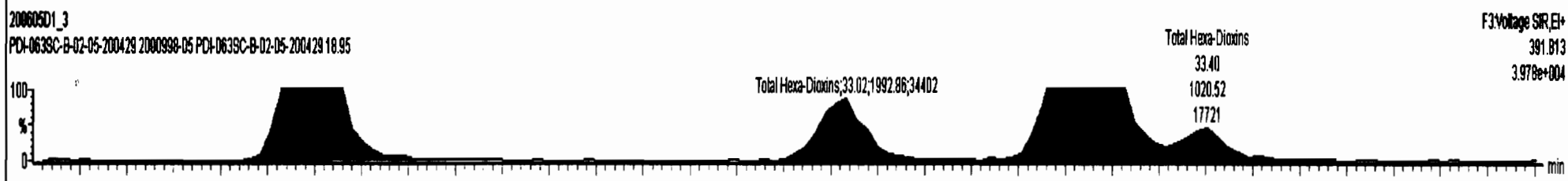
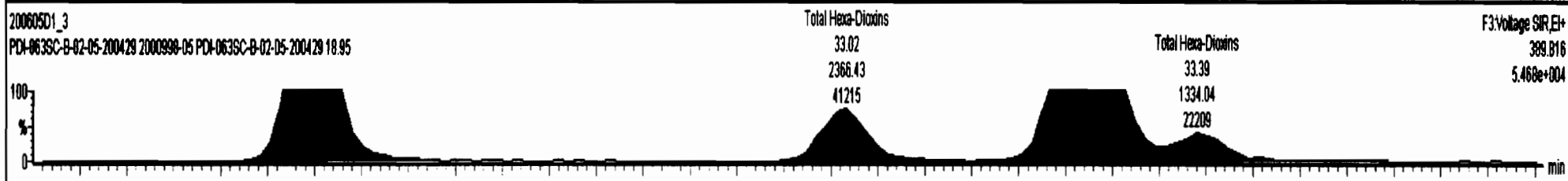
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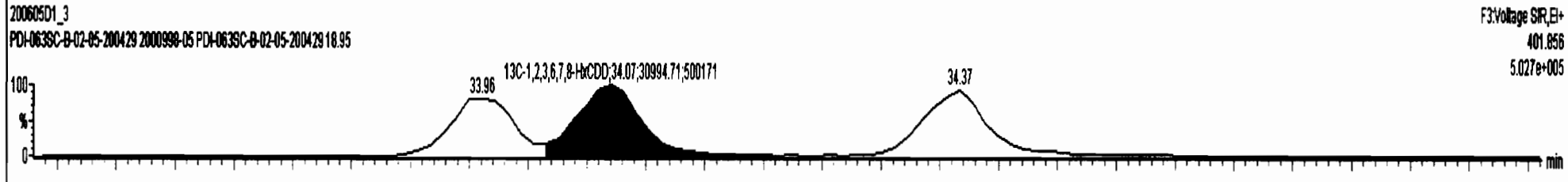
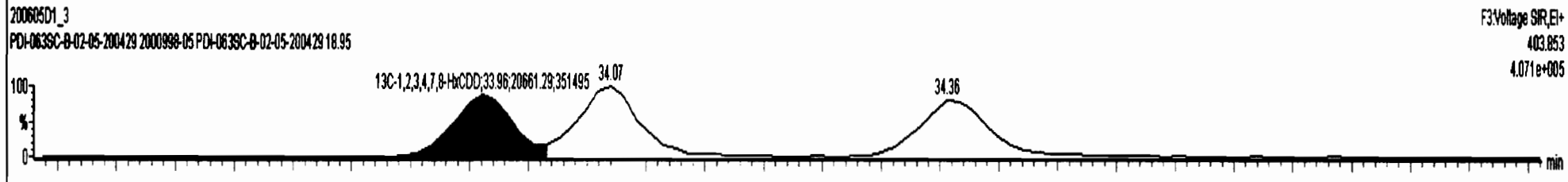
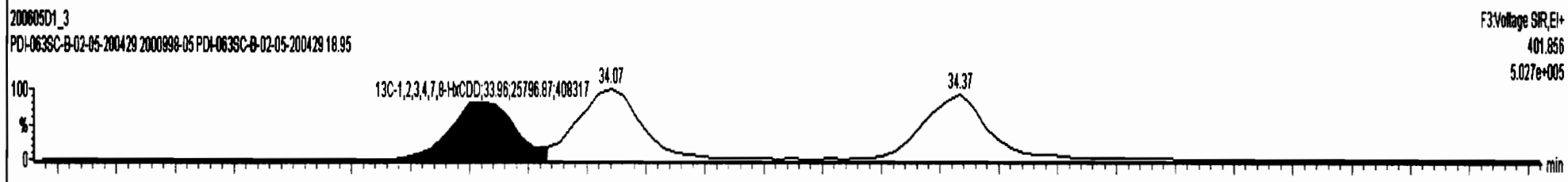
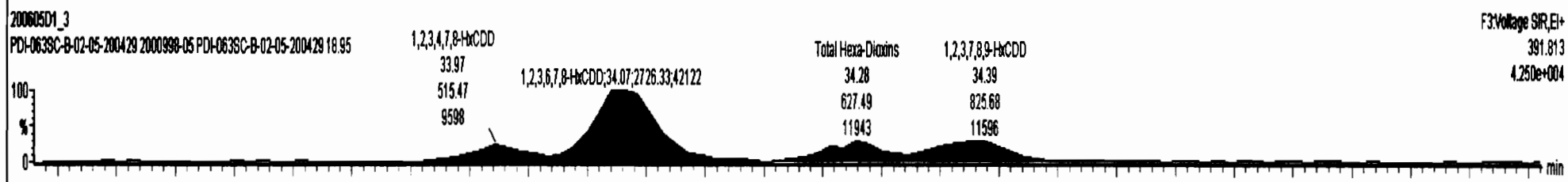
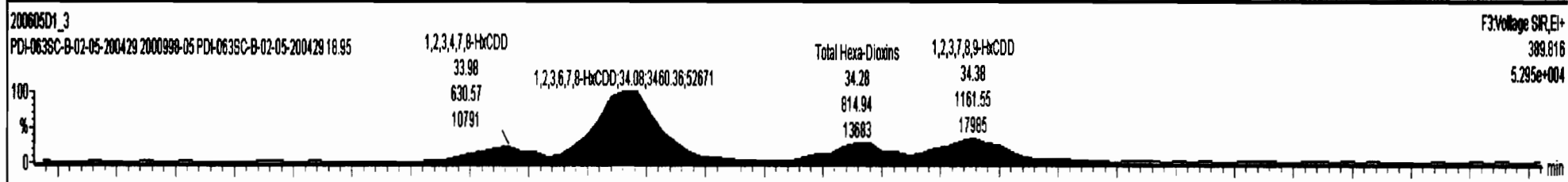


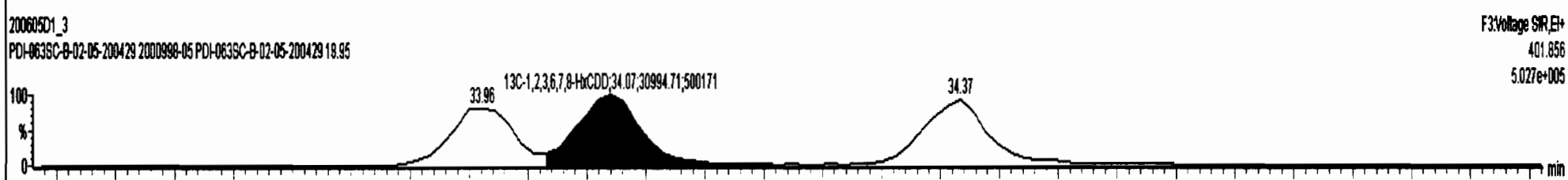
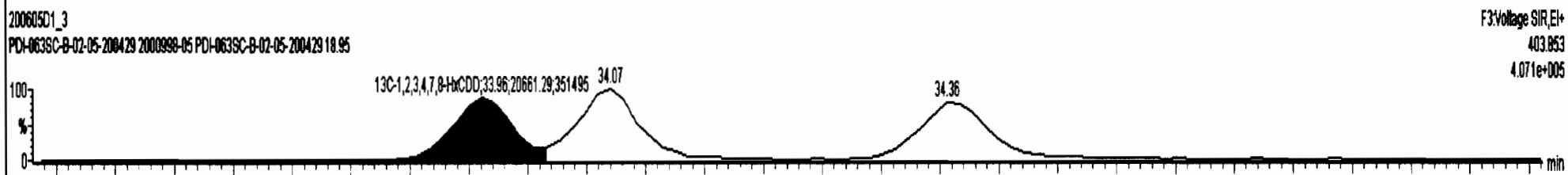
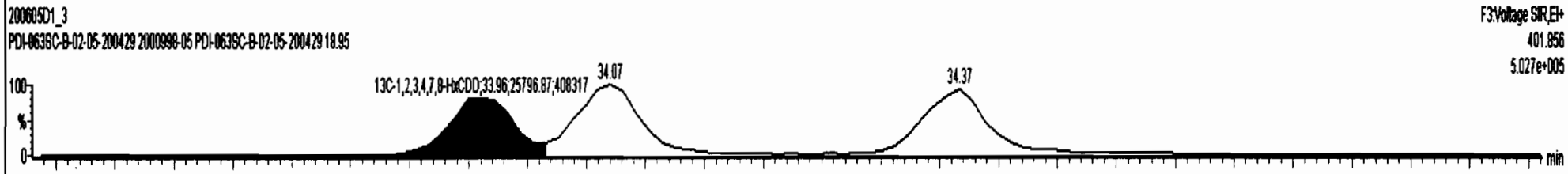
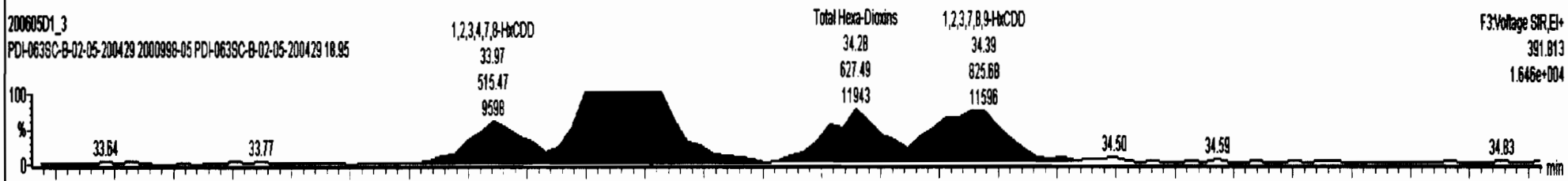
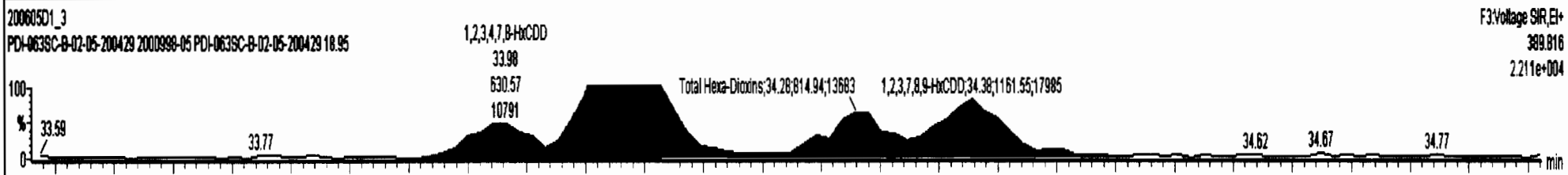
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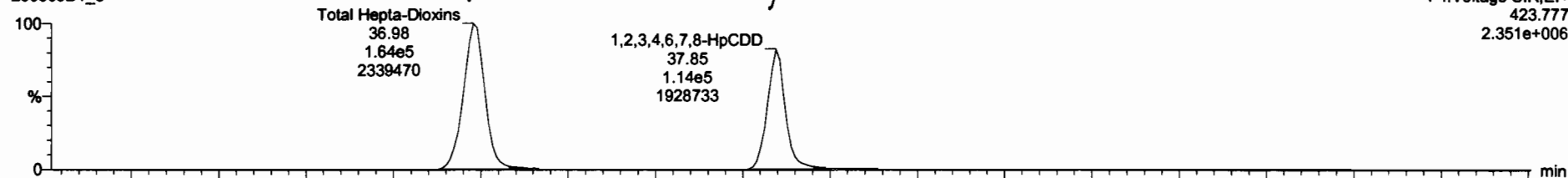
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Last Altered: Monday, June 08, 2020 09:46:57 Pacific Daylight Time  
Printed: Monday, June 08, 2020 10:25:29 Pacific Daylight Time

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

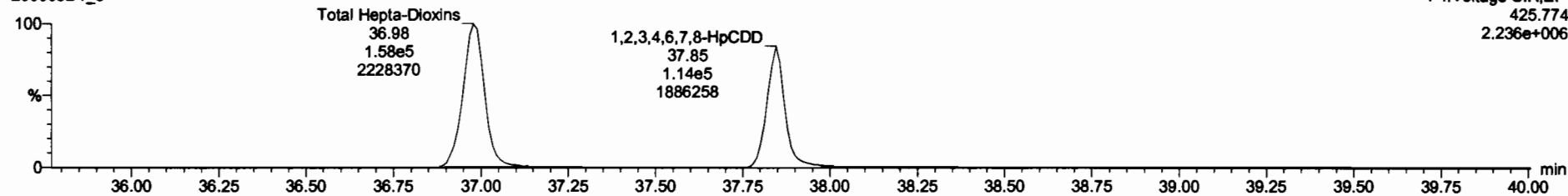
1,2,3,4,6,7,8-HpCDD

200605D1\_3



F4:Voltage SIR,EI+  
423.777  
2.351e+006

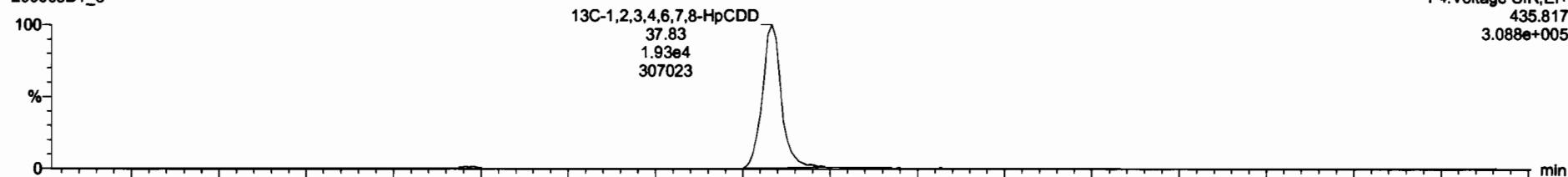
200605D1\_3



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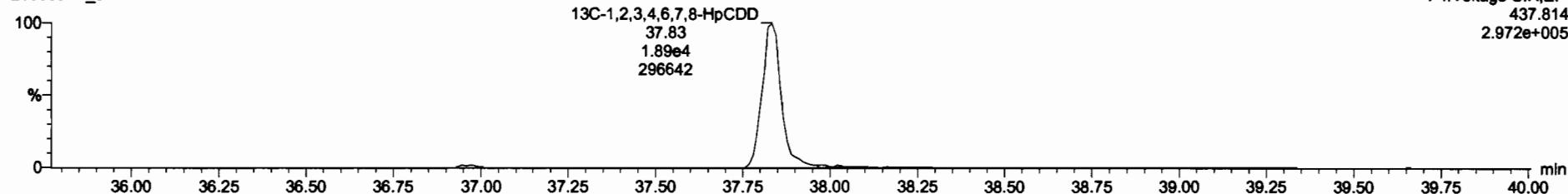
13C-1,2,3,4,6,7,8-HpCDD

200605D1\_3



F4:Voltage SIR,EI+  
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3.088e+005

200605D1\_3



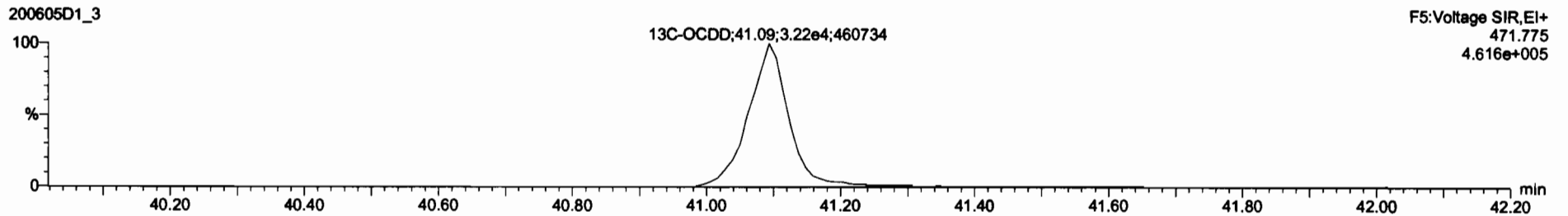
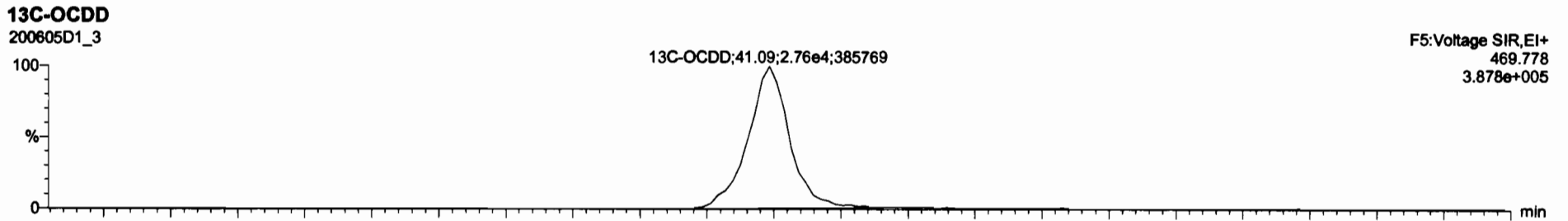
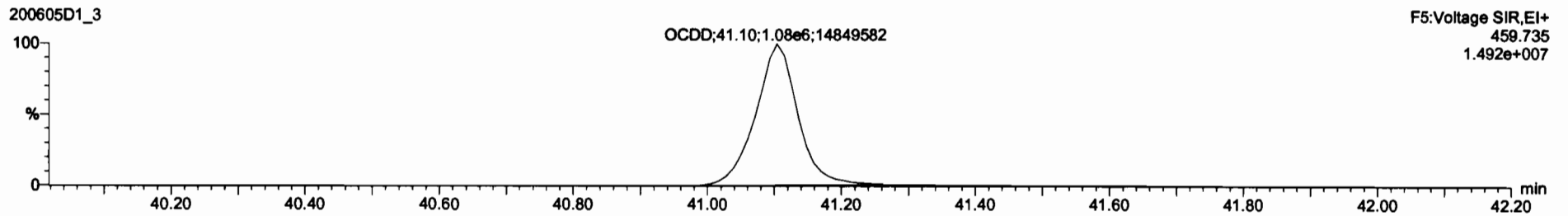
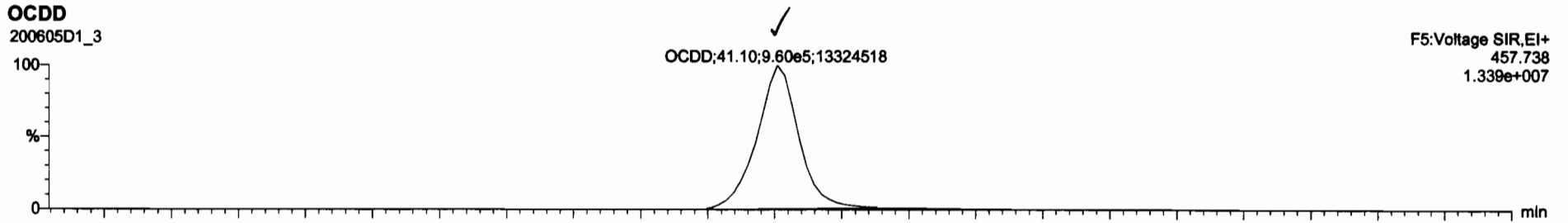
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Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

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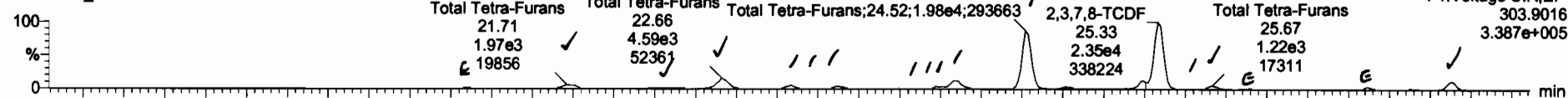
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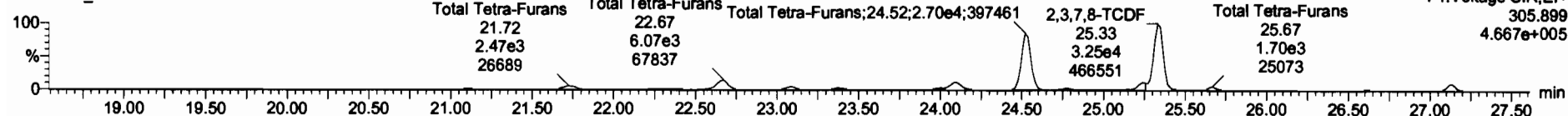
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**2,3,7,8-TCDF**

200605D1\_3

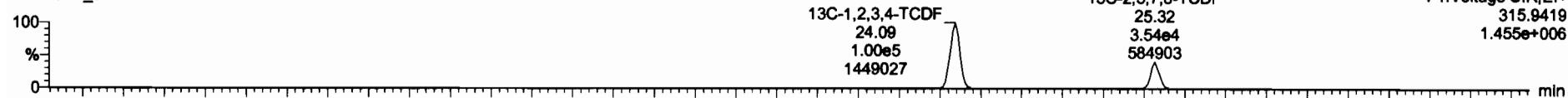


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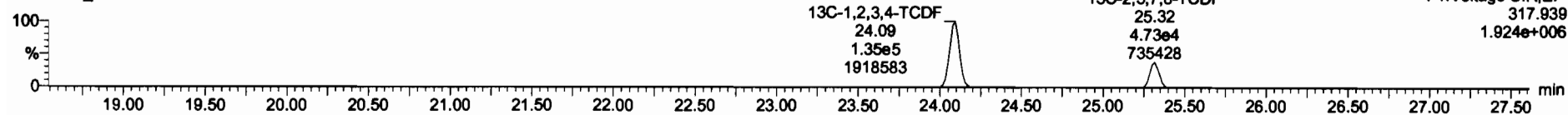


**13C-2,3,7,8-TCDF**

200605D1\_3

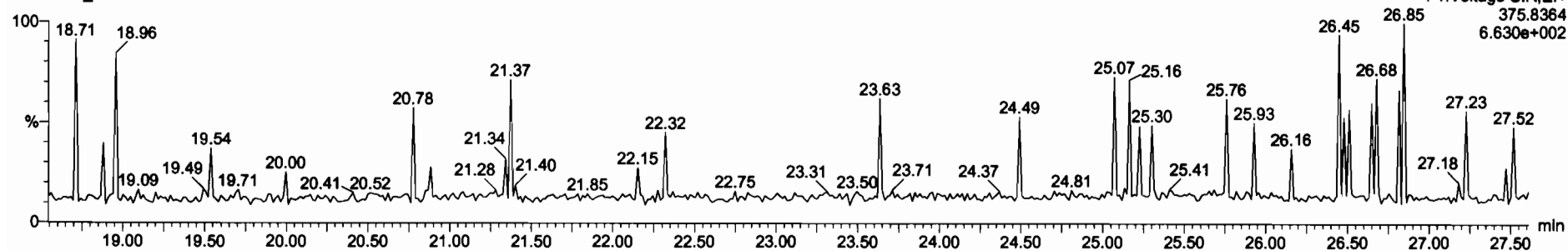


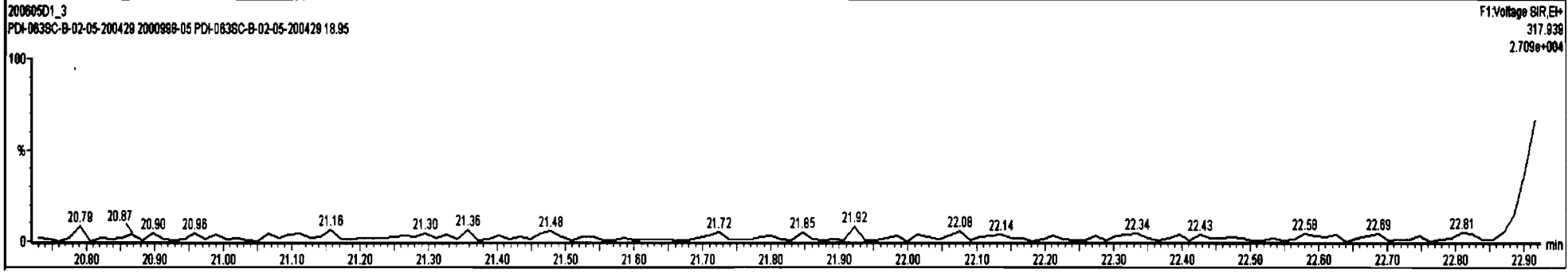
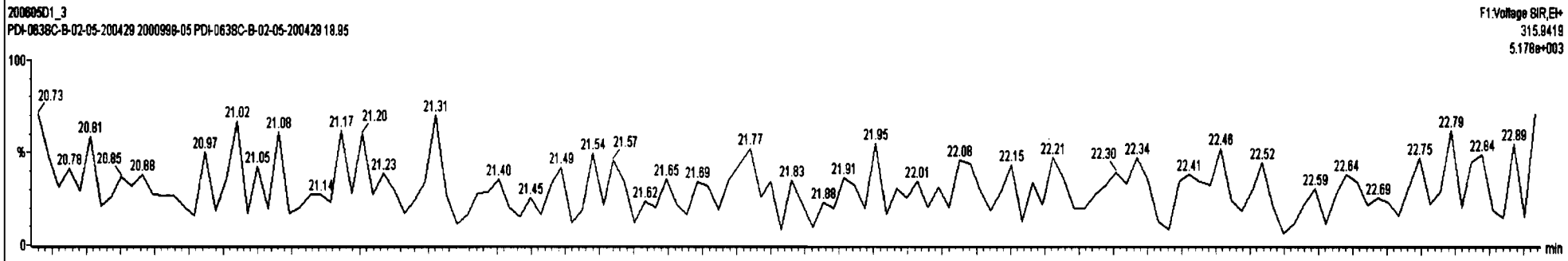
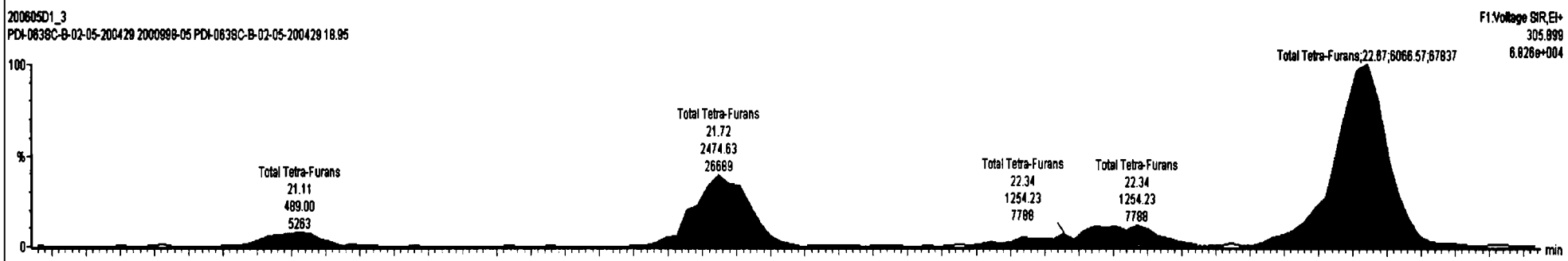
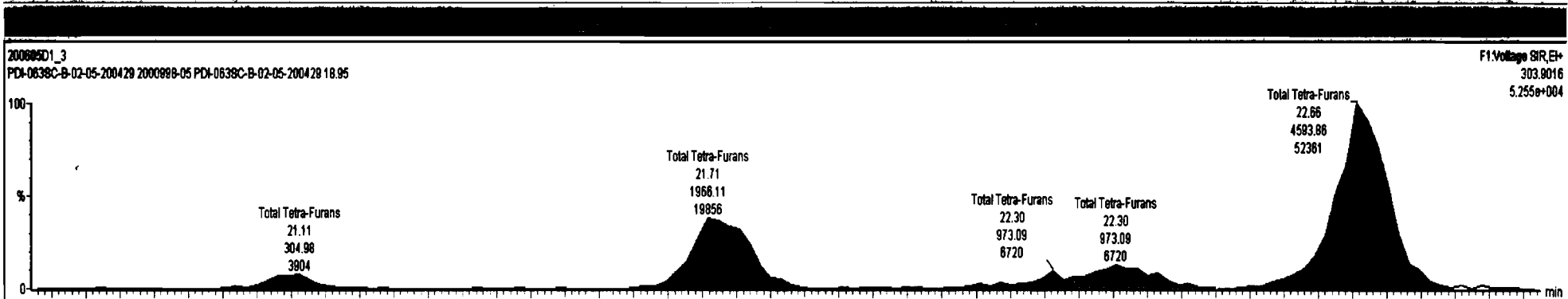
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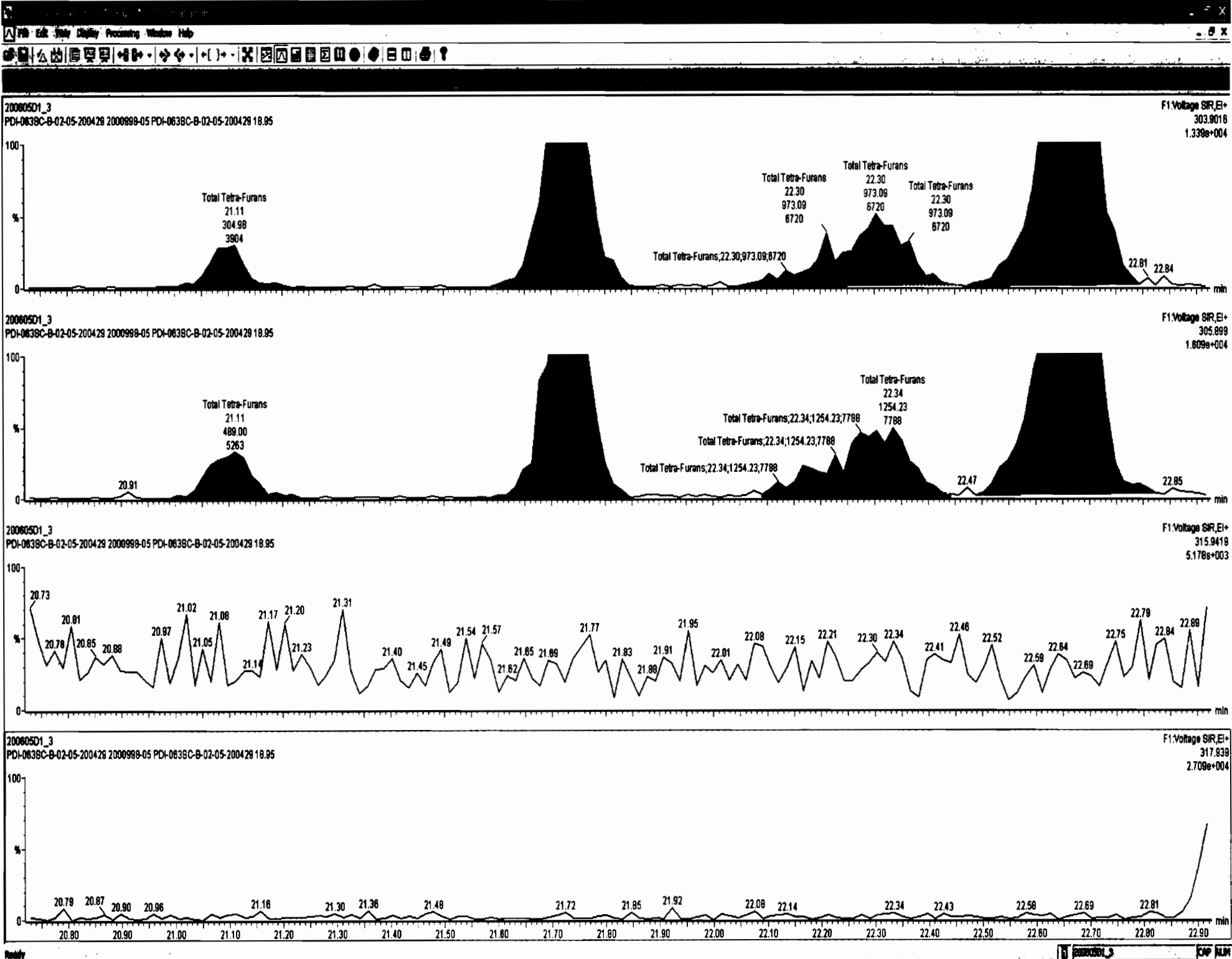


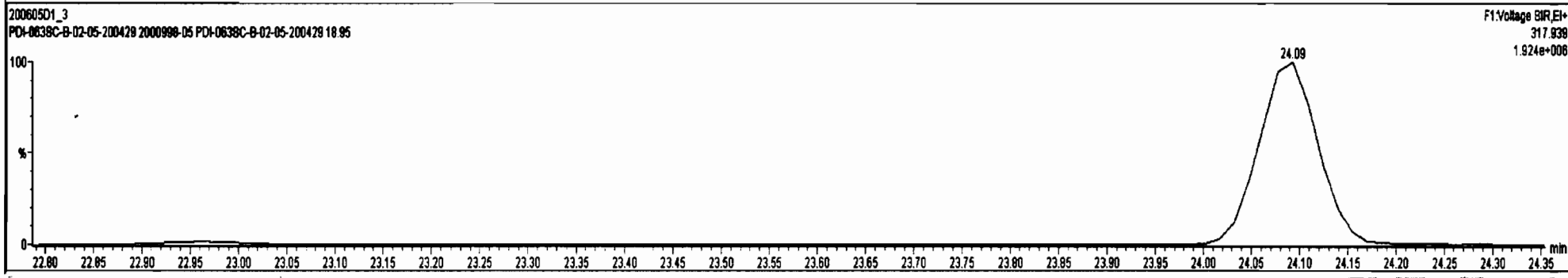
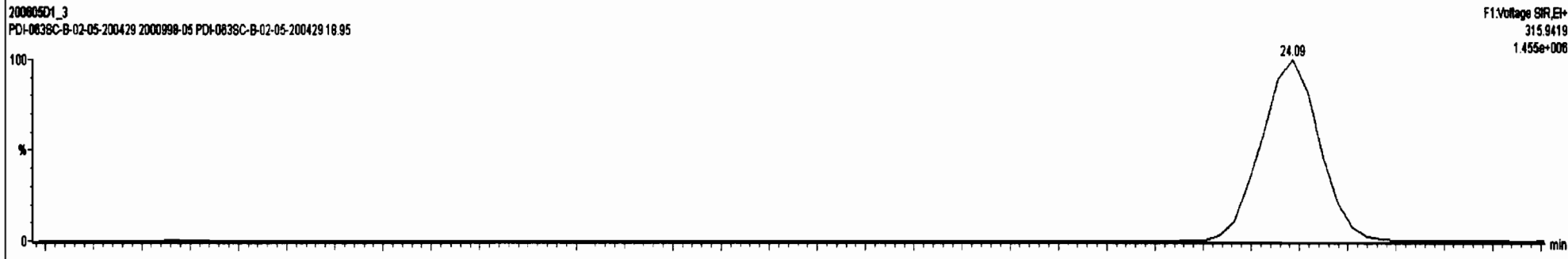
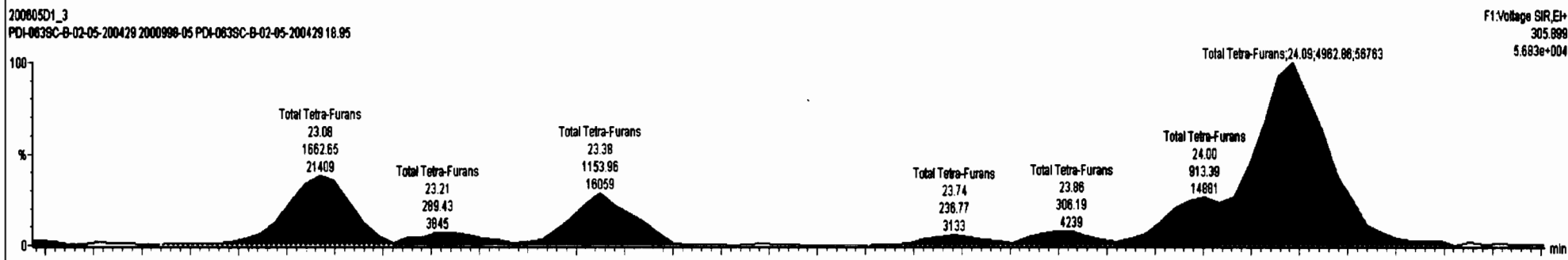
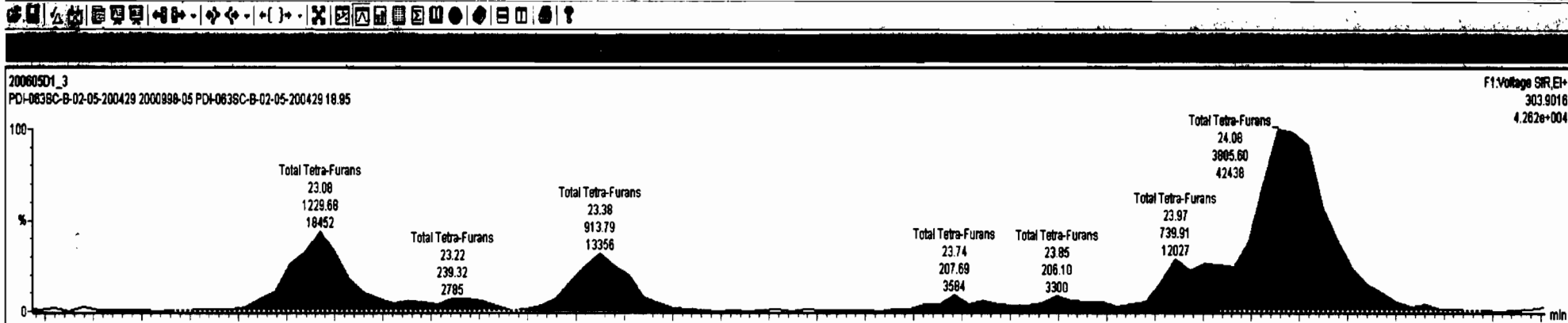
**DPE1**

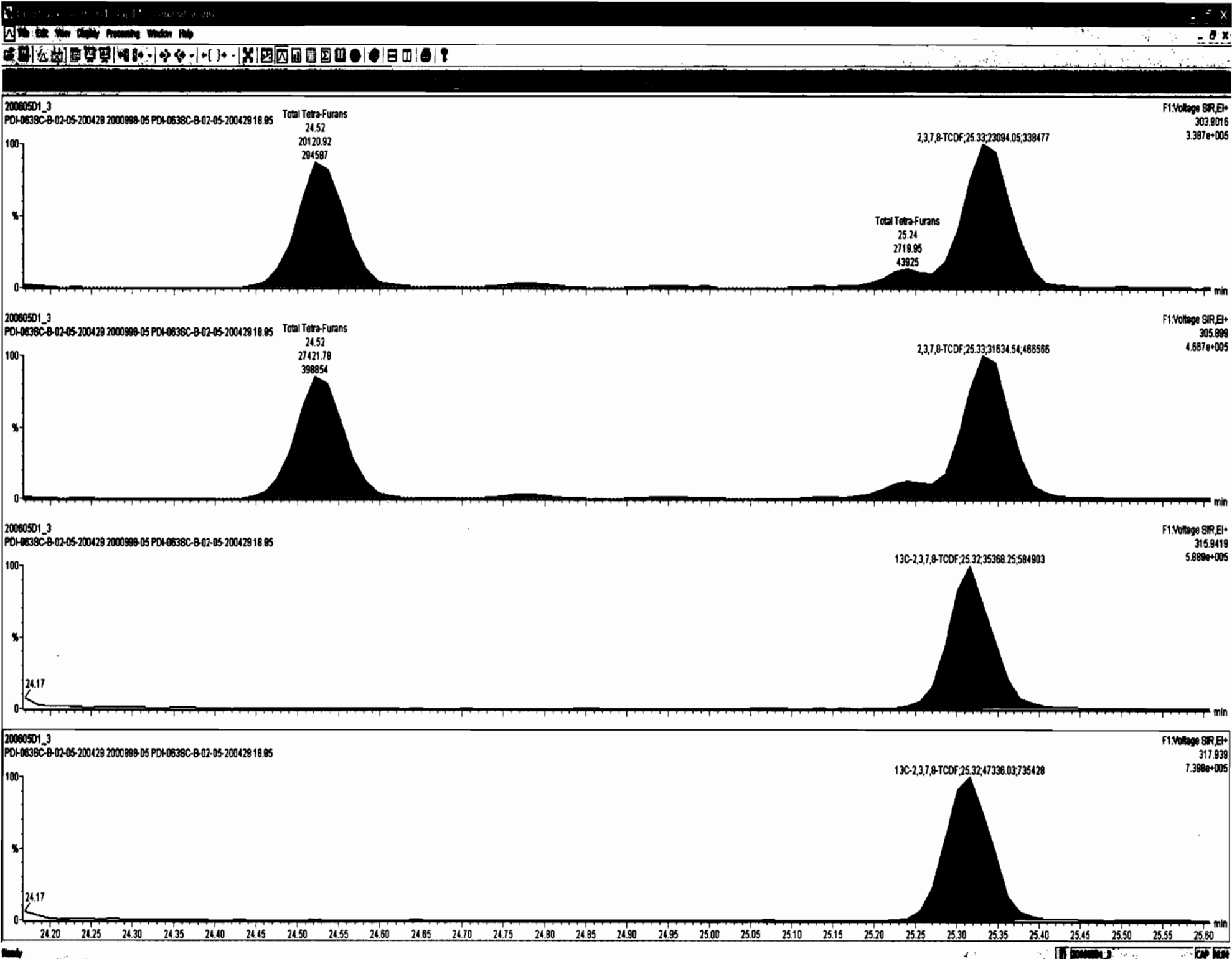
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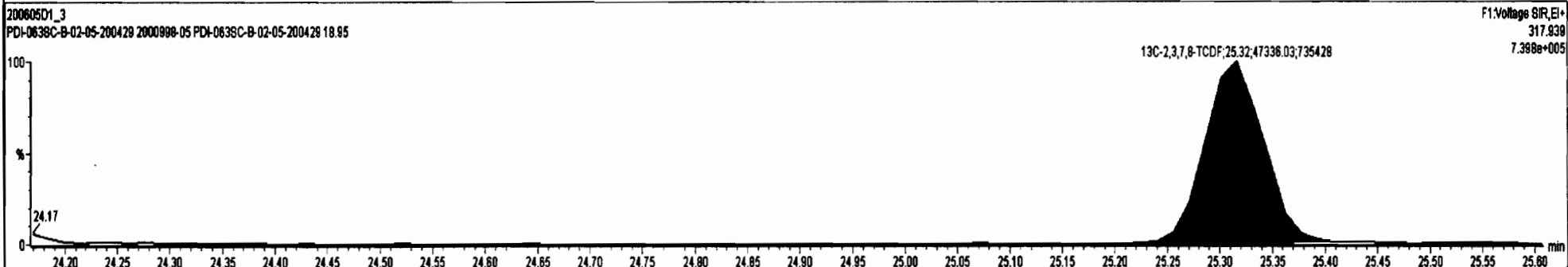
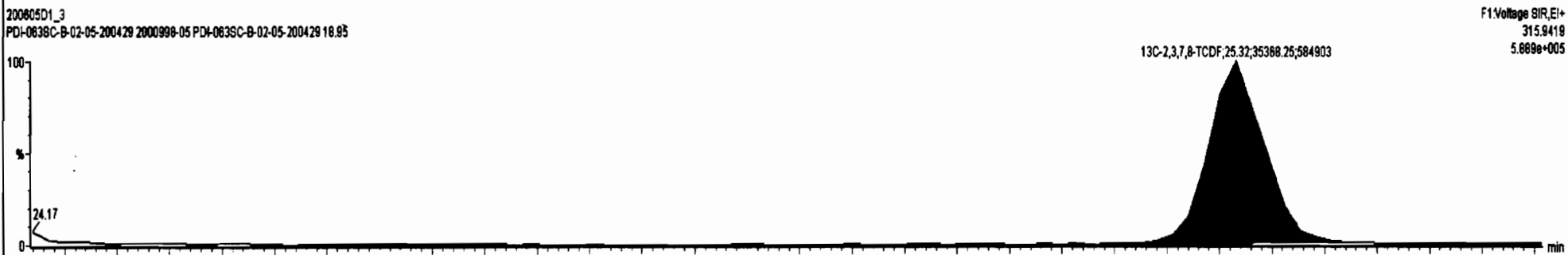
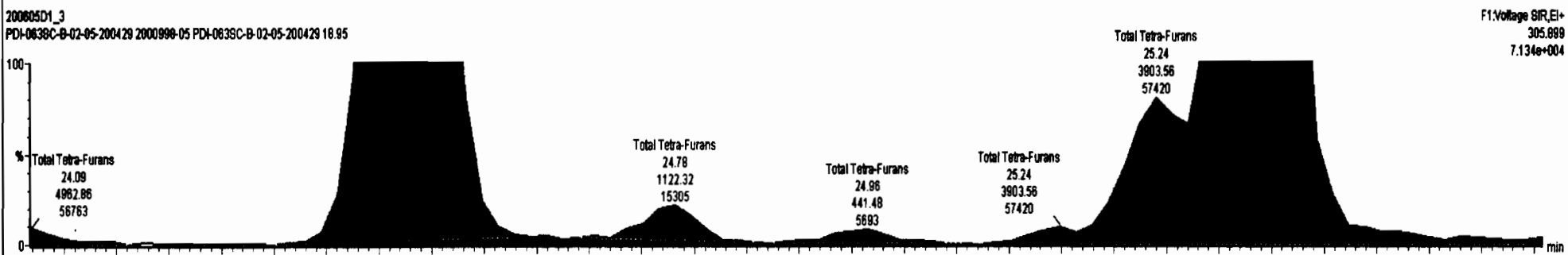
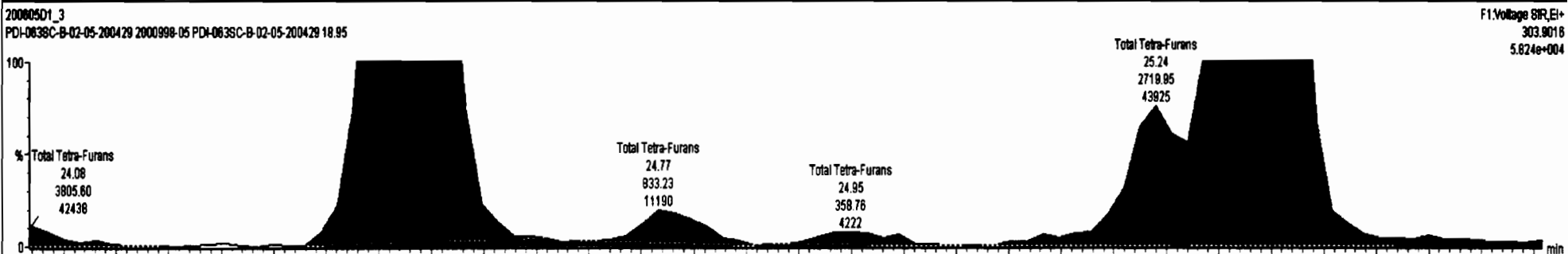


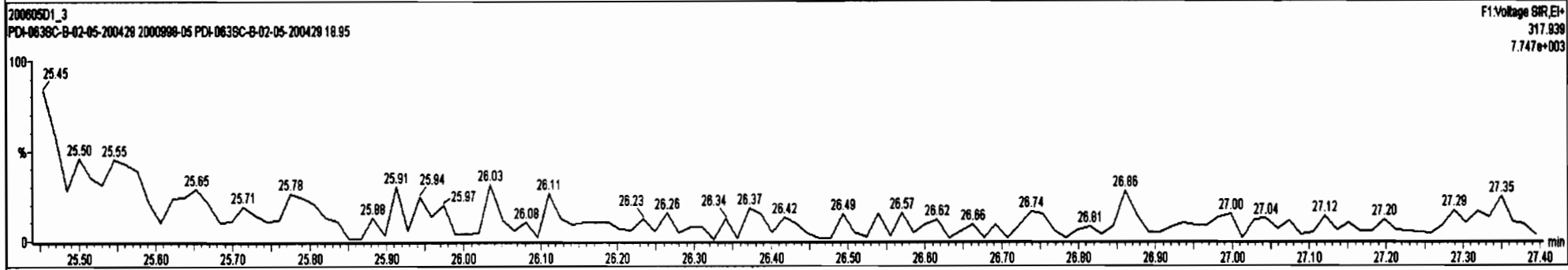
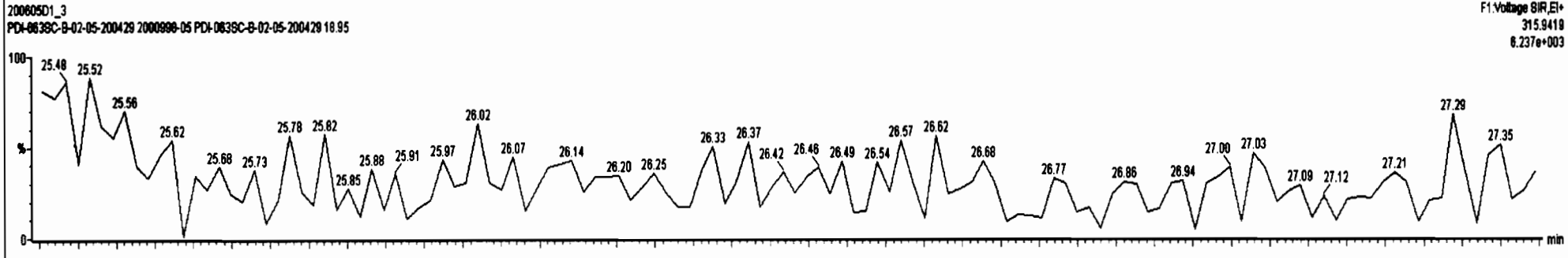
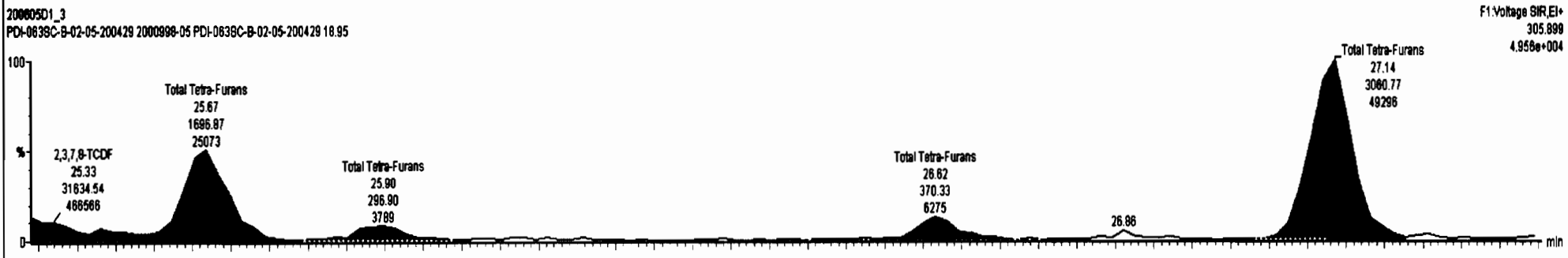
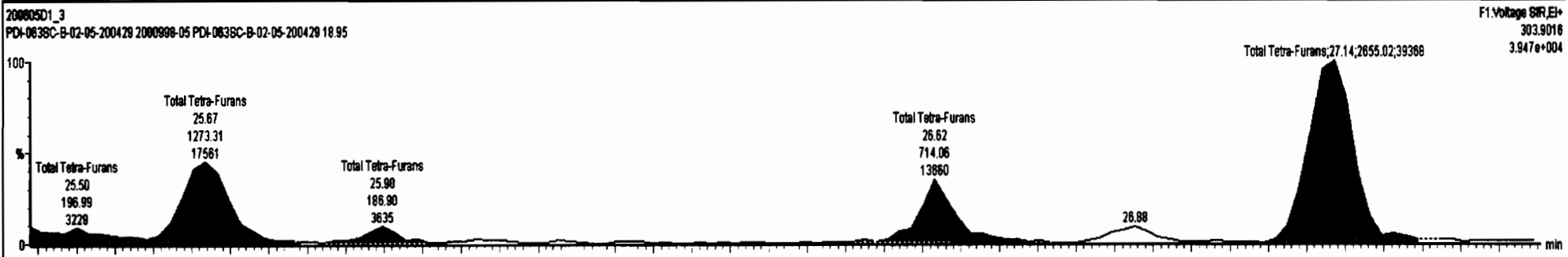














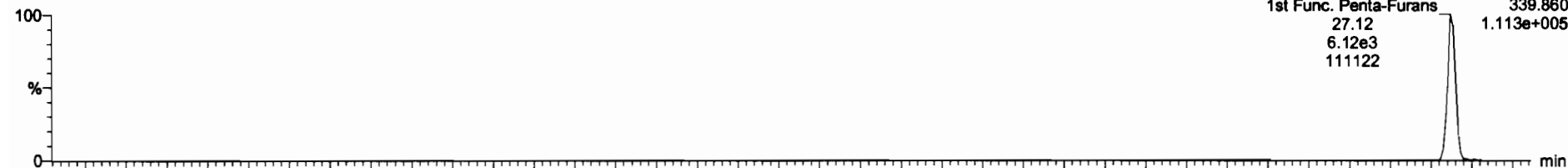
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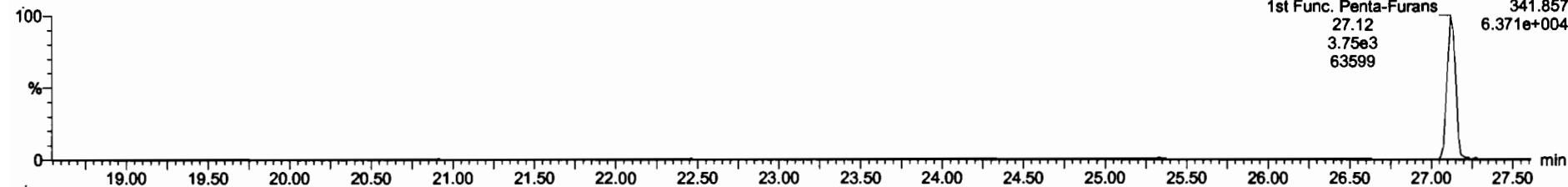
Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

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200605D1\_3

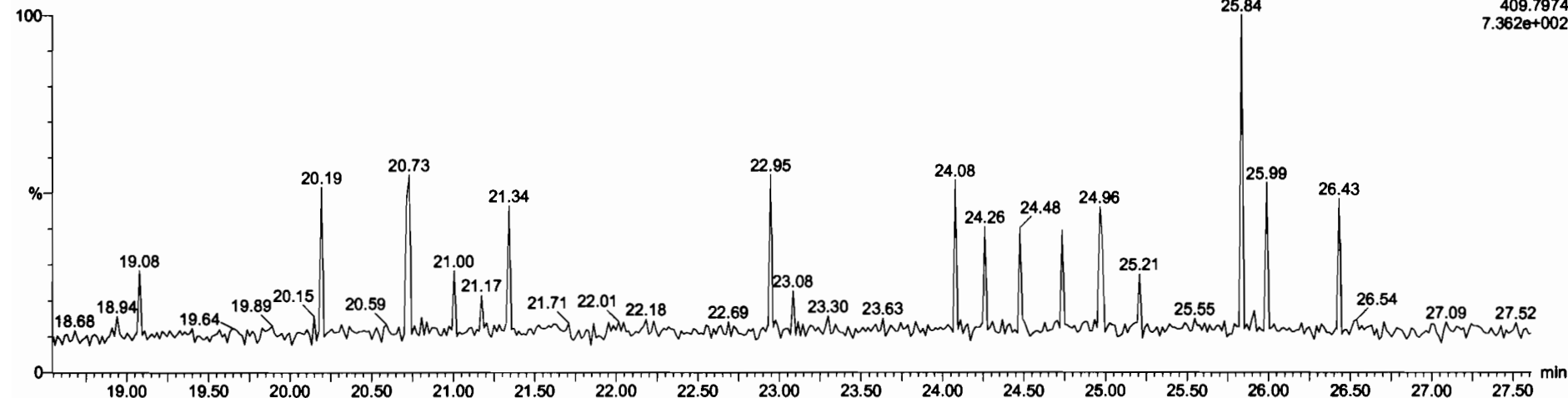


200605D1\_3



DPE6

200605D1\_3

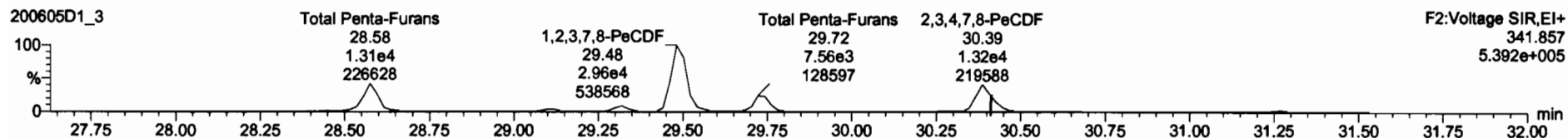
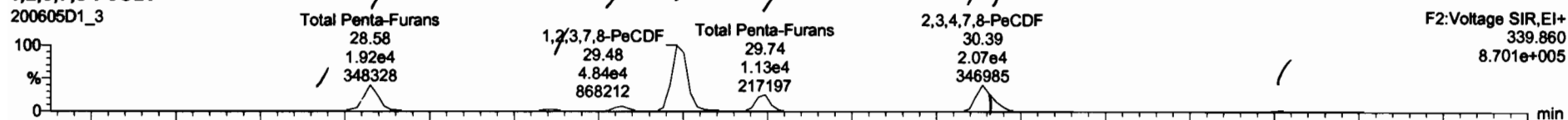


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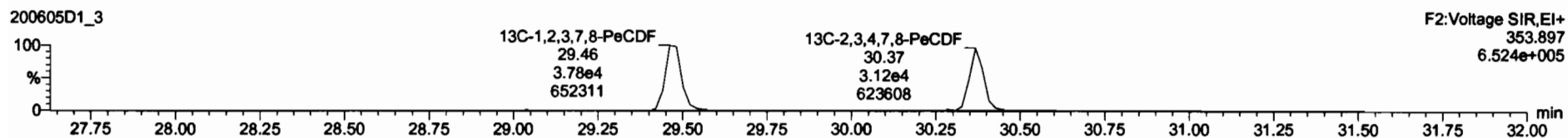
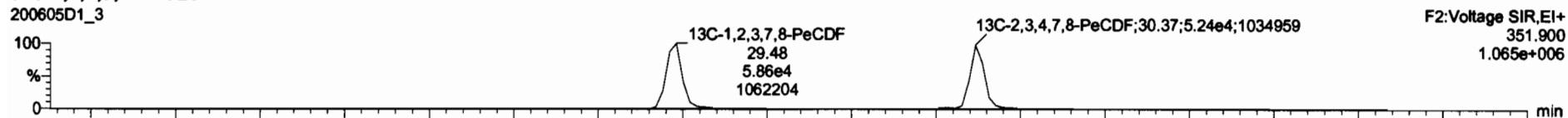
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Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

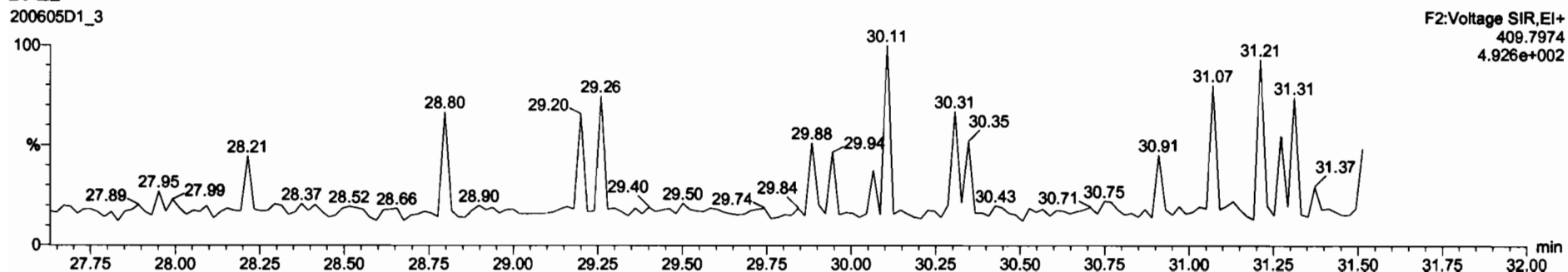
1,2,3,7,8-PeCDF

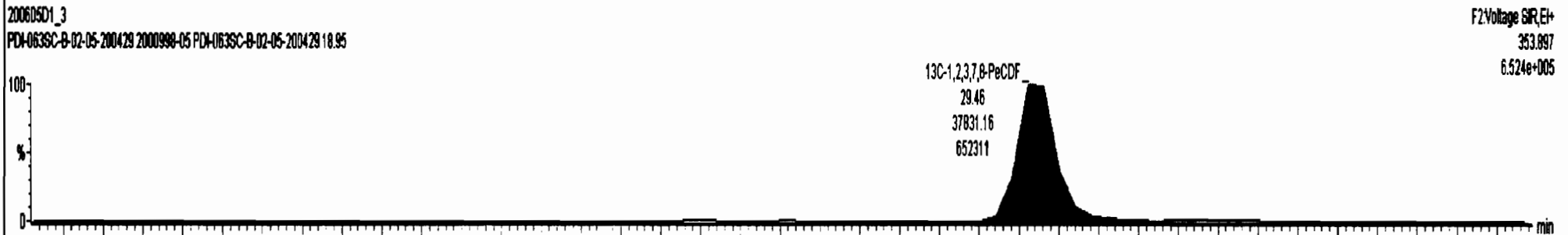
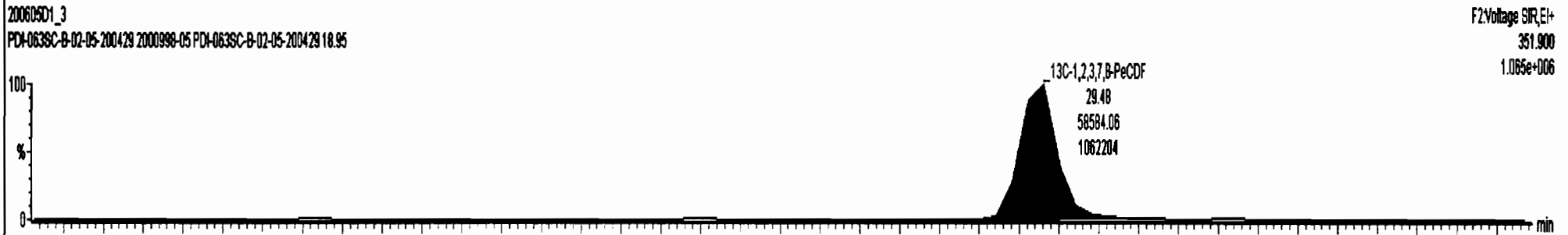
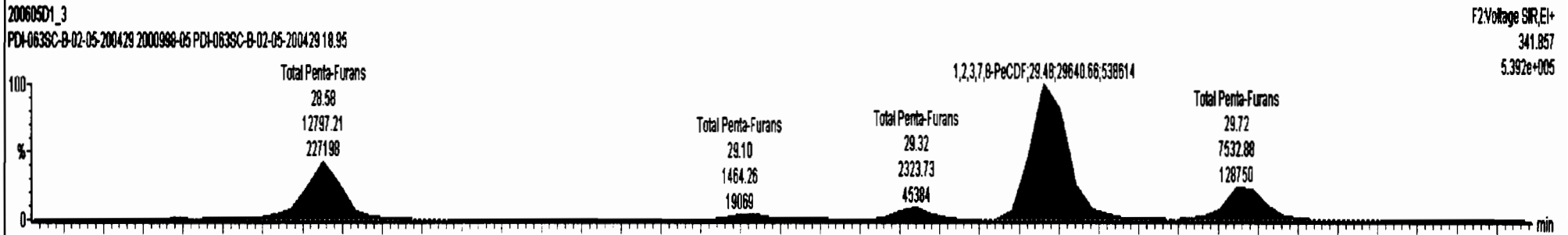
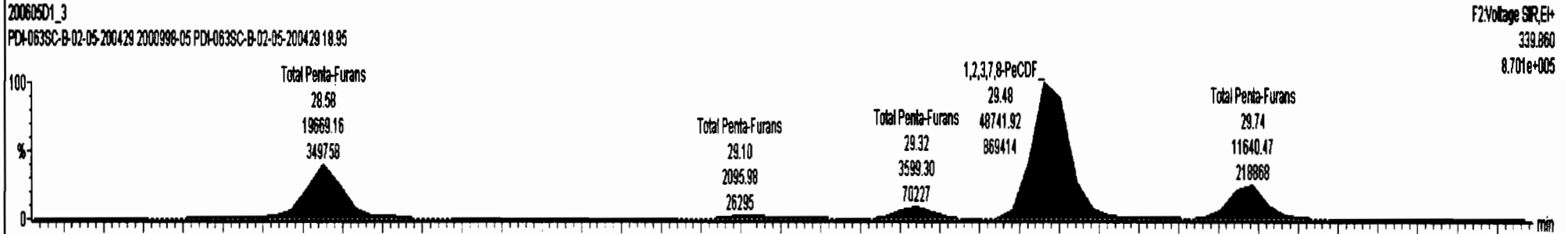
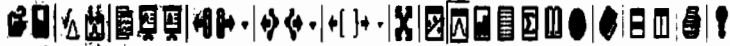


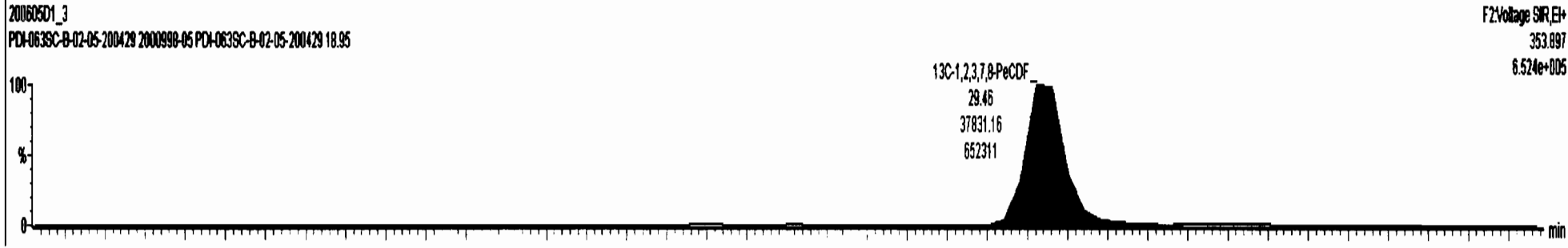
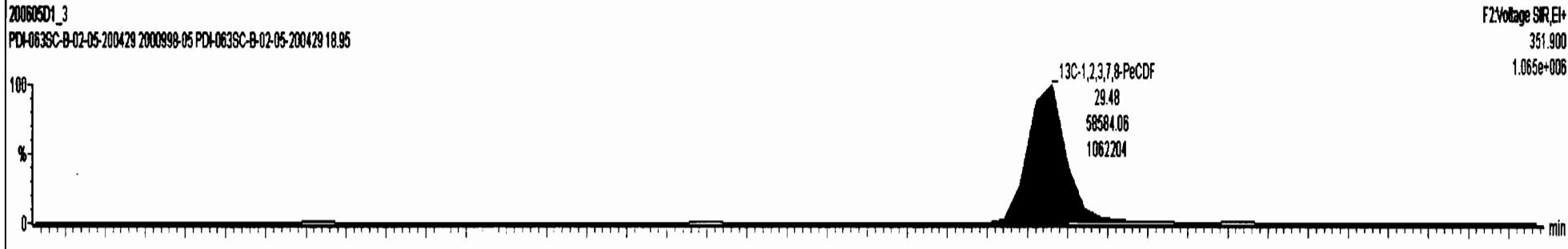
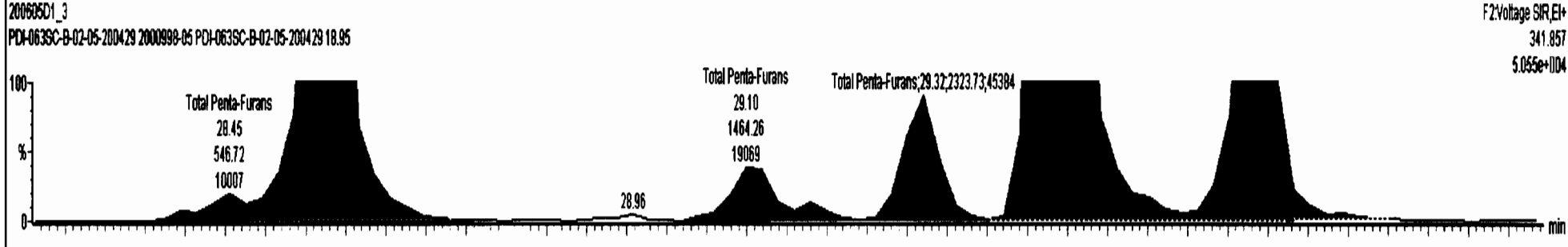
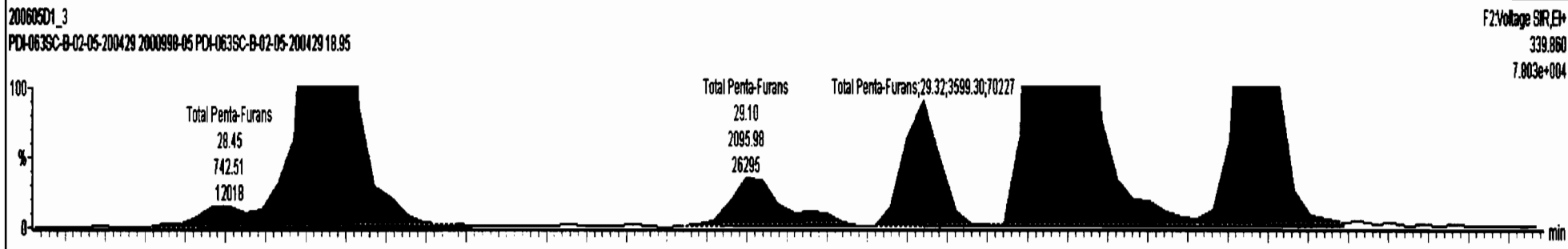
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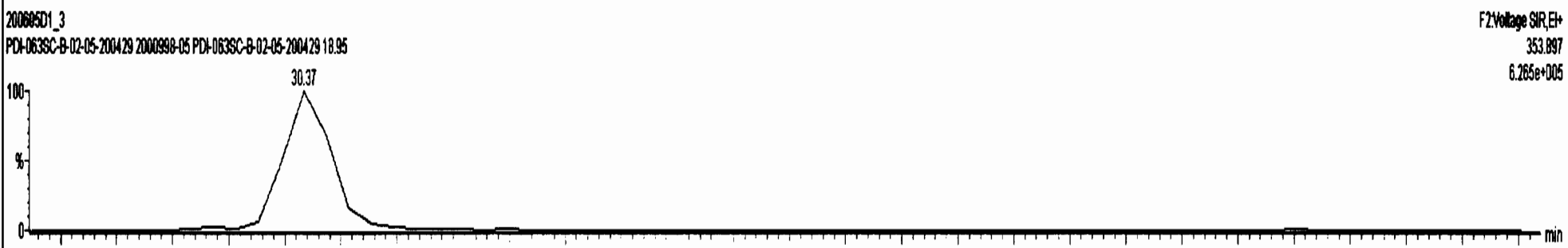
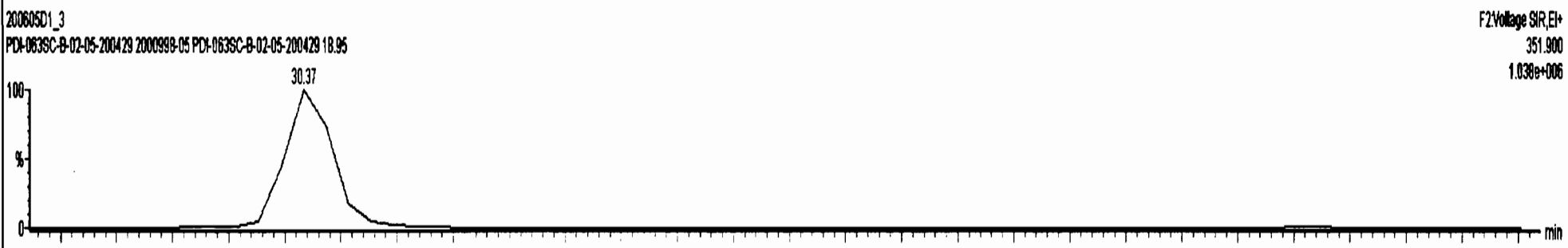
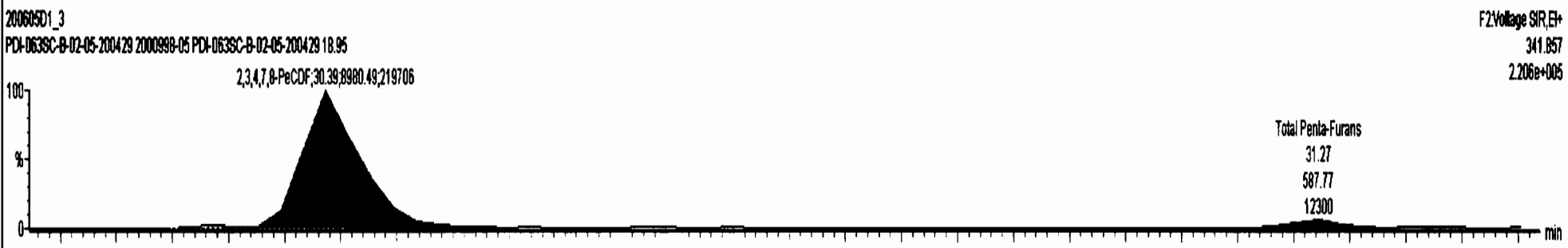
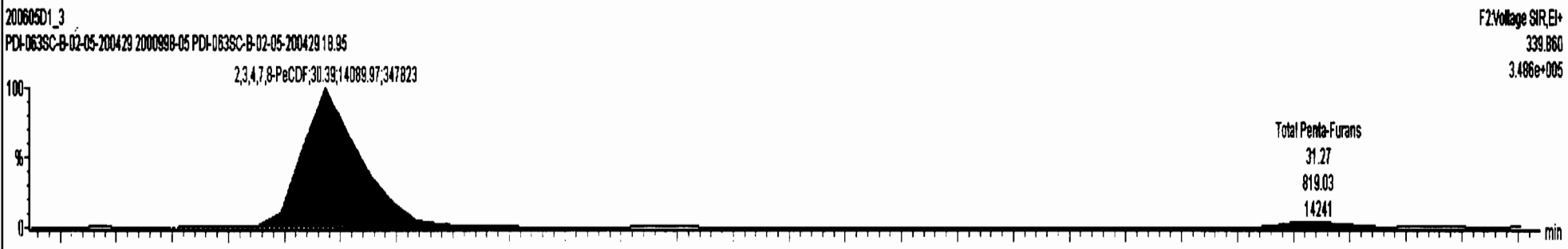


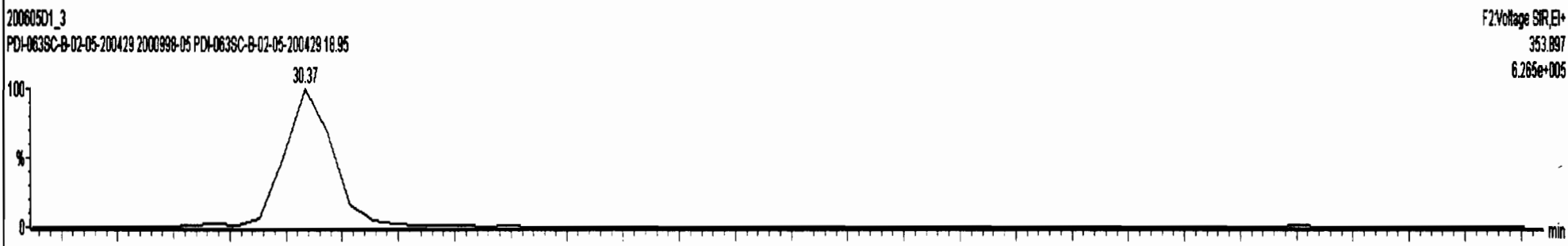
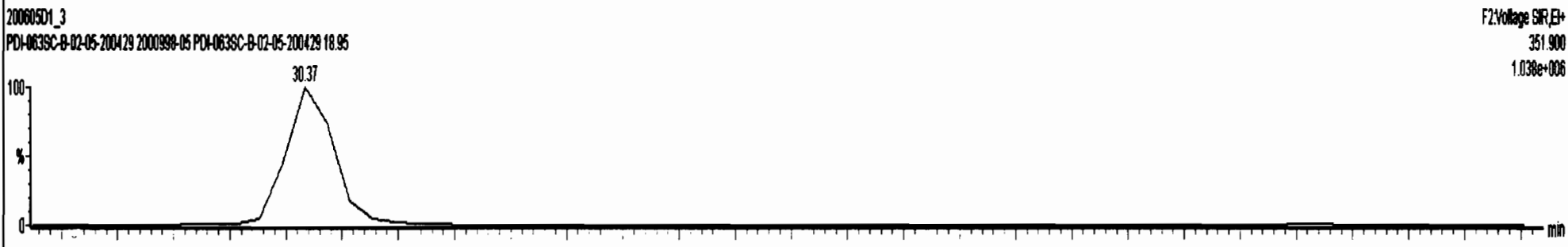
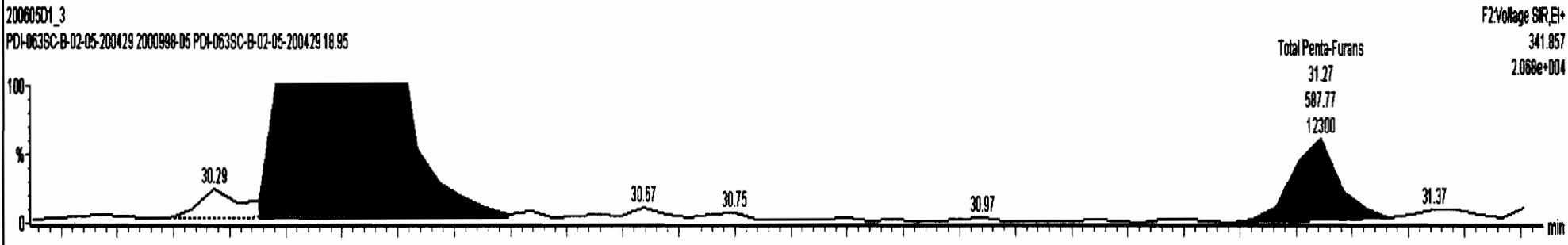
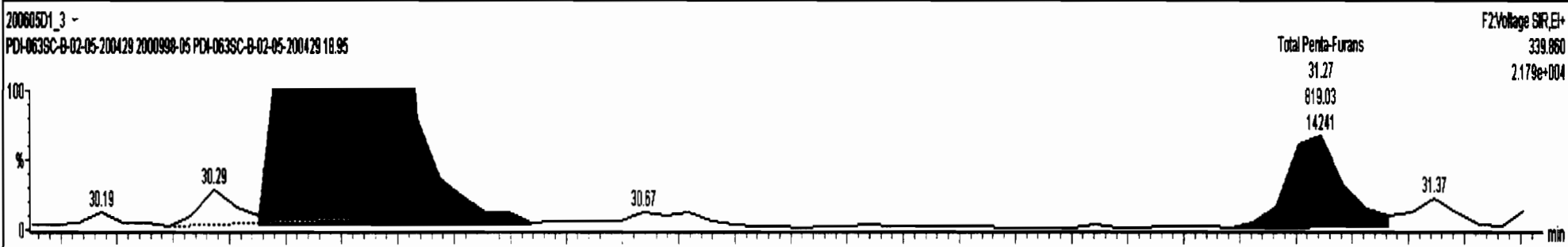
DPE2









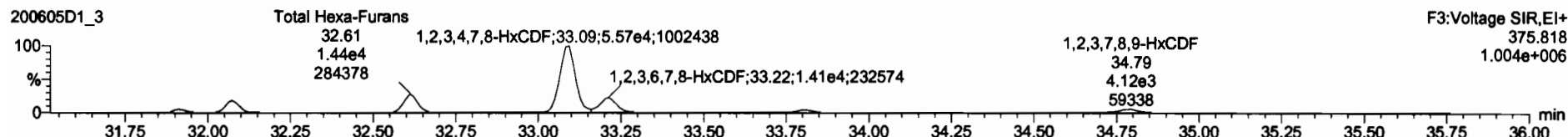
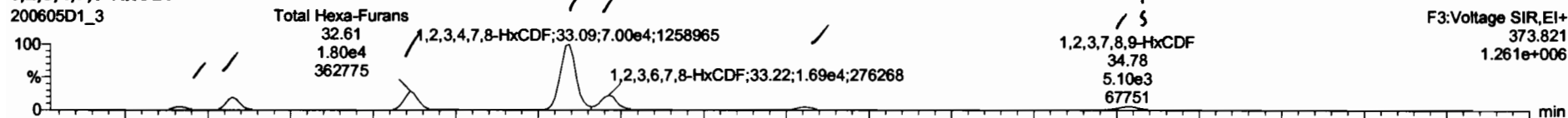


Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

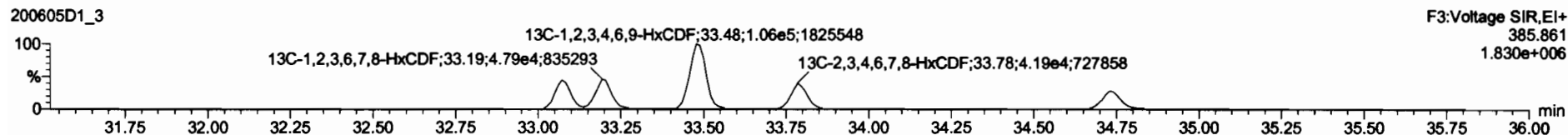
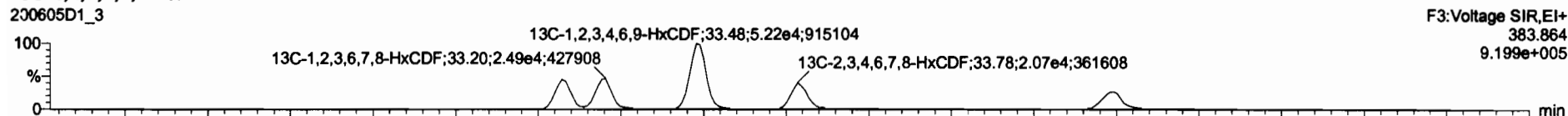
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Printed: Monday, June 08, 2020 10:25:29 Pacific Daylight Time

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

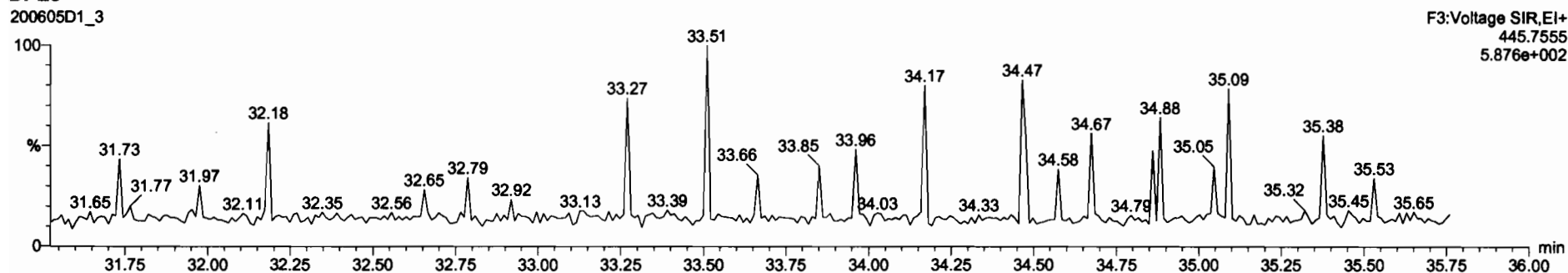
1,2,3,4,7,8-HxCDF

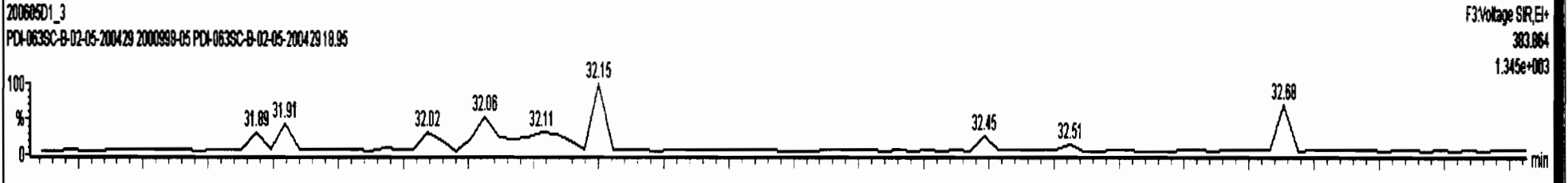
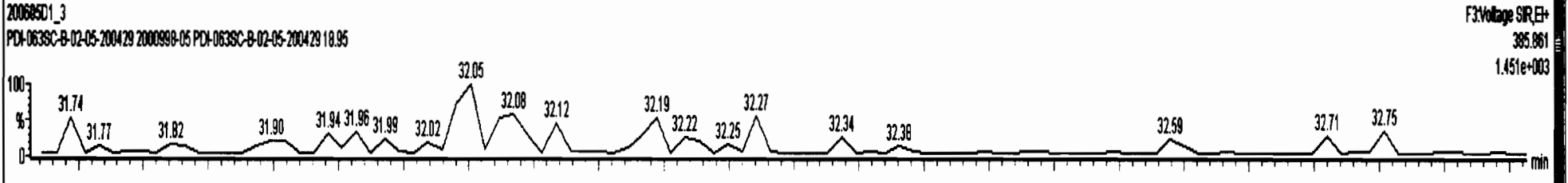
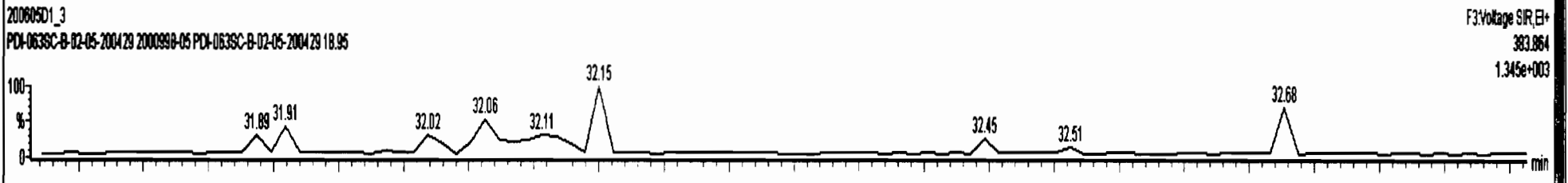
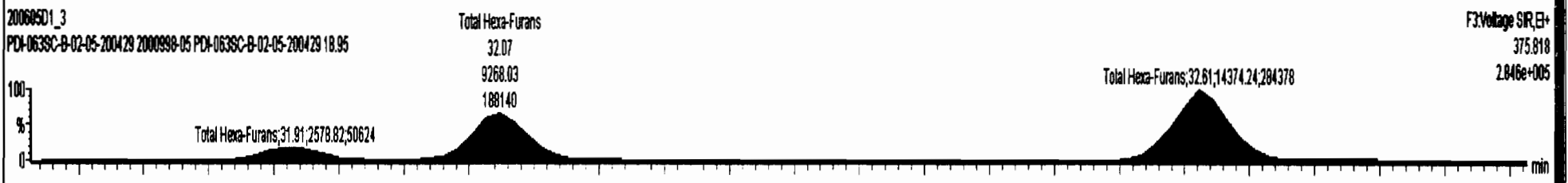
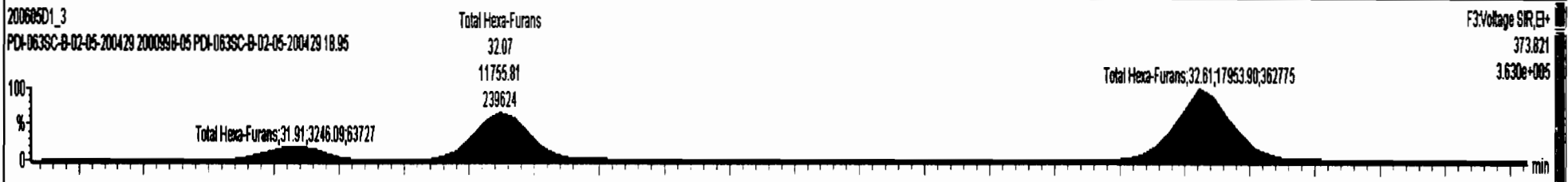


13C-1,2,3,4,7,8-HxCDF

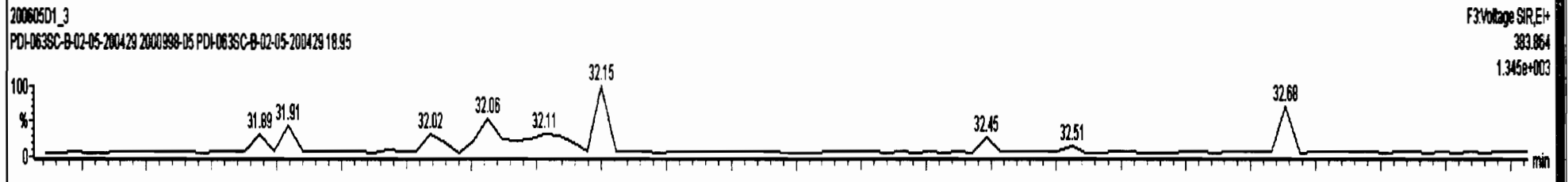
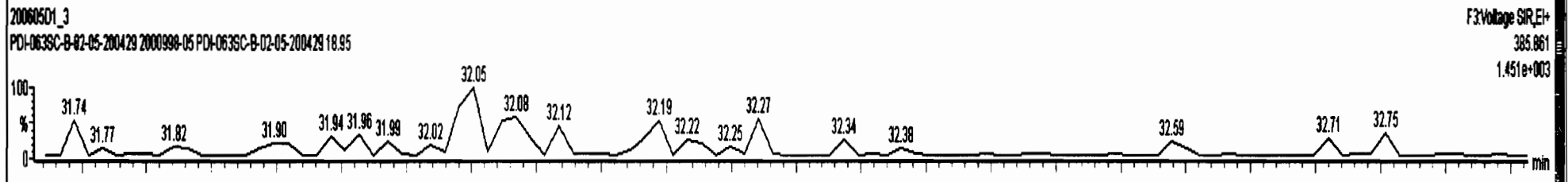
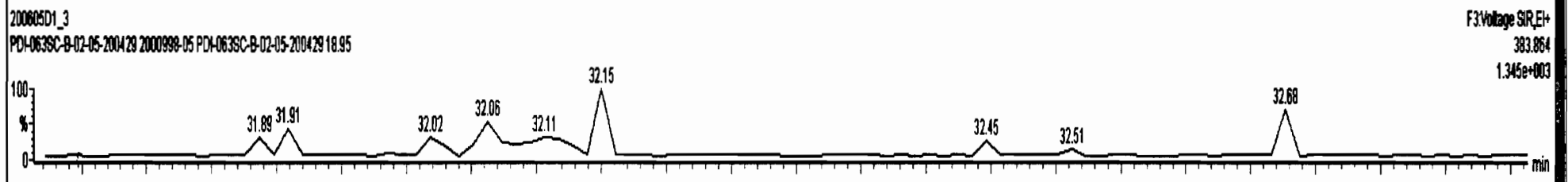
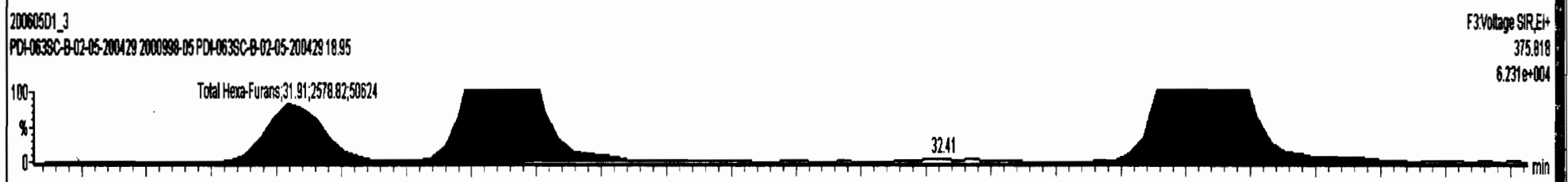
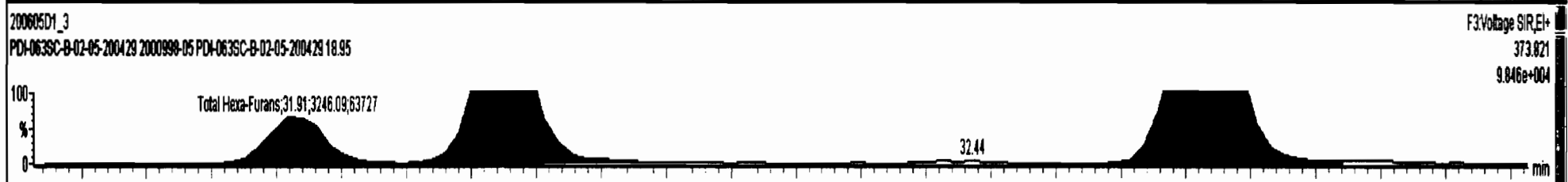


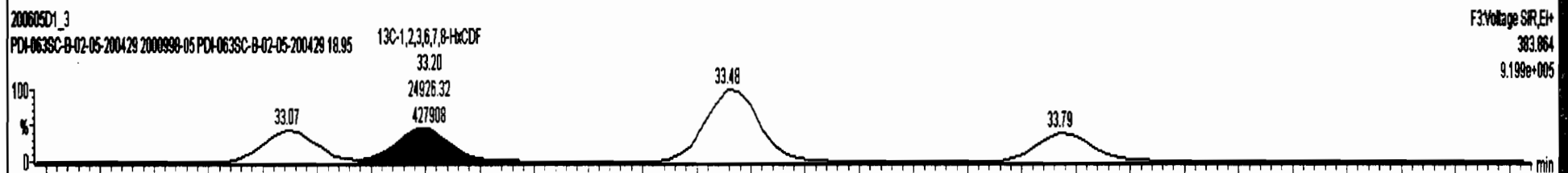
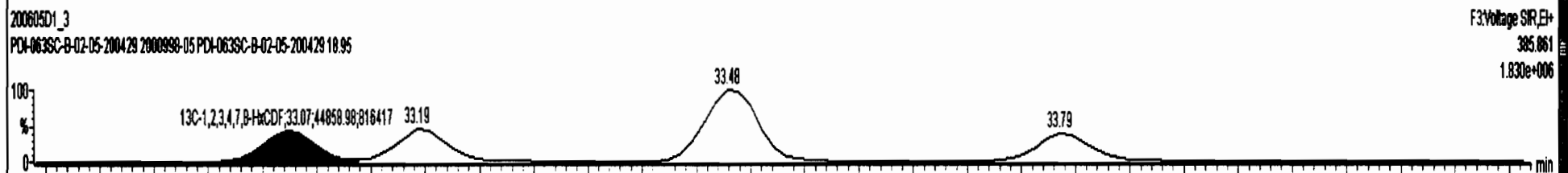
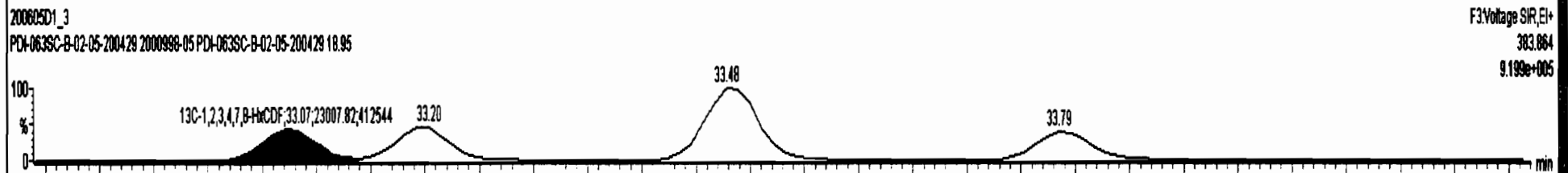
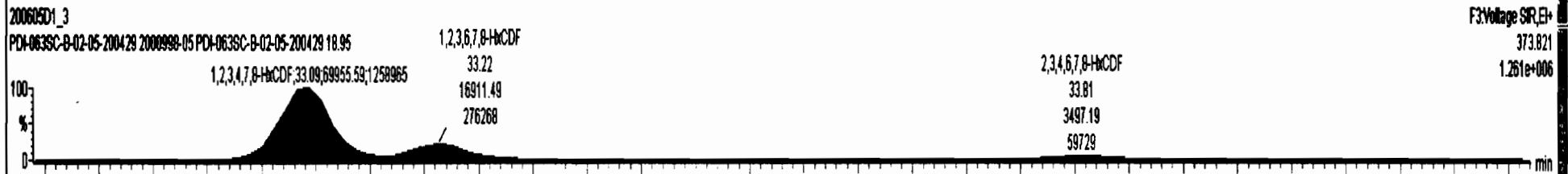
DPE3

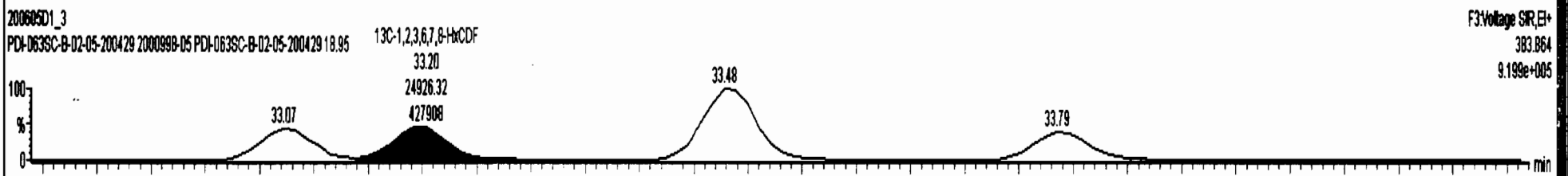
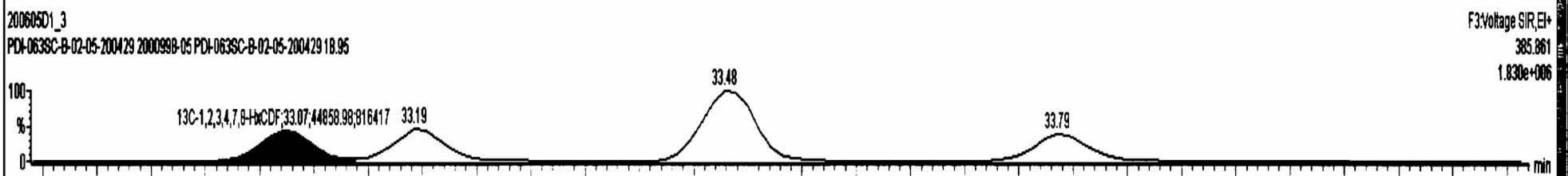
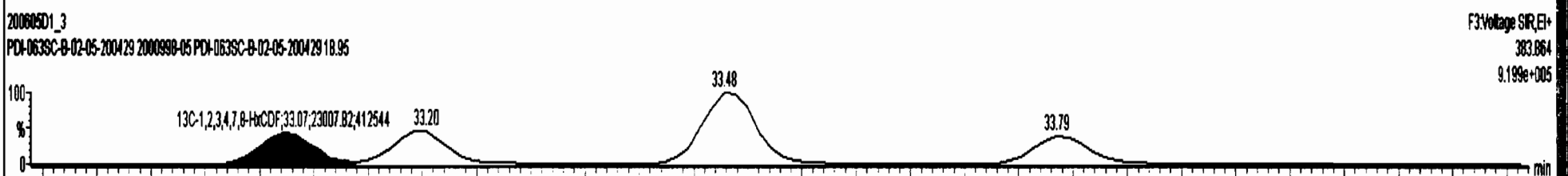
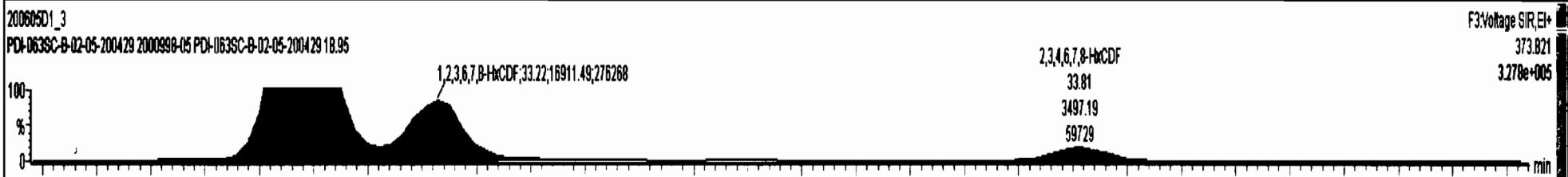


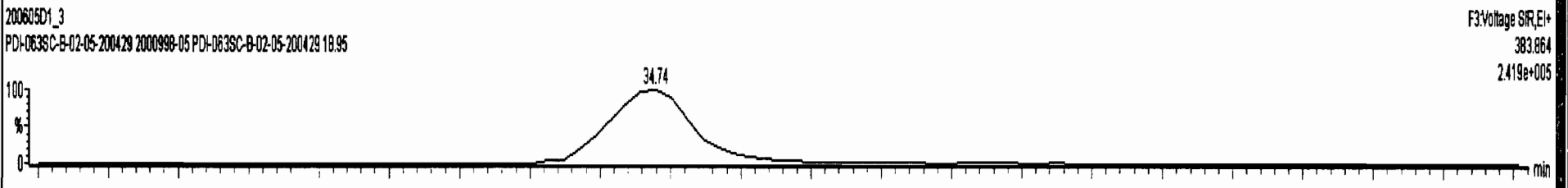
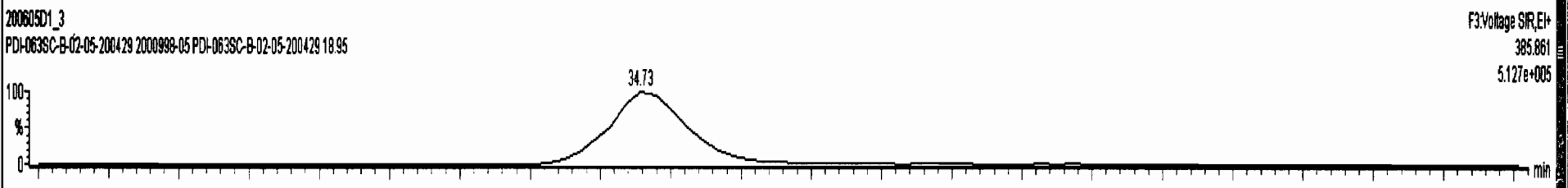
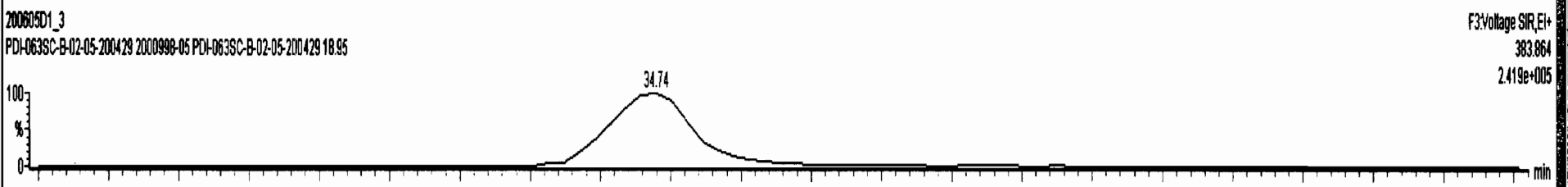
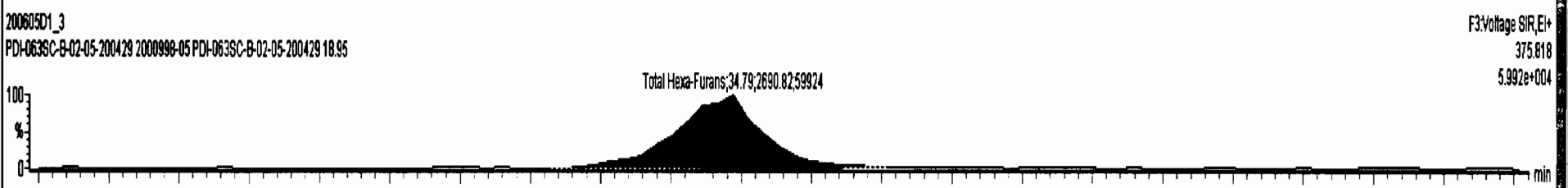
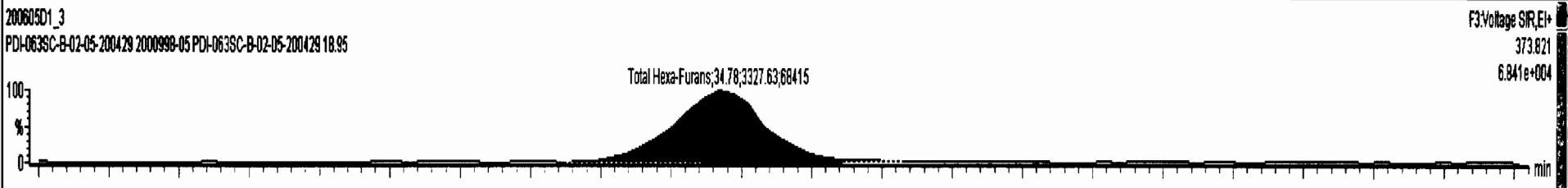












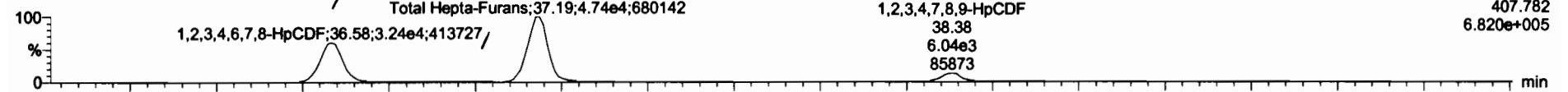
Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_3.qld

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Printed: Monday, June 08, 2020 10:25:29 Pacific Daylight Time

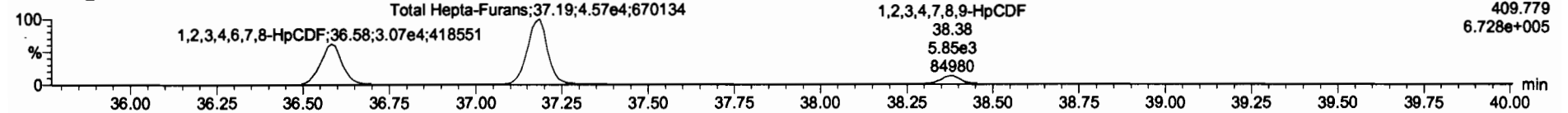
Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

1,2,3,4,6,7,8-HpCDF

200605D1\_3

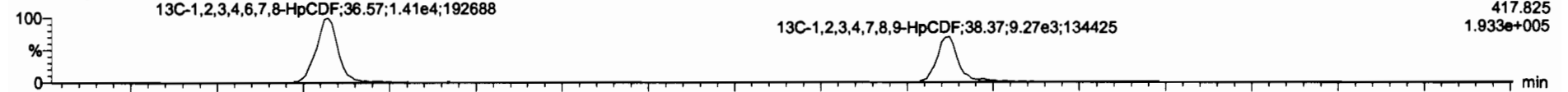


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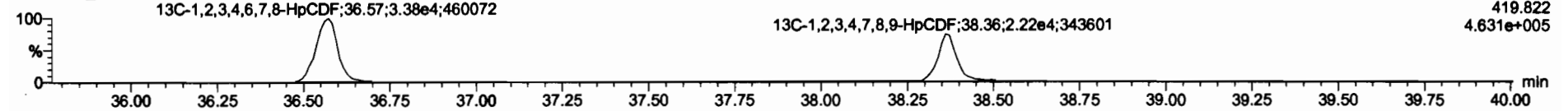


13C-1,2,3,4,6,7,8-HpCDF

200605D1\_3

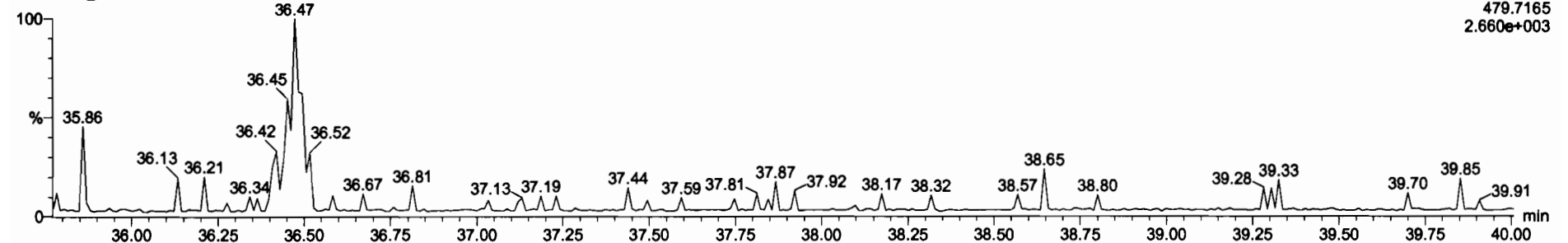


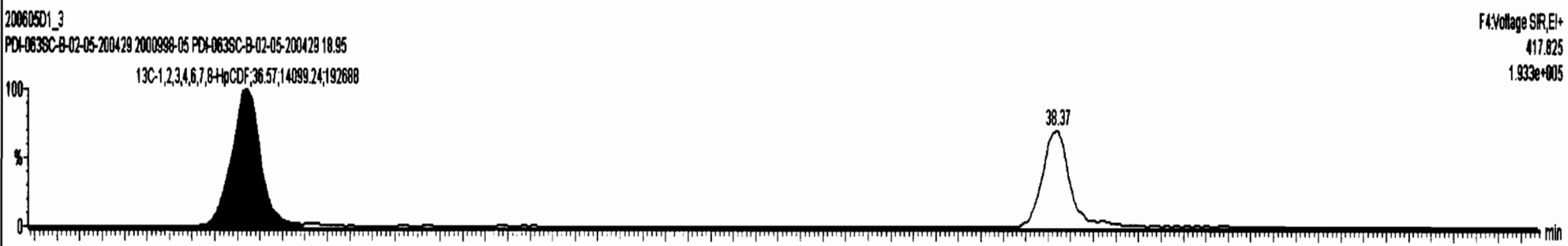
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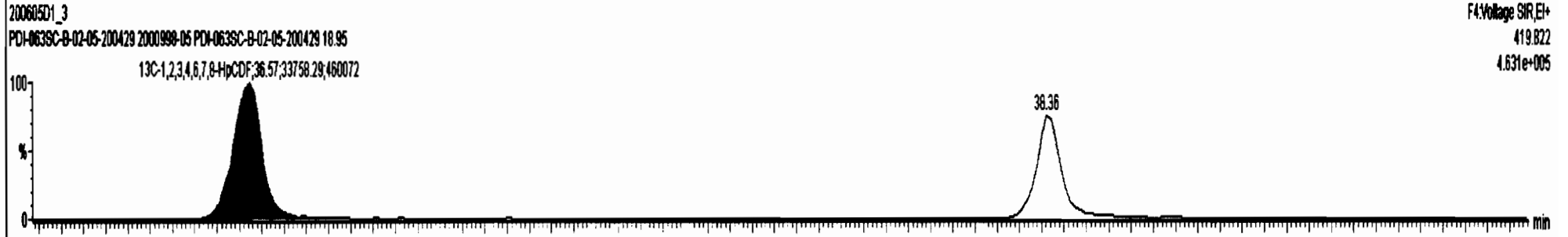
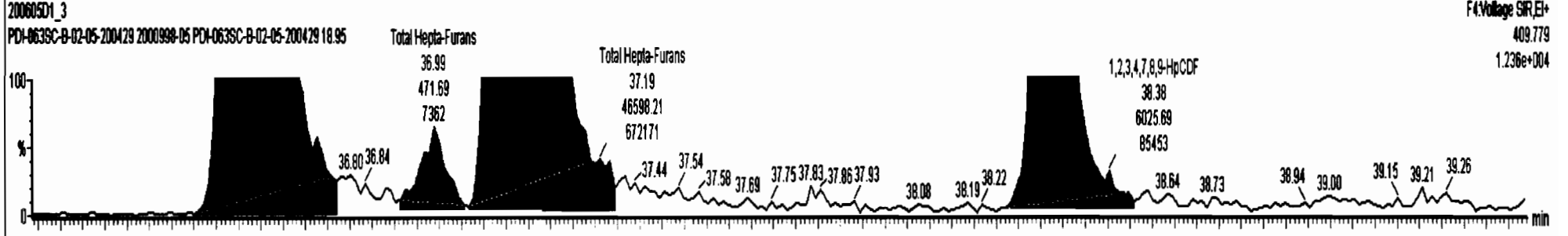
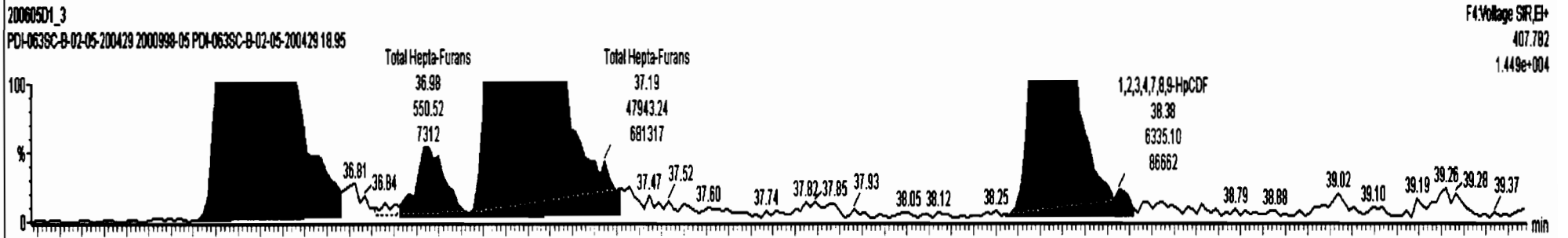


DPE4

200605D1\_3



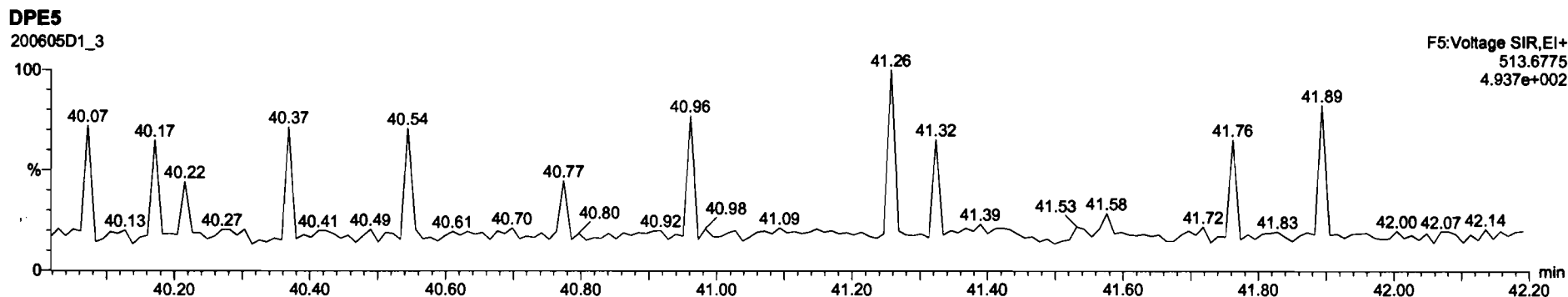
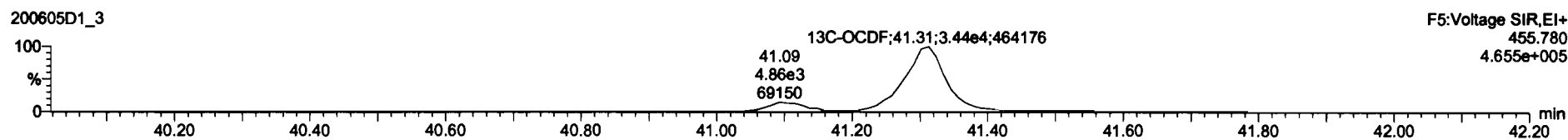
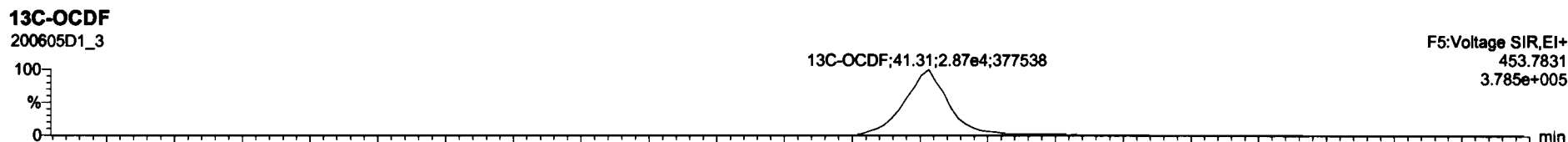
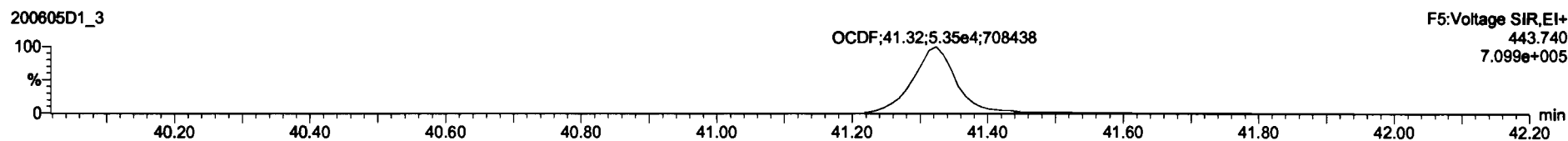
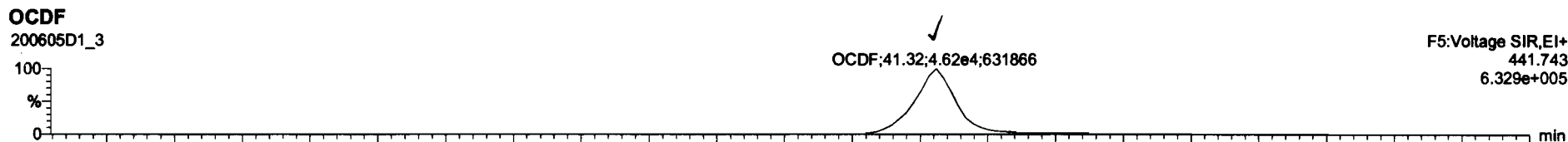




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Printed: Monday, June 08, 2020 10:25:29 Pacific Daylight Time

Name: 200605D1\_3, Date: 05-Jun-2020, Time: 13:51:54, ID: 2000998-05 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

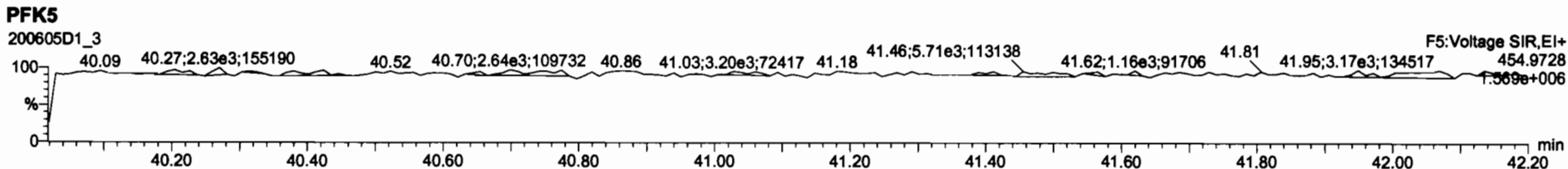
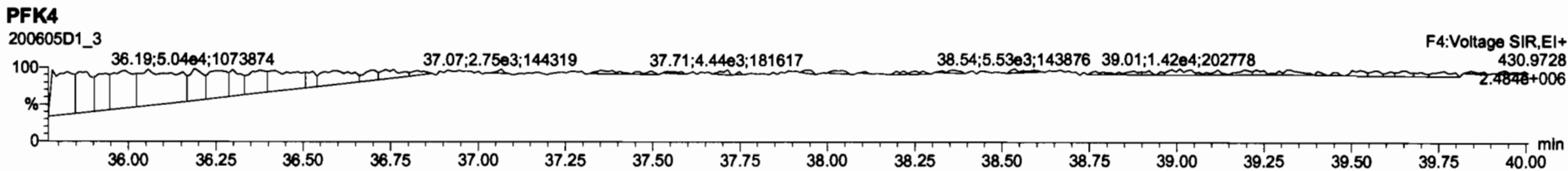
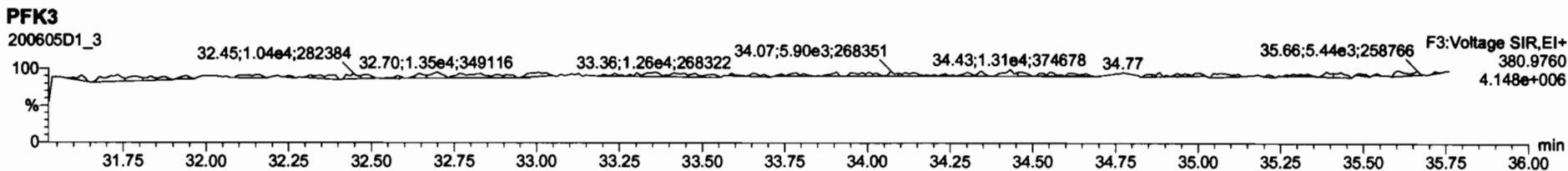
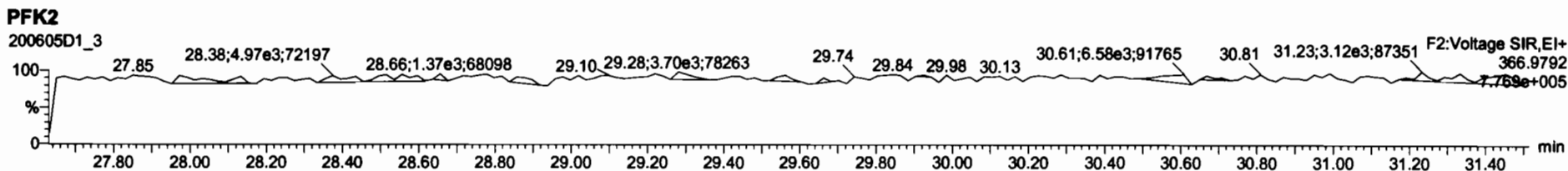
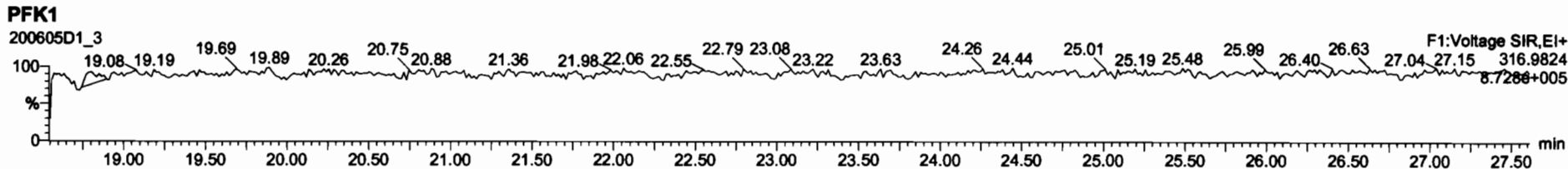




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Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

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*DB 6/9/20 C106/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\lb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

|                          |        |      |    |       |        |        |       |       |       |        |      |       |
|--------------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|-------|
| 7 OCDD                   | 3.82e5 | 0.89 | NO | 1.04  | 10.041 | 41.049 | 41.07 | 1.000 | 1.001 | 14041  | 9.33 | 14000 |
| 24 13C-OCDD              | 9.93e3 | 0.87 | NO | 0.579 | 10.041 | 40.796 | 41.05 | 1.219 | 1.227 | 131.72 | 33.1 | 1.18  |
| 38 13C-1,2,3,4,6,9-HxCDF | 2.59e4 | 0.51 | NO | 1.00  | 10.041 | 33.530 | 33.46 | 1.000 | 1.000 | 199.18 | 100  | 1.24  |

Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

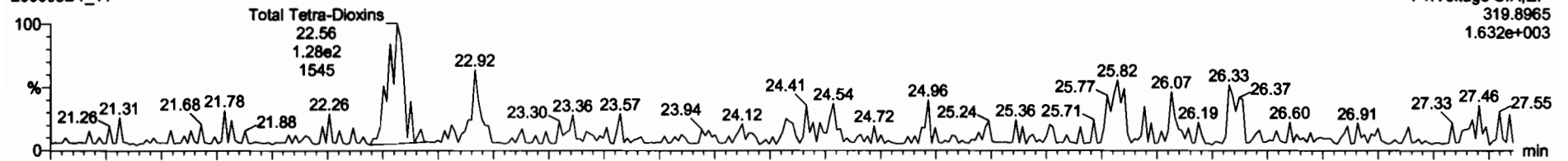
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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

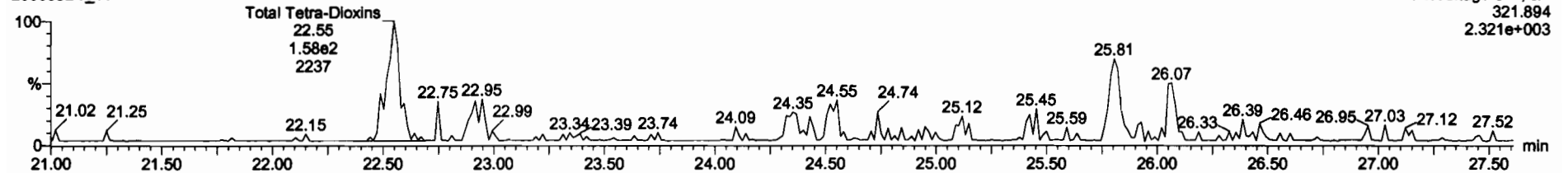
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**2,3,7,8-TCDD**

200608D1\_11

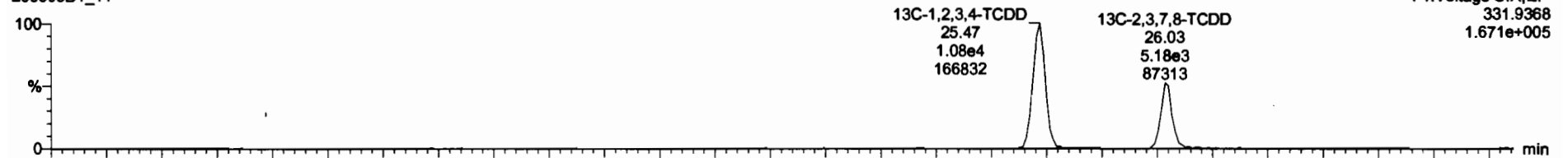


200608D1\_11

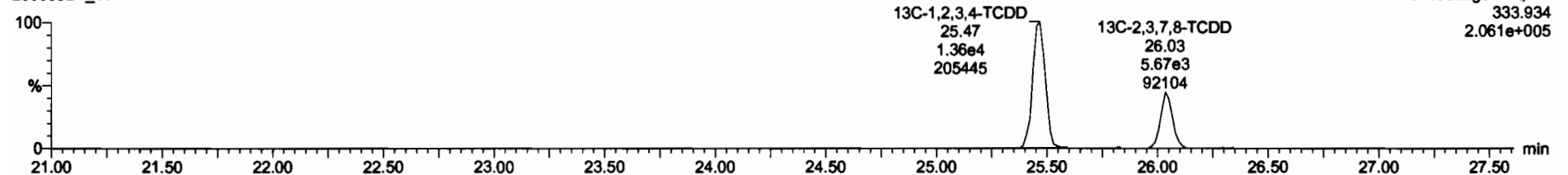


**13C-2,3,7,8-TCDD**

200608D1\_11



200608D1\_11

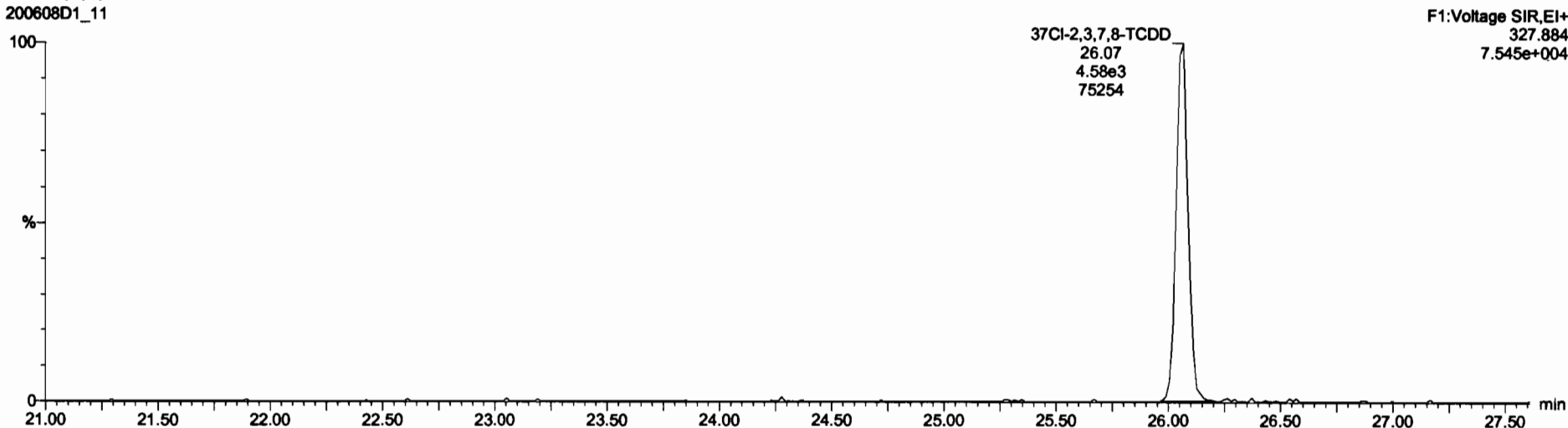


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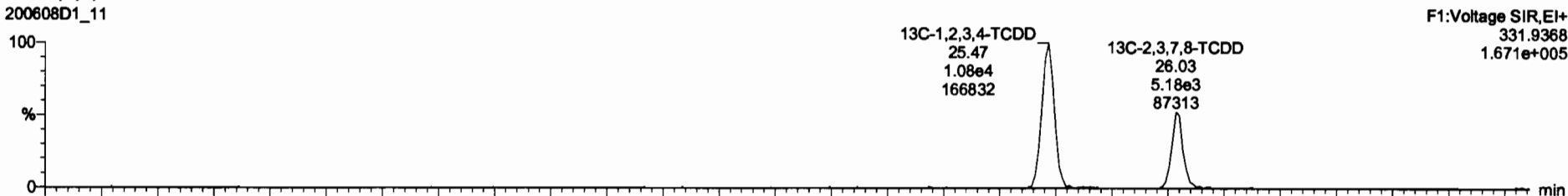
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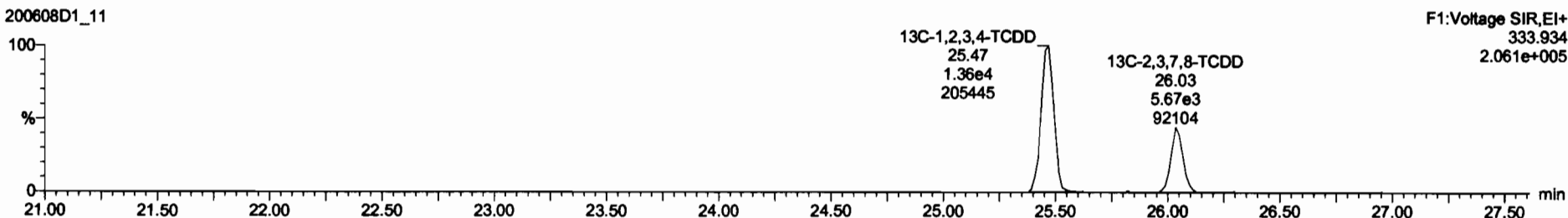
**37Cl-2,3,7,8-TCDD**  
200608D1\_11



**13C-1,2,3,4-TCDD**  
200608D1\_11



200608D1\_11



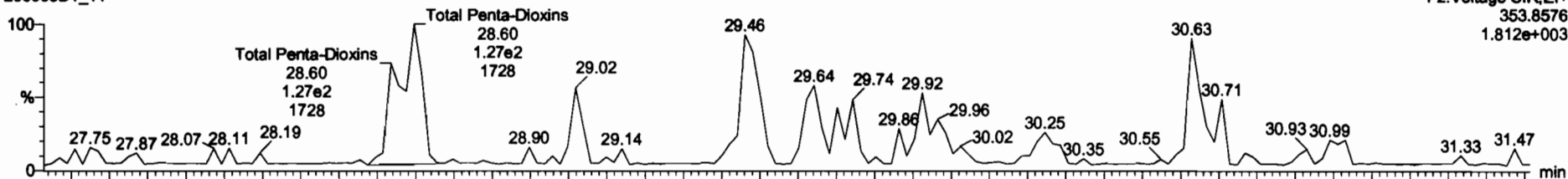
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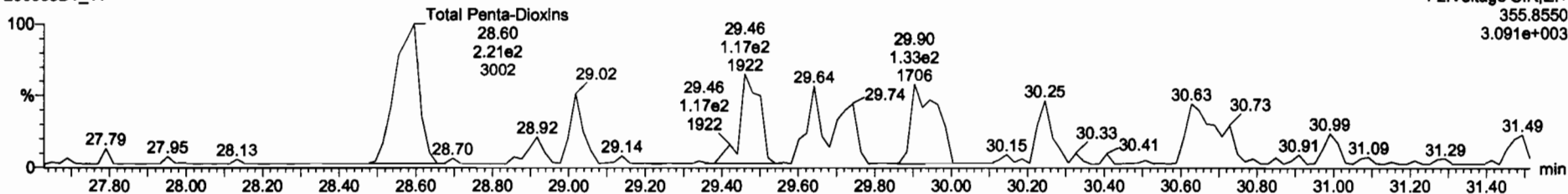
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**1,2,3,7,8-PeCDD**

200608D1\_11



200608D1\_11

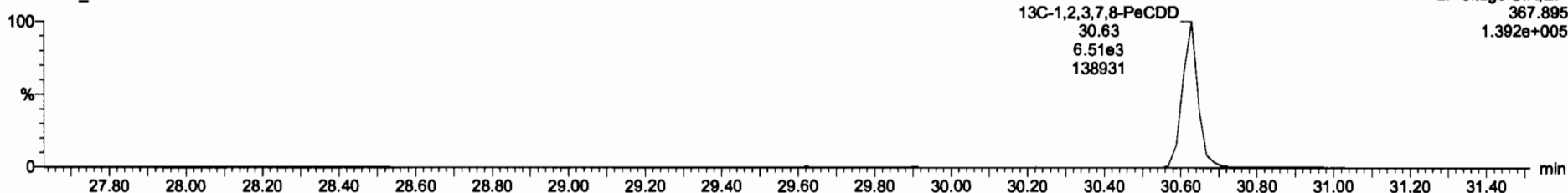


**13C-1,2,3,7,8-PeCDD**

200608D1\_11



200608D1\_11



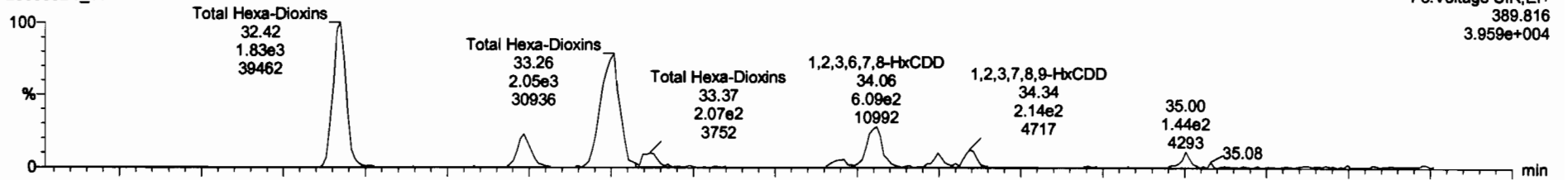
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Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

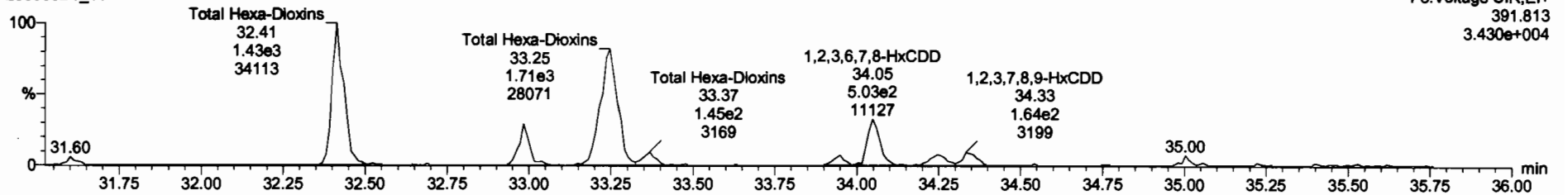
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1,2,3,4,7,8-HxCDD

200608D1\_11

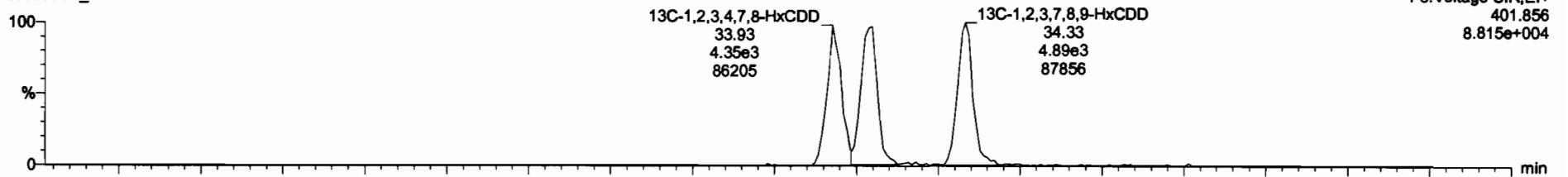


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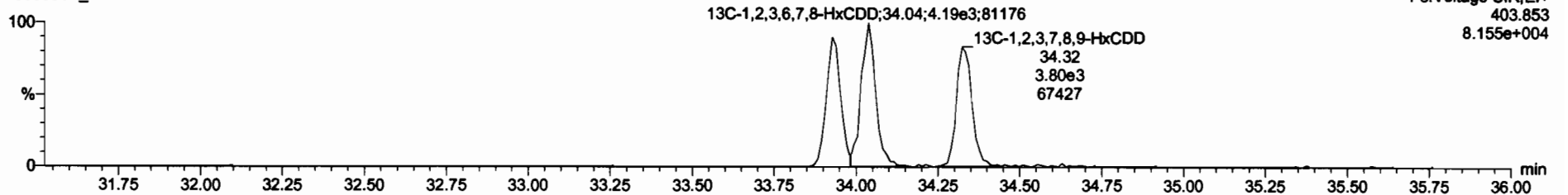


13C-1,2,3,4,7,8-HxCDD

200608D1\_11



200608D1\_11



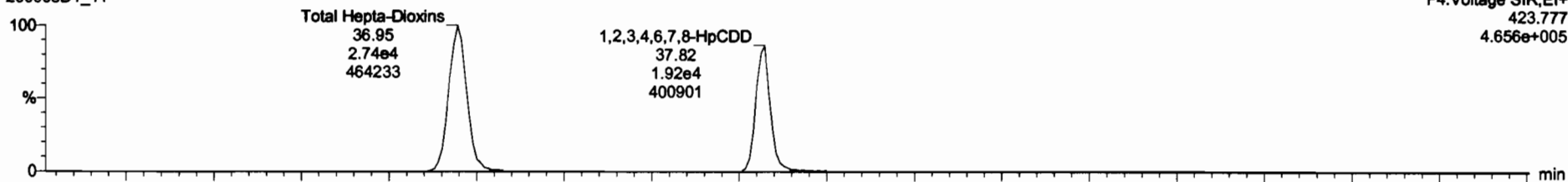
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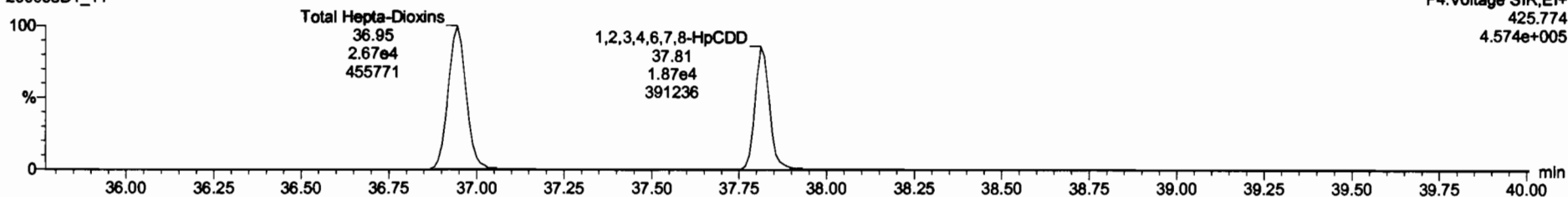
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1,2,3,4,6,7,8-HpCDD

200608D1\_11

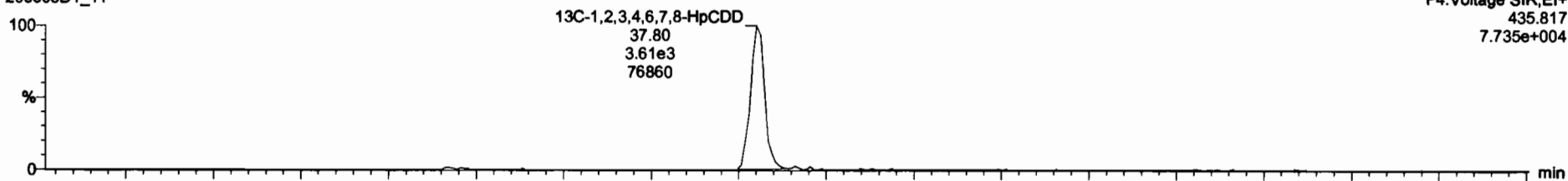


200608D1\_11

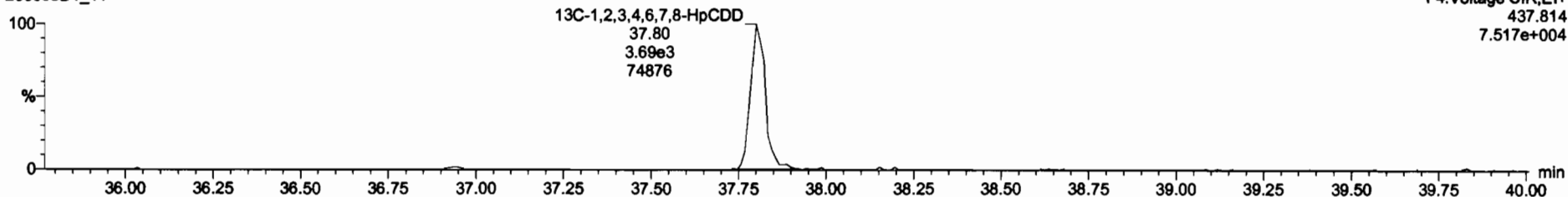


13C-1,2,3,4,6,7,8-HpCDD

200608D1\_11



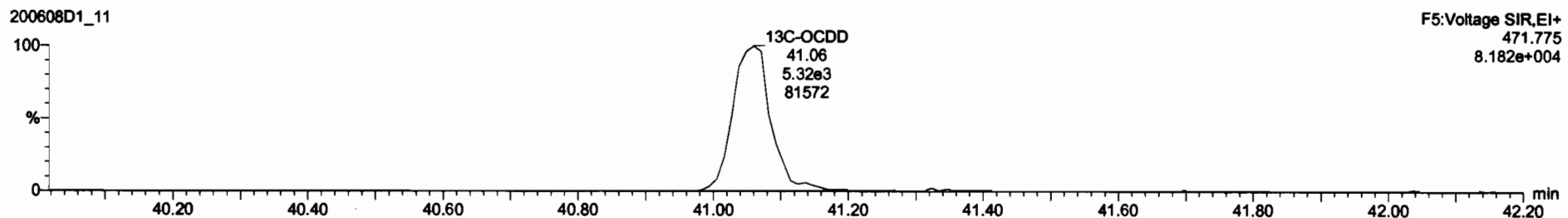
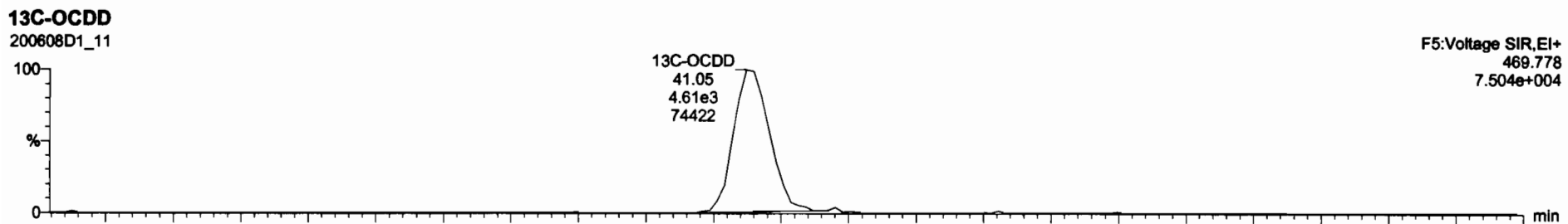
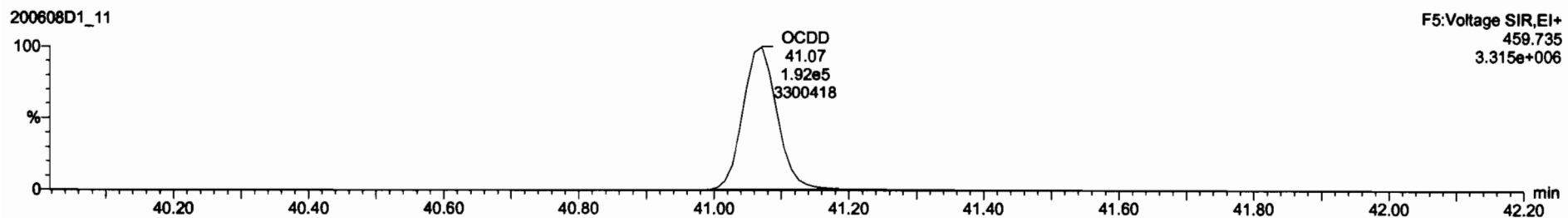
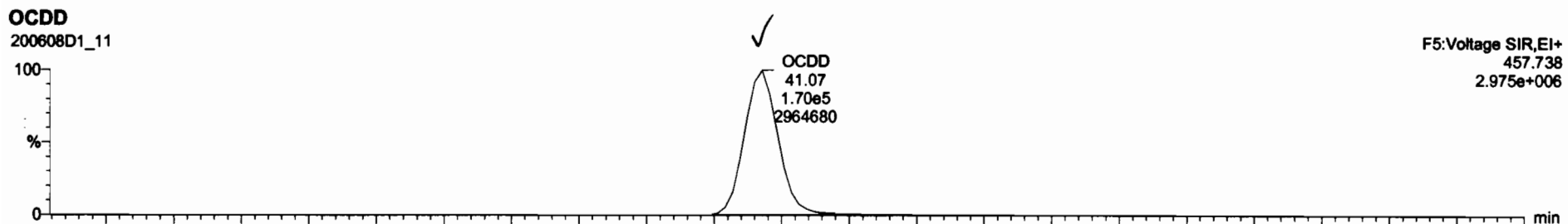
200608D1\_11



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3



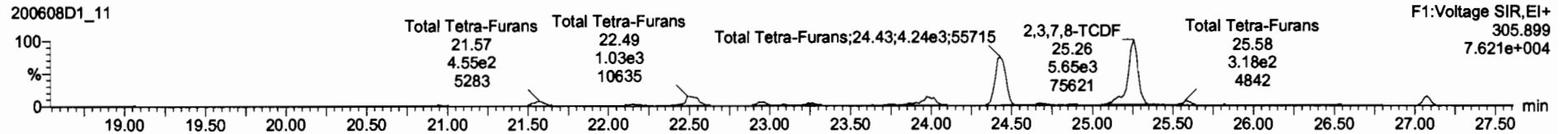
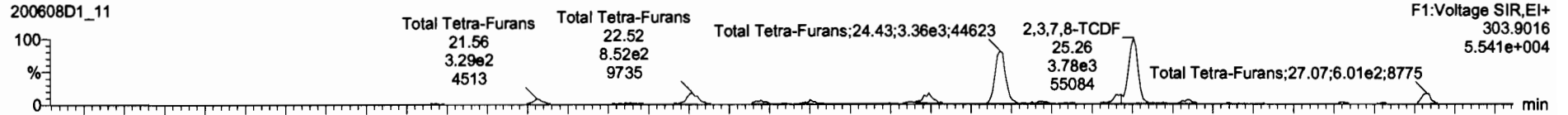


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

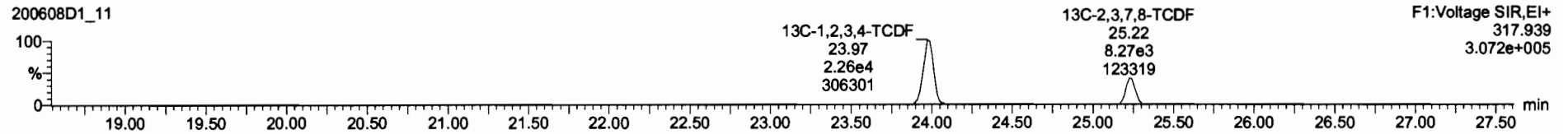
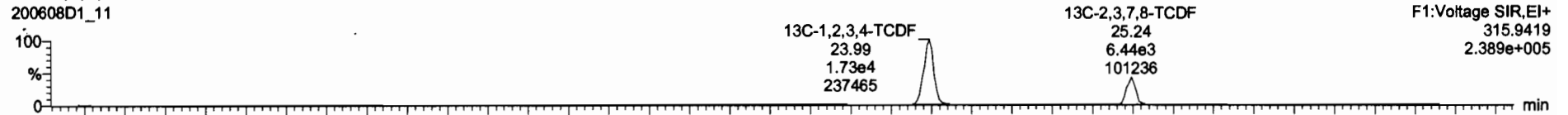
Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

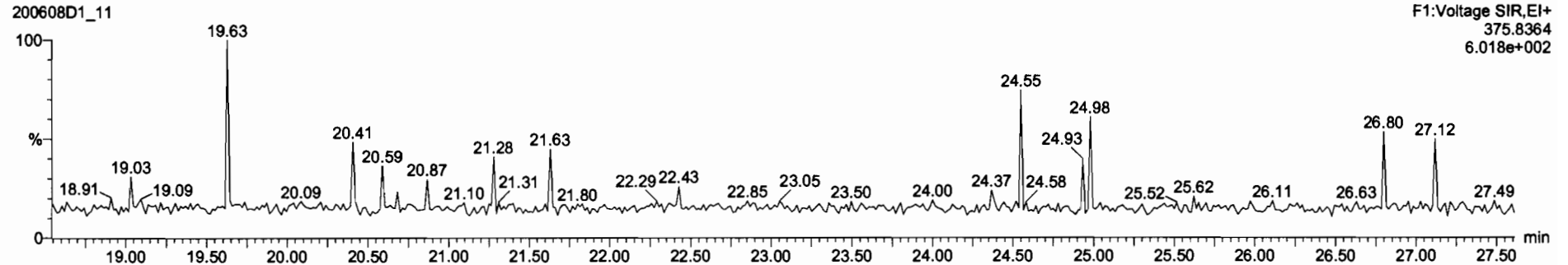
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



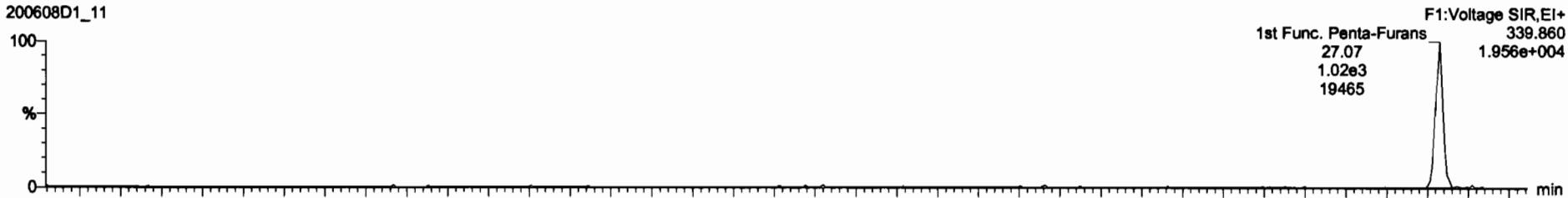
Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

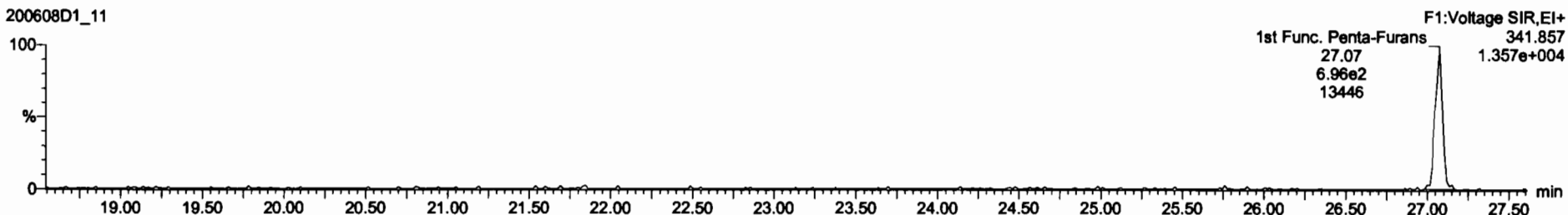
Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

1st Func. Penta-Furans

200608D1\_11

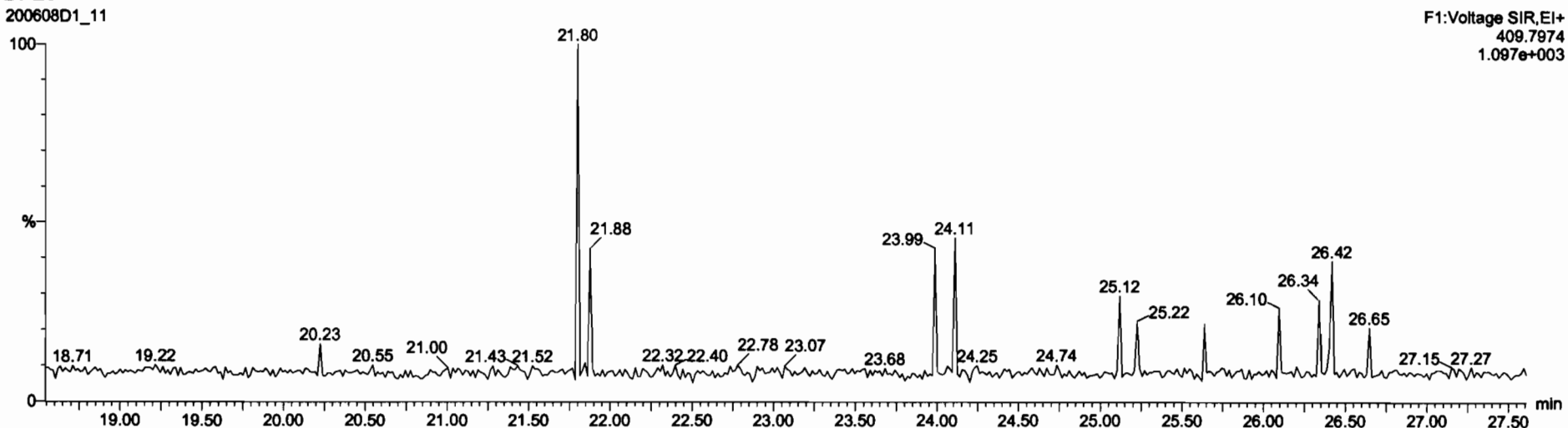


200608D1\_11



DPE6

200608D1\_11

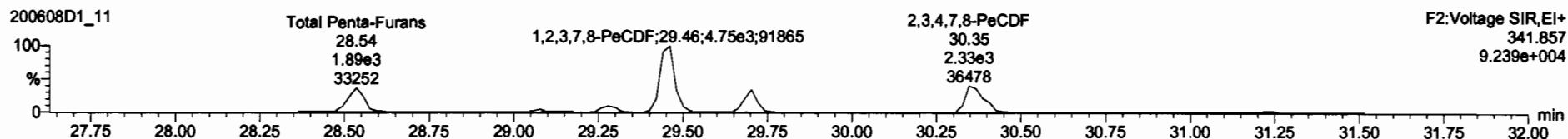
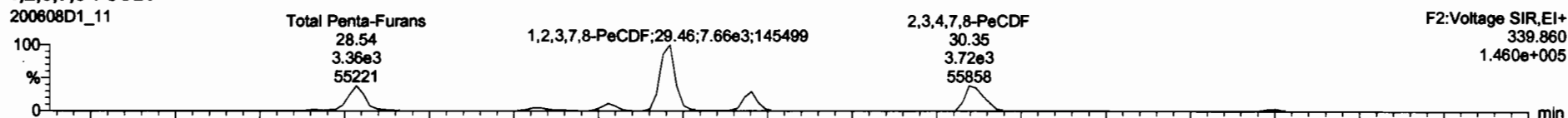


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

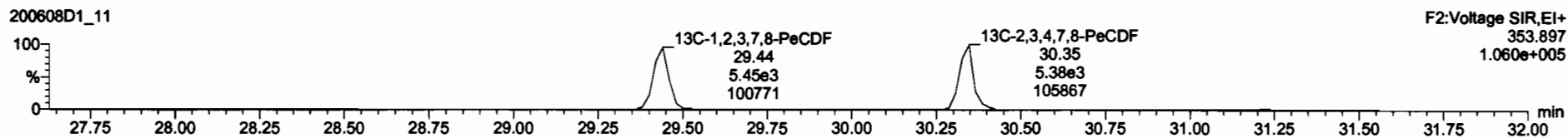
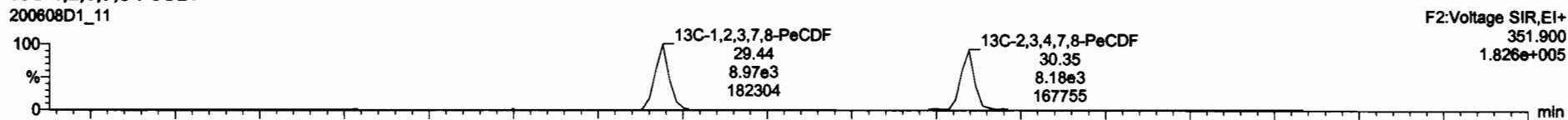
Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

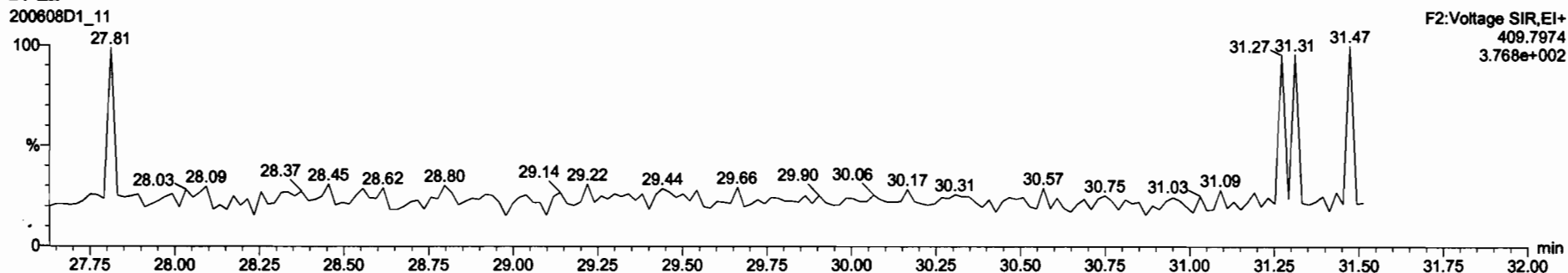
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**

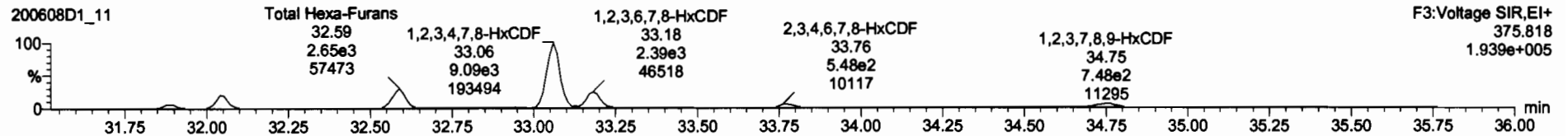
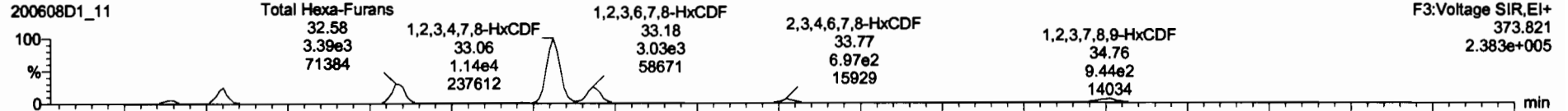


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

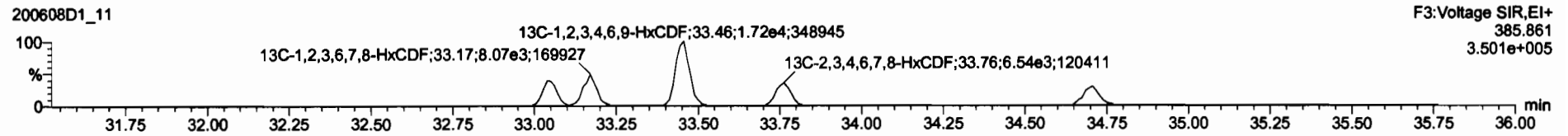
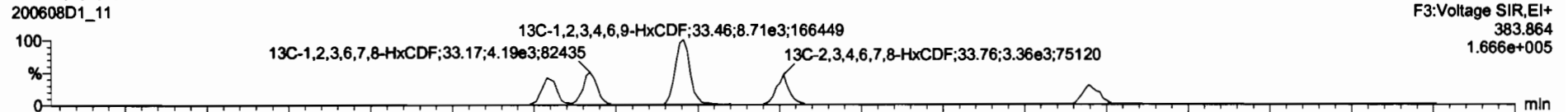
Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
 Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

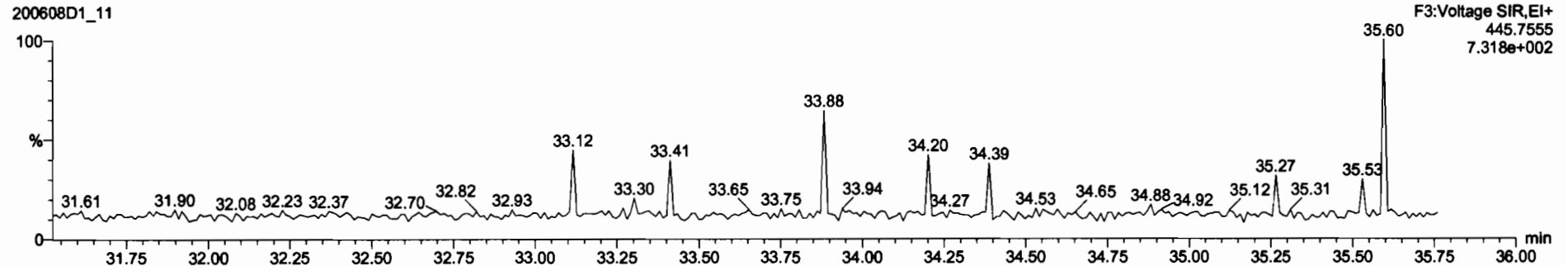
**1,2,3,4,7,8-HxCDF**



**<sup>13</sup>C-1,2,3,4,7,8-HxCDF**



**DPE3**

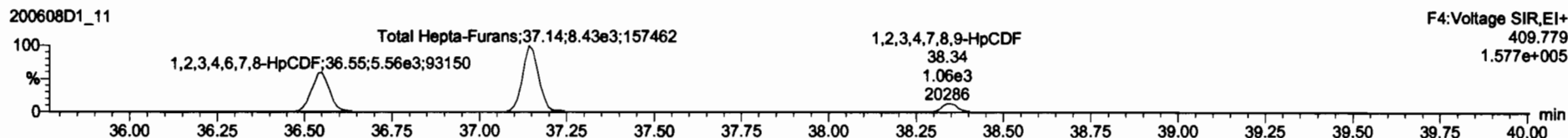
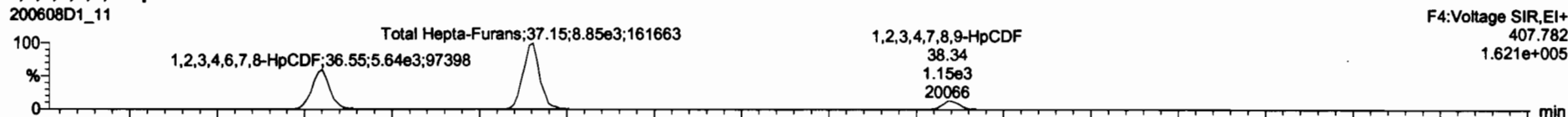


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

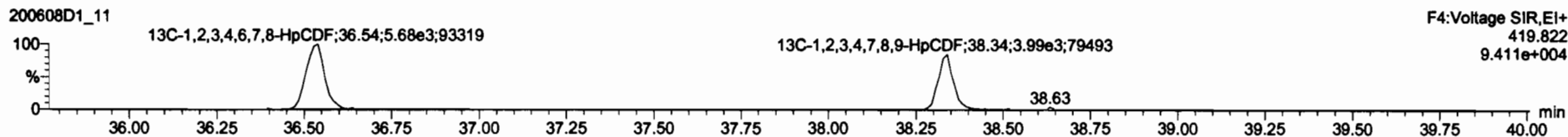
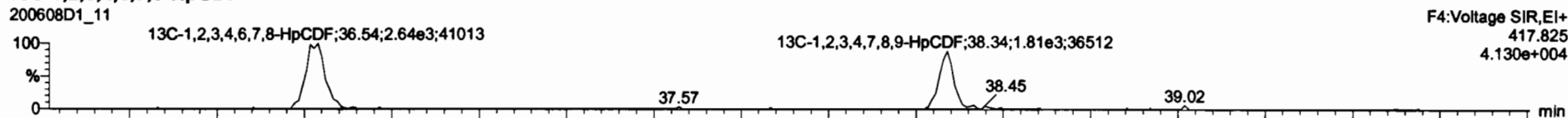
Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

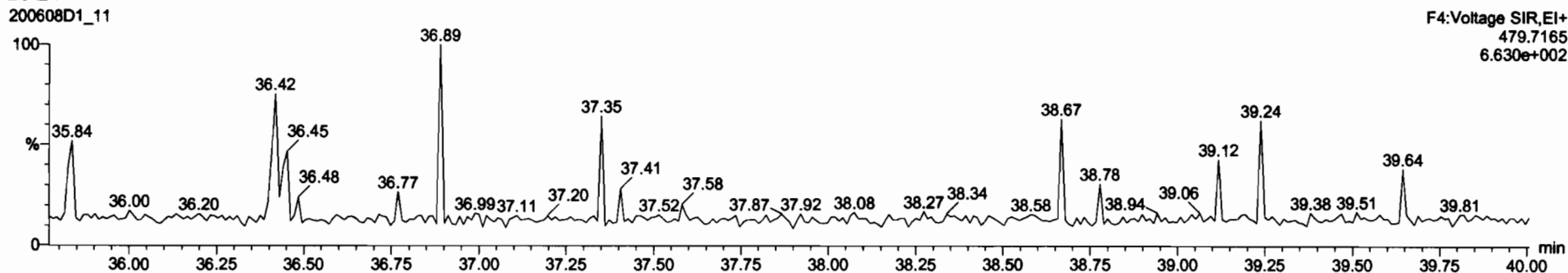
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



DPE4

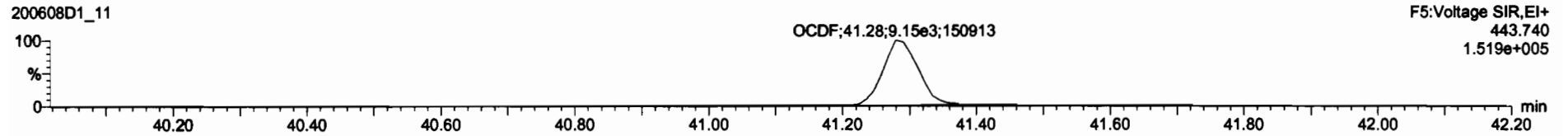
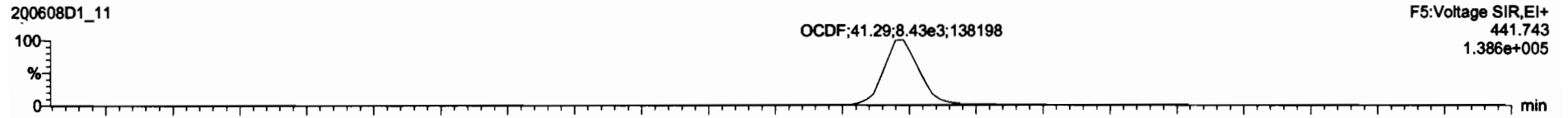


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

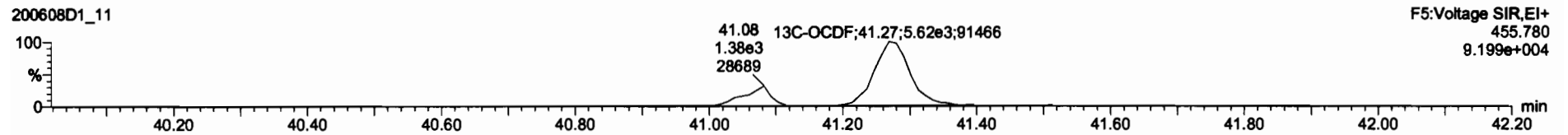
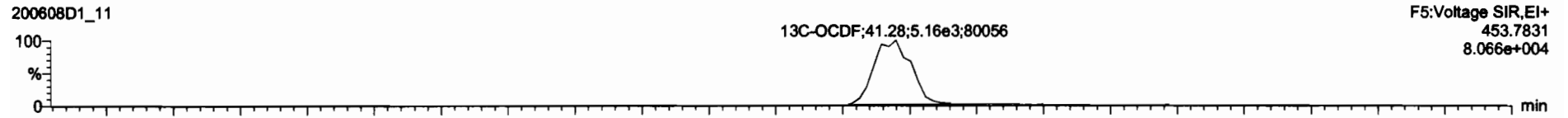
Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3

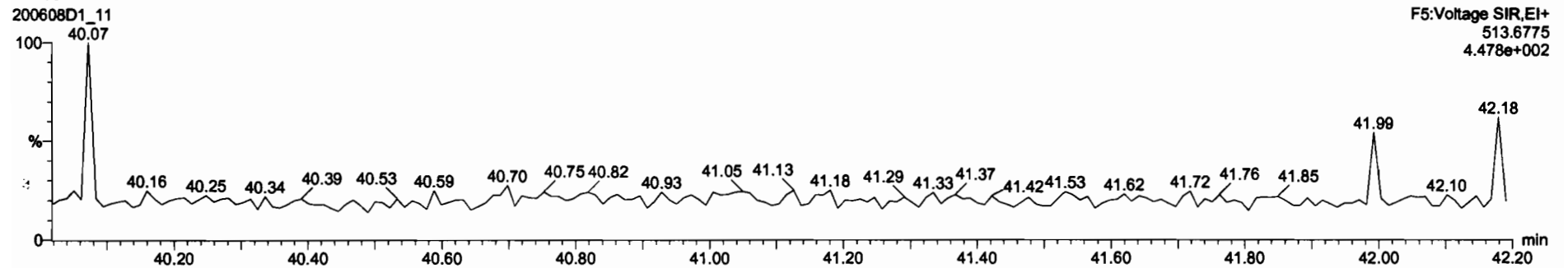
**OCDF**



**13C-OCDF**



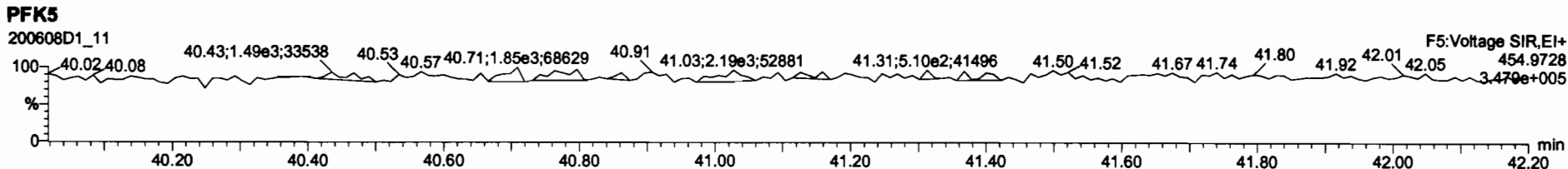
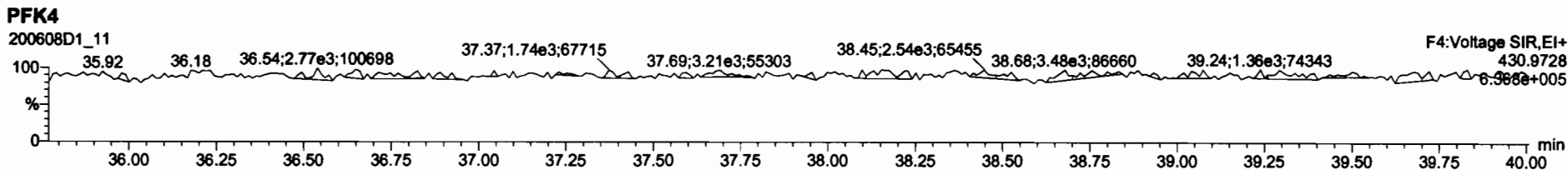
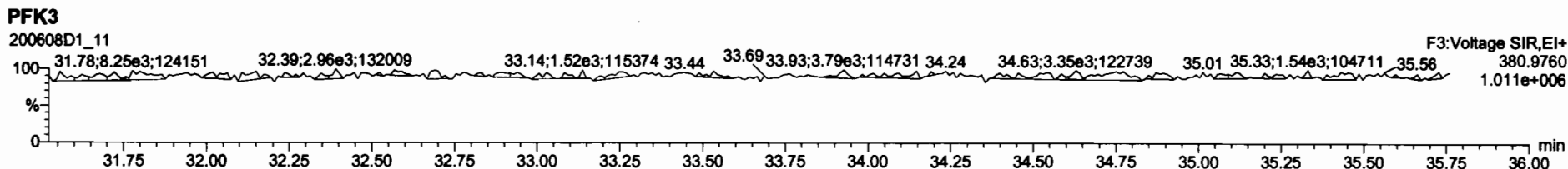
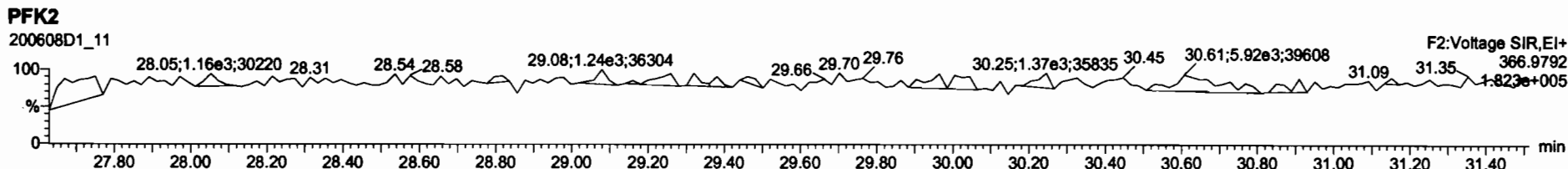
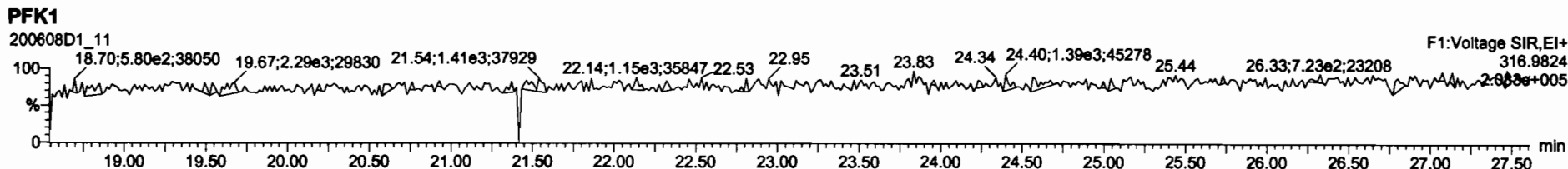
**DPE5**



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_11.qld

Last Altered: Tuesday, June 09, 2020 09:52:07 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:53:22 Pacific Daylight Time

Name: 200608D1\_11, Date: 08-Jun-2020, Time: 20:31:35, ID: 2000998-05@3X PDI-063SC-B-02-05-200429 1:3 18.95, Description: PDI-063SC-B-02-05-200429 1:3



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

Last Altered: Monday, June 08, 2020 14:55:33 Pacific Daylight Time  
Printed: Monday, June 08, 2020 14:59:24 Pacific Daylight Time

*DB 6/8/20 modified*

Method: Untitled 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

*\* see dilution*

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

| Peak | Retention Time          | Area   | Height | Width | RRF   | Concentration | Response | Response | Response | Response | Response     | Response | Response |
|------|-------------------------|--------|--------|-------|-------|---------------|----------|----------|----------|----------|--------------|----------|----------|
| 1    | 2,3,7,8-TCDD            | 3.21e2 | 0.69   | NO    | 0.987 | 10.004        | 26.158   | 26.16    | 1.001    | 1.001    | 2.2456       | 0.831    | 2.25     |
| 2    | 1,2,3,7,8-PeCDD         | 6.85e2 | 0.64   | NO    | 0.982 | 10.004        | 30.690   | 30.69    | 1.001    | 1.001    | 4.9415       | 0.607    | 4.94     |
| 3    | 1,2,3,4,7,8-HxCDD       | 6.31e2 | 1.05   | NO    | 1.17  | 10.004        | 33.982   | 33.98    | 1.000    | 1.000    | 4.2595       | 1.51     | 4.26     |
| 4    | 1,2,3,6,7,8-HxCDD       | 6.00e3 | 1.19   | NO    | 1.04  | 10.004        | 34.082   | 34.09    | 1.000    | 1.000    | 38.630       | 1.43     | 38.6     |
| 5    | 1,2,3,7,8,9-HxCDD       | 2.19e3 | 1.41   | NO    | 1.00  | 10.004        | 34.412   | 34.40    | 1.001    | 1.001    | 12.586       | 1.48     | 12.6     |
| 6    | 1,2,3,4,6,7,8-HpCDD     | 2.37e5 | 1.05   | NO    | 0.992 | 10.004        | 37.856   | 37.86    | 1.000    | 1.000    | 1868.7       | 4.09     | 1870     |
| 7    | OCDD                    | 1.15e6 | 0.89   | NO    | 1.04  | 10.004        | 41.104   | 41.13    | 1.000    | 1.001    | 22119        | 9.06     | 22100 *  |
| 8    | 2,3,7,8-TCDF            | 4.07e4 | 0.77   | NO    | 0.882 | 10.004        | 25.357   | 25.36    | 1.001    | 1.001    | 240.16 (152) | 1.09     | 240      |
| 9    | 1,2,3,7,8-PeCDF         | 7.11e4 | 1.61   | NO    | 1.05  | 10.004        | 29.502   | 29.50    | 1.001    | 1.001    | 302.15       | 0.926    | 302      |
| 10   | 2,3,4,7,8-PeCDF         | 2.27e4 | 1.57   | NO    | 1.06  | 10.004        | 30.405   | 30.41    | 1.001    | 1.001    | 105.56       | 0.935    | 106      |
| 11   | 1,2,3,4,7,8-HxCDF       | 1.43e5 | 1.23   | NO    | 1.08  | 10.004        | 33.083   | 33.10    | 1.000    | 1.001    | 698.21       | 1.73     | 698      |
| 12   | 1,2,3,6,7,8-HxCDF       | 4.15e4 | 1.27   | NO    | 1.04  | 10.004        | 33.214   | 33.23    | 1.000    | 1.001    | 196.67       | 1.80     | 197      |
| 13   | 2,3,4,6,7,8-HxCDF       | 7.07e3 | 1.16   | NO    | 1.11  | 10.004        | 33.830   | 33.82    | 1.001    | 1.001    | 36.352       | 2.01     | 36.4     |
| 14   | 1,2,3,7,8,9-HxCDF       | 3.21e3 | 1.23   | NO    | 1.06  | 10.004        | 34.751   | 34.78    | 1.000    | 1.001    | 19.991       | 2.89     | 20.0     |
| 15   | 1,2,3,4,6,7,8-HpCDF     | 9.70e4 | 1.03   | NO    | 1.13  | 10.004        | 36.620   | 36.60    | 1.001    | 1.001    | 490.47       | 1.69     | 490      |
| 16   | 1,2,3,4,7,8,9-HpCDF     | 1.62e4 | 0.99   | NO    | 1.33  | 10.004        | 38.383   | 38.39    | 1.000    | 1.000    | 122.20       | 2.20     | 122      |
| 17   | OCDF                    | 1.07e5 | 0.84   | NO    | 0.933 | 10.004        | 41.324   | 41.33    | 1.000    | 1.000    | 1506.7       | 2.55     | 1510     |
| 18   | 13C-2,3,7,8-TCDD        | 2.90e4 | 0.88   | NO    | 1.21  | 10.004        | 26.226   | 26.13    | 1.026    | 1.022    | 29.636       | 14.8     | 0.329    |
| 19   | 13C-1,2,3,7,8-PeCDD     | 2.82e4 | 0.63   | NO    | 0.996 | 10.004        | 30.724   | 30.67    | 1.202    | 1.200    | 34.989       | 17.5     | 0.217    |
| 20   | 13C-1,2,3,4,7,8-HxCDD   | 2.52e4 | 1.31   | NO    | 0.679 | 10.004        | 33.958   | 33.97    | 1.014    | 1.014    | 43.009       | 21.5     | 0.475    |
| 21   | 13C-1,2,3,6,7,8-HxCDD   | 3.00e4 | 1.28   | NO    | 0.850 | 10.004        | 34.068   | 34.08    | 1.017    | 1.018    | 40.830       | 20.4     | 0.380    |
| 22   | 13C-1,2,3,7,8,9-HxCDD   | 3.46e4 | 1.30   | NO    | 0.798 | 10.004        | 34.340   | 34.36    | 1.025    | 1.027    | 50.189       | 25.1     | 0.404    |
| 23   | 13C-1,2,3,4,6,7,8-HpCDD | 2.56e4 | 1.01   | NO    | 0.697 | 10.004        | 37.809   | 37.85    | 1.129    | 1.130    | 42.441       | 21.2     | 0.386    |
| 24   | 13C-OCDD                | 2.01e4 | 0.93   | NO    | 0.579 | 10.004        | 40.836   | 41.10    | 1.219    | 1.227    | 40.169       | 10.0     | 0.222    |
| 25   | 13C-2,3,7,8-TCDF        | 3.84e4 | 0.72   | NO    | 1.13  | 10.004        | 25.305   | 25.33    | 0.990    | 0.991    | 26.498       | 13.3     | 0.396    |
| 26   | 13C-1,2,3,7,8-PeCDF     | 4.50e4 | 1.64   | NO    | 0.996 | 10.004        | 29.541   | 29.48    | 1.156    | 1.153    | 35.092       | 17.6     | 0.292    |
| 27   | 13C-2,3,4,7,8-PeCDF     | 4.05e4 | 1.73   | NO    | 0.969 | 10.004        | 30.443   | 30.39    | 1.191    | 1.189    | 32.480       | 16.2     | 0.300    |
| 28   | 13C-1,2,3,4,7,8-HxCDF   | 3.78e4 | 0.52   | NO    | 1.06  | 10.004        | 33.087   | 33.08    | 0.988    | 0.988    | 41.411       | 20.7     | 0.374    |
| 29   | 13C-1,2,3,6,7,8-HxCDF   | 4.04e4 | 0.50   | NO    | 1.18  | 10.004        | 33.221   | 33.20    | 0.992    | 0.991    | 39.822       | 19.9     | 0.337    |
| 30   | 13C-2,3,4,6,7,8-HxCDF   | 3.50e4 | 0.53   | NO    | 1.06  | 10.004        | 33.794   | 33.80    | 1.009    | 1.009    | 38.332       | 19.2     | 0.375    |
| 31   | 13C-1,2,3,7,8,9-HxCDF   | 3.03e4 | 0.50   | NO    | 0.879 | 10.004        | 34.695   | 34.75    | 1.036    | 1.038    | 39.928       | 20.0     | 0.450    |



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

Last Altered: Monday, June 08, 2020 14:55:33 Pacific Daylight Time

Printed: Monday, June 08, 2020 14:59:24 Pacific Daylight Time

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

|    |                         |        |      |    |       |        |        |       |       |       |        |      |        |      |
|----|-------------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|--------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 3.50e4 | 0.43 | NO | 0.893 | 10.004 | 36.403 | 36.58 | 1.087 | 1.092 | 45.437 | 22.7 | 0.369  |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 1.99e4 | 0.38 | NO | 0.613 | 10.004 | 38.412 | 38.38 | 1.147 | 1.146 | 37.567 | 18.8 | 0.538  |      |
| 34 | 13C-OCDF                | 3.03e4 | 0.84 | NO | 0.741 | 10.004 | 40.991 | 41.32 | 1.224 | 1.234 | 47.379 | 11.8 | 0.269  |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 1.11e4 |      |    | 1.18  | 10.004 | 26.223 | 26.16 | 1.026 | 1.023 | 11.586 | 14.5 | 0.0982 |      |
| 36 | 13C-1,2,3,4-TCDD        | 1.62e5 | 0.78 | NO | 1.00  | 10.004 | 25.480 | 25.56 | 1.000 | 1.000 | 199.91 | 100  | 0.396  |      |
| 37 | 13C-1,2,3,4-TCDF        | 2.57e5 | 0.77 | NO | 1.00  | 10.004 | 24.020 | 24.11 | 1.000 | 1.000 | 199.91 | 100  | 0.447  |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.73e5 | 0.51 | NO | 1.00  | 10.004 | 33.530 | 33.49 | 1.000 | 1.000 | 199.91 | 100  | 0.396  |      |
| 39 | Total Tetra-Dioxins     |        |      |    | 0.987 | 10.004 | 24.620 |       | 0.000 |       | 8.6530 |      | 0.831  | 23.8 |
| 40 | Total Penta-Dioxins     |        |      |    | 0.982 | 10.004 | 29.960 |       | 0.000 |       | 35.176 |      | 0.607  | 40.6 |
| 41 | Total Hexa-Dioxins      |        |      |    | 1.04  | 10.004 | 33.635 |       | 0.000 |       | 346.27 |      | 1.51   | 348  |
| 42 | Total Hepta-Dioxins     |        |      |    | 0.992 | 10.004 | 37.640 |       | 0.000 |       | 4666.4 |      | 4.09   | 4670 |
| 43 | Total Tetra-Furans      |        |      |    | 0.882 | 10.004 | 23.610 |       | 0.000 |       | 617.67 |      | 1.09   | 655  |
| 44 | 1st Func. Penta-Furans  |        |      |    | 1.05  | 10.004 | 27.090 |       | 0.000 |       | 31.809 |      | 0.254  | 31.8 |
| 45 | Total Penta-Furans      |        |      |    | 1.05  | 10.004 | 29.275 |       | 0.000 |       | 692.06 |      | 0.937  | 692  |
| 46 | Total Hexa-Furans       |        |      |    | 1.11  | 10.004 | 33.555 |       | 0.000 |       | 1328.3 |      | 1.99   | 1330 |
| 47 | Total Hepta-Furans      |        |      |    | 1.13  | 10.004 | 37.835 |       | 0.000 |       | 1434.1 |      | 2.02   | 1440 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

Last Altered: Monday, June 08, 2020 14:55:33 Pacific Daylight Time

Printed: Monday, June 08, 2020 14:59:24 Pacific Daylight Time

Method: Untitled 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

**Tetra-Dioxins**

|                     | RT    | m1:Height | m2:Height | m1:Peak | m2:Peak |      |     |         |         |         |       |  |
|---------------------|-------|-----------|-----------|---------|---------|------|-----|---------|---------|---------|-------|--|
| Total Tetra-Dioxins | 22.73 | 4.823e3   | 7.673e3   | 4.123e2 | 6.781e2 | 0.61 | YES | 0.000e0 | 0.00000 | 6.6303  | 0.831 |  |
| Total Tetra-Dioxins | 23.08 | 3.137e3   | 3.647e3   | 2.820e2 | 2.532e2 | 1.11 | YES | 0.000e0 | 0.00000 | 3.1357  | 0.831 |  |
| Total Tetra-Dioxins | 23.50 | 1.084e3   | 8.780e2   | 8.066e1 | 5.977e1 | 1.35 | YES | 0.000e0 | 0.00000 | 0.74014 | 0.831 |  |
| Total Tetra-Dioxins | 24.26 | 1.095e3   | 1.036e3   | 7.173e1 | 6.711e1 | 1.07 | YES | 0.000e0 | 0.00000 | 0.83099 | 0.831 |  |
| Total Tetra-Dioxins | 24.46 | 2.302e3   | 2.491e3   | 1.659e2 | 1.918e2 | 0.86 | NO  | 3.577e2 | 2.5023  | 2.5023  | 0.831 |  |
| Total Tetra-Dioxins | 24.64 | 2.581e3   | 2.151e3   | 1.602e2 | 1.506e2 | 1.06 | YES | 0.000e0 | 0.00000 | 1.8653  | 0.831 |  |
| Total Tetra-Dioxins | 25.23 | 2.053e3   | 1.533e3   | 7.288e1 | 7.597e1 | 0.96 | YES | 0.000e0 | 0.00000 | 0.94071 | 0.831 |  |
| Total Tetra-Dioxins | 25.91 | 3.617e3   | 4.760e3   | 2.533e2 | 3.049e2 | 0.83 | NO  | 5.582e2 | 3.9052  | 3.9052  | 0.831 |  |
| 2,3,7,8-TCDD        | 26.16 | 2.916e3   | 3.695e3   | 1.308e2 | 1.902e2 | 0.89 | NO  | 3.210e2 | 2.2456  | 2.2456  | 0.831 |  |
| Total Tetra-Dioxins | 26.45 | 2.116e3   | 1.466e3   | 1.084e2 | 7.809e1 | 1.39 | YES | 0.000e0 | 0.00000 | 0.96688 | 0.831 |  |

**Penta-Dioxins**

|                     |       |         |         |         |         |      |     |         |         |         |       |  |
|---------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|---------|-------|--|
| Total Penta-Dioxins | 28.64 | 9.079e3 | 1.455e4 | 6.427e2 | 9.704e2 | 0.66 | NO  | 1.613e3 | 11.634  | 11.634  | 0.607 |  |
| Total Penta-Dioxins | 29.08 | 3.790e3 | 5.039e3 | 1.743e2 | 2.735e2 | 0.64 | NO  | 4.478e2 | 3.2294  | 3.2294  | 0.607 |  |
| Total Penta-Dioxins | 29.52 | 5.713e3 | 9.552e3 | 3.020e2 | 4.177e2 | 0.72 | NO  | 7.198e2 | 5.1910  | 5.1910  | 0.607 |  |
| Total Penta-Dioxins | 29.68 | 4.360e3 | 5.750e3 | 2.116e2 | 2.625e2 | 0.81 | YES | 0.000e0 | 0.00000 | 3.0861  | 0.607 |  |
| Total Penta-Dioxins | 29.78 | 3.361e3 | 5.361e3 | 1.684e2 | 2.450e2 | 0.69 | NO  | 4.134e2 | 2.9815  | 2.9815  | 0.607 |  |
| Total Penta-Dioxins | 29.98 | 3.373e3 | 5.777e3 | 2.862e2 | 4.493e2 | 0.64 | NO  | 7.355e2 | 5.3045  | 5.3045  | 0.607 |  |
| Total Penta-Dioxins | 30.29 | 9.780e2 | 3.148e3 | 4.370e1 | 1.738e2 | 0.25 | YES | 0.000e0 | 0.00000 | 0.81549 | 0.607 |  |
| 1,2,3,7,8-PeCDD     | 30.69 | 6.037e3 | 7.993e3 | 2.672e2 | 4.179e2 | 0.64 | NO  | 6.852e2 | 4.9415  | 4.9415  | 0.607 |  |
| Total Penta-Dioxins | 30.75 | 1.310e3 | 2.601e3 | 1.039e2 | 1.588e2 | 0.65 | NO  | 2.626e2 | 1.8942  | 1.8942  | 0.607 |  |
| Total Penta-Dioxins | 31.05 | 1.845e3 | 3.015e3 | 1.006e2 | 1.271e2 | 0.79 | YES | 0.000e0 | 0.00000 | 1.4936  | 0.607 |  |

Vista Analytical Laboratory

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

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Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

**Hexa-Dioxins**

|                    |       |         |         |         |         |      |    |         |        |        |      |
|--------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|------|
| Total Hexa-Dioxins | 32.46 | 2.368e5 | 1.776e5 | 1.120e4 | 8.735e3 | 1.28 | NO | 1.994e4 | 128.47 | 128.47 | 1.51 |
| Total Hexa-Dioxins | 33.03 | 2.697e4 | 2.486e4 | 1.610e3 | 1.329e3 | 1.21 | NO | 2.939e3 | 18.936 | 18.936 | 1.51 |
| Total Hexa-Dioxins | 33.28 | 1.685e5 | 1.332e5 | 1.096e4 | 9.049e3 | 1.21 | NO | 2.001e4 | 128.94 | 128.94 | 1.51 |
| Total Hexa-Dioxins | 33.41 | 1.334e4 | 1.129e4 | 7.874e2 | 5.871e2 | 1.34 | NO | 1.375e3 | 8.8578 | 8.8578 | 1.51 |
| 1,2,3,4,7,8-HxCDD  | 33.98 | 6.615e3 | 5.799e3 | 3.240e2 | 3.071e2 | 1.05 | NO | 6.310e2 | 4.2595 | 4.2595 | 1.51 |
| 1,2,3,6,7,8-HxCDD  | 34.09 | 5.799e4 | 5.075e4 | 3.266e3 | 2.736e3 | 1.19 | NO | 6.002e3 | 38.630 | 38.630 | 1.43 |
| Total Hexa-Dioxins | 34.30 | 8.515e3 | 6.423e3 | 4.899e2 | 3.778e2 | 1.30 | NO | 8.677e2 | 5.5914 | 5.5914 | 1.51 |
| 1,2,3,7,8,9-HxCDD  | 34.40 | 1.878e4 | 1.616e4 | 1.279e3 | 9.071e2 | 1.41 | NO | 2.186e3 | 12.586 | 12.586 | 1.48 |

**Hepta-Dioxins**

|                     |       |         |         |         |         |      |    |         |        |        |      |
|---------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|------|
| Total Hepta-Dioxins | 37.00 | 2.791e6 | 2.672e6 | 1.804e5 | 1.743e5 | 1.03 | NO | 3.546e5 | 2797.8 | 2797.8 | 4.09 |
| 1,2,3,4,6,7,8-HpCDD | 37.86 | 2.208e6 | 2.136e6 | 1.212e5 | 1.157e5 | 1.05 | NO | 2.369e5 | 1868.7 | 1868.7 | 4.09 |

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

Last Altered: Monday, June 08, 2020 14:55:33 Pacific Daylight Time  
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Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

Tetra-Furans

|                    |       |         |         |         |         |      |     |         |         |        |      |
|--------------------|-------|---------|---------|---------|---------|------|-----|---------|---------|--------|------|
| Total Tetra-Furans | 20.61 | 1.396e3 | 1.843e3 | 9.613e1 | 1.298e2 | 0.74 | NO  | 2.259e2 | 1.3321  | 1.3321 | 1.09 |
| Total Tetra-Furans | 21.11 | 1.918e3 | 3.861e3 | 1.101e2 | 2.874e2 | 0.41 | YES | 0.000e0 | 0.00000 | 1.4924 | 1.09 |
| Total Tetra-Furans | 21.78 | 1.568e4 | 1.740e4 | 1.418e3 | 1.773e3 | 0.80 | NO  | 3.191e3 | 18.817  | 18.817 | 1.09 |
| Total Tetra-Furans | 22.35 | 4.894e3 | 6.069e3 | 7.483e2 | 7.548e2 | 0.99 | YES | 0.000e0 | 0.00000 | 7.8785 | 1.09 |
| Total Tetra-Furans | 22.70 | 3.906e4 | 5.218e4 | 3.151e3 | 4.452e3 | 0.71 | NO  | 7.603e3 | 44.832  | 44.832 | 1.09 |
| Total Tetra-Furans | 23.11 | 1.380e4 | 1.296e4 | 1.007e3 | 1.109e3 | 0.91 | YES | 0.000e0 | 0.00000 | 11.573 | 1.09 |
| Total Tetra-Furans | 23.25 | 2.013e3 | 4.598e3 | 1.695e2 | 2.845e2 | 0.60 | YES | 0.000e0 | 0.00000 | 2.2969 | 1.09 |
| Total Tetra-Furans | 23.41 | 9.689e3 | 9.996e3 | 7.350e2 | 8.091e2 | 0.91 | YES | 0.000e0 | 0.00000 | 8.4451 | 1.09 |
| Total Tetra-Furans | 23.82 | 1.908e3 | 2.959e3 | 1.624e2 | 2.165e2 | 0.75 | NO  | 3.789e2 | 2.2342  | 2.2342 | 1.09 |
| Total Tetra-Furans | 23.88 | 2.500e3 | 3.410e3 | 1.188e2 | 2.043e2 | 0.58 | YES | 0.000e0 | 0.00000 | 1.6108 | 1.09 |
| Total Tetra-Furans | 24.02 | 9.484e3 | 1.289e4 | 5.823e2 | 6.640e2 | 0.88 | NO  | 1.246e3 | 7.3493  | 7.3493 | 1.09 |
| Total Tetra-Furans | 24.11 | 3.326e4 | 4.279e4 | 2.697e3 | 3.556e3 | 0.76 | NO  | 6.252e3 | 36.869  | 36.869 | 1.09 |
| Total Tetra-Furans | 24.55 | 2.074e5 | 2.786e5 | 1.443e4 | 1.928e4 | 0.75 | NO  | 3.371e4 | 198.78  | 198.78 | 1.09 |
| Total Tetra-Furans | 24.83 | 7.771e3 | 9.936e3 | 5.439e2 | 6.653e2 | 0.82 | NO  | 1.209e3 | 7.1305  | 7.1305 | 1.09 |
| Total Tetra-Furans | 25.00 | 3.012e3 | 3.952e3 | 1.927e2 | 2.605e2 | 0.74 | NO  | 4.531e2 | 2.6719  | 2.6719 | 1.09 |
| Total Tetra-Furans | 25.27 | 3.606e4 | 4.087e4 | 1.769e3 | 2.374e3 | 0.75 | NO  | 4.142e3 | 24.425  | 24.425 | 1.09 |
| 2,3,7,8-TCDF       | 25.36 | 2.602e5 | 3.432e5 | 1.777e4 | 2.295e4 | 0.77 | NO  | 4.073e4 | 240.16  | 240.16 | 1.09 |
| Total Tetra-Furans | 25.68 | 1.118e4 | 1.532e4 | 7.542e2 | 1.082e3 | 0.70 | NO  | 1.836e3 | 10.827  | 10.827 | 1.09 |
| Total Tetra-Furans | 25.93 | 2.153e3 | 3.056e3 | 1.618e2 | 2.101e2 | 0.77 | NO  | 3.718e2 | 2.1927  | 2.1927 | 1.09 |
| Total Tetra-Furans | 26.65 | 6.959e3 | 3.582e3 | 3.566e2 | 1.586e2 | 2.25 | YES | 0.000e0 | 0.00000 | 1.6554 | 1.09 |
| Total Tetra-Furans | 26.88 | 5.022e3 | 3.623e3 | 2.627e2 | 2.189e2 | 1.20 | YES | 0.000e0 | 0.00000 | 2.2846 | 1.09 |
| Total Tetra-Furans | 27.15 | 2.666e4 | 3.050e4 | 1.490e3 | 1.911e3 | 0.78 | NO  | 3.400e3 | 20.051  | 20.051 | 1.09 |

Penta-Furans function 1

|                        |       |         |         |         |         |      |    |         |        |        |       |
|------------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|
| 1st Func. Penta-Furans | 27.15 | 8.467e4 | 4.626e4 | 4.366e3 | 2.746e3 | 1.59 | NO | 7.112e3 | 31.809 | 31.809 | 0.254 |
|------------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

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Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

**Penta-Furans**

|                    | RT    | m1 Height | m2 Height | m1 Area | m2 Area | Ratio | IS | Ratio   | Area   | Area   | Area  |
|--------------------|-------|-----------|-----------|---------|---------|-------|----|---------|--------|--------|-------|
| Total Penta-Furans | 28.48 | 1.065e4   | 7.655e3   | 6.431e2 | 4.311e2 | 1.49  | NO | 1.074e3 | 4.8044 | 4.8044 | 0.937 |
| Total Penta-Furans | 28.60 | 3.110e5   | 1.849e5   | 1.731e4 | 1.069e4 | 1.62  | NO | 2.800e4 | 125.24 | 125.24 | 0.937 |
| Total Penta-Furans | 29.12 | 3.196e4   | 1.643e4   | 1.942e3 | 1.257e3 | 1.55  | NO | 3.199e3 | 14.308 | 14.308 | 0.937 |
| Total Penta-Furans | 29.34 | 6.275e4   | 4.355e4   | 3.457e3 | 2.176e3 | 1.59  | NO | 5.634e3 | 25.197 | 25.197 | 0.937 |
| 1,2,3,7,8-PeCDF    | 29.50 | 8.679e5   | 5.354e5   | 4.385e4 | 2.725e4 | 1.61  | NO | 7.109e4 | 302.15 | 302.15 | 0.926 |
| Total Penta-Furans | 29.74 | 1.935e5   | 1.243e5   | 1.064e4 | 6.791e3 | 1.57  | NO | 1.743e4 | 77.957 | 77.957 | 0.937 |
| 2,3,4,7,8-PeCDF    | 30.41 | 2.806e5   | 1.859e5   | 1.385e4 | 8.834e3 | 1.57  | NO | 2.268e4 | 105.56 | 105.56 | 0.935 |
| Total Penta-Furans | 30.43 | 1.640e5   | 9.925e4   | 4.258e3 | 2.551e3 | 1.67  | NO | 6.808e3 | 30.451 | 30.451 | 0.937 |
| Total Penta-Furans | 31.27 | 1.654e4   | 1.247e4   | 8.473e2 | 5.830e2 | 1.45  | NO | 1.430e3 | 6.3974 | 6.3974 | 0.937 |

**Hexa-Furans**

|                   | RT    | m1 Height | m2 Height | m1 Area | m2 Area | Ratio | IS | Ratio   | Area   | Area   | Area |
|-------------------|-------|-----------|-----------|---------|---------|-------|----|---------|--------|--------|------|
| Total Hexa-Furans | 31.93 | 8.330e4   | 6.573e4   | 3.844e3 | 3.181e3 | 1.21  | NO | 7.024e3 | 35.202 | 35.202 | 1.99 |
| Total Hexa-Furans | 32.10 | 3.014e5   | 2.519e5   | 1.454e4 | 1.177e4 | 1.24  | NO | 2.631e4 | 131.84 | 131.84 | 1.99 |
| Total Hexa-Furans | 32.62 | 3.952e5   | 3.216e5   | 1.901e4 | 1.500e4 | 1.27  | NO | 3.401e4 | 170.45 | 170.45 | 1.99 |
| Total Hexa-Furans | 33.00 | 1.305e4   | 1.120e4   | 5.015e2 | 4.227e2 | 1.19  | NO | 9.241e2 | 4.6312 | 4.6312 | 1.99 |
| 1,2,3,4,7,8-HxCDF | 33.10 | 1.508e6   | 1.213e6   | 7.885e4 | 6.431e4 | 1.23  | NO | 1.432e5 | 698.21 | 698.21 | 1.73 |
| 1,2,3,6,7,8-HxCDF | 33.23 | 4.244e5   | 3.290e5   | 2.323e4 | 1.825e4 | 1.27  | NO | 4.147e4 | 196.67 | 196.67 | 1.80 |
| 2,3,4,6,7,8-HxCDF | 33.82 | 6.662e4   | 5.645e4   | 3.804e3 | 3.267e3 | 1.16  | NO | 7.071e3 | 36.352 | 36.352 | 2.01 |
| 1,2,3,7,8,9-HxCDF | 34.78 | 6.080e4   | 4.679e4   | 1.765e3 | 1.440e3 | 1.23  | NO | 3.206e3 | 19.991 | 19.991 | 2.89 |
| Total Hexa-Furans | 34.81 | 8.091e4   | 6.704e4   | 3.853e3 | 3.131e3 | 1.23  | NO | 6.983e3 | 34.997 | 34.997 | 1.99 |

**Hepta-Furans**

|                     | RT    | m1 Height | m2 Height | m1 Area | m2 Area | Ratio | IS  | Ratio   | Area    | Area   | Area |
|---------------------|-------|-----------|-----------|---------|---------|-------|-----|---------|---------|--------|------|
| 1,2,3,4,6,7,8-HpCDF | 36.60 | 6.825e5   | 6.739e5   | 4.925e4 | 4.774e4 | 1.03  | NO  | 9.699e4 | 490.47  | 490.47 | 1.69 |
| Total Hepta-Furans  | 36.99 | 7.538e3   | 9.568e3   | 2.469e2 | 5.622e2 | 0.44  | YES | 0.000e0 | 0.00000 | 3.1237 | 2.02 |
| Total Hepta-Furans  | 37.20 | 1.073e6   | 1.003e6   | 6.485e4 | 6.252e4 | 1.04  | NO  | 1.274e5 | 821.40  | 821.40 | 2.02 |
| 1,2,3,4,7,8,9-HpCDF | 38.39 | 1.346e5   | 1.338e5   | 8.061e3 | 8.166e3 | 0.99  | NO  | 1.623e4 | 122.20  | 122.20 | 2.20 |

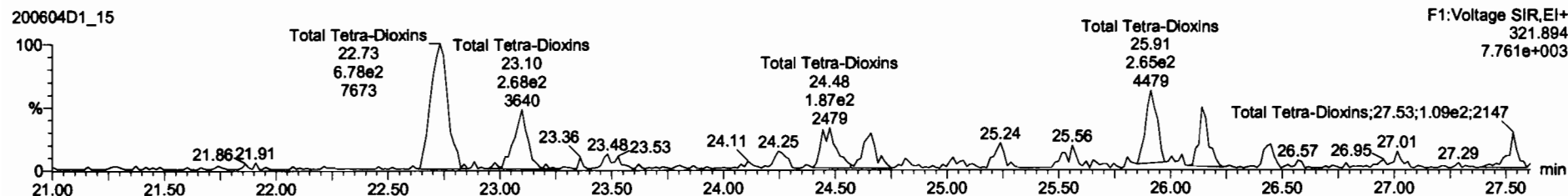
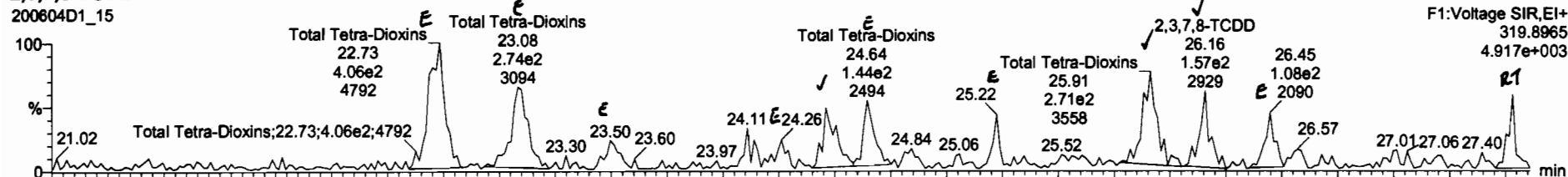
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Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

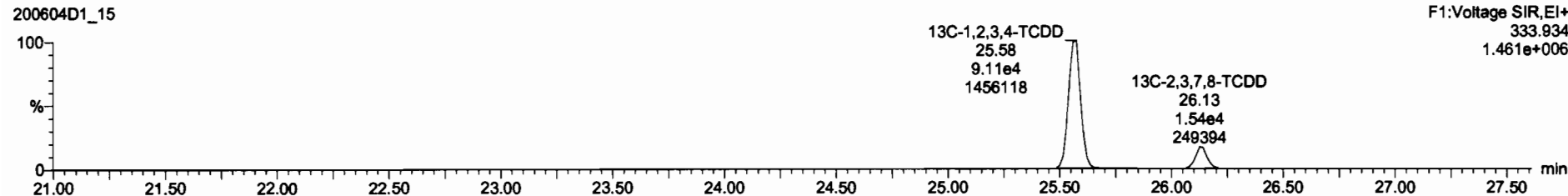
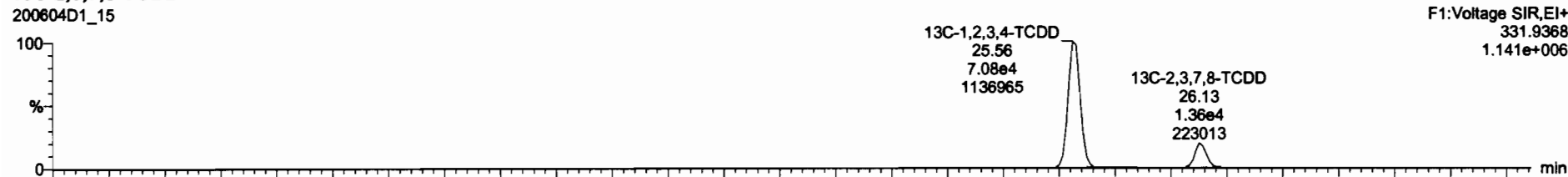
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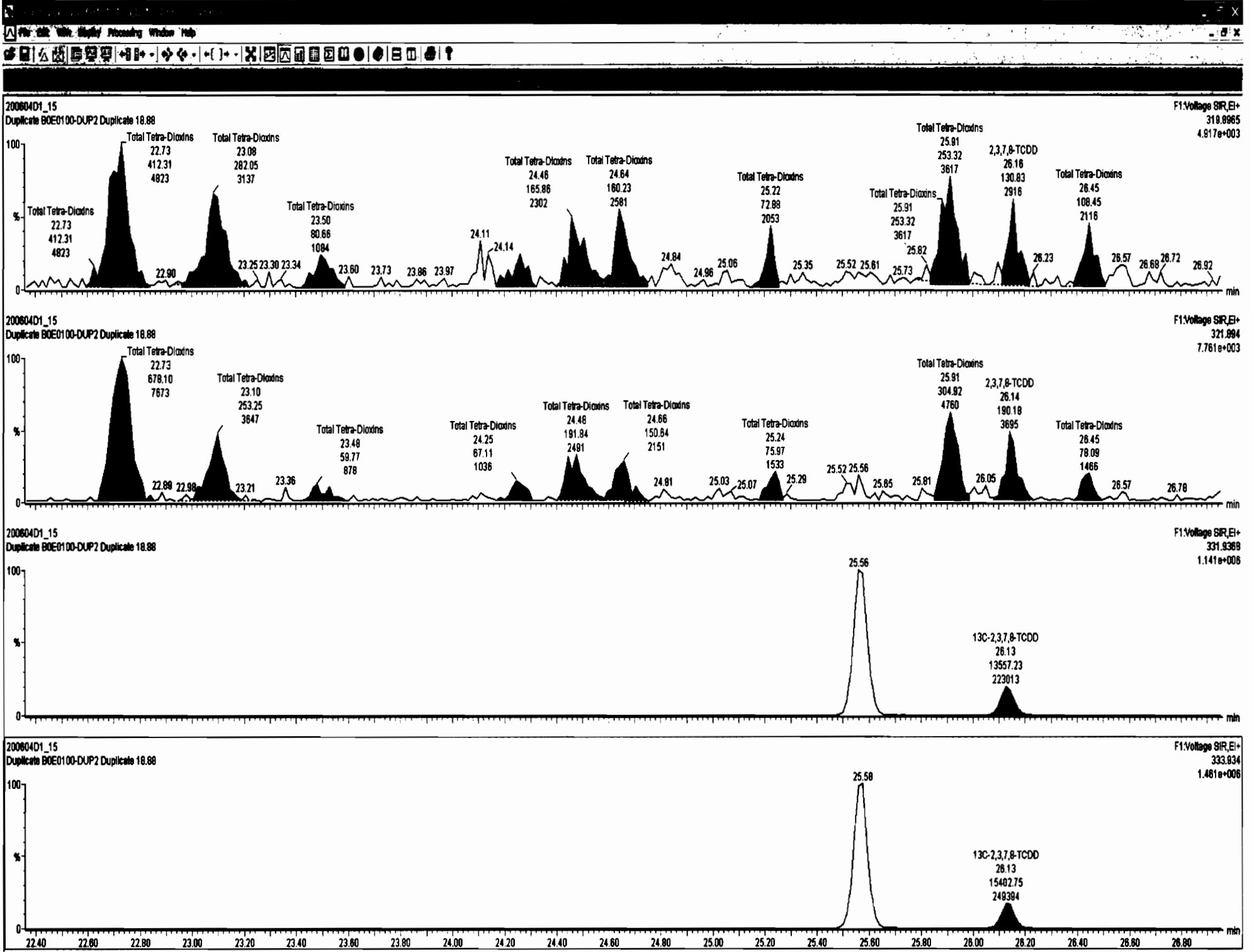
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2,3,7,8-TCDD



13C-2,3,7,8-TCDD



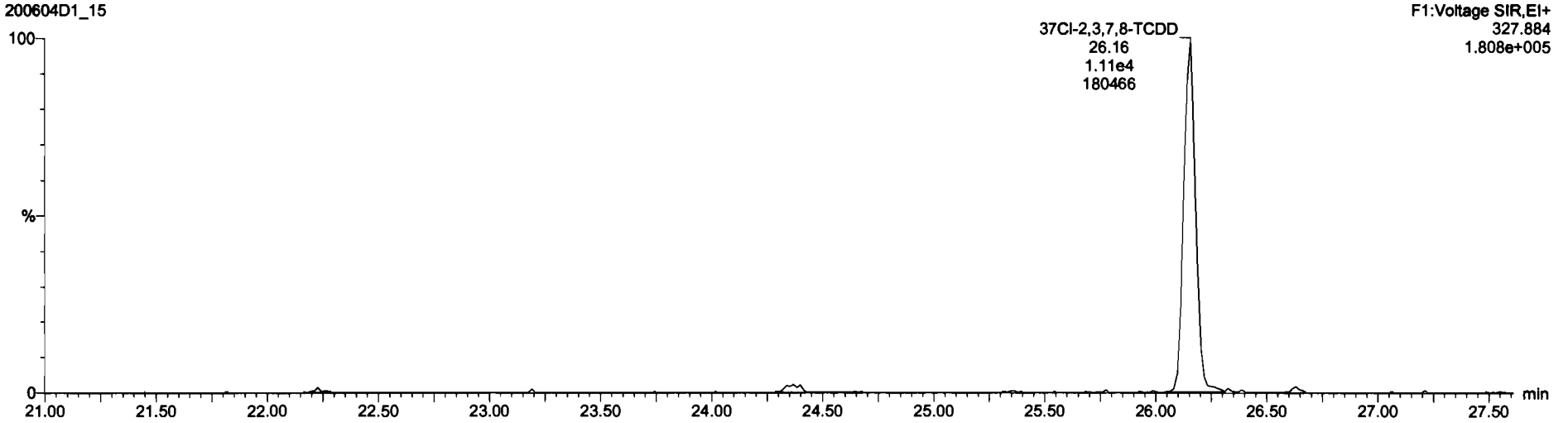


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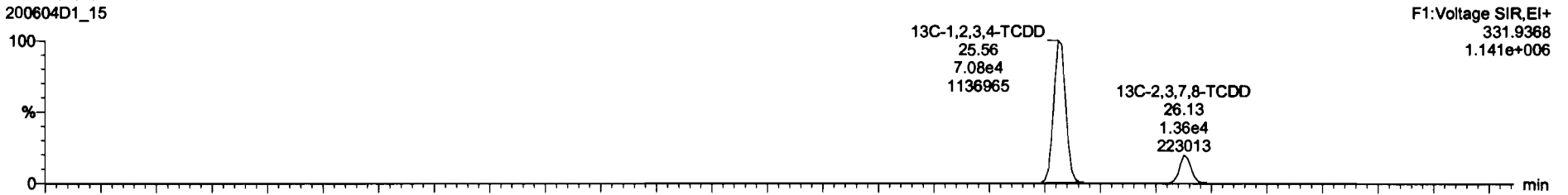
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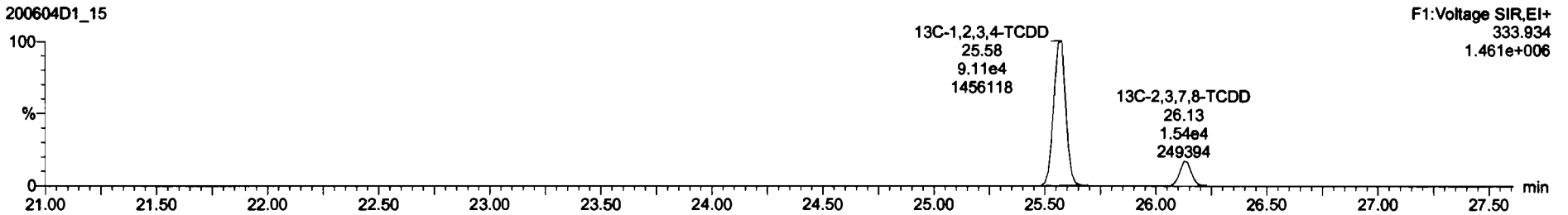
**37Cl-2,3,7,8-TCDD**  
200604D1\_15



**13C-1,2,3,4-TCDD**  
200604D1\_15



200604D1\_15





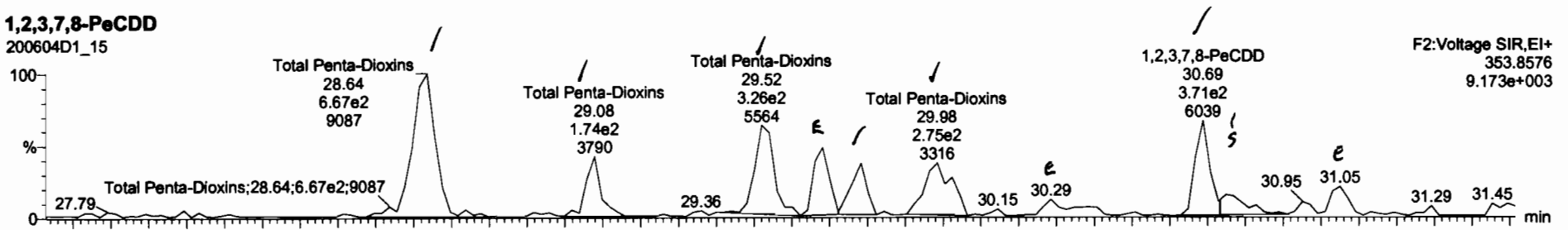
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Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

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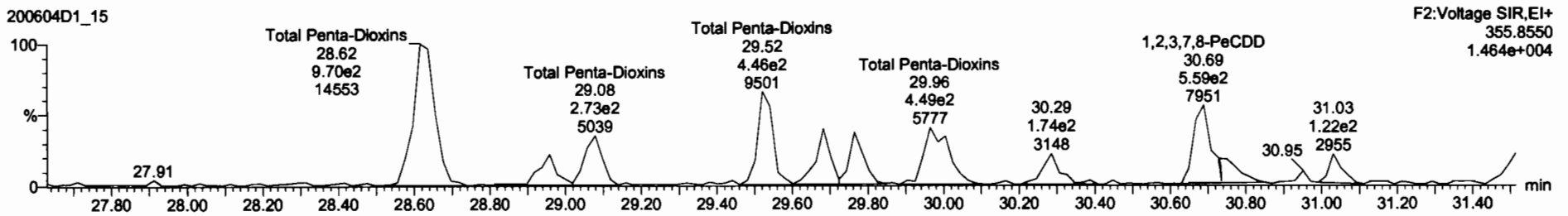
1,2,3,7,8-PeCDD

200604D1\_15



F2:Voltage SIR,EI+  
353.8576  
9.173e+003

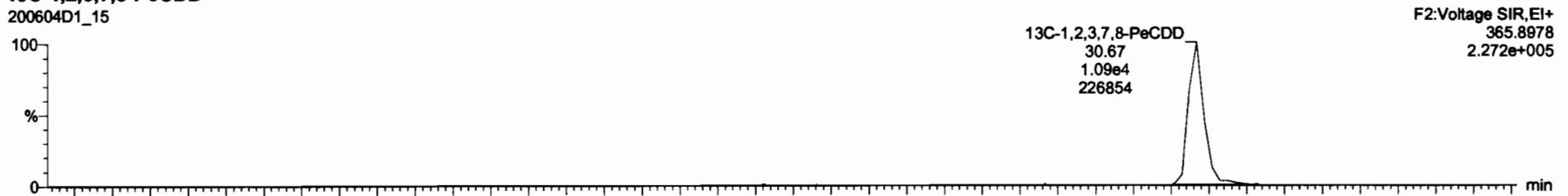
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F2:Voltage SIR,EI+  
355.8550  
1.464e+004

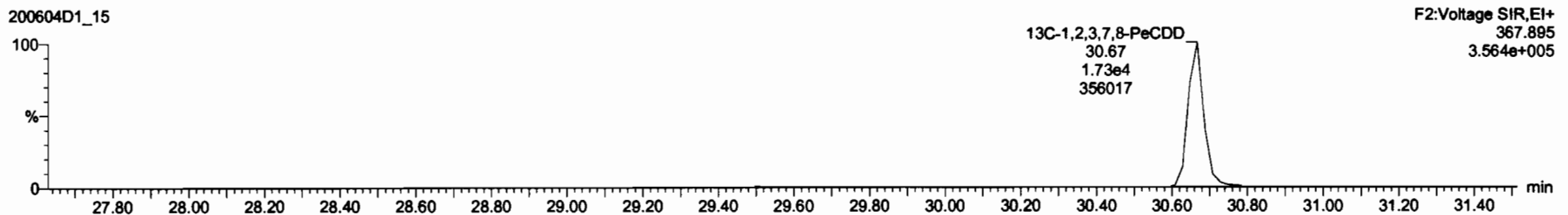
13C-1,2,3,7,8-PeCDD

200604D1\_15

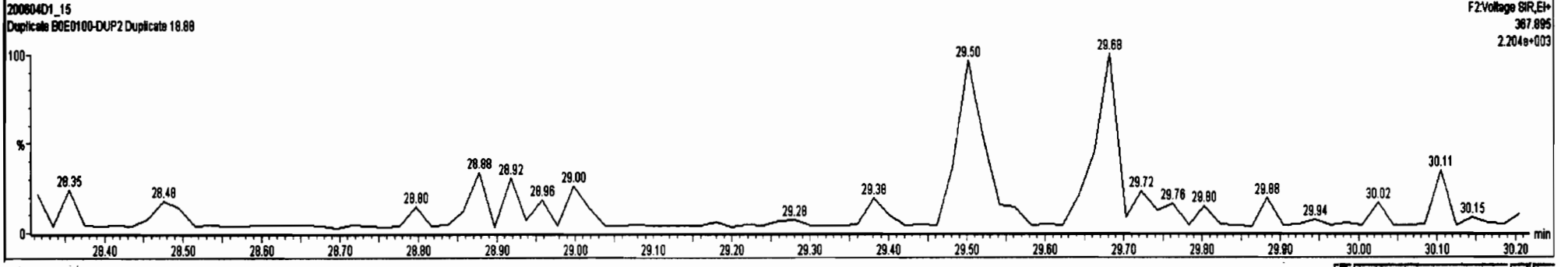
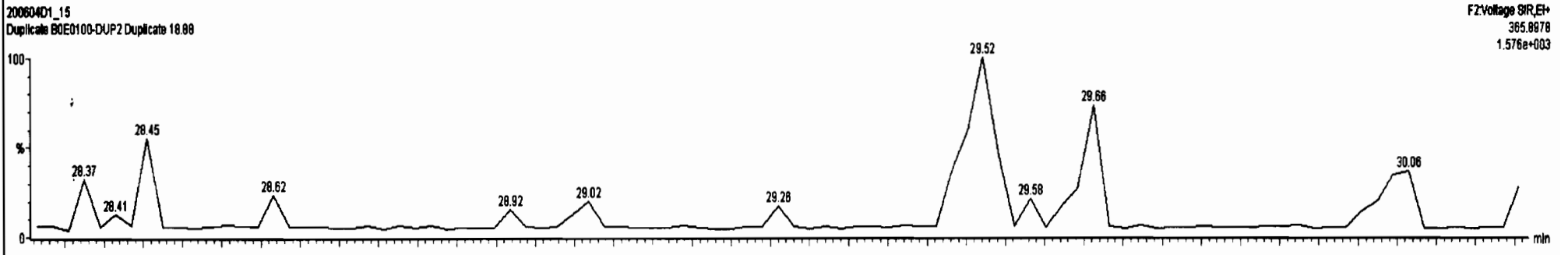
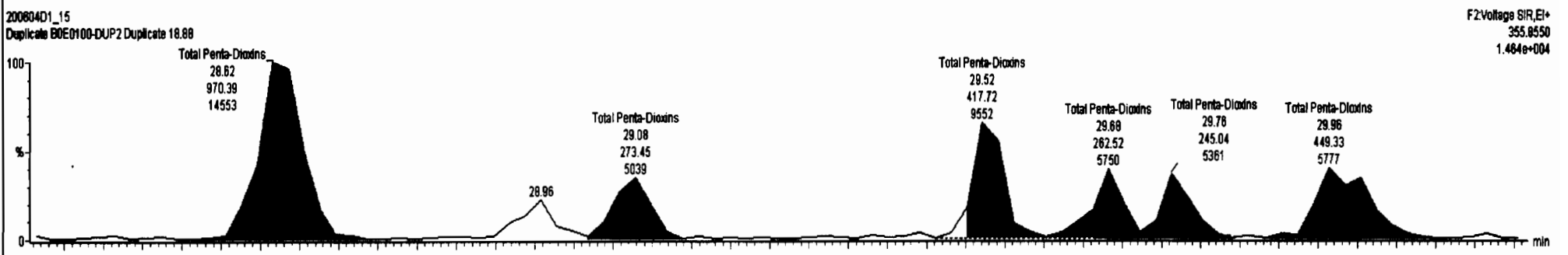
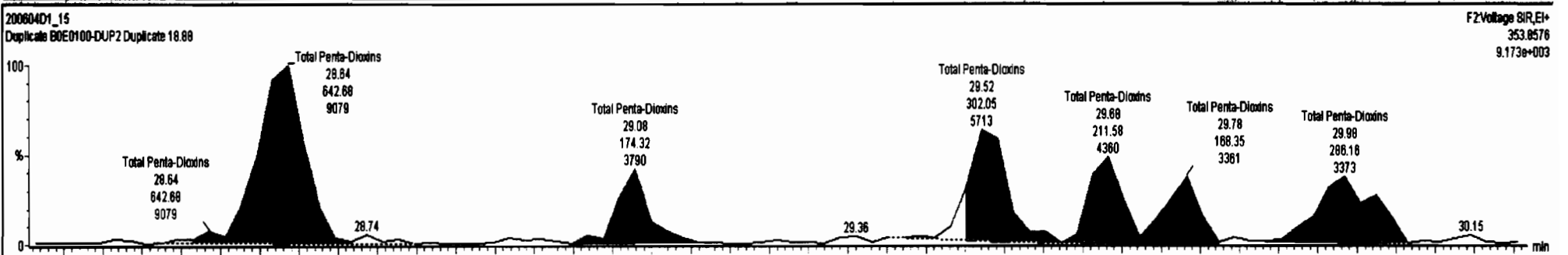


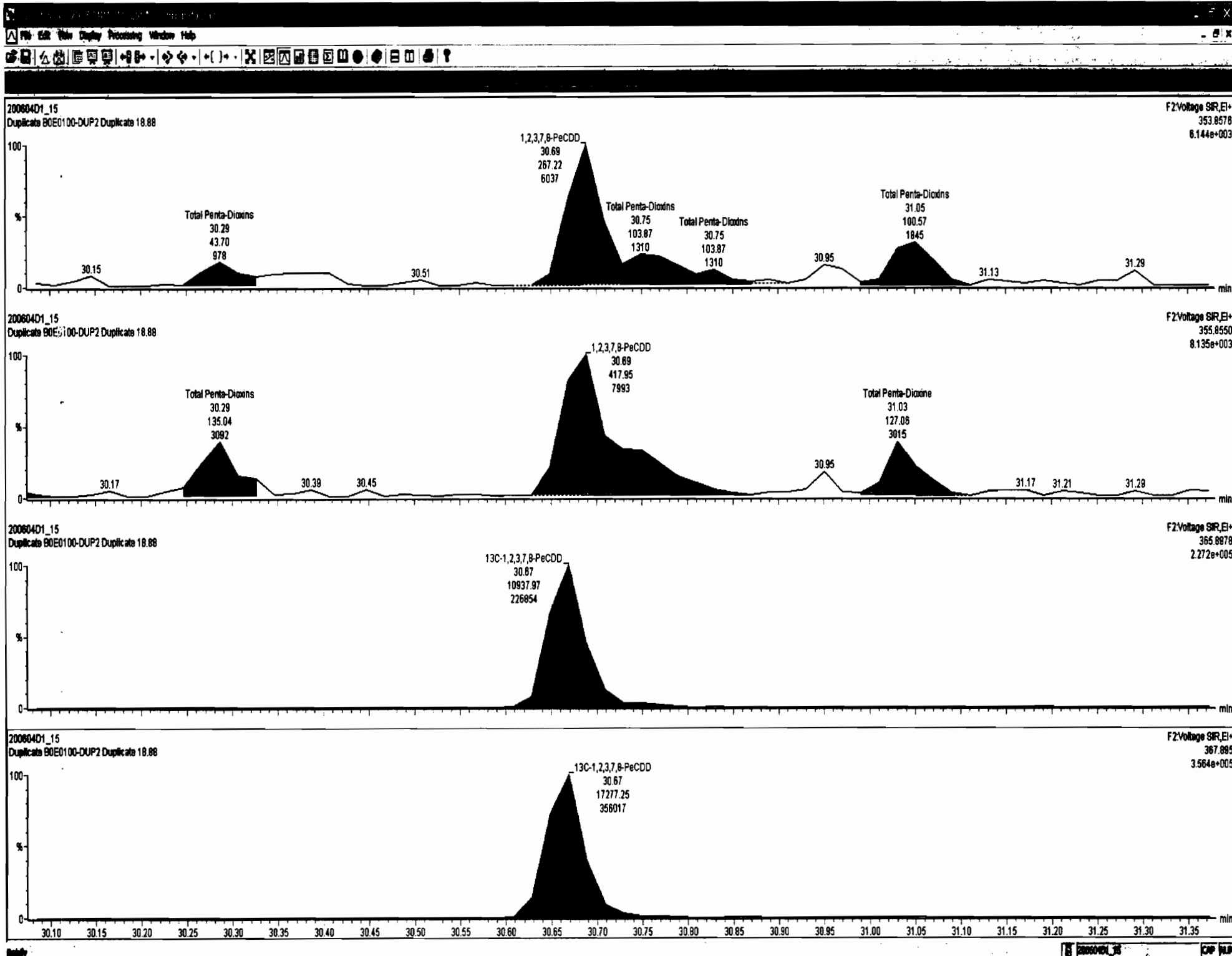
F2:Voltage SIR,EI+  
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2.272e+005

200604D1\_15



F2:Voltage SIR,EI+  
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3.564e+005



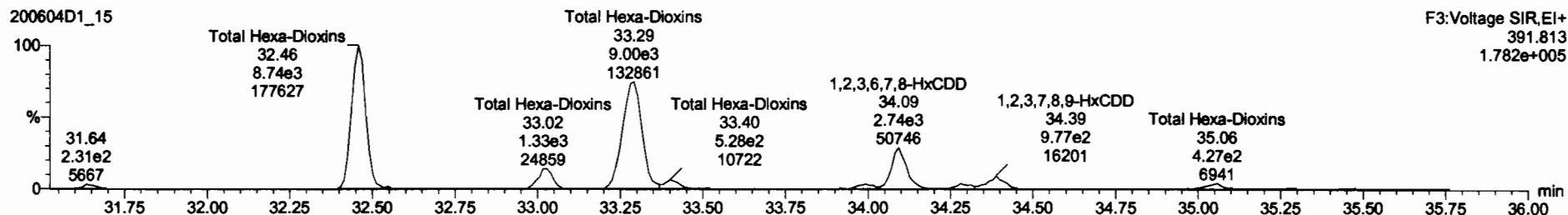
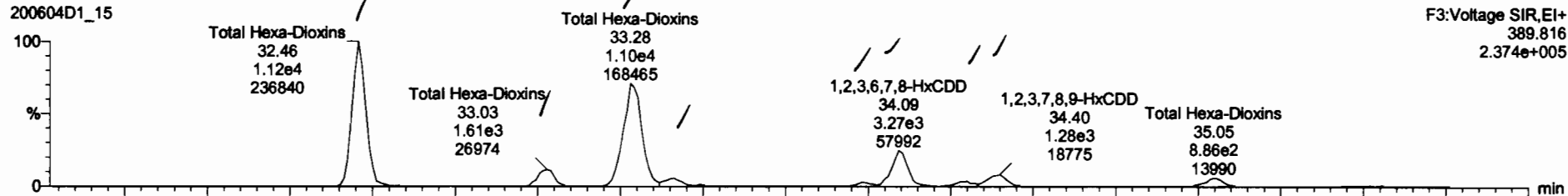


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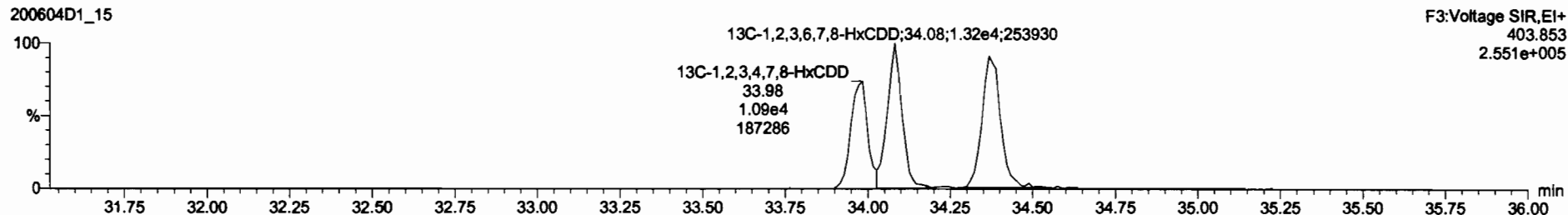
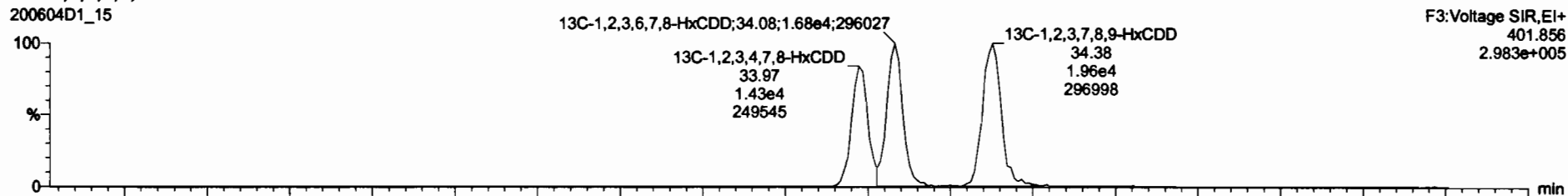
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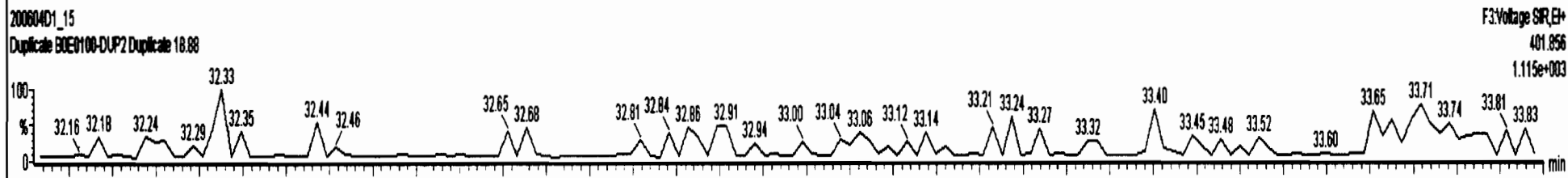
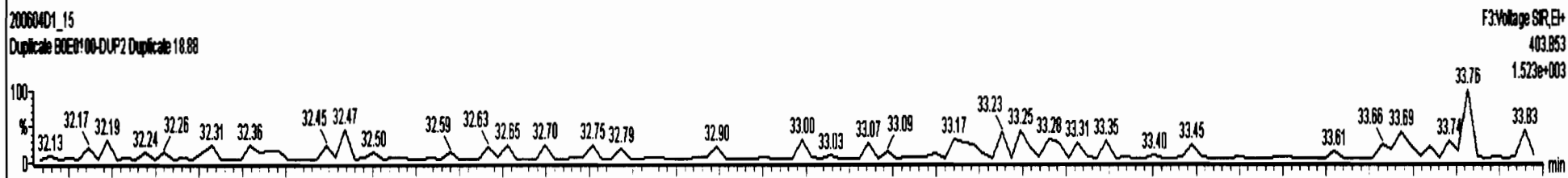
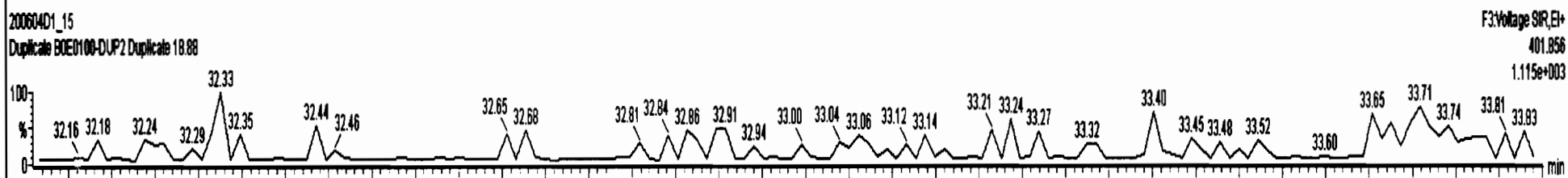
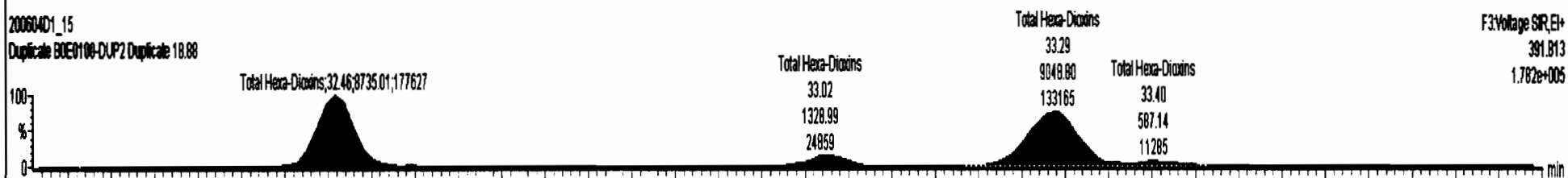
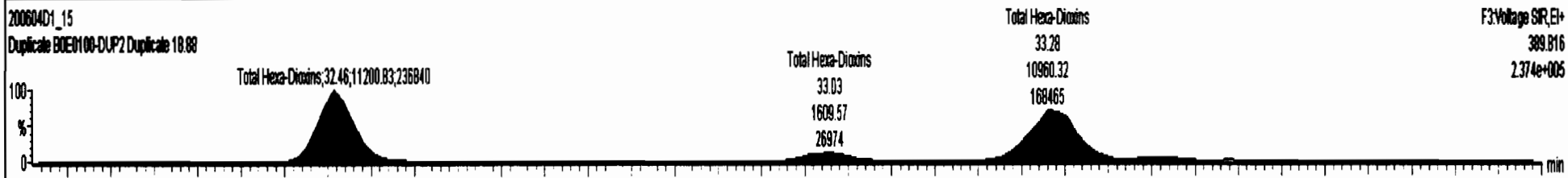
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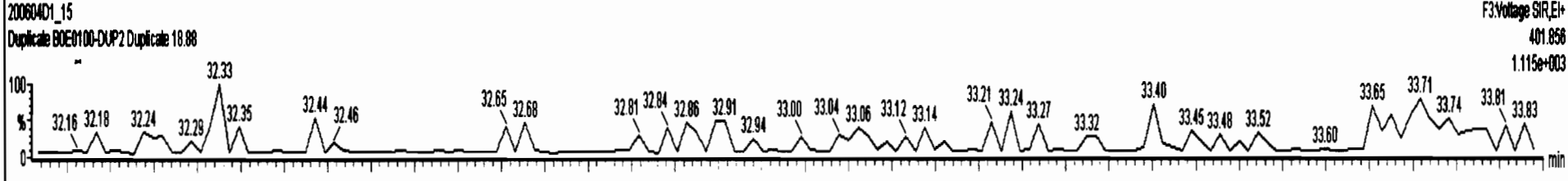
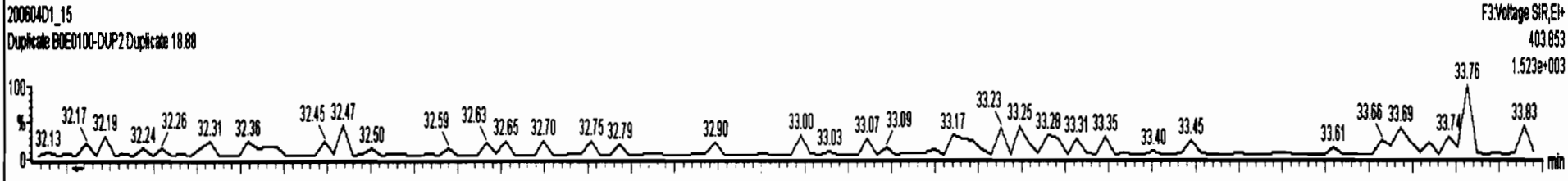
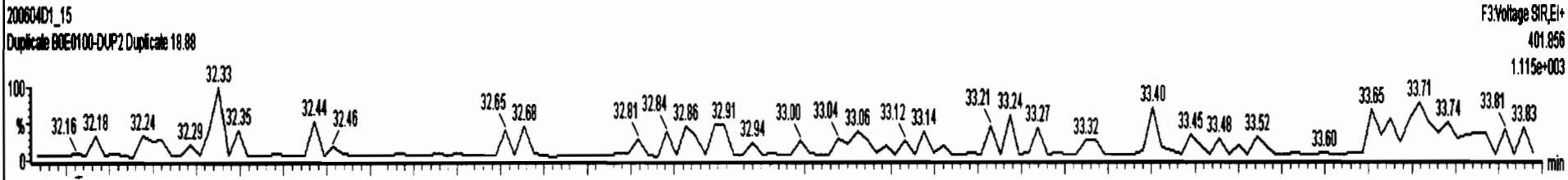
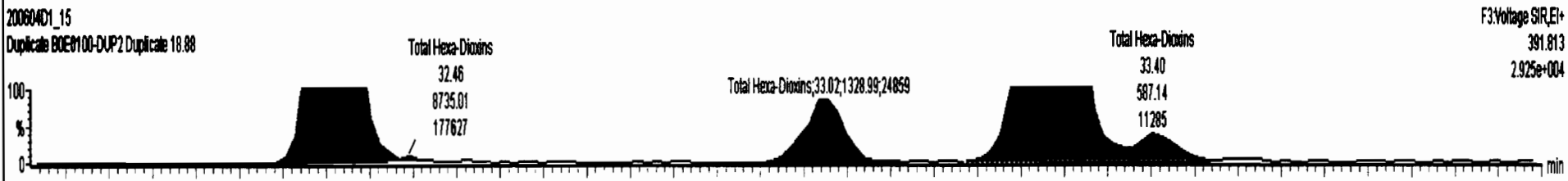
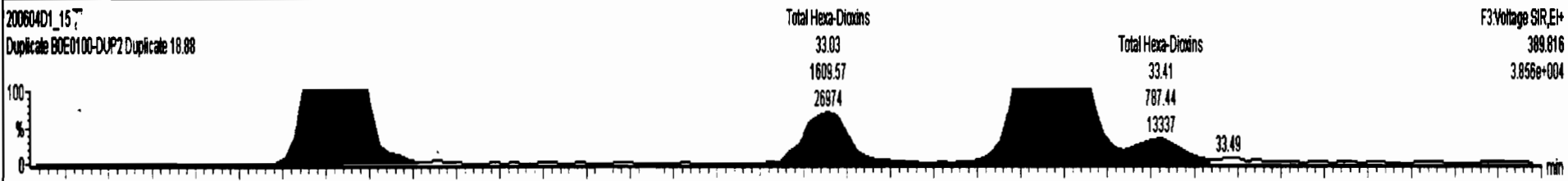
**1,2,3,4,7,8-HxCDD**

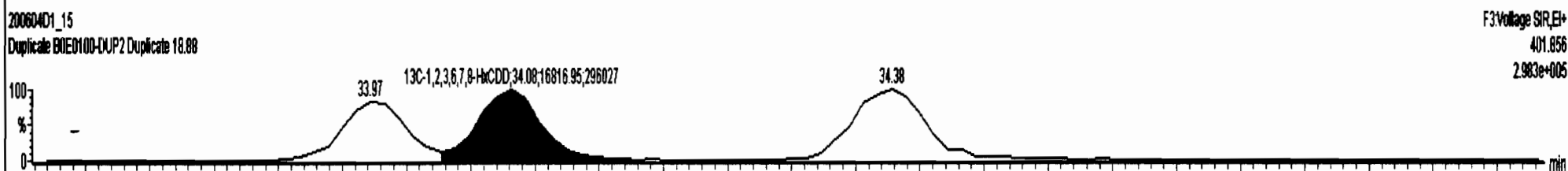
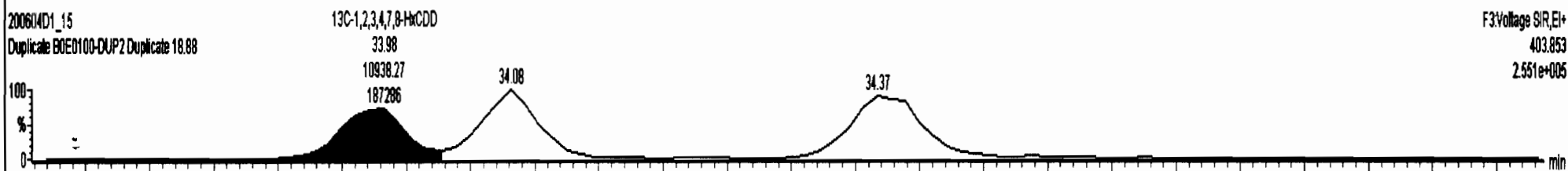
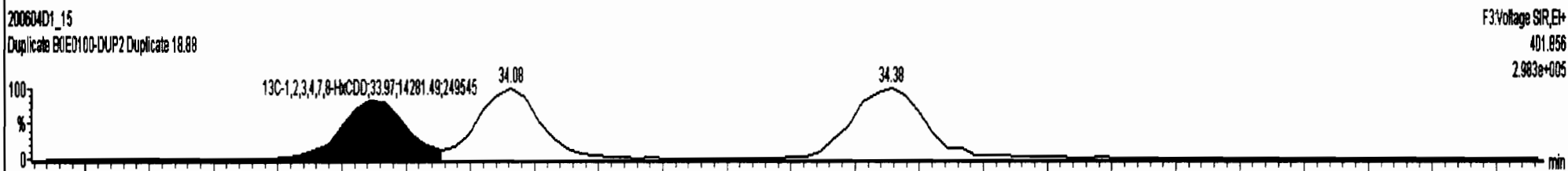
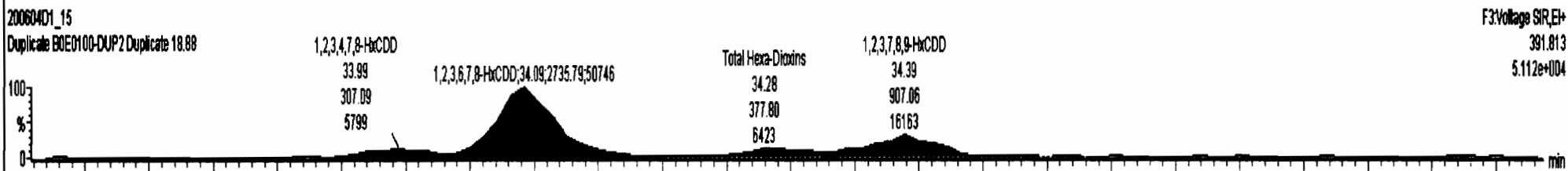
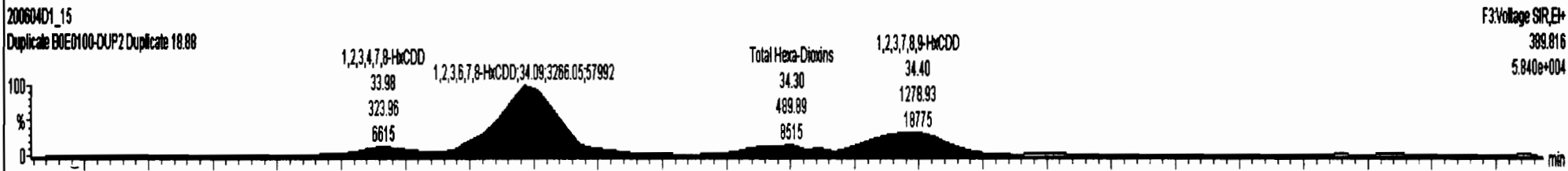


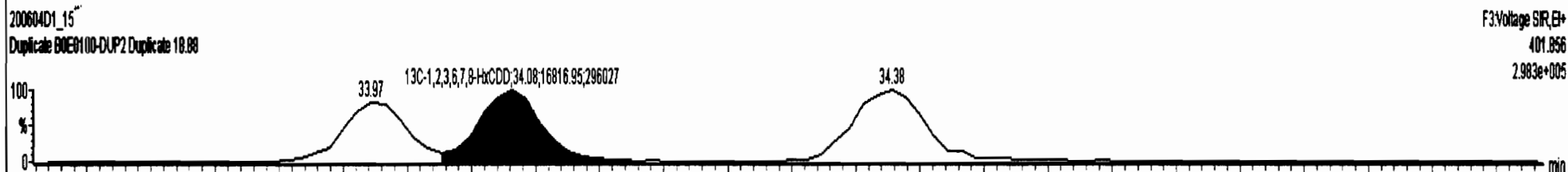
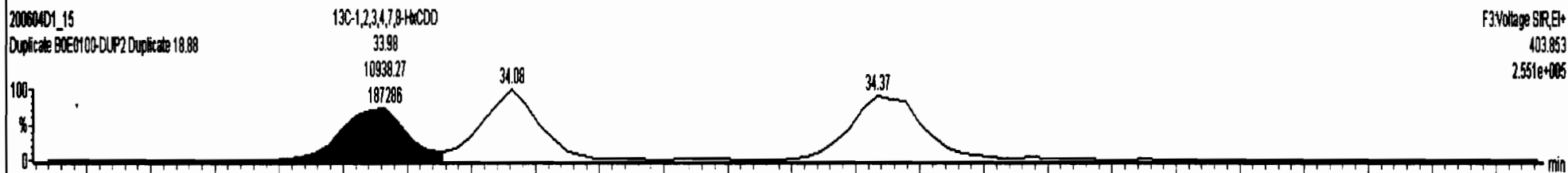
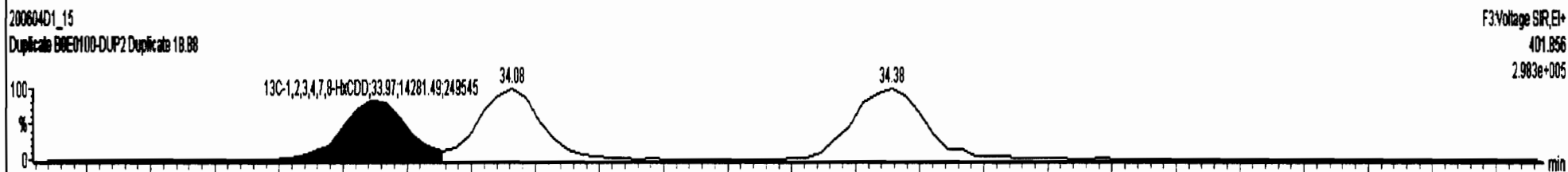
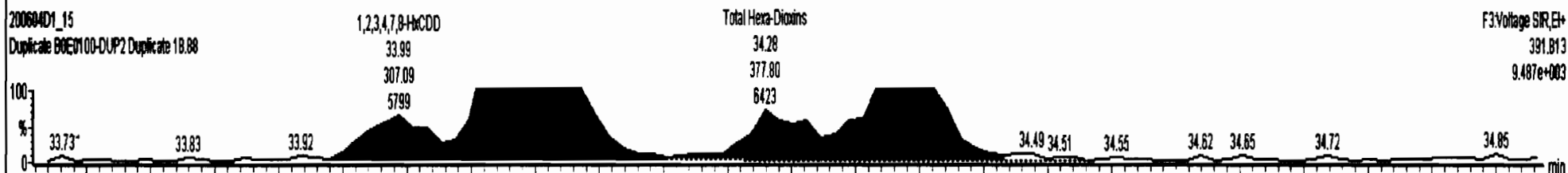
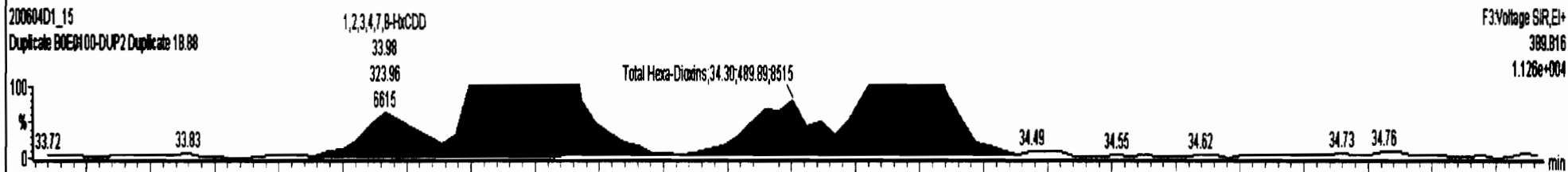
**13C-1,2,3,4,7,8-HxCDD**













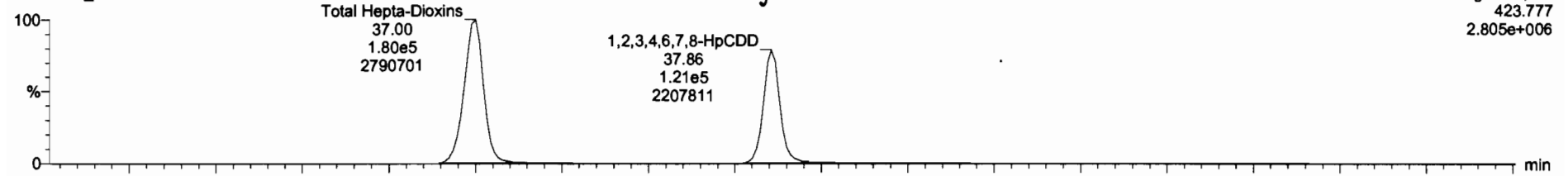
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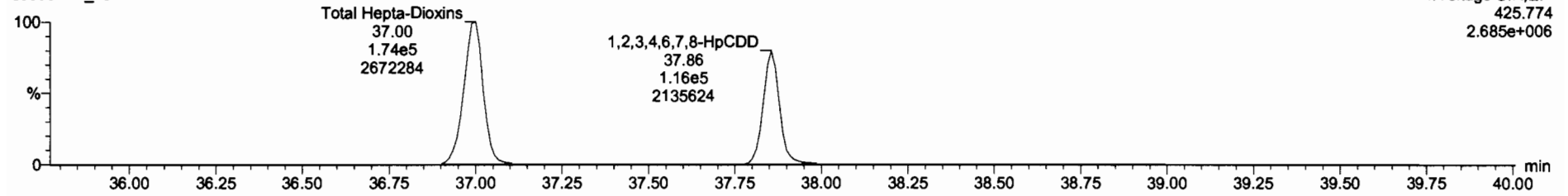
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1,2,3,4,6,7,8-HpCDD

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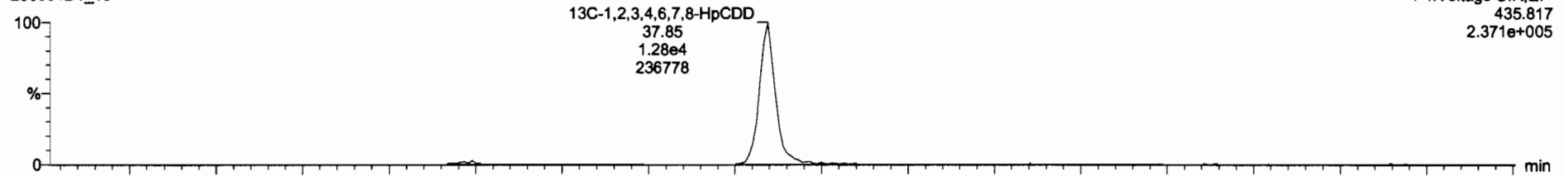


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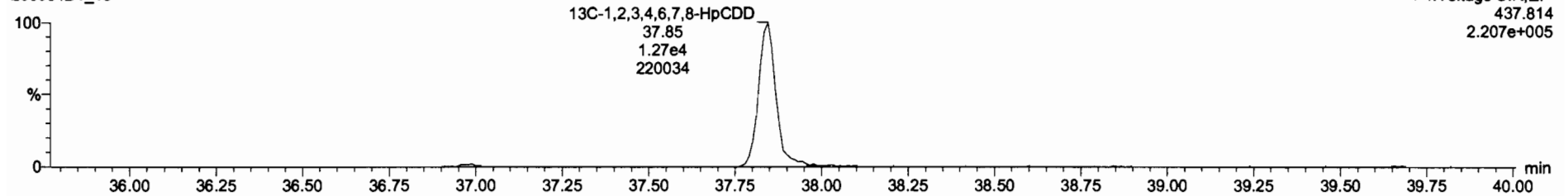


13C-1,2,3,4,6,7,8-HpCDD

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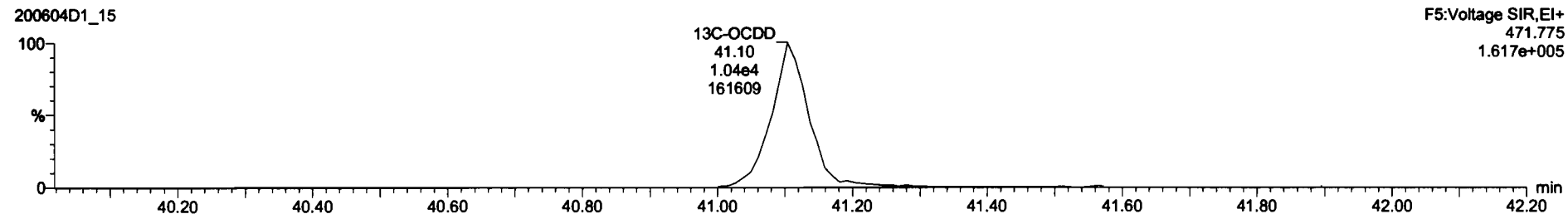
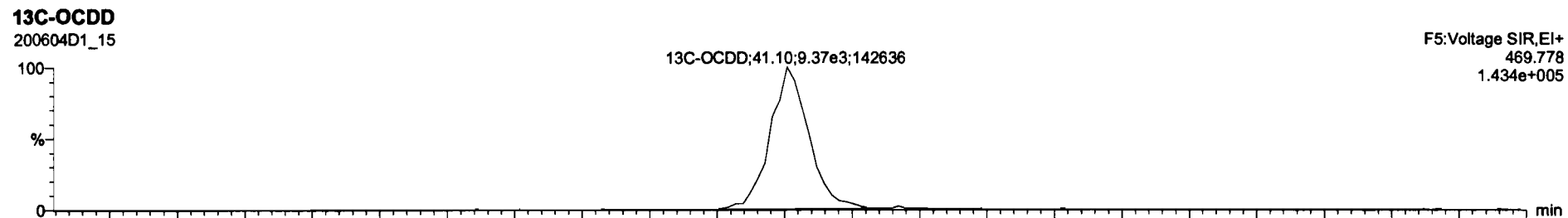
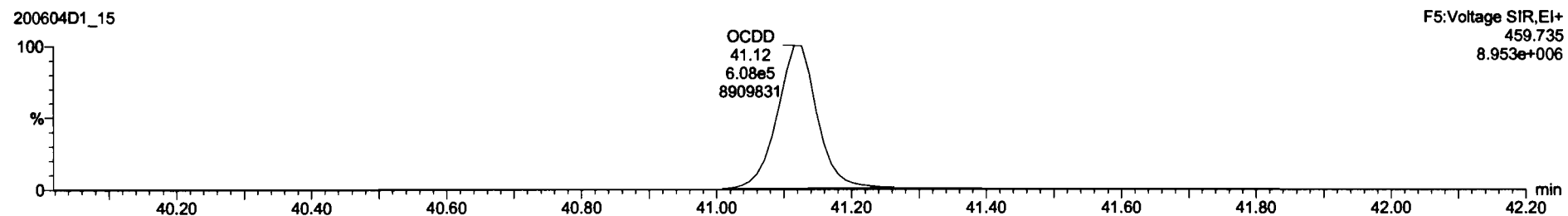
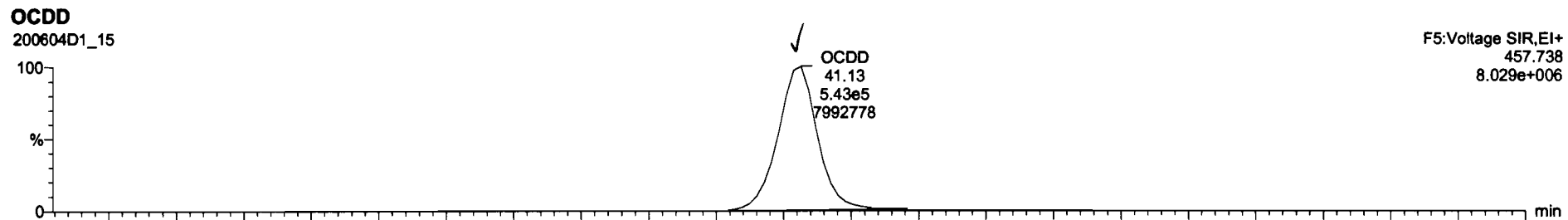
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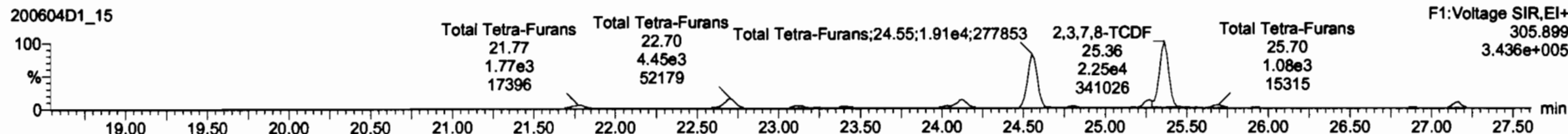
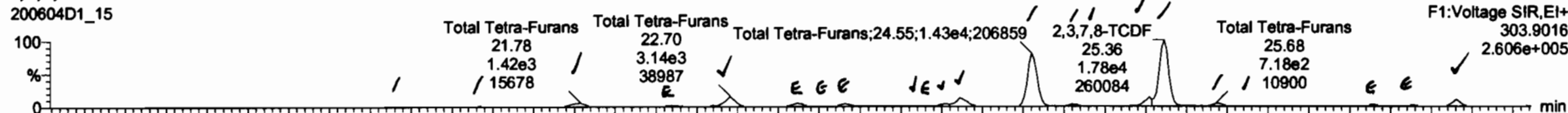


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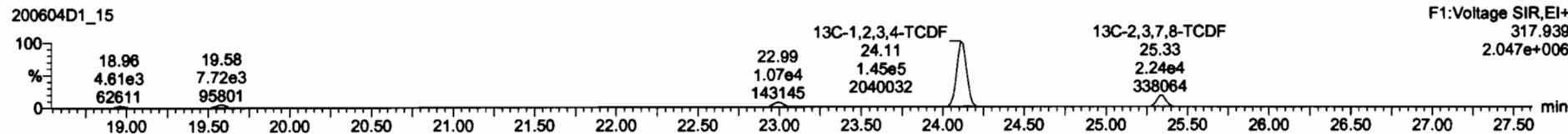
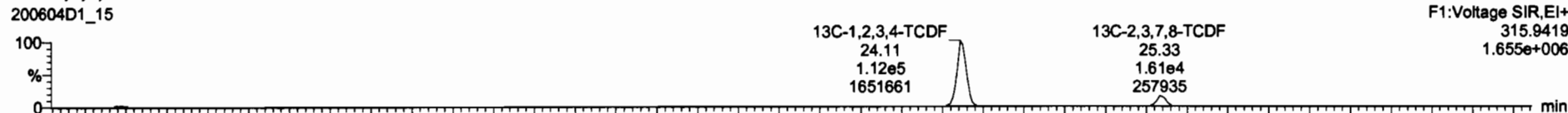
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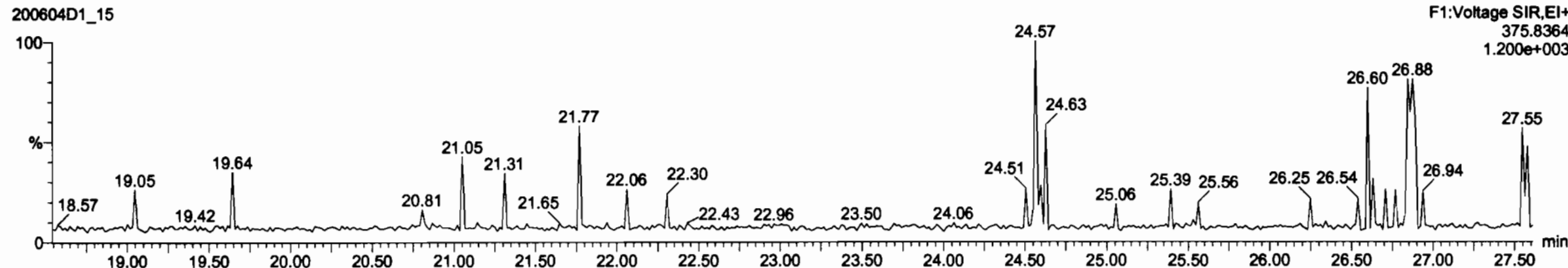
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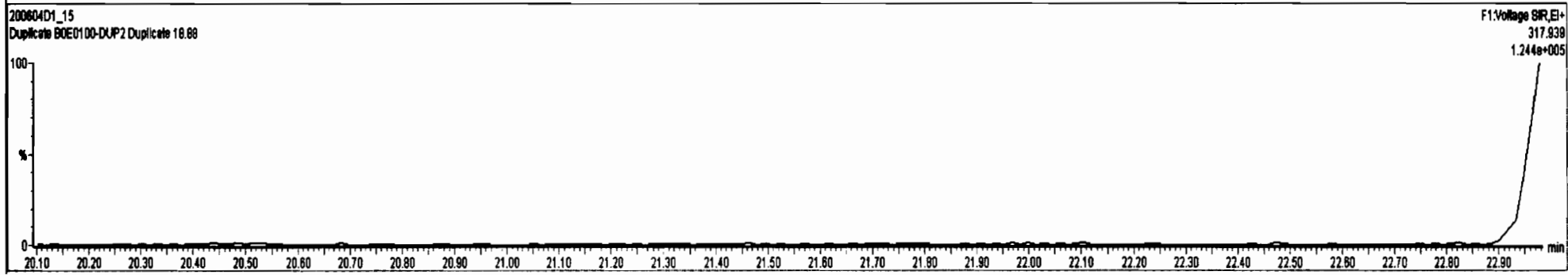
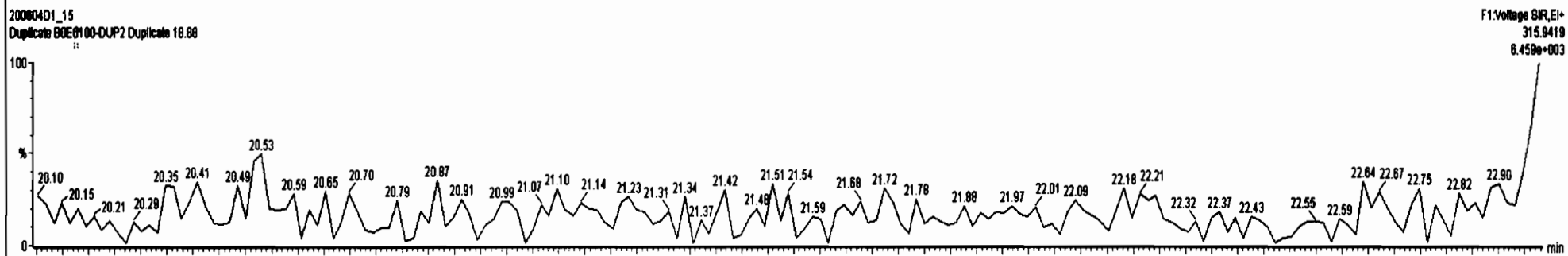
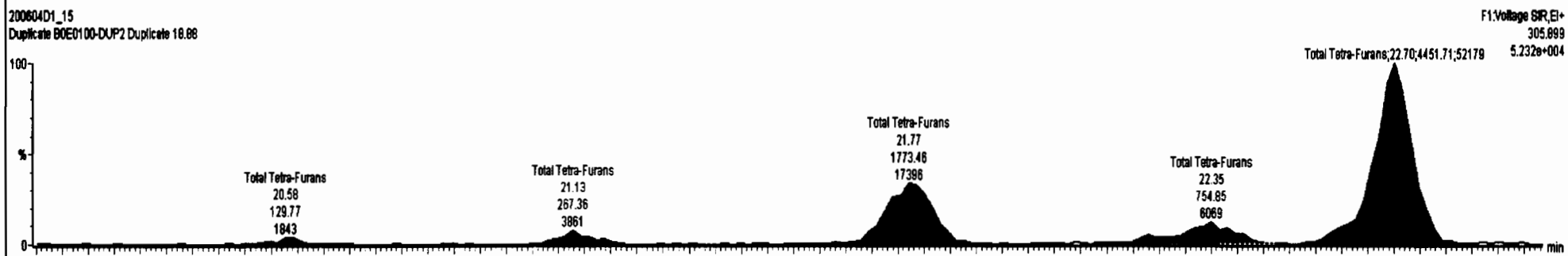
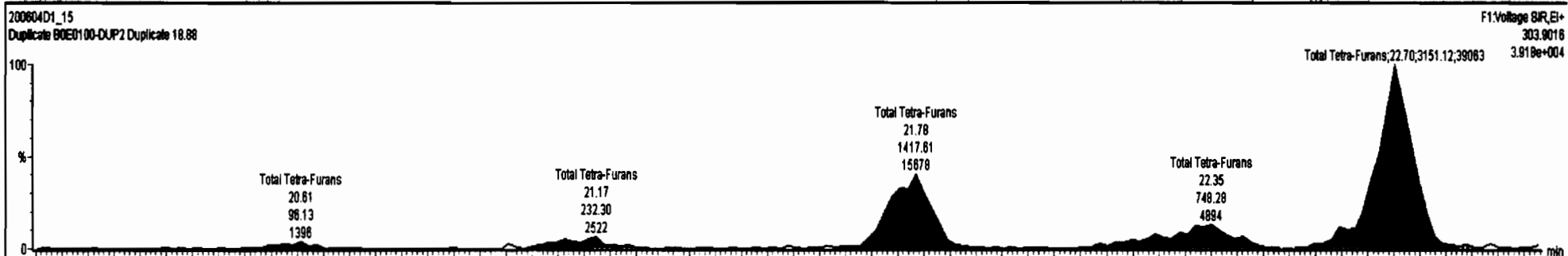


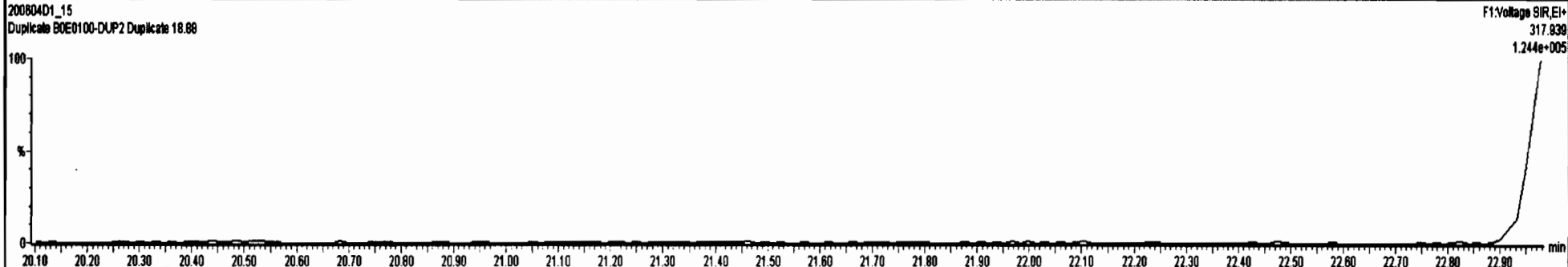
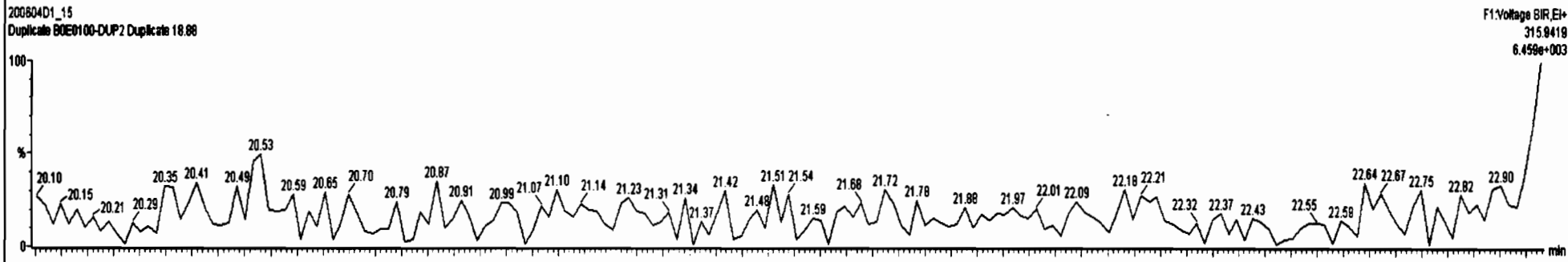
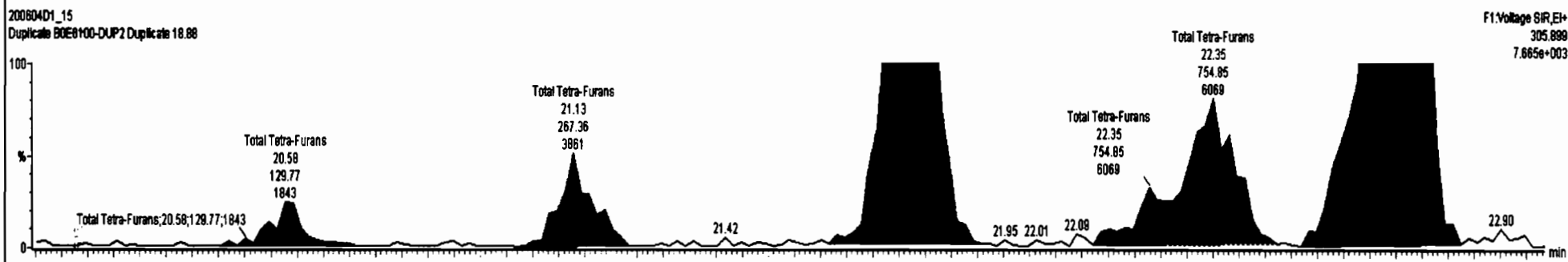
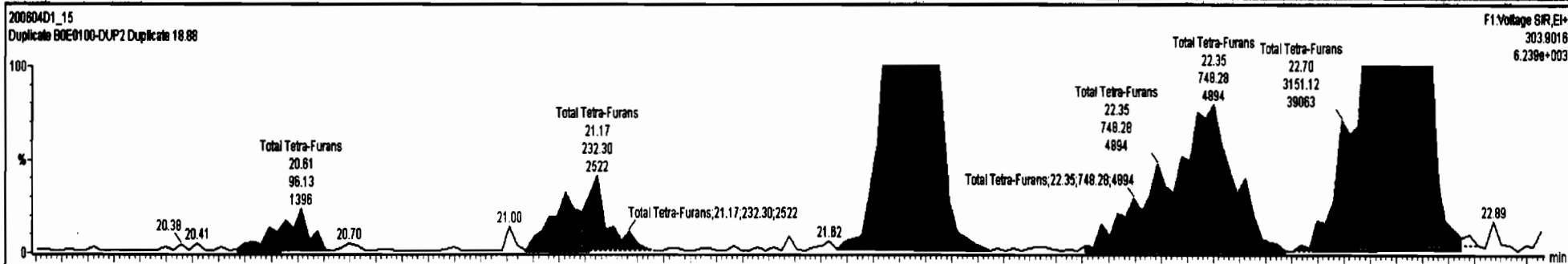
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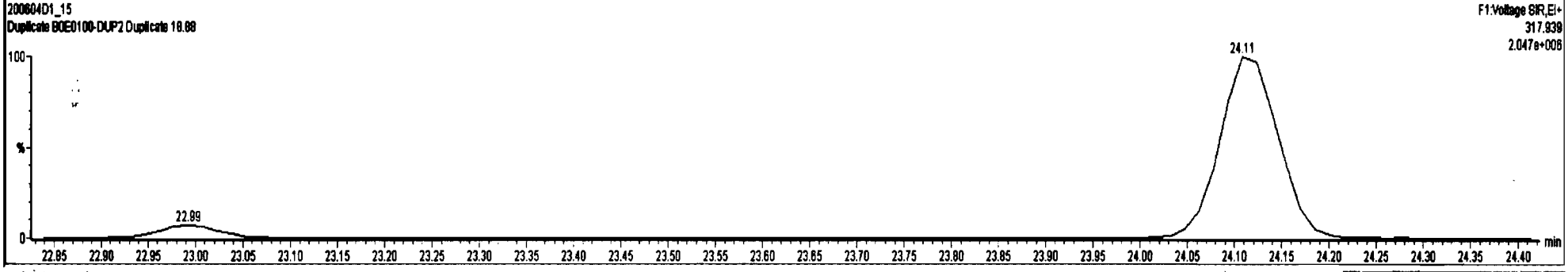
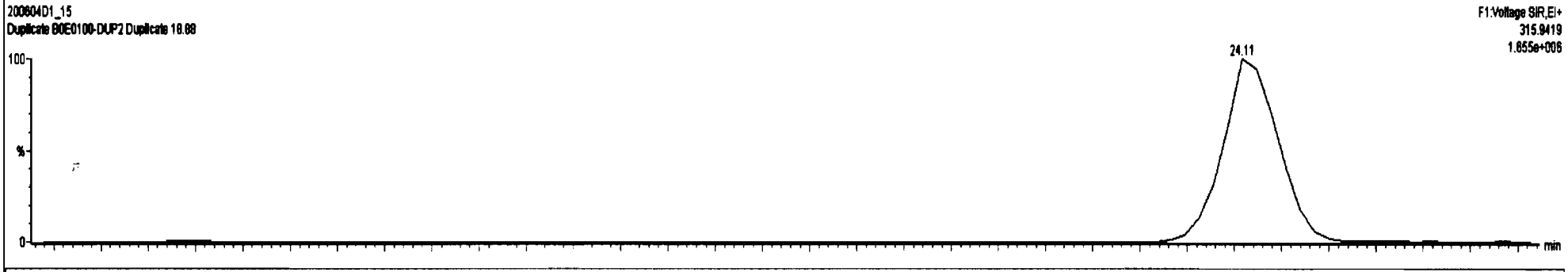
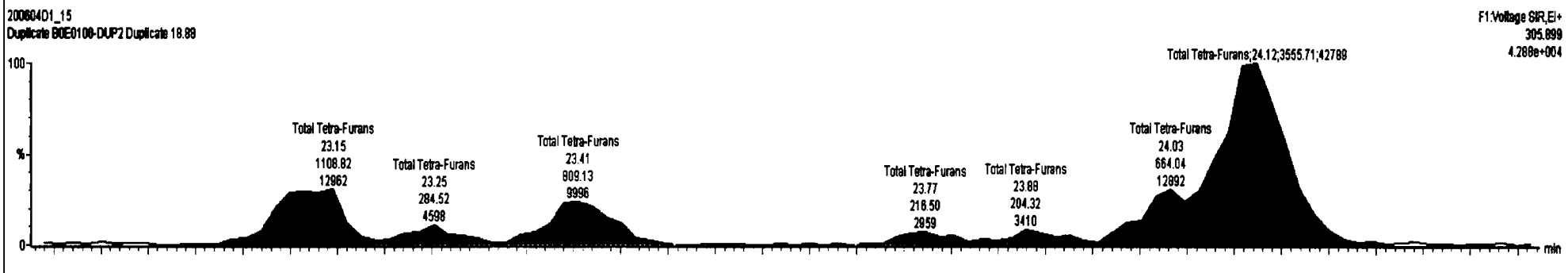
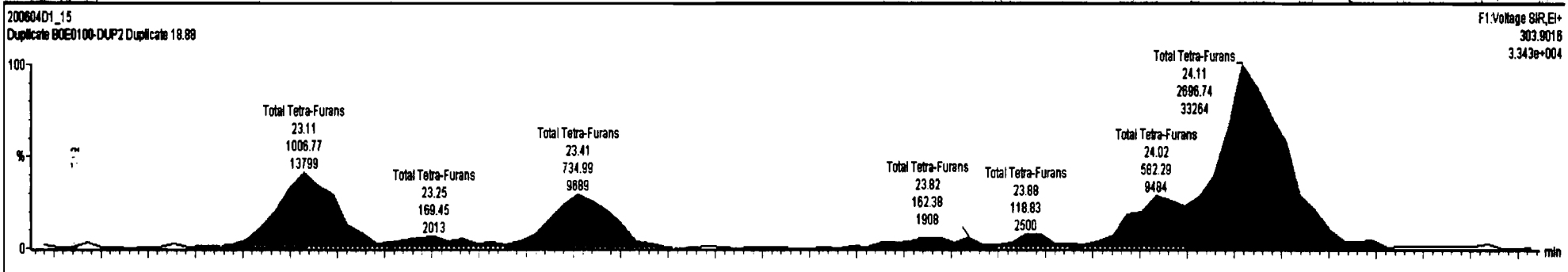


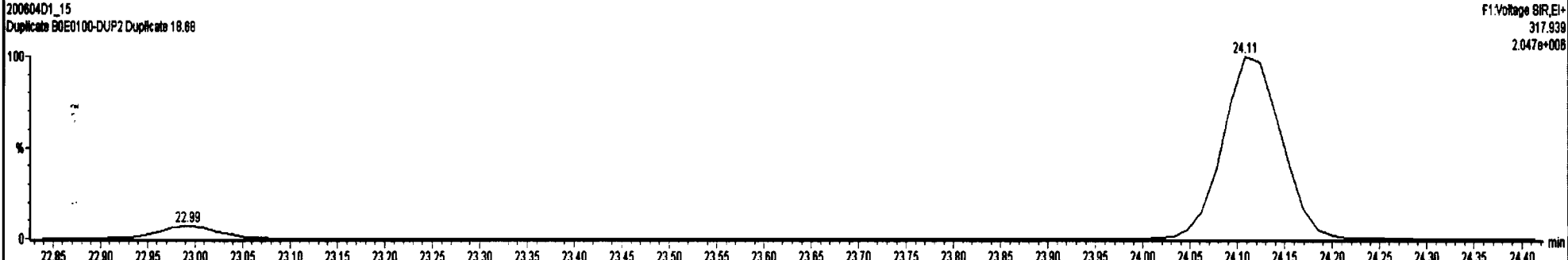
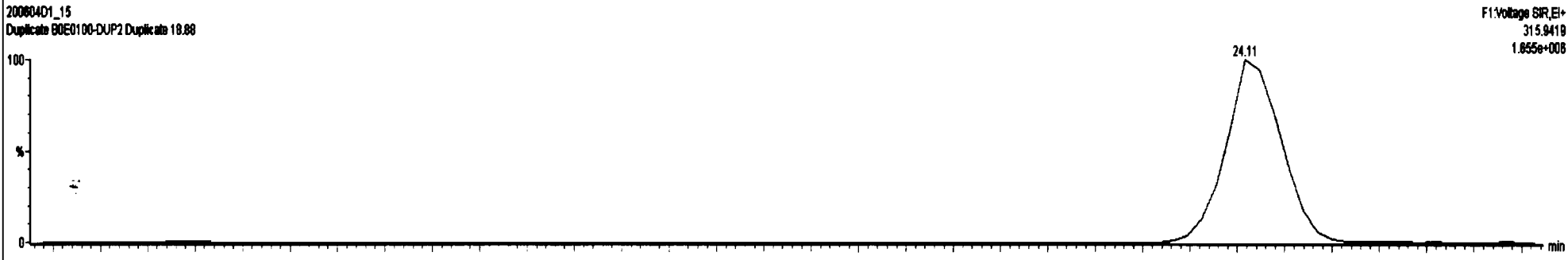
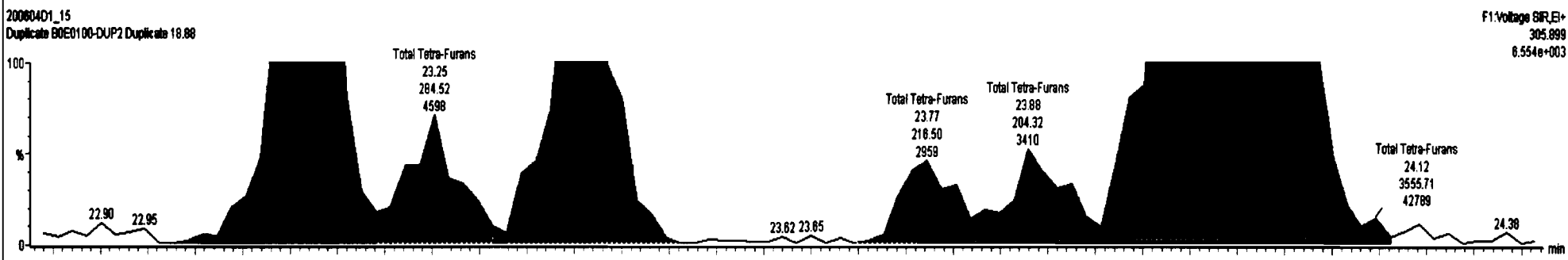
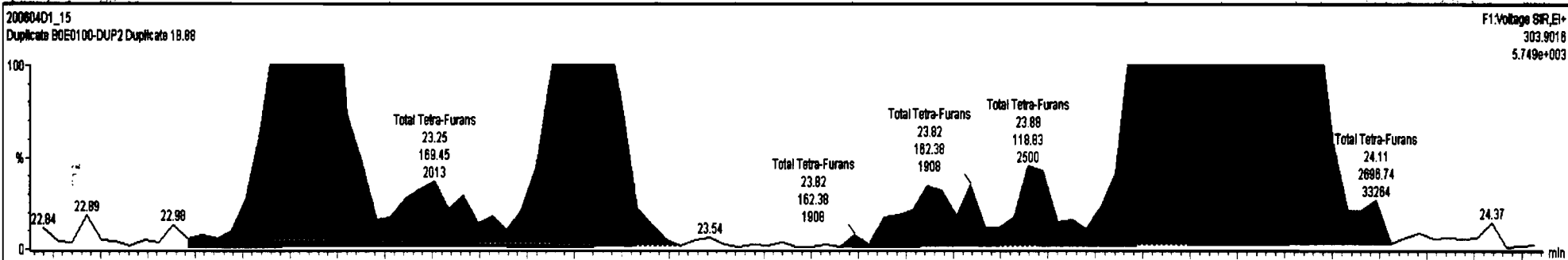
**DPE1**

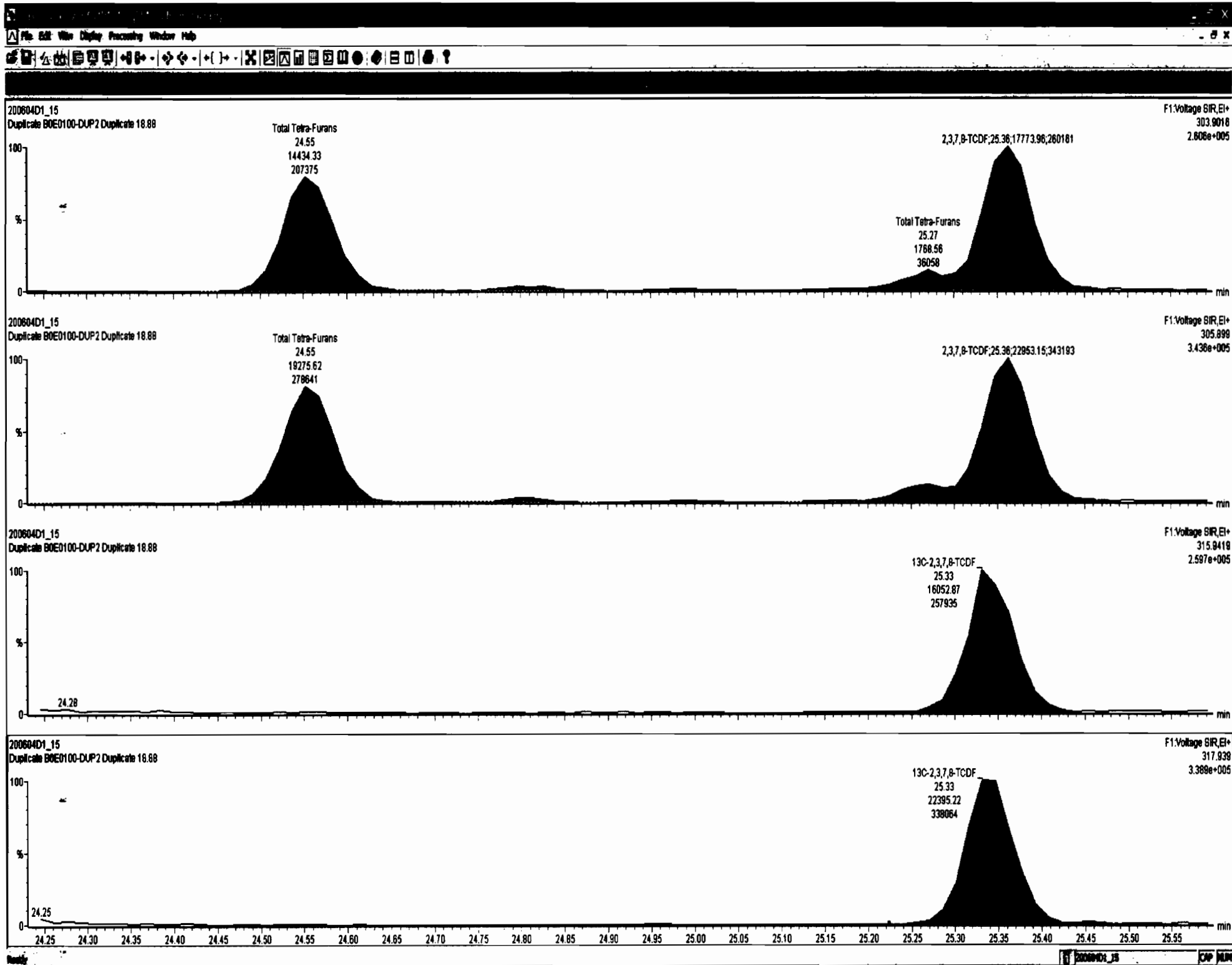




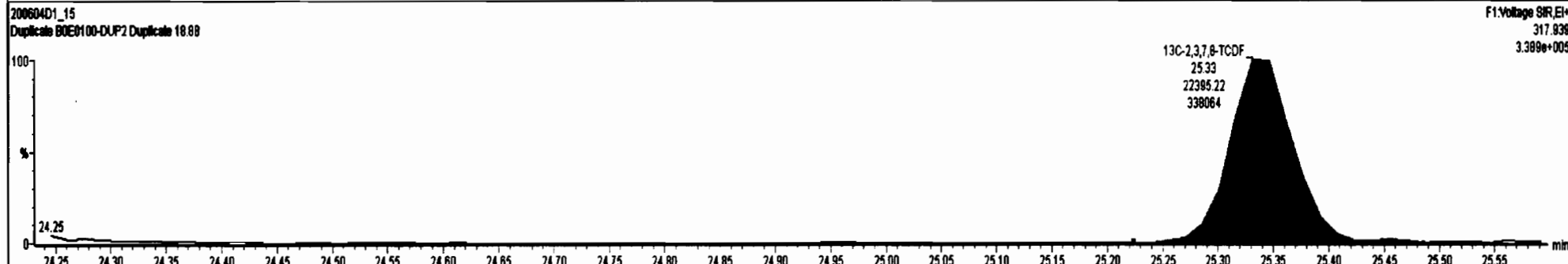
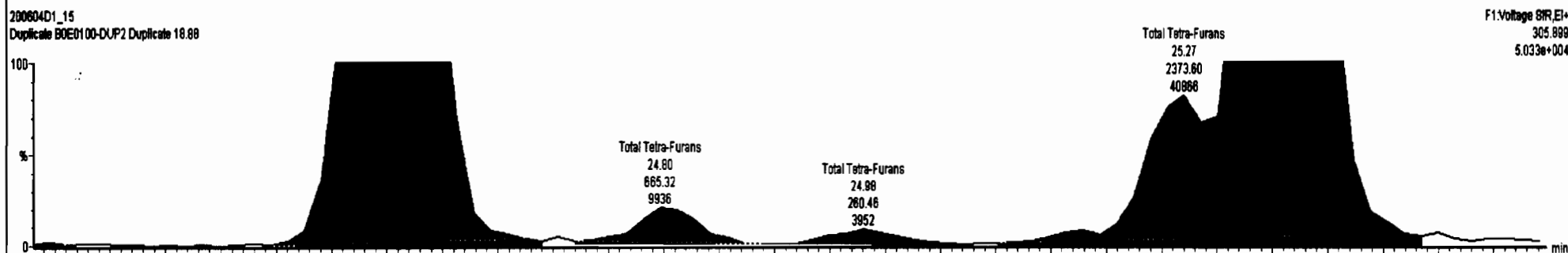
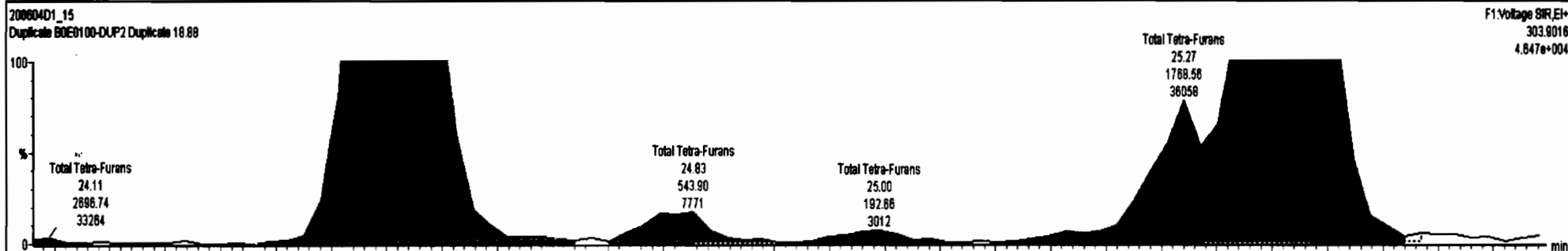
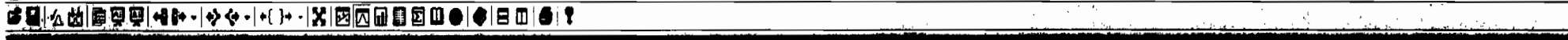


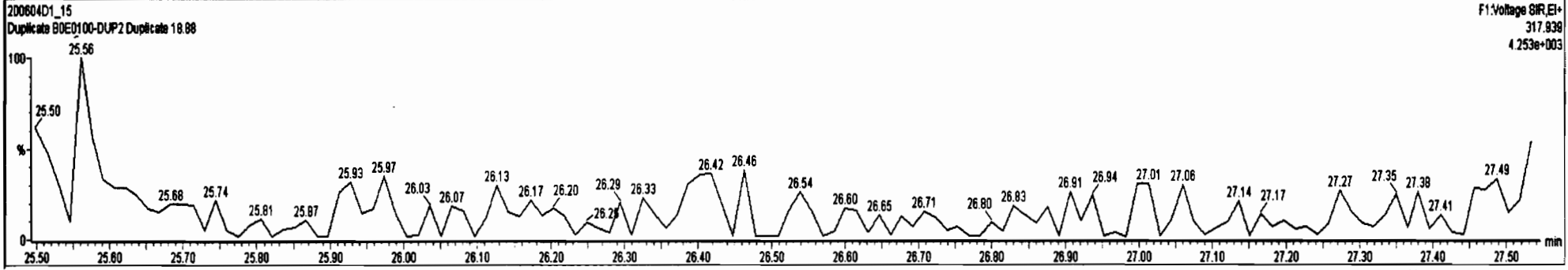
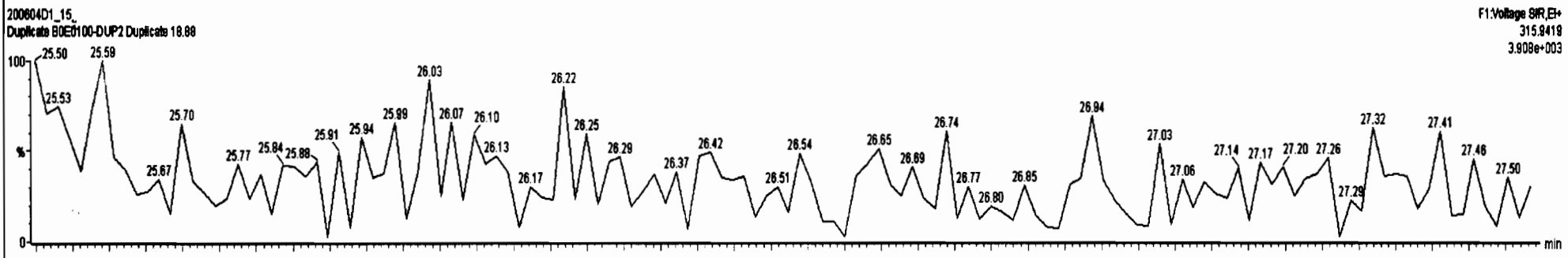
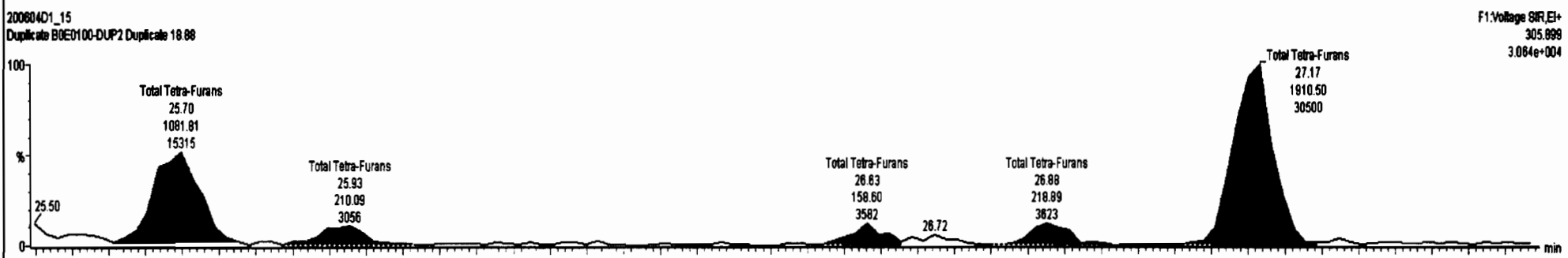
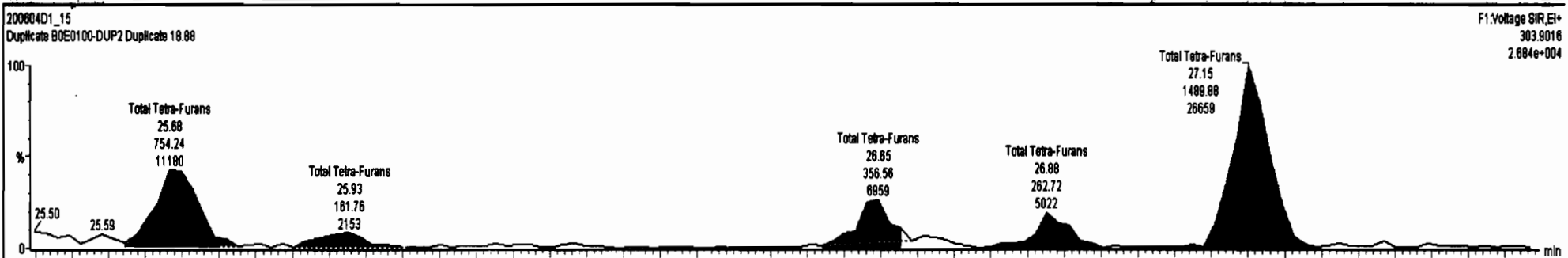












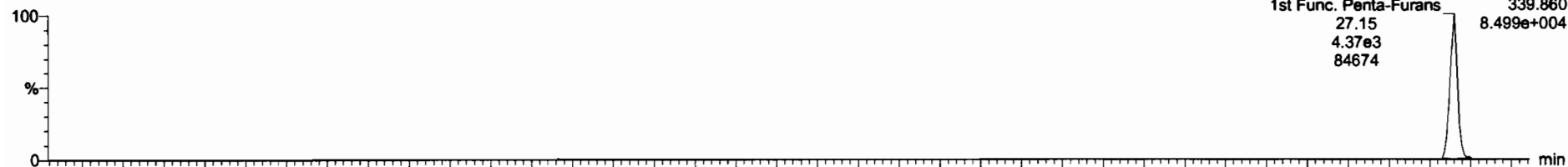
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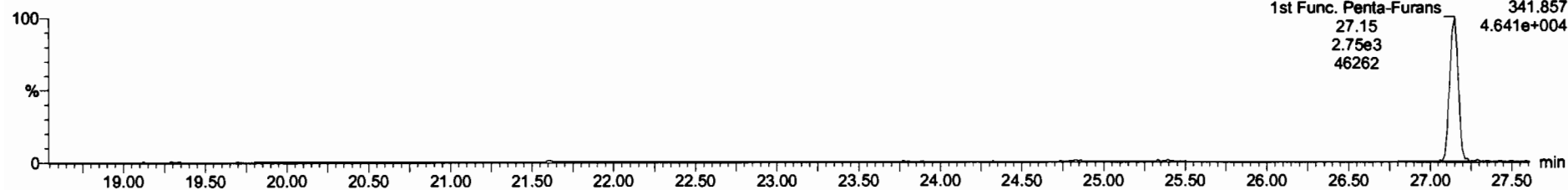
Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

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200604D1\_15

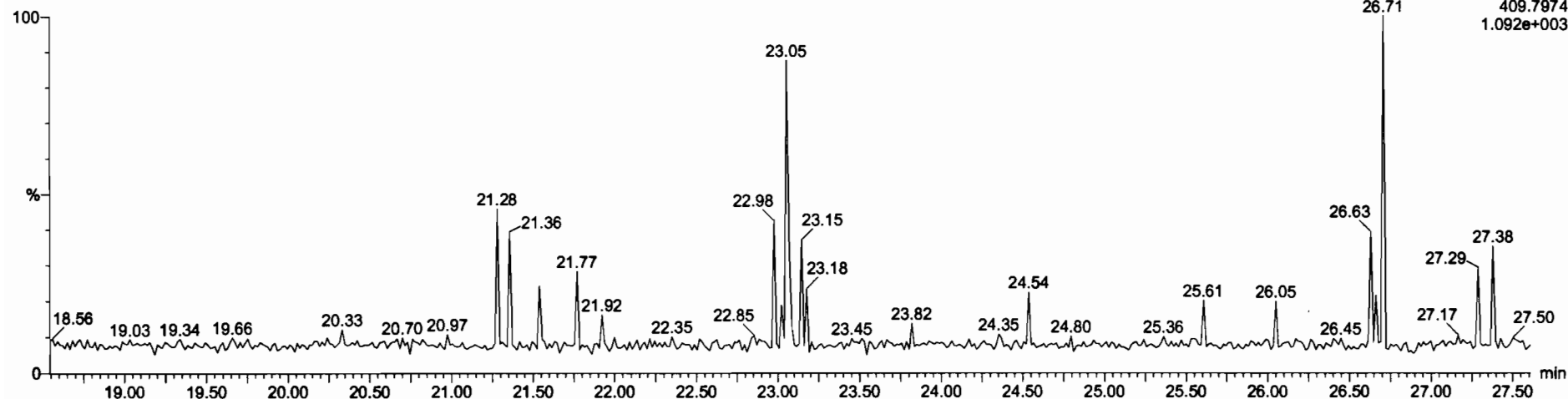


200604D1\_15



DPE6

200604D1\_15

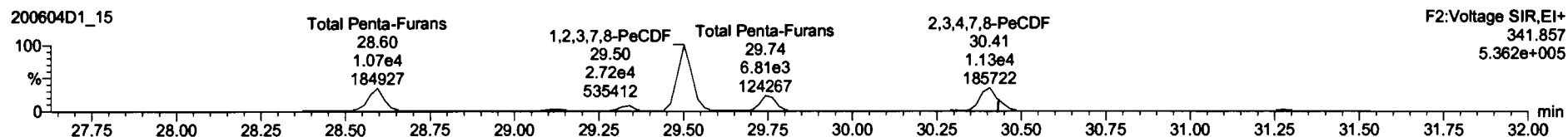
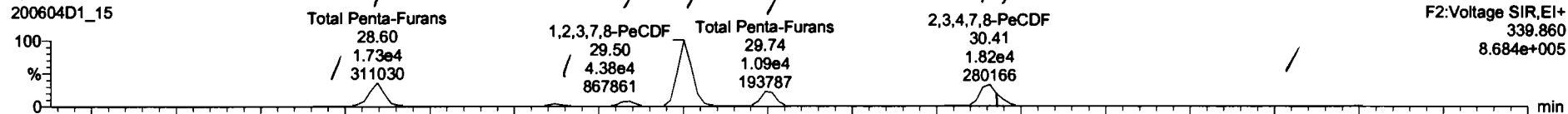


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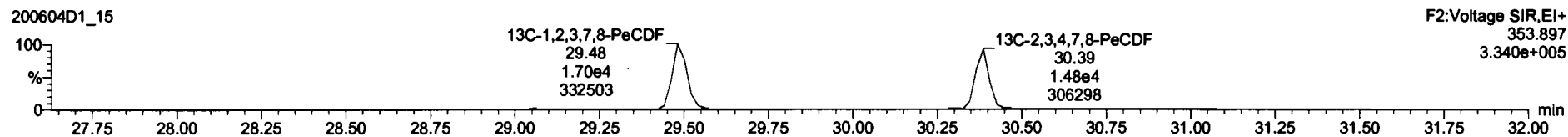
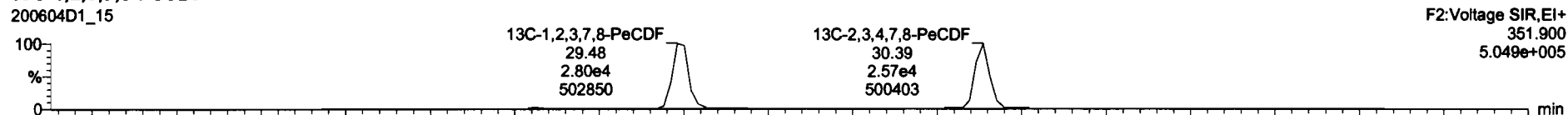
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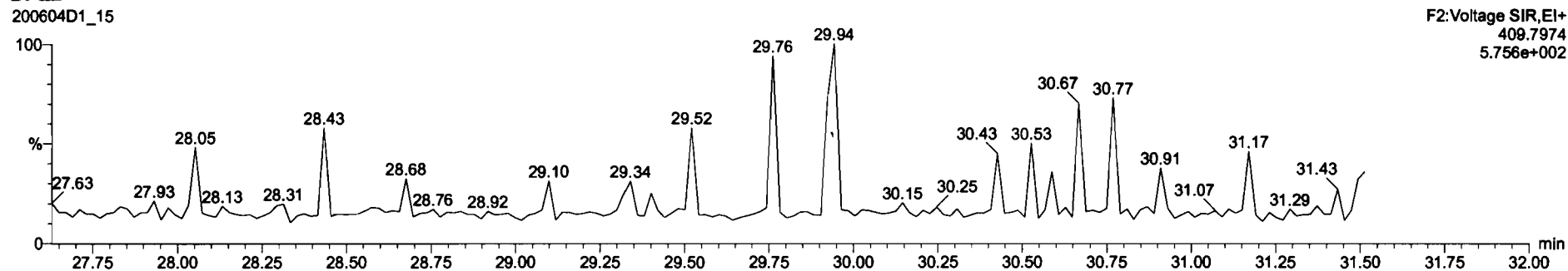
**1,2,3,7,8-PeCDF**

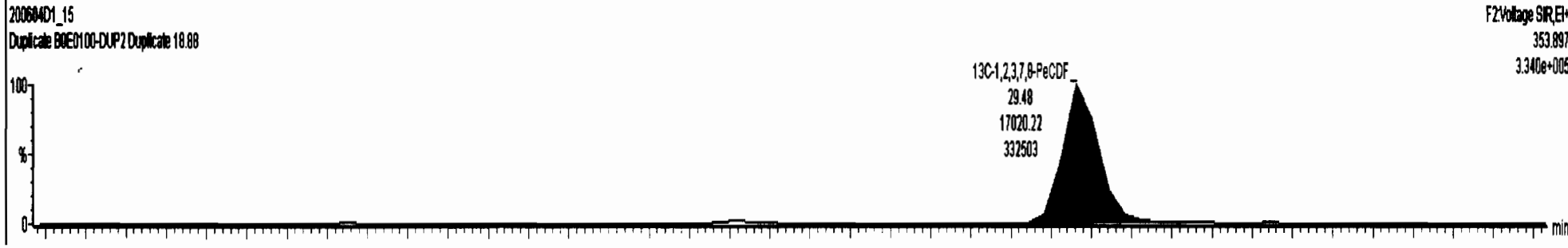
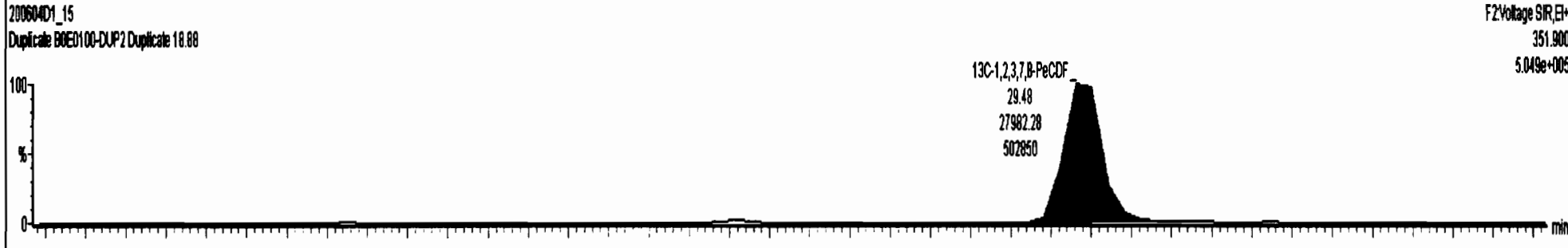
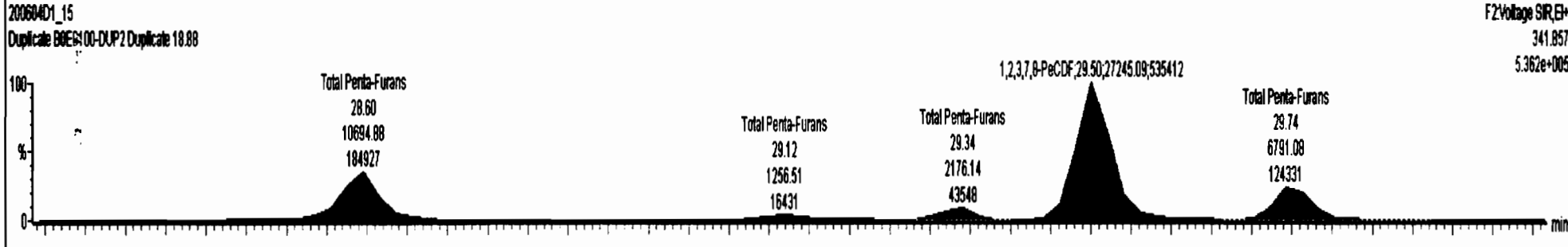
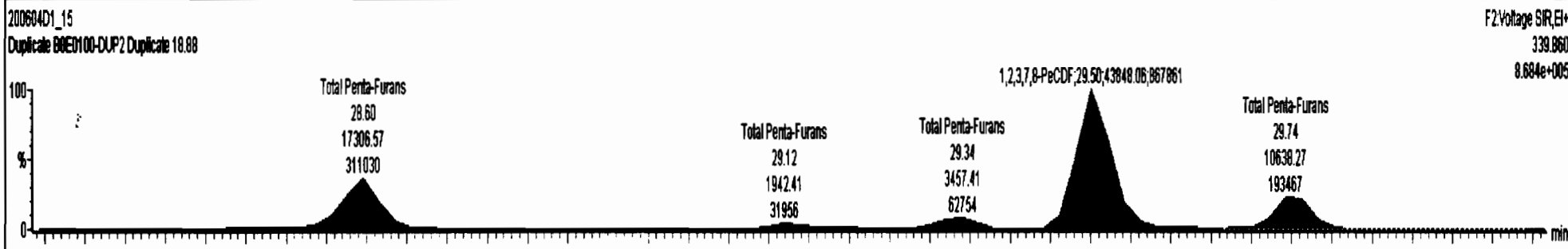


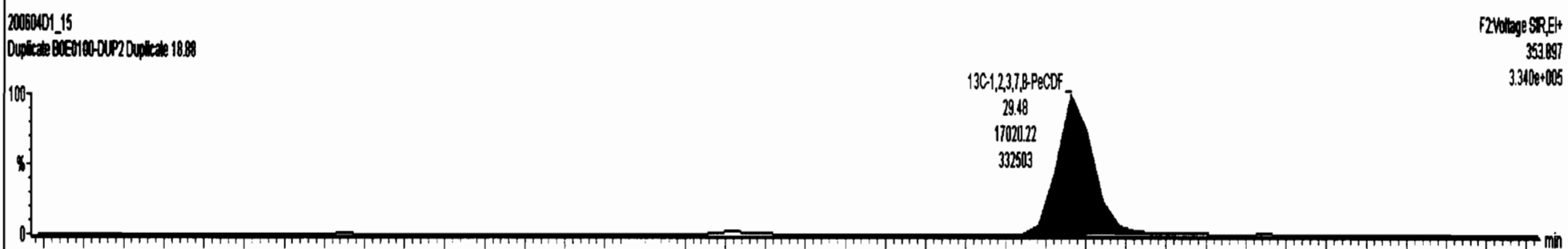
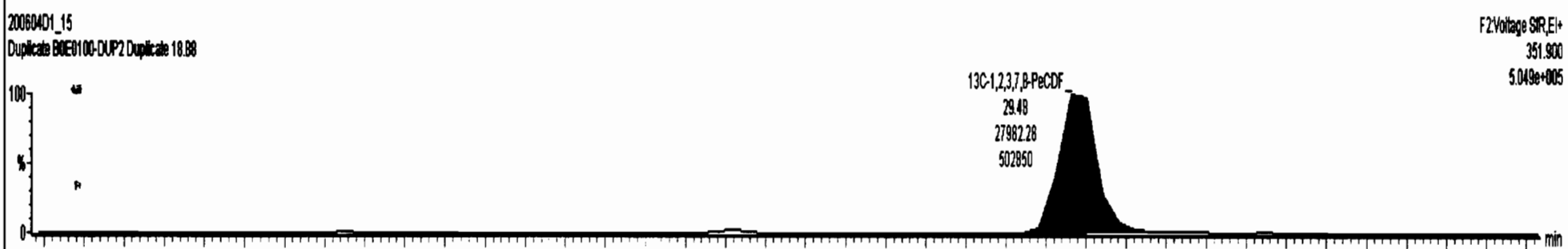
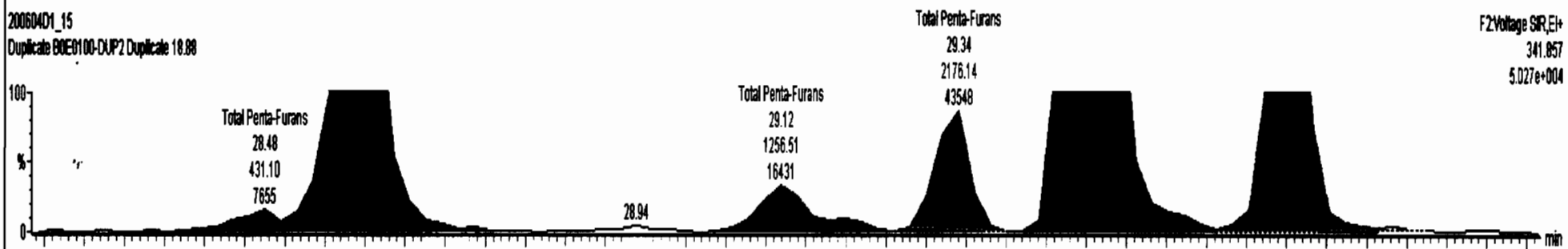
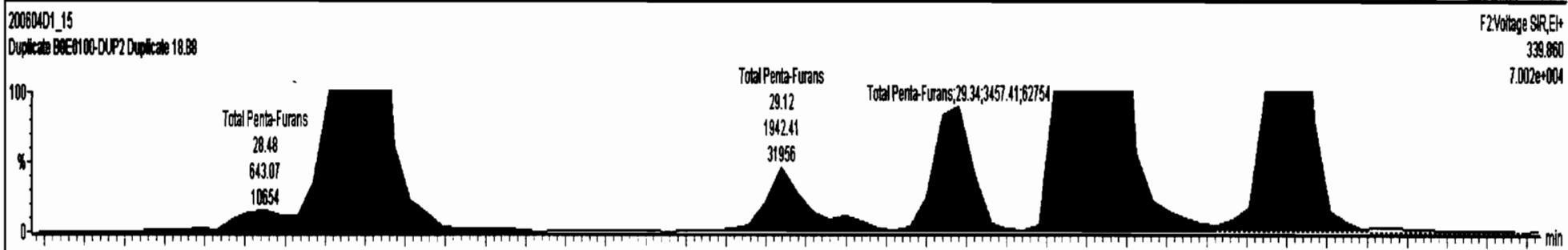
**13C-1,2,3,7,8-PeCDF**

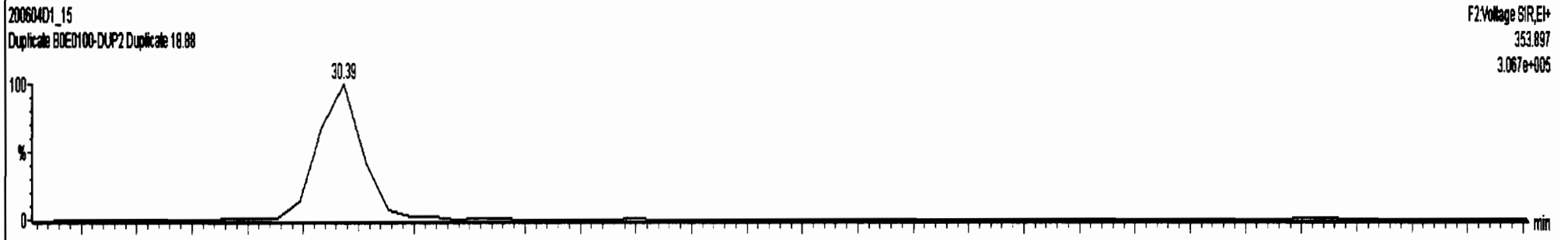
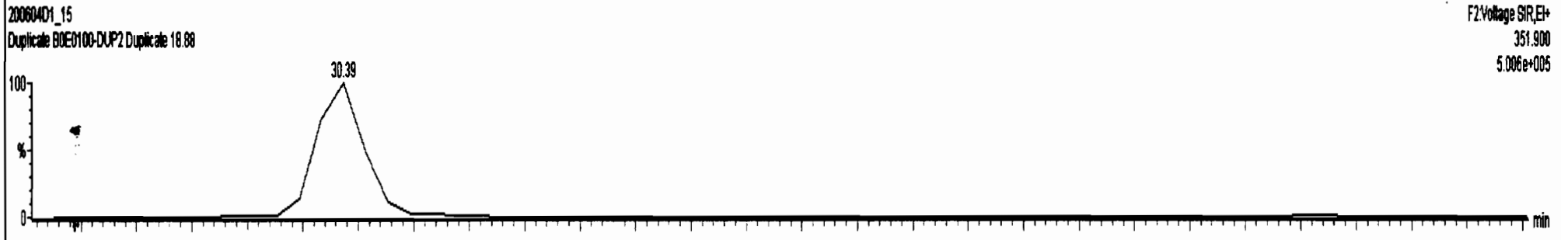
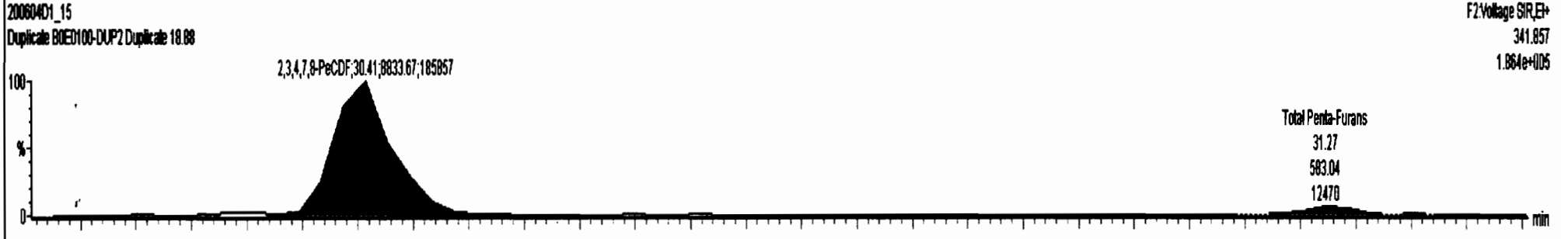
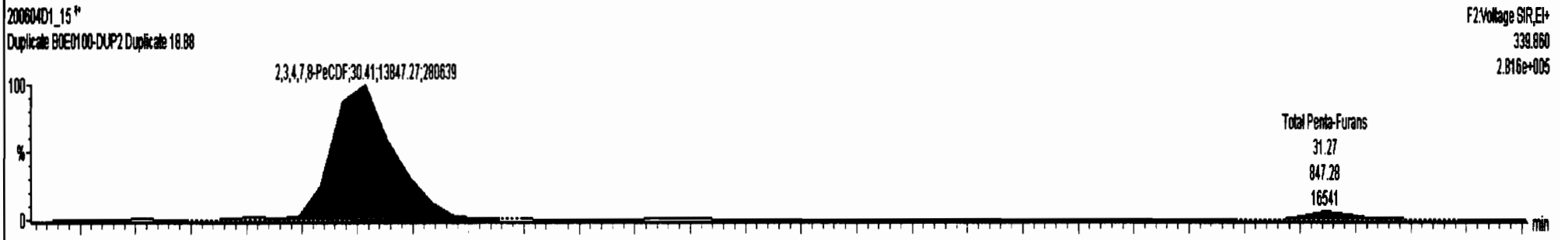


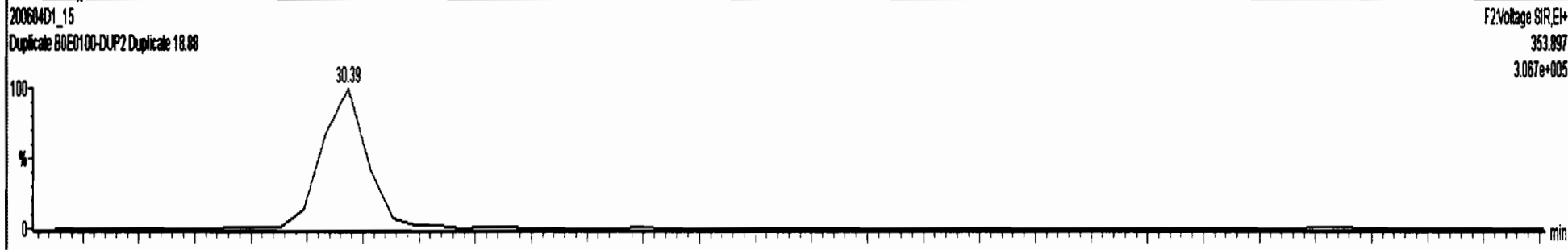
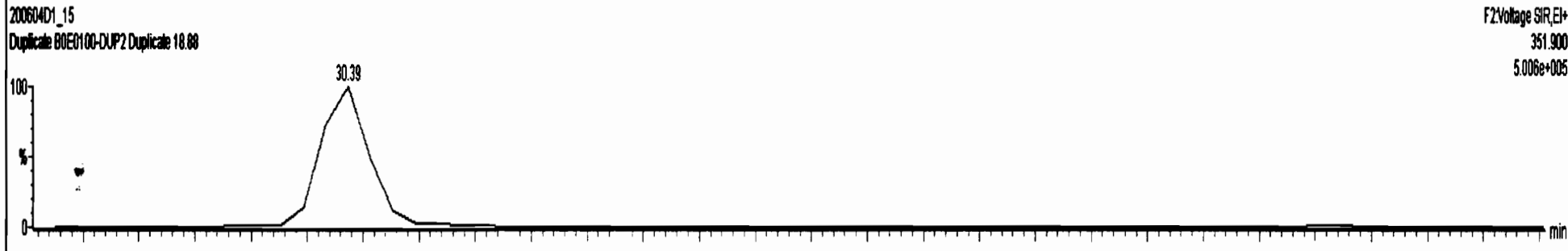
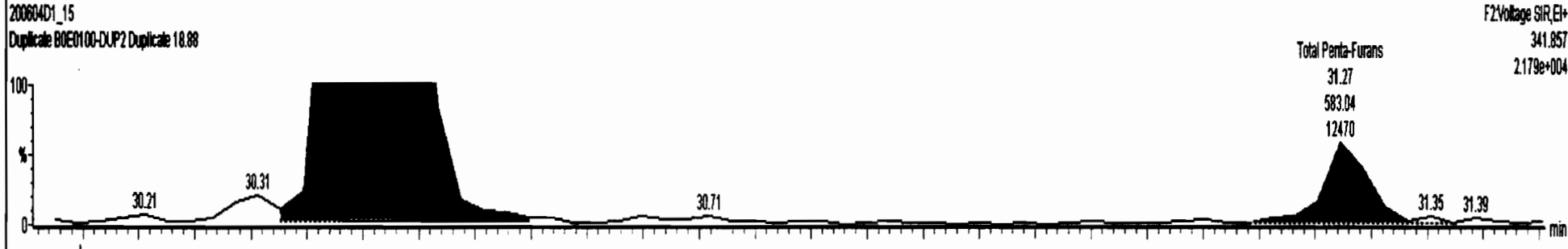
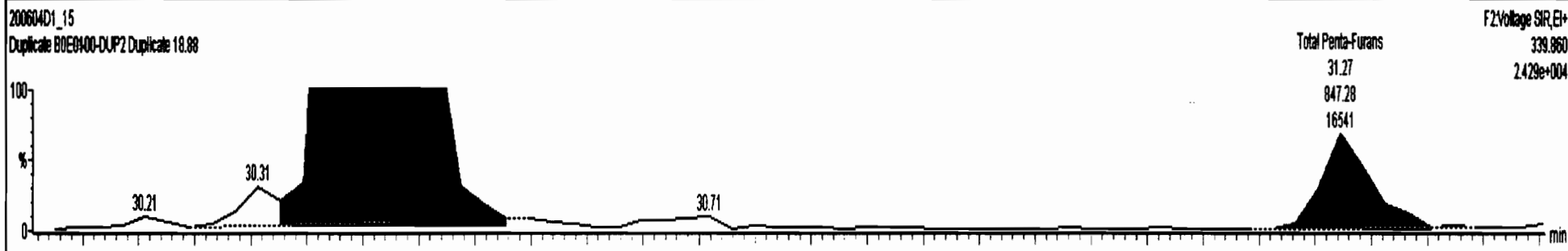
**DPE2**











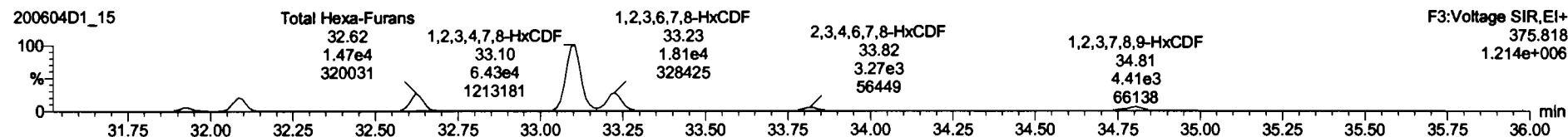
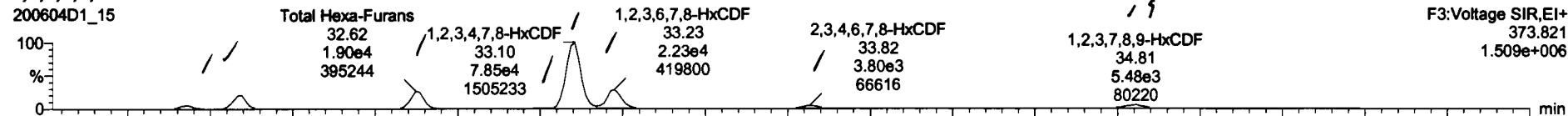


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

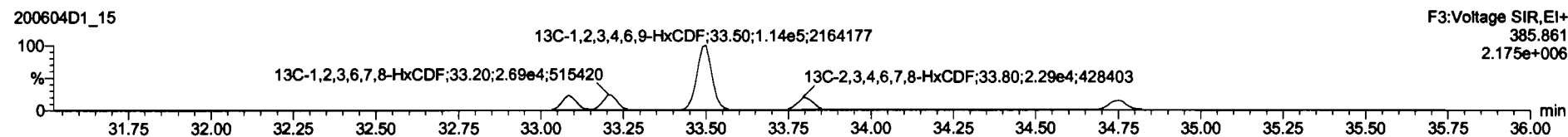
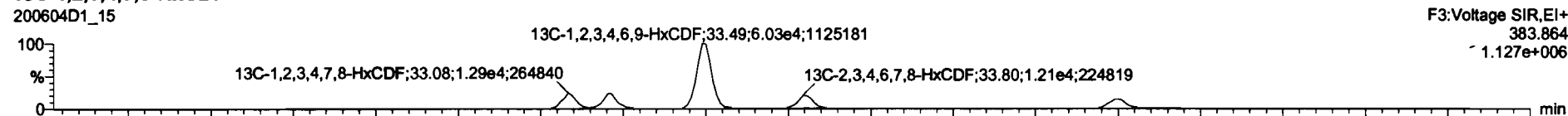
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Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

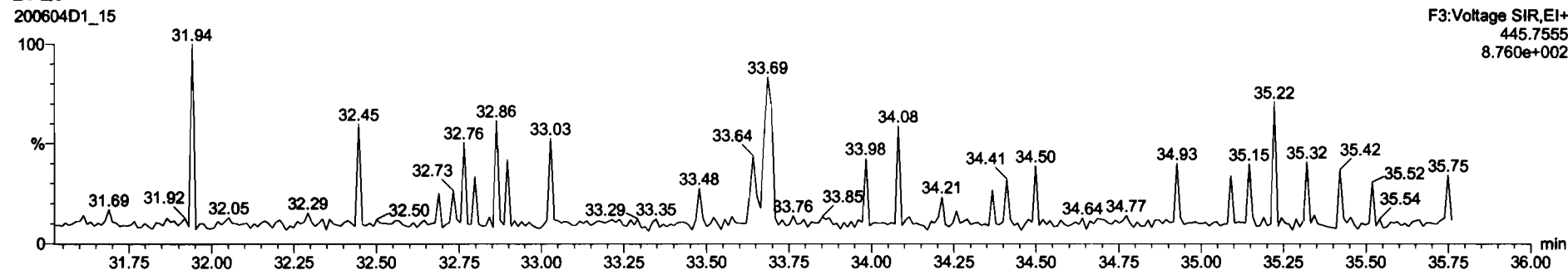
1,2,3,4,7,8-HxCDF

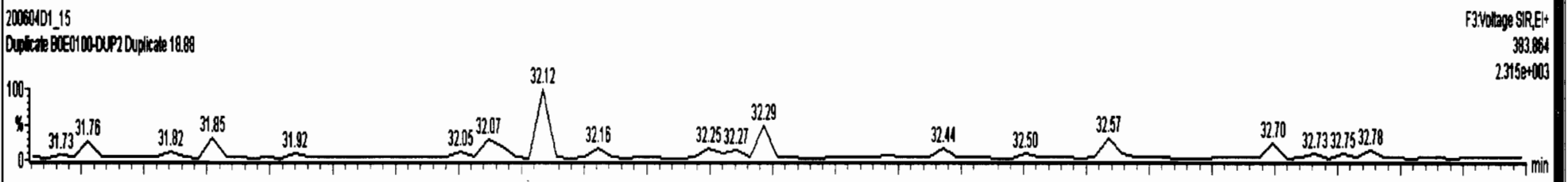
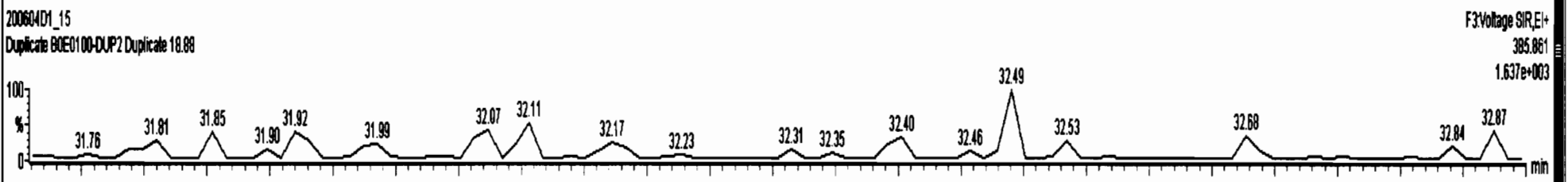
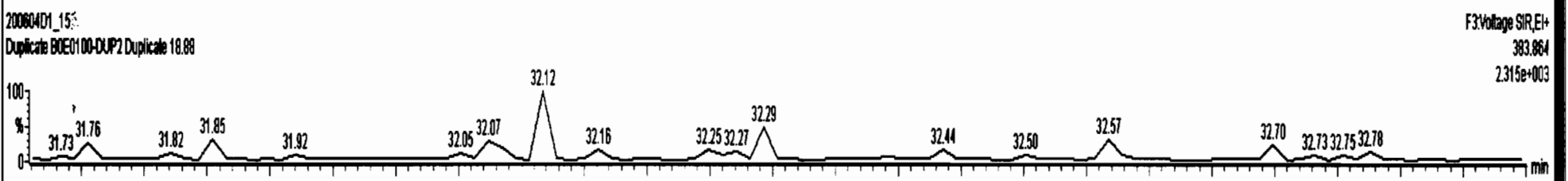
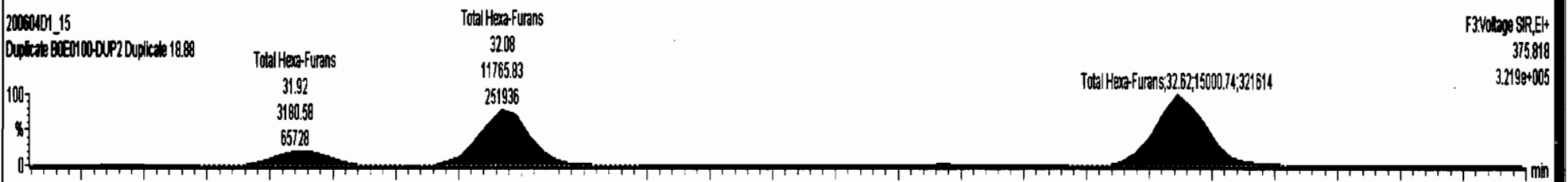
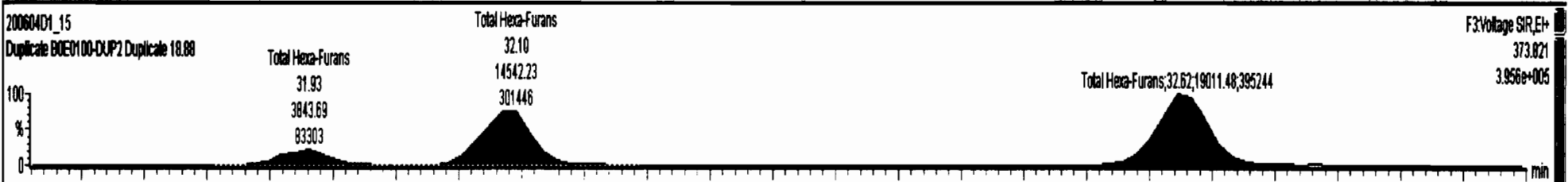


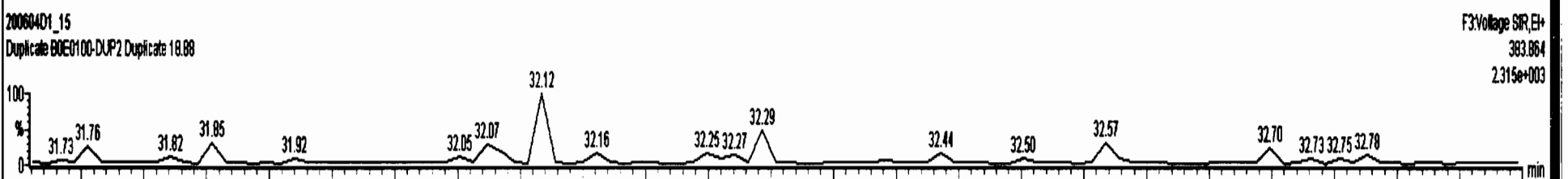
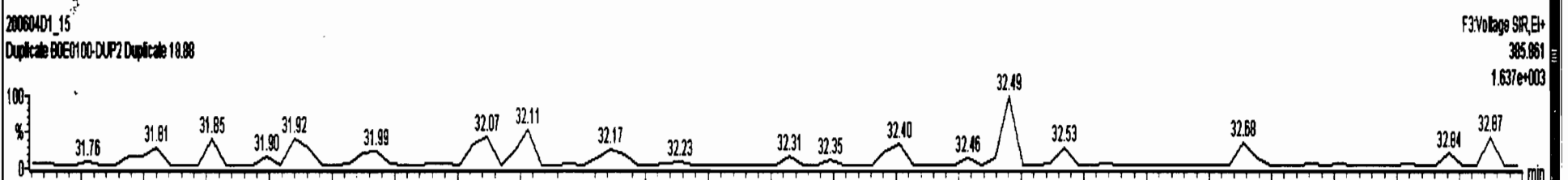
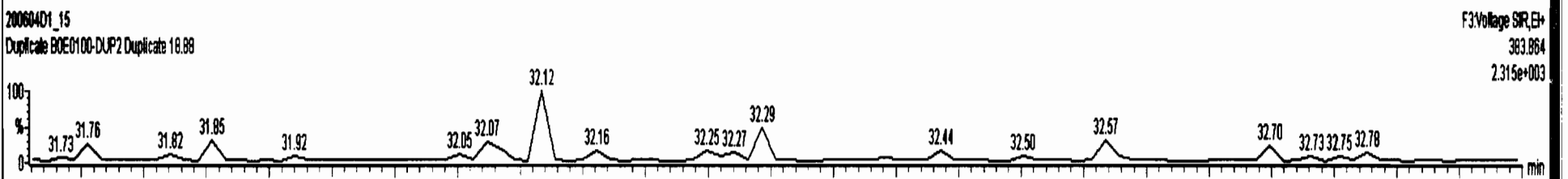
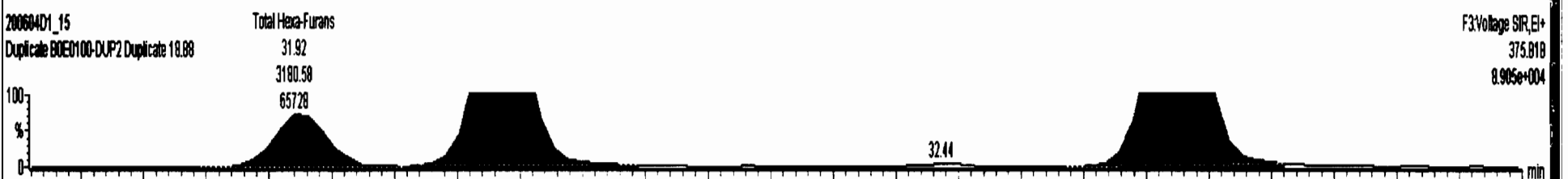
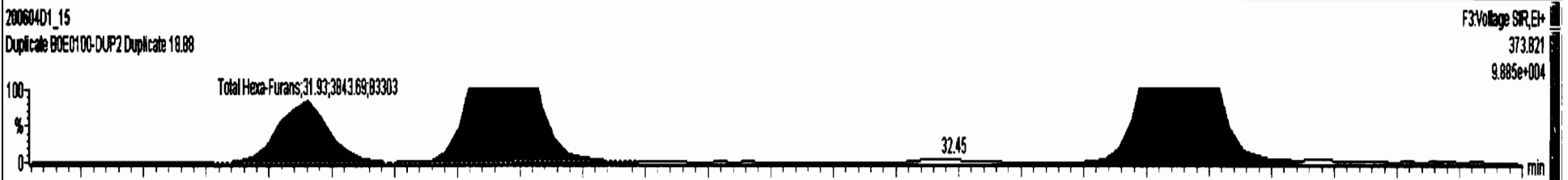
13C-1,2,3,4,7,8-HxCDF

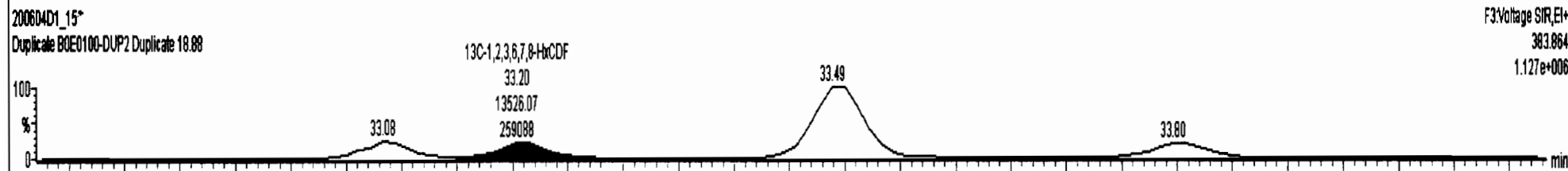
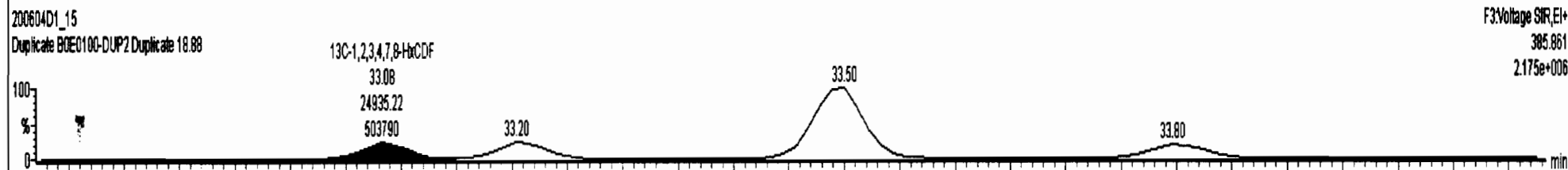
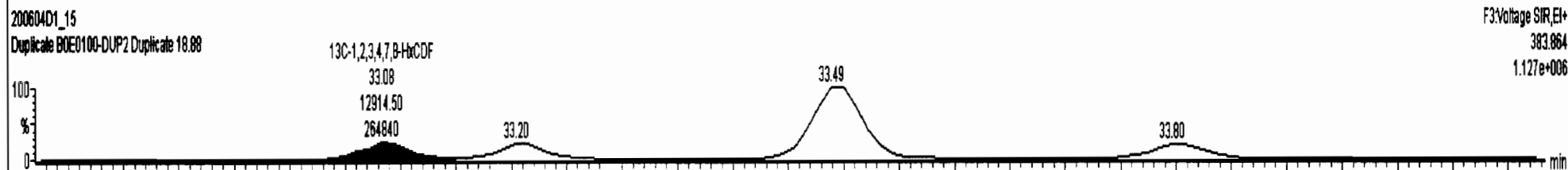
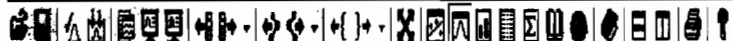


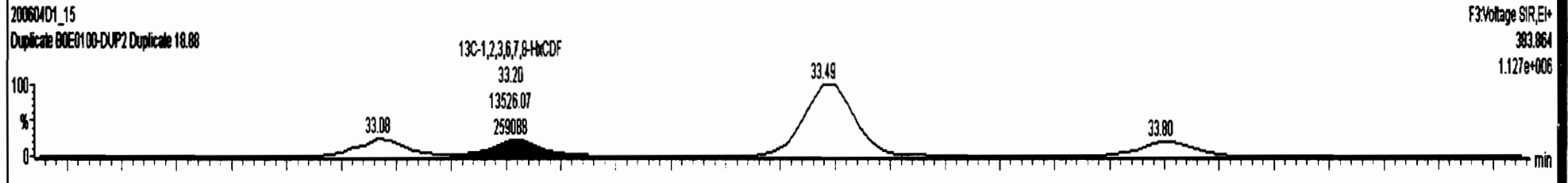
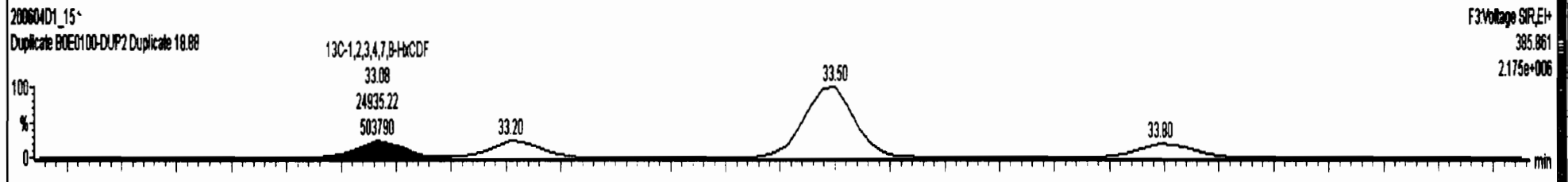
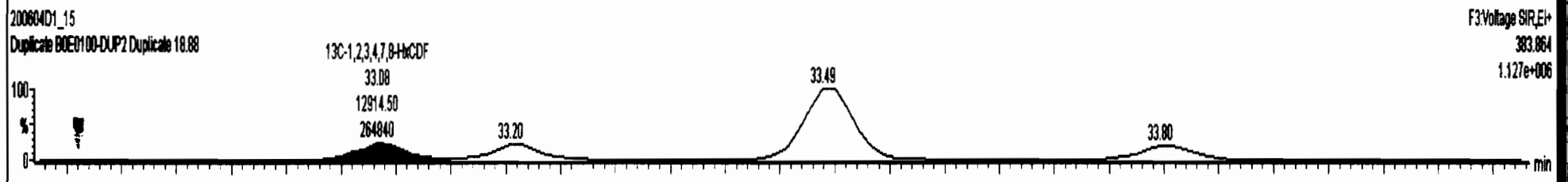
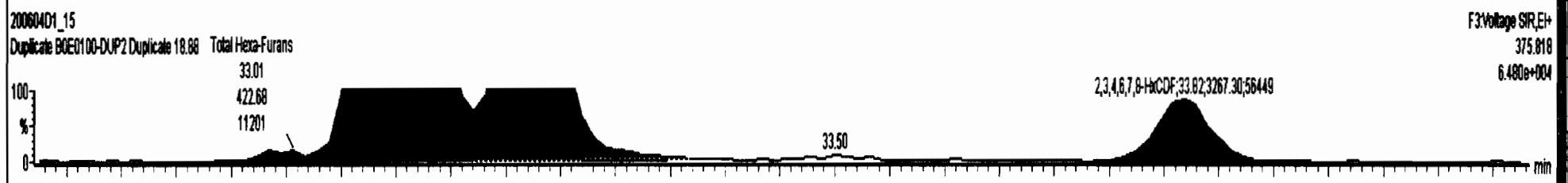
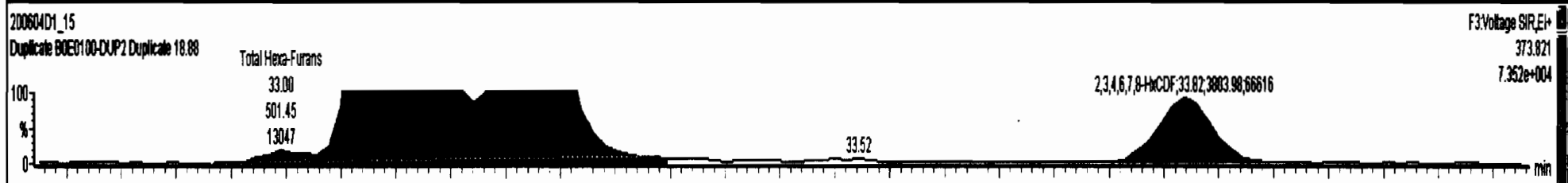
DPE3

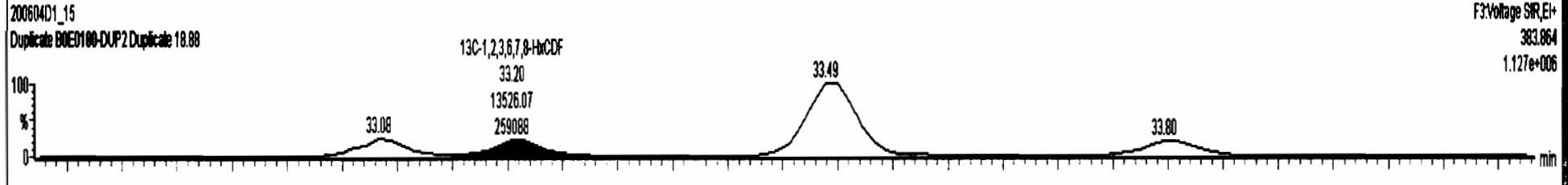
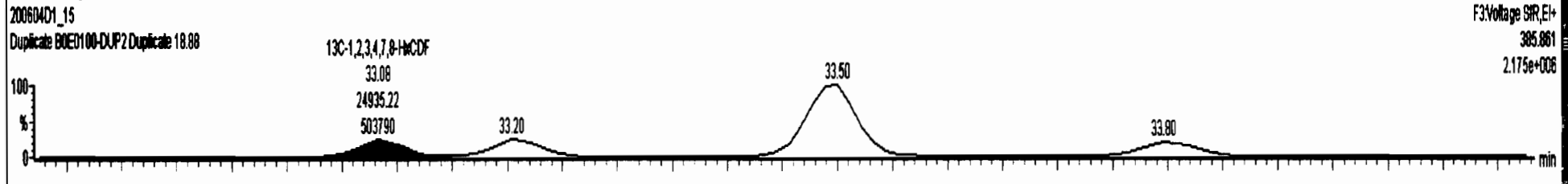
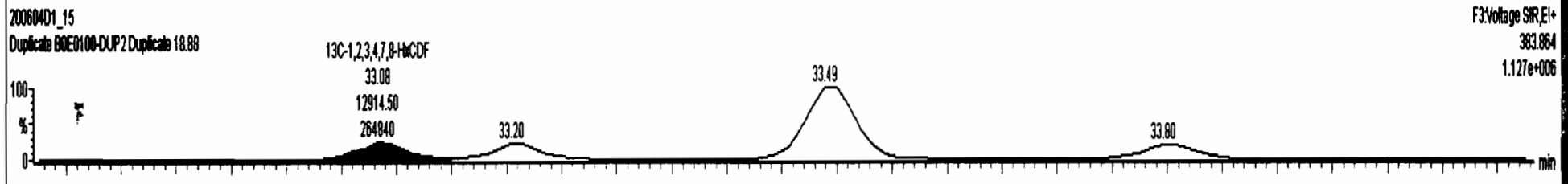
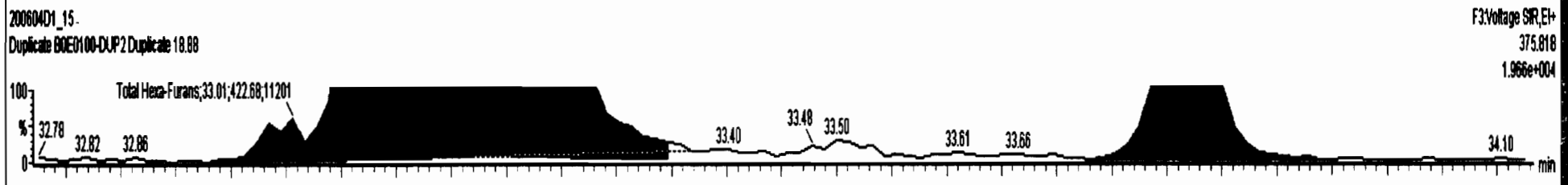
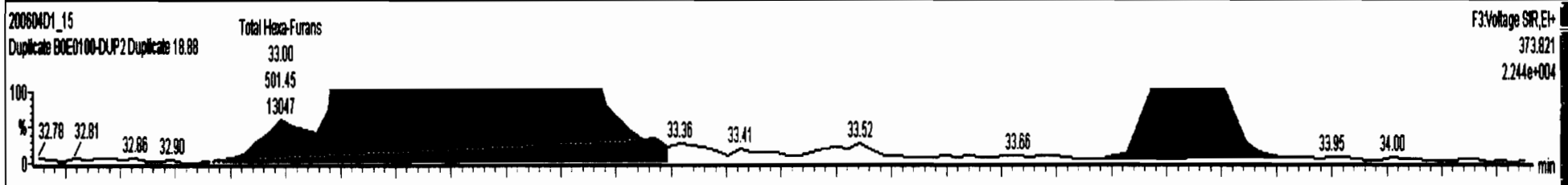


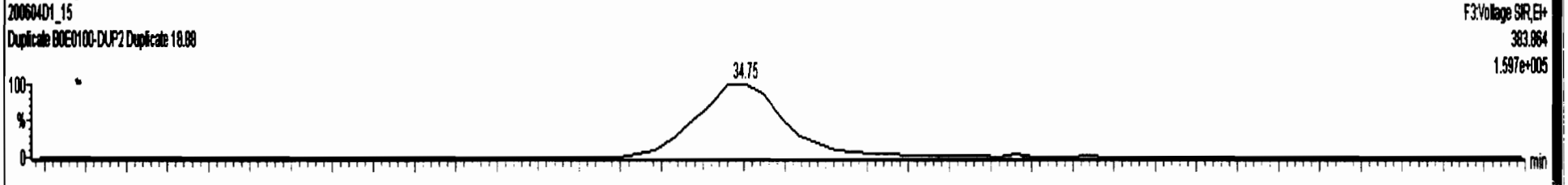
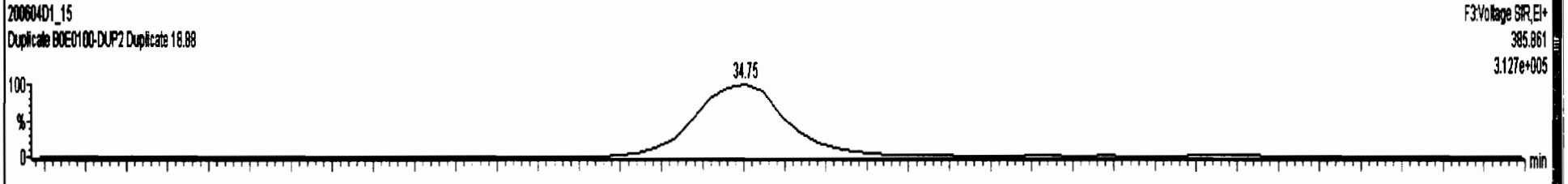
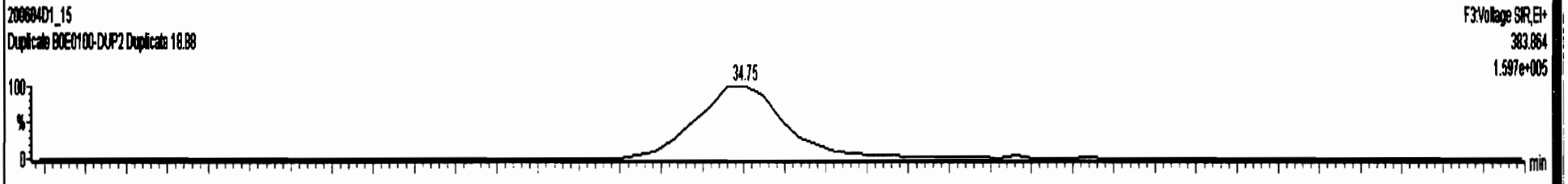
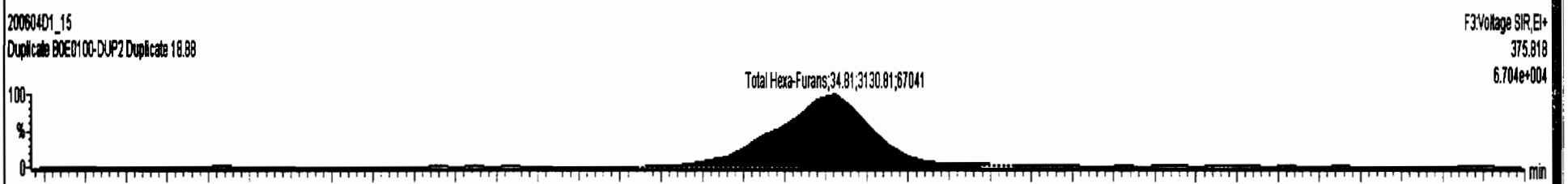












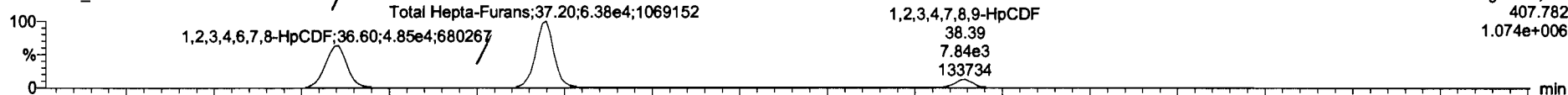
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Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

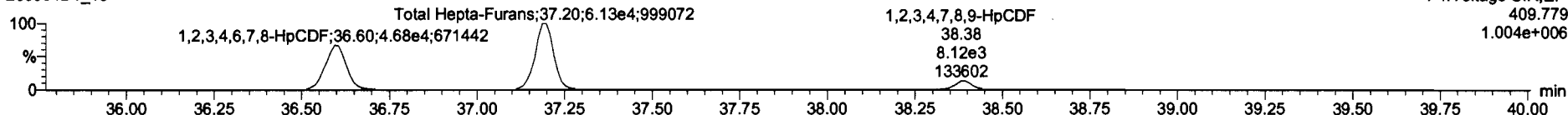
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**1,2,3,4,6,7,8-HpCDF**

200604D1\_15

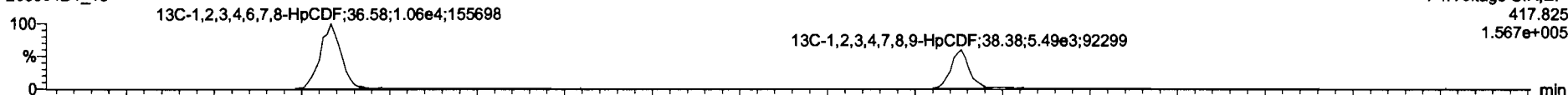


200604D1\_15

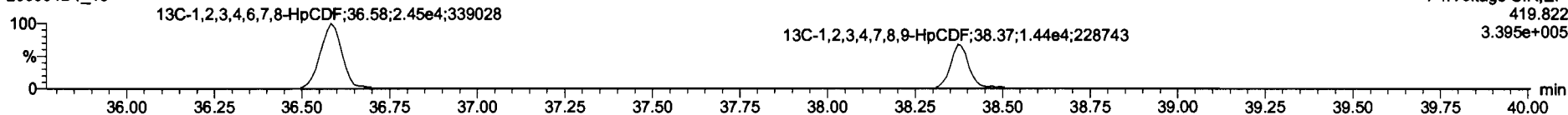


**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_15

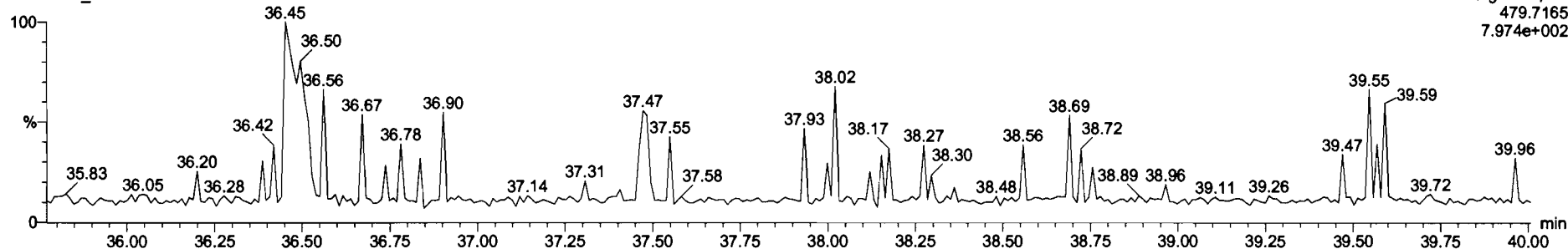


200604D1\_15

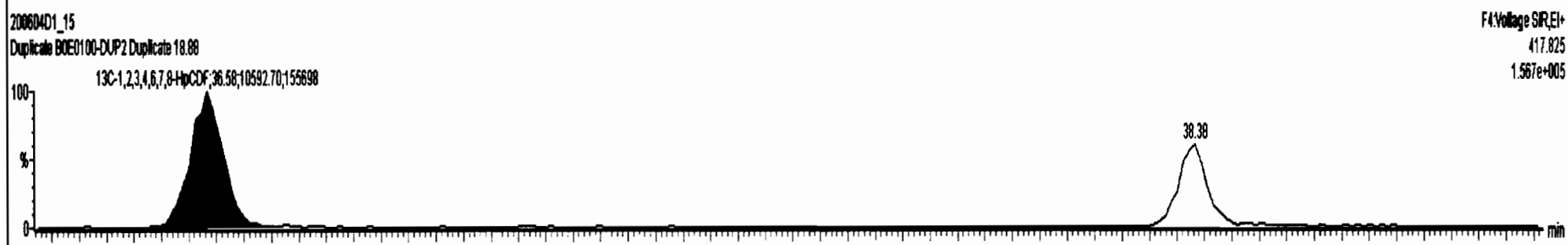
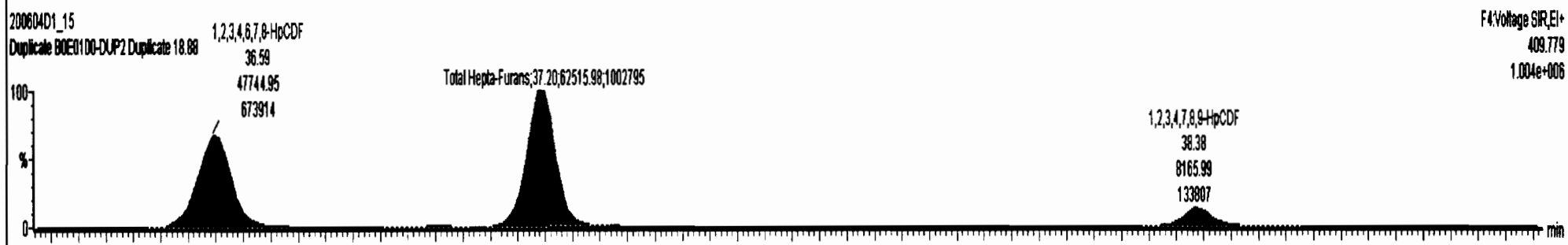
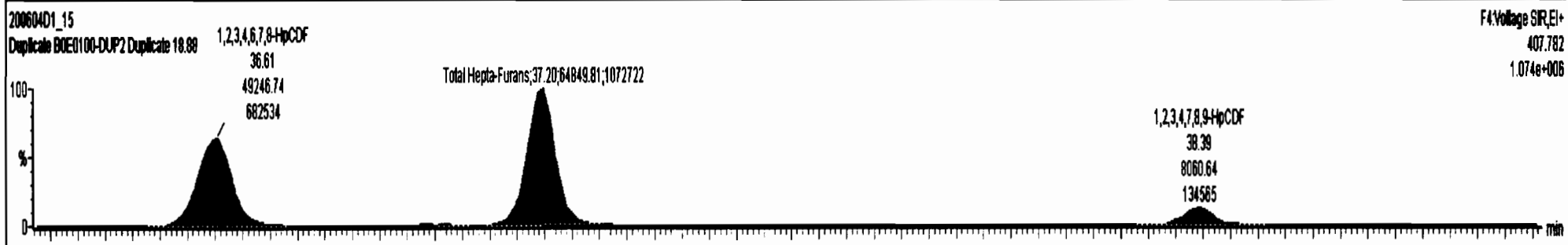


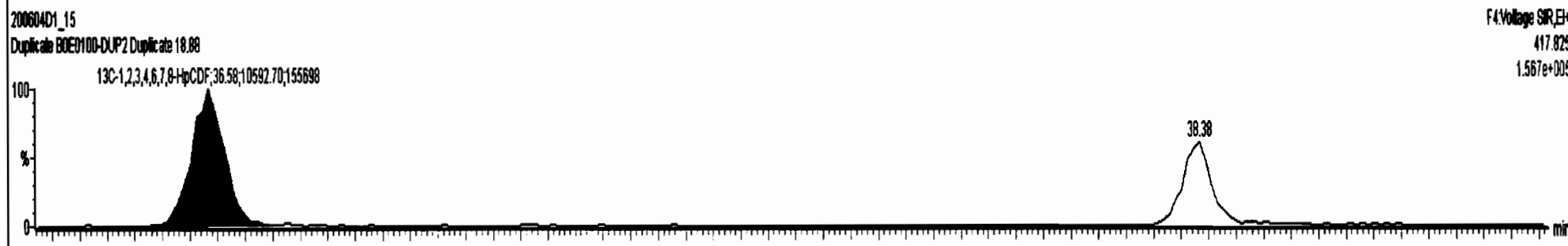
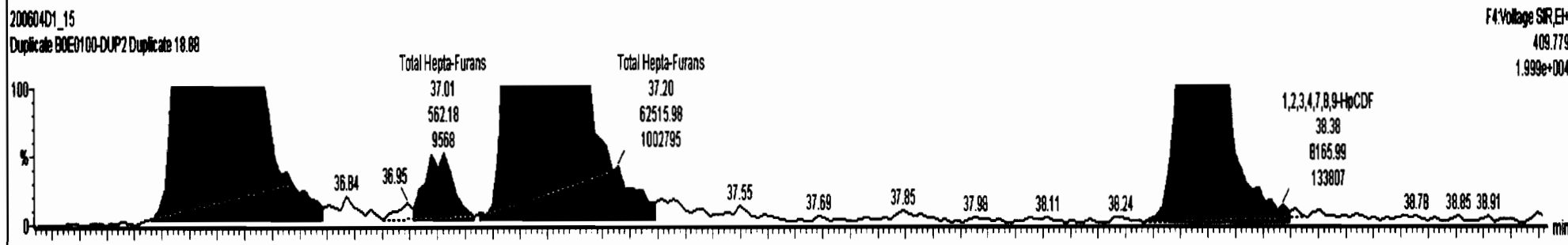
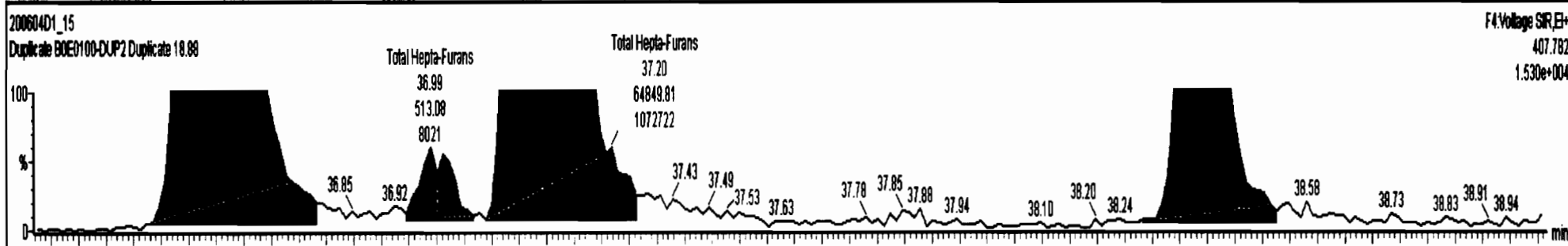
**DPE4**

200604D1\_15





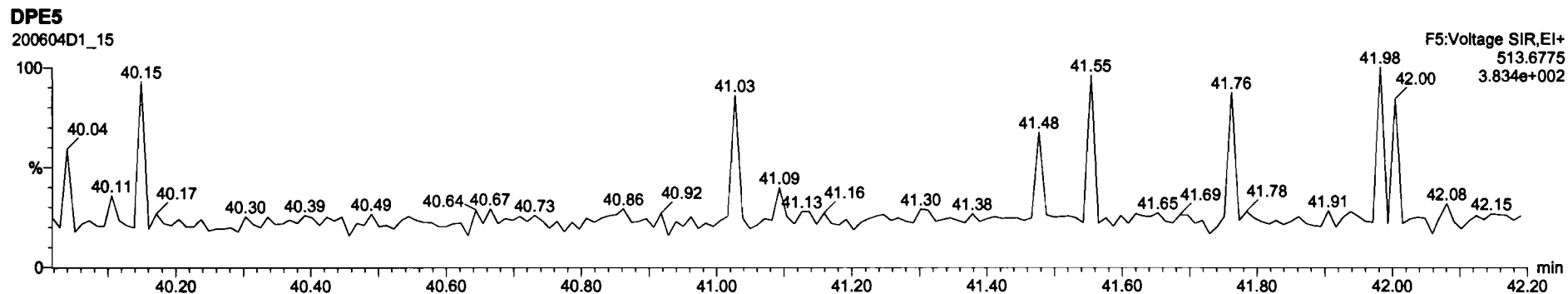
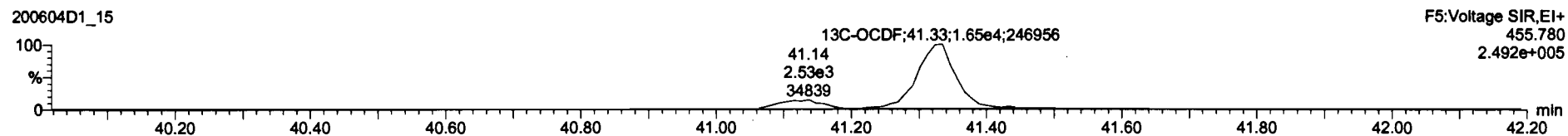
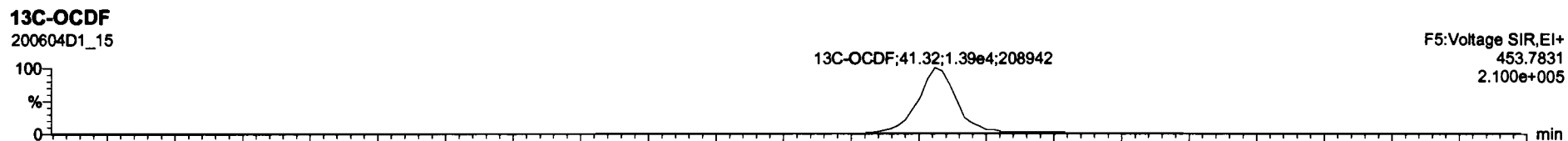
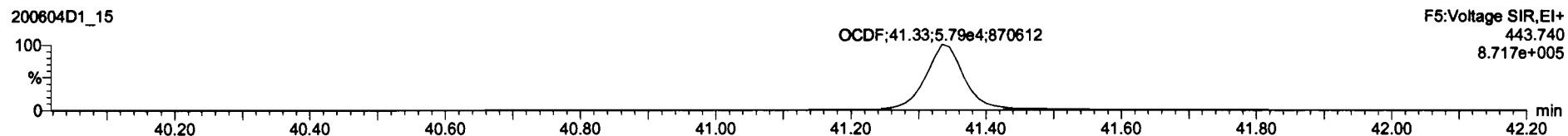
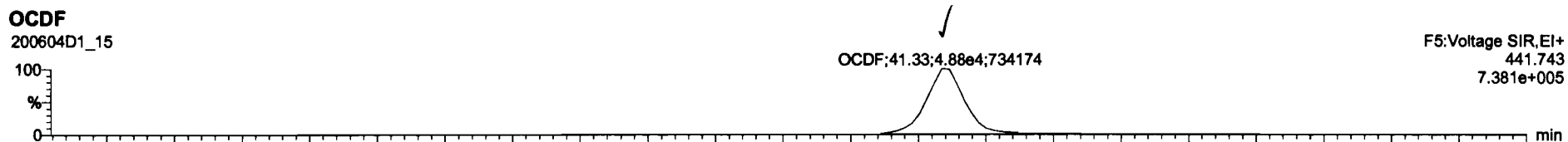


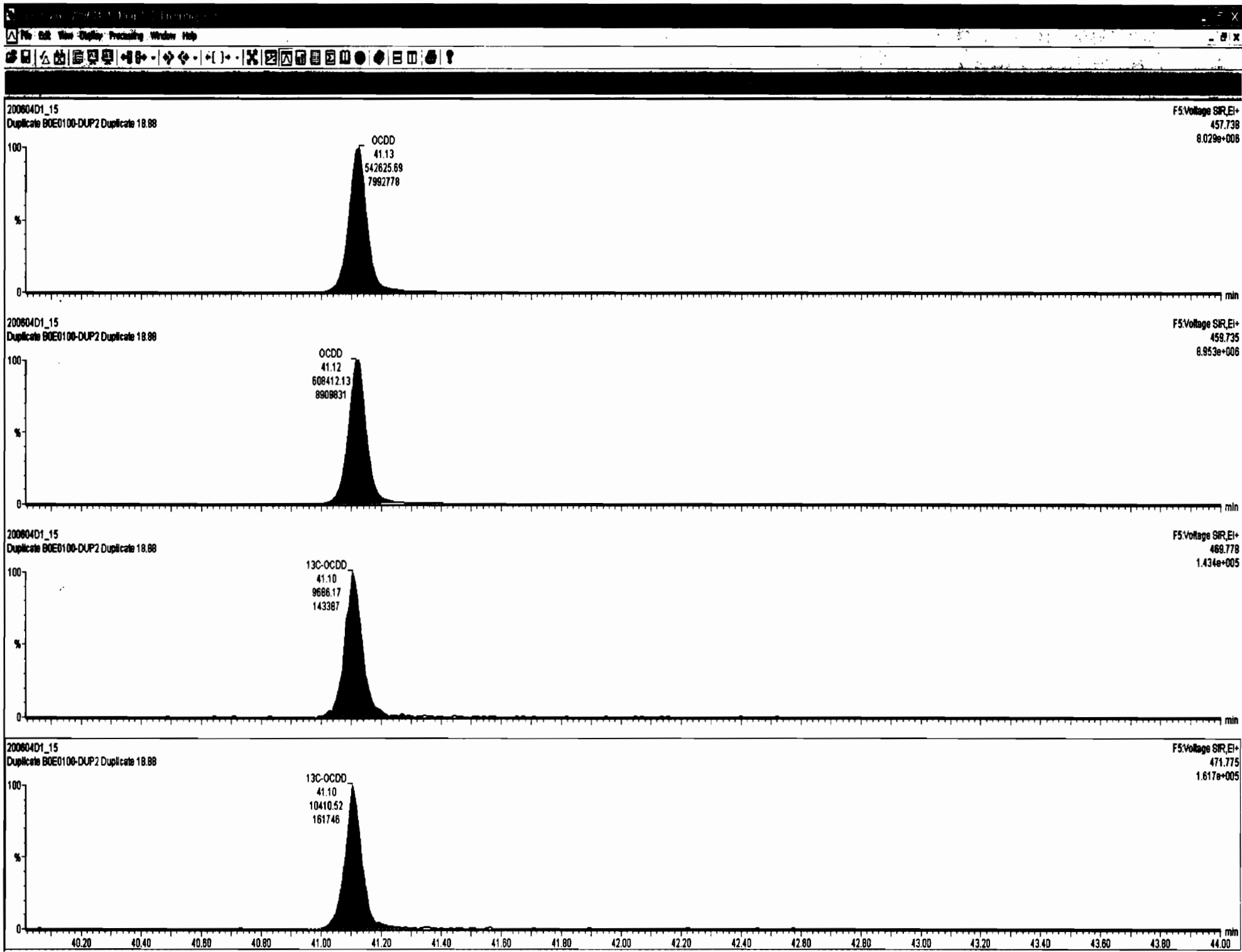


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

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Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate

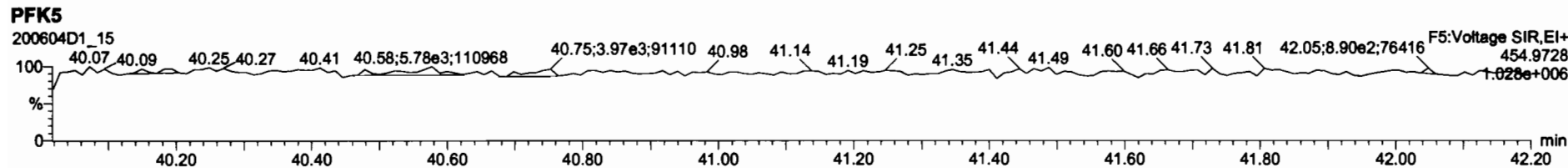
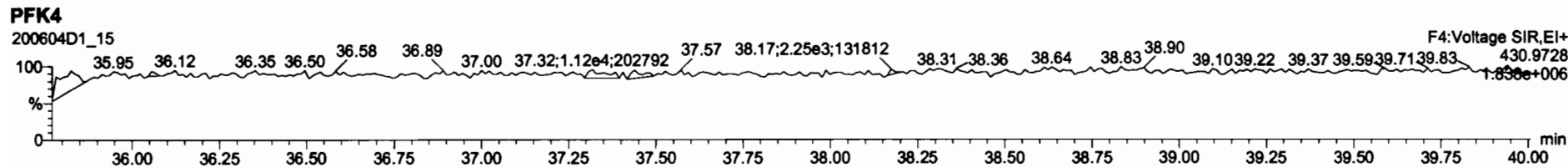
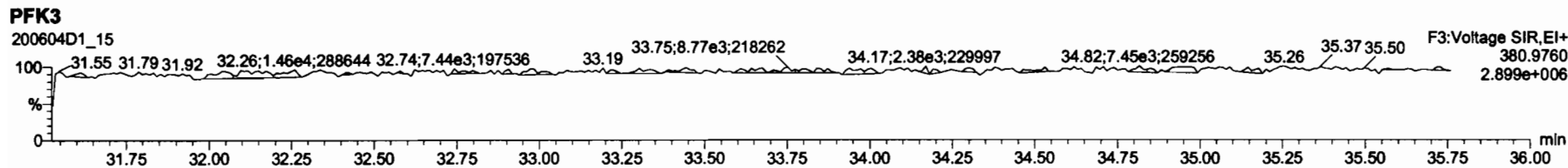
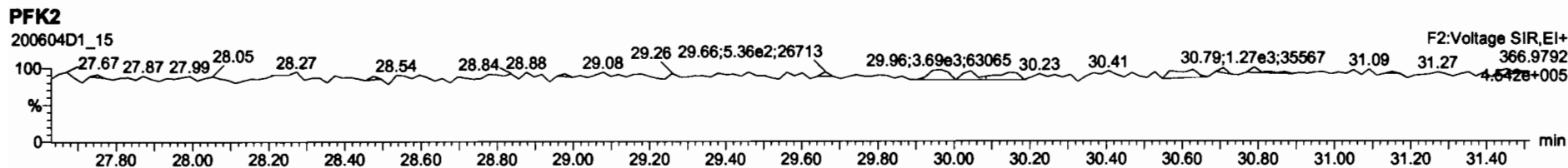
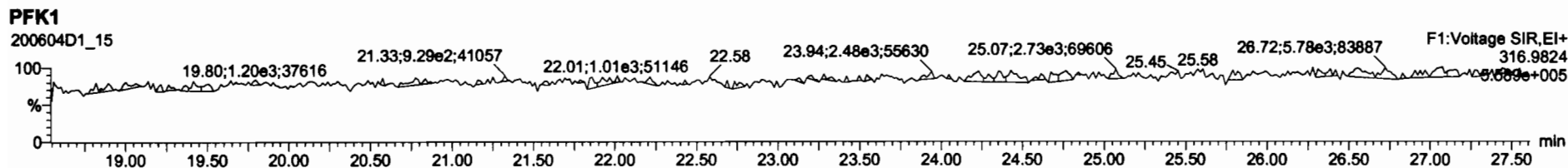




Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_15.qld

Last Altered: Friday, June 05, 2020 09:41:29 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:46:34 Pacific Daylight Time

Name: 200604D1\_15, Date: 04-Jun-2020, Time: 22:32:11, ID: B0E0100-DUP2 Duplicate 18.88, Description: Duplicate



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 10:01:08 Pacific Daylight Time

Printed: Tuesday, June 09, 2020 10:01:29 Pacific Daylight Time

*DB 6/9/20 C100g/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

|                          |        |      |    |       |        |        |       |       |       |        |      |       |
|--------------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|-------|
| 7 OCDD                   | 9.75e4 | 0.86 | NO | 1.04  | 10.004 | 41.049 | 41.07 | 1.000 | 1.001 | 20984  | 27.9 | 21000 |
| 24 13C-OCDD              | 1.79e3 | 0.80 | NO | 0.579 | 10.004 | 40.809 | 41.05 | 1.219 | 1.227 | 41.674 | 10.4 | 0.689 |
| 38 13C-1,2,3,4,6,9-HxCDF | 1.49e4 | 0.49 | NO | 1.00  | 10.004 | 33.530 | 33.47 | 1.000 | 1.000 | 199.91 | 100  | 1.57  |

Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

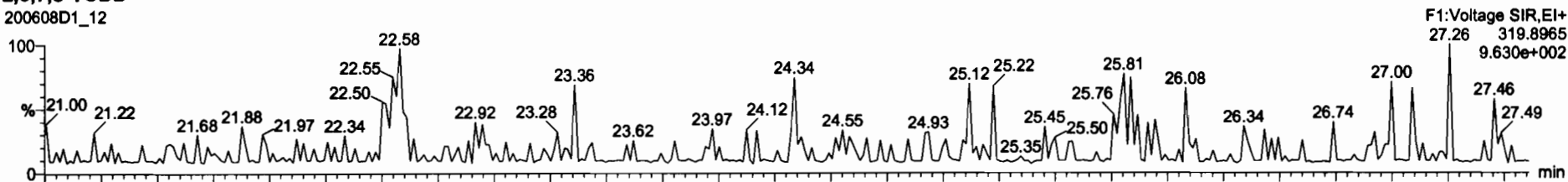
Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
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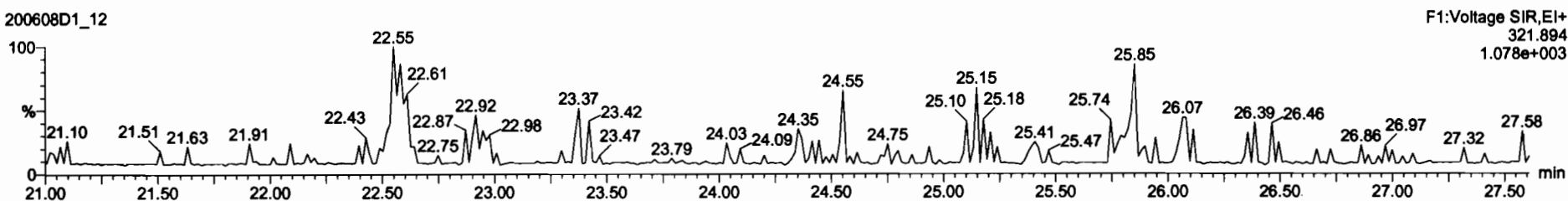
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

**2,3,7,8-TCDD**

200608D1\_12

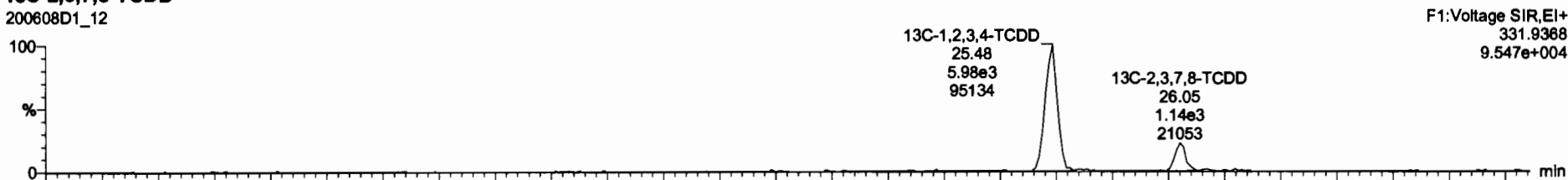


200608D1\_12

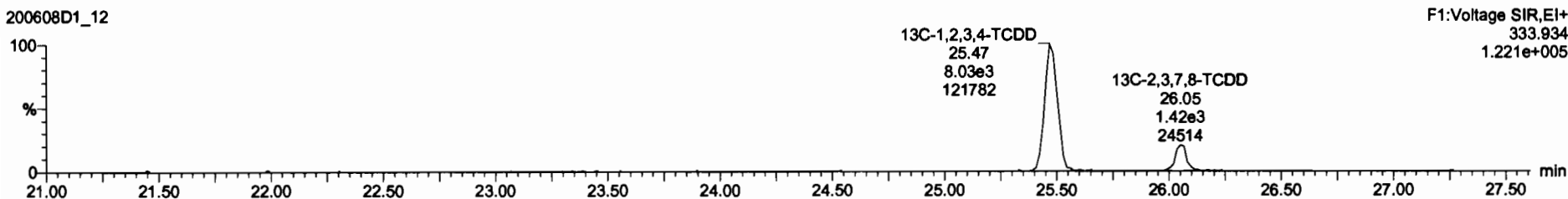


**13C-2,3,7,8-TCDD**

200608D1\_12



200608D1\_12



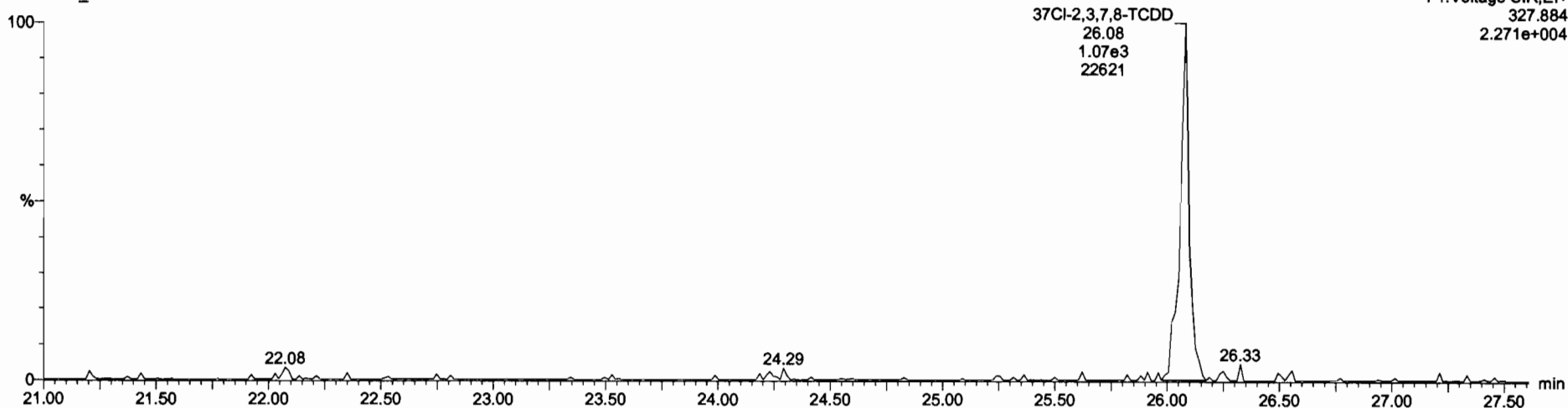
Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

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Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

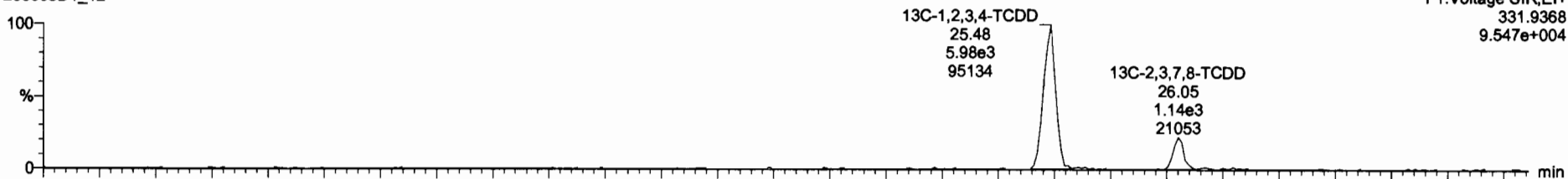
**37Cl-2,3,7,8-TCDD**

200608D1\_12

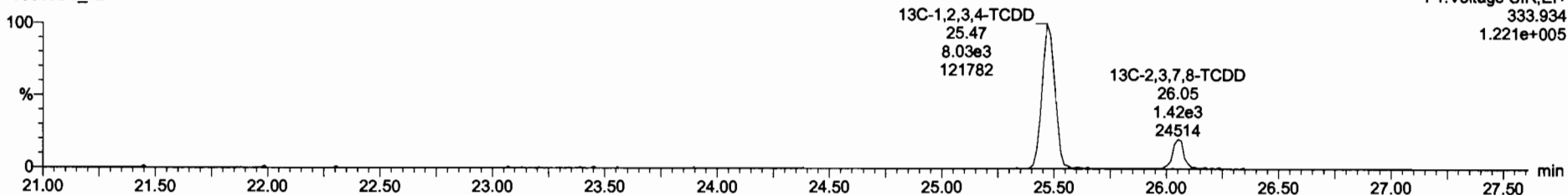


**13C-1,2,3,4-TCDD**

200608D1\_12



200608D1\_12





Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

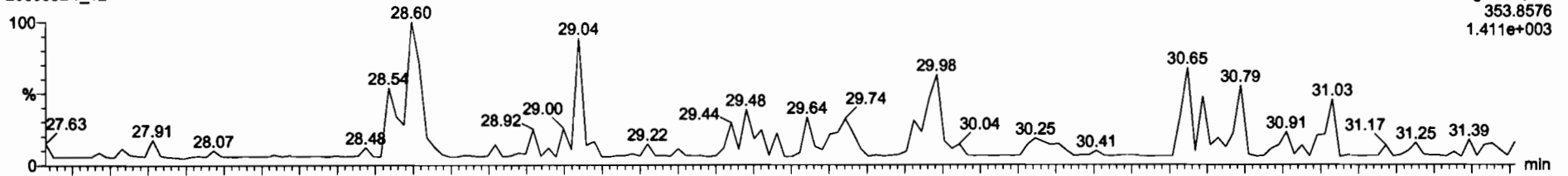
Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

**1,2,3,7,8-PeCDD**

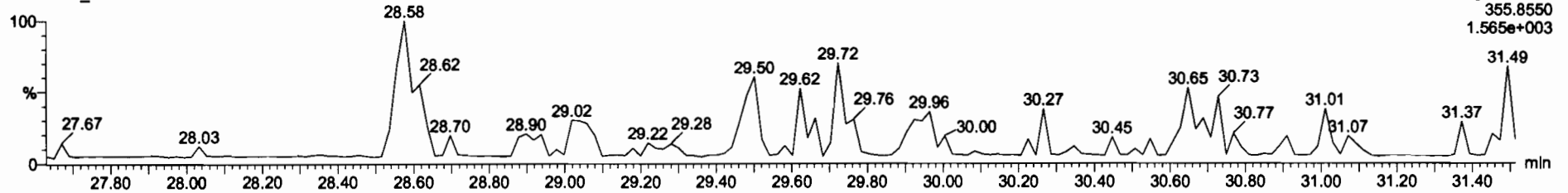
200608D1\_12

F2:Voltage SIR,EI+  
353.8576  
1.411e+003



200608D1\_12

F2:Voltage SIR,EI+  
355.8550  
1.565e+003



**<sup>13</sup>C-1,2,3,7,8-PeCDD**

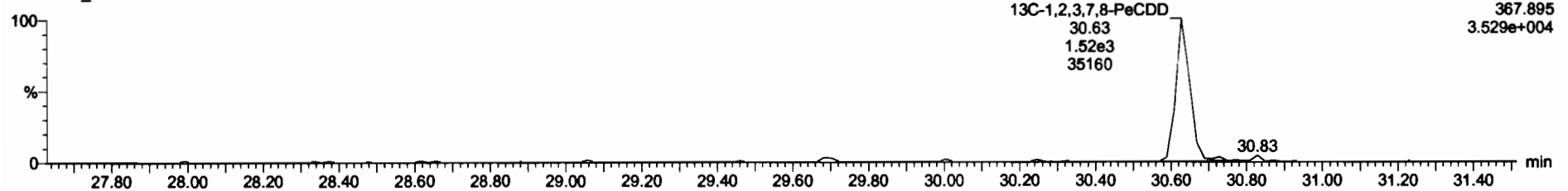
200608D1\_12

F2:Voltage SIR,EI+  
365.8978  
2.399e+004



200608D1\_12

F2:Voltage SIR,EI+  
367.895  
3.529e+004



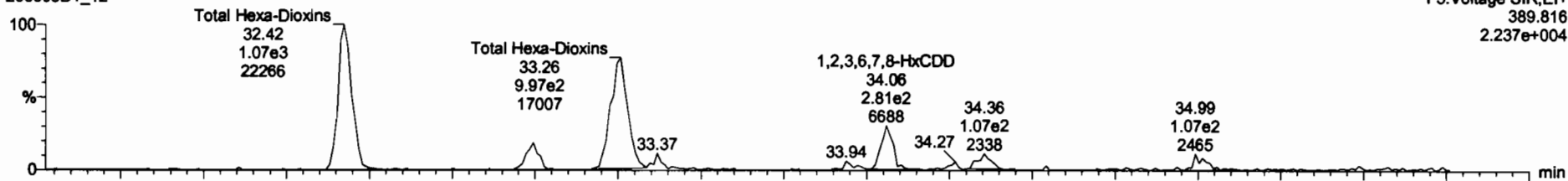
Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

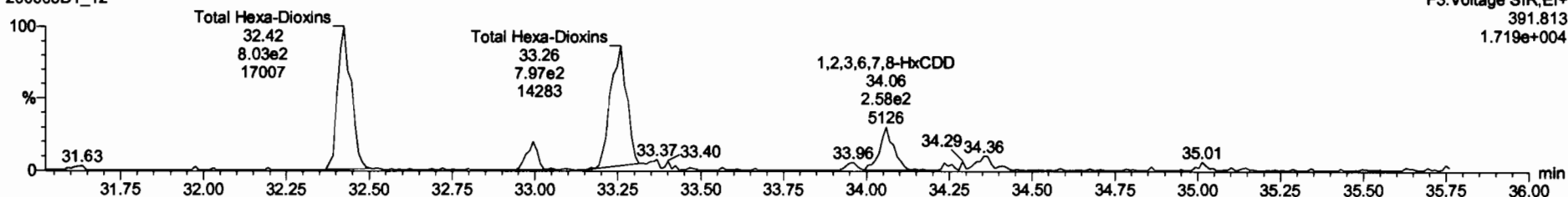
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

**1,2,3,4,7,8-HxCDD**

200608D1\_12

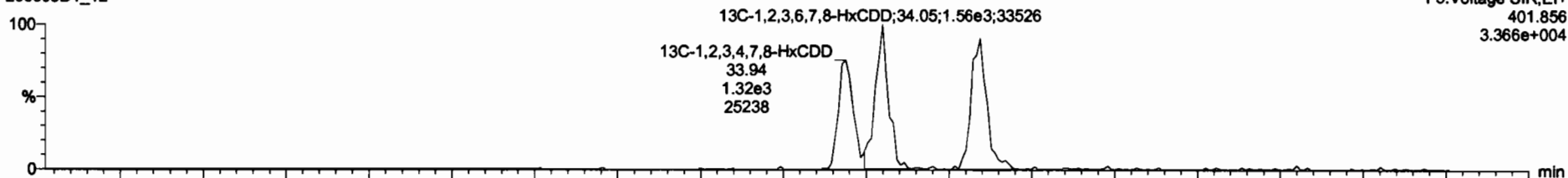


200608D1\_12

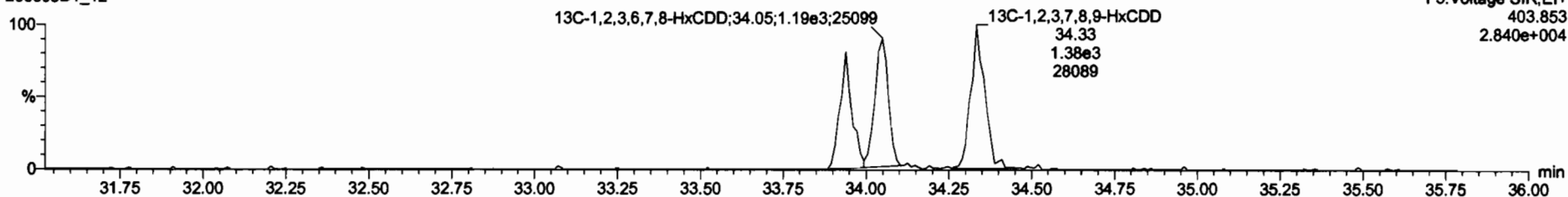


**13C-1,2,3,4,7,8-HxCDD**

200608D1\_12



200608D1\_12



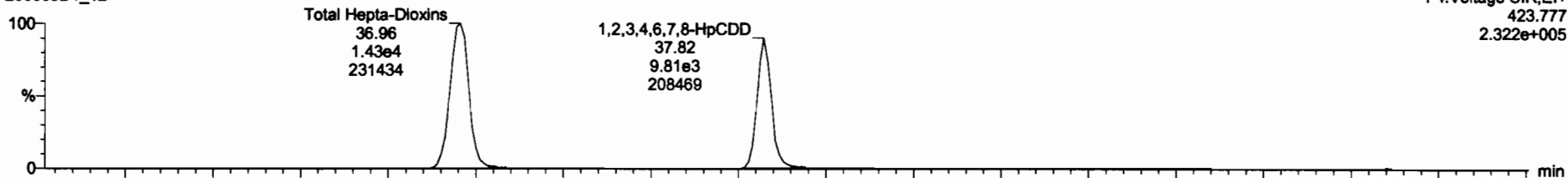
Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

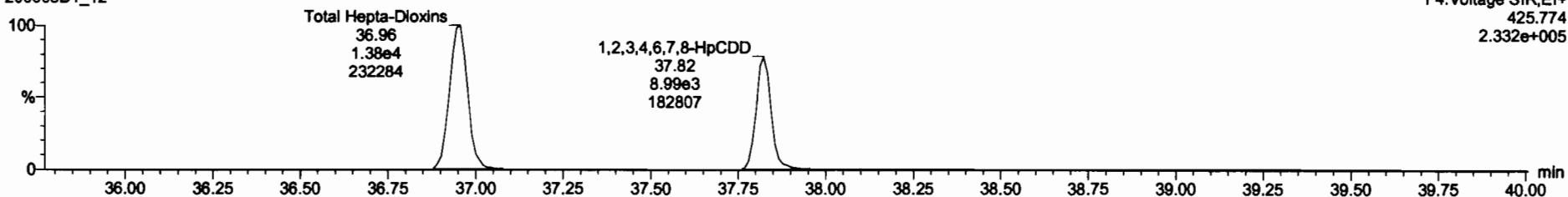
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

1,2,3,4,6,7,8-HpCDD

200608D1\_12

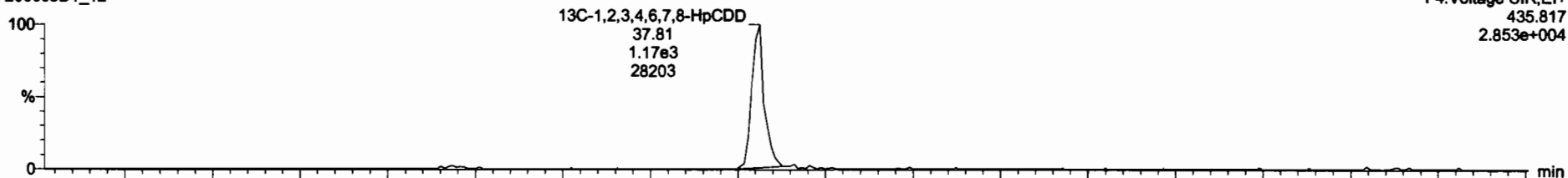


200608D1\_12

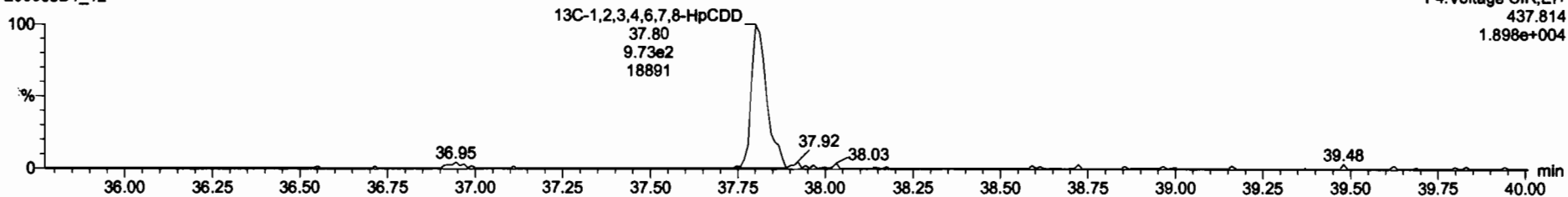


13C-1,2,3,4,6,7,8-HpCDD

200608D1\_12



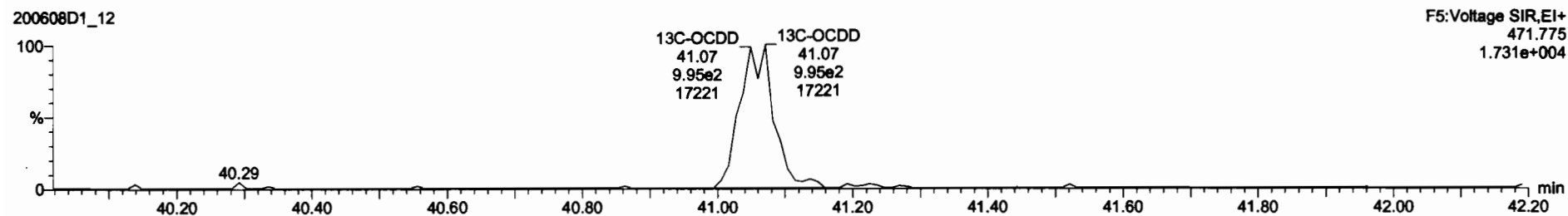
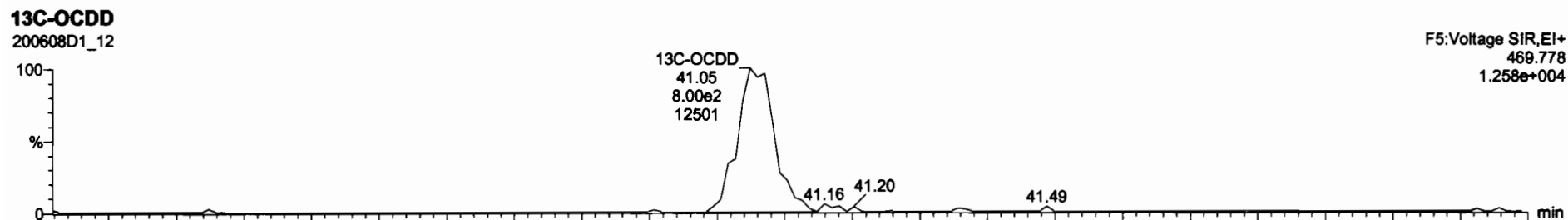
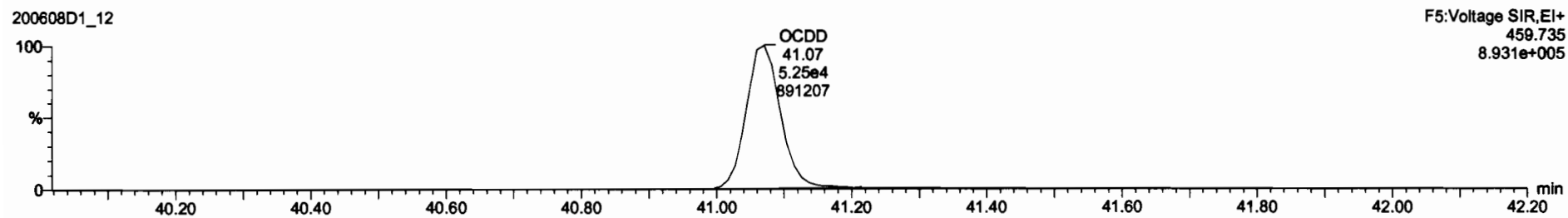
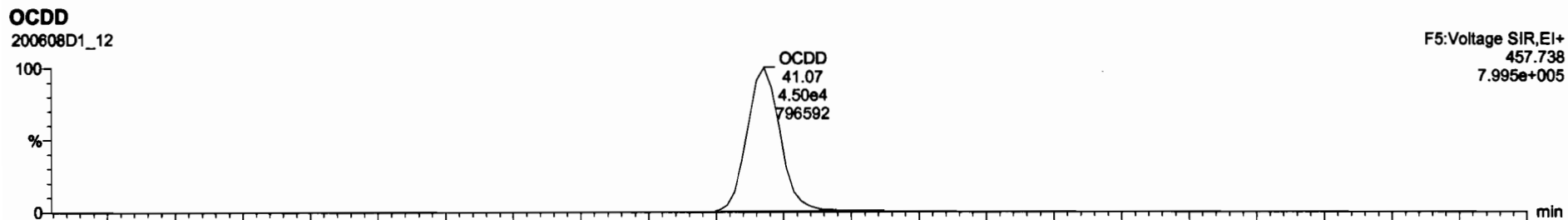
200608D1\_12



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

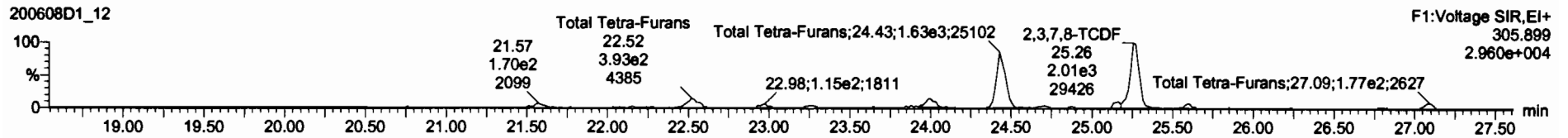
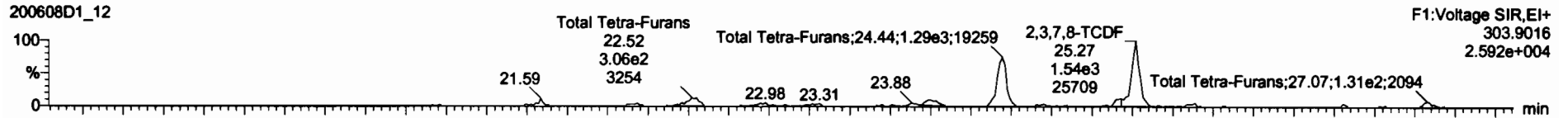


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

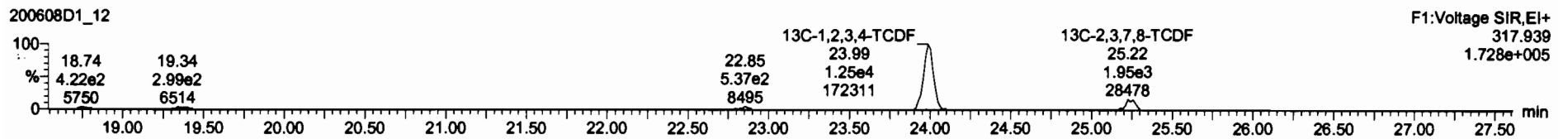
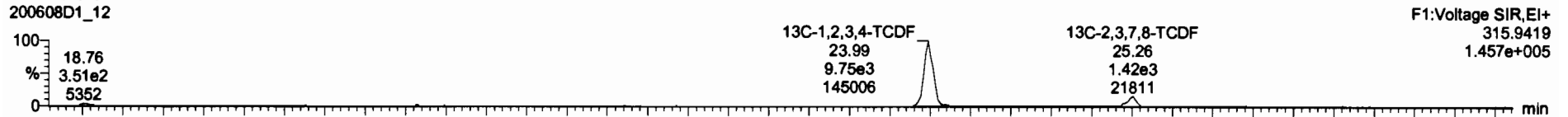
Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

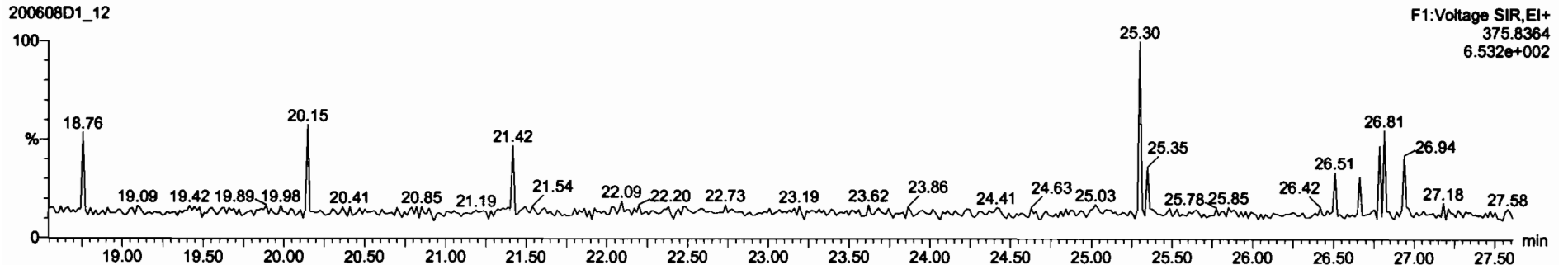
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



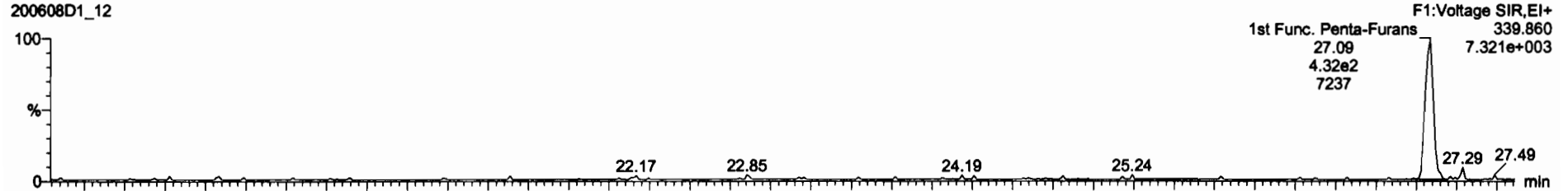
Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

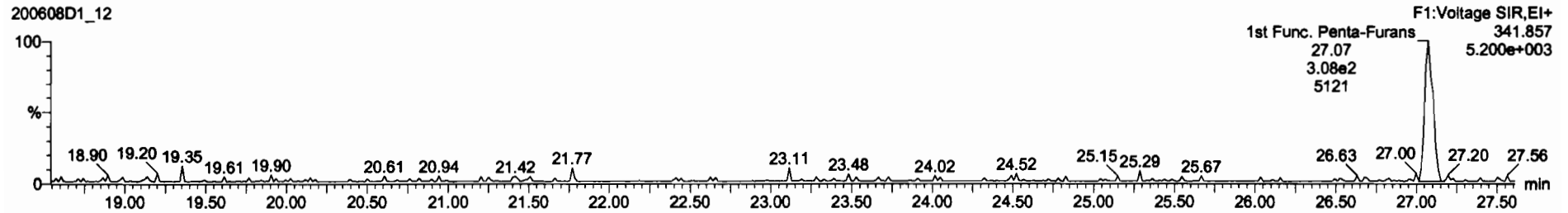
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

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200608D1\_12

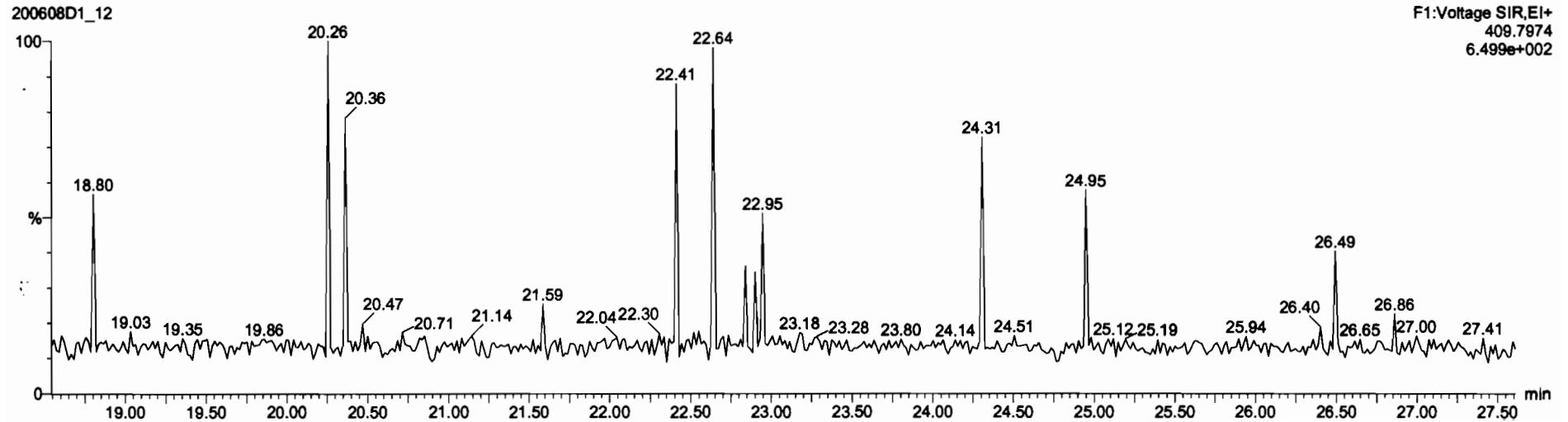


200608D1\_12



DPE6

200608D1\_12

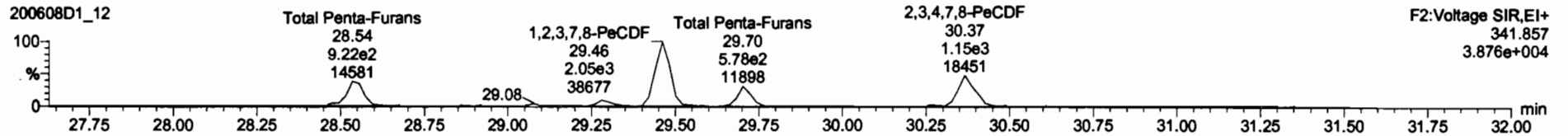
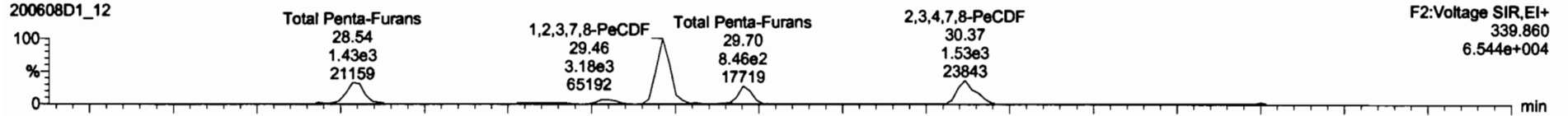


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

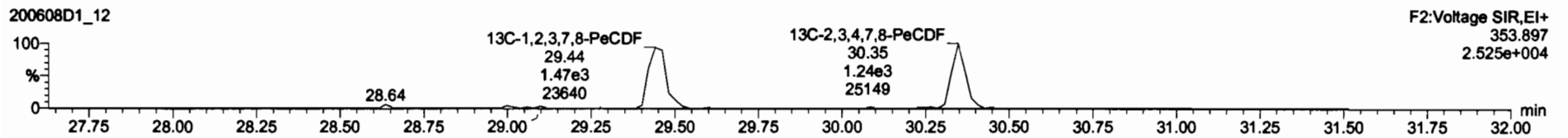
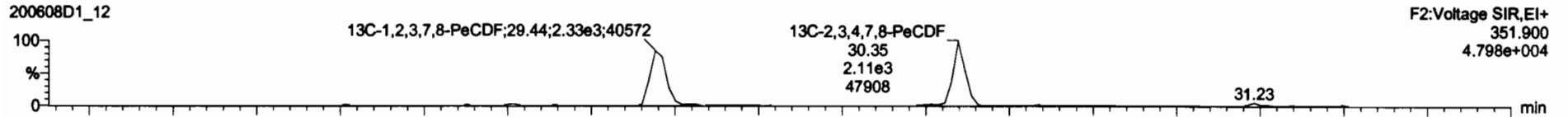
Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
 Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

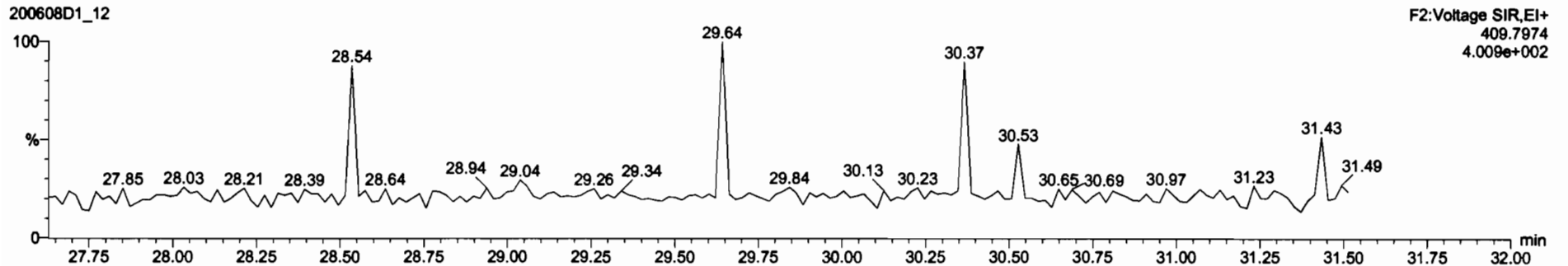
**1,2,3,7,8-PeCDF**



**13C-1,2,3,7,8-PeCDF**



**DPE2**

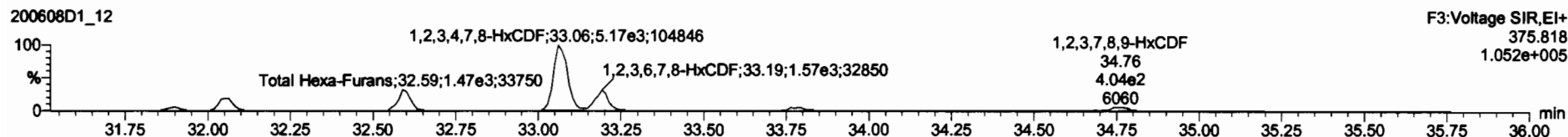
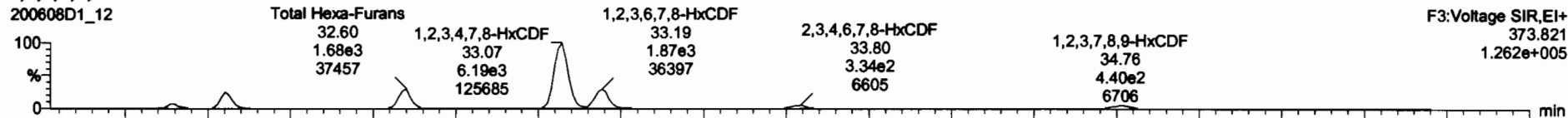


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

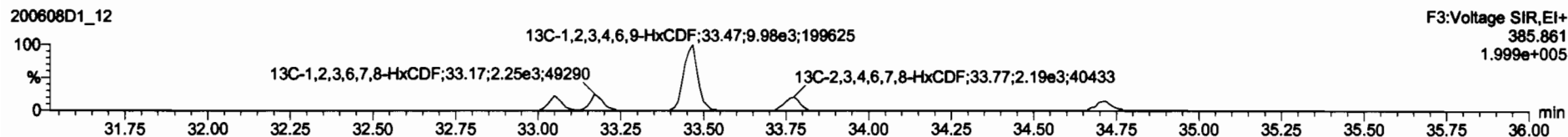
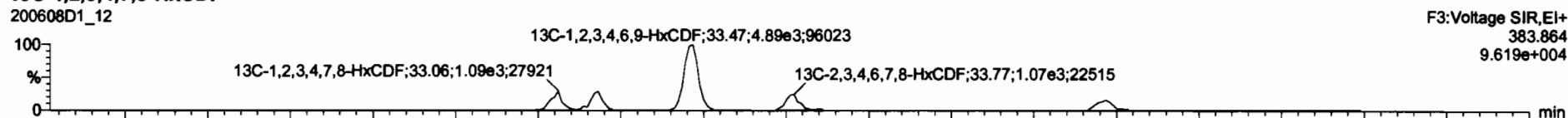
Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

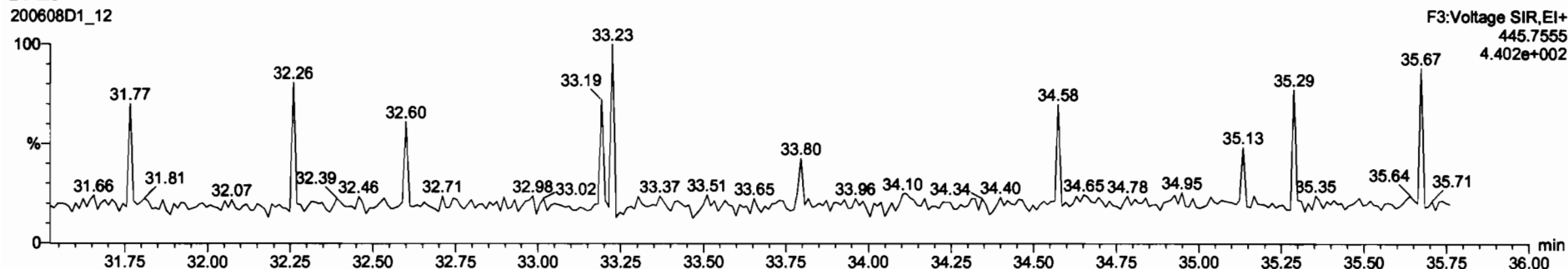
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**





Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

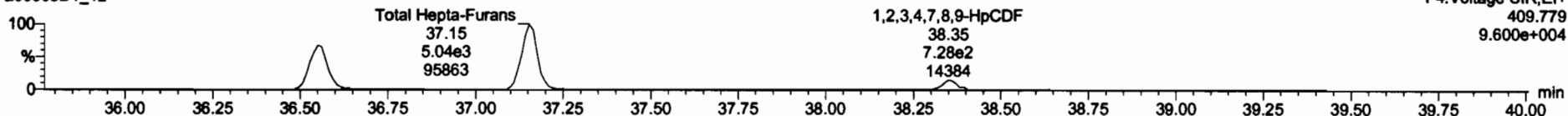
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5

1,2,3,4,6,7,8-HpCDF

200608D1\_12

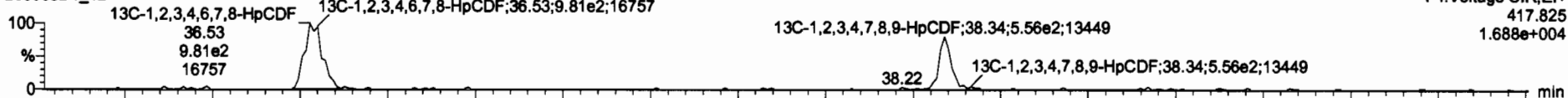


200608D1\_12

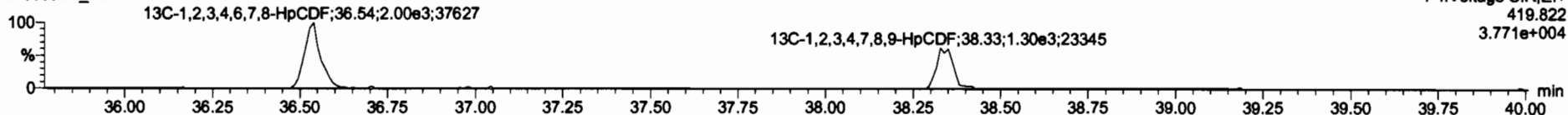


13C-1,2,3,4,6,7,8-HpCDF

200608D1\_12

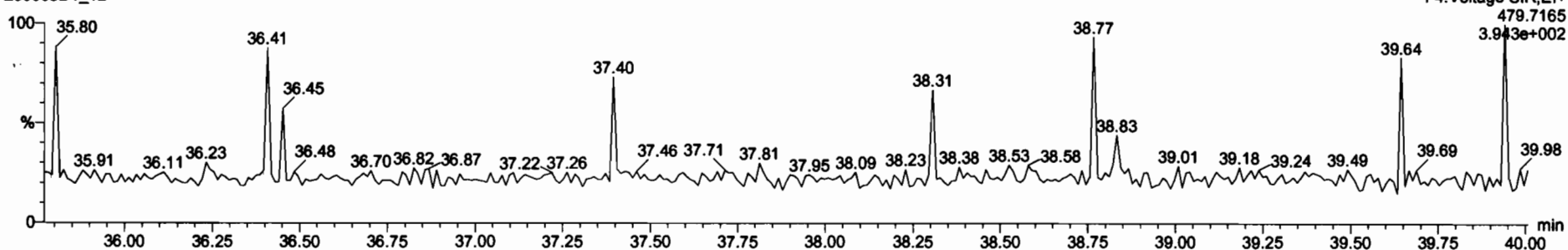


200608D1\_12



DPE4

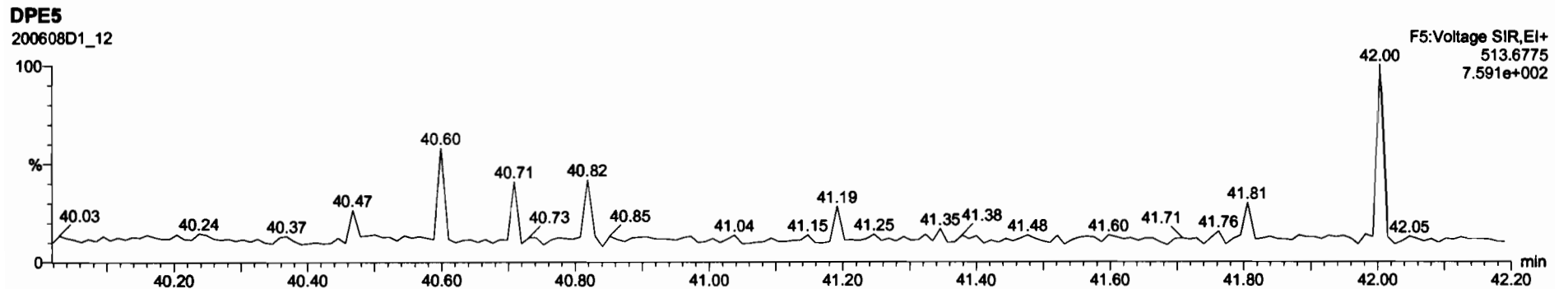
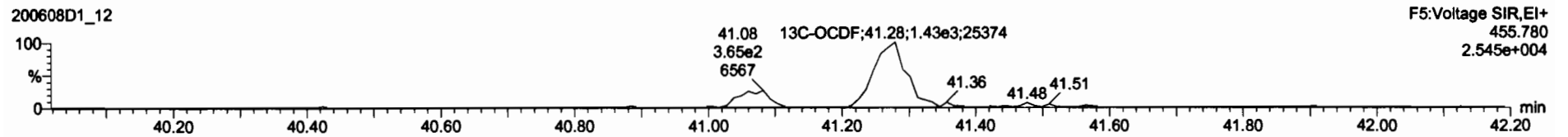
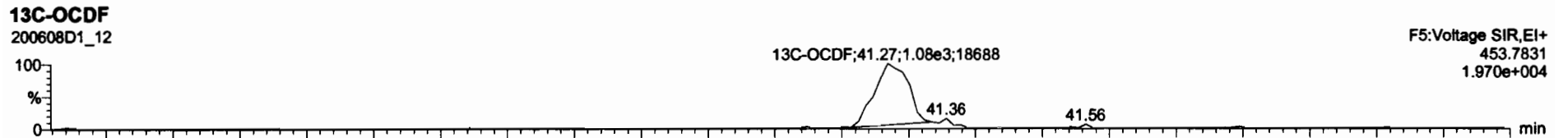
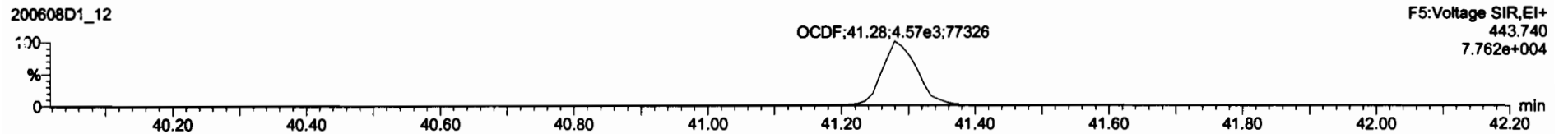
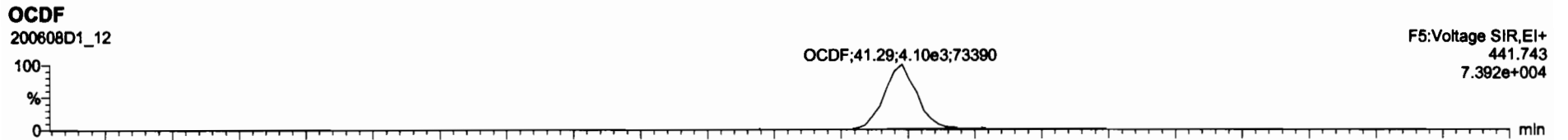
200608D1\_12



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

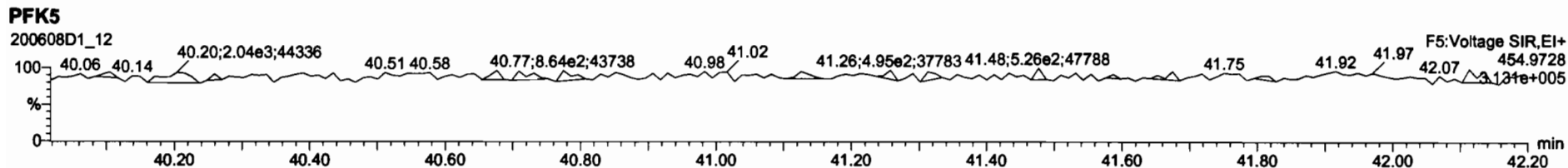
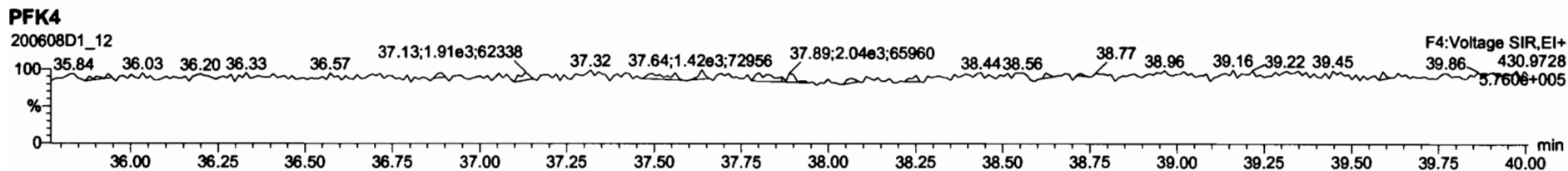
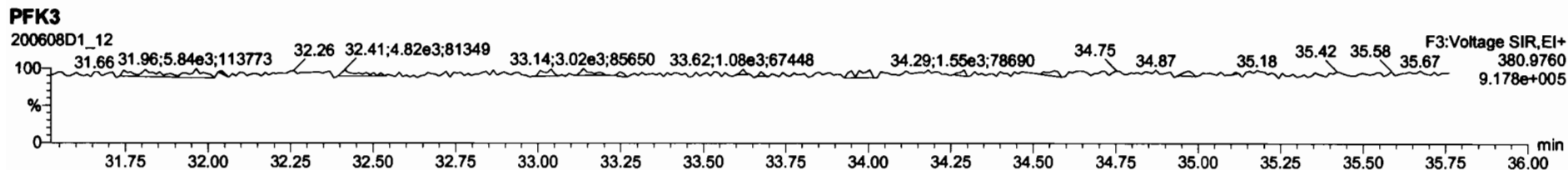
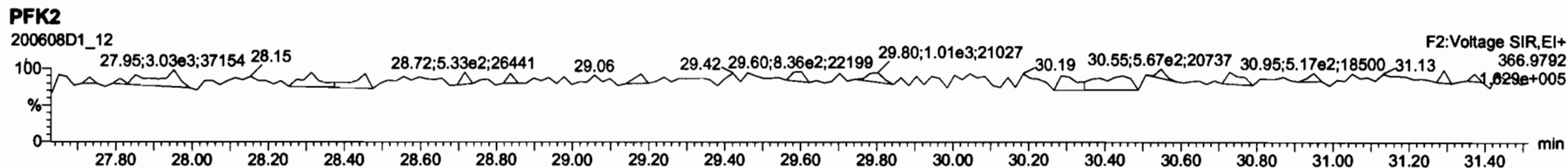
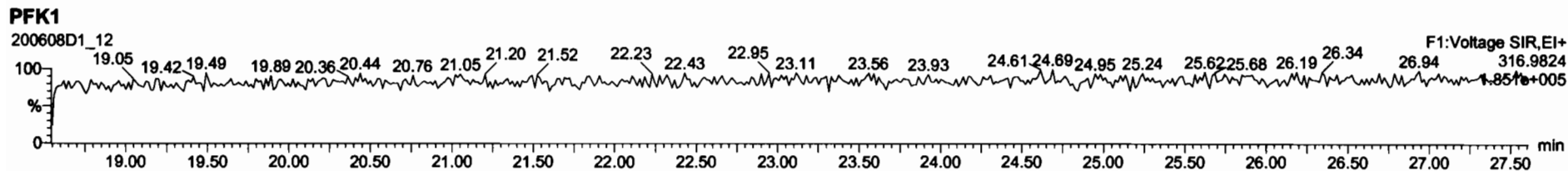
Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_12.qld

Last Altered: Tuesday, June 09, 2020 09:57:55 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:59:16 Pacific Daylight Time

Name: 200608D1\_12, Date: 08-Jun-2020, Time: 21:16:42, ID: B0E0100-DUP2@5X Duplicate 1:5 18.88, Description: Duplicate 1:5



Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_4.qld

Last Altered: Monday, June 08, 2020 12:28:14 Pacific Daylight Time  
Printed: Monday, June 08, 2020 12:30:37 Pacific Daylight Time

*JB 6/8/20 C1 06/11/2020*

Method: Untitled 27 Apr 2020 14:17:24

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

*\* see dilution*

Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

| Comp                       | RA     | ny   | RF  | ...   | ...    | ...    | ...   | ...   | ...   | ...     | ...   | ...   | ... |
|----------------------------|--------|------|-----|-------|--------|--------|-------|-------|-------|---------|-------|-------|-----|
| 1 2,3,7,8-TCDD             | 2.62e2 | 0.61 | YES | 0.987 | 10.017 | 28.158 | 26.16 | 1.001 | 1.001 | 0.37800 | 0.284 | 0.328 |     |
| 2 1,2,3,7,8-PeCDD          | 3.65e2 | 0.89 | YES | 0.982 | 10.017 | 30.670 | 30.67 | 1.001 | 1.001 | 0.76252 | 0.287 | 0.658 |     |
| 3 1,2,3,4,7,8-HxCDD        | 3.85e2 | 1.14 | NO  | 1.17  | 10.017 | 33.971 | 33.98 | 1.000 | 1.001 | 0.89400 | 0.540 | 0.894 |     |
| 4 1,2,3,6,7,8-HxCDD        | 3.79e3 | 1.25 | NO  | 1.04  | 10.017 | 34.060 | 34.08 | 1.000 | 1.001 | 8.6420  | 0.546 | 8.64  |     |
| 5 1,2,3,7,8,9-HxCDD        | 1.16e3 | 1.21 | NO  | 1.00  | 10.017 | 34.390 | 34.39 | 1.001 | 1.001 | 3.0531  | 0.616 | 3.05  |     |
| 6 1,2,3,4,6,7,8-HpCDD      | 2.07e5 | 1.04 | NO  | 0.992 | 10.017 | 37.845 | 37.86 | 1.000 | 1.001 | 750.61  | 2.77  | 751   |     |
| 7 OCDD                     | 1.31e6 | 0.89 | NO  | 1.04  | 10.017 | 41.148 | 41.16 | 1.000 | 1.000 | 6343.1E | 3.00  | 6340  | *   |
| 8 2,3,7,8-TCDF             | 1.31e4 | 0.72 | NO  | 0.882 | 10.017 | 25.357 | 25.35 | 1.001 | 1.001 | 17.245  | 0.166 | 17.2  |     |
| 9 1,2,3,7,8-PeCDF          | 1.52e4 | 1.64 | NO  | 1.05  | 10.017 | 29.502 | 29.50 | 1.001 | 1.001 | 17.275  | 0.199 | 17.3  |     |
| 10 2,3,4,7,8-PeCDF         | 6.09e3 | 1.54 | NO  | 1.06  | 10.017 | 30.385 | 30.39 | 1.001 | 1.001 | 7.4053  | 0.205 | 7.41  |     |
| 11 1,2,3,4,7,8-HxCDF       | 1.71e4 | 1.26 | NO  | 1.08  | 10.017 | 33.072 | 33.08 | 1.000 | 1.000 | 29.873  | 0.328 | 29.9  |     |
| 12 1,2,3,6,7,8-HxCDF       | 4.35e3 | 1.27 | NO  | 1.04  | 10.017 | 33.214 | 33.22 | 1.000 | 1.000 | 7.4646  | 0.337 | 7.46  |     |
| 13 2,3,4,6,7,8-HxCDF       | 1.35e3 | 1.25 | NO  | 1.11  | 10.017 | 33.819 | 33.81 | 1.001 | 1.001 | 2.5031  | 0.377 | 2.50  |     |
| 14 1,2,3,7,8,9-HxCDF       | 1.34e3 | 1.18 | NO  | 1.06  | 10.017 | 34.740 | 34.77 | 1.000 | 1.001 | 3.1350  | 0.532 | 3.13  |     |
| 15 1,2,3,4,6,7,8-HpCDF     | 1.99e4 | 1.02 | NO  | 1.13  | 10.017 | 36.609 | 36.58 | 1.001 | 1.000 | 52.860  | 0.659 | 52.9  |     |
| 16 1,2,3,4,7,8,9-HpCDF     | 2.16e3 | 0.96 | NO  | 1.33  | 10.017 | 38.372 | 38.38 | 1.000 | 1.000 | 7.0320  | 0.704 | 7.03  |     |
| 17 OCDF                    | 5.40e4 | 0.85 | NO  | 0.933 | 10.017 | 41.357 | 41.38 | 1.000 | 1.001 | 265.10  | 1.33  | 265   |     |
| 18 13C-2,3,7,8-TCDD        | 1.41e5 | 0.81 | NO  | 1.21  | 10.017 | 26.226 | 26.13 | 1.026 | 1.022 | 141.93  | 71.1  | 0.433 |     |
| 19 13C-1,2,3,7,8-PeCDD     | 9.74e4 | 0.63 | NO  | 0.996 | 10.017 | 30.724 | 30.65 | 1.202 | 1.199 | 118.92  | 59.6  | 0.299 |     |
| 20 13C-1,2,3,4,7,8-HxCDD   | 7.31e4 | 1.30 | NO  | 0.679 | 10.017 | 33.947 | 33.96 | 1.014 | 1.014 | 132.62  | 66.4  | 0.614 |     |
| 21 13C-1,2,3,6,7,8-HxCDD   | 8.45e4 | 1.23 | NO  | 0.850 | 10.017 | 34.057 | 34.06 | 1.017 | 1.017 | 122.34  | 61.3  | 0.490 |     |
| 22 13C-1,2,3,7,8,9-HxCDD   | 7.56e4 | 1.22 | NO  | 0.798 | 10.017 | 34.328 | 34.36 | 1.025 | 1.026 | 116.56  | 58.4  | 0.522 |     |
| 23 13C-1,2,3,4,6,7,8-HpCDD | 5.54e4 | 1.00 | NO  | 0.697 | 10.017 | 37.797 | 37.83 | 1.129 | 1.130 | 97.875  | 49.0  | 0.482 |     |
| 24 13C-OCDD                | 7.99e4 | 0.91 | NO  | 0.579 | 10.017 | 40.823 | 41.15 | 1.219 | 1.229 | 169.77  | 42.5  | 0.477 | *   |
| 25 13C-2,3,7,8-TCDF        | 1.71e5 | 0.74 | NO  | 1.13  | 10.017 | 25.305 | 25.33 | 0.990 | 0.991 | 125.36  | 62.8  | 0.481 |     |
| 26 13C-1,2,3,7,8-PeCDF     | 1.68e5 | 1.63 | NO  | 0.996 | 10.017 | 29.541 | 29.48 | 1.156 | 1.153 | 139.27  | 69.8  | 0.541 |     |
| 27 13C-2,3,4,7,8-PeCDF     | 1.55e5 | 1.61 | NO  | 0.969 | 10.017 | 30.443 | 30.37 | 1.191 | 1.188 | 131.76  | 66.0  | 0.556 |     |
| 28 13C-1,2,3,4,7,8-HxCDF   | 1.05e5 | 0.50 | NO  | 1.06  | 10.017 | 33.076 | 33.07 | 0.988 | 0.988 | 122.55  | 61.4  | 0.533 |     |
| 29 13C-1,2,3,6,7,8-HxCDF   | 1.12e5 | 0.47 | NO  | 1.18  | 10.017 | 33.210 | 33.20 | 0.992 | 0.992 | 116.84  | 58.5  | 0.480 |     |
| 30 13C-2,3,4,6,7,8-HxCDF   | 9.70e4 | 0.48 | NO  | 1.06  | 10.017 | 33.783 | 33.78 | 1.009 | 1.009 | 112.95  | 56.6  | 0.534 |     |
| 31 13C-1,2,3,7,8,9-HxCDF   | 8.05e4 | 0.47 | NO  | 0.879 | 10.017 | 34.683 | 34.74 | 1.036 | 1.038 | 112.67  | 56.4  | 0.642 |     |

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Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

|    |                         |        |      |    |       |        |        |       |       |       |        |      |        |      |
|----|-------------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|--------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 6.67e4 | 0.42 | NO | 0.893 | 10.017 | 36.391 | 36.57 | 1.087 | 1.092 | 91.919 | 46.0 | 0.520  |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 4.61e4 | 0.44 | NO | 0.613 | 10.017 | 38.399 | 38.37 | 1.147 | 1.146 | 92.418 | 46.3 | 0.756  |      |
| 34 | 13C-OCDF                | 8.72e4 | 0.91 | NO | 0.741 | 10.017 | 40.977 | 41.36 | 1.224 | 1.235 | 144.84 | 36.3 | 0.481  |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 5.37e4 |      |    | 1.18  | 10.017 | 26.223 | 26.14 | 1.026 | 1.023 | 55.347 | 69.3 | 0.0664 |      |
| 36 | 13C-1,2,3,4-TCDD        | 1.64e5 | 0.86 | NO | 1.00  | 10.017 | 25.480 | 25.56 | 1.000 | 1.000 | 199.65 | 100  | 0.523  |      |
| 37 | 13C-1,2,3,4-TCDF        | 2.42e5 | 0.75 | NO | 1.00  | 10.017 | 24.020 | 24.11 | 1.000 | 1.000 | 199.65 | 100  | 0.542  |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 1.62e5 | 0.49 | NO | 1.00  | 10.017 | 33.530 | 33.48 | 1.000 | 1.000 | 199.65 | 100  | 0.564  |      |
| 39 | Total Tetra-Dioxins     |        |      |    | 0.987 | 10.017 | 24.620 |       | 0.000 |       | 4.7935 |      | 0.254  | 6.84 |
| 40 | Total Penta-Dioxins     |        |      |    | 0.982 | 10.017 | 29.960 |       | 0.000 |       | 6.9035 |      | 0.267  | 10.4 |
| 41 | Total Hexa-Dioxins      |        |      |    | 1.04  | 10.017 | 33.635 |       | 0.000 |       | 112.46 |      | 0.583  | 112  |
| 42 | Total Hepta-Dioxins     |        |      |    | 0.992 | 10.017 | 37.640 |       | 0.000 |       | 1855.6 |      | 2.77   | 1860 |
| 43 | Total Tetra-Furans      |        |      |    | 0.882 | 10.017 | 23.610 |       | 0.000 |       | 59.493 |      | 0.166  | 63.1 |
| 44 | 1st Func. Penta-Furans  |        |      |    | 1.05  | 10.017 | 27.090 |       | 0.000 |       | 7.3284 |      | 0.0587 | 7.33 |
| 45 | Total Penta-Furans      |        |      |    | 1.05  | 10.017 | 29.275 |       | 0.000 |       | 53.296 |      | 0.203  | 53.3 |
| 46 | Total Hexa-Furans       |        |      |    | 1.11  | 10.017 | 33.555 |       | 0.000 |       | 84.061 |      | 0.370  | 84.1 |
| 47 | Total Hepta-Furans      |        |      |    | 1.13  | 10.017 | 37.835 |       | 0.000 |       | 254.57 |      | 0.730  | 255  |

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Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

**Tetra-Dioxins**

|                     | RT    | m1 Height | m2 Height | m1 Ratio | m2 Ratio | IS   | MS  | Area    | Area    | Area    | Area  |
|---------------------|-------|-----------|-----------|----------|----------|------|-----|---------|---------|---------|-------|
| Total Tetra-Dioxins | 22.70 | 7.336e3   | 8.713e3   | 5.259e2  | 7.099e2  | 0.74 | NO  | 1.236e3 | 1.7751  | 1.7751  | 0.254 |
| Total Tetra-Dioxins | 23.07 | 2.145e3   | 1.885e3   | 1.898e2  | 1.484e2  | 1.30 | YES | 0.000e0 | 0.00000 | 0.37213 | 0.254 |
| Total Tetra-Dioxins | 23.48 | 1.866e3   | 2.322e3   | 1.669e2  | 1.636e2  | 1.02 | YES | 0.000e0 | 0.00000 | 0.41582 | 0.254 |
| Total Tetra-Dioxins | 24.23 | 1.951e3   | 1.775e3   | 8.756e1  | 1.112e2  | 0.79 | NO  | 1.987e2 | 0.28547 | 0.26547 | 0.254 |
| Total Tetra-Dioxins | 24.44 | 2.945e3   | 4.533e3   | 2.716e2  | 3.646e2  | 0.74 | NO  | 6.362e2 | 0.91382 | 0.91382 | 0.254 |
| Total Tetra-Dioxins | 24.64 | 2.759e3   | 3.834e3   | 1.995e2  | 2.467e2  | 0.81 | NO  | 4.463e2 | 0.64102 | 0.64102 | 0.254 |
| Total Tetra-Dioxins | 24.84 | 1.344e3   | 1.861e3   | 1.020e2  | 1.050e2  | 0.97 | YES | 0.000e0 | 0.00000 | 0.26693 | 0.254 |
| Total Tetra-Dioxins | 25.03 | 1.263e3   | 1.698e3   | 9.905e1  | 1.025e2  | 0.97 | YES | 0.000e0 | 0.00000 | 0.26049 | 0.254 |
| Total Tetra-Dioxins | 25.19 | 1.940e3   | 2.319e3   | 9.379e1  | 1.338e2  | 0.70 | NO  | 2.276e2 | 0.32693 | 0.32693 | 0.254 |
| Total Tetra-Dioxins | 25.53 | 1.083e3   | 4.084e3   | 6.465e1  | 1.694e2  | 0.38 | YES | 0.000e0 | 0.00000 | 0.21346 | 0.254 |
| Total Tetra-Dioxins | 25.91 | 2.017e3   | 3.340e3   | 1.421e2  | 2.132e2  | 0.67 | NO  | 3.553e2 | 0.51033 | 0.51033 | 0.254 |
| 2,3,7,8-TCDD        | 26.16 | 1.495e3   | 2.174e3   | 9.943e1  | 1.623e2  | 0.61 | YES | 2.618e2 | 0.00000 | 0.32830 | 0.254 |
| Total Tetra-Dioxins | 26.42 | 1.729e3   | 2.499e3   | 9.591e1  | 1.414e2  | 0.68 | NO  | 2.373e2 | 0.34084 | 0.34084 | 0.254 |
| Total Tetra-Dioxins | 27.00 | 1.767e3   | 1.880e3   | 9.520e1  | 7.571e1  | 1.26 | YES | 0.000e0 | 0.00000 | 0.19248 | 0.254 |

**Penta-Dioxins**

|                     | RT    | m1 Height | m2 Height | m1 Ratio | m2 Ratio | IS   | MS  | Area    | Area    | Area    | Area  |
|---------------------|-------|-----------|-----------|----------|----------|------|-----|---------|---------|---------|-------|
| Total Penta-Dioxins | 28.60 | 6.491e3   | 1.143e4   | 4.992e2  | 8.523e2  | 0.59 | NO  | 1.352e3 | 2.8202  | 2.8202  | 0.267 |
| Total Penta-Dioxins | 29.08 | 4.479e3   | 6.607e3   | 2.536e2  | 3.340e2  | 0.76 | YES | 0.000e0 | 0.00000 | 1.1361  | 0.267 |
| Total Penta-Dioxins | 29.52 | 4.703e3   | 8.212e3   | 2.341e2  | 4.005e2  | 0.58 | NO  | 6.346e2 | 1.3241  | 1.3241  | 0.267 |
| Total Penta-Dioxins | 29.68 | 2.687e3   | 5.384e3   | 1.366e2  | 2.629e2  | 0.52 | YES | 0.000e0 | 0.00000 | 0.73758 | 0.267 |
| Total Penta-Dioxins | 29.76 | 3.515e3   | 4.377e3   | 1.620e2  | 2.095e2  | 0.77 | YES | 0.000e0 | 0.00000 | 0.71269 | 0.267 |
| Total Penta-Dioxins | 29.96 | 5.286e3   | 9.362e3   | 3.934e2  | 6.317e2  | 0.62 | NO  | 1.025e3 | 2.1392  | 2.1392  | 0.267 |
| Total Penta-Dioxins | 30.27 | 1.216e3   | 1.735e3   | 7.463e1  | 7.200e1  | 1.04 | YES | 0.000e0 | 0.00000 | 0.24490 | 0.267 |
| 1,2,3,7,8-PeCDD     | 30.67 | 3.538e3   | 4.227e3   | 1.720e2  | 1.934e2  | 0.89 | YES | 3.654e2 | 0.00000 | 0.65773 | 0.267 |
| Total Penta-Dioxins | 30.73 | 2.050e3   | 3.090e3   | 1.087e2  | 1.884e2  | 0.58 | NO  | 2.971e2 | 0.61994 | 0.61994 | 0.267 |

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Hexa-Dioxins

|                    | Area  | m1 Height | m2 Height | m1      | m2      | Ratio | NO | Area    | Area    | Area    | Area  |
|--------------------|-------|-----------|-----------|---------|---------|-------|----|---------|---------|---------|-------|
| Total Hexa-Dioxins | 32.45 | 2.036e5   | 1.672e5   | 1.049e4 | 8.208e3 | 1.28  | NO | 1.870e4 | 46.351  | 46.351  | 0.583 |
| Total Hexa-Dioxins | 33.02 | 1.588e4   | 1.336e4   | 9.482e2 | 8.388e2 | 1.13  | NO | 1.787e3 | 4.4295  | 4.4295  | 0.583 |
| Total Hexa-Dioxins | 33.27 | 1.339e5   | 1.102e5   | 9.594e3 | 7.827e3 | 1.23  | NO | 1.742e4 | 43.182  | 43.182  | 0.583 |
| Total Hexa-Dioxins | 33.39 | 1.296e4   | 1.060e4   | 7.970e2 | 6.404e2 | 1.24  | NO | 1.437e3 | 3.5630  | 3.5630  | 0.583 |
| 1,2,3,4,7,8-HxCDD  | 33.98 | 3.345e3   | 3.261e3   | 2.046e2 | 1.799e2 | 1.14  | NO | 3.845e2 | 0.89400 | 0.89400 | 0.540 |
| 1,2,3,6,7,8-HxCDD  | 34.08 | 3.293e4   | 2.576e4   | 2.103e3 | 1.686e3 | 1.25  | NO | 3.788e3 | 8.6420  | 8.6420  | 0.546 |
| Total Hexa-Dioxins | 34.28 | 8.803e3   | 7.197e3   | 5.372e2 | 4.074e2 | 1.32  | NO | 9.446e2 | 2.3414  | 2.3414  | 0.583 |
| 1,2,3,7,8,9-HxCDD  | 34.39 | 9.929e3   | 7.964e3   | 6.357e2 | 5.238e2 | 1.21  | NO | 1.160e3 | 3.0531  | 3.0531  | 0.616 |

Hepta-Dioxins

|                     | Area  | m1 Height | m2 Height | m1      | m2      | Ratio | NO | Area    | Area   | Area   | Area |
|---------------------|-------|-----------|-----------|---------|---------|-------|----|---------|--------|--------|------|
| Total Hepta-Dioxins | 36.99 | 2.188e6   | 2.072e6   | 1.559e5 | 1.482e5 | 1.05  | NO | 3.041e5 | 1105.0 | 1105.0 | 2.77 |
| 1,2,3,4,6,7,8-HpCDD | 37.86 | 1.659e6   | 1.611e6   | 1.053e5 | 1.013e5 | 1.04  | NO | 2.066e5 | 750.61 | 750.61 | 2.77 |

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**Tetra-Furans**

|                    | Ret. Time | m1 Height | m2 Height | m1 Ratio | m2 Ratio | Ratio | Is Penta | Area    | Area    | Area    |       |
|--------------------|-----------|-----------|-----------|----------|----------|-------|----------|---------|---------|---------|-------|
| Total Tetra-Furans | 20.55     | 1.634e3   | 1.453e3   | 8.113e1  | 9.808e1  | 0.83  | NO       | 1.792e2 | 0.23679 | 0.23679 | 0.166 |
| Total Tetra-Furans | 21.10     | 5.468e3   | 5.464e3   | 3.772e2  | 4.444e2  | 0.85  | NO       | 8.216e2 | 1.0856  | 1.0856  | 0.166 |
| Total Tetra-Furans | 21.74     | 1.388e4   | 1.983e4   | 1.210e3  | 1.605e3  | 0.75  | NO       | 2.815e3 | 3.7192  | 3.7192  | 0.166 |
| Total Tetra-Furans | 22.29     | 2.940e3   | 5.482e3   | 4.702e2  | 7.062e2  | 0.67  | NO       | 1.176e3 | 1.5544  | 1.5544  | 0.166 |
| Total Tetra-Furans | 22.67     | 2.342e4   | 2.785e4   | 1.898e3  | 2.402e3  | 0.79  | NO       | 4.301e3 | 5.6827  | 5.6827  | 0.166 |
| Total Tetra-Furans | 23.07     | 9.791e3   | 1.665e4   | 8.316e2  | 1.185e3  | 0.70  | NO       | 2.017e3 | 2.6651  | 2.6651  | 0.166 |
| Total Tetra-Furans | 23.24     | 1.281e3   | 1.303e3   | 6.963e1  | 5.853e1  | 1.19  | YES      | 0.000e0 | 0.00000 | 0.13689 | 0.166 |
| Total Tetra-Furans | 23.39     | 3.542e3   | 4.886e3   | 2.563e2  | 3.252e2  | 0.79  | NO       | 5.815e2 | 0.76836 | 0.76836 | 0.166 |
| Total Tetra-Furans | 23.77     | 1.316e3   | 1.443e3   | 7.221e1  | 8.760e1  | 0.82  | NO       | 1.598e2 | 0.21115 | 0.21115 | 0.166 |
| Total Tetra-Furans | 23.86     | 2.091e3   | 2.894e3   | 1.528e2  | 1.806e2  | 0.85  | NO       | 0.000e0 | 0.00000 | 0.44044 | 0.166 |
| Total Tetra-Furans | 23.99     | 1.166e4   | 1.463e4   | 8.634e2  | 9.911e2  | 0.87  | NO       | 1.854e3 | 2.4503  | 2.4503  | 0.166 |
| Total Tetra-Furans | 24.11     | 9.636e3   | 9.862e3   | 6.953e2  | 9.141e2  | 0.76  | NO       | 1.609e3 | 2.1264  | 2.1264  | 0.166 |
| Total Tetra-Furans | 24.54     | 8.208e4   | 1.010e5   | 5.601e3  | 7.312e3  | 0.77  | NO       | 1.291e4 | 17.062  | 17.062  | 0.166 |
| Total Tetra-Furans | 24.80     | 4.010e3   | 5.222e3   | 2.880e2  | 3.675e2  | 0.78  | NO       | 6.555e2 | 0.86613 | 0.86613 | 0.166 |
| Total Tetra-Furans | 25.16     | 2.916e3   | 4.246e3   | 1.544e2  | 2.063e2  | 0.75  | NO       | 3.607e2 | 0.47655 | 0.47655 | 0.166 |
| Total Tetra-Furans | 25.26     | 1.150e4   | 1.543e4   | 7.404e2  | 1.080e3  | 0.69  | NO       | 1.820e3 | 2.4049  | 2.4049  | 0.166 |
| 2,3,7,8-TCDF       | 25.35     | 8.047e4   | 1.215e5   | 5.447e3  | 7.605e3  | 0.72  | NO       | 1.305e4 | 17.245  | 17.245  | 0.166 |
| Total Tetra-Furans | 25.67     | 4.198e3   | 5.882e3   | 2.866e2  | 4.239e2  | 0.68  | NO       | 7.106e2 | 0.93886 | 0.93886 | 0.166 |
| Total Tetra-Furans | 27.14     | 2.038e4   | 2.293e4   | 1.247e3  | 1.316e3  | 0.95  | YES      | 0.000e0 | 0.00000 | 3.0785  | 0.166 |

**Penta-Furans function 1**

|                        | Ret. Time | m1 Height | m2 Height | m1 Ratio | m2 Ratio | Ratio | Is Penta | Area    | Area   | Area   |        |
|------------------------|-----------|-----------|-----------|----------|----------|-------|----------|---------|--------|--------|--------|
| 1st Func. Penta-Furans | 27.14     | 6.178e4   | 4.234e4   | 3.743e3  | 2.455e3  | 1.52  | NO       | 6.199e3 | 7.3284 | 7.3284 | 0.0587 |



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**Penta-Furans**

|                    | RT    | Height  | Area    | Height  | Area    | Height | Area | Height  | Area    | Height  | Area  | Height | Area |
|--------------------|-------|---------|---------|---------|---------|--------|------|---------|---------|---------|-------|--------|------|
| Total Penta-Furans | 28.45 | 3.559e3 | 2.206e3 | 1.974e2 | 1.238e2 | 1.59   | NO   | 3.212e2 | 0.37970 | 0.37970 | 0.203 |        |      |
| Total Penta-Furans | 28.58 | 9.383e4 | 5.973e4 | 5.456e3 | 3.584e3 | 1.52   | NO   | 9.041e3 | 10.688  | 10.688  | 0.203 |        |      |
| Total Penta-Furans | 29.12 | 1.219e4 | 9.338e3 | 9.760e2 | 7.263e2 | 1.34   | NO   | 1.702e3 | 2.0127  | 2.0127  | 0.203 |        |      |
| Total Penta-Furans | 29.32 | 2.384e4 | 1.854e4 | 1.356e3 | 8.628e2 | 1.57   | NO   | 2.218e3 | 2.6228  | 2.6228  | 0.203 |        |      |
| 1,2,3,7,8-PeCDF    | 29.50 | 1.580e5 | 1.054e5 | 9.442e3 | 5.775e3 | 1.64   | NO   | 1.522e4 | 17.275  | 17.275  | 0.199 |        |      |
| Total Penta-Furans | 29.74 | 8.405e4 | 5.526e4 | 4.016e3 | 2.625e3 | 1.53   | NO   | 6.641e3 | 7.8513  | 7.8513  | 0.203 |        |      |
| 2,3,4,7,8-PeCDF    | 30.39 | 9.310e4 | 5.545e4 | 3.690e3 | 2.399e3 | 1.54   | NO   | 6.089e3 | 7.4053  | 7.4053  | 0.205 |        |      |
| Total Penta-Furans | 30.41 | 7.075e4 | 4.471e4 | 2.382e3 | 1.337e3 | 1.78   | NO   | 3.718e3 | 4.3959  | 4.3959  | 0.203 |        |      |
| Total Penta-Furans | 31.27 | 5.644e3 | 3.787e3 | 3.321e2 | 2.309e2 | 1.44   | NO   | 5.630e2 | 0.66557 | 0.66557 | 0.203 |        |      |

**Hexa-Furans**

|                   |       |         |         |         |         |      |    |         |        |        |       |  |  |
|-------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|--|--|
| Total Hexa-Furans | 31.91 | 1.539e4 | 1.289e4 | 7.835e2 | 6.169e2 | 1.27 | NO | 1.400e3 | 2.5525 | 2.5525 | 0.370 |  |  |
| Total Hexa-Furans | 32.07 | 6.239e4 | 4.784e4 | 2.892e3 | 2.254e3 | 1.28 | NO | 5.146e3 | 9.3803 | 9.3803 | 0.370 |  |  |
| Total Hexa-Furans | 32.61 | 1.687e5 | 1.327e5 | 8.465e3 | 6.789e3 | 1.25 | NO | 1.525e4 | 27.803 | 27.803 | 0.370 |  |  |
| 1,2,3,4,7,8-HxCDF | 33.08 | 1.744e5 | 1.446e5 | 9.521e3 | 7.547e3 | 1.26 | NO | 1.707e4 | 29.873 | 29.873 | 0.328 |  |  |
| 1,2,3,6,7,8-HxCDF | 33.22 | 3.998e4 | 3.194e4 | 2.430e3 | 1.919e3 | 1.27 | NO | 4.349e3 | 7.4646 | 7.4646 | 0.337 |  |  |
| 2,3,4,6,7,8-HxCDF | 33.81 | 1.148e4 | 9.817e3 | 7.502e2 | 6.007e2 | 1.25 | NO | 1.351e3 | 2.5031 | 2.5031 | 0.377 |  |  |
| 1,2,3,7,8,9-HxCDF | 34.77 | 1.677e4 | 1.424e4 | 7.223e2 | 6.134e2 | 1.18 | NO | 1.336e3 | 3.1350 | 3.1350 | 0.532 |  |  |
| Total Hexa-Furans | 34.81 | 1.380e4 | 1.424e4 | 4.248e2 | 3.156e2 | 1.35 | NO | 7.404e2 | 1.3496 | 1.3496 | 0.370 |  |  |

**Hepta-Furans**

|                     |       |         |         |         |         |      |    |         |        |        |       |  |  |
|---------------------|-------|---------|---------|---------|---------|------|----|---------|--------|--------|-------|--|--|
| 1,2,3,4,6,7,8-HpCDF | 36.58 | 1.365e5 | 1.341e5 | 1.005e4 | 9.864e3 | 1.02 | NO | 1.991e4 | 52.860 | 52.860 | 0.659 |  |  |
| Total Hepta-Furans  | 37.19 | 4.740e5 | 4.289e5 | 3.155e4 | 3.045e4 | 1.04 | NO | 6.200e4 | 194.67 | 194.67 | 0.730 |  |  |
| 1,2,3,4,7,8,9-HpCDF | 38.38 | 1.616e4 | 1.606e4 | 1.062e3 | 1.101e3 | 0.96 | NO | 2.163e3 | 7.0320 | 7.0320 | 0.704 |  |  |

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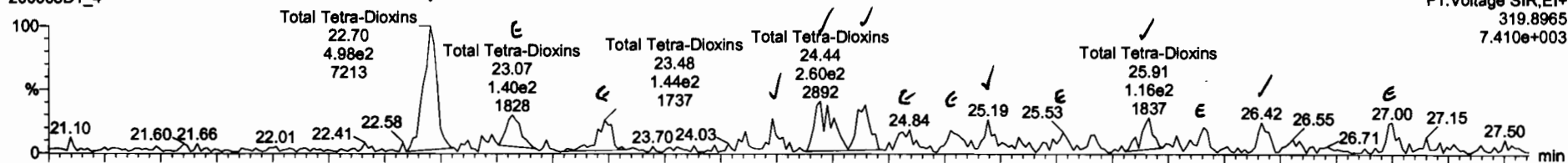
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Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

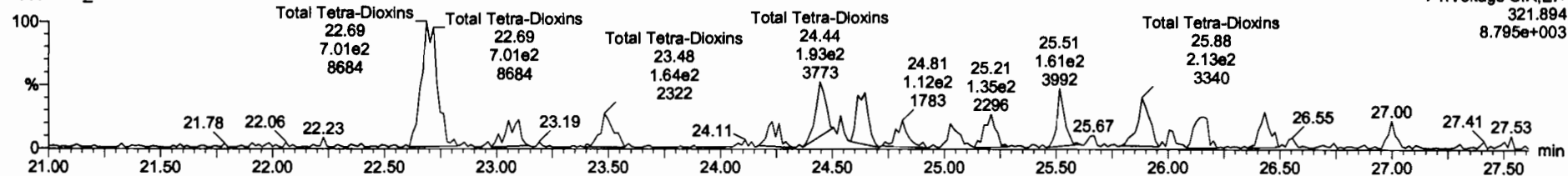
2,3,7,8-TCDD

200605D1\_4



F1:Voltage SIR,EI+  
319.8965  
7.410e+003

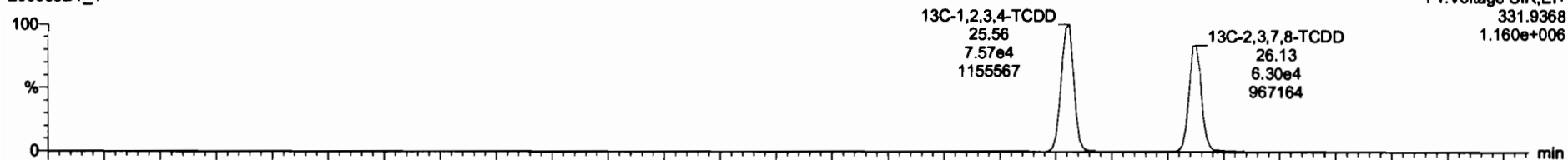
200605D1\_4



F1:Voltage SIR,EI+  
321.894  
8.795e+003

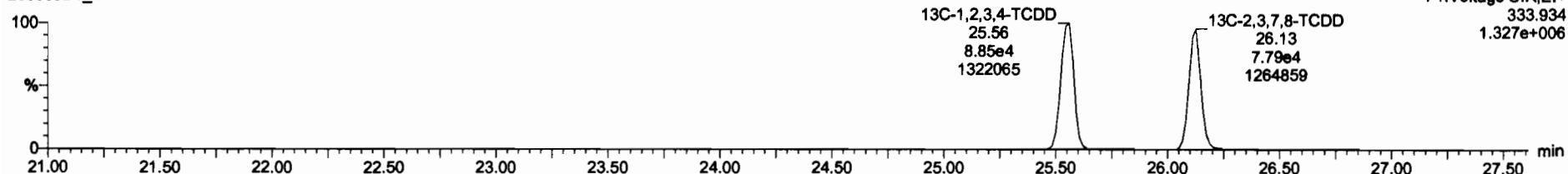
13C-2,3,7,8-TCDD

200605D1\_4

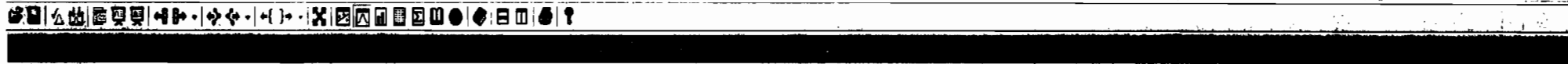


F1:Voltage SIR,EI+  
331.9368  
1.160e+006

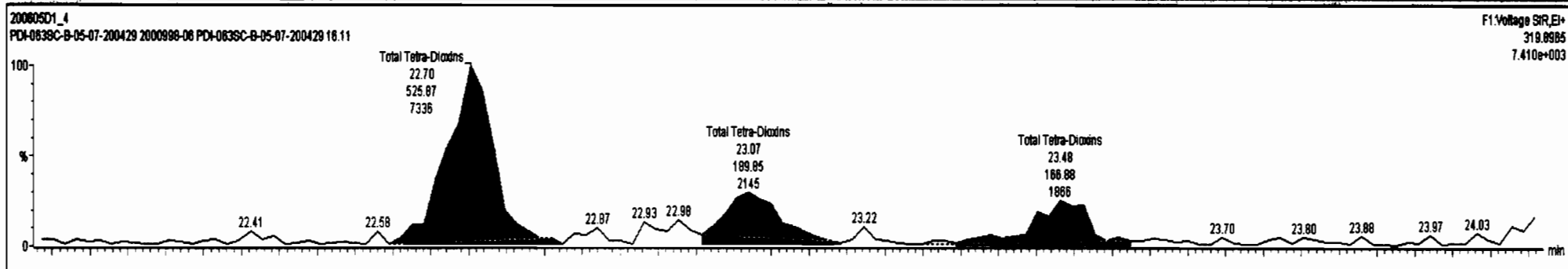
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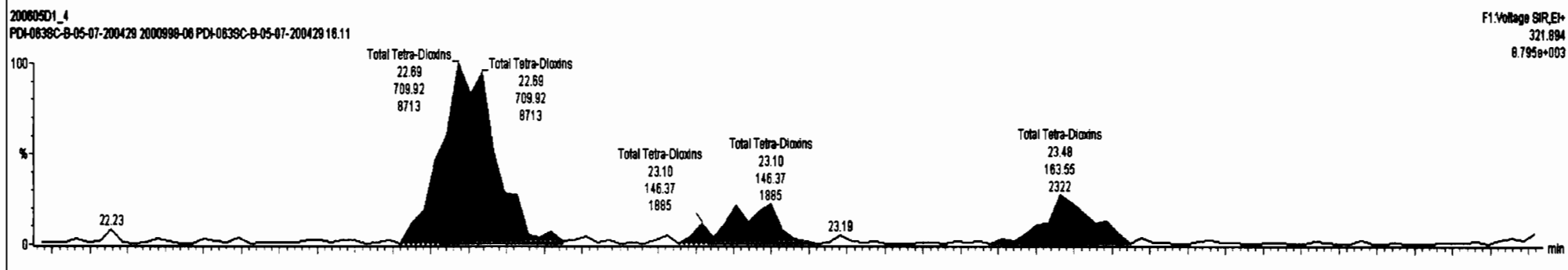
F1:Voltage SIR,EI+  
333.934  
1.327e+006



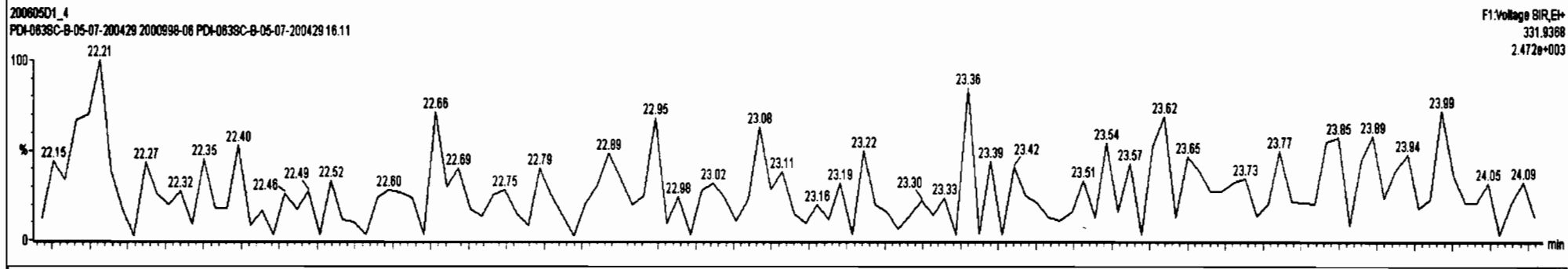
F1:Voltage SIR,E+  
 318.8985  
 7.410e+003



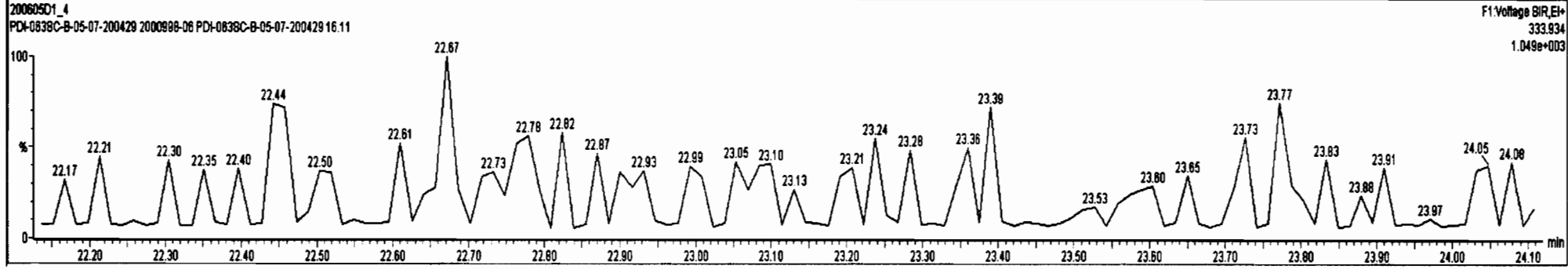
F1:Voltage SIR,E+  
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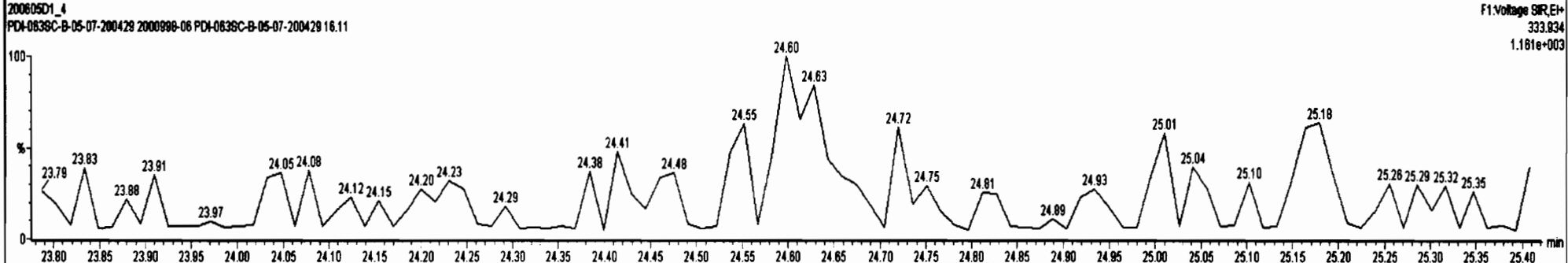
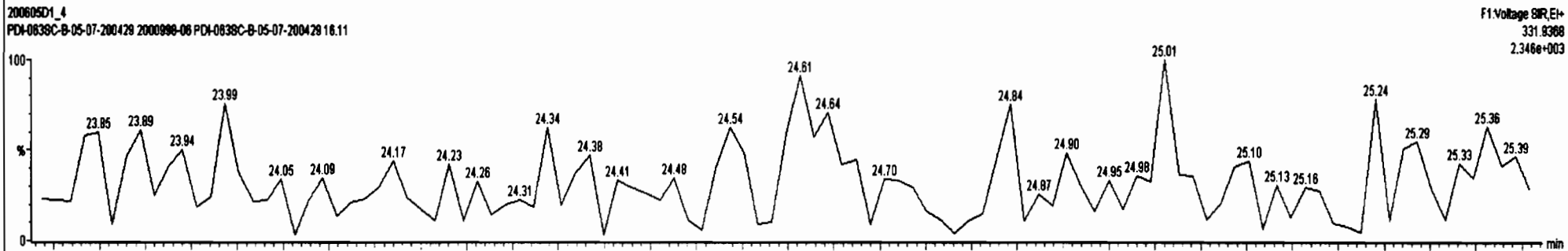
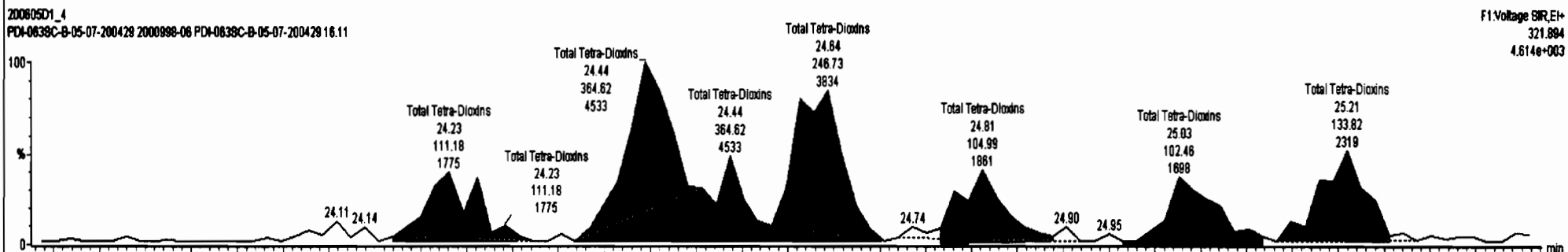
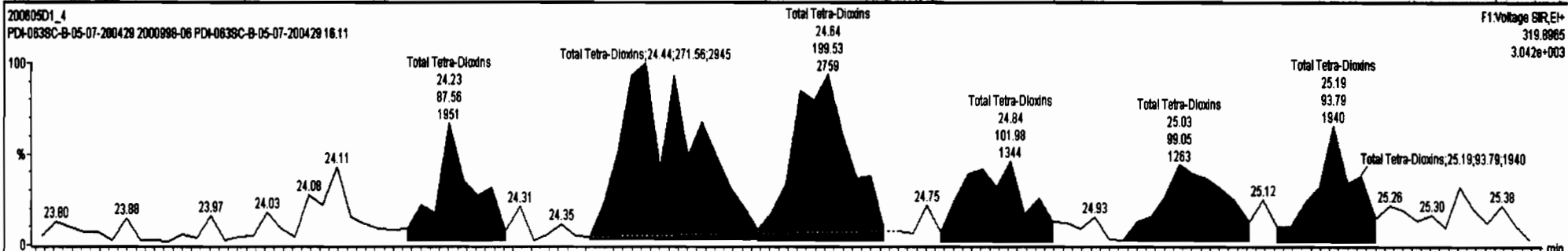


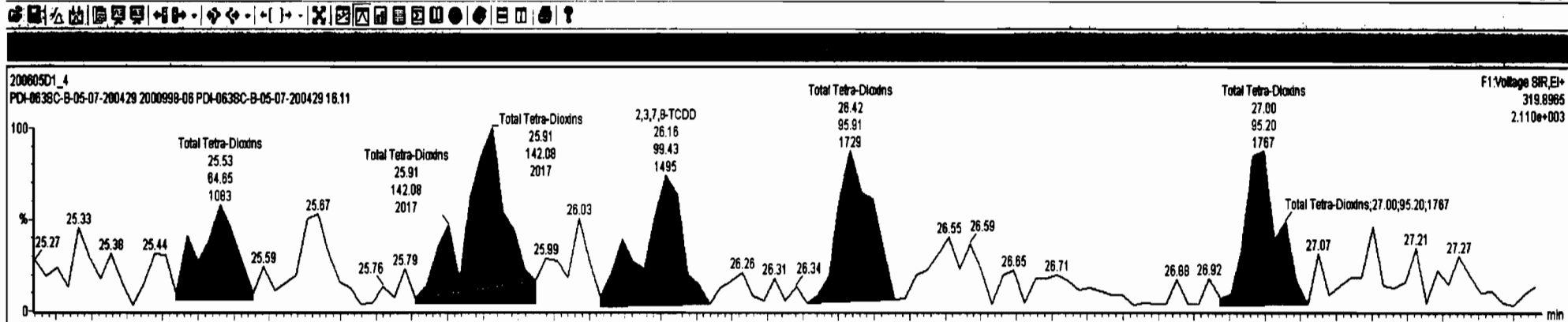
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 2.472e+003



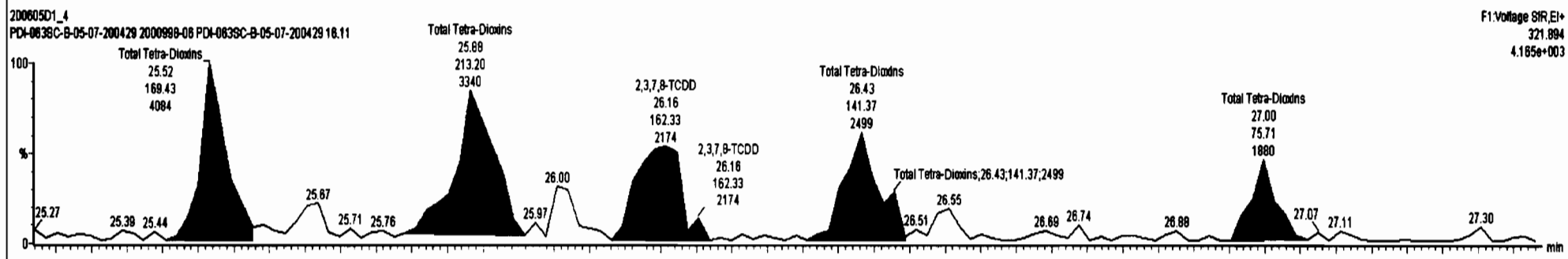
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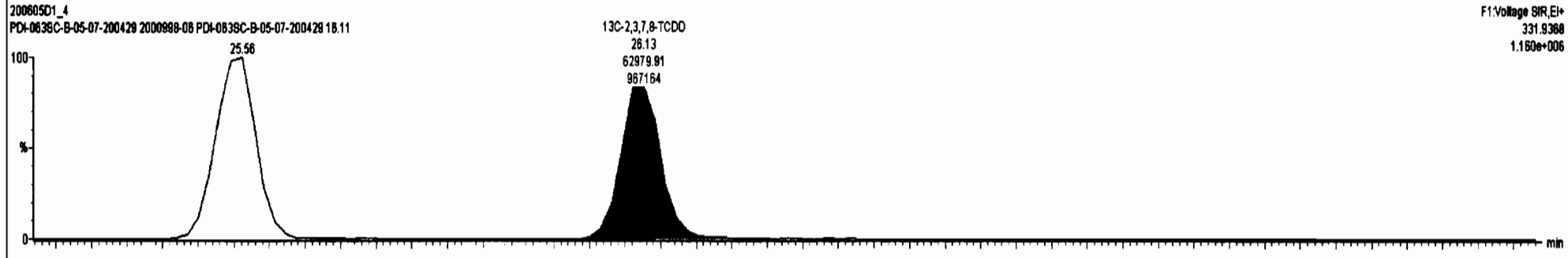




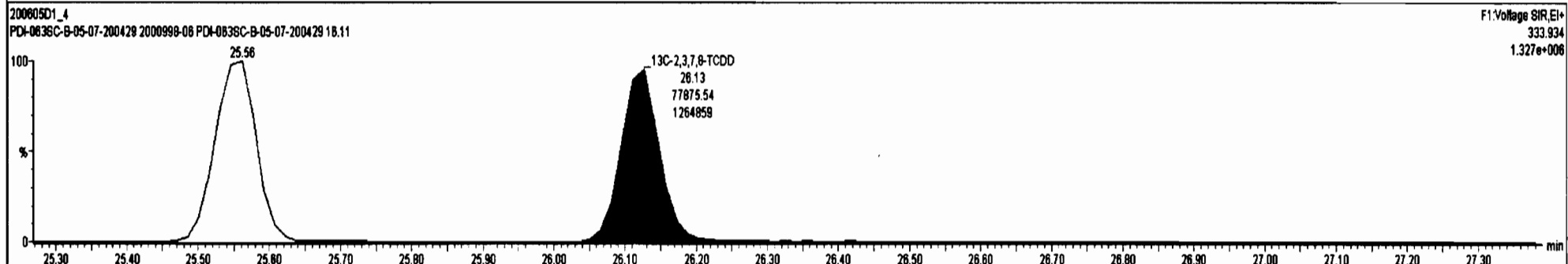
F1:Voltage 8IR,EI+  
 319.8995  
 2.110e+003



F1:Voltage 8IR,EI+  
 321.894  
 4.185e+003



F1:Voltage 8IR,EI+  
 331.9368  
 1.160e+006



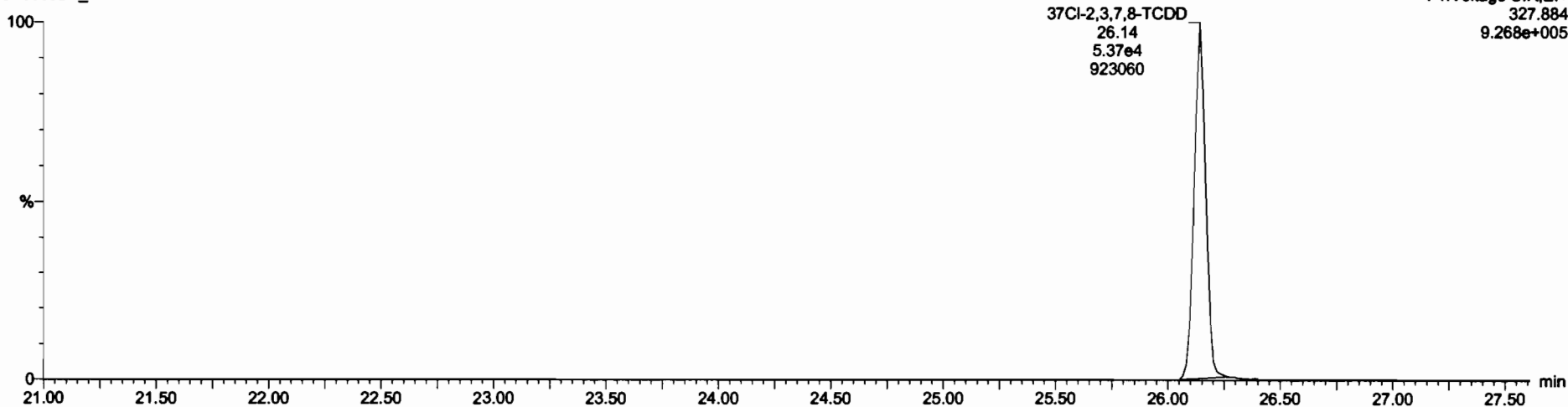
F1:Voltage 8IR,EI+  
 333.934  
 1.327e+006

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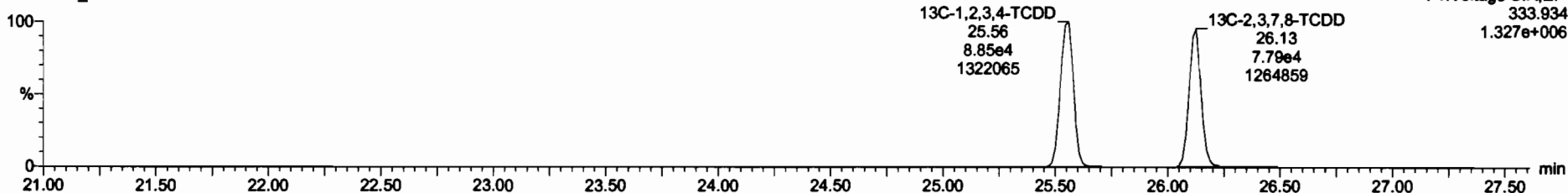
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200605D1\_4



13C-1,2,3,4-TCDD  
200605D1\_4



200605D1\_4



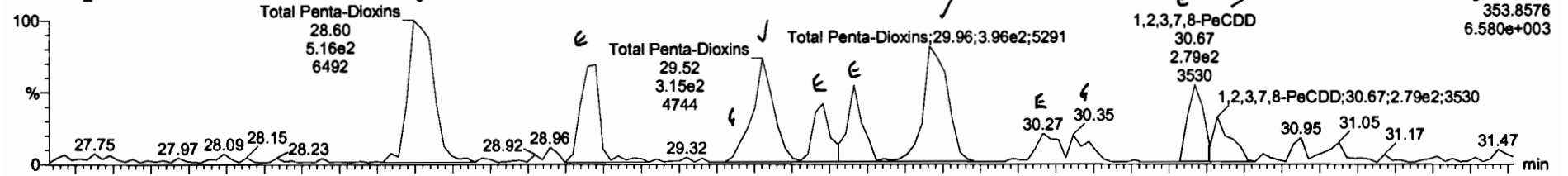
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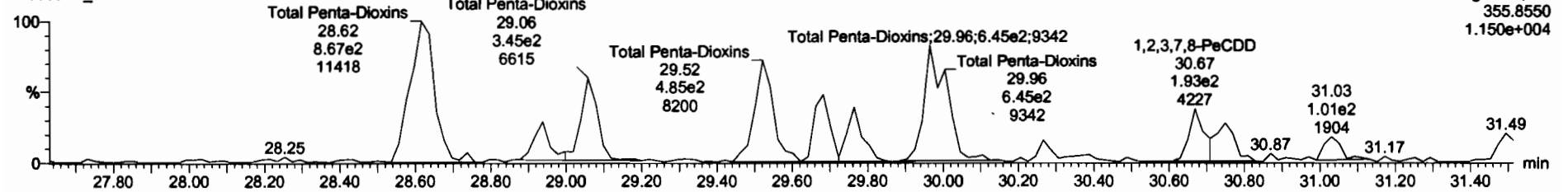
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1,2,3,7,8-PeCDD

200605D1\_4



200605D1\_4

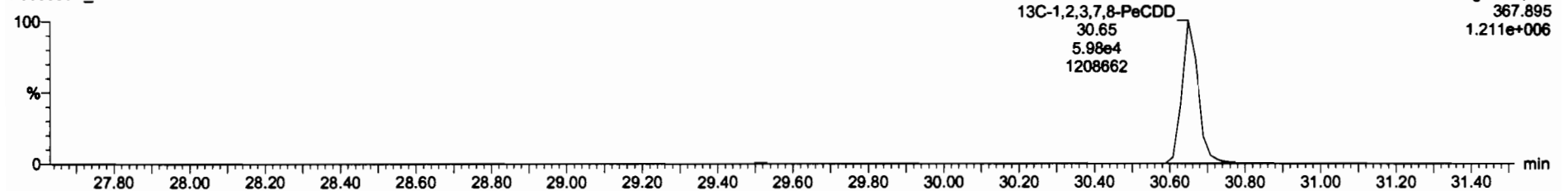


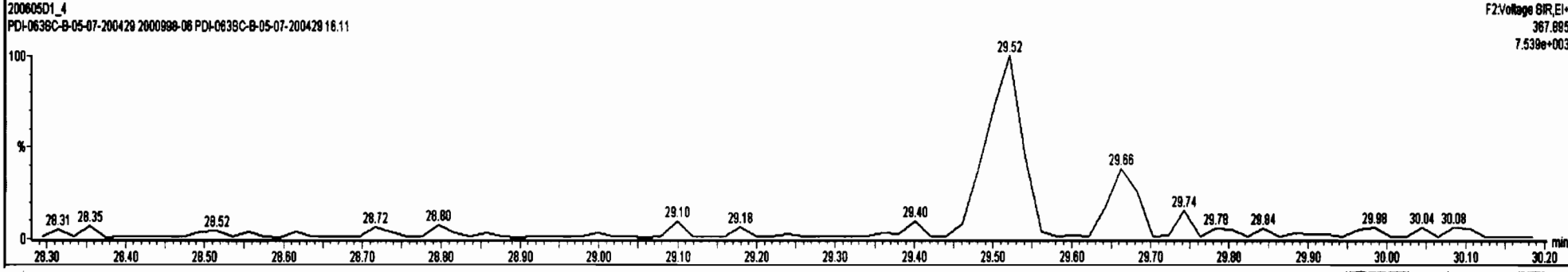
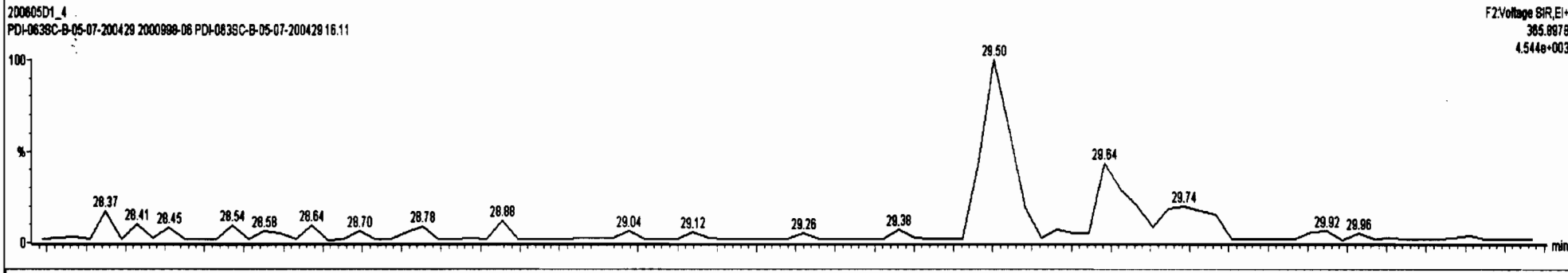
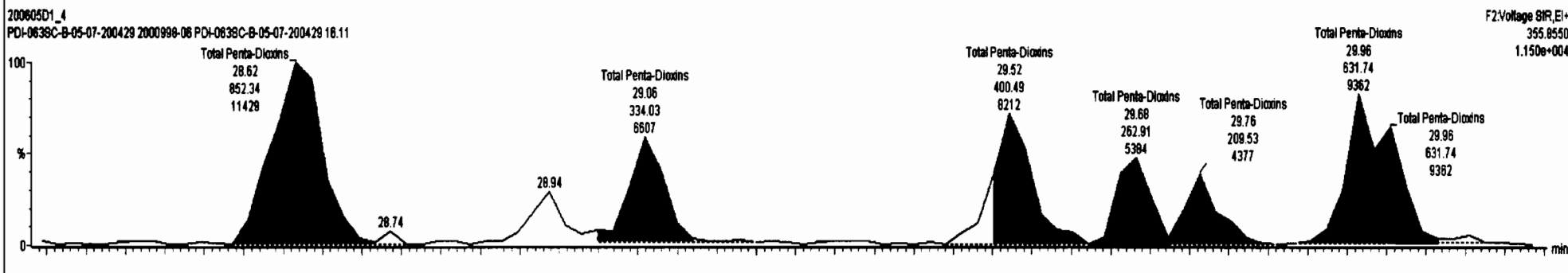
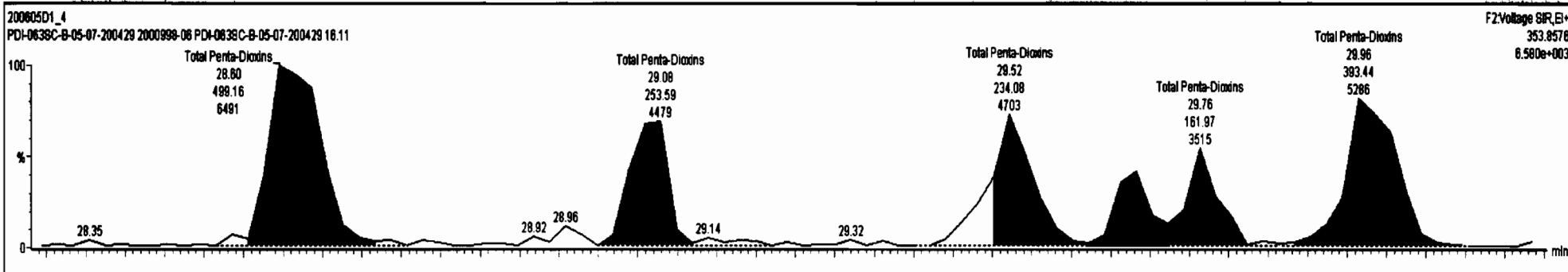
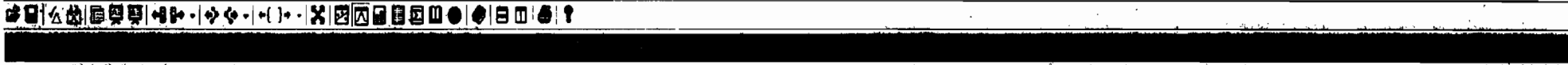
13C-1,2,3,7,8-PeCDD

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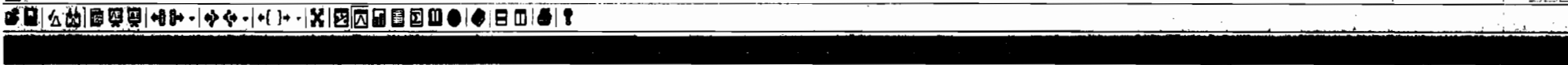


200605D1\_4









F2:Voltage SIR,EI+  
 353.8576  
 3.831e+003



F2:Voltage SIR,EI+  
 355.8550  
 4.340e+003



F2:Voltage SIR,EI+  
 385.8978  
 7.038e+005



F2:Voltage SIR,EI+  
 387.8885  
 1.211e+006

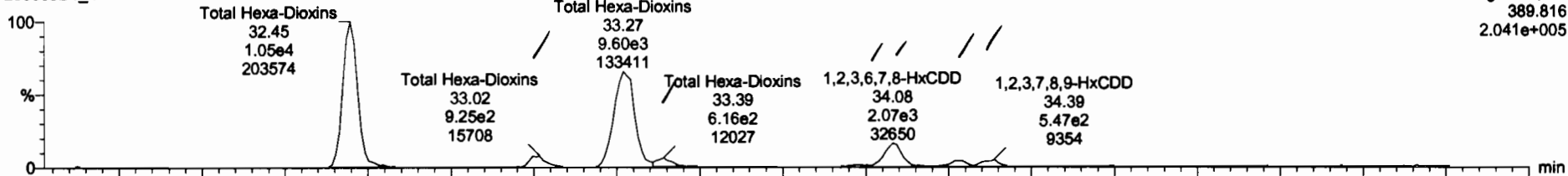
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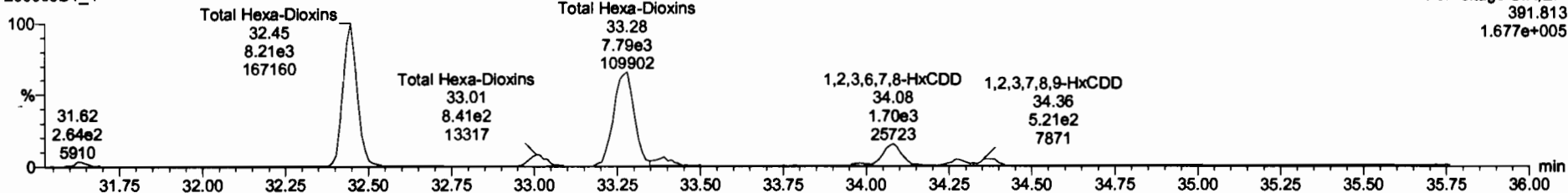
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1,2,3,4,7,8-HxCDD

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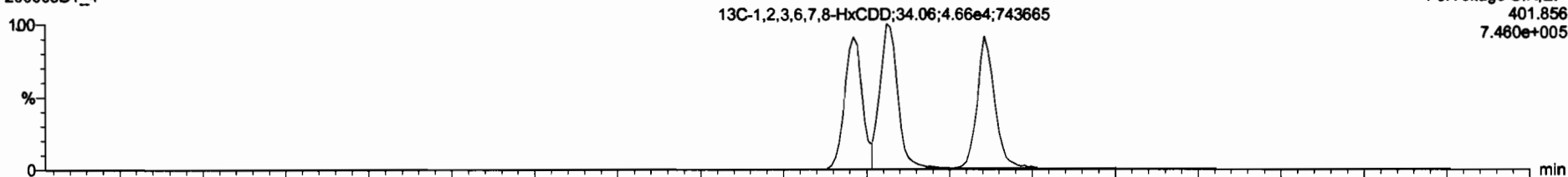


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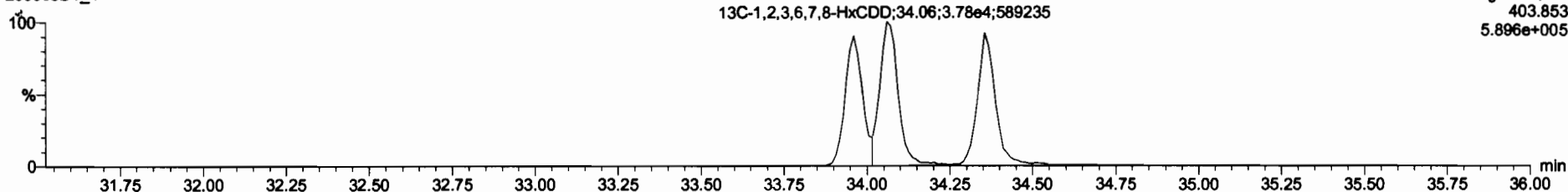


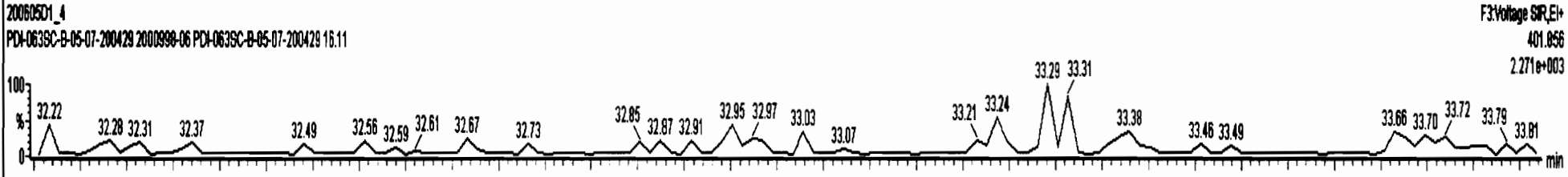
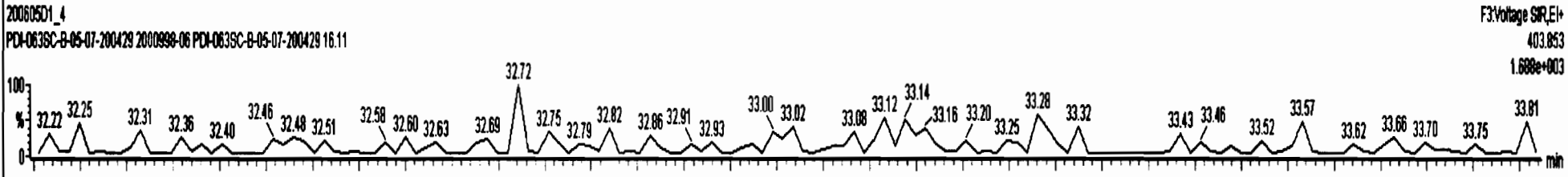
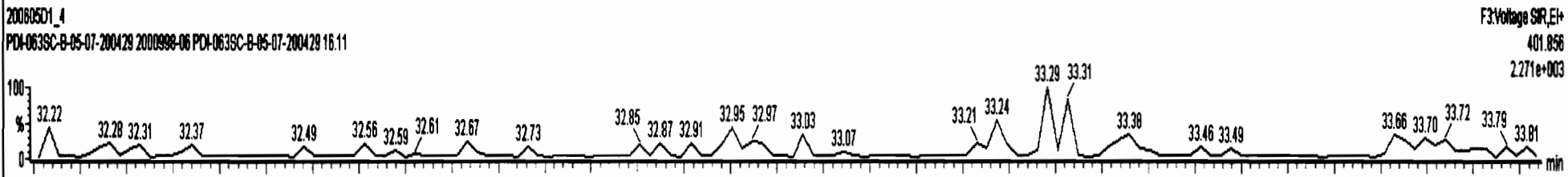
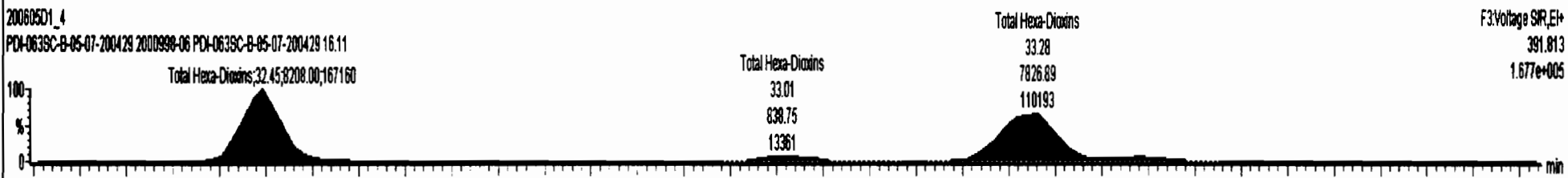
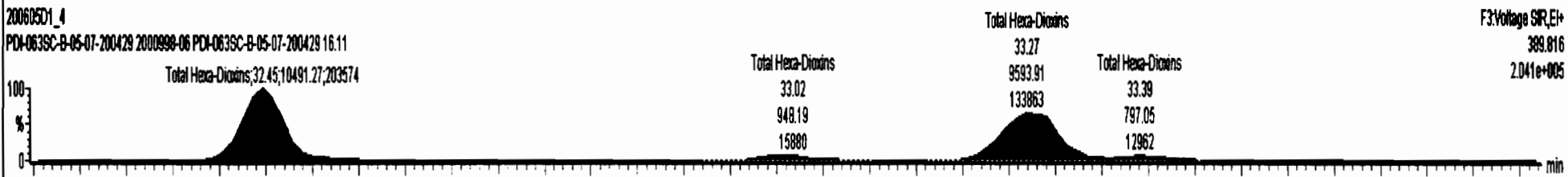
13C-1,2,3,4,7,8-HxCDD

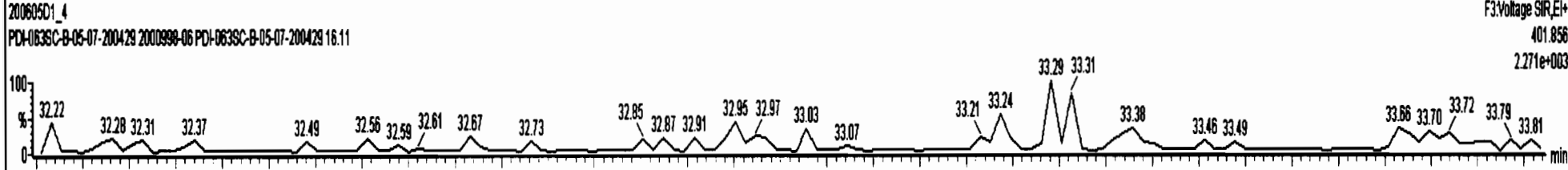
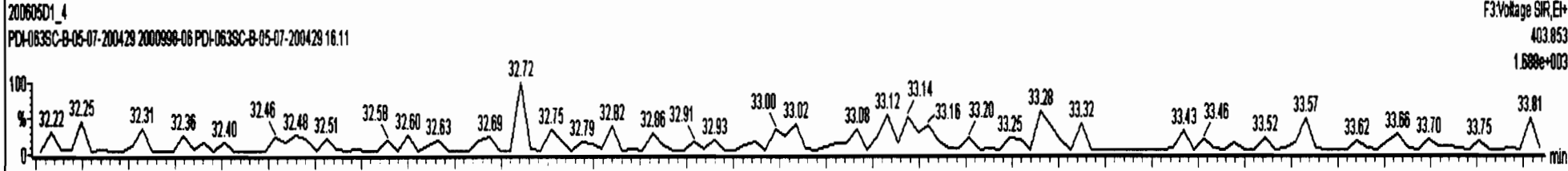
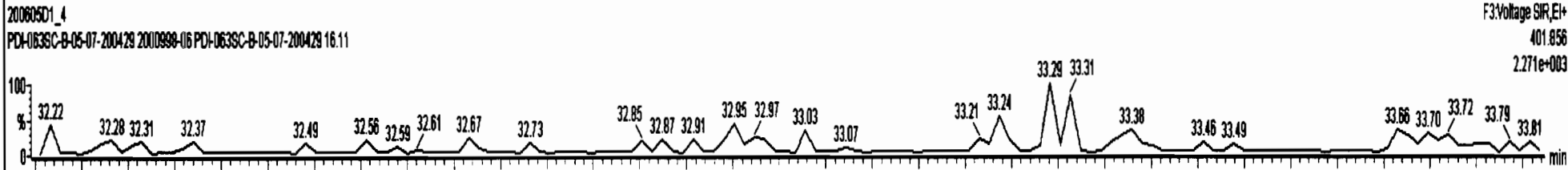
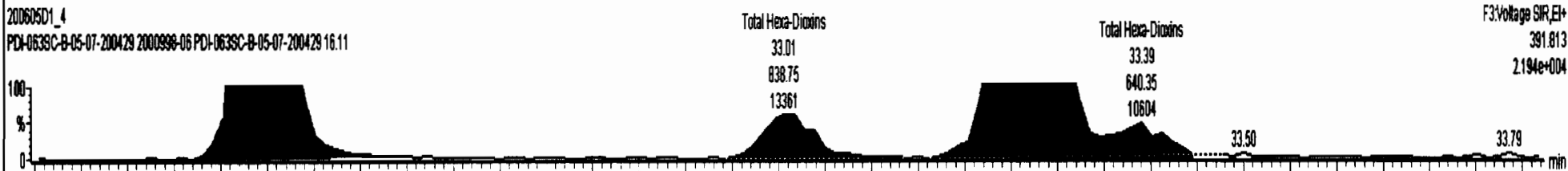
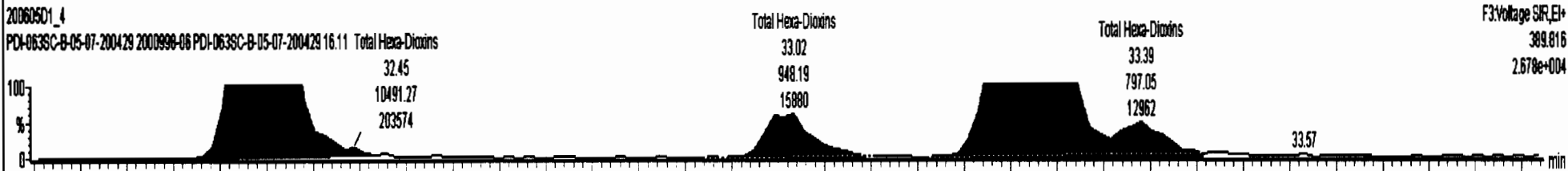
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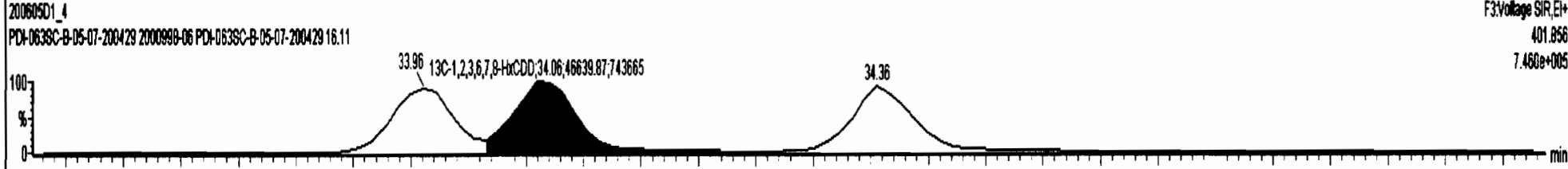
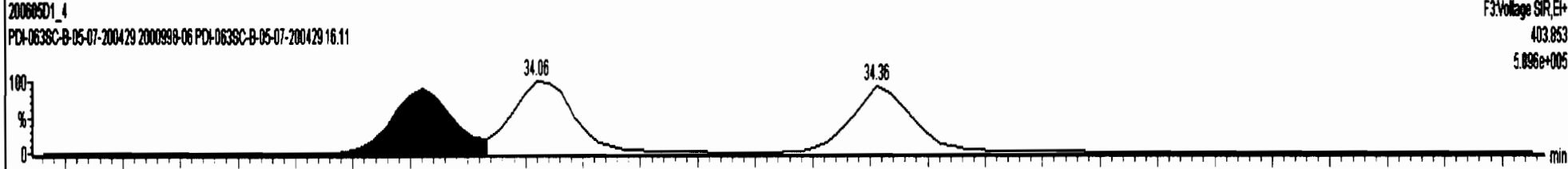
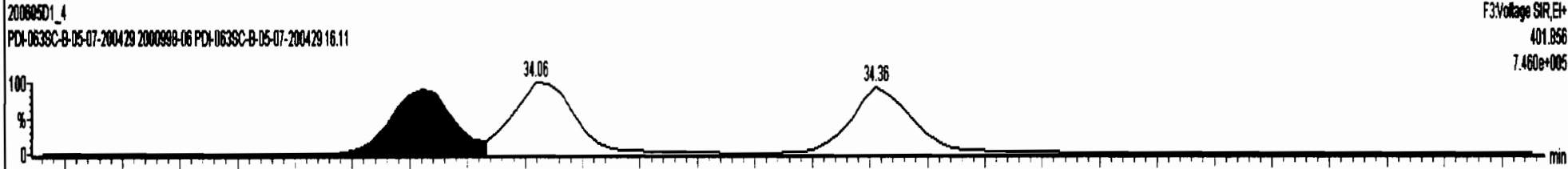
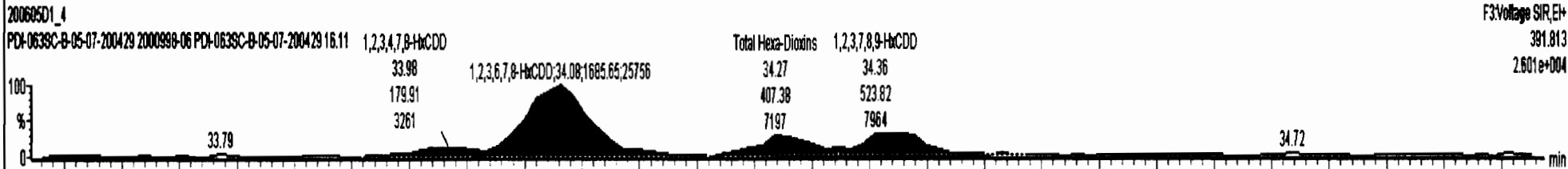
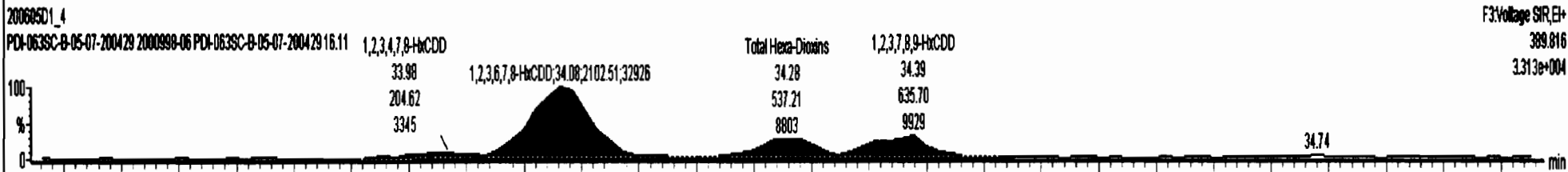


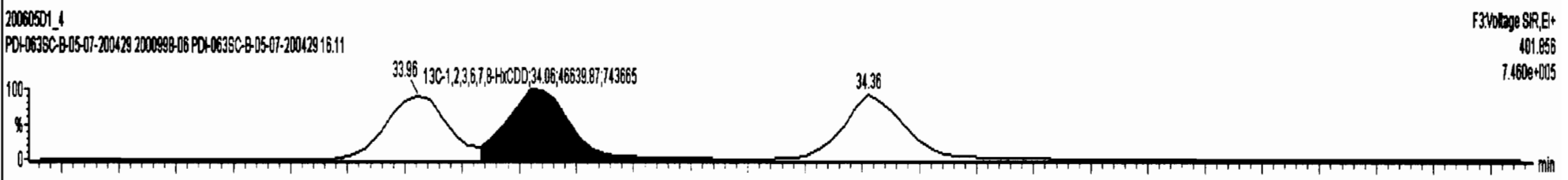
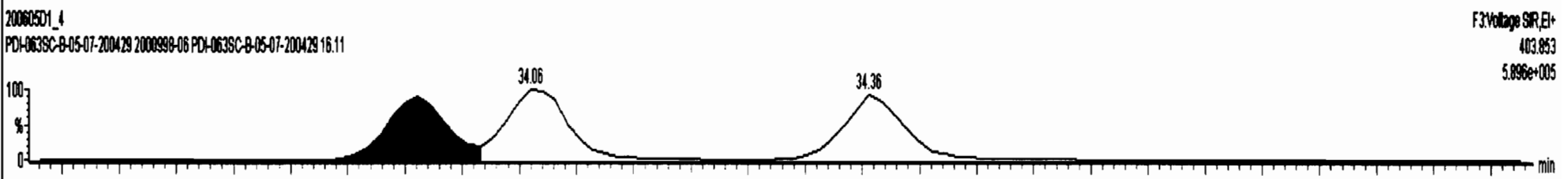
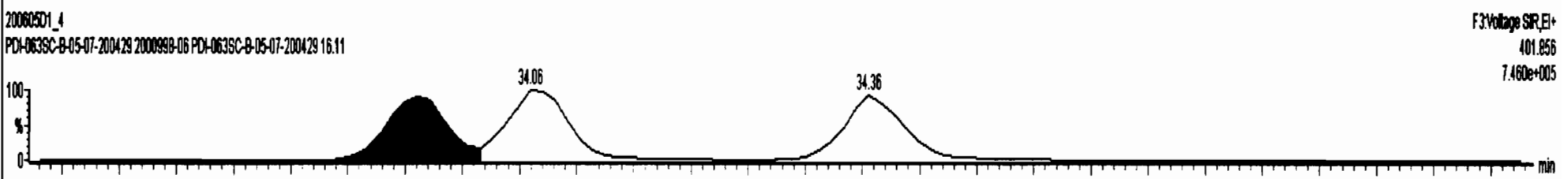
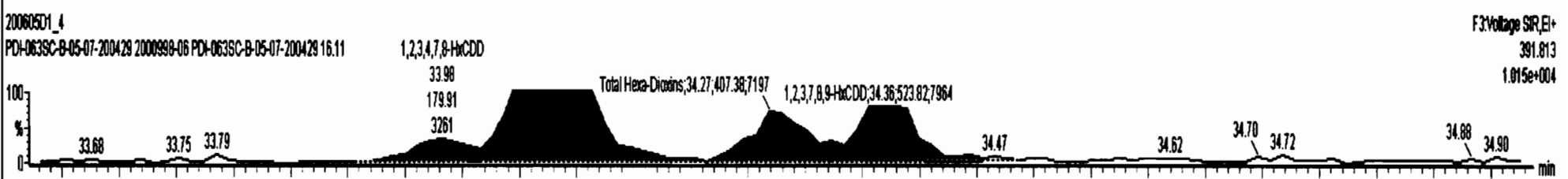
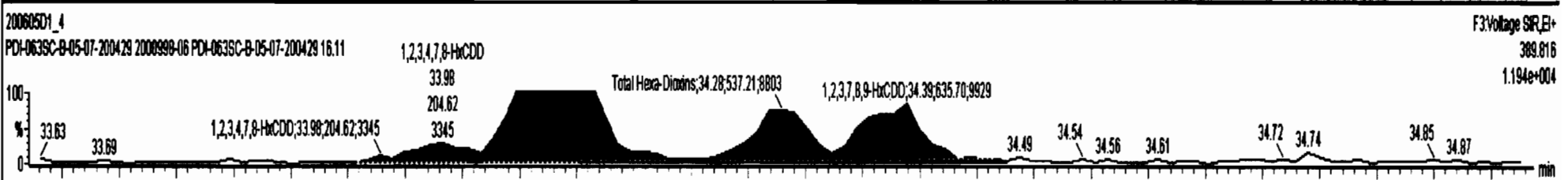
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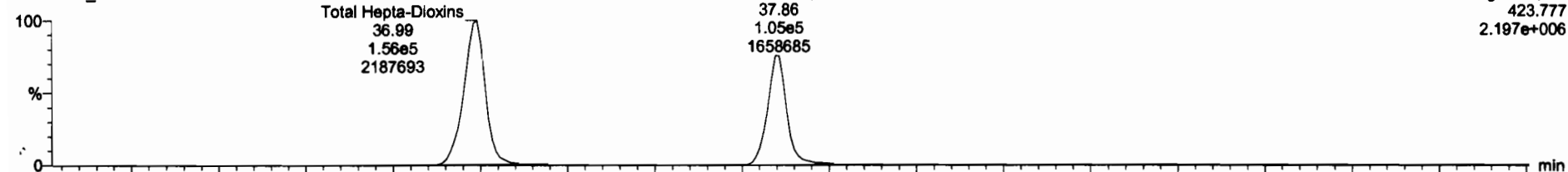
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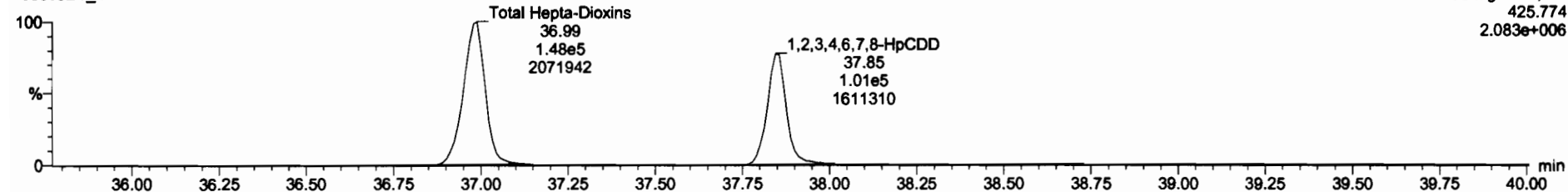
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**1,2,3,4,6,7,8-HpCDD**

200605D1\_4

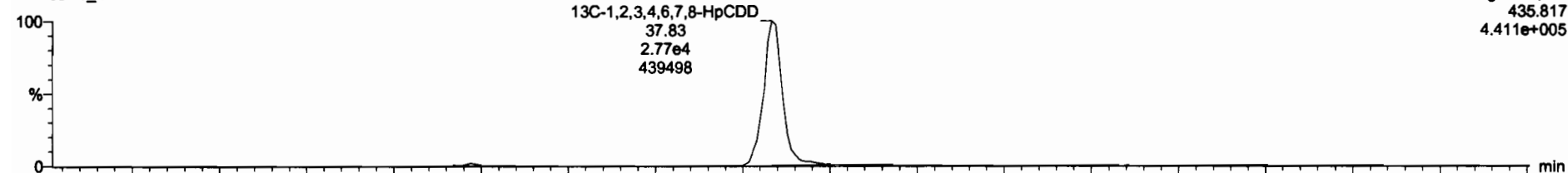


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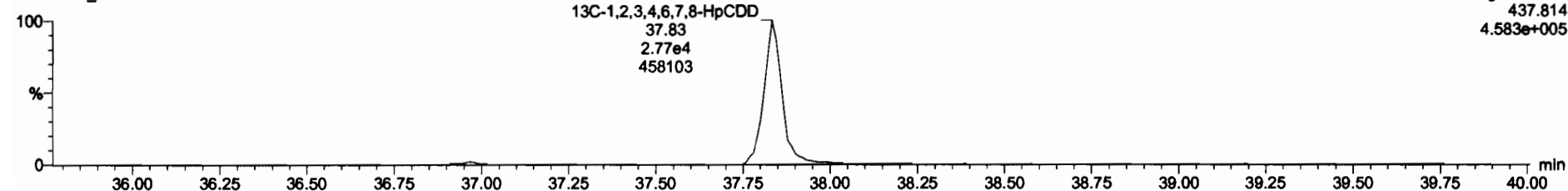


**13C-1,2,3,4,6,7,8-HpCDD**

200605D1\_4



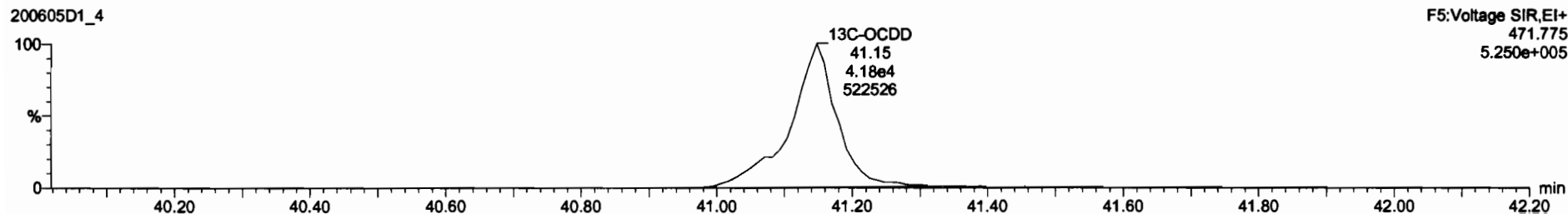
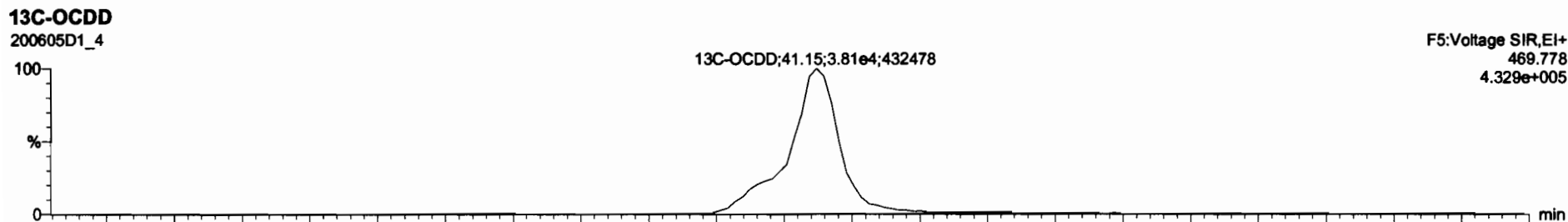
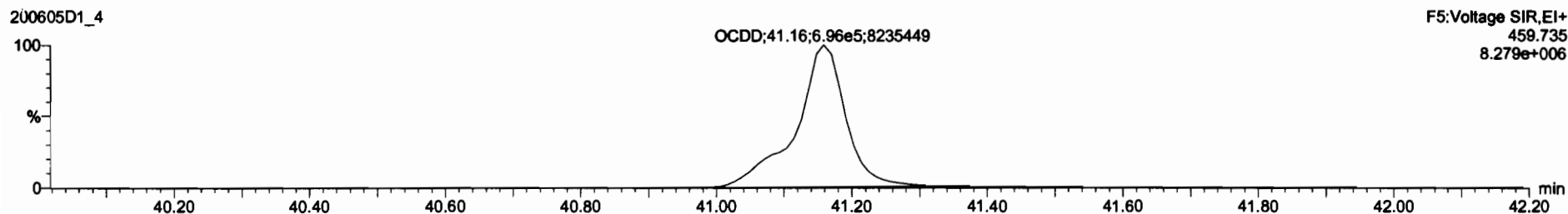
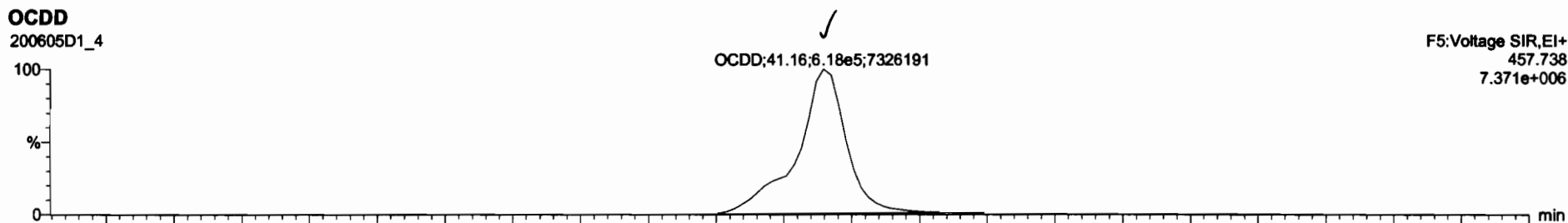
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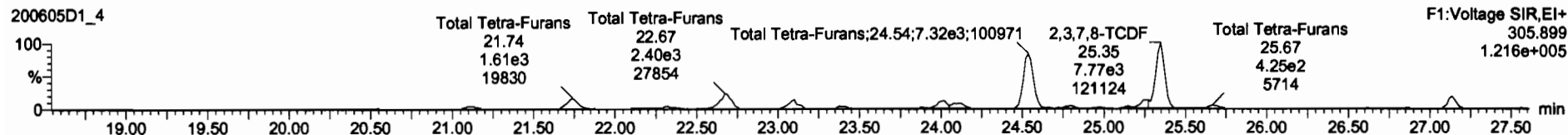
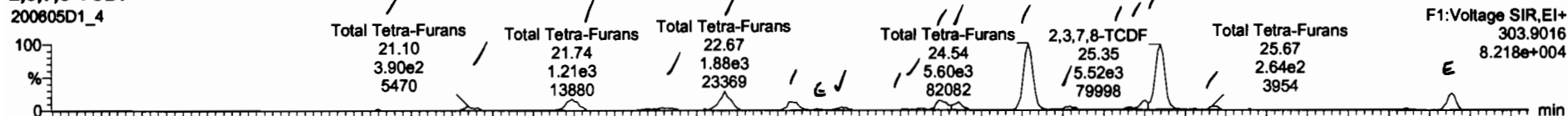


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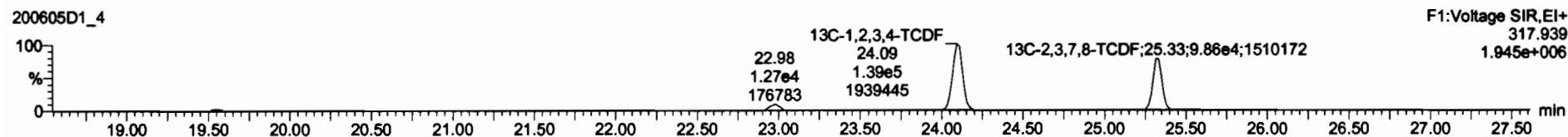
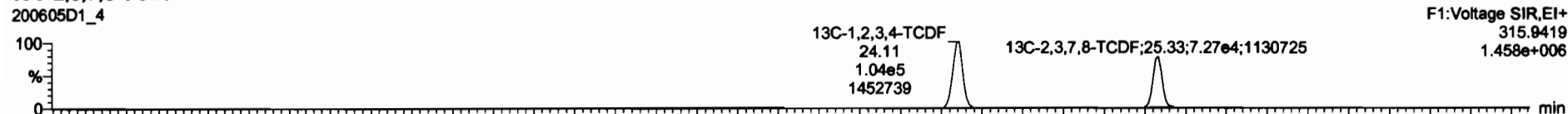
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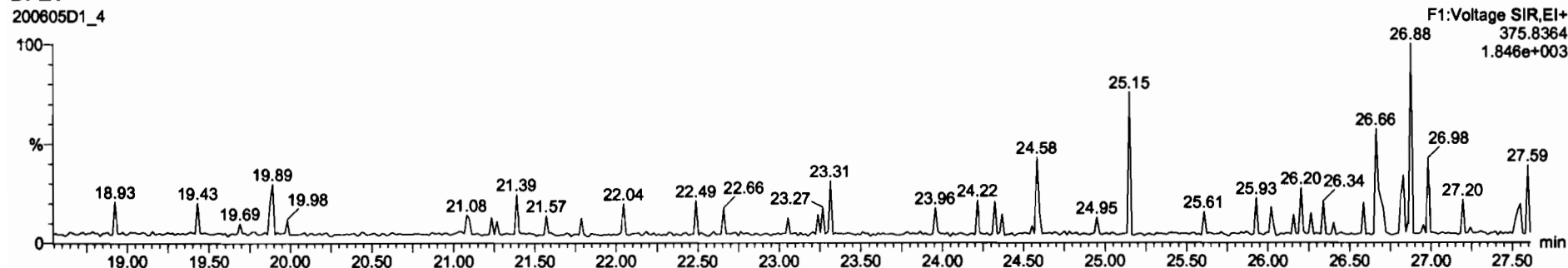
2,3,7,8-TCDF

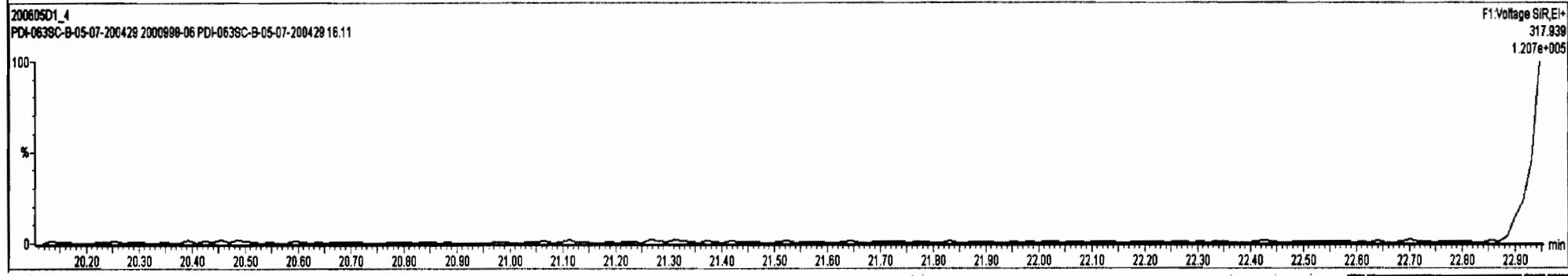
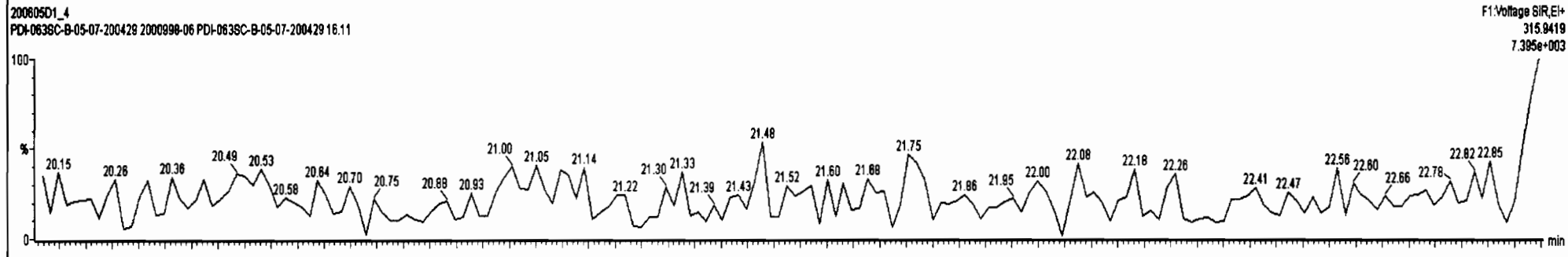
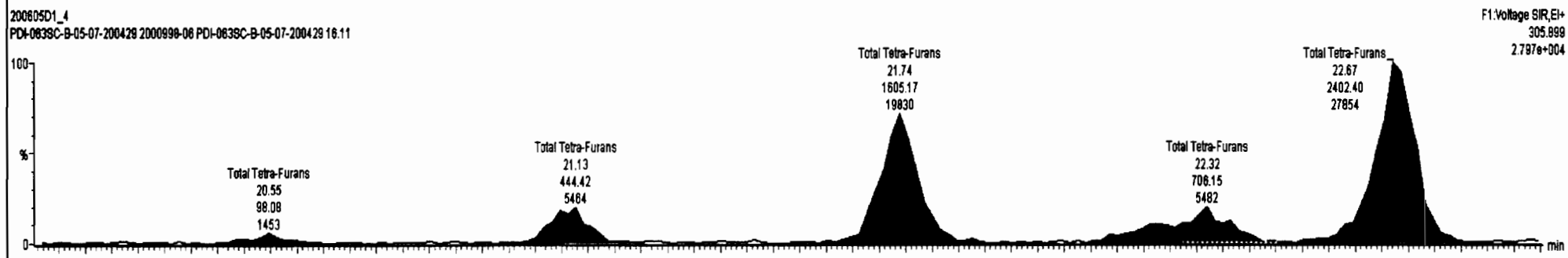
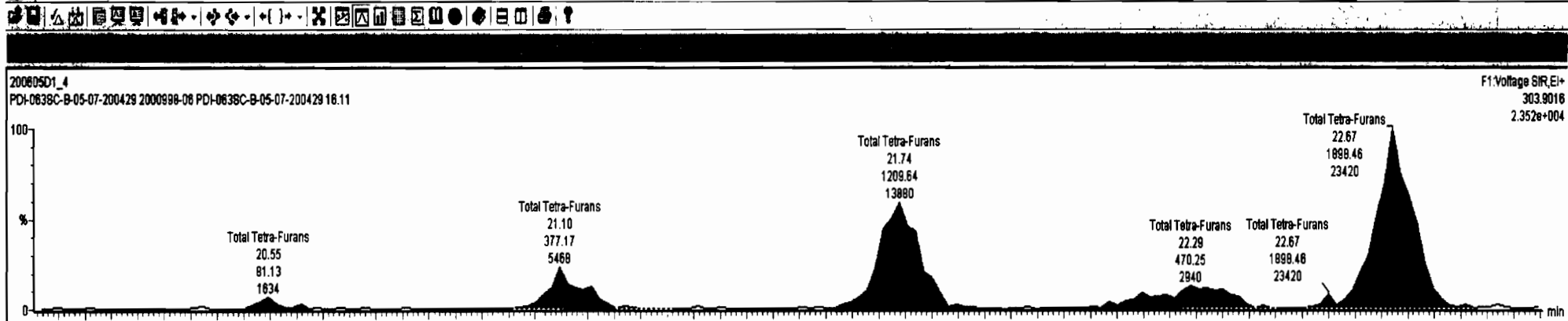


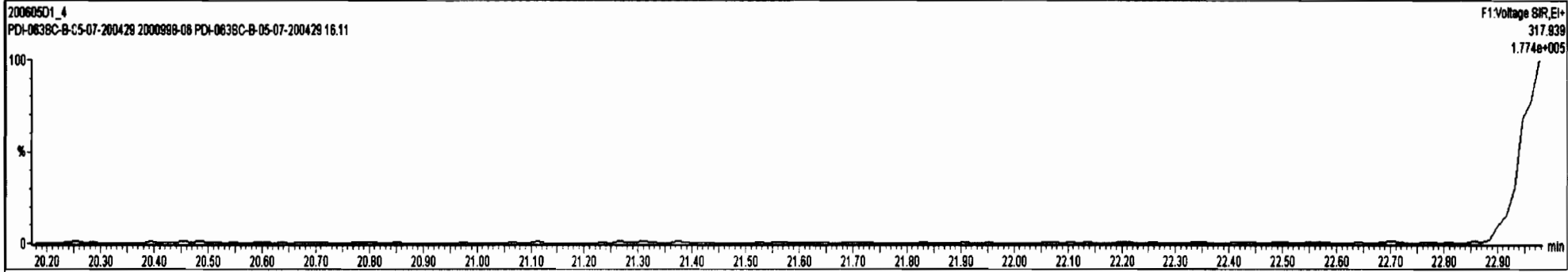
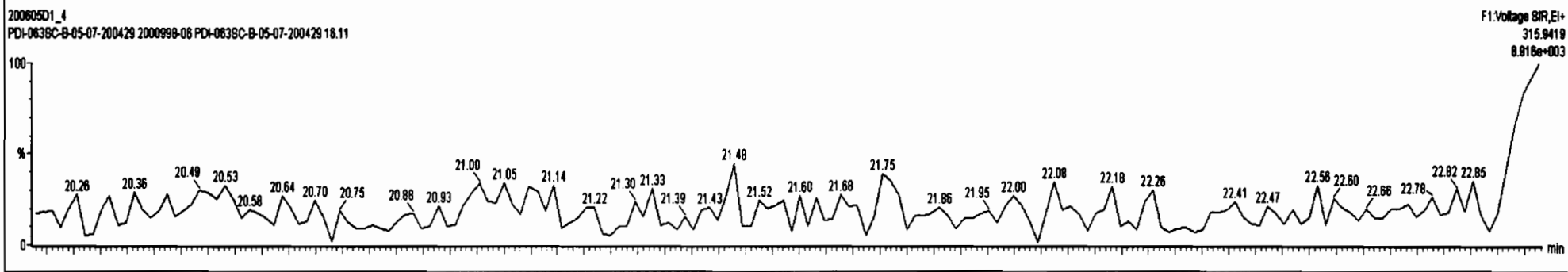
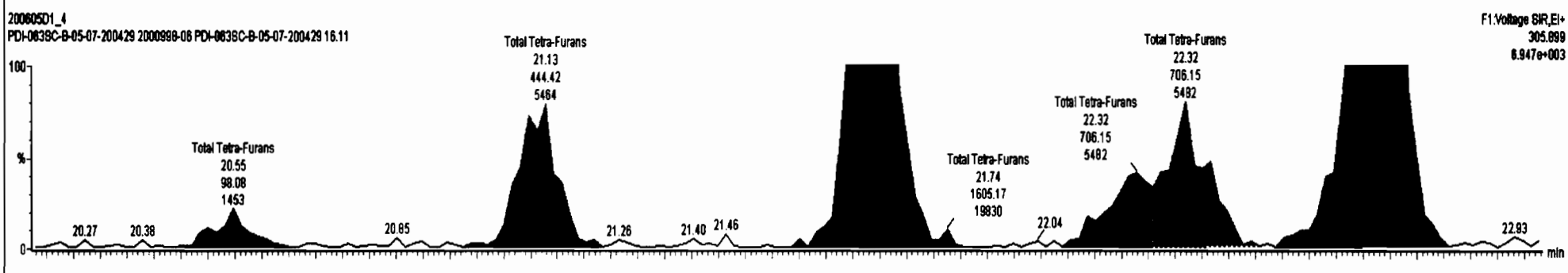
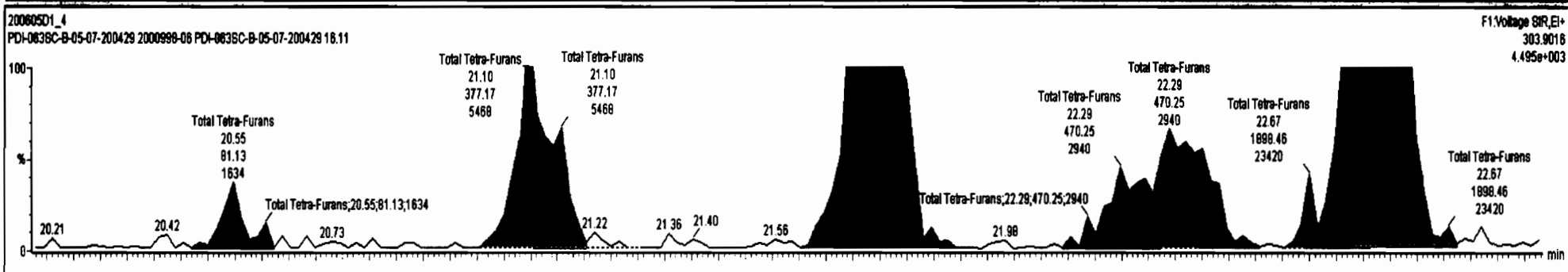
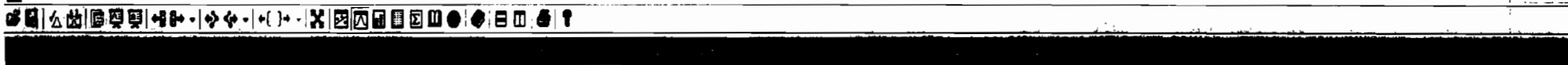
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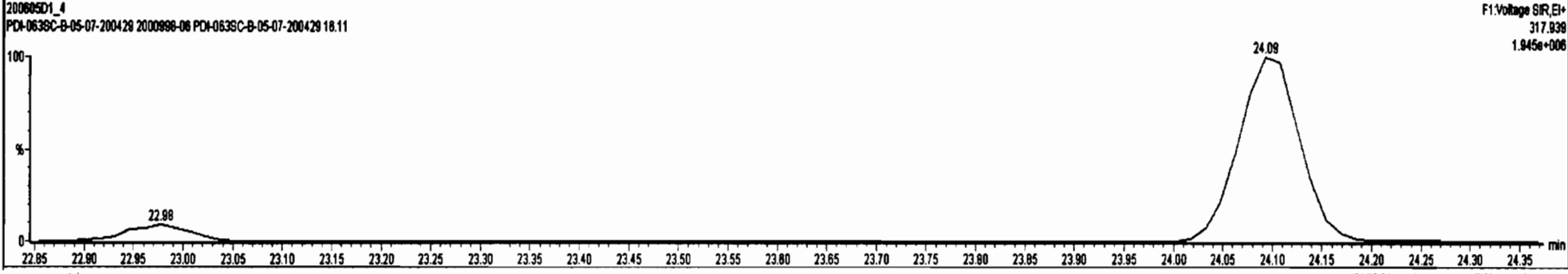
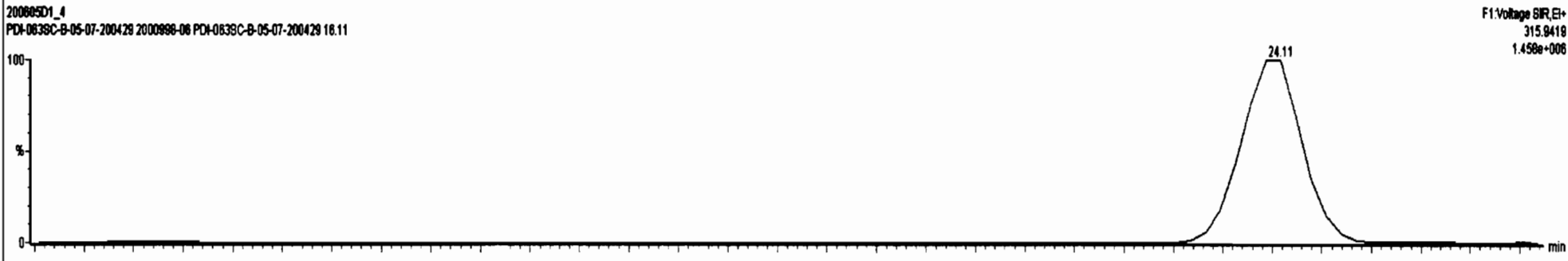
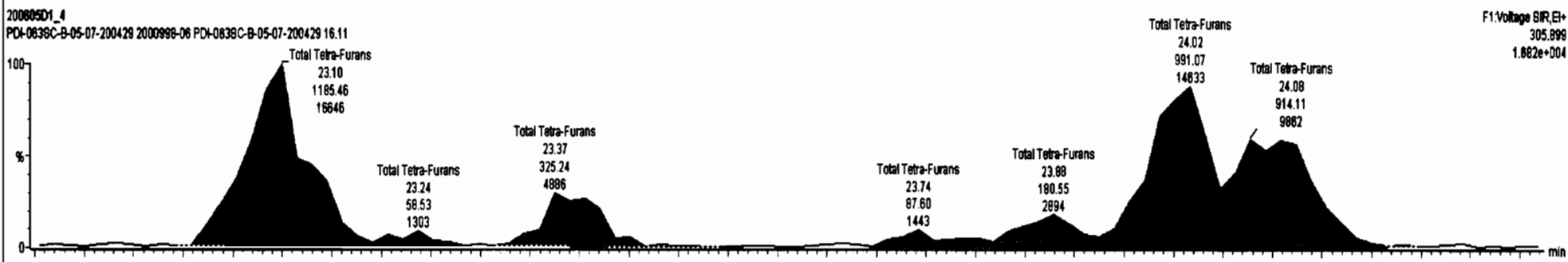
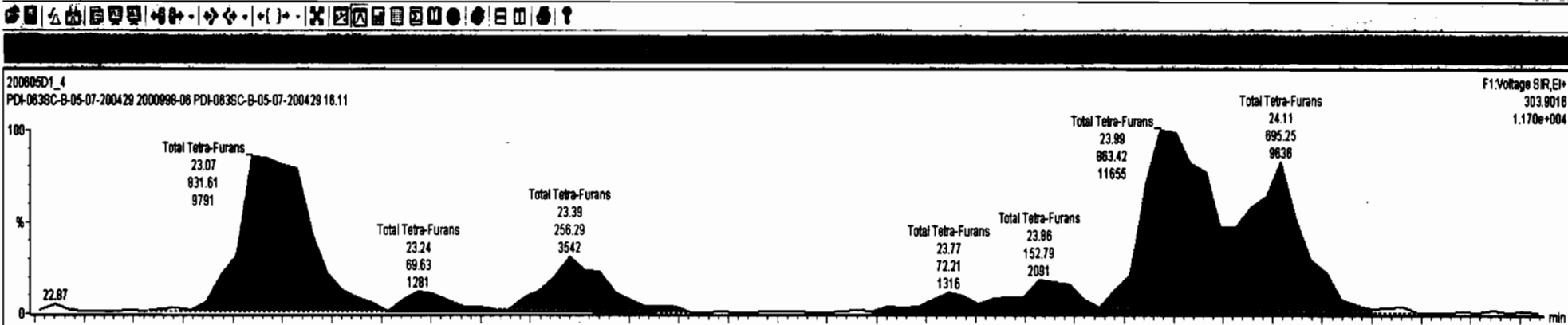


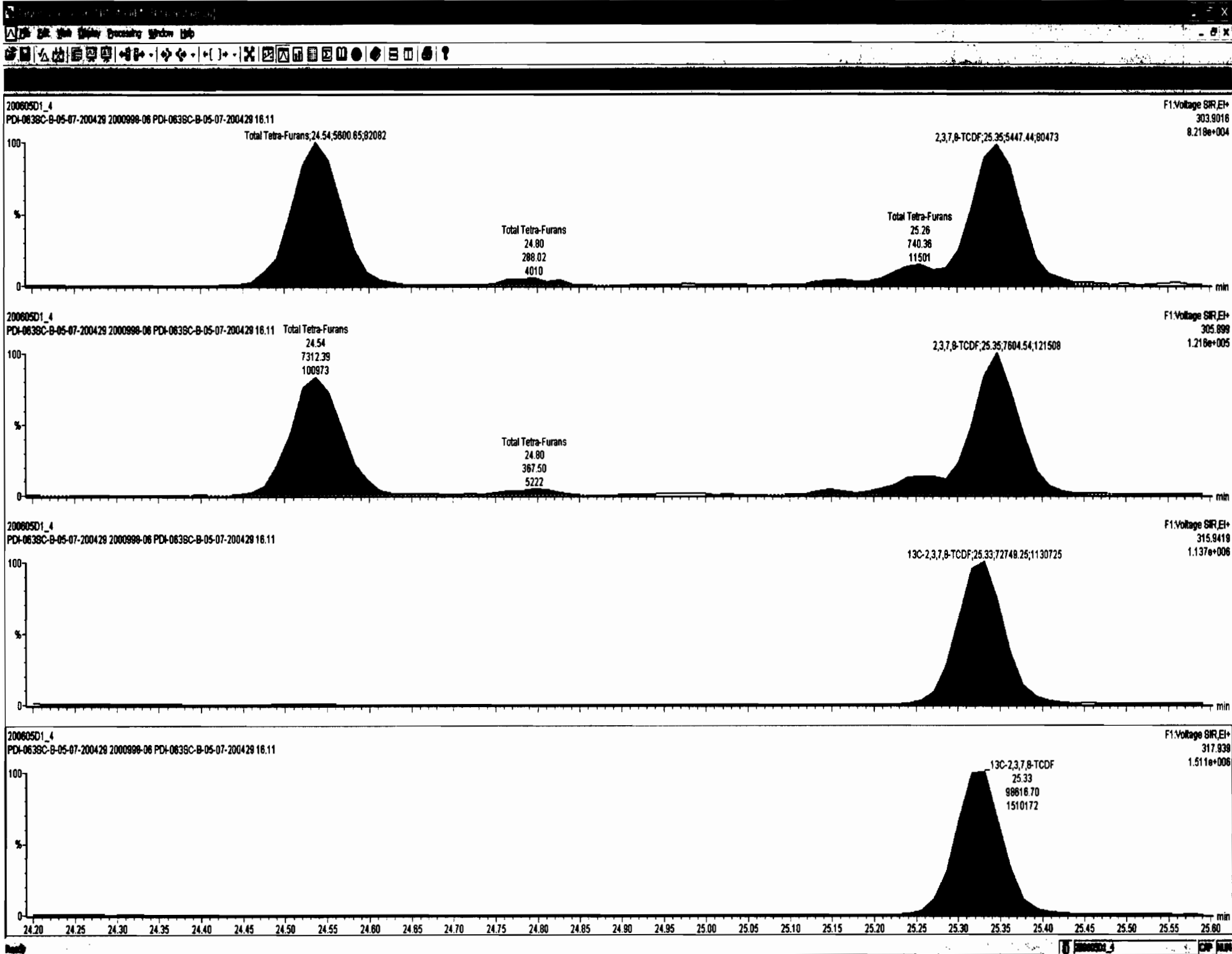
DPE1

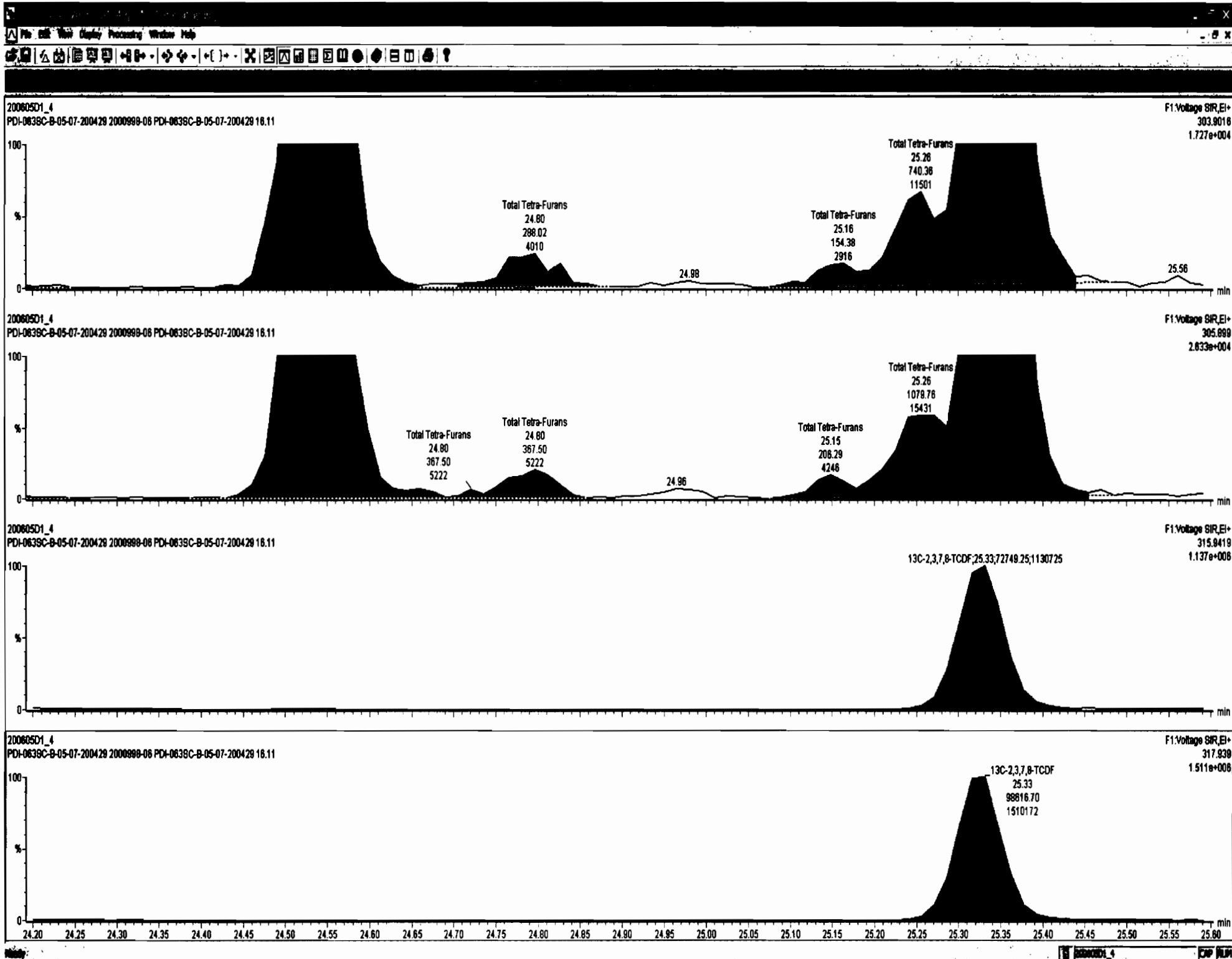


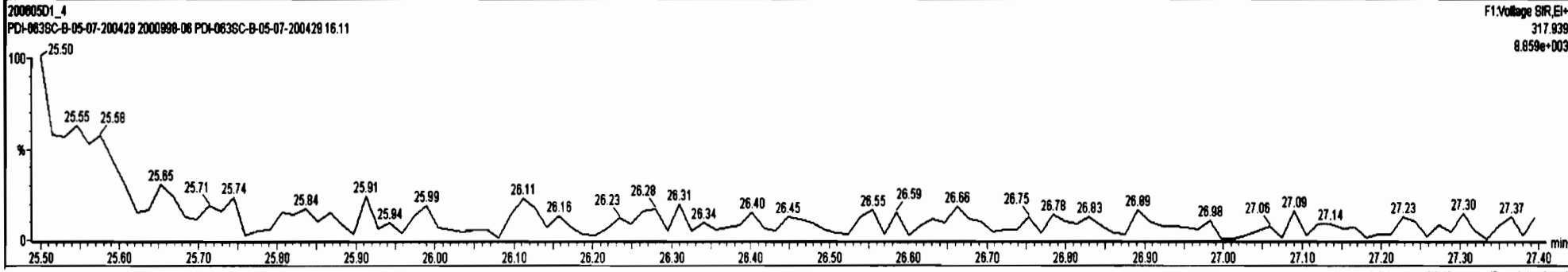
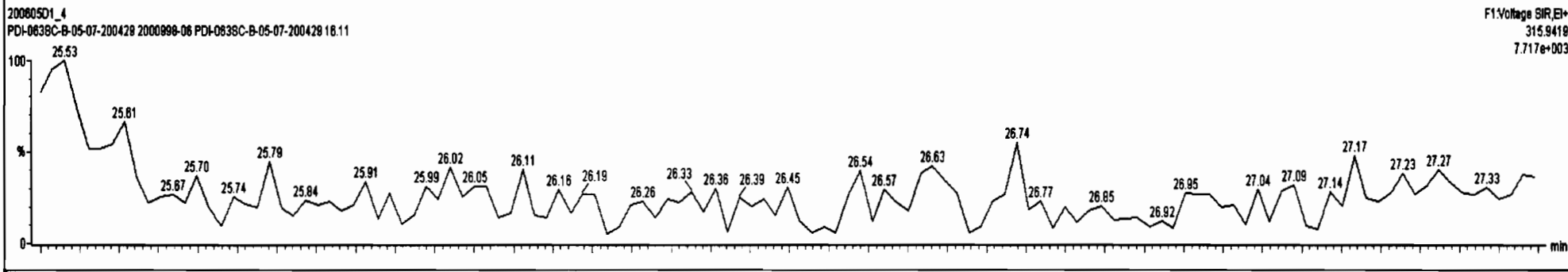
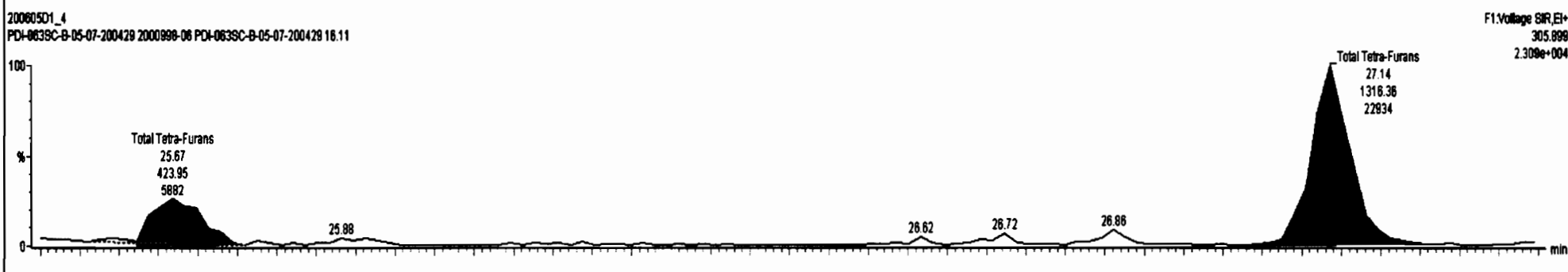
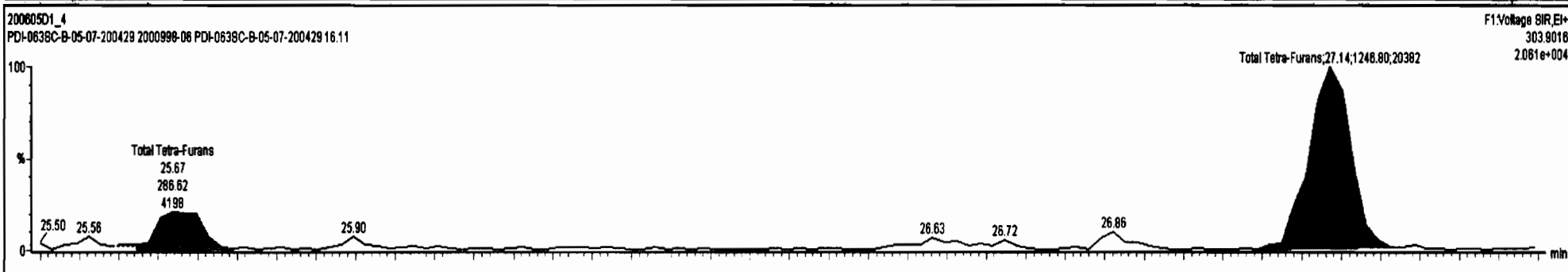
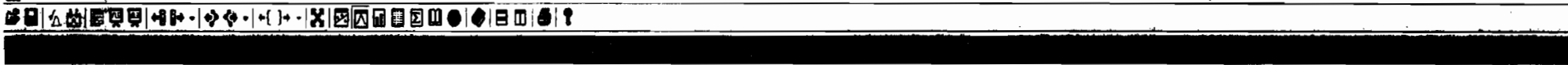












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Printed: Monday, June 08, 2020 10:27:39 Pacific Daylight Time

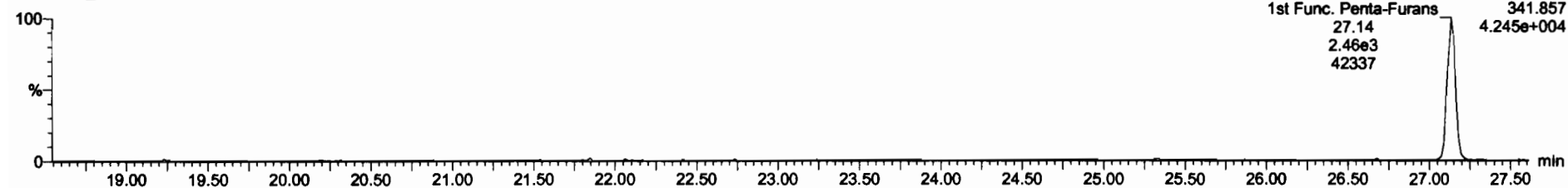
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1st Func. Penta-Furans

200605D1\_4

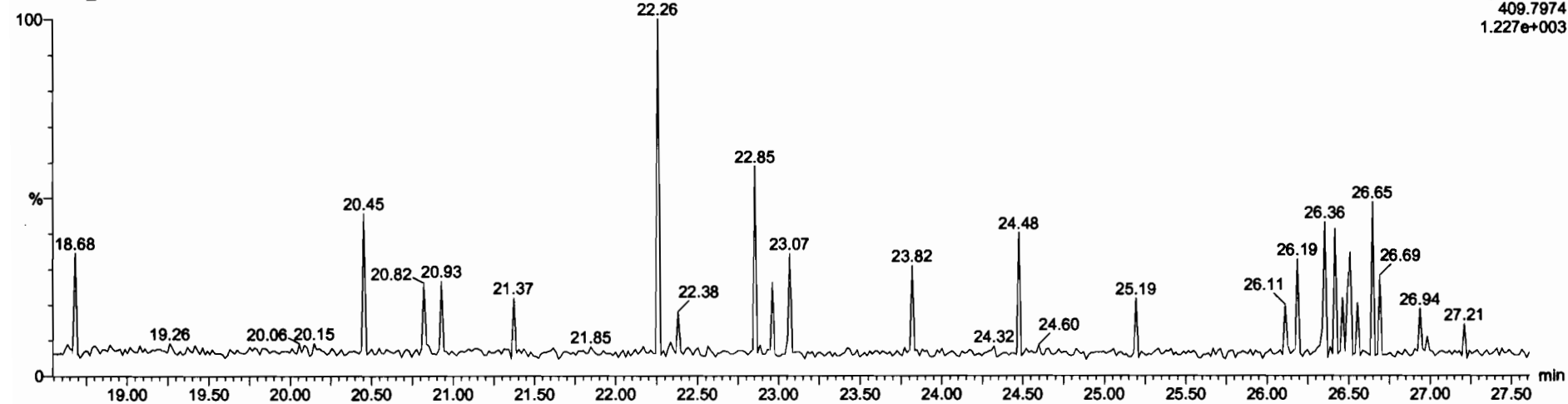


200605D1\_4



DPE6

200605D1\_4





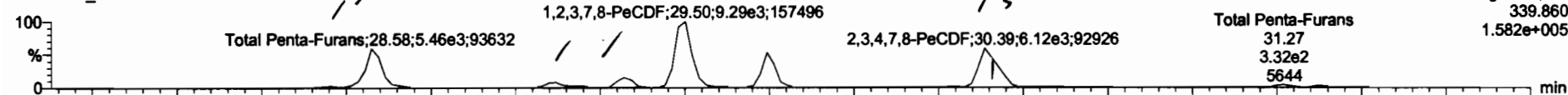
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Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

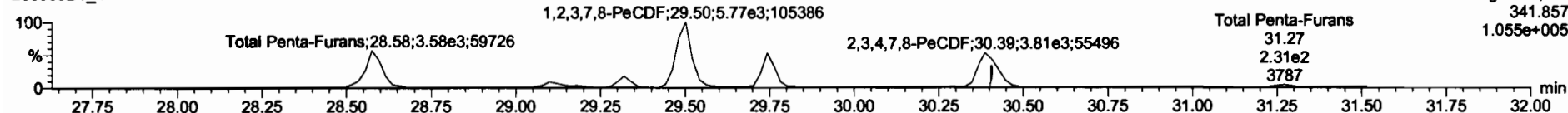
1,2,3,7,8-PeCDF

200605D1\_4



F2:Voltage SIR,EI+  
339.860  
1.582e+005

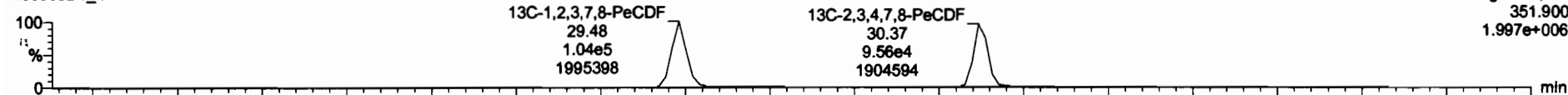
200605D1\_4



F2:Voltage SIR,EI+  
341.857  
1.055e+005

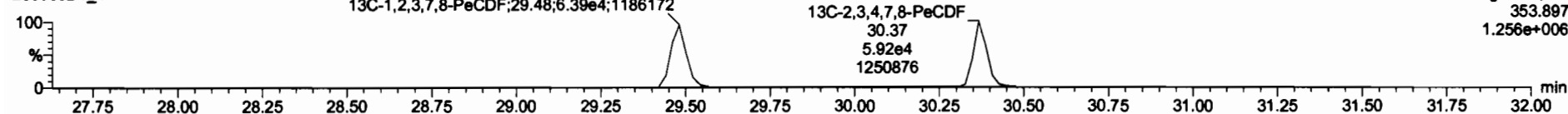
13C-1,2,3,7,8-PeCDF

200605D1\_4



F2:Voltage SIR,EI+  
351.900  
1.997e+006

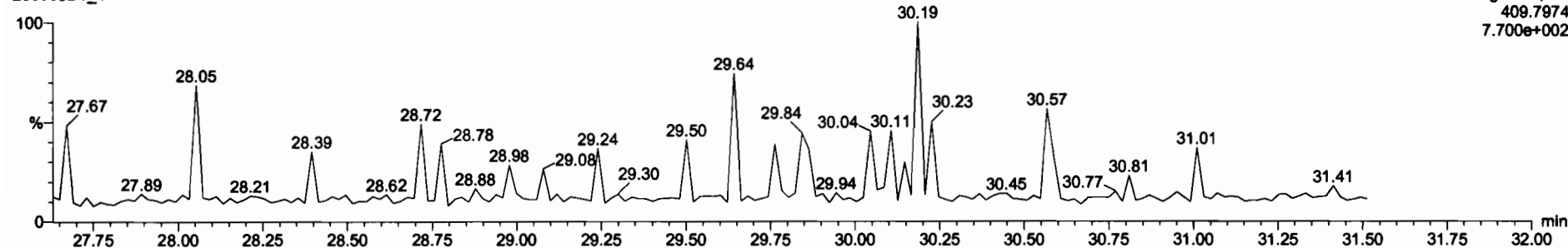
200605D1\_4



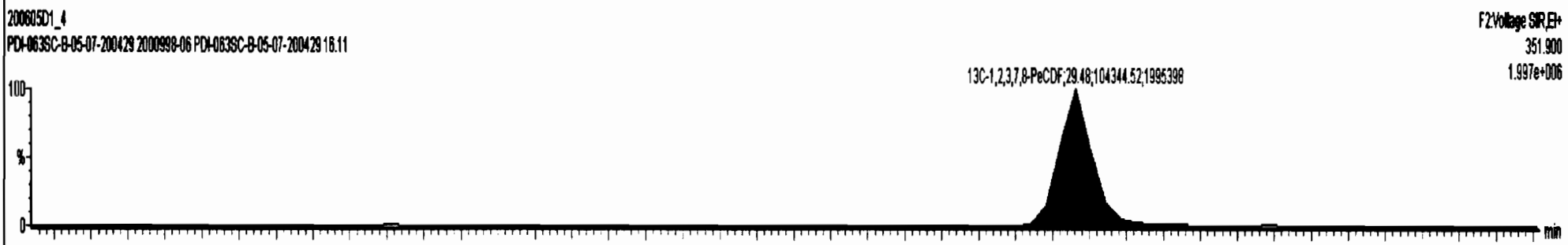
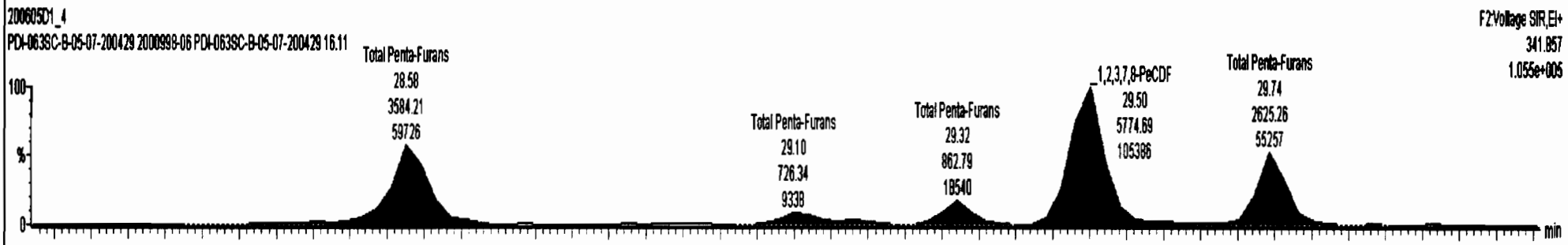
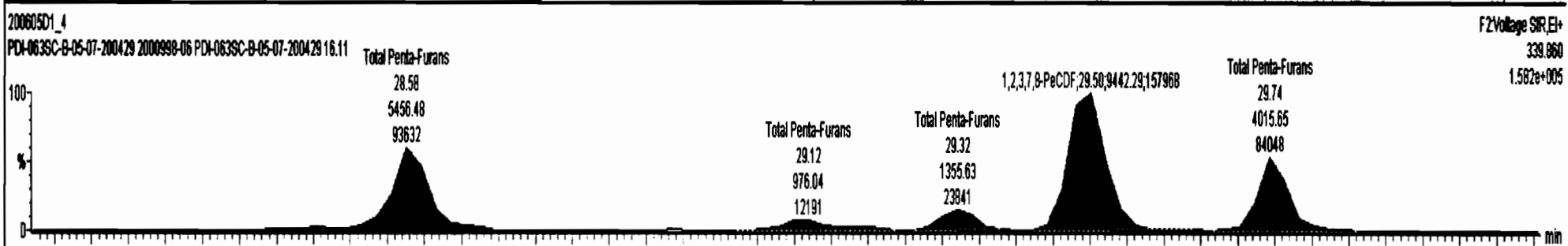
F2:Voltage SIR,EI+  
353.897  
1.256e+006

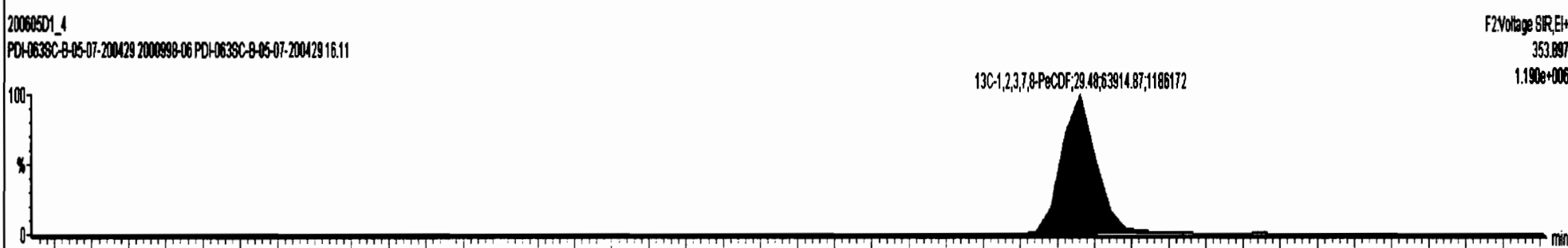
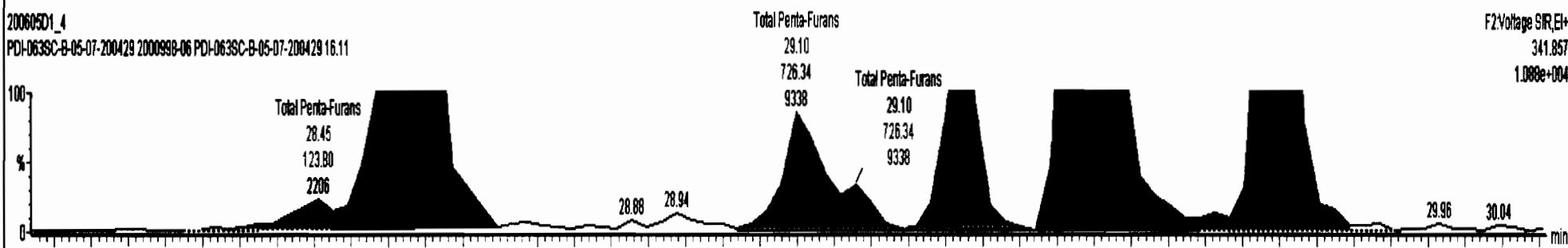
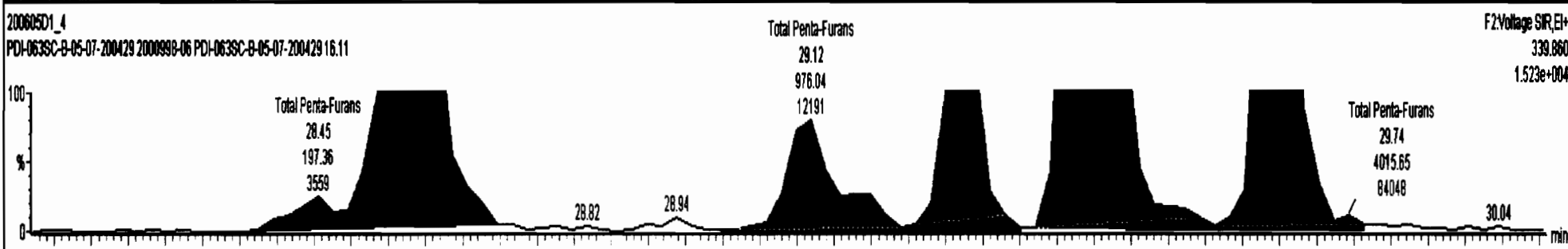
DPE2

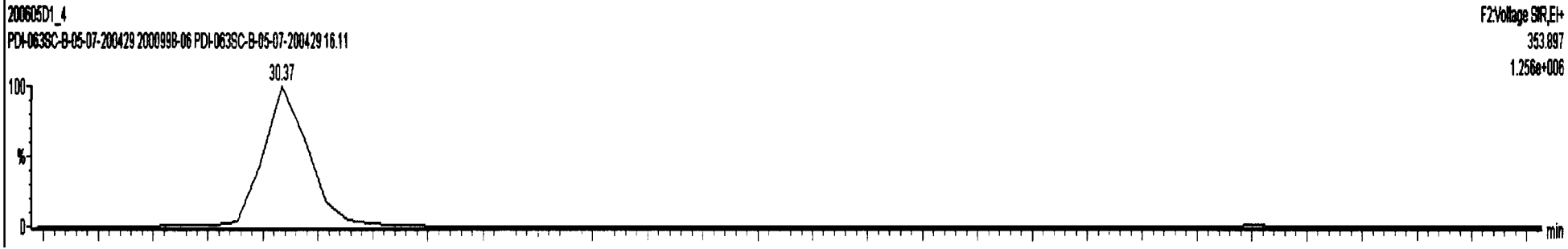
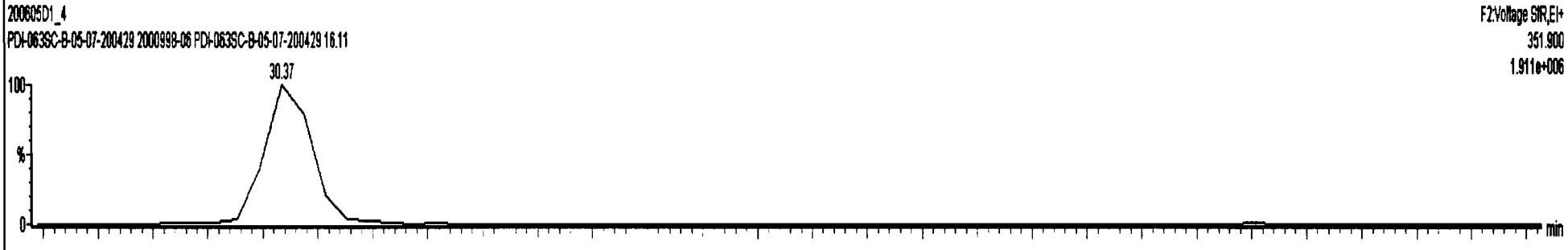
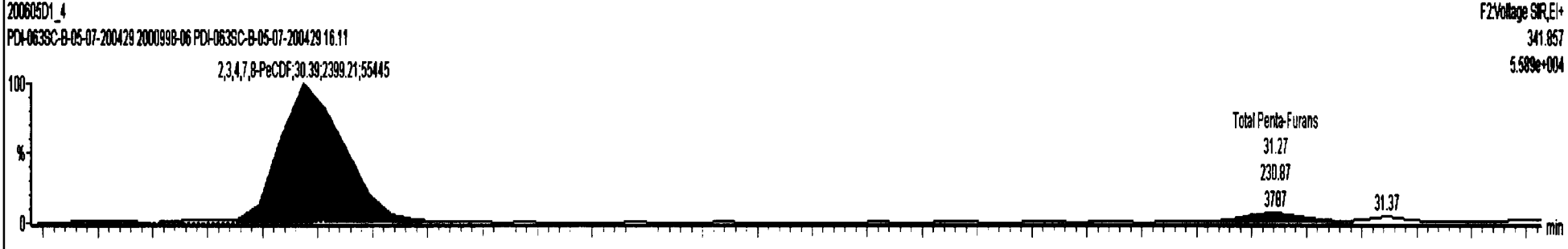
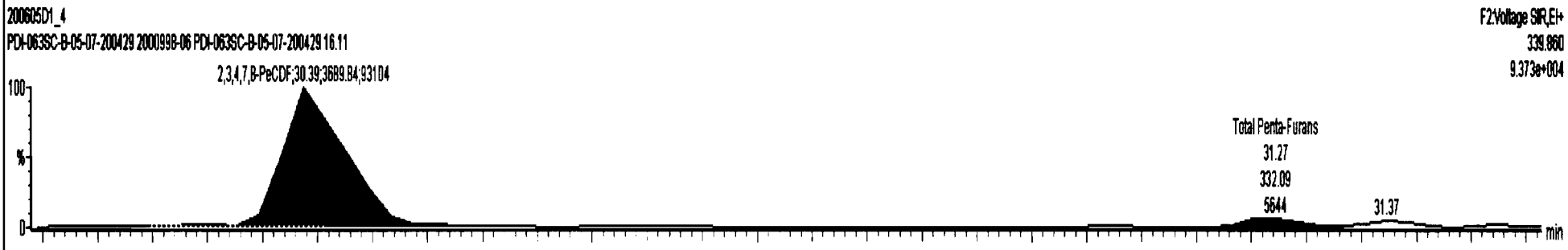
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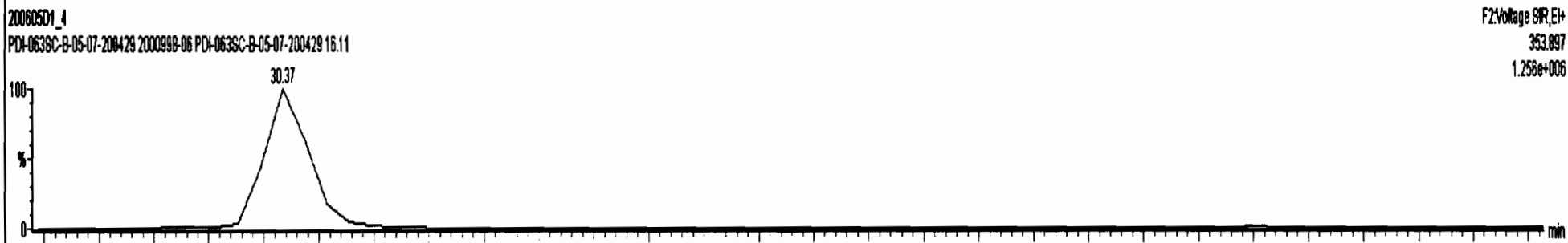
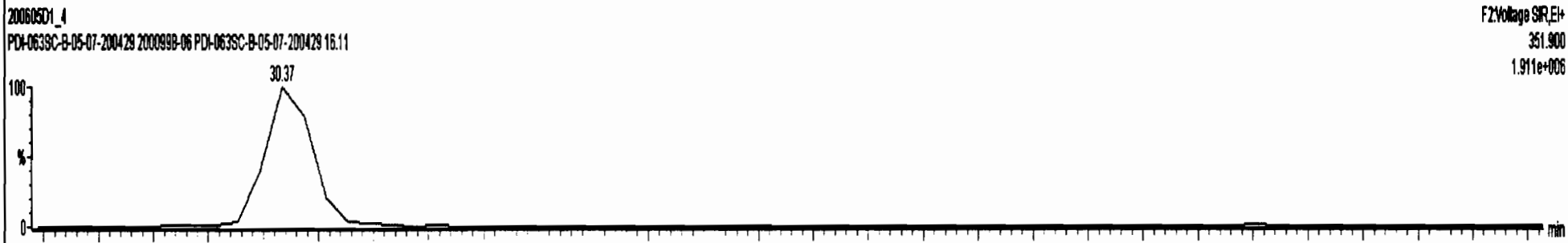
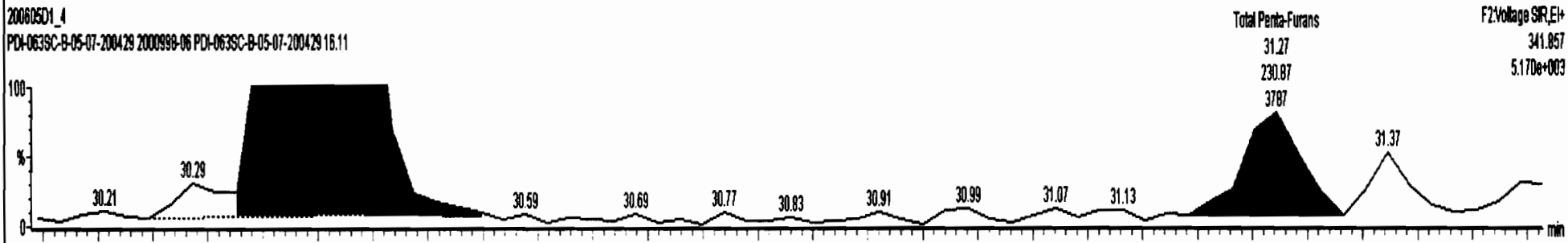
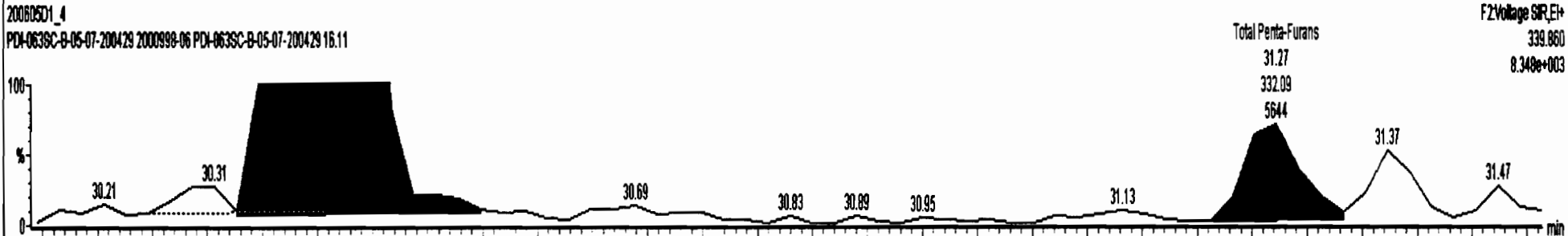


F2:Voltage SIR,EI+  
409.7974  
7.700e+002







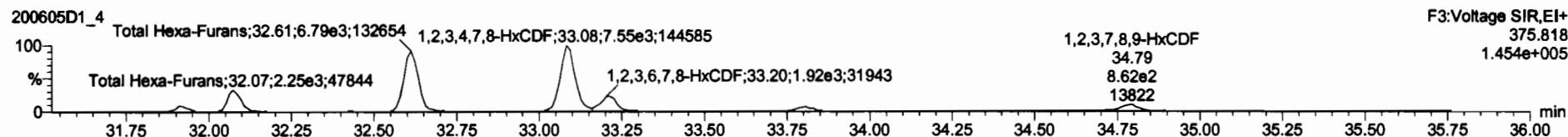
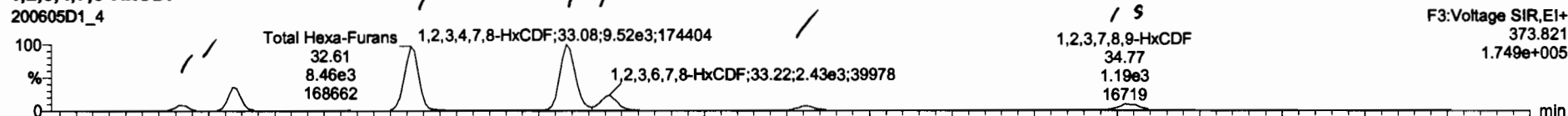


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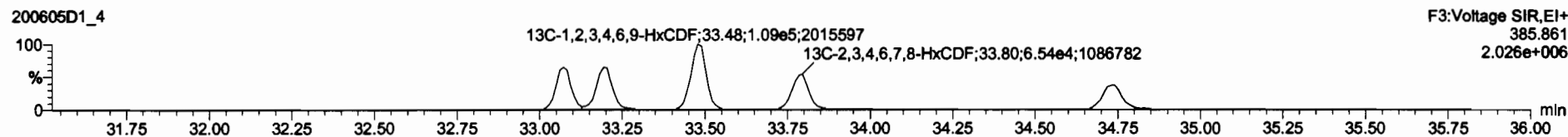
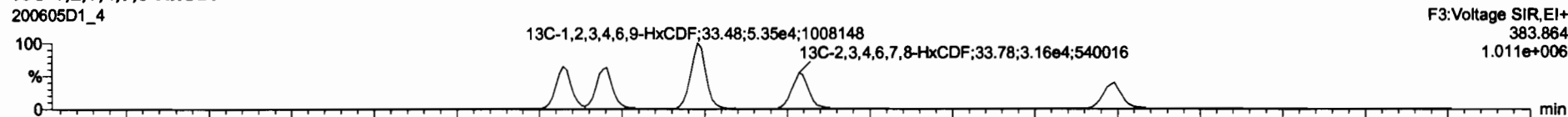
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Name: 200605D1\_4, Date: 05-Jun-2020, Time: 14:37:02, ID: 2000998-06 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

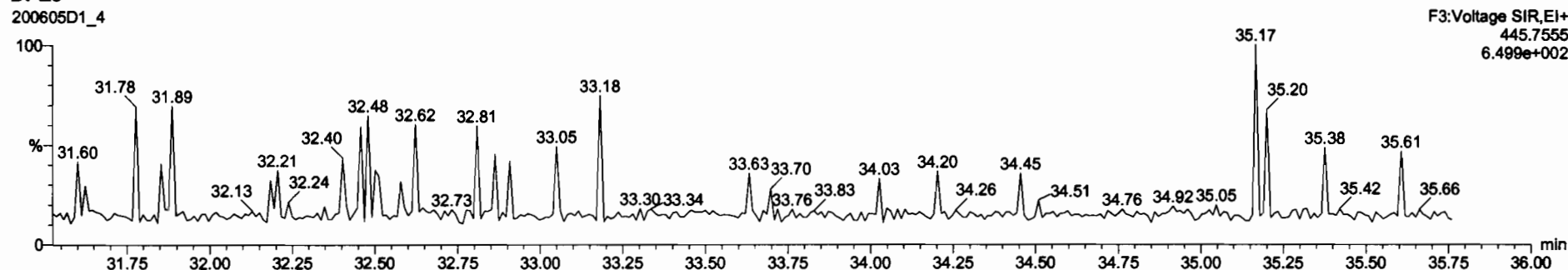
1,2,3,4,7,8-HxCDF

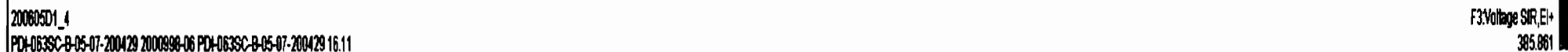
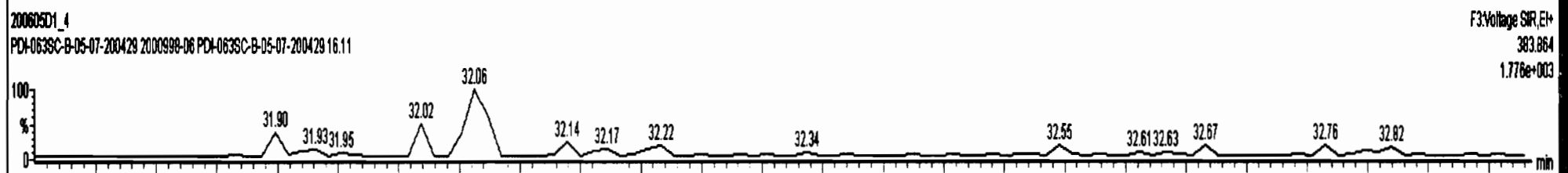
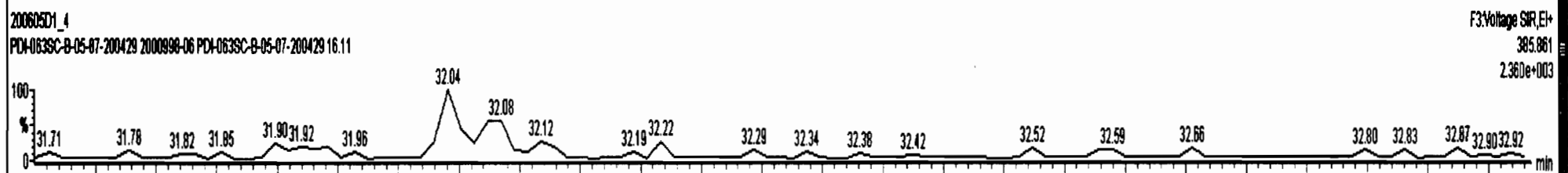
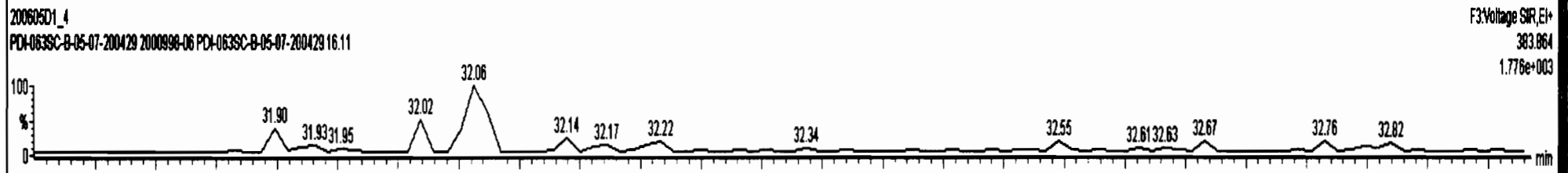
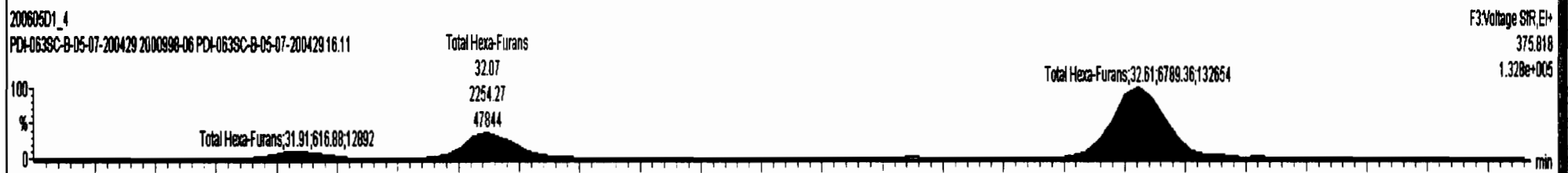
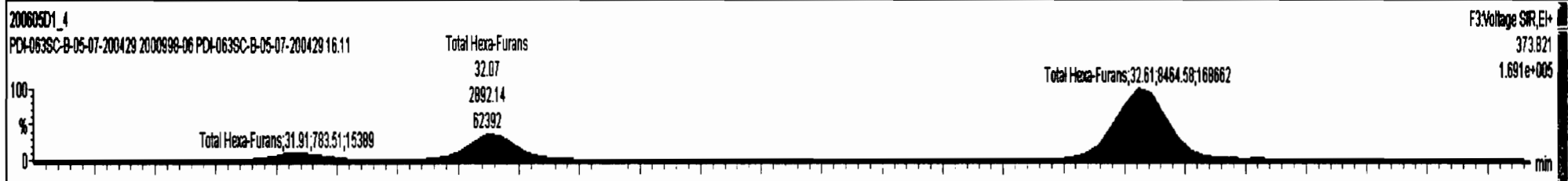


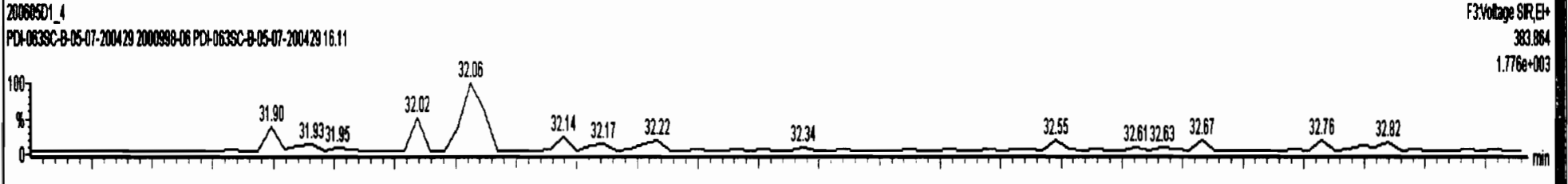
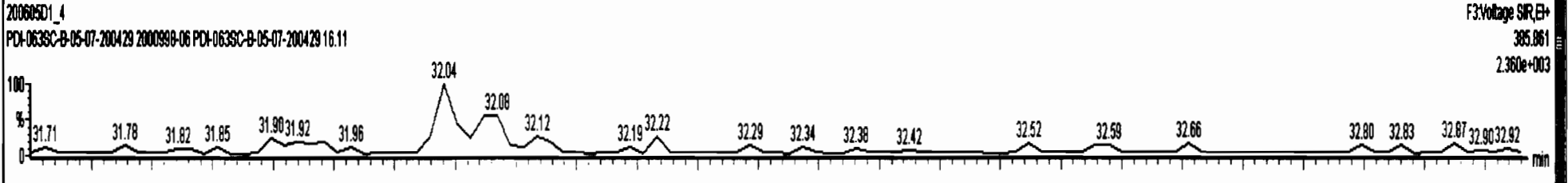
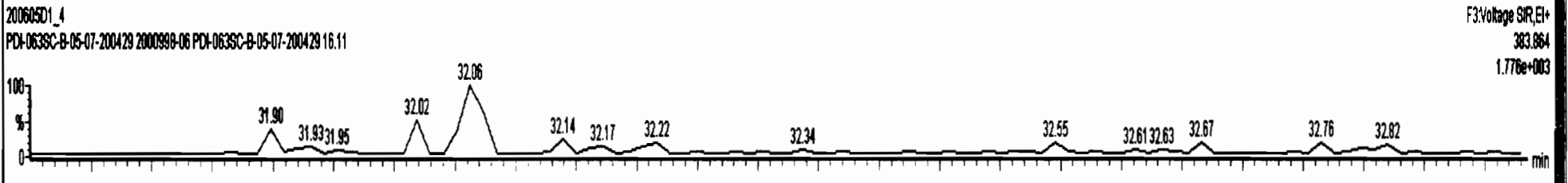
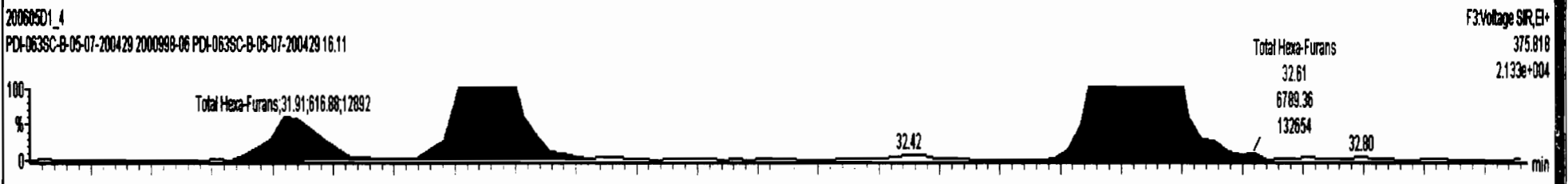
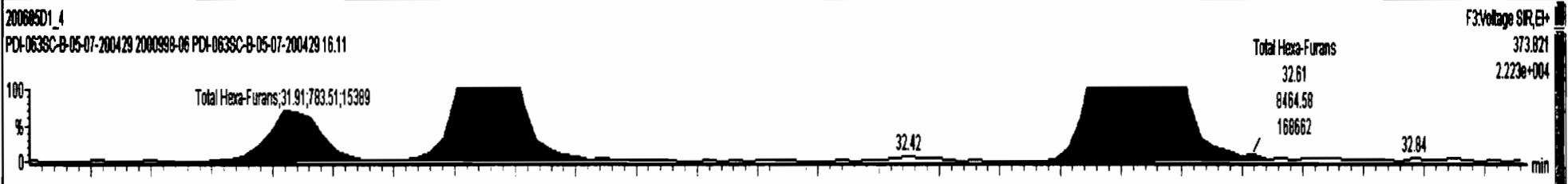
13C-1,2,3,4,7,8-HxCDF



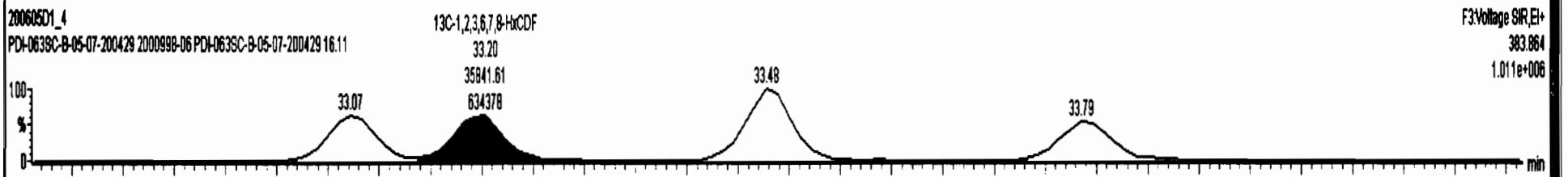
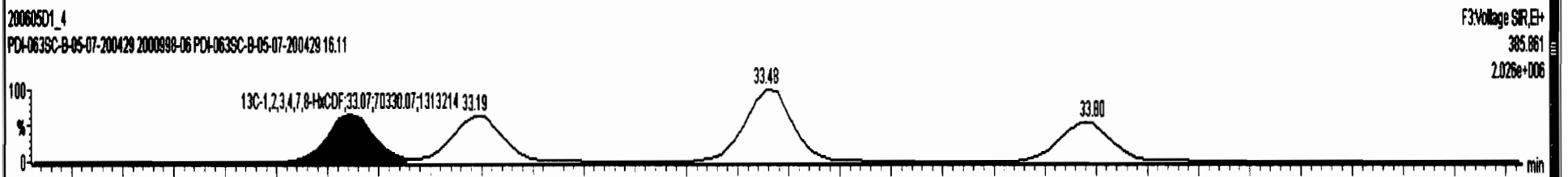
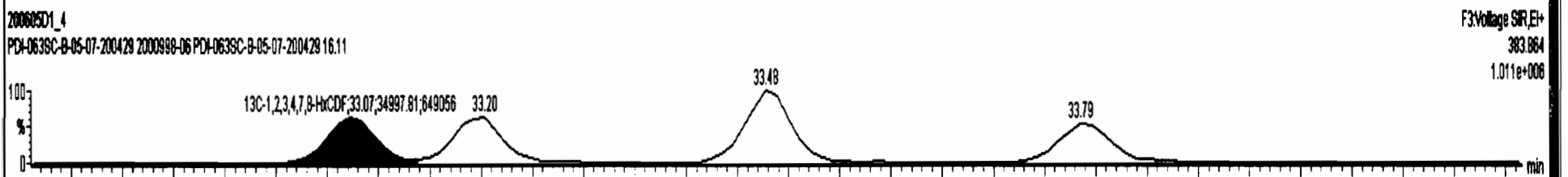
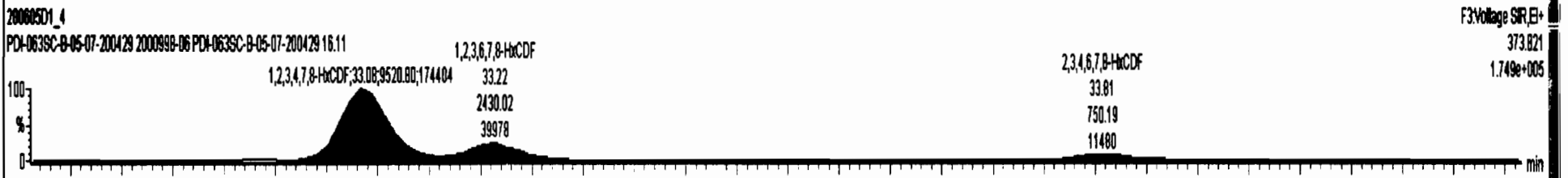
DPE3

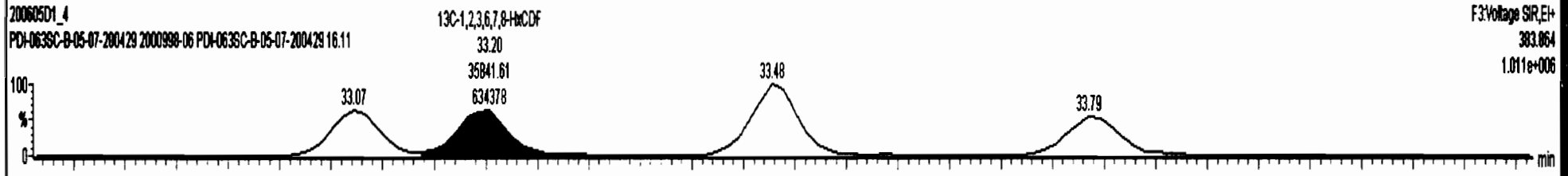
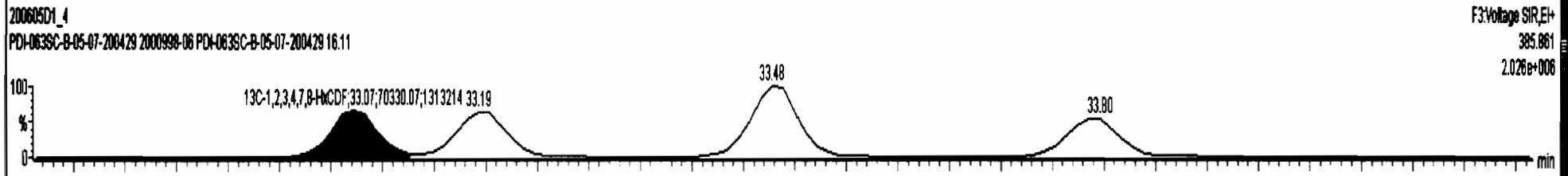
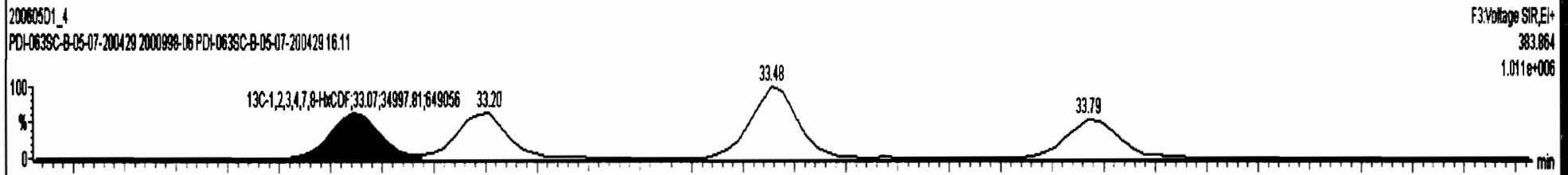
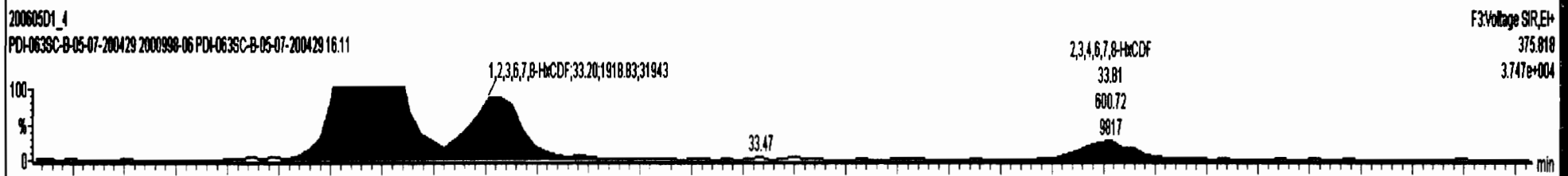
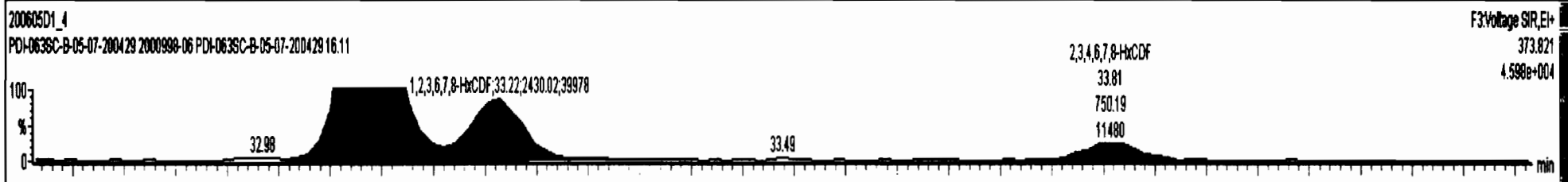


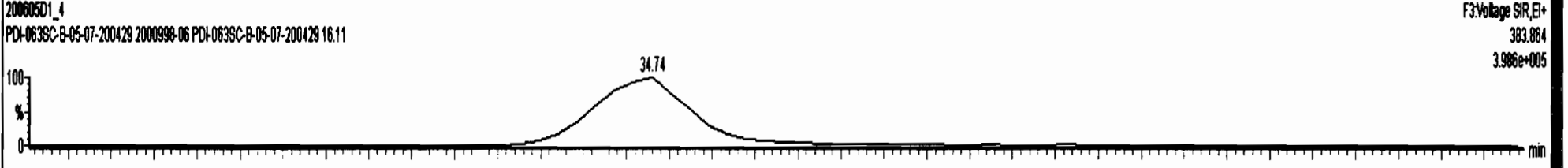
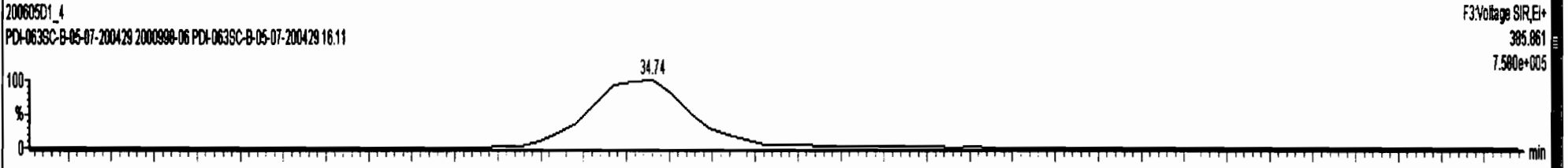
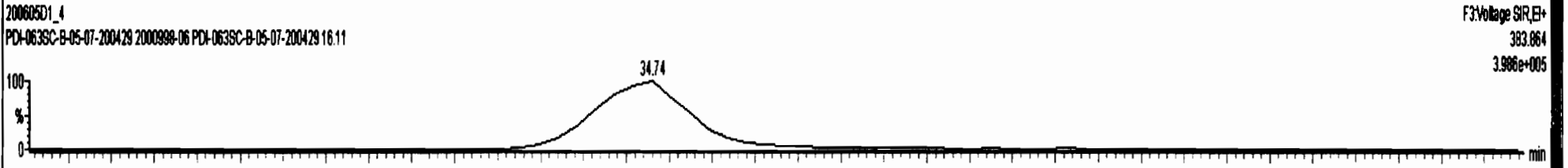
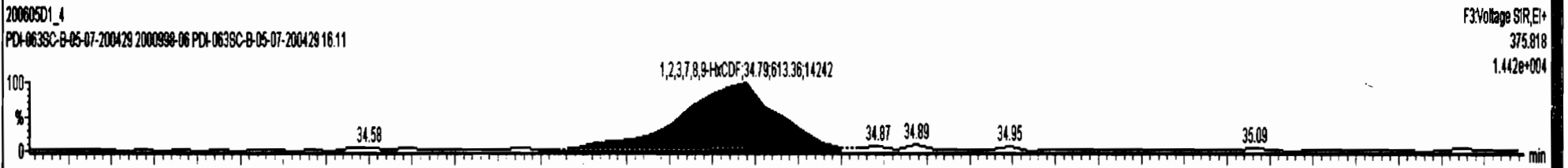
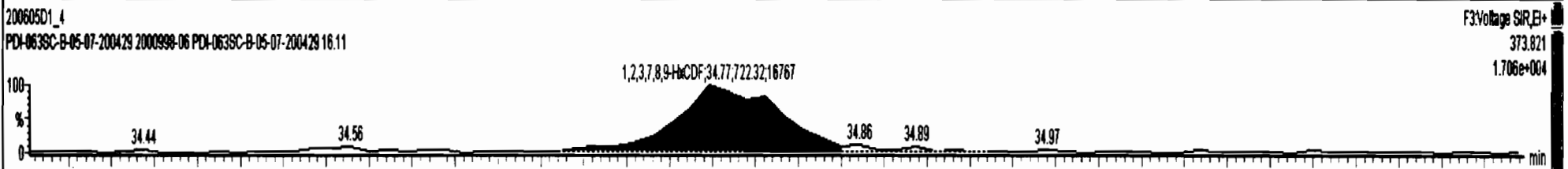










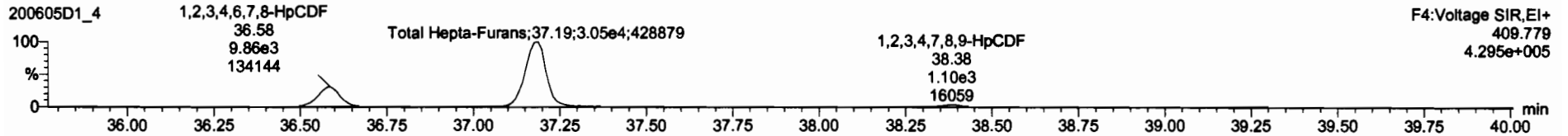
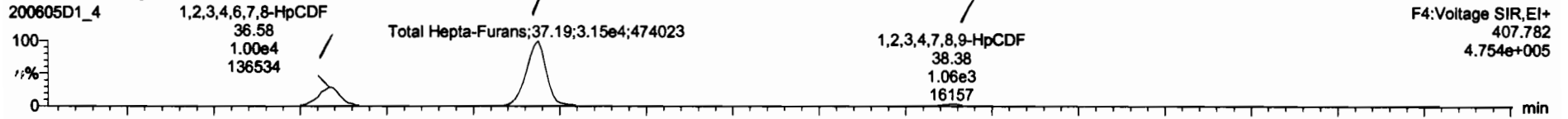


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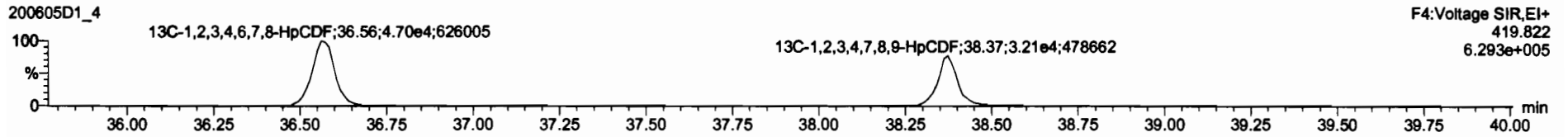
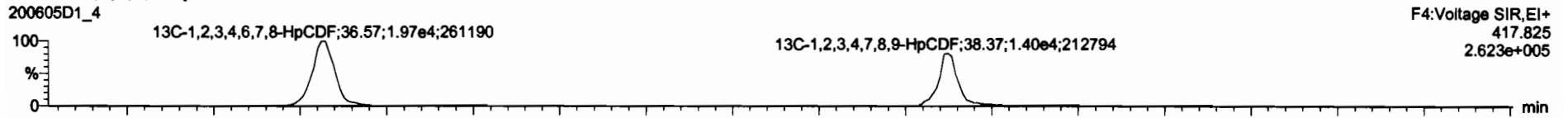
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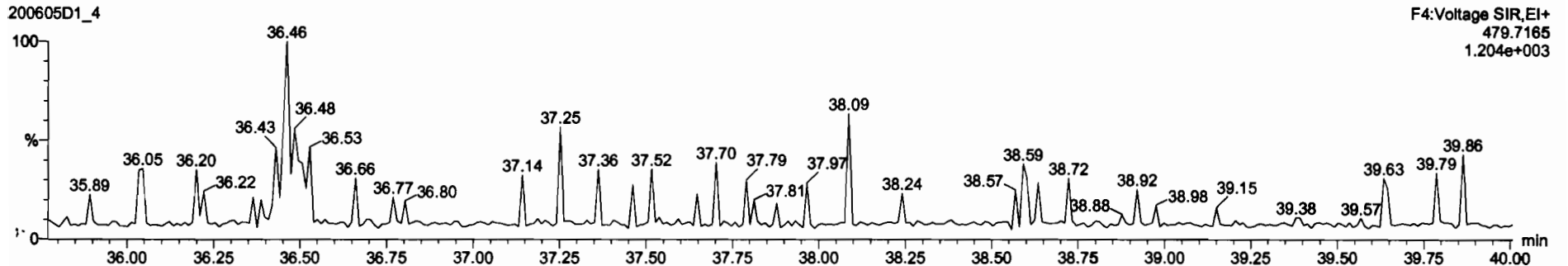
**1,2,3,4,6,7,8-HpCDF**

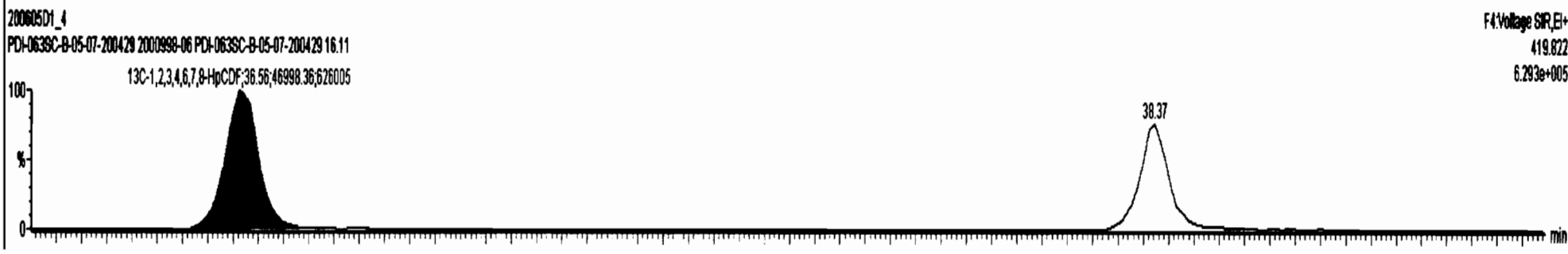
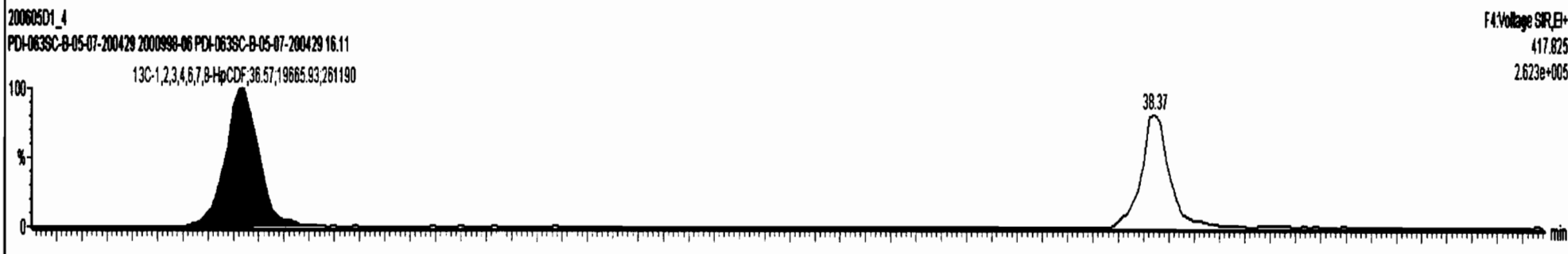
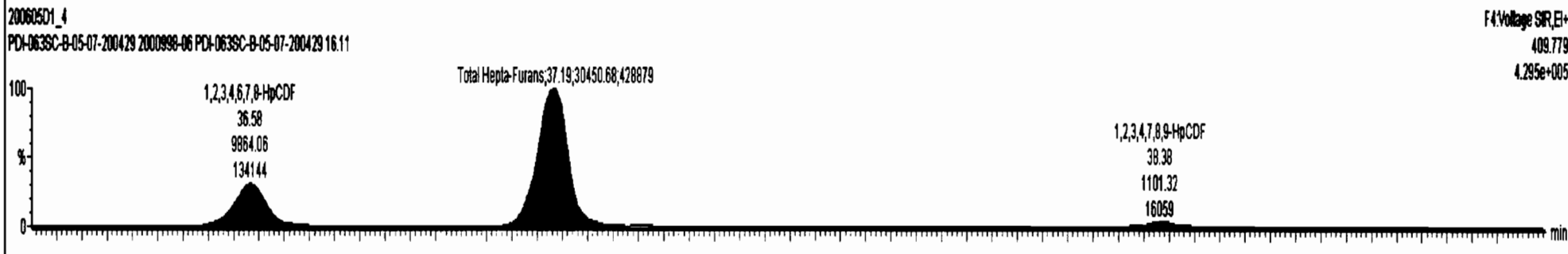


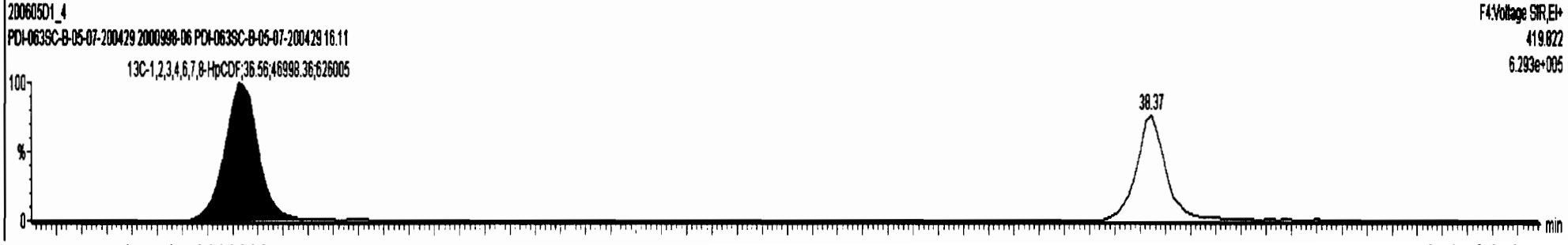
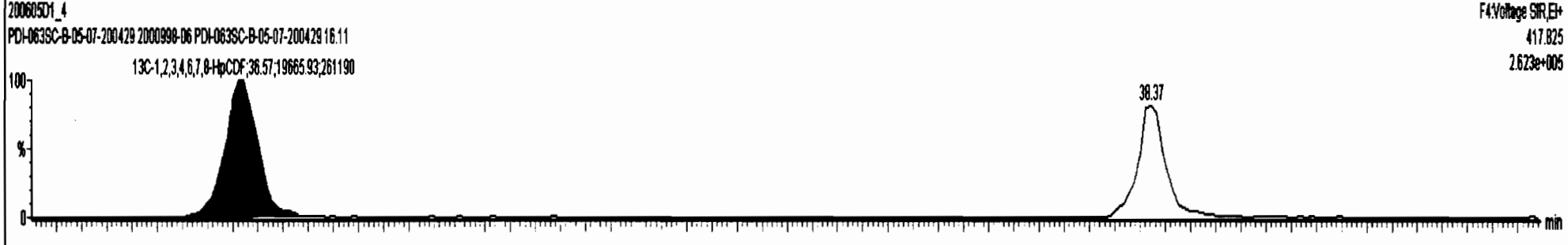
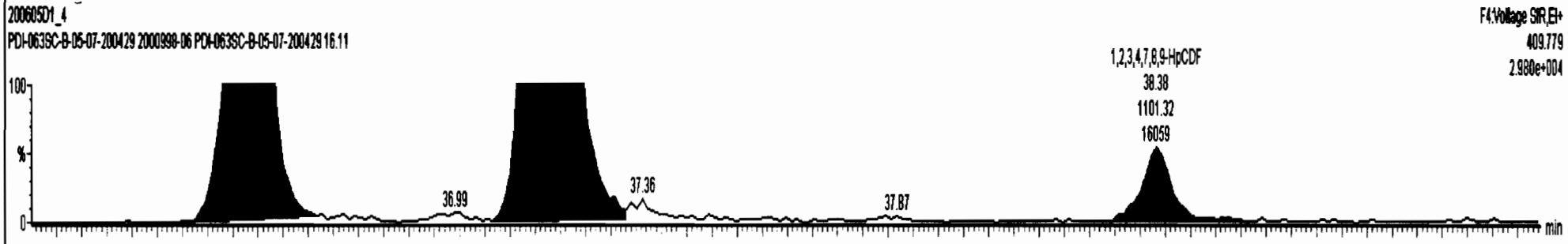
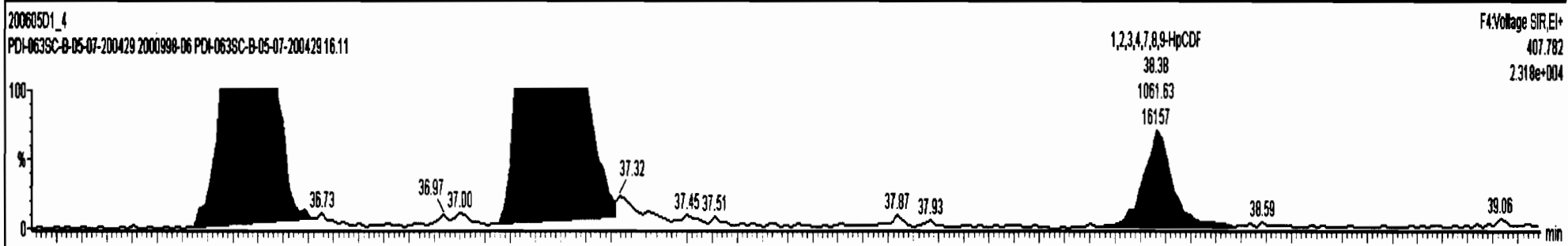
**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**



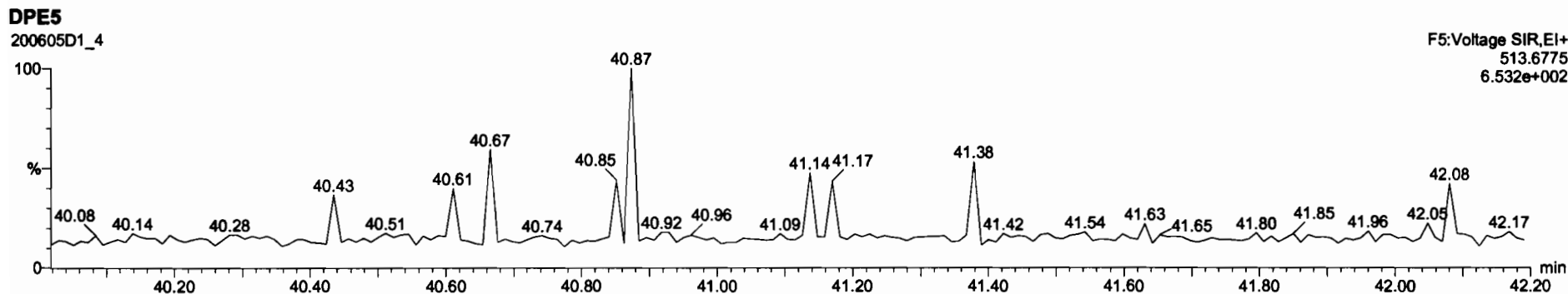
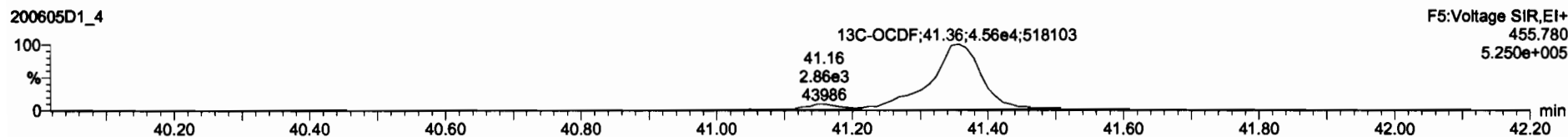
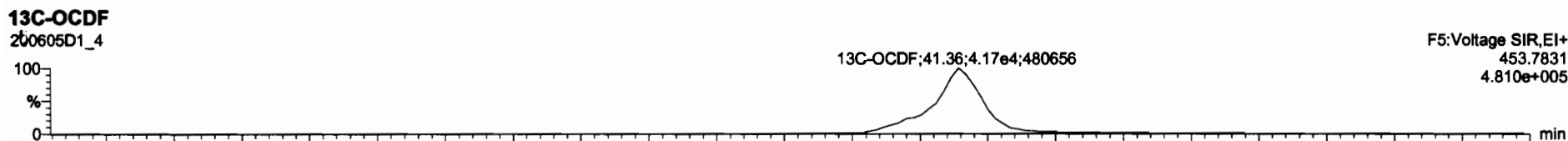
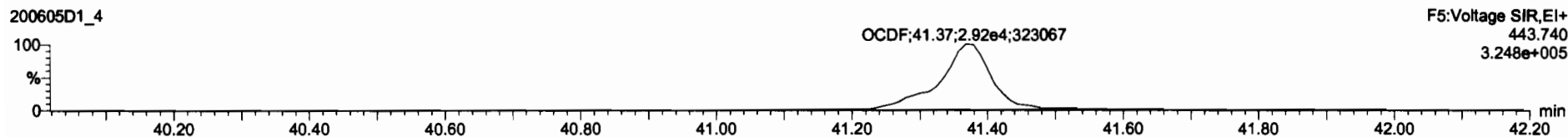
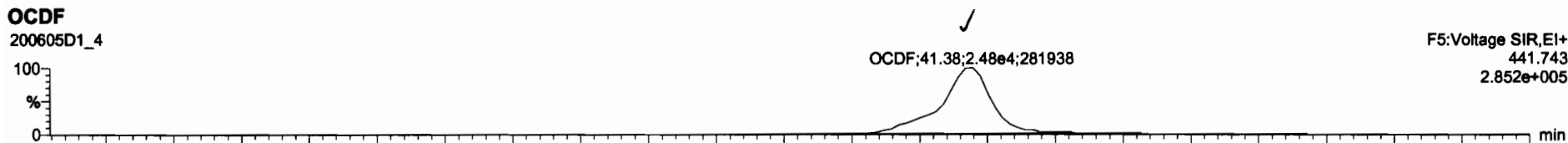




Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_4.qld

Last Altered: Monday, June 08, 2020 09:47:58 Pacific Daylight Time  
Printed: Monday, June 08, 2020 10:27:39 Pacific Daylight Time

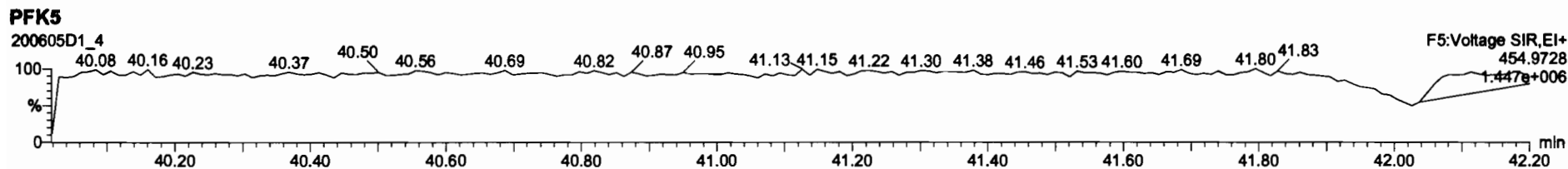
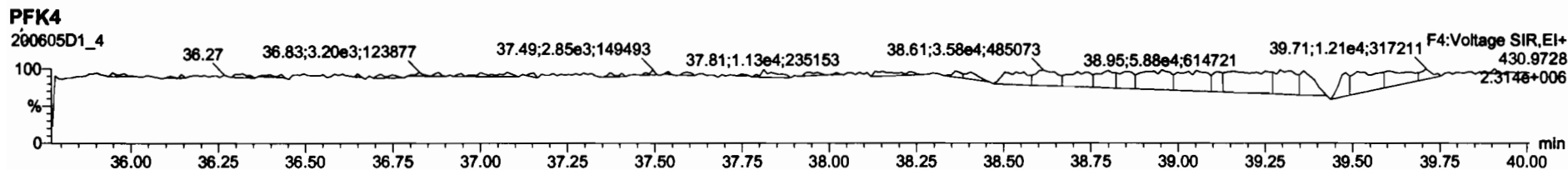
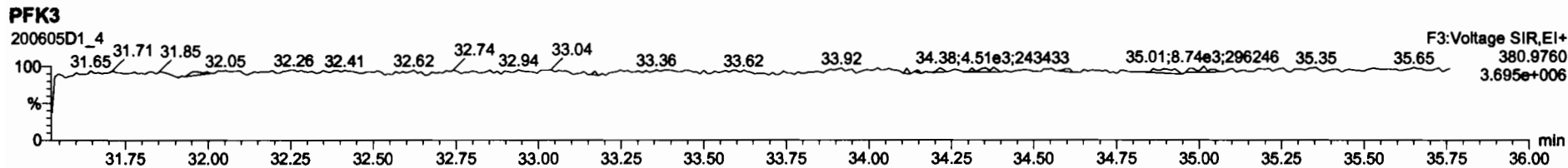
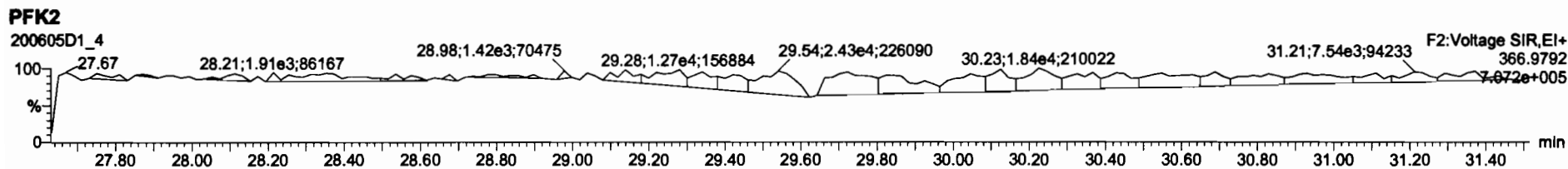
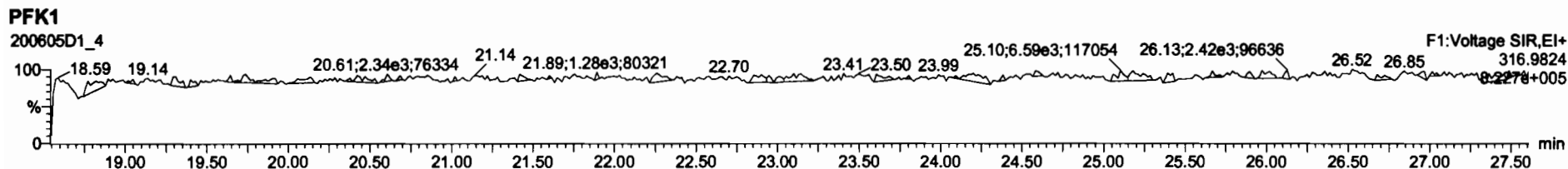
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Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_4.qld

Last Altered: Monday, June 08, 2020 09:47:58 Pacific Daylight Time  
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Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

Last Altered: Tuesday, June 09, 2020 09:49:57 Pacific Daylight Time  
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DB 6/9/20 0106/11/2020

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

|    |                       |        |      |    |       |        |        |       |       |       |        |      |      |
|----|-----------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|------|
| 7  | OCDD                  | 2.12e5 | 0.89 | NO | 1.04  | 10.017 | 41.071 | 41.09 | 1.000 | 1.001 | 6619.7 | 5.14 | 6620 |
| 24 | 13C-OCDD              | 1.23e4 | 0.93 | NO | 0.579 | 10.017 | 40.796 | 41.07 | 1.219 | 1.228 | 177.42 | 44.4 | 1.23 |
| 38 | 13C-1,2,3,4,6,9-HxCDF | 2.40e4 | 0.50 | NO | 1.00  | 10.017 | 33.530 | 33.46 | 1.000 | 1.000 | 199.65 | 100  | 1.19 |

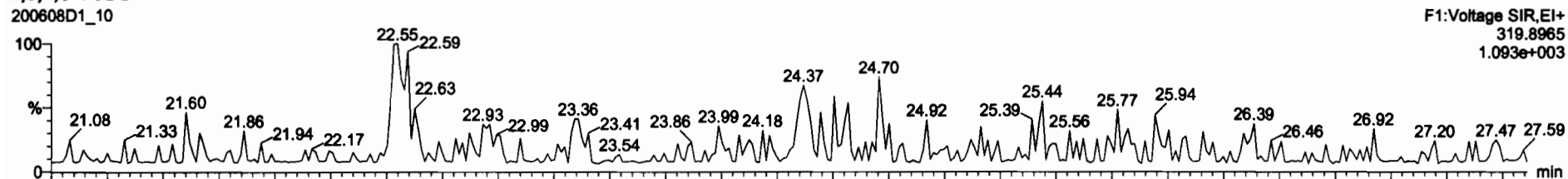
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Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

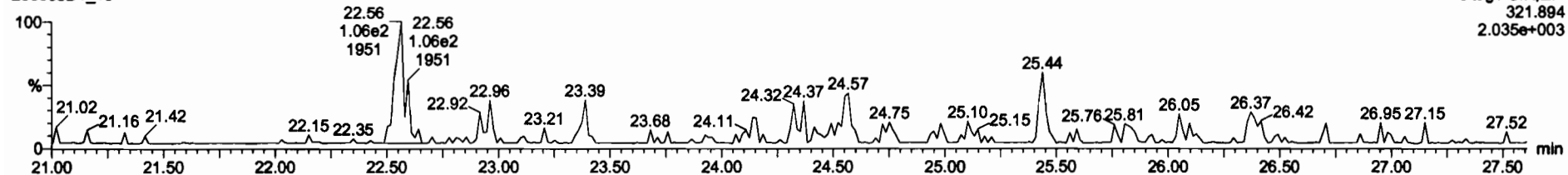
Method: C:\MassLynx\Default.PROMethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\lb-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

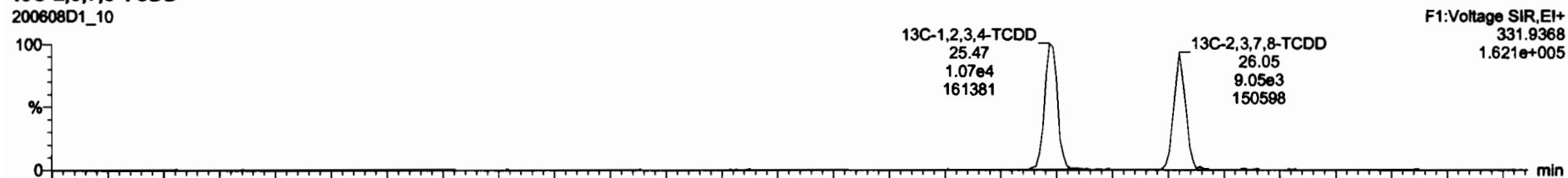
2,3,7,8-TCDD



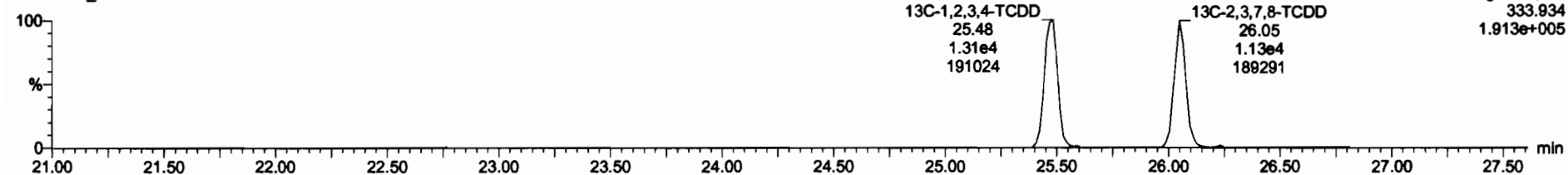
200608D1\_10



13C-2,3,7,8-TCDD



200608D1\_10

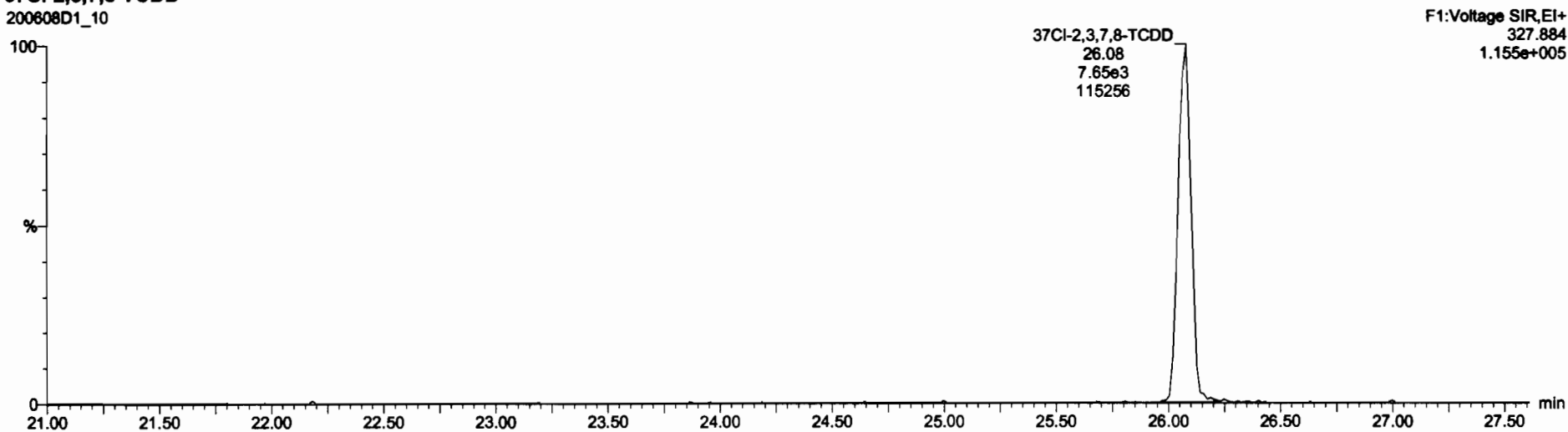


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

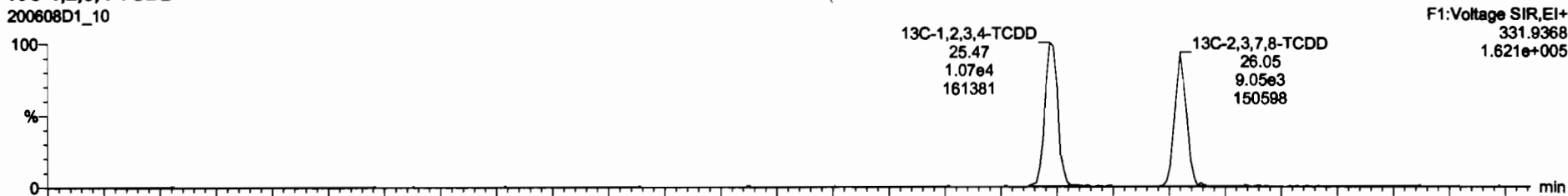
Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

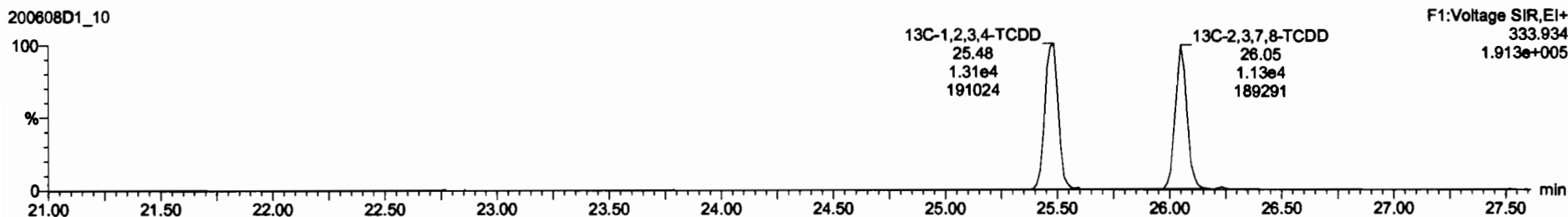
37Cl-2,3,7,8-TCDD  
200608D1\_10



13C-1,2,3,4-TCDD  
200608D1\_10



200608D1\_10



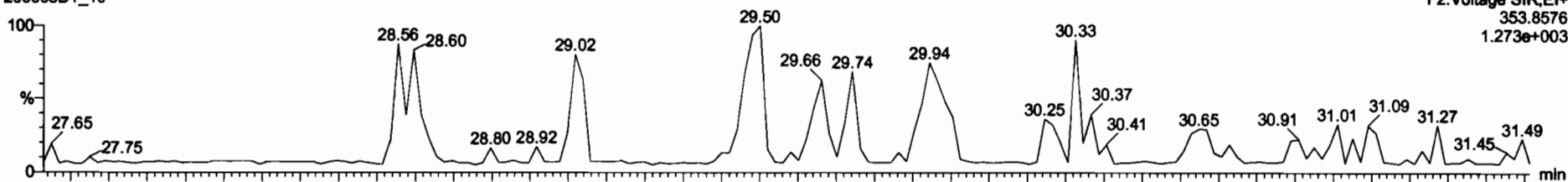
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Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

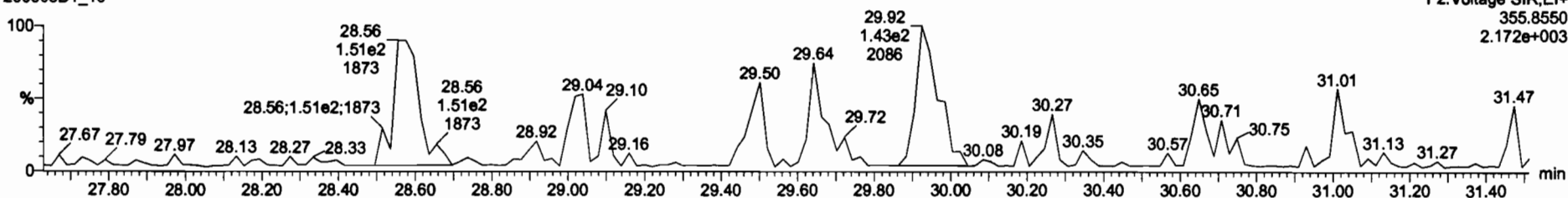
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

**1,2,3,7,8-PeCDD**

200608D1\_10



200608D1\_10

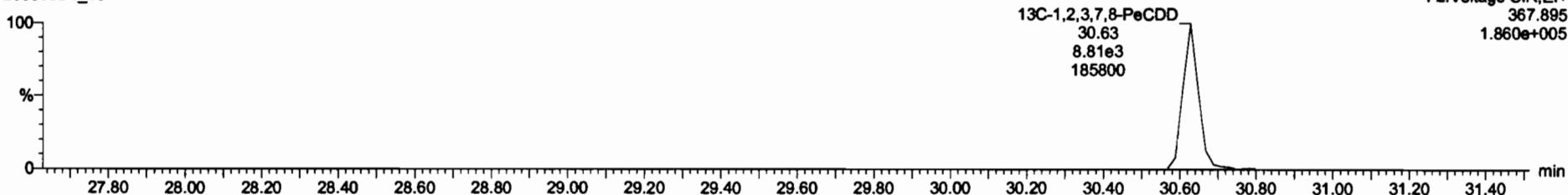


**13C-1,2,3,7,8-PeCDD**

200608D1\_10



200608D1\_10

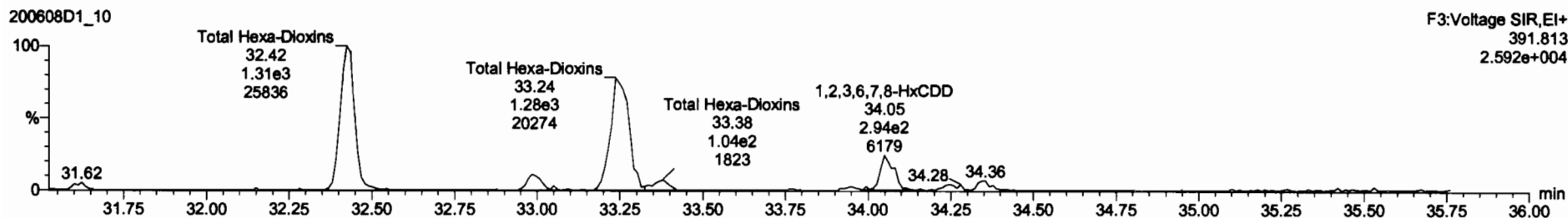
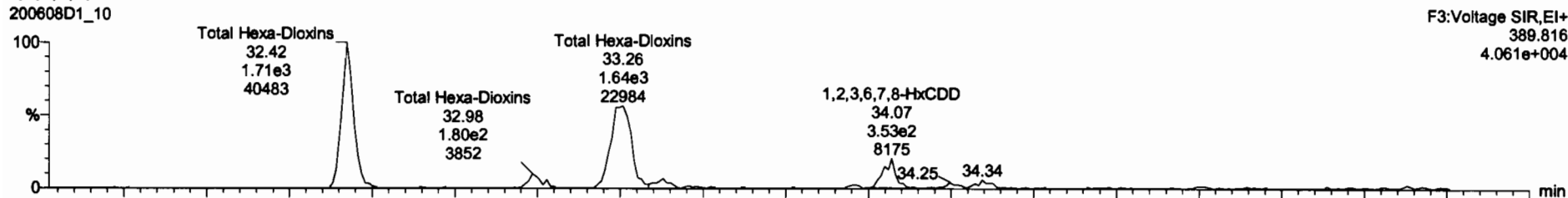


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

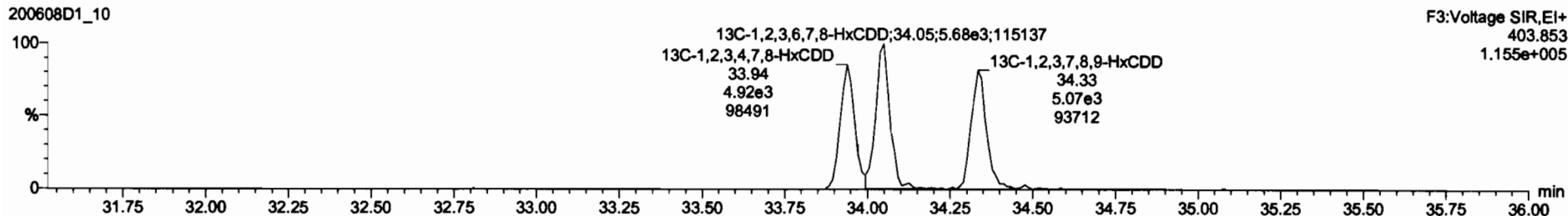
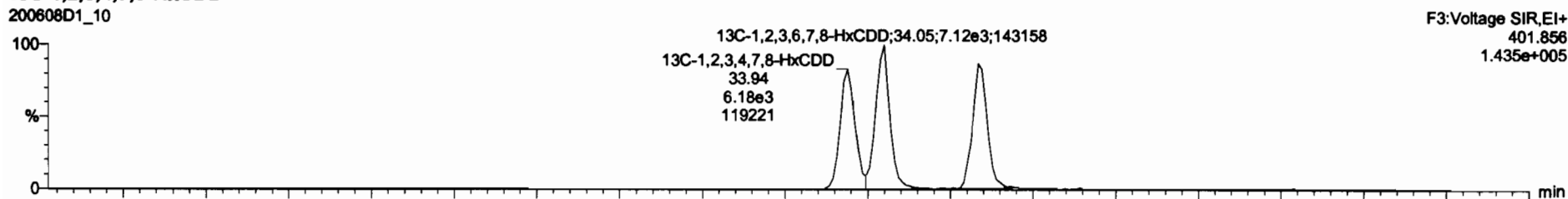
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Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

1,2,3,4,7,8-HxCDD



13C-1,2,3,4,7,8-HxCDD



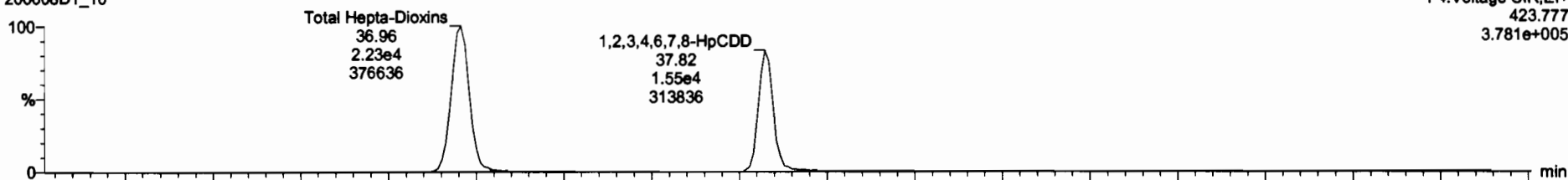
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Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

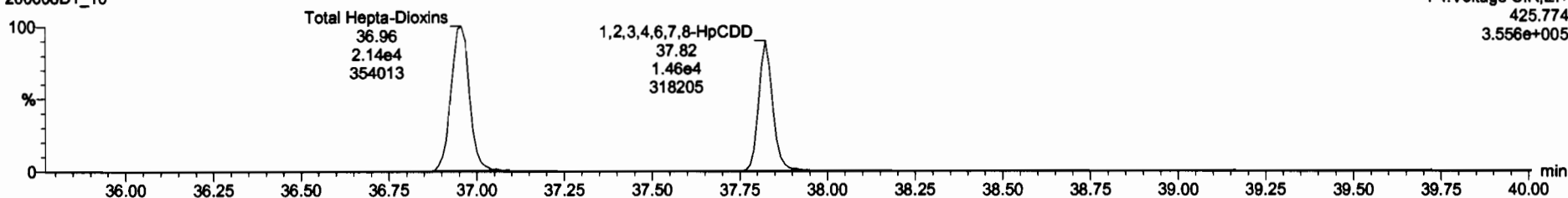
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

1,2,3,4,6,7,8-HpCDD

200608D1\_10

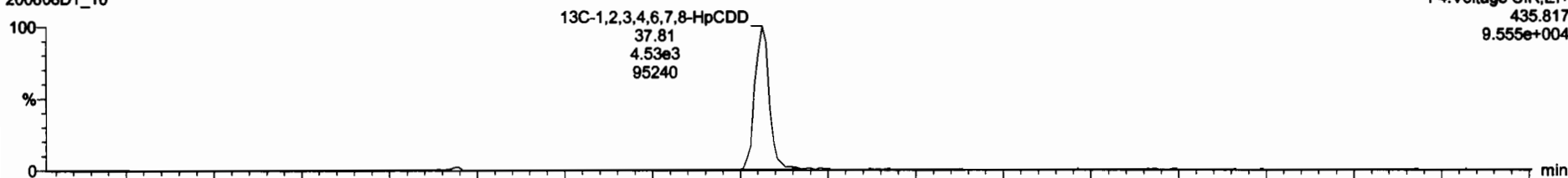


200608D1\_10

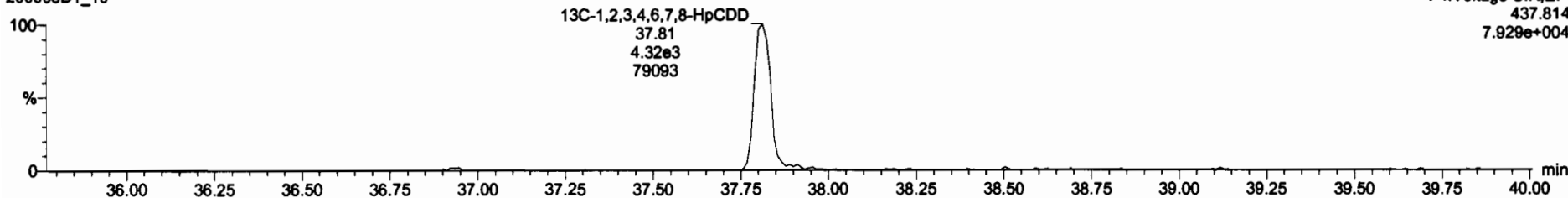


13C-1,2,3,4,6,7,8-HpCDD

200608D1\_10



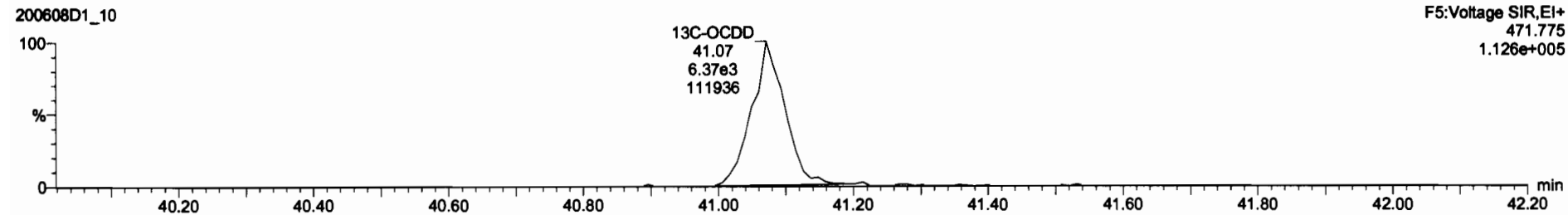
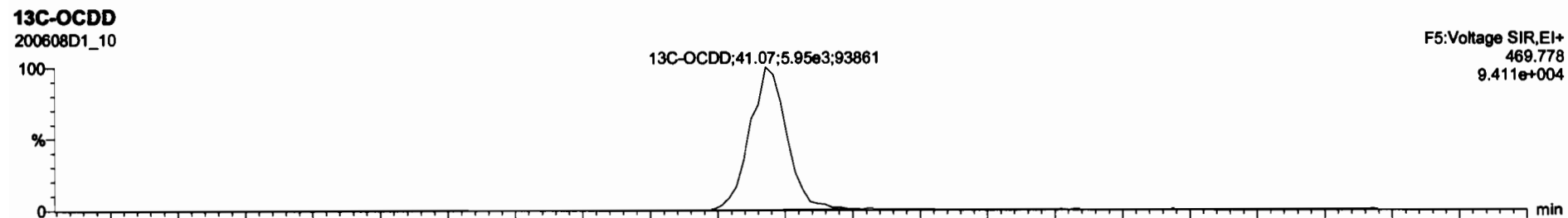
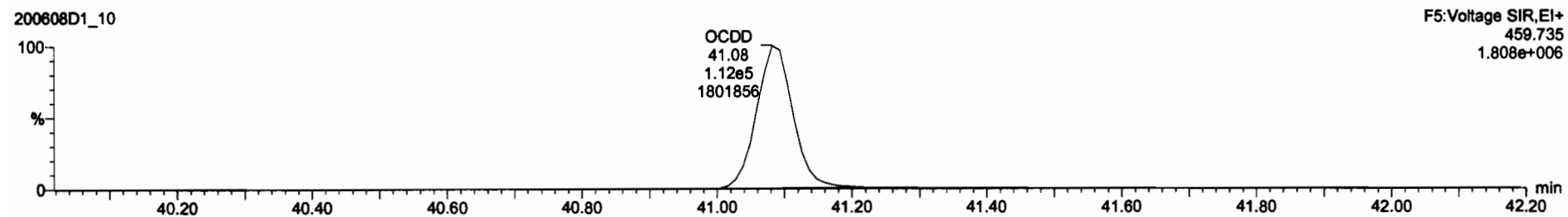
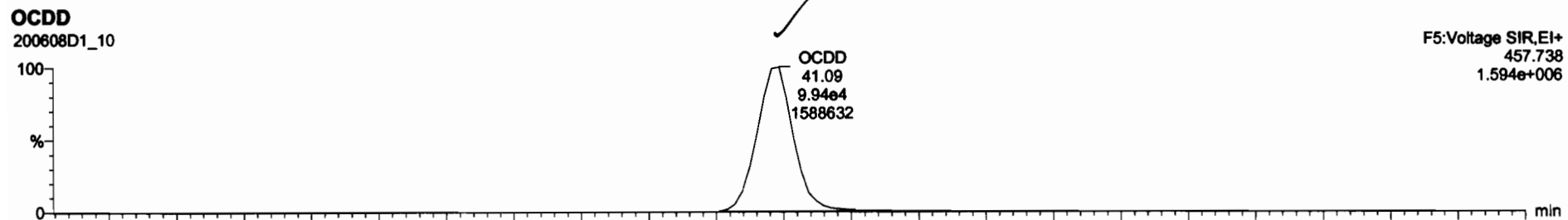
200608D1\_10



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
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Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

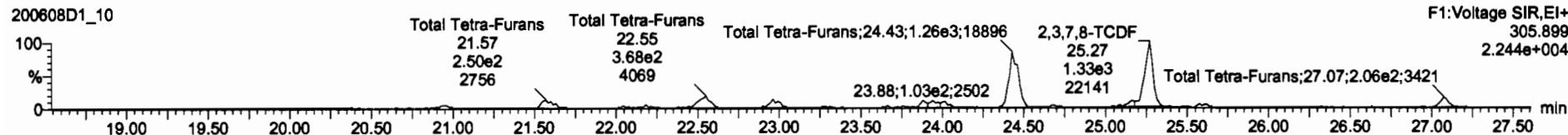
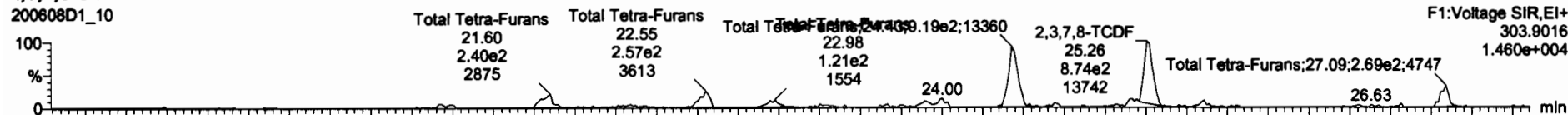


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

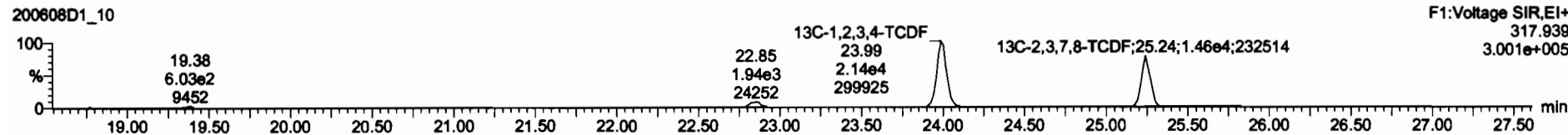
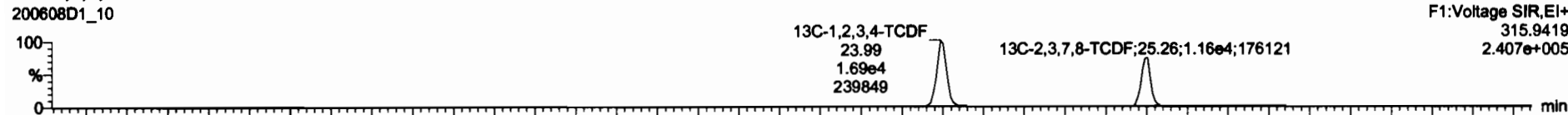
Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
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Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

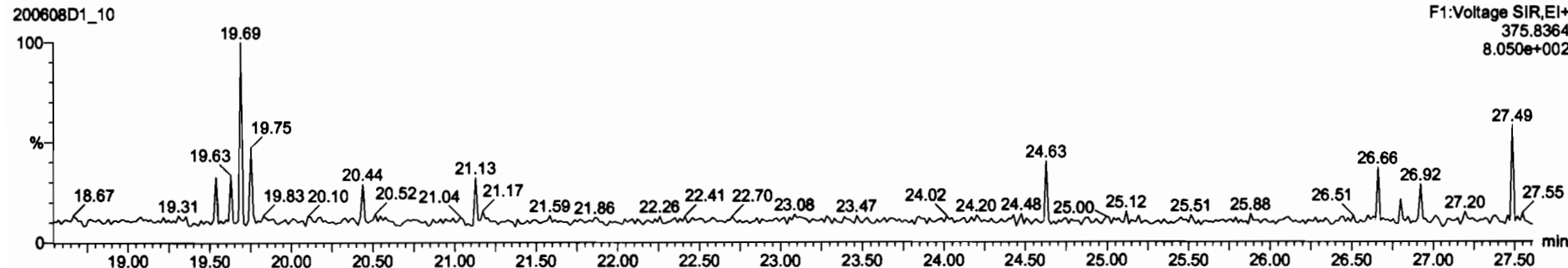
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**





Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

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Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

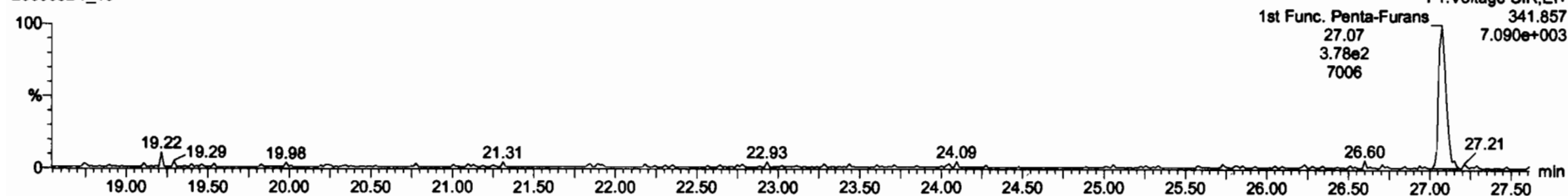
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

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200608D1\_10

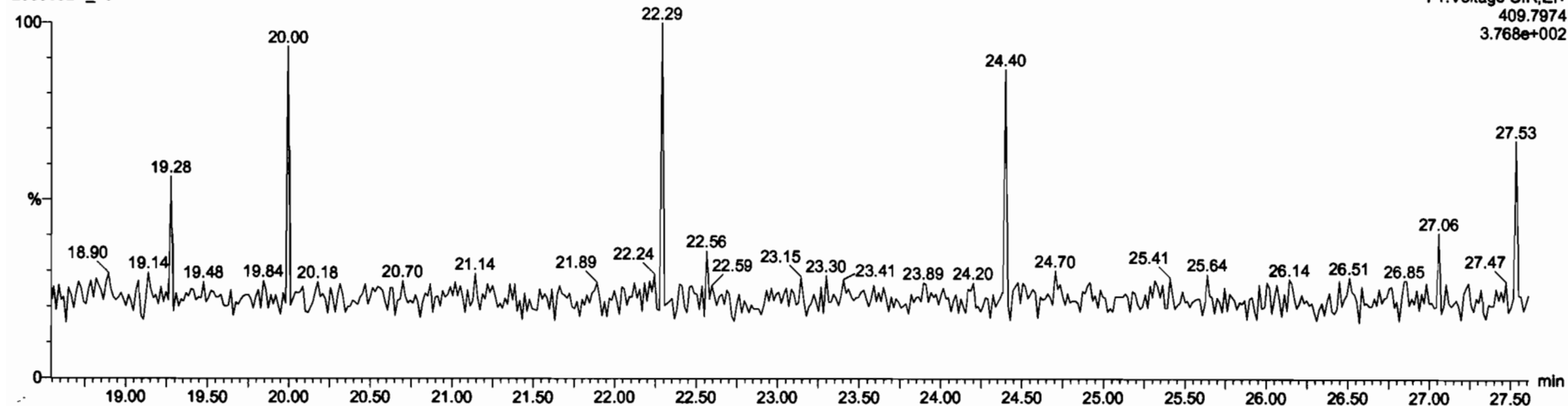


200608D1\_10



DPE6

200608D1\_10



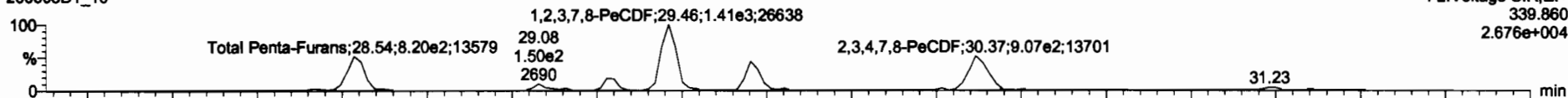
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Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

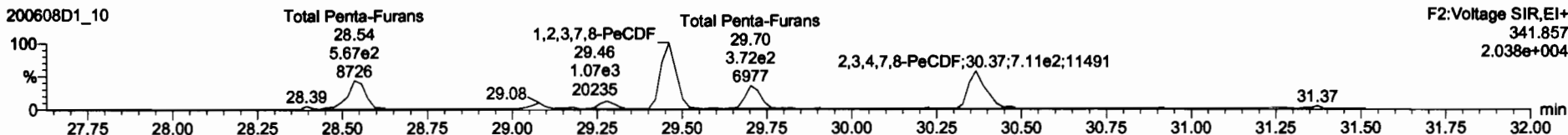
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

**1,2,3,7,8-PeCDF**

200608D1\_10

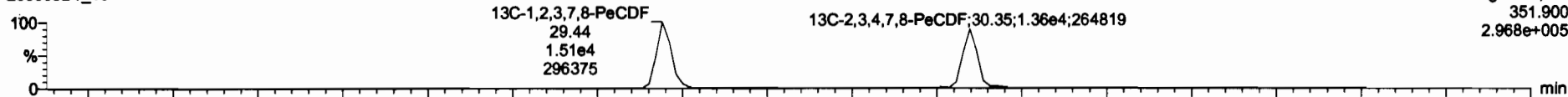


200608D1\_10

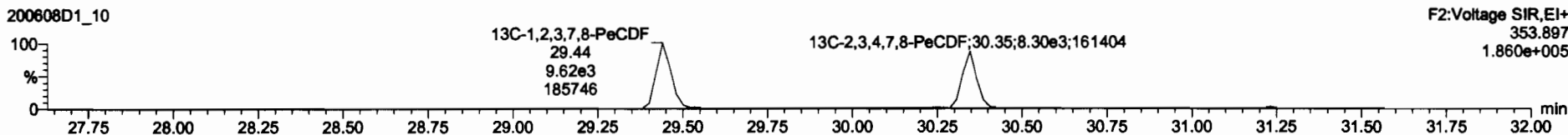


**13C-1,2,3,7,8-PeCDF**

200608D1\_10

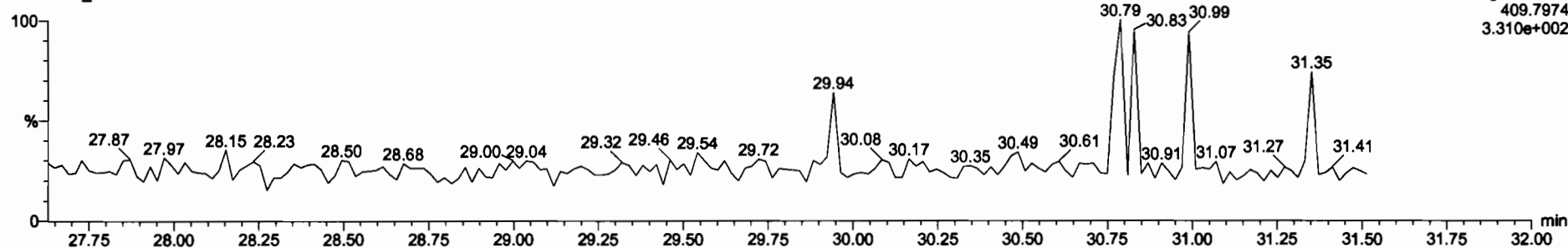


200608D1\_10



**DPE2**

200608D1\_10



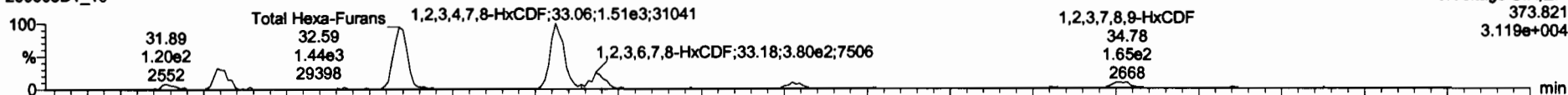
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Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

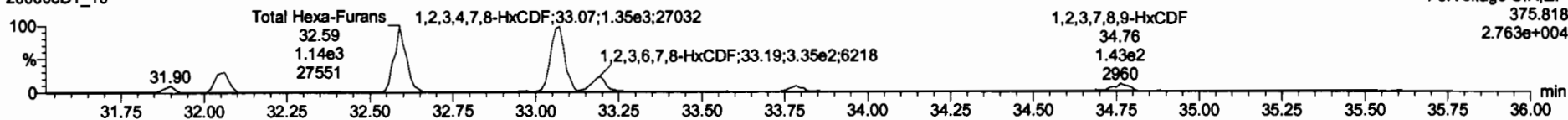
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

**1,2,3,4,7,8-HxCDF**

200608D1\_10

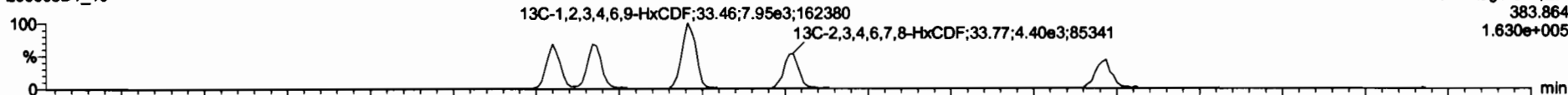


200608D1\_10

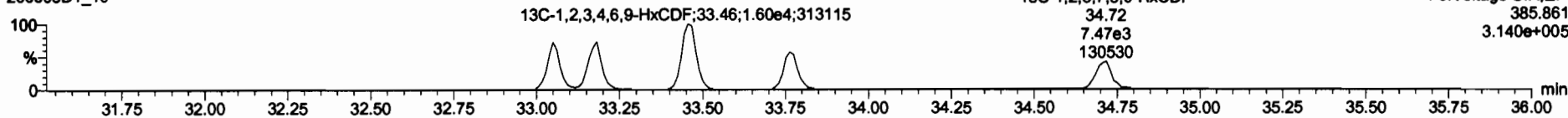


**13C-1,2,3,4,7,8-HxCDF**

200608D1\_10

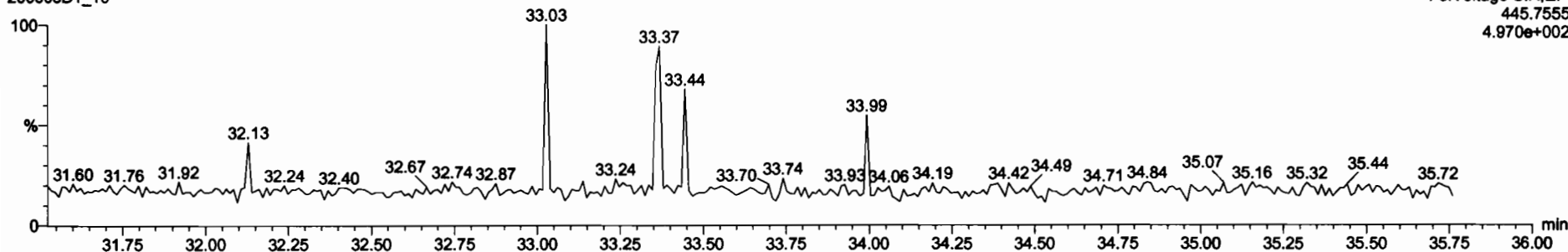


200608D1\_10



**DPE3**

200608D1\_10

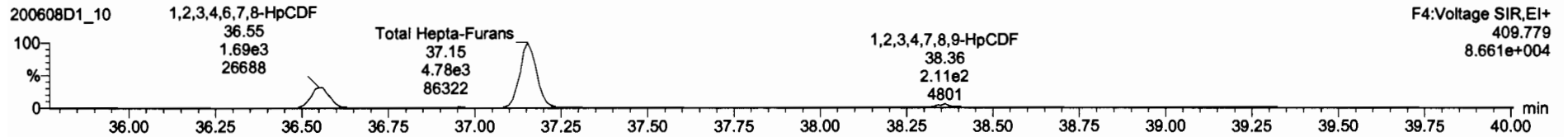
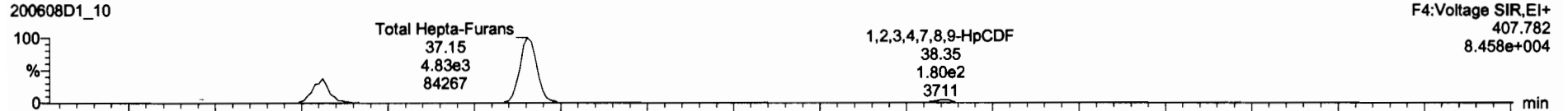


Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

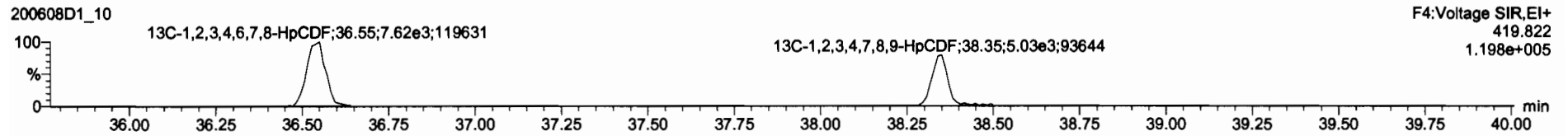
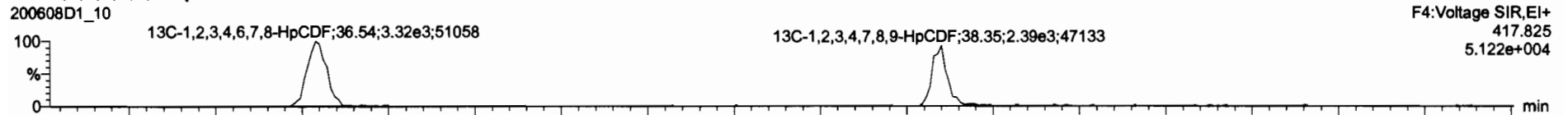
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Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3

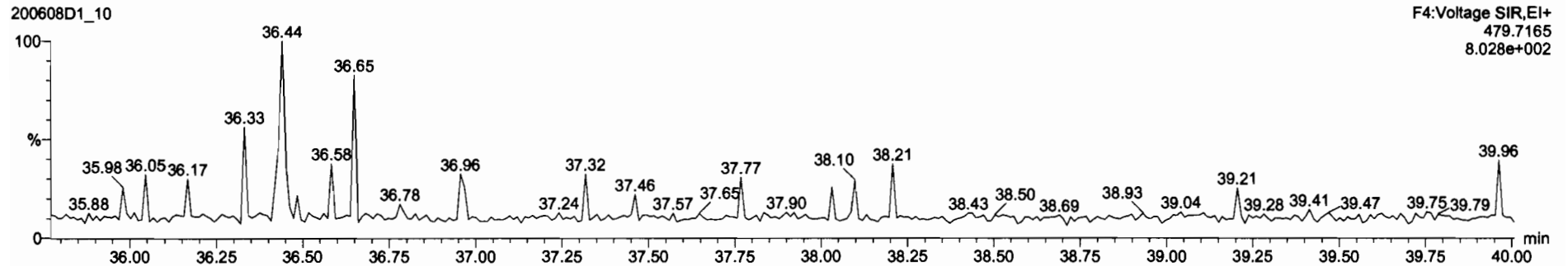
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



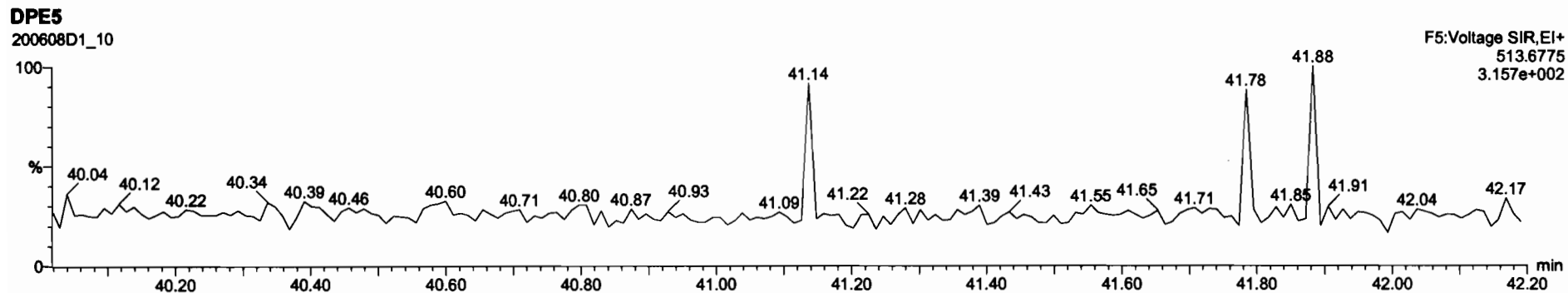
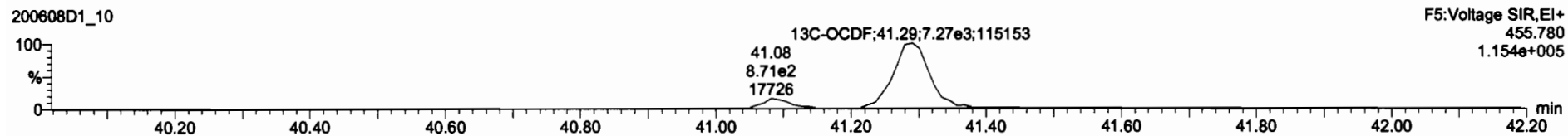
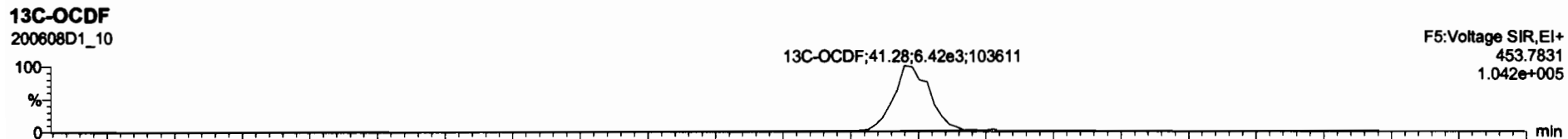
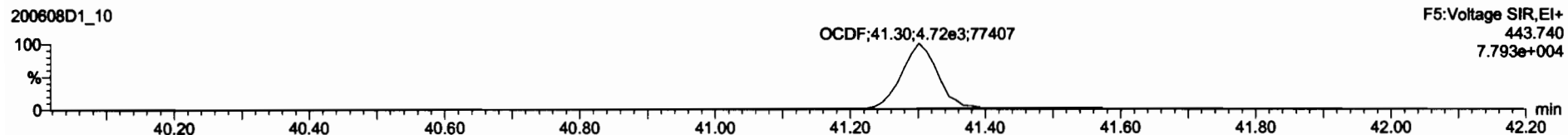
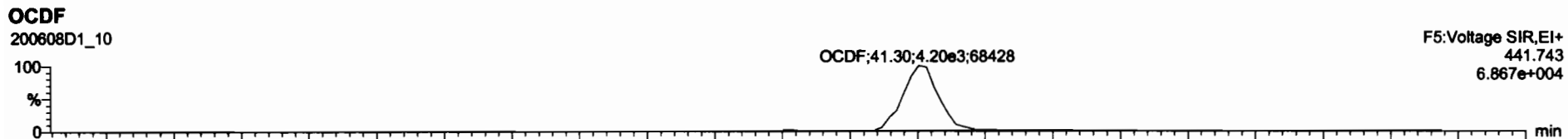
**DPE4**



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

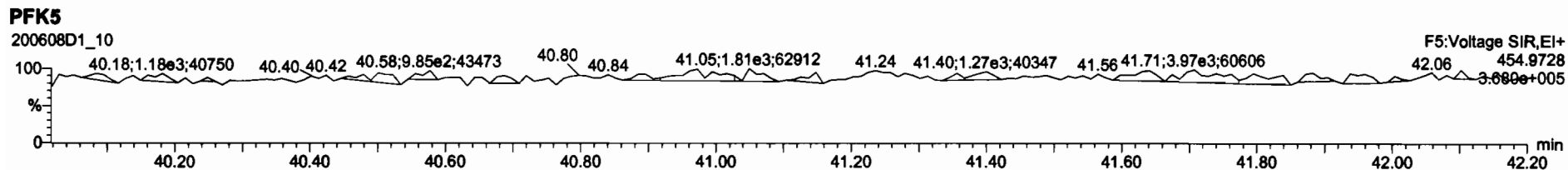
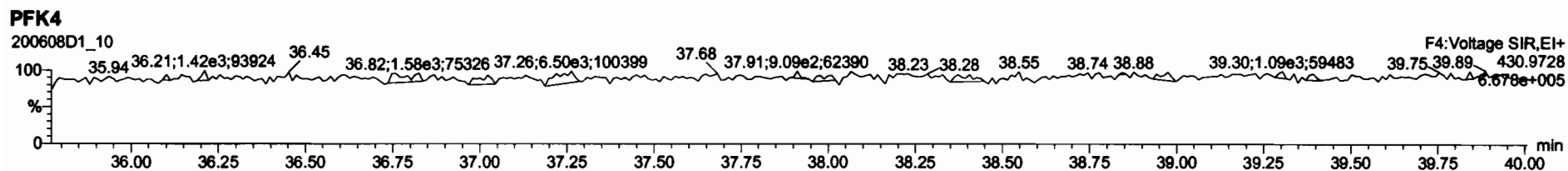
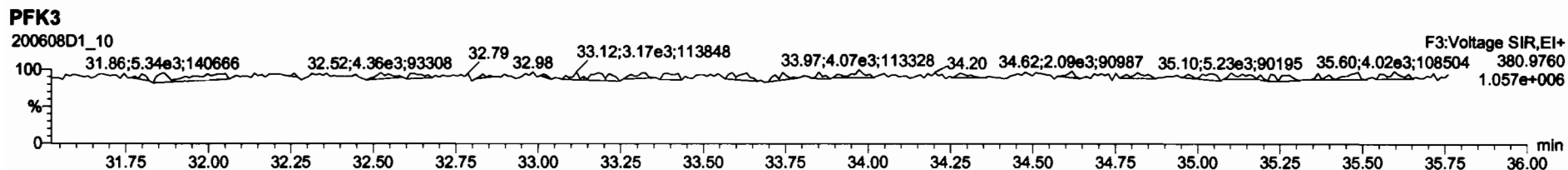
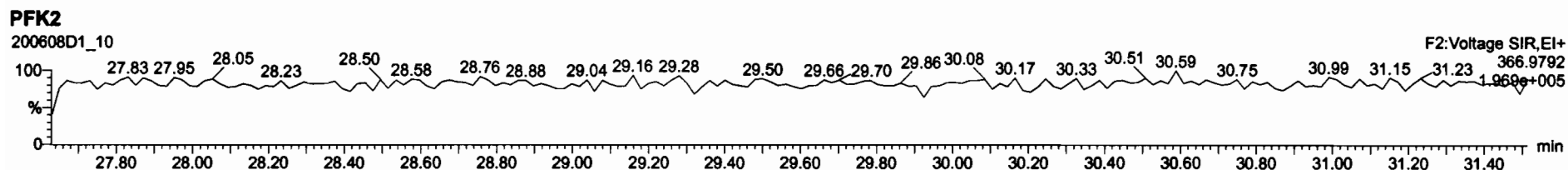
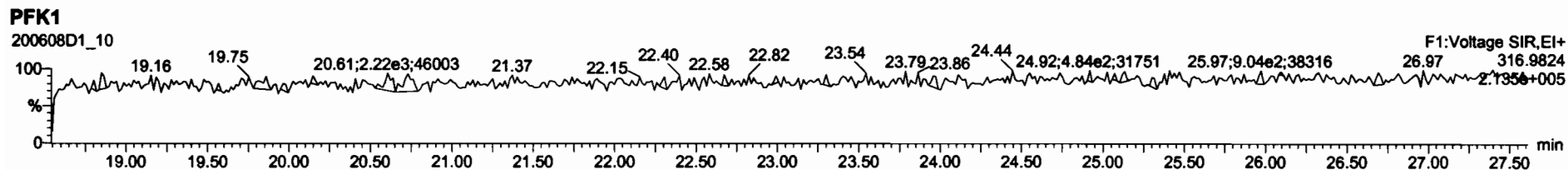
Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_10.qld

Last Altered: Tuesday, June 09, 2020 09:46:10 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:47:27 Pacific Daylight Time

Name: 200608D1\_10, Date: 08-Jun-2020, Time: 19:46:29, ID: 2000998-06@3X PDI-063SC-B-05-07-200429 1:3 16.11, Description: PDI-063SC-B-05-07-200429 1:3



## **CONFIRMATION**

Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_9.qld

Last Altered: Wednesday, June 10, 2020 09:10:55 Pacific Daylight Time

Printed: Wednesday, June 10, 2020 09:48:27 Pacific Daylight Time

*DB 6/10/20 C706/11/2020*

Method: C:\MassLynx\Default.PROMethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_9, Date: 09-Jun-2020, Time: 17:40:42, ID: 2000998-04RE1 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

|   |                  |        |      |    |       |        |        |       |       |       |        |      |      |
|---|------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|------|
| 1 | 2,3,7,8-TCDF     | 1.39e3 | 0.69 | NO | 0.982 | 10.038 | 17.701 | 17.68 | 1.000 | 1.000 | 30.507 | 3.20 | 30.5 |
| 2 | 13C-2,3,7,8-TCDF | 9.27e3 | 0.68 | NO | 1.08  | 10.038 | 17.724 | 17.68 | 1.133 | 1.136 | 111.40 | 55.9 | 10.2 |
| 3 | 13C-1,2,3,4-TCDF | 1.53e4 | 0.75 | NO | 1.00  | 10.038 | 15.660 | 15.56 | 1.000 | 1.000 | 199.25 | 100  | 11.0 |



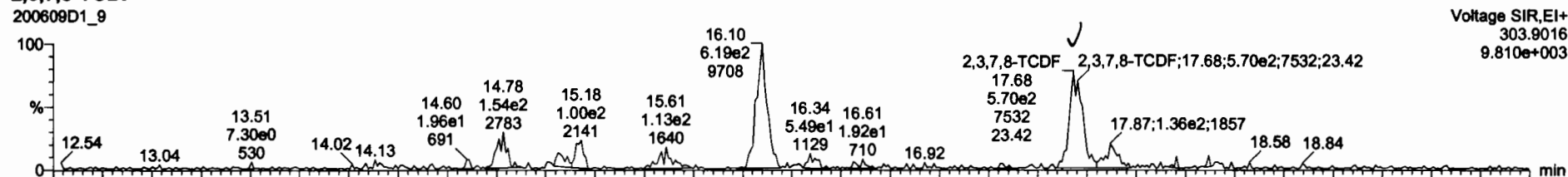
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_9.qld

Last Altered: Wednesday, June 10, 2020 09:10:55 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 09:48:50 Pacific Daylight Time

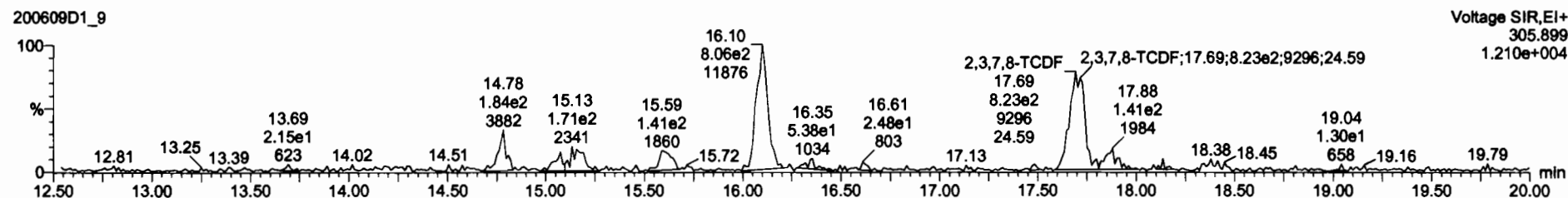
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\lb-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_9, Date: 09-Jun-2020, Time: 17:40:42, ID: 2000998-04RE1 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

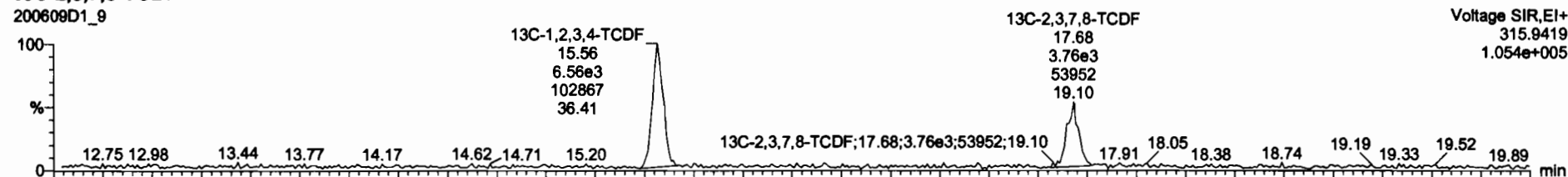
2,3,7,8-TCDF  
200609D1\_9



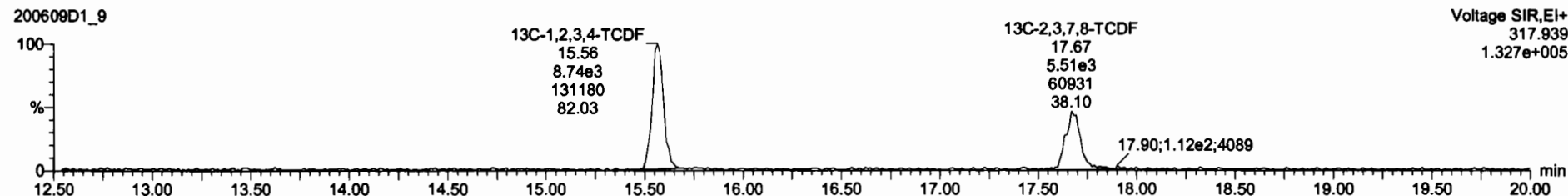
200609D1\_9



13C-2,3,7,8-TCDF  
200609D1\_9



200609D1\_9



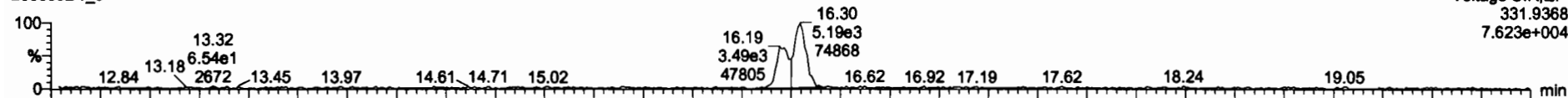
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_9.qld

Last Altered: Wednesday, June 10, 2020 09:10:55 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 09:48:50 Pacific Daylight Time

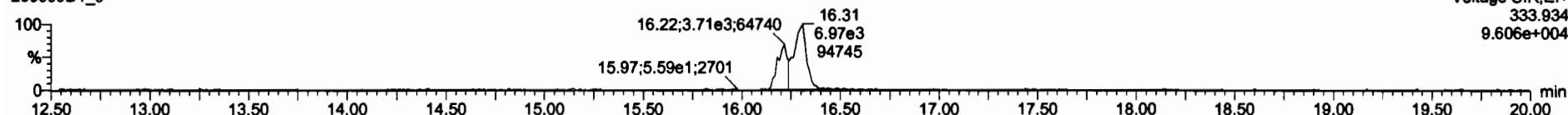
Name: 200609D1\_9, Date: 09-Jun-2020, Time: 17:40:42, ID: 2000998-04RE1 PDI-063SC-B-00-02-200429 15.4, Description: PDI-063SC-B-00-02-200429

### 13C-1,2,3,4-TCDD

200609D1\_9

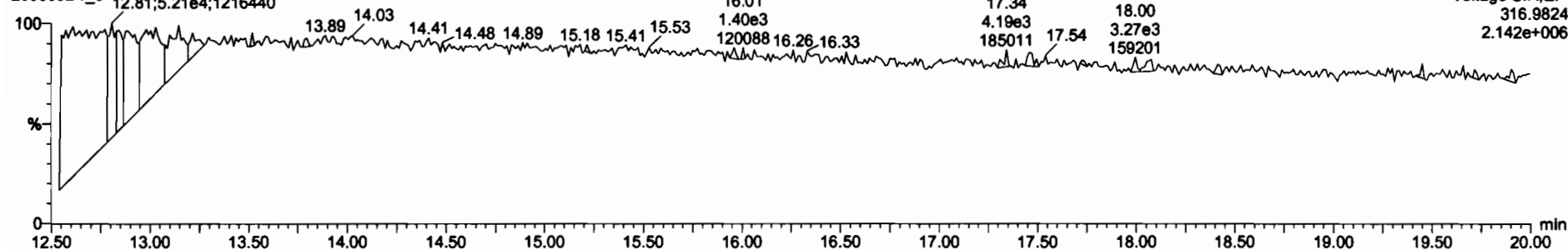


200609D1\_9



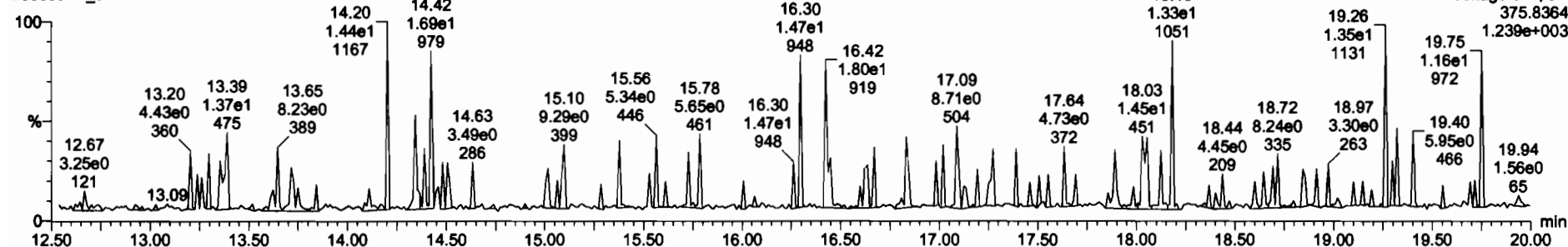
### PFK1

200609D1\_9



### DPE1

200609D1\_9



Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_13.qld

Last Altered: Wednesday, June 10, 2020 09:15:53 Pacific Daylight Time

Printed: Wednesday, June 10, 2020 10:06:05 Pacific Daylight Time

*DB 6/10/20 C-706/11/2020*

Method: C:\MassLynx\Default.PROMethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_13, Date: 09-Jun-2020, Time: 19:47:27, ID: 2000998-05RE1 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

|   |                  |        |      |    |       |        |        |       |       |       |        |      |      |
|---|------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|------|
| 1 | 2,3,7,8-TCDF     | 2.87e3 | 0.83 | NO | 0.982 | 10.041 | 17.666 | 17.67 | 1.000 | 1.001 | 105.77 | 12.6 | 106  |
| 2 | 13C-2,3,7,8-TCDF | 5.51e3 | 0.79 | NO | 1.08  | 10.041 | 17.724 | 17.65 | 1.133 | 1.134 | 68.400 | 34.3 | 9.69 |
| 3 | 13C-1,2,3,4-TCDF | 1.48e4 | 0.80 | NO | 1.00  | 10.041 | 15.660 | 15.56 | 1.000 | 1.000 | 199.18 | 100  | 10.5 |

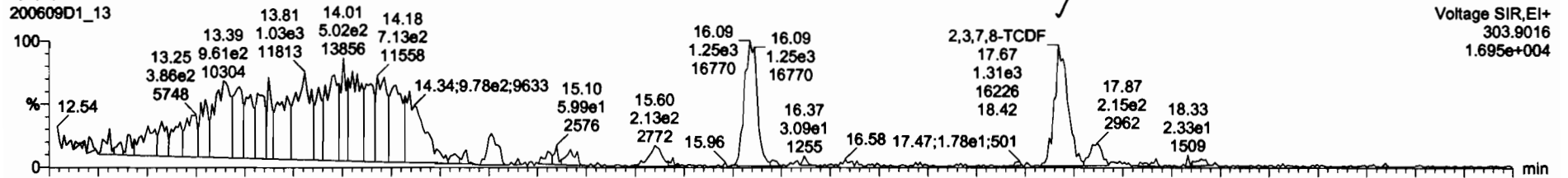
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_13.qld

Last Altered: Wednesday, June 10, 2020 09:15:53 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 10:06:24 Pacific Daylight Time

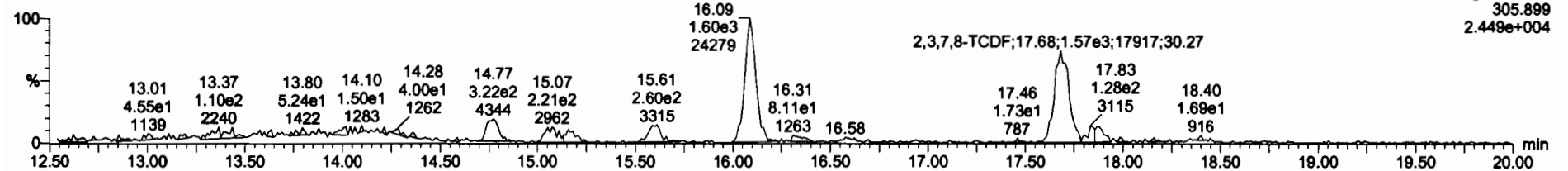
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_13, Date: 09-Jun-2020, Time: 19:47:27, ID: 2000998-05RE1 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

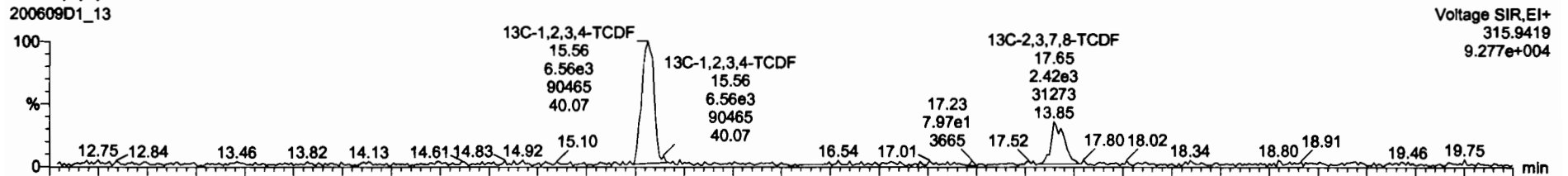
2,3,7,8-TCDF



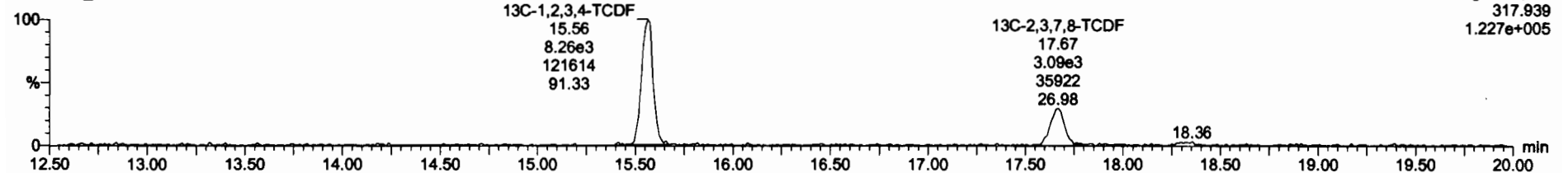
200609D1\_13



13C-2,3,7,8-TCDF



200609D1\_13



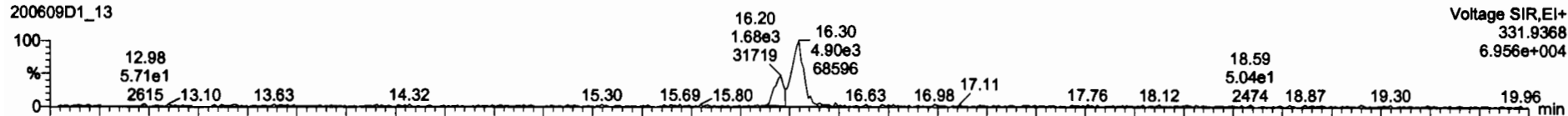
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_13.qld

Last Altered: Wednesday, June 10, 2020 09:15:53 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 10:06:24 Pacific Daylight Time

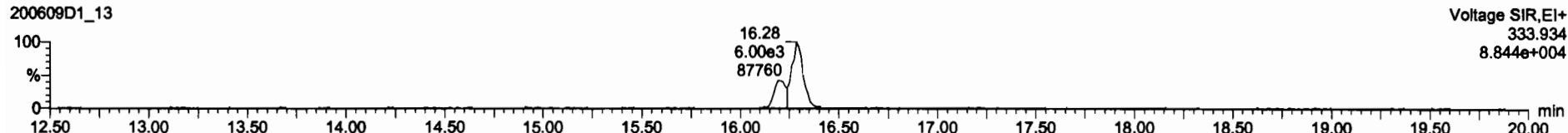
Name: 200609D1\_13, Date: 09-Jun-2020, Time: 19:47:27, ID: 2000998-05RE1 PDI-063SC-B-02-05-200429 18.95, Description: PDI-063SC-B-02-05-200429

13C-1,2,3,4-TCDD

200609D1\_13

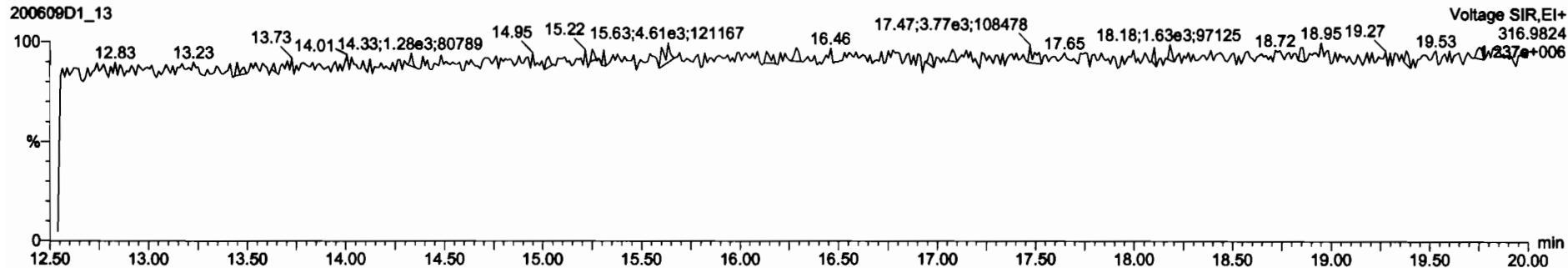


200609D1\_13



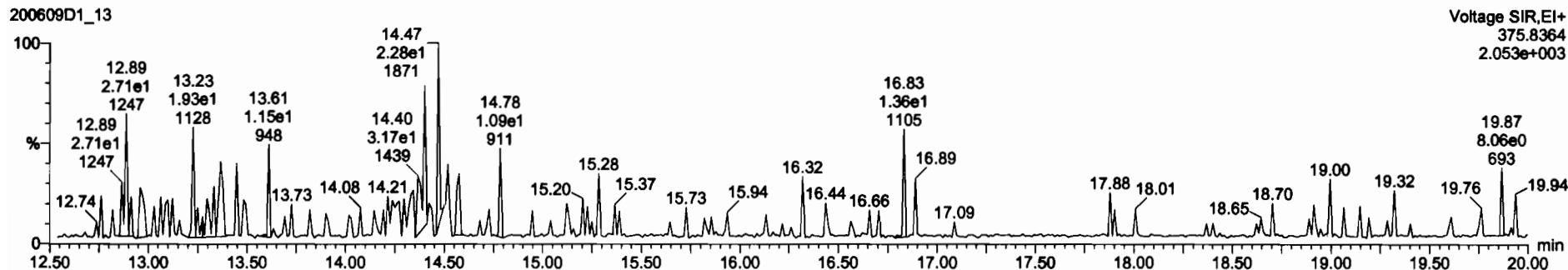
PFK1

200609D1\_13



DPE1

200609D1\_13



Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_14.qld

Last Altered: Wednesday, June 10, 2020 10:13:18 Pacific Daylight Time

Printed: Wednesday, June 10, 2020 10:14:23 Pacific Daylight Time

*DB 6/10/20 07 06/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19

Calibration: U:\VG7.PRO\CurveDB\ldb-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_14, Date: 09-Jun-2020, Time: 20:19:08, ID: B0E0100-DUP2RE1 Duplicate, Description: Duplicate

|   |                  |        |      |    |       |        |        |       |       |       |        |      |      |
|---|------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|------|
| 1 | 2,3,7,8-TCDF     | 1.85e3 | 0.72 | NO | 0.982 | 10.004 | 17.712 | 17.73 | 1.000 | 1.002 | 151.80 | 17.8 | 152  |
| 2 | 13C-2,3,7,8-TCDF | 2.48e3 | 0.87 | NO | 1.08  | 10.004 | 17.759 | 17.69 | 1.133 | 1.134 | 29.845 | 14.9 | 9.56 |
| 3 | 13C-1,2,3,4-TCDF | 1.54e4 | 0.80 | NO | 1.00  | 10.004 | 15.660 | 15.60 | 1.000 | 1.000 | 199.91 | 100  | 10.4 |

Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_14.qld

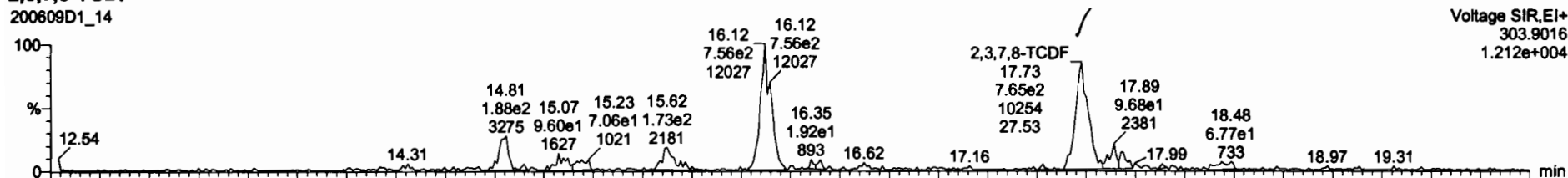
Last Altered: Wednesday, June 10, 2020 09:16:51 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 10:10:43 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

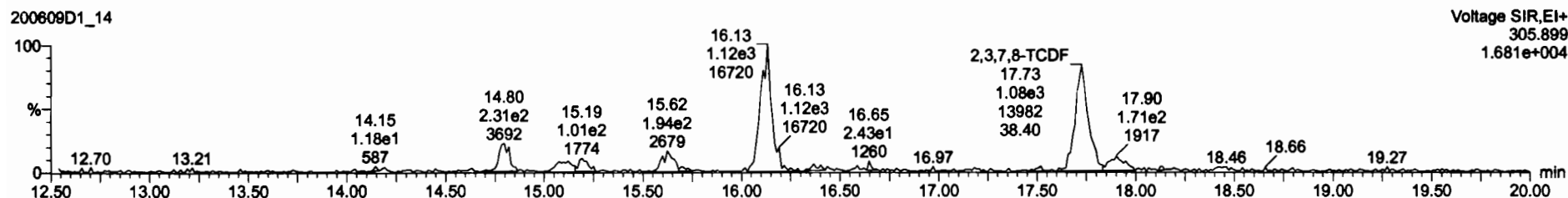
Name: 200609D1\_14, Date: 09-Jun-2020, Time: 20:19:08, ID: B0E0100-DUP2RE1 Duplicate, Description: Duplicate

2,3,7,8-TCDF

200609D1\_14

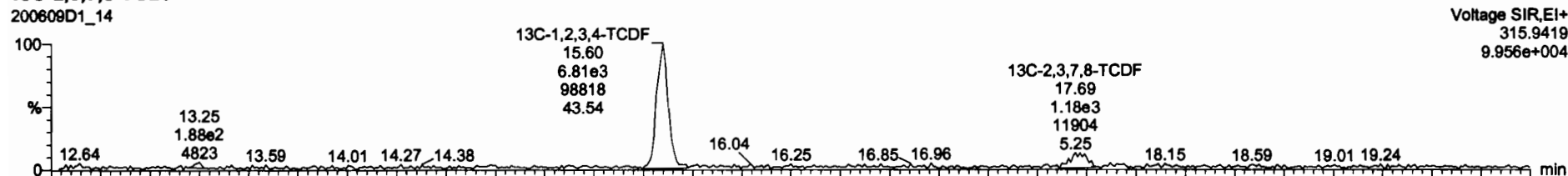


200609D1\_14

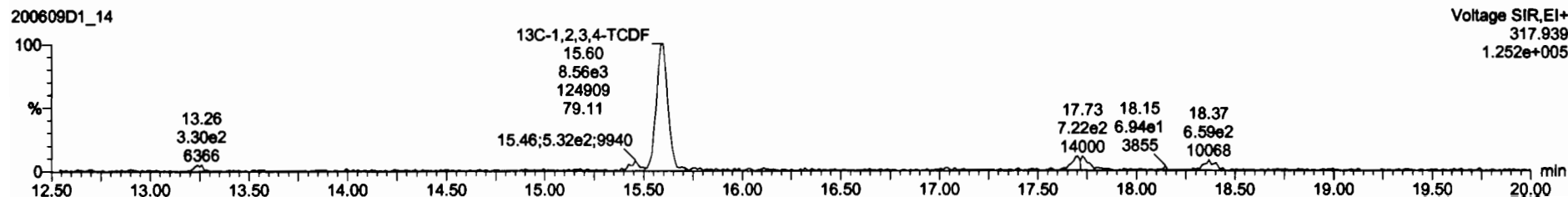


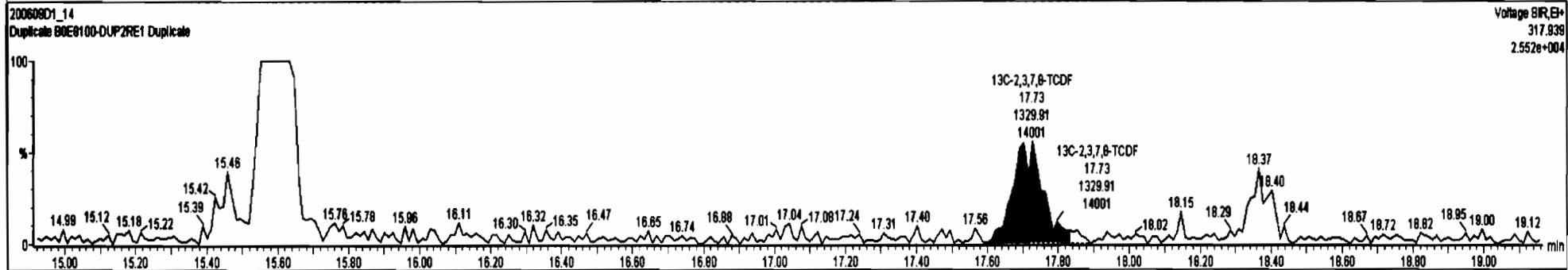
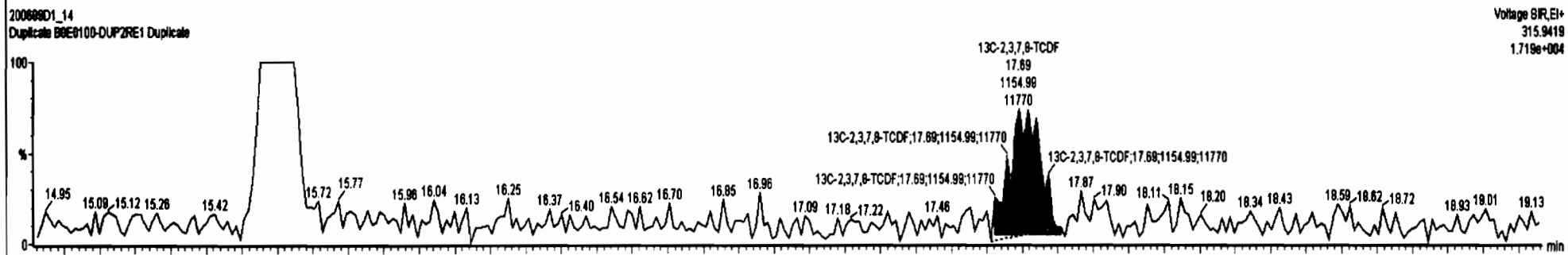
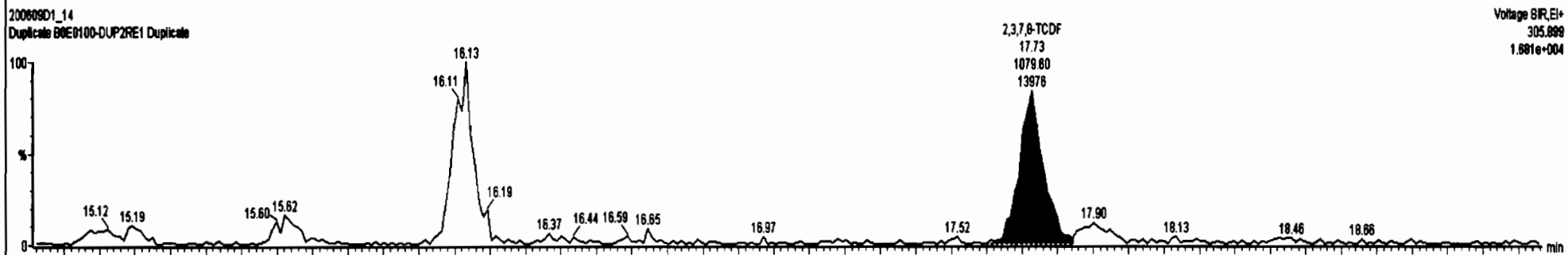
13C-2,3,7,8-TCDF

200609D1\_14



200609D1\_14







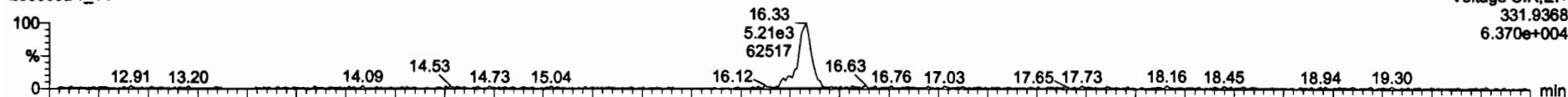
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_14.qld

Last Altered: Wednesday, June 10, 2020 09:16:51 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 10:10:43 Pacific Daylight Time

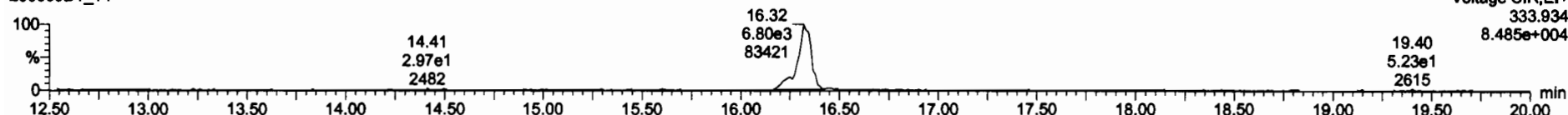
Name: 200609D1\_14, Date: 09-Jun-2020, Time: 20:19:08, ID: B0E0100-DUP2RE1 Duplicate, Description: Duplicate

13C-1,2,3,4-TCDD

200609D1\_14

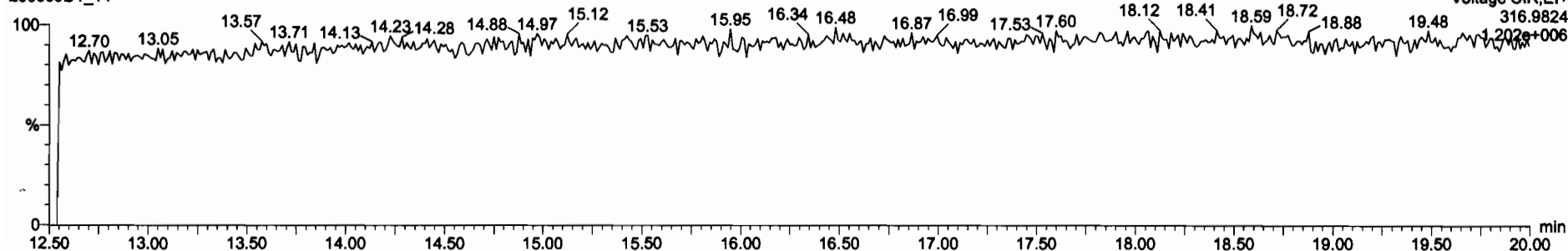


200609D1\_14



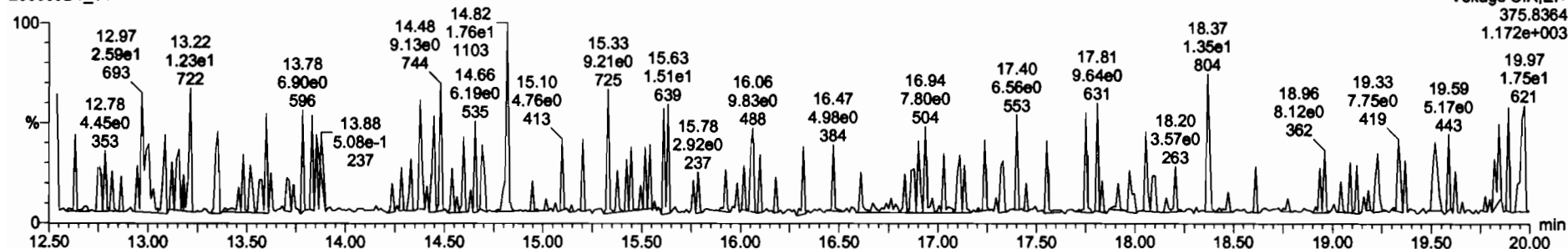
PFK1

200609D1\_14



DPE1

200609D1\_14



Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_8.qld

Last Altered: Tuesday, June 09, 2020 17:35:58 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 17:36:49 Pacific Daylight Time

*DB 6/9/20 CT 06/11/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Callibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_8, Date: 09-Jun-2020, Time: 17:09:00, ID: 2000998-06RE1 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

|   |                  |        |      |    |       |        |        |       |       |       |        |      |      |
|---|------------------|--------|------|----|-------|--------|--------|-------|-------|-------|--------|------|------|
| 1 | 2,3,7,8-TCDF     | 8.25e2 | 0.73 | NO | 0.982 | 10.017 | 17.689 | 17.67 | 1.000 | 1.000 | 16.855 | 3.70 | 16.9 |
| 2 | 13C-2,3,7,8-TCDF | 9.95e3 | 0.71 | NO | 1.08  | 10.017 | 17.724 | 17.67 | 1.133 | 1.135 | 122.93 | 61.6 | 14.0 |
| 3 | 13C-1,2,3,4-TCDF | 1.49e4 | 0.78 | NO | 1.00  | 10.017 | 15.660 | 15.56 | 1.000 | 1.000 | 199.65 | 100  | 15.1 |

Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_8.qld

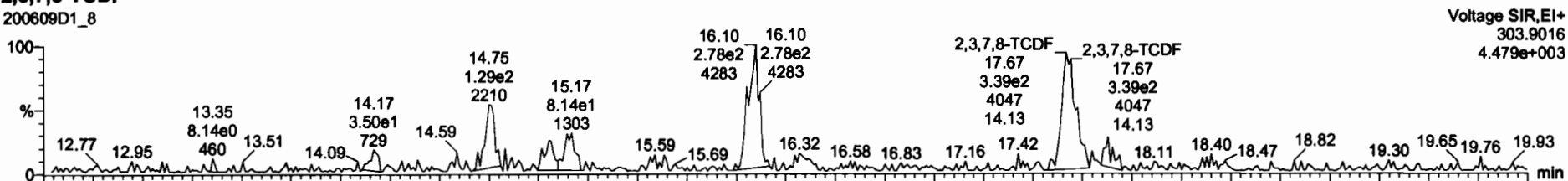
Last Altered: Tuesday, June 09, 2020 17:34:15 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 17:35:22 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\ldb-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

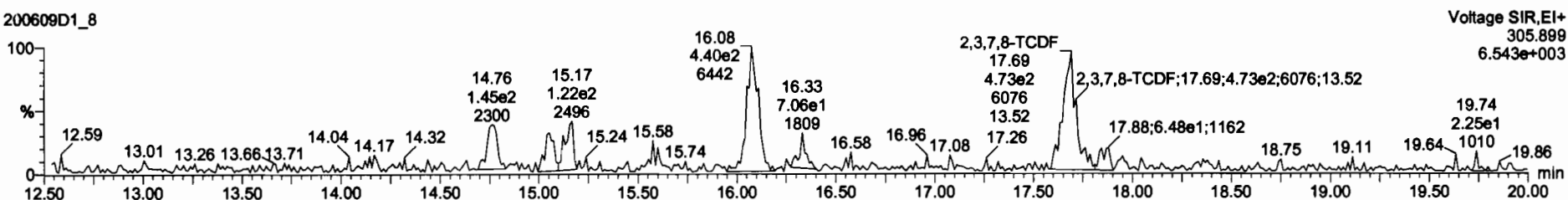
Name: 200609D1\_8, Date: 09-Jun-2020, Time: 17:09:00, ID: 2000998-06RE1 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

2,3,7,8-TCDF

200609D1\_8

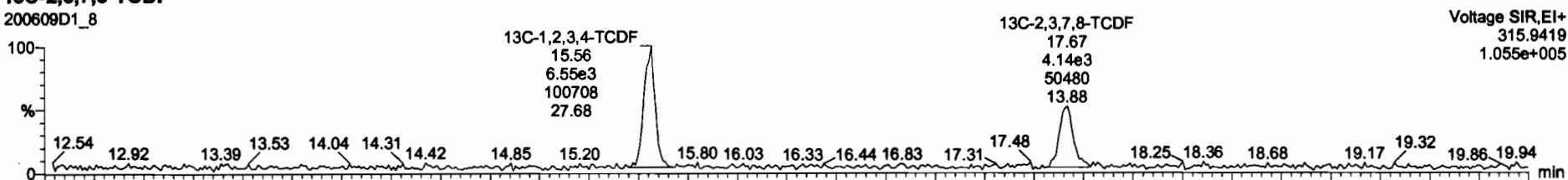


200609D1\_8

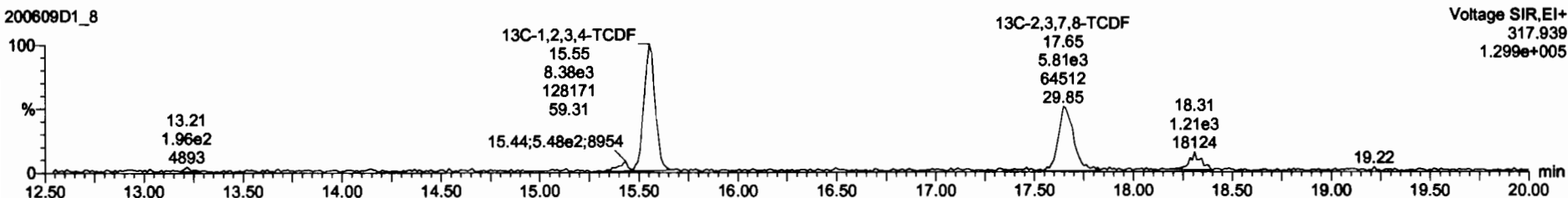


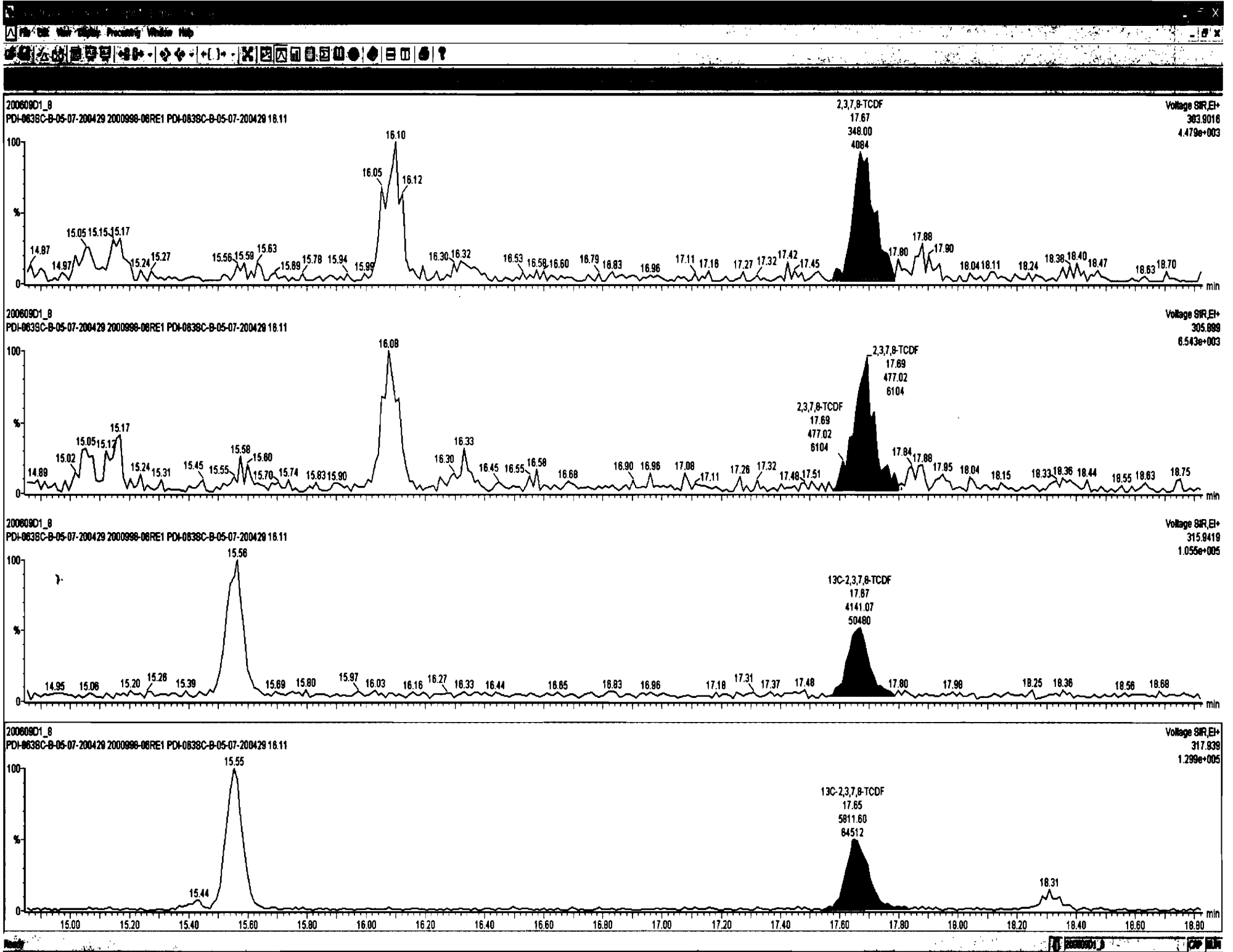
13C-2,3,7,8-TCDF

200609D1\_8



200609D1\_8





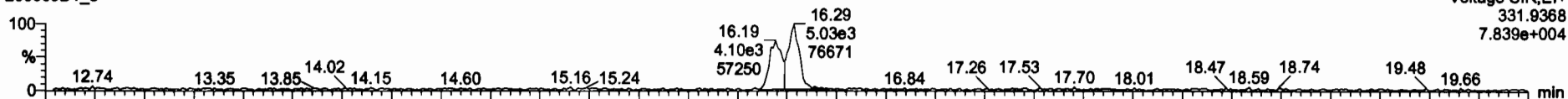
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_8.qld

Last Altered: Tuesday, June 09, 2020 17:34:15 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 17:35:22 Pacific Daylight Time

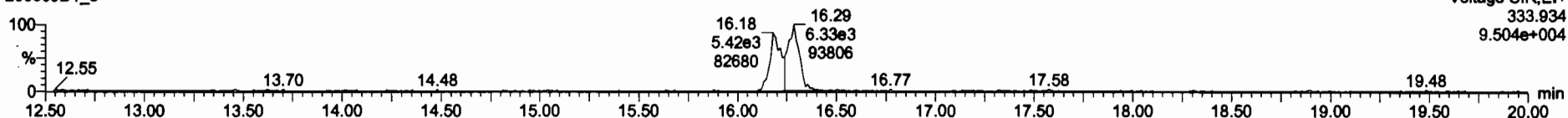
Name: 200609D1\_8, Date: 09-Jun-2020, Time: 17:09:00, ID: 2000998-06RE1 PDI-063SC-B-05-07-200429 16.11, Description: PDI-063SC-B-05-07-200429

13C-1,2,3,4-TCDD

200609D1\_8

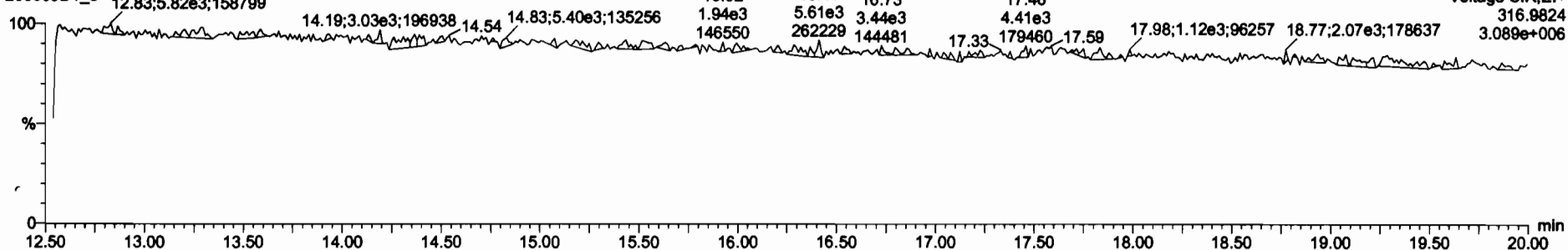


200609D1\_8



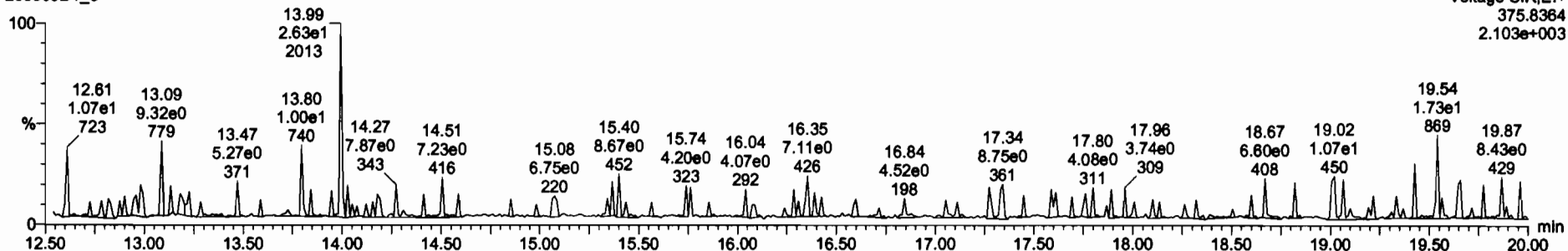
PFK1

200609D1\_8



DPE1

200609D1\_8



## **CONTINUING CALIBRATION**

# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST20060471-1

**Reviewed By:** CJ 06/05/2020

*Initials & Date*

**End Calibration ID:** NA

|  | <u>Beg.</u>                           | <u>End</u>                  |
|--|---------------------------------------|-----------------------------|
| <b>Ion abundance within QC limits?</b>                                 | <input checked="" type="checkbox"/>   | <input type="checkbox"/> NA |
| <b>Concentrations within criteria?</b>                                 | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>TCDD/TCDF Valleys &lt;25%</b>                                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>First and last eluters present?</b>                                 | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>Retention Times within criteria?</b>                                | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>Verification Std. named correctly?</b><br>(ST-Year-Month-Day-VG ID) | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>Forms signed and dated?</b>   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |
| <b>Correct ICAL referenced?</b>  | <u>DB</u>                             | <input type="checkbox"/>    |
| <b><u>Run Log:</u></b>   |                                       |                             |
| - Correct instrument listed?   | <input checked="" type="checkbox"/>   | <input type="checkbox"/> N  |
| - Samples within 12 hour clock?  | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N  |
| - Bottle position verified?  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    |

|  | <u>Beg.</u>                         | <u>End</u>                  |
|--|-------------------------------------|-----------------------------|
| <b>Mass resolution <math>\geq</math></b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>    |
| <input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K<br>1614    1699    429    1613/1668/8280 |                                     |                             |
| <b>Intergrated peaks display correctly?</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> NA |
| <b>GC Break &lt;20%</b>  |                                     | <input type="checkbox"/> NA |
| <b><u>8280 CS1 End Standard:</u></b>   |                                     |                             |
| - Ratios within limits, S/N <2.5:1, CS1 within 12 hours  |                                     | <input type="checkbox"/> NA |

**Comments:**

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:46:58 Pacific Daylight Time

*DB 6/4/20 CT 06/05/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Reo               | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 7.27e3 | 0.79 | NO  | 0.987 | 1.000  | 26.097  | 26.08 | 1.001    | 1.001 | 8.0569 | 80.6 <i>78-129</i> | 0.169 | 8.06 |
| 2  | 2 1,2,3,7,8-PeCDD          | 3.08e4 | 0.60 | NO  | 0.982 | 1.000  | 30.650  | 30.65 | 1.001    | 1.001 | 42.721 | 85.4 <i>78-130</i> | 0.184 | 42.7 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 3.11e4 | 1.28 | NO  | 1.17  | 1.000  | 33.949  | 33.95 | 1.000    | 1.000 | 47.384 | 94.8 <i>78-128</i> | 0.285 | 47.4 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 2.98e4 | 1.23 | NO  | 1.04  | 1.000  | 34.037  | 34.06 | 1.000    | 1.001 | 44.661 | 89.3 <i>78-128</i> | 0.286 | 44.7 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 3.05e4 | 1.30 | NO  | 1.00  | 1.000  | 34.368  | 34.34 | 1.001    | 1.000 | 46.229 | 92.5 <i>82-122</i> | 0.291 | 46.2 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 2.75e4 | 1.03 | NO  | 0.992 | 1.000  | 37.812  | 37.82 | 1.000    | 1.001 | 47.087 | 94.2 <i>86-116</i> | 0.232 | 47.1 |
| 7  | 7 OCDD                     | 4.96e4 | 0.89 | NO  | 1.04  | 1.000  | 41.060  | 41.07 | 1.000    | 1.000 | 92.458 | 92.5 <i>79-126</i> | 0.275 | 92.5 |
| 8  | 8 2,3,7,8-TCDF             | 9.79e3 | 0.75 | NO  | 0.882 | 1.000  | 25.296  | 25.29 | 1.001    | 1.001 | 9.2693 | 92.7 <i>84-120</i> | 0.721 | 9.27 |
| 9  | 9 1,2,3,7,8-PeCDF          | 4.75e4 | 1.61 | NO  | 1.05  | 1.000  | 29.461  | 29.46 | 1.001    | 1.001 | 43.790 | 87.6 <i>82-120</i> | 0.106 | 43.8 |
| 10 | 10 2,3,4,7,8-PeCDF         | 4.56e4 | 1.66 | NO  | 1.06  | 1.000  | 30.377  | 30.35 | 1.001    | 1.000 | 44.738 | 89.5 <i>82-120</i> | 0.112 | 44.7 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 4.07e4 | 1.23 | NO  | 1.08  | 1.000  | 33.039  | 33.06 | 1.000    | 1.001 | 46.912 | 93.8 <i>90-112</i> | 0.183 | 46.9 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 4.07e4 | 1.26 | NO  | 1.04  | 1.000  | 33.180  | 33.18 | 1.000    | 1.000 | 48.233 | 96.5 <i>88-114</i> | 0.188 | 48.2 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 4.25e4 | 1.25 | NO  | 1.11  | 1.000  | 33.797  | 33.77 | 1.001    | 1.000 | 49.880 | 99.8 <i>88-114</i> | 0.189 | 49.9 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 3.63e4 | 1.26 | NO  | 1.06  | 1.000  | 34.707  | 34.72 | 1.000    | 1.000 | 47.702 | 95.4 <i>90-112</i> | 0.244 | 47.7 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 3.58e4 | 1.01 | NO  | 1.13  | 1.000  | 36.565  | 36.55 | 1.001    | 1.001 | 45.180 | 90.4 <i>90-110</i> | 0.248 | 45.2 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 3.14e4 | 1.03 | NO  | 1.33  | 1.000  | 38.339  | 38.35 | 1.000    | 1.000 | 46.842 | 93.7 <i>86-116</i> | 0.230 | 46.8 |
| 17 | 17 OCDF                    | 5.43e4 | 0.89 | NO  | 0.933 | 1.000  | 41.279  | 41.29 | 1.000    | 1.000 | 96.962 | 97.0 <i>63-159</i> | 0.248 | 97.0 |
| 18 | 18 13C-2,3,7,8-TCDD        | 9.14e4 | 0.78 | NO  | 1.21  | 1.000  | 26.163  | 26.07 | 1.026    | 1.022 | 101.84 | 102 <i>82-121</i>  | 0.397 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 7.33e4 | 0.64 | NO  | 0.996 | 1.000  | 30.651  | 30.63 | 1.202    | 1.201 | 98.971 | 99.0 <i>62-160</i> | 0.273 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 5.59e4 | 1.31 | NO  | 0.679 | 1.000  | 33.924  | 33.94 | 1.014    | 1.014 | 114.77 | 115 <i>85-117</i>  | 0.444 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 6.44e4 | 1.34 | NO  | 0.850 | 1.000  | 34.035  | 34.04 | 1.017    | 1.017 | 105.74 | 106 <i>85-118</i>  | 0.355 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 6.59e4 | 1.31 | NO  | 0.798 | 1.000  | 34.306  | 34.33 | 1.025    | 1.026 | 115.00 | 115 <i>85-118</i>  | 0.378 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 5.90e4 | 1.06 | NO  | 0.697 | 1.000  | 37.772  | 37.80 | 1.129    | 1.130 | 117.95 | 118 <i>72-138</i>  | 0.524 |      |
| 24 | 24 13C-OCDD                | 1.04e5 | 0.86 | NO  | 0.579 | 1.000  | 40.796  | 41.06 | 1.219    | 1.227 | 249.71 | 125 <i>48-207</i>  | 0.642 |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.20e5 | 0.77 | NO  | 1.13  | 1.000  | 25.245  | 25.27 | 0.990    | 0.991 | 100.47 | 100 <i>71-140</i>  | 0.473 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 1.04e5 | 1.60 | NO  | 0.996 | 1.000  | 29.470  | 29.44 | 1.156    | 1.155 | 98.630 | 98.6 <i>76-130</i> | 0.486 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 9.61e4 | 1.61 | NO  | 0.969 | 1.000  | 30.370  | 30.35 | 1.191    | 1.190 | 93.835 | 93.8 <i>77-130</i> | 0.499 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 8.02e4 | 0.49 | NO  | 1.06  | 1.000  | 33.054  | 33.04 | 0.988    | 0.988 | 105.64 | 106 <i>76-131</i>  | 0.395 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.10e4 | 0.49 | NO  | 1.18  | 1.000  | 33.188  | 33.17 | 0.992    | 0.991 | 96.112 | 96.1 <i>70-143</i> | 0.356 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.68e4 | 0.49 | NO  | 1.06  | 1.000  | 33.760  | 33.76 | 1.009    | 1.009 | 101.26 | 101 <i>73-137</i>  | 0.396 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 7.21e4 | 0.49 | NO  | 0.879 | 1.000  | 34.660  | 34.71 | 1.036    | 1.037 | 114.32 | 114 <i>74-135</i>  | 0.475 |      |



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time

Printed: Thursday, June 04, 2020 12:46:58 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec        | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|-------------|-------|------|
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 7.02e4 | 0.42 | NO  | 0.893 | 1.000  | 36.366  | 36.53 | 1.087    | 1.092 | 109.67 | 110 78-129  | 0.395 |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 5.03e4 | 0.43 | NO  | 0.613 | 1.000  | 38.374  | 38.34 | 1.147    | 1.146 | 114.36 | 114 77-129  | 0.575 |      |
| 34 | 34 13C-OCDF                | 1.20e5 | 0.86 | NO  | 0.741 | 1.000  | 40.950  | 41.28 | 1.224    | 1.234 | 225.74 | 113 48-207  | 0.459 |      |
| 35 | 35 37Cl-2,3,7,8-TCDD       | 8.27e3 |      |     | 1.18  | 1.000  | 26.160  | 26.08 | 1.026    | 1.023 | 9.4247 | 94.2 79-127 | 0.111 |      |
| 36 | 36 13C-1,2,3,4-TCDD        | 7.44e4 | 0.80 | NO  | 1.00  | 1.000  | 25.480  | 25.50 | 1.000    | 1.000 | 100.00 | 100         | 0.479 |      |
| 37 | 37 13C-1,2,3,4-TCDF        | 1.06e5 | 0.78 | NO  | 1.00  | 1.000  | 24.020  | 24.03 | 1.000    | 1.000 | 100.00 | 100         | 0.534 |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF   | 7.17e4 | 0.48 | NO  | 1.00  | 1.000  | 33.530  | 33.46 | 1.000    | 1.000 | 100.00 | 100         | 0.418 |      |

Dataset: Untitled

Last Altered: Friday, June 05, 2020 09:26:30 Pacific Daylight Time

Printed: Friday, June 05, 2020 09:26:55 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 18 May 2020 14:57:34

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                        | RT    |
|----|-----------------------------|-------|
| 1  | 1,3,6,8-TCDD (First)        | 22.63 |
| 2  | 1,2,8,9-TCDD (Last)         | 26.95 |
| 3  | 1,2,4,7,9-PeCDD (First)     | 28.60 |
| 4  | 1,2,3,8,9-PeCDD (Last)      | 31.01 |
| 5  | 1,2,4,6,7,9-HxCDD (First)   | 32.42 |
| 6  | 1,2,3,7,8,9-HxCDD (Last)    | 34.34 |
| 7  | 1,2,3,4,6,7,9-HpCDD (First) | 36.95 |
| 8  | 1,2,3,4,6,7,8-HpCDD (Last)  | 37.82 |
| 9  | 1,3,6,8-TCDF (First)        | 20.47 |
| 10 | 1,2,8,9-TCDF (Last)         | 27.10 |
| 11 | 1,3,4,6,8-PeCDF (First)     | 27.06 |
| 12 | 1,2,3,8,9-PeCDF (Last)      | 31.23 |
| 13 | 1,2,3,4,6,8-HxCDF (First)   | 31.89 |
| 14 | 1,2,3,7,8,9-HxCDF (Last)    | 34.72 |
| 15 | 1,2,3,4,6,7,8-HpCDF (First) | 36.55 |
| 16 | 1,2,3,4,7,8,9-HpCDF (Last)  | 38.35 |

Dataset: Untitled

Last Altered: Friday, June 05, 2020 09:25:47 Pacific Daylight Time  
Printed: Friday, June 05, 2020 09:26:04 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db\_5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

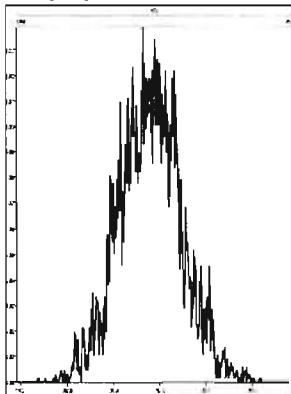
Compound name: 2,3,7,8-TCDD

|    | Name        | ID   | Acq.Date  | Acq.Time |
|----|-------------|--|-----------|----------|
| 1  | 200604D1_1  | ST200604D1-1 1613 CS3 19L2305                | 04-Jun-20 | 12:00:23 |
| 2  | 200604D1_2  | B0E0100-BS1 OPR 10                           | 04-Jun-20 | 12:45:31 |
| 3  | 200604D1_3  | SOLVENT BLANK                                | 04-Jun-20 | 13:30:40 |
| 4  | 200604D1_4  | B0E0100-BLK1 Method Blank 10                 | 04-Jun-20 | 14:15:51 |
| 5  | 200604D1_5  | 2000945-01 PDI-146SC-A-00-01-200426 14.29    | 04-Jun-20 | 15:00:59 |
| 6  | 200604D1_6  | 2000945-02 PDI-146SC-A-01-02-200426 12.02    | 04-Jun-20 | 15:46:07 |
| 7  | 200604D1_7  | B0D0306-DUP1 Duplicate 11.39                 | 04-Jun-20 | 16:31:15 |
| 8  | 200604D1_8  | 2000945-03 PDI-146SC-A-02-03-200426 12.11    | 04-Jun-20 | 17:16:22 |
| 9  | 200604D1_9  | 2000945-05 PDI-146SC-A-04-05-200426 11.68    | 04-Jun-20 | 18:01:30 |
| 10 | 200604D1_10 | 2000998-01 PDI-063SC-A-08-09-200429 14.35    | 04-Jun-20 | 18:46:38 |
| 11 | 200604D1_11 | 2000998-02 PDI-063SC-A-09-10.2-200429 15.... | 04-Jun-20 | 19:31:44 |
| 12 | 200604D1_12 | B0E0100-DUP1 Duplicate 15.21                 | 04-Jun-20 | 20:16:51 |
| 13 | 200604D1_13 | 2000998-03 PDI-1063SC-A-08-09-200429 14.4    | 04-Jun-20 | 21:01:58 |
| 14 | 200604D1_14 | 2000998-04 PDI-063SC-B-00-02-200429 15.4     | 04-Jun-20 | 21:47:04 |
| 15 | 200604D1_15 | B0E0100-DUP2 Duplicate 18.88                 | 04-Jun-20 | 22:32:11 |

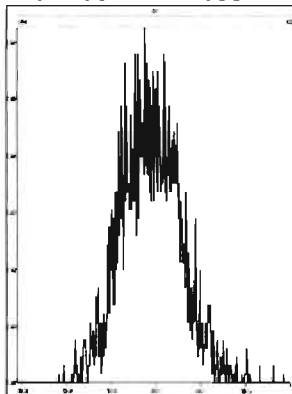
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, June 04, 2020 11:54:16 Pacific Daylight Time

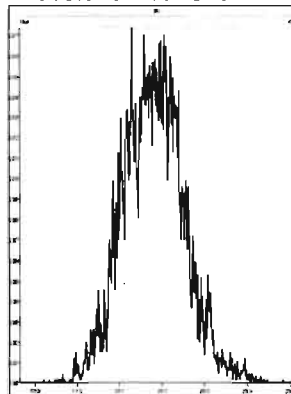
M 292.9824 R 10547



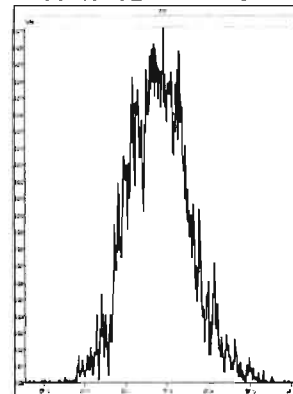
M 304.9824 R 11965



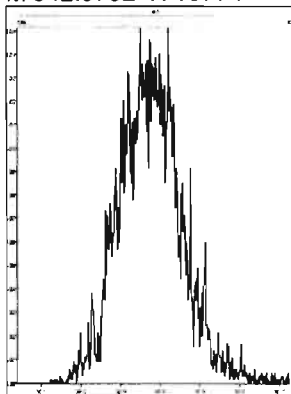
M 318.9792 R 10037



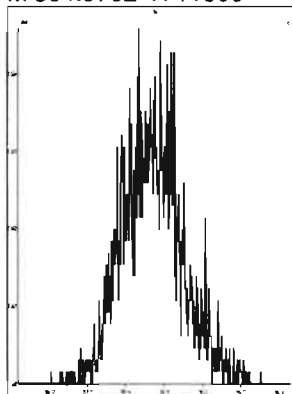
M 330.9792 R 11848



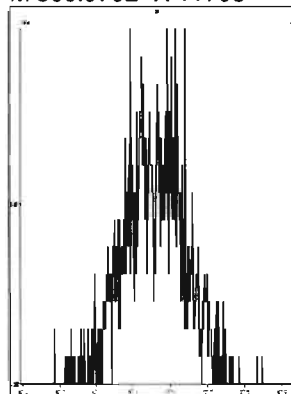
M 342.9792 R 10774



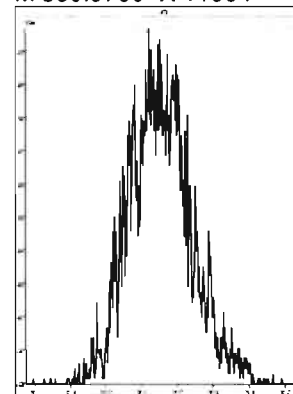
M 354.9792 R 11309



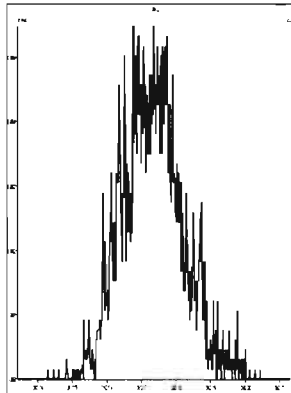
M 366.9792 R 11793



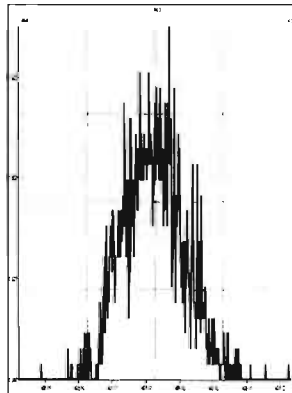
M 380.9760 R 11904



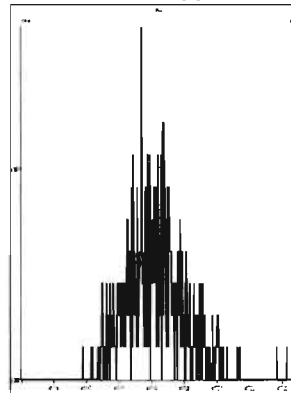
M 392.9760 R 11572



M 404.9760 R 11162



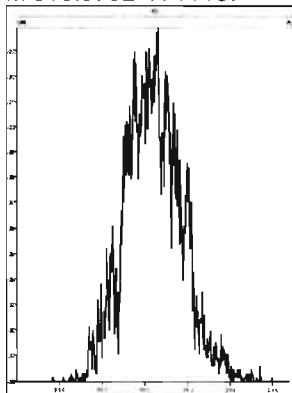
M 416.9760 R 33785



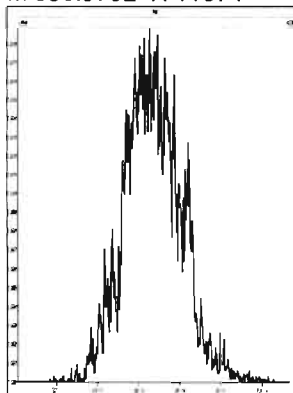
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, June 04, 2020 11:55:43 Pacific Daylight Time

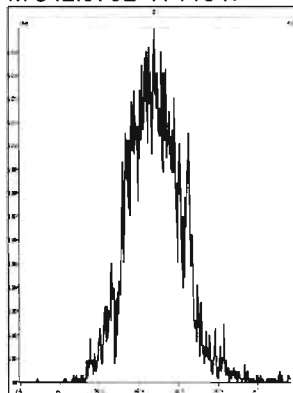
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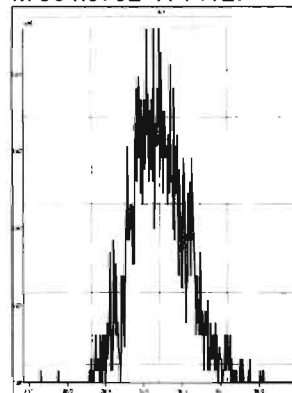
M 330.9792 R 11574



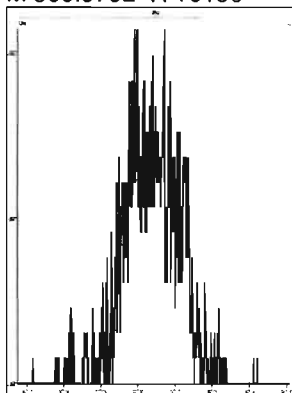
M 342.9792 R 11847



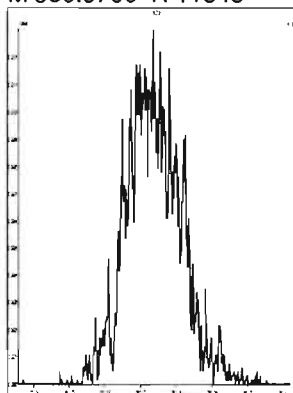
M 354.9792 R 14127



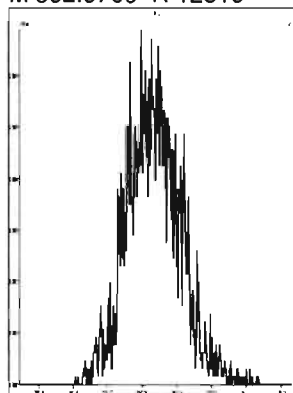
M 366.9792 R 16130



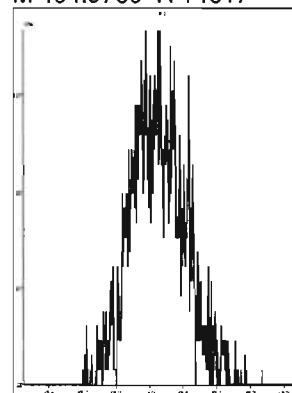
M 380.9760 R 11848



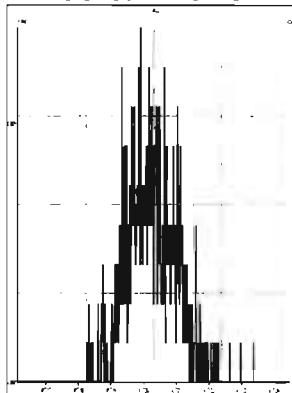
M 392.9760 R 12819



M 404.9760 R 14617



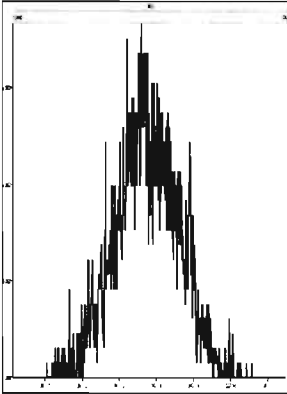
M 416.9760 R 16779



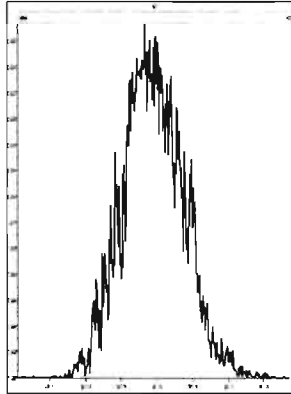
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Printed: Thursday, June 04, 2020 11:56:43 Pacific Daylight Time

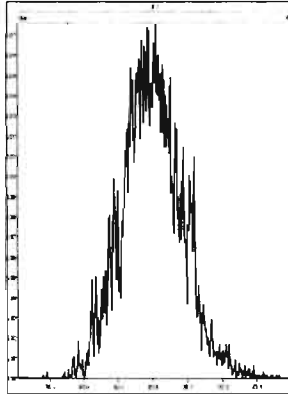
M 366.9792 R 10504



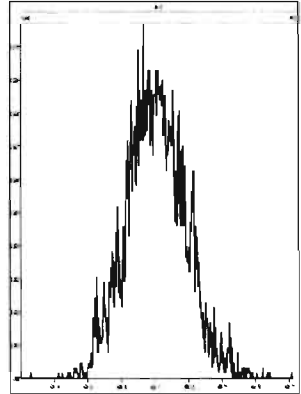
M 380.9760 R 10503



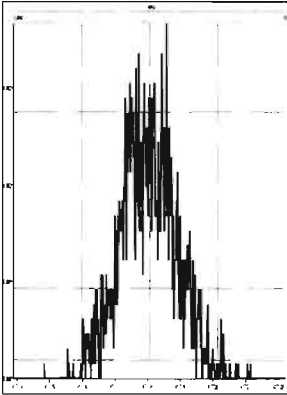
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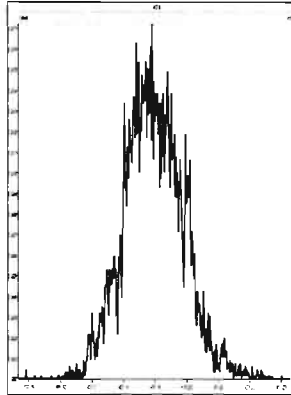
M 404.9760 R 11157



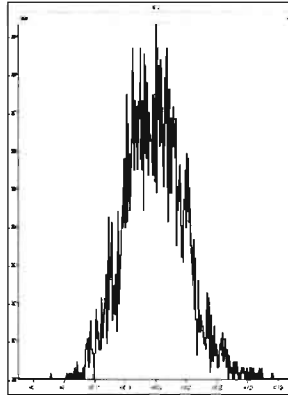
M 416.9760 R 12255



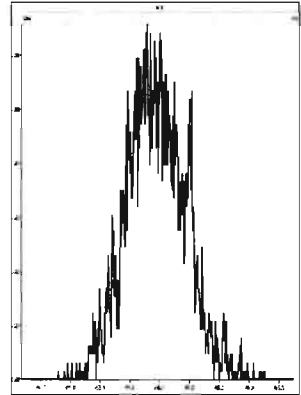
M 430.9728 R 10596



M 442.9728 R 11735



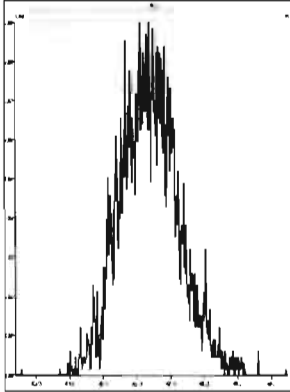
M 454.9728 R 11575



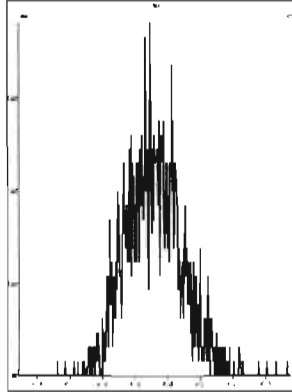
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, June 04, 2020 11:57:55 Pacific Daylight Time

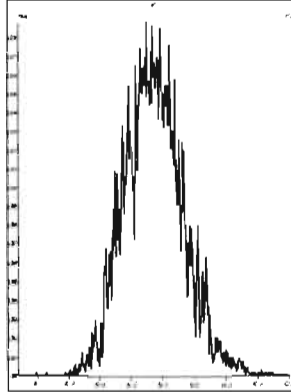
M 404.9760 R 11212



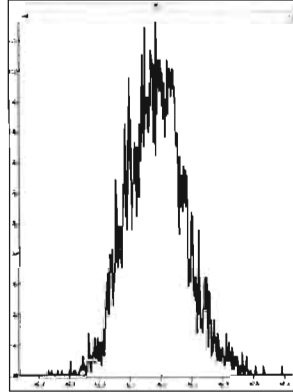
M 416.9760 R 11905



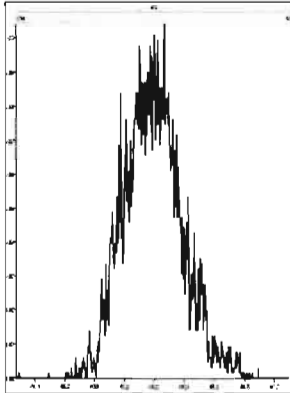
M 430.9728 R 12019



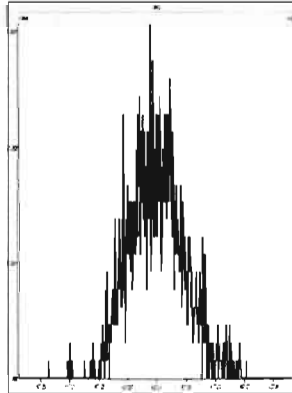
M 442.9728 R 11791



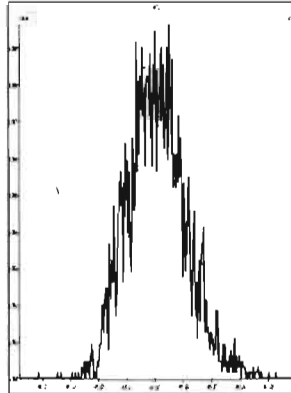
M 454.9728 R 11790



M 466.9728 R 13021



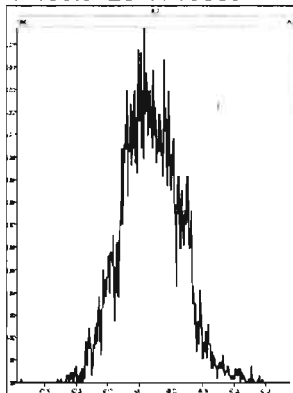
M 480.9696 R 11061



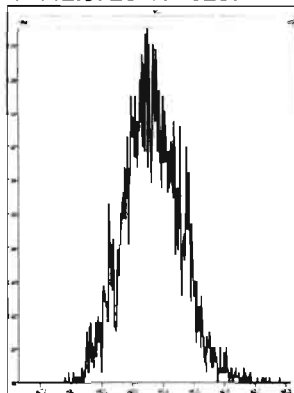
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, June 04, 2020 11:58:52 Pacific Daylight Time

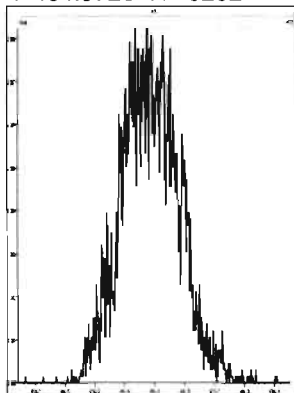
M 430.9728 R 10869



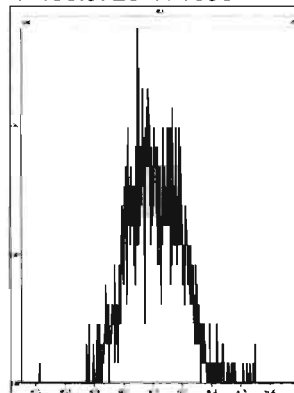
M 442.9728 R 10287



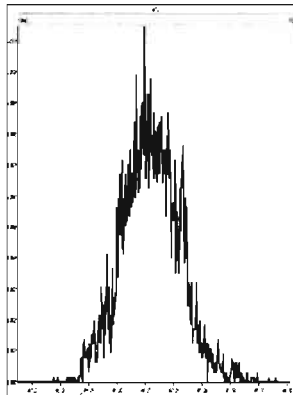
M 454.9728 R 10202



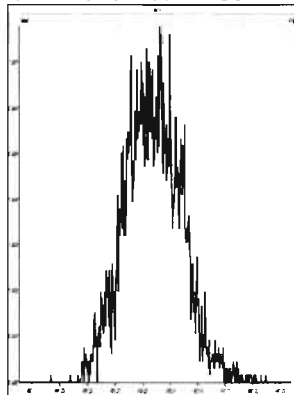
M 466.9728 R 13967



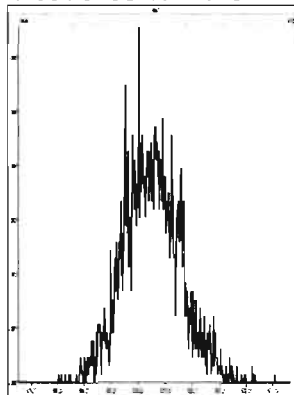
M 480.9696 R 11468



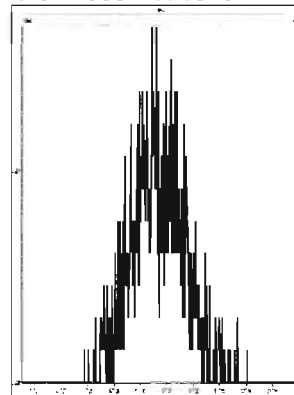
M 492.9696 R 12135



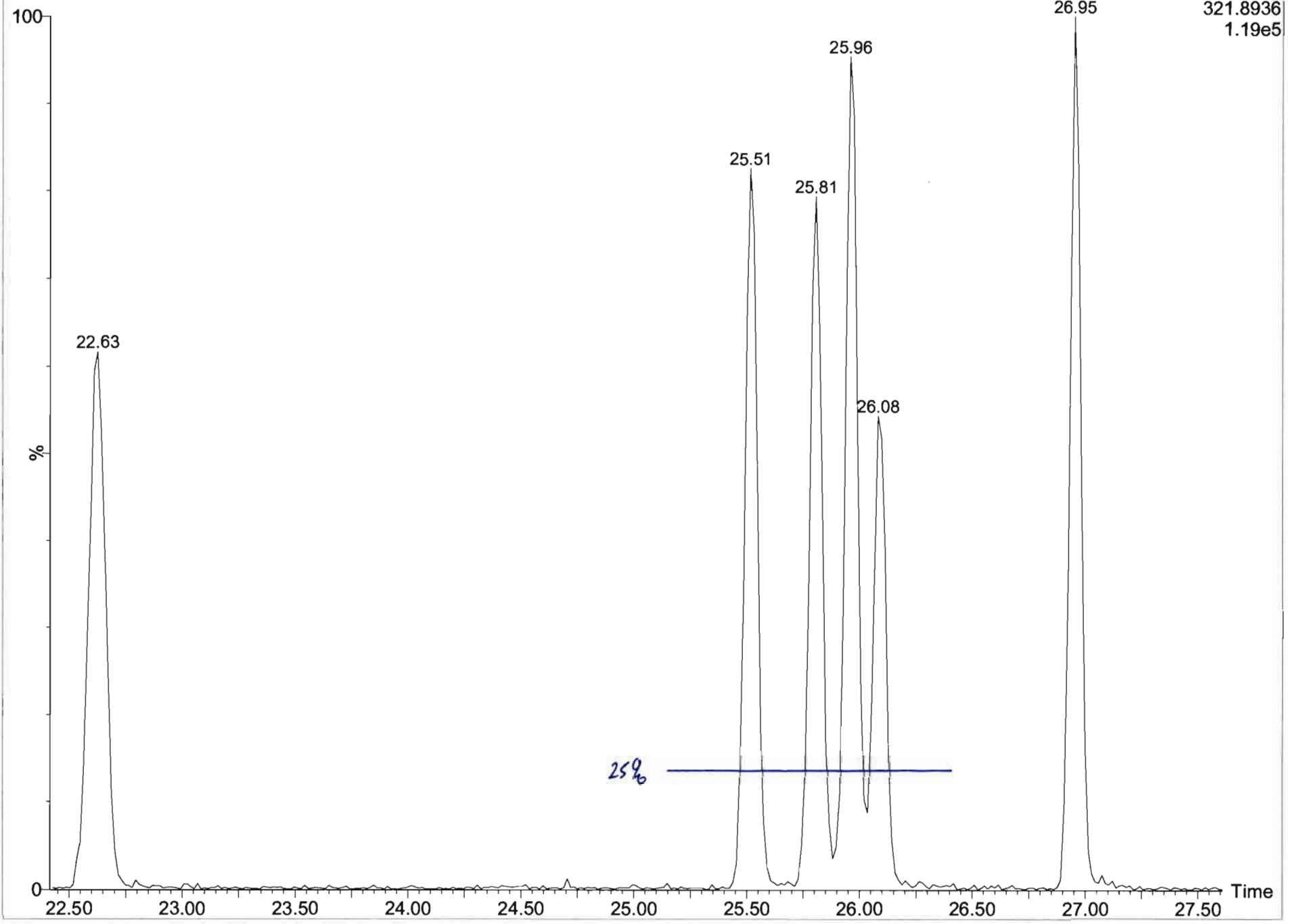
M 504.9696 R 11063



M 516.9697 R 13158







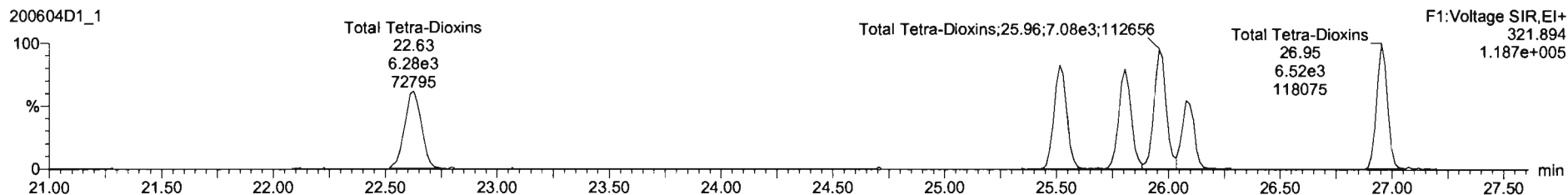
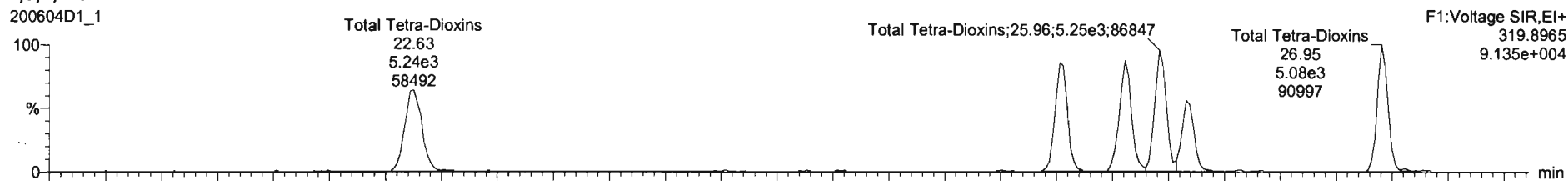
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Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

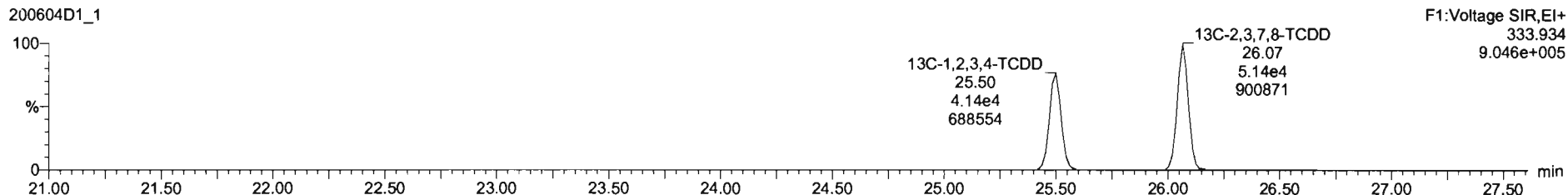
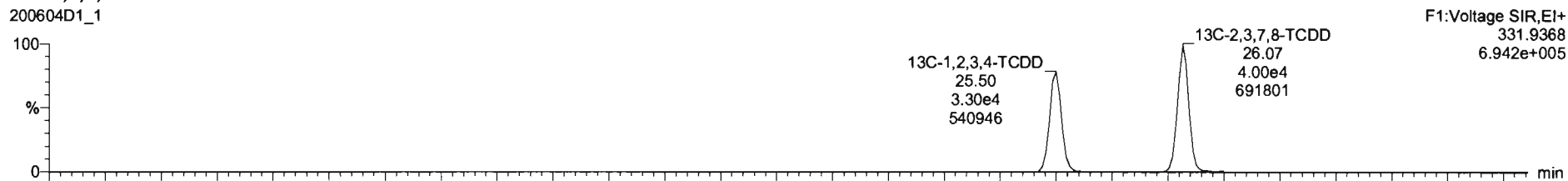
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

**2,3,7,8-TCDD**



**13C-2,3,7,8-TCDD**



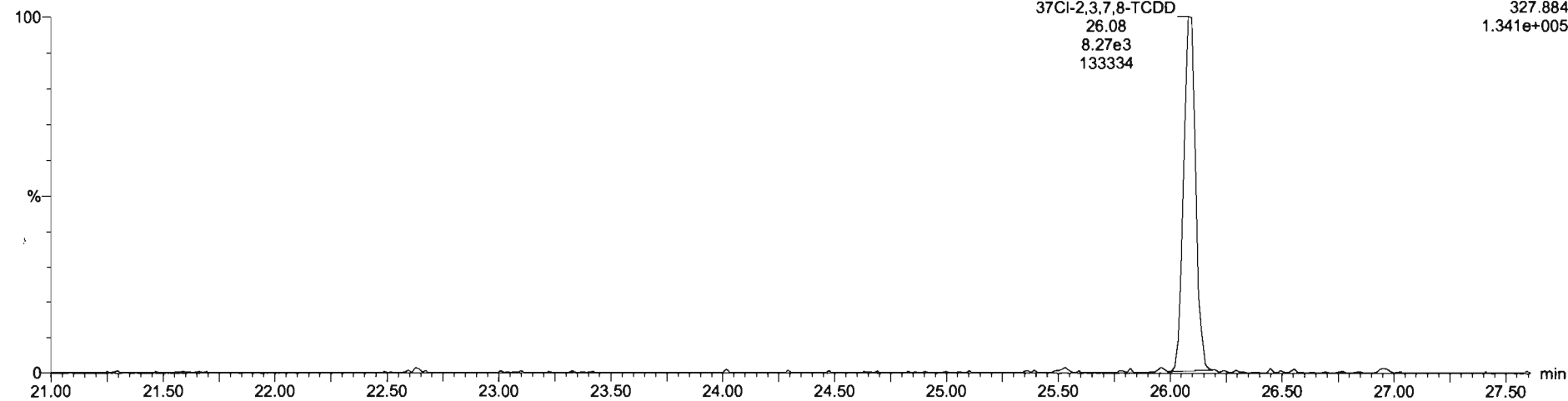
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Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

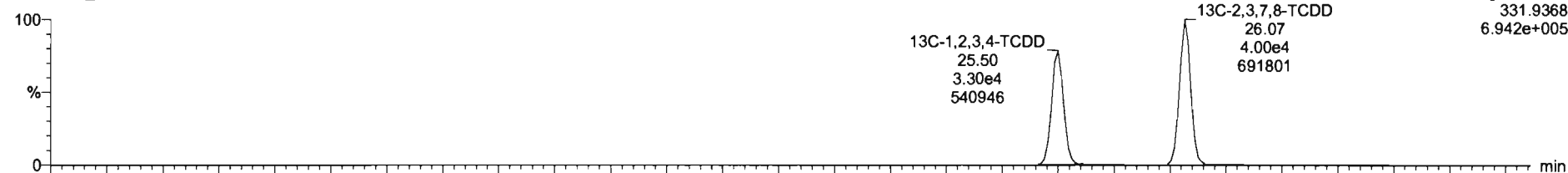
**37Cl-2,3,7,8-TCDD**

200604D1\_1

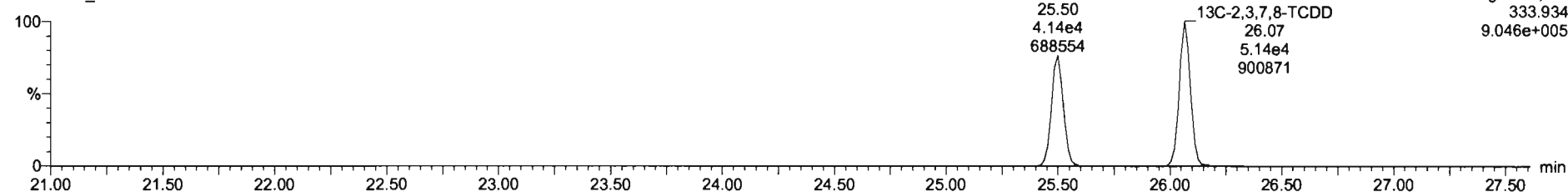


**13C-1,2,3,4-TCDD**

200604D1\_1



200604D1\_1



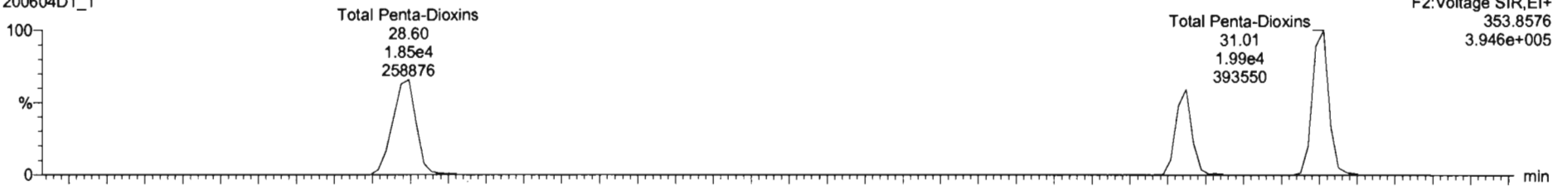
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Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

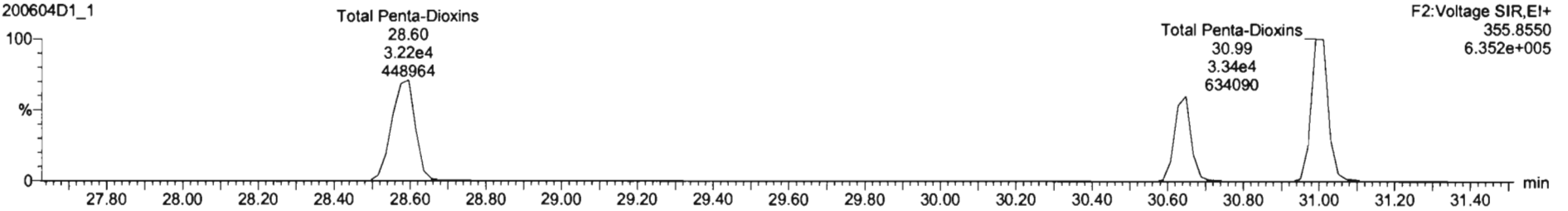
Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,2,3,7,8-PeCDD

200604D1\_1

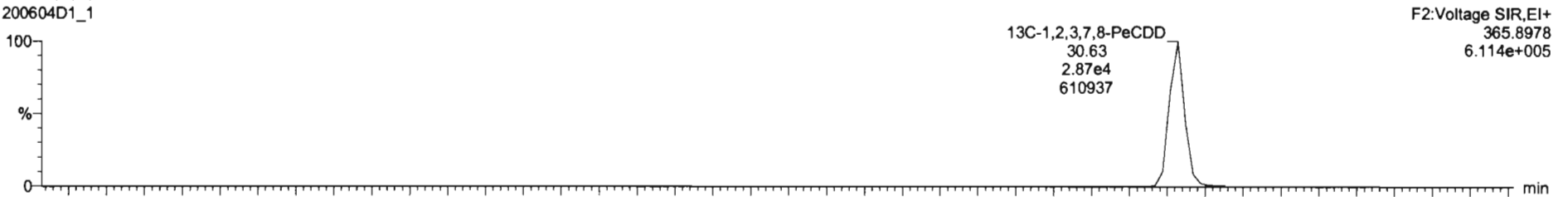


200604D1\_1

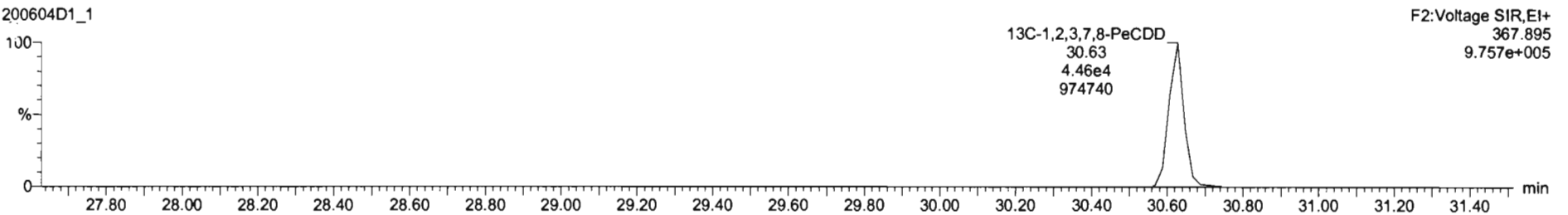


13C-1,2,3,7,8-PeCDD

200604D1\_1



200604D1\_1

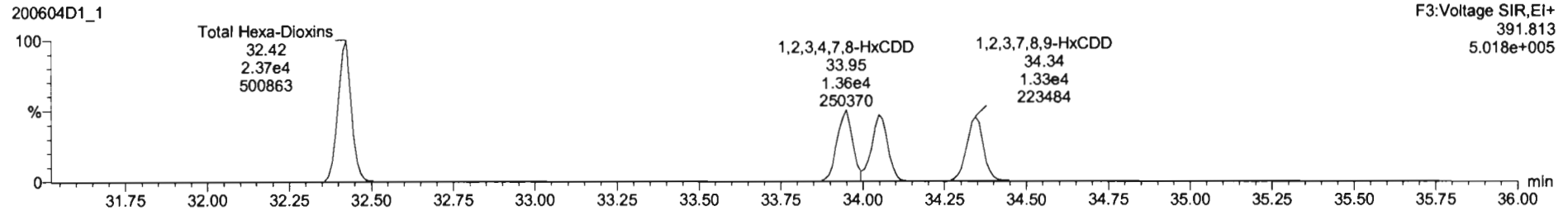
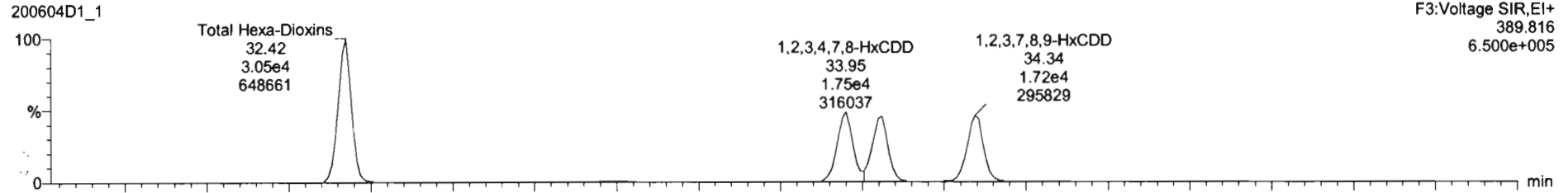


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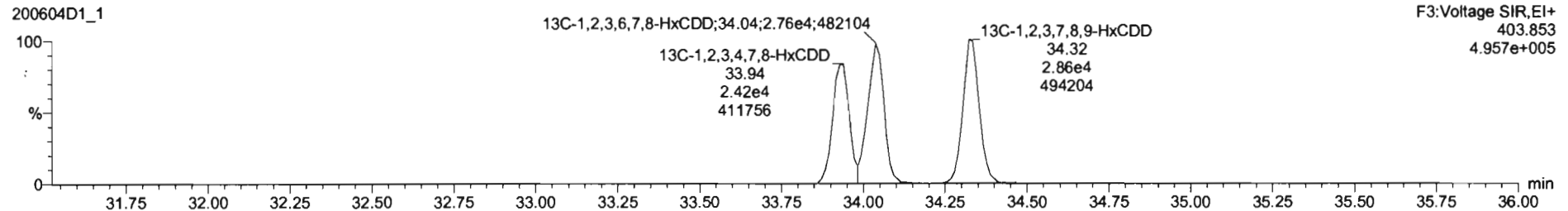
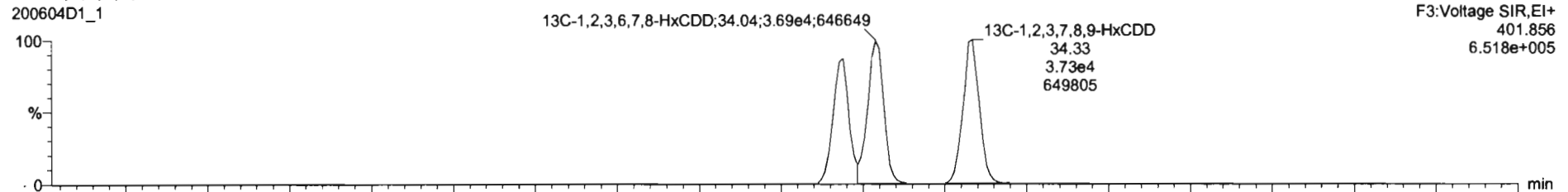
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Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,2,3,4,7,8-HxCDD



13C-1,2,3,4,7,8-HxCDD



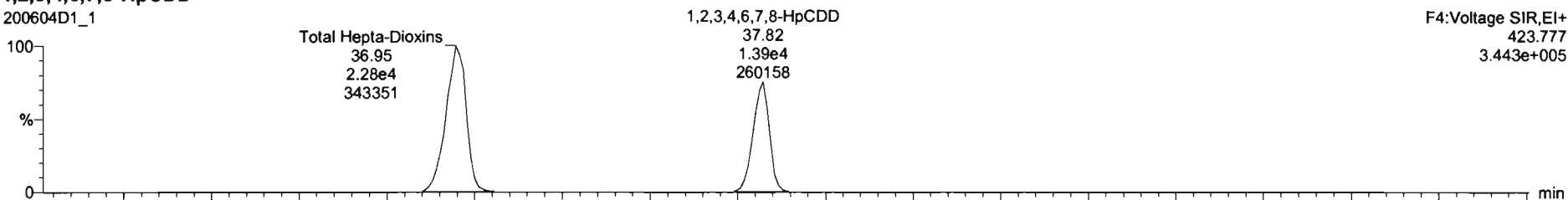
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Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

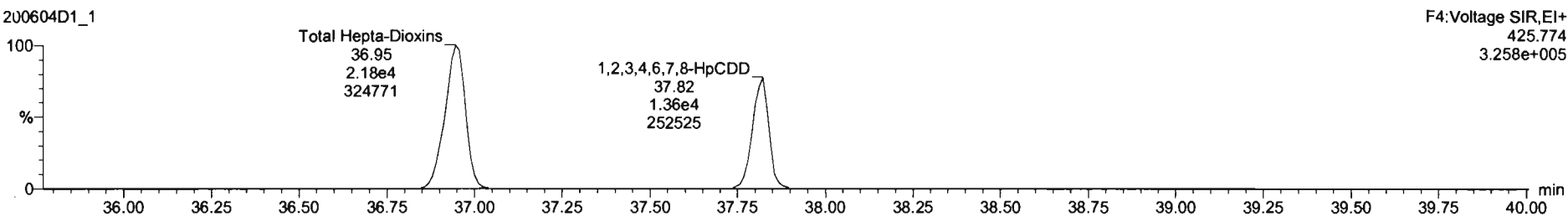
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1,2,3,4,6,7,8-HpCDD

200604D1\_1

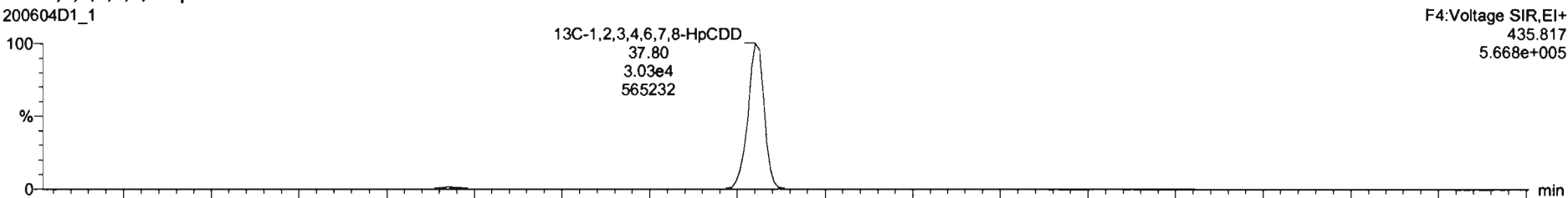


200604D1\_1

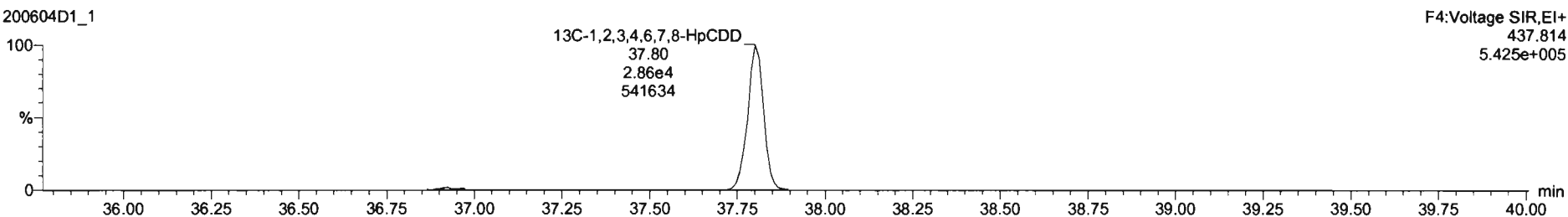


13C-1,2,3,4,6,7,8-HpCDD

200604D1\_1



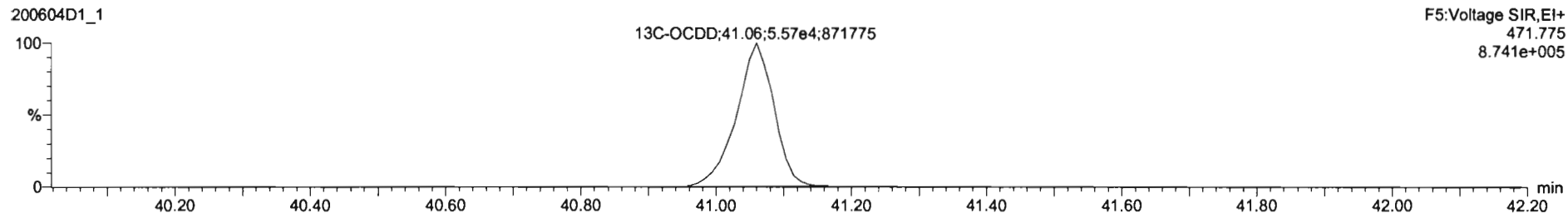
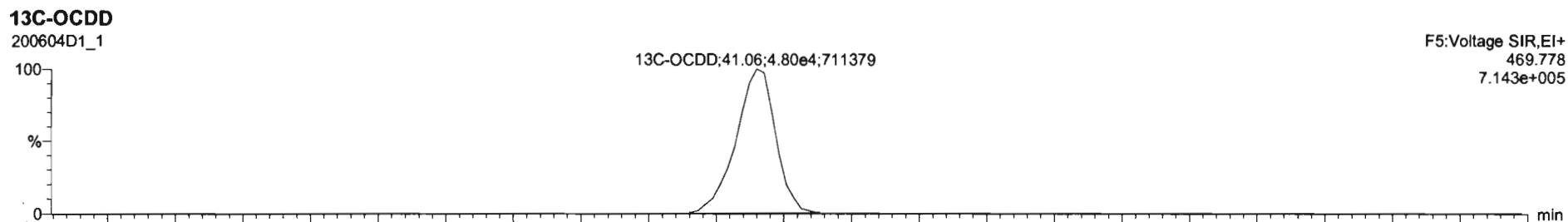
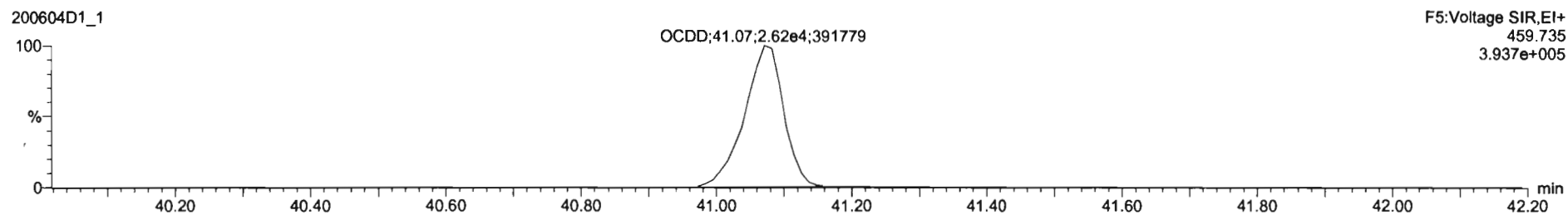
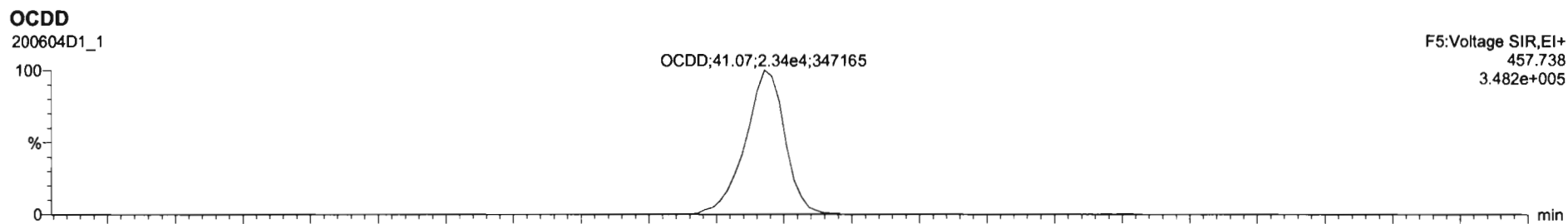
200604D1\_1



Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305



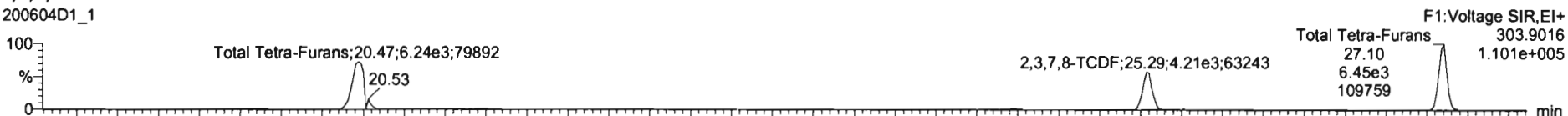
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Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

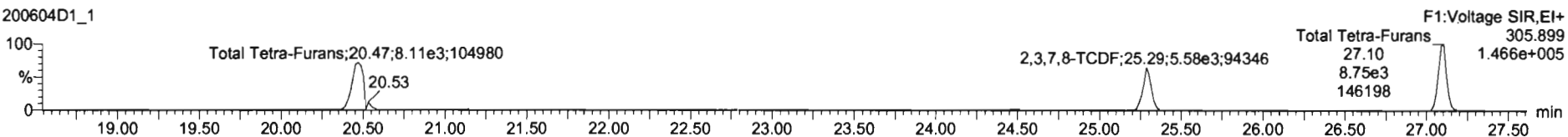
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**2,3,7,8-TCDF**

200604D1\_1

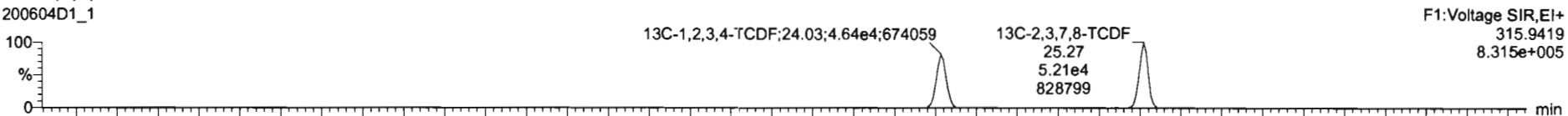


200604D1\_1

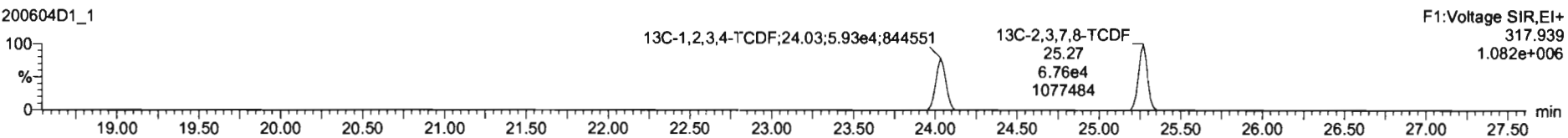


**13C-2,3,7,8-TCDF**

200604D1\_1

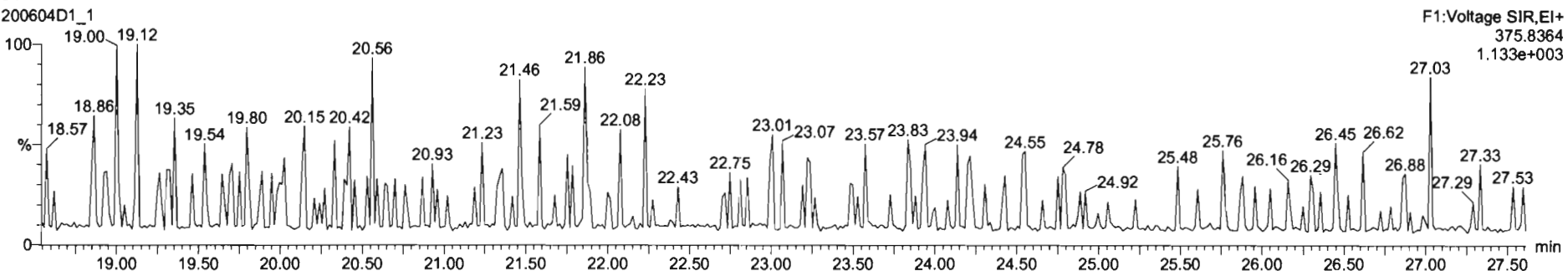


200604D1\_1



**DPE1**

200604D1\_1





Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

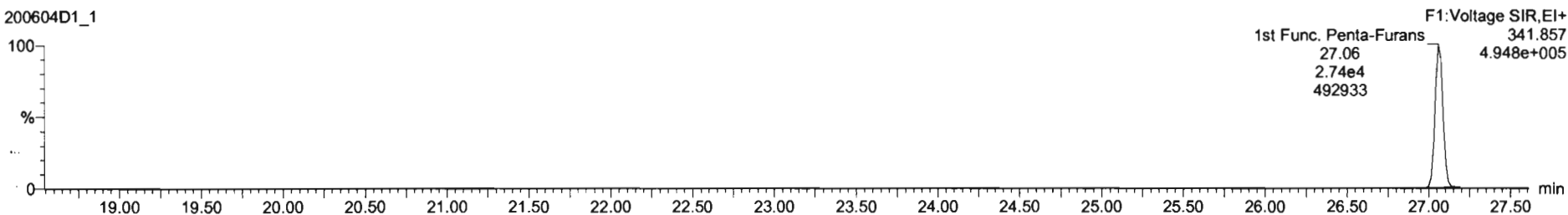
Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1st Func. Penta-Furans

200604D1\_1

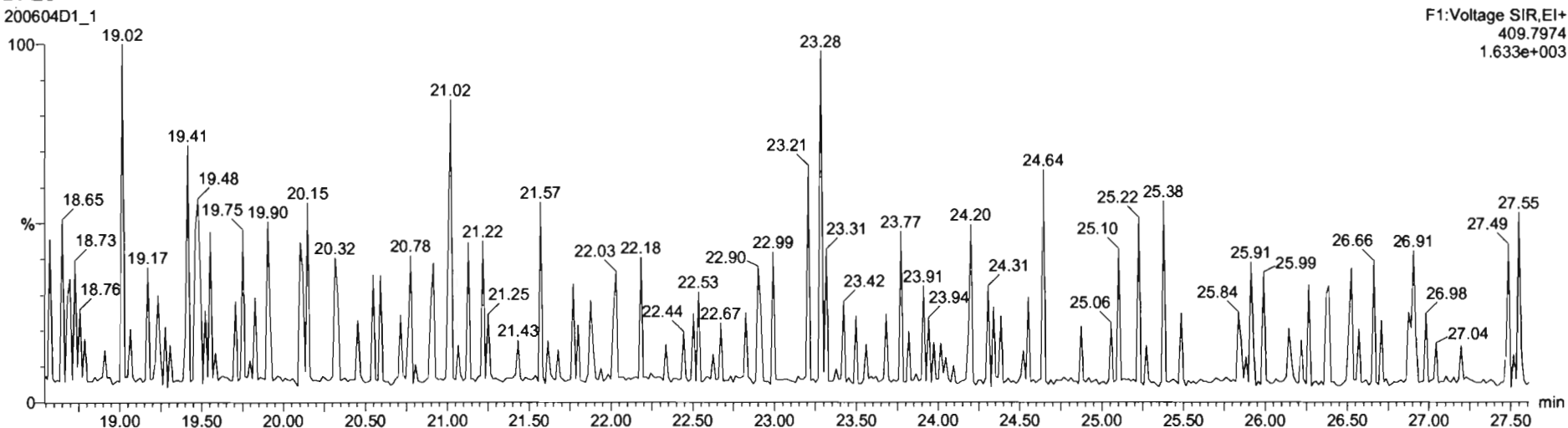


200604D1\_1



DPE6

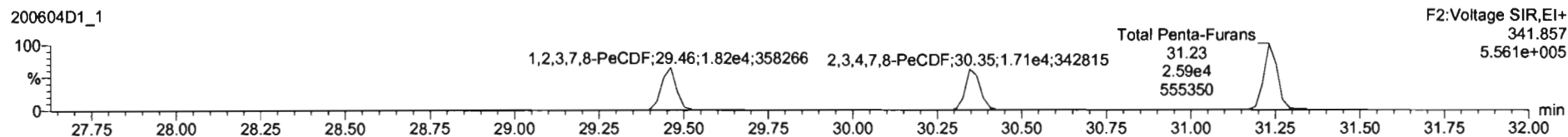
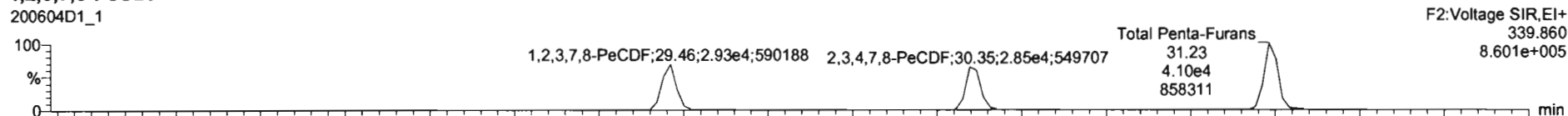
200604D1\_1



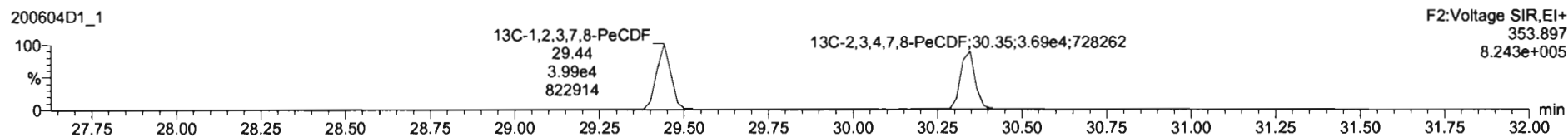
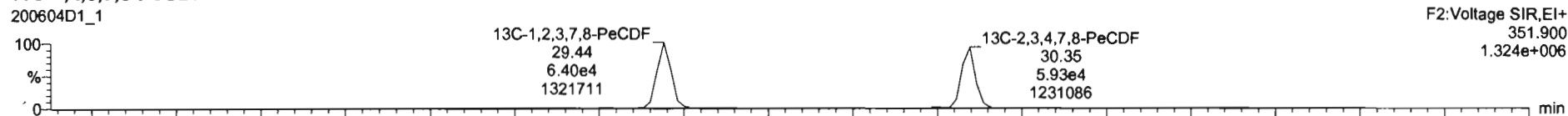
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Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

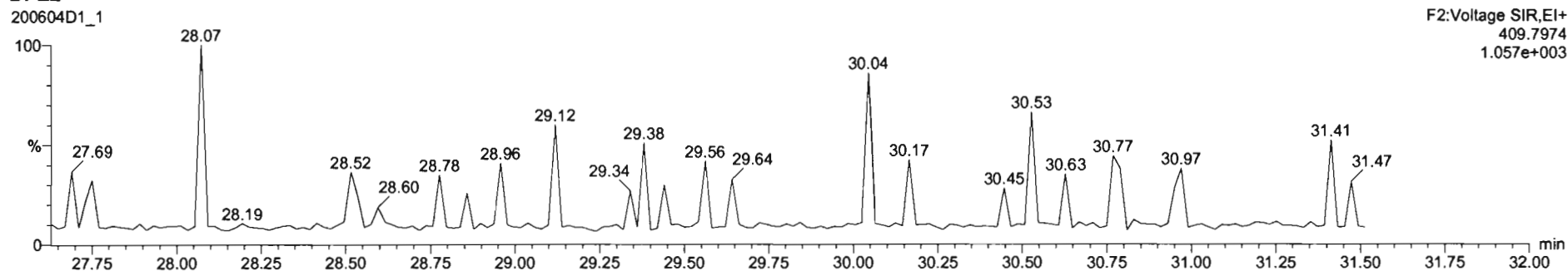
1,2,3,7,8-PeCDF



13C-1,2,3,7,8-PeCDF



DPE2

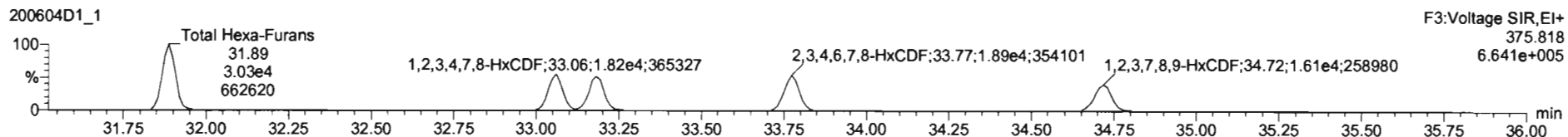
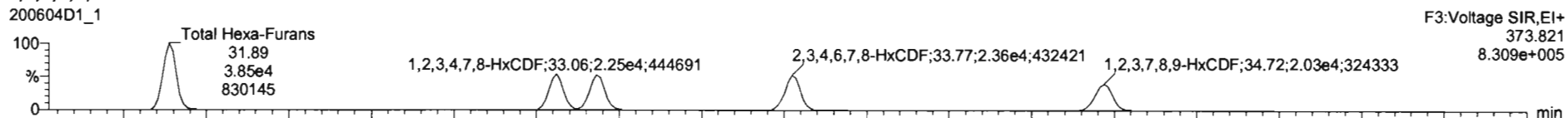


Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

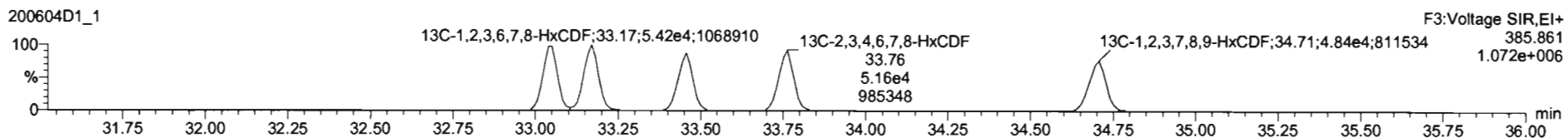
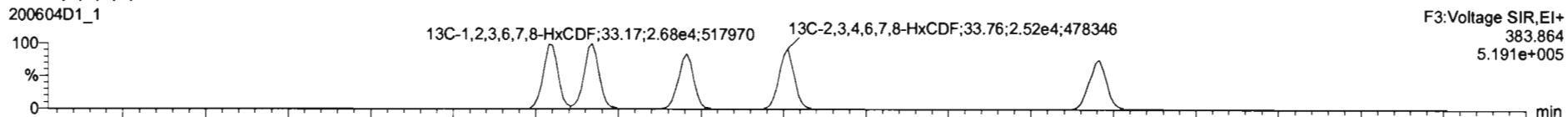
Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

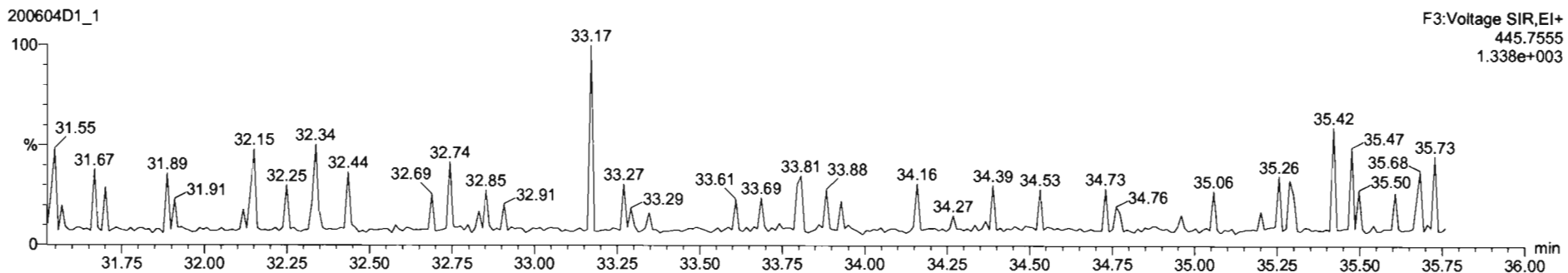
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



DPE3



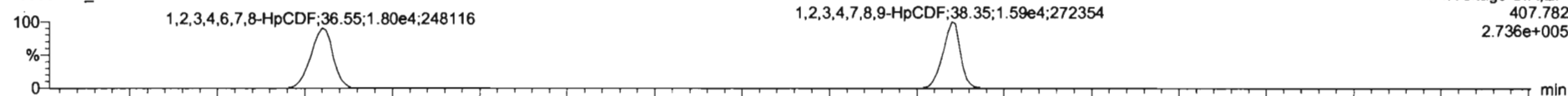
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Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

Name: 200604D1\_1, Date: 04-Jun-2020, Time: 12:00:23, ID: ST200604D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

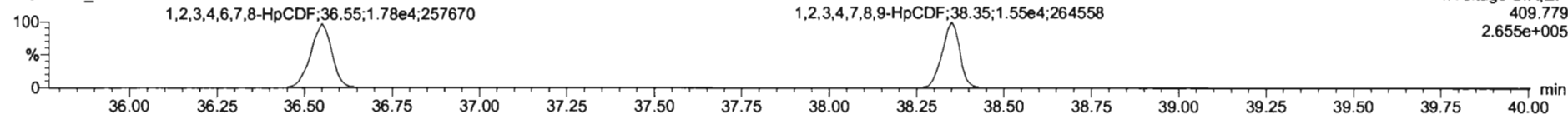
**1,2,3,4,6,7,8-HpCDF**

200604D1\_1



F4:Voltage SIR,EI+  
407.782  
2.736e+005

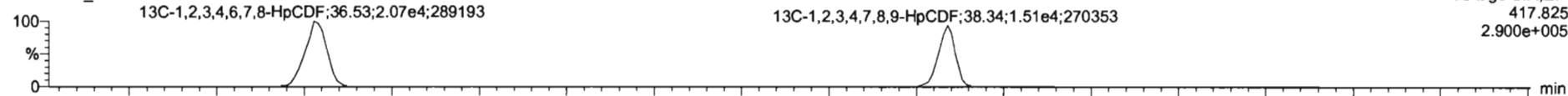
200604D1\_1



F4:Voltage SIR,EI+  
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2.655e+005

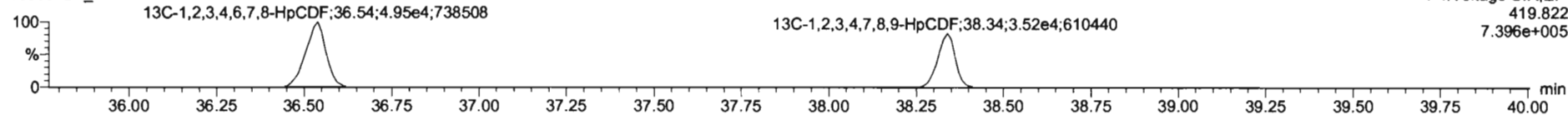
**13C-1,2,3,4,6,7,8-HpCDF**

200604D1\_1



F4:Voltage SIR,EI+  
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2.900e+005

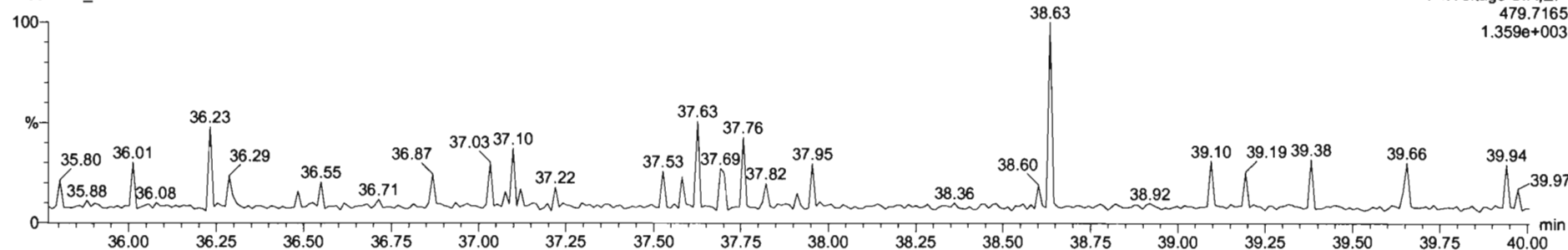
200604D1\_1



F4:Voltage SIR,EI+  
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7.396e+005

**DPE4**

200604D1\_1

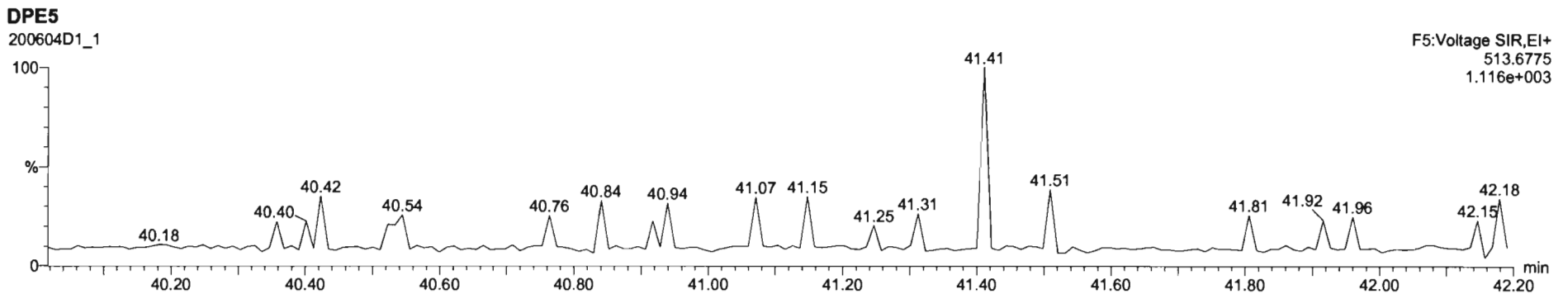
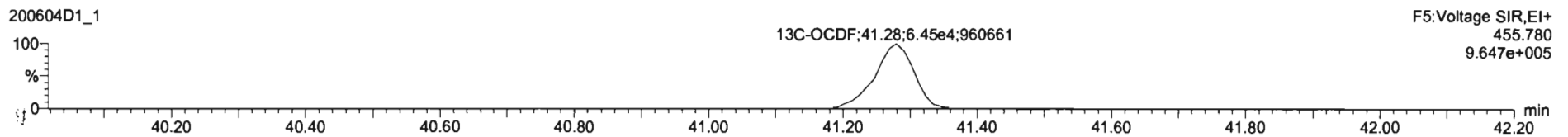
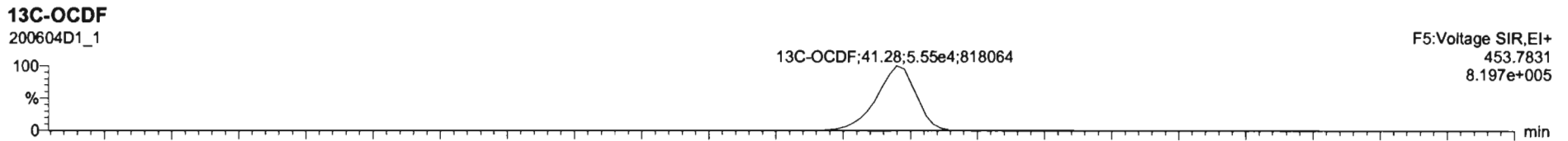
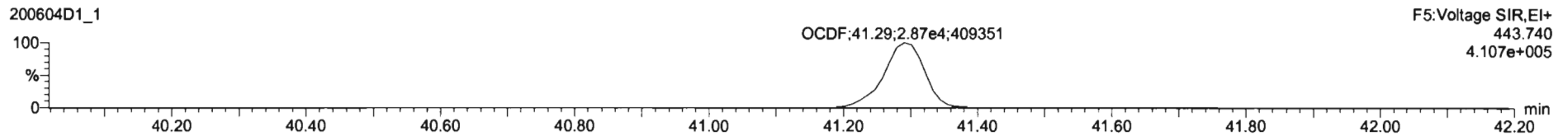
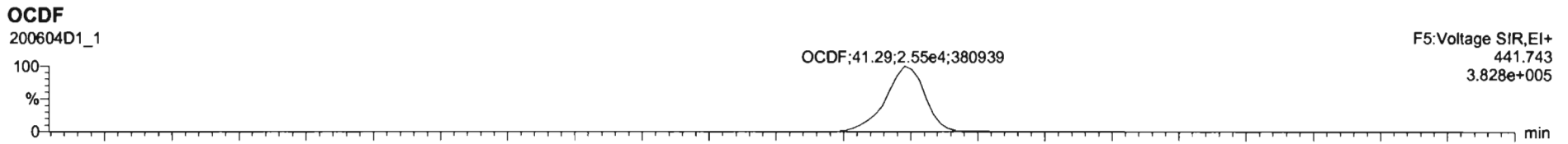


F4:Voltage SIR,EI+  
479.7165  
1.359e+003

Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

Last Altered: Thursday, June 04, 2020 12:43:43 Pacific Daylight Time  
Printed: Thursday, June 04, 2020 12:47:22 Pacific Daylight Time

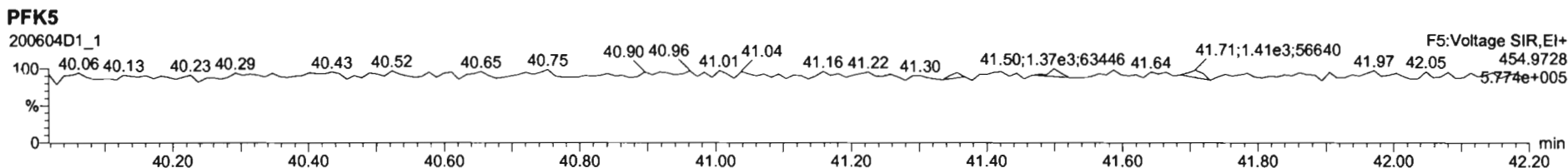
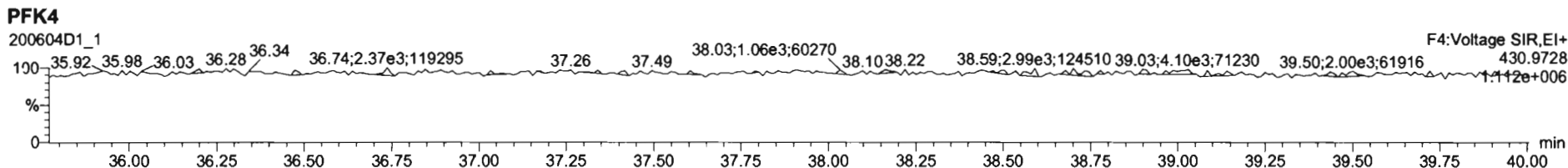
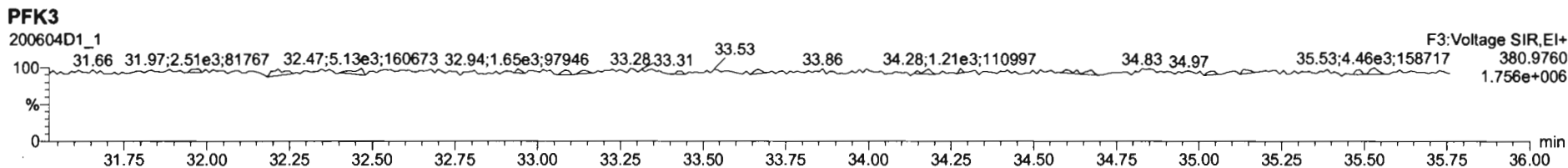
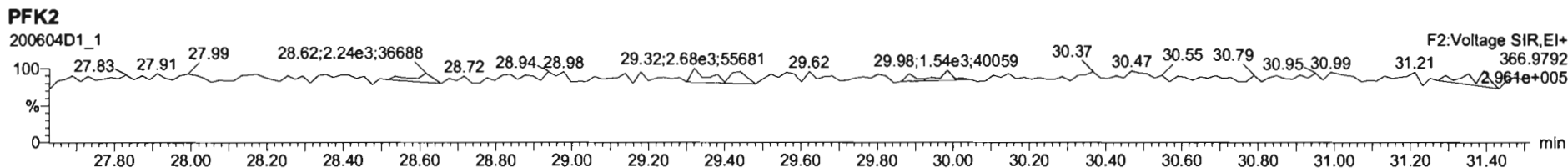
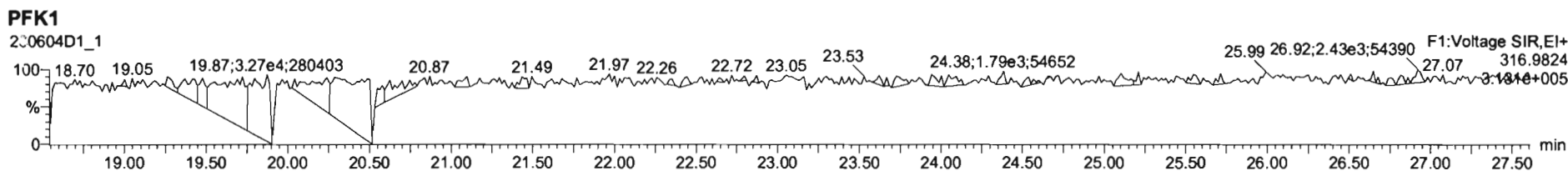
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Dataset: U:\VG7.PRO\Results\200604D1\200604D1\_1.qld

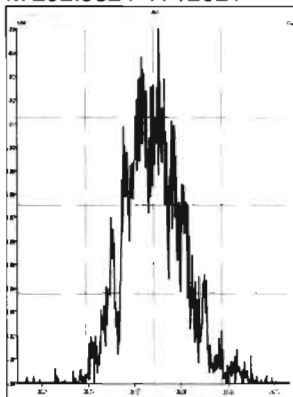
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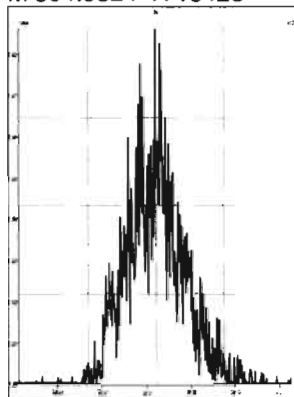


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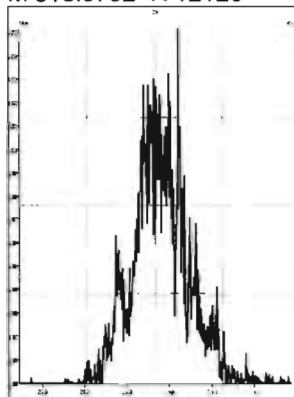
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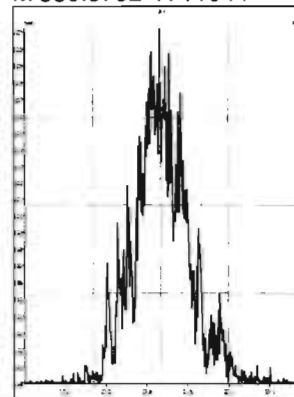
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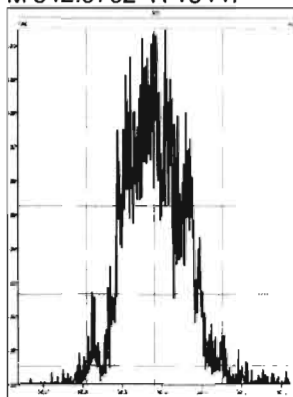
M 318.9792 R 12126



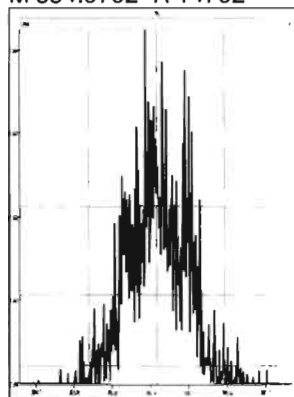
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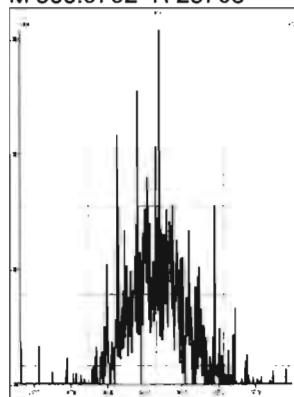
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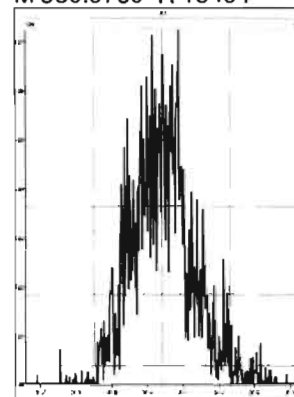
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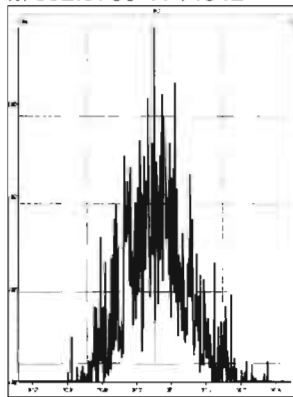
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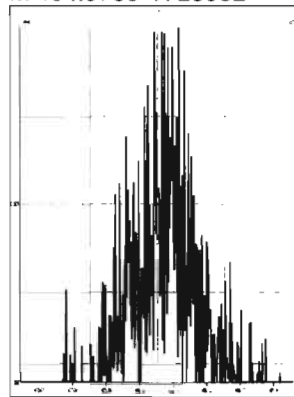
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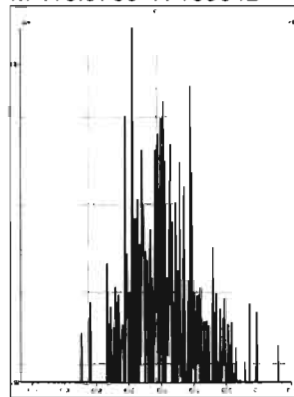
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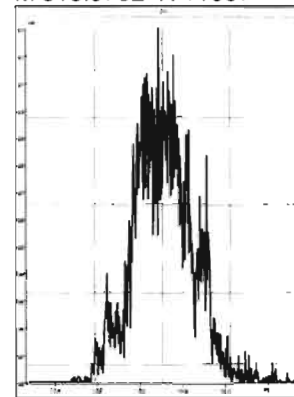
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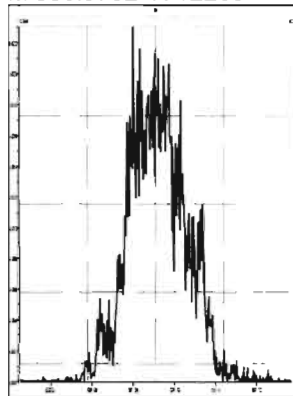
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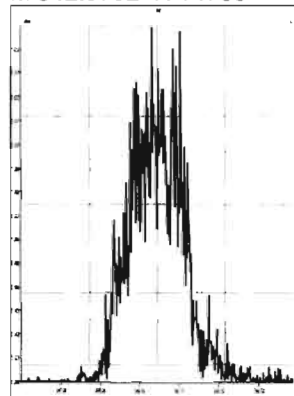
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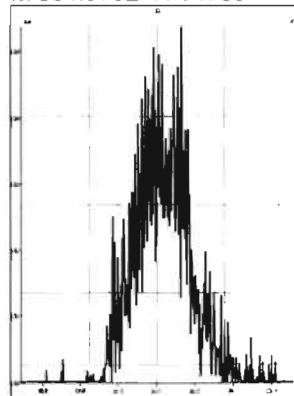
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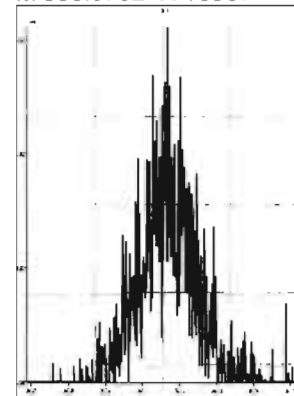
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M 354.9792 R 14769

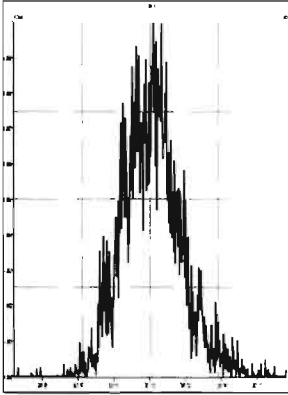


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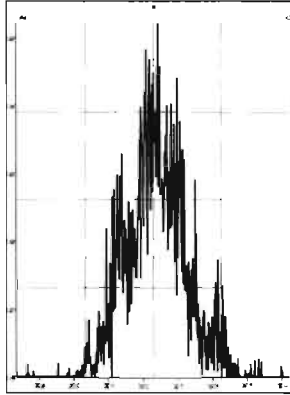


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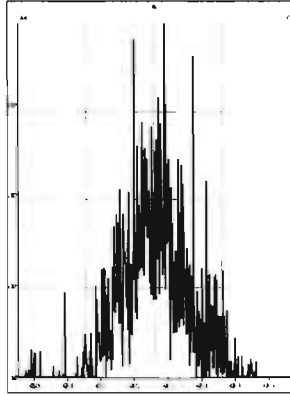
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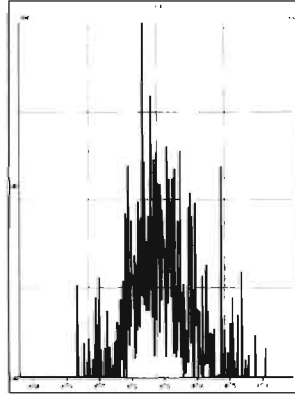
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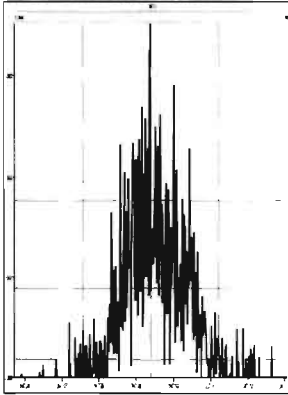
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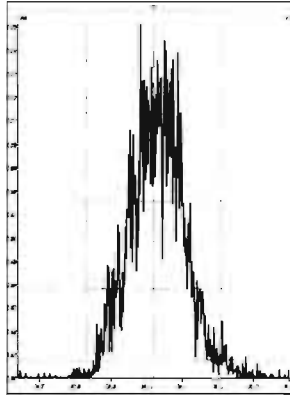
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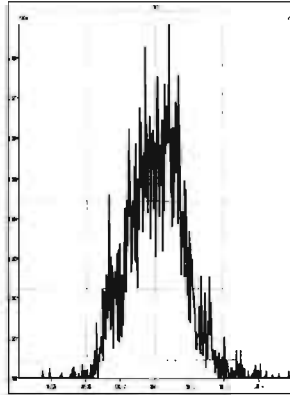
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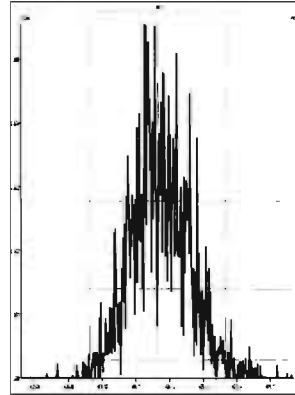
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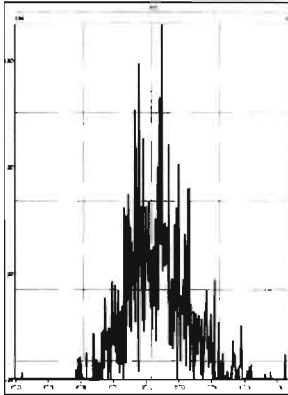
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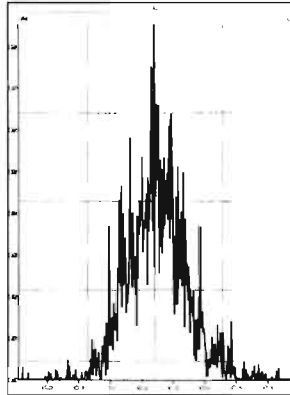
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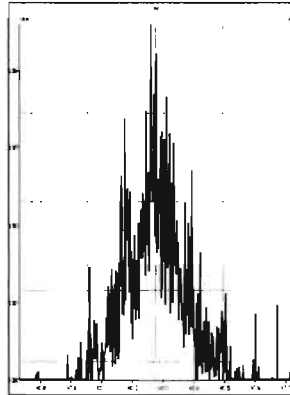
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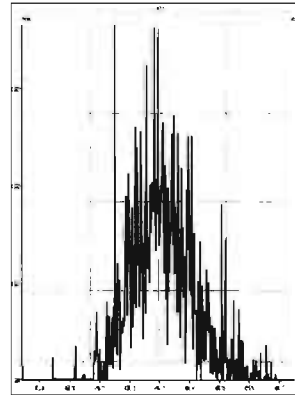
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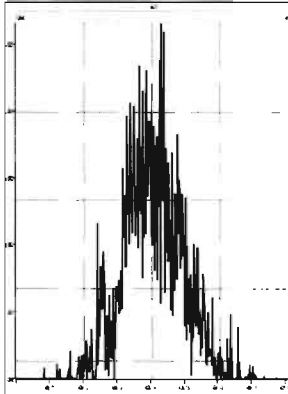
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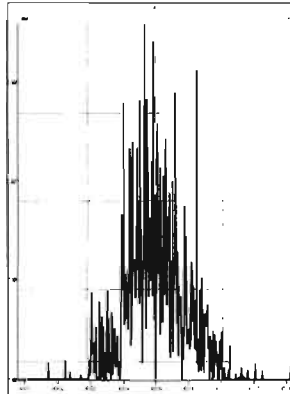
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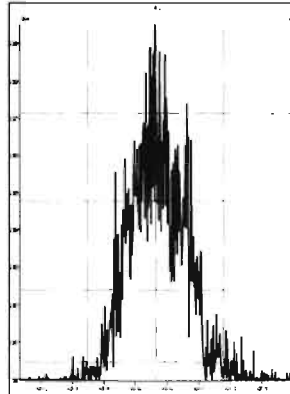
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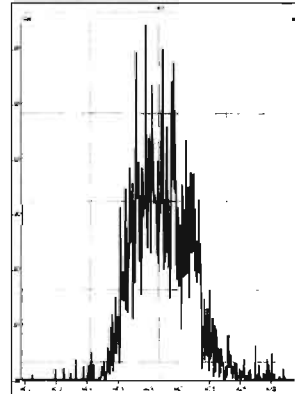
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M 430.9728 R 12651



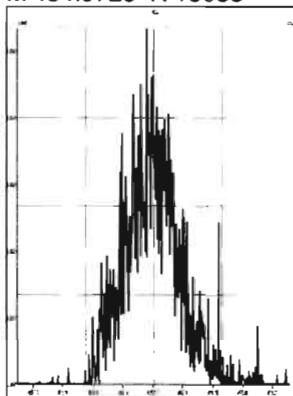
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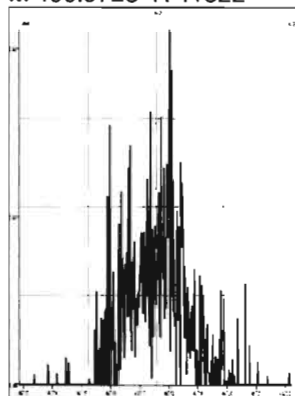


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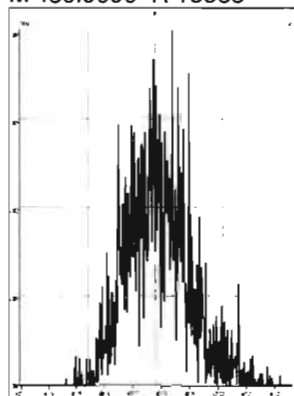
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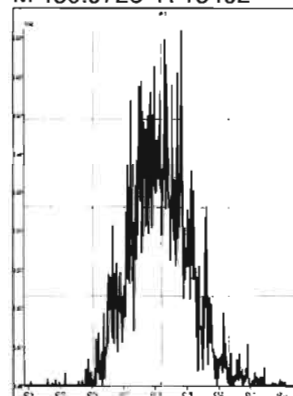
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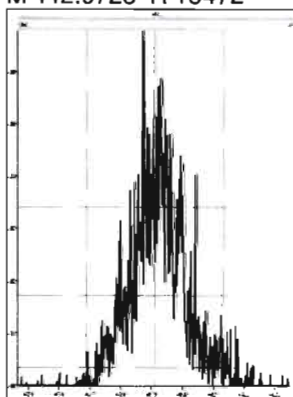
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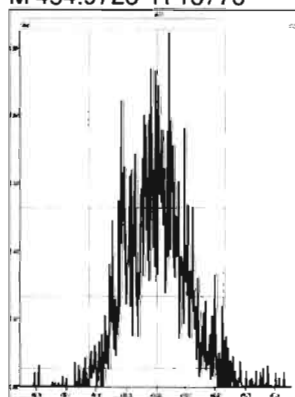
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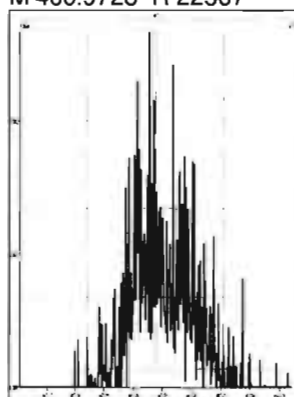
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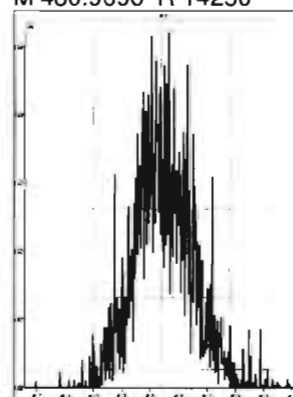
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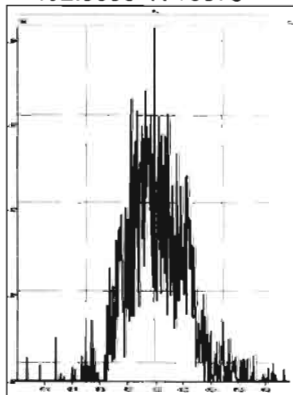
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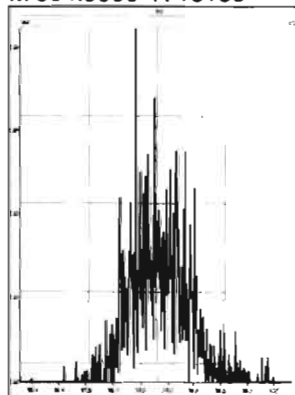
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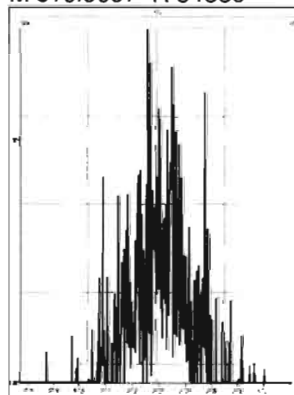
M 492.9696 R 15975



M 504.9696 R 18183



M 516.9697 R 54880



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST200605D1-1

**Reviewed By:** CT 06/08/2020  
*Initials & Date*

**End Calibration ID:** NA

|  | <u>Beg.</u>                             | <u>End</u>                          |   | <u>Beg.</u>                         | <u>End</u>                          |
|--|---|-------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>Ion abundance within QC limits?</b>                                 | <input checked="" type="checkbox"/>     | <input type="checkbox"/> NA         | <b>Mass resolution <math>\geq</math></b>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>Concentrations within criteria?</b>                                 | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K<br>1614   1699   429   1613/1668/8280 |                                     |                                     |
| <b>TCDD/TCDF Valleys &lt;25%</b>                                       | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <b>Intergrated peaks display correctly?</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> NA         |
| <b>First and last eluters present?</b>                                 | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <b>GC Break &lt;20%</b>   | <input type="checkbox"/> NA         |                                     |
| <b>Retention Times within criteria?</b>                                | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <b><u>8280 CS1 End Standard:</u></b>  |                                     |                                     |
| <b>Verification Std. named correctly?</b><br>(ST-Year-Month-Day-VG ID) | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <b>- Ratios within limits, S/N &lt;2.5:1, CS1 within 12 hours</b>   |                                     | <input type="checkbox"/> NA         |
| <b>Forms signed and dated?</b>   | <input checked="" type="checkbox"/>     | <input type="checkbox"/>            | <b>Comments:</b>  |                                     |                                     |
| <b>Correct ICAL referenced?</b>  | <u>DB</u>                               | <input type="checkbox"/>            |   |                                     |                                     |
| <b><u>Run Log:</u></b>   |   |                                     |   |                                     |                                     |
| <b>- Correct instrument listed?</b>                                    | <input checked="" type="checkbox"/>     | <input checked="" type="checkbox"/> |   |                                     |                                     |
| <b>- Samples within 12 hour clock?</b>                                 | <input checked="" type="checkbox"/> (Y) | <input type="checkbox"/> N          |   |                                     |                                     |
| <b>- Bottle position verified?</b>                                     | <u>DB</u>                               |                                     |   |                                     |                                     |

Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_1.qld

Last Altered: Friday, June 05, 2020 13:10:06 Pacific Daylight Time  
Printed: Friday, June 05, 2020 13:10:55 Pacific Daylight Time

*DB 6/5/20*

*C700/02/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 7.82e3 | 0.84 | NO  | 0.987 | 1.000  | 26.112  | 26.10 | 1.001    | 1.001 | 8.4735 | 84.7 <i>78-129</i> | 0.177 | 8.47 |
| 2  | 2 1,2,3,7,8-PeCDD          | 3.05e4 | 0.61 | NO  | 0.982 | 1.000  | 30.670  | 30.65 | 1.001    | 1.000 | 46.255 | 92.5 <i>78-130</i> | 0.285 | 46.3 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 2.75e4 | 1.24 | NO  | 1.17  | 1.000  | 33.960  | 33.96 | 1.000    | 1.000 | 46.814 | 93.6 <i>78-128</i> | 0.396 | 46.8 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 3.02e4 | 1.29 | NO  | 1.04  | 1.000  | 34.060  | 34.07 | 1.000    | 1.000 | 45.086 | 90.2 <i>78-128</i> | 0.360 | 45.1 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 2.79e4 | 1.33 | NO  | 1.00  | 1.000  | 34.379  | 34.37 | 1.001    | 1.001 | 45.384 | 90.8 <i>82-122</i> | 0.423 | 45.4 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 2.35e4 | 1.03 | NO  | 0.992 | 1.000  | 37.835  | 37.83 | 1.000    | 1.000 | 48.269 | 96.5 <i>86-116</i> | 0.466 | 48.3 |
| 7  | 7 OCDD                     | 4.28e4 | 0.87 | NO  | 1.04  | 1.000  | 41.071  | 41.09 | 1.000    | 1.001 | 92.179 | 92.2 <i>79-126</i> | 0.661 | 92.2 |
| 8  | 8 2,3,7,8-TCDF             | 9.47e3 | 0.74 | NO  | 0.882 | 1.000  | 25.326  | 25.32 | 1.001    | 1.001 | 8.8263 | 88.3 <i>84-120</i> | 0.146 | 8.83 |
| 9  | 9 1,2,3,7,8-PeCDF          | 4.66e4 | 1.68 | NO  | 1.05  | 1.000  | 29.482  | 29.46 | 1.001    | 1.000 | 41.637 | 83.3 <i>82-120</i> | 0.152 | 41.6 |
| 10 | 10 2,3,4,7,8-PeCDF         | 4.50e4 | 1.60 | NO  | 1.06  | 1.000  | 30.377  | 30.37 | 1.001    | 1.001 | 41.053 | 82.1 <i>82-120</i> | 0.156 | 41.1 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 3.87e4 | 1.22 | NO  | 1.08  | 1.000  | 33.061  | 33.07 | 1.000    | 1.000 | 45.479 | 91.0 <i>90-112</i> | 0.354 | 45.5 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 4.27e4 | 1.23 | NO  | 1.04  | 1.000  | 33.192  | 33.20 | 1.000    | 1.001 | 46.701 | 93.4 <i>88-114</i> | 0.373 | 46.7 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 4.05e4 | 1.25 | NO  | 1.11  | 1.000  | 33.808  | 33.79 | 1.001    | 1.000 | 47.182 | 94.4 <i>88-114</i> | 0.401 | 47.2 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 3.23e4 | 1.23 | NO  | 1.06  | 1.000  | 34.718  | 34.73 | 1.000    | 1.000 | 46.205 | 92.4 <i>90-112</i> | 0.559 | 46.2 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 3.28e4 | 1.05 | NO  | 1.13  | 1.000  | 36.587  | 36.57 | 1.001    | 1.001 | 45.950 | 91.9 <i>90-110</i> | 0.459 | 45.9 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 2.71e4 | 1.02 | NO  | 1.33  | 1.000  | 38.350  | 38.36 | 1.000    | 1.000 | 46.768 | 93.5 <i>86-116</i> | 0.461 | 46.8 |
| 17 | 17 OCDF                    | 5.04e4 | 0.92 | NO  | 0.933 | 1.000  | 41.291  | 41.30 | 1.000    | 1.000 | 92.922 | 92.9 <i>63-159</i> | 0.456 | 92.9 |
| 18 | 18 13C-2,3,7,8-TCDD        | 9.35e4 | 0.76 | NO  | 1.21  | 1.000  | 26.179  | 26.08 | 1.026    | 1.022 | 99.124 | 99.1 <i>82-121</i> | 0.568 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 6.71e4 | 0.62 | NO  | 0.996 | 1.000  | 30.669  | 30.65 | 1.202    | 1.201 | 86.184 | 86.2 <i>62-160</i> | 0.339 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 5.01e4 | 1.33 | NO  | 0.679 | 1.000  | 33.936  | 33.95 | 1.014    | 1.014 | 97.328 | 97.3 <i>85-117</i> | 0.606 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 6.46e4 | 1.25 | NO  | 0.850 | 1.000  | 34.046  | 34.06 | 1.017    | 1.018 | 100.28 | 100 <i>85-118</i>  | 0.484 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 6.12e4 | 1.23 | NO  | 0.798 | 1.000  | 34.317  | 34.34 | 1.025    | 1.026 | 101.10 | 101 <i>85-118</i>  | 0.515 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.92e4 | 1.06 | NO  | 0.697 | 1.000  | 37.784  | 37.82 | 1.129    | 1.130 | 93.020 | 93.0 <i>72-138</i> | 0.749 |      |
| 24 | 24 13C-OCDD                | 8.96e4 | 0.91 | NO  | 0.579 | 1.000  | 40.810  | 41.07 | 1.219    | 1.227 | 204.15 | 102 <i>48-207</i>  | 1.06  |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.22e5 | 0.74 | NO  | 1.13  | 1.000  | 25.260  | 25.30 | 0.990    | 0.992 | 95.723 | 95.7 <i>71-140</i> | 0.780 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 1.07e5 | 1.61 | NO  | 0.996 | 1.000  | 29.488  | 29.46 | 1.156    | 1.155 | 95.336 | 95.3 <i>76-130</i> | 0.719 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 1.03e5 | 1.62 | NO  | 0.969 | 1.000  | 30.389  | 30.35 | 1.191    | 1.189 | 94.517 | 94.5 <i>77-130</i> | 0.739 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 7.85e4 | 0.49 | NO  | 1.06  | 1.000  | 33.065  | 33.06 | 0.988    | 0.988 | 97.862 | 97.9 <i>76-131</i> | 0.712 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.77e4 | 0.51 | NO  | 1.18  | 1.000  | 33.199  | 33.18 | 0.992    | 0.991 | 98.405 | 98.4 <i>70-143</i> | 0.641 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.72e4 | 0.49 | NO  | 1.06  | 1.000  | 33.772  | 33.77 | 1.009    | 1.009 | 96.310 | 96.3 <i>73-137</i> | 0.713 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 6.61e4 | 0.49 | NO  | 0.879 | 1.000  | 34.672  | 34.72 | 1.036    | 1.037 | 99.153 | 99.2 <i>74-135</i> | 0.856 |      |

Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_1.qld

Last Altered: Friday, June 05, 2020 13:10:06 Pacific Daylight Time

Printed: Friday, June 05, 2020 13:10:55 Pacific Daylight Time

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                    | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec                   | DL    | EMPC |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------------------------|-------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 6.32e4 | 0.41 | NO  | 0.893 | 1.000  | 36.379  | 36.55 | 1.087    | 1.092 | 93.359 | 93.4 <del>78-129</del> | 0.669 |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 4.35e4 | 0.41 | NO  | 0.613 | 1.000  | 38.387  | 38.35 | 1.147    | 1.146 | 93.413 | 93.4 <del>77-129</del> | 0.973 |      |
| 34 | 13C-OCDF                | 1.16e5 | 0.89 | NO  | 0.741 | 1.000  | 40.964  | 41.29 | 1.224    | 1.234 | 207.08 | 104 <del>48-207</del>  | 0.674 |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 7.85e3 |      |     | 1.18  | 1.000  | 26.176  | 26.11 | 1.026    | 1.023 | 8.5087 | 85.1 <del>79-127</del> | 0.119 |      |
| 36 | 13C-1,2,3,4-TCDD        | 7.82e4 | 0.80 | NO  | 1.00  | 1.000  | 25.480  | 25.52 | 1.000    | 1.000 | 100.00 | 100                    | 0.685 |      |
| 37 | 13C-1,2,3,4-TCDF        | 1.13e5 | 0.75 | NO  | 1.00  | 1.000  | 24.020  | 24.06 | 1.000    | 1.000 | 100.00 | 100                    | 0.880 |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 7.58e4 | 0.49 | NO  | 1.00  | 1.000  | 33.530  | 33.47 | 1.000    | 1.000 | 100.00 | 100                    | 0.753 |      |

Dataset: Untitled

Last Altered: Monday, June 08, 2020 09:42:59 Pacific Daylight Time

Printed: Monday, June 08, 2020 09:43:21 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 18 May 2020 14:57:34

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                           | RT    |
|----|--------------------------------|-------|
| 1  | 1 1,3,6,8-TCDD (First)         | 22.66 |
| 2  | 2 1,2,8,9-TCDD (Last)          | 26.97 |
| 3  | 3 1,2,4,7,9-PeCDD (First)      | 28.60 |
| 4  | 4 1,2,3,8,9-PeCDD (Last)       | 31.01 |
| 5  | 5 1,2,4,6,7,9-HxCDD (First)    | 32.44 |
| 6  | 6 1,2,3,7,8,9-HxCDD (Last)     | 34.37 |
| 7  | 7 1,2,3,4,6,7,9-HpCDD (First)  | 36.96 |
| 8  | 8 1,2,3,4,6,7,8-HpCDD (Last)   | 37.83 |
| 9  | 9 1,3,6,8-TCDF (First)         | 20.50 |
| 10 | 10 1,2,8,9-TCDF (Last)         | 27.11 |
| 11 | 11 1,3,4,6,8-PeCDF (First)     | 27.07 |
| 12 | 12 1,2,3,8,9-PeCDF (Last)      | 31.25 |
| 13 | 13 1,2,3,4,6,8-HxCDF (First)   | 31.90 |
| 14 | 14 1,2,3,7,8,9-HxCDF (Last)    | 34.73 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF (First) | 36.57 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF (Last)  | 38.36 |

Dataset: Untitled

Last Altered: Monday, June 08, 2020 09:42:19 Pacific Daylight Time  
Printed: Monday, June 08, 2020 09:42:35 Pacific Daylight Time

Method: C:\MassLynx\Default.PROMethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

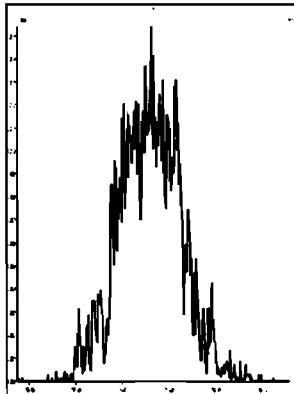
Compound name: 2,3,7,8-TCDD

|    | Name        | ID   | Acq.Date  | Acq.Time |
|----|-------------|--|-----------|----------|
| 1  | 200605D1_1  | ST200605D1-1 1613 CS3 19L2305              | 05-Jun-20 | 12:21:35 |
| 2  | 200605D1_2  | SOLVENT BLANK                              | 05-Jun-20 | 13:06:43 |
| 3  | 200605D1_3  | 2000998-05 PDI-063SC-B-02-05-200429 18.95  | 05-Jun-20 | 13:51:54 |
| 4  | 200605D1_4  | 2000998-06 PDI-063SC-B-05-07-200429 16.11  | 05-Jun-20 | 14:37:02 |
| 5  | 200605D1_5  | 2000998-01 PDI-054SC-A-09-10-200428 18.52  | 05-Jun-20 | 15:22:07 |
| 6  | 200605D1_6  | 2000998-02 PDI-054SC-A-10-11.1-200428 16.8 | 05-Jun-20 | 16:07:16 |
| 7  | 200605D1_7  | BOE0066-DUP1 Duplicate 16.79               | 05-Jun-20 | 16:52:23 |
| 8  | 200605D1_8  | 2000998-11 PDI-060SC-A-07-08-200428 15.36  | 05-Jun-20 | 17:37:31 |
| 9  | 200605D1_9  | 2000998-04 PDI-054SC-B-00-02-200428 20.98  | 05-Jun-20 | 18:22:38 |
| 10 | 200605D1_10 | 2000998-05 PDI-054SC-B-02-05-200428 19.94  | 05-Jun-20 | 19:07:45 |
| 11 | 200605D1_11 | 2000998-06 PDI-054SC-B-05-07-200428 18.81  | 05-Jun-20 | 19:52:53 |
| 12 | 200605D1_12 | 2000998-07 PDI-060SC-A-03-04-200428 16.62  | 05-Jun-20 | 20:38:01 |
| 13 | 200605D1_13 | 2000998-08 PDI-060SC-A-04-05-200428 16.12  | 05-Jun-20 | 21:23:07 |
| 14 | 200605D1_14 | 2000998-09 PDI-060SC-A-05-06-200428 17.06  | 05-Jun-20 | 22:08:14 |
| 15 | 200605D1_15 | 2000998-10 PDI-060SC-A-06-07-200428 16.26  | 05-Jun-20 | 22:53:20 |

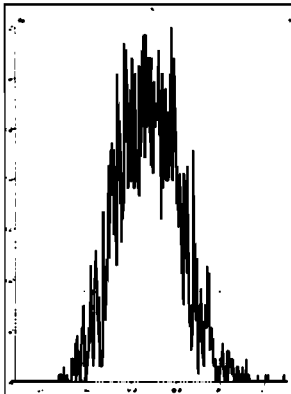
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Friday, June 05, 2020 12:17:07 Pacific Daylight Time

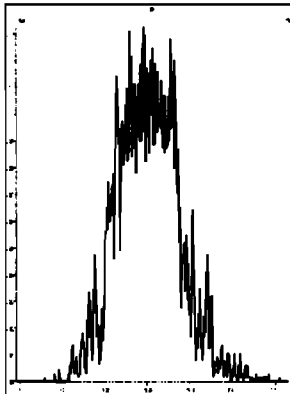
M 292.9824 R 11790



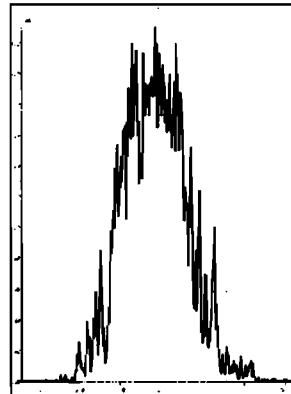
M 304.9824 R 14207



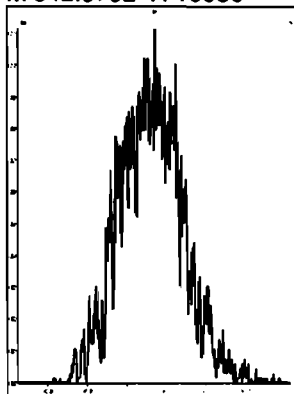
M 318.9792 R 10725



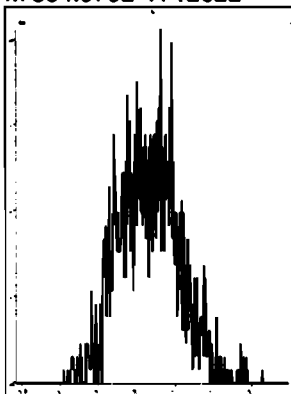
M 330.9792 R 10592



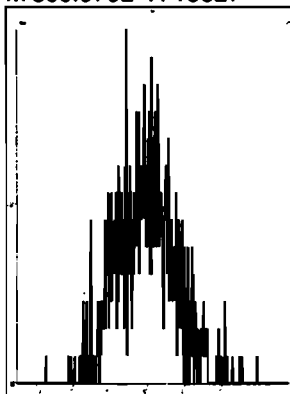
M 342.9792 R 10636



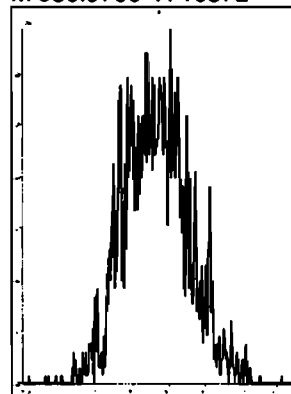
M 354.9792 R 12622



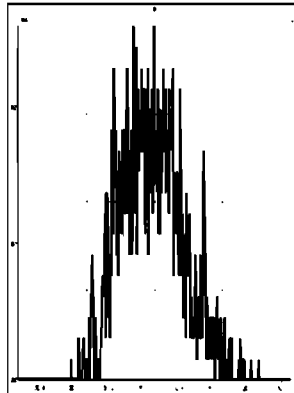
M 366.9792 R 15527



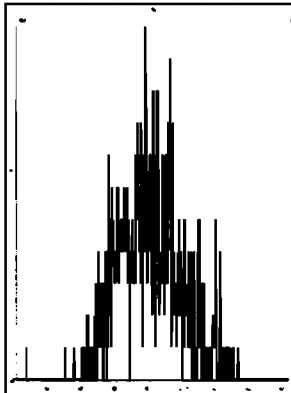
M 380.9760 R 10872



M 392.9760 R 11845



M 404.9760 R 14045



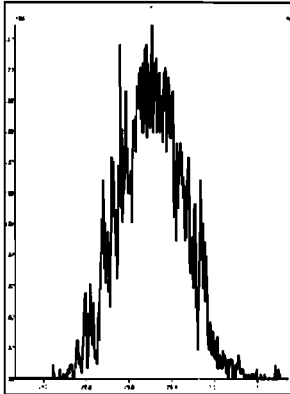
M 416.9760 R 28733



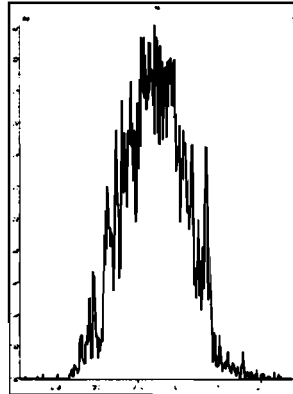
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Friday, June 05, 2020 12:17:56 Pacific Daylight Time

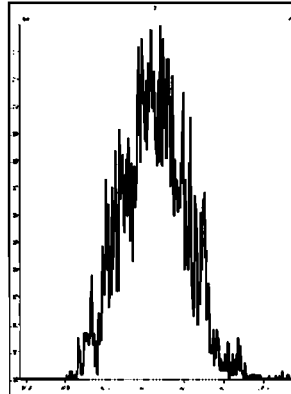
M 318.9792 R 10594



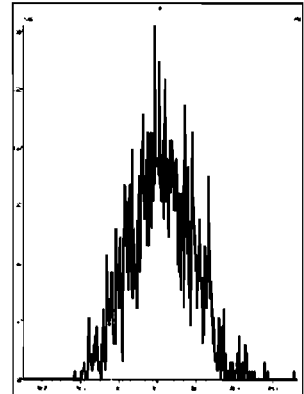
M 330.9792 R 10373



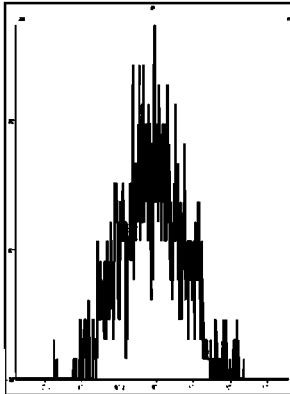
M 342.9792 R 11158



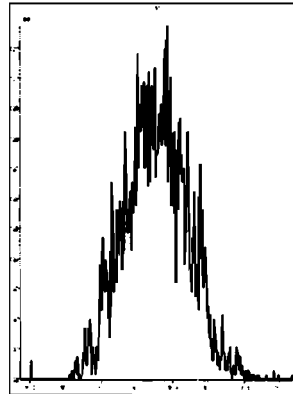
M 354.9792 R 11849



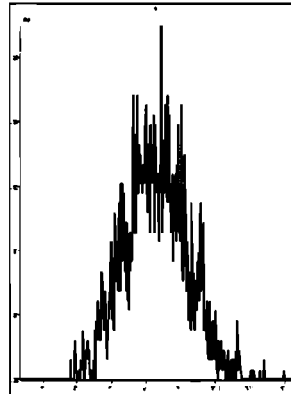
M 366.9792 R 11160



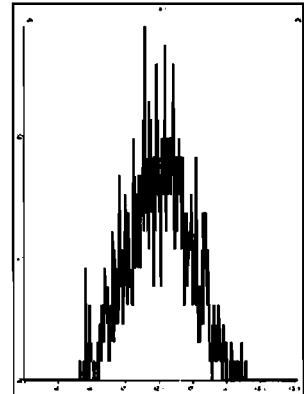
M 380.9760 R 10079



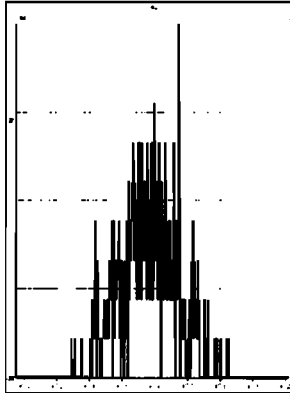
M 392.9760 R 11162



M 404.9760 R 11062



M 416.9760 R 13888

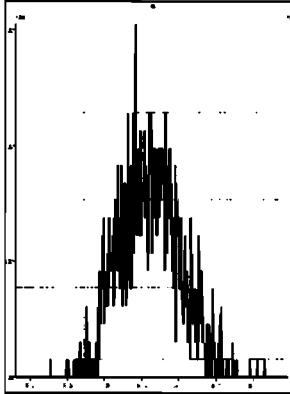




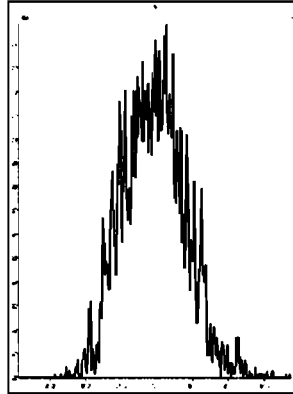
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Printed: Friday, June 05, 2020 12:18:44 Pacific Daylight Time

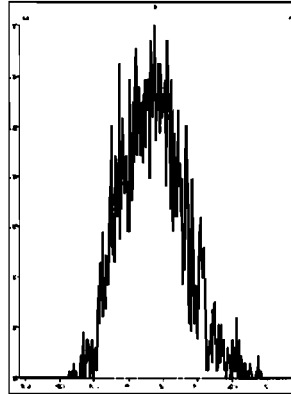
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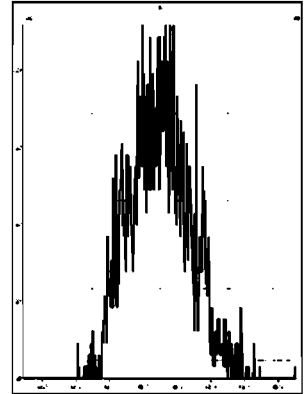
M 380.9760 R 10967



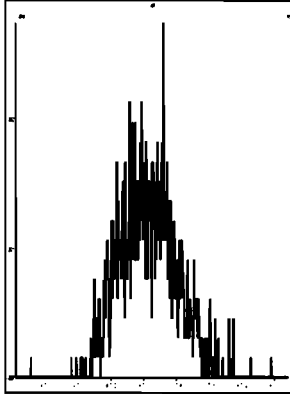
M 392.9760 R 12312



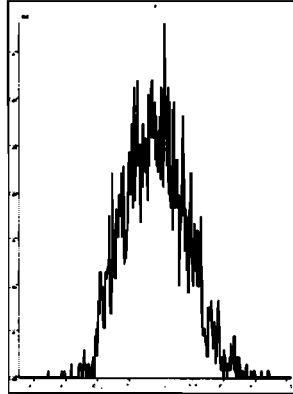
M 404.9760 R 10822



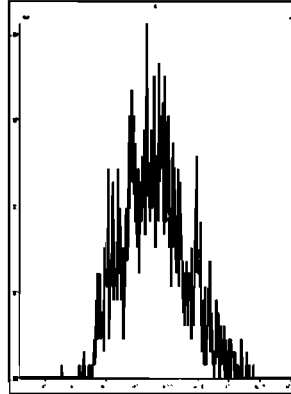
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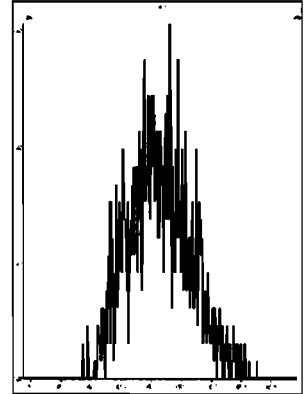
M 430.9728 R 10636



M 442.9728 R 11211



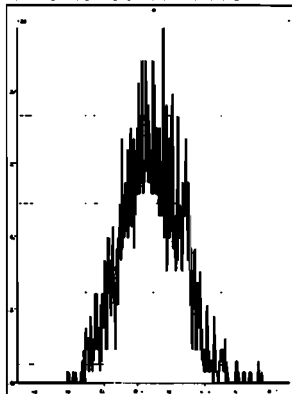
M 454.9728 R 11363



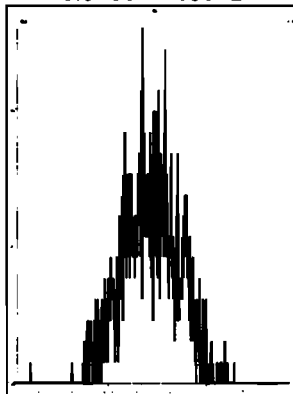
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Printed: Friday, June 05, 2020 12:19:37 Pacific Daylight Time

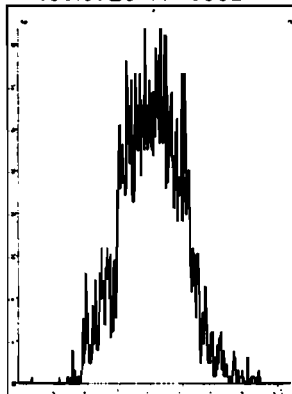
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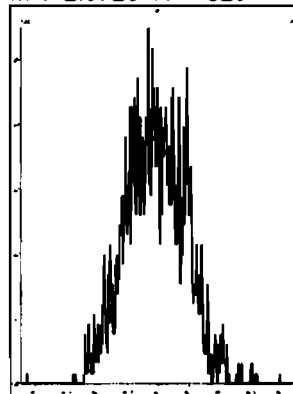
M 416.9760 R 13512



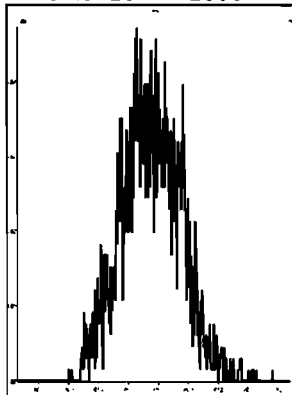
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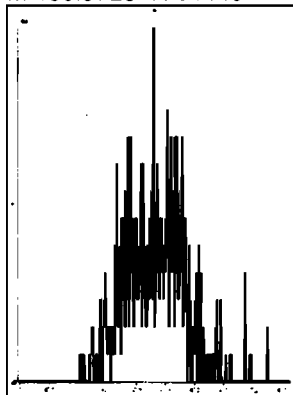
M 442.9728 R 11629



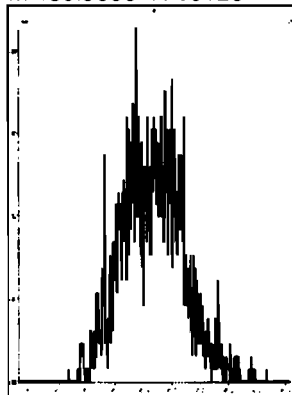
M 454.9728 R 12500



M 466.9728 R 14449



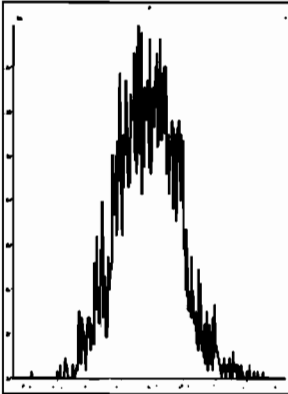
M 480.9696 R 10120



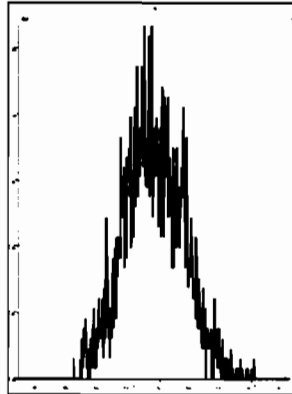
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Printed: Friday, June 05, 2020 12:20:42 Pacific Daylight Time

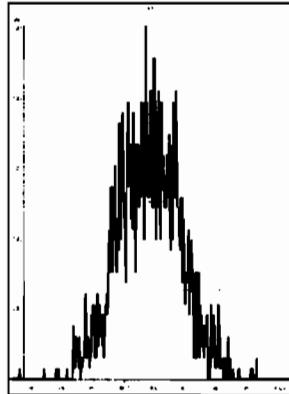
M 430.9728 R 11209



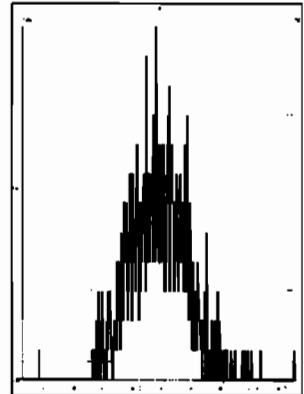
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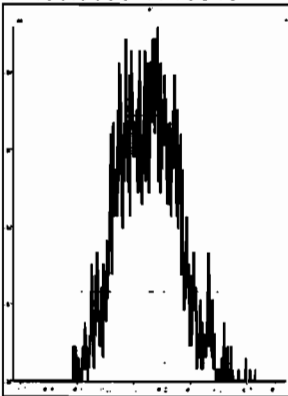
M 454.9728 R 10917



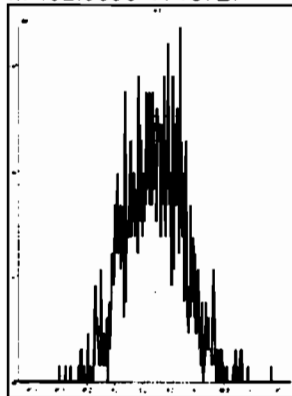
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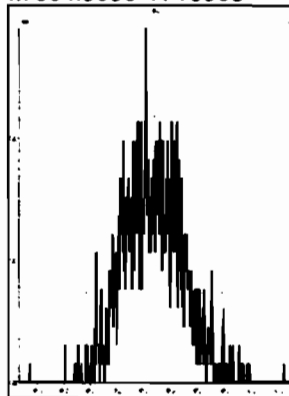
M 480.9696 R 10640



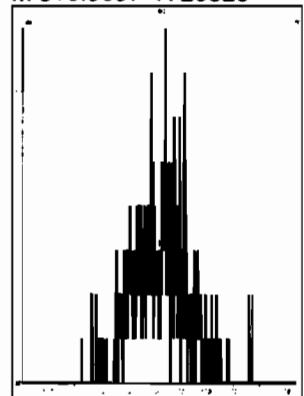
M 492.9696 R 10727



M 504.9696 R 10965

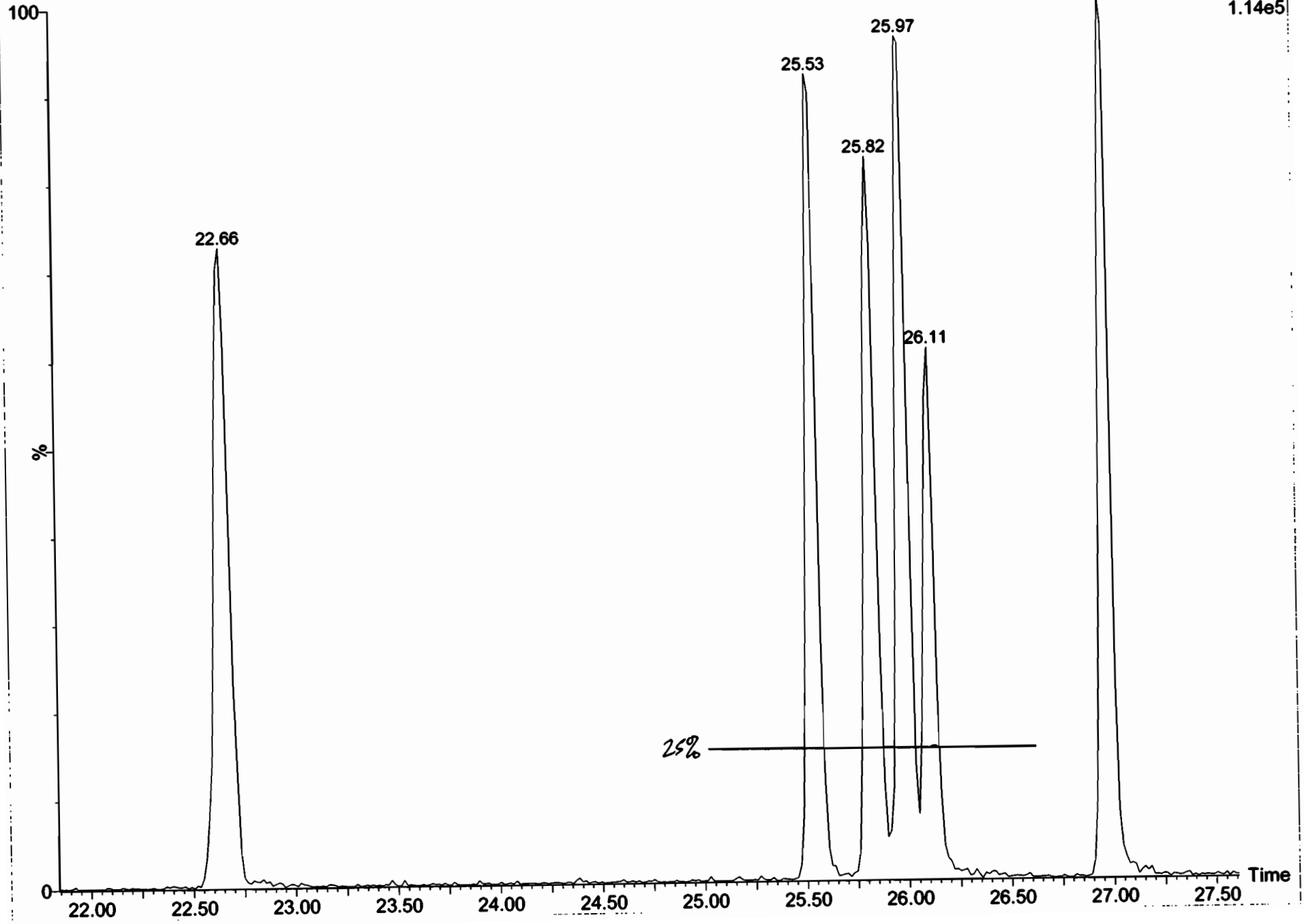


M 516.9697 R 20323



200605D1\_1

1: Voltage SIR 15 Channels EI+  
321.8936  
1.14e5



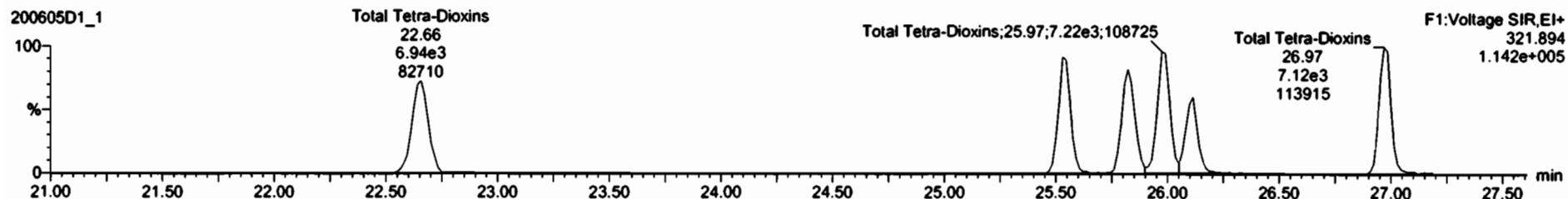
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Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

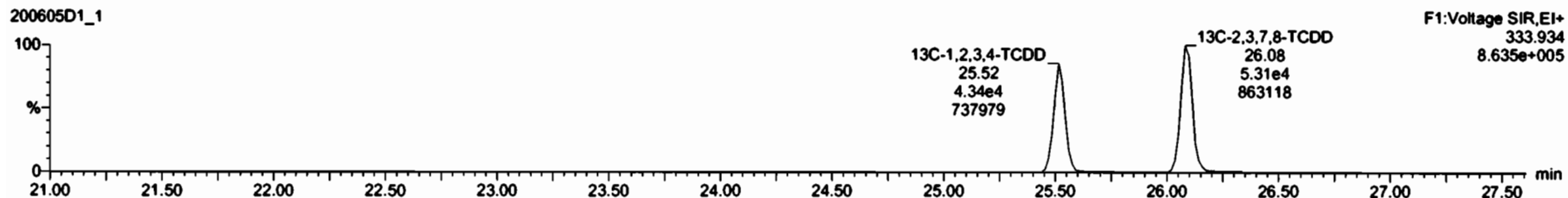
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Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

2,3,7,8-TCDD



13C-2,3,7,8-TCDD



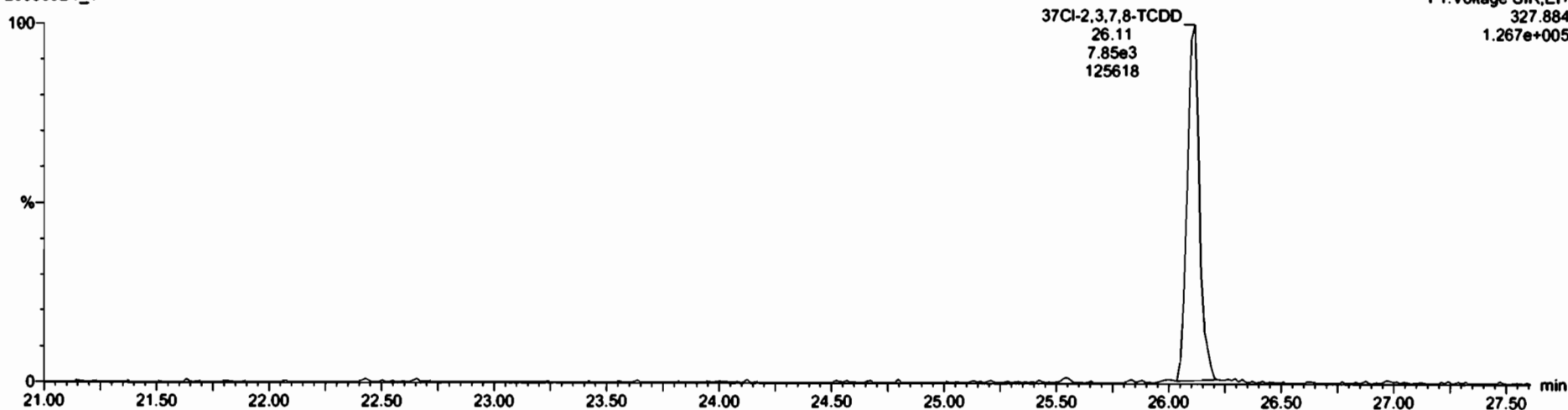
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Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

37Cl-2,3,7,8-TCDD

200605D1\_1

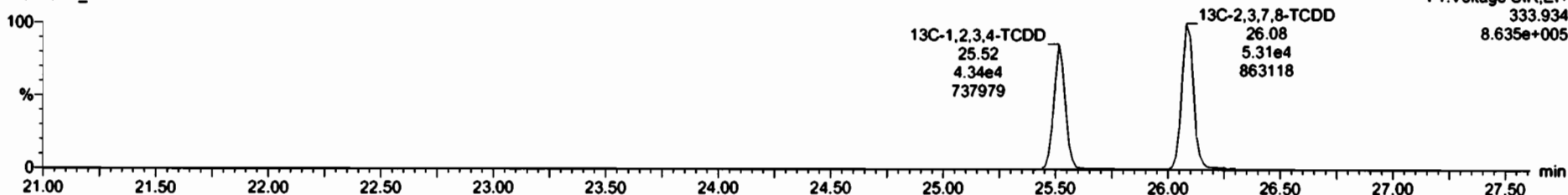


13C-1,2,3,4-TCDD

200605D1\_1



200605D1\_1



Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_1.qld

Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
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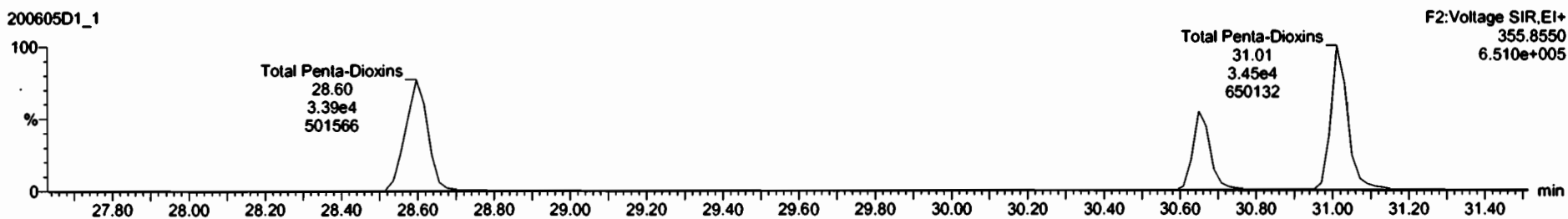
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1,2,3,7,8-PeCDD

200605D1\_1



200605D1\_1

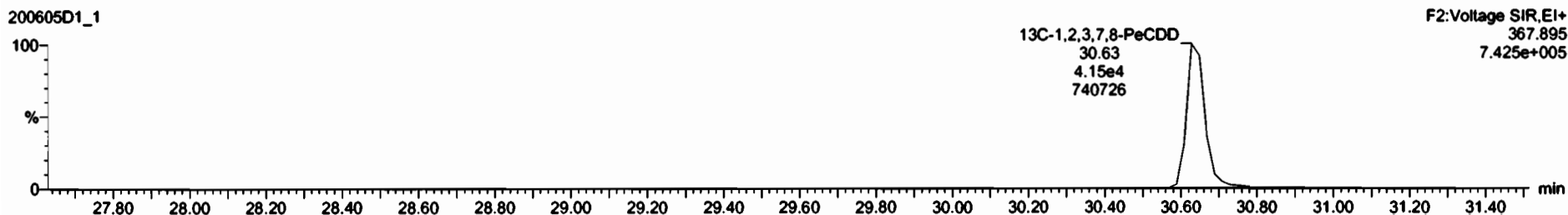


13C-1,2,3,7,8-PeCDD

200605D1\_1



200605D1\_1



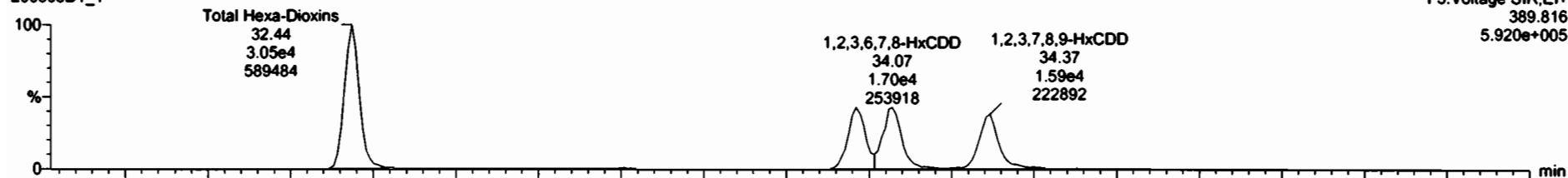
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Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
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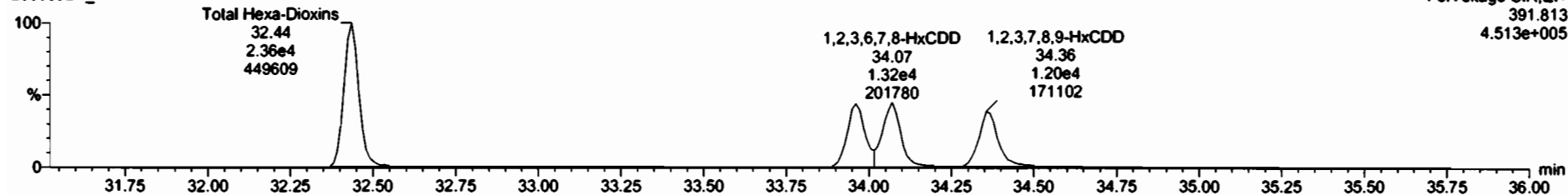
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1,2,3,4,7,8-HxCDD

200605D1\_1

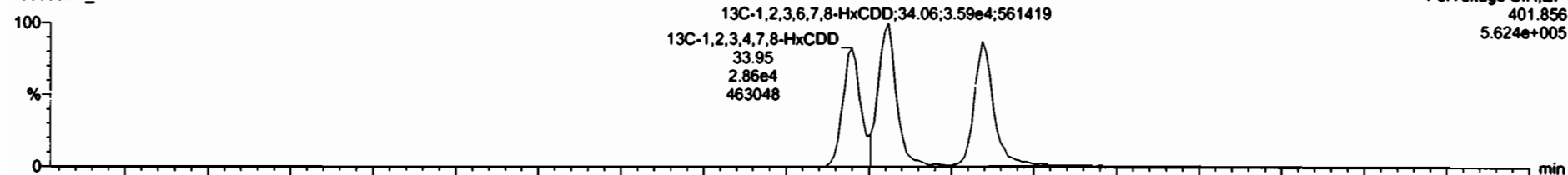


200605D1\_1

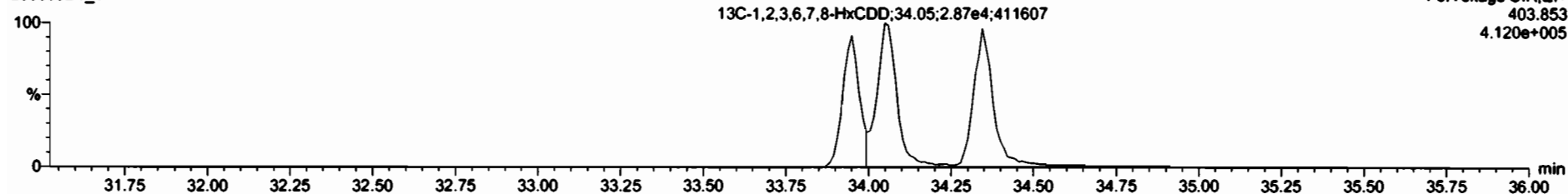


13C-1,2,3,4,7,8-HxCDD

200605D1\_1



200605D1\_1





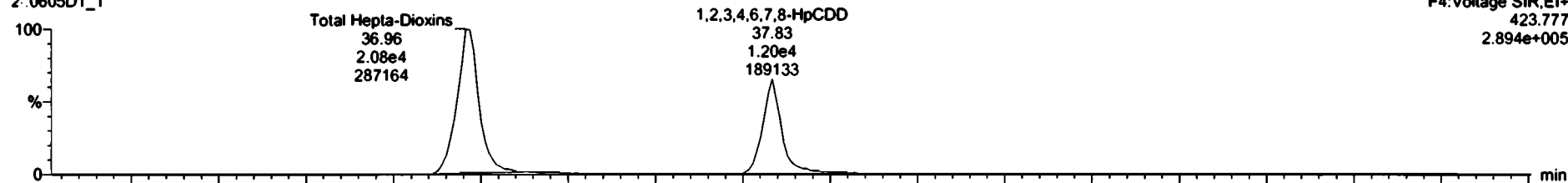
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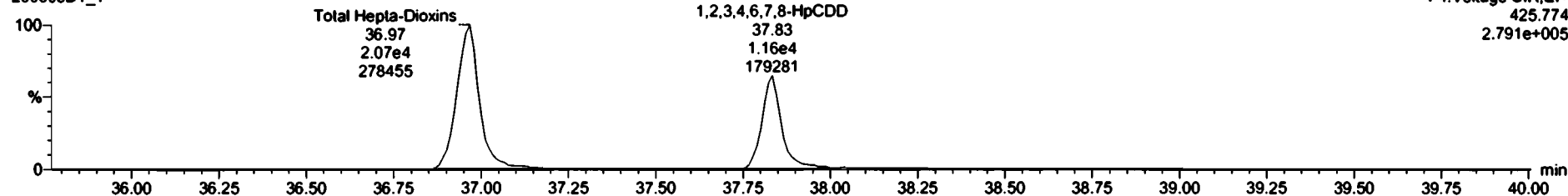
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1,2,3,4,6,7,8-HpCDD

2:0605D1\_1

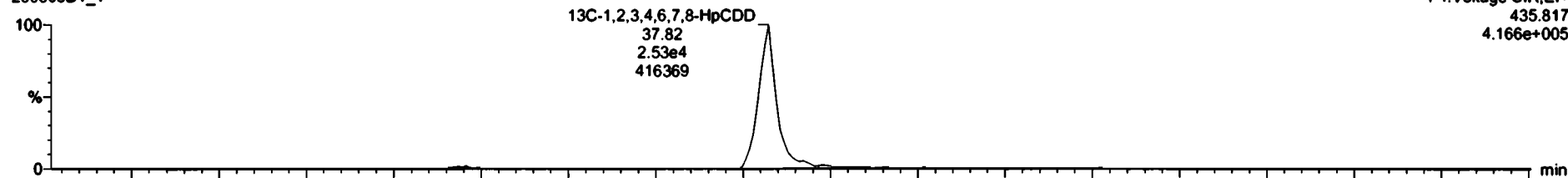


200605D1\_1

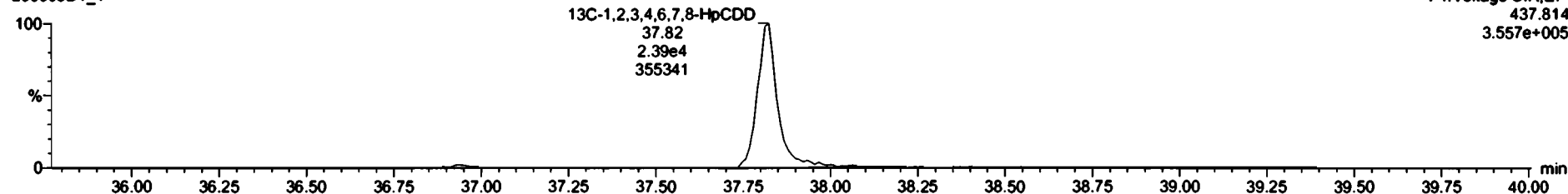


13C-1,2,3,4,6,7,8-HpCDD

200605D1\_1



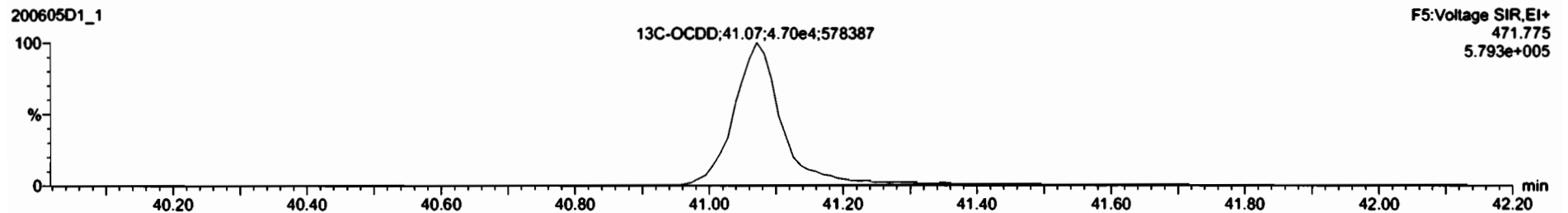
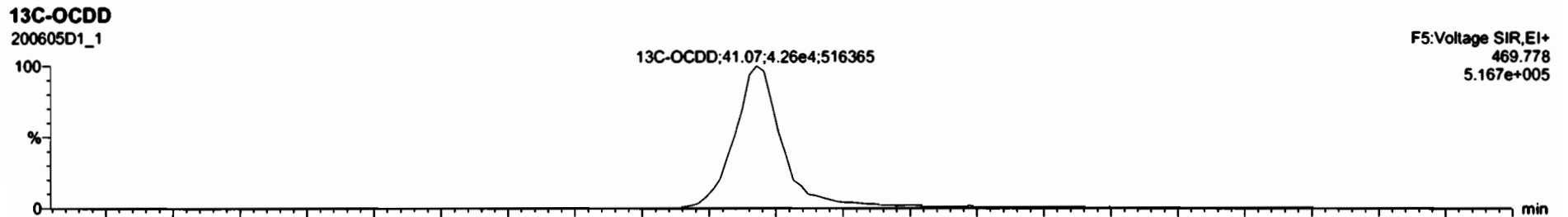
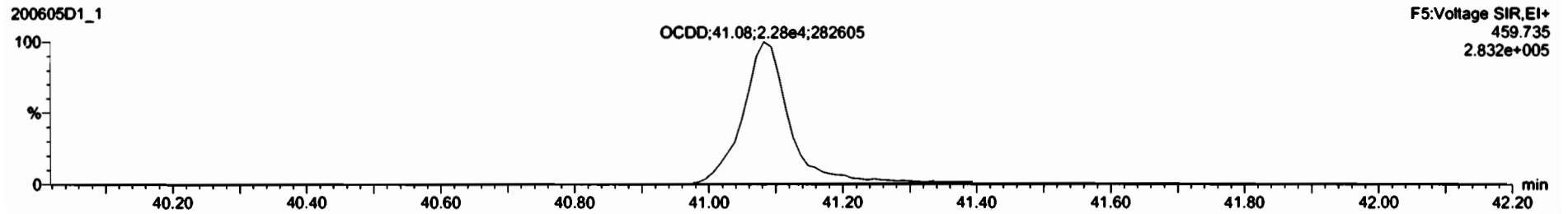
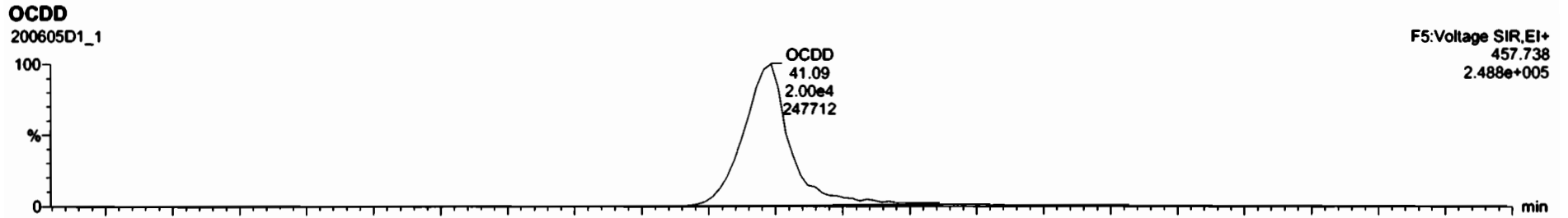
200605D1\_1



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Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

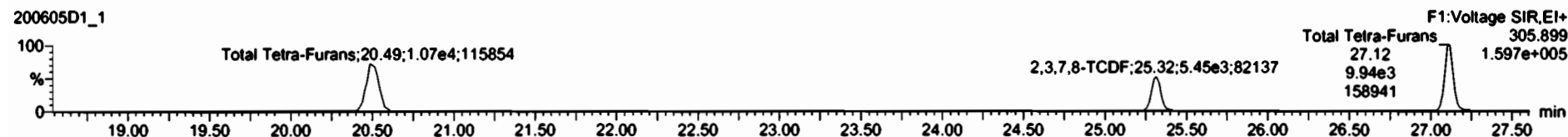


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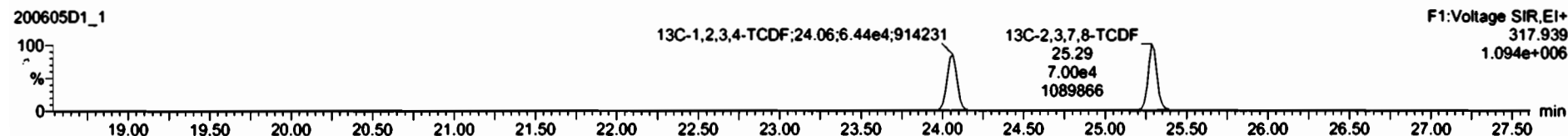
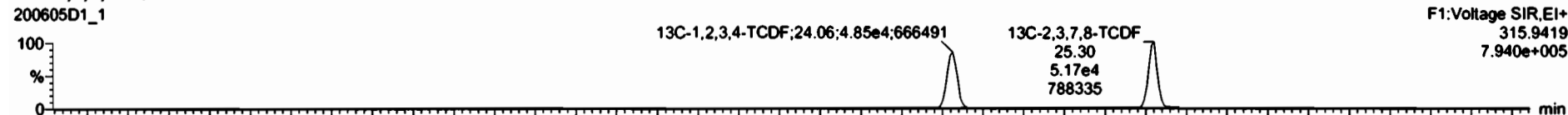
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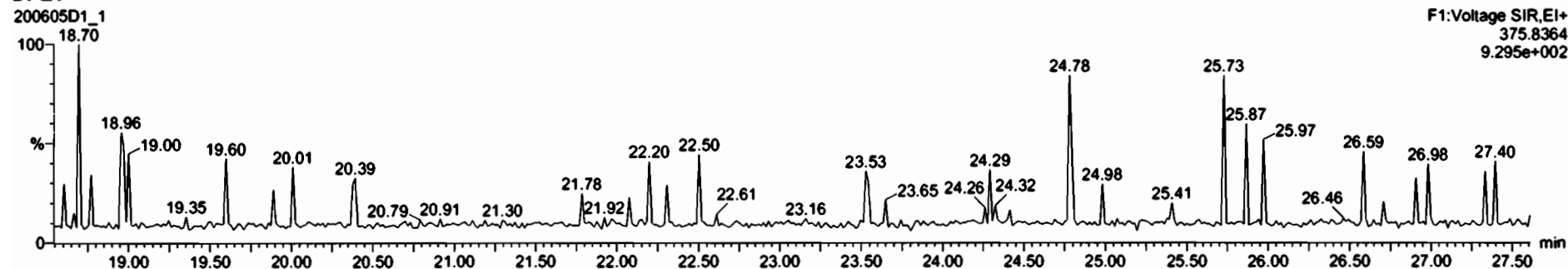
**2,3,7,8-TCDF**



**13C-2,3,7,8-TCDF**



**DPE1**



Dataset: U:\VG7.PRO\Results\200605D1\200605D1\_1.qld

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Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

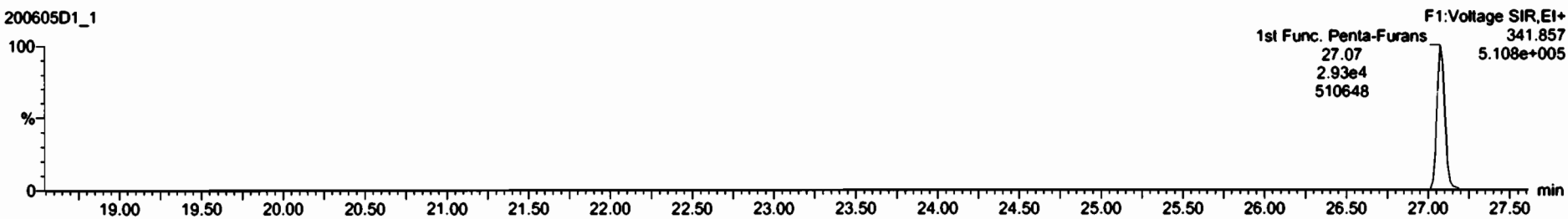
Name: 200605D1\_1, Date: 05-Jun-2020, Time: 12:21:35, ID: ST200605D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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200605D1\_1

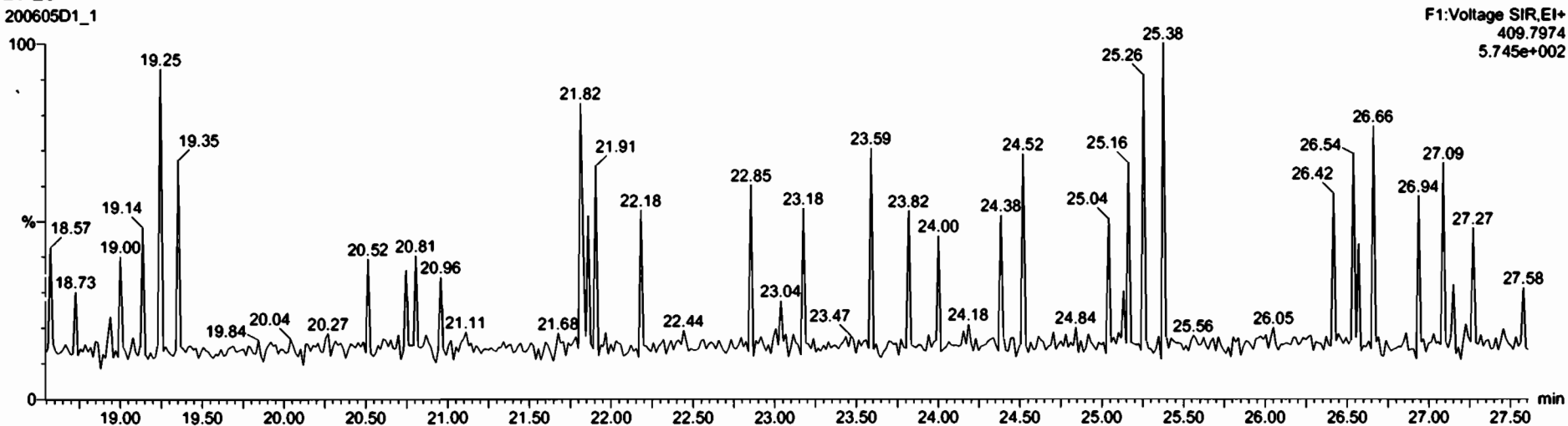


200605D1\_1



DPE6

200605D1\_1



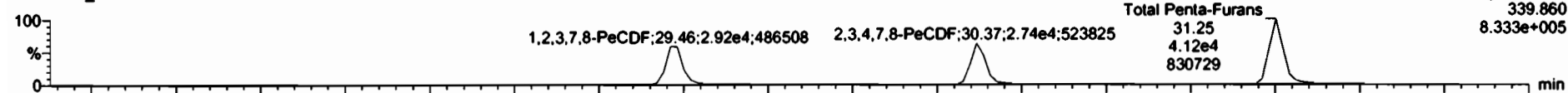
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Last Altered: Friday, June 05, 2020 13:05:30 Pacific Daylight Time  
Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

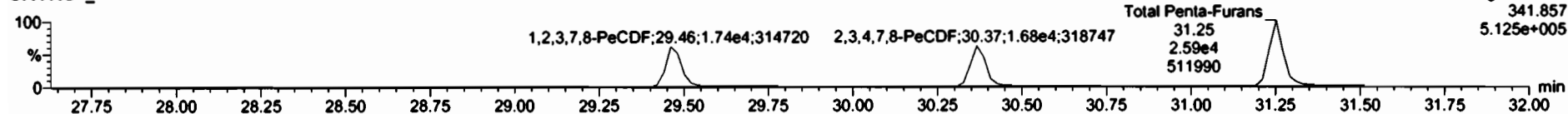
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**1,2,3,7,8-PeCDF**

200605D1\_1

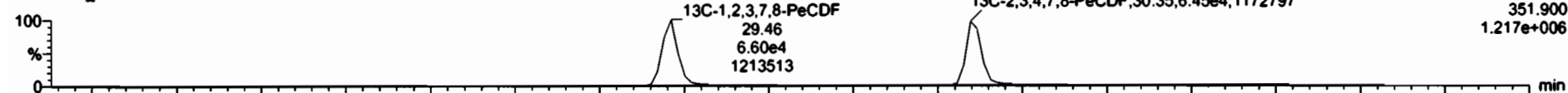


200605D1\_1

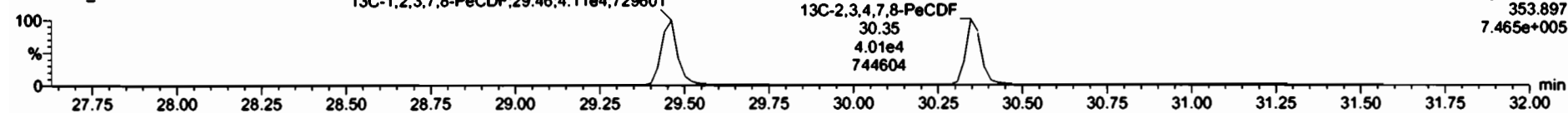


**13C-1,2,3,7,8-PeCDF**

200605D1\_1

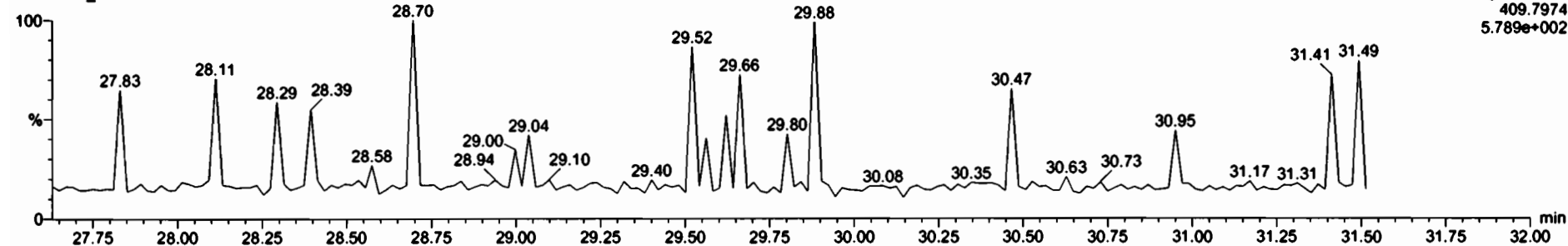


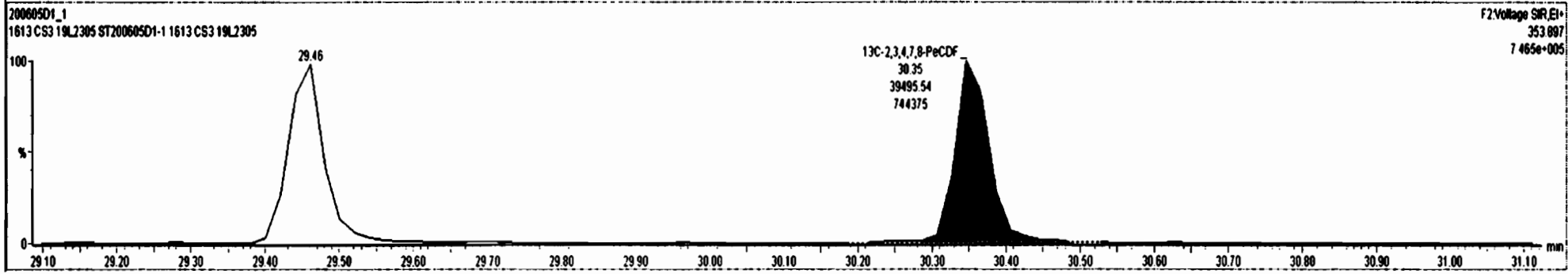
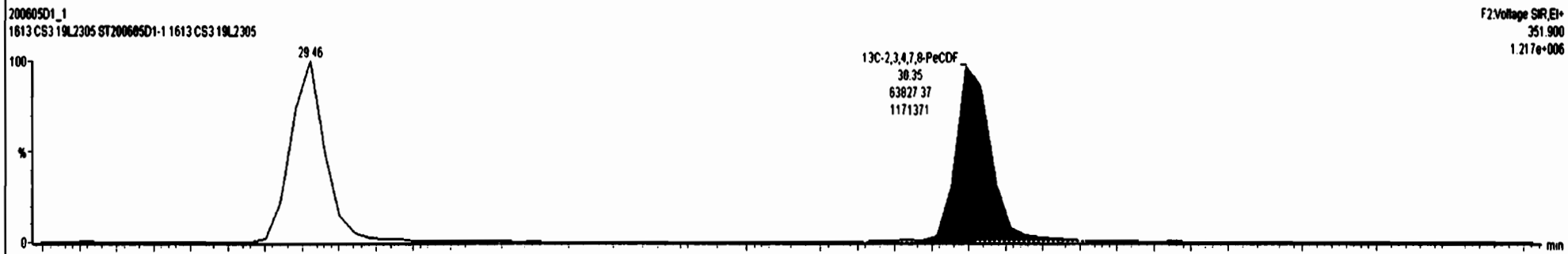
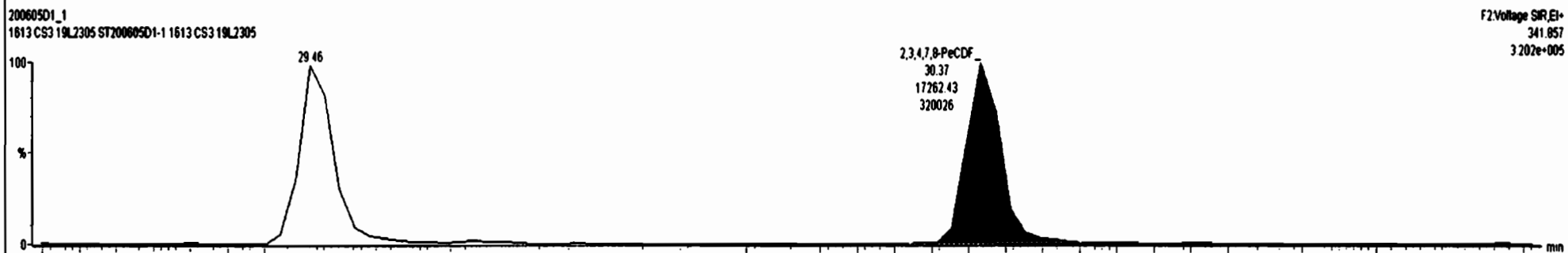
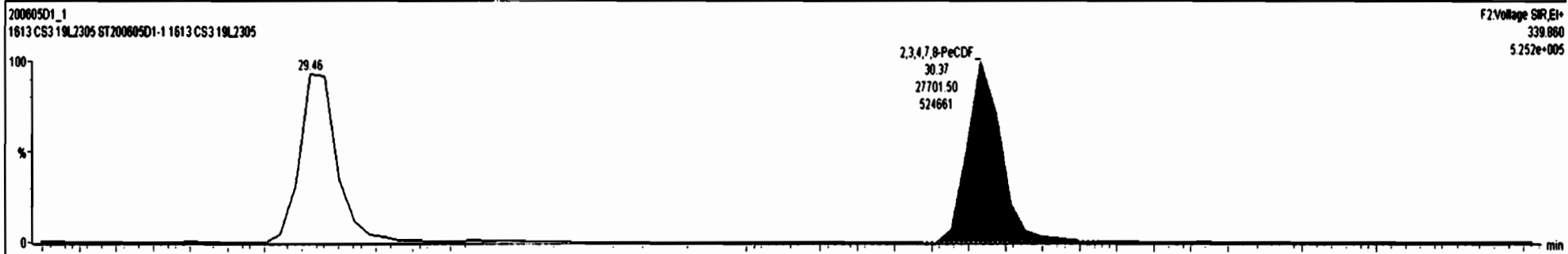
200605D1\_1



**DPE2**

200605D1\_1



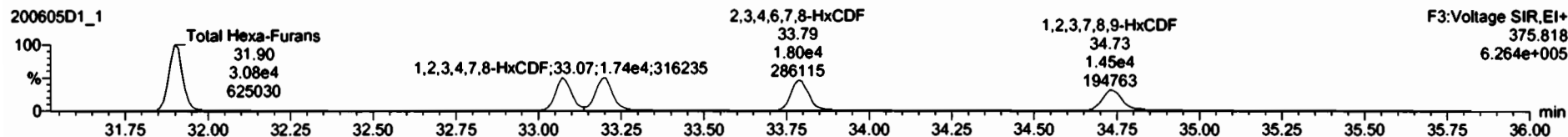
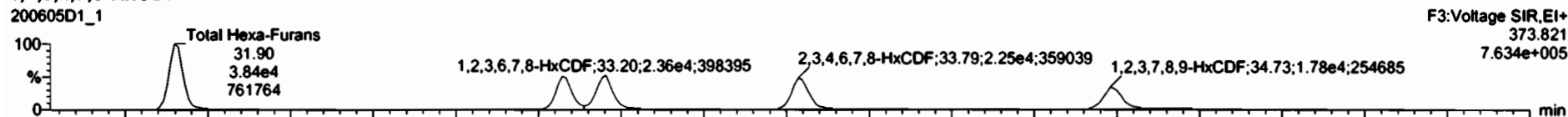


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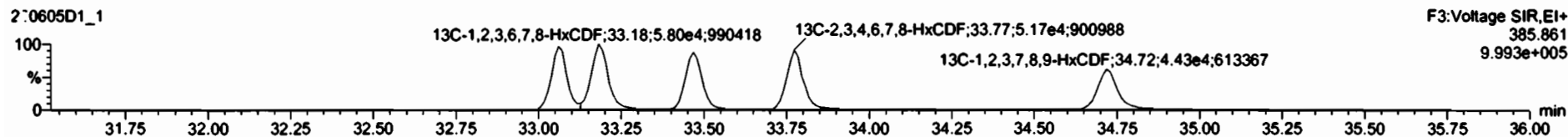
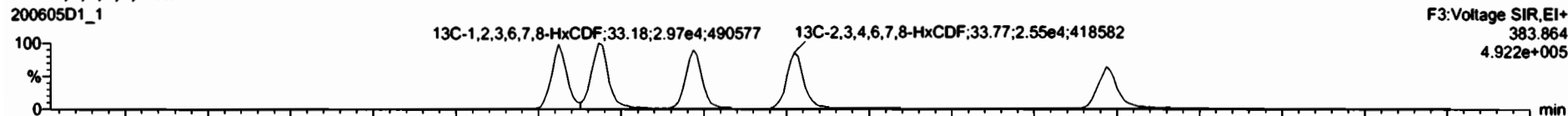
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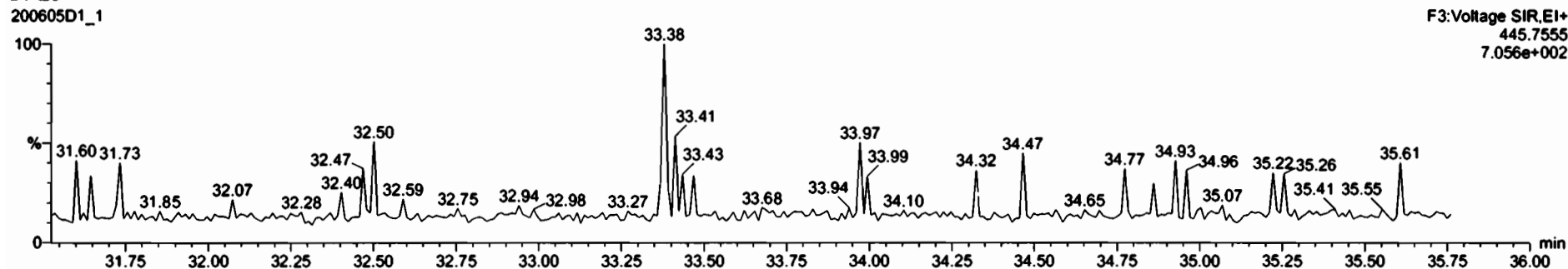
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



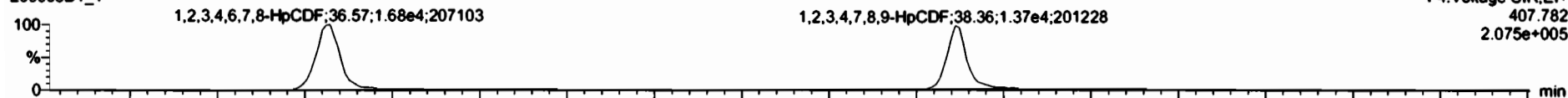
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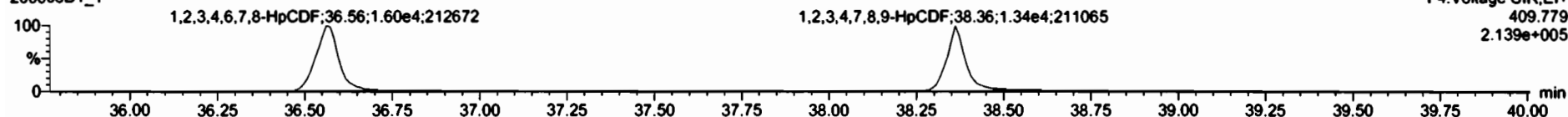
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1,2,3,4,6,7,8-HpCDF

200605D1\_1

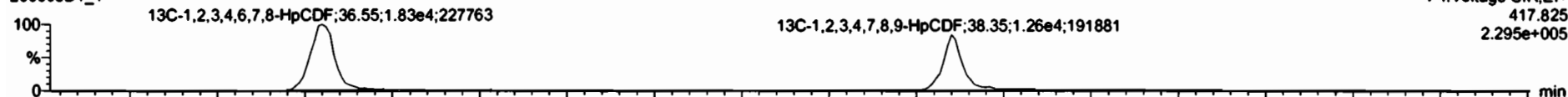


200605D1\_1

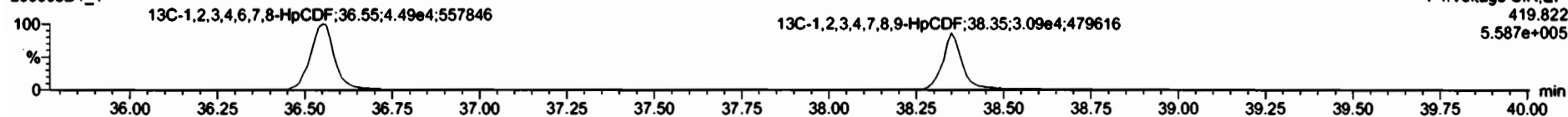


13C-1,2,3,4,6,7,8-HpCDF

200605D1\_1

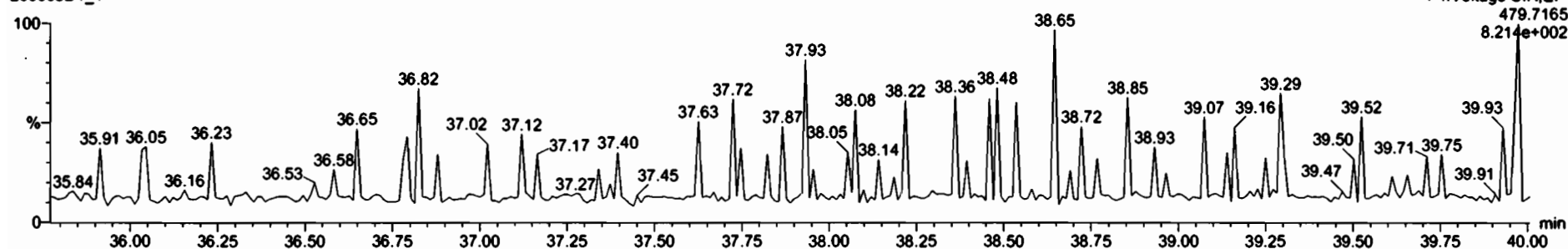


200605D1\_1



DPE4

200605D1\_1

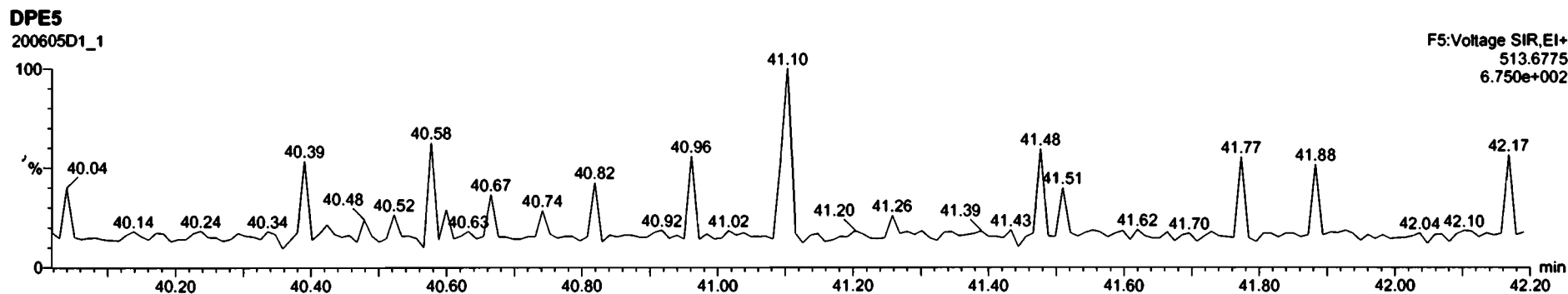
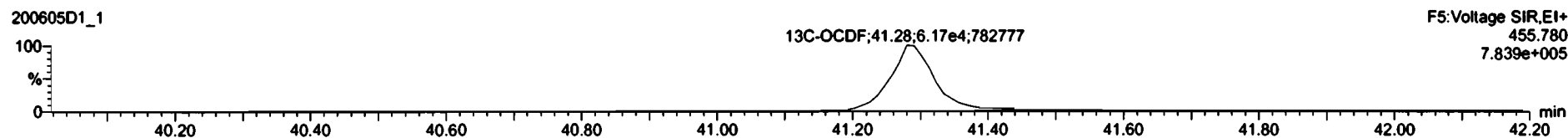
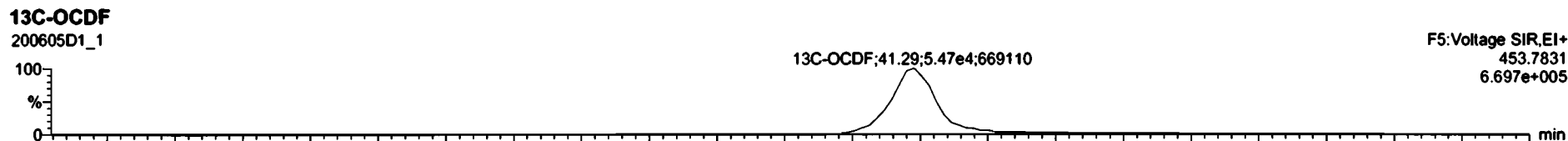
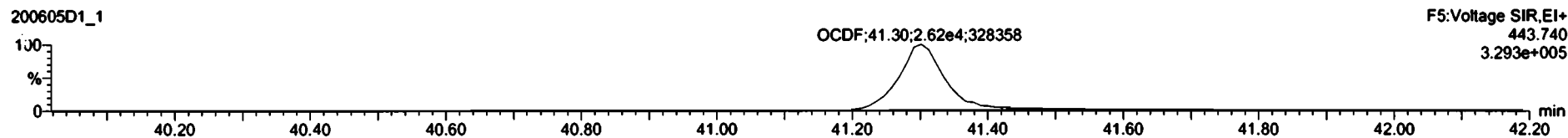
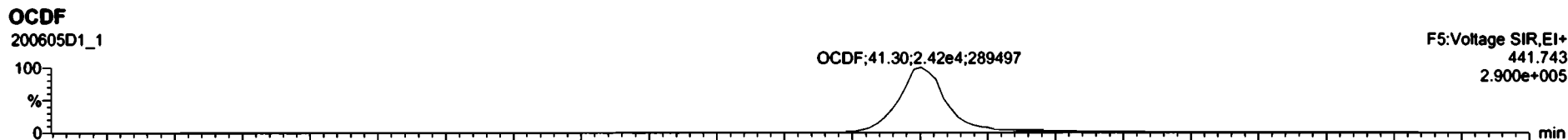




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Printed: Friday, June 05, 2020 13:08:37 Pacific Daylight Time

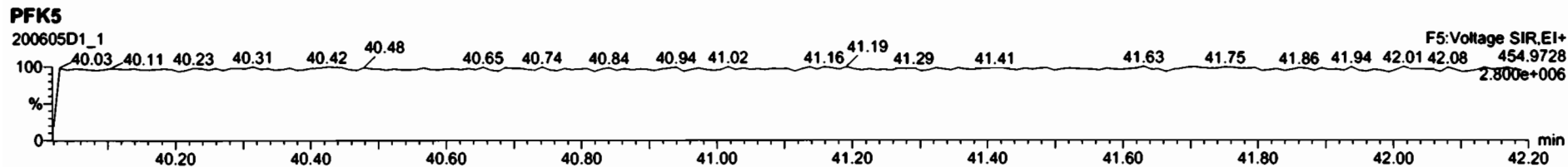
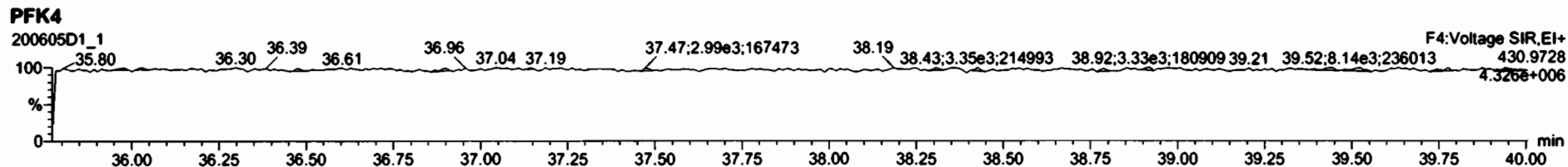
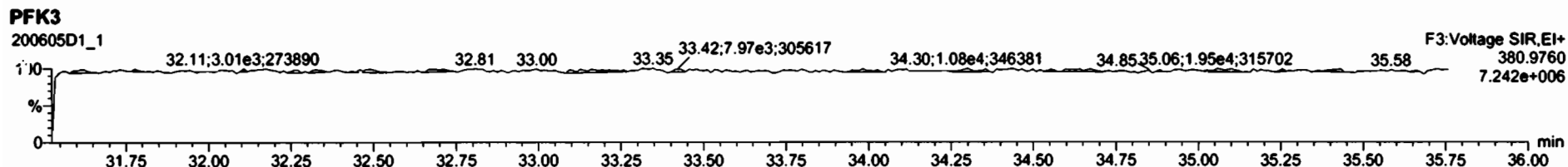
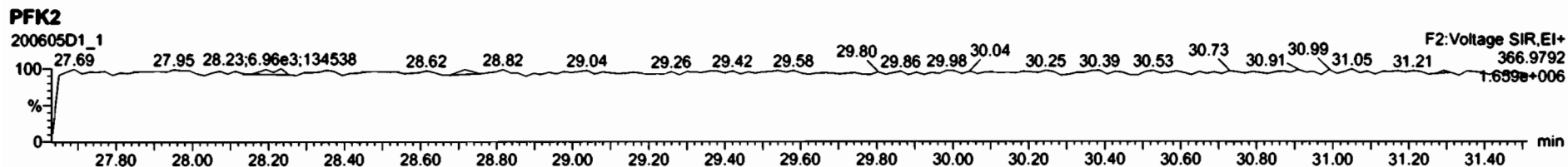
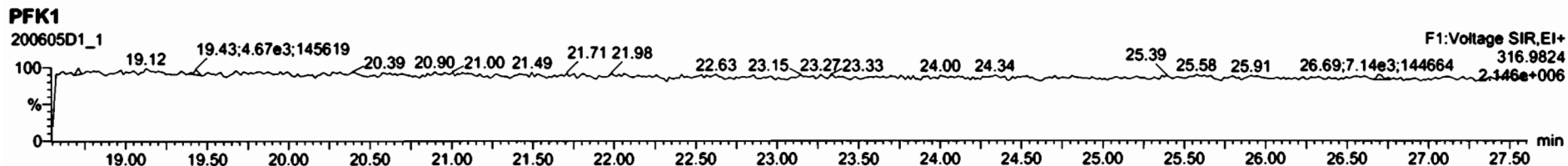
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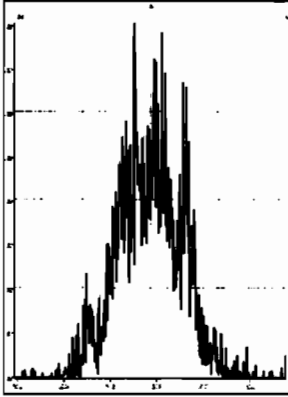
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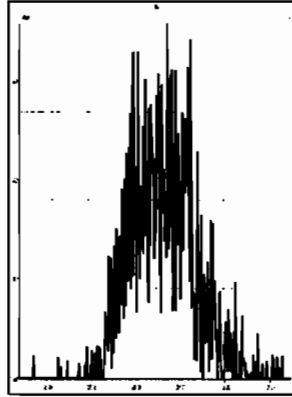
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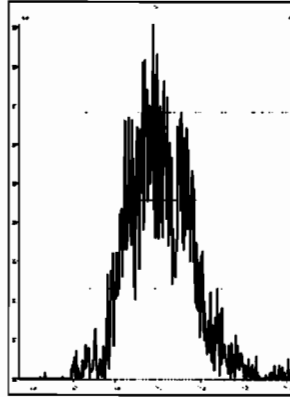
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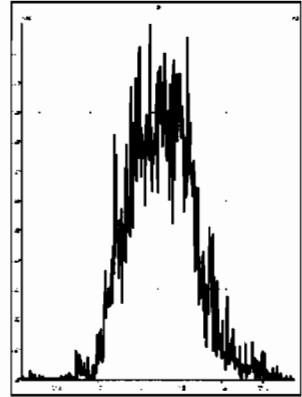
M 304.9824 R 13515



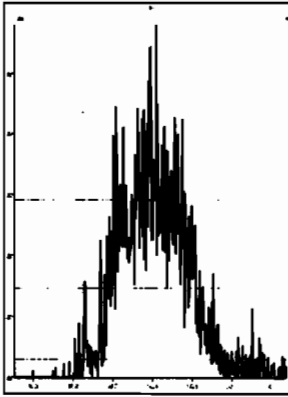
M 318.9792 R 12297



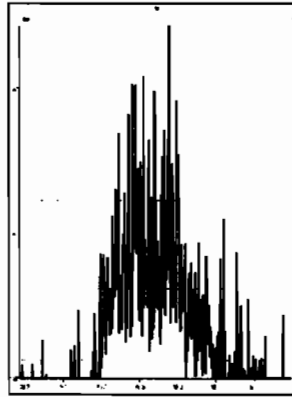
M 330.9792 R 10707



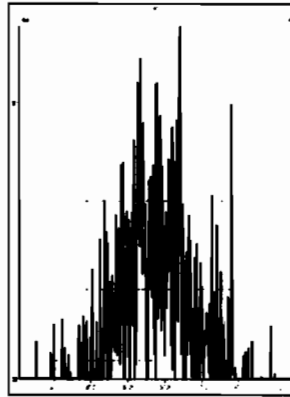
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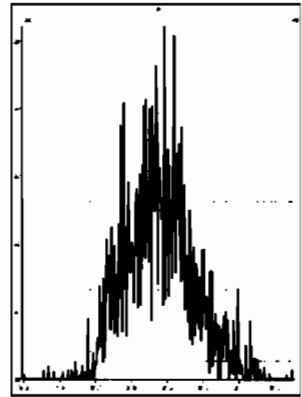
M 354.9792 R 15823



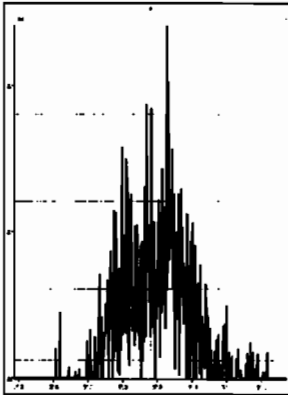
M 366.9792 R 59261



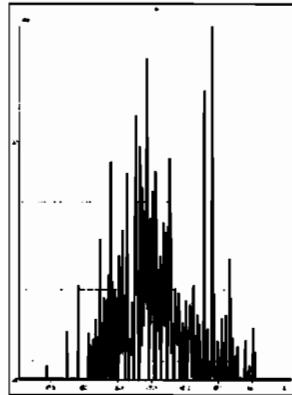
M 380.9760 R 11636



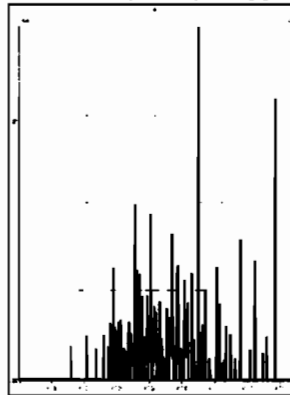
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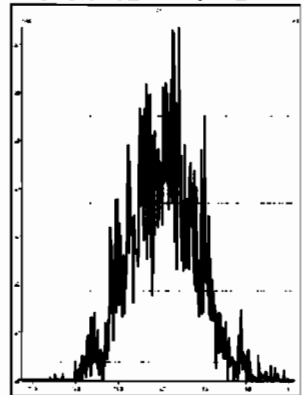
M 404.9760 R 167982



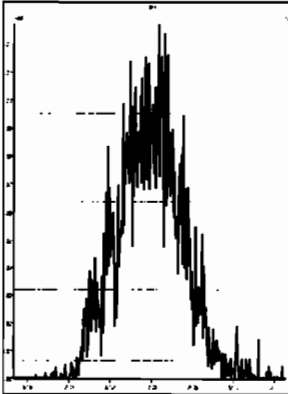
M 416.9760 R 1041683



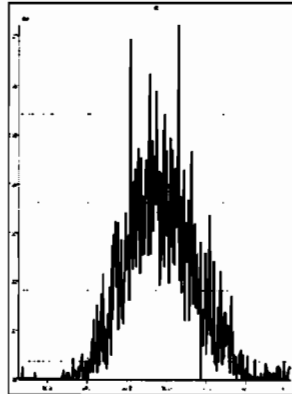
M 318.9792 R 10712



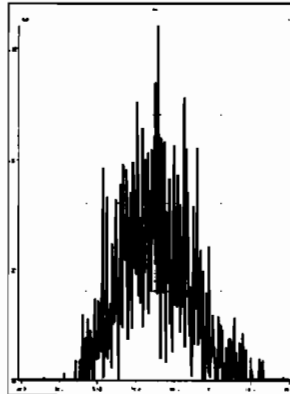
M 330.9792 R 10650



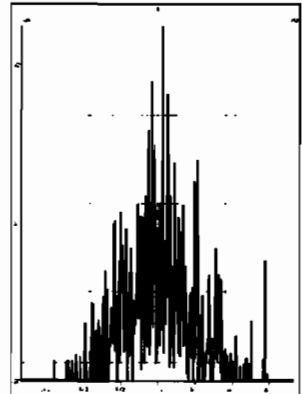
M 342.9792 R 12060



M 354.9792 R 18657

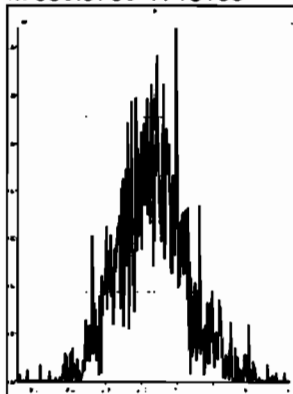


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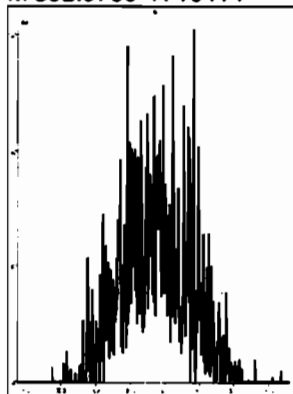


Printed: Friday, June 05, 2020 23:47:01 Pacific Daylight Time

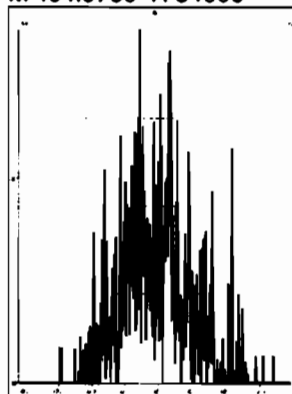
M 380.9760 R 13150



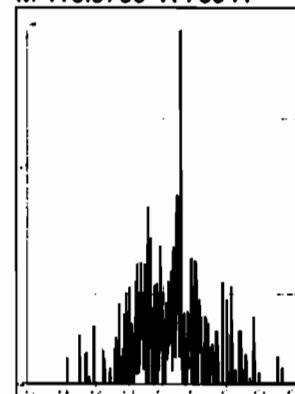
M 392.9760 R 16414



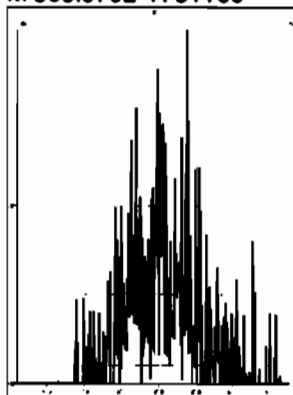
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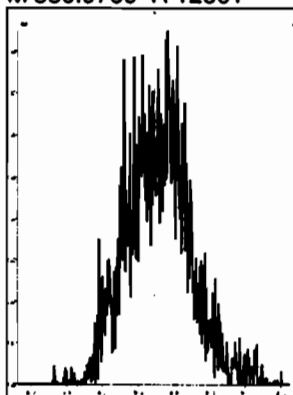
M 416.9760 R 76941



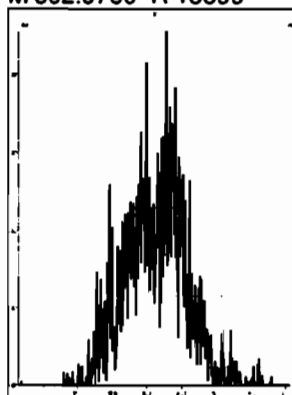
M 366.9792 R 31166



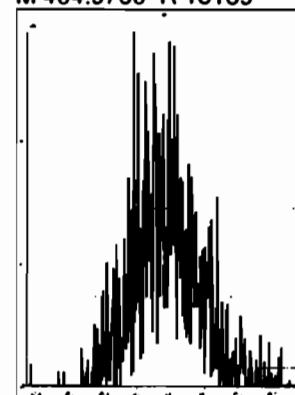
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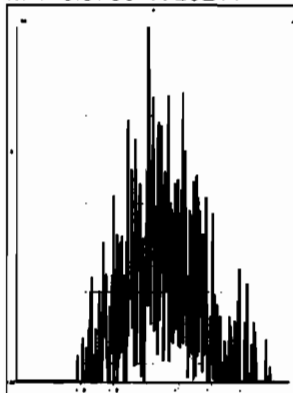
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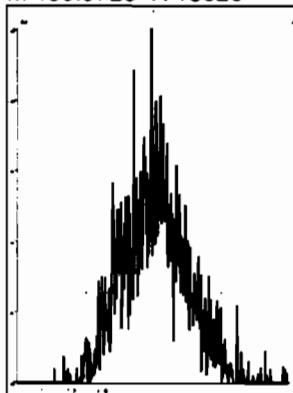
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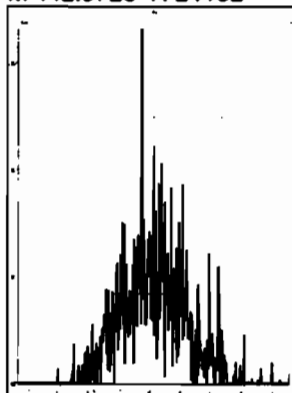
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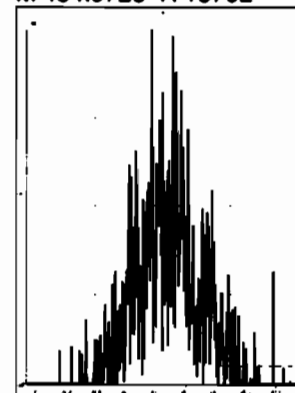
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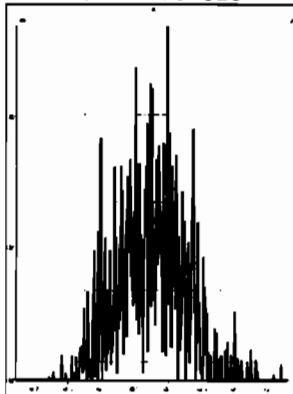
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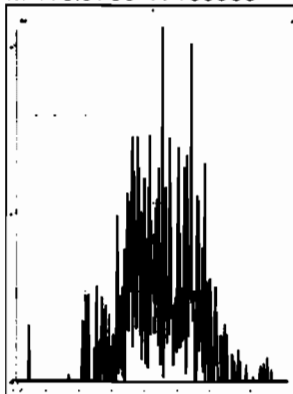
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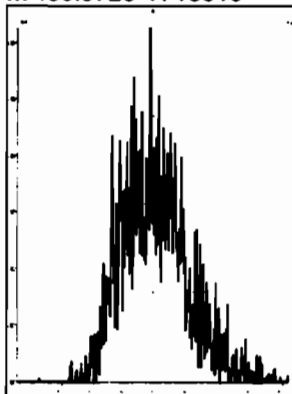
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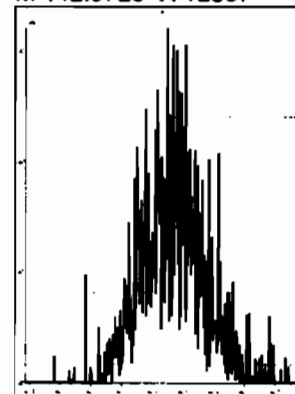
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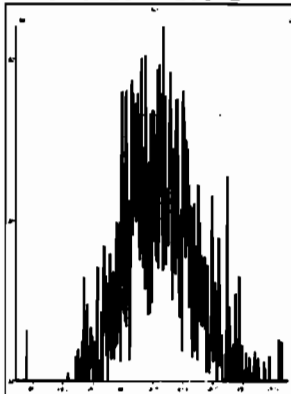


M 442.9728 R 12857

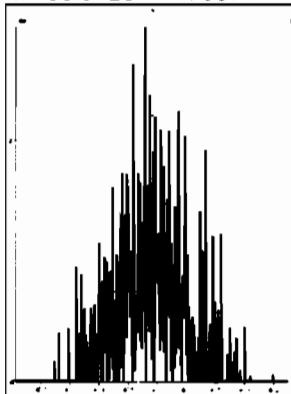


Printed: Friday, June 05, 2020 23:47:01 Pacific Daylight Time

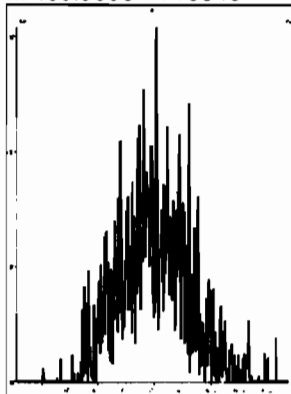
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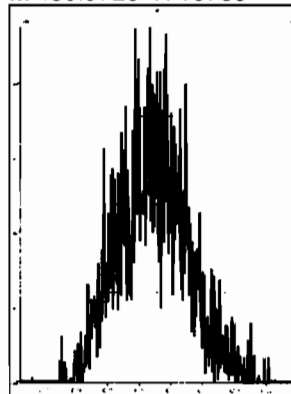
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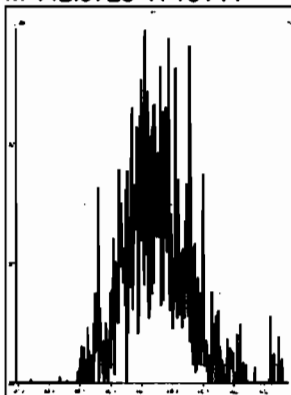
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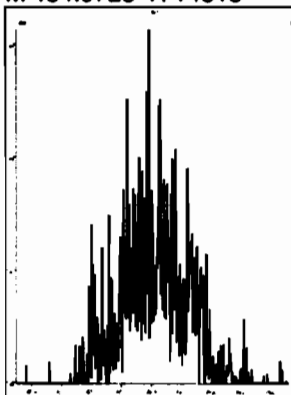
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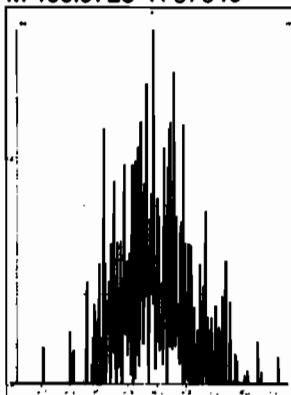
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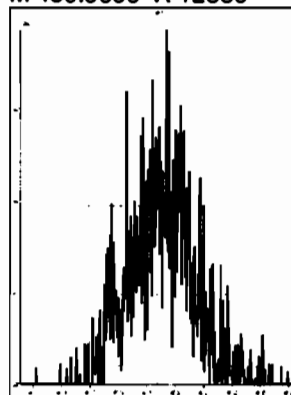
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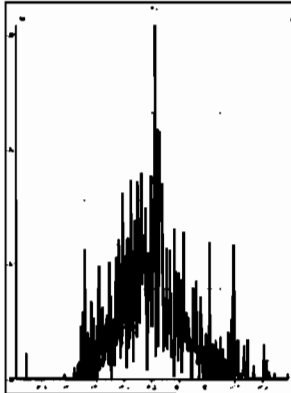
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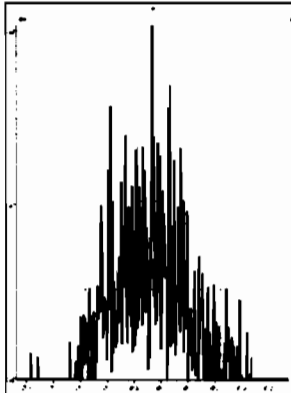
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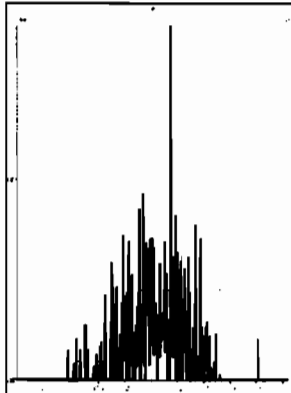
M 492.9696 R 25942



M 504.9696 R 21917



M 516.9697 R 265153



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST200608D1-1

**Reviewed By:** CT 06/09/2020

*Initials & Date*

**End Calibration ID:** NA

|   | <u>Beg.</u>                           | <u>End</u>                          |  | <u>Beg.</u>                         | <u>End</u>                          |
|---|---------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>Ion abundance within QC limits?</b>    | <input checked="" type="checkbox"/>   | <input type="checkbox"/> NA         | <b>Mass resolution <math>\geq</math></b>   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>Concentrations within criteria?</b>    | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K<br>1614    1699    429    1613/1668/8280 |                                     |                                     |
| <b>TCDD/TCDF Valleys &lt;25%</b>          | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <b>Intergrated peaks display correctly?</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> NA         |
| <b>First and last eluters present?</b>    | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <b>GC Break &lt;20%</b>  | <input type="checkbox"/> NA         |                                     |
| <b>Retention Times within criteria?</b>   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <b><u>8280 CS1 End Standard:</u></b>   |                                     |                                     |
| <b>Verification Std. named correctly?</b> | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | - Ratios within limits, S/N <2.5:1, CS1 within 12 hours  | <input type="checkbox"/> NA         |                                     |
| <b>(ST-Year-Month-Day-VG ID)</b>          |                                       |                                     |  |                                     |                                     |
| <b>Forms signed and dated?</b>            | <input checked="" type="checkbox"/>   | <input type="checkbox"/>            | <b>Comments:</b>   |                                     |                                     |
| <b>Correct ICAL referenced?</b>           | <u>DB</u>                             | <u>DB</u>                           |  |                                     |                                     |
| <b><u>Run Log:</u></b>                    |                                       |                                     |  |                                     |                                     |
| - Correct instrument listed?              | <input checked="" type="checkbox"/>   | <input checked="" type="checkbox"/> |  |                                     |                                     |
| - Samples within 12 hour clock?           | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N          |  |                                     |                                     |
| - Bottle position verified?               | <u>DB</u>                             |                                     |  |                                     |                                     |

Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_1.qld

Last Altered: Monday, June 08, 2020 13:55:49 Pacific Daylight Time  
Printed: Monday, June 08, 2020 13:56:37 Pacific Daylight Time

*DB 6/8/20 C1 06/09/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 5.28e3 | 0.75 | NO  | 0.987 | 1.000  | 26.036  | 26.02 | 1.001    | 1.001 | 8.9278 | 89.3 <i>78-129</i> | 0.195 | 8.93 |
| 2  | 2 1,2,3,7,8-PeCDD          | 1.95e4 | 0.62 | NO  | 0.982 | 1.000  | 30.610  | 30.59 | 1.001    | 1.000 | 45.694 | 91.4 <i>78-130</i> | 0.295 | 45.7 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 1.78e4 | 1.28 | NO  | 1.17  | 1.000  | 33.905  | 33.91 | 1.000    | 1.000 | 43.646 | 87.3 <i>78-128</i> | 0.330 | 43.6 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 1.80e4 | 1.21 | NO  | 1.04  | 1.000  | 33.994  | 34.02 | 1.000    | 1.001 | 41.301 | 82.6 <i>78-129</i> | 0.353 | 41.3 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 1.79e4 | 1.19 | NO  | 1.00  | 1.000  | 34.324  | 34.30 | 1.001    | 1.000 | 44.310 | 88.6 <i>82-122</i> | 0.374 | 44.3 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 1.59e4 | 1.03 | NO  | 0.992 | 1.000  | 37.780  | 37.79 | 1.000    | 1.001 | 48.912 | 97.8 <i>86-116</i> | 0.309 | 48.9 |
| 7  | 7 OCDD                     | 2.51e4 | 0.89 | NO  | 1.04  | 1.000  | 41.016  | 41.04 | 1.000    | 1.001 | 87.814 | 87.8 <i>79-126</i> | 0.337 | 87.8 |
| 8  | 8 2,3,7,8-TCDF             | 6.69e3 | 0.79 | NO  | 0.882 | 1.000  | 25.220  | 25.22 | 1.001    | 1.001 | 9.5361 | 95.4 <i>84-120</i> | 0.194 | 9.54 |
| 9  | 9 1,2,3,7,8-PeCDF          | 2.87e4 | 1.64 | NO  | 1.05  | 1.000  | 29.401  | 29.40 | 1.001    | 1.001 | 41.158 | 82.3 <i>82-170</i> | 0.214 | 41.2 |
| 10 | 10 2,3,4,7,8-PeCDF         | 2.87e4 | 1.53 | NO  | 1.06  | 1.000  | 30.317  | 30.31 | 1.001    | 1.001 | 41.110 | 82.2 <i>82-170</i> | 0.207 | 41.1 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 2.53e4 | 1.27 | NO  | 1.08  | 1.000  | 33.006  | 33.02 | 1.000    | 1.000 | 46.525 | 93.1 <i>90-112</i> | 0.283 | 46.5 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 2.67e4 | 1.26 | NO  | 1.04  | 1.000  | 33.137  | 33.15 | 1.000    | 1.001 | 47.808 | 95.6 <i>85-114</i> | 0.296 | 47.8 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 2.67e4 | 1.26 | NO  | 1.11  | 1.000  | 33.753  | 33.74 | 1.001    | 1.001 | 48.340 | 96.7 <i>88-114</i> | 0.289 | 48.3 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 2.17e4 | 1.27 | NO  | 1.06  | 1.000  | 34.652  | 34.67 | 1.000    | 1.001 | 47.970 | 95.9 <i>90-112</i> | 0.388 | 48.0 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 2.27e4 | 1.03 | NO  | 1.13  | 1.000  | 36.521  | 36.50 | 1.001    | 1.000 | 46.041 | 92.1 <i>90-110</i> | 0.326 | 46.0 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 1.84e4 | 1.01 | NO  | 1.33  | 1.000  | 38.306  | 38.32 | 1.000    | 1.000 | 45.970 | 91.9 <i>86-116</i> | 0.321 | 46.0 |
| 17 | 17 OCDF                    | 3.01e4 | 0.91 | NO  | 0.933 | 1.000  | 41.247  | 41.25 | 1.000    | 1.000 | 97.643 | 97.6 <i>63-159</i> | 0.282 | 97.6 |
| 18 | 18 13C-2,3,7,8-TCDD        | 5.99e4 | 0.78 | NO  | 1.21  | 1.000  | 26.100  | 26.00 | 1.026    | 1.022 | 105.16 | 105 <i>82-121</i>  | 0.474 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 4.34e4 | 0.61 | NO  | 0.996 | 1.000  | 30.578  | 30.59 | 1.202    | 1.202 | 92.397 | 92.4 <i>62-160</i> | 0.414 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 3.47e4 | 1.25 | NO  | 0.679 | 1.000  | 33.880  | 33.90 | 1.014    | 1.014 | 111.60 | 112 <i>85-117</i>  | 0.616 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 4.20e4 | 1.25 | NO  | 0.850 | 1.000  | 33.990  | 33.99 | 1.017    | 1.017 | 107.82 | 108 <i>85-118</i>  | 0.492 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 4.03e4 | 1.26 | NO  | 0.798 | 1.000  | 34.261  | 34.29 | 1.025    | 1.026 | 110.05 | 110 <i>85-118</i>  | 0.524 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 3.28e4 | 1.02 | NO  | 0.697 | 1.000  | 37.723  | 37.77 | 1.129    | 1.130 | 102.82 | 103 <i>72-138</i>  | 0.552 |      |
| 24 | 24 13C-OCDD                | 5.52e4 | 0.89 | NO  | 0.579 | 1.000  | 40.743  | 41.02 | 1.219    | 1.228 | 208.12 | 104 <i>48-207</i>  | 0.455 |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 7.96e4 | 0.77 | NO  | 1.13  | 1.000  | 25.185  | 25.19 | 0.990    | 0.990 | 103.46 | 103 <i>71-140</i>  | 0.451 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 6.67e4 | 1.59 | NO  | 0.996 | 1.000  | 29.400  | 29.38 | 1.156    | 1.155 | 98.119 | 98.1 <i>76-130</i> | 0.818 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 6.59e4 | 1.63 | NO  | 0.969 | 1.000  | 30.298  | 30.29 | 1.191    | 1.191 | 99.570 | 99.6 <i>77-130</i> | 0.841 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 5.03e4 | 0.50 | NO  | 1.06  | 1.000  | 33.011  | 33.01 | 0.988    | 0.988 | 103.78 | 104 <i>76-131</i>  | 0.639 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 5.35e4 | 0.53 | NO  | 1.18  | 1.000  | 33.145  | 33.13 | 0.992    | 0.991 | 99.373 | 99.4 <i>70-143</i> | 0.575 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 4.96e4 | 0.52 | NO  | 1.06  | 1.000  | 33.716  | 33.72 | 1.009    | 1.009 | 102.50 | 102 <i>73-137</i>  | 0.640 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 4.28e4 | 0.52 | NO  | 0.879 | 1.000  | 34.615  | 34.65 | 1.036    | 1.037 | 106.25 | 106 <i>74-135</i>  | 0.769 |      |

Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_1.qld

Last Altered: Monday, June 08, 2020 13:55:49 Pacific Daylight Time

Printed: Monday, June 08, 2020 13:56:37 Pacific Daylight Time

Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                    | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec        | DL    | EMPG |
|----|-------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|-------------|-------|------|
| 32 | 13C-1,2,3,4,6,7,8-HpCDF | 4.37e4 | 0.41 | NO  | 0.893 | 1.000  | 36.319  | 36.48 | 1.087    | 1.092 | 106.77 | 107 78-129  | 0.664 |      |
| 33 | 13C-1,2,3,4,7,8,9-HpCDF | 3.01e4 | 0.42 | NO  | 0.613 | 1.000  | 38.324  | 38.31 | 1.147    | 1.146 | 106.96 | 107 77-129  | 0.967 |      |
| 34 | 13C-OCDF                | 6.61e4 | 0.87 | NO  | 0.741 | 1.000  | 40.897  | 41.25 | 1.224    | 1.234 | 194.64 | 97.3 48-207 | 0.464 |      |
| 35 | 37Cl-2,3,7,8-TCDD       | 5.65e3 |      |     | 1.18  | 1.000  | 26.098  | 26.02 | 1.026    | 1.023 | 10.140 | 101 79-127  | 0.118 |      |
| 36 | 13C-1,2,3,4-TCDD        | 4.72e4 | 0.79 | NO  | 1.00  | 1.000  | 25.480  | 25.44 | 1.000    | 1.000 | 100.00 | 100         | 0.572 |      |
| 37 | 13C-1,2,3,4-TCDF        | 6.83e4 | 0.77 | NO  | 1.00  | 1.000  | 24.020  | 23.96 | 1.000    | 1.000 | 100.00 | 100         | 0.509 |      |
| 38 | 13C-1,2,3,4,6,9-HxCDF   | 4.58e4 | 0.50 | NO  | 1.00  | 1.000  | 33.530  | 33.41 | 1.000    | 1.000 | 100.00 | 100         | 0.676 |      |



Dataset: Untitled

Last Altered: Tuesday, June 09, 2020 09:29:59 Pacific Daylight Time

Printed: Tuesday, June 09, 2020 09:30:28 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 18 May 2020 14:57:34

Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

|                                | RT    |
|--------------------------------|-------|
| 1 1,3,6,8-TCDD (First)         | 22.53 |
| 2 1,2,8,9-TCDD (Last)          | 26.89 |
| 3 1,2,4,7,9-PeCDD (First)      | 28.54 |
| 4 1,2,3,8,9-PeCDD (Last)       | 30.95 |
| 5 1,2,4,6,7,9-HxCDD (First)    | 32.38 |
| 6 1,2,3,7,8,9-HxCDD (Last)     | 34.30 |
| 7 1,2,3,4,6,7,9-HpCDD (First)  | 36.90 |
| 8 1,2,3,4,6,7,8-HpCDD (Last)   | 37.79 |
| 9 1,3,6,8-TCDF (First)         | 20.38 |
| 10 1,2,8,9-TCDF (Last)         | 27.04 |
| 11 1,3,4,6,8-PeCDF (First)     | 27.01 |
| 12 1,2,3,8,9-PeCDF (Last)      | 31.19 |
| 13 1,2,3,4,6,8-HxCDF (First)   | 31.85 |
| 14 1,2,3,7,8,9-HxCDF (Last)    | 34.67 |
| 15 1,2,3,4,6,7,8-HpCDF (First) | 36.50 |
| 16 1,2,3,4,7,8,9-HpCDF (Last)  | 38.32 |

Dataset: Untitled

Last Altered: Tuesday, June 09, 2020 09:29:22 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 09:29:37 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

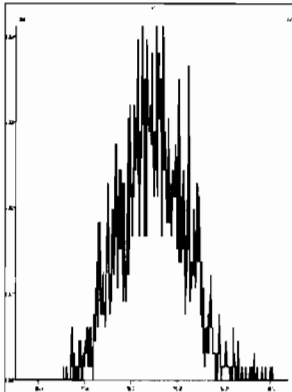
Compound name: 2,3,7,8-TCDD

|             |  | Acq.Date  | Acq.Time |
|-------------|--|-----------|----------|
| 200608D1_1  | ST200608D1-1 1613 CS3 19L2305              | 08-Jun-20 | 13:00:13 |
| 200608D1_2  | SOLVENT BLANK                              | 08-Jun-20 | 13:45:21 |
| 200608D1_3  | 2000996-12 PDI-060SC-A-08-09-200428 16.8   | 08-Jun-20 | 14:30:33 |
| 200608D1_4  | 2000996-13 PDI-060SC-A-09-10-200428 14.85  | 08-Jun-20 | 15:15:42 |
| 200608D1_5  | 2000996-14 PDI-060SC-B-00-02-200428 14.93  | 08-Jun-20 | 16:00:50 |
| 200608D1_6  | 2000996-15 PDI-060SC-B-02-04-200428 16.53  | 08-Jun-20 | 16:45:58 |
| 200608D1_7  | 2000996-16 PDI-060SC-B-04-06-200428 16.51  | 08-Jun-20 | 17:31:06 |
| 200608D1_8  | 2000996-17 PDI-060SC-B-06-08-200428 15.64  | 08-Jun-20 | 18:16:13 |
| 200608D1_9  | 2000998-04@3X PDI-063SC-B-00-02-200429 ... | 08-Jun-20 | 19:01:21 |
| 200608D1_10 | 2000998-06@3X PDI-063SC-B-05-07-200429 ... | 08-Jun-20 | 19:46:29 |
| 200608D1_11 | 2000998-05@3X PDI-063SC-B-02-05-200429 ... | 08-Jun-20 | 20:31:35 |
| 200608D1_12 | B0E0100-DUP2@5X Duplicate 1:5 18.88        | 08-Jun-20 | 21:16:42 |

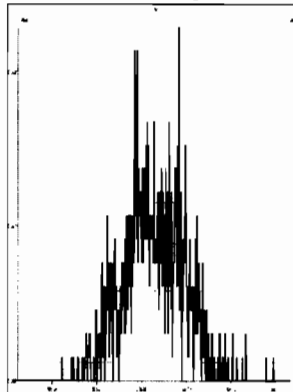
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, June 08, 2020 12:55:57 Pacific Daylight Time

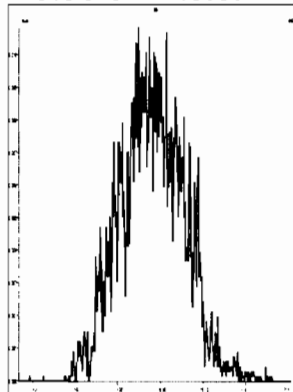
M 292.9824 R 11214



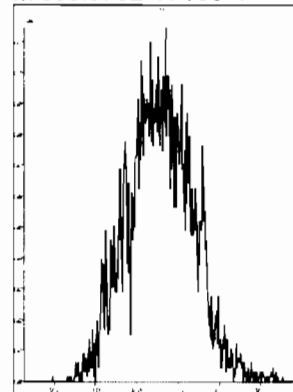
M 304.9824 R 13300



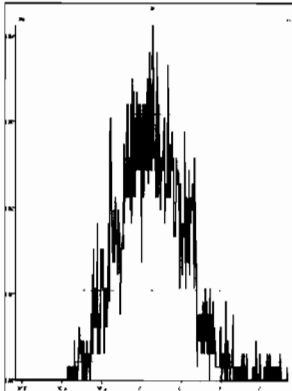
M 318.9792 R 10505



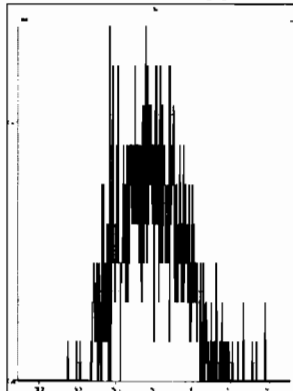
M 330.9792 R 10547



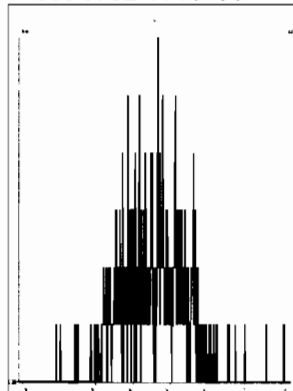
M 342.9792 R 11418



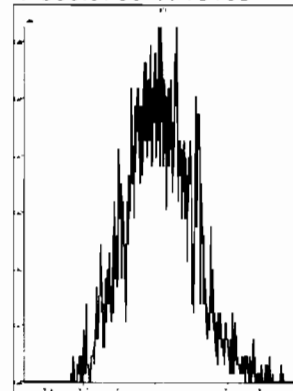
M 354.9792 R 11962



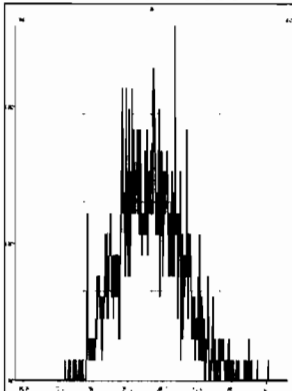
M 366.9792 R 18796



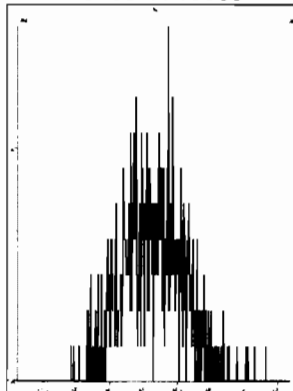
M 380.9760 R 10165



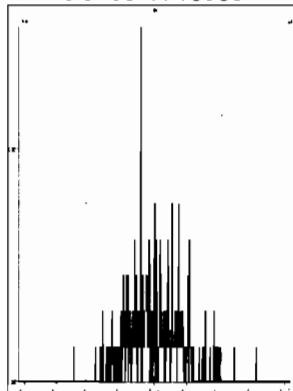
M 392.9760 R 11365



M 404.9760 R 13089



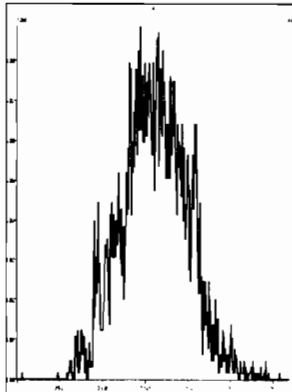
M 416.9760 R 18380



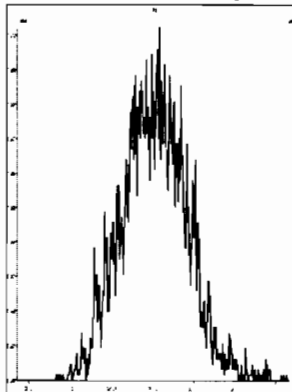
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

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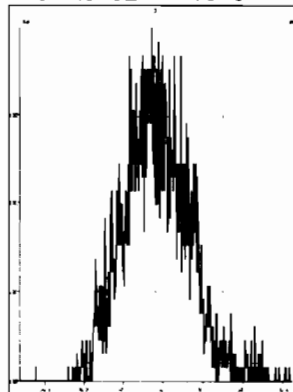
M 318.9792 R 10549



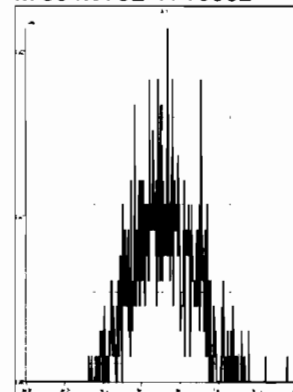
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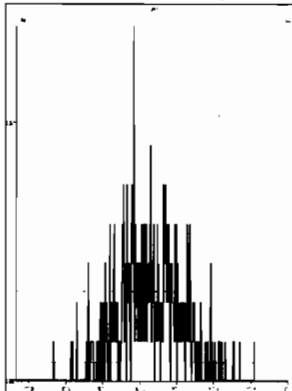
M 342.9792 R 11016



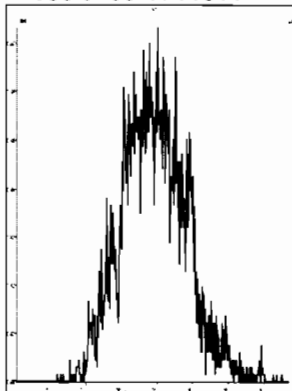
M 354.9792 R 15062



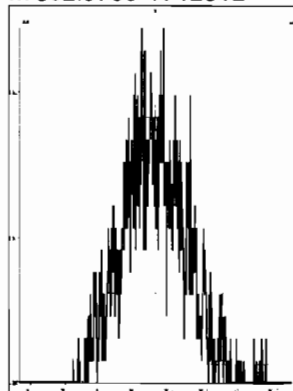
M 366.9792 R 14792



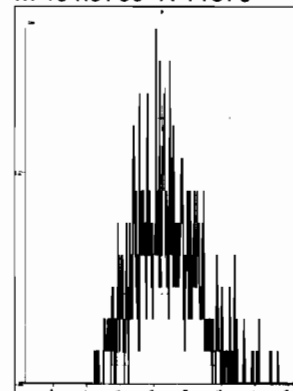
M 380.9760 R 11311



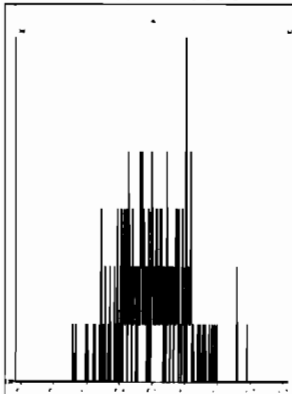
M 392.9760 R 12312



M 404.9760 R 11570



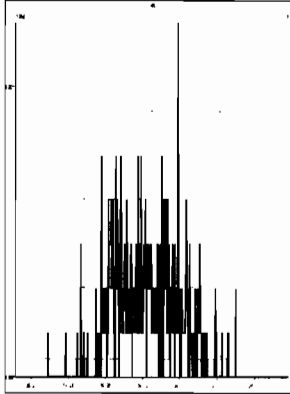
M 416.9760 R 23808



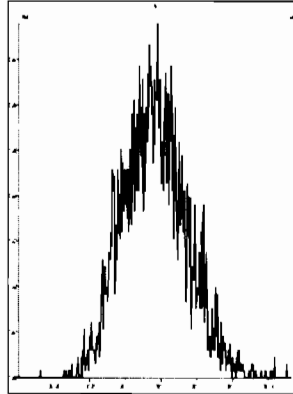
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Printed: Monday, June 08, 2020 12:57:45 Pacific Daylight Time

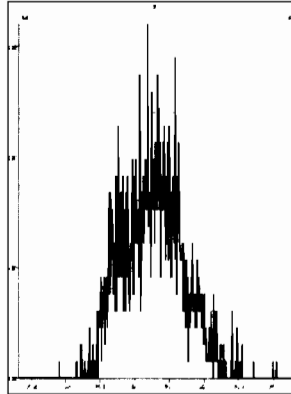
M 366.9792 R 17604



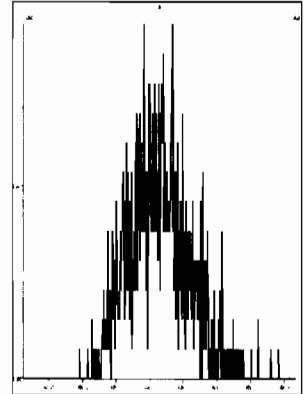
M 380.9760 R 10079



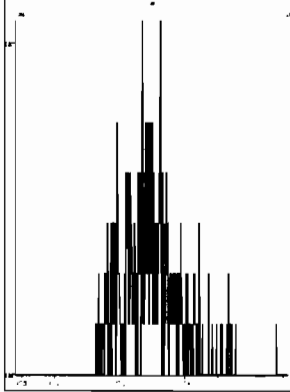
M 392.9760 R 11845



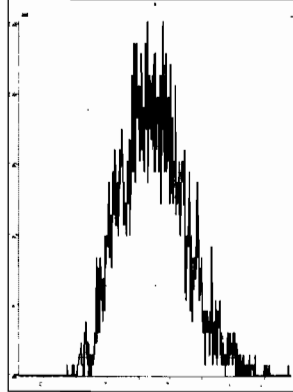
M 404.9760 R 13736



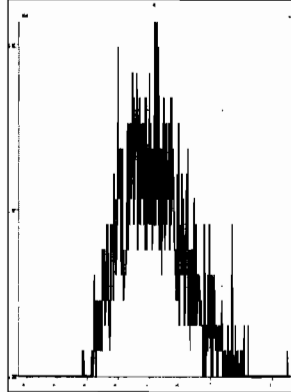
M 416.9760 R 15826



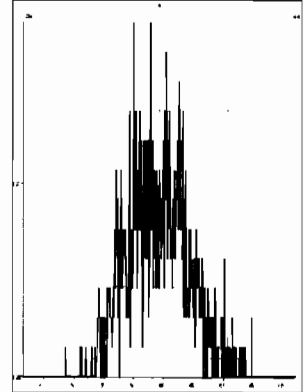
M 430.9728 R 11263



M 442.9728 R 12132



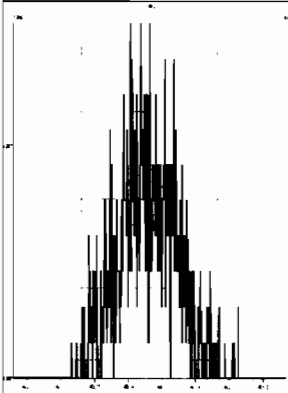
M 454.9728 R 10683



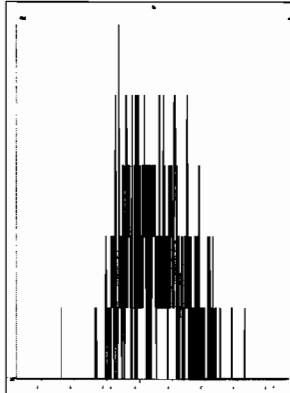
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Printed: Monday, June 08, 2020 12:58:28 Pacific Daylight Time

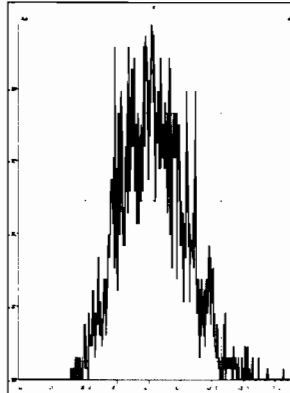
M 404.9760 R 14535



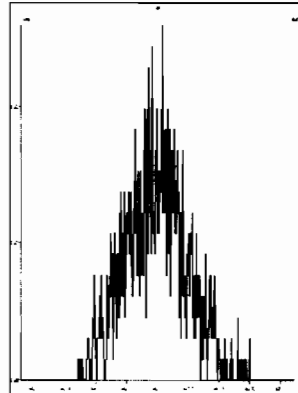
M 416.9760 R 18655



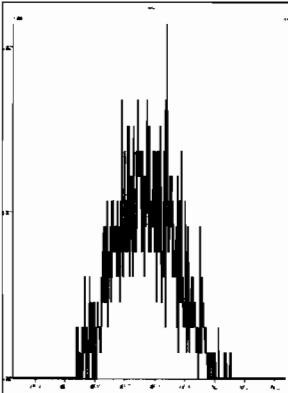
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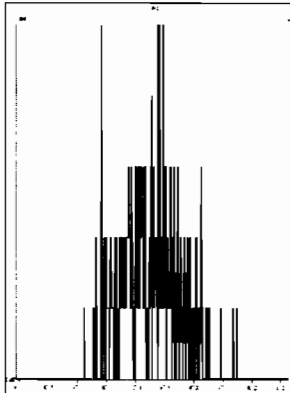
M 442.9728 R 13370



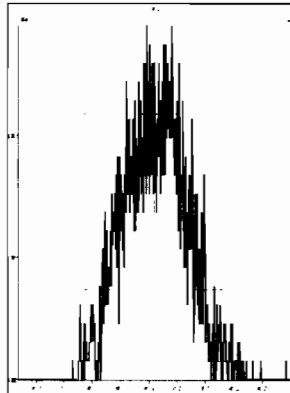
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M 466.9728 R 27171



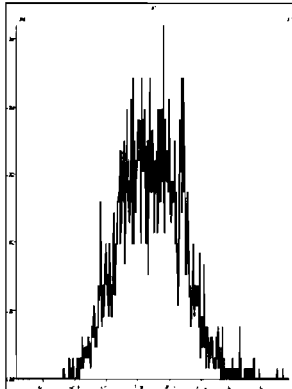
M 480.9696 R 12257



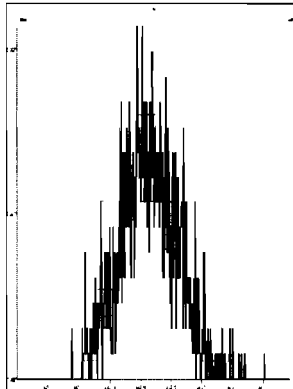
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Printed: Monday, June 08, 2020 12:59:12 Pacific Daylight Time

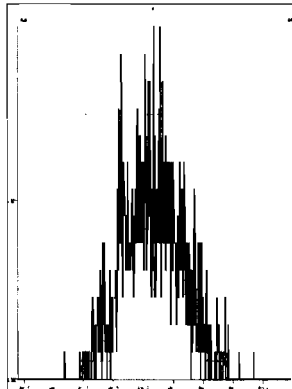
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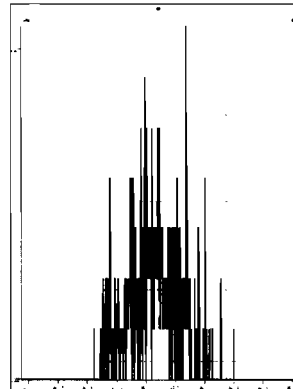
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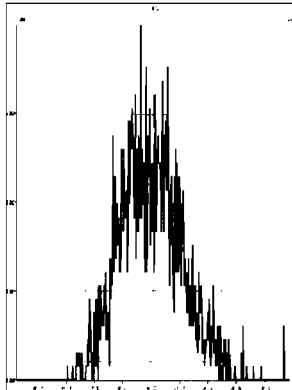
M 454.9728 R 11013



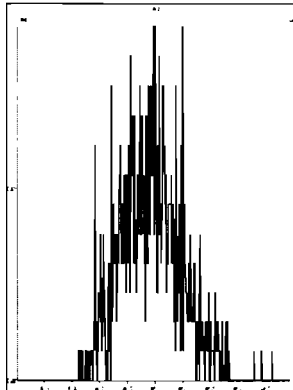
M 466.9728 R 17730



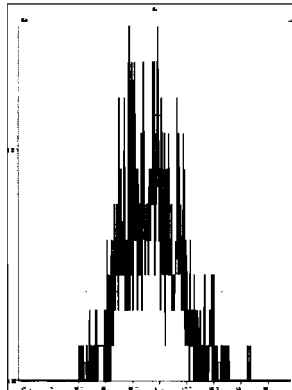
M 480.9696 R 11311



M 492.9696 R 11625



M 504.9696 R 14124

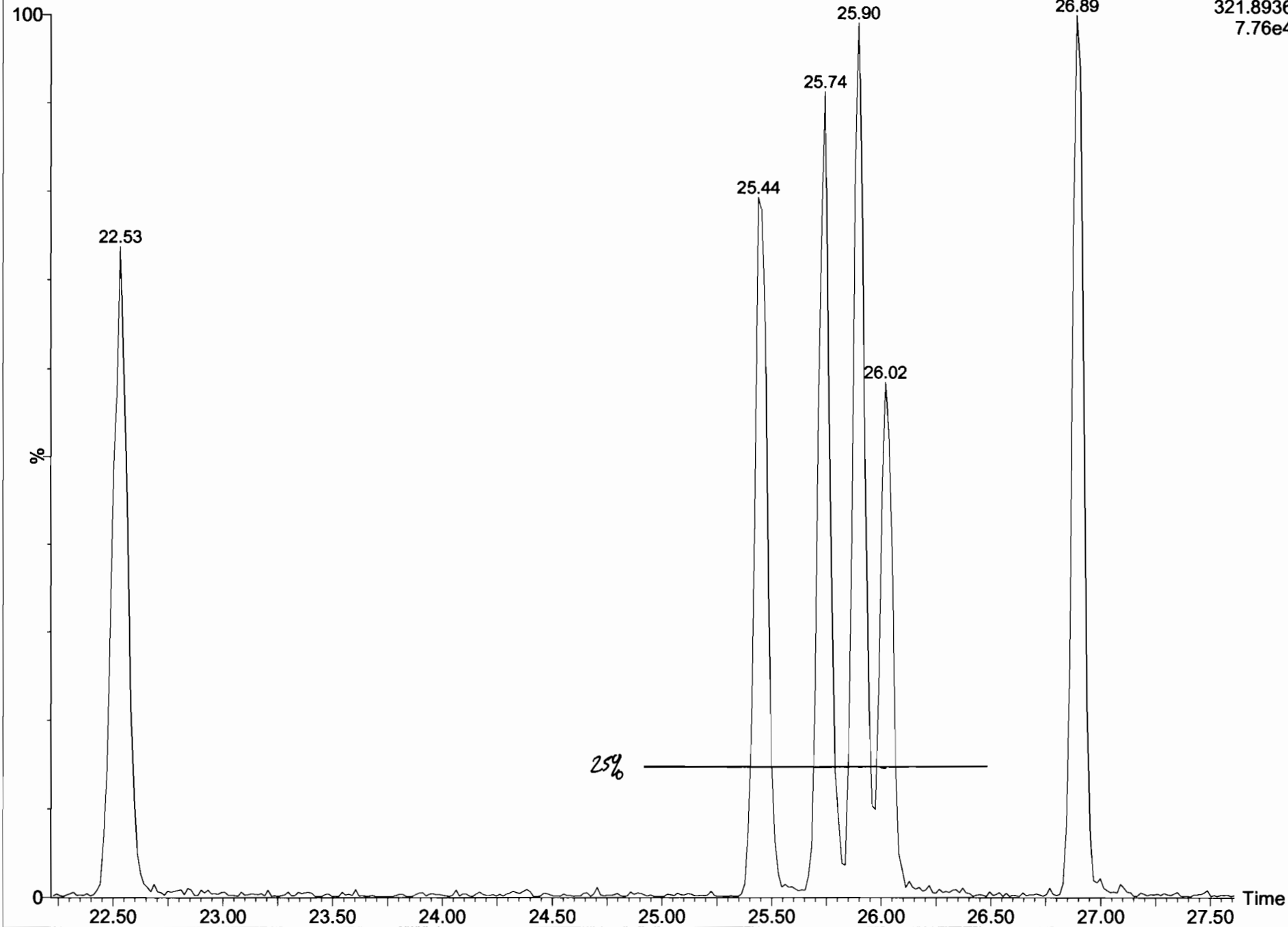


M 516.9697 R 13735



200608D1\_1

1: Voltage SIR 15 Channels EI+  
321.8936  
7.76e4





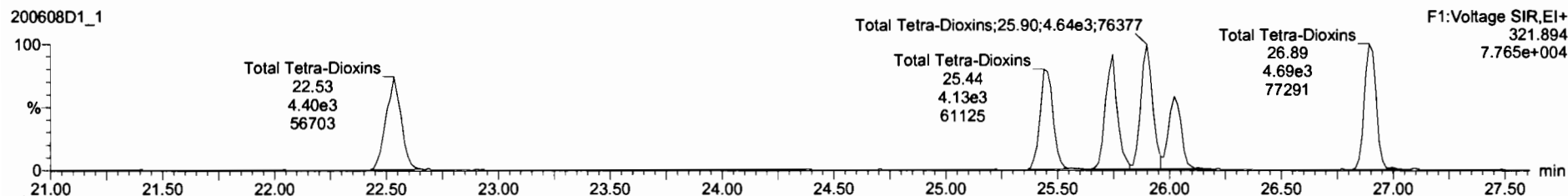
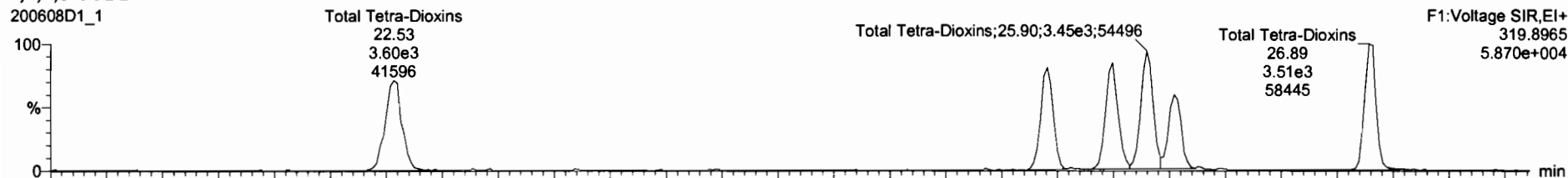
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Printed: Monday, June 08, 2020 13:50:21 Pacific Daylight Time

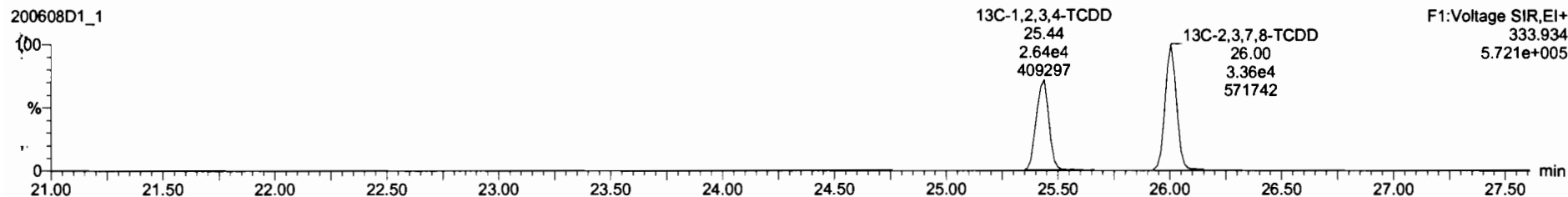
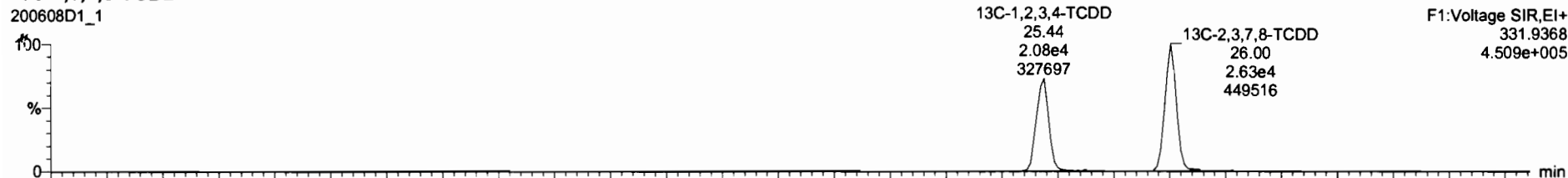
Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 27 Apr 2020 14:17:24  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

**2,3,7,8-TCDD**



**13C-2,3,7,8-TCDD**



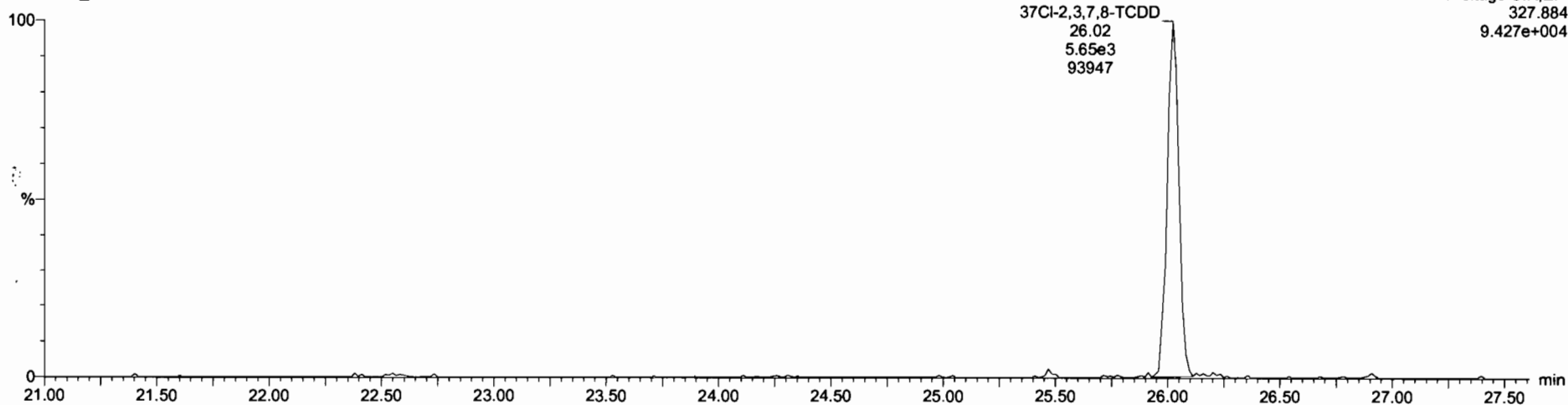
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Last Altered: Monday, June 08, 2020 13:45:29 Pacific Daylight Time  
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Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

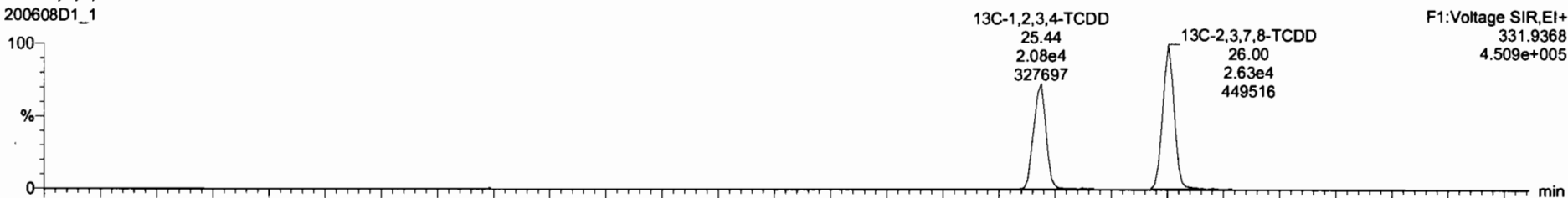
**37Cl-2,3,7,8-TCDD**

200608D1\_1

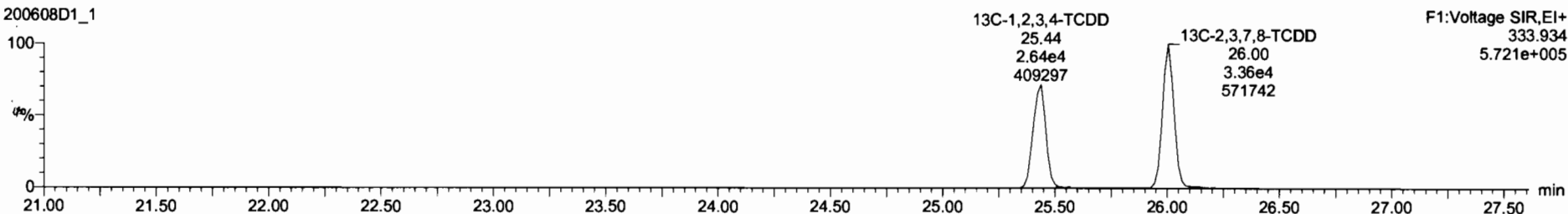


**13C-1,2,3,4-TCDD**

200608D1\_1



200608D1\_1



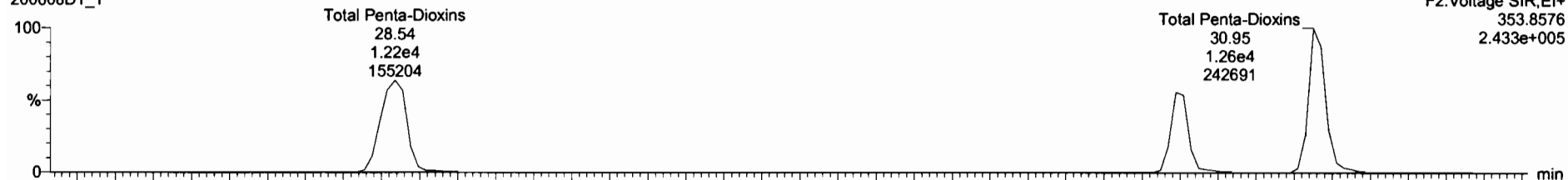
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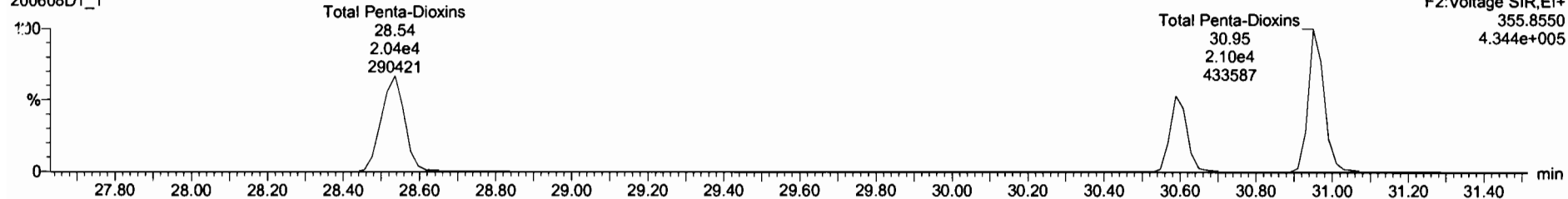
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1,2,3,7,8-PeCDD

200608D1\_1



200608D1\_1

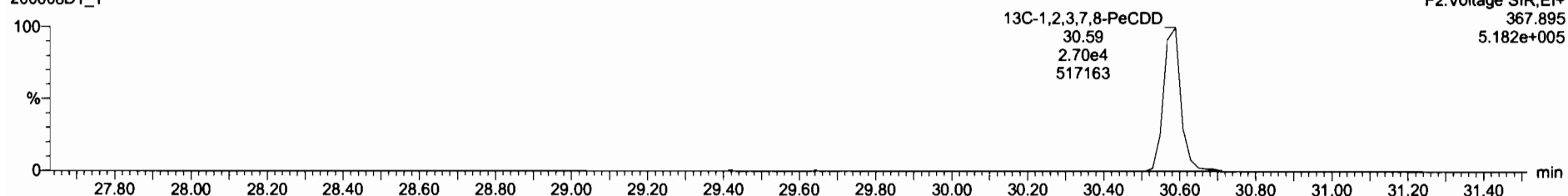


<sup>13</sup>C-1,2,3,7,8-PeCDD

200608D1\_1



200608D1\_1



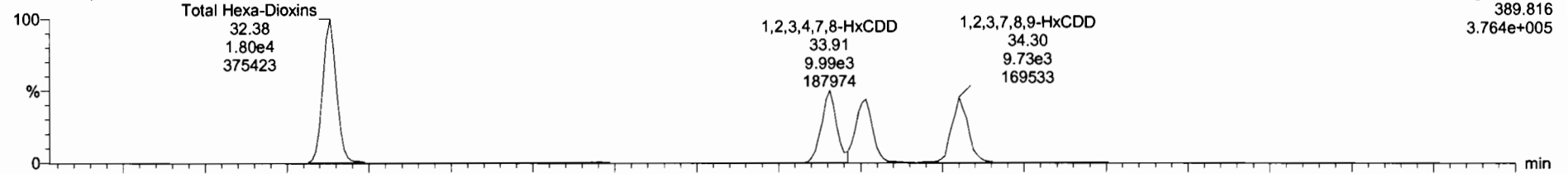
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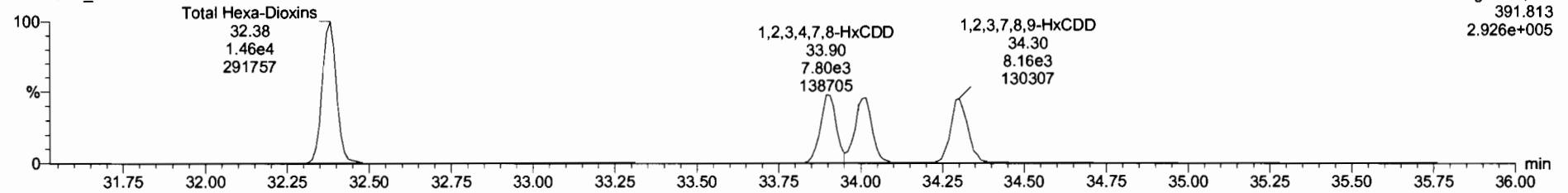
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1,2,3,4,7,8-HxCDD

200608D1\_1

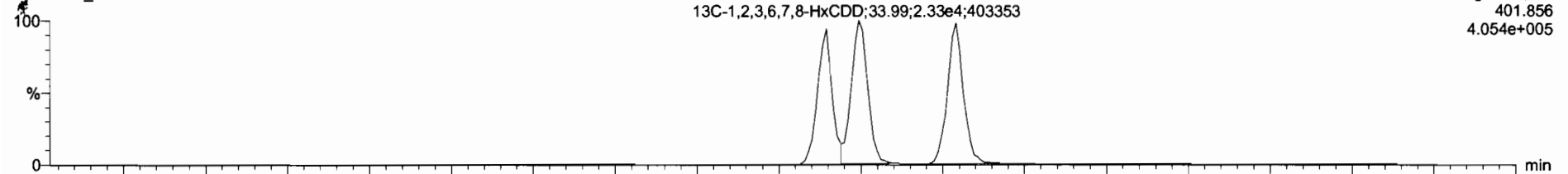


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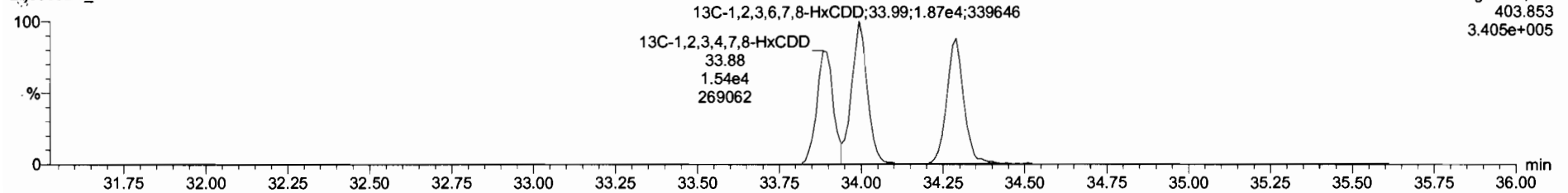


13C-1,2,3,4,7,8-HxCDD

200608D1\_1



200608D1\_1



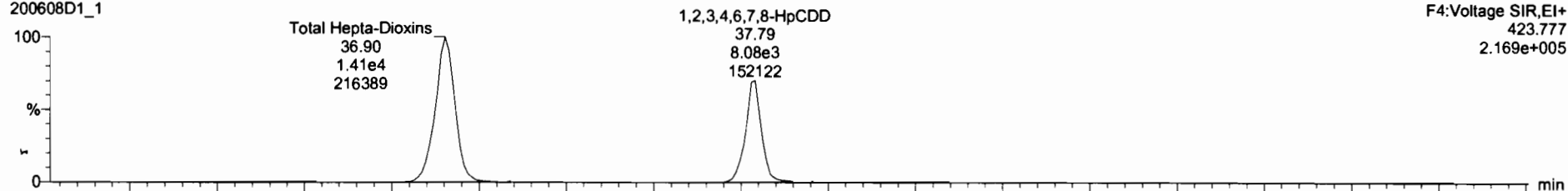
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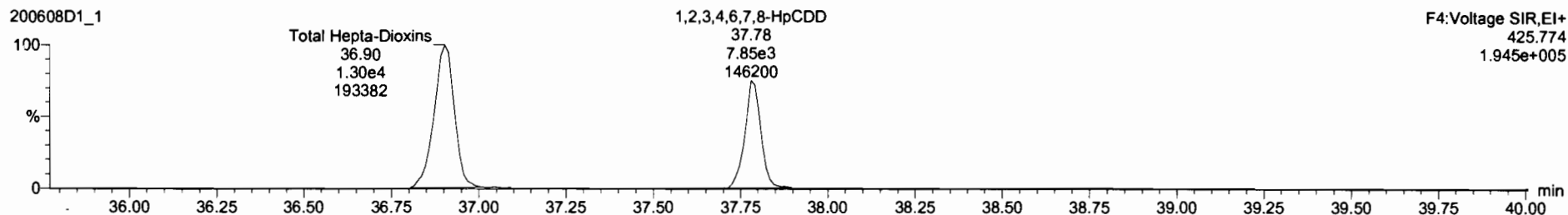
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1,2,3,4,6,7,8-HpCDD

200608D1\_1

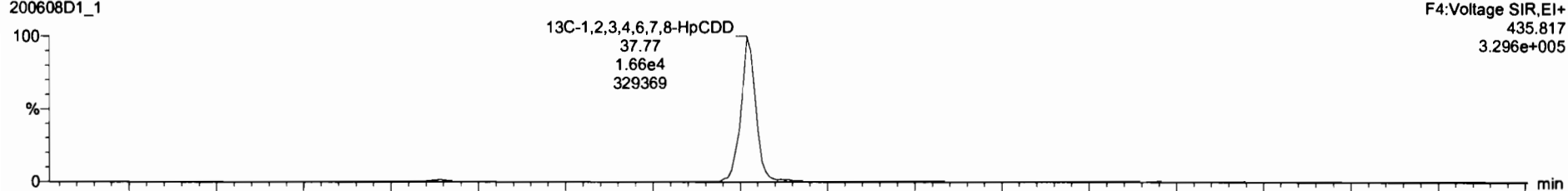


200608D1\_1

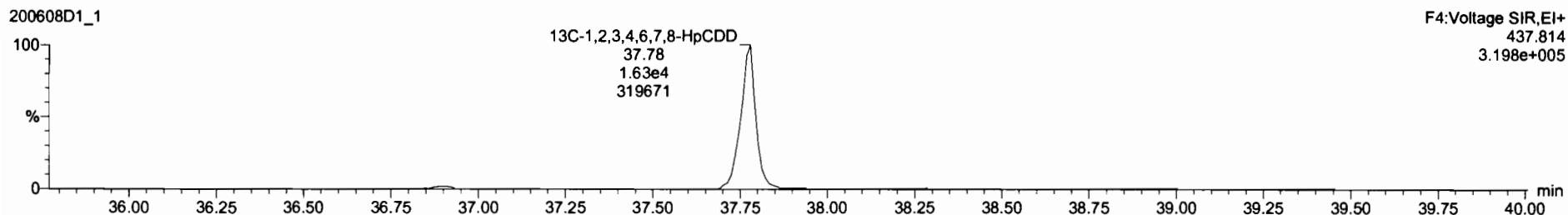


13C-1,2,3,4,6,7,8-HpCDD

200608D1\_1



200608D1\_1



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_1.qld

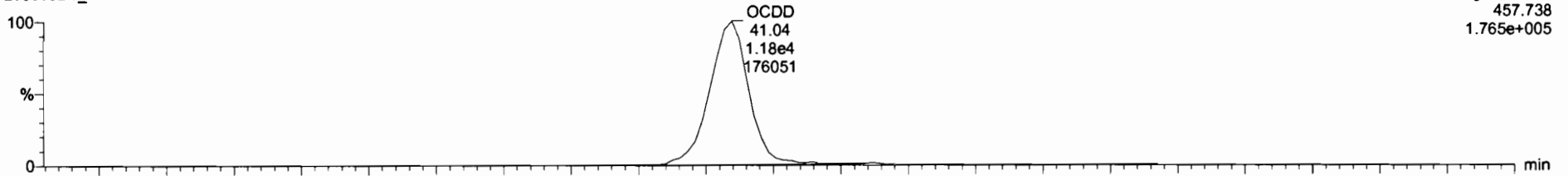
Last Altered: Monday, June 08, 2020 13:45:29 Pacific Daylight Time

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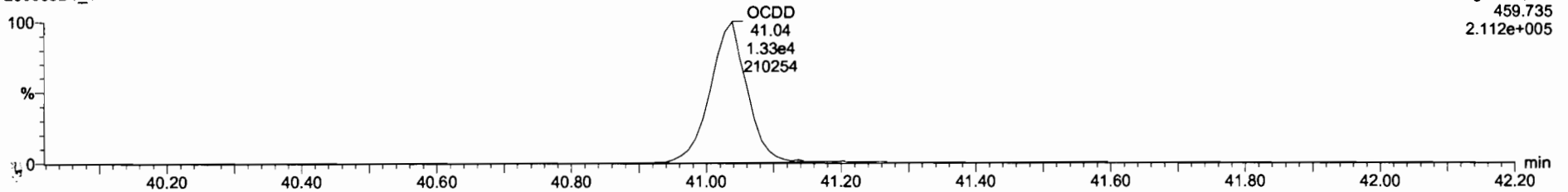
**OCDD**

200608D1\_1



F5:Voltage SIR,EI+  
457.738  
1.765e+005

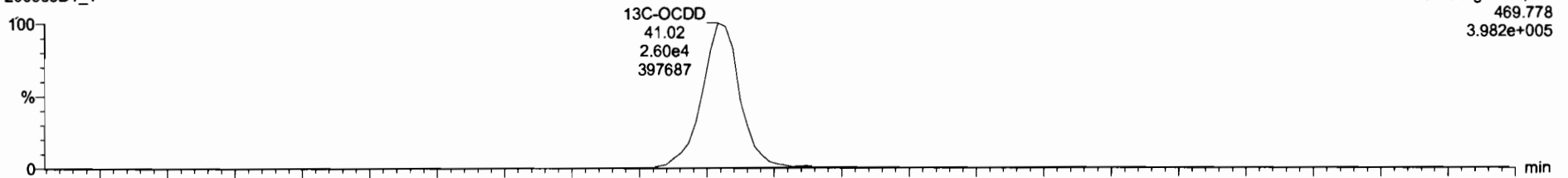
200608D1\_1



F5:Voltage SIR,EI+  
459.735  
2.112e+005

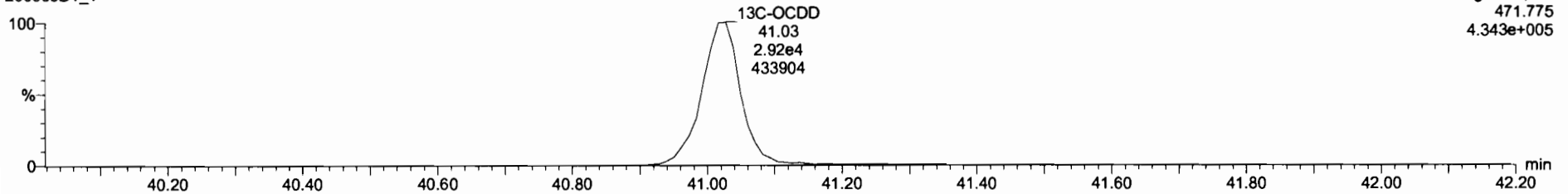
**13C-OCDD**

200608D1\_1



F5:Voltage SIR,EI+  
469.778  
3.982e+005

200608D1\_1



F5:Voltage SIR,EI+  
471.775  
4.343e+005

Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_1.qld

Last Altered: Monday, June 08, 2020 13:45:29 Pacific Daylight Time  
Printed: Monday, June 08, 2020 13:50:21 Pacific Daylight Time

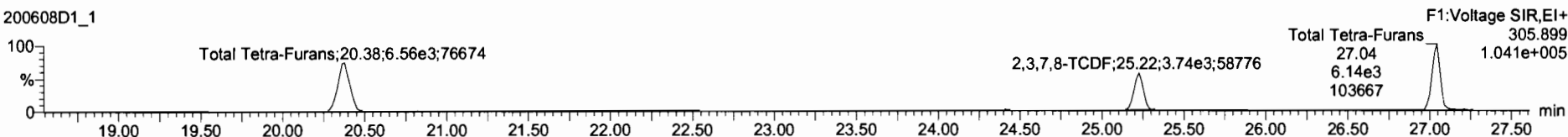
Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

**2,3,7,8-TCDF**

200608D1\_1

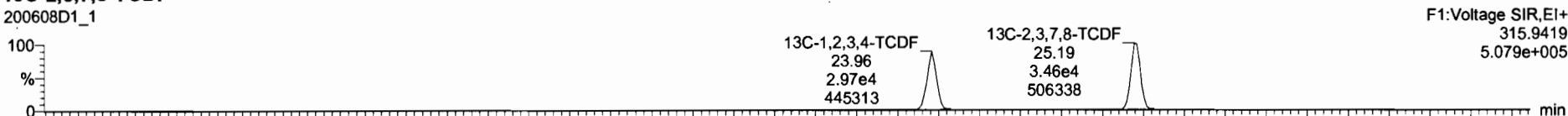


200608D1\_1

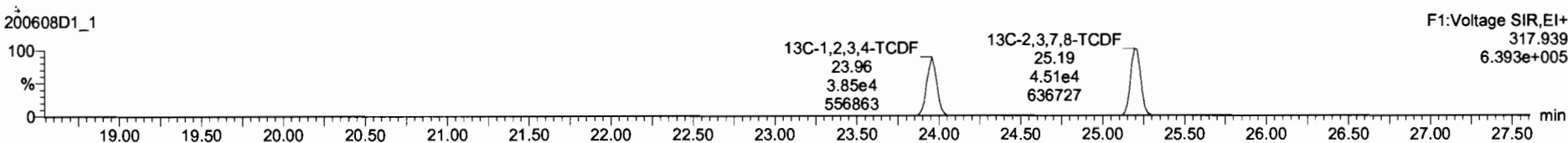


**13C-2,3,7,8-TCDF**

200608D1\_1

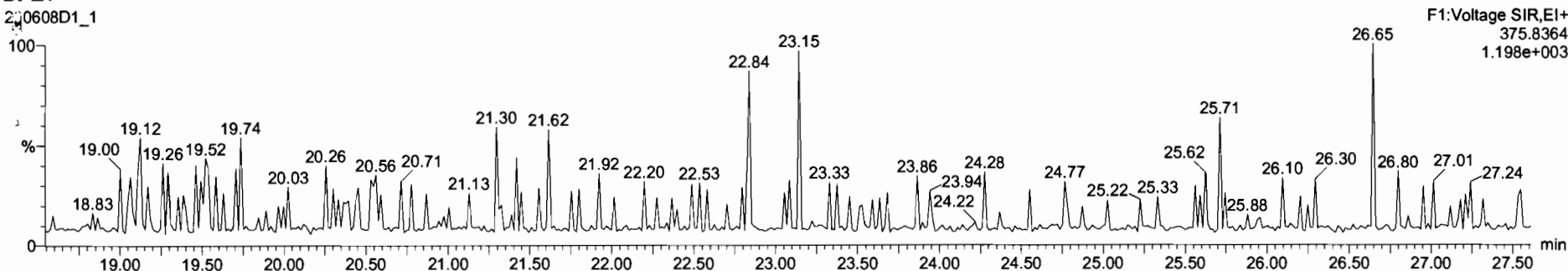


200608D1\_1



**DPE1**

200608D1\_1



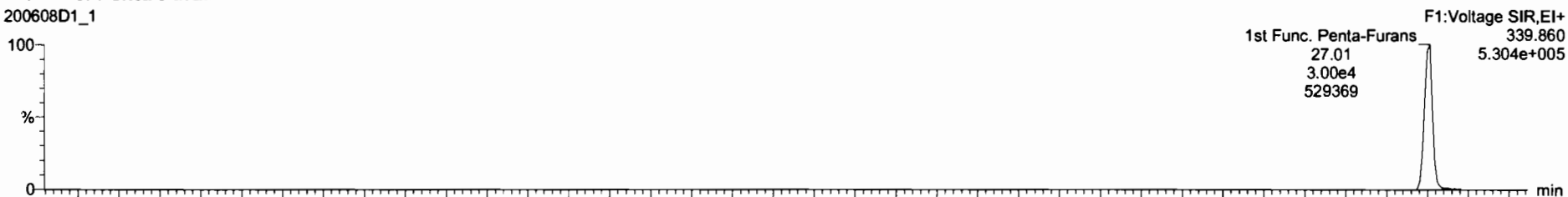
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Printed: Monday, June 08, 2020 13:50:21 Pacific Daylight Time

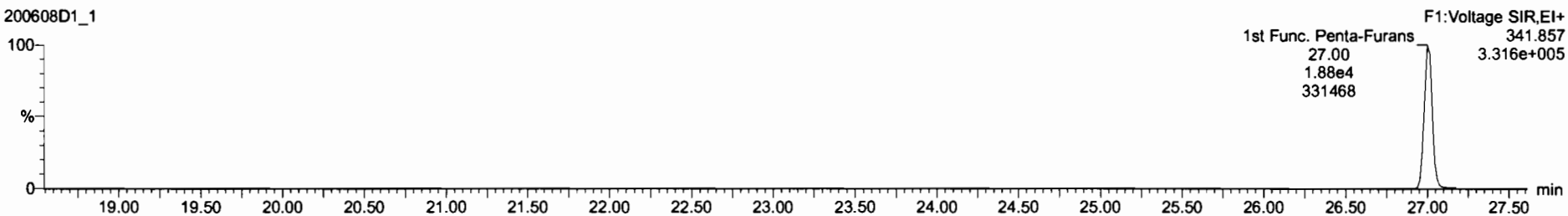
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200608D1\_1

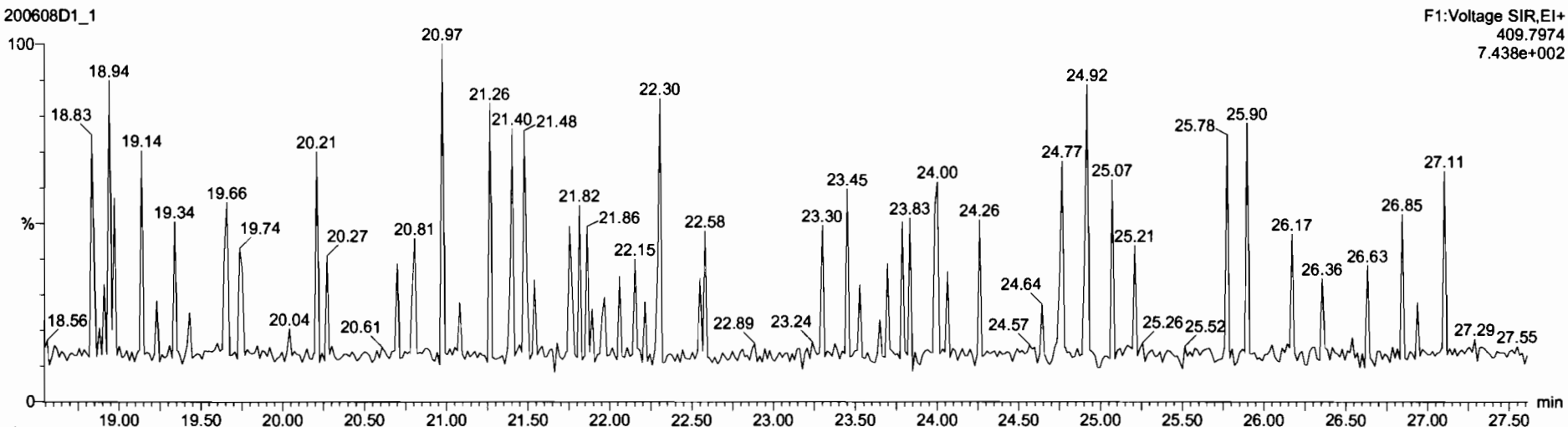


200608D1\_1



DPE6

200608D1\_1





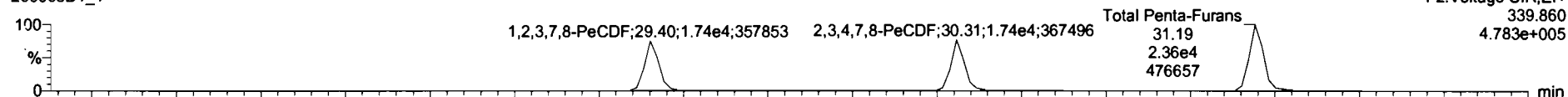
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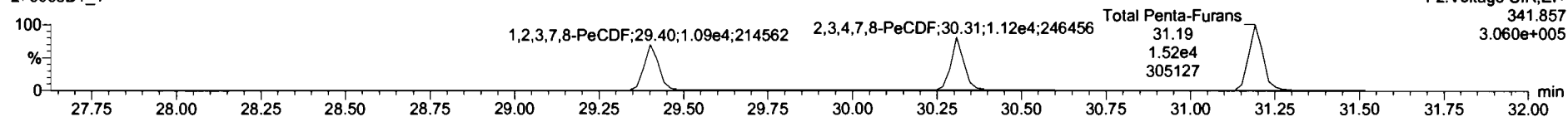
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**1,2,3,7,8-PeCDF**

200608D1\_1

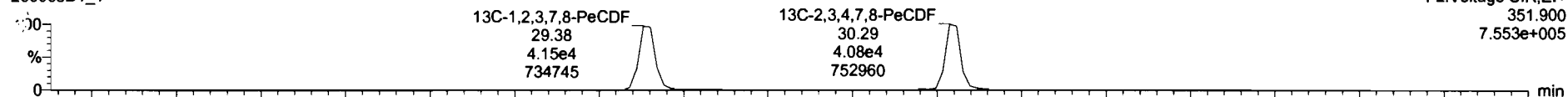


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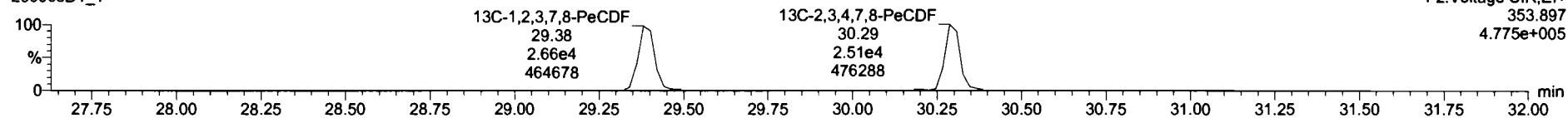


**13C-1,2,3,7,8-PeCDF**

200608D1\_1

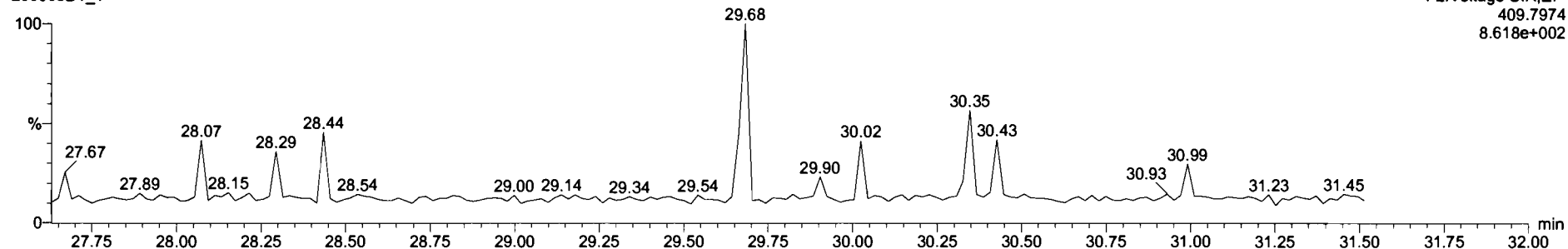


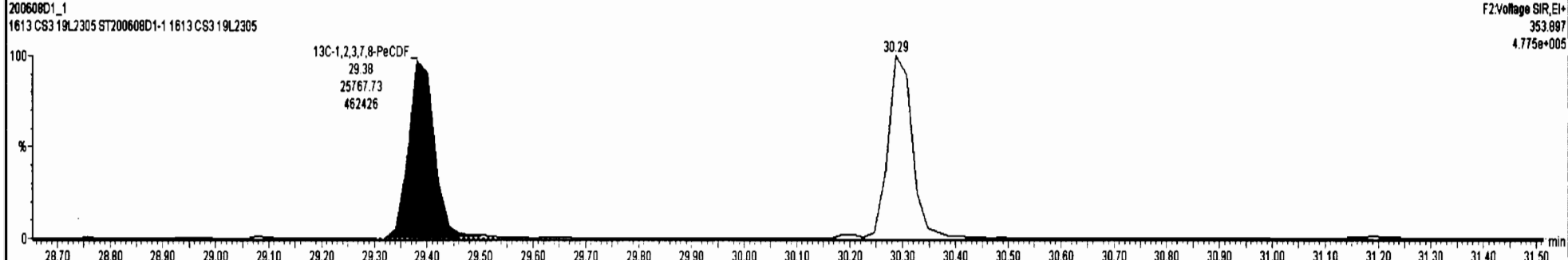
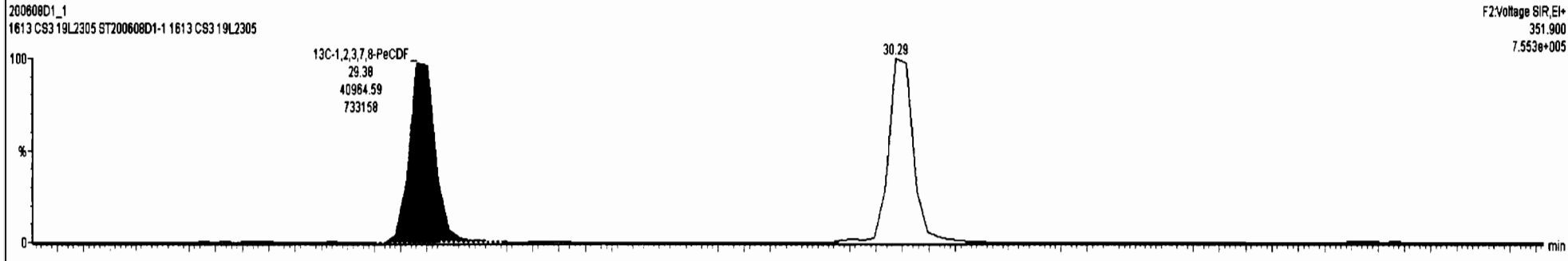
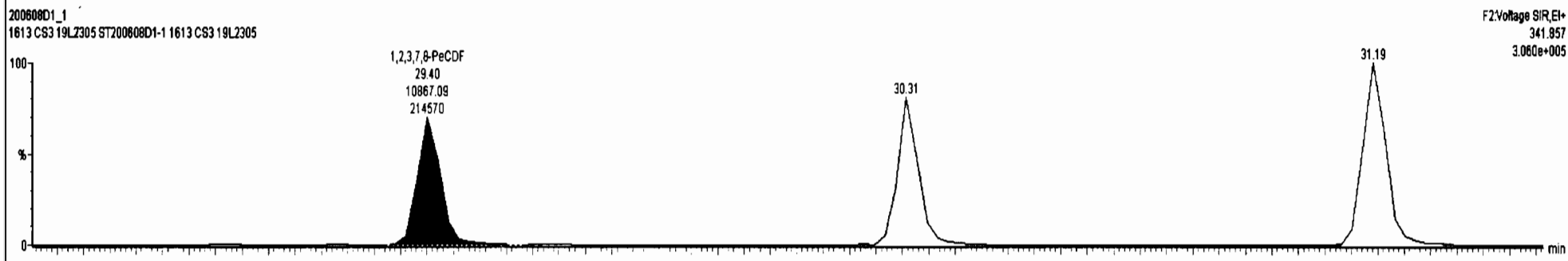
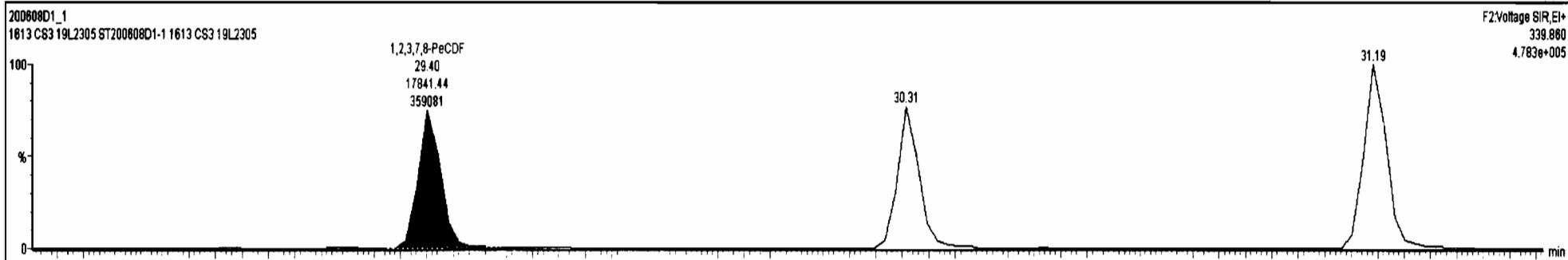
200608D1\_1

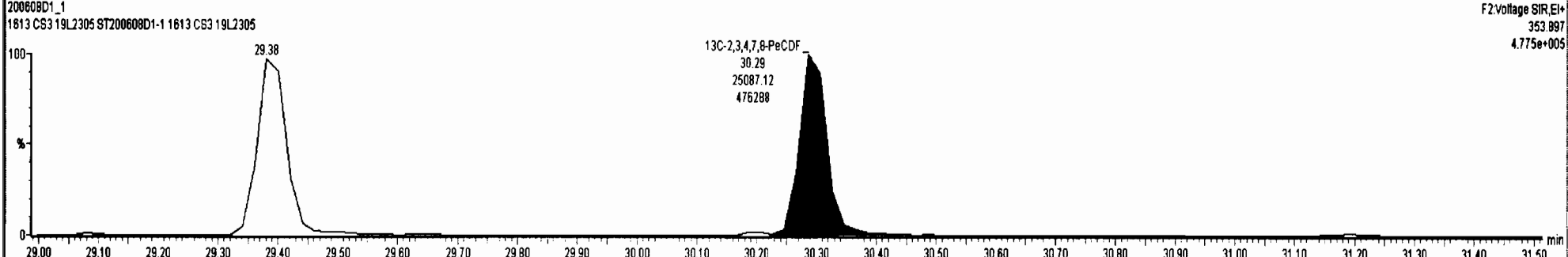
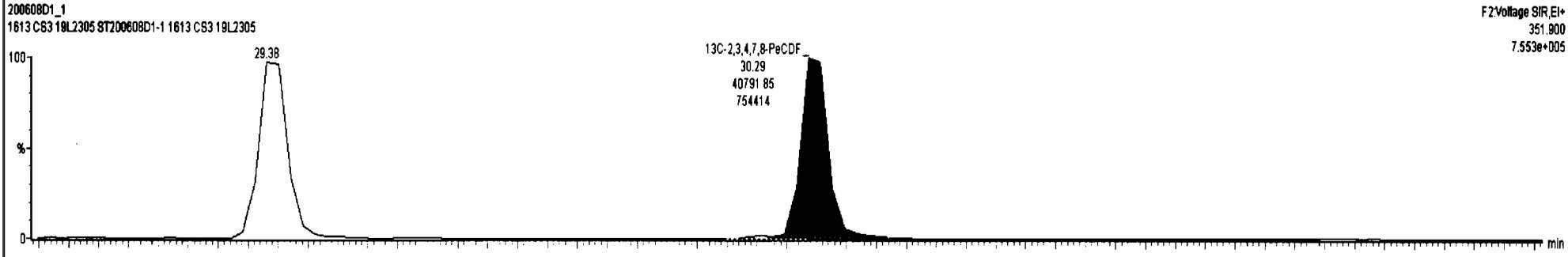
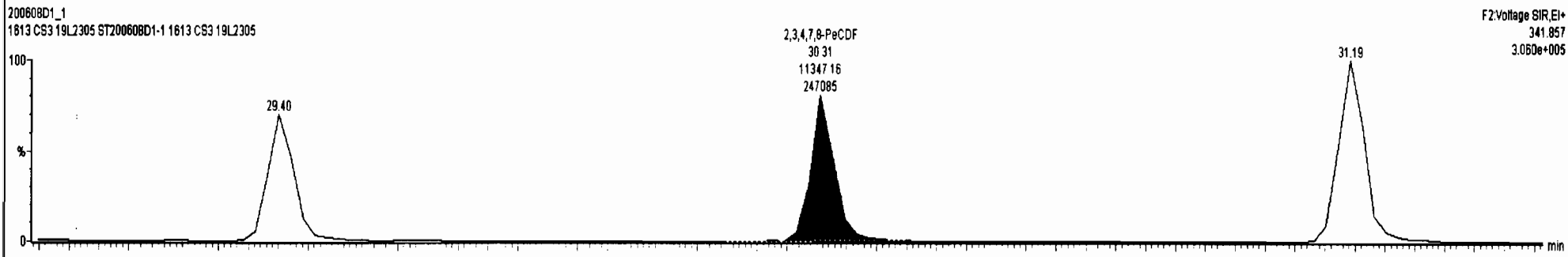
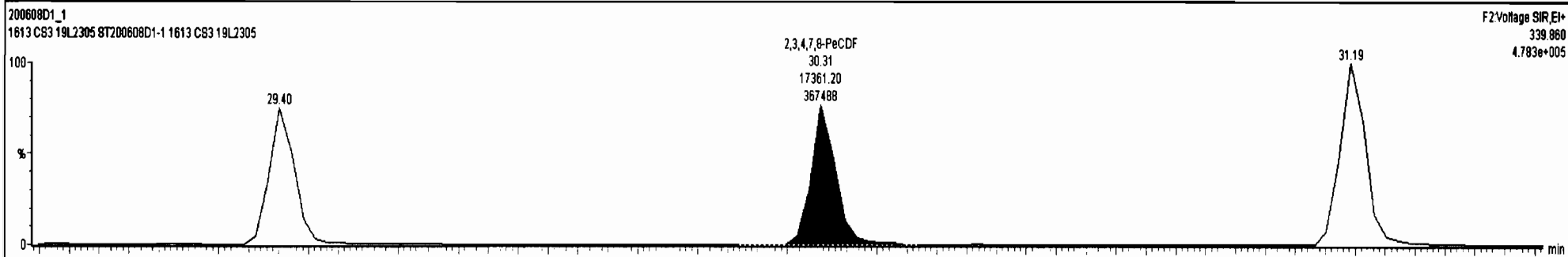


**DPE2**

200608D1\_1





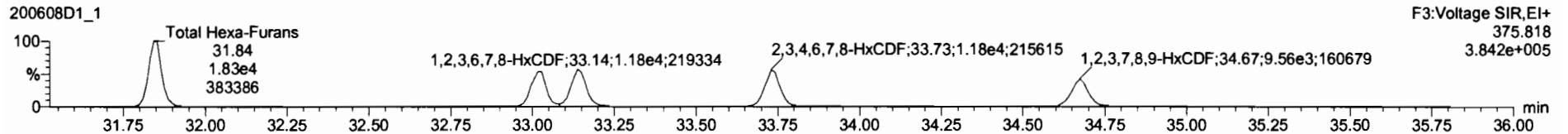
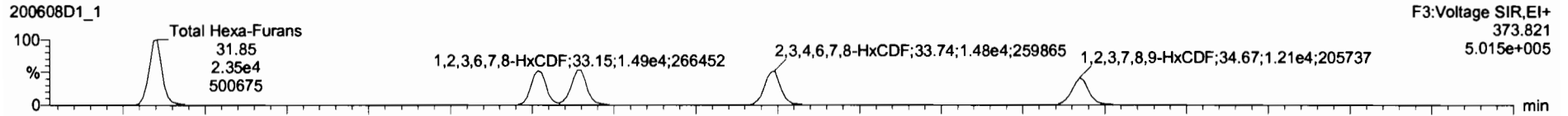


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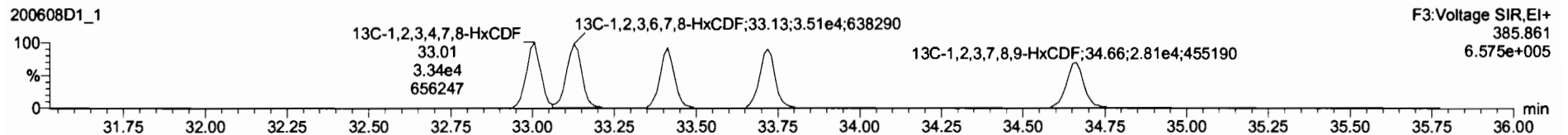
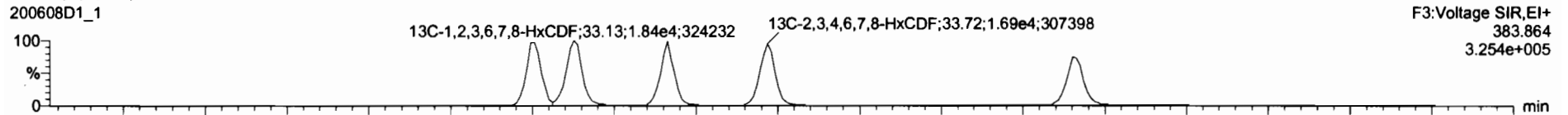
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Printed: Monday, June 08, 2020 13:50:21 Pacific Daylight Time

Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

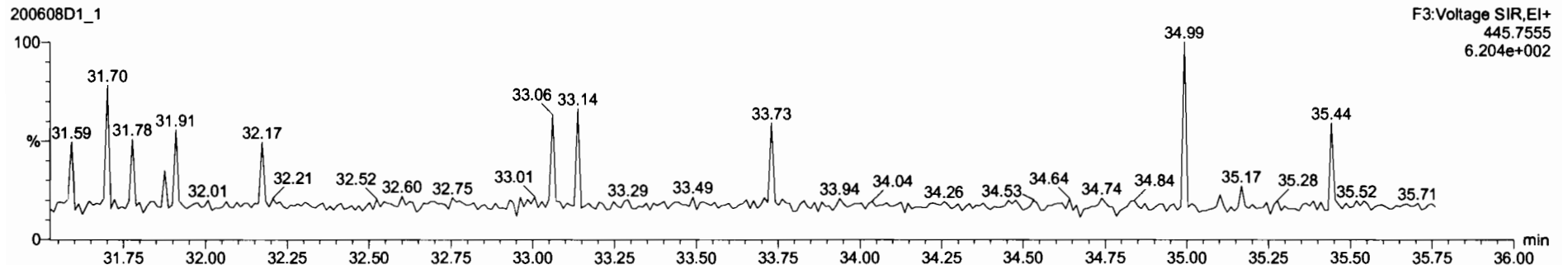
1,2,3,4,7,8-HxCDF



13C-1,2,3,4,7,8-HxCDF



DPE3

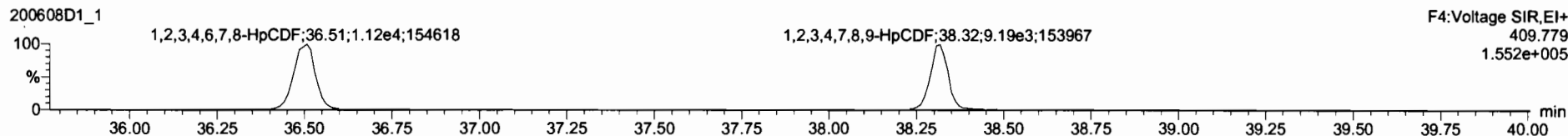
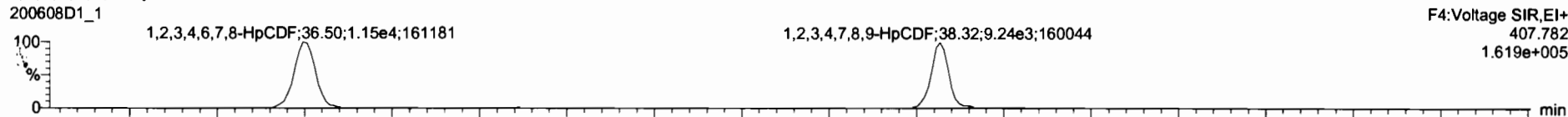


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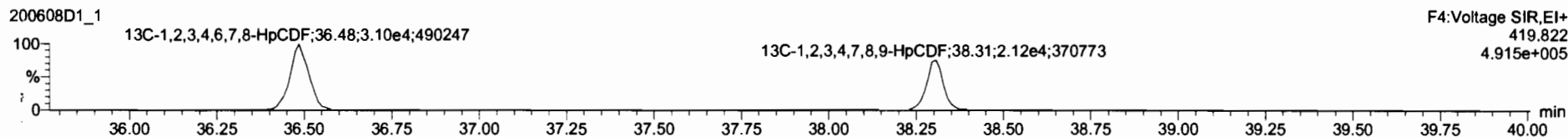
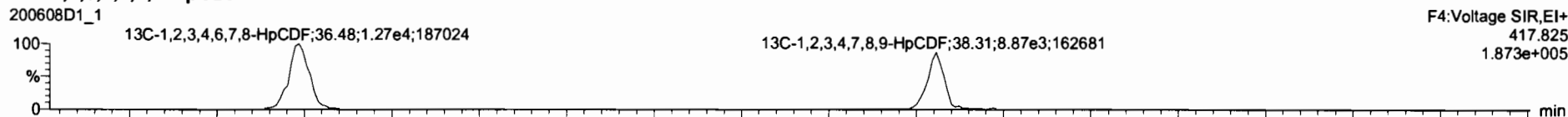
Last Altered: Monday, June 08, 2020 13:45:29 Pacific Daylight Time  
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Name: 200608D1\_1, Date: 08-Jun-2020, Time: 13:00:13, ID: ST200608D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

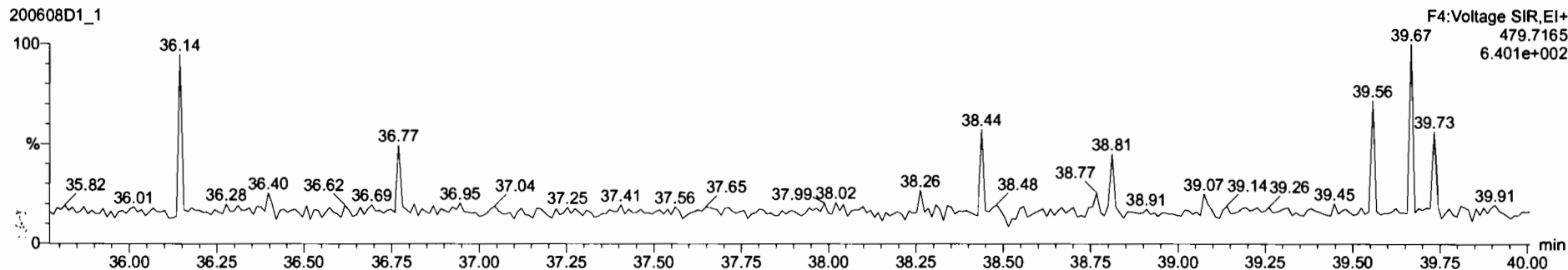
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



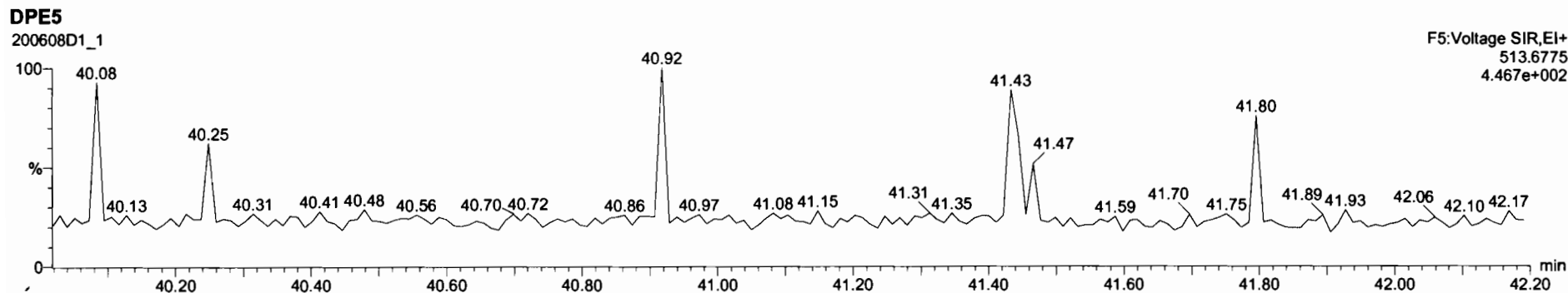
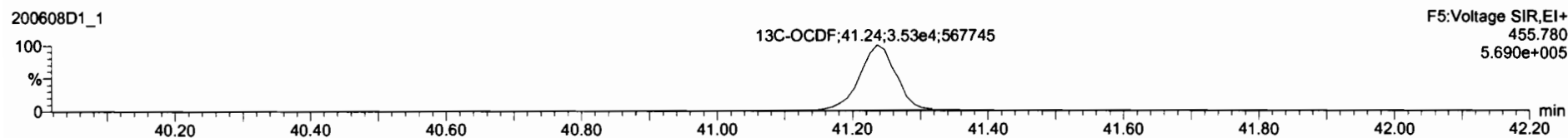
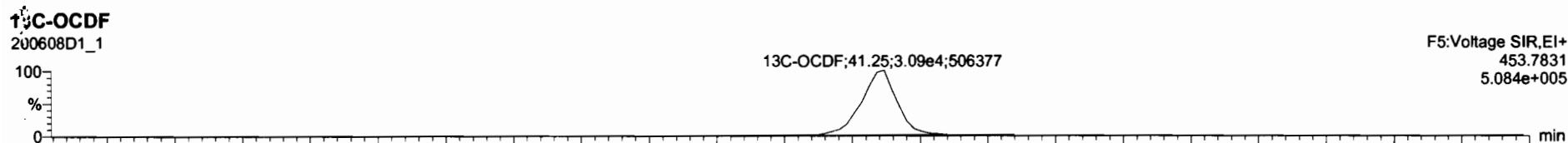
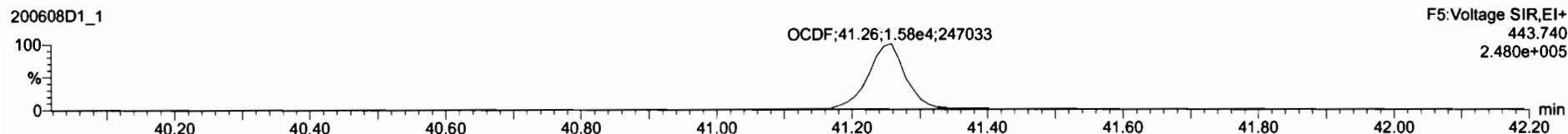
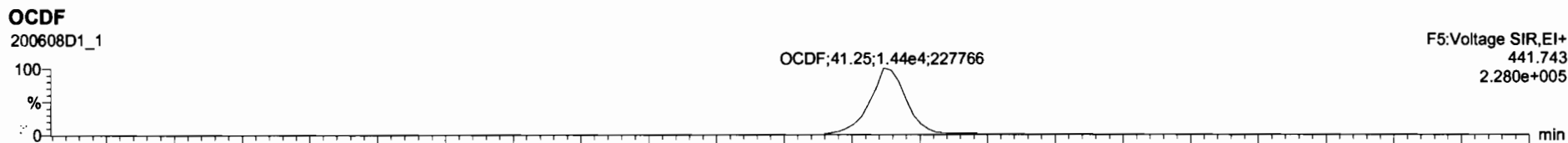
**DPE4**



Dataset: U:\VG7.PRO\Results\200608D1\200608D1\_1.qld

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Printed: Monday, June 08, 2020 13:50:21 Pacific Daylight Time

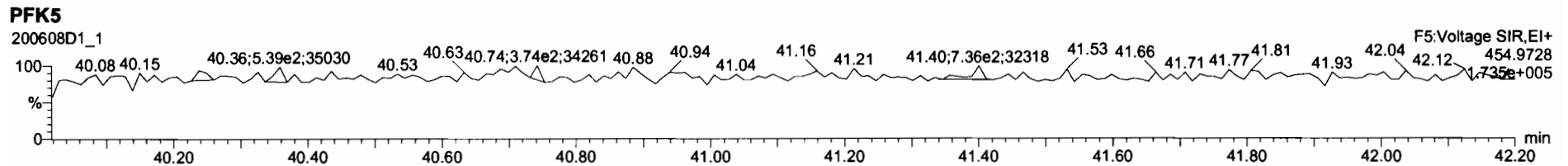
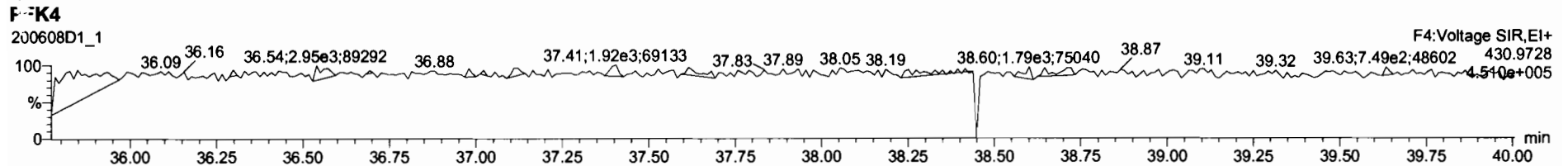
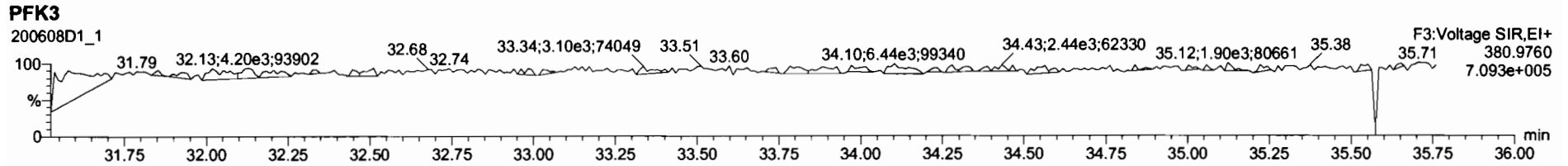
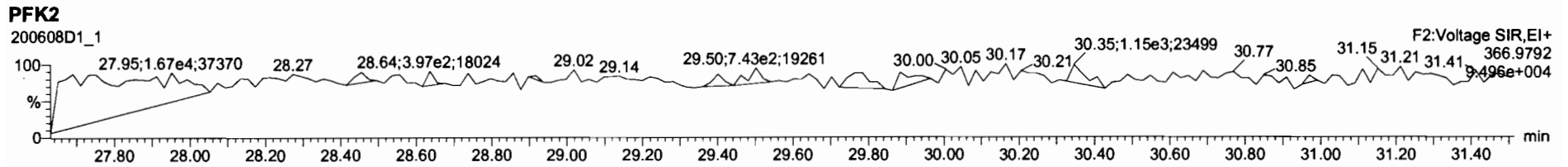
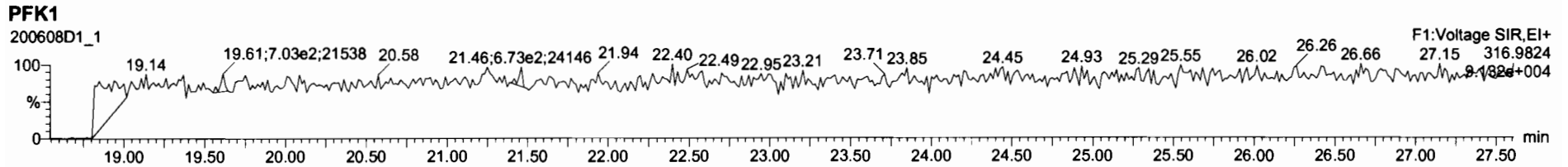
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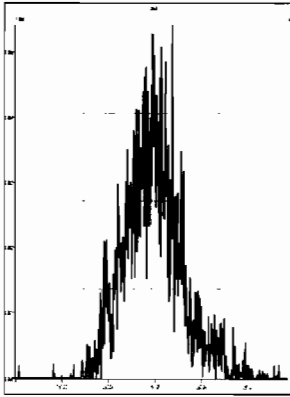
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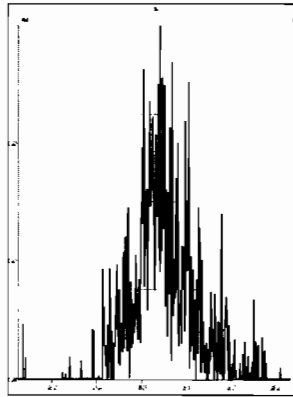
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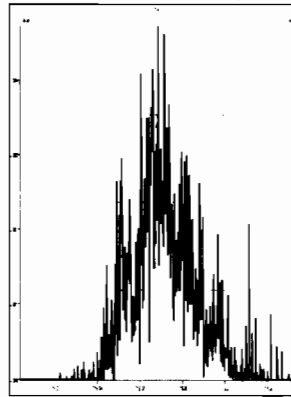
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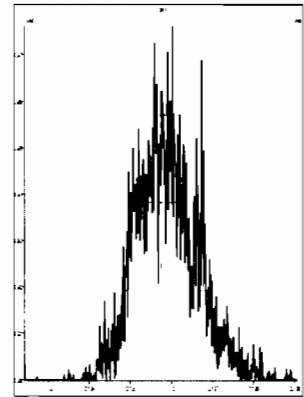
M 304.9824 R 17640



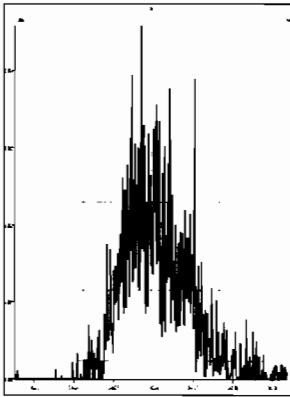
M 318.9792 R 15153



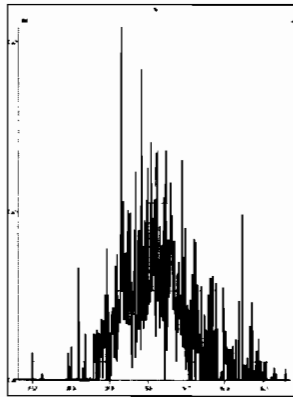
M 330.9792 R 12275



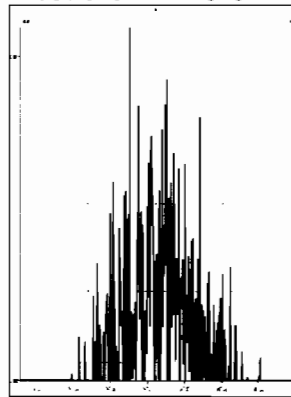
M 342.9792 R 14323



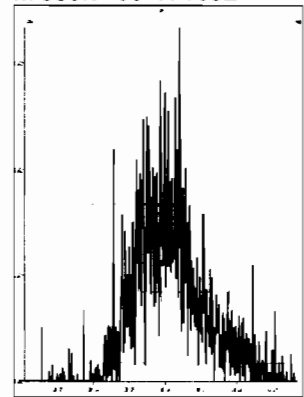
M 354.9792 R 29877



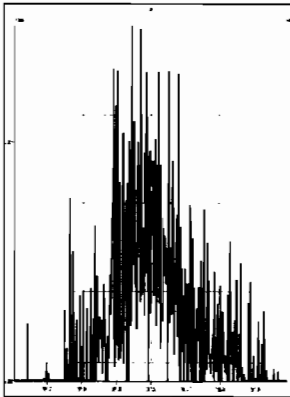
M 366.9792 R 176767



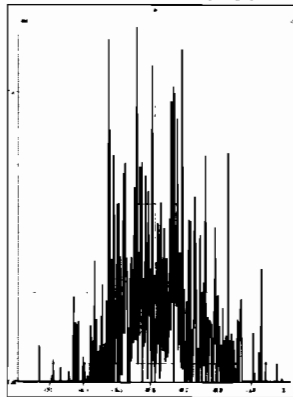
M 380.9760 R 16324



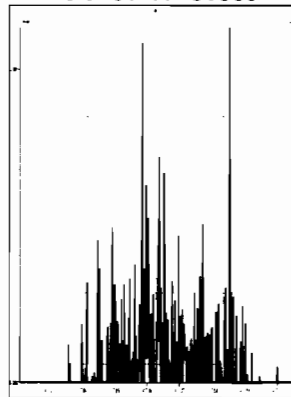
M 392.9760 R 44884



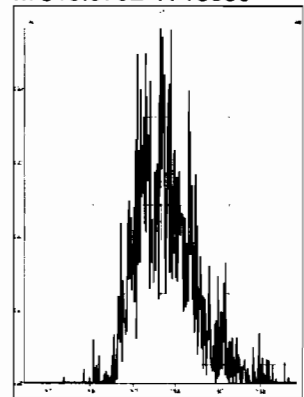
M 404.9760 R 213293



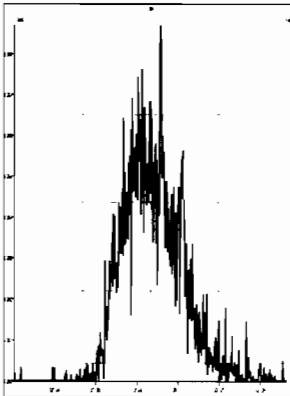
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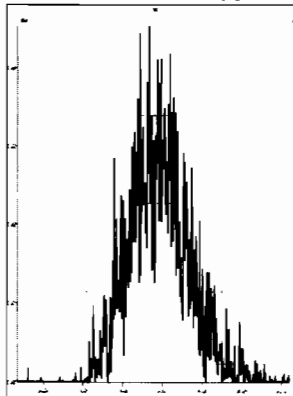
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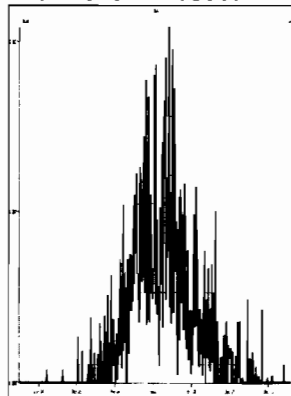
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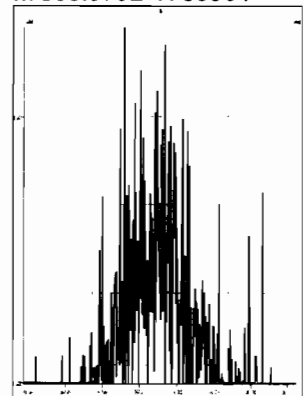
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M 354.9792 R 35907

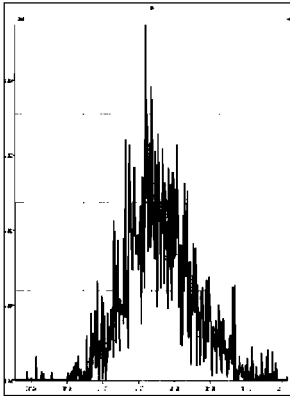


M 366.9792 R 83904

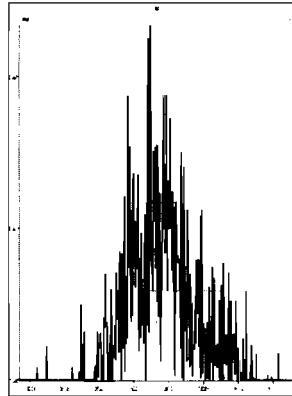




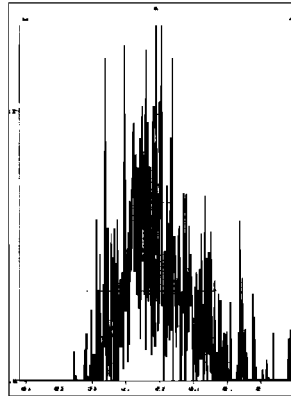
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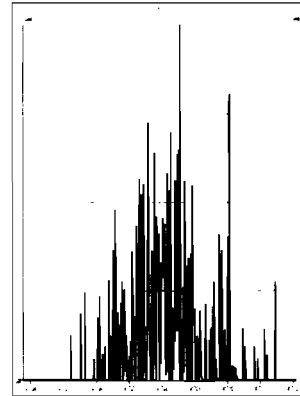
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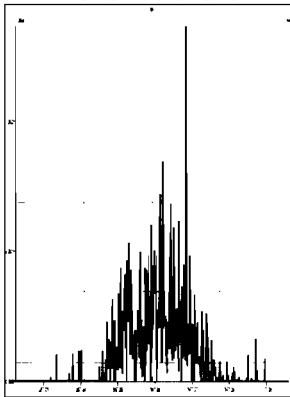
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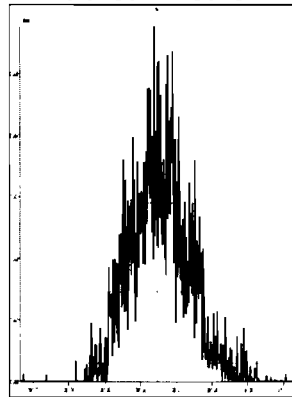
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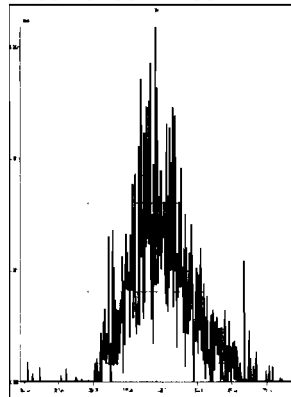
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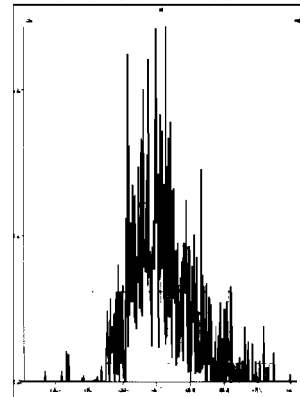
M 380.9760 R 13945



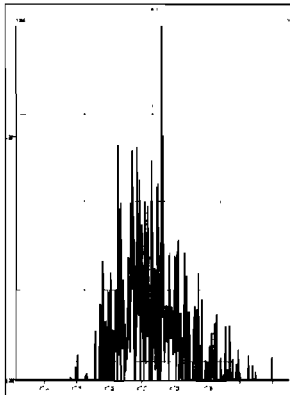
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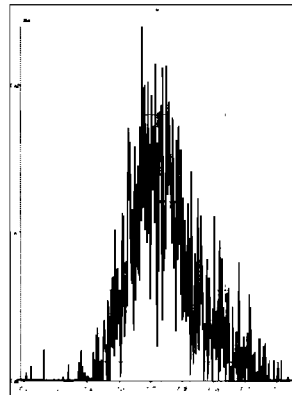
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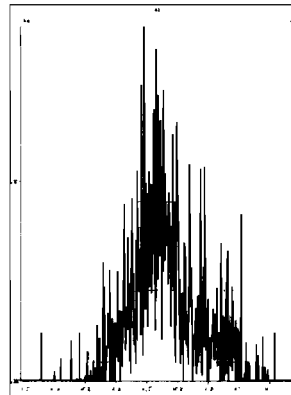
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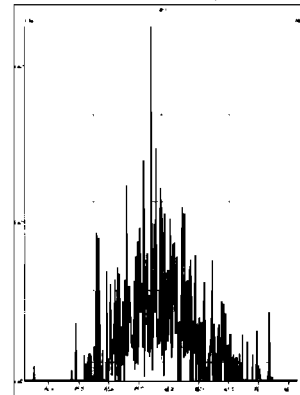
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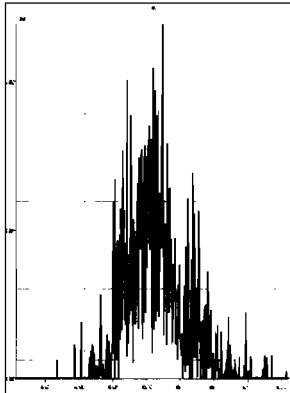
M 442.9728 R 31679



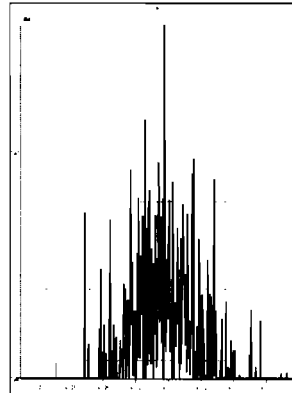
M 454.9728 R 56900



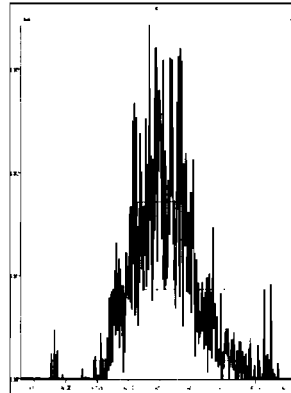
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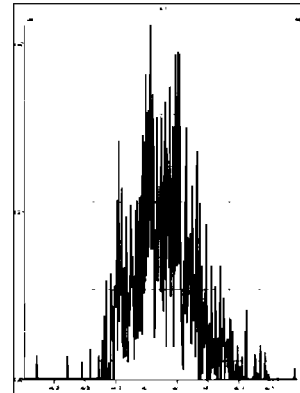
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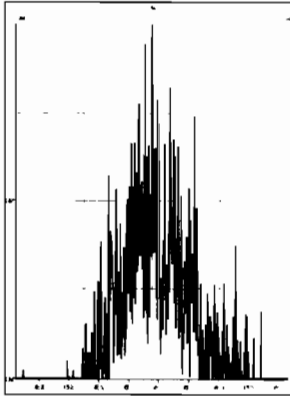
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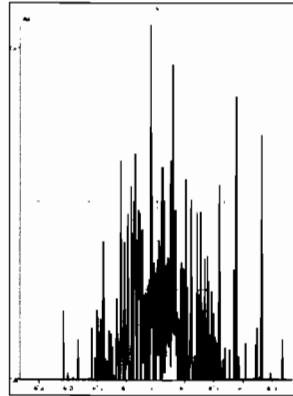
M 442.9728 R 17558



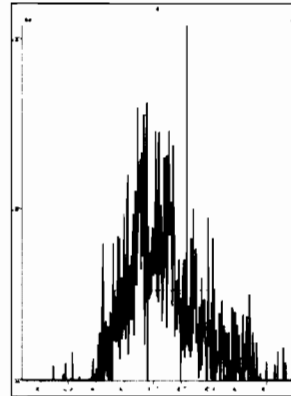
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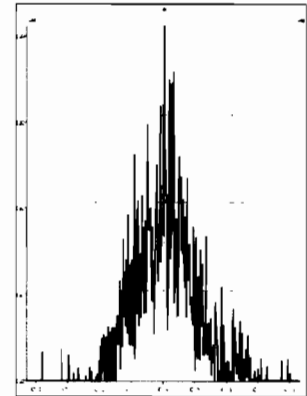
M 466.9728 R 144489



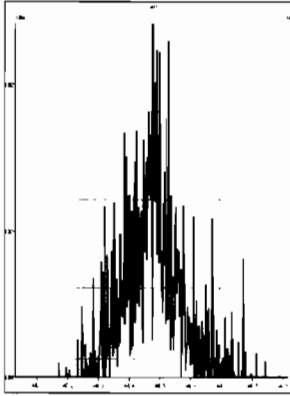
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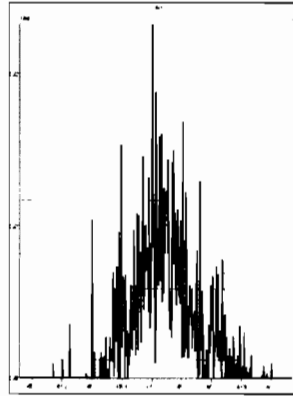
M 430.9728 R 17551



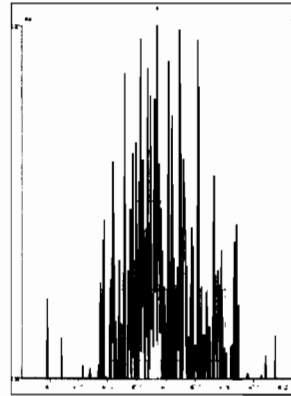
M 442.9728 R 23659



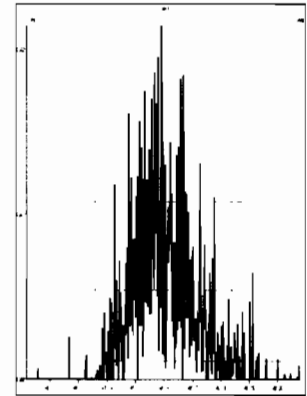
M 454.9728 R 20635



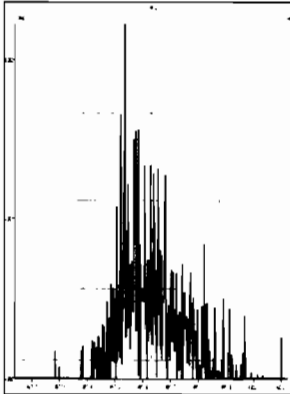
M 466.9728 R 342986



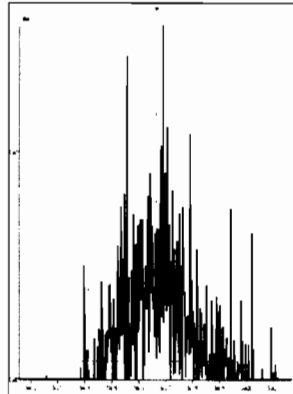
M 480.9696 R 34374



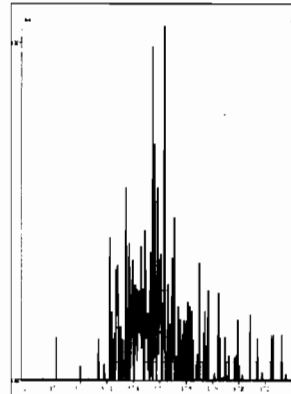
M 492.9696 R 124327



M 504.9696 R 53408



M 516.9697 R 520837



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST200609D1-1

**Reviewed By:** CT 06/10/2020  
*Initials & Date*

**End Calibration ID:** NA

|  | <u>Beg.</u>                         | <u>End</u>                          |   | <u>Beg.</u>                         | <u>End</u>                          |
|--|-------------------------------------|-------------------------------------|---|-------------------------------------|-------------------------------------|
| <b>Ion abundance within QC limits?</b>                                 | <input checked="" type="checkbox"/> | <input type="checkbox" value="NA"/> | <b>Mass resolution <math>\geq</math></b>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>Concentrations within criteria?</b>                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> 5k <input type="checkbox"/> 6-8K <input type="checkbox"/> 8K <input checked="" type="checkbox"/> 10K<br>1614   1699   429   1613/1668/8280 |                                     |                                     |
| <b>TCDD/TCDF Valleys &lt;25%</b>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <b>Intergrated peaks display correctly?</b>   | <input checked="" type="checkbox"/> | <input type="checkbox" value="NA"/> |
| <b>First and last eluters present?</b>                                 | <input type="checkbox" value="NA"/> | <input type="checkbox"/>            | <b>GC Break &lt;20%</b>   | <input type="checkbox" value="NA"/> |                                     |
| <b>Retention Times within criteria?</b>                                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <b><u>8280 CS1 End Standard:</u></b>  |                                     |                                     |
| <b>Verification Std. named correctly?</b><br>(ST-Year-Month-Day-VG ID) | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <b>- Ratios within limits, S/N &lt;2.5:1, CS1 within 12 hours</b>   | <input type="checkbox" value="NA"/> |                                     |
| <b>Forms signed and dated?</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <b>Comments:</b>  |                                     |                                     |
| <b>Correct ICAL referenced?</b>  | <input type="checkbox" value="DB"/> | <input type="checkbox"/>            |   |                                     |                                     |
| <b><u>Run Log:</u></b>   |                                     |                                     |   |                                     |                                     |
| <b>- Correct instrument listed?</b>                                    | <input checked="" type="checkbox"/> | <input type="checkbox" value="V"/>  |   |                                     |                                     |
| <b>- Samples within 12 hour clock?</b>                                 | <input type="checkbox" value="Y"/>  | <input type="checkbox" value="N"/>  |   |                                     |                                     |
| <b>- Bottle position verified?</b>                                     | <input type="checkbox" value="DB"/> | <input type="checkbox"/>            |   |                                     |                                     |

Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_2.qld

Last Altered: Tuesday, June 09, 2020 14:23:22 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 14:24:46 Pacific Daylight Time

*DB 6/9/20 (706/10/2020)*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_2, Date: 09-Jun-2020, Time: 14:01:10, ID: ST200609D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| # | Name               | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL    | EMPC |
|---|--------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1 | 1 2,3,7,8-TCDF     | 1.90e3 | 0.81 | NO  | 0.982 | 1.000  | 17.631  | 17.65 | 1.000    | 1.002 | 8.4344 | 84.3 <i>84-120</i> | 0.919 | 8.43 |
| 2 | 2 13C-2,3,7,8-TCDF | 2.30e4 | 0.71 | NO  | 1.08  | 1.000  | 17.677  | 17.61 | 1.133    | 1.135 | 93.671 | 93.7 <i>71-140</i> | 2.78  |      |
| 3 | 3 13C-1,2,3,4-TCDF | 2.27e4 | 0.75 | NO  | 1.00  | 1.000  | 15.660  | 15.52 | 1.000    | 1.000 | 100.00 | 100                | 3.01  |      |

Dataset: Untitled

Last Altered: Wednesday, June 10, 2020 09:05:30 Pacific Daylight Time  
Printed: Wednesday, June 10, 2020 09:05:45 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

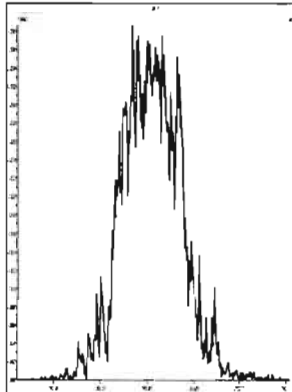
Compound name: 2,3,7,8-TCDF

|    | Name        | ID   | Acq.Date  | Acq.Time |
|----|-------------|--|-----------|----------|
| 1  | 200609D1_1  | CP200609D1-1 DB-225 CPSM                   | 09-Jun-20 | 13:15:34 |
| 2  | 200609D1_2  | ST200609D1-1 1613 CS3 19L2305              | 09-Jun-20 | 14:01:10 |
| 3  | 200609D1_3  | SOLVENT BLANK                              | 09-Jun-20 | 14:31:00 |
| 4  | 200609D1_4  | 2000965-14RE1 PDI-163SC-A-04-05-200425 ... | 09-Jun-20 | 15:02:16 |
| 5  | 200609D1_5  | 2000945-01RE1 PDI-146SC-A-00-01-200426 ... | 09-Jun-20 | 15:33:55 |
| 6  | 200609D1_6  | 2000945-02RE1 PDI-146SC-A-01-02-200426 ... | 09-Jun-20 | 16:05:37 |
| 7  | 200609D1_7  | B0D0306-DUP1RE1 Duplicate                  | 09-Jun-20 | 16:37:19 |
| 8  | 200609D1_8  | 2000998-06RE1 PDI-063SC-B-05-07-200429 ... | 09-Jun-20 | 17:09:00 |
| 9  | 200609D1_9  | 2000998-04RE1 PDI-063SC-B-00-02-200429 ... | 09-Jun-20 | 17:40:42 |
| 10 | 200609D1_10 | 2000965-10RE1 PDI-163SC-A-00-01-200425 ... | 09-Jun-20 | 18:12:23 |
| 11 | 200609D1_11 | 2000965-12RE1 PDI-163SC-A-02-03-200425 ... | 09-Jun-20 | 18:44:04 |
| 12 | 200609D1_12 | B0E0020-DUP1RE1 Duplicate                  | 09-Jun-20 | 19:15:45 |
| 13 | 200609D1_13 | 2000998-05RE1 PDI-063SC-B-02-05-200429 ... | 09-Jun-20 | 19:47:27 |
| 14 | 200609D1_14 | B0E0100-DUP2RE1 Duplicate                  | 09-Jun-20 | 20:19:08 |
| 15 | 200609D1_15 | 2000965-09RE1 PDI-1163SC-A-01-02-200425... | 09-Jun-20 | 20:50:49 |
| 16 | 200609D1_16 | 2000965-11RE1 PDI-163SC-A-01-02-200425 ... | 09-Jun-20 | 21:22:33 |
| 17 | 200609D1_17 | 2000995-03RE1 PDI-068SC-B-00-02-200430 ... | 09-Jun-20 | 21:54:12 |
| 18 | 200609D1_18 | 2000995-04RE1 PDI-068SC-B-02-05-200430 ... | 09-Jun-20 | 22:25:54 |
| 19 | 200609D1_19 | 2000995-05RE1 PDI-068SC-B-05-07-200430 ... | 09-Jun-20 | 22:57:36 |
| 20 | 200609D1_20 | 2000995-08RE1 PDI-072SC-B-00-02-200430 ... | 09-Jun-20 | 23:29:18 |

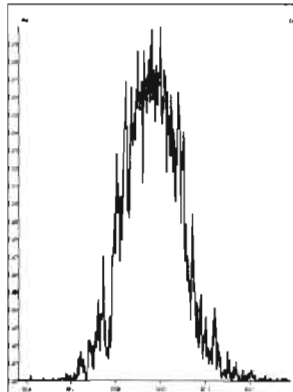
File: Experiment: tcdf\_db225.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, June 09, 2020 13:14:48 Pacific Daylight Time

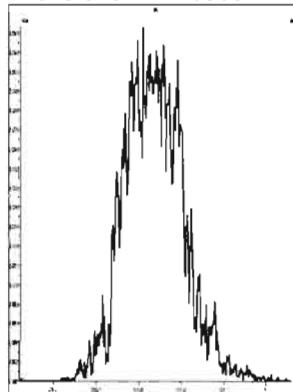
M 292.9824 R 10244



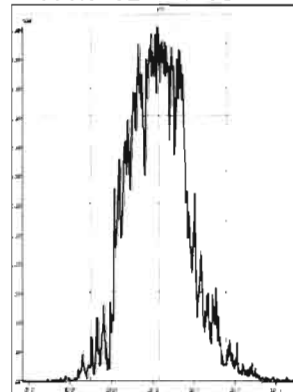
M 304.9824 R 11058



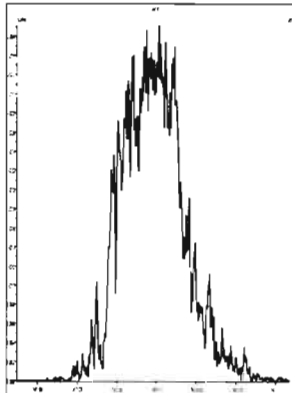
M 318.9792 R 10505



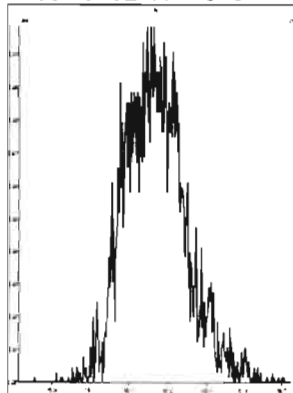
M 330.9792 R 11961



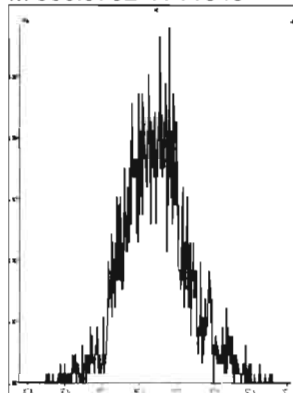
M 342.9792 R 11959



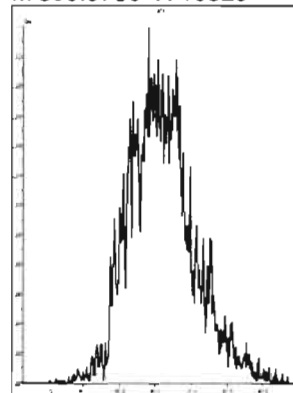
M 354.9792 R 12020

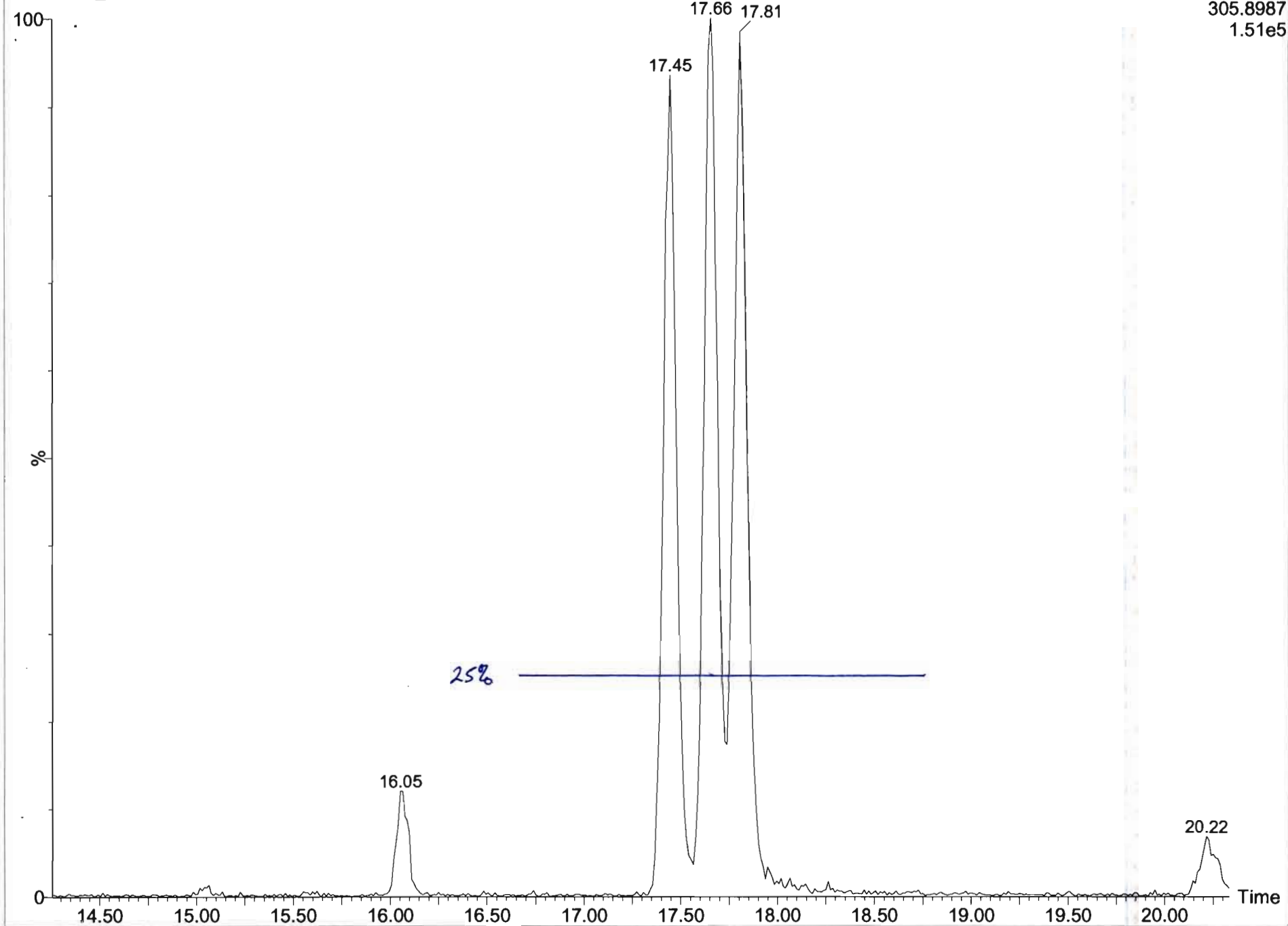


M 366.9792 R 11848



M 380.9760 R 10329





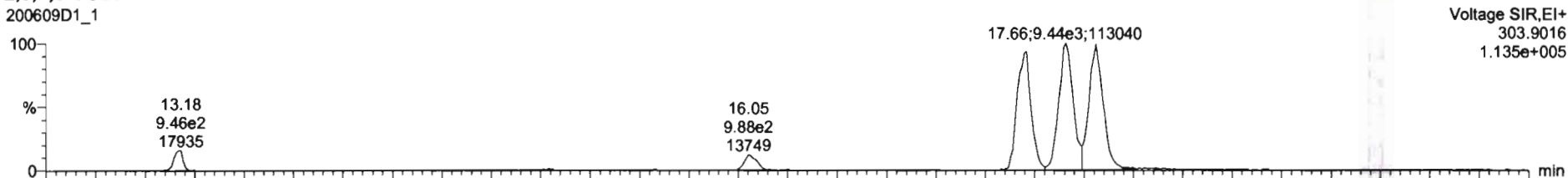
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_1.qld

Last Altered: Tuesday, June 09, 2020 14:25:15 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 14:26:26 Pacific Daylight Time

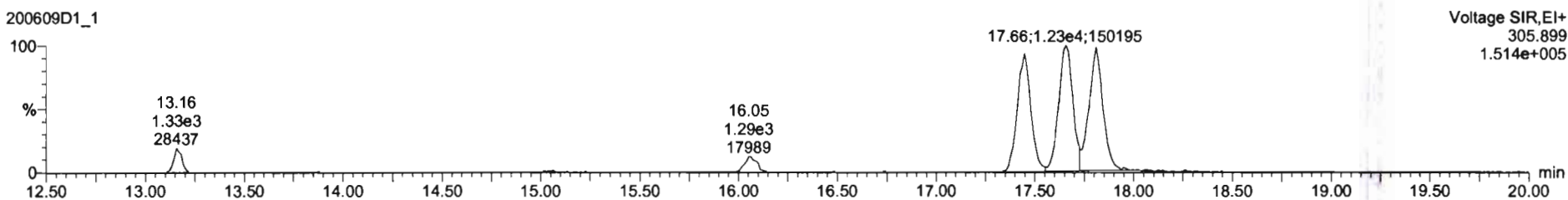
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_1, Date: 09-Jun-2020, Time: 13:15:34, ID: CP200609D1-1 DB-225 CPSM, Description: DB-225 CPSM

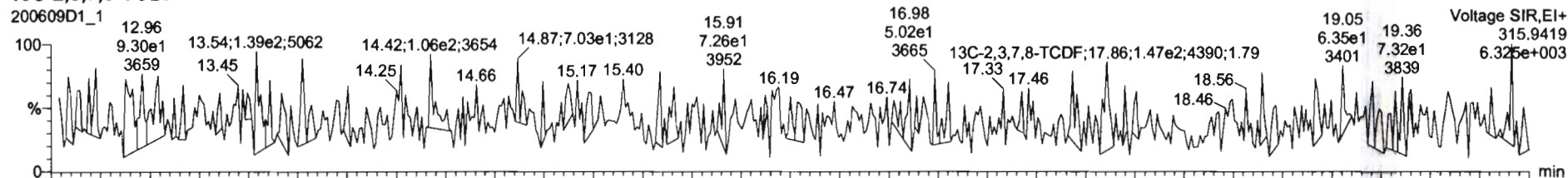
2,3,7,8-TCDF  
200609D1\_1



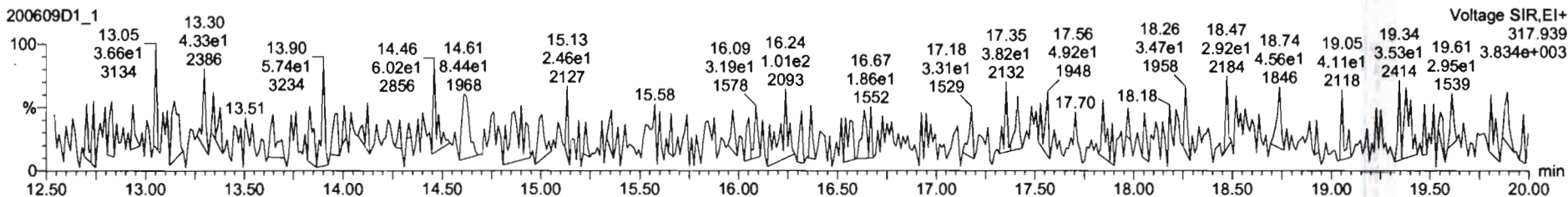
200609D1\_1



13C-2,3,7,8-TCDF



200609D1\_1



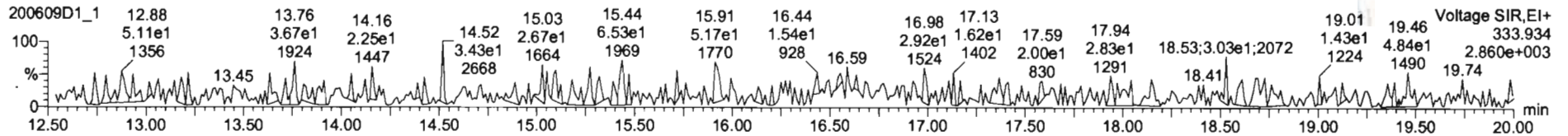
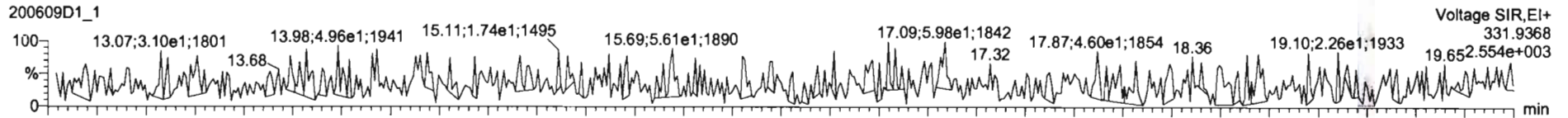


Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_1.qld

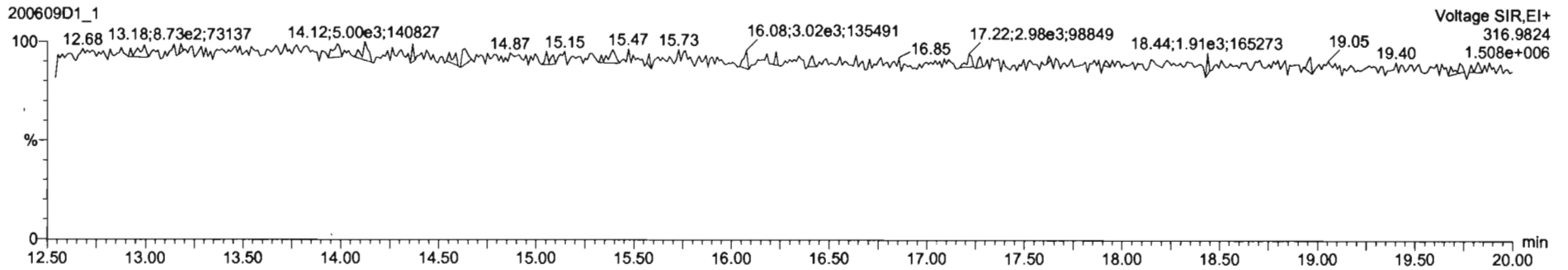
Last Altered: Tuesday, June 09, 2020 14:25:15 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 14:26:26 Pacific Daylight Time

Name: 200609D1\_1, Date: 09-Jun-2020, Time: 13:15:34, ID: CP200609D1-1 DB-225 CPSM, Description: DB-225 CPSM

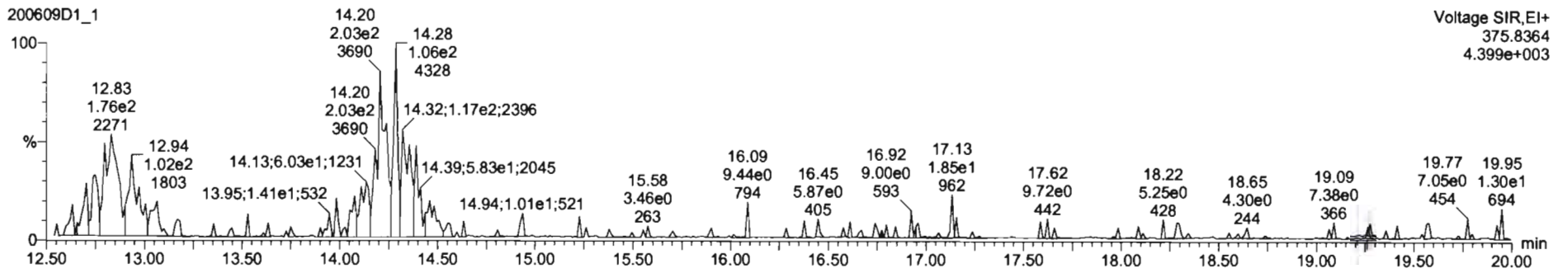
13C-1,2,3,4-TCDD



PFK1



DPE1



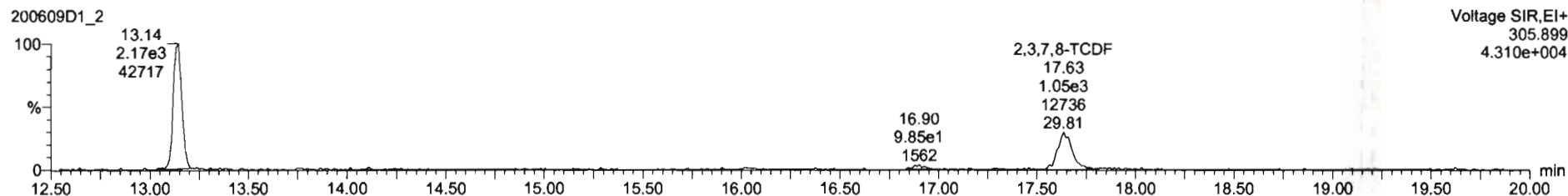
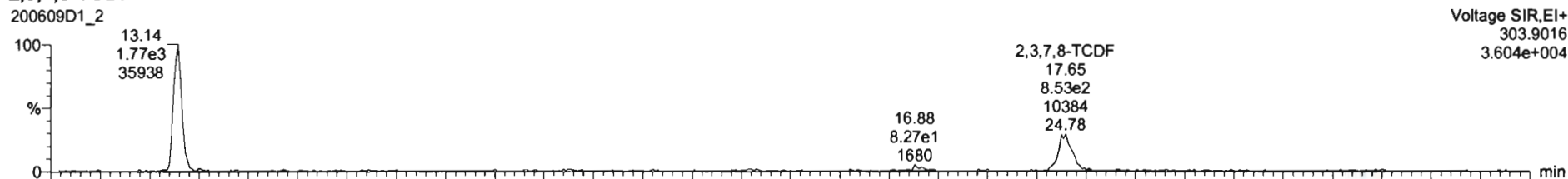
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_2.qld

Last Altered: Tuesday, June 09, 2020 14:23:22 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 14:25:05 Pacific Daylight Time

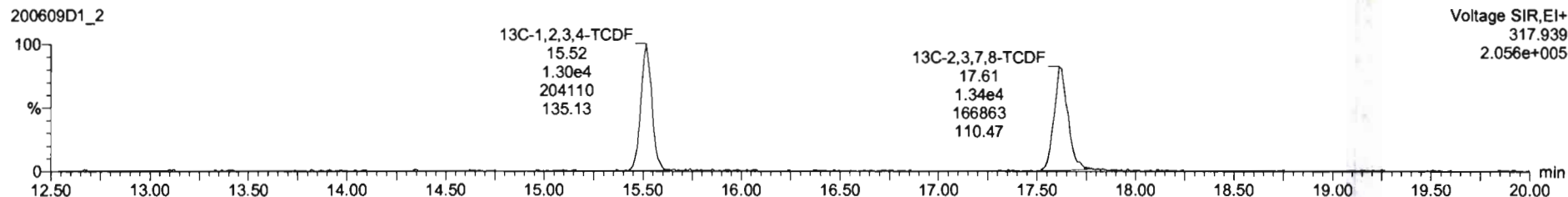
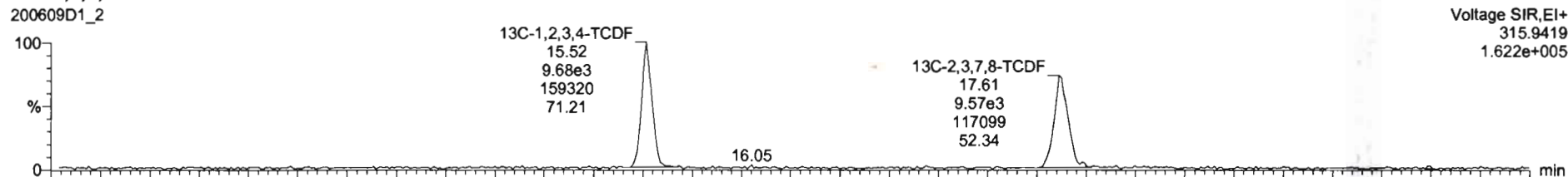
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 23 Mar 2020 11:10:19  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 11:17:56

Name: 200609D1\_2, Date: 09-Jun-2020, Time: 14:01:10, ID: ST200609D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

2,3,7,8-TCDF



13C-2,3,7,8-TCDF



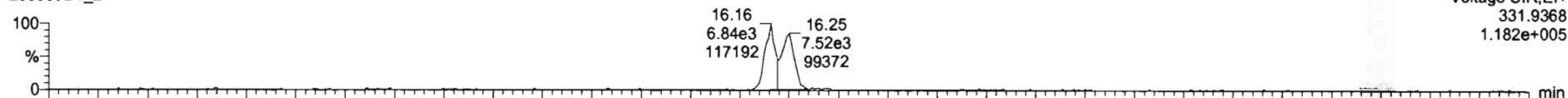
Dataset: U:\VG7.PRO\Results\200609D1\200609D1\_2.qld

Last Altered: Tuesday, June 09, 2020 14:23:22 Pacific Daylight Time  
Printed: Tuesday, June 09, 2020 14:25:05 Pacific Daylight Time

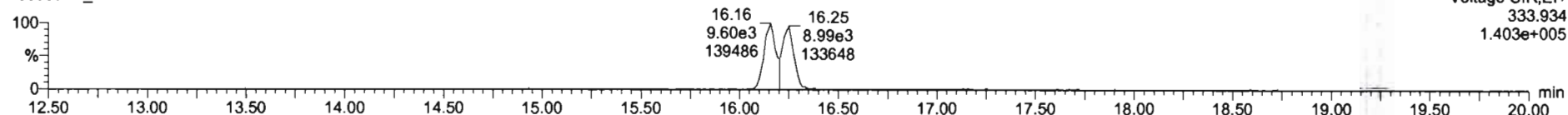
Name: 200609D1\_2, Date: 09-Jun-2020, Time: 14:01:10, ID: ST200609D1-1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

13C-1,2,3,4-TCDD

200609D1\_2

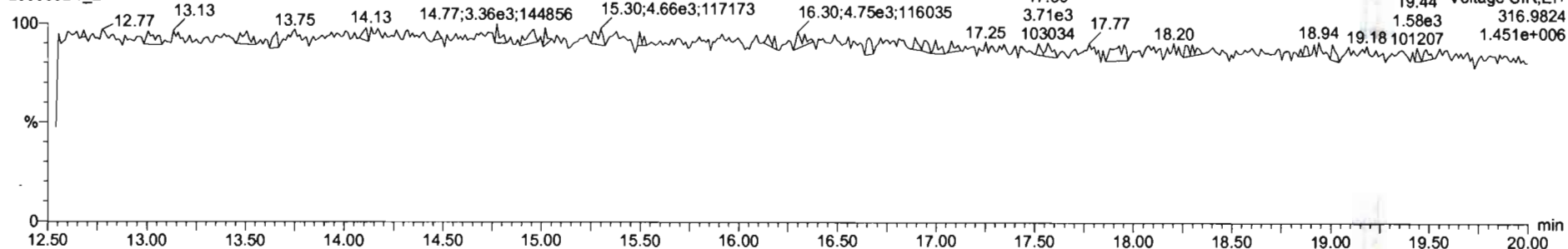


200609D1\_2



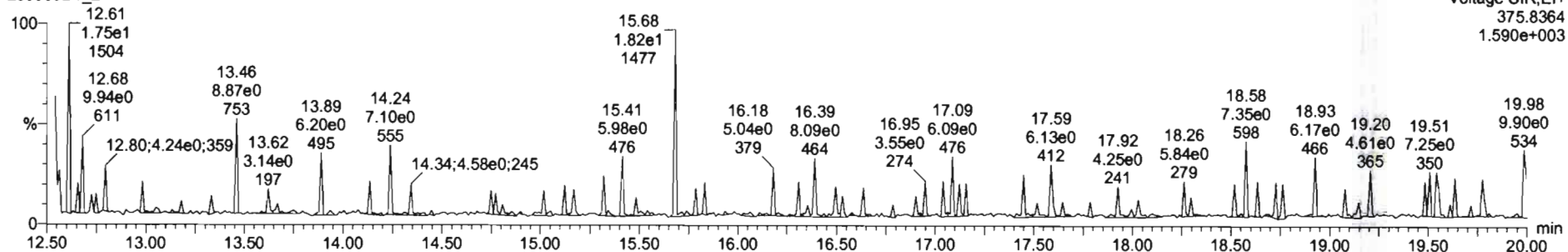
PFK1

200609D1\_2



DPE1

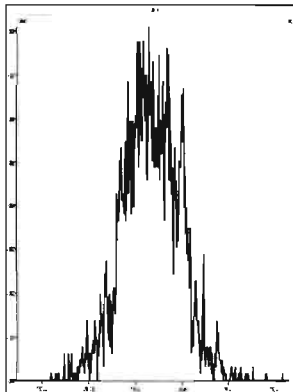
200609D1\_2



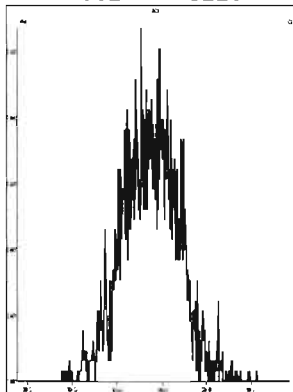
File: Experiment: tcdf\_db225.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Wednesday, June 10, 2020 00:03:15 Pacific Daylight Time

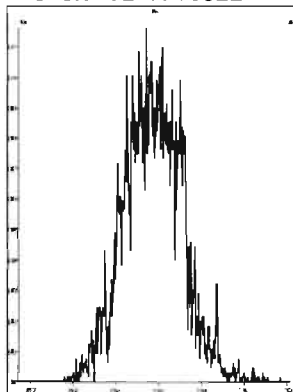
M 292.9824 R 13223



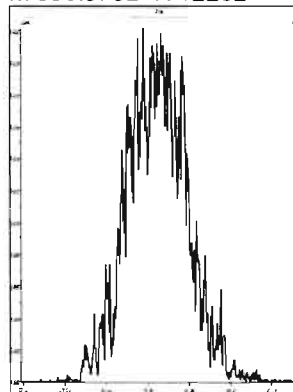
M 304.9824 R 13228



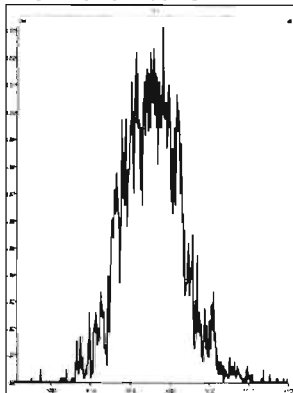
M 318.9792 R 10822



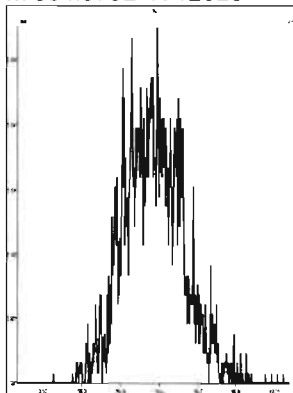
M 330.9792 R 12252



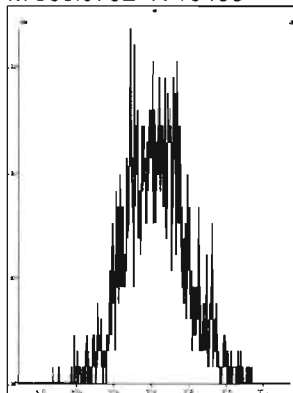
M 342.9792 R 10777



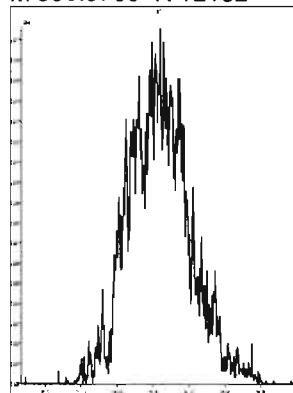
M 354.9792 R 12820



M 366.9792 R 10458



M 380.9760 R 12132



## **INITIAL CALIBRATION**

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld  
 Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time  
 Printed: Monday, March 09, 2020 17:23:44 Pacific Daylight Time

DB 3/9/20 C7 03/10/2020

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 09 Mar 2020 11:30:34  
 Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Compound name: 2,3,7,8-TCDD  
 Response Factor: 0.986791  
 RRF SD: 0.0674267, Relative SD: 6.83293  
 Response type: Internal Std ( Ref 18 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 0.250     | 0.85 | NO  | 25.88 | 1.001 | 1.59e2 | 6.81e4  | 0.237 | -5.3 | 0.934 | MM          |
| 2 | 200309D1_2 | 0.500     | 0.88 | NO  | 25.85 | 1.000 | 3.14e2 | 6.95e4  | 0.457 | -8.6 | 0.902 | MM          |
| 3 | 200309D1_3 | 2.00      | 0.84 | NO  | 25.88 | 1.001 | 1.33e3 | 6.75e4  | 1.99  | -0.3 | 0.984 | bb          |
| 4 | 200309D1_4 | 40.0      | 0.78 | NO  | 25.90 | 1.001 | 2.62e4 | 6.74e4  | 39.3  | -1.7 | 0.970 | bb          |
| 5 | 200309D1_5 | 300       | 0.77 | NO  | 25.90 | 1.001 | 2.32e5 | 7.20e4  | 327   | 9.1  | 1.08  | db          |
| 6 | 200309D1_6 | 10.0      | 0.84 | NO  | 25.90 | 1.001 | 5.95e3 | 5.65e4  | 10.7  | 6.7  | 1.05  | db          |

Compound name: 1,2,3,7,8-PeCDD  
 Response Factor: 0.982426  
 RRF SD: 0.0451347, Relative SD: 4.59421  
 Response type: Internal Std ( Ref 19 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 0.66 | NO  | 30.47 | 1.000 | 6.61e2 | 5.66e4  | 1.19  | -5.0 | 0.933 | bb          |
| 2 | 200309D1_2 | 2.50      | 0.63 | NO  | 30.47 | 1.000 | 1.30e3 | 5.32e4  | 2.49  | -0.5 | 0.977 | bb          |
| 3 | 200309D1_3 | 10.0      | 0.68 | NO  | 30.47 | 1.000 | 5.19e3 | 5.49e4  | 9.61  | -3.9 | 0.944 | bb          |
| 4 | 200309D1_4 | 200       | 0.62 | NO  | 30.49 | 1.001 | 1.12e5 | 5.55e4  | 205   | 2.7  | 1.01  | bb          |
| 5 | 200309D1_5 | 1500      | 0.63 | NO  | 30.49 | 1.001 | 9.76e5 | 6.16e4  | 1610  | 7.5  | 1.06  | bb          |
| 6 | 200309D1_6 | 50.0      | 0.63 | NO  | 30.49 | 1.001 | 2.35e4 | 4.81e4  | 49.6  | -0.7 | 0.975 | bb          |

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**Compound name: 1,2,3,4,7,8-HxCDD**

Response Factor: 1.17437

RRF SD: 0.0577382, Relative SD: 4.91652

Response type: Internal Std ( Ref 20 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.18 | NO  | 33.75 | 1.000 | 6.45e2 | 4.51e4  | 1.22  | -2.7 | 1.14 | bd          |
| 2 | 200309D1_2 | 2.50      | 1.21 | NO  | 33.76 | 1.000 | 1.19e3 | 4.27e4  | 2.37  | -5.1 | 1.11 | bd          |
| 3 | 200309D1_3 | 10.0      | 1.21 | NO  | 33.76 | 1.001 | 5.25e3 | 4.33e4  | 10.3  | 3.2  | 1.21 | bd          |
| 4 | 200309D1_4 | 200       | 1.27 | NO  | 33.77 | 1.000 | 1.15e5 | 4.94e4  | 199   | -0.5 | 1.17 | bd          |
| 5 | 200309D1_5 | 1500      | 1.25 | NO  | 33.76 | 1.000 | 1.01e6 | 5.28e4  | 1620  | 8.2  | 1.27 | bd          |
| 6 | 200309D1_6 | 50.0      | 1.30 | NO  | 33.77 | 1.000 | 2.32e4 | 4.08e4  | 48.4  | -3.2 | 1.14 | bd          |

**Compound name: 1,2,3,6,7,8-HxCDD**

Response Factor: 1.0362

RRF SD: 0.0515873, Relative SD: 4.9785

Response type: Internal Std ( Ref 21 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.28 | NO  | 33.86 | 1.000 | 7.20e2 | 5.91e4  | 1.17  | -6.0 | 0.974 | db          |
| 2 | 200309D1_2 | 2.50      | 1.34 | NO  | 33.86 | 1.000 | 1.47e3 | 5.50e4  | 2.58  | 3.0  | 1.07  | db          |
| 3 | 200309D1_3 | 10.0      | 1.28 | NO  | 33.86 | 1.000 | 5.81e3 | 5.52e4  | 10.2  | 1.5  | 1.05  | db          |
| 4 | 200309D1_4 | 200       | 1.25 | NO  | 33.88 | 1.000 | 1.24e5 | 5.99e4  | 199   | -0.3 | 1.03  | db          |
| 5 | 200309D1_5 | 1500      | 1.26 | NO  | 33.87 | 1.000 | 1.05e6 | 6.33e4  | 1600  | 7.0  | 1.11  | db          |
| 6 | 200309D1_6 | 50.0      | 1.22 | NO  | 33.87 | 1.000 | 2.48e4 | 5.06e4  | 47.4  | -5.2 | 0.982 | db          |

**Compound name: 1,2,3,7,8,9-HxCDD**

Response Factor: 1.00287

RRF SD: 0.0694501, Relative SD: 6.92514

Response type: Internal Std ( Ref 22 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.14 | NO  | 34.15 | 1.000 | 6.16e2 | 5.38e4  | 1.14  | -8.7 | 0.915 | bb          |
| 2 | 200309D1_2 | 2.50      | 1.18 | NO  | 34.16 | 1.000 | 1.32e3 | 5.16e4  | 2.55  | 1.8  | 1.02  | bb          |

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**Compound name: 1,2,3,7,8,9-HxCDD**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 3 | 200309D1_3 | 10.0      | 1.23 | NO  | 34.16 | 1.000 | 5.12e3 | 5.22e4  | 9.77  | -2.3 | 0.980 | bb          |
| 4 | 200309D1_4 | 200       | 1.27 | NO  | 34.17 | 1.000 | 1.18e5 | 5.76e4  | 204   | 1.9  | 1.02  | bd          |
| 5 | 200309D1_5 | 1500      | 1.24 | NO  | 34.16 | 1.000 | 1.01e6 | 6.01e4  | 1670  | 11.5 | 1.12  | bb          |
| 6 | 200309D1_6 | 50.0      | 1.22 | NO  | 34.17 | 1.001 | 2.27e4 | 4.73e4  | 47.9  | -4.3 | 0.960 | bb          |

**Compound name: 1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.991554  
 RRF SD: 0.0575038, Relative SD: 5.79936  
 Response type: Internal Std ( Ref 23 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.12 | NO  | 37.64 | 1.001 | 5.97e2 | 4.76e4  | 1.26  | 1.1  | 1.00  | bb          |
| 2 | 200309D1_2 | 2.50      | 1.03 | NO  | 37.65 | 1.001 | 1.03e3 | 4.11e4  | 2.54  | 1.5  | 1.01  | bb          |
| 3 | 200309D1_3 | 10.0      | 1.06 | NO  | 37.64 | 1.000 | 4.11e3 | 4.54e4  | 9.13  | -8.7 | 0.905 | bb          |
| 4 | 200309D1_4 | 200       | 1.07 | NO  | 37.65 | 1.000 | 1.01e5 | 4.89e4  | 208   | 4.0  | 1.03  | bd          |
| 5 | 200309D1_5 | 1500      | 1.03 | NO  | 37.64 | 1.000 | 9.00e5 | 5.66e4  | 1600  | 7.0  | 1.06  | bb          |
| 6 | 200309D1_6 | 50.0      | 1.03 | NO  | 37.65 | 1.001 | 1.97e4 | 4.19e4  | 47.6  | -4.9 | 0.943 | bb          |

**Compound name: OCDD**

Response Factor: 1.03532  
 RRF SD: 0.0416085, Relative SD: 4.01889  
 Response type: Internal Std ( Ref 24 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 2.50      | 0.91 | NO  | 40.83 | 1.000 | 9.32e2 | 7.50e4  | 2.40  | -3.9 | 0.994 | MM          |
| 2 | 200309D1_2 | 5.00      | 0.78 | NO  | 40.85 | 1.000 | 1.85e3 | 6.85e4  | 5.23  | 4.6  | 1.08  | bd          |
| 3 | 200309D1_3 | 20.0      | 0.98 | NO  | 40.85 | 1.000 | 7.01e3 | 7.19e4  | 18.8  | -5.8 | 0.975 | bd          |
| 4 | 200309D1_4 | 400       | 0.93 | NO  | 40.85 | 1.000 | 1.78e5 | 8.39e4  | 410   | 2.5  | 1.06  | bd          |
| 5 | 200309D1_5 | 3000      | 0.89 | NO  | 40.86 | 1.000 | 1.63e6 | 1.03e5  | 3040  | 1.4  | 1.05  | bb          |
| 6 | 200309D1_6 | 100       | 0.91 | NO  | 40.86 | 1.000 | 3.46e4 | 6.60e4  | 101   | 1.4  | 1.05  | bd          |



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**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.881772

RRF SD: 0.0293286, Relative SD: 3.3261

Response type: Internal Std ( Ref 25 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 0.250     | 0.66 | NO  | 25.06 | 1.000 | 2.28e2 | 1.00e5  | 0.258 | 3.0  | 0.909 | MM          |
| 2 | 200309D1_2 | 0.500     | 0.76 | NO  | 25.06 | 1.001 | 4.83e2 | 1.06e5  | 0.514 | 2.8  | 0.907 | MM          |
| 3 | 200309D1_3 | 2.00      | 0.88 | NO  | 25.07 | 1.000 | 1.84e3 | 1.05e5  | 1.99  | -0.6 | 0.876 | MM          |
| 4 | 200309D1_4 | 40.0      | 0.74 | NO  | 25.09 | 1.001 | 3.49e4 | 1.05e5  | 37.6  | -6.0 | 0.829 | bb          |
| 5 | 200309D1_5 | 300       | 0.76 | NO  | 25.09 | 1.001 | 3.02e5 | 1.13e5  | 303   | 1.0  | 0.891 | bb          |
| 6 | 200309D1_6 | 10.0      | 0.74 | NO  | 25.07 | 1.001 | 7.83e3 | 8.90e4  | 9.97  | -0.3 | 0.879 | bb          |

**Compound name: 1,2,3,7,8-PeCDF**

Response Factor: 1.04525

RRF SD: 0.0516323, Relative SD: 4.93972

Response type: Internal Std ( Ref 26 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.46 | NO  | 29.28 | 1.001 | 1.15e3 | 9.51e4  | 1.16  | -7.6 | 0.966 | bb          |
| 2 | 200309D1_2 | 2.50      | 1.57 | NO  | 29.28 | 1.001 | 2.47e3 | 8.89e4  | 2.66  | 6.5  | 1.11  | bb          |
| 3 | 200309D1_3 | 10.0      | 1.52 | NO  | 29.28 | 1.001 | 9.45e3 | 9.31e4  | 9.71  | -2.9 | 1.01  | bb          |
| 4 | 200309D1_4 | 200       | 1.61 | NO  | 29.30 | 1.001 | 1.99e5 | 9.40e4  | 203   | 1.3  | 1.06  | bd          |
| 5 | 200309D1_5 | 1500      | 1.56 | NO  | 29.30 | 1.001 | 1.61e6 | 9.94e4  | 1550  | 3.4  | 1.08  | bb          |
| 6 | 200309D1_6 | 50.0      | 1.62 | NO  | 29.28 | 1.000 | 3.93e4 | 7.57e4  | 49.7  | -0.7 | 1.04  | bd          |

**Compound name: 2,3,4,7,8-PeCDF**

Response Factor: 1.06003

RRF SD: 0.0406821, Relative SD: 3.83782

Response type: Internal Std ( Ref 27 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.66 | NO  | 30.19 | 1.001 | 1.25e3 | 9.11e4  | 1.30  | 3.6  | 1.10 | bb          |
| 2 | 200309D1_2 | 2.50      | 1.72 | NO  | 30.19 | 1.000 | 2.10e3 | 8.35e4  | 2.38  | -5.0 | 1.01 | bb          |

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**Compound name: 2,3,4,7,8-PeCDF**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 3 | 200309D1_3 | 10.0      | 1.59 | NO  | 30.19 | 1.001 | 9.41e3 | 8.81e4  | 10.1  | 0.8  | 1.07 | bb          |
| 4 | 200309D1_4 | 200       | 1.60 | NO  | 30.21 | 1.001 | 1.95e5 | 9.25e4  | 199   | -0.4 | 1.06 | bb          |
| 5 | 200309D1_5 | 1500      | 1.56 | NO  | 30.19 | 1.000 | 1.64e6 | 9.85e4  | 1570  | 4.6  | 1.11 | bb          |
| 6 | 200309D1_6 | 50.0      | 1.59 | NO  | 30.19 | 1.000 | 3.92e4 | 7.68e4  | 48.2  | -3.7 | 1.02 | bb          |

**Compound name: 1,2,3,4,7,8-HxCDF**

Response Factor: 1.08299

RRF SD: 0.038965, Relative SD: 3.59793

Response type: Internal Std ( Ref 28 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.27 | NO  | 32.87 | 1.000 | 9.32e2 | 7.17e4  | 1.20  | -3.9 | 1.04 | bd          |
| 2 | 200309D1_2 | 2.50      | 1.18 | NO  | 32.89 | 1.000 | 1.90e3 | 6.72e4  | 2.61  | 4.3  | 1.13 | bd          |
| 3 | 200309D1_3 | 10.0      | 1.24 | NO  | 32.89 | 1.001 | 7.56e3 | 6.92e4  | 10.1  | 0.8  | 1.09 | bd          |
| 4 | 200309D1_4 | 200       | 1.25 | NO  | 32.90 | 1.000 | 1.60e5 | 7.40e4  | 200   | -0.1 | 1.08 | dd          |
| 5 | 200309D1_5 | 1500      | 1.24 | NO  | 32.89 | 1.000 | 1.35e6 | 8.03e4  | 1550  | 3.3  | 1.12 | dd          |
| 6 | 200309D1_6 | 50.0      | 1.27 | NO  | 32.90 | 1.001 | 3.35e4 | 6.48e4  | 47.8  | -4.4 | 1.04 | bd          |

**Compound name: 1,2,3,6,7,8-HxCDF**

Response Factor: 1.04248

RRF SD: 0.0426252, Relative SD: 4.08882

Response type: Internal Std ( Ref 29 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.22 | NO  | 33.01 | 1.001 | 9.80e2 | 8.01e4  | 1.17  | -6.1 | 0.979 | db          |
| 2 | 200309D1_2 | 2.50      | 1.28 | NO  | 33.02 | 1.001 | 1.97e3 | 7.44e4  | 2.54  | 1.6  | 1.06  | db          |
| 3 | 200309D1_3 | 10.0      | 1.24 | NO  | 33.01 | 1.000 | 8.06e3 | 7.79e4  | 9.92  | -0.8 | 1.03  | db          |
| 4 | 200309D1_4 | 200       | 1.25 | NO  | 33.02 | 1.000 | 1.76e5 | 8.37e4  | 201   | 0.7  | 1.05  | db          |
| 5 | 200309D1_5 | 1500      | 1.25 | NO  | 33.02 | 1.001 | 1.46e6 | 8.80e4  | 1590  | 6.3  | 1.11  | db          |
| 6 | 200309D1_6 | 50.0      | 1.26 | NO  | 33.02 | 1.001 | 3.62e4 | 7.06e4  | 49.2  | -1.7 | 1.02  | db          |

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**Compound name: 2,3,4,6,7,8-HxCDF**

Response Factor: 1.11095

RRF SD: 0.0463148, Relative SD: 4.16894

Response type: Internal Std ( Ref 30 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.18 | NO  | 33.59 | 1.000 | 9.35e2 | 7.20e4  | 1.17  | -6.5 | 1.04 | bb          |
| 2 | 200309D1_2 | 2.50      | 1.26 | NO  | 33.60 | 1.000 | 1.86e3 | 6.61e4  | 2.53  | 1.3  | 1.13 | bb          |
| 3 | 200309D1_3 | 10.0      | 1.25 | NO  | 33.59 | 1.000 | 7.62e3 | 7.02e4  | 9.77  | -2.3 | 1.09 | bb          |
| 4 | 200309D1_4 | 200       | 1.26 | NO  | 33.61 | 1.000 | 1.69e5 | 7.56e4  | 202   | 0.8  | 1.12 | bb          |
| 5 | 200309D1_5 | 1500      | 1.24 | NO  | 33.60 | 1.001 | 1.42e6 | 8.06e4  | 1590  | 6.0  | 1.18 | bb          |
| 6 | 200309D1_6 | 50.0      | 1.27 | NO  | 33.60 | 1.000 | 3.50e4 | 6.26e4  | 50.3  | 0.7  | 1.12 | bb          |

**Compound name: 1,2,3,7,8,9-HxCDF**

Response Factor: 1.05671

RRF SD: 0.0544012, Relative SD: 5.14816

Response type: Internal Std ( Ref 31 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 1.16 | NO  | 34.53 | 1.001 | 7.41e2 | 5.94e4  | 1.18  | -5.5 | 0.999 | MM          |
| 2 | 200309D1_2 | 2.50      | 1.24 | NO  | 34.53 | 1.001 | 1.40e3 | 5.56e4  | 2.37  | -5.0 | 1.00  | bb          |
| 3 | 200309D1_3 | 10.0      | 1.24 | NO  | 34.53 | 1.001 | 6.08e3 | 5.62e4  | 10.2  | 2.4  | 1.08  | bb          |
| 4 | 200309D1_4 | 200       | 1.24 | NO  | 34.53 | 1.000 | 1.35e5 | 6.28e4  | 204   | 1.8  | 1.08  | bb          |
| 5 | 200309D1_5 | 1500      | 1.24 | NO  | 34.53 | 1.001 | 1.16e6 | 6.79e4  | 1620  | 8.1  | 1.14  | bb          |
| 6 | 200309D1_6 | 50.0      | 1.29 | NO  | 34.53 | 1.000 | 2.76e4 | 5.32e4  | 49.1  | -1.8 | 1.04  | bb          |

**Compound name: 1,2,3,4,6,7,8-HpCDF**

Response Factor: 1.12811

RRF SD: 0.0801215, Relative SD: 7.10229

Response type: Internal Std ( Ref 32 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 1.25      | 0.99 | NO  | 36.32 | 1.001 | 7.86e2 | 6.36e4  | 1.10  | -12.3 | 0.989 | bb          |
| 2 | 200309D1_2 | 2.50      | 0.99 | NO  | 36.34 | 1.001 | 1.64e3 | 5.53e4  | 2.63  | 5.1   | 1.19  | bb          |

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**Compound name: 1,2,3,4,6,7,8-HpCDF**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 3 | 200309D1_3 | 10.0      | 0.98 | NO  | 36.34 | 1.001 | 6.50e3 | 5.84e4  | 9.87  | -1.3 | 1.11 | bb          |
| 4 | 200309D1_4 | 200       | 1.01 | NO  | 36.34 | 1.000 | 1.41e5 | 6.29e4  | 199   | -0.3 | 1.12 | bb          |
| 5 | 200309D1_5 | 1500      | 1.04 | NO  | 36.34 | 1.001 | 1.26e6 | 6.88e4  | 1630  | 8.5  | 1.22 | bb          |
| 6 | 200309D1_6 | 50.0      | 1.03 | NO  | 36.34 | 1.000 | 2.92e4 | 5.16e4  | 50.2  | 0.3  | 1.13 | bb          |

**Compound name: 1,2,3,4,7,8,9-HpCDF**

Response Factor: 1.33317

RRF SD: 0.0694325, Relative SD: 5.20809

Response type: Internal Std ( Ref 33 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 1.25      | 0.90 | NO  | 38.15 | 1.000 | 6.45e2 | 4.04e4  | 1.20  | -4.2 | 1.28 | MM          |
| 2 | 200309D1_2 | 2.50      | 0.91 | NO  | 38.15 | 1.000 | 1.25e3 | 3.60e4  | 2.60  | 4.1  | 1.39 | bb          |
| 3 | 200309D1_3 | 10.0      | 1.13 | NO  | 38.16 | 1.000 | 5.08e3 | 3.98e4  | 9.58  | -4.2 | 1.28 | bb          |
| 4 | 200309D1_4 | 200       | 1.03 | NO  | 38.16 | 1.000 | 1.18e5 | 4.51e4  | 196   | -1.9 | 1.31 | bb          |
| 5 | 200309D1_5 | 1500      | 1.03 | NO  | 38.16 | 1.000 | 1.08e6 | 4.99e4  | 1630  | 8.6  | 1.45 | bb          |
| 6 | 200309D1_6 | 50.0      | 1.01 | NO  | 38.16 | 1.000 | 2.39e4 | 3.67e4  | 48.8  | -2.3 | 1.30 | bb          |

**Compound name: OCDF**

Response Factor: 0.932771

RRF SD: 0.056358, Relative SD: 6.04199

Response type: Internal Std ( Ref 34 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|-------|-------------|
| 1 | 200309D1_1 | 2.50      | 1.01 | NO  | 41.05 | 1.000 | 1.07e3 | 1.01e5  | 2.26  | -9.6 | 0.843 | MM          |
| 2 | 200309D1_2 | 5.00      | 0.92 | NO  | 41.06 | 1.000 | 1.94e3 | 8.54e4  | 4.86  | -2.7 | 0.907 | bb          |
| 3 | 200309D1_3 | 20.0      | 0.93 | NO  | 41.07 | 1.000 | 8.47e3 | 9.16e4  | 19.8  | -0.9 | 0.924 | bb          |
| 4 | 200309D1_4 | 400       | 0.89 | NO  | 41.07 | 1.000 | 2.16e5 | 1.10e5  | 419   | 4.7  | 0.977 | bb          |
| 5 | 200309D1_5 | 3000      | 0.90 | NO  | 41.08 | 1.000 | 1.90e6 | 1.26e5  | 3230  | 7.6  | 1.00  | bb          |
| 6 | 200309D1_6 | 100       | 0.90 | NO  | 41.07 | 1.000 | 3.98e4 | 8.45e4  | 101   | 0.9  | 0.941 | bb          |

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**Compound name: 13C-2,3,7,8-TCDD**

Response Factor: 1.20655  
 RRF SD: 0.128513, Relative SD: 10.6512  
 Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.74 | NO  | 25.85 | 1.022 | 6.81e4 | 4.86e4  | 116   | 16.1  | 1.40 | bb          |
| 2 | 200309D1_2 | 100       | 0.75 | NO  | 25.85 | 1.023 | 6.95e4 | 6.31e4  | 91.3  | -8.7  | 1.10 | bb          |
| 3 | 200309D1_3 | 100       | 0.76 | NO  | 25.87 | 1.023 | 6.75e4 | 6.45e4  | 86.8  | -13.2 | 1.05 | bb          |
| 4 | 200309D1_4 | 100       | 0.80 | NO  | 25.87 | 1.023 | 6.74e4 | 5.33e4  | 105   | 4.7   | 1.26 | bb          |
| 5 | 200309D1_5 | 100       | 0.74 | NO  | 25.88 | 1.023 | 7.20e4 | 5.70e4  | 105   | 4.7   | 1.26 | bb          |
| 6 | 200309D1_6 | 100       | 0.75 | NO  | 25.87 | 1.023 | 5.65e4 | 4.86e4  | 96.3  | -3.7  | 1.16 | bb          |

**Compound name: 13C-1,2,3,7,8-PeCDD**

Response Factor: 0.995685  
 RRF SD: 0.128012, Relative SD: 12.8567  
 Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.63 | NO  | 30.47 | 1.205 | 5.66e4 | 4.86e4  | 117   | 17.0  | 1.17  | bb          |
| 2 | 200309D1_2 | 100       | 0.64 | NO  | 30.47 | 1.206 | 5.32e4 | 6.31e4  | 84.7  | -15.3 | 0.844 | bd          |
| 3 | 200309D1_3 | 100       | 0.63 | NO  | 30.47 | 1.205 | 5.49e4 | 6.45e4  | 85.6  | -14.4 | 0.852 | bb          |
| 4 | 200309D1_4 | 100       | 0.62 | NO  | 30.47 | 1.205 | 5.55e4 | 5.33e4  | 105   | 4.6   | 1.04  | bb          |
| 5 | 200309D1_5 | 100       | 0.62 | NO  | 30.47 | 1.204 | 6.16e4 | 5.70e4  | 109   | 8.6   | 1.08  | bb          |
| 6 | 200309D1_6 | 100       | 0.64 | NO  | 30.47 | 1.205 | 4.81e4 | 4.86e4  | 99.4  | -0.6  | 0.990 | bb          |

**Compound name: 13C-1,2,3,4,7,8-HxCDD**

Response Factor: 0.678621  
 RRF SD: 0.0705651, Relative SD: 10.3983  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.29 | NO  | 33.74 | 1.014 | 4.51e4 | 6.21e4  | 107   | 7.1   | 0.727 | bd          |
| 2 | 200309D1_2 | 100       | 1.28 | NO  | 33.75 | 1.015 | 4.27e4 | 7.06e4  | 89.1  | -10.9 | 0.605 | bd          |

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**Compound name: 13C-1,2,3,4,7,8-HxCDD**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 3 | 200309D1_3 | 100       | 1.31 | NO  | 33.74 | 1.014 | 4.33e4 | 7.46e4  | 85.6  | -14.4 | 0.581 | bd          |
| 4 | 200309D1_4 | 100       | 1.30 | NO  | 33.76 | 1.014 | 4.94e4 | 6.86e4  | 106   | 6.1   | 0.720 | bd          |
| 5 | 200309D1_5 | 100       | 1.31 | NO  | 33.75 | 1.014 | 5.28e4 | 7.00e4  | 111   | 11.2  | 0.755 | bd          |
| 6 | 200309D1_6 | 100       | 1.30 | NO  | 33.76 | 1.015 | 4.08e4 | 5.96e4  | 101   | 0.9   | 0.685 | bd          |

**Compound name: 13C-1,2,3,6,7,8-HxCDD**

Response Factor: 0.849636  
 RRF SD: 0.0787027, Relative SD: 9.26311  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.40 | NO  | 33.85 | 1.017 | 5.91e4 | 6.21e4  | 112   | 12.1  | 0.952 | dd          |
| 2 | 200309D1_2 | 100       | 1.28 | NO  | 33.86 | 1.018 | 5.50e4 | 7.06e4  | 91.7  | -8.3  | 0.779 | dd          |
| 3 | 200309D1_3 | 100       | 1.34 | NO  | 33.85 | 1.017 | 5.52e4 | 7.46e4  | 87.1  | -12.9 | 0.740 | dd          |
| 4 | 200309D1_4 | 100       | 1.39 | NO  | 33.87 | 1.017 | 5.99e4 | 6.86e4  | 103   | 2.8   | 0.873 | dd          |
| 5 | 200309D1_5 | 100       | 1.27 | NO  | 33.86 | 1.017 | 6.33e4 | 7.00e4  | 106   | 6.4   | 0.904 | db          |
| 6 | 200309D1_6 | 100       | 1.28 | NO  | 33.86 | 1.017 | 5.06e4 | 5.96e4  | 99.9  | -0.1  | 0.849 | dd          |

**Compound name: 13C-1,2,3,7,8,9-HxCDD**

Response Factor: 0.798357  
 RRF SD: 0.0695869, Relative SD: 8.71626  
 Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )  
 Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.39 | NO  | 34.14 | 1.026 | 5.38e4 | 6.21e4  | 109   | 8.6   | 0.867 | dd          |
| 2 | 200309D1_2 | 100       | 1.30 | NO  | 34.15 | 1.026 | 5.16e4 | 7.06e4  | 91.6  | -8.4  | 0.731 | dd          |
| 3 | 200309D1_3 | 100       | 1.32 | NO  | 34.15 | 1.026 | 5.22e4 | 7.46e4  | 87.7  | -12.3 | 0.700 | dd          |
| 4 | 200309D1_4 | 100       | 1.37 | NO  | 34.16 | 1.026 | 5.76e4 | 6.86e4  | 105   | 5.2   | 0.840 | dd          |
| 5 | 200309D1_5 | 100       | 1.32 | NO  | 34.15 | 1.026 | 6.01e4 | 7.00e4  | 108   | 7.6   | 0.859 | bd          |
| 6 | 200309D1_6 | 100       | 1.29 | NO  | 34.15 | 1.026 | 4.73e4 | 5.96e4  | 99.4  | -0.6  | 0.793 | dd          |

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**Compound name: 13C-1,2,3,4,6,7,8-HpCDD**

Response Factor: 0.696902

RRF SD: 0.0877249, Relative SD: 12.5878

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.07 | NO  | 37.61 | 1.131 | 4.76e4 | 6.21e4  | 110   | 10.1  | 0.767 | bd          |
| 2 | 200309D1_2 | 100       | 1.10 | NO  | 37.63 | 1.131 | 4.11e4 | 7.06e4  | 83.6  | -16.4 | 0.582 | bd          |
| 3 | 200309D1_3 | 100       | 1.09 | NO  | 37.63 | 1.131 | 4.54e4 | 7.46e4  | 87.4  | -12.6 | 0.609 | bd          |
| 4 | 200309D1_4 | 100       | 1.06 | NO  | 37.64 | 1.131 | 4.89e4 | 6.86e4  | 102   | 2.2   | 0.712 | bd          |
| 5 | 200309D1_5 | 100       | 1.07 | NO  | 37.63 | 1.131 | 5.66e4 | 7.00e4  | 116   | 16.0  | 0.808 | bd          |
| 6 | 200309D1_6 | 100       | 1.09 | NO  | 37.63 | 1.131 | 4.19e4 | 5.96e4  | 101   | 0.8   | 0.703 | bd          |

**Compound name: 13C-OCDD**

Response Factor: 0.579001

RRF SD: 0.095468, Relative SD: 16.4884

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 200       | 0.94 | NO  | 40.82 | 1.227 | 7.50e4 | 6.21e4  | 209   | 4.3   | 0.604 | bd          |
| 2 | 200309D1_2 | 200       | 0.88 | NO  | 40.84 | 1.228 | 6.85e4 | 7.06e4  | 168   | -16.2 | 0.485 | bd          |
| 3 | 200309D1_3 | 200       | 0.87 | NO  | 40.84 | 1.228 | 7.19e4 | 7.46e4  | 167   | -16.7 | 0.482 | bd          |
| 4 | 200309D1_4 | 200       | 0.89 | NO  | 40.84 | 1.227 | 8.39e4 | 6.86e4  | 211   | 5.5   | 0.611 | bb          |
| 5 | 200309D1_5 | 200       | 0.90 | NO  | 40.85 | 1.228 | 1.03e5 | 7.00e4  | 255   | 27.4  | 0.738 | bd          |
| 6 | 200309D1_6 | 200       | 0.90 | NO  | 40.85 | 1.228 | 6.60e4 | 5.96e4  | 191   | -4.4  | 0.554 | bb          |

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 1.12702

RRF SD: 0.101934, Relative SD: 9.04461

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.77 | NO  | 25.06 | 0.991 | 1.00e5 | 8.02e4  | 111   | 11.1 | 1.25 | bb          |
| 2 | 200309D1_2 | 100       | 0.79 | NO  | 25.04 | 0.991 | 1.06e5 | 1.00e5  | 94.3  | -5.7 | 1.06 | bd          |

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**Compound name: 13C-2,3,7,8-TCDF**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 3 | 200309D1_3 | 100       | 0.79 | NO  | 25.07 | 0.992 | 1.05e5 | 1.08e5  | 86.3  | -13.7 | 0.972 | bd          |
| 4 | 200309D1_4 | 100       | 0.77 | NO  | 25.07 | 0.992 | 1.05e5 | 8.88e4  | 105   | 5.1   | 1.18  | bd          |
| 5 | 200309D1_5 | 100       | 0.75 | NO  | 25.07 | 0.991 | 1.13e5 | 9.48e4  | 106   | 5.7   | 1.19  | bd          |
| 6 | 200309D1_6 | 100       | 0.77 | NO  | 25.06 | 0.991 | 8.90e4 | 8.10e4  | 97.4  | -2.6  | 1.10  | bb          |

**Compound name: 13C-1,2,3,7,8-PeCDF**

Response Factor: 0.996069

RRF SD: 0.123213, Relative SD: 12.3699

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.63 | NO  | 29.26 | 1.157 | 9.51e4 | 8.02e4  | 119   | 19.0  | 1.18  | bd          |
| 2 | 200309D1_2 | 100       | 1.66 | NO  | 29.26 | 1.158 | 8.89e4 | 1.00e5  | 89.1  | -10.9 | 0.888 | bd          |
| 3 | 200309D1_3 | 100       | 1.71 | NO  | 29.26 | 1.157 | 9.31e4 | 1.08e5  | 86.6  | -13.4 | 0.862 | bd          |
| 4 | 200309D1_4 | 100       | 1.56 | NO  | 29.28 | 1.158 | 9.40e4 | 8.88e4  | 106   | 6.3   | 1.06  | bb          |
| 5 | 200309D1_5 | 100       | 1.62 | NO  | 29.28 | 1.157 | 9.94e4 | 9.48e4  | 105   | 5.3   | 1.05  | bb          |
| 6 | 200309D1_6 | 100       | 1.58 | NO  | 29.28 | 1.158 | 7.57e4 | 8.10e4  | 93.8  | -6.2  | 0.934 | bb          |

**Compound name: 13C-2,3,4,7,8-PeCDF**

Response Factor: 0.969008

RRF SD: 0.126598, Relative SD: 13.0647

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 1.61 | NO  | 30.17 | 1.193 | 9.11e4 | 8.02e4  | 117   | 17.1  | 1.14  | bb          |
| 2 | 200309D1_2 | 100       | 1.68 | NO  | 30.19 | 1.194 | 8.35e4 | 1.00e5  | 86.1  | -13.9 | 0.834 | bb          |
| 3 | 200309D1_3 | 100       | 1.64 | NO  | 30.17 | 1.193 | 8.81e4 | 1.08e5  | 84.1  | -15.9 | 0.815 | bb          |
| 4 | 200309D1_4 | 100       | 1.61 | NO  | 30.19 | 1.194 | 9.25e4 | 8.88e4  | 108   | 7.6   | 1.04  | bb          |
| 5 | 200309D1_5 | 100       | 1.65 | NO  | 30.19 | 1.193 | 9.85e4 | 9.48e4  | 107   | 7.2   | 1.04  | bb          |
| 6 | 200309D1_6 | 100       | 1.61 | NO  | 30.19 | 1.194 | 7.68e4 | 8.10e4  | 97.9  | -2.1  | 0.948 | bb          |



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**Compound name: 13C-1,2,3,4,7,8-HxCDF**

Response Factor: 1.05776

RRF SD: 0.0965106, Relative SD: 9.12401

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.49 | NO  | 32.86 | 0.988 | 7.17e4 | 6.21e4  | 109   | 9.1   | 1.15  | bd          |
| 2 | 200309D1_2 | 100       | 0.50 | NO  | 32.87 | 0.988 | 6.72e4 | 7.06e4  | 90.0  | -10.0 | 0.952 | bd          |
| 3 | 200309D1_3 | 100       | 0.52 | NO  | 32.86 | 0.988 | 6.92e4 | 7.46e4  | 87.8  | -12.2 | 0.928 | bd          |
| 4 | 200309D1_4 | 100       | 0.50 | NO  | 32.89 | 0.988 | 7.40e4 | 6.86e4  | 102   | 2.0   | 1.08  | bd          |
| 5 | 200309D1_5 | 100       | 0.49 | NO  | 32.87 | 0.988 | 8.03e4 | 7.00e4  | 108   | 8.5   | 1.15  | bd          |
| 6 | 200309D1_6 | 100       | 0.50 | NO  | 32.87 | 0.988 | 6.48e4 | 5.96e4  | 103   | 2.8   | 1.09  | bd          |

**Compound name: 13C-1,2,3,6,7,8-HxCDF**

Response Factor: 1.17529

RRF SD: 0.103469, Relative SD: 8.80369

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.49 | NO  | 32.98 | 0.991 | 8.01e4 | 6.21e4  | 110   | 9.8   | 1.29 | db          |
| 2 | 200309D1_2 | 100       | 0.51 | NO  | 32.99 | 0.992 | 7.44e4 | 7.06e4  | 89.7  | -10.3 | 1.05 | db          |
| 3 | 200309D1_3 | 100       | 0.50 | NO  | 32.99 | 0.992 | 7.79e4 | 7.46e4  | 88.9  | -11.1 | 1.04 | db          |
| 4 | 200309D1_4 | 100       | 0.51 | NO  | 33.01 | 0.991 | 8.37e4 | 6.86e4  | 104   | 3.7   | 1.22 | dd          |
| 5 | 200309D1_5 | 100       | 0.51 | NO  | 32.99 | 0.991 | 8.80e4 | 7.00e4  | 107   | 7.0   | 1.26 | db          |
| 6 | 200309D1_6 | 100       | 0.50 | NO  | 33.00 | 0.991 | 7.06e4 | 5.96e4  | 101   | 0.9   | 1.19 | db          |

**Compound name: 13C-2,3,4,6,7,8-HxCDF**

Response Factor: 1.05681

RRF SD: 0.0990019, Relative SD: 9.36796

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.50 | NO  | 33.58 | 1.009 | 7.20e4 | 6.21e4  | 110   | 9.8   | 1.16  | bb          |
| 2 | 200309D1_2 | 100       | 0.50 | NO  | 33.59 | 1.010 | 6.61e4 | 7.06e4  | 88.7  | -11.3 | 0.937 | bb          |

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**Compound name: 13C-2,3,4,6,7,8-HxCDF**

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 3 | 200309D1_3 | 100       | 0.49 | NO  | 33.58 | 1.009 | 7.02e4 | 7.46e4  | 89.1  | -10.9 | 0.942 | bd          |
| 4 | 200309D1_4 | 100       | 0.51 | NO  | 33.60 | 1.009 | 7.56e4 | 6.86e4  | 104   | 4.2   | 1.10  | bd          |
| 5 | 200309D1_5 | 100       | 0.51 | NO  | 33.58 | 1.009 | 8.06e4 | 7.00e4  | 109   | 8.9   | 1.15  | bb          |
| 6 | 200309D1_6 | 100       | 0.51 | NO  | 33.59 | 1.009 | 6.26e4 | 5.96e4  | 99.4  | -0.6  | 1.05  | bb          |

**Compound name: 13C-1,2,3,7,8,9-HxCDF**

Response Factor: 0.879281

RRF SD: 0.0892233, Relative SD: 10.1473

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.49 | NO  | 34.51 | 1.037 | 5.94e4 | 6.21e4  | 109   | 8.8   | 0.956 | bb          |
| 2 | 200309D1_2 | 100       | 0.51 | NO  | 34.51 | 1.037 | 5.56e4 | 7.06e4  | 89.6  | -10.4 | 0.788 | bd          |
| 3 | 200309D1_3 | 100       | 0.50 | NO  | 34.51 | 1.037 | 5.62e4 | 7.46e4  | 85.7  | -14.3 | 0.753 | bb          |
| 4 | 200309D1_4 | 100       | 0.51 | NO  | 34.53 | 1.037 | 6.28e4 | 6.86e4  | 104   | 4.1   | 0.916 | bb          |
| 5 | 200309D1_5 | 100       | 0.50 | NO  | 34.51 | 1.037 | 6.79e4 | 7.00e4  | 110   | 10.3  | 0.969 | bd          |
| 6 | 200309D1_6 | 100       | 0.55 | NO  | 34.52 | 1.037 | 5.32e4 | 5.96e4  | 102   | 1.6   | 0.893 | bd          |

**Compound name: 13C-1,2,3,4,6,7,8-HpCDF**

Response Factor: 0.892598

RRF SD: 0.100339, Relative SD: 11.2413

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.43 | NO  | 36.30 | 1.091 | 6.36e4 | 6.21e4  | 115   | 14.7  | 1.02  | bb          |
| 2 | 200309D1_2 | 100       | 0.45 | NO  | 36.32 | 1.092 | 5.53e4 | 7.06e4  | 87.8  | -12.2 | 0.784 | bd          |
| 3 | 200309D1_3 | 100       | 0.44 | NO  | 36.32 | 1.092 | 5.84e4 | 7.46e4  | 87.7  | -12.3 | 0.783 | bb          |
| 4 | 200309D1_4 | 100       | 0.43 | NO  | 36.33 | 1.091 | 6.29e4 | 6.86e4  | 103   | 2.6   | 0.916 | bb          |
| 5 | 200309D1_5 | 100       | 0.44 | NO  | 36.32 | 1.091 | 6.88e4 | 7.00e4  | 110   | 10.0  | 0.982 | bb          |
| 6 | 200309D1_6 | 100       | 0.44 | NO  | 36.33 | 1.092 | 5.16e4 | 5.96e4  | 97.1  | -2.9  | 0.867 | bb          |

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Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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**Compound name: 13C-1,2,3,4,7,8,9-HpCDF**

Response Factor: 0.613443

RRF SD: 0.0778172, Relative SD: 12.6853

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 100       | 0.41 | NO  | 38.14 | 1.146 | 4.04e4 | 6.21e4  | 106   | 6.1   | 0.651 | bd          |
| 2 | 200309D1_2 | 100       | 0.42 | NO  | 38.15 | 1.147 | 3.60e4 | 7.06e4  | 83.2  | -16.8 | 0.510 | bb          |
| 3 | 200309D1_3 | 100       | 0.45 | NO  | 38.15 | 1.147 | 3.98e4 | 7.46e4  | 87.0  | -13.0 | 0.534 | bb          |
| 4 | 200309D1_4 | 100       | 0.40 | NO  | 38.15 | 1.146 | 4.51e4 | 6.86e4  | 107   | 7.2   | 0.658 | bb          |
| 5 | 200309D1_5 | 100       | 0.43 | NO  | 38.15 | 1.146 | 4.99e4 | 7.00e4  | 116   | 16.3  | 0.713 | bd          |
| 6 | 200309D1_6 | 100       | 0.42 | NO  | 38.15 | 1.146 | 3.67e4 | 5.96e4  | 100   | 0.3   | 0.615 | bb          |

**Compound name: 13C-OCDF**

Response Factor: 0.741294

RRF SD: 0.118564, Relative SD: 15.9941

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF   | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|-------|-------|-------------|
| 1 | 200309D1_1 | 200       | 0.84 | NO  | 41.04 | 1.234 | 1.01e5 | 6.21e4  | 220   | 9.8   | 0.814 | bd          |
| 2 | 200309D1_2 | 200       | 0.85 | NO  | 41.06 | 1.234 | 8.54e4 | 7.06e4  | 163   | -18.3 | 0.605 | bd          |
| 3 | 200309D1_3 | 200       | 0.89 | NO  | 41.06 | 1.234 | 9.16e4 | 7.46e4  | 166   | -17.1 | 0.614 | bb          |
| 4 | 200309D1_4 | 200       | 0.87 | NO  | 41.06 | 1.233 | 1.10e5 | 6.86e4  | 217   | 8.4   | 0.804 | bd          |
| 5 | 200309D1_5 | 200       | 0.87 | NO  | 41.07 | 1.234 | 1.26e5 | 7.00e4  | 243   | 21.5  | 0.901 | bb          |
| 6 | 200309D1_6 | 200       | 0.90 | NO  | 41.06 | 1.234 | 8.45e4 | 5.96e4  | 191   | -4.3  | 0.709 | bd          |

**Compound name: 37Cl-2,3,7,8-TCDD**

Response Factor: 1.17955

RRF SD: 0.101212, Relative SD: 8.58061

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|----|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 0.250     |    |     | 25.87 | 1.023 | 1.52e2 | 4.86e4  | 0.266 | 6.3  | 1.25 | bb          |
| 2 | 200309D1_2 | 0.500     |    |     | 25.90 | 1.025 | 3.46e2 | 6.31e4  | 0.465 | -6.9 | 1.10 | bb          |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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**Compound name: 37Cl-2,3,7,8-TCDD**

|   | Name       | Std. Conc | RA | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev  | RRF  | X = dropped |
|---|------------|-----------|----|-----|-------|-------|--------|---------|-------|-------|------|-------------|
| 3 | 200309D1_3 | 2.00      |    |     | 25.88 | 1.024 | 1.36e3 | 6.45e4  | 1.78  | -10.9 | 1.05 | bb          |
| 4 | 200309D1_4 | 40.0      |    |     | 25.90 | 1.024 | 2.63e4 | 5.33e4  | 41.9  | 4.6   | 1.23 | bd          |
| 5 | 200309D1_5 | 200       |    |     | 25.90 | 1.024 | 1.49e5 | 5.70e4  | 222   | 11.1  | 1.31 | bb          |
| 6 | 200309D1_6 | 10.0      |    |     | 25.88 | 1.024 | 5.49e3 | 4.86e4  | 9.58  | -4.2  | 1.13 | bd          |

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 36 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.78 | NO  | 25.29 | 1.000 | 4.86e4 | 4.86e4  | 100   | 0.0  | 1.00 | bb          |
| 2 | 200309D1_2 | 100       | 0.76 | NO  | 25.27 | 1.000 | 6.31e4 | 6.31e4  | 100   | 0.0  | 1.00 | bb          |
| 3 | 200309D1_3 | 100       | 0.81 | NO  | 25.29 | 1.000 | 6.45e4 | 6.45e4  | 100   | 0.0  | 1.00 | bb          |
| 4 | 200309D1_4 | 100       | 0.79 | NO  | 25.29 | 1.000 | 5.33e4 | 5.33e4  | 100   | 0.0  | 1.00 | bd          |
| 5 | 200309D1_5 | 100       | 0.80 | NO  | 25.30 | 1.000 | 5.70e4 | 5.70e4  | 100   | 0.0  | 1.00 | bb          |
| 6 | 200309D1_6 | 100       | 0.80 | NO  | 25.29 | 1.000 | 4.86e4 | 4.86e4  | 100   | 0.0  | 1.00 | bd          |

**Compound name: 13C-1,2,3,4-TCDF**

Response Factor: 1

RRF SD: 9.93014e-017, Relative SD: 9.93014e-015

Response type: Internal Std ( Ref 37 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.79 | NO  | 23.79 | 1.000 | 8.02e4 | 8.02e4  | 100   | 0.0  | 1.00 | bb          |
| 2 | 200309D1_2 | 100       | 0.74 | NO  | 23.77 | 1.000 | 1.00e5 | 1.00e5  | 100   | 0.0  | 1.00 | bb          |
| 3 | 200309D1_3 | 100       | 0.74 | NO  | 23.80 | 1.000 | 1.08e5 | 1.08e5  | 100   | 0.0  | 1.00 | bd          |
| 4 | 200309D1_4 | 100       | 0.77 | NO  | 23.79 | 1.000 | 8.88e4 | 8.88e4  | 100   | 0.0  | 1.00 | bb          |
| 5 | 200309D1_5 | 100       | 0.77 | NO  | 23.80 | 1.000 | 9.48e4 | 9.48e4  | 100   | 0.0  | 1.00 | bb          |
| 6 | 200309D1_6 | 100       | 0.80 | NO  | 23.80 | 1.000 | 8.10e4 | 8.10e4  | 100   | 0.0  | 1.00 | bd          |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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**Compound name: 13C-1,2,3,4,6,9-HxCDF**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 38 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | Name       | Std. Conc | RA   | n/y | RT    | RRT   | Resp   | IS Resp | Conc. | %Dev | RRF  | X = dropped |
|---|------------|-----------|------|-----|-------|-------|--------|---------|-------|------|------|-------------|
| 1 | 200309D1_1 | 100       | 0.49 | NO  | 33.27 | 1.000 | 6.21e4 | 6.21e4  | 100   | 0.0  | 1.00 | bb          |
| 2 | 200309D1_2 | 100       | 0.51 | NO  | 33.27 | 1.000 | 7.06e4 | 7.06e4  | 100   | 0.0  | 1.00 | bb          |
| 3 | 200309D1_3 | 100       | 0.51 | NO  | 33.27 | 1.000 | 7.46e4 | 7.46e4  | 100   | 0.0  | 1.00 | bb          |
| 4 | 200309D1_4 | 100       | 0.52 | NO  | 33.29 | 1.000 | 6.86e4 | 6.86e4  | 100   | 0.0  | 1.00 | db          |
| 5 | 200309D1_5 | 100       | 0.51 | NO  | 33.28 | 1.000 | 7.00e4 | 7.00e4  | 100   | 0.0  | 1.00 | bb          |
| 6 | 200309D1_6 | 100       | 0.48 | NO  | 33.28 | 1.000 | 5.96e4 | 5.96e4  | 100   | 0.0  | 1.00 | bb          |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 09 Mar 2020 11:30:34  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.   | %Rec | DL     | EMPC  |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|---------|------|--------|-------|
| 1  | 1 2,3,7,8-TCDD             | 1.59e2 | 0.85 | NO  | 0.987 | 1.000  | 25.882  | 25.88 | 1.001    | 1.001 | 0.23670 | 94.7 | 0.180  | 0.237 |
| 2  | 2 1,2,3,7,8-PeCDD          | 6.61e2 | 0.66 | NO  | 0.982 | 1.000  | 30.488  | 30.47 | 1.001    | 1.000 | 1.1872  | 95.0 | 0.148  | 1.19  |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 6.45e2 | 1.18 | NO  | 1.17  | 1.000  | 33.751  | 33.75 | 1.000    | 1.000 | 1.2168  | 97.3 | 0.234  | 1.22  |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 7.20e2 | 1.28 | NO  | 1.04  | 1.000  | 33.851  | 33.86 | 1.000    | 1.000 | 1.1745  | 94.0 | 0.231  | 1.17  |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 6.16e2 | 1.14 | NO  | 1.00  | 1.000  | 34.170  | 34.15 | 1.001    | 1.000 | 1.1409  | 91.3 | 0.254  | 1.14  |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 5.97e2 | 1.12 | NO  | 0.992 | 1.000  | 37.626  | 37.64 | 1.000    | 1.001 | 1.2638  | 101  | 0.133  | 1.26  |
| 7  | 7 OCDD                     | 9.32e2 | 0.91 | NO  | 1.04  | 1.000  | 40.819  | 40.83 | 1.000    | 1.000 | 2.4013  | 96.1 | 0.241  | 2.40  |
| 8  | 8 2,3,7,8-TCDF             | 2.28e2 | 0.66 | NO  | 0.882 | 1.000  | 25.081  | 25.06 | 1.001    | 1.000 | 0.25760 | 103  | 0.116  | 0.258 |
| 9  | 9 1,2,3,7,8-PeCDF          | 1.15e3 | 1.46 | NO  | 1.05  | 1.000  | 29.280  | 29.28 | 1.001    | 1.001 | 1.1551  | 92.4 | 0.0925 | 1.16  |
| 10 | 10 2,3,4,7,8-PeCDF         | 1.25e3 | 1.66 | NO  | 1.06  | 1.000  | 30.195  | 30.19 | 1.001    | 1.001 | 1.2951  | 104  | 0.0825 | 1.30  |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 9.32e2 | 1.27 | NO  | 1.08  | 1.000  | 32.863  | 32.87 | 1.000    | 1.000 | 1.2013  | 96.1 | 0.101  | 1.20  |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 9.80e2 | 1.22 | NO  | 1.04  | 1.000  | 32.994  | 33.01 | 1.000    | 1.001 | 1.1737  | 93.9 | 0.0997 | 1.17  |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 9.35e2 | 1.18 | NO  | 1.11  | 1.000  | 33.610  | 33.59 | 1.001    | 1.000 | 1.1686  | 93.5 | 0.0998 | 1.17  |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 7.41e2 | 1.16 | NO  | 1.06  | 1.000  | 34.509  | 34.53 | 1.000    | 1.001 | 1.1817  | 94.5 | 0.153  | 1.18  |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 7.86e2 | 0.99 | NO  | 1.13  | 1.000  | 36.334  | 36.32 | 1.001    | 1.001 | 1.0959  | 87.7 | 0.190  | 1.10  |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 6.45e2 | 0.90 | NO  | 1.33  | 1.000  | 38.142  | 38.15 | 1.000    | 1.000 | 1.1971  | 95.8 | 0.191  | 1.20  |
| 17 | 17 OCDF                    | 1.07e3 | 1.01 | NO  | 0.933 | 1.000  | 41.039  | 41.05 | 1.000    | 1.000 | 2.2593  | 90.4 | 0.184  | 2.26  |
| 18 | 18 13C-2,3,7,8-TCDD        | 6.81e4 | 0.74 | NO  | 1.21  | 1.000  | 25.943  | 25.85 | 1.026    | 1.022 | 116.14  | 116  | 1.31   |       |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 5.66e4 | 0.63 | NO  | 0.996 | 1.000  | 30.393  | 30.47 | 1.202    | 1.205 | 117.05  | 117  | 0.796  |       |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.51e4 | 1.29 | NO  | 0.679 | 1.000  | 33.735  | 33.74 | 1.014    | 1.014 | 107.10  | 107  | 0.951  |       |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.91e4 | 1.40 | NO  | 0.850 | 1.000  | 33.845  | 33.85 | 1.017    | 1.017 | 112.07  | 112  | 0.760  |       |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 5.38e4 | 1.39 | NO  | 0.798 | 1.000  | 34.114  | 34.14 | 1.025    | 1.026 | 108.57  | 109  | 0.808  |       |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.76e4 | 1.07 | NO  | 0.697 | 1.000  | 37.561  | 37.61 | 1.129    | 1.131 | 110.10  | 110  | 0.806  |       |
| 24 | 24 13C-OCDD                | 7.50e4 | 0.94 | NO  | 0.579 | 1.000  | 40.569  | 40.82 | 1.219    | 1.227 | 208.67  | 104  | 1.85   |       |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.00e5 | 0.77 | NO  | 1.13  | 1.000  | 25.033  | 25.06 | 0.990    | 0.991 | 111.10  | 111  | 1.01   |       |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 9.51e4 | 1.63 | NO  | 0.996 | 1.000  | 29.223  | 29.26 | 1.156    | 1.157 | 118.96  | 119  | 1.13   |       |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 9.11e4 | 1.61 | NO  | 0.969 | 1.000  | 30.115  | 30.17 | 1.191    | 1.193 | 117.15  | 117  | 1.16   |       |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 7.17e4 | 0.49 | NO  | 1.06  | 1.000  | 32.870  | 32.86 | 0.988    | 0.988 | 109.10  | 109  | 0.930  |       |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.01e4 | 0.49 | NO  | 1.18  | 1.000  | 33.003  | 32.98 | 0.992    | 0.991 | 109.77  | 110  | 0.837  |       |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.20e4 | 0.50 | NO  | 1.06  | 1.000  | 33.572  | 33.58 | 1.009    | 1.009 | 109.77  | 110  | 0.931  |       |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 5.94e4 | 0.49 | NO  | 0.879 | 1.000  | 34.467  | 34.51 | 1.036    | 1.037 | 108.76  | 109  | 1.12   |       |

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Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

|    | # Name                     | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.   | %Rec | DL     | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|---------|------|--------|------|
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 6.36e4 | 0.43 | NO  | 0.893 | 1.000  | 36.164  | 36.30 | 1.087    | 1.091 | 114.72  | 115  | 0.962  |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 4.04e4 | 0.41 | NO  | 0.613 | 1.000  | 38.160  | 38.14 | 1.147    | 1.146 | 106.06  | 106  | 1.40   |      |
| 34 | 34 13C-OCDF                | 1.01e5 | 0.84 | NO  | 0.741 | 1.000  | 40.722  | 41.04 | 1.224    | 1.234 | 219.65  | 110  | 1.02   |      |
| 35 | 35 37Cl-2,3,7,8-TCDD       | 1.52e2 |      |     | 1.18  | 1.000  | 25.941  | 25.87 | 1.026    | 1.023 | 0.26571 | 106  | 0.0945 |      |
| 36 | 36 13C-1,2,3,4-TCDD        | 4.86e4 | 0.78 | NO  | 1.00  | 1.000  | 25.440  | 25.29 | 1.000    | 1.000 | 100.00  | 100  | 1.58   |      |
| 37 | 37 13C-1,2,3,4-TCDF        | 8.02e4 | 0.79 | NO  | 1.00  | 1.000  | 23.970  | 23.79 | 1.000    | 1.000 | 100.00  | 100  | 1.14   |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF   | 6.21e4 | 0.49 | NO  | 1.00  | 1.000  | 33.260  | 33.27 | 1.000    | 1.000 | 100.00  | 100  | 0.984  |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time

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Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.   | %Rec | DL     | EMPC  |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|---------|------|--------|-------|
| 1  | 1 2,3,7,8-TCDD             | 3.14e2 | 0.88 | NO  | 0.987 | 1.000  | 25.882  | 25.85 | 1.001    | 1.000 | 0.45712 | 91.4 | 0.151  | 0.457 |
| 2  | 2 1,2,3,7,8-PeCDD          | 1.30e3 | 0.63 | NO  | 0.982 | 1.000  | 30.488  | 30.47 | 1.001    | 1.000 | 2.4865  | 99.5 | 0.173  | 2.49  |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 1.19e3 | 1.21 | NO  | 1.17  | 1.000  | 33.762  | 33.76 | 1.000    | 1.000 | 2.3736  | 94.9 | 0.211  | 2.37  |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 1.47e3 | 1.34 | NO  | 1.04  | 1.000  | 33.862  | 33.86 | 1.000    | 1.000 | 2.5750  | 103  | 0.217  | 2.58  |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 1.32e3 | 1.18 | NO  | 1.00  | 1.000  | 34.181  | 34.16 | 1.001    | 1.000 | 2.5461  | 102  | 0.230  | 2.55  |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 1.03e3 | 1.03 | NO  | 0.992 | 1.000  | 37.637  | 37.65 | 1.000    | 1.001 | 2.5372  | 101  | 0.150  | 2.54  |
| 7  | 7 OCDD                     | 1.85e3 | 0.78 | NO  | 1.04  | 1.000  | 40.841  | 40.85 | 1.000    | 1.000 | 5.2302  | 105  | 0.302  | 5.23  |
| 8  | 8 2,3,7,8-TCDF             | 4.83e2 | 0.76 | NO  | 0.882 | 1.000  | 25.066  | 25.06 | 1.001    | 1.001 | 0.51421 | 103  | 0.101  | 0.514 |
| 9  | 9 1,2,3,7,8-PeCDF          | 2.47e3 | 1.57 | NO  | 1.05  | 1.000  | 29.280  | 29.28 | 1.001    | 1.001 | 2.6630  | 107  | 0.0882 | 2.66  |
| 10 | 10 2,3,4,7,8-PeCDF         | 2.10e3 | 1.72 | NO  | 1.06  | 1.000  | 30.216  | 30.19 | 1.001    | 1.000 | 2.3750  | 95.0 | 0.0901 | 2.38  |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 1.90e3 | 1.18 | NO  | 1.08  | 1.000  | 32.874  | 32.89 | 1.000    | 1.000 | 2.6075  | 104  | 0.0890 | 2.61  |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 1.97e3 | 1.28 | NO  | 1.04  | 1.000  | 33.005  | 33.02 | 1.000    | 1.001 | 2.5390  | 102  | 0.0914 | 2.54  |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 1.86e3 | 1.26 | NO  | 1.11  | 1.000  | 33.621  | 33.60 | 1.001    | 1.000 | 2.5318  | 101  | 0.102  | 2.53  |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 1.40e3 | 1.24 | NO  | 1.06  | 1.000  | 34.509  | 34.53 | 1.000    | 1.001 | 2.3747  | 95.0 | 0.146  | 2.37  |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 1.64e3 | 0.99 | NO  | 1.13  | 1.000  | 36.356  | 36.34 | 1.001    | 1.001 | 2.6271  | 105  | 0.121  | 2.63  |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 1.25e3 | 0.91 | NO  | 1.33  | 1.000  | 38.152  | 38.15 | 1.000    | 1.000 | 2.6032  | 104  | 0.135  | 2.60  |
| 17 | 17 OCDF                    | 1.94e3 | 0.92 | NO  | 0.933 | 1.000  | 41.060  | 41.06 | 1.000    | 1.000 | 4.8641  | 97.3 | 0.263  | 4.86  |
| 18 | 18 13C-2,3,7,8-TCDD        | 6.95e4 | 0.75 | NO  | 1.21  | 1.000  | 25.927  | 25.85 | 1.026    | 1.023 | 91.317  | 91.3 | 0.806  |       |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 5.32e4 | 0.64 | NO  | 0.996 | 1.000  | 30.375  | 30.47 | 1.202    | 1.206 | 84.744  | 84.7 | 0.624  |       |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.27e4 | 1.28 | NO  | 0.679 | 1.000  | 33.735  | 33.75 | 1.014    | 1.015 | 89.104  | 89.1 | 0.804  |       |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.50e4 | 1.28 | NO  | 0.850 | 1.000  | 33.845  | 33.86 | 1.017    | 1.018 | 91.724  | 91.7 | 0.642  |       |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 5.16e4 | 1.30 | NO  | 0.798 | 1.000  | 34.114  | 34.15 | 1.025    | 1.026 | 91.609  | 91.6 | 0.684  |       |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.11e4 | 1.10 | NO  | 0.697 | 1.000  | 37.561  | 37.63 | 1.129    | 1.131 | 83.563  | 83.6 | 0.824  |       |
| 24 | 24 13C-OCDD                | 6.85e4 | 0.88 | NO  | 0.579 | 1.000  | 40.568  | 40.84 | 1.219    | 1.228 | 167.58  | 83.8 | 1.10   |       |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.06e5 | 0.79 | NO  | 1.13  | 1.000  | 25.018  | 25.04 | 0.990    | 0.991 | 94.333  | 94.3 | 0.693  |       |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 8.89e4 | 1.66 | NO  | 0.996 | 1.000  | 29.205  | 29.26 | 1.156    | 1.158 | 89.102  | 89.1 | 0.594  |       |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 8.35e4 | 1.68 | NO  | 0.969 | 1.000  | 30.097  | 30.19 | 1.191    | 1.194 | 86.064  | 86.1 | 0.610  |       |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 6.72e4 | 0.50 | NO  | 1.06  | 1.000  | 32.870  | 32.87 | 0.988    | 0.988 | 89.967  | 90.0 | 0.773  |       |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 7.44e4 | 0.51 | NO  | 1.18  | 1.000  | 33.003  | 32.99 | 0.992    | 0.992 | 89.740  | 89.7 | 0.696  |       |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 6.61e4 | 0.50 | NO  | 1.06  | 1.000  | 33.572  | 33.59 | 1.009    | 1.010 | 88.678  | 88.7 | 0.774  |       |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 5.56e4 | 0.51 | NO  | 0.879 | 1.000  | 34.467  | 34.51 | 1.036    | 1.037 | 89.599  | 89.6 | 0.930  |       |
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 5.53e4 | 0.45 | NO  | 0.893 | 1.000  | 36.164  | 36.32 | 1.087    | 1.092 | 87.812  | 87.8 | 0.737  |       |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 3.60e4 | 0.42 | NO  | 0.613 | 1.000  | 38.160  | 38.15 | 1.147    | 1.147 | 83.156  | 83.2 | 1.07   |       |
| 34 | 34 13C-OCDF                | 8.54e4 | 0.85 | NO  | 0.741 | 1.000  | 40.721  | 41.06 | 1.224    | 1.234 | 163.34  | 81.7 | 0.958  |       |



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Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

|    | # Name                   | Resp   | RA   | n/y | RRF  | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.   | %Rec | DL     | EMPC |
|----|--------------------------|--------|------|-----|------|--------|---------|-------|----------|-------|---------|------|--------|------|
| 35 | 35 37Cl-2,3,7,8-TCDD     | 3.46e2 |      |     | 1.18 | 1.000  | 25.925  | 25.90 | 1.026    | 1.025 | 0.46531 | 93.1 | 0.0580 |      |
| 36 | 36 13C-1,2,3,4-TCDD      | 6.31e4 | 0.76 | NO  | 1.00 | 1.000  | 25.440  | 25.27 | 1.000    | 1.000 | 100.00  | 100  | 0.973  |      |
| 37 | 37 13C-1,2,3,4-TCDF      | 1.00e5 | 0.74 | NO  | 1.00 | 1.000  | 23.970  | 23.77 | 1.000    | 1.000 | 100.00  | 100  | 0.781  |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF | 7.06e4 | 0.51 | NO  | 1.00 | 1.000  | 33.260  | 33.27 | 1.000    | 1.000 | 100.00  | 100  | 0.818  |      |

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Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL     | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|--------|------|
| 1  | 1 2,3,7,8-TCDD             | 1.33e3 | 0.84 | NO  | 0.987 | 1.000  | 25.898  | 25.88 | 1.001    | 1.001 | 1.9943 | 99.7 | 0.132  | 1.99 |
| 2  | 2 1,2,3,7,8-PeCDD          | 5.19e3 | 0.68 | NO  | 0.982 | 1.000  | 30.488  | 30.47 | 1.001    | 1.000 | 9.6066 | 96.1 | 0.122  | 9.61 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 5.25e3 | 1.21 | NO  | 1.17  | 1.000  | 33.751  | 33.76 | 1.000    | 1.001 | 10.317 | 103  | 0.203  | 10.3 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 5.81e3 | 1.28 | NO  | 1.04  | 1.000  | 33.851  | 33.86 | 1.000    | 1.000 | 10.153 | 102  | 0.202  | 10.2 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 5.12e3 | 1.23 | NO  | 1.00  | 1.000  | 34.181  | 34.16 | 1.001    | 1.000 | 9.7729 | 97.7 | 0.222  | 9.77 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 4.11e3 | 1.06 | NO  | 0.992 | 1.000  | 37.637  | 37.64 | 1.000    | 1.000 | 9.1270 | 91.3 | 0.292  | 9.13 |
| 7  | 7 OCDD                     | 7.01e3 | 0.98 | NO  | 1.04  | 1.000  | 40.841  | 40.85 | 1.000    | 1.000 | 18.831 | 94.2 | 0.499  | 18.8 |
| 8  | 8 2,3,7,8-TCDF             | 1.84e3 | 0.88 | NO  | 0.882 | 1.000  | 25.097  | 25.07 | 1.001    | 1.000 | 1.9875 | 99.4 | 0.0873 | 1.99 |
| 9  | 9 1,2,3,7,8-PeCDF          | 9.45e3 | 1.52 | NO  | 1.05  | 1.000  | 29.280  | 29.28 | 1.001    | 1.001 | 9.7097 | 97.1 | 0.108  | 9.71 |
| 10 | 10 2,3,4,7,8-PeCDF         | 9.41e3 | 1.59 | NO  | 1.06  | 1.000  | 30.195  | 30.19 | 1.001    | 1.001 | 10.078 | 101  | 0.108  | 10.1 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 7.56e3 | 1.24 | NO  | 1.08  | 1.000  | 32.863  | 32.89 | 1.000    | 1.001 | 10.081 | 101  | 0.187  | 10.1 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 8.06e3 | 1.24 | NO  | 1.04  | 1.000  | 33.005  | 33.01 | 1.000    | 1.000 | 9.9232 | 99.2 | 0.180  | 9.92 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 7.62e3 | 1.25 | NO  | 1.11  | 1.000  | 33.610  | 33.59 | 1.001    | 1.000 | 9.7731 | 97.7 | 0.204  | 9.77 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 6.08e3 | 1.24 | NO  | 1.06  | 1.000  | 34.509  | 34.53 | 1.000    | 1.001 | 10.241 | 102  | 0.284  | 10.2 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 6.50e3 | 0.98 | NO  | 1.13  | 1.000  | 36.356  | 36.34 | 1.001    | 1.001 | 9.8699 | 98.7 | 0.207  | 9.87 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 5.08e3 | 1.13 | NO  | 1.33  | 1.000  | 38.152  | 38.16 | 1.000    | 1.000 | 9.5761 | 95.8 | 0.214  | 9.58 |
| 17 | 17 OCDF                    | 8.47e3 | 0.93 | NO  | 0.933 | 1.000  | 41.060  | 41.07 | 1.000    | 1.000 | 19.817 | 99.1 | 0.376  | 19.8 |
| 18 | 18 13C-2,3,7,8-TCDD        | 6.75e4 | 0.76 | NO  | 1.21  | 1.000  | 25.943  | 25.87 | 1.026    | 1.023 | 86.833 | 86.8 | 0.686  |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 5.49e4 | 0.63 | NO  | 0.996 | 1.000  | 30.393  | 30.47 | 1.202    | 1.205 | 85.593 | 85.6 | 0.482  |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.33e4 | 1.31 | NO  | 0.679 | 1.000  | 33.735  | 33.74 | 1.014    | 1.014 | 85.583 | 85.6 | 0.680  |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.52e4 | 1.34 | NO  | 0.850 | 1.000  | 33.845  | 33.85 | 1.017    | 1.017 | 87.110 | 87.1 | 0.543  |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 5.22e4 | 1.32 | NO  | 0.798 | 1.000  | 34.114  | 34.15 | 1.025    | 1.026 | 87.691 | 87.7 | 0.578  |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.54e4 | 1.09 | NO  | 0.697 | 1.000  | 37.561  | 37.63 | 1.129    | 1.131 | 87.366 | 87.4 | 0.858  |      |
| 24 | 24 13C-OCDD                | 7.19e4 | 0.87 | NO  | 0.579 | 1.000  | 40.569  | 40.84 | 1.219    | 1.228 | 166.63 | 83.3 | 1.24   |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.05e5 | 0.79 | NO  | 1.13  | 1.000  | 25.033  | 25.07 | 0.990    | 0.992 | 86.283 | 86.3 | 0.579  |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 9.31e4 | 1.71 | NO  | 0.996 | 1.000  | 29.223  | 29.26 | 1.156    | 1.157 | 86.564 | 86.6 | 0.597  |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 8.81e4 | 1.64 | NO  | 0.969 | 1.000  | 30.115  | 30.17 | 1.191    | 1.193 | 84.144 | 84.1 | 0.613  |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 6.92e4 | 0.52 | NO  | 1.06  | 1.000  | 32.870  | 32.86 | 0.988    | 0.988 | 87.755 | 87.8 | 0.692  |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 7.79e4 | 0.50 | NO  | 1.18  | 1.000  | 33.003  | 32.99 | 0.992    | 0.992 | 88.899 | 88.9 | 0.623  |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.02e4 | 0.49 | NO  | 1.06  | 1.000  | 33.572  | 33.58 | 1.009    | 1.009 | 89.104 | 89.1 | 0.693  |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 5.62e4 | 0.50 | NO  | 0.879 | 1.000  | 34.467  | 34.51 | 1.036    | 1.037 | 85.675 | 85.7 | 0.833  |      |
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 5.84e4 | 0.44 | NO  | 0.893 | 1.000  | 36.164  | 36.32 | 1.087    | 1.092 | 87.725 | 87.7 | 0.660  |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 3.98e4 | 0.45 | NO  | 0.613 | 1.000  | 38.160  | 38.15 | 1.147    | 1.147 | 87.041 | 87.0 | 0.961  |      |
| 34 | 34 13C-OCDF                | 9.16e4 | 0.89 | NO  | 0.741 | 1.000  | 40.722  | 41.06 | 1.224    | 1.234 | 165.73 | 82.9 | 0.674  |      |

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Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

|    | # Name                   | Resp   | RA   | n/y | RRF  | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL     | EMPC |
|----|--------------------------|--------|------|-----|------|--------|---------|-------|----------|-------|--------|------|--------|------|
| 35 | 35 37Cl-2,3,7,8-TCDD     | 1.36e3 |      |     | 1.18 | 1.000  | 25.941  | 25.88 | 1.026    | 1.024 | 1.7827 | 89.1 | 0.0590 |      |
| 36 | 36 13C-1,2,3,4-TCDD      | 6.45e4 | 0.81 | NO  | 1.00 | 1.000  | 25.440  | 25.29 | 1.000    | 1.000 | 100.00 | 100  | 0.827  |      |
| 37 | 37 13C-1,2,3,4-TCDF      | 1.08e5 | 0.74 | NO  | 1.00 | 1.000  | 23.970  | 23.80 | 1.000    | 1.000 | 100.00 | 100  | 0.652  |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF | 7.46e4 | 0.51 | NO  | 1.00 | 1.000  | 33.260  | 33.27 | 1.000    | 1.000 | 100.00 | 100  | 0.732  |      |

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Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 2.62e4 | 0.78 | NO  | 0.987 | 1.000  | 25.898  | 25.90 | 1.001    | 1.001 | 39.325 | 98.3 | 0.180 | 39.3 |
| 2  | 2 1,2,3,7,8-PeCDD          | 1.12e5 | 0.62 | NO  | 0.982 | 1.000  | 30.488  | 30.49 | 1.001    | 1.001 | 205.44 | 103  | 0.238 | 205  |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 1.15e5 | 1.27 | NO  | 1.17  | 1.000  | 33.773  | 33.77 | 1.000    | 1.000 | 199.05 | 99.5 | 0.343 | 199  |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 1.24e5 | 1.25 | NO  | 1.04  | 1.000  | 33.873  | 33.88 | 1.000    | 1.000 | 199.49 | 99.7 | 0.369 | 199  |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 1.18e5 | 1.27 | NO  | 1.00  | 1.000  | 34.192  | 34.17 | 1.001    | 1.000 | 203.80 | 102  | 0.410 | 204  |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 1.01e5 | 1.07 | NO  | 0.992 | 1.000  | 37.648  | 37.65 | 1.000    | 1.000 | 208.09 | 104  | 0.559 | 208  |
| 7  | 7 OCDD                     | 1.78e5 | 0.93 | NO  | 1.04  | 1.000  | 40.841  | 40.85 | 1.000    | 1.000 | 409.83 | 102  | 0.994 | 410  |
| 8  | 8 2,3,7,8-TCDF             | 3.49e4 | 0.74 | NO  | 0.882 | 1.000  | 25.097  | 25.09 | 1.001    | 1.001 | 37.585 | 94.0 | 0.111 | 37.6 |
| 9  | 9 1,2,3,7,8-PeCDF          | 1.99e5 | 1.61 | NO  | 1.05  | 1.000  | 29.300  | 29.30 | 1.001    | 1.001 | 202.61 | 101  | 0.285 | 203  |
| 10 | 10 2,3,4,7,8-PeCDF         | 1.95e5 | 1.60 | NO  | 1.06  | 1.000  | 30.216  | 30.21 | 1.001    | 1.001 | 199.26 | 99.6 | 0.284 | 199  |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 1.60e5 | 1.25 | NO  | 1.08  | 1.000  | 32.885  | 32.90 | 1.000    | 1.000 | 199.76 | 99.9 | 0.474 | 200  |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 1.76e5 | 1.25 | NO  | 1.04  | 1.000  | 33.016  | 33.02 | 1.000    | 1.000 | 201.37 | 101  | 0.492 | 201  |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 1.69e5 | 1.26 | NO  | 1.11  | 1.000  | 33.632  | 33.61 | 1.001    | 1.000 | 201.62 | 101  | 0.518 | 202  |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 1.35e5 | 1.24 | NO  | 1.06  | 1.000  | 34.531  | 34.53 | 1.000    | 1.000 | 203.64 | 102  | 0.758 | 204  |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 1.41e5 | 1.01 | NO  | 1.13  | 1.000  | 36.367  | 36.34 | 1.001    | 1.000 | 199.39 | 99.7 | 0.583 | 199  |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 1.18e5 | 1.03 | NO  | 1.33  | 1.000  | 38.153  | 38.16 | 1.000    | 1.000 | 196.14 | 98.1 | 0.588 | 196  |
| 17 | 17 OCDF                    | 2.16e5 | 0.89 | NO  | 0.933 | 1.000  | 41.061  | 41.07 | 1.000    | 1.000 | 418.95 | 105  | 0.740 | 419  |
| 18 | 18 13C-2,3,7,8-TCDD        | 6.74e4 | 0.80 | NO  | 1.21  | 1.000  | 25.943  | 25.87 | 1.026    | 1.023 | 104.74 | 105  | 0.781 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 5.55e4 | 0.62 | NO  | 0.996 | 1.000  | 30.393  | 30.47 | 1.202    | 1.205 | 104.59 | 105  | 0.335 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.94e4 | 1.30 | NO  | 0.679 | 1.000  | 33.757  | 33.76 | 1.014    | 1.014 | 106.08 | 106  | 0.701 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.99e4 | 1.39 | NO  | 0.850 | 1.000  | 33.867  | 33.87 | 1.017    | 1.017 | 102.78 | 103  | 0.560 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 5.76e4 | 1.37 | NO  | 0.798 | 1.000  | 34.137  | 34.16 | 1.025    | 1.026 | 105.18 | 105  | 0.596 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.89e4 | 1.06 | NO  | 0.697 | 1.000  | 37.586  | 37.64 | 1.129    | 1.131 | 102.16 | 102  | 0.741 |      |
| 24 | 24 13C-OCDD                | 8.39e4 | 0.89 | NO  | 0.579 | 1.000  | 40.595  | 40.84 | 1.219    | 1.227 | 211.07 | 106  | 1.44  |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.05e5 | 0.77 | NO  | 1.13  | 1.000  | 25.033  | 25.07 | 0.990    | 0.992 | 105.13 | 105  | 0.636 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 9.40e4 | 1.56 | NO  | 0.996 | 1.000  | 29.223  | 29.28 | 1.156    | 1.158 | 106.33 | 106  | 0.706 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 9.25e4 | 1.61 | NO  | 0.969 | 1.000  | 30.115  | 30.19 | 1.191    | 1.194 | 107.56 | 108  | 0.726 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 7.40e4 | 0.50 | NO  | 1.06  | 1.000  | 32.892  | 32.89 | 0.988    | 0.988 | 101.98 | 102  | 0.732 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.37e4 | 0.51 | NO  | 1.18  | 1.000  | 33.025  | 33.01 | 0.992    | 0.991 | 103.74 | 104  | 0.658 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.56e4 | 0.51 | NO  | 1.06  | 1.000  | 33.594  | 33.60 | 1.009    | 1.009 | 104.20 | 104  | 0.732 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 6.28e4 | 0.51 | NO  | 0.879 | 1.000  | 34.490  | 34.53 | 1.036    | 1.037 | 104.13 | 104  | 0.880 |      |
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 6.29e4 | 0.43 | NO  | 0.893 | 1.000  | 36.188  | 36.33 | 1.087    | 1.091 | 102.64 | 103  | 0.760 |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 4.51e4 | 0.40 | NO  | 0.613 | 1.000  | 38.185  | 38.15 | 1.147    | 1.146 | 107.20 | 107  | 1.11  |      |
| 34 | 34 13C-OCDF                | 1.10e5 | 0.87 | NO  | 0.741 | 1.000  | 40.749  | 41.06 | 1.224    | 1.233 | 216.88 | 108  | 0.988 |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:25:37 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

|    | # Name                   | Resp   | RA   | n/y | RRF  | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|--------------------------|--------|------|-----|------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 35 | 35 37Cl-2,3,7,8-TCDD     | 2.63e4 |      |     | 1.18 | 1.000  | 25.941  | 25.90 | 1.026    | 1.024 | 41.856 | 105  | 0.130 |      |
| 36 | 36 13C-1,2,3,4-TCDD      | 5.33e4 | 0.79 | NO  | 1.00 | 1.000  | 25.440  | 25.29 | 1.000    | 1.000 | 100.00 | 100  | 0.942 |      |
| 37 | 37 13C-1,2,3,4-TCDF      | 8.88e4 | 0.77 | NO  | 1.00 | 1.000  | 23.970  | 23.79 | 1.000    | 1.000 | 100.00 | 100  | 0.717 |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF | 6.86e4 | 0.52 | NO  | 1.00 | 1.000  | 33.260  | 33.29 | 1.000    | 1.000 | 100.00 | 100  | 0.774 |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:25:37 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 2.32e5 | 0.77 | NO  | 0.987 | 1.000  | 25.913  | 25.90 | 1.001    | 1.001 | 327.37 | 109  | 0.234 | 327  |
| 2  | 2 1,2,3,7,8-PeCDD          | 9.76e5 | 0.63 | NO  | 0.982 | 1.000  | 30.488  | 30.49 | 1.001    | 1.001 | 1612.8 | 108  | 0.392 | 1610 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 1.01e6 | 1.25 | NO  | 1.17  | 1.000  | 33.762  | 33.76 | 1.000    | 1.000 | 1623.4 | 108  | 0.881 | 1620 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 1.05e6 | 1.26 | NO  | 1.04  | 1.000  | 33.862  | 33.87 | 1.000    | 1.000 | 1604.8 | 107  | 0.891 | 1600 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 1.01e6 | 1.24 | NO  | 1.00  | 1.000  | 34.181  | 34.16 | 1.001    | 1.000 | 1673.1 | 112  | 0.950 | 1670 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 9.00e5 | 1.03 | NO  | 0.992 | 1.000  | 37.637  | 37.64 | 1.000    | 1.000 | 1604.4 | 107  | 1.42  | 1600 |
| 7  | 7 OCDD                     | 1.63e6 | 0.89 | NO  | 1.04  | 1.000  | 40.852  | 40.86 | 1.000    | 1.000 | 3041.1 | 101  | 1.86  | 3040 |
| 8  | 8 2,3,7,8-TCDF             | 3.02e5 | 0.76 | NO  | 0.882 | 1.000  | 25.097  | 25.09 | 1.001    | 1.001 | 303.14 | 101  | 0.185 | 303  |
| 9  | 9 1,2,3,7,8-PeCDF          | 1.61e6 | 1.56 | NO  | 1.05  | 1.000  | 29.300  | 29.30 | 1.001    | 1.001 | 1550.4 | 103  | 0.447 | 1550 |
| 10 | 10 2,3,4,7,8-PeCDF         | 1.64e6 | 1.56 | NO  | 1.06  | 1.000  | 30.216  | 30.19 | 1.001    | 1.000 | 1569.6 | 105  | 0.436 | 1570 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 1.35e6 | 1.24 | NO  | 1.08  | 1.000  | 32.874  | 32.89 | 1.000    | 1.000 | 1549.7 | 103  | 0.869 | 1550 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 1.46e6 | 1.25 | NO  | 1.04  | 1.000  | 33.005  | 33.02 | 1.000    | 1.001 | 1594.8 | 106  | 0.890 | 1590 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 1.42e6 | 1.24 | NO  | 1.11  | 1.000  | 33.610  | 33.60 | 1.001    | 1.001 | 1590.7 | 106  | 0.922 | 1590 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 1.16e6 | 1.24 | NO  | 1.06  | 1.000  | 34.509  | 34.53 | 1.000    | 1.001 | 1621.1 | 108  | 1.27  | 1620 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 1.26e6 | 1.04 | NO  | 1.13  | 1.000  | 36.356  | 36.34 | 1.001    | 1.001 | 1627.7 | 109  | 1.18  | 1630 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 1.08e6 | 1.03 | NO  | 1.33  | 1.000  | 38.152  | 38.16 | 1.000    | 1.000 | 1628.7 | 109  | 1.18  | 1630 |
| 17 | 17 OCDF                    | 1.90e6 | 0.90 | NO  | 0.933 | 1.000  | 41.071  | 41.08 | 1.000    | 1.000 | 3229.2 | 108  | 0.975 | 3230 |
| 18 | 18 13C-2,3,7,8-TCDD        | 7.20e4 | 0.74 | NO  | 1.21  | 1.000  | 25.959  | 25.88 | 1.026    | 1.023 | 104.67 | 105  | 0.662 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 6.16e4 | 0.62 | NO  | 0.996 | 1.000  | 30.412  | 30.47 | 1.202    | 1.204 | 108.60 | 109  | 0.305 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 5.28e4 | 1.31 | NO  | 0.679 | 1.000  | 33.746  | 33.75 | 1.014    | 1.014 | 111.22 | 111  | 0.548 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 6.33e4 | 1.27 | NO  | 0.850 | 1.000  | 33.856  | 33.86 | 1.017    | 1.017 | 106.39 | 106  | 0.438 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 6.01e4 | 1.32 | NO  | 0.798 | 1.000  | 34.125  | 34.15 | 1.025    | 1.026 | 107.57 | 108  | 0.466 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 5.66e4 | 1.07 | NO  | 0.697 | 1.000  | 37.573  | 37.63 | 1.129    | 1.131 | 115.97 | 116  | 0.730 |      |
| 24 | 24 13C-OCDD                | 1.03e5 | 0.90 | NO  | 0.579 | 1.000  | 40.582  | 40.85 | 1.219    | 1.228 | 254.77 | 127  | 1.05  |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.13e5 | 0.75 | NO  | 1.13  | 1.000  | 25.048  | 25.07 | 0.990    | 0.991 | 105.72 | 106  | 0.463 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 9.94e4 | 1.62 | NO  | 0.996 | 1.000  | 29.240  | 29.28 | 1.156    | 1.157 | 105.26 | 105  | 0.710 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 9.85e4 | 1.65 | NO  | 0.969 | 1.000  | 30.133  | 30.19 | 1.191    | 1.193 | 107.22 | 107  | 0.730 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 8.03e4 | 0.49 | NO  | 1.06  | 1.000  | 32.881  | 32.87 | 0.988    | 0.988 | 108.45 | 108  | 0.611 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.80e4 | 0.51 | NO  | 1.18  | 1.000  | 33.014  | 32.99 | 0.992    | 0.991 | 106.99 | 107  | 0.550 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 8.06e4 | 0.51 | NO  | 1.06  | 1.000  | 33.583  | 33.58 | 1.009    | 1.009 | 108.86 | 109  | 0.612 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 6.79e4 | 0.50 | NO  | 0.879 | 1.000  | 34.478  | 34.51 | 1.036    | 1.037 | 110.26 | 110  | 0.735 |      |
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 6.88e4 | 0.44 | NO  | 0.893 | 1.000  | 36.176  | 36.32 | 1.087    | 1.091 | 110.02 | 110  | 0.625 |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 4.99e4 | 0.43 | NO  | 0.613 | 1.000  | 38.172  | 38.15 | 1.147    | 1.146 | 116.26 | 116  | 0.910 |      |
| 34 | 34 13C-OCDF                | 1.26e5 | 0.87 | NO  | 0.741 | 1.000  | 40.735  | 41.07 | 1.224    | 1.234 | 243.03 | 122  | 0.651 |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:25:37 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

|    | # Name                   | Resp   | RA   | n/y | RRF  | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|--------------------------|--------|------|-----|------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 35 | 35 37Cl-2,3,7,8-TCDD     | 1.49e5 |      |     | 1.18 | 1.000  | 25.956  | 25.90 | 1.026    | 1.024 | 222.19 | 111  | 0.107 |      |
| 36 | 36 13C-1,2,3,4-TCDD      | 5.70e4 | 0.80 | NO  | 1.00 | 1.000  | 25.440  | 25.30 | 1.000    | 1.000 | 100.00 | 100  | 0.799 |      |
| 37 | 37 13C-1,2,3,4-TCDF      | 9.48e4 | 0.77 | NO  | 1.00 | 1.000  | 23.970  | 23.80 | 1.000    | 1.000 | 100.00 | 100  | 0.522 |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF | 7.00e4 | 0.51 | NO  | 1.00 | 1.000  | 33.260  | 33.28 | 1.000    | 1.000 | 100.00 | 100  | 0.646 |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:25:37 Pacific Daylight Time

Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 5.95e3 | 0.84 | NO  | 0.987 | 1.000  | 25.898  | 25.90 | 1.001    | 1.001 | 10.674 | 107  | 0.194 | 10.7 |
| 2  | 2 1,2,3,7,8-PeCDD          | 2.35e4 | 0.63 | NO  | 0.982 | 1.000  | 30.488  | 30.49 | 1.001    | 1.001 | 49.627 | 99.3 | 0.344 | 49.6 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 2.32e4 | 1.30 | NO  | 1.17  | 1.000  | 33.773  | 33.77 | 1.000    | 1.000 | 48.395 | 96.8 | 0.509 | 48.4 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 2.48e4 | 1.22 | NO  | 1.04  | 1.000  | 33.862  | 33.87 | 1.000    | 1.000 | 47.392 | 94.8 | 0.461 | 47.4 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 2.27e4 | 1.22 | NO  | 1.00  | 1.000  | 34.181  | 34.17 | 1.001    | 1.001 | 47.860 | 95.7 | 0.560 | 47.9 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 1.97e4 | 1.03 | NO  | 0.992 | 1.000  | 37.637  | 37.65 | 1.000    | 1.001 | 47.566 | 95.1 | 0.441 | 47.6 |
| 7  | 7 OCDD                     | 3.46e4 | 0.91 | NO  | 1.04  | 1.000  | 40.852  | 40.86 | 1.000    | 1.000 | 101.37 | 101  | 0.624 | 101  |
| 8  | 8 2,3,7,8-TCDF             | 7.83e3 | 0.74 | NO  | 0.882 | 1.000  | 25.082  | 25.07 | 1.001    | 1.001 | 9.9734 | 99.7 | 0.156 | 9.97 |
| 9  | 9 1,2,3,7,8-PeCDF          | 3.93e4 | 1.62 | NO  | 1.05  | 1.000  | 29.300  | 29.28 | 1.001    | 1.000 | 49.656 | 99.3 | 0.270 | 49.7 |
| 10 | 10 2,3,4,7,8-PeCDF         | 3.92e4 | 1.59 | NO  | 1.06  | 1.000  | 30.216  | 30.19 | 1.001    | 1.000 | 48.173 | 96.3 | 0.249 | 48.2 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 3.35e4 | 1.27 | NO  | 1.08  | 1.000  | 32.874  | 32.90 | 1.000    | 1.001 | 47.795 | 95.6 | 0.276 | 47.8 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 3.62e4 | 1.26 | NO  | 1.04  | 1.000  | 33.005  | 33.02 | 1.000    | 1.001 | 49.151 | 98.3 | 0.297 | 49.2 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 3.50e4 | 1.27 | NO  | 1.11  | 1.000  | 33.621  | 33.60 | 1.001    | 1.000 | 50.326 | 101  | 0.319 | 50.3 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 2.76e4 | 1.29 | NO  | 1.06  | 1.000  | 34.520  | 34.53 | 1.000    | 1.000 | 49.086 | 98.2 | 0.440 | 49.1 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 2.92e4 | 1.03 | NO  | 1.13  | 1.000  | 36.367  | 36.34 | 1.001    | 1.000 | 50.171 | 100  | 0.440 | 50.2 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 2.39e4 | 1.01 | NO  | 1.33  | 1.000  | 38.153  | 38.16 | 1.000    | 1.000 | 48.848 | 97.7 | 0.441 | 48.8 |
| 17 | 17 OCDF                    | 3.98e4 | 0.90 | NO  | 0.933 | 1.000  | 41.061  | 41.07 | 1.000    | 1.000 | 100.89 | 101  | 0.581 | 101  |
| 18 | 18 13C-2,3,7,8-TCDD        | 5.65e4 | 0.75 | NO  | 1.21  | 1.000  | 25.943  | 25.87 | 1.026    | 1.023 | 96.302 | 96.3 | 0.696 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 4.81e4 | 0.64 | NO  | 0.996 | 1.000  | 30.393  | 30.47 | 1.202    | 1.205 | 99.417 | 99.4 | 0.255 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.08e4 | 1.30 | NO  | 0.679 | 1.000  | 33.746  | 33.76 | 1.014    | 1.015 | 100.91 | 101  | 0.783 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.06e4 | 1.28 | NO  | 0.850 | 1.000  | 33.856  | 33.86 | 1.017    | 1.017 | 99.923 | 99.9 | 0.625 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 4.73e4 | 1.29 | NO  | 0.798 | 1.000  | 34.126  | 34.15 | 1.025    | 1.026 | 99.381 | 99.4 | 0.666 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.19e4 | 1.09 | NO  | 0.697 | 1.000  | 37.574  | 37.63 | 1.129    | 1.131 | 100.84 | 101  | 0.763 |      |
| 24 | 24 13C-OCDD                | 6.60e4 | 0.90 | NO  | 0.579 | 1.000  | 40.582  | 40.85 | 1.219    | 1.228 | 191.28 | 95.6 | 0.964 |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 8.90e4 | 0.77 | NO  | 1.13  | 1.000  | 25.033  | 25.06 | 0.990    | 0.991 | 97.439 | 97.4 | 0.514 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 7.57e4 | 1.58 | NO  | 0.996 | 1.000  | 29.223  | 29.28 | 1.156    | 1.158 | 93.786 | 93.8 | 0.878 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 7.68e4 | 1.61 | NO  | 0.969 | 1.000  | 30.115  | 30.19 | 1.191    | 1.194 | 97.866 | 97.9 | 0.902 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 6.48e4 | 0.50 | NO  | 1.06  | 1.000  | 32.881  | 32.87 | 0.988    | 0.988 | 102.75 | 103  | 0.667 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 7.06e4 | 0.50 | NO  | 1.18  | 1.000  | 33.014  | 33.00 | 0.992    | 0.991 | 100.87 | 101  | 0.601 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 6.26e4 | 0.51 | NO  | 1.06  | 1.000  | 33.583  | 33.59 | 1.009    | 1.009 | 99.391 | 99.4 | 0.668 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 5.32e4 | 0.55 | NO  | 0.879 | 1.000  | 34.479  | 34.52 | 1.036    | 1.037 | 101.58 | 102  | 0.803 |      |
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 5.16e4 | 0.44 | NO  | 0.893 | 1.000  | 36.176  | 36.33 | 1.087    | 1.092 | 97.081 | 97.1 | 0.587 |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 3.67e4 | 0.42 | NO  | 0.613 | 1.000  | 38.173  | 38.15 | 1.147    | 1.146 | 100.29 | 100  | 0.855 |      |
| 34 | 34 13C-OCDF                | 8.45e4 | 0.90 | NO  | 0.741 | 1.000  | 40.735  | 41.06 | 1.224    | 1.234 | 191.36 | 95.7 | 0.540 |      |



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 17:20:28 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:25:37 Pacific Daylight Time

Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

|    | # Name                   | Resp   | RA   | n/y | RRF  | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec | DL    | EMPC |
|----|--------------------------|--------|------|-----|------|--------|---------|-------|----------|-------|--------|------|-------|------|
| 35 | 35 37Cl-2,3,7,8-TCDD     | 5.49e3 |      |     | 1.18 | 1.000  | 25.941  | 25.88 | 1.026    | 1.024 | 9.5783 | 95.8 | 0.129 |      |
| 36 | 36 13C-1,2,3,4-TCDD      | 4.86e4 | 0.80 | NO  | 1.00 | 1.000  | 25.440  | 25.29 | 1.000    | 1.000 | 100.00 | 100  | 0.839 |      |
| 37 | 37 13C-1,2,3,4-TCDF      | 8.10e4 | 0.80 | NO  | 1.00 | 1.000  | 23.970  | 23.80 | 1.000    | 1.000 | 100.00 | 100  | 0.580 |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF | 5.96e4 | 0.48 | NO  | 1.00 | 1.000  | 33.260  | 33.28 | 1.000    | 1.000 | 100.00 | 100  | 0.706 |      |

Dataset: Untitled

Last Altered: Monday, March 09, 2020 17:27:14 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:27:43 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\CPSM.mdb 05 Mar 2020 16:02:56  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-2-27-20.cdb 28 Feb 2020 10:40:27

Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

|    | # Name                         | RT    |
|----|--------------------------------|-------|
| 1  | 1 1,3,6,8-TCDD (First)         | 22.35 |
| 2  | 2 1,2,8,9-TCDD (Last)          | 26.77 |
| 3  | 3 1,2,4,7,9-PeCDD (First)      | 28.41 |
| 4  | 4 1,2,3,8,9-PeCDD (Last)       | 30.85 |
| 5  | 5 1,2,4,6,7,9-HxCDD (First)    | 32.26 |
| 6  | 6 1,2,3,7,8,9-HxCDD (Last)     | 34.17 |
| 7  | 7 1,2,3,4,6,7,9-HpCDD (First)  | 36.74 |
| 8  | 8 1,2,3,4,6,7,8-HpCDD (Last)   | 37.65 |
| 9  | 9 1,3,6,8-TCDF (First)         | 20.19 |
| 10 | 10 1,2,8,9-TCDF (Last)         | 26.91 |
| 11 | 11 1,3,4,6,8-PeCDF (First)     | 26.88 |
| 12 | 12 1,2,3,8,9-PeCDF (Last)      | 31.07 |
| 13 | 13 1,2,3,4,6,8-HxCDF (First)   | 31.73 |
| 14 | 14 1,2,3,7,8,9-HxCDF (Last)    | 34.53 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF (First) | 36.34 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF (Last)  | 38.16 |

Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 09:21:15 Pacific Daylight Time

Printed: Tuesday, March 10, 2020 09:21:30 Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\1613\_rrt.mdb 09 Mar 2020 11:30:34  
Calibration: U:\VG7.PRO\CurveDB\db-5\_1613vg7-2-27-20.cdb 28 Feb 2020 10:40:27

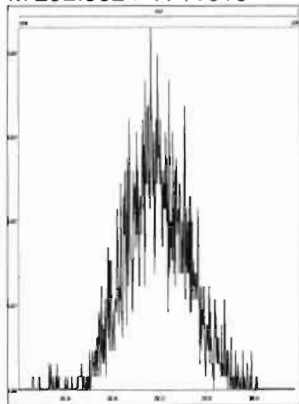
Compound name: 2,3,7,8-TCDD

|    | Name        | ID                                | Acq.Date  | Acq.Time |
|----|-------------|-----------------------------------|-----------|----------|
| 1  | 200309D1_1  | ST200309D1-1 1613 CS0 19L2302     | 09-Mar-20 | 12:30:36 |
| 2  | 200309D1_2  | ST200309D1-2 1613 CS1 19L2303     | 09-Mar-20 | 13:13:59 |
| 3  | 200309D1_3  | ST200309D1-3 1613 CS2 19L2304     | 09-Mar-20 | 13:58:44 |
| 4  | 200309D1_4  | ST200309D1-4 1613 CS4 19L2306     | 09-Mar-20 | 14:43:39 |
| 5  | 200309D1_5  | ST200309D1-5 1613 CS5 19L2307     | 09-Mar-20 | 15:28:28 |
| 6  | 200309D1_6  | ST200309D1-6 1613 CS3 19L2305     | 09-Mar-20 | 16:13:17 |
| 7  | 200309D1_7  | SOLVENT BLANK                     | 09-Mar-20 | 16:58:12 |
| 8  | 200309D1_8  | SS200309D1-1 1613 SSS 19L2308     | 09-Mar-20 | 17:43:01 |
| 9  | 200309D1_9  | B0A0186-BS1 OPR 1                 | 09-Mar-20 | 18:27:57 |
| 10 | 200309D1_10 | SOLVENT BLANK                     | 09-Mar-20 | 19:12:46 |
| 11 | 200309D1_11 | B0B0297-BLK1 Method Blank 1       | 09-Mar-20 | 19:57:35 |
| 12 | 200309D1_12 | B0A0143-BLK1 Method Blank 10      | 09-Mar-20 | 20:42:24 |
| 13 | 200309D1_13 | B0A0186-BLK1 Method Blank 1       | 09-Mar-20 | 21:27:13 |
| 14 | 200309D1_14 | 2000418-01 GAIN-D-001-C-022620 1  | 09-Mar-20 | 22:12:00 |
| 15 | 200309D1_15 | 2000141-01 RO Brine 1.02453       | 09-Mar-20 | 22:56:48 |
| 16 | 200309D1_16 | 1902883-12RE1 RBC-LMB-1-5-L 25.01 | 09-Mar-20 | 23:40:51 |

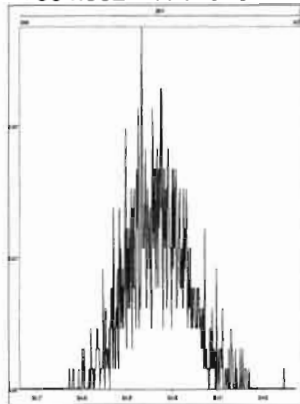
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, March 09, 2020 12:27:34 Pacific Daylight Time

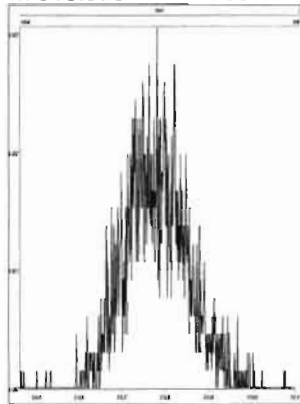
M 292.9824 R 11315



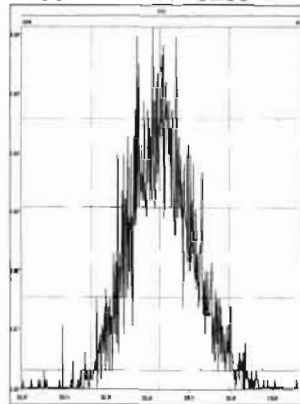
M 304.9824 R 14046



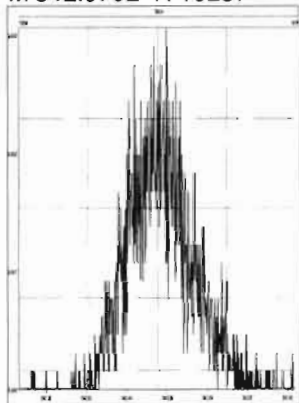
M 318.9792 R 11960



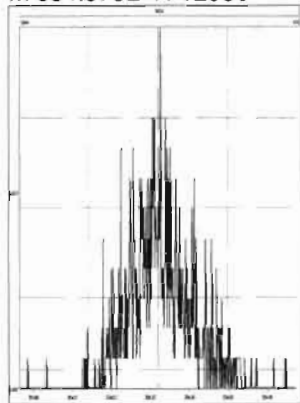
M 330.9792 R 10289



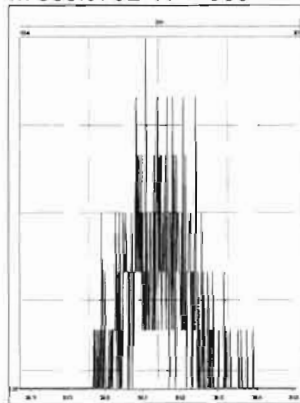
M 342.9792 R 10287



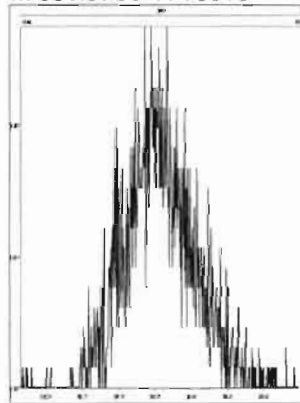
M 354.9792 R 12950



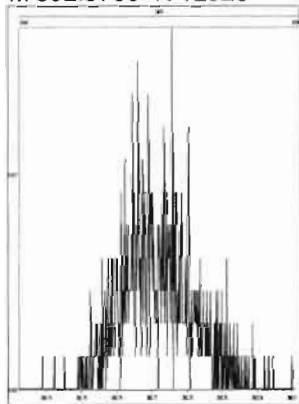
M 366.9792 R 14880



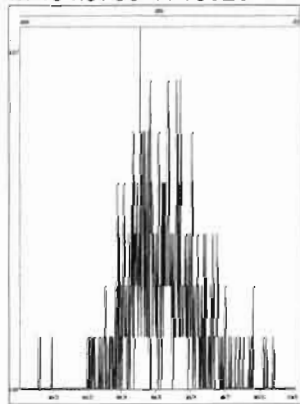
M 380.9760 R 10919



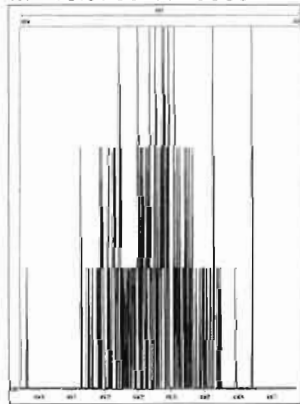
M 392.9760 R 12626



M 404.9760 R 13023



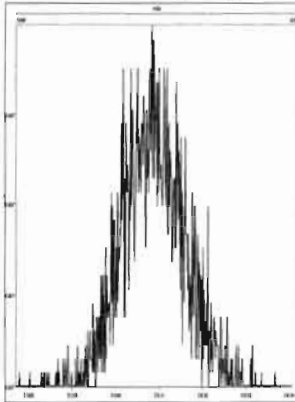
M 416.9760 R 73505



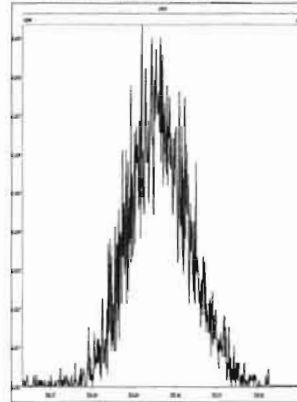
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Monday, March 09, 2020 12:27:59 Pacific Daylight Time

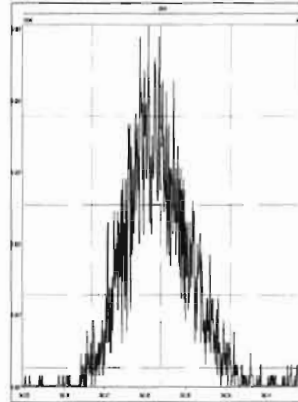
M 318.9792 R 11261



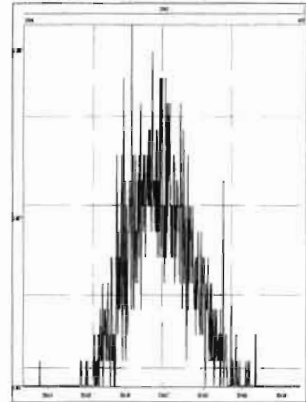
M 330.9792 R 11011



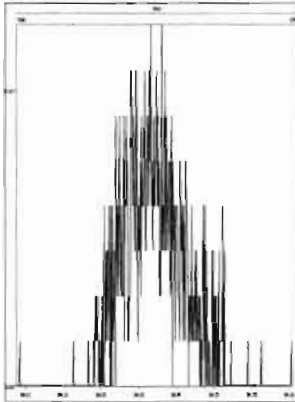
M 342.9792 R 11849



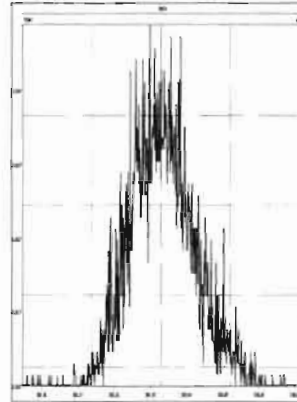
M 354.9792 R 13296



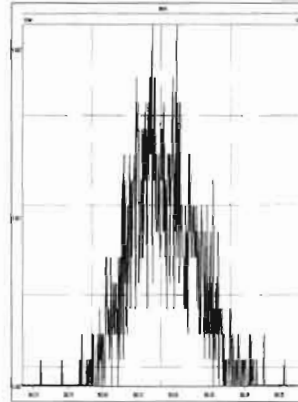
M 366.9792 R 13890



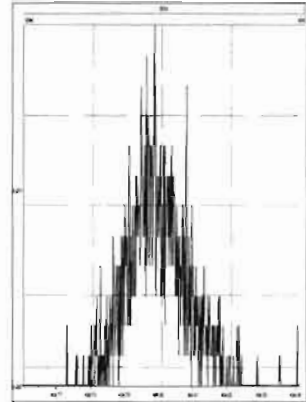
M 380.9760 R 11736



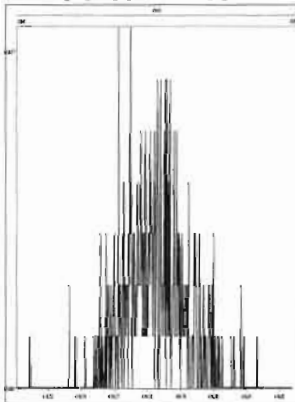
M 392.9760 R 13738



M 404.9760 R 14792



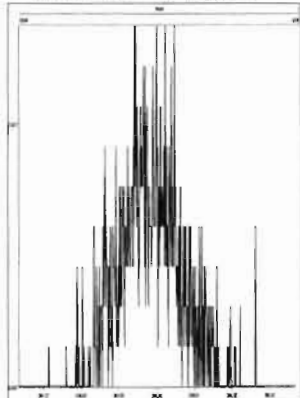
M 416.9760 R 60984



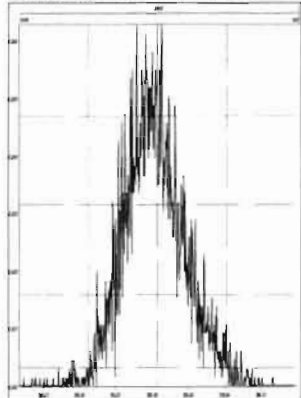
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, March 09, 2020 12:28:21 Pacific Daylight Time

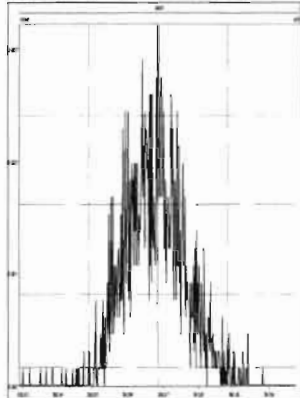
M 366.9792 R 14364



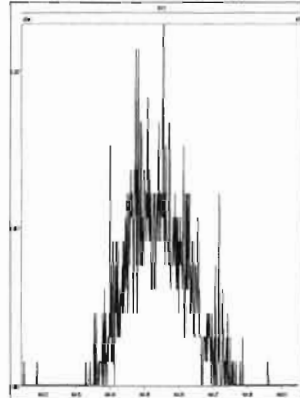
M 380.9760 R 11682



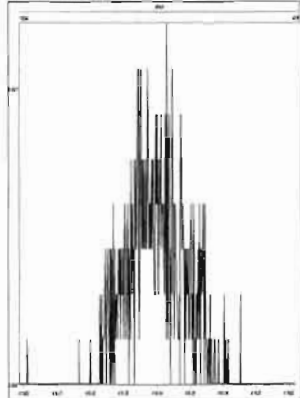
M 392.9760 R 11366



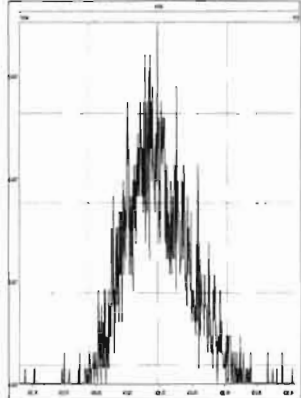
M 404.9760 R 12377



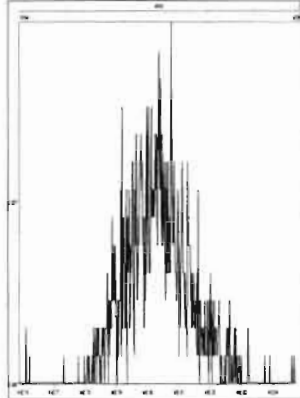
M 416.9760 R 13231



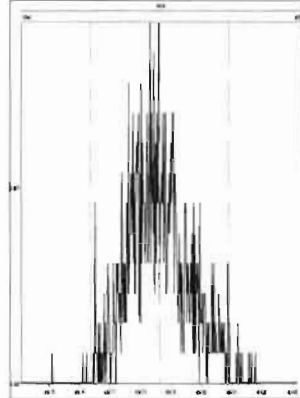
M 430.9728 R 10461



M 442.9728 R 12376



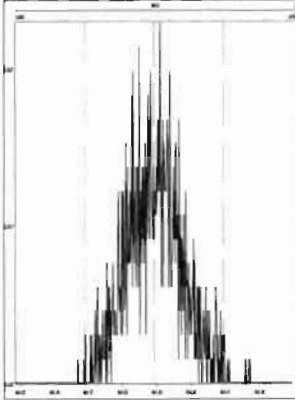
M 454.9728 R 12692



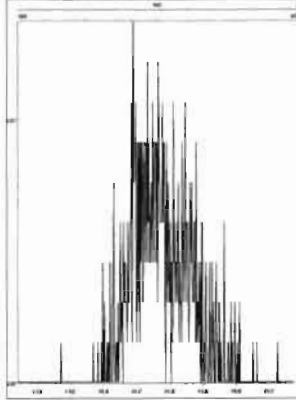
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, March 09, 2020 12:28:48 Pacific Daylight Time

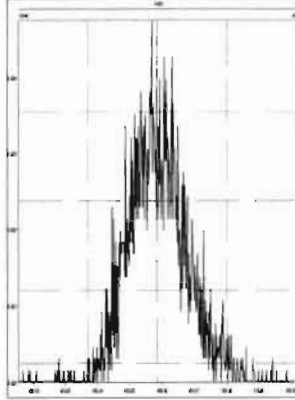
M 404.9760 R 15825



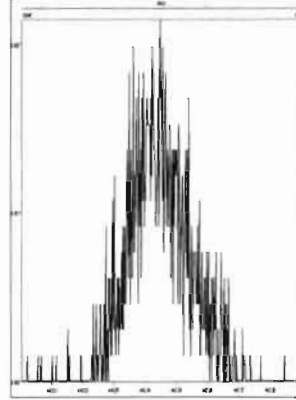
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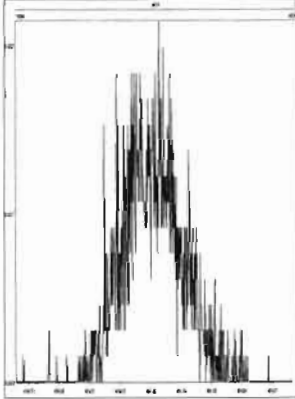
M 430.9728 R 12379



M 442.9728 R 11521



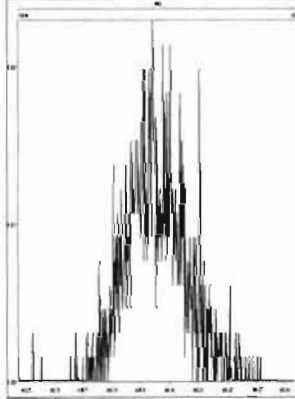
M 454.9728 R 11362



M 466.9728 R 16557



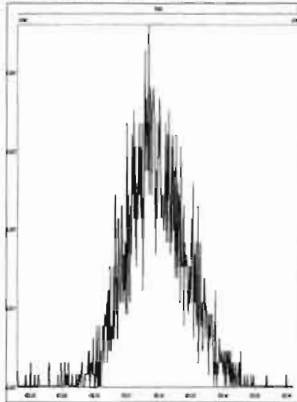
M 480.9696 R 13586



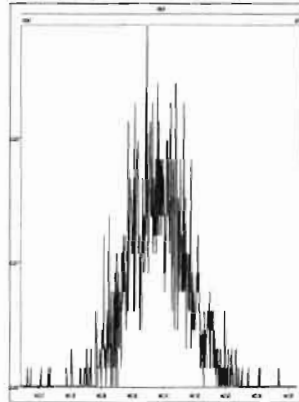
File: Experiment: ocdd\_db5.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, March 09, 2020 12:29:46 Pacific Daylight Time

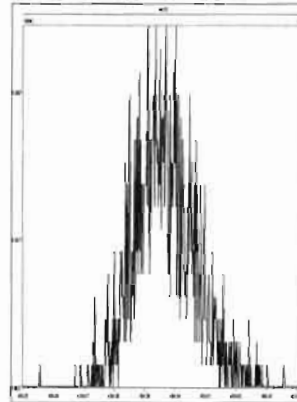
M 430.9728 R 11111



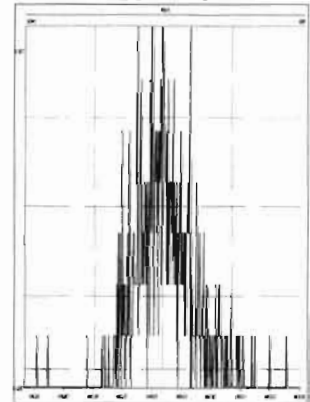
M 442.9728 R 12819



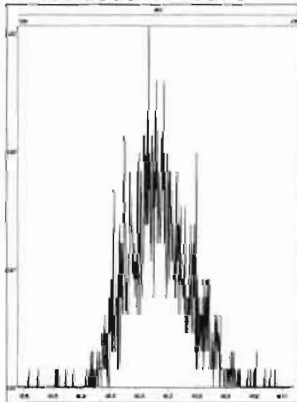
M 454.9728 R 13017



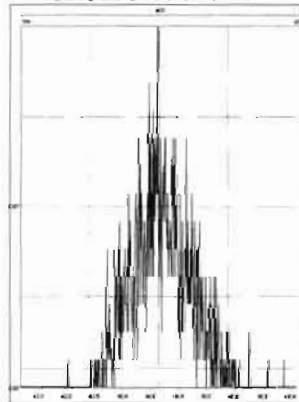
M 466.9728 R 16127



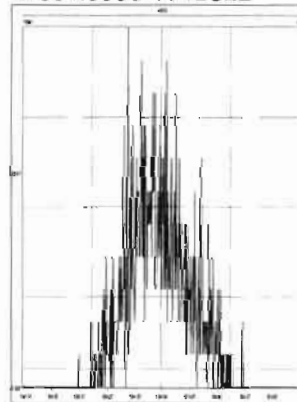
M 480.9696 R 13370



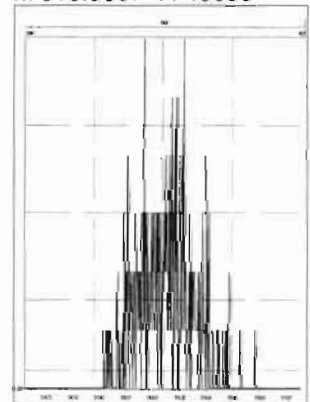
M 492.9696 R 14124



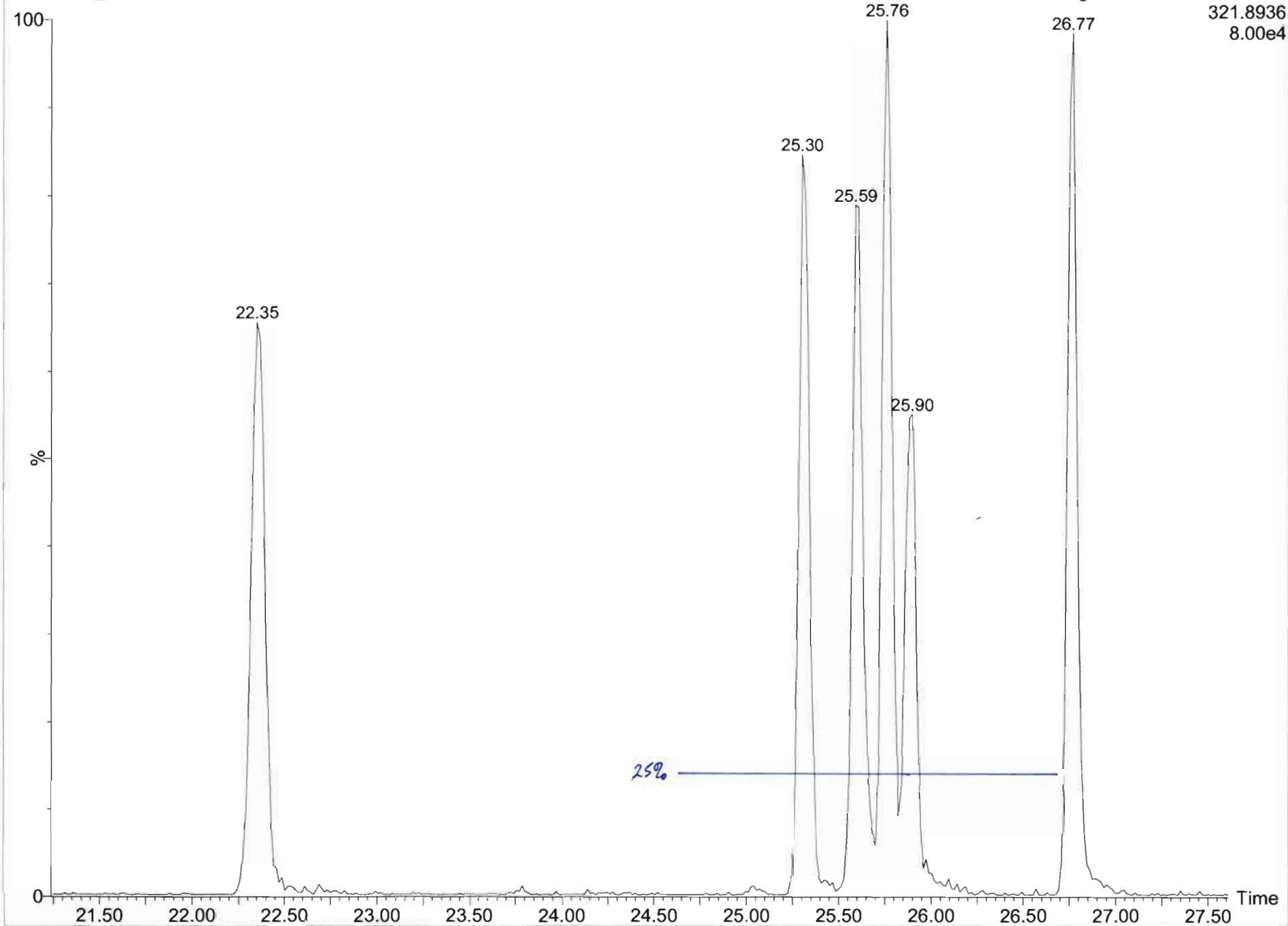
M 504.9696 R 12822



M 516.9697 R 49006







Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

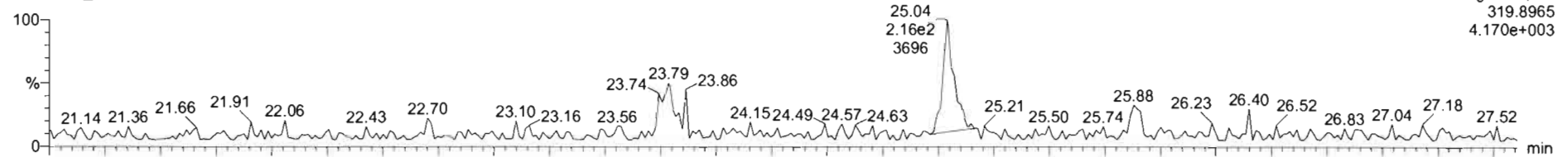
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 09 Mar 2020 11:30:34  
Calibration: 09 Mar 2020 16:58:54

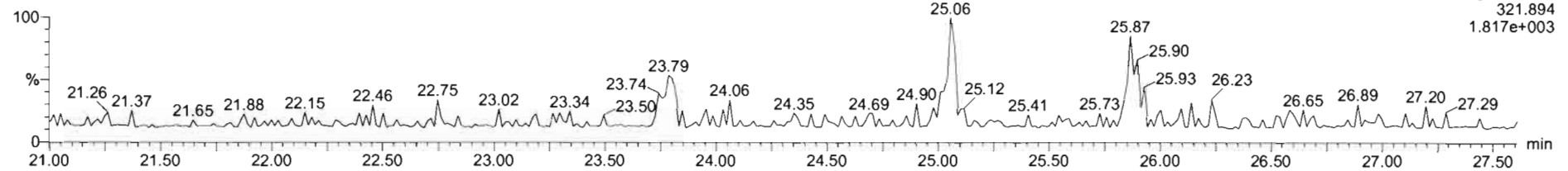
Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

**2,3,7,8-TCDD**

200309D1\_1

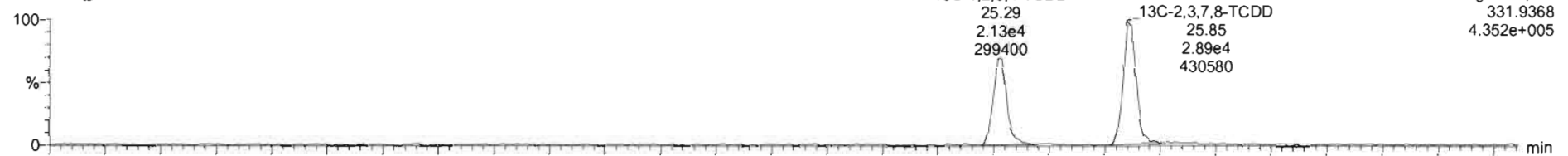


200309D1\_1

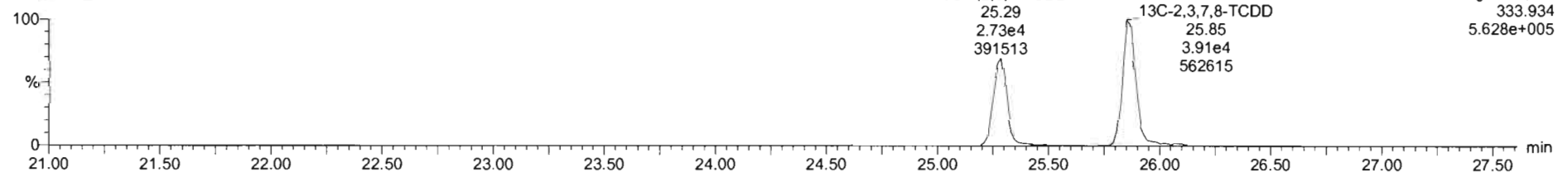


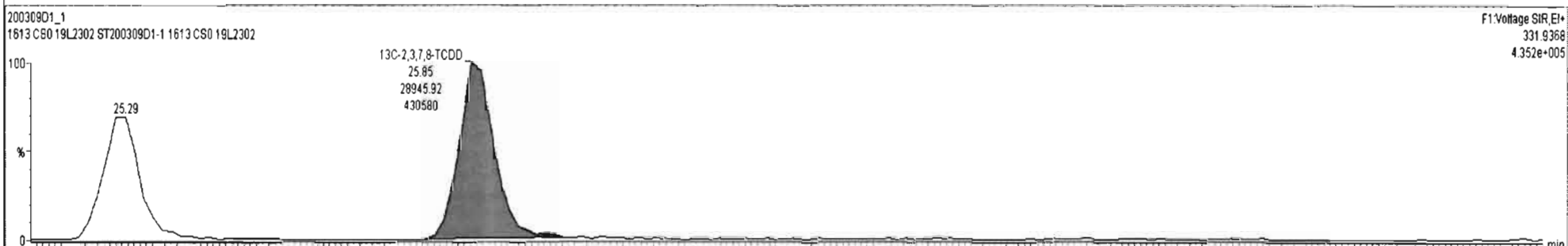
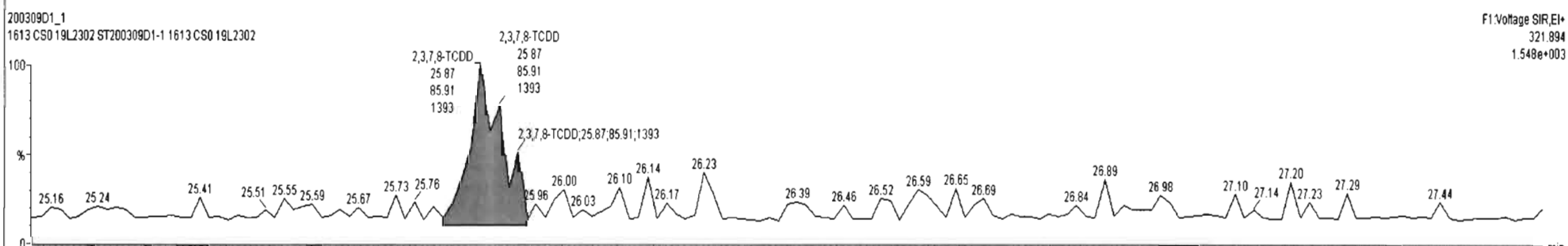
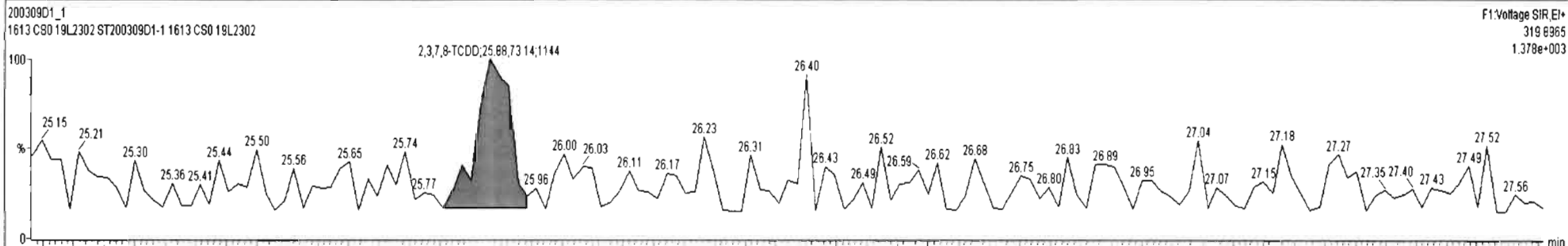
**13C-2,3,7,8-TCDD**

200309D1\_1



200309D1\_1





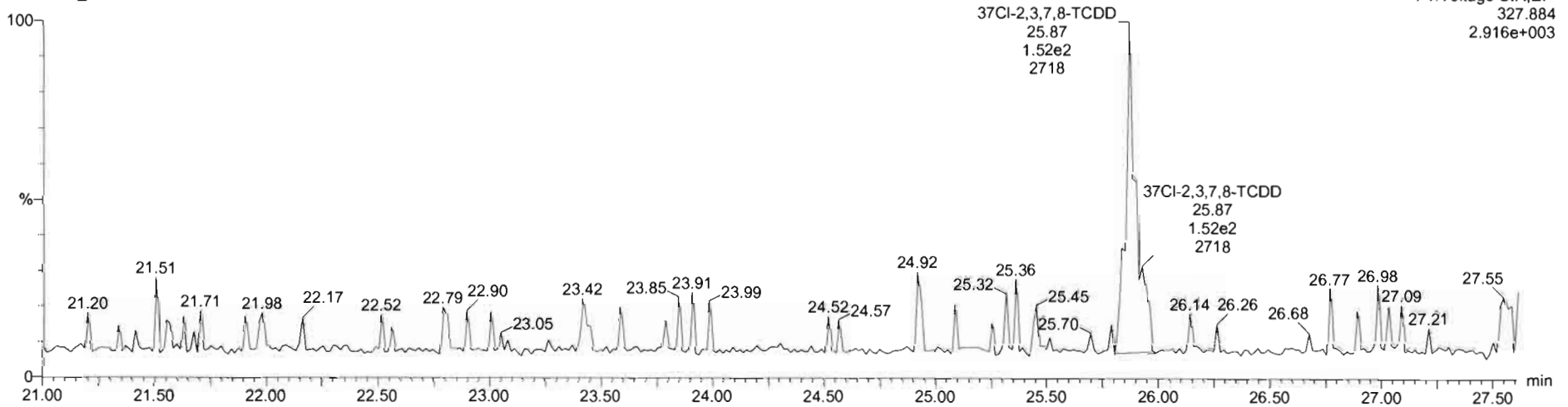
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

**37Cl-2,3,7,8-TCDD**

200309D1\_1



F1:Voltage SIR,EI+  
327.884  
2.916e+003

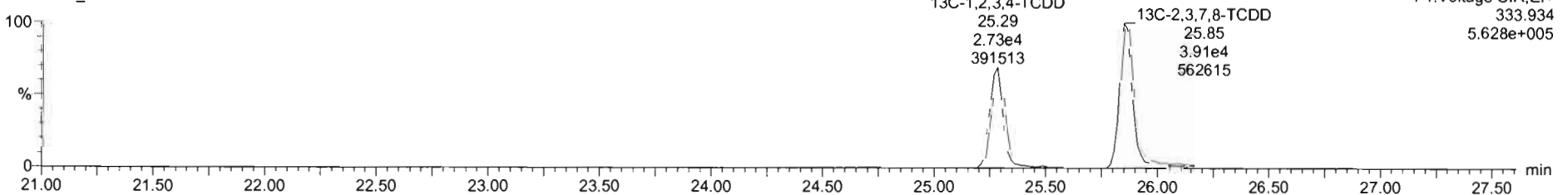
**13C-1,2,3,4-TCDD**

200309D1\_1



F1:Voltage SIR,EI+  
331.9368  
4.352e+005

200309D1\_1



F1:Voltage SIR,EI+  
333.934  
5.628e+005

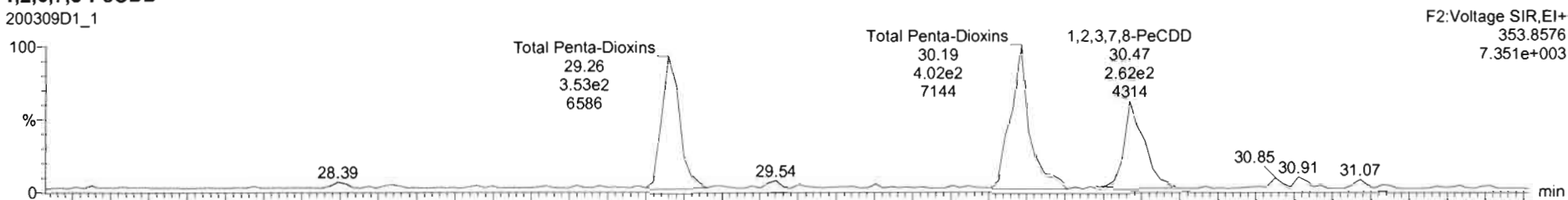
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

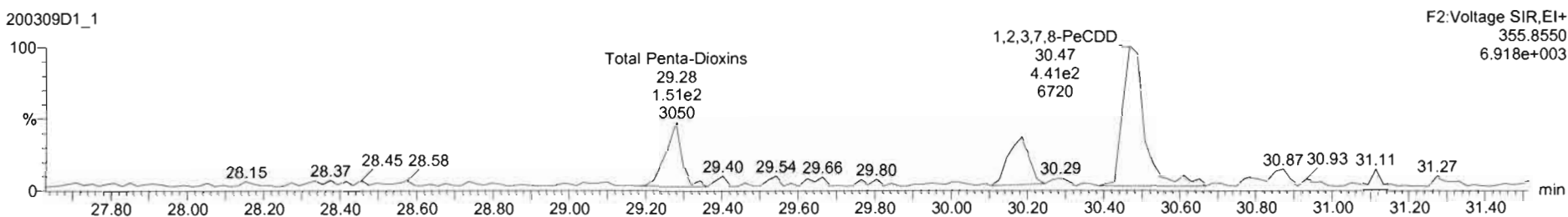
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1,2,3,7,8-PeCDD

200309D1\_1

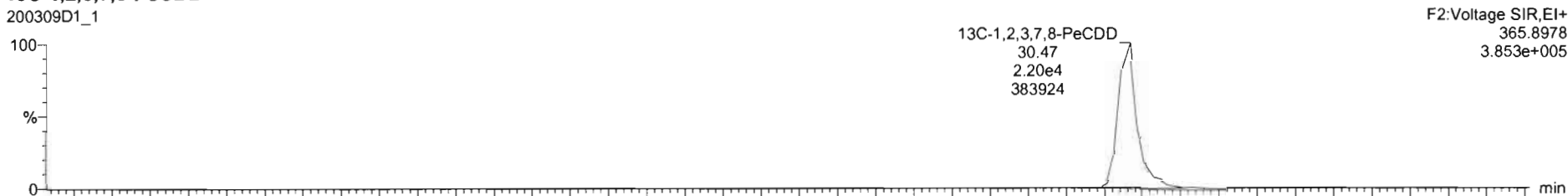


200309D1\_1

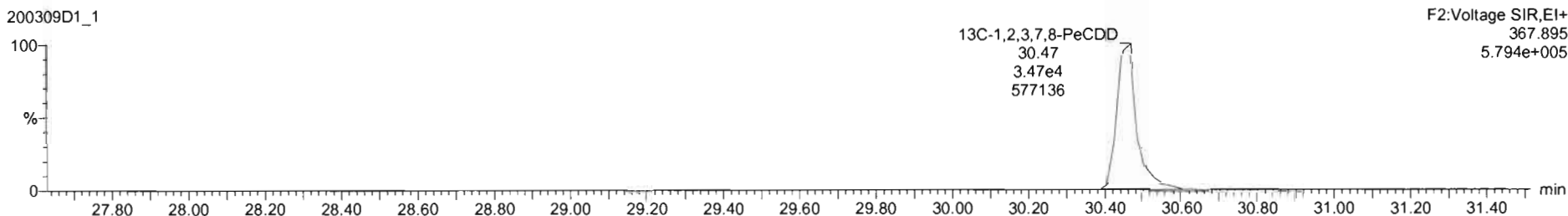


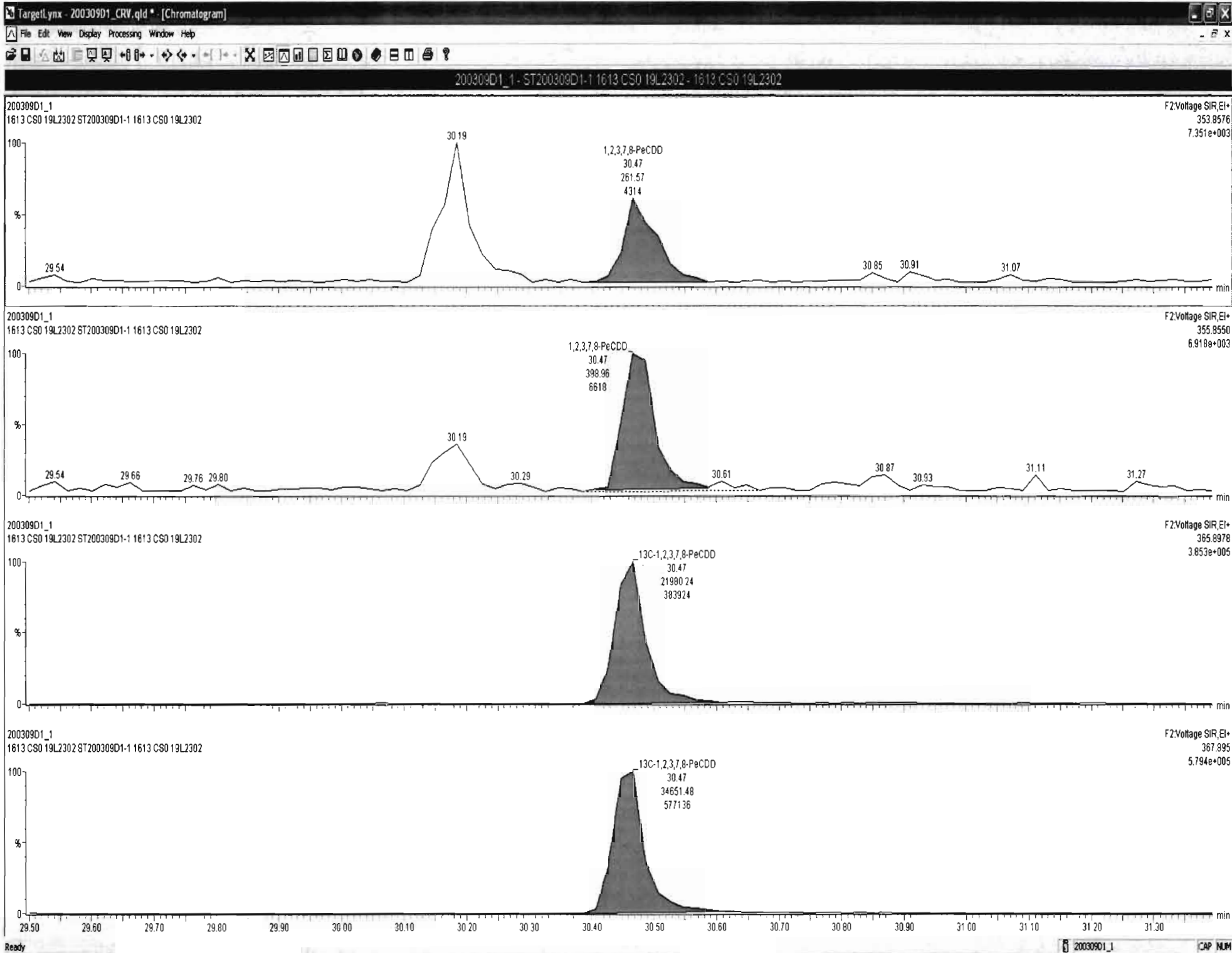
13C-1,2,3,7,8-PeCDD

200309D1\_1



200309D1\_1





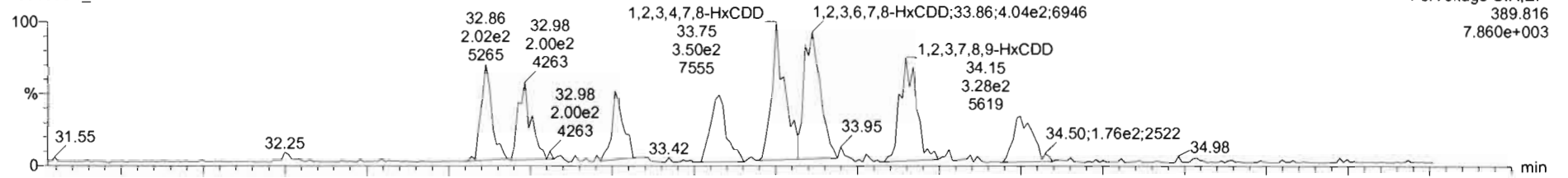
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

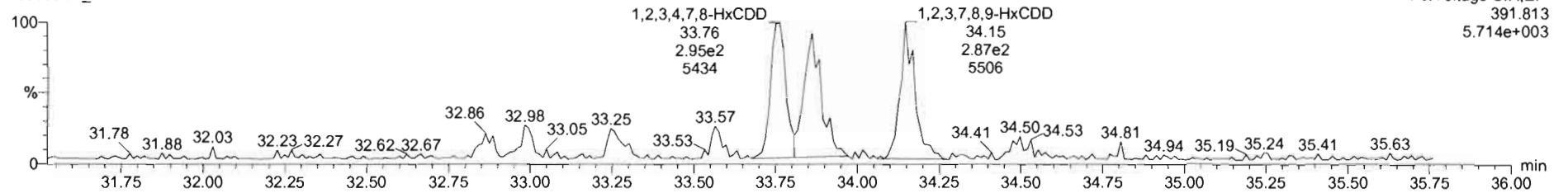
Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

1,2,3,4,7,8-HxCDD

200309D1\_1

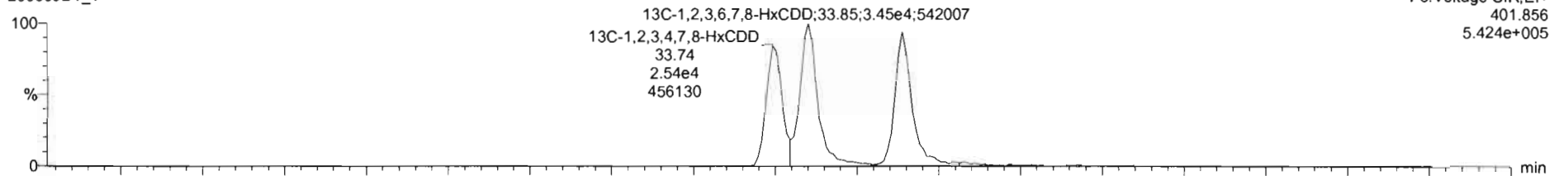


200309D1\_1

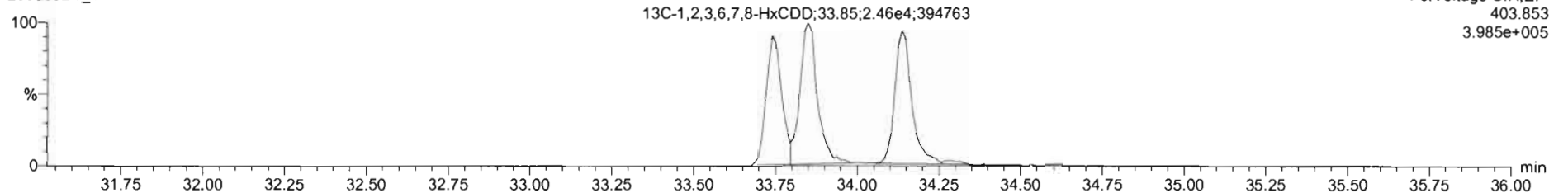


13C-1,2,3,4,7,8-HxCDD

200309D1\_1



200309D1\_1



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

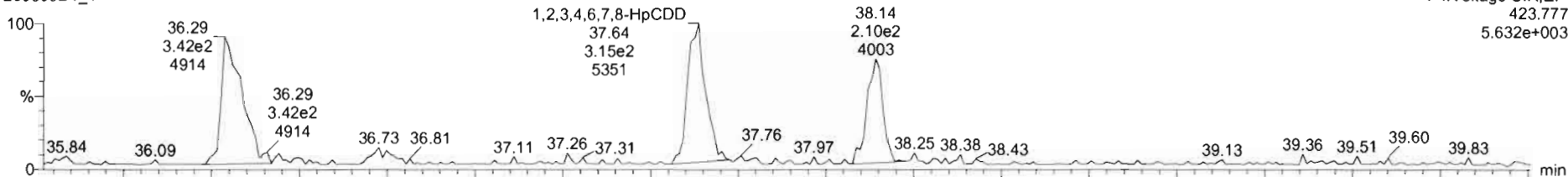
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

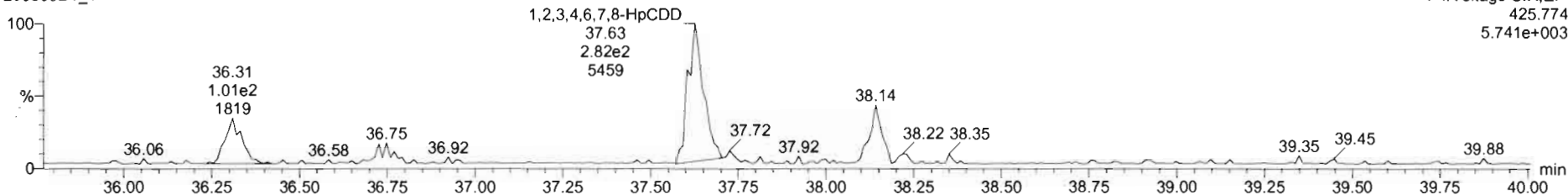
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**1,2,3,4,6,7,8-HpCDD**

200309D1\_1

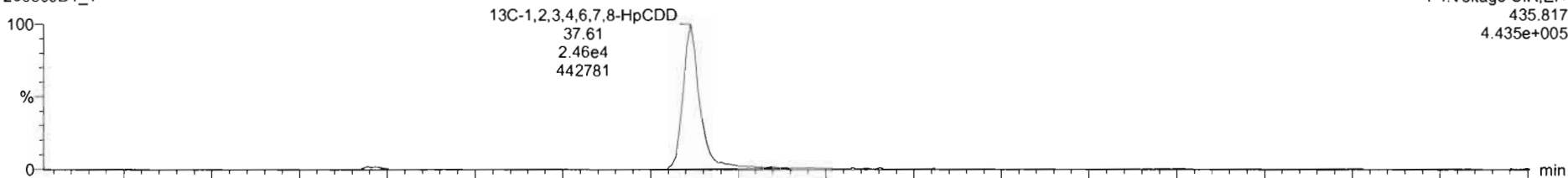


200309D1\_1

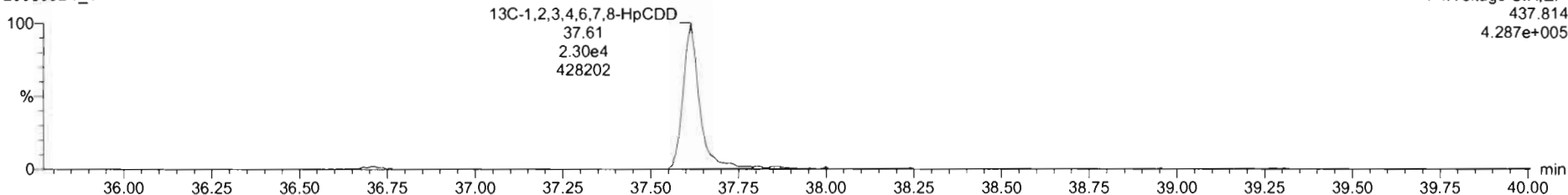


**13C-1,2,3,4,6,7,8-HpCDD**

200309D1\_1



200309D1\_1

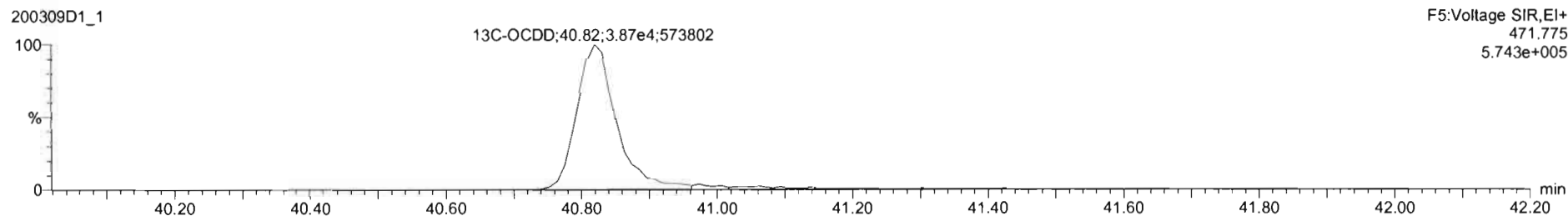
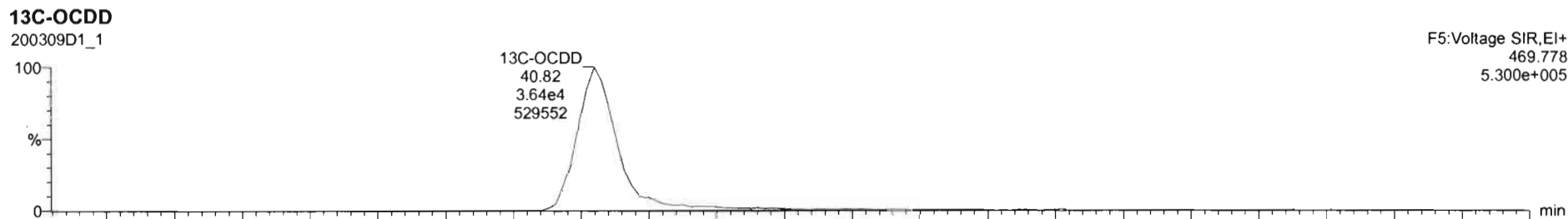
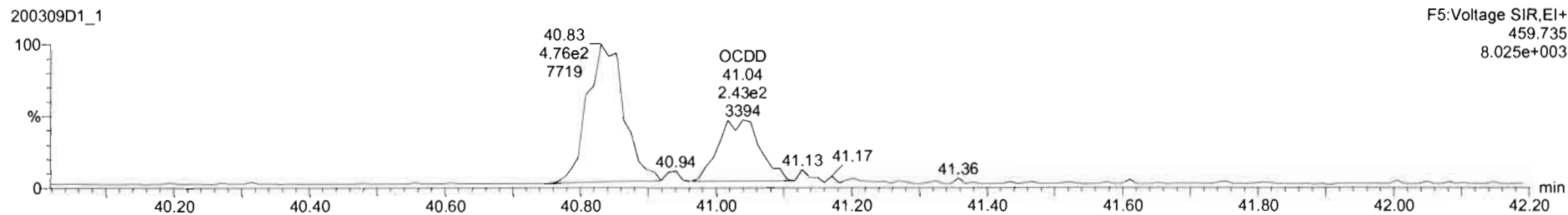
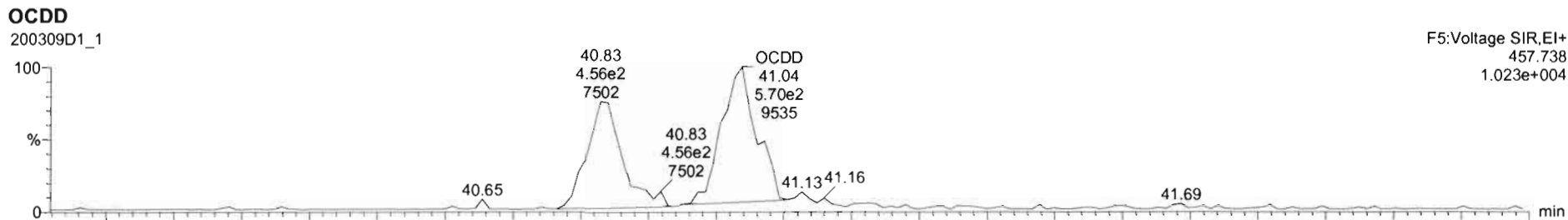


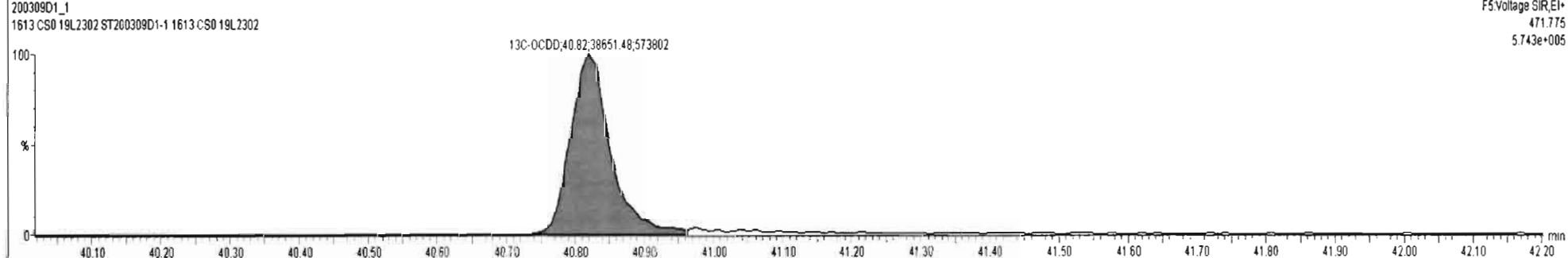
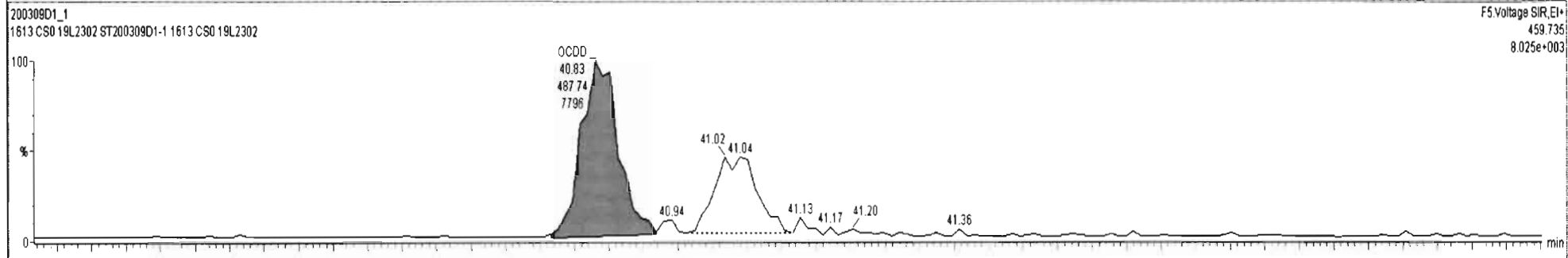
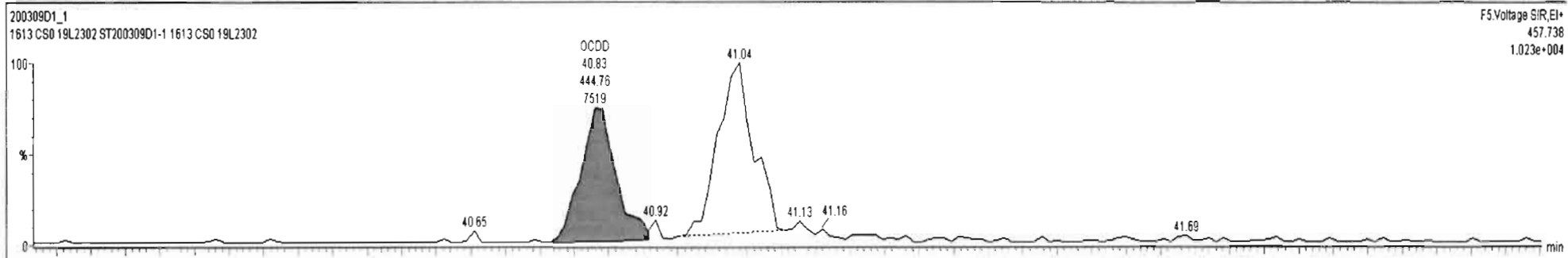


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302





Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

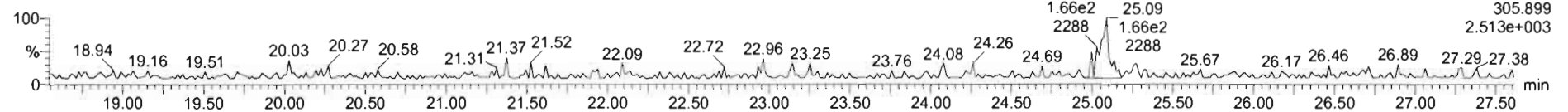
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**2,3,7,8-TCDF**

200309D1\_1

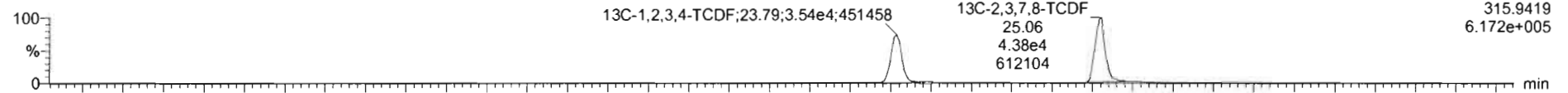


200309D1\_1

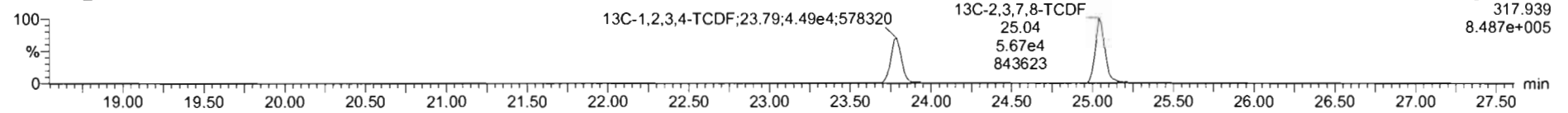


**13C-2,3,7,8-TCDF**

200309D1\_1

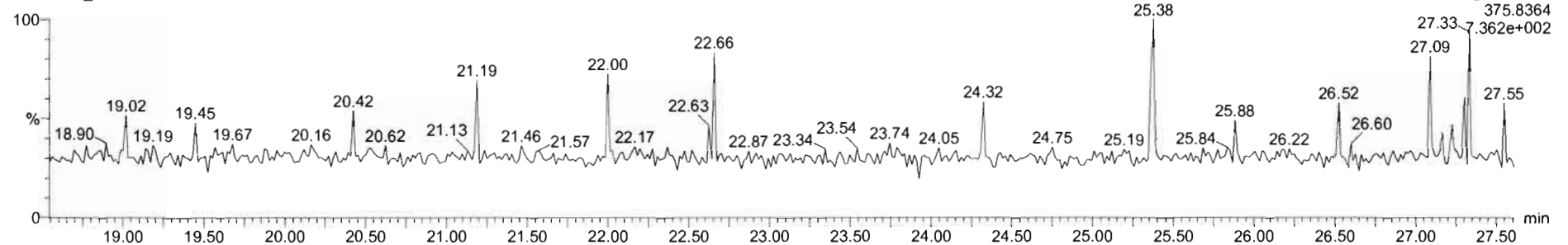


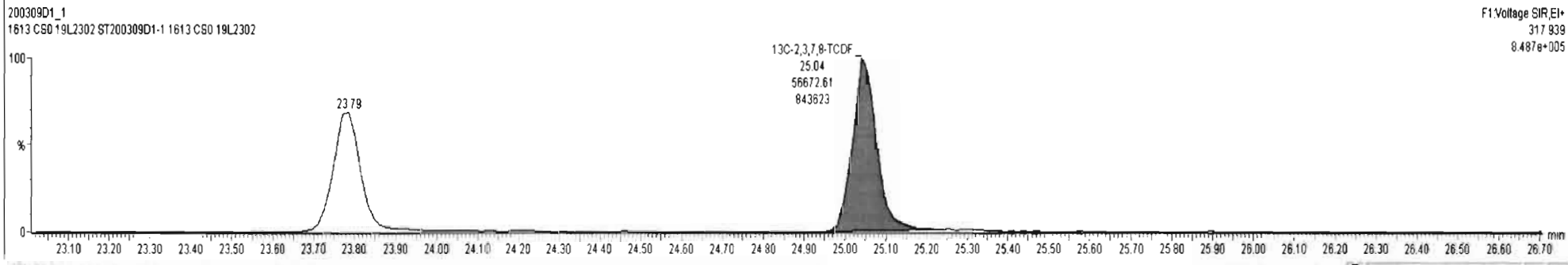
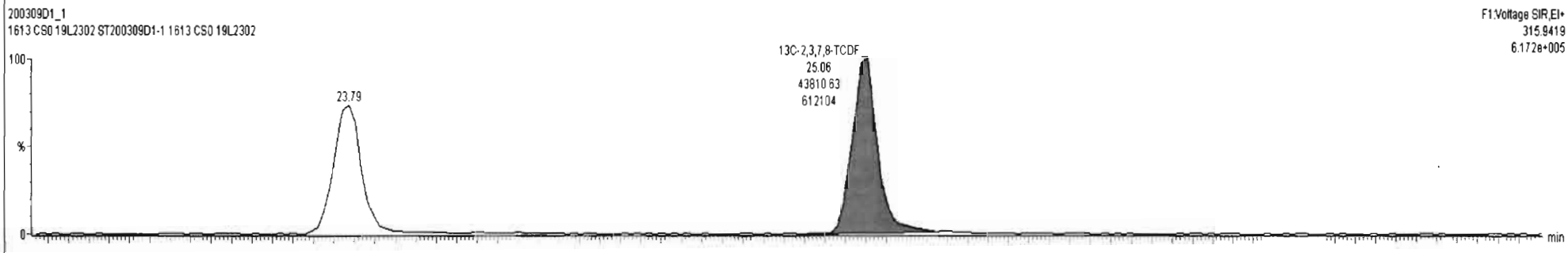
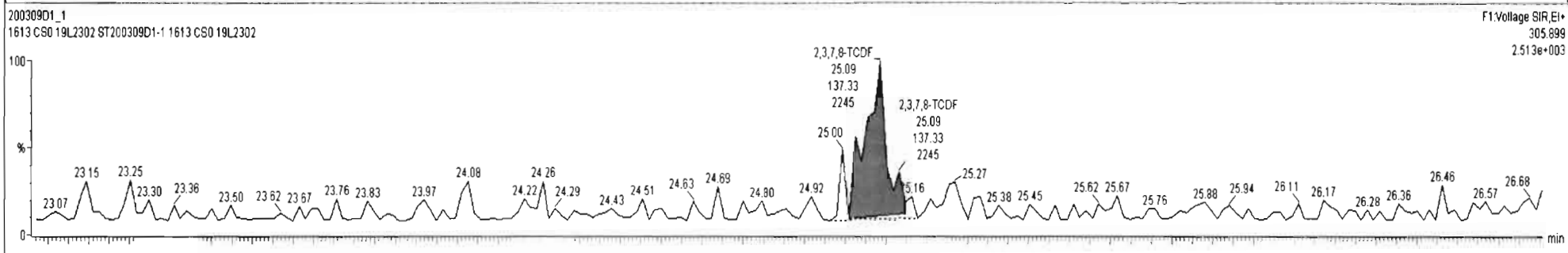
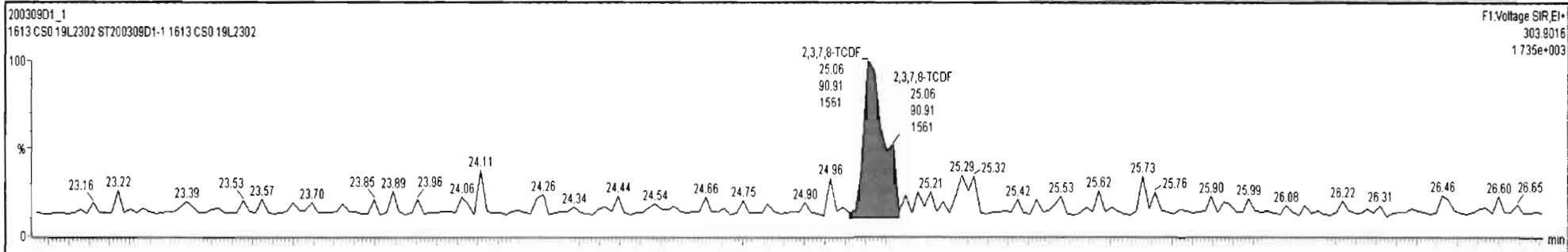
200309D1\_1



**DPE1**

200309D1\_1



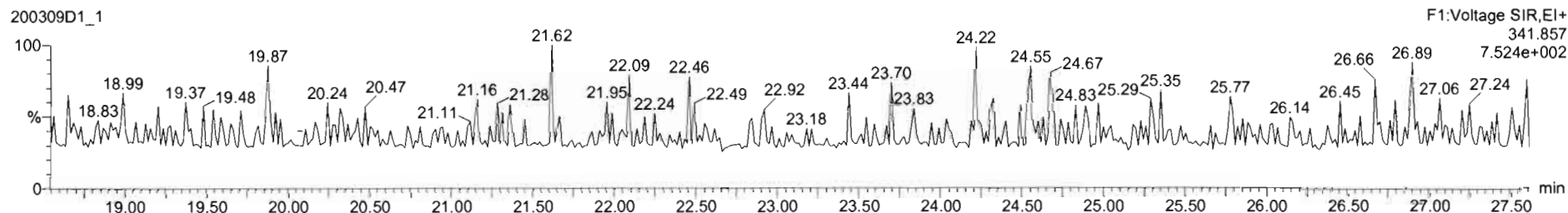
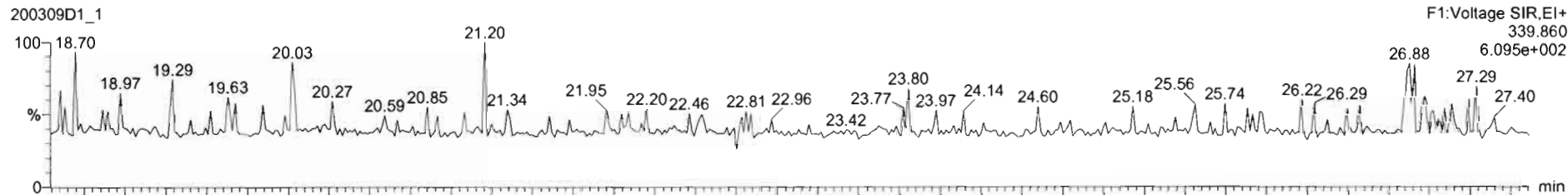


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

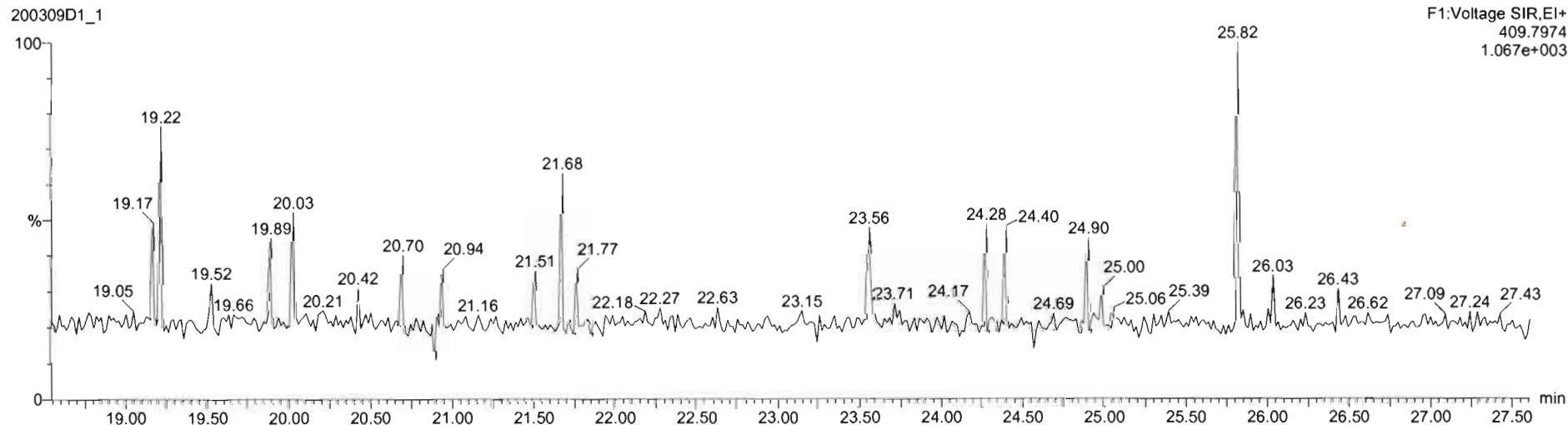
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_1, Date: 09-Mar-2020, Time: 12:30:36, ID: ST200309D1-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

1st Func. Penta-Furans



DPE6

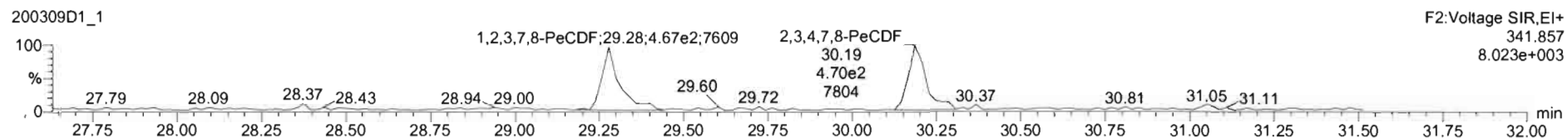
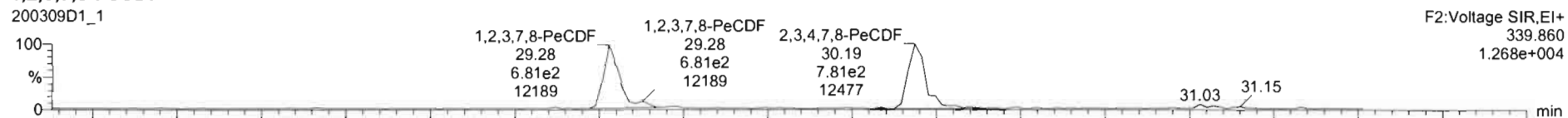


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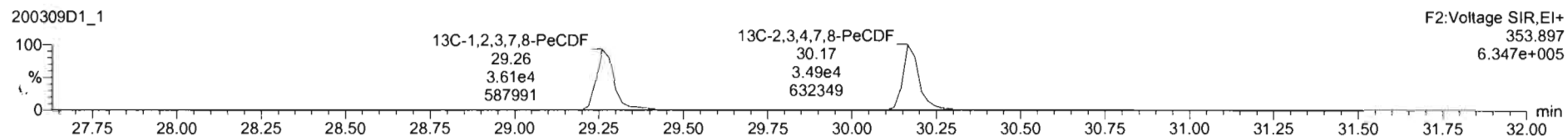
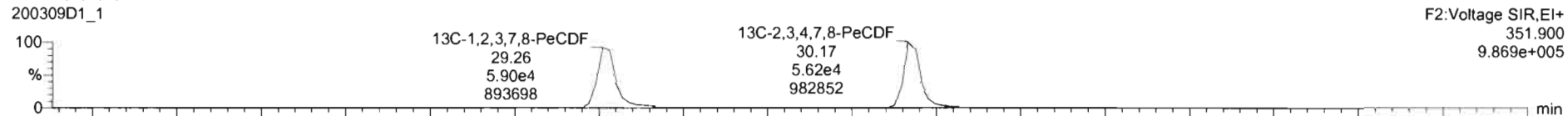
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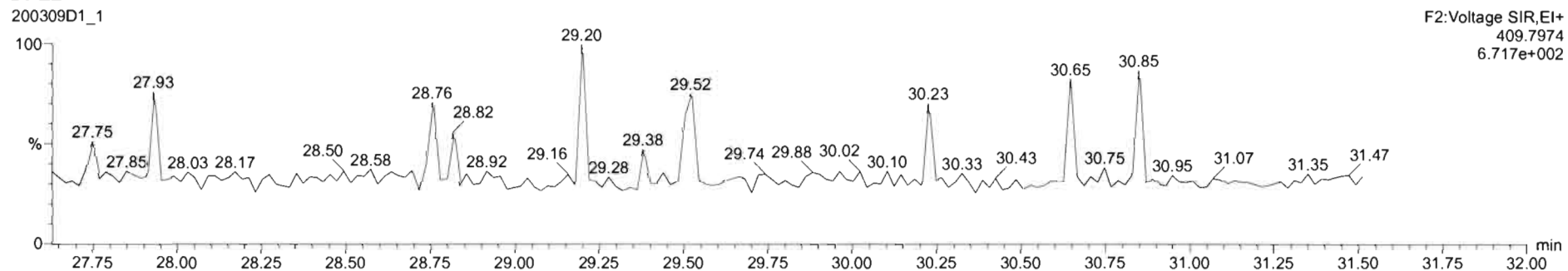
### 1,2,3,7,8-PeCDF



### 13C-1,2,3,7,8-PeCDF



### DPE2

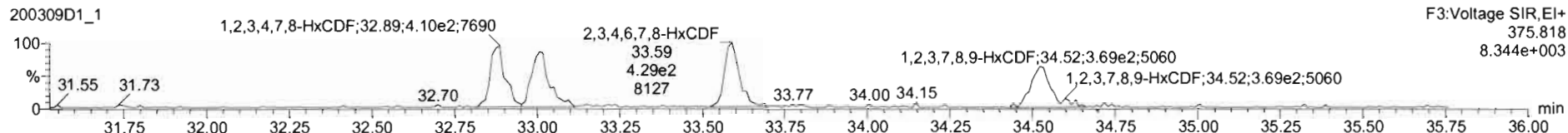
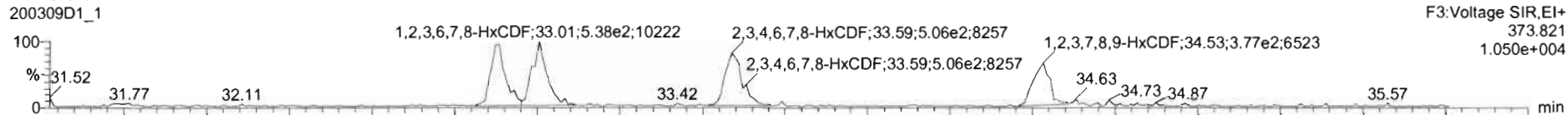


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

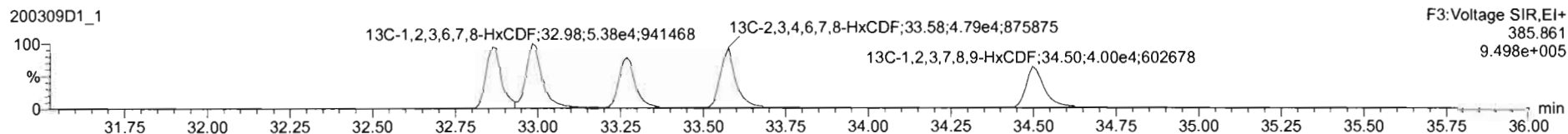
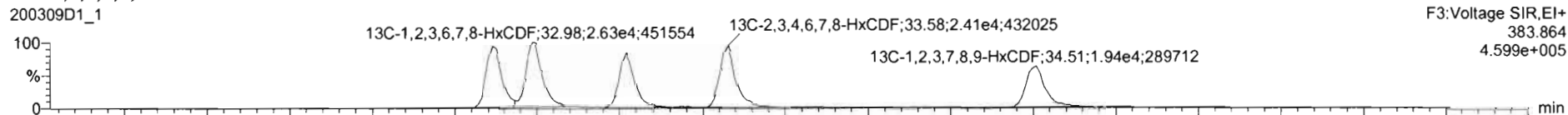
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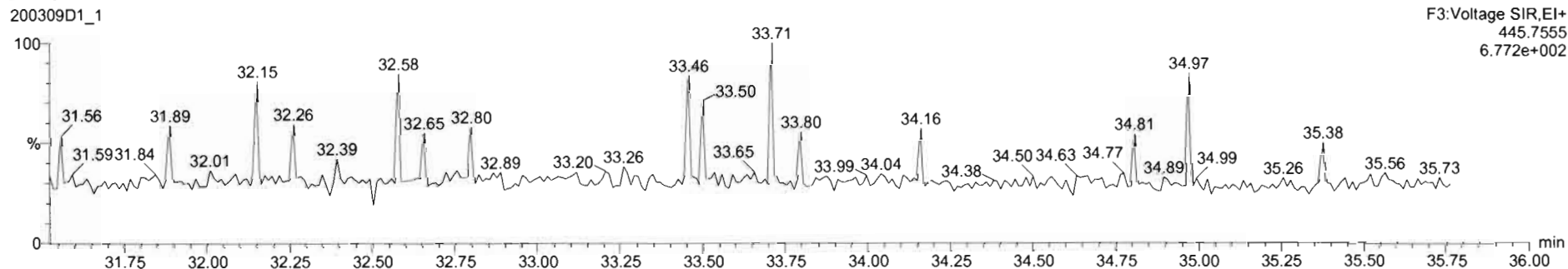
1,2,3,4,7,8-HxCDF

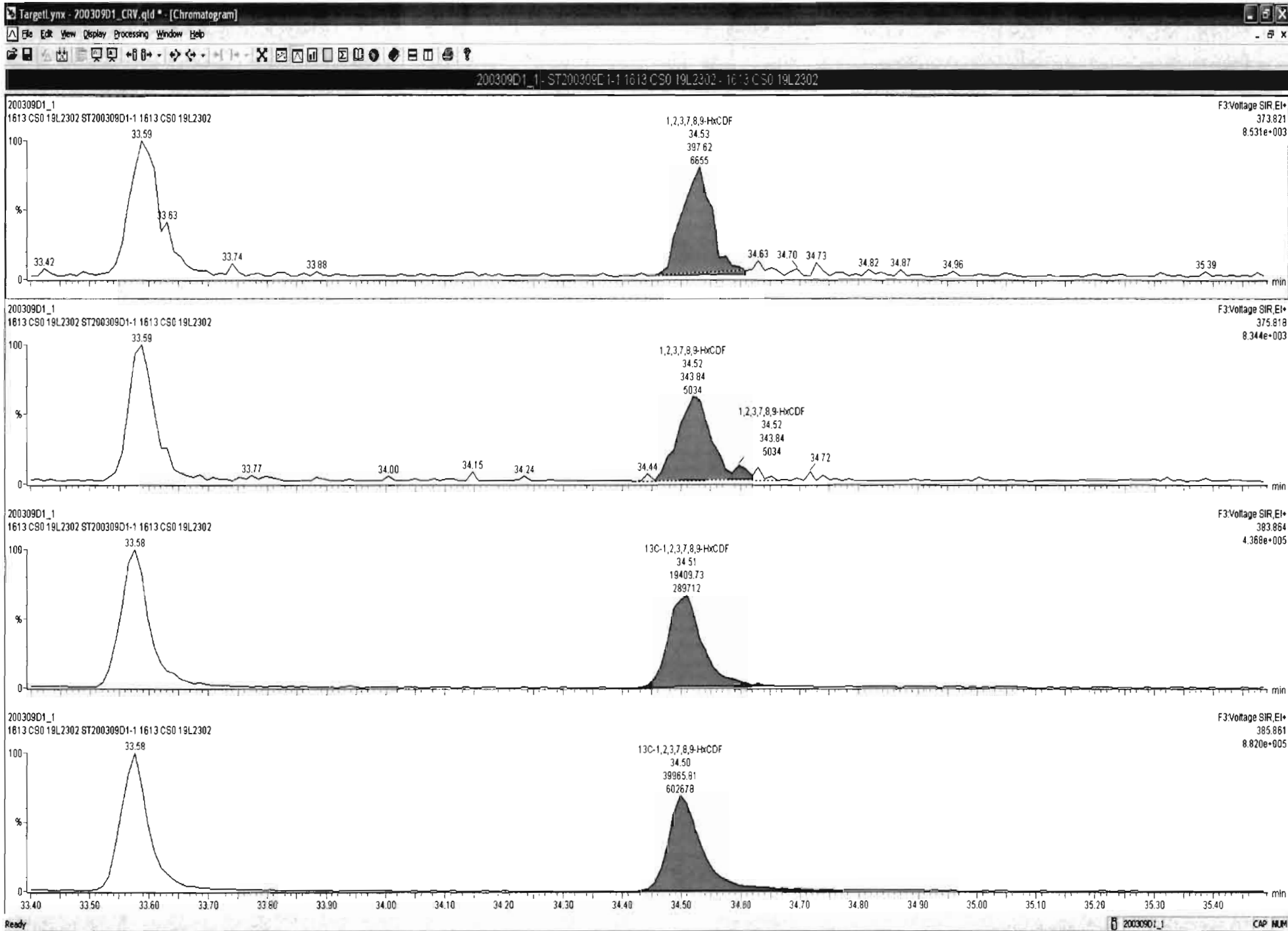


13C-1,2,3,4,7,8-HxCDF



DPE3





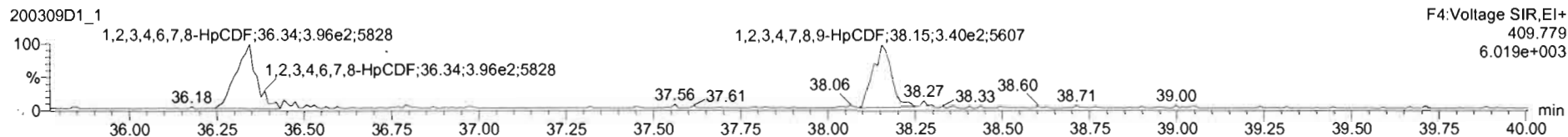
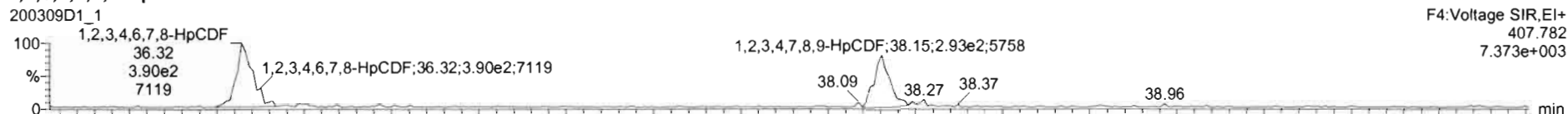


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

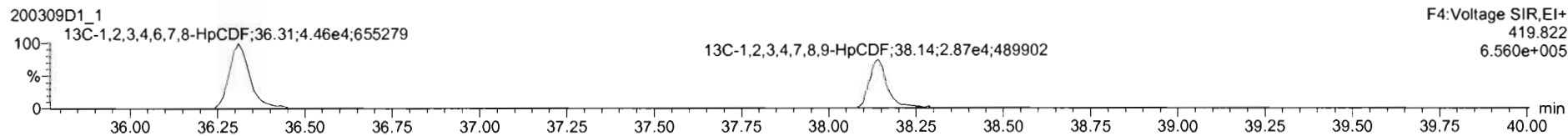
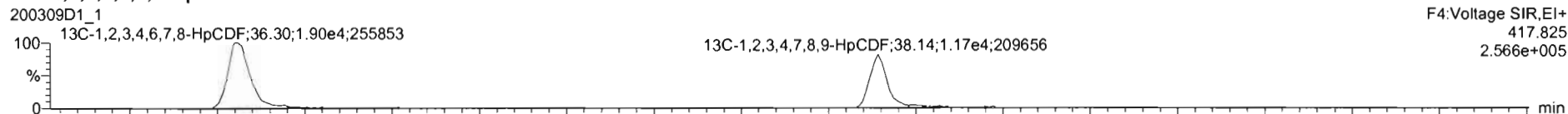
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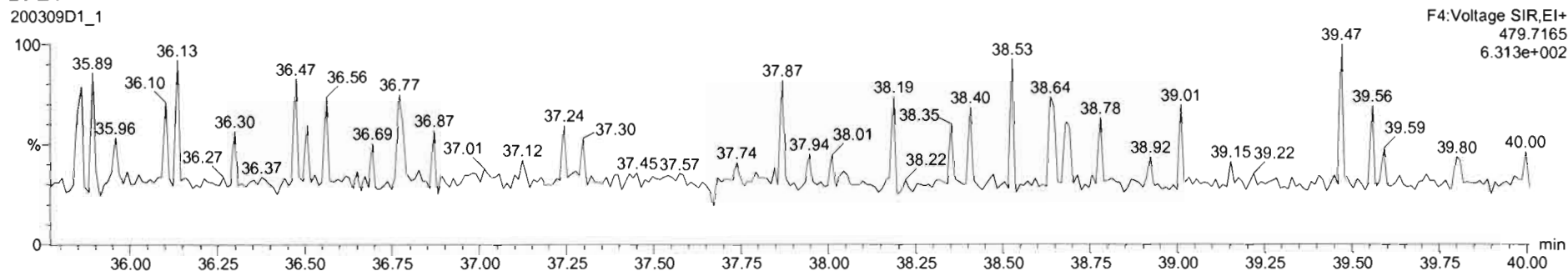
1,2,3,4,6,7,8-HpCDF

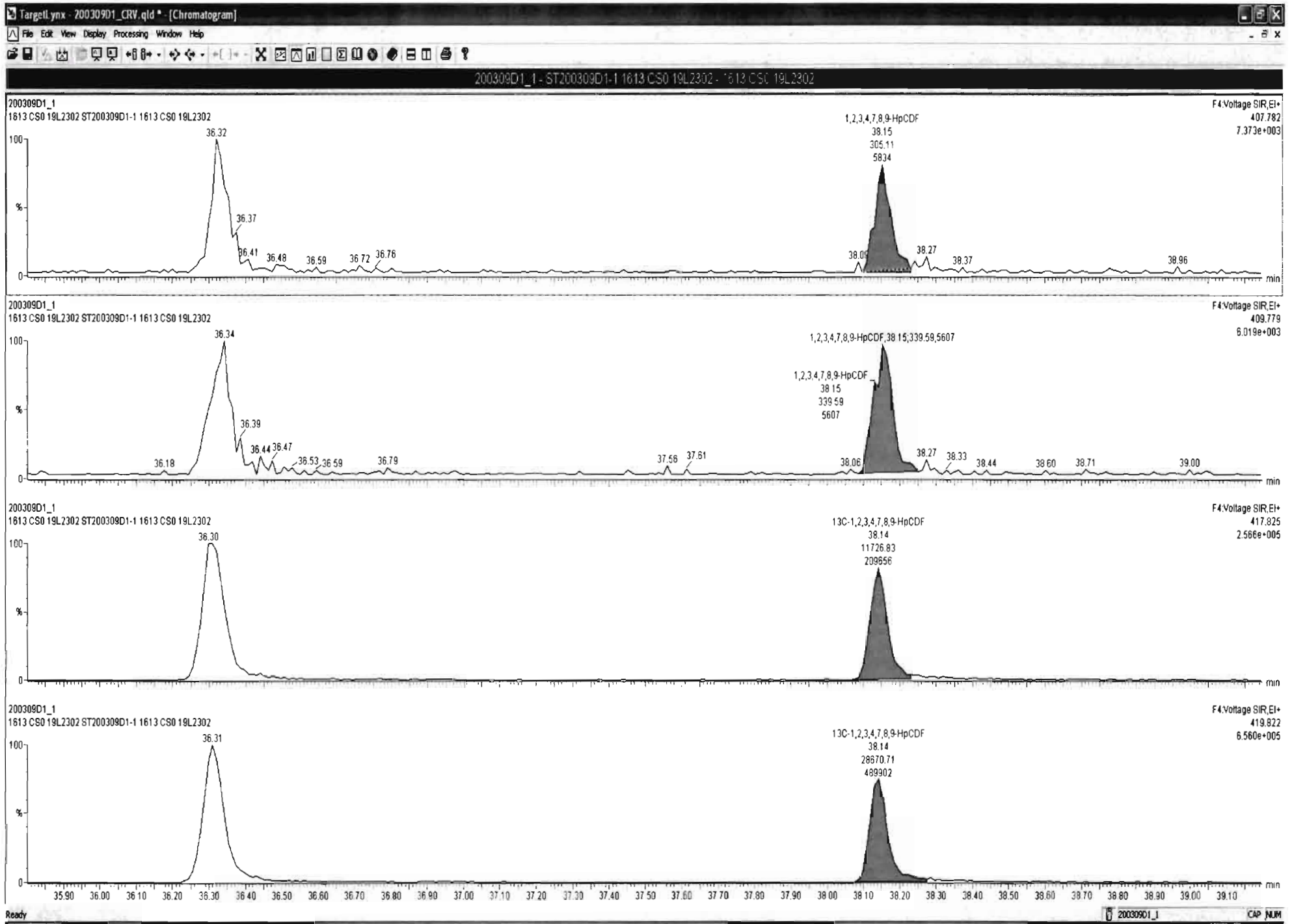


13C-1,2,3,4,6,7,8-HpCDF



DPE4

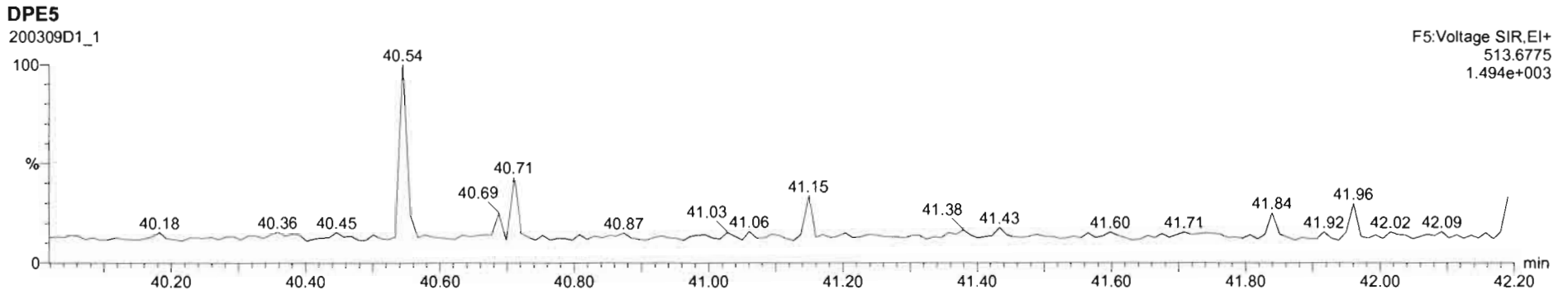
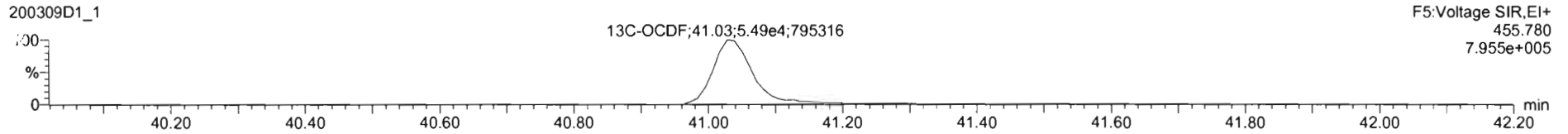
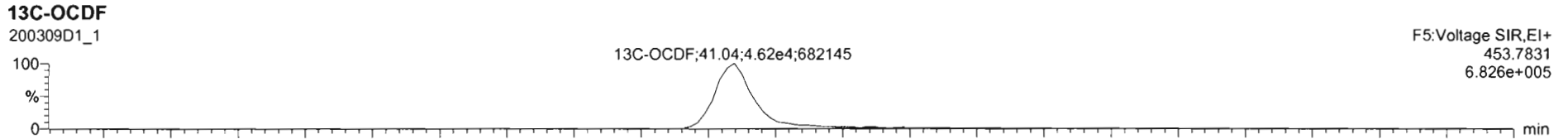
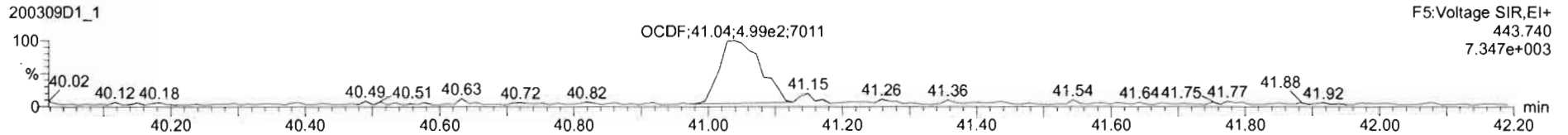
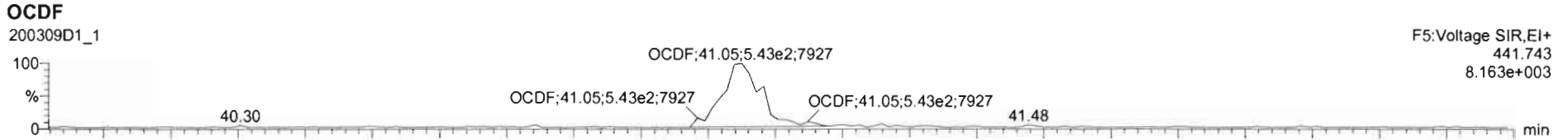


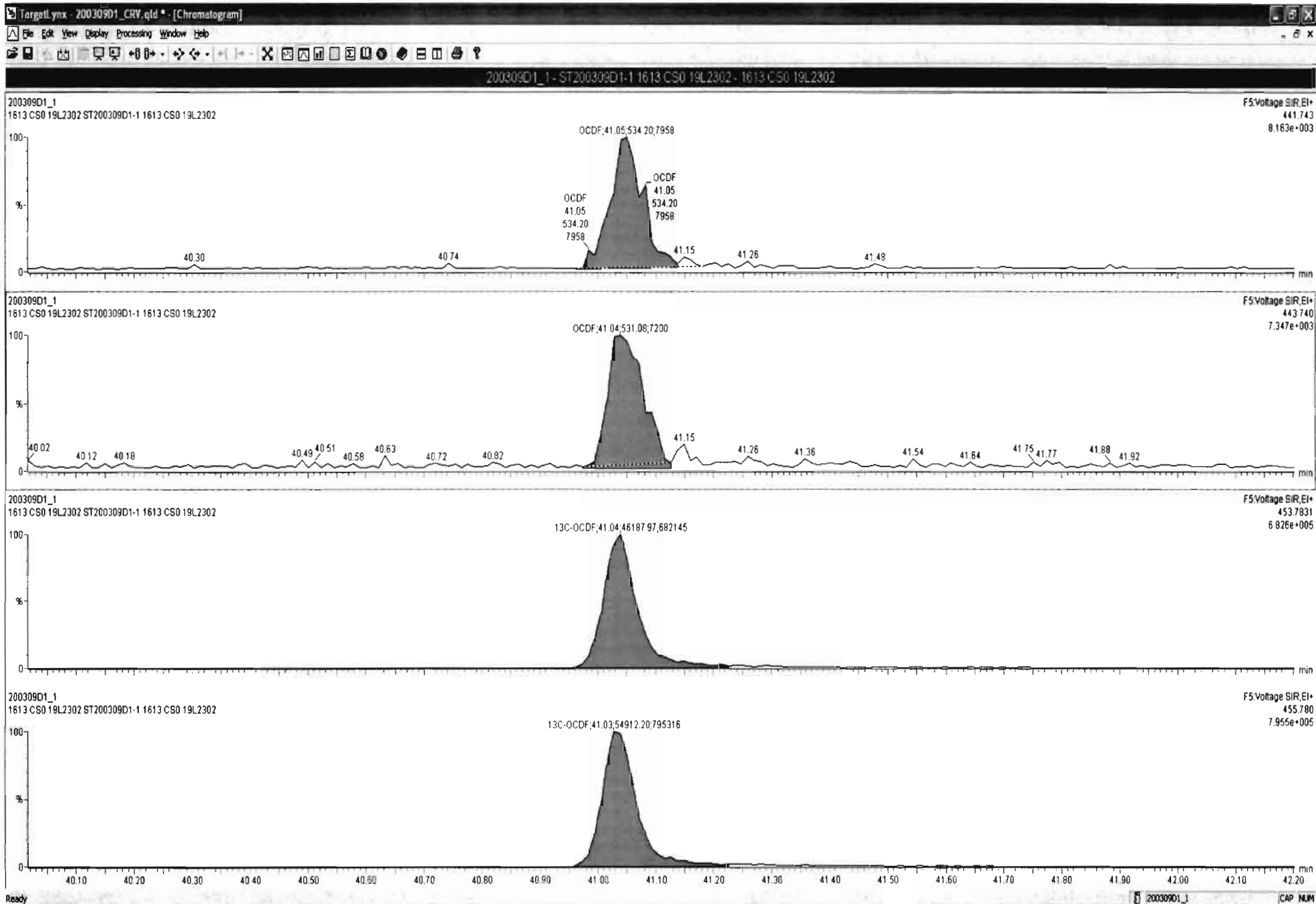


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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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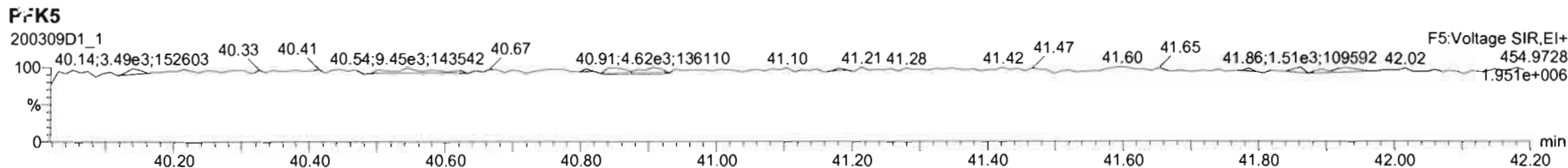
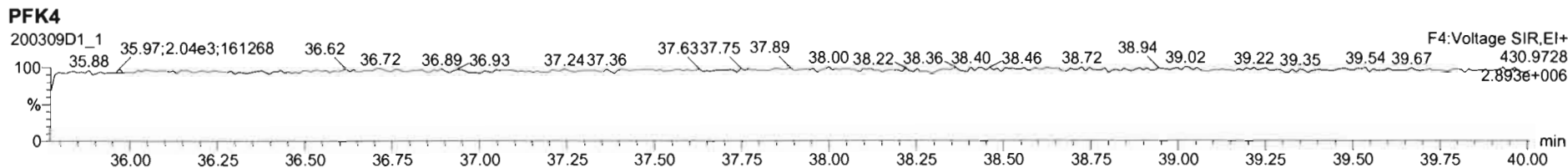
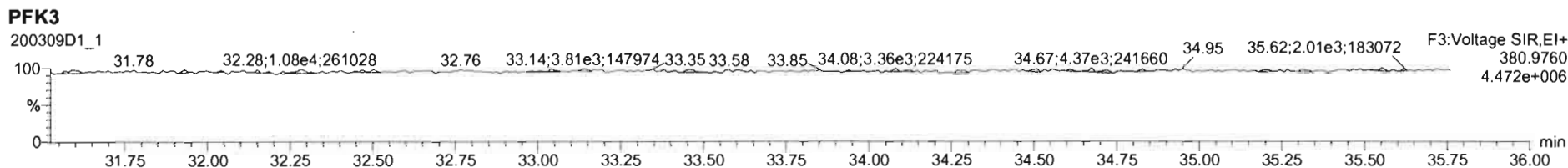
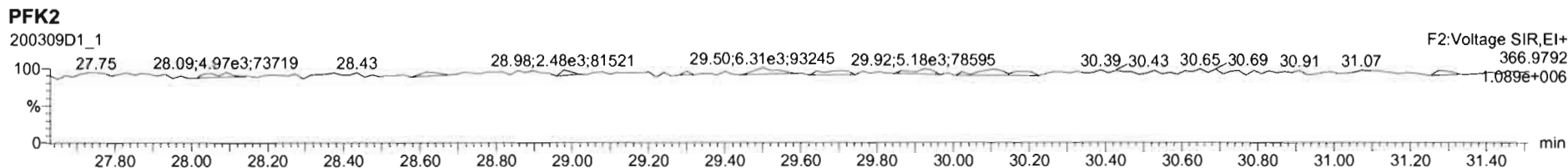
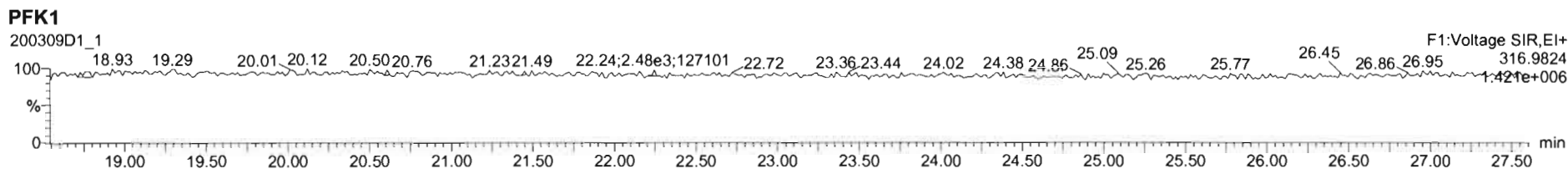




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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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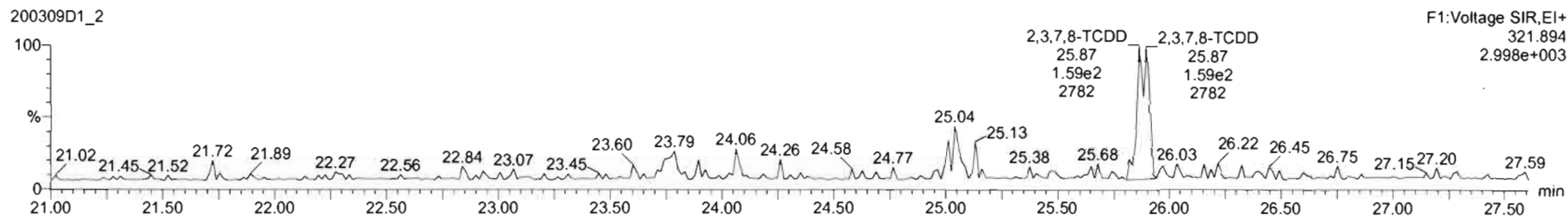
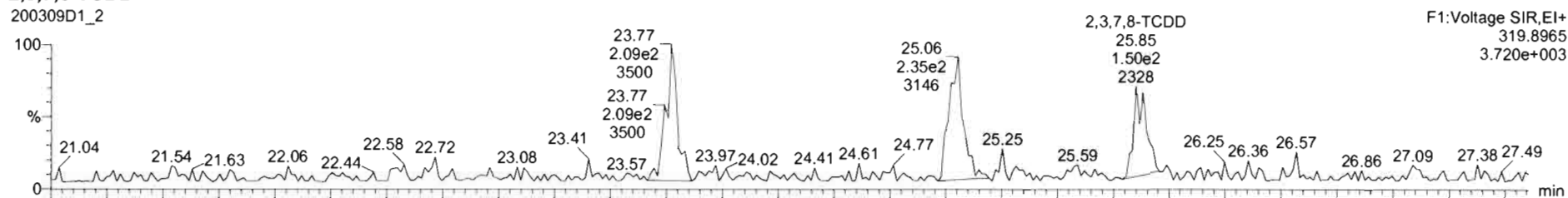


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

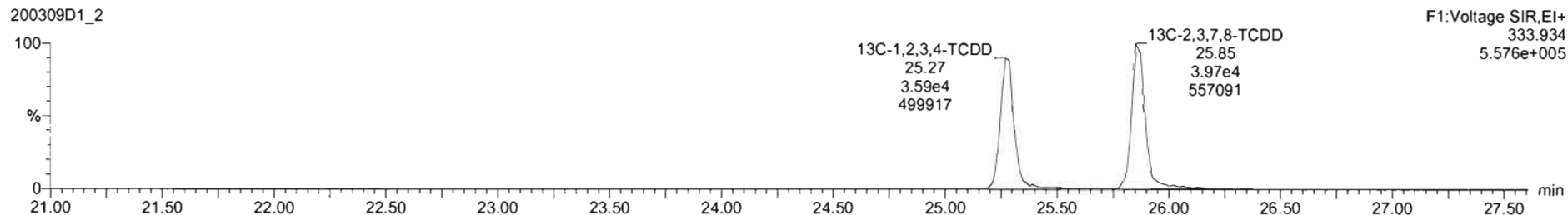
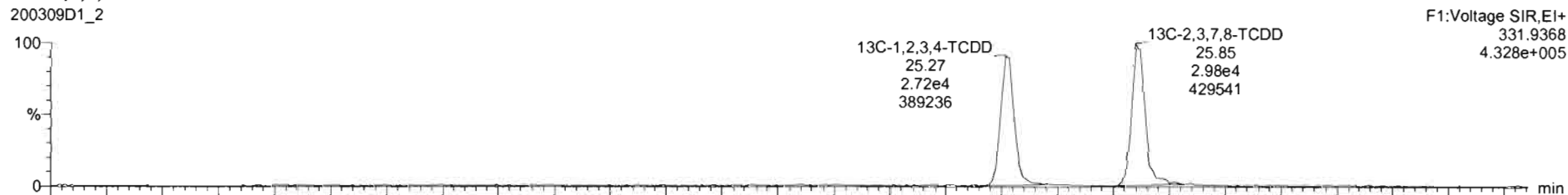
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

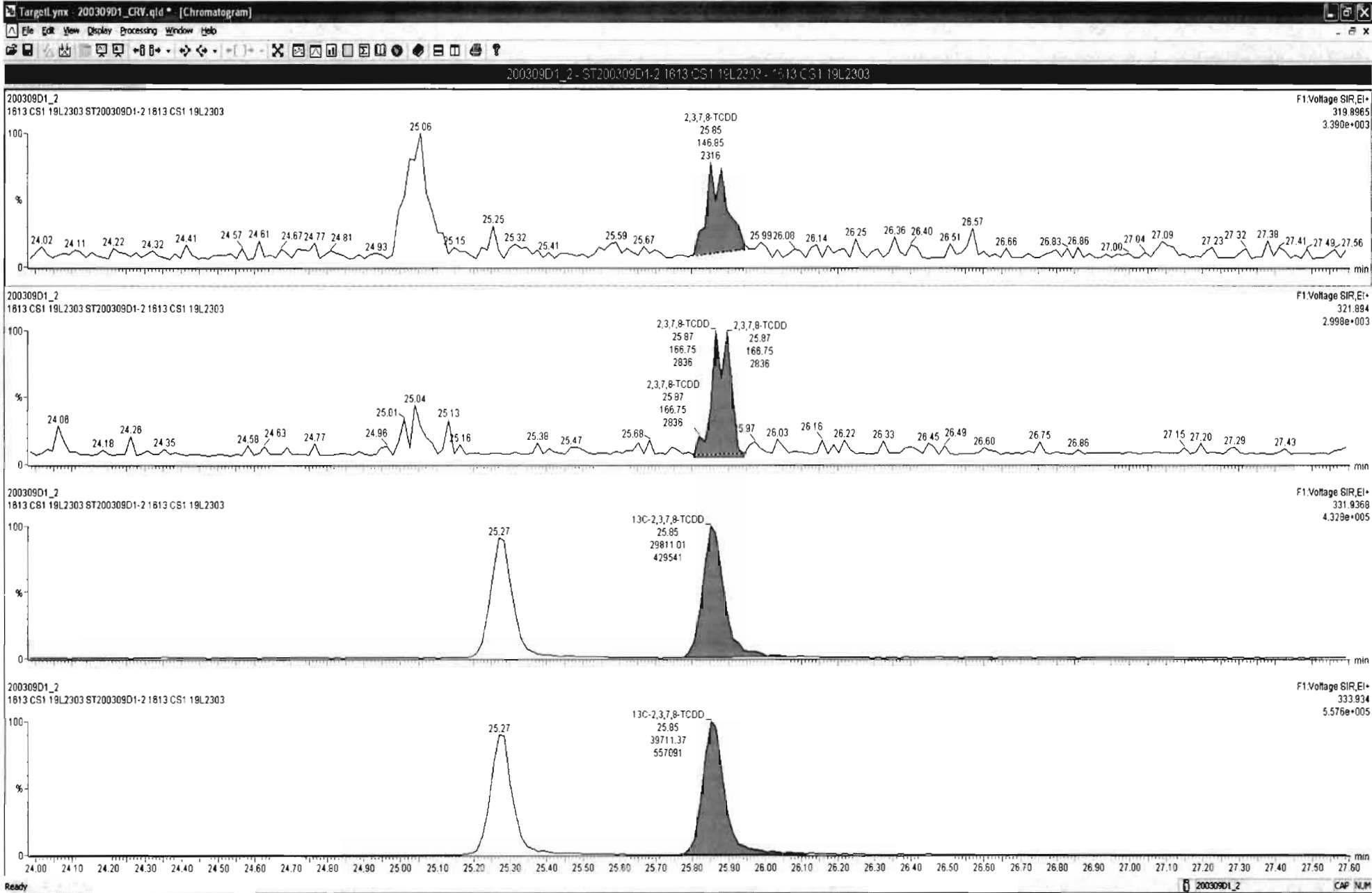
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**2,3,7,8-TCDD**



**13C-2,3,7,8-TCDD**





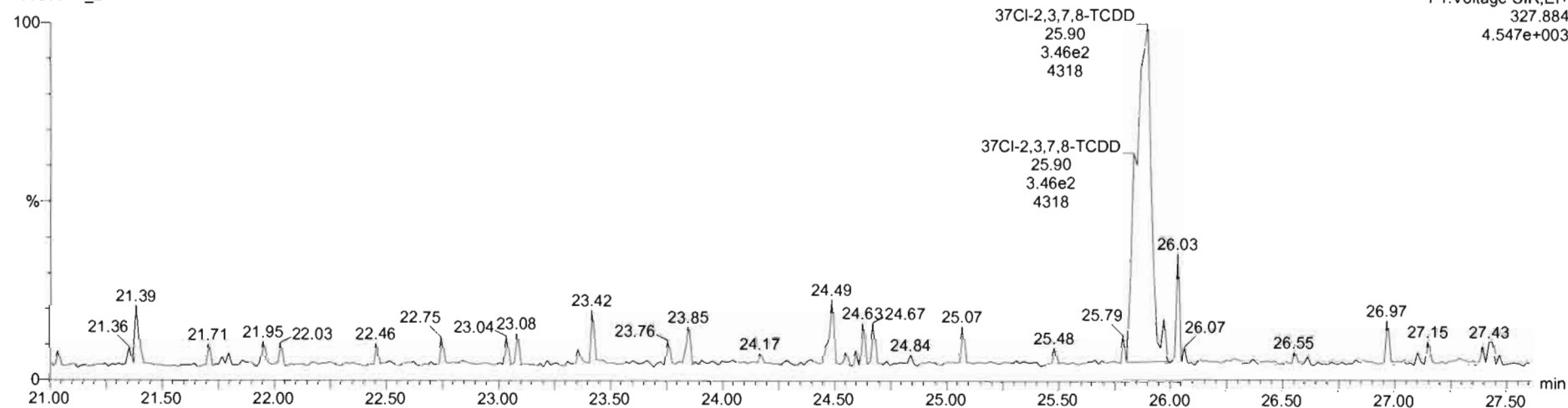
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

37Cl-2,3,7,8-TCDD

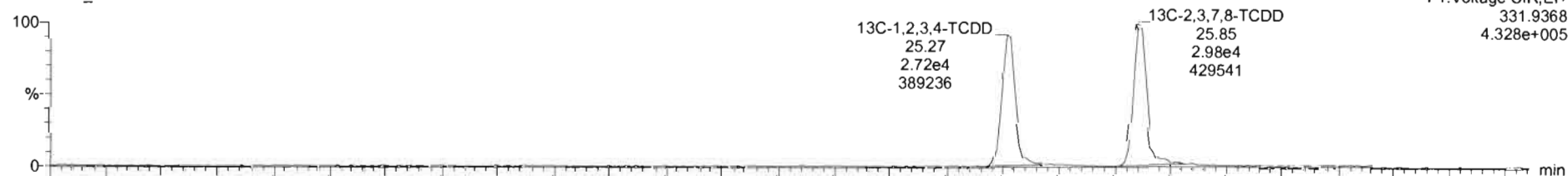
200309D1\_2



F1:Voltage SIR,EI+  
327.884  
4.547e+003

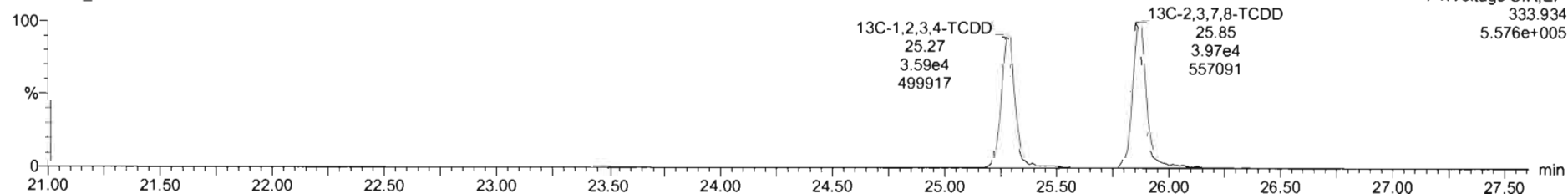
13C-1,2,3,4-TCDD

200309D1\_2



F1:Voltage SIR,EI+  
331.9368  
4.328e+005

200309D1\_2



F1:Voltage SIR,EI+  
333.934  
5.576e+005



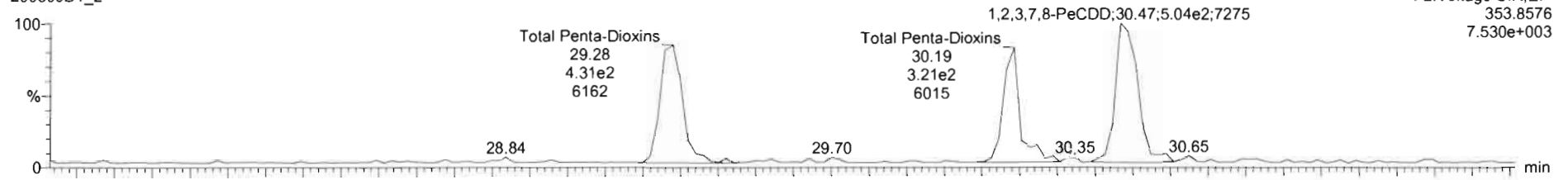
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

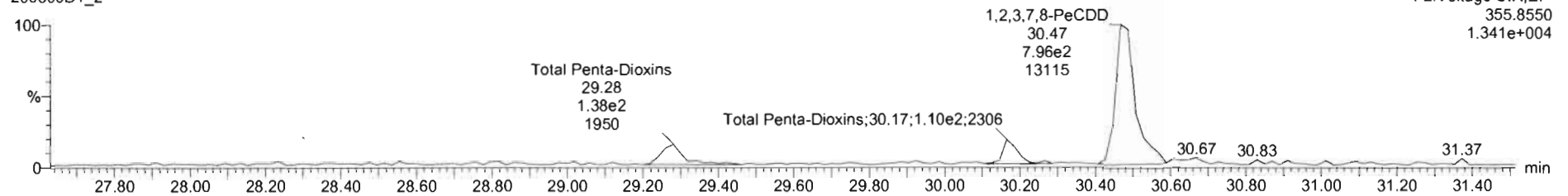
Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

1,2,3,7,8-PeCDD

200309D1\_2

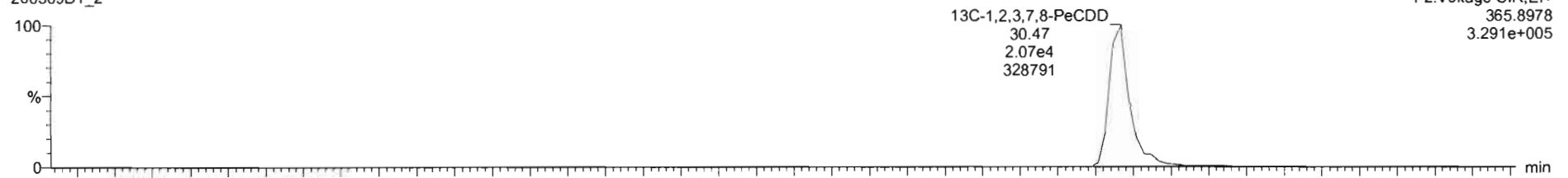


200309D1\_2

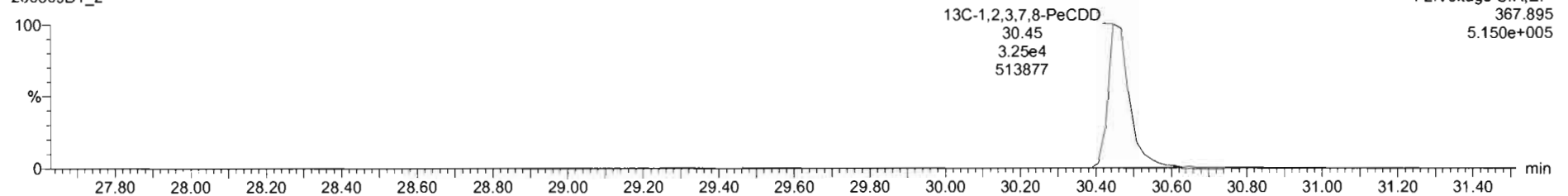


13C-1,2,3,7,8-PeCDD

200309D1\_2



200309D1\_2



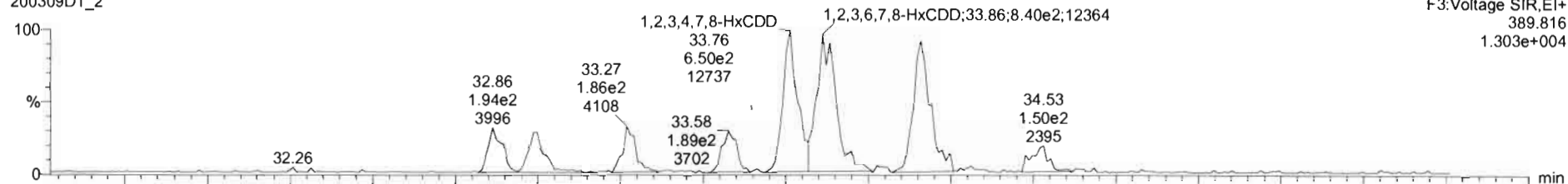
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

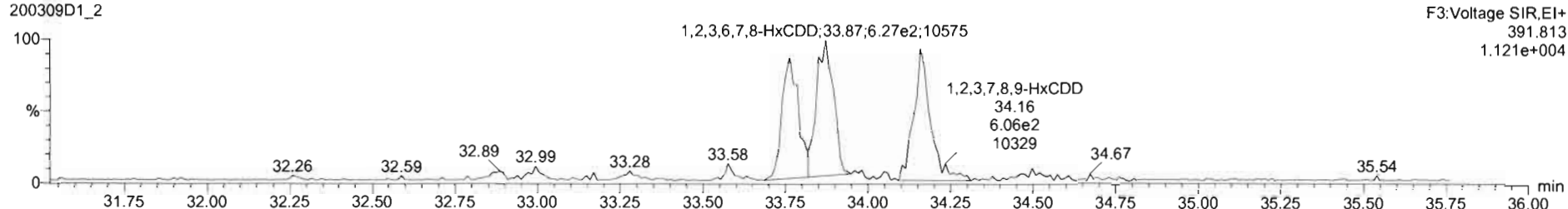
Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

**1,2,3,4,7,8-HxCDD**

200309D1\_2

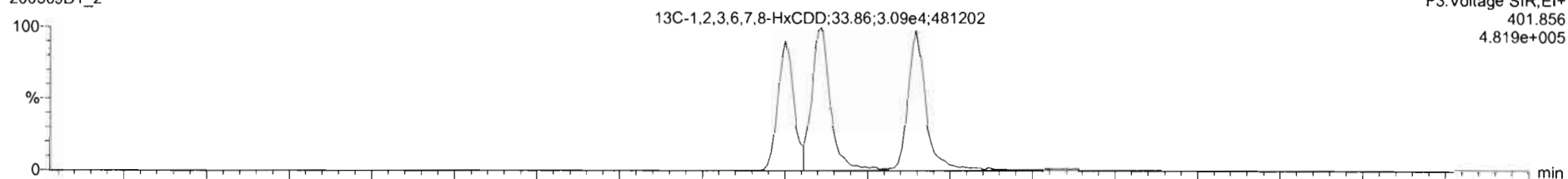


200309D1\_2

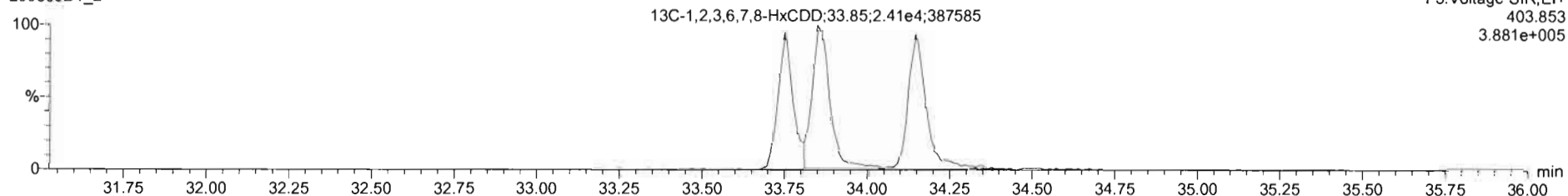


**13C-1,2,3,4,7,8-HxCDD**

200309D1\_2



200309D1\_2



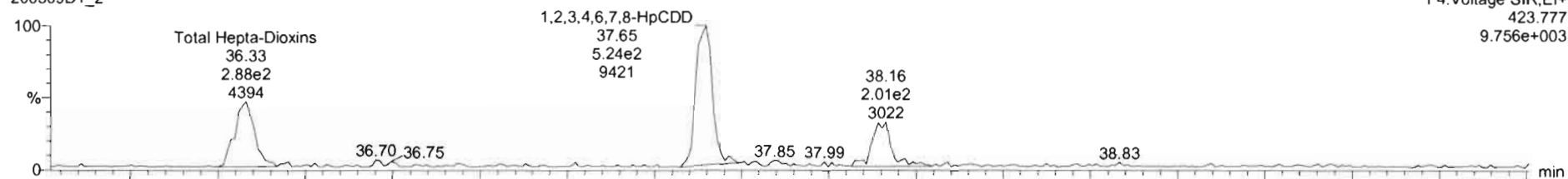
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

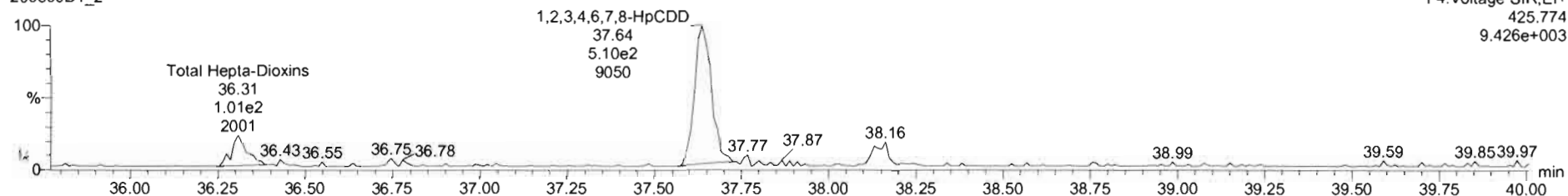
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1,2,3,4,6,7,8-HpCDD

200309D1\_2

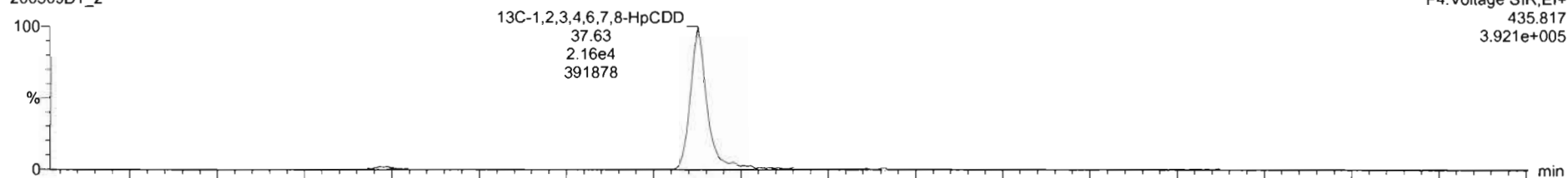


200309D1\_2

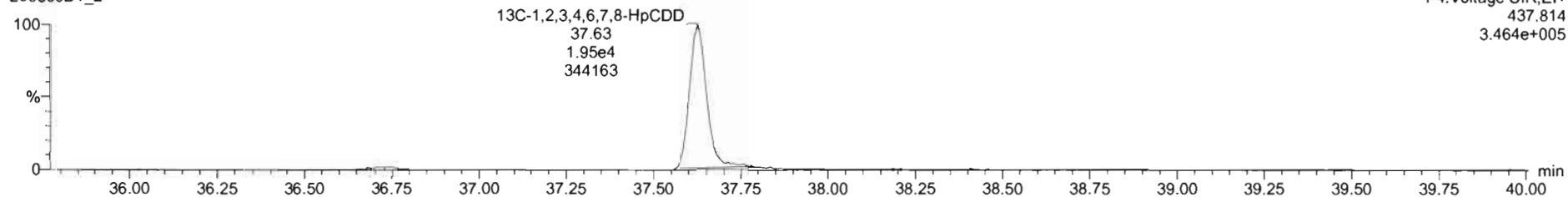


13C-1,2,3,4,6,7,8-HpCDD

200309D1\_2



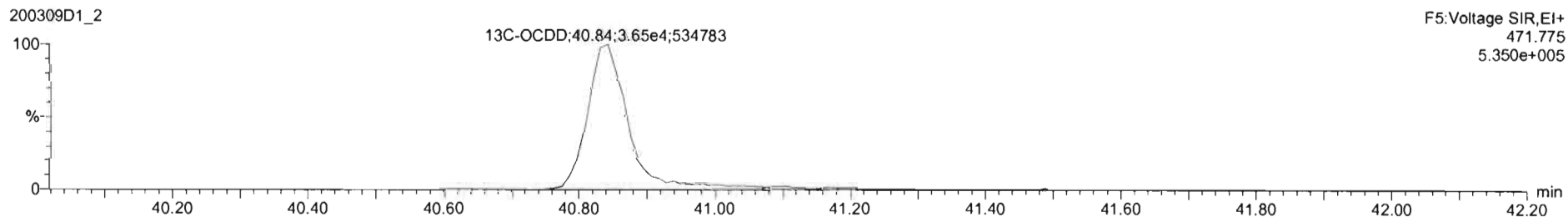
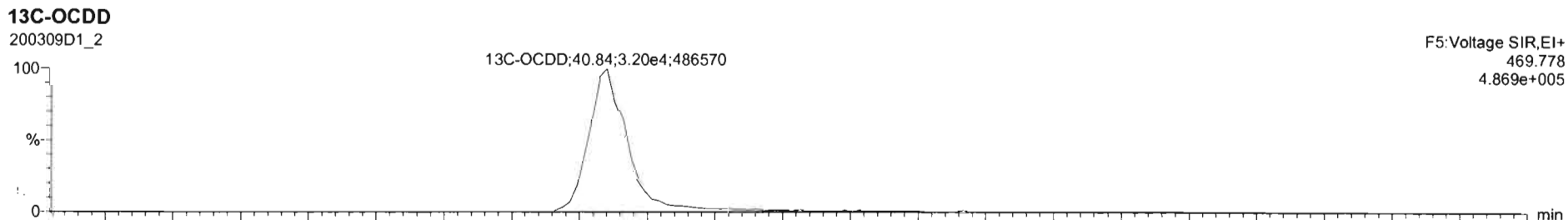
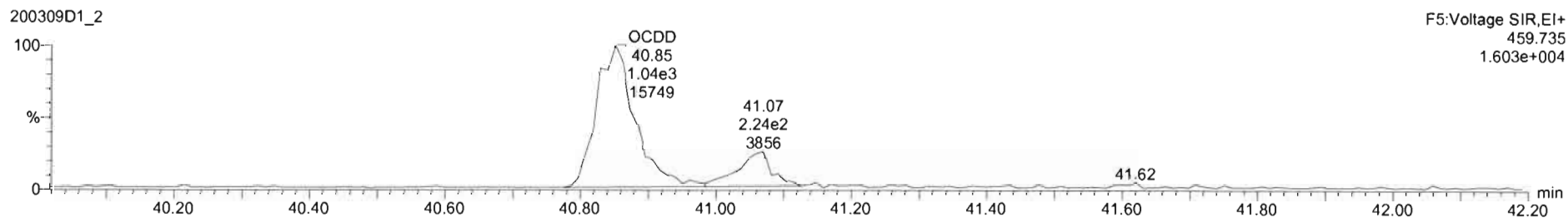
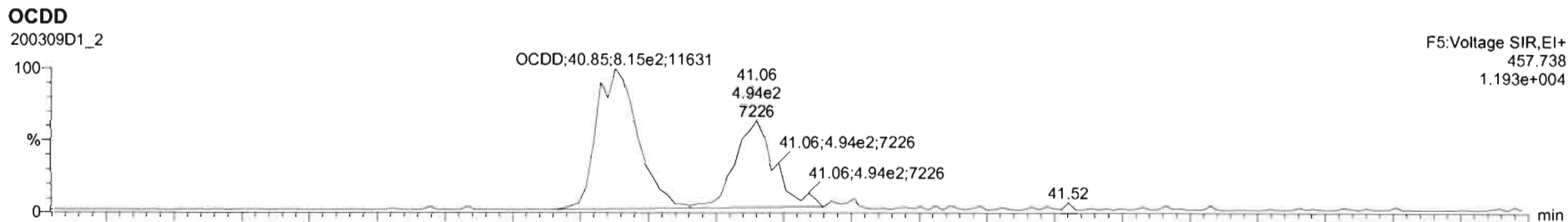
200309D1\_2



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



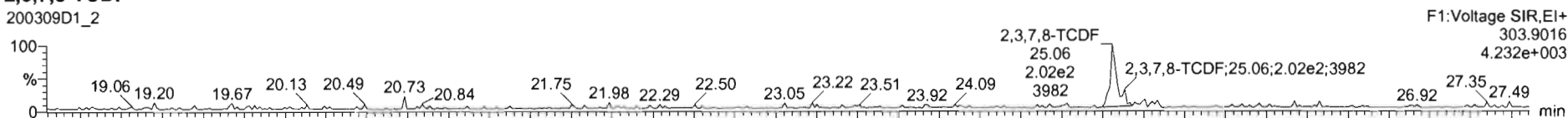
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

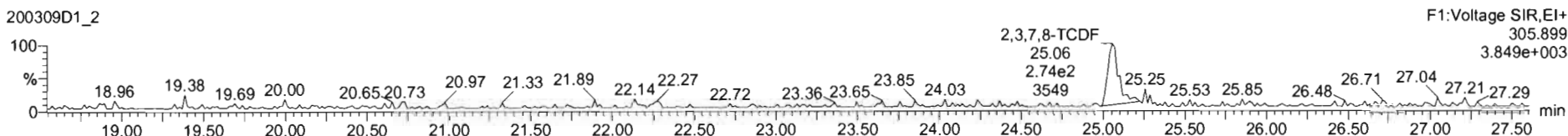
Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

**2,3,7,8-TCDF**

200309D1\_2

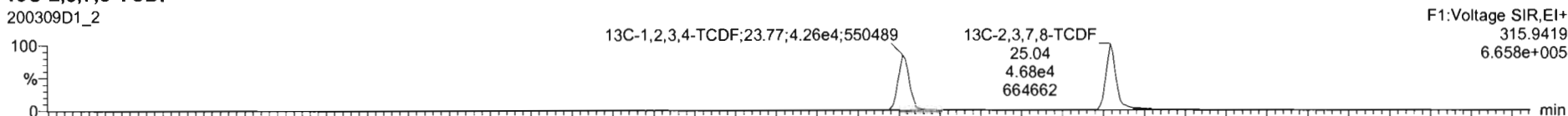


200309D1\_2

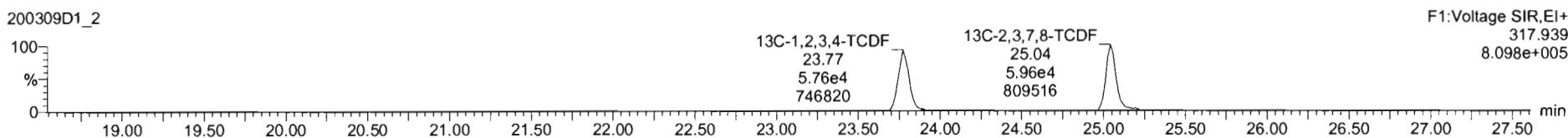


**13C-2,3,7,8-TCDF**

200309D1\_2

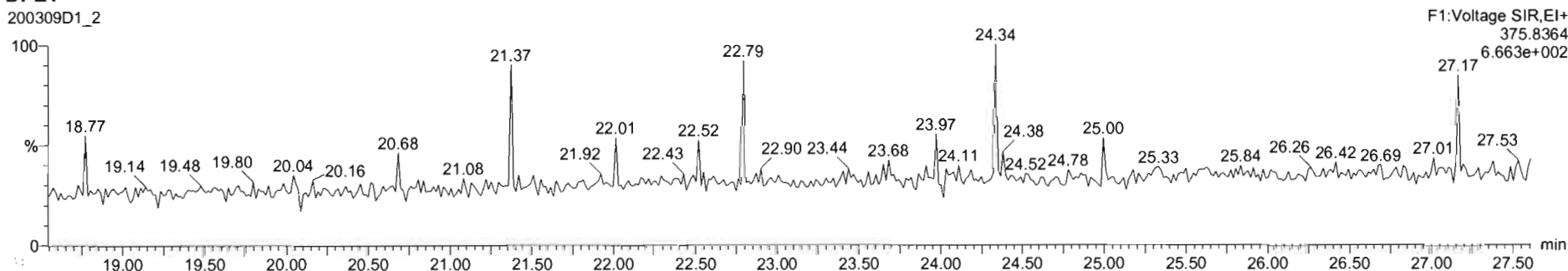


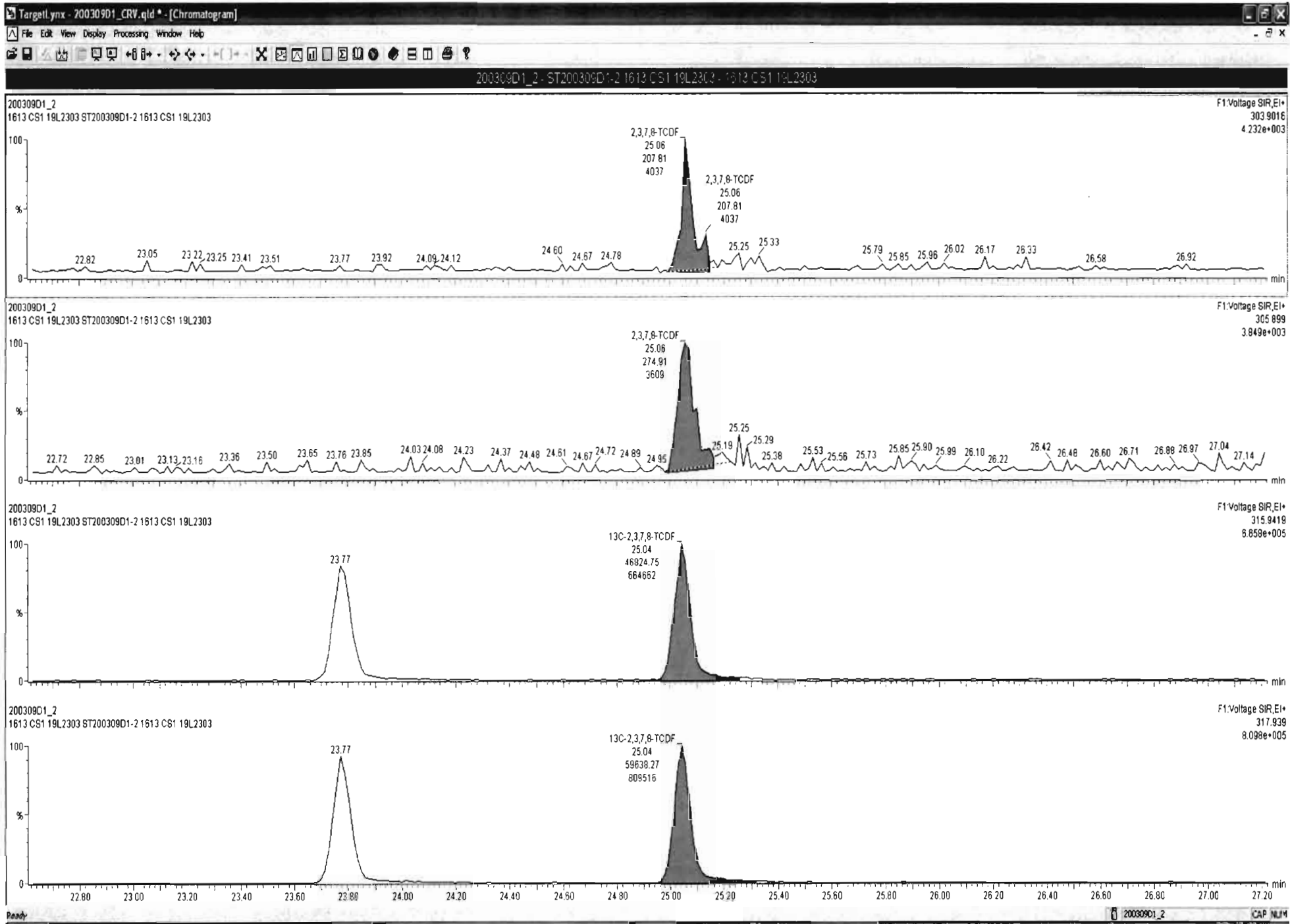
200309D1\_2



**DPE1**

200309D1\_2





Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

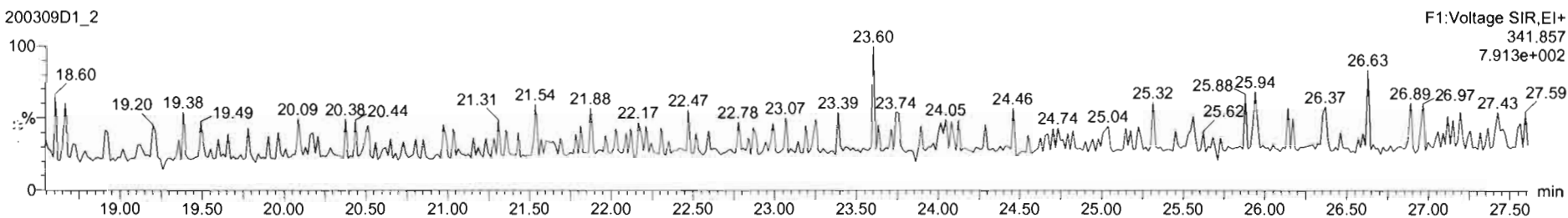
Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

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200309D1\_2

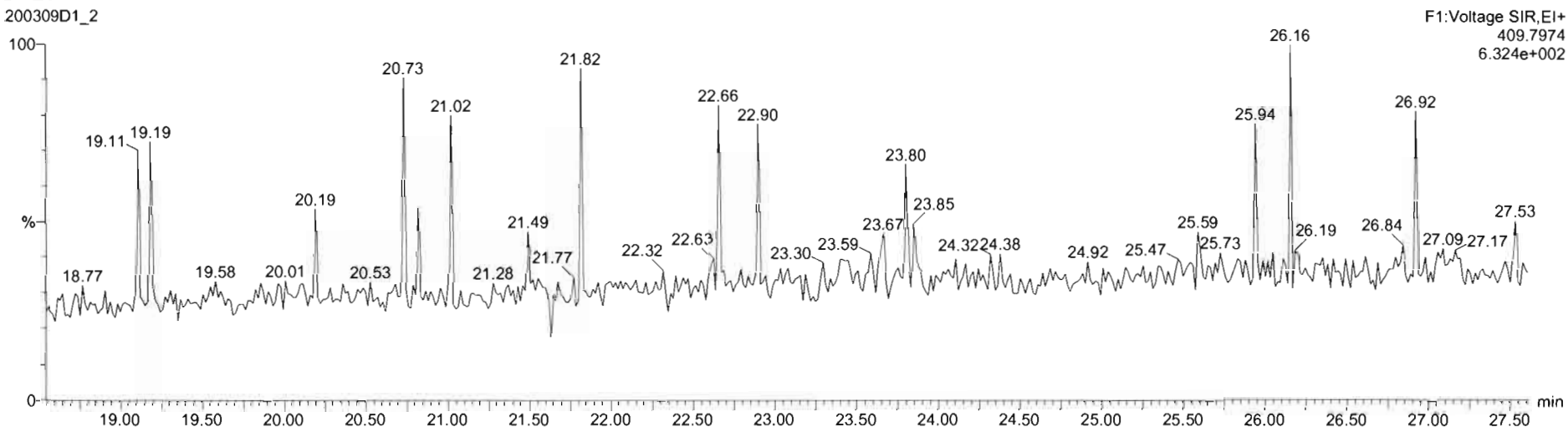


200309D1\_2



DPE6

200309D1\_2



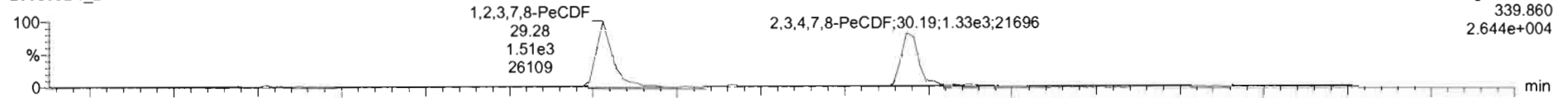
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

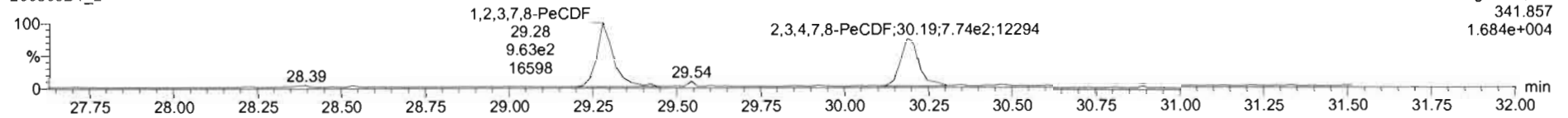
Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

**1,2,3,7,8-PeCDF**

200309D1\_2

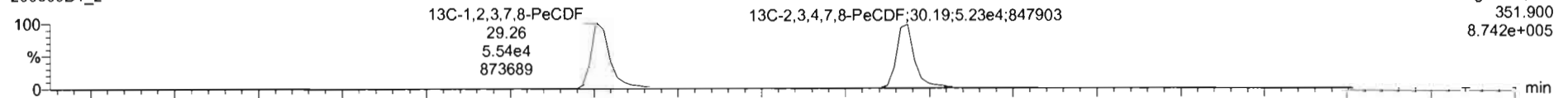


200309D1\_2

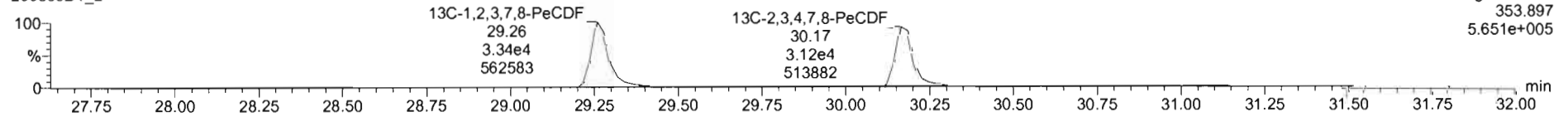


**13C-1,2,3,7,8-PeCDF**

200309D1\_2

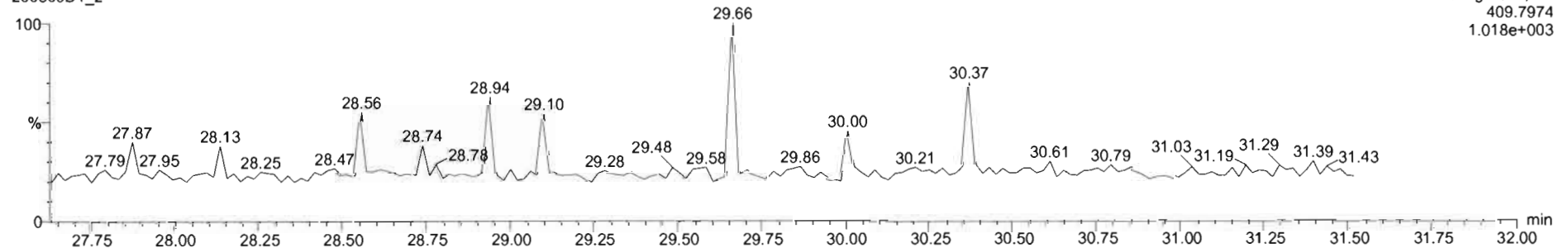


200309D1\_2



**DPE2**

200309D1\_2





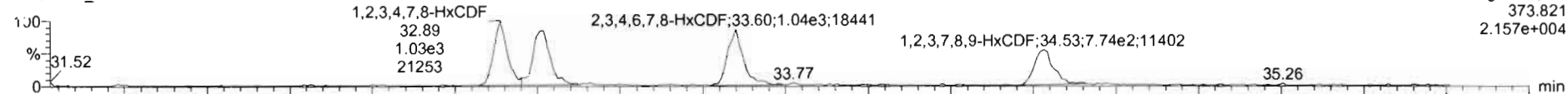
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

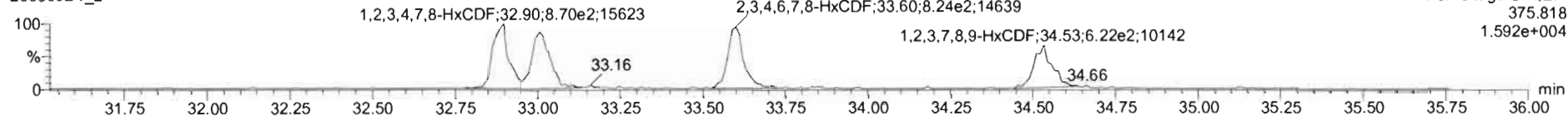
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**1,2,3,4,7,8-HxCDF**

200309D1\_2

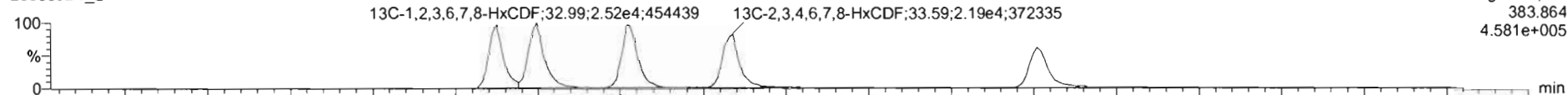


200309D1\_2

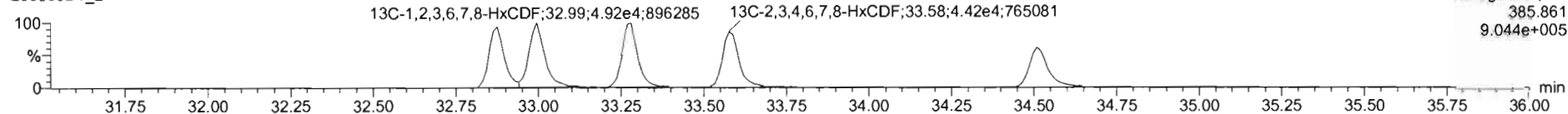


**13C-1,2,3,4,7,8-HxCDF**

200309D1\_2

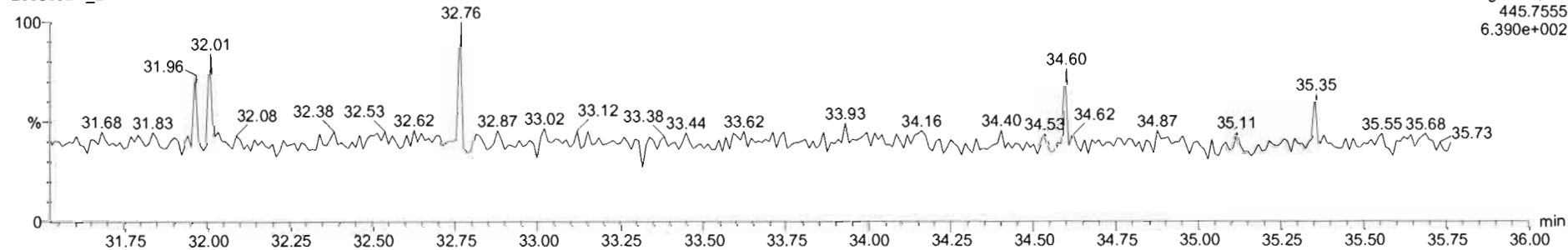


200309D1\_2



**DPE3**

200309D1\_2

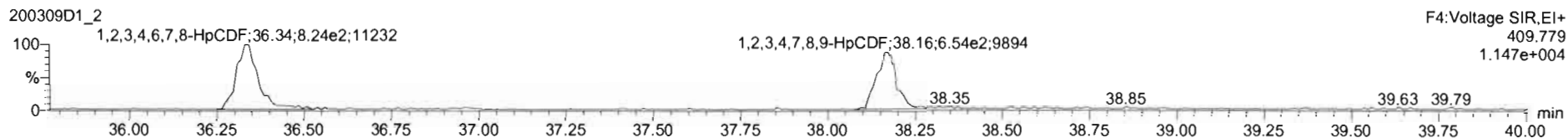
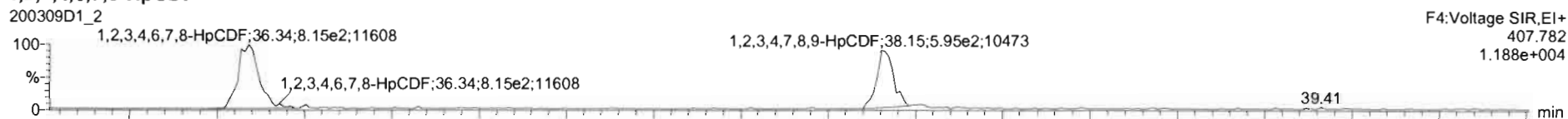


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

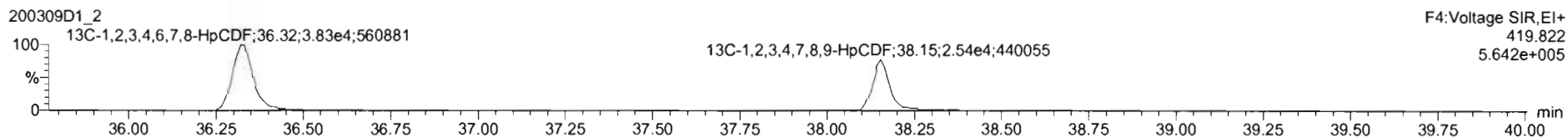
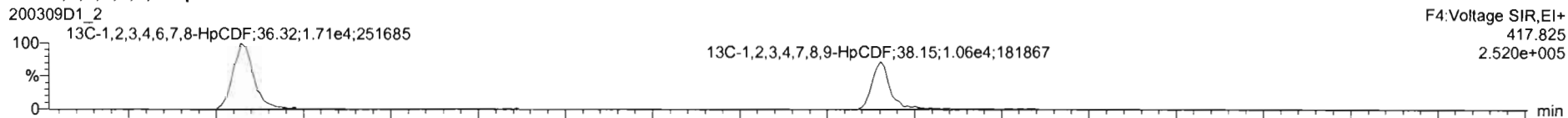
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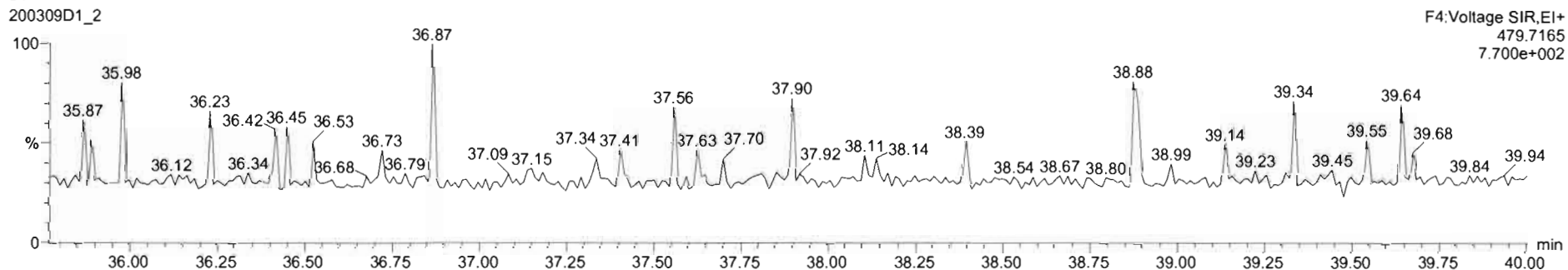
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



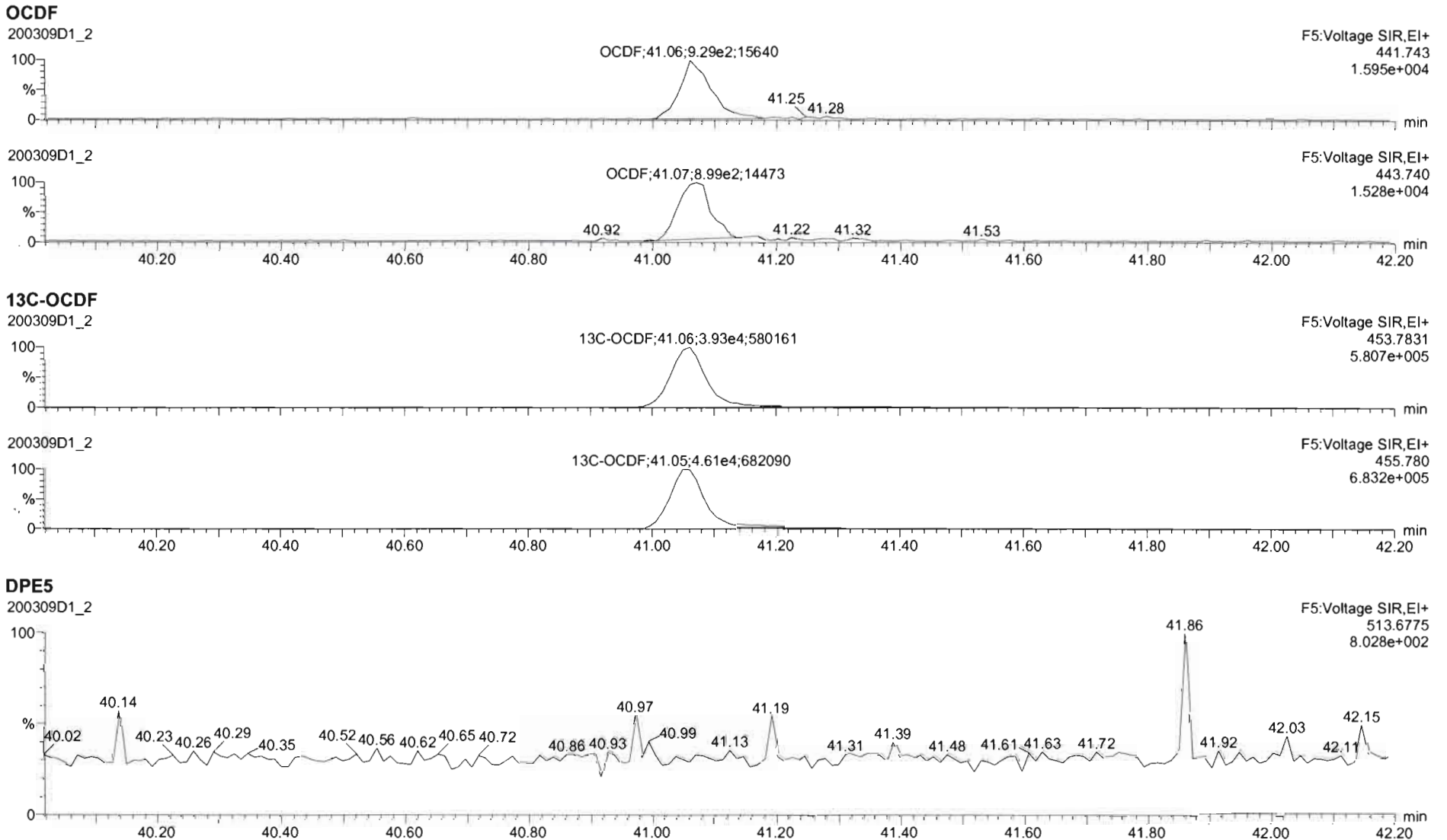
**DPE4**

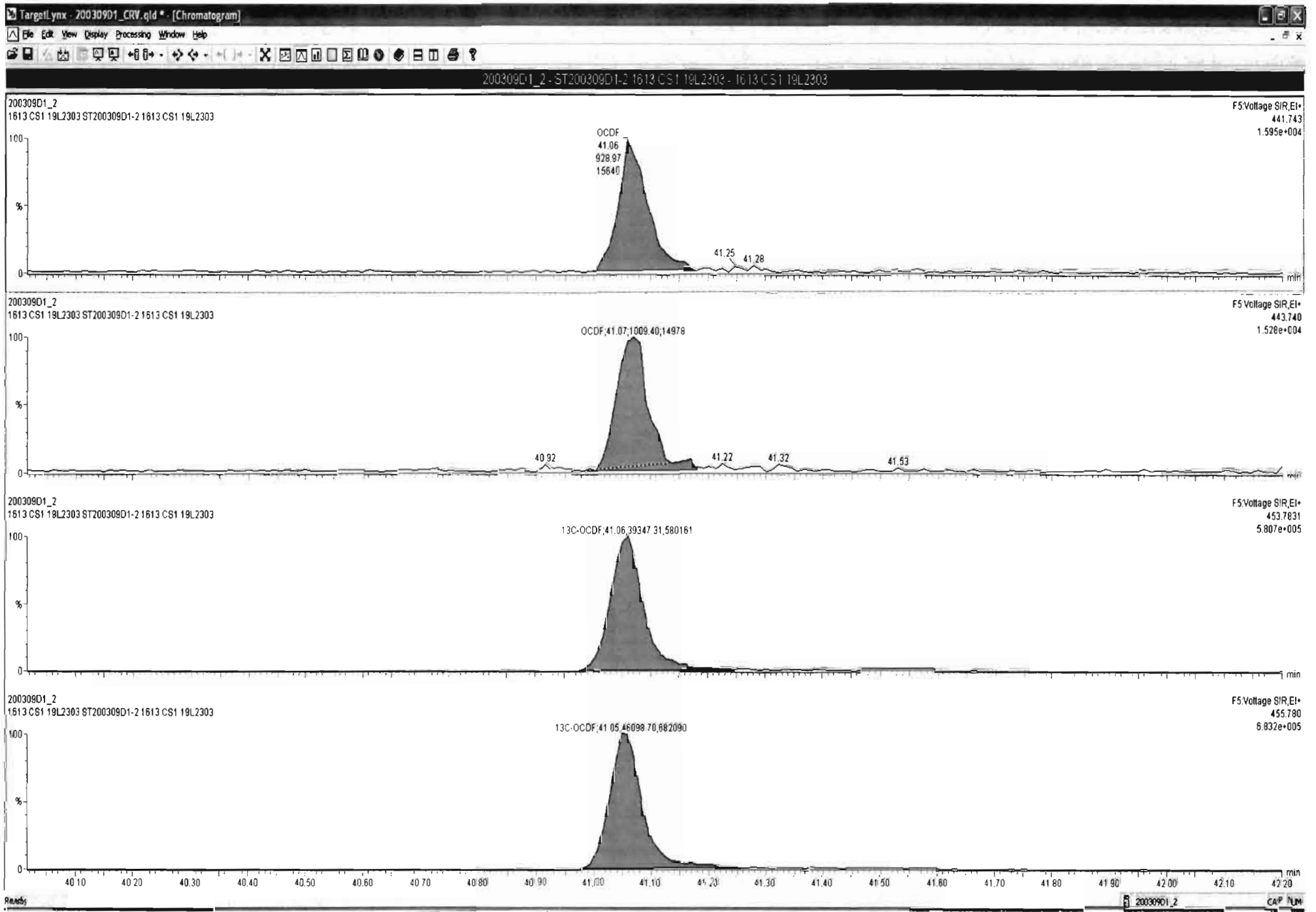


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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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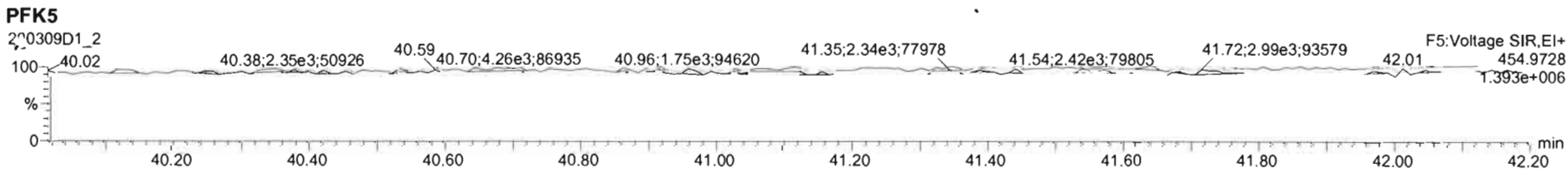
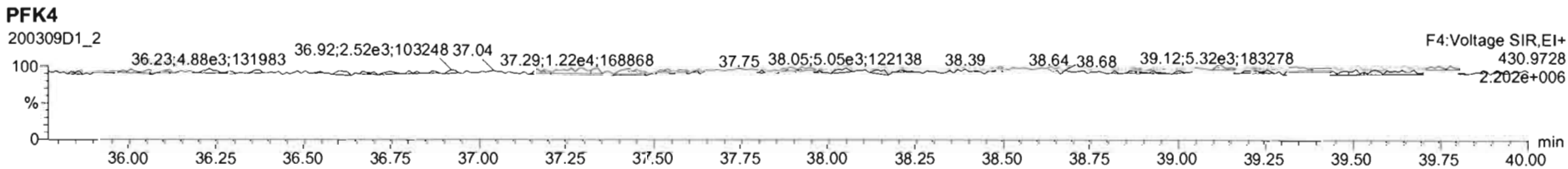
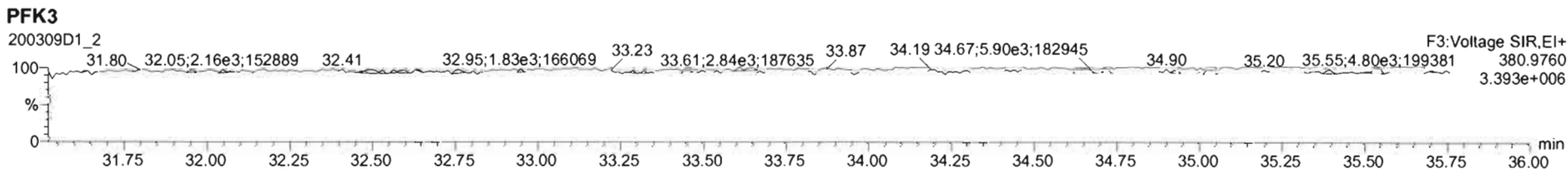
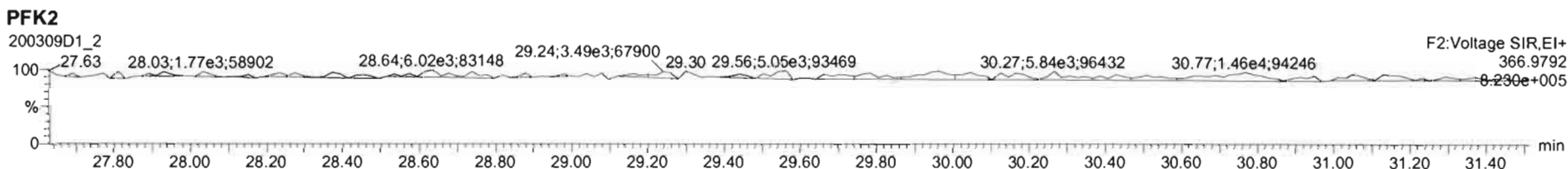
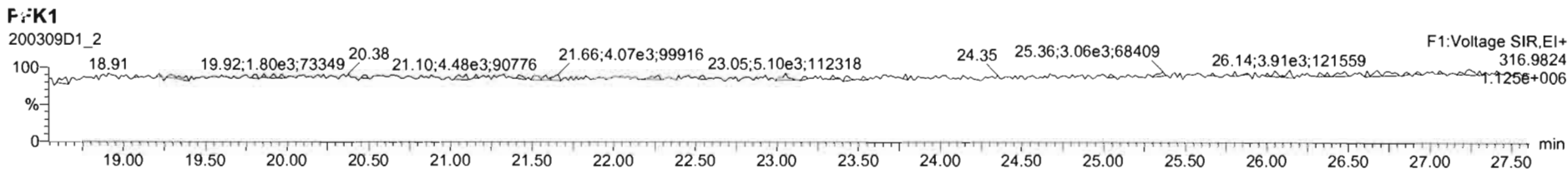




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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_2, Date: 09-Mar-2020, Time: 13:13:59, ID: ST200309D1-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



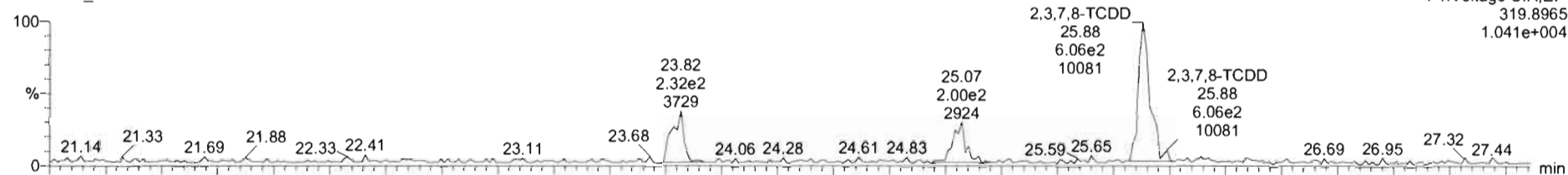
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

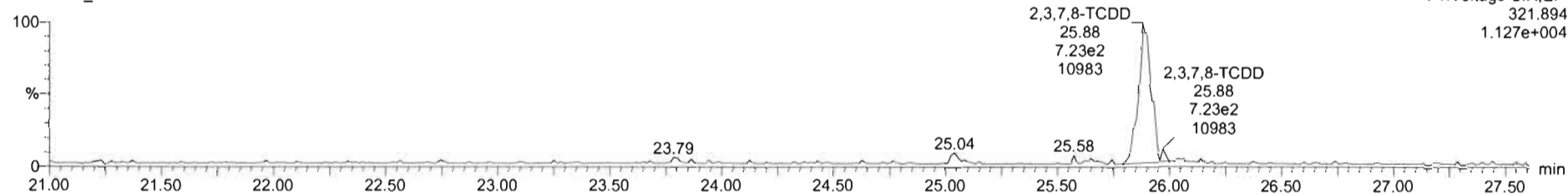
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**2,3,7,8-TCDD**

200309D1\_3

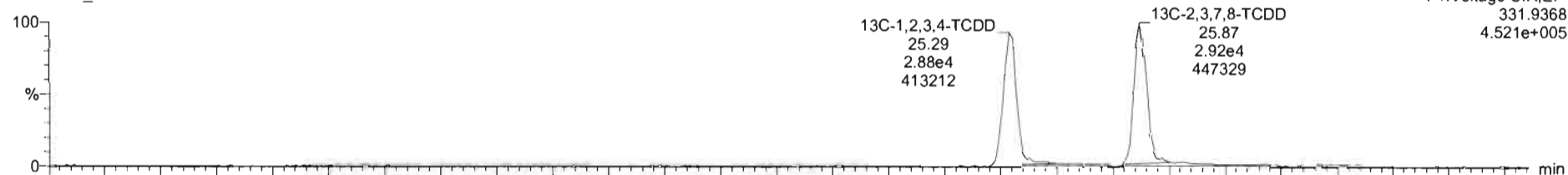


2 0309D1\_3

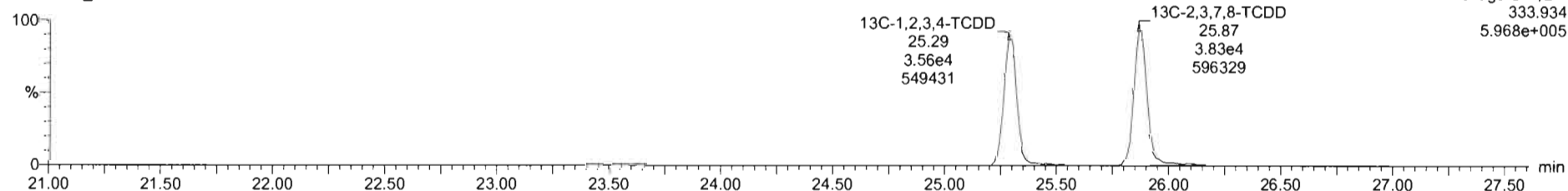


**13C-2,3,7,8-TCDD**

200309D1\_3



200309D1\_3

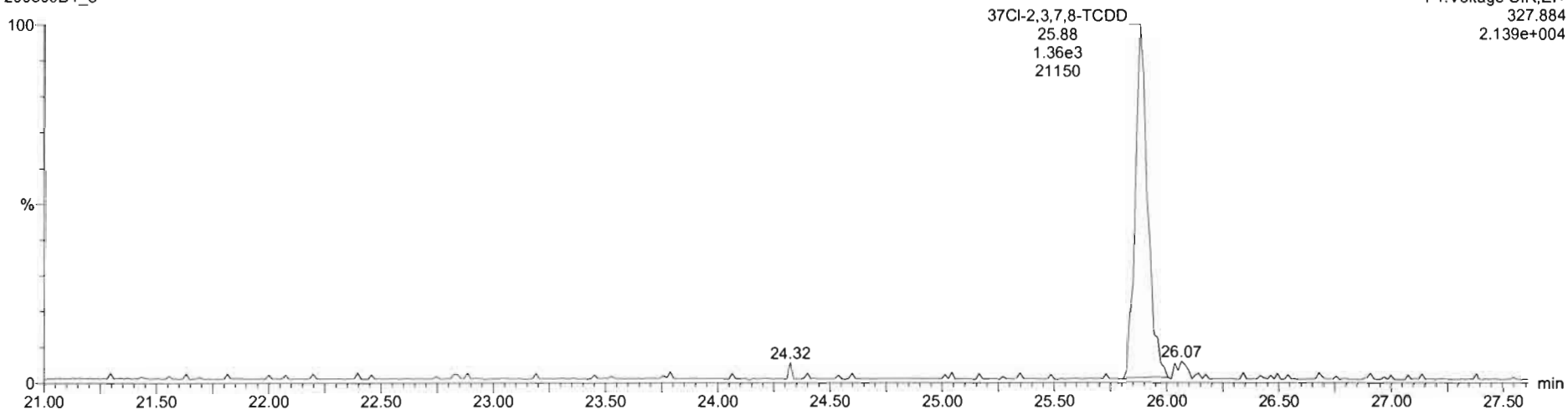


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

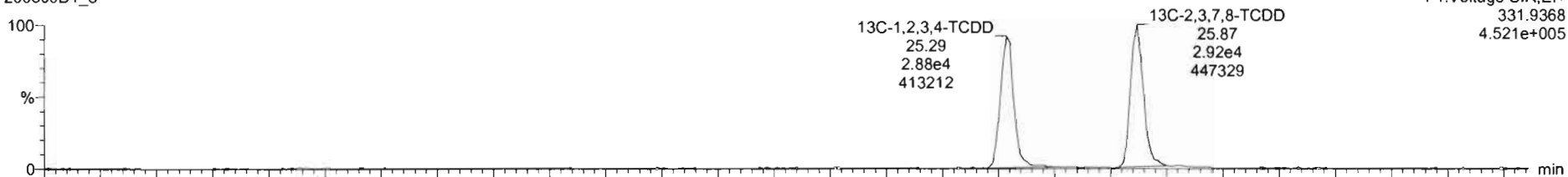
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

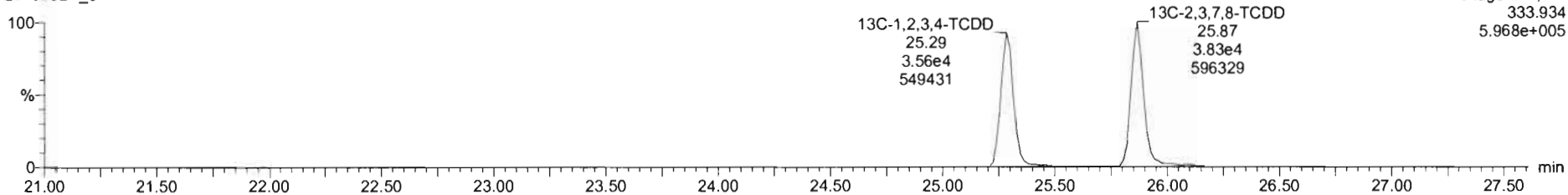
**37Cl-2,3,7,8-TCDD**  
200309D1\_3



**13C-1,2,3,4-TCDD**  
200309D1\_3



200309D1\_3



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

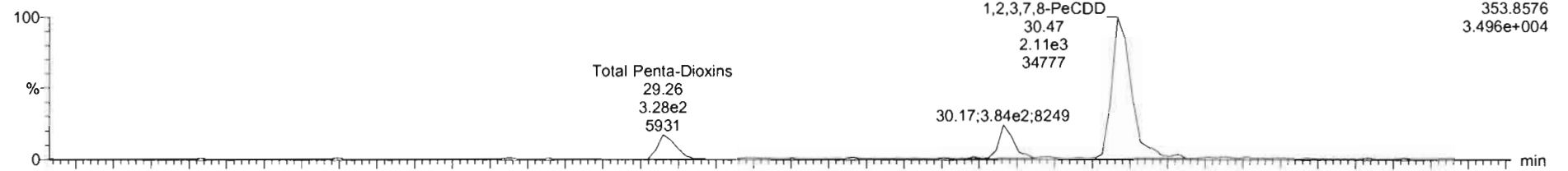
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

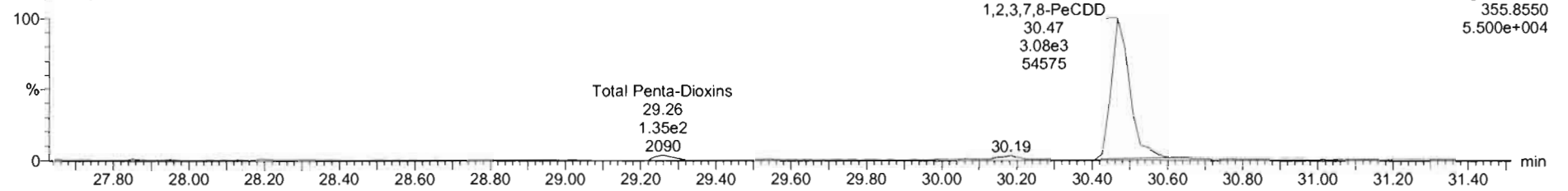
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**1,2,3,7,8-PeCDD**

200309D1\_3

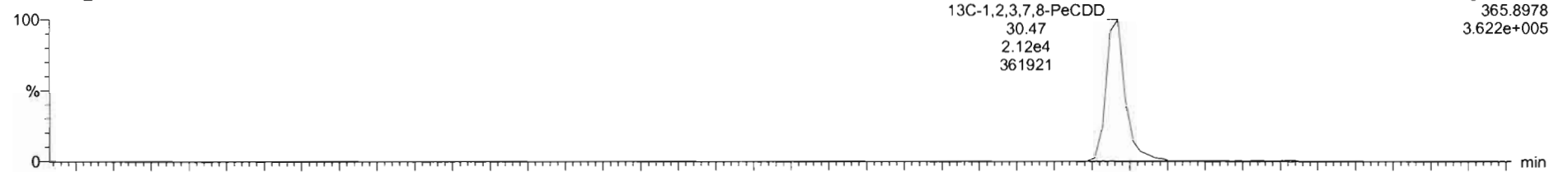


200309D1\_3

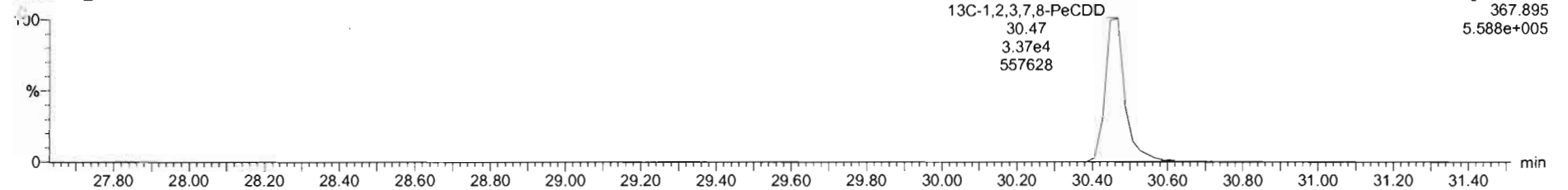


**13C-1,2,3,7,8-PeCDD**

200309D1\_3



200309D1\_3





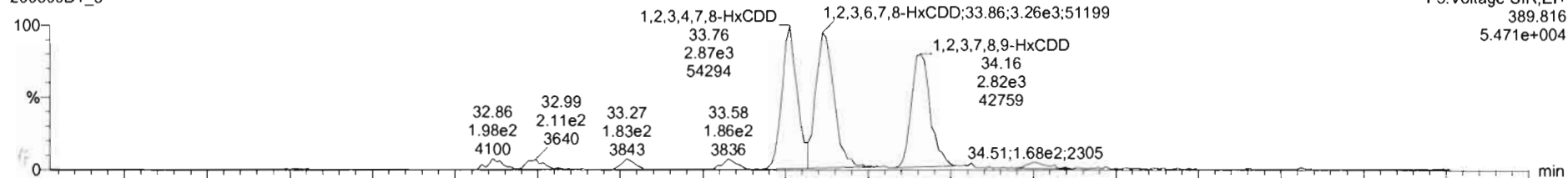
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

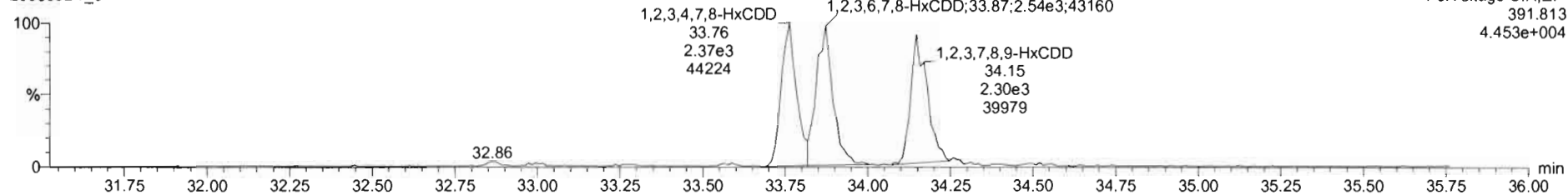
Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

1,2,3,4,7,8-HxCDD

200309D1\_3

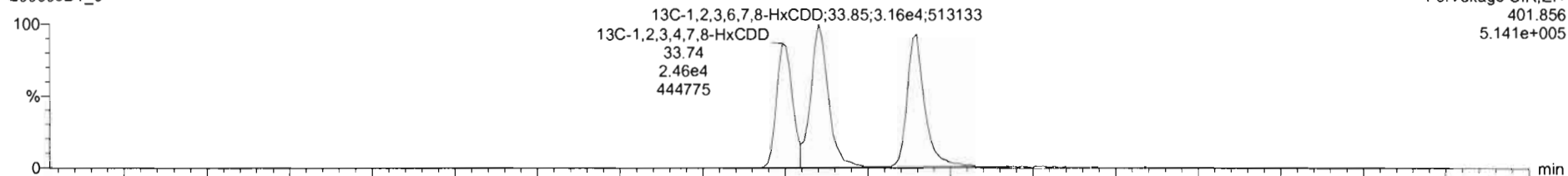


200309D1\_3

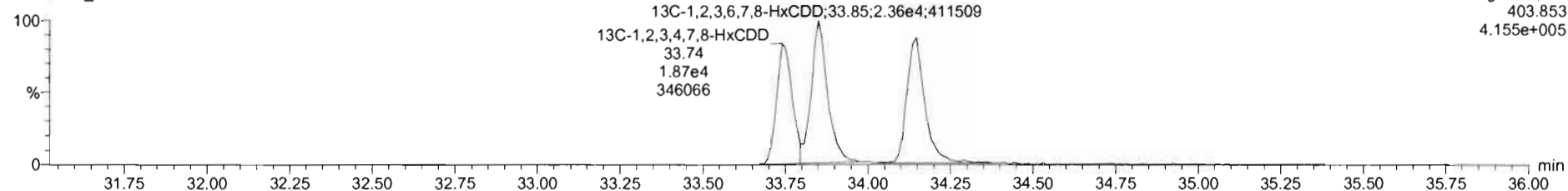


13C-1,2,3,4,7,8-HxCDD

200309D1\_3



200309D1\_3



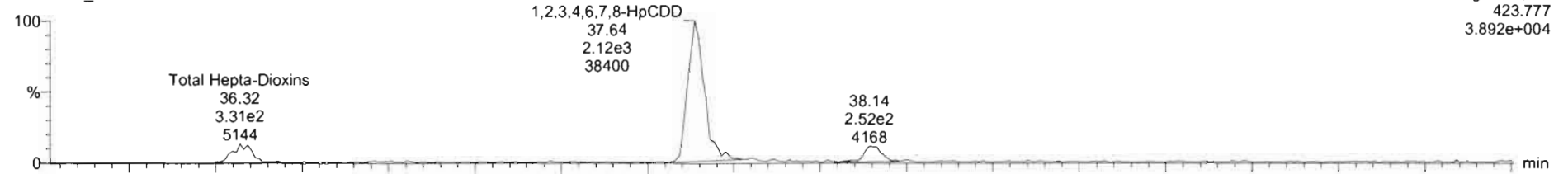
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

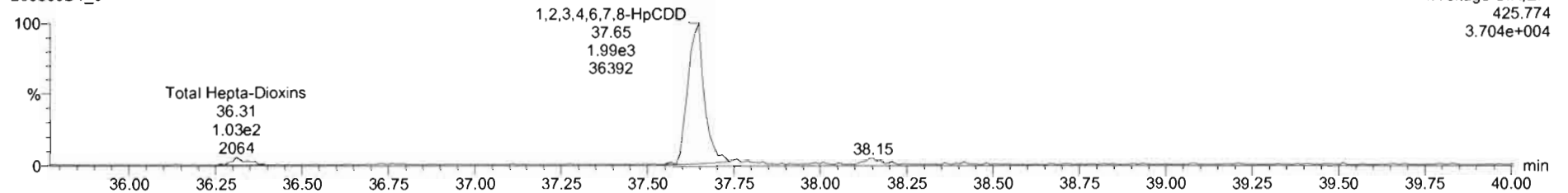
Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

1,2,3,4,6,7,8-HpCDD

200309D1\_3

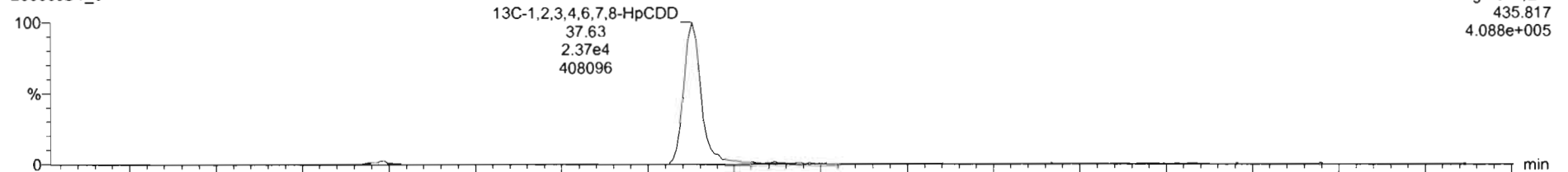


200309D1\_3

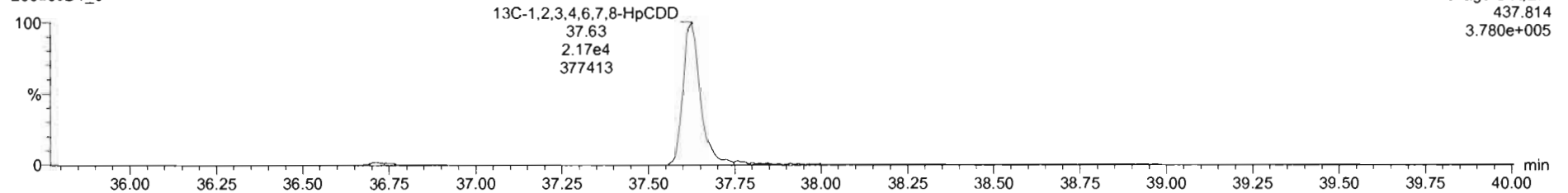


13C-1,2,3,4,6,7,8-HpCDD

200309D1\_3



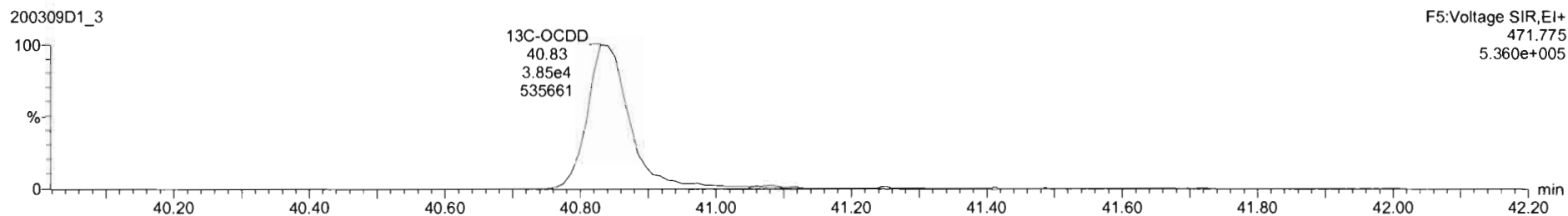
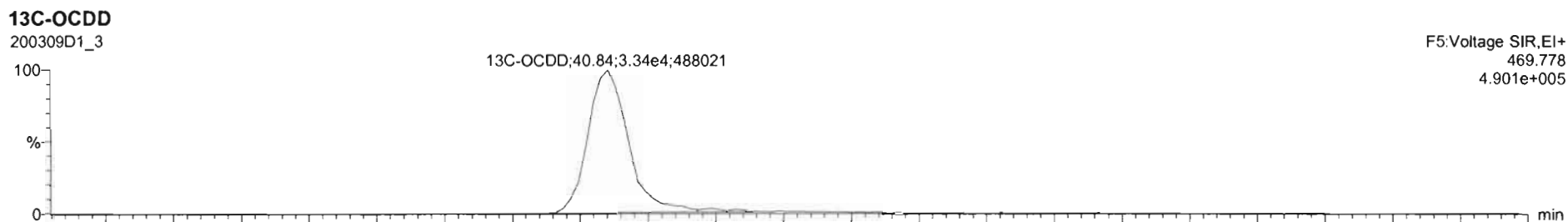
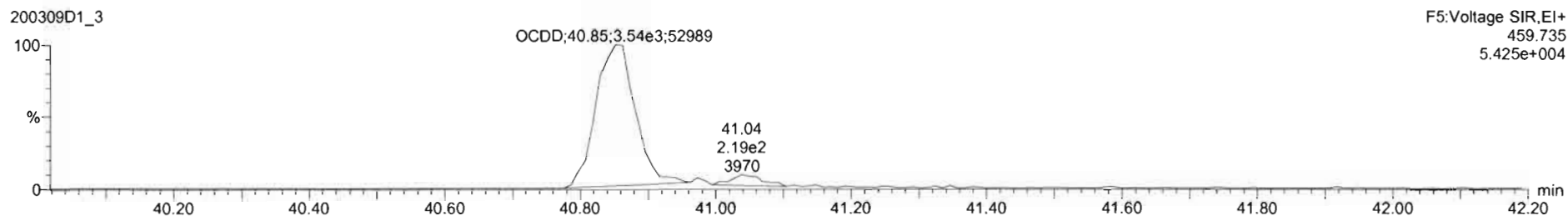
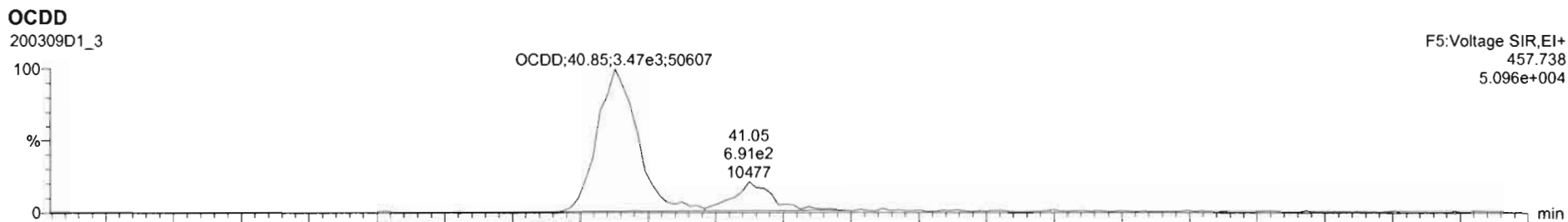
200309D1\_3



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

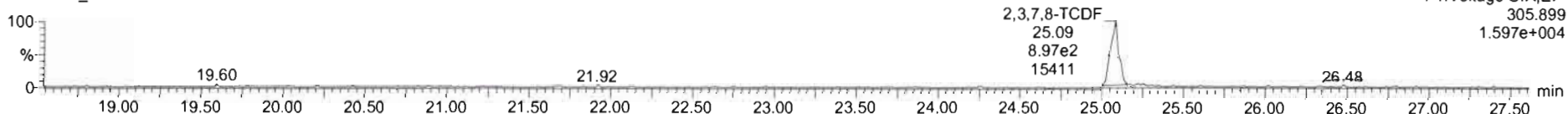
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**2,3,7,8-TCDF**

200309D1\_3

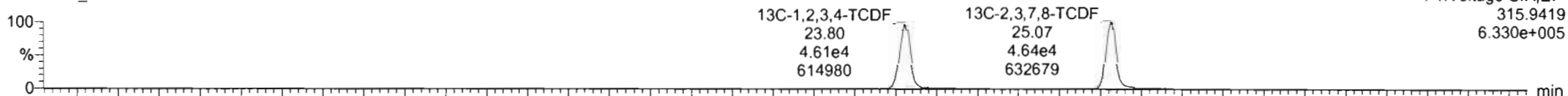


200309D1\_3

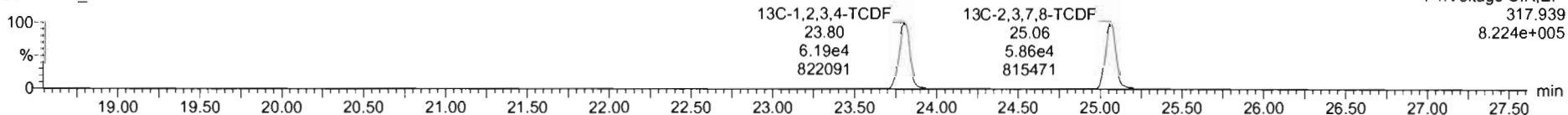


**13C-2,3,7,8-TCDF**

200309D1\_3

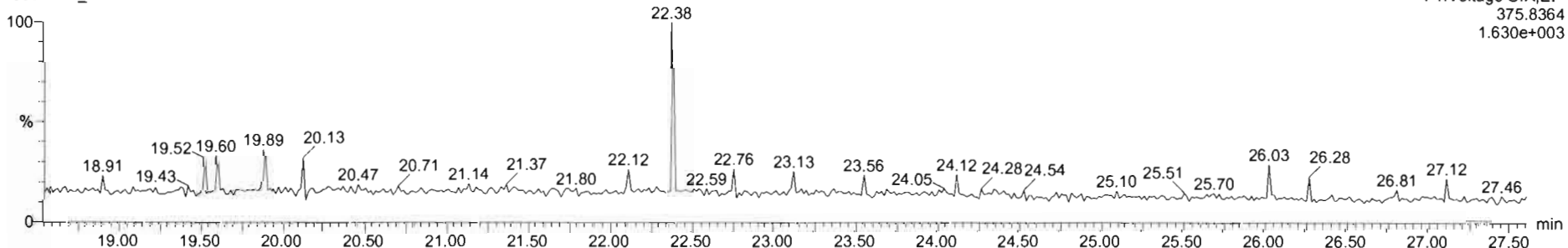


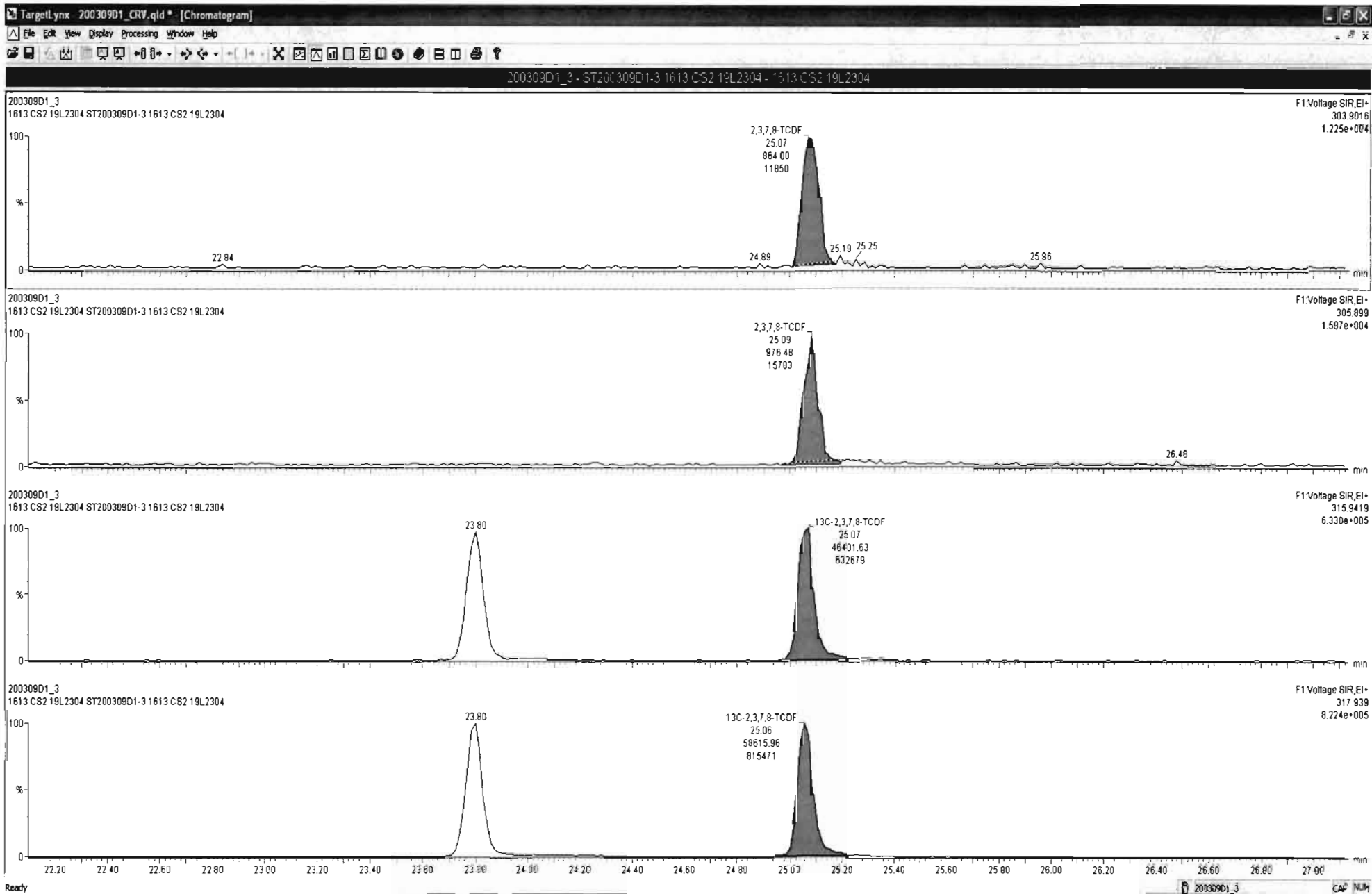
200309D1\_3



**DPE1**

200309D1\_3





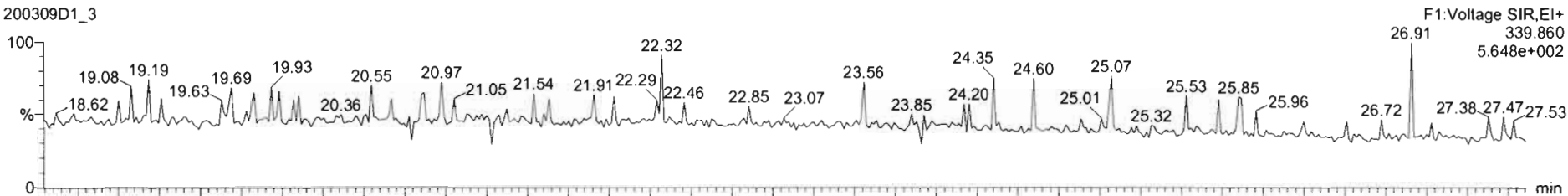
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

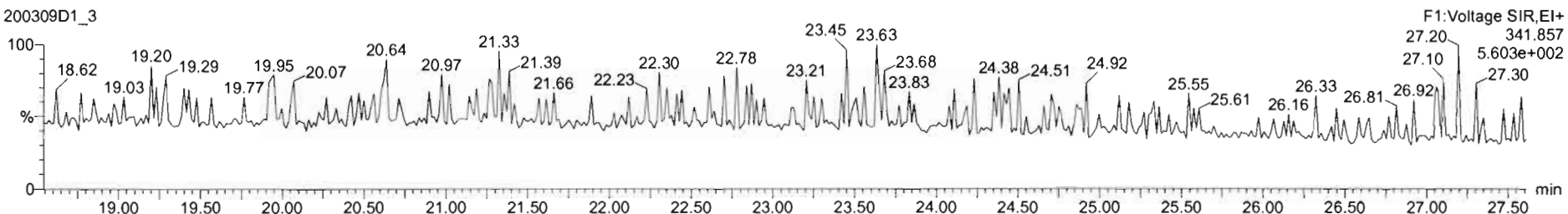
Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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200309D1\_3

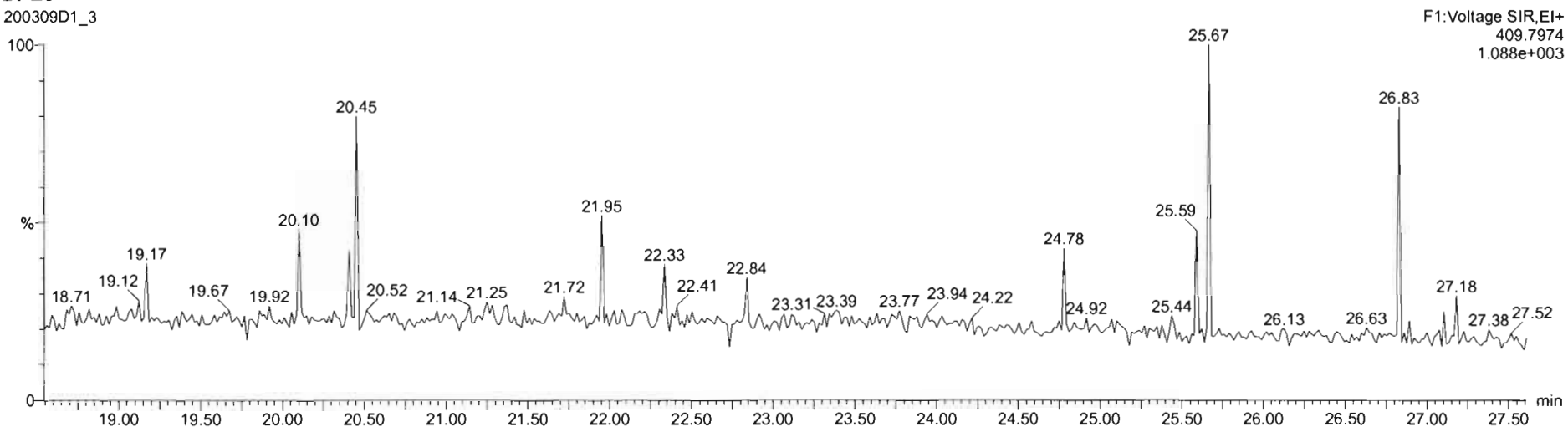


200309D1\_3



DPE6

200309D1\_3



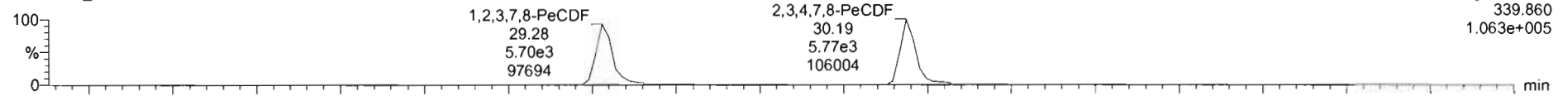
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

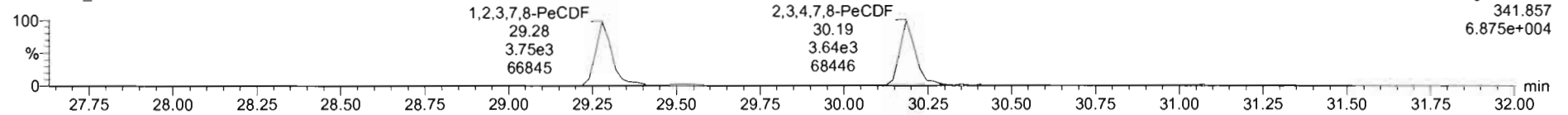
Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

**1,2,3,7,8-PeCDF**

200309D1\_3

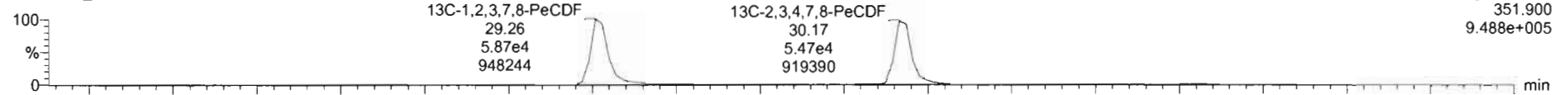


200309D1\_3

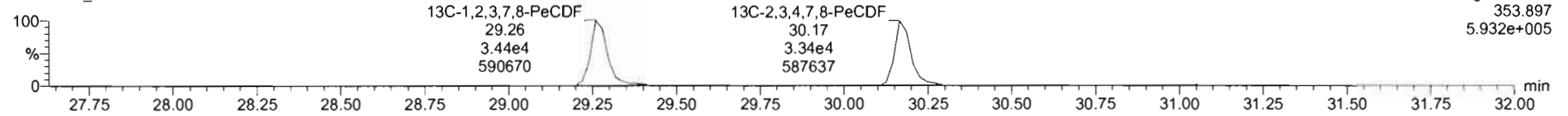


**13C-1,2,3,7,8-PeCDF**

200309D1\_3

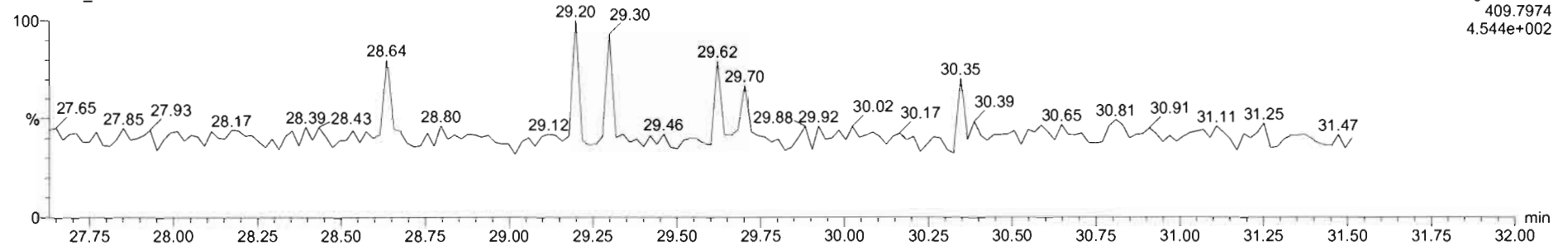


200309D1\_3



**DPE2**

200309D1\_3



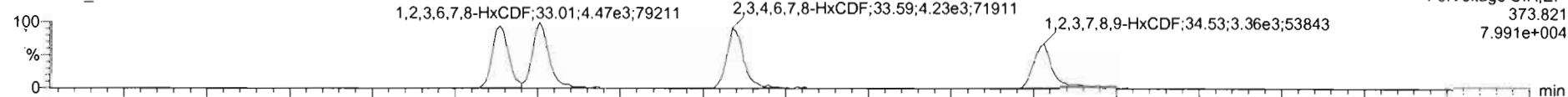
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

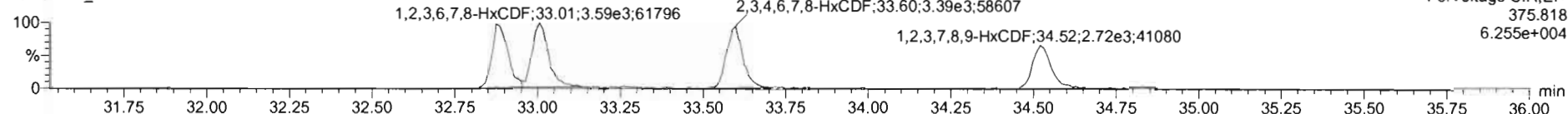
Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

**1,2,3,4,7,8-HxCDF**

200309D1\_3

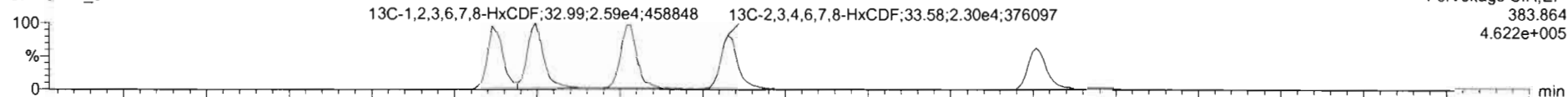


200309D1\_3

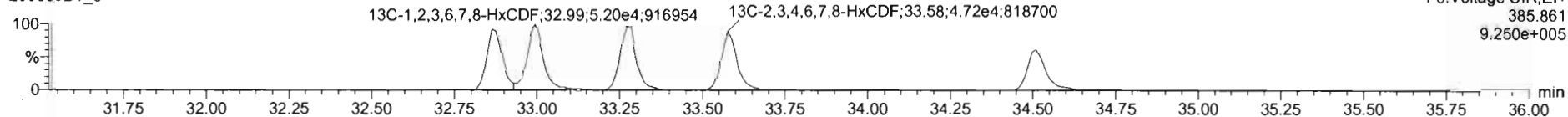


**13C-1,2,3,4,7,8-HxCDF**

200309D1\_3

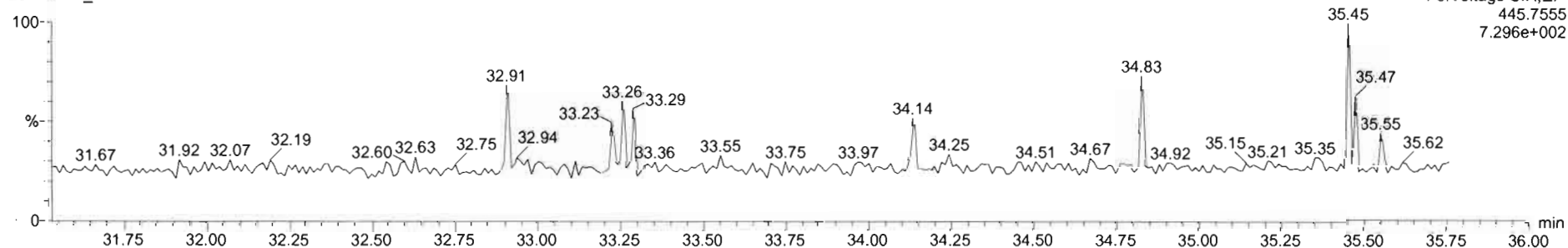


200309D1\_3



**DPE3**

200309D1\_3



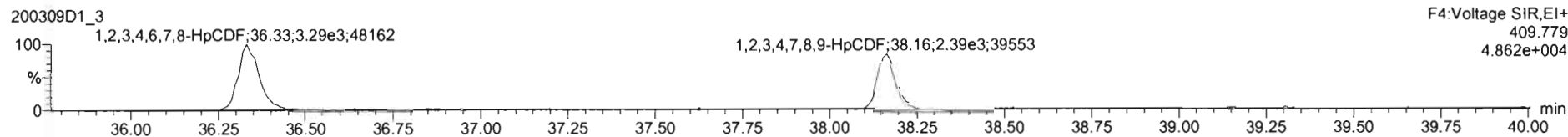
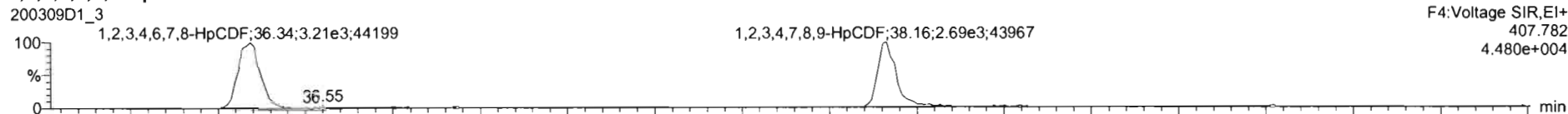


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

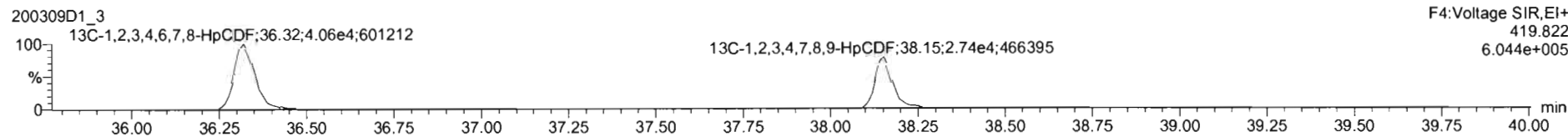
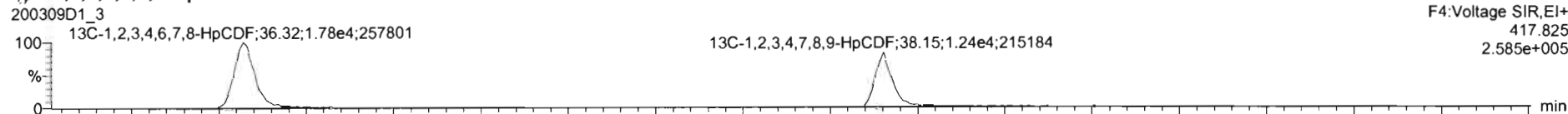
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

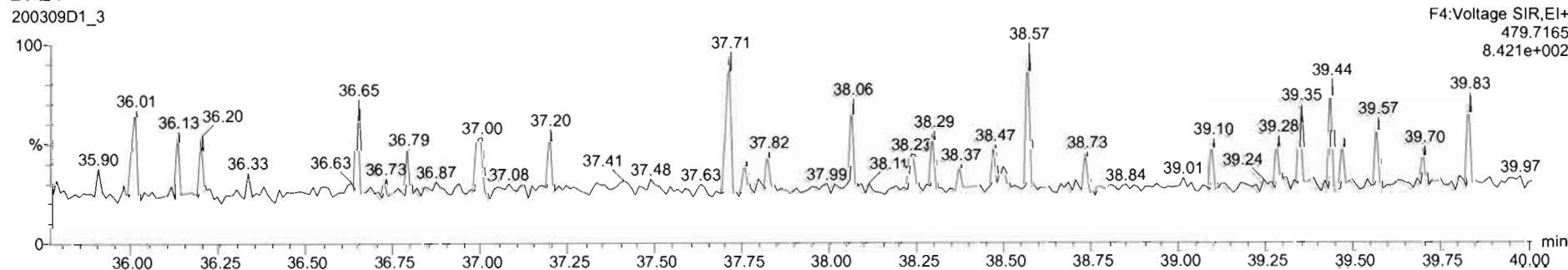
1,2,3,4,6,7,8-HpCDF



13C-1,2,3,4,6,7,8-HpCDF



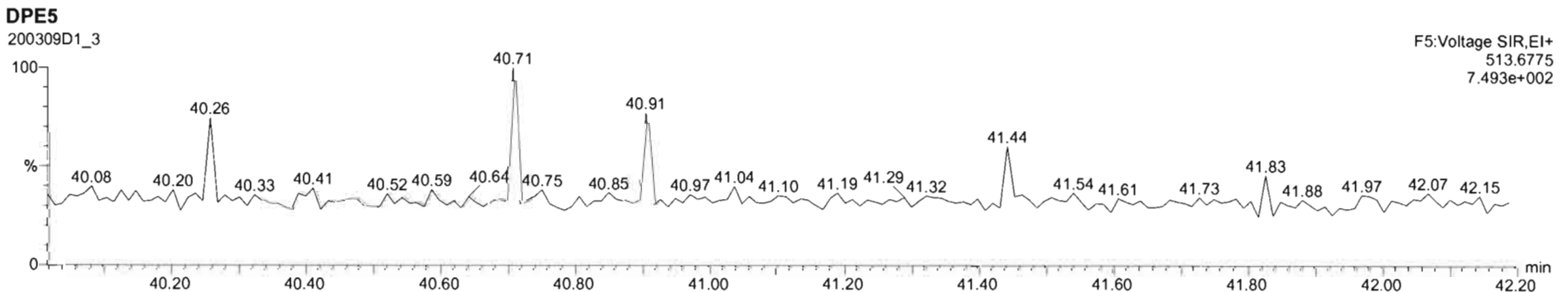
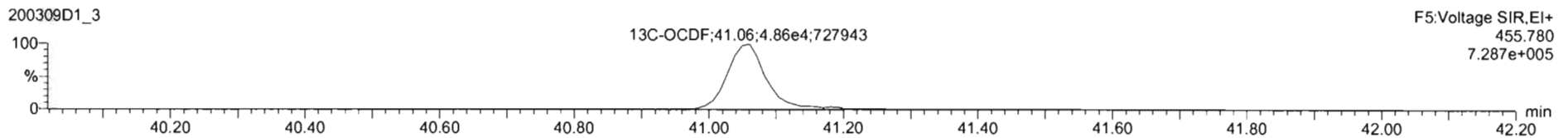
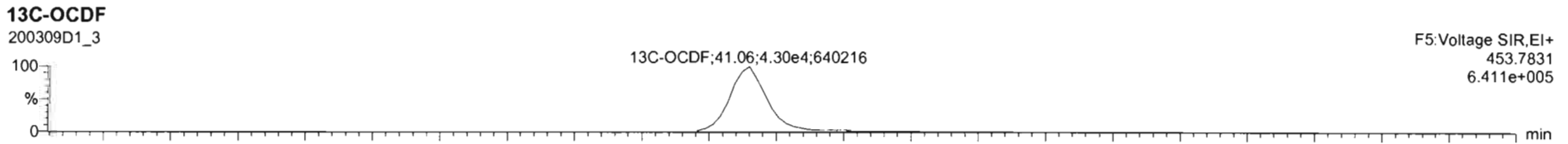
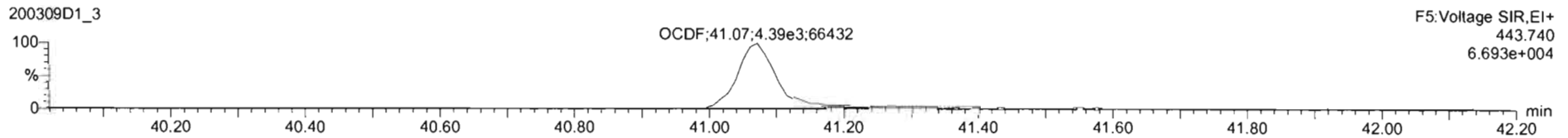
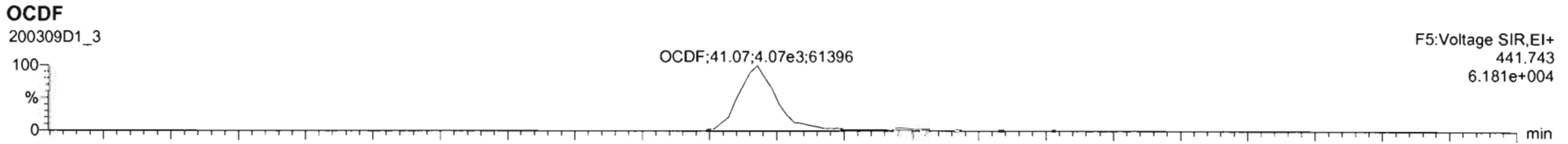
DPE4



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_3, Date: 09-Mar-2020, Time: 13:58:44, ID: ST200309D1-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

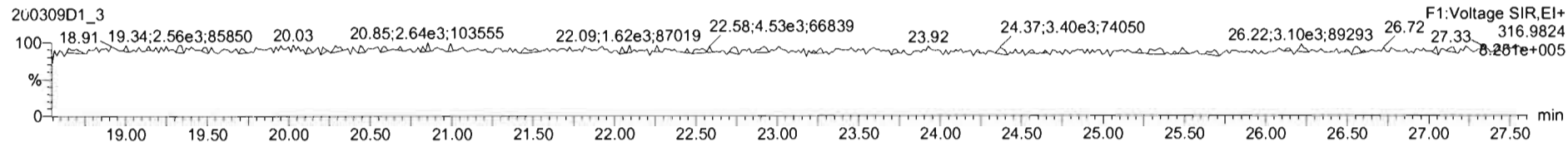


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

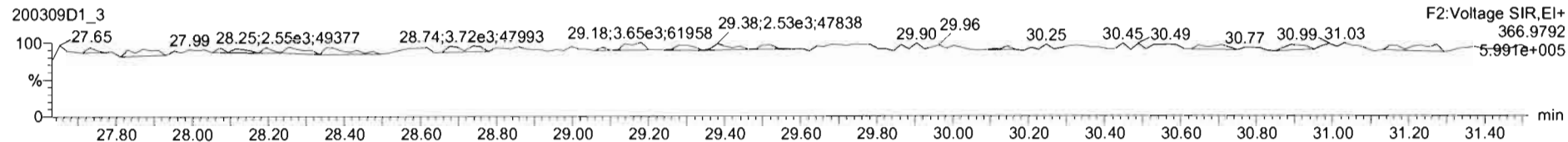
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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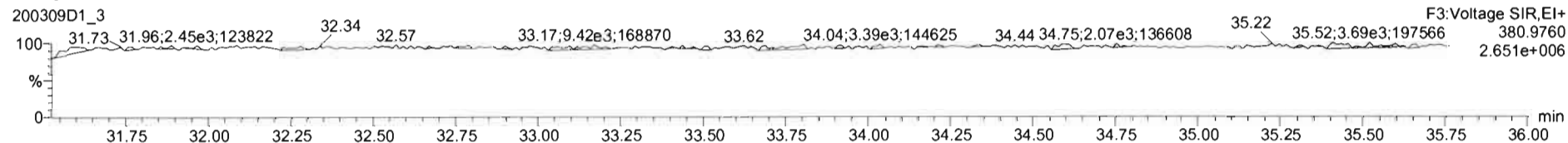
**PFK1**



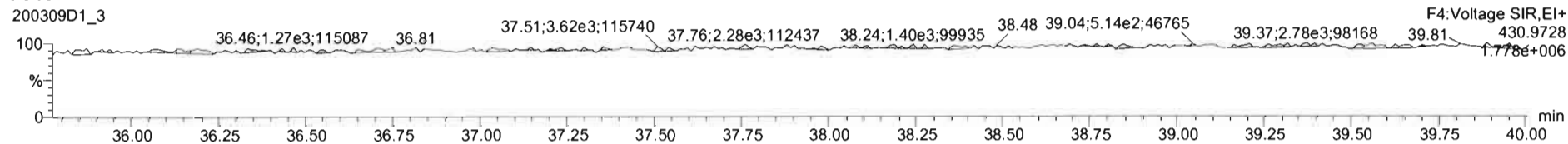
**PFK2**



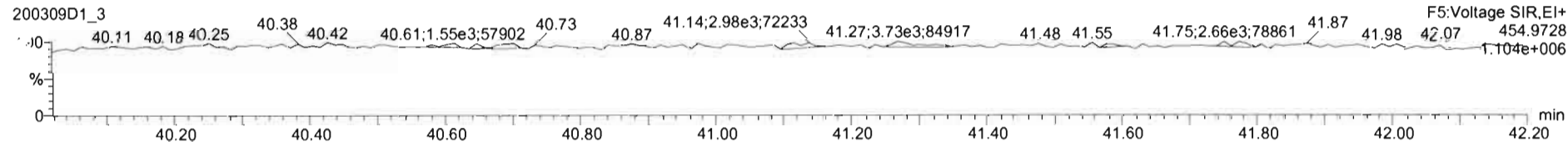
**PFK3**



**PFK4**



**PFK5**



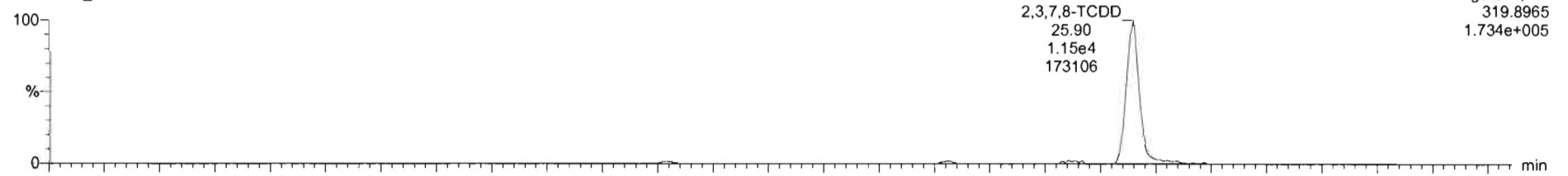
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

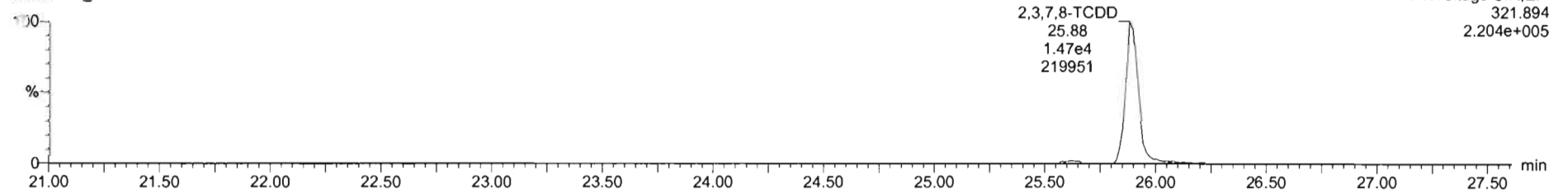
Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

**2,3,7,8-TCDD**

200309D1\_4

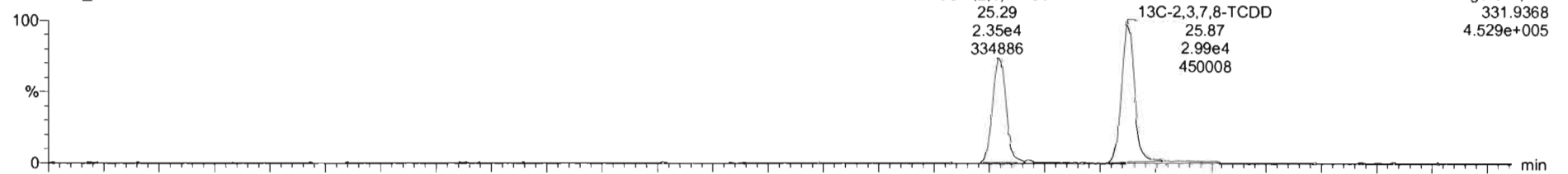


200309D1\_4

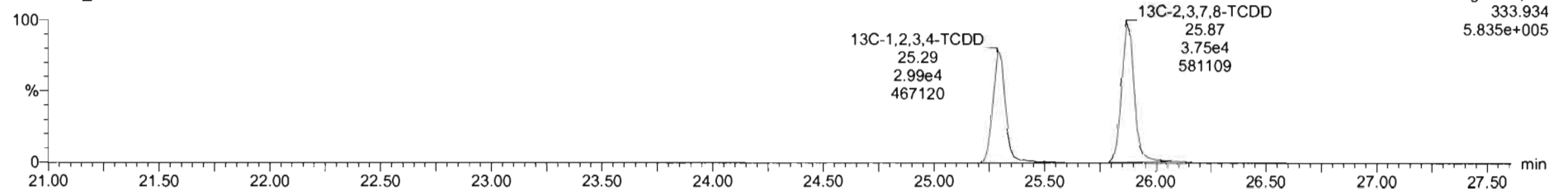


**13C-2,3,7,8-TCDD**

200309D1\_4



200309D1\_4



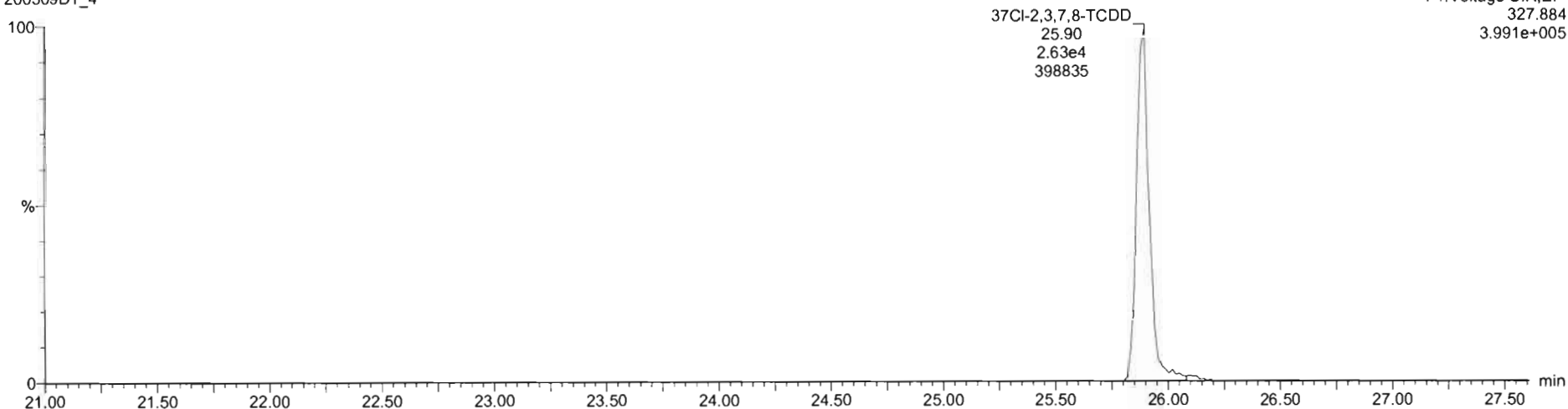
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

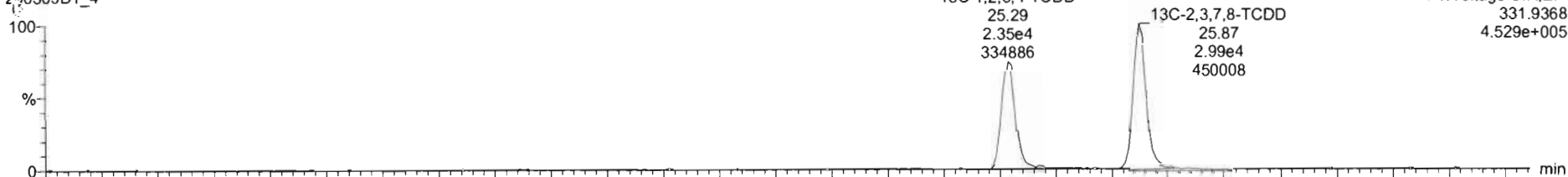
**37Cl-2,3,7,8-TCDD**

200309D1\_4

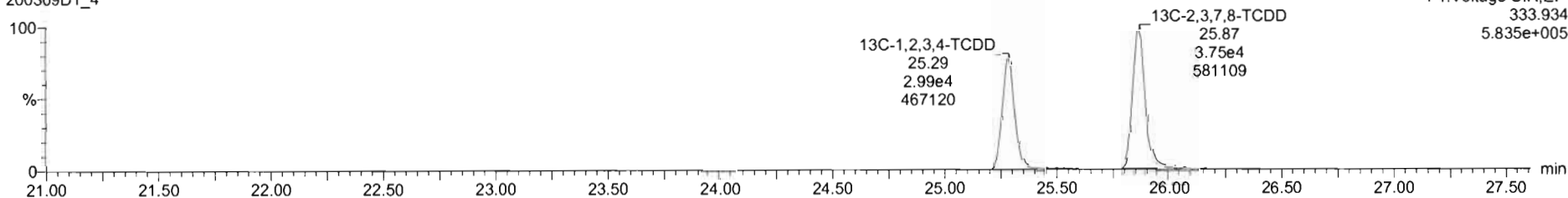


**13C-1,2,3,4-TCDD**

200309D1\_4



200309D1\_4



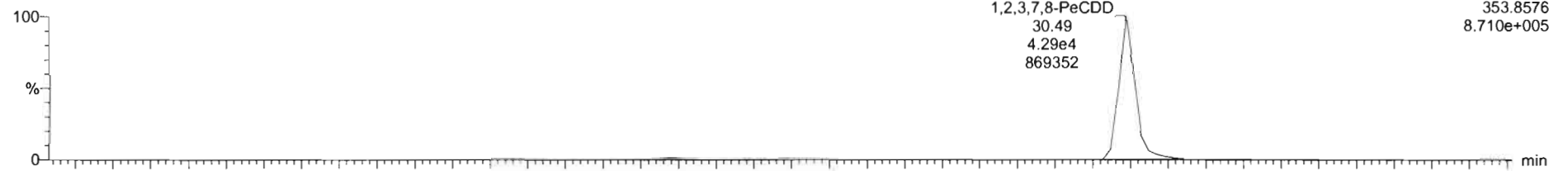
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

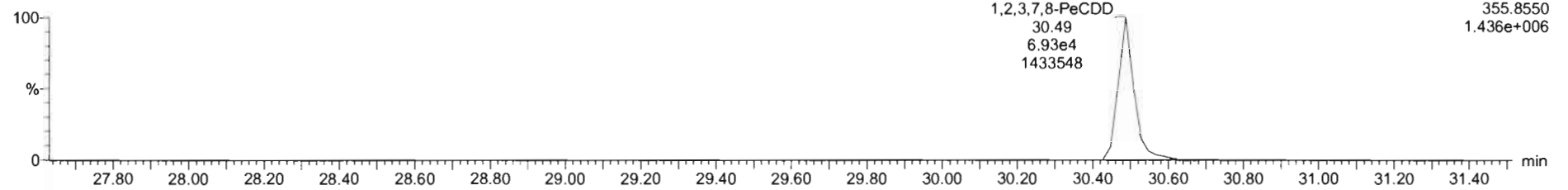
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**1,2,3,7,8-PeCDD**

200309D1\_4

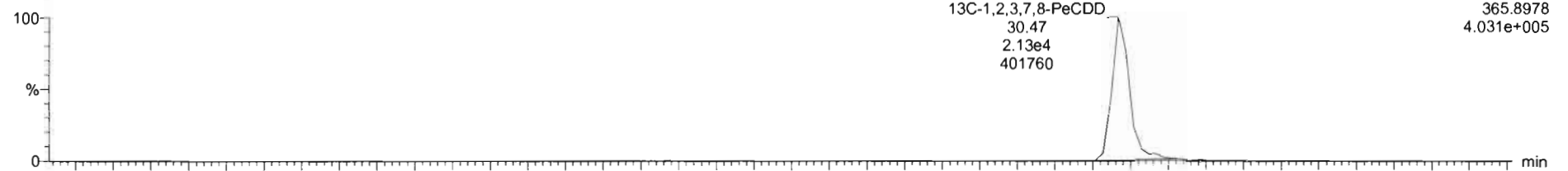


200309D1\_4

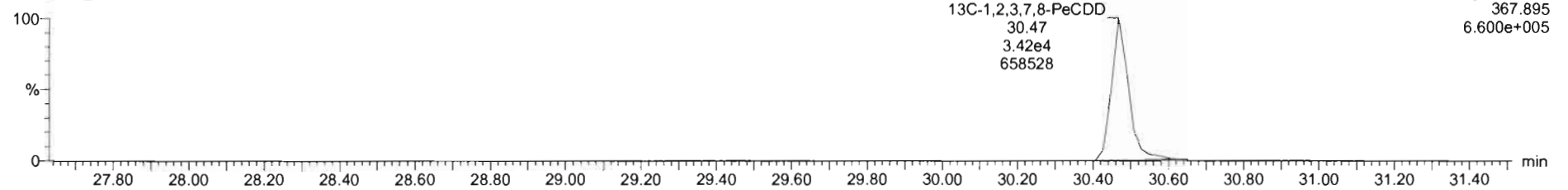


**13C-1,2,3,7,8-PeCDD**

200309D1\_4



200309D1\_4



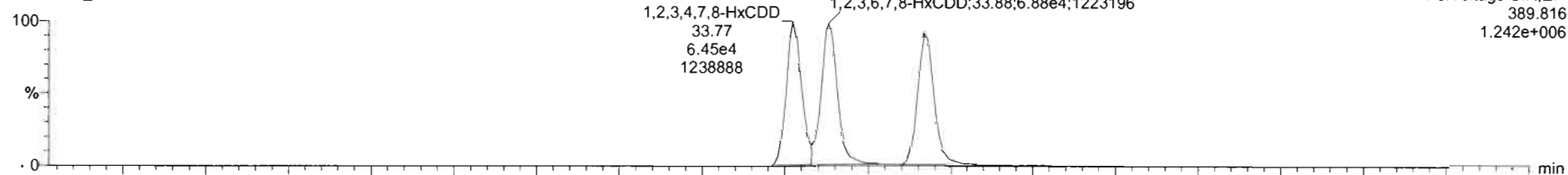
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

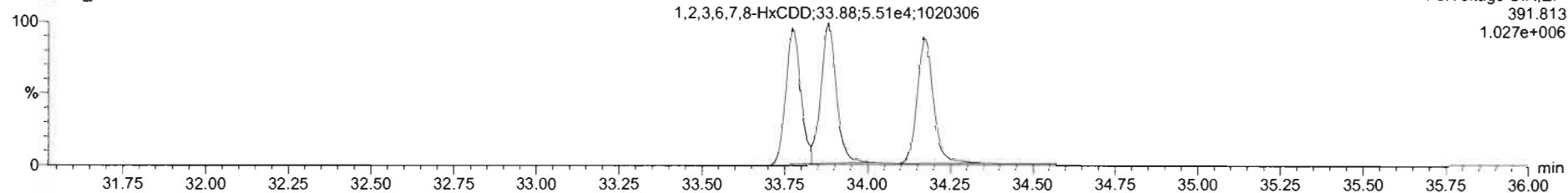
**1,2,3,4,7,8-HxCDD**

200309D1\_4



F3: Voltage SIR, EI+  
389.816  
1.242e+006

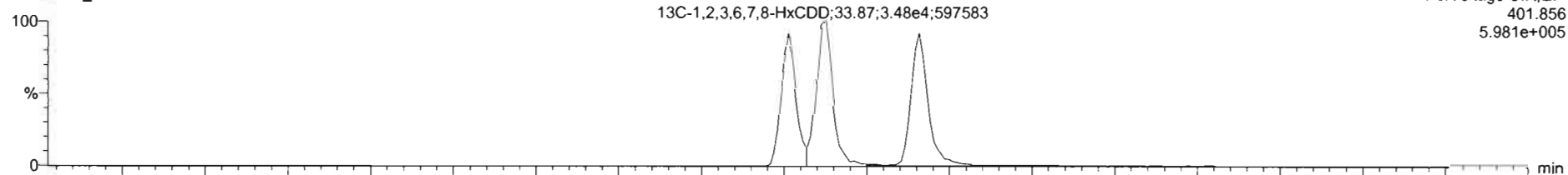
200309D1\_4



F3: Voltage SIR, EI+  
391.813  
1.027e+006

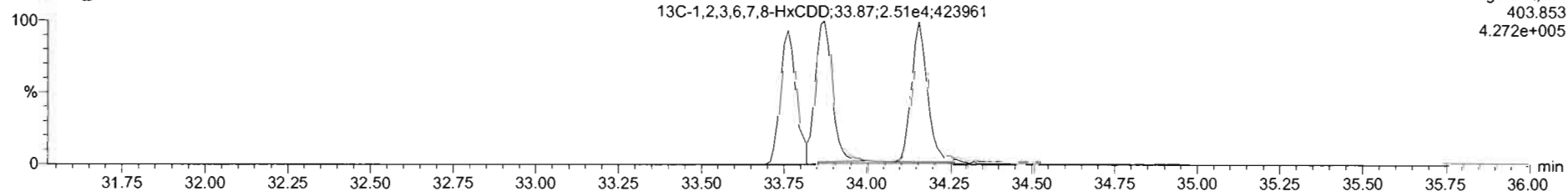
**13C-1,2,3,4,7,8-HxCDD**

200309D1\_4



F3: Voltage SIR, EI+  
401.856  
5.981e+005

200309D1\_4



F3: Voltage SIR, EI+  
403.853  
4.272e+005

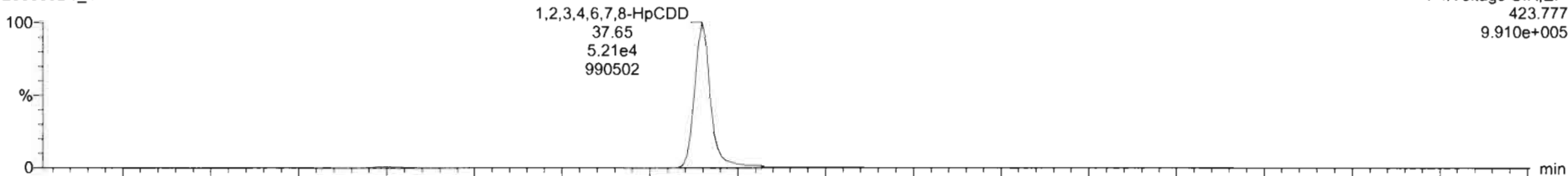
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

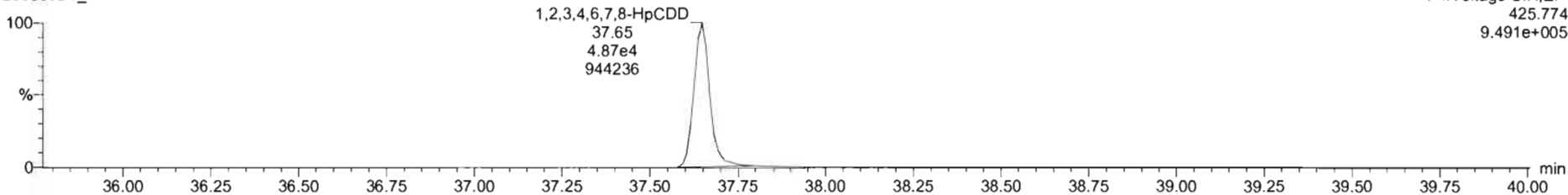
1,2,3,4,6,7,8-HpCDD

200309D1\_4



F4:Voltage SIR,EI+  
423.777  
9.910e+005

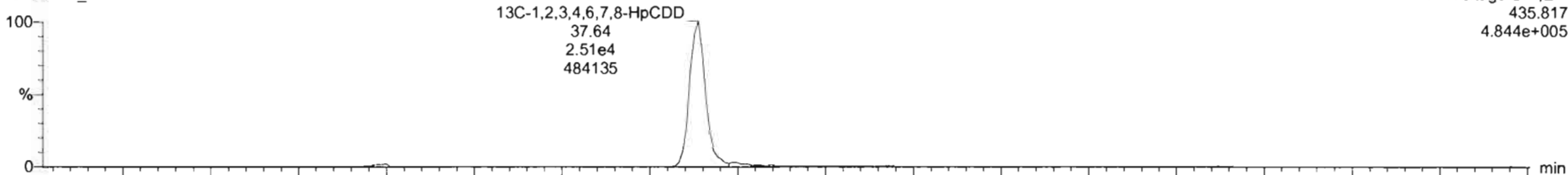
200309D1\_4



F4:Voltage SIR,EI+  
425.774  
9.491e+005

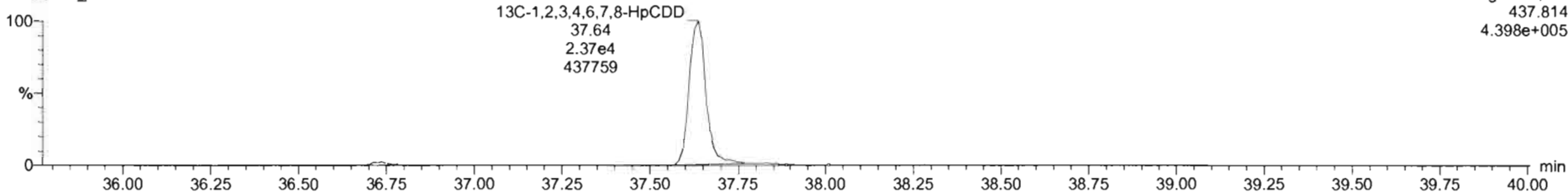
13C-1,2,3,4,6,7,8-HpCDD

200309D1\_4



F4:Voltage SIR,EI+  
435.817  
4.844e+005

200309D1\_4



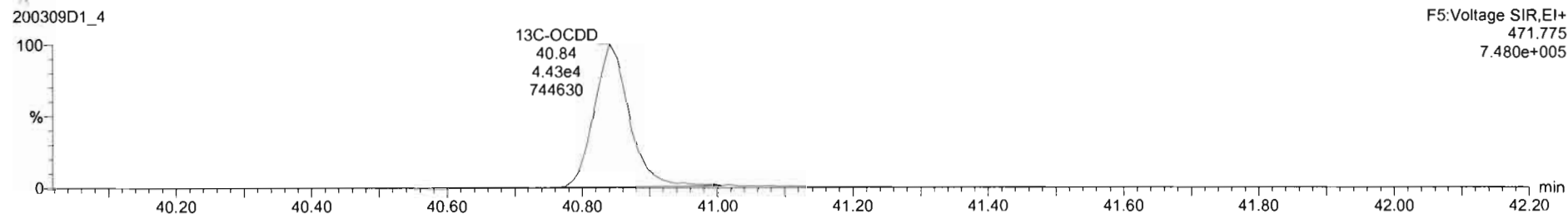
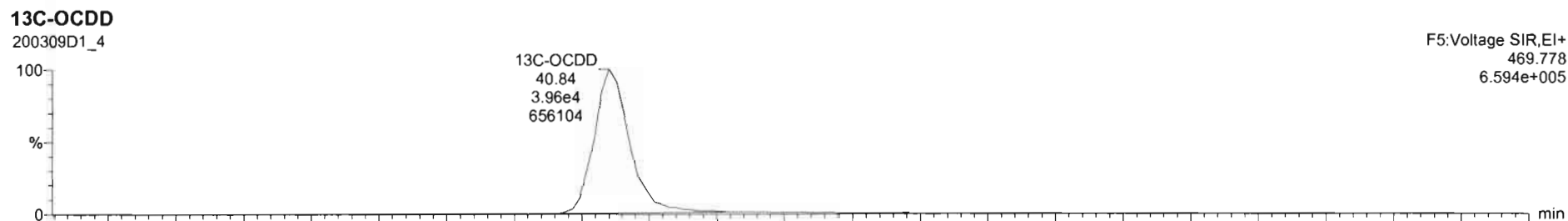
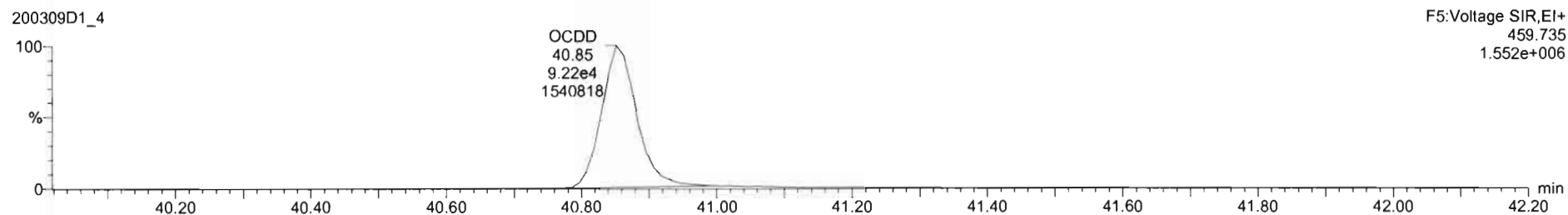
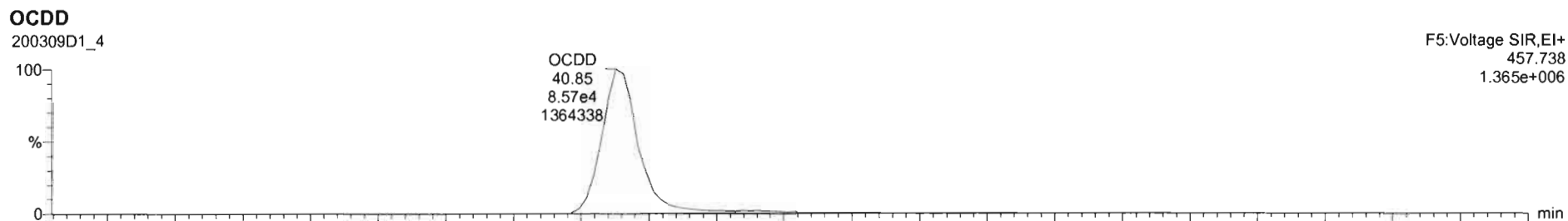
F4:Voltage SIR,EI+  
437.814  
4.398e+005



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306



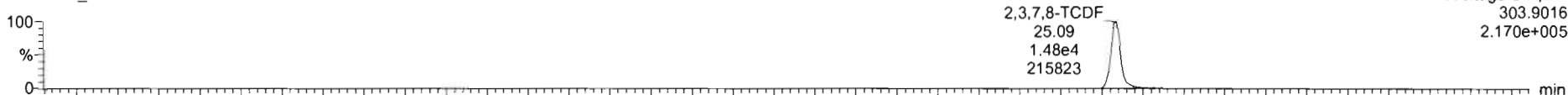
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

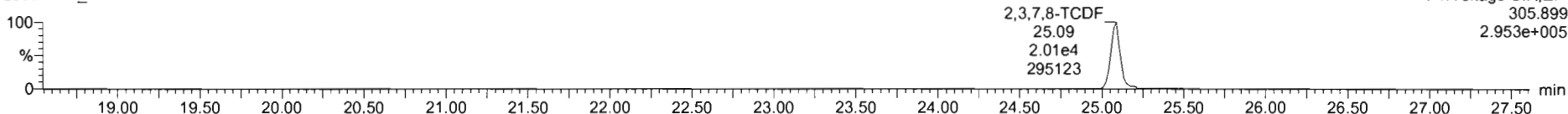
Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

**2,3,7,8-TCDF**

200309D1\_4

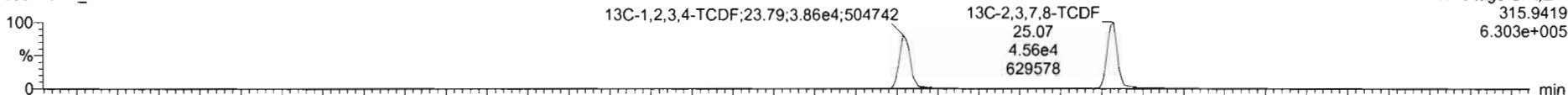


200309D1\_4

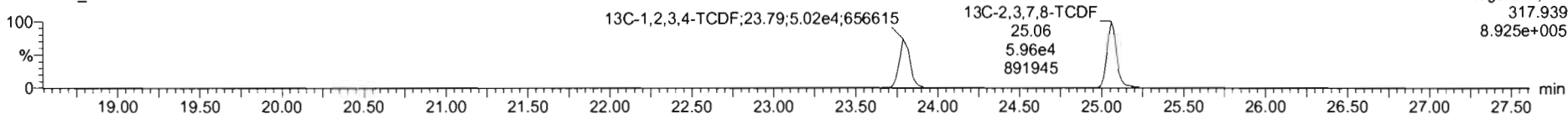


**13C-2,3,7,8-TCDF**

200309D1\_4

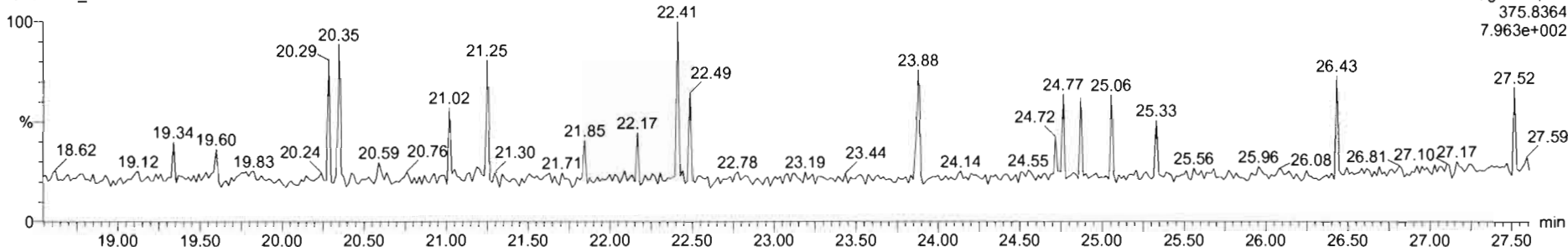


200309D1\_4



**DPE1**

200309D1\_4



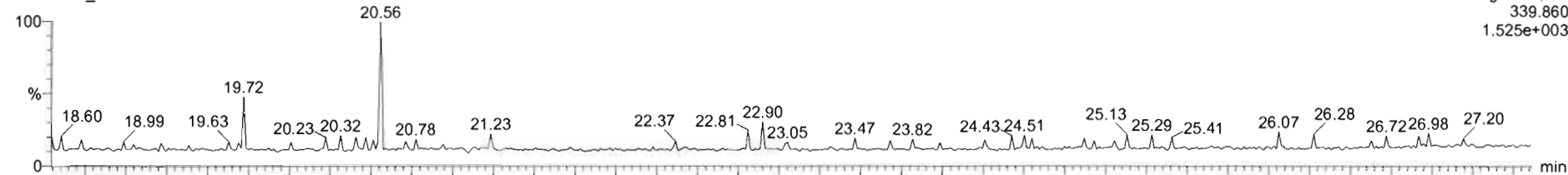
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

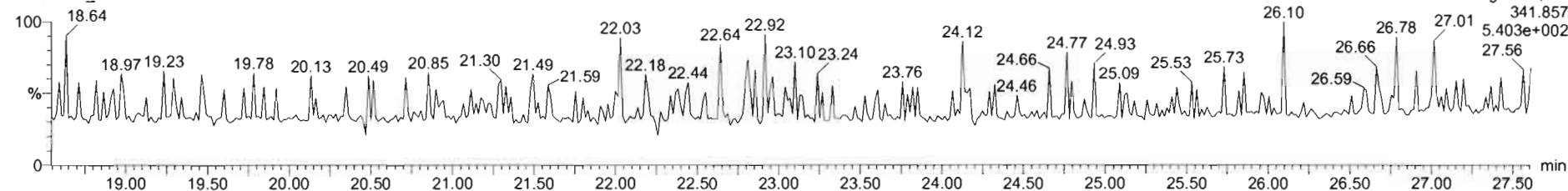
Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

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200309D1\_4

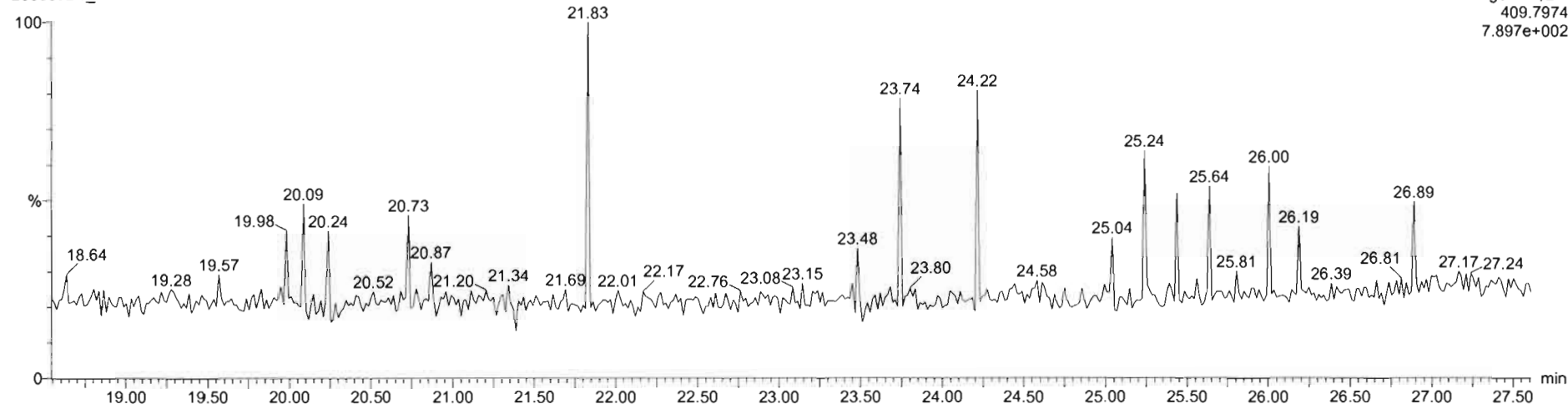


200309D1\_4



DPE6

200309D1\_4



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

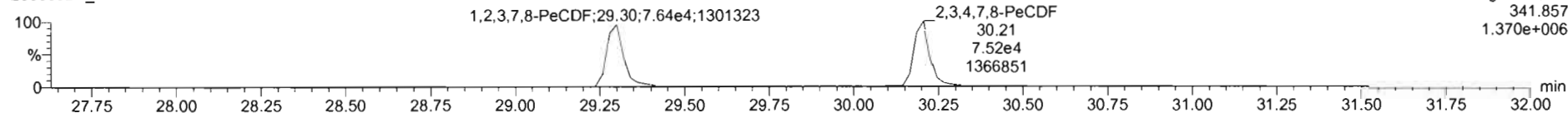
**1,2,3,7,8-PeCDF**

200309D1\_4



F2:Voltage SIR,EI+  
339.860  
2.268e+006

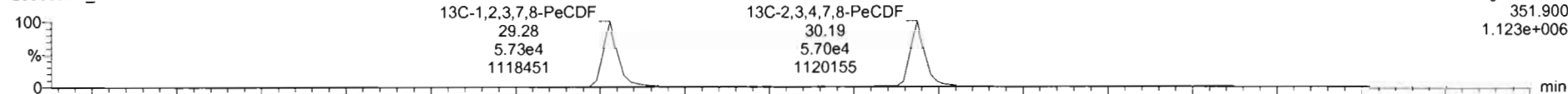
200309D1\_4



F2:Voltage SIR,EI+  
341.857  
1.370e+006

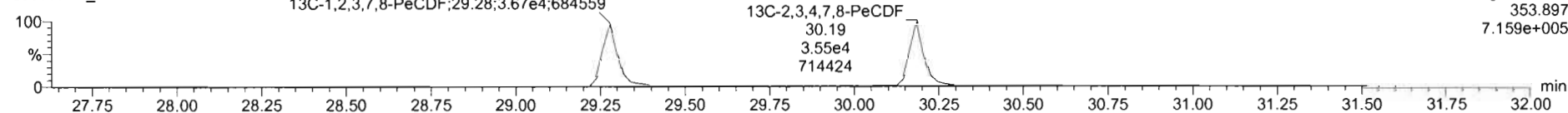
**13C-1,2,3,7,8-PeCDF**

200309D1\_4



F2:Voltage SIR,EI+  
351.900  
1.123e+006

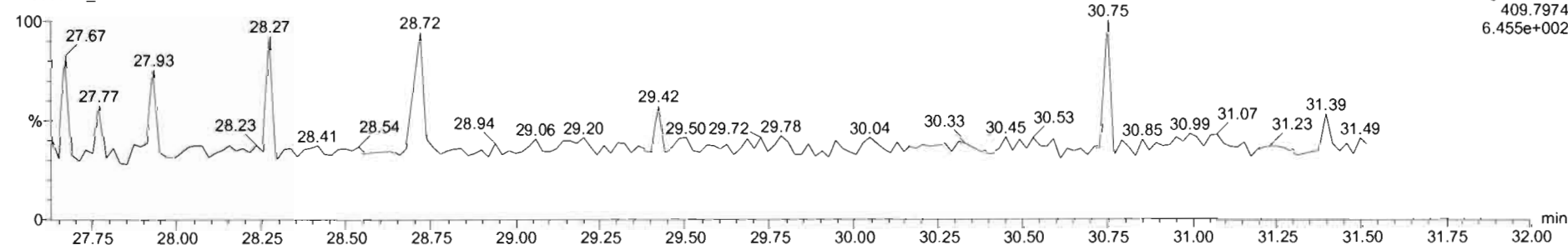
200309D1\_4



F2:Voltage SIR,EI+  
353.897  
7.159e+005

**POE2**

200309D1\_4



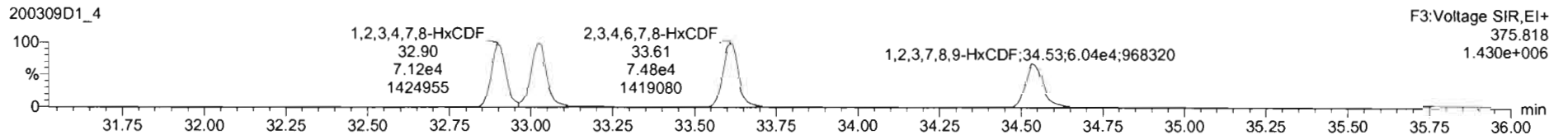
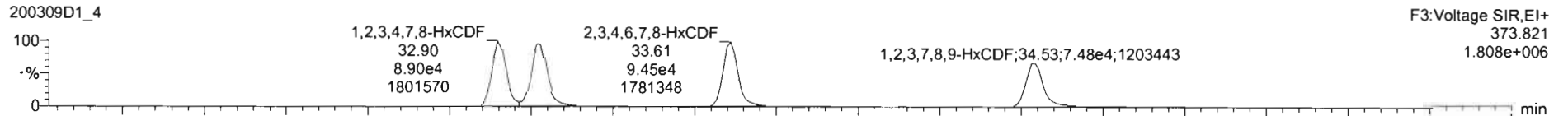
F2:Voltage SIR,EI+  
409.7974  
6.455e+002

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

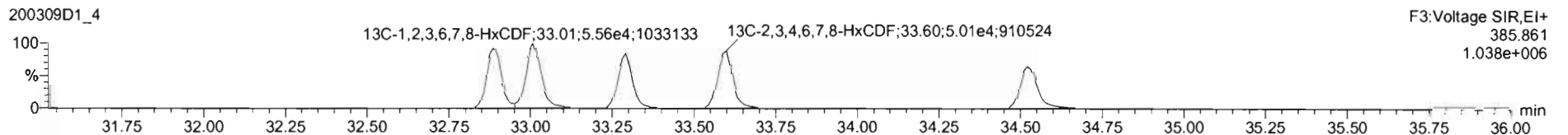
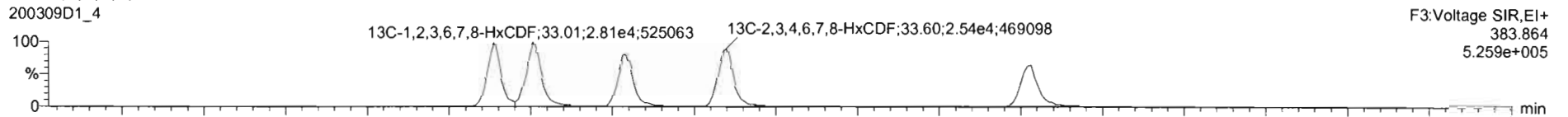
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306

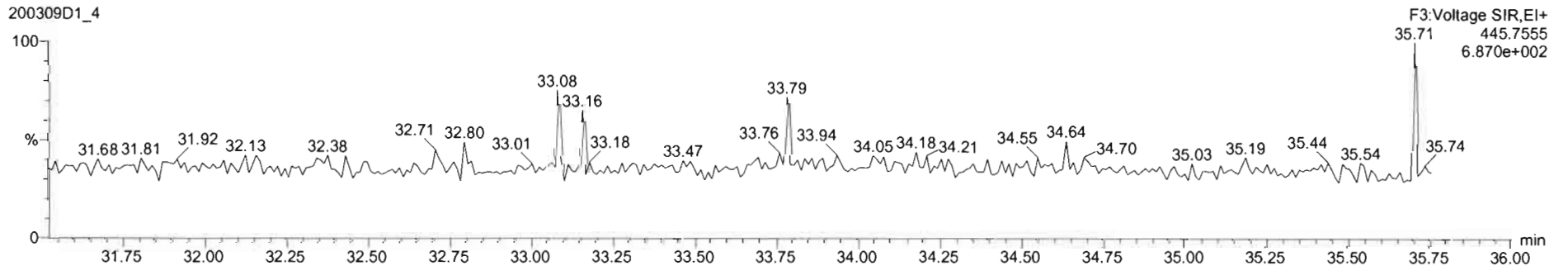
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**

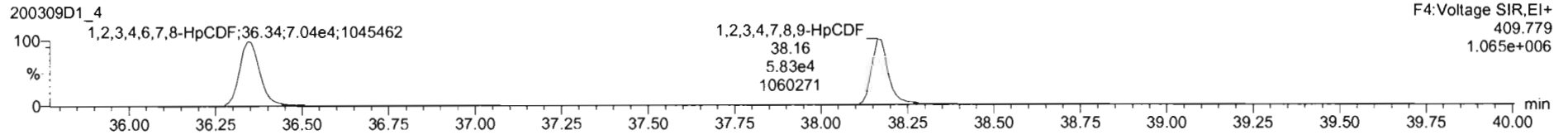
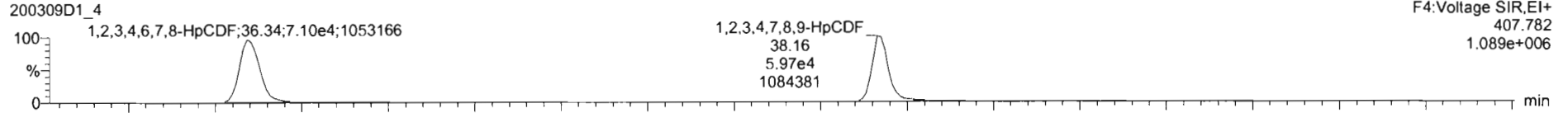


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

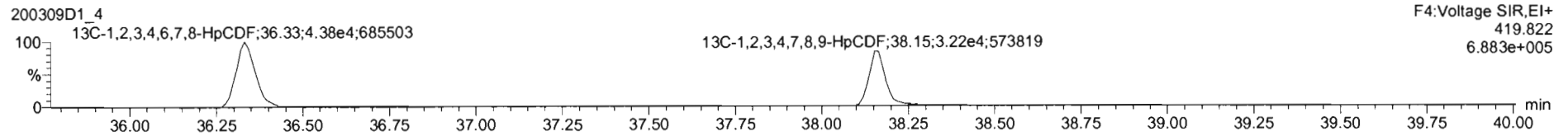
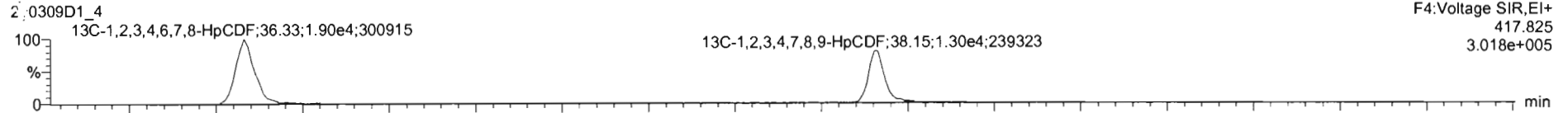
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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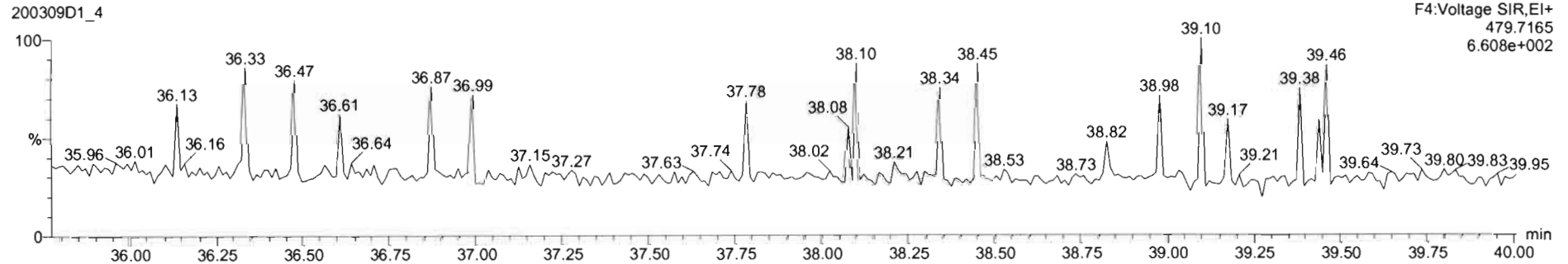
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



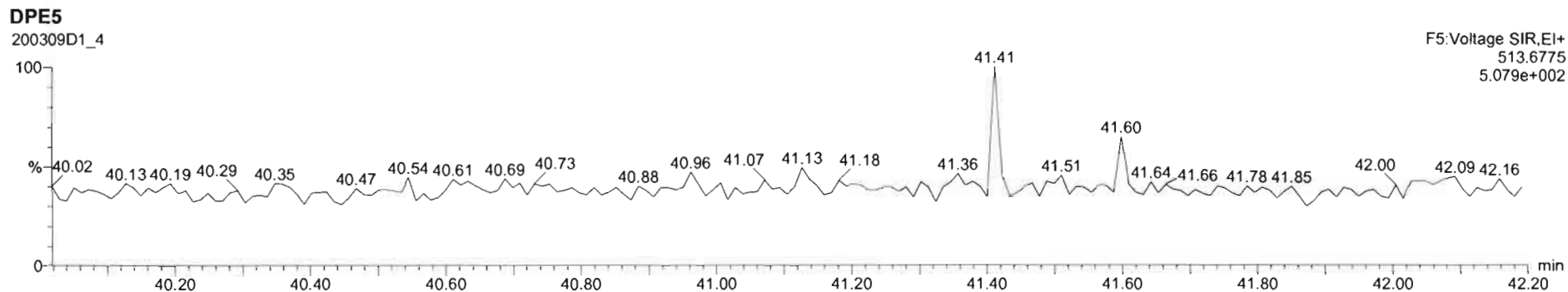
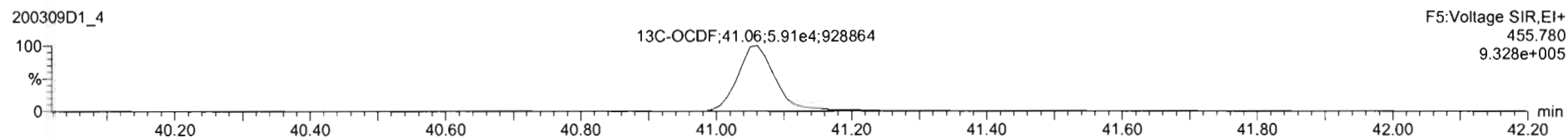
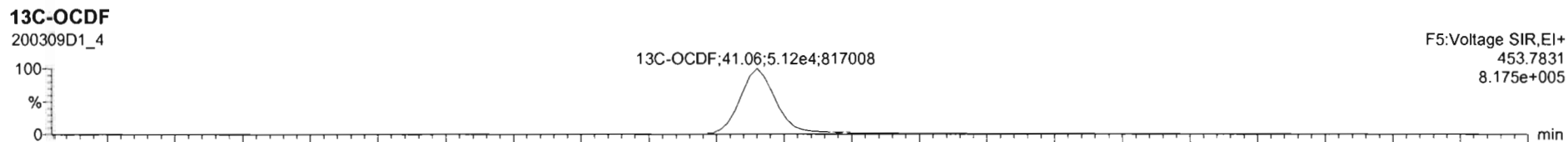
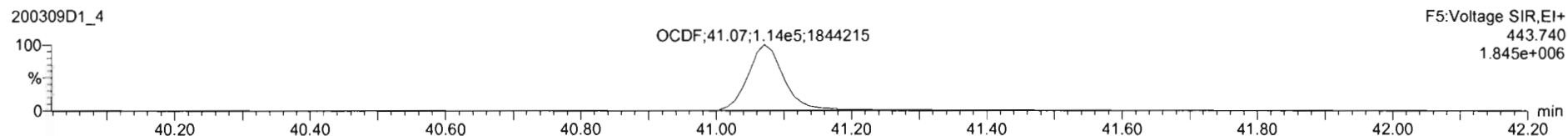
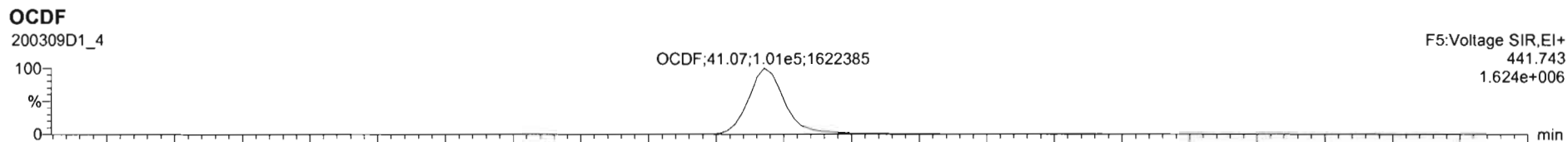
**DPE4**



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

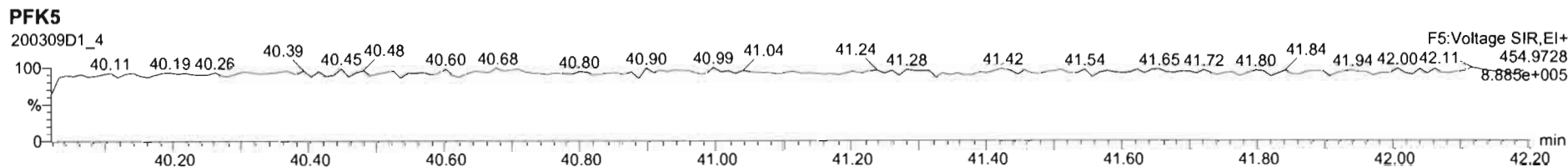
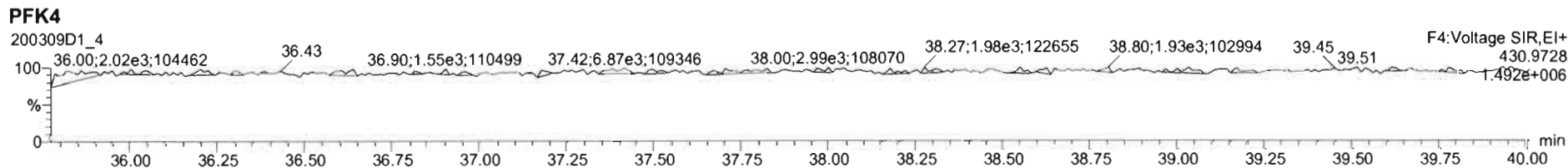
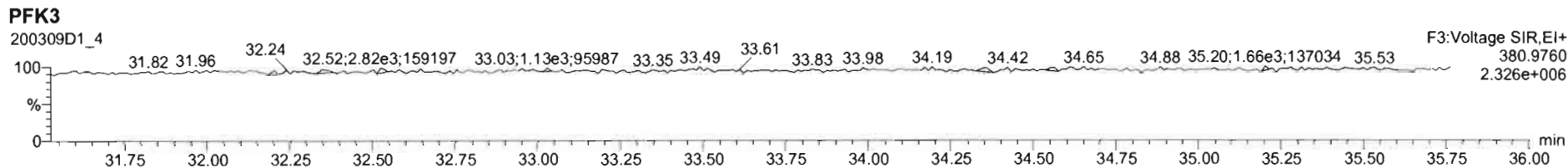
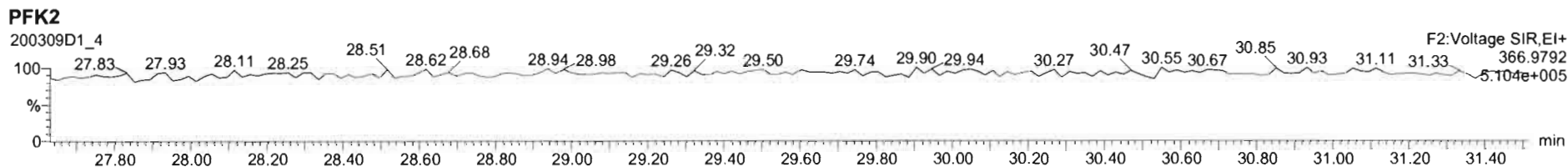
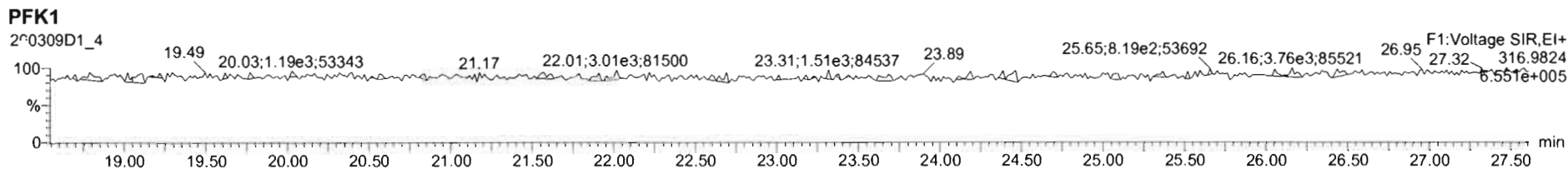
Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_4, Date: 09-Mar-2020, Time: 14:43:39, ID: ST200309D1-4 1613 CS4 19L2306, Description: 1613 CS4 19L2306





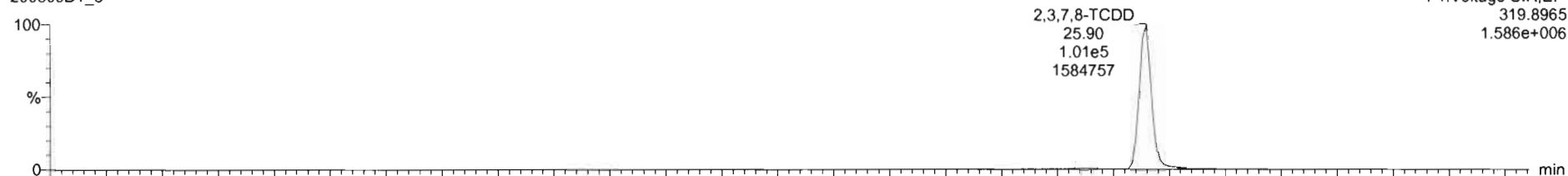
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

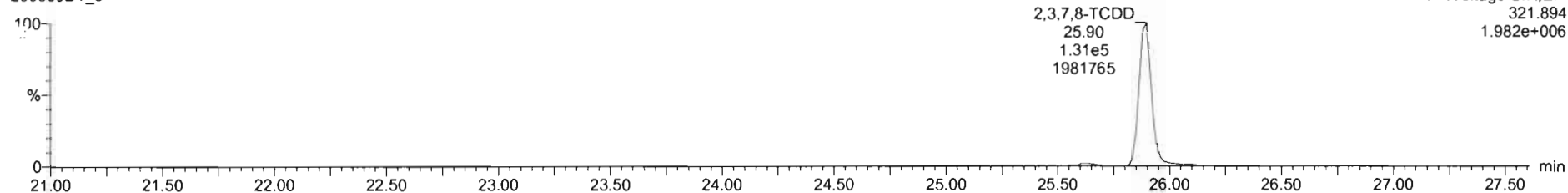
Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

**2,3,7,8-TCDD**

200309D1\_5

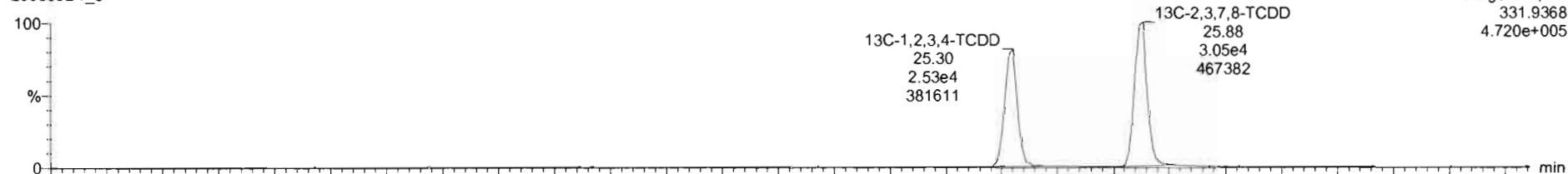


200309D1\_5

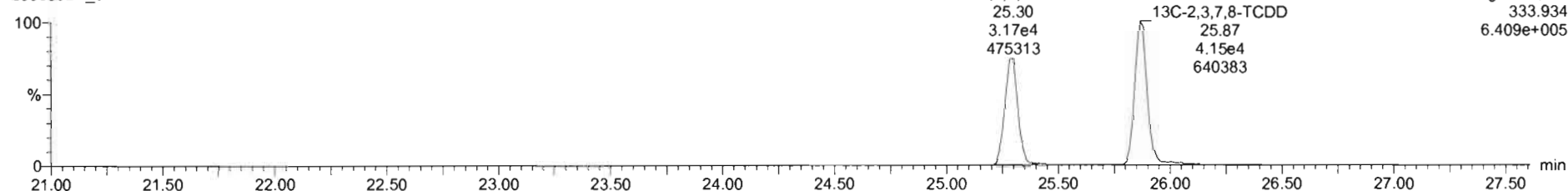


**13C-2,3,7,8-TCDD**

200309D1\_5



200309D1\_5



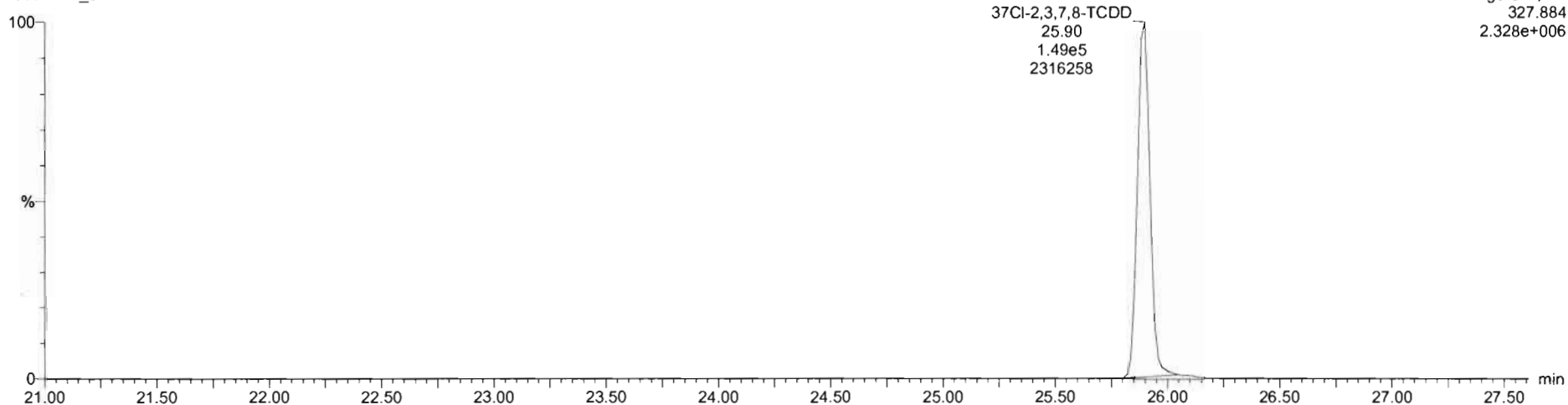
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

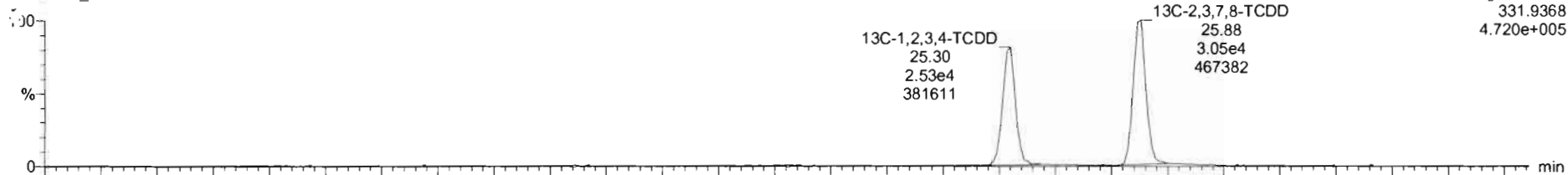
37Cl-2,3,7,8-TCDD

200309D1\_5

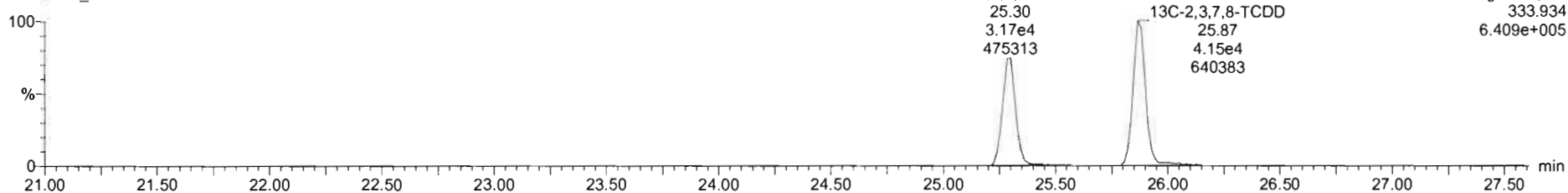


13C-1,2,3,4-TCDD

200309D1\_5



200309D1\_5



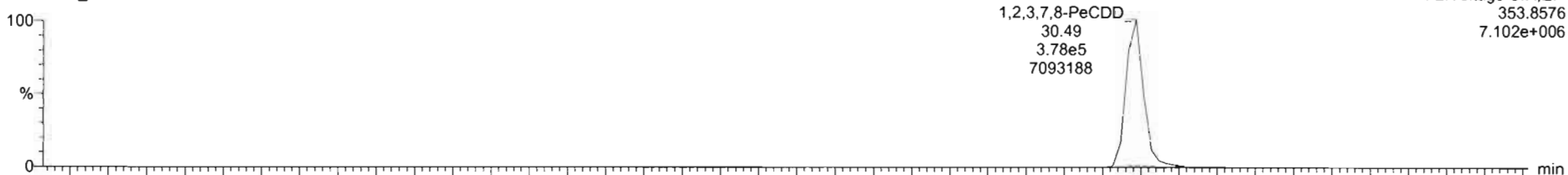
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

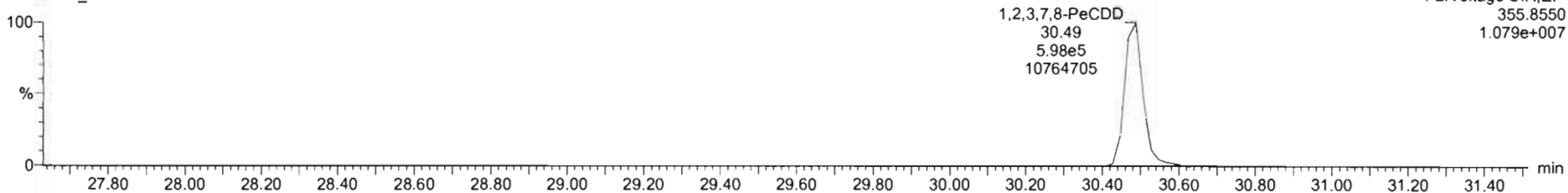
Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

1,2,3,7,8-PeCDD

200309D1\_5

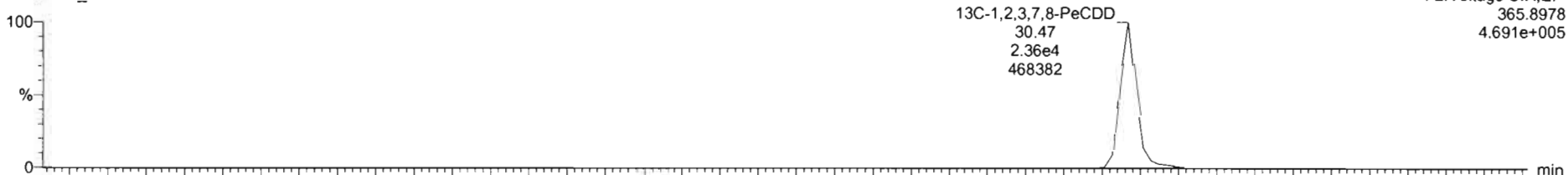


200309D1\_5

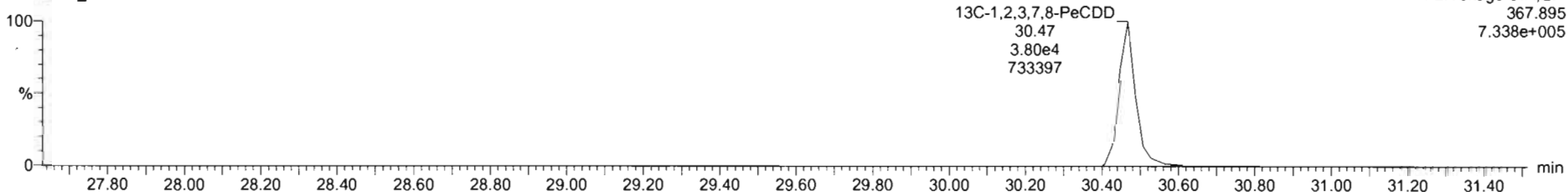


13C-1,2,3,7,8-PeCDD

200309D1\_5



200309D1\_5



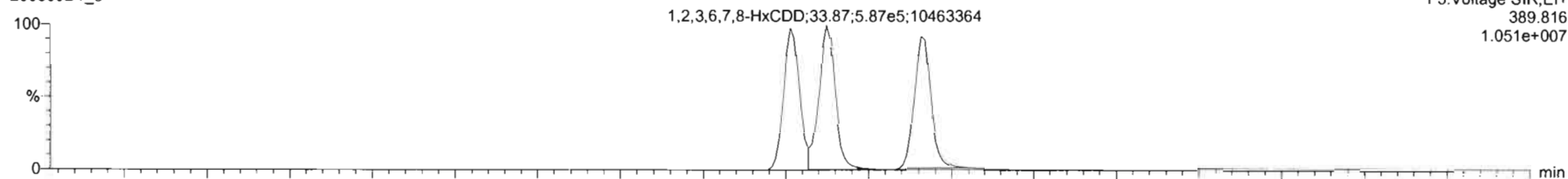
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

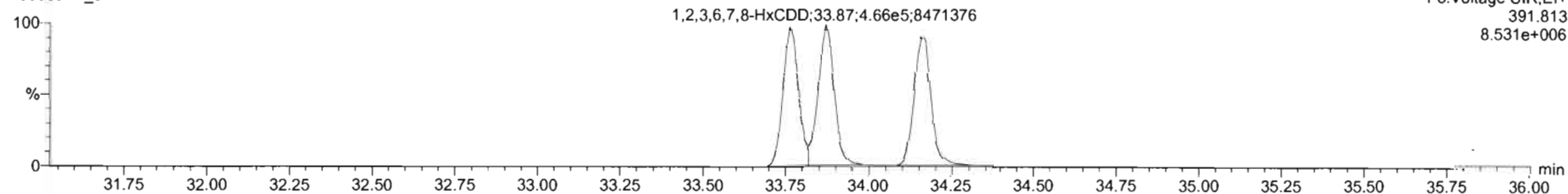
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1,2,3,4,7,8-HxCDD

200309D1\_5

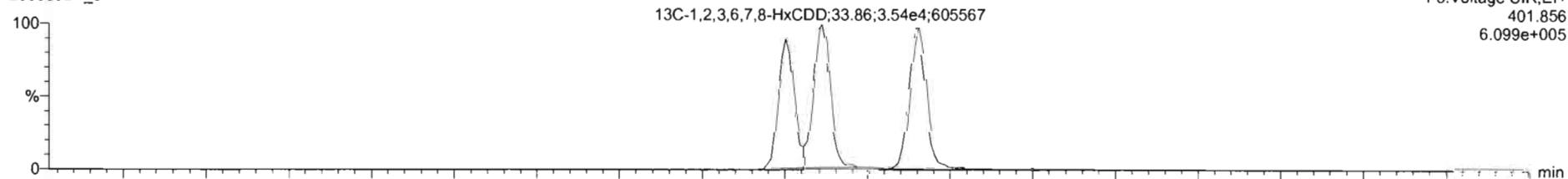


200309D1\_5

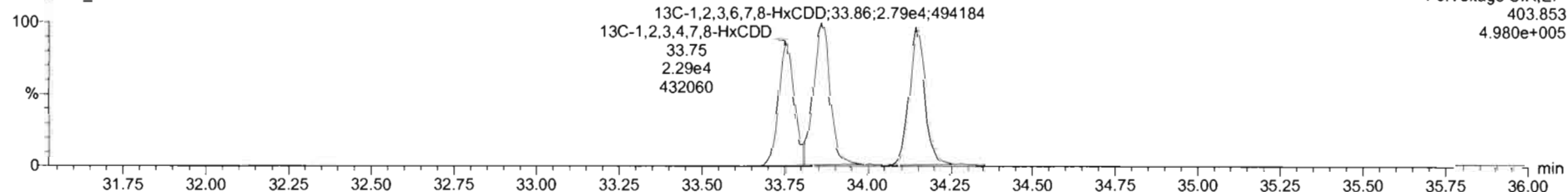


13C-1,2,3,4,7,8-HxCDD

200309D1\_5



200309D1\_5



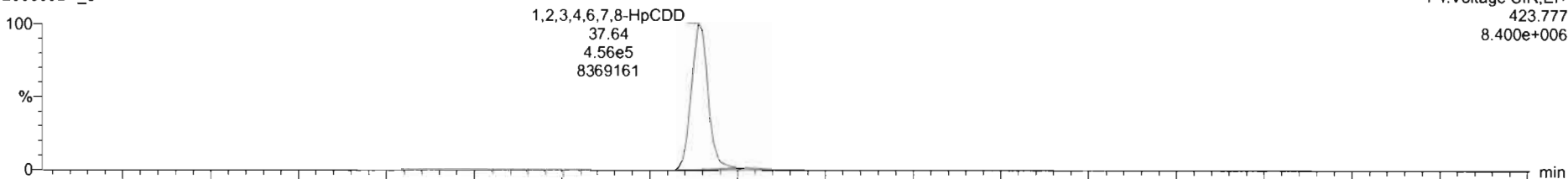
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

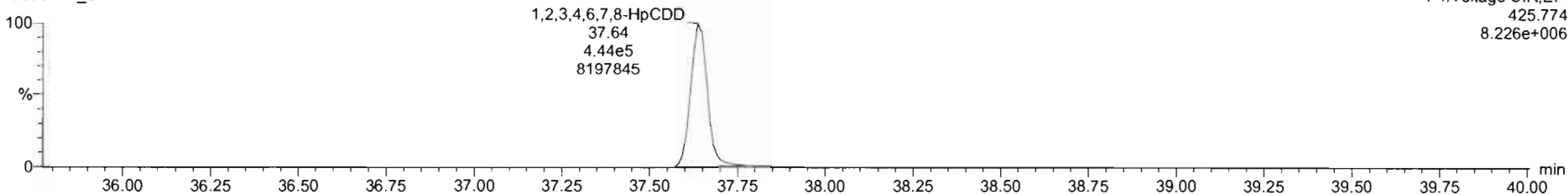
1,2,3,4,6,7,8-HpCDD

200309D1\_5



F4:Voltage SIR,EI+  
423.777  
8.400e+006

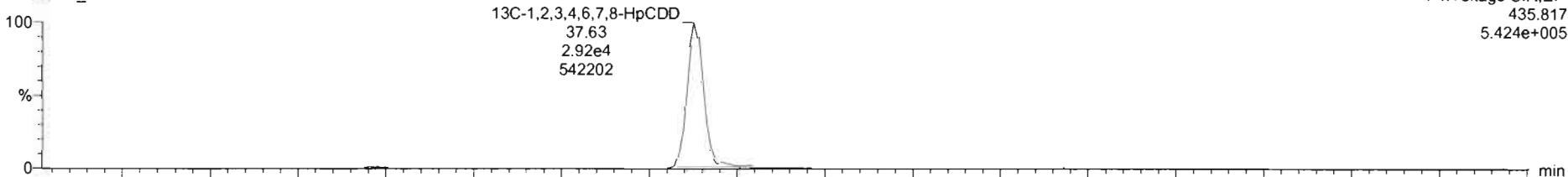
200309D1\_5



F4:Voltage SIR,EI+  
425.774  
8.226e+006

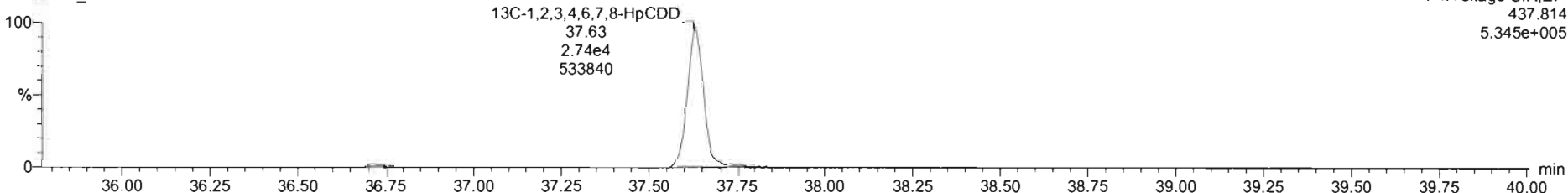
13C-1,2,3,4,6,7,8-HpCDD

200309D1\_5



F4:Voltage SIR,EI+  
435.817  
5.424e+005

200309D1\_5

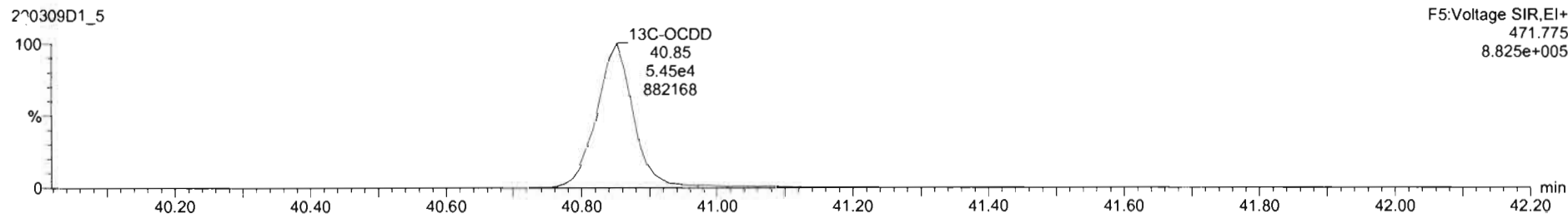
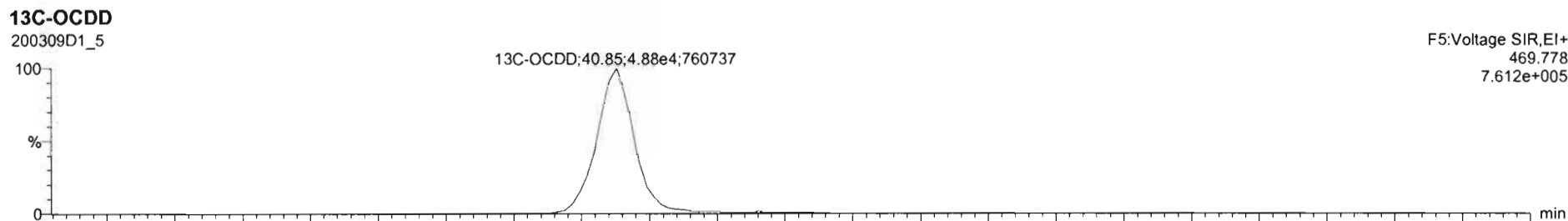
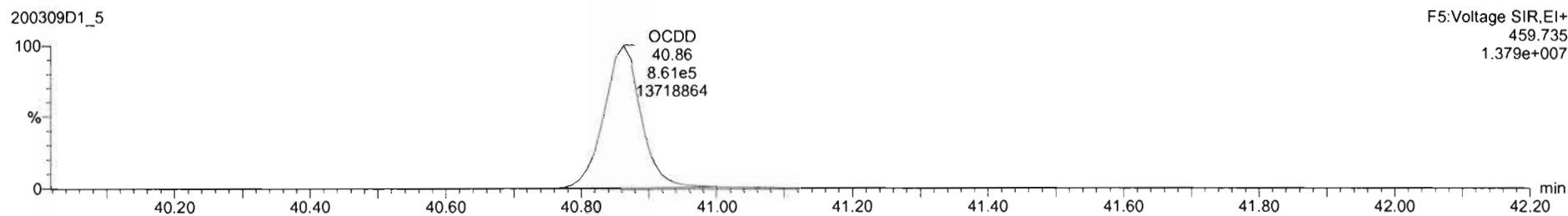
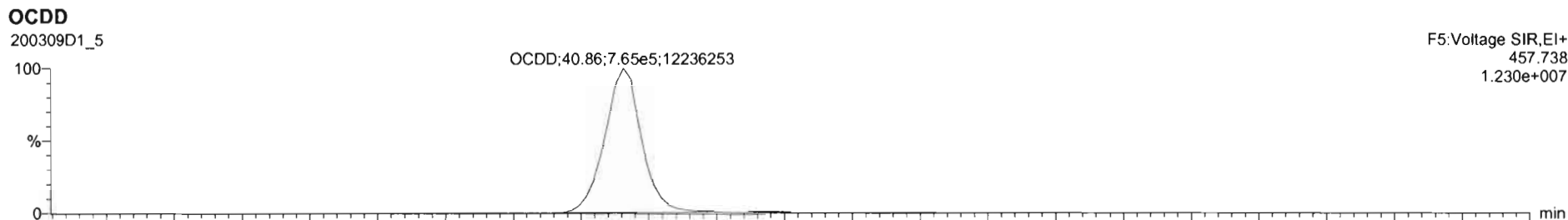


F4:Voltage SIR,EI+  
437.814  
5.345e+005

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307



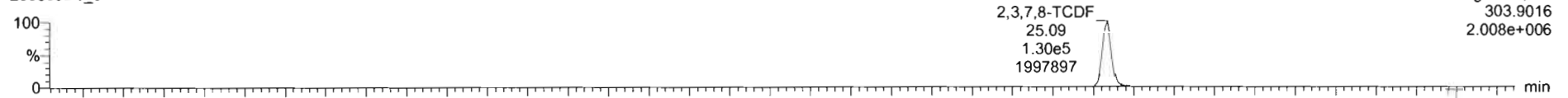
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

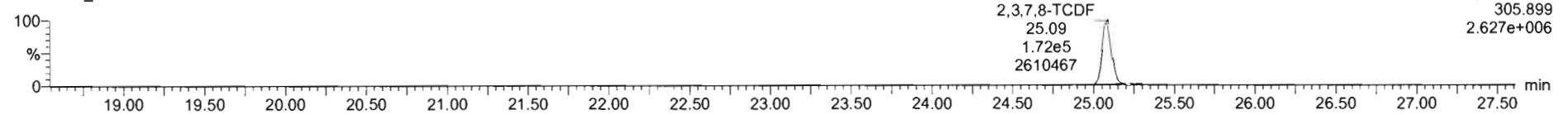
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**2,3,7,8-TCDF**

200309D1\_5

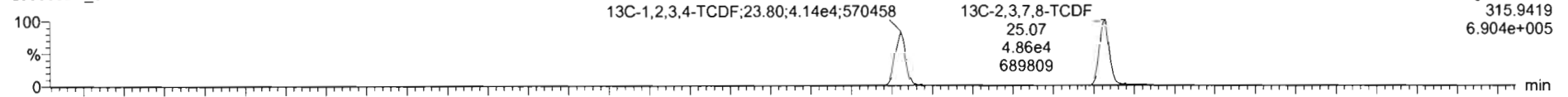


200309D1\_5

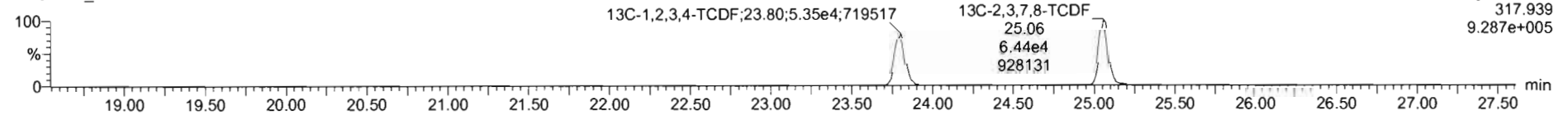


**13C-2,3,7,8-TCDF**

200309D1\_5

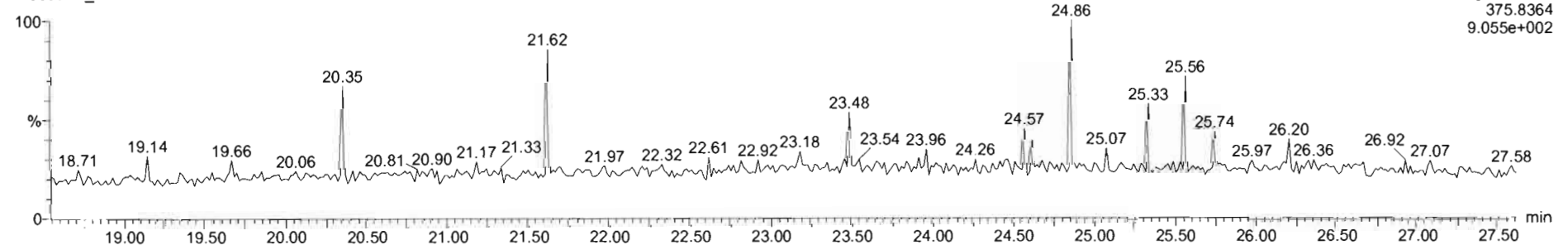


200309D1\_5



**DPE1**

200309D1\_5



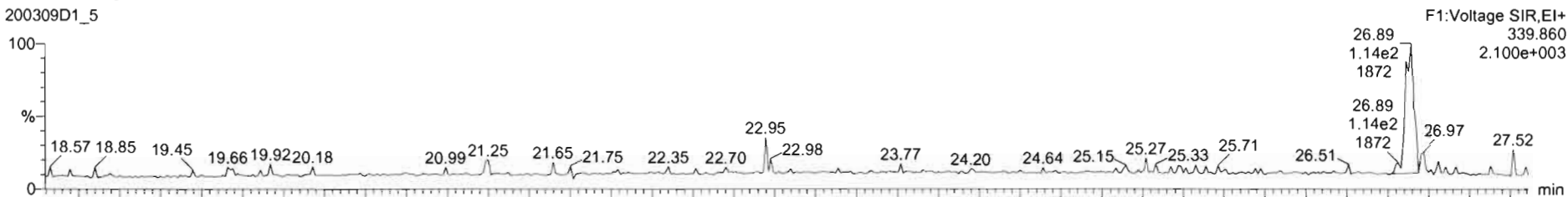
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

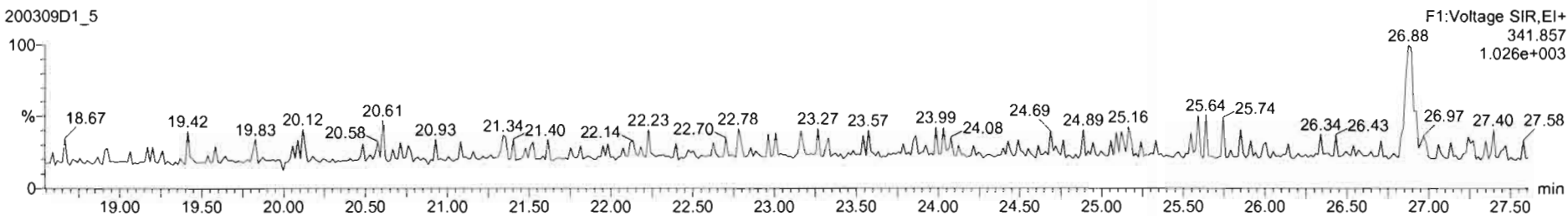
Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

1st Func. Penta-Furans

200309D1\_5

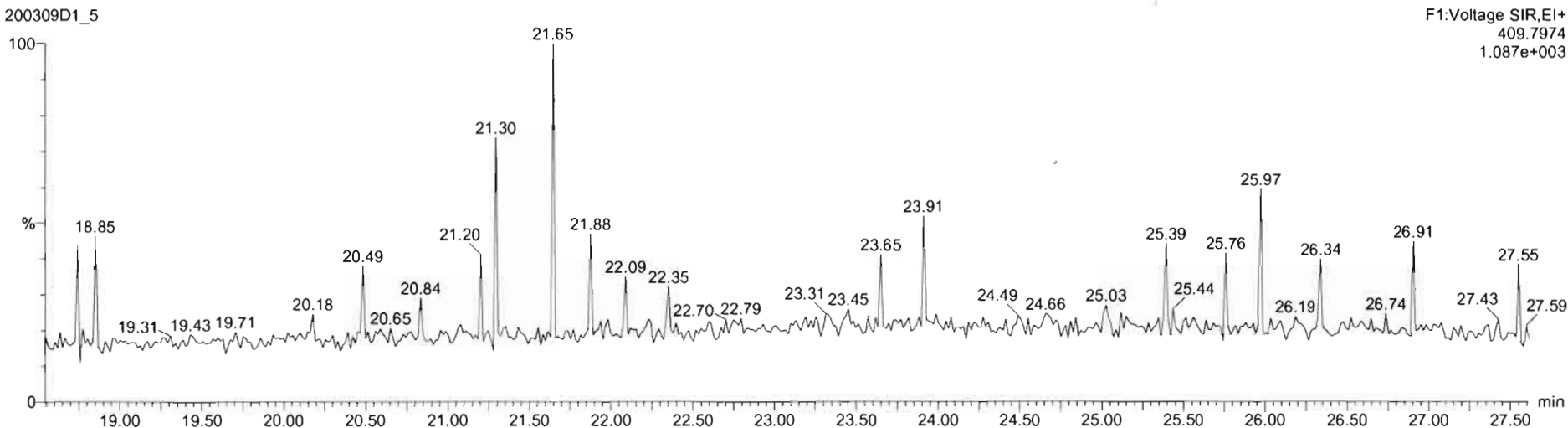


200309D1\_5



DPE6

200309D1\_5





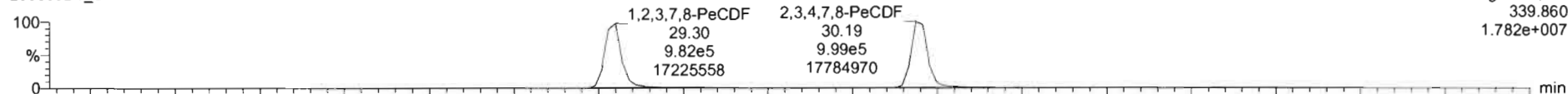
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

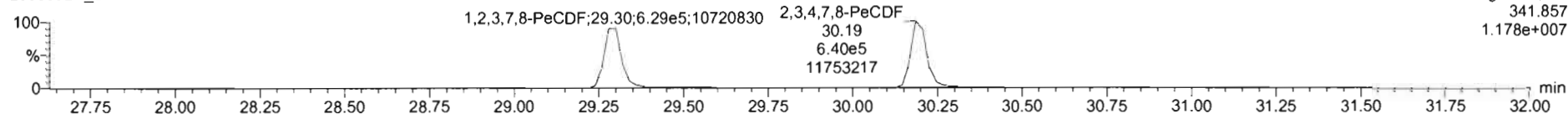
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**1,2,3,7,8-PeCDF**

200309D1\_5

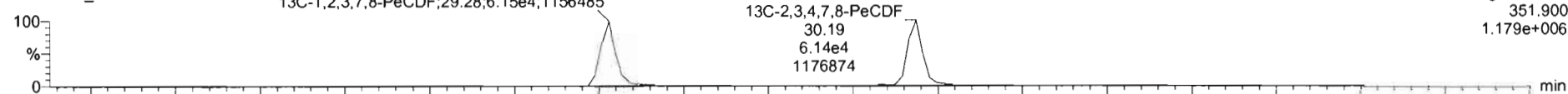


200309D1\_5

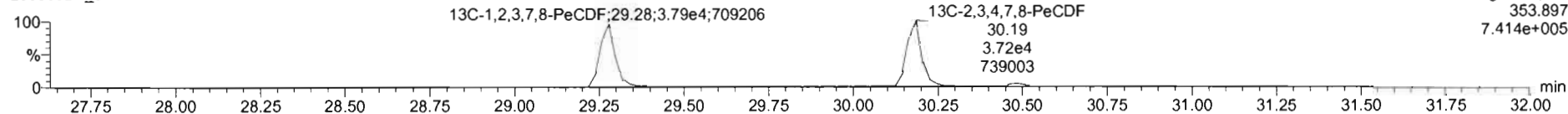


**13C-1,2,3,7,8-PeCDF**

200309D1\_5

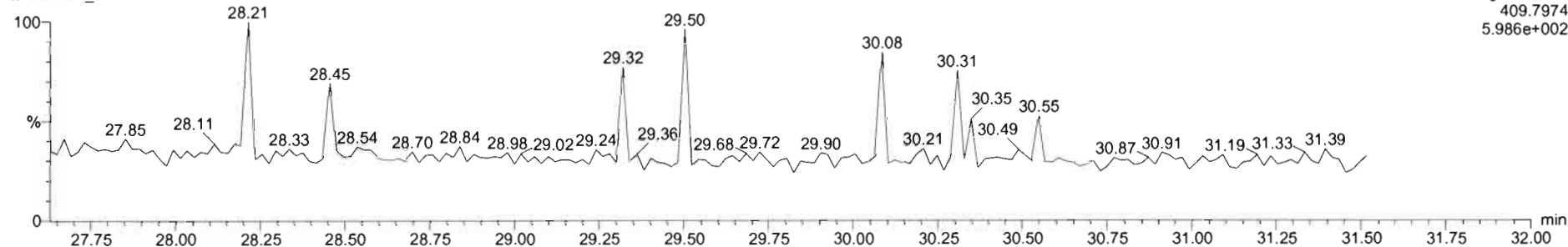


200309D1\_5



**DPE2**

200309D1\_5



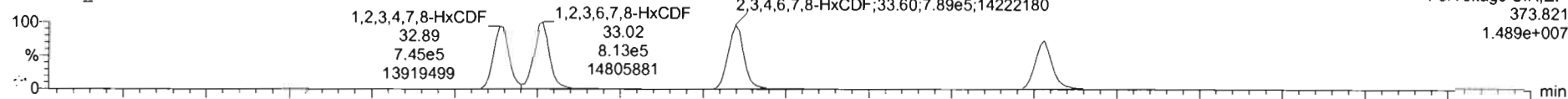
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

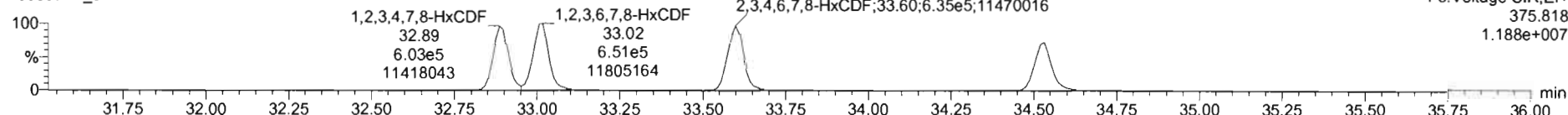
Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

**1,2,3,4,7,8-HxCDF**

200309D1\_5

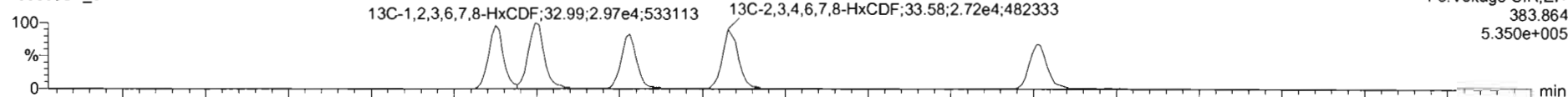


200309D1\_5

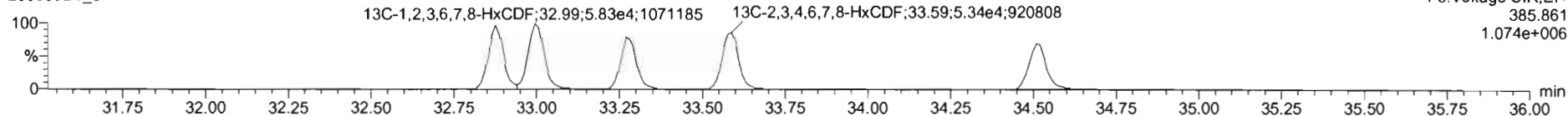


**13C-1,2,3,4,7,8-HxCDF**

200309D1\_5

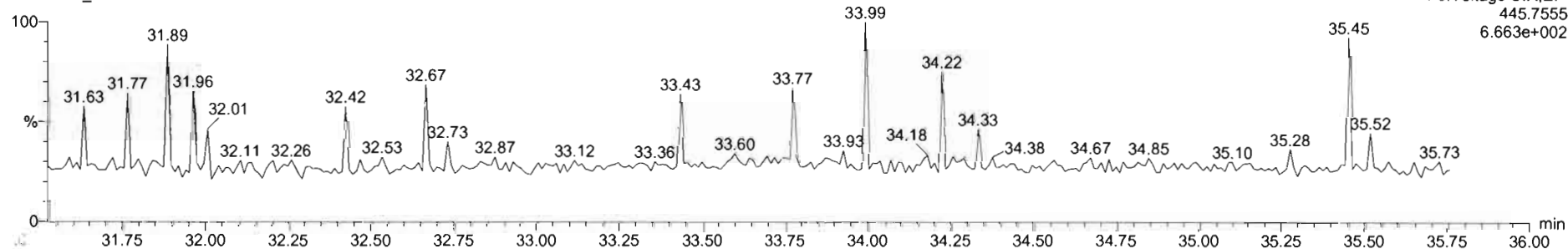


200309D1\_5



**DPE3**

200309D1\_5

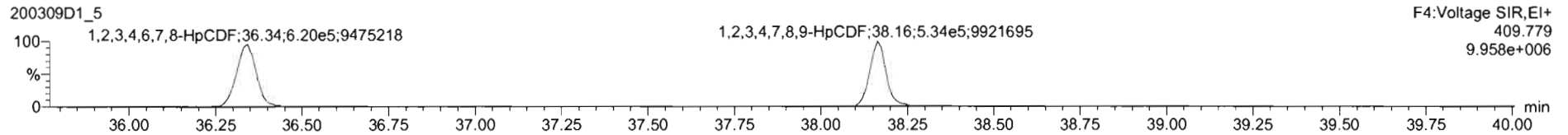
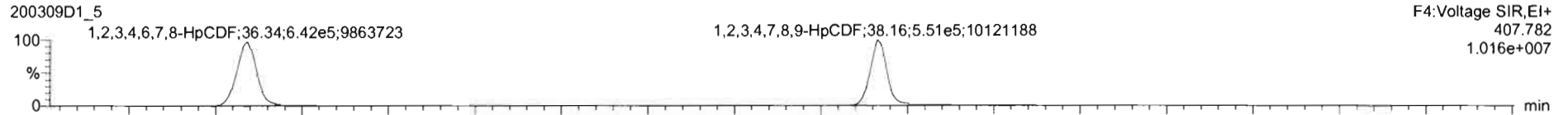


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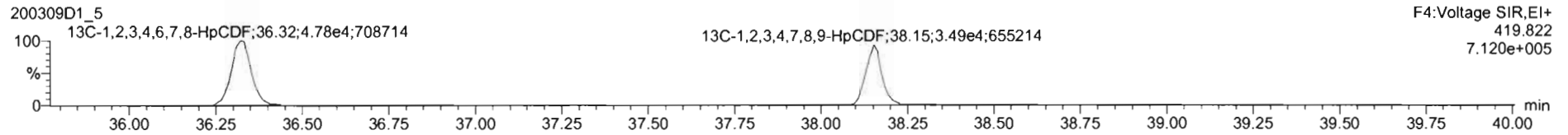
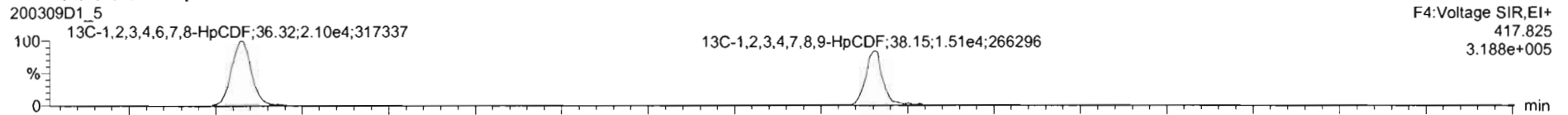
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_5, Date: 09-Mar-2020, Time: 15:28:28, ID: ST200309D1-5 1613 CS5 19L2307, Description: 1613 CS5 19L2307

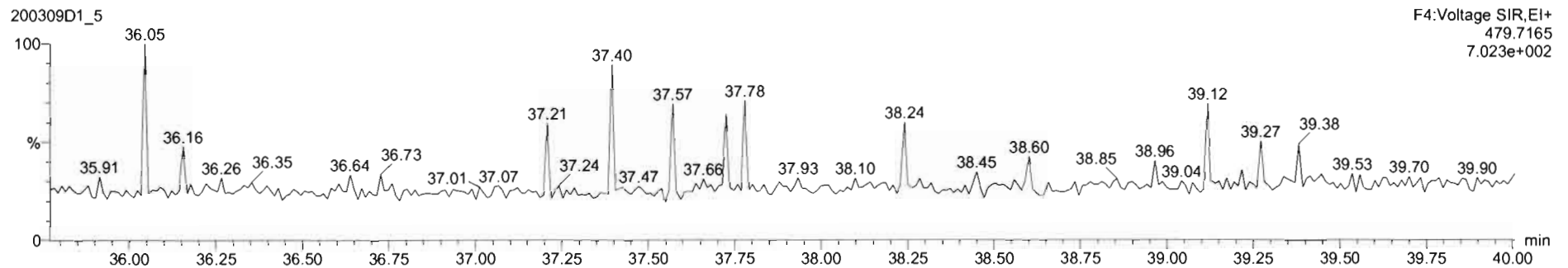
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



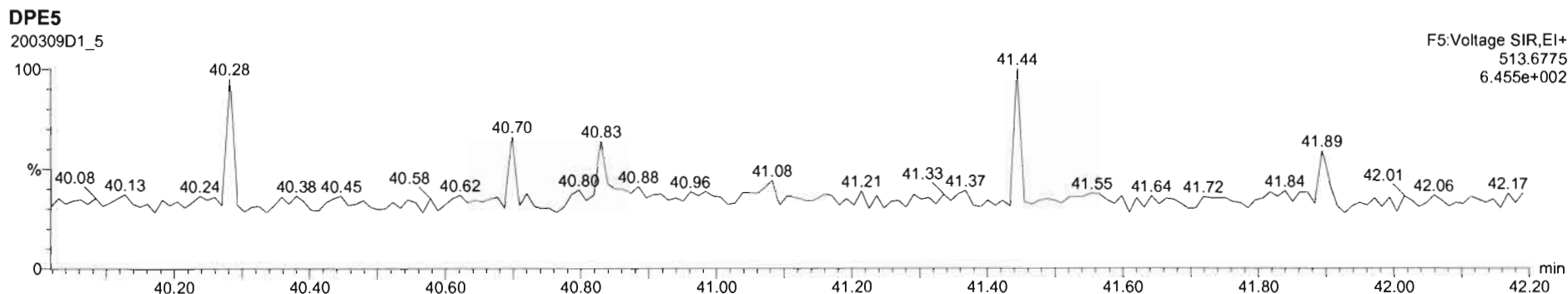
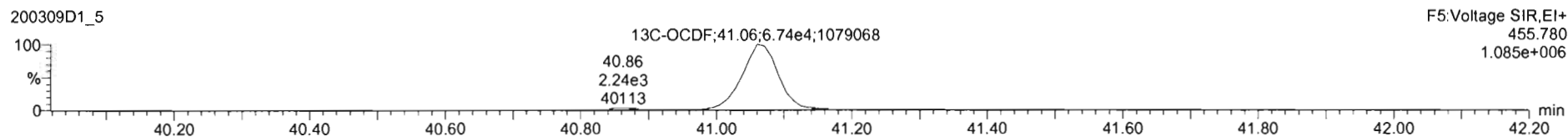
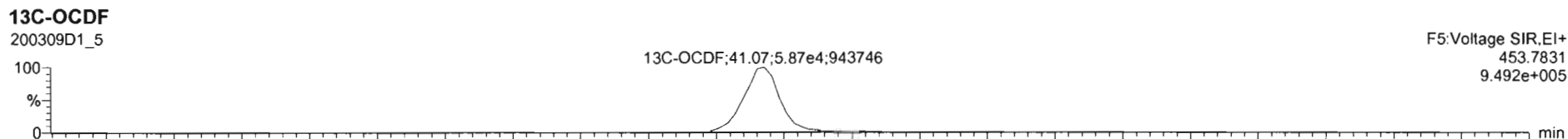
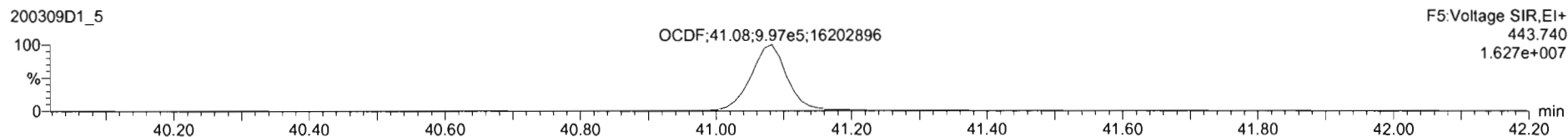
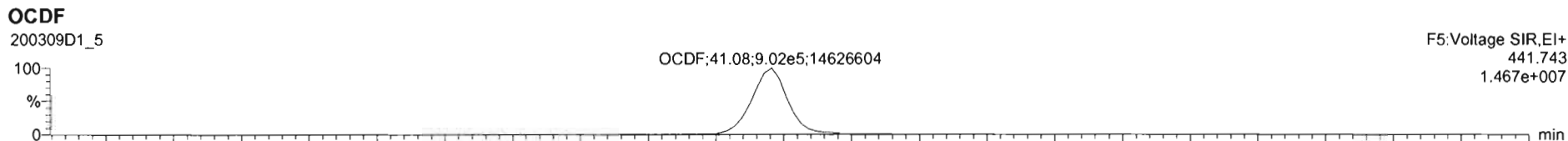
**DPE4**



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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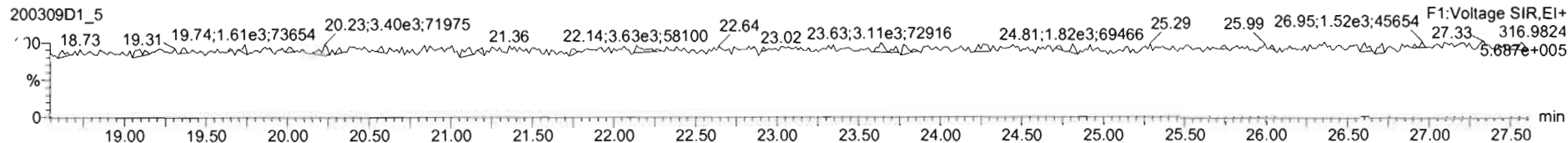


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

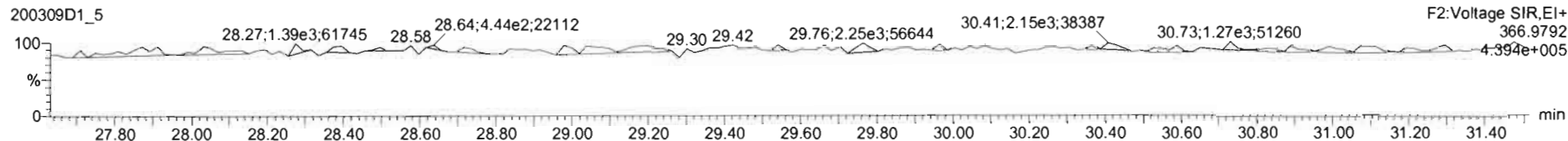
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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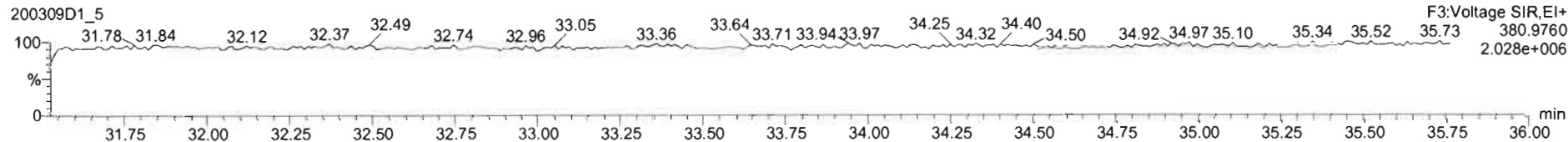
PFK1



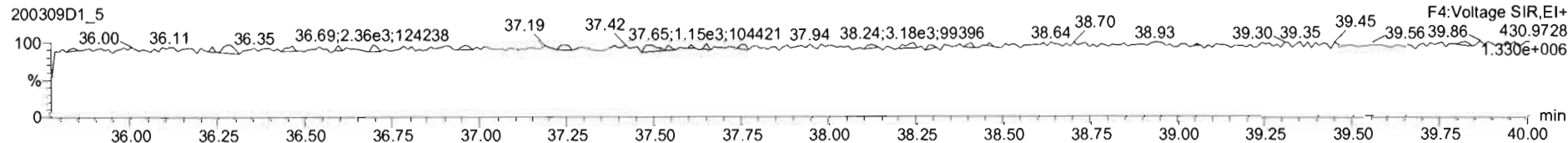
PFK2



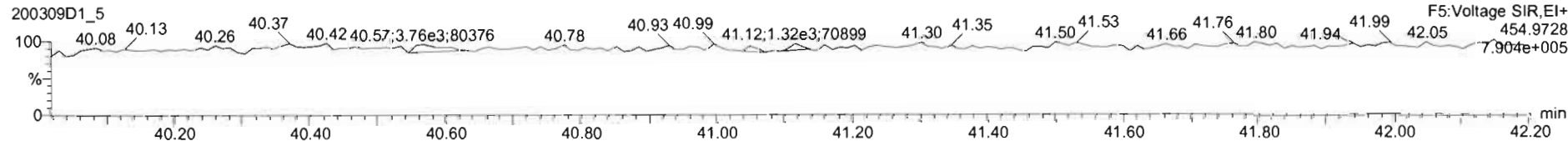
PFK3



PFK4



PFK5



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

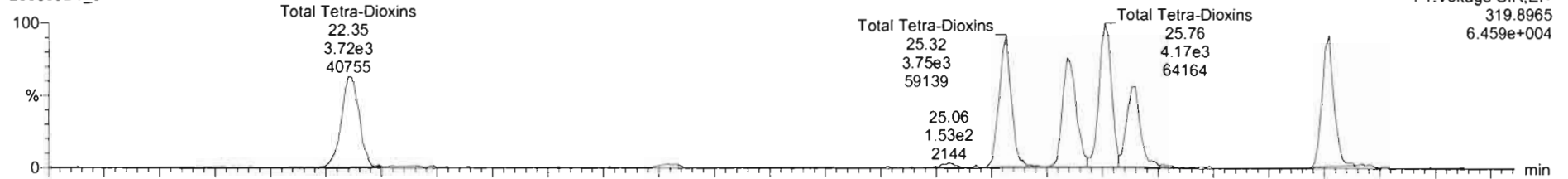
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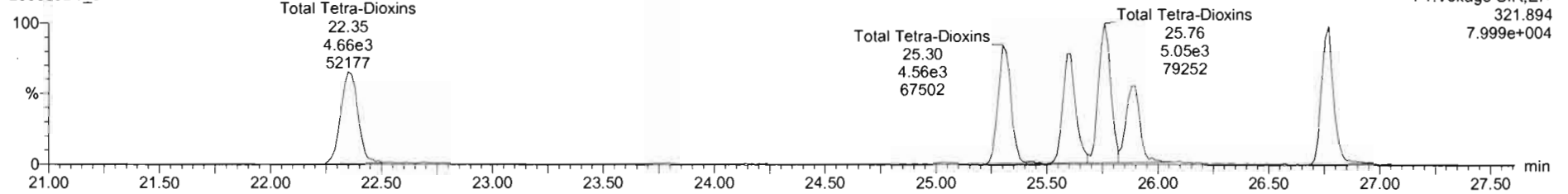
Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

**2,3,7,8-TCDD**

200309D1\_6

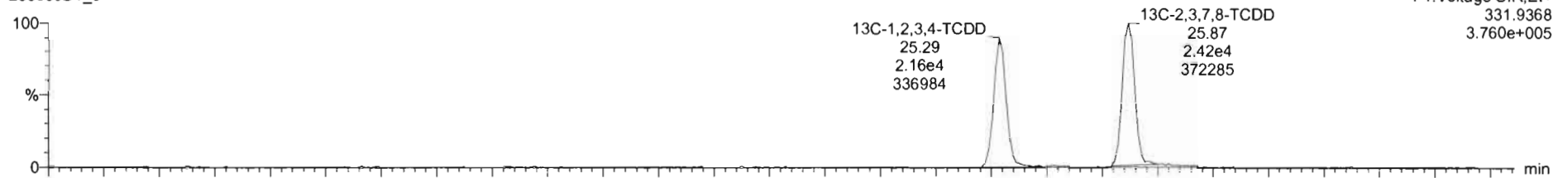


200309D1\_6

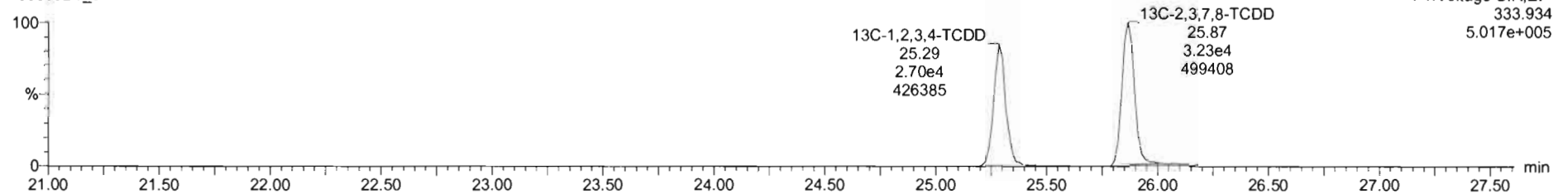


**13C-2,3,7,8-TCDD**

200309D1\_6



200309D1\_6



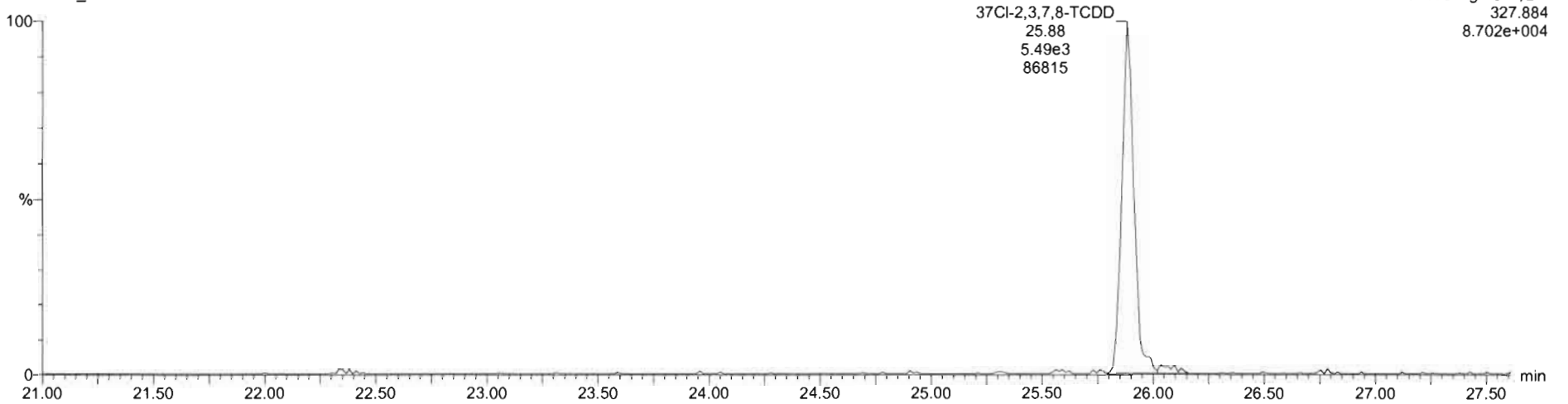
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Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

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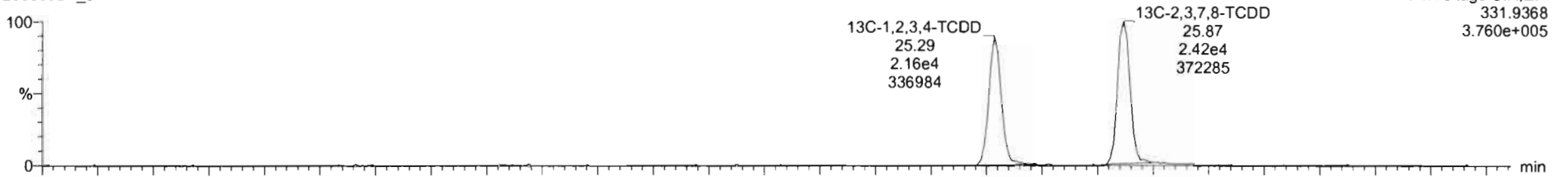
**37Cl-2,3,7,8-TCDD**

200309D1\_6

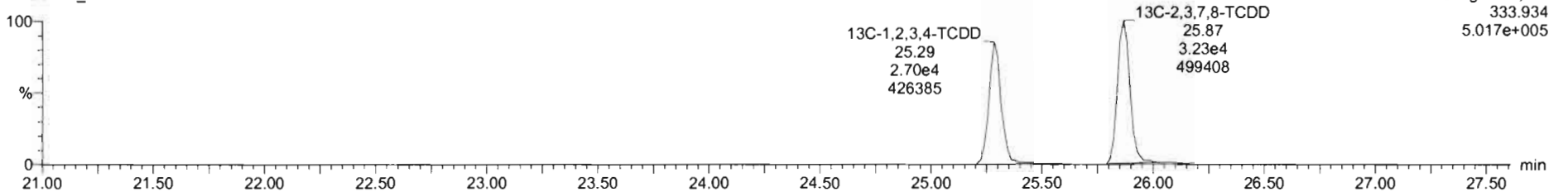


**13C-1,2,3,4-TCDD**

200309D1\_6



200309D1\_6

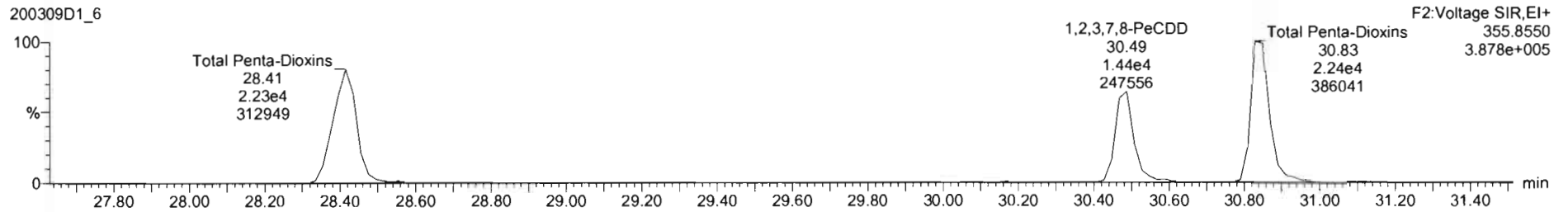
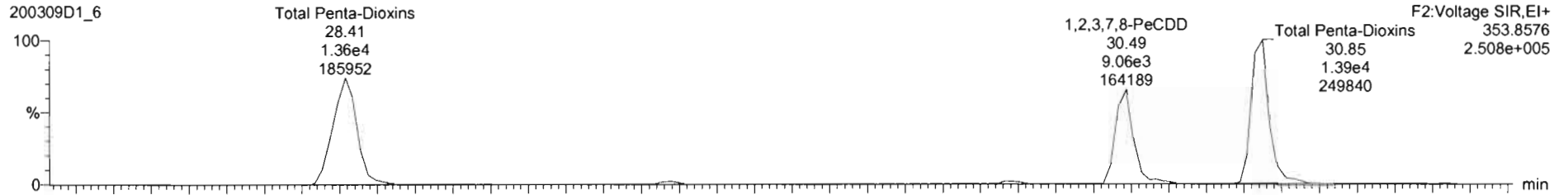


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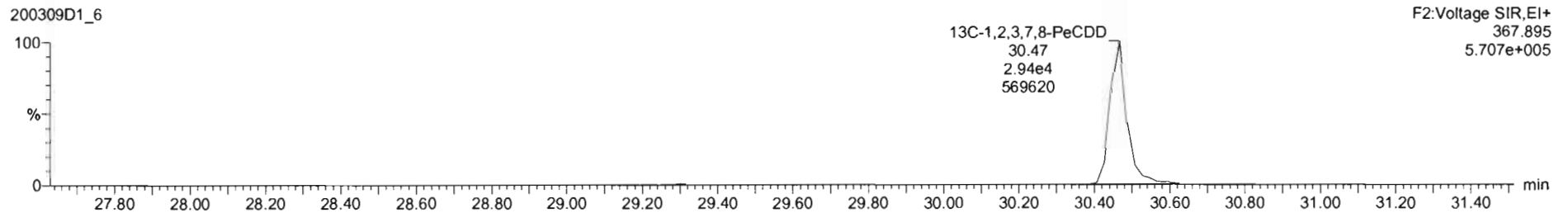
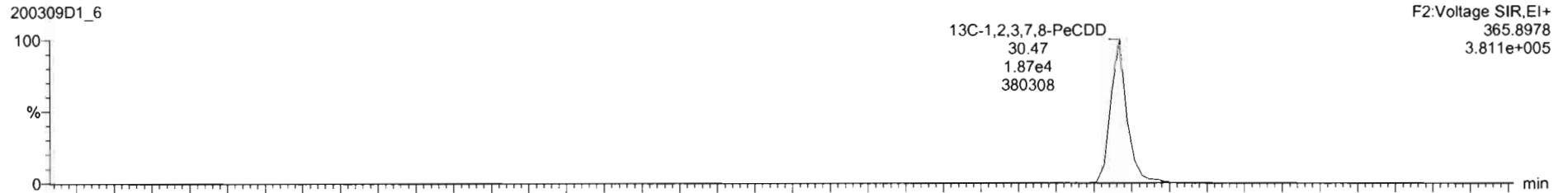
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Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,2,3,7,8-PeCDD



13C-1,2,3,7,8-PeCDD





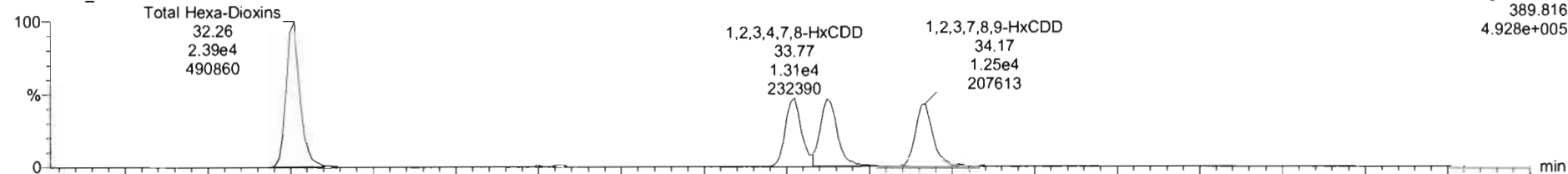
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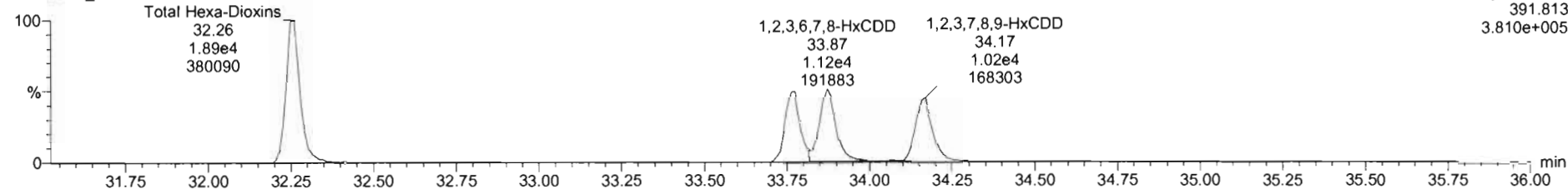
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1,2,3,4,7,8-HxCDD

200309D1\_6

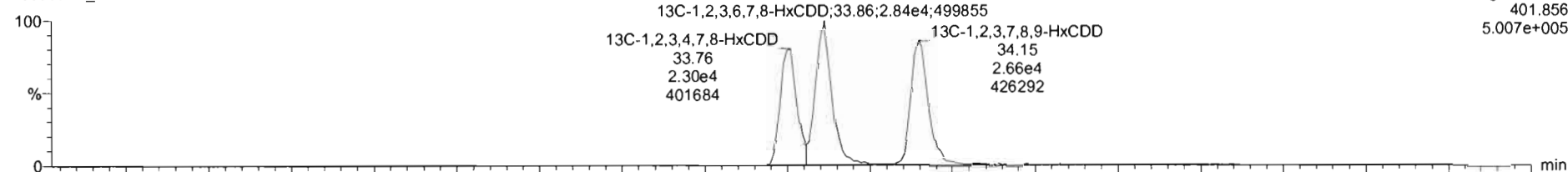


200309D1\_6

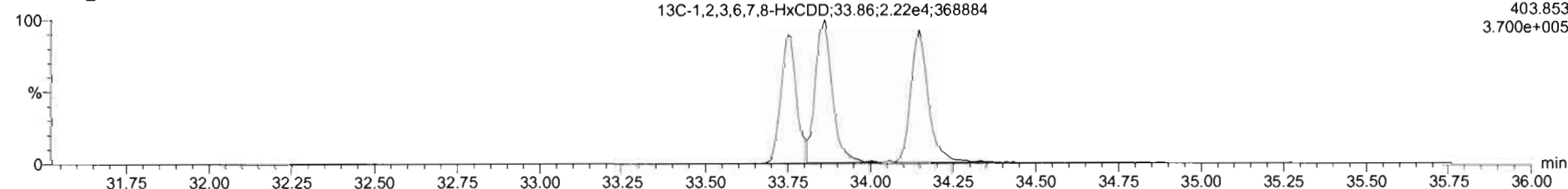


13C-1,2,3,4,7,8-HxCDD

200309D1\_6



200309D1\_6



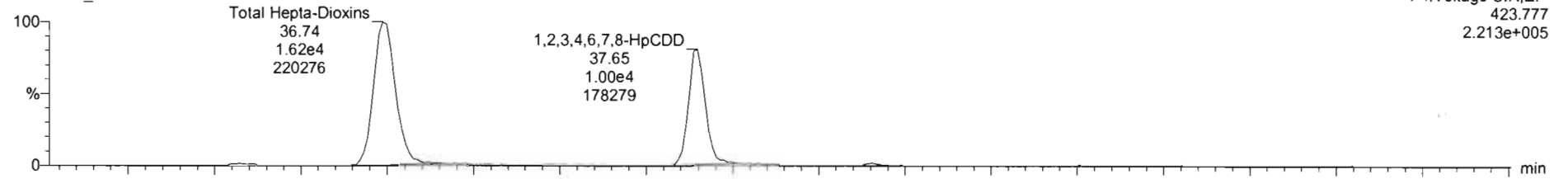
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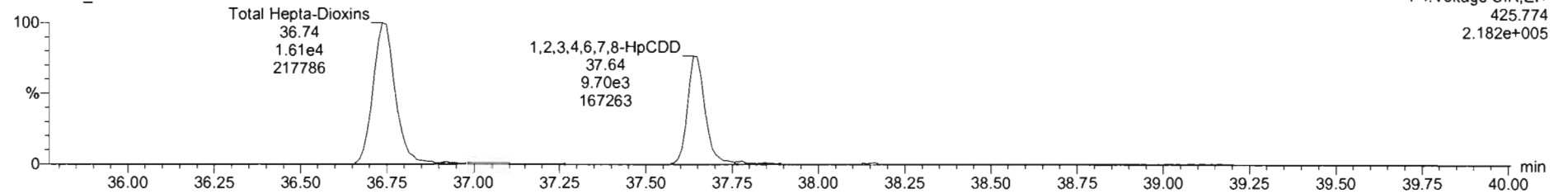
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1,2,3,4,6,7,8-HpCDD

200309D1\_6

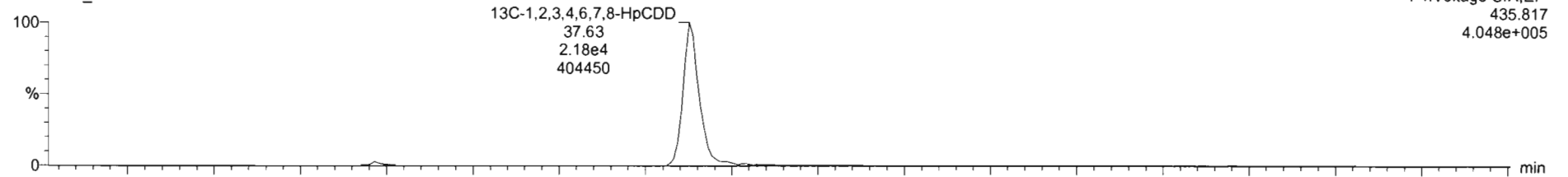


200309D1\_6

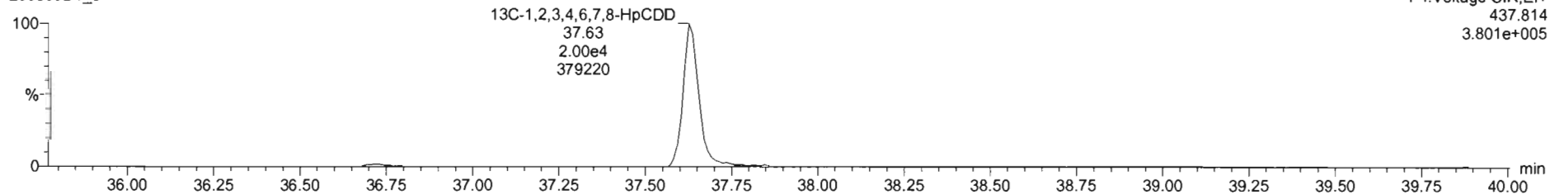


13C-1,2,3,4,6,7,8-HpCDD

200309D1\_6



200309D1\_6



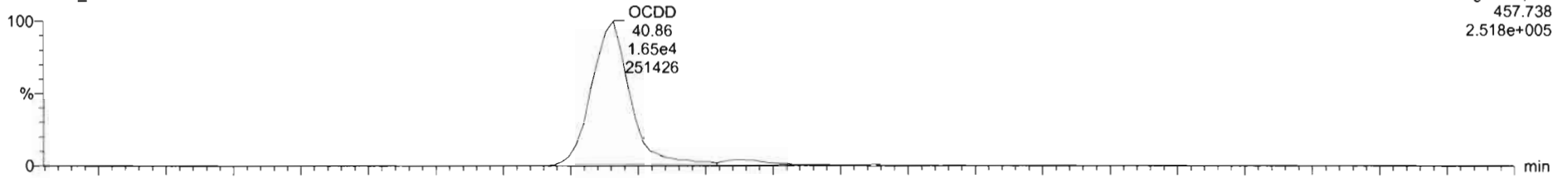
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Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

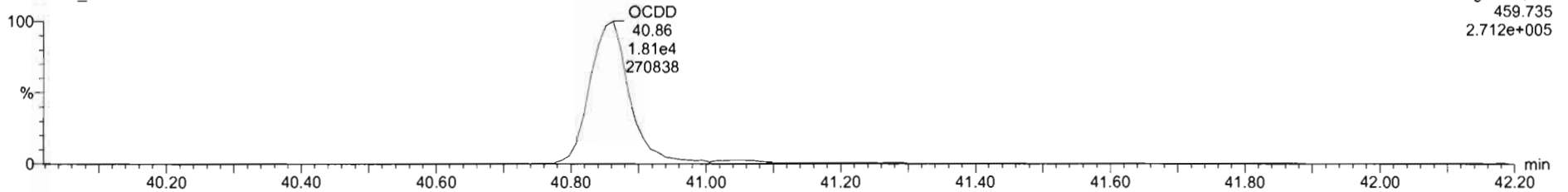
**OCDD**

200309D1\_6



F5:Voltage SIR,EI+  
457.738  
2.518e+005

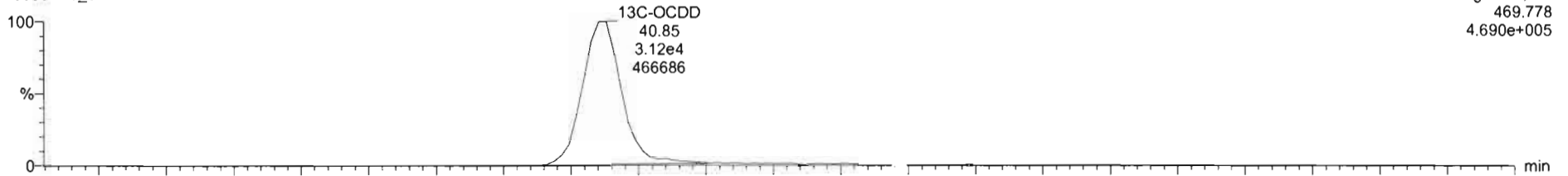
200309D1\_6



F5:Voltage SIR,EI+  
459.735  
2.712e+005

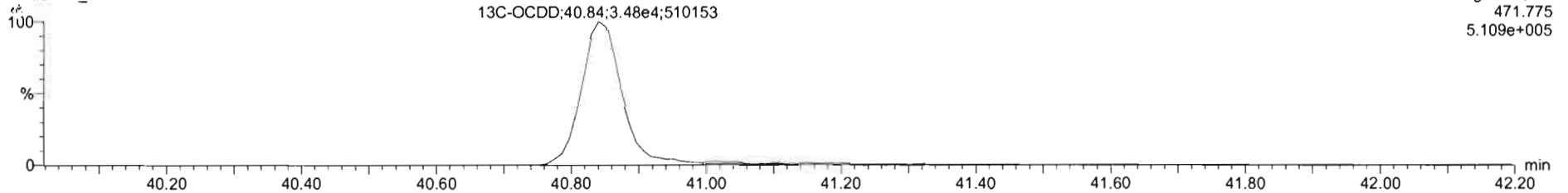
**13C-OCDD**

200309D1\_6



F5:Voltage SIR,EI+  
469.778  
4.690e+005

200309D1\_6



F5:Voltage SIR,EI+  
471.775  
5.109e+005

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

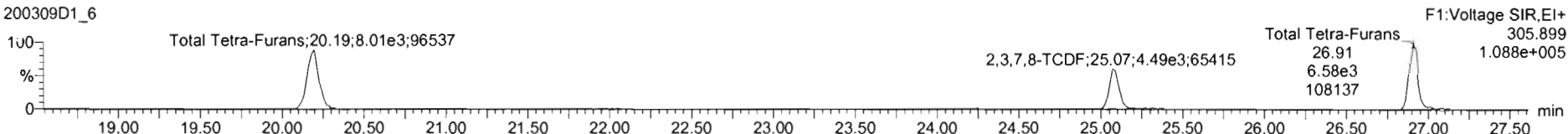
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**2,3,7,8-TCDF**

200309D1\_6

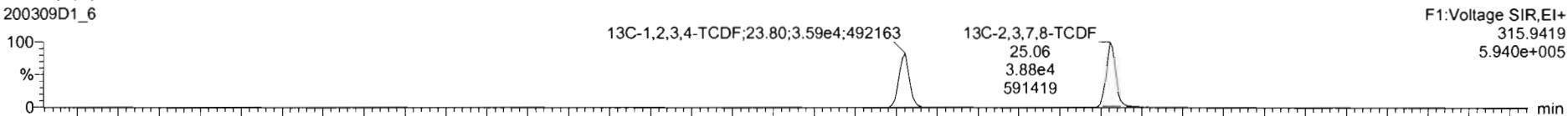


200309D1\_6

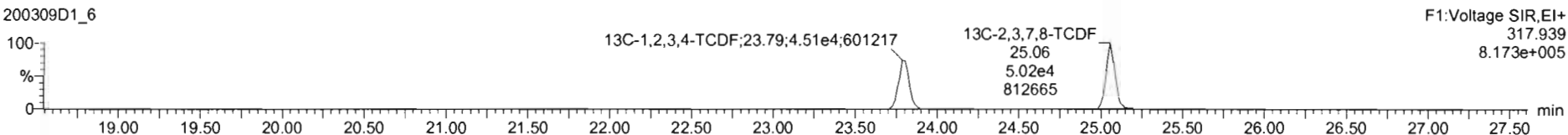


**13C-2,3,7,8-TCDF**

200309D1\_6

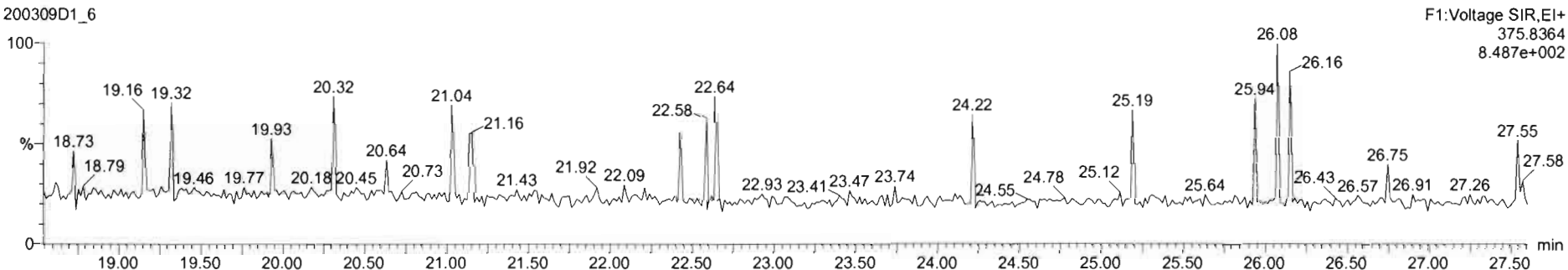


200309D1\_6



**DPE1**

200309D1\_6



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

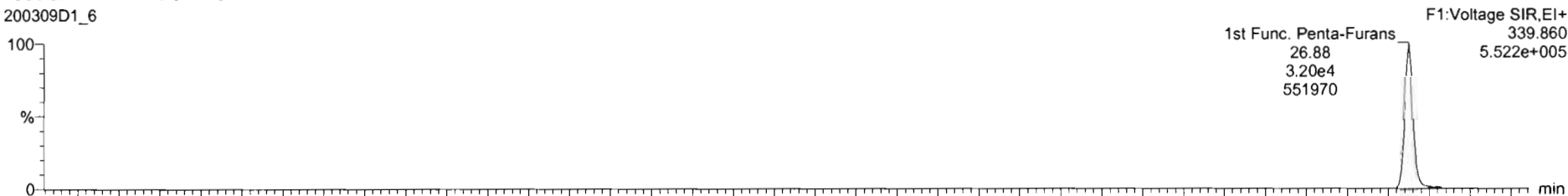
Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time

Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

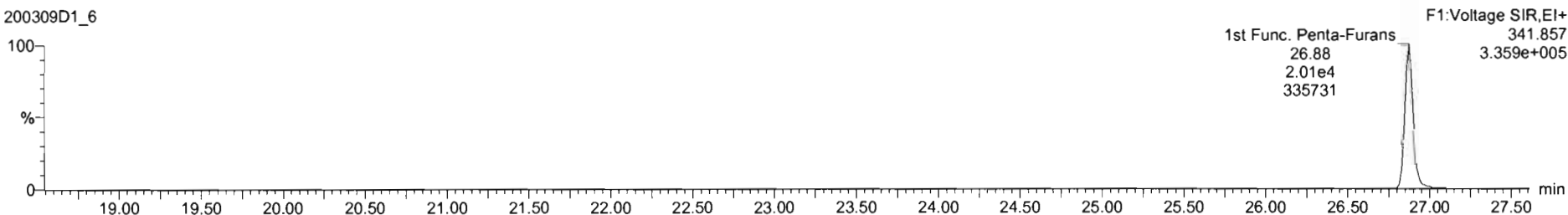
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1st Func. Penta-Furans

200309D1\_6

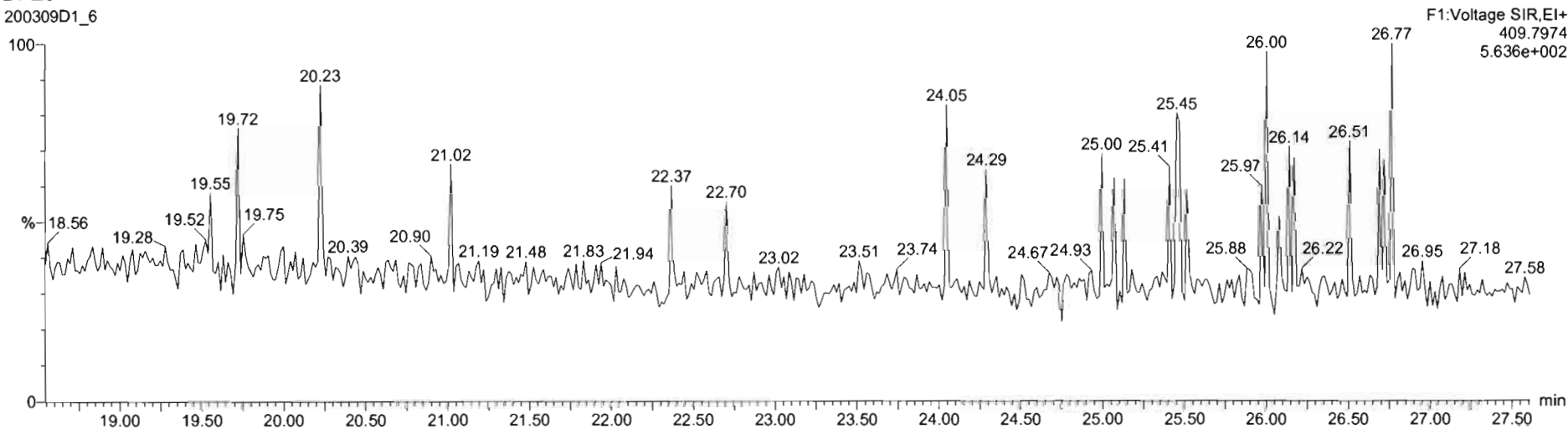


200309D1\_6



DPE6

200309D1\_6



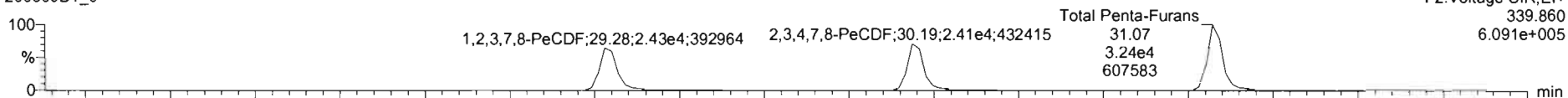
Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_CRV.qld

Last Altered: Monday, March 09, 2020 16:58:54 Pacific Daylight Time  
Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

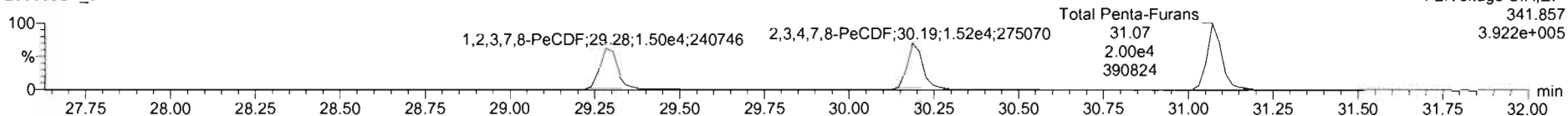
**1,2,3,7,8-PeCDF**

200309D1\_6



F2:Voltage SIR,EI+  
339.860  
6.091e+005

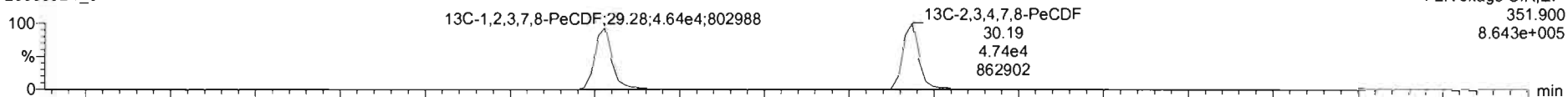
200309D1\_6



F2:Voltage SIR,EI+  
341.857  
3.922e+005

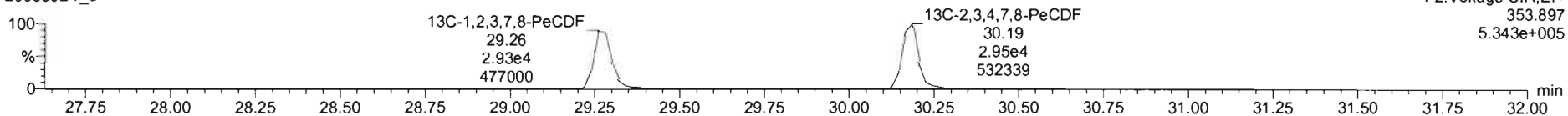
**13C-1,2,3,7,8-PeCDF**

200309D1\_6



F2:Voltage SIR,EI+  
351.900  
8.643e+005

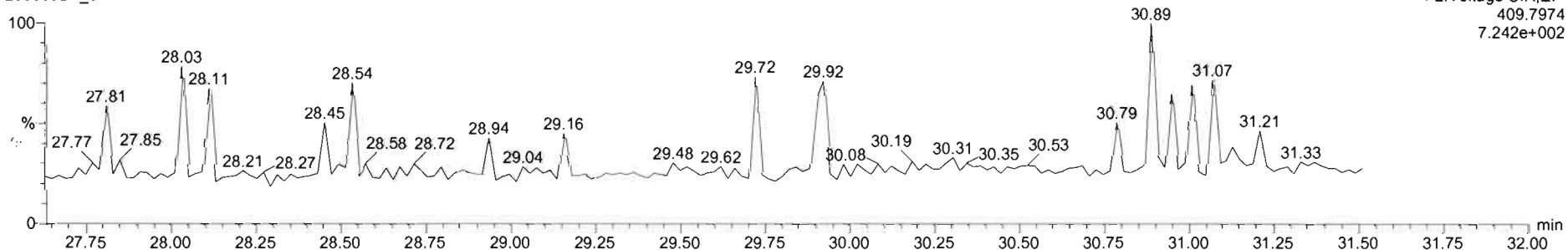
200309D1\_6



F2:Voltage SIR,EI+  
353.897  
5.343e+005

**DPE2**

200309D1\_6



F2:Voltage SIR,EI+  
409.7974  
7.242e+002

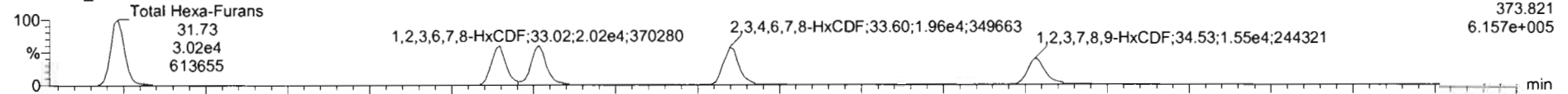
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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

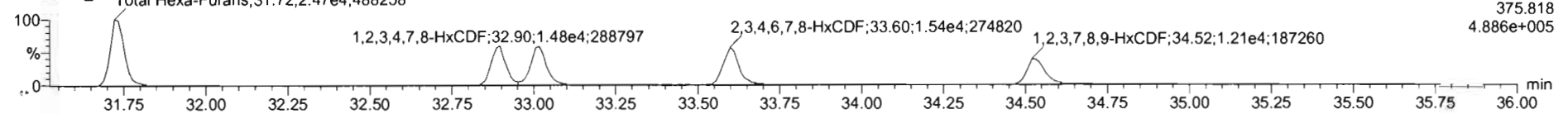
Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1,2,3,4,7,8-HxCDF

200309D1\_6

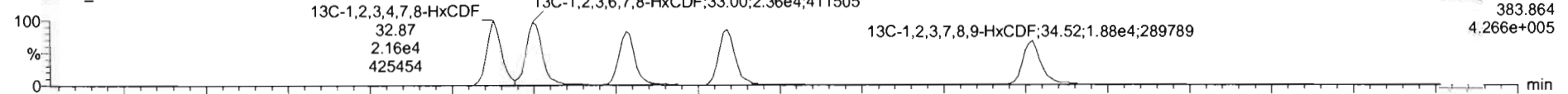


200309D1\_6

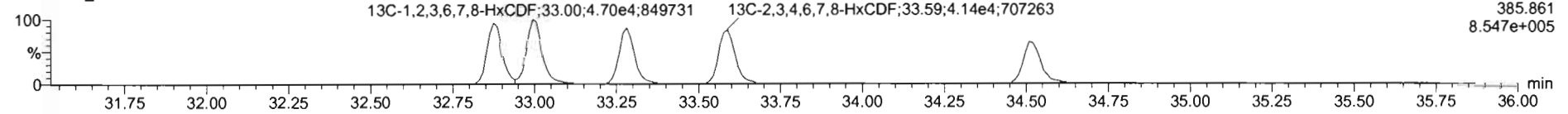


13C-1,2,3,4,7,8-HxCDF

200309D1\_6

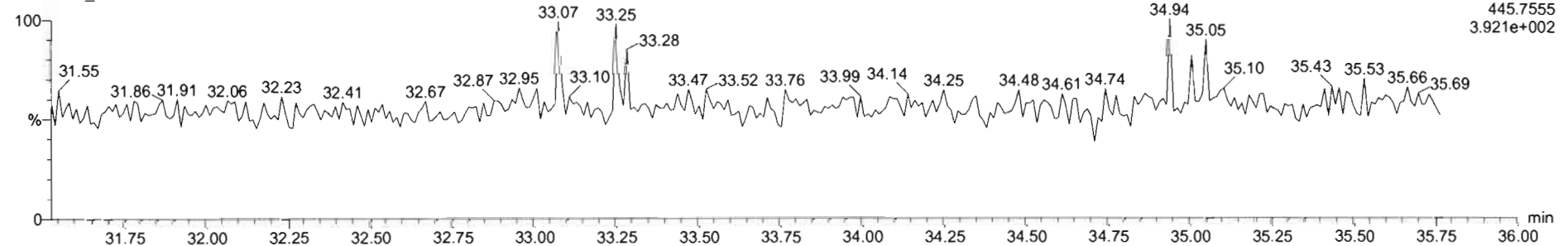


200309D1\_6



DPE3

200309D1\_6

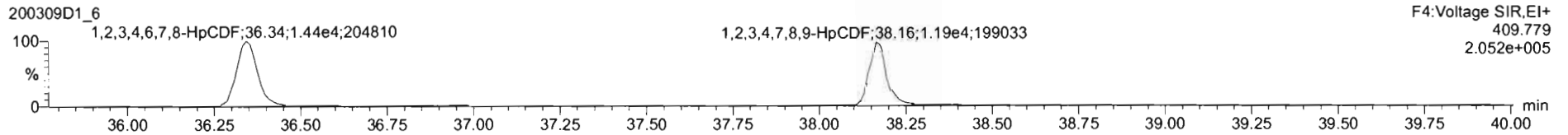
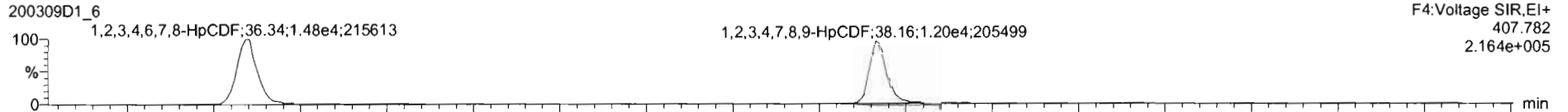


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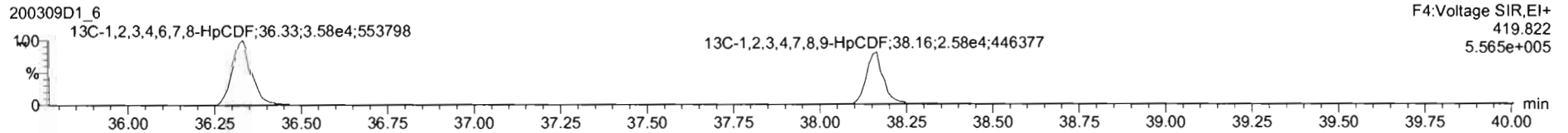
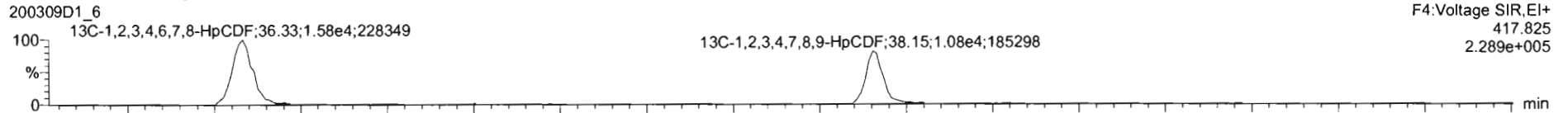
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Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305

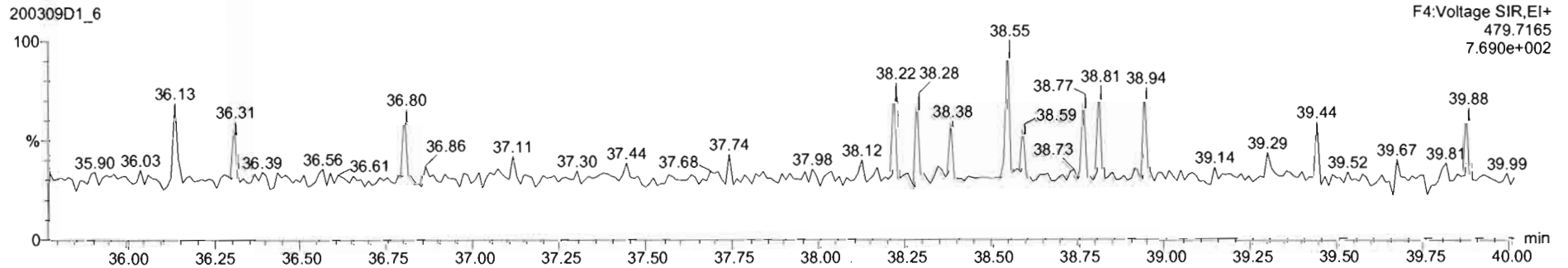
**1,2,3,4,6,7,8-HpCDF**



**13C-1,2,3,4,6,7,8-HpCDF**



**DPE4**

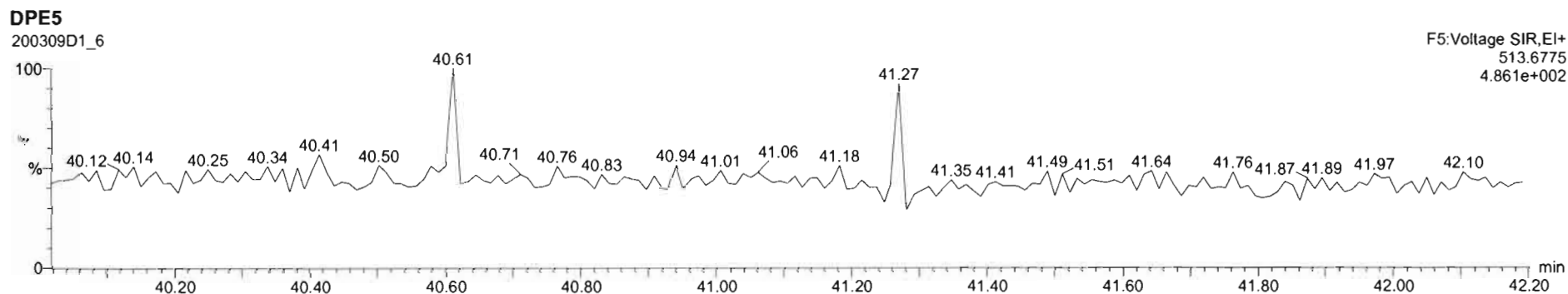
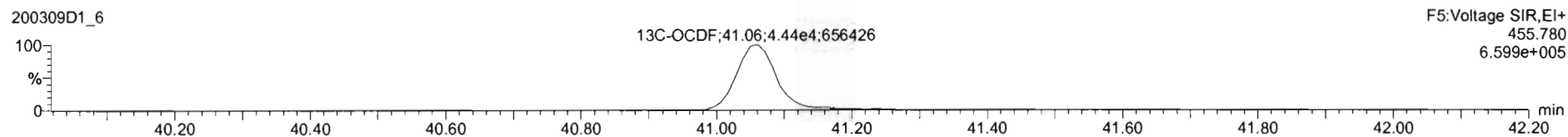
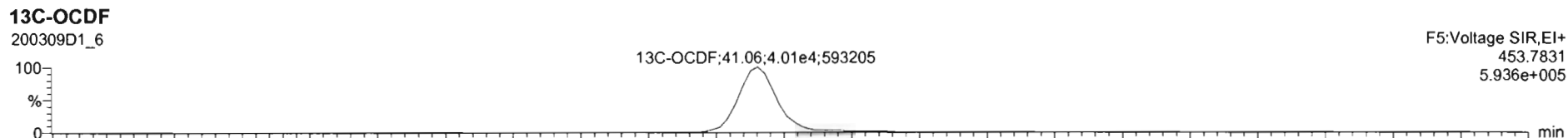
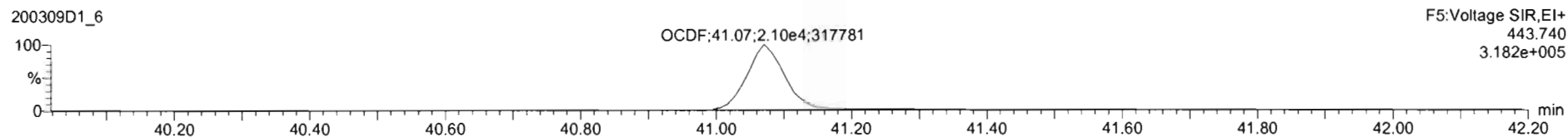
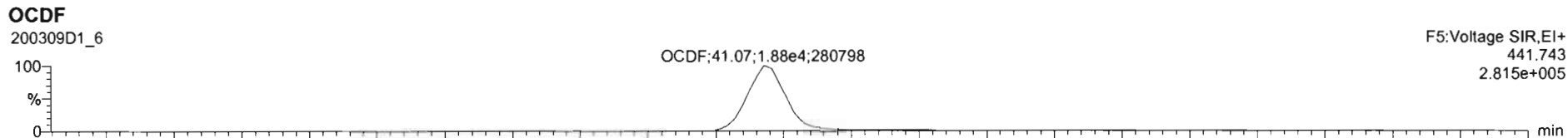




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Printed: Monday, March 09, 2020 17:00:26 Pacific Daylight Time

Name: 200309D1\_6, Date: 09-Mar-2020, Time: 16:13:17, ID: ST200309D1-6 1613 CS3 19L2305, Description: 1613 CS3 19L2305



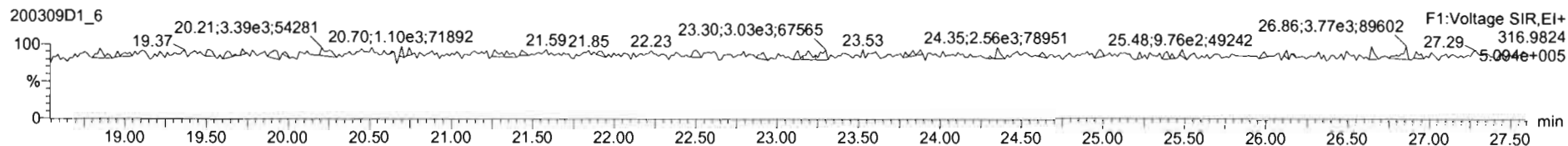
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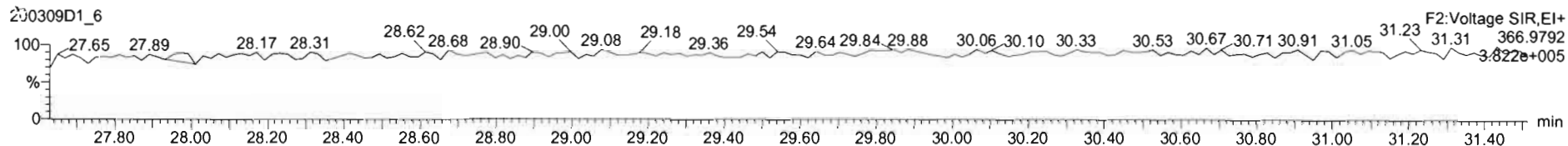
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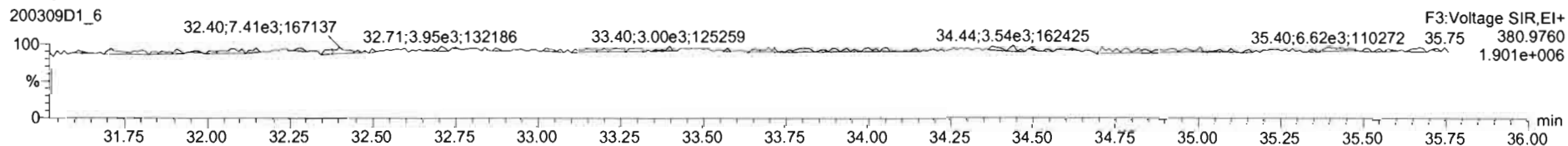
PFK1



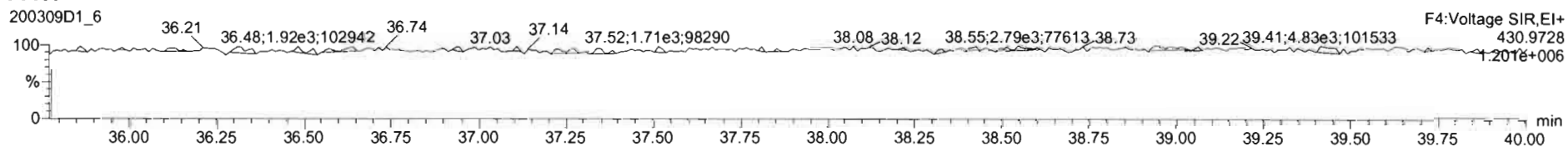
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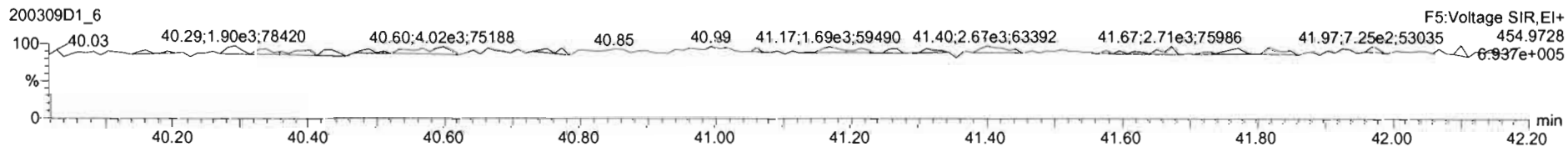
PFK3



PFK4

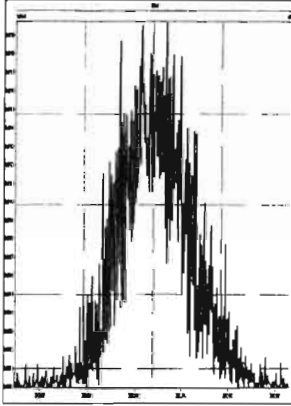


PFK5

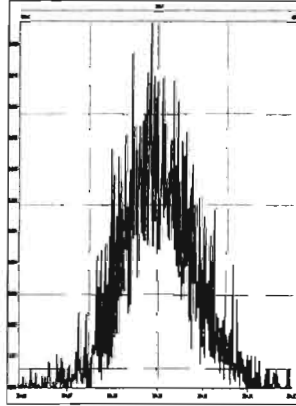


Printed: Tuesday, March 10, 2020 00:33:43 Pacific Daylight Time

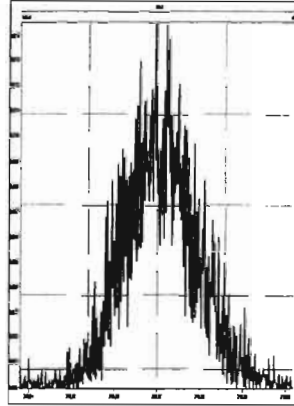
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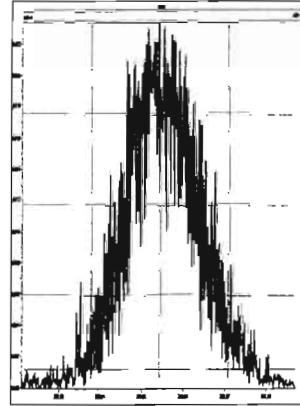
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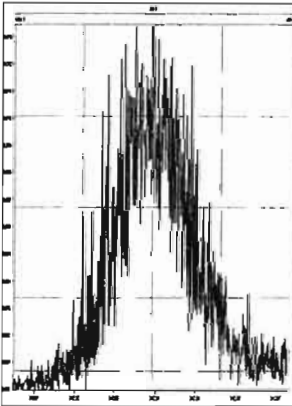
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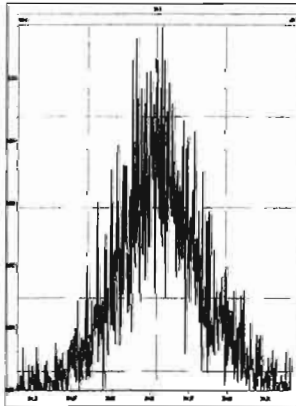
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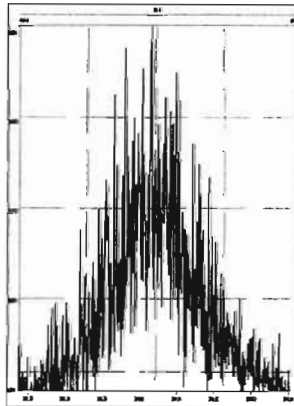
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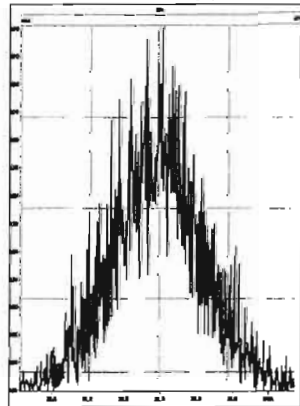
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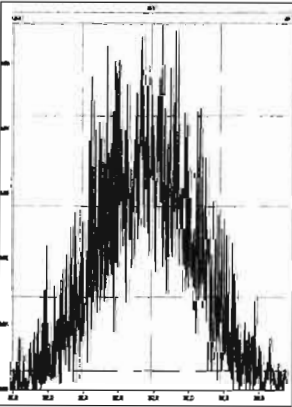
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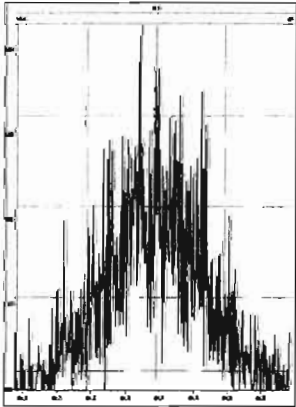
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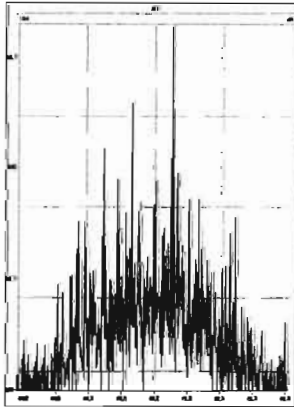
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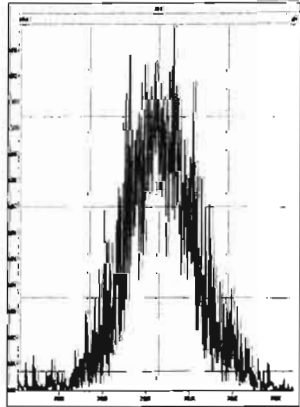
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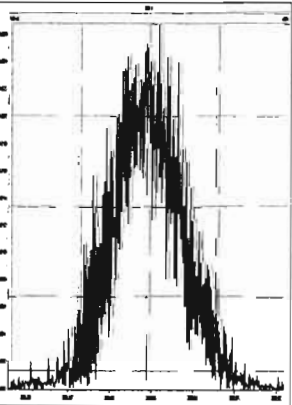
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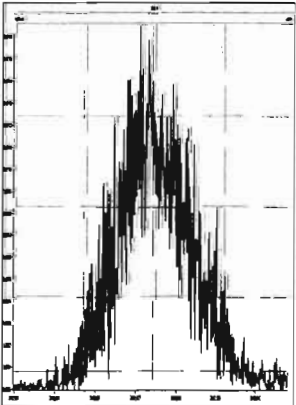
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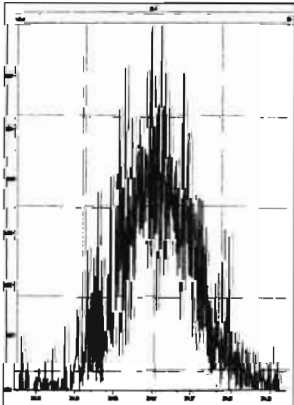
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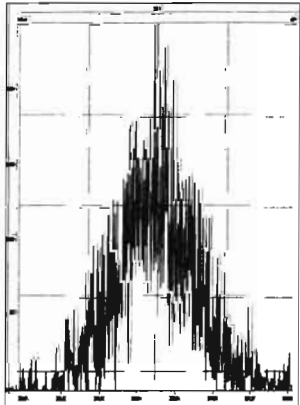
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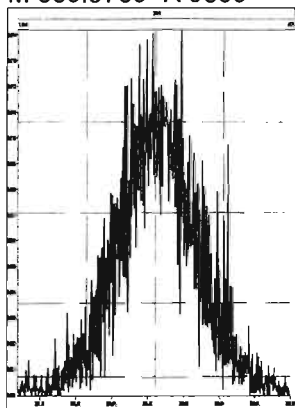


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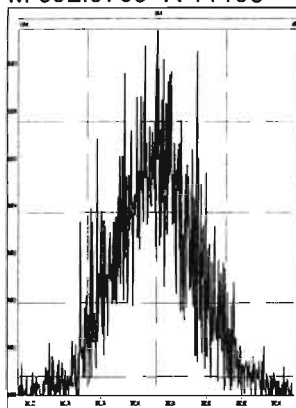


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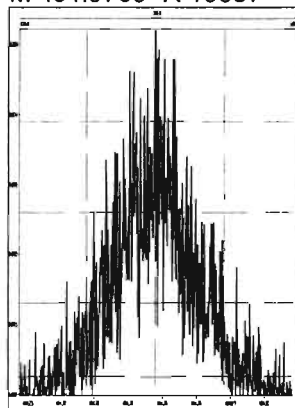
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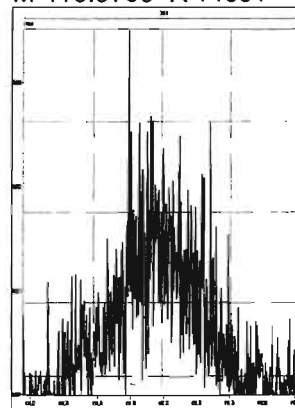
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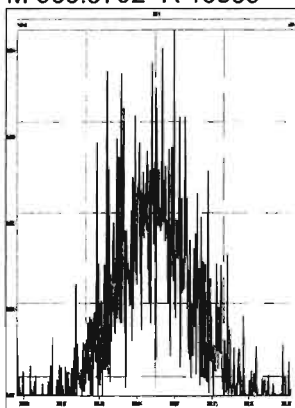
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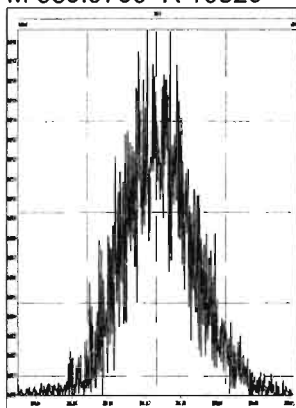
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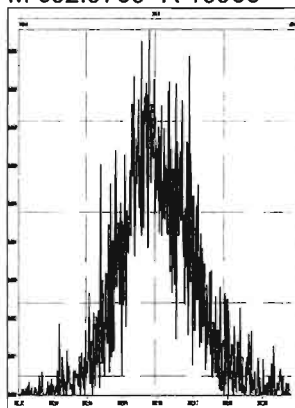
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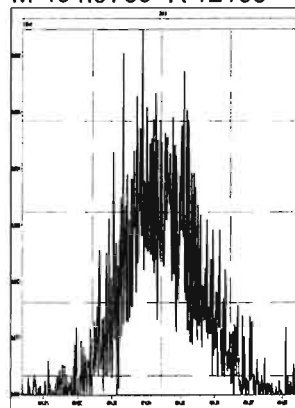
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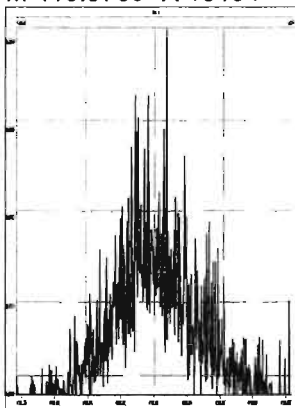
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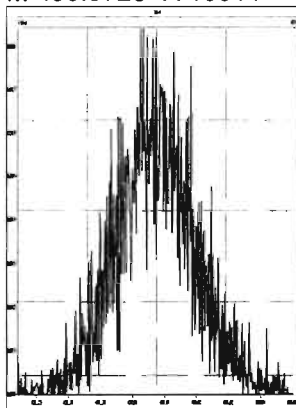
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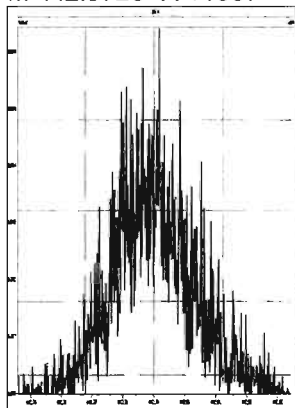
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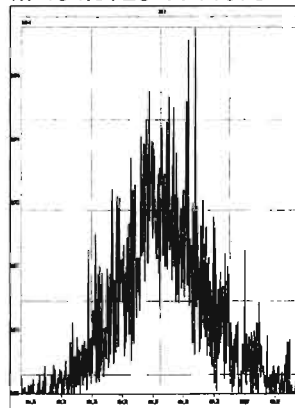
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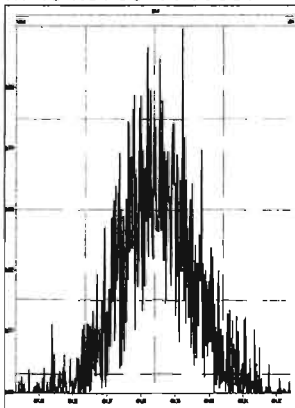
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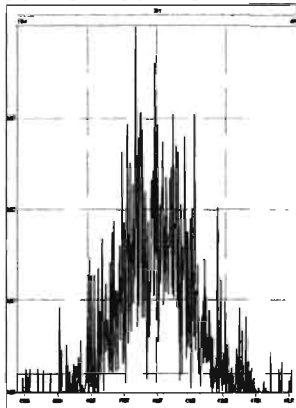
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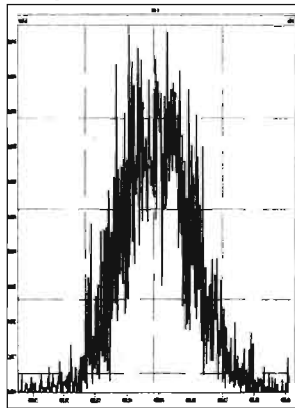
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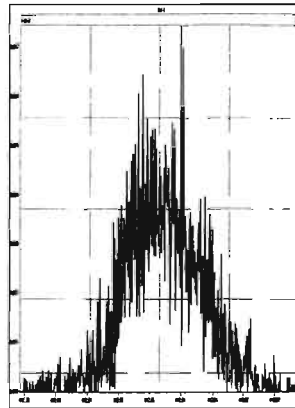
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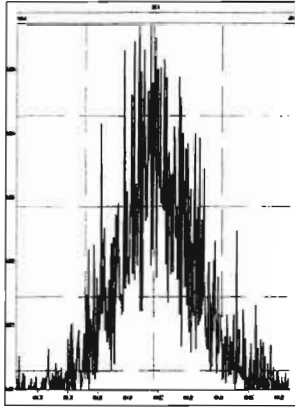


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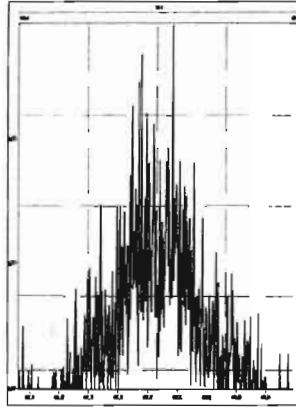


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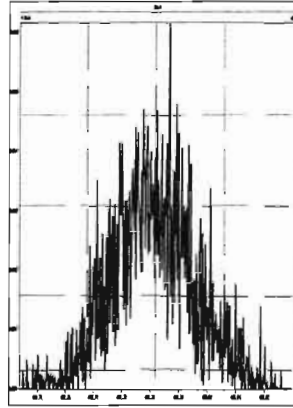
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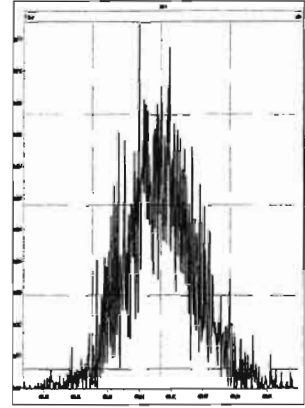
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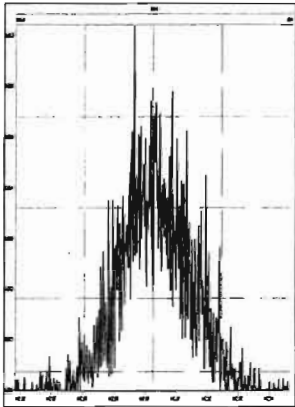
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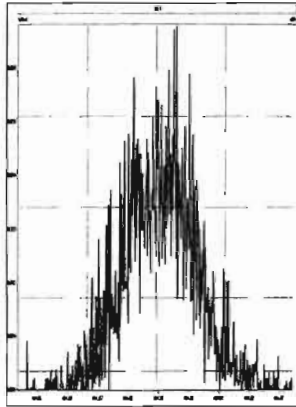
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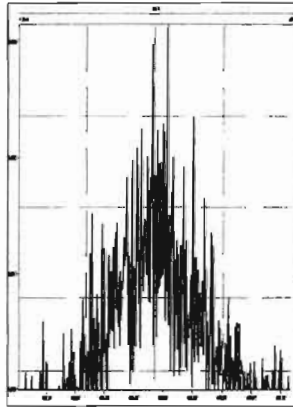
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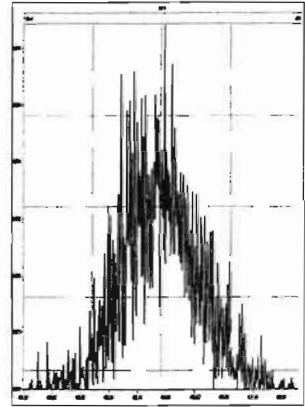
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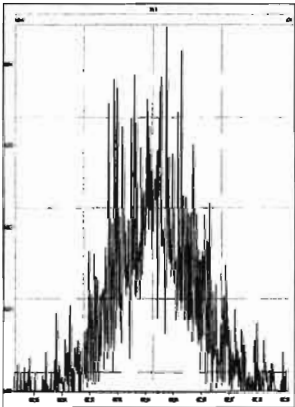
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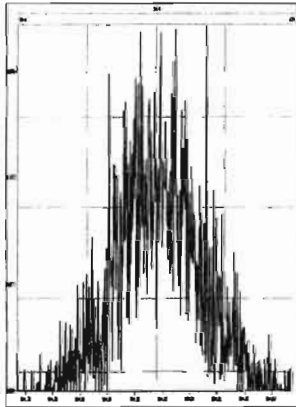
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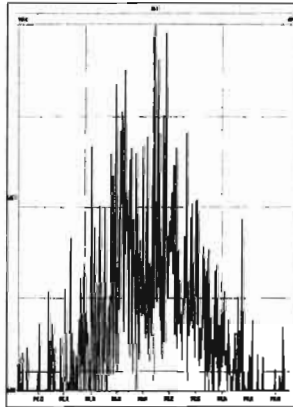
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M 504.9696 R 12112



M 516.9697 R 31394



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

Last Altered: Tuesday, March 10, 2020 10:04:50 Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 10:07:35 Pacific Daylight Time

*DB 3/10/20*

*07 03/10/2020*

Method: C:\MassLynx\Default.PRO\MethDB\1613\_rrt.mdb 09 Mar 2020 11:30:34  
Calibration: U:\VG7.PRO\CurveDB\1613vg7-3-9-20.cdb 09 Mar 2020 17:20:28

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL    | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|-------|------|
| 1  | 1 2,3,7,8-TCDD             | 7.12e3 | 0.82 | NO  | 0.987 | 1.000  | 25.913  | 25.90 | 1.001    | 1.001 | 10.343 | 103 <i>82-123</i>  | 0.180 | 10.3 |
| 2  | 2 1,2,3,7,8-PeCDD          | 3.03e4 | 0.61 | NO  | 0.982 | 1.000  | 30.488  | 30.49 | 1.001    | 1.001 | 52.086 | 104 <i>78-130</i>  | 0.172 | 52.1 |
| 3  | 3 1,2,3,4,7,8-HxCDD        | 3.14e4 | 1.26 | NO  | 1.17  | 1.000  | 33.762  | 33.77 | 1.000    | 1.001 | 53.633 | 107 <i>78-128</i>  | 0.277 | 53.6 |
| 4  | 4 1,2,3,6,7,8-HxCDD        | 3.40e4 | 1.25 | NO  | 1.04  | 1.000  | 33.862  | 33.88 | 1.000    | 1.001 | 55.125 | 110 <i>78-128</i>  | 0.254 | 55.1 |
| 5  | 5 1,2,3,7,8,9-HxCDD        | 3.12e4 | 1.27 | NO  | 1.00  | 1.000  | 34.192  | 34.17 | 1.001    | 1.000 | 55.125 | 110 <i>82-122</i>  | 0.269 | 55.1 |
| 6  | 6 1,2,3,4,6,7,8-HpCDD      | 2.60e4 | 1.06 | NO  | 0.992 | 1.000  | 37.648  | 37.66 | 1.000    | 1.001 | 53.690 | 107 <i>86-116</i>  | 0.367 | 53.7 |
| 7  | 7 OCDD                     | 4.37e4 | 0.89 | NO  | 1.04  | 1.000  | 40.852  | 40.86 | 1.000    | 1.000 | 108.89 | 109 <i>79-126</i>  | 0.547 | 109  |
| 8  | 8 2,3,7,8-TCDF             | 1.03e4 | 0.76 | NO  | 0.882 | 1.000  | 25.097  | 25.09 | 1.001    | 1.001 | 10.684 | 107 <i>86-116</i>  | 0.118 | 10.7 |
| 9  | 9 1,2,3,7,8-PeCDF          | 5.27e4 | 1.60 | NO  | 1.05  | 1.000  | 29.300  | 29.30 | 1.001    | 1.001 | 51.536 | 103 <i>82-120</i>  | 0.197 | 51.5 |
| 10 | 10 2,3,4,7,8-PeCDF         | 5.98e4 | 1.60 | NO  | 1.06  | 1.000  | 30.215  | 30.21 | 1.001    | 1.001 | 59.682 | 119 <i>82-120</i>  | 0.200 | 59.7 |
| 11 | 11 1,2,3,4,7,8-HxCDF       | 4.52e4 | 1.25 | NO  | 1.08  | 1.000  | 32.885  | 32.90 | 1.000    | 1.000 | 53.095 | 106 <i>90-112</i>  | 0.250 | 53.1 |
| 12 | 12 1,2,3,6,7,8-HxCDF       | 4.79e4 | 1.28 | NO  | 1.04  | 1.000  | 33.016  | 33.02 | 1.000    | 1.000 | 55.556 | 111 <i>88-114</i>  | 0.272 | 55.6 |
| 13 | 13 2,3,4,6,7,8-HxCDF       | 4.39e4 | 1.23 | NO  | 1.11  | 1.000  | 33.622  | 33.61 | 1.001    | 1.001 | 51.071 | 102 <i>88-114</i>  | 0.265 | 51.1 |
| 14 | 14 1,2,3,7,8,9-HxCDF       | 3.57e4 | 1.26 | NO  | 1.06  | 1.000  | 34.531  | 34.54 | 1.000    | 1.000 | 53.112 | 106 <i>90-112</i>  | 0.388 | 53.1 |
| 15 | 15 1,2,3,4,6,7,8-HpCDF     | 3.92e4 | 1.06 | NO  | 1.13  | 1.000  | 36.378  | 36.35 | 1.001    | 1.000 | 54.829 | 110 <i>90-110</i>  | 0.369 | 54.8 |
| 16 | 16 1,2,3,4,7,8,9-HpCDF     | 3.06e4 | 1.04 | NO  | 1.33  | 1.000  | 38.164  | 38.17 | 1.000    | 1.000 | 53.195 | 106 <i>86-116</i>  | 0.361 | 53.2 |
| 17 | 17 OCDF                    | 4.98e4 | 0.88 | NO  | 0.933 | 1.000  | 41.061  | 41.08 | 1.000    | 1.001 | 106.20 | 106 <i>63759</i>   | 0.530 | 106  |
| 18 | 18 13C-2,3,7,8-TCDD        | 6.98e4 | 0.77 | NO  | 1.21  | 1.000  | 25.959  | 25.88 | 1.026    | 1.023 | 88.582 | 88.6 <i>82-121</i> | 0.809 |      |
| 19 | 19 13C-1,2,3,7,8-PeCDD     | 5.93e4 | 0.64 | NO  | 0.996 | 1.000  | 30.412  | 30.47 | 1.202    | 1.204 | 91.239 | 91.2 <i>62-160</i> | 0.394 |      |
| 20 | 20 13C-1,2,3,4,7,8-HxCDD   | 4.99e4 | 1.29 | NO  | 0.679 | 1.000  | 33.746  | 33.75 | 1.014    | 1.014 | 92.345 | 92.3 <i>85-117</i> | 0.538 |      |
| 21 | 21 13C-1,2,3,6,7,8-HxCDD   | 5.95e4 | 1.31 | NO  | 0.850 | 1.000  | 33.856  | 33.86 | 1.017    | 1.017 | 87.951 | 88.0 <i>85-118</i> | 0.430 |      |
| 22 | 22 13C-1,2,3,7,8,9-HxCDD   | 5.65e4 | 1.24 | NO  | 0.798 | 1.000  | 34.125  | 34.16 | 1.025    | 1.026 | 88.796 | 88.8 <i>85-118</i> | 0.457 |      |
| 23 | 23 13C-1,2,3,4,6,7,8-HpCDD | 4.89e4 | 1.05 | NO  | 0.697 | 1.000  | 37.573  | 37.64 | 1.129    | 1.131 | 88.088 | 88.1 <i>72-138</i> | 0.645 |      |
| 24 | 24 13C-OCDD                | 7.76e4 | 0.90 | NO  | 0.579 | 1.000  | 40.582  | 40.85 | 1.219    | 1.228 | 168.23 | 84.1 <i>48-207</i> | 1.07  |      |
| 25 | 25 13C-2,3,7,8-TCDF        | 1.09e5 | 0.77 | NO  | 1.13  | 1.000  | 25.048  | 25.07 | 0.990    | 0.991 | 91.711 | 91.7 <i>71-140</i> | 0.730 |      |
| 26 | 26 13C-1,2,3,7,8-PeCDF     | 9.78e4 | 1.64 | NO  | 0.996 | 1.000  | 29.240  | 29.28 | 1.156    | 1.157 | 93.246 | 93.2 <i>76-130</i> | 0.529 |      |
| 27 | 27 13C-2,3,4,7,8-PeCDF     | 9.45e4 | 1.60 | NO  | 0.969 | 1.000  | 30.133  | 30.18 | 1.191    | 1.193 | 92.595 | 92.6 <i>77-130</i> | 0.544 |      |
| 28 | 28 13C-1,2,3,4,7,8-HxCDF   | 7.87e4 | 0.50 | NO  | 1.06  | 1.000  | 32.881  | 32.88 | 0.988    | 0.988 | 93.385 | 93.4 <i>76-131</i> | 0.584 |      |
| 29 | 29 13C-1,2,3,6,7,8-HxCDF   | 8.27e4 | 0.50 | NO  | 1.18  | 1.000  | 33.014  | 33.01 | 0.992    | 0.992 | 88.358 | 88.4 <i>70-143</i> | 0.526 |      |
| 30 | 30 13C-2,3,4,6,7,8-HxCDF   | 7.74e4 | 0.51 | NO  | 1.06  | 1.000  | 33.583  | 33.59 | 1.009    | 1.009 | 91.900 | 91.9 <i>73-137</i> | 0.585 |      |
| 31 | 31 13C-1,2,3,7,8,9-HxCDF   | 6.36e4 | 0.49 | NO  | 0.879 | 1.000  | 34.478  | 34.53 | 1.036    | 1.038 | 90.868 | 90.9 <i>74-135</i> | 0.703 |      |

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

Last Altered: Tuesday, March 10, 2020 10:04:50 Pacific Daylight Time

Printed: Tuesday, March 10, 2020 10:07:35 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

| #  | Name                       | Resp   | RA   | n/y | RRF   | wt/vol | Pred.RT | RT    | Pred.RRT | RRT   | Conc.  | %Rec               | DL     | EMPC |
|----|----------------------------|--------|------|-----|-------|--------|---------|-------|----------|-------|--------|--------------------|--------|------|
| 32 | 32 13C-1,2,3,4,6,7,8-HpCDF | 6.34e4 | 0.43 | NO  | 0.893 | 1.000  | 36.175  | 36.34 | 1.087    | 1.092 | 89.122 | 89.1 <i>78-129</i> | 0.614  |      |
| 33 | 33 13C-1,2,3,4,7,8,9-HpCDF | 4.31e4 | 0.43 | NO  | 0.613 | 1.000  | 38.172  | 38.16 | 1.147    | 1.147 | 88.244 | 88.2 <i>77-129</i> | 0.893  |      |
| 34 | 34 13C-OCDF                | 1.01e5 | 0.86 | NO  | 0.741 | 1.000  | 40.735  | 41.06 | 1.224    | 1.234 | 170.22 | 85.1 <i>48-207</i> | 0.528  |      |
| 35 | 35 37Cl-2,3,7,8-TCDD       | 7.09e3 |      |     | 1.18  | 1.000  | 25.956  | 25.90 | 1.026    | 1.024 | 9.2054 | 92.1 <i>79-127</i> | 0.0703 |      |
| 36 | 36 13C-1,2,3,4-TCDD        | 6.53e4 | 0.81 | NO  | 1.00  | 1.000  | 25.440  | 25.30 | 1.000    | 1.000 | 100.00 | 100                | 0.977  |      |
| 37 | 37 13C-1,2,3,4-TCDF        | 1.05e5 | 0.80 | NO  | 1.00  | 1.000  | 23.970  | 23.80 | 1.000    | 1.000 | 100.00 | 100                | 0.823  |      |
| 38 | 38 13C-1,2,3,4,6,9-HxCDF   | 7.97e4 | 0.51 | NO  | 1.00  | 1.000  | 33.260  | 33.28 | 1.000    | 1.000 | 100.00 | 100                | 0.618  |      |

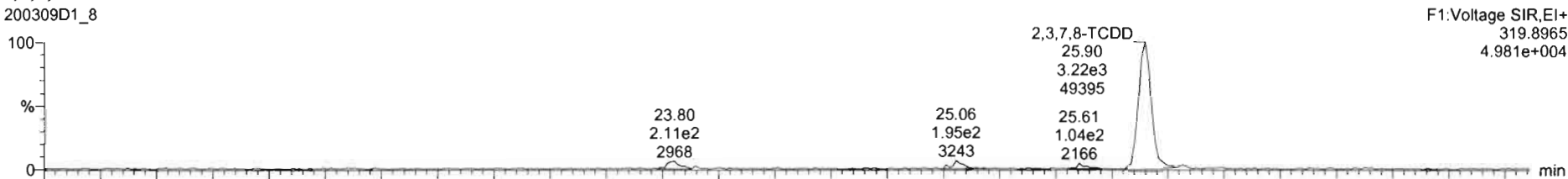
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Last Altered: Tuesday, March 10, 2020 09:46:21 Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

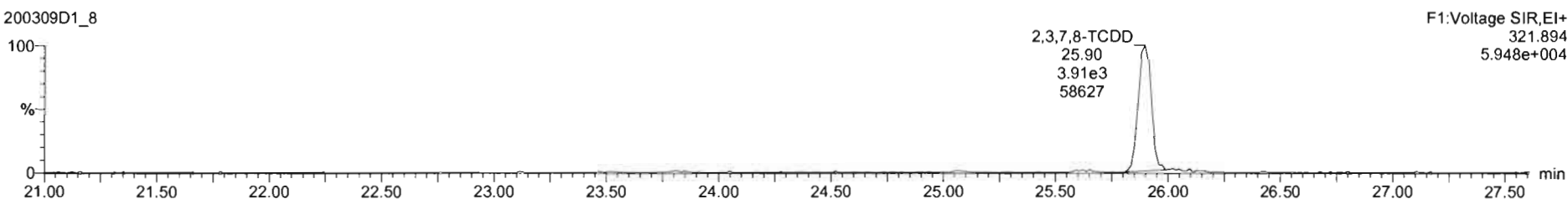
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Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

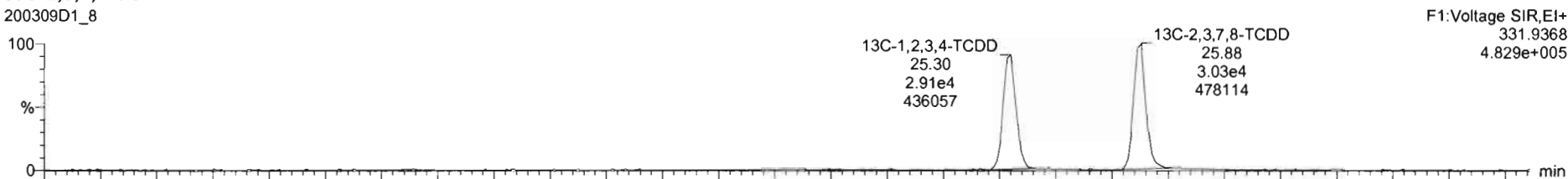
2,3,7,8-TCDD  
200309D1\_8



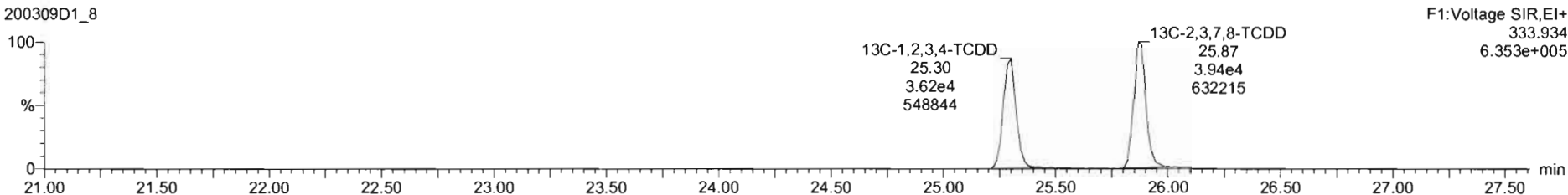
200309D1\_8



13C-2,3,7,8-TCDD  
200309D1\_8



200309D1\_8



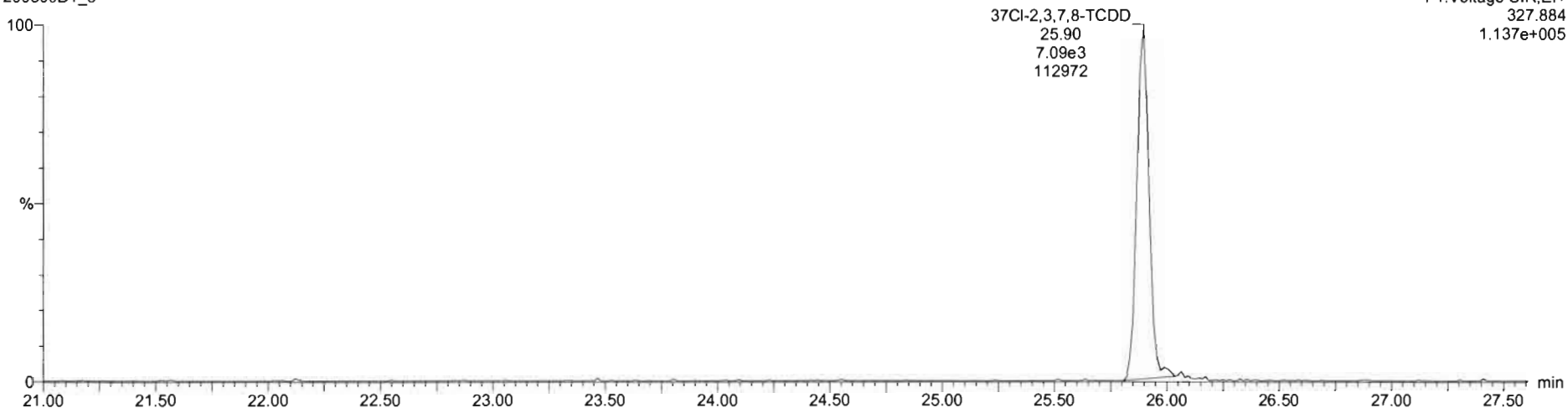


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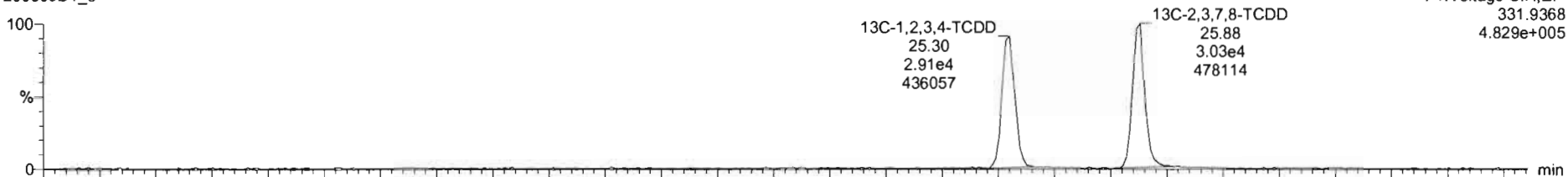
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

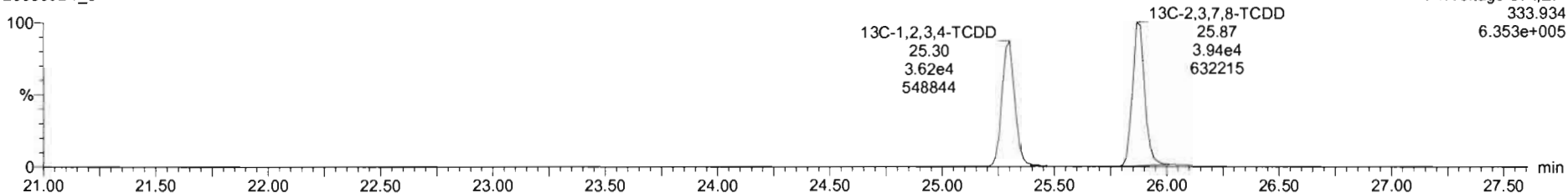
**37Cl-2,3,7,8-TCDD**  
200309D1\_8



**13C-1,2,3,4-TCDD**  
200309D1\_8



200309D1\_8



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

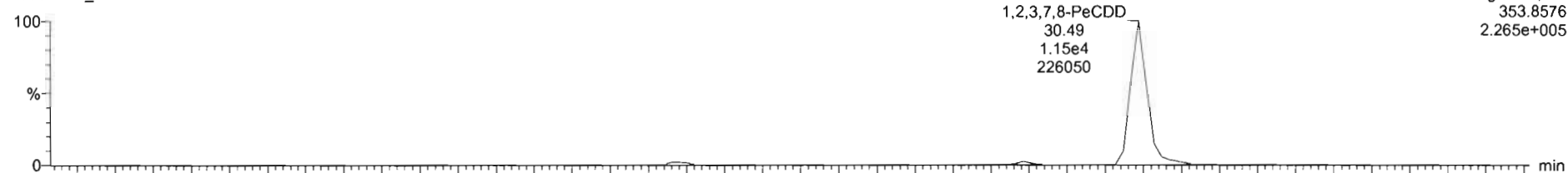
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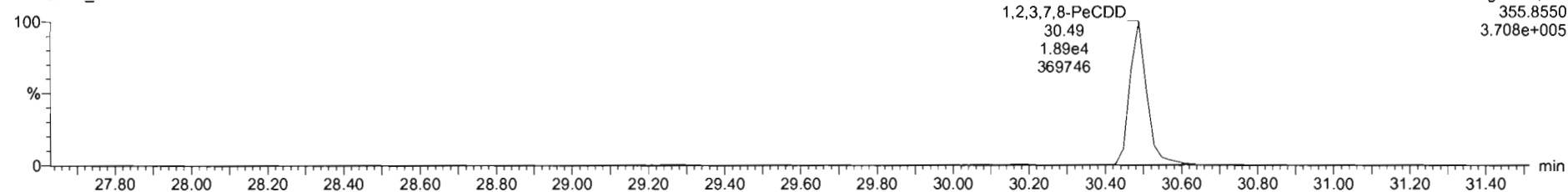
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**1,2,3,7,8-PeCDD**

200309D1\_8

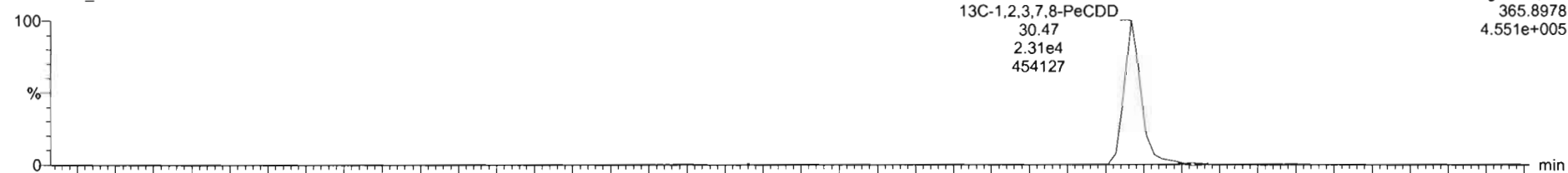


200309D1\_8

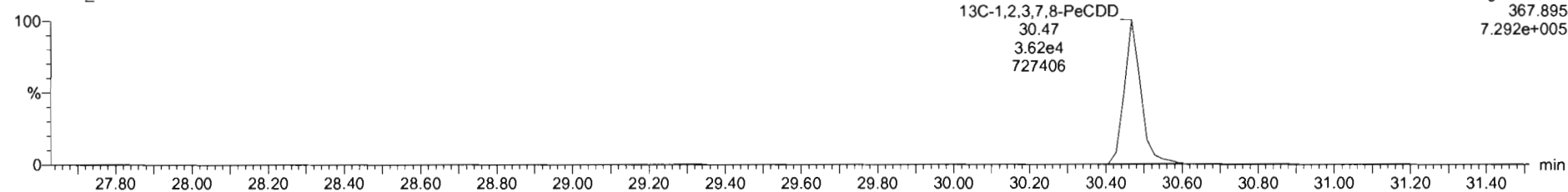


**13C-1,2,3,7,8-PeCDD**

200309D1\_8



200309D1\_8



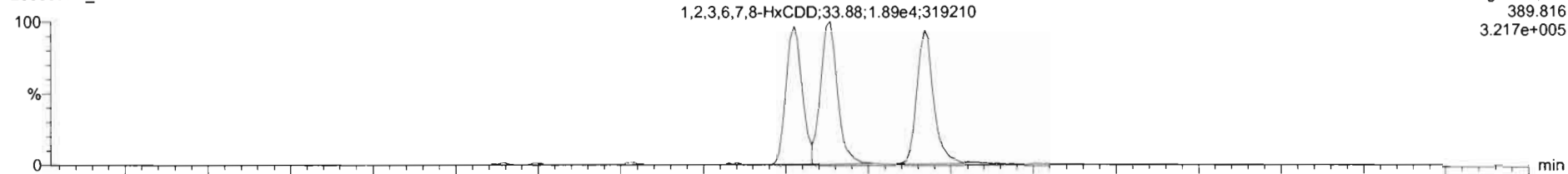
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

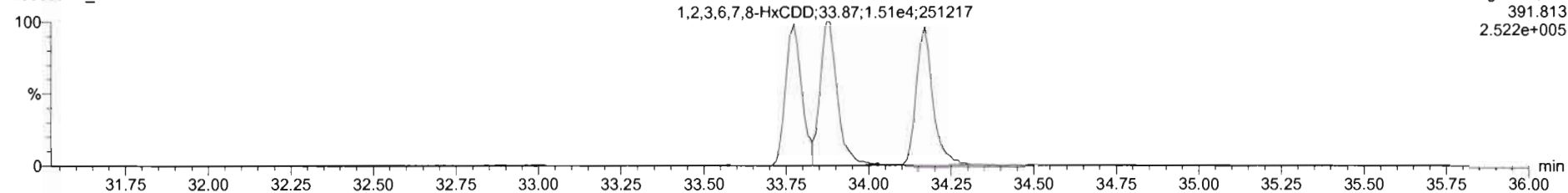
Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

**1,2,3,4,7,8-HxCDD**

200309D1\_8

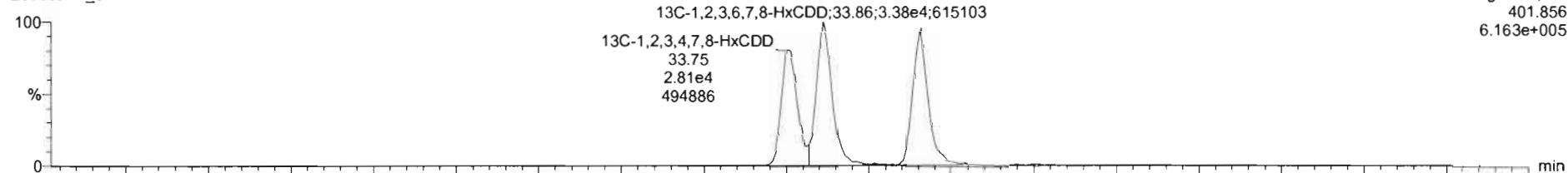


200309D1\_8

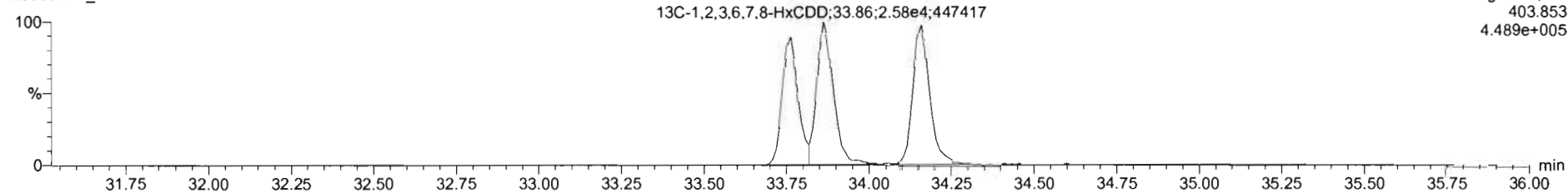


**13C-1,2,3,4,7,8-HxCDD**

200309D1\_8



200309D1\_8



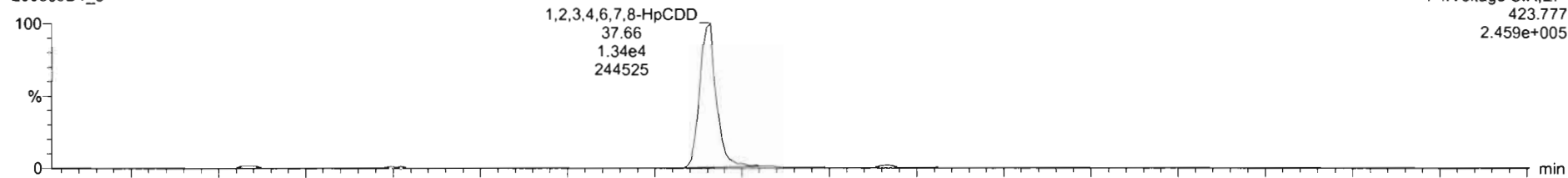
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

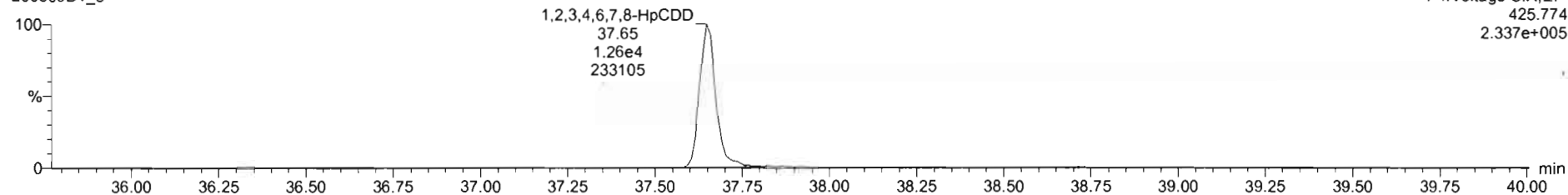
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**1,2,3,4,6,7,8-HpCDD**

200309D1\_8

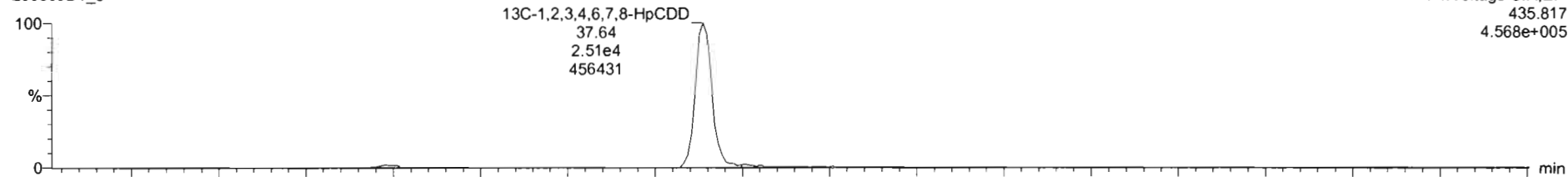


200309D1\_8

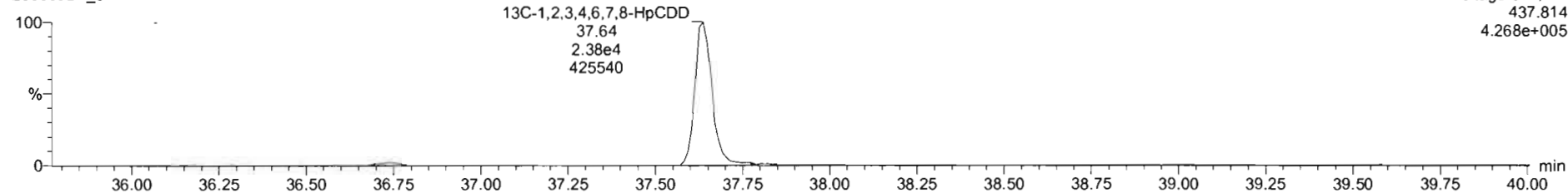


**13C-1,2,3,4,6,7,8-HpCDD**

200309D1\_8



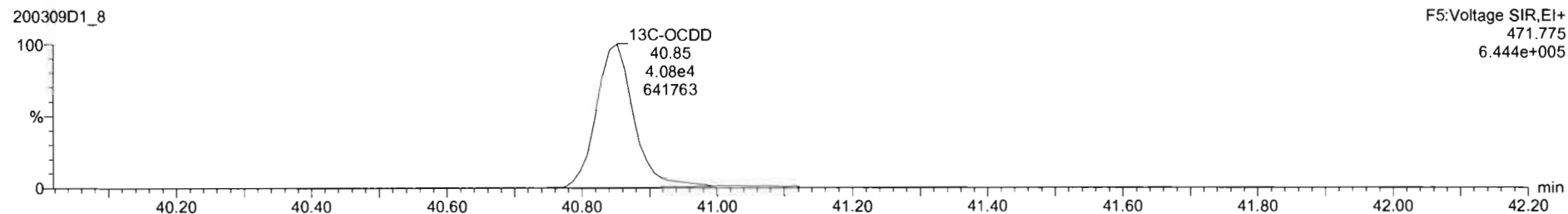
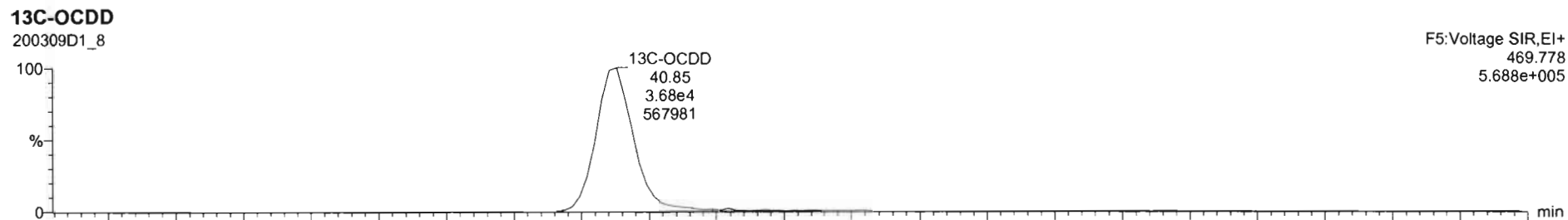
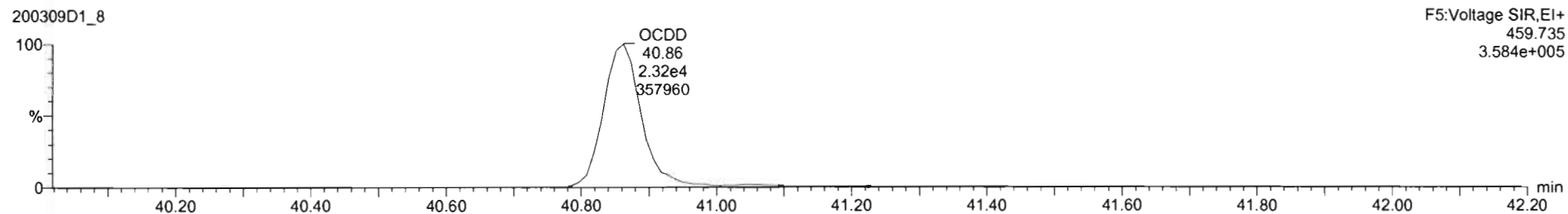
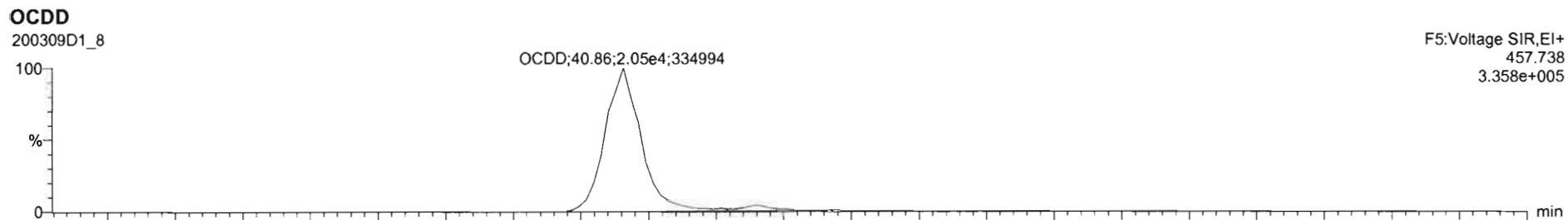
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



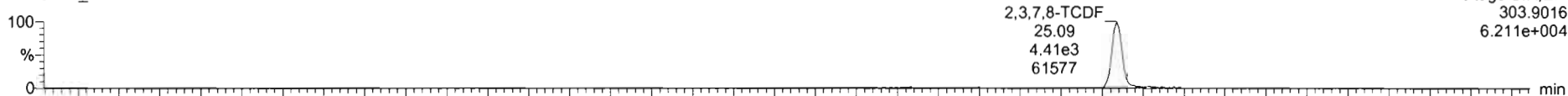
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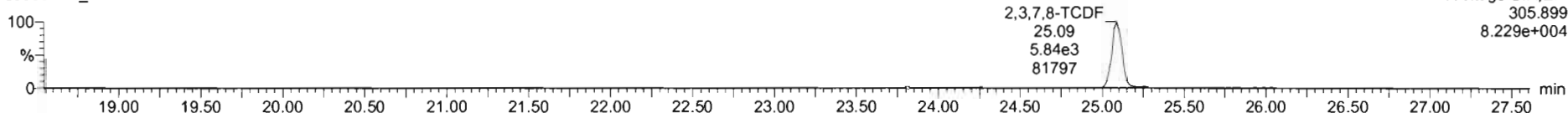
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**2,3,7,8-TCDF**

200309D1\_8

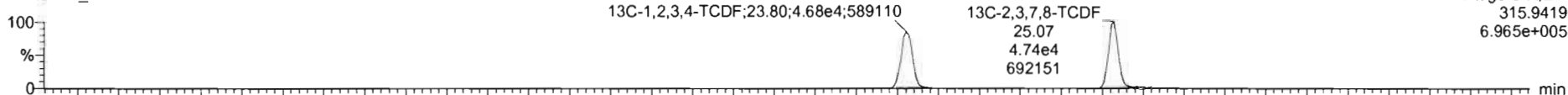


200309D1\_8

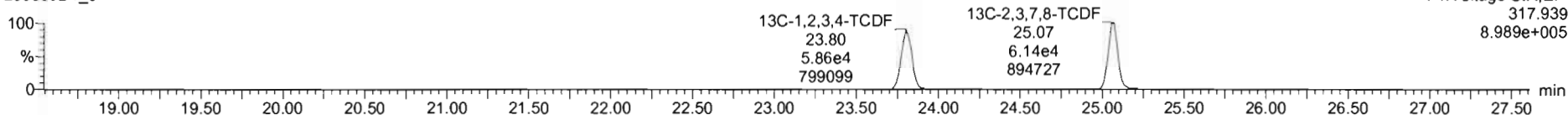


**13C-2,3,7,8-TCDF**

200309D1\_8

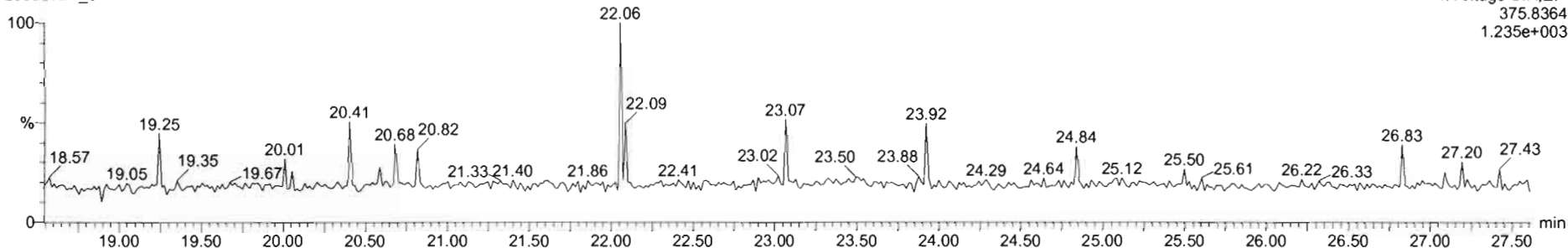


200309D1\_8



**DPE1**

200309D1\_8



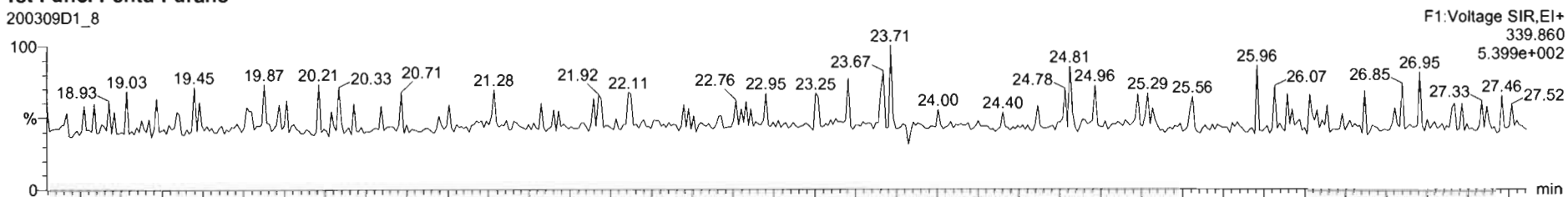
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

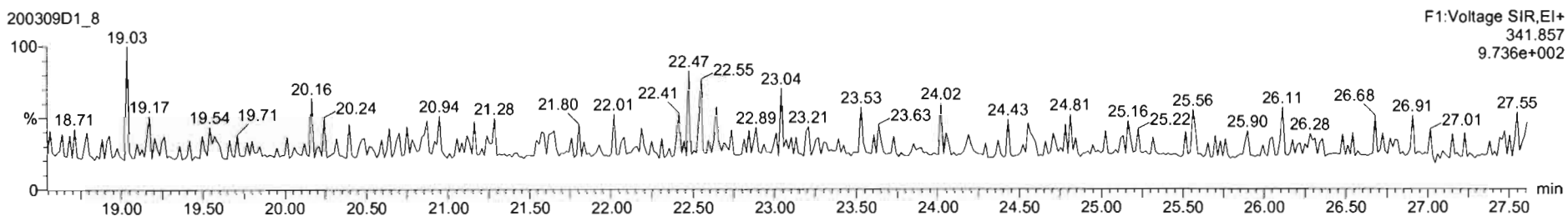
Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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200309D1\_8

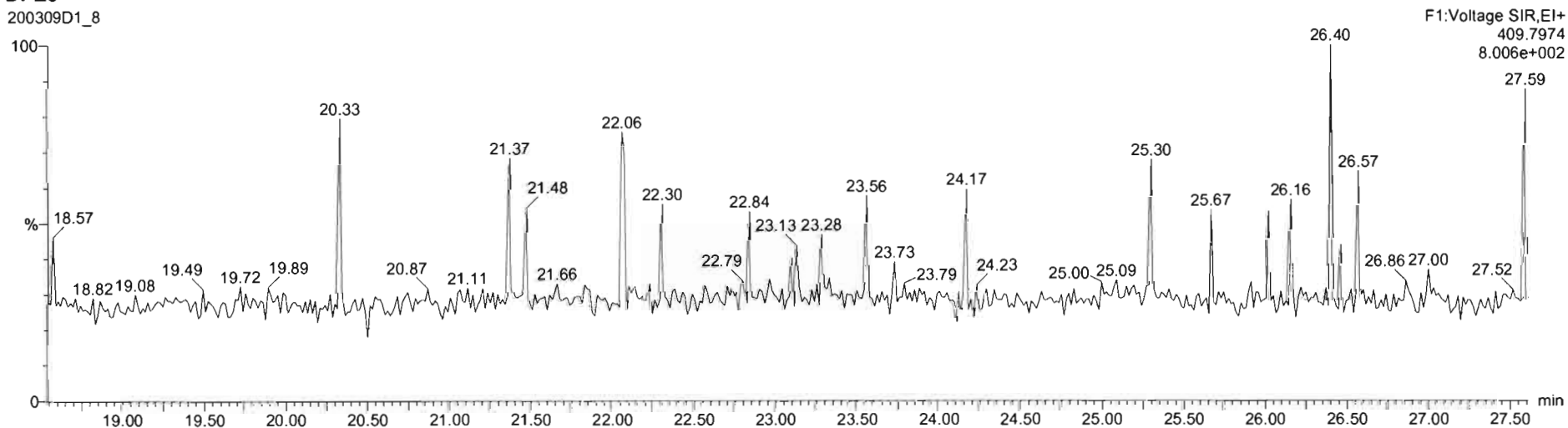


200309D1\_8



DPE6

200309D1\_8



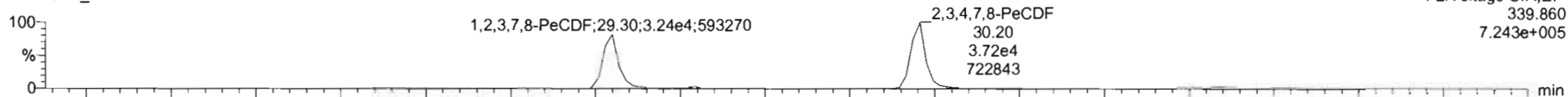
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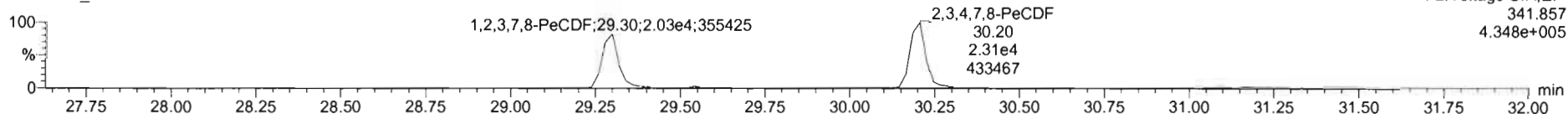
**1,2,3,7,8-PeCDF**

200309D1\_8



F2:Voltage SIR,EI+  
339.860  
7.243e+005

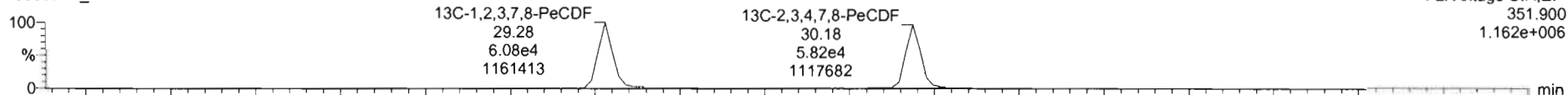
200309D1\_8



F2:Voltage SIR,EI+  
341.857  
4.348e+005

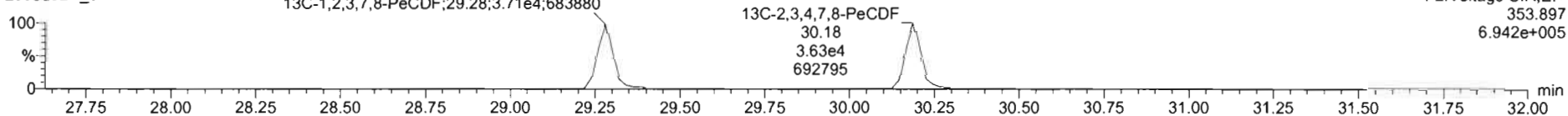
**13C-1,2,3,7,8-PeCDF**

200309D1\_8



F2:Voltage SIR,EI+  
351.900  
1.162e+006

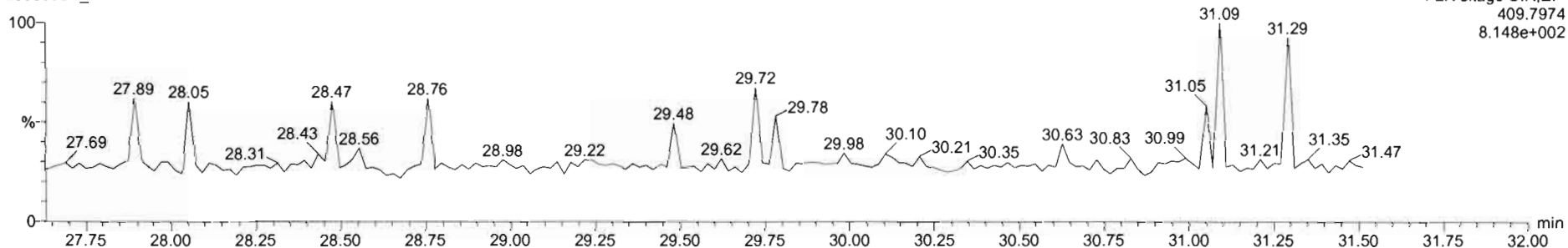
200309D1\_8



F2:Voltage SIR,EI+  
353.897  
6.942e+005

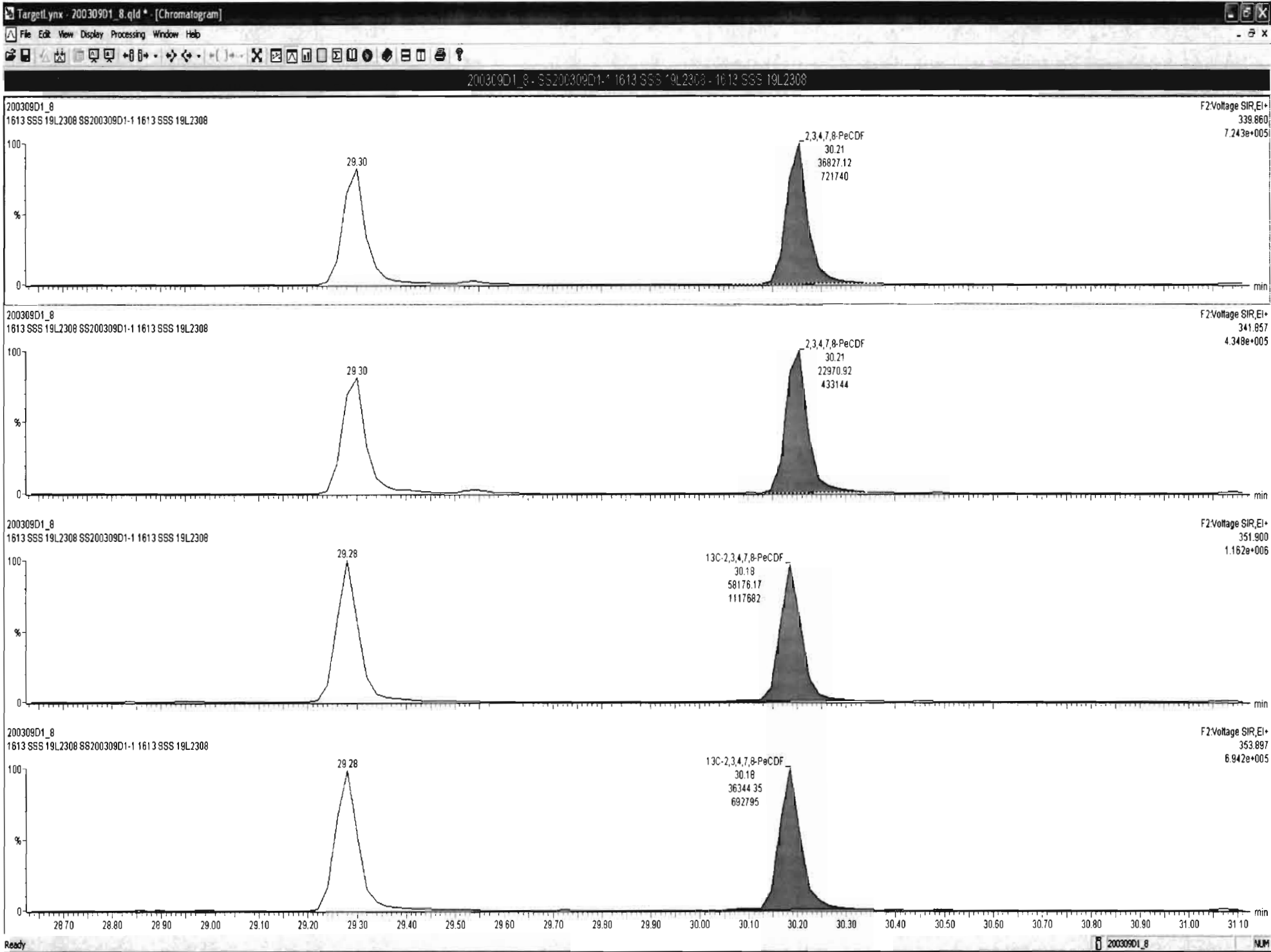
**DPE2**

200309D1\_8



F2:Voltage SIR,EI+  
409.7974  
8.148e+002



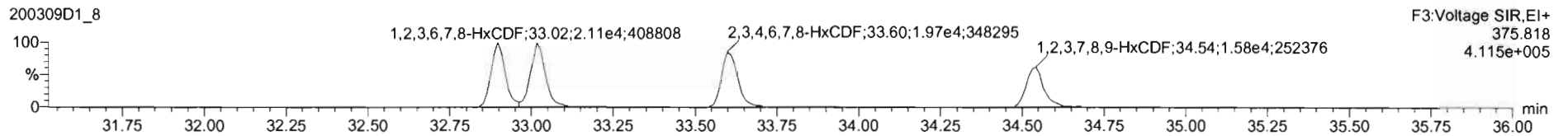
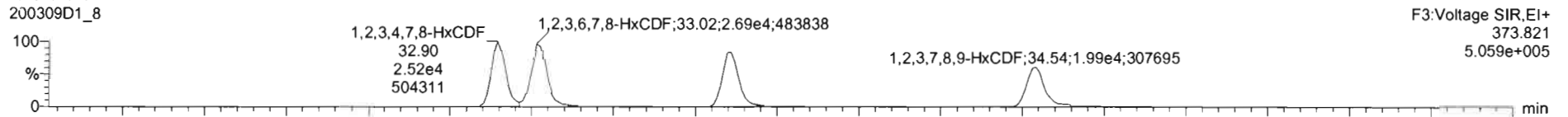


Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

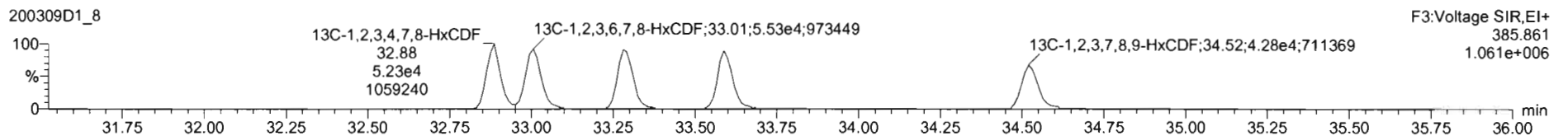
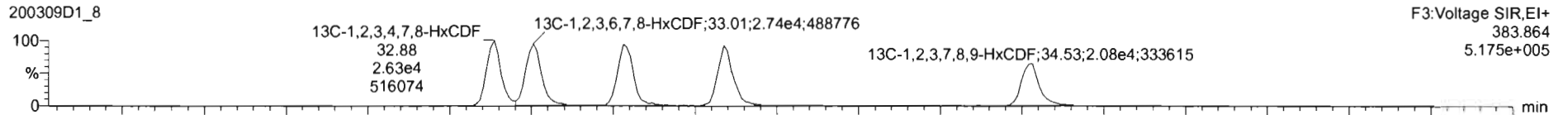
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Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

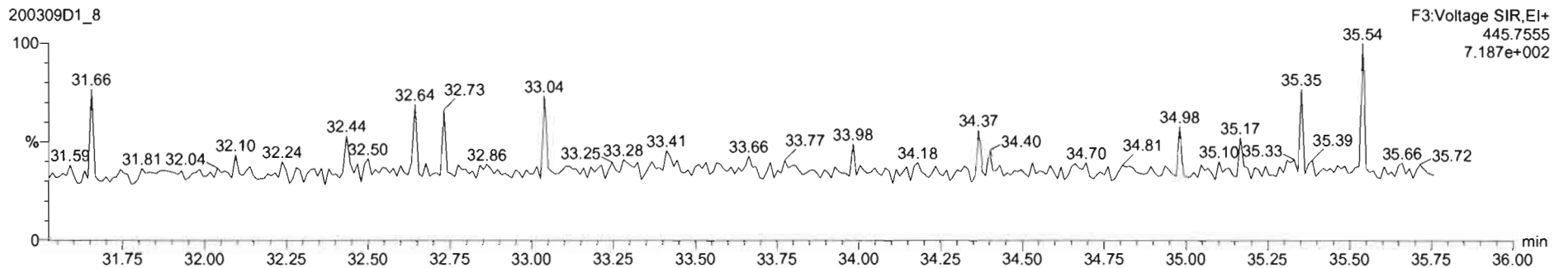
**1,2,3,4,7,8-HxCDF**



**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



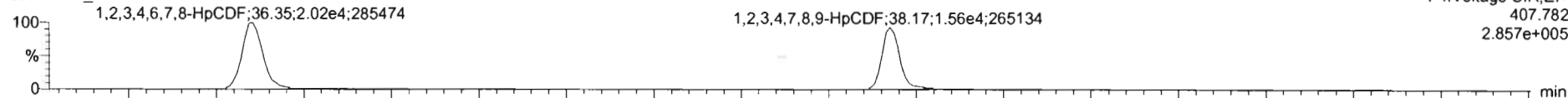
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Last Altered: Tuesday, March 10, 2020 09:46:21 Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

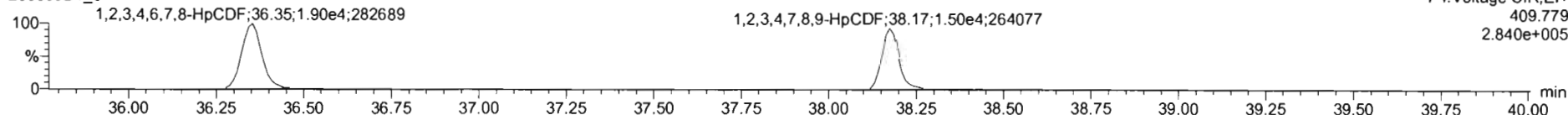
**1,2,3,4,6,7,8-HpCDF**

200309D1\_8



F4:Voltage SIR,EI+  
407.782  
2.857e+005

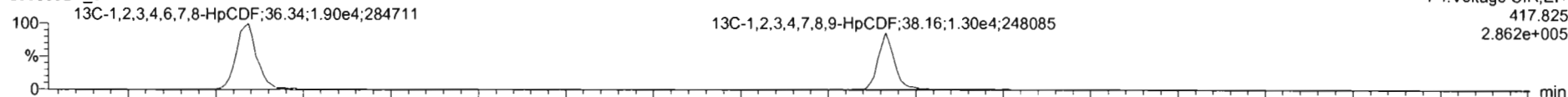
200309D1\_8



F4:Voltage SIR,EI+  
409.779  
2.840e+005

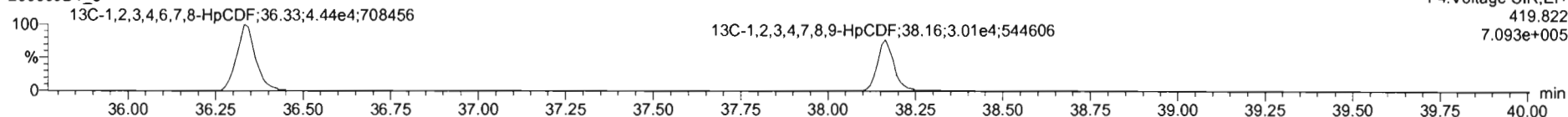
**13C-1,2,3,4,6,7,8-HpCDF**

200309D1\_8



F4:Voltage SIR,EI+  
417.825  
2.862e+005

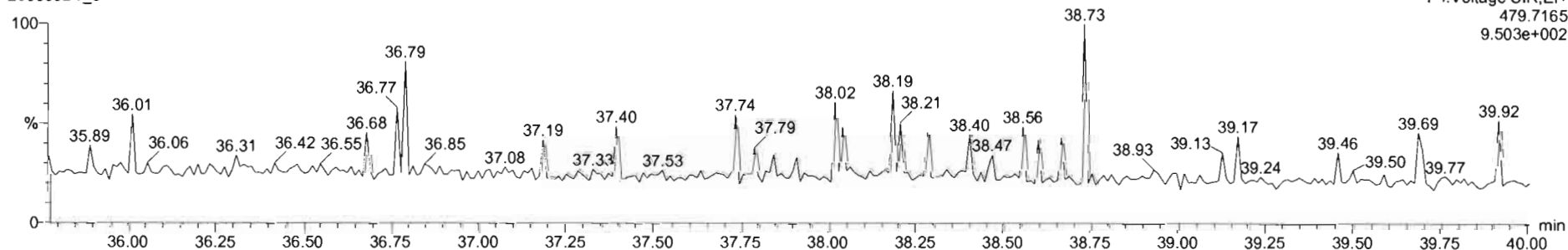
200309D1\_8



F4:Voltage SIR,EI+  
419.822  
7.093e+005

**DPE4**

200309D1\_8

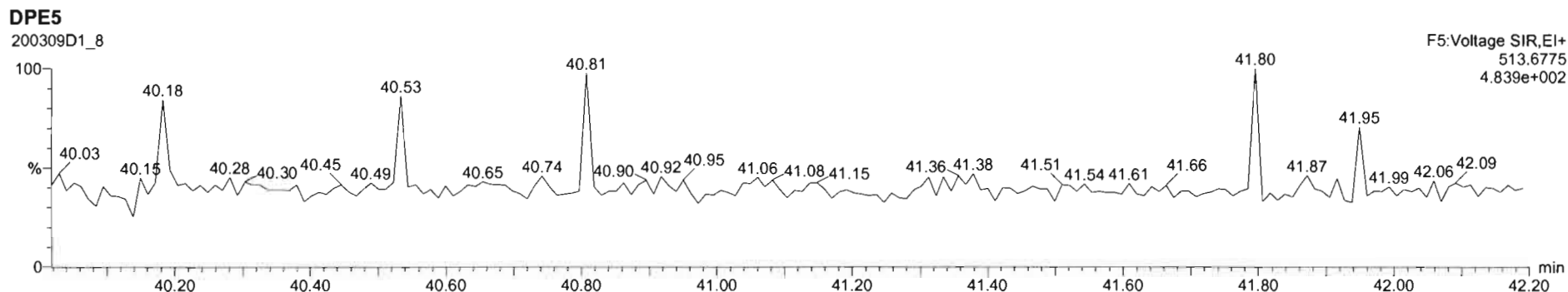
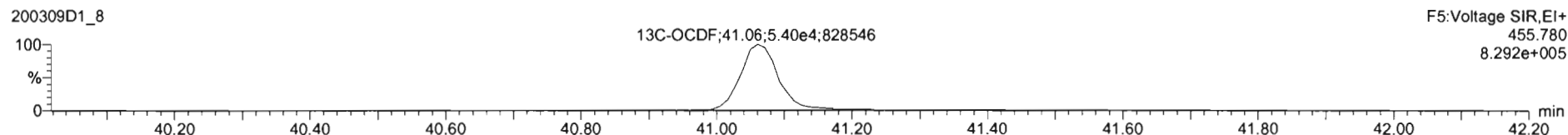
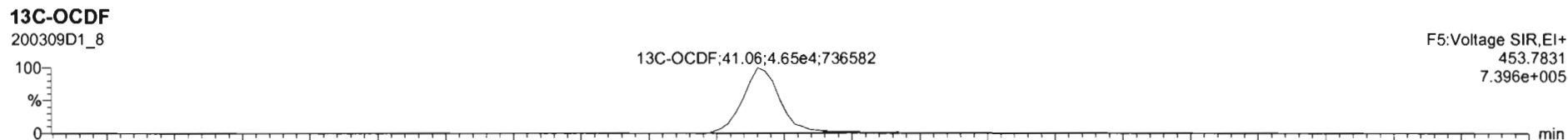
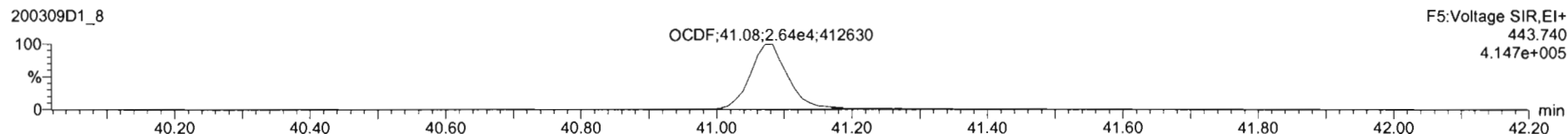
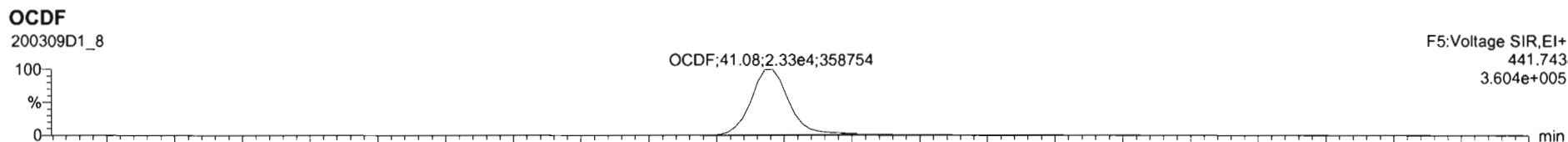


F4:Voltage SIR,EI+  
479.7165  
9.503e+002

Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

Last Altered: Tuesday, March 10, 2020 09:46:21 Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

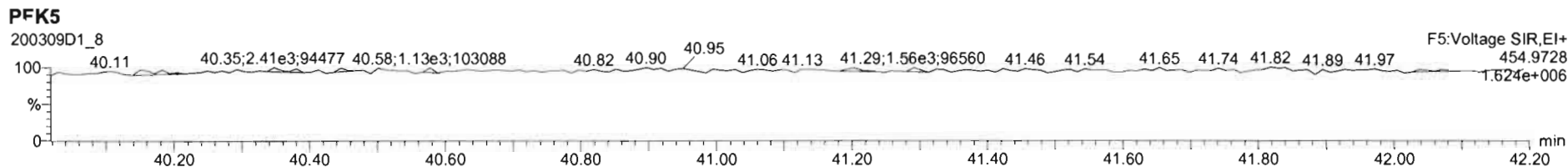
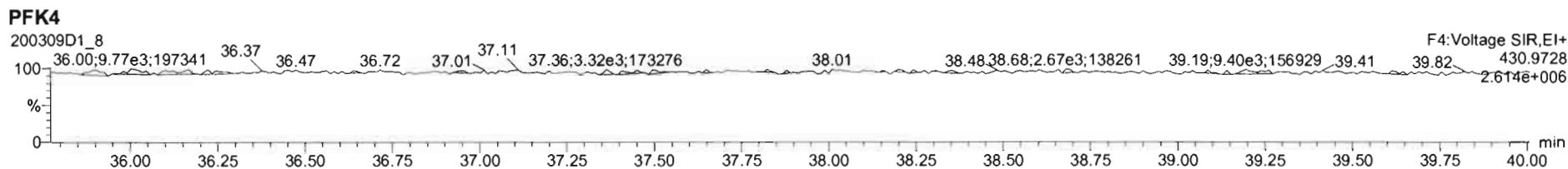
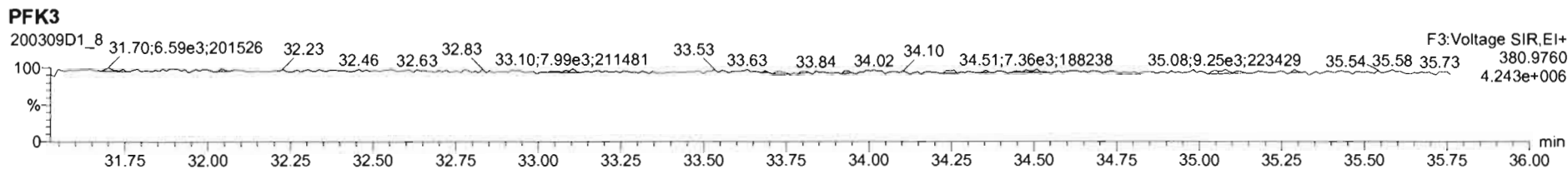
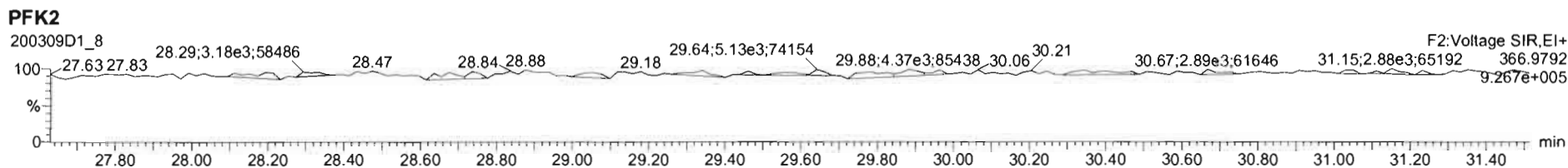
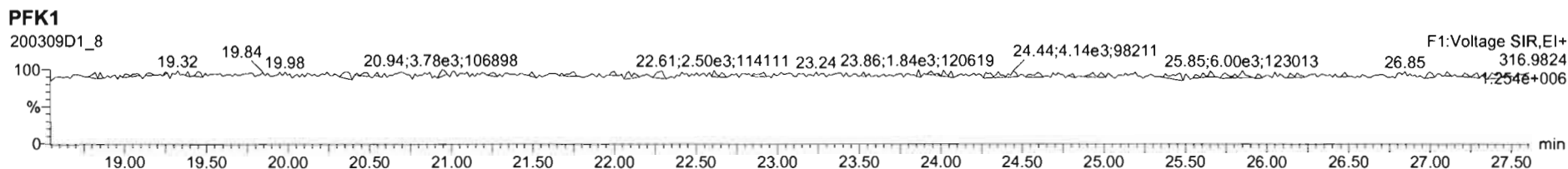
Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



Dataset: U:\VG7.PRO\Results\200309D1\200309D1\_8.qld

Last Altered: Tuesday, March 10, 2020 09:46:21 Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 09:53:02 Pacific Daylight Time

Name: 200309D1\_8, Date: 09-Mar-2020, Time: 17:43:01, ID: SS200309D1-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

DB 2/12/20 0102/12/2020

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

**Compound name: 2,3,7,8-TCDF**

Response Factor: 0.9819

RRF SD: 0.0791981, Relative SD: 8.06581

Response type: Internal Std ( Ref 2 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | # Name       | Std. Conc | RA   | n/y | RT    | Resp   | IS Resp | Conc. | RRF   |
|---|--------------|-----------|------|-----|-------|--------|---------|-------|-------|
| 1 | 1 200211D2_3 | 0.250     | 0.86 | NO  | 17.23 | 3.04e2 | 1.39e5  | 0.223 | 0.876 |
| 2 | 2 200211D2_4 | 0.500     | 0.66 | NO  | 17.22 | 6.08e2 | 1.13e5  | 0.549 | 1.08  |
| 3 | 3 200211D2_5 | 2.00      | 0.73 | NO  | 17.23 | 2.63e3 | 1.30e5  | 2.06  | 1.01  |
| 4 | 4 200211D2_6 | 10.0      | 0.75 | NO  | 17.23 | 1.15e4 | 1.25e5  | 9.33  | 0.916 |
| 5 | 5 200211D2_7 | 40.0      | 0.74 | NO  | 17.23 | 5.76e4 | 1.51e5  | 39.0  | 0.957 |
| 6 | 6 200211D2_8 | 300       | 0.73 | NO  | 17.23 | 4.81e5 | 1.52e5  | 321   | 1.05  |

**Compound name: 13C-2,3,7,8-TCDF**

Response Factor: 1.08271

RRF SD: 0.0939058, Relative SD: 8.67318

Response type: Internal Std ( Ref 3 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | # Name       | Std. Conc | RA   | n/y | RT    | Resp   | IS Resp | Conc. | RRF   |
|---|--------------|-----------|------|-----|-------|--------|---------|-------|-------|
| 1 | 1 200211D2_3 | 100       | 0.72 | NO  | 17.20 | 1.39e5 | 1.13e5  | 113   | 1.23  |
| 2 | 2 200211D2_4 | 100       | 0.71 | NO  | 17.20 | 1.13e5 | 1.14e5  | 91.7  | 0.993 |
| 3 | 3 200211D2_5 | 100       | 0.71 | NO  | 17.20 | 1.30e5 | 1.34e5  | 89.3  | 0.967 |
| 4 | 4 200211D2_6 | 100       | 0.75 | NO  | 17.20 | 1.25e5 | 1.15e5  | 101   | 1.09  |
| 5 | 5 200211D2_7 | 100       | 0.71 | NO  | 17.20 | 1.51e5 | 1.35e5  | 103   | 1.11  |
| 6 | 6 200211D2_8 | 100       | 0.72 | NO  | 17.20 | 1.52e5 | 1.38e5  | 102   | 1.11  |

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Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:35:39 Pacific Standard Time

**Compound name: 13C-1,2,3,4-TCDF**

Response Factor: 1

RRF SD: 7.02167e-017, Relative SD: 7.02167e-015

Response type: Internal Std ( Ref 3 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

|   | # Name       | Std. Conc | RA   | n/y | RT    | Resp   | IS Resp | Conc. | RRF  |
|---|--------------|-----------|------|-----|-------|--------|---------|-------|------|
| 1 | 1 200211D2_3 | 100       | 0.70 | NO  | 15.17 | 1.13e5 | 1.13e5  | 100   | 1.00 |
| 2 | 2 200211D2_4 | 100       | 0.71 | NO  | 15.18 | 1.14e5 | 1.14e5  | 100   | 1.00 |
| 3 | 3 200211D2_5 | 100       | 0.74 | NO  | 15.17 | 1.34e5 | 1.34e5  | 100   | 1.00 |
| 4 | 4 200211D2_6 | 100       | 0.72 | NO  | 15.17 | 1.15e5 | 1.15e5  | 100   | 1.00 |
| 5 | 5 200211D2_7 | 100       | 0.73 | NO  | 15.17 | 1.35e5 | 1.35e5  | 100   | 1.00 |
| 6 | 6 200211D2_8 | 100       | 0.73 | NO  | 15.17 | 1.38e5 | 1.38e5  | 100   | 1.00 |

**Compound name: 13C-1,2,3,4-TCDD**

Response Factor: 1026.38

RRF SD: 123.841, Relative SD: 12.0658

Response type: External Std, Area

Curve type: RF

|   | # Name       | Std. Conc | RA   | n/y | RT    | Resp   | IS Resp | Conc. | RRF  |
|---|--------------|-----------|------|-----|-------|--------|---------|-------|------|
| 1 | 1 200211D2_3 | 100       | 0.79 | NO  | 15.78 | 1.04e5 |         | 102   | 1040 |
| 2 | 2 200211D2_4 | 100       | 0.77 | NO  | 15.78 | 8.57e4 |         | 83.5  | 857  |
| 3 | 3 200211D2_5 | 100       | 0.79 | NO  | 15.78 | 9.44e4 |         | 92.0  | 944  |
| 4 | 4 200211D2_6 | 100       | 0.79 | NO  | 15.78 | 9.87e4 |         | 96.1  | 987  |
| 5 | 5 200211D2_7 | 100       | 0.78 | NO  | 15.78 | 1.13e5 |         | 110   | 1130 |
| 6 | 6 200211D2_8 | 100       | 0.78 | NO  | 15.78 | 1.20e5 |         | 116   | 1200 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2\_3, Date: 11-Feb-2020, Time: 21:00:36, ID: ST200211D2-1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

|   | # Name             | Resp   | RA   | n/y | RRF M... | w/vol | RT    | Conc.   | %Rec | DL     |
|---|--------------------|--------|------|-----|----------|-------|-------|---------|------|--------|
| 1 | 1 2,3,7,8-TCDF     | 3.04e2 | 0.86 | NO  | 0.982    | 1.000 | 17.23 | 0.22305 | 89.2 | 0.0931 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.39e5 | 0.72 | NO  | 1.08     | 1.000 | 17.20 | 113.42  | 113  | 0.342  |
| 3 | 3 13C-1,2,3,4-TCDF | 1.13e5 | 0.70 | NO  | 1.00     | 1.000 | 15.17 | 100.00  | 100  | 0.371  |
| 4 | 4 13C-1,2,3,4-TCDD | 1.04e5 | 0.79 | NO  | 1030     | 1.000 | 15.78 | 101.65  | 102  | 0.291  |



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_4, Date: 11-Feb-2020, Time: 21:32:19, ID: ST200211D2-2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

|   | # Name             | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.   | %Rec | DL    |
|---|--------------------|--------|------|-----|----------|--------|-------|---------|------|-------|
| 1 | 1 2,3,7,8-TCDF     | 6.08e2 | 0.66 | NO  | 0.982    | 1.000  | 17.22 | 0.54947 | 110  | 0.147 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.13e5 | 0.71 | NO  | 1.08     | 1.000  | 17.20 | 91.711  | 91.7 | 0.381 |
| 3 | 3 13C-1,2,3,4-TCDF | 1.14e5 | 0.71 | NO  | 1.00     | 1.000  | 15.18 | 100.00  | 100  | 0.412 |
| 4 | 4 13C-1,2,3,4-TCDD | 8.57e4 | 0.77 | NO  | 1030     | 1.000  | 15.78 | 83.528  | 83.5 | 0.324 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_5, Date: 11-Feb-2020, Time: 22:04:03, ID: ST200211D2-3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

|   | # Name             | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.  | %Rec | DL    |
|---|--------------------|--------|------|-----|----------|--------|-------|--------|------|-------|
| 1 | 1 2,3,7,8-TCDF     | 2.63e3 | 0.73 | NO  | 0.982    | 1.000  | 17.23 | 2.0631 | 103  | 0.121 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.30e5 | 0.71 | NO  | 1.08     | 1.000  | 17.20 | 89.279 | 89.3 | 0.292 |
| 3 | 3 13C-1,2,3,4-TCDF | 1.34e5 | 0.74 | NO  | 1.00     | 1.000  | 15.17 | 100.00 | 100  | 0.316 |
| 4 | 4 13C-1,2,3,4-TCDD | 9.44e4 | 0.79 | NO  | 1030     | 1.000  | 15.78 | 92.007 | 92.0 | 0.336 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_6, Date: 11-Feb-2020, Time: 22:35:45, ID: ST200211D2-4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

|   | # Name             | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.  | %Rec | DL    |
|---|--------------------|--------|------|-----|----------|--------|-------|--------|------|-------|
| 1 | 1 2,3,7,8-TCDF     | 1.15e4 | 0.75 | NO  | 0.982    | 1.000  | 17.23 | 9.3257 | 93.3 | 0.185 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.25e5 | 0.75 | NO  | 1.08     | 1.000  | 17.20 | 100.76 | 101  | 0.364 |
| 3 | 3 13C-1,2,3,4-TCDF | 1.15e5 | 0.72 | NO  | 1.00     | 1.000  | 15.17 | 100.00 | 100  | 0.394 |
| 4 | 4 13C-1,2,3,4-TCDD | 9.87e4 | 0.79 | NO  | 1030     | 1.000  | 15.78 | 96.149 | 96.1 | 0.331 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

Name: 200211D2\_7, Date: 11-Feb-2020, Time: 23:07:28, ID: ST200211D2-5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

| # | Name               | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.  | %Rec | DL    |
|---|--------------------|--------|------|-----|----------|--------|-------|--------|------|-------|
| 1 | 1 2,3,7,8-TCDF     | 5.76e4 | 0.74 | NO  | 0.982    | 1.000  | 17.23 | 38.981 | 97.5 | 0.158 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.51e5 | 0.71 | NO  | 1.08     | 1.000  | 17.20 | 102.61 | 103  | 0.300 |
| 3 | 3 13C-1,2,3,4-TCDF | 1.35e5 | 0.73 | NO  | 1.00     | 1.000  | 15.17 | 100.00 | 100  | 0.325 |
| 4 | 4 13C-1,2,3,4-TCDD | 1.13e5 | 0.78 | NO  | 1030     | 1.000  | 15.78 | 110.19 | 110  | 0.311 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:38:05 Pacific Standard Time

**Name: 200211D2\_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307**

|   | # Name             | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.  | %Rec | DL    |
|---|--------------------|--------|------|-----|----------|--------|-------|--------|------|-------|
| 1 | 1 2,3,7,8-TCDF     | 4.81e5 | 0.73 | NO  | 0.982    | 1.000  | 17.23 | 321.06 | 107  | 0.243 |
| 2 | 2 13C-2,3,7,8-TCDF | 1.52e5 | 0.72 | NO  | 1.08     | 1.000  | 17.20 | 102.22 | 102  | 0.295 |
| 3 | 3 13C-1,2,3,4-TCDF | 1.38e5 | 0.73 | NO  | 1.00     | 1.000  | 15.17 | 100.00 | 100  | 0.319 |
| 4 | 4 13C-1,2,3,4-TCDD | 1.20e5 | 0.78 | NO  | 1030     | 1.000  | 15.78 | 116.47 | 116  | 0.322 |

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, February 12, 2020 10:45:15 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:45:35 Pacific Standard Time

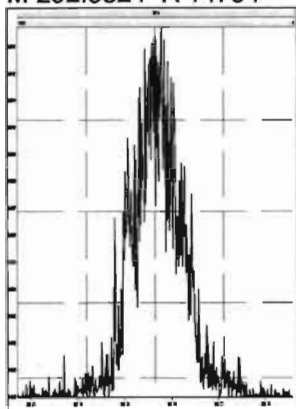
Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Callbration: C:\MassLynx\Default.PRO\CurveDB\db-225\_m23tcdfvg7-2-11-20.cdb 11 Feb 2020 14:52:18

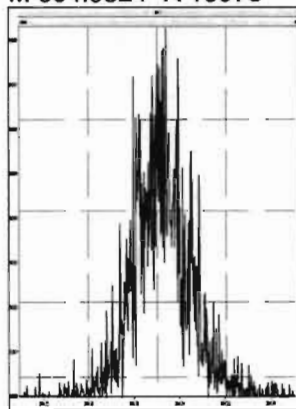
Compound name: 2,3,7,8-TCDF

|    | Name        | ID   | Acq.Date  | Acq.Time |
|----|-------------|--|-----------|----------|
| 1  | 200211D2_1  | SOLVENT BLANK                              | 11-Feb-20 | 19:58:43 |
| 2  | 200211D2_2  | CP200211D2-1 DB-225 CPSM                   | 11-Feb-20 | 20:28:53 |
| 3  | 200211D2_3  | ST200211D2-1 1613 CS0 19L2302              | 11-Feb-20 | 21:00:36 |
| 4  | 200211D2_4  | ST200211D2-2 1613 CS1 19L2303              | 11-Feb-20 | 21:32:19 |
| 5  | 200211D2_5  | ST200211D2-3 1613 CS2 19L2304              | 11-Feb-20 | 22:04:03 |
| 6  | 200211D2_6  | ST200211D2-4 1613 CS3 19L2305              | 11-Feb-20 | 22:35:45 |
| 7  | 200211D2_7  | ST200211D2-5 1613 CS4 19L2306              | 11-Feb-20 | 23:07:28 |
| 8  | 200211D2_8  | ST200211D2-6 1613 CS5 19L2307              | 11-Feb-20 | 23:39:11 |
| 9  | 200211D2_9  | SOLVENT BLANK                              | 12-Feb-20 | 00:10:54 |
| 10 | 200211D2_10 | SS200211D2-1 1613 SSS 19L2308              | 12-Feb-20 | 00:42:33 |
| 11 | 200211D2_11 | SOLVENT BLANK                              | 12-Feb-20 | 01:14:15 |
| 12 | 200211D2_12 | 1903740-08RE1 PDI-097SC-B-06-08-191017 ... | 12-Feb-20 | 01:45:58 |
| 13 | 200211D2_13 | 1903740-07RE1 PDI-097SC-B-04-06-191017 ... | 12-Feb-20 | 02:17:39 |
| 14 | 200211D2_14 | 1903740-06RE1 PDI-097SC-B-02-04-191017 ... | 12-Feb-20 | 02:49:21 |
| 15 | 200211D2_15 | 1903740-01RE1 PDI-031SC-B-00-02-191017 ... | 12-Feb-20 | 03:21:03 |
| 16 | 200211D2_16 | 1903740-05RE1 PDI-097SC-B-00-02-191017 ... | 12-Feb-20 | 03:52:45 |

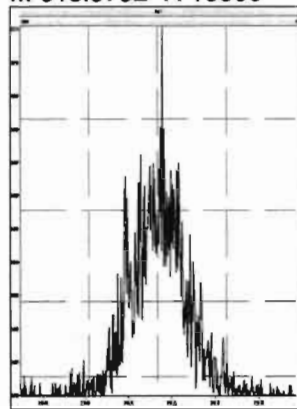
M 292.9824 R 14754



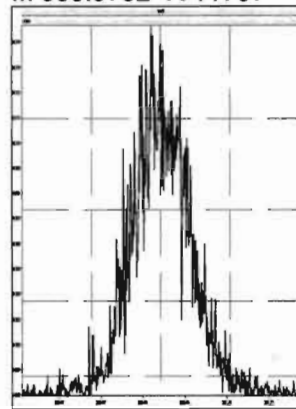
M 304.9824 R 15978



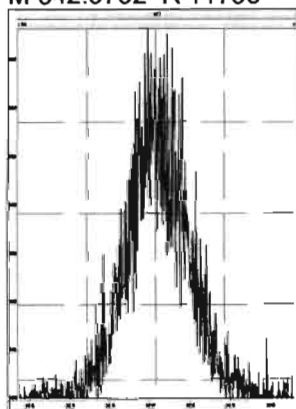
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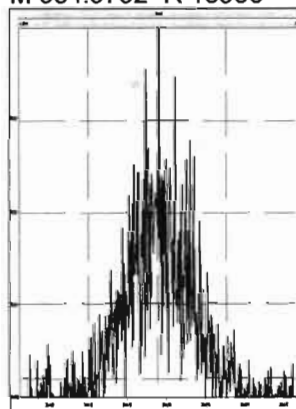
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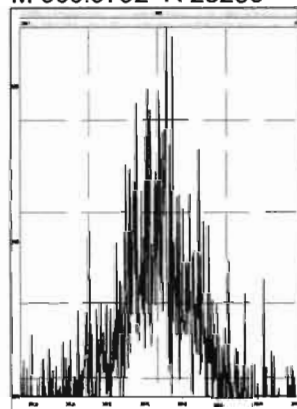
M 342.9792 R 11796



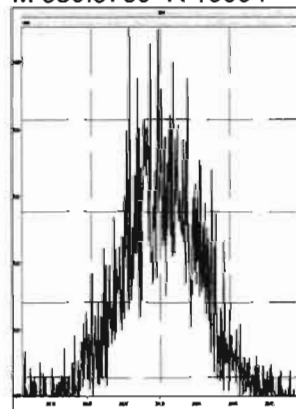
M 354.9792 R 15966



M 366.9792 R 28256



M 380.9760 R 13094



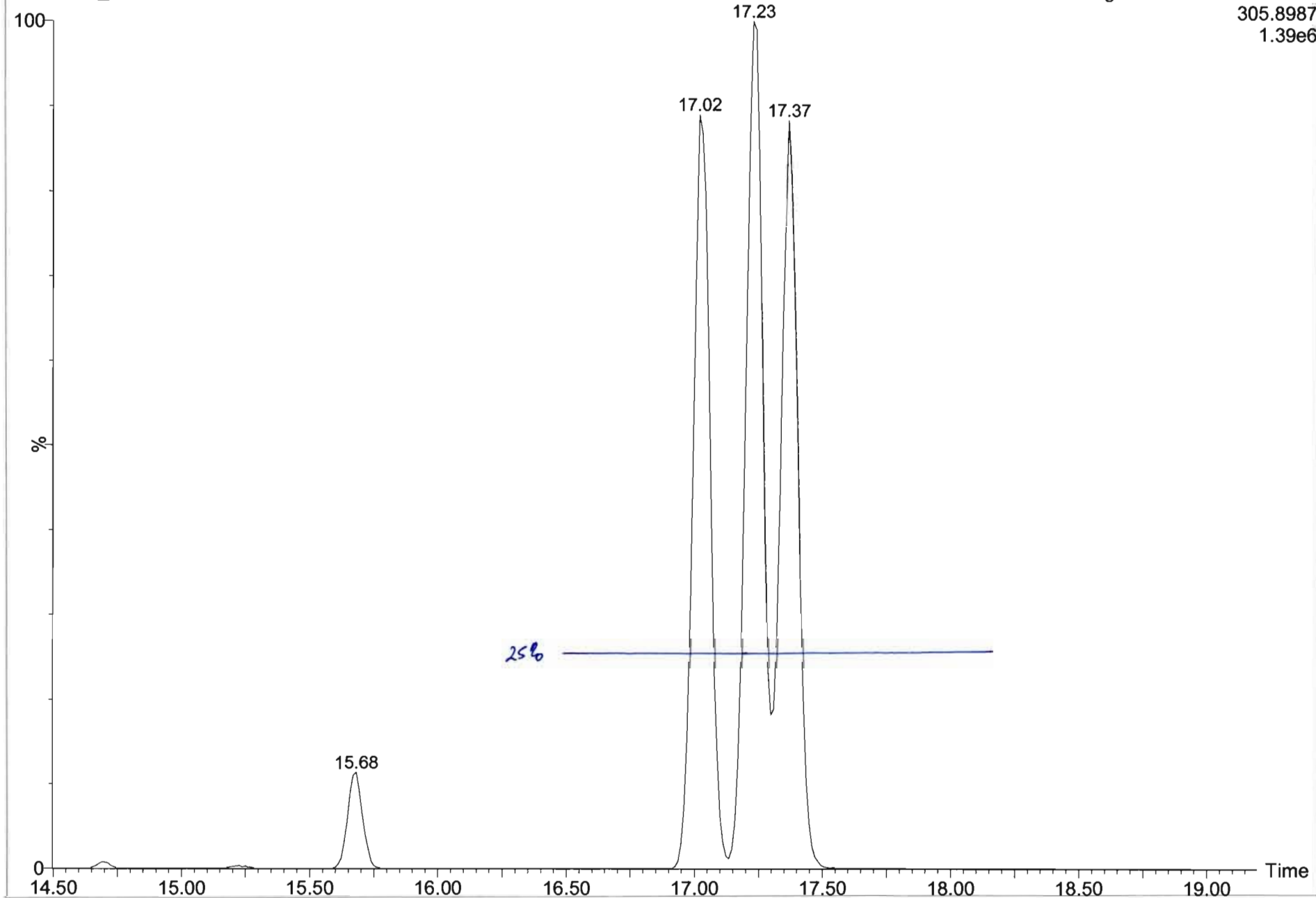
200211D2\_2

20:28:53

Voltage SIR 12 Channels EI+

305.8987

1.39e6





Dataset: U:\VG7.PRO\Results\200211D2\200111D2\_2.qld

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Printed: Wednesday, February 12, 2020 10:15:34 Pacific Standard Time

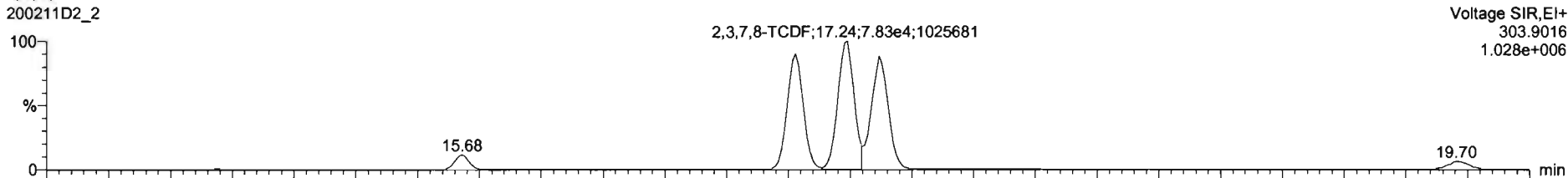
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Calibration: C:\MassLynx\Default.PRO\CurveDB\db-225\_m23tcdfvg7-2-11-20.cdb 11 Feb 2020 14:52:18

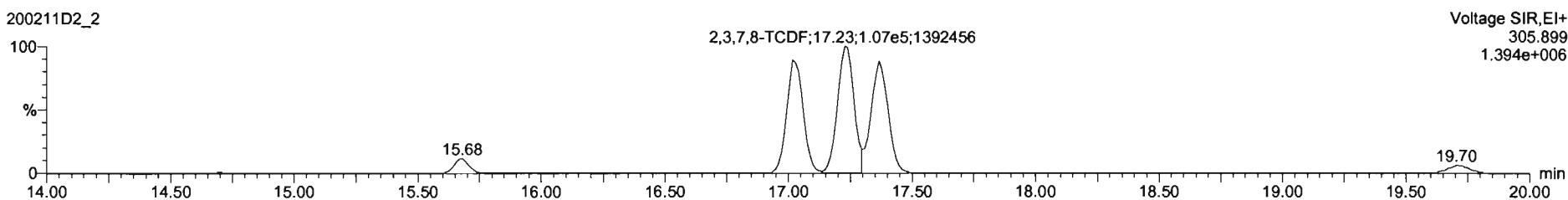
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2,3,7,8-TCDF

200211D2\_2

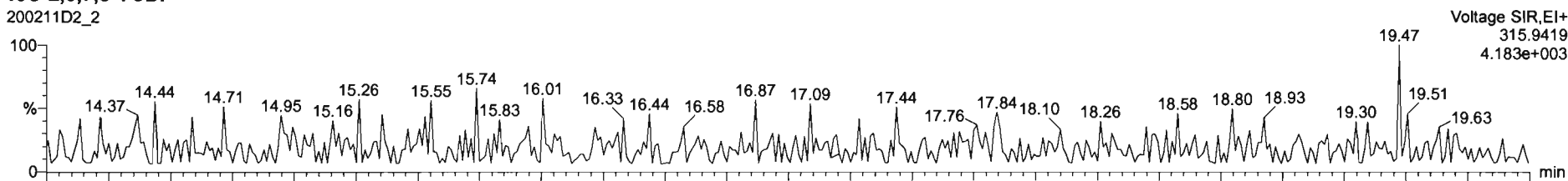


200211D2\_2

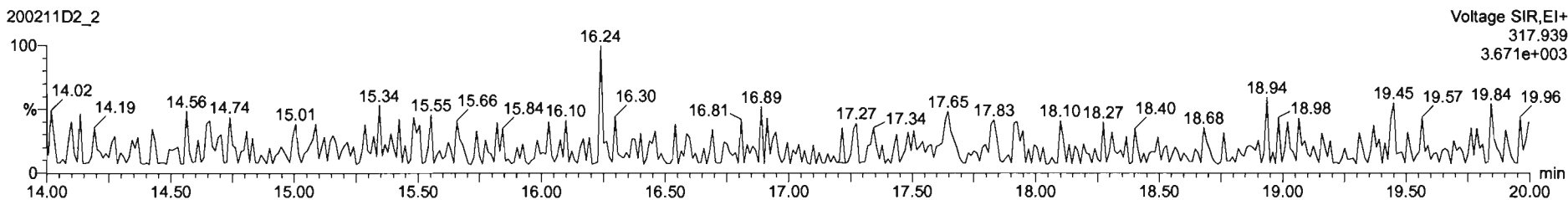


13C-2,3,7,8-TCDF

200211D2\_2



200211D2\_2

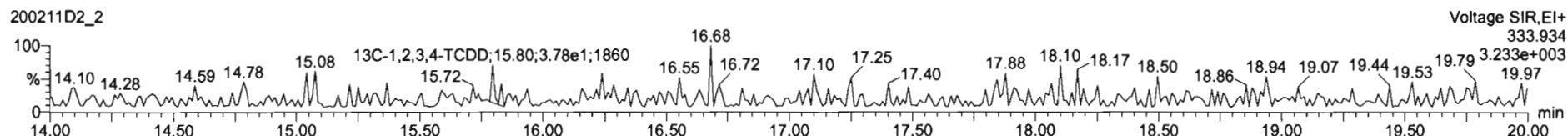
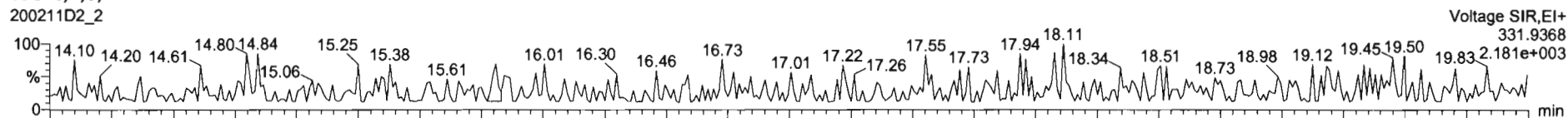


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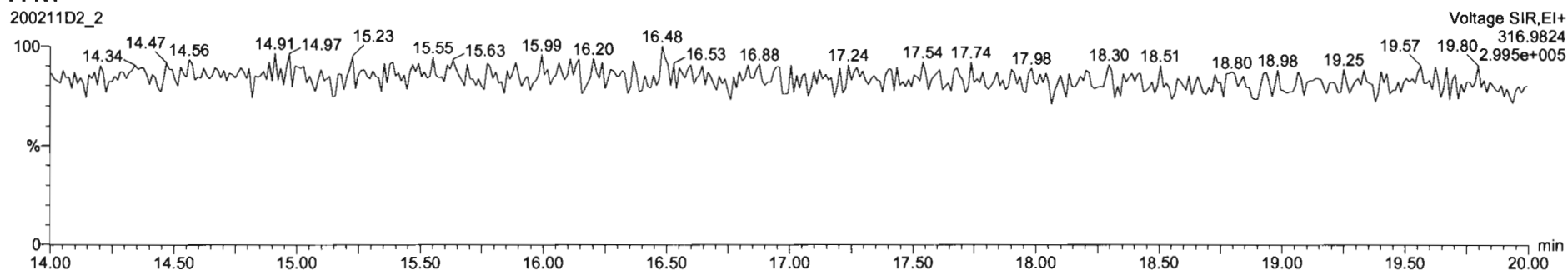
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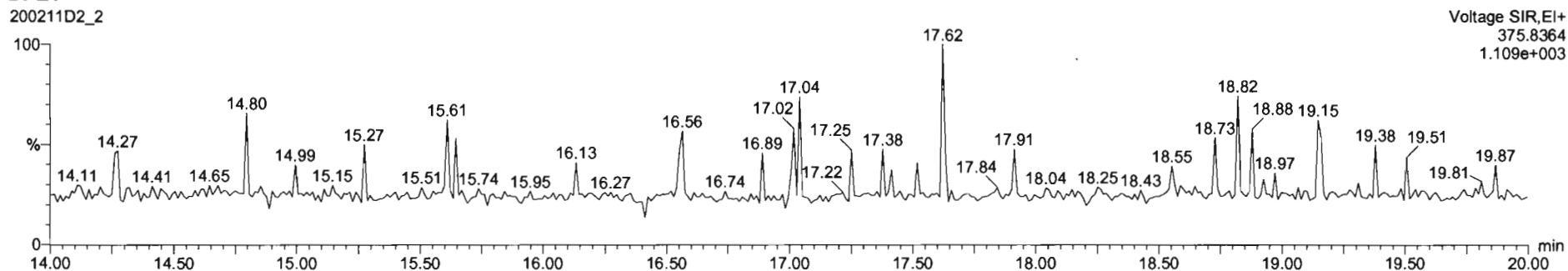
13C-1,2,3,4-TCDD



PFK1



DPE1



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

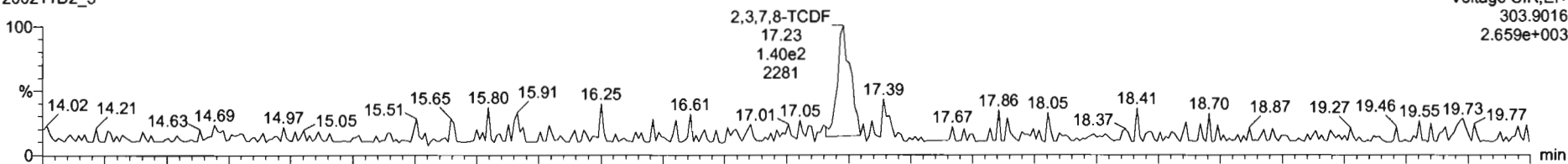
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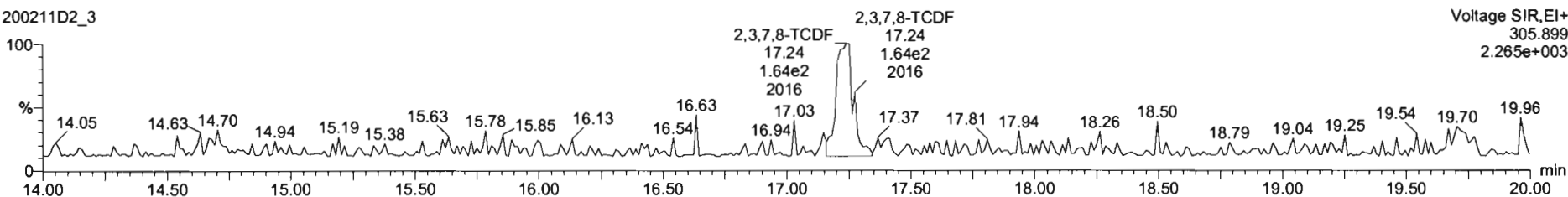
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2,3,7,8-TCDF

200211D2\_3

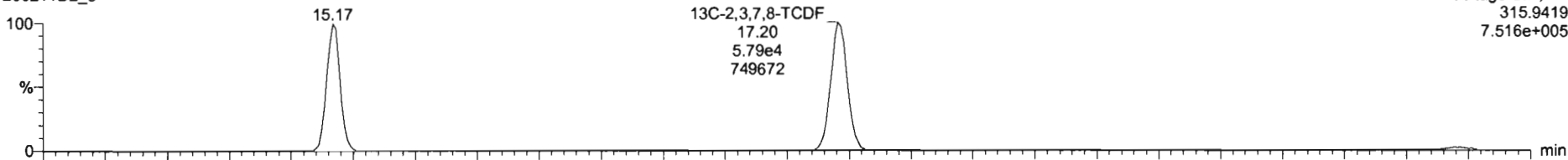


200211D2\_3

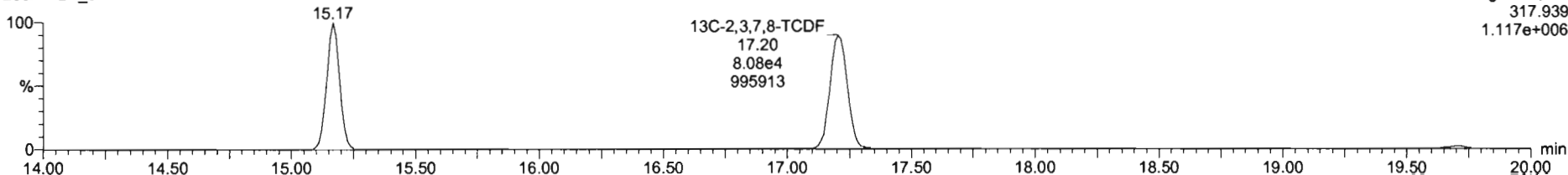


13C-2,3,7,8-TCDF

200211D2\_3



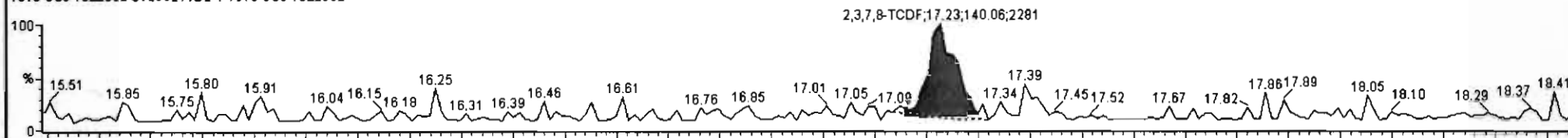
200211D2\_3



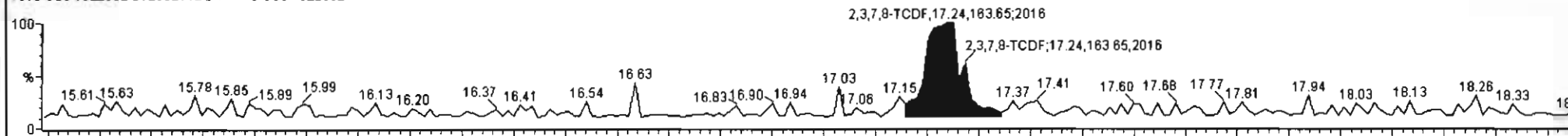
| Name               | Resp   | RA   | n/y | RRF     | wt/vol | RT    | RRT   | Conc. | %Rec | DL     | EMPC  |
|--------------------|--------|------|-----|---------|--------|-------|-------|-------|------|--------|-------|
| 1 2,3,7,8-TCDF     | 3.04e2 | 0.86 | NO  | 0.98    | 1.000  | 17.23 | 1.001 | 0.223 | 89.2 | 0.0831 | 0.223 |
| 2 13C-2,3,7,8-TCDF | 1.39e5 | 0.72 | NO  | 1.08    | 1.000  | 17.20 | 1.134 | 113   | 113  | 0.342  |       |
| 3 13C-1,2,3,4-TCDF | 1.13e5 | 0.70 | NO  | 1.00    | 1.000  | 15.17 | 1.000 | 100   | 100  | 0.371  |       |
| 4 13C-1,2,3,4-TCDF | 1.04e5 | 0.79 | NO  | 1026.38 | 1.000  | 15.78 | 0.000 | 102   | 102  | 0.291  |       |
| 5 PFOS             |        |      |     |         | 1.000  |       |       |       |      |        |       |
| 6 DPE1             |        |      |     |         | 1.000  |       |       |       |      |        |       |

| Name | RT | m1 Resp | m2 Resp | RA | n/y | EMPC | Conc. |
|------|----|---------|---------|----|-----|------|-------|
| 1    |    |         |         |    |     |      |       |

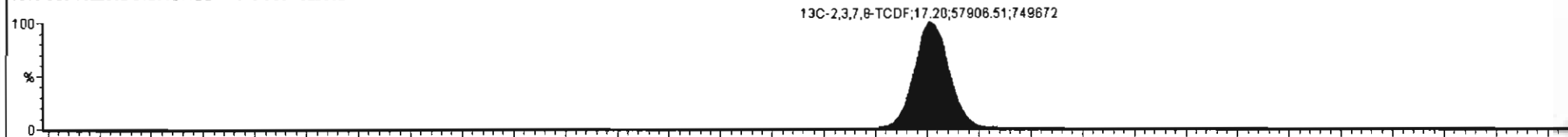
200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



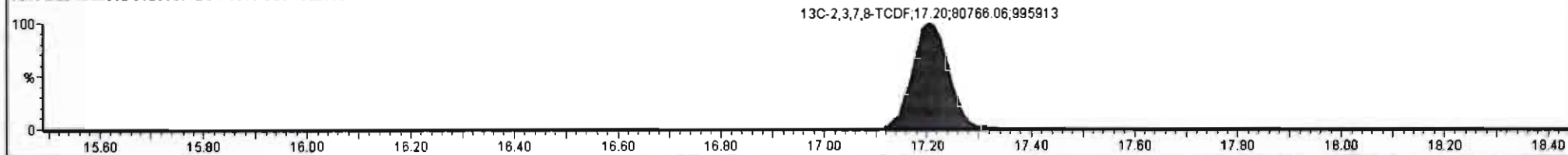
200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



200211D2\_3  
1613 C80 19L2302 ST200211D2-1 1613 C80 19L2302



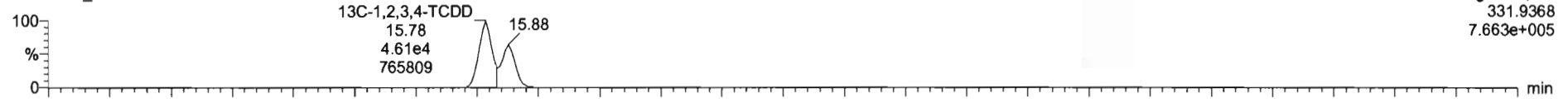
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Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

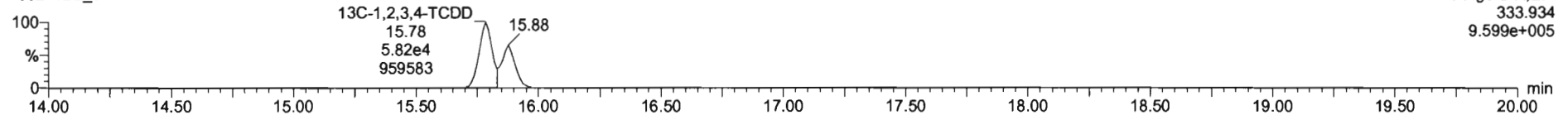
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13C-1,2,3,4-TCDD

200211D2\_3

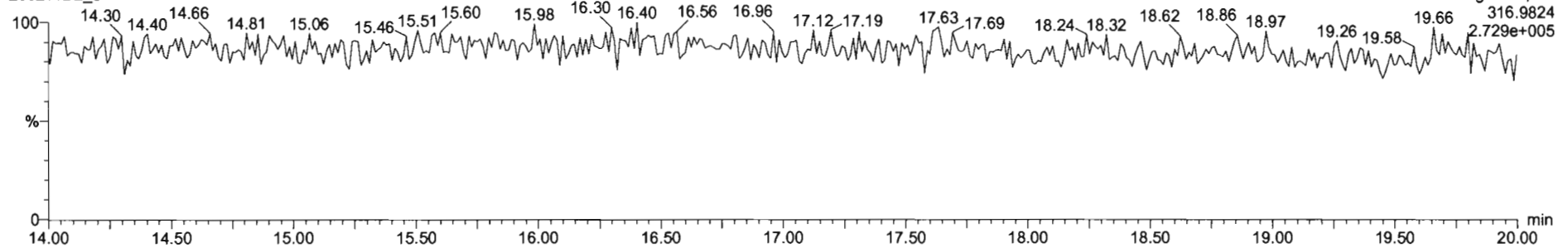


200211D2\_3



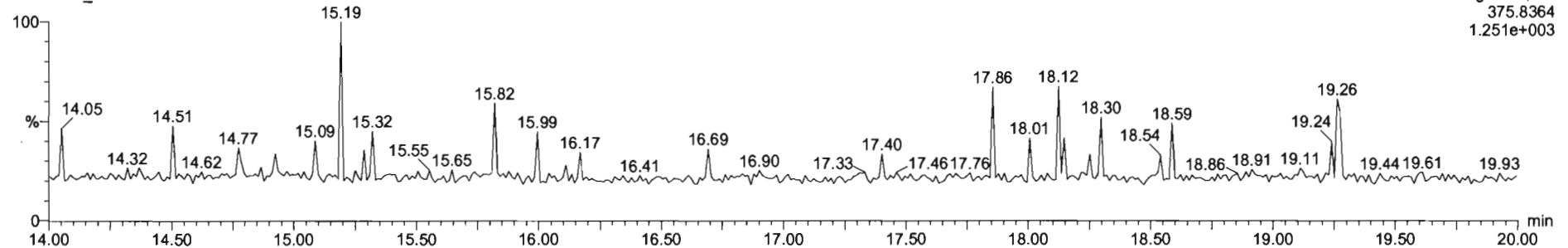
PFK1

200211D2\_3



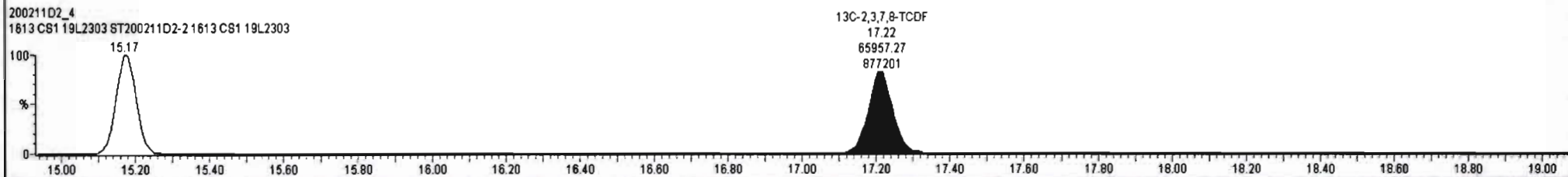
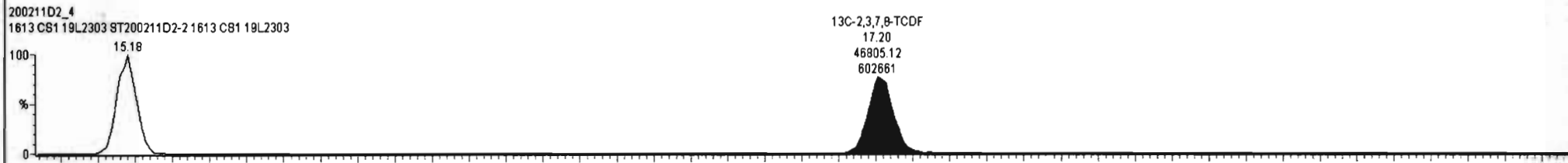
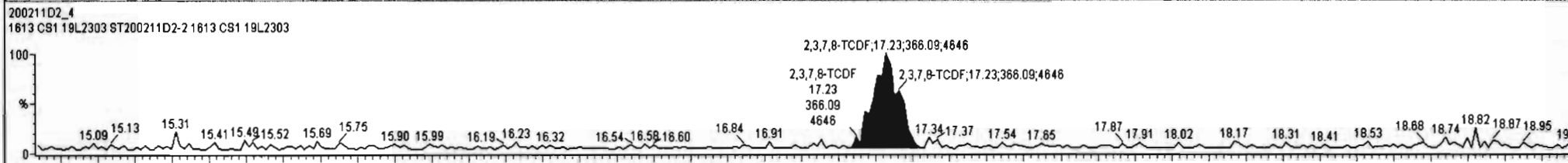
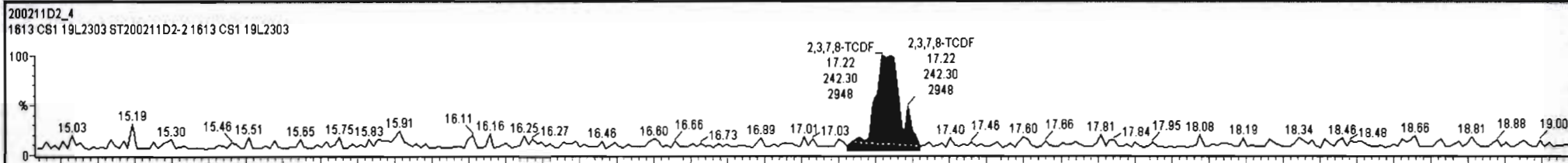
DPE1

200211D2\_3



| # | Name             | Resp   | RA   | ruy | RRF     | wt/vol | RT    | RRT   | Conc. | %Rec | DL    | EWPC  |
|---|------------------|--------|------|-----|---------|--------|-------|-------|-------|------|-------|-------|
| 1 | 2,3,7,8-TCDF     | 8.09e2 | 0.66 | NO  | 0.98    | 1.000  | 17.22 | 1.001 | 0.548 | 110  | 0.147 | 0.549 |
| 2 | 13C-2,3,7,8-TCDF | 1.13e5 | 0.71 | NO  | 1.08    | 1.000  | 17.20 | 1.133 | 91.7  | 91.7 | 0.381 |       |
| 3 | 13C-1,2,3,4-TCDF | 1.14e5 | 0.71 | NO  | 1.00    | 1.000  | 15.18 | 1.000 | 100   | 100  | 0.412 |       |
| 4 | 13C-1,2,3,4-TCDD | 8.57e4 | 0.77 | NO  | 1026.38 | 1.000  | 15.78 | 0.000 | 83.5  | 83.5 | 0.324 |       |
| 5 | PFK1             |        |      |     |         | 1.000  |       |       |       |      |       |       |
| 6 | DPF1             |        |      |     |         | 1.000  |       |       |       |      |       |       |

| # | Name | RT | int Resp | m2 Resp | RA | ruy | EWPC | Conc. |
|---|------|----|----------|---------|----|-----|------|-------|
| 1 |      |    |          |         |    |     |      |       |



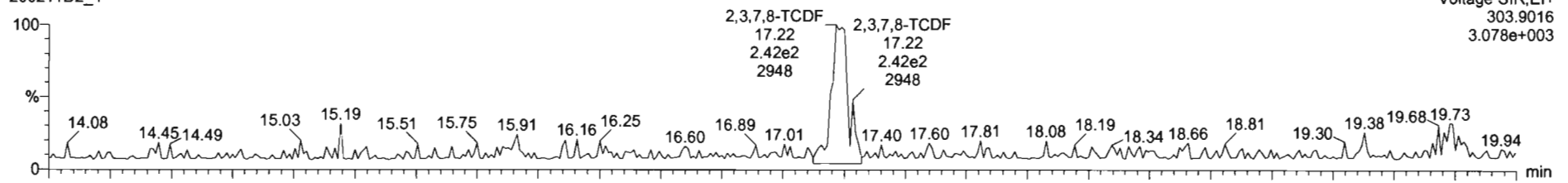
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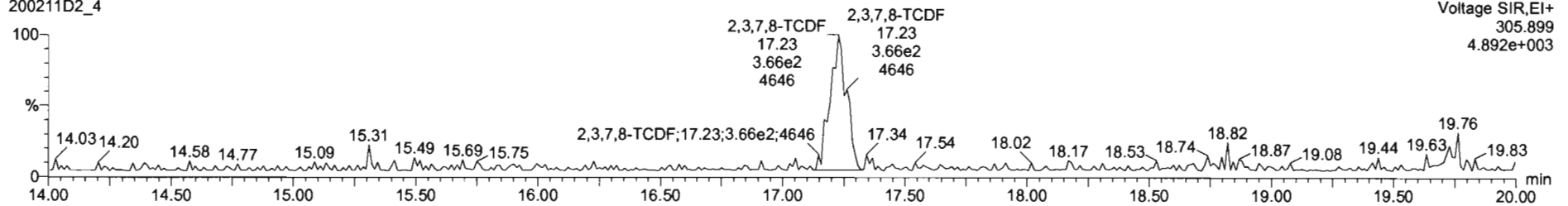
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2,3,7,8-TCDF

200211D2\_4

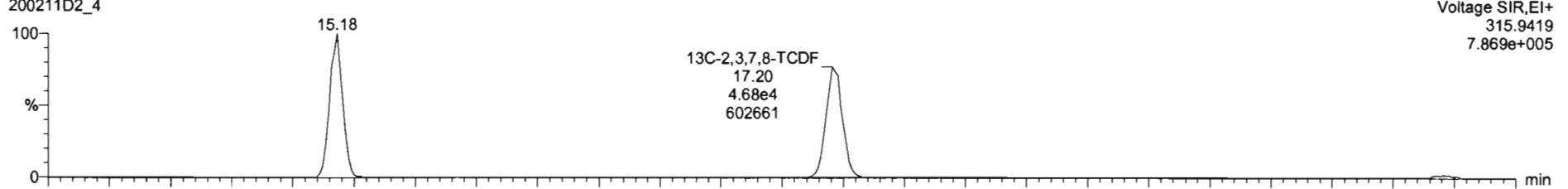


200211D2\_4

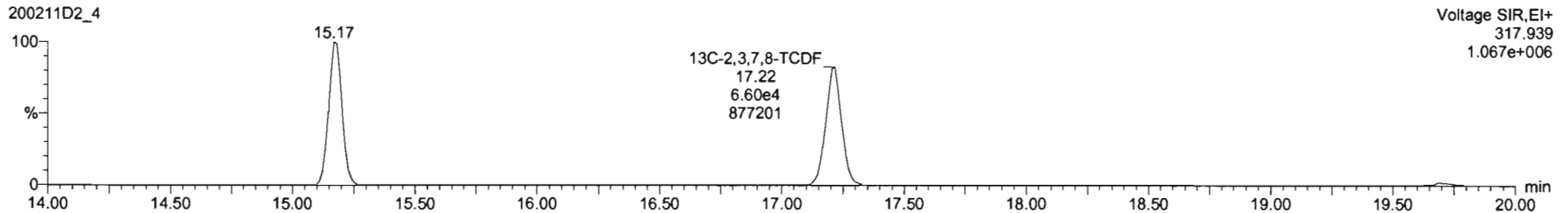


13C-2,3,7,8-TCDF

200211D2\_4



200211D2\_4



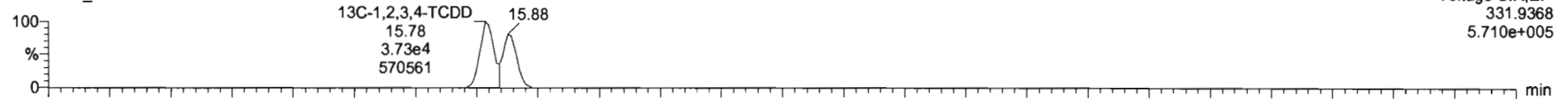
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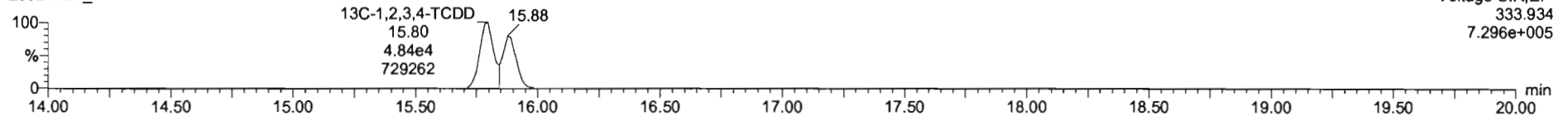
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**13C-1,2,3,4-TCDD**

200211D2\_4

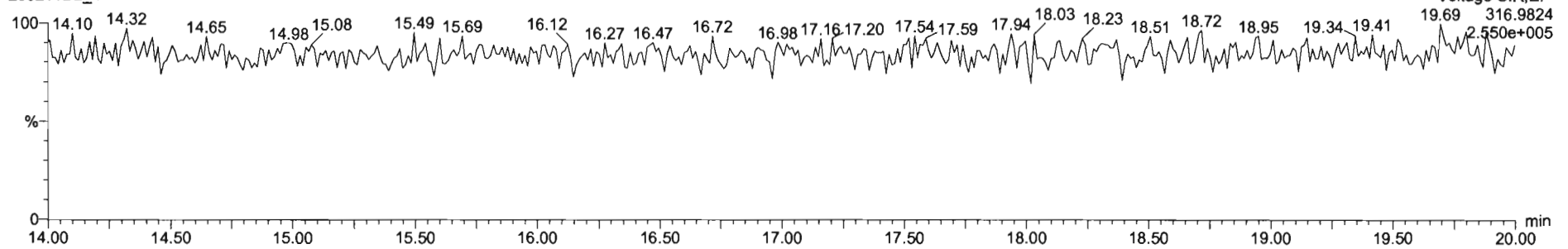


200211D2\_4



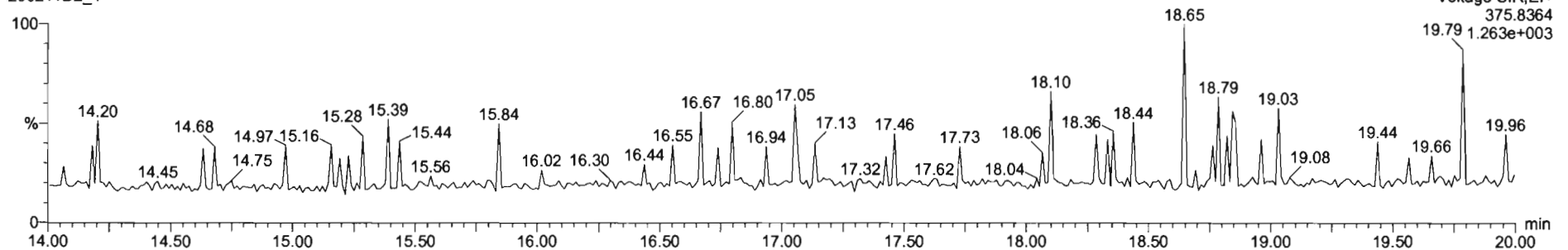
**PFK1**

200211D2\_4



**DPE1**

200211D2\_4





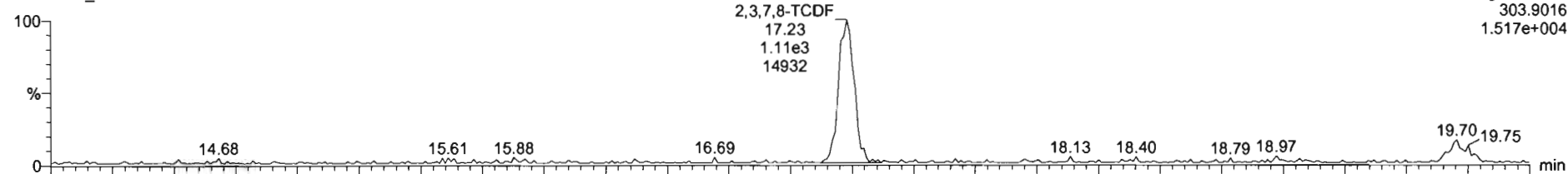
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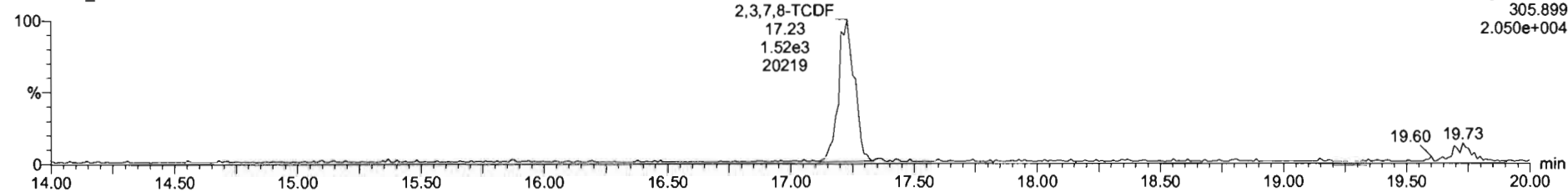
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**2,3,7,8-TCDF**

200211D2\_5

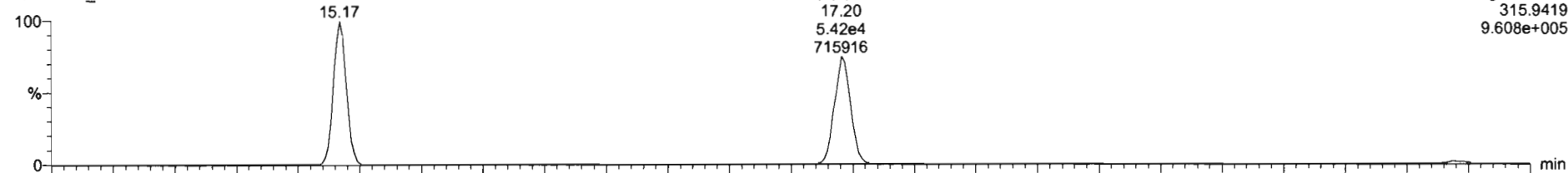


200211D2\_5

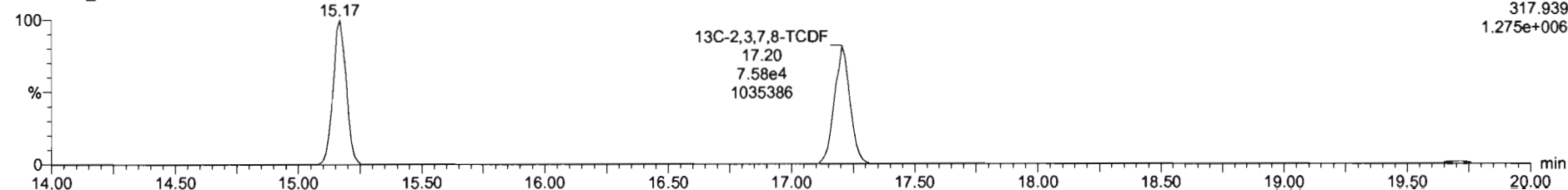


**13C-2,3,7,8-TCDF**

200211D2\_5



200211D2\_5

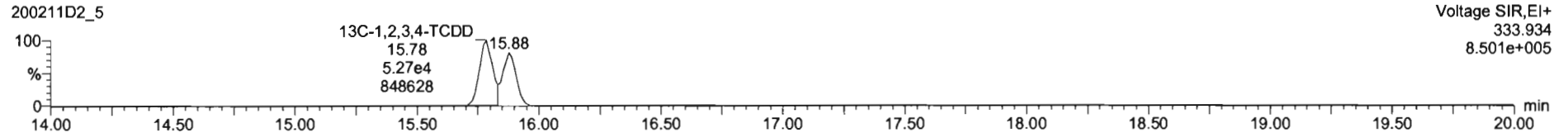
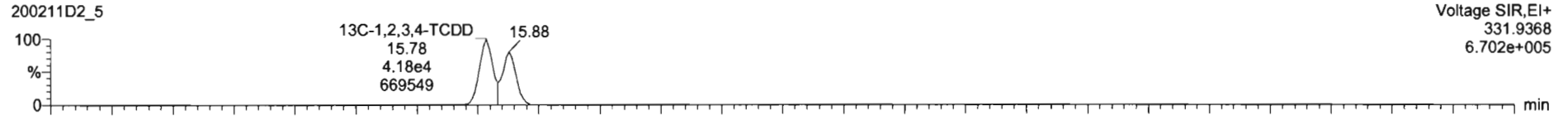


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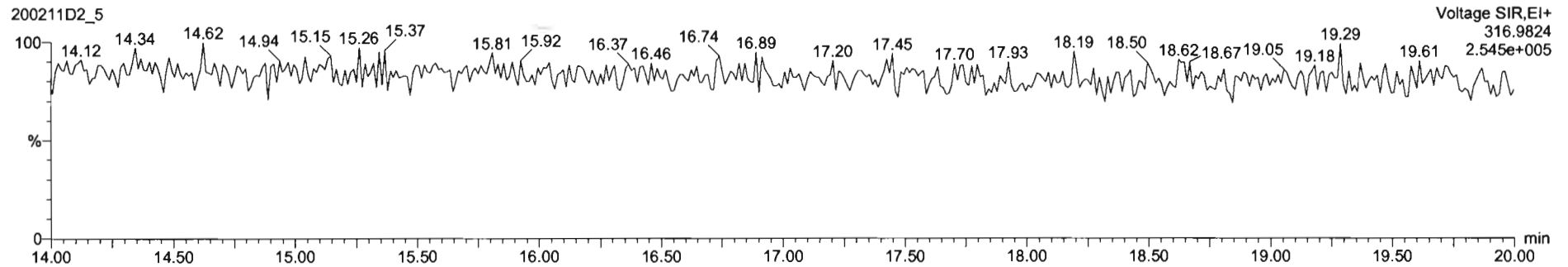
Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
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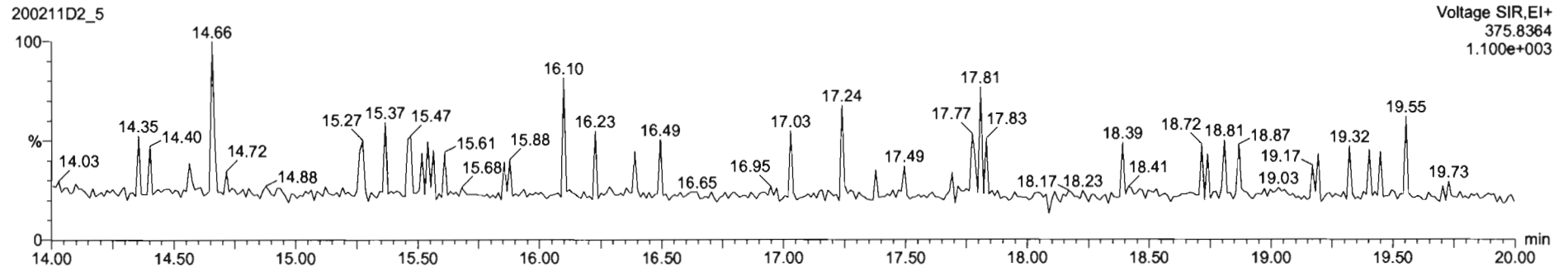
13C-1,2,3,4-TCDD



PFK1



DPE1



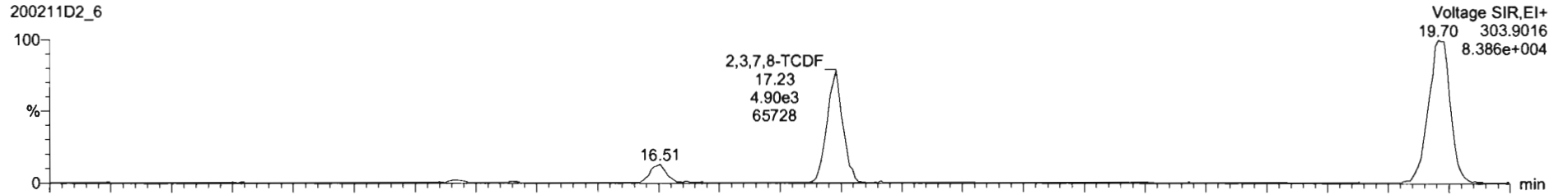
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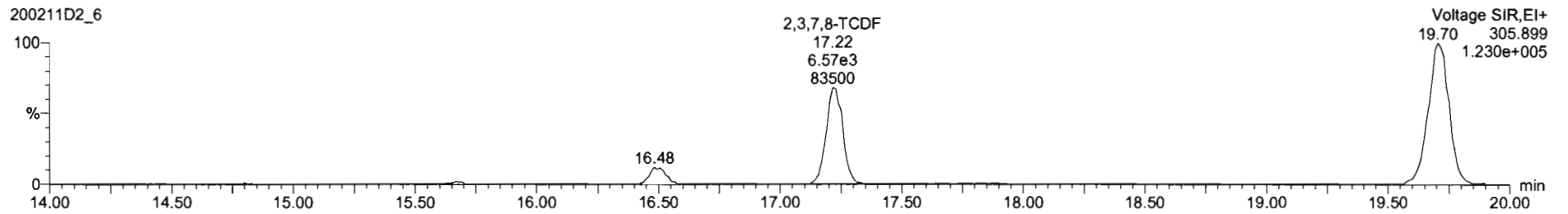
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**2,3,7,8-TCDF**

200211D2\_6

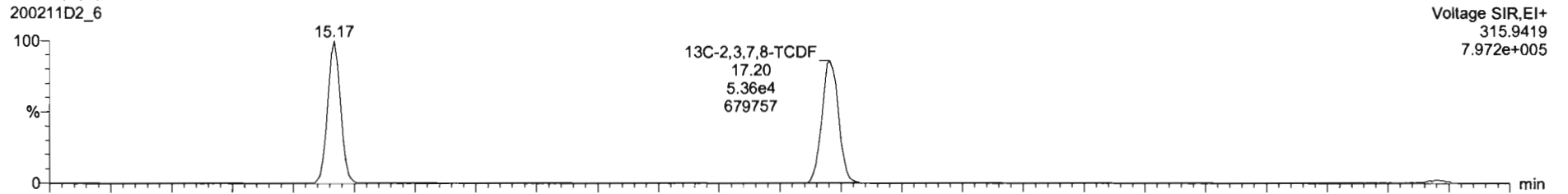


200211D2\_6

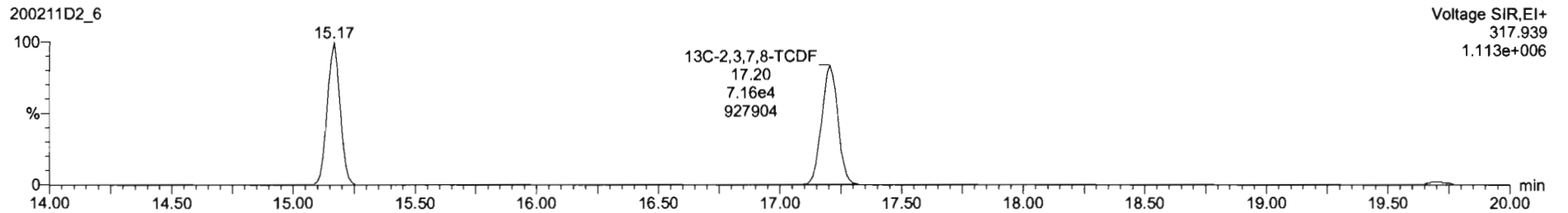


**13C-2,3,7,8-TCDF**

200211D2\_6



200211D2\_6



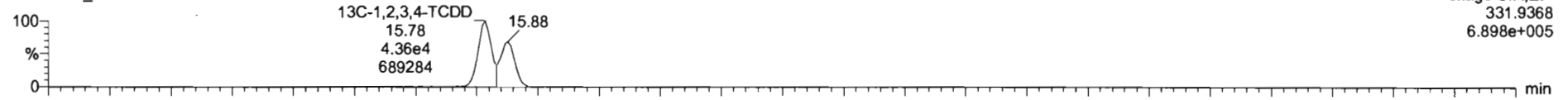
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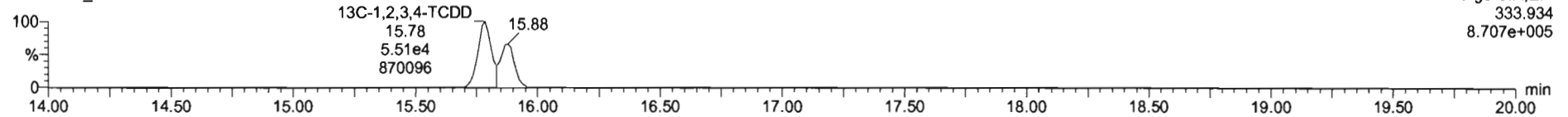
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**13C-1,2,3,4-TCDD**

200211D2\_6

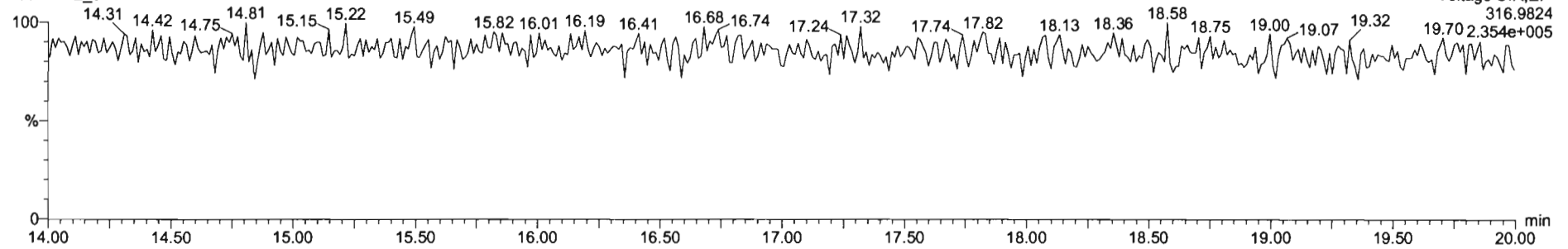


200211D2\_6



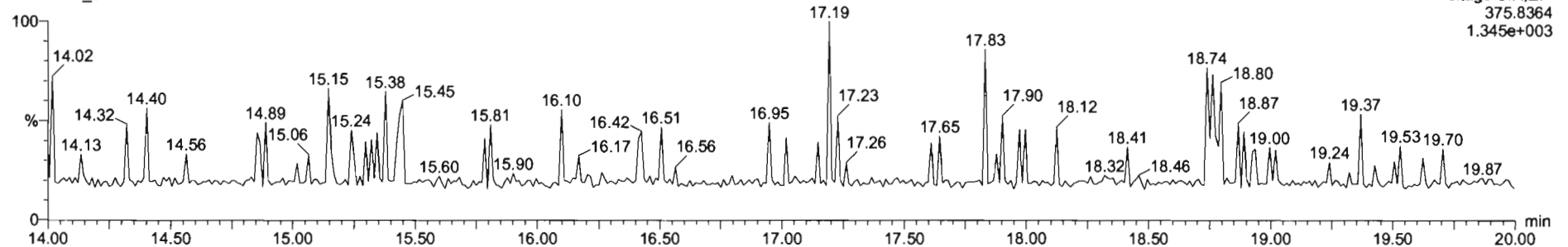
**PFK1**

200211D2\_6



**DPE1**

200211D2\_6



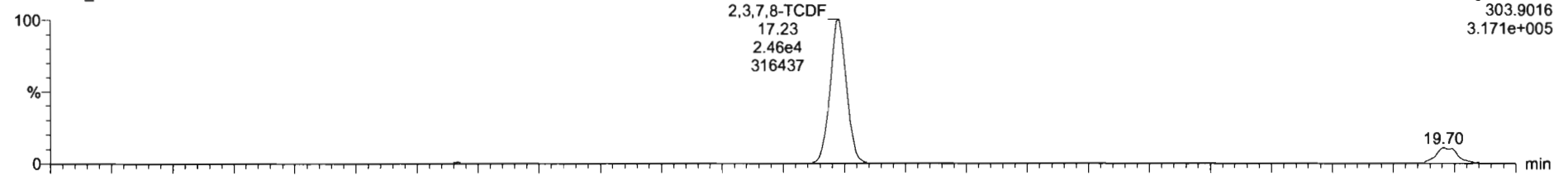
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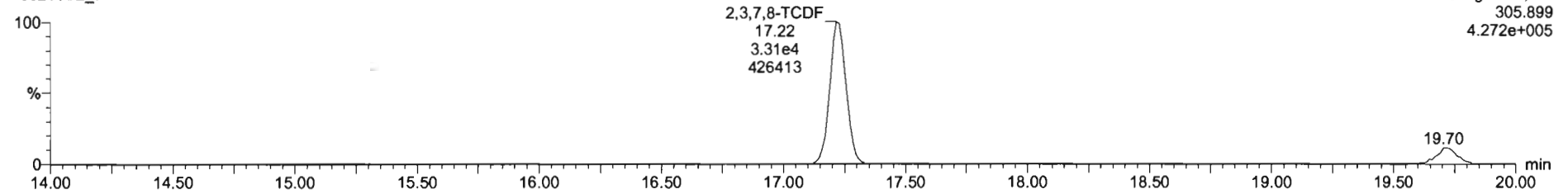
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**2,3,7,8-TCDF**

200211D2\_7

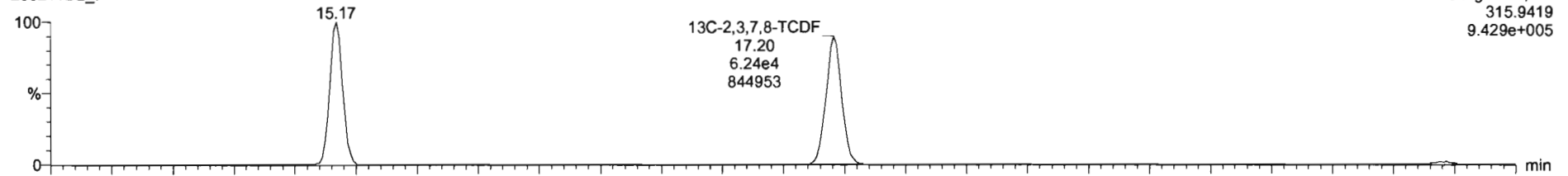


200211D2\_7

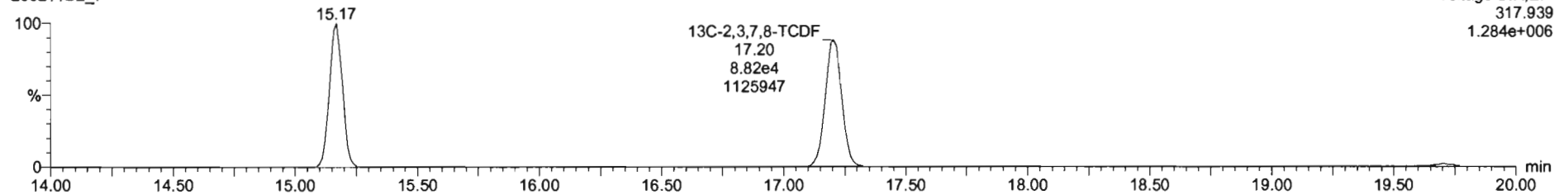


**13C-2,3,7,8-TCDF**

200211D2\_7



200211D2\_7



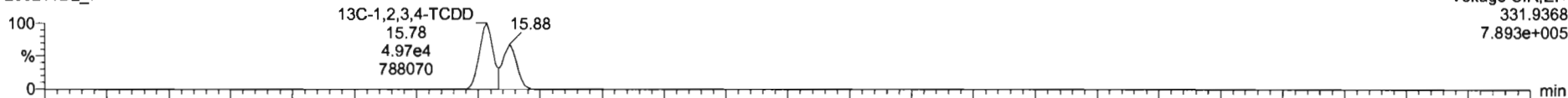
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

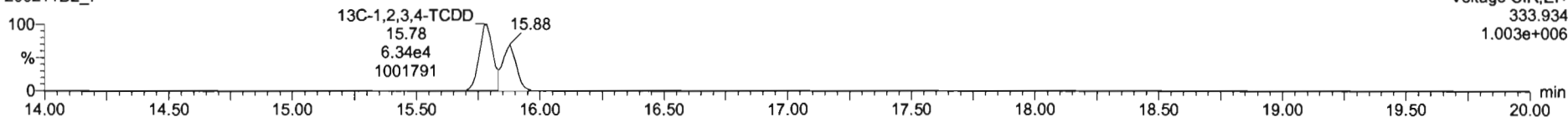
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**13C-1,2,3,4-TCDD**

200211D2\_7

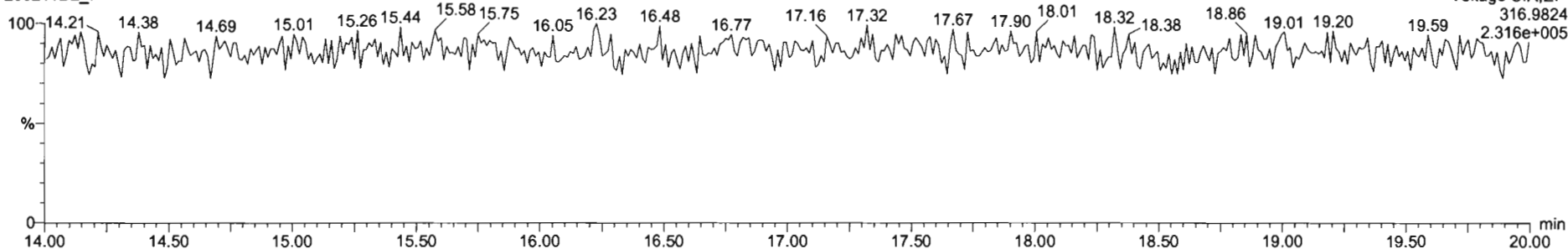


200211D2\_7



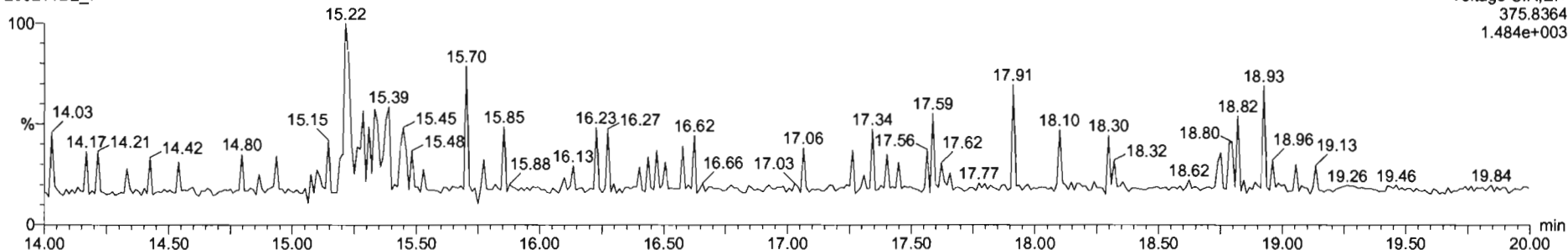
**PFK1**

200211D2\_7



**DPE1**

200211D2\_7



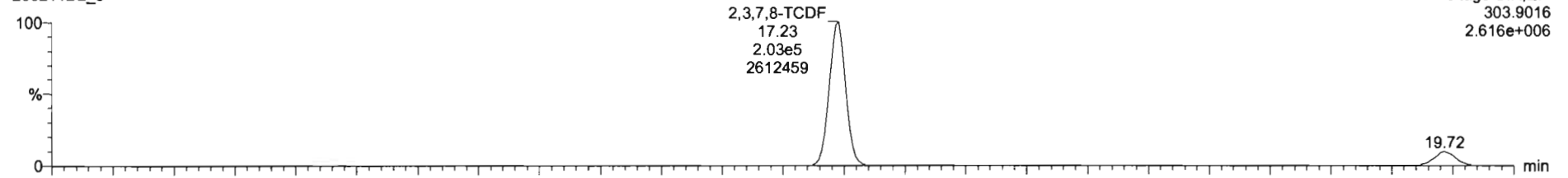
Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_CRV.qld

Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

Name: 200211D2\_8, Date: 11-Feb-2020, Time: 23:39:11, ID: ST200211D2-6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

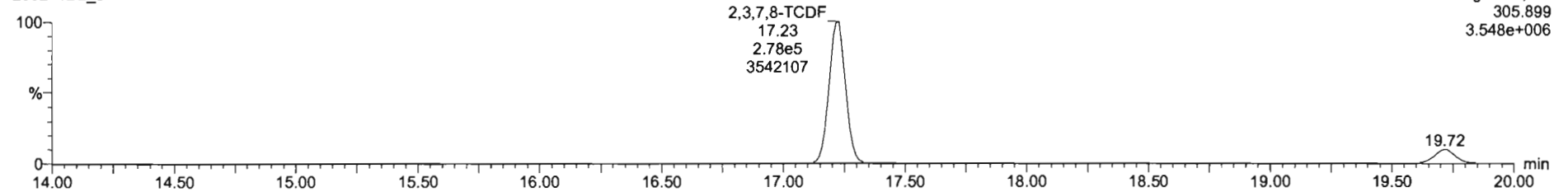
**2,3,7,8-TCDF**

200211D2\_8



Voltage SIR,EI+  
303.9016  
2.616e+006

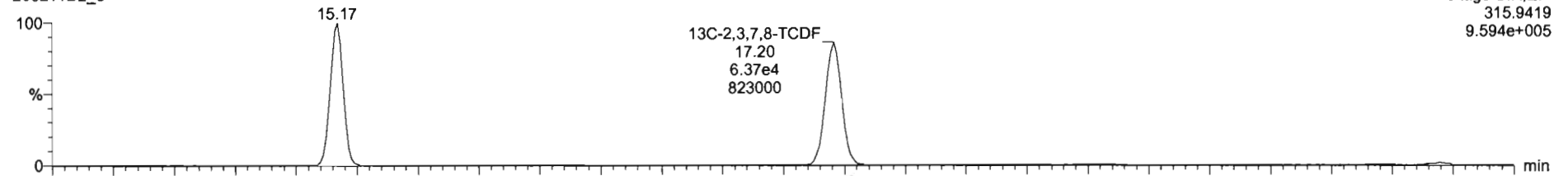
200211D2\_8



Voltage SIR,EI+  
305.899  
3.548e+006

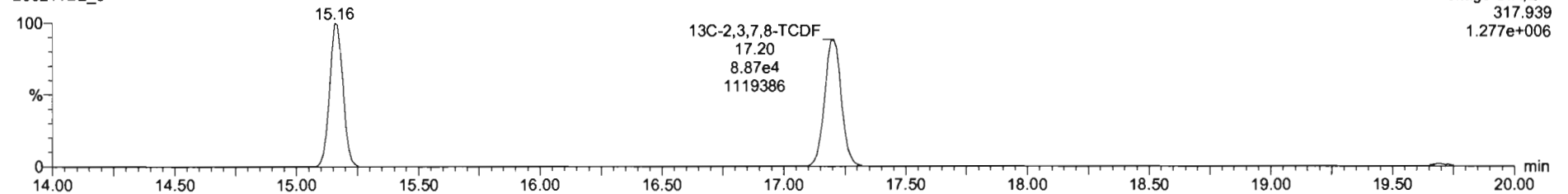
**13C-2,3,7,8-TCDF**

200211D2\_8



Voltage SIR,EI+  
315.9419  
9.594e+005

200211D2\_8



Voltage SIR,EI+  
317.939  
1.277e+006

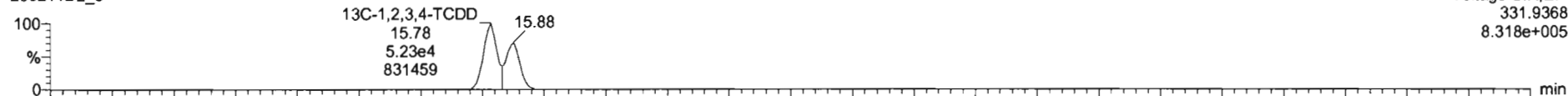
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Last Altered: Wednesday, February 12, 2020 10:17:56 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:38:37 Pacific Standard Time

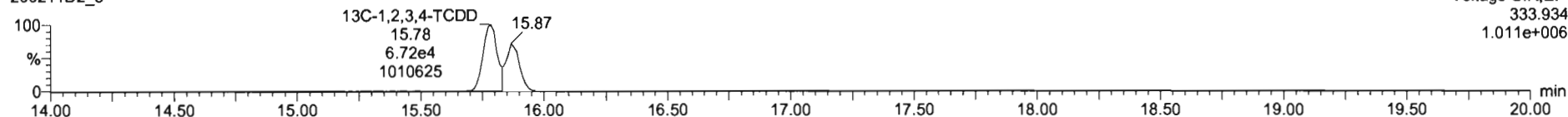
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13C-1,2,3,4-TCDD

200211D2\_8

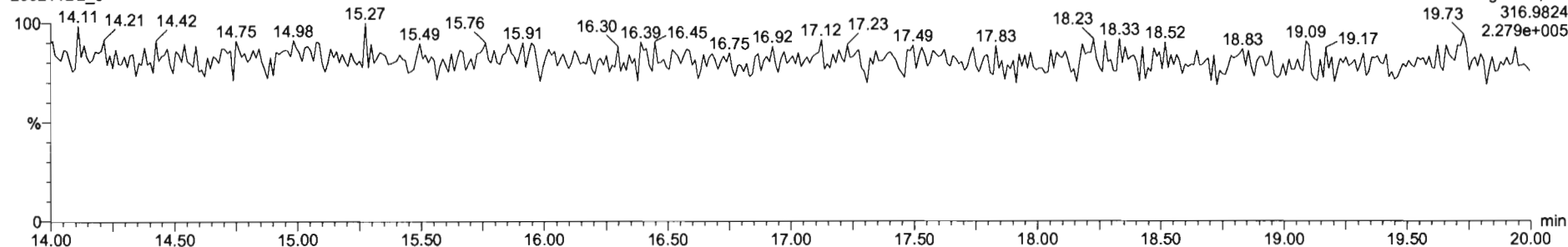


200211D2\_8



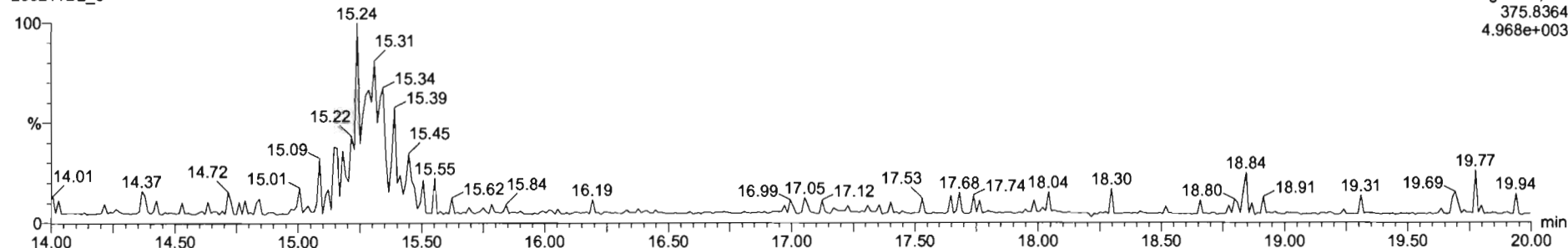
PFK1

200211D2\_8



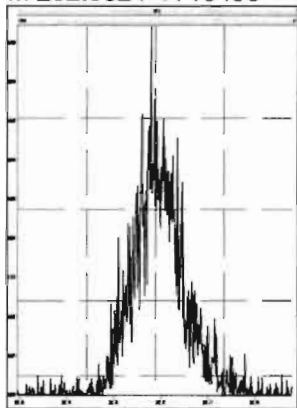
DPE1

200211D2\_8

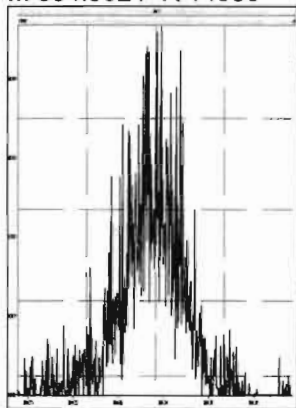




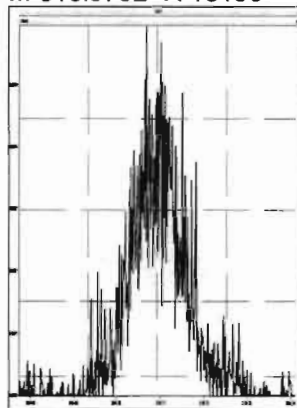
M 292.9824 R 13493



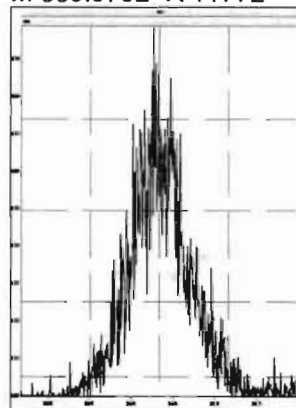
M 304.9824 R 14983



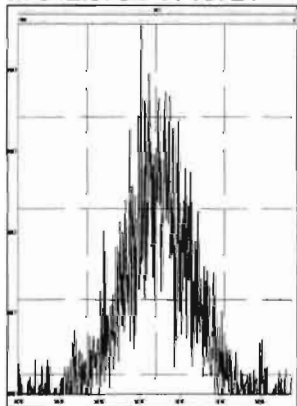
M 318.9792 R 15196



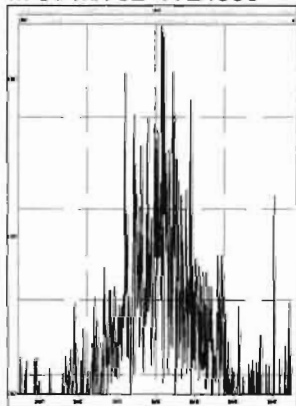
M 330.9792 R 11772



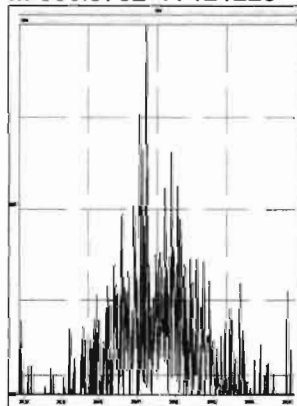
M 342.9792 R 13721



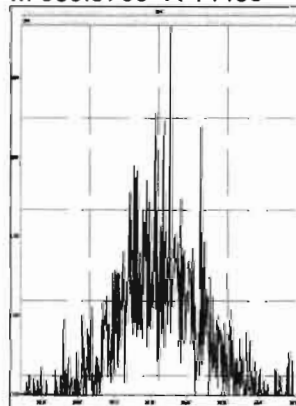
M 354.9792 R 24553



M 366.9792 R 121228



M 380.9760 R 14409



Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_10.qld

Last Altered: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time

Printed: Wednesday, February 12, 2020 10:52:52 Pacific Standard Time

*DB 2/12/20 07:52/2020*

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24

Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

Name: 200211D2\_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

| # | Name             | Resp   | RA   | n/y | RRF M... | wt/vol | RT    | Conc.  | %Rec | DL    |
|---|------------------|--------|------|-----|----------|--------|-------|--------|------|-------|
| 1 | 2,3,7,8-TCDF     | 1.29e4 | 0.77 | NO  | 0.982    | 1.000  | 17.22 | 10.800 | 108  | 0.183 |
| 2 | 13C-2,3,7,8-TCDF | 1.22e5 | 0.73 | NO  | 1.08     | 1.000  | 17.20 | 92.025 | 92.0 | 0.305 |
| 3 | 13C-1,2,3,4-TCDF | 1.22e5 | 0.72 | NO  | 1.00     | 1.000  | 15.17 | 100.00 | 100  | 0.330 |
| 4 | 13C-1,2,3,4-TCDD | 8.99e4 | 0.76 | NO  | 1030     | 1.000  | 15.78 | 87.563 | 87.6 | 0.304 |

Dataset: U:\VG7.PRO\Results\200211D2\200211D2\_10.qld

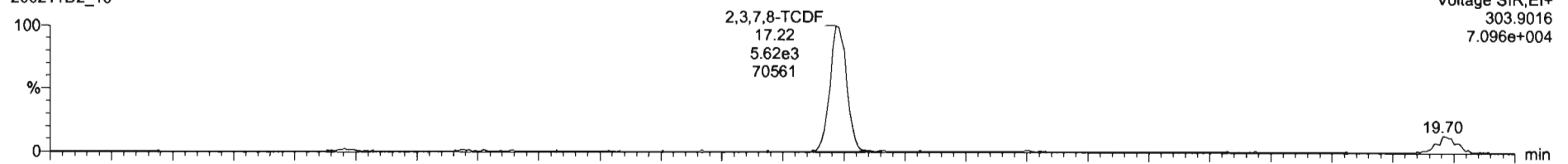
Last Altered: Wednesday, February 12, 2020 10:51:20 Pacific Standard Time  
Printed: Wednesday, February 12, 2020 10:53:15 Pacific Standard Time

Method: C:\MassLynx\Default.PRO\MethDB\tcdf.mdb 11 Feb 2020 09:33:24  
Calibration: U:\VG7.PRO\CurveDB\db-225\_1613tcdfvg7-2-11-20.cdb 12 Feb 2020 10:17:56

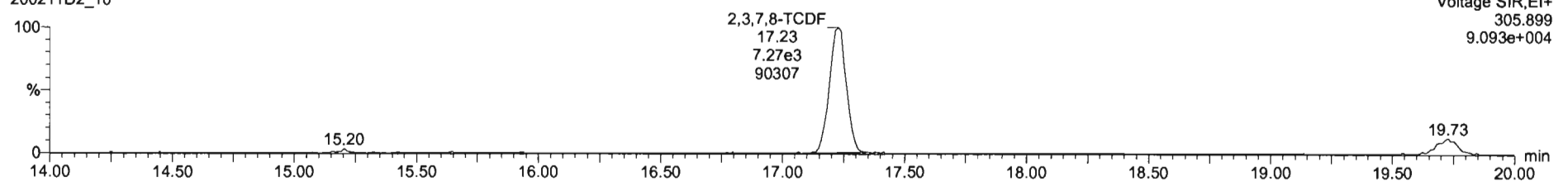
Name: 200211D2\_10, Date: 12-Feb-2020, Time: 00:42:33, ID: SS200211D2-1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

**2,3,7,8-TCDF**

200211D2\_10

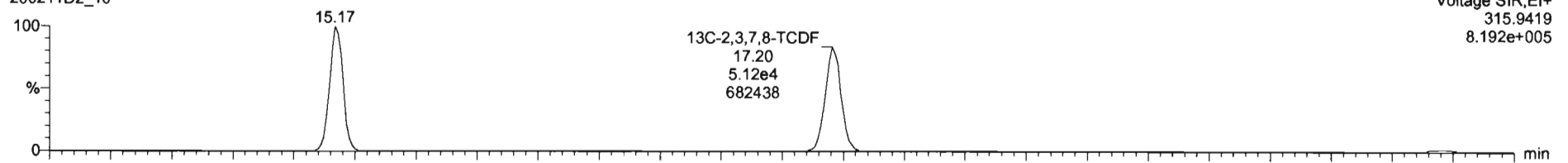


200211D2\_10



**13C-2,3,7,8-TCDF**

200211D2\_10



200211D2\_10

