Source Test Report

All American Asphalt
10671 Jeffrey Road
Irvine, CA 92602

STID: PR21000

Source Tested: One (1) Carbon Absorption Unit
Test Dates: March 17-19, 2021

STA Received: 4/20/2021

AST Project No. 2021-0883

Prepared By
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Regulatory Information

Facility No.	082207
SCAQMD Application No.	623921

Source Information

Source Name	*Source ID*	*Target Parameters*
One (1) Carbon Adsorption Unit Inlet and Outlet	CAU	Metals, Toxic Organics, PAH, VOC, Total Sulfur

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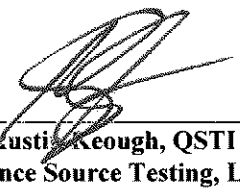
Alliance Source Testing, LLC (AST) has completed the source testing as described in this report. Results apply only to the source(s) tested and operating condition(s) for the specific test date(s) and time(s) identified within this report. All results are intended to be considered in their entirety, and AST is not responsible for use of less than the complete test report without written consent. This report shall not be reproduced in full or in part without written approval from the customer.

To the best of my knowledge and abilities, all information, facts and test data are correct. Data presented in this report has been checked for completeness and is accurate, error-free and legible. Onsite testing was conducted in accordance with approved internal Standard Operating Procedures. Any deviations or problems are detailed in the relevant sections on the test report.

This report is only considered valid once an authorized representative of AST has signed in the space provided below; any other version is considered draft. This document was prepared in portable document format (.pdf) and contains pages as identified in the bottom footer of this document.



Austin Keough, QSTI
Alliance Source Testing, LLC

April 16, 2021
Date

TABLE OF CONTENTS

1.0 Introduction 1-1
1.1 Source and Control System Descriptions 1-1
1.2 Project Team 1-1
1.3 Test Program Notes 1-1
2.0 Summary of Results 2-1
3.0 Testing Methodology 3-1
3.1 SCAQMD Reference Methods 1.2 and 2.3 – Volumetric Flow Rate of Small Ducts (4" – 12") 3-1
3.2 SCAQMD Method 4.1 – Moisture Content 3-1
3.3 CARB Reference Test Method 436 – Multi-Metals 3-1
3.4 U.S. EPA Reference Test Method TO-15– Toxic Organics 3-2
3.5 CARB Reference Test Method 429 – Polycyclic Aromatic Hydrocarbons 3-2
3.6 SCAQMD Method 25.3 – VOC, as TGNMO (Low- Level) 3-3
3.7 SCAQMD Method 25.1 – VOC, as TGNMO (High-Level) 3-4
3.8 SCAQMD Method 307-91 – Total Reduced Sulfur 3-4

LIST OF TABLES

Table 1-1 Project Team 1-1
Table 2-1 Summary of Results – TRS 2-1
Table 2-2 Summary of Results – TGNMEO 2-1
Table 2-3 Summary of Results – TO-15 Inlet 2-2
Table 2-4 Summary of Results – TO-15 Outlet 2-3
Table 2-5 Summary of Results – PAH Inlet 2-4
Table 2-6 Summary of Results – PAH Outlet 2-5
Table 2-7 Summary of Results – Metals Inlet 2-6
Table 2-8 Summary of Results – Metals Outlet 2-7
Table 3-1 Source Testing Methodology 3-1

APPENDICES

Appendix A Sample Calculations
Appendix B Field Data
Appendix C Laboratory Data
Appendix D Quality Assurance/Quality Control Data
Appendix E Process Operating/Control System Data
Appendix F Handwritten Data Sheets

Introduction

1.0 Introduction

Alliance Source Testing, LLC (AST) was retained by All American Asphalt, Corona (All American Asphalt) to conduct compliance testing at the Crumb Rubber Asphalt plant in Irvine, California. Testing was completed using the combined efforts of the Cypress, California and Salt Lake City, Utah facilities. The facility operates under South Coast Air Quality Management District Rule 441 and the SCAQMD Application No. 623921. Testing was conducted to determine the concentration and emission rates of multiple metals, toxic organics, polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC) and total sulfur compounds from the inlet and the outlet of the Carbon Adsorption Unit (CAU).

1.1 Source and Control System Descriptions

The CAU (A/N 623921) is identified as follows: 1) Carbon Adsorber, ENVENT Corporation, Model EC-2000, with Two Canisters in series (Primary and Secondary), each 3'-9.5" x 7'-10" and each with 2,000 pounds of activated carbon. 2) Venting Two Electrostatic Precipitators.

1.2 Project Team

Personnel involved in this project are identified in the following table.

Table 1-1
Project Team

SCAQMD Personnel	Bill Welch
AST Personnel	Austin Keough Charles Figueroa Tobias Hubbard Robert Lewis George Huner Michael Benini

1.3 Test Program Notes

Testing was conducted in compliance with the test protocol submitted by Airx Testing Services and accepted by the District (Ref: P21000) with the following deviations agreed to by the District:

Since the emissions expect to have no products of combustion, the Gas Density was agreed to be assumed as ambient and the continuous emission monitoring using SCAQMD Method 100.1 was removed from the test program

After additional review of the proposed test locations, SCAQMD 1.2 and 2.3 were agreed to be utilized at both test locations.

A total of three sets of sampling ports, each meeting the minimum straight run criteria were installed at both the 6" diameter inlet duct and outlet stack. The two upstream sets of ports were used for the isokinetic sampling for the PAH and Metals test program (1 set for each). The downstream set of ports was used to measure simultaneous flows for isokinetic calculations and mass emissions.

The inlet duct was a fixed section of PVC pipe that replaced a section of flexible ducting between the ESP and the first carbon cannister. his section of ducting was placed horizontally approximately 30 inches above ground level.

The exhaust duct was placed directly over the auxiliary blower exiting the second carbon cannister and extended vertically approximately 14-feet above ground level. The sample ports were accessible using a 6-foot temporary scaffold.

Summary of Results

2.0 Summary of Results

AST conducted compliance testing at the All American Asphalt Crumb Rubber Asphalt plant in Irvine, California on March 17-19, 2021. The test team setup on March 16, 2021 and collected preliminary flows and respective field blanks. Testing coincided with the normal production schedule from approximately 4am to noon each test day. Testing consisted of determining the emission rates of multiple metals, toxic organics, PAH, VOC and total sulfur compounds from the inlet and the outlet of the CAU.

The Crumb Rubber process is a batch process where the crumb rubber is added to the hopper approximately every two hours. During each of the AST 8-hour test runs crumb rubber hopper additions occurred at the beginning of our testing and then two additional times in 2-hr increments. The last two hours of the test program did not include a hopper addition (due to production demands) and the emission were primarily derived from the blending tank.

Although each the Metals and PAH sampling test were conducted over the entire 8-hr period, each of the other collected samples were collected in 1-hr increments. Each of these were sampled during the first 6 hours of process that would include the emissions from both the active hopper and the blending tank.

Tables 2-1 through 2-8 provide summaries of the emission testing results. Any difference between the summary results listed in the following tables and the detailed results contained in appendices is due to rounding for presentation.

Table 2-1
Summary of Results – TRS

Run Number	Run 1	Run 2	Run 3	Average
Date	**3/17/21**	**3/18/21**	**3/19/21**	**–**
Total Sulfur Data				
Inlet Concentration, ppmvd	2.9	4.8	4.1	3.9
Inlet Emission Rate, lb/hr	1.1E-02	1.7E-02	1.4E-02	1.4E-02
Outlet Concentration, ppmvd	<0.050	<0.050	<0.050	<0.050
Outlet Emission Rate, lb/hr	<1.9E-04	<1.9E-04	<1.9E-04	<1.9E-04

Table 2-2
Summary of Results – TGNMEO

Run Number	Run 1	Run 2	Run 3	Average
Date	**3/17/21**	**3/18/21**	**3/19/21**	**--**
Total Gaseous Non-Methane/Ethane Organics Data				
Inlet Concentration, ppmvd	363.0	844.5	565.5	591.0
Inlet Emission Rate, lb/hr (as methane)	0.62	1.4	0.91	0.97
Outlet Concentration, ppmvd	13.6	6.8	13.3	11.2
Outlet Emission Rate, lb/hr (as methane)	0.024	0.012	0.023	0.020

Table 2-3
Summary of Results – TO-15 Inlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
1,3-Butadiene Concentration, ppbvd	<308.1	<151.7	<282.5	<247.4
1,3-Butadiene Emission Rate, lb/hr	<1.8E-03	<8.4E-04	<1.5E-03	<1.4E-03
2,2,4-Trimethylpentane Concentration, ppbvd	146.5	202.2	121.1	156.6
2,2,4-Trimethylpentane Emission Rate, lb/hr	1.8E-03	2.4E-03	1.4E-03	1.8E-03
2-Butanone (MEK) Concentration, ppbvd	580.8	773.5	570.1	641.5
2-Butanone (MEK) Emission Rate, lb/hr	4.5E-03	5.7E-03	4.1E-03	4.8E-03
4-Methyl-2-pentanone (MIBK) Concentration, ppbvd	1,161.6	3,083.9	2,472.3	2,239.3
4-Methyl-2-pentanone (MIBK) Emission Rate, lb/hr	1.2E-02	3.1E-02	2.5E-02	2.3E-02
Acetone Concentration, ppbvd	2,929.3	4,701.7	3,834.5	3,821.8
Acetone Emission Rate, lb/hr	1.8E-02	2.8E-02	2.2E-02	2.3E-02
Benzene Concentration, ppbvd	287.9	814.0	580.2	560.7
Benzene Emission Rate, lb/hr	2.4E-03	6.5E-03	4.6E-03	4.5E-03
Cyclohexane Concentration, ppbvd	545.5	1,006.1	615.5	722.4
Cyclohexane Emission Rate, lb/hr	4.9E-03	8.6E-03	5.2E-03	6.3E-03
Ethanol Concentration, ppbvd	4,646.5	8,695.7	6,054.5	6,465.5
Ethanol Emission Rate, lb/hr	2.3E-02	4.1E-02	2.8E-02	3.1E-02
Ethylbenzene Concentration, ppbvd	68.7	121.3	82.2	90.8
Ethylbenzene Emission Rate, lb/hr	7.8E-04	1.3E-03	8.8E-04	9.9E-04
Heptane Concentration, ppbvd	722.2	1,087.0	600.4	803.2
Heptane Emission Rate, lb/hr	7.7E-03	1.1E-02	6.1E-03	8.3E-03
Hexane Concentration, ppbvd	1,464.6	1,921.1	1,311.8	1,565.9
Hexane Emission Rate, lb/hr	1.4E-02	1.7E-02	1.1E-02	1.4E-02
m-Xylene & p-Xylene Concentration, ppbvd	580.8	1,668.4	1,311.8	1,187.0
m-Xylene & p-Xylene Emission Rate, lb/hr	6.6E-03	1.8E-02	1.4E-02	1.3E-02
Methanol Concentration, ppbvd	13,636.4	21,739.1	13,622.6	16,332.7
Methanol Emission Rate, lb/hr	4.7E-02	7.1E-02	4.4E-02	5.4E-02
Propene Concentration, ppbvd	2,878.8	3,488.4	2,775.0	3,047.4
Propene Emission Rate, lb/hr	1.3E-02	1.5E-02	1.2E-02	1.3E-02
Toluene Concentration, ppbvd	323.2	657.2	499.5	493.3
Toluene Emission Rate, lb/hr	3.2E-03	6.2E-03	4.6E-03	4.7E-03
o-Xylene Concentration, ppbvd	<50.5	75.8	51.0	59.1
o-Xylene Emission Rate, lb/hr	<5.7E-04	8.2E-04	5.5E-04	6.5E-04
Carbon disulfide Concentration, ppbvd	237.4	353.9	201.8	264.4
Carbon disulfide Emission Rate, lb/hr	1.9E-03	2.7E-03	1.5E-03	2.1E-03
Chlorodifluoromethane (TIC *) Concentration, ppbvd	<474.7	<121.3	<272.5	<289.5
Chlorodifluoromethane (TIC) Emission Rate, lb/hr	<4.4E-03	<1.1E-03	<2.4E-03	<2.6E-03
Dichlorofluoromethane (TIC) Concentration, ppbvd	NA	NA	<131.2	<131.2
Dichlorofluoromethane (TIC) Emission Rate, lb/hr	NA	NA	<1.4E-03	<1.4E-03

* TIC = tentatively identified compounds

Table 2-4
Summary of Results – TO-15 Outlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
1,3-Butadiene Concentration, ppbvd	<2.1	<6.0	<22.6	<10.3
1,3-Butadiene Emission Rate, lb/hr	<1.2E-05	<3.6E-05	<1.3E-04	<6.1E-05
2,2,4-Trimethylpentane Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
2,2,4-Trimethylpentane Emission Rate, lb/hr	<8.5E-06	<2.5E-05	<9.4E-05	<4.3E-05
2-Butanone (MEK) Concentration, ppbvd	<2.1	<6.0	<22.6	<10.3
2-Butanone (MEK) Emission Rate, lb/hr	<1.6E-05	<4.7E-05	<1.8E-04	<8.1E-05
4-Methyl-2-pentanone (MIBK) Concentration, ppbvd	<2.1	<6.0	<22.6	<10.3
4-Methyl-2-pentanone (MIBK) Emission Rate, lb/hr	<2.3E-05	<6.6E-05	<2.5E-04	<1.1E-04
Acetone Concentration, ppbvd	126.6	<21.7	<30.2	<59.5
Acetone Emission Rate, lb/hr	8.1E-04	<1.4E-04	<1.9E-04	<3.8E-04
Benzene Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
Benzene Emission Rate, lb/hr	<5.8E-06	<1.7E-05	<6.4E-05	<2.9E-05
Cyclohexane Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
Cyclohexane Emission Rate, lb/hr	<6.2E-06	<1.8E-05	<6.9E-05	<3.1E-05
Ethanol Concentration, ppbvd	11.5	<20.2	<75.5	<35.7
Ethanol Emission Rate, lb/hr	5.8E-05	<1.0E-04	<3.8E-04	<1.8E-04
Ethylbenzene Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
Ethylbenzene Emission Rate, lb/hr	<7.9E-06	<2.3E-05	<8.8E-05	<4.0E-05
Heptane Concentration, ppbvd	<2.7	<8.1	<30.2	<13.7
Heptane Emission Rate, lb/hr	<3.0E-05	<8.8E-05	<3.3E-04	<1.5E-04
Hexane Concentration, ppbvd	<2.9	<8.1	<30.2	<13.7
Hexane Emission Rate, lb/hr	<2.8E-05	<7.5E-05	<2.8E-04	<1.3E-04
m-Xylene & p-Xylene Concentration, ppbvd	<2.7	<8.1	<30.2	<13.7
m-Xylene & p-Xylene Emission Rate, lb/hr	<3.2E-05	<9.3E-05	<3.5E-04	<1.6E-04
Methanol Concentration, ppbvd	156.4	630.0	3,068.4	1,285.0
Methanol Emission Rate, lb/hr	5.5E-04	2.2E-03	1.1E-02	4.5E-03
Propene Concentration, ppbvd	<13.6	<40.3	<150.9	<68.3
Propene Emission Rate, lb/hr	<6.3E-05	<1.8E-04	<6.9E-04	<3.1E-04
Toluene Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
Toluene Emission Rate, lb/hr	<6.8E-06	<2.0E-05	<7.6E-05	<3.4E-05
o-Xylene Concentration, ppbvd	<0.68	<2.0	<7.5	<3.4
o-Xylene Emission Rate, lb/hr	<7.9E-06	<2.3E-05	<8.8E-05	<4.0E-05
Chloromethane Concentration, ppbvd	<0.68	15.6	12.6	9.6
Chloromethane Emission Rate, lb/hr	<3.7E-06	8.6E-05	6.9E-05	5.3E-05
Carbon disulfide Concentration, ppbvd	<2.7	<8.1	<30.2	<13.7
Carbon disulfide Emission Rate, lb/hr	<2.3E-05	<6.7E-05	<2.5E-04	<1.1E-04
Chlorodifluoromethane (TIC*) Concentration, ppbvd	NA	19.2	68.9	44.0
Chlorodifluoromethane (TIC) Emission Rate, lb/hr	NA	1.8E-04	6.5E-04	4.2E-04
Dichlorofluoromethane (TIC) Concentration, ppbvd	NA	NA	NA	NA
Dichlorofluoromethane (TIC) Emission Rate, lb/hr	NA	NA	NA	NA

* TIC = tentatively identified compounds

Table 2-5
Summary of Results – PAH Inlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
Naphthalene Concentration, ng/dscm	355,008	421,597	414,599	397,068
Naphthalene Emission Rate, lb/hr	9.0E-04	1.0E-03	1.0E-03	9.7E-04
2-Methylnaphthalene Concentration, ng/dscm	109,075	142,949	160,060	137,361
2-Methylnaphthalene Emission Rate, lb/hr	2.8E-04	3.5E-04	3.8E-04	3.4E-04
Acenaphthylene Concentration, ng/dscm	<514.5	<517.9	641.3	557.9
Acenaphthylene Emission Rate, lb/hr	<1.3E-06	<1.3E-06	1.5E-06	1.4E-06
Acenaphthene Concentration, ng/dscm	889.1	1,212.0	1,333.8	1,145.0
Acenaphthene Emission Rate, lb/hr	2.3E-06	2.9E-06	3.2E-06	2.8E-06
Fluorene Concentration, ng/dscm	770.7	811.1	967.0	849.6
Fluorene Emission Rate, lb/hr	2.0E-06	2.0E-06	2.3E-06	2.1E-06
Phenanthrene Concentration, ng/dscm	726.5	1,429.5	1,344.9	1,167.0
Phenanthrene Emission Rate, lb/hr	1.8E-06	3.5E-06	3.2E-06	2.8E-06
Anthracene Concentration, ng/dscm	882.9	695.1	875.9	817.9
Anthracene Emission Rate, lb/hr	2.2E-06	1.7E-06	2.1E-06	2.0E-06
Fluoranthene Concentration, ng/dscm	36.1	25.2	68.0	43.1
Fluoranthene Emission Rate, lb/hr	9.2E-08	6.1E-08	1.6E-07	1.1E-07
Pyrene Concentration, ng/dscm	80.9	56.4	147.8	95.0
Pyrene Emission Rate, lb/hr	2.1E-07	1.4E-07	3.6E-07	2.3E-07
Benz(a)anthracene Concentration, ng/dscm	1.1	1.2	1.7	1.3
Benz(a)anthracene Emission Rate, lb/hr	2.9E-09	2.9E-09	4.0E-09	3.3E-09
Chrysene Concentration, ng/dscm	8.5	9.1	11.7	9.8
Chrysene Emission Rate, lb/hr	2.2E-08	2.2E-08	2.8E-08	2.4E-08
Benzo(b)fluoranthene Concentration, ng/dscm	2.1	1.5	7.1	3.6
Benzo(b)fluoranthene Emission Rate, lb/hr	5.4E-09	3.7E-09	1.7E-08	8.7E-09
Benzo(k)fluoranthene Concentration, ng/dscm	<1.0	<1.0	1.7	1.3
Benzo(k)fluoranthene Emission Rate, lb/hr	<2.6E-09	<2.5E-09	4.2E-09	3.1E-09
Benzo(e)pyrene Concentration, ng/dscm	9.9	7.1	51.2	22.7
Benzo(e)pyrene Emission Rate, lb/hr	2.5E-08	1.7E-08	1.2E-07	5.5E-08
Benzo(a)pyrene Concentration, ng/dscm	2.5	1.7	5.6	3.2
Benzo(a)pyrene Emission Rate, lb/hr	6.3E-09	4.0E-09	1.3E-08	7.9E-09
Perylene Concentration, ng/dscm	1.0	1.2	1.2	1.1
Perylene Emission Rate, lb/hr	2.6E-09	2.9E-09	2.9E-09	2.8E-09
Indeno(1,2,3-c,d)pyrene Concentration, ng/dscm	3.2	1.6	10.3	5.0
Indeno(1,2,3-c,d)pyrene Emission Rate, lb/hr	8.2E-09	3.8E-09	2.5E-08	1.2E-08
Dibenz(a,h)anthracene Concentration, ng/dscm	<1.0	<1.0	<1.1	<1.1
Dibenz(a,h)anthracene Emission Rate, lb/hr	<2.6E-09	<2.5E-09	<2.7E-09	<2.6E-09
Benzo(g,h,i)perylene Concentration, ng/dscm	25.8	12.4	70.0	36.1
Benzo(g,h,i)perylene Emission Rate, lb/hr	6.6E-08	3.0E-08	1.7E-07	8.8E-08

Table 2-6
Summary of Results – PAH Outlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
Naphthalene Concentration, ng/dscm	52.1	31.3	22.5	35.3
Naphthalene Emission Rate, lb/hr	1.4E-07	8.0E-08	5.8E-08	9.1E-08
2-Methylnaphthalene Concentration, ng/dscm	68.2	41.2	33.1	47.5
2-Methylnaphthalene Emission Rate, lb/hr	1.8E-07	1.1E-07	8.5E-08	1.2E-07
Acenaphthylene Concentration, ng/dscm	2.4	1.4	1.5	1.8
Acenaphthylene Emission Rate, lb/hr	6.3E-09	3.7E-09	3.9E-09	4.6E-09
Acenaphthene Concentration, ng/dscm	96.8	63.4	60.3	73.5
Acenaphthene Emission Rate, lb/hr	2.5E-07	1.6E-07	1.6E-07	1.9E-07
Fluorene Concentration, ng/dscm	256.4	169.1	150.9	192.1
Fluorene Emission Rate, lb/hr	6.7E-07	4.3E-07	3.9E-07	5.0E-07
Phenanthrene Concentration, ng/dscm	256.4	255.0	216.6	242.6
Phenanthrene Emission Rate, lb/hr	6.7E-07	6.5E-07	5.6E-07	6.3E-07
Anthracene Concentration, ng/dscm	6.7	5.8	5.2	5.9
Anthracene Emission Rate, lb/hr	1.7E-08	1.5E-08	1.3E-08	1.5E-08
Fluoranthene Concentration, ng/dscm	10.8	10.2	8.0	9.7
Fluoranthene Emission Rate, lb/hr	2.8E-08	2.6E-08	2.1E-08	2.5E-08
Pyrene Concentration, ng/dscm	15.0	17.2	14.9	15.7
Pyrene Emission Rate, lb/hr	3.9E-08	4.4E-08	3.8E-08	4.0E-08
Benz(a)anthracene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Benz(a)anthracene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Chrysene Concentration, ng/dscm	2.1	1.5	1.2	1.6
Chrysene Emission Rate, lb/hr	5.4E-09	3.9E-09	3.2E-09	4.1E-09
Benzo(b)fluoranthene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Benzo(b)fluoranthene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Benzo(k)fluoranthene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Benzo(k)fluoranthene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Benzo(e)pyrene Concentration, ng/dscm	2.2	2.2	2.8	2.4
Benzo(e)pyrene Emission Rate, lb/hr	5.8E-09	5.5E-09	7.3E-09	6.2E-09
Benzo(a)pyrene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Benzo(a)pyrene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Perylene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Perylene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Indeno(1,2,3-c,d)pyrene Concentration, ng/dscm	0.98	1.1	1.1	1.1
Indeno(1,2,3-c,d)pyrene Emission Rate, lb/hr	2.5E-09	2.8E-09	2.9E-09	2.7E-09
Dibenz(a,h)anthracene Concentration, ng/dscm	<0.90	<0.89	<0.89	<0.89
Dibenz(a,h)anthracene Emission Rate, lb/hr	<2.3E-09	<2.3E-09	<2.3E-09	<2.3E-09
Benzo(g,h,i)perylene Concentration, ng/dscm	7.4	9.0	9.1	8.5
Benzo(g,h,i)perylene Emission Rate, lb/hr	1.9E-08	2.3E-08	2.3E-08	2.2E-08

Table 2-7
Summary of Results – Metals Inlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
Aluminum Concentration, ug/dscm	9.4	9.1	9.7	9.4
Aluminum Emission Rate, lb/hr	2.4E-05	2.2E-05	2.3E-05	2.3E-05
Antimony Concentration, ug/dscm	<0.064	<0.066	<0.069	<0.066
Antimony Emission Rate, lb/hr	<1.6E-07	<1.6E-07	<1.6E-07	<1.6E-07
Arsenic Concentration, ug/dscm	0.083	0.039	0.027	0.050
Arsenic Emission Rate, lb/hr	2.1E-07	9.4E-08	6.5E-08	1.2E-07
Barium Concentration, ug/dscm	0.50	0.64	0.74	0.63
Barium Emission Rate, lb/hr	1.3E-06	1.5E-06	1.8E-06	1.5E-06
Beryllium Concentration, ug/dscm	<0.22	<0.22	<0.23	<0.22
Beryllium Emission Rate, lb/hr	<5.5E-07	<5.4E-07	<5.6E-07	<5.5E-07
Cadmium Concentration, ug/dscm	0.016	0.016	<0.014	0.015
Cadmium Emission Rate, lb/hr	4.1E-08	3.7E-08	<3.4E-08	3.7E-08
Chromium Concentration, ug/dscm	0.35	0.24	0.20	0.26
Chromium Emission Rate, lb/hr	8.9E-07	5.8E-07	4.8E-07	6.5E-07
Cobalt Concentration, ug/dscm	0.0094	0.0057	0.0005	0.0052
Cobalt Emission Rate, lb/hr	2.4E-08	1.4E-08	1.3E-09	1.3E-08
Copper Concentration, ug/dscm	0.43	0.24	0.93	0.53
Copper Emission Rate, lb/hr	1.1E-06	5.8E-07	2.2E-06	1.3E-06
Lead Concentration, ug/dscm	0.16	0.05	0.05	0.09
Lead Emission Rate, lb/hr	4.1E-07	1.2E-07	1.1E-07	2.1E-07
Manganese Concentration, ug/dscm	0.77	0.47	0.28	0.51
Manganese Emission Rate, lb/hr	2.0E-06	1.1E-06	6.8E-07	1.3E-06
Nickel Concentration, ug/dscm	0.42	0.32	0.25	0.33
Nickel Emission Rate, lb/hr	1.1E-06	7.7E-07	6.1E-07	8.1E-07
Phosphorus Concentration, ug/dscm	3.0	3.1	2.6	2.9
Phosphorus Emission Rate, lb/hr	7.7E-06	7.5E-06	6.3E-06	7.2E-06
Selenium Concentration, ug/dscm	<0.026	<0.026	0.028	0.027
Selenium Emission Rate, lb/hr	<6.5E-08	<6.3E-08	6.8E-08	6.5E-08
Silver Concentration, ug/dscm	0.083	0.035	0.019	0.046
Silver Emission Rate, lb/hr	2.1E-07	8.4E-08	4.6E-08	1.1E-07
Thallium Concentration, ug/dscm	<0.0051	<0.0052	<0.0055	<0.0053
Thallium Emission Rate, lb/hr	<1.3E-08	<1.3E-08	<1.3E-08	<1.3E-08
Vanadium Concentration, ug/dscm	<0.017	<0.017	<0.018	<0.018
Vanadium Emission Rate, lb/hr	<4.3E-08	<4.2E-08	<4.4E-08	<4.3E-08
Zinc Concentration, ug/dscm	0.93	0.80	0.97	0.90
Zinc Emission Rate, lb/hr	2.3E-06	1.9E-06	2.3E-06	2.2E-06
Mercury Concentration, ug/dscm	0.18	<0.084	<0.18	0.15
Mercury Emission Rate, lb/hr	4.7E-07	<2.0E-07	<4.2E-07	3.6E-07

Table 2-8
Summary of Results – Metals Outlet

Run Number	Run 1	Run 2	Run 3	Average
Date	3/17/21	3/18/21	3/19/21	--
Aluminum Concentration, ug/dscm	10.2	9.9	10.7	10.3
Aluminum Emission Rate, lb/hr	2.6E-05	2.5E-05	2.8E-05	2.6E-05
Antimony Concentration, ug/dscm	<0.063	<0.061	<0.061	<0.062
Antimony Emission Rate, lb/hr	<1.6E-07	<1.6E-07	<1.6E-07	<1.6E-07
Arsenic Concentration, ug/dscm	<0.025	<0.024	<0.024	<0.024
Arsenic Emission Rate, lb/hr	<6.5E-08	<6.2E-08	<6.2E-08	<6.3E-08
Barium Concentration, ug/dscm	0.78	0.60	0.73	0.70
Barium Emission Rate, lb/hr	2.0E-06	1.5E-06	1.9E-06	1.8E-06
Beryllium Concentration, ug/dscm	<0.21	<0.21	<0.21	<0.21
Beryllium Emission Rate, lb/hr	<5.5E-07	<5.3E-07	<5.3E-07	<5.4E-07
Cadmium Concentration, ug/dscm	0.028	0.018	0.013	0.020
Cadmium Emission Rate, lb/hr	7.2E-08	4.6E-08	3.5E-08	5.1E-08
Chromium Concentration, ug/dscm	0.41	0.17	0.21	0.26
Chromium Emission Rate, lb/hr	1.1E-06	4.4E-07	5.5E-07	6.8E-07
Cobalt Concentration, ug/dscm	0.030	0.014	0.030	0.025
Cobalt Emission Rate, lb/hr	7.7E-08	3.7E-08	7.8E-08	6.4E-08
Copper Concentration, ug/dscm	0.24	0.31	0.86	0.47
Copper Emission Rate, lb/hr	6.2E-07	8.0E-07	2.2E-06	1.2E-06
Lead Concentration, ug/dscm	0.057	0.049	0.12	0.074
Lead Emission Rate, lb/hr	1.5E-07	1.3E-07	3.0E-07	1.9E-07
Manganese Concentration, ug/dscm	1.5	1.9	1.3	1.6
Manganese Emission Rate, lb/hr	3.8E-06	4.8E-06	3.5E-06	4.0E-06
Nickel Concentration, ug/dscm	0.33	0.23	0.32	0.30
Nickel Emission Rate, lb/hr	8.6E-07	6.0E-07	8.3E-07	7.6E-07
Phosphorus Concentration, ug/dscm	2.2	2.3	2.9	2.5
Phosphorus Emission Rate, lb/hr	5.7E-06	6.0E-06	7.4E-06	6.4E-06
Selenium Concentration, ug/dscm	<0.025	<0.024	<0.024	<0.024
Selenium Emission Rate, lb/hr	<6.5E-08	<6.2E-08	<6.2E-08	<6.3E-08
Silver Concentration, ug/dscm	0.015	0.016	0.0065	0.013
Silver Emission Rate, lb/hr	3.8E-08	4.1E-08	1.7E-08	3.2E-08
Thallium Concentration, ug/dscm	<0.0050	<0.0048	<0.0048	<0.0049
Thallium Emission Rate, lb/hr	<1.3E-08	<1.2E-08	<1.2E-08	<1.3E-08
Vanadium Concentration, ug/dscm	<0.017	<0.016	<0.016	<0.016
Vanadium Emission Rate, lb/hr	<4.3E-08	<4.1E-08	<4.2E-08	<4.2E-08
Zinc Concentration, ug/dscm	0.65	0.90	1.3	0.96
Zinc Emission Rate, lb/hr	1.7E-06	2.3E-06	3.5E-06	2.5E-06
Mercury Concentration, ug/dscm	<0.18	<0.063	<0.094	<0.11
Mercury Emission Rate, lb/hr	<4.6E-07	<1.6E-07	<2.4E-07	<2.9E-07

Testing Methodology

3.0 Testing Methodology

The emission testing program was conducted in accordance with the test methods listed in Table 3-1. Method descriptions are provided below while quality assurance/quality control data is provided in Appendix D.

Table 3-1
Source Testing Methodology

Parameter	Reference Test Methods	Notes/Remarks
Volumetric Flow Rate	SCAQMD Methods 1.2 and 2.3	Full Velocity Traverses
Moisture Content	SCAQMD Method 4.1	Gravimetric Analysis
Multiple Metals	CARB Method 436	Isokinetic Sampling
Toxic Organics	U.S. EPA TO-15	Canister Sampling
Polycyclic Aromatic Hydrocarbons	CARB Method 429	Isokinetic Sampling
Volatile Organic Compounds	SCAQMD Methods 25.1 & 25.3	Canister Sampling
Total Sulfur Compounds	SCAQMD Method 307.91	Tedlar Bag Sampling

3.1 SCAQMD Reference Methods 1.2 and 2.3 – Volumetric Flow Rate of Small Ducts (4" – 12")

The sampling location and number of traverse (sampling) points were selected in accordance with SCAQMD Reference Test Method 1.2. The duct diameter was less than 12 inches; therefore, the velocity measurement location was located downstream of the sampling location, and the pitot tube and thermocouple were removed from the sampling probe assembly.

Full velocity traverses were conducted in accordance with SCAQMD Reference Test Method 2.3 to determine the average stack gas velocity pressure, static pressure and temperature. The velocity and static pressure measurement system consisted of a pitot tube and inclined manometer. The stack gas temperature was measured with a K-type thermocouple and pyrometer.

The O_2 and CO_2 concentration were assumed to be ambient for molecular weight and volumetric flow rate calculations.

3.2 SCAQMD Method 4.1 – Moisture Content

The stack gas moisture content was determined in accordance with SCAQMD Method 4.1. The gas conditioning train consisted of a series of chilled impingers. Prior to testing, each impinger was filled with a known quantity of water or silica gel. Each impinger was analyzed gravimetrically before and after each test run on the same balance to determine the amount of moisture condensed.

3.3 CARB Reference Test Method 436 – Multi-Metals

The metals testing was conducted in accordance with CARB Reference Test Method 436. The complete sampling system consisted of a glass nozzle, glass-lined probe, pre-cleaned heated quartz filter, gas conditioning system, pump and calibrated dry gas meter. The gas conditioning train consisted of six (6) chilled impingers. The first and second contained 100 mL of HNO_3/H_2O_2, the third was empty, the fourth and fifth contained 100 mL of acidic $KMnO_4$, and the sixth contained 200-300 grams of silica gel. The probe liner and filter heating systems were

maintained at a temperature of 120 ± 14°C (248 ±25°F), and the impinger temperature was maintained at 20°C (68°F) or less throughout testing. Prior to testing, all glassware was cleaned and sealed in a controlled environment as outlined in the test method.

Following the completion of each test run, the sample train was leak checked at a vacuum pressure equal to or greater than the highest vacuum pressure observed during the run and the contents of the impingers were measured for moisture gain. The quartz filter was carefully removed and placed into container 1. The probe and nozzle were rinsed and brushed three (3) times with 0.1 N HNO_3 using a non-metallic brush and these rinses were placed in container 3. The front half of the filter holder was rinsed three (3) times with 0.1 N HNO_3 and these rinses were added to container 3. The contents of impingers 1, 2, and 3 were placed in container 4. Impingers 1, 2, and 3 along with the filter support, back half of the filter holder and all connecting glassware were triple-rinsed with 0.1 N HNO_3 and these rinses were added to container 4. The contents of impinger 4 were placed in container 5A. The impinger and connecting glassware were triple-rinsed with HNO_3 and these rinses added to container 5A. The contents of impingers 5 and 6 were placed in container 5B. The impingers and all connecting glassware were triple-rinsed with acidified $KMNO_4$ and then with de-ionized (DI) water and these rinses were added to container 5B. Impingers 5 and 6 were rinsed again with 25 mL of 8N HCl and this rinse was collected into container 5C, which contained 200 mL of DI water. All containers were sealed, labeled and liquid levels marked for transport to the identified laboratory for analysis.

3.4 U.S. EPA Reference Test Method TO-15– Toxic Organics

The toxic organics were sample simultaneously in duplicate from the CAU inlet and outlet for each of the three (3) 60-minute test runs. Summa passivated canisters were utilized to sample for the toxic organics. The Summa canisters were equipped with preset calibrated mass flow controllers. The sampling was integrated over each 60 minute test run. The sample were submitted for analyses by GC/MS (TO-15). The samples were analyzed within 72 hours of collection. The analysis followed EPA Method TO-15 methodology. The reported detection limit is 0.001ppmv or 1 ppb. The sample is cryogenically pre-concentration in a series of multi-bed traps, with water and CO2 management protocols, and finally cryofocused before desorption into the gas chromatograph.

Upon separation in the Gas Chromatograph, the sample is introduced into the mass spectrometer. The HAPs characteristic retention time and mass spectra qualitatively identify compounds.

3.5 CARB Reference Test Method 429 – Polycyclic Aromatic Hydrocarbons

The PAH testing was conducted in accordance with CARB Method 429. The complete sampling system consisted of a glass nozzle, glass-lined sample probe, gas conditioning system, pump, and calibrated gas meter. The gas conditioning train consisted of a spiral condenser, a spike sorbent module, and five (5) chilled impingers. The first impinger was initially empty, the second and third impingers contained 100ml of DI water, the third impinger was initially empty, and the fourth contained 200-300 grams of silica gel. The probe liner and filter heater system were maintained at a temperature of 120 ± 14°C (248 ±25°F), and the impinger temperature was maintained at 20°C (68°F) or less throughout testing. Prior to testing, all glassware was cleaned and sealed in a controlled environment as outlined in the test method.

Following the completion of each test run, the sample train was leak checked at a vacuum pressure equal to or greater than the highest vacuum pressure observed during the run and the contents of the impingers were measured for moisture gain. The recovery included rinsing the nozzle, probe, and top half of the filter holder three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Front half

rinses". The filter was removed and placed in a petri dish. The bottom half of the filter holder, connector connection, and the spiral condenser were rinses three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Back half rinses". The front and back half rinses were combined for analysis. The impinger contents were transferred to a container labeled "Impinger contents" and then the impingers were rinses three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Impinger rinses". The rinses were combined with the impinger contents for analysis. The spiked sorbent module was capped, and all containers were sealed, labeled and liquid levels marked for transport to the identified laboratory for analysis.

Add this for the Method 25.1 and 25.3 – our standard write ups – please format as needed

3.6 SCAQMD Method 25.3 – VOC, as TGNMO (Low- Level)

This method applies to the measurement of low-concentration (</= 50 ppmv) Volatile Organic Compounds (VOC) or total gaseous non-methane organics (TGNMO) as carbon in source emissions. In this method, gaseous samples were withdrawn from the gas stream at a constant rate through duplicate chilled condensate traps and collected in evacuated sample tanks. The sampling system is depicted in Figure 5-2. Each sampling train consisted of a in-stack filter (optional), sample probe, water-chilled mini-impinger, a flow control system, and an evacuated sample tank. The flow controller incorporated a combination vacuum/pressure gauge, which was connected directly to the canister. The TGNMO was determined by combining the analytical results obtained from independent analyses of the condensate traps (condensable fraction) and the sample tanks (gaseous fraction).

Prior to testing, the sampling system was pre-cleaned and evacuated in preparation for sample collection. On-site, the sampling system was leak-checked and the impingers were placed in an ice-slurry (the impingers were chilled for at least 30 minutes prior to sampling). Then the sample probe was placed in the stack, facing downstream to prevent collection of particulate matter. Pretest data was recorded and the sample valve was opened. The flow controller was based on a critical orifice that was preset to flow at a rate of 80-cc/min +/- 15%. Periodically, sampling train readings (i.e. tank vacuum) were recorded on the field data sheet. Sampling was stopped when one hour had elapsed. Then, the sampling train was removed from the stack and a leak check is performed. Samples are logged in and delivered to the laboratory for analysis.

The analytical system consists of two major sub-systems: a total organic carbon (TOC) analyzer capable of differentiating between total carbon (TC) and inorganic carbon (IC) and a non-methane organics (NMO) analyzer. The NMO analyzer is a gas chromatograph (GC) with backflush capability for NMO analysis and is equipped with an oxidation catalyst, reduction catalyst, and flame ionization detector (FID). The system for the recovery and conditioning of the organics captured in the condensate trap consists of a heat source, oxidation catalyst, non-dispersive infrared (NDIR) CO2 analyzer and an intermediate collection vessel (ICV). Analyses were performed as follows.

NMO collected in the water impinger were analyzed in the TOC analyzer. The TOC analyzer determined both TC and IC. The TOC was calculated as the difference between TC and IC.

The organic content of the sample fraction collected in the sampling tank is measured by injecting a gas sample into the GC to separate the NMO from carbon monoxide (CO), CO_2 and methane (CH_4). The NMO were oxidized to CO_2, reduced to CH_4, and measured by the FID. In this manner, the variable response of the FID (associated with

different type of organic compounds) was eliminated. The sampling apparatus and sample analysis services were provided by Almega, which is an SCAQMD-approved laboratory.

3.7 SCAQMD Method 25.1 – VOC, as TGNMO (High-Level)

This method applies to the measurement of Volatile Organic Compounds (VOC) or total gaseous non-methane organics (TGNMO) as carbon in source emissions. In this Method, gaseous samples were withdrawn from the gas stream at a constant rate through duplicate chilled condensate traps and collected in evacuated sample tanks. Each sampling train consisted of an in-stack filter (optional), sample probe, condensate trap, a flow control system, and an evacuated sample tank. The flow controller incorporated a combination vacuum/pressure gauge, which was connected directly to the canister. The TGNMO was determined by combining the analytical results obtained from independent analyses of the condensate traps (condensable fraction) and the sample tanks (gaseous fraction). The sampling system is depicted in Figure 5-3.

Prior to testing, the sampling system was pre-cleaned and evacuated in preparation for sample collection. On-site, the sampling system was leak-checked and crushed dry ice was placed around each condensate trap. Then the sample probe was placed in the stack, facing downstream to prevent collection of particulate matter. Pretest data was recorded and the sample valve was opened. The flow controller was based on a critical orifice that was preset to flow at a rate of 80-cc/min +/- 15%. Periodically, sampling train readings (i.e. tank vacuum) were recorded on the field data sheet. Sampling was stopped when one hour had elapsed. Then, the sampling train was removed from the stack and a leak check was performed. Samples were logged in and delivered to the laboratory for analysis.

The analytical system consisted of two major sub-systems: an oxidation system for the recovery and the conditioning of the condensate trap contents, and a non-methane organics (NMO) analyzer. The NMO analyzer was a gas chromatograph (GC) with backflush capability for NMO analysis and was equipped with an oxidation catalyst, reduction catalyst, and flame ionization detector (FID). The system for the recovery and conditioning of the organics captured in the condensate trap consisted of a heat source, oxidation catalyst, non-dispersive infrared (NDIR) CO2 analyzer and an intermediate collection vessel (ICV).

The organic content of each condensate trap was oxidized to carbon dioxide (CO2), which is quantitatively collected in an evacuated vessel (the ICV); then a portion of the CO2 was reduced to methane (CH4) and measured by GC/NDIR or GC/FID. The organic content of the sample fraction collected in the sampling tank was measured by injecting a gas sample into the GC to separate the NMO from CO, CO2 and CH4. The NMO were oxidized to CO2, reduced to CH4, and measured by the FID. In this manner, the variable response of the FID (associated with different type of organic compounds) was eliminated. The sampling apparatus and sample analysis services were provided by Almega, which is a SCAQMD-approved laboratory.

3.8 SCAQMD Method 307-91 – Total Reduced Sulfur

The reduced sulfur compounds of the fuel content were measured according to SCAQMD Method 307-91. Field samples were collected from the sampling location into Tedlar bags using an air-tight sampling box. After a sample is collected, it is labeled and entered into a Chain of Custody. Within four hours after collection, samples are delivered to the Laboratory for analysis.

Samples are analyzed by GC/SCD within 24 hours after collection if collected in a Tedlar bag. Reduced sulfur compounds and SO_2 are separated by fuel. These compounds are then combusted in a hydrogen-rich flame to yield

sulfur monoxide and other products. The sulfur monoxide is reacted with ozone to yield sulfur dioxide, oxygen and light. The light is detected with a photomultiplier and the response is calibrated against previously run standards. Analytical QC includes pre-test and continuing calibration of equipment, analysis of reference standards, and blanks, and replicate analysis of at least three samples.

Appendix A

Alliance
SOURCE TESTING

Location	**All American Asphalt**
Source	**CAU**
Project No.	**2021-0883**
Run No.	**1**
Parameter(s)	**TRS**

Total Sulfur as H2S Concentration, ppmvd

$$C_{ppbvd} = \frac{C_{ppbvw}}{(1 - BWS)}$$

C_{ppbvw}	2.9	= Total Sulfur as H2S Concentration, ppmvw
BWS	0.010	= Moisture Fraction
C_{ppbvd}	2.9	= Total Sulfur as H2S Concentration, ppmvd

Total Sulfur as H2S Emission Rate, lb/hr

$$ER = \frac{C_{ppbvd} \times MW \times Qs \times 60 \times 28.32}{23.68 \times 4.54\,E + 8}$$

where,

C_{ppbvd}	2.9	= Total Sulfur as H2S Concentration, ppmvd
Qs	677	= average stack gas flow at standard conditions, dscfm
MW	34.100	= molecular weight, g/g mol
ER	1.1E-02	= Total Sulfur as H2S Emission Rate, lb/hr

Alliance
SOURCE TESTING

Location	**All American Asphalt**
Source	**CAU**
Project No.	**2021-0883**
Run No.	**1**
Parameter(s)	**25.1/3**

TGNMEO as Methane Emission Rate, lb/hr

$$ER = \frac{C_{ppm} \times MW \times Qs \times 60 \times 28.32}{23.68 \times 4.54\ E + 8}$$

where,

C_{ppbvd}	363.0	= TGNMEO as Methane Concentration, ppmvd
Qs	677	= average stack gas flow at standard conditions, dscfm
MW	16.040	= molecular weight, g/g mol
ER	6.2E-01	= TGNMEO as Methane Emission Rate, lb/hr

Location	**All American Asphalt**
Source	**CAU**
Project No.	**2021-0883**
Run No.	**1**
Parameter(s)	**TO-15**

1,3-Butadiene Concentration, ppbvd

$$C_{ppbvd} = \frac{C_{ppbvw}}{(1 - BWS)}$$

C_{ppbvw}	305.0	= 1,3-Butadiene Concentration, ppbvw
BWS	0.010	= Moisture Fraction
C_{ppbvd}	308.1	= 1,3-Butadiene Concentration, ppbvd

1,3-Butadiene Emission Rate, lb/hr

$$ER = \frac{C_{ppbvd} \times MW \times Qs \times 60 \times 28.32}{23.68 \times 4.54\,E + 11}$$

where,

C_{ppbvd}	308.1	= 1,3-Butadiene Concentration, ppbvd
Qs	677	= average stack gas flow at standard conditions, dscfm
MW	54.092	= molecular weight, g/g mol
ER	1.8E-03	= 1,3-Butadiene Emission Rate, lb/hr

Location	**All American Asphalt**
Source	**CAU**
Project No.	**2021-0883**
Run No.	**1**
Parameter(s)	**PAH**

Naphthalene Concentration (ER_{C10H8}), ng/dscm

$$ER_{C10H8} = \frac{M_{C10H8}}{Vmstd \times 35.3147}$$

where,

M_{C10H8}	3,450,000	= naphthalene mass, ng
Vmstd	343.191	= standard meter volume, dscf
C_{C10H8}	355008	= ng/dscm

Naphthalene Emission Rate (ER_{C10H8}), lb/hr

$$ER_{C10H8} = \frac{M_{C10H8} \times Qs \times 60}{Vmstd \times 4.54E + 11}$$

where,

M_{C10H8}	3,450,000	= naphthalene mass, ng
Qs	679	= average stack gas flow at standard conditions, dscfm
Vmstd	343.191	= standard meter volume, dscf
ER_{C10H8}	9.03E-04	= lb/hr

Location	**All American Asphalt**
Source	**CAU**
Project No.	**2021-0883**
Run No.	**1**
Parameter(s)	**Metals**

Aluminum Concentration, ug/dscm

$$ER = \frac{M}{Vmstd \times 35.3147}$$

where,

M	100	= aluminum mass, ug
Vmstd	373.783	= standard meter volume, dscf
C	9.4	= ug/dscm

Aluminum Emission Rate, lb/hr

$$ER = \frac{M \times Qs \times 60}{Vmstd \times 4.54E + 8}$$

where,

M	100	= aluminum mass, ug
Qs	677	= average stack gas flow at standard conditions, dscfm
Vmstd	373.783	= standard meter volume, dscf
ER	2.4E-05	= lb/hr

Appendix B

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter(s): TRS

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	677	644	638	653
Moisture Fraction	(BWS)	0.010	0.011	0.009	0.010
Lab Data					
Total Sulfur as H2S Concentration, ppmvw	C_{ppbvw}	2.85	4.72	4.07	3.88
Emissions Calculations					
Total Sulfur as H2S Concentration, ppmvd	C_{ppbvd}	2.9	4.8	4.1	3.9
Total Sulfur as H2S Emission Rate, lb/hr	ER	1.1E-02	1.7E-02	1.4E-02	1.4E-02

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter(s): TRS

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	694	687	692	691
Moisture Fraction	(BWS)	0.009	0.008	0.006	0.008
Lab Data					
Total Sulfur as H2S Concentration, ppmvw	C_{ppbvw}	0.05	0.05	0.05	0.05
Emissions Calculations					
Total Sulfur as H2S Concentration, ppmvd	C_{ppbvd}	0.050	0.050	0.050	0.050
Total Sulfur as H2S Emission Rate, lb/hr	ER	1.9E-04	1.9E-04	1.9E-04	1.9E-04

Underlined values are reported at the method detection limit

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter(s): 25.1/3

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	677	644	638	653
Emissions Calculations					
TGNMEO as Methane Concentration, ppmvd	C_{ppbvd}	363.0	844.5	565.5	591.0
TGNMEO as Methane Emission Rate, lb/hr	ER	0.62	1.4	0.91	0.97

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter(s): 25.1/3

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	694	687	692	691
Emissions Calculations					
TGNMEO as Methane Concentration, ppmvd	C_{ppbvd}	13.6	6.8	13.3	11.2
TGNMEO as Methane Emission Rate, lb/hr	ER	0.024	0.012	0.023	0.020

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter(s): TO-15

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	677	644	638	653
Moisture Fraction	(BWS)	0.010	0.011	0.009	0.010
Lab Data					
1,3-Butadiene Concentration, ppbvw	C_{ppbvw}	< 305	< 150	< 280	245
2,2,4-Trimethylpentane Concentration, ppbvw	C_{ppbvw}	145	200	120	155
2-Butanone (MEK) Concentration, ppbvw	C_{ppbvw}	575	765	565	635
4-Methyl-2-pentanone (MIBK) Concentration, ppbvw	C_{ppbvw}	1,150	3,050	2,450	2,217
Acetone Concentration, ppbvw	C_{ppbvw}	2,900	4,650	3,800	3,783
Benzene Concentration, ppbvw	C_{ppbvw}	285	805	575	555
Cyclohexane Concentration, ppbvw	C_{ppbvw}	540	995	610	715
Ethanol Concentration, ppbvw	C_{ppbvw}	4,600	8,600	6,000	6,400
Ethylbenzene Concentration, ppbvw	C_{ppbvw}	68	120	82	90
Heptane Concentration, ppbvw	C_{ppbvw}	715	1,075	595	795
Hexane Concentration, ppbvw	C_{ppbvw}	1,450	1,900	1,300	1,550
m-Xylene & p-Xylene Concentration, ppbvw	C_{ppbvw}	575	1,650	1,300	1,175
Methanol Concentration, ppbvw	C_{ppbvw}	13,500	21,500	13,500	16,167
Propene Concentration, ppbvw	C_{ppbvw}	2,850	3,450	2,750	3,017
Toluene Concentration, ppbvw	C_{ppbvw}	320	650	495	488
o-Xylene Concentration, ppbvw	C_{ppbvw}	< 50	75	51	59
Chloromethane Concentration, ppbvw	C_{ppbvw}	< 50	< 50	< 50	50
Carbon disulfide Concentration, ppbvw	C_{ppbvw}	235	350	< 200	262
Chlorodifluoromethane (TIC) Concentration, ppbvw	C_{ppbvw}	< 470	< 120	< 270	287
Dichlorofluoromethane (TIC) Concentration, ppbvw	C_{ppbvw}	ND	ND	< 130	130
Emissions Calculations					
1,3-Butadiene Concentration, ppbvd	C_{ppbvd}	308.1	151.7	282.5	247.4
1,3-Butadiene Emission Rate, lb/hr	ER	1.8E-03	8.4E-04	1.5E-03	1.4E-03
2,2,4-Trimethylpentane Concentration, ppbvd	C_{ppbvd}	146.5	202.2	121.1	156.6
2,2,4-Trimethylpentane Emission Rate, lb/hr	ER	1.8E-03	2.4E-03	1.4E-03	1.8E-03
2-Butanone (MEK) Concentration, ppbvd	C_{ppbvd}	580.8	773.5	570.1	641.5
2-Butanone (MEK) Emission Rate, lb/hr	ER	4.5E-03	5.7E-03	4.1E-03	4.8E-03
4-Methyl-2-pentanone (MIBK) Concentration, ppbvd	C_{ppbvd}	1,161.6	3,083.9	2,472.3	2,239.3
4-Methyl-2-pentanone (MIBK) Emission Rate, lb/hr	ER	1.2E-02	3.1E-02	2.5E-02	2.3E-02
Acetone Concentration, ppbvd	C_{ppbvd}	2,929.3	4,701.7	3,834.5	3,821.8
Acetone Emission Rate, lb/hr	ER	1.8E-02	2.8E-02	2.2E-02	2.3E-02
Benzene Concentration, ppbvd	C_{ppbvd}	287.9	814.0	580.2	560.7
Benzene Emission Rate, lb/hr	ER	2.4E-03	6.5E-03	4.6E-03	4.5E-03
Cyclohexane Concentration, ppbvd	C_{ppbvd}	545.5	1,006.1	615.5	722.4
Cyclohexane Emission Rate, lb/hr	ER	4.9E-03	8.6E-03	5.2E-03	6.3E-03
Ethanol Concentration, ppbvd	C_{ppbvd}	4,646.5	8,695.7	6,054.5	6,465.5
Ethanol Emission Rate, lb/hr	ER	2.3E-02	4.1E-02	2.8E-02	3.1E-02
Ethylbenzene Concentration, ppbvd	C_{ppbvd}	68.7	121.3	82.2	90.8
Ethylbenzene Emission Rate, lb/hr	ER	7.8E-04	1.3E-03	8.8E-04	9.9E-04
Heptane Concentration, ppbvd	C_{ppbvd}	722.2	1087.0	600.4	803.2
Heptane Emission Rate, lb/hr	ER	7.7E-03	1.1E-02	6.1E-03	8.3E-03
Hexane Concentration, ppbvd	C_{ppbvd}	1,464.6	1,921.1	1,311.8	1,565.9
Hexane Emission Rate, lb/hr	ER	1.4E-02	1.7E-02	1.1E-02	1.4E-02
m-Xylene & p-Xylene Concentration, ppbvd	C_{ppbvd}	580.8	1,668.4	1,311.8	1,187.0
m-Xylene & p-Xylene Emission Rate, lb/hr	ER	6.6E-03	1.8E-02	1.4E-02	1.3E-02
Methanol Concentration, ppbvd	C_{ppbvd}	13,636.4	21,739.1	13,622.6	16,332.7
Methanol Emission Rate, lb/hr	ER	4.7E-02	7.1E-02	4.4E-02	5.4E-02
Propene Concentration, ppbvd	C_{ppbvd}	2,878.8	3,488.4	2,775.0	3,047.4
Propene Emission Rate, lb/hr	ER	1.3E-02	1.5E-02	1.2E-02	1.3E-02
Toluene Concentration, ppbvd	C_{ppbvd}	323.2	657.2	499.5	493.3
Toluene Emission Rate, lb/hr	ER	3.2E-03	6.2E-03	4.6E-03	4.7E-03
o-Xylene Concentration, ppbvd	C_{ppbvd}	50.5	75.8	51.0	59.1
o-Xylene Emission Rate, lb/hr	ER	5.7E-04	8.2E-04	5.5E-04	6.5E-04
Carbon disulfide Concentration, ppbvd	C_{ppbvd}	237.4	353.9	201.8	264.4
Carbon disulfide Emission Rate, lb/hr	ER	1.9E-03	2.7E-03	1.5E-03	2.1E-03
Chlorodifluoromethane (TIC) Concentration, ppbvd	C_{ppbvd}	474.7	121.3	272.5	289.5
Chlorodifluoromethane (TIC) Emission Rate, lb/hr	ER	4.4E-03	1.1E-03	2.4E-03	2.6E-03
Dichlorofluoromethane (TIC) Concentration, ppbvd	C_{ppbvd}	NA	NA	131.2	131.2
Dichlorofluoromethane (TIC) Emission Rate, lb/hr	ER	NA	NA	1.4E-03	1.4E-03

**Underlined values contain "ND" results in one or both duplicate cannister analysis. "RL" used in average concentration calculation*
***TIC results do not contain an "RL" and are ommitted in average caclulations when not detected*

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter(s): TO-15

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		6:52	5:40	5:40	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	694	687	692	691
Moisture Fraction	(BWS)	0.009	0.008	0.006	0.008
Lab Data					
1,3-Butadiene Concentration, ppbvw	C_{ppbvw}	< 2	< 6	< 23	10.18
2,2,4-Trimethylpentane Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3.39
2-Butanone (MEK) Concentration, ppbvw	C_{ppbvw}	< 2	< 6	< 23	10.18
4-Methyl-2-pentanone (MIBK) Concentration, ppbvw	C_{ppbvw}	< 2	< 6	< 23	10.18
Acetone Concentration, ppbvw	C_{ppbvw}	126	22	< 30	59
Benzene Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3
Cyclohexane Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3
Ethanol Concentration, ppbvw	C_{ppbvw}	11.4	< 20	< 75	35
Ethylbenzene Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3
Heptane Concentration, ppbvw	C_{ppbvw}	< 3	< 8	< 30	14
Hexane Concentration, ppbvw	C_{ppbvw}	< 3	< 8	< 30	14
m-Xylene & p-Xylene Concentration, ppbvw	C_{ppbvw}	< 3	< 8	< 30	14
Methanol Concentration, ppbvw	C_{ppbvw}	155	625	3050	1,277
Propene Concentration, ppbvw	C_{ppbvw}	< 14	< 40	< 150	68
Toluene Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3
o-Xylene Concentration, ppbvw	C_{ppbvw}	< 1	< 2	< 8	3
Chloromethane Concentration, ppbvw	C_{ppbvw}	< 1	15.5	12.5	10
Carbon disulfide Concentration, ppbvw	C_{ppbvw}	< 3	< 8	< 30	13.57
Chlorodifluoromethane (TIC) Concentration, ppbvw	C_{ppbvw}	ND	19	69	43.75
Dichlorofluoromethane (TIC) Concentration, ppbvw	C_{ppbvw}	ND	ND	ND	ND
Emissions Calculations					
1,3-Butadiene Concentration, ppbvd	C_{ppbvd}	2.1	6.0	22.6	10.3
1,3-Butadiene Emission Rate, lb/hr	ER	1.2E-05	3.6E-05	1.3E-04	6.1E-05
2,2,4-Trimethylpentane Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
2,2,4-Trimethylpentane Emission Rate, lb/hr	ER	8.5E-06	2.5E-05	9.4E-05	4.3E-05
2-Butanone (MEK) Concentration, ppbvd	C_{ppbvd}	2.1	6.0	22.6	10.3
2-Butanone (MEK) Emission Rate, lb/hr	ER	1.6E-05	4.7E-05	1.8E-04	8.1E-05
4-Methyl-2-pentanone (MIBK) Concentration, ppbvd	C_{ppbvd}	2.1	6.0	22.6	10.3
4-Methyl-2-pentanone (MIBK) Emission Rate, lb/hr	ER	2.3E-05	6.6E-05	2.5E-04	1.1E-04
Acetone Concentration, ppbvd	C_{ppbvd}	126.6	21.7	30.2	59.5
Acetone Emission Rate, lb/hr	ER	8.1E-04	1.4E-04	1.9E-04	3.8E-04
Benzene Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
Benzene Emission Rate, lb/hr	ER	5.8E-06	1.7E-05	6.4E-05	2.9E-05
Cyclohexane Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
Cyclohexane Emission Rate, lb/hr	ER	6.2E-06	1.8E-05	6.9E-05	3.1E-05
Ethanol Concentration, ppbvd	C_{ppbvd}	11.5	20.2	75.5	35.7
Ethanol Emission Rate, lb/hr	ER	5.8E-05	1.0E-04	3.8E-04	1.8E-04
Ethylbenzene Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
Ethylbenzene Emission Rate, lb/hr	ER	7.9E-06	2.3E-05	8.8E-05	4.0E-05
Heptane Concentration, ppbvd	C_{ppbvd}	2.7	8.1	30.2	13.7
Heptane Emission Rate, lb/hr	ER	3.0E-05	8.8E-05	3.3E-04	1.5E-04
Hexane Concentration, ppbvd	C_{ppbvd}	2.9	8.1	30.2	13.7
Hexane Emission Rate, lb/hr	ER	2.8E-05	7.5E-05	2.8E-04	1.3E-04
m-Xylene & p-Xylene Concentration, ppbvd	C_{ppbvd}	2.7	8.1	30.2	13.7
m-Xylene & p-Xylene Emission Rate, lb/hr	ER	3.2E-05	9.3E-05	3.5E-04	1.6E-04
Methanol Concentration, ppbvd	C_{ppbvd}	156.4	630.0	3,068.4	1,285.0
Methanol Emission Rate, lb/hr	ER	5.5E-04	2.2E-03	1.1E-02	4.5E-03
Propene Concentration, ppbvd	C_{ppbvd}	13.6	40.3	150.9	68.3
Propene Emission Rate, lb/hr	ER	6.3E-05	1.8E-04	6.9E-04	3.1E-04
Toluene Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
Toluene Emission Rate, lb/hr	ER	6.8E-06	2.0E-05	7.6E-05	3.4E-05
o-Xylene Concentration, ppbvd	C_{ppbvd}	0.68	2.0	7.5	3.4
o-Xylene Emission Rate, lb/hr	ER	7.9E-06	2.3E-05	8.8E-05	4.0E-05
Chloromethane Concentration, ppbvd	C_{ppbvd}	0.68	15.6	12.6	9.6
Chloromethane Emission Rate, lb/hr	ER	3.7E-06	8.6E-05	6.9E-05	5.3E-05
Carbon disulfide Concentration, ppbvd	C_{ppbvd}	2.7	8.1	30.2	13.7
Carbon disulfide Emission Rate, lb/hr	ER	2.3E-05	6.7E-05	2.5E-04	1.1E-04
Chlorodifluoromethane (TIC) Concentration, ppbvd	C_{ppbvd}	NA	19.2	68.9	44.0
Chlorodifluoromethane (TIC) Emission Rate, lb/hr	ER	NA	1.8E-04	6.5E-04	4.2E-04
Dichlorofluoromethane (TIC) Concentration, ppbvd	C_{ppbvd}	NA	NA	NA	NA
Dichlorofluoromethane (TIC) Emission Rate, lb/hr	ER	NA	NA	NA	NA

**Underlined values contain "ND" results in one or both duplicate cannister analysis. "RL" used in average concentration calculations*
***TIC results do not contain an "RL" and are ommitted in average caclulations when not detected*

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter(s): PAH

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:37	12:46	12:49	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	679	646	642	656
Standard Meter Volume, ft^3	(Vmstd)	343.191	340.920	317.714	333.942
Lab Data					
Naphthalene Mass, ng	M	3,450,000	4,070,000	3,730,000	3,750,000
2-Methylnaphthalene Mass, ng	M	1,060,000	1,380,000	1,440,000	1,293,333
Acenaphthylene Mass, ng	M	5,000	5,000	5,770	5,257
Acenaphthene Mass, ng	M	8,640	11,700	12,000	10,780
Fluorene Mass, ng	M	7,490	7,830	8,700	8,007
Phenanthrene Mass, ng	M	7,060	13,800	12,100	10,987
Anthracene Mass, ng	M	8,580	6,710	7,880	7,723
Fluoranthene Mass, ng	M	351	243	612	402
Pyrene Mass, ng	M	786	544	1,330	887
Benz(a)anthracene Mass, ng	M	11.1	11.5	15.1	13
Chrysene Mass, ng	M	82.7	88	105	92
Benzo(b)fluoranthene Mass, ng	M	20.7	14.6	63.6	33
Benzo(k)fluoranthene Mass, ng	M	10	10	15.6	12
Benzo(e)pyrene Mass, ng	M	96.4	68.3	461	209
Benzo(a)pyrene Mass, ng	M	24.2	16	50.4	30
Perylene Mass, ng	M	10.1	11.6	10.8	11
Indeno(1,2,3-c,d)pyrene Mass, ng	M	31.4	15.2	92.4	46
Dibenz(a,h)anthracene Mass, ng	M	10	10	10	10
Benzo(g,h,i)perylene Mass, ng	M	251	120	630	334
Emissions Calculations					
Naphthalene Concentration, ng/dscm	C	355,008	421,597	414,599	397,068
Naphthalene Emission Rate, lb/hr	ER	9.0E-04	1.0E-03	1.0E-03	9.7E-04
2-Methylnaphthalene Concentration, ng/dscm	C	109,075	142,949	160,060	137,361
2-Methylnaphthalene Emission Rate, lb/hr	ER	2.8E-04	3.5E-04	3.8E-04	3.4E-04
Acenaphthylene Concentration, ng/dscm	C	514.5	517.9	641.3	557.9
Acenaphthylene Emission Rate, lb/hr	ER	1.3E-06	1.3E-06	1.5E-06	1.4E-06
Acenaphthene Concentration, ng/dscm	C	889.1	1,212.0	1,333.8	1,145.0
Acenaphthene Emission Rate, lb/hr	ER	2.3E-06	2.9E-06	3.2E-06	2.8E-06
Fluorene Concentration, ng/dscm	C	770.7	811.1	967.0	849.6
Fluorene Emission Rate, lb/hr	ER	2.0E-06	2.0E-06	2.3E-06	2.1E-06
Phenanthrene Concentration, ng/dscm	C	726.5	1,429.5	1,344.9	1,167.0
Phenanthrene Emission Rate, lb/hr	ER	1.8E-06	3.5E-06	3.2E-06	2.8E-06
Anthracene Concentration, ng/dscm	C	882.9	695.1	875.9	817.9
Anthracene Emission Rate, lb/hr	ER	2.2E-06	1.7E-06	2.1E-06	2.0E-06
Fluoranthene Concentration, ng/dscm	C	36.1	25.2	68.0	43.1
Fluoranthene Emission Rate, lb/hr	ER	9.2E-08	6.1E-08	1.6E-07	1.1E-07
Pyrene Concentration, ng/dscm	C	80.9	56.4	147.8	95.0
Pyrene Emission Rate, lb/hr	ER	2.1E-07	1.4E-07	3.6E-07	2.3E-07
Benz(a)anthracene Concentration, ng/dscm	C	1.1	1.2	1.7	1.3
Benz(a)anthracene Emission Rate, lb/hr	ER	2.9E-09	2.9E-09	4.0E-09	3.3E-09
Chrysene Concentration, ng/dscm	C	8.5	9.1	11.7	9.8
Chrysene Emission Rate, lb/hr	ER	2.2E-08	2.2E-08	2.8E-08	2.4E-08
Benzo(b)fluoranthene Concentration, ng/dscm	C	2.1	1.5	7.1	3.6
Benzo(b)fluoranthene Emission Rate, lb/hr	ER	5.4E-09	3.7E-09	1.7E-08	8.7E-09
Benzo(k)fluoranthene Concentration, ng/dscm	C	1.0	1.0	1.7	1.3
Benzo(k)fluoranthene Emission Rate, lb/hr	ER	2.6E-09	2.5E-09	4.2E-09	3.1E-09
Benzo(e)pyrene Concentration, ng/dscm	C	9.9	7.1	51.2	22.7
Benzo(e)pyrene Emission Rate, lb/hr	ER	2.5E-08	1.7E-08	1.2E-07	5.5E-08
Benzo(a)pyrene Concentration, ng/dscm	C	2.5	1.7	5.6	3.2
Benzo(a)pyrene Emission Rate, lb/hr	ER	6.3E-09	4.0E-09	1.3E-08	7.9E-09
Perylene Concentration, ng/dscm	C	1.0	1.2	1.2	1.1
Perylene Emission Rate, lb/hr	ER	2.6E-09	2.9E-09	2.9E-09	2.8E-09
Indeno(1,2,3-c,d)pyrene Concentration, ng/dscm	C	3.2	1.6	10.3	5.0
Indeno(1,2,3-c,d)pyrene Emission Rate, lb/hr	ER	8.2E-09	3.8E-09	2.5E-08	1.2E-08
Dibenz(a,h)anthracene Concentration, ng/dscm	C	1.0	1.0	1.1	1.1
Dibenz(a,h)anthracene Emission Rate, lb/hr	ER	2.6E-09	2.5E-09	2.7E-09	2.6E-09
Benzo(g,h,i)perylene Concentration, ng/dscm	C	25.8	12.4	70.0	36.1
Benzo(g,h,i)perylene Emission Rate, lb/hr	ER	6.6E-08	3.0E-08	1.7E-07	8.8E-08

Underlined values are reported at the method reporting limit

Alliance SOURCE TESTING

Volumetric Flow Rate Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter PAH

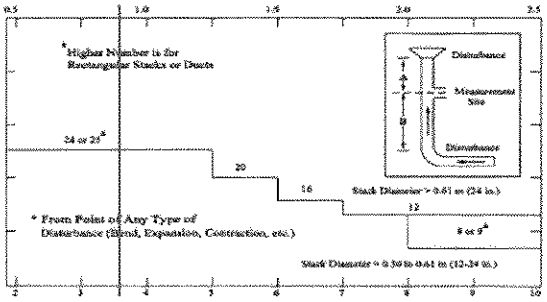
Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:37	12:46	12:49	--
Run Time, min		480.0	480.0	480.0	480.0
VELOCITY HEAD, in. WC					
Point 1		0.64	0.65	0.71	0.67
Point 2		0.70	0.67	0.76	0.71
Point 3		0.72	0.68	0.74	0.71
Point 4		0.75	0.69	0.72	0.72
Point 5		0.80	0.71	0.68	0.73
Point 6		0.85	0.74	0.65	0.75
Point 7		0.85	0.73	0.68	0.75
Point 8		0.86	0.71	0.66	0.74
Point 9		0.86	0.69	0.70	0.75
Point 10		0.86	0.68	0.72	0.75
Point 11		0.88	0.69	0.69	0.75
Point 12		0.89	0.68	0.71	0.76
Point 13		0.72	0.70	0.76	0.73
Point 14		0.75	0.73	0.78	0.75
Point 15		0.78	0.76	0.77	0.77
Point 16		0.81	0.78	0.76	0.78
Point 17		0.82	0.77	0.75	0.78
Point 18		0.85	0.78	0.71	0.78
Point 19		0.86	0.76	0.68	0.77
Point 20		0.85	0.72	0.65	0.74
Point 21		0.81	0.71	0.64	0.72
Point 22		0.74	0.70	0.66	0.70
Point 23		0.72	0.70	0.68	0.70
Point 24		0.71	0.69	0.66	0.69
CALCULATED DATA					
Square Root of ΔP, (in. WC)$^{1/2}$	(ΔP)	0.891	0.844	0.839	0.858
Pitot Tube Coefficient	(Cp)	0.990	0.990	0.990	0.990
Barometric Pressure, in. Hg	(Pb)	29.52	29.55	29.59	29.55
Static Pressure, in. WC	(Pg)	-0.80	-0.80	-0.80	-0.80
Stack Pressure, in. Hg	(Ps)	29.46	29.49	29.53	29.49
Stack Cross-sectional Area, ft^2	(As)	0.20	0.20	0.20	0.20
Temperature, °F	(Ts)	63.2	58.5	64.1	61.9
Temperature, °R	(Ts)	523.2	518.5	524.1	521.9
Moisture Fraction Measured	(BWSmsd)	0.006	0.008	0.003	0.006
Moisture Fraction @ Saturation	(BWSsat)	0.020	0.017	0.020	0.019
Moisture Fraction	(BWS)	0.006	0.008	0.003	0.006
O_2 Concentration, %	(O_2)	20.9	20.9	20.9	20.9
CO_2 Concentration, %	(CO_2)	0.0	0.0	0.0	0.0
Molecular Weight, lb/lb-mole (dry)	(Md)	28.84	28.84	28.84	28.84
Molecular Weight, lb/lb-mole (wet)	(Ms)	28.77	28.75	28.81	28.78
Velocity, ft/sec	(Vs)	59.2	55.9	55.8	57.0
VOLUMETRIC FLOW RATE					
At Stack Conditions, acfm	(Qa)	698	658	657	671
At Standard Conditions, dscfm	(Qs)	679	646	642	655

Method 1 Data

Location: All American Asphalt
Source: CAU - Inlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Sampling Location

Duct Orientation:	Horizontal	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	6.00	in
Nipple Length:	0.00	in
Depth of Duct:	6.00	in
Cross Sectional Area of Duct:	0.20	ft^2
No. of Test Ports:	2	
Distance A:	1.8	ft
Distance A Duct Diameters:	3.6	(must be > 0.5)
Distance B:	1.8	ft
Distance B Duct Diameters:	3.6	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	RCL	
Reviewer (Initial and Date):	GWH	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

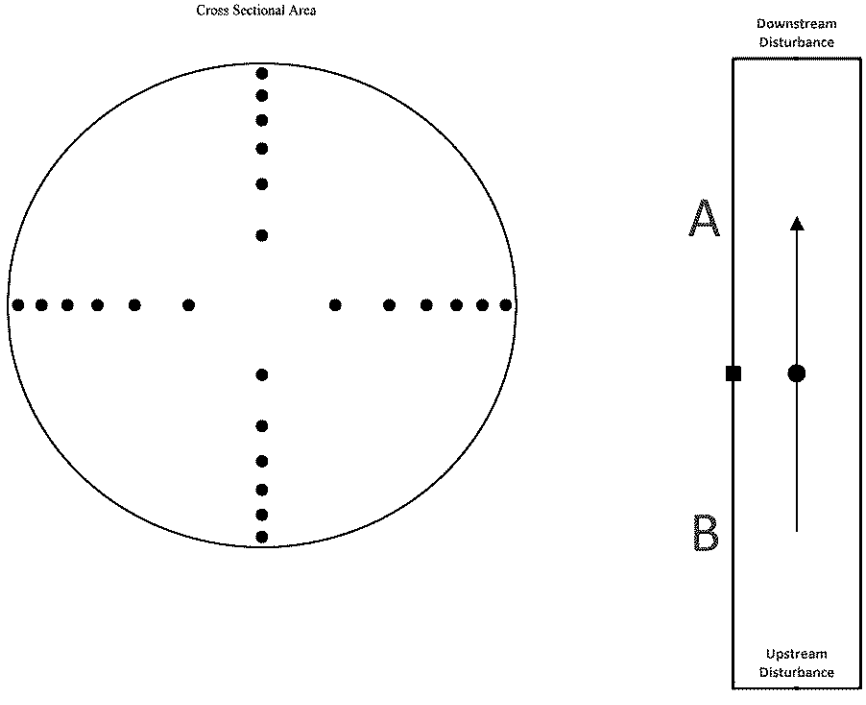
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.50
2	6.7	0.50	0.50
3	11.8	0.71	0.71
4	17.7	1.06	1.06
5	25.0	1.50	1.50
6	35.6	2.14	2.14
7	64.4	3.86	3.86
8	75.0	4.50	4.50
9	82.3	4.94	4.94
10	88.2	5.29	5.29
11	93.3	5.50	5.50
12	97.9	5.50	5.50

Stack Diagram
A = 1.8 ft.
B = 1.8 ft.
Depth of Duct = 6 in.

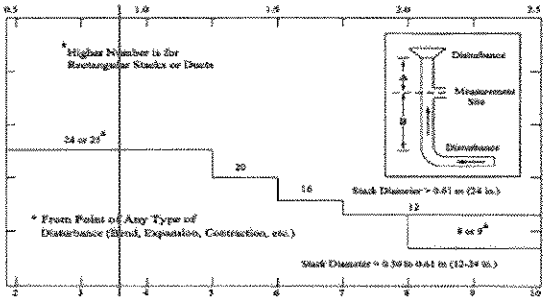


Method 1 Data

Location: All American Asphalt
Source: CAU - Inlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Sampling

Duct Orientation:	Horizontal	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	6.00	in
Nipple Length:	0.00	in
Depth of Duct:	6.00	in
Cross Sectional Area of Duct:	0.20	ft^2
No. of Test Ports:	2	
Distance A:	1.8	ft
Distance A Duct Diameters:	3.6	(must be > 0.5)
Distance B:	1.8	ft
Distance B Duct Diameters:	3.6	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	RCL	
Reviewer (Initial and Date):	GWH	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

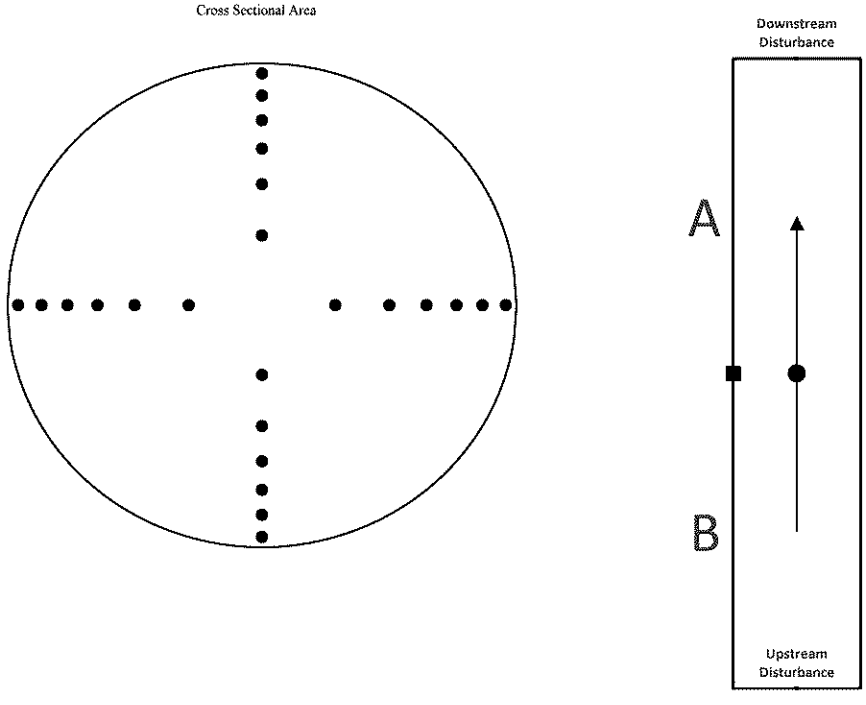
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.50
2	6.7	0.50	0.50
3	11.8	0.71	0.71
4	17.7	1.06	1.06
5	25.0	1.50	1.50
6	35.6	2.14	2.14
7	64.4	3.86	3.86
8	75.0	4.50	4.50
9	82.3	4.94	4.94
10	88.2	5.29	5.29
11	93.3	5.50	5.50
12	97.9	5.50	5.50

Stack Diagram
A = 1.8 ft.
B = 1.8 ft.
Depth of Duct = 6 in.



Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter PAH
Analysis Gravimetric

Run 1	Date:	3/17/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	493.9	758.9	761.2	623.8	935.9	3573.7
Final Mass, g	507.3	747.5	757.0	629.9	979.2	3620.9
Gain	13.4	-11.4	-4.2	6.1	43.3	47.2
Run 2	**Date:**	3/18/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	494.1	720.3	755.9	625.2	956.7	3552.2
Final Mass, g	517.4	710.9	751.5	628.0	1001.6	3609.4
Gain	23.3	-9.4	-4.4	2.8	44.9	57.2
Run 3	**Date:**	3/19/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	494.2	733.6	747.9	625.5	886.4	3487.6
Final Mass, g	502.1	717.8	740.9	628.9	916.0	3505.7
Gain	7.9	-15.8	-7.0	3.4	29.6	18.1

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	5:52	Source:	CAU - Inlet
Date:	3/17/21	Run 1	VALID	End Time:	14:37	Project No.:	2021-0883

Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA
Moisture:	5.0	% est.	Meter Box ID:	M5-9		Est. Tm:	60	°F			Pb:	29.52	in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9939		Est. Ts:	60	°F			Pg:	-0.80	in. WC	47.2
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.841		Est. ΔP:	0.64	in. WC			O_2:	20.9	%	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-4		Est. Dn:	0.212	in.			CO_2:	0.0	%	2.060
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm					Check Pt.	Initial	Final	Corr.
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)	529.110	######		0.320
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.003	0.005	--	--	0.003	Mid 2 (cf)				--
Md:	28.84	lb/lb-mole	Nozzle ID:	.209	glass	Vacuum (in Hg):	12	10	--	--	10	Mid 3 (cf)				--
Ms:	28.29	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	--	--	Pass	Mid-Point Leak Check Vol (cf):				0.320

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	352.794	0.64	44	46	1.32	1.30	5	255	249	47	47	105.3	52.75
2	20.00	40.00	366.420	0.70	47	47	1.44	1.40	5	250	252	58	44	107.3	55.22
3	40.00	60.00	381.020	0.72	51	46	1.50	1.50	5	250	251	59	44	107.3	55.95
4	60.00	80.00	395.950	0.75	53	47	1.56	1.60	5	250	251	55	44	92.9	57.16
5	80.00	100.00	409.170	0.80	55	46	1.68	1.70	7	250	253	51	44	93.8	58.98
6	100.00	120.00	423.020	0.85	56	47	1.78	1.80	7	250	253	51	44	104.5	60.85
7	120.00	140.00	438.950	0.85	59	49	1.79	1.80	7	250	249	52	47	96.6	60.97
8	140.00	160.00	453.730	0.86	50	60	1.74	1.80	7	250	251	52	47	102.3	61.99
9	160.00	180.00	469.030	0.86	61	51	1.81	1.80	7	250	249	52	48	95.4	61.45
10	180.00	200.00	483.730	0.86	62	53	1.80	1.80	7	250	248	53	50	98.1	61.57
11	200.00	220.00	498.850	0.88	65	54	1.85	1.90	7	250	249	54	51	96.2	62.34
12	220.00	240.00	513.920	0.89	67	57	1.87	1.90	7	251	249	52	51	96.3	62.88
B1	240.00	260.00	529.110	0.72	69	68	1.49	1.50	7	249	252	49	59	101.3	57.16
2	260.00	280.00	543.390	0.75	61	70	1.52	1.50	7	250	251	59	39	102.9	58.44
3	280.00	300.00	557.950	0.78	76	72	1.62	1.60	7	249	252	55	39	99.9	59.71
4	300.00	320.00	572.740	0.81	80	74	1.69	1.70	7	250	248	51	40	98.9	60.97
5	320.00	340.00	587.750	0.82	82	77	1.71	1.70	7	251	249	56	42	96.0	61.51
6	340.00	360.00	602.420	0.85	84	78	1.77	1.80	7	250	253	57	44	97.5	62.69
7	360.00	380.00	617.620	0.86	84	80	1.79	1.80	7	250	250	58	45	96.6	63.17
8	380.00	400.00	632.750	0.85	86	80	1.77	1.80	7	249	249	57	49	97.4	62.80
9	400.00	420.00	647.960	0.81	87	83	1.68	1.70	7	250	250	55	40	101.4	61.48
10	420.00	440.00	663.420	0.74	88	80	1.55	1.60	7	250	250	57	42	101.9	58.60
11	440.00	460.00	678.340	0.72	86	76	1.51	1.50	7	251	250	55	41	101.6	57.59
12	460.00	480.00	693.010	0.71	86	75	1.49	1.50	7	250	251	53	43	98.8	57.13
	Final DGM:		707.201												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	V_{qa}
	480.0	min	354.087	ft^3	0.80	in. WC	68.3	°F	63.2	°F	7	1.667	in. WC	98.7	0.006	2.7

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	4:40	Source:	CAU - Inlet
Date:	3/18/21	Run 2	VALID	End Time:	12:46	Project No.:	2021-0883

Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-9		Est. Tm:	68	°F		Pb:	29.55 in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9939		Est. Ts:	63	°F		Pg:	-0.80 in. WC	57.2
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.841		Est. ΔP:	0.80	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-4		Est. Dn:	0.196	in.		CO_2:	0.0 %	2.23
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3	Post	Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.004	--	-- --	0.003	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	.209	glass	Vacuum (in Hg):	11	--	-- --	12	Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	-- --	Pass	Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	707.524	0.65	46	47	1.43	1.40	7	252	252	43	48	100.1	52.81
2	20.00	40.00	721.060	0.67	51	52	1.47	1.50	7	250	248	51	47	102.9	53.88
3	40.00	60.00	735.260	0.68	55	53	1.51	1.50	7	250	250	54	46	96.1	54.34
4	60.00	80.00	748.710	0.69	56	53	1.53	1.60	8	251	251	53	46	101.3	54.73
5	80.00	100.00	763.020	0.71	57	53	1.58	1.60	8	250	251	51	46	100.3	55.52
6	100.00	120.00	777.410	0.74	57	54	1.64	1.70	8	250	251	53	48	95.2	56.74
7	120.00	140.00	791.350	0.73	57	54	1.62	1.60	8	250	250	53	47	101.1	56.35
8	140.00	160.00	806.050	0.71	59	54	1.58	1.60	8	250	251	52	47	100.5	55.58
9	160.00	180.00	820.510	0.69	60	55	1.54	1.50	8	250	252	52	48	102.3	54.84
10	180.00	200.00	835.040	0.68	61	56	1.51	1.50	8	250	251	52	49	100.8	54.49
11	200.00	220.00	849.270	0.69	61	57	1.53	1.50	8	250	253	52	49	104.4	54.95
12	220.00	240.00	864.110	0.68	64	58	1.52	1.50	8	249	249	54	52	98.7	54.60
B1	240.00	260.00	878.100	0.70	66	58	1.57	1.60	8	250	250	48	53	99.2	55.40
2	260.00	280.00	892.410	0.73	66	55	1.64	1.60	9	249	251	50	44	103.5	56.41
3	280.00	300.00	907.710	0.76	71	55	1.73	1.70	9	250	252	47	48	98.6	57.56
4	300.00	320.00	922.720	0.78	72	56	1.77	1.80	9	250	250	45	47	92.5	58.36
5	320.00	340.00	936.990	0.77	72	57	1.75	1.80	9	250	252	52	53	93.7	58.05
6	340.00	360.00	951.340	0.78	73	59	1.77	1.80	9	249	251	54	52	97.8	58.53
7	360.00	380.00	966.410	0.76	77	61	1.73	1.70	9	251	250	56	49	104.2	57.89
8	380.00	400.00	982.350	0.72	79	62	1.64	1.70	9	250	250	52	49	99.1	56.40
9	400.00	420.00	997.150	0.71	82	72	1.59	1.60	9	250	251	47	44	103.5	56.54
10	420.00	440.00	1012.450	0.70	85	74	1.58	1.60	9	251	251	38	41	105.9	56.25
11	440.00	460.00	1028.050	0.70	86	69	1.59	1.60	9	251	251	33	42	100.9	55.98
12	460.00	480.00	1043.010	0.69	86	80	1.54	1.50	9	251	252	30	40	101.9	56.16
	Final DGM:		1057.858												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	350.334	ft^3	0.71	in. WC	66.6	°F	58.5	°F	9	1.604	in. WC	103.1	0.008	3.7

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	4:40	Source:	CAU - Inlet
Date:	3/19/21	Run 3	VALID	End Time:	12:49	Project No.:	2021-0883

Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-9		Est. Tm:	67	°F		Pb:	29.59 in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9939		Est. Ts:	59	°F		Pg:	-0.80 in. WC	18.1
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.841		Est. ΔP:	0.71	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-4		Est. Dn:	0.201	in.		CO_2:	0.0 %	2.238
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3	Post	Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	--	-- --	0.001	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	.209	glass	Vacuum (in Hg):	12	--	-- --	11	Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	-- --	Pass	Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
	--	--			--	--	--	--		--	--	--	--		
A1	0.00	20.00	58.259	0.71	45	48	1.56	1.60	7	253	253	46	43	96.0	55.25
2	20.00	40.00	71.790	0.76	52	54	1.67	1.70	8	250	250	54	48	95.4	57.50
3	40.00	60.00	85.810	0.74	55	55	1.63	1.60	8	250	250	51	48	95.1	56.79
4	60.00	80.00	99.670	0.72	58	55	1.60	1.60	8	250	250	54	35	98.6	56.02
5	80.00	100.00	113.920	0.68	59	55	1.51	1.50	8	250	251	50	35	92.5	54.44
6	100.00	120.00	126.940	0.65	61	55	1.45	1.50	8	250	250	48	35	101.6	53.23
7	120.00	140.00	140.980	0.68	61	56	1.51	1.50	8	250	248	48	35	105.6	54.49
8	140.00	160.00	155.890	0.66	61	56	1.47	1.50	8	250	250	47	35	106.0	53.69
9	160.00	180.00	170.640	0.70	61	56	1.56	1.60	8	250	250	47	35	96.9	55.29
10	180.00	200.00	184.520	0.72	62	56	1.61	1.60	8	250	251	46	36	98.6	56.07
11	200.00	220.00	198.870	0.69	64	58	1.54	1.50	8	250	251	46	36	99.1	55.00
12	220.00	240.00	213.020	0.71	65	60	1.58	1.60	8	250	251	47	37	96.2	55.90
B1	240.00	260.00	226.940	0.76	66	61	1.69	1.70	8	250	248	48	37	95.7	57.89
2	260.00	280.00	241.280	0.78	68	56	1.76	1.70	8	251	248	48	37	94.9	58.36
3	280.00	300.00	255.820	0.77	75	64	1.73	1.70	8	250	251	51	37	95.4	58.44
4	300.00	320.00	270.420	0.76	76	66	1.71	1.70	8	249	252	53	39	95.5	58.17
5	320.00	340.00	284.930	0.75	76	68	1.68	1.70	8	250	252	55	41	102.8	57.89
6	340.00	360.00	300.420	0.71	77	73	1.58	1.60	8	250	250	51	41	103.2	56.59
7	360.00	380.00	315.510	0.68	81	76	1.51	1.50	8	251	252	51	44	98.9	55.54
8	380.00	400.00	329.740	0.65	85	79	1.45	1.50	8	250	251	52	46	104.3	54.45
9	400.00	420.00	344.480	0.64	85	80	1.42	1.40	8	251	245	54	49	101.6	54.08
10	420.00	440.00	358.710	0.66	90	82	1.48	1.50	8	250	249	48	36	94.6	55.02
11	440.00	460.00	372.270	0.68	92	84	1.52	1.50	8	250	253	47	36	95.0	55.95
12	460.00	480.00	386.110	0.66	93	86	1.47	1.50	8	250	252	47	37	######	55.23

Final DGM: --

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	327.851	ft^3	0.71	in. WC	69.5	°F	64.1	°F	8	1.575	in. WC	96.7	0.003	-2.2

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter(s): PAH

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:45	12:46	12:49	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	693	684	688	688
Standard Meter Volume, ft^3	(Vmstd)	393.984	394.728	397.877	395.530
Lab Data					
Naphthalene Mass, ng	M	581	350	254	395
2-Methylnaphthalene Mass, ng	M	761	461	373	532
Acenaphthylene Mass, ng	M	27	16	17	20
Acenaphthene Mass, ng	M	1,080	709	679	823
Fluorene Mass, ng	M	2,860	1,890	1,700	2,150
Phenanthrene Mass, ng	M	2,860	2,850	2,440	2,717
Anthracene Mass, ng	M	74.5	65	59	66
Fluoranthene Mass, ng	M	120	114	90.5	108
Pyrene Mass, ng	M	167	192	168	176
Benz(a)anthracene Mass, ng	M	10	10	10	10
Chrysene Mass, ng	M	23.2	16.9	13.8	18
Benzo(b)fluoranthene Mass, ng	M	10	10	10	10
Benzo(k)fluoranthene Mass, ng	M	10	10	10	10
Benzo(e)pyrene Mass, ng	M	25.00	24.2	31.7	27
Benzo(a)pyrene Mass, ng	M	10	10	10	10
Perylene Mass, ng	M	10	10	10	10
Indeno(1,2,3-c,d)pyrene Mass, ng	M	10.9	12.1	12.8	12
Dibenz(a,h)anthracene Mass, ng	M	10	10	10	10
Benzo(g,h,i)perylene Mass, ng	M	82.8	101	102	95
Emissions Calculations					
Naphthalene Concentration, ng/dscm	C	52.1	31.3	22.5	35.3
Naphthalene Emission Rate, lb/hr	ER	1.4E-07	8.0E-08	5.8E-08	9.1E-08
2-Methylnaphthalene Concentration, ng/dscm	C	68.2	41.2	33.1	47.5
2-Methylnaphthalene Emission Rate, lb/hr	ER	1.8E-07	1.1E-07	8.5E-08	1.2E-07
Acenaphthylene Concentration, ng/dscm	C	2.4	1.4	1.5	1.8
Acenaphthylene Emission Rate, lb/hr	ER	6.3E-09	3.7E-09	3.9E-09	4.6E-09
Acenaphthene Concentration, ng/dscm	C	96.8	63.4	60.3	73.5
Acenaphthene Emission Rate, lb/hr	ER	2.5E-07	1.6E-07	1.6E-07	1.9E-07
Fluorene Concentration, ng/dscm	C	256.4	169.1	150.9	192.1
Fluorene Emission Rate, lb/hr	ER	6.7E-07	4.3E-07	3.9E-07	5.0E-07
Phenanthrene Concentration, ng/dscm	C	256.4	255.0	216.6	242.6
Phenanthrene Emission Rate, lb/hr	ER	6.7E-07	6.5E-07	5.6E-07	6.3E-07
Anthracene Concentration, ng/dscm	C	6.7	5.8	5.2	5.9
Anthracene Emission Rate, lb/hr	ER	1.7E-08	1.5E-08	1.3E-08	1.5E-08
Fluoranthene Concentration, ng/dscm	C	10.8	10.2	8.0	9.7
Fluoranthene Emission Rate, lb/hr	ER	2.8E-08	2.6E-08	2.1E-08	2.5E-08
Pyrene Concentration, ng/dscm	C	15.0	17.2	14.9	15.7
Pyrene Emission Rate, lb/hr	ER	3.9E-08	4.4E-08	3.8E-08	4.0E-08
Benz(a)anthracene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Benz(a)anthracene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Chrysene Concentration, ng/dscm	C	2.1	1.5	1.2	1.6
Chrysene Emission Rate, lb/hr	ER	5.4E-09	3.9E-09	3.2E-09	4.1E-09
Benzo(b)fluoranthene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Benzo(b)fluoranthene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Benzo(k)fluoranthene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Benzo(k)fluoranthene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Benzo(e)pyrene Concentration, ng/dscm	C	2.2	2.2	2.8	2.4
Benzo(e)pyrene Emission Rate, lb/hr	ER	5.8E-09	5.5E-09	7.3E-09	6.2E-09
Benzo(a)pyrene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Benzo(a)pyrene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Perylene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Perylene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Indeno(1,2,3-c,d)pyrene Concentration, ng/dscm	C	0.98	1.1	1.1	1.1
Indeno(1,2,3-c,d)pyrene Emission Rate, lb/hr	ER	2.5E-09	2.8E-09	2.9E-09	2.7E-09
Dibenz(a,h)anthracene Concentration, ng/dscm	C	0.90	0.89	0.89	0.89
Dibenz(a,h)anthracene Emission Rate, lb/hr	ER	2.3E-09	2.3E-09	2.3E-09	2.3E-09
Benzo(g,h,i)perylene Concentration, ng/dscm	C	7.4	9.0	9.1	8.5
Benzo(g,h,i)perylene Emission Rate, lb/hr	ER	1.9E-08	2.3E-08	2.3E-08	2.2E-08

Underlined values are reported at the method reporting limit

Alliance SOURCE TESTING

Volumetric Flow Rate Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter PAH

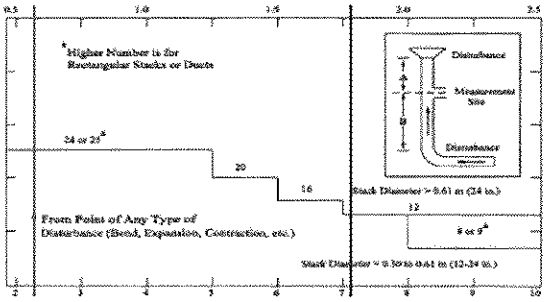
Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:45	12:46	12:49	--
Run Time, min		480.0	480.0	480.0	480.0
VELOCITY HEAD, in. WC					
Point 1		1.30	1.20	0.98	1.16
Point 2		1.30	1.10	1.20	1.20
Point 3		1.20	1.00	1.20	1.13
Point 4		1.20	1.20	1.20	1.20
Point 5		1.20	1.20	1.20	1.20
Point 6		1.20	1.20	1.20	1.20
Point 7		1.20	1.10	1.20	1.17
Point 8		1.20	1.10	1.10	1.13
Point 9		1.20	1.10	1.10	1.13
Point 10		1.20	1.20	1.20	1.20
Point 11		1.00	1.10	1.00	1.03
Point 12		1.00	0.90	0.95	0.95
Point 13		0.82	1.10	1.00	0.97
Point 14		1.10	1.10	1.10	1.10
Point 15		1.20	1.20	1.20	1.20
Point 16		0.88	1.20	1.20	1.09
Point 17		0.95	1.20	1.20	1.12
Point 18		1.00	1.20	1.20	1.13
Point 19		1.10	1.10	1.20	1.13
Point 20		1.10	1.10	1.10	1.10
Point 21		1.10	1.00	1.00	1.03
Point 22		1.10	0.88	1.00	0.99
Point 23		0.92	0.77	0.88	0.86
Point 24		1.10	0.83	0.85	0.93
CALCULATED DATA					
Square Root of ΔP, (in. WC)$^{1/2}$	(ΔP)	1.050	1.041	1.049	1.047
Pitot Tube Coefficient	(Cp)	0.990	0.990	0.990	0.990
Barometric Pressure, in. Hg	(Pb)	29.52	29.55	29.59	29.55
Static Pressure, in. WC	(Pg)	0.86	0.81	0.79	0.82
Stack Pressure, in. Hg	(Ps)	29.58	29.61	29.65	29.61
Stack Cross-sectional Area, ft^2	(As)	0.17	0.17	0.17	0.17
Temperature, °F	(Ts)	83.5	86.5	88.5	86.2
Temperature, °R	(Ts)	543.5	546.5	548.5	546.2
Moisture Fraction Measured	(BWSmsd)	0.004	0.005	0.006	0.005
Moisture Fraction @ Saturation	(BWSsat)	0.039	0.043	0.046	0.043
Moisture Fraction	(BWS)	0.004	0.005	0.006	0.005
O_2 Concentration, %	(O_2)	20.9	20.9	20.9	20.9
CO_2 Concentration, %	(CO_2)	0.0	0.0	0.0	0.0
Molecular Weight, lb/lb-mole (dry)	(Md)	28.84	28.84	28.84	28.84
Molecular Weight, lb/lb-mole (wet)	(Ms)	28.79	28.78	28.77	28.78
Velocity, ft/sec	(Vs)	71.0	70.5	71.2	70.9
VOLUMETRIC FLOW RATE					
At Stack Conditions, acfm	(Qa)	735	730	737	734
At Standard Conditions, dscfm	(Qs)	693	684	688	688

Method 1 Data

Location: All American Asphalt
Source: CAU - Outlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Pitot Location

Duct Orientation:	Vertical	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	5.75	in
Nipple Length:	0.13	in
Depth of Duct:	5.63	in
Cross Sectional Area of Duct:	0.17	ft^2
No. of Test Ports:	2	
Distance A:	0.8	ft
Distance A Duct Diameters:	1.8	(must be > 0.5)
Distance B:	1.1	ft
Distance B Duct Diameters:	2.3	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	GWH 3/16/21	
Reviewer (Initial and Date):	GWH 3/16/21	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

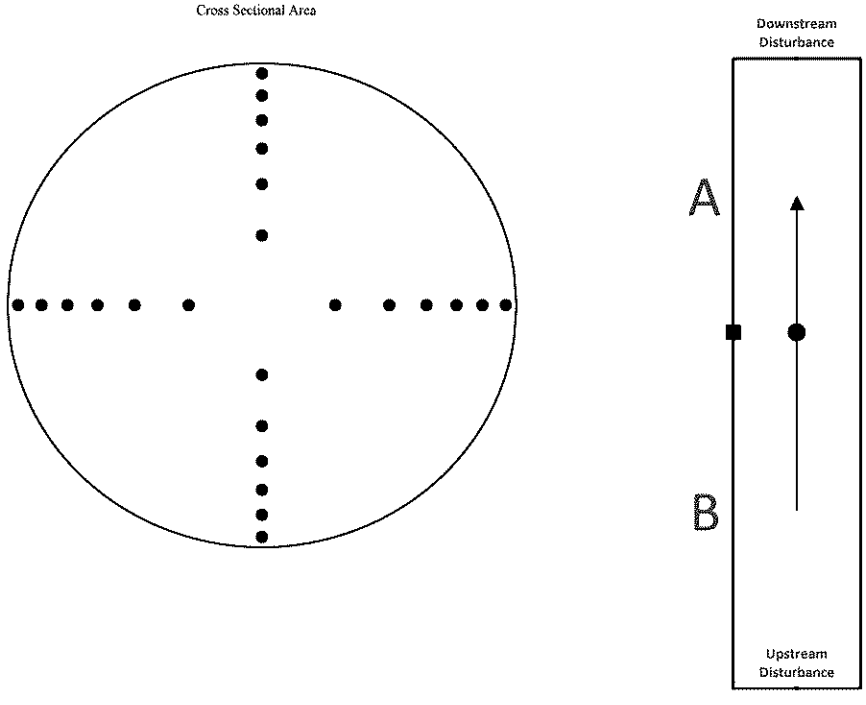
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.63
2	6.7	0.50	0.63
3	11.8	0.66	0.79
4	17.7	1.00	1.12
5	25.0	1.41	1.53
6	35.6	2.00	2.13
7	64.4	3.62	3.75
8	75.0	4.22	4.34
9	82.3	4.63	4.75
10	88.2	4.96	5.09
11	93.3	5.13	5.25
12	97.9	5.13	5.25

Stack Diagram
A = 0.8333333
B = 1.0833333
Depth of Duct = 5.625 in.

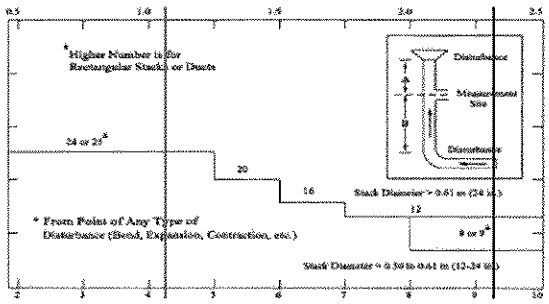


Method 1 Data

Location: All American Asphalt
Source: CAU - Outlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Sampling Location

Duct Orientation:	Vertical	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	5.75	in
Nipple Length:	0.13	in
Depth of Duct:	5.63	in
Cross Sectional Area of Duct:	0.17	ft^2
No. of Test Ports:	2	
Distance A:	1.1	ft
Distance A Duct Diameters:	2.3	(must be > 0.5)
Distance B:	2.0	ft
Distance B Duct Diameters:	4.3	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	GWH 3/16/21	
Reviewer (Initial and Date):	GWH 3/16/21	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

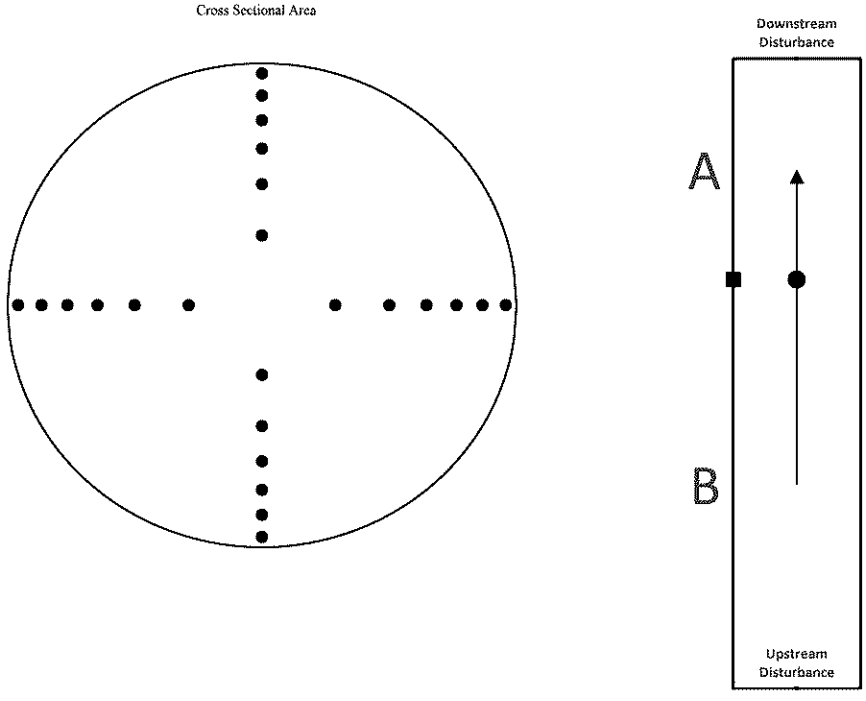
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.63
2	6.7	0.50	0.63
3	11.8	0.66	0.79
4	17.7	1.00	1.12
5	25.0	1.41	1.53
6	35.6	2.00	2.13
7	64.4	3.62	3.75
8	75.0	4.22	4.34
9	82.3	4.63	4.75
10	88.2	4.96	5.09
11	93.3	5.13	5.25
12	97.9	5.13	5.25

Stack Diagram
A = 1.0833333
B = 2 ft.
Depth of Duct = 5.625 in.



Alliance SOURCE TESTING

Method 4 Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter PAH
Analysis Gravimetric

Run 1	Date:	3/17/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	490.6	743.2	696.0	565.3	992.3	3487.4
Final Mass, g	494.8	707.9	691.2	575.4	1056.4	3525.7
Gain	4.2	-35.3	-4.8	10.1	64.1	38.3
Run 2	**Date:**	3/18/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	491.2	753.4	690.8	565.9	990.0	3491.3
Final Mass, g	496.3	725.9	686.5	573.8	1052.7	
Gain	5.1	-27.5	-4.3	7.9	62.7	43.9
Run 3	**Date:**	3/19/21				
Impinger No.	**1**	**2**	**3**	**4**	**5**	**Total**
Contents	Empty	H2O	H2O	Empty	Silica	--
Initial Mass, g	490.5	760.5	685.5	564.7	990.2	3491.4
Final Mass, g	496.3	728.1	673.8	576.5	1069.7	3544.4
Gain	5.8	-32.4	-11.7	11.8	79.5	53.0

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	5:52	Source:	CAU - Outlet
Date:	3/17/21	Run 1	VALID	End Time:	14:45	Project No.:	2021-0883

Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA
Moisture:	5.0	% est.	Meter Box ID:	M5-30		Est. Tm:	50	°F			Pb:	29.52	in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9958		Est. Ts:	65	°F			Pg:	0.86	in. WC	38.3
Static Press:	-1.00	in. WC	ΔH @ (in.WC):	1.887		Est. ΔP:	1.11	in. WC			O_2:	20.9	%	K-FACTOR
Stack Press:	30.01	in. Hg	Probe ID:	P702-3		Est. Dn:	0.188	in.			CO_2:	0.0	%	2.009
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm						
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK!	Pre	Mid 1	Mid 2	Mid 3	Post	Check Pt.	Initial	Final	Corr.
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.005	0.000	--	--	0.003	Mid 1 (cf)	331.904	332.227	0.323
Md:	28.84	lb/lb-mole	Nozzle ID:	G-195-1	glass	Vacuum (in Hg):	15	10	--	--	10	Mid 2 (cf)			--
Ms:	28.29	lb/lb-mole	Nozzle Dn (in.):	0.195		Pitot Tube:	Pass	--	--	--	Pass	Mid 3 (cf)			--
												Mid-Point Leak Check Vol (cf):			0.323

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
					45	45				45	45	45	45		
A1	0.00	20.00	121.838	1.30	45	55	2.63	2.70	10	246	252	42	52	103.0	75.16
2	20.00	40.00	140.250	1.30	52	55	2.67	2.70	10	250	248	44	52	100.9	75.16
3	40.00	60.00	158.520	1.20	53	57	2.46	2.50	10	249	254	46	53	101.3	72.35
4	60.00	80.00	176.160	1.20	54	60	2.45	2.50	10	252	250	46	54	99.3	72.56
5	80.00	100.00	193.430	1.20	54	63	2.44	2.50	10	250	248	46	51	101.5	72.77
6	100.00	120.00	211.040	1.20	54	66	2.42	2.50	10	247	249	47	54	100.8	72.98
7	120.00	140.00	228.470	1.20	55	68	2.42	2.50	10	247	250	48	58	100.1	73.11
8	140.00	160.00	245.790	1.20	57	72	2.41	2.50	10	249	250	48	58	102.1	73.39
9	160.00	180.00	263.460	1.20	58	75	2.40	2.50	10	250	253	49	50	99.0	73.60
10	180.00	200.00	280.570	1.20	60	78	2.39	2.50	10	249	250	45	45	105.9	73.80
11	200.00	220.00	298.900	1.00	61	82	1.99	2.00	10	247	251	44	36	109.2	67.62
12	220.00	240.00	316.140	1.00	62	85	1.98	2.00	10	240	253	46	37	99.9	67.81
B1	240.00	260.00	331.904	0.82	70	92	1.63	1.70	5	238	250	50	43	103.7	61.80
2	260.00	280.00	346.860	1.10	74	95	2.19	2.20	8	246	242	54	40	96.1	71.77
3	280.00	300.00	362.970	1.20	78	97	2.39	2.50	9	248	251	56	38	99.4	75.10
4	300.00	320.00	380.460	0.88	81	100	1.76	1.80	8	254	248	55	39	98.4	64.48
5	320.00	340.00	395.350	0.95	81	100	1.90	2.00	8	251	247	61	41	99.9	67.00
6	340.00	360.00	411.060	1.00	83	102	2.00	2.00	8	247	246	60	40	93.8	68.86
7	360.00	380.00	426.220	1.10	84	101	2.20	2.30	8	250	248	54	38	98.5	72.16
8	380.00	400.00	442.940	1.10	84	101	2.20	2.30	9	247	250	55	36	101.5	72.16
9	400.00	420.00	460.170	1.10	85	101	2.21	2.30	9	247	248	56	43	97.6	72.16
10	420.00	440.00	476.780	1.10	83	102	2.20	2.30	9	248	251	58	48	105.4	72.22
11	440.00	460.00	494.630	0.92	82	98	1.85	1.90	8	243	248	60	54	101.6	65.81
12	460.00	480.00	510.410	1.10	80	98	2.20	2.30	8	252	249	61	59	97.9	71.96
	Final DGM:		526.962												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	404.801	ft^3	1.11	in. WC	67.9	°F	83.5	°F	10	2.292	in. WC	98.6	0.004	1.8

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	4:40	Source:	CAU - Outlet
Date:	3/18/21	Run 2	VALID	End Time:	12:46	Project No.:	2021-0883

Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)			MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-30		Est. Tm:	68	°F		Pb:	29.55	in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9958		Est. Ts:	83	°F		Pg:	0.81	in. WC	43.9
Static Press:	-1.00	in. WC	ΔH @ (in.WC):	1.887		Est. ΔP:	1.11	in. WC		O_2:	20.9	%	K-FACTOR
Stack Press:	30.01	in. Hg	Probe ID:	P702-3		Est. Dn:	0.183	in.		CO_2:	0.0	%	2.15
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm					
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Check Pt.	Initial	Final	Corr.
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	--	--	--	0.000	Mid 1 (cf)			--
Md:	28.84	lb/lb-mole	Nozzle ID:	G-195-1	glass	Vacuum (in Hg):	15	--	--	--	10	Mid 2 (cf)			--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.195		Pitot Tube:	Pass	--	--	--	Pass	Mid 3 (cf)			--
												Mid-Point Leak Check Vol (cf):			--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
	--	--			--	--				--	--	--	--		
A1	0.00	20.00	527.498	1.20	52	75	2.54	2.50	4	250	250	46	38	97.0	73.04
2	20.00	40.00	544.640	1.10	51	80	2.30	2.30	6	246	250	44	37	99.0	70.26
3	40.00	60.00	561.280	1.00	51	78	2.10	2.10	6	240	250	45	37	99.4	66.86
4	60.00	80.00	577.250	1.20	50	76	2.52	2.50	6	244	250	50	36	98.0	73.11
5	80.00	100.00	594.490	1.20	52	76	2.53	2.50	6	243	250	47	37	97.7	73.11
6	100.00	120.00	611.740	1.20	51	75	2.53	2.50	6	240	250	47	36	98.2	73.04
7	120.00	140.00	629.050	1.10	53	78	2.32	2.30	6	242	250	47	37	98.8	70.13
8	140.00	160.00	645.750	1.10	53	77	2.32	2.30	6	242	250	48	39	98.5	70.06
9	160.00	180.00	662.420	1.10	54	77	2.33	2.30	6	248	250	49	40	100.0	70.06
10	180.00	200.00	679.380	1.20	56	79	2.54	2.50	6	247	249	52	43	97.6	73.31
11	200.00	220.00	696.700	1.10	56	80	2.32	2.30	6	245	251	54	46	98.8	70.26
12	220.00	240.00	713.470	0.90	59	83	1.90	1.90	5	250	249	60	49	99.9	63.73
B1	240.00	260.00	728.878	1.10	58	86	2.31	2.30	6	244	250	58	44	98.9	70.65
2	260.00	280.00	745.650	1.10	60	88	2.31	2.30	6	252	249	61	51	91.3	70.77
3	280.00	300.00	761.160	1.20	61	88	2.52	2.50	6	246	249	55	41	98.3	73.92
4	300.00	320.00	778.630	1.20	70	91	2.55	2.60	7	249	250	53	41	99.7	74.12
5	320.00	340.00	796.600	1.20	73	93	2.55	2.60	7	251	246	53	41	97.9	74.26
6	340.00	360.00	814.300	1.20	76	95	2.56	2.60	7	247	251	55	42	98.5	74.39
7	360.00	380.00	832.180	1.10	78	98	2.34	2.40	7	251	249	56	43	100.2	71.42
8	380.00	400.00	849.620	1.10	82	98	2.36	2.40	7	244	250	58	45	97.8	71.42
9	400.00	420.00	866.770	1.00	83	99	2.15	2.20	6	250	251	62	51	102.9	68.16
10	420.00	440.00	884.010	0.88	84	100	1.89	1.90	6	249	249	64	57	101.3	63.99
11	440.00	460.00	899.950	0.77	80	102	1.64	1.60	5	248	248	64	45	98.2	59.97
12	460.00	480.00	914.280	0.83	85	104	1.77	1.80	5	247	246	58	44	99.0	62.37
	Final DGM:		929.384												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	401.886	ft^3	1.09	in. WC	63.7	°F	86.5	°F	7	2.300	in. WC	100.0	0.005	1.4

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt		Start Time:	4:40	Source: CAU - Outlet
Date:	3/19/21	Run 3 VALID	End Time:	12:49	Project No.: 2021-0883 Parameter: PAH

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-30		Est. Tm:	64	°F		Pb:	29.59 in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9958		Est. Ts:	87	°F		Pg:	0.79 in. WC	53.0
Static Press:	-1.00	in. WC	ΔH @ (in.WC):	1.887		Est. ΔP:	1.09	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	30.01	in. Hg	Probe ID:	P702-3		Est. Dn:	0.185	in.		CO_2:	0.0 %	2.119
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3	Post	Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	--	-- --	0.000	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	G-195-1	glass	Vacuum (in Hg):	15	--	-- --	10	Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.195		Pitot Tube:	Pass	--	-- --	Pass	Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
	–	–			–	–				–	–	–	–		
A1	0.00	20.00	929.848	0.98	52	78	2.06	2.10	5	250	252	48	37	102.2	66.19
2	20.00	40.00	946.130	1.20	53	83	2.50	2.50	6	247	249	48	38	100.4	73.58
3	40.00	60.00	963.780	1.20	55	82	2.52	2.50	6	248	251	49	39	100.6	73.52
4	60.00	80.00	981.540	1.20	56	83	2.52	2.50	6	248	249	49	40	99.0	73.58
5	80.00	100.00	999.040	1.20	56	83	2.52	2.50	6	244	251	52	37	97.3	73.58
6	100.00	120.00	1016.240	1.20	55	82	2.52	2.50	6	247	250	51	38	98.0	73.52
7	120.00	140.00	1033.550	1.20	56	82	2.52	2.50	6	245	251	52	39	97.6	73.52
8	140.00	160.00	1050.820	1.10	55	82	2.31	2.30	6	246	252	53	40	99.5	70.39
9	160.00	180.00	1067.650	1.10	56	80	2.32	2.30	6	248	250	54	42	97.1	70.26
10	180.00	200.00	1084.130	1.20	56	81	2.53	2.50	6	242	250	58	48	97.4	73.45
11	200.00	220.00	1101.370	1.00	58	82	2.11	2.10	5	240	251	60	54	101.8	67.11
12	220.00	240.00	1117.890	0.95	60	83	2.01	2.00	5	246	251	57	38	90.3	65.47
B1	240.00	260.00	1132.220	1.00	60	85	2.11	2.10	6	241	250	58	39	99.2	67.30
2	260.00	280.00	1148.340	1.10	64	86	2.33	2.30	6	239	248	59	40	99.4	70.65
3	280.00	300.00	1165.380	1.20	64	89	2.53	2.60	6	237	246	58	41	94.7	73.99
4	300.00	320.00	1182.280	1.20	73	91	2.56	2.60	6	239	249	59	42	99.2	74.12
5	320.00	340.00	1200.260	1.20	76	93	2.57	2.60	6	241	246	60	47	97.6	74.26
6	340.00	360.00	1218.010	1.20	79	96	2.57	2.60	9	249	249	61	40	96.0	74.46
7	360.00	380.00	1235.530	1.20	84	97	2.59	2.60	9	241	252	58	37	98.4	74.53
8	380.00	400.00	1253.630	1.10	87	99	2.38	2.40	9	248	251	59	40	102.5	71.48
9	400.00	420.00	1271.750	1.00	91	100	2.17	2.20	9	249	250	60	40	98.6	68.22
10	420.00	440.00	1288.490	1.00	92	102	2.17	2.20	9	249	248	62	43	98.2	68.34
11	440.00	460.00	1305.160	0.88	94	103	1.92	1.90	8	248	250	62	48	99.4	64.16
12	460.00	480.00	1321.040	0.85	94	103	1.85	1.90	8	250	251	63	51	104.8	63.06
	Final DGM:		1337.504												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	407.656	ft^3	1.10	in. WC	67.8	°F	88.5	°F	9	2.346	in. WC	100.3	0.006	1.4

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter(s): Metals

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:37	12:46	12:49	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	677	644	638	653
Standard Meter Volume, ft^3	(Vmstd)	373.783	364.316	348.147	362.082
Lab Data					
Aluminum Mass, ug	M	100	94	96	96.7
Antimony Mass, ug	M	0.68	0.68	0.68	0.7
Arsenic Mass, ug	M	0.88	0.40	0.27	0.5
Barium Mass, ug	M	5.3	6.6	7.3	6.4
Beryllium Mass, ug	M	2.3	2.3	2.3	2.3
Cadmium Mass, ug	M	0.17	0.16	0.14	0.2
Chromium Mass, ug	M	3.7	2.5	2.000	2.7
Cobalt Mass, ug	M	0.10	0.059	0.0054	0.1
Copper Mass, ug	M	4.5	2.5	9.2	5.4
Lead Mass, ug	M	1.7	0.53	0.45	0.9
Manganese Mass, ug	M	8.2	4.9	2.8	5.3
Nickel Mass, ug	M	4.4	3.3	2.5	3.4
Phosphorus Mass, ug	M	32	32	26	30.0
Selenium Mass, ug	M	0.27	0.27	0.28	0.3
Silver Mass, ug	M	0.88	0.36	0.19	0.5
Thallium Mass, ug	M	0.054	0.054	0.054	0.1
Vanadium Mass, ug	M	0.18	0.18	0.18	0.2
Zinc Mass, ug	M	9.8	8.3	9.6	9.2
Mercury Mass, ug	M	2.0	0.87	1.7	1.5
Emissions Calculations					
Aluminum Concentration, ug/dscm	C	9.4	9.1	9.7	9.4
Aluminum Emission Rate, lb/hr	ER	2.4E-05	2.2E-05	2.3E-05	2.3E-05
Antimony Concentration, ug/dscm	C	0.064	0.066	0.069	0.066
Antimony Emission Rate, lb/hr	ER	1.6E-07	1.6E-07	1.6E-07	1.6E-07
Arsenic Concentration, ug/dscm	C	0.083	0.039	0.027	0.050
Arsenic Emission Rate, lb/hr	ER	2.1E-07	9.4E-08	6.5E-08	1.2E-07
Barium Concentration, ug/dscm	C	0.50	0.64	0.74	0.63
Barium Emission Rate, lb/hr	ER	1.3E-06	1.5E-06	1.8E-06	1.5E-06
Beryllium Concentration, ug/dscm	C	0.22	0.22	0.23	0.22
Beryllium Emission Rate, lb/hr	ER	5.5E-07	5.4E-07	5.6E-07	5.5E-07
Cadmium Concentration, ug/dscm	C	0.016	0.016	0.014	0.015
Cadmium Emission Rate, lb/hr	ER	4.1E-08	3.7E-08	3.4E-08	3.7E-08
Chromium Concentration, ug/dscm	C	0.35	0.24	0.20	0.26
Chromium Emission Rate, lb/hr	ER	8.9E-07	5.8E-07	4.8E-07	6.5E-07
Cobalt Concentration, ug/dscm	C	0.0094	0.0057	0.0005	0.0052
Cobalt Emission Rate, lb/hr	ER	2.4E-08	1.4E-08	1.3E-09	1.3E-08
Copper Concentration, ug/dscm	C	0.43	0.24	0.93	0.53
Copper Emission Rate, lb/hr	ER	1.1E-06	5.8E-07	2.2E-06	1.3E-06
Lead Concentration, ug/dscm	C	0.16	0.05	0.05	0.09
Lead Emission Rate, lb/hr	ER	4.1E-07	1.2E-07	1.1E-07	2.1E-07
Manganese Concentration, ug/dscm	C	0.77	0.47	0.28	0.51
Manganese Emission Rate, lb/hr	ER	2.0E-06	1.1E-06	6.8E-07	1.3E-06
Nickel Concentration, ug/dscm	C	0.42	0.32	0.25	0.33
Nickel Emission Rate, lb/hr	ER	1.1E-06	7.7E-07	6.1E-07	8.1E-07
Phosphorus Concentration, ug/dscm	C	3.0	3.1	2.6	2.9
Phosphorus Emission Rate, lb/hr	ER	7.7E-06	7.5E-06	6.3E-06	7.2E-06
Selenium Concentration, ug/dscm	C	0.026	0.026	0.028	0.027
Selenium Emission Rate, lb/hr	ER	6.5E-08	6.3E-08	6.8E-08	6.5E-08
Silver Concentration, ug/dscm	C	0.083	0.035	0.019	0.046
Silver Emission Rate, lb/hr	ER	2.1E-07	8.4E-08	4.6E-08	1.1E-07
Thallium Concentration, ug/dscm	C	0.0051	0.0052	0.0055	0.0053
Thallium Emission Rate, lb/hr	ER	1.3E-08	1.3E-08	1.3E-08	1.3E-08
Vanadium Concentration, ug/dscm	C	0.017	0.017	0.018	0.018
Vanadium Emission Rate, lb/hr	ER	4.3E-08	4.2E-08	4.4E-08	4.3E-08
Zinc Concentration, ug/dscm	C	0.93	0.80	0.97	0.90
Zinc Emission Rate, lb/hr	ER	2.3E-06	1.9E-06	2.3E-06	2.2E-06
Mercury Concentration, ug/dscm	C	0.18	0.084	0.18	0.15
Mercury Emission Rate, lb/hr	ER	4.7E-07	2.0E-07	4.2E-07	3.6E-07

Underlined values are reported at the method reporting limit

Alliance SOURCE TESTING

Volumetric Flow Rate Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter Metals

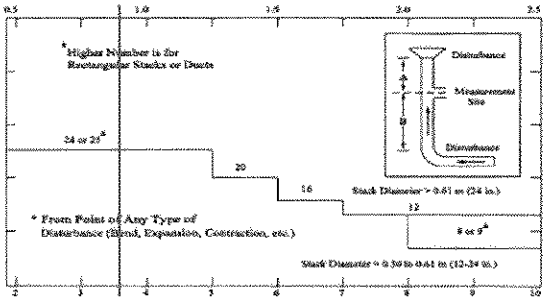
Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:37	12:46	12:49	--
Run Time, min		480.0	480.0	480.0	480.0
VELOCITY HEAD, in. WC					
Point 1		0.64	0.65	0.71	0.67
Point 2		0.70	0.67	0.76	0.71
Point 3		0.72	0.68	0.74	0.71
Point 4		0.75	0.69	0.72	0.72
Point 5		0.80	0.71	0.68	0.73
Point 6		0.85	0.74	0.65	0.75
Point 7		0.85	0.73	0.68	0.75
Point 8		0.86	0.71	0.66	0.74
Point 9		0.86	0.69	0.70	0.75
Point 10		0.86	0.68	0.72	0.75
Point 11		0.88	0.69	0.69	0.75
Point 12		0.89	0.68	0.71	0.76
Point 13		0.72	0.70	0.76	0.73
Point 14		0.75	0.73	0.78	0.75
Point 15		0.78	0.76	0.77	0.77
Point 16		0.81	0.78	0.76	0.78
Point 17		0.82	0.77	0.75	0.78
Point 18		0.85	0.78	0.71	0.78
Point 19		0.86	0.76	0.68	0.77
Point 20		0.85	0.72	0.65	0.74
Point 21		0.81	0.71	0.64	0.72
Point 22		0.74	0.70	0.66	0.70
Point 23		0.72	0.70	0.68	0.70
Point 24		0.71	0.69	0.66	0.69
CALCULATED DATA					
Square Root of ΔP, (in. WC)$^{1/2}$	(ΔP)	0.891	0.844	0.839	0.858
Pitot Tube Coefficient	(Cp)	0.990	0.990	0.990	0.990
Barometric Pressure, in. Hg	(Pb)	29.52	29.55	29.59	29.55
Static Pressure, in. WC	(Pg)	-0.80	-0.80	-0.80	-0.80
Stack Pressure, in. Hg	(Ps)	29.46	29.49	29.53	29.49
Stack Cross-sectional Area, ft^2	(As)	0.20	0.20	0.20	0.20
Temperature, °F	(Ts)	62.8	58.5	64.1	61.8
Temperature, °R	(Ts)	522.8	518.5	524.1	521.8
Moisture Fraction Measured	(BWSmsd)	0.010	0.011	0.009	0.010
Moisture Fraction @ Saturation	(BWSsat)	0.019	0.017	0.020	0.019
Moisture Fraction	(BWS)	0.010	0.011	0.009	0.010
O_2 Concentration, %	(O_2)	20.9	20.9	20.9	20.9
CO_2 Concentration, %	(CO_2)	0.0	0.0	0.0	0.0
Molecular Weight, lb/lb-mole (dry)	(Md)	28.84	28.84	28.84	28.84
Molecular Weight, lb/lb-mole (wet)	(Ms)	28.73	28.72	28.74	28.73
Velocity, ft/sec	(Vs)	59.2	55.9	55.8	57.0
VOLUMETRIC FLOW RATE					
At Stack Conditions, acfm	(Qa)	698	659	658	671
At Standard Conditions, dscfm	(Qs)	677	644	638	653

Method 1 Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Date: 03/16/21

Stack Parameters - Pitot Location

Duct Orientation:	Horizontal	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	6.00	in
Nipple Length:	0.00	in
Depth of Duct:	6.00	in
Cross Sectional Area of Duct:	0.20	ft^2
No. of Test Ports:	2	
Distance A:	1.8	ft
Distance A Duct Diameters:	3.6	(must be > 0.5)
Distance B:	1.8	ft
Distance B Duct Diameters:	3.6	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	RCL	
Reviewer (Initial and Date):	GWH	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

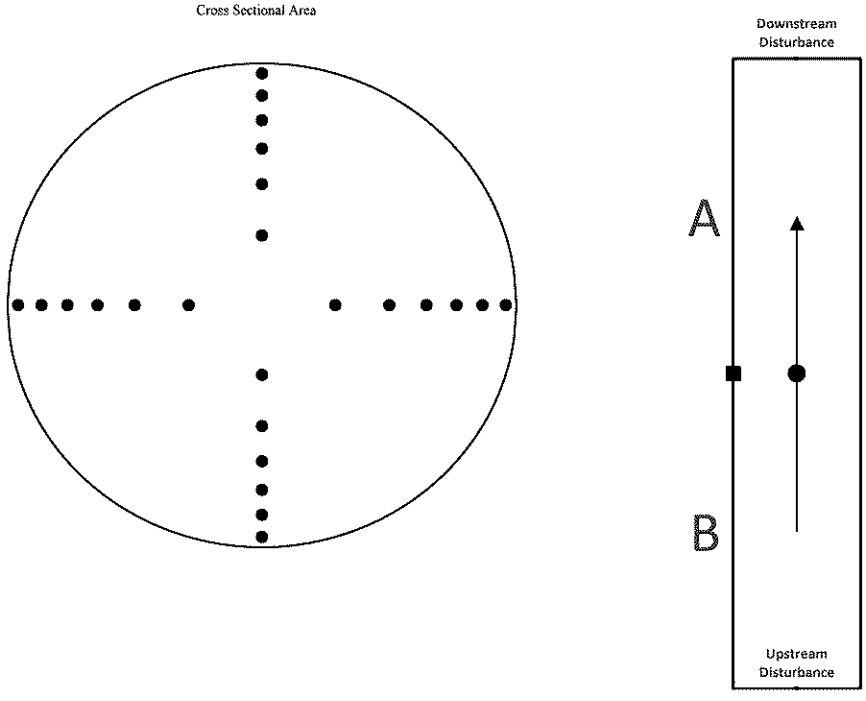
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.50
2	6.7	0.50	0.50
3	11.8	0.71	0.71
4	17.7	1.06	1.06
5	25.0	1.50	1.50
6	35.6	2.14	2.14
7	64.4	3.86	3.86
8	75.0	4.50	4.50
9	82.3	4.94	4.94
10	88.2	5.29	5.29
11	93.3	5.50	5.50
12	97.9	5.50	5.50

Stack Diagram
A = 1.8 ft.
B = 1.8 ft.
Depth of Duct = 6 in.

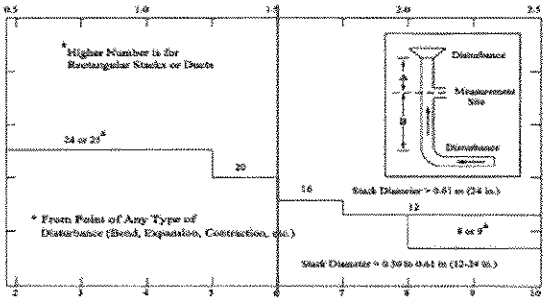


Method 1 Data

Location: All American Asphalt
Source: CAU - Inlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Sampling Location

Duct Orientation:	Horizontal	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	6.00	in
Nipple Length:	0.00	in
Depth of Duct:	6.00	in
Cross Sectional Area of Duct:	0.20	ft^2
No. of Test Ports:	2	
Distance A:	1.8	ft
Distance A Duct Diameters:	3.6	(must be > 0.5)
Distance B:	3.0	ft
Distance B Duct Diameters:	6.0	(must be > 2)
Minimum Number of Traverse Points:	20	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	RCL	
Reviewer (Initial and Date):	GWH	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

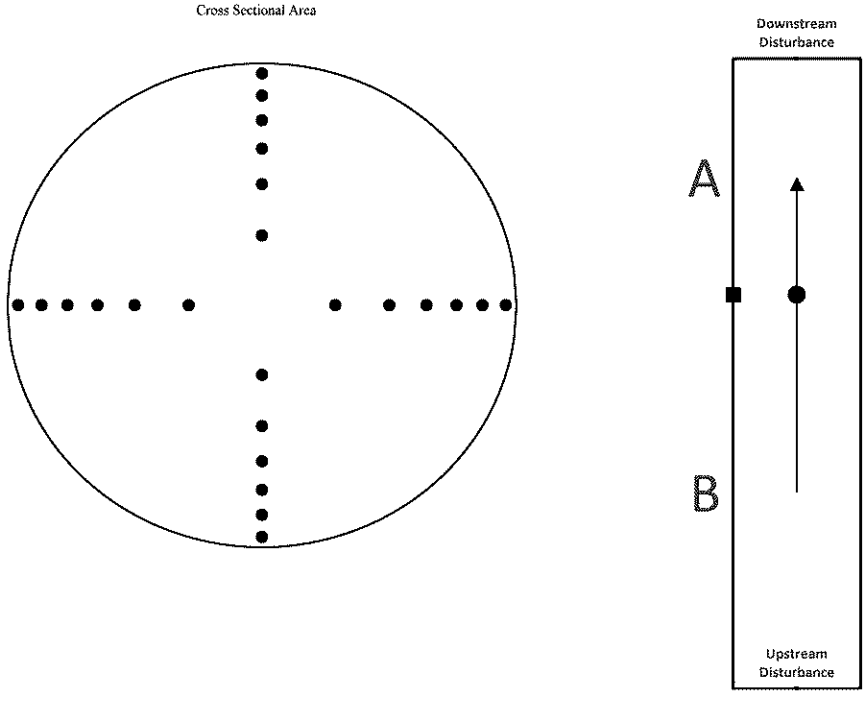
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.50
2	6.7	0.50	0.50
3	11.8	0.71	0.71
4	17.7	1.06	1.06
5	25.0	1.50	1.50
6	35.6	2.14	2.14
7	64.4	3.86	3.86
8	75.0	4.50	4.50
9	82.3	4.94	4.94
10	88.2	5.29	5.29
11	93.3	5.50	5.50
12	97.9	5.50	5.50

Stack Diagram
A = 1.8 ft.
B = 3 ft.
Depth of Duct = 6 in.



Alliance SOURCE TESTING

Cyclonic Flow Check

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Date 03/16/21

Sample Point	Angle (ΔP=0)
1	0
2	2
3	1
4	5
5	0
6	0
7	4
8	2
9	8
10	4
11	6
12	5
13	1
14	0
15	8
16	4
17	3
18	3
19	0
20	4
21	5
22	2
23	1
24	4
Average	3

Alliance SOURCE TESTING

Method 4 Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter Metals
Analysis Gravimetric

Run 1	Date:	3/17/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	713.7	771.0	643.5	742.9	754.5	983.2	4608.8
Final Mass, g	719.0	780.9	647.2	739.4	753.1	1048.6	4688.2
Gain	5.3	9.9	3.7	-3.5	-1.4	65.4	79.4
Run 2	**Date:**	3/18/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	723.7	776.5	647.6	739.6	772.5	1015.0	4674.9
Final Mass, g	742.7	782.3	650.6	734.2	773.5	1077.2	4760.5
Gain	19.0	5.8	3.0	-5.4	1.0	62.2	85.6
Run 3	**Date:**	3/19/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	736.4	769.7	647.3	757.8	751.3	951.1	4613.6
Final Mass, g	744.6	774.5	649.5	750.3	751.2	1012.0	4682.1
Gain	8.2	4.8	2.2	-7.5	-0.1	60.9	68.5

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	5:52	Source:	CAU - Inlet
Date:	3/17/21	Run 1	VALID	End Time:	14:37	Project No.:	2021-0883

Parameter: Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	5.0	% est.	Meter Box ID:	M5-69		Est. Tm:	60	°F		Pb:	29.52 in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9850		Est. Ts:	65	°F		Pg:	-0.80 in. WC	79.4
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.930		Est. ΔP:	0.64	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-3		Est. Dn:	0.212	in.		CO_2:	0.0 %	2.510
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2 / Mid 3	Post	Mid 1 (cf) ####### #######	0.300
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.007	0.006	-- / --	0.003	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	.204	glass	Vacuum (in Hg):	12	6	-- / --	6	Mid 3 (cf)	--
Ms:	28.29	lb/lb-mole	Nozzle Dn (in.):	0.204		Pitot Tube:	Pass	--	-- / --	Pass	Mid-Point Leak Check Vol (cf):	0.300

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	959.521	0.64	42	46	1.61	1.80	4	250	250	42	-	104.9	52.75
2	20.00	40.00	974.280	0.70	42	47	1.76	1.80	4	250	250	43	-	98.1	55.22
3	40.00	60.00	988.710	0.72	44	46	1.82	1.80	4	250	250	51	-	97.0	55.95
4	60.00	80.00	1003.250	0.75	45	46	1.90	1.90	4	250	249	55	-	99.9	57.11
5	80.00	100.00	1018.560	0.80	47	46	2.03	2.00	4	251	250	54	-	98.4	58.98
6	100.00	120.00	1034.190	0.85	48	47	2.16	2.20	4	251	250	56	-	104.3	60.85
7	120.00	140.00	1051.270	0.85	49	47	2.16	2.20	4	250	250	58	-	97.1	60.85
8	140.00	160.00	1067.210	0.86	50	50	2.18	2.20	5	250	250	55	-	99.8	61.39
9	160.00	180.00	1083.670	0.86	52	51	2.18	2.20	5	250	250	52	-	97.1	61.45
10	180.00	200.00	1099.740	0.86	53	53	2.18	2.20	5	250	250	53	-	101.1	61.57
11	200.00	220.00	1116.460	0.88	55	54	2.23	2.30	5	250	250	55	-	97.7	62.34
12	220.00	240.00	1132.860	0.89	56	59	2.24	2.30	5	251	250	49	-	98.6	63.00
B1	240.00	260.00	1149.450	0.72	57	68	1.79	1.80	5	247	249	49	-	99.8	57.16
2	260.00	280.00	1164.470	0.75	62	70	1.87	1.90	5	249	250	48	-	99.2	58.44
3	280.00	300.00	1179.820	0.78	66	72	1.95	2.00	5	251	251	55	-	100.4	59.71
4	300.00	320.00	1195.760	0.81	69	74	2.03	2.00	5	250	251	55	-	99.8	60.97
5	320.00	340.00	1211.960	0.82	73	77	2.06	2.10	5	249	248	53	-	101.1	61.51
6	340.00	360.00	1228.550	0.85	75	78	2.14	2.10	5	251	251	53	-	98.1	62.69
7	360.00	380.00	1244.990	0.86	77	80	2.17	2.20	5	249	253	53	-	99.7	63.17
8	380.00	400.00	1261.810	0.85	80	81	2.15	2.20	5	249	246	53	-	99.7	62.86
9	400.00	420.00	1278.610	0.81	82	83	2.05	2.10	5	249	248	50	-	103.4	61.48
10	420.00	440.00	1295.670	0.74	83	79	1.89	1.90	5	250	248	50	-	101.4	58.54
11	440.00	460.00	1311.750	0.72	81	77	1.84	1.80	5	252	252	49	-	101.8	57.64
12	460.00	480.00	1327.650	0.71	80	75	1.82	1.80	5	249	250	51	-	101.3	57.13
	Final DGM:		1343.359												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	383.538	ft^3	0.80	in. WC	61.2	°F	62.8	°F	5	2.033	in. WC	99.5	0.010	2.9

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt		Start Time:	4:40	Source: CAU - Inlet
Date:	3/18/21	Run 2 VALID	End Time:	12:46	Project No.: 2021-0883 Parameter: Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-69		Est. Tm:	61	°F		Pb:	29.55 in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9850		Est. Ts:	63	°F		Pg:	-0.80 in. WC	85.6
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.930		Est. ΔP:	0.80	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-3		Est. Dn:	0.197	in.		CO_2:	0.0 %	2.70
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3	Post	Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	--	-- --	0.002	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	.204	glass	Vacuum (in Hg):	8	--	-- --	8	Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.204		Pitot Tube:	Pass	--	-- --	Pass	Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
					--	--				--	--	--	--		
A1	0.00	20.00	343.716	0.65	45	47	1.76	1.80	3	251	250	46	-	98.3	52.81
2	20.00	40.00	358.210	0.67	46	52	1.80	1.80	3	250	251	46	-	100.6	53.88
3	40.00	60.00	373.220	0.68	47	53	1.82	1.80	3	251	249	55	-	95.0	54.34
4	60.00	80.00	387.520	0.69	49	53	1.86	1.90	3	249	250	51	-	99.8	54.73
5	80.00	100.00	402.710	0.71	50	53	1.91	1.90	3	250	249	47	-	96.7	55.52
6	100.00	120.00	417.670	0.74	50	54	1.99	2.00	3	249	249	47	-	95.4	56.74
7	120.00	140.00	432.710	0.73	51	54	1.97	2.00	3	250	250	48	-	98.4	56.35
8	140.00	160.00	448.150	0.71	52	54	1.92	1.90	3	249	249	48	-	102.6	55.58
9	160.00	180.00	464.070	0.69	52	55	1.86	1.90	3	251	250	48	-	96.6	54.84
10	180.00	200.00	478.830	0.68	53	56	1.83	1.80	3	251	252	49	-	101.7	54.49
11	200.00	220.00	494.270	0.69	53	57	1.86	1.90	3	250	251	49	-	101.1	54.95
12	220.00	240.00	509.720	0.68	54	58	1.83	1.80	3	252	250	50	-	98.1	54.60
B1	240.00	260.00	524.610	0.70	56	59	1.89	1.90	3	249	250	50	-	95.9	55.45
2	260.00	280.00	539.430	0.73	58	54	1.99	2.00	3	247	251	48	-	104.4	56.35
3	280.00	300.00	556.040	0.76	59	55	2.08	2.10	3	253	252	51	-	97.4	57.56
4	300.00	320.00	571.860	0.78	60	57	2.13	2.10	3	248	251	52	-	93.2	58.42
5	320.00	340.00	587.190	0.77	62	58	2.10	2.10	3	251	248	53	-	99.5	58.10
6	340.00	360.00	603.510	0.78	64	58	2.14	2.20	3	251	250	54	-	95.5	58.48
7	360.00	380.00	619.320	0.76	67	62	2.08	2.10	3	249	249	56	-	103.7	57.95
8	380.00	400.00	636.310	0.72	69	63	1.97	2.00	3	251	249	56	-	95.7	56.45
9	400.00	420.00	651.620	0.71	72	68	1.94	2.00	3	251	254	58	-	100.8	56.33
10	420.00	440.00	667.640	0.70	75	74	1.90	1.90	3	248	247	52	-	102.0	56.25
11	440.00	460.00	683.740	0.70	77	69	1.93	1.90	3	250	247	51	-	98.5	55.98
12	460.00	480.00	699.420	0.69	79	80	1.87	1.90	3	251	250	51	-	100.6	56.16
	Final DGM:		715.212												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	371.496	ft^3	0.71	in. WC	58.3	°F	58.5	°F	3	1.946	in. WC	101.9	0.011	2.2

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt		Start Time:	4:40	Source: CAU - Inlet
Date:	3/19/21	Run 3 VALID	End Time:	12:49	Project No.: 2021-0883 Parameter: Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-69		Est. Tm:	58	°F		Pb:	29.59 in. Hg	Vlc (ml)
Barometric:	29.52	in. Hg	Y:	0.9850		Est. Ts:	58	°F		Pg:	-0.80 in. WC	68.5
Static Press:	-0.80	in. WC	ΔH @ (in.WC):	1.930		Est. ΔP:	0.71	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	29.46	in. Hg	Probe ID:	PR502-3		Est. Dn:	0.203	in.		CO_2:	0.0 %	2.710
CO_2:	0.0	%	Liner Material:	quartz		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	ADP 1		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3 Post		Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	--	-- -- 0.002		Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	.204	glass	Vacuum (in Hg):	9	--	-- -- 8		Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.204		Pitot Tube:	Pass	--	-- -- Pass		Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	715.534	0.71	45	48	1.91	1.90	3	249	250	46	-	99.0	55.25
2	20.00	40.00	730.770	0.76	46	54	2.03	2.00	3	250	249	48	-	100.0	57.50
3	40.00	60.00	746.620	0.74	49	55	1.98	2.00	3	251	251	58	-	101.3	56.79
4	60.00	80.00	762.550	0.72	51	55	1.94	2.00	3	250	251	58	-	103.8	56.02
5	80.00	100.00	778.710	0.68	52	55	1.83	1.80	3	251	251	52	-	95.2	54.44
6	100.00	120.00	793.150	0.65	53	55	1.76	1.80	3	251	250	50	-	106.1	53.23
7	120.00	140.00	808.910	0.68	53	56	1.83	1.80	3	250	251	51	-	104.8	54.49
8	140.00	160.00	824.830	0.66	53	56	1.78	1.80	3	250	250	50	-	99.5	53.69
9	160.00	180.00	839.720	0.70	54	56	1.89	1.90	3	250	250	50	-	97.3	55.29
10	180.00	200.00	854.740	0.72	54	56	1.94	1.90	3	250	248	50	-	96.9	56.07
11	200.00	220.00	869.910	0.69	54	58	1.86	1.90	3	249	248	52	-	96.8	55.00
12	220.00	240.00	884.710	0.71	56	60	1.91	1.90	3	251	247	53	-	95.4	55.90
B1	240.00	260.00	899.530	0.76	57	61	2.04	2.10	3	250	251	53	-	94.0	57.89
2	260.00	280.00	914.660	0.78	59	56	2.13	2.10	3	249	251	54	-	92.4	58.36
3	280.00	300.00	929.850	0.77	62	65	2.07	2.10	3	250	251	58	-	96.1	58.49
4	300.00	320.00	945.510	0.76	64	66	2.05	2.10	3	250	249	59	-	101.9	58.17
5	320.00	340.00	962.050	0.75	65	68	2.02	2.00	3	250	251	51	-	103.6	57.89
6	340.00	360.00	978.760	0.71	68	73	1.91	1.90	3	252	251	51	-	101.6	56.59
7	360.00	380.00	994.720	0.68	71	76	1.83	1.80	3	251	250	51	-	105.0	55.54
8	380.00	400.00	1010.910	0.65	74	79	1.75	1.80	3	251	250	53	-	104.6	54.45
9	400.00	420.00	1026.720	0.64	77	79	1.73	1.70	3	251	249	56	-	97.5	54.03
10	420.00	440.00	1041.430	0.66	80	82	1.78	1.80	3	251	251	54	-	93.3	55.02
11	440.00	460.00	1055.770	0.68	83	83	1.84	1.90	3	251	251	55	-	103.3	55.90
12	460.00	480.00	1071.950	0.66	85	86	1.79	1.80	3	249	249	56	-	######	55.23

Final DGM: --

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	356.416	ft^3	0.71	in. WC	61.0	°F	64.1	°F	3	1.908	in. WC	98.3	0.009	-1.1

Alliance
SOURCE TESTING

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter(s): Metals

Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:45	12:46	12:49	--
Input Data					
Volumetric Flow Rate, dscfm	(Qs)	689	682	688	686
Standard Meter Volume, ft^3	(Vmstd)	381.166	393.520	394.218	389.635
Lab Data					
Aluminum Mass, ug	M	110	110	120	113.3
Antimony Mass, ug	M	0.68	0.68	0.68	0.7
Arsenic Mass, ug	M	0.27	0.27	0.27	0.3
Barium Mass, ug	M	8.4	6.7	8.2	7.8
Beryllium Mass, ug	M	2.3	2.3	2.3	2.3
Cadmium Mass, ug	M	0.30	0.20	0.15	0.2
Chromium Mass, ug	M	4.4	1.9	2.4	2.9
Cobalt Mass, ug	M	0.32	0.16	0.34	0.3
Copper Mass, ug	M	2.6	3.5	9.6	5.2
Lead Mass, ug	M	0.61	0.55	1.3	0.8
Manganese Mass, ug	M	16	21	15	17.3
Nickel Mass, ug	M	3.6	2.6	3.6	3.3
Phosphorus Mass, ug	M	24	26	32	27.3
Selenium Mass, ug	M	0.27	0.27	0.27	0.3
Silver Mass, ug	M	0.16	0.18	0.073	0.1
Thallium Mass, ug	M	0.054	0.054	0.054	0.1
Vanadium Mass, ug	M	0.18	0.18	0.18	0.2
Zinc Mass, ug	M	7.000	10	15	10.7
Mercury Mass, ug	M	1.9	0.71	1.0	1.2
Emissions Calculations					
Aluminum Concentration, ug/dscm	C	10.2	9.9	10.7	10.3
Aluminum Emission Rate, lb/hr	ER	2.6E-05	2.5E-05	2.8E-05	2.6E-05
Antimony Concentration, ug/dscm	C	0.063	0.061	0.061	0.062
Antimony Emission Rate, lb/hr	ER	1.6E-07	1.6E-07	1.6E-07	1.6E-07
Arsenic Concentration, ug/dscm	C	0.025	0.024	0.024	0.024
Arsenic Emission Rate, lb/hr	ER	6.5E-08	6.2E-08	6.2E-08	6.3E-08
Barium Concentration, ug/dscm	C	0.78	0.60	0.73	0.70
Barium Emission Rate, lb/hr	ER	2.0E-06	1.5E-06	1.9E-06	1.8E-06
Beryllium Concentration, ug/dscm	C	0.21	0.21	0.21	0.21
Beryllium Emission Rate, lb/hr	ER	5.5E-07	5.3E-07	5.3E-07	5.4E-07
Cadmium Concentration, ug/dscm	C	0.028	0.018	0.013	0.020
Cadmium Emission Rate, lb/hr	ER	7.2E-08	4.6E-08	3.5E-08	5.1E-08
Chromium Concentration, ug/dscm	C	0.41	0.17	0.21	0.26
Chromium Emission Rate, lb/hr	ER	1.1E-06	4.4E-07	5.5E-07	6.8E-07
Cobalt Concentration, ug/dscm	C	0.030	0.014	0.030	0.025
Cobalt Emission Rate, lb/hr	ER	7.7E-08	3.7E-08	7.8E-08	6.4E-08
Copper Concentration, ug/dscm	C	0.24	0.31	0.86	0.47
Copper Emission Rate, lb/hr	ER	6.2E-07	8.0E-07	2.2E-06	1.2E-06
Lead Concentration, ug/dscm	C	0.057	0.049	0.12	0.074
Lead Emission Rate, lb/hr	ER	1.5E-07	1.3E-07	3.0E-07	1.9E-07
Manganese Concentration, ug/dscm	C	1.5	1.9	1.3	1.6
Manganese Emission Rate, lb/hr	ER	3.8E-06	4.8E-06	3.5E-06	4.0E-06
Nickel Concentration, ug/dscm	C	0.33	0.23	0.32	0.30
Nickel Emission Rate, lb/hr	ER	8.6E-07	6.0E-07	8.3E-07	7.6E-07
Phosphorus Concentration, ug/dscm	C	2.2	2.3	2.9	2.5
Phosphorus Emission Rate, lb/hr	ER	5.7E-06	6.0E-06	7.4E-06	6.4E-06
Selenium Concentration, ug/dscm	C	0.025	0.024	0.024	0.024
Selenium Emission Rate, lb/hr	ER	6.5E-08	6.2E-08	6.2E-08	6.3E-08
Silver Concentration, ug/dscm	C	0.015	0.016	0.0065	0.013
Silver Emission Rate, lb/hr	ER	3.8E-08	4.1E-08	1.7E-08	3.2E-08
Thallium Concentration, ug/dscm	C	0.0050	0.0048	0.0048	0.0049
Thallium Emission Rate, lb/hr	ER	1.3E-08	1.2E-08	1.2E-08	1.3E-08
Vanadium Concentration, ug/dscm	C	0.017	0.016	0.016	0.016
Vanadium Emission Rate, lb/hr	ER	4.3E-08	4.1E-08	4.2E-08	4.2E-08
Zinc Concentration, ug/dscm	C	0.65	0.90	1.3	0.96
Zinc Emission Rate, lb/hr	ER	1.7E-06	2.3E-06	3.5E-06	2.5E-06
Mercury Concentration, ug/dscm	C	0.18	0.063	0.094	0.11
Mercury Emission Rate, lb/hr	ER	4.6E-07	1.6E-07	2.4E-07	2.9E-07

Underlined values are reported at the method reporting limit

Alliance SOURCE TESTING

Volumetric Flow Rate Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter Metals

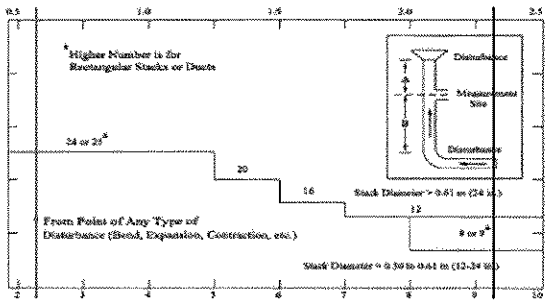
Run Number		Run 1	Run 2	Run 3	Average
Date		3/17/21	3/18/21	3/19/21	--
Start Time		5:52	4:40	4:40	--
Stop Time		14:45	12:46	12:49	--
Run Time, min		480.0	480.0	480.0	480.0
VELOCITY HEAD, in. WC					
Point 1		1.30	1.20	0.98	1.16
Point 2		1.30	1.10	1.20	1.20
Point 3		1.20	1.00	1.20	1.13
Point 4		1.20	1.20	1.20	1.20
Point 5		1.20	1.20	1.20	1.20
Point 6		1.20	1.20	1.20	1.20
Point 7		1.20	1.10	1.20	1.17
Point 8		1.20	1.10	1.10	1.13
Point 9		1.20	1.10	1.10	1.13
Point 10		1.20	1.20	1.20	1.20
Point 11		1.00	1.10	1.00	1.03
Point 12		1.00	0.90	0.95	0.95
Point 13		0.82	1.10	1.00	0.97
Point 14		1.10	1.10	1.10	1.10
Point 15		1.20	1.20	1.20	1.20
Point 16		0.88	1.20	1.20	1.09
Point 17		0.95	1.20	1.20	1.12
Point 18		1.00	1.20	1.20	1.13
Point 19		1.10	1.10	1.20	1.13
Point 20		1.10	1.10	1.10	1.10
Point 21		1.10	1.00	1.00	1.03
Point 22		1.10	0.88	1.00	0.99
Point 23		0.92	0.77	0.88	0.86
Point 24		1.00	0.83	0.85	0.89
CALCULATED DATA					
Square Root of ΔP, (in. WC)$^{1/2}$	(ΔP)	1.048	1.041	1.049	1.046
Pitot Tube Coefficient	(Cp)	0.990	0.990	0.990	0.990
Barometric Pressure, in. Hg	(Pb)	29.52	29.55	29.59	29.55
Static Pressure, in. WC	(Pg)	0.86	0.81	0.79	0.82
Stack Pressure, in. Hg	(Ps)	29.58	29.61	29.65	29.61
Stack Cross-sectional Area, ft^2	(As)	0.17	0.17	0.17	0.17
Temperature, °F	(Ts)	83.5	86.5	88.5	86.2
Temperature, °R	(Ts)	543.5	546.5	548.5	546.2
Moisture Fraction Measured	(BWSmsd)	0.009	0.009	0.007	0.008
Moisture Fraction @ Saturation	(BWSsat)	0.039	0.043	0.046	0.043
Moisture Fraction	(BWS)	0.009	0.009	0.007	0.008
O_2 Concentration, %	(O_2)	20.9	20.9	20.9	20.9
CO_2 Concentration, %	(CO_2)	0.0	0.0	0.0	0.0
Molecular Weight, lb/lb-mole (dry)	(Md)	28.84	28.84	28.84	28.84
Molecular Weight, lb/lb-mole (wet)	(Ms)	28.74	28.74	28.76	28.75
Velocity, ft/sec	(Vs)	70.9	70.6	71.2	70.9
VOLUMETRIC FLOW RATE					
At Stack Conditions, acfm	(Qa)	735	731	737	734
At Standard Conditions, dscfm	(Qs)	689	682	688	686

Method 1 Data

Location: All American Asphalt
Source: CAU - Outlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Sampling Location

Duct Orientation:	Vertical	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	5.75	in
Nipple Length:	0.13	in
Depth of Duct:	5.63	in
Cross Sectional Area of Duct:	0.17	ft^2
No. of Test Ports:	2	
Distance A:	1.1	ft
Distance A Duct Diameters:	2.3	(must be > 0.5)
Distance B:	1.1	ft
Distance B Duct Diameters:	2.3	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	GWH 3/16/21	
Reviewer (Initial and Date):	GWH 3/16/21	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

Number of traverse points on a diameter

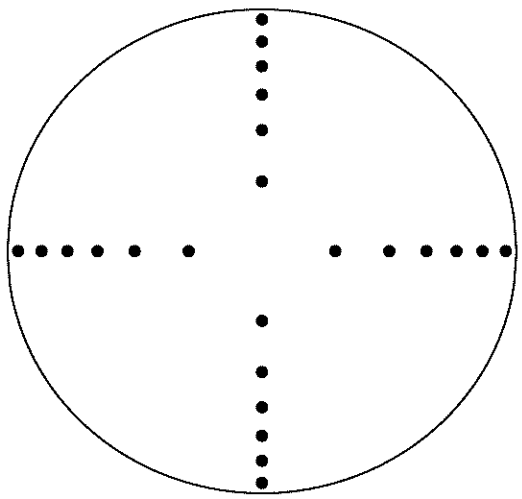
	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

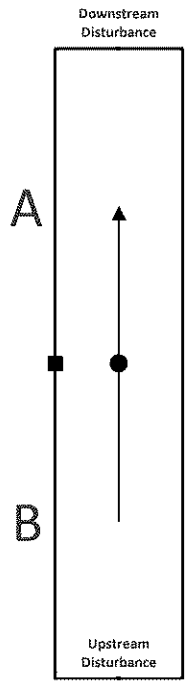
**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.63
2	6.7	0.50	0.63
3	11.8	0.66	0.79
4	17.7	1.00	1.12
5	25.0	1.41	1.53
6	35.6	2.00	2.13
7	64.4	3.62	3.75
8	75.0	4.22	4.34
9	82.3	4.63	4.75
10	88.2	4.96	5.09
11	93.3	5.13	5.25
12	97.9	5.13	5.25

Stack Diagram
A = 1.0833333
B = 1.0833333
Depth of Duct = 5.625 in.

Cross Sectional Area



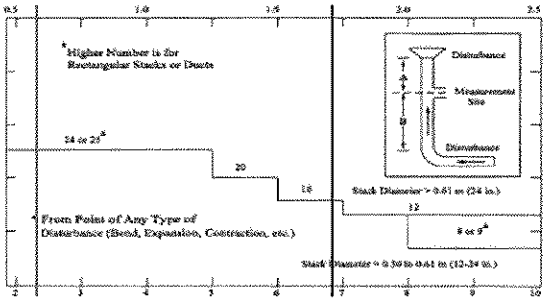


Method 1 Data

Location: All American Asphalt
Source: CAU - Outlet
Project No.: 2021-0883
Date: 03/16/21

Stack Parameters - Pitot Location

Duct Orientation:	Vertical	
Duct Design:	Circular	
Distance from Far Wall to Outside of Port:	5.75	in
Nipple Length:	0.13	in
Depth of Duct:	5.63	in
Cross Sectional Area of Duct:	0.17	ft^2
No. of Test Ports:	2	
Distance A:	0.8	ft
Distance A Duct Diameters:	1.7	(must be > 0.5)
Distance B:	1.1	ft
Distance B Duct Diameters:	2.3	(must be > 2)
Minimum Number of Traverse Points:	24	
Actual Number of Traverse Points:	24	
Number of Readings per Point:	1	
Measurer (Initial and Date):	GWH 3/16/21	
Reviewer (Initial and Date):	GWH 3/16/21	



CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS

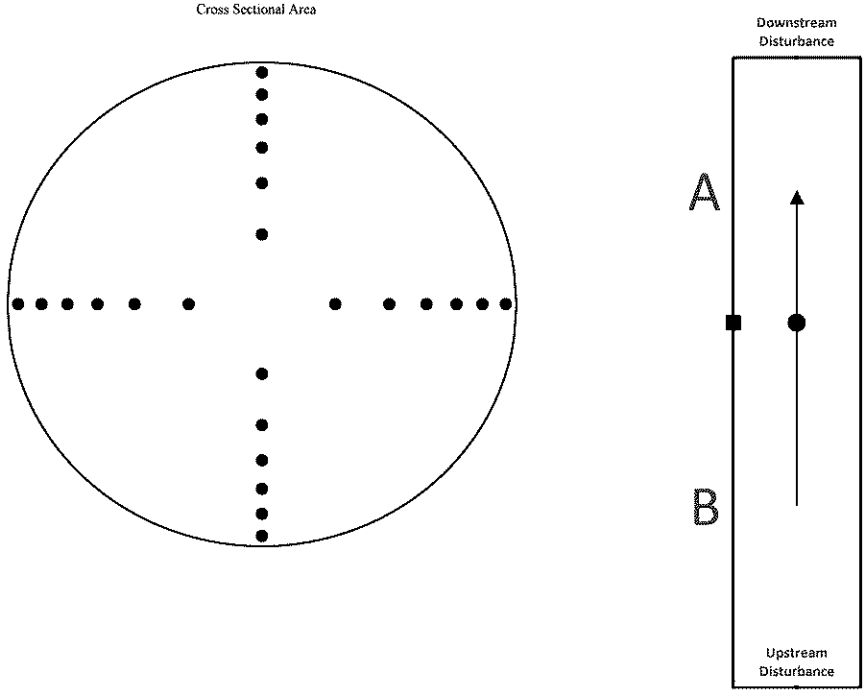
Number of traverse points on a diameter

	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

**Percent of stack diameter from inside wall to traverse point.*

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	2.1	0.50	0.63
2	6.7	0.50	0.63
3	11.8	0.66	0.79
4	17.7	1.00	1.12
5	25.0	1.41	1.53
6	35.6	2.00	2.13
7	64.4	3.62	3.75
8	75.0	4.22	4.34
9	82.3	4.63	4.75
10	88.2	4.96	5.09
11	93.3	5.13	5.25
12	97.9	5.13	5.25

Stack Diagram
A = 0.8 ft.
B = 1.1 ft.
Depth of Duct = 5.625 in.



Alliance SOURCE TESTING

Cyclonic Flow Check

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Date 03/16/21

Sample Point	Angle (ΔP=0)
1	3
2	3
3	2
4	2
5	0
6	0
7	2
8	3
9	3
10	0
11	0
12	5
13	3
14	3
15	2
16	0
17	0
18	0
19	0
20	0
21	0
22	2
23	5
24	2
Average	2

Alliance SOURCE TESTING

Method 4 Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter Metals
Analysis Gravimetric

Run 1	Date:	3/17/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	744.1	781.0	624.6	729.7	740.6	1022.9	4642.9
Final Mass, g	750.4	786.1	628.1	725.6	738.2	1087.7	4716.1
Gain	6.3	5.1	3.5	-4.1	-2.4	64.8	73.2
Run 2	**Date:**	3/18/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	745.4	792.6	628.1	753.9	749.3	1032.9	4702.2
Final Mass, g	757.1	797.8	631.4	749.4	749.2	1090.5	4775.4
Gain	11.7	5.2	3.3	-4.5	-0.1	57.6	73.2
Run 3	**Date:**	3/19/21					
Impinger No.	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Contents	HNO3/H2O2	HNO3/H2O2	Empty	KMnO4	KMnO4	Silica	--
Initial Mass, g	748.1	784.3	630.5	745.2	753.1	989.7	4650.9
Final Mass, g	740.2	788.8	633.8	738.8	749.4	1056.0	4707.0
Gain	-7.9	4.5	3.3	-6.4	-3.7	66.3	56.1

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	5:52	Source:	CAU - Outlet
Date:	3/17/21	Run 1	VALID	End Time:	14:45	Project No.:	2021-0883
						Parameter:	Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA
Moisture:	5.0	% est.	Meter Box ID:	M5-26		Est. Tm:	50	°F			Pb:	29.52	in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9995		Est. Ts:	65	°F			Pg:	0.86	in. WC	73.2
Static Press:	1.00	in. WC	ΔH @ (in.WC):	1.726		Est. ΔP:	1.25	in. WC			O_2:	20.9	%	K-FACTOR
Stack Press:	30.15	in. Hg	Probe ID:	P702-3-2		Est. Dn:	0.182	in.			CO_2:	0.0	%	1.885
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm				Check Pt.	Initial	Final	Corr.
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)	701.068	702.141	1.073
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.000	0.000	--	--	0.000	Mid 2 (cf)			--
Md:	28.84	lb/lb-mole	Nozzle ID:	G-196-1	glass	Vacuum (in Hg):	15	6	--	--	5	Mid 3 (cf)			--
Ms:	28.29	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	--	--	Pass	Mid-Point Leak Check Vol (cf):			1.073

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
					DGM Average	Stack				Probe	Filter	Imp Exit	Aux		
	Begin	End			Amb.	Amb.				Amb.	Amb.	Amb.	Amb.		
					45	45	Ideal	Actual		45	45	45			
A1	0.00	20.00	503.222	1.30	45	55	2.47	2.50	3	248	254	41	-	94.6	74.97
2	20.00	40.00	520.280	1.30	48	55	2.48	2.50	3	250	251	45	-	94.4	74.97
3	40.00	60.00	537.400	1.20	51	57	2.30	2.30	3	250	251	46	-	97.0	72.17
4	60.00	80.00	554.390	1.20	52	60	2.29	2.30	3	250	252	48	-	97.9	72.38
5	80.00	100.00	571.520	1.20	53	63	2.28	2.30	3	250	250	50	-	95.3	72.59
6	100.00	120.00	588.180	1.20	53	66	2.27	2.30	3	250	250	49	-	94.9	72.80
7	120.00	140.00	604.720	1.20	54	68	2.26	2.30	3	250	244	51	-	94.4	72.94
8	140.00	160.00	621.170	1.20	56	72	2.26	2.30	3	250	250	52	-	97.8	73.21
9	160.00	180.00	638.220	1.20	57	75	2.25	2.30	3	250	246	56	-	92.0	73.42
10	180.00	200.00	654.240	1.20	58	78	2.24	2.20	3	250	251	59	-	93.5	73.62
11	200.00	220.00	670.520	1.00	60	82	1.86	1.90	3	251	249	57	-	96.6	67.46
12	220.00	240.00	685.880	1.00	61	85	1.85	1.90	3	250	246	57	-	95.6	67.64
B1	240.00	260.00	701.068	0.82	70	92	1.53	1.50	2	249	251	62	-	105.1	61.65
2	260.00	280.00	716.370	1.10	76	95	2.06	2.10	2	249	238	60	-	97.8	71.59
3	280.00	300.00	732.970	1.20	78	97	2.25	2.30	2	250	238	58	-	96.6	74.91
4	300.00	320.00	750.120	0.88	78	100	1.64	1.60	2	250	244	56	-	97.2	64.32
5	320.00	340.00	764.890	0.95	78	100	1.77	1.80	2	250	246	57	-	98.2	66.83
6	340.00	360.00	780.390	1.00	80	102	1.86	1.90	2	250	240	58	-	96.3	68.69
7	360.00	380.00	796.010	1.10	82	101	2.06	2.10	2	250	255	51	-	97.3	71.98
8	380.00	400.00	812.630	1.10	83	101	2.06	2.10	2	250	254	52	-	98.0	71.98
9	400.00	420.00	829.400	1.10	84	101	2.07	2.10	2	249	259	52	-	97.9	71.98
10	420.00	440.00	846.180	1.10	82	102	2.06	2.10	2	250	258	50	-	98.1	72.04
11	440.00	460.00	862.920	0.92	81	98	1.73	1.70	2	249	245	51	-	96.9	65.65
12	460.00	480.00	878.080	1.00	80	98	1.88	1.90	2	251	258	60	-	96.2	68.45
	Final DGM:		893.742												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	389.447	ft^3	1.10	in. WC	66.7	°F	83.5	°F	3	2.096	in. WC	95.0	0.009	-1.5

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt		Start Time:	4:40	Source: CAU - Outlet
Date:	3/18/21	Run 2 VALID	End Time:	12:46	Project No.: 2021-0883 Parameter: Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-26		Est. Tm:	67	°F		Pb:	29.55 in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9995		Est. Ts:	83	°F		Pg:	0.81 in. WC	73.2
Static Press:	1.00	in. WC	ΔH @ (in.WC):	1.726		Est. ΔP:	1.10	in. WC		O_2:	20.9 %	K-FACTOR
Stack Press:	30.15	in. Hg	Probe ID:	P702-3-2		Est. Dn:	0.183	in.		CO_2:	0.0 %	2.01
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm			Check Pt. Initial Final Corr.	
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK:	Pre	Mid 1	Mid 2 Mid 3	Post	Mid 1 (cf)	--
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.002	--	-- --	0.000	Mid 2 (cf)	--
Md:	28.84	lb/lb-mole	Nozzle ID:	G-196-1	glass	Vacuum (in Hg):	15	--	-- --	5	Mid 3 (cf)	--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	-- --	Pass	Mid-Point Leak Check Vol (cf):	--

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
	–	–			–	–				–	–	–	–		
A1	0.00	20.00	894.933	1.20	51	75	2.38	2.40	3	248	250	41	-	95.6	72.86
2	20.00	40.00	911.950	1.10	48	80	2.15	2.20	3	250	251	38	-	97.6	70.08
3	40.00	60.00	928.420	1.00	48	78	1.96	2.00	3	250	250	37	-	95.8	66.70
4	60.00	80.00	943.870	1.20	48	76	2.36	2.40	3	250	252	35	-	97.2	72.93
5	80.00	100.00	961.050	1.20	48	76	2.36	2.40	3	242	251	46	-	98.2	72.93
6	100.00	120.00	978.410	1.20	47	75	2.36	2.40	3	250	250	37	-	98.3	72.86
7	120.00	140.00	995.770	1.10	49	78	2.16	2.20	3	250	252	37	-	98.6	69.96
8	140.00	160.00	1012.470	1.10	51	77	2.17	2.20	3	250	249	39	-	98.1	69.89
9	160.00	180.00	1029.160	1.10	51	77	2.17	2.20	3	250	247	43	-	98.2	69.89
10	180.00	200.00	1045.870	1.20	53	79	2.37	2.40	3	249	246	43	-	102.7	73.13
11	200.00	220.00	1064.150	1.10	56	80	2.18	2.20	3	251	251	45	-	92.5	70.08
12	220.00	240.00	1080.000	0.90	56	83	1.78	1.80	3	250	249	46	-	101.6	63.57
B1	240.00	260.00	1095.717	1.10	56	86	2.16	2.20	3	247	250	48	-	94.7	70.47
2	260.00	280.00	1111.850	1.10	58	88	2.16	2.20	3	249	253	47	-	93.0	70.60
3	280.00	300.00	1127.730	1.20	59	88	2.36	2.40	3	250	247	52	-	97.5	73.74
4	300.00	320.00	1145.150	1.20	66	91	2.37	2.40	3	249	250	51	-	96.4	73.94
5	320.00	340.00	1162.550	1.20	73	93	2.40	2.40	3	251	248	53	-	96.2	74.08
6	340.00	360.00	1180.120	1.20	77	95	2.41	2.40	3	251	248	54	-	95.9	74.21
7	360.00	380.00	1197.730	1.10	79	98	2.20	2.20	3	250	249	56	-	95.8	71.24
8	380.00	400.00	1214.590	1.10	81	98	2.21	2.20	3	250	249	58	-	95.4	71.24
9	400.00	420.00	1231.450	1.00	82	99	2.01	2.00	3	246	250	58	-	96.9	67.99
10	420.00	440.00	1247.800	0.88	81	100	1.76	1.80	3	250	252	59	-	99.7	63.84
11	440.00	460.00	1263.550	0.77	80	102	1.54	1.50	3	249	248	56	-	94.6	59.82
12	460.00	480.00	1277.490	0.83	82	104	1.66	1.70	3	249	245	56	-	99.3	62.22
	Final DGM:		1292.705												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	397.772	ft^3	1.09	in. WC	61.7	°F	86.5	°F	3	2.175	in. WC	99.0	0.009	-0.8

Alliance SOURCE TESTING

Isokinetic Field Data

Location:	All American Asphalt			Start Time:	4:40	Source:	CAU - Outlet
Date:	3/19/21	Run 3	VALID	End Time:	12:49	Project No.:	2021-0883

Parameter: Metals

STACK DATA (EST)			EQUIPMENT			STACK DATA (EST)			FILTER NO.	STACK DATA (FINAL)			MOIST. DATA
Moisture:	1.0	% est.	Meter Box ID:	M5-26		Est. Tm:	62	°F		Pb:	29.59	in. Hg	Vlc (ml)
Barometric:	30.08	in. Hg	Y:	0.9995		Est. Ts:	87	°F		Pg:	0.79	in. WC	56.1
Static Press:	1.00	in. WC	ΔH @ (in.WC):	1.726		Est. ΔP:	1.09	in. WC		O_2:	20.9	%	K-FACTOR
Stack Press:	30.15	in. Hg	Probe ID:	P702-3-2		Est. Dn:	0.185	in.		CO_2:	0.0	6+	1.982
CO_2:	0.0	%	Liner Material:	glass		Target Rate:	0.75	scfm					
O_2:	20.9	%	Pitot ID:	PS-2		LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Check Pt.	Initial	Final	Corr.
N_2/CO:	79.1	%	Pitot Cp/Type:	0.990	standard	Leak Rate (cfm):	0.002	--	--	--		Mid 1 (cf)			--
Md:	28.84	lb/lb-mole	Nozzle ID:	G-196-1	glass	Vacuum (in Hg):	15	--	--	--		Mid 2 (cf)			--
Ms:	28.73	lb/lb-mole	Nozzle Dn (in.):	0.196		Pitot Tube:	Pass	--	--	--	Pass	Mid 3 (cf)			--
												Mid-Point Leak Check Vol (cf):			--

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
					DGM Average	Stack				Probe	Filter	Imp Exit	Aux		
					Amb.	Amb.				Amb.	Amb.	Amb.	Amb.		
	Begin	End			--	--	Ideal	Actual		--	--	--	--		
A1	0.00	20.00	295.292	0.98	50	78	1.93	1.90	3	249	248	47	-	94.9	66.03
2	20.00	40.00	310.500	1.20	52	83	2.35	2.40	2	250	250	46	-	96.2	73.40
3	40.00	60.00	327.520	1.20	54	82	2.36	2.40	2	250	249	46	-	97.5	73.34
4	60.00	80.00	344.860	1.20	56	83	2.36	2.40	2	250	249	48	-	99.2	73.40
5	80.00	100.00	362.550	1.20	54	83	2.35	2.40	2	251	251	46	-	94.4	73.40
6	100.00	120.00	379.320	1.20	55	82	2.36	2.40	2	250	249	48	-	96.6	73.34
7	120.00	140.00	396.530	1.20	55	82	2.36	2.40	2	250	253	46	-	99.0	73.34
8	140.00	160.00	414.170	1.10	54	82	2.16	2.20	2	250	252	48	-	97.4	70.21
9	160.00	180.00	430.760	1.10	55	80	2.18	2.20	2	250	250	47	-	97.1	70.08
10	180.00	200.00	447.370	1.20	55	81	2.37	2.40	2	251	249	49	-	97.0	73.27
11	200.00	220.00	464.670	1.00	57	82	1.98	2.00	2	250	251	52	-	96.5	66.95
12	220.00	240.00	480.450	0.95	58	83	1.88	1.90	2	250	251	54	-	100.7	65.31
B1	240.00	260.00	496.510	1.00	58	85	1.97	2.00	2	252	251	55	-	92.1	67.13
2	260.00	280.00	511.550	1.10	62	86	2.18	2.20	2	250	249	59	-	99.1	70.47
3	280.00	300.00	528.630	1.20	63	89	2.37	2.40	2	249	248	64	-	93.3	73.81
4	300.00	320.00	545.410	1.20	70	91	2.39	2.40	3	249	250	65	-	95.7	73.94
5	320.00	340.00	562.820	1.20	76	93	2.41	2.40	3	250	252	65	-	97.6	74.08
6	340.00	360.00	580.750	1.20	82	95	2.43	2.40	2	250	250	63	-	96.6	74.21
7	360.00	380.00	598.650	1.20	88	97	2.45	2.40	2	250	250	60	-	96.0	74.34
8	380.00	400.00	616.610	1.10	89	99	2.24	2.20	2	251	250	61	-	95.8	71.31
9	400.00	420.00	633.770	1.00	87	100	2.03	2.00	2	250	249	62	-	94.4	68.05
10	420.00	440.00	649.840	1.00	85	102	2.01	2.00	2	250	253	62	-	94.7	68.17
11	440.00	460.00	665.870	0.88	84	103	1.76	1.80	2	248	250	60	-	100.8	64.01
12	460.00	480.00	681.840	0.85	84	103	1.71	1.70	2	251	251	62	-	94.0	62.91
	Final DGM:		696.478												

RESULTS	Run Time		Vm		ΔP		Tm		Ts		Max Vac	ΔH		%ISO	BWS	Y_{qa}
	480.0	min	401.186	ft^3	1.10	in. WC	66.0	°F	88.5	°F	3	2.204	in. WC	98.4	0.007	-1.0

Appendix C

Quantum Analytical Services Inc.
www.quantumairlab.com
1210 E. 223rd Street, Suite #314 • Carson, California 90745 • 310/830-2226 • Fax 310/830-2227

CLIENT:	Alliance Souce Testing
LABORATORY NO:	21-212
SAMPLING DATE:	03/17/21
RECEIVING DATE:	03/17/21
ANALYSIS DATE:	03/17/21
REPORT DATE:	03/17/21

Laboratory Analysis Report

Analysis Method	SCAQMD 307-91		
Detection Limits	0.05 PPMV		
Analyte	Client ID	IN R1	OUT R1
	Sampling Date	03/17/21	03/17/21
	Sampling Time	0735	0735
	Lab ID	07621-2	07621-1
	Units	PPMV	PPMV
Hydrogen Sulfide		0.77	<0.05
Carbonyl Sulfide		0.78	<0.05
Methyl Mercaptan		0.53	<0.05
Ethyl Mercaptan		0.15	<0.05
Un-Identified S Compounds		0.61	<0.05
Total Sulfur as H_2S		**2.85**	**<0.05**

Dr. Andrew Kitto
President

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CLIENT:	**Alliance Souce Testing**
LABORATORY NO:	**21-212**
SAMPLING DATE:	03/17/21
RECEIVING DATE:	03/17/21
ANALYSIS DATE:	03/17/21
REPORT DATE:	03/17/21

Quality Assurance Report

Duplicate Analysis

Sample ID: IN R1 — Lab ID: 07621-2

Analysis Method		SCAQMD 307-91		
Detection Limit		**0.05 PPMV**		
Analyte	**Aver. Conc. PPMV**	**Dil. Factor Ambient Air**	**DF*A/CF PPMV**	**% Sample* Recovery**
Hydrogen Sulfide	0.76	1	0.76	98.9
Carbonyl Sulfide	0.81	1	0.84	103
Methyl Mercaptan	0.54	1	0.55	102
Ethyl Mercaptan	0.16	1	0.16	103
Unidentified S Compounds	0.67	1	0.73	109
Total Sulfur as H2S	**2.94**	**1**	**3.03**	103

N/A: Not Applicable

*Must be ±10%

Dr. Andrew Kitto
President

Quantum
Analytical Services Inc.
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№ 9346

CHAIN OF CUSTODY

Email: andrewkitto.quantum@gmail.com

Page: 1 of: 1

Client: Alliance

Contact Person: Charles Figueroa
tel: 714 809 9681
fax: —

Project No.: 21-212
Project Name: AAA Slc
Project Manager: Charles
P.O. Number: —

Analysis: TOTAL SULFUR 307.7

Turnaround Time:
- ☐ Same Day
- ☒ 24 Hours
- ☐ 48 Hours
- ☐ Normal

Client Sample ID	Tag #	Date	Time	Lab ID Number							Remarks
IN R1		3-17-21	7:35-8:35	C7621-2	X						
OUT R1		3.17.21	7:35-08:35	-1	X						

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	3/17/21 11:30		3/17/21 11:35
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

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CLIENT:	Alliance Source Testing
LABORATORY NO:	21-214
SAMPLING DATE:	03/18/21
RECEIVING DATE:	03/18/21
ANALYSIS DATE:	03/18/21
REPORT DATE:	03/19/21

Laboratory Analysis Report

Analysis Method	SCAQMD 307-91	
Detection Limits	0.05 PPMV	
Analyte / Client ID	AAA Inlet R2	AAA Outlet R2
Sampling Date	03/18/21	03/18/21
Sampling Time	0621-0721	0621-0721
Lab ID	07721-4	07721-5
Units	PPMV	PPMV
Hydrogen Sulfide	1.85	<0.05
Carbonyl Sulfide	0.69	<0.05
Methyl Mercaptan	1.01	<0.05
Ethyl Mercaptan	0.16	<0.05
Un-Identified S Compounds	1.01	<0.05
Total Sulfur as H_2S	**4.72**	**<0.05**

Dr. Andrew Kitto
President

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CLIENT:	Alliance Source Testing
LABORATORY NO:	21-214
SAMPLING DATE:	03/18/21
RECEIVING DATE:	03/18/21
ANALYSIS DATE:	03/18/21
REPORT DATE:	03/19/21

Quality Assurance Report

Duplicate Analysis

Sample ID: AAA Inlet R2 Lab ID: 07721-4

Analysis Method		SCAQMD 307-91		
Detection Limit		0.05 PPMV		
Analyte	Aver. Conc. PPMV	Dil. Factor Ambient Air	DF*A/CF PPMV	% Sample* Recovery
Hydrogen Sulfide	1.81	1	1.76	97.5
Carbonyl Sulfide	0.70	1	0.71	102
Methyl Mercaptan	0.99	1	0.97	98.0
Ethyl Mercaptan	0.17	1	0.19	106
Unidentified S Compounds	0.99	1	0.98	98.3
Total Sulfur as H2S	**4.66**	**1**	**4.60**	98.7

N/A: Not Applicable *Must be ±10%

Dr. Andrew Kitto
President

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№ 6428

CHAIN OF CUSTODY

21-214

Page: 1 of: 1

Client: Alliance Source Testing	**Project No.:** 21-0883	**Analysis**	**Turnaround Time:**
	Project Name: AAA	SCAQMD 307-91 Total Sulfur	☒ Same Day
Contact Person: Charles Figueroa	**Project Manager:** Austin Keays		☐ 24 Hours
tel: 714-809-9681	**P.O. Number:** Project #		☐ 48 Hours
fax:			☐ Normal

Client Sample ID	Tag #	Date	Time	Lab ID Number							Remarks
AAA Inlet R2	1	3/18/21	6:21-7:21	210321-4	X	X					Total Sulfur
AAA Outlet R2		3/18/21	11	-5	X	X					11 11

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
			3/18/21 945
Relinquished by: (signature) 1015	Date/Time	Received by: (signature)	Date/time 3/18/21 1015
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

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CLIENT:	Almega-Alliance
LABORATORY NO:	21-227
SAMPLING DATE:	03/19/21
RECEIVING DATE:	03/19/21
ANALYSIS DATE:	03/19/21
REPORT DATE:	03/22/21

Laboratory Analysis Report

Analysis Method	SCAQMD 307-91	
Detection Limits	0.05 PPMV	
Analyte / Client ID	Inlet R3	Outlet R3
Sampling Date	03/19/21	03/19/21
Sampling Time	0645	0645
Lab ID	07821-8	07821-9
Units	PPMV	PPMV
Hydrogen Sulfide	1.05	<0.05
Carbonyl Sulfide	0.48	<0.05
Methyl Mercaptan	1.16	<0.05
Ethyl Mercaptan	0.14	<0.05
Un-Identified S Compounds	1.25	<0.05
Total Sulfur as H_2S	**4.07**	**<0.05**

Dr. Andrew Kitto
President

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CLIENT:	**Almega-Alliance**
LABORATORY NO:	**21-227**
SAMPLING DATE:	03/19/21
RECEIVING DATE:	03/19/21
ANALYSIS DATE:	03/19/21
REPORT DATE:	03/22/21

Quality Assurance Report

Duplicate Analysis

Sample ID: Inlet R3 — Lab ID: 07821-8

Analysis Method		SCAQMD 307-91		
Detection Limit		0.05 PPMV		
Analyte	Aver. Conc. PPMV	Dil. Factor Ambient Air	DF*A/CF PPMV	% Sample* Recovery
Hydrogen Sulfide	1.13	1	1.22	108
Carbonyl Sulfide	0.46	1	0.45	97.0
Methyl Mercaptan	1.17	1	1.18	101
Ethyl Mercaptan	0.15	1	0.15	104
Unidentified S Compounds	1.22	1	1.18	97.3
Total Sulfur as H2S	**4.13**	**1**	**4.18**	101

N/A: Not Applicable

*Must be ±10%

Dr. Andrew Kitto
President

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№ 6428

21-229

CHAIN OF CUSTODY

Page: _____ of: _____

Client: Alliance Source Testing

Contact Person: Charles Figueroa
tel: 714 809 9681
fax:

Project No.: 21-0883
Project Name: AAA
Project Manager: Charles
P.O. Number: _____

Analysis: Total Sulfur 40 CFR 91

Turnaround Time:
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ Normal

Client Sample ID	Tag #	Date	Time	Lab ID Number	Remarks
~~Inlet R1~~		~~3-17-21~~			
~~Outlet R1~~		~~3-17-21~~			
~~Inlet R2~~		~~3-18-21~~			
~~Outlet R2~~		~~3-18-21~~			
Inlet R3		3-19-21	0645	[illegible]	
Outlet R3		3-19-21	0645	-9	

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
	3-19-21		3/19/21
Relinquished by: (signature)	Date/Time 3/19/21 11:30	Received by: (signature)	Date/time 3/19/21 11:30
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

LABORATORY REPORT

March 30, 2021

Andrew Kitto, Ph.D.
Quantum Analytical Services
1210 E. 223rd Street Suite 314
Carson, CA 90745

RE: 21_230

Dear Andrew:

Enclosed are the results of the samples submitted to our laboratory on March 22, 2021. For your reference, these analyses have been assigned our service request number P2101456.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

ALS | Environmental

By Sue Anderson at 11:38 am, Mar 30, 2021

Sue Anderson
Project Manager

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: Quantum Analytical Services
Project: 21_230

Service Request No: P2101456

CASE NARRATIVE

The samples were received intact under chain of custody on March 22, 2021 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

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www.alsglobal.com

ALS Environmental – Simi Valley

CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	http://dec.alaska.gov/eh/lab.aspx	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	http://www.deq.louisiana.gov/page/la-lab-accreditation	05071
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml	2018027
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	1776326
New Jersey DEP (NELAP)	http://www.nj.gov/dep/enforcement/oqa.html	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068-008
Pennsylvania DEP	http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413-19-10
Utah DOH (NELAP)	http://health.utah.gov/lab/lab_cert_env	CA016272019-10
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Quantum Analytical Services
Service Request: P2101456
Project ID: 21_230

Date Received: 3/22/2021
Time Received: 16:00

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	TO-15 - VOC Cans
2021_0883_A3	P2101456-001	Air	3/19/2021	00:00	X
2021_0883_A4	P2101456-002	Air	3/19/2021	00:00	X

P2101456 № 9346

Quantum Analytical Services Inc.

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CHAIN OF CUSTODY

Email: andrewkitto.quantum@gmail.com

Page: ____ of: ____

Client: Alliance

Contact Person:
tel:
fax:

Project No.: 21-230
Project Name:
Project Manager:
P.O. Number:

Analysis: EPA TO-15 • + TIC (Tentatively Identified Compound)

Turnaround Time:
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ Normal

Client Sample ID	Tag # TAK	Date	Time	Lab ID Number	EPA TO-15	+ TIC					Remarks
2021_0883_A3	37	3/19/21			X	X					on grass
2021-0883-A4	38	3/19/21			X	X					Next to Vent on Rubber

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/time
[signature]	3/22/21	[signature]	
[signature]	4:00		3-22-21 1600

ALS Environmental
Sample Acceptance Check Form

Client: Quantum Analytical Services Work order: P2101456

Project: 21_230

Sample(s) received on: 3/22/21 Date opened: 3/22/21 by: ADAVID

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2101456-001.01	Canister					
P2101456-002.01	Canister					

Explain any discrepancies: (include lab sample ID numbers): _____

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A3**
Client Project ID: **21_230**

ALS Project ID: P2101456
ALS Sample ID: P2101456-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Lusine Hakobyan
Sample Type: Canister
Test Notes:

Date Collected: 3/19/21
Date Received: 3/22/21
Date Analyzed: 3/24/21
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**1.1**	0.52	**0.66**	0.30	
75-71-8	Dichlorodifluoromethane (CFC 12)	**1.8**	0.52	**0.36**	0.11	
74-87-3	Chloromethane	ND	0.52	ND	0.25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.52	ND	0.074	
75-01-4	Vinyl Chloride	ND	0.53	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.52	ND	0.24	
74-83-9	Bromomethane	ND	0.52	ND	0.13	
75-00-3	Chloroethane	ND	0.52	ND	0.20	
64-17-5	Ethanol	ND	5.3	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.1	ND	0.48	
67-64-1	Acetone	**13**	5.2	**5.7**	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	**0.86**	0.51	**0.15**	0.091	
67-63-0	2-Propanol (Isopropyl Alcohol)	**1.2**	1.0	**0.51**	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	0.52	ND	0.13	
75-09-2	Methylene Chloride	**0.82**	0.52	**0.24**	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.52	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.53	ND	0.069	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	0.53	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.54	ND	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	0.52	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.5	ND	1.6	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A3** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-001

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.52	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.52	ND	0.15	
67-66-3	Chloroform	ND	0.53	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	ND	0.34	
107-06-2	1,2-Dichloroethane	ND	0.52	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.52	ND	0.095	
71-43-2	Benzene	ND	0.52	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.51	ND	0.081	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.52	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.52	ND	0.078	
79-01-6	Trichloroethene	ND	0.51	ND	0.095	
123-91-1	1,4-Dioxane	ND	0.52	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.52	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.53	ND	0.12	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.52	ND	0.095	
108-88-3	Toluene	ND	0.52	ND	0.14	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	0.52	ND	0.061	
106-93-4	1,2-Dibromoethane	ND	0.52	ND	0.068	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A3** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-001

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.52	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.52	ND	0.11	
100-41-4	Ethylbenzene	ND	0.52	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.53	ND	0.051	
100-42-5	Styrene	ND	0.52	ND	0.12	
95-47-6	o-Xylene	ND	0.53	ND	0.12	
111-84-2	n-Nonane	ND	0.53	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	ND	0.077	
98-82-8	Cumene	ND	0.52	ND	0.11	
80-56-8	alpha-Pinene	ND	0.53	ND	0.095	
103-65-1	n-Propylbenzene	ND	0.52	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.53	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.52	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	0.53	ND	0.088	
106-46-7	1,4-Dichlorobenzene	ND	0.52	ND	0.087	
95-50-1	1,2-Dichlorobenzene	ND	0.53	ND	0.088	
5989-27-5	d-Limonene	ND	0.52	ND	0.093	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.52	ND	0.049	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A3** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

GC/MS Retention Time	**Compound Identification**	**Concentration µg/m³**	**Data Qualifier**
	No Compounds Detected		

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A4** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-002

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	**1.6**	0.52	**0.92**	0.30	
75-71-8	Dichlorodifluoromethane (CFC 12)	**1.7**	0.52	**0.35**	0.11	
74-87-3	Chloromethane	ND	0.52	ND	0.25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.52	ND	0.074	
75-01-4	Vinyl Chloride	ND	0.53	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.52	ND	0.24	
74-83-9	Bromomethane	ND	0.52	ND	0.13	
75-00-3	Chloroethane	ND	0.52	ND	0.20	
64-17-5	Ethanol	**6.3**	5.3	**3.3**	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.1	ND	0.48	
67-64-1	Acetone	**26**	5.2	**11**	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	**0.84**	0.51	**0.15**	0.091	
67-63-0	2-Propanol (Isopropyl Alcohol)	**1.4**	1.0	**0.57**	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	0.52	ND	0.13	
75-09-2	Methylene Chloride	**23**	0.52	**6.7**	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.52	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.53	ND	0.069	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	0.53	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.54	ND	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	0.52	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.5	ND	1.6	
78-93-3	2-Butanone (MEK)	**2.0**	1.0	**0.68**	0.34	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A4** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-002

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.52	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.52	ND	0.15	
67-66-3	Chloroform	ND	0.53	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	ND	0.34	
107-06-2	1,2-Dichloroethane	ND	0.52	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.52	ND	0.095	
71-43-2	Benzene	ND	0.52	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.51	ND	0.081	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.52	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.52	ND	0.078	
79-01-6	Trichloroethene	ND	0.51	ND	0.095	
123-91-1	1,4-Dioxane	ND	0.52	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.52	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.53	ND	0.12	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.52	ND	0.095	
108-88-3	Toluene	**0.73**	0.52	**0.19**	0.14	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	0.52	ND	0.061	
106-93-4	1,2-Dibromoethane	ND	0.52	ND	0.068	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A4** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-002

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.52	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.52	ND	0.11	
100-41-4	Ethylbenzene	ND	0.52	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.53	ND	0.051	
100-42-5	Styrene	ND	0.52	ND	0.12	
95-47-6	o-Xylene	ND	0.53	ND	0.12	
111-84-2	n-Nonane	ND	0.53	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	ND	0.077	
98-82-8	Cumene	ND	0.52	ND	0.11	
80-56-8	alpha-Pinene	**0.62**	0.53	**0.11**	0.095	
103-65-1	n-Propylbenzene	ND	0.52	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.53	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.52	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	0.53	ND	0.088	
106-46-7	1,4-Dichlorobenzene	ND	0.52	ND	0.087	
95-50-1	1,2-Dichlorobenzene	ND	0.53	ND	0.088	
5989-27-5	d-Limonene	**0.74**	0.52	**0.13**	0.093	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.52	ND	0.049	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Quantum Analytical Services**
Client Sample ID: **2021_0883_A4** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P2101456-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Date Collected: 3/19/21
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: 3/22/21
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: **T**

Initial Pressure (psig): 0.0 Final Pressure (psig): 0.0

Canister Dilution Factor: 1.00

GC/MS Retention Time	**Compound Identification**	**Concentration µg/m³**	**Data Qualifier**
4.85	Isobutane	**4.5**	
5.37	n-Butane	**7.1**	
18.25	3-Heptanone	**8.6**	
20.41	2-Ethyl-1-hexanol	**11**	

T = Analyte is a tentatively identified compound, result is estimated.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **Quantum Analytical Services**
Client Sample ID: **Method Blank**
Client Project ID: **21_230**

ALS Project ID: P2101456
ALS Sample ID: P210323-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Lusine Hakobyan
Sample Type: Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/23/21
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.52	ND	0.30	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.52	ND	0.11	
74-87-3	Chloromethane	ND	0.52	ND	0.25	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.52	ND	0.074	
75-01-4	Vinyl Chloride	ND	0.53	ND	0.21	
106-99-0	1,3-Butadiene	ND	0.52	ND	0.24	
74-83-9	Bromomethane	ND	0.52	ND	0.13	
75-00-3	Chloroethane	ND	0.52	ND	0.20	
64-17-5	Ethanol	ND	5.3	ND	2.8	
75-05-8	Acetonitrile	ND	0.53	ND	0.32	
107-02-8	Acrolein	ND	1.1	ND	0.48	
67-64-1	Acetone	ND	5.2	ND	2.2	
75-69-4	Trichlorofluoromethane (CFC 11)	ND	0.51	ND	0.091	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	0.52	ND	0.13	
75-09-2	Methylene Chloride	ND	0.52	ND	0.15	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.52	ND	0.17	
76-13-1	Trichlorotrifluoroethane (CFC 113)	ND	0.53	ND	0.069	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	0.53	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.54	ND	0.13	
1634-04-4	Methyl tert-Butyl Ether	ND	0.52	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.5	ND	1.6	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **Method Blank** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P210323-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Lusine Hakobyan Date Analyzed: 3/23/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.52	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.52	ND	0.15	
67-66-3	Chloroform	ND	0.53	ND	0.11	
109-99-9	Tetrahydrofuran (THF)	ND	1.0	ND	0.34	
107-06-2	1,2-Dichloroethane	ND	0.52	ND	0.13	
71-55-6	1,1,1-Trichloroethane	ND	0.52	ND	0.095	
71-43-2	Benzene	ND	0.52	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.51	ND	0.081	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.52	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.52	ND	0.078	
79-01-6	Trichloroethene	ND	0.51	ND	0.095	
123-91-1	1,4-Dioxane	ND	0.52	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.52	ND	0.13	
10061-01-5	cis-1,3-Dichloropropene	ND	0.53	ND	0.12	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	0.51	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.52	ND	0.095	
108-88-3	Toluene	ND	0.52	ND	0.14	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	0.52	ND	0.061	
106-93-4	1,2-Dibromoethane	ND	0.52	ND	0.068	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **Method Blank**
Client Project ID: **21_230**

ALS Project ID: P2101456
ALS Sample ID: P210323-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16
Analyst: Lusine Hakobyan
Sample Type: Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 3/23/21
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.52	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.52	ND	0.077	
108-90-7	Chlorobenzene	ND	0.52	ND	0.11	
100-41-4	Ethylbenzene	ND	0.52	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.53	ND	0.051	
100-42-5	Styrene	ND	0.52	ND	0.12	
95-47-6	o-Xylene	ND	0.53	ND	0.12	
111-84-2	n-Nonane	ND	0.53	ND	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.53	ND	0.077	
98-82-8	Cumene	ND	0.52	ND	0.11	
80-56-8	alpha-Pinene	ND	0.53	ND	0.095	
103-65-1	n-Propylbenzene	ND	0.52	ND	0.11	
622-96-8	4-Ethyltoluene	ND	0.53	ND	0.11	
108-67-8	1,3,5-Trimethylbenzene	ND	0.53	ND	0.11	
95-63-6	1,2,4-Trimethylbenzene	ND	0.52	ND	0.11	
100-44-7	Benzyl Chloride	ND	1.1	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	0.53	ND	0.088	
106-46-7	1,4-Dichlorobenzene	ND	0.52	ND	0.087	
95-50-1	1,2-Dichlorobenzene	ND	0.53	ND	0.088	
5989-27-5	d-Limonene	ND	0.52	ND	0.093	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	0.52	ND	0.099	
87-68-3	Hexachlorobutadiene	ND	0.52	ND	0.049	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Client: **Quantum Analytical Services**
Client Sample ID: **Method Blank** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P210323-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Lusine Hakobyan Date Analyzed: 3/23/21
Sample Type: Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

GC/MS Retention Time	**Compound Identification**	**Concentration µg/m³**	**Data Qualifier**
	No Compounds Detected		

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **Quantum Analytical Services**
Client Project ID: **21_230** ALS Project ID: P2101456

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date(s) Collected: 3/19/21
Analyst: Lusine Hakobyan Date(s) Received: 3/22/21
Sample Type: Canister(s) Date(s) Analyzed: 3/23 - 3/24/21
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P210323-MB	**108**	**94**	**98**	70-130	
Lab Control Sample	P210323-LCS	**100**	**87**	**90**	70-130	
2021_0883_A3	P2101456-001	**102**	**88**	**93**	70-130	
2021_0883_A4	P2101456-002	**103**	**91**	**94**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Quantum Analytical Services**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P210323-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
115-07-1	Propene	210	**219**	**104**	56-128	
75-71-8	Dichlorodifluoromethane (CFC 12)	210	**185**	**88**	71-112	
74-87-3	Chloromethane	206	**160**	**78**	53-126	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	216	**175**	**81**	62-121	
75-01-4	Vinyl Chloride	208	**198**	**95**	63-123	
106-99-0	1,3-Butadiene	210	**220**	**105**	63-135	
74-83-9	Bromomethane	212	**179**	**84**	71-112	
75-00-3	Chloroethane	204	**181**	**89**	66-117	
64-17-5	Ethanol	998	**812**	**81**	57-117	
75-05-8	Acetonitrile	202	**189**	**94**	59-131	
107-02-8	Acrolein	436	**389**	**89**	71-123	
67-64-1	Acetone	1,030	**874**	**85**	60-117	
75-69-4	Trichlorofluoromethane (CFC 11)	204	**176**	**86**	71-114	
67-63-0	2-Propanol (Isopropyl Alcohol)	408	**329**	**81**	61-124	
107-13-1	Acrylonitrile	410	**384**	**94**	65-130	
75-35-4	1,1-Dichloroethene	212	**185**	**87**	74-114	
75-09-2	Methylene Chloride	208	**186**	**89**	75-112	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	210	**196**	**93**	57-127	
76-13-1	Trichlorotrifluoroethane (CFC 113)	214	**180**	**84**	73-114	
75-15-0	Carbon Disulfide	428	**395**	**92**	70-113	
156-60-5	trans-1,2-Dichloroethene	212	**201**	**95**	76-119	
75-34-3	1,1-Dichloroethane	212	**190**	**90**	70-114	
1634-04-4	Methyl tert-Butyl Ether	212	**158**	**75**	72-118	
108-05-4	Vinyl Acetate	1,100	**965**	**88**	56-137	
78-93-3	2-Butanone (MEK)	412	**412**	**100**	74-121	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Client: **Quantum Analytical Services**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P210323-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	**Result µg/m³**	**% Recovery**	ALS Acceptance Limits	**Data Qualifier**
156-59-2	cis-1,2-Dichloroethene	208	**195**	**94**	73-117	
141-78-6	Ethyl Acetate	422	**598**	**142**	59-161	
110-54-3	n-Hexane	212	**197**	**93**	55-130	
67-66-3	Chloroform	214	**189**	**88**	71-114	
109-99-9	Tetrahydrofuran (THF)	400	**341**	**85**	73-114	
107-06-2	1,2-Dichloroethane	208	**182**	**88**	71-119	
71-55-6	1,1,1-Trichloroethane	206	**174**	**84**	73-119	
71-43-2	Benzene	204	**175**	**86**	72-113	
56-23-5	Carbon Tetrachloride	210	**181**	**86**	67-123	
110-82-7	Cyclohexane	416	**357**	**86**	70-119	
78-87-5	1,2-Dichloropropane	206	**187**	**91**	70-118	
75-27-4	Bromodichloromethane	210	**195**	**93**	74-119	
79-01-6	Trichloroethene	206	**175**	**85**	74-115	
123-91-1	1,4-Dioxane	208	**194**	**93**	77-124	
80-62-6	Methyl Methacrylate	416	**400**	**96**	78-126	
142-82-5	n-Heptane	210	**186**	**89**	70-119	
10061-01-5	cis-1,3-Dichloropropene	210	**198**	**94**	81-126	
108-10-1	4-Methyl-2-pentanone	416	**397**	**95**	73-129	
10061-02-6	trans-1,3-Dichloropropene	202	**205**	**101**	80-127	
79-00-5	1,1,2-Trichloroethane	206	**183**	**89**	78-117	
108-88-3	Toluene	206	**159**	**77**	70-118	
591-78-6	2-Hexanone	404	**403**	**100**	74-132	
124-48-1	Dibromochloromethane	210	**177**	**84**	69-137	
106-93-4	1,2-Dibromoethane	208	**172**	**83**	76-128	
123-86-4	n-Butyl Acetate	406	**403**	**99**	75-134	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Quantum Analytical Services**
Client Sample ID: **Lab Control Sample** ALS Project ID: P2101456
Client Project ID: **21_230** ALS Sample ID: P210323-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/6890N/MS16 Date Received: NA
Analyst: Lusine Hakobyan Date Analyzed: 3/24/21
Sample Type: Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount µg/m³	Result µg/m³	% Recovery	ALS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	210	**176**	**84**	68-120	
127-18-4	Tetrachloroethene	206	**151**	**73**	63-130	
108-90-7	Chlorobenzene	206	**162**	**79**	70-118	
100-41-4	Ethylbenzene	206	**165**	**80**	71-123	
179601-23-1	m,p-Xylenes	412	**317**	**77**	67-127	
75-25-2	Bromoform	208	**183**	**88**	65-149	
100-42-5	Styrene	206	**170**	**83**	76-132	
95-47-6	o-Xylene	206	**157**	**76**	69-124	
111-84-2	n-Nonane	208	**165**	**79**	64-127	
79-34-5	1,1,2,2-Tetrachloroethane	206	**165**	**80**	69-128	
98-82-8	Cumene	208	**159**	**76**	69-125	
80-56-8	alpha-Pinene	214	**169**	**79**	68-129	
103-65-1	n-Propylbenzene	208	**163**	**78**	70-127	
622-96-8	4-Ethyltoluene	210	**168**	**80**	69-127	
108-67-8	1,3,5-Trimethylbenzene	206	**160**	**78**	66-129	
95-63-6	1,2,4-Trimethylbenzene	204	**163**	**80**	63-142	
100-44-7	Benzyl Chloride	402	**372**	**93**	73-145	
541-73-1	1,3-Dichlorobenzene	206	**167**	**81**	67-136	
106-46-7	1,4-Dichlorobenzene	204	**166**	**81**	63-134	
95-50-1	1,2-Dichlorobenzene	206	**168**	**82**	64-139	
5989-27-5	d-Limonene	208	**199**	**96**	63-137	
96-12-8	1,2-Dibromo-3-chloropropane	370	**341**	**92**	72-145	
120-82-1	1,2,4-Trichlorobenzene	388	**375**	**97**	62-154	
91-20-3	Naphthalene	198	**211**	**107**	62-156	
87-68-3	Hexachlorobutadiene	210	**160**	**76**	55-142	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Alliance
SOURCE TESTING

LABORATORY REPORT

Non-Methane Non-Ethane Organic compound Emissions by SCAQMD Method 25.1 (TCA/FID)

Client: AAA
Project No.: 21-0883
Unit Tested: Inlet
Sampling Date: 17-Mar-21
Analyzed Date: 30-Mar-21
Lab No.: A 027

Client Sample ID	Lab ID	Almega Sample ID			Total NMNEO ppm	NMNEO ppm condensable	NMNEO ppm noncondensable	CH_4 ppm	C_2H_6 ppm	CO ppm	CO_2 ppm	O_2 % v/v by TCD
		Tank	Trap	ICV								
Inlet												
M25.1-CAU Inlet Run 1A	A 027 - 011 A	T-17	110	ICV-1	**371**	142	229	25.8	19.0	25.8	681	21.2
M25.1-CAU Inlet Run 1B	A 027 - 011 B	T-10	066	ICV-2	**355**	126	229	24.7	18.0	25.3	673	21.4
M25.1-CAU Inlet Run 2C	A 027 - 021 A	T-1	059	ICV-3	**842**	510	332	41.5	31.0	45.5	1138	21.2
M25.1-CAU Inlet Run 2D	A 027 - 021 B	T-7	085	ICV-4	**847**	438	408	40.4	29.9	44.9	1129	21.2
M25.1-CAU Inlet Run 3A	A 027 - 031 A	1	065	ICV-5	**570**	294	277	25.9	12.0	31.0	1024	21.1
M25.1-CAU Inlet Run 3B	A 027 - 031 B	19	074	ICV-6	**561**	294	266	25.7	11.9	30.5	1009	20.7
Detection Limit						5	5	5	5	5	5	0.3

ND=Not Detected

* = CO2 by GC/FID ppm DL - 5ppm
TGNMNEO concentration values are reported in ppm (v/v) as Methane.

The sample cylinder is analyzed for NMNEO, CO, CH_4, CO_2 and C_2H_6. It is then directed to a separation column where all heavy organics (C_{3+}) separate from the light organics (CO, CO_2, CH_4 and C_2H_6). The light organics are then passed through a reduction catalyst to convert CO and CO_2 to CH_4, and are then directed to a FID for detection and quantification. The heavy organics are backflushed off the holding column, passed through an oxidation catalyst, which convert all organics to CO_2, then through a reduction catalyst to convert CO_2 to CH_4 and then to a FID for detection and quantification.

The contents of the condensate traps are converted to CO2 by combustion, collected in an evacuated tank (ICV) and analyzed by GC/FID.

Reviewed by:

CALCULATIONS

Client:	AAA	Lab No.:	A 027
Project No.:	21-0883		
Unit Tested:	Inlet		
Sampling Date:	17-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #1A	Run #1B
Client Sample ID			M25.1-CAU Inlet Run 1A	M25.1-CAU Inlet Run 1B
Lab ID			A 027 - 011 A	A 027 - 011 B
Sample Tank				
Tank No			T-17	T-10
Sample Tank Volume	V_T	L	9.643	9.646
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	4	4
Pre-test Temperature	t_{TI}	°C	22	22
Abs. Pre-test Temperature	T_{TI}	°K	295	295
Post-test Pressure	P_{TS}	mm Hg (abs)	550	588
Post-test Temperature	t_{TS}	°C	22	22
Abs. Post-test Temperature	T_{TS}	°K	295	295
Final Pressure	P_{TF}	mm Hg (abs)	928	930
Dilution Factor	DF_T		1.71	1.60
Concentration Methane	C_{CH4}	ppm	15.06	15.42
Carbon Monoxide	C_{CO}	ppm	15.07	15.76
NMNEO (noncond)	C_{SA}	ppm	133.9	142.9
Sample Volume	Vs	L	6.780	7.254
Methane in Tank	C_{CH4T}	ppm	**25.78**	**24.72**
Carbon Monoxide in Tank	C_{COT}	ppm	**25.79**	**25.27**
NMNEO (noncond)	C_{SAT}	ppm	**229.1**	**229.1**
Condensate Recovery - Trap				
Client Sample ID			M25.1-CAU Inlet Run 1A	M25.1-CAU Inlet Run 1B
Lab ID			A 027 - 012 A	A 027 - 012 B
Trap No			110	066
ICV Tank No			ICV-1	ICV-2
Sample Tank Volume	V_{ICV}	L	4.271	4.314
Initial Pressure	P_I	mm Hg (abs)	2	2
Initial Temperature	T_I	°K	298	298
Final Pressure	P_F	mm Hg (abs)	924	932
Final Temperature	T_F	°K	298	298
Concentration CO_2	C_{CO2}	ppm	191	179
Sample Volume	V_{SICV}	L	5.020	5.115
Dilution Factor	DF_{ICV}		0.74	0.71
NMNEO, Trap	C_T	ppm	**141.6**	**125.9**
TNMNEOC (C_{SAT} + C_T)	C	ppmC	**370.7**	**355.0**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$ $\quad DF = (P_F/T_F)/(P_{TS}/T_{TS} - P_I/T_I)$

$k_1 = (273+15.56)/760 = 0.3799$ $\quad DF_{ICV} = V_{SICV}/V_S$

$C_{SAT} = DF * C_{SA}$ $\quad C_{CH4T} = DF * C_{CH4}$ $\quad C_T = DF_{ICV} * C_{CO2}$

CALCULATIONS

Client:	AAA	Lab No.:	A 027
Project No.:	21-0883		
Unit Tested:	Inlet		
Sampling Date:	18-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #2A	Run #2B
Client Sample ID			M25.1-CAU Inlet Run 2C	M25.1-CAU Inlet Run 2D
Lab ID			A 027 - 021 A	A 027 - 021 B
Sample Tank				
Tank No			T-1	T-7
Sample Tank Volume	V_T	L	9.666	9.660
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	4	4
Pre-test Temperature	t_{TI}	°C	22	22
Abs. Pre-test Temperature	T_{TI}	°K	295	295
Post-test Pressure	P_{TS}	mm Hg (abs)	622	560
Post-test Temperature	t_{TS}	°C	22	22
Abs. Post-test Temperature	T_{TS}	°K	295	295
Final Pressure	P_{TF}	mm Hg (abs)	934	926
Dilution Factor	DF_T		1.52	1.68
Concentration Methane	C_{CH4}	ppm	27.29	24.08
Carbon Monoxide	C_{CO}	ppm	29.92	26.76
NMNEO (noncond)	C_{SA}	ppm	218.05	243.47
Sample Volume	Vs	L	7.693	6.917
Methane in Tank	C_{CH4T}	ppm	**41.53**	**40.37**
Carbon Monoxide in Tank	C_{COT}	ppm	**45.53**	**44.87**
NMNEO (noncond)	C_{SAT}	ppm	**331.8**	**408.3**
Condensate Recovery - Trap				
Client Sample ID			M25.1-CAU Inlet Run 2C	M25.1-CAU Inlet Run 2D
Lab ID			A 027 - 022 A	A 027 - 022 B
Trap No			059	085
ICV Tank No			ICV-3	ICV-4
Sample Tank Volume	V_{ICV}	L	4.880	4.266
Initial Pressure	P_I	mm Hg (abs)	2	2
Initial Temperature	T_I	°K	298	298
Final Pressure	P_F	mm Hg (abs)	924	924
Final Temperature	T_F	°K	298	298
Concentration CO_2	C_{CO2}	ppm	684	605
Sample Volume	V_{SICV}	L	5.736	5.014
Dilution Factor	DF_{ICV}		0.75	0.72
NMNEO, Trap	C_T	ppm	**510.3**	**438.3**
TNMNEOC (C_{SAT} + C_T)	C	ppmC	**842.1**	**846.5**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$DF = (P_F/T_F)/(P_{TS}/T_{TS} - P_I/T_I)$

$DF_{ICV} = V_{SICV}/V_S$

$C_{CH4T} = DF * C_{CH4}$

$C_T = DF_{ICV} * C_{CO2}$

CALCULATIONS

Client:	AAA	Lab No.:	A 027
Project No.:	21-0883		
Unit Tested:	Inlet		
Sampling Date:	19-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #3A	Run #3B
Client Sample ID			M25.1-CAU Inlet Run 3A	M25.1-CAU Inlet Run 3B
Lab ID			A 027 - 031 A	A 027 - 031 B
Sample Tank				
Tank No			1	19
Sample Tank Volume	V_T	L	12.160	12.075
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	4	4
Pre-test Temperature	t_{TI}	°C	22	22
Abs. Pre-test Temperature	T_{TI}	°K	295	295
Post-test Pressure	P_{TS}	mm Hg (abs)	520	542
Post-test Temperature	t_{TS}	°C	22	22
Abs. Post-test Temperature	T_{TS}	°K	295	295
Final Pressure	P_{TF}	mm Hg (abs)	924	924
Dilution Factor	DF_T		1.80	1.73
Concentration Methane	C_{CH4}	ppm	14.35	14.86
Carbon Monoxide	C_{CO}	ppm	17.21	17.66
NMNEO (noncond)	C_{SA}	ppm	153.49	154.04
Sample Volume	Vs	L	8.080	8.366
Methane in Tank	C_{CH4T}	ppm	**25.87**	**25.69**
Carbon Monoxide in Tank	C_{COT}	ppm	**31.03**	**30.54**
NMNEO (noncond)	C_{SAT}	ppm	**276.7**	**266.4**
Condensate Recovery - Trap				
Client Sample ID			M25.1-CAU Inlet Run 3A	M25.1-CAU Inlet Run 3B
Lab ID			A 027 - 032 A	A 027 - 032 B
Trap No			065	074
ICV Tank No			ICV-5	ICV-6
Sample Tank Volume	V_{ICV}	L	4.880	5.180
Initial Pressure	P_I	mm Hg (abs)	2	2
Initial Temperature	T_I	°K	298	298
Final Pressure	P_F	mm Hg (abs)	928	922
Final Temperature	T_F	°K	298	298
Concentration CO_2	C_{CO2}	ppm	412	405
Sample Volume	V_{SICV}	L	5.761	6.075
Dilution Factor	DF_{ICV}		0.71	0.73
NMNEO, Trap	C_T	ppm	**293.7**	**294.2**
TNMNEOC (C_{SAT} + C_T)	C	ppmC	**570.4**	**560.6**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$DF = (P_F/T_F)/(P_{TS}/T_{TS} - P_I/T_I)$

$DF_{ICV} = V_{SICV}/V_S$

$C_{CH4T} = DF * C_{CH4}$

$C_T = DF_{ICV} * C_{CO2}$

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.:	21-0883	Lab No.:	A 027
Sampling Date:	17-Mar-21	Unit Tested:	Inlet
Analyzed Date:	30-Mar-21		

Analyte	Sample ID	Area Count # 1	Area Count # 2	Area % diff (±20%)	Conc # 1	Conc # 2	**Mean Conc ppm**	% diff from Mean
Run #1A								
CO	A 027 - 011 A	26953	27158	-0.76	15.02	15.13	**15.07**	-0.76
CH4	A 027 - 011 A	26622	26667	-0.17	15.05	15.08	**15.06**	-0.17
CO2	A 027 - 011 A	3635663	3637639	-0.05	397.6	397.8	**397.7**	-0.05
C2H6	A 027 - 011 A	95882	96191	-0.32	11.09	11.13	**11.11**	-0.32
NMNEO	A 027 - 011 A	2626026	2644497	-0.70	133.42	134.36	**133.89**	-0.70
O2 by TCD	A 027 - 011 A	2013853	2071567	-2.87	12.2	12.6	**12.4**	-2.83
CO2 in ICV	A 027 - 012 A	1746550	1750219	-0.21	191.0	191.4	**191.2**	-0.21
Run #1B								
CO	A 027 - 011 B	28090	28477	-1.38	15.65	15.87	**15.76**	-1.37
CH4	A 027 - 011 B	27128	27421	-1.08	15.34	15.50	**15.42**	-1.07
CO2	A 027 - 011 B	3837501	3837309	0.01	419.7	419.7	**419.7**	0.01
C2H6	A 027 - 011 B	96943	97398	-0.47	11.2	11.3	**11.2**	-0.47
NMNEO	A 027 - 011 B	2802248	2822374	-0.72	142.4	143.4	**142.9**	-0.72
O2 by TCD	A 027 - 011 B	2209839	2187797	1.00	13.4	13.3	**13.3**	1.00
CO2 in ICV	A 027 - 012 B	1633026	1632000	0.06	178.6	178.5	**178.5**	0.06

$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF

$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF

$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF

$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.:	21-0883	Lab No.:	A 027
Sampling Date:	17-Mar-21	Unit Tested:	Inlet
Analyzed Date:	30-Mar-21		

Analyte	Sample ID	Area Count # 1	Area Count # 2	Area % diff (±20%)	Conc # 1	Conc # 2	**Mean Conc ppm**	% diff from Mean
Run #2A								
CO	A 027 - 021 A	53609	53809	-0.37	29.87	29.98	**29.92**	-0.37
CH4	A 027 - 021 A	48244	48320	-0.16	27.27	27.32	**27.29**	-0.16
CO2	A 027 - 021 A	6843966	6838327	0.08	748.5	747.8	**748.2**	0.08
C2H6	A 027 - 021 A	175885	176034	-0.08	20.35	20.36	**20.35**	-0.08
NMNEO	A 027 - 021 A	4289436	4294204	-0.11	217.93	218.17	**218.05**	-0.11
O2 by TCD	A 027 - 021 A	2288925	2309229	-0.89	13.9	14.0	**13.9**	-0.88
CO2 in ICV	A 027 - 022 A	6254850	6261127	-0.10	684.0	684.7	**684.4**	-0.10
Run #2B								
CO	A 027 - 021 B	47453	48594	-2.40	26.44	27.07	**26.76**	-2.38
CH4	A 027 - 021 B	42585	42597	-0.03	24.07	24.08	**24.08**	-0.03
CO2	A 027 - 021 B	6155642	6154490	0.02	673.2	673.1	**673.1**	0.02
C2H6	A 027 - 021 B	154277	154281	0.00	17.8	17.8	**17.8**	0.00
NMNEO	A 027 - 021 B	4793255	4790850	0.05	243.5	243.4	**243.5**	0.05
O2 by TCD	A 027 - 021 B	2103685	2073752	1.42	12.8	12.6	**12.7**	1.43
CO2 in ICV	A 027 - 022 B	5528579	5527554	0.02	604.6	604.5	**604.6**	0.02

$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF

$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF

$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF

$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.: 21-0883
Sampling Date: 17-Mar-21
Analyzed Date: 30-Mar-21

Lab No.: A 027
Unit Tested: Inlet

Analyte	Sample ID	Area Count # 1	Area Count # 2	Area % diff (±20%)	Conc # 1	Conc # 2	**Mean Conc ppm**	% diff from Mean
Run #3A								
CO	A 027 - 031 A	31039	30740	0.96	17.29	17.13	**17.21**	0.97
CH4	A 027 - 031 A	25630	25142	1.90	14.49	14.21	**14.35**	1.92
CO2	A 027 - 031 A	5197019	5188992	0.15	568.4	567.5	**567.9**	0.15
C2H6	A 027 - 031 A	57428	57660	-0.40	6.6	6.7	**6.7**	-0.40
NMNEO	A 027 - 031 A	3014584	3027496	-0.43	153.2	153.8	**153.5**	-0.43
O2 by TCD	A 027 - 031 A	1933367	1924105	0.48	11.7	11.7	**11.7**	0.48
CO2 in ICV	A 027 - 032 A	3774468	3759712	0.39	412.8	411.2	**412.0**	0.39
Run #3B								
CO	A 027 - 031 B	32303	31087	3.76	18.00	17.32	**17.66**	3.84
CH4	A 027 - 031 B	26429	26135	1.11	14.94	14.77	**14.86**	1.12
CO2	A 027 - 031 B	5334843	5340504	-0.11	583.4	584.0	**583.7**	-0.11
C2H6	A 027 - 031 B	59473	59399	0.12	6.9	6.9	**6.9**	0.12
NMNEO	A 027 - 031 B	3024928	3038993	-0.46	153.7	154.4	**154.0**	-0.46
O2 by TCD	A 027 - 031 B	1988203	1966855	1.07	12.1	11.9	**12.0**	1.08
CO2 in ICV	A 027 - 032 B	3704234	3704870	-0.02	405.1	405.2	**405.1**	-0.02

$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF
$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF
$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF
$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

SAMPLE INVENTORY REPORT

Method 25.1 Sampling Train

Project No.:	21-0883	Lab No.:	A 027
Client:	AAA	Sampling Date:	17-Mar-21
Unit Tested:	Inlet		

Laboratory ID	Client ID	Component ID	
Run #1A			
A 027 - 011 A	M25.1-CAU Inlet Run 1A	Tank #	T-17
A 027 - 012 A	M25.1-CAU Inlet Run 1A	Trap #	110
Run #1B			
A 027 - 011 B	M25.1-CAU Inlet Run 1B	Tank #	T-10
A 027 - 012 B	M25.1-CAU Inlet Run 1B	Trap #	066
Run #2A			
A 027 - 021 A	M25.1-CAU Inlet Run 2C	Tank #	T-1
A 027 - 022 A	M25.1-CAU Inlet Run 2C	Trap #	059
Run #2B			
A 027 - 021 B	M25.1-CAU Inlet Run 2D	Tank #	T-7
A 027 - 022 B	M25.1-CAU Inlet Run 2D	Trap #	085
Run #3A			
A 027 - 031 A	M25.1-CAU Inlet Run 3A	Tank #	1
A 027 - 032 A	M25.1-CAU Inlet Run 3A	Trap #	065
Run #3B			
A 027 - 031 B	M25.1-CAU Inlet Run 3B	Tank #	19
A 027 - 032 B	M25.1-CAU Inlet Run 3B	Trap #	074

Lab # A027

Page 1 of 1

Almega ENVIRONMENTAL an ALLIANCE COMPANY

CHAIN OF CUSTODY RECORDS

INVOICE TO:

REPORT TO:

ALLIANCE Source Testing
10602 Walker St.
Cypress, CA 90630
(714) 889-4000 Fax (714) 889-7030
Doug.Williams@stacktest.com
Contact:

ATTN: ap@stacktest.com

PO # 2021-0883

Turnaround Time
Standard: X Other:
Rush:
Depends on # of Samples
5 - 10 days
3 - 7 days

Job # 21-0883 | Unit # | Client: All American | Location: CAU

Samplers: (Signature)

Project Manager: Austin Keough

Unit Information: Carbon Bed Inlet/Outlet

Sample Date	Sample Time	Sample Identification	Lab Sample #	Type Of Sample: LIQUID	GAS	SOLID	No of Container s	ANALYSIS REQUESTED: 25.1 Trap	25.1 Tank	25.3 Trap	25.3 Tank	Return or Dispose / REMARKS
3/17	6:15 - 7:15	M25.1 - CAU Inlet ~~TRAP~~ - Run 1A	Tank: T-17 ; Trap: TP110 .	X	X		2	X	X	A027 -01A/02A		
3/17	6:15 - 7:15	M25.1 -CAU Inlet ~~TANK~~ - Run 1B	Tank: T-10 ; Trap: TP066 ;	X	X		2	X	X	-01B/02B		
3/18	1016 - 1116	M25.1 -CAU Inlet ~~TRAP~~ - Run 2A	Tank: T-1 ; Trap: 059 .	X	X		2	X	X	02A/02A		Hold 2A/2B samples
3/18	1016 - 1116	M25.1 -CAU Inlet ~~TANK~~ - Run 2B	Tank: T-7 ; Trap: 085 ;	X	X		2	X	X	-02B/02B		Low vacuum canister
3/19	900 - 1000	M25.1 -CAU Inlet ~~TRAP~~ - Run 3A	Tank: 1 ; Trap: 065 .	X	X		2	X	X	-03A/02A		
3/19	900 - 1000	M25.1 CAU Inlet ~~TANK~~ - Run 3B	Tank: 14 ; Trap: 074 .	X	X		2	X	X	-03B/02B		
3/17	6:15 - 7:15	M25.3 CAU Outlet ~~TRAP~~ - Run 1A	Tank: 54083 ; Trap: 1 ;	X	X		2			X	X	-04A/04A
3/17	6:15 - 715	M25.3 CAU Outlet ~~TANK~~ - Run 1B	Tank: 4111 ; Trap: 2 .	X	X		2			X	X	-04B/04B
3/18	1016 - 1116	M25.3 CAU Outlet ~~TRAP~~ - Run 2A	Tank: 54116 ; Trap: 7 .	X	X		2	-05A/05A		X	X	Hold 2A/2B samples
3/18	1016 - 1116	M25.3 CAU Outlet ~~TANK~~ - Run 2B	Tank: 5050 ; Trap: 8 ;	X	X		2	-05B/05B		X	X	Low vacuum canister
3/19	900 - 1000	M25.3 CAU outlet ~~TRAP~~ - Run 3A	Tank: A127 ; Trap: 11 .	X	X		2			X	X	
3/19	900 - 1000	M25.3 CAU Outlet ~~TANK~~ - Run 3B	Tank: 777 ; Trap: 12 .	X	X		2			X	X	-06A/06A
										X	X	-06B/06B

Relinquished by:
Date: 3/19 Time 1500

Received by:
Date: 3/19 Time: 15:0

Relinquished by:
Date: 3/22 Time: 9:30

Received by:
Date: 03/22/21 Time 8:31

Relinquished by:

Received by:

Almega
ENVIRONMENTAL

Standard Receipt
Sample LOG in Checklist

Project No: 21-0885

Method: m25.1 / m25.3

Lab ID: 2024

Sampling Date: 3/17 - 3/19

Location: AAA Int:

Date & Time Rc'd: 3/22/21 8:31

Location: LAB Int: 2nd

Arrived By: (circle) FedEx UPS Drop Off (Int) 2nd Other

Condition of Package(s): (comment): ok

Package Type: Box (Cooler) Other:

Number of Sample Container(s): ~~12~~ 12

Correct Containers (per Method): (Y) N

Preservation: (circle) (ICE) ~~DryICE~~ ICEPacks None

Sample Conditions:

Sample Temp (C): 4.2

Ambient Temp (C): 21

Sample Temp (C): -9.9

Filter Condition: —

PH :

Components Sealed: (Y) N

Sample Recovery Completed On: (date & time)

Recovered In: (circle) (Field) Lab Other

Silica Gel Condition:

Tedlar Bags -
Condensation: Y N

Comments:

Container(s) Requested: Glass Plastic

Additional Comments:

CHROMATOGRAM

TEST SAMPLES

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\MasterF SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:27 Calculation Date: 2021-03-30 15:47

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.537	0.024	36475	VV	1.7	
2	Carbon Dioxi	395.5534	3.775	0.335	3635663	BB	16.3	
3	Ethane	10.1590	7.495	0.119	95882	BB	26.3	
	Totals:	405.7124		0.478	3768020			

Total Unidentified Counts : 242964 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 17 microVolts - monitored before this run

Manual injection

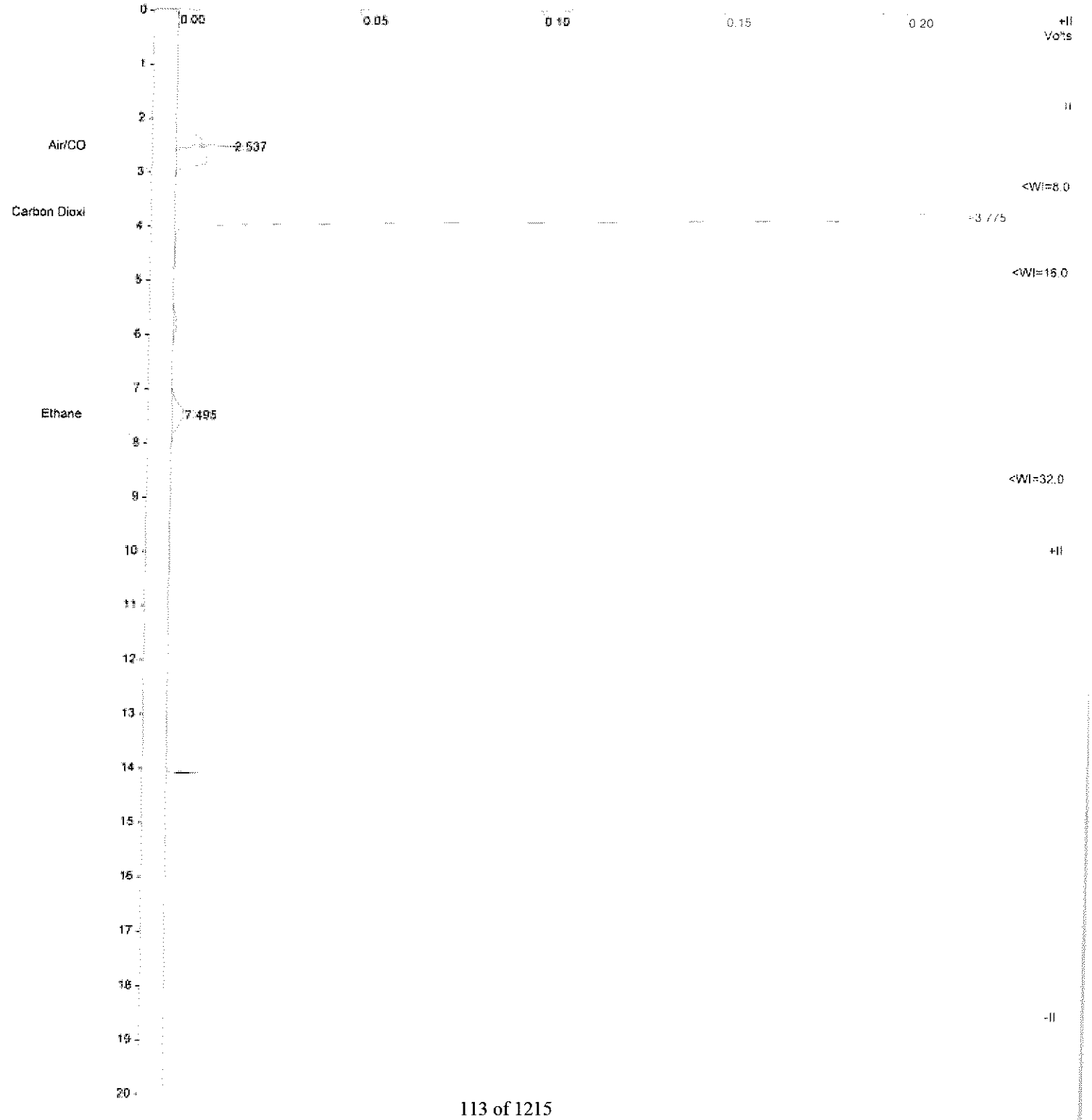
Title :
Run File : c:\bruker\ws\data\2021\mar 21\2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:27 Calculation Date: 2021-03-30 15:47

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5E Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02C37-37C1-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05 05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 copy-middle.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:27 Calculation Date: 2021-04-06 10:07

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.50	5.432	0.072	26622	BV	16.3	
2	Carbon Monox	15.58	6.149	0.284	26953	VB	20.8	
3	NMNEOC	129.90	16.545	-0.634	2626026	BB	66.1	
	Totals:	161.98		-0.278	2679601			

Total Unidentified Counts : 4520 counts

Detected Peaks: 12 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 1

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

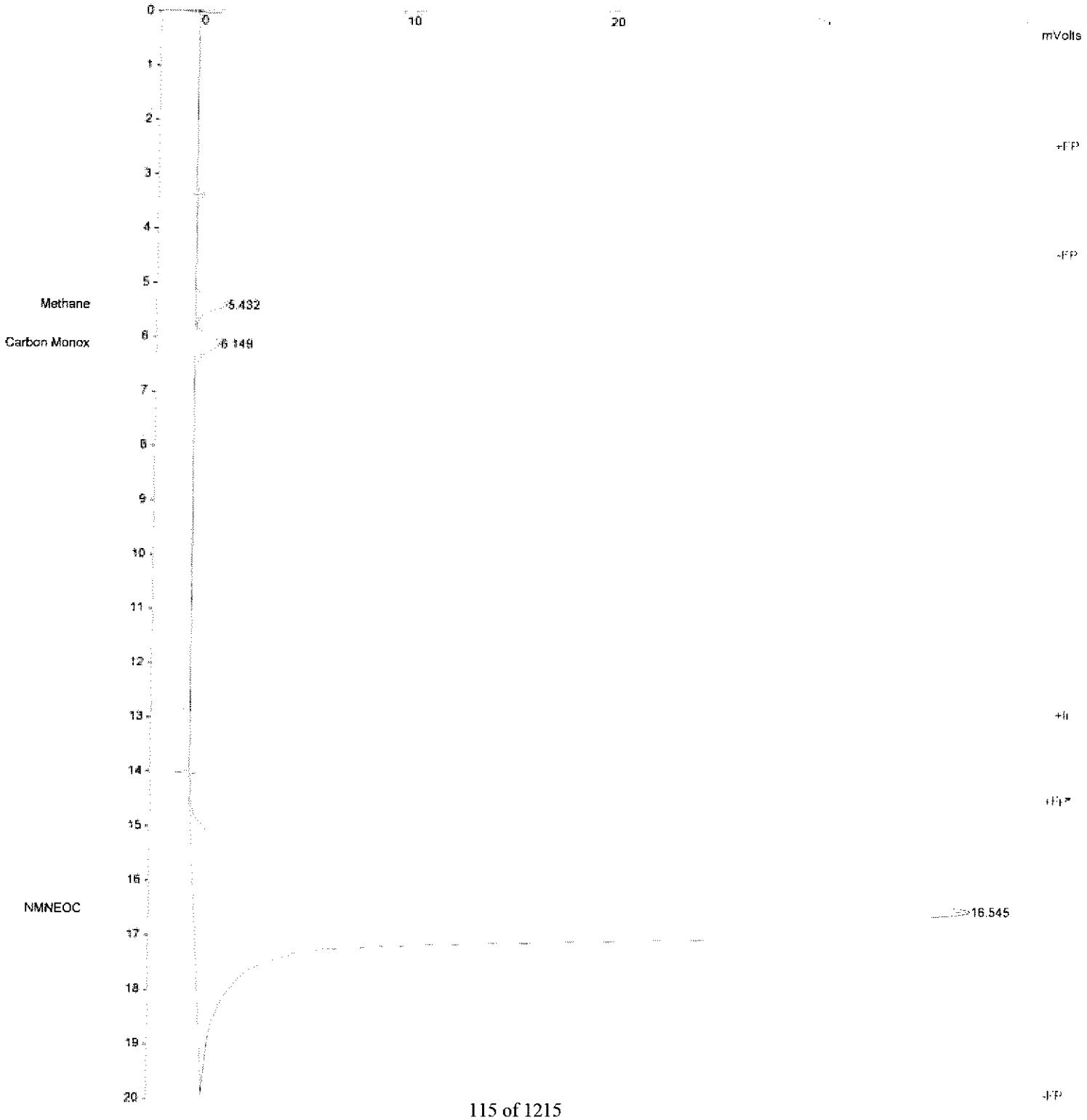
Title :
Run File : c:\bruker\ws\data\2021\mar 21\2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqacmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqacmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:27 Calculation Date: 2021-04-06 10:07

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL53 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSMS 8.0.1 for SCION Version 8.0.1 ** 02057-37001-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 98
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021 03-30 15-53-17 a 027 - 011 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:53 Calculation Date: 2021-03-30 16:13

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.537	0.024	36521	VV	1.7	
2	Carbon Dioxi	395.7684	3.774	0.334	3637639	BB	16.3	
3	Ethane	10.1918	7.494	0.118	96191	BB	26.3	
	Totals:	405.9602		0.476	3770351			

Total Unidentified Counts : 242546 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

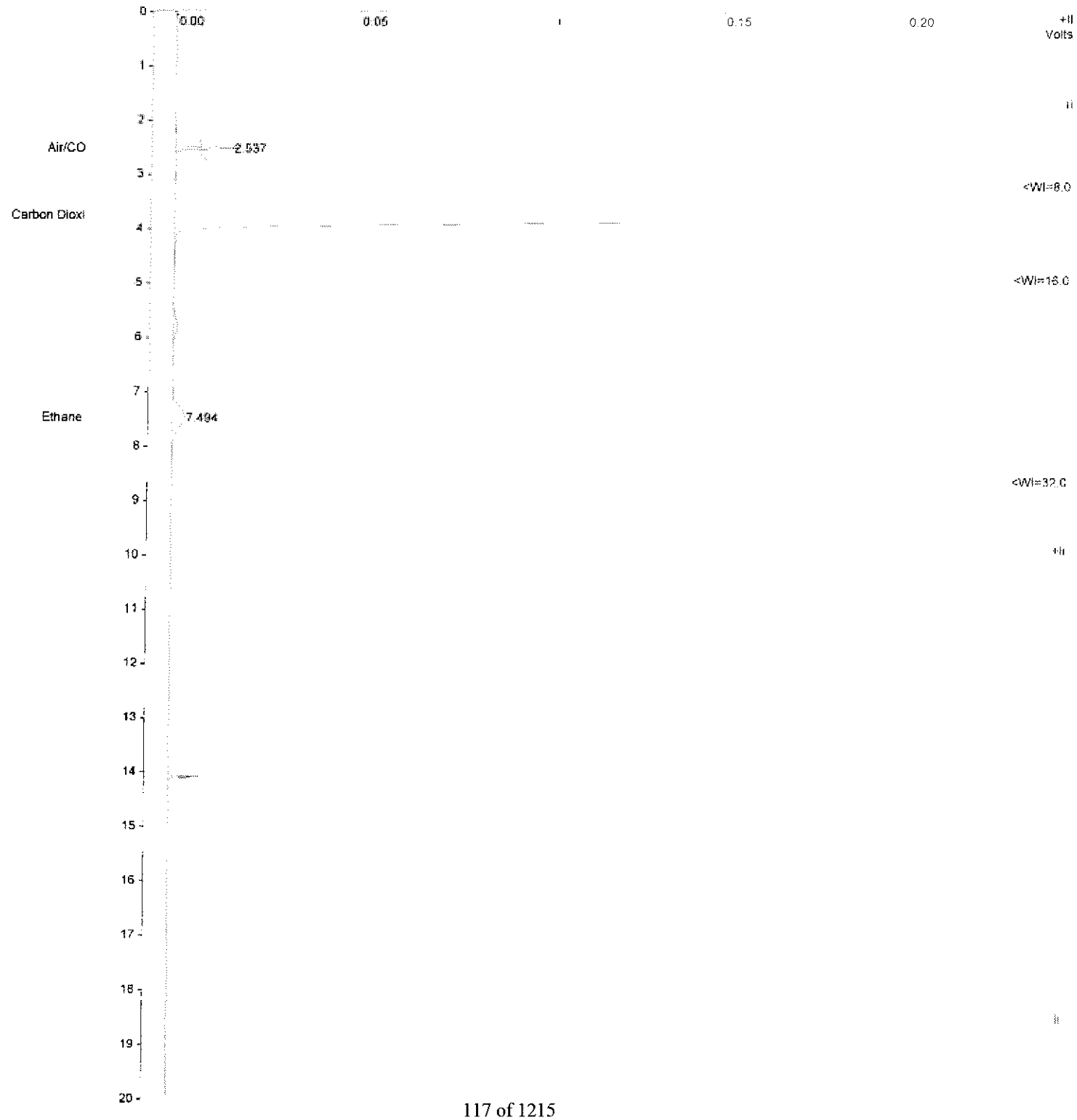
Title :
Run File : c:\bruker\ws\data\2021\mar_21\2021-03-30 15-53-17 a 027 - 011 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:53 Calculation Date: 2021-03-30 16:13

Operator : Douglass W. Detector Type: 4XX-GC (1030 Volts)
Workstation: DESKTOP-6VL5R Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A3I-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Print Date: Tue Apr 06 10:08:07 2021 Page : of :

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 15-53-17 a 027 - 011 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 A

Injection Date: 2021-03-30 15:53 Calculation Date: 2021-04-06 10:07

Operator : Douglass W. Detector Type: 4XX-GC (1000 vo.LS)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.53	5.432	0.072	26667	BV	16.3	
2	Carbon Monox	15.70	6.150	0.285	27158	VB	20.6	
3	NMNEOC	130.82	16.548	-0.631	2644497	BB	66.1	
	Totals:	163.05		-0.274	2698322			

Total Unidentified Counts : 4533 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

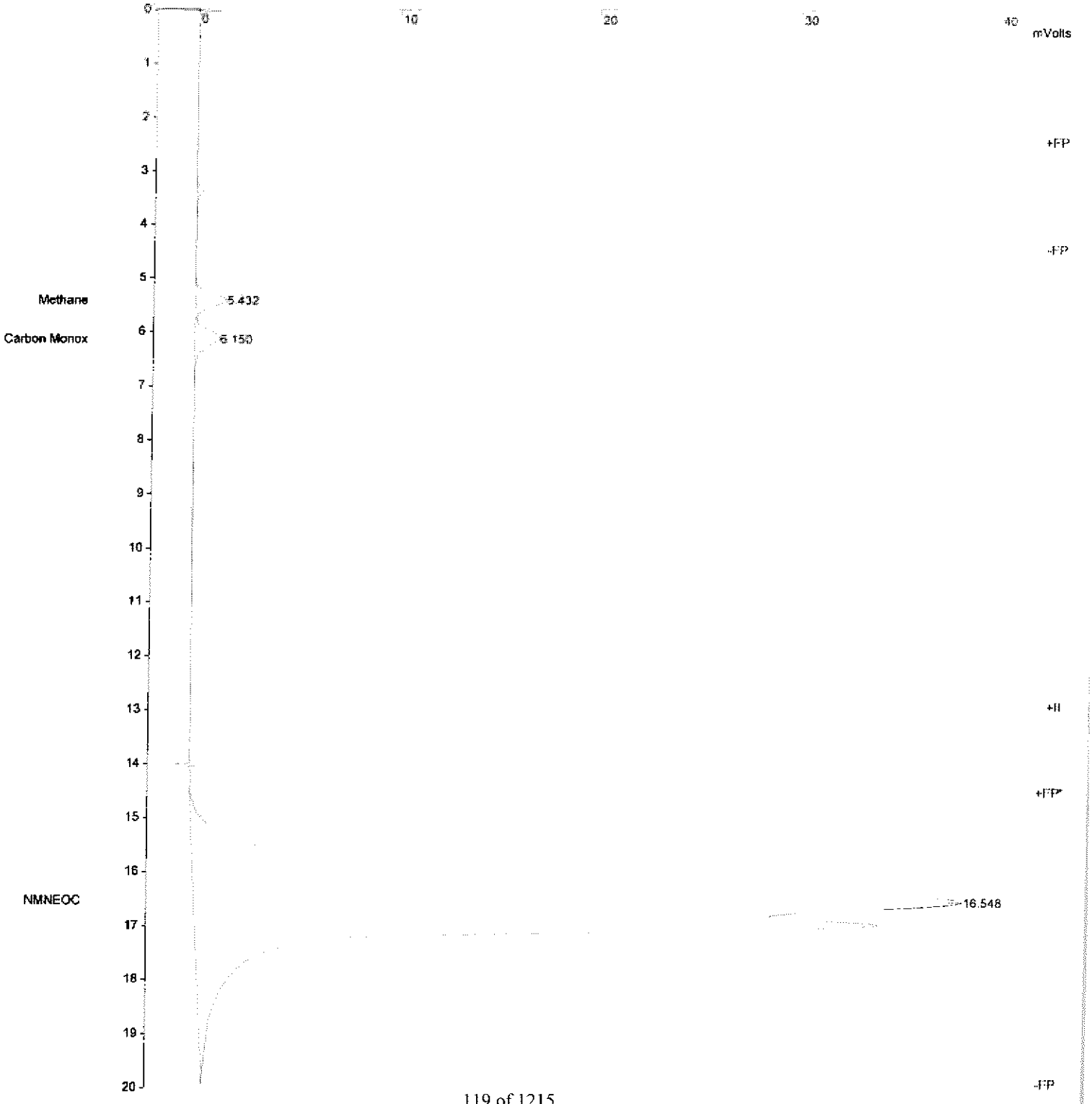
Title :
Run File : c:\bzukerws\data\2021\maz 21\2021-03-30 15-53-17 a 027 - Oil a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - Oil a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - Oil A

Injection Date: 2021-03-30 15:53 Calculation Date: 2021-04-06 10:07

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02957-3701-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-19-37 a 027 - 011 b inj 1 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:19 Calculation Date: 2021-03-30 16:39

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	37952	VV	1.8	
2	Carbon Dioxi	417.5193	3.777	0.337	3837501	BB	16.3	
3	Ethane	10.2715	7.498	0.122	96943	BB	26.3	
	Totals:	427.7908		0.484	3972396			

Total Unidentified Counts : 248376 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 7 microVolts - monitored before this run

Manual injection

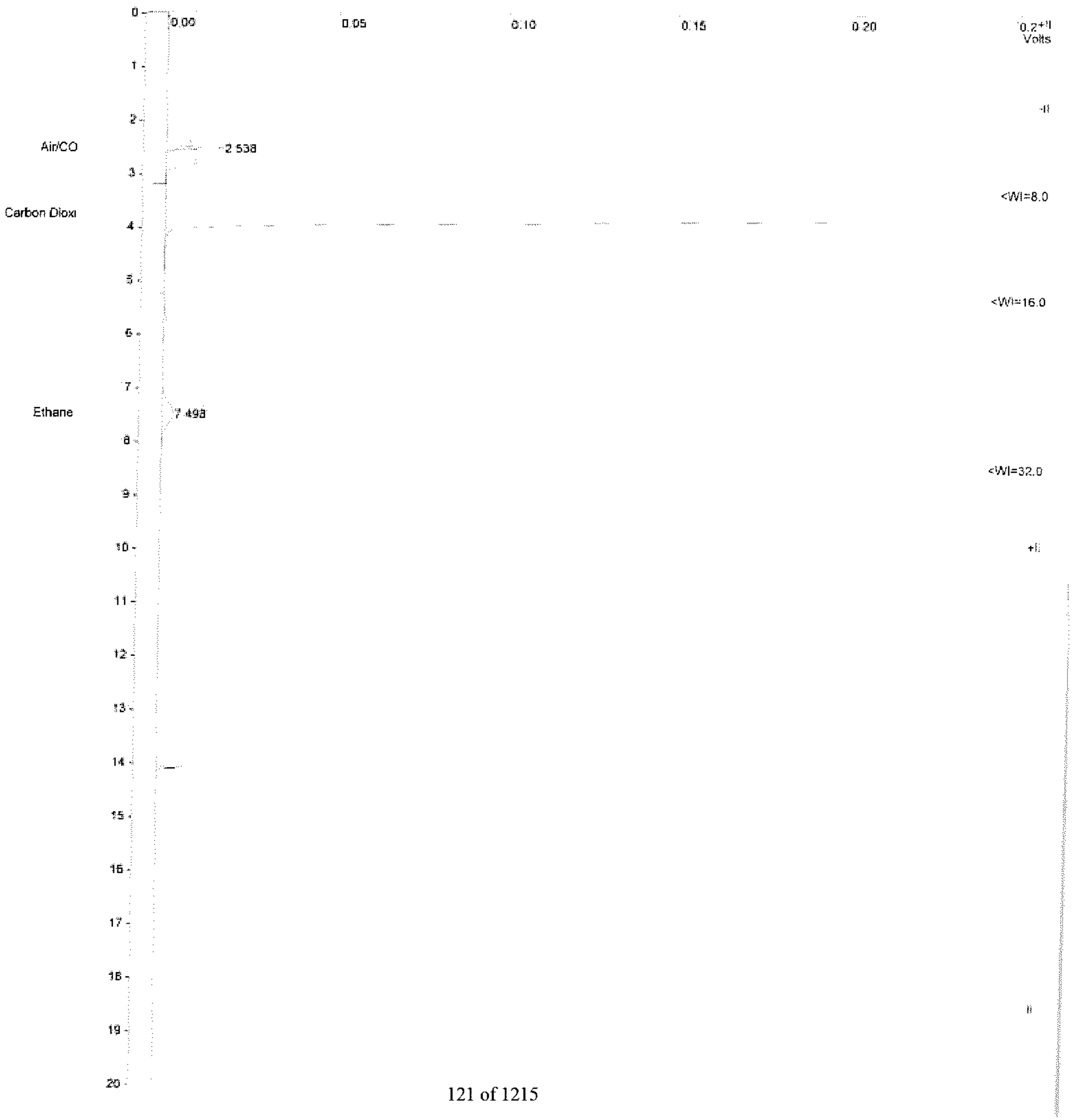
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-19-37 a 027 - 011 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:19 Calculation Date: 2021-03-30 16:39

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VJ5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-19-37 a 027 - 011 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:19 Calculation Date: 2021-04-06 10:08

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.81	5.432	0.072	27128	BV	16.3	
2	Carbon Monox	16.23	6.151	0.286	28090	VB	20.7	
3	NMNEOC	138.62	16.535	-0.644	2802248	BB	65.2	
	Totals:	171.66		-0.286	2857466			

Total Unidentified Counts : 4717 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 20 microVolts

Manual injection

****

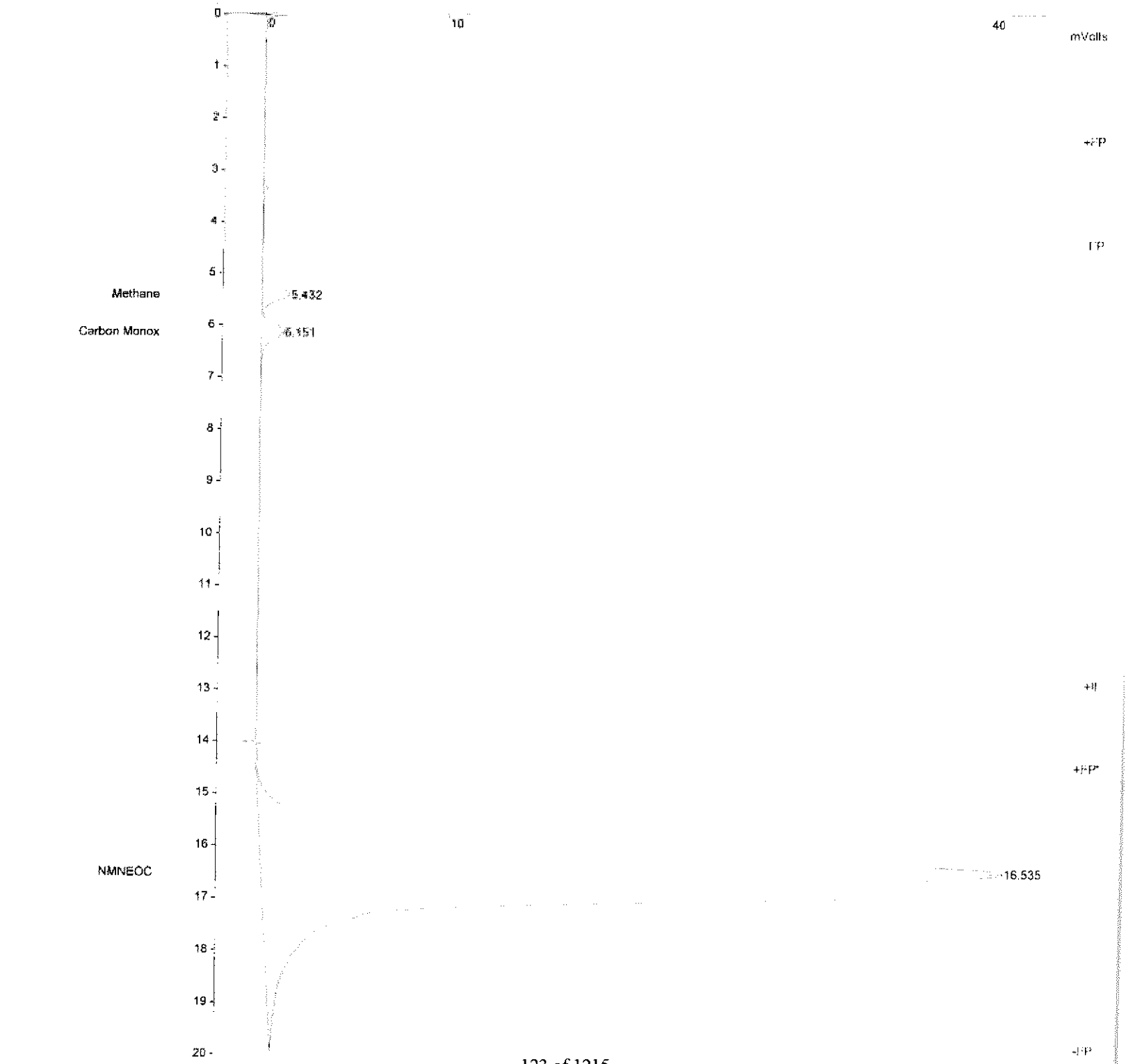
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 16-19-37 a 027 - 011 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy-middle.mch
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:19 Calculation Date: 2021-04-06 10:08

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VE5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.3.1 for SCION Version 8.3.1 ** C2057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-45-50 a 027 - 011 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:45 Calculation Date: 2021-03-30 17:05

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	37596	VV	1.7	
2	Carbon Dioxi	417.4984	3.776	0.336	3837309	BB	16.3	
3	Ethane	10.3197	7.496	0.120	97398	BB	26.3	
	Totals:	427.8181		0.481	3972303			

Total Unidentified Counts : 247359 counts

Detected Peaks: 10 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 7 microVolts - monitored before this run

Manual injection

****

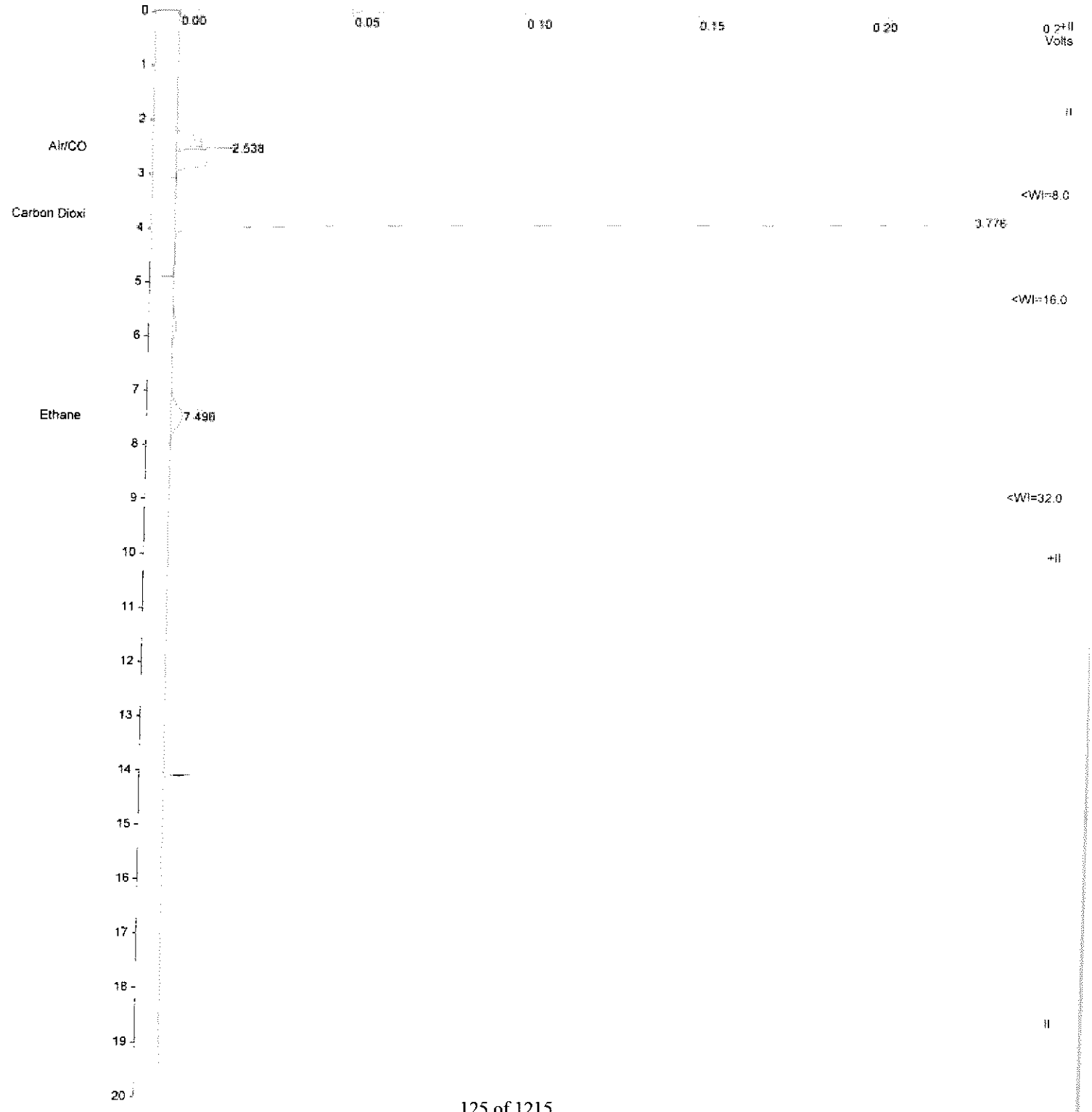
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-45-50 a 027 - 011 b inj 2 - master seqcmd 25.3 3 ml loop 03-05-20 tcdrange5 - copy.run
Method File : C:\BrukerNS\methods\Master SQACMD 25.3 3 ml loop 03-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:45 Calculation Date: 2021-03-30 17:05

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-5VL59 Bus Address : 44
Instrument : Lotus NMGC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37C1-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-45-50 a 027 - 011 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:45 Calculation Date: 2021-04-06 10:08

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Station Codes
1	Methane	16.99	5.434	0.074	27421	BV	16.3	
2	Carbon Monox	16.46	6.154	0.289	28477	VB	20.7	
3	NMNEOC	139.62	16.552	-0.627	2822374	BB	65.6	
	Totals:	173.07		-0.264	2878272			

Total Unidentified Counts : 4443 counts

Detected Peaks: 9 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

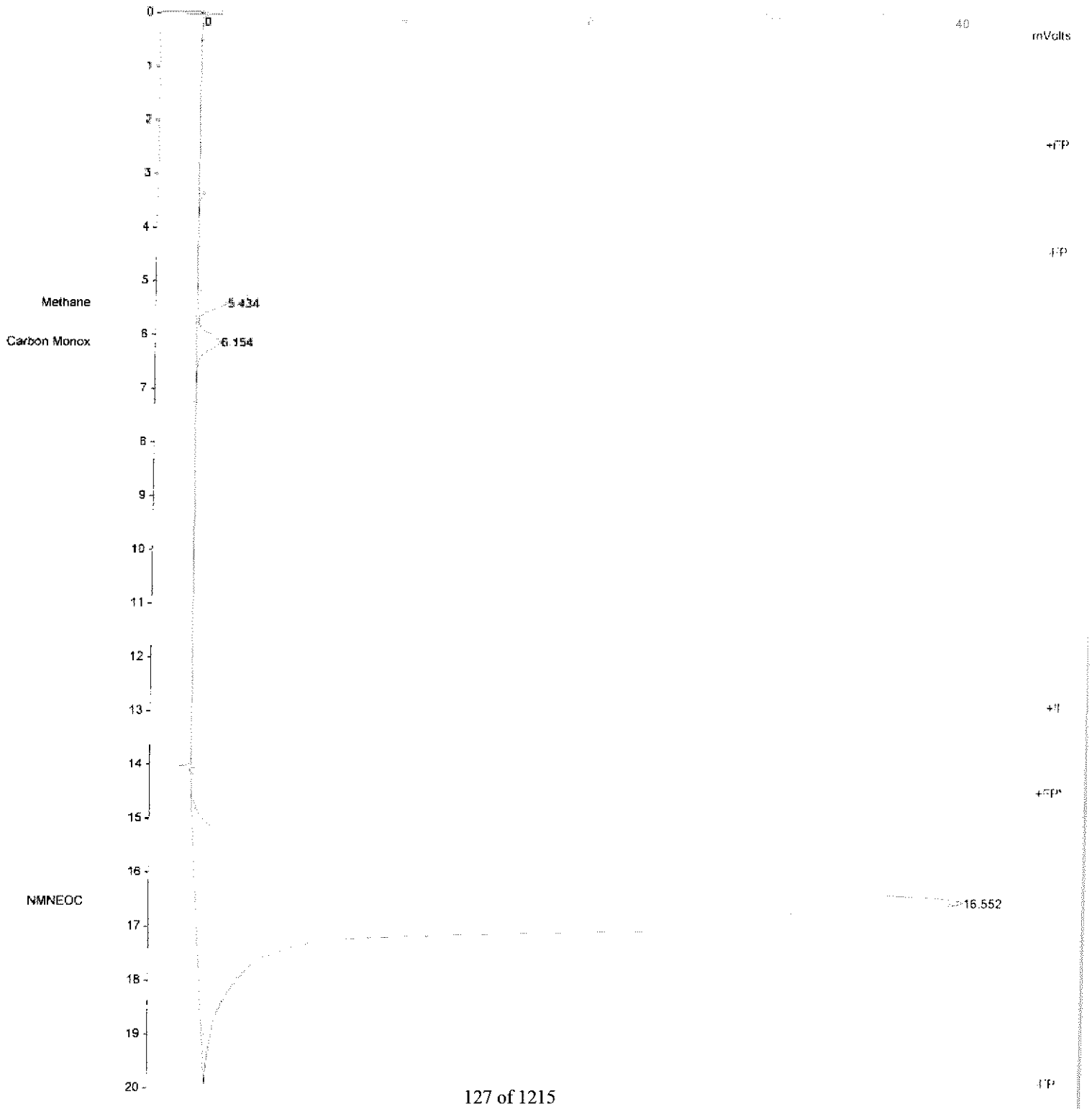
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-45-50 a 027 - 011 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 16-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 16:45 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MNCC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.3.1 for SCION Version 8.3.1 ** 02357-3701-A351-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-12-09 a 027 - 021 a inj 1 - master sqaqmd 35.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:12 Calculation Date: 2021-03-30 17:32

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	75604	VV	1.8	
2	Carbon Dioxi	744.7909	3.775	0.335	6843966	BB	16.3	
3	Ethane	18.6415	7.498	0.122	175885	BB	26.3	
	Totals:	763.4323		0.482	7095655			

Total Unidentified Counts : 476684 counts

Detected Peaks: 8 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

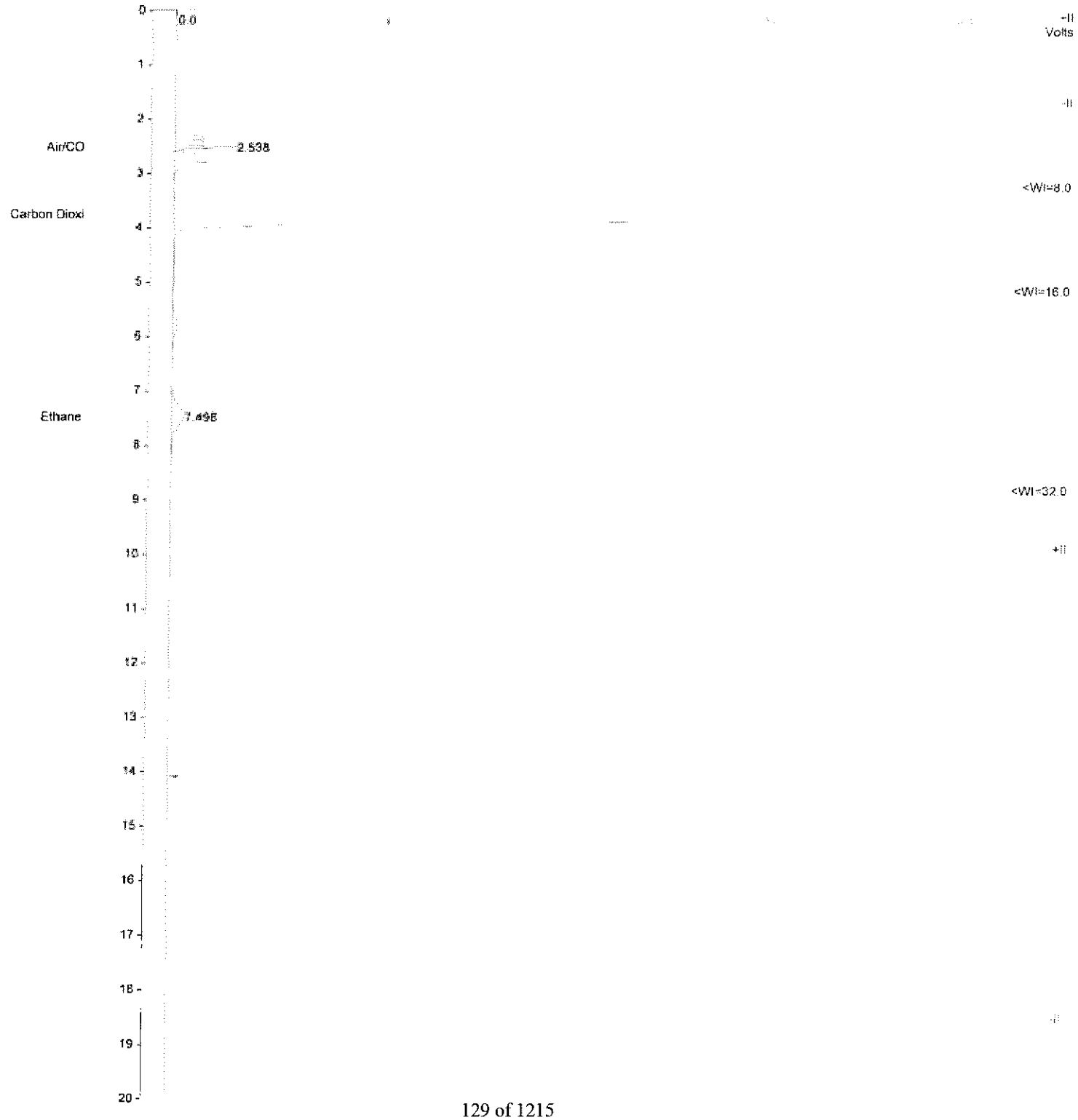
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-12-09 a 027 - 021 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:12 Calculation Date: 2021-03-30 17:32

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VU5B Bus Address : 44
Instrument : Lotus XXGC Sample Rate : 5.00 Hz
Channel : Front - TCD Run Time : 20.000 min

** MSWS 8.3.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-12-09 a 027 - 021 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:12 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	29.90	5.434	0.074	48244	BV	16.3	
2	Carbon Monox	30.98	6.151	0.286	53609	VB	20.5	
3	NMNEOC	212.19	16.968	-0.211	4289436	BB	71.5	
	Totals:	273.07		0.149	4391289			

Total Unidentified Counts : 4902 counts

Detected Peaks: 11 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 36 microVolts

Manual injection

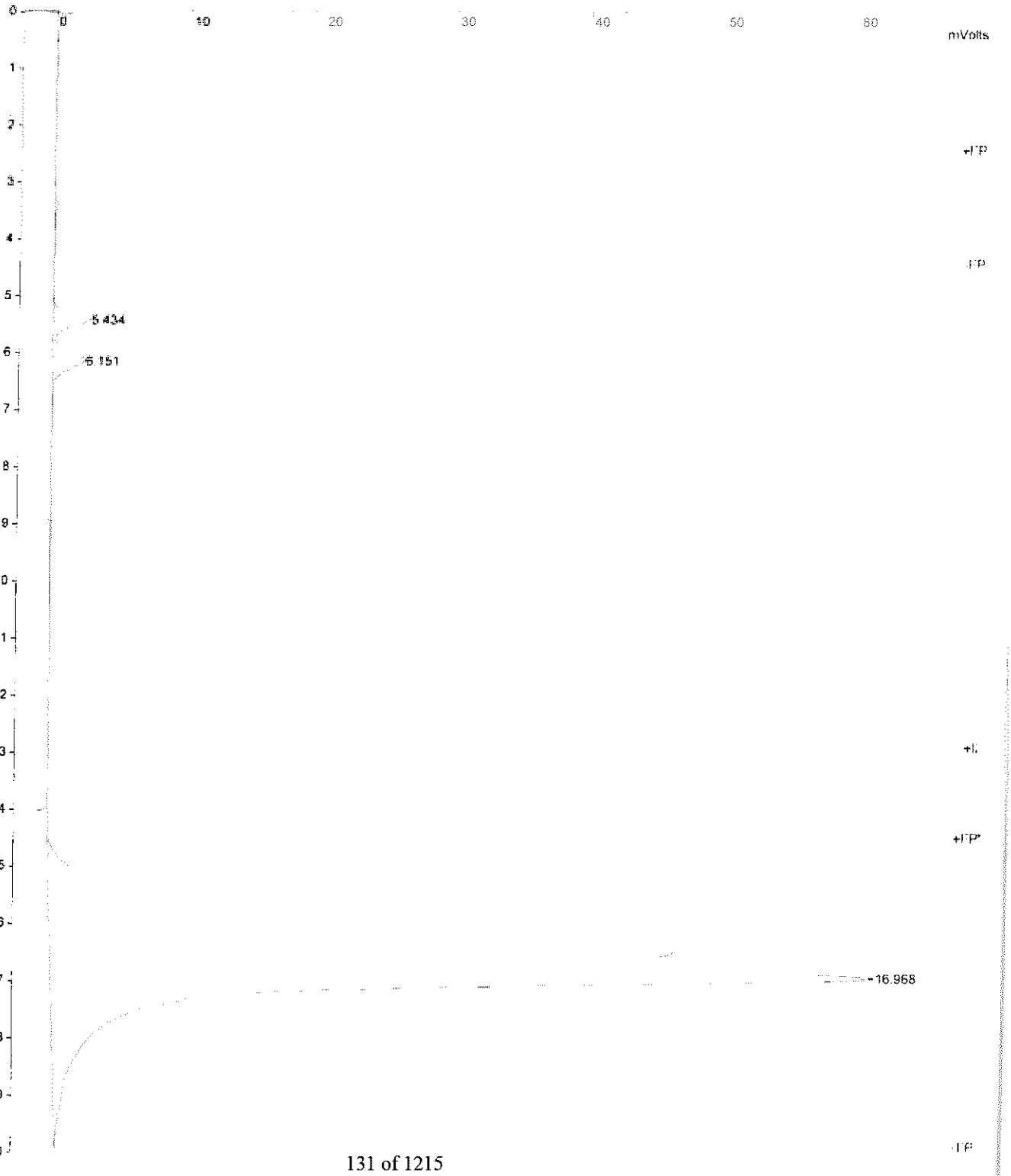
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-12-09 a 027 - 021 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:12 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4EX-GC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37021-ABE1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-38-22 a 027 - 021 a inj 2 - master aqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:38 Calculation Date: 2021-03-30 17:58

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	75140	VV	1.7	
2	Carbon Dioxi	744.1768	3.777	0.337	6838327	BB	16.4	
3	Ethane	18.6573	7.497	0.121	176034	BB	26.3	
	Totals:	762.8341		0.483	7089501			

Total Unidentified Counts : 477597 counts

Detected Peaks: 19 Rejected Peaks: 11 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 4 microVolts - monitored before this run

Manual injection

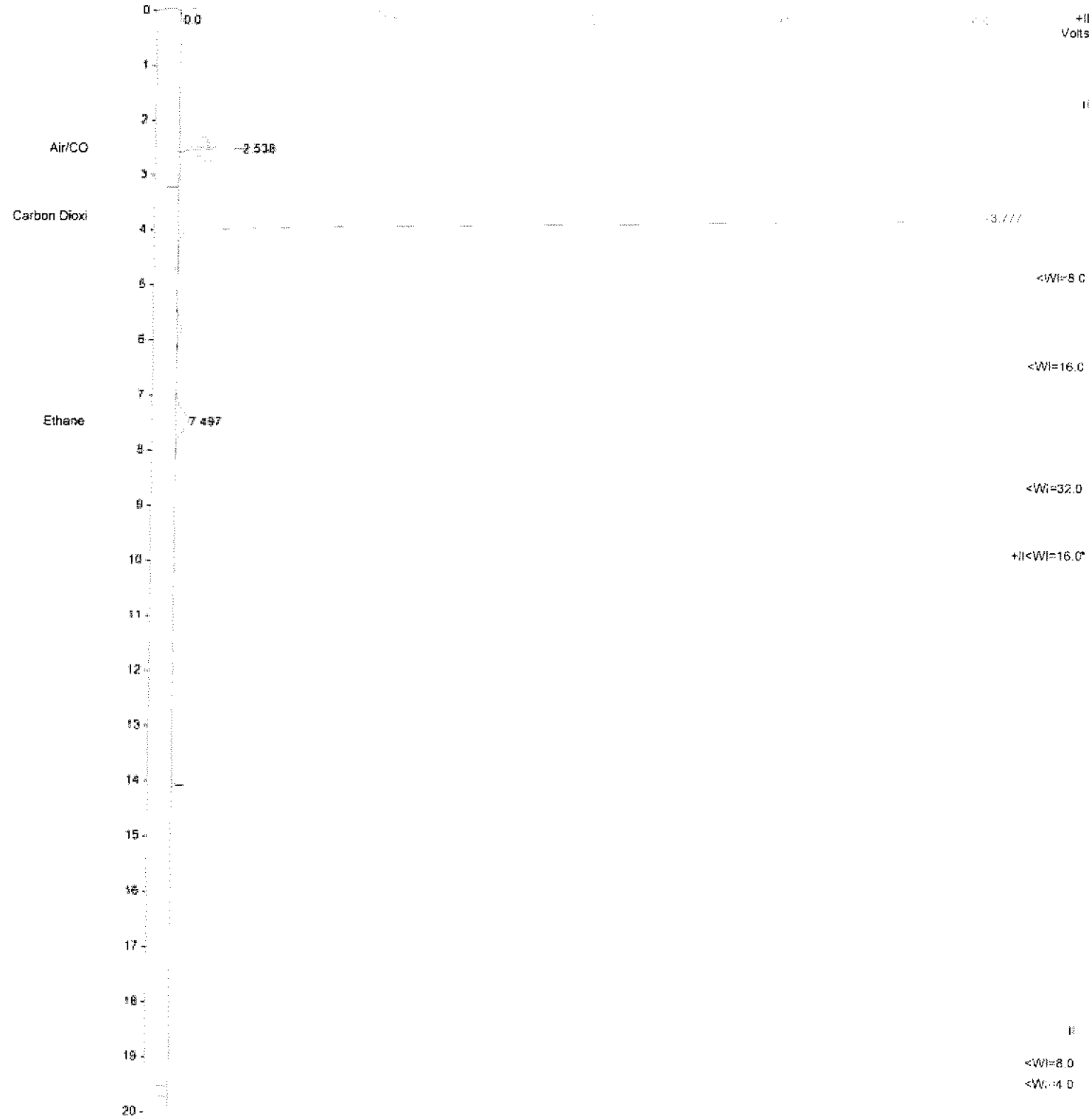
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-38-22 a 027 - 021 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tccrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCCrange5 - Copy.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:38 Calculation Date: 2021-03-30 17:58

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus XMGC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : C:\Brukerws\data\2021\mar_21\2021-03-30 17-38-22 a 027 - 021 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:38 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	29.95	5.433	0.073	48320	BV	16.3	
2	Carbon Monox	31.10	6.151	0.286	53809	VB	20.5	
3	NMNEOC	212.42	16.962	-0.217	4294204	BB	71.4	
	Totals:	273.47		0.142	4396333			

Total Unidentified Counts : 5009 counts

Detected Peaks: 11 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual Injection

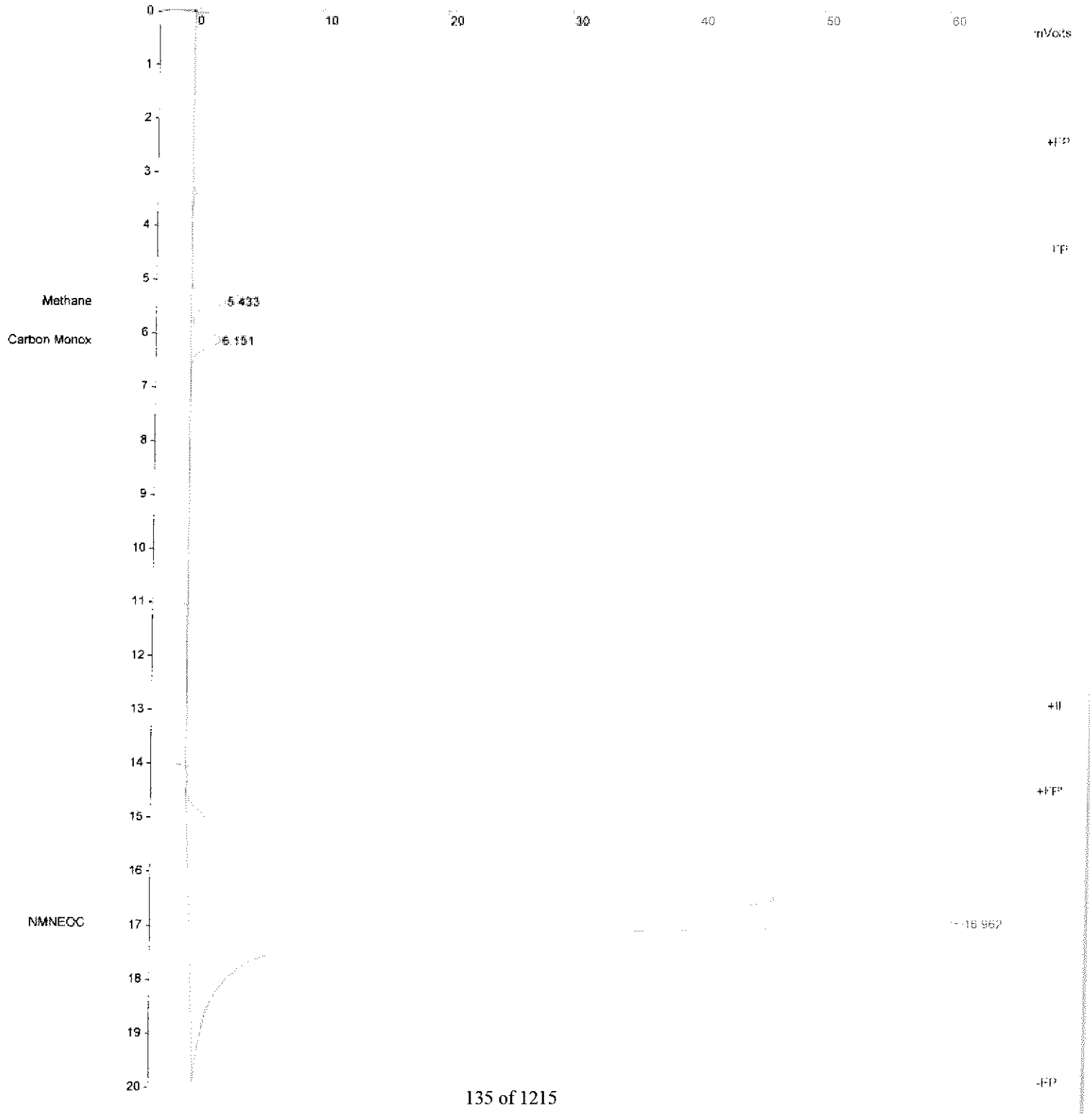
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 17-38-22 a 027 - 021 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 A

Injection Date: 2021-03-30 17:35 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VE5B Bus Address : 46
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** C2057-3701-A81-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 18
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-04-37 a 027 - 021 b inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:04 Calculation Date: 2021-03-30 18:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.536	0.023	66730	VV	1.7	
2	Carbon Dioxi	669.8495	3.775	0.335	6155642	BB	16.4	
3	Ethane	16.3499	7.499	0.123	154277	PB	28.2	
	Totals:	686.1994		0.481	6376649			

Total Unidentified Counts : 421144 counts

Detected Peaks: 9 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

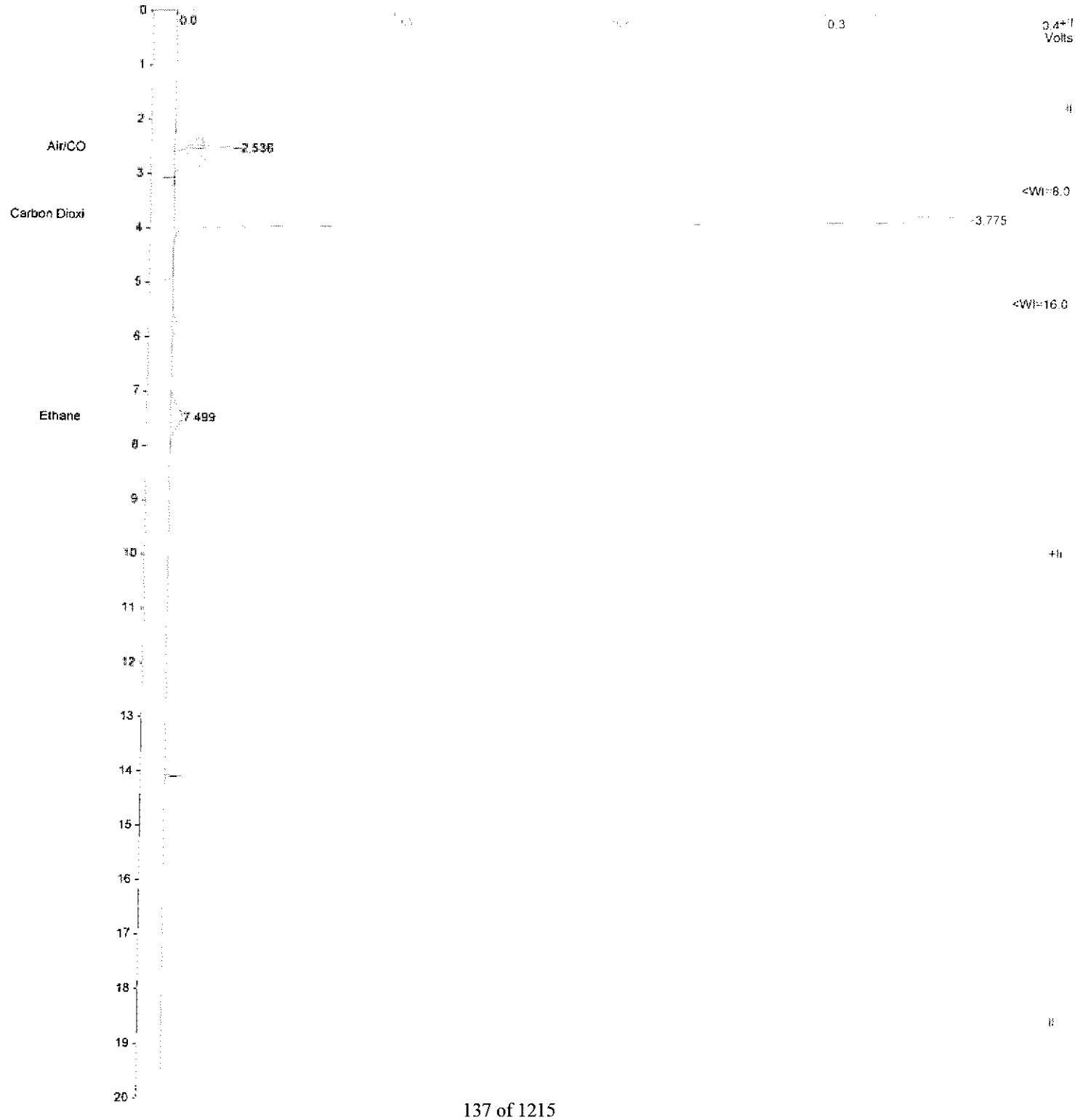
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-04-37 a 027 - 021 b inj 1 - master sqaqmd 25.3 3 ml loop 03-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 03-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:04 Calculation Date: 2021-03-30 18:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL3B Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCIOK Version 5.0.1 ** 02057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-04-37 a 027 - 021 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:04 Calculation Date: 2021-04-06 10:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	26.39	5.434	0.074	42585	BV	16.3	
2	Carbon Monox	27.42	6.152	0.287	47453	VB	20.7	
3	NMNEOC	237.11	16.955	-0.224	4793255	BB	74.2	
	Totals:	290.92		0.137	4883293			

Total Unidentified Counts : 2194 counts

Detected Peaks: 10 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

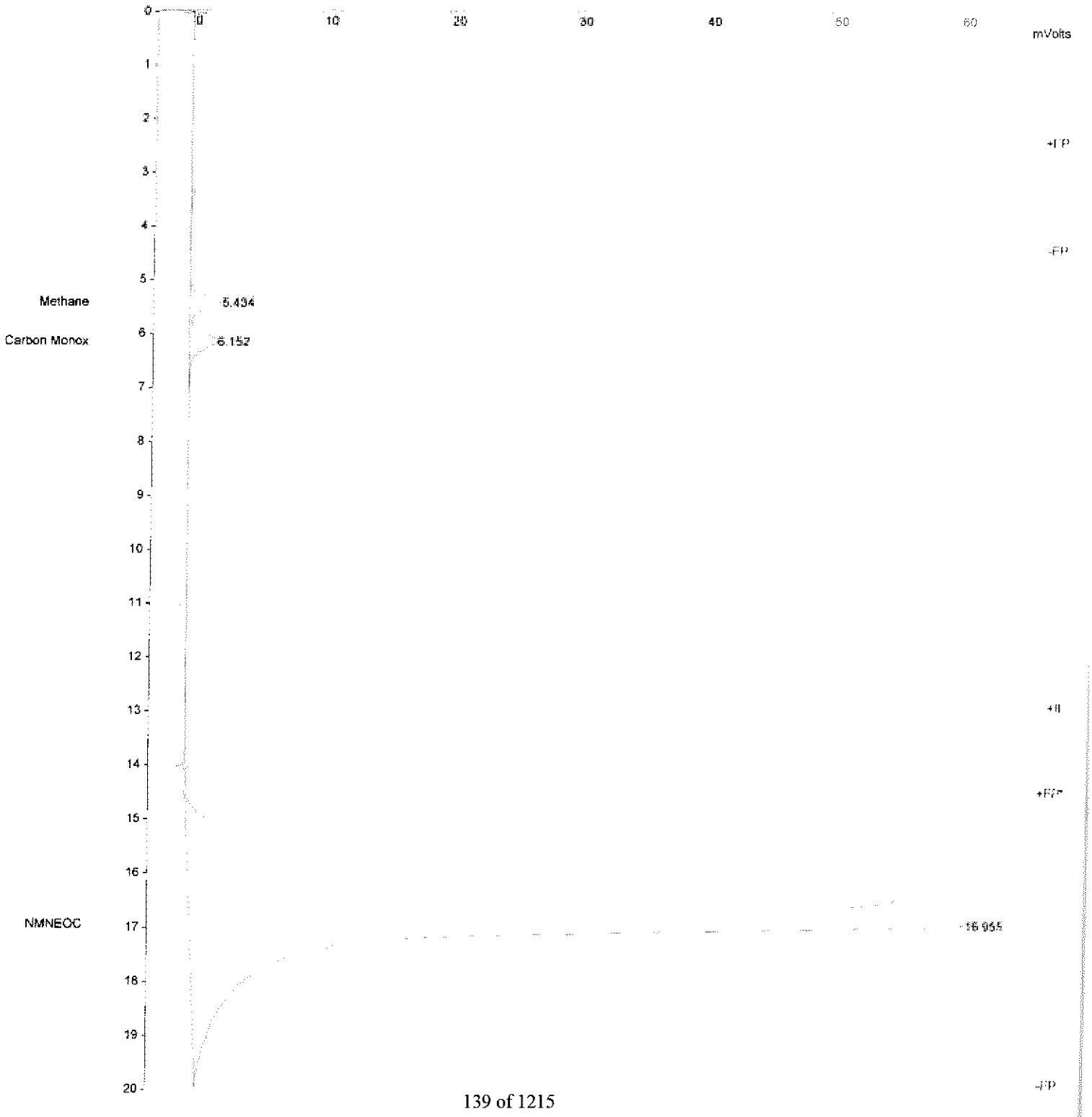
Title :
Run File : o:\btrikeews\data\2021\mar 21\2021-03-30 18-04-37 a 027 - 021 b inj 1 - master sqaqmc 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : 2021-03-30 15-27-54 a 027 - 011 a inj 1 - master sqaqmc 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:04 Calculation Date: 2021-04-06 10:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = PID Run Time : 20.000 min

** MSWS 8.3.1 for SCION Version 8.0.1 ** 02057-37701-ASI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Print Date: Tue Apr 06 10:24:59 2021 Page 1 of

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-30-48 a 027 - 021 b inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:30 Calculation Date: 2021-03-30 18:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.537	0.024	66442	VV	1.7	
2	Carbon Dioxi	669.7241	3.775	0.335	6154490	BB	16.4	
3	Ethane	16.3504	7.500	0.124	154281	BB	26.3	
	Totals:	686.0745		0.483	6375213			

Total Unidentified Counts : 420271 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - monitored before this run

Manual injection

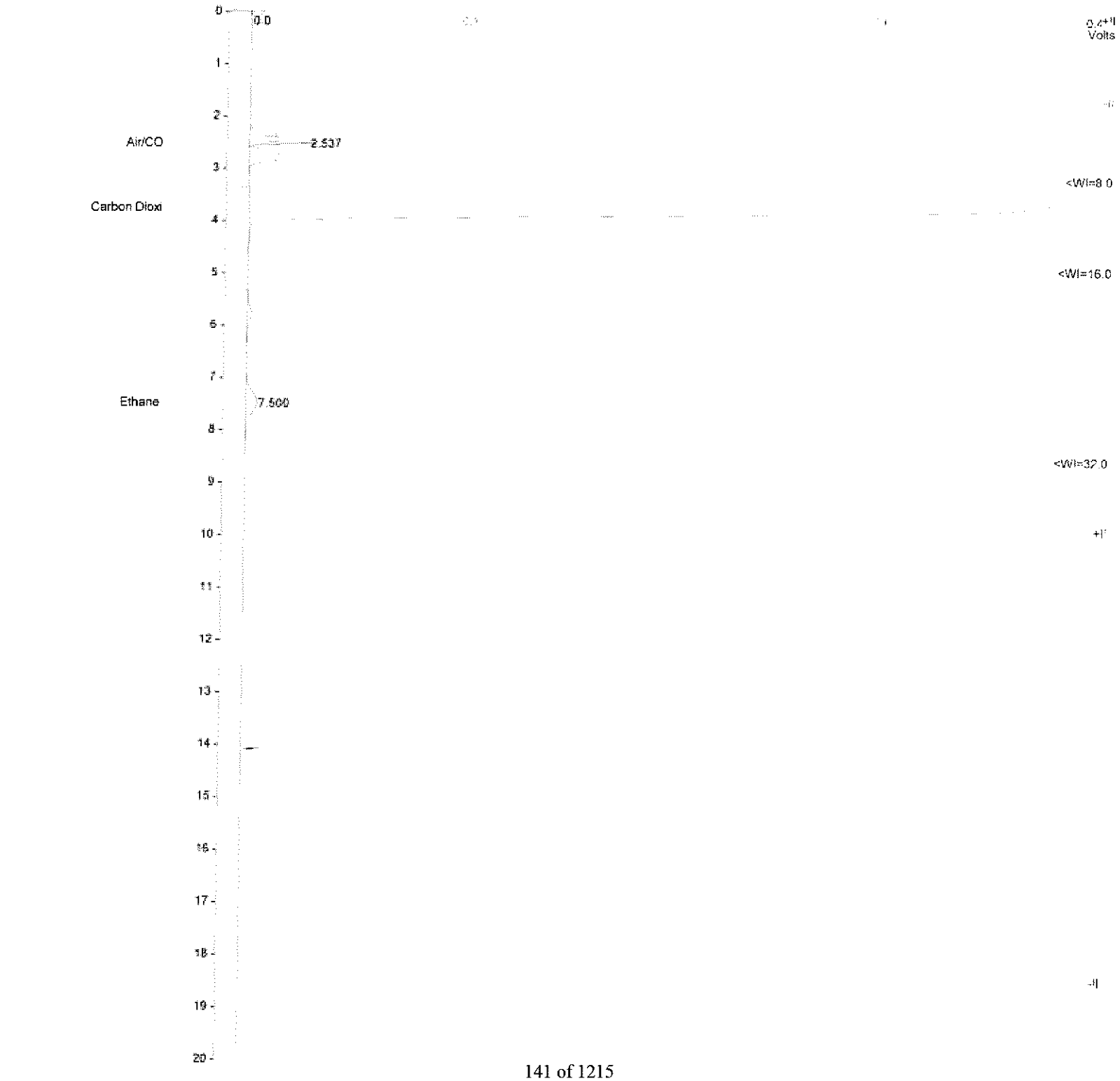
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 18-30-48 a 027 - 021 b inj 2 - master sqaqpm 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQPM 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:30 Calculation Date: 2021-03-30 18:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V7S5 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = PID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 5.99 cm/min Attenuation = 1 Zero Offset = 45
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-30-48 a 027 - 021 B inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 18-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mrb
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:30 Calculation Date: 2021 04-06 10:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	26.40	5.435	0.075	42597	BV	16.3	
2	Carbon Monox	28.08	6.154	0.289	48594	VP	20.6	
3	NMNEOC	236.99	16.952	-0.227	4790850	BB	74.1	
	Totals:	291.47		0.137	4882041			

Total Unidentified Counts : 4119 counts

Detected Peaks: 13 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 22 microVolts

Manual Injection

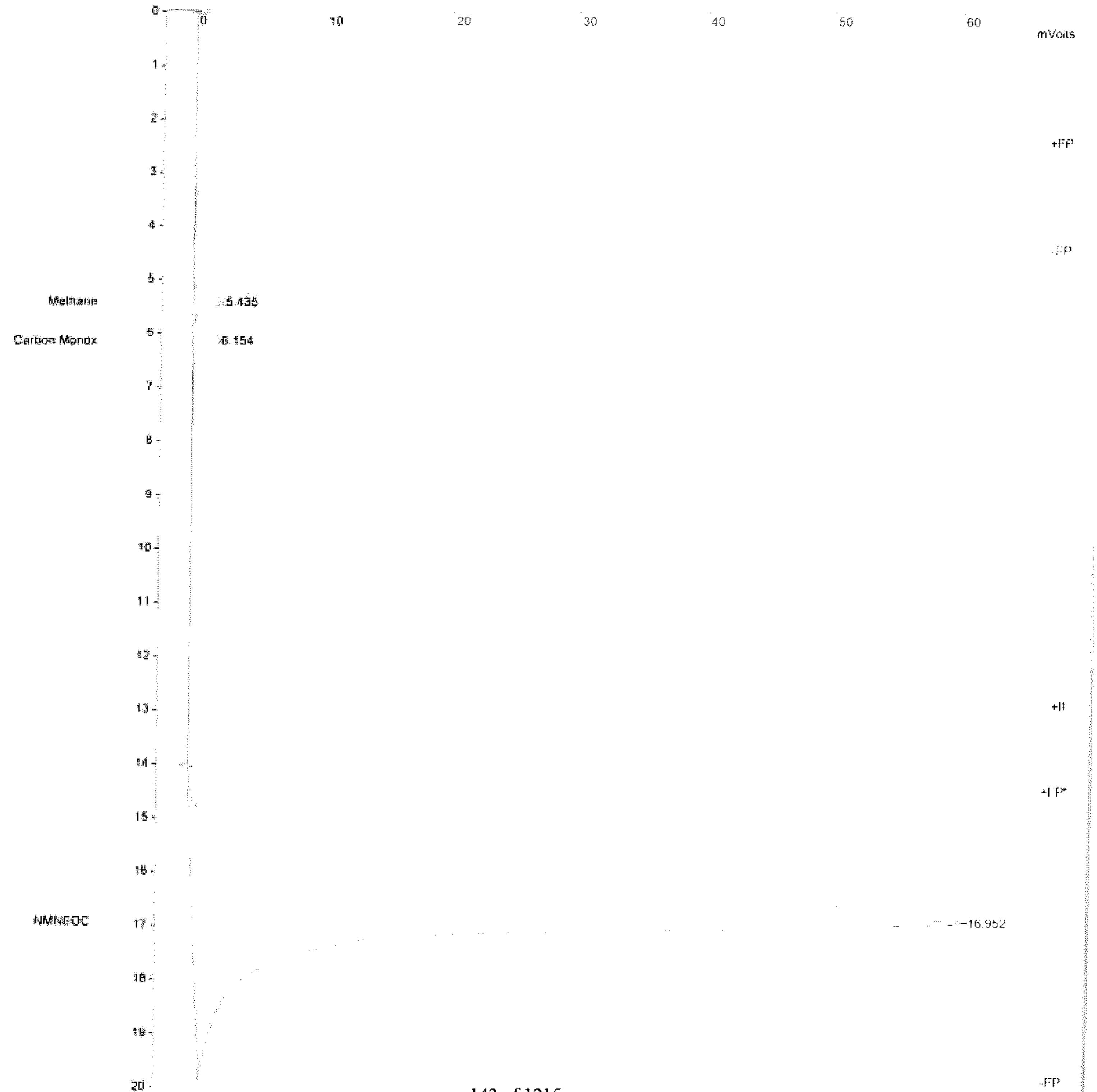
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 18-30-40 a 027 - 021 b inj 2 - master sqagmd 25.2 3 ml loop 05-05-20 codranged - copy.run
Method File : 2021-03-30 15-27-34 a 027 - 011 a inj 1 - master sqagmd 25.2 3 ml loop 05-05-20 codranged - copy-middle.mth
Sample ID : A 027 - 021 B

Injection Date: 2021-03-30 18:30 Calculation Date: 2021-04-06 10:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V2A0 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02557-3701-AB1-415C **

Chart Speed = 0.49 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-57-01 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 09-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 18:57 Calculation Date: 2021-03-30 19:17

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.536	0.023	42198	VV	1.7	
2	Carbon Dioxi	565.4925	3.773	0.333	5197019	BB	16.3	
3	Ethane	6.0838	7.496	0.120	57428	BB	26.3	
	Totals:	571.5763		0.476	5296645			

Total Unidentified Counts : 283640 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

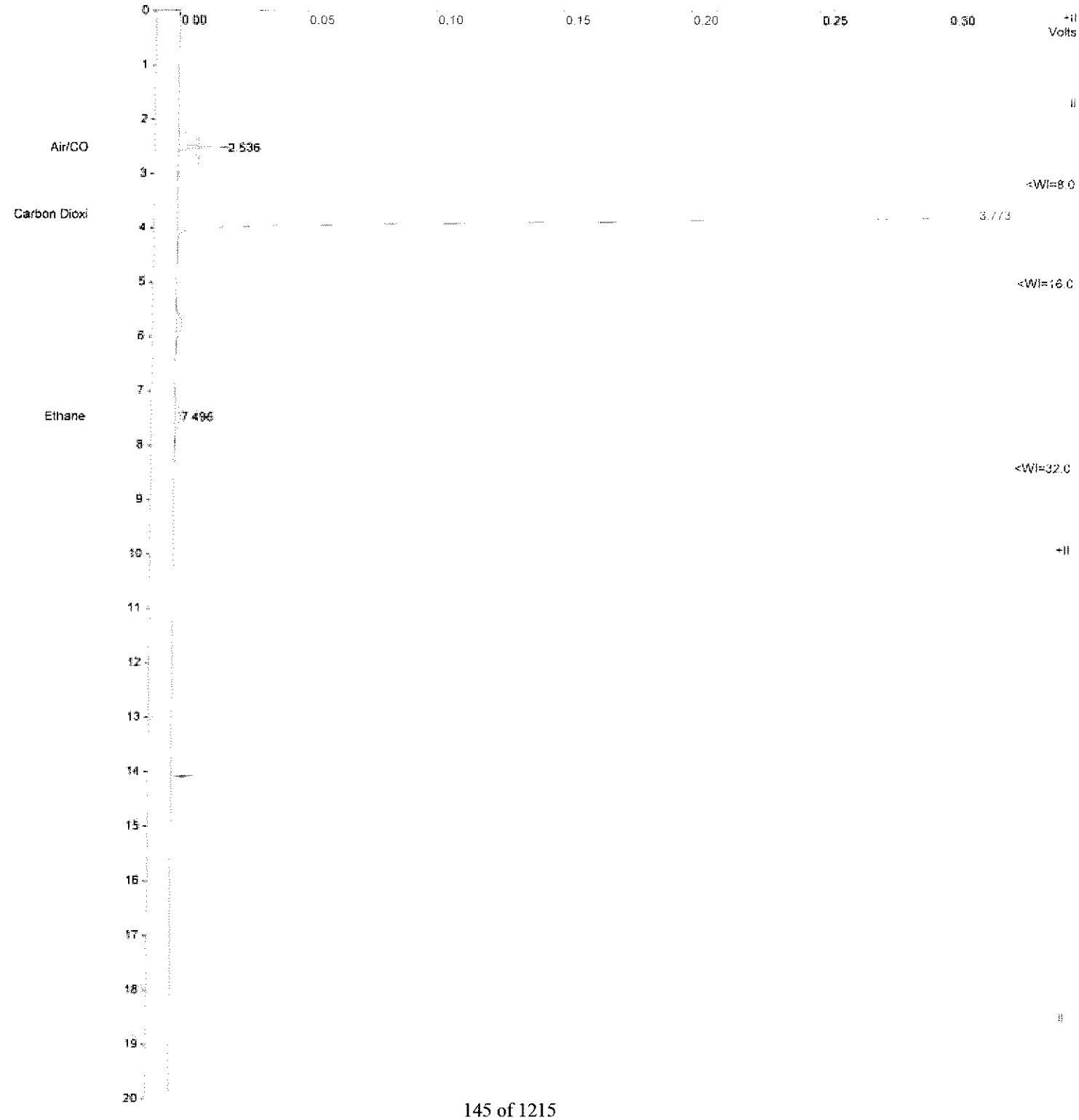
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 16-57-00 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml loop 05-05-20_TCDrange5 - Copy.mch
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 16:57 Calculation Date: 2021-03-30 19:17

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V755 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3791-A8L-413C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 38
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 18-57-01 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 18:57 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	15.88	5.438	0.078	25630	BV	16.3	
2	Carbon Monox	17.94	6.159	0.294	31039	VB	20.7	
3	NMNEOC	149.12	16.522	-0.657	3014584	BB	66.6	
	Totals:	182.94		-0.285	3071253			

Total Unidentified Counts : 4630 counts

Detected Peaks: 10 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual Injection

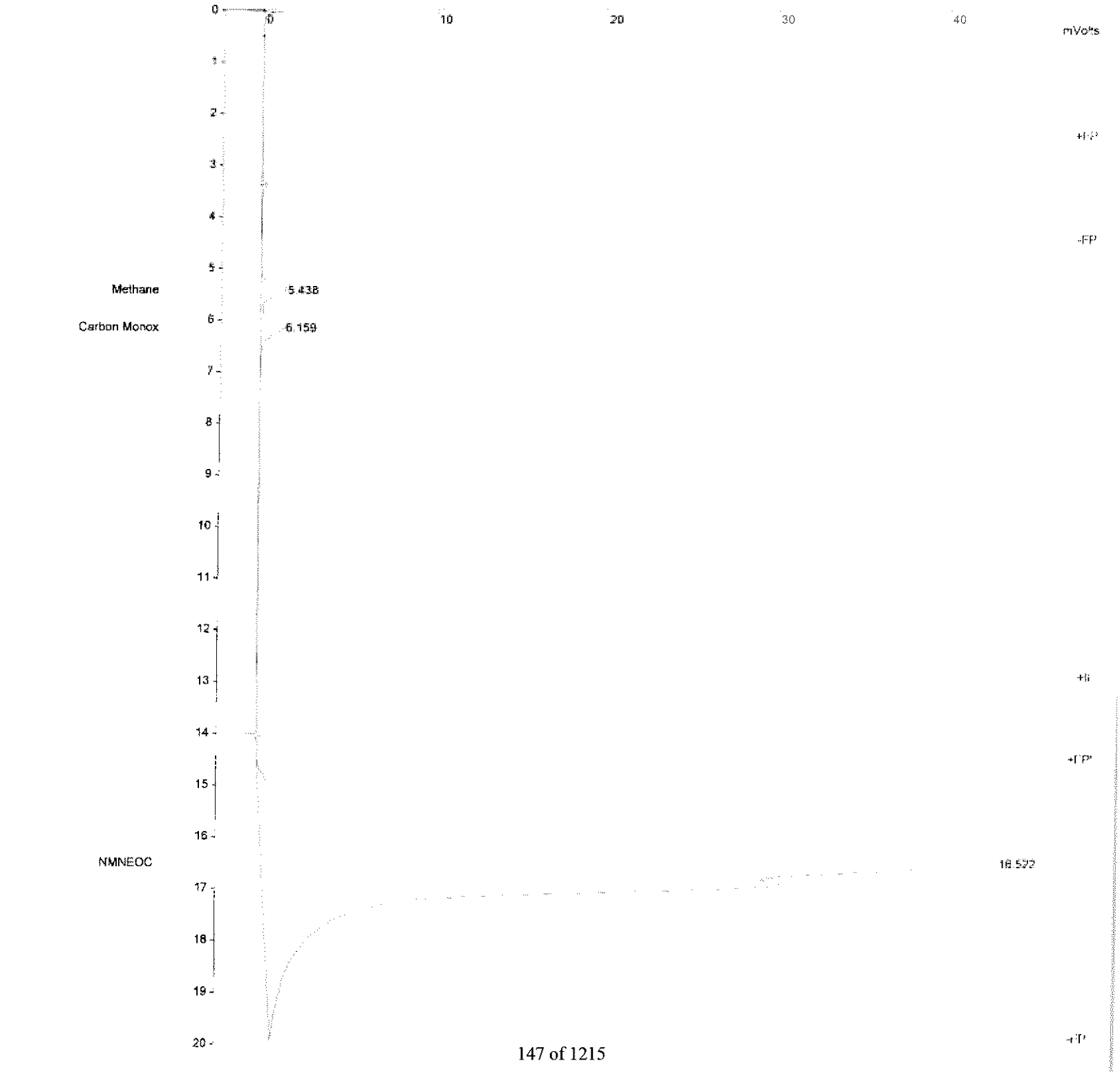
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 18-57-01 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 18:57 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4GX-GC (1000 Volts)
Workstation: DESKTOP-6VL52 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - TCD Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-4B1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 19-23-13 a 027 - 031 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 19:23 Calculation Date: 2021-03-30 19:43

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.536	0.023	42222	VV	1.7	
2	Carbon Dioxi	564.6187	3.775	0.335	5188992	BB	16.3	
3	Ethane	6.1084	7.498	0.122	57660	BB	26.3	
	Totals:	570.7271		0.480	5288874			

Total Unidentified Counts : 292847 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

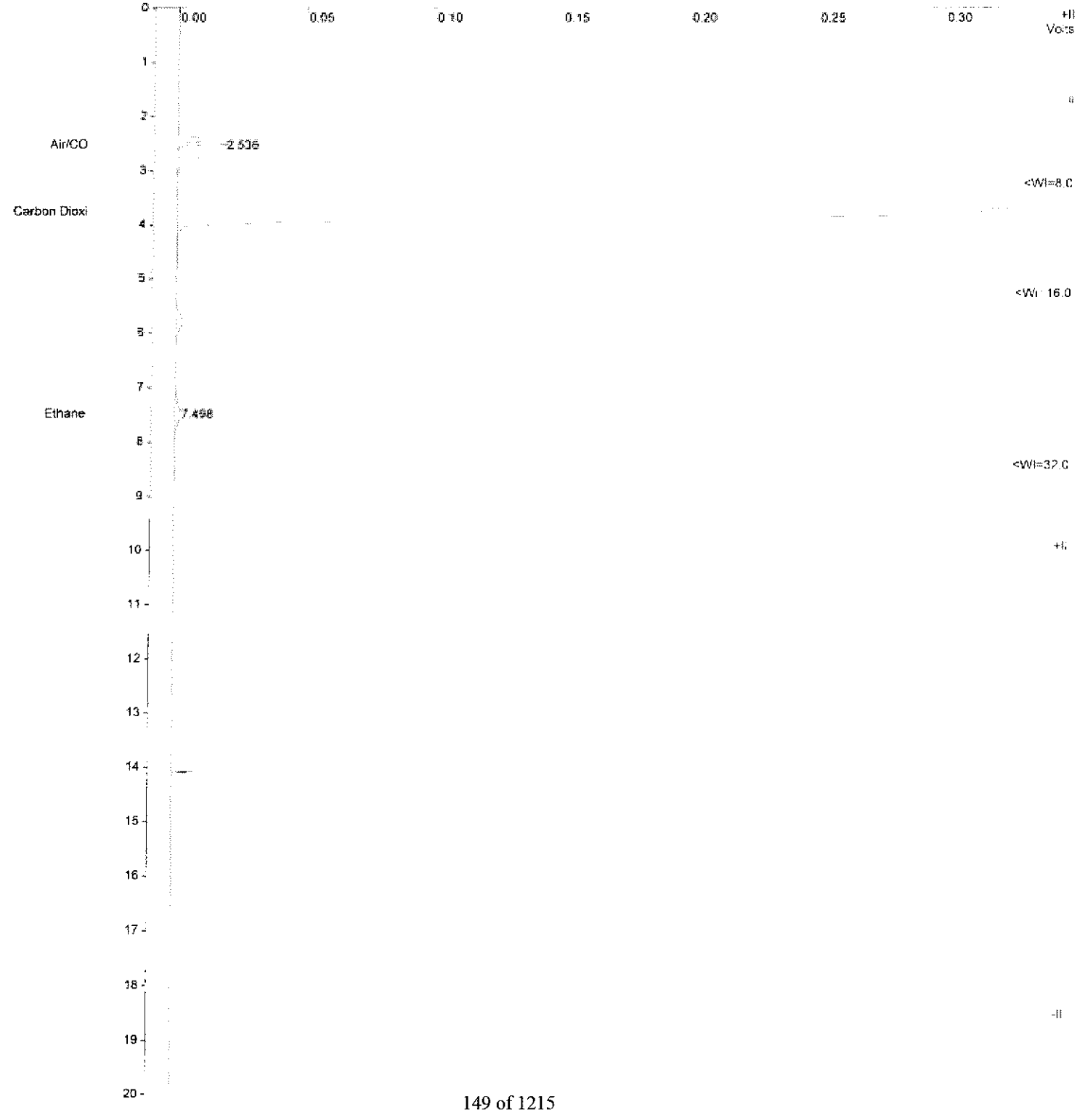
Title :
Run File : c:\bruker\s\data\2021\mar 21\2021-03-30 19-23-13 a 027 - 031 a inj 2 - master sqaqpmd 25.3 3 ml loop 05-05-20 todrange5 - copy.run
Method File : C:\Bruker\S\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 19:23 Calculation Date: 2021-03-30 19:43

Operator : Douglass W. Detector Type: 4XR-SC (1000 Volts)
Workstation: DESKTOP-6VL5E Bus Address : 44
Instrument : Lotus MSCC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37021-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 38
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Print Date: Tue Apr 06 10:26:48 2021 Page 1 of 1

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 19-23-13 a 027 - 031 a inj 2 - master sgaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 19:23 Calculation Date: 2021-04-06 10:25

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	15.58	5.436	0.076	25142	BV	16.3	
2	Carbon Monox	17.77	6.157	0.292	30740	VB	20.6	
3	NMNEOC	149.76	16.528	-0.651	3027496	BB	67.2	
	Totals:	183.11		-0.283	3083378			

Total Unidentified Counts : 5030 counts

Detected Peaks: 10 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 42 microVolts

Manual injection

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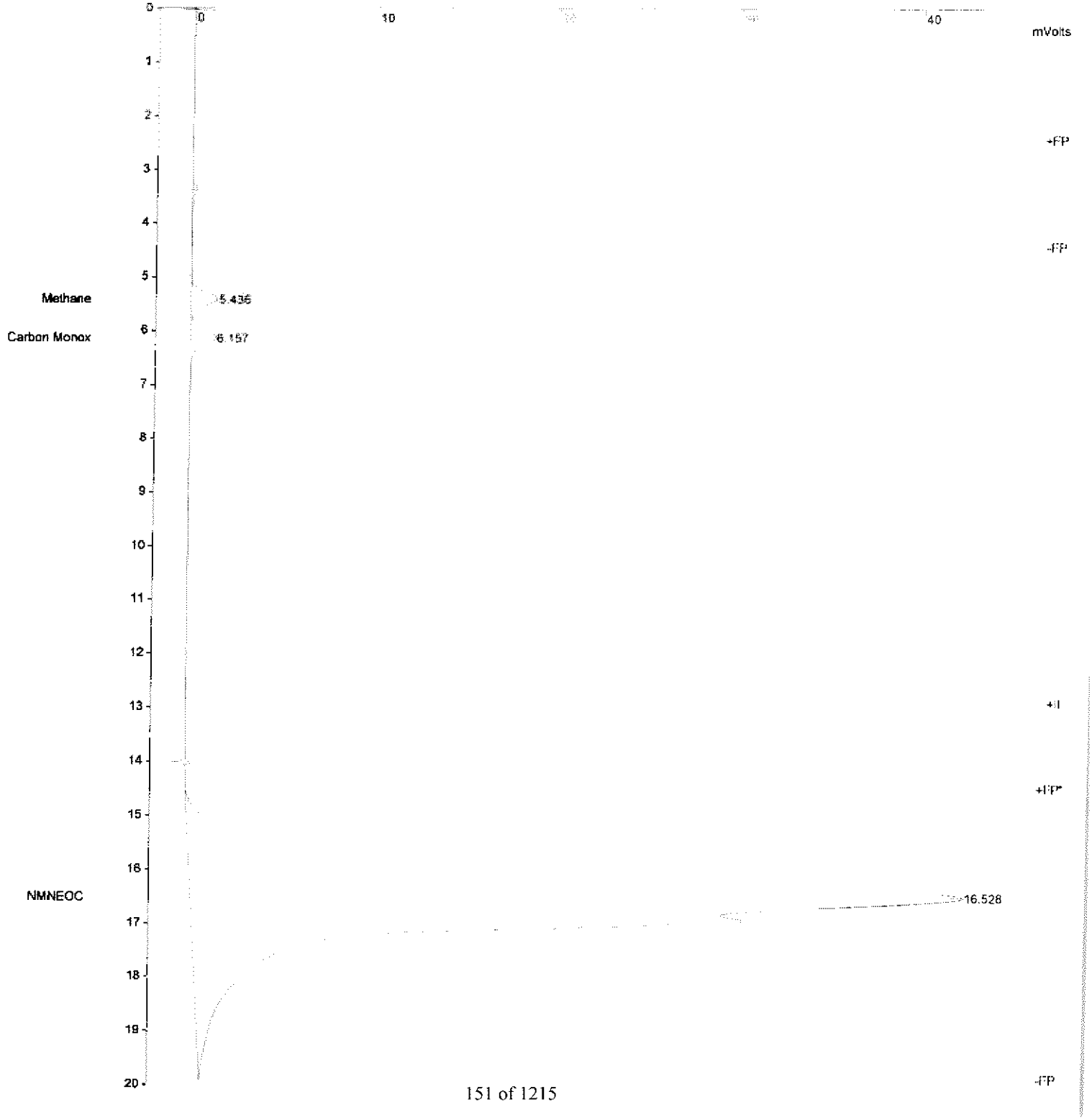
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 19-23-13 a 027 - 031 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 A

Injection Date: 2021-03-30 19:23 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 19-49-31 a 027 - 031 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 19:49 Calculation Date: 2021-03-30 20:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.535	0.022	43555	VV	1.7	
2	Carbon Dioxi	580.4952	3.773	0.333	5334843	BB	16.3	
3	Ethane	6.3005	7.496	0.120	59473	BB	26.4	
	Totals:	586.7957		0.475	5437871			

Total Unidentified Counts : 290083 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 14 microVolts - monitored before this run

Manual injection

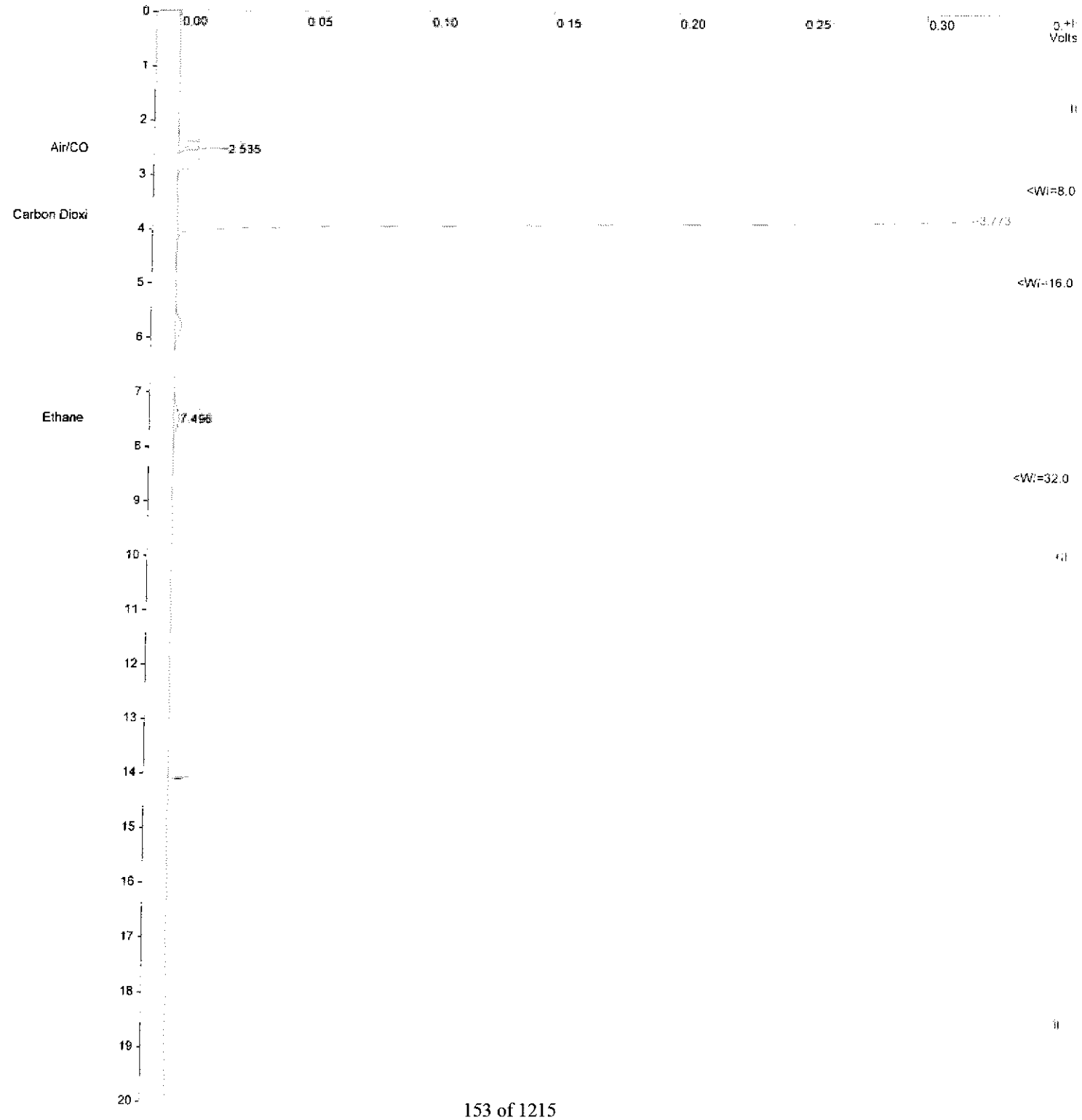
Title :
Run File : c:\brukerws\data\2021\max_21\2021-03-30 19-49-31 a 027 - 031 b inj 1 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 19:49 Calculation Date: 2021-03-30 20:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-5V6J5R Bus Address : 44
Instrument : Lotus MMCC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02052-3701-AB1-435C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 38
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 19-49-31 a 027 - 031 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tccrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 19:49 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.38	5.432	0.072	26429	BV	16.2	
2	Carbon Monox	18.67	6.152	0.287	32303	VB	20.6	
3	NMNEOC	149.64	16.518	-0.661	3024928	BB	67.2	
	Totals:	184.69		-0.302	3083660			

Total Unidentified Counts : 4170 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 37 microVolts

Manual injection

****

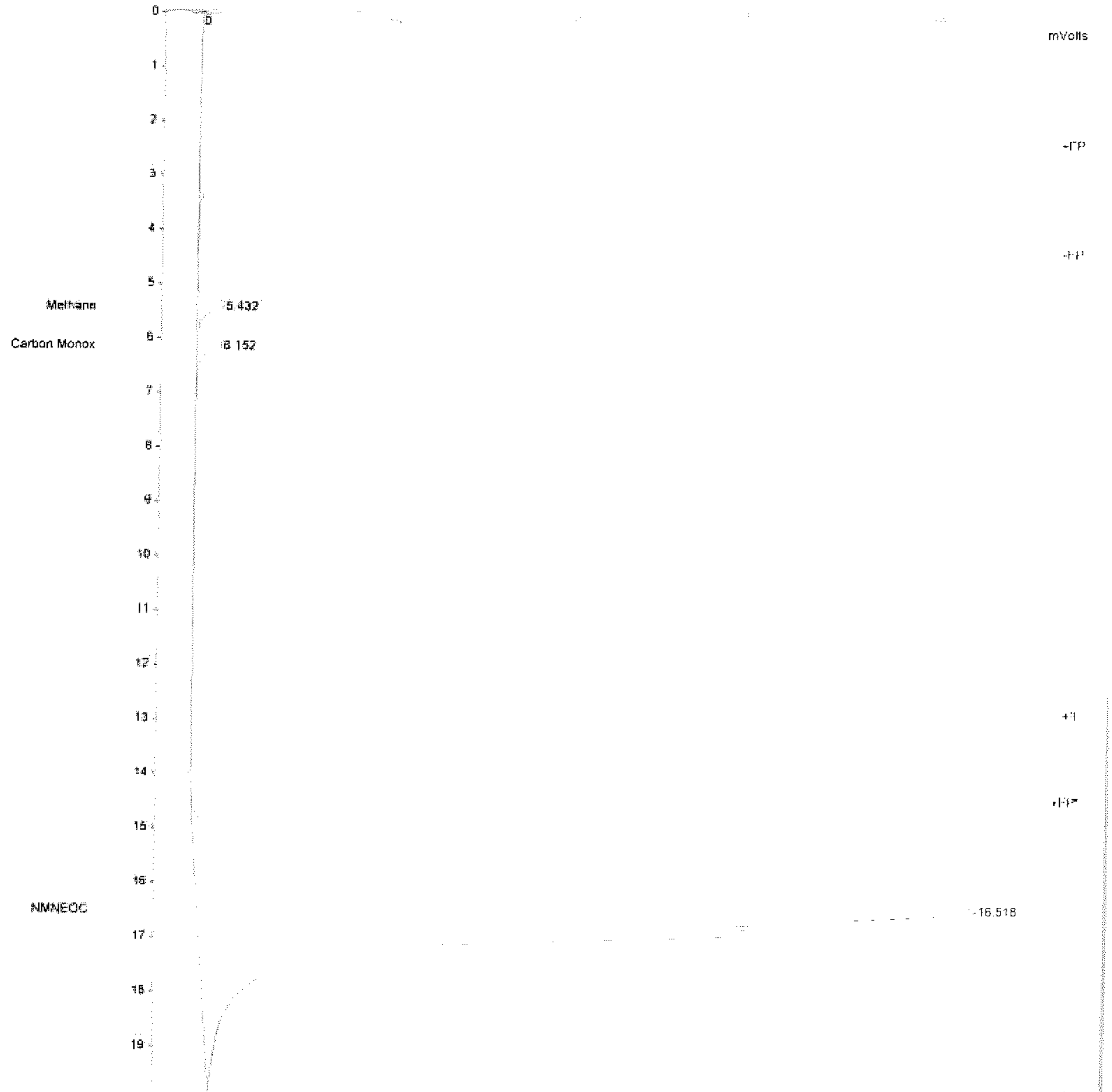
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 19-49-31 a 027 - 011 b inj 1 - master sqaqmd 25.1 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.1 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 011 B

Injection Date: 2021-03-30 19:49 Calculation Date: 2021-04-06 10:25

Operator : Douglase W. Detector Type: ADC-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMDC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-1701-AB1-415C **

Chart Speed = 6.49 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 20-15-47 a 027 - 031 b inj 2 - master sqaqmd 25.3 3 mi loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 mi Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 20:15 Calculation Date: 2021-03-30 20:35

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.536	0.023	43353	VV	1.7	
2	Carbon Dioxi	581.1116	3.772	0.332	5340504	BB	16.3	
3	Ethane	6.2927	7.496	0.118	59399	BB	26.3	
	Totals:	587.4043		0.473	5443256			

Total Unidentified Counts : 291772 counts

Detected Peaks: 9 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

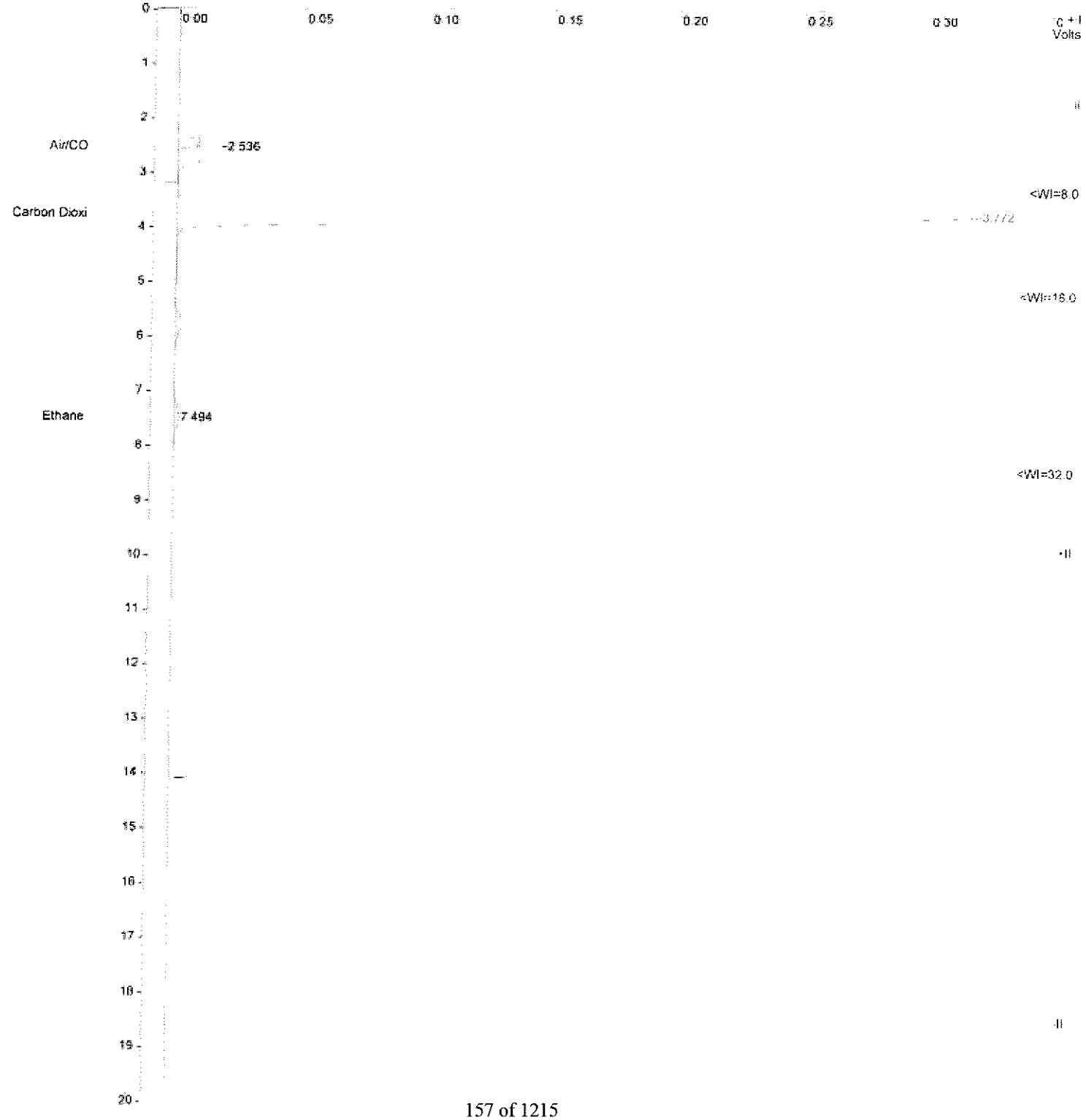
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 20-15-47 a 027 - 031 b inj 2 - master sqaqmd 25.3 3 ml loop 05-03-20 todrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-03-20_TODrange5 - Copy.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 20:15 Calculation Date: 2021-03-30 20:35

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMCC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCIOR Version 8.0.1 ** 02357-3701-A331-413C **

Chart Speed = 0.39 cm/min Attenuation = 1 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 20-15-47 a 027 - 031 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 16-27-04 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 B

Injection Date: 2021-03-30 20:15 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.20	5.432	0.072	26135	BV	16.3	
2	Carbon Monox	17.97	6.151	0.286	31087	VB	20.5	
3	NMNEOC	150.33	16.525	-0.654	3038993	BB	67.0	
	Totals:	184.50		-0.296	3096215			

Total Unidentified Counts : 3192 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

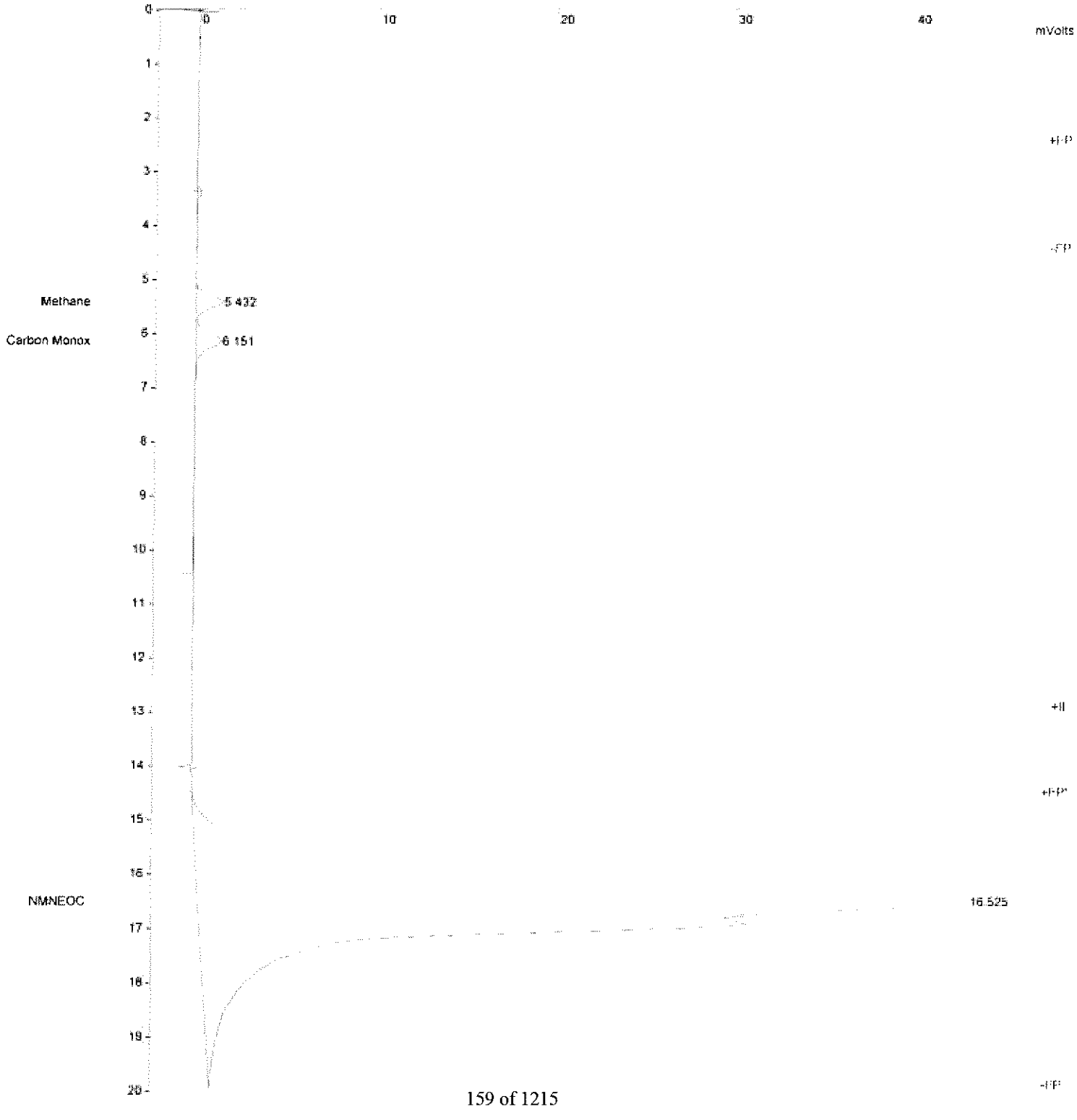
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 20-15-47 a 027 - 031 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 031 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 031 B

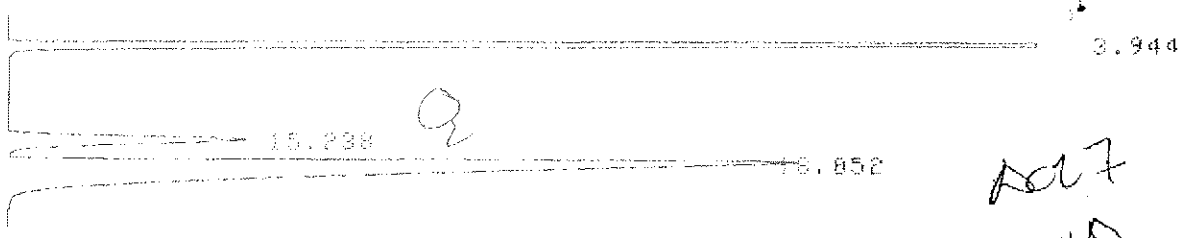
Injection Date: 2021-03-30 20:15 Calculation Date: 2021-04-06 10:25

Operator : Douglass W. Detector Type: 4XR-GC (1000 Volts)
Workstation: DESKTOP-6VL56 Bus Address : 49
Instrument : Lotus XRGC Sample Rate : 5.00 Hz
Channel : Middle = TIC Run Time : 20.009 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02C57-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



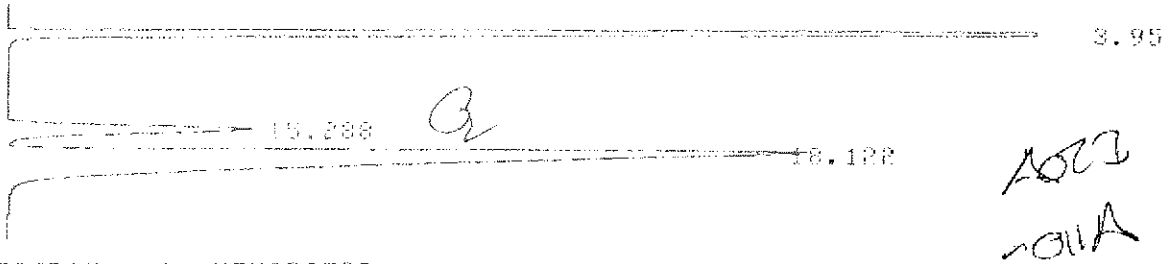


A027
-01A

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 748

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.944	7501950			36.1039	
2	15.238	2013853			9.6919	
3	18.052	11262974	V		54.2042	
	TOTAL	20778776			100	

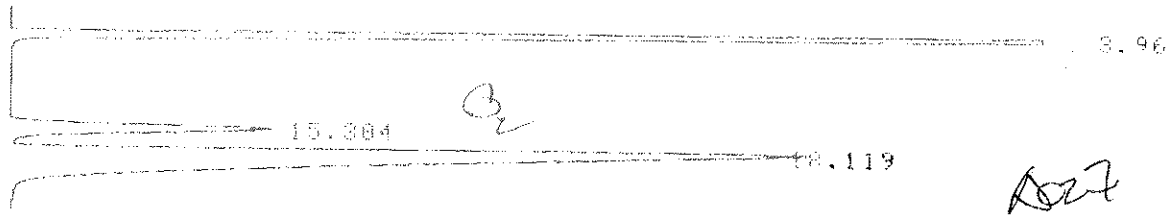


A027
-01A
dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 749

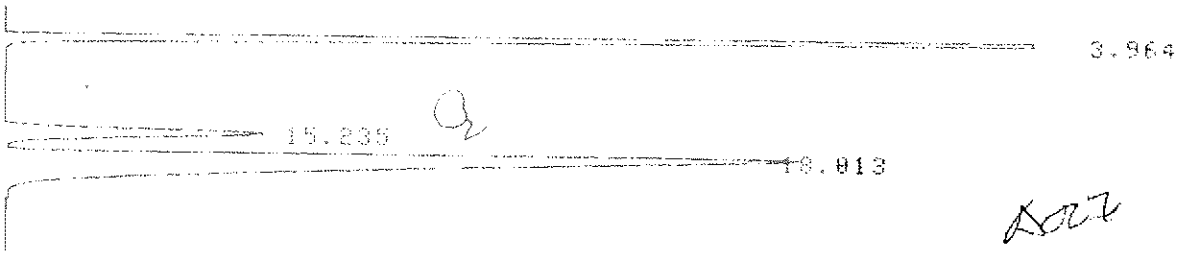
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.95	7510458			35.4106	
2	15.288	2071567			9.7671	
3	18.122	11627630	V		54.8223	
	TOTAL	21209654			100	



CHROMATOGRAM 1 MEMORIZED

C-RSA CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 750

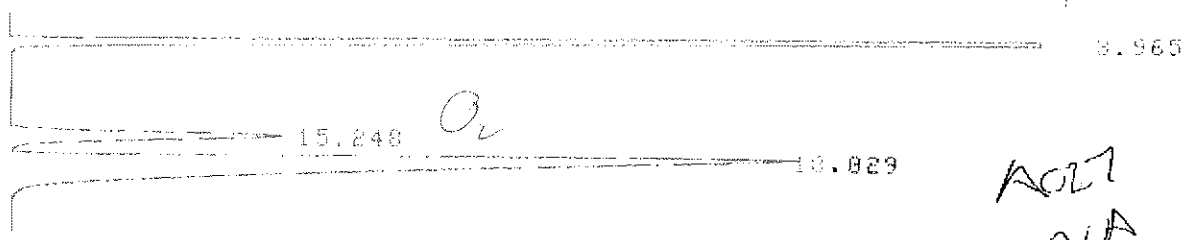
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.96	7541150			35.5458	
2	15.304	2209839			10.4162	
3	18.119	11464310	V		54.0379	
	TOTAL	21215296			100	



CHROMATOGRAM 1 MEMORIZED

C-RSA CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 751

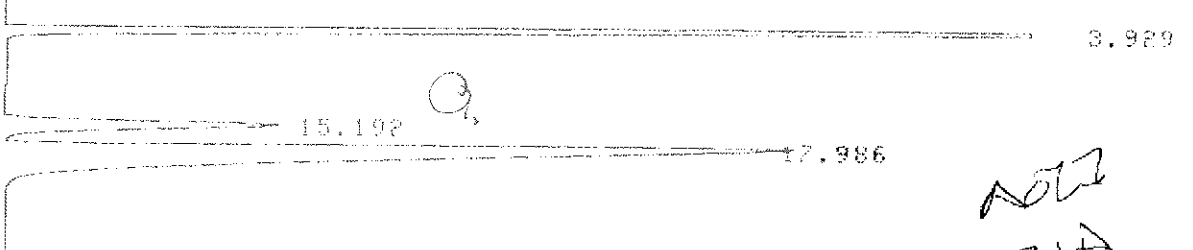
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.964	7505224			35.6849	
2	15.235	2187797			10.4023	
3	18.013	11338917	V		53.9128	
	TOTAL	21031936			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 752

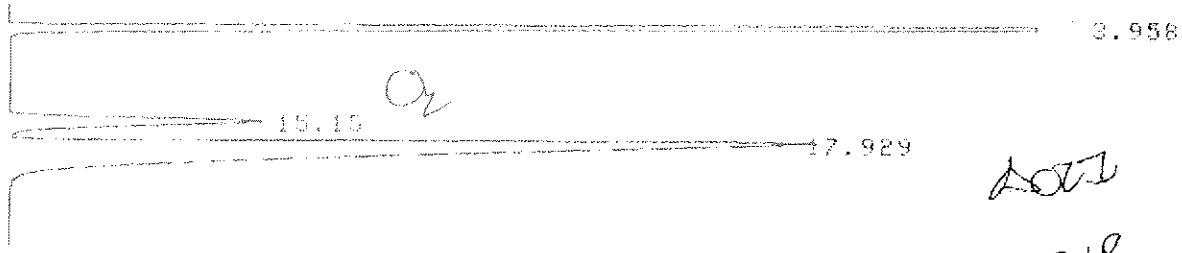
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.965	7499127			35.9156	
2	15.248	2288925			10.9624	
3	18.029	11091785	V		53.122	
	TOTAL	20879836			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 753

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.929	7574129			35.7809	
2	15.192	2309229			10.909	
3	17.986	11284708	V		53.3101	
	TOTAL	21168064			100	

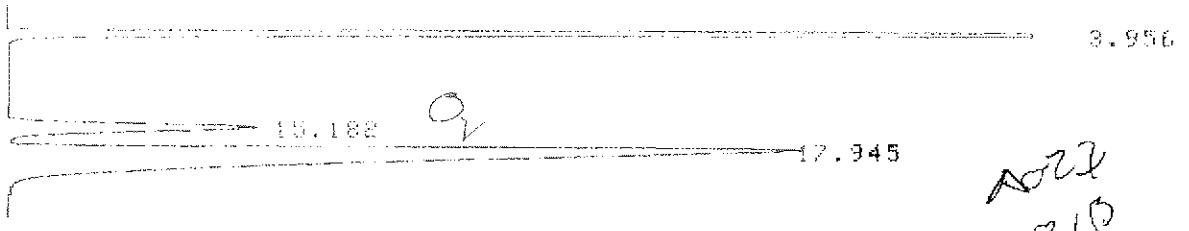


A022
-0218

CHROMATOGRAM 1 MEMORIZED

C-RSA CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 754

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.958	7581895			35.8612	
2	15.15	2103685			9.9501	
3	17.929	11456744	V		54.1887	
	TOTAL	21142322			100	

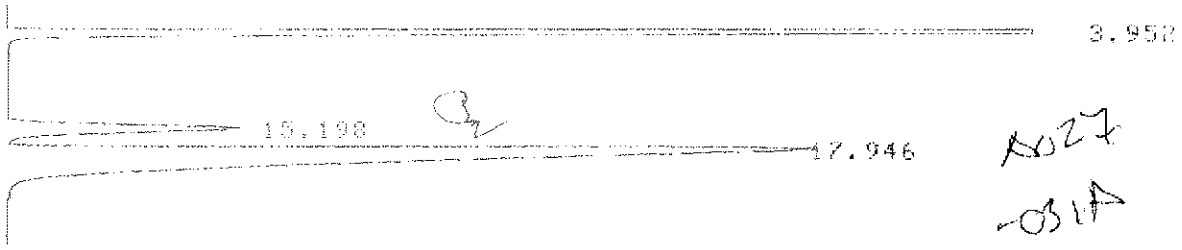


A022
-0219

CHROMATOGRAM 1 MEMORIZED

C-RSA CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 755

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.956	7455079			35.7935	
2	15.182	2073752			9.9565	
3	17.945	11299220	V		54.25	
	TOTAL	20828050			100	

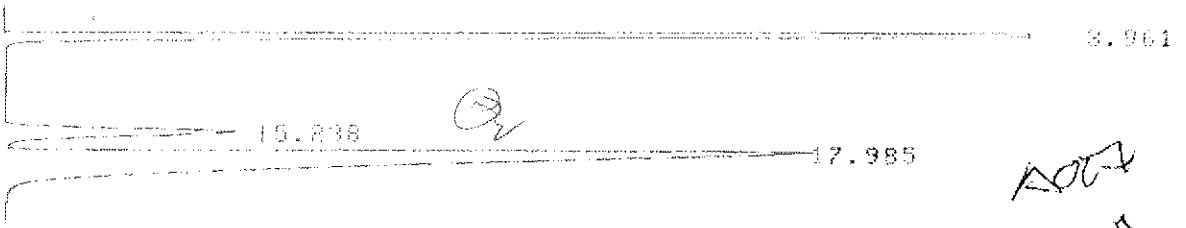


A027
-031A

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 756

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.952	7620045			35.9766	
2	15.198	1933367			9.128	
3	17.946	11627131	V		54.8953	
	TOTAL	21180542			100	

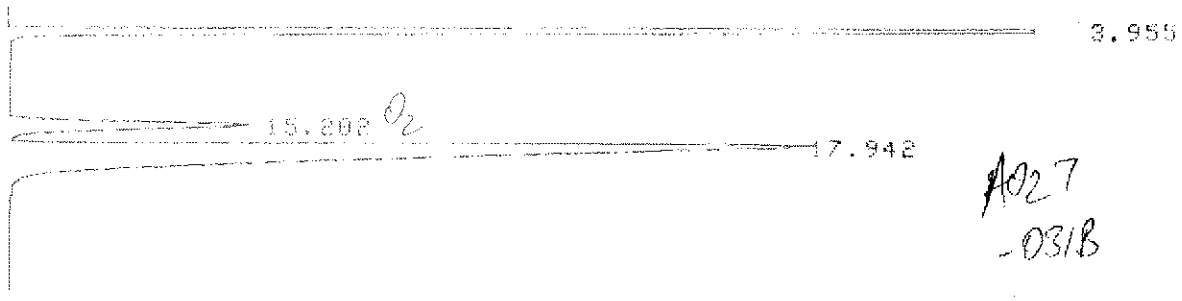


A027
-031A

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 757

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.961	7492914			35.8042	
2	15.238	1924105			9.1942	
3	17.985	11510424	V		55.0016	
	TOTAL	20927442			100	

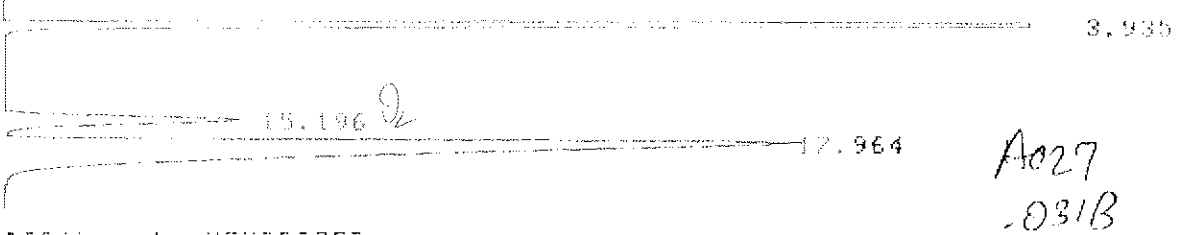


A027
-031B

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 758

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.959	7556389			35.9558	
2	15.202	1988203			9.4605	
3	17.942	11471197	V		54.5837	
	TOTAL	21015788			100	



A027
-031B
dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 759

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.935	7500414			36.0836	
2	15.196	1966855			9.4623	
3	17.964	11318946	V		54.4541	
	TOTAL	20786214			100	

TRAP ANALYSIS

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-29-11 a 027 - 012 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 A

Injection Date: 2021-03-25 17:29 Calculation Date: 2021-03-25 17:49

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.548	0.035	2224	BB	0.0	
2	Carbon Dioxi	189.9943	3.778	0.338	1746550	BB	16.3	
3	Ethane		7.376					M
	Totals:	189.9943		0.373	1748774			

Status Codes:
M - Missing peak

Total Unidentified Counts : 995 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

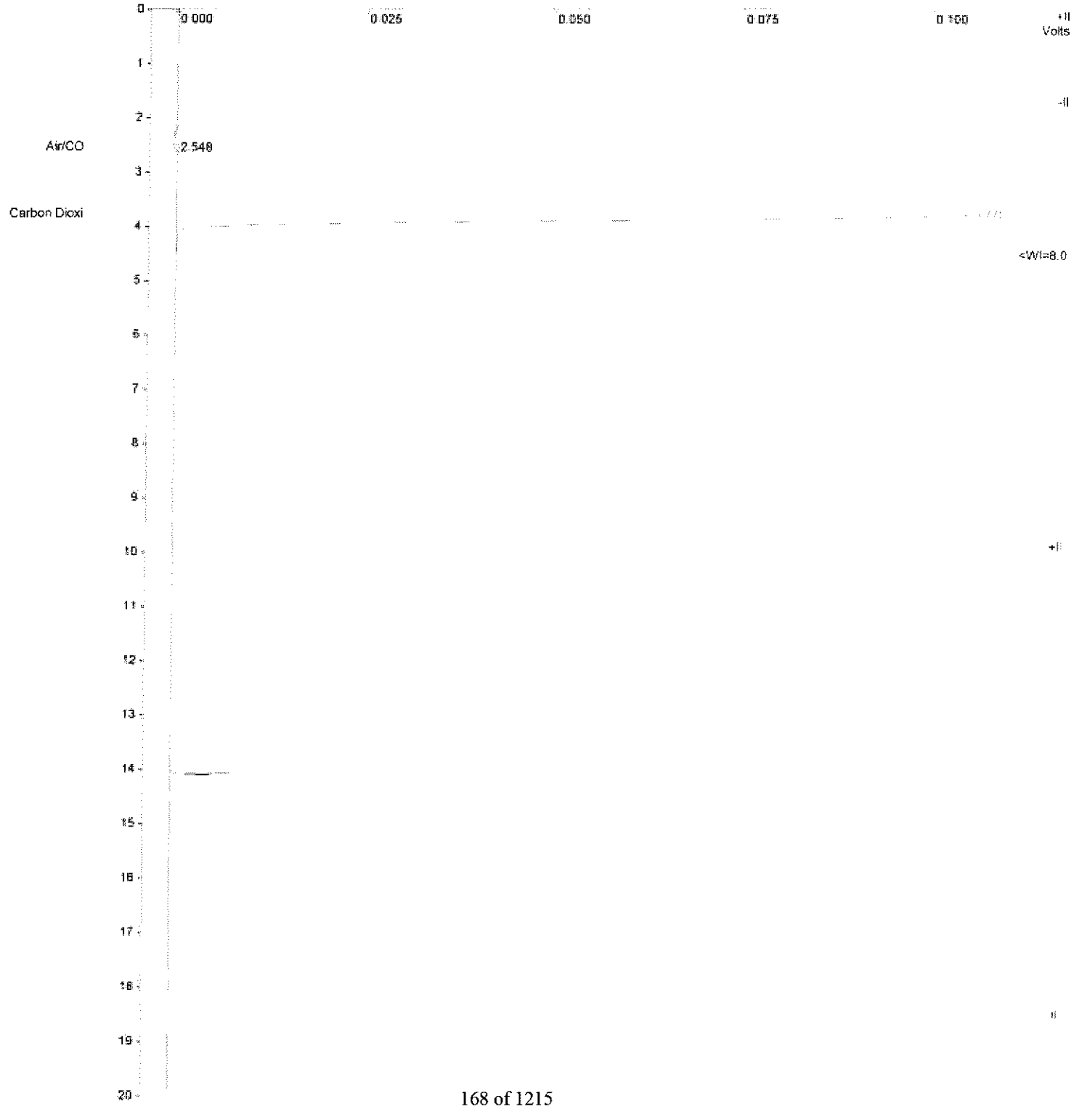
Title :
Run File : c:\bruker\s\data\2021\mar_21\2021-03-25 17-29-11 a 027 - 012 a inj 1 - master sqaqmd 25.3 3 ml loop 03-05-20_tcdrange5 - copy.run
Method File : C:\Bruker\S\methods\Master SQAQMD 25.3 3 mL Loop 03-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 A

Injection Date: 2021-03-25 17:29 Calculation Date: 2021-03-25 17:49

Operator : Douglass W. Detector Type: 456-GC (1000 Volts)
Workstation: D35KT02-6V15B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-55-25 a 027 - 012 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 A

Injection Date: 2021-03-25 17:55 Calculation Date: 2021-03-25 18:15

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.552	0.039	2202	BB	0.0	
2	Carbon Dioxi	190.3936	3.779	0.339	1750219	VB	16.3	
3	Ethane		7.376					M
	Totals:	190.3936		0.378	1752421			

Status Codes:
M - Missing peak

Total Unidentified Counts : 838 counts

Detected Peaks: 5 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

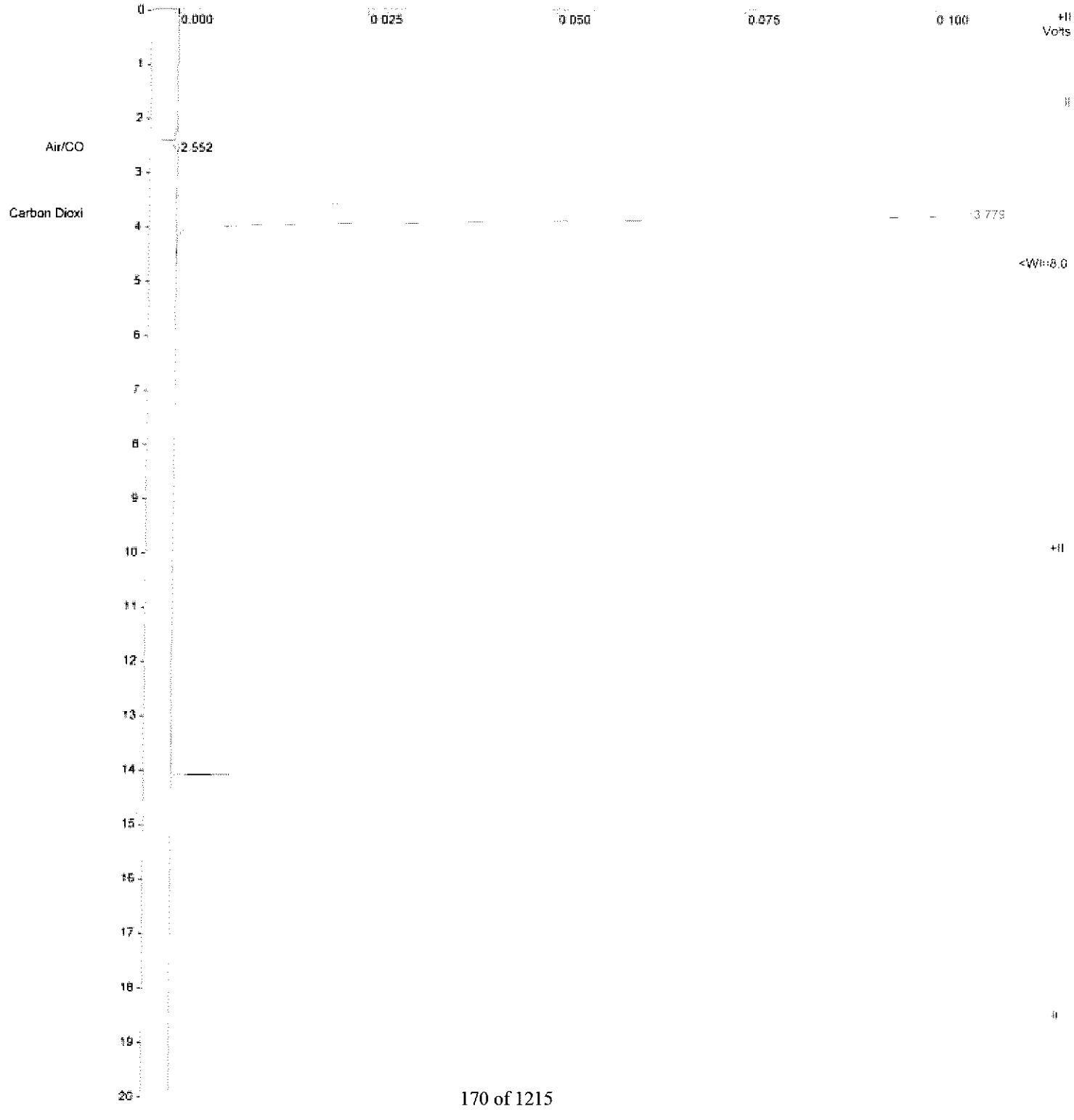
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-55-25 a 027 - 012 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : A 027 - 012 A

Injection Date: 2021-03-25 17:55 Calculation Date: 2021-03-25 18:15

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.3.1 for SCIOS Version 8.3.1 ** C2057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 18-21-45 a 027 - 012 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\MasterT SQAQMD 25.3 3 ml Loop 05 05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 B

Injection Date: 2021-03-25 18:21 Calculation Date: 2021-03-25 18:41

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.548	0.035	2132	BB	0.0	
2	Carbon Dioxi	177.6434	3.778	0.338	1633026	BB	16.3	
3	Ethane		7.376					M
	Totals:	177.6434		0.373	1635158			

Status Codes:
M - Missing peak

Total Unidentified Counts : 827 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

****

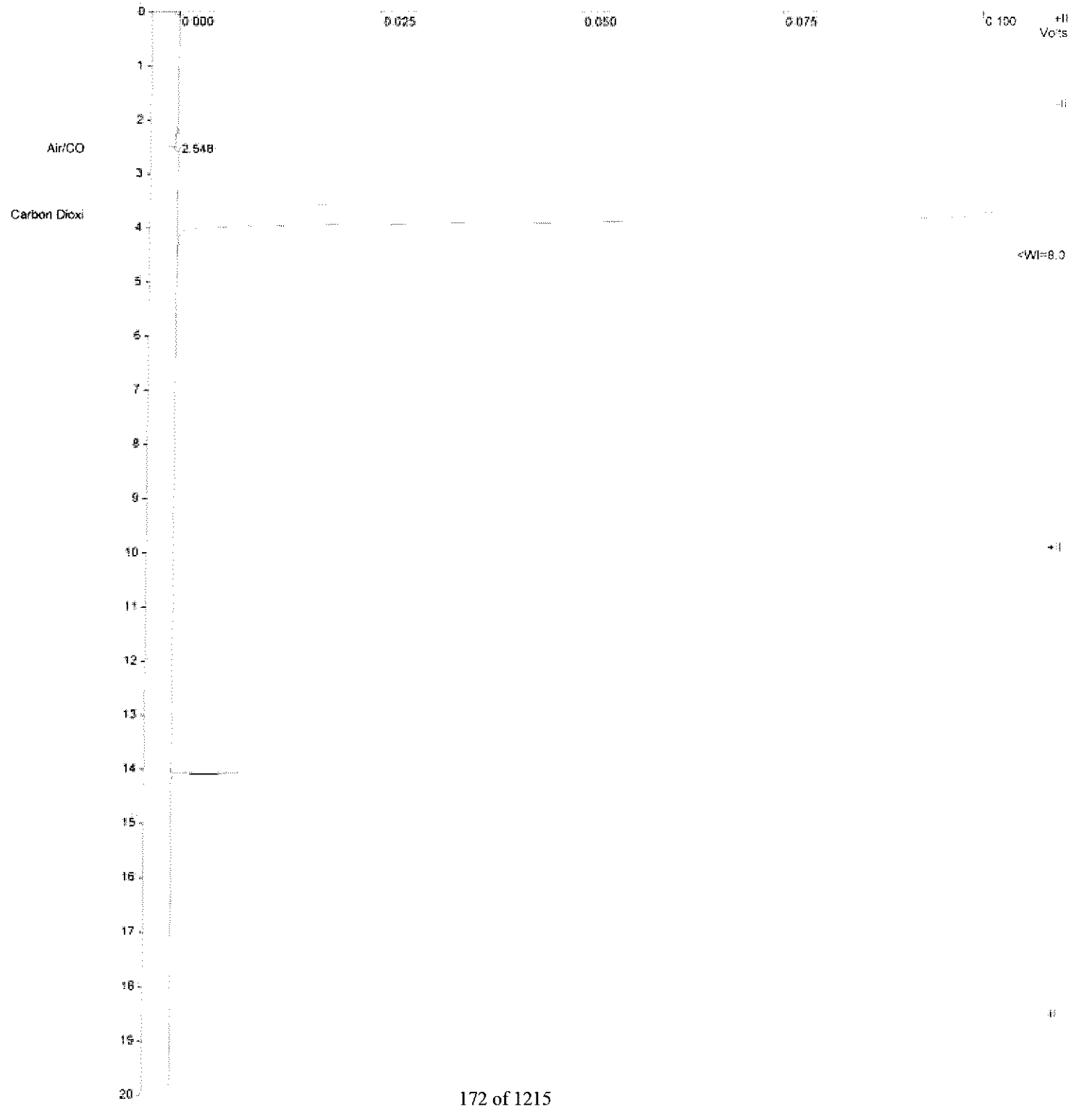
Title :
Run File : c:\bruker\ws\data\2021\mar 21\2021-03-25 18-21-45 a 027 - 012 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 B

Injection Date: 2021-03-25 18:21 Calculation Date: 2021-03-25 18:41

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus VOCC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.3.1 for SCION Version 8.0.1 ** 02057-3731-A31-415C **

Chart Speed = 0.39 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-48-04 a 027 - 012 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 012 B

Injection Date: 2021-03-25 18:48 Calculation Date: 2021-03-25 19:08

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.548	0.035	2226	BB	0.0	
2	Carbon Dioxi	177.5318	3.777	0.337	1632000	BB	16.2	
3	Ethane		7.376					M
	Totals:	177.5318		0.372	1634226			

Status Codes:
M - Missing peak

Total Unidentified Counts : 934 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

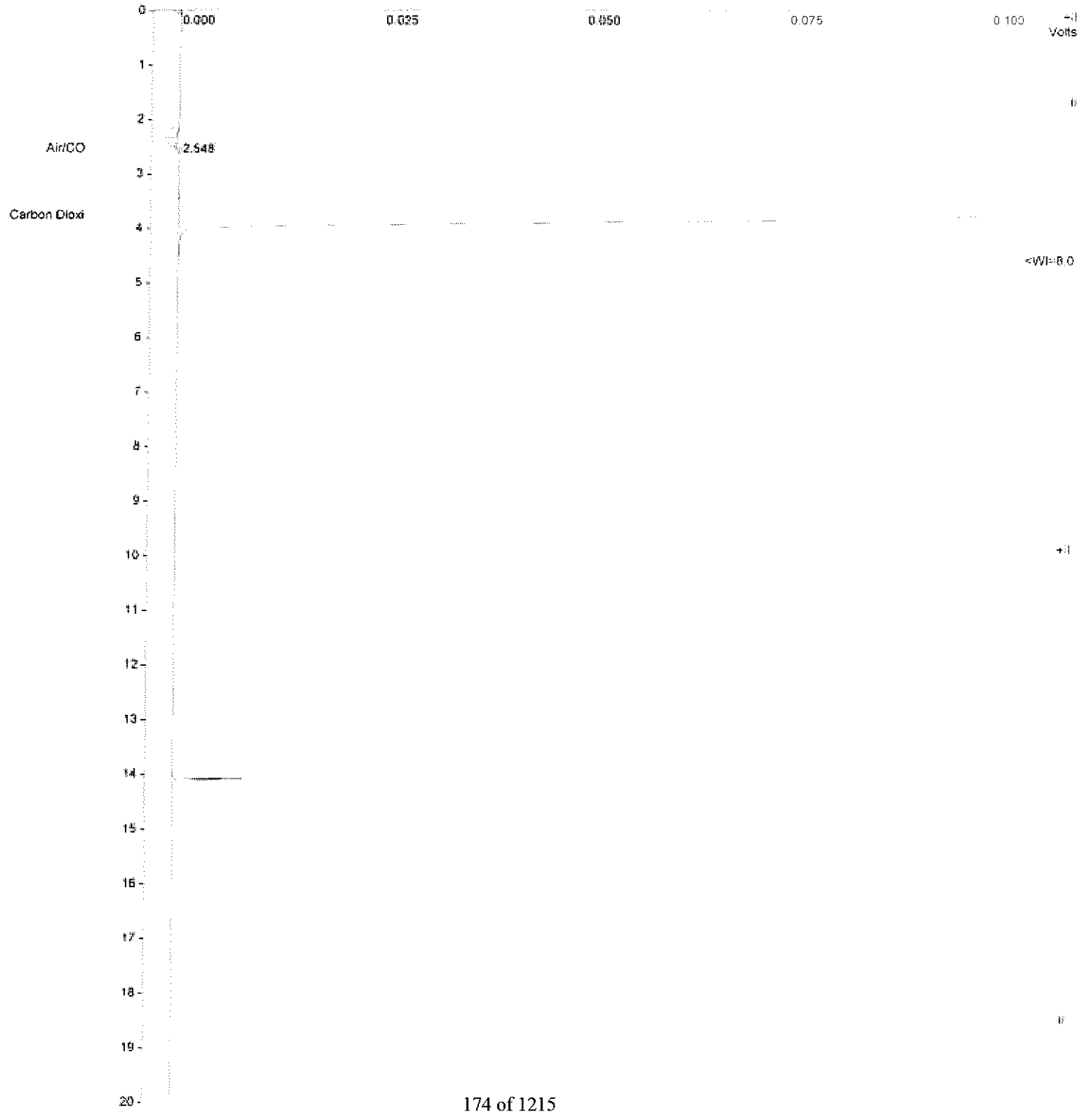
Title :
Run File : c:\bruker45\data\2021\mar_21\2021-03-25 18-46-04 a 027 - C12 b inj 2 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker45\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - C12 B

Injection Date: 2021-03-25 18:46 Calculation Date: 2021-03-25 19:08

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V2S5 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 13
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 19-14-25 a 027 - 022 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 A

Injection Date: 2021-03-25 19:14 Calculation Date: 2021-03-25 19:34

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.552	0.039	1982	BB	0.0	
2	Carbon Dioxi	680.6503	3.780	0.340	6254850	BB	16.4	
3	Ethane		7.376					M
	Totals:	680.6503		0.379	6256832			

Status Codes:
M - Missing peak

Total Unidentified Counts : 754 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 5

Baseline Offset: 16 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

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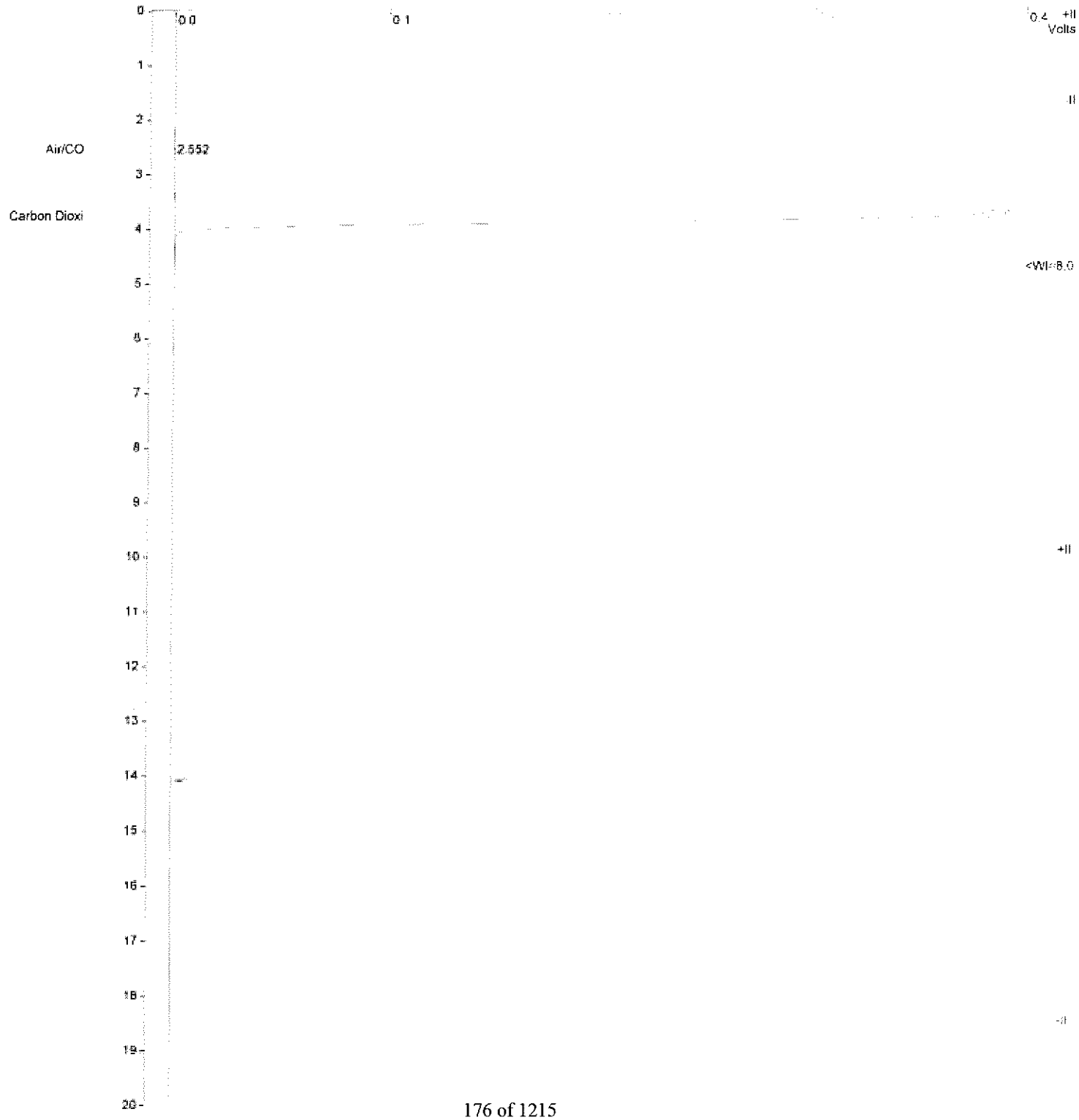
Title :
Run File : c:\bruker\ws\data\2021\mar 21\2021-03-25 19-14-25 a 027 - 022 a inj 1 - master sqaqmd 25.3 3 ml loop 05-03-20_tcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 05-03-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 A

Injection Date: 2021-03-25 19:14 Calculation Date: 2021-03-25 19:34

Operator : Douglass W. Detector Type: 4XX-SC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus XMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 6.0.1 for SCTOX Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 19-40-40 a 027 - 022 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 A

Injection Date: 2021-03-25 19:40 Calculation Date: 2021-03-25 20:00

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.550	0.037	2042	BB	6.0	
2	Carbon Dioxi	681.3337	3.778	0.338	6261127	BB	16.4	
3	Ethane		7.376					M
	TOTALS:	681.3337		0.375	6263169			

Status Codes:
M = Missing peak

Total Unidentified Counts : 976 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

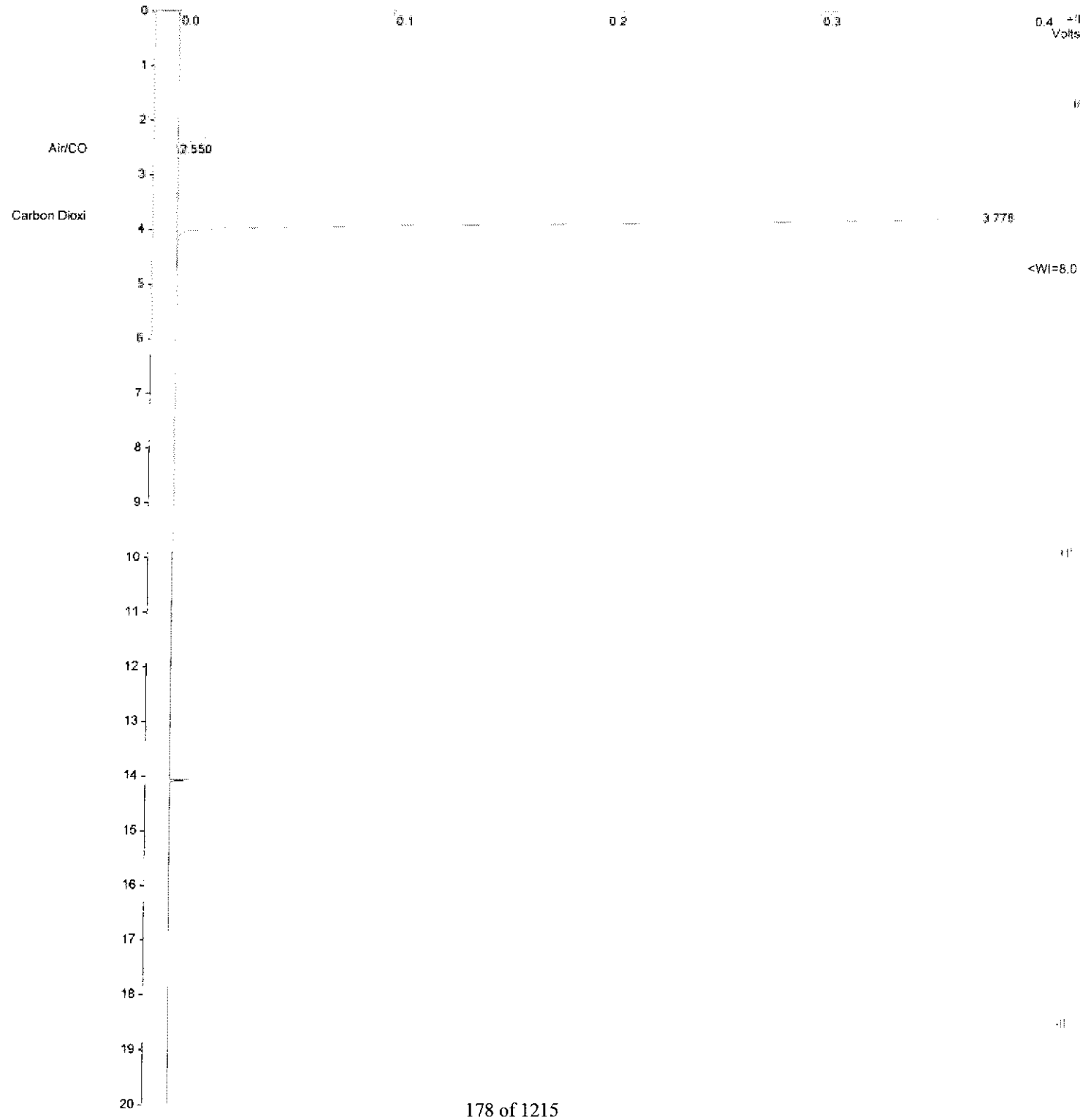
Title :
Run File : c:\bruker\s\data\2021\mar 21\2021-03-25 19-40-40 a 027 - 022 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tccrange5 - copy.run
Method File : C:\Bruker45\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 A

Injection Date: 2021-03-25 19:40 Calculation Date: 2021-03-25 20:00

Operator : Douglass K. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 20-06-57 a 027 - 022 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 B

Injection Date: 2021-03-25 20:06 Calculation Date: 2021-03-25 20:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.548	0.035	2856	PV	1.9	
2	Carbon Dioxi	601.5848	3.775	0.335	5528579	BB	16.4	
3	Ethane		7.376					M
	Totals:	601.5848		0.370	5531435			

Status Codes:
M - Missing peak

Total Unidentified Counts : 2159 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

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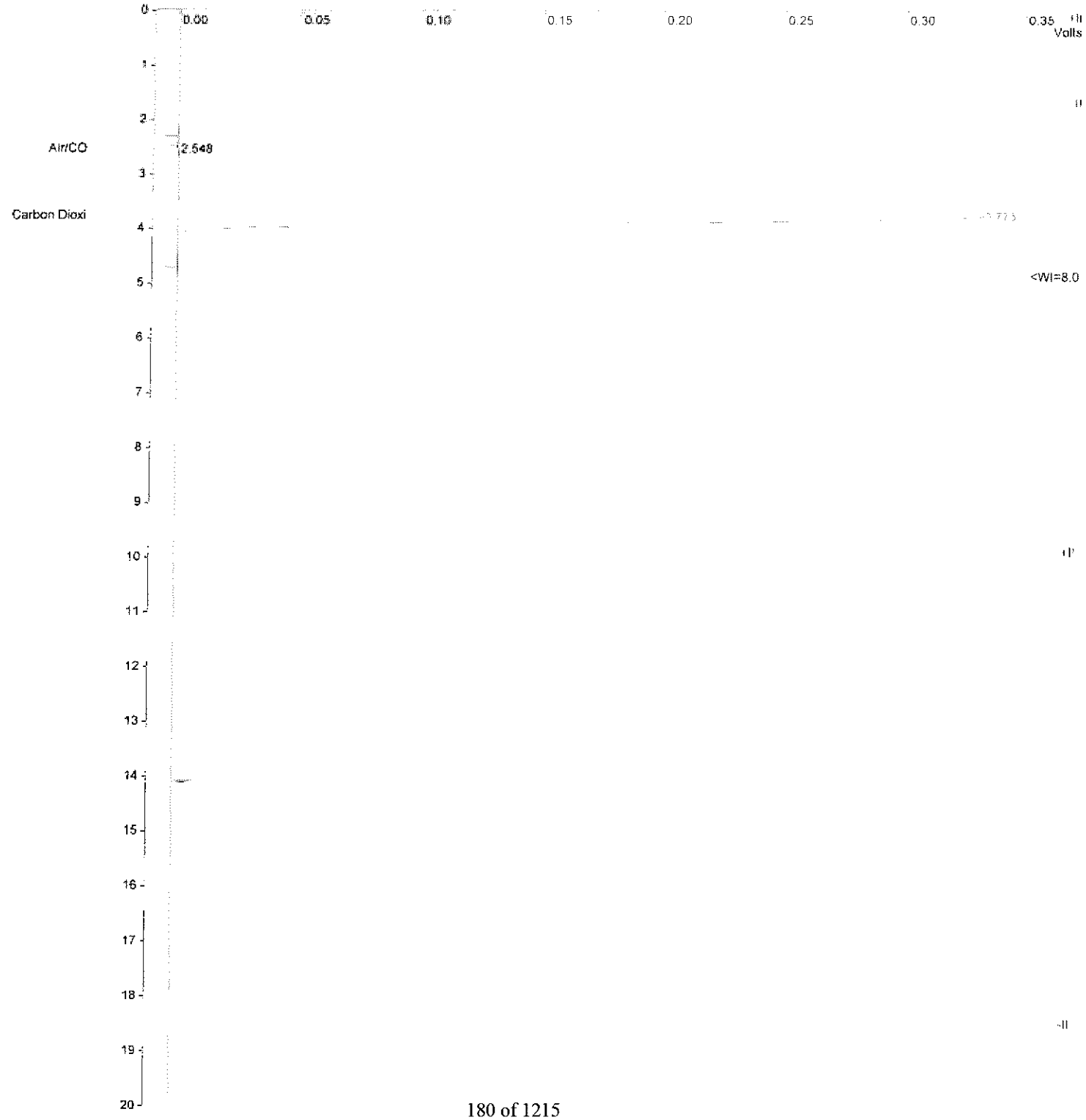
Title :
Run File : c:\bruker\ws\data\2021\mar 21\2021-03-25 20-06-37 a 027 - 022 b inj 1 - master sgagmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAGMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : A 027 - 022 B

Injection Date: 2021-03-25 20:06 Calculation Date: 2021-03-25 20:26

Operator : Douglass M. Detector Type: 6XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02C57-3701-AR1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 20-33-11 a 027 - 022 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 B

Injection Date: 2021-03-25 20:33 Calculation Date: 2021-03-25 20:53

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.551	0.038	3670	PV	2.6	
2	Carbon Dioxi	601.4733	3.779	0.339	5527554	BB	16.4	
3	Ethane		7.376					M
	Totals:	601.4733		0.377	5531224			

Status Codes:
M = Missing peak

Total Unidentified Counts : 4989 counts

Detected Peaks: 11 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

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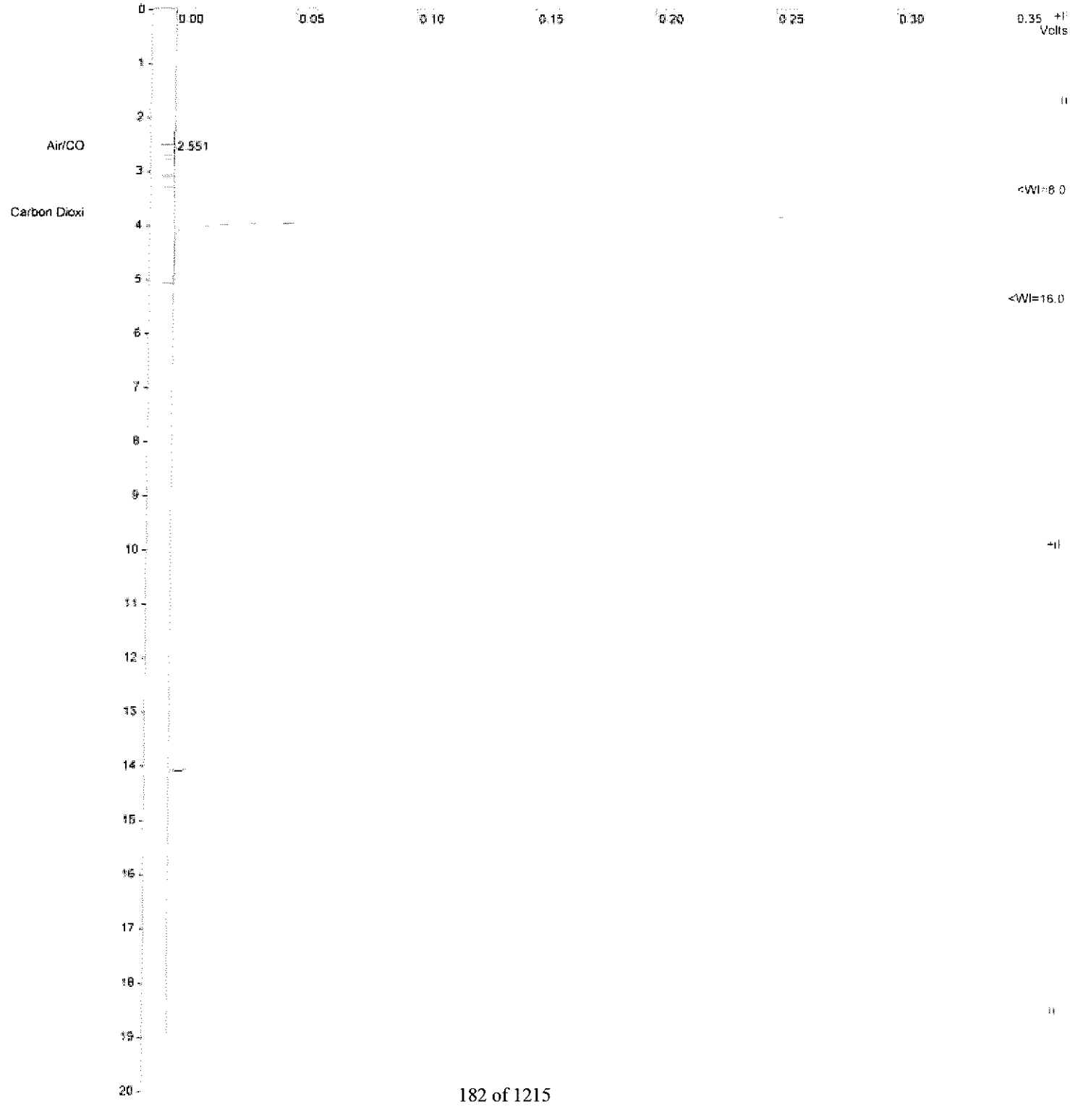
Title :
Run File : c:\BrukerWS\data\2021\mar 21\2021-03-25 20-33-11 a 027 - 022 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 022 B

Injection Date: 2021-03-25 20:33 Calculation Date: 2021-03-25 20:53

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Locus NRGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02957-3791-ABE-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 20-59-29 a 027 - 032 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\MasterF SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 032 A

Injection Date: 2021-03-25 20:59 Calculation Date: 2021-03-25 21:19

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.552	0.039	3432	BV	2.4	
2	Carbon Dioxi	410.6594	3.778	0.338	3774468	VB	16.2	
3	Ethane		7.376					M
	Totals:	410.6594		0.377	3777900			

Status Codes:
M = Missing peak

Total Unidentified Counts : 2378 counts

Detected Peaks: 8 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 9 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

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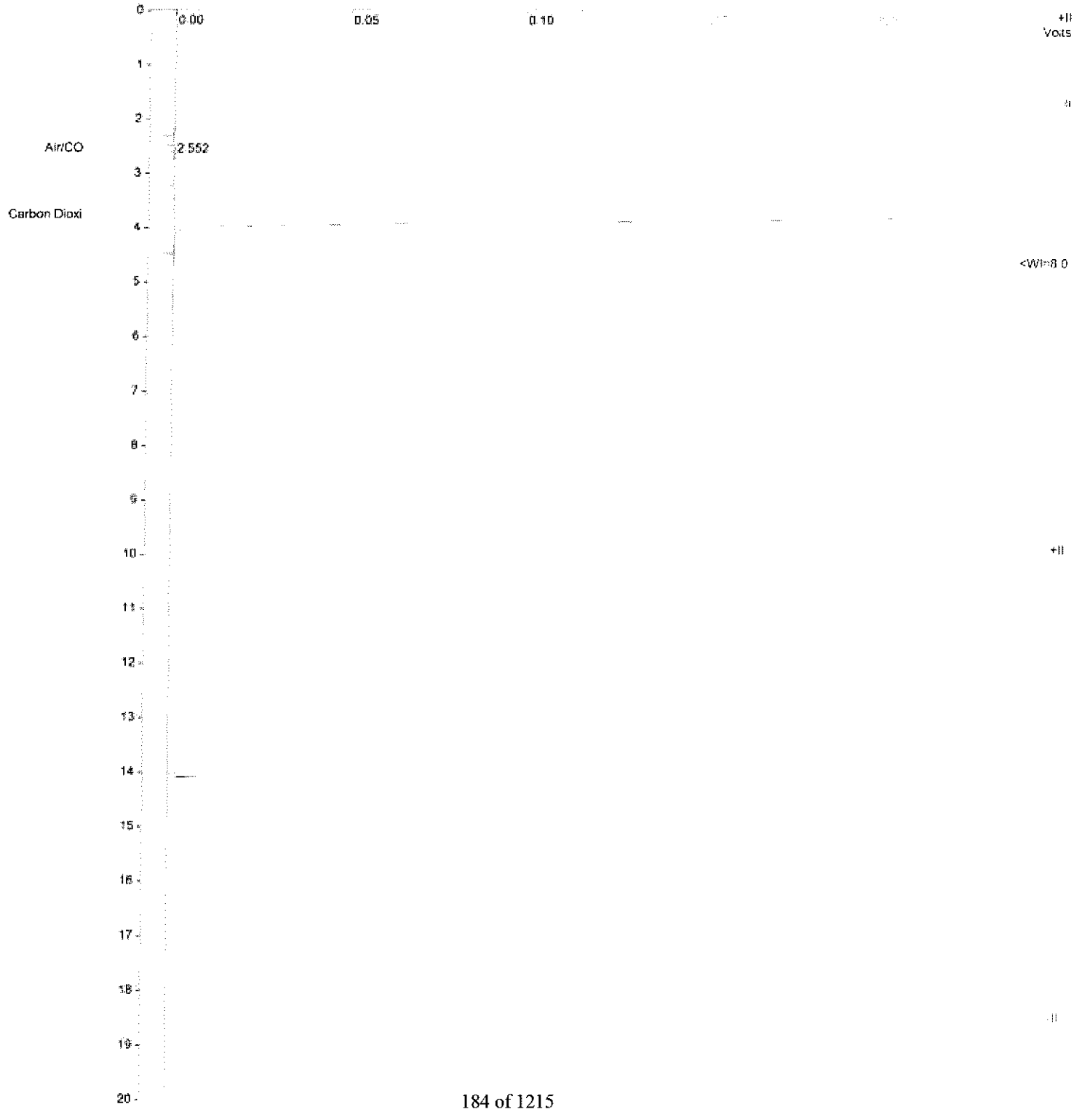
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 20-59-29 a 027 - 032 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 032 A

Injection Date: 2021-03-25 20:59 Calculation Date: 2021-03-26 21:19

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: GBSKTOP-6VE5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02C57-37C1-ABE1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 21-25-49 a 027 - 032 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 032 A

Injection Date: 2021-03-25 21:25 Calculation Date: 2021-03-25 21:45

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.551	0.038	2281	BB	0.6	
2	Carbon Dioxi	409.0535	3.777	0.337	3759712	BB	1.6.2	
3	Ethane		7.376					M
	Totals:	409.0535		0.375	3761993			

Status Codes:
M - Missing peak

Total Unidentified Counts : 862 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 19 microVolts - monitored before this run

Manual injection

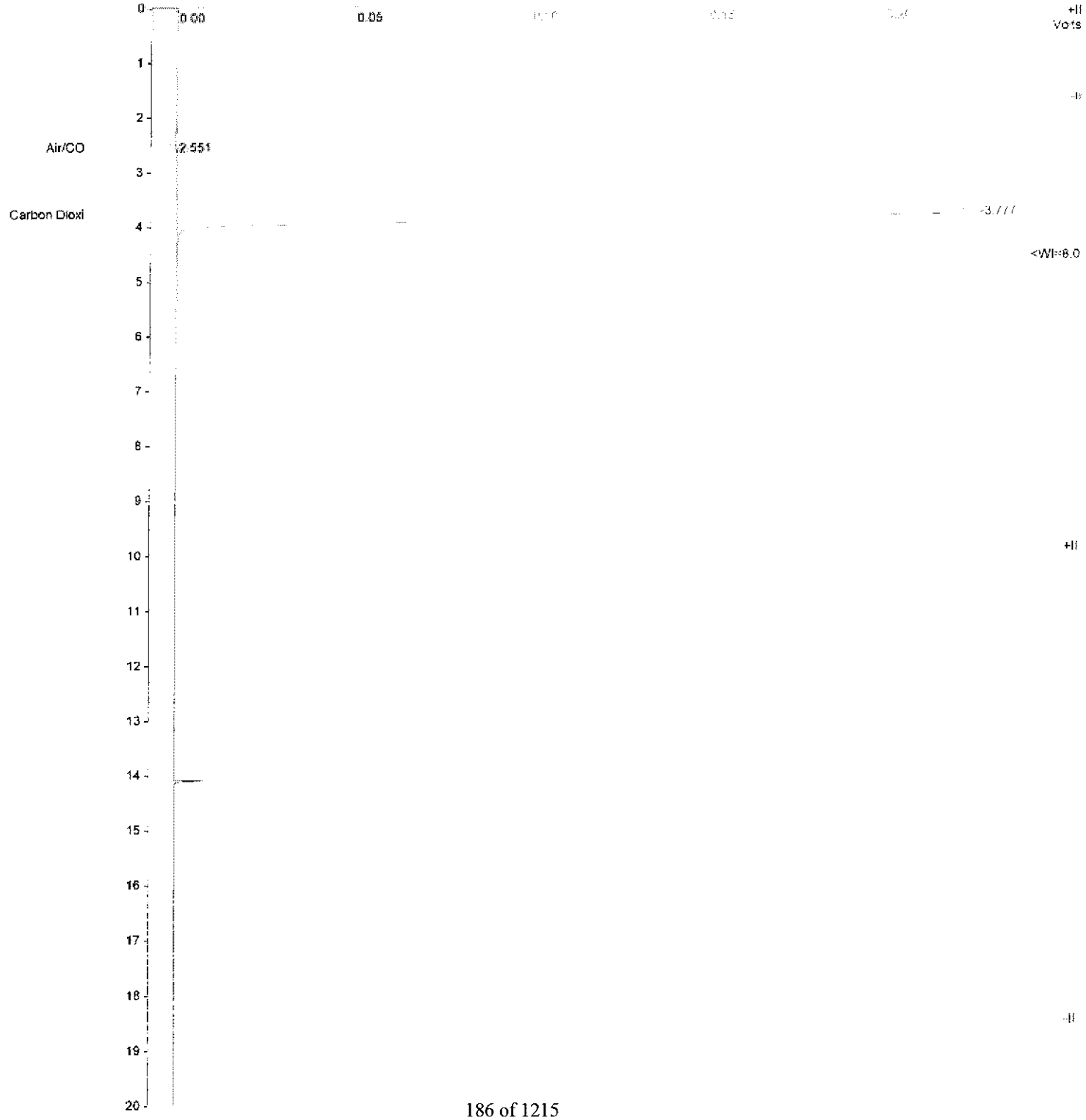
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 21-25-49 a 027 - 032 a inj 2 - master sqaqmd 25.3 3 ml loop 03-05-20_tcdrange5 - copy.run
Method File : C:\Bruker45\methods\Master SQAQMD 25.3 3 ml Loop 03-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 032 A

Injection Date: 2021-03-25 21:25 Calculation Date: 2021-03-25 21:45

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5R Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02C57-37C1-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-front.mth
Sample ID : A 027 - 032 B

Injection Date: 2021-03-25 21:52 Calculation Date: 2021-04-06 10:00

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.550	0.037	3354	BV	2.1	
2	Carbon Dioxi	403.0158	3.778	0.338	3704234	BB	16.2	
3	Ethane		7.376					M
	Totals:	403.0158		0.375	3707588			

Status Codes:
M = Missing peak

Total Unidentified Counts = 8032 counts

Detected Peaks: 12 Rejected Peaks: 9 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 7 microVolts - monitored before this run

Manual Injection

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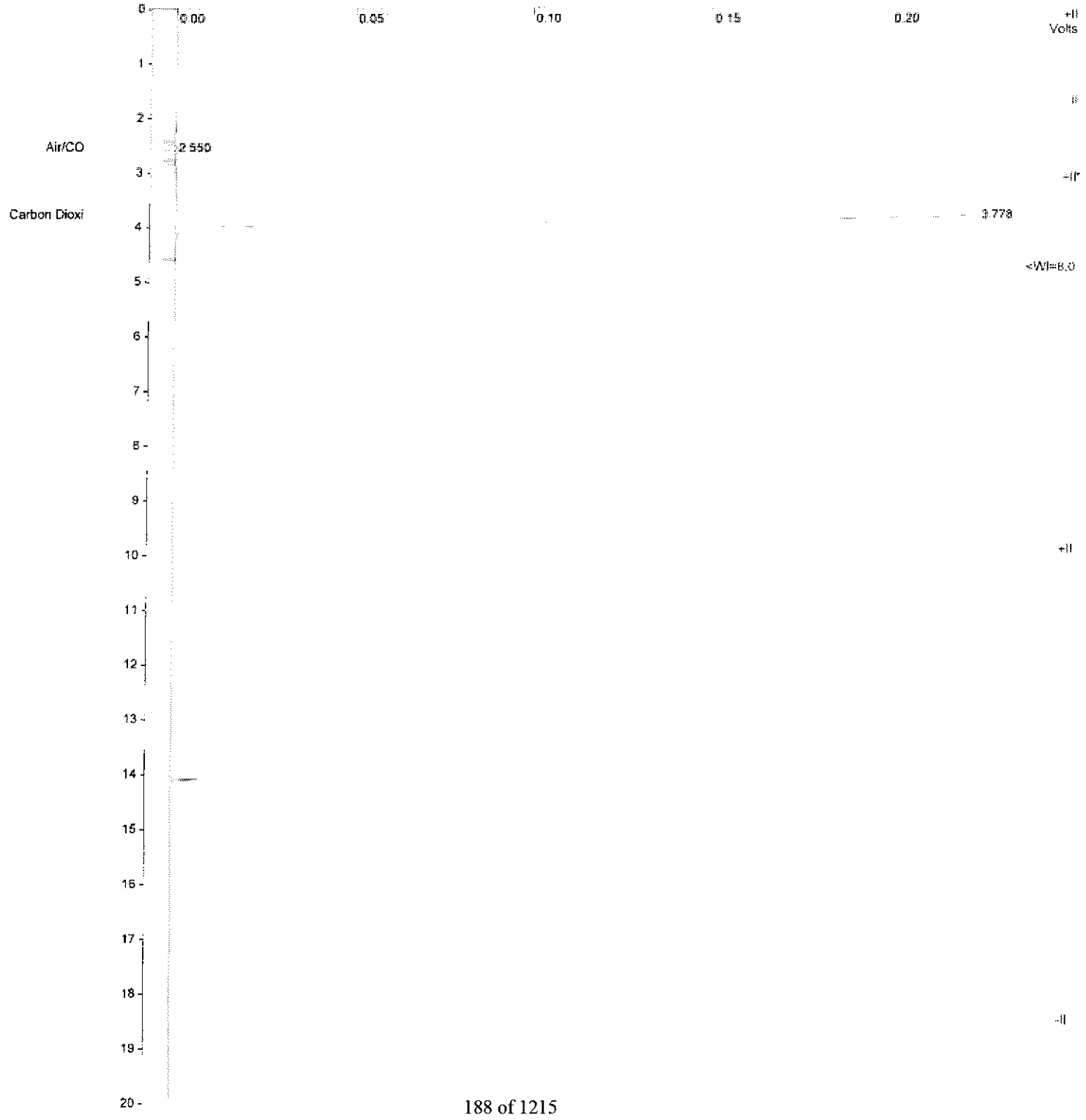
Title :
Run File : c:\bruker ws\data\2021\mar_21\2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-front.mth
Sample ID : A 027 - 032 3

Injection Date: 2021-03-25 21:52 Calculation Date: 2021-04-06 10:30

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VI55 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37C1-ABB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 28
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\bruker\s\data\2021\mar_21\2021-03-25 22-18-39 a 027 - 032 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-front.mth
Sample ID : A 027 - 032 B

Injection Date: 2021-03-25 22:18 Calculation Date: 2021-04-06 10:00

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.550	0.037	3213	BV	2.2	
2	Carbon Dioxi	403.0850	3.779	0.339	3704870	BB	16.1	
3	Ethane		7.376					M
	Totals:	403.0850		0.376	3708083			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3977 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

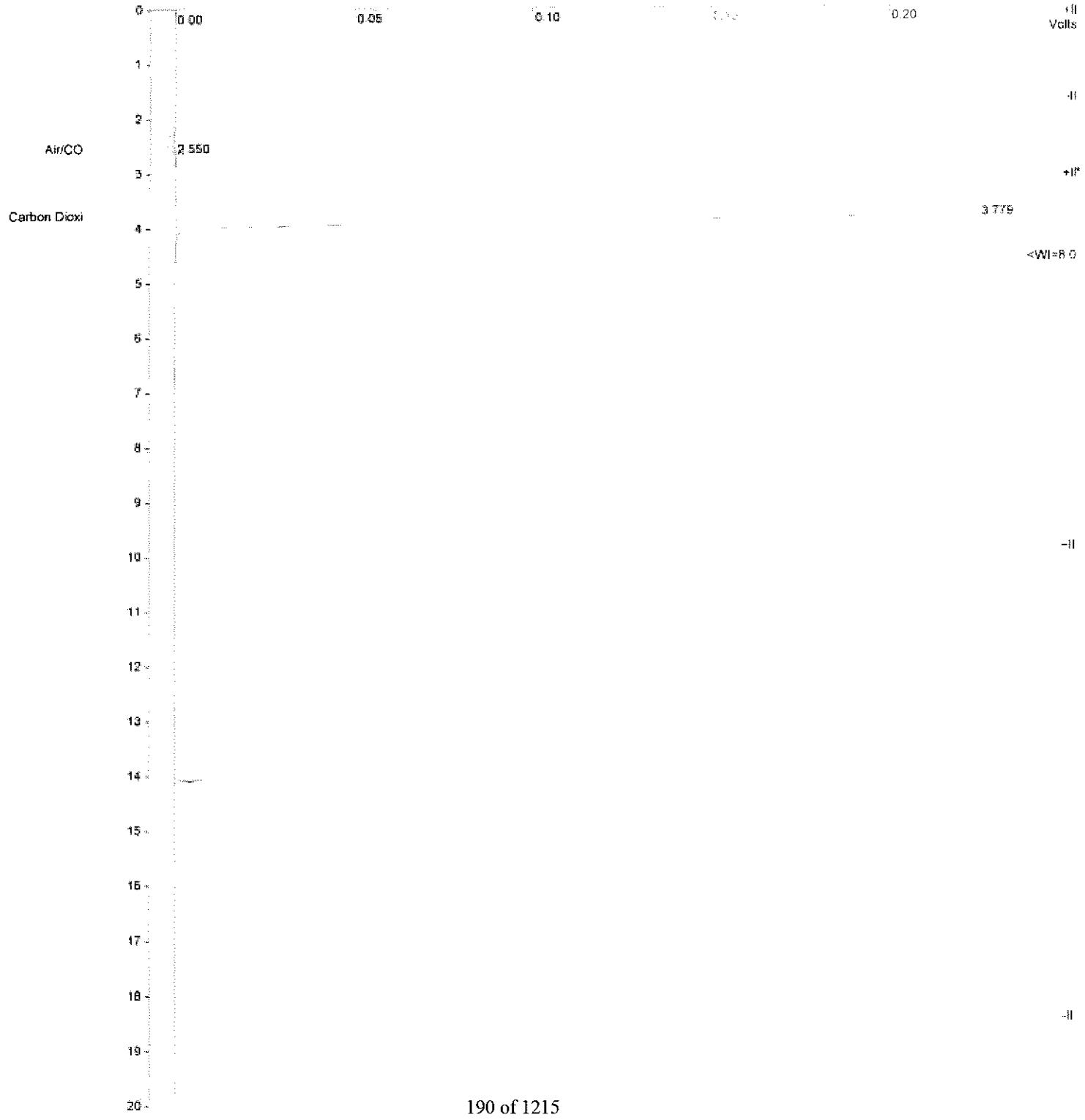
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 22-18-39 a 027 - 032 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-25 21-52-16 a 027 - 032 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-front.mth
Sample ID : A 027 - 032 B

Injection Date: 2021-03-25 22:18 Calculation Date: 2021-04-06 10:09

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V5o3 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABI-4130 **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



QAQC

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 n2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.476	-0.037	571	VP	0.0	
2	Carbon Dioxi	0.0597	3.677	0.237	549	VV	9.2	
3	Ethane		7.376					M
	Totals:	0.0597		0.200	1120			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3302 counts

Detected Peaks: 48 Rejected Peaks: 39 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - monitored before this run

Manual injection

****

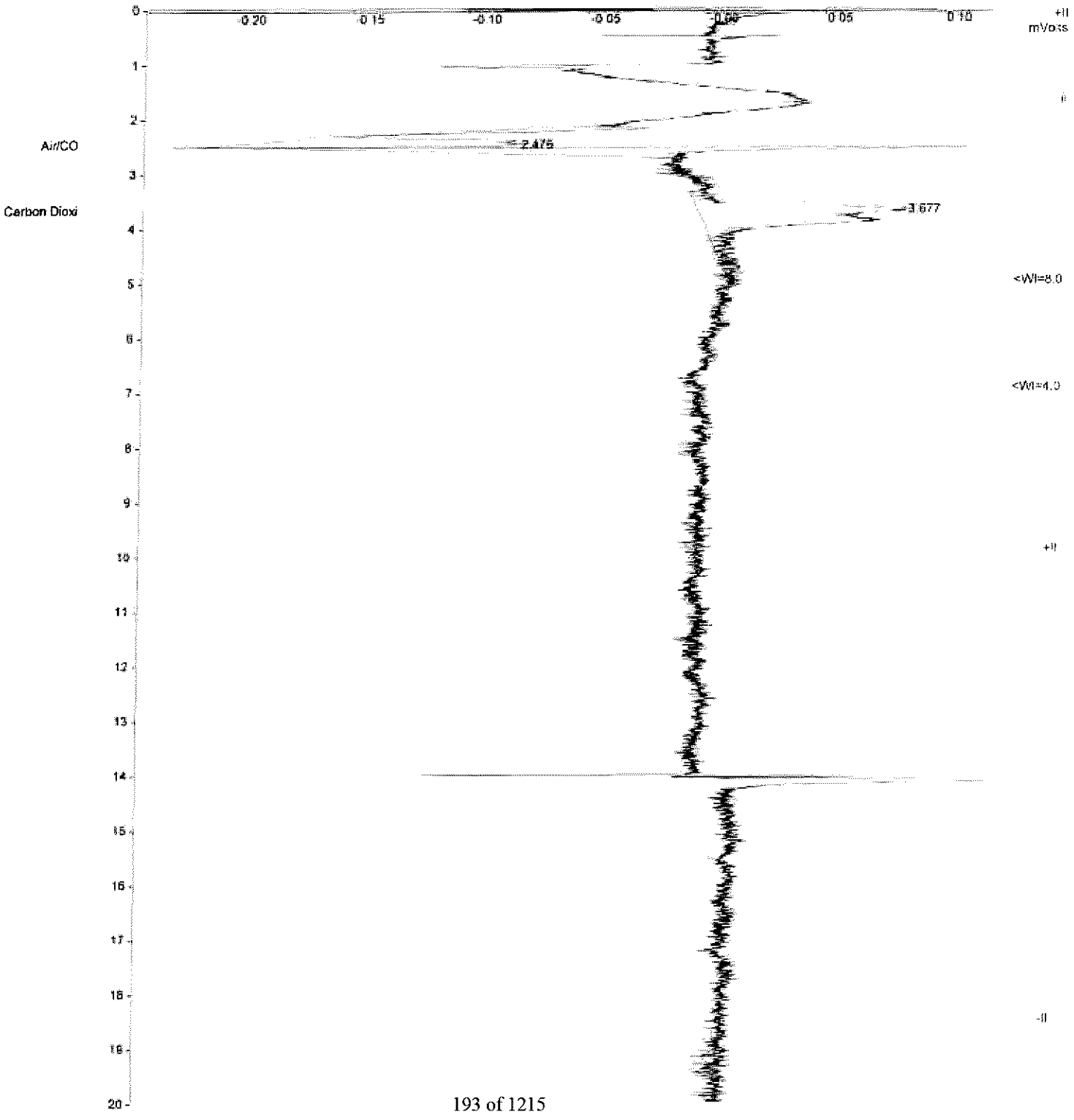
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 n2 blank 01205 inj 2 - master scagnd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File C:\BrukerWS\methods\Master SCAGND 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: GXX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37CE-AE1-415C **

Chart Speed - 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time - 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 n2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.07	5.360	-0.000	115	BV	6.4	
2	Carbon Monox	0.58	6.180	0.315	1001	VV	23.8	
3	NMNEOC	0.08	16.732	-0.447	1718	BB	43.8	
	Totals:	0.73		-0.132	2834			

Total Unidentified Counts : 3869 counts

Detected Peaks: 16 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

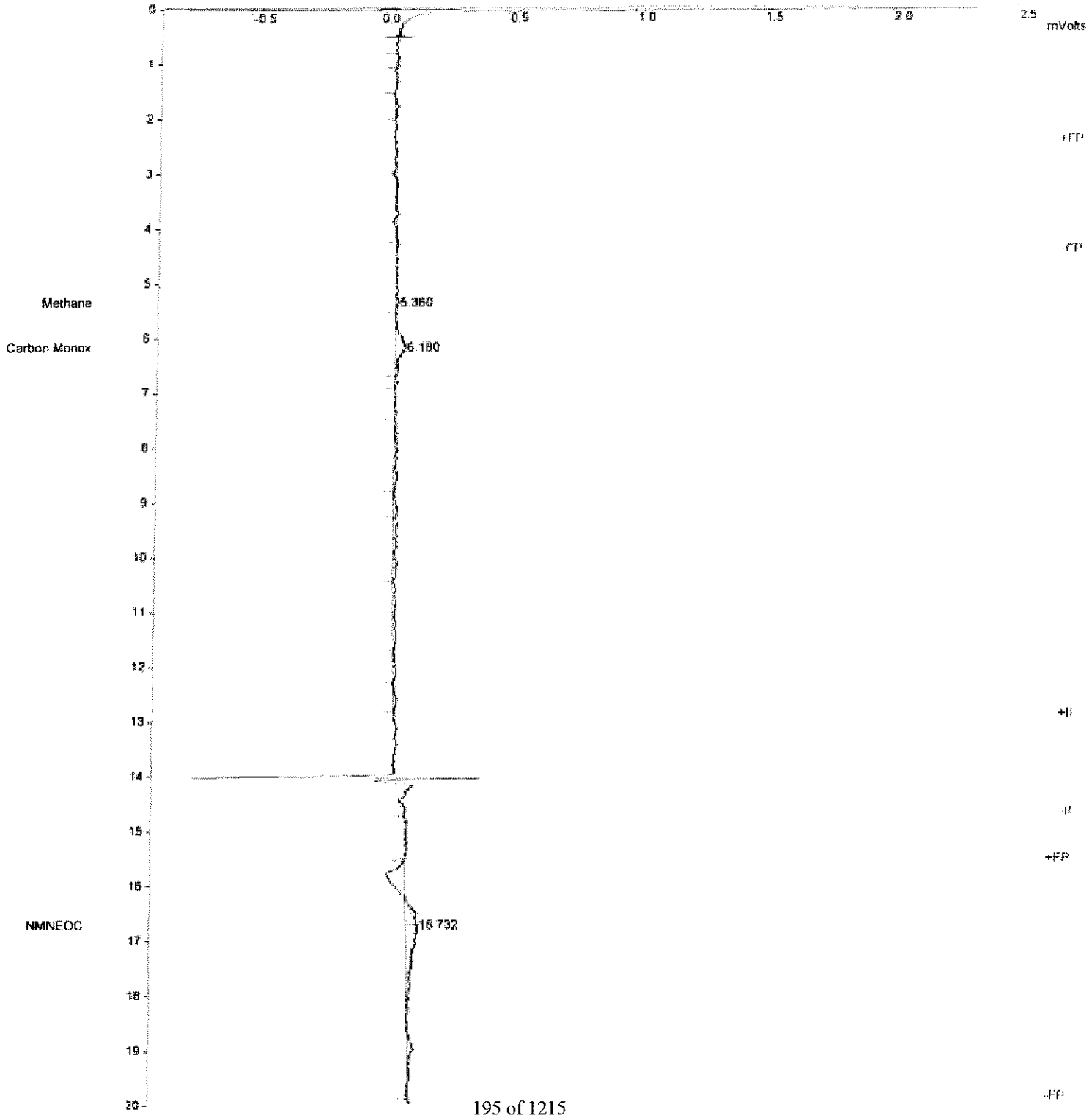
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 09-08-15 m2 blank 01205 inj 2 - master sqeqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : M2 blank 01205

Injection Date: 2021-03-25 09:09 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V558 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A81-413C **

Chart Speed = 0.93 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-03-25 10:47

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.499	-0.014	23921	PV	21.0	
2	Carbon Dioxi	5.0434	3.772	0.332	46368	VP	16.7	
3	Ethane	4.6504	7.499	0.123	43900	VP	26.3	
	Totals:	9.6938		0.441	114189			

Total Unidentified Counts : 55887 counts

Detected Peaks: 99 Rejected Peaks: 94 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 3 microVolts - monitored before this run

Manual injection

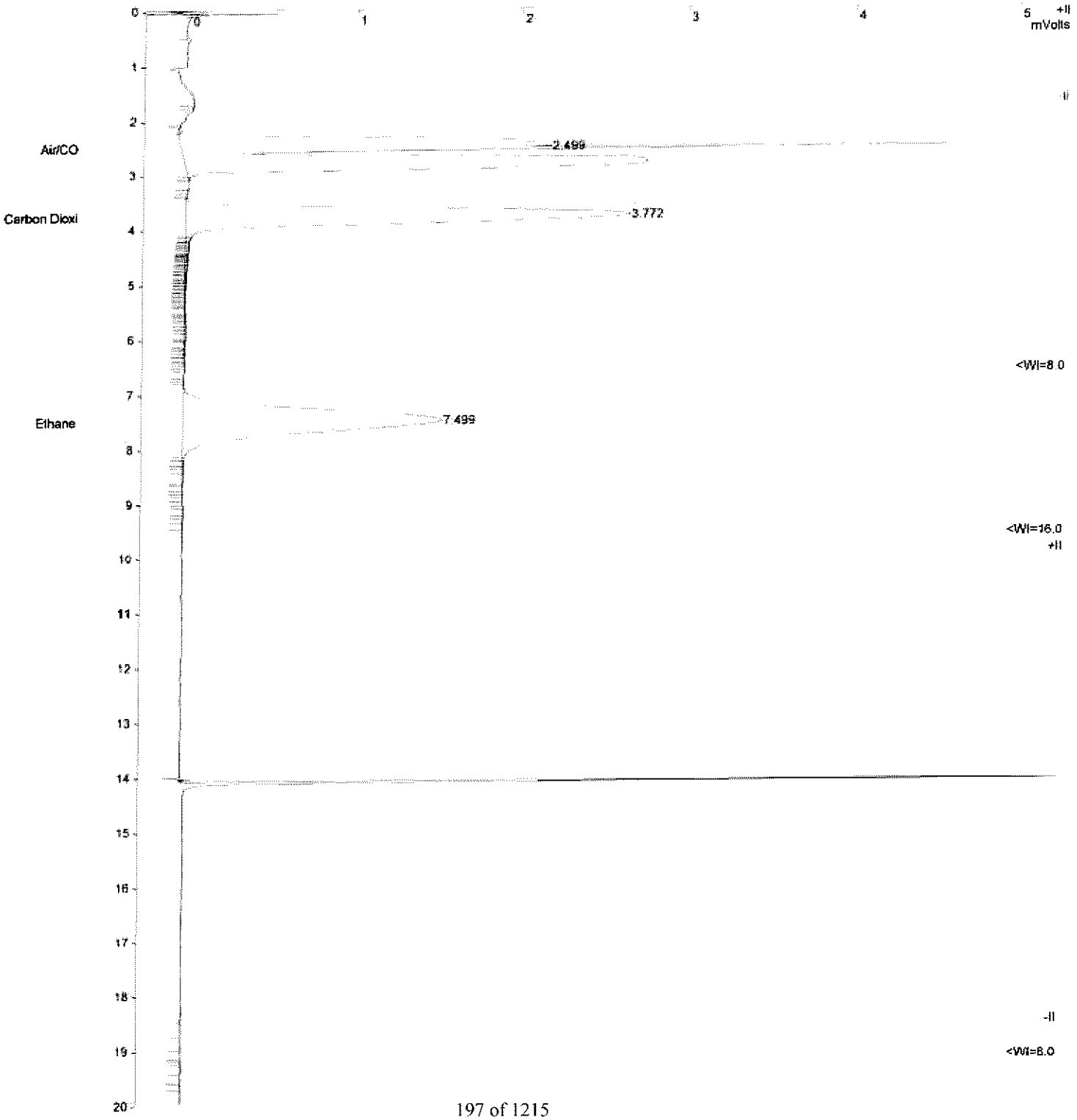
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-03-25 10:47

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V15B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-04-06 13:18

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.27	5.437	0.077	8497	BV	16.4	
2	Carbon Monox	5.57	6.162	0.297	9643	VB	21.2	
3	NMNEOC	7.76	16.035	-1.144	156900	BB	26.5	
	Totals:	18.60		-0.770	175040			

Total Unidentified Counts : 3678 counts

Detected Peaks: 18 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

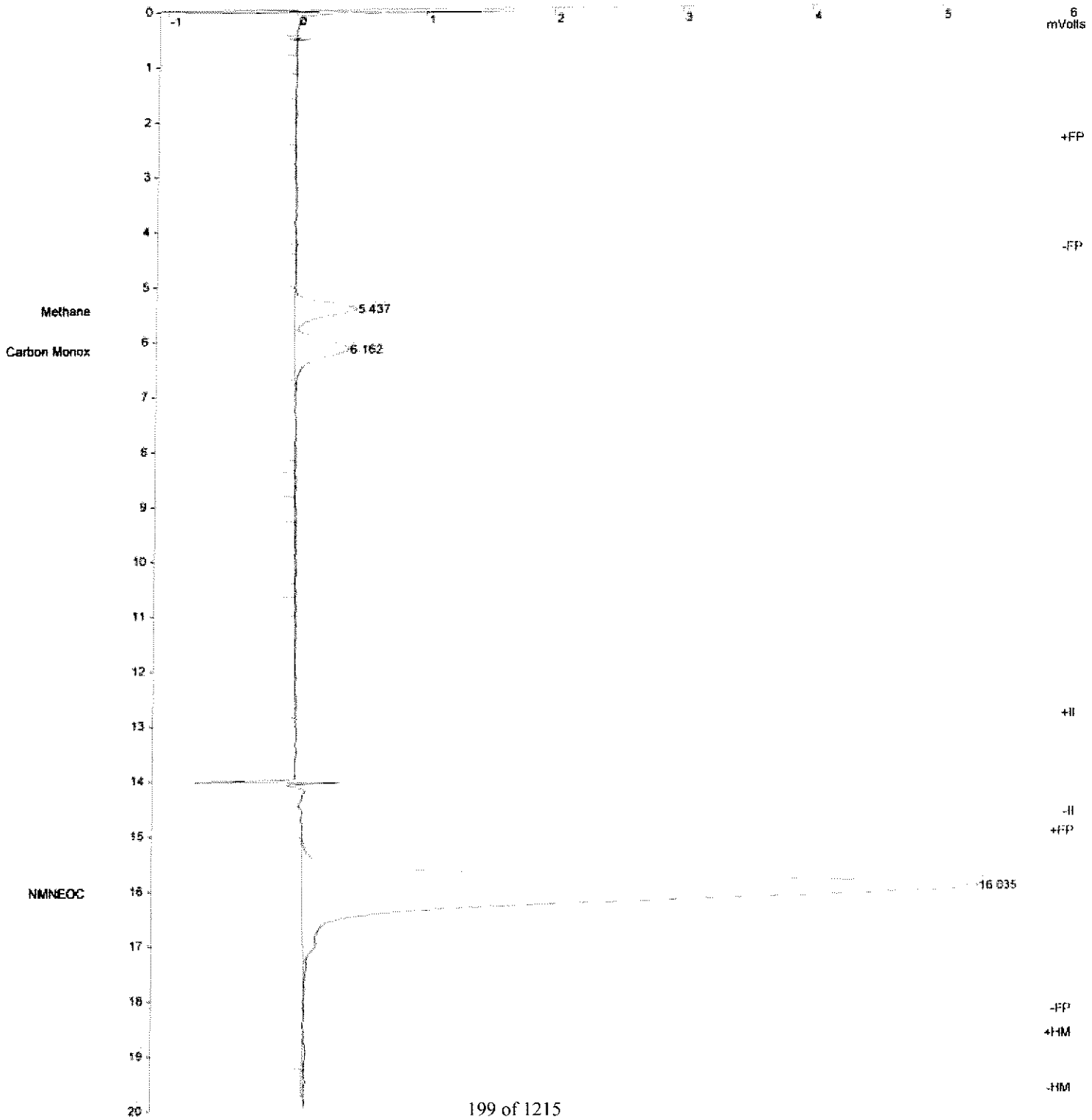
Title :
Run File : c:\bruker\ws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-04-06 13:18

Operator : Douglass W. Detector Type: GXX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Front - FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.552	0.039	3321	BB	0.0	
2	Carbon Dioxi	0.0480	3.667	0.227	441	BB	0.0	
3	Ethane		7.376					M
	Totals:	0.0480		0.266	3762			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1468 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

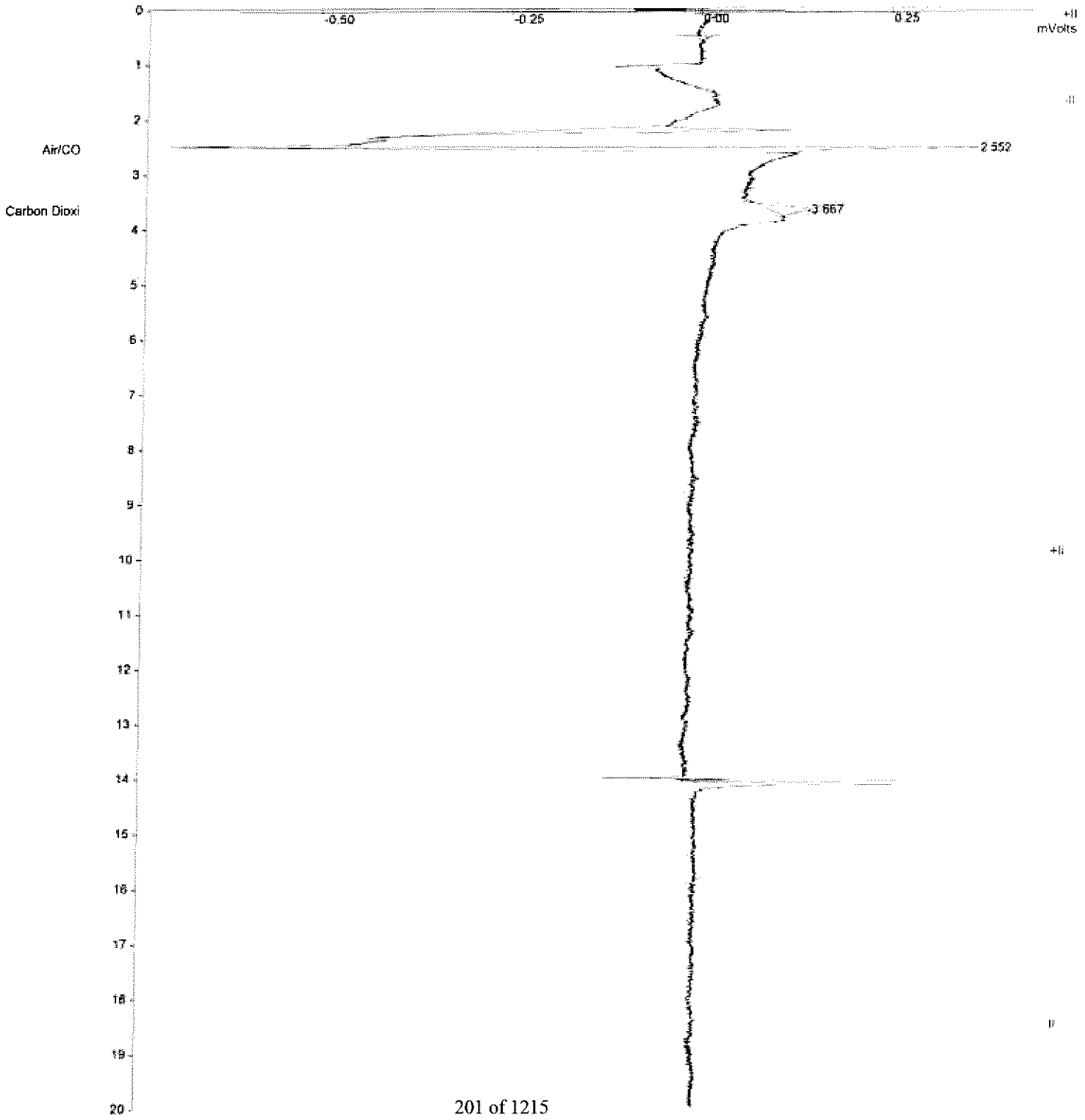
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqnd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQND 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1200 Volts)
Workstation: DLSKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMGC Sample Rate : 5.00 Hz
Channel : Front = TCD Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 08
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.360					
2	Carbon Monox	2.80	6.164	0.299	4846	BB	23.2	M
3	NMNEOC	0.01	15.516	-1.663	162	BB	0.0	
	Totals:	2.81		-1.364	5008			

Status Codes:
M - Missing peak

Total Unidentified Counts : 18342 counts

Detected Peaks: 10 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

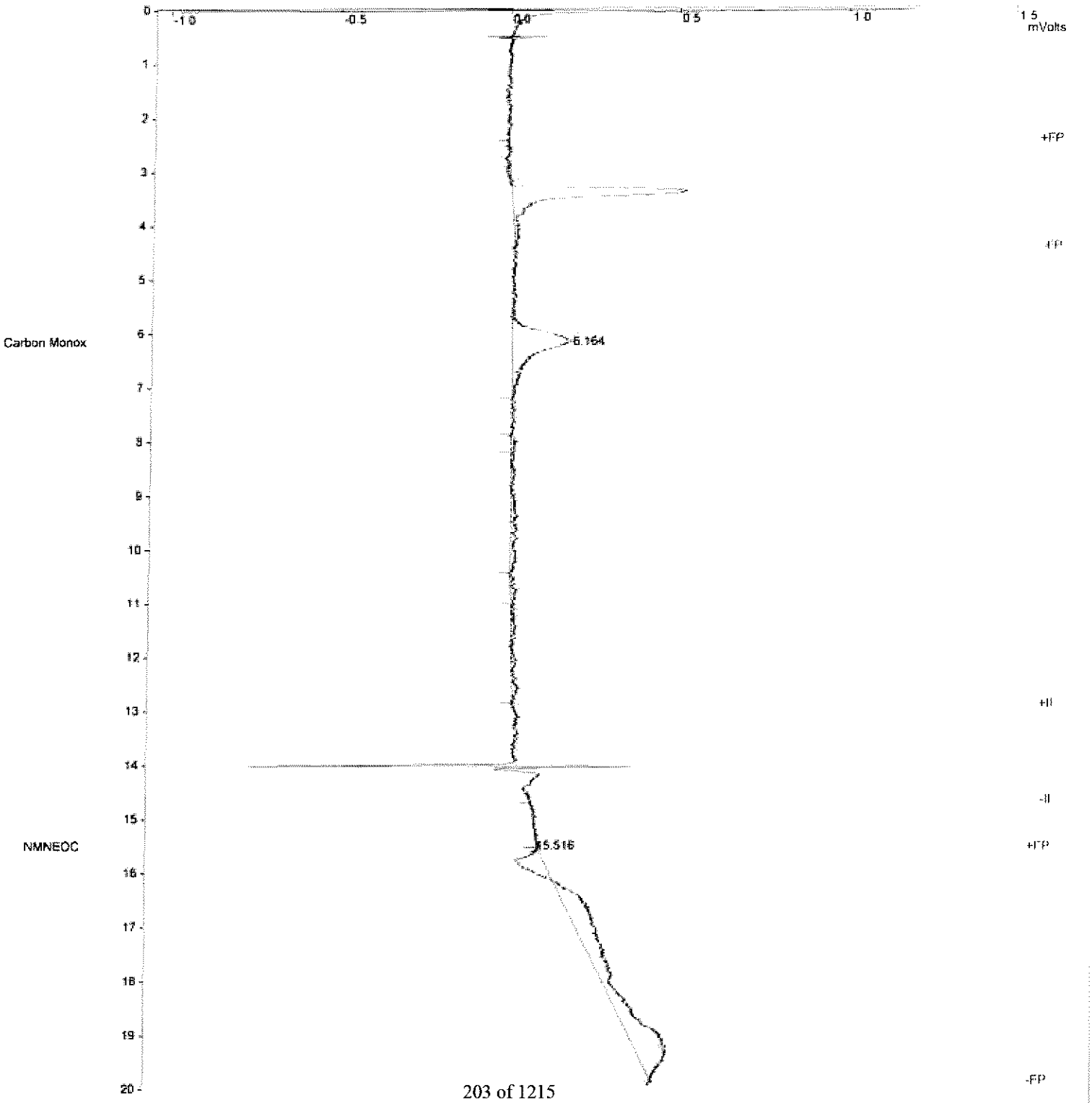
Title :
Run File : c:\bruker\ws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-03-25 23:31

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.439	-0.014	11861968	BV	21.8	
2	Carbon Dioxi	1968.5909	3.778	0.338	18074282	VB	16.2	
3	Ethane	2089.7637	7.478	0.102	18206122	BB	26.3	
	Totals:	4058.3545		0.426	48142372			

Total Unidentified Counts : 22998416 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

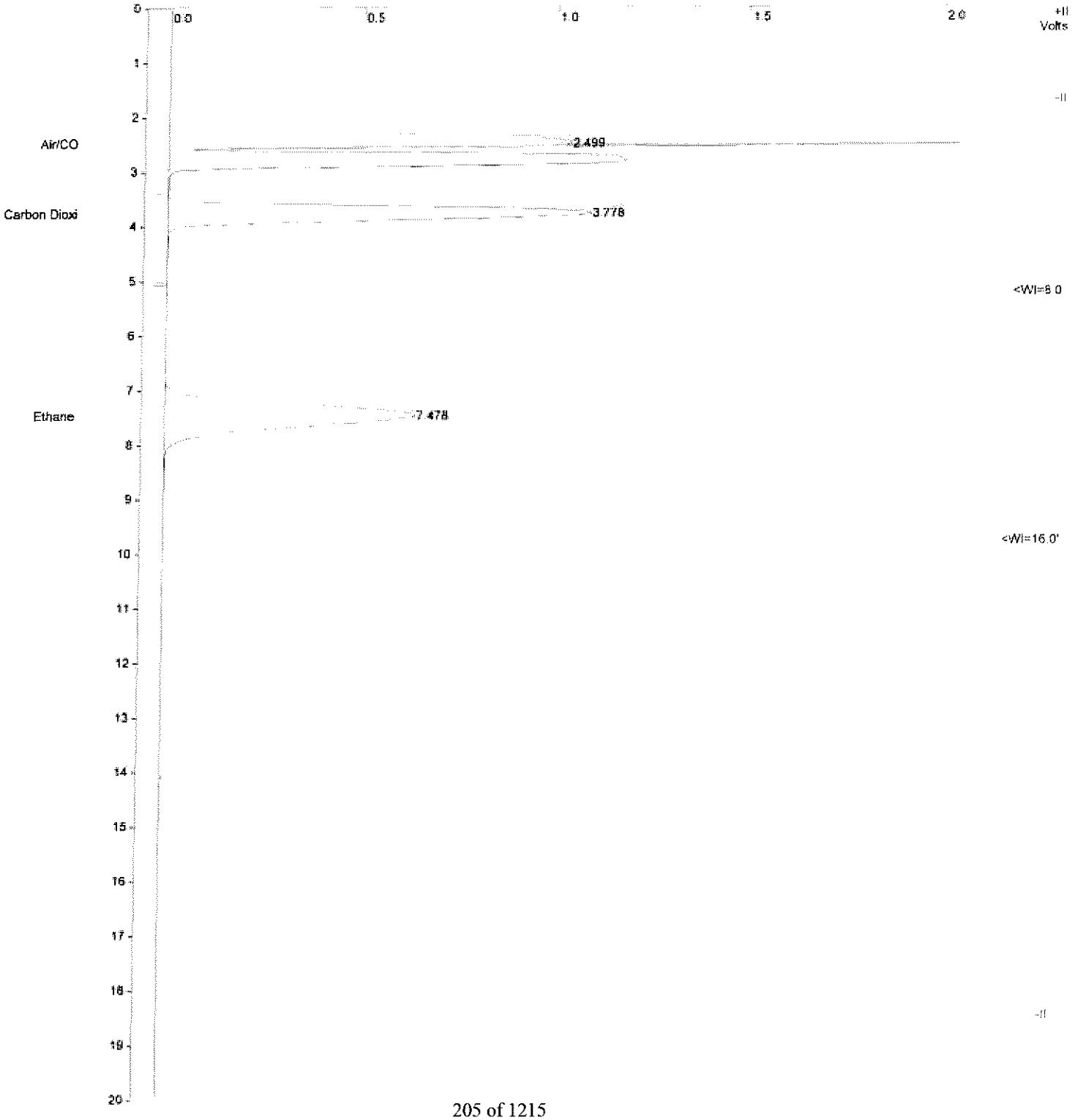
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-03-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-03-20_TCDrange5 - Copy.mch
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-03-25 23:31

Operator : Douglass W. Detector Type: 2XX-GC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMSC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** NSWS 8.0.1 for SCTCN Version 8.0.1 ** 02057-3731-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 9 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-04-06 13:19

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	2007.96	5.440	0.080	3239937	VV	16.3	
2	Carbon Monox	1893.98	6.152	0.287	3277201	VB	20.4	
3	NMNEOC	2027.51	16.578	-0.601	40986528	BB	30.8	
	Totals:	5929.45		-0.234	47503666			

Total Unidentified Counts : 1900 counts

Detected Peaks: 11 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 29 microVolts

Manual injection

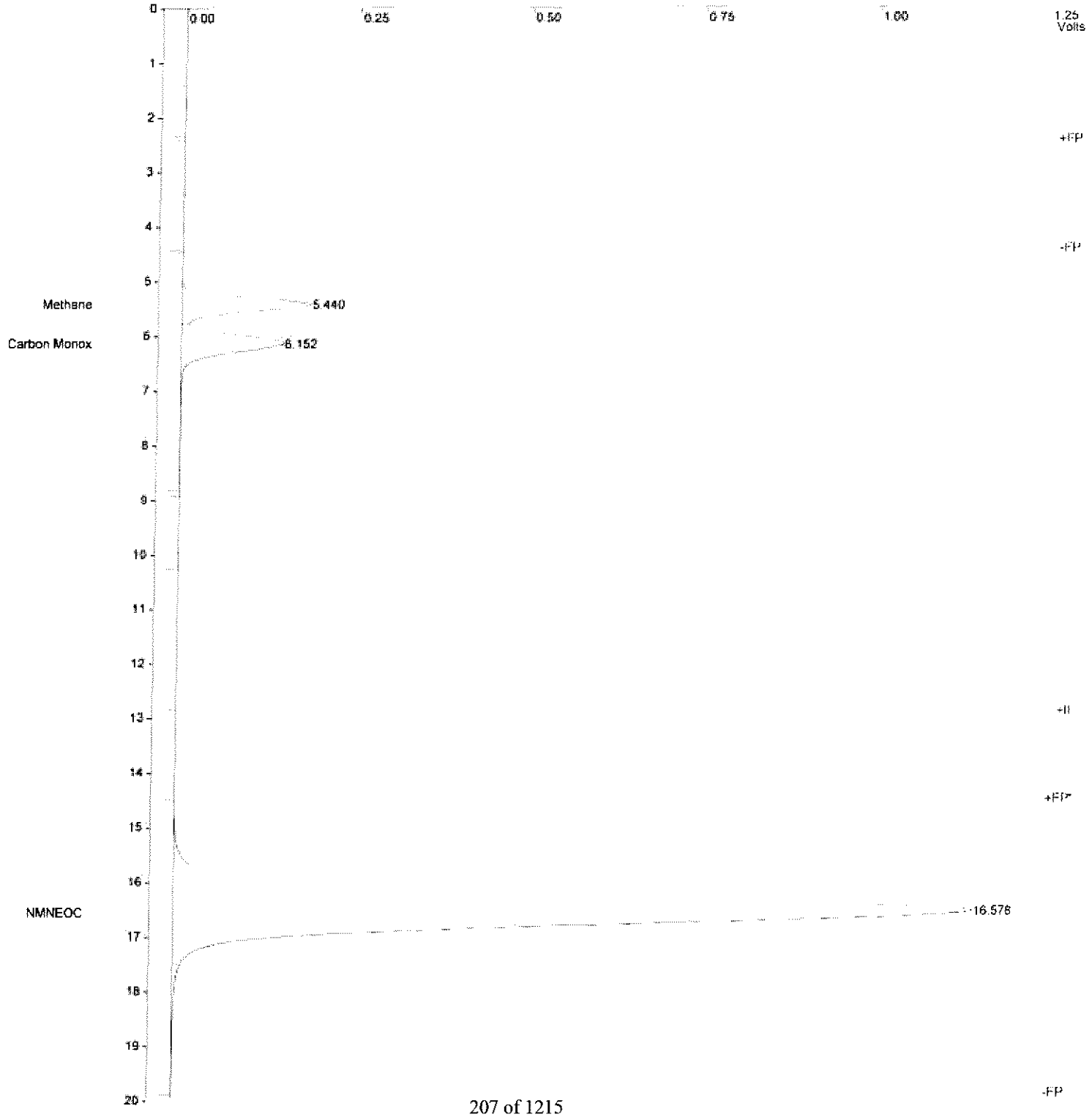
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - C12 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy-middle.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-04-06 13:19

Operator : Douglass W. Detector Type: GXX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-26 00-04-25 n2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.473	-0.040	589	VP	0.0	
2	Carbon Dioxi	0.0372	3.691	0.251	342	BV	9.0	
3	Ethane		7.376					M
	Totals:	0.0372		0.211	931			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1487 counts

Detected Peaks: 15 Rejected Peaks: 9 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

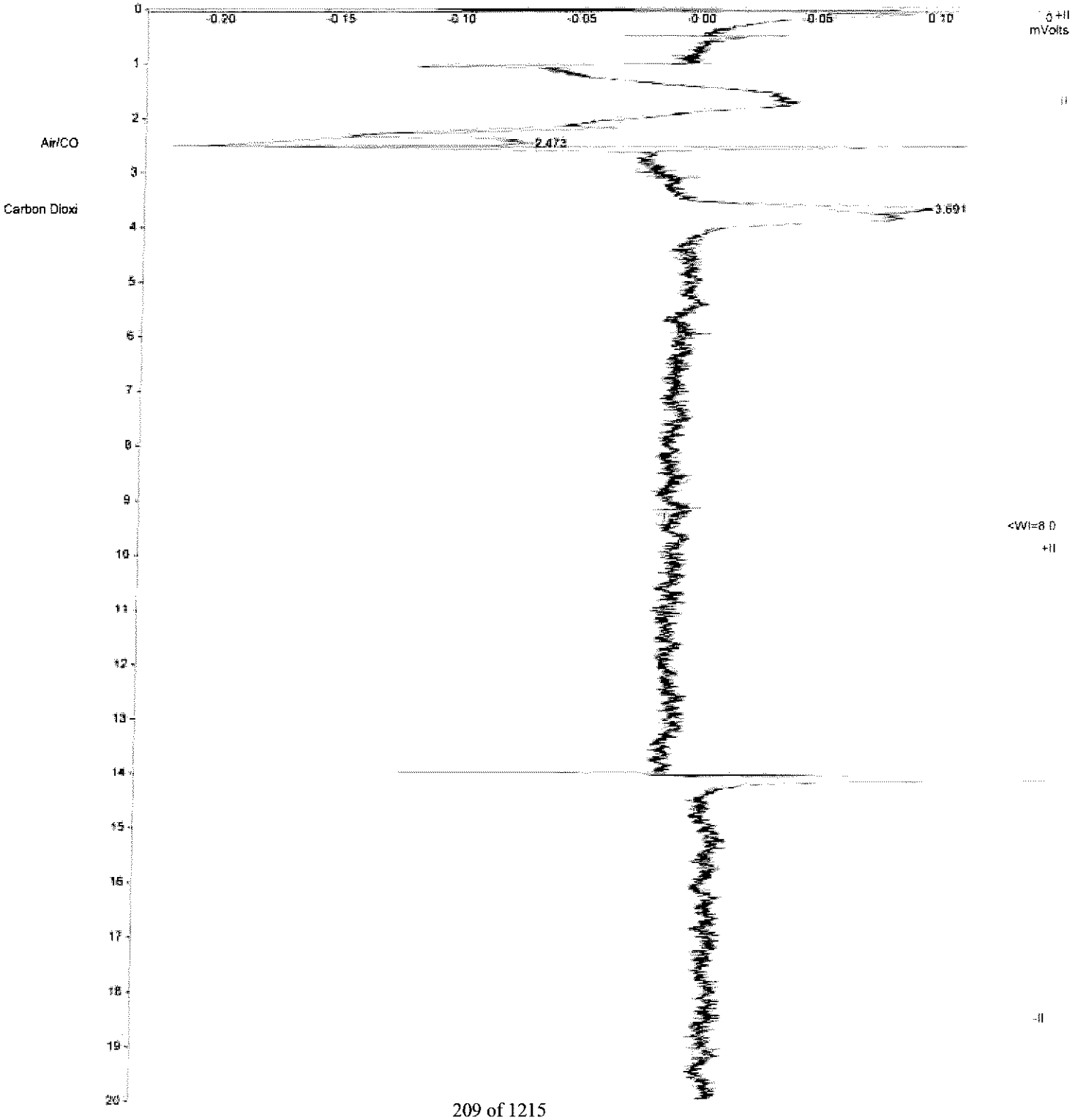
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-26 00-04-25 m2 blank a1c7 inj 2 - master sqaqnc 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQNC 25.3 3 ml loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : M2 Blank A1C7

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-SC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MNCC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** NSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37C1-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-26 00-04-25 n2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.50	5.423	0.063	809	BV	15.5	
2	Carbon Monox	0.87	6.102	0.317	1504	VB	21.0	
3	NMNEOC		17.179					M
	Totals:	1.37		0.380	2313			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1876 counts

Detected Peaks: 12 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

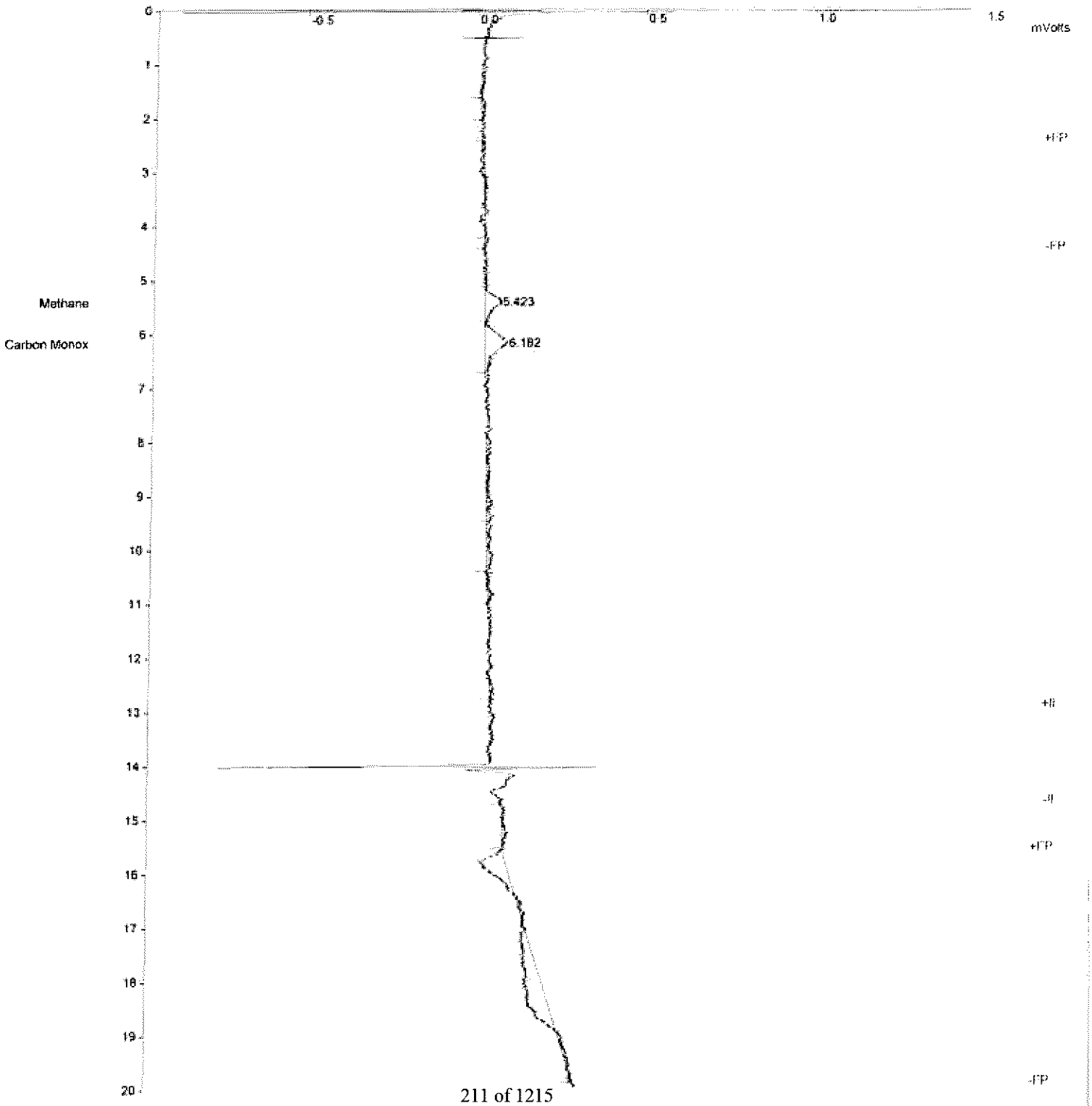
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-26 00-04-25 n2 blank a107 inj 7 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:26

Operator : Douglass W. Detector Type: 4XX-GC (1600 Volts)
Workstation: DESKTOP-6V7S5 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 09-18-53 n2 blank a106 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank A106

Injection Date: 2021-03-30 09:18 Calculation Date: 2021-03-30 09:38

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.551	0.038	986	BB	0.0	
2	Carbon Dioxi	1.1367	3.782	0.342	10451	BB	17.7	
3	Ethane		7.376					M
	Totals:	1.1367		0.380	11437			

Status Codes:
M - Missing peak

Total Unidentified Counts : 146 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

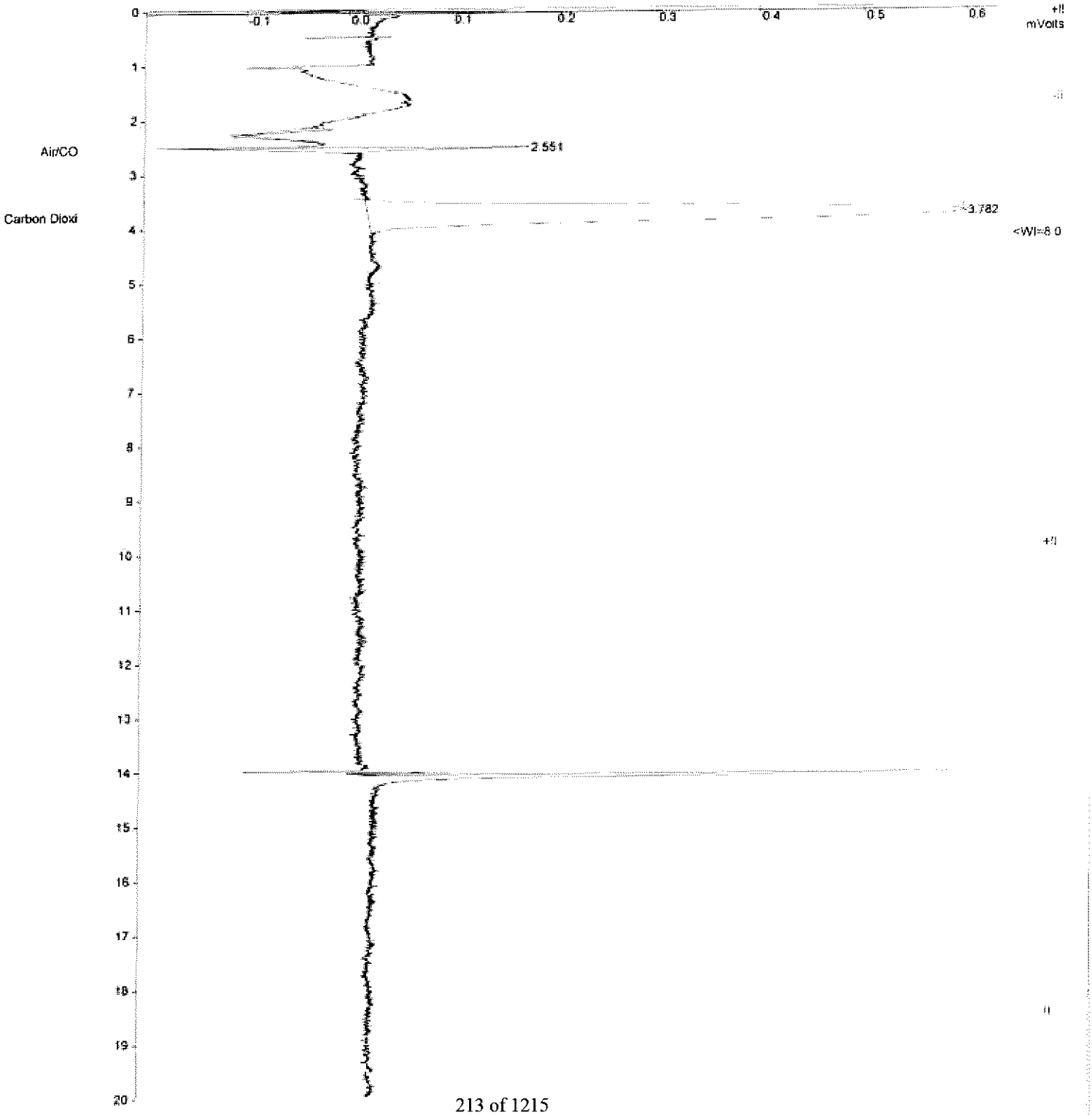
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 09-18-53 n2 blank a106 inj 2 - master sqaqmi 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : N2 blank A106

Injection Date: 2021-03-30 09:18 Calculation Date: 2021-03-30 09:38

Operator : Douglass W. Detector Type: 4XR-GC (1000 Volts)
Workstation: DESKTOP-6V253 Bus Address : 44
Instrument : Locus HWOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02657-3701-AB1-413C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 09-18-53 n2 blank a106 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank A106

Injection Date: 2021-03-30 09:18 Calculation Date: 2021-03-30 09:38

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.07	5.353	-0.007	111	BB	9.2	
2	Carbon Monox	0.48	6.179	0.314	828	BB	23.6	
3	NMNEOC	0.07	18.968	1.789	1496	BB	44.1	
	Totals:	0.62		2.096	2435			

Total Unidentified Counts : 2125 counts

Detected Peaks: 12 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 35 microVolts

Manual injection

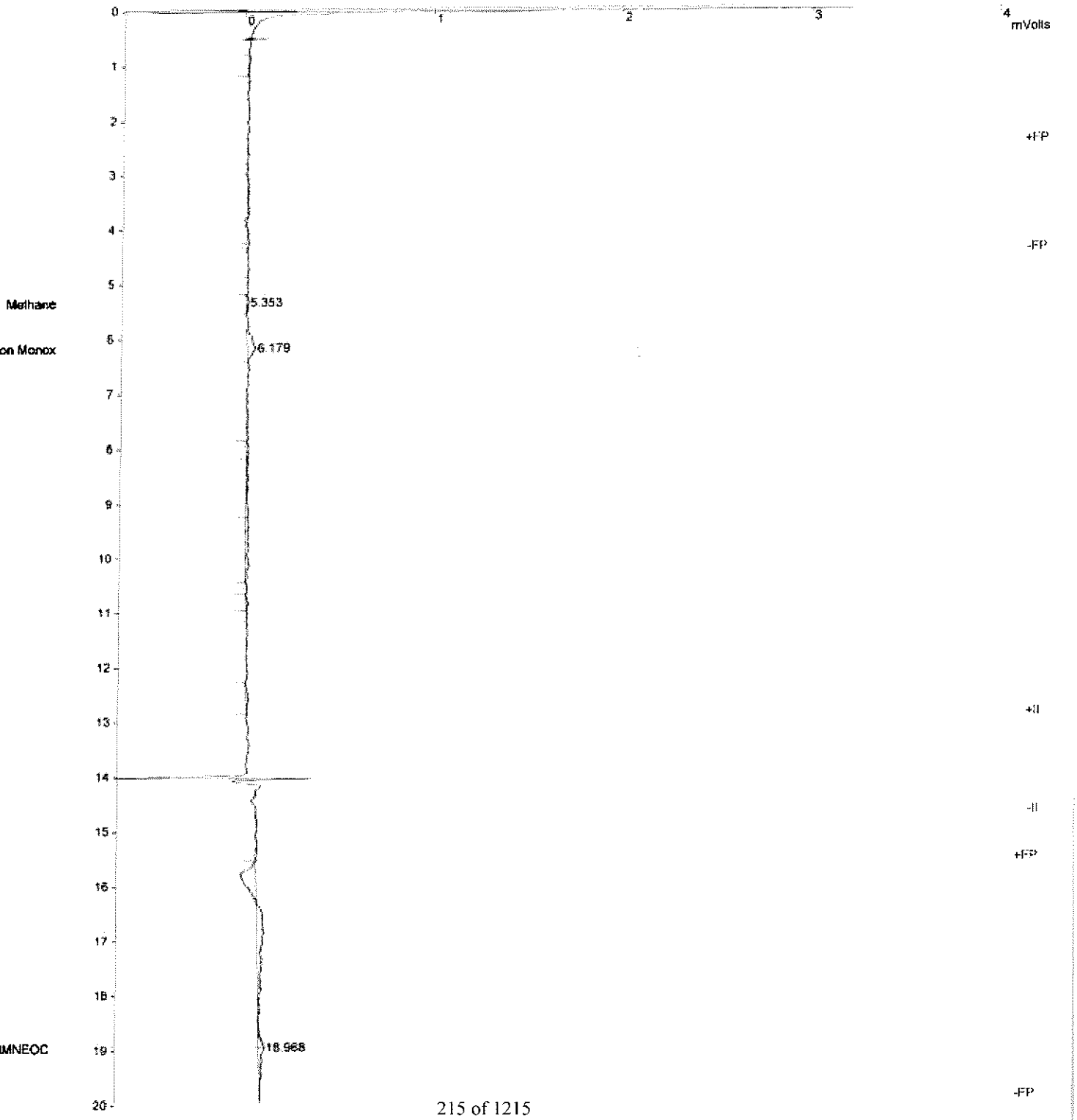
Title :
Run File : c:\brukerws\data\2021\mar_2?\2021-03-30 09-18-53 m2 blank a106 inj 2 - master sqaqnd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQND 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : M2 blank A106

Injection Date: 2021-03-30 09:18 Calculation Date: 2021-03-30 09:38

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-30 10:37 Calculation Date: 2021-03-30 10:57

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.499	-0.014	23763	BV	20.8	
2	Carbon Dioxi	4.9256	3.773	0.333	45285	BB	16.7	
3	Ethane	4.5727	7.497	0.121	43166	BB	26.3	
	Totals:	9.4983		0.440	112214			

Total Unidentified Counts : 56474 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

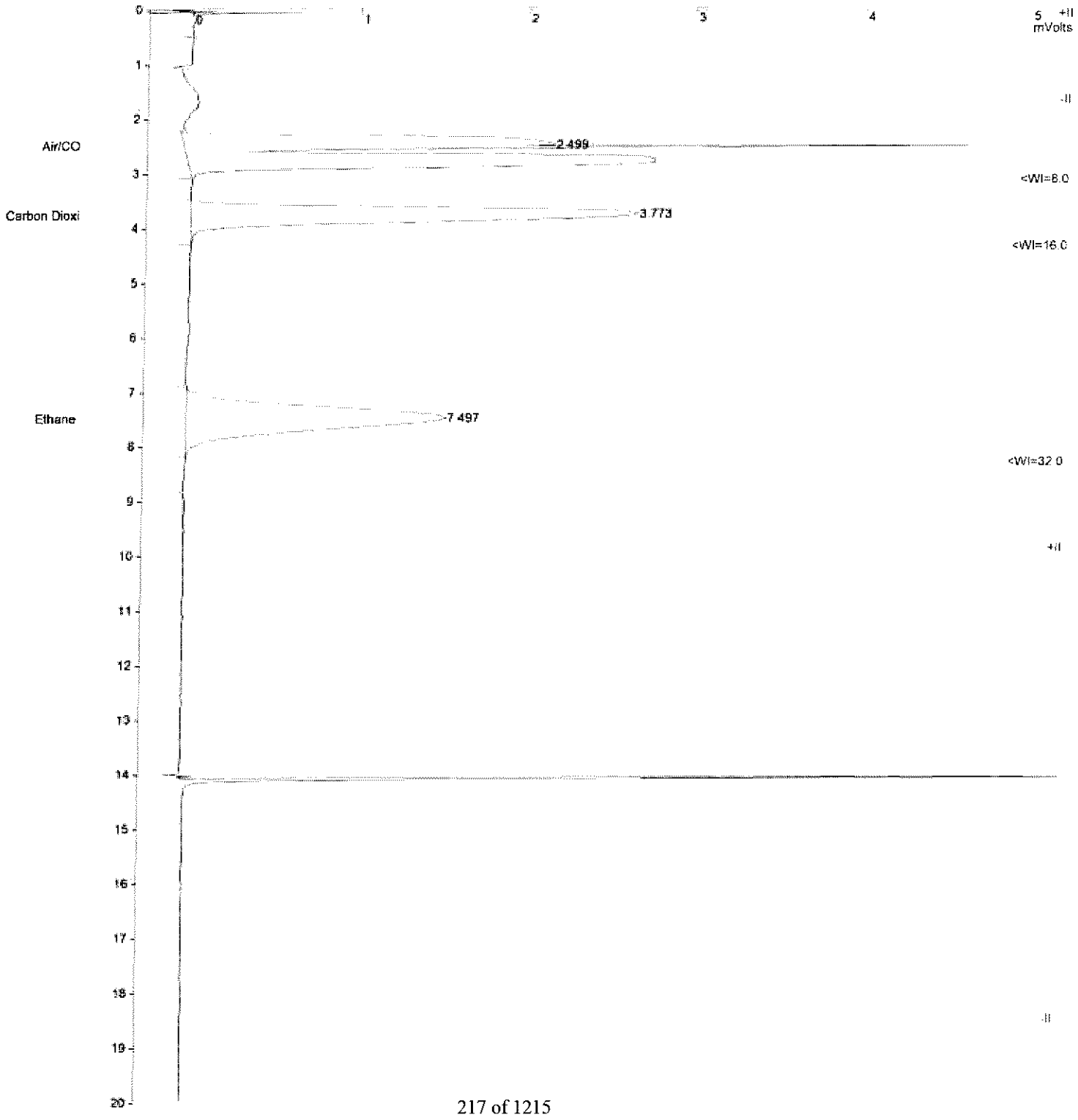
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-30 10:37 Calculation Date: 2021-03-30 10:57

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V53B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-30 10:37 Calculation Date: 2021-04-05 11:01

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle - FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.19	5.433	0.073	8373	BV	16.3	
2	Carbon Monox	5.47	6.150	0.285	9457	VB	20.9	
3	NMNEOC	7.69	16.035	-1.144	155362	MB	26.1	
	Totals:	18.35		-0.786	173192			

Total Unidentified Counts : 1436 counts

Detected Peaks: 9 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 32 microVolts

Manual injection

****

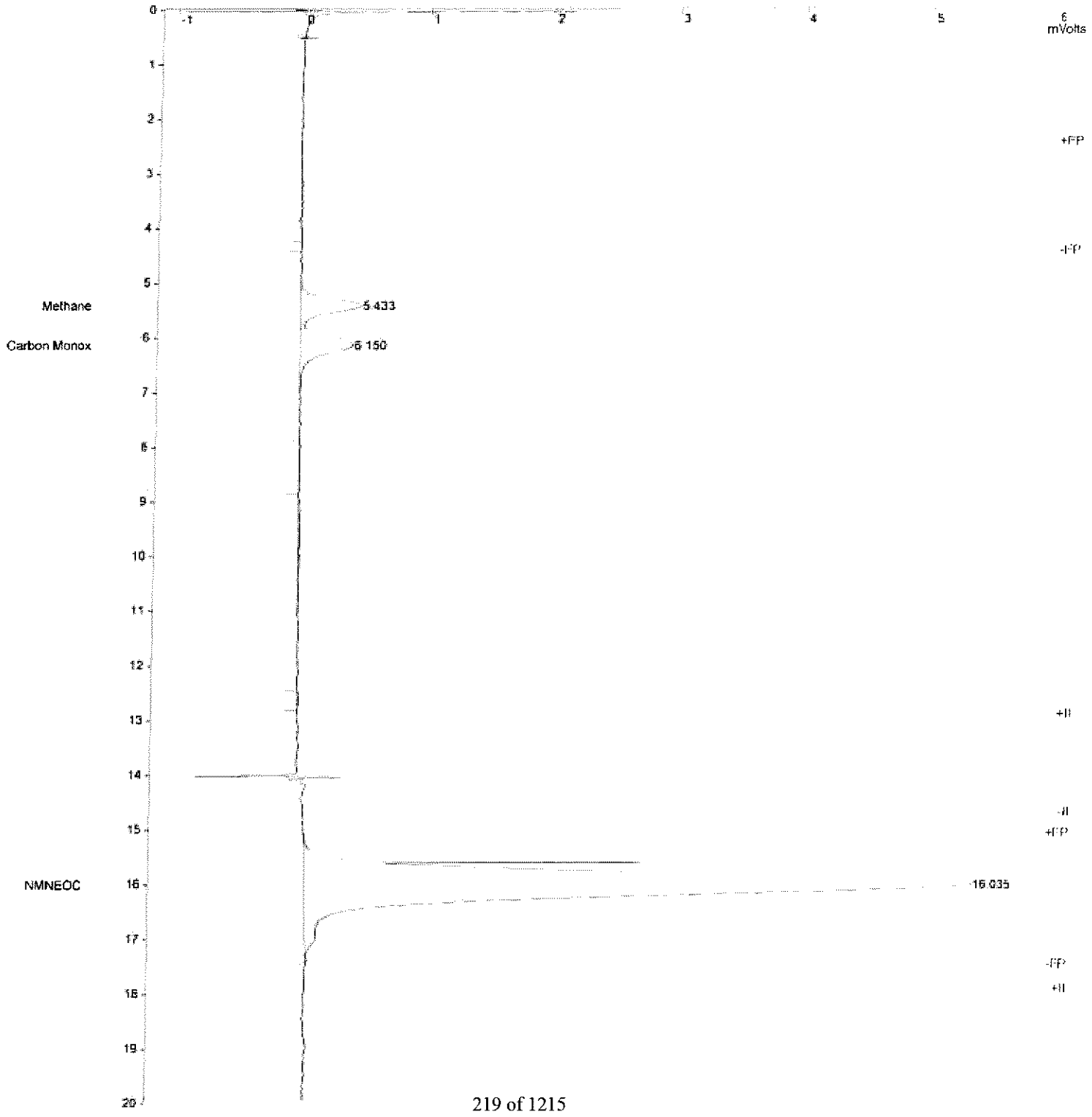
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_todrange5 - copy.run
Method File : 2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_todrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-30 10:37 Calculation Date: 2021-04-05 11:01

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 11-30-21 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-30 11:30 Calculation Date: 2021-03-30 11:50

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.548	0.035	3458	BB	0.0	
2	Carbon Dioxi	2.7529	3.768	0.328	25310	BB	17.0	
3	Ethane		7.376					M
	Totals:	2.7529		0.363	28768			

Status Codes:
M = Missing peak

Total Unidentified Counts : 1350 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 14 microVolts - monitored before this run

Manual injection

****

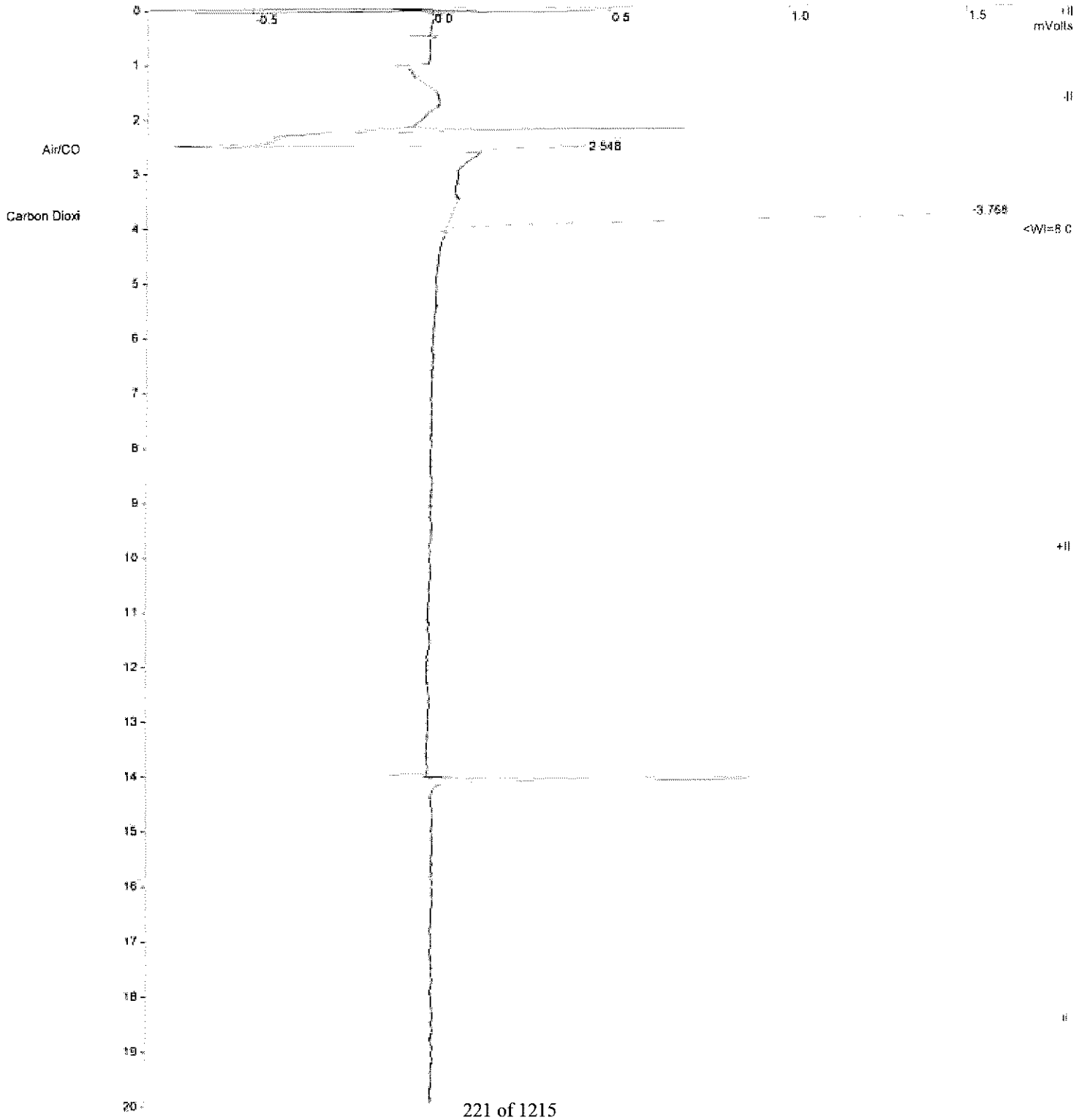
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 11-30-21 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mch
Sample ID : system blank

Injection Date: 2021-03-30 11:30 Calculation Date: 2021-03-30 11:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DSSKT02-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 11-30-21 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-30 11:30 Calculation Date: 2021-03-30 11:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.09	5.369	0.009	144	BV	9.1	
2	Carbon Monox	2.85	6.158	0.293	4937	VB	23.3	
3	NMNEOC		17.179					M
	Totals:	2.94		0.302	5081			

Status Codes:
M - Missing peak

Total Unidentified Counts : 18577 counts

Detected Peaks: 11 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 21 microVolts

Manual injection

****

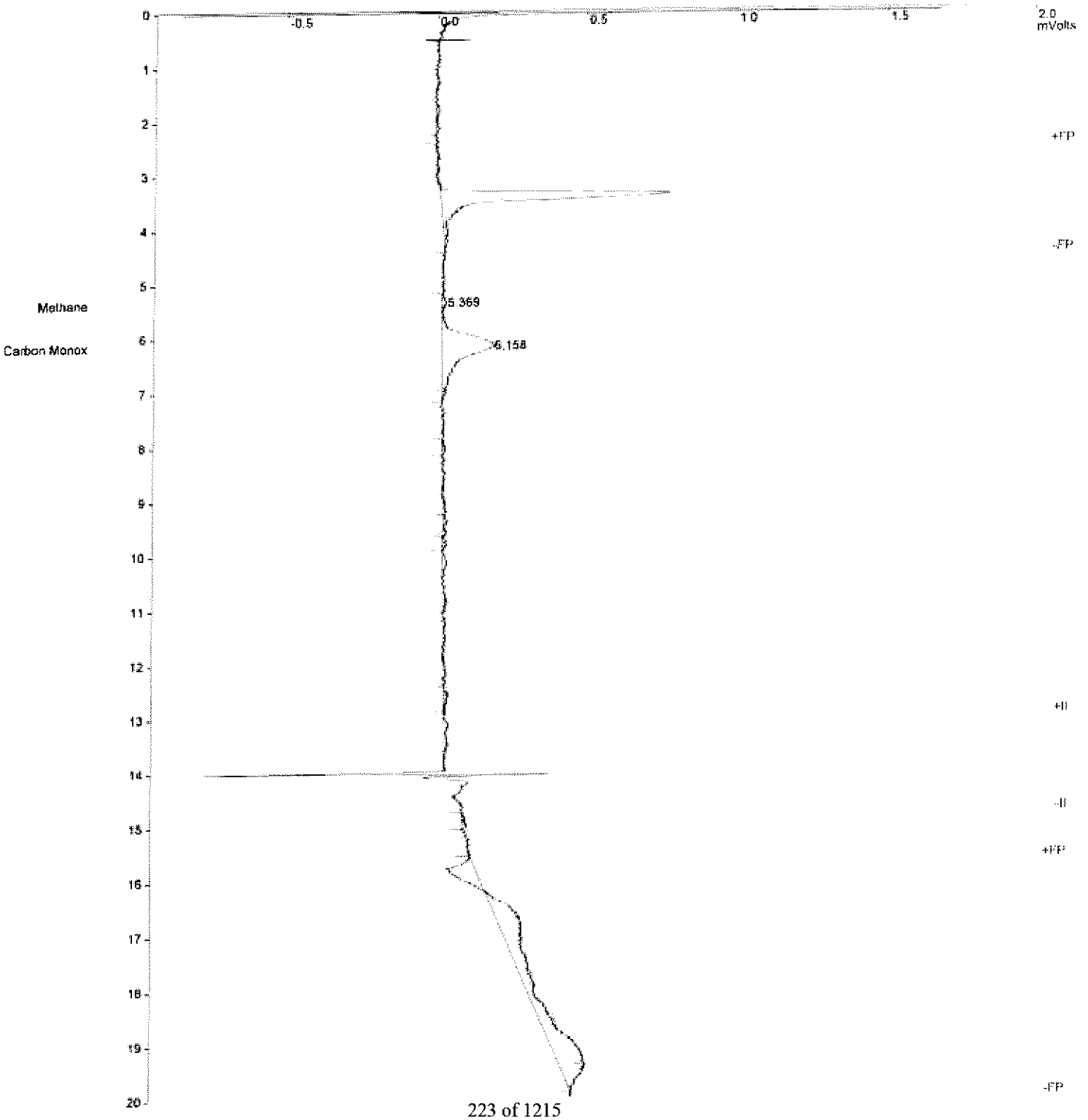
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 11-30-21 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-30 11:30 Calculation Date: 2021-03-30 11:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V75B Bus Address : 44
Instrument : Lotus HMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 08
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 21-08-22 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - Copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-30 21:08 Calculation Date: 2021-03-30 21:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.534	0.021	5104555	VV	2.9	
2	Carbon Dioxi	1940.2871	3.770	0.330	17814764	VB	16.2	
3	Ethane	2091.2026	7.474	0.098	18217608	BB	26.3	
	Totals:	4031.4897		0.449	41136927			

Total Unidentified Counts : 29921568 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

****

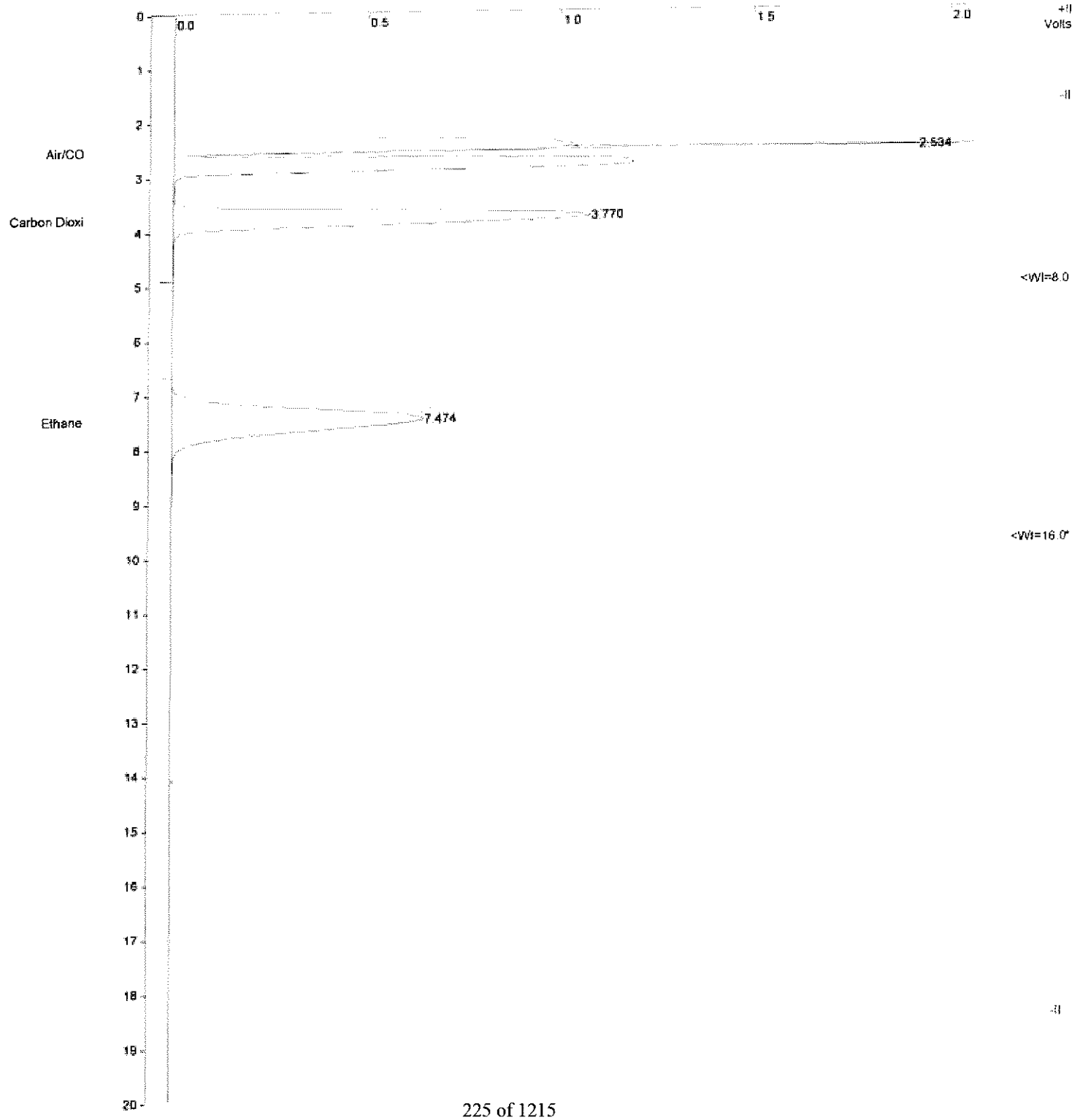
Title :
Run File : c:\bruker\ws\data\2021\mar_21\2021-03-30 21-08-22 2000 ppm mix Inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_pcdrange5 - copy.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_PCDrange5 - Copy.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-30 21:08 Calculation Date: 2021-03-30 21:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V155 Bus Address : 44
Instrument : LoLus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSMS 8.0.1 for SCION Version 8.0.1 ** 02057-37091-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 9 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 21-08-22 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 10-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-30 21:08 Calculation Date: 2021-04-05 11:02

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	2031.72	5.429	0.069	3278277	PV	16.3	
2	Carbon Monox	1919.41	6.139	0.274	3321202	VB	20.4	
3	NMNEOC	2040.03	16.605	-0.574	41239632	BB	31.6	
	Totals:	5991.16		-0.231	47839111			

Total Unidentified Counts : 968 counts

Detected Peaks: 8 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

****

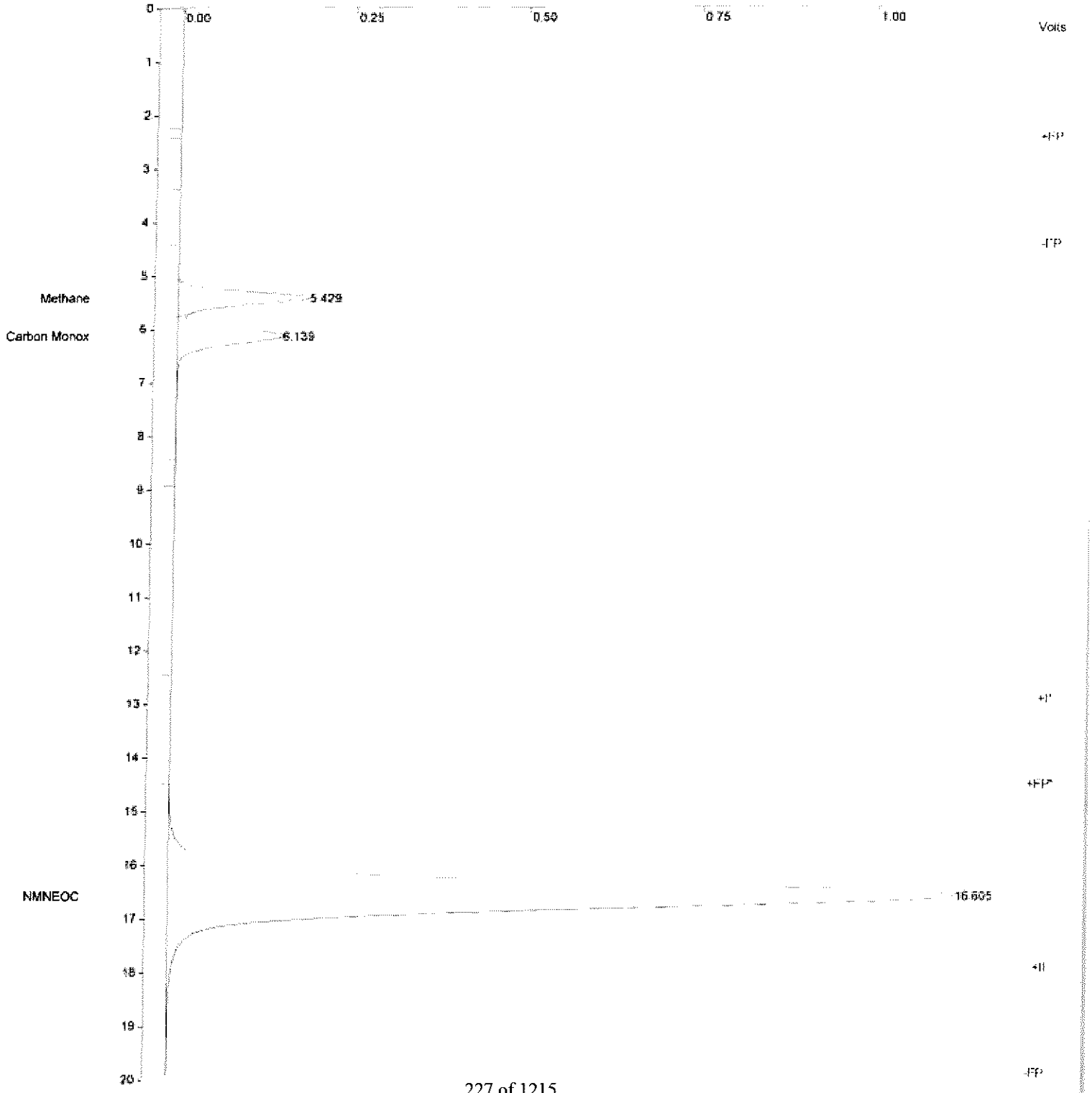
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 21-08-22 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 18-37-45 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-30 21:08 Calculation Date: 2021-04-05 11:02

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VI5B Bus Address : 44
Instrument : Bertus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02037-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 28
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 22-01-12 n2 blank 20048 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank 20048

Injection Date: 2021-03-30 22:01 Calculation Date: 2021-03-30 22:21

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.550	0.037	911	PB	0.0	
2	Carbon Dioxi	0.1164	3.699	0.259	1070	BV	10.7	
3	Ethane		7.376					M
	Totals:	0.1164		0.296	1981			

Status Codes:
M = Missing peak

Total Unidentified Counts : 1768 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

****

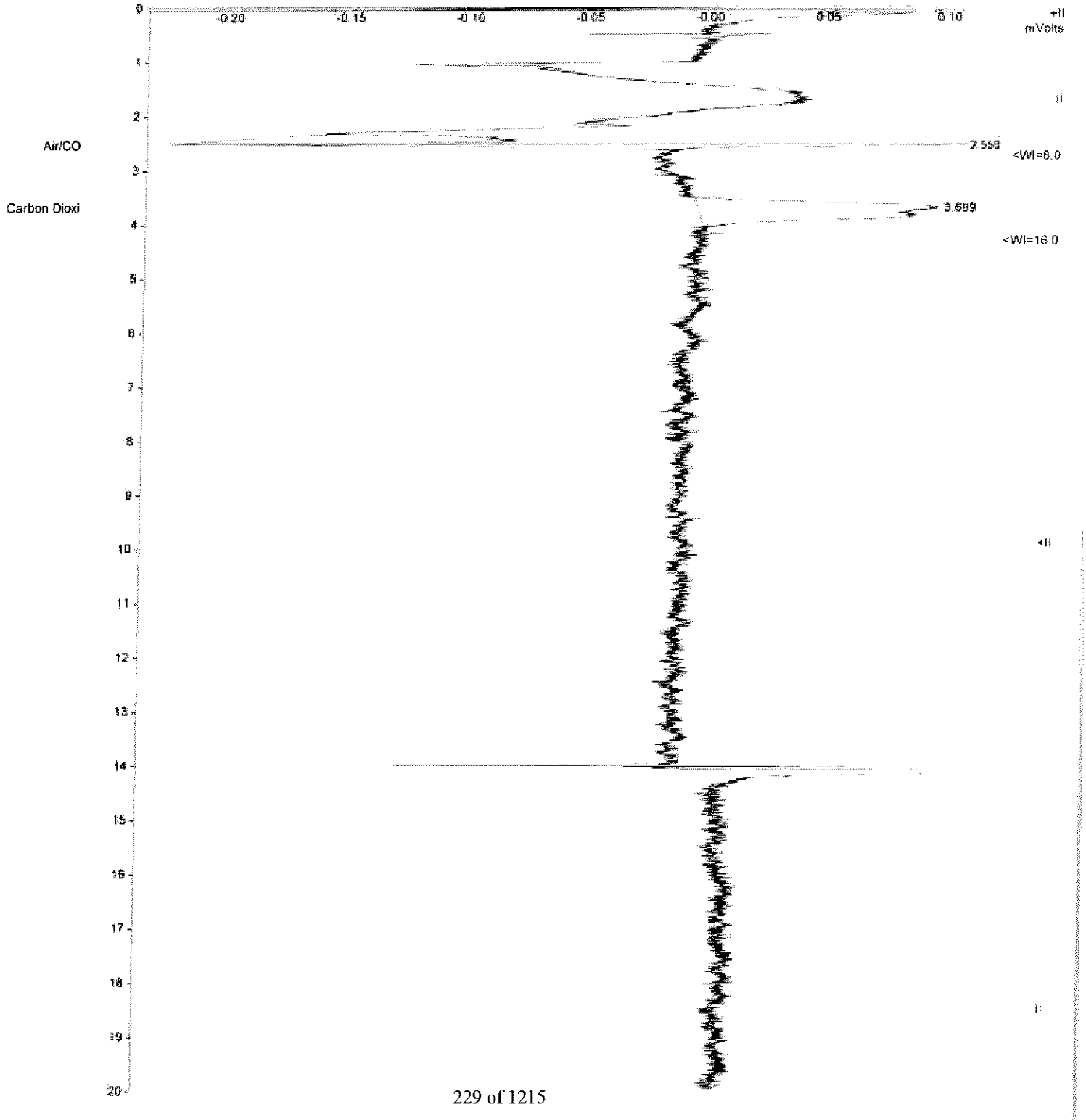
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 22-01-12 n2 blank 20048 inj 2 - master scaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SCAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank 20048

Injection Date: 2021-03-30 22:01 Calculation Date: 2021-03-30 22:21

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V15B Bus Address : 44
Instrument : Lotus SMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** NSWS 8.0.1 for SCION Version 8.0.1 ** C2057-3701-AEL-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 22-01-12 n2 blank 20048 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank 20048

Injection Date: 2021-03-30 22:01 Calculation Date: 2021-03-30 22:21

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.76	5.425	0.065	1219	BV	14.5	
2	Carbon Monox	1.28	6.160	0.295	2220	VB	20.1	
3	NMNEOC		17.179					M
	Totals:	2.04		0.360	3439			

Status Codes:
M = Missing peak

Total Unidentified Counts : 1187 counts

Detected Peaks: 11 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

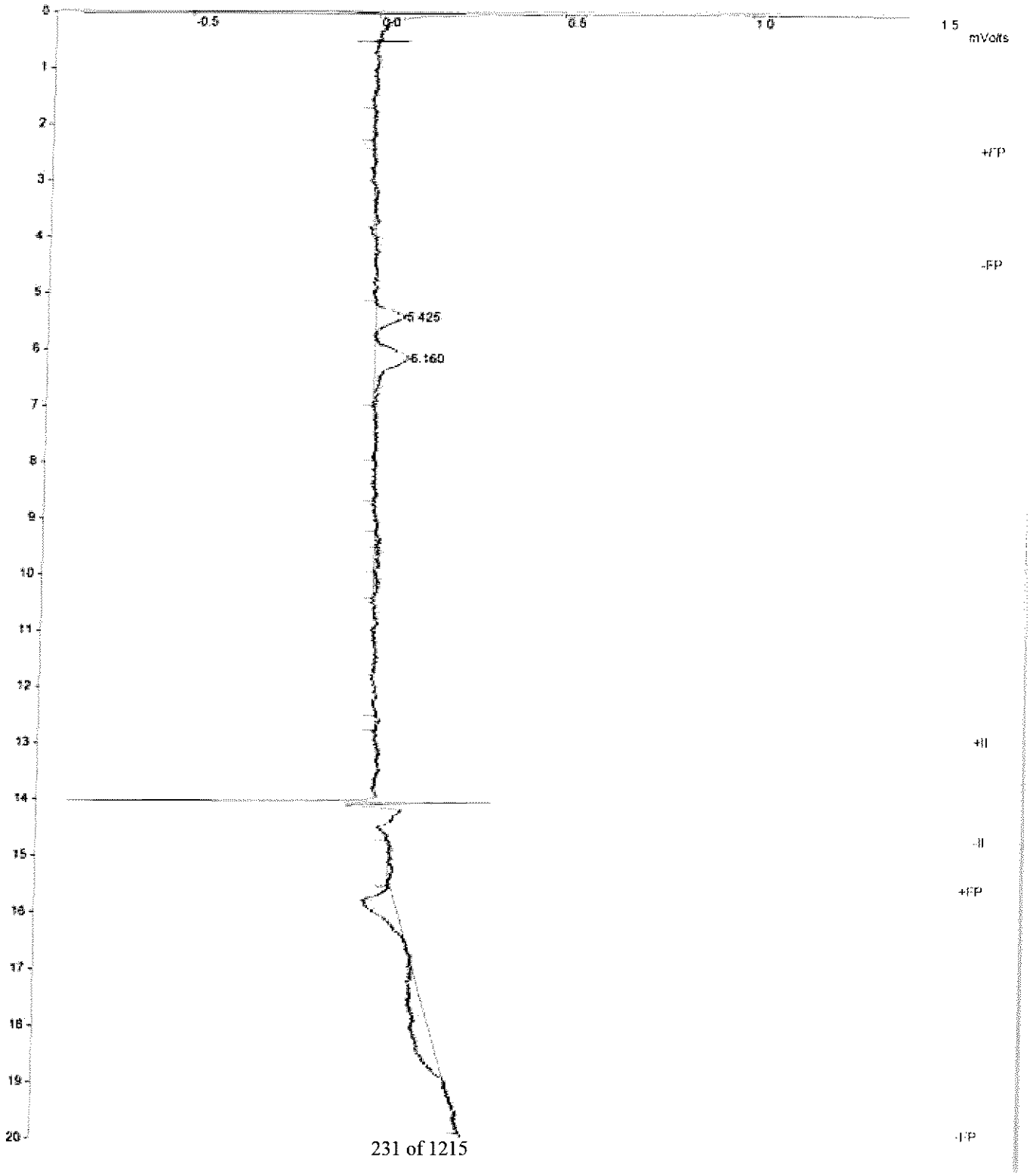
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-30 22-01-12 n2 blank 20048 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : N2 Blank 20048

Injection Date: 2021-03-30 22:01 Calculation Date: 2021-03-30 22:21

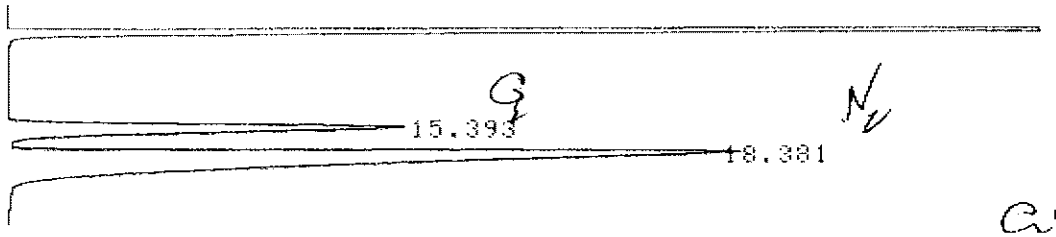
Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V25B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



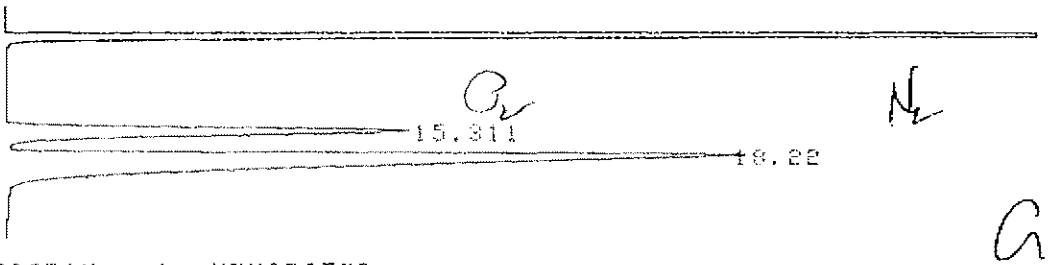
3/12



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 726

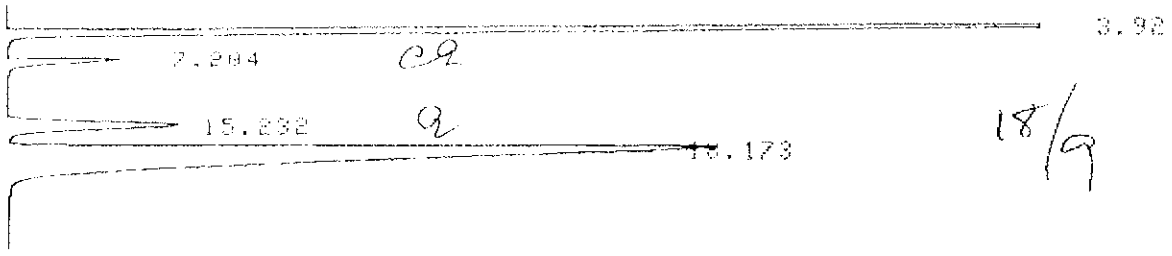
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.975	7646222			35.7369	
2	15.393	3416768			15.9693	
3	18.381	10332882	V		48.2938	
	TOTAL	21395870			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 727

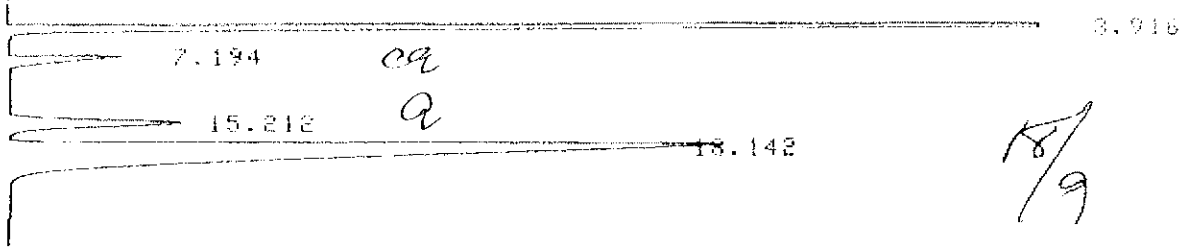
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.967	7709693			36.0707	
2	15.311	3410730			15.9575	
3	18.22	10253436	V		47.9718	
	TOTAL	21373858			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 728

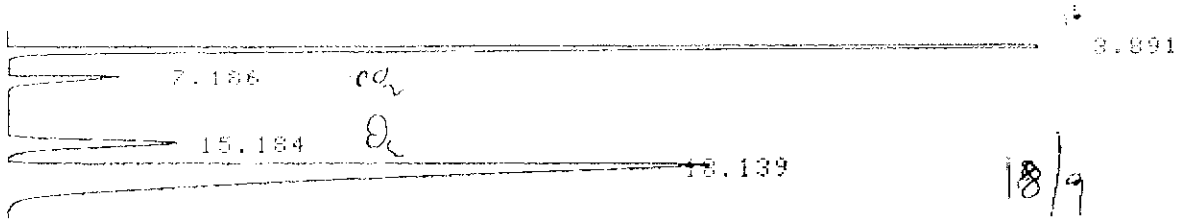
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.92	6322305			35.0938	
2	7.204	687824			3.818	
3	15.232	1429570			7.9352	
4	18.173	9575746	V		53.153	
	TOTAL	18015444			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 729

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.916	6356957			35.0008	
2	7.194	692163			3.811	
3	15.212	1446294			7.9632	
4	18.142	9666884	V		53.225	
	TOTAL	18162296			100	



CHROMATOGRAM 1 MEMORIZED

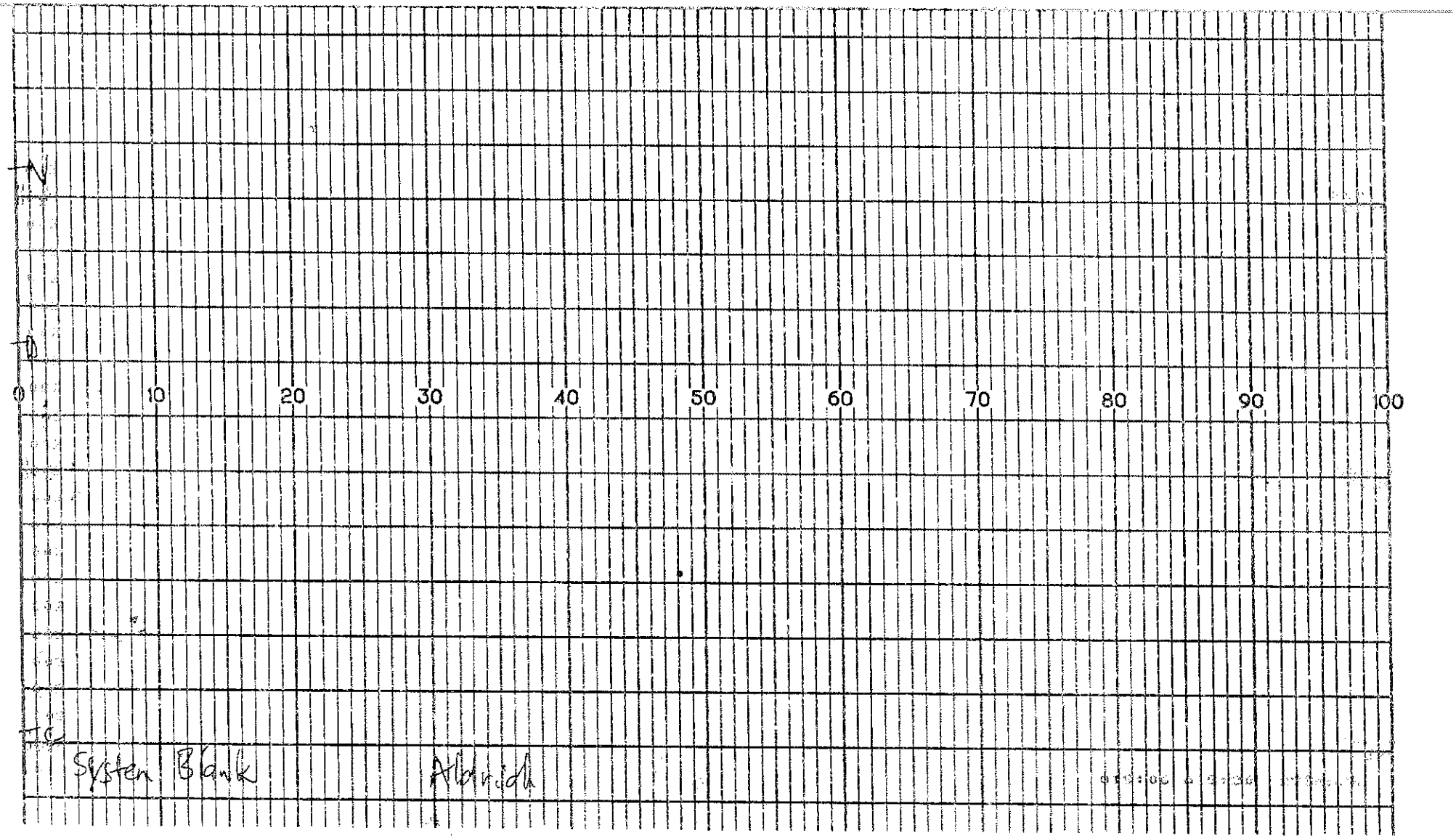
C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 760

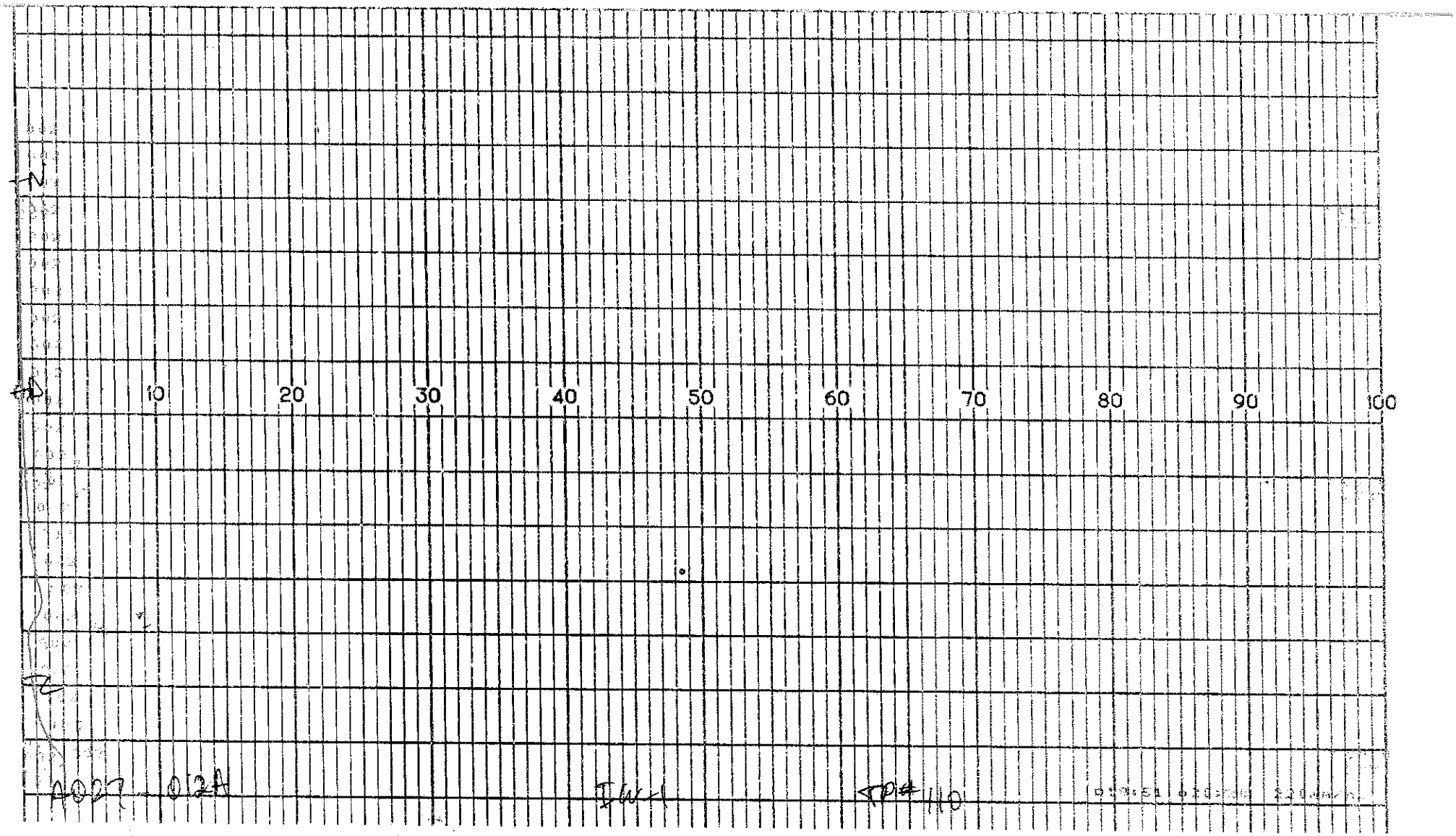
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.891	6318599			35.3866	
2	7.186	684960			3.836	
3	15.184	1410638			7.9001	
4	18.139	9441725	V		52.8773	
	TOTAL	17855920			100	

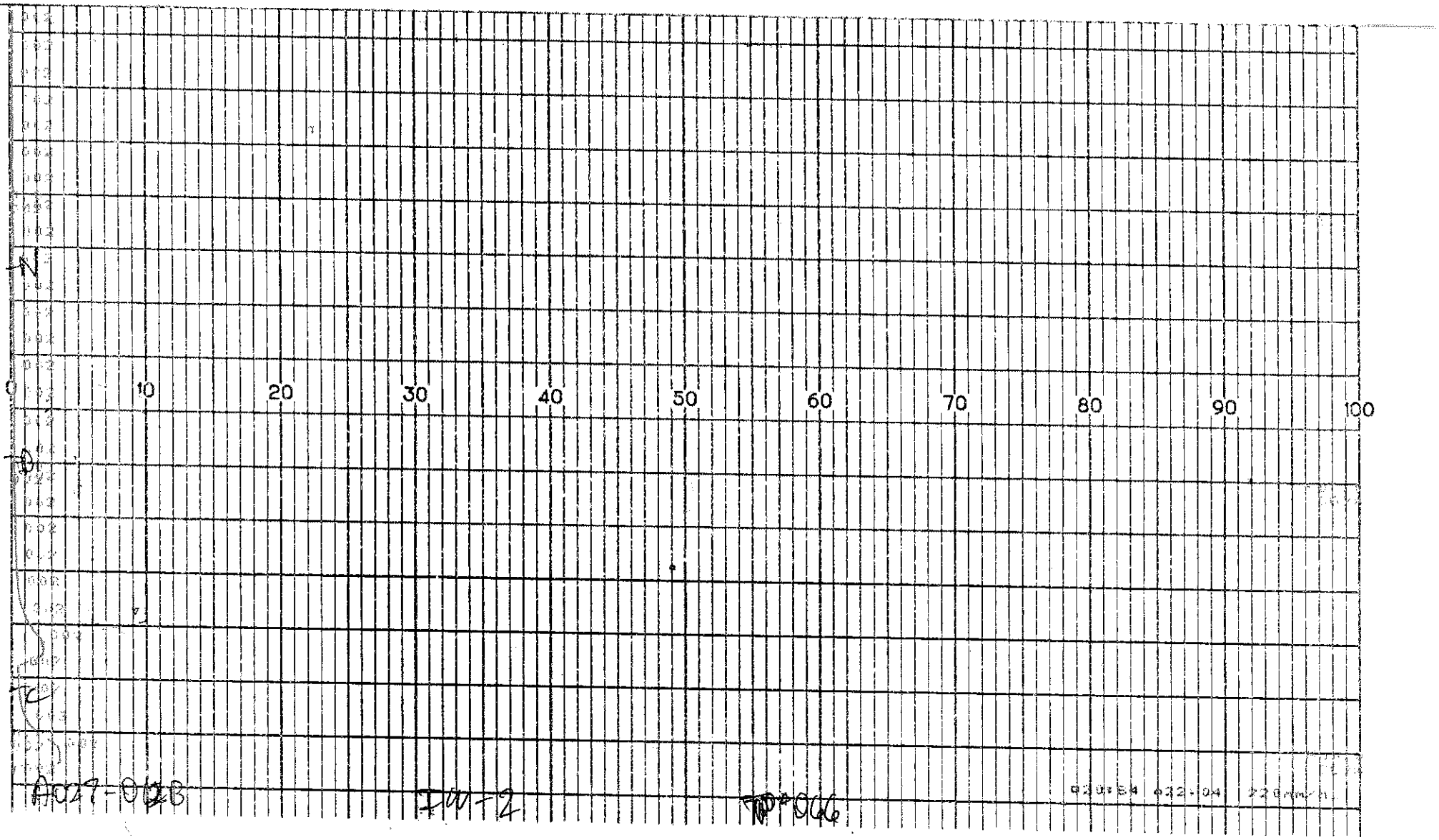
TRAP BURNING STRIPCHART

TEST SAMPLES

100
90
80
70
60
50
40
30
20
10
0

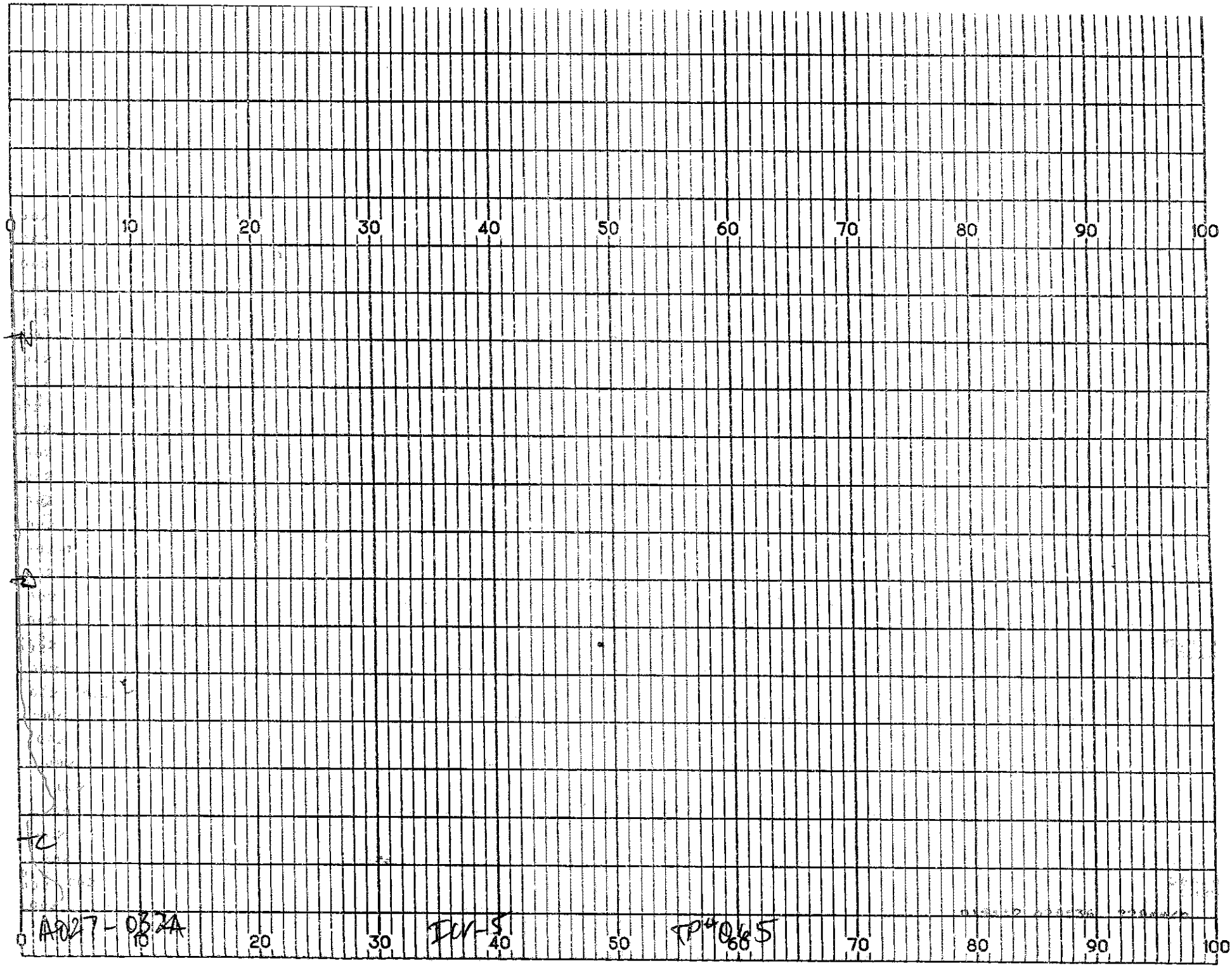

N
0
10
20
30
40
50
60
70
80
90
100
System Blank

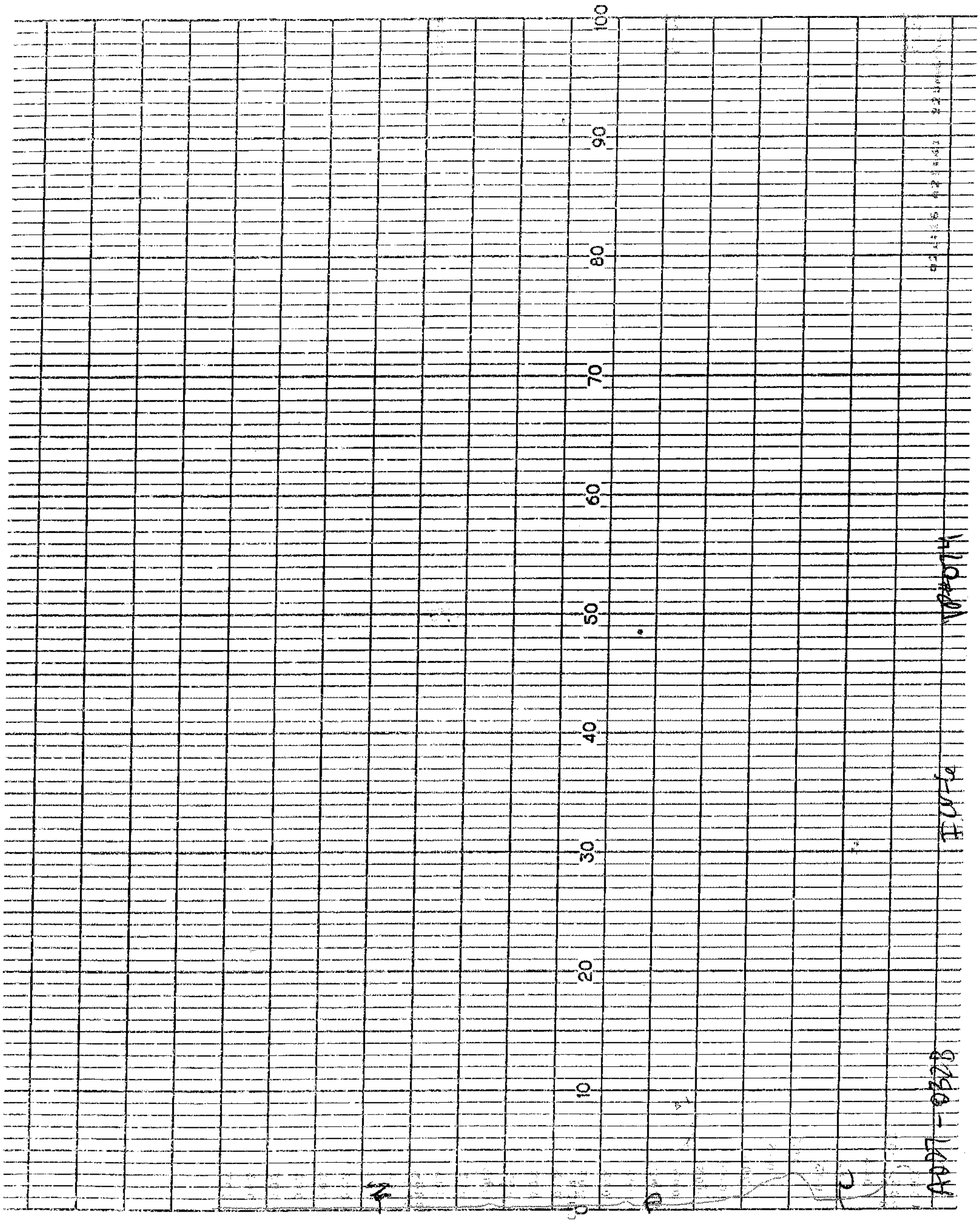

N
10
20
30
40
50
60
70
80
90
100
A027-012A
TW-1
TP#110


N
10
20
30
40
50
60
70
80
90
100

100
90
80
70
60
50
40
30
20
10
0
A027-0024
A027-0028

0
10
20
30
40
50
60
70
80
90
100


0
10
20
30
40
50
60
70
80
90
100
TC
A027-0824
TW-5
TP4065


100
90
80
70
60
50
40
30
20
10
0

TANK PREPARATION

TANK PREPARATIONS

Client: AAA Lab No.: A 027
Project No.: 21-0883
Unit Tested: Inlet
Sampling Date: 17-Mar-21
Date pressurized: 22-Mar-21

Tank ID	Sample ID	Pre-test pressure mm Hg		Post-test pressure mm Hg	Final Pressure	Comments
		1	2			
T-17	A 027 - 011 A	-756	-756	-210	168	Run #1A
T-10	A 027 - 011 B	-756	-756	-172	170	Run #1B
T-1	A 027 - 021 A	-756	-756	-138	174	Run #2A
T-7	A 027 - 021 B	-756	-756	-200	166	Run #2B
1	A 027 - 031 A	-756	-756	-240	164	Run #3A
19	A 027 - 031 B	-756	-756	-218	164	Run #3B
TRAPS						Trap ##
ICV-1	A 027 - 012 A	-758	NA	-206	164	110
ICV-2	A 027 - 012 B	-758	NA	-202	172	066
ICV-3	A 027 - 022 A	-758	NA	-200	164	059
ICV-4	A 027 - 022 B	-758	NA	-170	164	085
ICV-5	A 027 - 032 A	-758	NA	-168	168	065
ICV-6	A 027 - 032 B	-758	NA	-204	162	074

CALIBRATIONS

24-Jan-20
Current

	2 ppm mix					5 ppm mix					20 ppm mix						
	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	Ave	RSD
Carbon Monoxide	2.010	4192	4570	4.79E-04	4.40E-04	4.999	9120	9293	5.48E-04	5.38E-04	20.32	34579	35524	5.88E-04	5.72E-04	**5.28E-04**	**100.6**
Methane	2.095	4688	5152	4.47E-04	4.07E-04	4.782	9007	9294	5.31E-04	5.15E-04	19.47	31671	32448	6.15E-04	6.00E-04	**5.19E-04**	**97.4**
Carbon Dioxide	1.880	24809	25118	7.58E-05	7.48E-05	4.832	47582	46513	1.02E-04	1.04E-04	20.39	179236	179056	1.14E-04	1.14E-04	**9.73E-05**	**63.0**
Ethane	2.170	17881	18052	1.21E-04	1.20E-04	4.986	43638	43010	1.14E-04	1.16E-04	21.08	176965	177554	1.19E-04	1.19E-04	**1.18E-04**	**55.0**
TGNMO	2.299	45794	45944	5.02E-05	5.00E-05	7.500	131153	130291	5.72E-05	5.76E-05	32.10	643682	640410	4.99E-05	5.01E-05	**5.25E-05**	**80.0**
	Average	**19473**	**19767**	**2.35E-04**	**2.18E-04**	Average	**48100**	**47680.2**	**2.70E-04**	**2.66E-04**	Average	**213227**	**212998**	**2.97E-04**	**2.91E-04**		
			Average	**2.27E-04**				Average	**2.68E-04**				Average	**2.94E-04**			
	RSD%			**13.8**					**2.0**					**11.8**			

Average **2.63E-04**

	100 ppm mix					1000 ppm mix					2000 ppm mix						
	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	Ave	RSD
Carbon Monoxide	100.40	167614	170386	5.99E-04	5.89E-04	981	1700909	1708991	5.77E-04	5.74E-04	1986	3363251	3359567	5.91E-04	5.91E-04	**5.87E-04**	**99.6**
Methane	101.50	164466	166804	6.17E-04	6.08E-04	993	1630589	1635501	6.09E-04	6.07E-04	2003	3262561	3261082	6.14E-04	6.14E-04	**6.12E-04**	**108.0**
Carbon Dioxide	100.10	907081	912067	1.10E-04	1.10E-04	1036	9479276	9518837	1.09E-04	1.09E-04	1999	18353302	18336448	1.09E-04	1.09E-04	**1.09E-04**	**62.8**
Ethane	101.00	882252	885177	1.14E-04	1.14E-04	994	9020471	9051689	1.10E-04	1.10E-04	2114	18388114	18389176	1.15E-04	1.15E-04	**1.13E-04**	**61.5**
TGNMO	101.70	2085799	2095518	4.88E-05	4.85E-05	993	20342462	20396076	4.88E-05	4.87E-05	2002	40302996	39855688	4.97E-05	5.02E-05	**4.91E-05**	**83.3**
	Average	**841442**	**845990**	**2.98E-04**	**2.94E-04**	Average	**8434741**	**8462218.8**	**2.91E-04**	**2.90E-04**	Average	**16734045**	**16640392**	**2.96E-04**	**2.96E-04**		
			Average	**2.96E-04**				Average	**2.90E-04**				Average	**2.96E-04**			
	RSD%			**-0.7**					**1.3**					**0.6**			

Average **2.94E-04**

RSD, %

RSD_{CO} =	9.772	r_{CO} =	0.99990
RSD_{CH4} =	15.540	r_{CH4} =	0.99990
RSD_{CO2} =	17.340	r_{CO2} =	0.99995
RSD_{C2H6} =	3.340	r_{C2H6} =	0.99999
RSD_{NMOC} =	6.084	r_{NMOC} =	0.99990

CALS - AVE

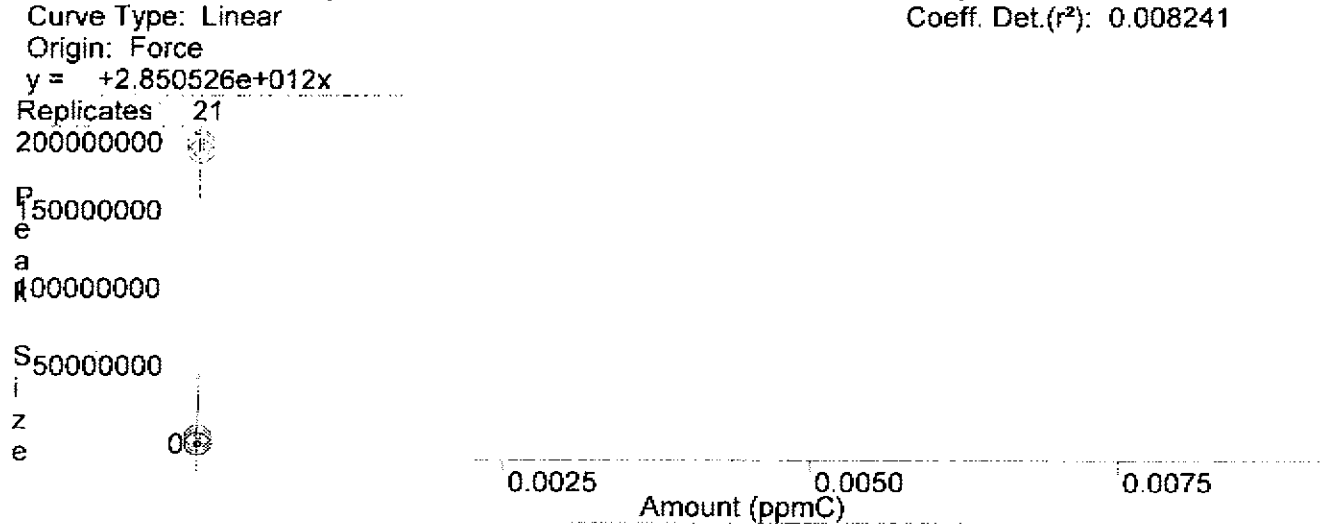
5.57E-04 CO
5.65E-04 CH4
1.03E-04 CO2
1.16E-04 C2H6
5.08E-05 NMOC

Print Date: 27 Jan 2020 11:54:23
Calibration Curves Report
File: c:\brukerws\methods\master sqaqmd 25.3 3 ml loop 01-24-20.mth
Detector: 45X-GC, Address: 44, Channel ID: Front

Air/CO

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +2.850526e+012x
Replicates 21

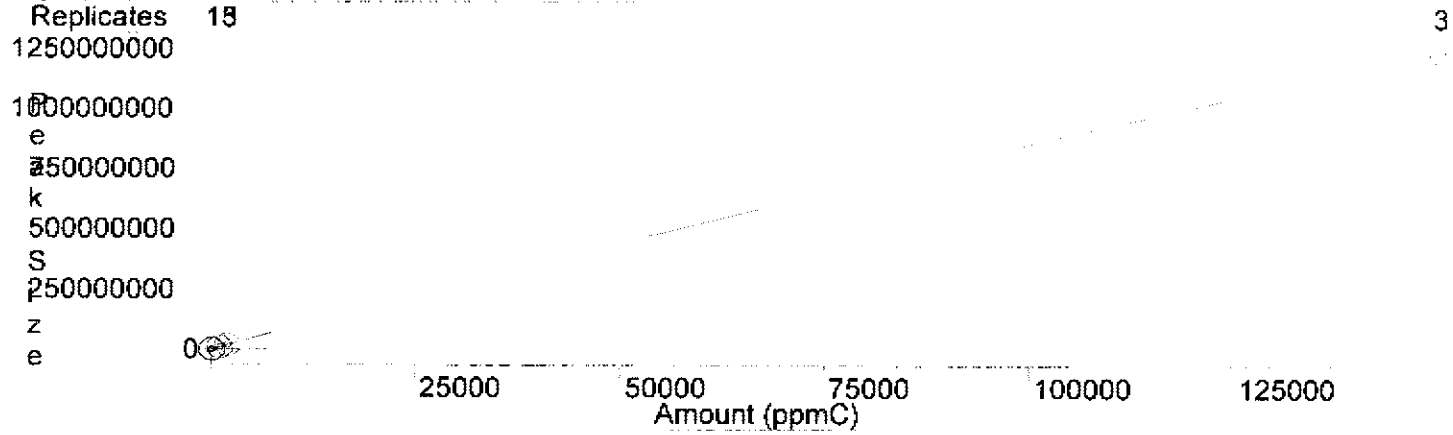
Resp. Fact. RSD: 252.60%
Coeff. Det.(r^2): 0.008241



Carbon Dioxide

External Standard Analysis
Curve Type: Quadratic
Origin: Force
y = -6.359547e-003x² +9.193849e+003x
Replicates 18

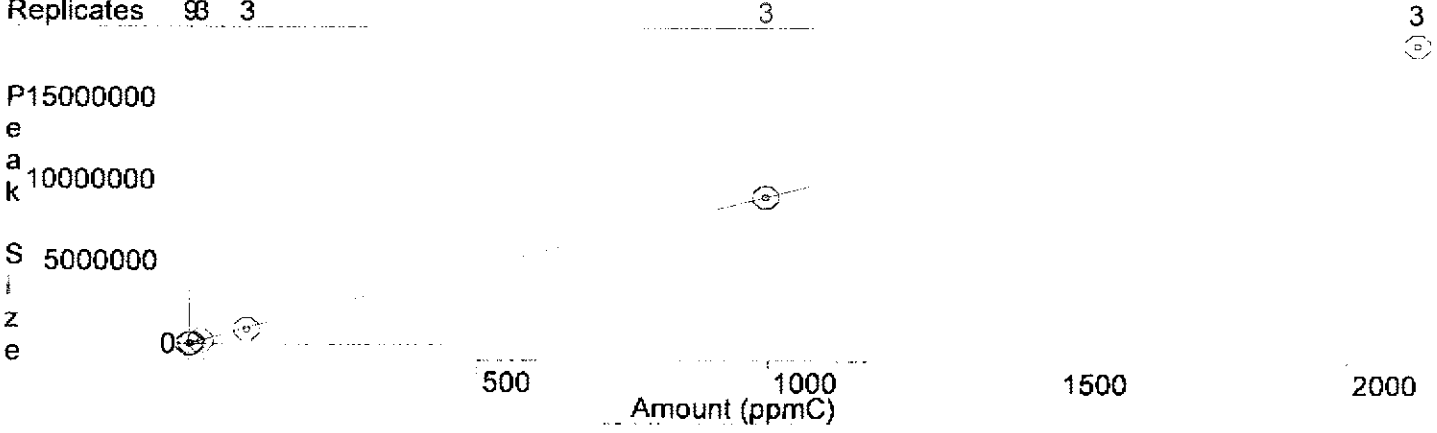
Resp. Fact. RSD: 17.34%
Coeff. Det.(r^2): 0.999906



Ethane

External Standard Analysis
Curve Type: Quadratic
Origin: Force
y = -3.491328e-001x² +9.441653e+003x
Replicates 98 3 3

Resp. Fact. RSD: 3.340%
Coeff. Det.(r^2): 0.999984



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01 21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 m… loop _1-24-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-413C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.538	-0.002	4556	VV	2.0	
2	Carbon Dioxi	3.698	-0.000	24809	BB	16.5	
3	Ethane	7.402	0.003	17881	BB	25.0	
	Totals:		0.001	47246			

Total Unidentified Counts : 26473 counts

Detected Peaks: 10 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

Print Date: Tue Jan 28 10:57:19 2020 Page 1 of 1

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	0.004	4688	VV	23.1	
2	Carbon Monox	5.935	-0.002	4192	VB	29.3	
3	NMNEOC	16.994	0.004	45794	BV	15.2	
	Totals:		0.006	54674			

Total Unidentified Counts : 25725 counts

Detected Peaks: 20 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 22 microVolts

Manual injection

****

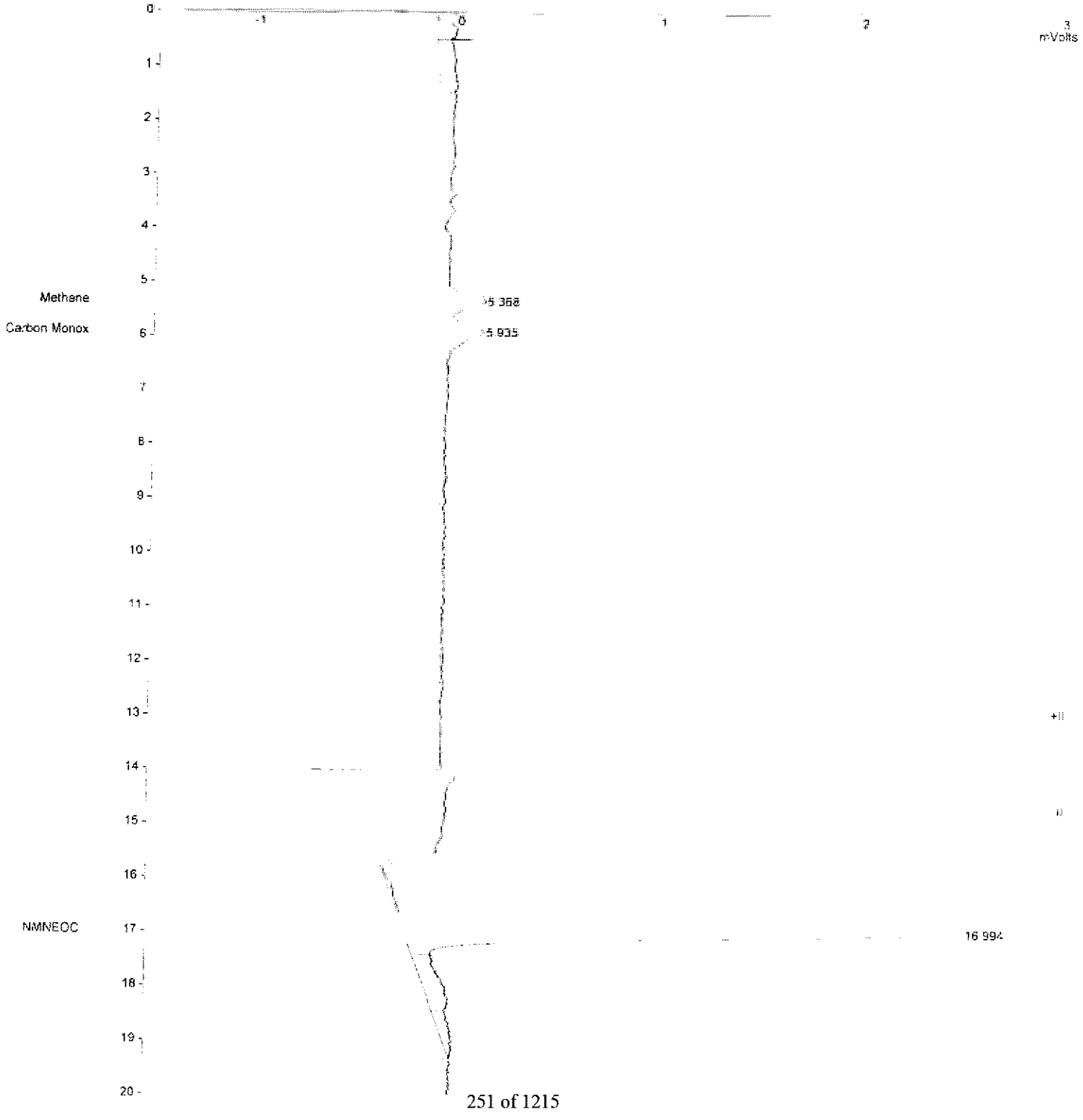
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed - 0.39 cm/min Attenuation = 1 Zero Offset = 0%
Start Time - 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20 mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.538	-0.000	4606	VV	2.1	
2	Carbon Dioxi	3.695	-0.003	25118	BB	16.6	
3	Ethane	7.396	-0.006	18052	BB	25.0	
	Totals:		-0.009	47776			

Total Unidentified Counts : 26454 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.365	-0.002	5152	VV	21.7	
2	Carbon Monox	5.940	0.005	4570	VV	28.8	
3	NMNEOC	16.988	-0.005	45944	BV	15.3	
	Totals:		-0.002	55666			

Total Unidentified Counts : 28248 counts

Detected Peaks: 21 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

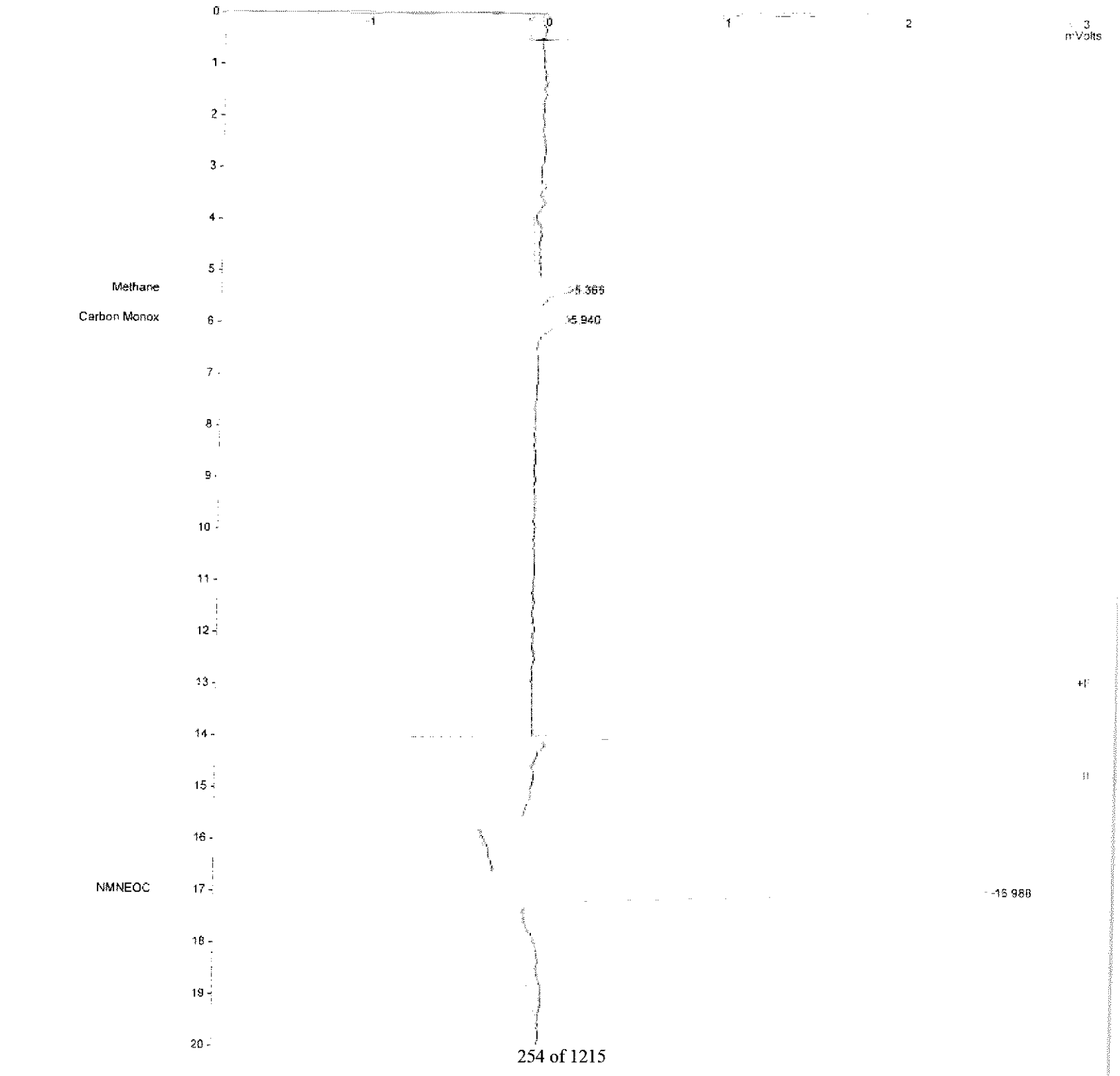
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



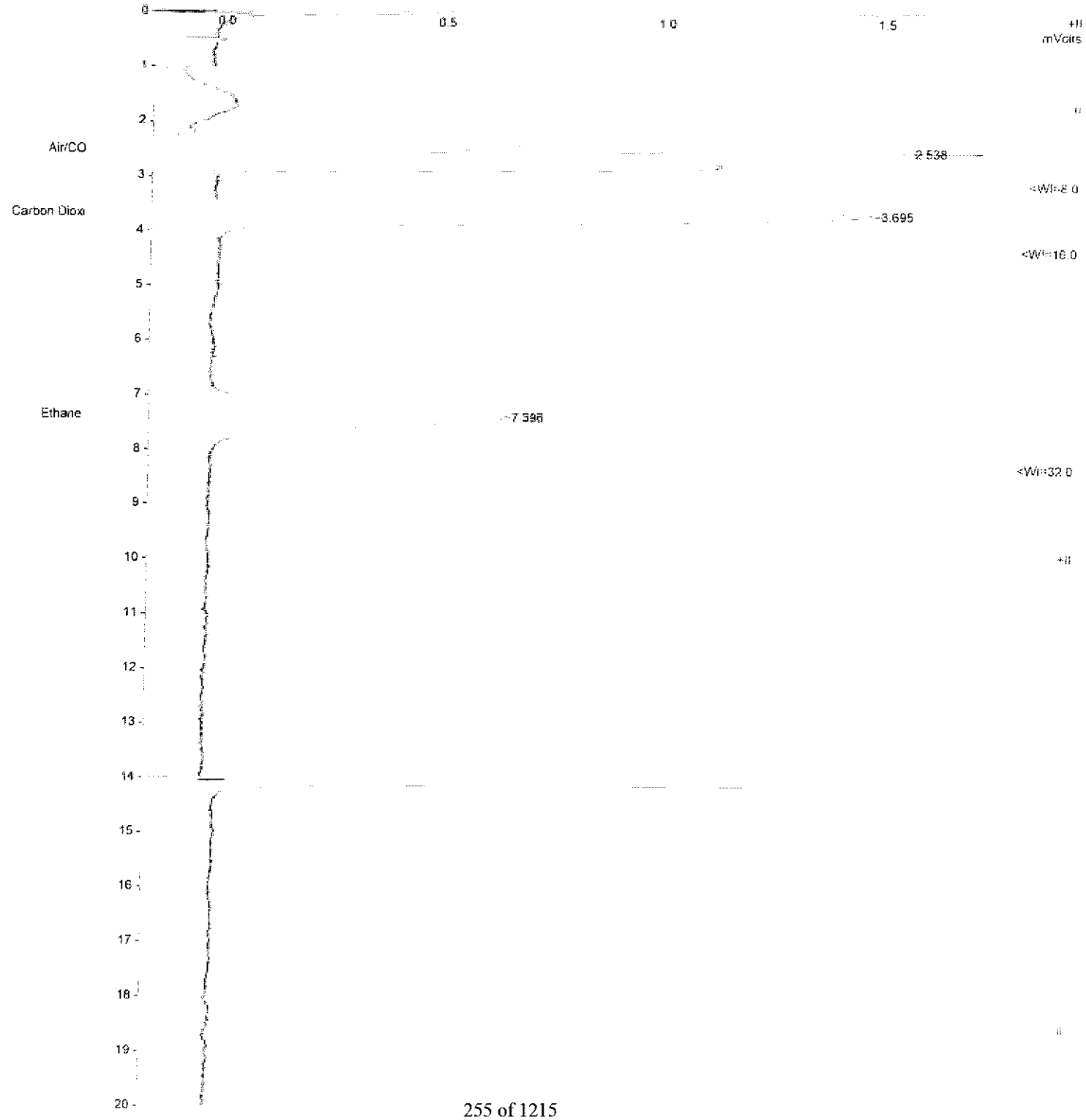
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



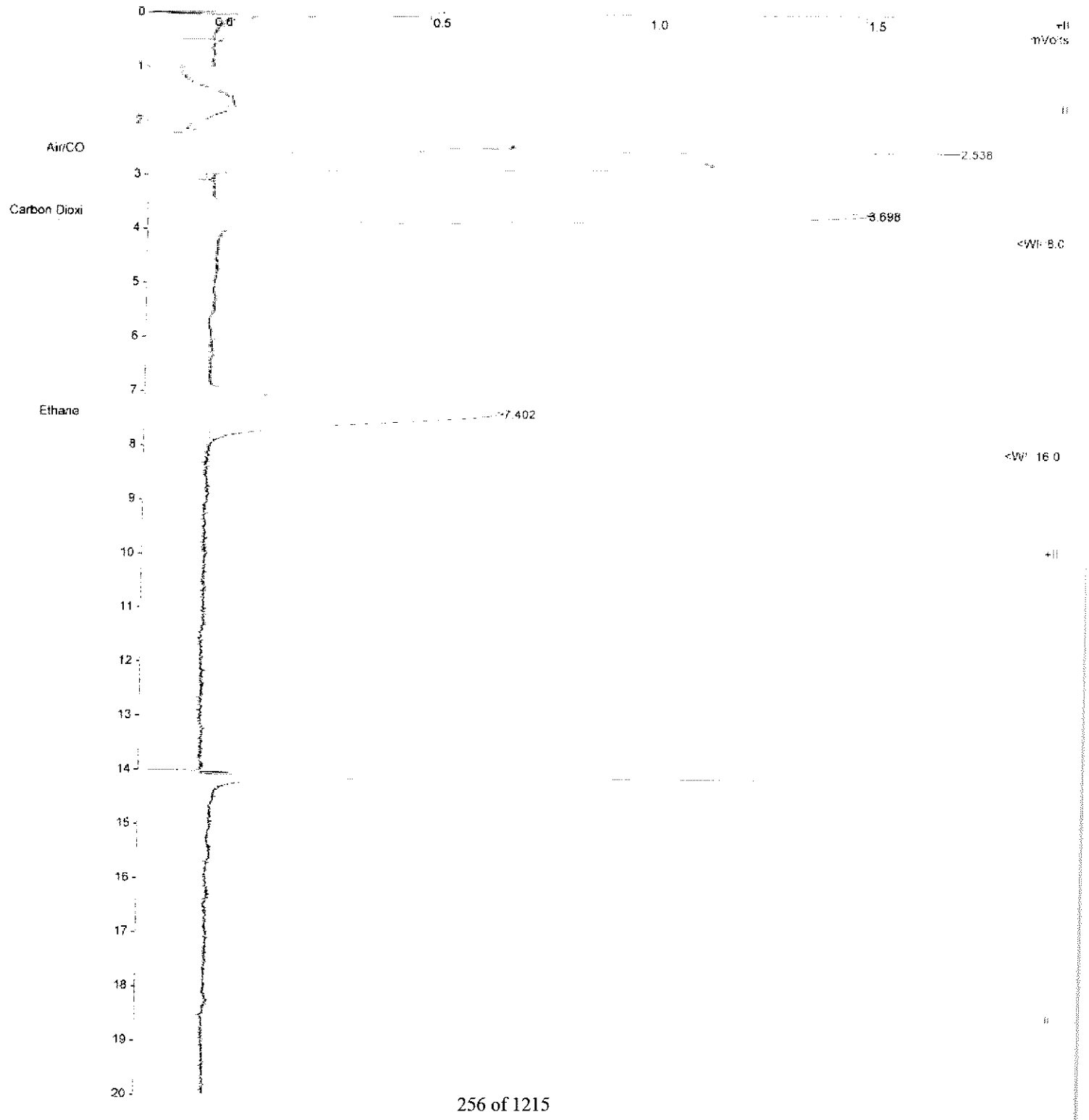
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed - 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.534	-0.003	12620	VV	2.1	
2	Carbon Dioxi	3.725	0.030	47582	BB	16.5	
3	Ethane	7.400	0.004	43638	BB	25.2	
	Totals:		0.031	103840			

Total Unidentified Counts : 66268 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

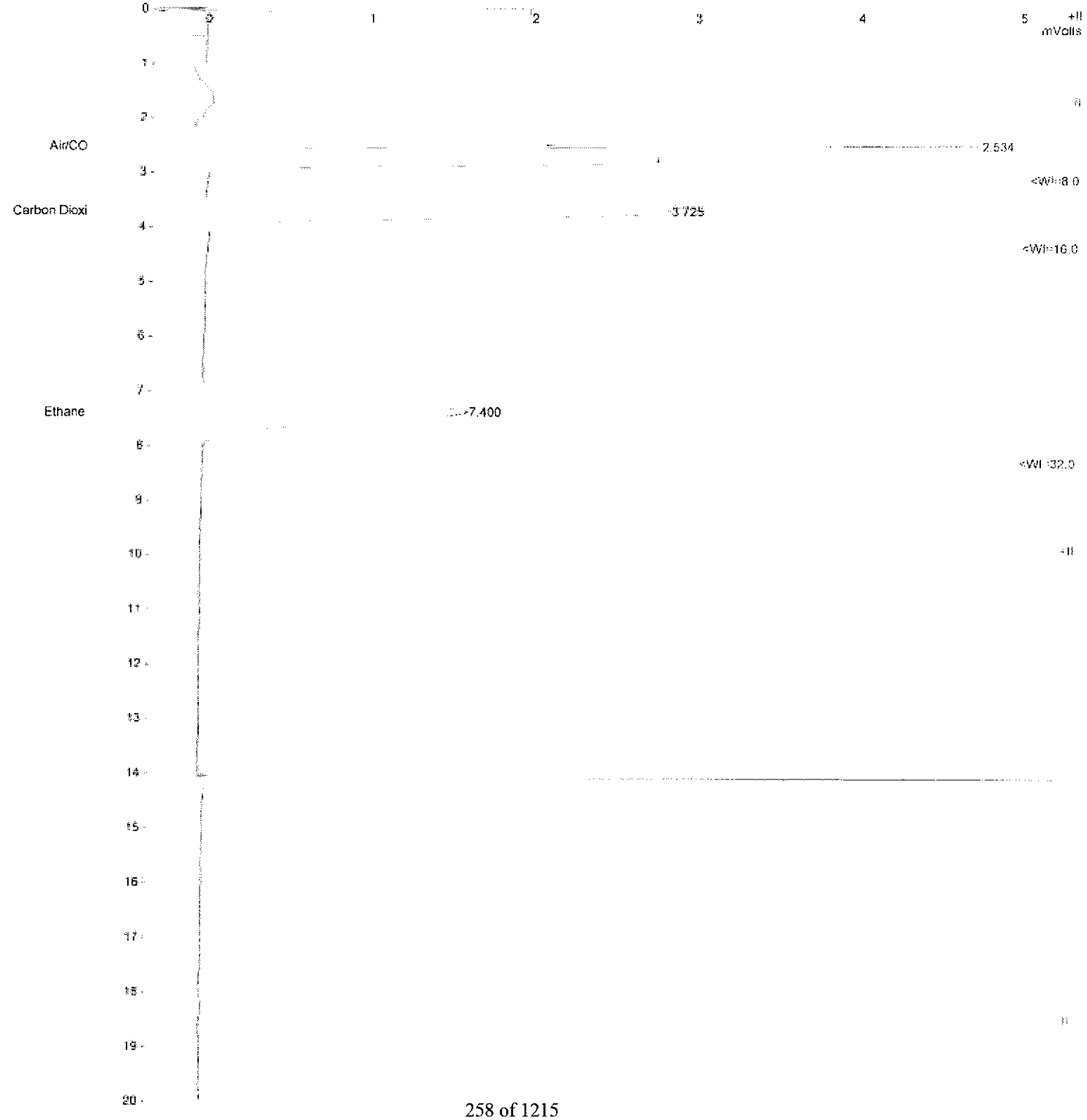
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 09057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-26-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-413C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.375	0.010	9007	VV	18.0	
2	Carbon Monox	5.948	0.008	9120	VB	22.2	
3	NMNEOC	16.185	-0.803	131153	BP	29.5	
	Totals:		-0.785	149280			

Total Unidentified Counts : 16623 counts

Detected Peaks: 21 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 1-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.534	0.000	12787	VV	2.1	
2	Carbon Dioxi	3.723	-0.002	46513	BB	16.5	
3	Ethane	7.398	-0.001	43010	BB	25.1	
	Totals:		-0.003	102310			

Total Unidentified Counts : 65753 counts

Detected Peaks: 7 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

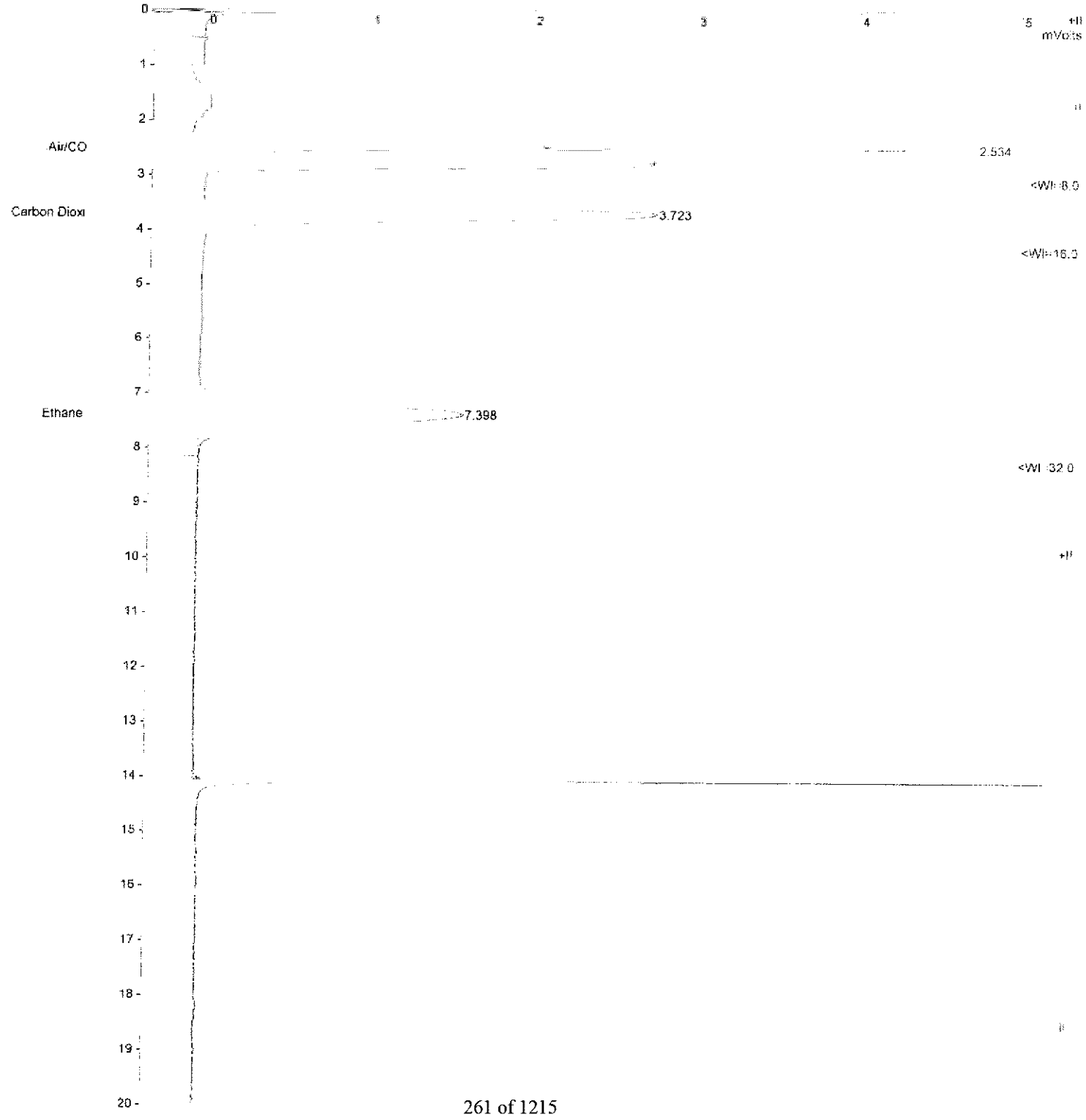
Title :
Run File : c:\bruker\ws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\Bruker\WS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V53B Bus Address : 44
Instrument : Scion 456C Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



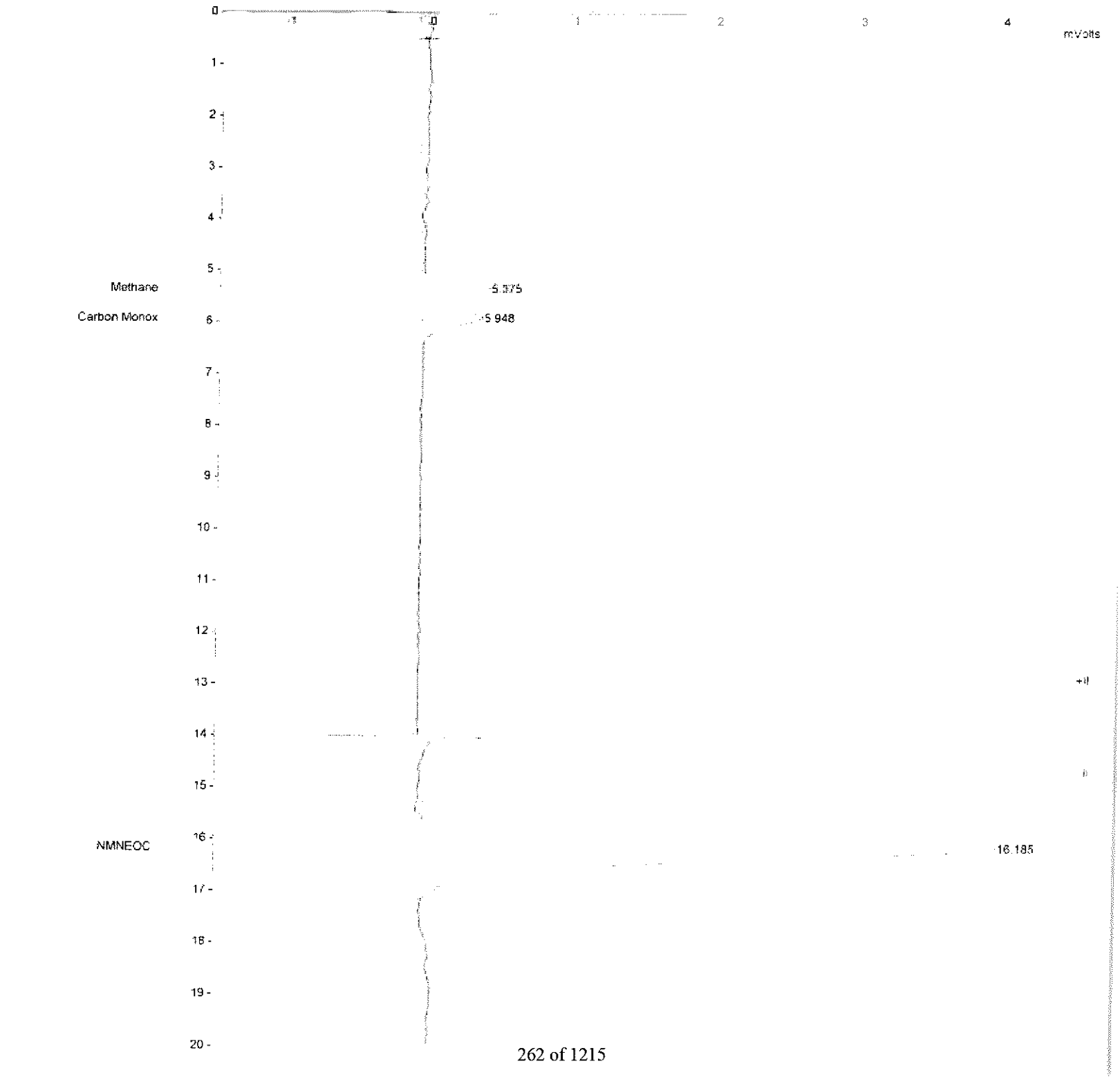
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 1-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.376	0.002	9293	VV	18.1	
2	Carbon Monox	5.953	0.005	9294	VB	22.4	
3	NMNEOC	16.198	0.013	130291	BP	29.5	
	Totals:		0.020	148878			

Total Unidentified Counts : 17698 counts

Detected Peaks: 25 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

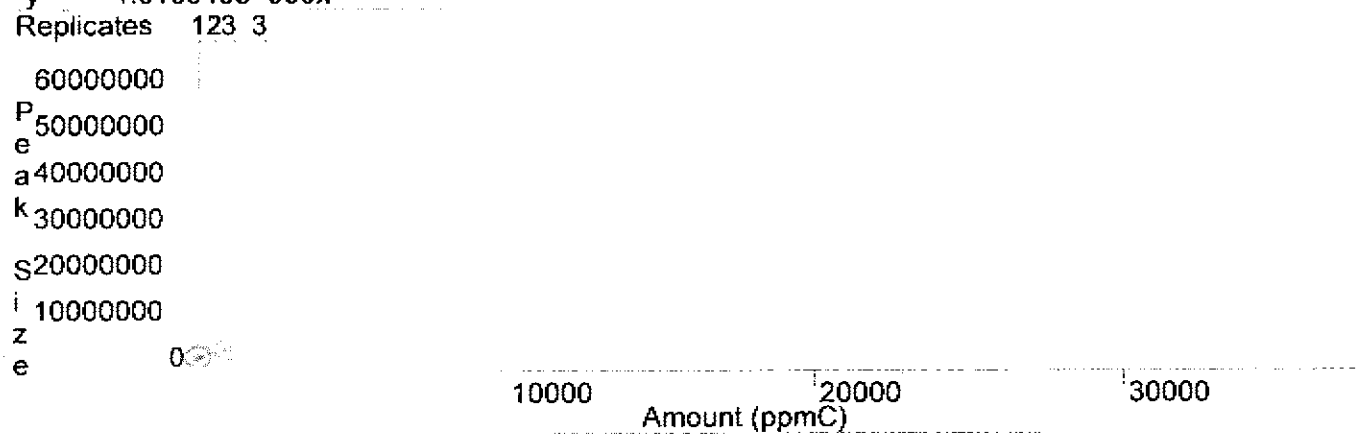
****

Print Date: 27 Jan 2020 11:40:31
Calibration Curves Report
File: c:\brukerws\methods\master sqaqmd 25.3 3 ml loop 01-24-20.mth
Detector: 45X-GC, Address: 44, Channel ID: Middle

Methane

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +1.613548e+003x
Replicates 123 3

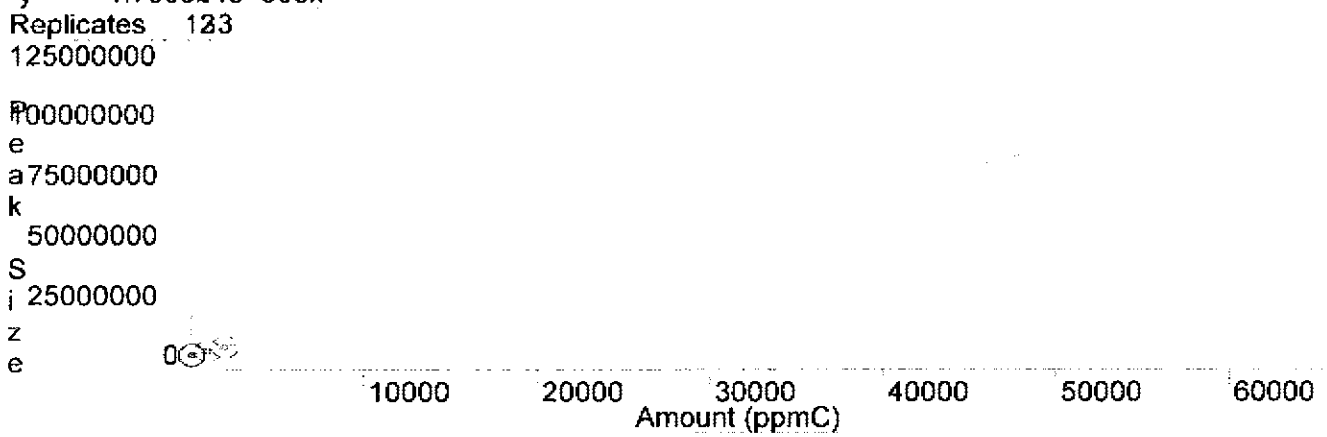
Resp. Fact. RSD: 15.54%
Coeff. Det.(r^2): 0.999800



Carbon Monoxide

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +1.730324e+003x
Replicates 123

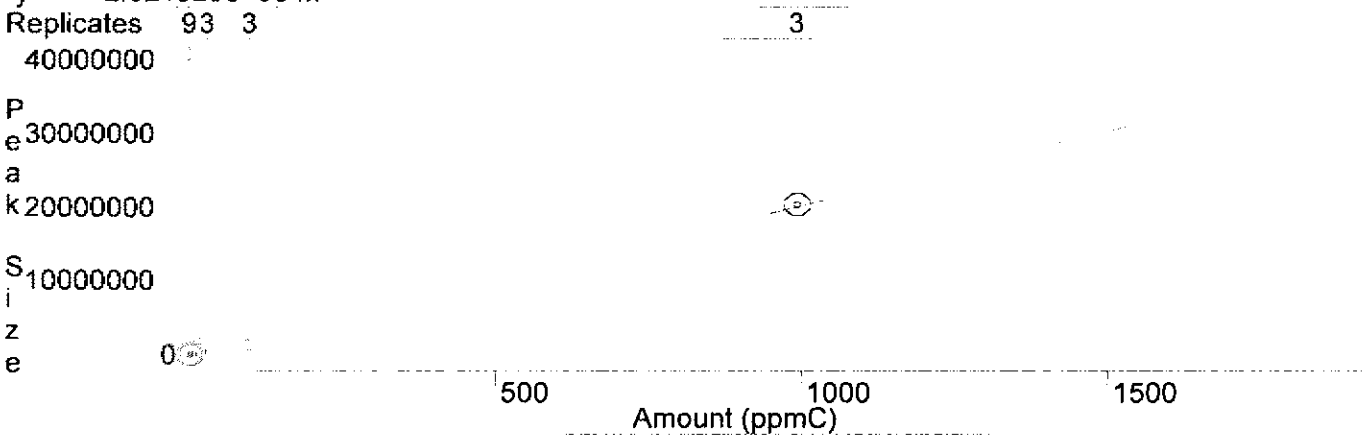
Resp. Fact. RSD: 9.772%
Coeff. Det.(r^2): 0.999791



NMNEOC

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +2.021525e+004x
Replicates 93 3

Resp. Fact. RSD: 6.084%
Coeff. Det.(r^2): 0.999808



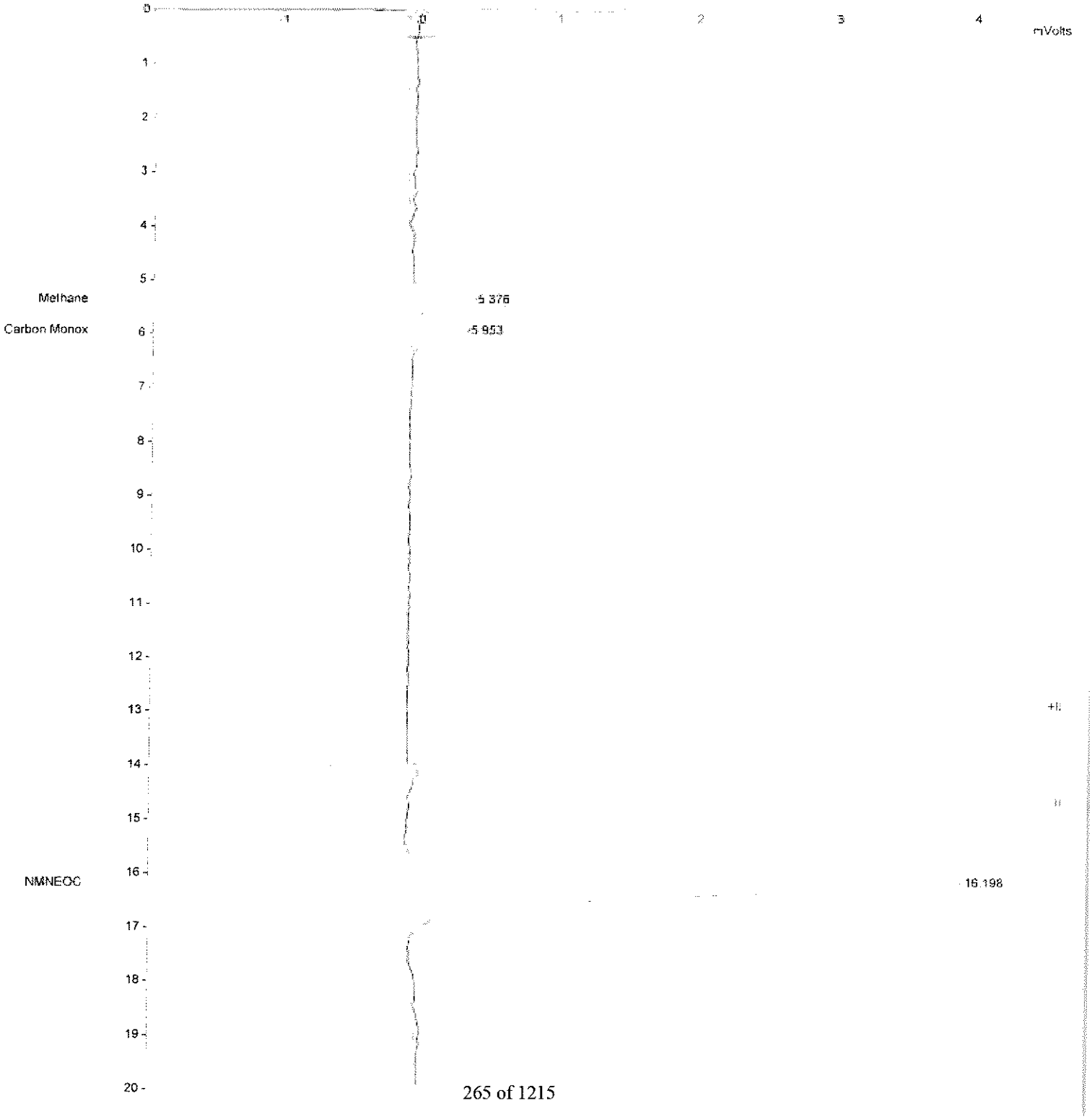
Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 01-20-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02097-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (Counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	-0.003	46396	VV	2.1	
2	Carbon Dioxi	3.731	0.004	179236	BB	16.2	
3	Ethane	7.391	0.009	176965	BB	25.2	
	Totals:		-0.008	405597			

Total Unidentified Counts : 268977 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - monitored before this run

Manual injection

****

```
Title       :
Run File    : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqeqmd 25.3 5 ml loop 11-28-17.zup
Method File : C:\BruscrWS\methods\Master SQAQMD 25.3 5 ml loop 01-24-20.mth
Sample ID   : 20ppm mix

Injection Date: 2020-01-22 10:43    Calculation Date: 2020-01-27 11:27

Operator  : Douglass M.             Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5R          Bus Address  : 44
Instrument : Lotus NMOC             Sample Rate  : 5.00 Hz
Channel   : Front = FID             Run Time     : 20.300 min

** MSWS 6.0.1 for SCION Version 8.0.1 ** 02057-3101-AB1-4150 **

Chart Speed =  0.99 cm/min   Attenuation = 1              Zero Offset = 0%
Start Time =  0.000 min    End Time    = 20.000 min  Min / Tick = 1.00
```

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB3-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.362	-0.014	31671	VV	17.1	
2	Carbon Monox	5.917	-0.035	34579	VB	21.1	
3	NMNEOC	16.161	-0.033	643682	PB	28.8	
	Totals:		-0.082	709932			

Total Unidentified Counts : 18518 counts

Detected Peaks: 22 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

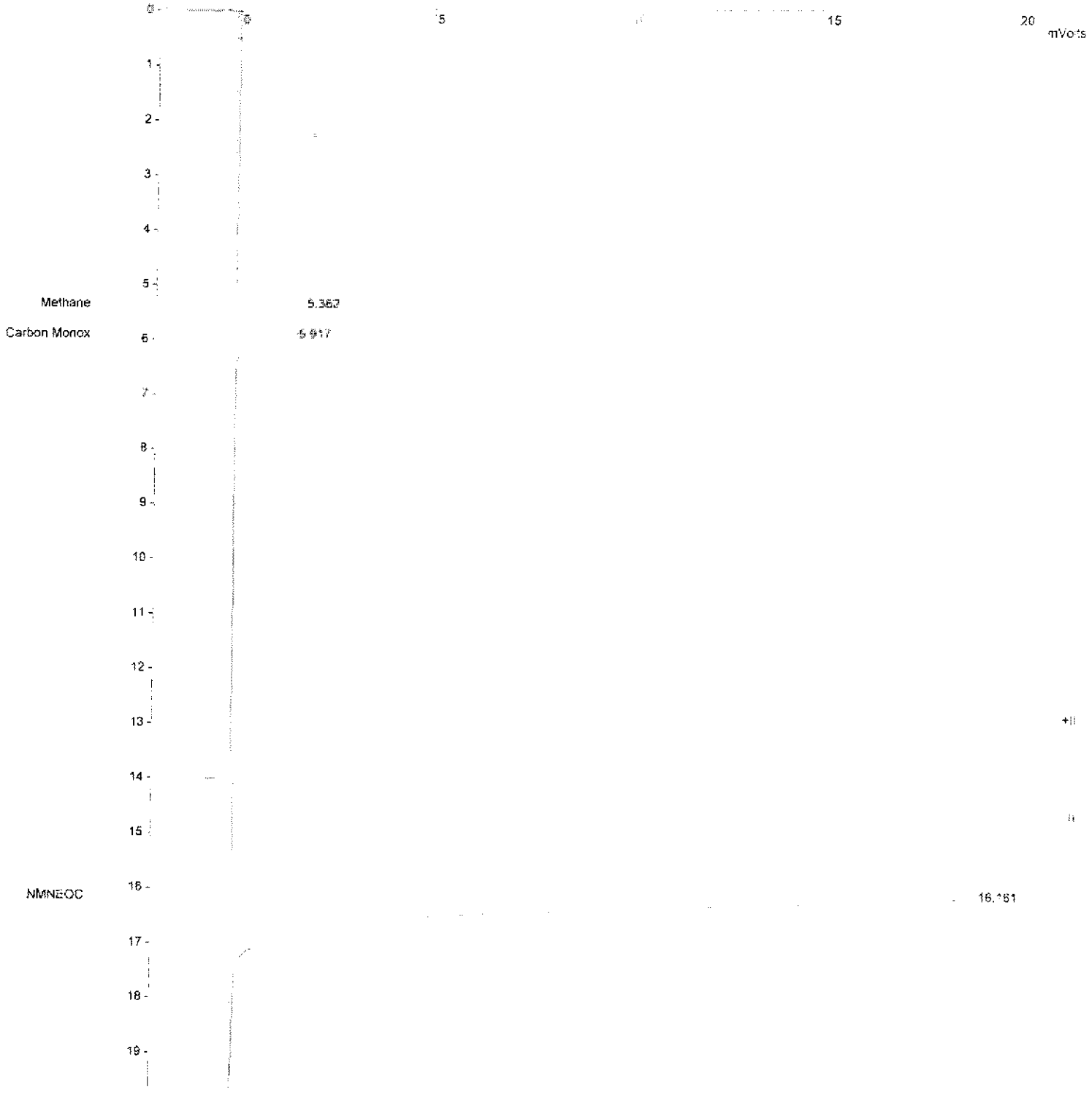
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01 22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	-0.000	49446	VV	2.1	
3	Carbon Dioxi	3.731	0.000	179056	BB	16.3	
4	Ethane	7.393	0.003	177554	BB	25.2	
	Totals:		0.003	406056			

Total Unidentified Counts : 270628 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 18 microVolts - monitored before this run

Manual injection

****

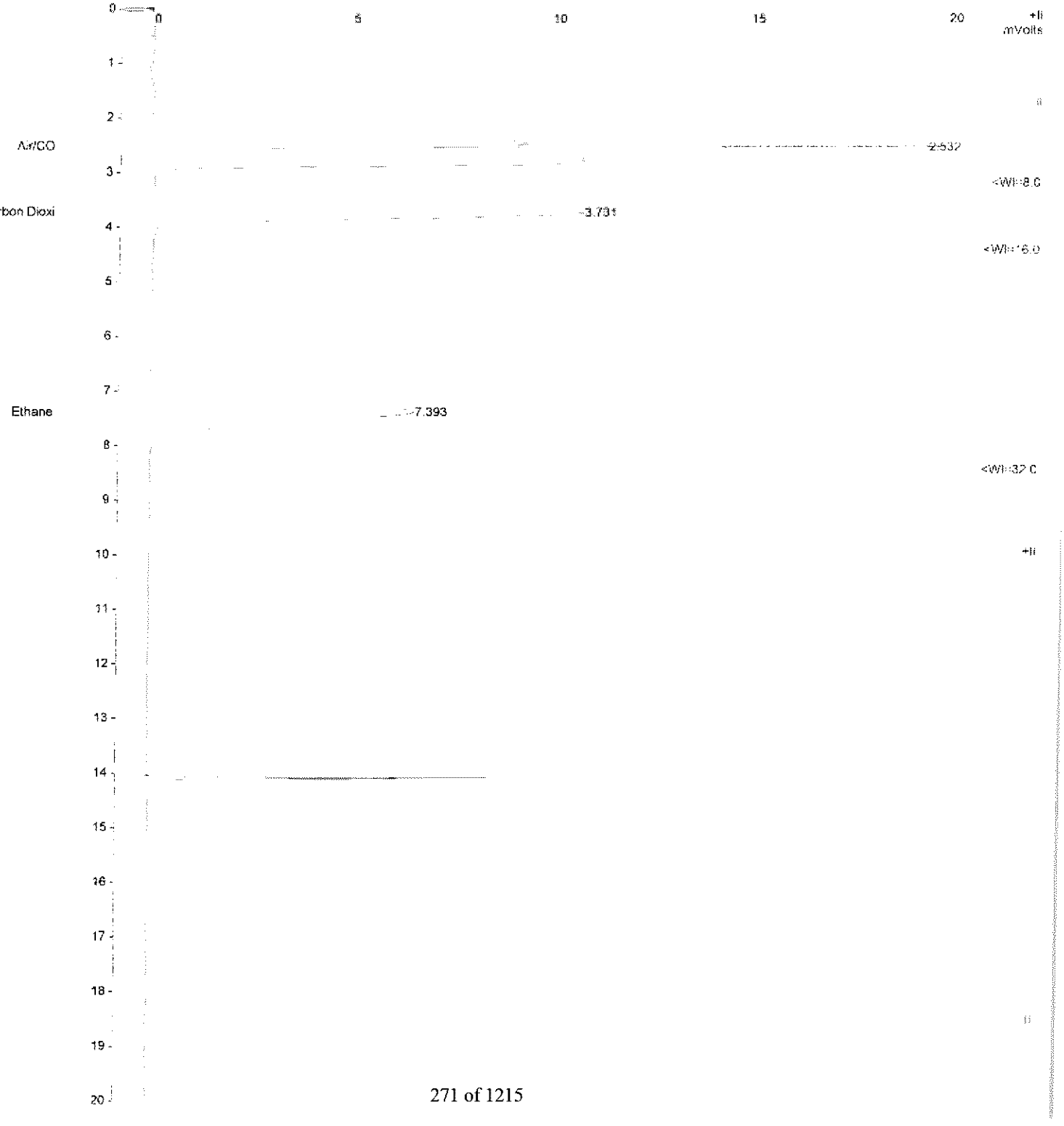
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus M40C Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A3C-415C **

Chart Speed - 0.99 cm/min Attenuation = 1 Zero Offset - 0%
Start Time - 0.000 min End Time = 20.000 min Min / Tick - 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24 20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.360	-0.002	32448	VV	17.1	
2	Carbon Monox	5.918	0.001	35524	VB	21.0	
3	NMNEOC	16.152	-0.008	640410	PB	28.7	
	Totals:		-0.009	708382			

Total Unidentified Counts : 17733 counts

Detected Peaks: 23 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

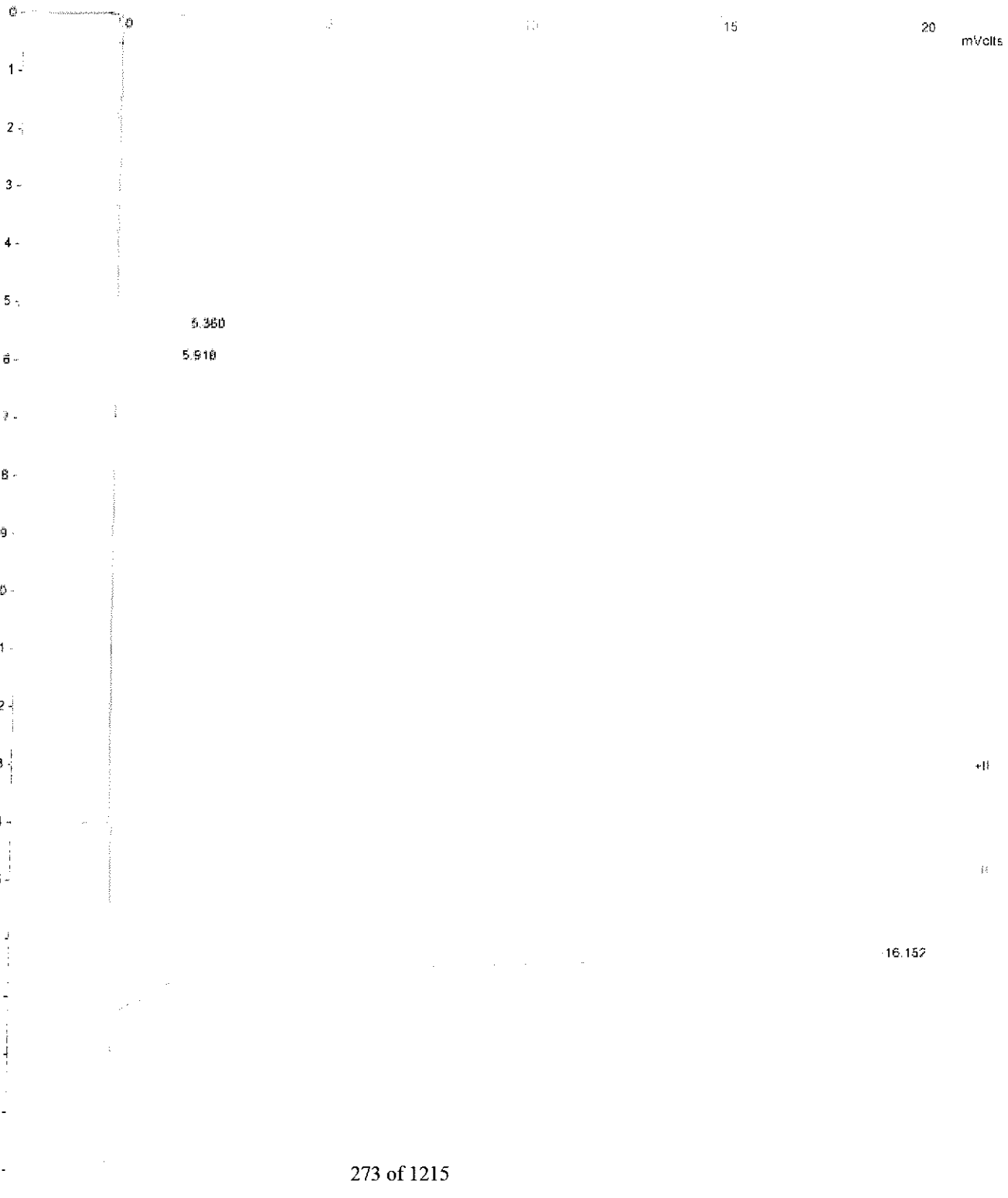
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-8VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AE1-425C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-20-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.001	246093	VV	2.0	
2	Carbon Dioxi	3.732	-0.001	907081	BB	16.0	
3	Ethane	7.391	0.001	882252	BB	25.1	
	Totals:		-0.001	2035426			

Total Unidentified Counts : 1450073 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 17 microVolts - monitored before this run

Manual injection

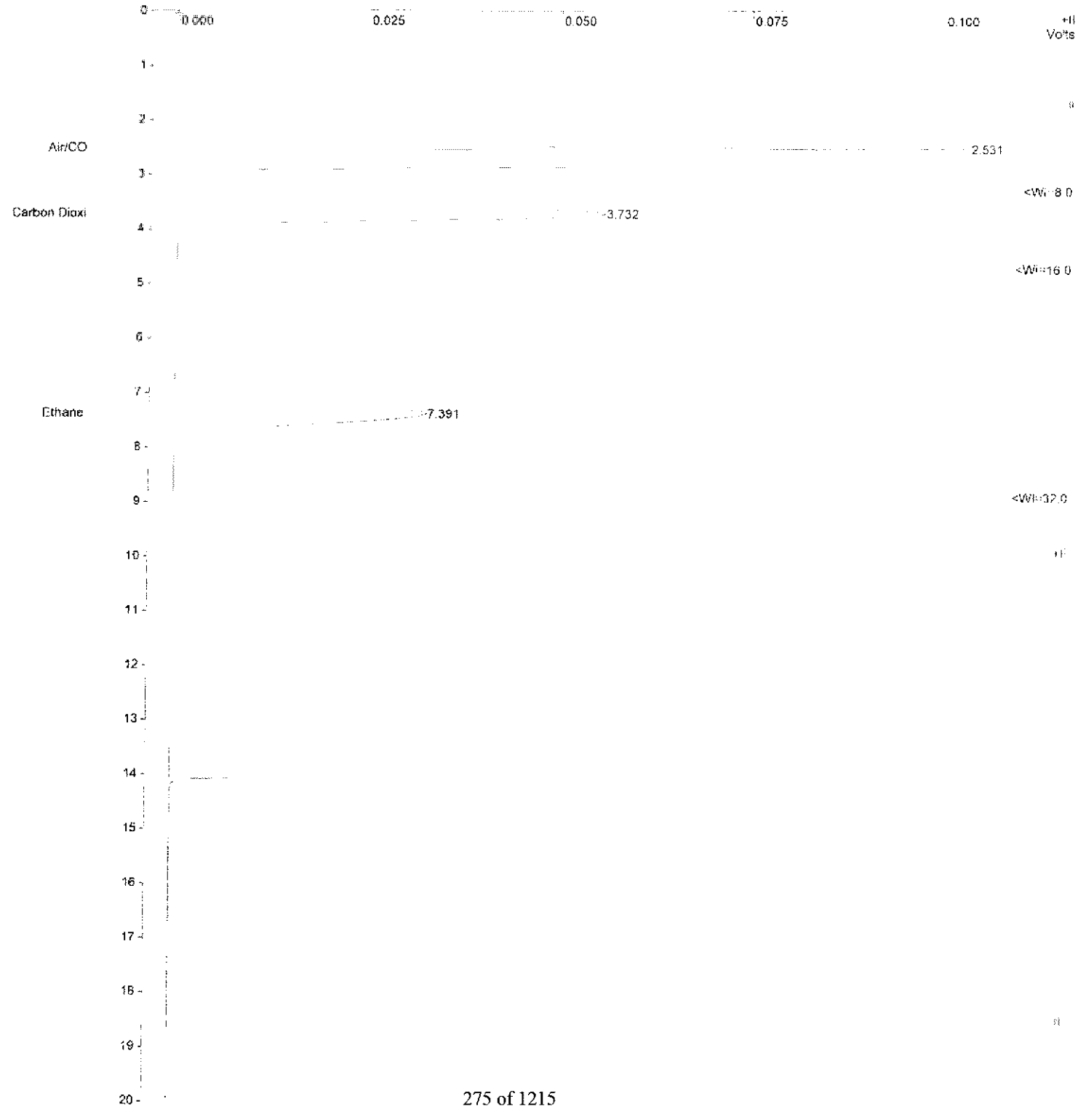
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL53 Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 mm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix in 7 - master sqaqmd 25.3 3 ml loop 1.-28-1?.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:36 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.366	-0.001	164466	VV	16.7	
2	Carbon Monox	5.911	-0.001	167614	VB	20.5	
3	NMNEOC	16.989	0.756	2085799	BB	14.7	
	Totals:		0.754	2417879			

Total Unidentified Counts : 15732 counts

Detected Peaks: 20 Rejected Peaks: 5 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual injection

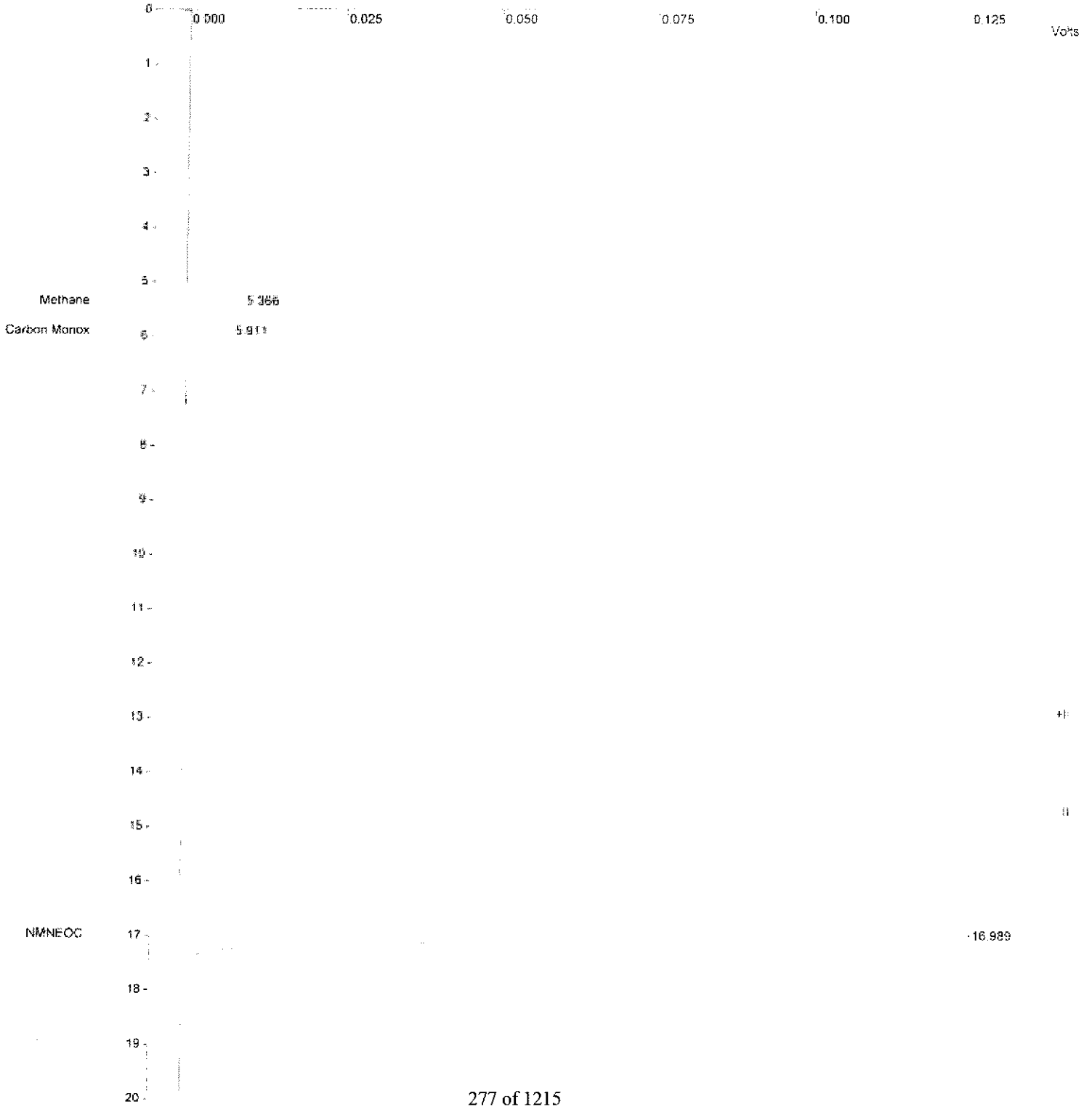
Title :
Run File : c:\bruker\s\data\2020\jan 20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-29-17.run
Method File : C:\Bruker\S\methods\Master SQAQMD 25.3 3 ml loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.3.1 ** 02057-37031-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



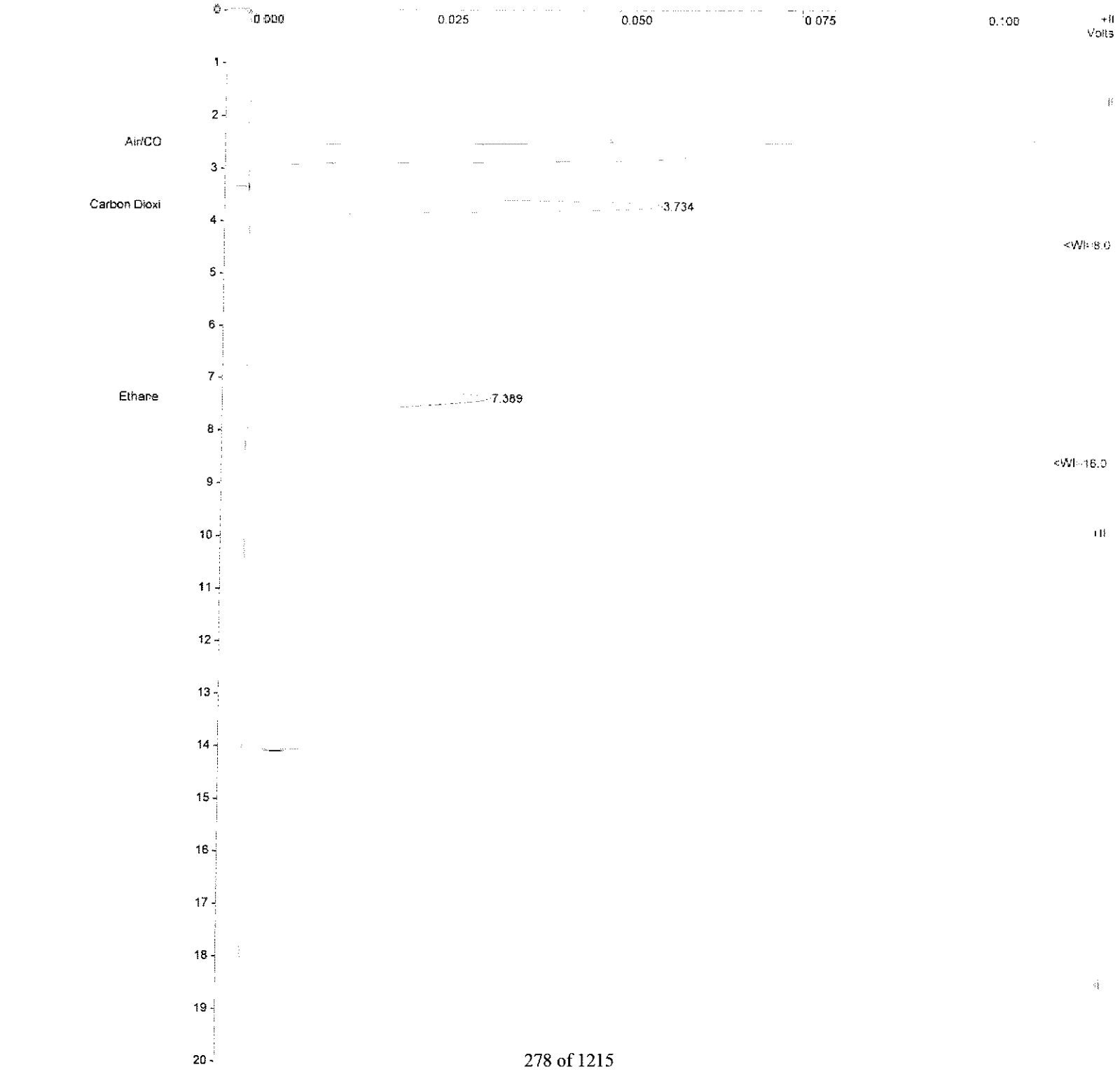
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset - 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.000	247749	VV	2.0	
2	Carbon Dioxi	3.734	0.002	912067	VB	16.0	
3	Ethane	7.389	-0.001	885177	BB	25.0	
	Totals:		0.001	2044993			

Total Unidentified Counts : 1460463 counts

Detected Peaks: 9 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SCAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02097-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.369	0.003	166804	VV	16.7	
2	Carbon Monox	5.913	0.003	170386	VB	20.6	
3	NMNEOC	16.988	-0.001	2095518	BB	14.7	
	Totals:		0.005	2432708			

Total Unidentified Counts : 16538 counts

Detected Peaks: 20 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 7 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

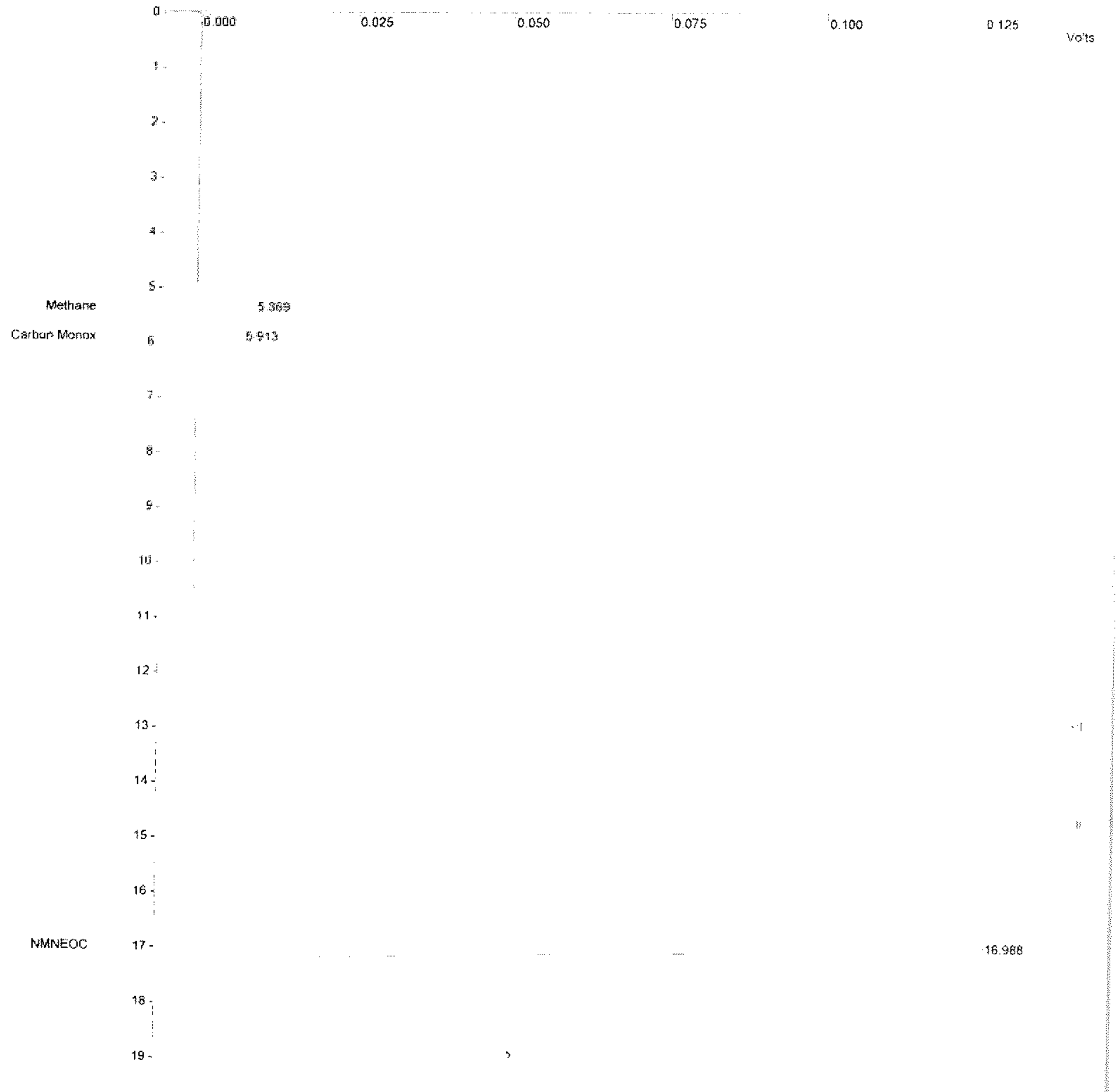
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01   Calculation Date: 2020-01-27 11:27

Operator : Douglass M.   Detector Type: 456-GC (1000 Volts)
Workstation: DESKTOP-6V15B   Bus Address : 44
Instrument : Lotus NMOC   Sample Rate : 5.00 Hz
Channel : Middle = FID   Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min   Attenuation = 1   Zero Offset = 2%
Start Time = 0.000 min   End Time = 20.000 min   Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	0.002	2509161	VV	2.0	
2	Carbon Dioxi	3.732	-0.001	9479276	VB	16.2	
3	Ethane	7.387	-0.001	9020471	BB	25.1	
	Totals:		0.000	21008908			

Total Unidentified Counts : 15048266 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

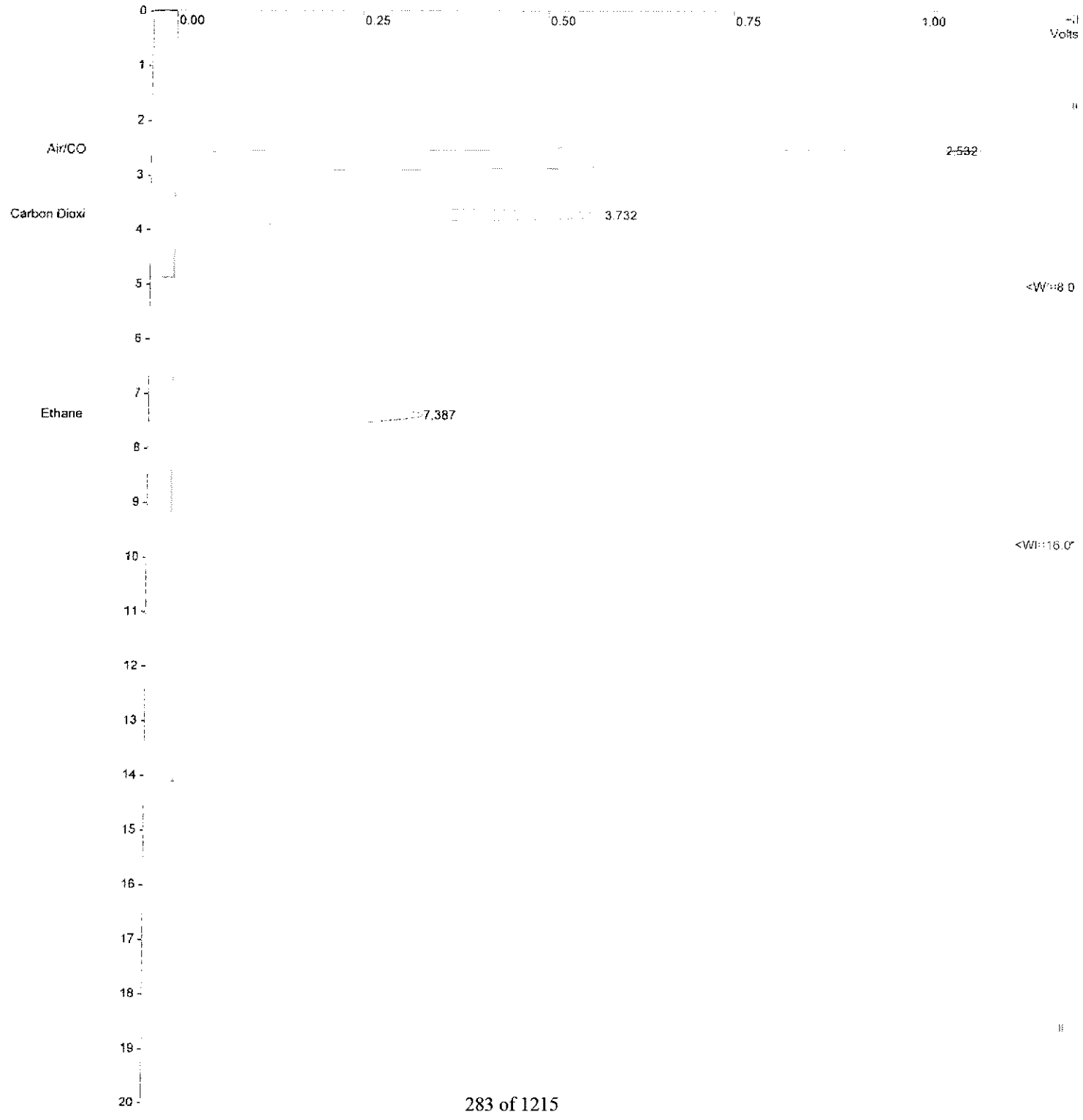
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus M8OC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.3.1 ** 02057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.364	-0.004	1630589	VV	16.7	
2	Carbon Monox	5.889	-0.024	1700909	VB	20.1	
3	NMNEOC	16.978	-0.010	20342462	PB	14.7	
	Totals:		-0.038	23673960			

Total Unidentified Counts : 20950 counts

Detected Peaks: 17 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

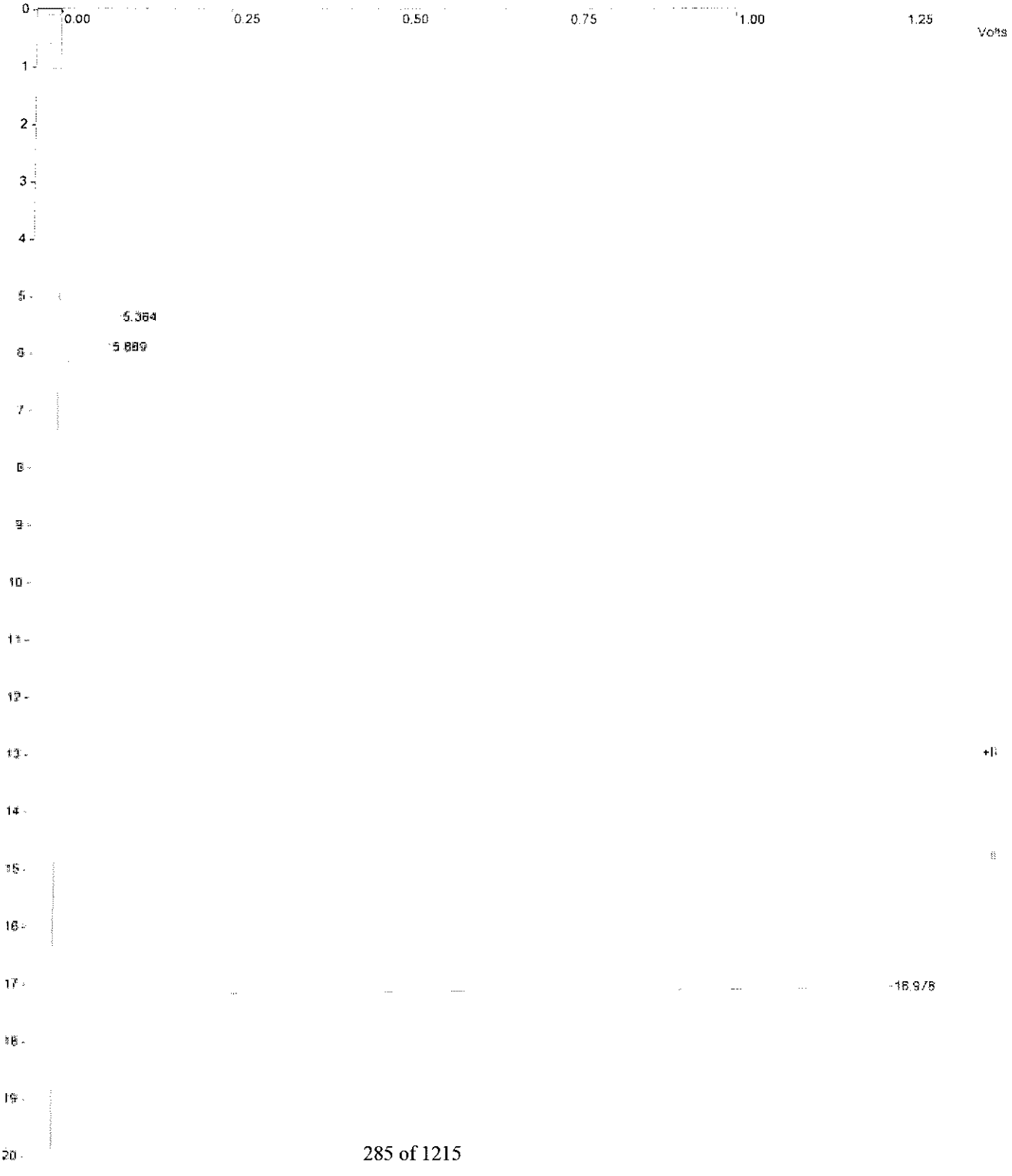
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 01-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.001	2510045	VV	2.0	
2	Carbon Dioxi	3.732	0.001	9518837	VB	16.2	
3	Ethane	7.385	-0.002	9051689	BB	25.1	
	Totals:		-0.002	21080571			

Total Unidentified Counts : 15105051 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts Monitored before this run

Manual injection

Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SC1CM Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 22
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00

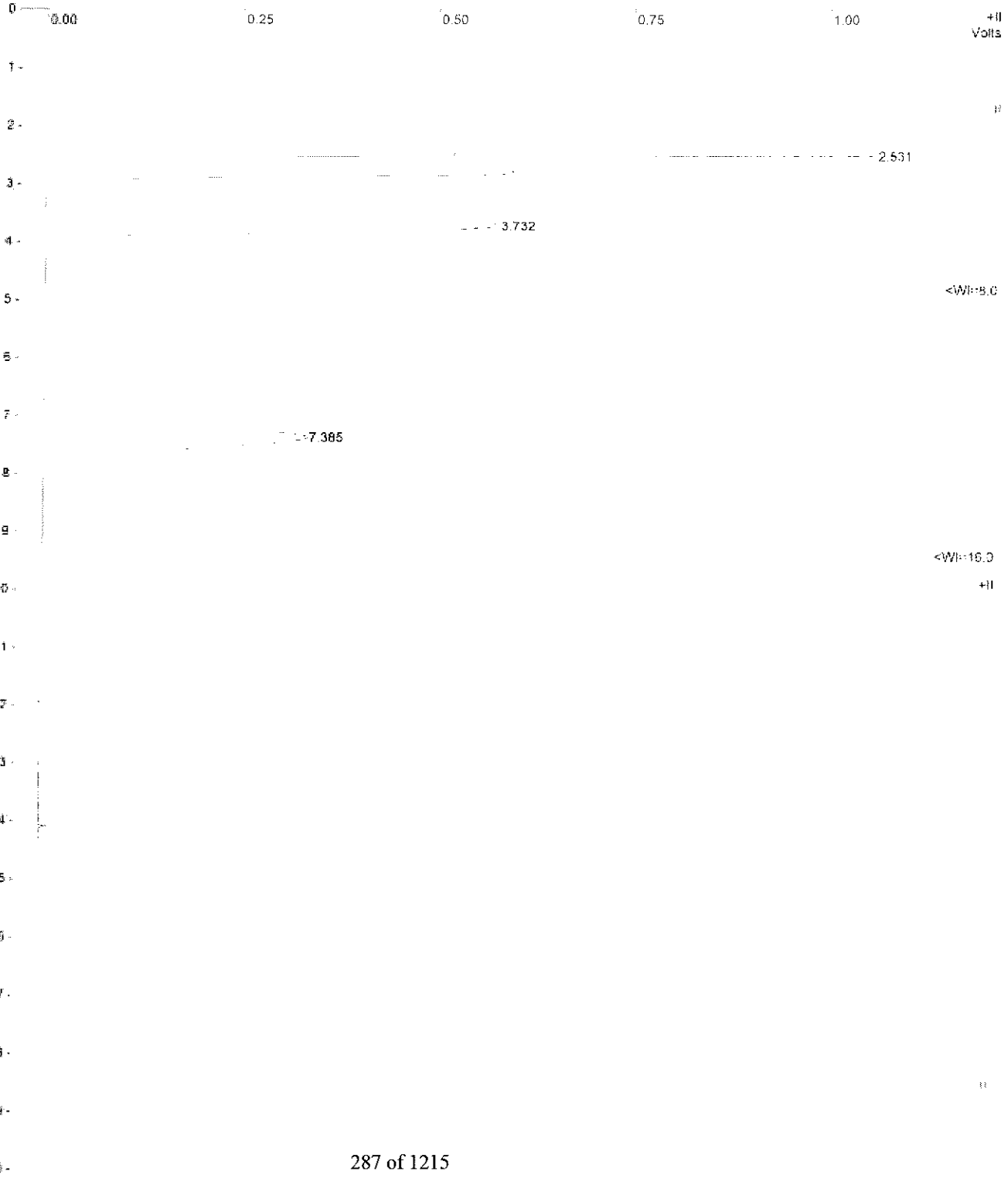


Table :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml Loop 01-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mrh
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.366	0.003	1635501	VV	16.7	
2	Carbon Monox	5.890	0.002	1708991	VB	20.1	
3	NMNEOC	16.979	0.002	20396076	PB	14.8	
	Totals:		0.007	23740568			

Total Unidentified Counts : 21501 counts

Detected Peaks: 17 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

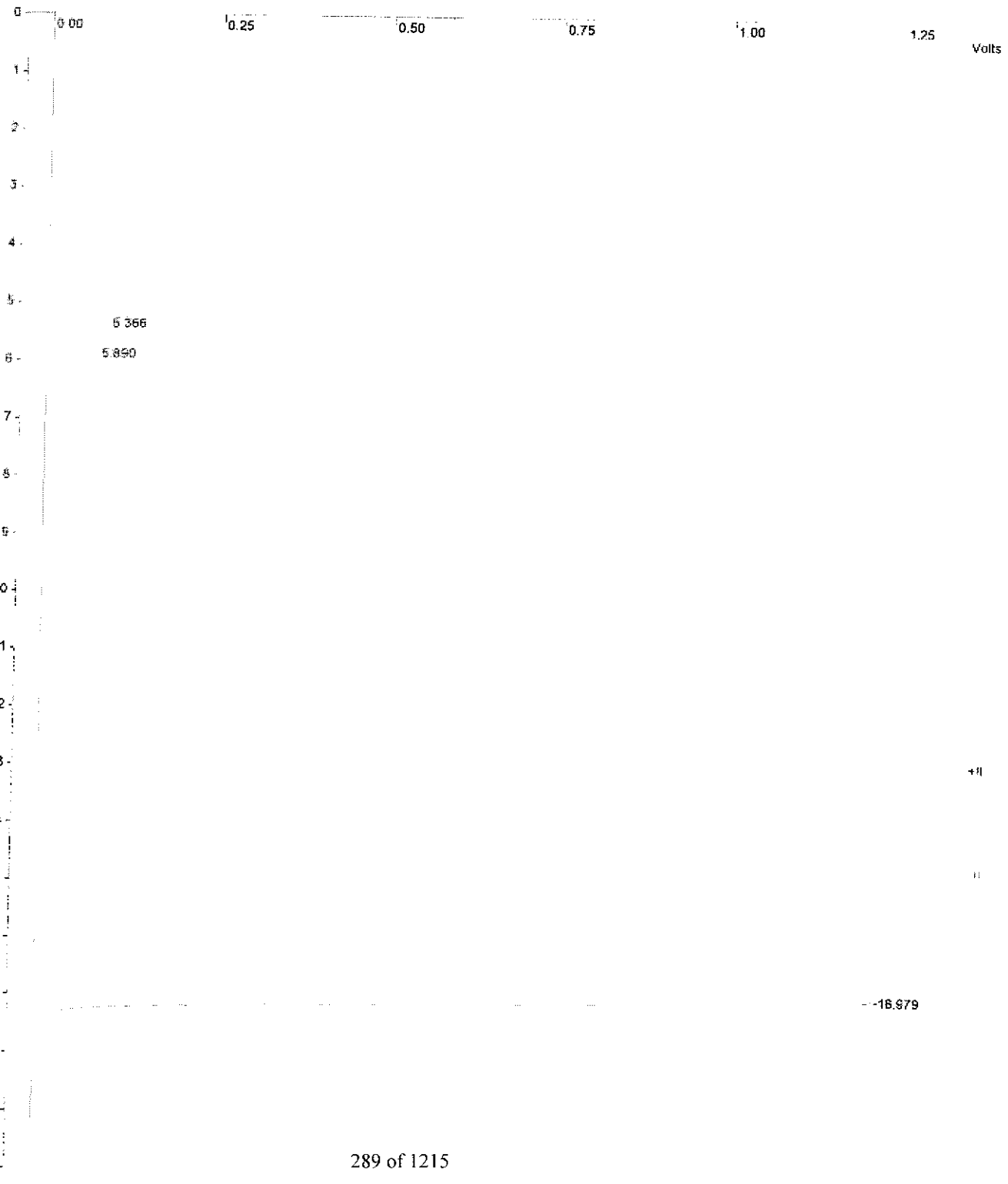
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V25B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	0.001	4949177	VV	2.1	
2	Carbon Dioxi	3.727	0.001	18353302	VB	16.1	
3	Ethane	7.372	-0.000	18388114	BB	25.2	
	Totals:		0.002	41690593			

Total Unidentified Counts : 30244796 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 16 microVolts - monitored before this run

Manual injection

****

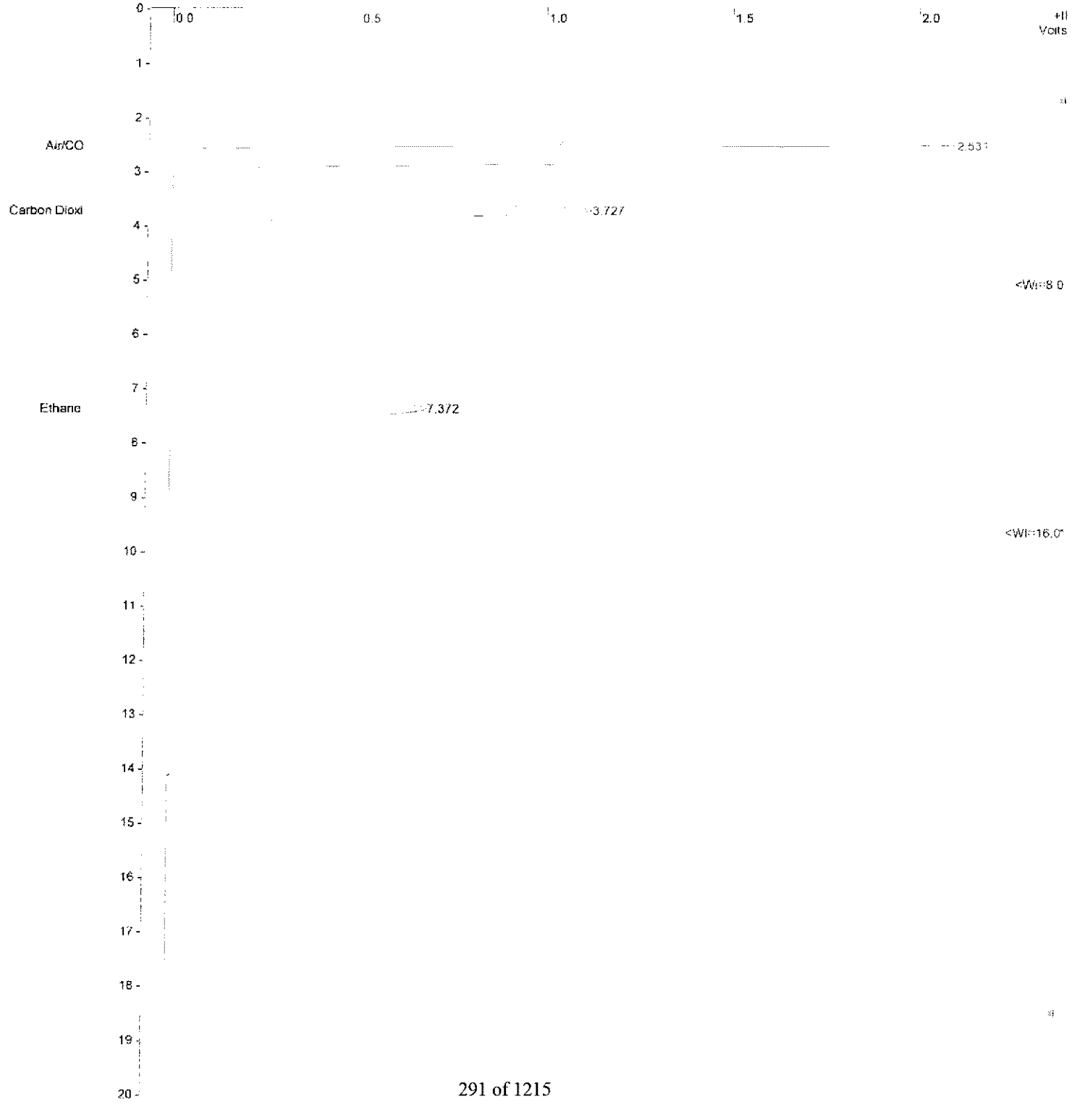
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 10 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 1-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	0.001	3262561	VV	16.7	
2	Carbon Monox	5.887	0.002	3363251	VB	20.0	
3	NMNEOC	16.651	0.005	40302996	BB	30.2	
	Totals:		0.008	46928808			

Total Unidentified Counts : 12040 counts

Detected Peaks: 16 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 9 microVolts

Manual injection

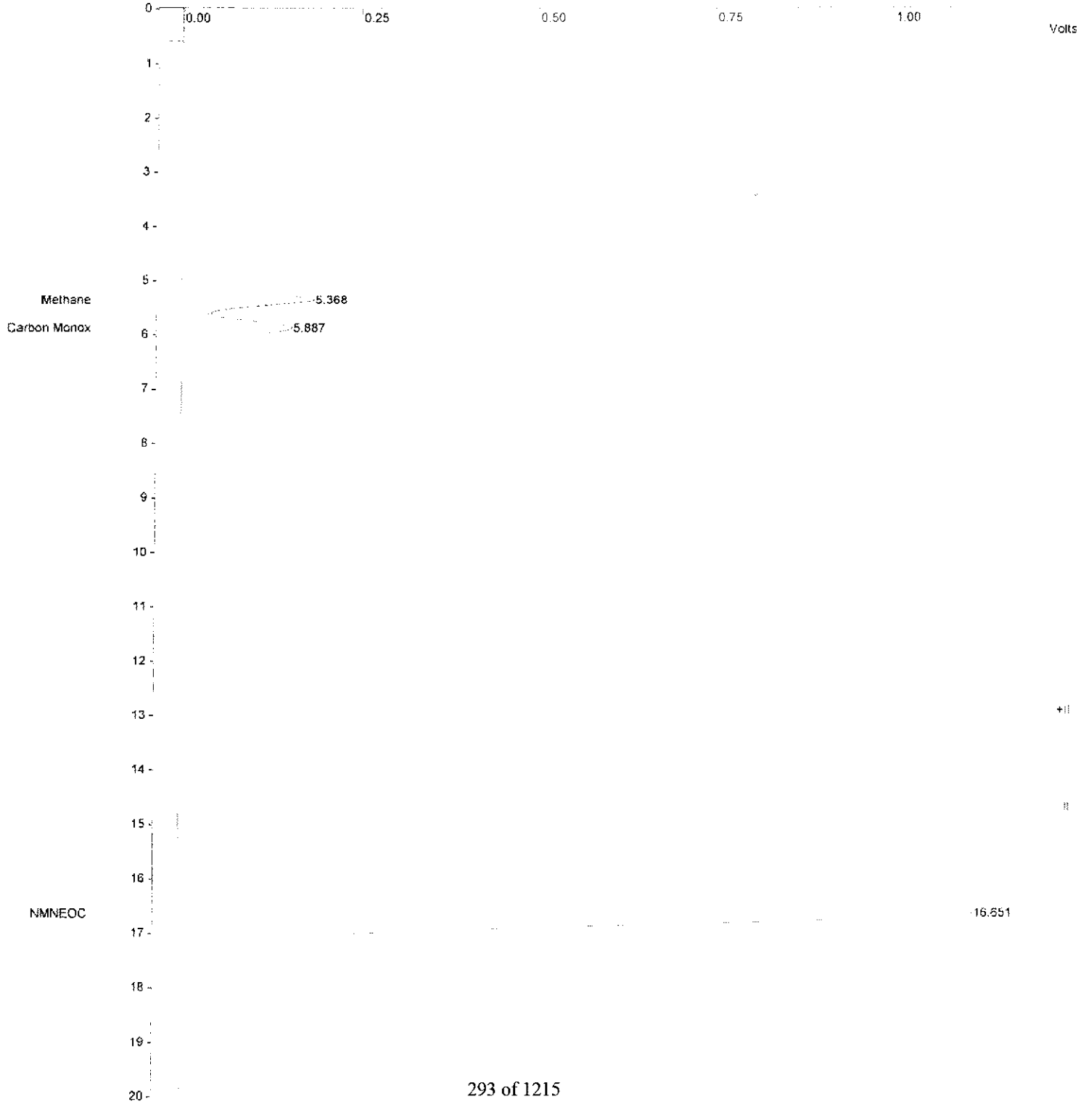
Title :
Run File : c:\BrukerWS\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A31-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix in 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	0.001	4971747	VV	2.1	
2	Carbon Dioxi	3.728	0.001	18336448	VB	16.1	
3	Ethane	7.374	0.002	18389176	BB	25.3	
	Totals:		0.004	41697371			

Total Unidentified Counts : 30215216 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

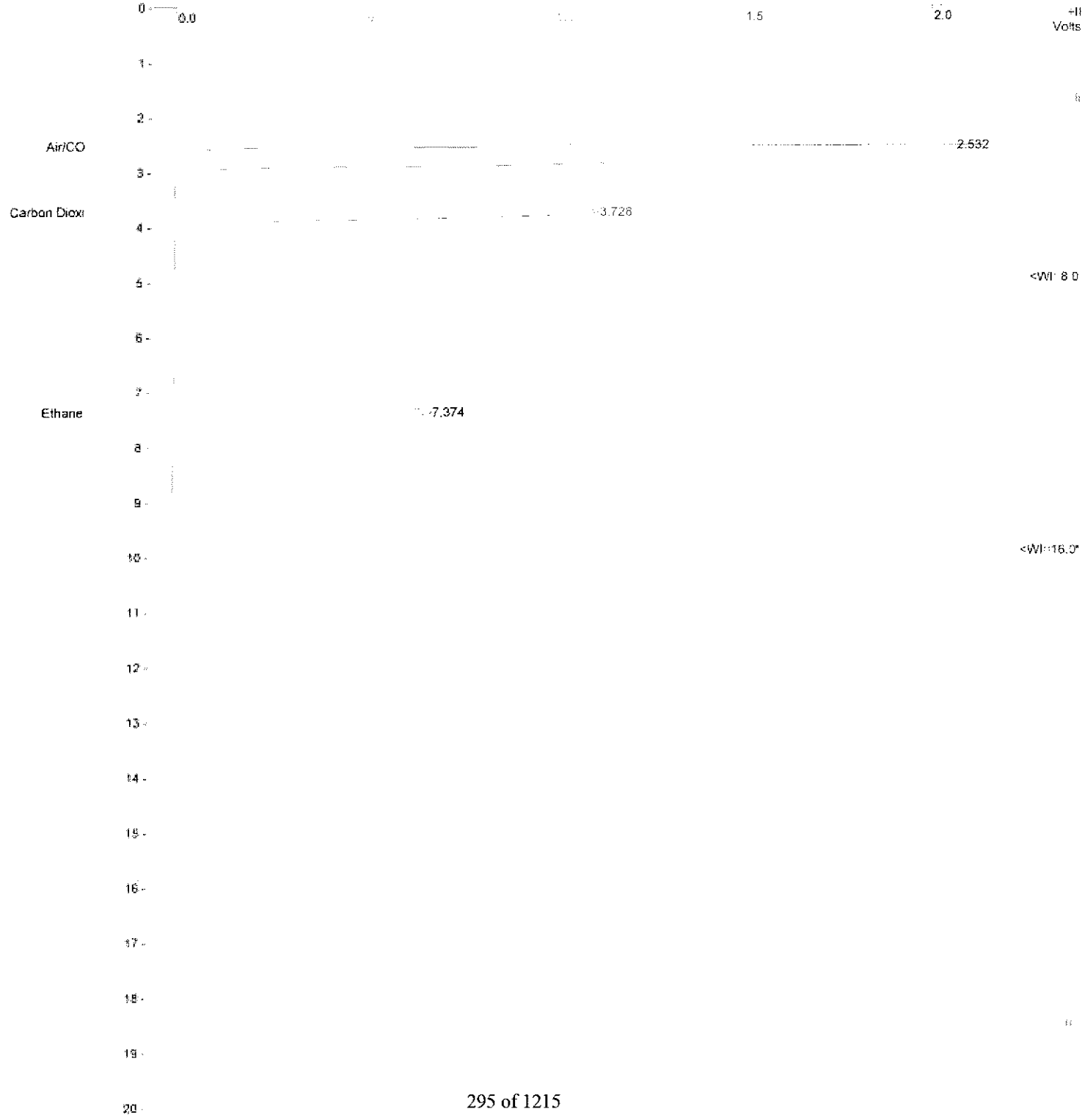
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3731-ABI-413C **

Chart Speed = 0.99 cm/min Attenuation = 10 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	-0.000	3261082	BV	16.6	
2	Carbon Monox	5.887	0.001	3359567	VB	20.0	
3	NMNEOC	16.659	0.009	39855688	BB	30.4	
	Totals:		0.010	46476337			

Total Unidentified Counts : 11411 counts

Detected Peaks: 15 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 23 microVolts

Manual injection

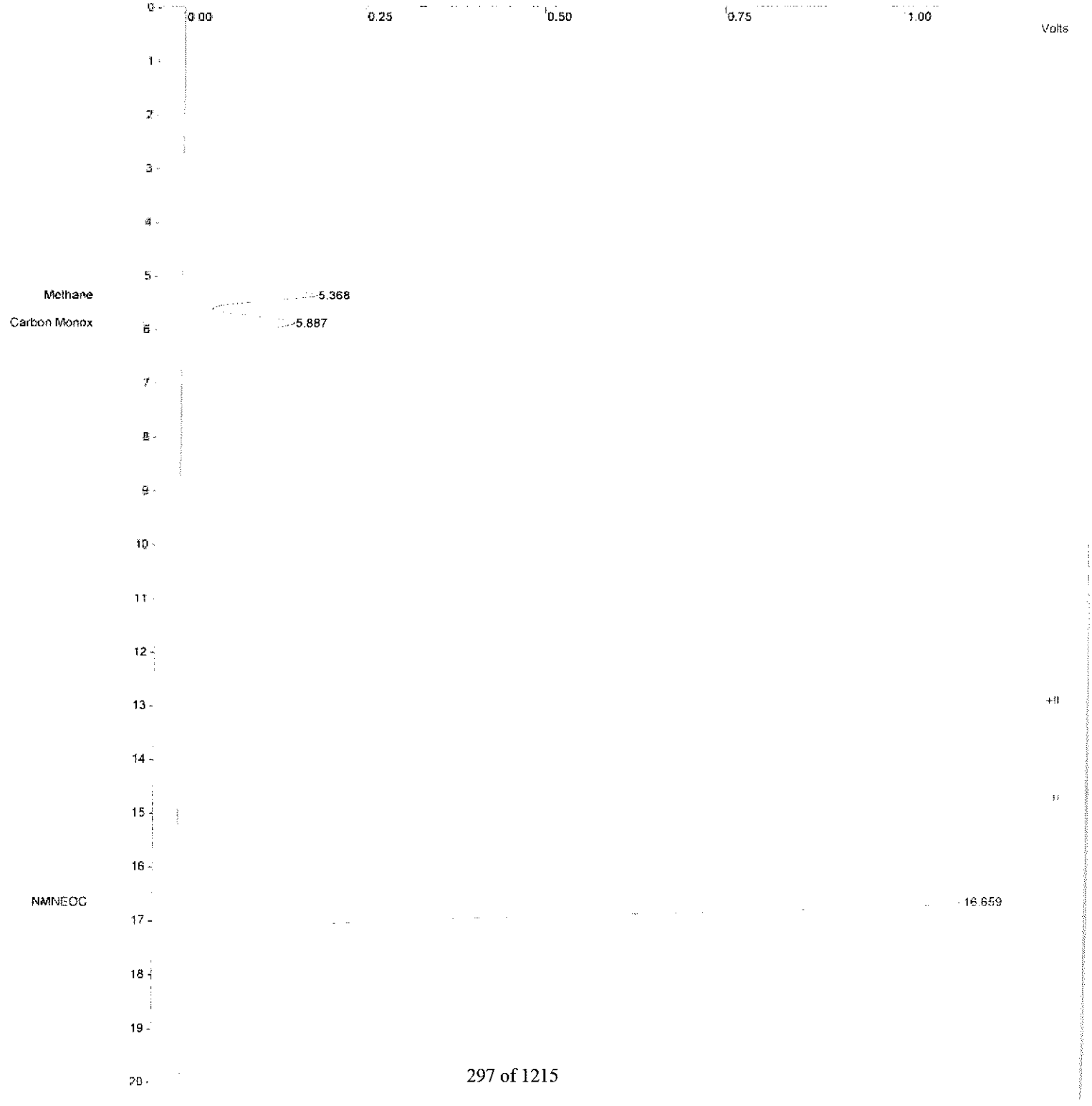
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Alliance

LABORATORY REPORT

Non-Methane Non-Ethane Organic compound Emissions by SCAQMD Method 25.3 (TCA/FID)

Client:	AAA
Project No.:	21-0883
Unit Tested:	Outlet
Sampling Date:	17-Mar-21
Analyzed Date:	30-Mar-21
Lab No.:	A 027

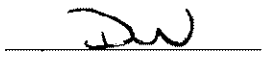
Client Sample ID	Lab ID	Almega Sample ID		**Total* NMNEO ppm w/ Bias**	**Total* NMNEO ppm**	NMNEO ppm condensable	NMNEO ppm noncondensable	CH_4 ppm	C_2H_6 ppm	CO_2 ppm	O_2 % v/v by TCD
		Tank	Trap								
Outlet											
M25.3-CAU Outlet Run 1A	A 027 - 041 A	54083	1	**13.3**	**12.2**	1.28	10.9	20.4	ND	579	20.4
M25.3-CAU Outlet Run 1B	A 027 - 041 B	A111	2	**13.9**	**12.8**	2.09	10.7	20.0	ND	602	20.6
M25.3-CAU Outlet Run 2A	A 027 - 051 A	54116	7	**6.40**	**5.89**	3.44	2.46	32.1	26.2	899	20.2
M25.3-CAU Outlet Run 2B	A 027 - 051 B	S050	8	**7.12**	**6.56**	4.56	2.00	34.3	28.2	934	20.2
M25.3-CAU Outlet Run 3A	A 027 - 061 A	A127	11	**13.3**	**12.3**	10.4	1.86	22.6	27.6	888	20.5
M25.3-CAU Outlet Run 3B	A 027 - 061 B	777	12	**13.3**	**12.3**	10.5	1.73	22.8	27.7	887	20.3
Detection Limit						1.0	0.80	0.80	0.80	0.80	0.30

* NOTE - the BIAS FACTOR (of 1.086) is NOT applied in these results.
ND=Not Detected

Water Blank , ppmC **0.000**

TGNMNEO concentration values are reported in ppm (v/v) as Methane (carbon#=1).

The sample cylinder is analyzed for NMNEO, CO, CH_4, CO_2 and C_2H_6. It is then directed to a separation column where all heavy organics (C_3+) separate from the light organics (CO, CO_2, CH_4 and C_2H_6). The light organics are then passed through a reduction catalyst to convert CO and CO_2 to CH_4, and are then directed to a FID for detection and quantification. The heavy organics are backflushed off the holding column, passed through an oxidation catalyst, which convert all organics to CO_2, then through a reduction catalyst to convert CO_2 to CH_4 and then to a FID for detection and quantification.

Reviewed by: 

CALCULATIONS

Client:	AAA		Lab No.: A 027
Project No.:	21-0883		
Unit Tested:	Outlet		
Sampling Date:	17-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #1 A	Run #1 B
Sample ID			M25.3-CAU Outlet Run 1A	M25.3-CAU Outlet Run 1B
Lab ID			A 027 - 041 A	A 027 - 041 B
Sample Tank				
Tank No			54083	A111
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	21	21
Abs. Pre-test Temperature	T_{TI}	°K	294	294
Post-test Pressure	P_{TS}	mm Hg (abs)	596	644
Post-test Temperature	t_{TS}	°C	21	21
Abs. Post-test Temperature	T_{TS}	°K	294	294
Final Pressure	P_{TF}	mm Hg (abs)	944	940
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.59	1.47
Concentration Methane	C_{CH4}	ppm	12.8	13.6
Concentration Carbon Monoxide	C_{CO}	ppm	13.65	13.98
NMNEO (noncond)	C_{SA}	ppm	**6.86**	**7.30**
Sample Volume	Vs	L	4.605	4.977
Methane in Tank(C_{CH4}*DF_T)	C_{CH4T}	ppm	**20.4**	**20.0**
Carbon Monoxide in Tank(C_{CO}*DF_T)	C_{COT}	ppm	**21.76**	**20.54**
NMNEO (noncond)	C_{SAT}	ppm	**10.94**	**10.72**
Condensate Recovery - Trap				
Sample ID			M25.3-CAU Outlet Run 1A	M25.3-CAU Outlet Run 1B
Trap No			1	2
Lab No.:			A 027 - 042 A	A 027 - 042 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	V_S	L	4.605	4.977
TC Concentration	C_{TC}	mg/L	3.49	4.57
IC Concentration	C_{IC}	mg/L	2.00	1.93
TOC Concentration	C_{TOC}	mg/L	1.496	2.643
NMNEO, Condensable	C_T	ppm	**1.28**	**2.09**
TNMNEOC (Csa+C_T)	C	ppmC	**12.22**	**12.82**

Calculations

$V_S = k_1 * V_T * (P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760 = 0.3799$

$C_{SAT} = DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF = (P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T = (C_{TOC} * V_{IMP} * V_{ID})/(V_S * A_C)$

$V_{ID} = 23.6902$ L/mole

CALCULATIONS

Client:	AAA	Lab No.: A 027	
Project No.:	21-0883		
Unit Tested:	Outlet		
Sampling Date:	18-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #2 A	Run #2 B
Sample ID			M25.3-CAU Outlet Run 2A	M25.3-CAU Outlet Run 2B
Lab ID			A 027 - 051 A	A 027 - 051 B
Sample Tank				
Tank No			54116	S050
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	21	21
Abs. Pre-test Temperature	T_{TI}	°K	294	294
Post-test Pressure	P_{TS}	mm Hg (abs)	574	618
Post-test Temperature	t_{TS}	°C	21	21
Abs. Post-test Temperature	T_{TS}	°K	294	294
Final Pressure	P_{TF}	mm Hg (abs)	932	946
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.63	1.54
Concentration Methane	C_{CH4}	ppm	19.62	22.23
Concentration Carbon Monoxide	C_{CO}	ppm	21.48	24.28
NMNEO (noncond)	C_{SA}	ppm	1.50	1.30
Sample Volume	Vs	L	4.435	4.776
Methane in Tank(C_{CH4}*DF_T)	C_{CH4T}	ppm	**32.1**	**34.3**
Carbon Monoxide in Tank(C_{CO}*DF_T)	C_{COT}	ppm	**35.1**	**37.4**
NMNEO (noncond)	C_{SAT}	ppm	**2.46**	**2.00**
Condensate Recovery - Trap				
Sample ID			M25.3-CAU Outlet Run 2A	M25.3-CAU Outlet Run 2B
Trap No			7	8
Lab No.:			A 027 - 052 A	A 027 - 052 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	V_S	L	4.435	4.776
TC Concentration	C_{TC}	mg/L	8.65	10.25
IC Concentration	C_{IC}	mg/L	4.79	4.73
TOC Concentration	C_{TOC}	mg/L	3.863	5.521
NMNEO, Condensable	C_T	ppm	**3.44**	**4.56**
TNMNEOC (Csa+C_T)	C	ppmC	**5.89**	**6.56**

Calculations

$V_S=k_1*V_T*(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760=0.3799$

$C_{SAT}= DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF=(P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T =(C_{TOC} * V_{IMP} * V_{ID})/(V_S*A_C)$

V_{ID} =23.6902 L/mole

CALCULATIONS

Client:	AAA	Lab No.: A 027	
Project No.:	21-0883		
Unit Tested:	Outlet		
Sampling Date:	19-Mar-21		
Date tested:	30-Mar-21		

Parameter	Symbol	Units	Run #3 A	Run #3 B
Sample ID			M25.3-CAU Outlet Run 3A	M25.3-CAU Outlet Run 3B
Lab ID			A 027 - 061 A	A 027 - 061 B
Sample Tank				
Tank No			A127	777
Sample Tank Volume	V_T	L	6.000	6.000
Barometric Pressure	P_b	mm Hg	763	763
Pre-test Pressure	P_{TI}	mm Hg (abs)	2	2
Pre-test Temperature	t_{TI}	°C	21	21
Abs. Pre-test Temperature	T_{TI}	°K	294	294
Post-test Pressure	P_{TS}	mm Hg (abs)	640	678
Post-test Temperature	t_{TS}	°C	21	21
Abs. Post-test Temperature	T_{TS}	°K	294	294
Final Pressure	P_{TF}	mm Hg (abs)	930	942
Abs.Final Temperature	T_{TF}	°K	293	293
Dilution Factor	DF_T		1.46	1.40
Concentration Methane	C_{CH4}	ppm	15.5	16.3
Concentration Carbon Monoxide	C_{CO}	ppm	17.9	18.8
NMNEO (noncond)	C_{SA}	ppm	**1.27**	**1.24**
Sample Volume	Vs	L	4.946	5.241
Methane in Tank(CCH4*DFT)	C_{CH4T}	ppm	**22.6**	**22.8**
Carbon Monoxide in Tank(C_{CO}*DF_T)	C_{COT}	ppm	**26.2**	**26.3**
NMNEO (noncond)	C_{SAT}	ppm	**1.86**	**1.73**
Condensate Recovery - Trap				
Sample ID			M25.3-CAU Outlet Run 3A	M25.3-CAU Outlet Run 3B
Trap No			11	12
Lab No.:			A 027 - 062 A	A 027 - 062 B
Sample Impinger Volume	V_{IMP}	ml	2.0	2.0
Sample Volume	Vs	L	4.946	5.241
TC Concentration	C_{TC}	mg/L	16.44	18.52
IC Concentration	C_{IC}	mg/L	3.40	4.53
TOC Concentration	C_{TOC}	mg/L	13.041	13.985
NMNEO, Condensable	C_T	ppm	**10.40**	**10.53**
TNMNEOC (Csa+CT)	C	ppmC	**12.26**	**12.26**

Calculations

$V_S=k_1*V_T*(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$k_1 = (273+15.56)/760=0.3799$

$C_{SAT}= DF * C_{SA}$

$C_{CH4T} = DF * C_{CH4}$

$DF=(P_{TF}/T_{TF})/(P_{TS}/T_{TS} - P_{TI}/T_{TI})$

$C_T =(C_{TOC} * V_{IMP} * V_{ID})/(V_S*A_C)$

V_{ID} =23.6902 L/mole

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.: 21-0883 Lab No.: A 027
Sampling Date: 17-Mar-21 Analyzed Date: 30-Mar-21

Run #1 A

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 041 A	24633	24357	1.12	13.7	13.6	**13.6**	1.13
CH4	A 027 - 041 A	22580	22599	-0.08	12.8	12.8	**12.8**	-0.08
CO2	A 027 - 041 A	3511151	3512605	-0.04	362.8	362.9	**362.9**	-0.04
O2*	A 027 - 041 A	2104632	2116475	-0.56	12.8	12.8	**12.8**	-0.56
C2H6	A 027 - 041 A	ND	ND	ND	ND	ND	**ND**	ND
NMNEO	A 027 - 041 A	134766	135235	-0.35	6.85	6.87	**6.86**	-0.35

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 042 A	1.832	1.758	1.652	**3.495**	5.16	DF=2
IC	A 027 - 042 A	1.041	1.026	0.931	**1.999**	4.76	

Run #1 B

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 041 B	24960	25236	-1.11	13.9	14.1	**14.0**	-1.10
CH4	A 027 - 041 B	23992	24192	-0.83	13.6	13.7	**13.6**	-0.83
CO2	A 027 - 041 B	3959521	3967414	-0.20	409.1	409.9	**409.5**	-0.20
O2 *	A 027 - 041 B	2325868	2307483	0.79	14.1	14.0	**14.0**	0.79
C2H6	A 027 - 041 B	ND	ND	ND	ND	ND	**ND**	ND
NMNEO	A 027 - 041 B	145733	141620	2.82	7.40	7.20	**7.30**	2.86

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 042 B	2.365	2.236	2.253	**4.569**	3.04	DF=2
IC	A 027 - 042 B	0.953	0.972	0.965	**1.927**	0.78	

Water blank		$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF
TC	0.000	$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF
IC	0.250	$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF
TOC	**0.000**	$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

* - by GC/TCD

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.: 21-0883 Lab No.: A 027
Sampling Date: 17-Mar-21 Analyzed Date: 30-Mar-21

Run #2 A

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 051 A	38432	38674	-0.63	21.4	21.5	**21.5**	-0.63
CH4	A 027 - 051 A	34669	34762	-0.27	19.6	19.7	**19.6**	-0.27
CO2	A 027 - 051 A	5320003	5321157	-0.02	549.7	549.8	**549.7**	-0.02
O2*	A 027 - 051 A	2035653	2036934	-0.06	12.3	12.3	**12.3**	-0.06
C2H6	A 027 - 051 A	138684	138506	0.13	16.04	16.02	**16.03**	0.13
NMNEO	A 027 - 051 A	30841	28278	8.31	1.57	1.44	**1.50**	8.67

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 052 A	4.448	4.189	4.339	**8.651**	3.00	DF=2
IC	A 027 - 052 A	2.365	2.422	2.395	**4.788**	1.07	

Run #2 B

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 051 B	43730	43443	0.66	24.4	24.2	**24.3**	0.66
CH4	A 027 - 051 B	39347	39310	0.09	22.2	22.2	**22.2**	0.09
CO2	A 027 - 051 B	5870631	5862609	0.14	606.6	605.7	**606.2**	0.14
O2*	A 027 - 051 B	2172649	2151454	0.98	13.2	13.0	**13.1**	0.98
C2H6	A 027 - 051 B	157868	158309	-0.28	18.26	18.31	**18.29**	-0.28
NMNEO	A 027 - 051 B	25446	25579	-0.52	1.29	1.30	**1.30**	-0.52

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 052 B	4.828	5.355	5.197	**10.253**	5.27	DF=2
IC	A 027 - 052 B	2.570	2.386	2.142	**4.732**	8.17	

Water blank
TC 0.000
IC 0.250
TOC **0.000**

$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF
$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF
$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF
$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

* - by GC/TCD

QA/QC SUMMARY
(Repeat Analysis)

Client Project No.:	21-0883	Lab No.:	A 027
Sampling Date:	17-Mar-21	Analyzed Date:	30-Mar-21

Run #3 A

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 061 A	32538	31867	2.06	18.1	17.8	**17.9**	2.08
CH4	A 027 - 061 A	27420	27272	0.54	15.5	15.4	**15.5**	0.54
CO2	A 027 - 061 A	5870117	5881364	-0.19	606.5	607.7	**607.1**	-0.19
O2*	A 027 - 061 A	2316088	2304417	0.50	14.0	14.0	**14.0**	0.51
C2H6	A 027 - 061 A	162547	163365	-0.50	18.80	18.90	**18.85**	-0.50
NMNEO	A 027 - 061 A	24966	25010	-0.18	1.27	1.27	**1.3**	-0.18

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 062 A	8.258	8.187	8.219	**16.443**	0.43	DF=2
IC	A 027 - 062 A	1.692	1.702	1.709	**3.402**	0.43	

Run #3 B

Analyte	Sample ID	Area Count #1	Area Count #2	Area % diff (±20%)	Conc # 1	Conc # 2	Mean Conc ppm	% diff from Mean
Tank Analysis								
CO	A 027 - 061 B	33747	33739	0.02	18.8	18.8	**18.8**	0.02
CH4	A 027 - 061 B	28845	28776	0.24	16.3	16.3	**16.3**	0.24
CO2	A 027 - 061 B	6147246	6130908	0.27	635.1	633.5	**634.3**	0.27
O2*	A 027 - 061 B	2395089	2394189	0.04	14.5	14.5	**14.5**	0.04
C2H6	A 027 - 061 B	171311	171106	0.12	19.82	19.79	**19.80**	0.12
NMNEO	A 027 - 061 B	24480	24231	1.02	1.24	1.23	**1.24**	1.02

Analyte	Sample ID	Conc # 1	Conc # 2	Conc # 3	Mean Conc ppm	COV 10%	
Trap Analysis							
TC	A 027 - 062 B	9.257	9.233	9.285	**18.517**	0.28	DF=2
IC	A 027 - 062 B	2.241	2.289	2.268	**4.532**	0.74	

Water blank	
TC	0.000
IC	0.250
TOC	**0.000**

$Conc_{CO}$ in tank = $MeanConc_{CO}$ * DF
$Conc_{CO2}$ in tank = $MeanConc_{CO2}$ * DF
$Conc_{O2}$ in tank = $MeanConc_{O2}$ * DF
$Conc_{C2H6}$ in tank = $MeanConc_{C2H6}$ * DF

* - by GC/TCD

SAMPLE INVENTORY REPORT

Method 25.3 Sampling Train

Project No.: 21-0883
Client: AAA

Lab No.: A 027
Sampling Date: 17-Mar-21

Laboratory ID	Client ID	Component ID	
Run #1 A			
A 027 - 041 A	M25.3-CAU Outlet Run 1A	Tank #	54083
A 027 - 042 A	M25.3-CAU Outlet Run 1A	Impinger	1
Run #1 B			
A 027 - 041 B	M25.3-CAU Outlet Run 1B	Tank #	A111
A 027 - 042 B	M25.3-CAU Outlet Run 1B	Impinger	2
Run #2 A			
A 027 - 051 A	M25.3-CAU Outlet Run 2A	Tank #	54116
A 027 - 052 A	M25.3-CAU Outlet Run 2A	Impinger	7
Run #2 B			
A 027 - 051 B	M25.3-CAU Outlet Run 2B	Tank #	S050
A 027 - 052 B	M25.3-CAU Outlet Run 2B	Impinger	8
Run #3 A			
A 027 - 061 A	M25.3-CAU Outlet Run 3A	Tank #	A127
A 027 - 062 A	M25.3-CAU Outlet Run 3A	Impinger	11
Run #3 B			
A 027 - 061 B	M25.3-CAU Outlet Run 3B	Tank #	777
A 027 - 062 B	M25.3-CAU Outlet Run 3B	Impinger	12

Lot# A027

Almega Environmental

CHAIN OF CUSTODY RECORDS

INVOICE TO:	REPORT TO:	PO # 2021-0883	Turnaround Time
	ALLIANCE Source Testing 10602 Walker St. Cypress, CA 90630 (714) 889-4000 Fax (714) 889-7030 Doug.Williams@stacktest.com Contact:		Standard: X Other: _____ Rush: Depends on # of Samples 5 - 10 days _____ 3 - 7 days _____
ATTN: ap@stacktest.com			

Job # 21-0883 | Unit # | Client: All American | Location: CAU

Samplers: (Signature)

Project Manager: Austin Keough

Unit Information: Carbon Bed Inlet/Outlet

Sample Date	Sample Time	Sample Identification	Lab Sample #	Type Of Sample: LIQUID	GAS	SOLID	No of Containers	ANALYSIS REQUESTED: 25.1 Trap	25.1 Tank	25.3 Trap	25.3 Tank	Return or Dispose / REMARKS
3/17	6:15-7:15	M25.1 - CAU Inlet ~~TRAP~~ - Run 1A	Tank: T-17 ; Trap: TP110	X	X		2	X	X	A027 -011A/012A		
3/17	6:15-7:15	M25.1 -CAU Inlet ~~TANK~~ - Run 1B	Tank: T-10 ; Trap: TP066	X	X		2	X	X	-011B/012B		
3/18	1016-1116	M25.1 -CAU Inlet ~~TRAP~~ - Run 2A	Tank: T-1 ; Trap: 059	X	X		2	X	X	021A/022A		Hold 2A/2B samples
3/18	1016-1116	M25.1 -CAU Inlet ~~TANK~~ - Run 2B	Tank: T-7 ; Trap: 085	X	X		2	X	X	-021B/022B		Low vacuum canister
3/19	900-1000	M25.1 -CAU Inlet ~~TRAP~~ - Run 3A	Tank: 1 ; Trap: 065	X	X		2	X	X	-031A/032A		
3/19	900-1000	M25.1 CAU Inlet ~~TANK~~ - Run 3B	Tank: 19 ; Trap: 074	X	X		2	X	X	-031B/032B		
3/17	6:15-7:15	M25.3 CAU Outlet ~~TRAP~~ - Run 1A	Tank: 54083 ; Trap: 1	X	X		2			X	X	-041A/042A
3/17	6:15-7:15	M25.3 CAU Outlet ~~TANK~~ - Run 1B	Tank: 1111 ; Trap: 2	X	X		2			X	X	-041B/042B
3/18	1016-1116	M25.3 CAU Outlet ~~TRAP~~ - Run 2A	Tank: 54116 ; Trap: 7	X	X		2	-051A/052A		X	X	Hold 2A/2B samples
3/18	1016-1116	M25.3 CAU Outlet ~~TANK~~ - Run 2B	Tank: 5050 ; Trap: 8	X	X		2	-051B/052B		X	X	Low vacuum canister
3/19	900-1000	M25.3 CAU outlet ~~TRAP~~ - Run 3A	Tank: 1127 ; Trap: 11	X	X		2			X	X	-061A/062A
3/19	900-1000	M25.3 CAU Outlet ~~TANK~~ - Run 3B	Tank: 777 ; Trap: 12	X	X		2			X	X	-061B/062B

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 3/19 Time 1500	Date: 3/19 Time: 1516	Date: 3/22 Time: 8:30	Date: 03/22/21 Time 8:31
Relinquished by:	Received by:	Relinquished by:	Received by:

306 of 1215

Almega
ENVIRONMENTAL

Standard Receipt
Sample LOG in Checklist

Project No: 21-0885

Method: m25.1 / m25.3

Lab ID: 2024

Sampling Date: 3/17 - 3/19

Location: AAA Int:

Date & Time Rc'd: 3/22/21 8:31

Location: LAB Int: Drop

Arrived By: (circle) FedEx UPS Drop Off (Int) Drop Other

Condition of Package(s): (comment): ok

Package Type: Box (Cooler) Other:

Number of Sample Container(s): 12 12

Correct Containers (per Method): (Y) N

Preservation: (circle) (ICE) DryICE ICEPacks None

Sample Conditions:

Sample Temp (C): 4.2

Ambient Temp (C): 21

Sample Temp (C): -9.9

Filter Condition: —

PH :

Components Sealed: (Y) N

Sample Recovery Completed On: (date & time)

Recovered In: (circle) (Field) Lab Other

Silica Gel Condition:

Tedlar Bags -
Condensation: Y N

Comments:

Container(s) Requested: Glass ____ Plastic____

Additional Comments:

CHROMATOGRAM

TEST SAMPLES

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-46-29 a 027 - 041 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 11:46 Calculation Date: 2021-03-25 12:06

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VLSB Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	32056	VV	1.8	
2	Carbon Dioxi	382.0031	3.777	0.337	3511151	VB	16.2	
3	Ethane		7.376					M
	Totals:	382.0031		0.362	3543207			

Status Codes:
M - Missing peak

Total Unidentified Counts : 190734 counts

Detected Peaks: 11 Rejected Peaks: 5 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

****

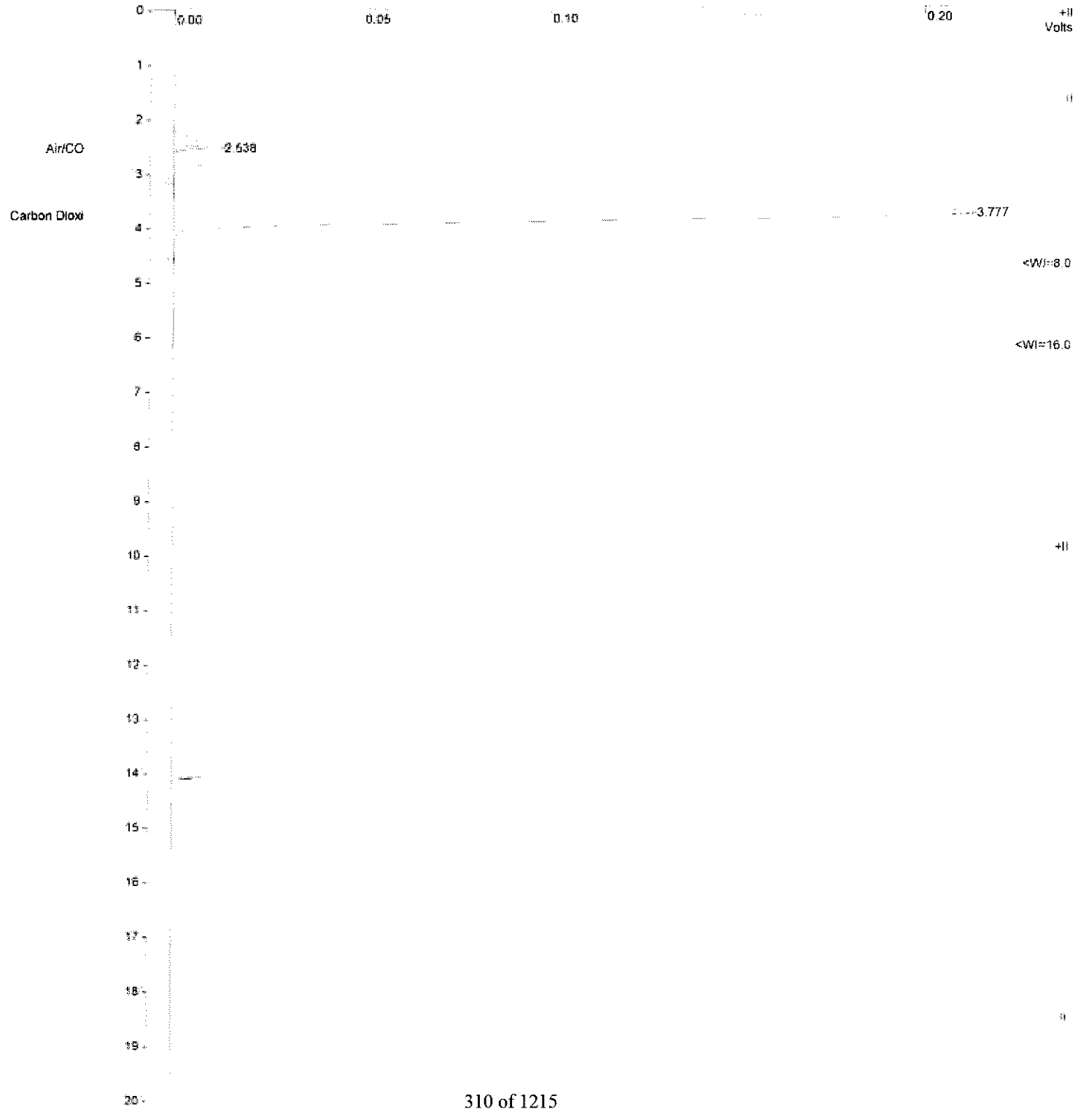
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-46-29 a 027 - 041 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 11:46 Calculation Date: 2021-03-25 12:06

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-46-29 a 027 - 041 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-10 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 11:46 Calculation Date: 2021-04-06 09:37

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5R Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	13.99	5.435	0.075	22580	BV	16.3	
2	Carbon Monox	14.24	6.156	0.291	24033	VB	20.9	
3	NMNEOC	6.67	16.202	-0.977	134766	BB	43.2	
	Totals:	34.90		-0.611	181979			

Total Unidentified Counts : 5327 counts

Detected Peaks: 13 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 28 microVolts

Manual injection

****

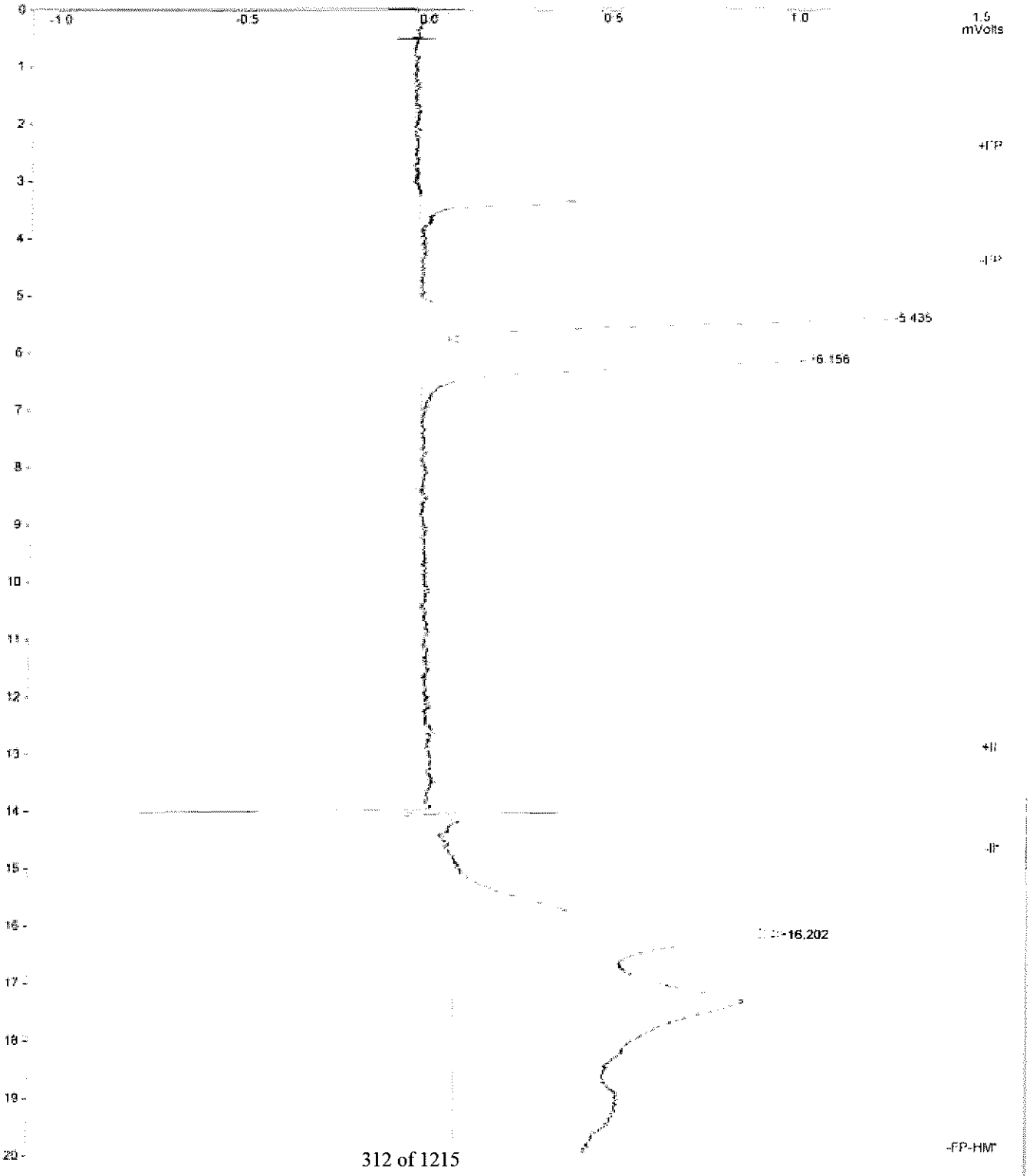
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 11-46-29 a 027 - 041 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 11:46 Calculation Date: 2021-04-06 09:37

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus GWGC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 12-12-51 a 027 - 041 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - copy.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 12:12 Calculation Date: 2021-03-25 12:32

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02037-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	31872	VV	1.8	
2	Carbon Dioxi	382.1614	3.776	0.336	3512605	BB	16.1	
3	Ethane		7.376					M
	Totals:	382.1614		0.361	3544477			

Status Codes:
M - Missing peak

Total Unidentified Counts : 188654 counts

Detected Peaks: 8 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

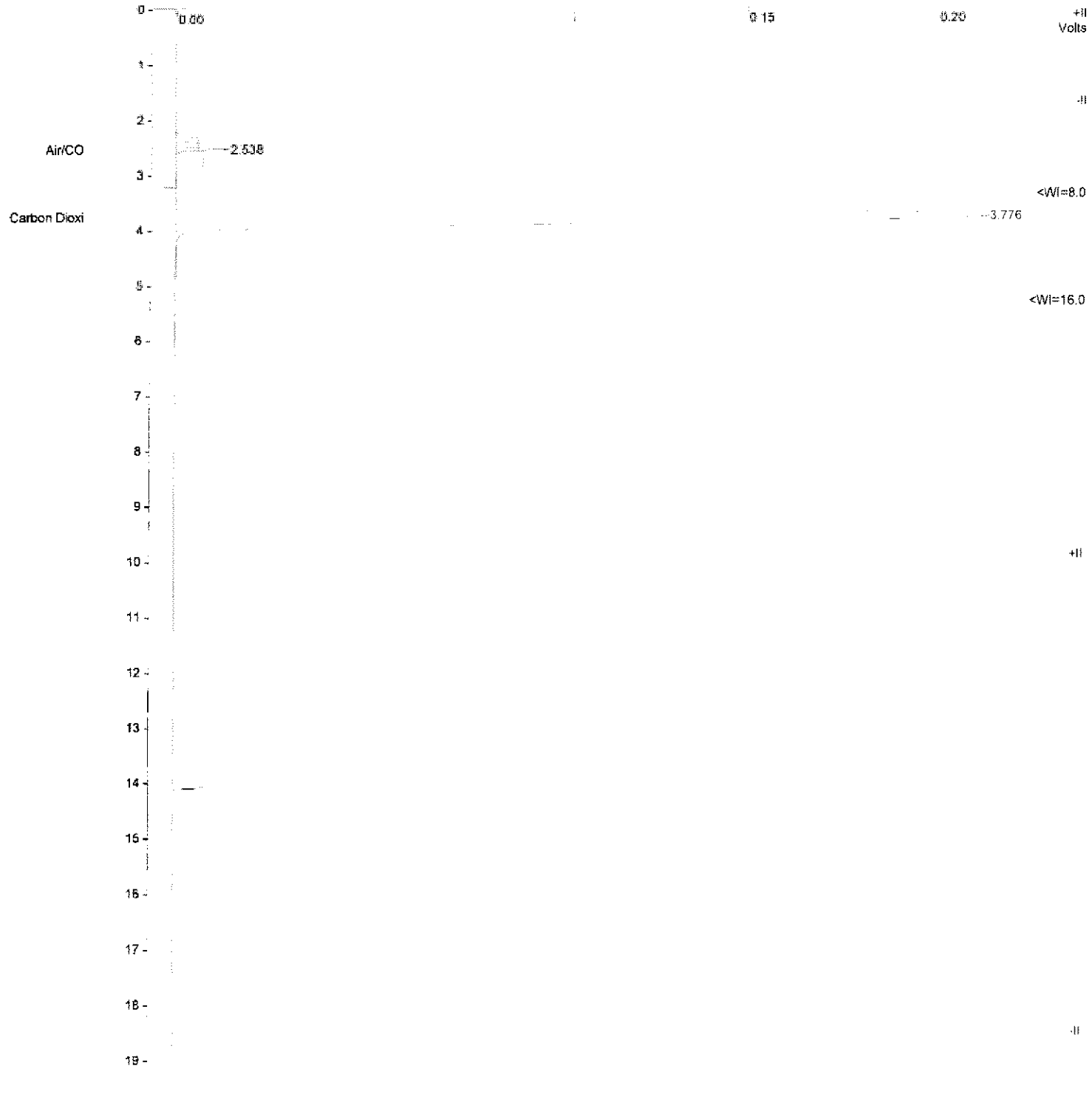
Title :
Run File : c:\brukerws\data\2021\mar_2\2021-03-25 12-12-51 a 027 - 041 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker#S\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mch
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 12:12 Calculation Date: 2021-03-25 12:32

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL55 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 12-12-51 a 027 - 041 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 12:12 Calculation Date: 2021-04-06 09:36

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	14.01	5.437	0.077	22599	BV	16.3	
2	Carbon Monox	14.08	6.159	0.294	24357	VB	20.8	
3	NMNEOC	6.69	16.188	-0.991	135235	BB	41.7	
	Totals:	34.78		-0.620	182191			

Total Unidentified Counts : 4833 counts

Detected Peaks: 10 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

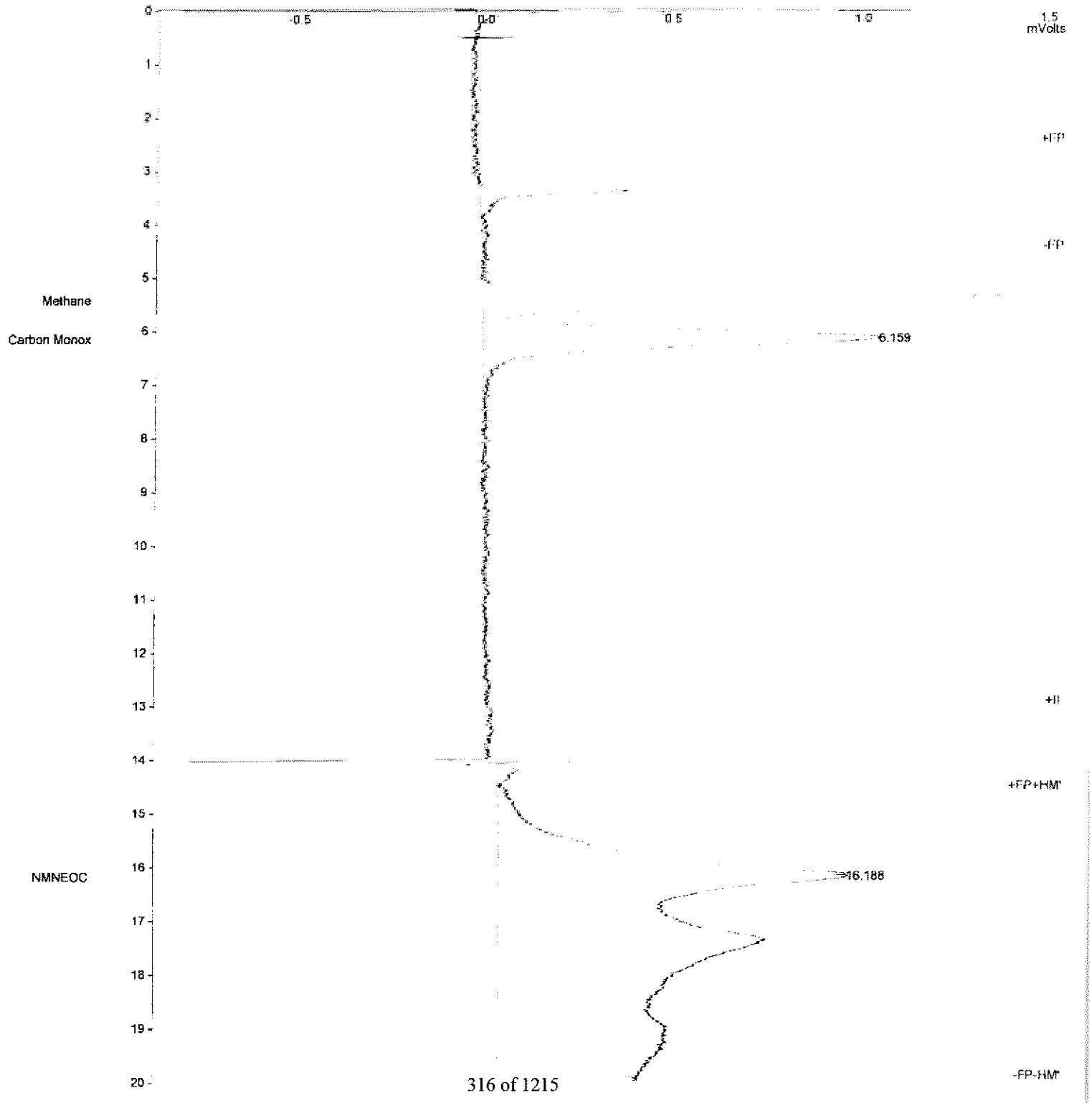
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 12-12-51 a 027 - 041 a inj 2 - master sqaqmd 25.3 3 mL loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 A

Injection Date: 2021-03-25 12:12 Calculation Date: 2021-04-06 09:36

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL58 Bus Address : 44
Instrument : Locus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-05-37 a 027 - 041 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:05 Calculation Date: 2021-03-25 13:25

Operator : Douglass W. Detector Type: 4XX-GC (1000 volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	34235	VV	1.8	
2	Carbon Dioxi	430.7990	3.775	0.335	3959521	BB	16.1	
3	Ethane		7.376					M
	Totals:	430.7990		0.360	3993756			

Status Codes:
M = Missing peak

Total Unidentified Counts : 201696 counts

Detected Peaks: 9 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

****

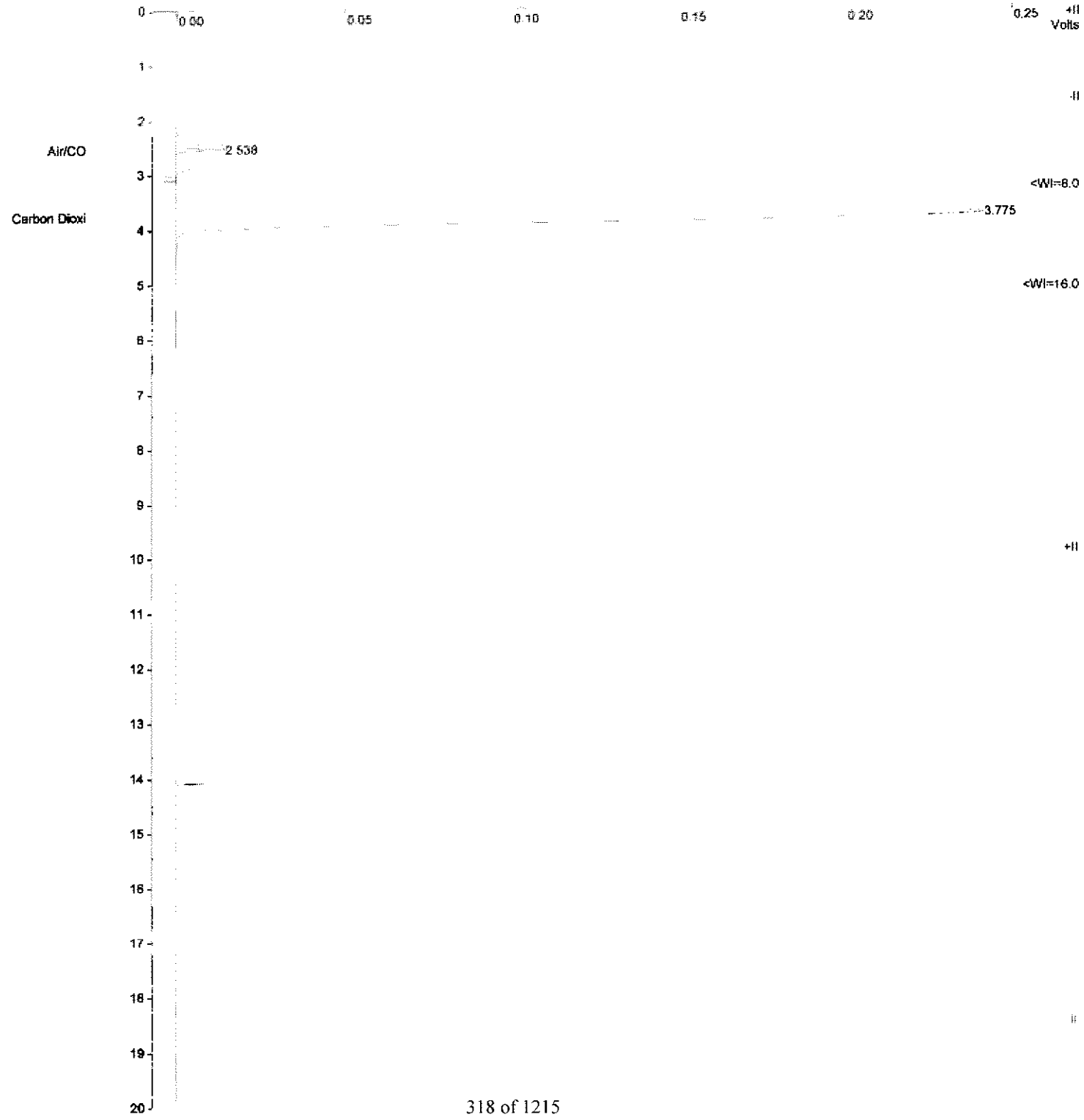
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-05-37 a 027 - 041 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:05 Calculation Date: 2021-03-25 13:25

Operator : Douglass W. Detector Type: 4XR-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37021-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-05-37 a 027 - 041 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 b ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:05 Calculation Date: 2021-04-06 09:33

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	14.87	5.437	0.077	23992	BV	16.3	
2	Carbon Monox	14.42	6.159	0.294	24960	VB	20.9	
3	NMNEOC	7.21	16.178	-1.001	145733	BB	37.2	
	Totals:	36.50		-0.630	194685			

Total Unidentified Counts : 4996 counts

Detected Peaks: 12 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

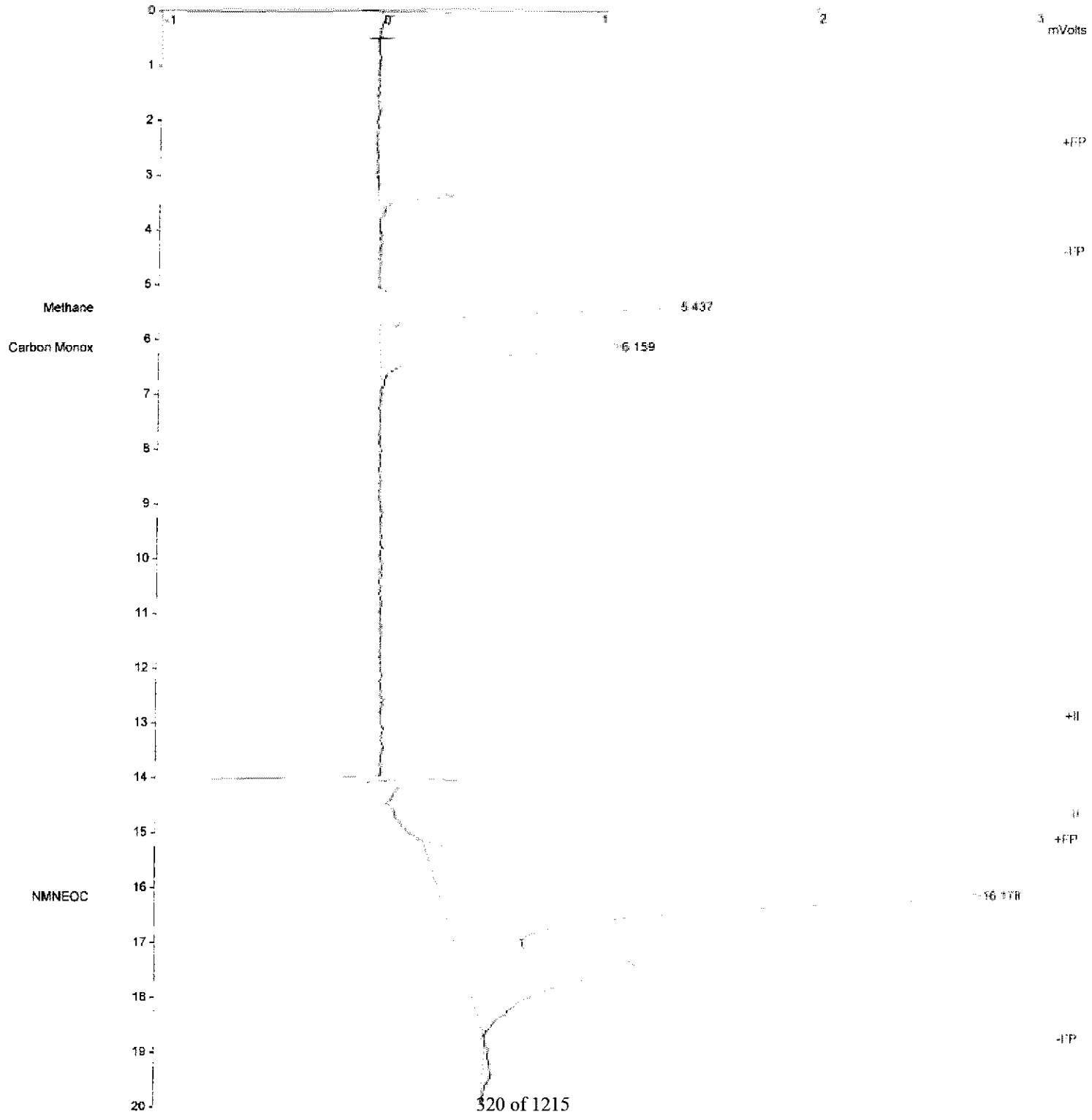
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-05-37 a 027 - 041 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:05 Calculation Date: 2021-04-06 09:33

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 3.0.1 ** 02057-37C2-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-31-53 a 027 - 041 b inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:31 Calculation Date: 2021-03-25 13:51

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.535	0.022	34225	VV	1.8	
2	Carbon Dioxi	431.6581	3.773	0.333	3967414	BB	16.1	
3	Ethane		7.376					M
	Totals:	431.6581		0.355	4001639			

Status Codes:
M - Missing peak

Total Unidentified Counts : 201729 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual Injection

****

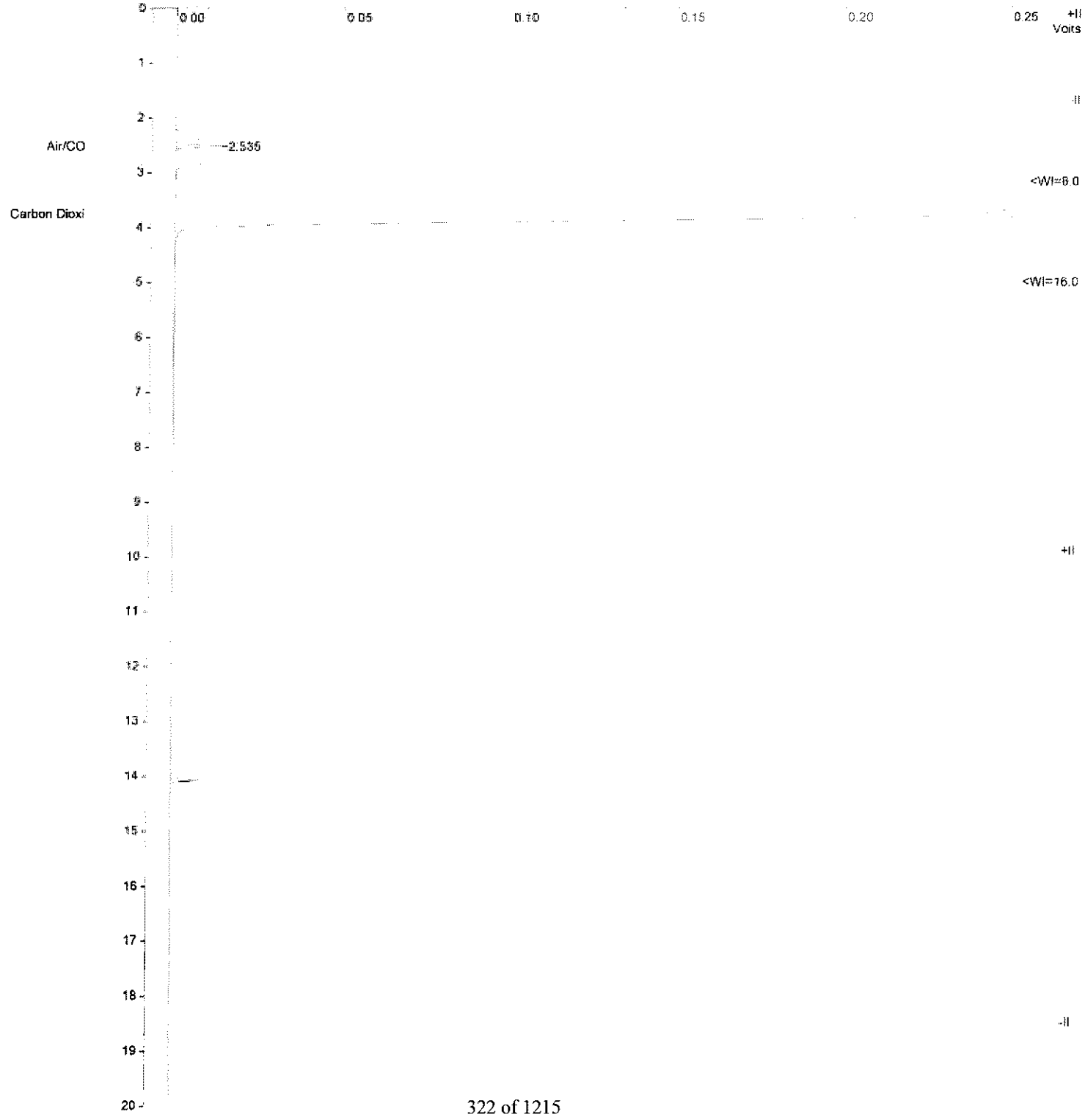
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-31-53 a 027 - 041 b inj 3 - master sqeqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:31 Calculation Date: 2021-03-25 13:51

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V7L5B Bus Address : 44
Instrument : Lotus XMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37C1-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-31-53 a 027 - 041 b inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 041 B

Injection Date: 2021-03-25 13:31 Calculation Date: 2021-04-06 09:33

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	14.99	5.437	0.077	24192	BV	16.3	
2	Carbon Monox	14.58	6.158	0.293	25236	VB	20.8	
3	NMNEOC	7.01	16.178	-1.001	141620	BB	37.0	
	Totals:	36.58		-0.631	191048			

Total Unidentified Counts : 5593 counts

Detected Peaks: 9 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual Injection

****

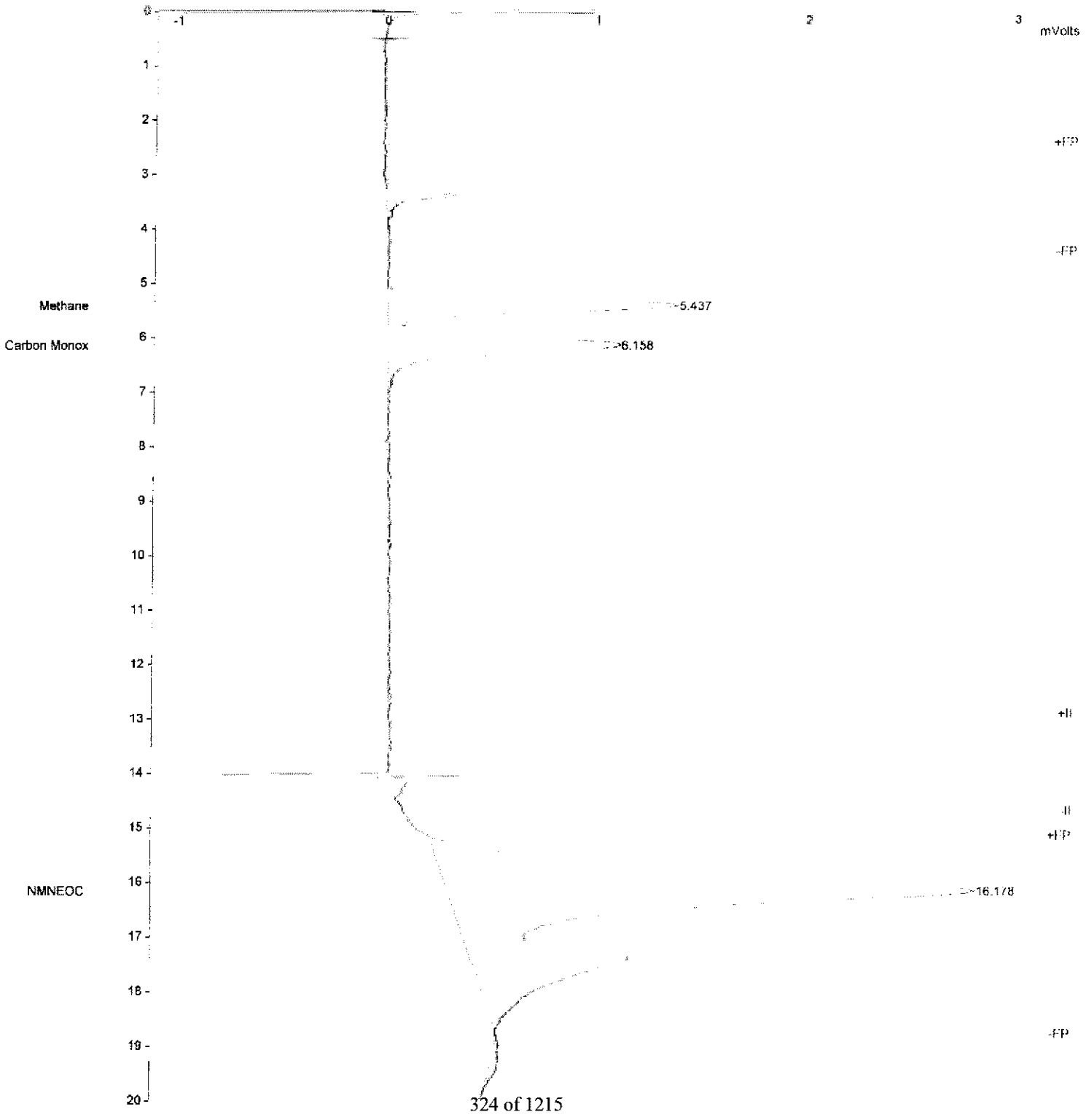
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-31-53 a 027 - 04i b inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 04i 3

Injection Date: 2021-03-25 13:31 Calculation Date: 2021-04-06 09:33

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL55 Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FIC Run Time : 20.006 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-58-17 a 027 - 051 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 13:58 Calculation Date: 2021-03-25 14:18

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VLSB Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.536	0.023	53928	VV	1.8	
2	Carbon Dioxi	576.8799	3.774	0.334	5320003	BB	16.0	
3	Ethane	14.6965	7.490	0.114	138684	BB	26.1	
	Totals:	593.5764		0.471	5512615			

Total Unidentified Counts : 341462 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

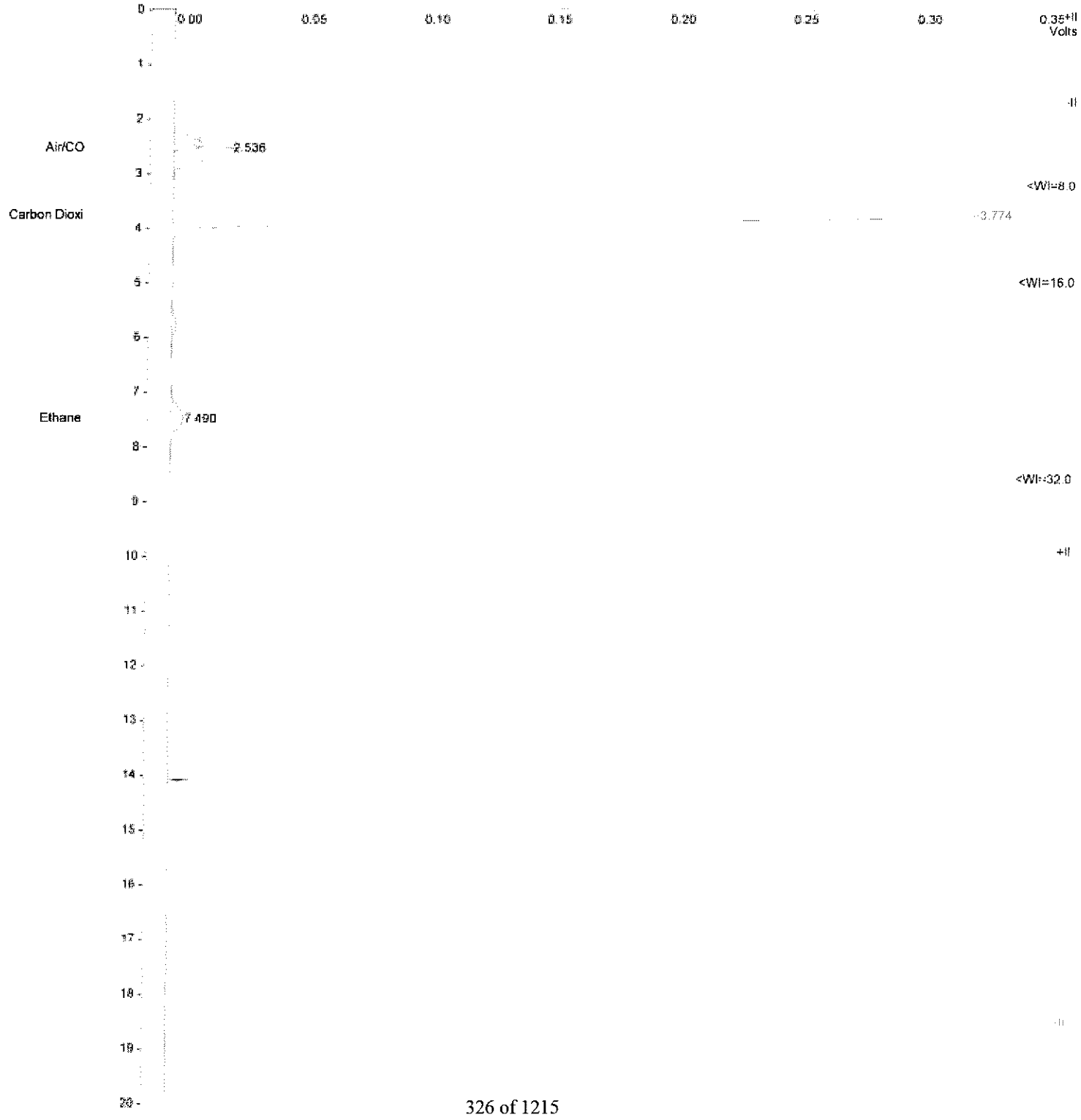
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-58-17 a 027 - 051 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 13:58 Calculation Date: 2021-03-25 14:18

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-58-17 a 027 - 051 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 13:58 Calculation Date: 2021-04-06 09:38

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	21.49	5.439	0.079	34669	BV	16.3	
2	Carbon Monox	22.21	6.159	0.294	38432	VB	20.7	
3	NMNEOC	1.53	17.332	0.153	30841	BB	114.6	
	Totals:	45.23		0.526	103942			

Total Unidentified Counts : 8998 counts

Detected Peaks: 14 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 26 microVolts

Manual injection

****

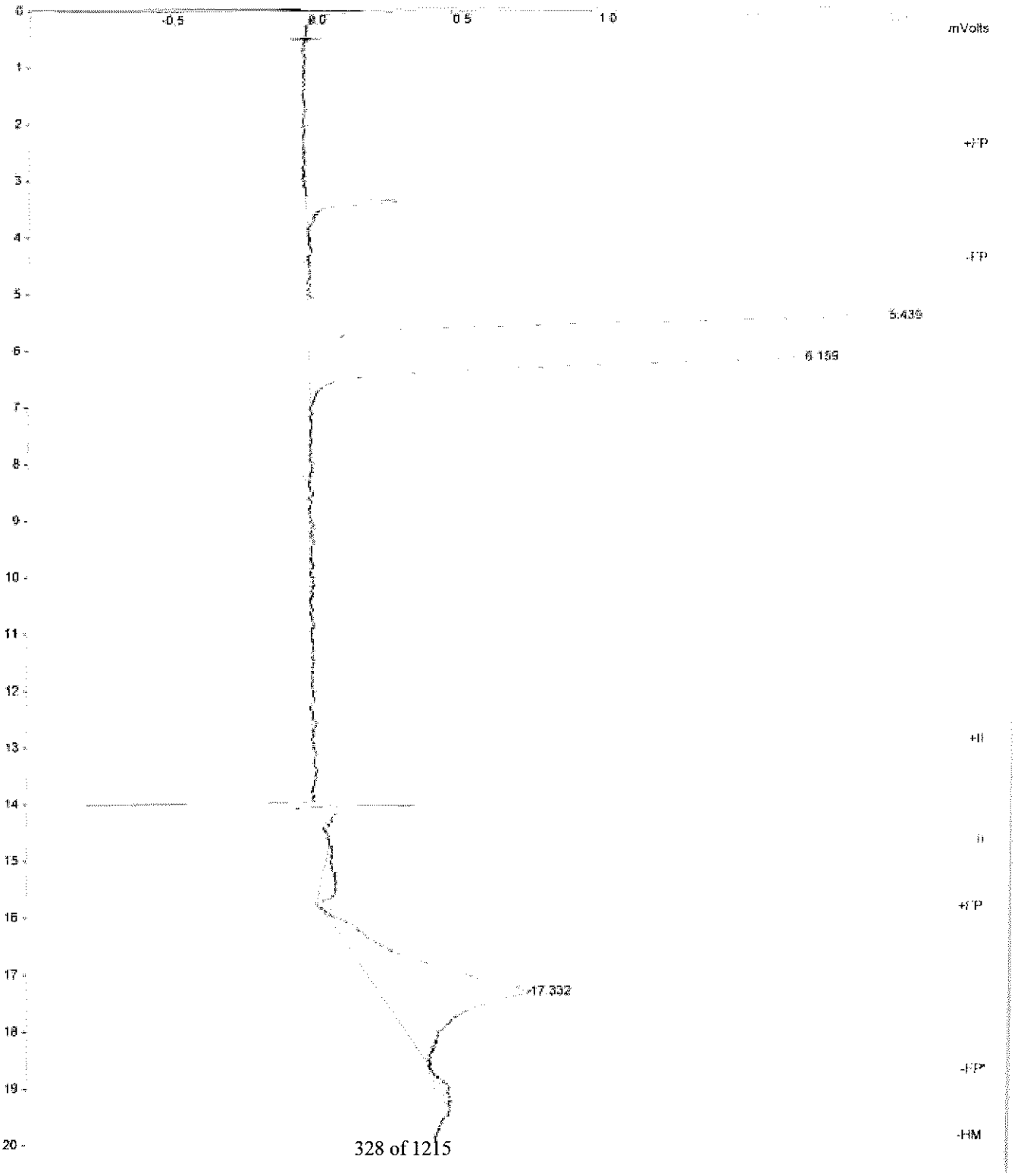
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 13-58-17 a 027 - 051 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 13:58 Calculation Date: 2021-04-06 09:38

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VLSB Bus Address : 44
Instrument : Lotus GMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_2\2021-03-25 14-24-41 a 027 - 051 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 14:24 Calculation Date: 2021-03-25 14:44

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	54184	VV	1.7	
2	Carbon Dioxi	579.0054	3.776	0.336	5321157	BB	16.0	
3	Ethane	14.6776	7.494	0.118	138506	BB	26.1	
	Totals:	593.6830		0.479	5513847			

Total Unidentified Counts : 341215 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 16 microVolts - monitored before this run

Manual Injection

****

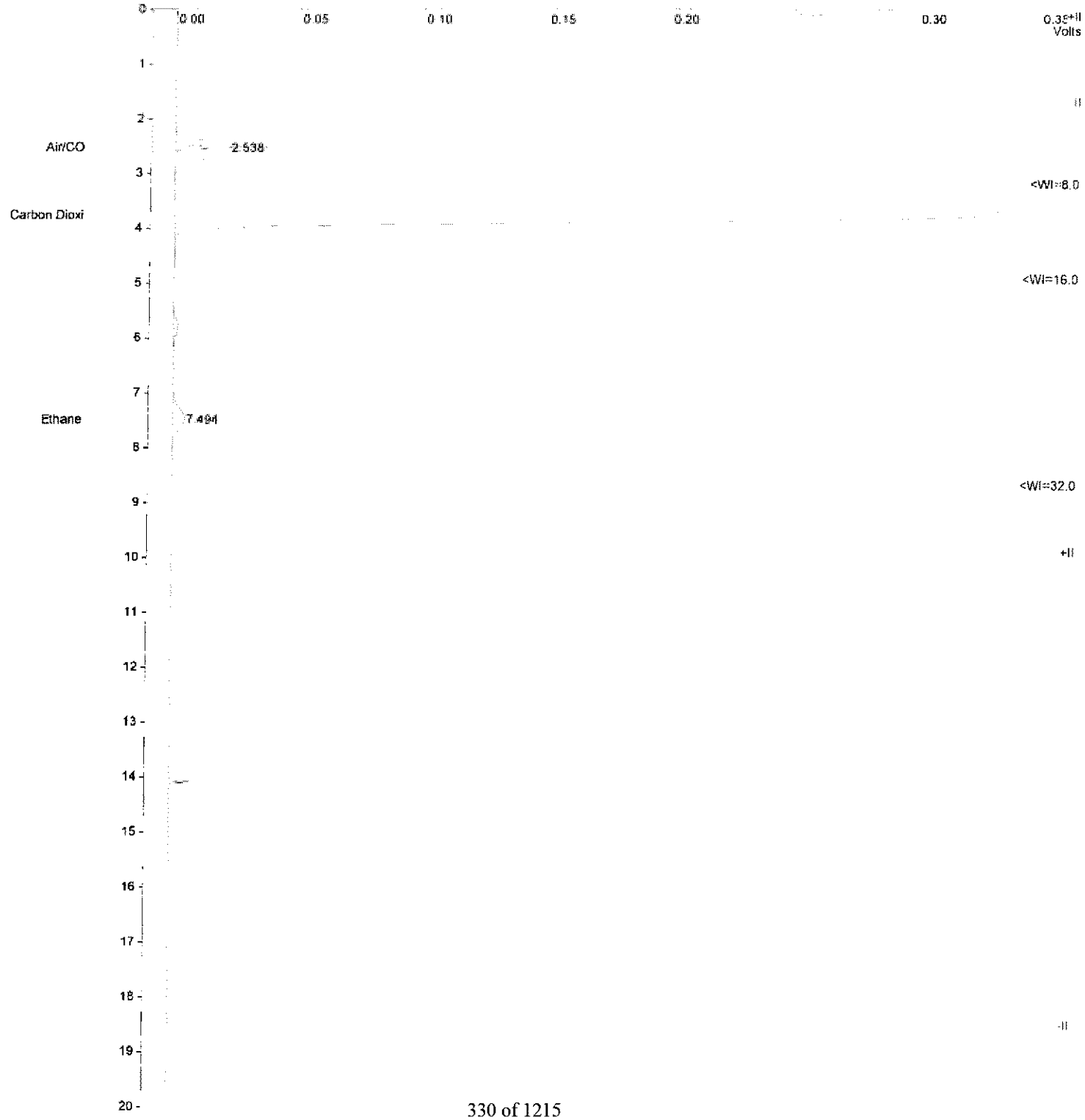
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-24-41 a C27 - C51 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A C27 - C51 A

Injection Date: 2021-03-25 14:24 Calculation Date: 2021-03-25 14:44

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-24-41 a 027 - 051 a inj 2 - master sqeqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 6 ppm min inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 A

Injection Date: 2021-03-25 14:24 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	21.54	5.449	0.080	34762	BV	16.4	
2	Carbon Monox	22.35	6.160	0.295	38674	VB	20.7	
3	NMNEOC	1.40	17.368	0.189	28276	BB	112.4	
	Totals:	45.29		0.564	101714			

Total Unidentified Counts : 9887 counts

Detected Peaks: 13 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 59 microVolts

Manual injection

****

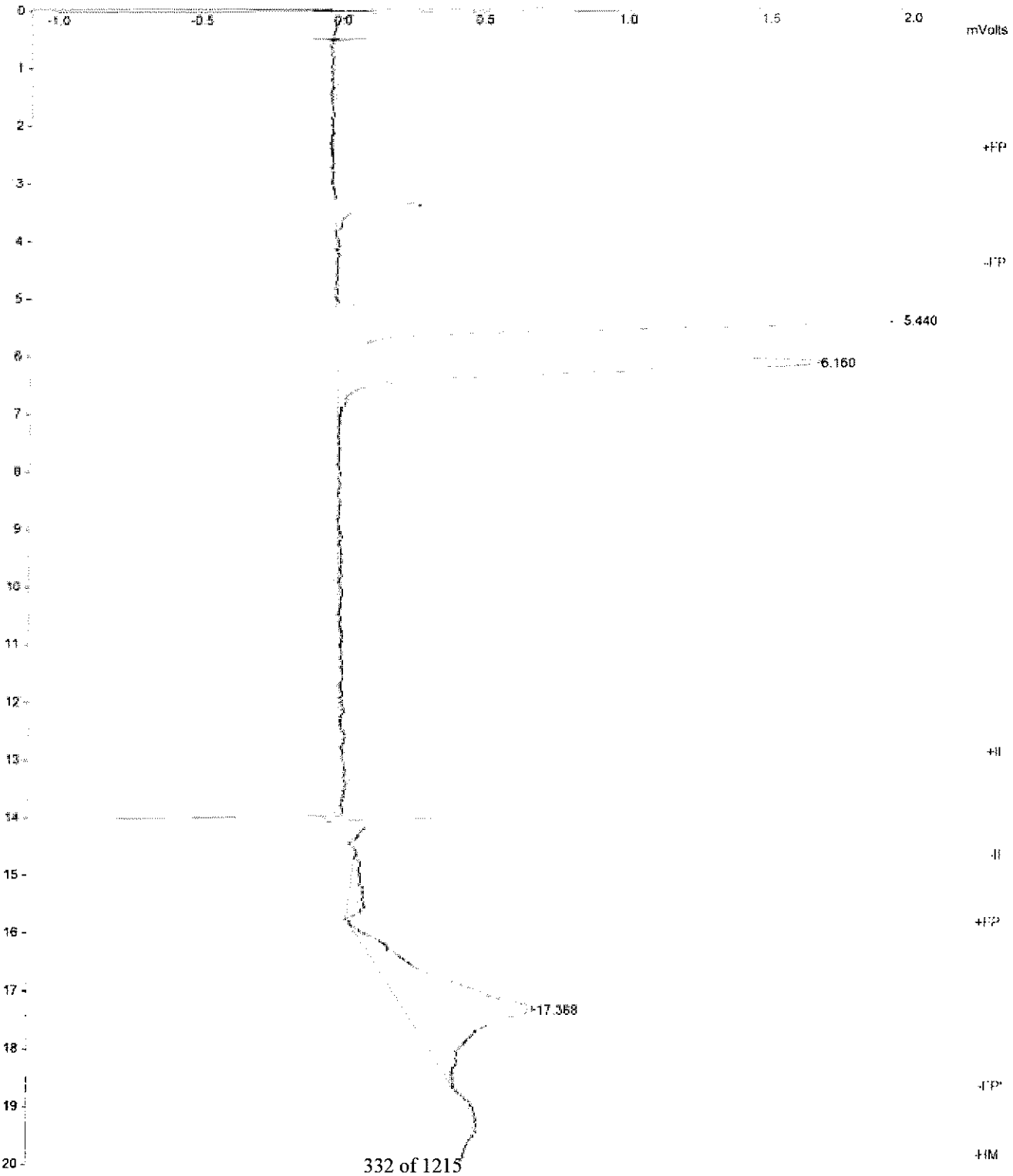
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-24-41 a 027 - 351 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 351 A

Injection Date: 2021-03-25 14:24 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-51-01 a 027 - 051 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 14:51 Calculation Date: 2021-03-25 15:11

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.540	0.027	61491	VV	1.8	
2	Carbon Dioxi	638.6213	3.778	0.338	5870631	BB	16.1	
3	Ethane	16.7306	7.496	0.120	157868	BB	26.0	
	Totals:	655.5521		0.485	6089990			

Total Unidentified Counts : 369083 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

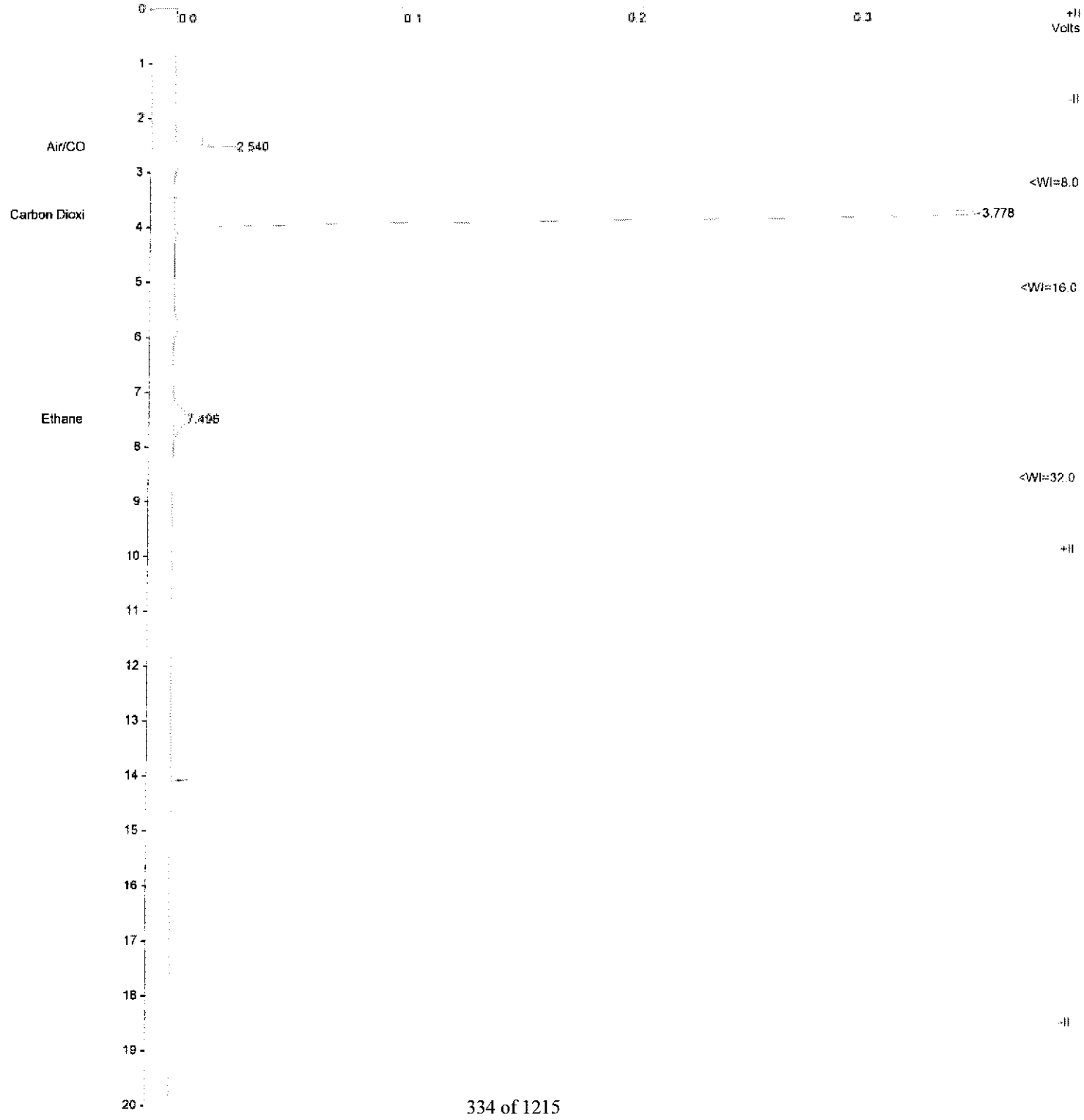
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-51-01 a 027 - 051 b inj 1 - master sqacmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\Bruker45\methods\Master SQACMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 14:51 Calculation Date: 2021-03-25 15:11

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus GMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-51-01 a 027 - 051 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 14:51 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	24.39	5.438	0.078	39347	BV	16.3	
2	Carbon Monox	25.27	6.158	0.293	43730	VB	20.6	
3	NMNEOC	1.26	17.328	0.149	25446	BB	111.9	
	Totals:	50.92		0.520	108523			

Total Unidentified Counts : 8663 counts

Detected Peaks: 15 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 16 microVolts

Manual injection

****

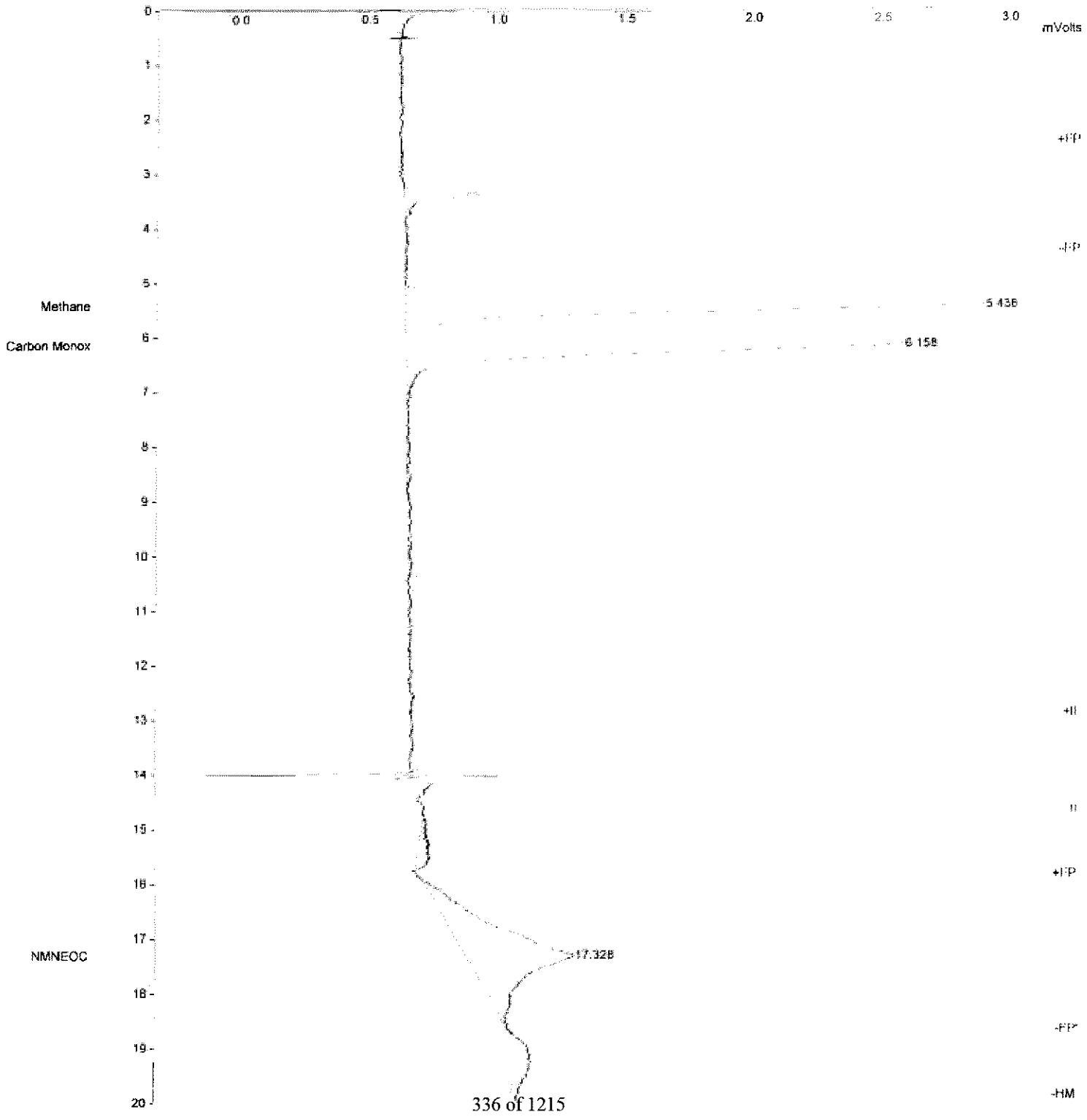
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 14-51-01 a 027 - 051 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 14:51 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL5S Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-17-21 a 027 - 051 b inj 2 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 15:17 Calculation Date: 2021-03-25 15:37

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	61858	VV	1.8	
2	Carbon Dioxi	637.9480	3.775	0.535	5862609	BB	16.0	
3	Ethane	16.7774	7.494	0.118	158309	BB	26.1	
	Totals:	654.7254		0.478	6082776			

Total Unidentified Counts : 388397 counts

Detected Peaks: 8 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

****

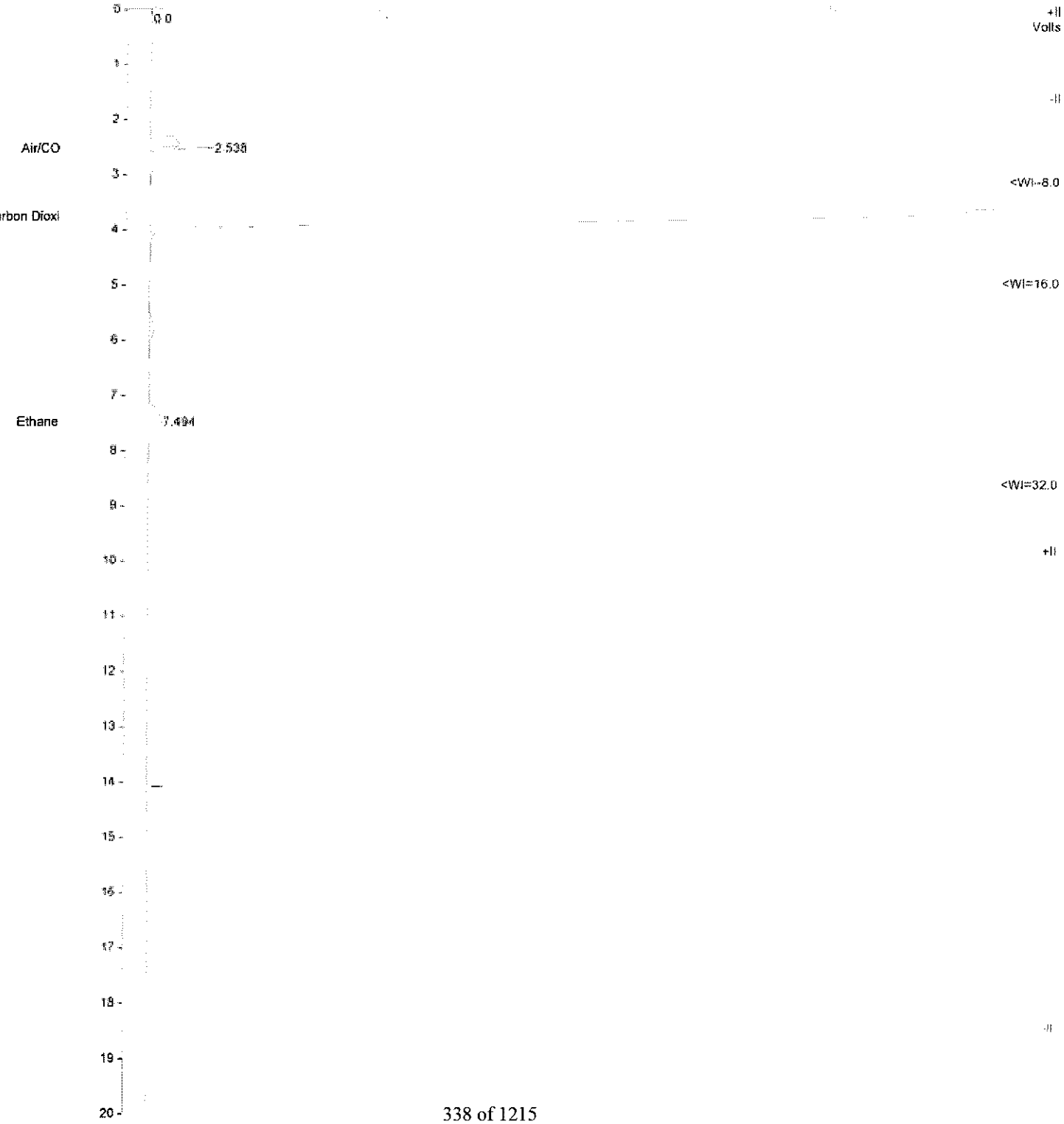
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-17-21 a 027 - 051 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 15:17 Calculation Date: 2021-03-25 15:37

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-370i-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-17-21 a 027 - 051 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 15:17 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	24.36	5.439	0.079	39310	BV	16.4	
2	Carbon Monox	25.11	6.159	0.294	43443	VB	20.7	
3	NMNEOC	1.27	17.372	0.193	25579	BB	107.3	
	Totals:	50.74		0.566	108332			

Total Unidentified Counts : 7730 counts

Detected Peaks: 14 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

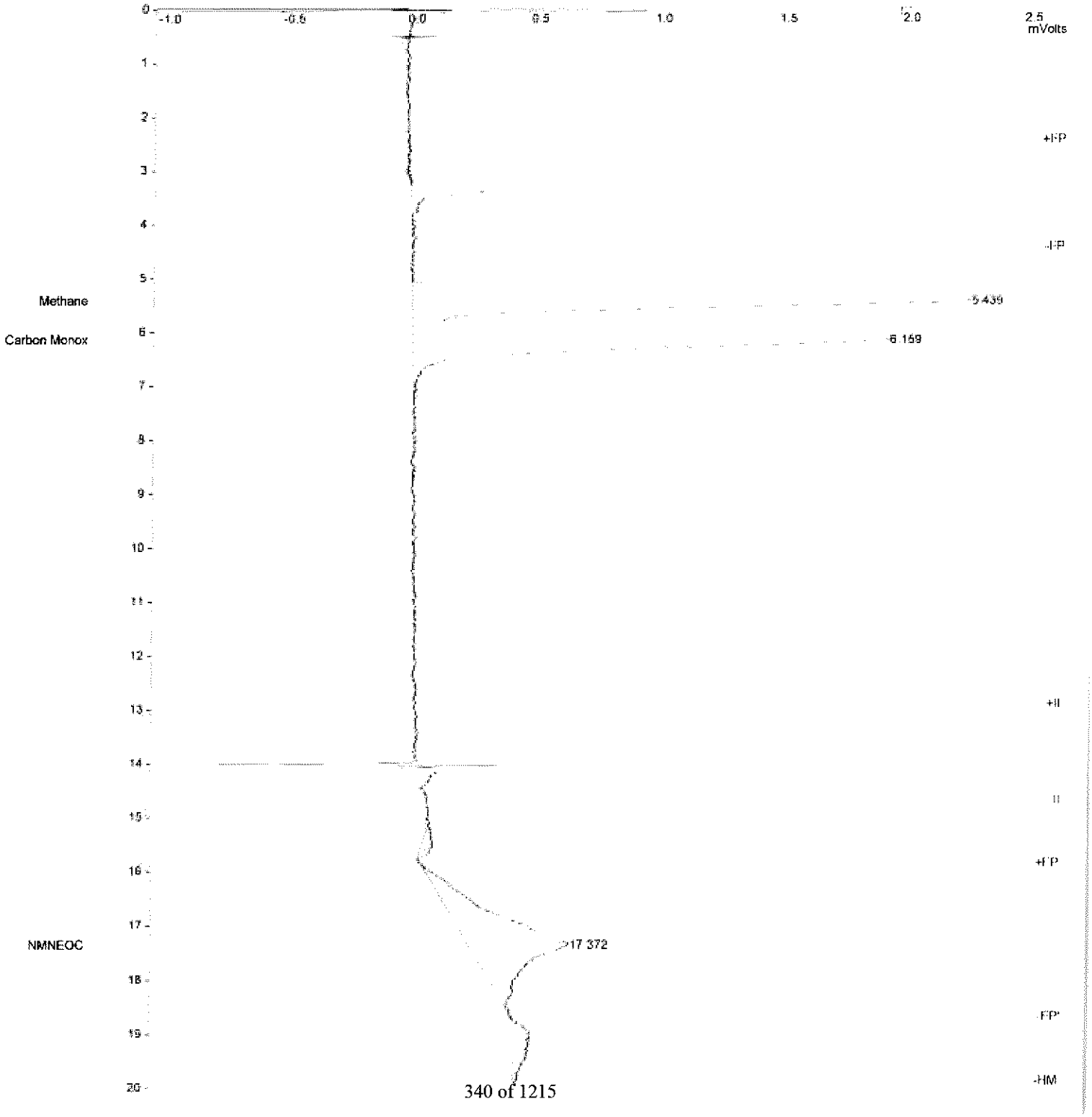
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-17-21 a 027 - 051 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 051 B

Injection Date: 2021-03-25 15:17 Calculation Date: 2021-04-06 09:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FIC Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-43-48 a 027 - 061 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 15:43 Calculation Date: 2021-03-25 16:03

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.539	0.026	45153	VV	1.8	
2	Carbon Dioxi	638.7653	3.777	0.337	5870117	BB	16.1	
3	Ethane	17.2269	7.496	0.120	162547	PB	26.1	
	Totals:	655.9922		0.483	6077817			

Total Unidentified Counts : 322603 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

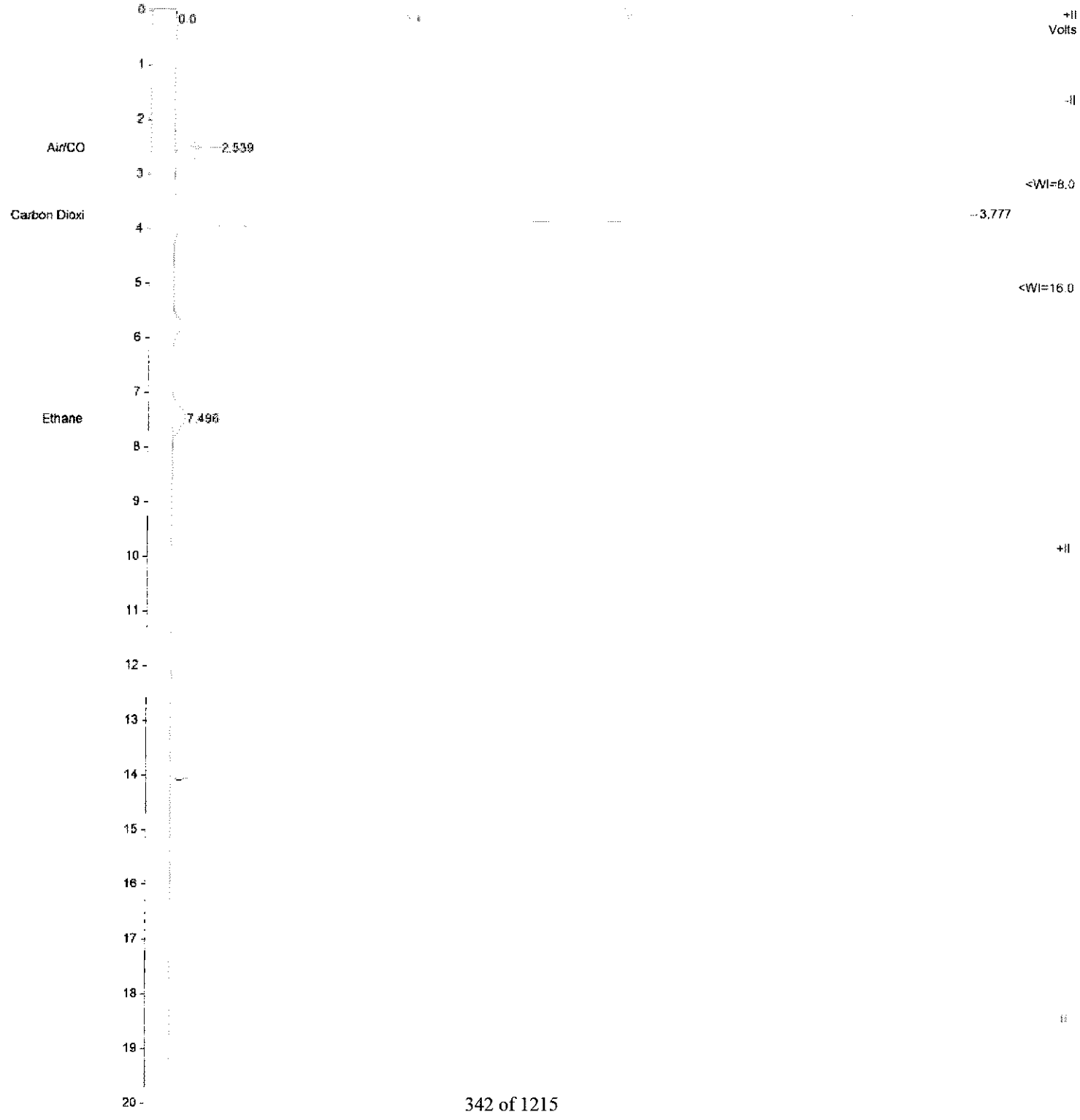
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-43-43 a 027 - 061 a inj 1 - master sqacmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQACMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 15:43 Calculation Date: 2021-03-25 16:03

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL55 Bus Address : 44
Instrument : Lotus HMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-43-48 a 027 - 061 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 15:43 Calculation Date: 2021-04-06 09:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.99	5.441	0.081	27420	BV	16.4	
2	Carbon Monox	18.80	6.163	0.298	32538	VB	20.8	
3	NMNEOC	1.23	17.335	0.156	24966	BB	110.5	
	Totals:	37.02		0.535	84924			

Total Unidentified Counts : 8911 counts

Detected Peaks: 13 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

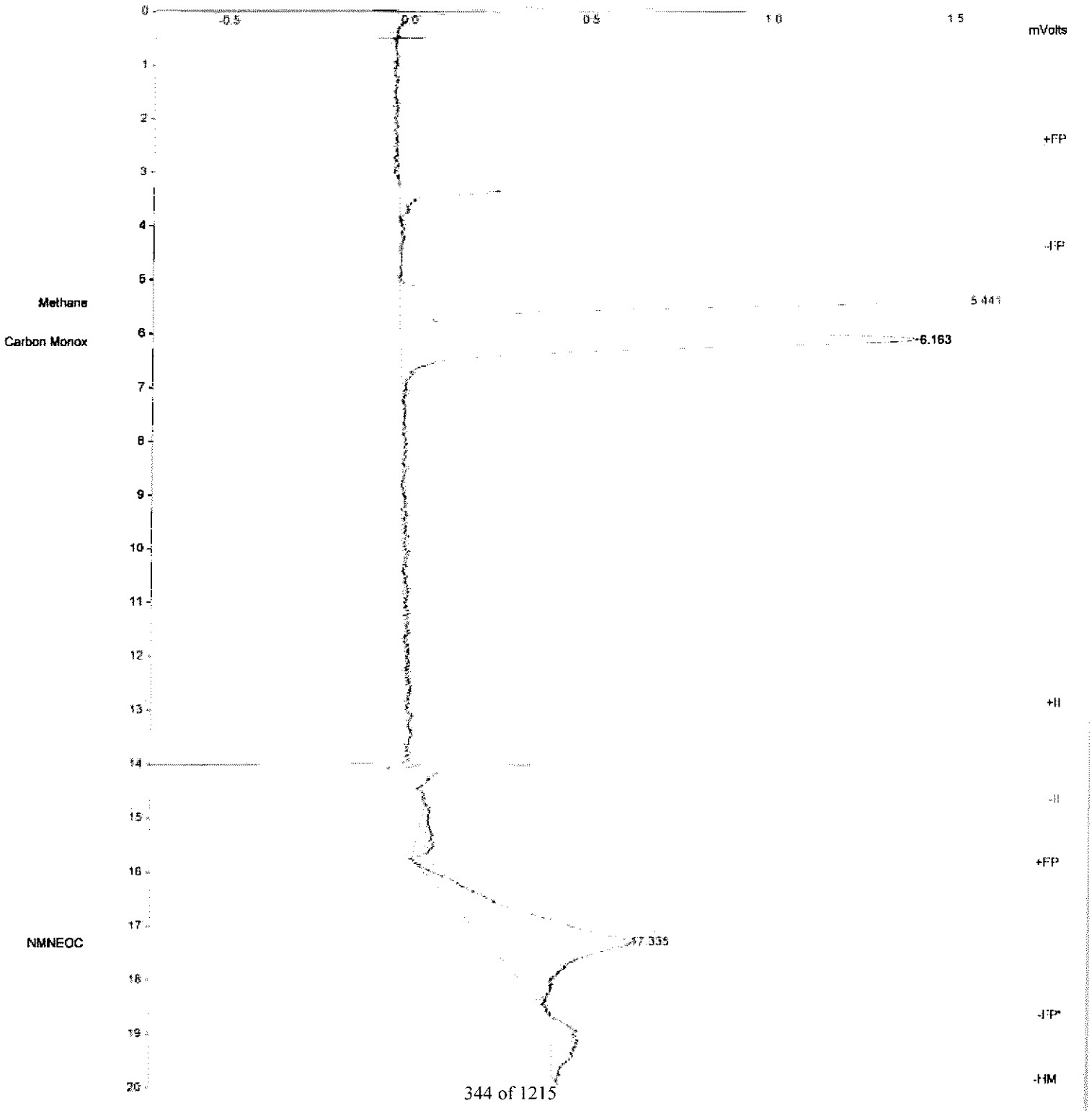
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 15-43-48 a 027 - 061 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_todrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_todrange5 - copy-middle.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 15:43 Calculation Date: 2021-04-06 09:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-RB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-10-05 a 027 - 061 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 16:10 Calculation Date: 2021-03-25 16:30

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.538	0.025	44905	VV	1.8	
2	Carbon Dioxi	639.9897	3.777	0.337	5881364	BB	16.1	
3	Ethane	17.3137	7.496	0.120	163365	BB	26.1	
	Totals:	657.3034		0.482	6089634			

Total Unidentified Counts : 322806 counts

Detected Peaks: 7 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 11 microVolts - monitored before this run

Manual injection

****

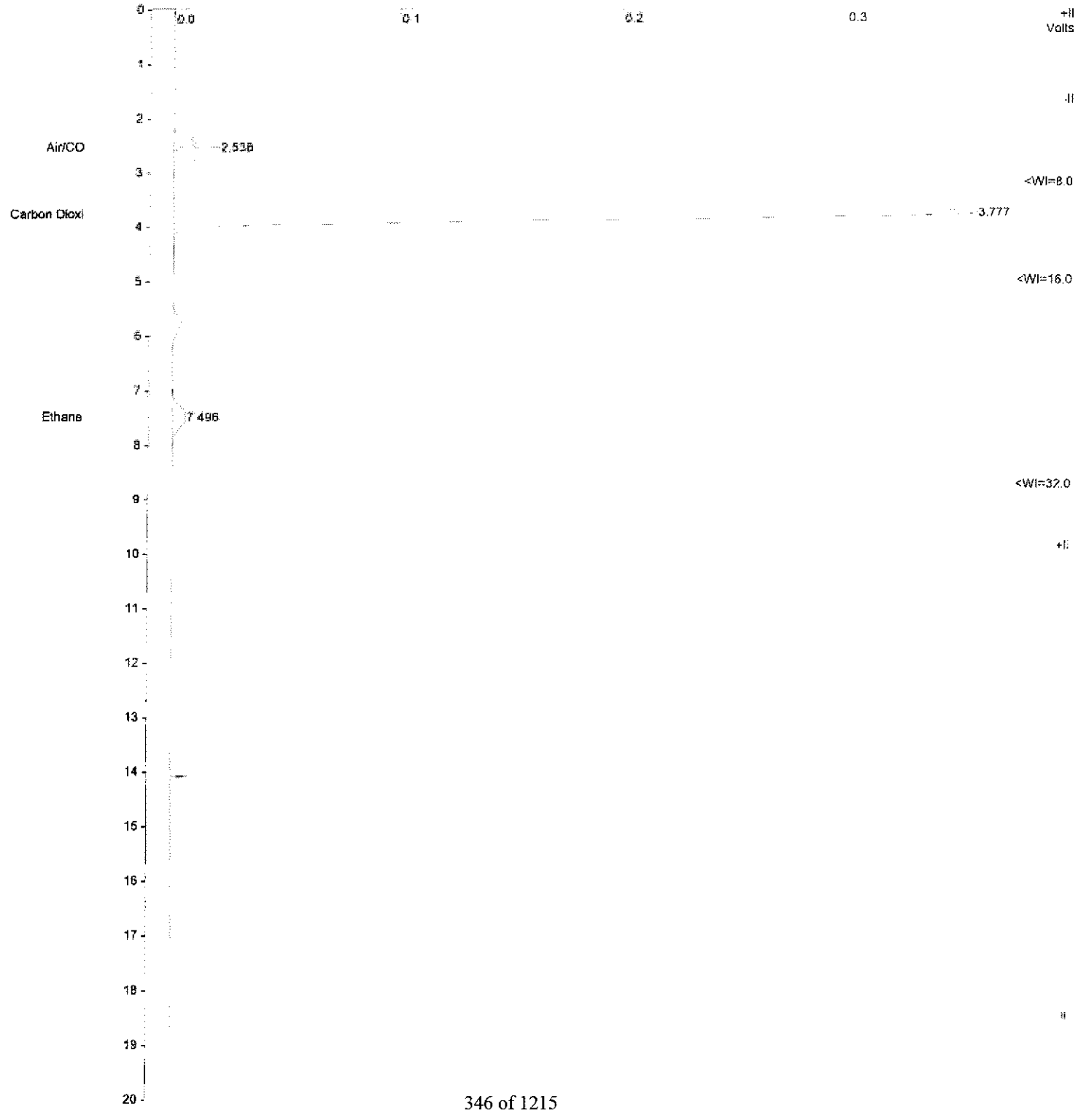
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-10-05 a 027 - 061 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 16:10 Calculation Date: 2021-03-25 16:30

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-10-05 a 027 - 061 a inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tccrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tudrange5 - copy-middle.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 16:10 Calculation Date: 2021-04-06 09:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	16.90	5.442	0.082	27272	BV	16.4	
2	Carbon Monox	18.42	6.163	0.298	31867	VB	20.8	
3	NMNEOC	1.24	17.372	0.193	25010	BB	103.4	
	Totals:	36.56		0.573	84149			

Total Unidentified Counts : 9259 counts

Detected Peaks: 14 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

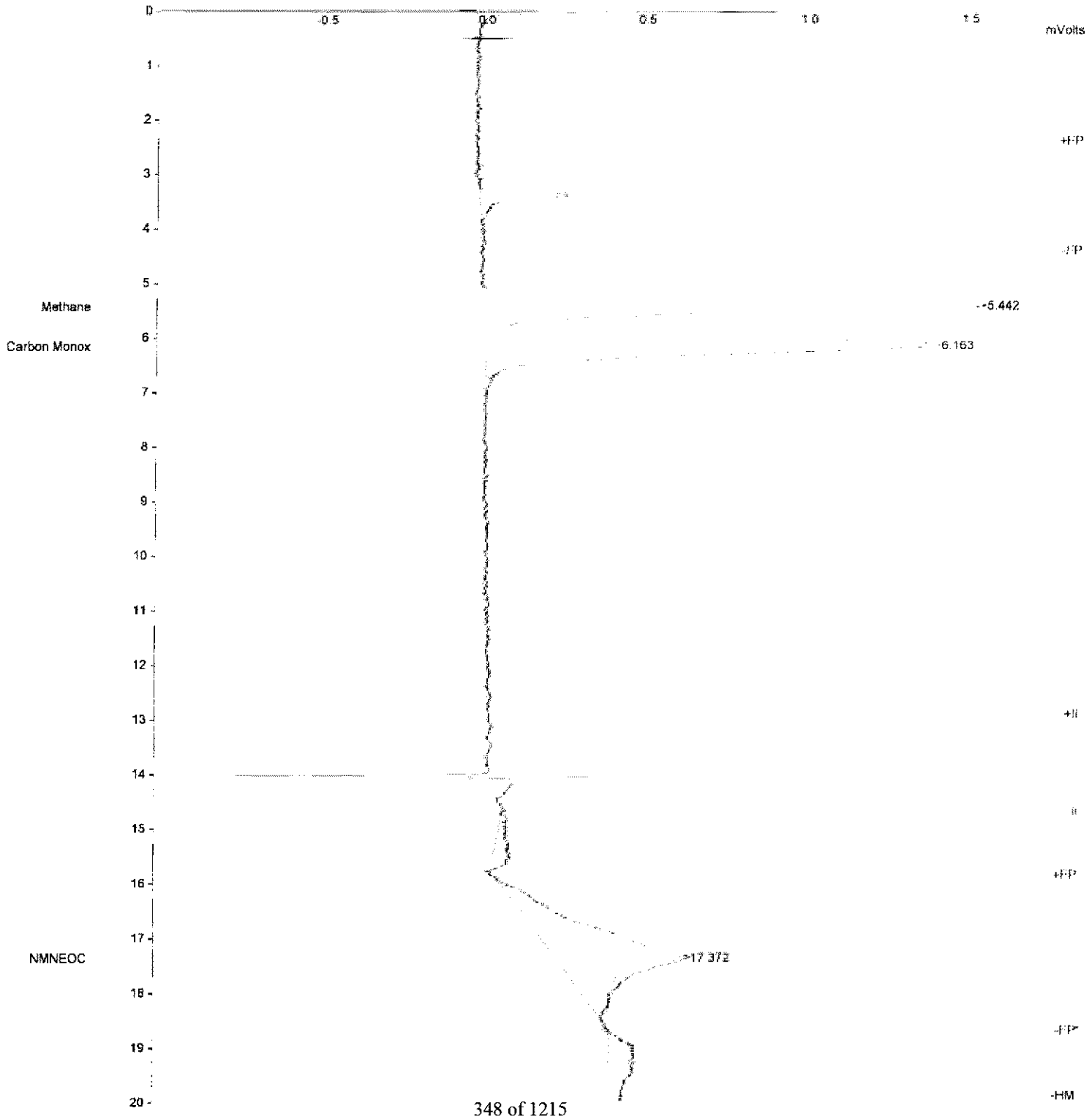
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 16-10-05 a 027 - 061 a inj 2 - master sqacmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 3 ppm mix inj 3 - master sqacmd 25.3 3 mL loop 05-05-20 tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 A

Injection Date: 2021-03-25 16:10 Calculation Date: 2021-04-06 09:50

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-36-29 a 027 - 061 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - copy.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 16:36 Calculation Date: 2021-03-25 16:56

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.540	0.027	47268	VV	1.8	
2	Carbon Dioxi	668.9355	3.779	0.339	6147246	BB	16.1	
3	Ethane	18.1564	7.501	0.125	171311	BB	26.0	
	Totals:	687.0919		0.491	6365825			

Total Unidentified Counts : 341197 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual Injection

****

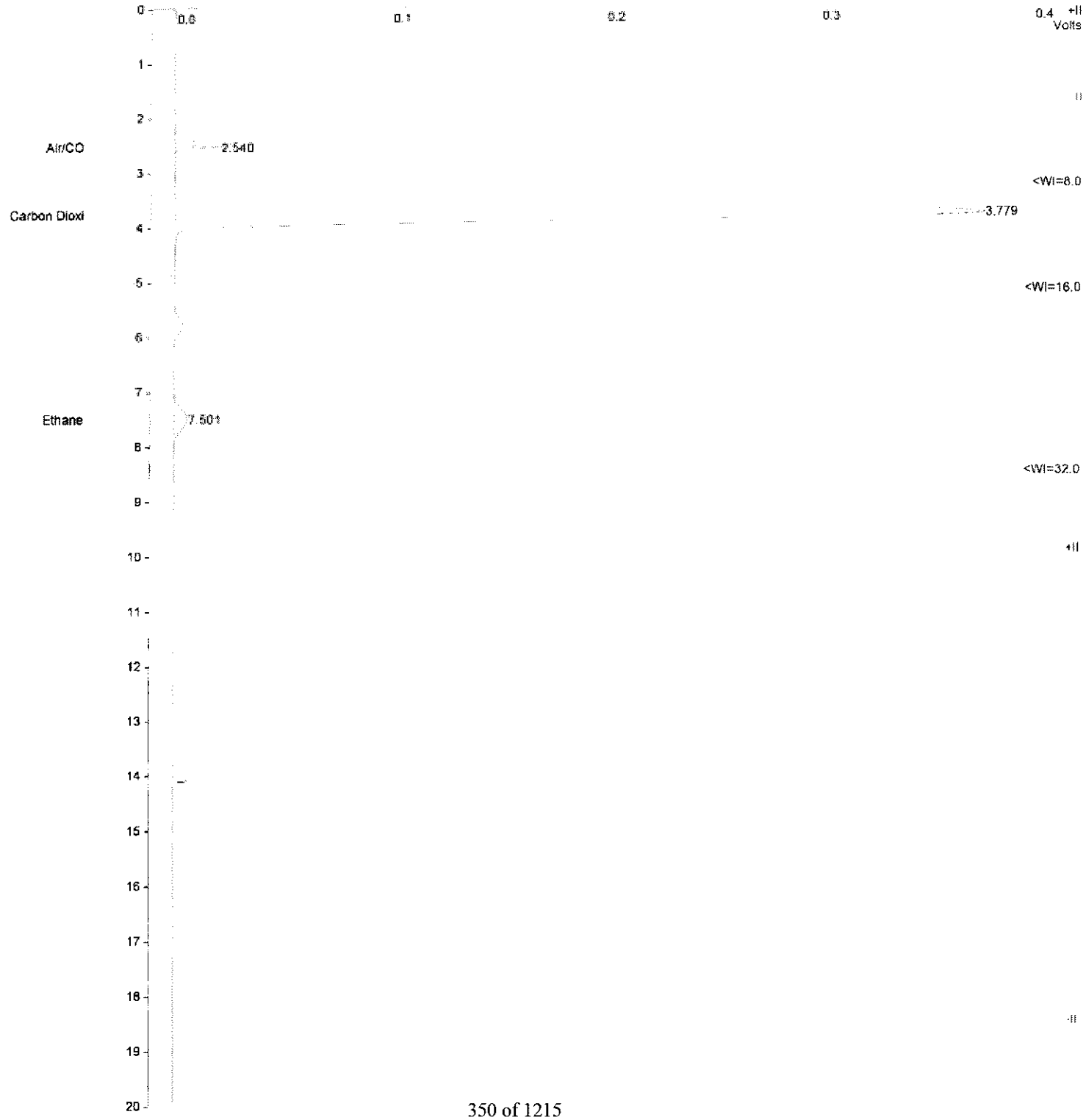
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-36-29 a 027 - 061 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_todrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mch
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 16:36 Calculation Date: 2021-03-25 16:56

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus WWSC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-36-29 a 027 - 061 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 16:36 Calculation Date: 2021-04-06 09:51

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A21-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	17.88	5.440	0.080	28845	BV	16.4	
2	Carbon Monox	19.50	6.162	0.397	33747	VB	20.8	
3	NMNEOC	1.21	17.332	0.153	24480	BB	96.3	
	Totals:	38.59		0.630	87072			

Total Unidentified Counts : 9089 counts

Detected Peaks: 17 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

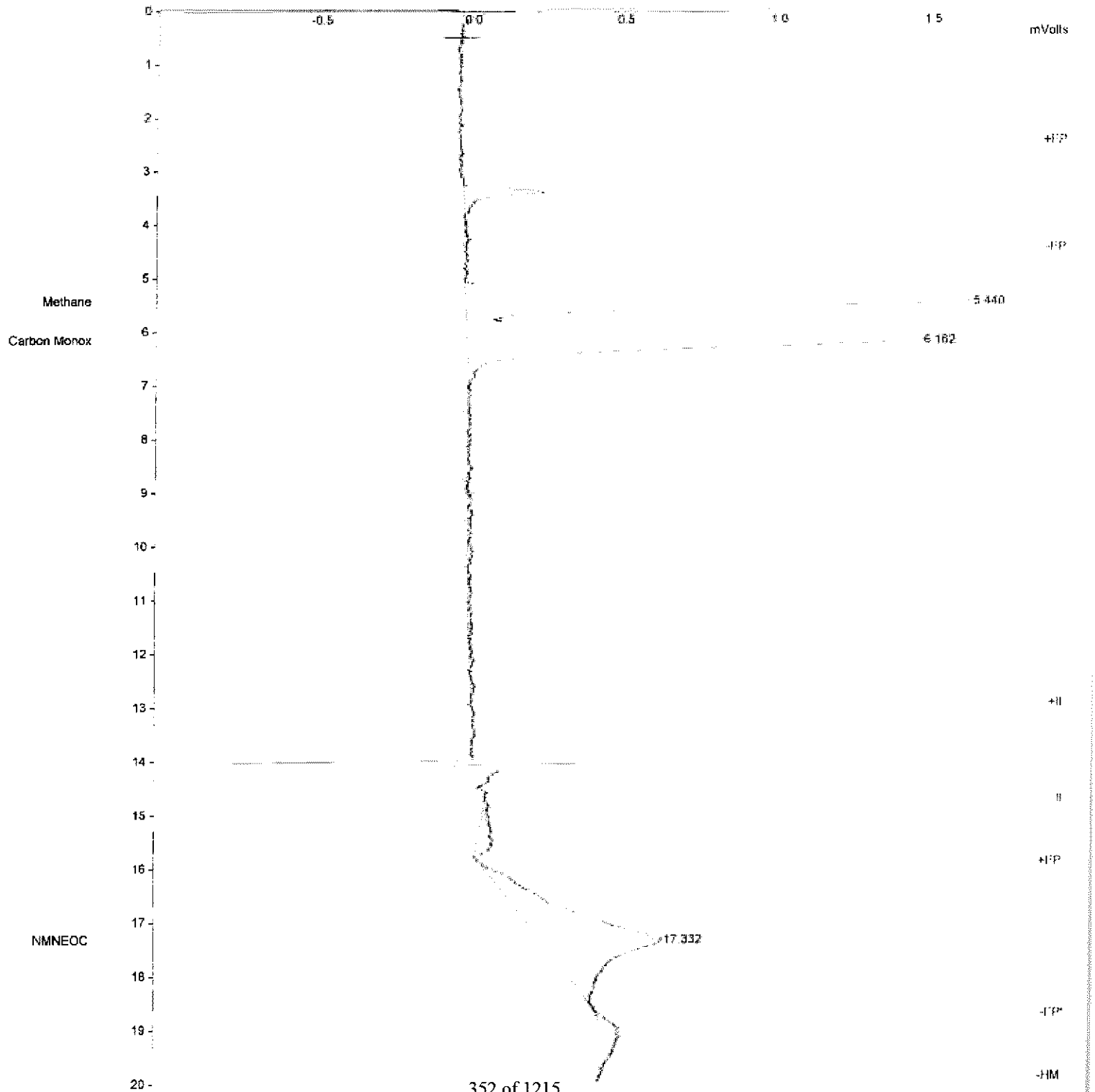
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 16-36-29 a 027 - 061 b inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-13 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 16:36 Calculation Date: 2021-04-06 09:51

Operator : Douglass W. Detector Type: 4XX-GC (1300 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-02-51 a 027 - 061 b inj 2 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 17:02 Calculation Date: 2021-03-25 17:22

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.539	0.026	47423	VV	1.8	
2	Carbon Dioxi	667.1568	3.777	0.337	6130908	BB	16.1	
3	Ethane	18.1346	7.495	0.119	171106	BB	26.0	
	Totals:	685.2914		0.482	6349437			

Total Unidentified Counts : 340436 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 6 microVolts - monitored before this run

Manual injection

****

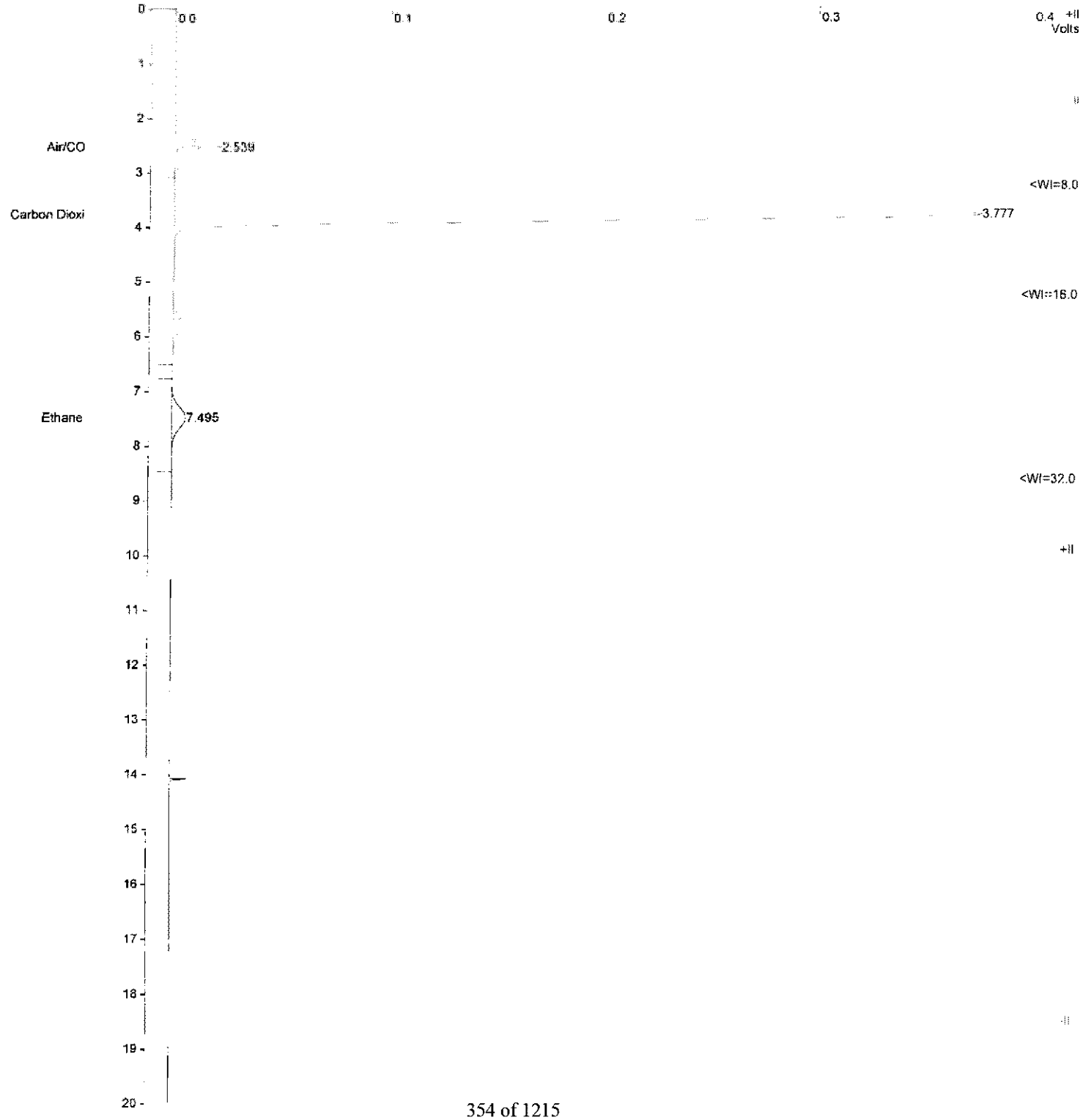
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-02-51 a 027 - 061 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 17:02 Calculation Date: 2021-03-25 17:22

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V2L5B Bus Address : 44
Instrument : Lotus XR40C Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-A31-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 4%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-02-51 a 027 - 061 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 B

Injection Date: 2021-03-25 17:02 Calculation Date: 2021-04-06 09:51

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	17.83	5.441	0.081	28776	BV	16.4	
2	Carbon Monox	19.50	6.163	0.298	33739	VB	20.8	
3	NMNEOC	1.20	17.332	0.153	24231	BB	98.4	
	Totals:	38.53		0.532	86746			

Total Unidentified Counts : 8022 counts

Detected Peaks: 13 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

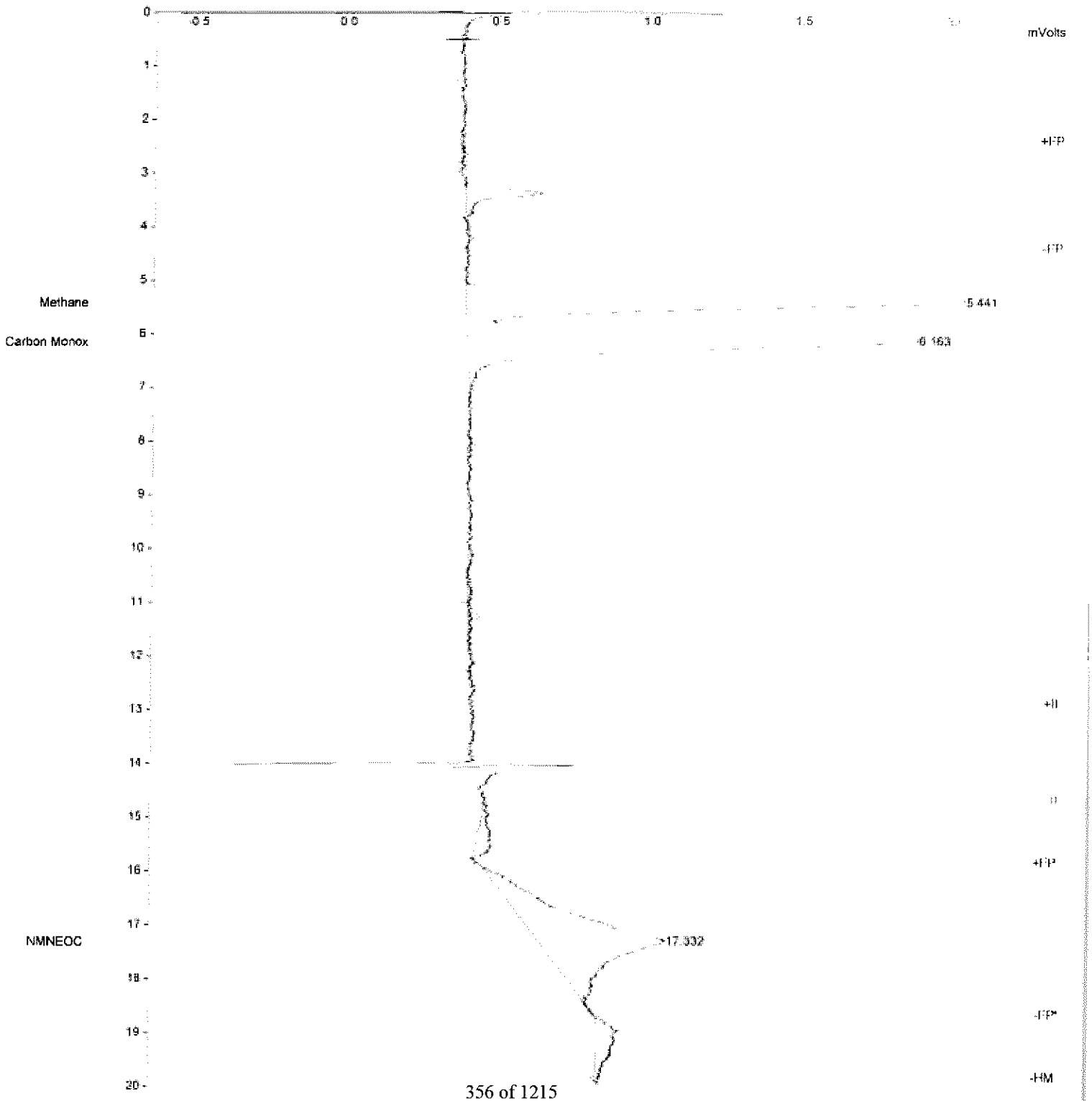
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 17-02-51 a 027 - 061 b inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-04-02 10-43-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : A 027 - 061 B

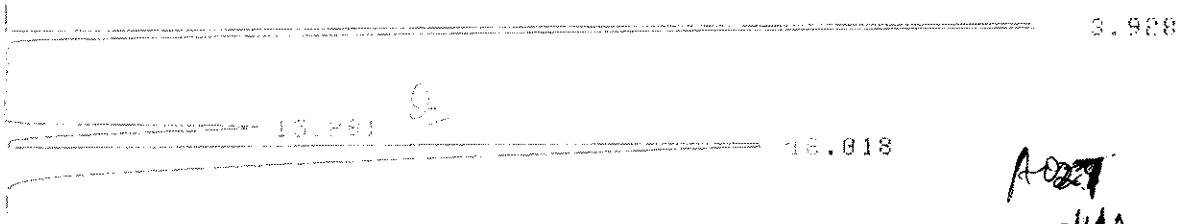
Injection Date: 2021-03-25 17:02 Calculation Date: 2021-04-06 09:51

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



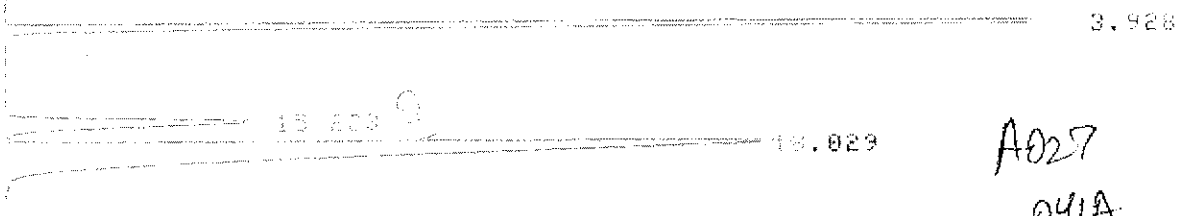


A027
-041A

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 738

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.928	7489379			36.0925	
2	15.201	2104632			10.1425	
3	18.018	11156512	V		53.765	
	TOTAL	20750520			100	

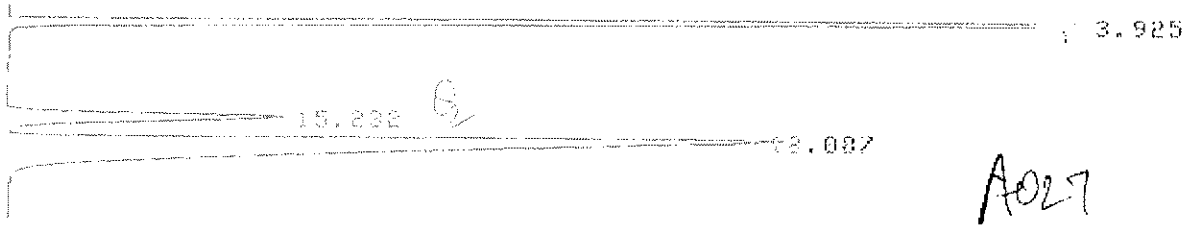


A027
-041A
dy

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 739

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.928	7475180			35.9612	
2	15.203	2116475			10.1818	
3	18.029	11195139	V		53.857	
	TOTAL	20786792			100	

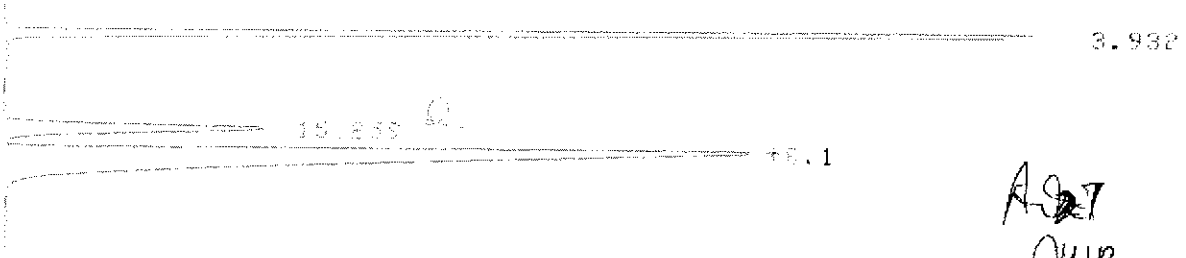


A027
-041B

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 740

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.925	7488720			35.9053	
2	15.232	2325068			11.1516	
3	18.087	11042247	V		52.9431	
	TOTAL	20856832			100	



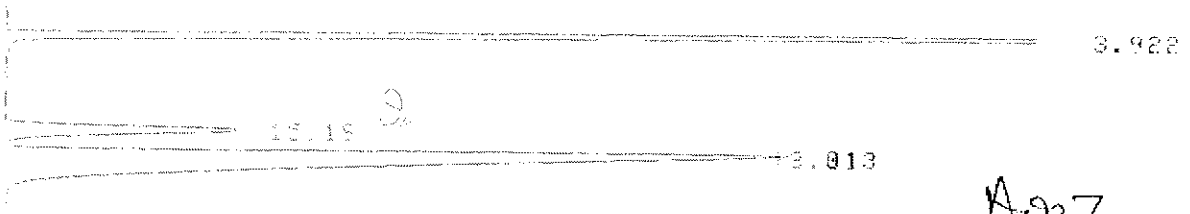
A027
-041B

dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 741

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.932	7484495			36.1327	
2	15.259	2307483			11.1398	
3	18.1	10921934	V		52.7275	
	TOTAL	20713912			100	

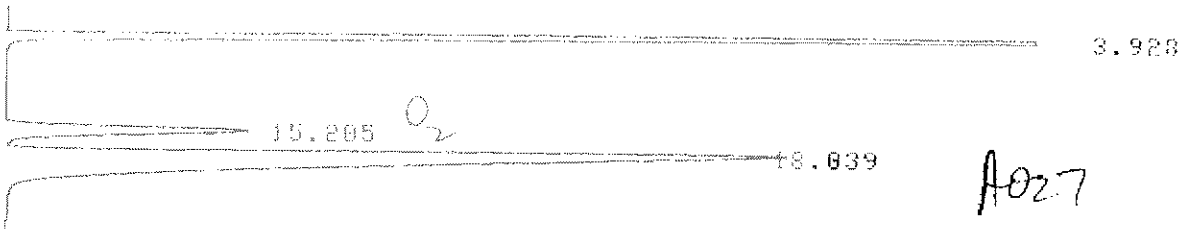


A027
-05VA

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 742

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.922	7425658			36.1574	
2	15.19	2035653			9.9121	
3	18.013	11075728	V		53.9305	
TOTAL		20537038			100	

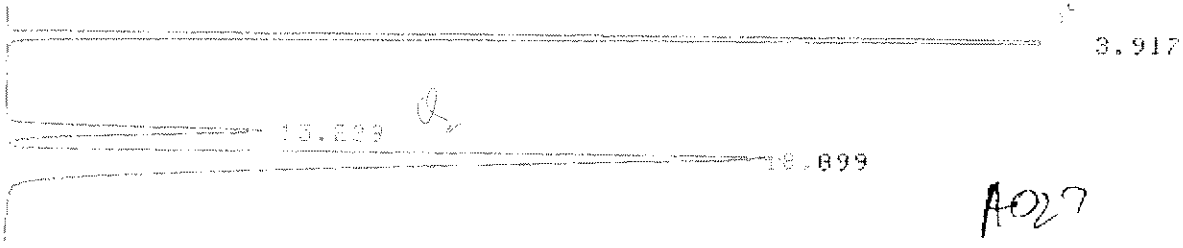


A027
-05VA
dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 743

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.928	7417874			36.0921	
2	15.205	2036934			9.9108	
3	18.039	11097816	V		53.9971	
TOTAL		20552624			100	

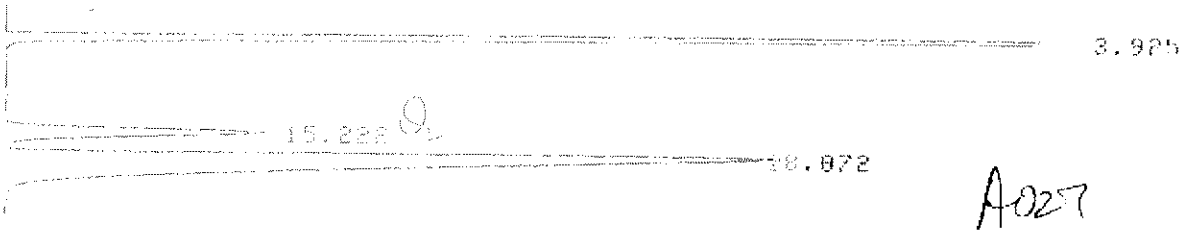


A027
-057B

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 744

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.917	7436366			36.0053	
2	15.239	2172649			10.5195	
3	18.099	11044487	V		53.4751	
	TOTAL	20653500			100	

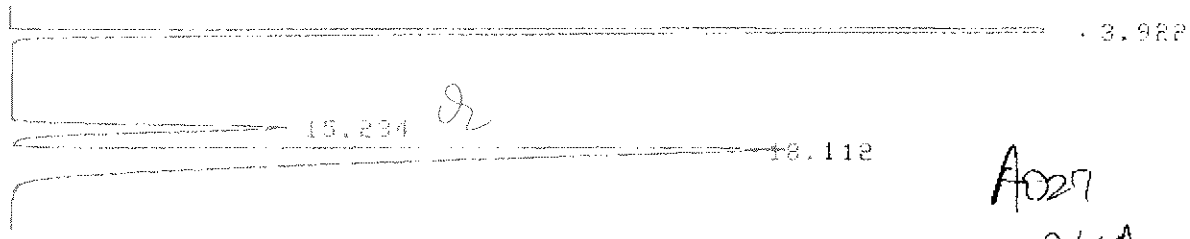


A027
-057B
dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 745

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.925	7454158			36.2481	
2	15.222	2151454			10.4621	
3	18.072	10958683	V		53.2899	
	TOTAL	20564294			100	

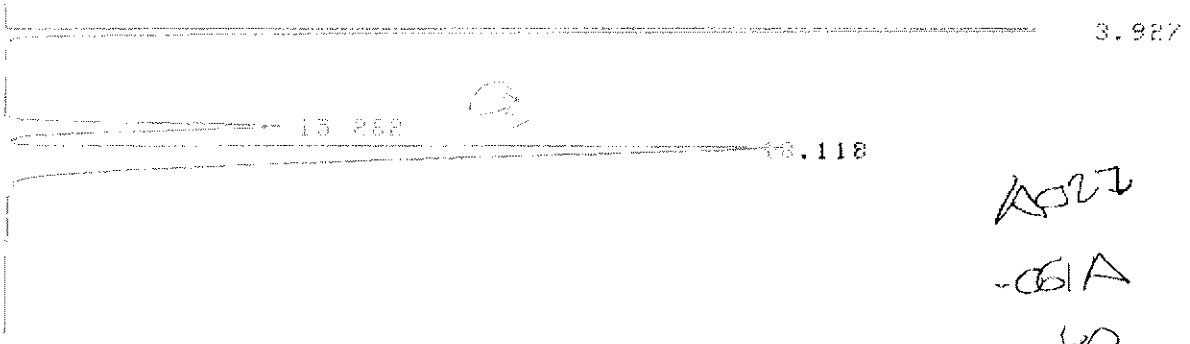


A027
061A

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 746

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.922	7443978			35.7756	
2	15.234	2316088			11.1311	
3	18.112	11047353	V		53.0933	
	TOTAL	20807418			100	

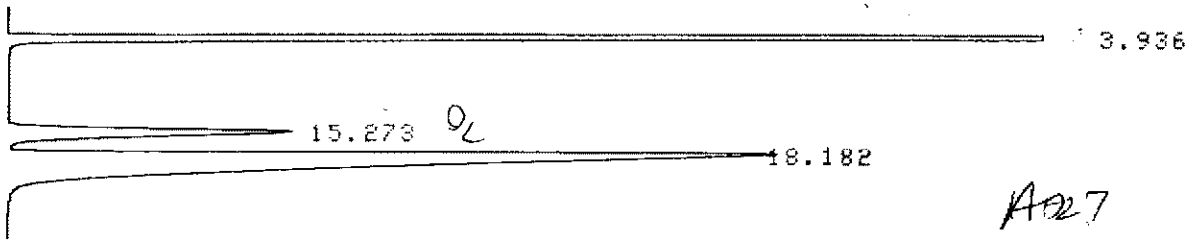


A027
061A
JP

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 747

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.927	7454714			36.0574	
2	15.262	2304417			11.1461	
3	18.118	10915439	V		52.7965	
	TOTAL	20674568			100	

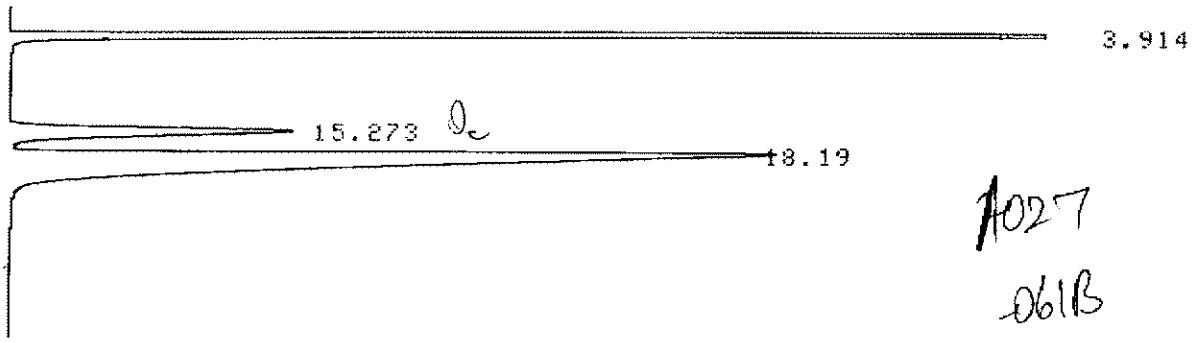


A027
-061B

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 792

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.936	7449528			35.8576	
2	15.273	2395089			11.5285	
3	18.182	10930689	V		52.6138	
	TOTAL	20775304			100	



A027
061B
dup

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 793

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.914	7427010			35.7943	
2	15.273	2394189			11.5387	
3	18.19	10927968	V		52.667	
	TOTAL	20749168			100	

QAQC

Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-09-15 n2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml loop 05-05 20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.476	-0.037	571	VP	6.0	
2	Carbon Dioxi	0.0597	3.677	0.237	549	VV	9.2	
3	Ethane		7.376					M
	Totals:	0.0597		0.200	1120			

Status Codes:
M - Missing peak

Total Unidentified Counts : 3302 counts

Detected Peaks: 48 Rejected Peaks: 39 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 5 microVolts - monitored before this run

Manual injection

****

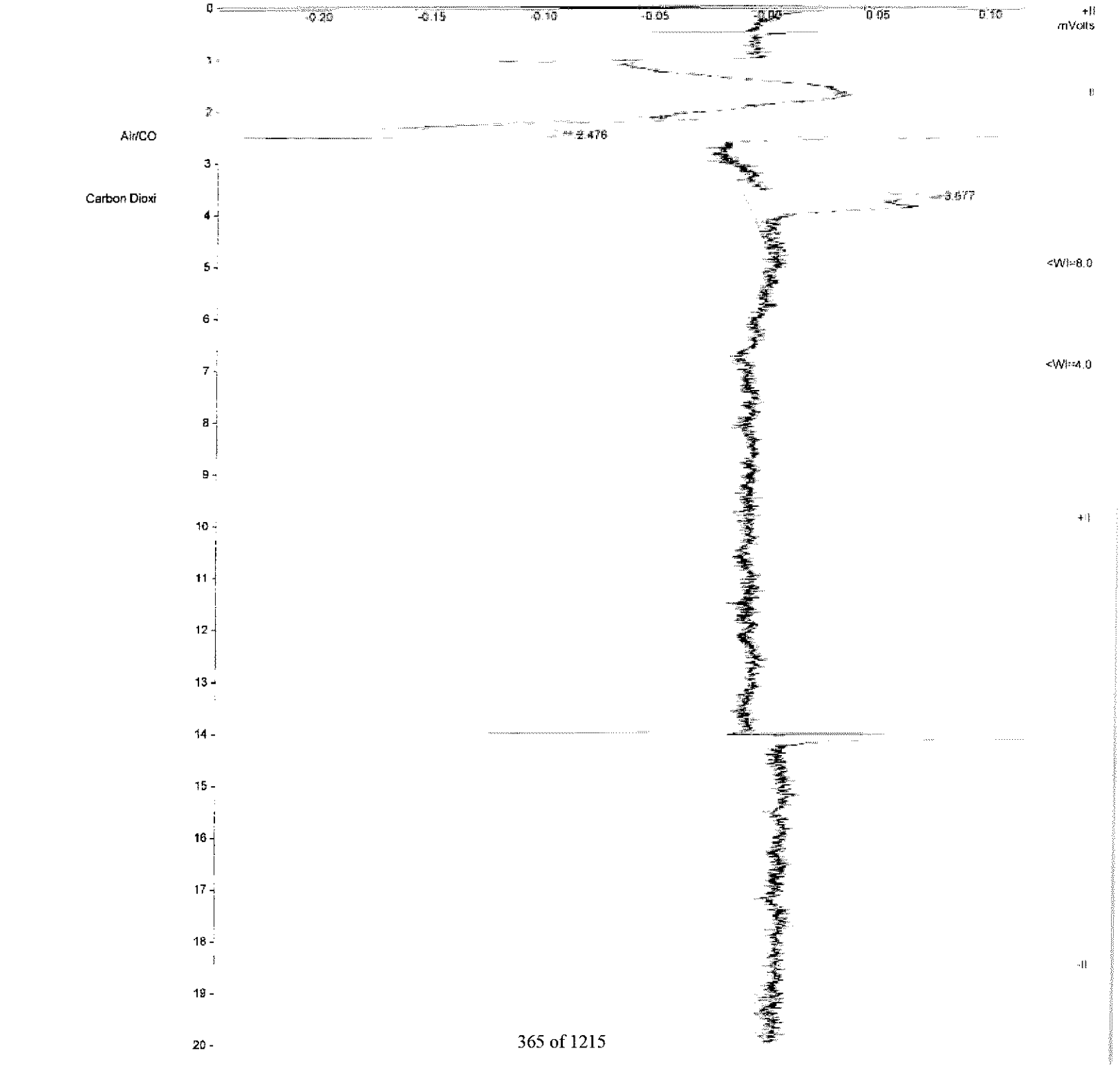
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 n2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4XX-GC (100C Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 n2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 blank 01205

Injection Date: 2021-03-25 09:08 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.07	5.360	-0.000	115	BV	6.4	
2	Carbon Monox	0.58	6.160	0.315	1001	VV	23.8	
3	NMNEOC	0.08	16.732	-0.447	1718	BB	43.8	
	Totals:	0.73		-0.132	2834			

Total Unidentified Counts : 3869 counts

Detected Peaks: 16 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 19 microVolts

Manual injection

****

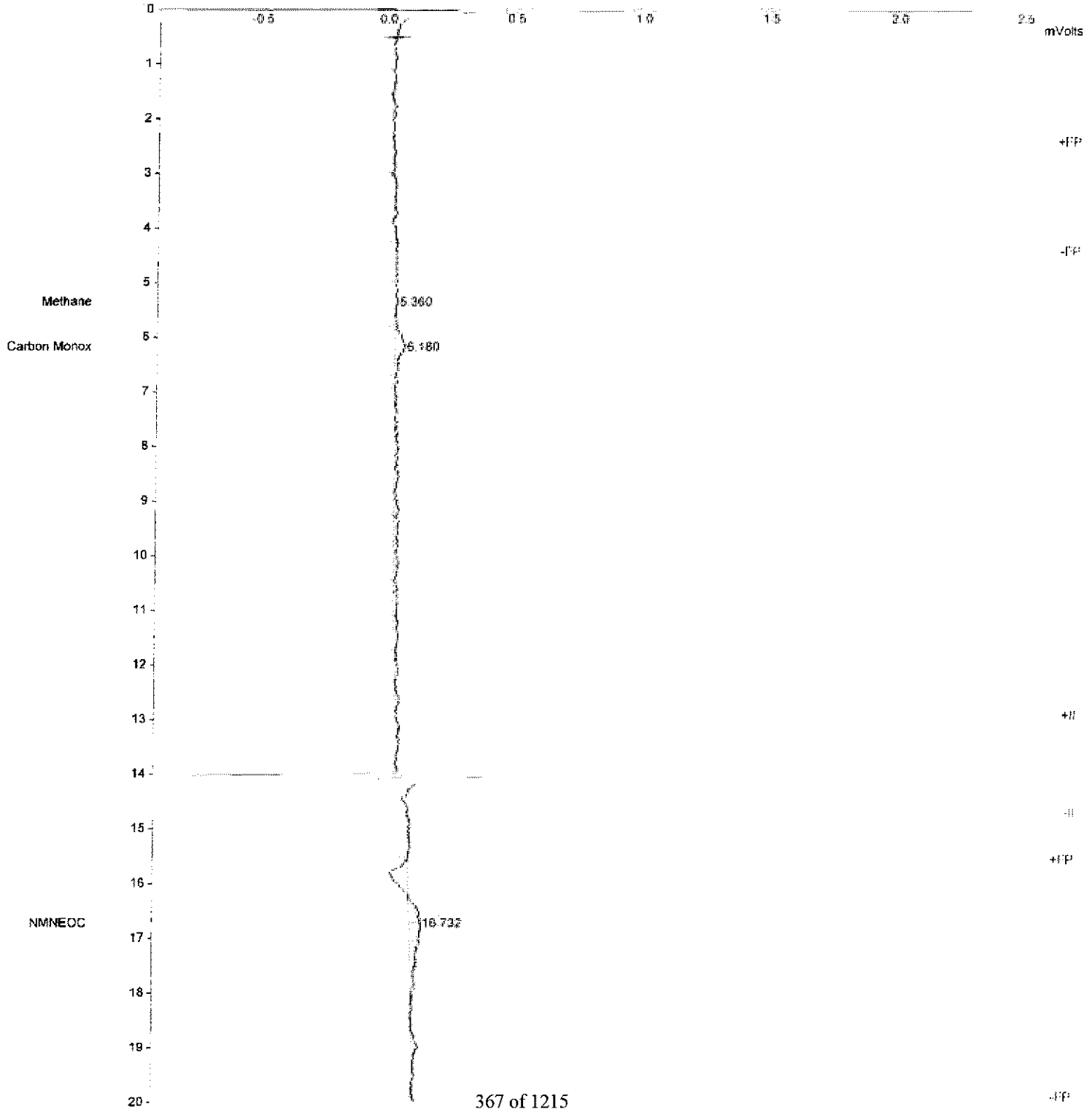
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 09-08-15 m2 blank 01205 inj 2 - master sqaqmd 25.3 3 ml Loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : M2 blank 01205

Injection Date: 2021-03-25 09:09 Calculation Date: 2021-03-25 09:28

Operator : Douglass W. Detector Type: 4KX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-03-25 10:47

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.499	-0.014	23921	PV	21.0	
2	Carbon Dioxi	5.0434	3.772	0.332	46368	VP	16.7	
3	Ethane	4.6504	7.499	0.123	43900	VP	26.3	
	Totals:	9.6938		0.441	114189			

Total Unidentified Counts : 55887 counts

Detected Peaks: 99 Rejected Peaks: 94 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 3 microVolts - monitored before this run

Manual injection

****

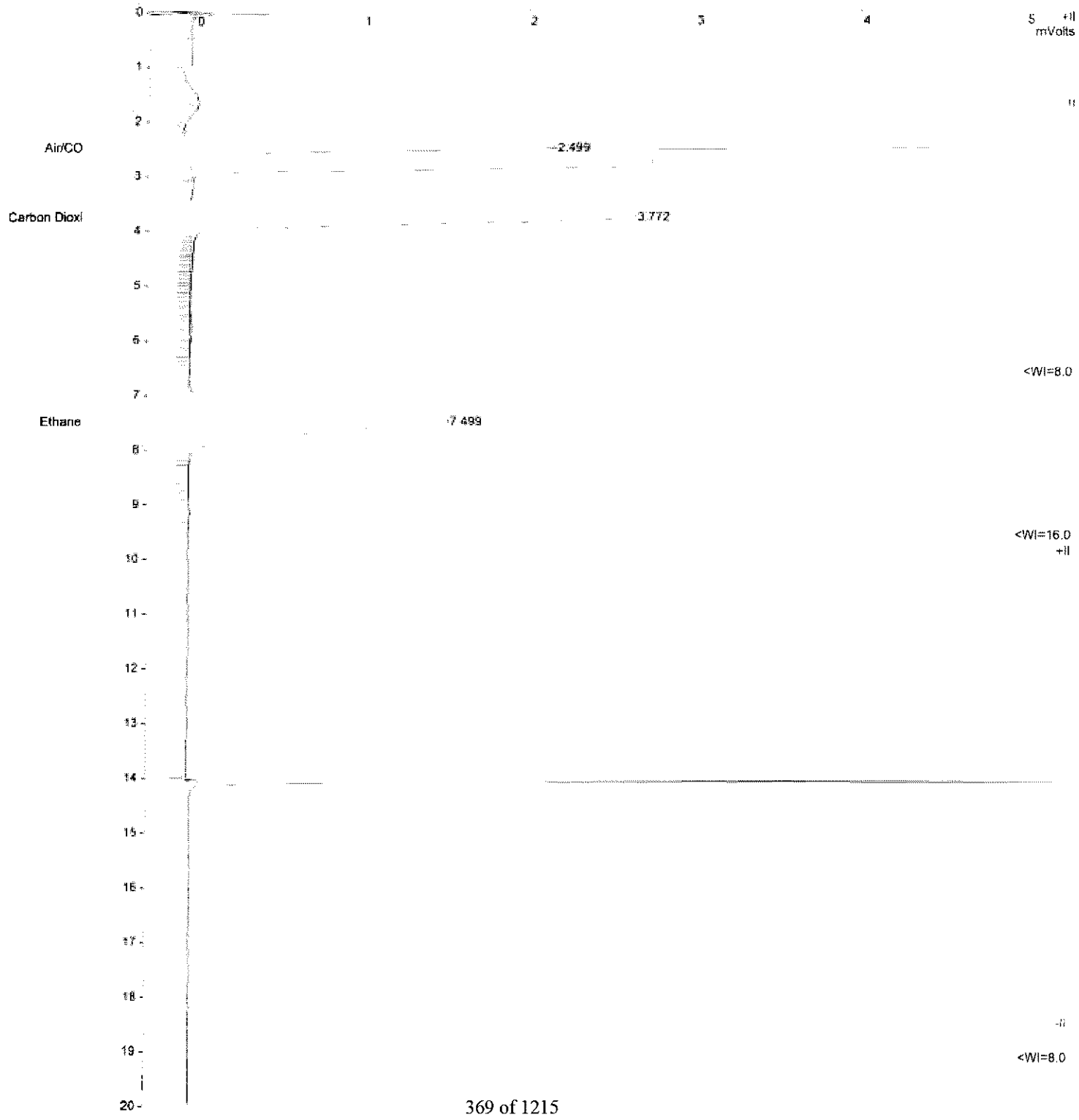
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-03-25 10:47

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V15B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 mi loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 mi loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-04-06 13:18

Operator : Douglass W.
Workstation: DESKTOP-6VL5B
Instrument : Lotus NMOC
Channel : Middle - FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.27	5.437	0.077	8497	BV	16.4	
2	Carbon Monox	5.57	6.162	0.297	9643	VB	21.2	
3	NMNEOC	7.76	16.035	-1.144	156900	BB	26.5	
	Totals:	18.60		-0.770	175040			

Total Unidentified Counts : 3678 counts

Detected Peaks: 18 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 12 microVolts

Manual injection

****

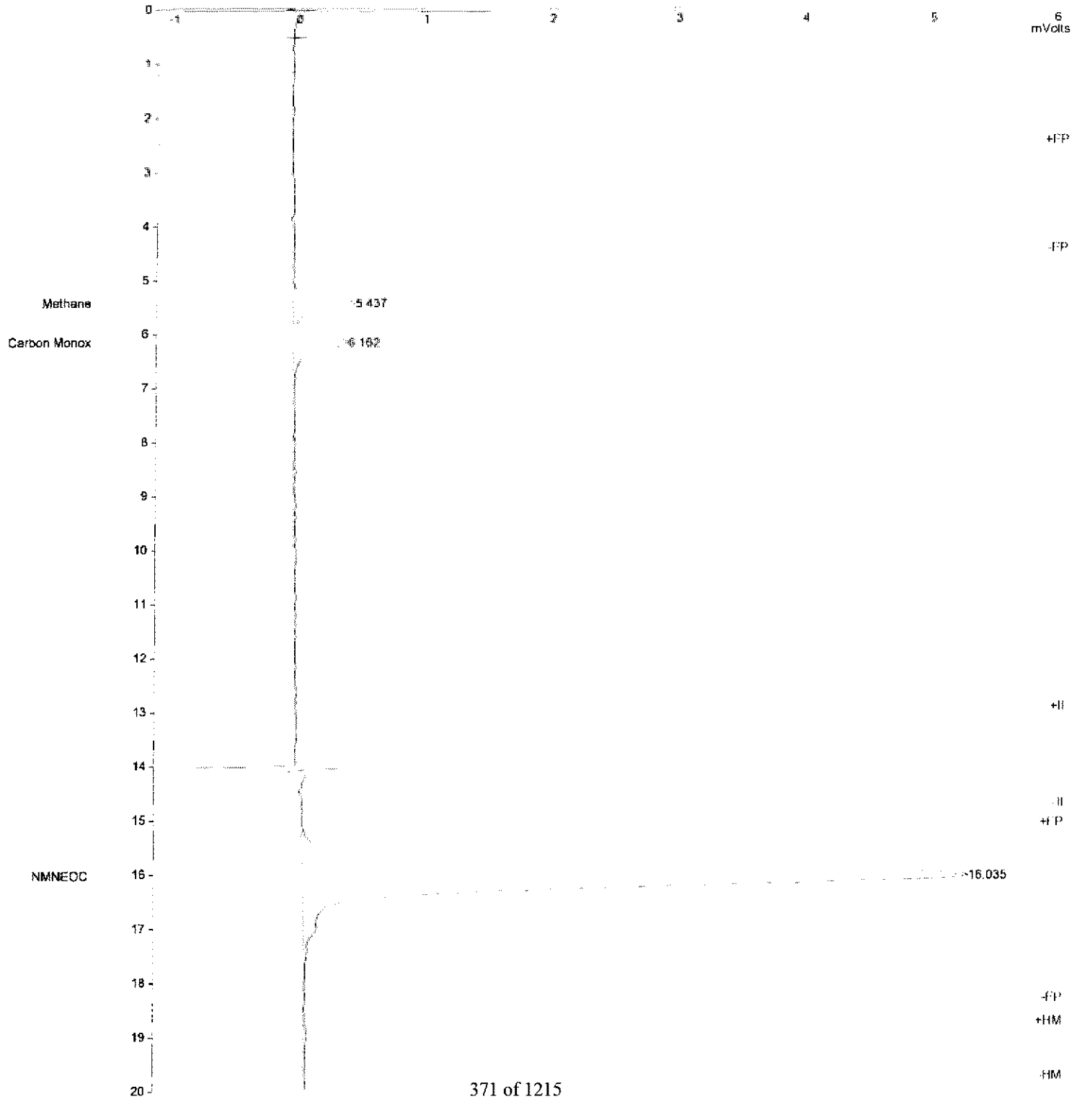
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 10-27-18 5 ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 5 ppm mix

Injection Date: 2021-03-25 10:27 Calculation Date: 2021-04-06 13:18

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.3.1 ** 02059-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.552	0.039	3321	BB	0.0	
2	Carbon Dioxi	0.0480	3.667	0.227	441	BB	0.0	
3	Ethane		7.376					M
	Totals:	0.0480		0.266	3762			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1468 counts

Detected Peaks: 4 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

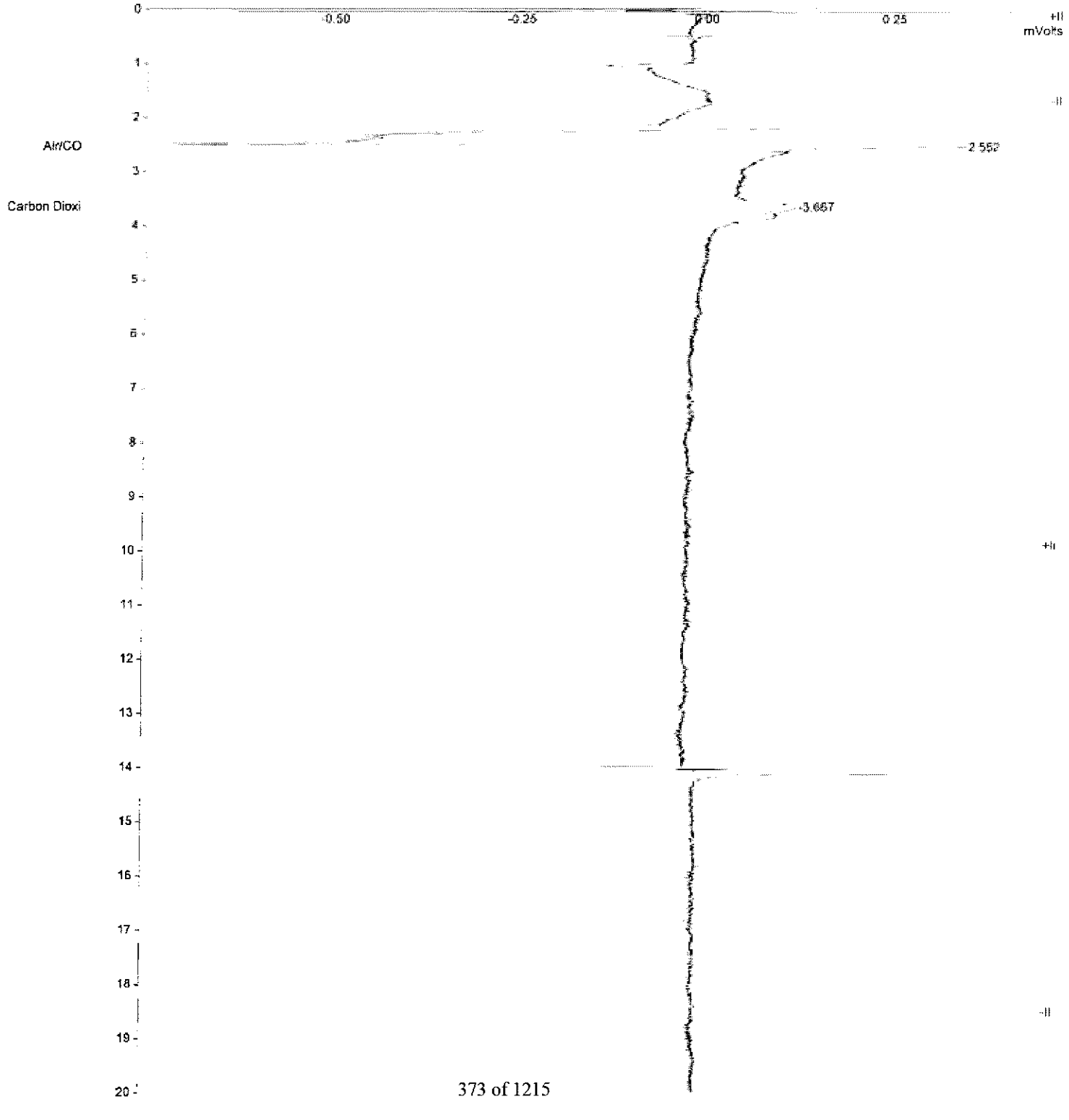
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml Loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (Counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.360					M
2	Carbon Monox	2.80	6.164	0.299	4846	BB	23.2	
3	NMNEOC	0.01	15.316	-1.663	162	BB	0.0	
	Totals:	2.81		-1.364	5008			

Status Codes:
M - Missing peak

Total Unidentified Counts : 18342 counts

Detected Peaks: 10 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 6 microVolts

Manual injection

****

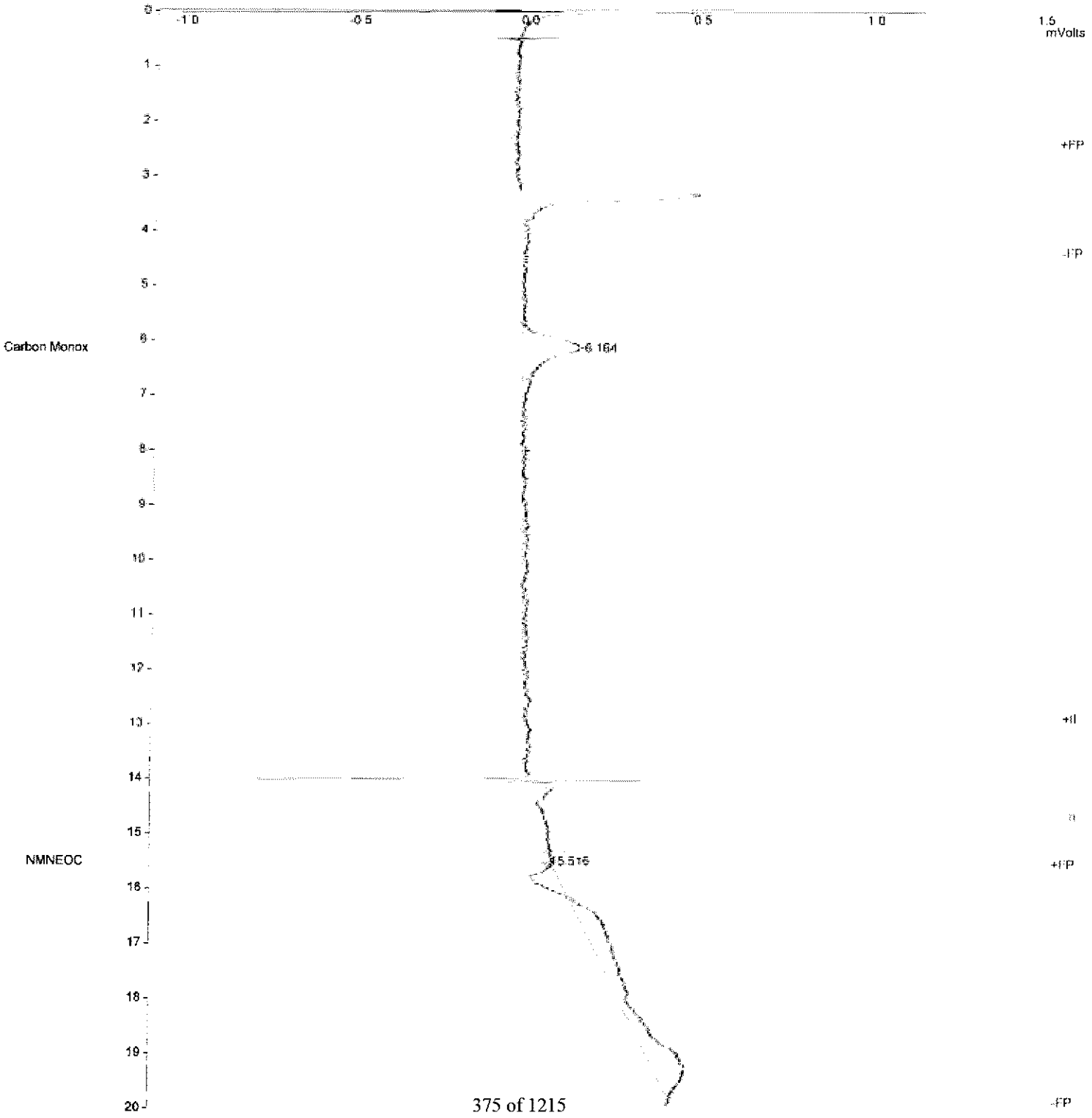
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 11-20-01 system blank inj 2 - master sqaqmd 25.3 3 mL loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 mL Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : system blank

Injection Date: 2021-03-25 11:20 Calculation Date: 2021-03-25 11:40

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-03-25 23:31

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.499	-0.014	11861968	BV	21.8	
2	Carbon Dioxi	1968.5909	3.778	0.338	18074282	VB	16.2	
3	Ethane	2089.7637	7.478	0.102	18206122	BB	26.3	
	Totals:	4058.3545		0.426	49142372			

Total Unidentified Counts : 22998416 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

****

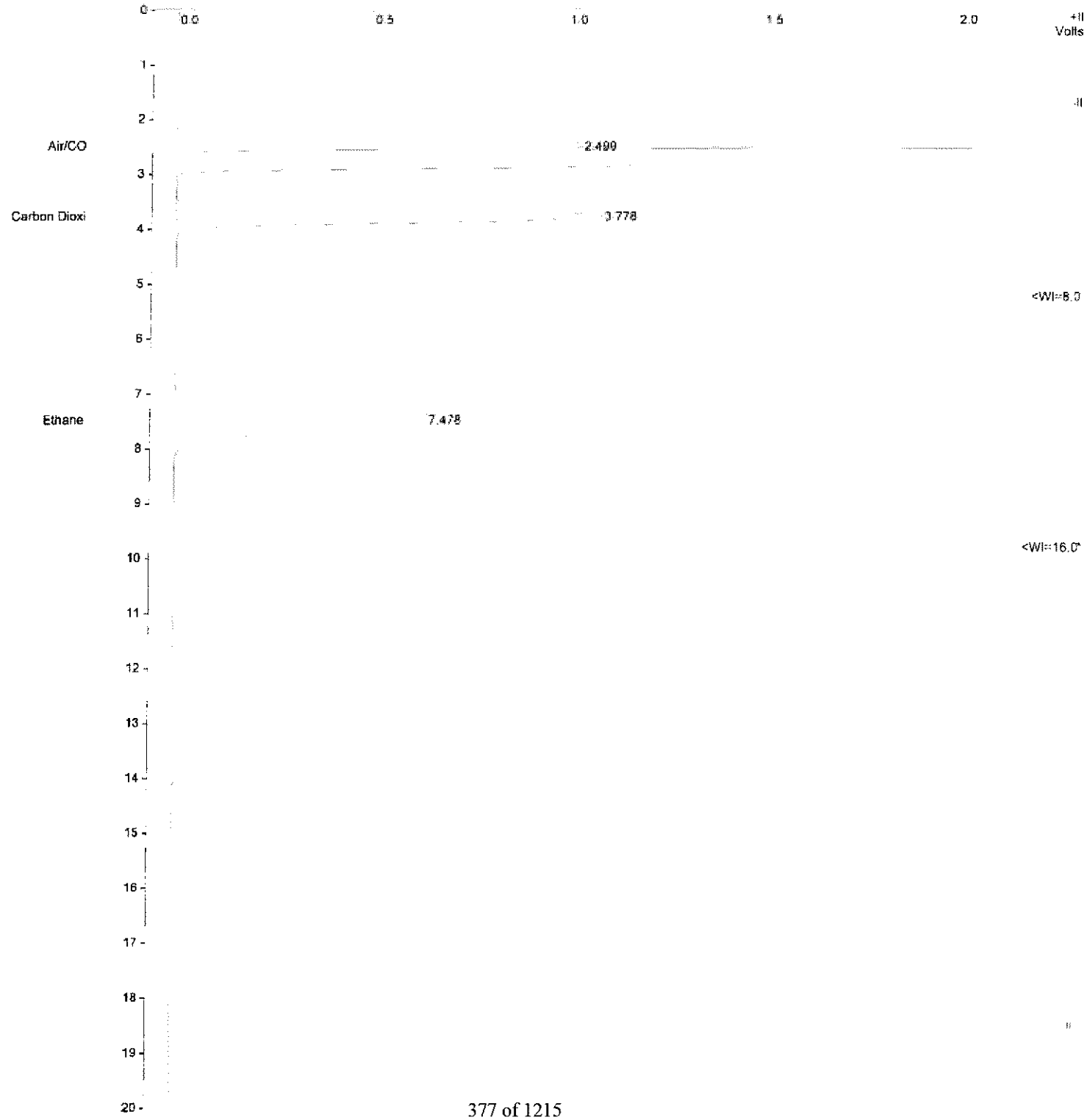
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-03-25 23:33

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 9 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-25 23-11-31 2000 ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - 011 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 2000 ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-04-06 13:19

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	2007.96	5.440	0.080	3239937	VV	16.3	
2	Carbon Monox	1893.98	6.152	0.287	3277201	VB	20.4	
3	NMNEOC	2027.51	16.578	-0.601	40986528	BB	30.8	
	Totals:	5929.45		-0.234	47503666			

Total Unidentified Counts : 1900 counts

Detected Peaks: 11 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 29 microVolts

Manual Injection

****

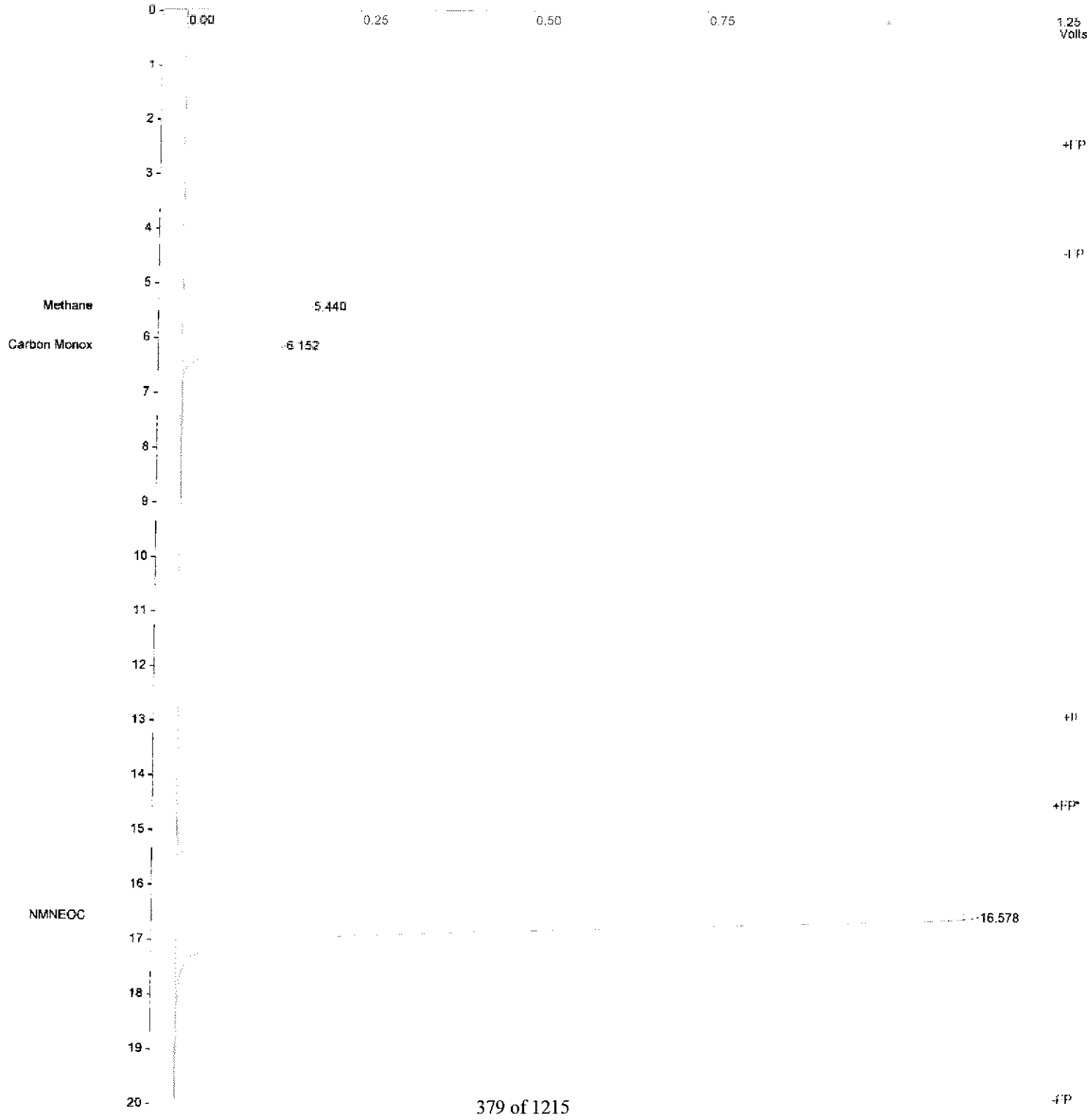
Title :
Run File : c:\bruker\ws\data\2021\mar_21\2021-03-25 23-11-31 200C ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : 2021-03-30 15-27-04 a 027 - C11 a inj 1 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy-middle.mth
Sample ID : 200C ppm mix

Injection Date: 2021-03-25 23:11 Calculation Date: 2021-04-06 13:19

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset - 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-26 00-04-25 n2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20 tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20 TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	0.0000	2.473	-0.040	589	VP	0.0	
2	Carbon Dioxi	0.0372	3.691	0.251	342	BV	9.0	
3	Ethane		7.376					M
	Totals:	0.0372		0.211	931			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1487 counts

Detected Peaks: 15 Rejected Peaks: 9 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

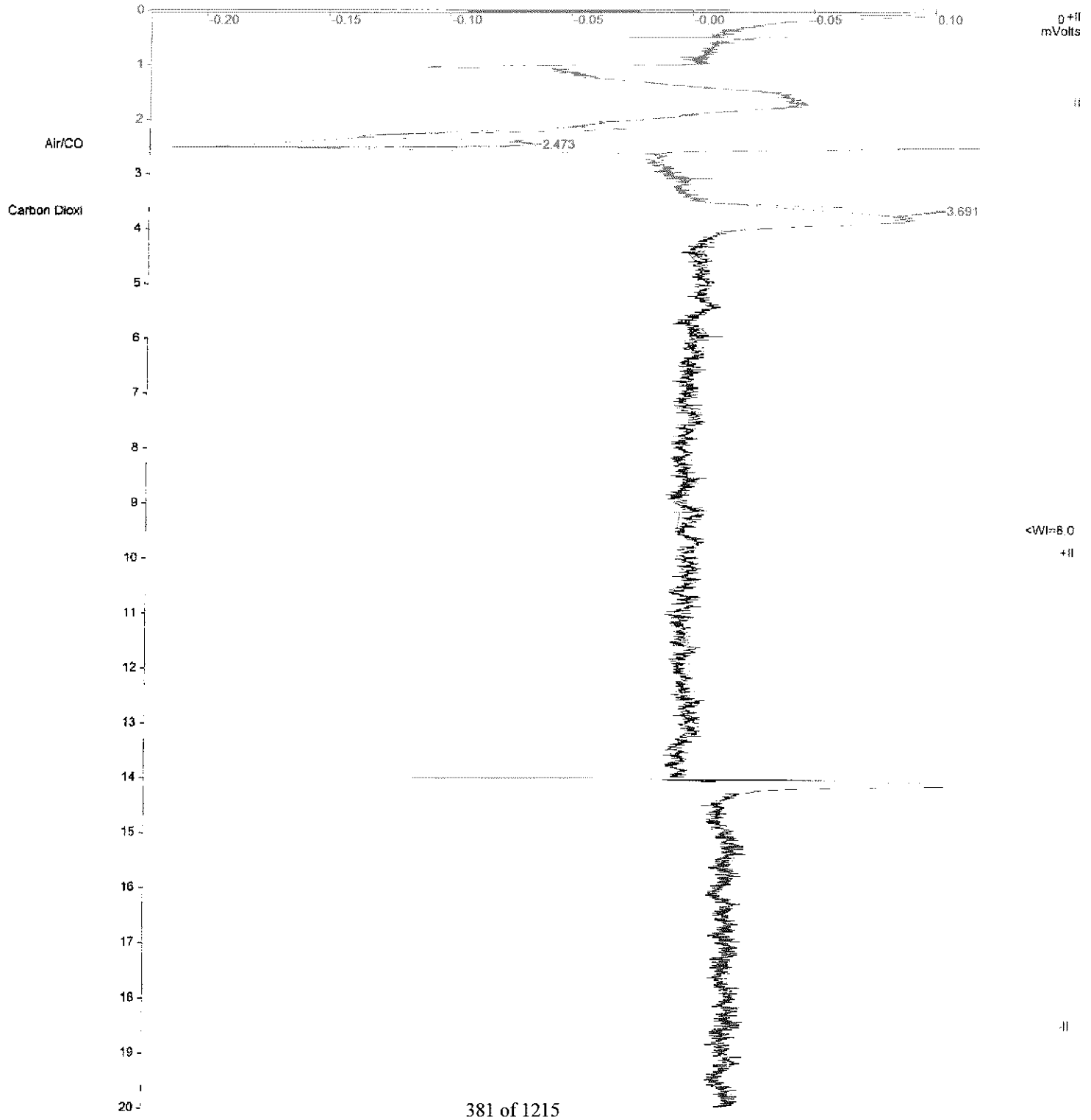
Title :
Run File : c:\brukerws\data\2021\mar 21\2021-03-26 00-04-25 m2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : M2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMGC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-26 00-04-25 n2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (ppmC)	Ret. Time (min)	Time Offset (Min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.50	5.423	0.063	609	BV	15.5	
2	Carbon Monox	0.87	6.182	0.317	1504	VB	21.0	
3	NMNEOC		17.179					M
	Totals:	1.37		0.380	2313			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1876 counts

Detected Peaks: 12 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 13 microVolts

Manual injection

****

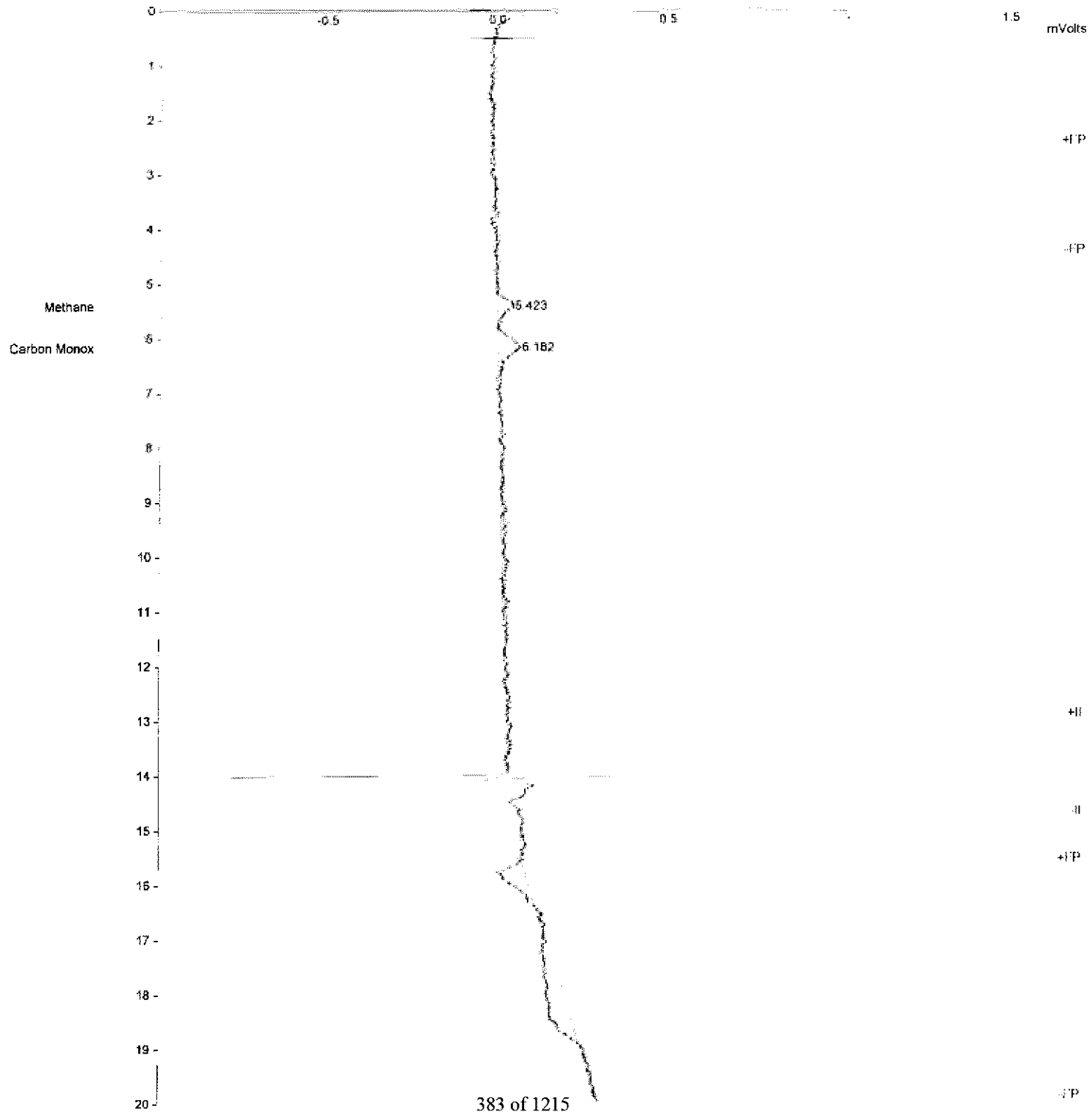
Title :
Run File : c:\brukerws\data\2021\mar_21\2021-03-26 00-04-25 n2 blank a107 inj 2 - master sqaqmd 25.3 3 ml loop 05-05-20_tcdrange5 - copy.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 05-05-20_TCDrange5 - Copy.mth
Sample ID : N2 Blank A107

Injection Date: 2021-03-26 00:04 Calculation Date: 2021-03-26 00:24

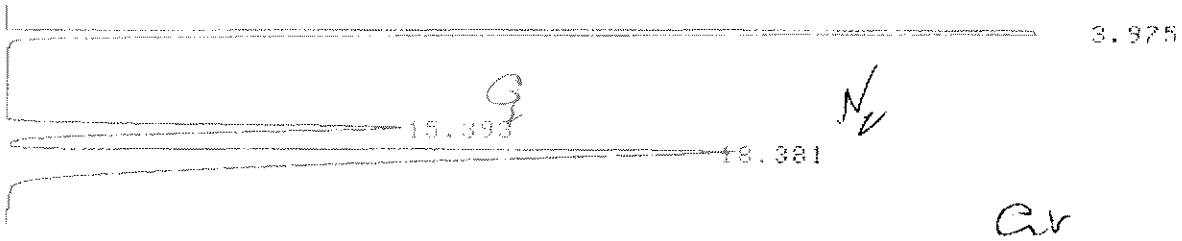
Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-37CE-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



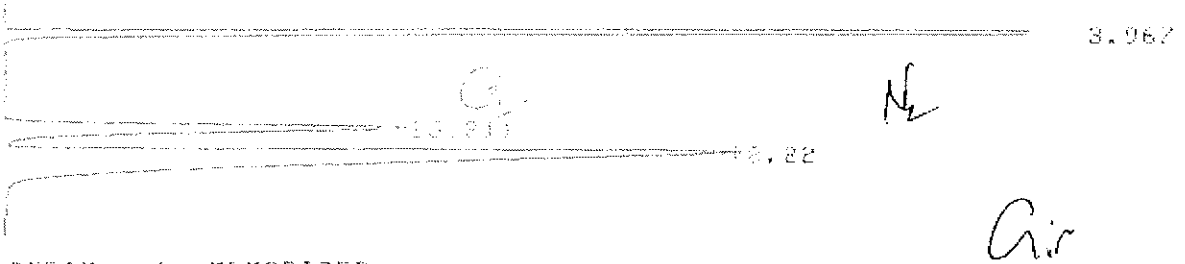
3/12



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 726

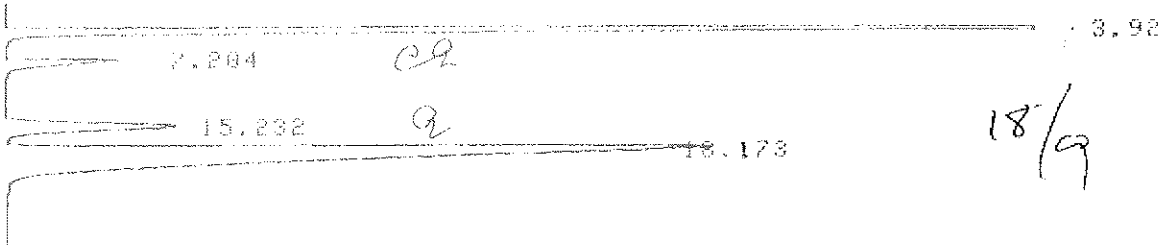
PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.975	7646222			35.7369	
2	15.393	3416768			15.9693	
3	18.381	10332882	V		48.2938	
	TOTAL	21395870			100	



CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 727

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.967	7709693			36.0707	
2	15.311	3410730			15.9575	
3	18.22	10253436	V		47.9718	
	TOTAL	21373858			100	



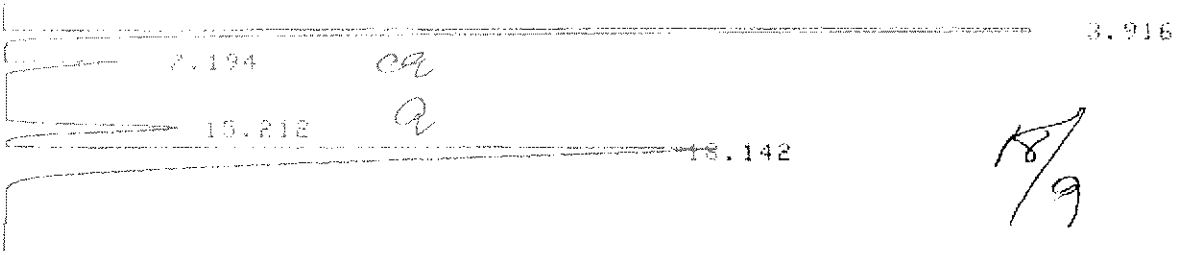
18/9

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC

CHANNEL NO	1	FILE	0
SAMPLE NO	0	METHOD	41
REPORT NO	728		

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.92	6322305			35.0938	
2	7.204	687824			3.818	
3	15.232	1429570			7.9352	
4	18.173	9575746	V		53.153	
	TOTAL	18015444			100	



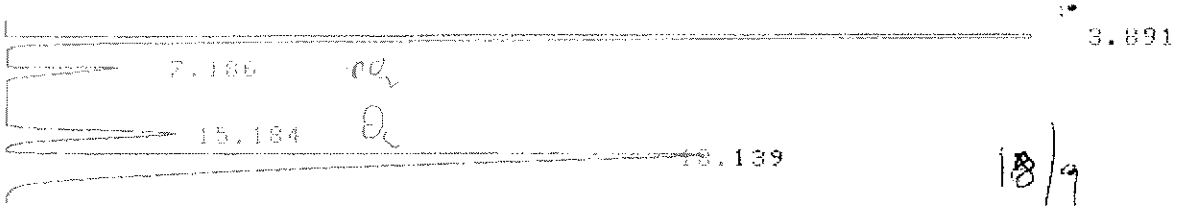
8/9

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC

CHANNEL NO	1	FILE	0
SAMPLE NO	0	METHOD	41
REPORT NO	729		

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.916	6356957			35.0008	
2	7.194	692163			3.811	
3	15.212	1446294			7.9632	
4	18.142	9666884	V		53.225	
	TOTAL	18162296			100	



18/9

CHROMATOGRAM 1 MEMORIZED

C-R5A CHROMATOPAC
CHANNEL NO 1 FILE 0
SAMPLE NO 0 METHOD 41
REPORT NO 760

PKNO	TIME	AREA	MK	IDNO	CONC	NAME
1	3.891	6318599			35.3866	
2	7.186	684960			3.836	
3	15.184	1410638			7.9001	
4	18.139	9441725	V		52.8773	
	TOTAL	17855920			100	

TOC ANALYSIS

on the TRAPS

SCAQMD Method 9.3

TOC Analysis on the Trap

Date	Sample No.	Vial No.	Sample ID	Sample volume, ml		DF	Concentration, ppmC			COV %
				Initial	Final		TC	IC	$TC_{avg} - IC_{avg} = TOC$	
3/22	1	\	Blank	—	—	1	0.00	-.25	0.00	0.00
							0.00	-.25	- -.25	0.00
							0.00	-.25	= .250	
	2	\	IC_{HW}	—	—	1	8.162	7.470	8.417	2.64
							8.577	7.341	- 7.386	.95
							8.512	7.347	= —	
	3	\	KHL	—	—	1	13.18	-.25	13.05	.91
							13.02	-.25	- -.25	0.00
							12.94	-.25	= 13.30	
	4	\	LCS	—	—	1	4.923	-.25	4.821	4.827 DW
							4.760	-.25	-.25	1.85%
							4.779	-.25	= 5.071	0.00%
	5	\	Blank	—	—	1	0.00	-.25	0.00	0.00%
							0.00	-.25	- -.25	0.00
							0.00	-.25	= .250	
	6	16	A025 -022A	2	4	2	21.04	1.784	21.23	1.80%
							20.98	1.755	- 1.779	~~2.00~~ 1.84%
							21.67	1.792	= 19.45	DW
	7	17	-022B	2	4	2	20.03	2.614	20.35	1.73%
							20.29	2.693	- 2.658	1.40%
							20.72	2.669	= 17.692	
	8	1	A027 -042A	2	4	2	1.832	1.041	1.748	5.16%
							1.758	1.036	- .999	4.76%
							1.452	.931	= .749	
	9	2	-042B	2	4	2	2.365	.953	2.285	3.04%
							2.236	.972	- .969	0.78%
							2.253	.965	= 1.321	
	10	11	-062A	2	4	2	8.258	1.692	8.221	0.43%
							8.187	1.702	- 1.701	0.43%
							8.219	1.707	= 6.520	
	11	12	-062B	2	4	2	9.257	2.241	9.258	0.28%
							9.233	2.287	- 2.266	0.74%
							9.285	2.268	= 6.992	
	12		LCS	—	—	1	25.72	24.81	25.60	1.22%
							25.24	24.43	24.46	1.33%

SCAQMD Metho 5.3

Pg_

TOC Analysis on the Trap

Date	Sample No.	Vial No.	Sample ID	Sample volume, ml		DF	Concentration, ppmC			COV %
				Initial	Final		TC	IC	$TC_{avg} - IC_{avg} = TOC$	
3/23	1		Blank	—	—	1	0.00	-.25	0.00	0.00%
							0.00	-.25	- -.25	0.00%
							0.00	-.25	= .250	
	2		TCSd	—	—	1	12.35	-.25	12.87	3.92%
							12.90	-.25	- -.25	0.00%
							12.36	-.25	= 13.12	
	3		ICSd	—	—	1	8.684	7.903	8.669	1.73
							8.812	7.729	- 7.852	1.32
							8.312	7.924	= .817	
	4		LCS	—	—	1	4.892	.004	4.689	3.25%
							4.536	-.01	- -.01	6.72%
							4.689	-.02	= 4.699	
	5		Blk	—	—	1	-.00	-0.25	0.00	0.00%
							0.00	-0.25	-0.25	0.00%
							0.00	-0.25	= .250	
	6	7	A027 -052A	2	4	2	4.448	2.365	4.395	3.00
							4.189	2.422	- 2.394	1.07
							4.339	2.395	= 1.931	
	7	8	-052B	2	4	2	4.926	2.570	5.127	5.27%
							5.355	2.356	- 2.366	8.17%
							5.197	2.142	= 2.761	
	8		LCS	—	—	1	12.75	-.04	12.75	.21%
							12.72	.004	- -.01	12.2%
							12.77	0.00	= 12.76	
	9									
									-	
									=	
	10									
									-	
									=	
	11									
									-	
									=	

TANK PREPARATION

TANK PREPARATIONS

Client: AAA
Project No.: 21-0883
Unit Tested: Outlet
Sampling Date: 17-Mar-21
Date pressurized: 22-Mar-21

Lab No.: A 027

Tank ID	Sample ID	Pre-test pressure mm Hg		Post-test pressure mm Hg	Final Pressure	Comments
		1	2			
54083	A 027 - 041 A	-758	-758	-164 *	184	Run #1 A
A111	A 027 - 041 B	-758	-758	-116 *	180	Run #1 B
54116	A 027 - 051 A	-758	-758	-186 *	172	Run #2 A
S050	A 027 - 051 B	-758	-758	-142 *	186	Run #2 B
A127	A 027 - 061 A	-758	-758	-120 *	170	Run #3 A
777	A 027 - 061 B	-758	-758	-82 *	182	Run #3 B

* - Post -test Pressure is less then 200 mm Hg.

CALIBRATIONS

24-Jan-20
Current

	2 ppm mix					5 ppm mix					20 ppm mix						
	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	Ave	RSD
Carbon Monoxide	2.010	4192	4570	4.79E-04	4.40E-04	4.999	9120	9293	5.48E-04	5.38E-04	20.32	34579	35524	5.88E-04	5.72E-04	**5.28E-04**	**100.6**
Methane	2.095	4688	5152	4.47E-04	4.07E-04	4.782	9007	9294	5.31E-04	5.15E-04	19.47	31671	32448	6.15E-04	6.00E-04	**5.19E-04**	**97.4**
Carbon Dioxide	1.880	24809	25118	7.58E-05	7.48E-05	4.832	47582	46513	1.02E-04	1.04E-04	20.39	179236	179056	1.14E-04	1.14E-04	**9.73E-05**	**63.0**
Ethane	2.170	17881	18052	1.21E-04	1.20E-04	4.986	43638	43010	1.14E-04	1.16E-04	21.08	176965	177554	1.19E-04	1.19E-04	**1.18E-04**	**55.0**
TGNMO	2.299	45794	45944	5.02E-05	5.00E-05	7.500	131153	130291	5.72E-05	5.76E-05	32.10	643682	640410	4.99E-05	5.01E-05	**5.25E-05**	**80.0**
	Average	**19473**	**19767**	**2.35E-04**	**2.18E-04**	Average	**48100**	**47680.2**	**2.70E-04**	**2.66E-04**	Average	**213227**	**212998**	**2.97E-04**	**2.91E-04**		
			Average	**2.27E-04**				Average	**2.68E-04**				Average	**2.94E-04**			
	RSD%			**13.8**					**2.0**					**11.8**			
	Average	**2.63E-04**															

	100 ppm mix					1000 ppm mix					2000 ppm mix						
	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	conc	area 1	area 2	RF 1	RF 2	Ave	RSD
Carbon Monoxide	100.40	167614	170386	5.99E-04	5.89E-04	981	1700909	1708991	5.77E-04	5.74E-04	1986	3363251	3359567	5.91E-04	5.91E-04	**5.87E-04**	**99.6**
Methane	101.50	164466	166804	6.17E-04	6.08E-04	993	1630589	1635501	6.09E-04	6.07E-04	2003	3262561	3261082	6.14E-04	6.14E-04	**6.12E-04**	**108.0**
Carbon Dioxide	100.10	907081	912067	1.10E-04	1.10E-04	1036	9479276	9518837	1.09E-04	1.09E-04	1999	18353302	18336448	1.09E-04	1.09E-04	**1.09E-04**	**62.8**
Ethane	101.00	882252	885177	1.14E-04	1.14E-04	994	9020471	9051689	1.10E-04	1.10E-04	2114	18388114	18389176	1.15E-04	1.15E-04	**1.13E-04**	**61.5**
TGNMO	101.70	2085799	2095518	4.88E-05	4.85E-05	993	20342462	20396076	4.88E-05	4.87E-05	2002	40302996	39855688	4.97E-05	5.02E-05	**4.91E-05**	**83.3**
	Average	**841442**	**845990**	**2.98E-04**	**2.94E-04**	Average	**8434741**	**8462218.8**	**2.91E-04**	**2.90E-04**	Average	**16734045**	**16640392**	**2.96E-04**	**2.96E-04**		
			Average	**2.96E-04**				Average	**2.90E-04**				Average	**2.96E-04**			
	RSD%			**-0.7**					**1.3**					**0.6**			
	Average	**2.94E-04**															

RSD, %

RSD_{CO} =	9.772	r_{CO} =	0.99990
RSD_{CH4} =	15.540	r_{CH4} =	0.99990
RSD_{CO2} =	17.340	r_{CO2} =	0.99995
RSD_{C2H6} =	3.340	r_{C2H6} =	0.99999
RSD_{NMOC} =	6.084	r_{NMOC} =	0.99990

CALS - AVE

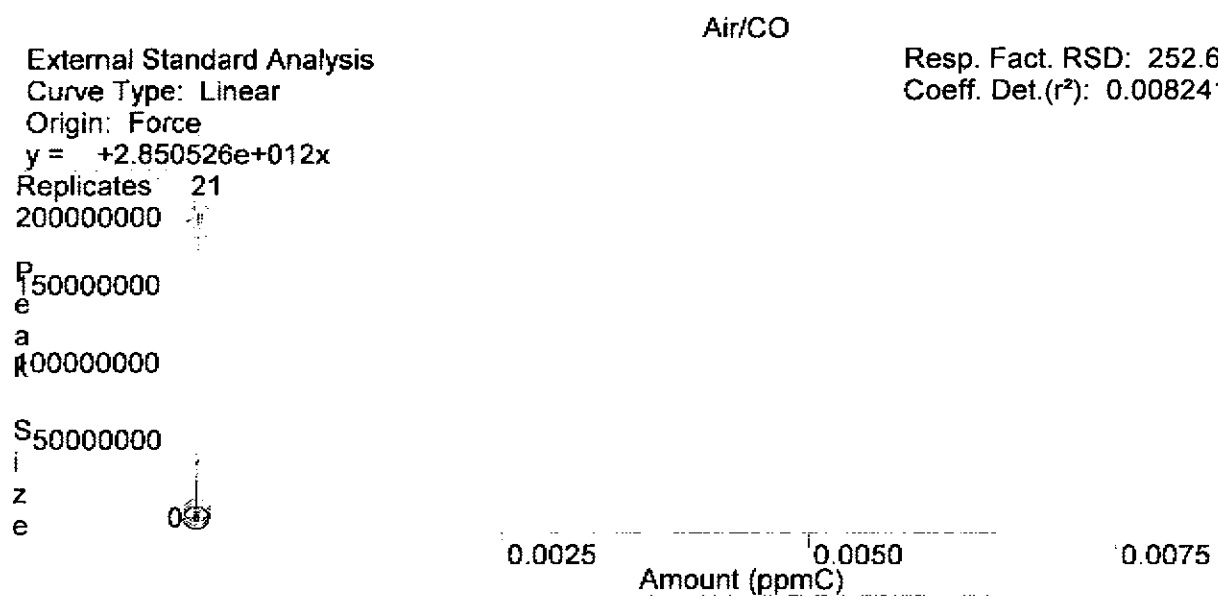
5.57E-04	CO
5.65E-04	CH4
1.03E-04	CO2
1.16E-04	C2H6
5.08E-05	NMOC

Print Date: 27 Jan 2020 11:54:23
Calibration Curves Report
File: c:\brukerws\methods\master sqaqmd 25.3 3 ml loop 01-24-20.mth
Detector: 45X-GC, Address: 44, Channel ID: Front

Air/CO

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +2.850526e+012x
Replicates 21

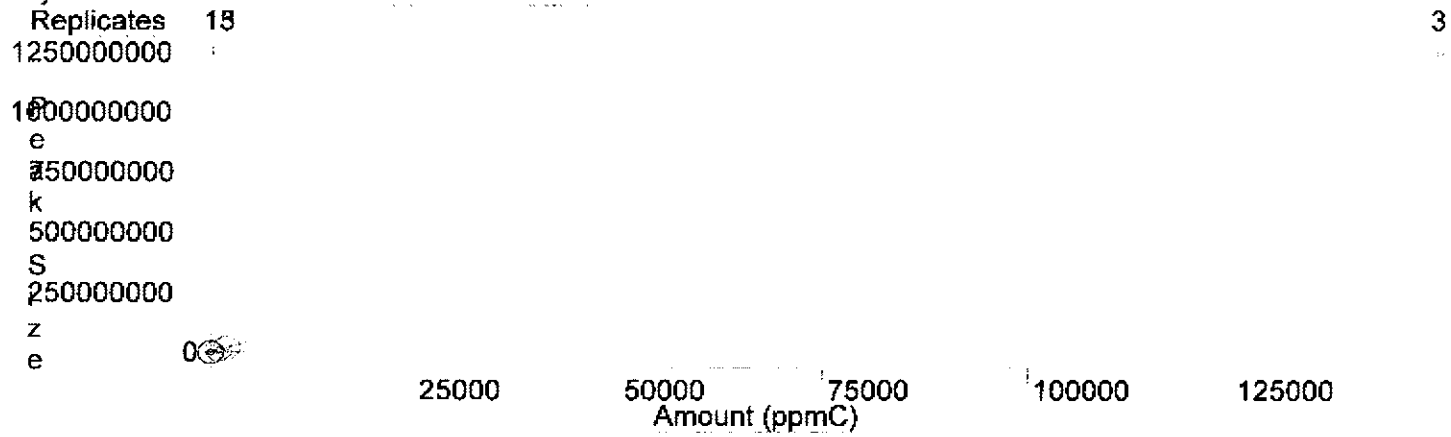
Resp. Fact. RSD: 252.60%
Coeff. Det.(r^2): 0.008241



Carbon Dioxide

External Standard Analysis
Curve Type: Quadratic
Origin: Force
y = -6.359547e-003x² +9.193849e+003x
Replicates 15

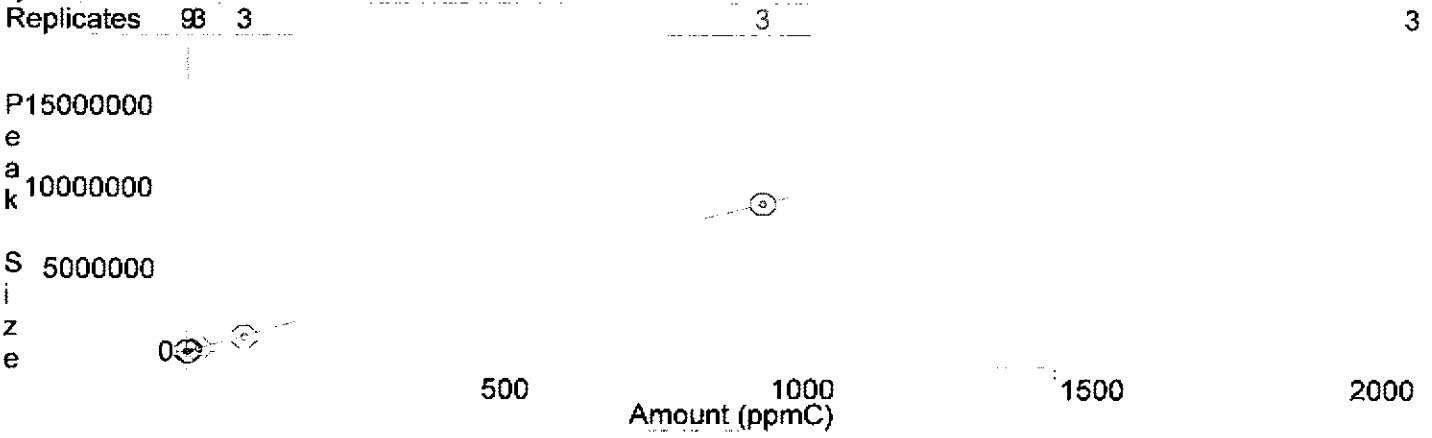
Resp. Fact. RSD: 17.34%
Coeff. Det.(r^2): 0.999906



Ethane

External Standard Analysis
Curve Type: Quadratic
Origin: Force
y = -3.491328e-001x² +9.441653e+003x
Replicates 9 3 3 3

Resp. Fact. RSD: 3.340%
Coeff. Det.(r^2): 0.999984



Title :
Run File : c:\brukerzws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 01-24-20.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.538	-0.002	4556	VV	2.0	
2	Carbon Dioxi	3.698	-0.000	24609	BB	16.5	
3	Ethane	7.402	0.003	17681	BB	25.0	
	Totals:		0.001	47246			

Total Unidentified Counts : 26473 counts

Detected Peaks: 10 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	0.004	4688	VV	23.1	
2	Carbon Monox	5.935	-0.002	4192	VB	29.3	
3	NMNEOC	16.994	0.004	45794	BV	15.2	
	Totals:		0.006	54674			

Total Unidentified Counts : 25725 counts

Detected Peaks: 20 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 22 microVolts

Manual injection

****

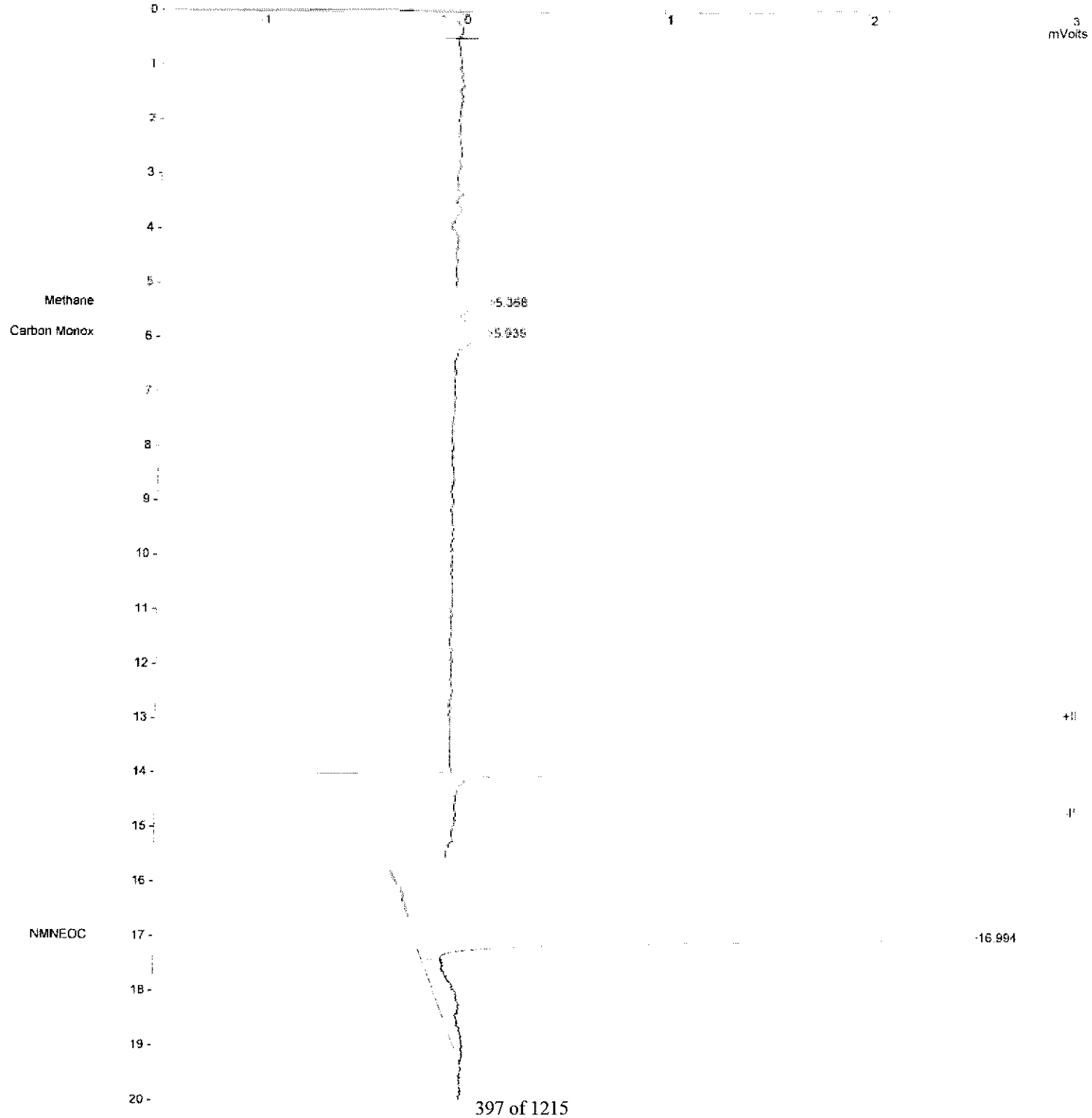
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.538	-0.000	4606	VV	2.1	
2	Carbon Dioxi	3.695	-0.003	25118	BB	16.6	
3	Ethane	7.396	-0.006	18052	BB	25.0	
	Totals:		-0.009	47776			

Total Unidentified Counts : 26454 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-21 12-30-56 2ppm mix inj 5 - master SQAQmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:40 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 1

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.365	-0.002	5152	VV	21.7	
2	Carbon Monox	5.940	0.005	4570	VV	28.0	
3	NMNEOC	16.988	-0.005	45944	BV	15.3	
	Totals:		-0.002	55666			

Total Unidentified Counts : 28248 counts

Detected Peaks: 21 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 15 microVolts

Manual injection

****

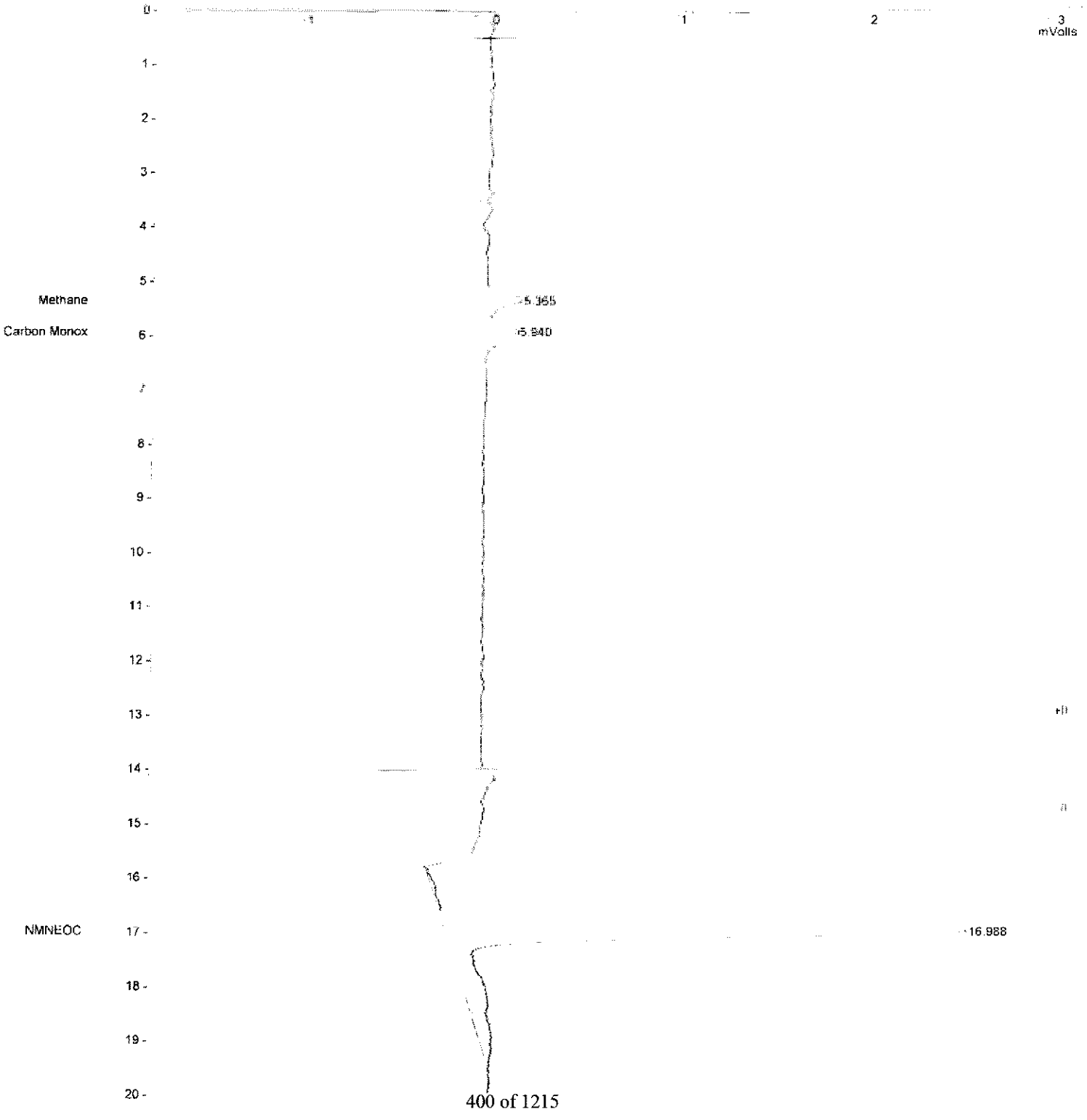
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



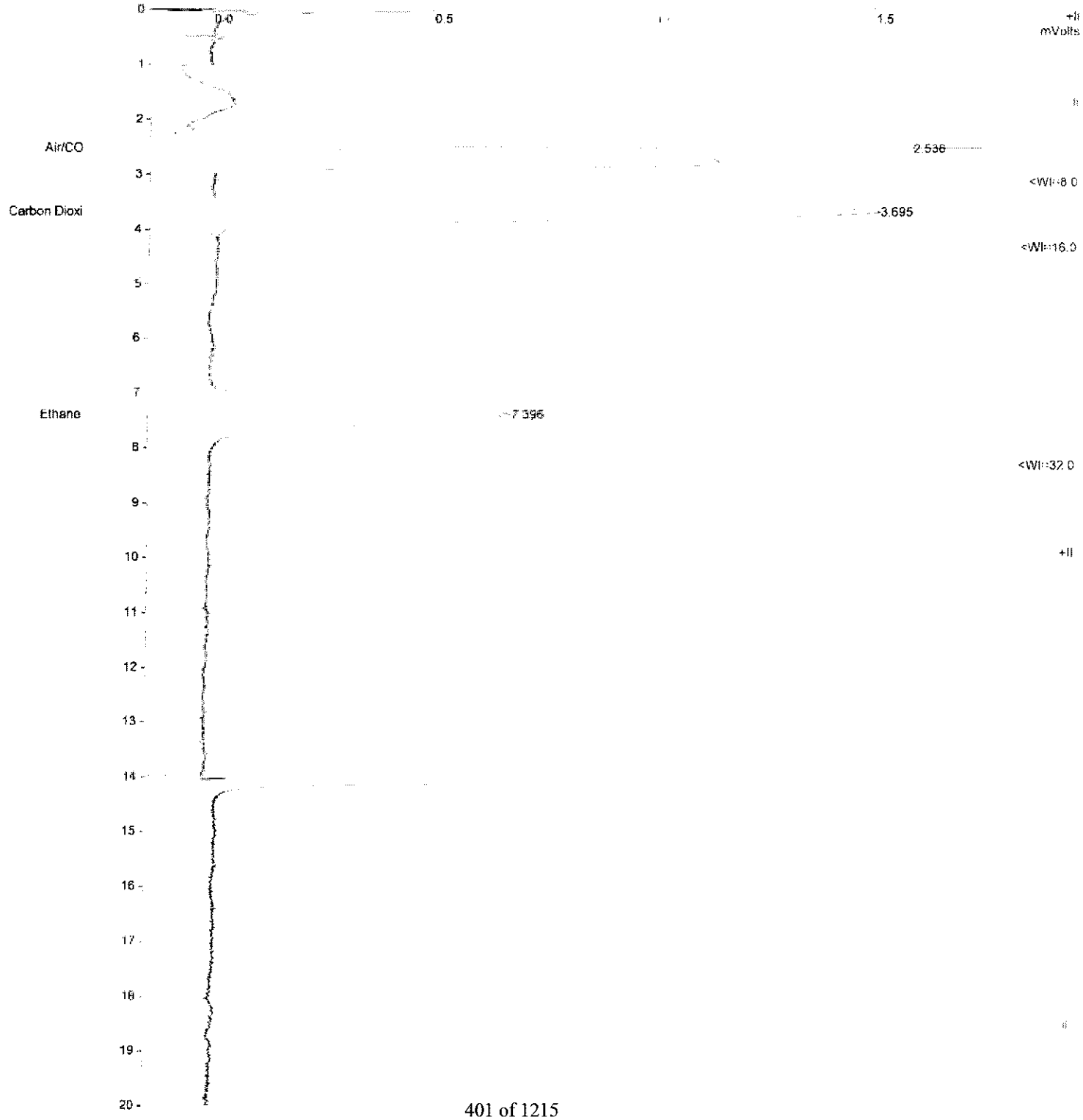
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-30-56 2ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



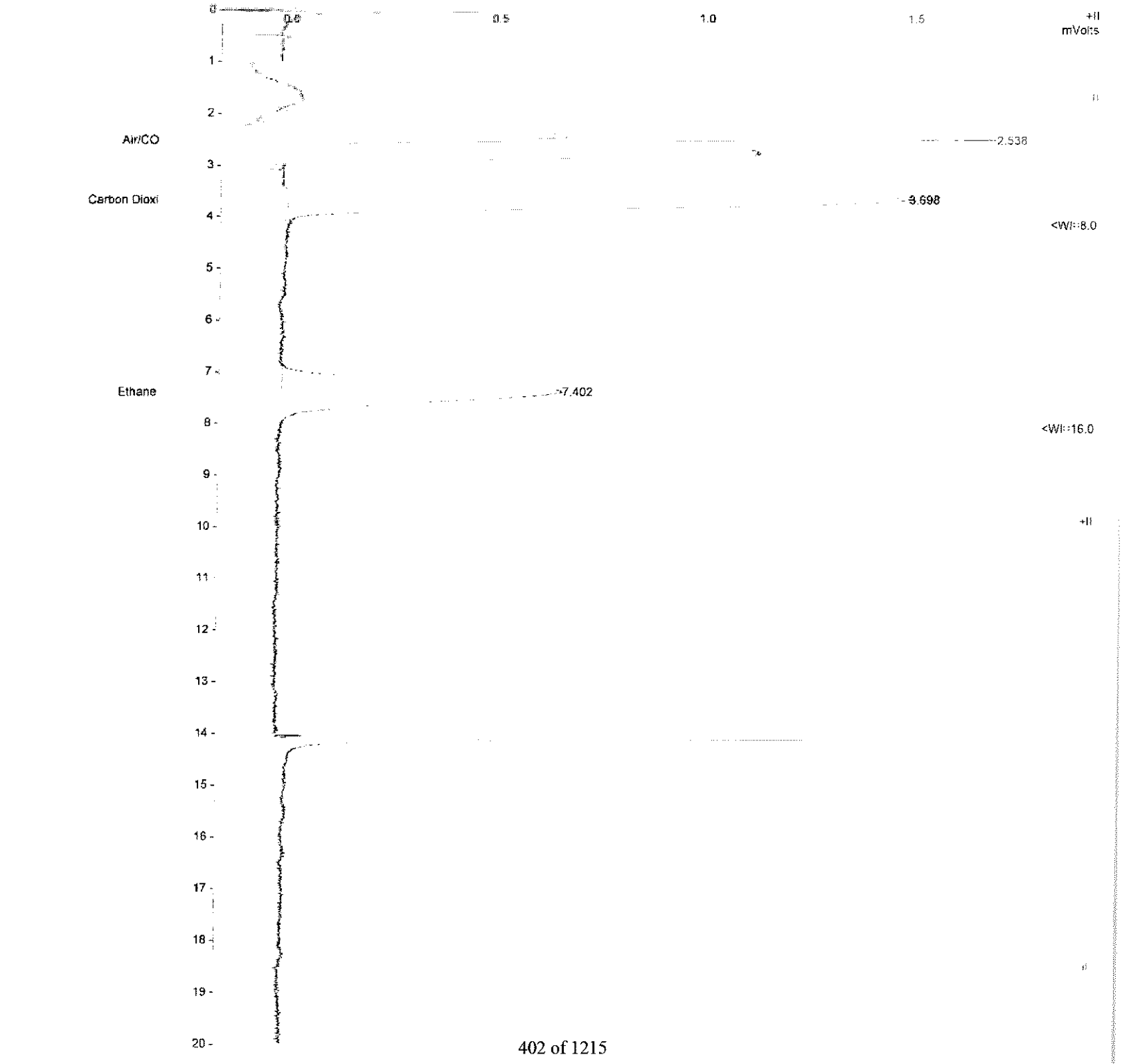
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-21 12-04-25 2ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2ppm mix

Injection Date: 2020-01-21 12:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.534	-0.003	12620	VV	2.1	
2	Carbon Dioxi	3.725	0.030	47582	BB	16.5	
3	Ethane	7.400	0.004	43638	BB	25.2	
	Totals:		0.031	103840			

Total Unidentified Counts : 66268 counts

Detected Peaks: 8 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

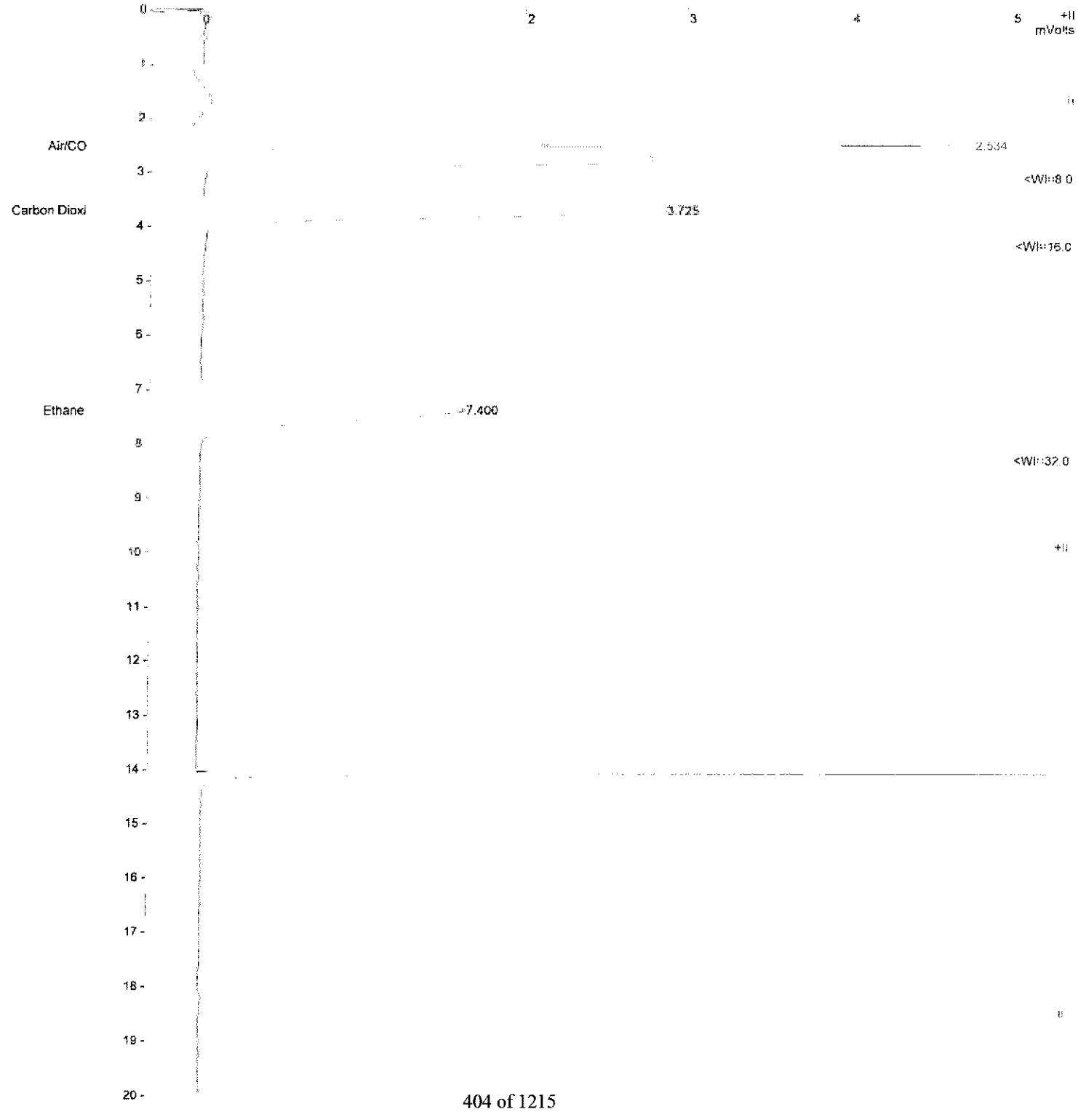
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.375	0.010	9007	VV	18.0	
2	Carbon Monox	5.948	0.008	9120	VB	22.2	
3	NMNEOC	16.185	-0.803	131153	BP	29.5	
	Totals:		-0.785	149280			

Total Unidentified Counts : 16623 counts

Detected Peaks: 21 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 14 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5S Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.534	0.000	12787	VV	2.1	
2	Carbon Dioxi	3.723	-0.002	46513	BB	16.5	
3	Ethane	7.398	-0.001	43010	BB	25.1	
	Totals:		-0.003	102310			

Total Unidentified Counts : 65753 counts

Detected Peaks: 7 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 12 microVolts - monitored before this run

Manual injection

****

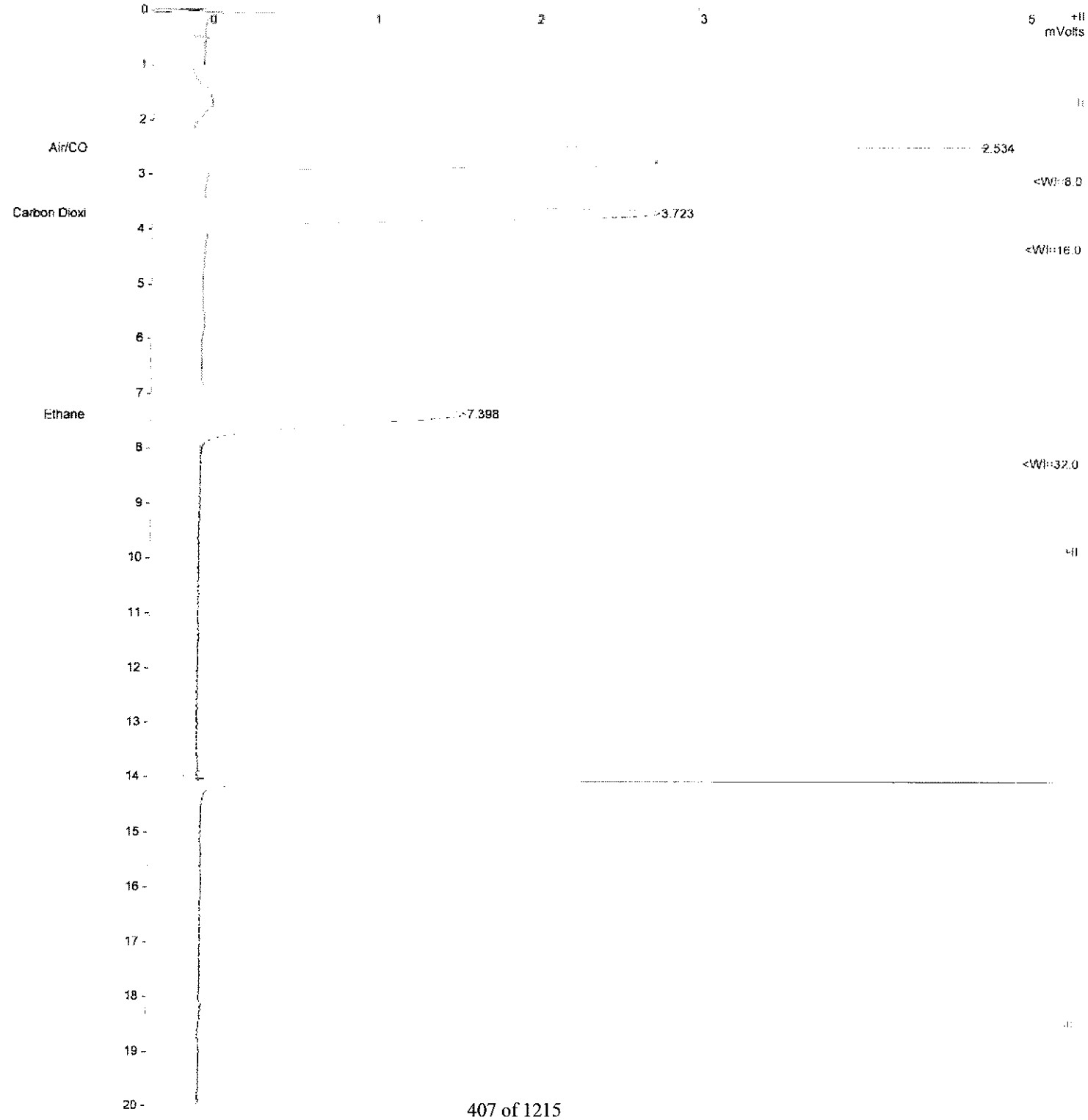
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



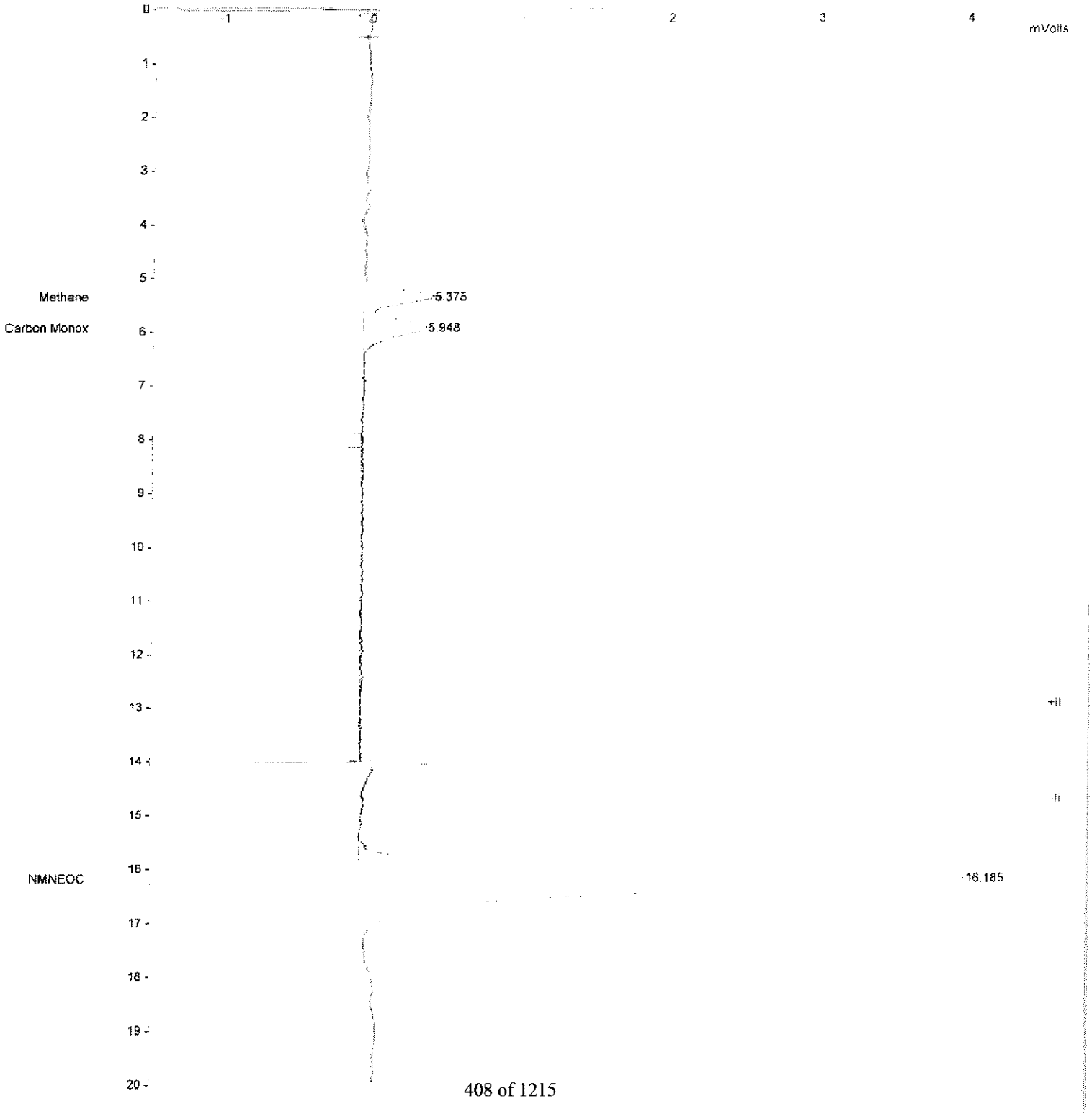
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-04-09 5ppm mix inj 6 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:04 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

' MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 01-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 2

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.376	0.002	9293	VV	18.1	
2	Carbon Monox	5.953	0.005	9294	VB	22.4	
3	NMNEOC	16.198	0.013	130291	BP	29.5	
	Totals:		0.020	148878			

Total Unidentified Counts : 17698 counts

Detected Peaks: 25 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

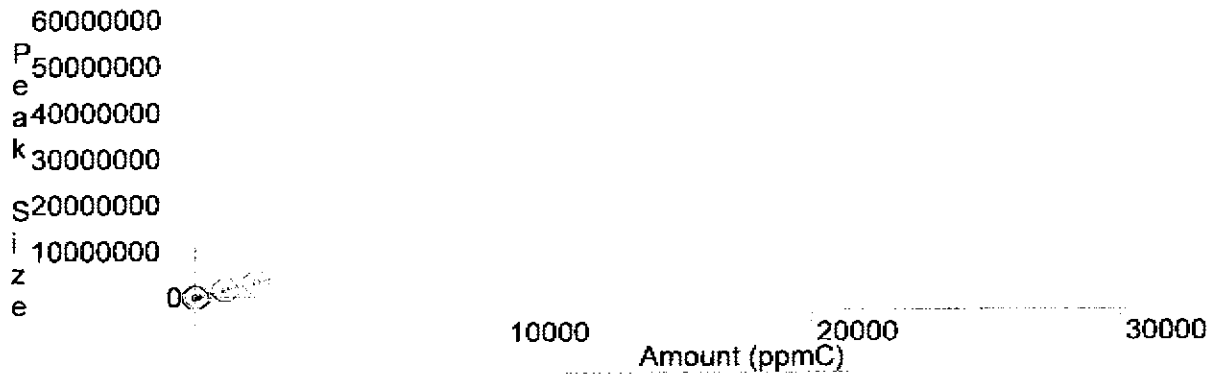
Print Date: 27 Jan 2020 11:40:31
Calibration Curves Report
File: c:\brukerws\methods\master sqaqmd 25.3 3 ml loop 01-24-20.mth
Detector: 45X-GC, Address: 44, Channel ID: Middle

Methane

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +1.613548e+003x
Replicates 123 3

Resp. Fact. RSD: 15.54%
Coeff. Det.(r^2): 0.999800

3

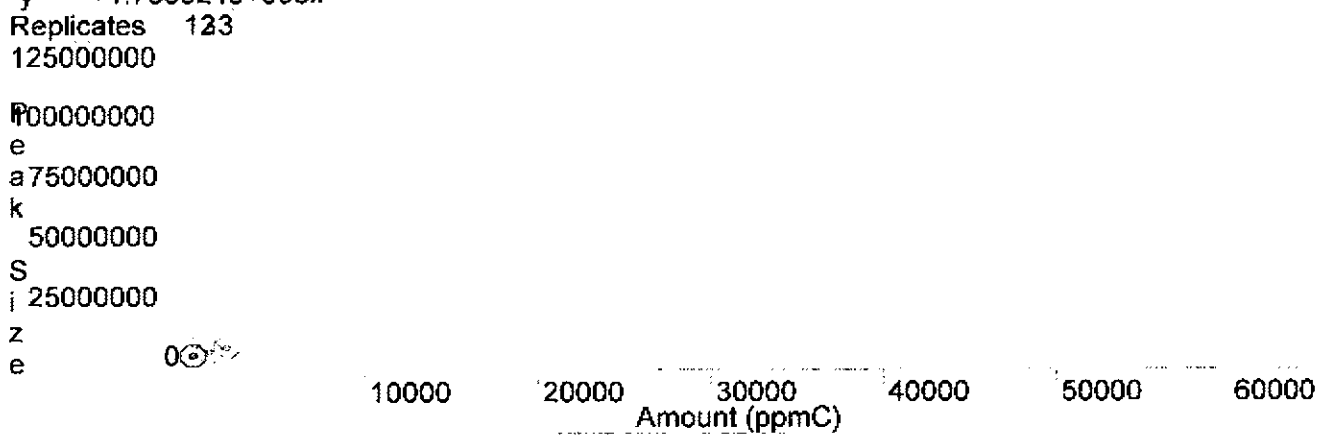


Carbon Monoxide

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +1.730324e+003x
Replicates 123
125000000

Resp. Fact. RSD: 9.772%
Coeff. Det.(r^2): 0.999791

3

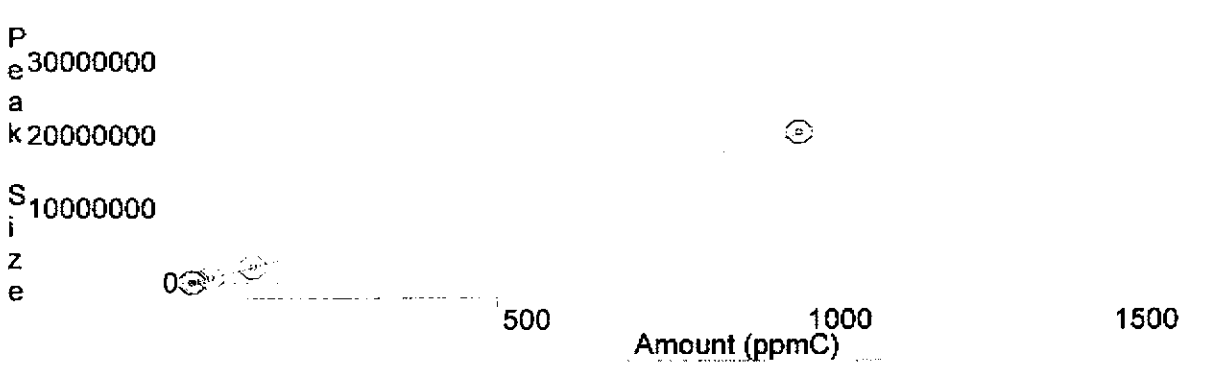


NMNEOC

External Standard Analysis
Curve Type: Linear
Origin: Force
y = +2.021525e+004x
Replicates 93 3

Resp. Fact. RSD: 6.084%
Coeff. Det.(r^2): 0.999808

3 3



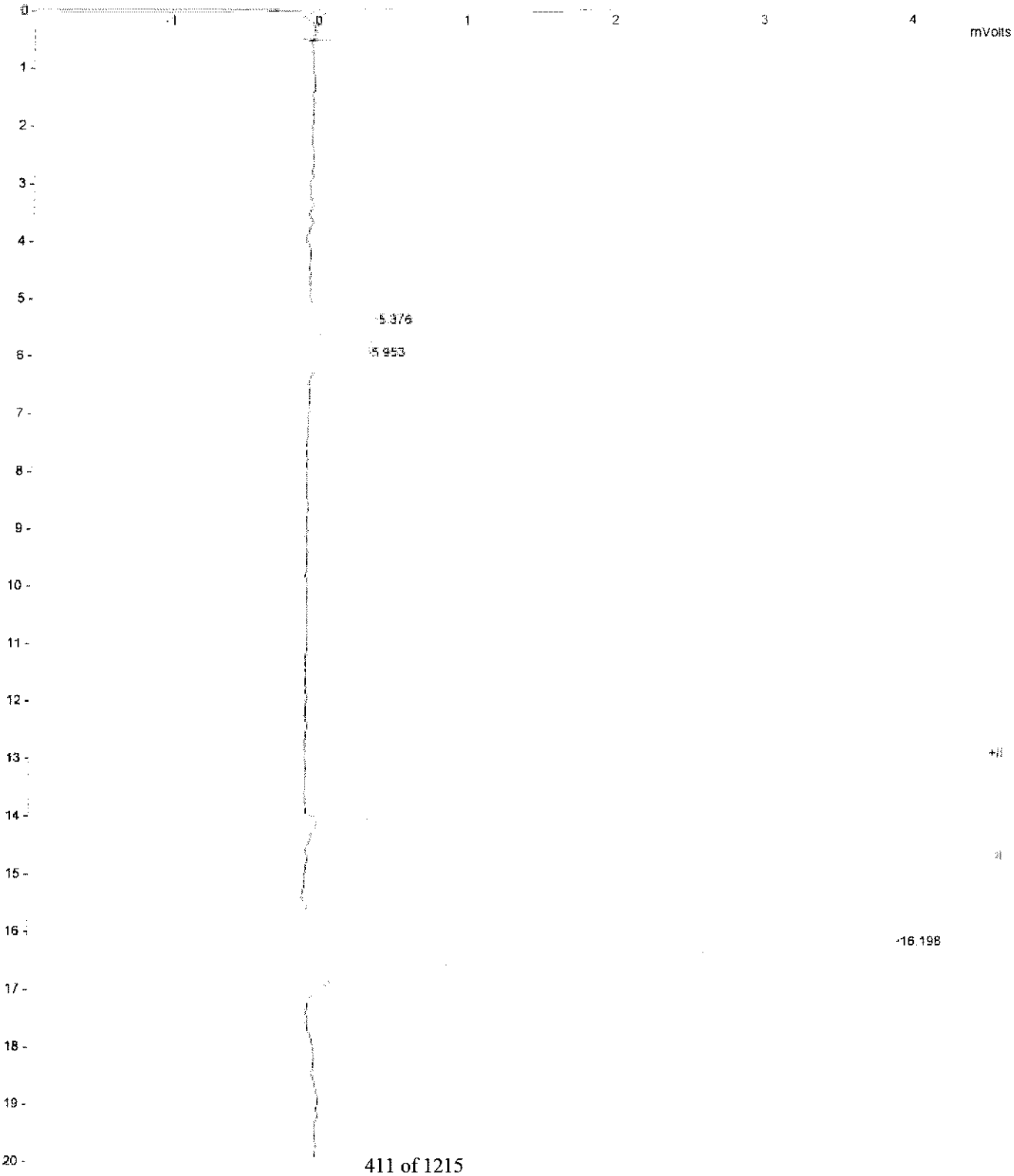
Title
Run File : c:\brukerws\data\2020\jan_20\2020-01-20 16-30-29 5ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 5ppm mix

Injection Date: 2020-01-20 16:30 Calculation Date: 2020-01-27 11:26

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	-0.003	49396	VV	2.1	
2	Carbon Dioxi	3.731	0.004	179236	BB	16.2	
3	Ethane	7.391	-0.009	176965	BB	25.2	
	Totals:		-0.008	405597			

Total Unidentified Counts : 268977 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\bruker#s\data\2020\Jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqagmd 25.3 3 mL loop 31-28-17.rue
Method File : C:\Bruker#S\methods\Master SQAQMD 25.3 3 ul loop 31-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass M. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00

Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml. loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:43 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 32057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.362	-0.014	31671	VV	17.1	
2	Carbon Monox	5.917	-0.035	34579	VB	21.1	
3	NMNEOC	16.161	-0.033	643682	PB	28.8	
	Totals:		-0.082	709932			

Total Unidentified Counts : 18518 counts

Detected Peaks: 22 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 17 microVolts

Manual injection

****

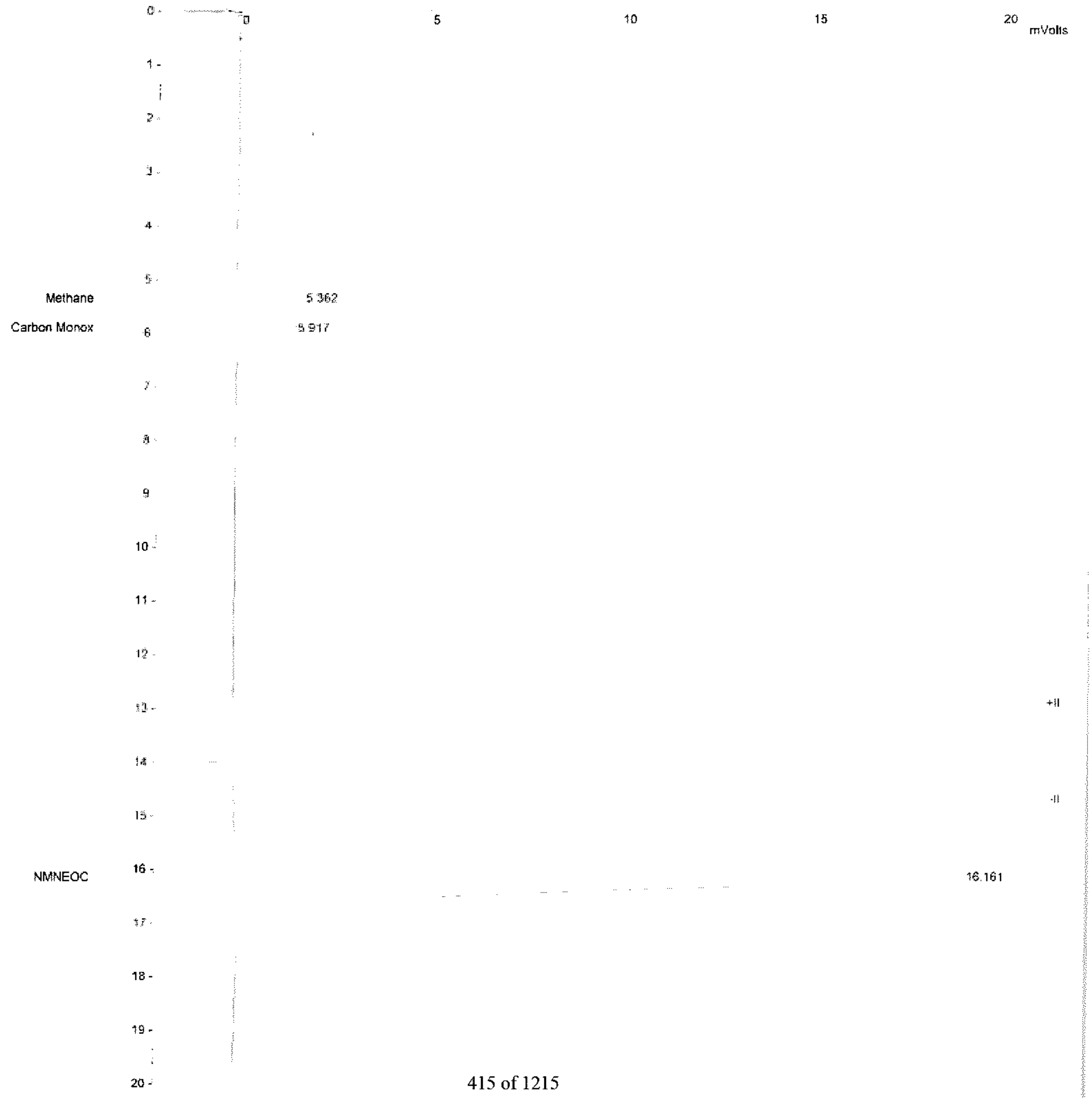
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 10-43-59 20ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 10:45 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus MMCC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABI-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	-0.000	49446	VV	2.1	
2	Carbon Dioxi	3.731	0.000	179056	BB	16.3	
3	Ethane	7.393	0.003	177554	BB	25.2	
	Totals:		0.003	406056			

Total Unidentified Counts : 270628 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 18 microVolts - monitored before this run

Manual injection

****

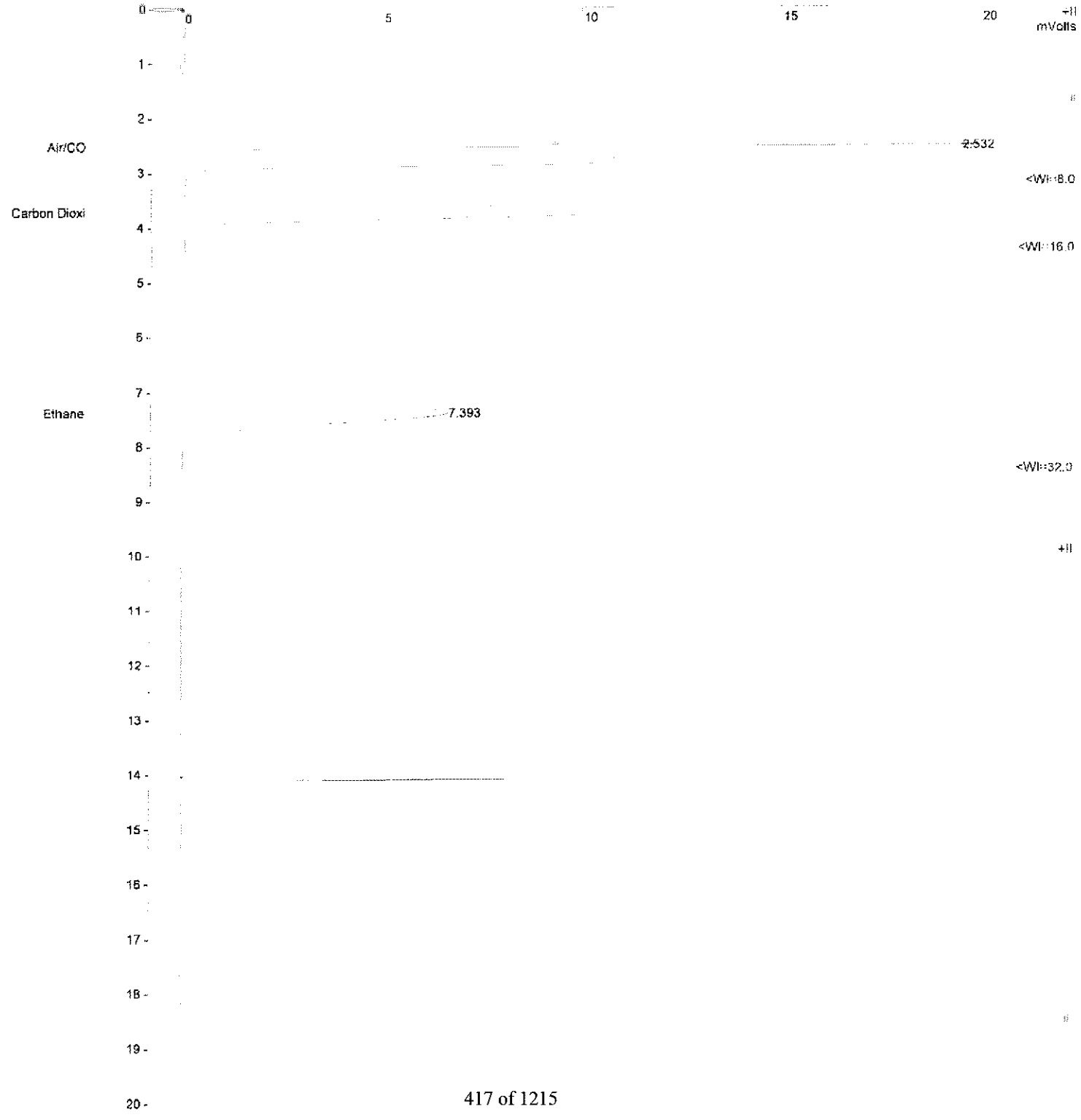
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 0%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 m. loop 1-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 3

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.360	-0.002	32448	VV	17.1	
2	Carbon Monox	5.918	0.001	35524	VB	21.0	
3	NMNEOC	16.152	-0.008	640410	PB	28.7	
	Totals:		-0.009	708382			

Total Unidentified Counts : 17733 counts

Detected Peaks: 23 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 18 microVolts

Manual injection

****

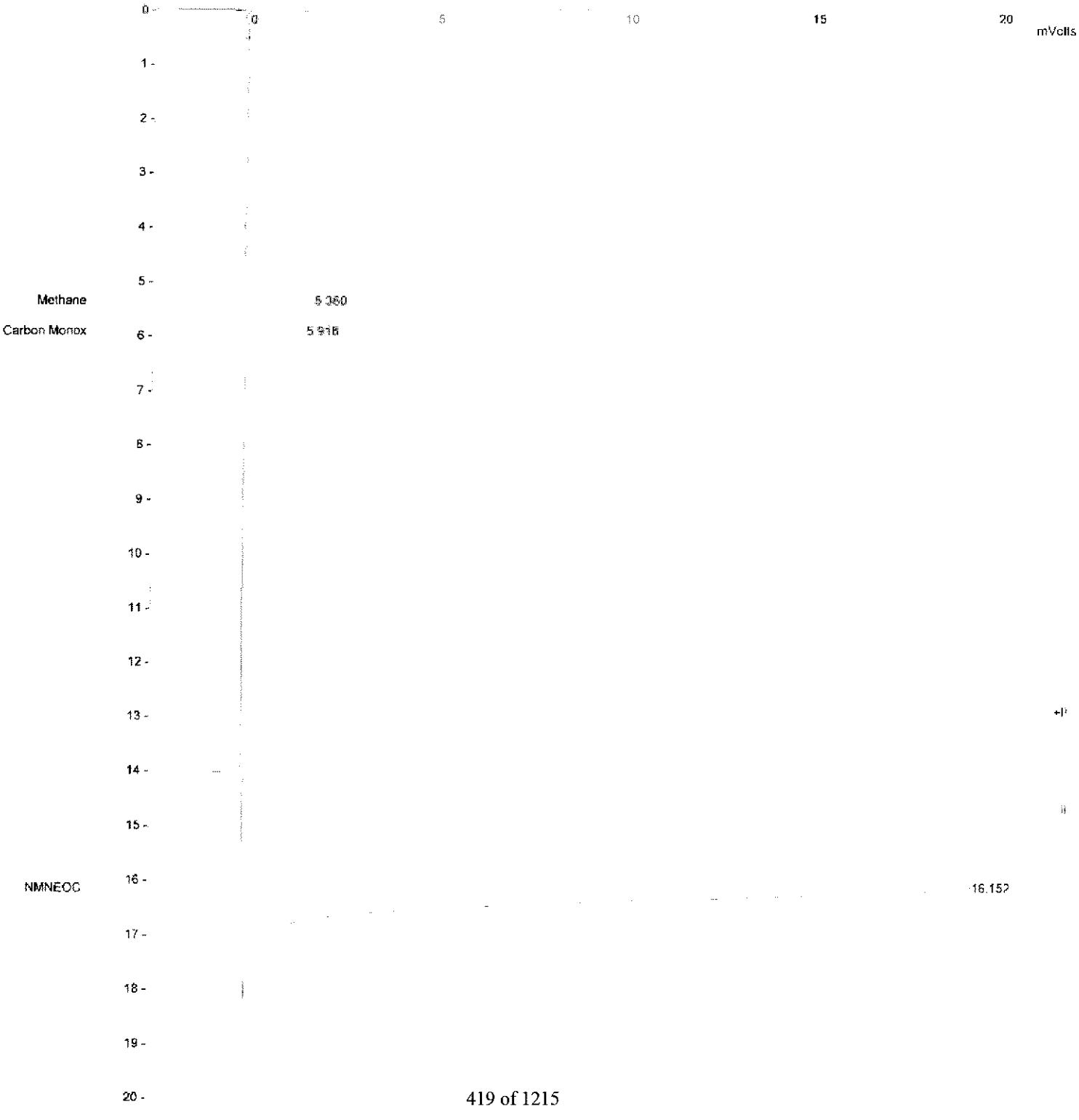
Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-22 11-10-19 20ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 20ppm mix

Injection Date: 2020-01-22 11:10 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : C:\brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix inj - - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.001	246093	VV	2.0	
2	Carbon Dioxi	3.732	-0.001	907081	BB	16.0	
3	Ethane	7.391	0.001	882252	BB	25.1	
	Totals:		-0.001	2035426			

Total Unidentified Counts : 1450073 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 17 microVolts - monitored before this run

Manual injection

****

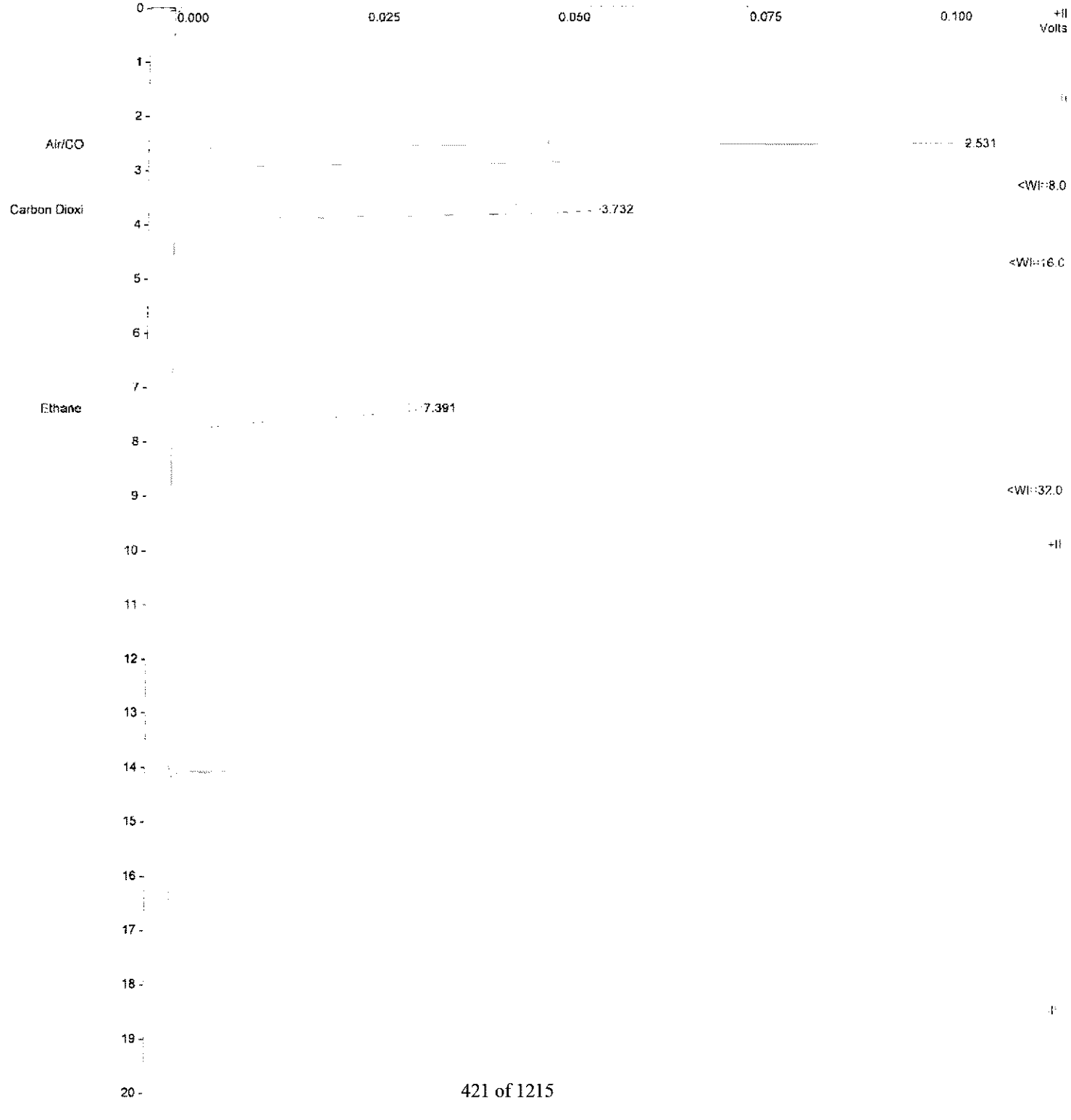
Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-ABi-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\Brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.366	-0.001	164466	VV	16.7	
2	Carbon Monox	5.911	-0.001	167614	VB	20.5	
3	NMNEOC	16.989	0.756	2085799	BB	14.7	
	Totals:		0.754	2417879			

Total Unidentified Counts : 15732 counts

Detected Peaks: 20 Rejected Peaks: 5 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 25 microVolts

Manual injection

****

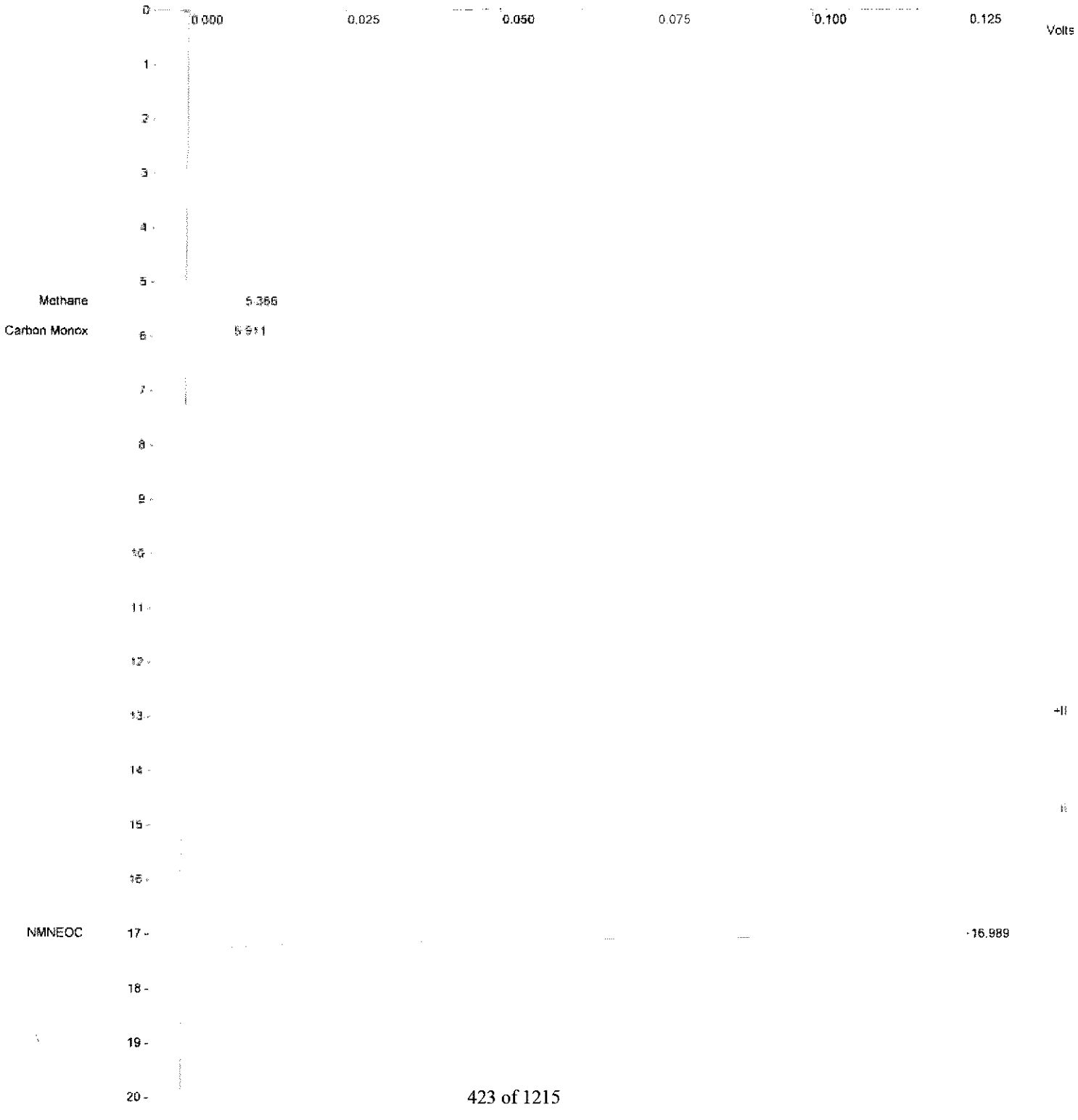
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 15-34-55 100ppm mix inj 7 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 15:34 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



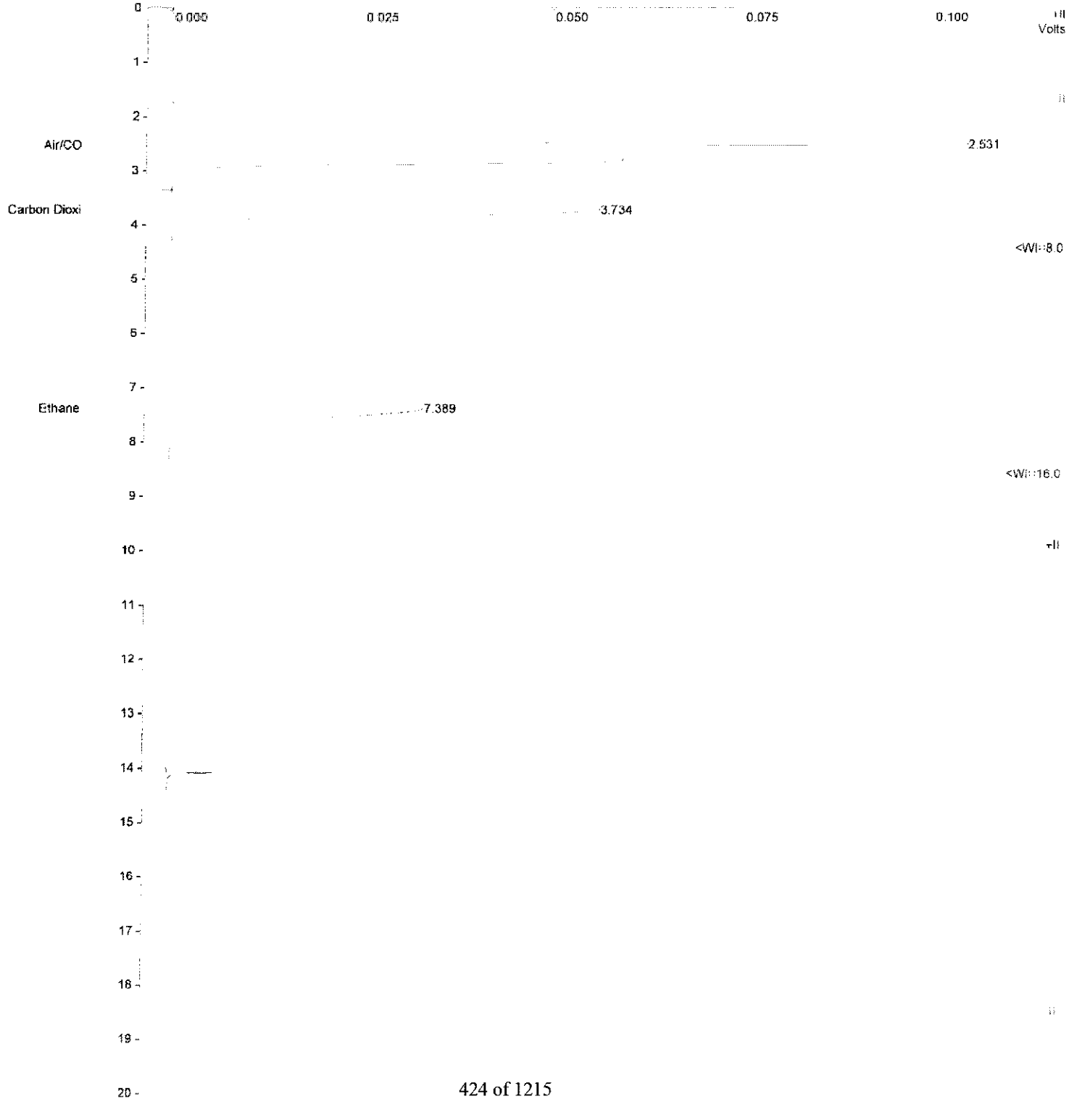
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6V55B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02357-3701-A31-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 1%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan 20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.000	247749	VV	2.0	
2	Carbon Dioxi	3.734	0.002	912067	VB	16.0	
3	Ethane	7.389	-0.001	885177	BB	25.0	
	Totals:		0.001	2044993			

Total Unidentified Counts : 1460463 counts

Detected Peaks: 9 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 9 microVolts - monitored before this run

Manual injection

****

Title :
Run File : C:\brukerws\data\2020\jan 20\2020-01-22 16-01-31 100ppm mix inj 8 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 4

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.369	0.003	166804	VV	16.7	
2	Carbon Monox	5.913	0.003	170386	VB	20.5	
3	NMNEOC	16.988	-0.001	2095518	BB	14.7	
	Totals:		0.005	2432708			

Total Unidentified Counts : 16538 counts

Detected Peaks: 20 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 7 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

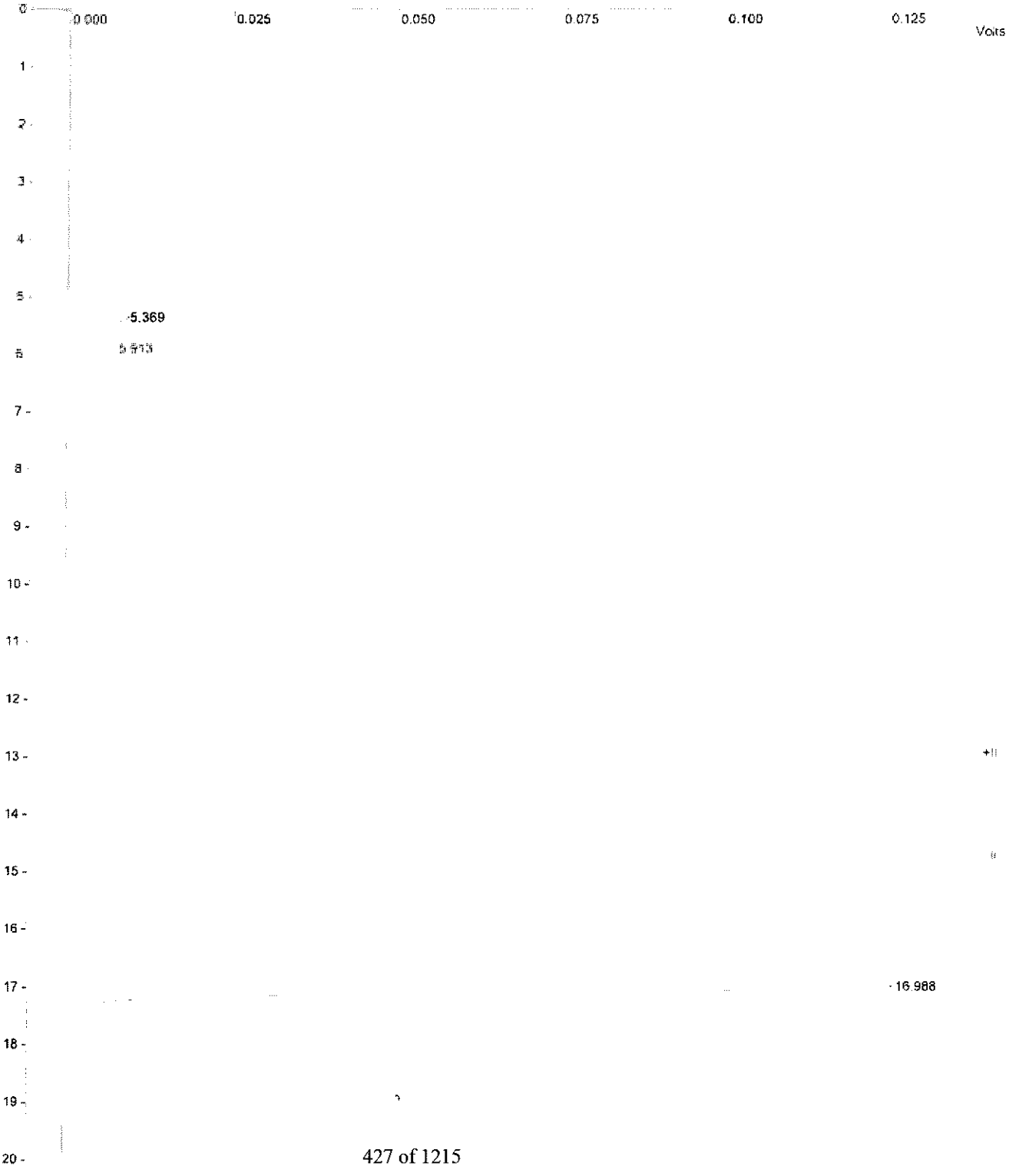
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-22 16-01-31 100ppm mix inj 2 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 100ppm mix

Injection Date: 2020-01-22 16:01 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 1 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 9-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	0.002	2509161	VV	2.0	
2	Carbon Dioxi	3.732	-0.001	9479276	VB	16.2	
3	Ethane	7.387	-0.001	9020471	BB	25.1	
	Totals:		0.000	21008908			

Total Unidentified Counts : 15048266 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 8 microVolts - monitored before this run

Manual injection

****

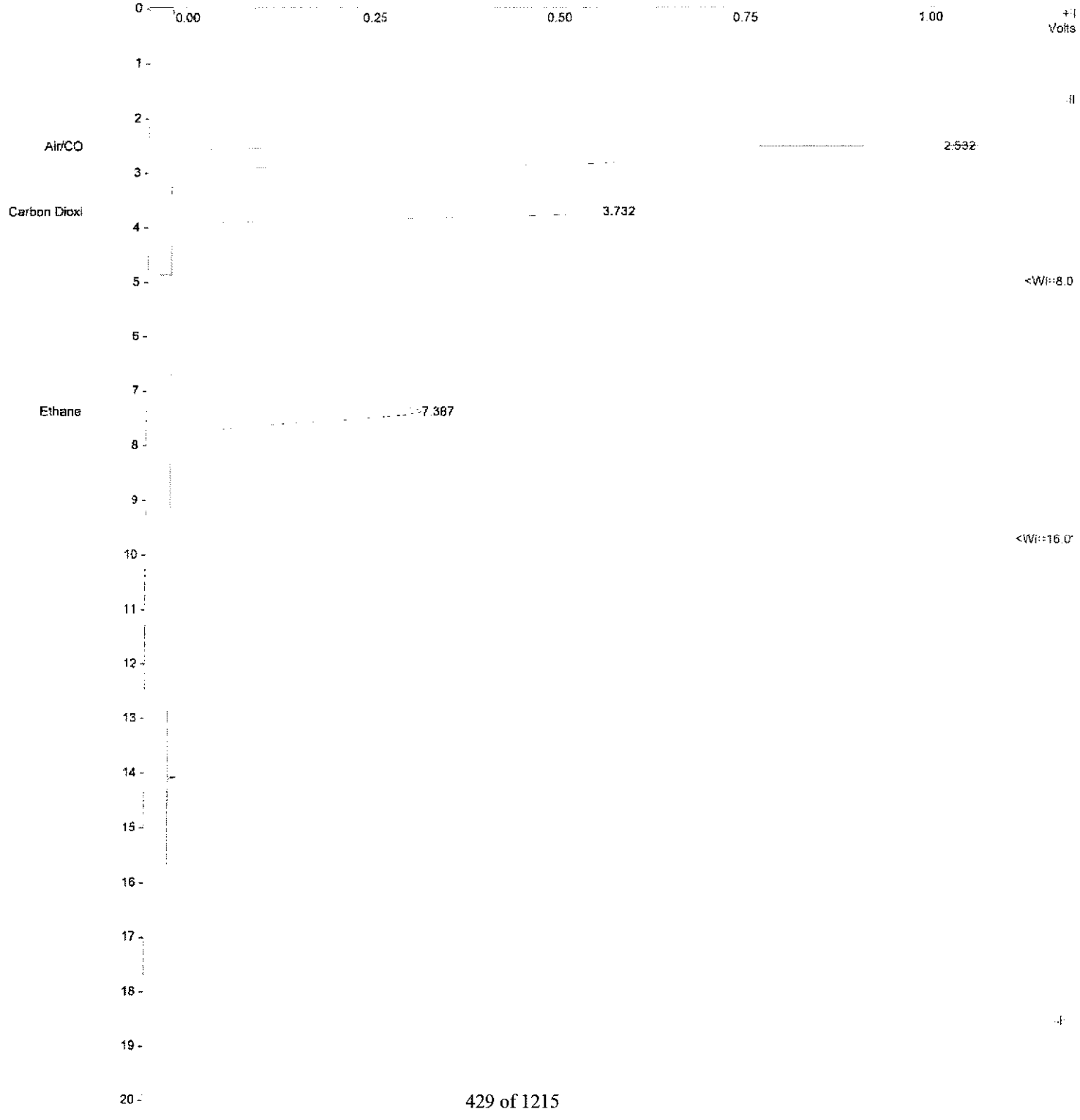
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqaqmd 25.3 3 ml .oop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.364	-0.004	1630589	VV	16.7	
2	Carbon Monox	5.889	-0.024	1700909	VB	20.1	
3	NMNEOC	16.978	-0.010	20342462	PB	14.7	
	Totals:		-0.038	23673960			

Total Unidentified Counts : 20950 counts

Detected Peaks: 17 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 24 microVolts

Manual injection

****

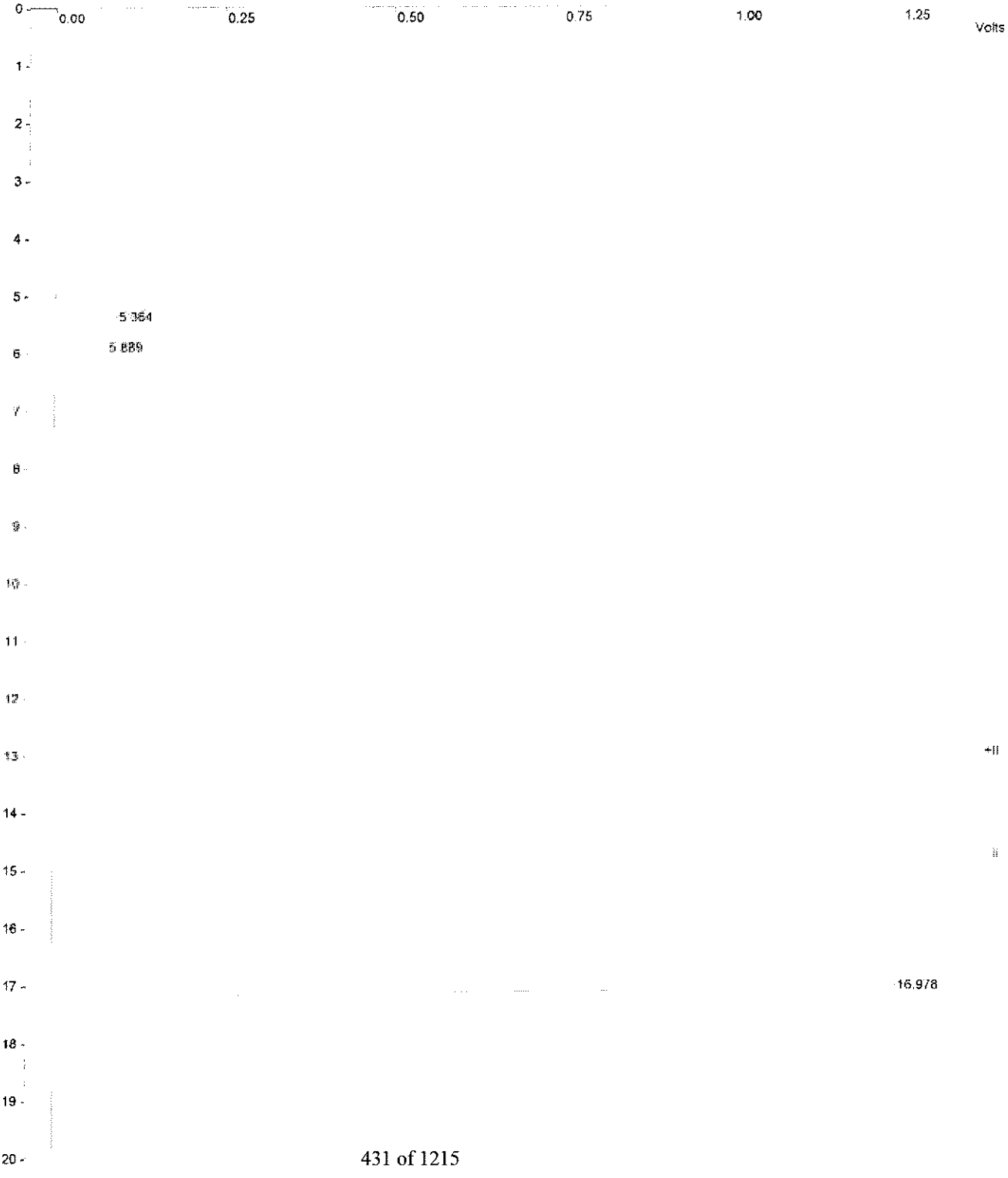
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-13-45 1000ppm mix inj 3 - master sqacmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:13 Calculation Date: 2020-01-27 11:27

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix 1ml @ - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	-0.001	2510045	VV	2.0	
2	Carbon Dioxi	3.732	0.001	9518837	VB	16.2	
3	Ethane	7.385	-0.002	9051689	BB	25.1	
	Totals:		-0.002	21080571			

Total Unidentified Counts : 15105051 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - monitored before this run

Manual injection

****

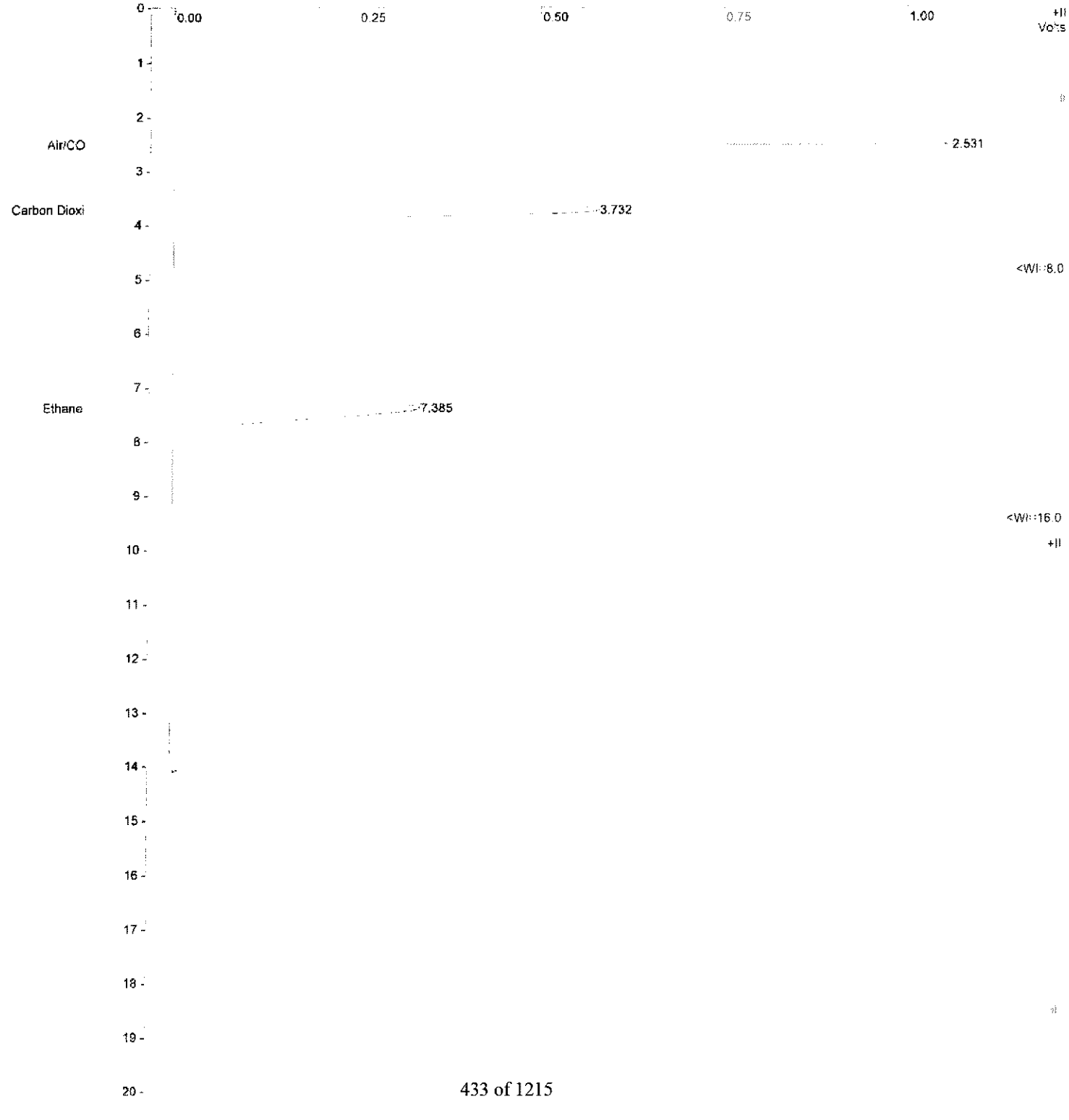
File :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:29

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 5

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.366	0.003	1635501	VV	16.7	
2	Carbon Monox	5.890	0.002	1708991	VB	20.1	
3	NMNEOC	16.979	0.002	20396076	PB	14.8	
	Totals:		0.007	23740568			

Total Unidentified Counts : 21501 counts

Detected Peaks: 17 Rejected Peaks: 0 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 11 microVolts

Manual injection

****

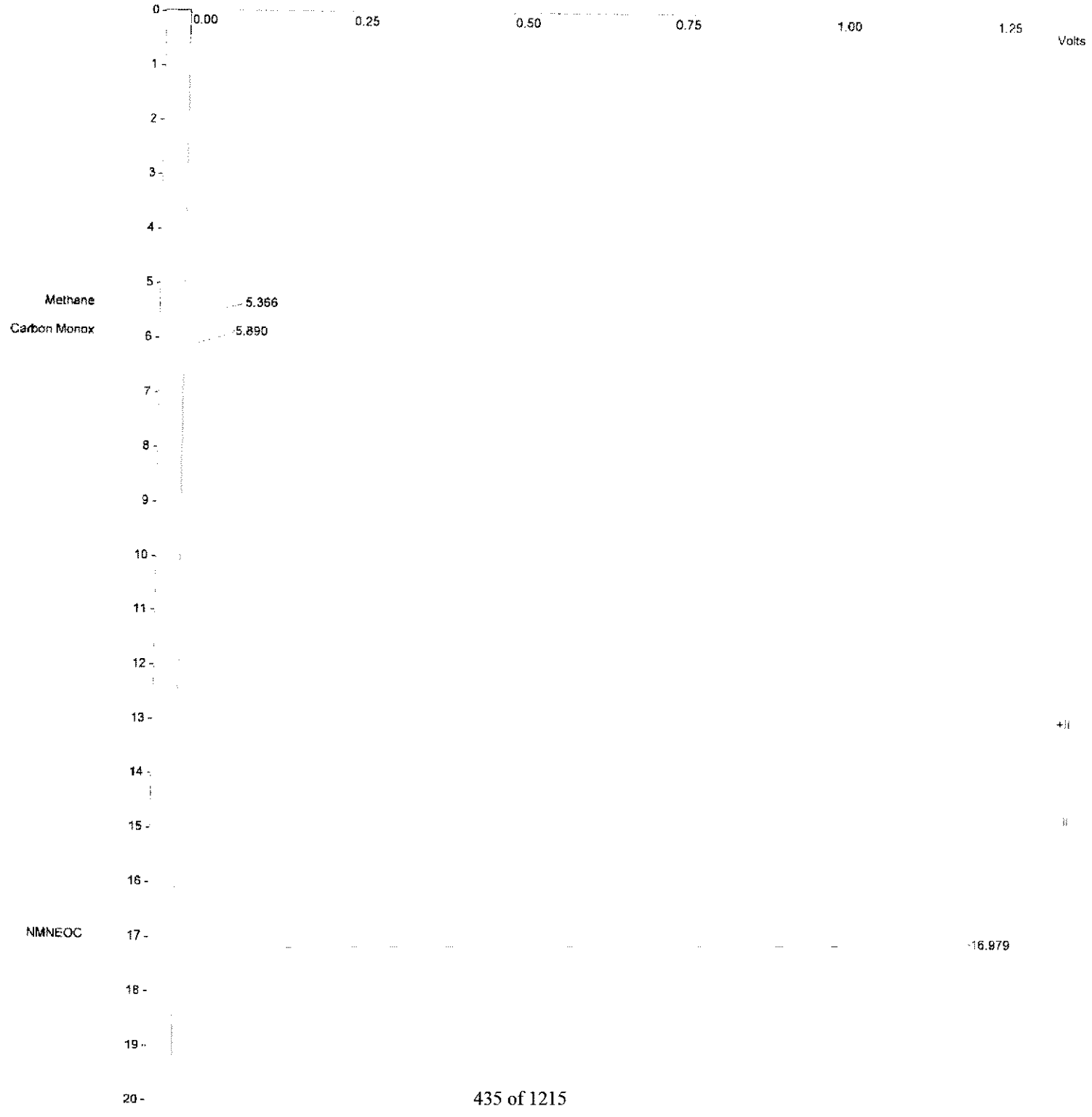
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 11-40-06 1000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 1000ppm mix

Injection Date: 2020-01-23 11:40 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 3%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix [illegible] master sqaqmd 25.3 3 ml loop 11-28-27.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.531	0.001	4949177	VV	2.1	
2	Carbon Dioxi	3.727	0.001	18353302	VB	16.1	
3	Ethane	7.372	-0.000	18388114	BB	25.2	
	Totals:		0.002	41690593			

Total Unidentified Counts : 30244796 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 16 microVolts - monitored before this run

Manual injection

****

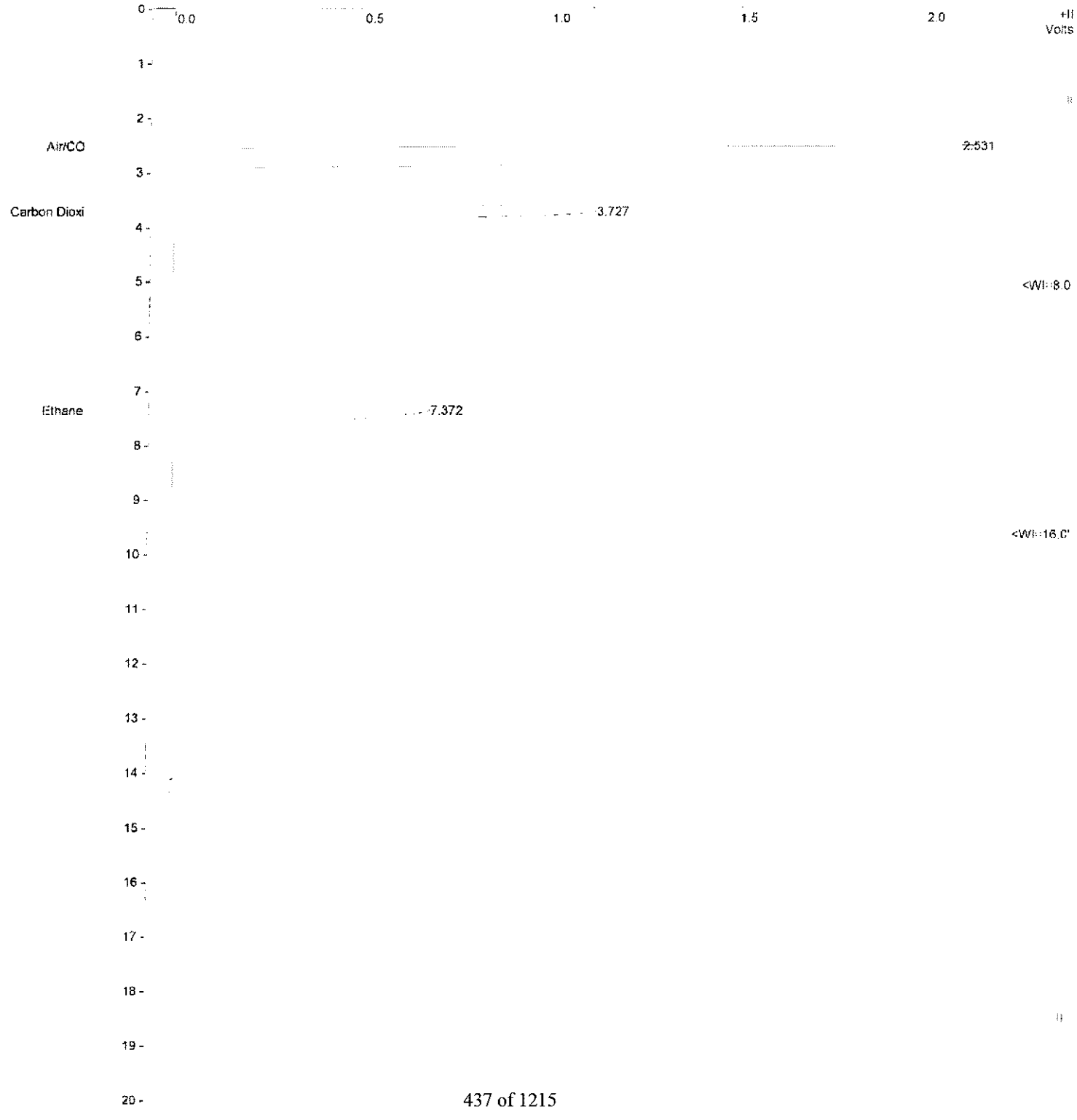
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 10 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix in 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mtn
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	0.001	3262561	VV	16.7	
2	Carbon Monox	5.887	0.002	3363251	VB	20.0	
3	NMNEOC	16.651	0.005	40302996	BB	30.2	
	Totals:		0.008	46928808			

Total Unidentified Counts : 12040 counts

Detected Peaks: 16 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 9 microVolts

Manual injection

****

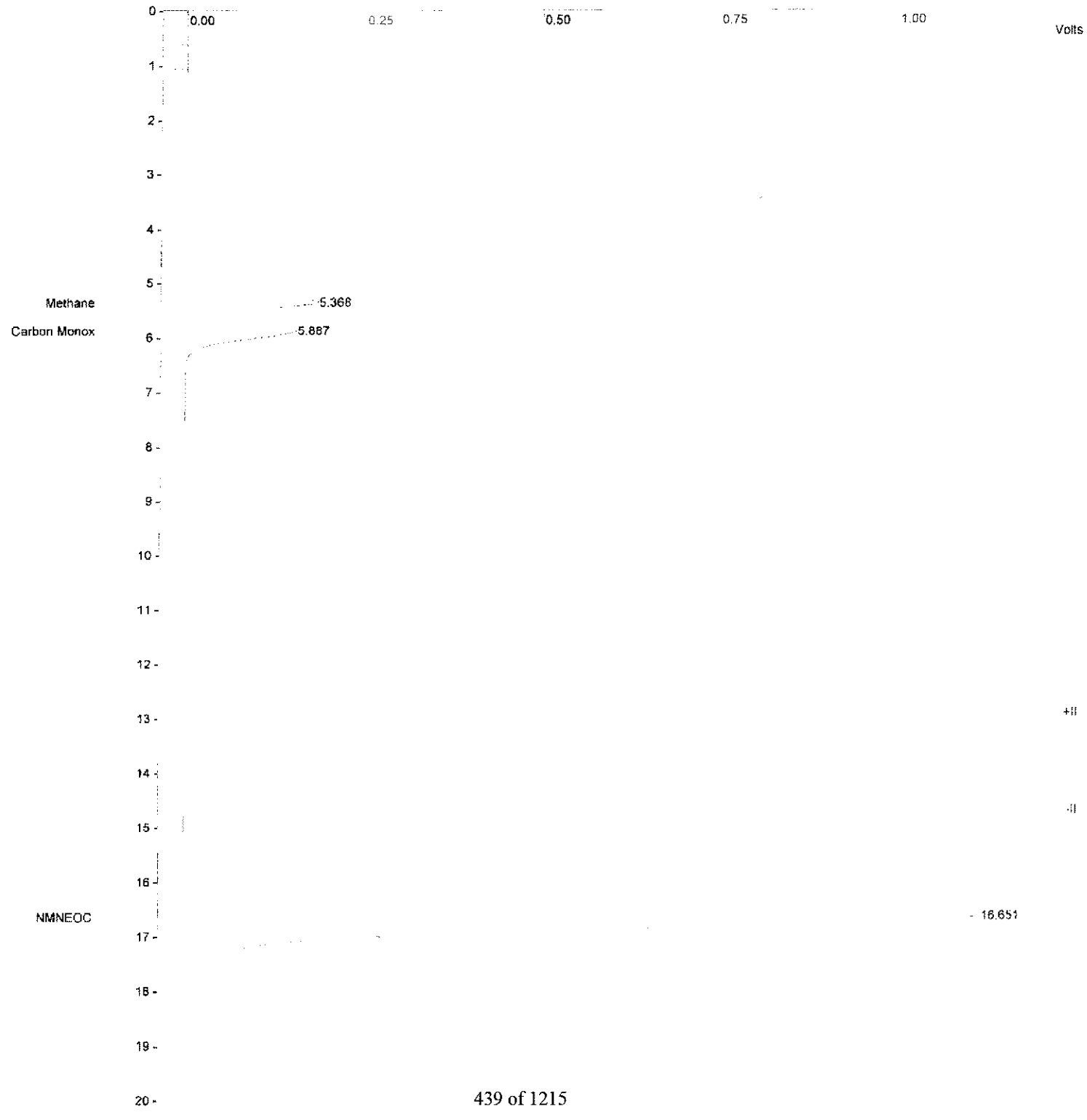
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 14-45-51 2000ppm mix inj 4 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 14:45 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix in 5 - master sqaqmd 25.3 * ml loop 01-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Air/CO	2.532	0.001	4971747	VV	2.1	
2	Carbon Dioxi	3.728	0.001	18336448	VB	16.1	
3	Ethane	7.374	0.002	18389176	BB	25.3	
	Totals:		0.004	41697371			

Total Unidentified Counts : 30215216 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 10 microVolts - monitored before this run

Manual injection

****

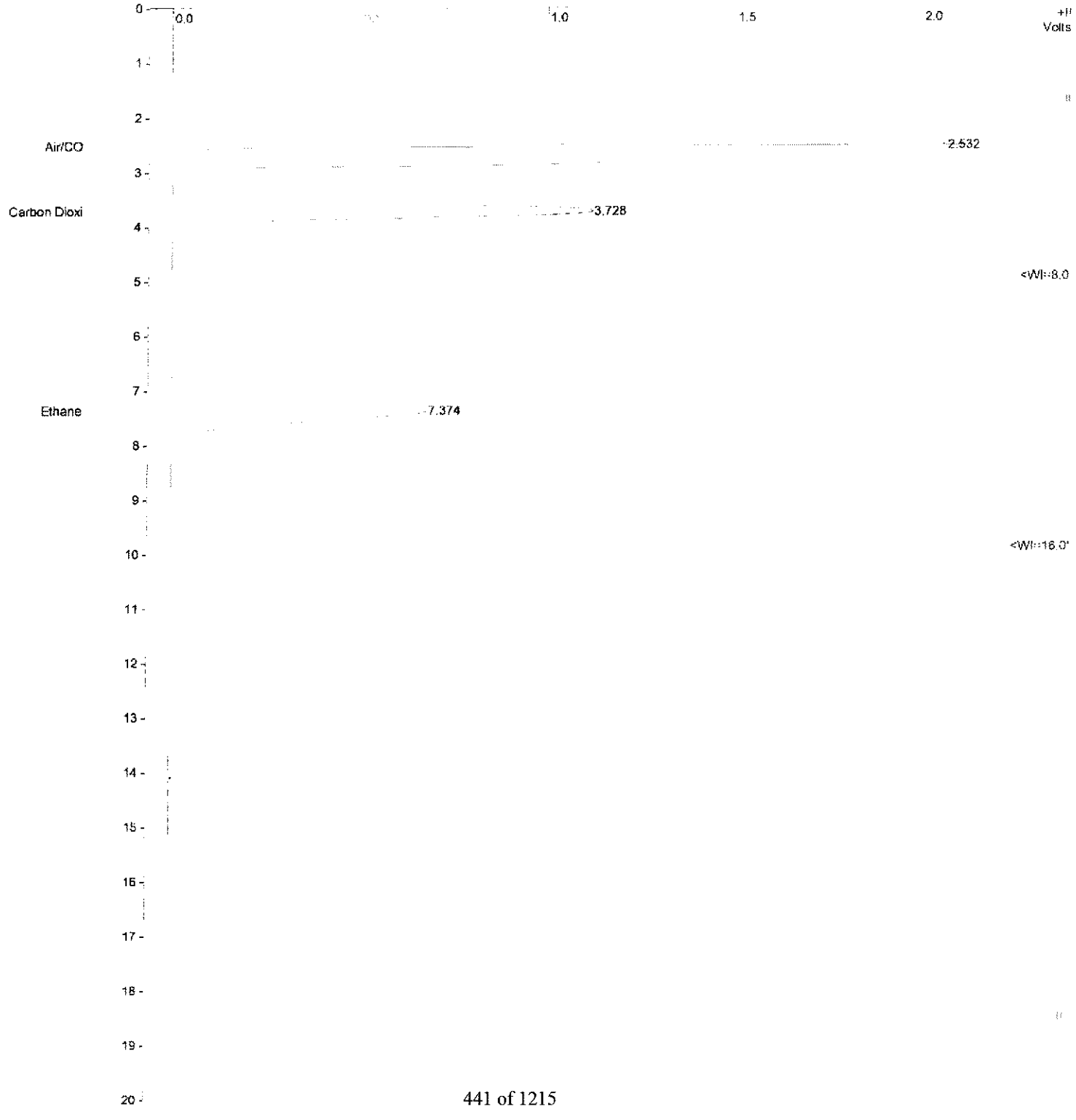
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 10 Zero Offset = 2%
Start Time = 0.000 min End Time = 20.000 min Min / Tick = 1.00



Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix 1ml 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Run Mode : Calibration - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard
Level : 6

Peak No.	Peak Name	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	5.368	-0.000	3261082	BV	16.6	
2	Carbon Monox	5.887	0.001	3359567	VB	20.0	
3	NMNEOC	16.659	0.009	39855688	BB	30.4	
	Totals:		0.010	46476337			

Total Unidentified Counts : 11411 counts

Detected Peaks: 15 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: N/A Divisor: N/A Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - fixed value
Noise (monitored before this run): 23 microVolts

Manual injection

****

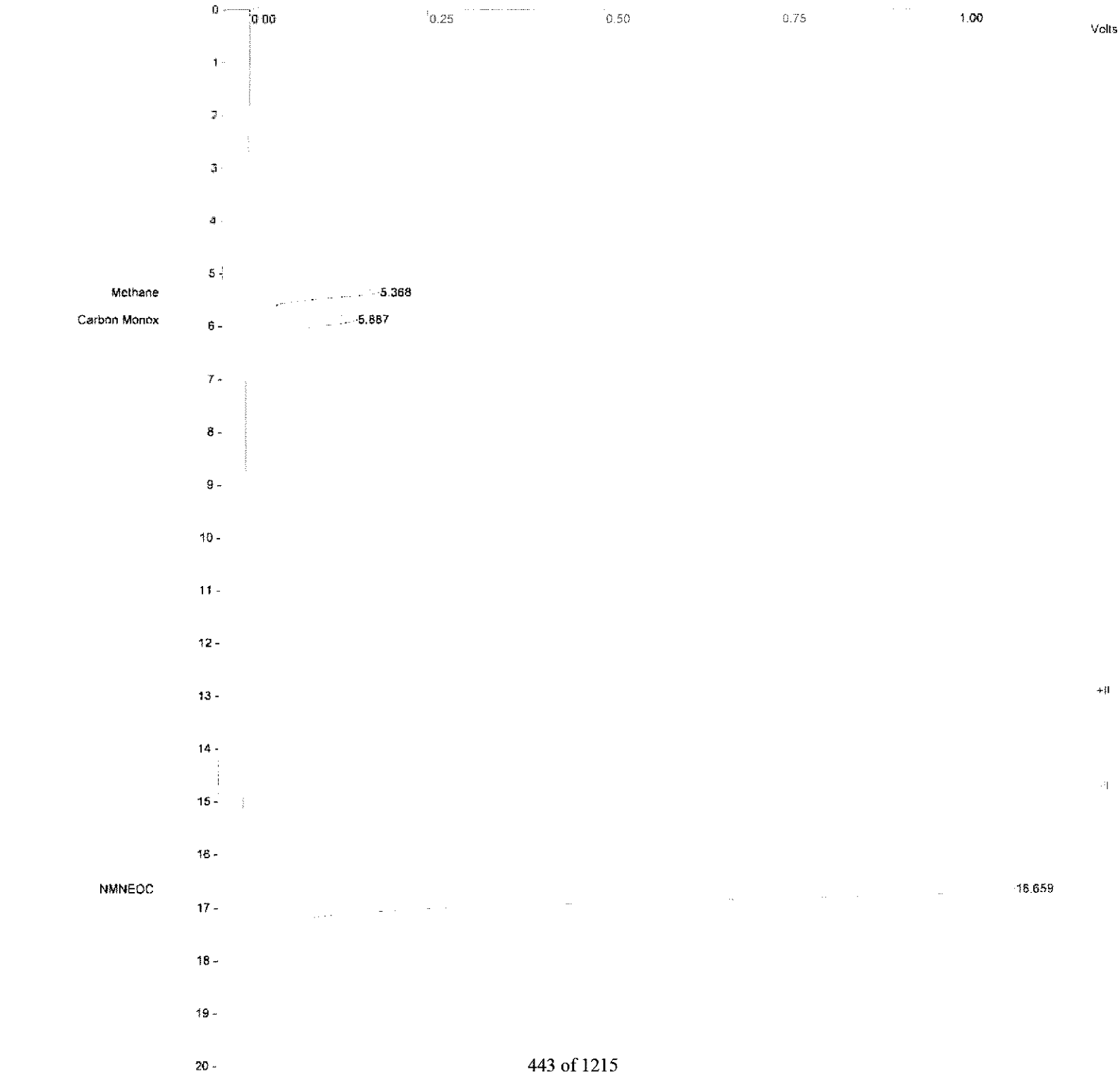
Title :
Run File : c:\brukerws\data\2020\jan_20\2020-01-23 15-12-28 2000ppm mix inj 5 - master sqaqmd 25.3 3 ml loop 11-28-17.run
Method File : C:\BrukerWS\methods\Master SQAQMD 25.3 3 ml Loop 01-24-20.mth
Sample ID : 2000ppm mix

Injection Date: 2020-01-23 15:12 Calculation Date: 2020-01-27 11:28

Operator : Douglass W. Detector Type: 4XX-GC (1000 Volts)
Workstation: DESKTOP-6VL5B Bus Address : 44
Instrument : Lotus NMOC Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 20.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 02057-3701-AB1-415C **

Chart Speed = 0.99 cm/min Attenuation = 5 Zero Offset = 2%
Start Time = 5.000 min End Time = 20.000 min Min / Inch = 1.00



April 12, 2021

Vista Work Order No. 2103102

Mr. Charles Figueroa
Alliance Source Testing
10602 Walker Street
Cypress, CA 90630

Dear Mr. Figueroa,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on March 23, 2021 under your Project Name '21-0883'.

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.

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

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 2103102
Case Narrative

Sample Condition on Receipt:

Nine air train samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. Sample ID discrepancies were noted for samples "21-0883 Inlet FB" and "21-0883 Outlet FB" between the petri dish labels, bubble wrap and the Chain-of-Custody (CoC). The sample IDs have been reported as listed on the CoC.

Analytical Notes:

CARB Method 429

These samples were extracted and analyzed for PAHs by CARB Method 429 using a ZB-50 GC column. Additional internal standard solution was added to the extracts of samples "21-0883 Inlet 1", "21-0883 Inlet 2" and "21-0883 Inlet 3" to quantify Naphthalene and 2-Methylnapthalene. These results were reported from1:500 dilutions and the results above the calibration range and have been flagged with an "E" qualifier. Further dilution of the samples would have resulted in insufficient response of the labeled standards for accurate quantitation.

Holding Times

The method holding time criteria were met for the samples.

Quality Control

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

A Method Blank and Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The LCS/LCSD recoveries and relative percent differences (RPD) were within the method acceptance criteria.

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

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2103102-05	21-0883 Outlet 2	CARB Method 429	d12-Indeno(1,2,3-c,d)pyrene	H	47.4
B1D0016-BLK1	B1D0016-BLK1	CARB Method 429	d8-Naphthalene	H	34.0

H = Recovery was outside laboratory acceptance criteria.

TABLE OF CONTENTS

Case Narrative	1
Table of Contents	3
Sample Inventory	4
Analytical Results	5
Qualifiers	17
Certifications	18
Sample Receipt	21
Extraction Information	27
Sample Data - CARB Method 429	32
Air QC Raw Data	477
Continuing Calibration	505
Initial Calibration	576

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2103102-01	21-0883 Inlet 1	17-Mar-21 15:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-02	21-0883 Inlet 2	18-Mar-21 13:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-03	21-0883 Inlet 3	19-Mar-21 13:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-04	21-0883 Outlet 1	17-Mar-21 15:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-05	21-0883 Outlet 2	18-Mar-21 13:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-06	21-0883 Outlet 3	19-Mar-21 13:00	23-Mar-21 12:54	FH/BH Rinse
				Impinger Contents and Rinses
				Filter
				XAD
2103102-07	21-0883 Inlet FB	16-Mar-21 12:00	23-Mar-21 12:54	FH Rinse
				BH Rinse
				IMP Contents
				IMP Rinse
				Filter
				XAD
2103102-08	21-0883 Outlet FB	16-Mar-21 12:00	23-Mar-21 12:54	FH Rinse
				BH Rinse
				IMP Contents
				IMP Rinse
				Filter
				XAD
2103102-09	21-0883 Reagent Blanks	16-Mar-21 12:00	23-Mar-21 12:54	Impinger Solution

Vista Project: 2103102

Client Project: 21-0883

ANALYTICAL RESULTS

Sample ID: Method Blank — CARB Method 429

Client Data
Name: Alliance Source Testing
Project: 21-0883
Matrix: Air

Laboratory Data
Lab Sample: B1D0016-BLK1
QC Batch: B1D0016
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	ND	25.0		06-Apr-21 19:50	1
2-Methylnaphthalene	ND	10.0		06-Apr-21 19:50	1
Acenaphthylene	ND	10.0		06-Apr-21 19:50	1
Acenaphthene	ND	10.0		06-Apr-21 19:50	1
Fluorene	ND	10.0		06-Apr-21 19:50	1
Phenanthrene	ND	25.0		06-Apr-21 19:50	1
Anthracene	ND	10.0		06-Apr-21 19:50	1
Fluoranthene	ND	10.0		06-Apr-21 19:50	1
Pyrene	ND	10.0		06-Apr-21 19:50	1
Benz(a)anthracene	ND	10.0		06-Apr-21 19:50	1
Chrysene	ND	10.0		06-Apr-21 19:50	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 19:50	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 19:50	1
Benzo(e)pyrene	ND	10.0		06-Apr-21 19:50	1
Benzo(a)pyrene	ND	10.0		06-Apr-21 19:50	1
Perylene	ND	10.0		06-Apr-21 19:50	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		06-Apr-21 19:50	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 19:50	1
Benzo(g,h,i)perylene	ND	10.0		06-Apr-21 19:50	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	34.0	50 - 150	H	06-Apr-21 19:50	1
d8-Acenaphthylene	IS	55.0	50 - 150		06-Apr-21 19:50	1
d10-Acenaphthene	IS	60.8	50 - 150		06-Apr-21 19:50	1
d10-Fluorene	IS	75.9	50 - 150		06-Apr-21 19:50	1
d10-Phenanthrene	IS	95.5	50 - 150		06-Apr-21 19:50	1
d10-Fluoranthene	IS	78.0	50 - 150		06-Apr-21 19:50	1
d12-Benz(a)anthracene	IS	76.8	50 - 150		06-Apr-21 19:50	1
d12-Chrysene	IS	82.1	50 - 150		06-Apr-21 19:50	1
d12-Benzo(b)fluoranthene	IS	77.4	50 - 150		06-Apr-21 19:50	1
d12-Benzo(k)fluoranthene	IS	79.5	50 - 150		06-Apr-21 19:50	1
d12-Benzo(a)pyrene	IS	73.0	50 - 150		06-Apr-21 19:50	1
d12-Indeno(1,2,3-c,d)pyrene	IS	83.9	50 - 150		06-Apr-21 19:50	1
d14-Dibenz(a,h)anthracene	IS	91.8	50 - 150		06-Apr-21 19:50	1
d12-Benzo(g,h,i)perylene	IS	87.0	50 - 150		06-Apr-21 19:50	1
d14-Terphenyl	PS	112	50 - 150		06-Apr-21 19:50	1
d12-Benzo(e)pyrene	PS	104	50 - 150		06-Apr-21 19:50	1
d10-Anthracene	AS	67.9	50 - 150		06-Apr-21 19:50	1

RL - Reporting limit

Results reported to RL.

Sample ID: LCSD **CARB Method 429**

Name:	Alliance Source Testing				
Project:	21-0883	Lab Sample:	B1D0016-BSD1		
Matrix:	Air	QC Batch:	B1D0016	Date Extracted:	05-Apr-21
Date Analyzed:	06-Apr-21 18:16 06-Apr-21 17:29	Samp Size:	N/A	Column:	ZB-50

Analyte	LCS (ng/Sample)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/Sample)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits
Naphthalene	535	500	107		565	500	113	5.39		50-150	200
2-Methylnaphthalene	195	200	97.6		186	200	93.1	4.69		50-150	200
Acenaphthylene	199	200	99.4		205	200	102	2.89		50-150	200
Acenaphthene	192	200	96.0		206	200	103	6.98		50-150	200
Fluorene	195	200	97.5		203	200	101	3.84		50-150	200
Phenanthrene	539	500	108		555	500	111	2.76		50-150	200
Anthracene	201	200	100		197	200	98.6	1.89		50-150	200
Fluoranthene	209	200	105		224	200	112	6.72		50-150	200
Pyrene	205	200	103		218	200	109	5.73		50-150	200
Benz(a)anthracene	219	200	110		224	200	112	2.42		50-150	200
Chrysene	214	200	107		221	200	111	3.23		50-150	200
Benzo(b)fluoranthene	222	200	111		226	200	113	1.67		50-150	200
Benzo(k)fluoranthene	206	200	103		217	200	109	5.49		50-150	200
Benzo(e)pyrene	193	200	96.3		215	200	107	10.8		50-150	200
Benzo(a)pyrene	223	200	111		229	200	114	2.76		50-150	200
Perylene	215	200	107		228	200	114	6.12		50-150	200
Indeno(1,2,3-c,d)pyrene	224	200	112		221	200	110	1.38		50-150	200
Dibenz(a,h)anthracene	222	200	111		219	200	110	1.21		50-150	200
Benzo(g,h,i)perylene	226	200	113		225	200	113	0.313		50-150	200

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits
d8-Naphthalene	IS	66.1		52.6		50 - 150
d8-Acenaphthylene	IS	75.8		66.6		50 - 150
d10-Acenaphthene	IS	77.8		70.9		50 - 150
d10-Fluorene	IS	86.7		81.9		50 - 150
d10-Phenanthrene	IS	94.7		85.6		50 - 150
d10-Fluoranthene	IS	78.8		80.6		50 - 150
d12-Benz(a)anthracene	IS	80.8		87.6		50 - 150
d12-Chrysene	IS	85.0		93.6		50 - 150
d12-Benzo(b)fluoranthene	IS	71.2		80.6		50 - 150
d12-Benzo(k)fluoranthene	IS	82.0		83.4		50 - 150
d12-Benzo(a)pyrene	IS	73.8		74.2		50 - 150
d12-Indeno(1,2,3-c,d)pyrene	IS	86.6		92.4		50 - 150
d14-Dibenz(a,h)anthracene	IS	86.6		89.3		50 - 150
d12-Benzo(g,h,i)perylene	IS	85.6		90.2		50 - 150
d10-Anthracene	AS	76.7		62.3		50 - 150

Sample ID: 21-0883 Inlet 1

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 17-Mar-21 15:00

Laboratory Data

Lab Sample: 2103102-01
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	3450000	12500	D, E	07-Apr-21 17:48	500
2-Methylnaphthalene	1060000	5000	D, E	07-Apr-21 17:48	500
Acenaphthylene	ND	5000	D	07-Apr-21 17:48	500
Acenaphthene	8640	250	D	07-Apr-21 05:14	25
Fluorene	7490	250	D	07-Apr-21 05:14	25
Phenanthrene	7060	625	D	07-Apr-21 05:14	25
Anthracene	8580	250	D	07-Apr-21 05:14	25
Fluoranthene	351	10.0		07-Apr-21 04:27	1
Pyrene	786	250	D	07-Apr-21 05:14	25
Benz(a)anthracene	11.1	10.0		07-Apr-21 04:27	1
Chrysene	82.7	10.0		07-Apr-21 04:27	1
Benzo(b)fluoranthene	20.7	10.0		07-Apr-21 04:27	1
Benzo(k)fluoranthene	ND	10.0		07-Apr-21 04:27	1
Benzo(e)pyrene	96.4	10.0		07-Apr-21 04:27	1
Benzo(a)pyrene	24.2	10.0		07-Apr-21 04:27	1
Perylene	10.1	10.0		07-Apr-21 04:27	1
Indeno(1,2,3-c,d)pyrene	31.4	10.0		07-Apr-21 04:27	1
Dibenz(a,h)anthracene	ND	10.0		07-Apr-21 04:27	1
Benzo(g,h,i)perylene	251	10.0		07-Apr-21 04:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	85.9	50 - 150	D	07-Apr-21 17:48	500
d8-Acenaphthylene	IS	96.4	50 - 150	D	07-Apr-21 17:48	500
d10-Acenaphthene	IS	77.1	50 - 150	D	07-Apr-21 05:14	25
d10-Fluorene	IS	74.5	50 - 150	D	07-Apr-21 05:14	25
d10-Phenanthrene	IS	62.3	50 - 150	D	07-Apr-21 05:14	25
d10-Fluoranthene	IS	77.8	50 - 150		07-Apr-21 04:27	1
d12-Benz(a)anthracene	IS	99.1	50 - 150		07-Apr-21 04:27	1
d12-Chrysene	IS	93.5	50 - 150		07-Apr-21 04:27	1
d12-Benzo(b)fluoranthene	IS	74.4	50 - 150		07-Apr-21 04:27	1
d12-Benzo(k)fluoranthene	IS	67.0	50 - 150		07-Apr-21 04:27	1
d12-Benzo(a)pyrene	IS	66.5	50 - 150		07-Apr-21 04:27	1
d12-Indeno(1,2,3-c,d)pyrene	IS	61.1	50 - 150		07-Apr-21 04:27	1
d14-Dibenz(a,h)anthracene	IS	70.4	50 - 150		07-Apr-21 04:27	1
d12-Benzo(g,h,i)perylene	IS	59.9	50 - 150		07-Apr-21 04:27	1
d14-Terphenyl	PS	125	50 - 150		07-Apr-21 04:27	1
d12-Benzo(e)pyrene	PS	109	50 - 150		07-Apr-21 04:27	1
d10-Anthracene	AS	67.2	50 - 150	D	07-Apr-21 05:14	25

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Inlet 2

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 18-Mar-21 13:00

Laboratory Data

Lab Sample: 2103102-02
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	4070000	12500	D, E	07-Apr-21 19:20	500
2-Methylnaphthalene	1380000	5000	D, E	07-Apr-21 19:20	500
Acenaphthylene	ND	5000	D	07-Apr-21 19:20	500
Acenaphthene	11700	250	D	07-Apr-21 07:35	25
Fluorene	7830	250	D	07-Apr-21 07:35	25
Phenanthrene	13800	625	D	07-Apr-21 07:35	25
Anthracene	6710	250	D	07-Apr-21 07:35	25
Fluoranthene	243	10.0		07-Apr-21 01:17	1
Pyrene	544	250	D	07-Apr-21 07:35	25
Benz(a)anthracene	11.5	10.0		07-Apr-21 01:17	1
Chrysene	88.0	10.0		07-Apr-21 01:17	1
Benzo(b)fluoranthene	14.6	10.0		07-Apr-21 01:17	1
Benzo(k)fluoranthene	ND	10.0		07-Apr-21 01:17	1
Benzo(e)pyrene	68.3	10.0		07-Apr-21 01:17	1
Benzo(a)pyrene	16.0	10.0		07-Apr-21 01:17	1
Perylene	11.6	10.0		07-Apr-21 01:17	1
Indeno(1,2,3-c,d)pyrene	15.2	10.0		07-Apr-21 01:17	1
Dibenz(a,h)anthracene	ND	10.0		07-Apr-21 01:17	1
Benzo(g,h,i)perylene	120	10.0		07-Apr-21 01:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	103	50 - 150	D	07-Apr-21 19:20	500
d8-Acenaphthylene	IS	117	50 - 150	D	07-Apr-21 19:20	500
d10-Acenaphthene	IS	77.4	50 - 150	D	07-Apr-21 07:35	25
d10-Fluorene	IS	86.5	50 - 150	D	07-Apr-21 07:35	25
d10-Phenanthrene	IS	84.9	50 - 150	D	07-Apr-21 07:35	25
d10-Fluoranthene	IS	83.2	50 - 150		07-Apr-21 01:17	1
d12-Benz(a)anthracene	IS	111	50 - 150		07-Apr-21 01:17	1
d12-Chrysene	IS	106	50 - 150		07-Apr-21 01:17	1
d12-Benzo(b)fluoranthene	IS	77.9	50 - 150		07-Apr-21 01:17	1
d12-Benzo(k)fluoranthene	IS	67.3	50 - 150		07-Apr-21 01:17	1
d12-Benzo(a)pyrene	IS	72.3	50 - 150		07-Apr-21 01:17	1
d12-Indeno(1,2,3-c,d)pyrene	IS	71.3	50 - 150		07-Apr-21 01:17	1
d14-Dibenz(a,h)anthracene	IS	83.2	50 - 150		07-Apr-21 01:17	1
d12-Benzo(g,h,i)perylene	IS	70.5	50 - 150		07-Apr-21 01:17	1
d14-Terphenyl	PS	129	50 - 150		07-Apr-21 01:17	1
d12-Benzo(e)pyrene	PS	118	50 - 150		07-Apr-21 01:17	1
d10-Anthracene	AS	98.5	50 - 150	D	07-Apr-21 07:35	25

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Inlet 3 **CARB Method 429**

Client Data
Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 19-Mar-21 13:00

Laboratory Data
Lab Sample: 2103102-03
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	3730000	12500	D, E	07-Apr-21 20:54	500
2-Methylnaphthalene	1440000	5000	D, E	07-Apr-21 20:54	500
Acenaphthylene	5770	5000	D	07-Apr-21 20:54	500
Acenaphthene	12000	1000	D	07-Apr-21 11:32	100
Fluorene	8700	250	D	07-Apr-21 06:48	25
Phenanthrene	12100	625	D	07-Apr-21 06:48	25
Anthracene	7880	250	D	07-Apr-21 06:48	25
Fluoranthene	612	250	D	07-Apr-21 06:48	25
Pyrene	1330	250	D	07-Apr-21 06:48	25
Benz(a)anthracene	15.1	10.0		07-Apr-21 06:01	1
Chrysene	105	10.0		07-Apr-21 06:01	1
Benzo(b)fluoranthene	63.6	10.0		07-Apr-21 06:01	1
Benzo(k)fluoranthene	15.6	10.0		07-Apr-21 06:01	1
Benzo(e)pyrene	461	10.0		07-Apr-21 06:01	1
Benzo(a)pyrene	50.4	10.0		07-Apr-21 06:01	1
Perylene	10.8	10.0		07-Apr-21 06:01	1
Indeno(1,2,3-c,d)pyrene	92.4	10.0		07-Apr-21 06:01	1
Dibenz(a,h)anthracene	ND	10.0		07-Apr-21 06:01	1
Benzo(g,h,i)perylene	630	250	D	07-Apr-21 06:48	25

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	90.8	50 - 150	D	07-Apr-21 20:54	500
d8-Acenaphthylene	IS	114	50 - 150	D	07-Apr-21 20:54	500
d10-Acenaphthene	IS	103	50 - 150	D	07-Apr-21 11:32	100
d10-Fluorene	IS	84.2	50 - 150	D	07-Apr-21 06:48	25
d10-Phenanthrene	IS	85.9	50 - 150	D	07-Apr-21 06:48	25
d10-Fluoranthene	IS	80.8	50 - 150	D	07-Apr-21 06:48	25
d12-Benz(a)anthracene	IS	108	50 - 150		07-Apr-21 06:01	1
d12-Chrysene	IS	104	50 - 150		07-Apr-21 06:01	1
d12-Benzo(b)fluoranthene	IS	86.9	50 - 150		07-Apr-21 06:01	1
d12-Benzo(k)fluoranthene	IS	75.5	50 - 150		07-Apr-21 06:01	1
d12-Benzo(a)pyrene	IS	75.1	50 - 150		07-Apr-21 06:01	1
d12-Indeno(1,2,3-c,d)pyrene	IS	67.9	50 - 150		07-Apr-21 06:01	1
d14-Dibenz(a,h)anthracene	IS	80.2	50 - 150		07-Apr-21 06:01	1
d12-Benzo(g,h,i)perylene	IS	68.0	50 - 150	D	07-Apr-21 06:48	25
d14-Terphenyl	PS	139	50 - 150		07-Apr-21 06:01	1
d12-Benzo(e)pyrene	PS	113	50 - 150		07-Apr-21 06:01	1
d10-Anthracene	AS	70.3	50 - 150	D	07-Apr-21 06:48	25

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Outlet 1

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 17-Mar-21 15:00

Laboratory Data

Lab Sample: 2103102-04
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	581	25.0		06-Apr-21 22:57	1
2-Methylnaphthalene	761	250	D	07-Apr-21 08:22	25
Acenaphthylene	27.2	10.0		06-Apr-21 22:57	1
Acenaphthene	1080	250	D	07-Apr-21 08:22	25
Fluorene	2860	250	D	07-Apr-21 08:22	25
Phenanthrene	2860	625	D	07-Apr-21 08:22	25
Anthracene	74.5	10.0		06-Apr-21 22:57	1
Fluoranthene	120	10.0		06-Apr-21 22:57	1
Pyrene	167	10.0		06-Apr-21 22:57	1
Benz(a)anthracene	ND	10.0		06-Apr-21 22:57	1
Chrysene	23.2	10.0		06-Apr-21 22:57	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 22:57	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 22:57	1
Benzo(e)pyrene	25.0	10.0		06-Apr-21 22:57	1
Benzo(a)pyrene	ND	10.0		06-Apr-21 22:57	1
Perylene	ND	10.0		06-Apr-21 22:57	1
Indeno(1,2,3-c,d)pyrene	10.9	10.0		06-Apr-21 22:57	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 22:57	1
Benzo(g,h,i)perylene	82.8	10.0		06-Apr-21 22:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	51.4	50 - 150		06-Apr-21 22:57	1
d8-Acenaphthylene	IS	66.8	50 - 150		06-Apr-21 22:57	1
d10-Acenaphthene	IS	82.7	50 - 150	D	07-Apr-21 08:22	25
d10-Fluorene	IS	71.9	50 - 150	D	07-Apr-21 08:22	25
d10-Phenanthrene	IS	75.9	50 - 150		06-Apr-21 22:57	1
d10-Fluoranthene	IS	82.9	50 - 150		06-Apr-21 22:57	1
d12-Benz(a)anthracene	IS	83.4	50 - 150		06-Apr-21 22:57	1
d12-Chrysene	IS	82.5	50 - 150		06-Apr-21 22:57	1
d12-Benzo(b)fluoranthene	IS	70.9	50 - 150		06-Apr-21 22:57	1
d12-Benzo(k)fluoranthene	IS	66.1	50 - 150		06-Apr-21 22:57	1
d12-Benzo(a)pyrene	IS	62.8	50 - 150		06-Apr-21 22:57	1
d12-Indeno(1,2,3-c,d)pyrene	IS	50.1	50 - 150		06-Apr-21 22:57	1
d14-Dibenz(a,h)anthracene	IS	55.6	50 - 150		06-Apr-21 22:57	1
d12-Benzo(g,h,i)perylene	IS	57.3	50 - 150		06-Apr-21 22:57	1
d14-Terphenyl	PS	116	50 - 150		06-Apr-21 22:57	1
d12-Benzo(e)pyrene	PS	123	50 - 150		06-Apr-21 22:57	1
d10-Anthracene	AS	68.3	50 - 150		06-Apr-21 22:57	1

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Outlet 2

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 18-Mar-21 13:00

Laboratory Data

Lab Sample: 2103102-05
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	350	25.0		06-Apr-21 23:44	1
2-Methylnaphthalene	461	250	D	07-Apr-21 09:09	25
Acenaphthylene	16.2	10.0		06-Apr-21 23:44	1
Acenaphthene	709	250	D	07-Apr-21 09:09	25
Fluorene	1890	250	D	07-Apr-21 09:09	25
Phenanthrene	2850	625	D	07-Apr-21 09:09	25
Anthracene	65.2	10.0		06-Apr-21 23:44	1
Fluoranthene	114	10.0		06-Apr-21 23:44	1
Pyrene	192	10.0		06-Apr-21 23:44	1
Benz(a)anthracene	ND	10.0		06-Apr-21 23:44	1
Chrysene	16.9	10.0		06-Apr-21 23:44	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 23:44	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 23:44	1
Benzo(e)pyrene	24.2	10.0		06-Apr-21 23:44	1
Benzo(a)pyrene	ND	10.0		06-Apr-21 23:44	1
Perylene	ND	10.0		06-Apr-21 23:44	1
Indeno(1,2,3-c,d)pyrene	12.1	10.0		06-Apr-21 23:44	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 23:44	1
Benzo(g,h,i)perylene	101	10.0		06-Apr-21 23:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	52.2	50 - 150		06-Apr-21 23:44	1
d8-Acenaphthylene	IS	67.5	50 - 150		06-Apr-21 23:44	1
d10-Acenaphthene	IS	88.4	50 - 150	D	07-Apr-21 09:09	25
d10-Fluorene	IS	80.7	50 - 150	D	07-Apr-21 09:09	25
d10-Phenanthrene	IS	70.8	50 - 150		06-Apr-21 23:44	1
d10-Fluoranthene	IS	77.9	50 - 150		06-Apr-21 23:44	1
d12-Benz(a)anthracene	IS	83.6	50 - 150		06-Apr-21 23:44	1
d12-Chrysene	IS	83.5	50 - 150		06-Apr-21 23:44	1
d12-Benzo(b)fluoranthene	IS	73.7	50 - 150		06-Apr-21 23:44	1
d12-Benzo(k)fluoranthene	IS	67.3	50 - 150		06-Apr-21 23:44	1
d12-Benzo(a)pyrene	IS	67.2	50 - 150		06-Apr-21 23:44	1
d12-Indeno(1,2,3-c,d)pyrene	IS	47.4	50 - 150	H	06-Apr-21 23:44	1
d14-Dibenz(a,h)anthracene	IS	56.7	50 - 150		06-Apr-21 23:44	1
d12-Benzo(g,h,i)perylene	IS	56.5	50 - 150		06-Apr-21 23:44	1
d14-Terphenyl	PS	124	50 - 150		06-Apr-21 23:44	1
d12-Benzo(e)pyrene	PS	119	50 - 150		06-Apr-21 23:44	1
d10-Anthracene	AS	60.0	50 - 150		06-Apr-21 23:44	1

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Outlet 3

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 19-Mar-21 13:00

Laboratory Data

Lab Sample: 2103102-06
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	254	25.0		07-Apr-21 00:30	1
2-Methylnaphthalene	373	10.0		07-Apr-21 00:30	1
Acenaphthylene	16.9	10.0		07-Apr-21 00:30	1
Acenaphthene	679	250	D	07-Apr-21 09:56	25
Fluorene	1700	250	D	07-Apr-21 09:56	25
Phenanthrene	2440	625	D	07-Apr-21 09:56	25
Anthracene	58.6	10.0		07-Apr-21 00:30	1
Fluoranthene	90.5	10.0		07-Apr-21 00:30	1
Pyrene	168	10.0		07-Apr-21 00:30	1
Benz(a)anthracene	ND	10.0		07-Apr-21 00:30	1
Chrysene	13.8	10.0		07-Apr-21 00:30	1
Benzo(b)fluoranthene	ND	10.0		07-Apr-21 00:30	1
Benzo(k)fluoranthene	ND	10.0		07-Apr-21 00:30	1
Benzo(e)pyrene	31.7	10.0		07-Apr-21 00:30	1
Benzo(a)pyrene	ND	10.0		07-Apr-21 00:30	1
Perylene	ND	10.0		07-Apr-21 00:30	1
Indeno(1,2,3-c,d)pyrene	12.8	10.0		07-Apr-21 00:30	1
Dibenz(a,h)anthracene	ND	10.0		07-Apr-21 00:30	1
Benzo(g,h,i)perylene	102	10.0		07-Apr-21 00:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	50.2	50 - 150		07-Apr-21 00:30	1
d8-Acenaphthylene	IS	68.4	50 - 150		07-Apr-21 00:30	1
d10-Acenaphthene	IS	61.8	50 - 150		07-Apr-21 00:30	1
d10-Fluorene	IS	79.6	50 - 150	D	07-Apr-21 09:56	25
d10-Phenanthrene	IS	68.5	50 - 150		07-Apr-21 00:30	1
d10-Fluoranthene	IS	78.0	50 - 150		07-Apr-21 00:30	1
d12-Benz(a)anthracene	IS	86.2	50 - 150		07-Apr-21 00:30	1
d12-Chrysene	IS	82.2	50 - 150		07-Apr-21 00:30	1
d12-Benzo(b)fluoranthene	IS	76.7	50 - 150		07-Apr-21 00:30	1
d12-Benzo(k)fluoranthene	IS	70.0	50 - 150		07-Apr-21 00:30	1
d12-Benzo(a)pyrene	IS	68.6	50 - 150		07-Apr-21 00:30	1
d12-Indeno(1,2,3-c,d)pyrene	IS	53.2	50 - 150		07-Apr-21 00:30	1
d14-Dibenz(a,h)anthracene	IS	55.8	50 - 150		07-Apr-21 00:30	1
d12-Benzo(g,h,i)perylene	IS	57.0	50 - 150		07-Apr-21 00:30	1
d14-Terphenyl	PS	124	50 - 150		07-Apr-21 00:30	1
d12-Benzo(e)pyrene	PS	117	50 - 150		07-Apr-21 00:30	1
d10-Anthracene	AS	60.3	50 - 150		07-Apr-21 00:30	1

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Inlet FB

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 16-Mar-21 12:00

Laboratory Data

Lab Sample: 2103102-07
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	398	25.0		06-Apr-21 21:23	1
2-Methylnaphthalene	128	10.0		06-Apr-21 21:23	1
Acenaphthylene	ND	10.0		06-Apr-21 21:23	1
Acenaphthene	ND	10.0		06-Apr-21 21:23	1
Fluorene	ND	10.0		06-Apr-21 21:23	1
Phenanthrene	ND	25.0		06-Apr-21 21:23	1
Anthracene	ND	10.0		06-Apr-21 21:23	1
Fluoranthene	24.8	10.0		06-Apr-21 21:23	1
Pyrene	54.9	10.0		06-Apr-21 21:23	1
Benz(a)anthracene	ND	10.0		06-Apr-21 21:23	1
Chrysene	ND	10.0		06-Apr-21 21:23	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 21:23	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 21:23	1
Benzo(e)pyrene	41.5	10.0		06-Apr-21 21:23	1
Benzo(a)pyrene	12.4	10.0		06-Apr-21 21:23	1
Perylene	ND	10.0		06-Apr-21 21:23	1
Indeno(1,2,3-c,d)pyrene	23.4	10.0		06-Apr-21 21:23	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 21:23	1
Benzo(g,h,i)perylene	167	10.0		06-Apr-21 21:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	54.8	50 - 150		06-Apr-21 21:23	1
d8-Acenaphthylene	IS	66.4	50 - 150		06-Apr-21 21:23	1
d10-Acenaphthene	IS	64.4	50 - 150		06-Apr-21 21:23	1
d10-Fluorene	IS	73.2	50 - 150		06-Apr-21 21:23	1
d10-Phenanthrene	IS	88.2	50 - 150		06-Apr-21 21:23	1
d10-Fluoranthene	IS	83.3	50 - 150		06-Apr-21 21:23	1
d12-Benz(a)anthracene	IS	91.3	50 - 150		06-Apr-21 21:23	1
d12-Chrysene	IS	88.4	50 - 150		06-Apr-21 21:23	1
d12-Benzo(b)fluoranthene	IS	81.9	50 - 150		06-Apr-21 21:23	1
d12-Benzo(k)fluoranthene	IS	79.7	50 - 150		06-Apr-21 21:23	1
d12-Benzo(a)pyrene	IS	77.7	50 - 150		06-Apr-21 21:23	1
d12-Indeno(1,2,3-c,d)pyrene	IS	72.6	50 - 150		06-Apr-21 21:23	1
d14-Dibenz(a,h)anthracene	IS	82.5	50 - 150		06-Apr-21 21:23	1
d12-Benzo(g,h,i)perylene	IS	80.7	50 - 150		06-Apr-21 21:23	1
d14-Terphenyl	PS	122	50 - 150		06-Apr-21 21:23	1
d12-Benzo(e)pyrene	PS	108	50 - 150		06-Apr-21 21:23	1
d10-Anthracene	AS	66.2	50 - 150		06-Apr-21 21:23	1

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Outlet FB

CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 16-Mar-21 12:00

Laboratory Data

Lab Sample: 2103102-08
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	428	25.0		06-Apr-21 22:10	1
2-Methylnaphthalene	158	10.0		06-Apr-21 22:10	1
Acenaphthylene	ND	10.0		06-Apr-21 22:10	1
Acenaphthene	ND	10.0		06-Apr-21 22:10	1
Fluorene	ND	10.0		06-Apr-21 22:10	1
Phenanthrene	54.4	25.0		06-Apr-21 22:10	1
Anthracene	ND	10.0		06-Apr-21 22:10	1
Fluoranthene	22.6	10.0		06-Apr-21 22:10	1
Pyrene	28.8	10.0		06-Apr-21 22:10	1
Benz(a)anthracene	ND	10.0		06-Apr-21 22:10	1
Chrysene	ND	10.0		06-Apr-21 22:10	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 22:10	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 22:10	1
Benzo(e)pyrene	ND	10.0		06-Apr-21 22:10	1
Benzo(a)pyrene	ND	10.0		06-Apr-21 22:10	1
Perylene	ND	10.0		06-Apr-21 22:10	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		06-Apr-21 22:10	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 22:10	1
Benzo(g,h,i)perylene	15.6	10.0		06-Apr-21 22:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	54.2	50 - 150		06-Apr-21 22:10	1
d8-Acenaphthylene	IS	63.2	50 - 150		06-Apr-21 22:10	1
d10-Acenaphthene	IS	61.9	50 - 150		06-Apr-21 22:10	1
d10-Fluorene	IS	66.9	50 - 150		06-Apr-21 22:10	1
d10-Phenanthrene	IS	70.6	50 - 150		06-Apr-21 22:10	1
d10-Fluoranthene	IS	81.2	50 - 150		06-Apr-21 22:10	1
d12-Benz(a)anthracene	IS	95.7	50 - 150		06-Apr-21 22:10	1
d12-Chrysene	IS	94.0	50 - 150		06-Apr-21 22:10	1
d12-Benzo(b)fluoranthene	IS	83.7	50 - 150		06-Apr-21 22:10	1
d12-Benzo(k)fluoranthene	IS	80.8	50 - 150		06-Apr-21 22:10	1
d12-Benzo(a)pyrene	IS	79.4	50 - 150		06-Apr-21 22:10	1
d12-Indeno(1,2,3-c,d)pyrene	IS	69.4	50 - 150		06-Apr-21 22:10	1
d14-Dibenz(a,h)anthracene	IS	78.7	50 - 150		06-Apr-21 22:10	1
d12-Benzo(g,h,i)perylene	IS	79.0	50 - 150		06-Apr-21 22:10	1
d14-Terphenyl	PS	122	50 - 150		06-Apr-21 22:10	1
d12-Benzo(e)pyrene	PS	103	50 - 150		06-Apr-21 22:10	1
d10-Anthracene	AS	58.3	50 - 150		06-Apr-21 22:10	1

RL - Reporting limit

Results reported to RL.

Sample ID: 21-0883 Reagent Blanks — CARB Method 429

Client Data

Name: Alliance Source Testing
Project: 21-0883
Matrix: Air Train
Date Collected: 16-Mar-21 12:00

Laboratory Data

Lab Sample: 2103102-09
QC Batch: B1D0016
Date Received: 23-Mar-21 12:54
Date Extracted: 05-Apr-21
Column: ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	ND	25.0		06-Apr-21 20:36	1
2-Methylnaphthalene	10.7	10.0		06-Apr-21 20:36	1
Acenaphthylene	ND	10.0		06-Apr-21 20:36	1
Acenaphthene	ND	10.0		06-Apr-21 20:36	1
Fluorene	ND	10.0		06-Apr-21 20:36	1
Phenanthrene	ND	25.0		06-Apr-21 20:36	1
Anthracene	ND	10.0		06-Apr-21 20:36	1
Fluoranthene	ND	10.0		06-Apr-21 20:36	1
Pyrene	ND	10.0		06-Apr-21 20:36	1
Benz(a)anthracene	ND	10.0		06-Apr-21 20:36	1
Chrysene	ND	10.0		06-Apr-21 20:36	1
Benzo(b)fluoranthene	ND	10.0		06-Apr-21 20:36	1
Benzo(k)fluoranthene	ND	10.0		06-Apr-21 20:36	1
Benzo(e)pyrene	ND	10.0		06-Apr-21 20:36	1
Benzo(a)pyrene	ND	10.0		06-Apr-21 20:36	1
Perylene	ND	10.0		06-Apr-21 20:36	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		06-Apr-21 20:36	1
Dibenz(a,h)anthracene	ND	10.0		06-Apr-21 20:36	1
Benzo(g,h,i)perylene	ND	10.0		06-Apr-21 20:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	78.5	50 - 150		06-Apr-21 20:36	1
d8-Acenaphthylene	IS	90.2	50 - 150		06-Apr-21 20:36	1
d10-Acenaphthene	IS	88.5	50 - 150		06-Apr-21 20:36	1
d10-Fluorene	IS	91.8	50 - 150		06-Apr-21 20:36	1
d10-Phenanthrene	IS	105	50 - 150		06-Apr-21 20:36	1
d10-Fluoranthene	IS	89.0	50 - 150		06-Apr-21 20:36	1
d12-Benz(a)anthracene	IS	87.4	50 - 150		06-Apr-21 20:36	1
d12-Chrysene	IS	93.3	50 - 150		06-Apr-21 20:36	1
d12-Benzo(b)fluoranthene	IS	88.9	50 - 150		06-Apr-21 20:36	1
d12-Benzo(k)fluoranthene	IS	88.6	50 - 150		06-Apr-21 20:36	1
d12-Benzo(a)pyrene	IS	78.9	50 - 150		06-Apr-21 20:36	1
d12-Indeno(1,2,3-c,d)pyrene	IS	87.4	50 - 150		06-Apr-21 20:36	1
d14-Dibenz(a,h)anthracene	IS	90.6	50 - 150		06-Apr-21 20:36	1
d12-Benzo(g,h,i)perylene	IS	88.6	50 - 150		06-Apr-21 20:36	1
d10-Anthracene	AS	74.1	50 - 150		06-Apr-21 20:36	1

RL - Reporting limit

Results reported to RL.

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)
MDL	Method Detection Limit
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
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
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

Vista

Submit by Email | Print Form

FOR LABORATORY USE ONLY

Laboratory Project ID: 2103102 Temp 3.5, 2.6°C

Storage ID: E-9 Storage Secured: Yes ☑ No ☐

CHAIN OF CUSTODY RECORD

TAT: (Check One)
Standard ◉ 21 days
Rush (surcharge may apply)
◯ 14 days ◯ 7 days Specify:

Project I.D.: **21-0883** P.O. #: **21-0883** Sampler: **AK** (Name)

Invoice to: Name	Company	Address	City	State	Zip	Ph#	Fax #
AP@stacktest.com	**Alliacne Source Testing**	**10602 Walker**	**Cypress**	**CA**	**90630**	**714 889 4000**	**x 7030**

Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/20/21	13:45		3/20/21	13:45
Relinquished by: (Printed Name and Signature)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	3/23/21	1254	Marissa Sparks	03/23/21	1254

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment:

Tracking No.:

ATTN: **Katey**

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	EPA1613 2378-TCDD	EPA1613 2378-TCDD/TCDF	EPA8290 PCDD/PCDF	EPA8290 2378-TCDD	EPA8290 2378-TCDD/TCDF	EPA8280 PCDD/PCDF	EPA8280 2378-TCDD	EPA8280 2378-TCDD/TCDF	EPA1668 PCDD/PCDF	EPA1668 TOTALS	EPA1668 COPLANAR PCBs	EPA1668 209 CONGENERS	EPA1614 PBDE	CARB429 PAH	CARB429 WHO-29
21-0883 Inlet 1	3/17	15:00		4	A	O														X	
21-0883 Inlet 2	3/18	13:00		4	A	O														X	
21-0883 Inlet 3	3/19	13:00		4	A	O														X	
21-0883 Outlet 1	3/17	15:00		4	A	O															
21-0883 Outlet 2	3/18	13:00		4	A	O														X	
21-0883 Outlet 3	3/19	13:00		4	A	O														X	
21-0883 Inlet FB	3/16	12:00		6																X	
21-0883 Outlet FB	3/16	12:00		6																	
21-0883 Reagent Blanks	3/16	12:00		1																X	
																				X	

Special Instructions/Comments: **O - Stack gas inlet/out of control device**
A - Air

SEND DOCUMENTATION AND RESULTS TO:

Name:
Company: **Alliance Source Testing**
Address: **10602 Walker**
City: **Cypress** State: **CA** Zip: **90630**
Phone: **714 889 4000** Fax: **x 7030**
Email: **Charles.figueroa@stacktest.com**

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other

***Bottle Preservative Type:** ☐ T = Thiosulfate,
☐ O = Other

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B=Blood/Serum
O = Other

464 of 1215

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 2103102 **TAT** STD

Samples Arrival:	**Date/Time** 03/23/21 12:54		**Initials:** KA		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	(Hand Delivered)	Other
Preservation:	Ice		(Blue Ice)		Techni Ice	Dry Ice	None
Temp °C: 3.5 (uncorrected) / **Temp °C:** 3.5 (corrected)	**Probe used:** Y / (N)				**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill ✓ Trk # N/A			✓
Shipping Documentation Present?			✓
Shipping Container: (Vista) / Client / (Retain) / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?		Ⓐ ✓	
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 03/24/21 12:29	**Initials:** KA	**Location:** R-9 **Shelf/Rack:** N/A
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments: Cooler 1 of 2

Ⓐ The last 3 samples no have metrix on the COC

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 2103102 TAT Std

Samples Arrival:	**Date/Time** 03/23/21 12:54		**Initials:** KA		**Location:** WR-2 **Shelf/Rack:** N/A		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	(Hand Delivered)	Other
Preservation:	Ice		(Blue Ice)		Techni Ice	Dry Ice	None
Temp °C: 2.6 (uncorrected) **Temp °C:** 2.6 (corrected)			**Probe used:** Y (N)			**Thermometer ID:** IR-4	

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill ✓ Trk # N/A			✓
Shipping Documentation Present?			✓

Shipping Container	Vista	Client	Retain	Return	Dispose

Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?		(A) ✓	
Holding Time Acceptable?	✓		

Logged In: **Date/Time** 03/24/21 12:29	**Initials:** KA	**Location:** R-9 **Shelf/Rack:** WA	
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments: Cooler 2 of 2

(A) The last 3 samples no have matrix on the COC

CoC/Label Reconciliation Report WO# 2103102

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Report Matrix	Sample Comments
2103102-01	B 21-0883 Inlet 1	☑		17-Mar-21 15:00	☑	FH Rinse	Air	Air Train	
2103102-01	C 21-0883 Inlet 1	☑		17-Mar-21 15:00	☑	BH Rinse	Air	Air Train	
2103102-01	D 21-0883 Inlet 1	☑		17-Mar-21 15:00	☑	Filter	Air	Air Train	
2103102-01	E 21-0883 Inlet 1	☑		17-Mar-21 15:00	☐ (a)	XAD	Air	Air Train	
2103102-02	B 21-0883 Inlet 2	☑		18-Mar-21 13:00	☑	FH Rinse	Air	Air Train	
2103102-02	C 21-0883 Inlet 2	☑		18-Mar-21 13:00	☑	BH Rinse	Air	Air Train	
2103102-02	D 21-0883 Inlet 2	☑		18-Mar-21 13:00	☑	Filter	Air	Air Train	
2103102-02	E 21-0883 Inlet 2	☑		18-Mar-21 13:00	☐ (a)	XAD	Air	Air Train	
2103102-03	B 21-0883 Inlet 3	☑		19-Mar-21 13:00	☑	FH Rinse	Air	Air Train	
2103102-03	C 21-0883 Inlet 3	☑		19-Mar-21 13:00	☑	BH Rinse	Air	Air Train	
2103102-03	D 21-0883 Inlet 3	☑		19-Mar-21 13:00	☑	Filter	Air	Air Train	
2103102-03	E 21-0883 Inlet 3	☑		19-Mar-21 13:00	☐ (a)	XAD	Air	Air Train	
2103102-04	B 21-0883 Outlet 1	☑		17-Mar-21 15:00	☑	FH Rinse	Air	Air Train	
2103102-04	C 21-0883 Outlet 1	☑		17-Mar-21 15:00	☑	BH Rinse	Air	Air Train	
2103102-04	D 21-0883 Outlet 1	☑		17-Mar-21 15:00	☑	Filter	Air	Air Train	
2103102-04	E 21-0883 Outlet 1	☑		17-Mar-21 15:00	☐ (a)	XAD	Air	Air Train	
2103102-05	B 21-0883 Outlet 2	☑		18-Mar-21 13:00	☑	FH Rinse	Air	Air Train	
2103102-05	C 21-0883 Outlet 2	☑		18-Mar-21 13:00	☑	BH Rinse	Air	Air Train	
2103102-05	D 21-0883 Outlet 2	☑		18-Mar-21 13:00	☑	Filter	Air	Air Train	
2103102-05	E 21-0883 Outlet 2	☑		18-Mar-21 13:00	☐ (a)	XAD	Air	Air Train	
2103102-06	B 21-0883 Outlet 3	☑		19-Mar-21 13:00	☑	FH Rinse	Air	Air Train	
2103102-06	C 21-0883 Outlet 3	☑		19-Mar-21 13:00	☑	BH Rinse	Air	Air Train	
2103102-06	D 21-0883 Outlet 3	☑		19-Mar-21 13:00	☑	Filter	Air	Air Train	
2103102-06	E 21-0883 Outlet 3	☑		19-Mar-21 13:00	☐ (a)	XAD	Air	Air Train	
2103102-07	B 21-0883 Inlet FB	☑		16-Mar-21 12:00	☐ (a)	FH Rinse	Air	Air Train	
2103102-07	C 21-0883 Inlet FB	☑		16-Mar-21 12:00	☐	BH Rinse	Air	Air Train	
2103102-07	D 21-0883 Inlet FB	☑		16-Mar-21 12:00	☐	IMP Contents	Air	Air Train	
2103102-07	E 21-0883 Inlet FB	☑		16-Mar-21 12:00	☐	IMP Rinse	Air	Air Train	
2103102-07	F 21-0883 Inlet FB	☐ (B)		16-Mar-21 12:00	☑	Filter	Air	Air Train	

467 of 1215

2103102-07	G 21-0883 Inlet FB	☑ (C)	16-Mar-21 12:00	☐ (a)	XAD	Air	Air Train
2103102-08	B 21-0883 Outlet FB	☑	16-Mar-21 12:00	☐ (a)	FH Rinse	Air	Air Train
2103102-08	C 21-0883 Outlet FB	☑	16-Mar-21 12:00	☐	BH Rinse	Air	Air Train
2103102-08	D 21-0883 Outlet FB	☑	16-Mar-21 12:00	☐	IMP Contents	Air	Air Train
2103102-08	E 21-0883 Outlet FB	☑	16-Mar-21 12:00	☐	IMP Rinse	Air	Air Train
2103102-08	F 21-0883 Outlet FB	☐ (D)	16-Mar-21 12:00	☐ (F)	Filter	Air	Air Train
2103102-08	G 21-0883 Outlet FB	☐ (E)	16-Mar-21 12:00	☐ (a)	XAD	Air	Air Train
2103102-09	B 21-0883 Reagent Blanks	☑	16-Mar-21 12:00	☑	Impinger Solution	Air	Air Train

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 NH4CH3CO2 None (all) Other

Verifed by/Date: WWS 03/24/21

Comments:
(a) no date/time listed on sample label
(B) sample label: TB inlet (on petri dish)
sample label: TB IN (outside of bubblewrap)
(C) sample label: TB IN (outside of bubblewrap)
(D) sample label: TB Outlet (on petri dish)
sample label: TB OUT (outside of bubblewrap)
(E) sample label: TB Outlet (outside of bubblewrap)
(F) no time listed on sample label; dates reconcile

all sample ID's reconciled by handwritten cap label and by using Run ID/component

468 of 1215

Vista Analytical Laboratory

ANOMALY FORM

Vista Work Order 2103102

Initial/Date		The following checked issues were noted during sample receipt and login:
_____	☐	**1. The samples were received out of temperature at (WI-PHT):** _____ Was Ice present: Yes No Melted Blue Ice
_____	☐	2. The Chain-of-Custody (CoC) was not relinquished properly.
_____	☐	3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
_____	☐	4. The sample(s) did not include a sample collection time. All or Sample Name: _____
KA 03/24/21	☑	5. A sample ID discrepancy was found. See the Reconciliation report. The CoC Sample ID will be used unless notified otherwise.
_____	☐	6. A sample date and/or time discrepancy was found. See the Reconciliation report. The CoC Sample date/time will be used unless notified otherwise.
_____	☐	**7. The CoC did not include a sample matrix. The following sample matrix will be used:** _____
_____	☐	**8. Insufficent volume received for analysis. All or Sample Name:** _____
_____	☐	9. The backup bottle was received broken. Sample Name: _____
_____	☐	**10. CoC not received, illegible or destroyed.**
_____	☐	**11. The sample(s) were received out of holding time. All or Sample Name:** _____
_____	☐	**12. The CoC did not include an analysis. All or Sample Name:** _____
_____	☐	**13. Sample(s) received without collection date. All or Sample Name:** _____
_____	☐	**14. Sample(s) not received. All or Sample Name:** _____
_____	☐	**15. Sample(s) received broken. All or Sample Name:** _____
_____	☐	**16. An incorrect container-type was used. All or Sample Name:** _____
_____	☐	17. Other:

Bolded items require sign-off

Client Contacted: _____

Date of Contact: _____

Vista Client Manager: _____

Resolution:

EXTRACTION INFORMATION

Process Sheet

Workorder: 2103102

PRIORITY

Prep Expiration: 2021-04-06
Client: Alliance Source Testing

Workorder Due: 13-Apr-21 00:00

TAT: 21

Method: **CARB 429 Full List**
Matrix: **Air**
Client Matrix: Air Train

Prep Batch: B1D0016

Prep Data Entered: 04/06/21 RR
Date and Initials

Initial Sequence: S1D0009

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
2103102-01	☑	21-0883 Inlet 1	23-Mar-21 12:54	R-9	
2103102-02	☑	21-0883 Inlet 2	23-Mar-21 12:54	R-9	
2103102-03	☑	21-0883 Inlet 3	23-Mar-21 12:54	R-9	
2103102-04	☑	21-0883 Outlet 1	23-Mar-21 12:54	R-9	
2103102-05	☑	21-0883 Outlet 2	23-Mar-21 12:54	R-9	
2103102-06	☑	21-0883 Outlet 3	23-Mar-21 12:54	R-9	
2103102-07	☑	21-0883 Inlet FB	23-Mar-21 12:54	R-9	
2103102-08	☑	21-0883 Outlet FB	23-Mar-21 12:54	R-9	
2103102-09	☑	21-0883 Reagent Blanks	23-Mar-21 12:54	R-9	

Pre-Prep Check Out: NA

Pre-Prep Check In: NA

Prep Check Out: RR 04/05/21

Prep Check In: EMPTY

Prep Reconciled Initals/Date: RR 04/05/21

Spike Reconciled Initals/Date: ME 04/08/21.

VialBoxID: B/RW

Batch No.: B1D0016

Samples: 2103102 - (01-03) "500X"

used + 2µL of Final extract

+~~25µL~~ $FV_{original} = \frac{200ng}{500\mu L}(\emptyset_{2\mu L}) \rightarrow$ 0.8 ng added

new FV

+

+ 25 µL 20H2503 IS V6 — 200 ng

IS 200.8 ng (new)

d8-Naphthalene, d8-Acenaphthylene, and d10-Acenaphthene @ same conc.

extract: 100ng/500 (2µL). 0.4ng

+ 25µL RS 20H2506 V11 → + 50ng

RS 50.4ng new

+ 948µL Hexane

new "original" extract @ 500X from original

PREPARATION BENCH SHEET

Matrix: Air

Method(s): CARB 429 Full List

B1D0016

Chemist: RR

Prep Date\Time: 05-Apr-21 07:34

Prepared using: HRMS - Soxhlet

1:2 > RR 04/06/21 NA

C	VISTA Sample ID	PUF/Trap Prep Date	XAD/PUF Lot#	IS/NS CHEM/WIT DATE	Impinger Extraction Date	AS CHEM/WIT DATE	SiGEL / ABSG / Florisil / CC CHEM/DATE (Circle one)		RS CHEM/WIT DATE
☐	B1D0016-BLK1	03/12/21	20L0403	RR ME 04/05/21	04/05/21	RR ME 04/05/21	RR 04/06/21	MA	RR DT 04/06/21
☐	B1D0016-BS1								
☐	B1D0016-BSD1								
☐	2103102-01 (✓)(*)						Yellow		
☐	2103102-02 (✓)								
☐	2103102-03								
☐	2103102-04								
☐	2103102-05								
☐	2103102-06								
☐	2103102-07								
☐	2103102-08								
☐	2103102-09								

473 of 1215

(✓) particulate present in FH/BH. RR 04/05/21

(*) Samples have a strong odor. RR 04/05/21

*RR 04/05/21

IS Name	NS Name	AS Name	RS Name	Cycle #1	#2	Split	Check Out:
PCDD/F	PCDD/F	PCDD/F	PCDD/F	Start Date/Time *03-04/05/21 1414			Chemist/Date: RR 04/05/21
PCB (V7)	PCB (V6)	PCB (V7)	PCB	Stop DateTime 04/06/21 0700		1:4	Check In: Chemist/Date: EMPTY
PAH 20H2503 ,25uL	PAH 20H2505 ,25uL	PAH 20H2504 ,25uL	PAH 20H2506 ,50uL	Final Volume(s) C6 500uL		(1:2)	

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

Batch: B1D0016

Matrix: Air

LabNumber	WetWeight Initial (N/A)	% Solids (Extraction Solids)	DryWeight Initial (N/A)	Final (uL)	Extracted	Ext By	Spike	SpikeAmount (uL)	ClientMatrix	Analysis
2103102-01	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-02	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-03	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-04	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-05	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-06	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-07	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-08	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
2103102-09	1			500	05-Apr-21 07:34	RR			Air Train	CARB 429 Full List
B1D0016-BLK1	1			500	05-Apr-21 07:34	RR				QC
B1D0016-BS1	1			500	05-Apr-21 07:34	RR	20H2505	25		QC
B1D0016-BSD1	1			500	05-Apr-21 07:34	RR	20H2505	25		QC

474 of 1215

All bolded data on report verified against written benchsheet by (initial/date) RP / 04/16/21

Printed: 4/6/2021 5:16:15PM
Page 1 of 1

SAMPLE DATA – CARB METHOD 429

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-12.qld

Last Altered: Wednesday, April 07, 2021 9:36:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:36:33 AM Pacific Daylight Time

lh 4-7-2021 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

	# Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1 Naphthalene	6.31e4	9.44e5	1.16	1.000	10.17	10.18	1.006	1.006	NO	11.5		0.508
2	2 Naphthalene-2nd	6.16e3	9.44e5	0.128	1.000	10.17	10.16	1.006	1.004	NO	10.2		7.84
3	3 2-Methylnaphthalene	2.09e4	8.33e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	3.64		0.181
4	4 Acenaphthylene		1.15e6	1.12	1.000	14.37		1.003		YES			0.272
5	5 Acenaphthene		8.33e5	1.10	1.000	14.70		1.006		NO			0.275
6	6 Fluorene	3.33e3	9.85e5	1.15	1.000	15.94	15.94	1.006	1.006	NO	0.586		0.770
7	7 Phenanthrene	1.67e4	1.62e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	1.74		0.112
8	8 Phenanthrene-2nd		1.62e6	0.0925	1.000	18.33		1.002		NO			1.42
9	9 Anthracene	2.45e3	1.62e6	1.09	1.000	18.39	18.38	1.005	1.005	NO	0.277		0.122
10	10 Fluoranthene	7.40e3	2.31e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	0.583		0.0423
11	11 Pyrene	8.22e3	2.31e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	0.593		0.0388
12	12 Benz(a)anthracene	9.35e2	1.59e6	0.961	1.000	23.20	23.20	1.003	1.003	NO	0.122		0.0905
13	13 Chrysene	1.84e3	1.93e6	0.852	1.000	23.40	23.41	1.003	1.004	NO	0.224		0.0819
14	14 Benzo(b)fluoranthene	3.31e3	3.05e6	1.10	1.000	27.02	27.01	1.005	1.005	NO	0.392		0.118
15	15 Benzo(k)fluoranthene		3.99e6	1.04	1.000	27.11		1.004		YES			0.127
16	16 Benzo(e)pyrene		3.99e6	0.911	1.000	28.81		1.067		NO			0.145
17	17 Benzo(a)pyrene		3.02e6	1.02	1.000	29.06		1.006		NO			0.183
18	18 Perylene		3.02e6	0.987	1.000	29.80		1.031		YES			0.188
19	19 Indeno(1,2,3-c,d)pyrene		2.85e6	0.915	1.000	36.89		1.007		YES			0.309
20	20 Benzo(g,h,i)perylene		2.92e6	0.940	1.000	40.42		1.009		YES			0.321
21	21 Dibenz(a,h)anthracene		2.35e6	0.948	1.000	36.87		1.011		YES			0.406
22	22 d8-Naphthalene	9.44e5	2.31e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	68.0	34.0	0.0302
23	23 d8-Acenaphthylene	1.15e6	2.31e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	110	55.0	0.0510
24	24 d10-Acenaphthene	8.33e5	2.31e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	122	60.8	0.0396
25	25 d10-Fluorene	9.85e5	2.31e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	152	75.9	0.0363
26	26 d10-Phenanthrene	1.62e6	2.31e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	191	95.5	0.0333
27	27 d10-Fluoranthene	2.31e6	2.31e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	156	78.0	0.0130
28	28 d12-Benz(a)anthracene	1.59e6	2.31e6	0.900	1.000	23.11	23.14	1.110	1.112	NO	154	76.8	0.0364
29	29 d12-Chrysene	1.93e6	2.31e6	1.02	1.000	23.30	23.32	1.120	1.121	NO	164	82.1	0.0321
30	30 d12-Benzo(b)fluoranthene	3.05e6	1.67e6	1.18	1.000	26.90	26.89	0.907	0.907	NO	310	77.4	0.279
31	31 d12-Benzo(k)fluoranthene	3.99e6	1.67e6	1.50	1.000	27.01	27.00	0.911	0.910	NO	318	79.5	0.219

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-12.qld

Last Altered: Wednesday, April 07, 2021 9:36:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:36:33 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	Pred RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.02e6	1.67e6	1.24	1.000	28.91	28.89	0.975	0.974	NO	292	73.0	0.266
33	33	d12-Indeno(1,2,3-c,d)pyrene	2.85e6	1.67e6	1.02	1.000	36.97	36.64	1.247	1.236	YES	336	83.9	0.327
34	34	d12-Benzo(g,h,i)perylene	2.92e6	1.67e6	1.00	1.000	40.39	40.05	1.362	1.351	YES	348	87.0	0.331
35	35	d14-Dibenz(a,h)anthracene	2.35e6	1.67e6	0.765	1.000	36.75	36.46	1.239	1.230	NO	367	91.8	0.382
36	36	d10-Anthracene	1.12e6	1.67e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	136	67.9	0.157
37	37	d14-Terphenyl	3.74e6	2.31e6	0.576	1.000	20.70	20.72	1.018	1.019	NO	561	112	0.0282
38	38	d12-Benzo(e)pyrene	3.81e6	3.99e6	0.738	1.000	28.62	28.64	1.060	1.061	NO	518	104	0.281
39	39	d10-1-Methylnaphthalene	1.70e6	1.70e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0335
40	40	d10-Pyrene	2.31e6	2.31e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0168
41	41	d12-Perylene	1.67e6	1.67e6	1.00	1.000	29.59	29.65	1.000	1.000	NO	200	100	0.330

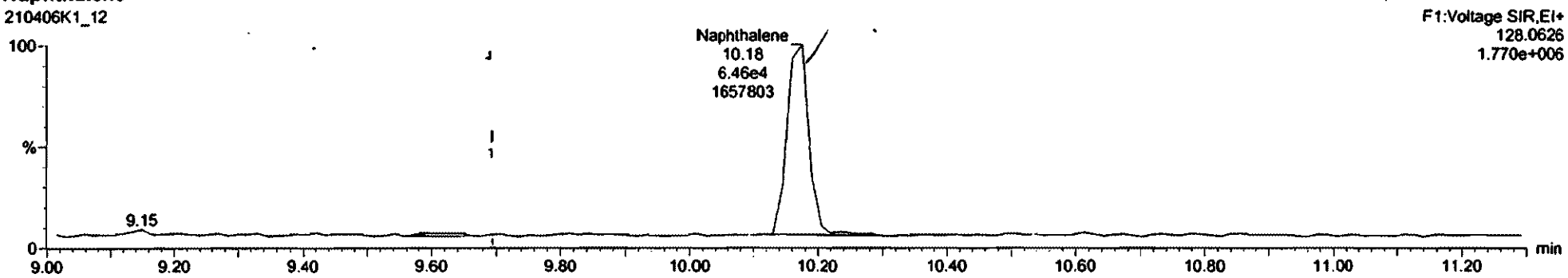
477 of 1215

Dataset: Untitled

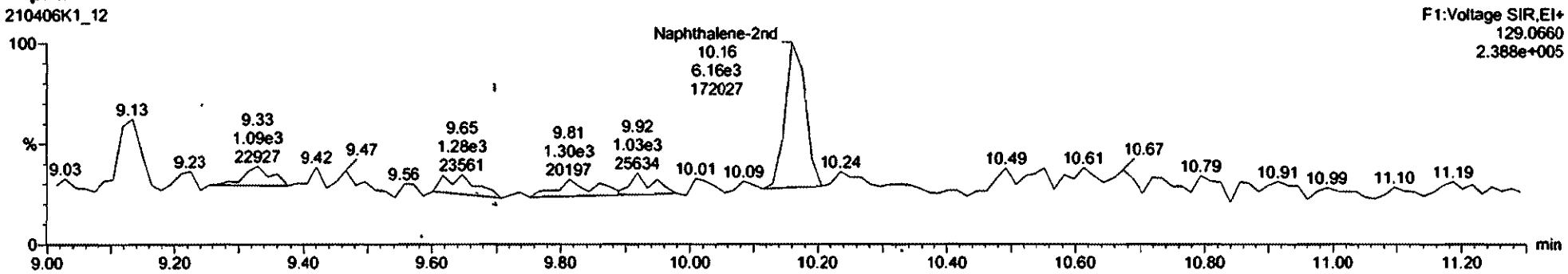
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

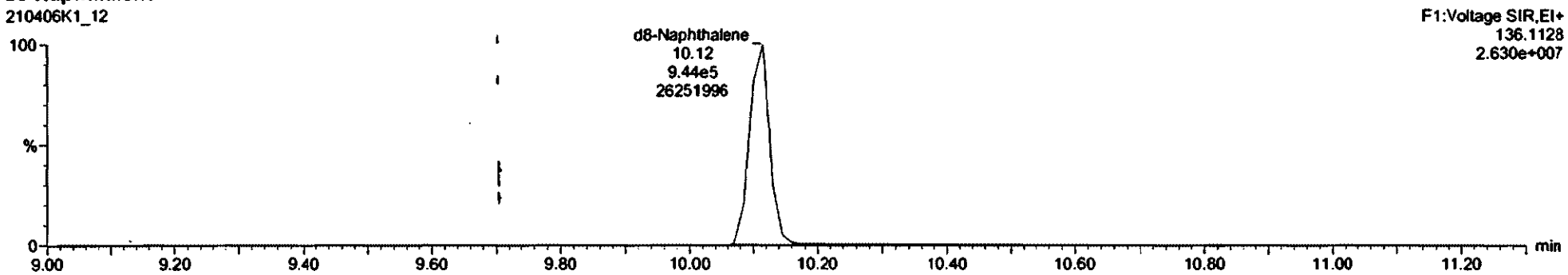
Naphthalene



Naphthalene-2nd



d8-Naphthalene

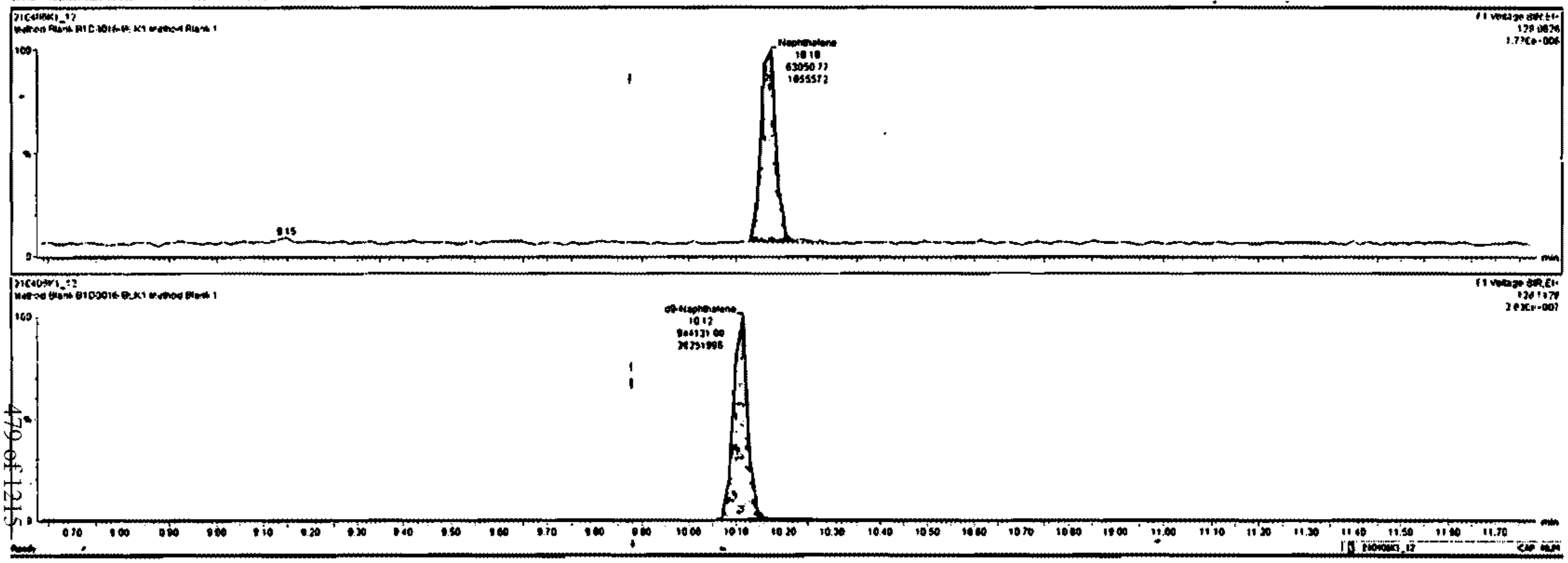


478 of 1215

TargetLynx - untitled * [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/Vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	8.31e4	9.44e5	1.1587	1.000	10.17	10.18	1.0080	1.01	NO	11.5		0.500	0.000
2	Naphthalene-d8	8.16e3	9.44e5	0.1279	1.000	10.17	10.16	1.0045	1.01	NO	10.2		7.84	0.000
3	2-Methylnaphthalene	2.08e4	8.33e5	1.3780	1.000	11.81	11.82	0.7856	0.78	NO	3.84		0.101	0.000
4	Acenaphthylene		1.15e6	1.1188	1.000	14.37			1.00	YES			0.272	
5	Acenaphthene	1.38e3	8.33e5	1.1804	1.000	14.70	14.70	1.0082	1.01	NO	0.274		0.275	0.000
6	Fluorene	3.57e3	8.86e5	1.1530	1.000	15.84	15.84	1.0067	1.01	NO	0.639		0.770	0.000
7	Phenanthrene	2.08e4	1.82e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	2.14		0.112	0.000
8	Phenanthrene-d10	2.53e3	1.82e6	0.8825	1.000	18.33	18.38	1.0049	1.00	NO	2.38		1.42	0.000
9	Anthracene		1.82e6	1.0818	1.000	18.38			1.01	YES			0.122	
10	Fluoranthene	7.40e3	2.31e6	1.0886	1.000	20.30	20.36	1.0015	1.00	NO	0.583		0.0423	0.000
11	Pyrene	8.22e3	2.31e6	1.1881	1.000	20.87	20.85	1.0250	1.03	NO	0.583		0.0588	0.000
12	Benz(a)anthracene	1.44e3	1.59e6	0.8813	1.000	23.26	23.33	1.0080	1.00	NO	0.188		0.0806	0.000
13	Chrysene	1.6[illegible]e3	1.53e6	0.8319	1.000	23.40	23.41	1.0008	1.00	NO	0.224		0.0819	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]



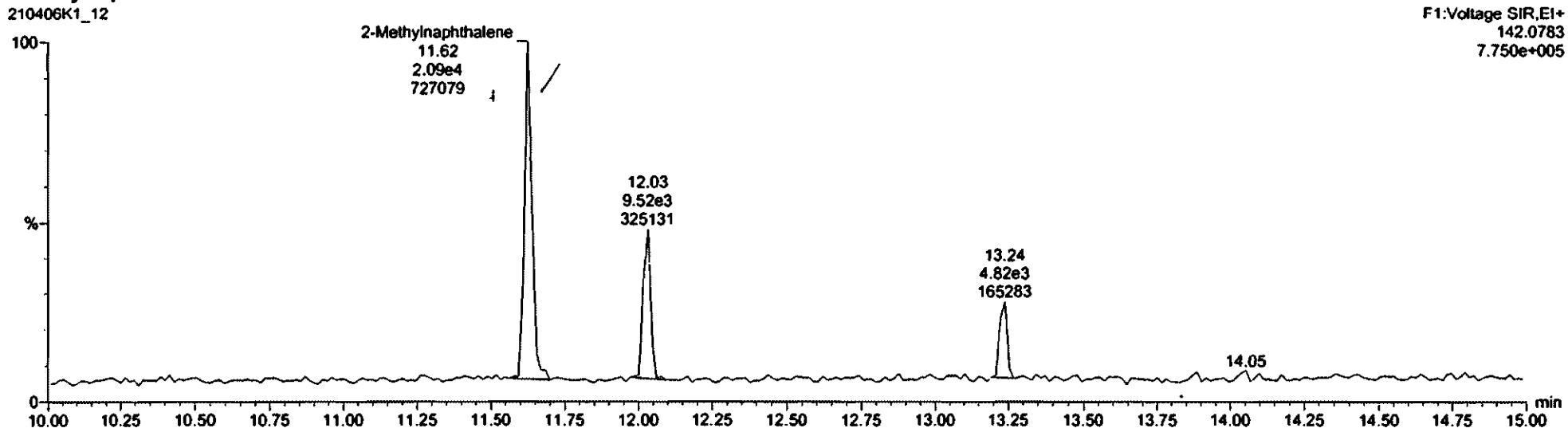
Ready

Dataset: Untitled

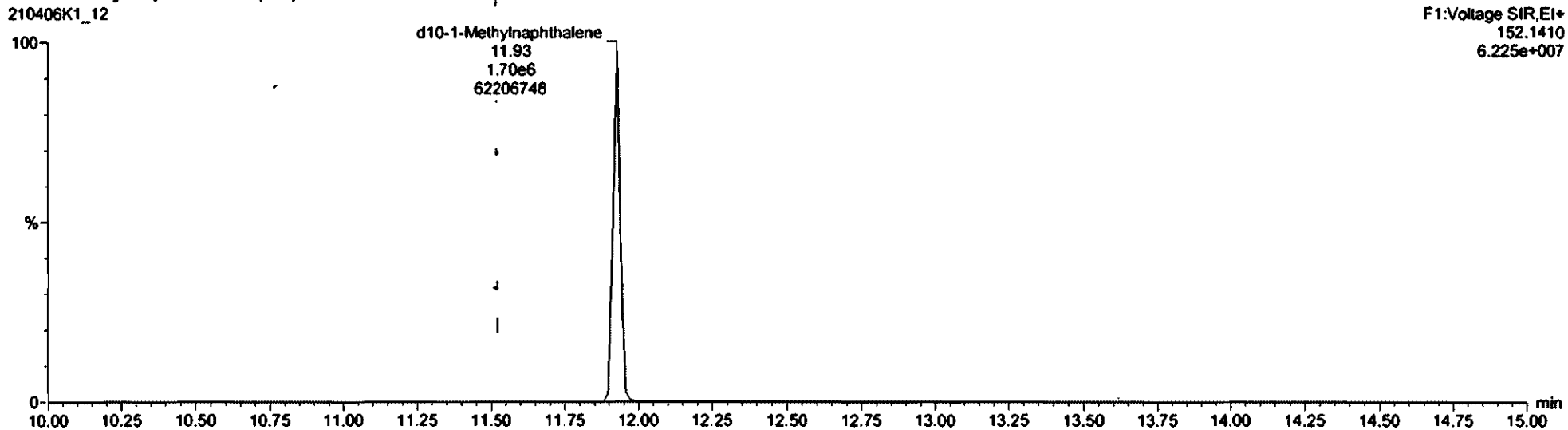
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



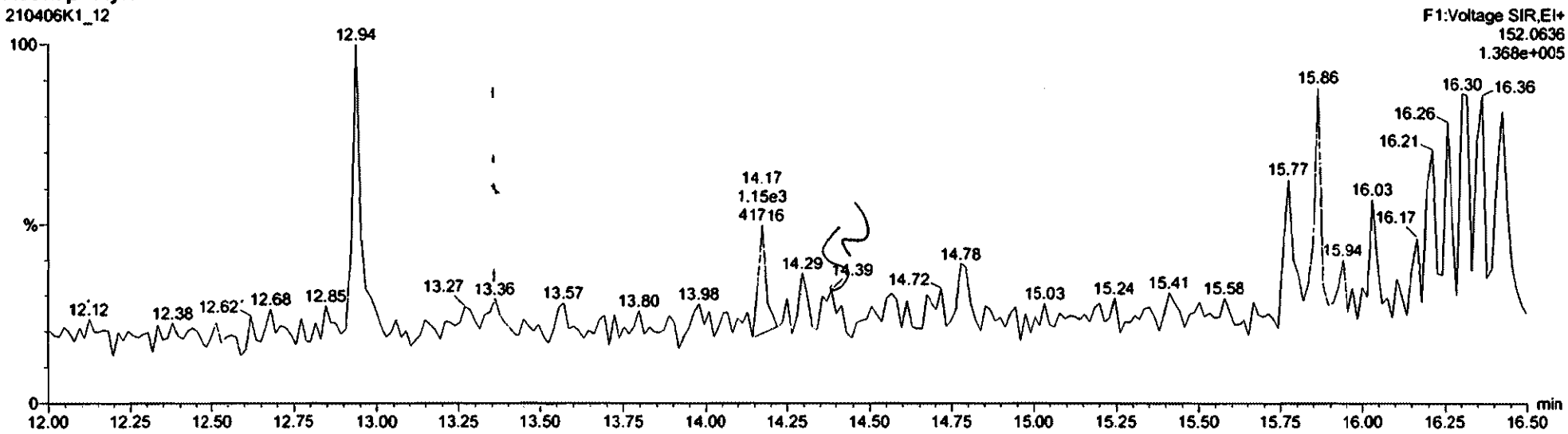
480 of 1215

Dataset: Untitled

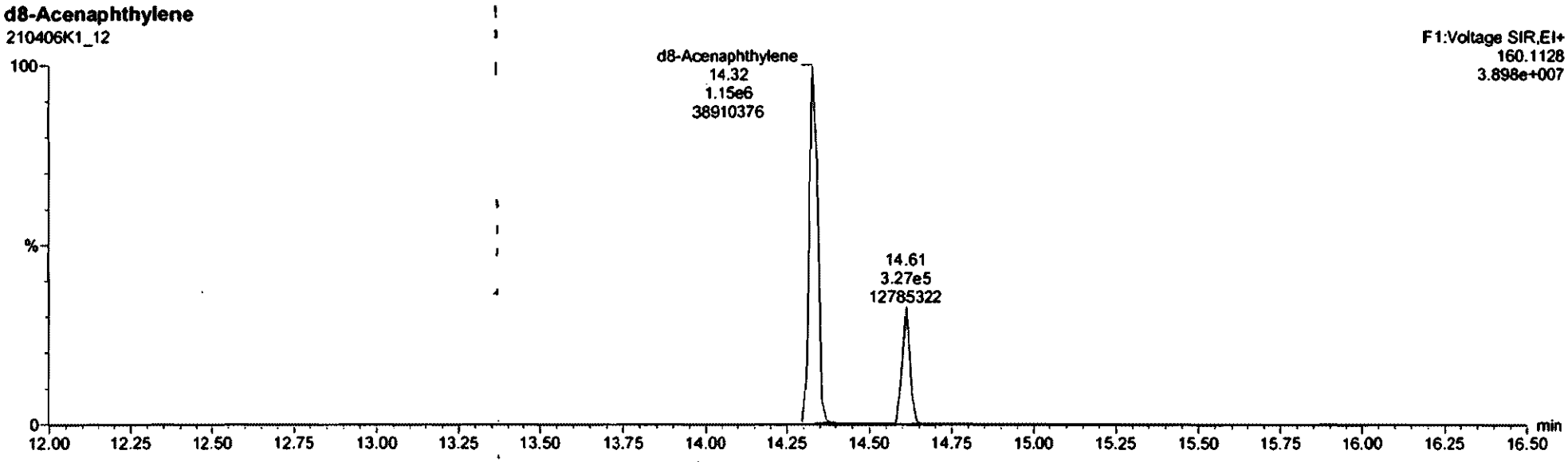
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Acenaphthylene



d8-Acenaphthylene



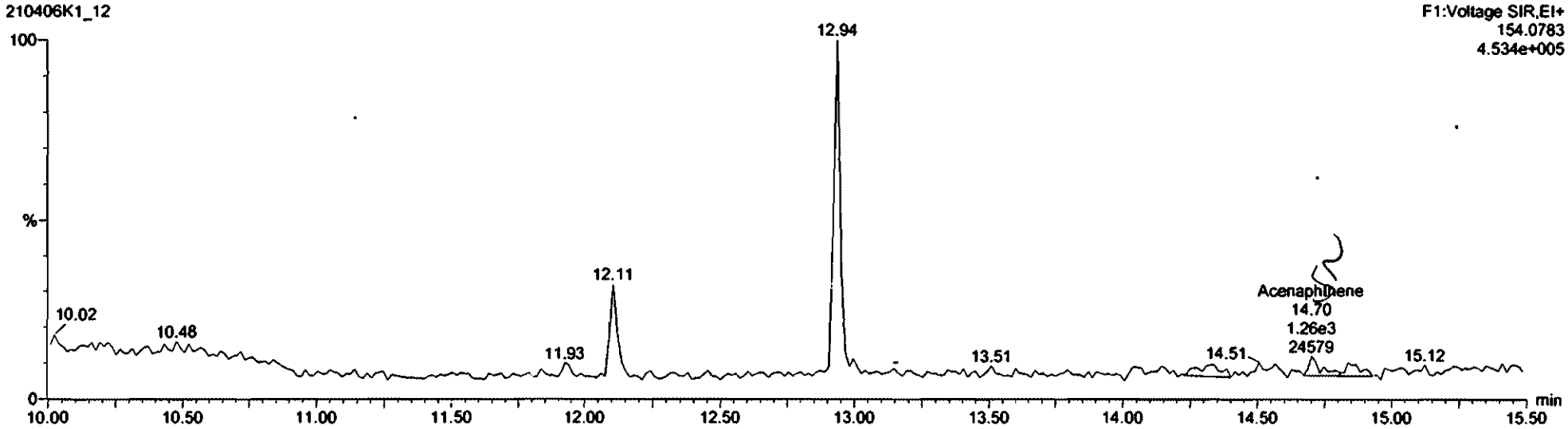
481 of 1215

Dataset: Untitled

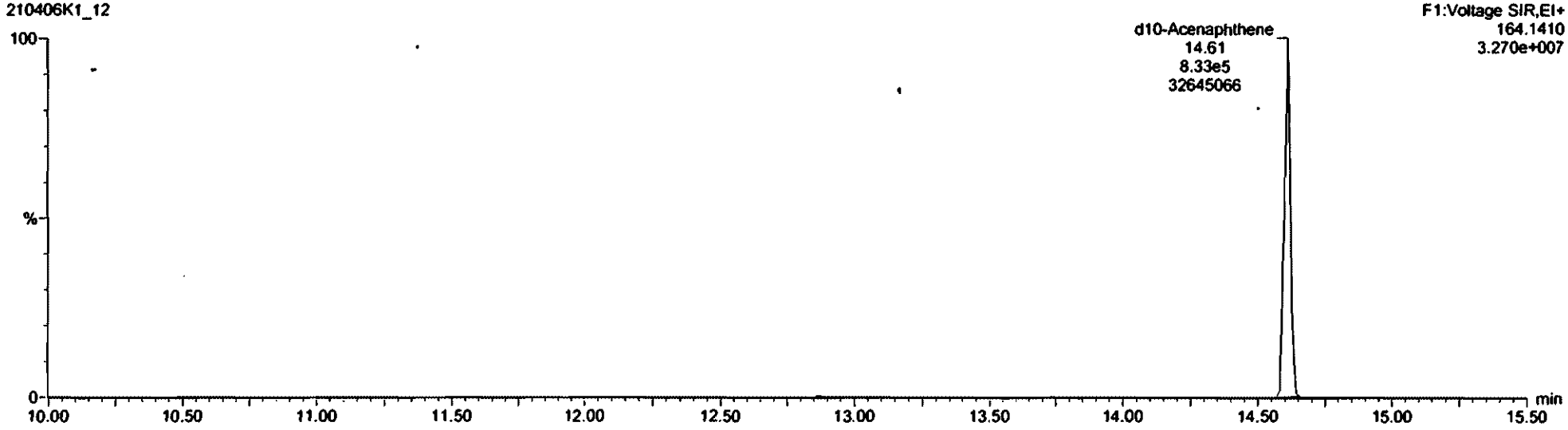
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Acenaphthene



d10-Acenaphthene



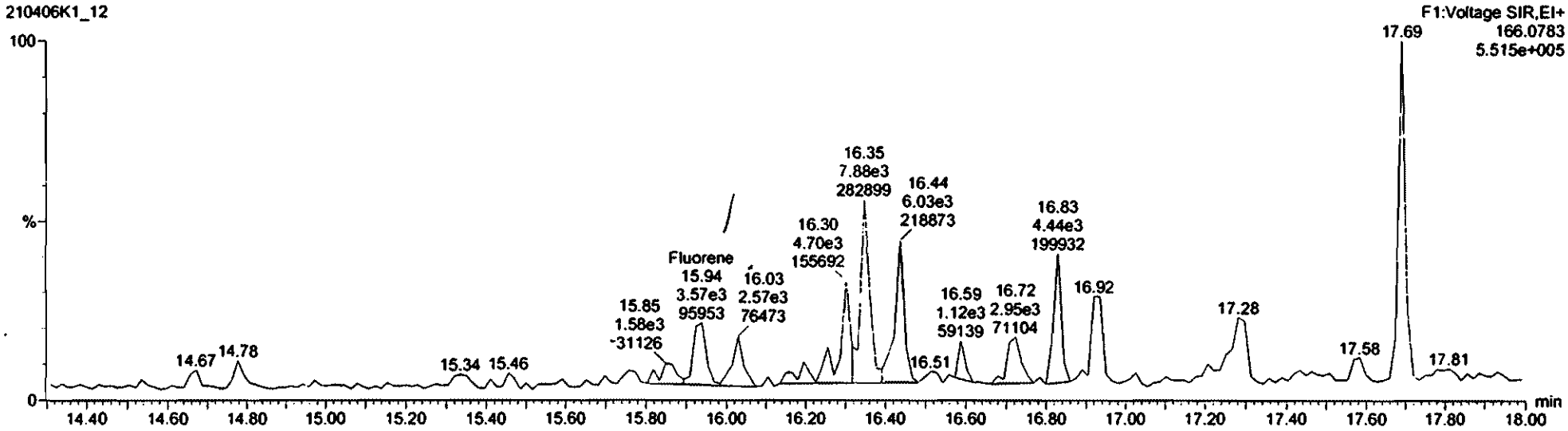
482 of 1215

Dataset: Untitled

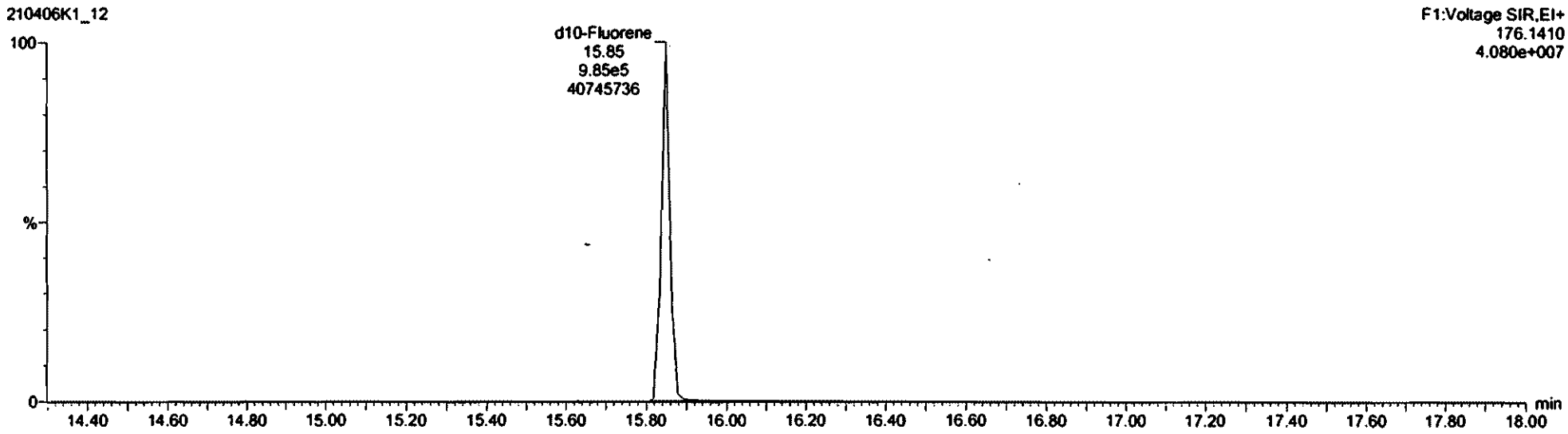
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

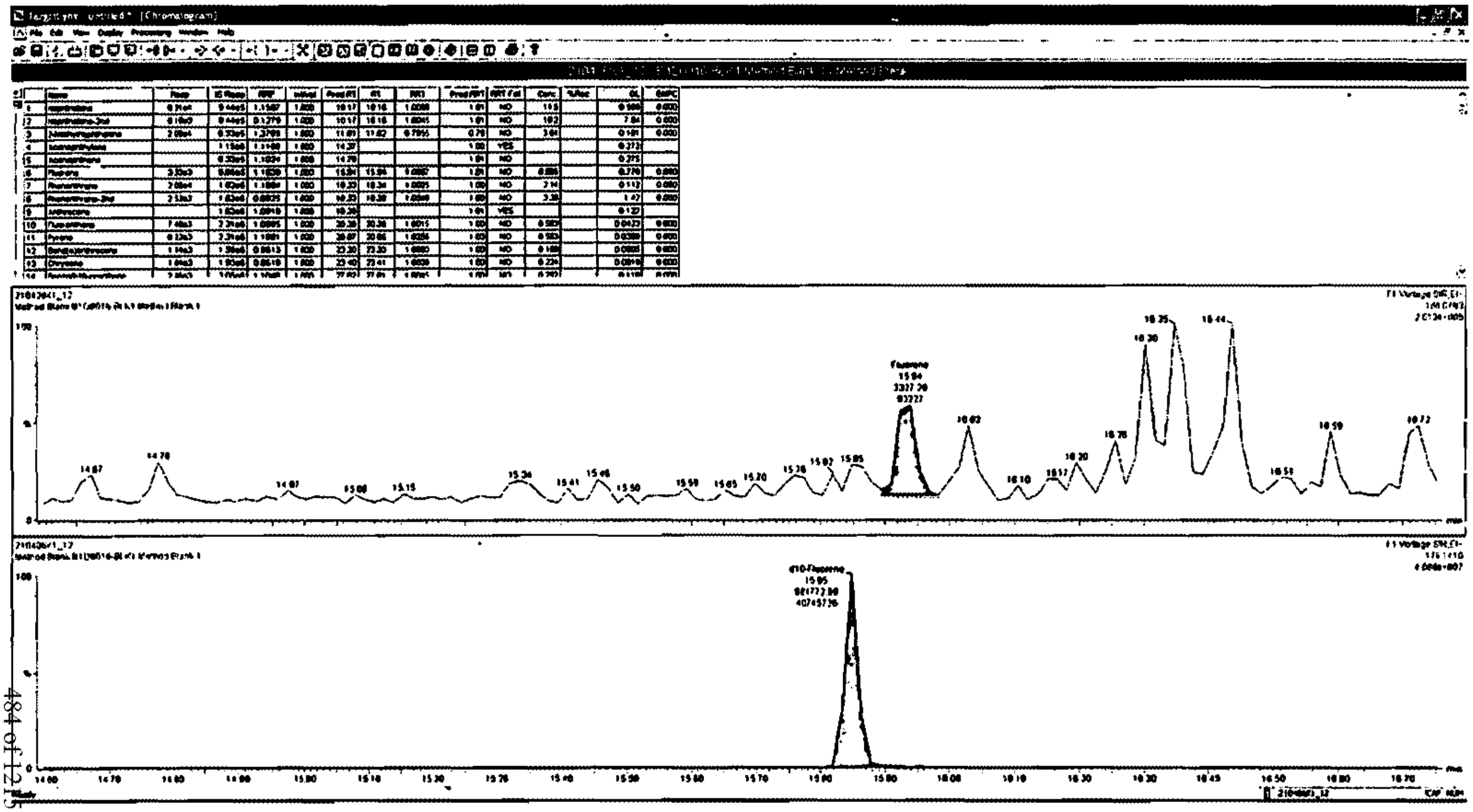
Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Fluorene



d10-Fluorene



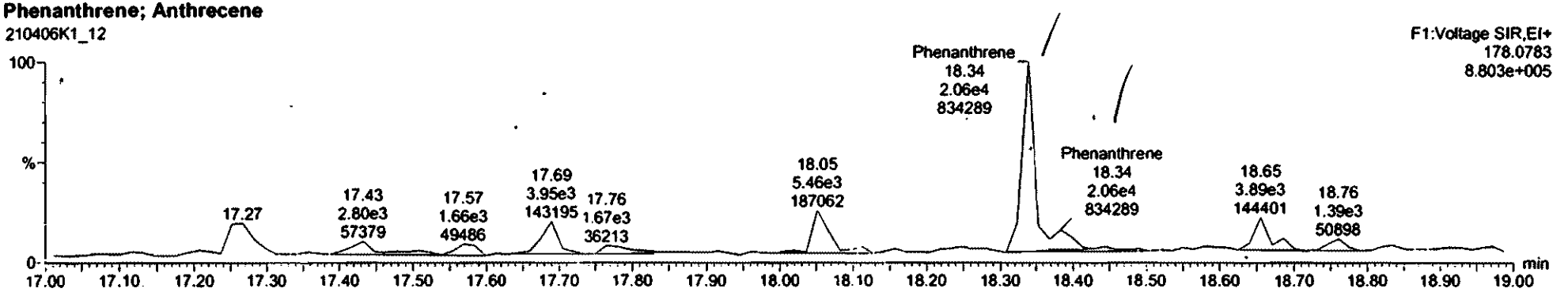


Dataset: Untitled

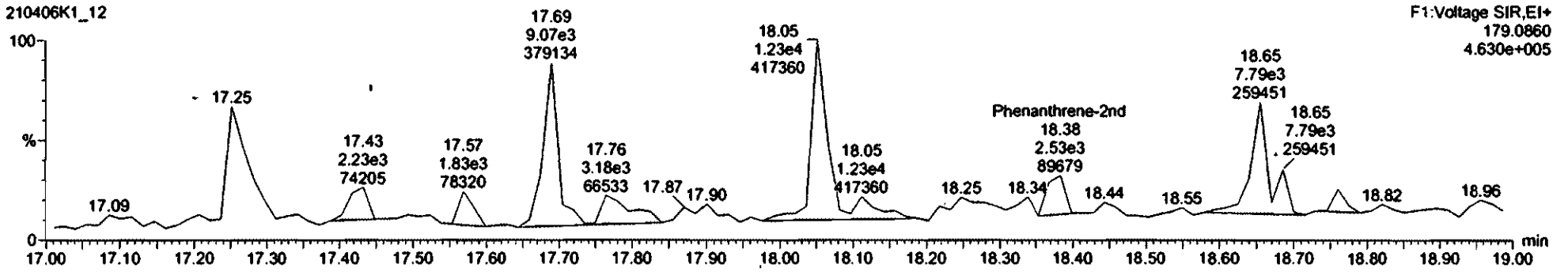
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

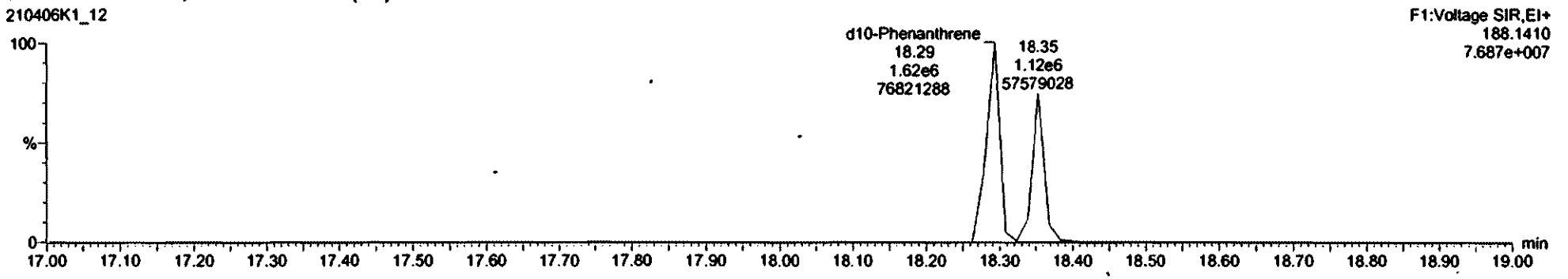
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



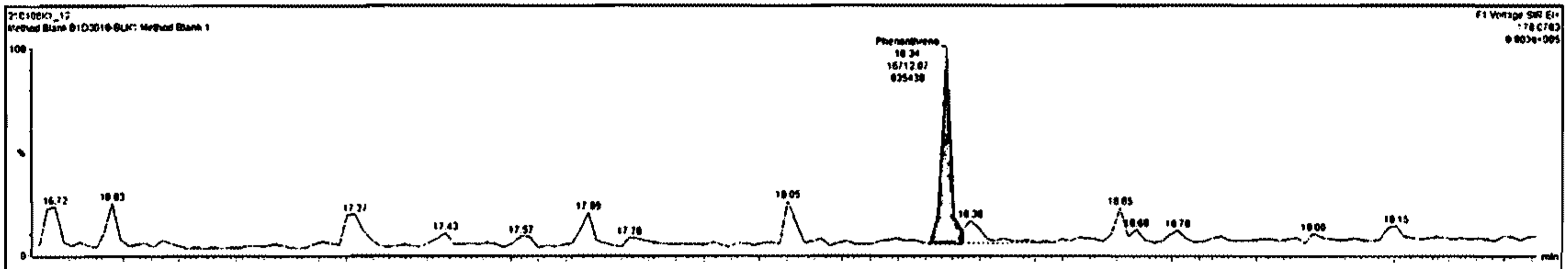
485 of 1215

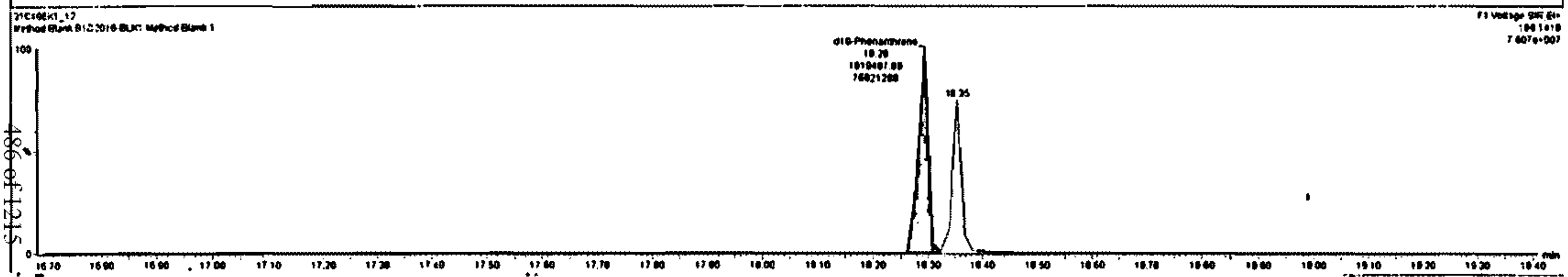
TargetLynx - untitled * [Chromatogram]

File Edit View Display Processing Window Help

210408K1_12 - B1D0016-BLK1 Method Blank 1 - Method Blank

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	6.31e4	9.44e5	1.1587	1.000	10.17	10.18	1.0000	1.01	NO	11.5		0.508	0.000
2	Naphthalene-2nd	6.16e3	9.44e5	0.1279	1.000	10.17	10.16	1.0005	1.01	NO	10.2		7.84	0.000
3	2-Methylnaphthalene	2.68e4	8.33e5	1.3788	1.000	11.64	11.62	0.7986	0.79	NO	3.64		0.161	0.000
4	Acenaphthylene		1.15e6	1.1185	1.000	14.37			1.00	YES			0.272	
5	Acenaphthene		8.33e5	1.1624	1.000	14.70			1.01	NO			0.275	
6	Fluorene	3.33e3	8.85e5	1.1530	1.000	15.94	15.94	1.0007	1.01	NO	0.588		0.770	0.000
7	Phenanthrene	1.67e4	1.62e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	1.74		0.112	0.000
8	Phenanthrene-2nd	2.53e3	1.62e6	0.0825	1.000	18.33	18.30	1.0049	1.00	NO	3.39		1.42	0.000
9	Anthracene		1.62e6	1.0910	1.000	18.38			1.01	YES			0.122	
10	Fluoranthene	7.40e3	2.31e6	1.0895	1.000	20.38	20.36	1.0015	1.00	NO	0.980		0.0423	0.000
11	Pyrene	9.22e3	2.31e6	1.1891	1.000	20.87	20.85	1.0256	1.00	NO	0.983		0.0388	0.000
12	Benzo(a)anthracene	1.44e3	1.98e6	0.9813	1.000	23.30	23.33	1.0080	1.00	NO	0.188		0.0805	0.000
13	Chrysene	1.84e3	1.93e6	0.8519	1.000	23.40	23.49	1.0038	1.00	NO	0.224		0.0849	0.000
14	Benzo(b)fluoranthene	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		[illegible]	[illegible]





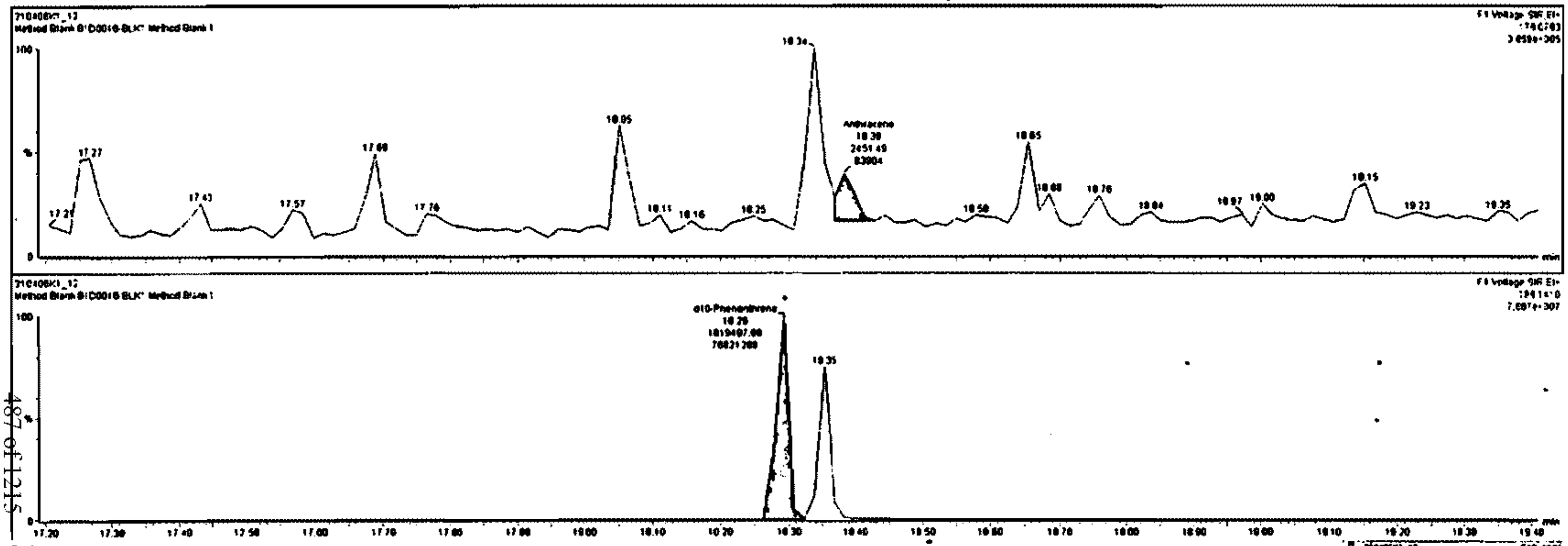
Ready

TargetLynx - untitled - [Chromatogram]

File Edit View Display Processing Window Help

210408K1_12 : B1D0016-BLK1 Method Blank 1 : Method Blank

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	6.31e4	9.44e5	1.1907	1.000	10.17	10.18	1.0060	1.01	NO	11.5		0.908	0.000
2	Naphthalene-2nd	6.16e3	9.44e5	0.1279	1.000	10.17	10.16	1.0045	1.01	NO	10.2		7.84	0.000
3	2-Methylnaphthalene	2.08e4	9.33e6	1.3780	1.000	11.61	11.62	0.7955	0.79	NO	384		0.191	0.000
4	Acenaphthylene		1.15e6	1.1105	1.000	14.37			1.00	YES			0.272	
5	Acenaphthene		9.33e5	1.1824	1.000	14.78			1.01	NO			0.275	
6	Fluorene	3.33e3	9.86e5	1.1538	1.000	15.94	15.94	1.0057	1.01	NO	0.988		0.770	0.000
7	Phenanthrene	1.67e4	1.62e6	1.1084	1.000	18.33	18.34	1.0025	1.00	NO	1.74		0.112	0.000
8	Phenanthrene-2nd		1.62e6	0.0825	1.000	18.30			1.00	NO			1.42	
9	Anthracene	2.45e3	1.62e6	1.0810	1.000	18.38	18.38	1.0049	1.01	NO	0.377		0.122	0.000
10	Fluoranthene	7.40e3	2.34e6	1.0895	1.000	20.38	20.36	1.0015	1.00	NO	0.580		0.0423	0.000
11	Pyrene	8.22e3	2.34e6	1.1981	1.000	20.67	20.65	1.0258	1.00	NO	0.580		0.0388	0.000
12	Benz(a)anthracene	1.44e3	1.98e6	0.9813	1.000	23.30	23.30	1.0083	1.00	NO	0.188		0.0806	0.000
13	Chrysene	1.84e3	1.93e6	0.8519	1.000	23.40	23.41	1.0038	1.00	NO	0.224		0.0819	0.000
14	Benzo(b)fluoranthene	2.46e3	3.06e6	1.1065	1.000	27.07	27.0[illegible]	1.00[illegible]	1.00	NO	0.2[illegible]		0.11[illegible]	0.000

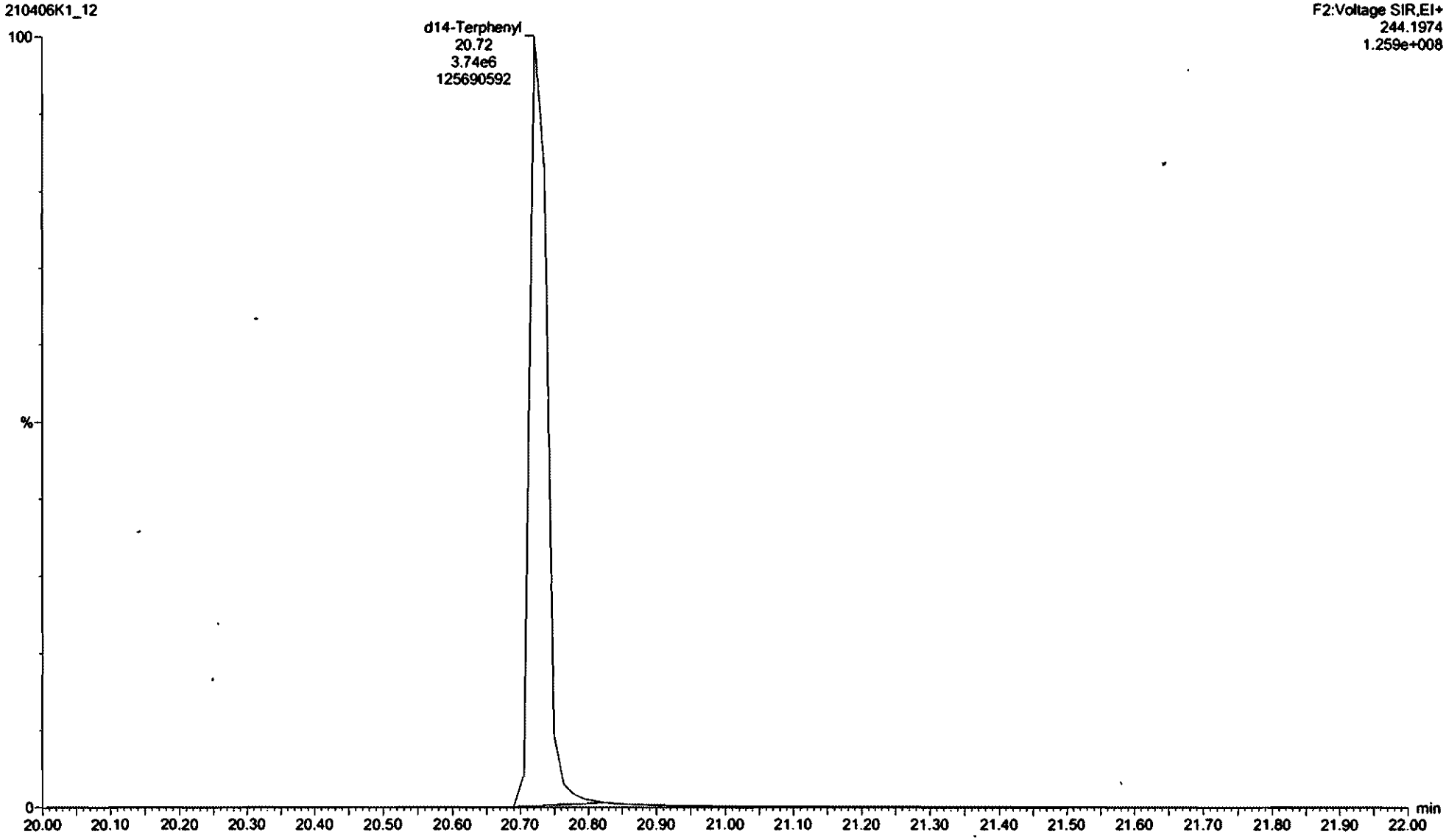


Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

d14-Terphenyl (PS)



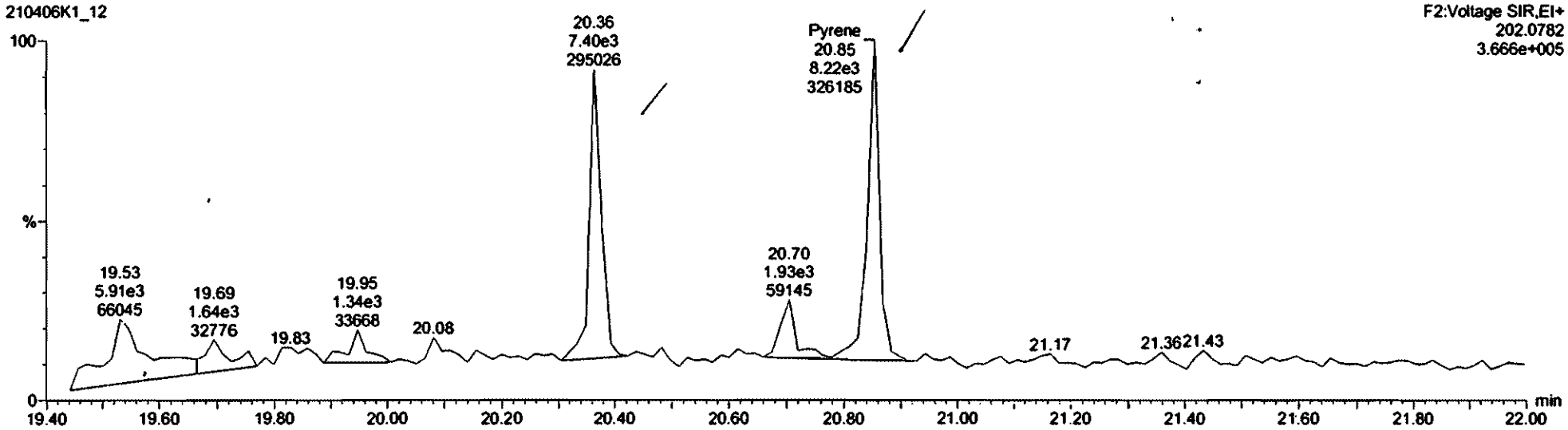
488 of 1215

Dataset: Untitled

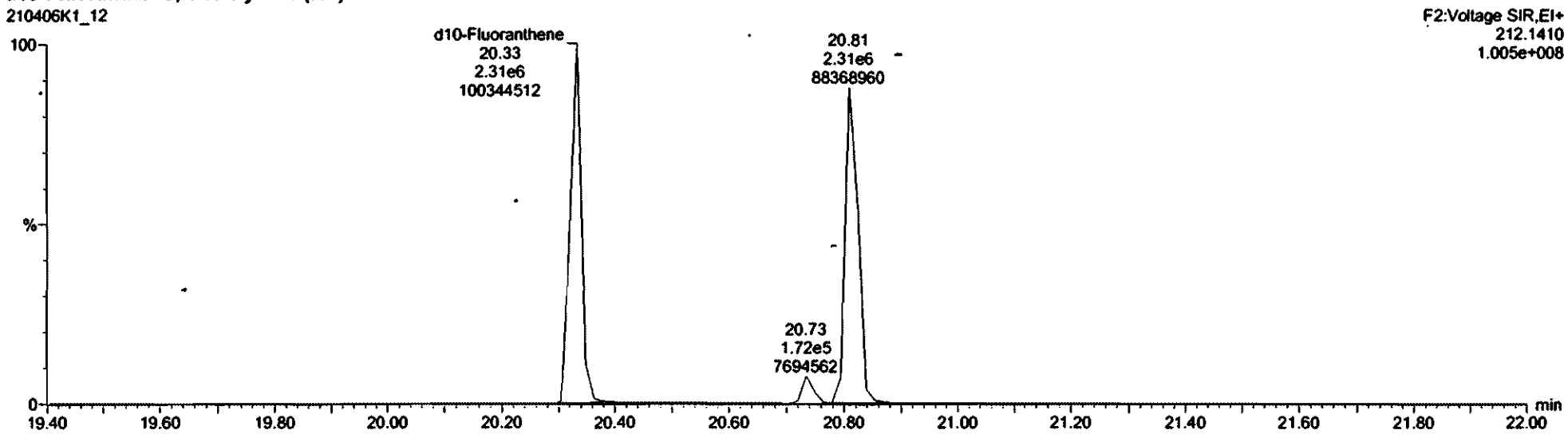
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



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Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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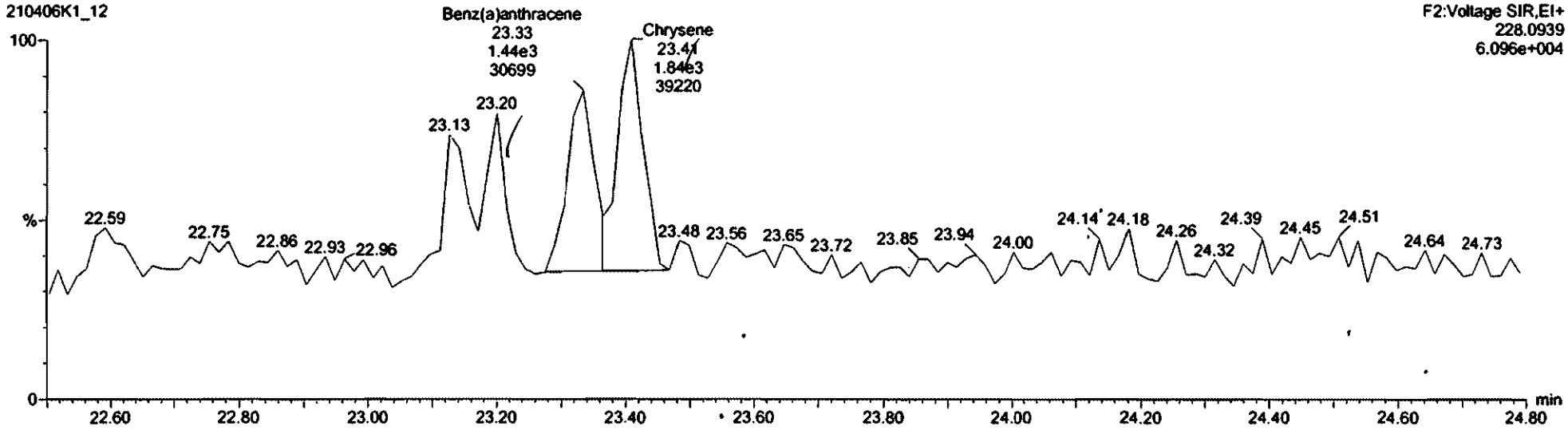
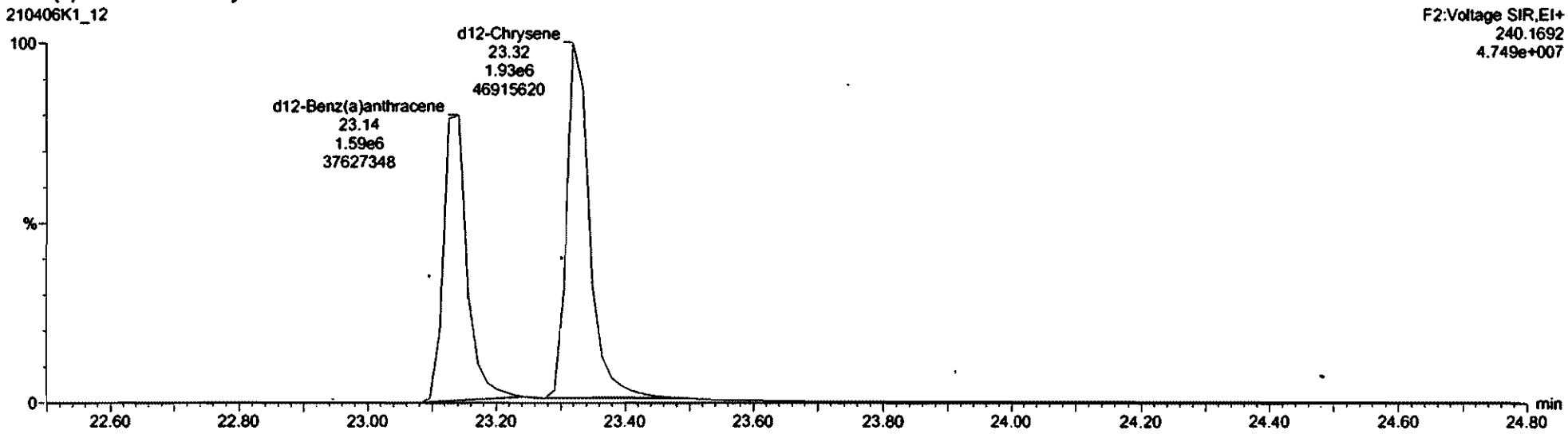
Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso

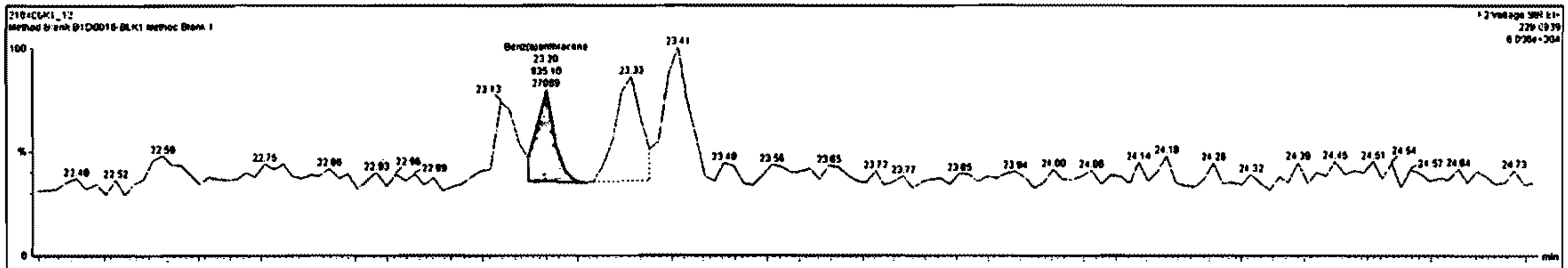


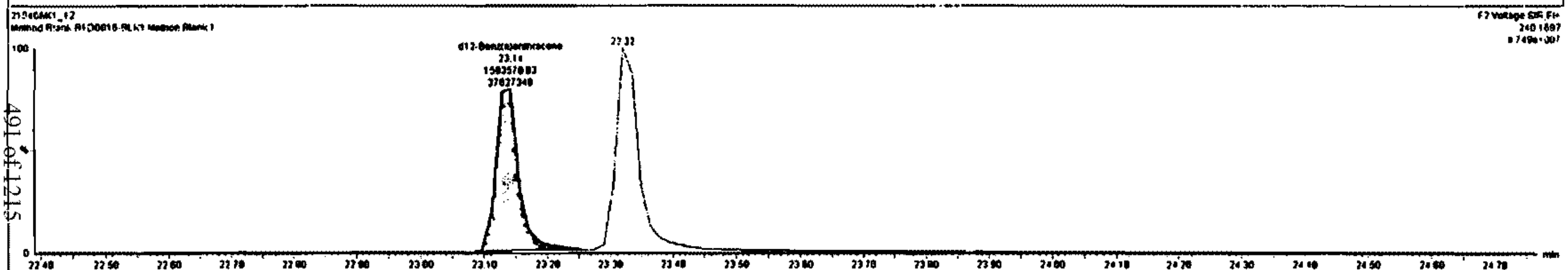
490 of 1215

TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	QL	EMPC
1	Naphthalene	8.21e4	9.44e5	1.1597	1.000	10.17	10.18	1.0080	1.01	NO	11.5		0.508	0.000
2	Naphthalene-2nd	6.16e3	9.44e5	0.1279	1.000	10.17	10.16	1.0045	1.01	NO	10.2		7.84	0.000
3	2-Methylnaphthalene	2.08e4	8.33e5	1.3700	1.000	11.81	11.82	0.7955	0.79	NO	3.84		0.181	0.000
4	Acenaphthylene		1.15e6	1.1105	1.000	14.37			1.00	YES			0.272	
5	Acenaphthene		8.33e5	1.1604	1.000	14.70			1.01	NO			0.275	
6	Fluorene	3.30e3	9.66e5	1.1530	1.000	15.94	15.94	1.0067	1.01	NO	0.586		0.770	0.000
7	Phenanthrene	1.67e4	1.62e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	1.74		0.112	0.000
8	Phenanthrene-2nd		1.62e6	0.0825	1.000	18.33			1.00	NO			1.42	
9	Anthracene	2.45e3	1.62e6	1.0816	1.000	18.38	18.39	1.0049	1.01	NO	0.277		0.122	0.000
10	Fluoranthene	7.40e3	2.31e6	1.0085	1.000	20.38	20.38	1.0015	1.00	NO	0.580		0.0475	0.000
11	Pyrene	8.22e3	2.31e6	1.1881	1.000	20.87	20.85	1.0256	1.03	NO	0.583		0.0388	0.000
12	Benz(a)anthracene	8.35e2	1.58e6	0.8813	1.000	23.20	23.20	1.0020	1.00	NO	0.122		0.0805	0.000
13	Chrysene	1.84e3	1.50e6	0.8519	1.000	23.40	23.41	1.0030	1.00	NO	0.224		0.0819	0.000
14	[illegible]	[illegible]	3.06e6	[illegible]	1.000	27.02	27.01	[illegible]	1.00	NO	[illegible]		0.118	0.000





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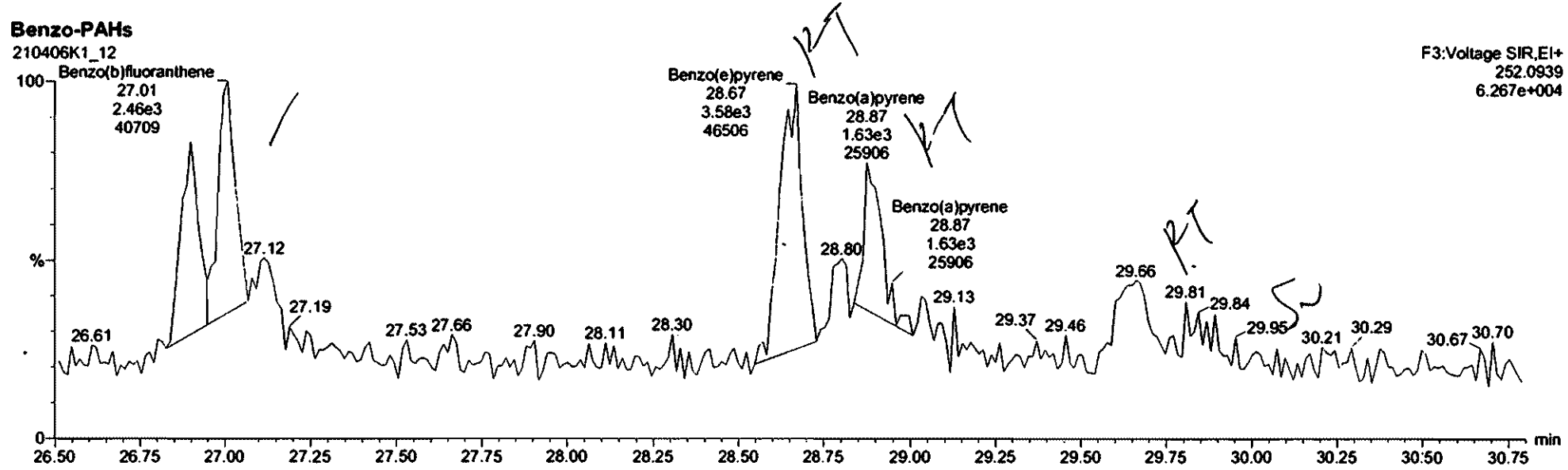
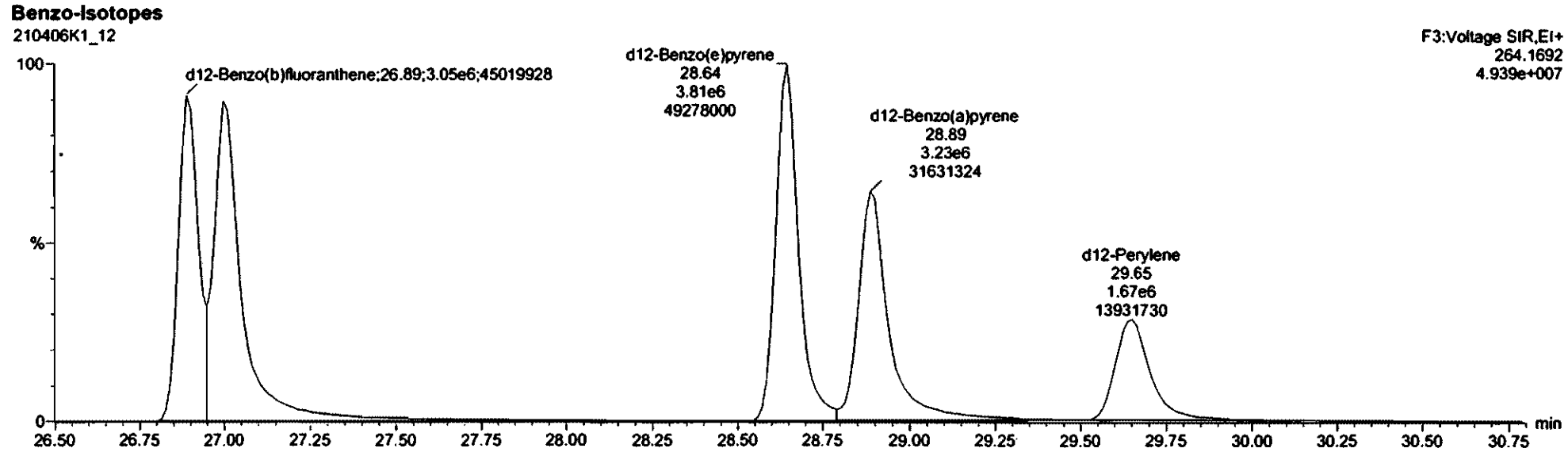
Dataset: Untitled

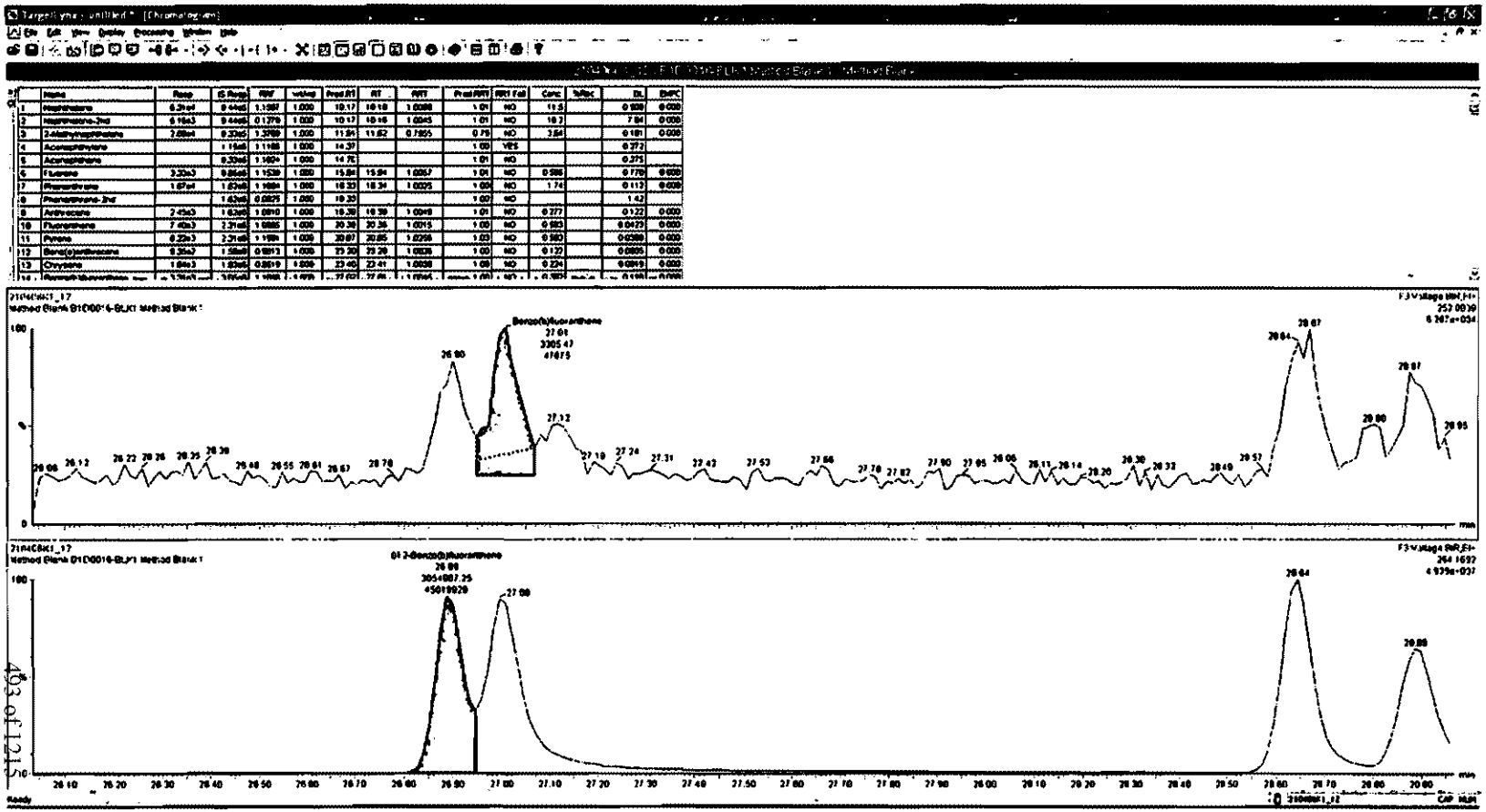
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

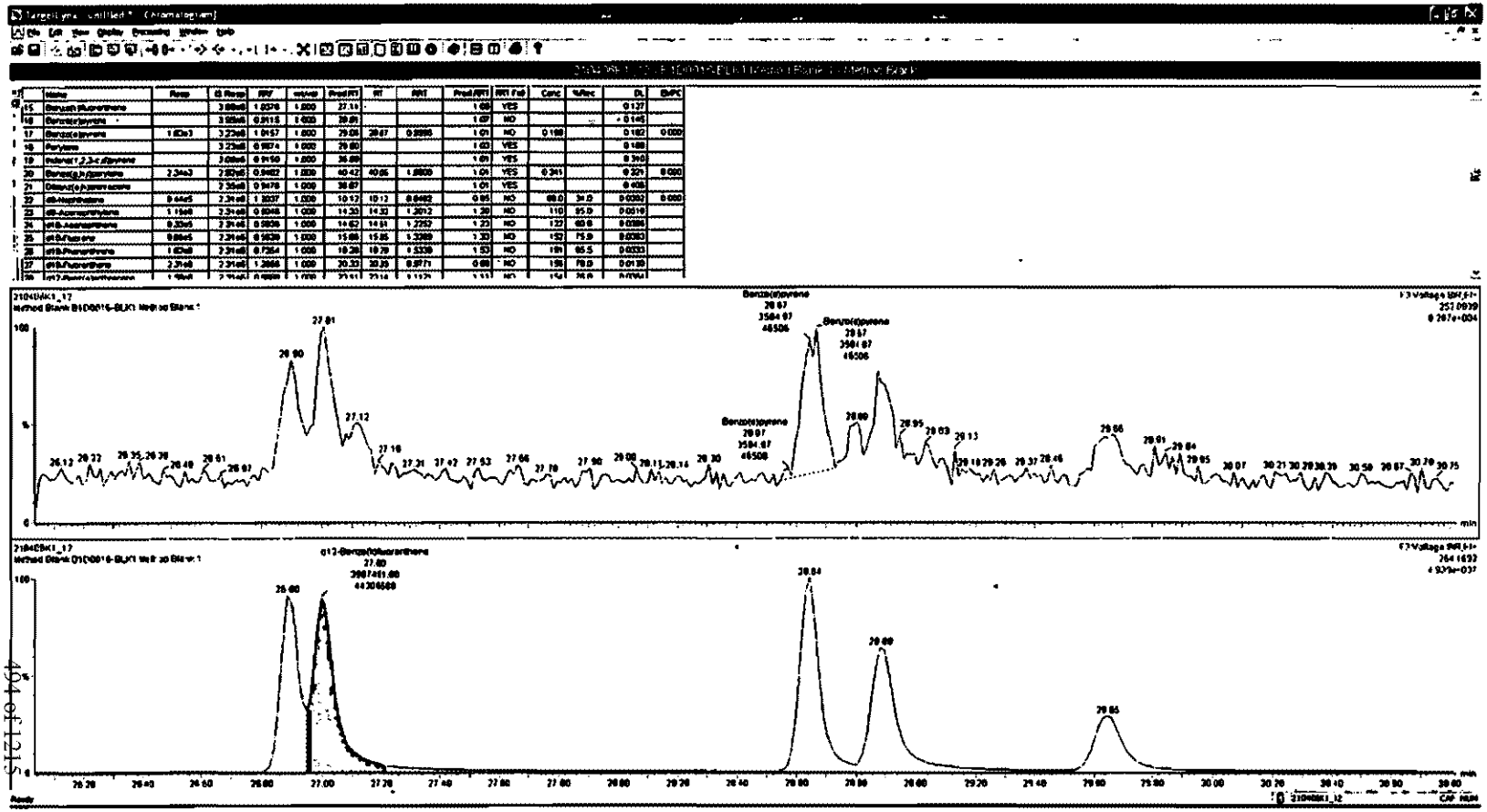
Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

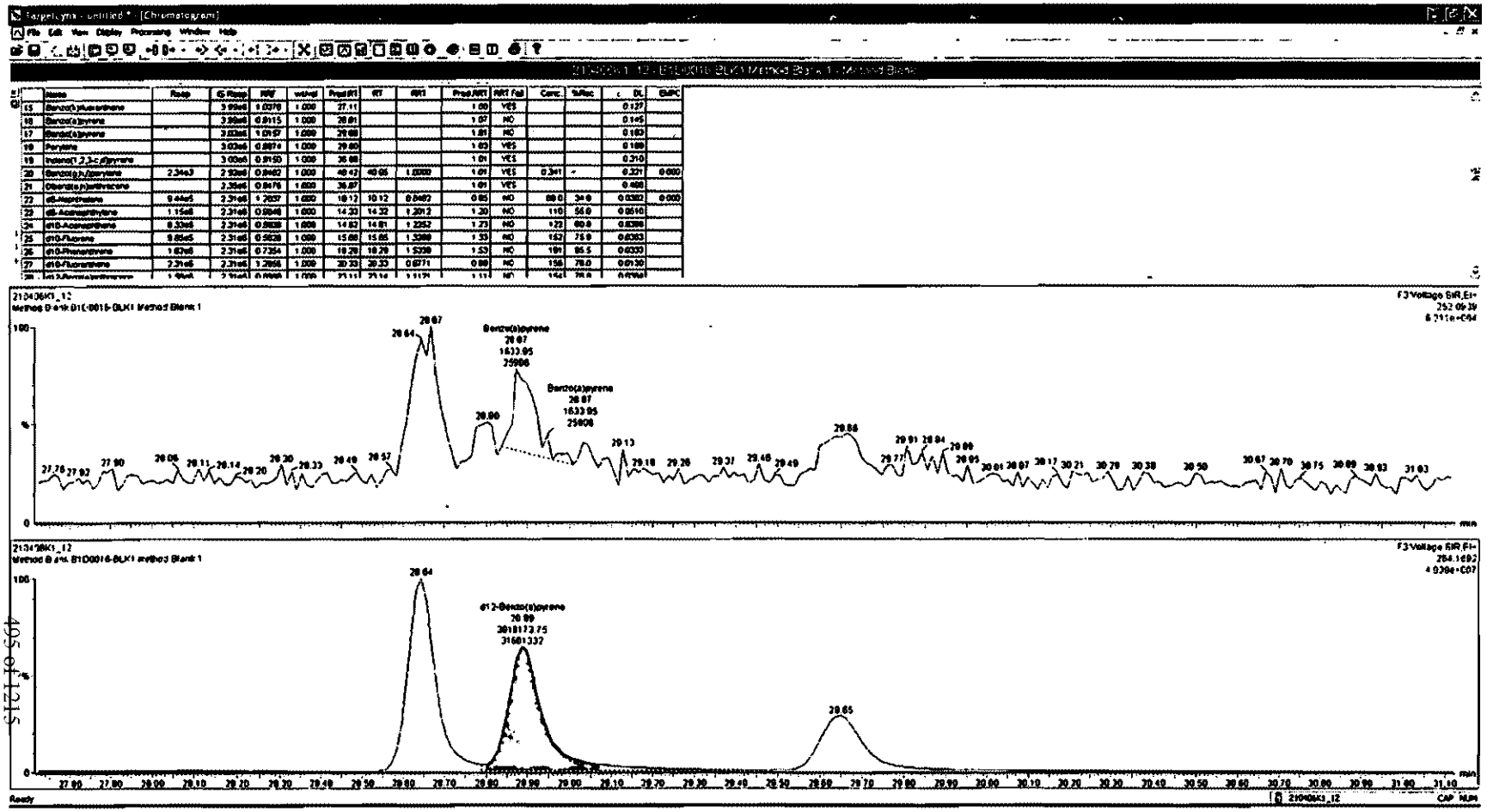




492 of 1215





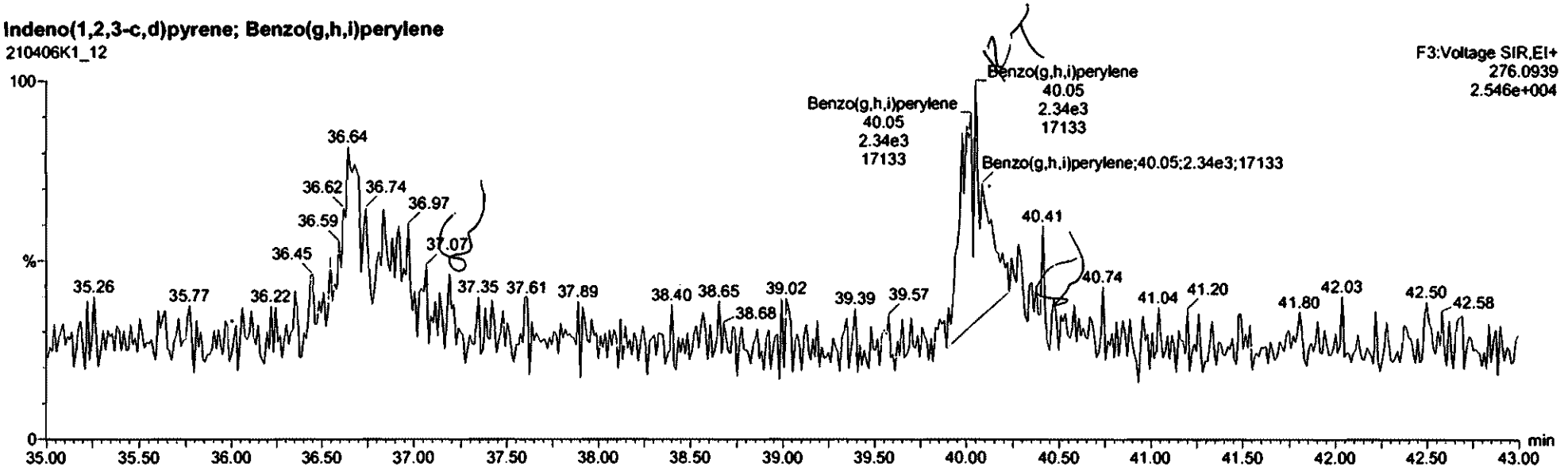

Benzo(a)pyrene
Benzo(a)pyrene
d12-Benzo(a)pyrene

Dataset: Untitled

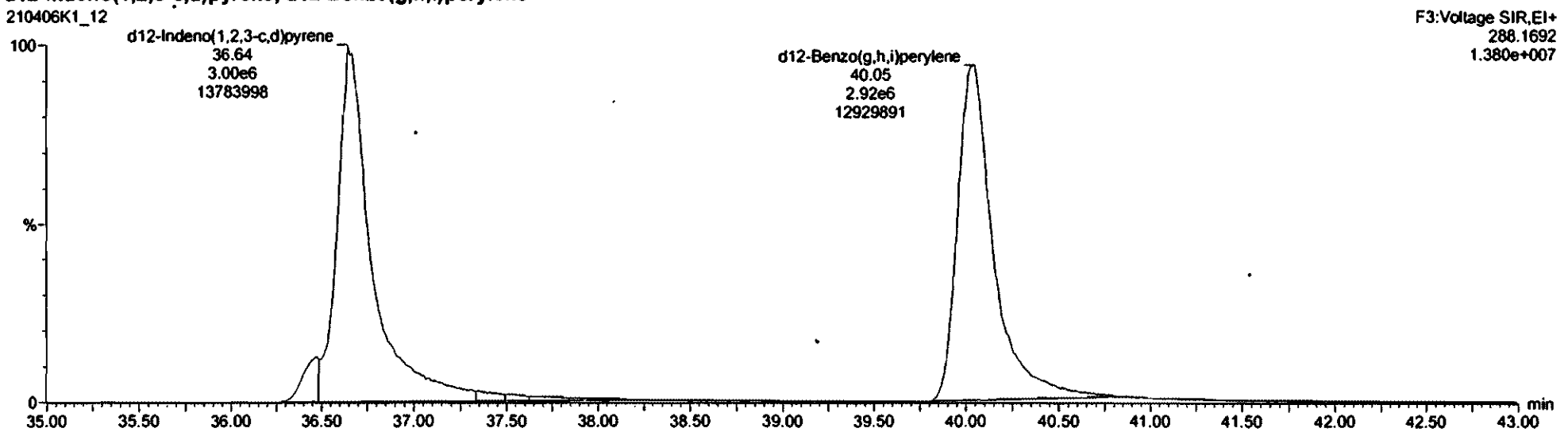
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

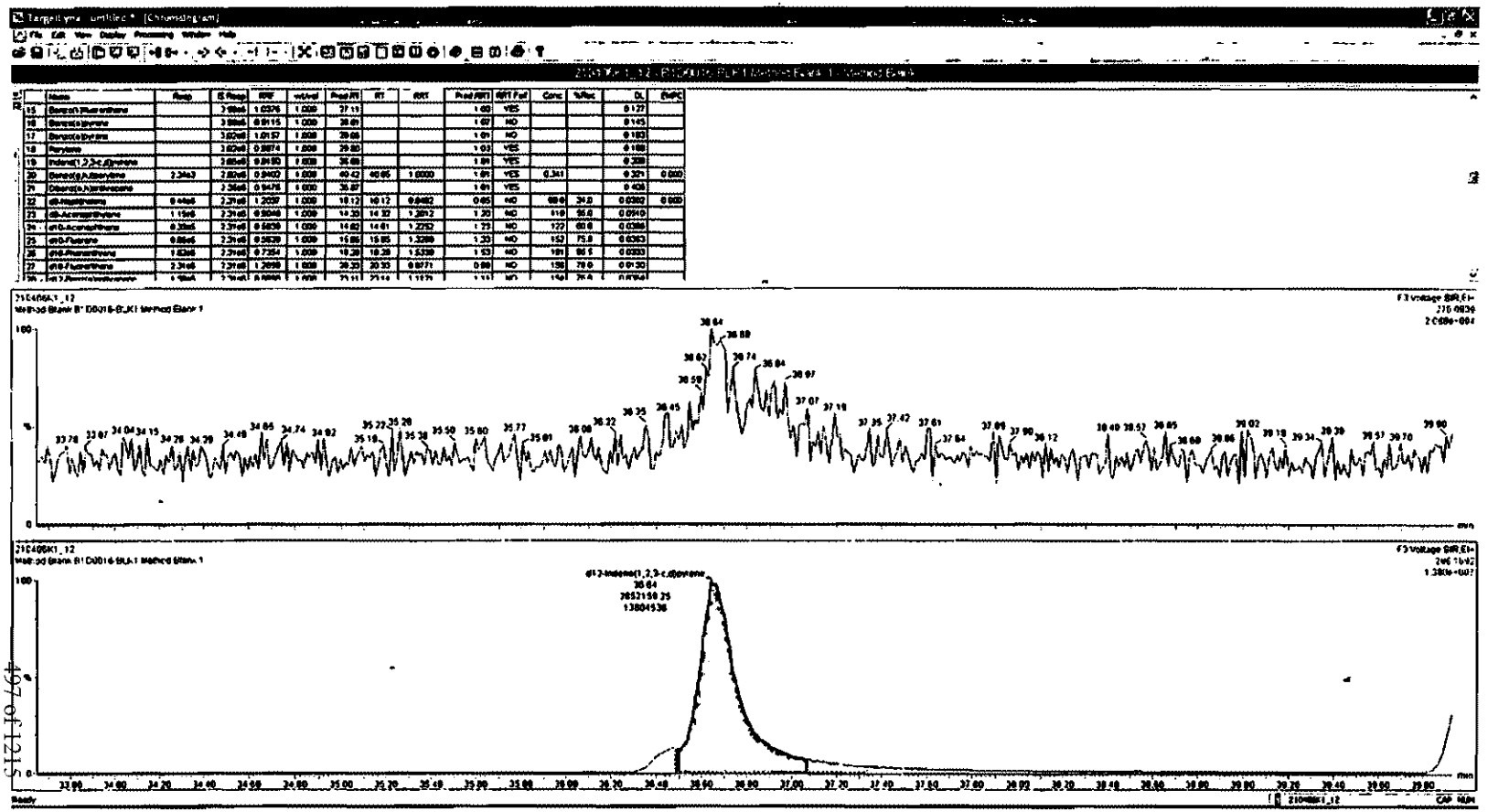
Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



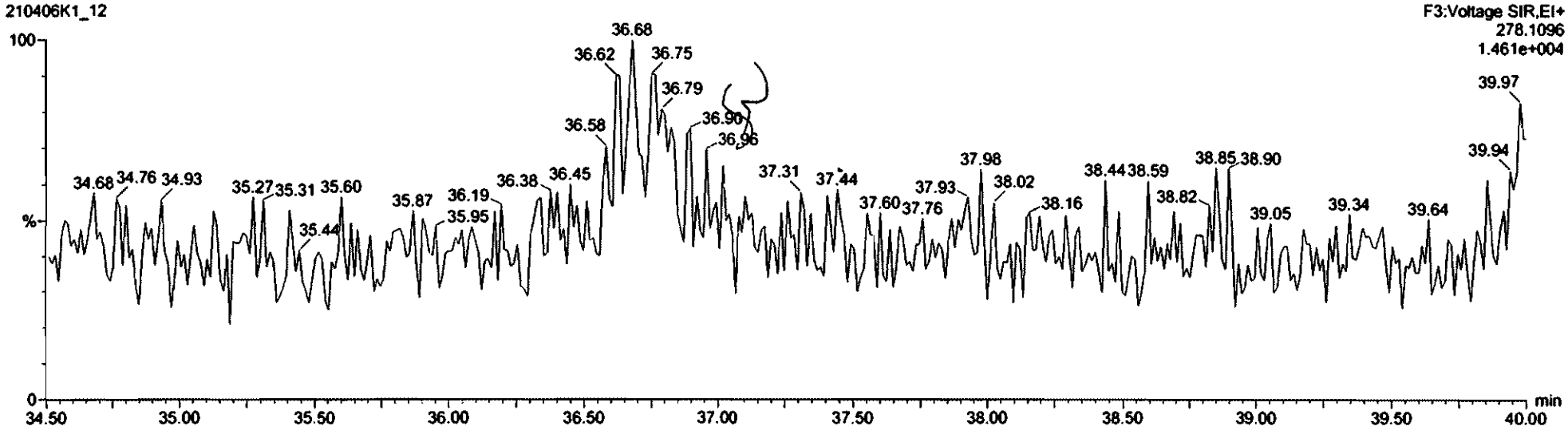


Dataset: Untitled

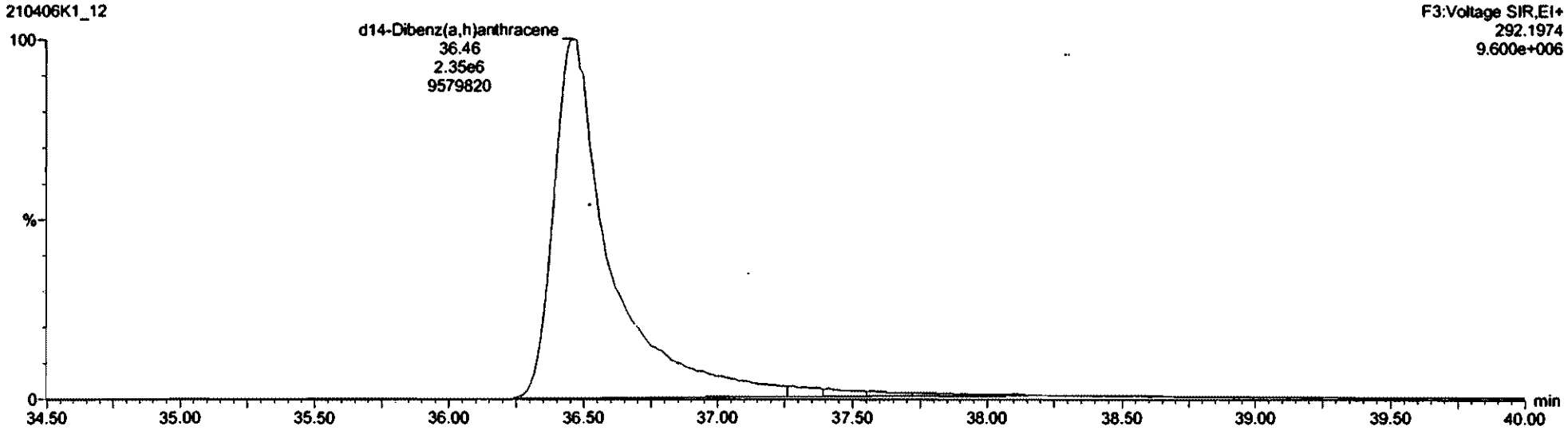
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_12, Date: 06-Apr-2021, Time: 19:50:02, ID: B1D0016-BLK1 Method Blank 1, Description: Method Blank

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



498 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-9.qld

Last Altered: Wednesday, April 07, 2021 8:58:40 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:59:04 AM Pacific Daylight Time

HC 4.7.21 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	5.88e6	1.90e6	1.16	1.000	10.16	10.16	1.006	1.006	NO	535		0.252
2	2	Naphthalene-2nd	6.50e5	1.90e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	536		2.03
3	3	2-Methylnaphthalene	1.48e6	1.10e6	1.38	1.000	11.61	11.62	0.794	0.796	NO	195		0.135
4	4	Acenaphthylene	1.82e6	1.63e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	199		0.116
5	5	Acenaphthene	1.17e6	1.10e6	1.10	1.000	14.70	14.70	1.006	1.006	NO	192		0.207
6	6	Fluorene	1.31e6	1.16e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	195		0.133
7	7	Phenanthrene	5.32e6	1.66e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	539		0.0737
8	8	Phenanthrene-2nd	4.08e5	1.66e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	531		1.37
9	9	Anthracene	1.82e6	1.66e6	1.09	1.000	18.39	18.40	1.005	1.006	NO	201		0.0803
10	10	Fluoranthene	2.77e6	2.41e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	209		0.0362
11	11	Pyrene	2.97e6	2.41e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	205		0.0332
12	12	Benz(a)anthracene	1.82e6	1.73e6	0.961	1.000	23.22	23.22	1.003	1.003	NO	219		0.0950
13	13	Chrysene	1.89e6	2.07e6	0.852	1.000	23.43	23.42	1.003	1.003	NO	214		0.0816
14	14	Benzo(b)fluoranthene	1.88e6	3.07e6	1.10	1.000	27.12	27.12	1.005	1.005	NO	222		0.219
15	15	Benzo(k)fluoranthene	2.40e6	4.49e6	1.04	1.000	27.21	27.20	1.004	1.004	NO	206		0.224
16	16	Benzo(e)pyrene	1.97e6	4.49e6	0.911	1.000	28.91	28.93	1.067	1.068	NO	193		0.255
17	17	Benzo(a)pyrene	1.88e6	3.33e6	1.02	1.000	29.19	29.15	1.006	1.005	NO	223		0.322
18	18	Perylene	1.76e6	3.33e6	0.987	1.000	29.93	29.88	1.031	1.030	NO	215		0.332
19	19	Indeno(1,2,3-c,d)pyrene	1.65e6	3.22e6	0.915	1.000	36.90	36.91	1.007	1.007	NO	224		0.635
20	20	Benzo(g,h,i)perylene	1.66e6	3.13e6	0.940	1.000	40.75	40.70	1.009	1.008	NO	226		0.892
21	21	Dibenz(a,h)anthracene	1.27e6	2.42e6	0.948	1.000	36.84	36.78	1.011	1.009	NO	222		0.691
22	22	d8-Naphthalene	1.90e6	2.38e6	1.20	1.000	10.12	10.10	0.848	0.847	NO	132	66.1	0.0266
23	23	d8-Acenaphthylene	1.63e6	2.38e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	152	75.8	0.0471
24	24	d10-Acenaphthene	1.10e6	2.38e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	156	77.8	0.0341
25	25	d10-Fluorene	1.16e6	2.38e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	173	86.7	0.0324
26	26	d10-Phenanthrene	1.66e6	2.38e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	189	94.7	0.0258
27	27	d10-Fluoranthene	2.41e6	2.38e6	1.29	1.000	20.34	20.33	0.977	0.976	NO	158	78.8	0.0115
28	28	d12-Benz(a)anthracene	1.73e6	2.38e6	0.900	1.000	23.13	23.16	1.110	1.112	NO	162	80.8	0.0250
29	29	d12-Chrysene	2.07e6	2.38e6	1.02	1.000	23.32	23.35	1.120	1.121	NO	170	85.0	0.0220
30	30	d12-Benzo(b)fluoranthene	3.07e6	1.82e6	1.18	1.000	26.97	26.98	0.907	0.908	NO	285	71.2	0.271
31	31	d12-Benzo(k)fluoranthene	4.49e6	1.82e6	1.50	1.000	27.08	27.09	0.911	0.912	NO	328	82.0	0.213

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-9.qld

Last Altered: Wednesday, April 07, 2021 8:58:40 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:59:04 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

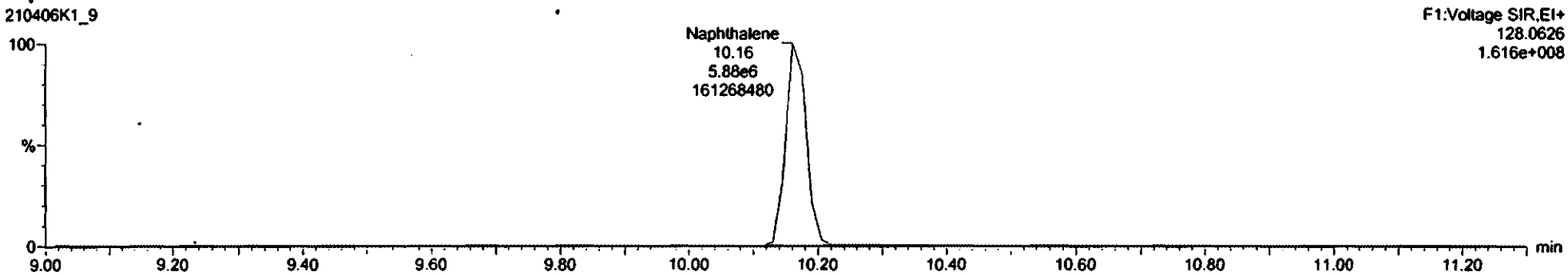
	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.33e6	1.82e6	1.24	1.000	28.98	29.02	0.975	0.976	NO	295	73.8	0.259
33	33	d12-Indeno(1,2,3-c,d)pyrene	3.22e6	1.82e6	1.02	1.000	37.06	36.65	1.247	1.233	YES ok	346	86.6	1.48
34	34	d12-Benzo(g,h,i)perylene	3.13e6	1.82e6	1.00	1.000	40.49	40.38	1.362	1.358	NO	342	85.6	1.50
35	35	d14-Dibenz(a,h)anthracene	2.42e6	1.82e6	0.765	1.000	36.84	36.44	1.239	1.226	YES ok	346	86.6	0.331
36	36	d10-Anthracene	1.38e6	1.82e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	153	76.7	0.120
37	39	d10-1-Methylnaphthalene	1.96e6	1.96e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0268
38	40	d10-Pyrene	2.38e6	2.38e6	1.00	1.000	20.81	20.82	1.000	1.000	NO	200	100	0.0148
39	41	d12-Perylene	1.82e6	1.82e6	1.00	1.000	29.59	29.72	1.000	1.000	NO	200	100	0.321

Dataset: Untitled

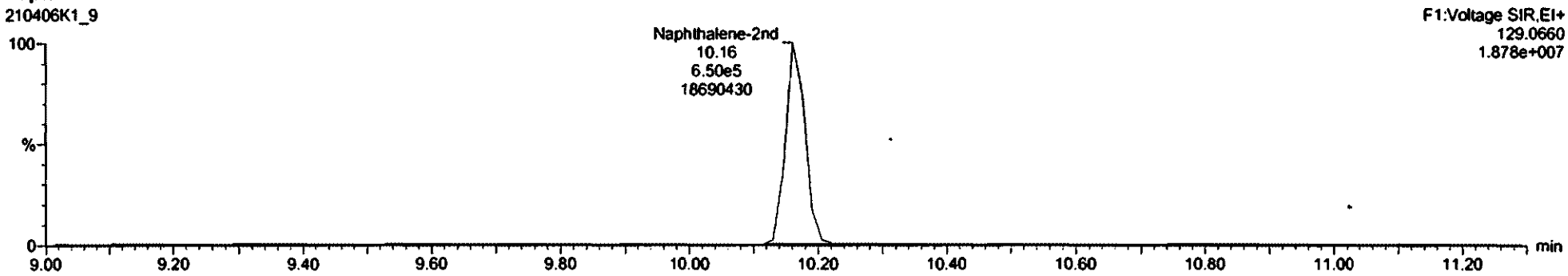
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

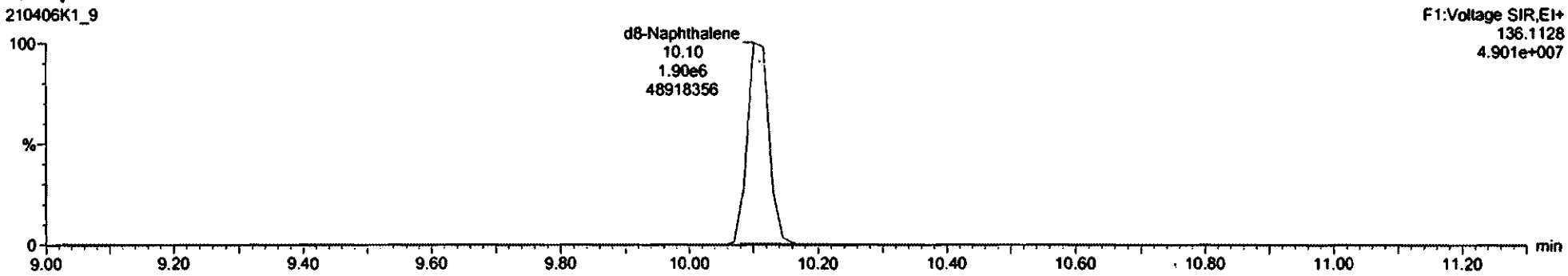
Naphthalene



Naphthalene-2nd



d8-Naphthalene



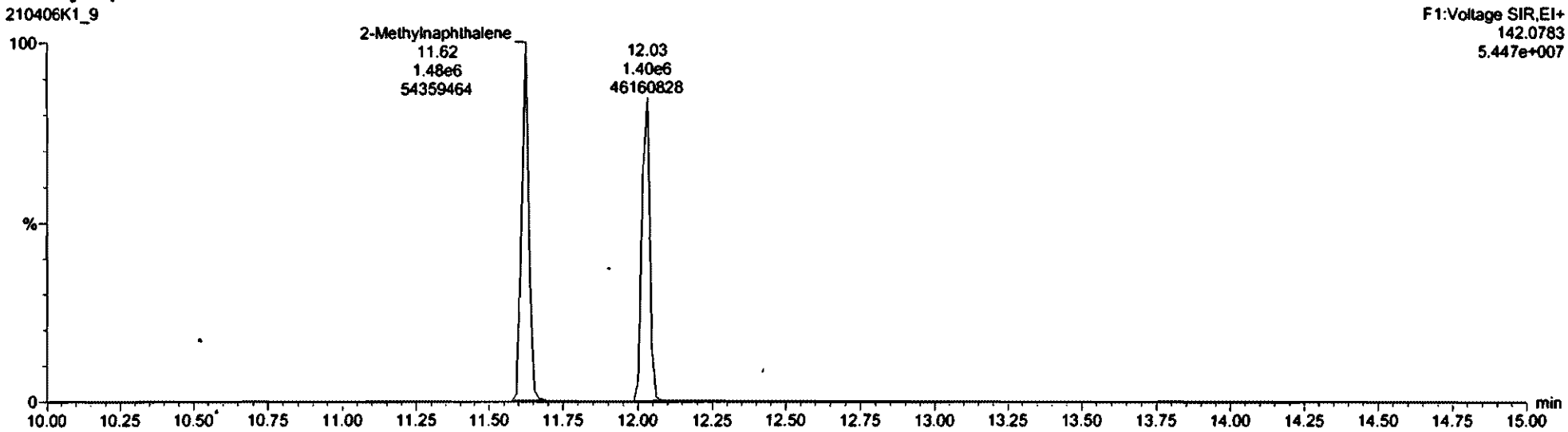
501 of 1215

Dataset: Untitled

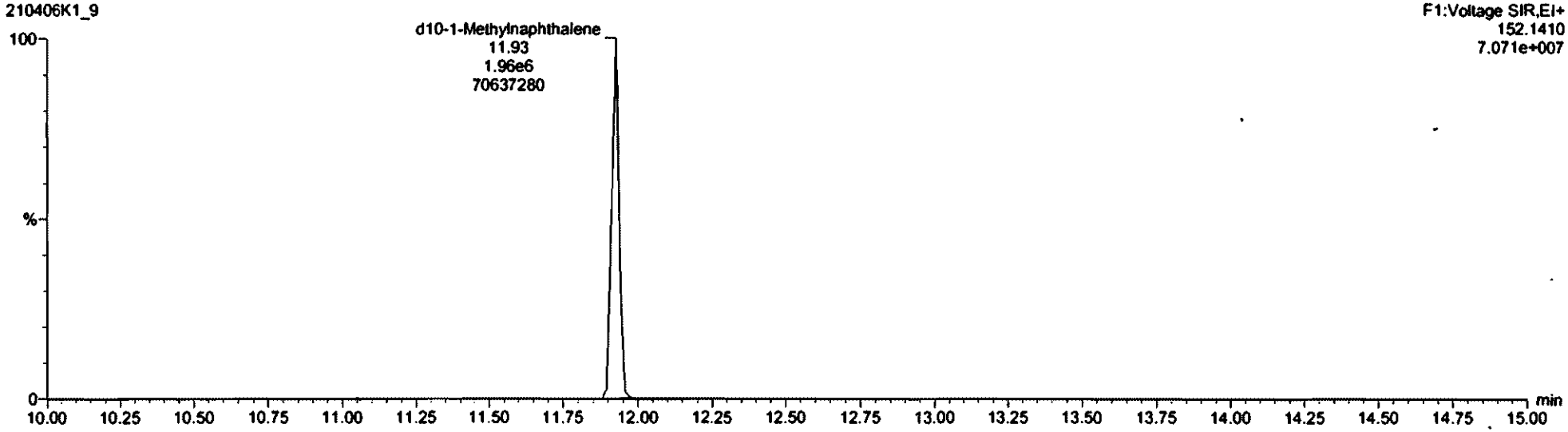
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



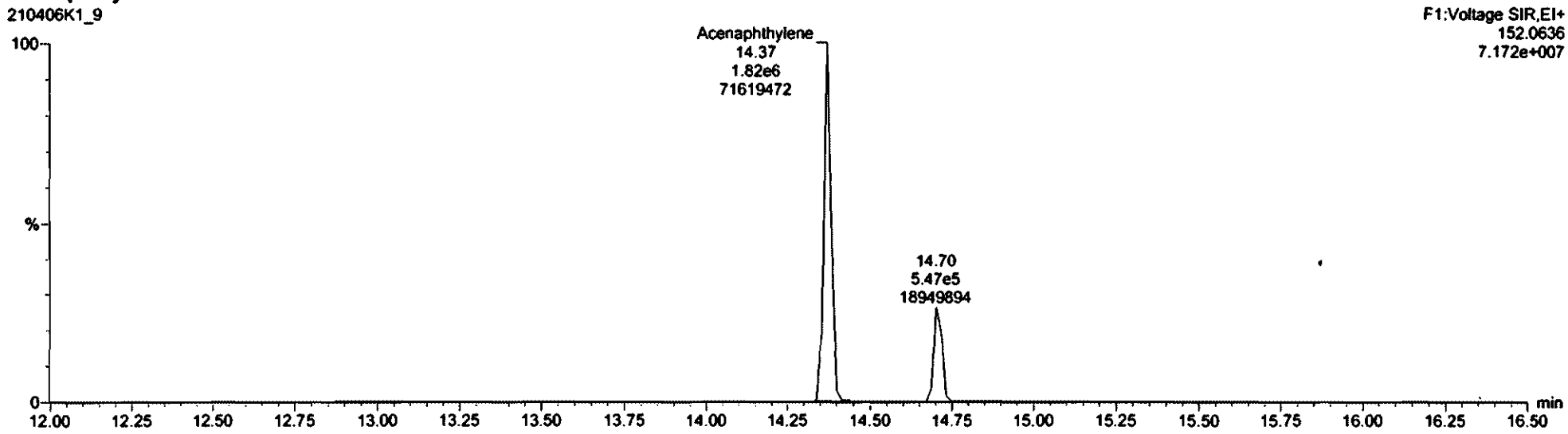
502 of 1215

Dataset: Untitled

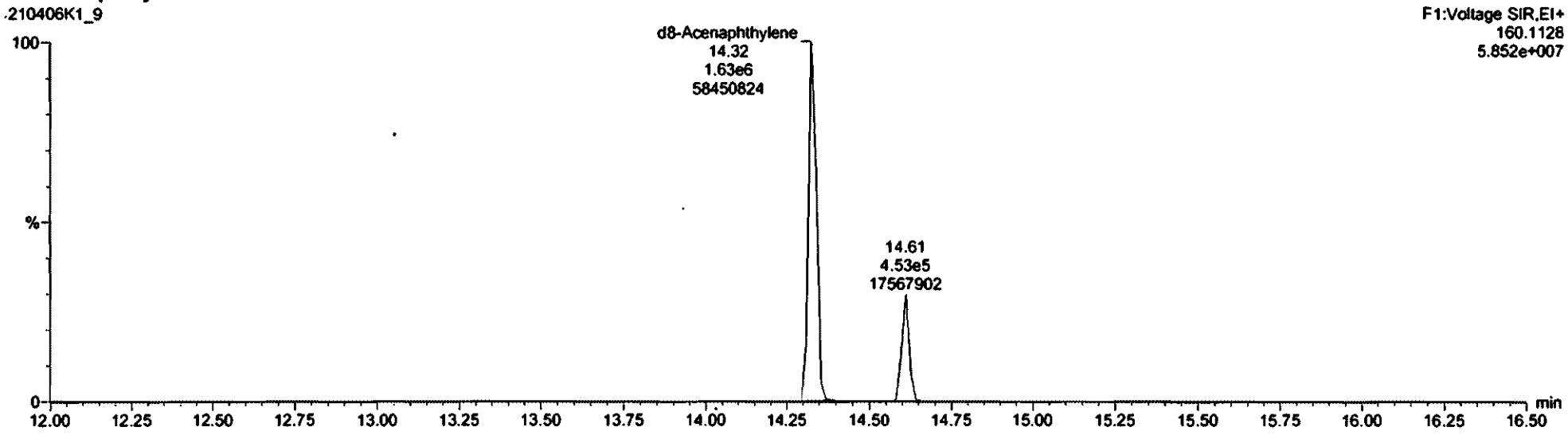
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Acenaphthylene



d8-Acenaphthylene



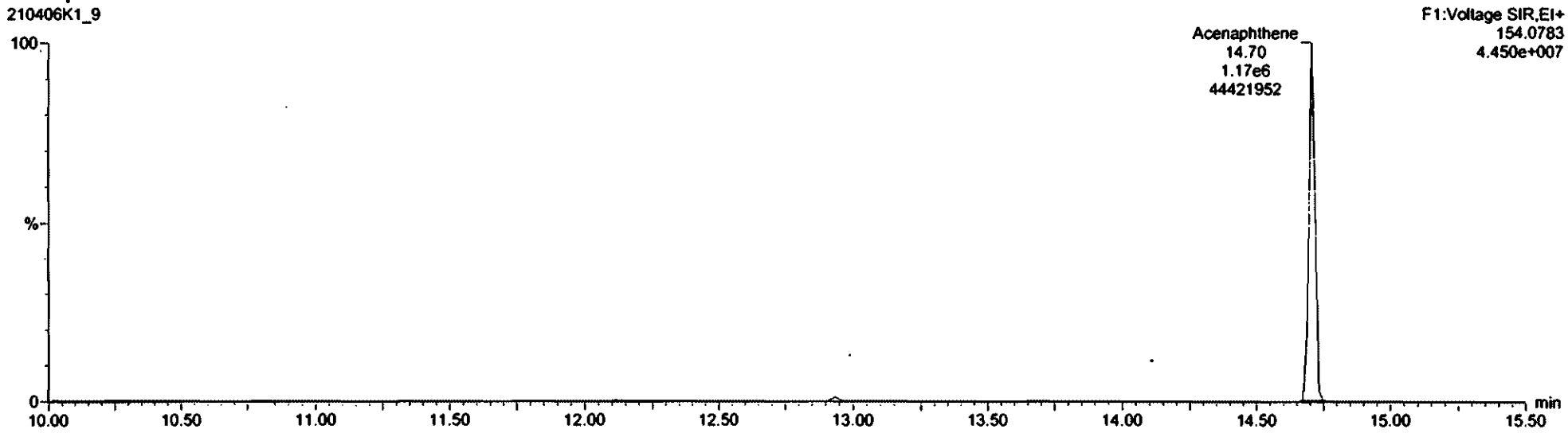
503 of 1215

Dataset: Untitled

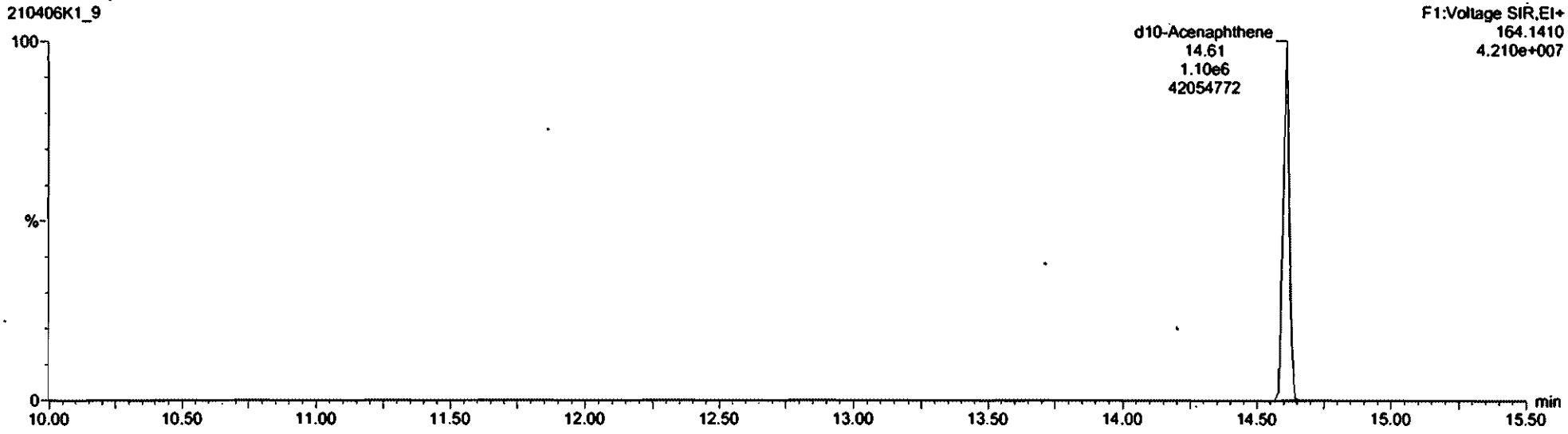
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Acenaphthene



d10-Acenaphthene



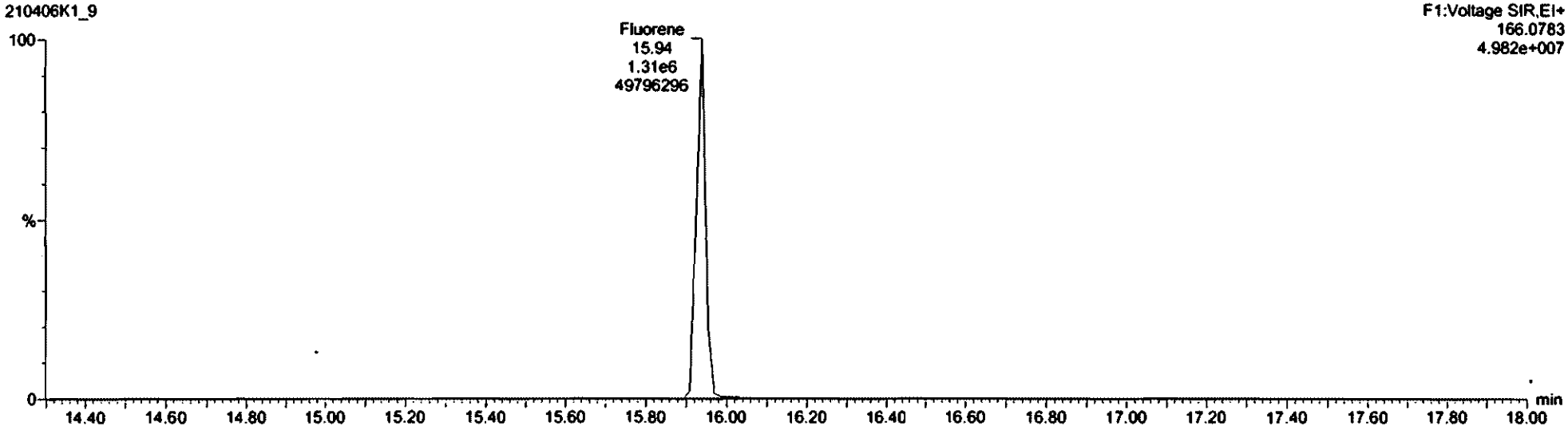
504 of 1215

Dataset: Untitled

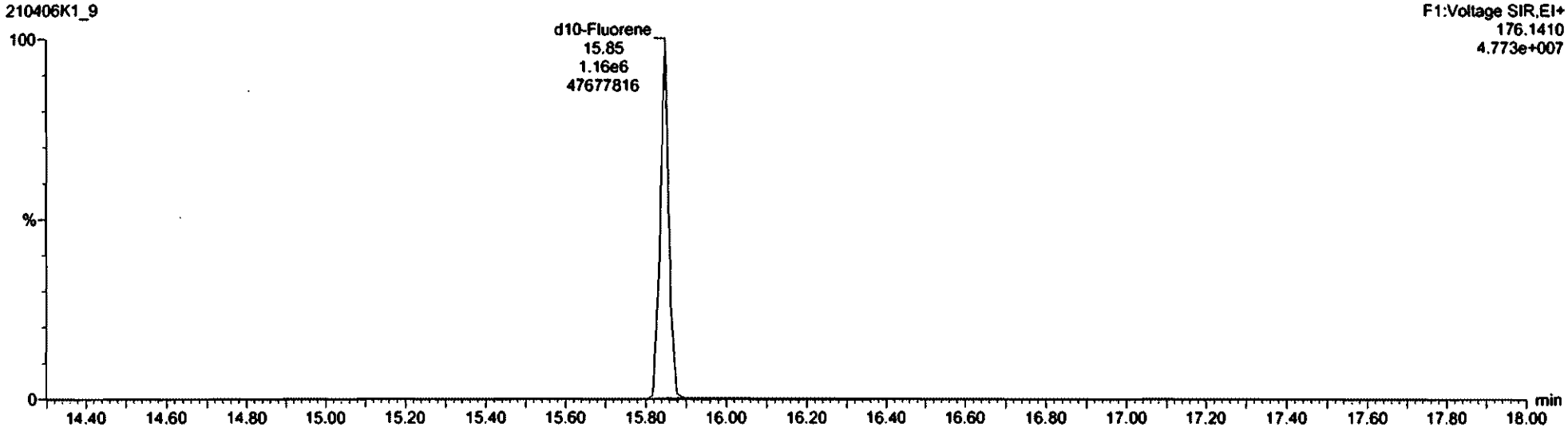
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Fluorene



d10-Fluorene



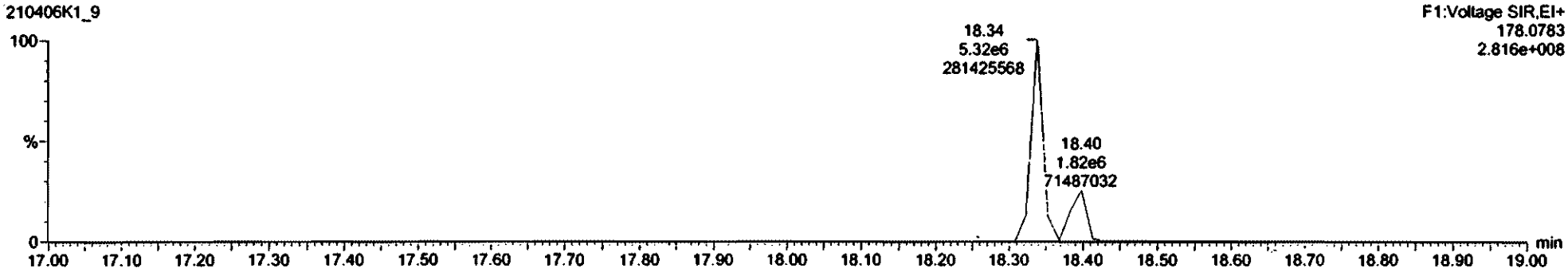
505 of 1215

Dataset: Untitled

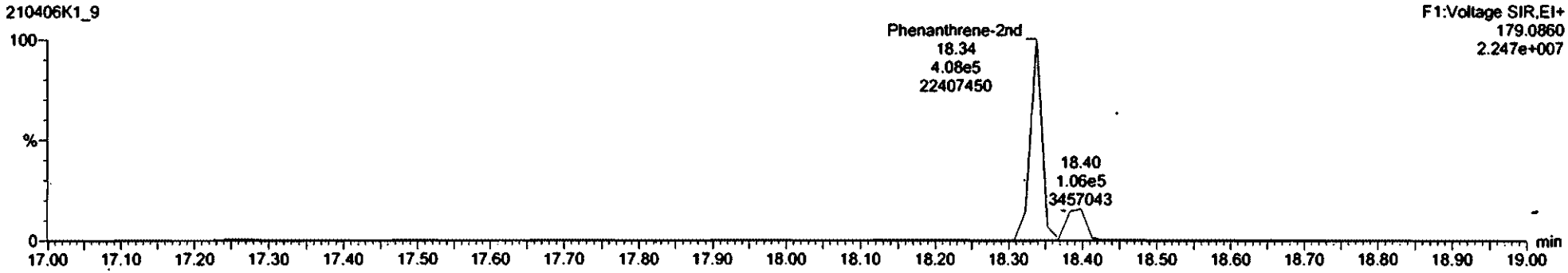
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

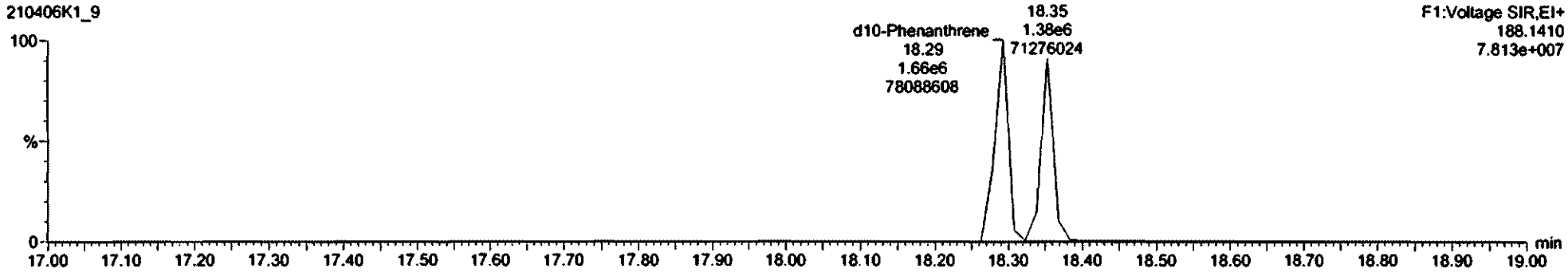
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



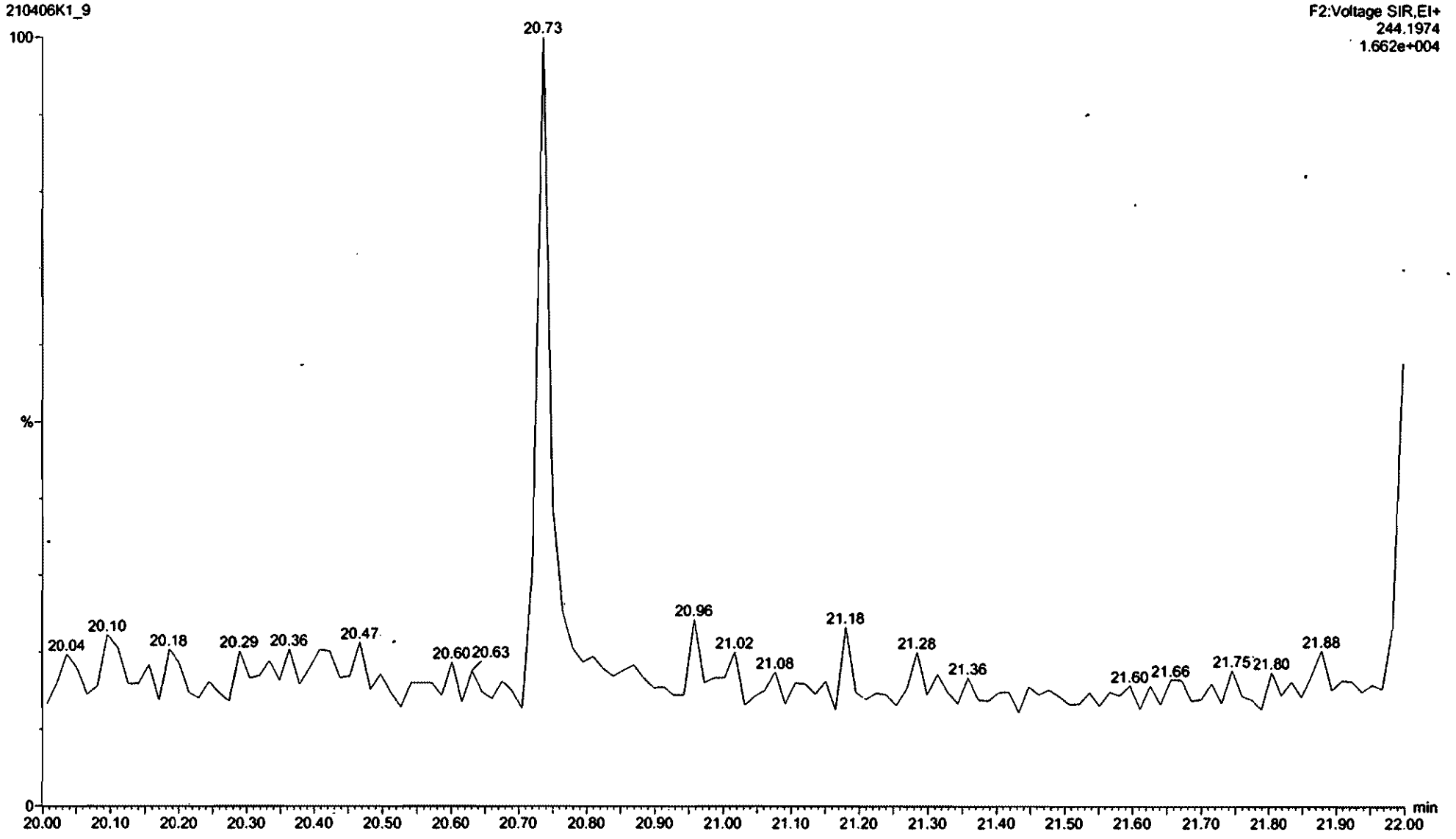
506 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

d14-Terphenyl (PS)



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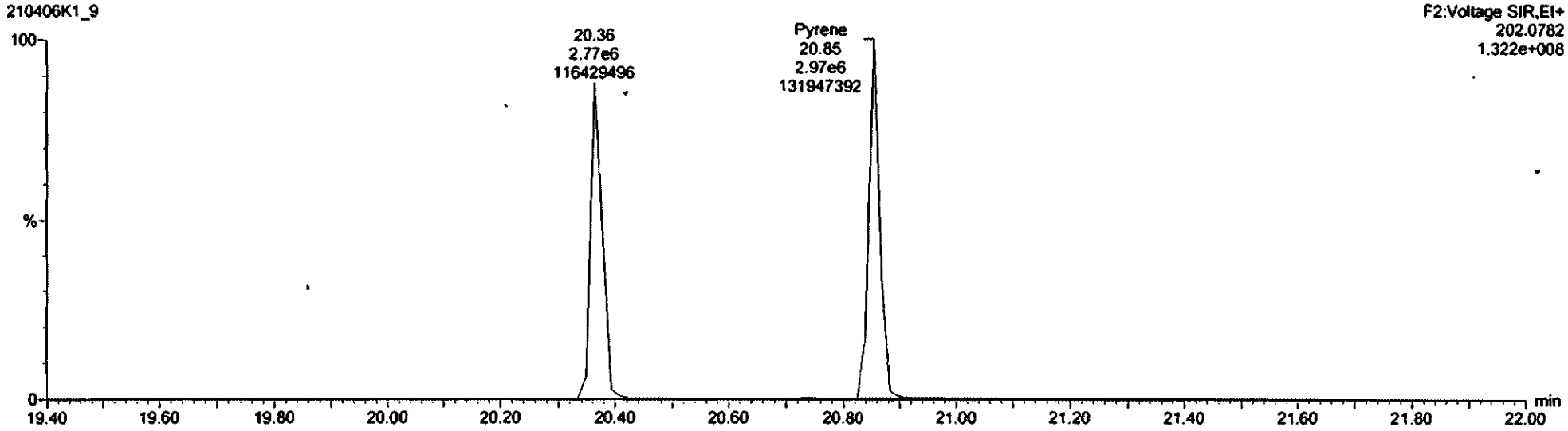
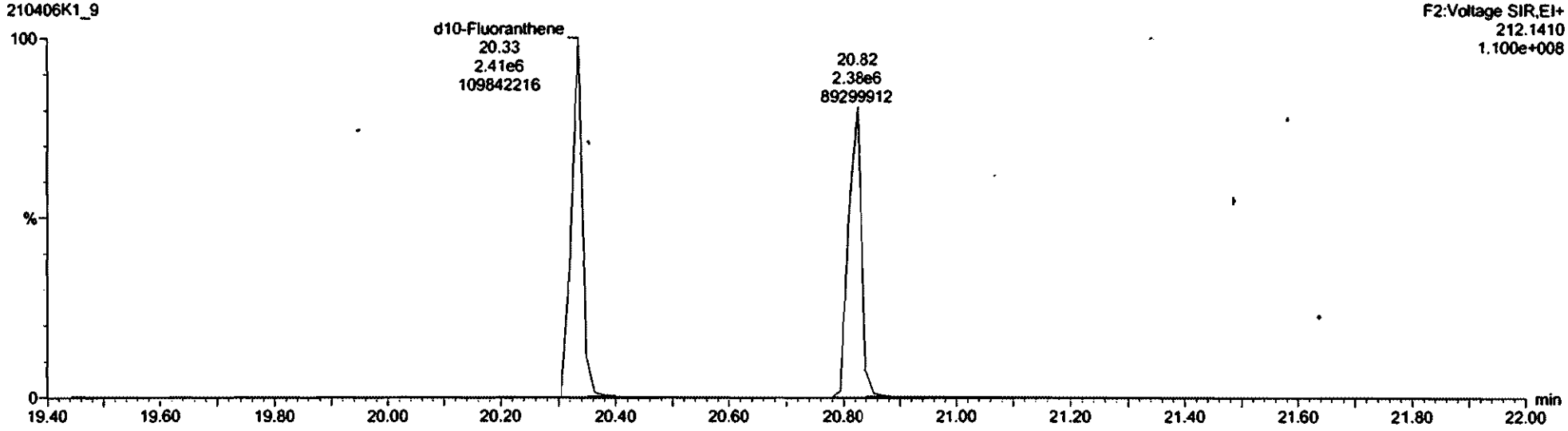
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



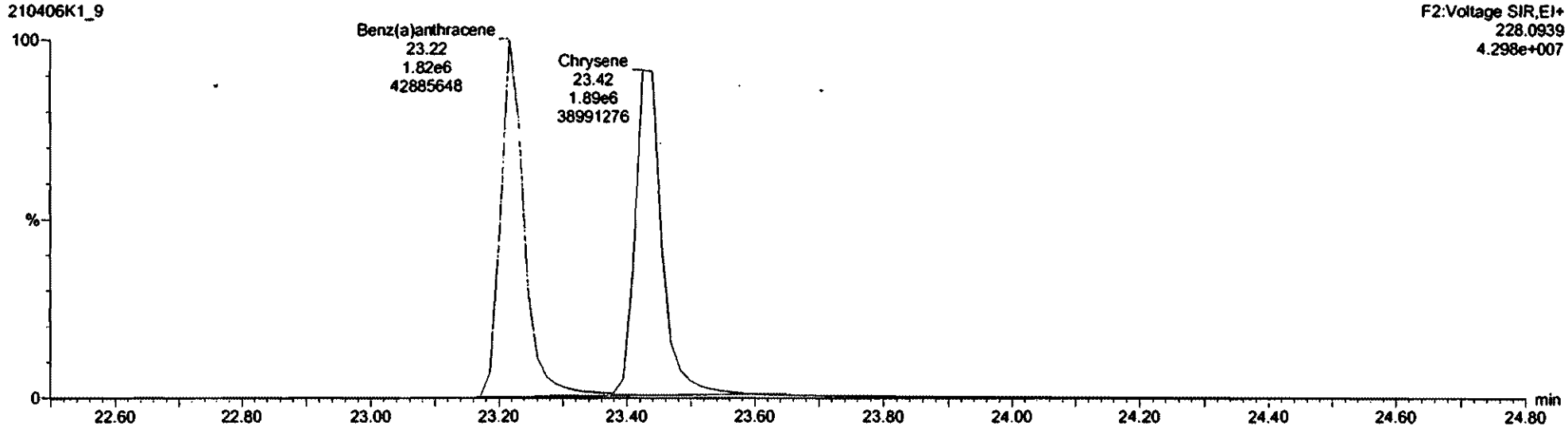
508 of 1215

Dataset: Untitled

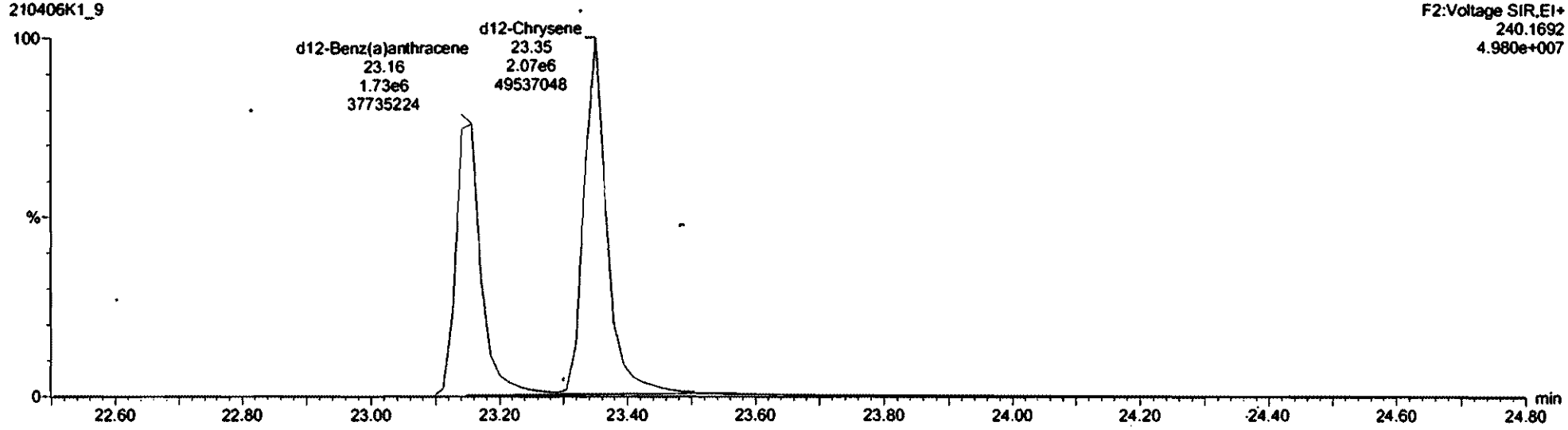
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



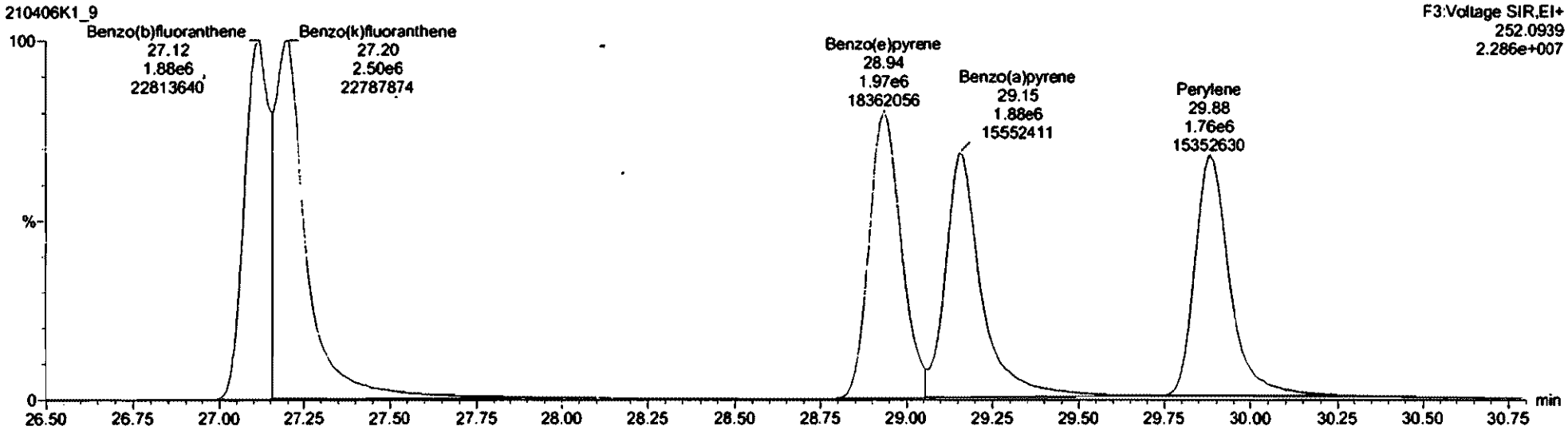
509 of 1215

Dataset: Untitled

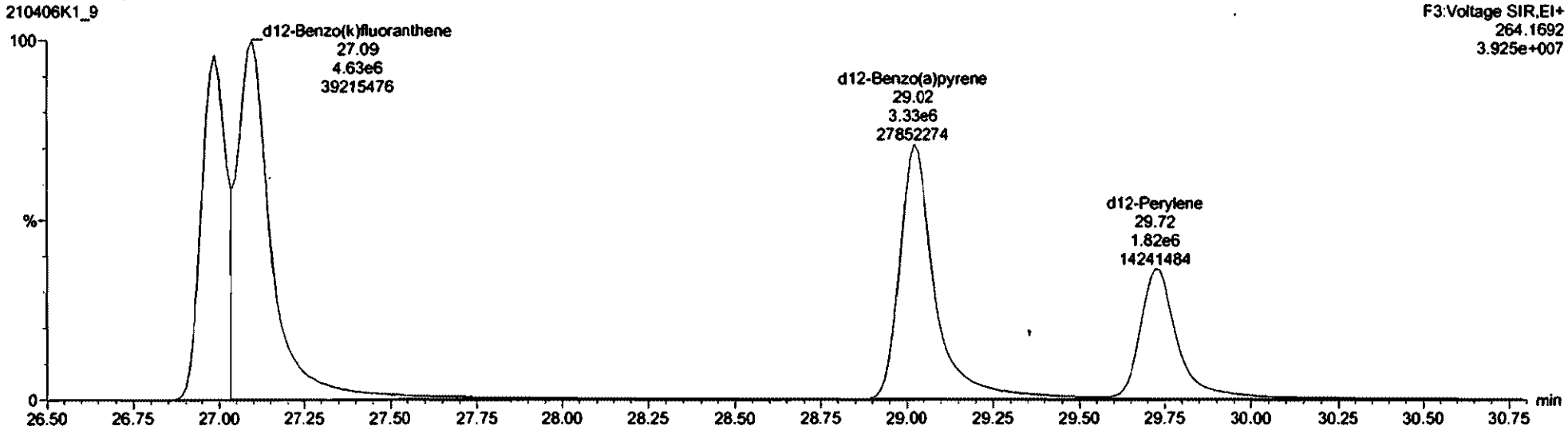
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Benzo-PAHs



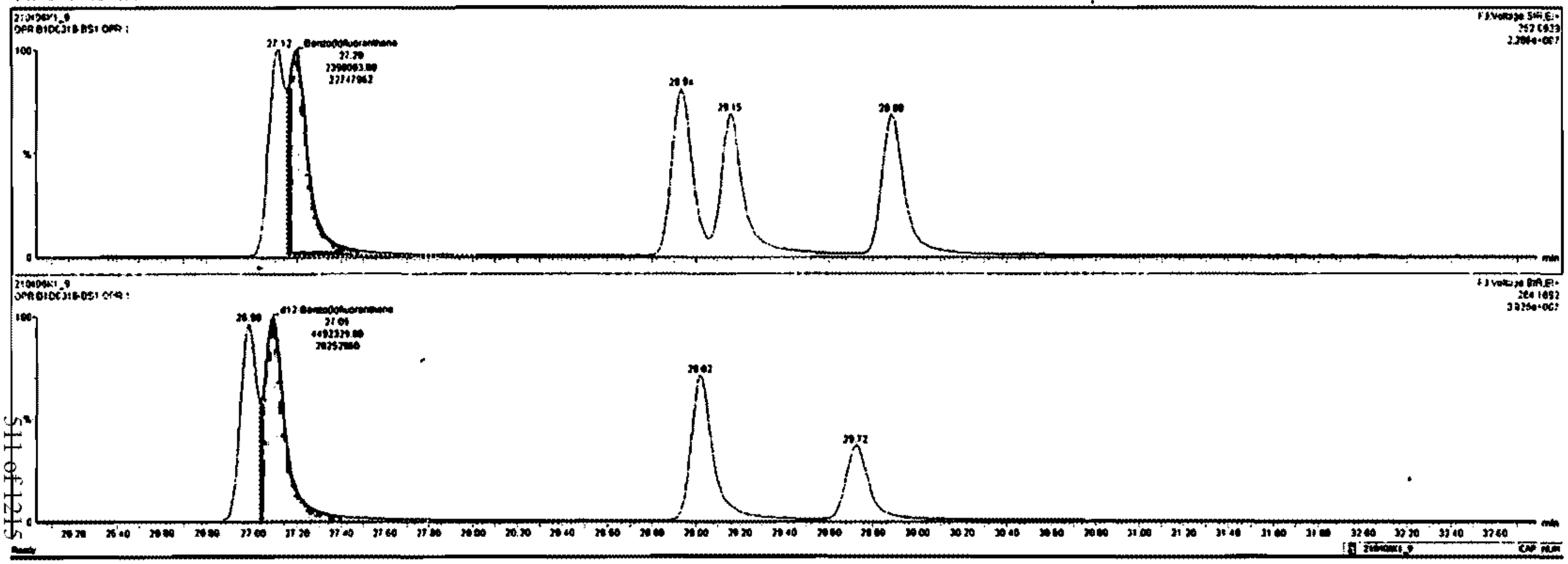
Benzo-Isotopes



TargetLynx 210406N1 9.qld - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.40e6	4.48e6	1.0398	1.000	27.21	27.20	1.0040	1.00	NO	208		0.224	0.000
16	Benzo(e)pyrene	1.97e6	4.48e6	0.9115	1.000	28.91	28.93	1.0680	1.07	NO	193		0.256	0.000
17	Benzo(a)pyrene	1.88e6	3.33e6	1.0157	1.000	29.19	29.15	1.0046	1.01	NO	223		0.322	0.000
18	Perylene	1.76e6	3.33e6	0.8874	1.000	29.83	29.88	1.0298	1.03	NO	215		0.332	0.000
19	Indeno(1,2,3-cd)pyrene				1.000	0.00			1.01	NO				
20	Benzo(g,h,i)perylene	1.86e6	3.13e6	0.9402	1.000	40.75	40.70	1.0091	1.01	NO	226		0.882	0.000
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.90e6	2.38e6	1.2037	1.000	10.13	10.10	0.8480	0.85	NO	132	66.1	0.0266	0.000
23	d8-Acenaphthylene	1.63e6	2.38e6	0.8049	1.000	14.33	14.32	1.2012	1.20	NO	152	75.8	0.0471	
24	d10-Acenaphthene	1.10e6	2.38e6	0.5839	1.000	14.82	14.61	1.2262	1.23	NO	156	77.8	0.0341	
25	d10-Fluorene	1.19e6	2.38e6	0.5829	1.000	15.88	15.85	1.3309	1.33	NO	173	86.7	0.0224	
26	d10-Phenanthrene	1.88e6	2.38e6	0.7364	1.000	18.28	18.28	1.5339	1.53	NO	189	94.7	0.0268	
27	d10-Fluoranthene	2.41e6	2.38e6	1.2858	1.000	20.34	20.33	0.8766	0.88	NO	156	78.6	0.0315	
28	d12-Benz(a)anthracene	1.73e6	2.38e6	0.8886	1.000	27.13	27.10	1.1130	1.11	NO	167	83.4	[illegible]	



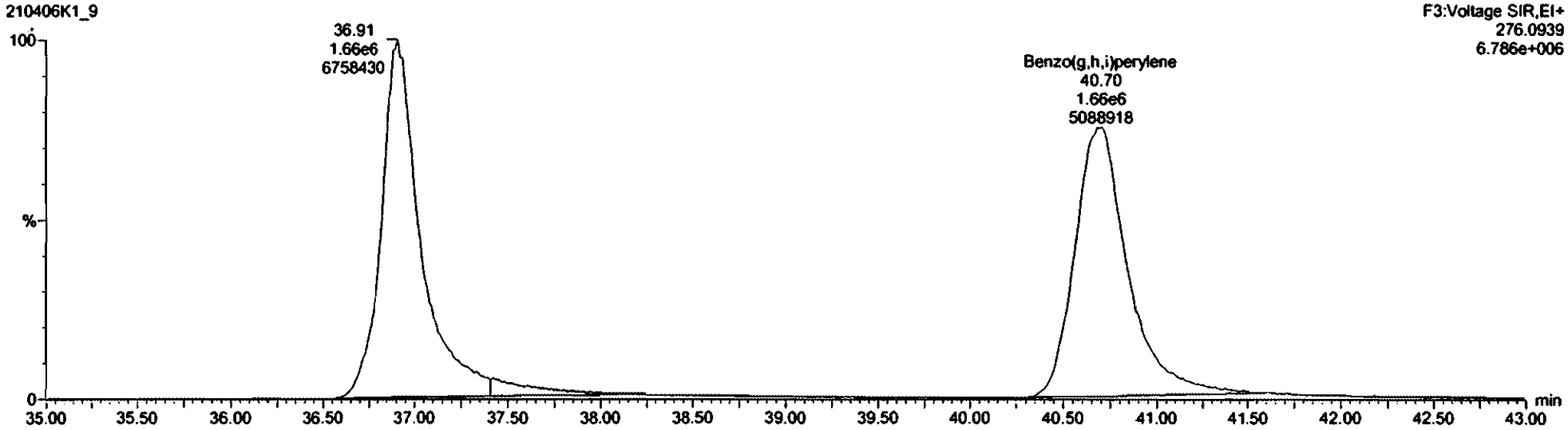
Ready

Dataset: Untitled

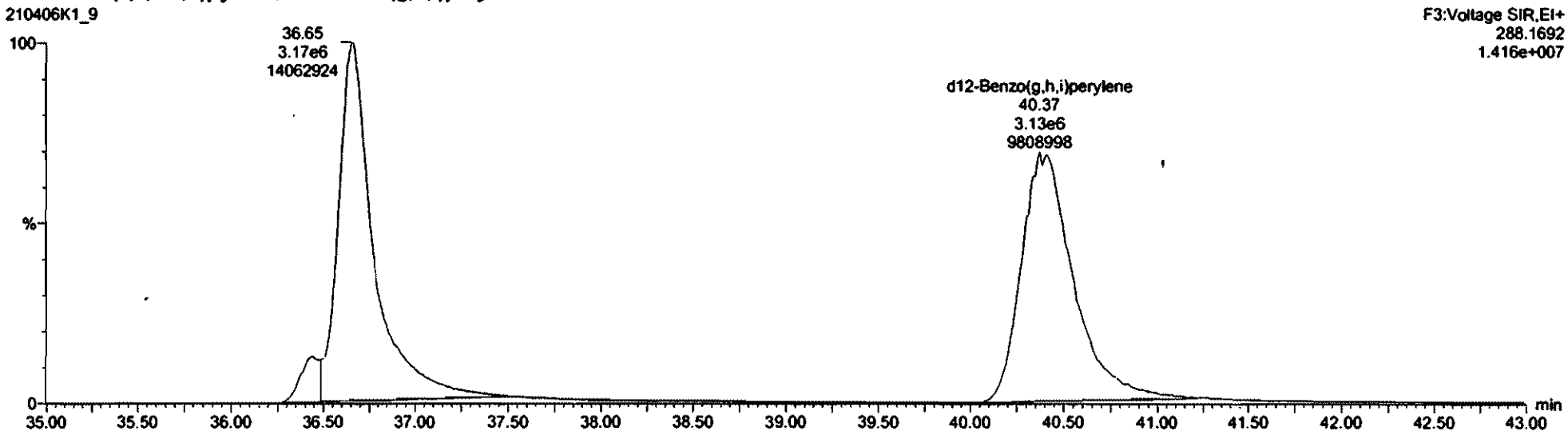
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



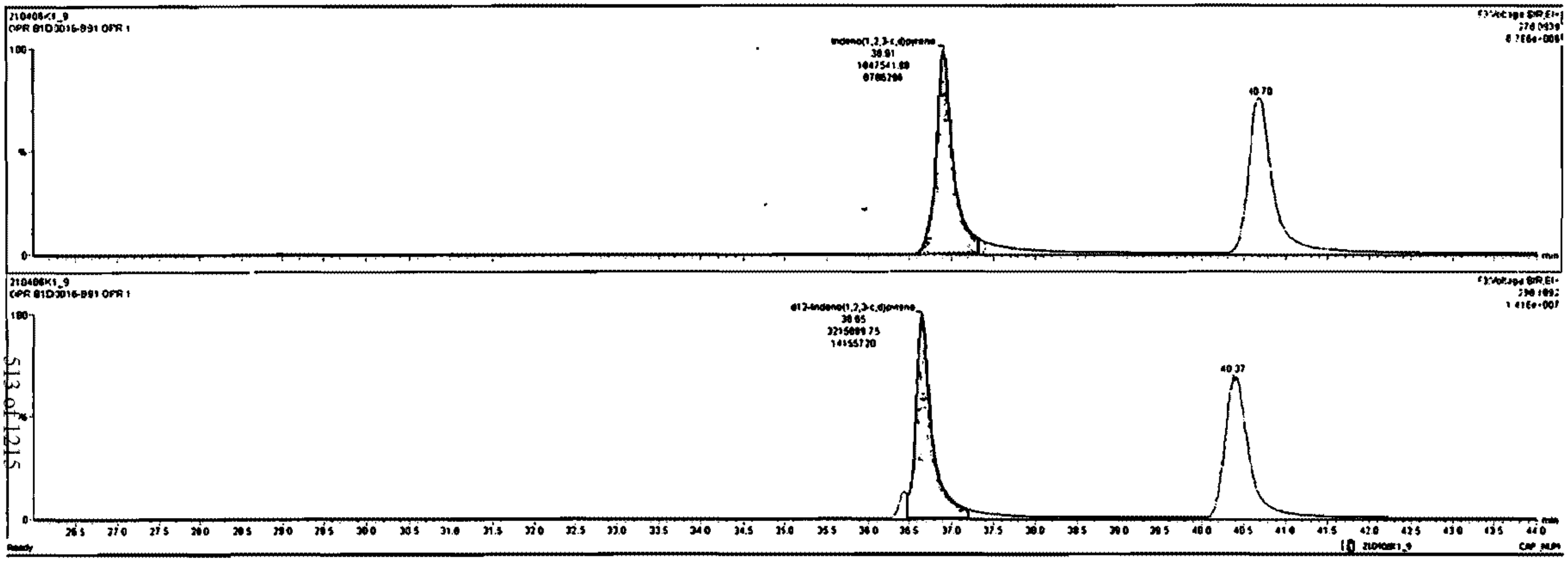
d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



TargetLynx 210408K1-9.qld * [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.40e6	4.49e6	1.0078	1.000	27.21	27.20	1.0040	1.00	NO	206		0.224	0.000
16	Benzo(e)pyrene	1.97e6	4.49e6	0.9115	1.000	28.91	28.93	1.0680?	1.07	NO	193		0.255	0.000
17	Benzo(a)pyrene	1.88e6?	3.33e6	1.0157	1.000	29.18	29.15	1.0046	1.01	NO	223		0.322	0.000
18	Perylene	1.76e6	3.33e6	0.8874	1.000	29.83	29.88?	1.0288?	1.03	NO	215		0.332	0.000
19	Indeno(1,2,3-c,d)pyrene	1.86e6?	3.22e6	0.9180?	1.000	38.80	38.91	1.0089?	1.01	NO	224		0.835?	0.000
20	Benzo(g,h,i)perylene	1.66e6	3.13e6	0.8402	1.000	40.75	40.70	1.0081?	1.01	NO	226		0.882?	0.000
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.90e6?	2.30e6	1.2037	1.000	10.12	10.10	0.8488?	0.85	NO	132	88.1?	0.0286?	0.000
23	d8-Acenaphthylene	1.63e6	2.30e6	0.9048?	1.000	14.33	14.32	1.2012	1.20	NO	152	75.8	0.0471	
24	d10-Acenaphthene	1.10e6?	2.30e6	0.9830?	1.000	14.82	14.81	1.2251	1.23	NO	158	77.8?	0.0341	
25	d10-Fluorene	1.18e6?	2.30e6	0.9829?	1.000	15.88?	15.85?	1.3288?	1.33	NO	173	88.7?	0.0324?	
26	d10-Phenanthrene	1.88e6?	2.30e6	0.7354	1.000	18.28?	18.29	1.5338?	1.53	NO	188?	94.7	0.0758?	
27	d10-Fluoranthene	2.41e6	2.30e6	1.2858?	1.000	20.34	20.33	0.9794?	0.88?	NO	158?	78.8?	0.0115	
28	d12-Benzo(a)anthracene?	1.73e6?	2.30e6?	0.6880?	1.000	23.13?	23.18?	1.1120?	1.11	NO	162?	80.8?	0.0190?	[illegible]



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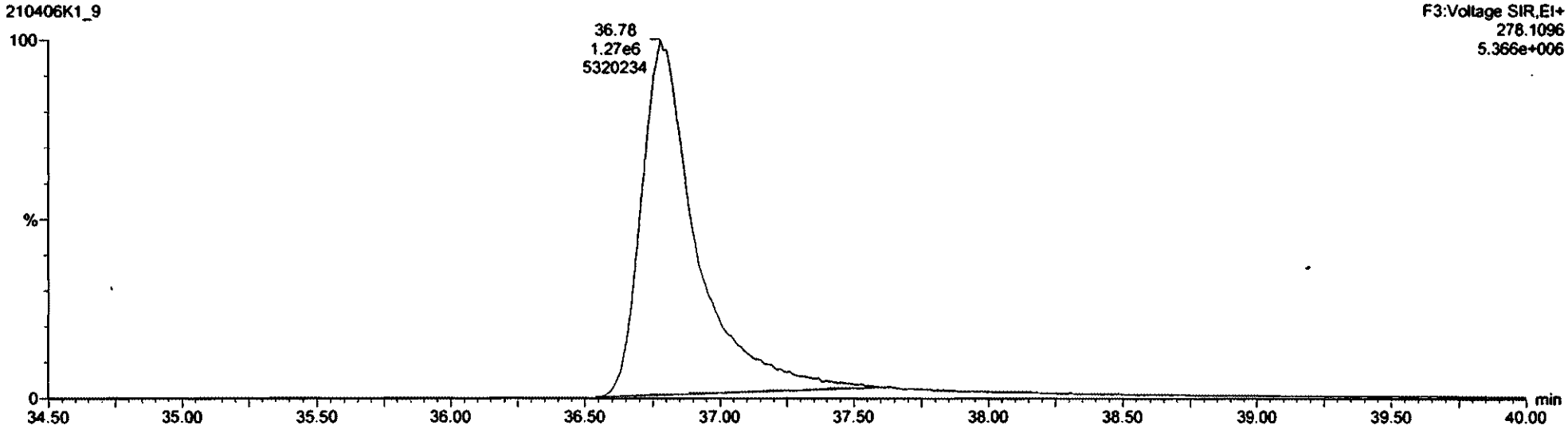
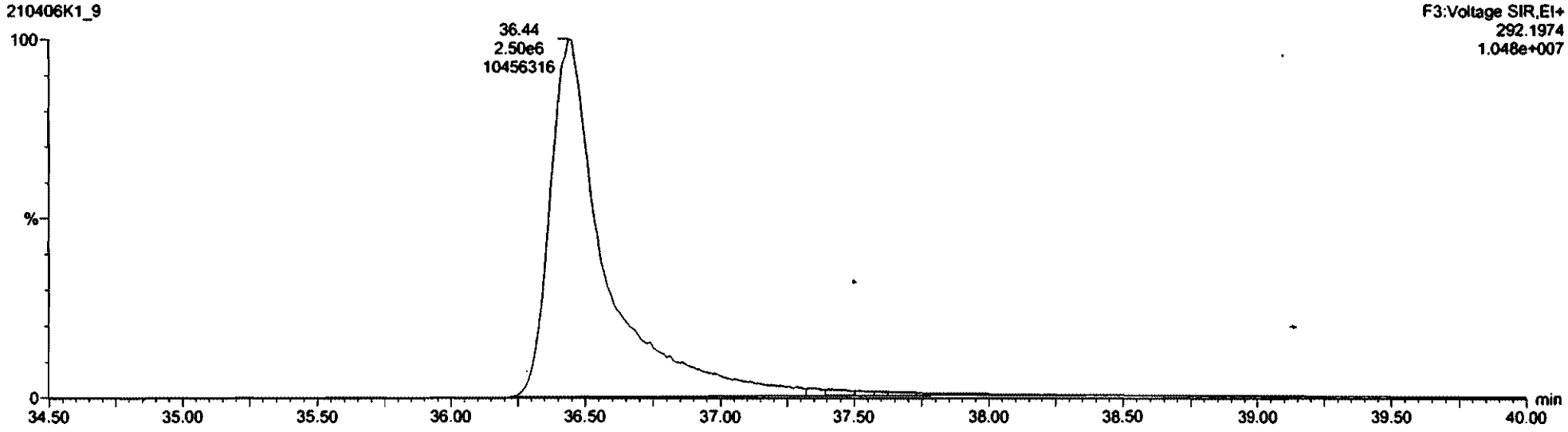
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_9, Date: 06-Apr-2021, Time: 17:29:34, ID: B1D0016-BS1 OPR 1, Description: OPR.

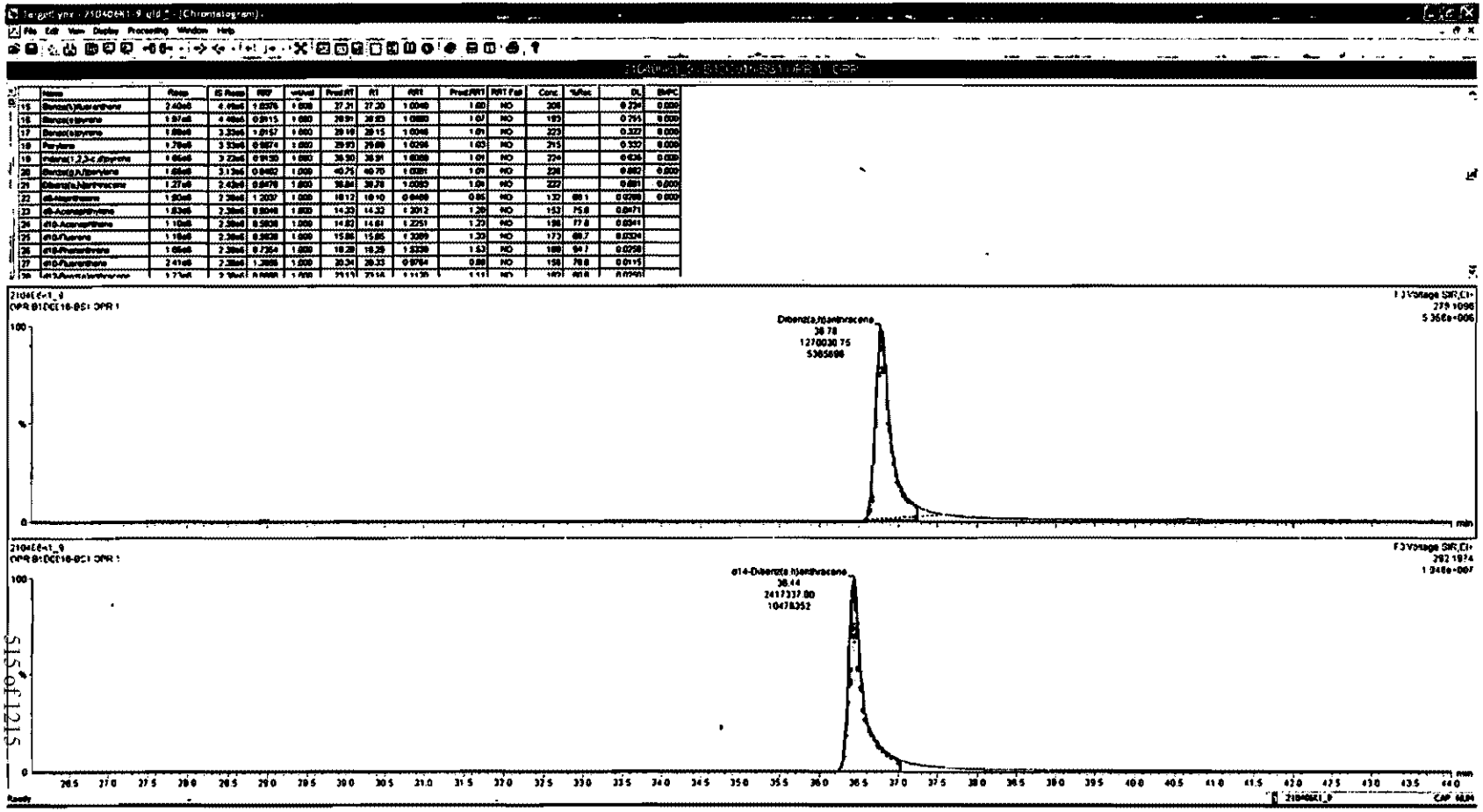
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



514 of 1215


Dibenz[a,h]anthracene
Dibenz[a,h]anthracene
d14-Dibenz[a,h]anthracene
d14-Dibenz[a,h]anthracene

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-10.qld

Last Altered: Wednesday, April 07, 2021 9:04:05 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:04:35 AM Pacific Daylight Time

1R 4.7.21 CT 04/08/2021

Method: Untitled 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	Naphthalene	4.65e6	1.42e6	1.16	1.000	10.16	10.16	1.006	1.006	NO	565		0.289
2	Naphthalene-2nd	5.12e5	1.42e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	564		2.64
3	2-Methylnaphthalene	1.21e6	9.43e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	186		0.189
4	Acenaphthylene	1.54e6	1.35e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	205		0.126
5	Acenaphthene	1.07e6	9.43e5	1.10	1.000	14.70	14.70	1.006	1.006	NO	206		0.256
6	Fluorene	1.21e6	1.03e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	203		0.129
7	Phenanthrene	4.65e6	1.41e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	555		0.0951
8	Phenanthrene-2nd	3.85e5	1.41e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	591		1.21
9	Anthracene	1.52e6	1.41e6	1.09	1.000	18.39	18.38	1.005	1.005	NO	197		0.104
10	Fluoranthene	2.85e6	2.32e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	224		0.0509
11	Pyrene	3.02e6	2.32e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	218		0.0467
12	Benz(a)anthracene	1.91e6	1.77e6	0.961	1.000	23.17	23.17	1.003	1.003	NO	224		0.0774
13	Chrysene	2.02e6	2.14e6	0.852	1.000	23.38	23.38	1.003	1.003	NO	221		0.0716
14	Benzo(b)fluoranthene	2.14e6	3.44e6	1.10	1.000	27.01	27.01	1.005	1.005	NO	226		0.192
15	Benzo(k)fluoranthene	2.55e6	4.52e6	1.04	1.000	27.11	27.12	1.004	1.004	NO	217		0.209
16	Benzo(e)pyrene	2.21e6	4.52e6	0.911	1.000	28.81	28.89	1.067	1.070	NO	215		0.238
17	Benzo(a)pyrene	1.92e6	3.31e6	1.02	1.000	29.14	29.14	1.006	1.006	NO	229		0.346
18	Perylene	1.87e6	3.31e6	0.987	1.000	29.88	29.89	1.031	1.032	NO	228		0.356
19	Indeno(1,2,3-c,d)pyrene	1.72e6	3.39e6	0.915	1.000	37.55	37.58	1.007	1.007	NO	221		2.60
20	Benzo(g,h,i)perylene	1.73e6	3.27e6	0.940	1.000	40.57	40.61	1.009	1.010	NO	225		1.95
21	Dibenz(a,h)anthracene	1.28e6	2.46e6	0.948	1.000	37.59	37.61	1.011	1.012	NO	219		2.39
22	d8-Naphthalene	1.42e6	2.24e6	1.20	1.000	10.12	10.10	0.848	0.847	NO	105	52.6	0.0224
23	d8-Acenaphthylene	1.35e6	2.24e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	133	66.6	0.0339
24	d10-Acenaphthene	9.43e5	2.24e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	142	70.9	0.0324
25	d10-Fluorene	1.03e6	2.24e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	164	81.9	0.0307
26	d10-Phenanthrene	1.41e6	2.24e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	171	85.6	0.0230
27	d10-Fluoranthene	2.32e6	2.24e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	161	80.6	0.0114
28	d12-Benz(a)anthracene	1.77e6	2.24e6	0.900	1.000	23.11	23.11	1.110	1.111	NO	175	87.6	0.0228
29	d12-Chrysene	2.14e6	2.24e6	1.02	1.000	23.30	23.30	1.120	1.120	NO	187	93.6	0.0201
30	d12-Benzo(b)fluoranthene	3.44e6	1.80e6	1.18	1.000	26.88	26.88	0.904	0.904	NO	322	80.6	0.237
31	d12-Benzo(k)fluoranthene	4.52e6	1.80e6	1.50	1.000	27.00	27.00	0.909	0.908	NO	334	83.4	0.186

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-10.qld

Last Altered: Wednesday, April 07, 2021 9:04:05 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:04:35 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

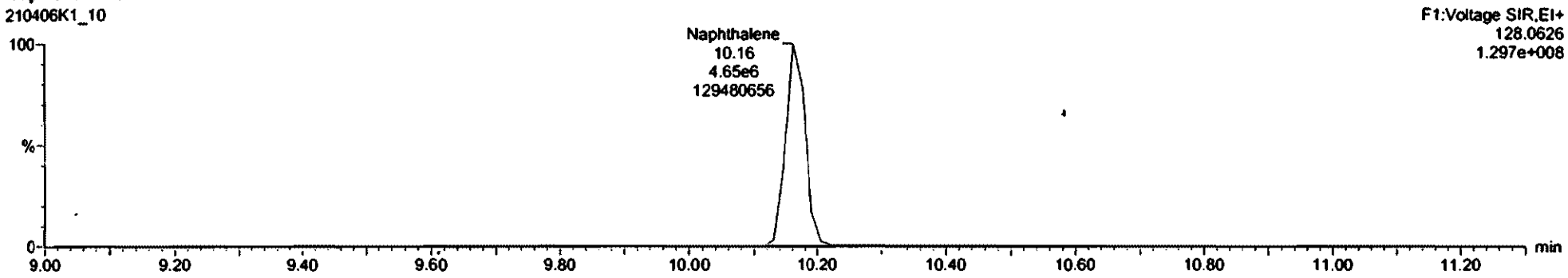
	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.31e6	1.80e6	1.24	1.000	28.97	28.97	0.975	0.975	NO	297	74.2	0.226
33	33	d12-Indeno(1,2,3-c,d)pyrene	3.39e6	1.80e6	1.02	1.000	37.06	37.30	1.247	1.255	NO	370	92.4	0.334
34	34	d12-Benzo(g,h,i)perylene	3.27e6	1.80e6	1.00	1.000	40.49	40.19	1.362	1.352	NO	361	90.2	0.339
35	35	d14-Dibenz(a,h)anthracene	2.46e6	1.80e6	0.765	1.000	36.84	37.18	1.239	1.251	YES	357	89.3	0.428
36	36	d10-Anthracene	1.11e6	1.80e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	125	62.3	0.124
37	39	d10-1-Methylnaphthalene	1.71e6	1.71e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0333
38	40	d10-Pyrene	2.24e6	2.24e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0147
39	41	d12-Perylene	1.80e6	1.80e6	1.00	1.000	29.59	29.72	1.000	1.000	NO	200	100	0.280

Dataset: Untitled

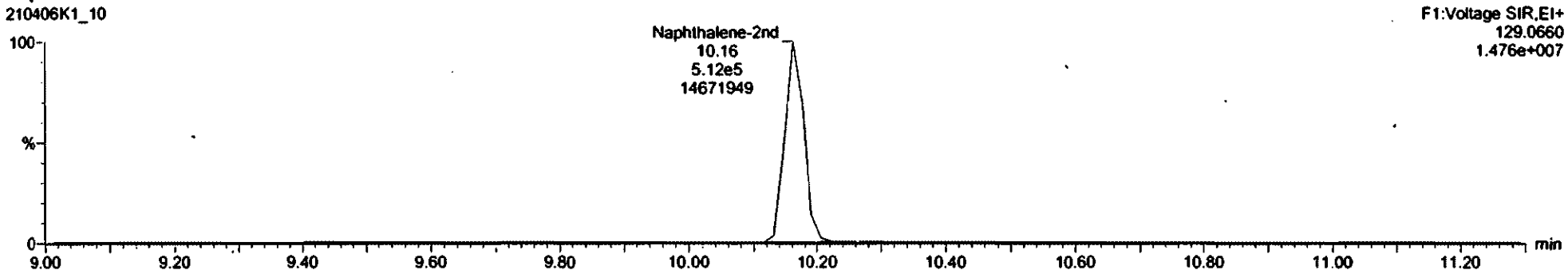
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

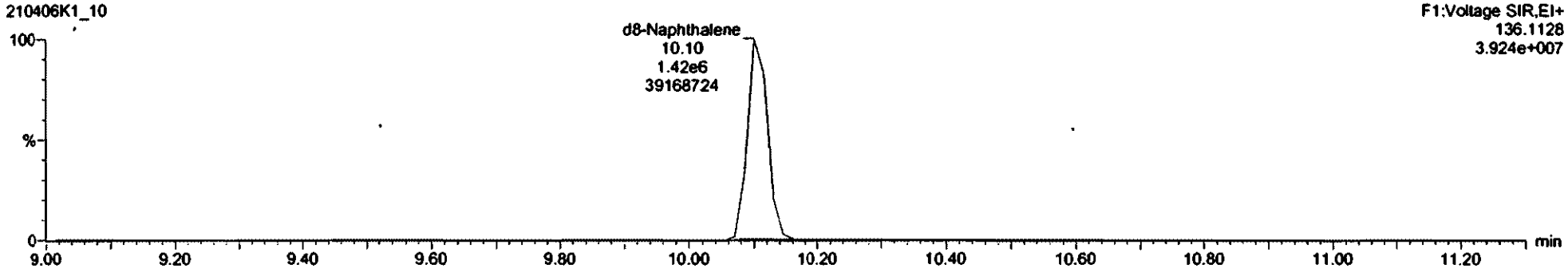
Naphthalene



Naphthalene-2nd



d8-Naphthalene



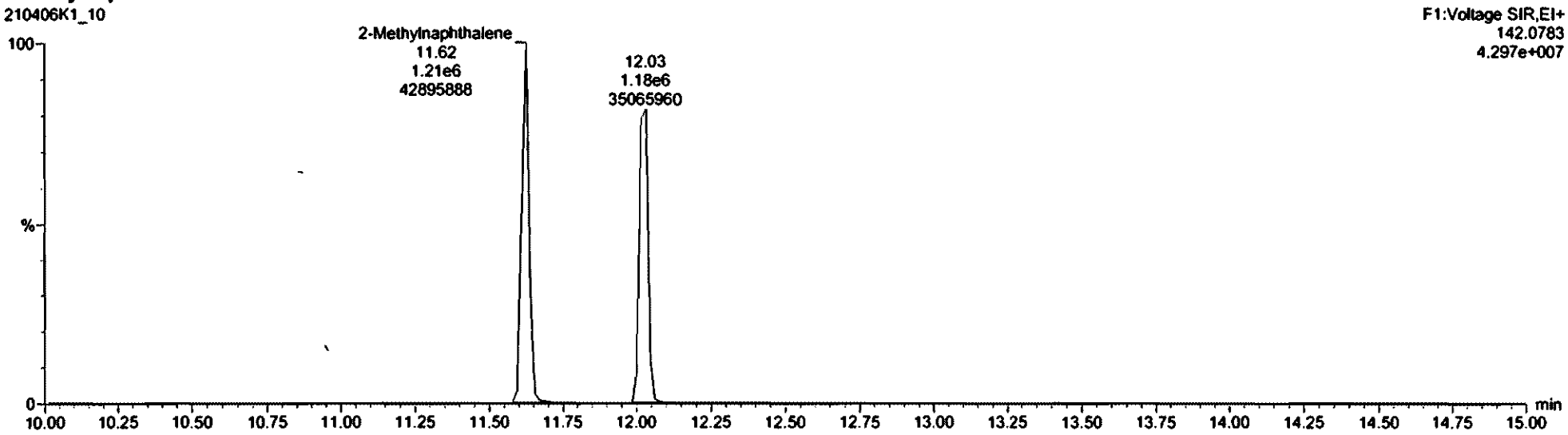
518 of 1215

Dataset: Untitled

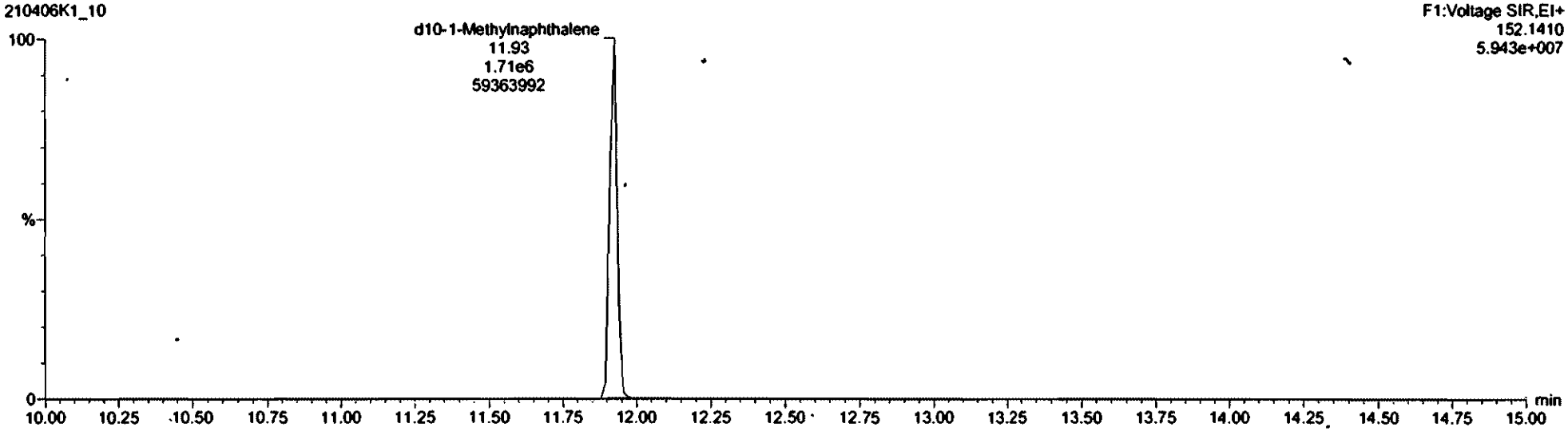
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



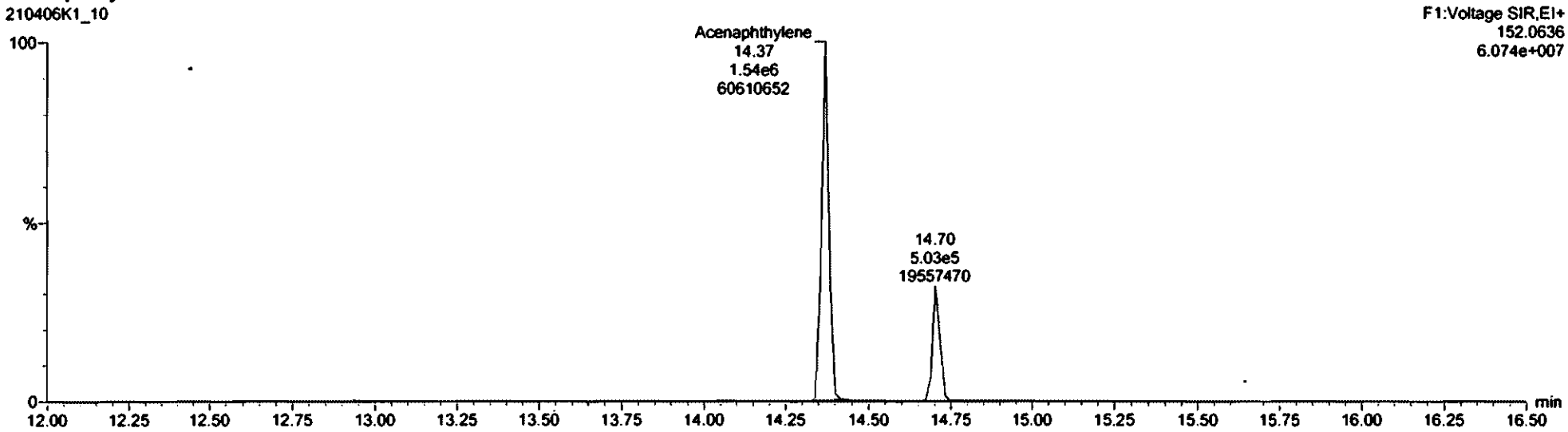
519 of 1215

Dataset: Untitled

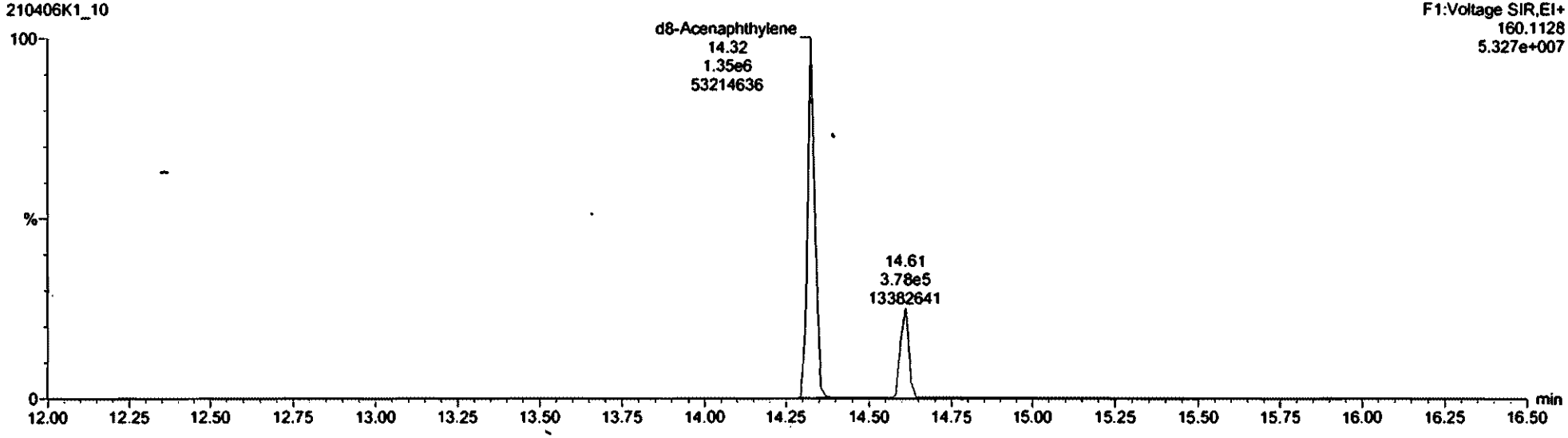
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Acenaphthylene



d8-Acenaphthylene



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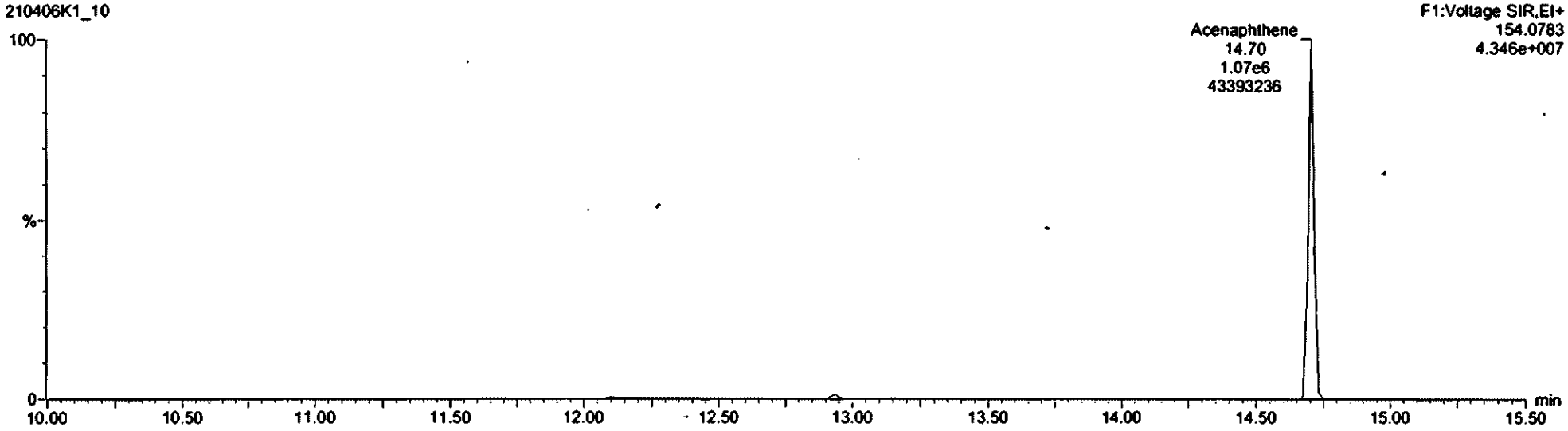
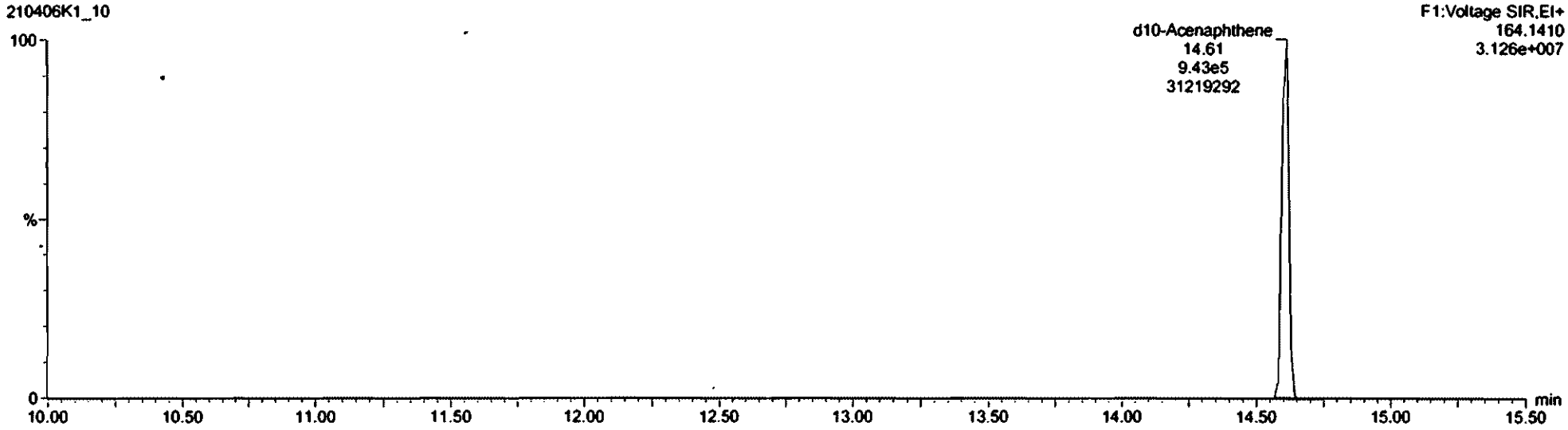
Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Acenaphthene



d10-Acenaphthene



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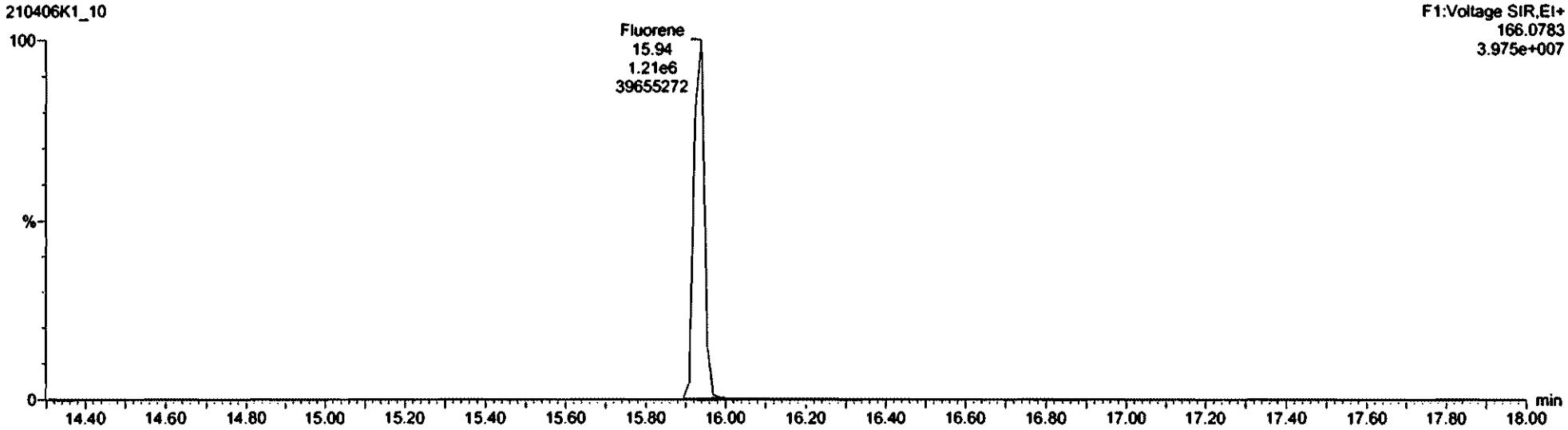
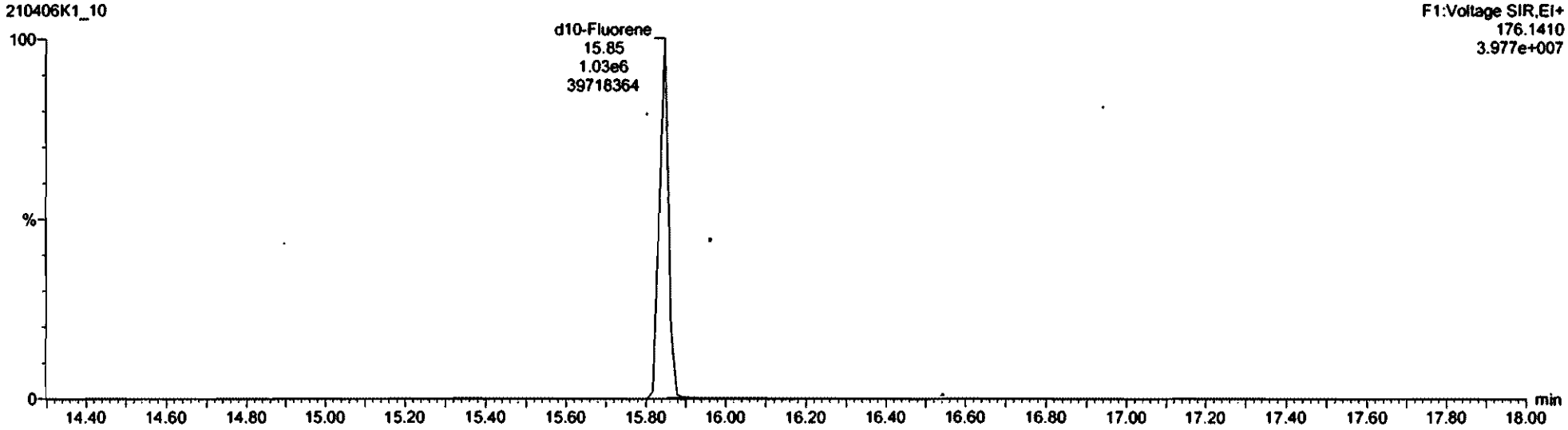
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Fluorene



d10-Fluorene



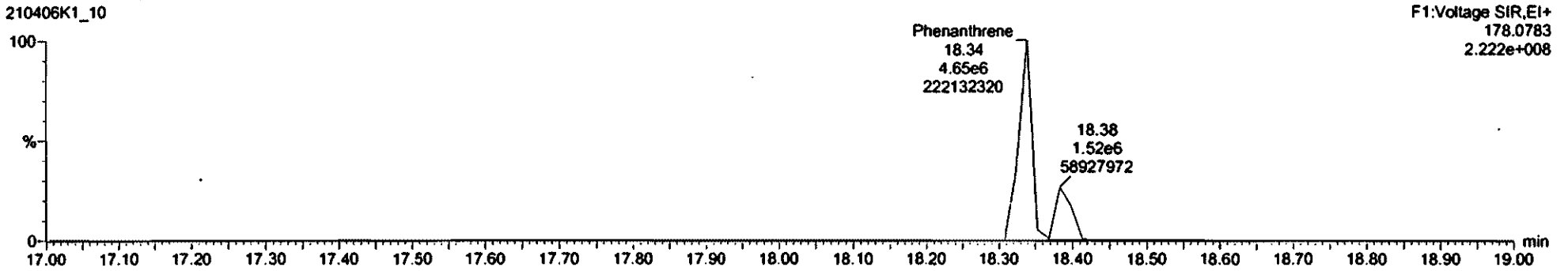
522 of 1215

Dataset: Untitled

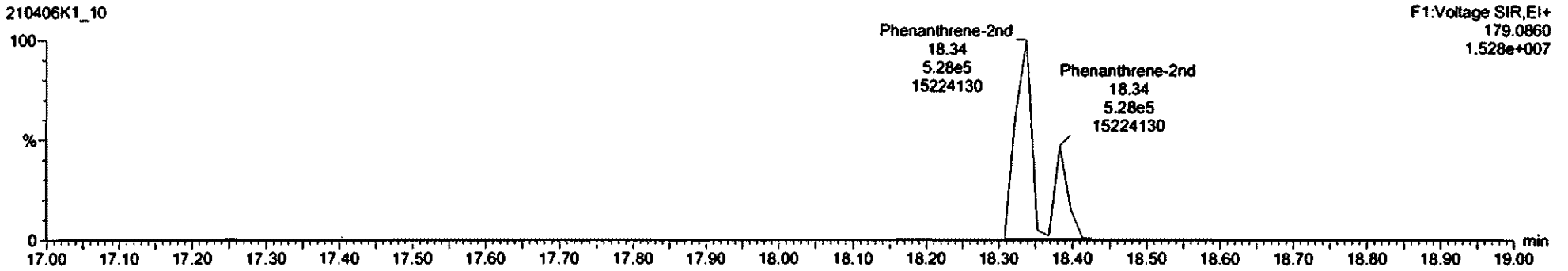
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

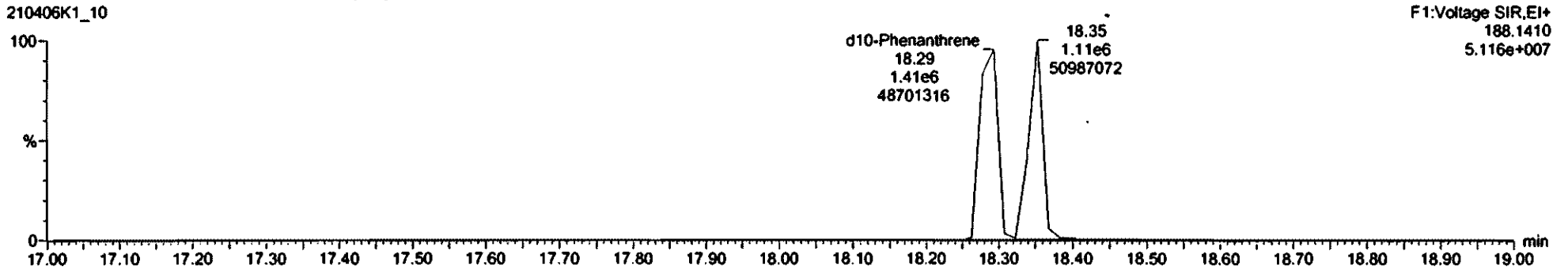
Phenanthrene; Anthrecene



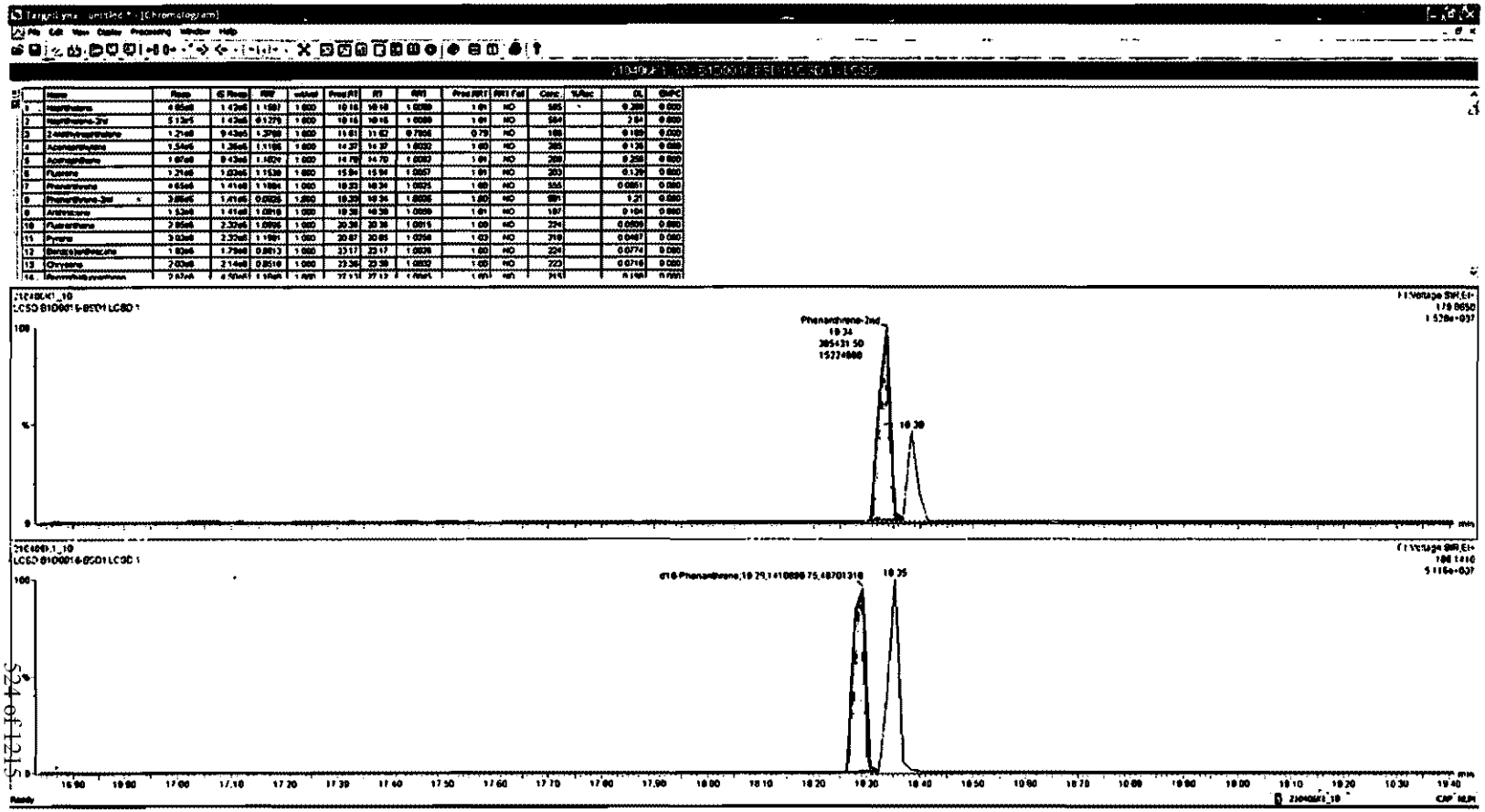
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



523 of 1215



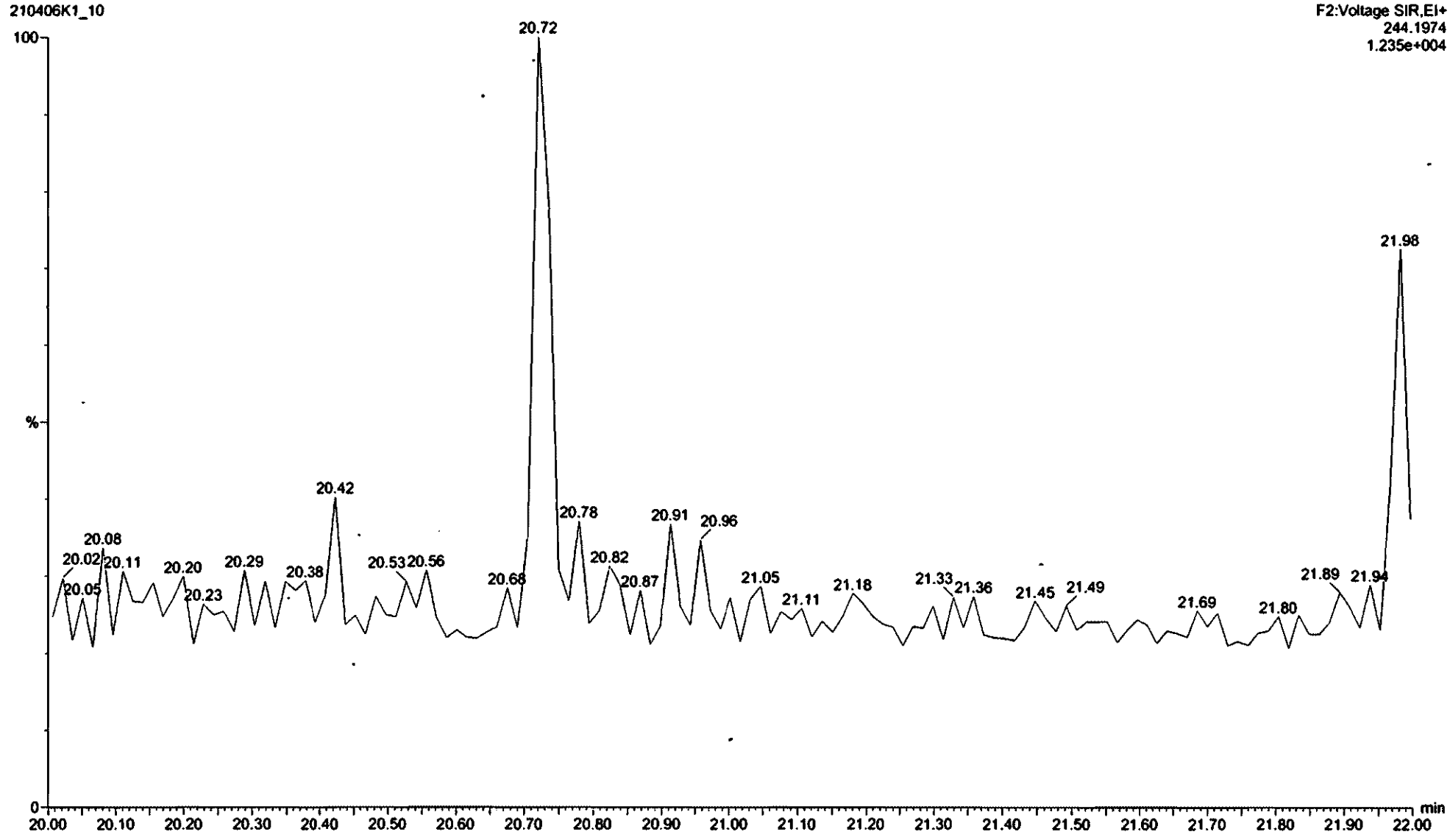
524 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

d14-Terphenyl (PS)



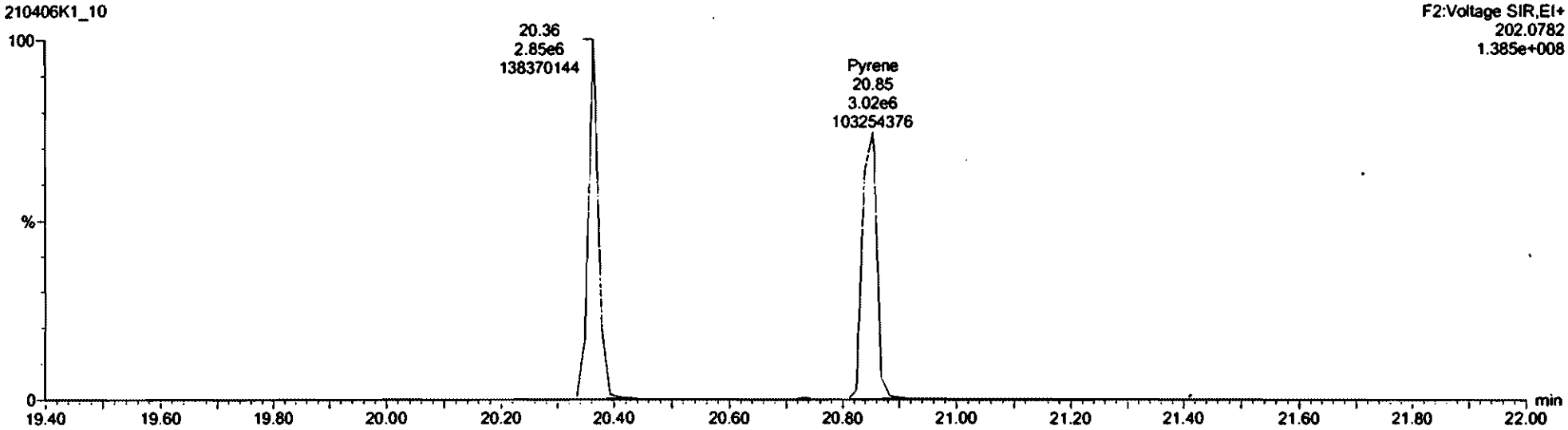
525 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

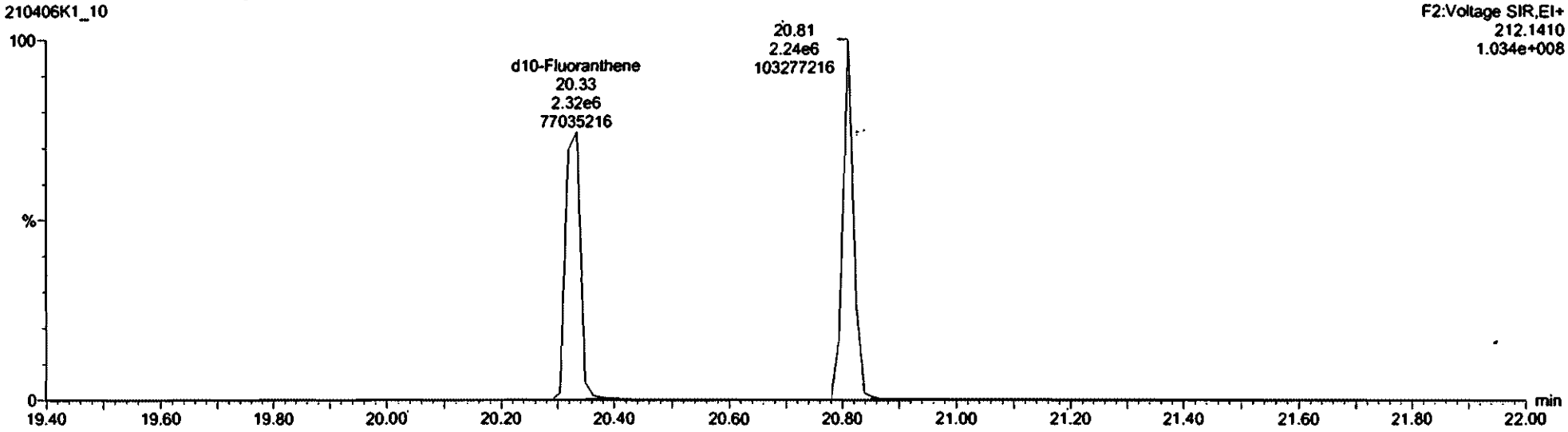
Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Fluoranthene; Pyrene



526 of 1215

d10-Fluoranthene; d10-Pyrene (RS)



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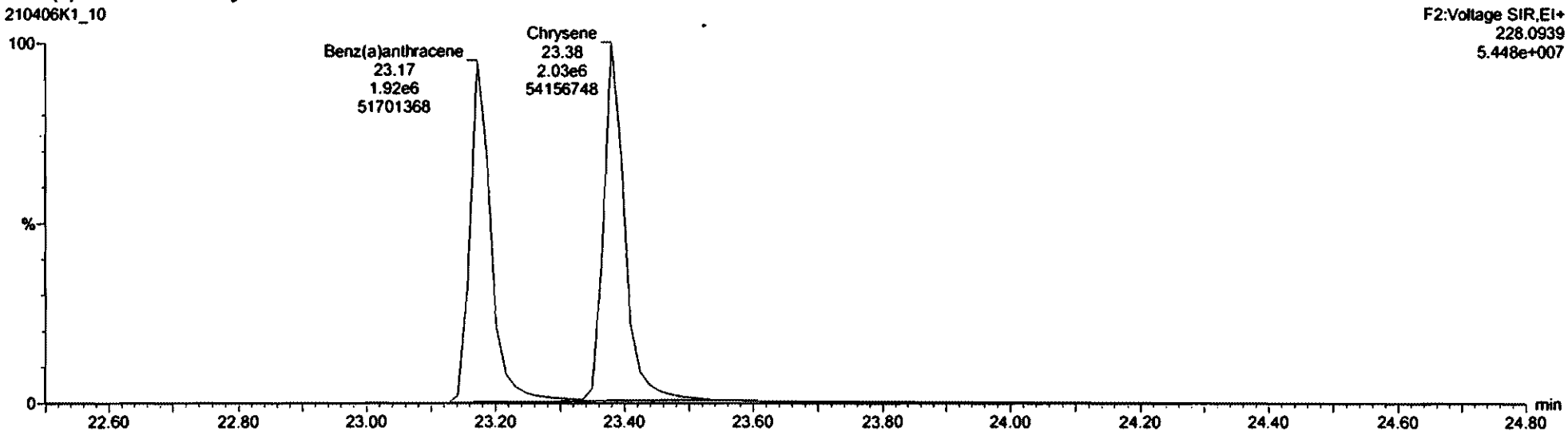
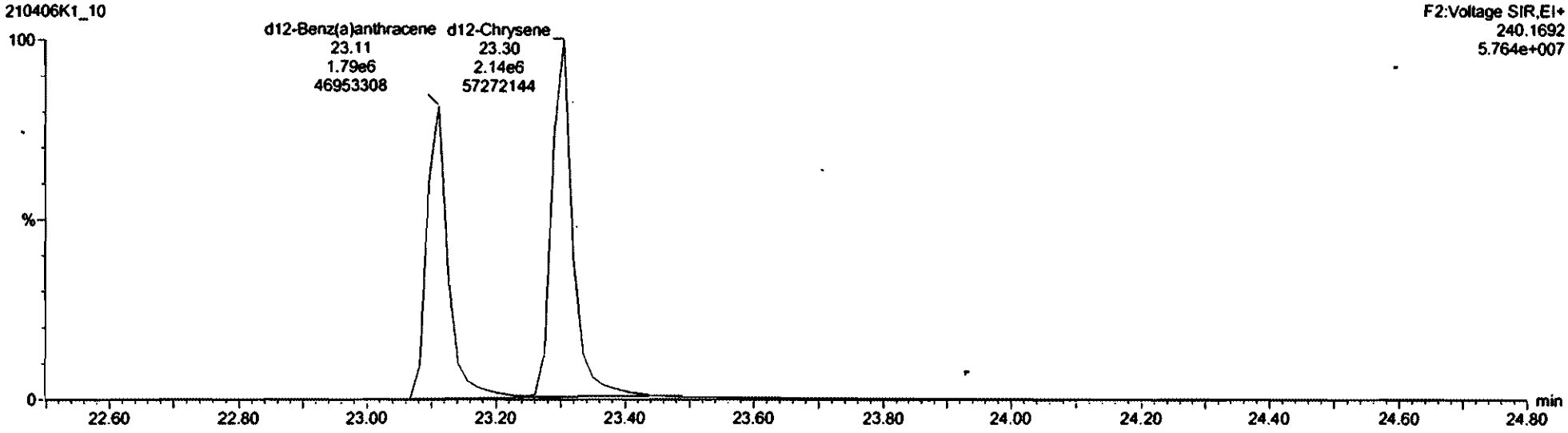
Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso

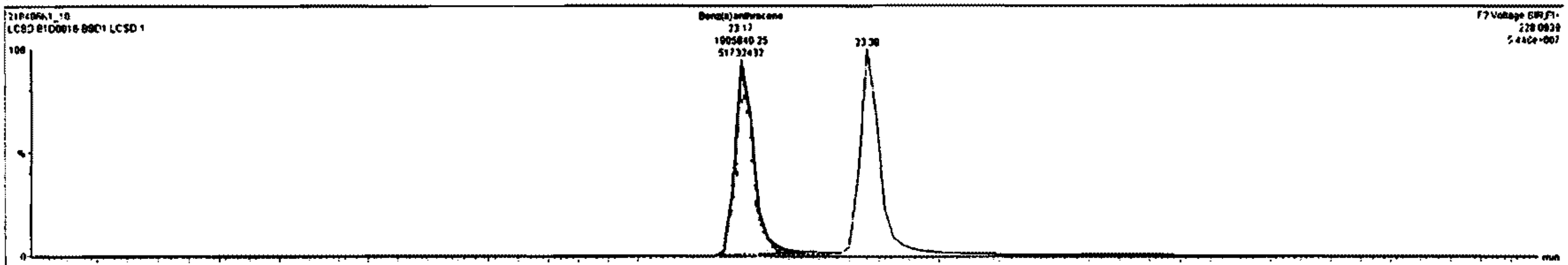


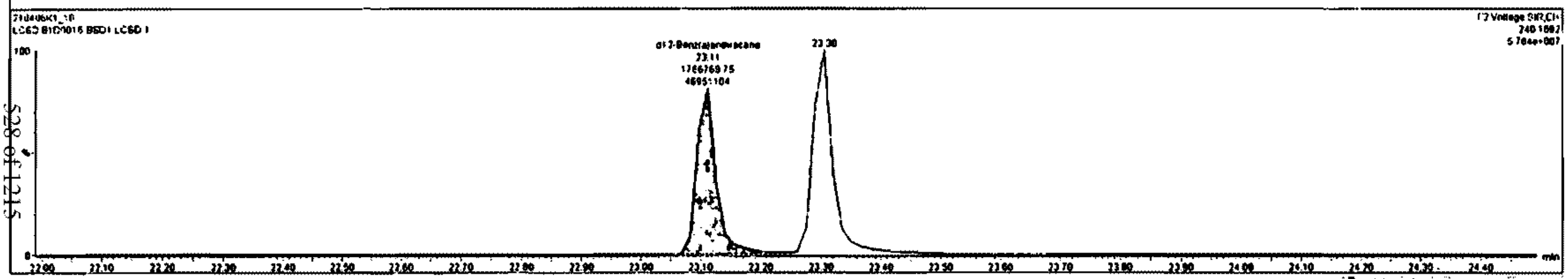
TargetLynx untitled * - [Chromatogram]

File Edit View Display Processing Window Help

210408K1_10 - B1D0016-BSD1 LCSD 1 - LCSD

#	Name	Resp	IS Resp	RRF	wt/Vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	4.65e6	1.42e6	1.1587	1.000	10.16	10.16	1.0000	1.01	NO	585		0.288	0.000
2	Naphthalene-2nd	5.12e5	1.42e6	0.1279	1.000	10.16	10.16	1.0000	1.01	NO	564		2.64	0.000
3	2-Methylnaphthalene	1.71e6	9.43e5	1.3788	1.000	11.61	11.62	0.7866	0.79	NO	188		0.188	0.000
4	Acenaphthylene	1.54e6	1.35e6	1.1198	1.000	14.37	14.37	1.0032	1.00	NO	205		0.138	0.000
5	Acenaphthene	1.07e6	9.43e5	1.1034	1.000	14.70	14.70	1.0087	1.01	NO	208		0.256	0.000
6	Fluorene	1.21e6	1.03e6	1.1538	1.000	15.94	15.94	1.0057	1.01	NO	203		0.179	0.000
7	Phenanthrene	4.65e6	1.41e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	555		0.0851	0.000
8	Phenanthrene-2nd	3.85e5	1.41e6	0.0805	1.000	18.33	18.34	1.0025	1.00	NO	591		1.21	0.000
9	Anthracene	1.52e6	1.41e6	1.0818	1.000	18.38	18.38	1.0050	1.01	NO	187		0.184	0.000
10	Fluoranthene	2.86e6	2.32e6	1.0865	1.000	20.38	20.38	1.0015	1.00	NO	224		0.0600	0.000
11	Pyrene	3.02e6	2.32e6	1.1081	1.000	20.87	20.86	1.0256	1.03	NO	218		0.0467	0.000
12	Benz(a)anthracene	1.81e6	1.77e6	0.8813	1.000	23.17	23.17	1.0028	1.00	NO	224		-- 0.0774	0.000
13	Chrysene	2.02e6	2.14e6	0.8549	1.000	23.30	23.30	1.0002	1.00	NO	223		0.0716	0.000
14	[illegible]	2.62e6	4.50e6	1.1060	1.000	27.13	27.12	1.0005	1.00	NO	245		0.190	0.000



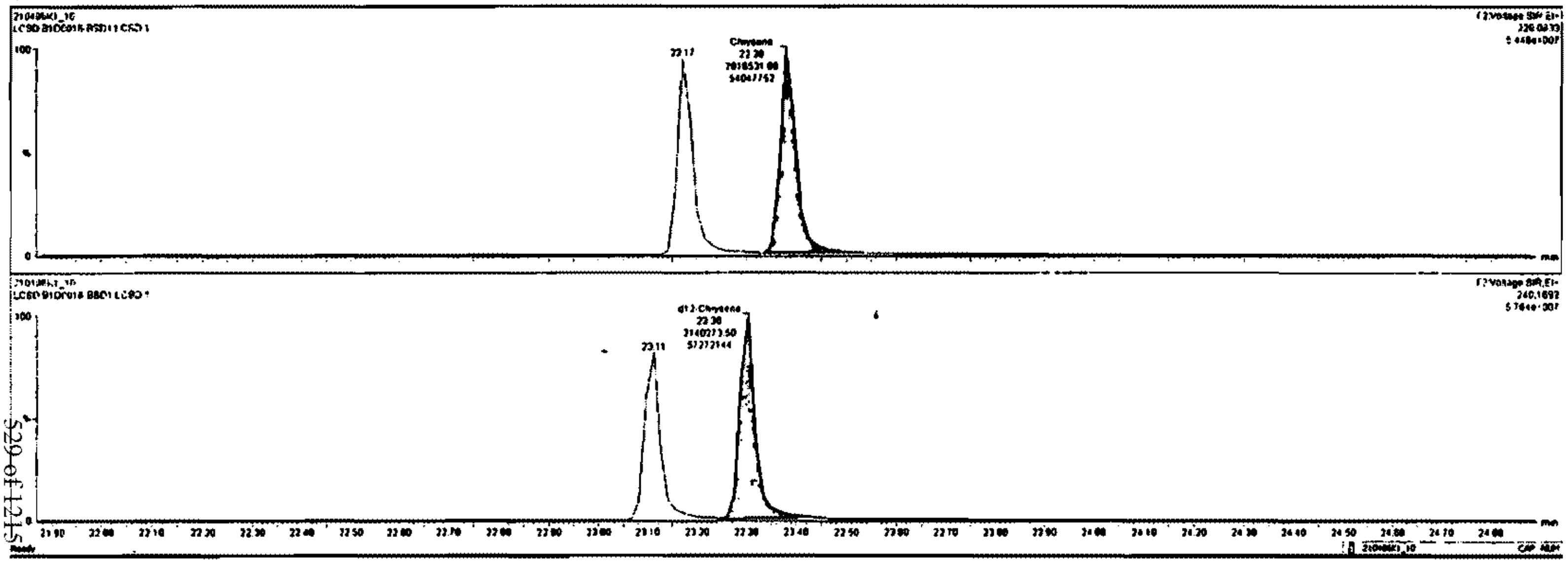


Ready 210408K1_10 CAP NUM

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	OL	OLPC
1	Naphthalene	4.05e6	1.42e6	1.1987	1.000	10.16	10.16	1.0000	1.01	NO	385		0.280	0.000
2	Naphthalene-2nd	5.12e6	1.42e6	0.1279	1.000	10.16	10.16	1.0000	1.01	NO	564		2.84	0.000
3	2-Methylnaphthalene	1.27e6	9.43e6	1.3789	1.000	11.61	11.62	0.7866	0.79	NO	185		0.180	0.000
4	Acenaphthylene	1.54e6	1.36e6	1.1188	1.000	14.37	14.37	1.0032	1.00	NO	286		0.138	0.000
5	Acenaphthene	1.87e6	9.43e6	1.1024	1.000	14.70	14.70	1.0032	1.01	NO	306		0.256	0.000
6	Fluorene	1.21e6	1.83e6	1.1539	1.000	15.84	15.84	1.0057	1.01	NO	280		0.129	0.000
7	Phenanthrene	4.05e6	1.41e6	1.1084	1.000	18.33	18.34	1.0025	1.00	NO	306		0.0801	0.000
8	Phenanthrene-2nd	3.05e6	1.41e6	0.6825	1.000	18.33	18.34	1.0025	1.00	NO	681		1.71	0.000
9	Anthracene	1.52e6	1.41e6	1.0949	1.000	18.38	18.38	1.0000	1.01	NO	197		0.184	0.000
10	Fluoranthene	2.66e6	2.33e6	1.0885	1.000	20.30	20.30	1.0015	1.00	NO	224		0.0606	0.000
11	Pyrene	3.03e6	2.33e6	1.1981	1.000	20.87	20.85	1.0288	1.03	NO	210		0.0487	0.000
12	Benz[a]anthracene	1.91e6	1.77e6	0.9013	1.000	23.17	23.17	1.0028	1.00	NO	234		0.0274	0.000
13	Chrysene	2.89e6	2.14e6	0.8610	1.000	23.30	23.30	1.0032	1.00	NO	231		0.0716	0.000
14	Benzo(b)fluoranthene	2.47e6	4.49e6	1.1060	1.000	27.11	27.13	1.0005	1.00	NO	245		0.190	0.000



529 of 1215

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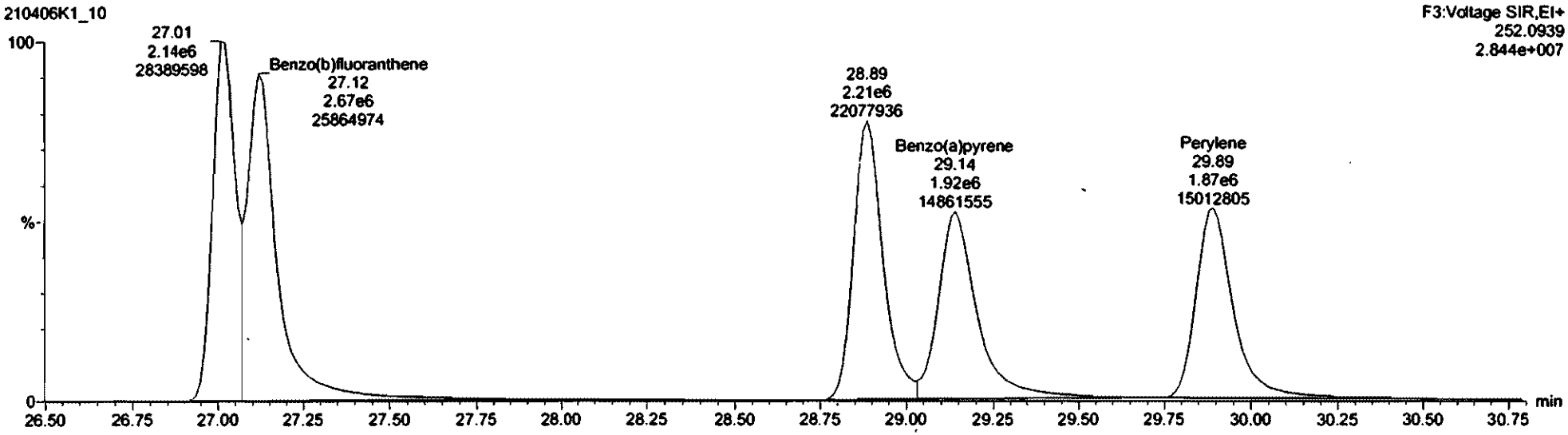
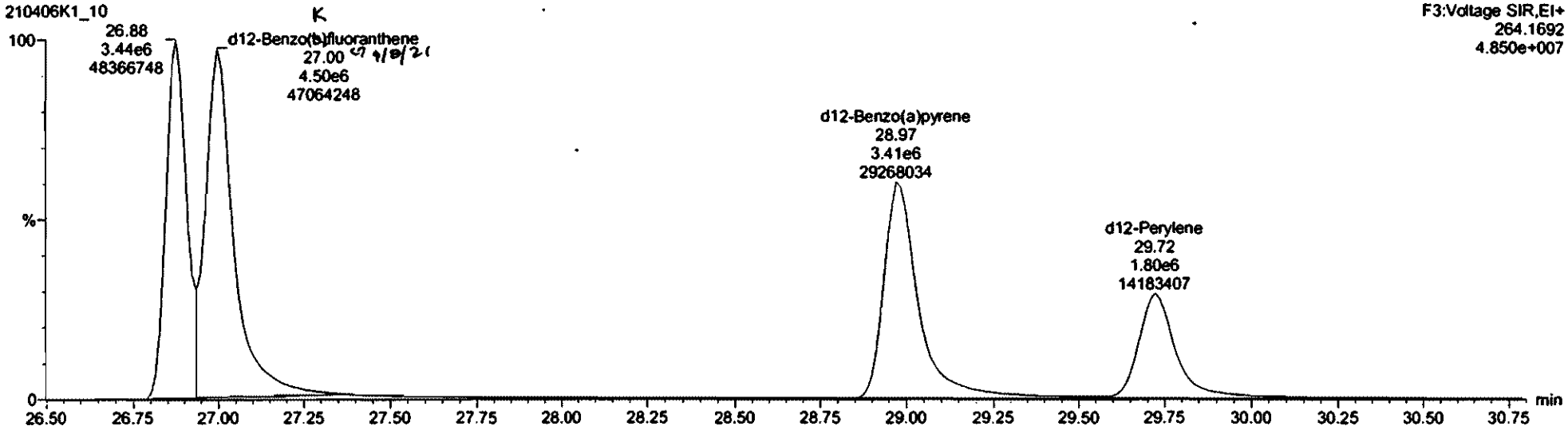
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Benzo-PAHs



Benzo-Isotopes



530 of 1215

TargetLynx - untitled 2 - [Chromatogram]

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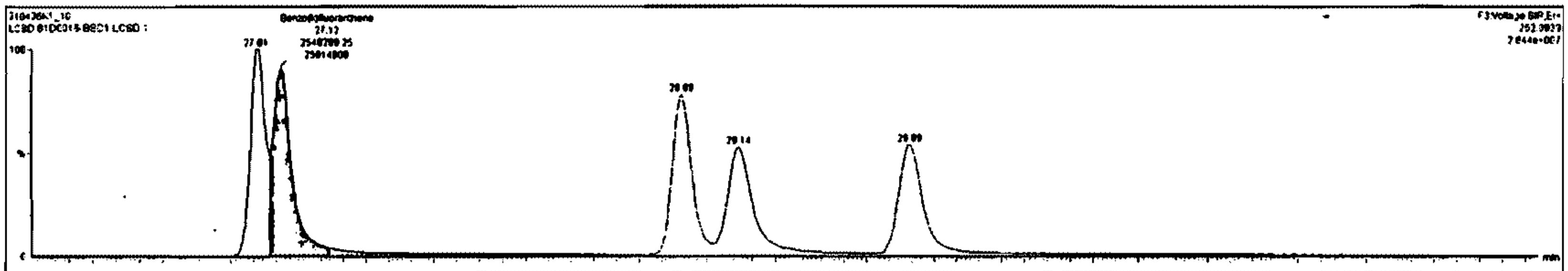
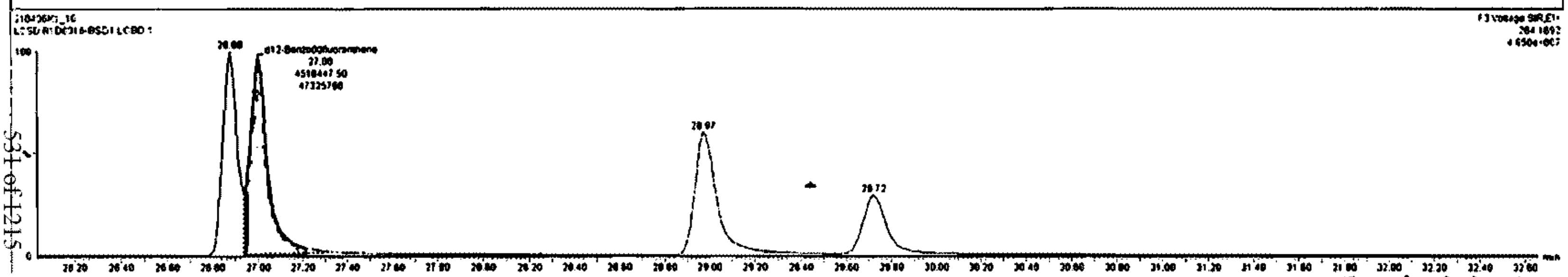
#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.55e6	4.52e6	1.0376	1.000	27.16	27.12	1.0045	1.00	NO	217		0.209	0.000
16	Benzo(e)pyrene	2.21e6	4.52e6	0.9115	1.000	28.81	28.80	1.0700	1.07	NO	215		0.230	0.000
17	Benzo(a)pyrene	1.80e6	3.41e6	1.0157	1.000	29.14	29.14	1.0059	1.01	NO	223		0.345	0.000
18	Perylene	1.67e6	3.41e6	0.9874	1.000	29.88	29.88	1.0310	1.03	NO	222		0.356	0.000
19	Indeno(1,2,3-c,d)pyrene	1.51e6	3.32e6	0.9150	1.000	37.56	37.58	1.0075	1.01	NO	198		2.62	0.000
20	Benzo(g,h,i)perylene	1.73e6	3.27e6	0.9402	1.000	40.57	40.81	1.0103	1.01	NO	225		1.85	0.000
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.43e6	2.24e6	1.2037	1.000	10.12	10.10	0.8480	0.85	NO	105	52.6	0.0724	0.000
23	d8-Acenaphthylene	1.35e6	2.24e6	0.9046	1.000	14.33	14.32	1.2012	1.20	NO	133	66.6	0.0339	
24	d10-Acenaphthene	9.43e5	2.24e6	0.5808	1.000	14.67	14.81	1.2252	1.23	NO	142	70.9	0.0324	
25	d10-Fluorene	1.03e6	2.24e6	0.5638	1.000	15.88	15.86	1.3309	1.33	NO	164	81.9	0.0307	
26	d10-Phenanthrene	1.41e6	2.24e6	0.7354	1.000	18.78	18.79	1.5330	1.53	NO	171	85.6	0.0230	
27	d10-Fluoranthene	2.32e6	2.24e6	1.7868	1.000	20.33	20.33	0.9771	0.98	NO	181	90.6	0.0114	
28	[illegible]	1.77e6	2.24e6	[illegible]	1.000	23.11	23.11	[illegible]	1.11	NO	175	87.5	[illegible]	





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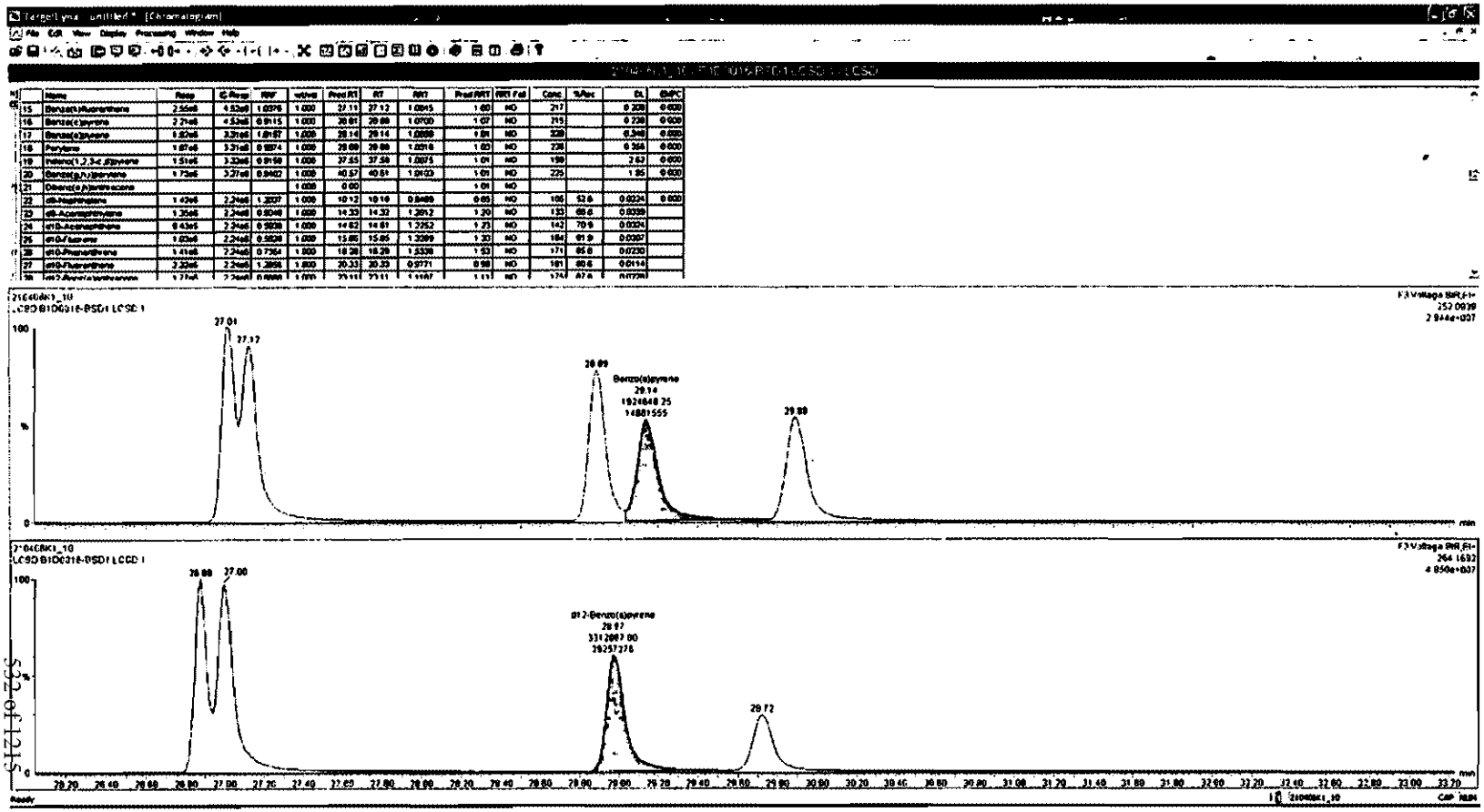

532 of 1215

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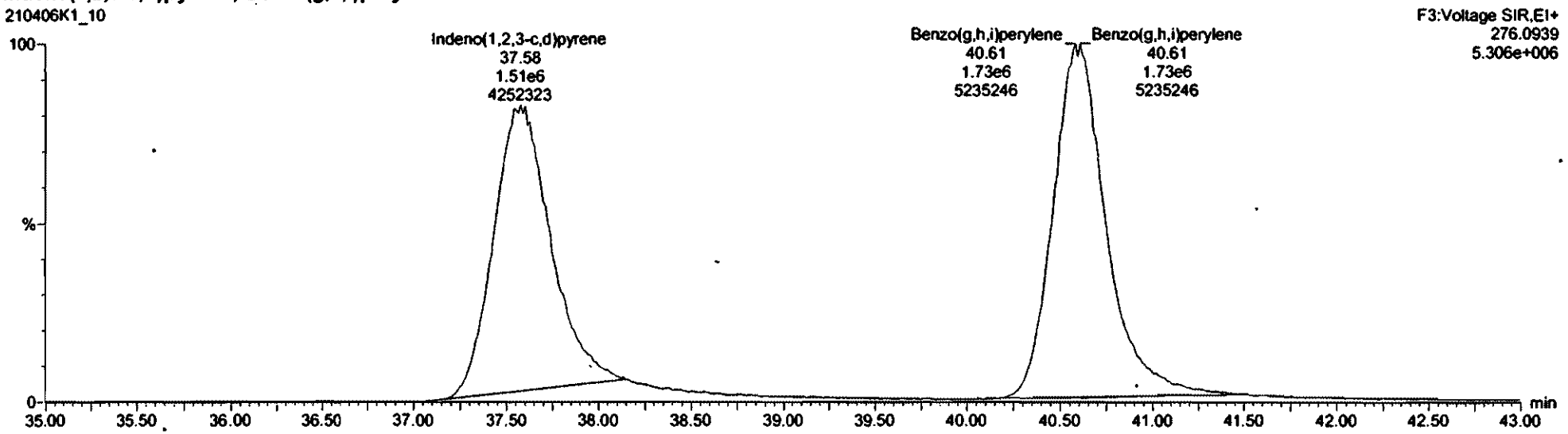
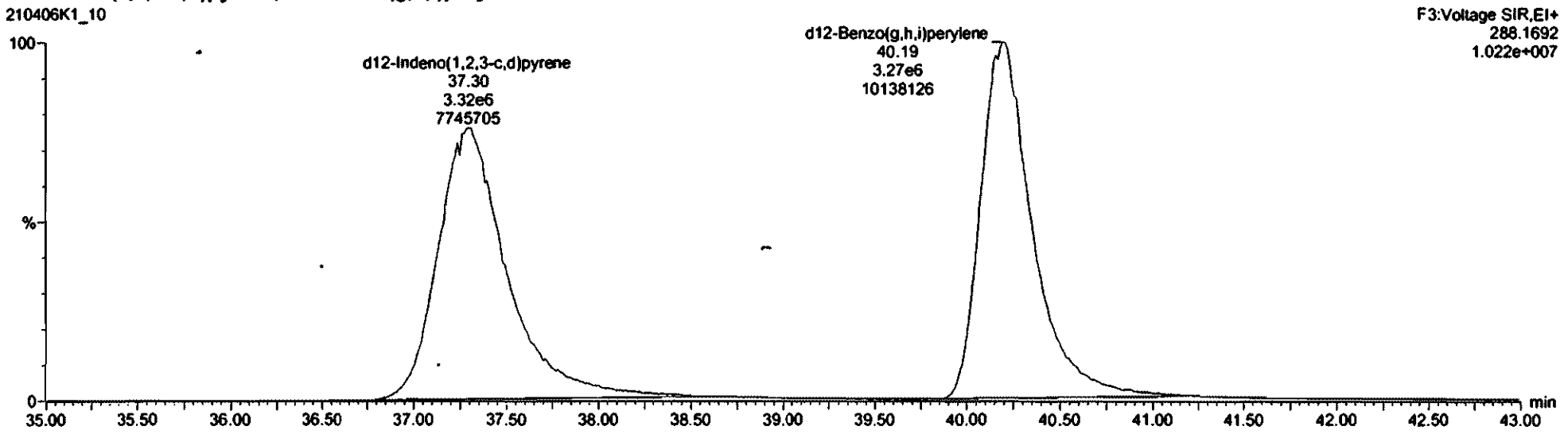
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

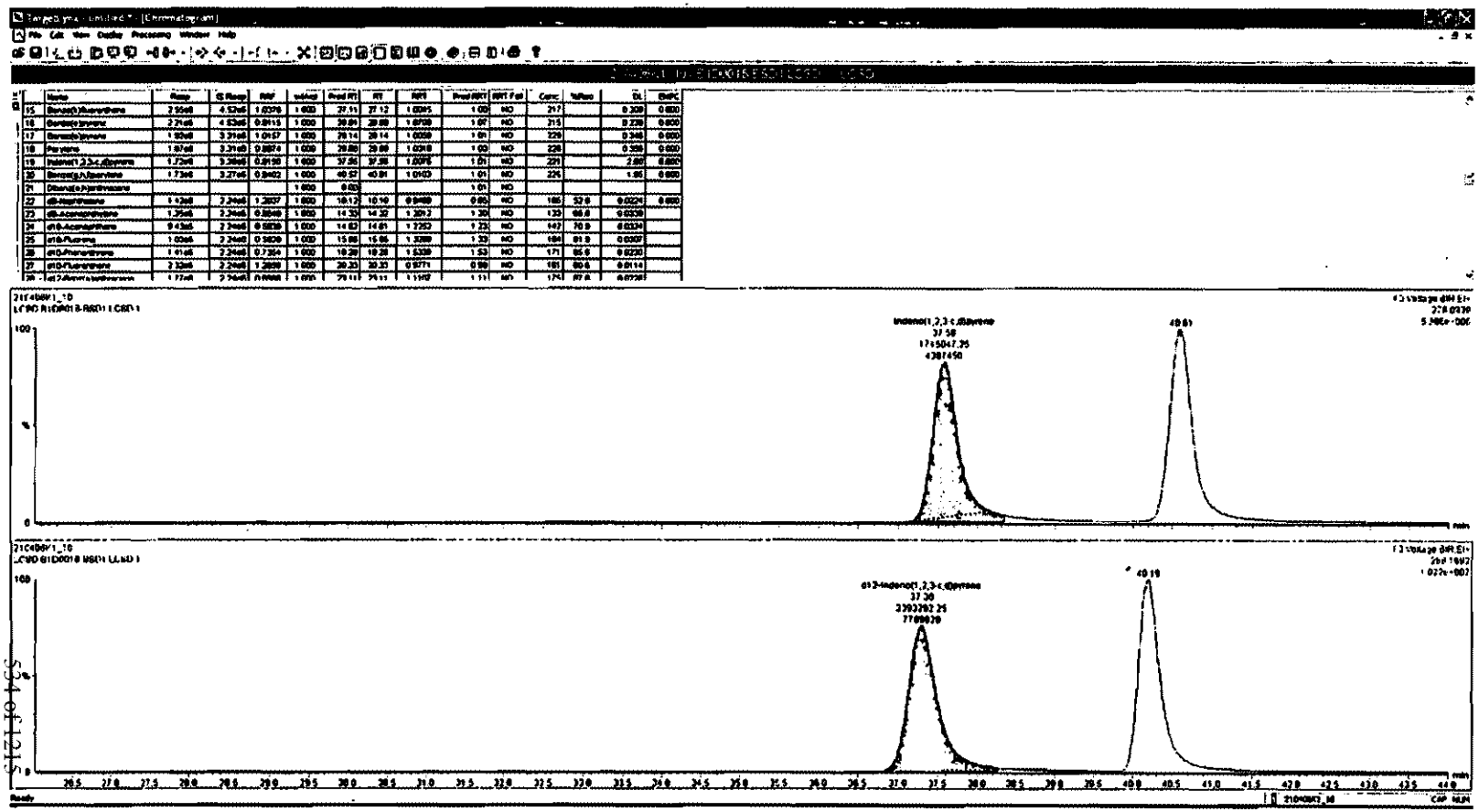
Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene





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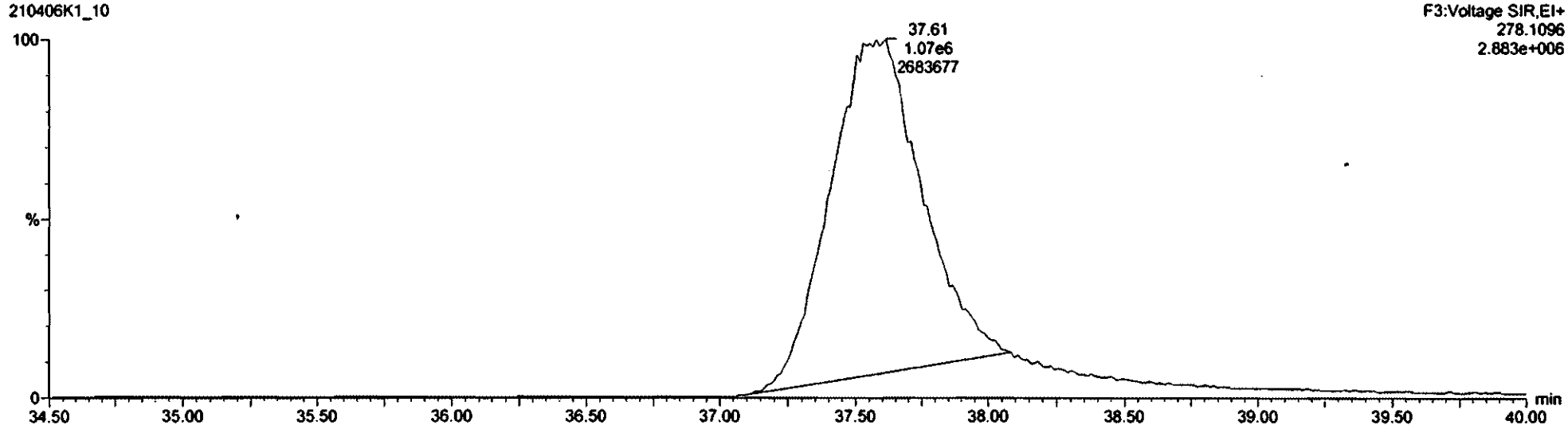
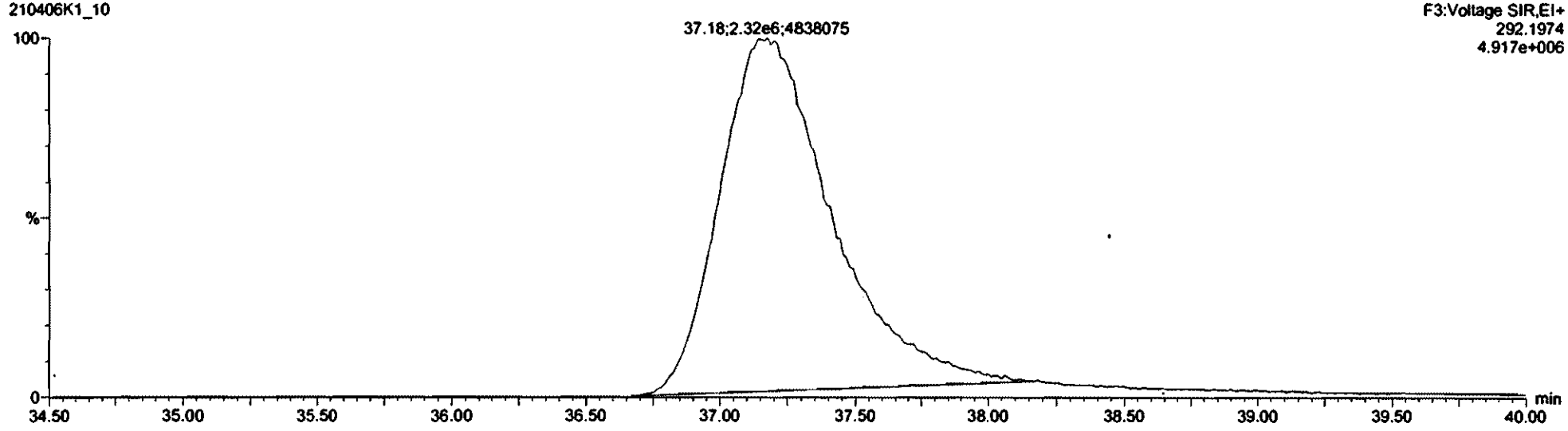
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_10, Date: 06-Apr-2021, Time: 18:16:23, ID: B1D0016-BSD1 LCSD 1, Description: LCSD

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



535 of 1215

TargetLynx Untitled * [Chromatogram]

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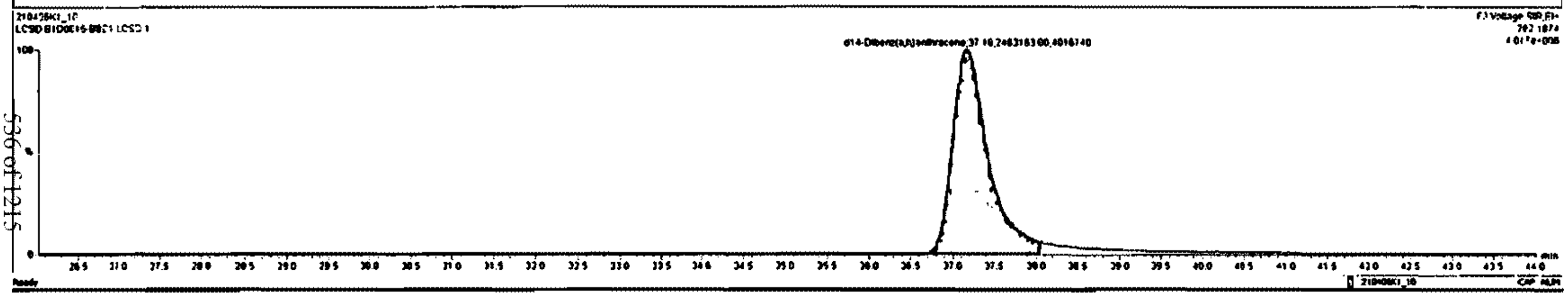
210405K1_10 LCSD B1D0015-BS01 LCSD 1

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.56e6	4.52e6	1.0370	1.000	27.11	27.12	1.0045	1.00	NO	217		0.200	0.000
16	Benzo(e)pyrene	2.21e6	4.52e6	0.9115	1.000	28.91	28.88	1.0700	1.07	NO	216		0.738	0.000
17	Benzo(a)pyrene	1.92e6	3.31e6	1.0157	1.000	29.14	29.14	1.0058	1.01	NO	228		0.348	0.000
18	Perylene	1.87e6	3.31e6	0.9874	1.000	29.88	29.88	1.0010	1.03	NO	220		0.358	0.000
19	Indeno(1,2,3-cd)pyrene	1.72e6	3.38e6	0.9150	1.000	37.56	37.58	1.0075	1.01	NO	221		2.89	0.000
20	Benzo(g,h,i)perylene	1.73e6	3.27e6	0.9402	1.000	40.57	40.61	1.0103	1.01	NO	225		1.96	0.000
21	Dibenz(a,h)anthracene	1.28e6	2.48e6	0.8476	1.000	37.80	37.81	1.0117	1.01	NO	218		2.30	0.000
22	d8-Naphthalene	1.42e6	2.24e6	1.2037	1.000	10.12	10.10	0.8489	0.85	NO	105	52.6	0.0224	0.000
23	d8-Acenaphthylene	1.35e6	2.24e6	0.9048	1.000	14.33	14.32	1.2012	1.20	NO	133	66.6	0.0338	
24	d10-Acenaphthene	9.43e5	2.24e6	0.5838	1.000	14.82	14.81	1.2252	1.23	NO	142	70.9	0.0324	
25	d10-Fluorene	1.03e6	2.24e6	0.5828	1.000	15.88	15.85	1.3288	1.33	NO	164	81.9	0.0307	
26	d10-Phenanthrene	1.41e6	2.24e6	0.7364	1.000	18.28	18.28	1.5338	1.53	NO	171	85.8	0.0238	
27	d10-Fluoranthene	2.32e6	2.24e6	1.3868	1.000	20.33	20.33	0.8771	0.88	NO	181	80.6	0.0114	
28	d12-Benz(a)anthracene	1.77e6	2.24e6	0.8888	1.000	25.11	25.11	1.1187	1.11	NO	175	87.5	0.0728	



Ready

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

Last Altered: Wednesday, April 07, 2021 11:09:15 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:09:30 AM Pacific Daylight Time

HZ 4.7.2021

CT 04/08/2021

(R) ID not 10:1

x ave d.l

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Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

	#	Name	Resp	IS Resp	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	1	Naphthalene	1.62e8	6.97e5	1.16	1.000	10.28	10.25	1.006	1.003	NO	~~40200~~ SAT		1660
2	2	Naphthalene-2nd	1.27e8	6.97e5	0.128	1.000	10.28	10.31	1.006	1.009	NO	(R) ~~285000~~ SAT		7420
3	3	2-Methylnaphthalene	1.12e8	4.34e5	1.38	1.000	11.63	11.68	0.794	0.798	NO	~~37600~~ SAT		365
4	4	Acenaphthylene	3.90e6	9.40e5	1.12	1.000	14.40	14.40	1.003	1.003	NO	(R) 744 EX		305
5	5	Acenaphthene	2.42e7	4.34e5	1.10	1.000	14.73	14.73	1.006	1.006	NO	~~40100~~ EX		583
6	6	Fluorene	2.65e7	6.41e5	1.15	1.000	15.95	15.95	1.006	1.006	NO	7170 EX		288
7	7	Phenanthrene	3.24e7	7.31e5	1.19	1.000	18.33	18.31	1.002	1.001	NO	~~7460~~ SAT		343
8	8	Phenanthrene-2nd	5.04e6	7.31e5	0.0925	1.000	18.33	18.31	1.002	1.001	NO	14900 EX		3110
9	9	Anthracene	2.38e7	7.31e5	1.09	1.000	18.39	18.34	1.005	1.002	NO	5960 EX		373
10	10	Fluoranthene	4.78e6	2.48e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	351		12.5
11	11	Pyrene	1.15e7	2.48e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	776 EX		11.5
12	12	Benz(a)anthracene	1.18e5	2.21e6	0.961	1.000	23.16	23.16	1.003	1.003	NO	11.1		2.86
13	13	Chrysene	8.32e5	2.36e6	0.852	1.000	23.37	23.36	1.003	1.003	NO	82.7		3.13
14	14	Benzo(b)fluoranthene	2.14e5	3.75e6	1.10	1.000	26.94	26.92	1.005	1.005	NO	20.7		0.143
15	15	Benzo(k)fluoranthene	4.75e4	4.29e6	1.04	1.000	27.03	27.02	1.004	1.004	NO	4.26		0.158
16	16	Benzo(e)pyrene	9.43e5	4.29e6	0.911	1.000	28.72	28.73	1.067	1.068	NO	96.4		0.180
17	17	Benzo(a)pyrene	2.16e5	3.51e6	1.02	1.000	28.98	28.97	1.006	1.005	NO	24.2		0.221
18	18	Perylene	8.73e4	3.51e6	0.987	1.000	29.72	29.67	1.031	1.030	NO	10.1		0.228
19	19	Indeno(1,2,3-c,d)pyrene	1.91e5	2.65e6	0.915	1.000	36.76	36.74	1.007	1.006	NO	31.4		0.637
20	20	Benzo(g,h,i)perylene	1.51e6	2.57e6	0.940	1.000	40.12	40.05	1.009	1.008	NO	251		0.616
21	21	Dibenz(a,h)anthracene		2.30e6	0.948	1.000	36.71		1.011		YES			0.516
22	22	d8-Naphthalene (R)	6.97e5	2.48e6	1.20	1.000	10.18	10.22	0.848	0.852	NO	46.8	~~23.4~~ X	10.8
23	23	d8-Acenaphthylene (R)	9.40e5	2.48e6	0.905	1.000	14.42	14.35	1.201	1.196	NO	83.9	~~42.0~~ X	62.2
24	24	d10-Acenaphthene	4.34e5	2.48e6	0.594	1.000	14.71	14.64	1.226	1.220	NO	59.0	29.5 X	27.8
25	25	d10-Fluorene	6.41e5	2.48e6	0.563	1.000	15.96	15.86	1.330	1.322	NO	92.1	46.0 X	37.2
26	26	d10-Phenanthrene	7.31e5	2.48e6	0.735	1.000	18.40	18.29	1.533	1.524	NO	80.3	40.1 X	68.8
27	27	d10-Fluoranthene	2.48e6	2.48e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	156	77.8	1.32
28	28	d12-Benz(a)anthracene	2.21e6	2.48e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	198	99.1	2.87
29	29	d12-Chrysene	2.36e6	2.48e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	187	93.5	2.53
30	30	d12-Benzo(b)fluoranthene	3.75e6	2.13e6	1.18	1.000	26.76	26.80	0.907	0.909	NO	297	74.4	0.136
31	31	d12-Benzo(k)fluoranthene	4.29e6	2.13e6	1.50	1.000	26.87	26.91	0.911	0.912	NO	268	67.0	0.107

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Printed: Wednesday, April 07, 2021 11:09:30 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.51e6	2.13e6	1.24	1.000	28.76	28.81	0.975	0.977	NO	266	66.5	0.130
33	33	d12-Indeno(1,2,3-c,d)pyrene	2.65e6	2.13e6	1.02	1.000	36.78	36.51	1.247	1.238	NO	244	61.1	0.198
34	34	d12-Benzo(g,h,i)perylene	2.57e6	2.13e6	1.00	1.000	40.18	39.74	1.362	1.348	YES	240	59.9	0.201
35	35	d14-Dibenz(a,h)anthracene	2.30e6	2.13e6	0.765	1.000	36.55	36.30	1.239	1.231	NO	282	70.4	0.170
36	36	d10-Anthracene	6.62e5	2.13e6	0.989	1.000	18.49	18.35	1.541	1.529	NO	62.8	31.4	138
37	37	d14-Terphenyl	4.45e6	2.48e6	0.576	1.000	20.69	20.70	1.018	1.019	NO	623	125	0.302
38	38	d12-Benzo(e)pyrene	4.31e6	4.29e6	0.738	1.000	28.53	28.57	1.060	1.062	NO	544	109	0.202
39	39	d10-1-Methylnaphthalene	1.21e6	1.21e6	1.00	1.000	11.93	12.00	1.000	1.000	NO	200	100	52.1
40	40	d10-Pyrene	2.48e6	2.48e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	1.69
41	41	d12-Perylene	2.13e6	2.13e6	1.00	1.000	29.59	29.49	1.000	1.000	NO	200	100	0.161

538 of 1215

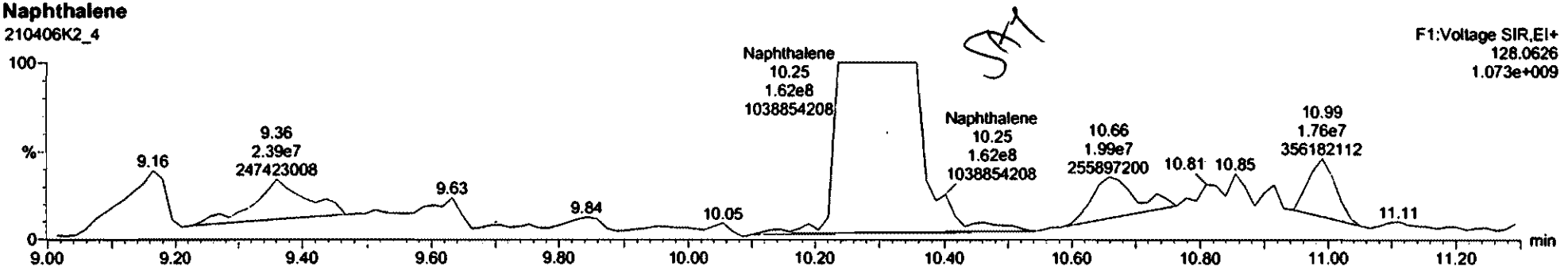
Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

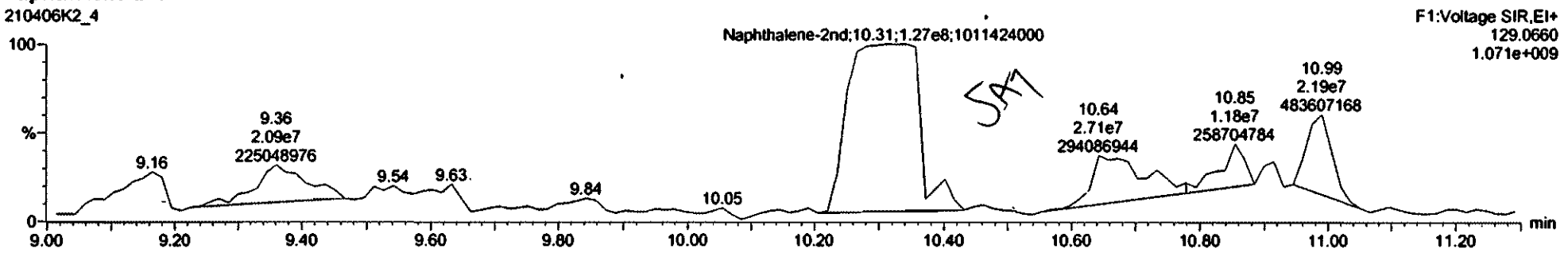
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

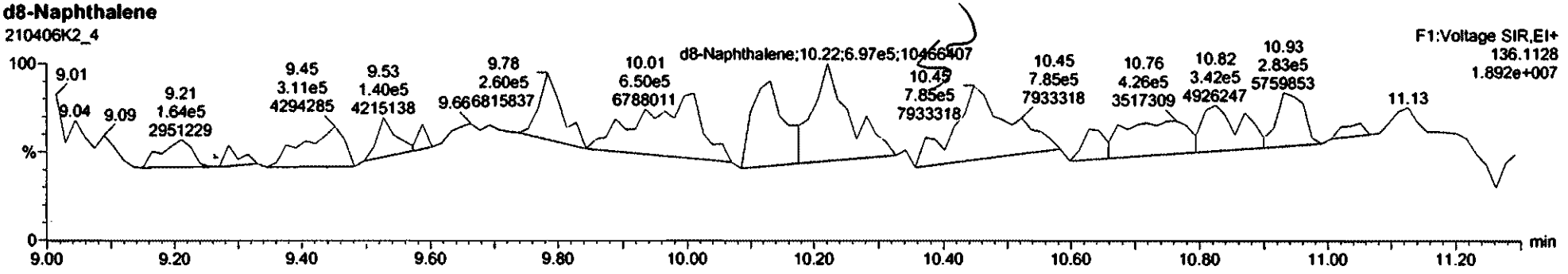
Naphthalene



Naphthalene-2nd



d8-Naphthalene

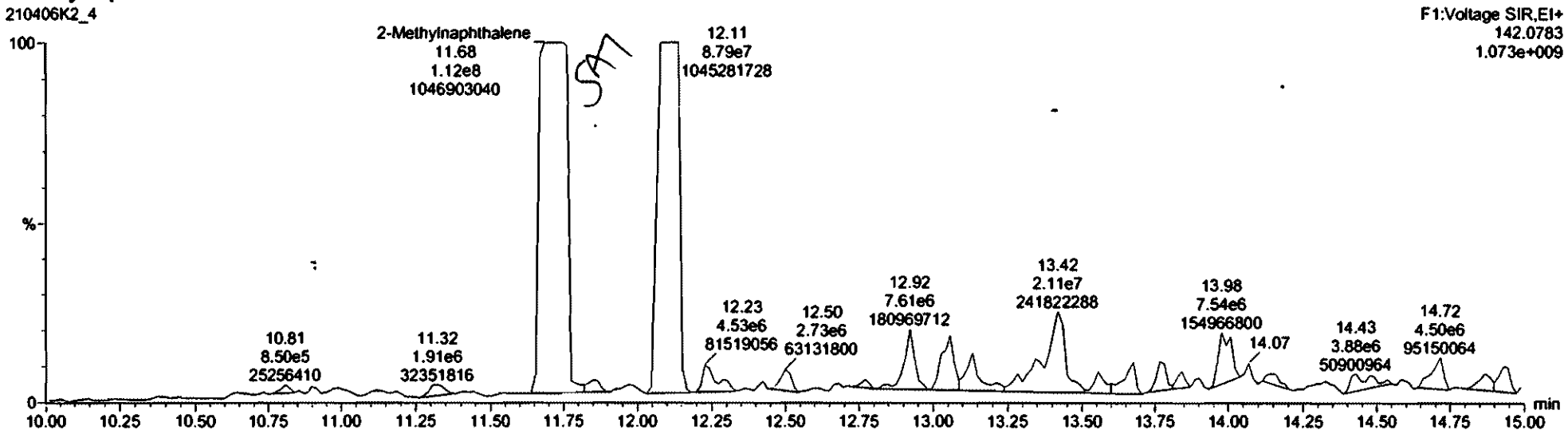


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

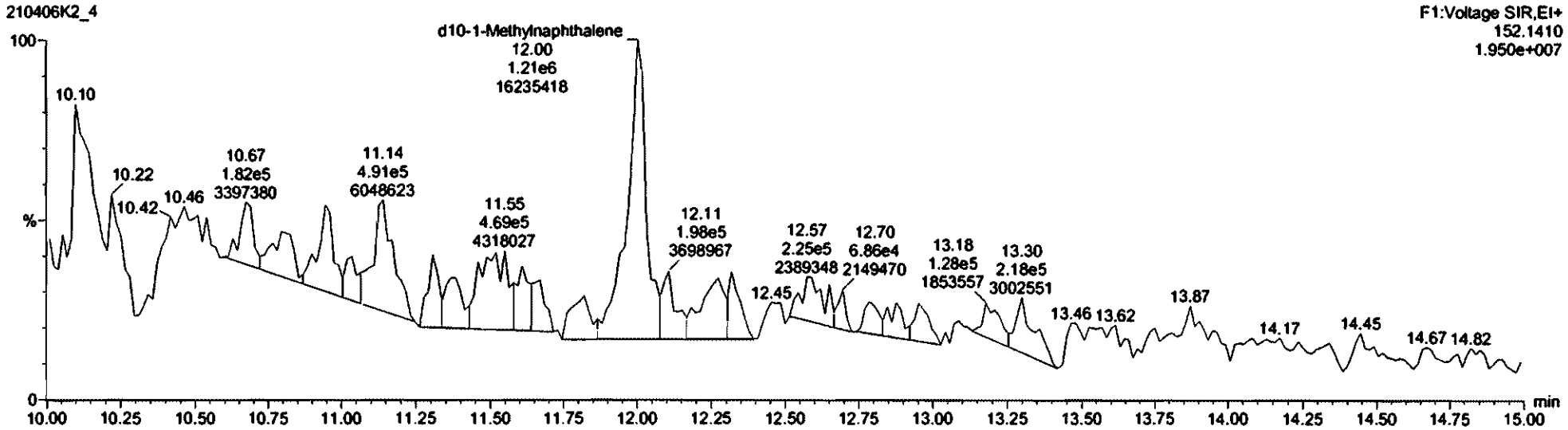
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



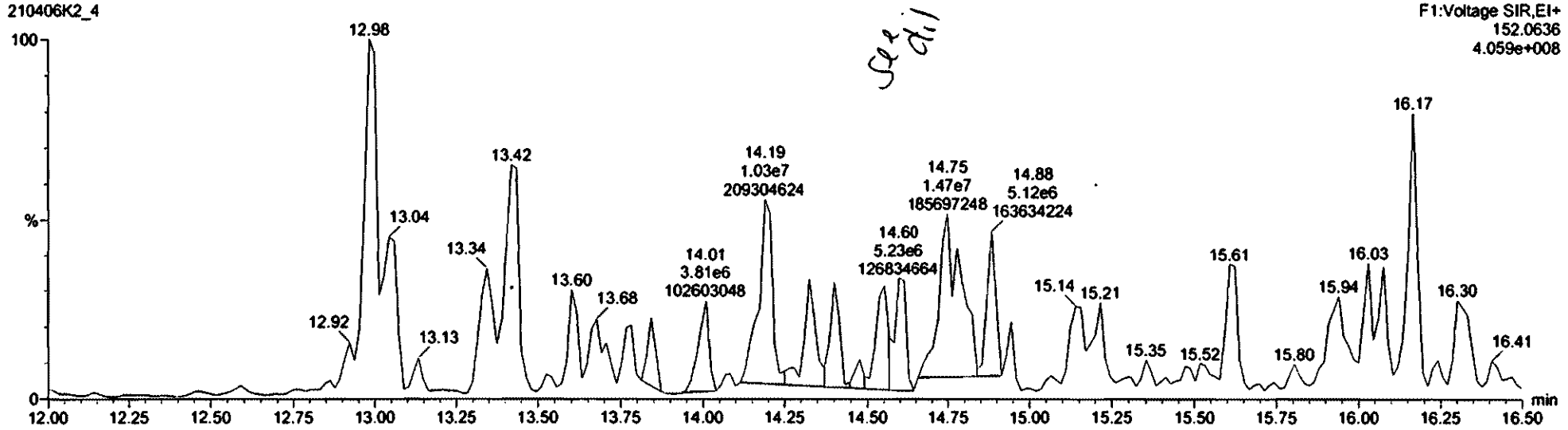
540 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

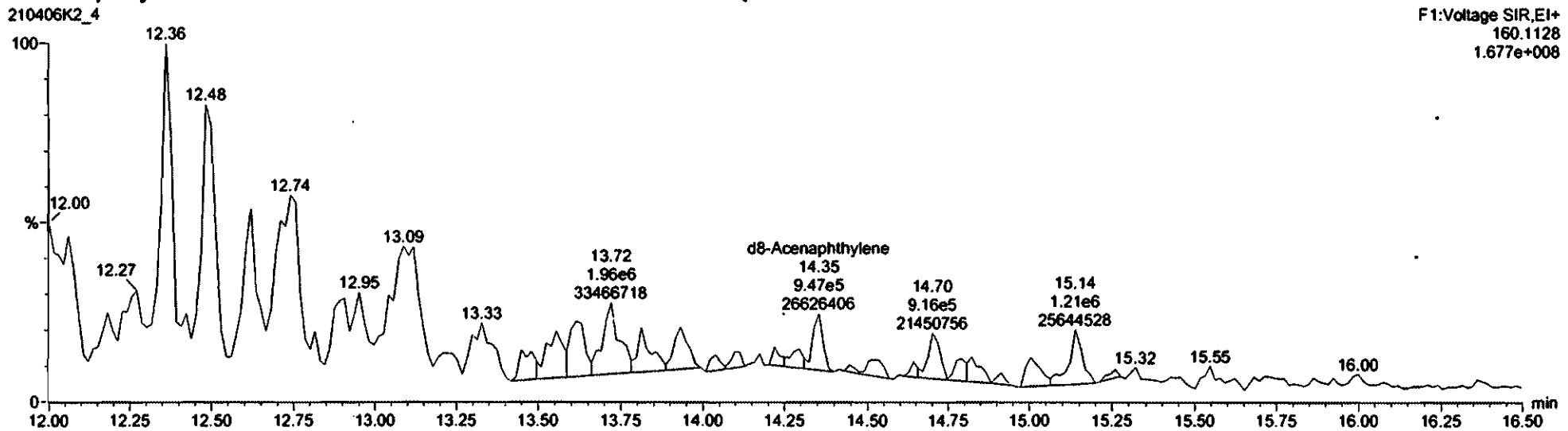
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Acenaphthylene



d8-Acenaphthylene

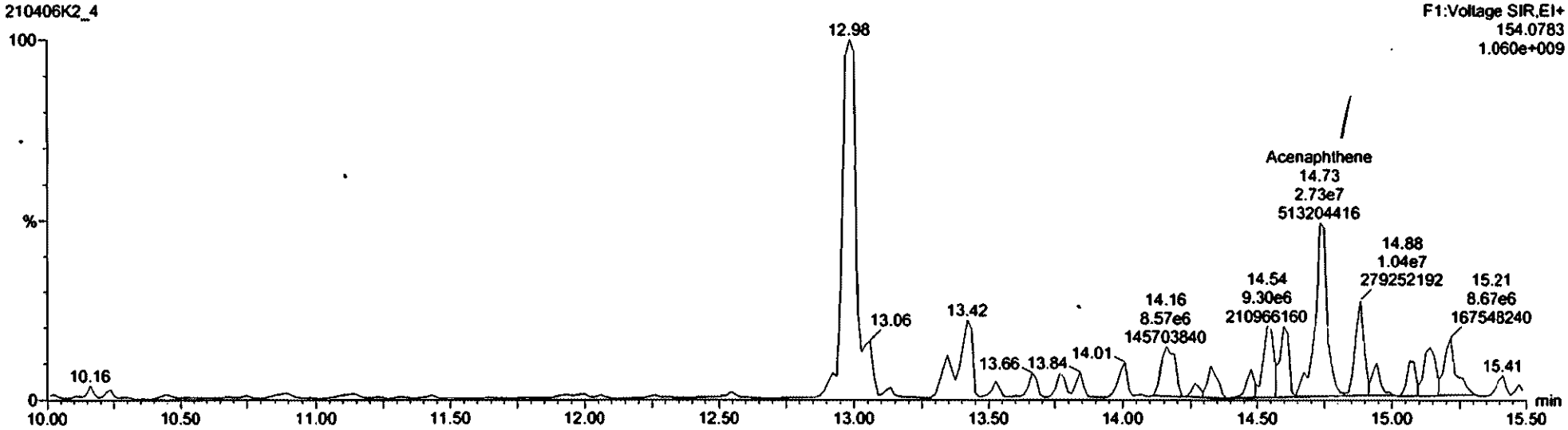


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

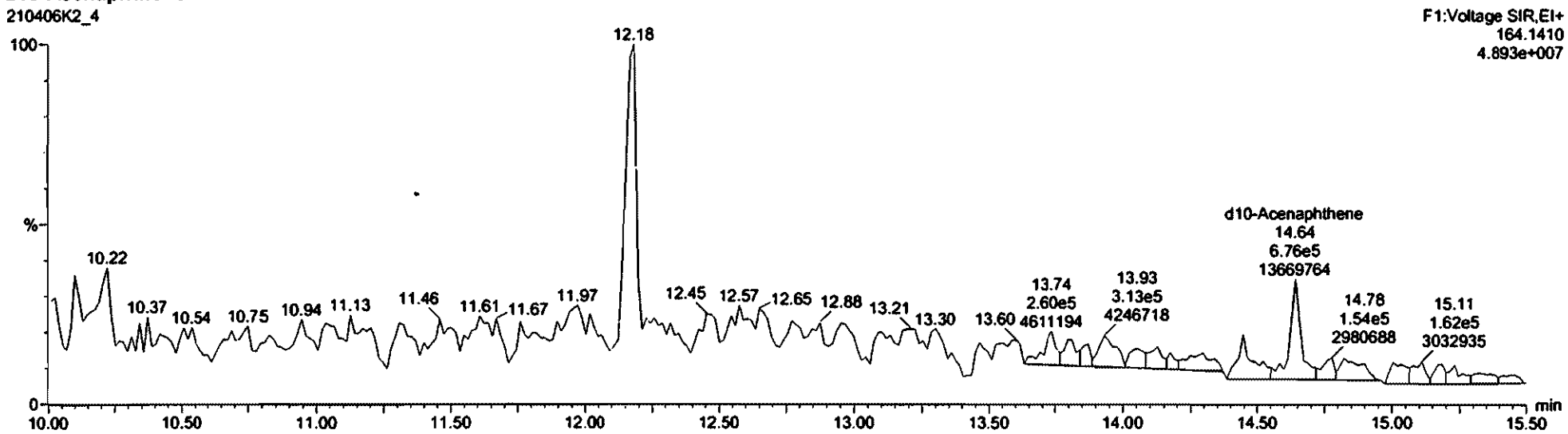
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

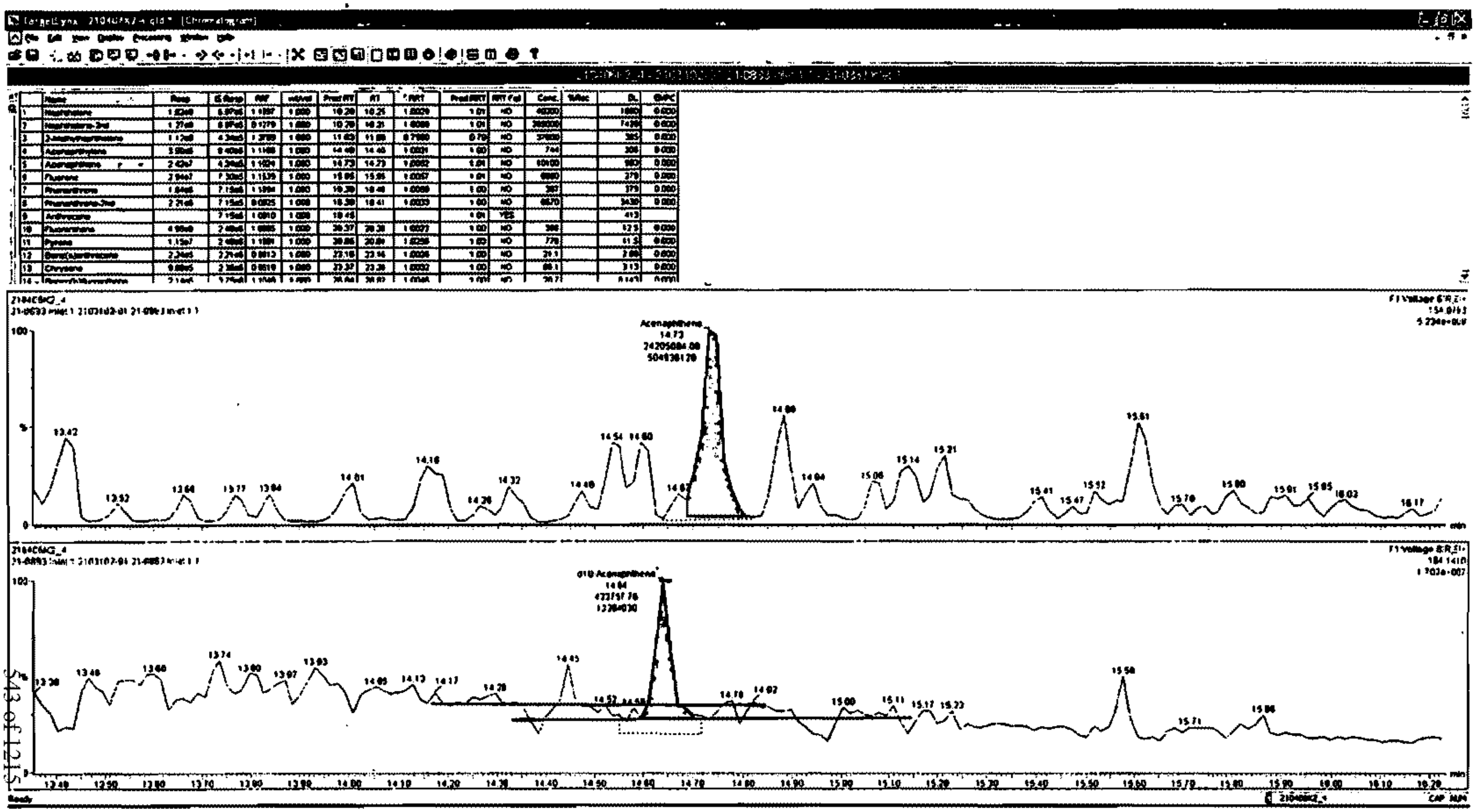
Acenaphthene



d10-Acenaphthene



542 of 1215

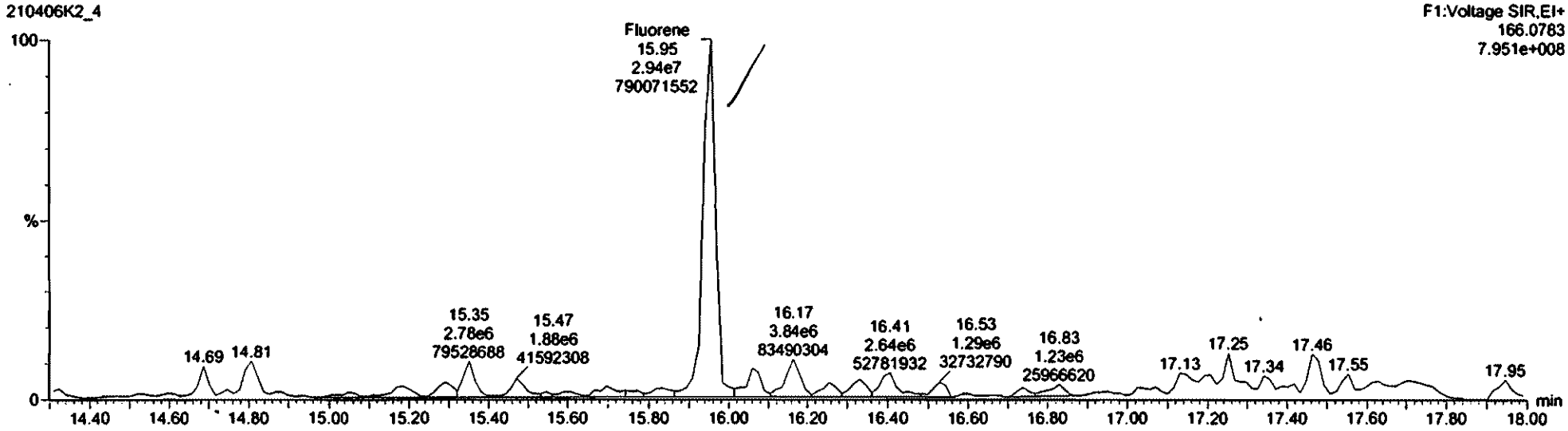

Acenaphthene
14.73
24205084.00
504938170
d10-Acenaphthene
14.64
F1 Voltage EI
min

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

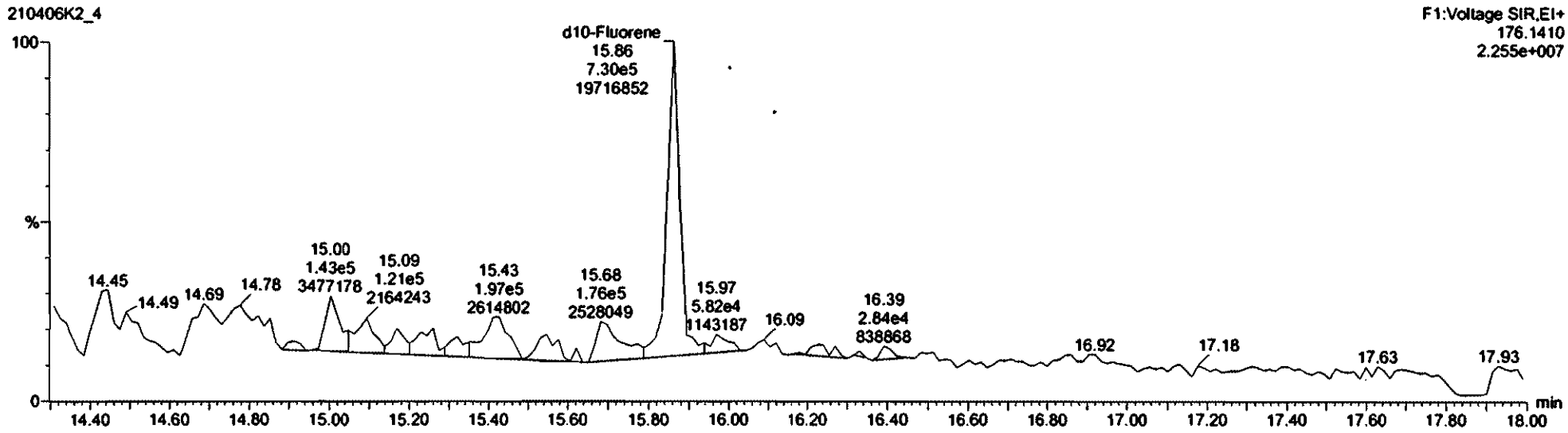
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluorene



d10-Fluorene

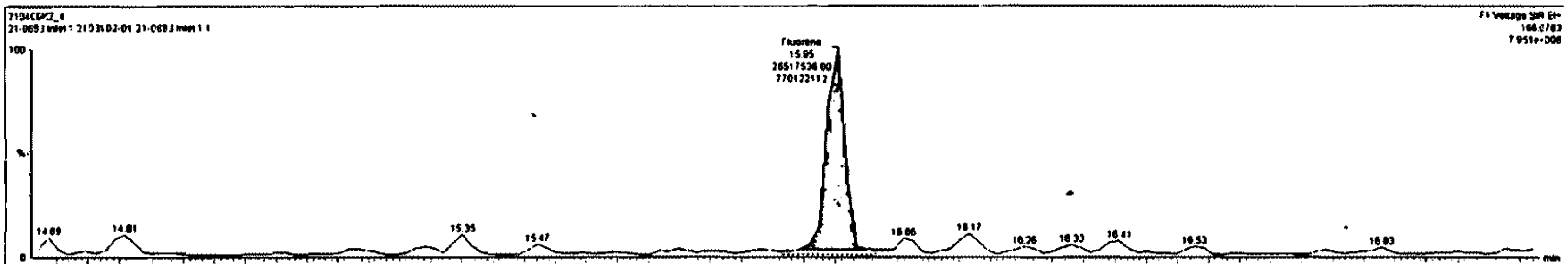


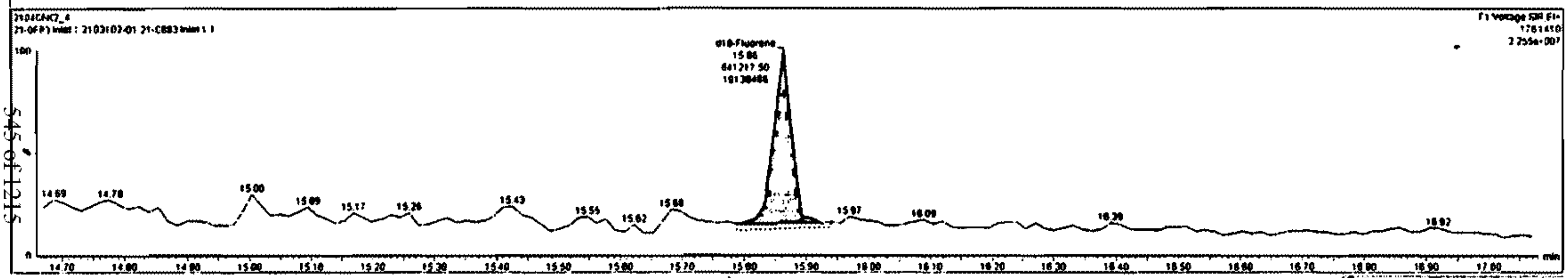
544 of 1215

TargetLynx - 210406K7_4.qld* - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	QL	EMPC
1	Naphthalene	1.82e6	6.87e5	1.1987	1.000	10.28	10.25	1.0029	1.01	NO	40200		1880	0.000
2	Naphthalene-2nd	1.27e8	6.87e6	0.1278	1.000	10.28	10.31	1.0088	1.01	NO	268000		7420	0.000
3	2-Methylnaphthalene	1.12e8	4.34e5	1.3788	1.000	11.83	11.88	0.7980	0.79	NO	37600		385	0.000
4	Acenaphthylene	3.90e6	9.40e5	1.1168	1.000	14.40	14.40	1.0031	1.00	NO	744		306	0.000
5	Acenaphthene	2.42e7	4.34e6	1.1024	1.000	14.73	14.73	1.0082	1.01	NO	10100		580	0.000
6	Fluorene	2.86e7	6.41e5	1.1539	1.000	15.95	15.95	1.0067	1.01	NO	7170		280	0.000
7	Phenanthrene	1.84e6	7.15e6	1.1684	1.000	18.38	18.46	1.0089	1.00	NO	387		379	0.000
8	Phenanthrene-2nd	2.21e8	7.15e5	0.0825	1.000	18.38	18.41	1.0033	1.00	NO	6870		3430	0.000
9	Anthracene		7.15e5	1.0810	1.000	18.45			1.01	YES			413	
10	Fluoranthene	4.98e6	2.48e6	1.0885	1.000	20.37	20.38	1.0022	1.00	NO	388		12.5	0.000
11	Pyrene	1.15e7	2.48e6	1.1081	1.000	20.85	20.84	1.0256	1.03	NO	776		11.5	0.000
12	Benz(a)anthracene	2.24e5	2.21e6	0.8813	1.000	23.18	23.18	1.0028	1.00	NO	21.1		2.88	0.000
13	Chrysene	9.88e6	2.38e6	0.8519	1.000	23.37	23.38	1.0032	1.00	NO	98.1		3.13	0.000
14	Benzo(b)fluoranthene	2.14e5	3.25e6	1.1068	1.000	26.94	26.92	1.0048	1.00	NO	20.7		0.143	0.000





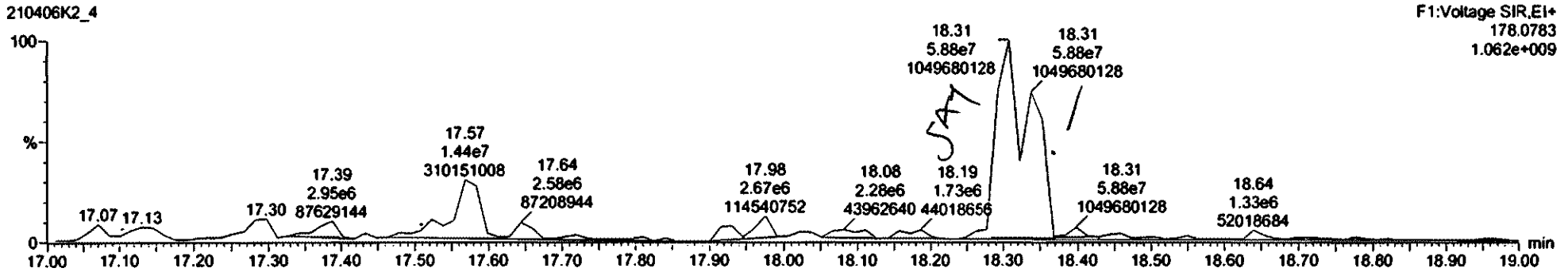
Ready 210406K7_4 CAP NUM

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

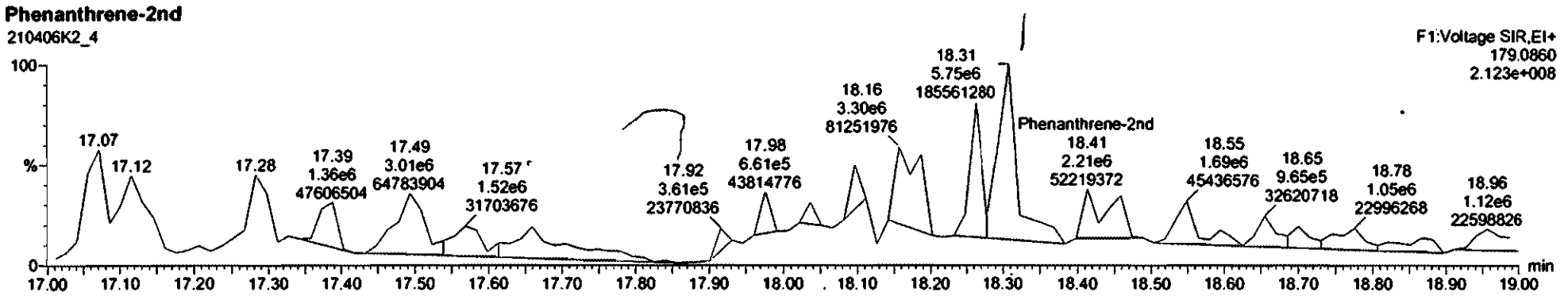
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

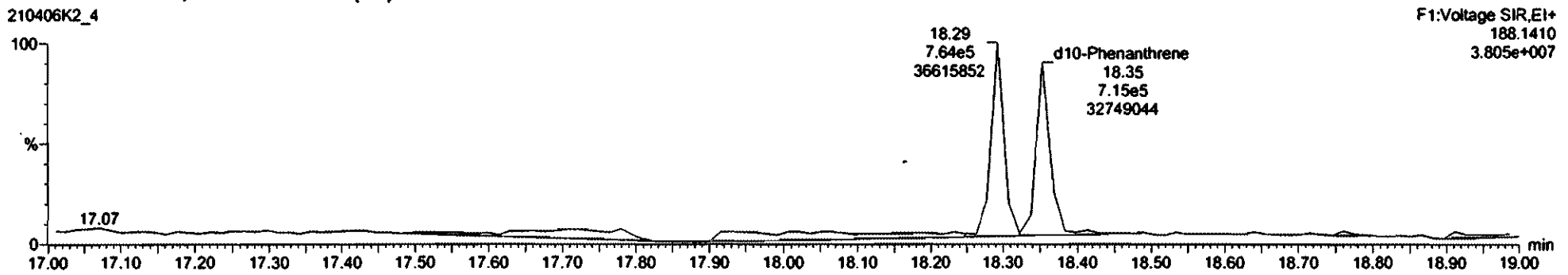
Phenanthrene; Anthrecene



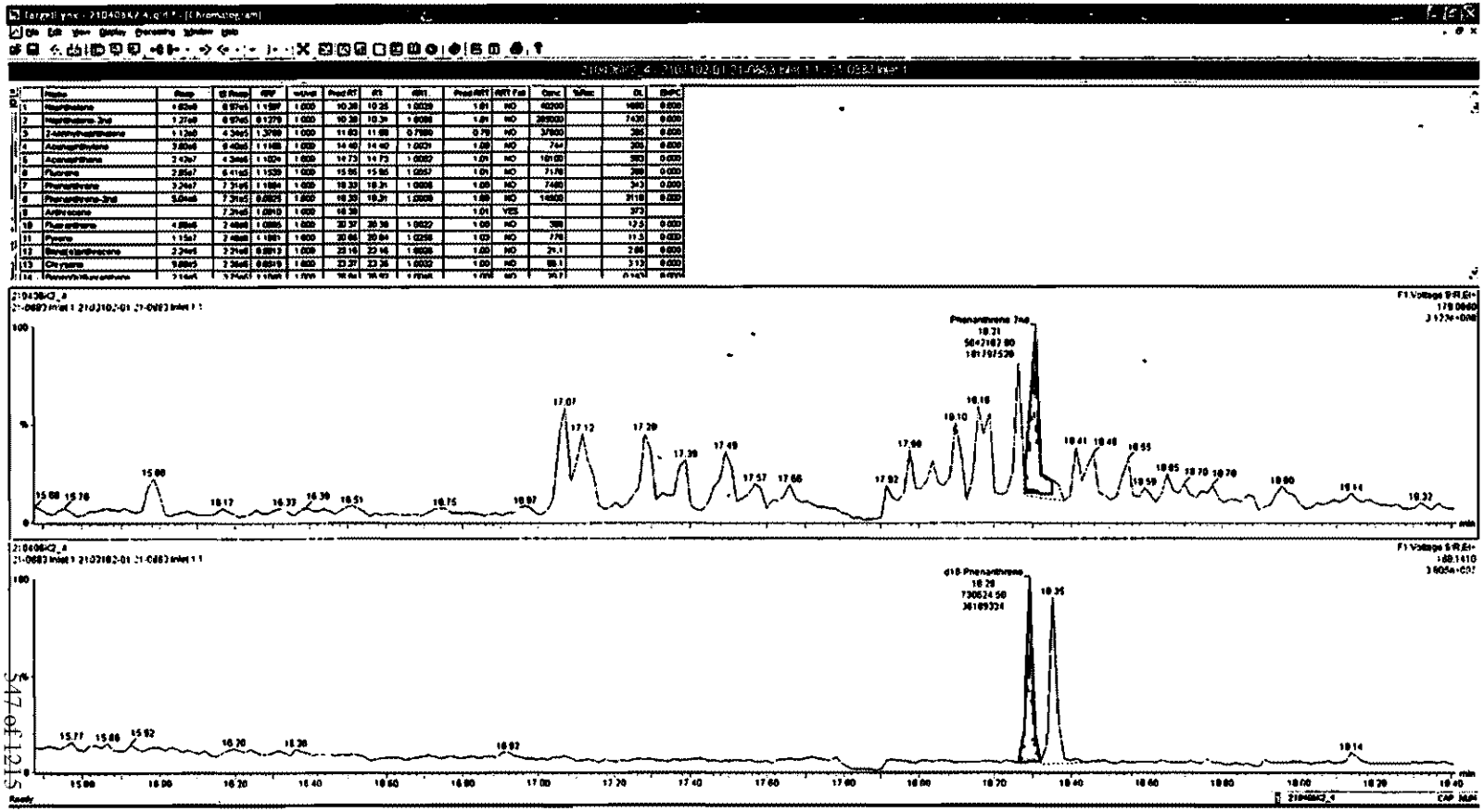
Phenanthrene-2nd

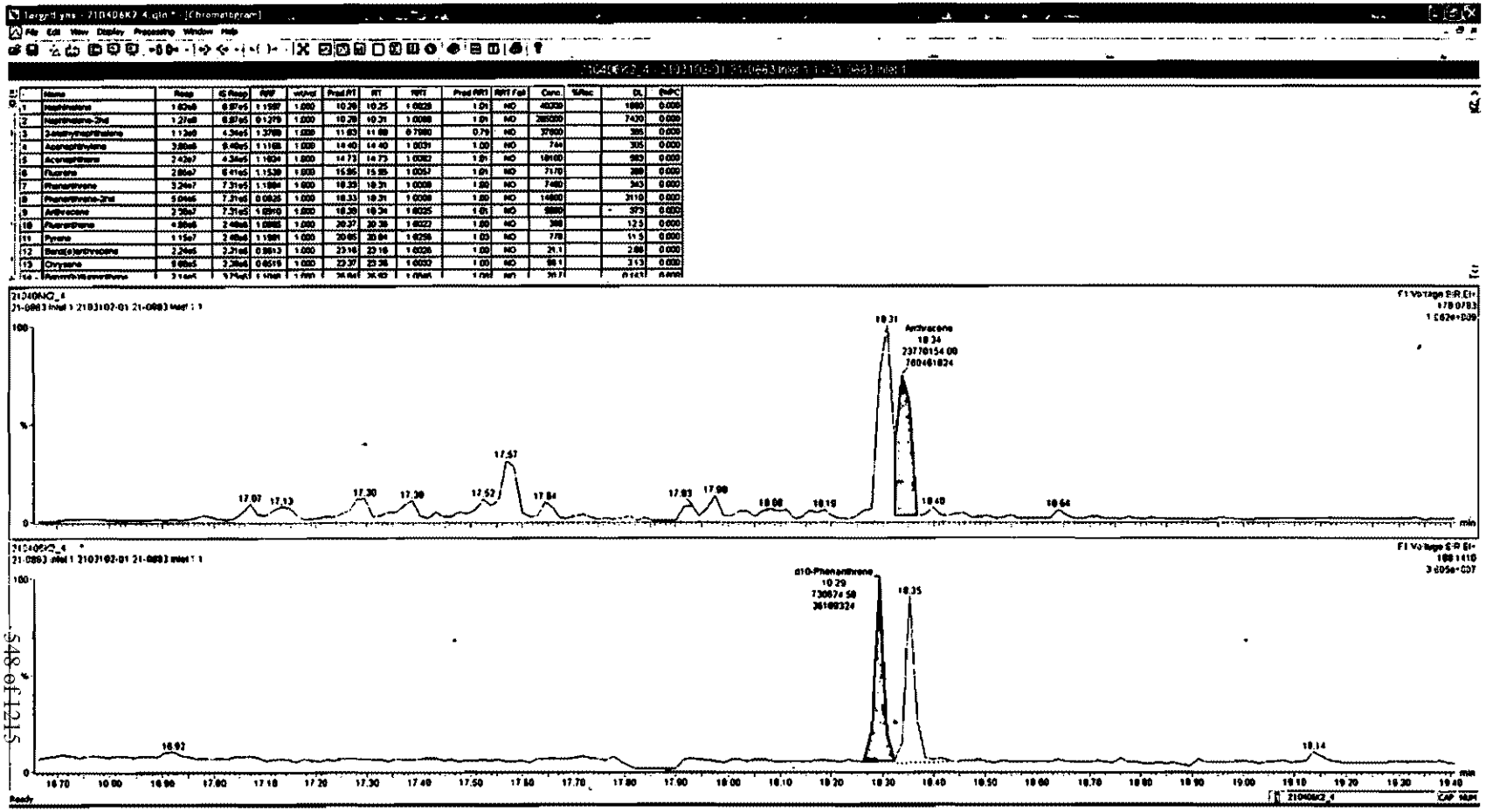


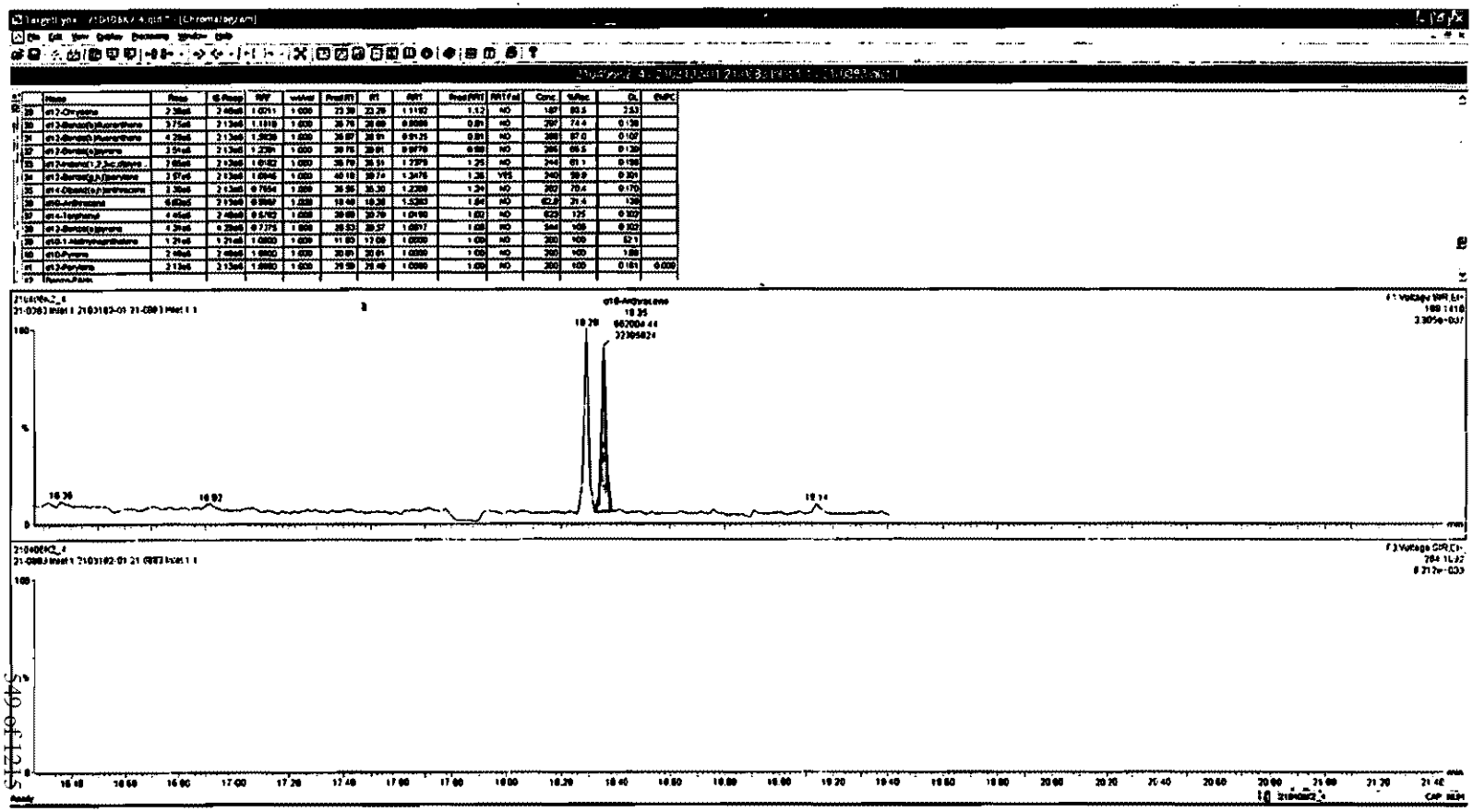
d10-Phenanthrene; d10-Anthrecene (AS)



546 of 1215




18.31
Anthracene
18.34
237701540 00
7804618 24
17.57
17.07
17.13
17.30
17.39
17.52
17.84
17.93
17.99
18.08
18.19
18.40
18.64
d10-Phenanthrene
18.29
730874 58
36108324
18.35
16.92
18.14

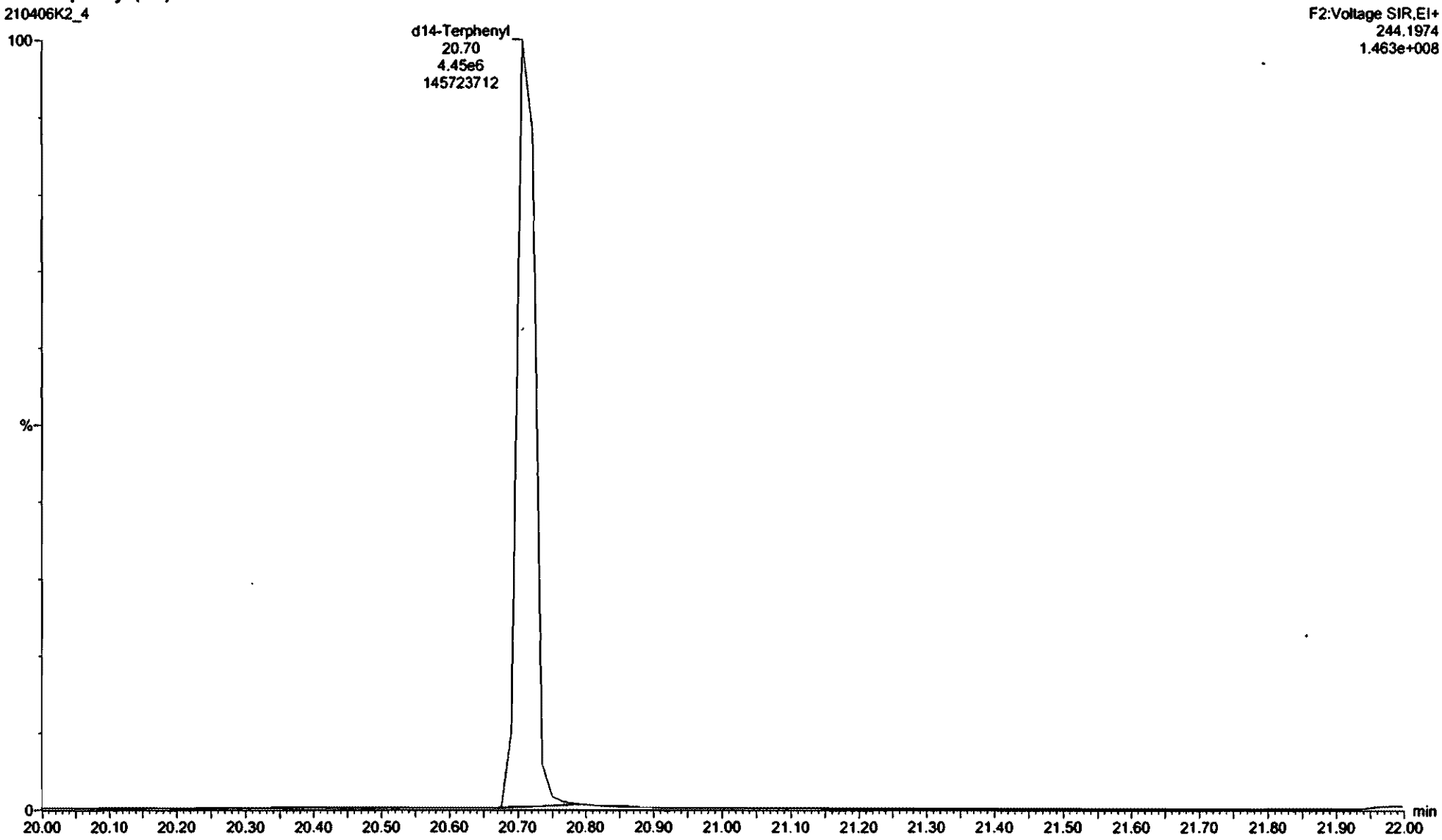


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

d14-Terphenyl (PS)



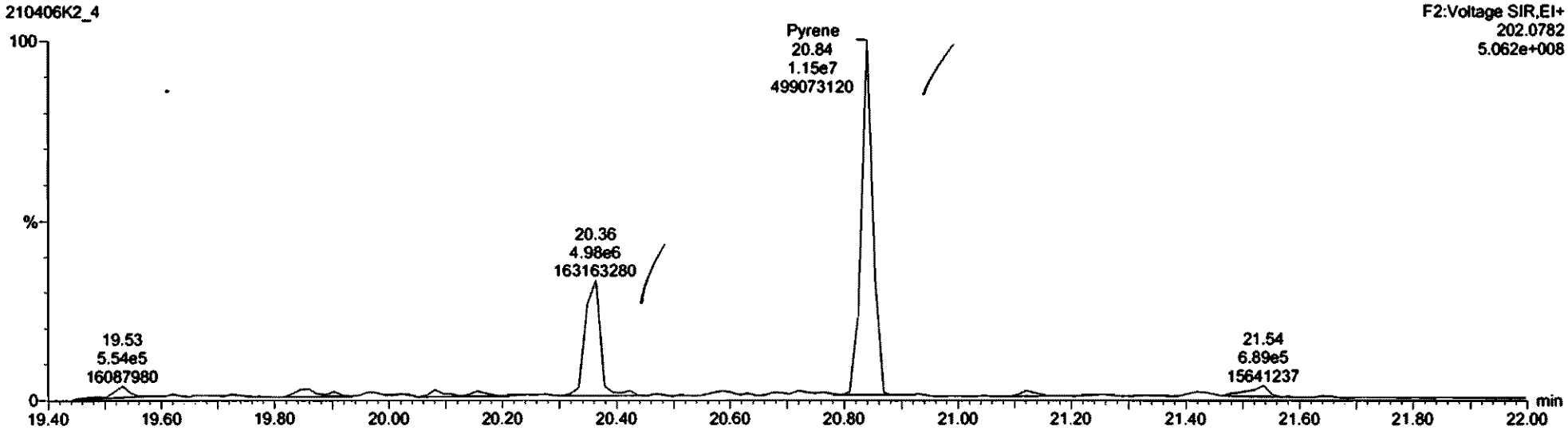
550 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

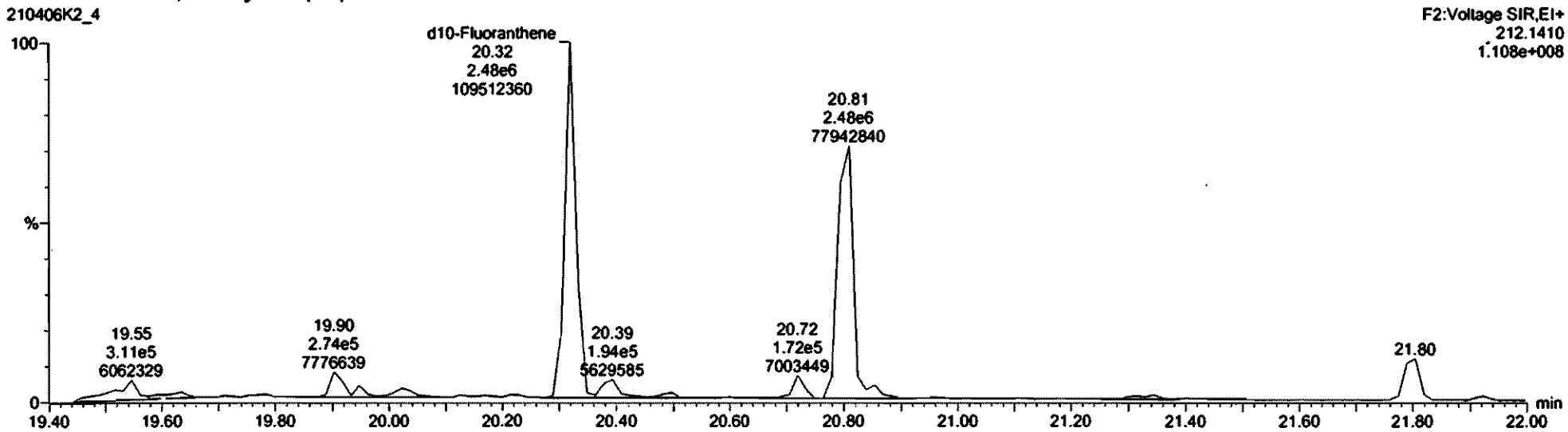
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

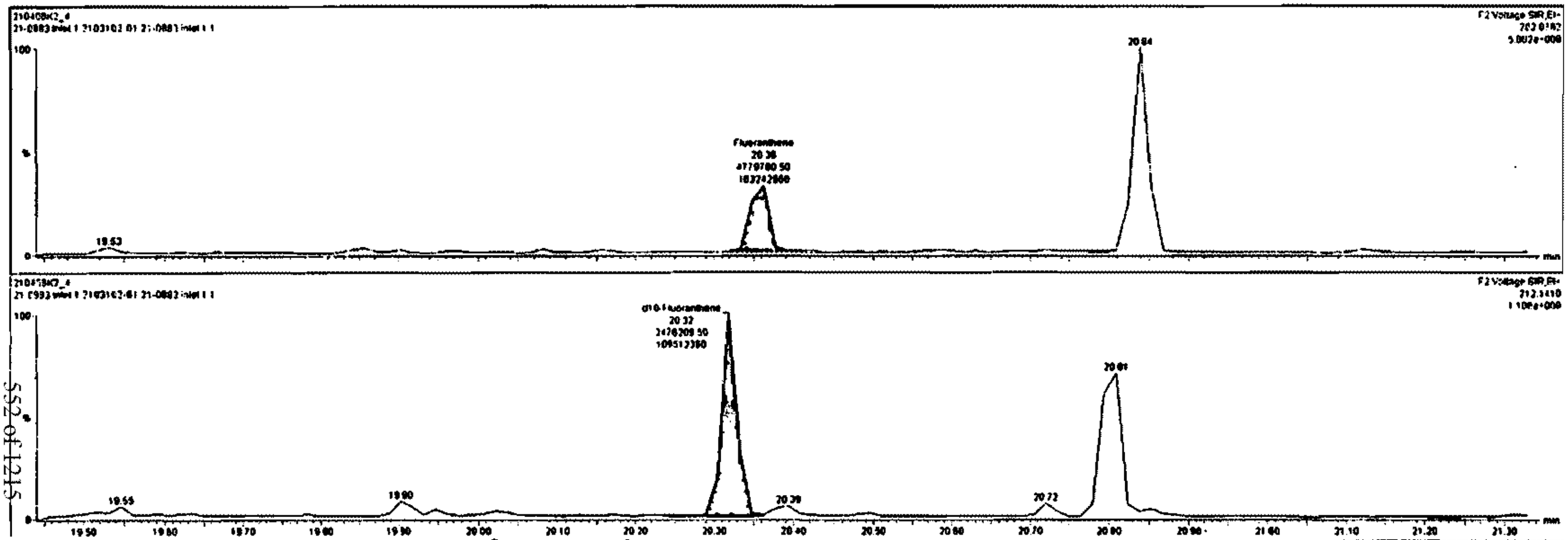


551 of 1215

TargetLynx 210408K2_4.qld - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	1.62e8	6.57e5	1.1987	1.000	10.28	10.25	1.0029	1.01	NO	48200		1000	0.000
2	Naphthalene-2nd	1.37e8	6.57e5	0.1279	1.000	10.28	10.31	1.0088	1.01	NO	288000		7420	0.000
3	2-Methylnaphthalene	1.12e8	4.34e5	1.3780	1.000	11.63	11.58	0.7880	0.79	NO	37800		386	0.000
4	Acenaphthylene	3.90e6	9.40e5	1.1108	1.000	14.40	14.40	1.0071	1.00	NO	744		385	0.000
5	Acenaphthene	2.42e7	4.34e5	1.1024	1.000	14.73	14.73	1.0062	1.01	NO	10400		583	0.000
6	Fluorene	2.85e7	8.41e5	1.1536	1.000	15.86	15.85	1.0057	1.01	NO	7170		288	0.000
7	Phenanthrene	3.24e7	7.31e5	1.1684	1.000	18.33	18.31	1.0008	1.00	NO	7480		343	0.000
8	Phenanthrene-2nd	5.84e6	7.31e5	0.0825	1.000	18.33	18.34	1.0008	1.00	NO	14800		3110	0.000
9	Anthracene	2.38e7	7.31e5	1.0818	1.000	18.38	18.34	1.0025	1.01	NO	9880		373	0.000
10	Fluoranthene	4.78e6	2.48e6	1.0865	1.000	20.37	20.38	1.0022	1.00	NO	351		13.5	0.000
11	Pyrene	1.15e7	2.48e6	1.1084	1.000	20.86	20.84	1.0256	1.00	NO	776		11.5	0.000
12	Benz(a)anthracene	2.24e5	2.21e6	0.0813	1.000	23.18	23.16	1.0028	1.00	NO	21.1		2.86	0.000
13	Chrysene	9.88e5	2.28e6	0.8519	1.000	23.37	23.36	1.0032	1.00	NO	98.1		3.19	0.000
14	Benzo(b)fluoranthene	2.14e5	1.75e6	1.1068	1.000	26.94	26.92	1.0068	1.00	NO	20.7		0.143	0.000



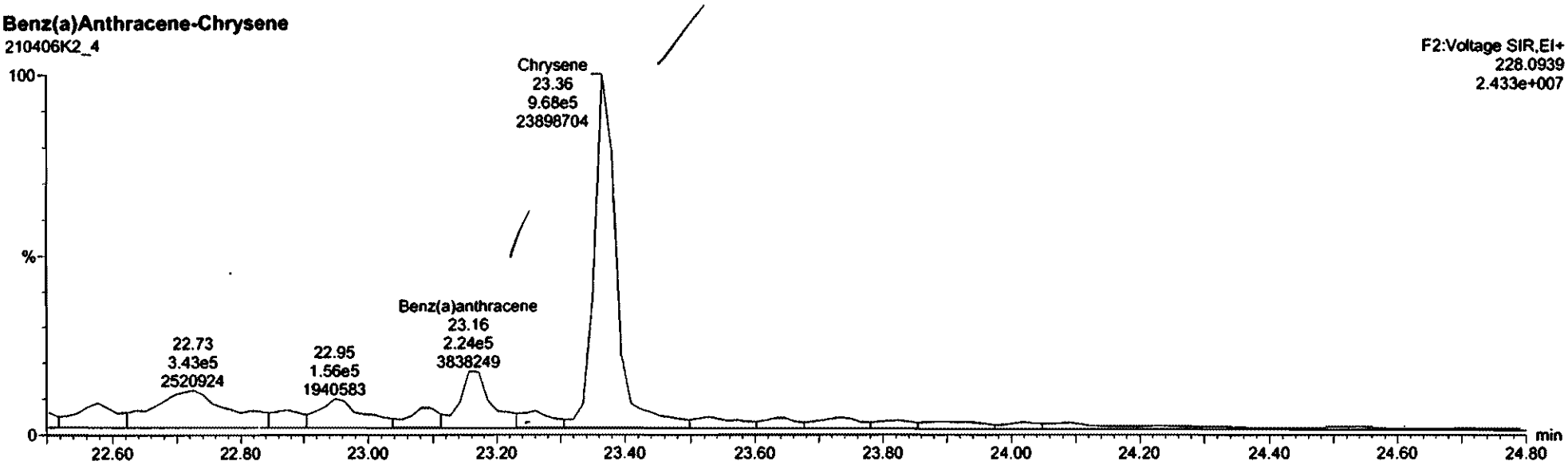
Ready

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

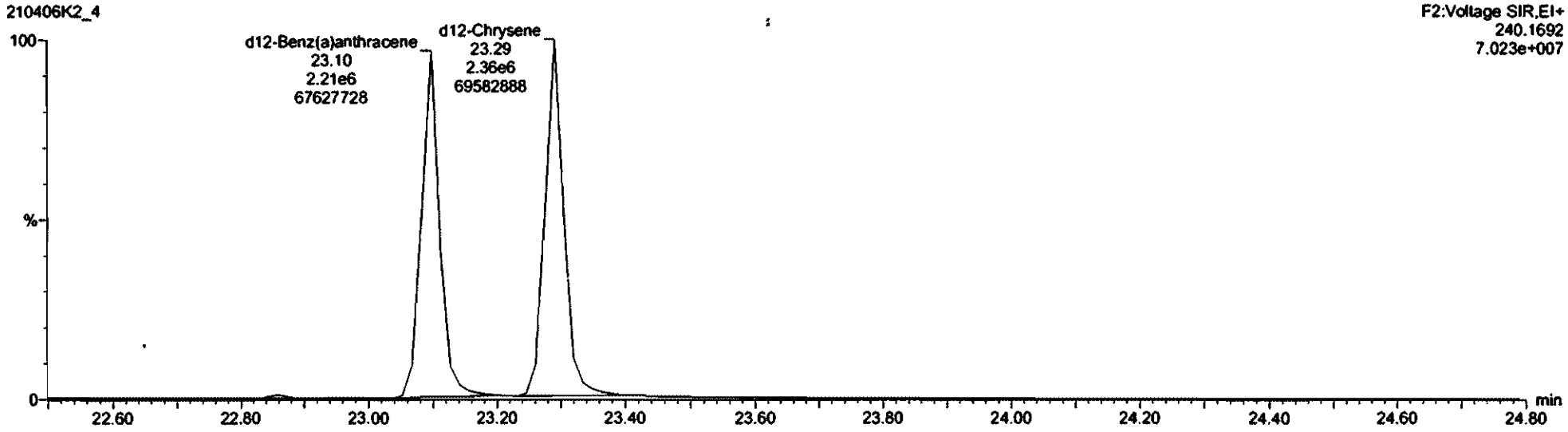
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

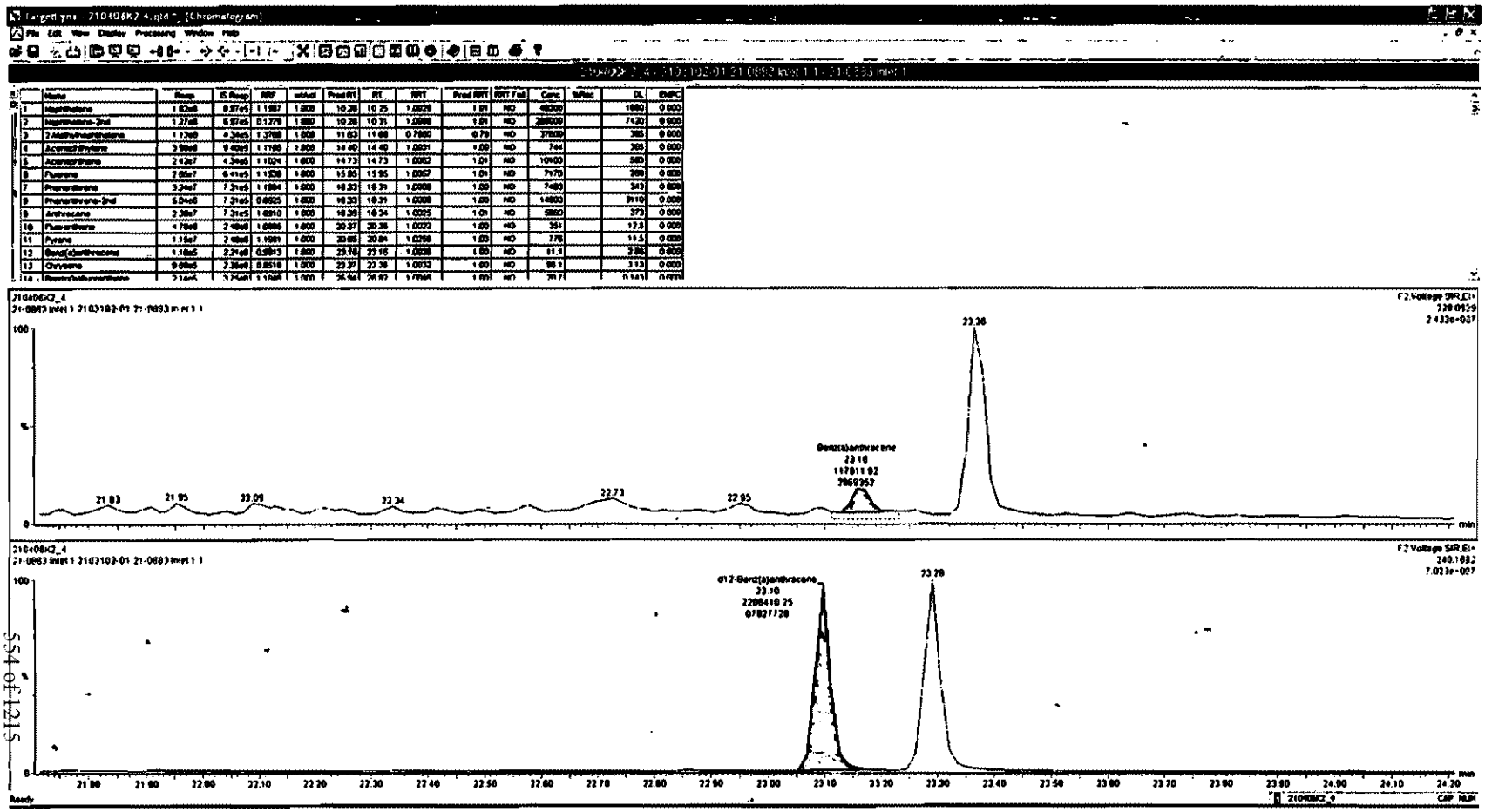
Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



553 of 1215

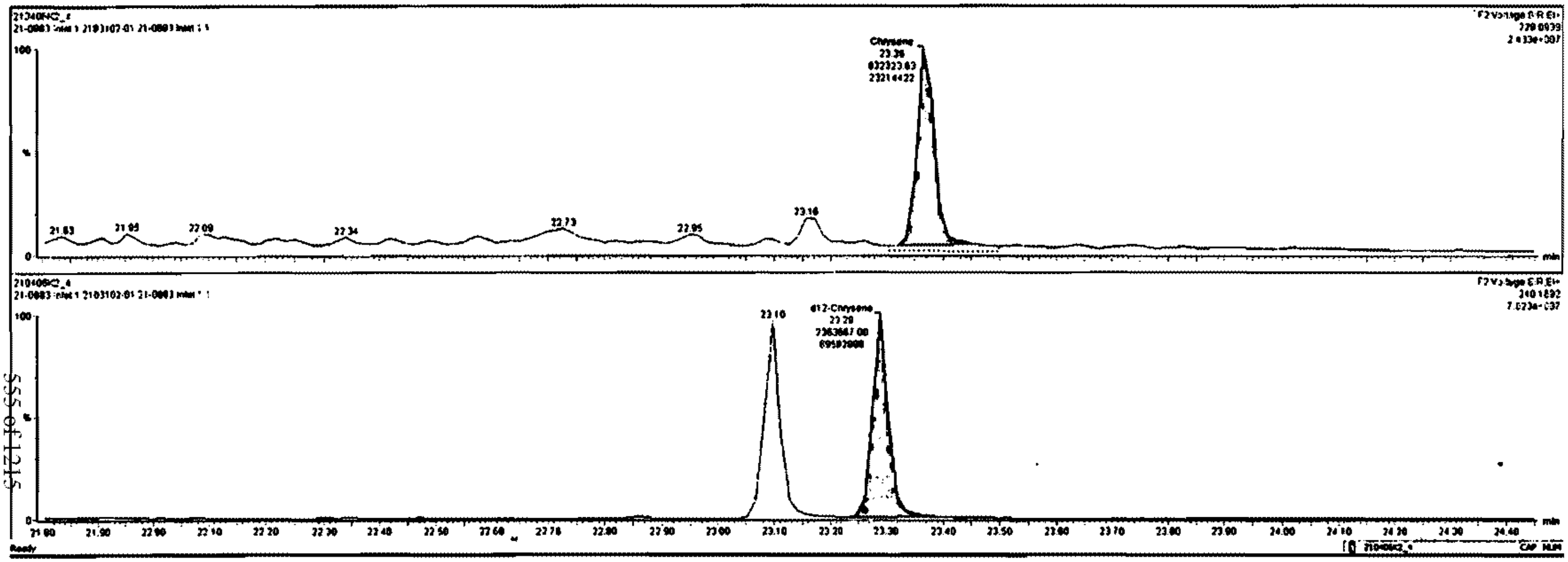


554 of 1215

TargetLynx - 210406K2-4.qld - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	1.82e6	6.87e5	1.1957	1.000	10.26	10.25	1.0029	1.01	NO	40300		1080	0.000
2	Naphthalene-2nd	1.27e6	6.97e5	0.1279	1.000	10.26	10.34	1.0080	1.01	NO	285000		7420	0.000
3	2-Methylnaphthalene	1.12e9	4.34e5	1.3780	1.000	11.63	11.68	0.7980	0.78	NO	37000		386	0.000
4	Acenaphthylene	3.80e6	8.40e5	1.1168	1.000	14.40	14.40	1.0031	1.00	NO	744		385	0.000
5	Acenaphthene	2.42e7	4.34e5	1.1824	1.000	14.73	14.73	1.0082	1.01	NO	10100		583	0.000
6	Fluorene	2.65e7	6.41e5	1.1530	1.000	15.86	15.86	1.0057	1.01	NO	7170		288	0.000
7	Phenanthrene	3.24e7	7.31e5	1.1884	1.000	18.39	18.31	1.0039	1.00	NO	7400		343	0.000
8	Phenanthrene-2nd	5.04e6	7.31e6	0.0925	1.000	18.33	18.31	1.0039	1.00	NO	14800		3110	0.000
9	Anthracene	2.30e7	7.31e5	1.0810	1.000	18.38	18.34	1.0025	1.01	NO	9880		373	0.000
10	Fluoranthene	4.78e6	2.48e6	1.0885	1.000	20.37	20.38	1.0022	1.00	NO	361		12.5	0.000
11	Pyrene	1.15e7	2.48e6	1.1981	1.000	20.86	20.84	1.0258	1.00	NO	776		11.5	0.000
12	Benz(a)anthracene	1.18e5	2.21e6	0.9813	1.000	23.18	23.18	1.0028	1.00	NO	11.1		2.86	0.000
13	Chrysene	8.32e5	2.38e6	0.8519	1.000	23.37	23.38	1.0030	1.00	NO	62.7		3.13	0.000
14	[illegible]	[illegible]	3.75e6	1.1048	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	20.7		0.143	0.000

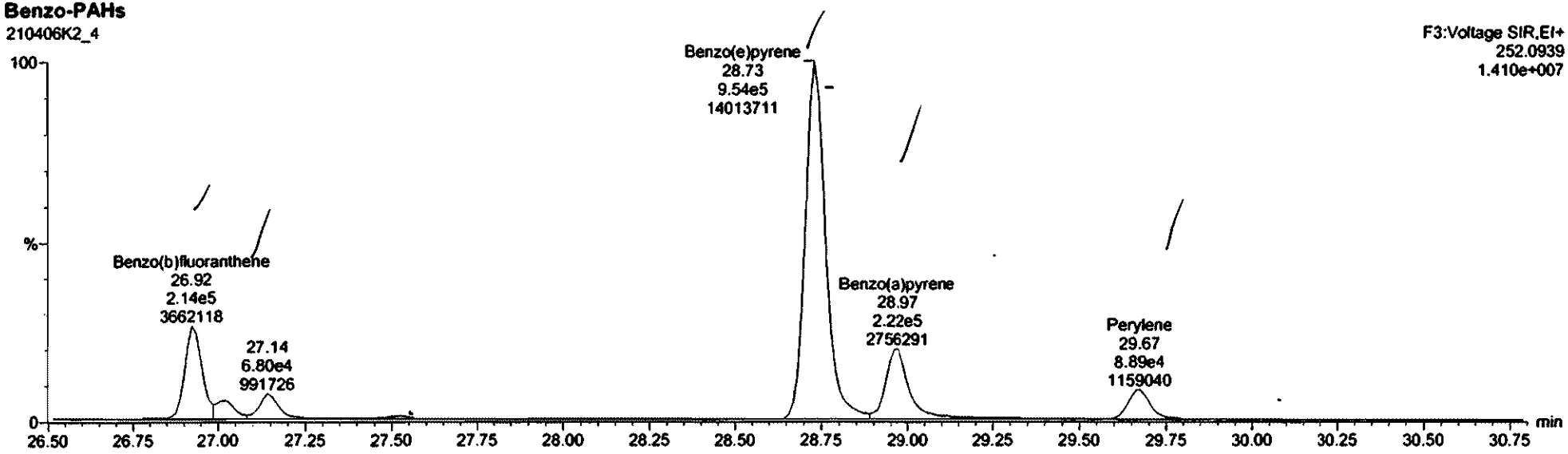


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

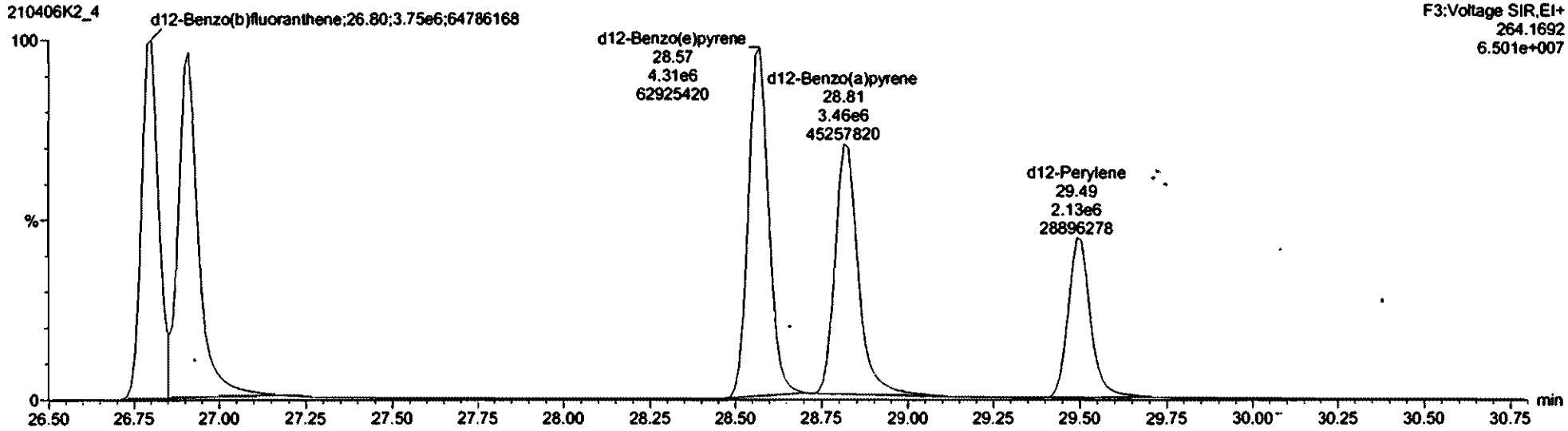
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

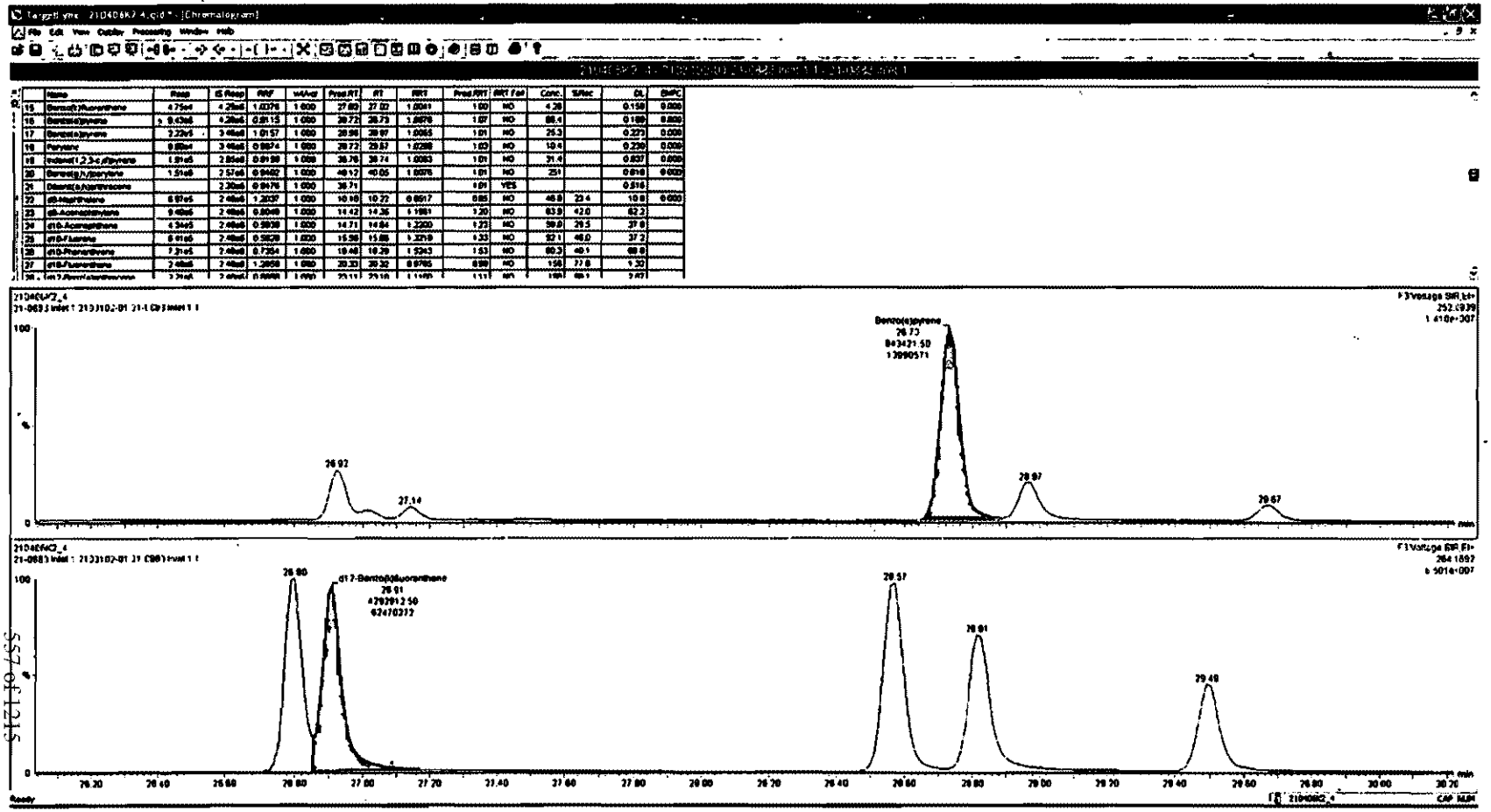
Benzo-PAHs



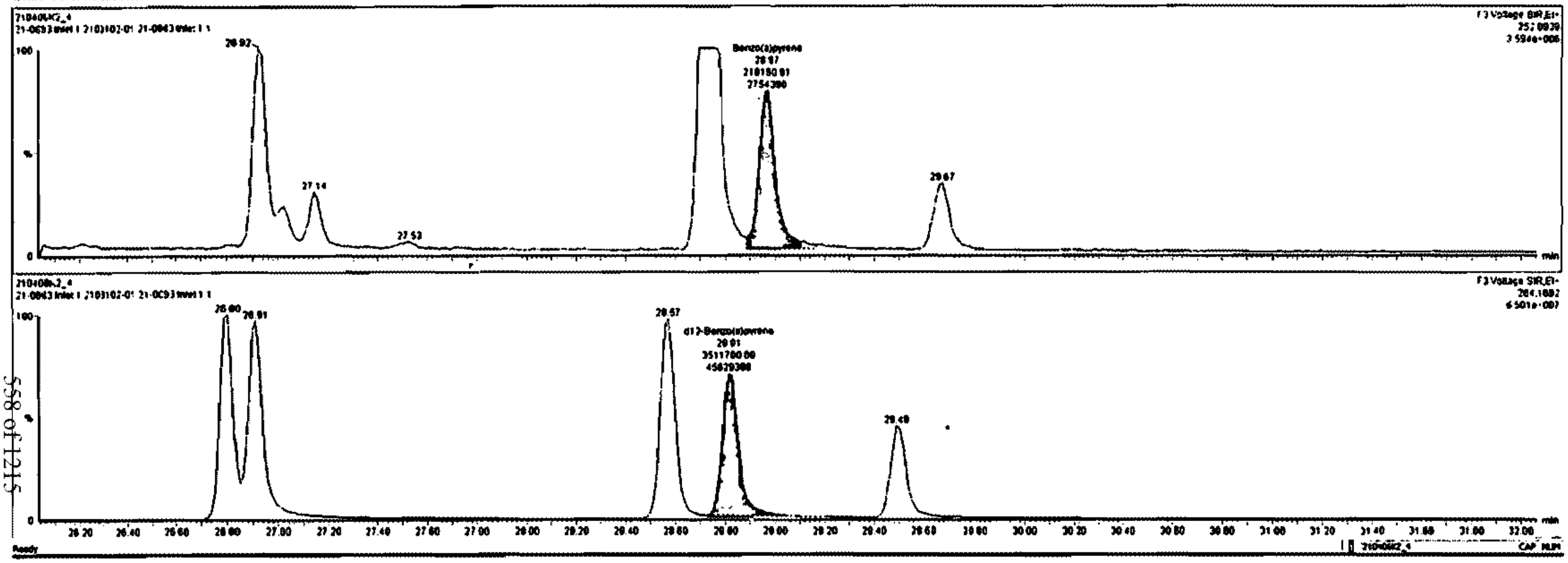
Benzo-Isotopes

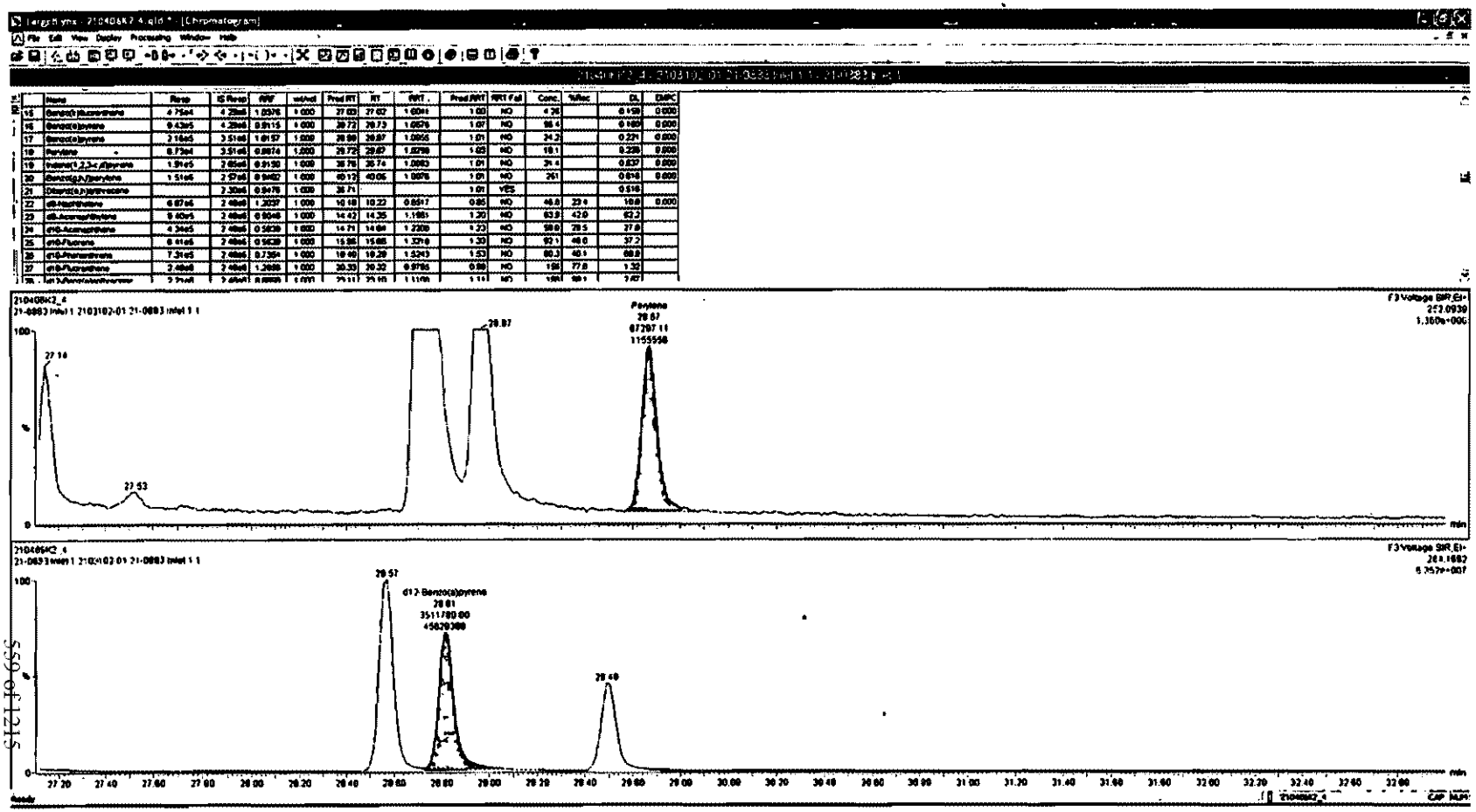


556 of 1215


Benzo(e)pyrene
28.73
843421.50
13990571
26.92
27.14
28.97
29.67
28.80
d12-Benzo(b)fluoranthene
28.91
479391.250
62470372
28.57
28.91
29.48

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	4.75e4	4.29e6	1.0376	1.000	27.83	27.82	1.0041	1.00	NO	4.76		0.158	0.000
16	Benzo(e)pyrene	9.43e5	4.29e6	0.9115	1.000	28.72	28.73	1.0876	1.07	NO	98.4		0.180	0.000
17	Benzo(a)pyrene	2.16e5	3.81e6	1.0167	1.000	28.88	28.87	1.0866	1.01	NO	24.2		0.221	0.000
18	Perylene	8.88e4	3.51e6	0.8874	1.000	28.72	28.67	1.0290	1.03	NO	10.3		0.228	0.000
19	Indeno(1,2,3-cd)pyrene	1.91e6	2.85e6	0.9150	1.000	38.76	38.74	1.0883	1.01	NO	31.4		0.637	0.000
20	Benzo(g,h,i)perylene	1.51e6	2.57e6	0.8402	1.000	40.13	40.05	1.0875	1.01	NO	251		0.616	0.000
21	Dibenz(a,h)anthracene		2.30e6	0.9476	1.000	38.71			1.01	YES			0.516	
22	d8-Naphthalene	6.87e5	2.48e6	1.2037	1.000	10.18	10.22	0.8617	0.85	NO	46.8	23.4	18.6	0.000
23	d8-Acenaphthylene	9.40e5	2.48e6	0.9048	1.000	14.42	14.35	1.1981	1.20	NO	83.9	42.0	62.2	
24	d10-Acenaphthene	4.34e5	2.48e6	0.5938	1.000	14.71	14.64	1.2200	1.22	NO	59.0	29.5	27.8	
25	d10-Fluorene	6.41e5	2.48e6	0.5839	1.000	15.96	15.88	1.3216	1.20	NO	97.1	48.0	37.2	
26	d10-Phenanthrene	7.31e5	2.48e6	0.7364	1.000	18.40	18.29	1.5243	1.53	NO	80.3	40.1	68.6	
27	d10-Fluoranthene	2.40e6	2.48e6	1.2858	1.000	20.33	20.32	0.9765	0.98	NO	158	77.8	1.32	
28	d12-Benz(a)anthracene	2.21e6	2.48e6	0.8998	1.000	23.11	23.10	1.1100	1.11	NO	181	90.1	2.87	




27.16
27.53
28.87
Perylene
28.87
67297.11
1155558
28.57
d12-Benzo(a)pyrene
28.61
3511780.00
45620300
28.49

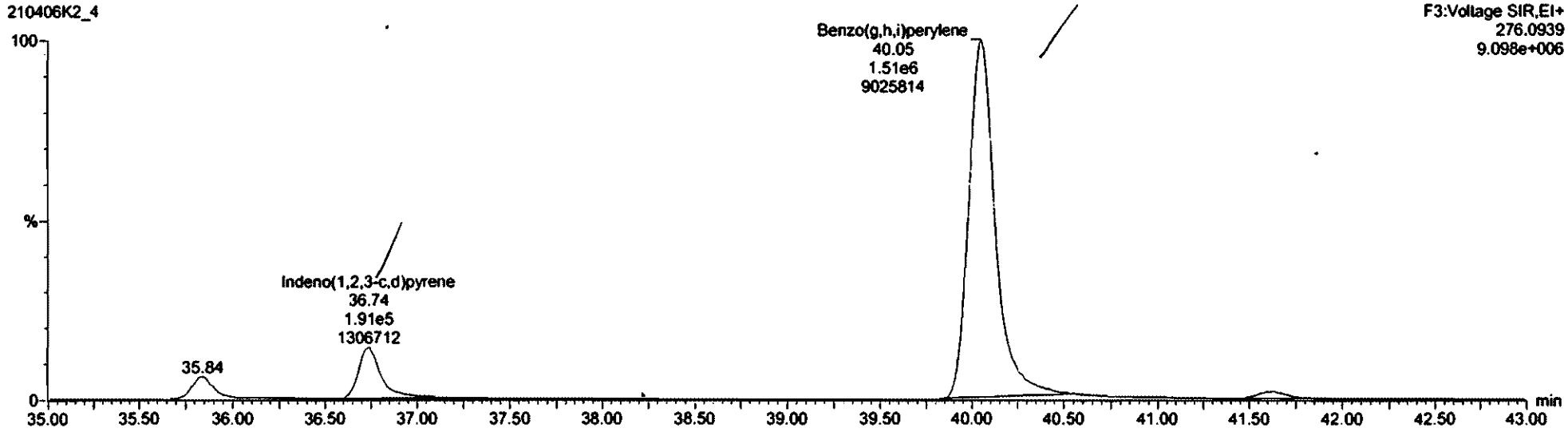
559 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

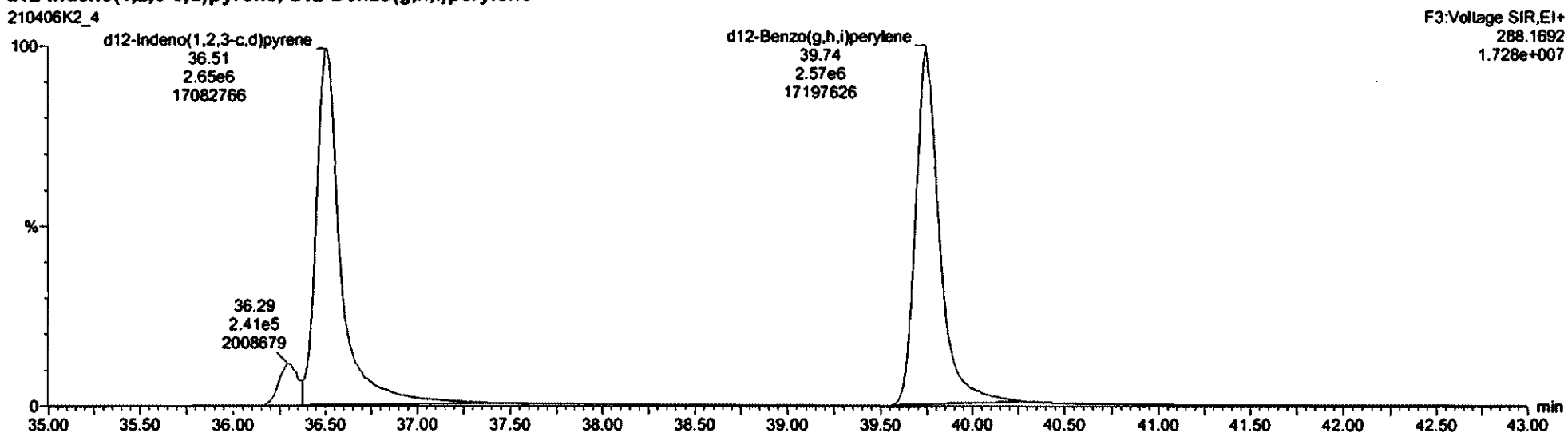
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



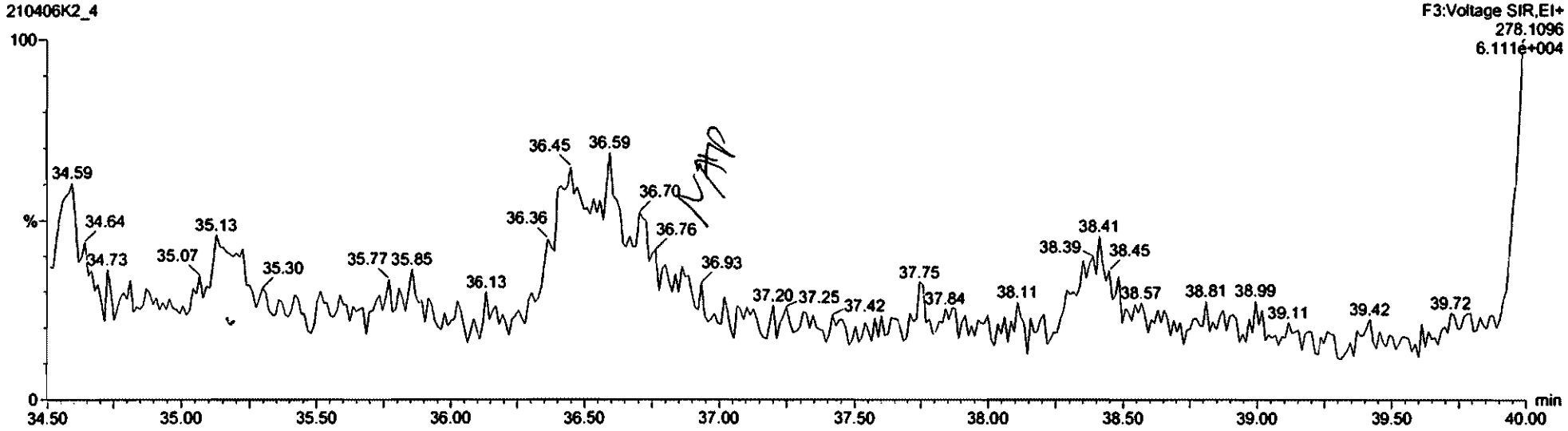
560 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-4.qld

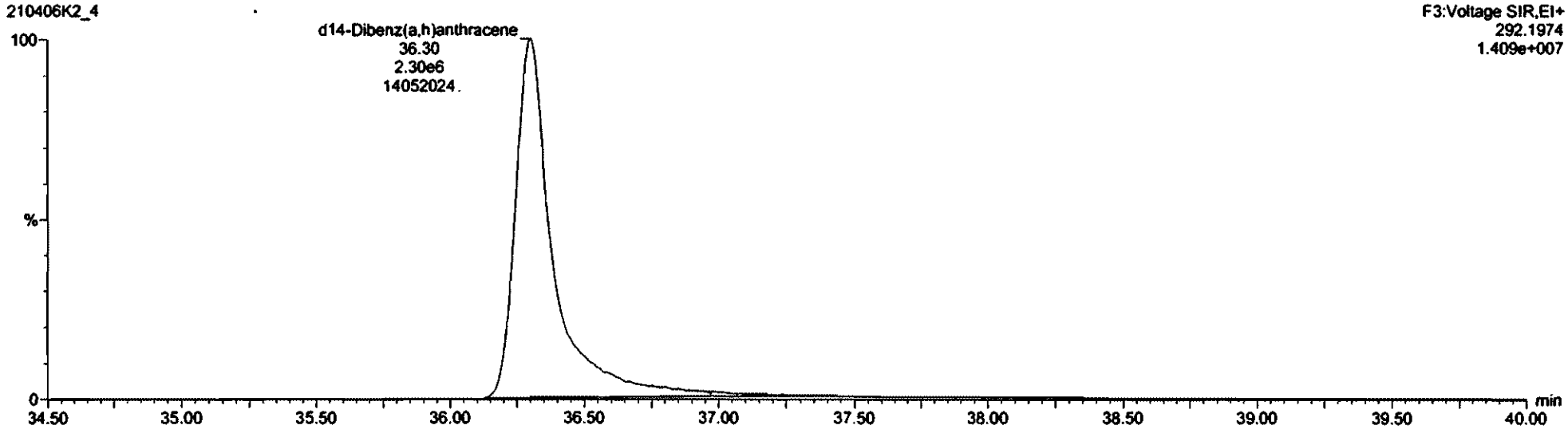
Last Altered: Wednesday, April 07, 2021 10:18:23 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:18:52 AM Pacific Daylight Time

Name: 210406K2_4, Date: 07-Apr-2021, Time: 04:27:58, ID: 2103102-01 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



561 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-5.qld

Last Altered: Wednesday, April 07, 2021 11:37:30 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:38:46 AM Pacific Daylight Time

1k 4.7.2021 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

1 set 500x dilution

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

	#-Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	4 Acenaphthylene	7.89e5	1.46e5	1.12	1.000	14.37	14.37	1.003	1.003	NO	965	*	1800
2	5 Acenaphthene	3.40e6	7.14e4	1.10	1.000	14.68	14.70	1.006	1.007	NO	8640		606
3	6 Fluorene	2.83e6	6.54e4	1.15	1.000	15.92	15.92	1.006	1.006	NO	7490		415
4	7 Phenanthrene	3.00e6	7.14e4	1.19	1.000	18.32	18.29	1.002	1.001	NO	7060		170
5	9 Anthracene	3.34e6	7.14e4	1.09	1.000	18.38	18.32	1.005	1.002	NO	8580		186
6	11 Pyrene	7.65e5	1.62e5	1.20	1.000	20.85	20.84	1.026	1.026	NO	786		8.56
7	23 d8-Acenaphthylene	1.46e5	1.56e5	0.905	1.000	14.33	14.32	1.201	1.201	NO	207	104	330
8	24 d10-Acenaphthene	7.14e4	1.56e5	0.594	1.000	14.62	14.60	1.226	1.224	NO	154	77.1	43.1
9	25 d10-Fluorene	6.54e4	1.56e5	0.563	1.000	15.86	15.83	1.330	1.328	NO	149	74.5	199
10	26 d10-Phenanthrene	7.14e4	1.56e5	0.735	1.000	18.28	18.28	1.533	1.533	NO	125	62.3	136
11	27 d10-Fluoranthene	1.62e5	1.56e5	1.29	1.000	20.31	20.32	0.977	0.977	NO	162	81.0	1.78
12	36 d10-Anthracene	6.02e4	9.05e4	0.989	1.000	18.37	18.34	1.541	1.538	NO	134	67.2	518
13	40 d10-Pyrene	1.56e5	1.56e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	2.29
14	41 d12-Perylene	9.05e4	9.05e4	1.00	1.000	29.59	29.50	1.000	1.000	NO	200	100	1.76

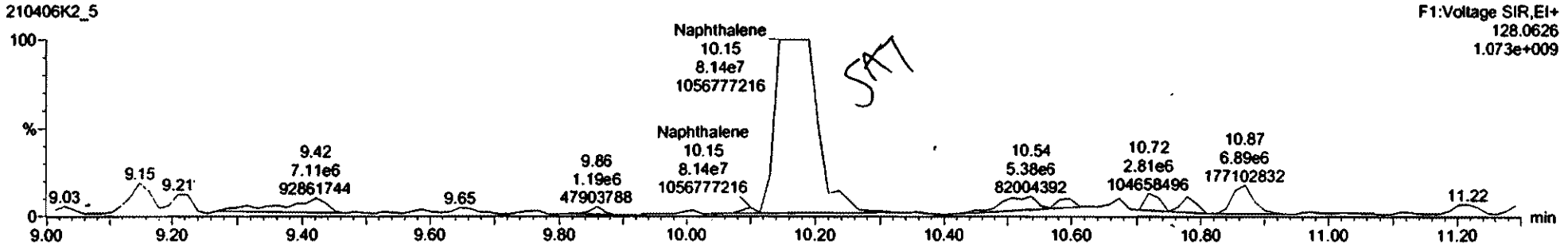
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

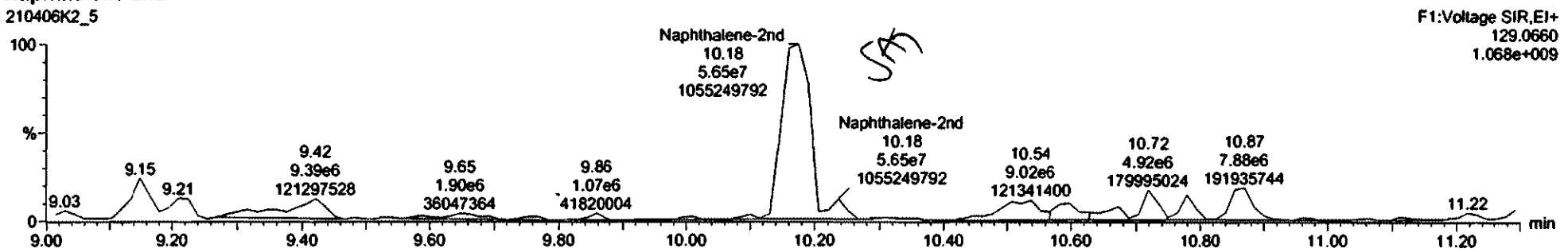
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

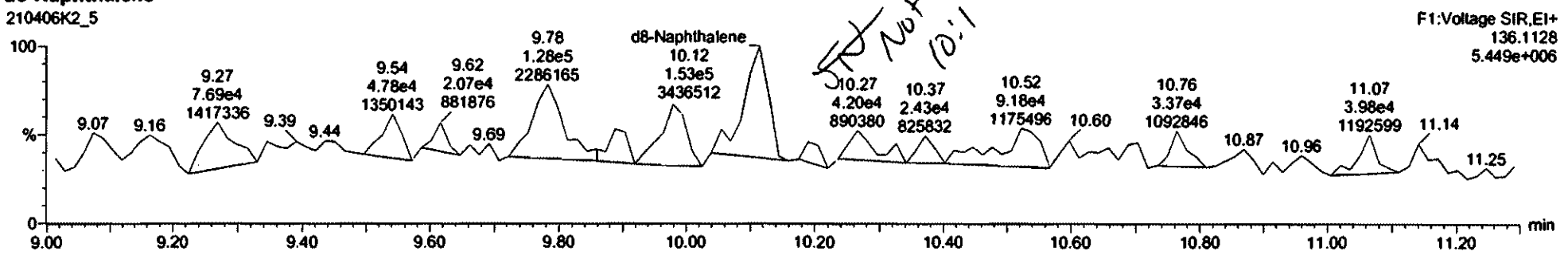
Naphthalene



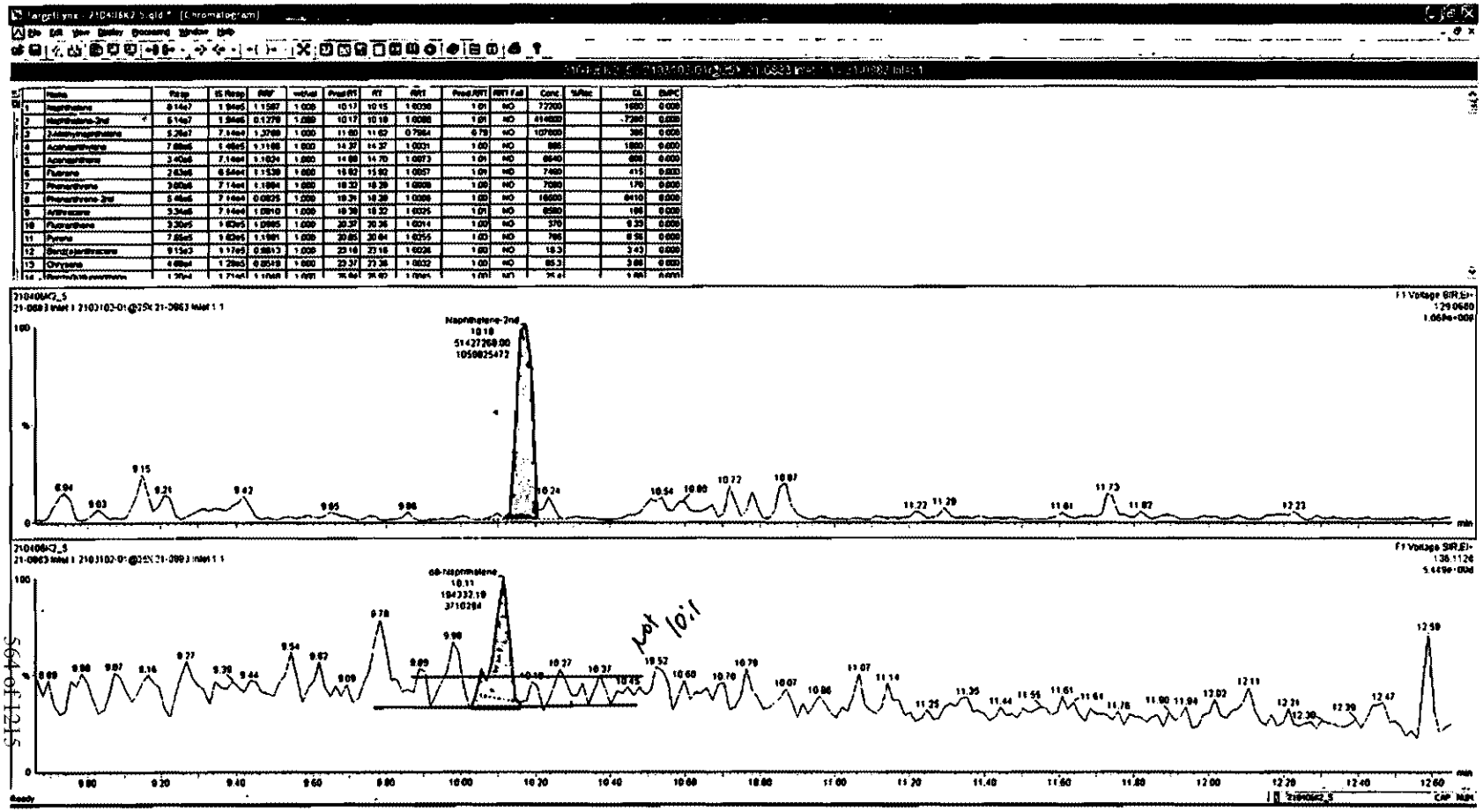
Naphthalene-2nd



d8-Naphthalene



563 of 1215

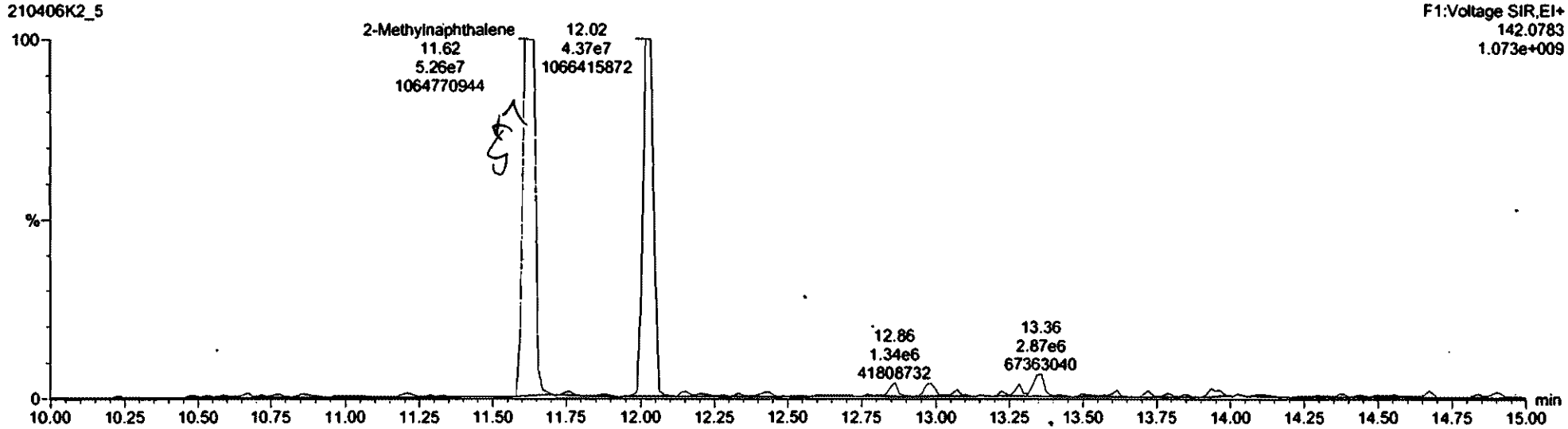

Naphthalene-2nd
10.18
51427268.00
1050825472
1-Methylnaphthalene
10.11
194332.19
3710294
not 10:1

Dataset: Untitled

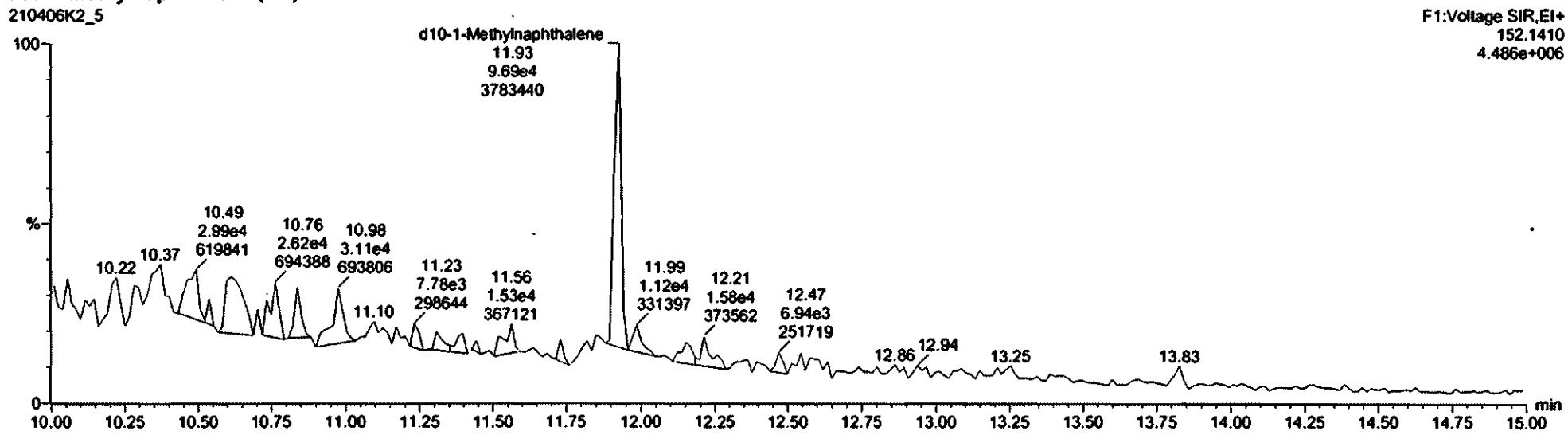
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

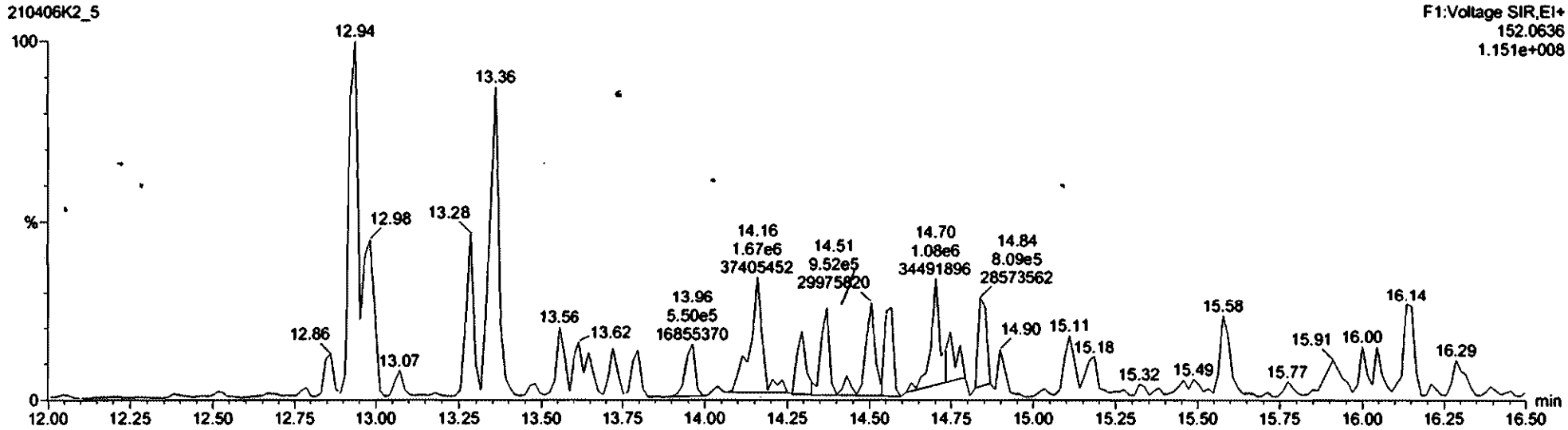


Dataset: Untitled

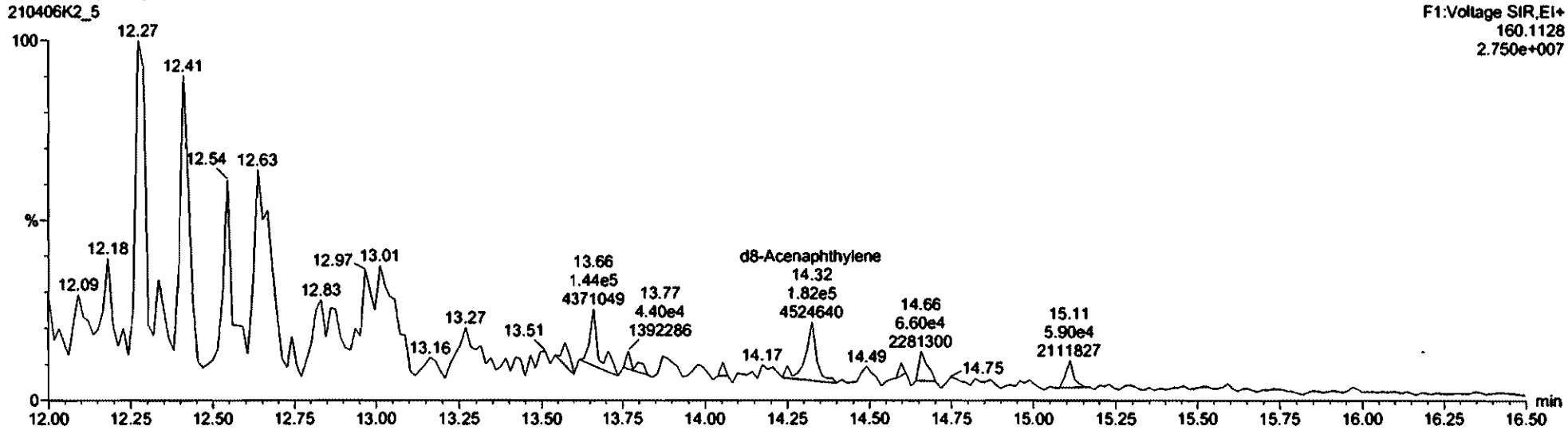
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

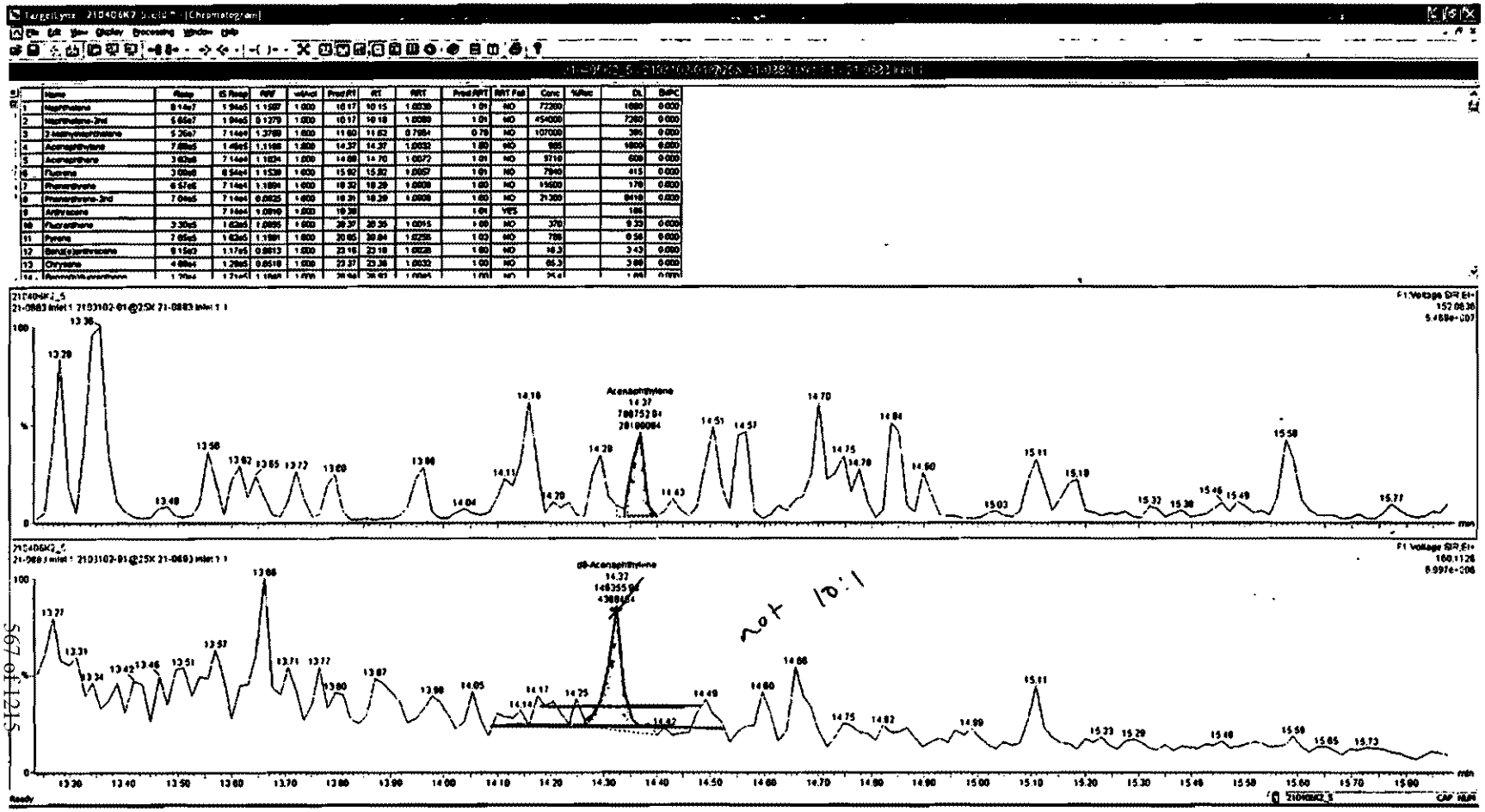
Acenaphthylene



d8-Acenaphthylene



566 of 1215

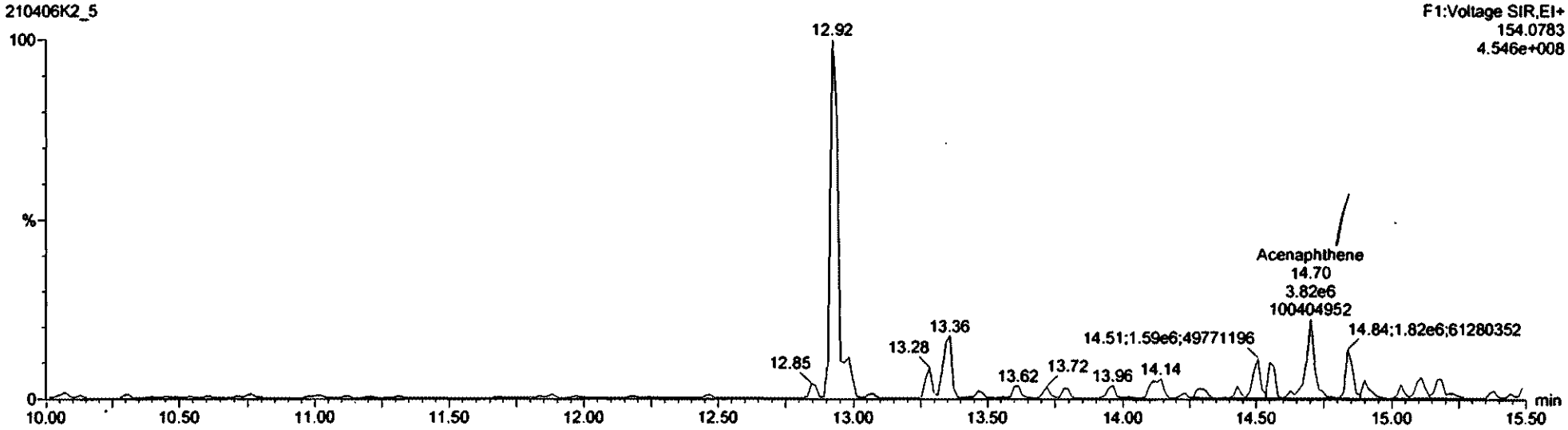

not 10:1

Dataset: Untitled

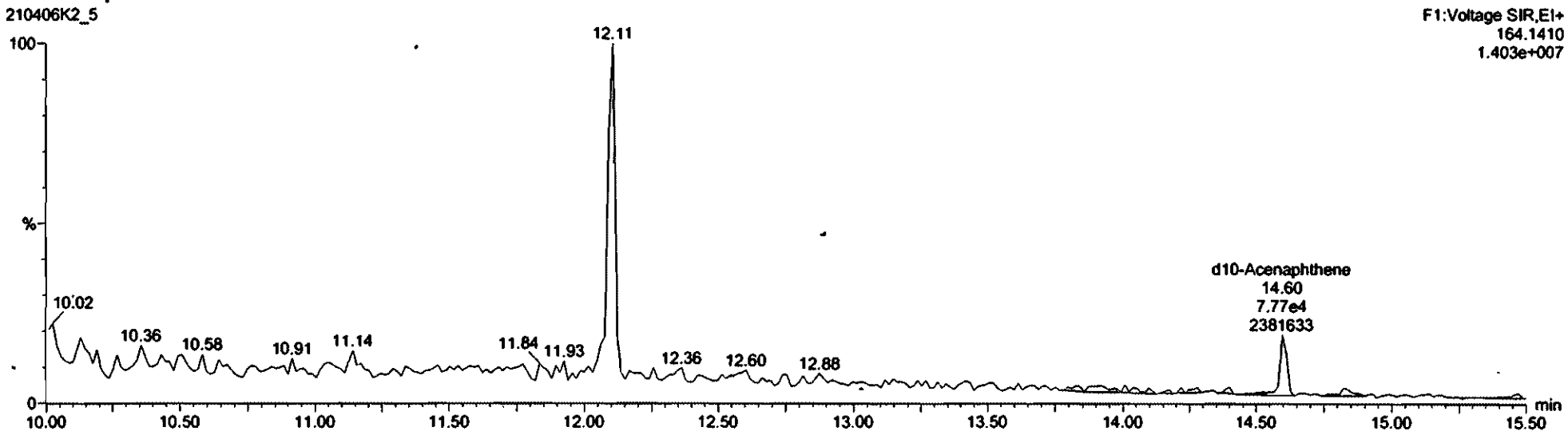
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

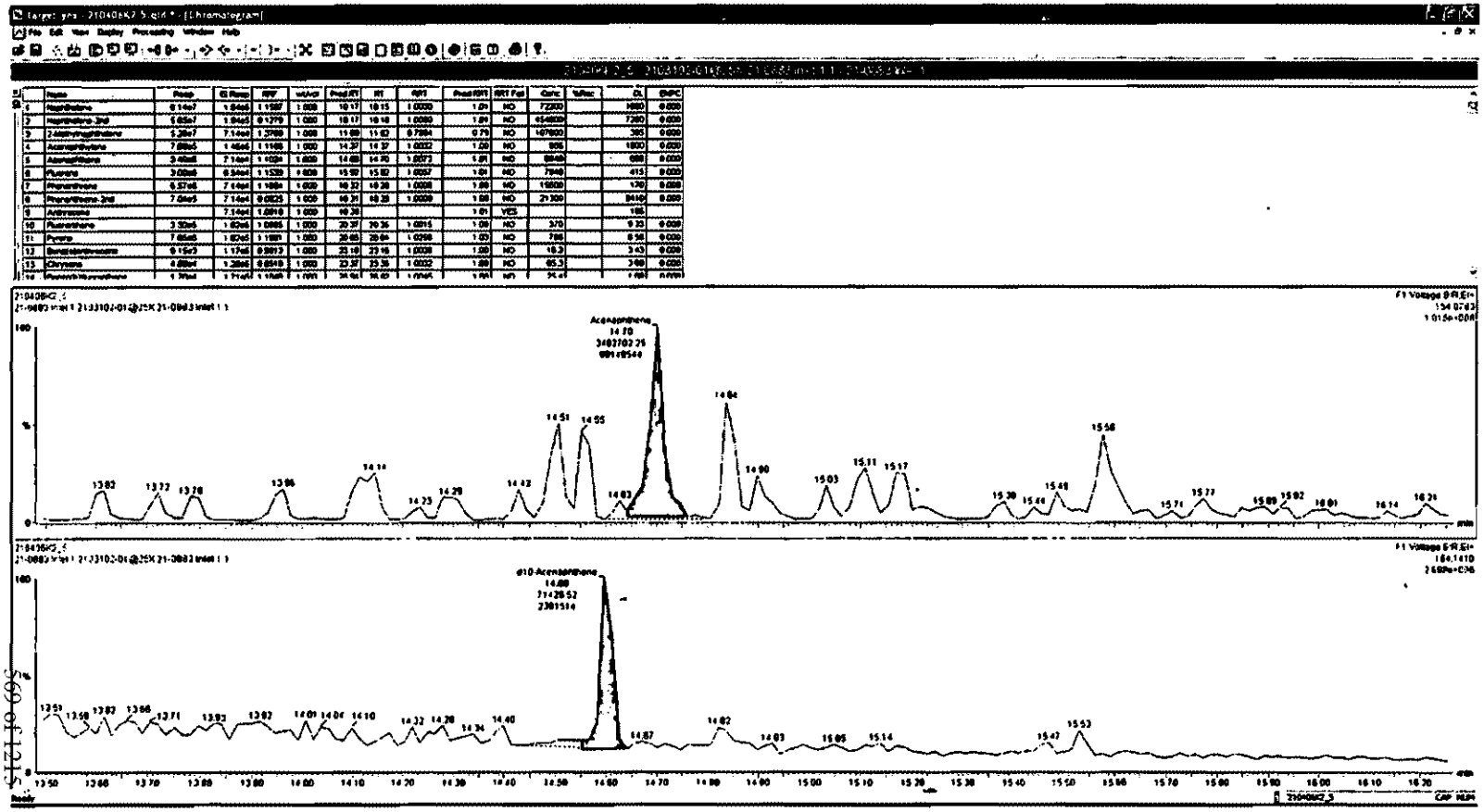
Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Acenaphthene



d10-Acenaphthene



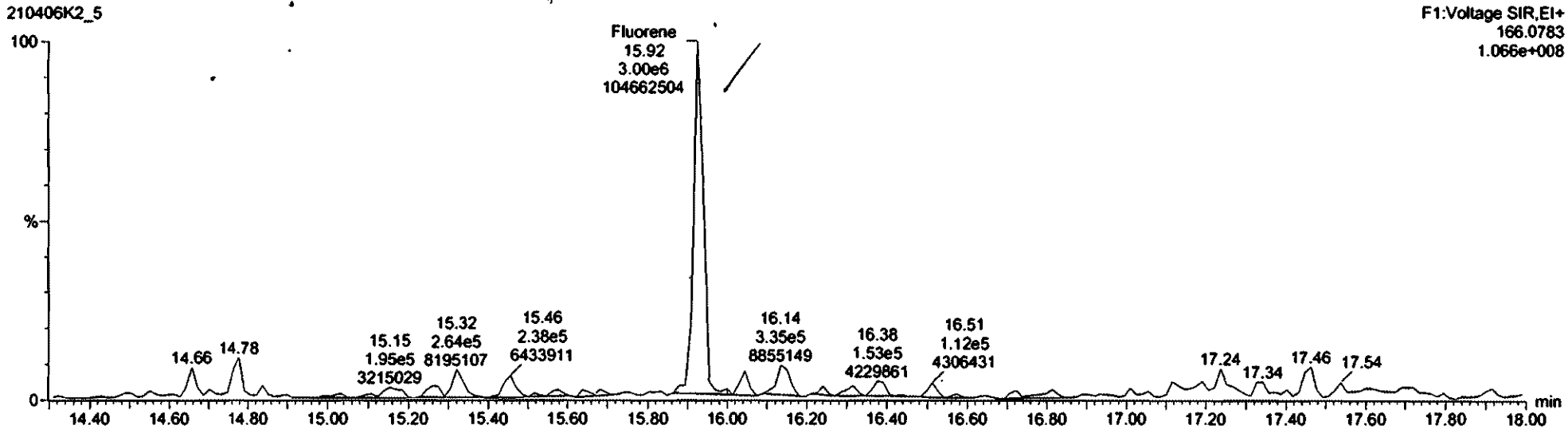

Acenaphthene
d10-Acenaphthene

Dataset: Untitled

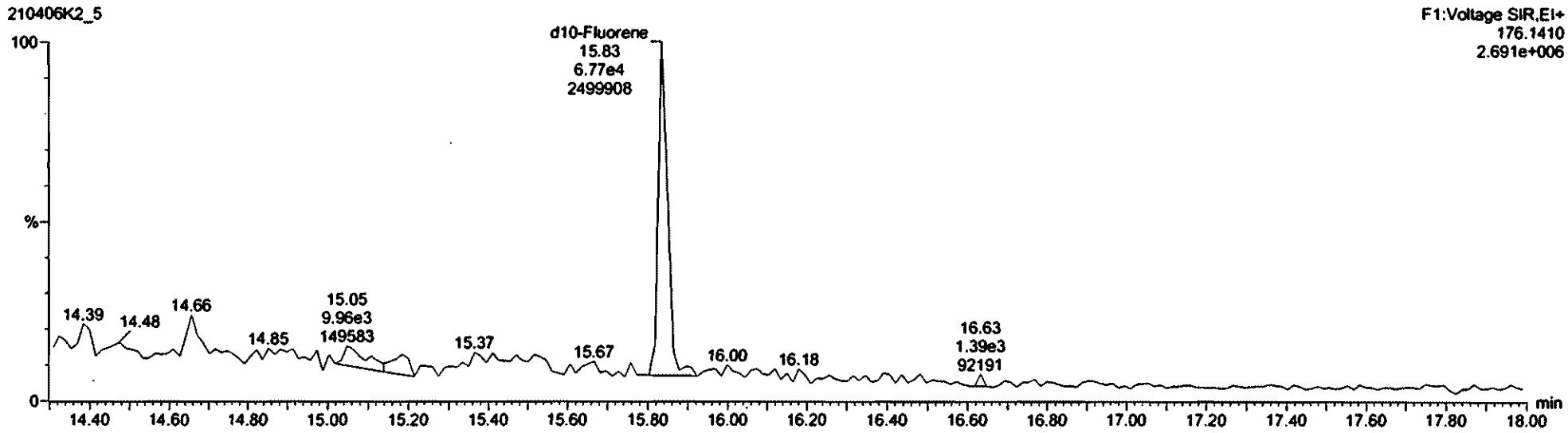
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

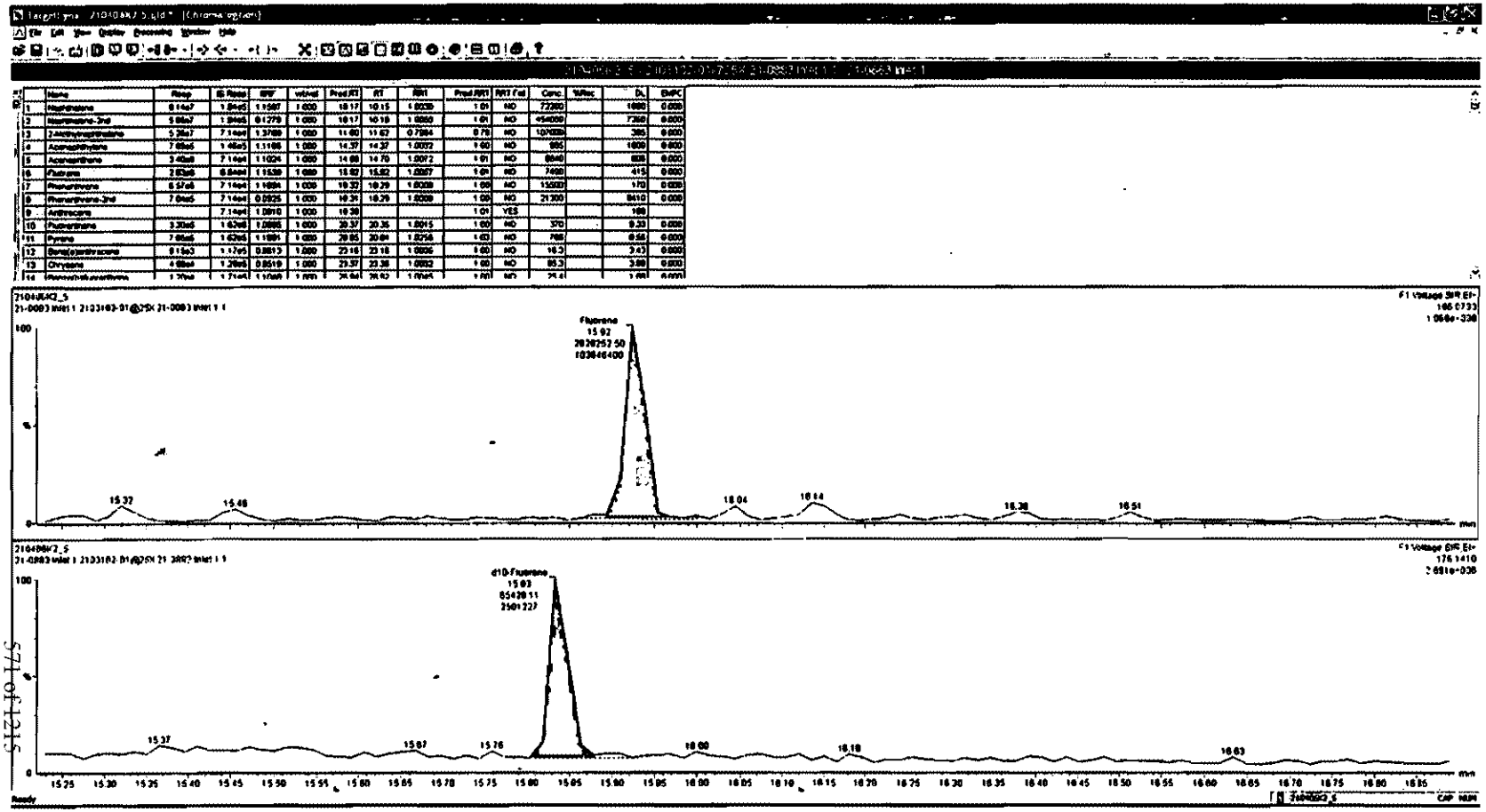
Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluorene



d10-Fluorene



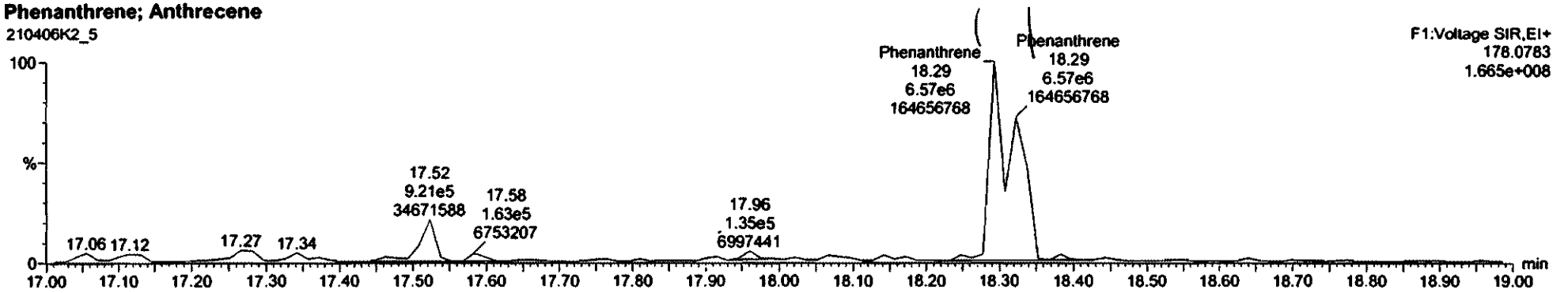

Fluorene
15.92
2030252.50
103846400
15.37
15.48
16.04
16.14
16.38
16.51
d10-Fluorene
15.93
65439.11
2501227
15.37
15.87
15.76
16.00
16.19
16.63

Dataset: Untitled

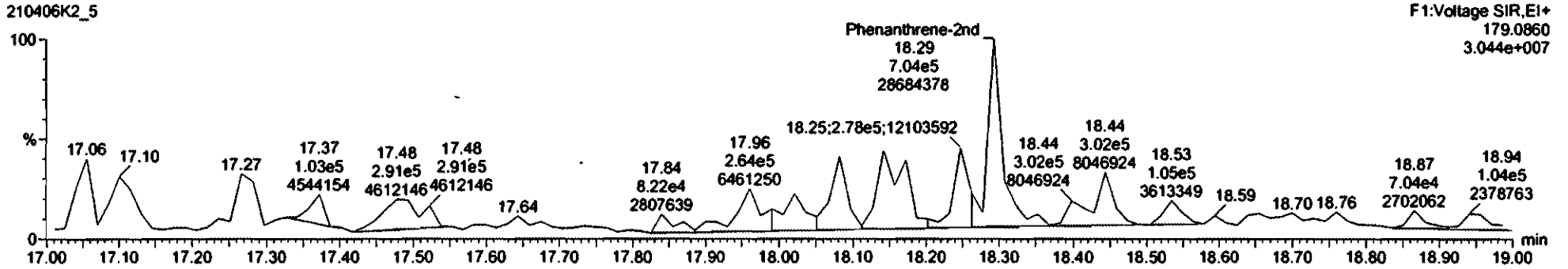
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

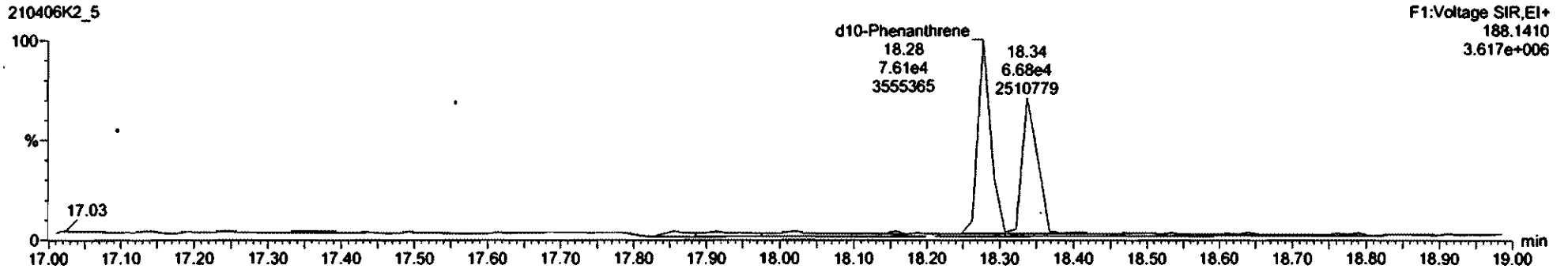
Phenanthrene; Anthrecene



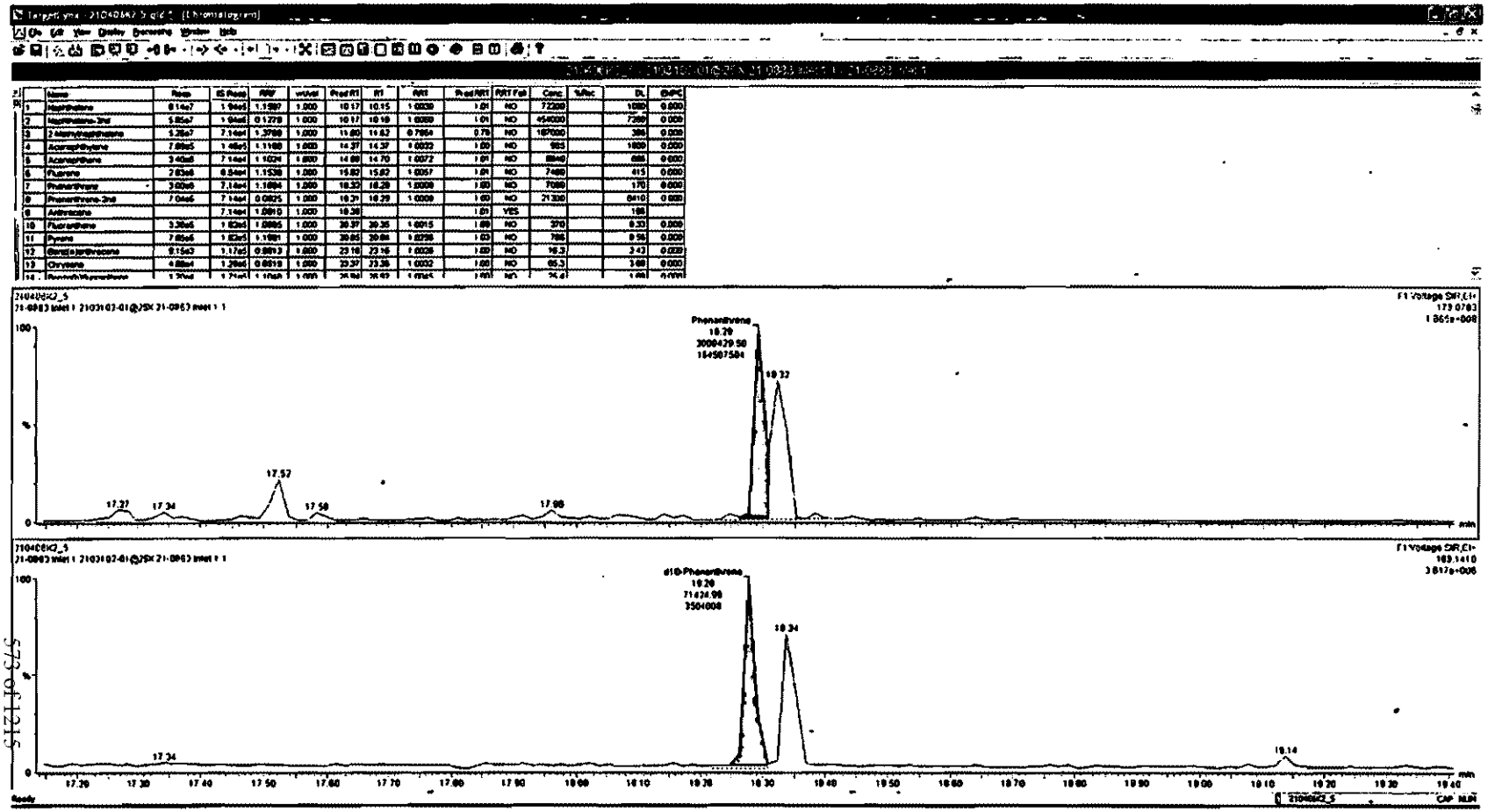
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



572 of 1215

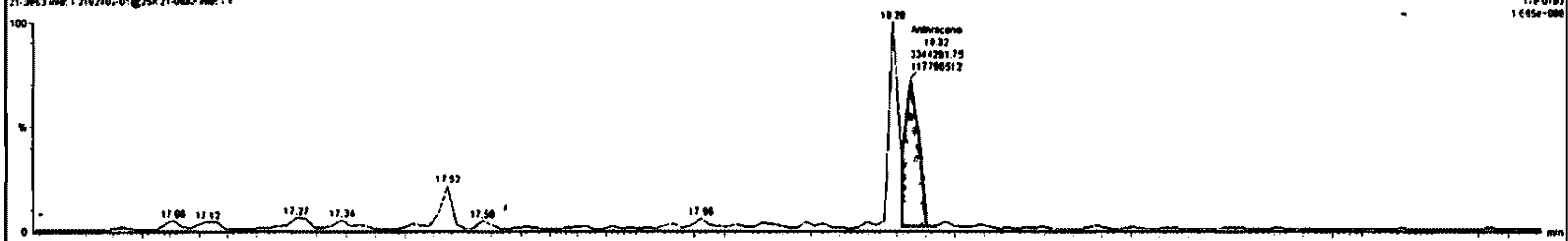

Phenanthrene
18.29
3000429.50
184507584
18.32
17.57
17.37
17.34
17.58
17.98
d10-Phenanthrene
18.29
71424.98
3504008
18.34
17.34
19.14

TargetLynx 21040GK2_5.qld * [Chromatogram]

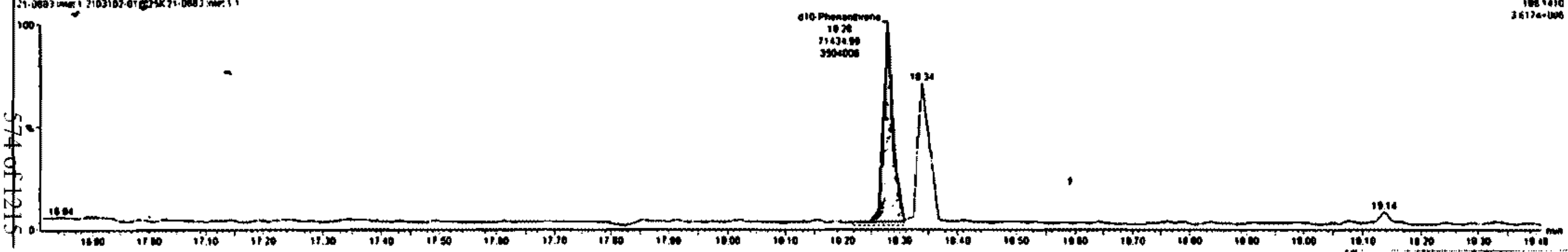
File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	'DL	EMPC
1	Naphthalene	8.14e7	1.94e6	1.1587	1.000	10.17	10.15	1.0000	1.01	NO	72200		1080	0.000
2	Naphthalene 2nd	5.66e7	1.94e6	0.1270	1.000	10.17	10.18	1.0080	1.01	NO	454000		7280	0.000
3	2-Methylnaphthalene	5.28e7	7.14e4	1.3700	1.000	11.60	11.62	0.7884	0.78	NO	107000		386	0.000
4	Acenaphthylene	7.89e5	1.46e6	1.1166	1.000	14.37	14.37	1.0032	1.00	NO	965		1800	0.000
5	Acenaphthene	3.40e6	7.14e4	1.1024	1.000	14.69	14.78	1.0072	1.01	NO	8840		808	0.000
6	Fluorene	2.83e6	6.54e4	1.1530	1.000	15.90	15.92	1.0057	1.01	NO	7490		415	0.000
7	Phenanthrene	3.00e6	7.14e4	1.1084	1.000	18.32	18.29	1.0008	1.00	NO	7060		170	0.000
8	Phenanthrene 2nd	5.48e5	7.14e4	0.0825	1.000	18.31	18.29	1.0008	1.00	NO	16500		8410	0.000
9	Anthracene	3.34e6	7.14e4	1.0810	1.000	18.30	18.32	1.0025	1.00	NO	[illegible]		168	0.000
10	Fluoranthene	3.30e5	1.62e6	1.0086	1.000	20.37	20.36	1.0015	1.00	NO	378		8.33	0.000
11	Pyrene	7.86e5	1.62e6	1.1081	1.000	20.85	20.84	1.0258	1.00	NO	786		0.38	0.000
12	Benz(a)anthracene	9.15e3	1.17e6	0.9613	1.000	23.16	23.18	1.0026	1.00	NO	18.3		3.43	0.000
13	Chrysene	4.68e4	1.28e6	0.8619	1.000	23.37	23.38	1.0002	1.00	NO	65.3		3.98	0.000
14	[illegible]	[illegible]	1.71e6	1.1069	1.000	26.9[illegible]	26.92	1.00[illegible]	1.00	NO	25.4		1.00	0.000

21C406K2_5
21-3063 inlet 1 2102102-01@25X 21-0882 inlet 1.1



21C406K2_5
21-0883 inlet 1 2103102-01@25X 21-0883 inlet 1.1



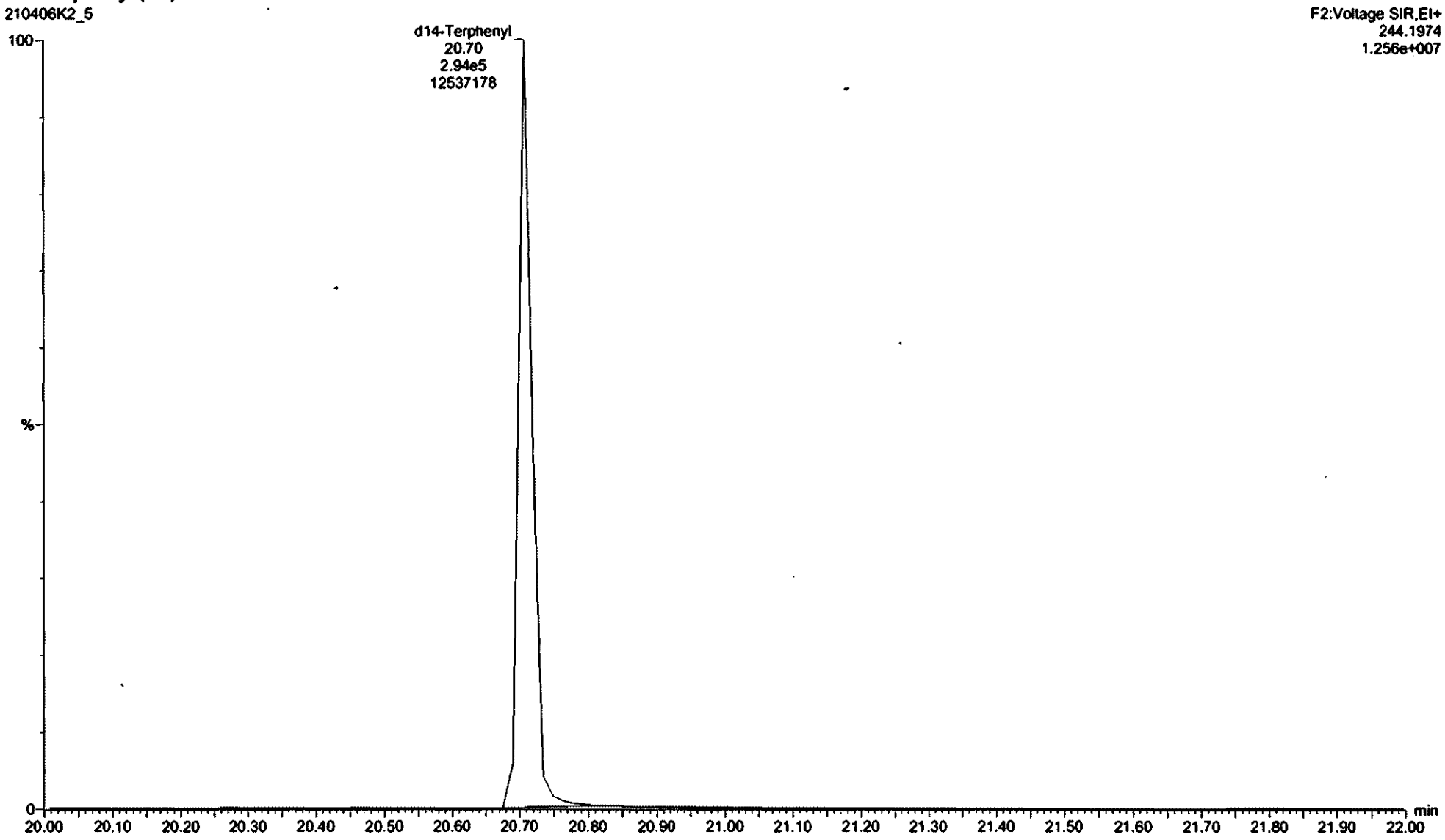
Ready

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

d14-Terphenyl (PS)



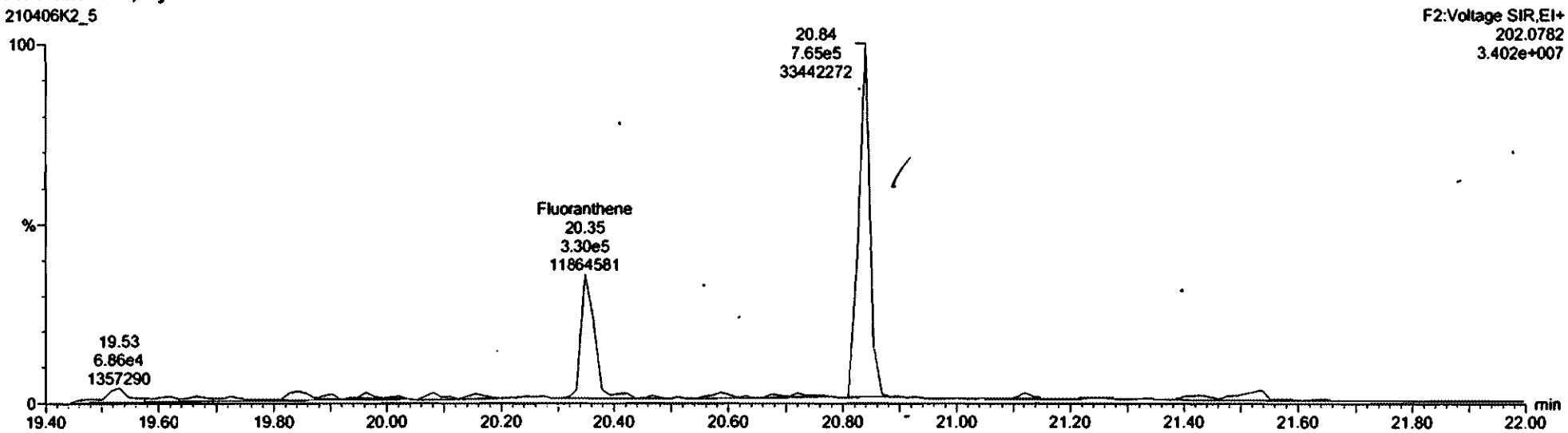
575 of 1215

Dataset: Untitled

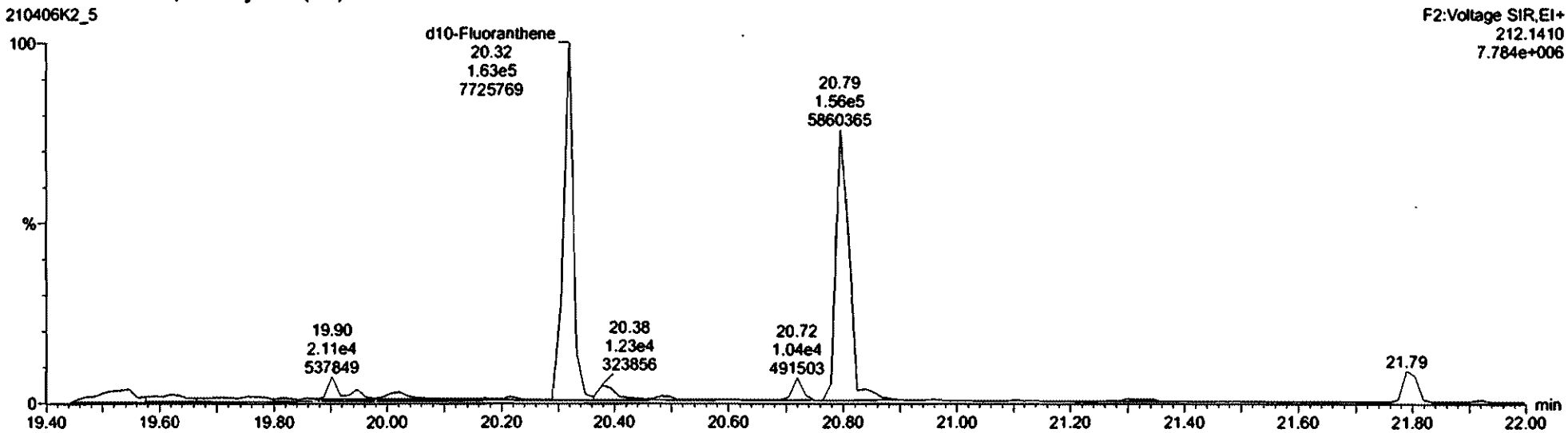
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

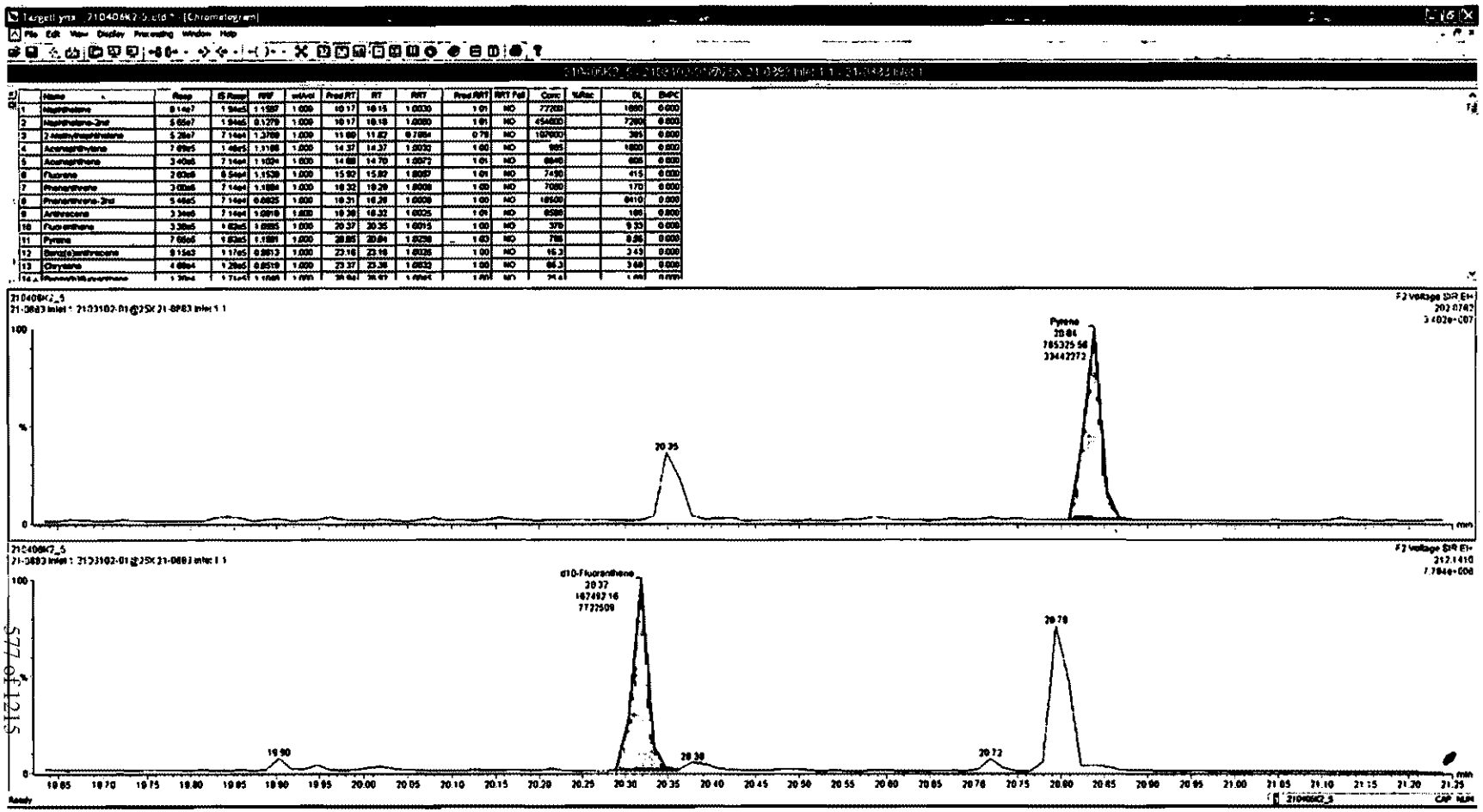
Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



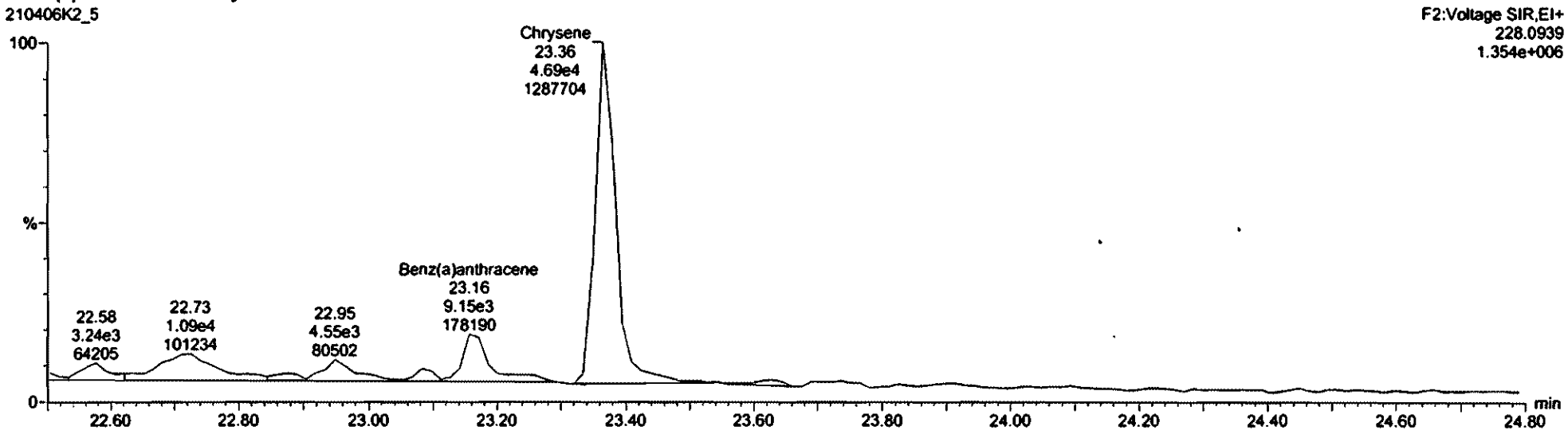

Pyrene
20.84
765325.56
33442272
20.35
d10-Fluoranthene
20.37
1674927.16
7727509
19.90
20.38
20.72
20.78

Dataset: Untitled

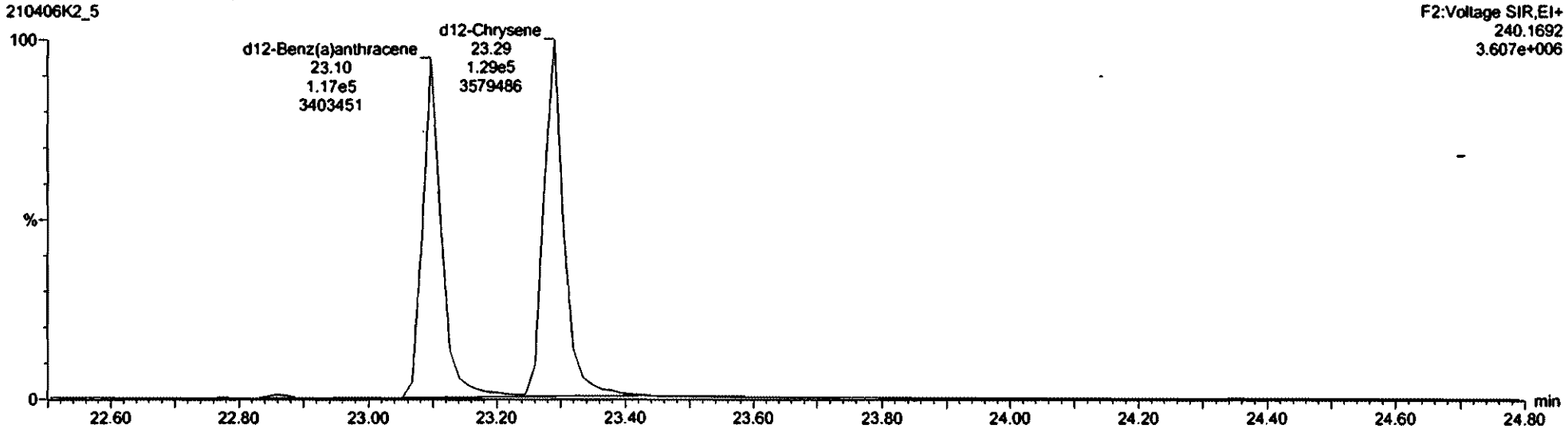
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



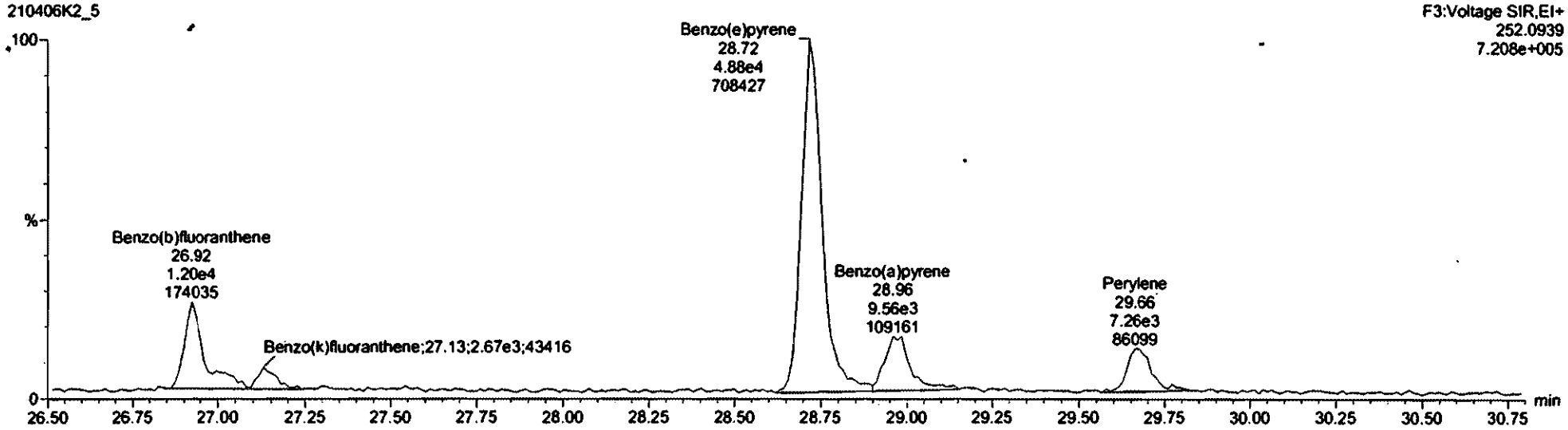
578 of 1215

Dataset: Untitled

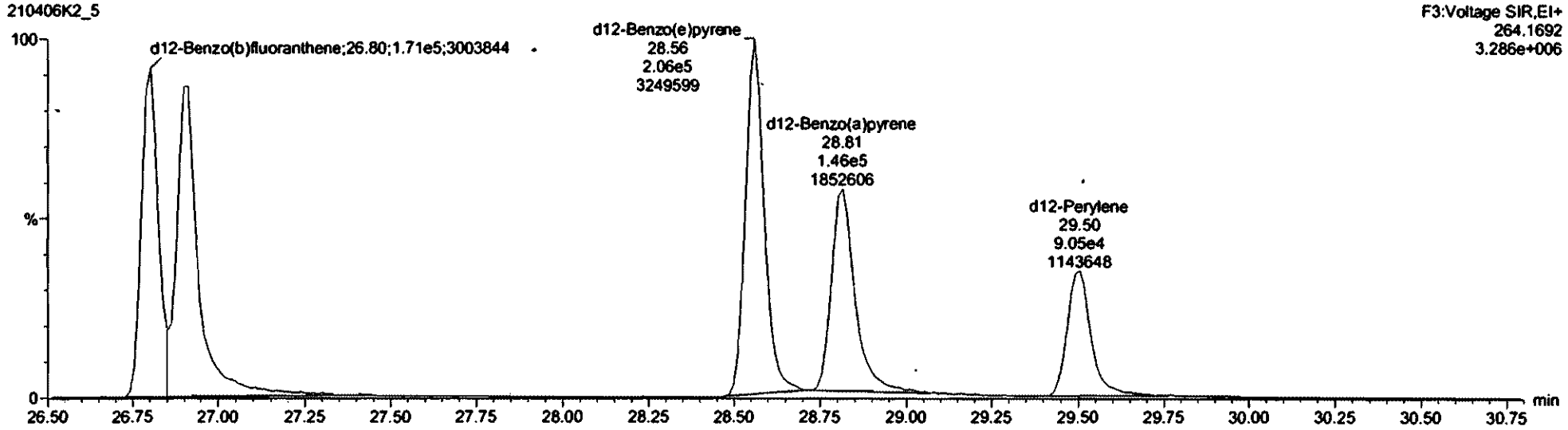
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Benzo-PAHs



Benzo-Isotopes



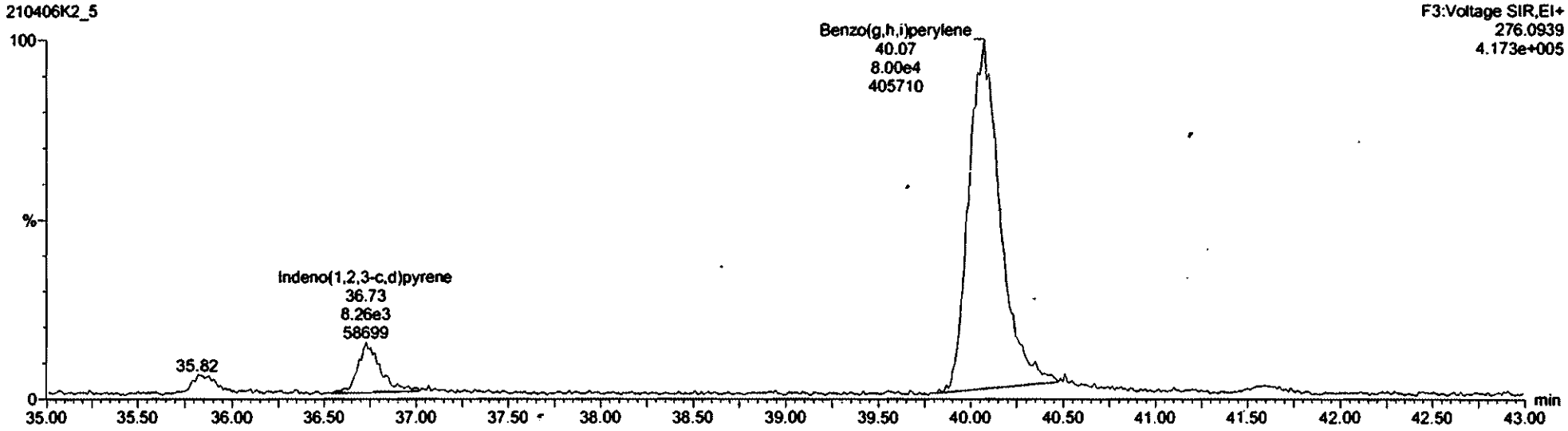
579 of 1215

Dataset: Untitled

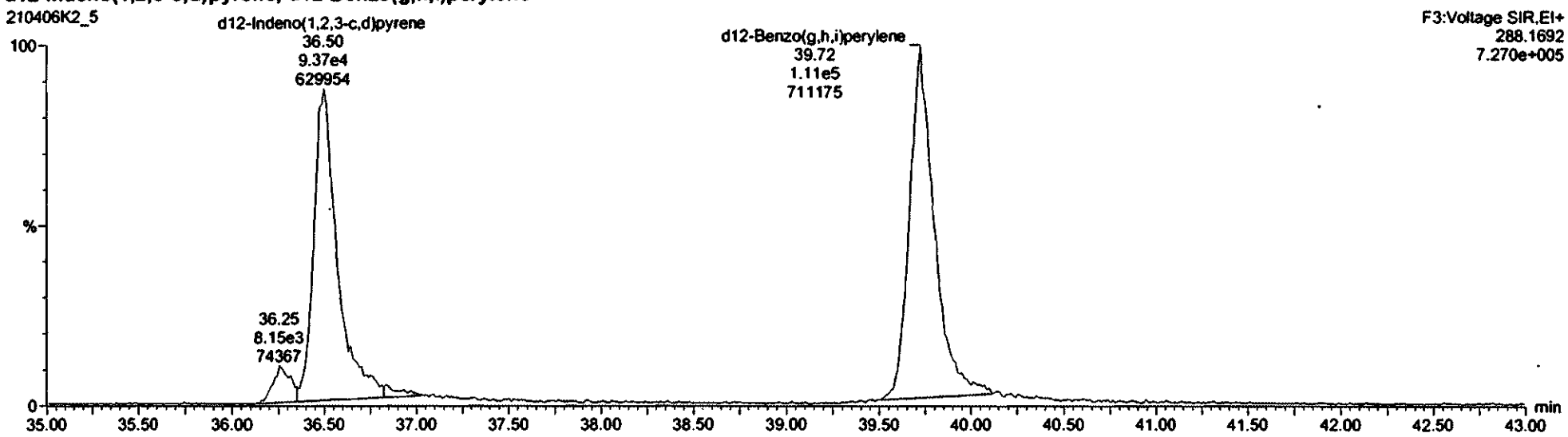
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



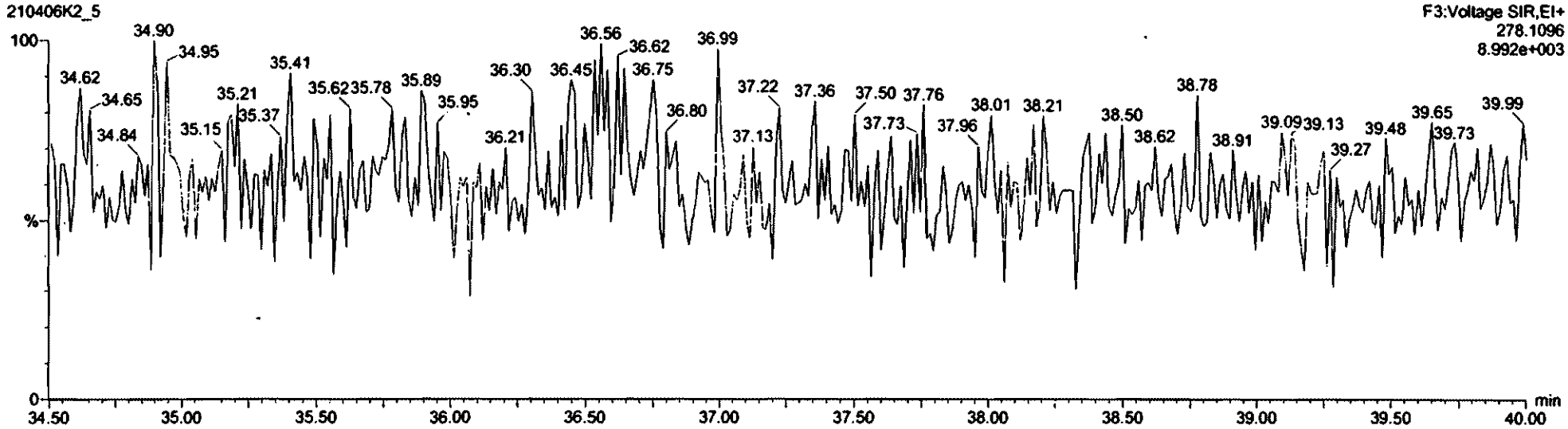
580 of 1215

Dataset: Untitled

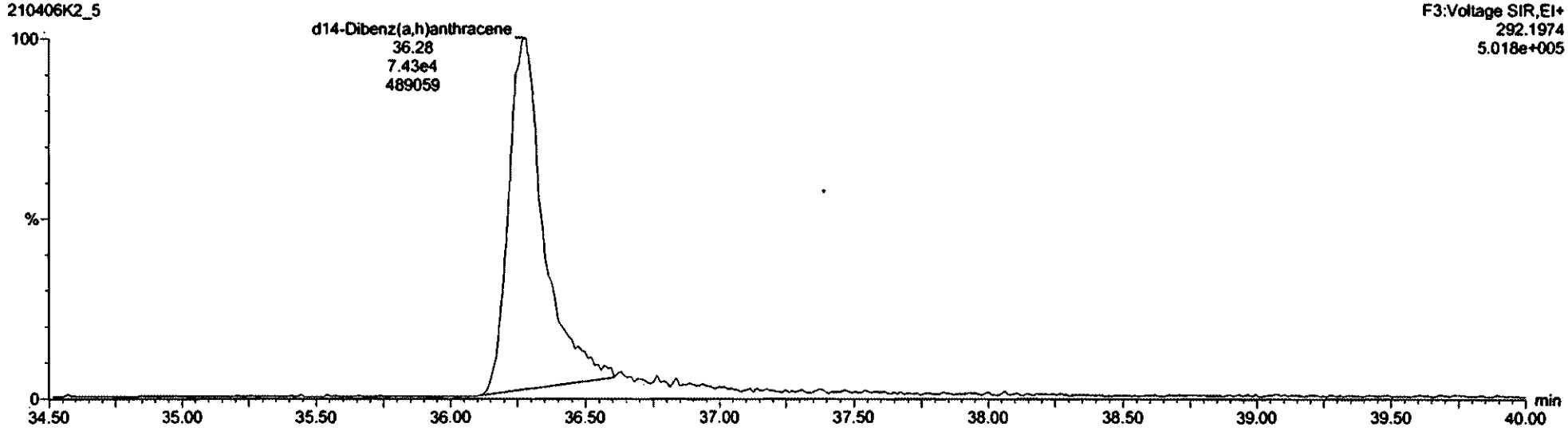
Last Altered: Wednesday, April 07, 2021 11:13:17 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:13:39 AM Pacific Daylight Time

Name: 210406K2_5, Date: 07-Apr-2021, Time: 05:14:52, ID: 2103102-01@25X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



581 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210407K1\210407K1-3.qld

Last Altered: Thursday, April 08, 2021 11:44:37 Pacific Daylight Time
Printed: Thursday, April 08, 2021 11:45:20 Pacific Daylight Time

1k 4.8.2021 C 04/09/2021

conc needs to be multiplied by factor of 1000, (500 for dil → new extract & 2 for split)

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

ng/sample

	#	Name	Resp	IS Resp	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	4.50e7	2.78e6	1.16	1.000	10.16	10.16	1.006	1.006	NO	~~2800~~	2,800,000 SRT	3.62
2	2	Naphthalene-2nd	6.11e6	2.78e6	0.128	1.000	10.16	10.15	1.006	1.004	NO	@ 3450	3,450,000	39.6
3	3	2-Methylnaphthalene	1.12e7	1.54e6	1.38	1.000	11.60	11.61	0.794	0.795	NO	& 1060	1,060,000	1.34
4	4	Acenaphthylene	4.31e4	2.35e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	^ 3.30	3,300	2.30
5	22	d8-Naphthalene	2.78e6	6.76e5	1.20	1.000	10.10	10.10	0.848	0.848	NO	172	85.9	0.0823
6	23	d8-Acenaphthylene	2.35e6	6.76e5	0.905	1.000	14.31	14.32	1.201	1.203	NO	194	96.4	0.522
7	24	d10-Acenaphthene	1.54e6	6.76e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	194	96.6	0.116
8	40	d10-Pyrene	6.76e5	6.76e5	1.00	1.000	20.81	20.81	1.000	1.000	NO	50.4	100	0.0151

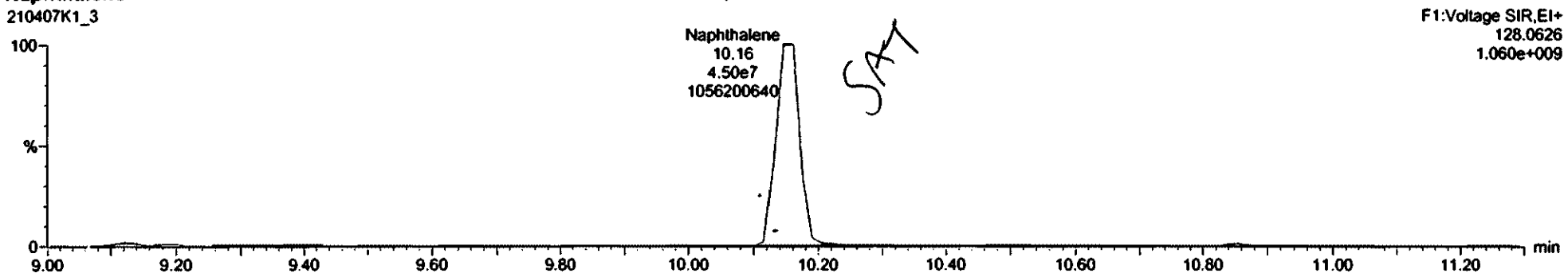
582 of 1215

Dataset: Untitled

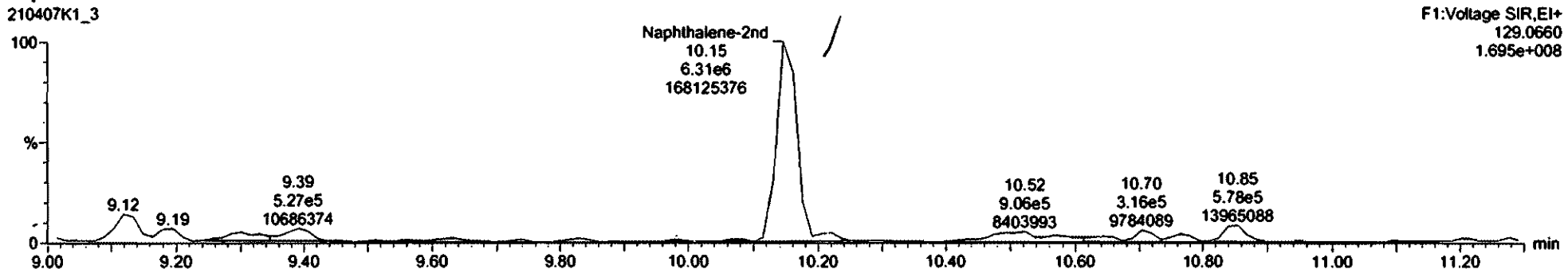
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

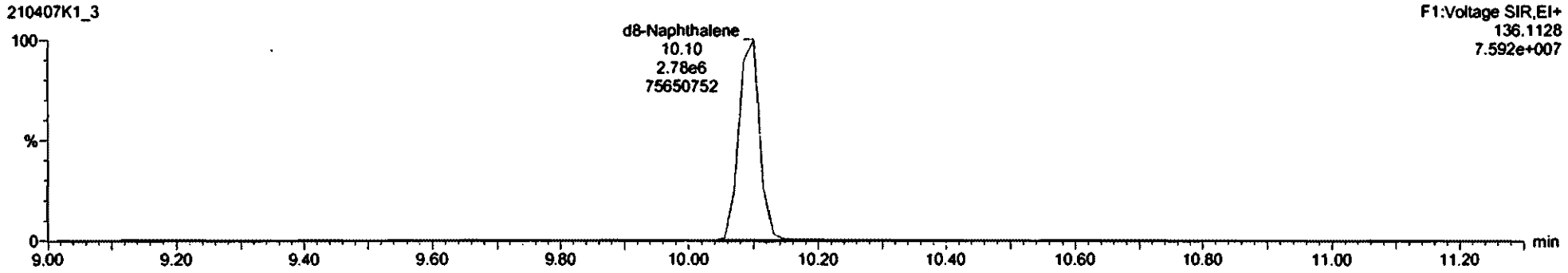
Naphthalene



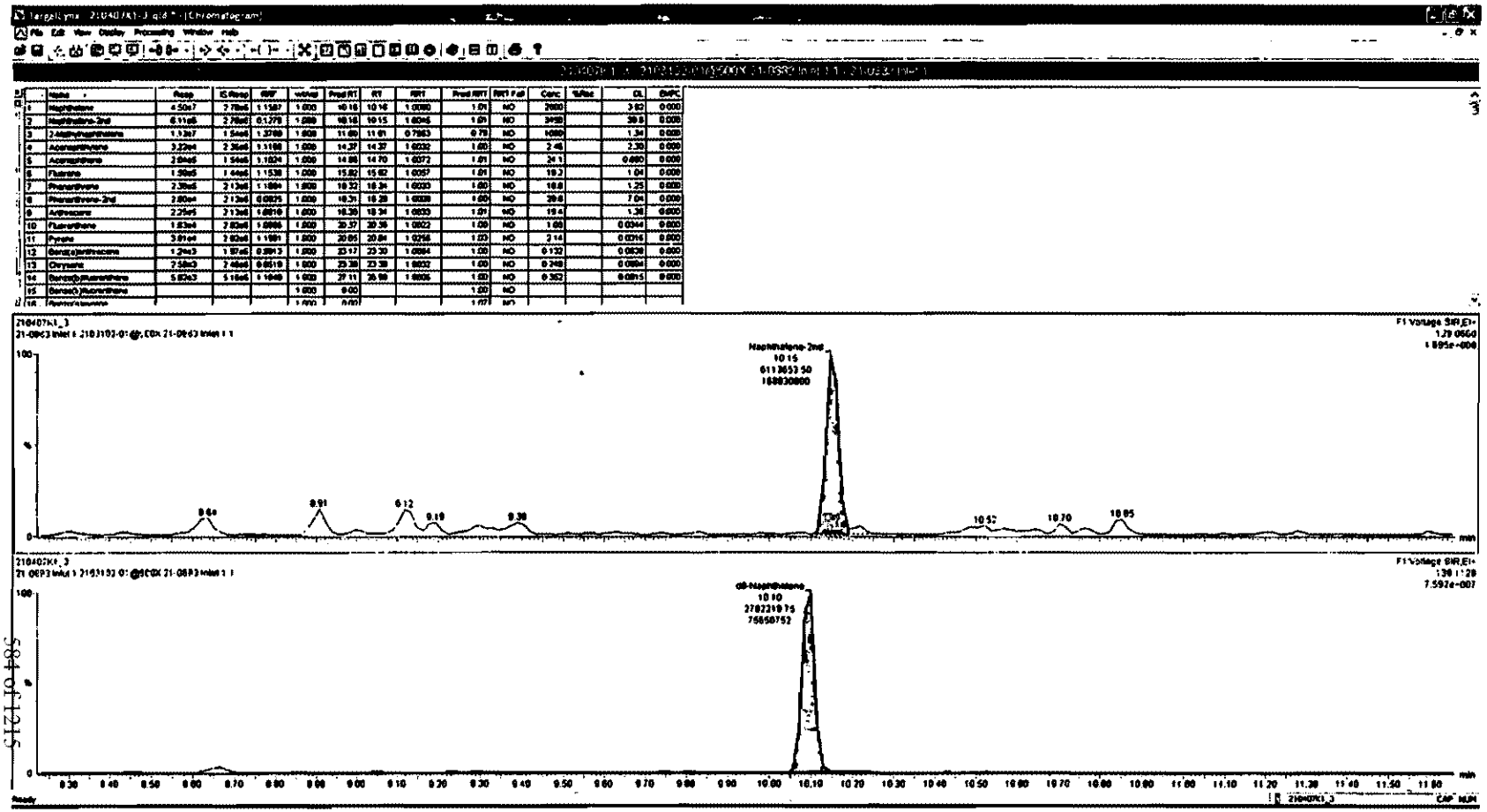
Naphthalene-2nd



d8-Naphthalene



583 of 1215

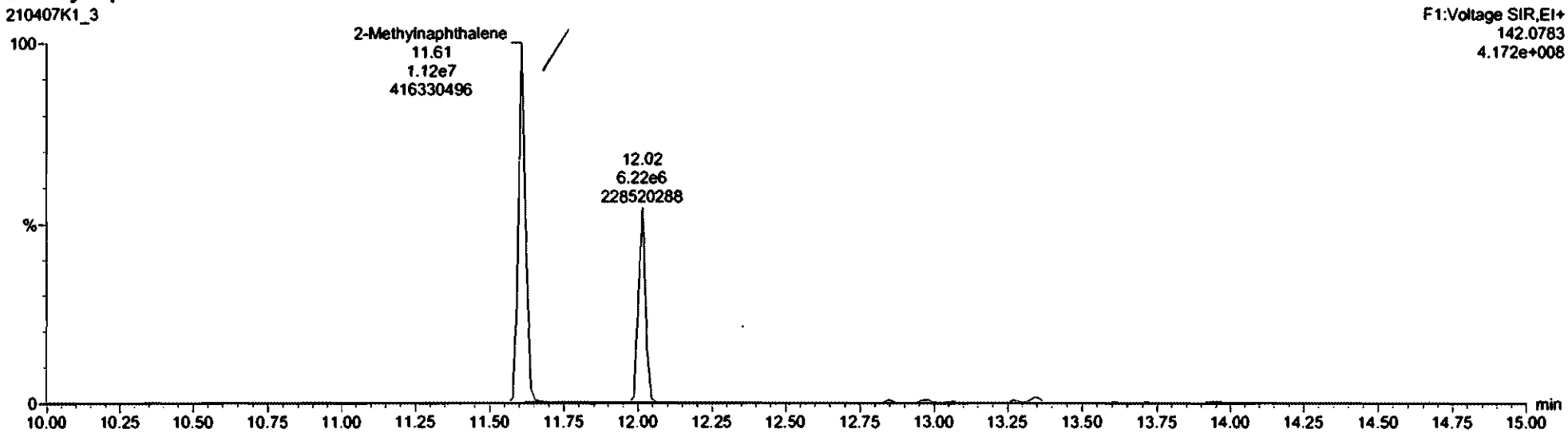

Naphthalene-2nd
10.15
6113653.50
168830800
0.64
0.91
6.12
9.19
9.38
10.52
10.70
10.85
d8-Naphthalene
10.10
27822319.75
75650752

Dataset: Untitled

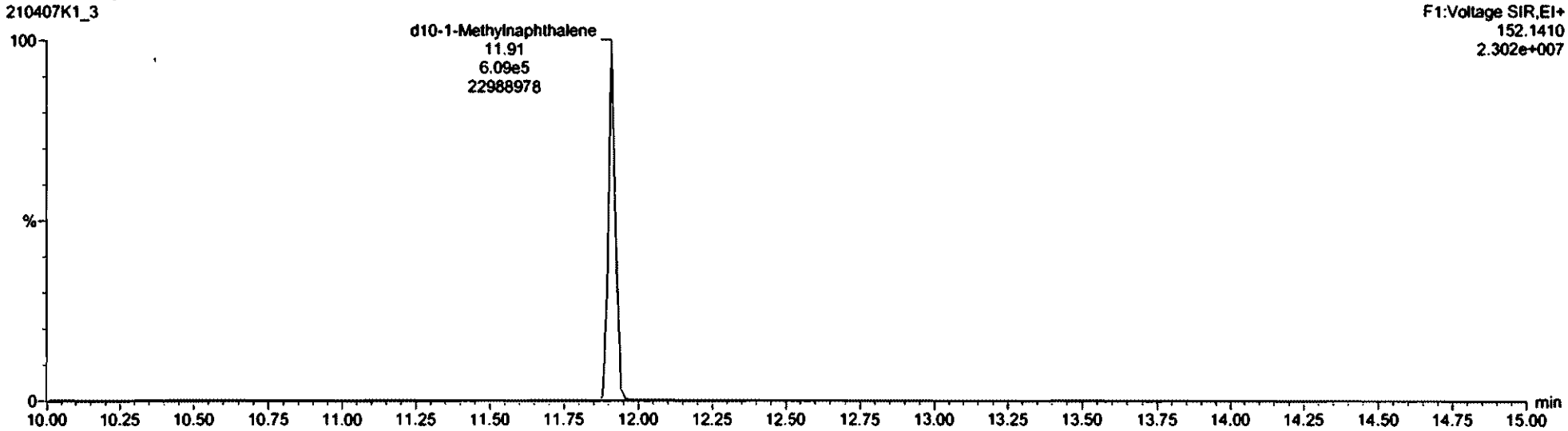
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

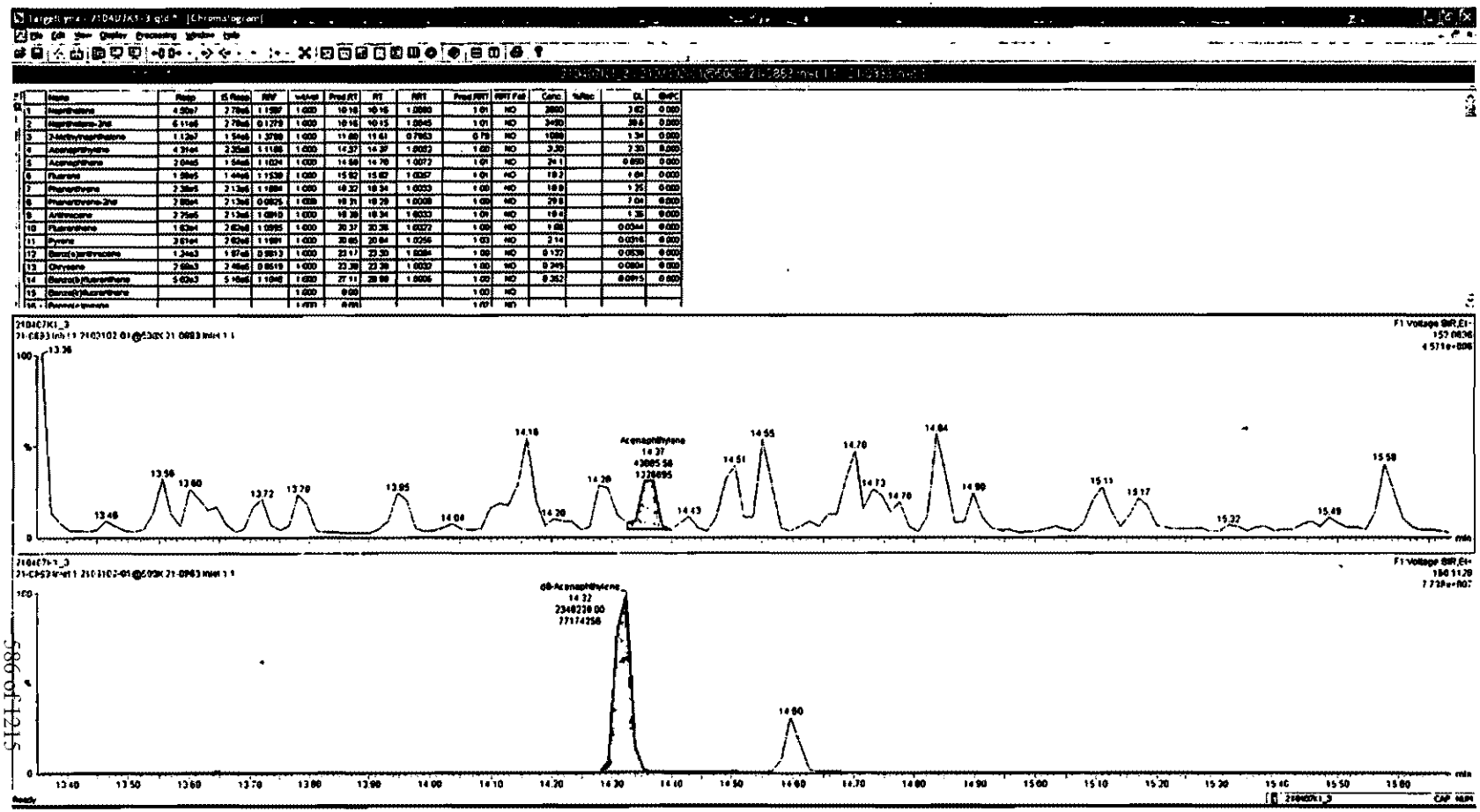
2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



585 of 1215

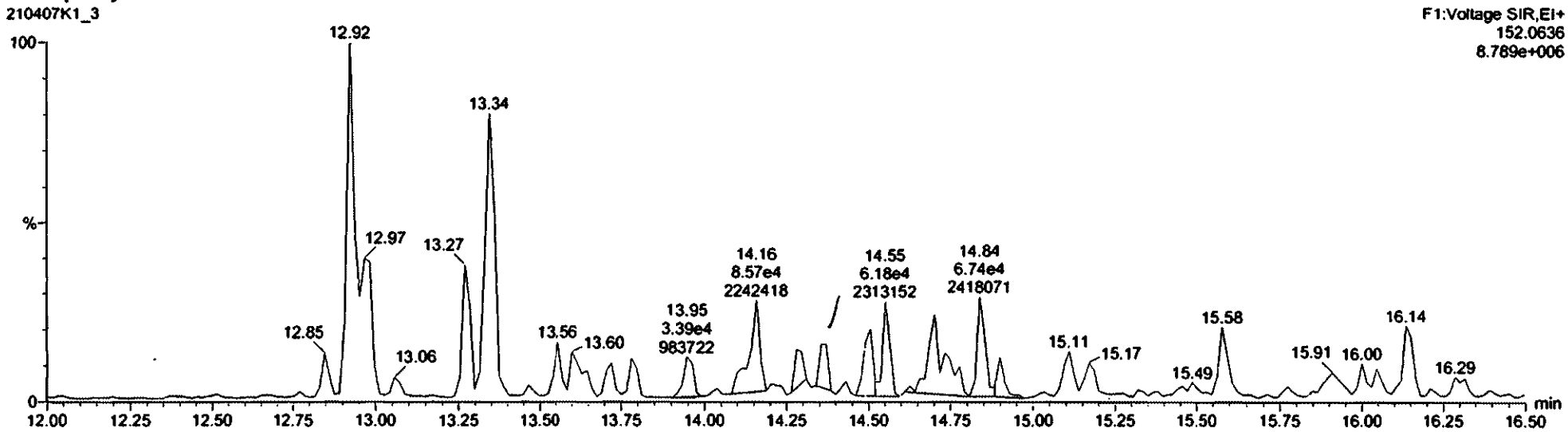

Acenaphthylene
14.37
43885.58
1328895
d8-Acenaphthylene
14.32
2340230.00
77174256
14.60

Dataset: Untitled

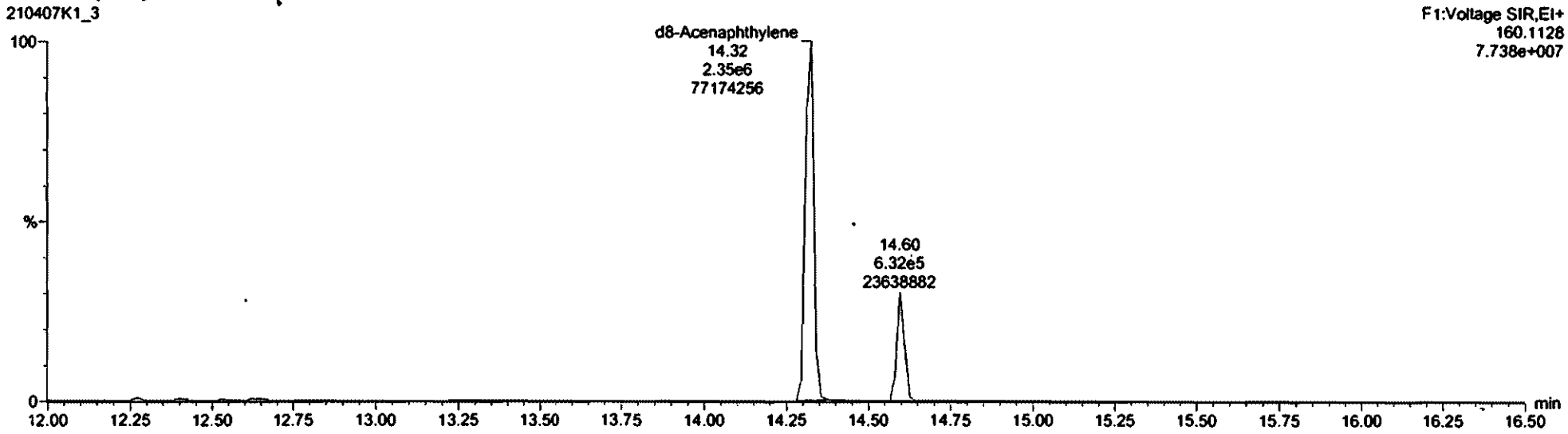
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Acenaphthylene



d8-Acenaphthylene



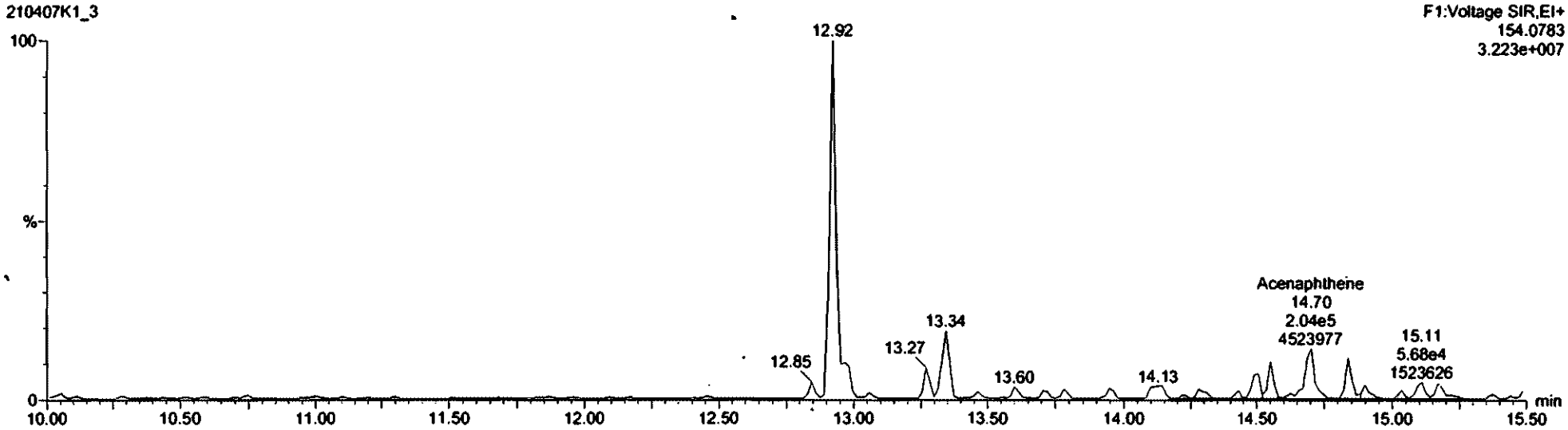
587 of 1215

Dataset: Untitled

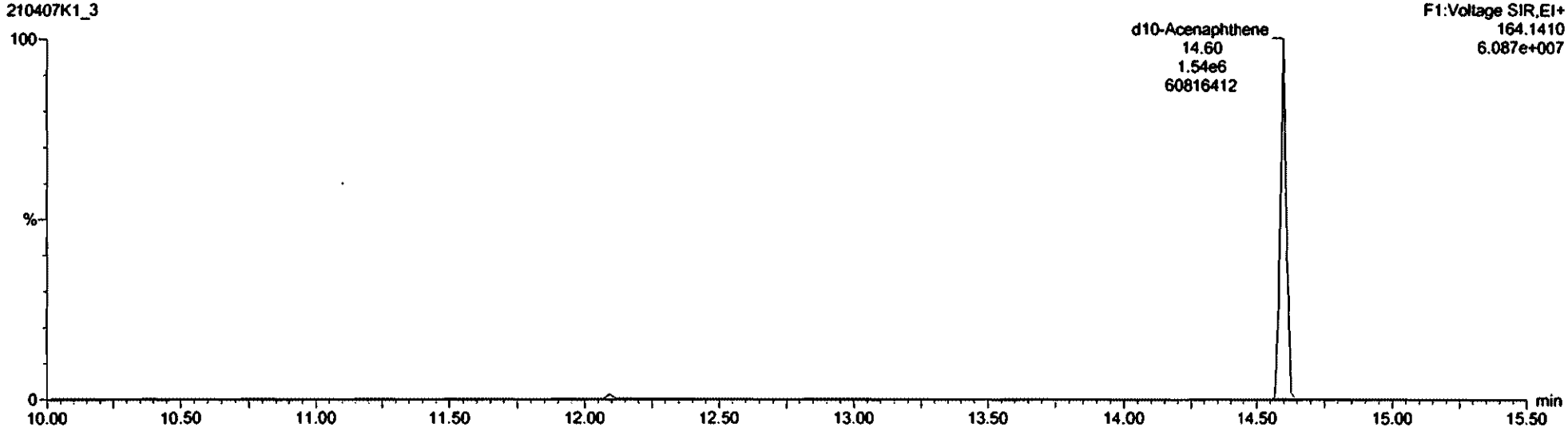
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Acenaphthene



d10-Acenaphthene



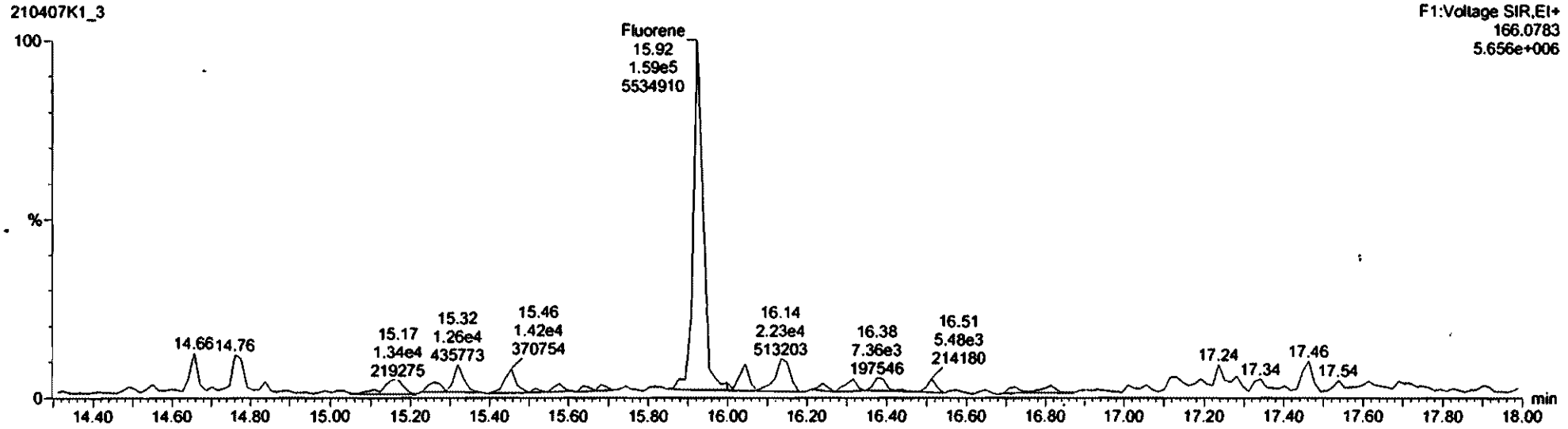
588 of 1215

Dataset: Untitled

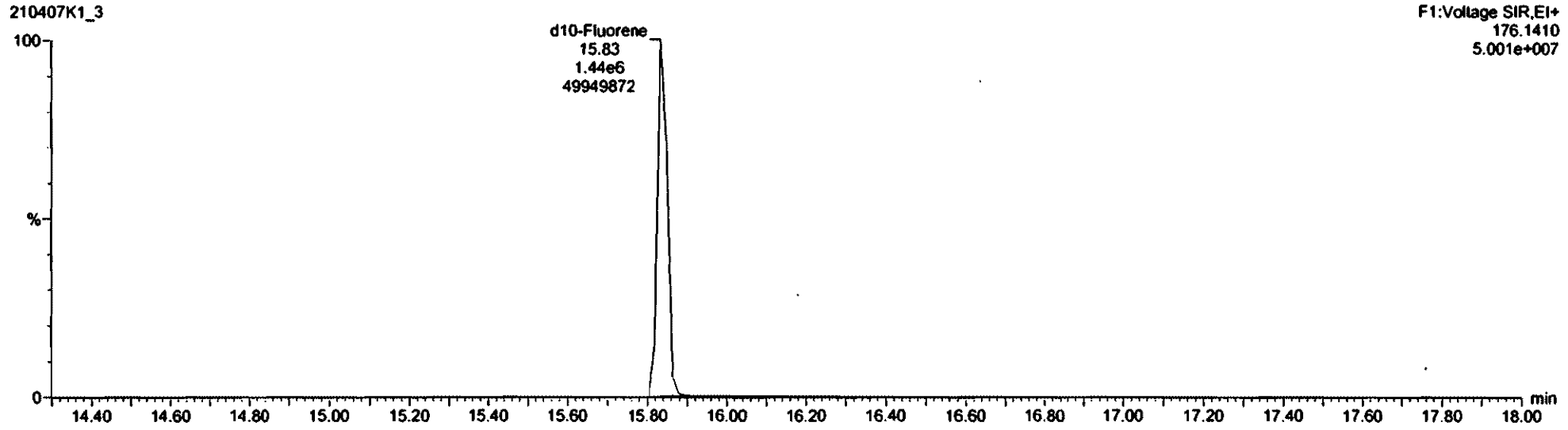
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluorene



d10-Fluorene

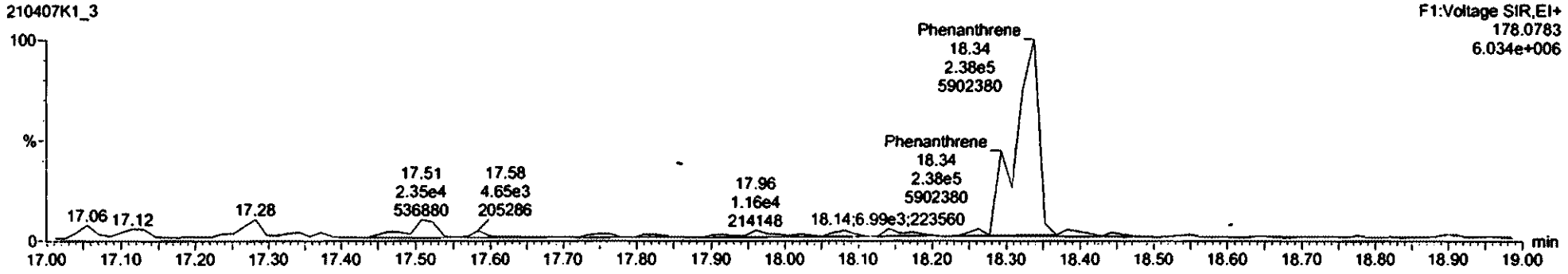


Dataset: Untitled

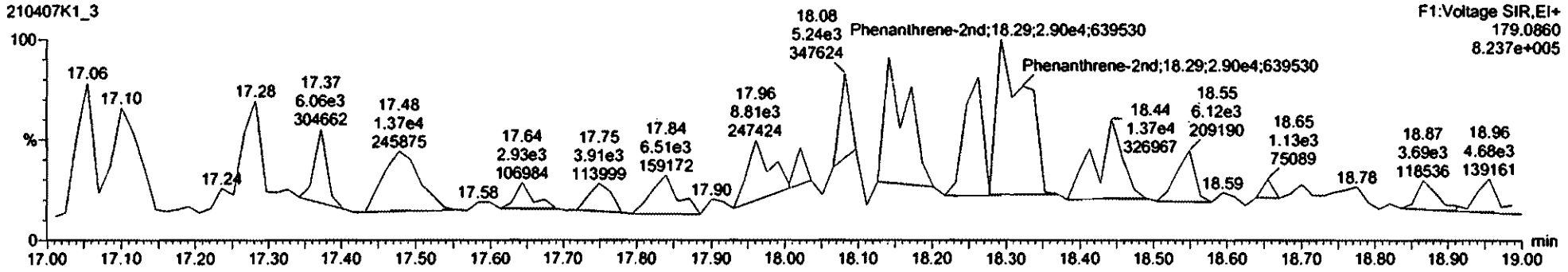
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

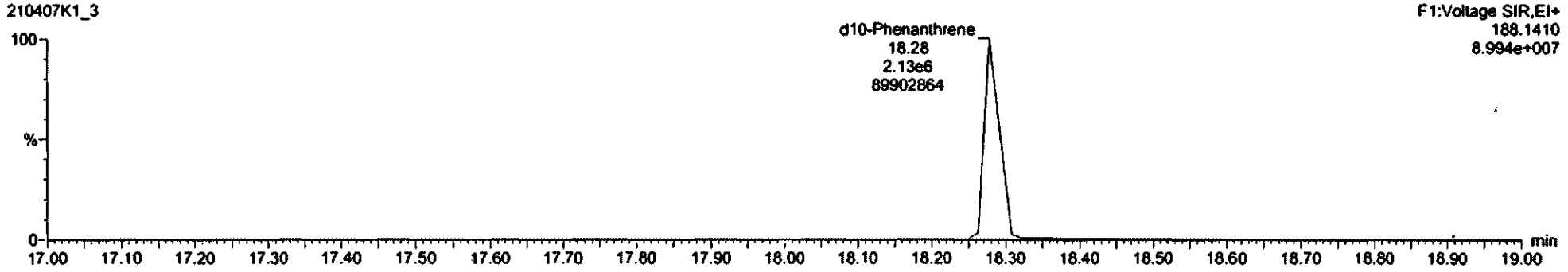
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



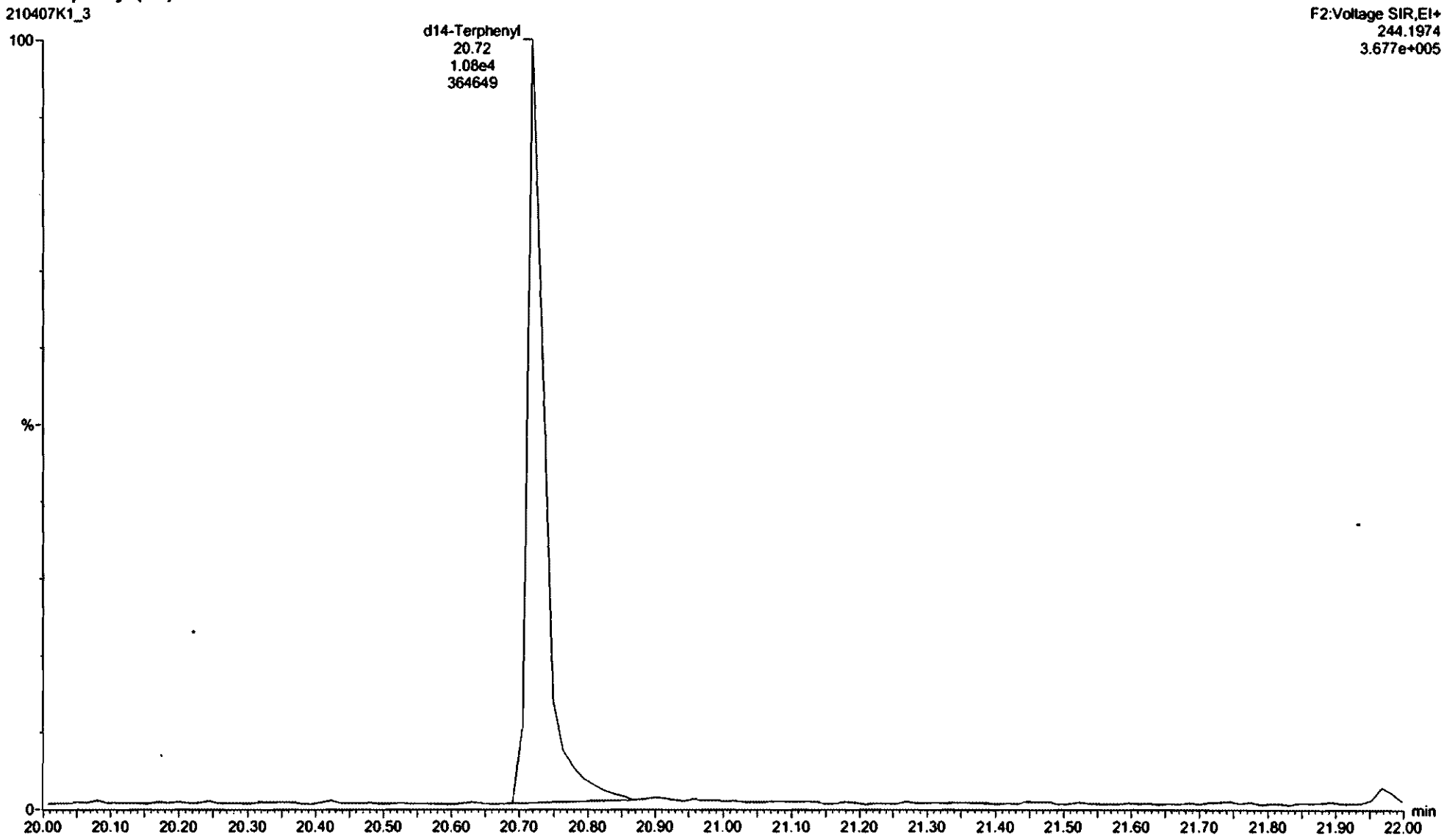
590 of 1215

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

d14-Terphenyl (PS)



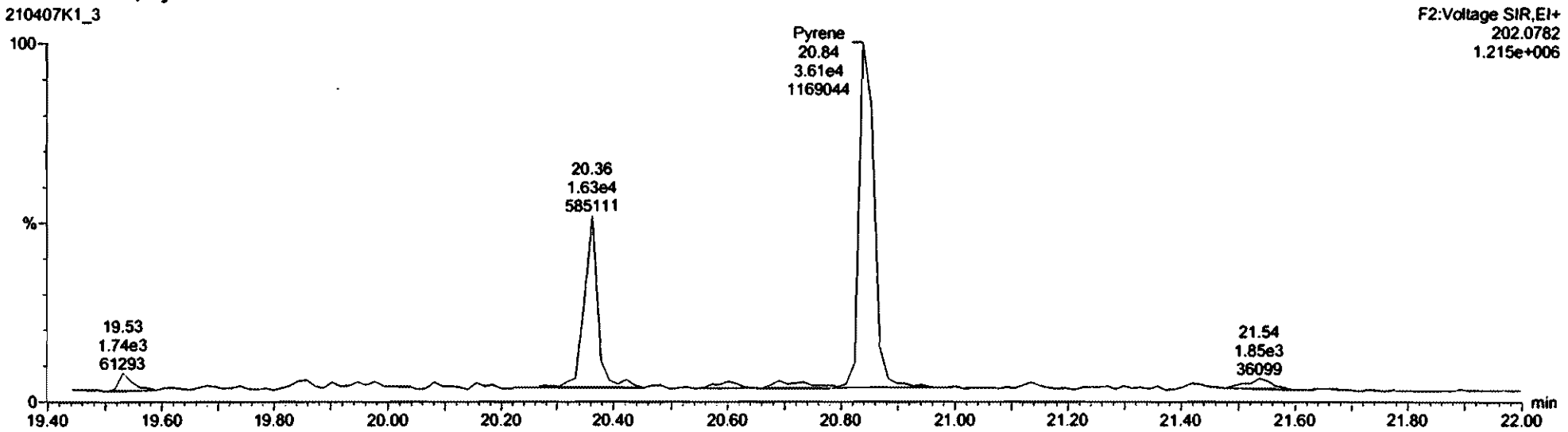
591 of 1215

Dataset: Untitled

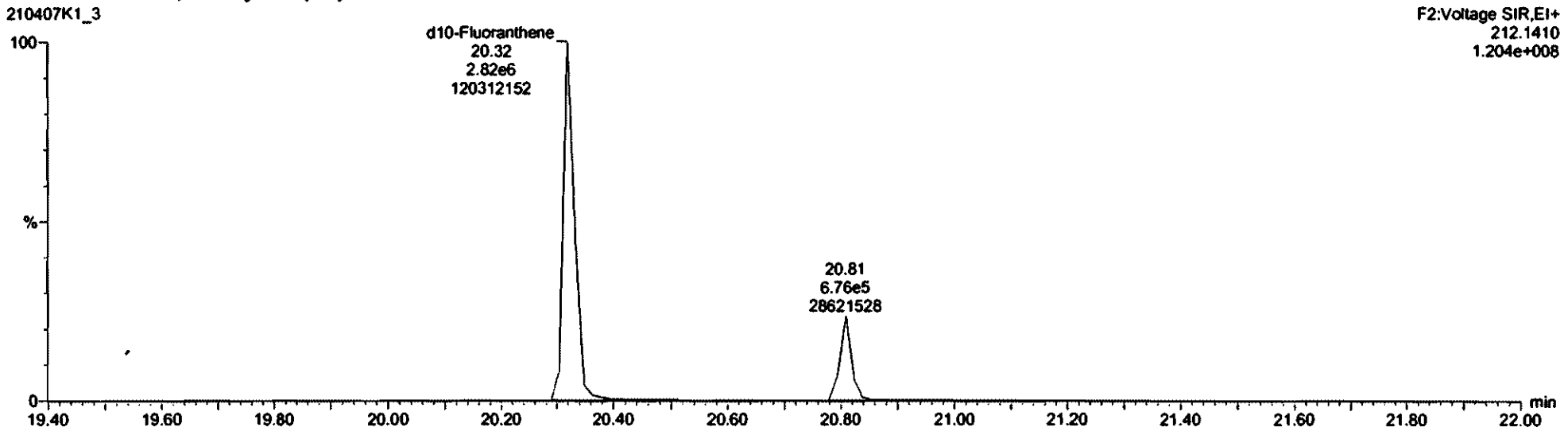
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



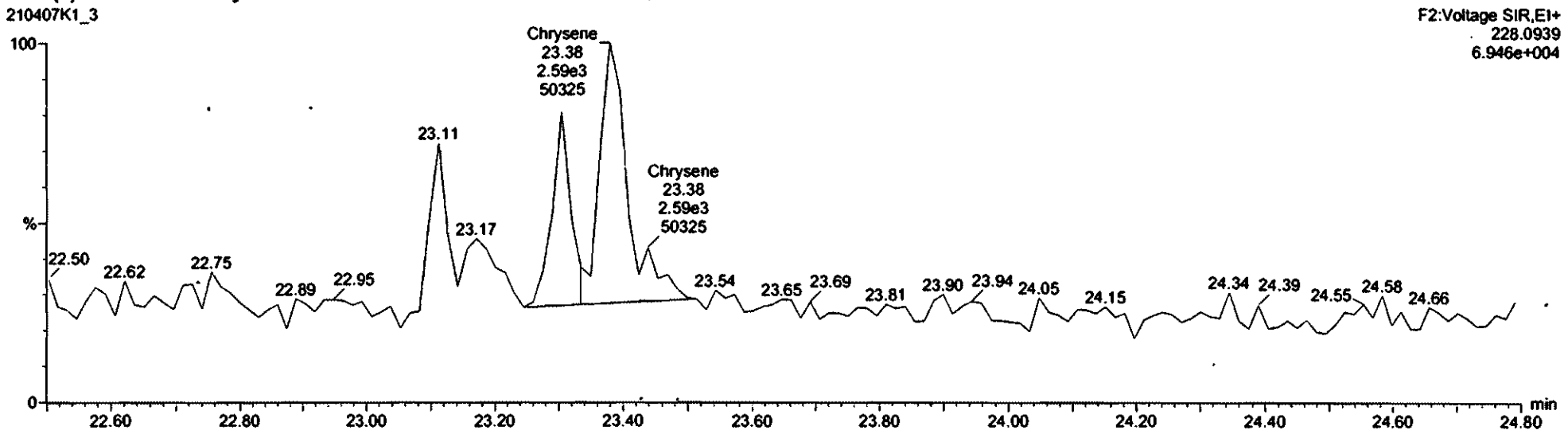
592 of 1215

Dataset: Untitled

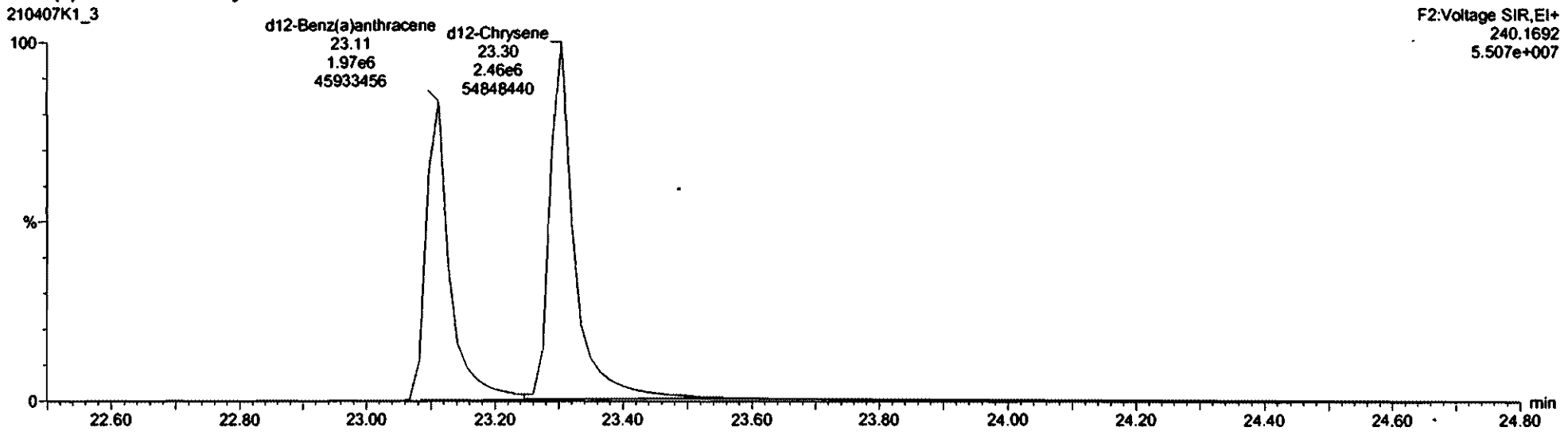
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



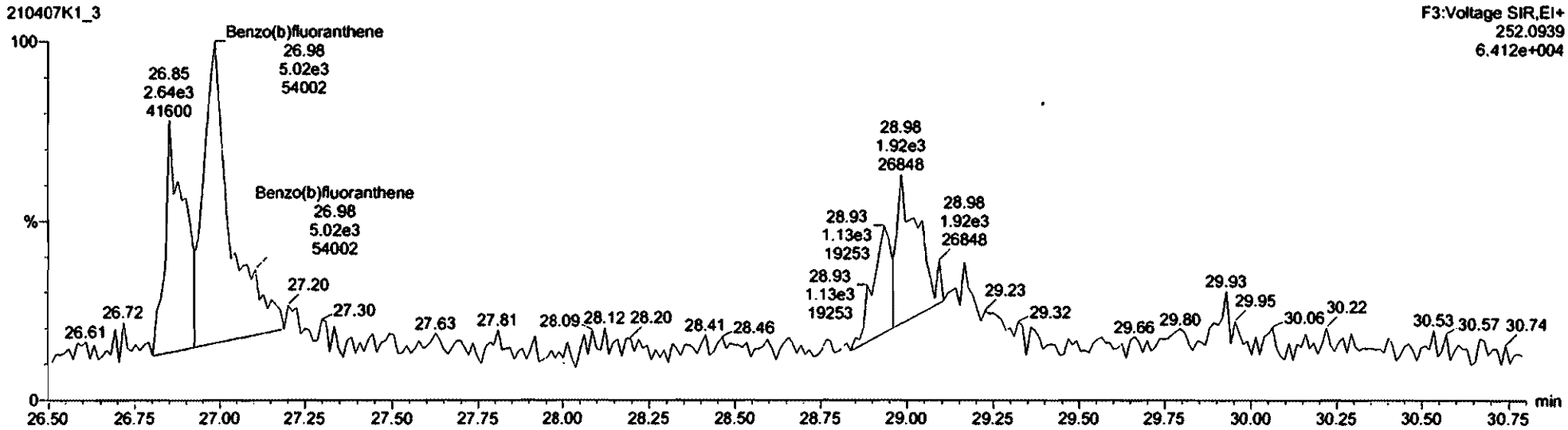
593 of 1215

Dataset: Untitled

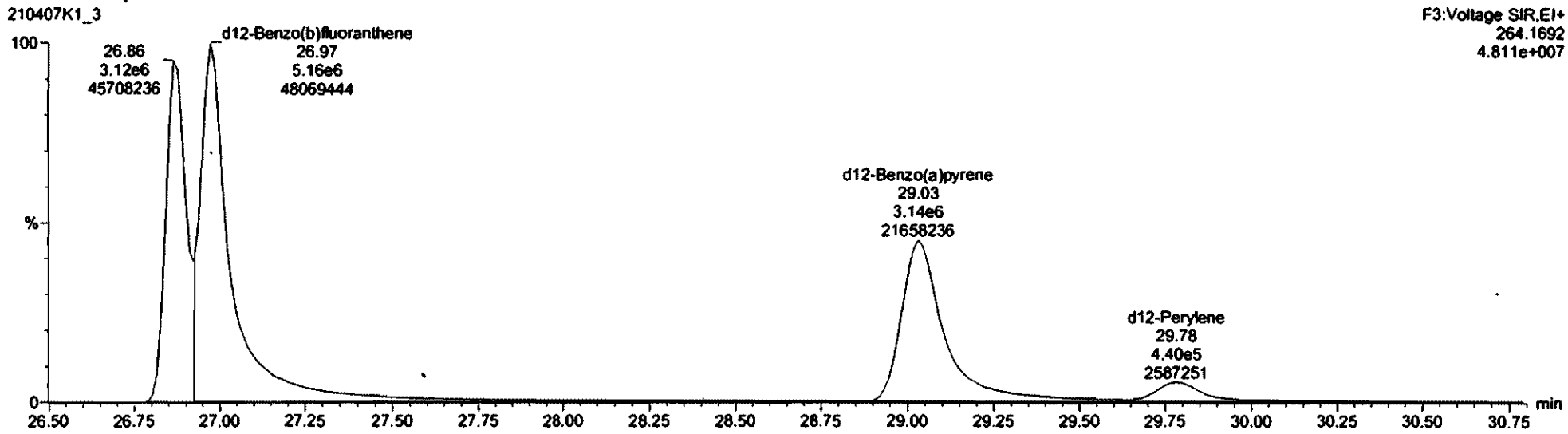
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Benzo-PAHs



Benzo-Isotopes



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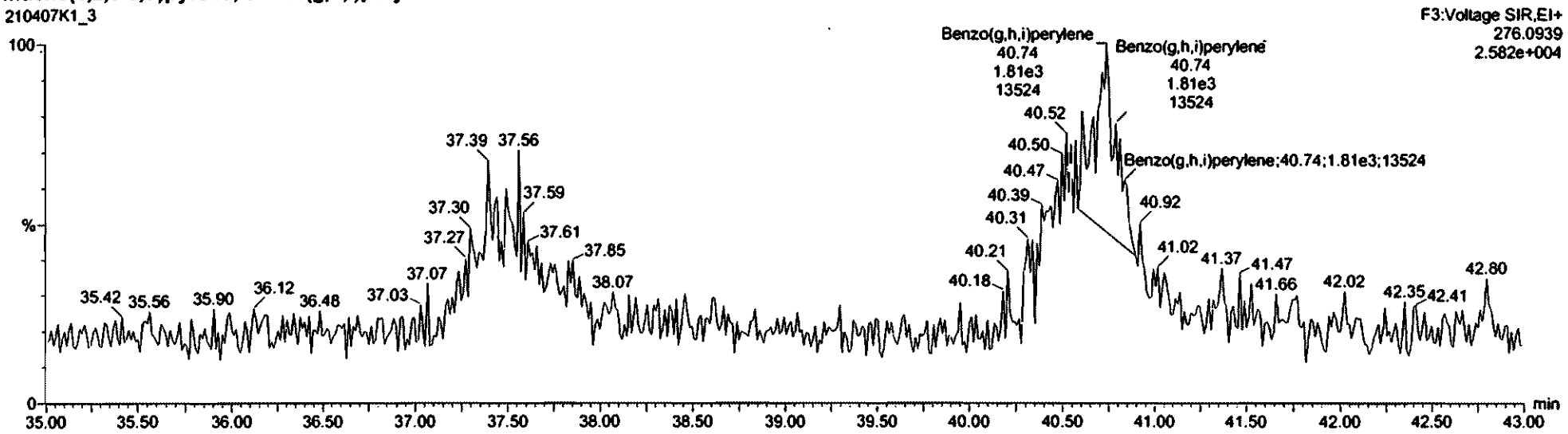
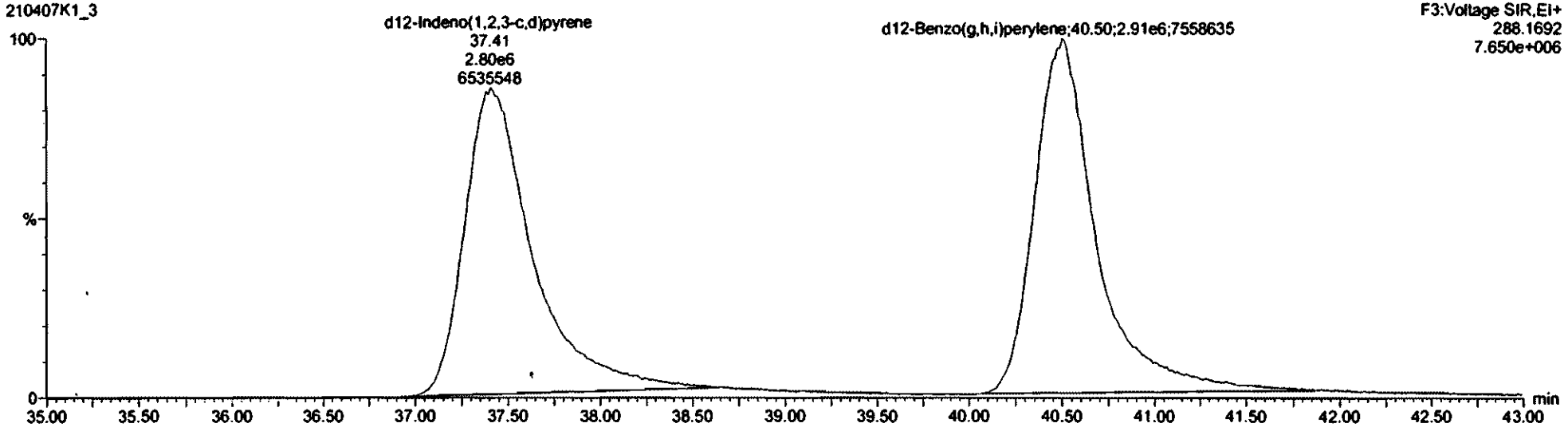
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



595 of 1215

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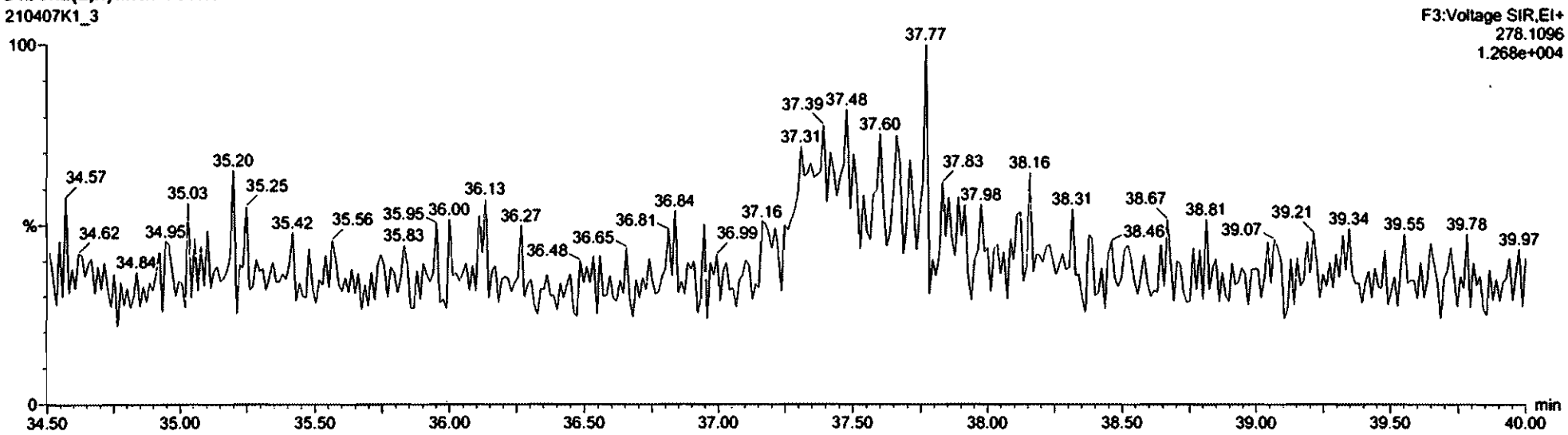
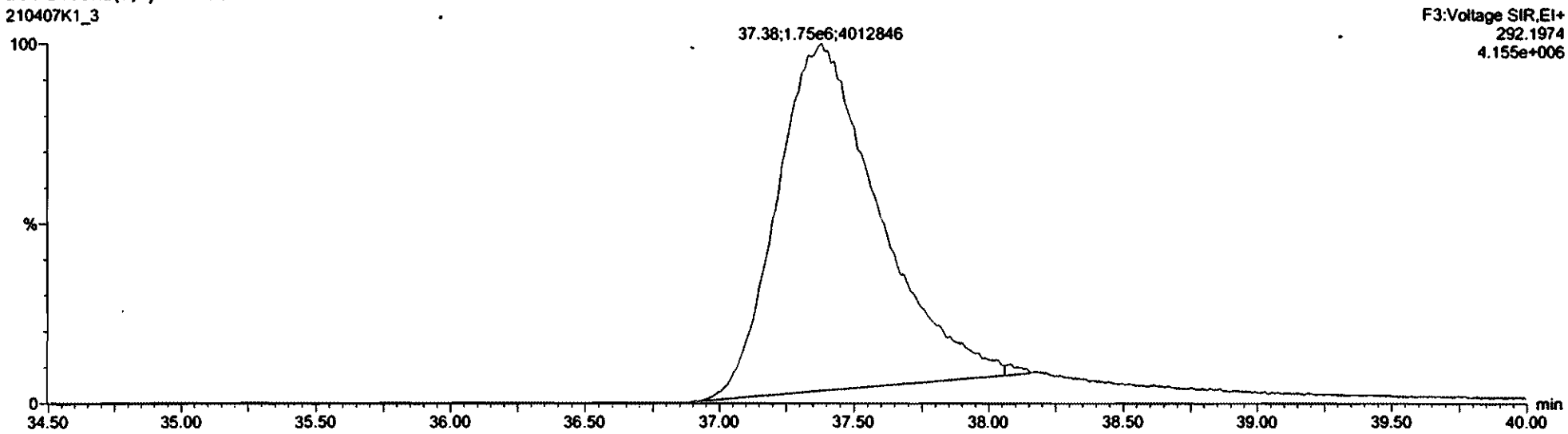
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_3, Date: 07-Apr-2021, Time: 17:48:57, ID: 2103102-01@500X 21-0883 Inlet 1 1, Description: 21-0883 Inlet 1

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



596 of 1215

HC 4.7.2021

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-19.qld

Last Altered: Wednesday, April 07, 2021 10:32:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:33:01 AM Pacific Daylight Time

(A) IS, not 10:1 CTO4/08/2021

*see dil

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	1 Naphthalene	2.25e8	7.80e5	1.16	1.000	10.30	10.34	1.006	1.010	NO	~~49700~~ SAT X		548
2	2 Naphthalene-2nd	2.51e6	7.80e5	0.128	1.000	10.30	10.25	1.006	1.001	NO	~~5640~~ X		9650
3	3 2-Methylnaphthalene	1.54e8	6.35e5	1.38	1.000	11.66	11.81	0.794	0.805	YES	~~36200~~ SAT X		343
4	4 Acenaphthylene	5.65e6	6.25e5	1.12	1.000	14.59	14.58	1.003	1.002	NO	(B) 1620 X		1060
5	5 Acenaphthene	3.04e7	6.35e5	1.10	1.000	14.76	14.78	1.006	1.007	NO	8690 E X		340
6	6 Fluorene	3.16e7	8.74e5	1.15	1.000	15.97	15.97	1.006	1.006	NO	6260 E X		299
7	7 Phenanthrene	3.84e7	5.24e5	1.19	1.000	18.35	18.32	1.002	1.001	NO	~~12300~~ SAT X		789
8	8 Phenanthrene-2nd	8.28e6	5.24e5	0.0925	1.000	18.34	18.32	1.002	1.001	NO	34200 E X		2280
9	9 Anthracene	1.92e7	5.24e5	1.09	1.000	18.41	18.35	1.005	1.002	NO	6710 E X		861
10	10 Fluoranthene	3.82e6	2.87e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	243		12.7
11	11 Pyrene	9.62e6	2.87e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	560 E X		11.7
12	12 Benz(a)anthracene	1.48e5	2.69e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	11.5		2.82
13	13 Chrysene	1.08e6	2.89e6	0.852	1.000	23.37	23.38	1.003	1.004	NO	88.0		2.81
14	14 Benzo(b)fluoranthene	1.93e5	4.78e6	1.10	1.000	26.94	26.92	1.005	1.005	NO	14.6		0.130
15	15 Benzo(k)fluoranthene	3.91e4	5.25e6	1.04	1.000	27.03	27.01	1.004	1.004	NO	2.87		0.150
16	16 Benzo(e)pyrene	8.18e5	5.25e6	0.911	1.000	28.72	28.72	1.067	1.067	NO	68.3		0.171
17	17 Benzo(a)pyrene	1.88e5	4.65e6	1.02	1.000	28.97	28.95	1.006	1.005	NO	16.0		0.194
18	18 Perylene	1.33e5	4.65e6	0.987	1.000	29.71	29.65	1.031	1.029	NO	11.6		0.200
19	19 Indeno(1,2,3-c,d)pyrene	1.31e5	3.77e6	0.915	1.000	36.70	36.70	1.007	1.007	NO	15.2		0.503
20	20 Benzo(g,h,i)perylene	1.04e6	3.68e6	0.940	1.000	40.12	40.03	1.009	1.007	NO	120		0.517
21	21 Dibenz(a,h)anthracene		3.31e6	0.948	1.000	36.60		1.011		YES			0.433
22	22 d8-Naphthalene (A)	7.80e5	2.68e6	1.20	1.000	10.27	10.24	0.848	0.845	NO	48.4 (B)	~~24.2~~ *	15.1
23	23 d8-Acenaphthylene (A)	6.25e5	2.68e6	0.905	1.000	14.54	14.55	1.201	1.202	NO	51.6	~~25.8~~ *	91.0
24	24 d10-Acenaphthene (A)	6.35e5	2.68e6	0.594	1.000	14.84	14.67	1.226	1.212	YES	79.7	39.9 *	33.3
25	25 d10-Fluorene	8.74e5	2.68e6	0.563	1.000	16.10	15.88	1.330	1.312	YES	116	58.0 *	46.6
26	26 d10-Phenanthrene	5.24e5	2.68e6	0.735	1.000	18.56	18.31	1.533	1.512	YES	53.1	26.6 *	113
27	27 d10-Fluoranthene	2.87e6	2.68e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	166	83.2	1.48
28	28 d12-Benz(a)anthracene	2.69e6	2.68e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	223	111	1.61
29	29 d12-Chrysene	2.89e6	2.68e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	211	106	1.42
30	30 d12-Benzo(b)fluoranthene	4.78e6	2.60e6	1.18	1.000	26.76	26.80	0.907	0.909	NO	312	77.9	0.110
31	31 d12-Benzo(k)fluoranthene	5.25e6	2.60e6	1.50	1.000	26.87	26.91	0.911	0.912	NO	269	67.3	0.0862

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-19.qld

Last Altered: Wednesday, April 07, 2021 10:32:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:33:01 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	4.65e6	2.60e6	1.24	1.000	28.76	28.80	0.975	0.977	NO	289	72.3	0.105
33	33	d12-Indeno(1,2,3-c,d)pyrene	3.77e6	2.60e6	1.02	1.000	36.78	36.45	1.247	1.236	YES	285	71.3	0.188
34	34	d12-Benzo(g,h,i)perylene	3.68e6	2.60e6	1.00	1.000	40.18	39.74	1.362	1.348	YES	282	70.5	0.190
35	35	d14-Dibenz(a,h)anthracene	3.31e6	2.60e6	0.765	1.000	36.55	36.19	1.239	1.227	YES	333	83.2	0.164
36	36	d10-Anthracene	8.94e5	2.60e6	0.989	1.000	18.65	18.37	1.541	1.517	YES	69.7	34.8	234
37	37	d14-Terphenyl	5.34e6	2.87e6	0.576	1.000	20.69	20.72	1.018	1.020	NO	647	129	0.484
38	38	d12-Benzo(e)pyrene	5.74e6	5.25e6	0.738	1.000	28.53	28.56	1.060	1.061	NO	592	118	0.156
39	39	d10-1-Methylnaphthalene	7.84e5	7.84e5	1.00	1.000	11.93	12.11	1.000	1.000	YES	200	100	145
40	40	d10-Pyrene	2.68e6	2.68e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	1.91
41	41	d12-Perylene	2.60e6	2.60e6	1.00	1.000	29.59	29.49	1.000	1.000	NO	200	100	0.129

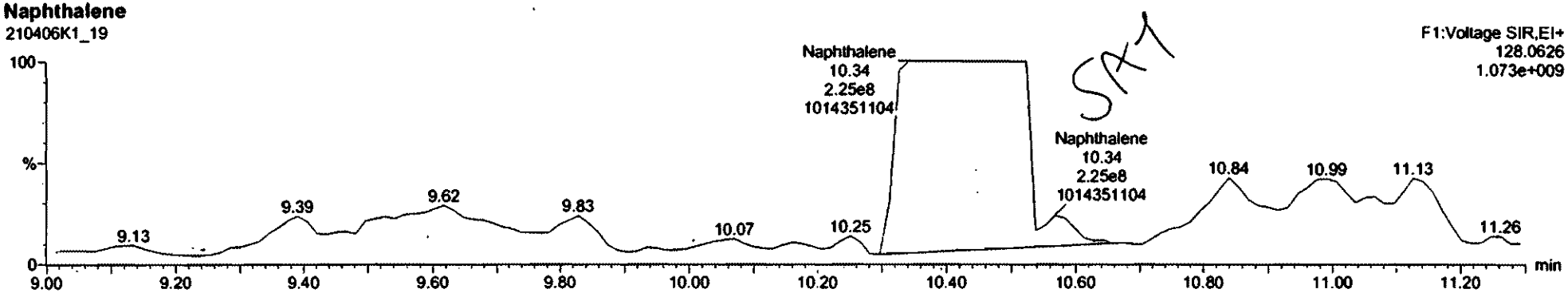
598 of 1215

Dataset: Untitled

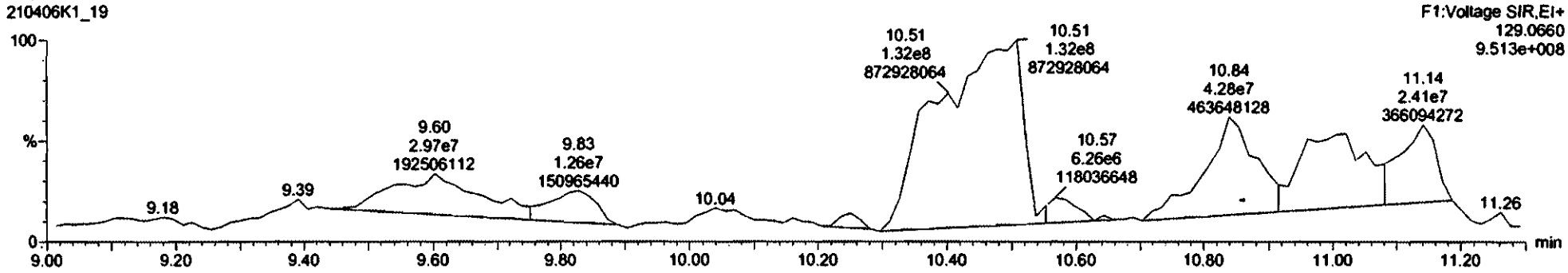
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

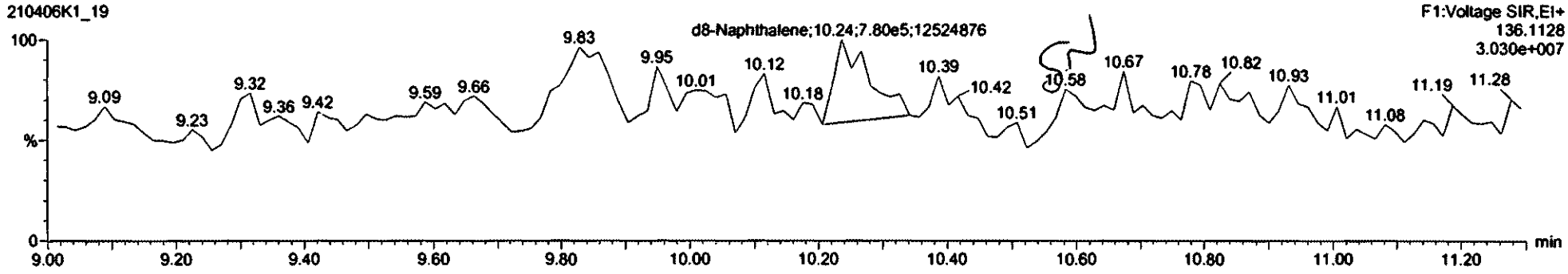
Naphthalene



Naphthalene-2nd



d8-Naphthalene



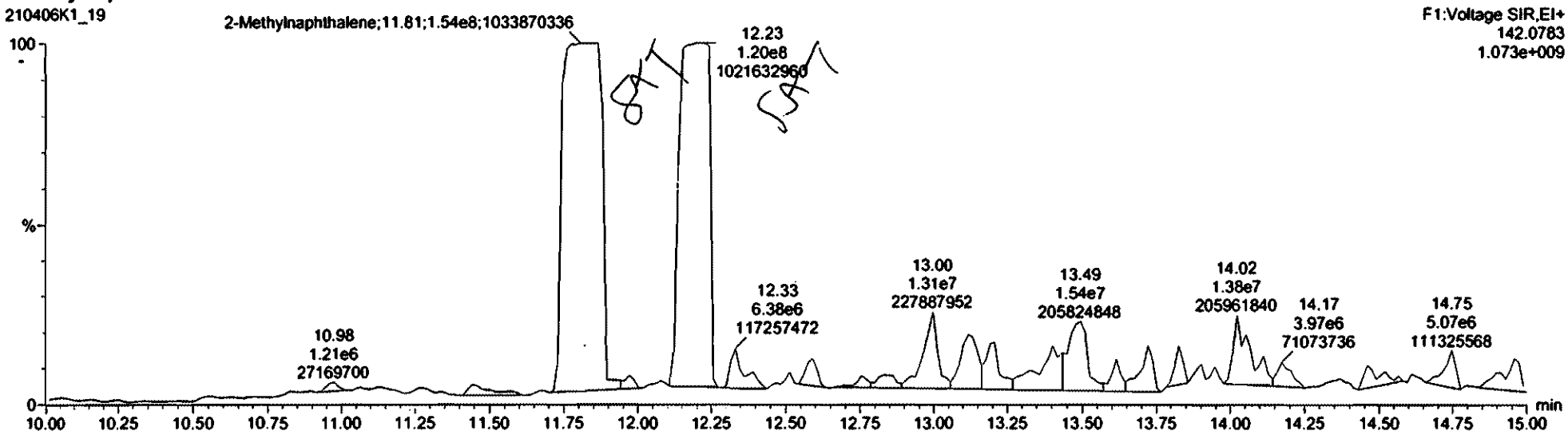
599 of 1215

Dataset: Untitled

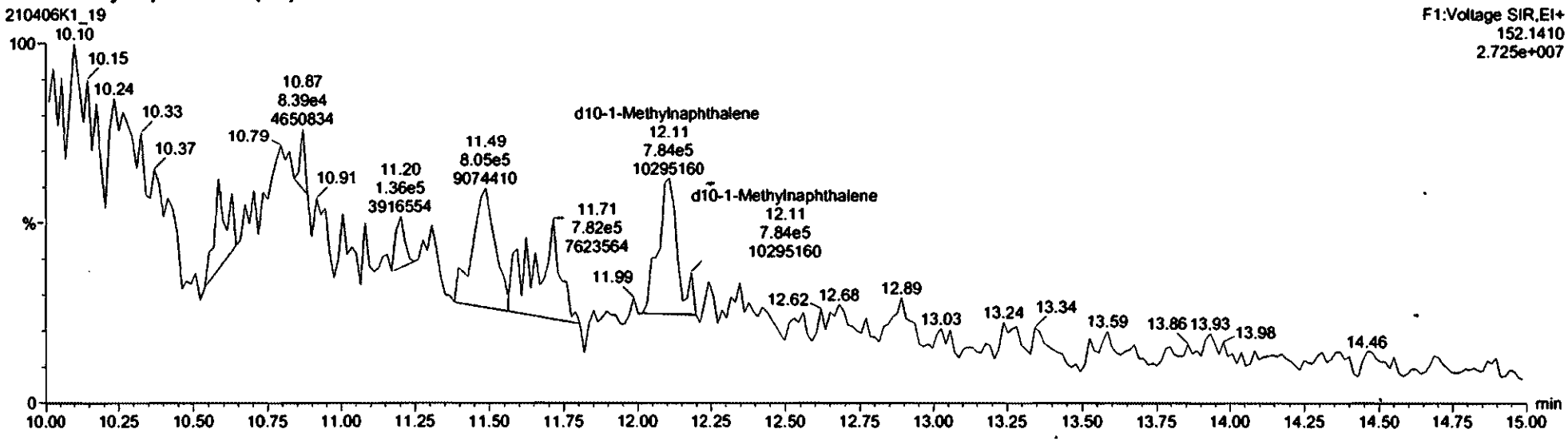
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



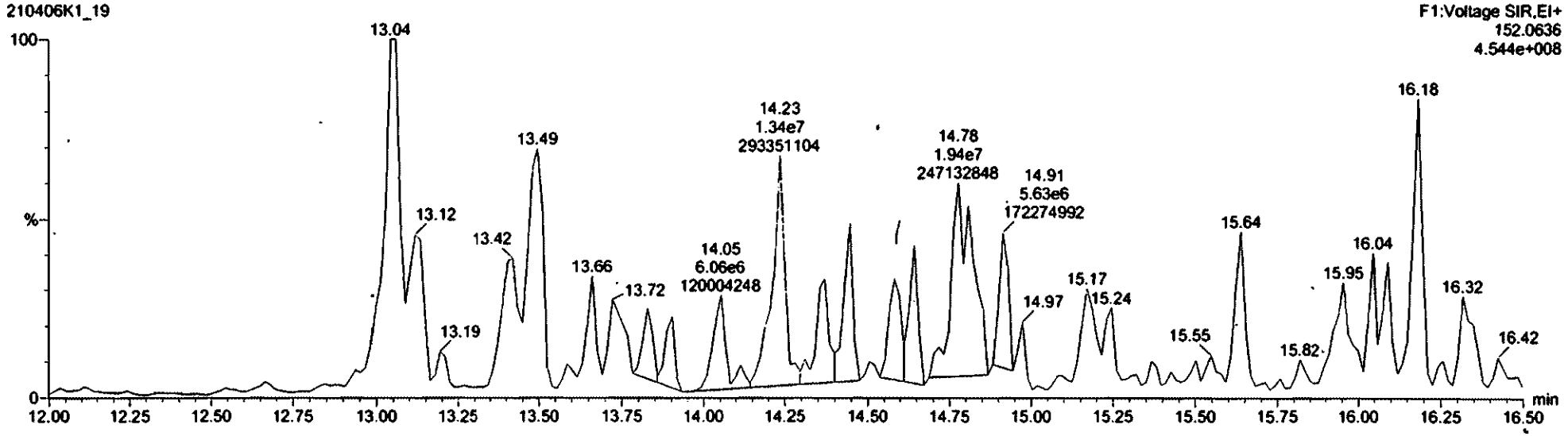
600 of 1215

Dataset: Untitled

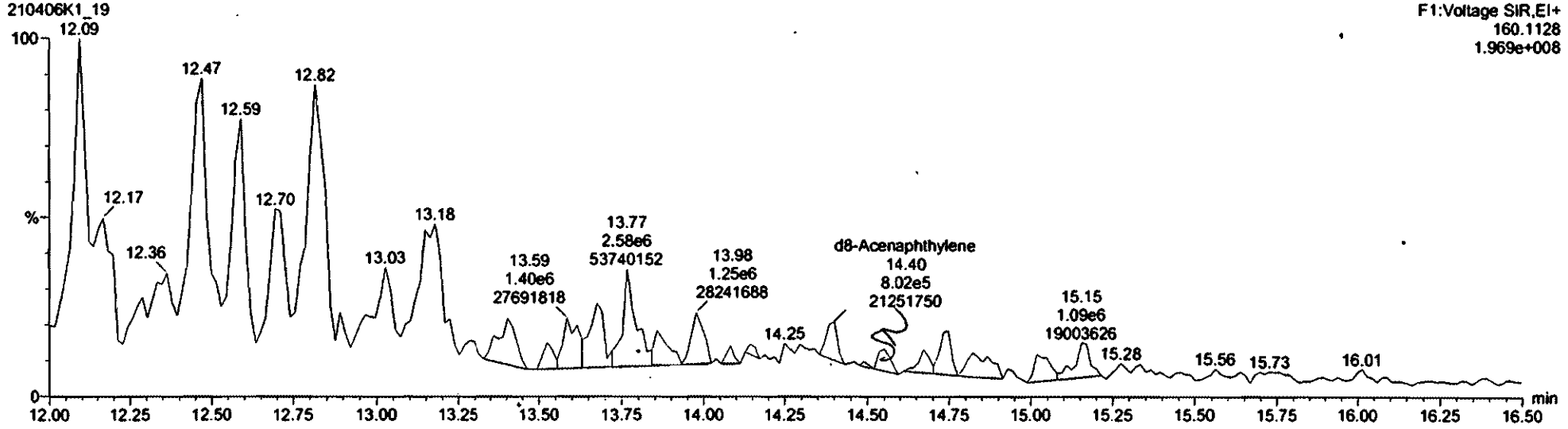
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

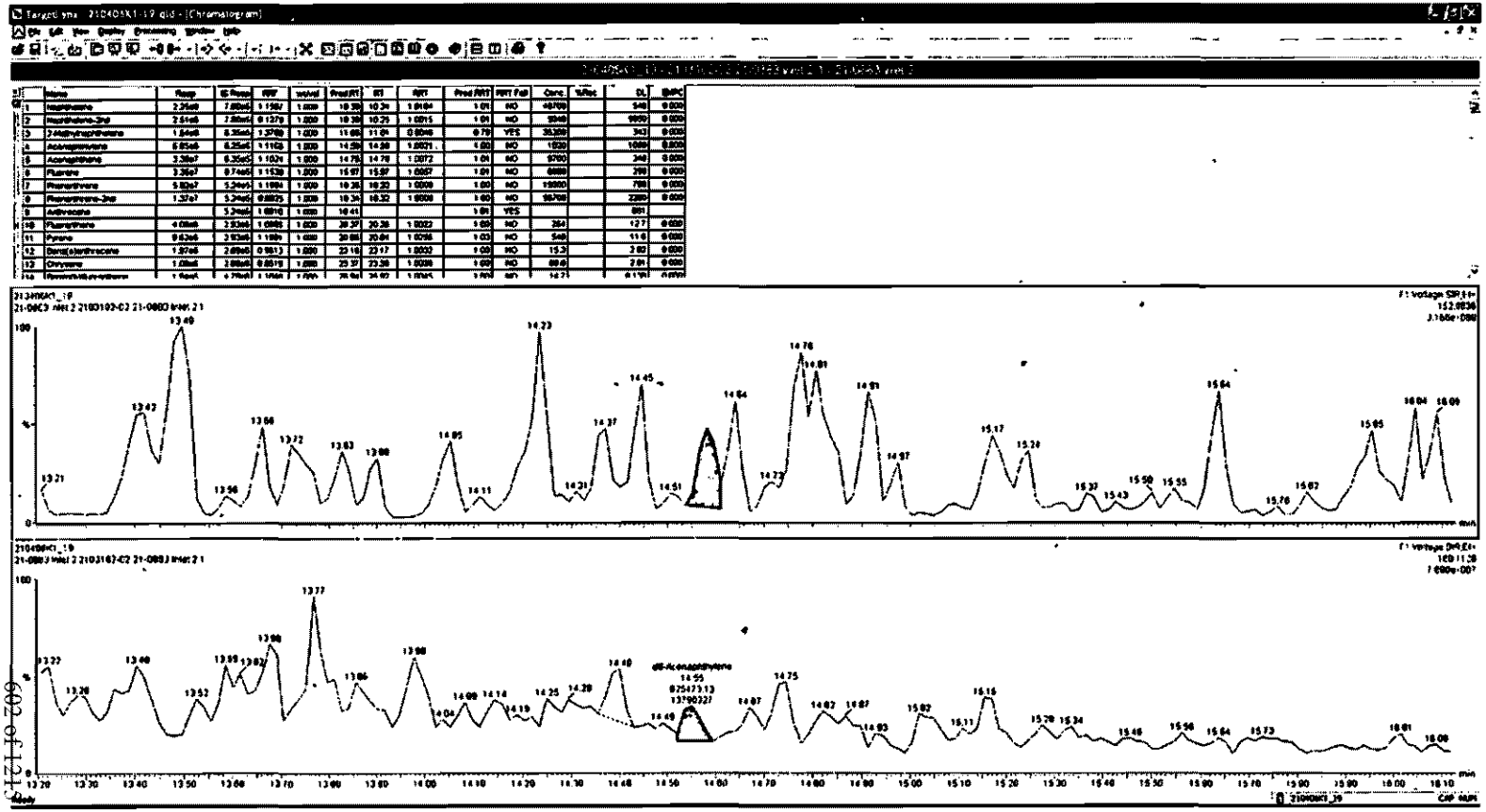
Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Acenaphthylene



d8-Acenaphthylene





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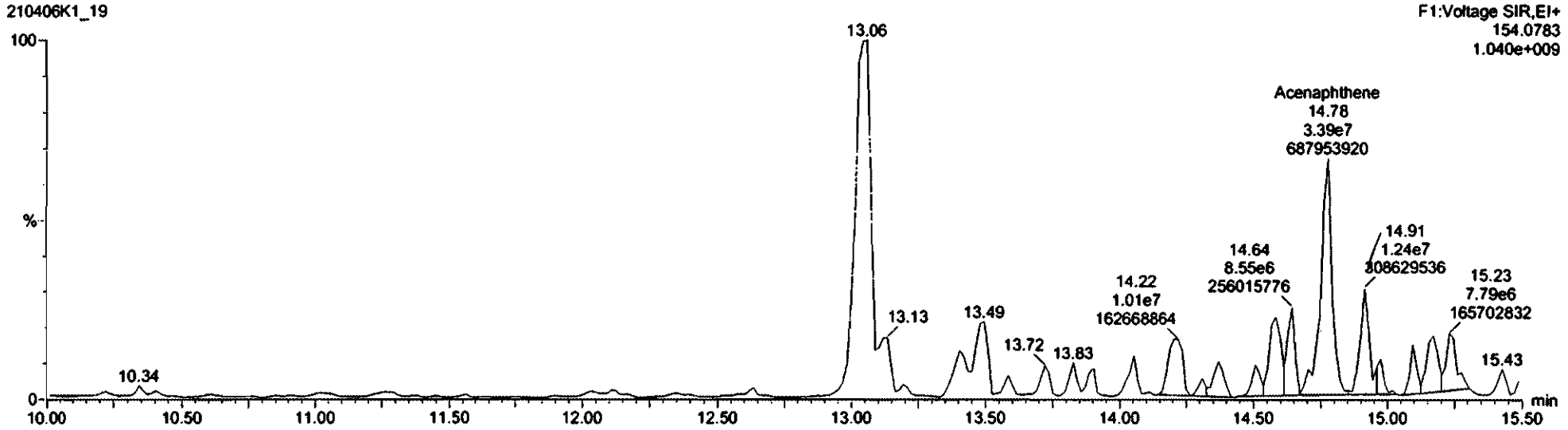
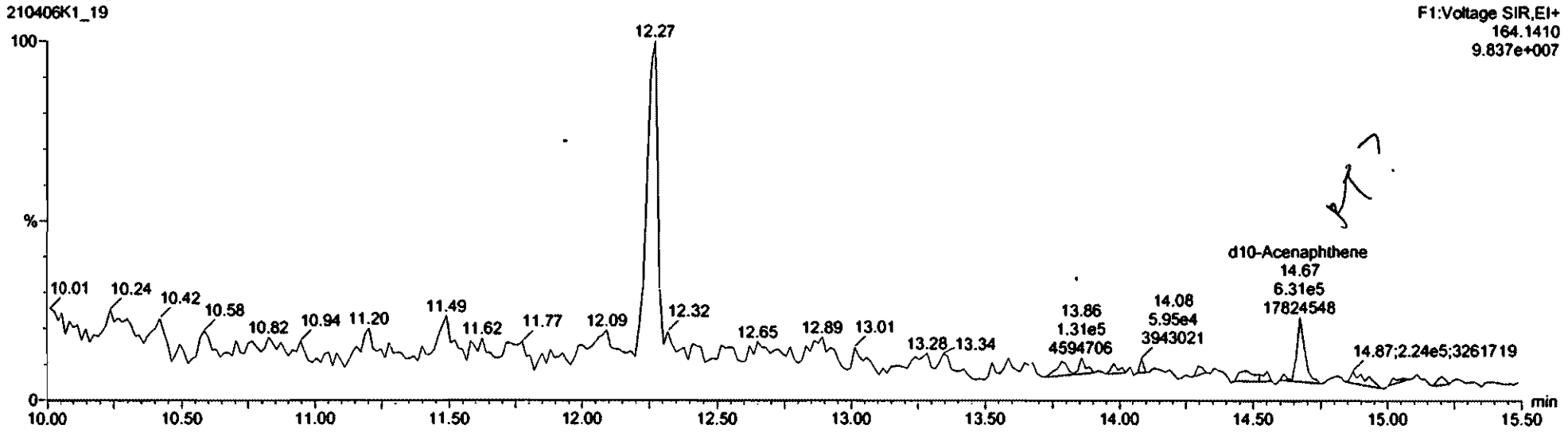
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

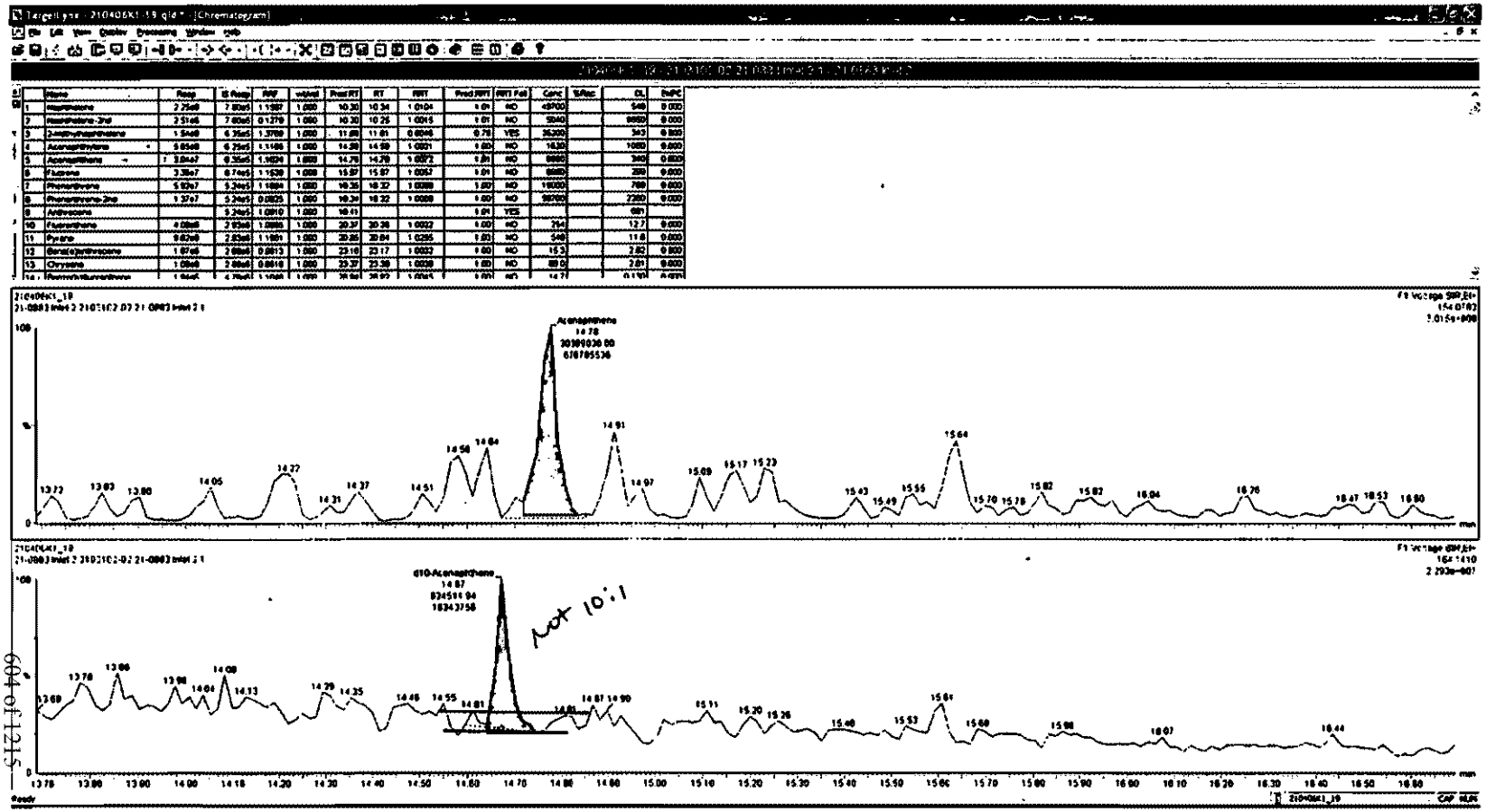
Acenaphthene



d10-Acenaphthene



603 of 1215


Not 10:1

Dataset: Untitled

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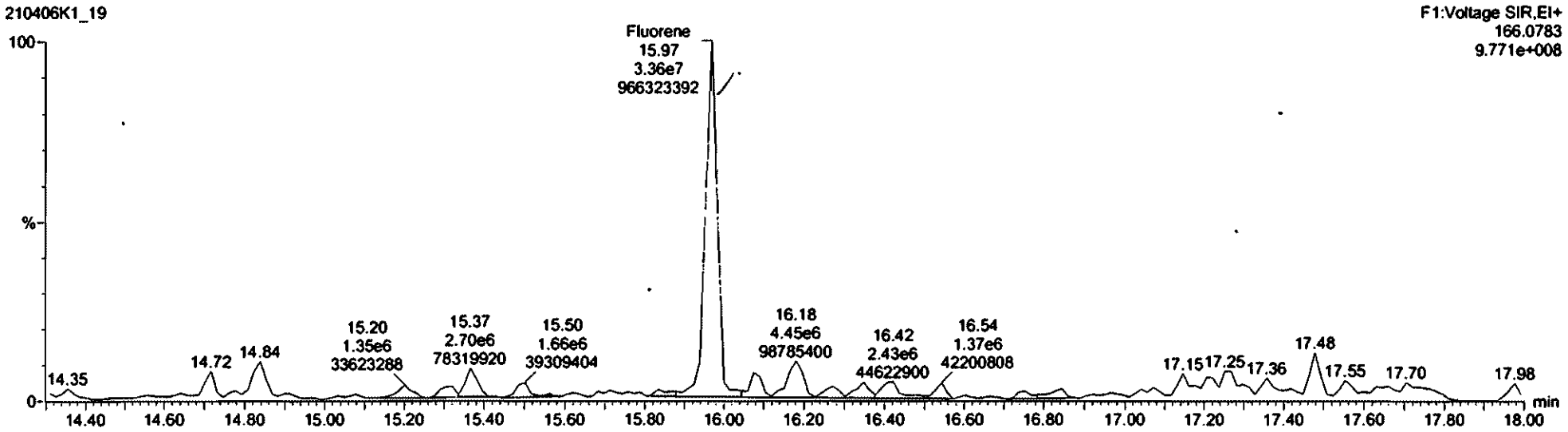
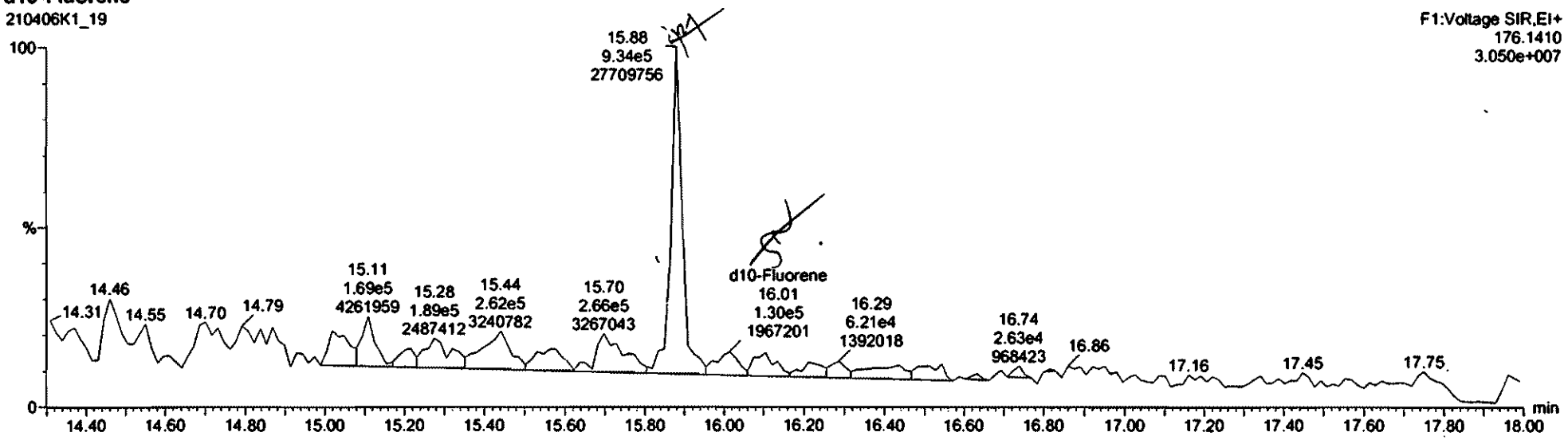
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Fluorene



d10-Fluorene

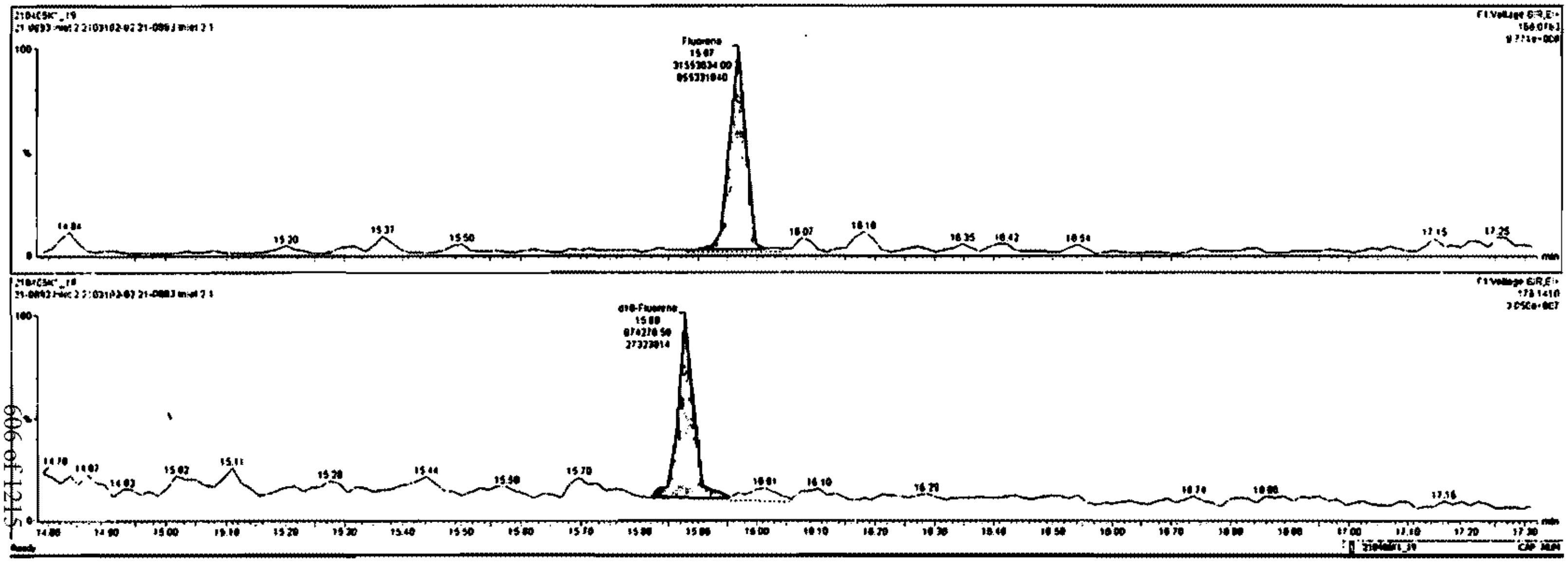


605 of 1215

TargetLynx - 2104(?)EK1-19.qld * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	2.26e8	7.80e6	1.1887	1.000	10.30	10.34	1.0104	1.01	NO	49700		540	0.000
2	Naphthalene-2nd	2.51e8	7.80e6	0.1279	1.000	10.30	10.25	1.0015	1.01	NO	5040		[illegible]	0.000
3	2-Methylnaphthalene	1.54e8	8.35e5	1.3788	1.000	11.86	11.81	0.8046	0.79	YES	35200		343	0.000
4	Acenaphthylene	5.66e6	8.35e6	1.1186	1.000	14.58	14.58	1.0001	1.00	NO	1420		1080	0.000
5	Acenaphthene	3.04e7	6.35e5	1.1624	1.000	14.76	14.78	1.0072	1.01	NO	6880		340	0.000
6	Fluorene	3.18e7	8.74e5	1.1538	1.000	15.87	15.87	1.0057	1.01	NO	6300		380	0.000
7	Phenanthrene	5.92e7	5.34e5	1.1884	1.000	18.35	18.32	1.0000	1.00	NO	18000		780	0.000
8	Phenanthrene-2nd	1.37e7	5.34e5	0.0875	1.000	18.34	18.32	1.0000	1.00	NO	98700		2780	0.000
9	Anthracene		5.34e5	1.0010	1.000	18.41			1.01	YES			881	
10	Fluoranthene	4.08e6	2.05e6	1.0885	1.000	20.37	20.36	1.0072	1.00	NO	254		12.7	0.000
11	Pyrene	5.82e6	2.05e6	1.1861	1.000	20.86	20.84	1.0056	1.00	NO	540		11.8	0.000
12	Benz(a)anthracene	1.97e6	2.88e6	0.9613	1.000	23.16	23.17	1.0032	1.00	NO	15.3		2.82	0.000
13	Chrysene	1.08e6	2.88e6	0.8619	1.000	23.37	23.38	1.0038	1.00	NO	88.8		2.81	0.000
14	Benzo(b)fluoranthene	1.94e6	4.79e5	1.1644	1.000	26.84	26.92	1.0065	1.00	NO	14.7		0.130	0.000



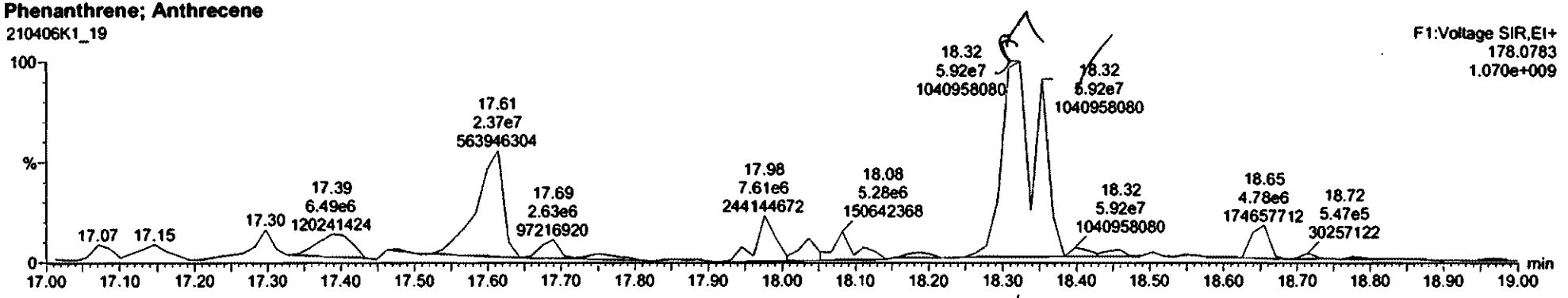
Ready

Dataset: Untitled

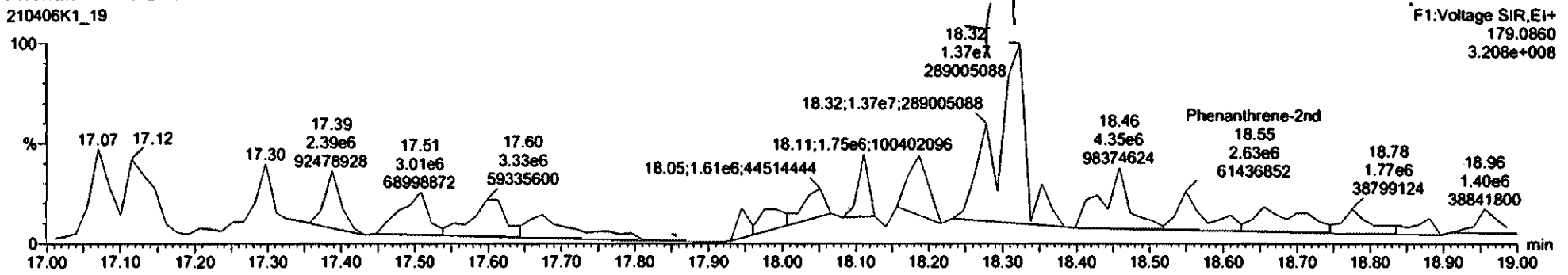
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

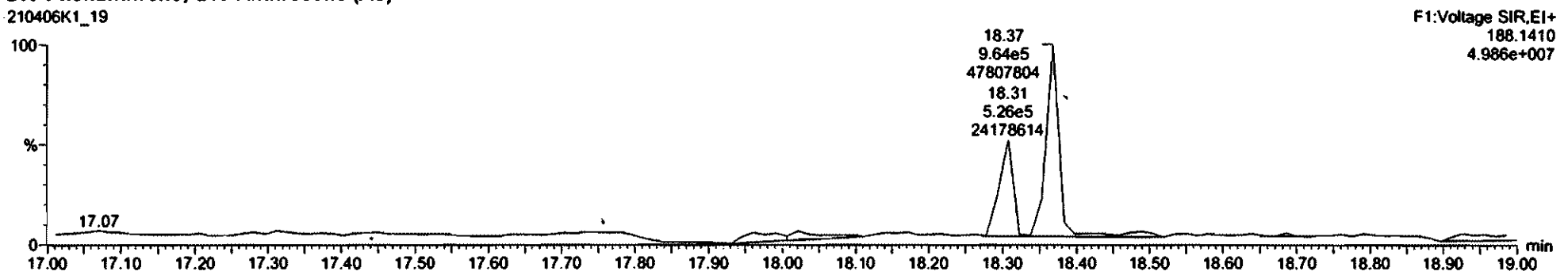
Phenanthrene; Anthrecene

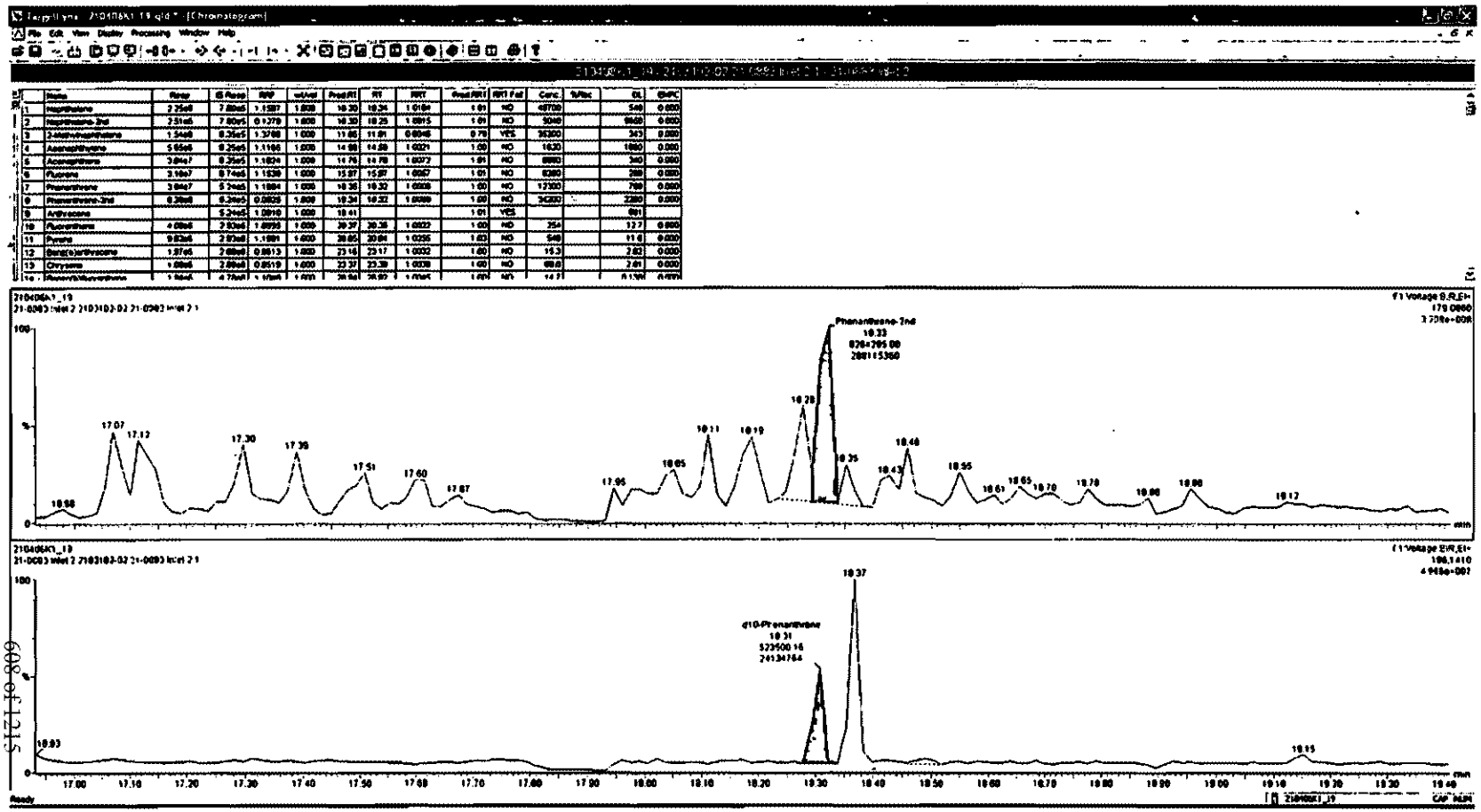


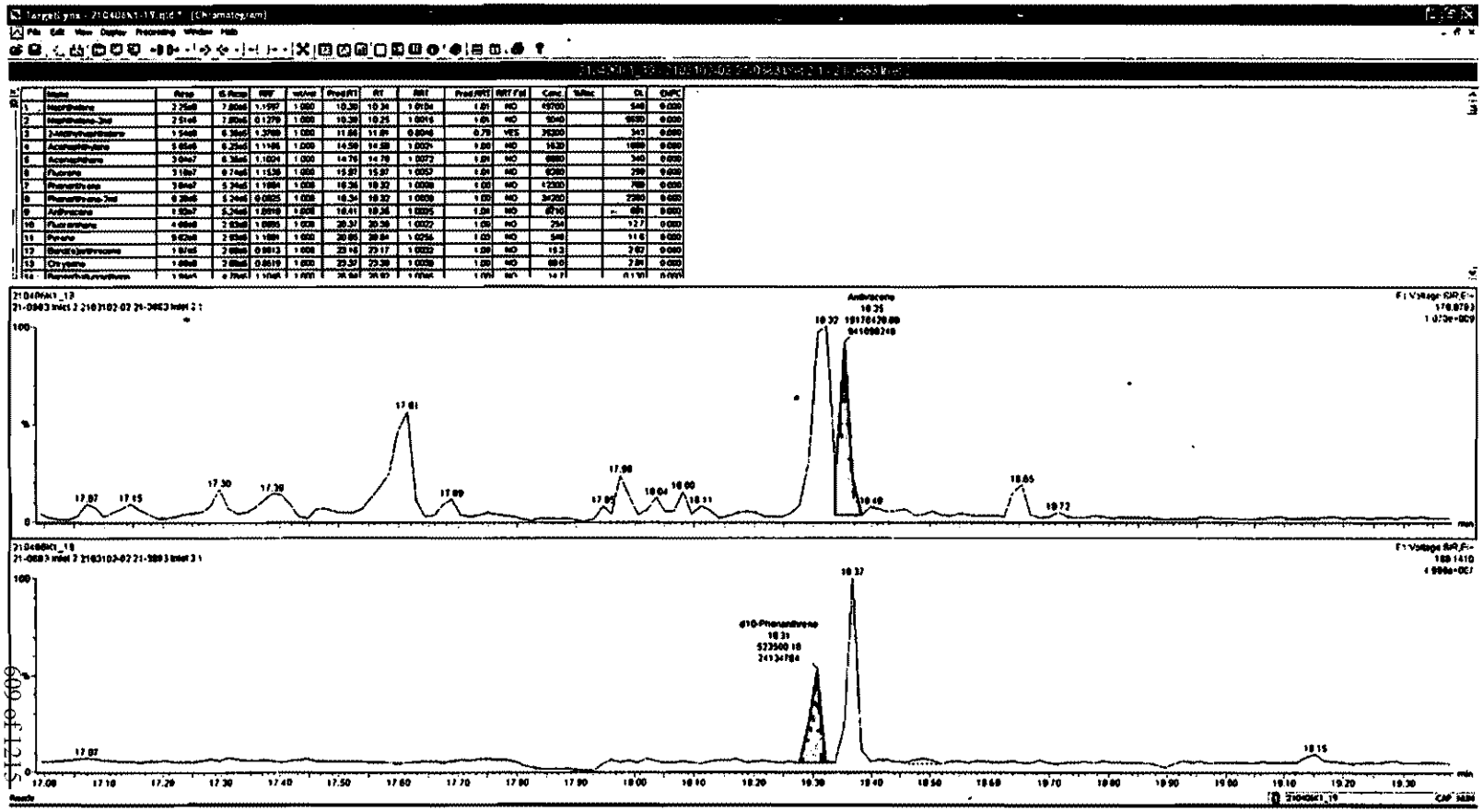
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene-2nd
10.33
826+295.00
208115360
d10-Phenanthrene
10.31
523500.16
24134784
10.37

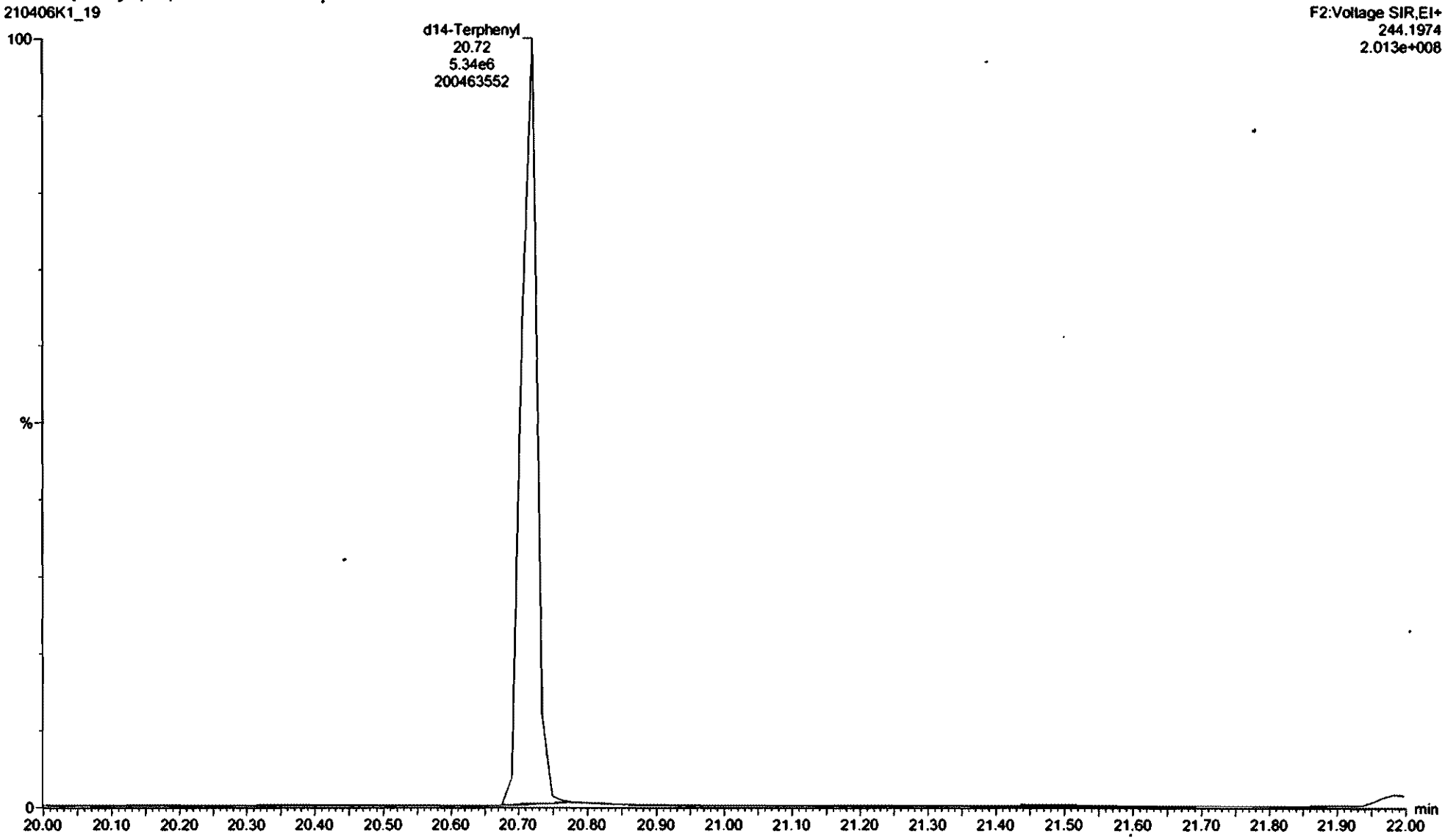

Anthracene
d10-Phenanthrene

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

d14-Terphenyl (PS)

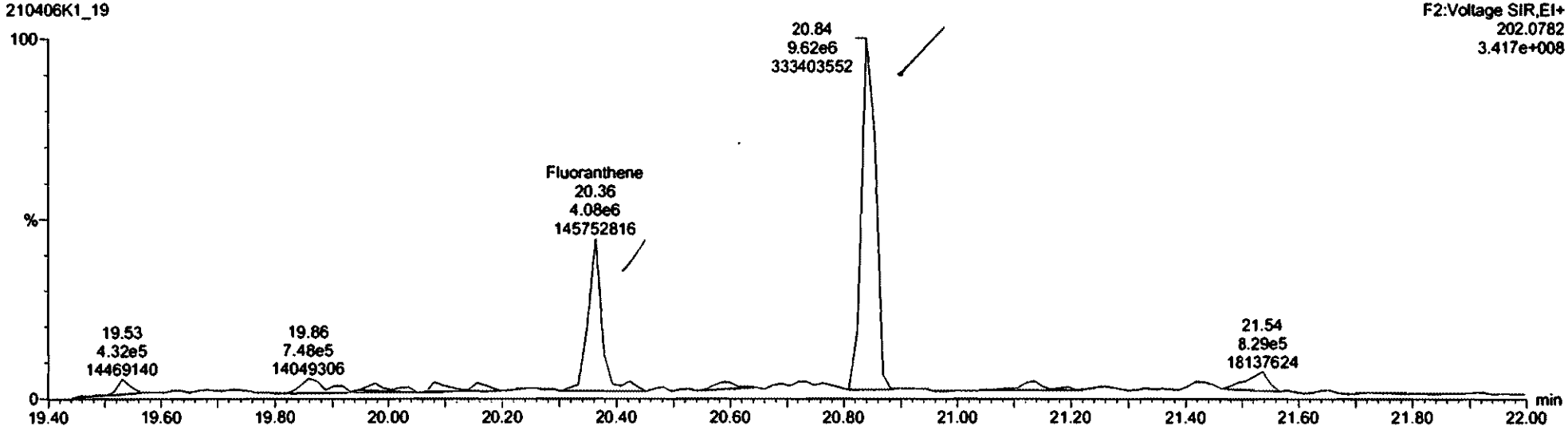


Dataset: Untitled

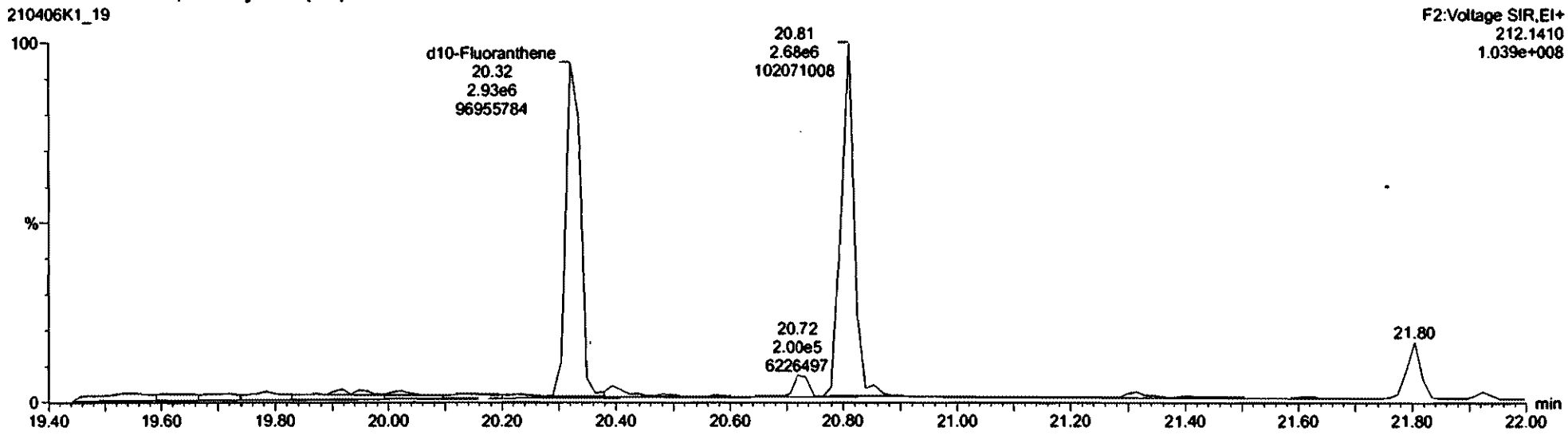
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

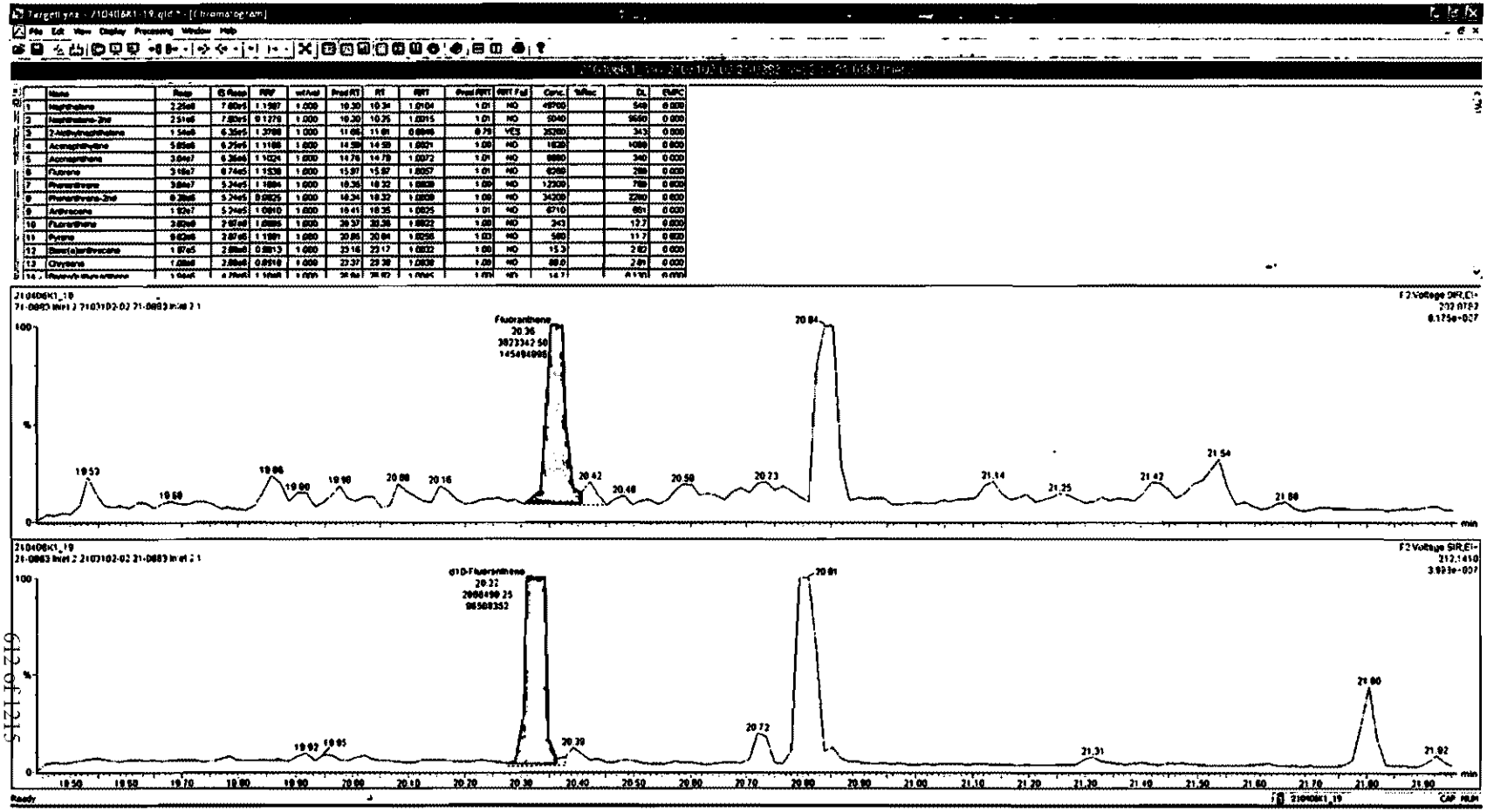
Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



611 of 1215

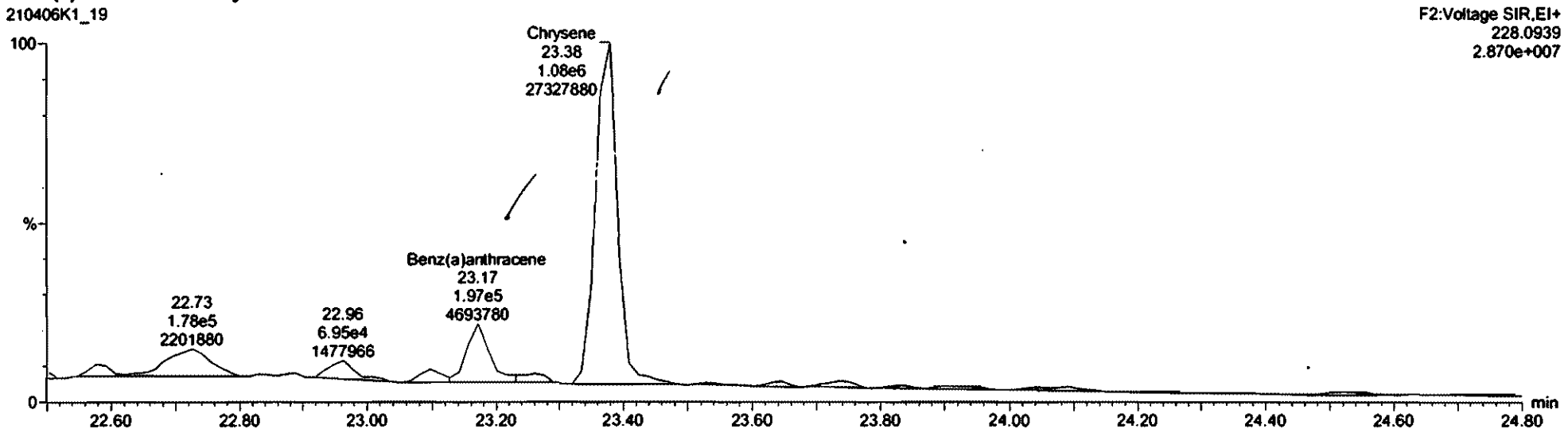

Fluoranthene
20.36
3023342.50
145484896
20.84
19.53
19.68
19.86
19.90
19.98
20.08
20.16
20.42
20.48
20.58
20.73
21.14
21.25
21.42
21.54
21.88
d10-Fluoranthene
20.32
2008490.25
96508352
20.91
19.92
19.95
20.39
20.72
21.31
21.80
21.92

Dataset: Untitled

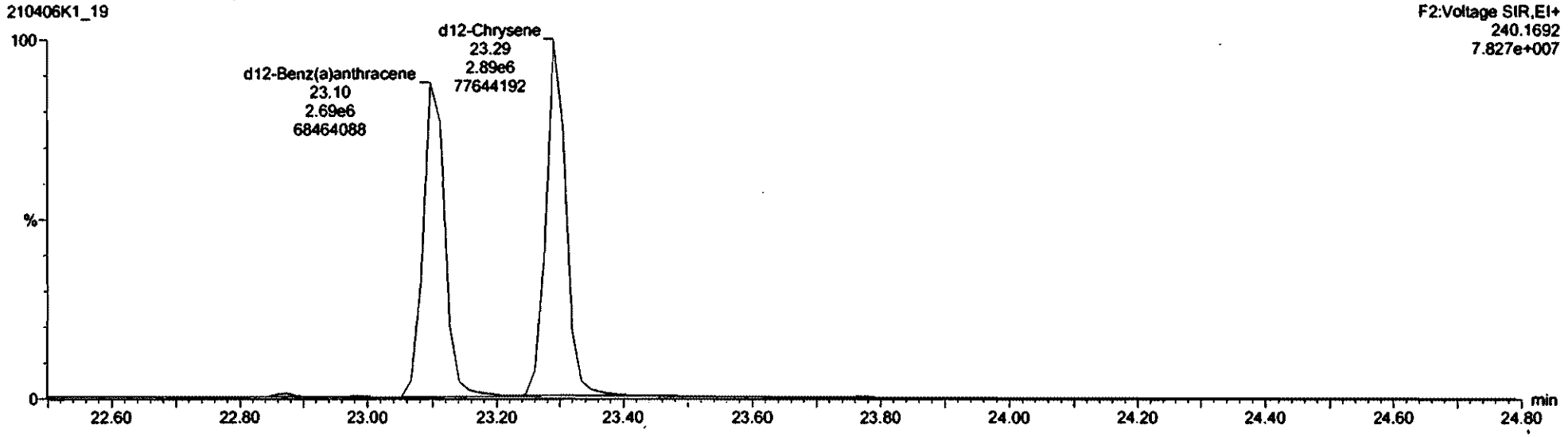
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



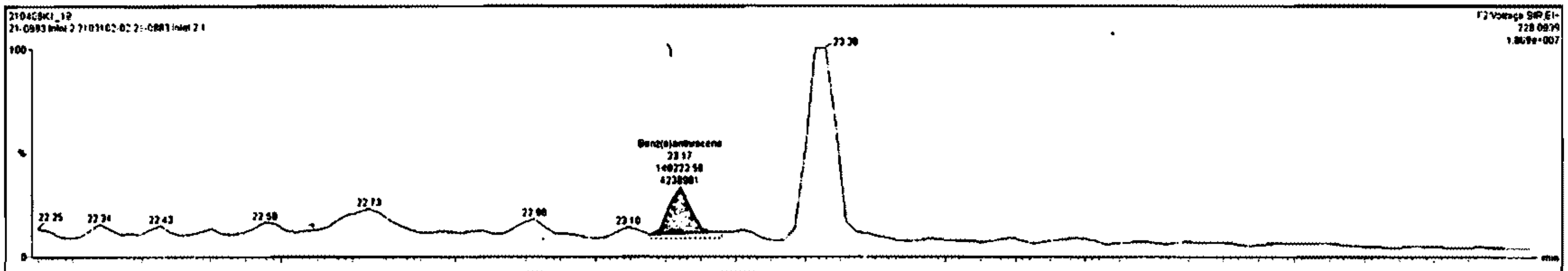
613 of 1215

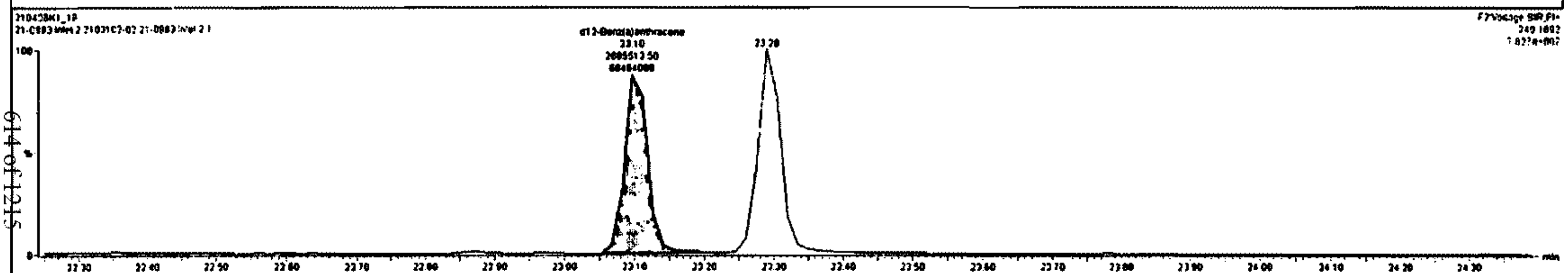
TargetLynx - 210408K1_19.cld * - [Chromatogram]

File Edit View Display Processing Window Help

210408K1_19 - 2103102-02 21-0983 Inlet 2 1 - 21-0983 Inlet 2 1

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	2.25e6	7.80e5	1.1987	1.000	10.30	10.34	1.0104	1.01	NO	49700		540	0.000
2	Naphthalene-2nd	2.51e6	7.80e5	0.1279	1.000	10.30	10.26	1.0015	1.01	NO	5040		6860	0.000
3	2-Methylnaphthalene	1.54e6	6.35e5	1.3789	1.000	11.66	11.01	0.6946	0.78	YES	35200		343	0.000
4	Acenaphthylene	5.85e6	6.35e5	1.1188	1.000	14.58	14.58	1.0021	1.00	NO	1820		1080	0.000
5	Acenaphthene	3.04e7	6.35e5	1.1624	1.000	14.78	14.78	1.0072	1.01	NO	8880		340	0.000
6	Fluorene	3.16e7	8.74e5	1.1538	1.000	15.87	15.87	1.0057	1.01	NO	6280		288	0.000
7	Phenanthrene	3.84e7	5.34e5	1.1884	1.000	18.35	18.32	1.0008	1.00	NO	12300		788	0.000
8	Phenanthrene-2nd	6.30e6	5.34e5	0.0825	1.000	18.34	18.32	1.0009	1.00	NO	34200		2780	0.000
9	Anthracene	1.32e7	5.34e5	1.0840	1.000	18.41	18.36	1.0025	1.01	NO	6710		861	0.000
10	Fluoranthene	3.82e6	2.87e6	1.0895	1.000	20.37	20.36	1.0022	1.00	NO	243		12.7	0.000
11	Pyrene	9.83e6	2.87e6	1.1881	1.000	20.86	20.84	1.0258	1.00	NO	580		11.7	0.000
12	Benz(a)anthracene	1.49e5	2.88e6	0.8813	1.000	23.16	23.17	1.0032	1.00	NO	11.5		2.82	0.000
13	Chrysene	1.08e6	2.88e6	0.6519	1.000	23.37	23.38	1.0039	1.00	NO	80.6		2.81	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	14.7		[illegible]	0.000





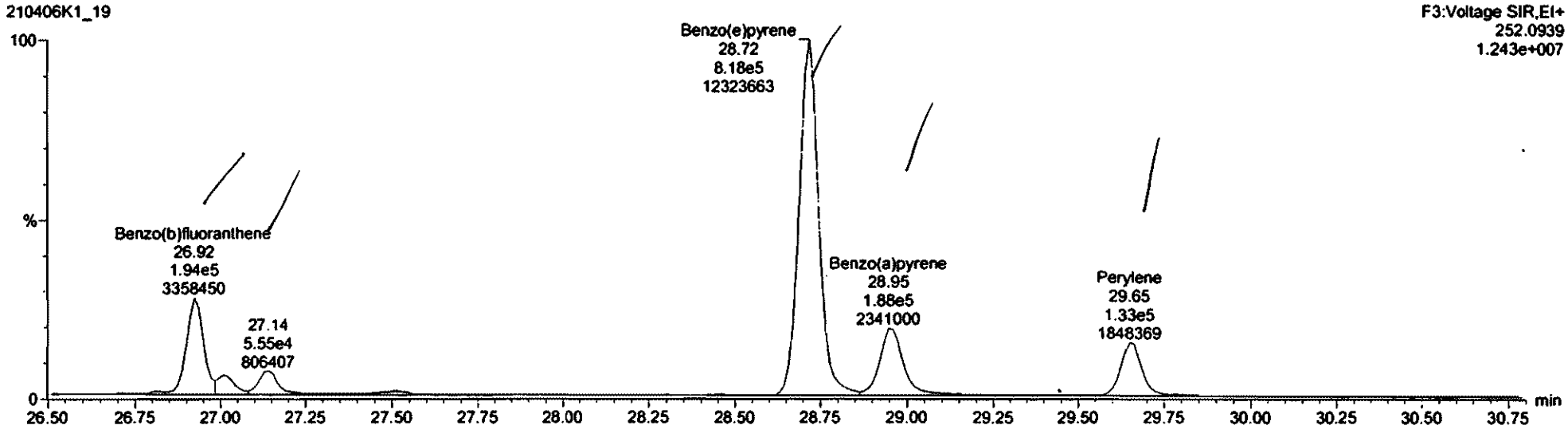
Ready 210408K1_19 CAP NUM

Dataset: Untitled

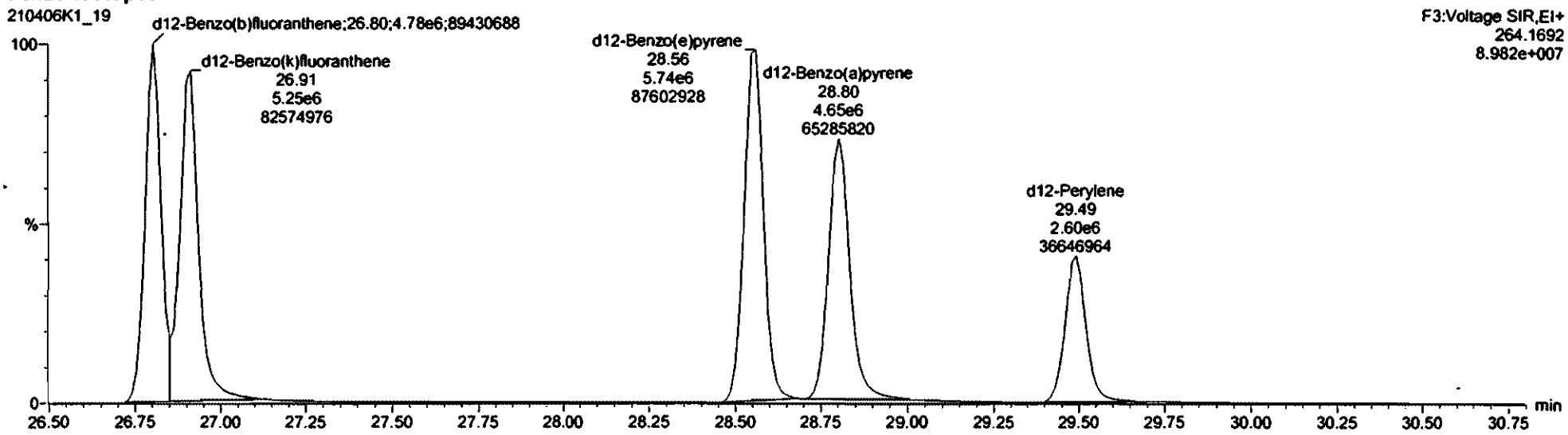
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

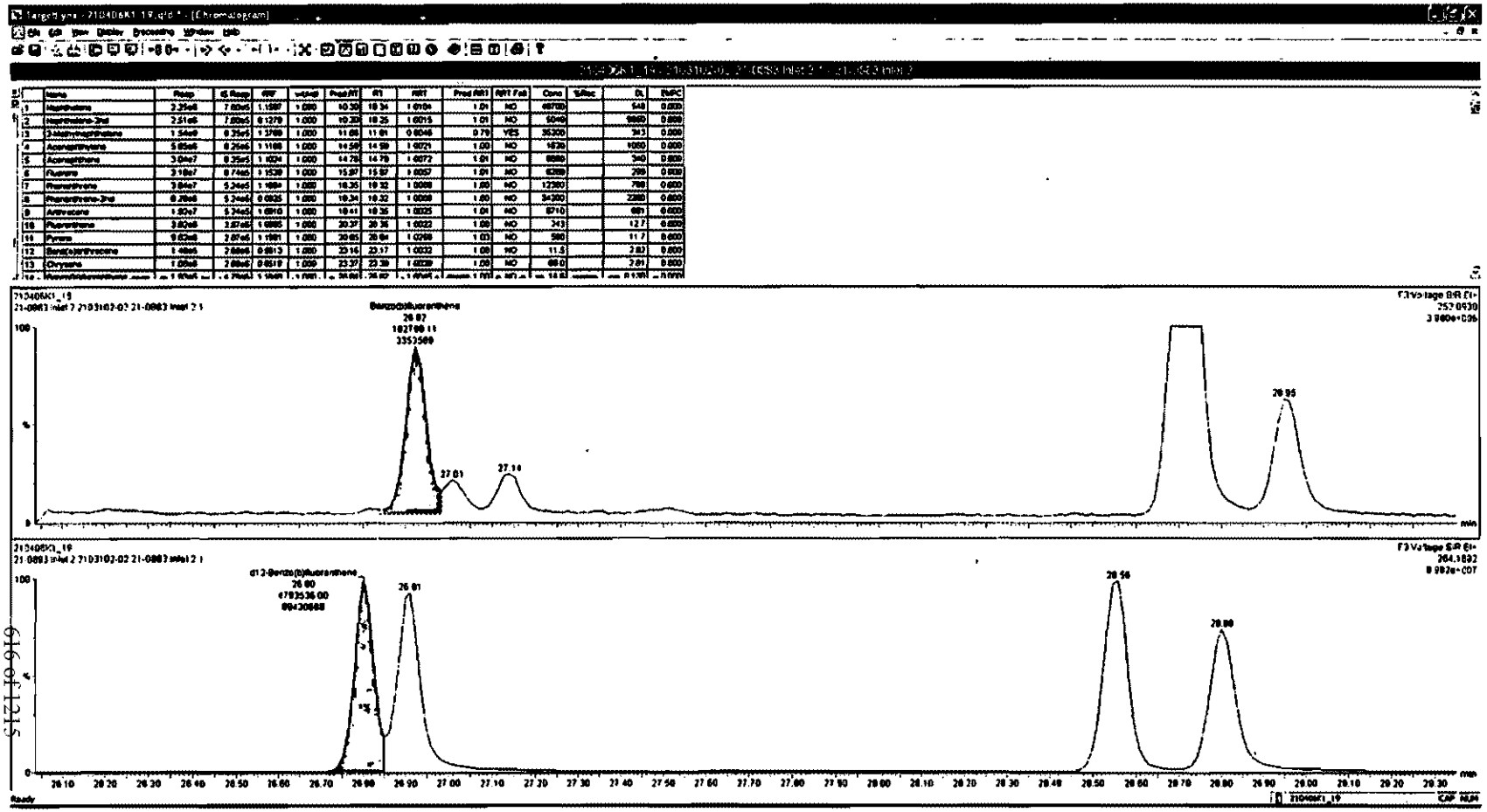
Benzo-PAHs



Benzo-Isotopes



615 of 1215

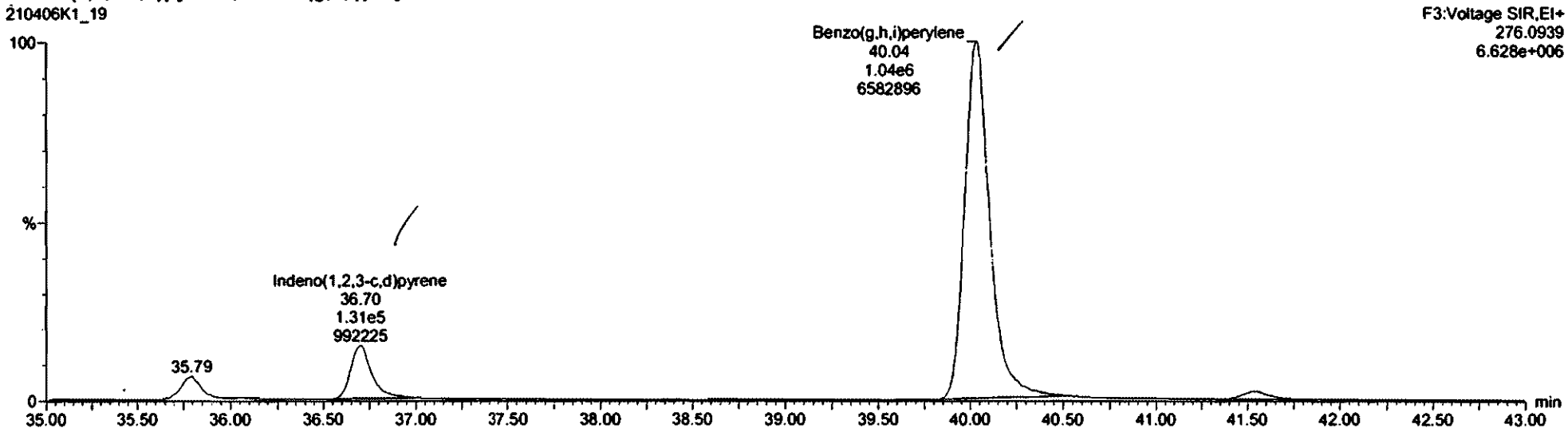

Benzo(b)fluoranthene
26.87
182798.18
3952569
27.01
27.19
26.95
d12-Benzo(b)fluoranthene
26.80
4793536.00
89430668
26.91
26.56
26.80

Dataset: Untitled

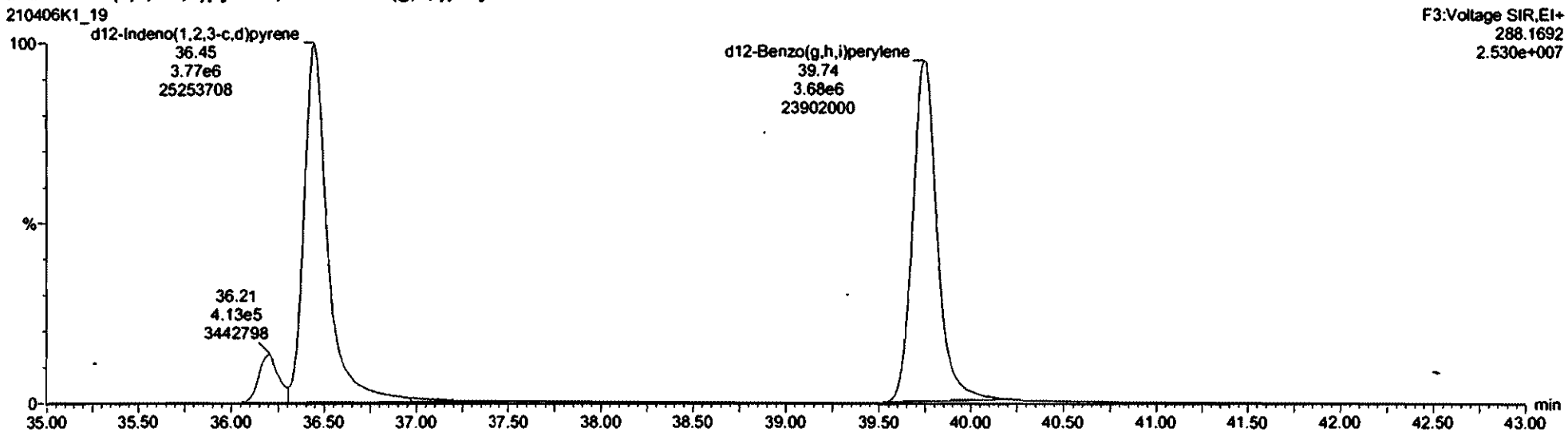
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



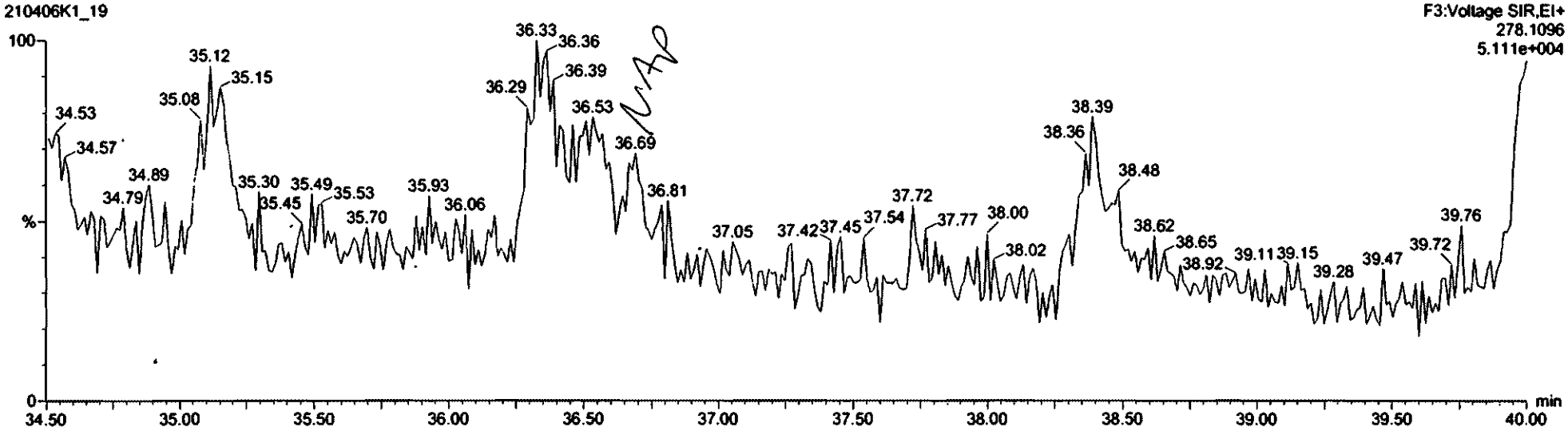
617 of 1215

Dataset: Untitled

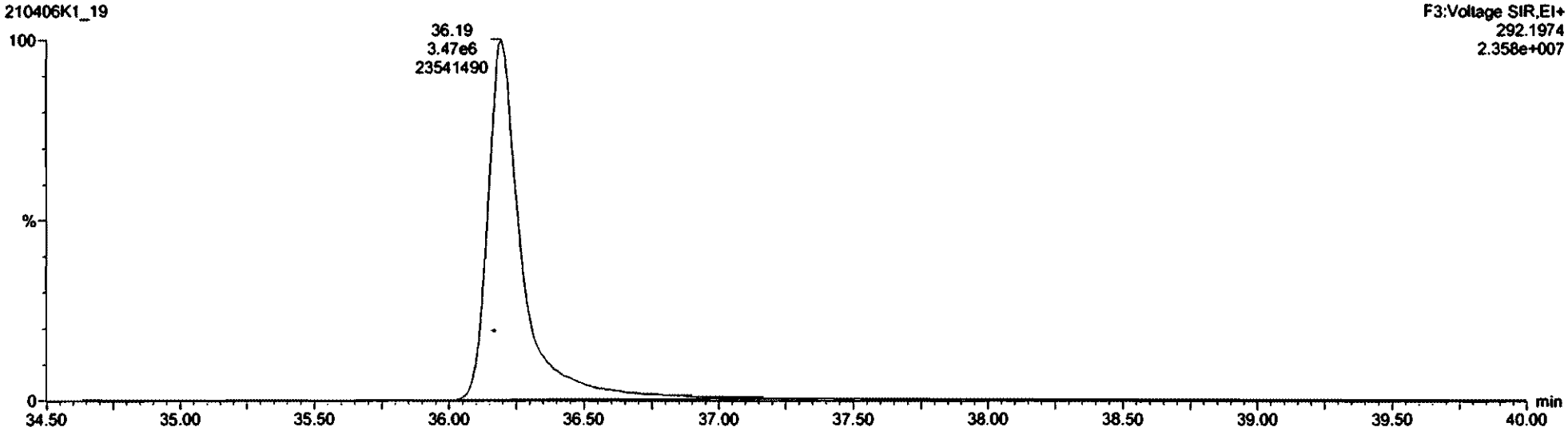
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_19, Date: 07-Apr-2021, Time: 01:17:50, ID: 2103102-02 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



618 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-8.qld

Last Altered: Wednesday, April 07, 2021 10:39:40 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:41:45 AM Pacific Daylight Time

HR 4.7.2021 CT 04/09/2021

(A) IS not 10:1

* see 500x dilution

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

	#-Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	4 Acenaphthylene	1.25e6	1.61e5	1.12	1.000	14.37	14.37	1.003	1.003	NO	1390 *		2050
2	5 Acenaphthene	4.38e6	6.79e4	1.10	1.000	14.68	14.70	1.006	1.007	NO	11700		1240
3	6 Fluorene	3.25e6	7.19e4	1.15	1.000	15.92	15.92	1.006	1.006	NO	7830		629
4	7 Phenanthrene	7.56e6	9.21e4	1.19	1.000	18.32	18.29	1.002	1.001	NO	13800		145
5	9 Anthracene	3.37e6	9.21e4	1.09	1.000	18.38	18.32	1.005	1.003	NO	6710		158
6	11 Pyrene	5.43e5	1.67e5	1.20	1.000	20.85	20.84	1.026	1.026	NO	544		8.97
7	23 d8-Acenaphthylene	1.61e5	1.48e5	0.905	1.000	14.33	14.32	1.201	1.201	NO	241 (A)	121 *	575
8	24 d10-Acenaphthene	6.79e4	1.48e5	0.594	1.000	14.62	14.60	1.226	1.224	NO	155	77.4	124
9	25 d10-Fluorene	7.19e4	1.48e5	0.563	1.000	15.86	15.83	1.330	1.328	NO	173	86.5	215
10	26 d10-Phenanthrene	9.21e4	1.48e5	0.735	1.000	18.28	18.28	1.533	1.533	NO	170	84.9	169
11	27 d10-Fluoranthene	1.67e5	1.48e5	1.29	1.000	20.31	20.32	0.977	0.977	NO	176	87.8	0.990
12	36 d10-Anthracene	7.92e4	8.13e4	0.989	1.000	18.37	18.34	1.541	1.538	NO	197	98.5	717
13	40 d10-Pyrene	1.48e5	1.48e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	1.27
14	41 d12-Perylene	8.13e4	8.13e4	1.00	1.000	29.59	29.49	1.000	1.000	NO	200	100	1.63

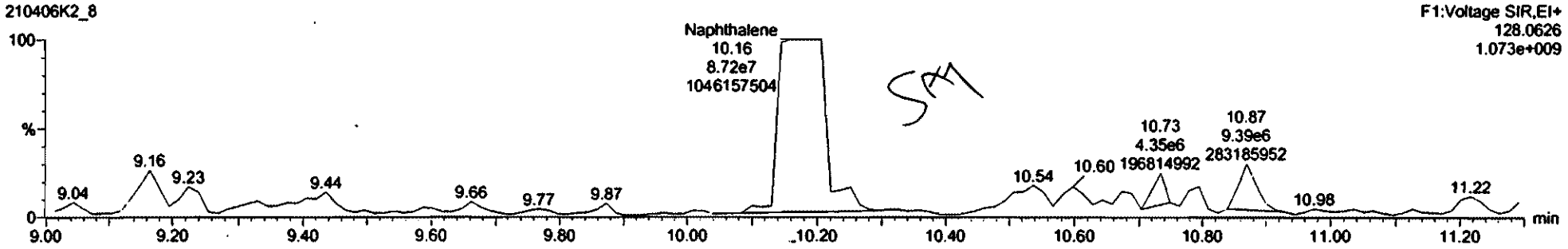
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

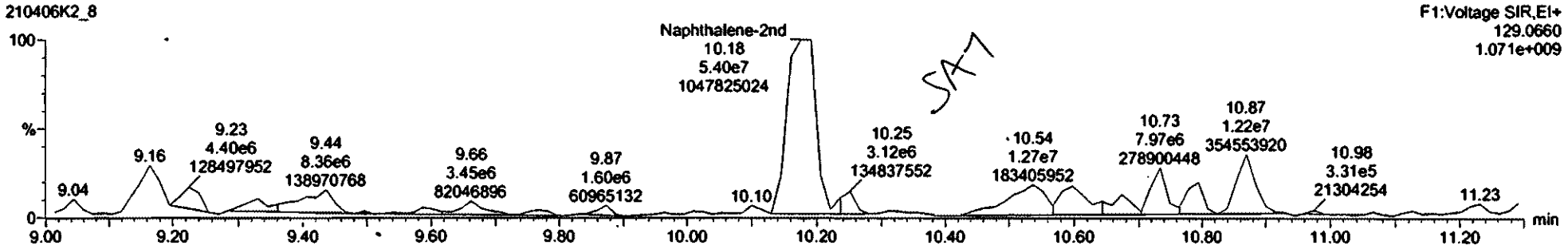
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

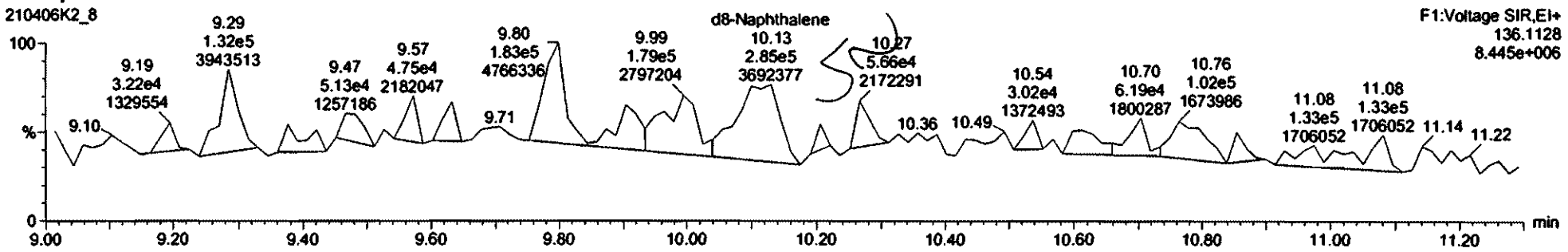
Naphthalene



Naphthalene-2nd



d8-Naphthalene



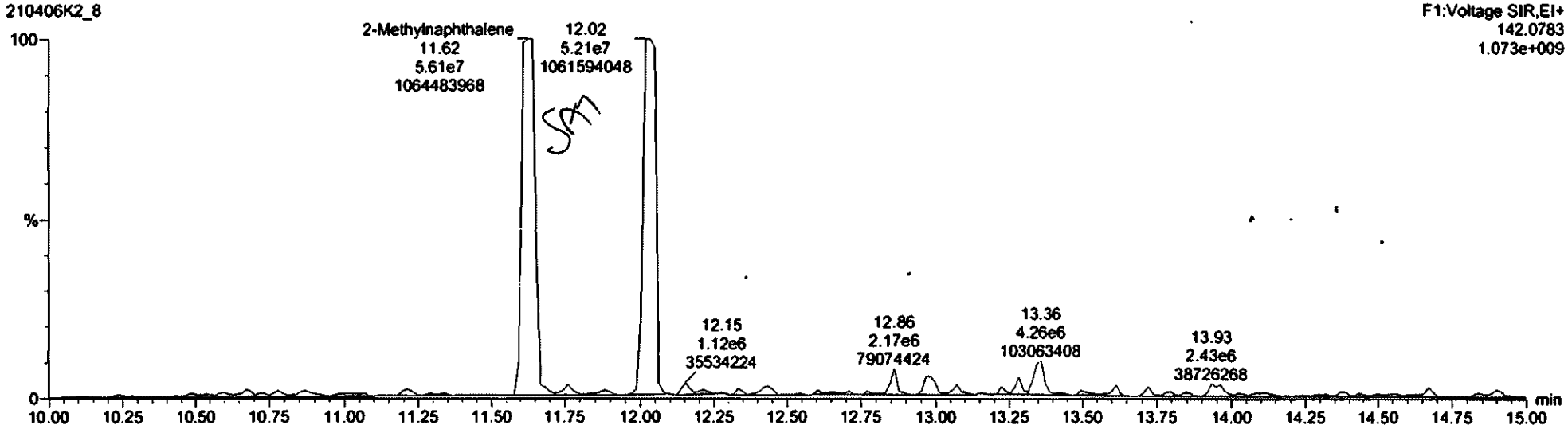
620 of 1215

Dataset: Untitled

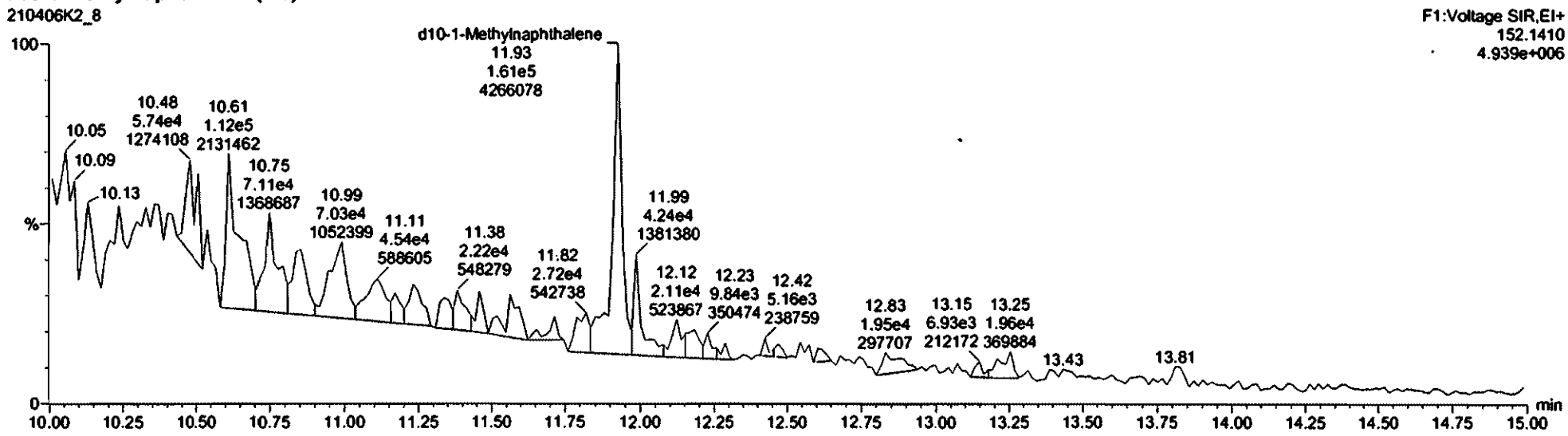
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

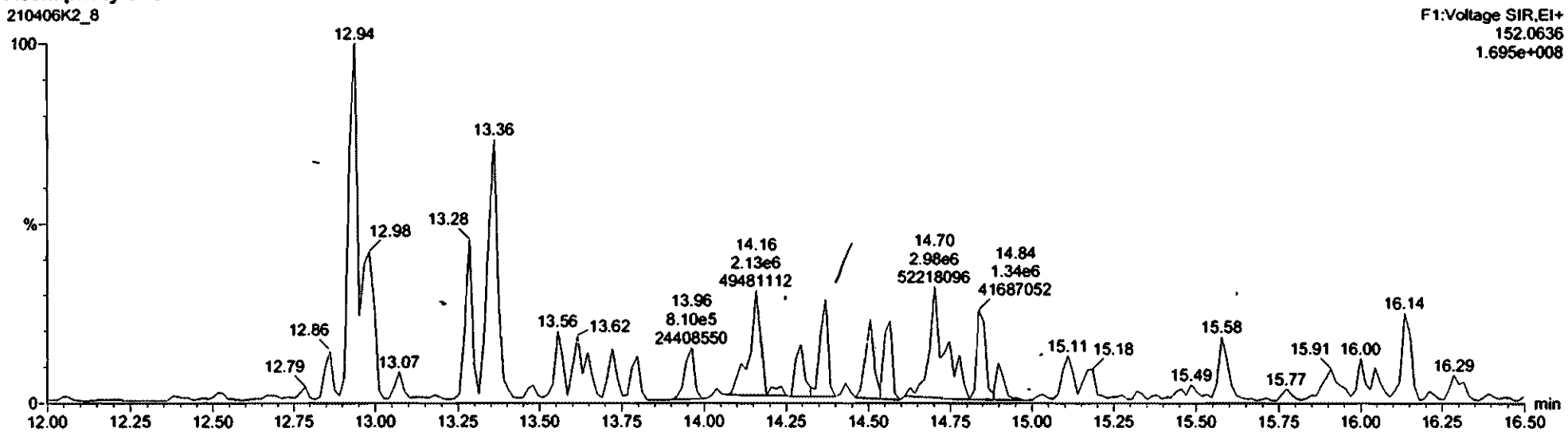


Dataset: Untitled

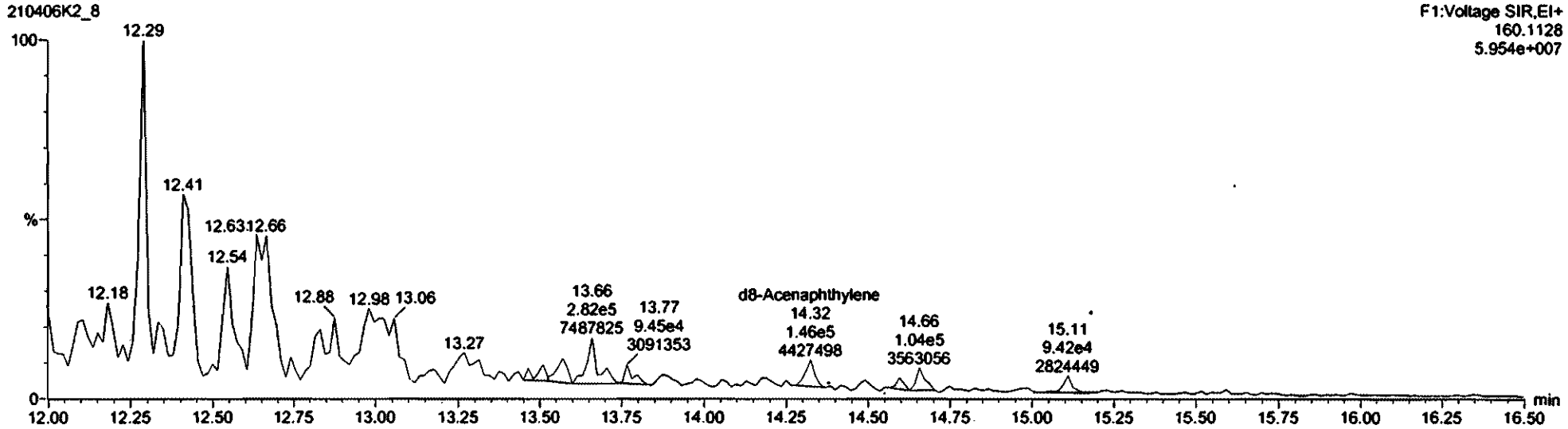
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

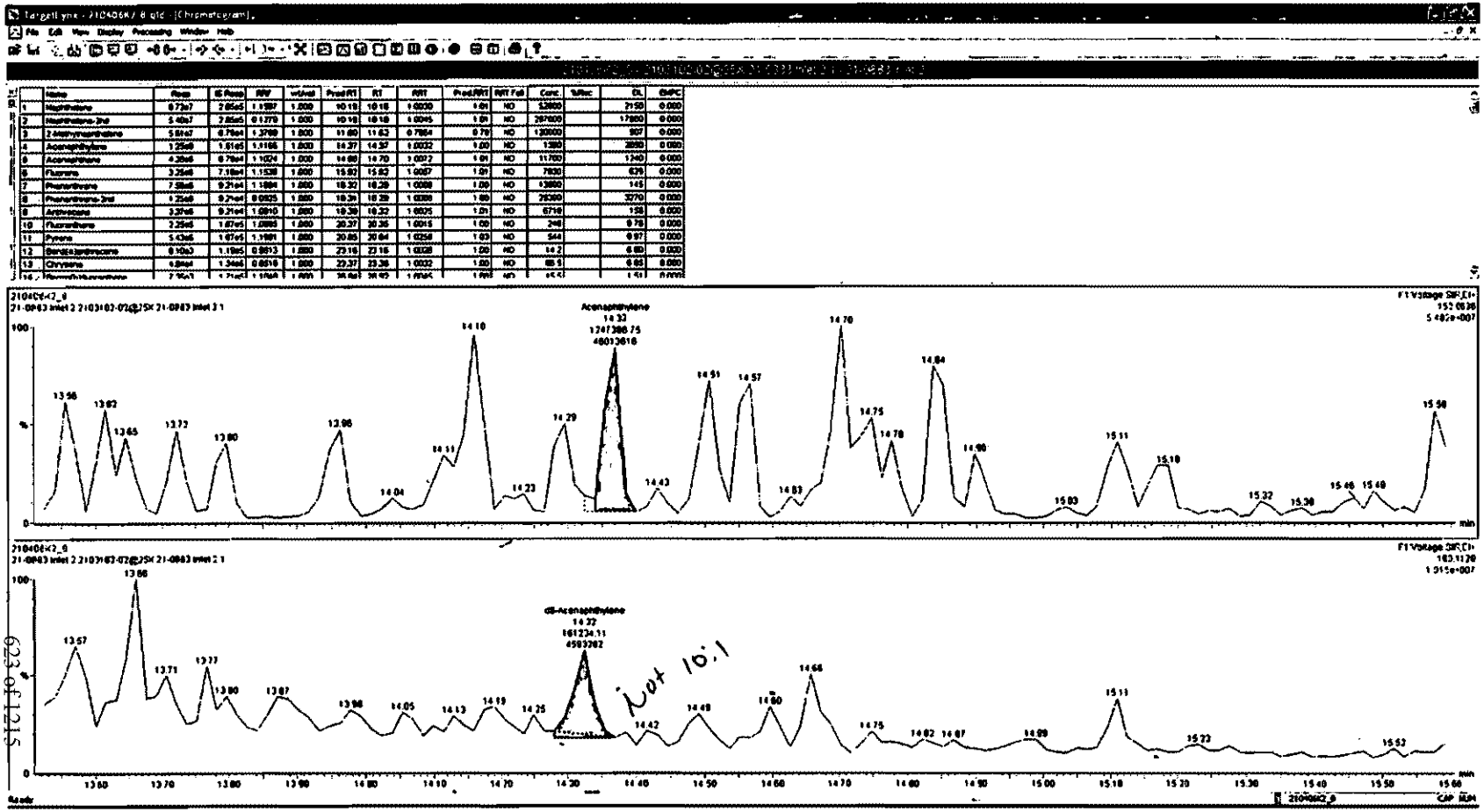
Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Acenaphthylene



d8-Acenaphthylene



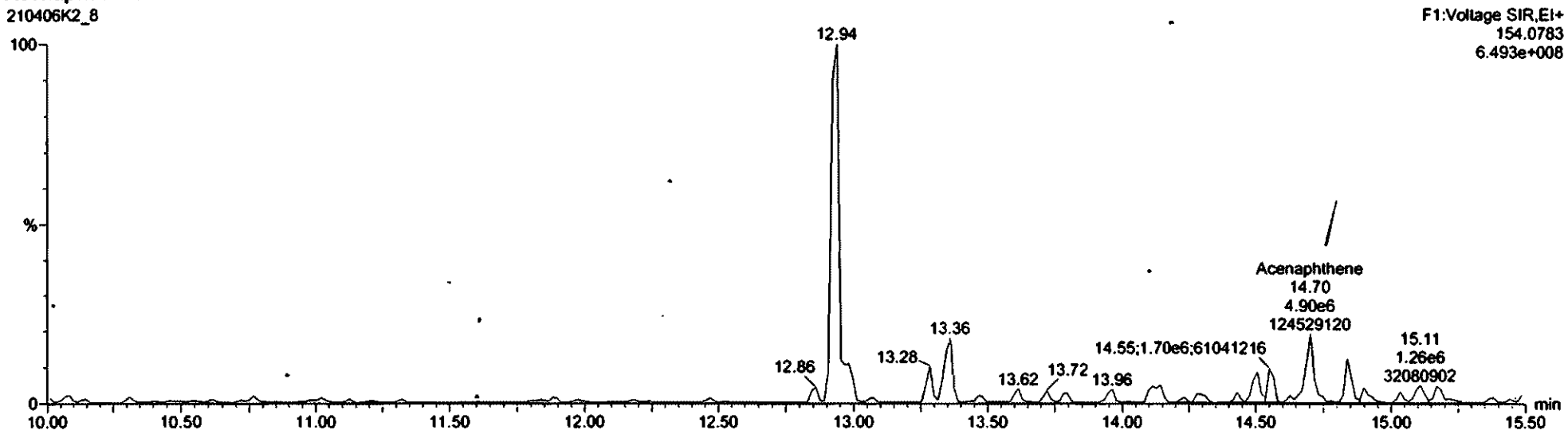

Acenaphthylene
14.32
1247388.75
46013616
d8-Acenaphthylene
14.32
161234.11
4503202
Not 10:1

Dataset: Untitled

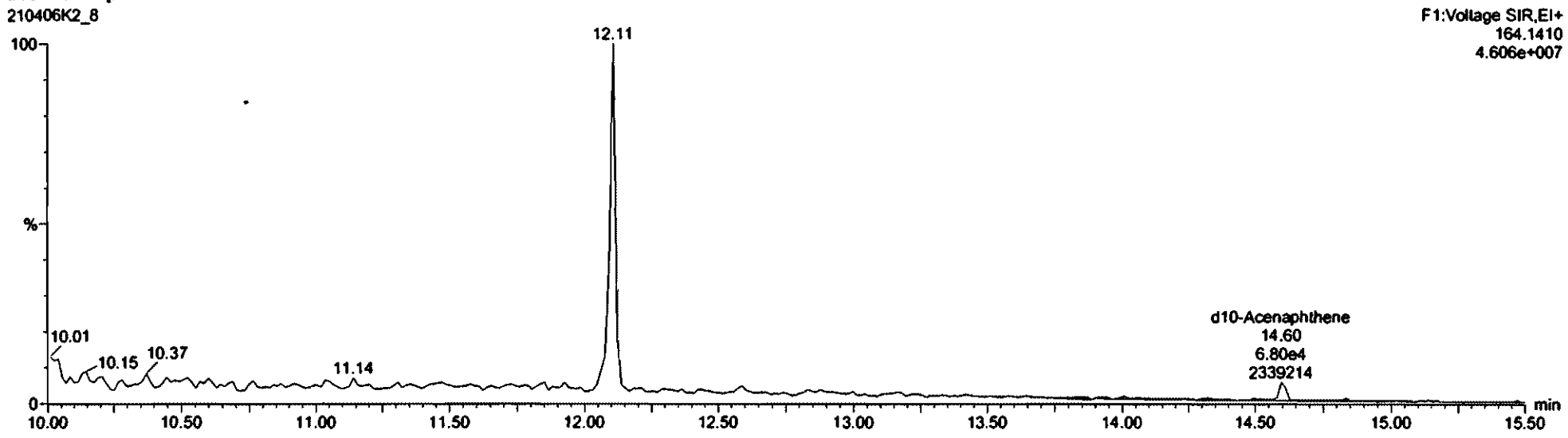
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Acenaphthene



d10-Acenaphthene

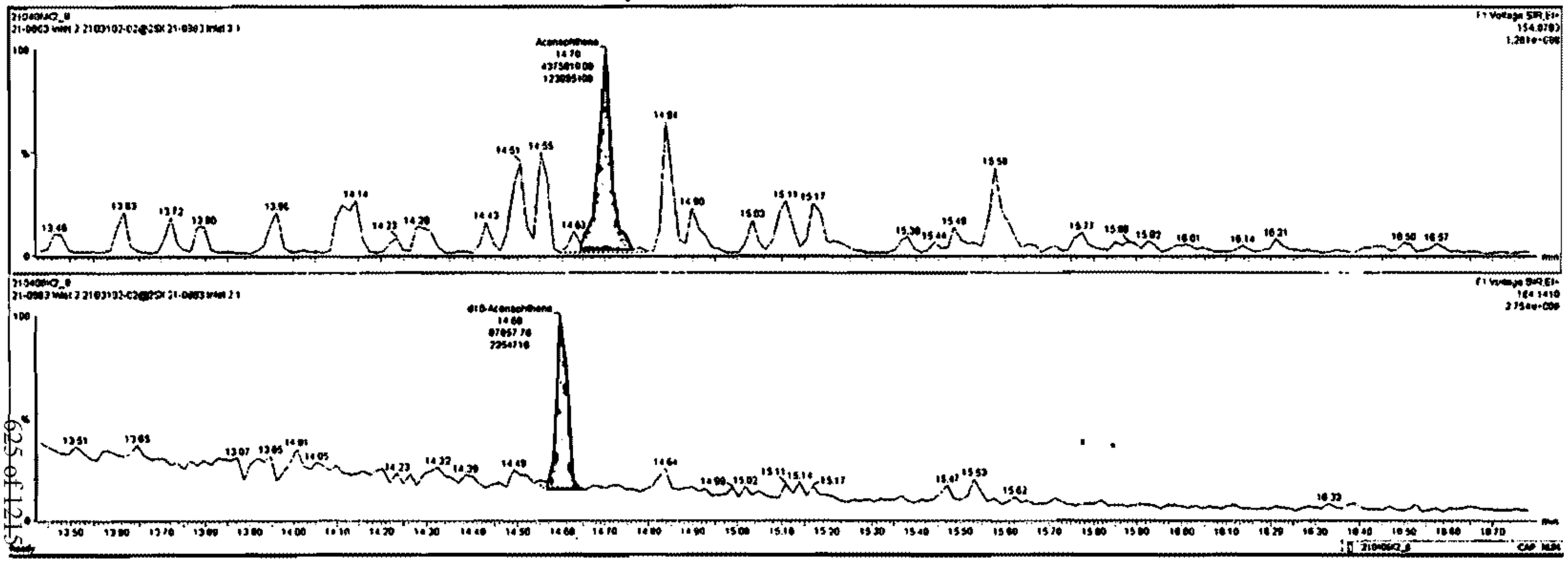


624 of 1215

TargetLynx - 210406A7 E.qld - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	8.72e7	2.85e5	1.1587	1.000	10.18	10.18	1.0000	1.01	NO	53800		7180	0.000
2	[illegible]	5.40e7	2.85e5	0.1270	1.000	10.19	10.18	1.0045	1.01	NO	287000		17000	0.000
3	2-Methylnaphthalene	5.61e7	6.78e4	1.3780	1.000	11.68	11.67	0.7884	0.78	NO	120000		507	0.000
4	Acenaphthylene	1.25e6	1.81e6	1.1165	1.000	14.37	14.37	1.0000	1.00	NO	1300		2080	0.000
5	Acenaphthene	4.38e8	8.79e4	1.1091	1.000	14.68	14.70	1.0072	1.01	NO	11700		1240	0.000
6	Fluorene	3.25e6	7.19e4	1.1530	1.000	15.97	15.97	1.0067	1.01	NO	7830		829	0.000
7	Phenanthrene	7.58e6	9.21e4	1.1084	1.000	18.32	18.29	1.0000	1.00	NO	13800		145	0.000
8	[illegible]	1.29e6	9.21e4	0.8825	1.000	18.31	18.28	1.0000	1.00	NO	20300		3270	0.000
9	Anthracene	3.37e6	9.21e4	1.0840	1.000	18.38	18.37	1.0025	1.01	NO	6710		158	0.000
10	Fluoranthene	2.25e6	1.67e5	1.0886	1.000	20.37	20.36	1.0015	1.00	NO	248		0.78	0.000
11	Pyrene	5.43e6	1.67e5	1.1091	1.000	20.68	20.64	1.0058	1.00	NO	544		0.87	0.000
12	Benz(a)anthracene	6.10e3	1.19e5	0.8813	1.000	23.16	23.16	1.0026	1.00	NO	14.2		5.80	0.000
13	Chrysene	1.59e4	1.34e5	0.8619	1.000	23.37	23.38	1.0022	1.00	NO	80.5		6.86	0.000
14	[illegible]	7.19e3	1.71e5	1.1845	1.000	26.84	26.87	1.0045	1.00	NO	14.5		1.51	0.000



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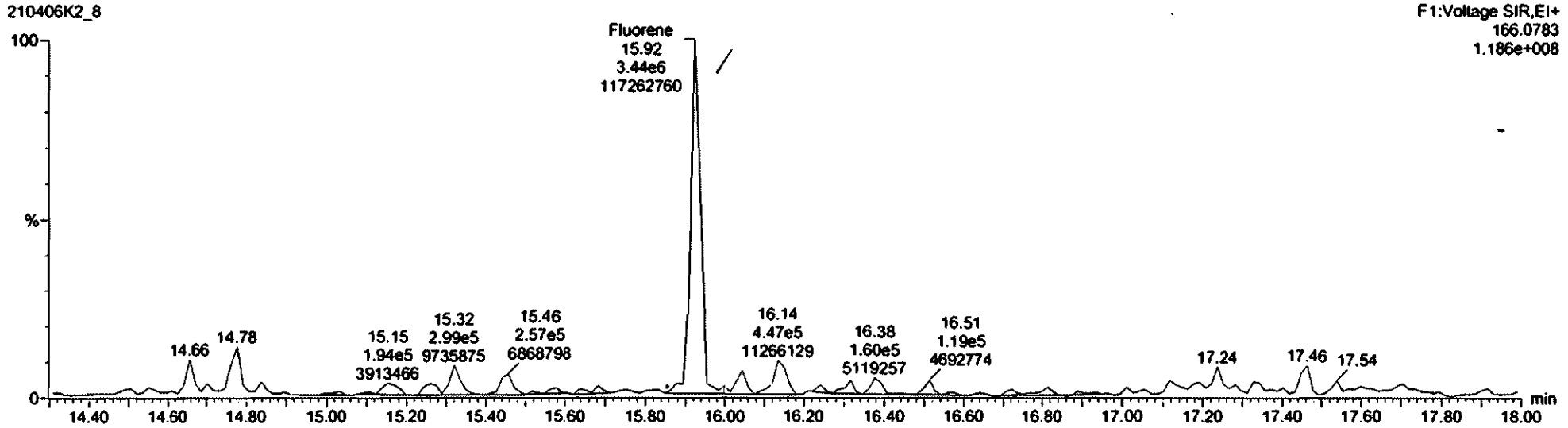
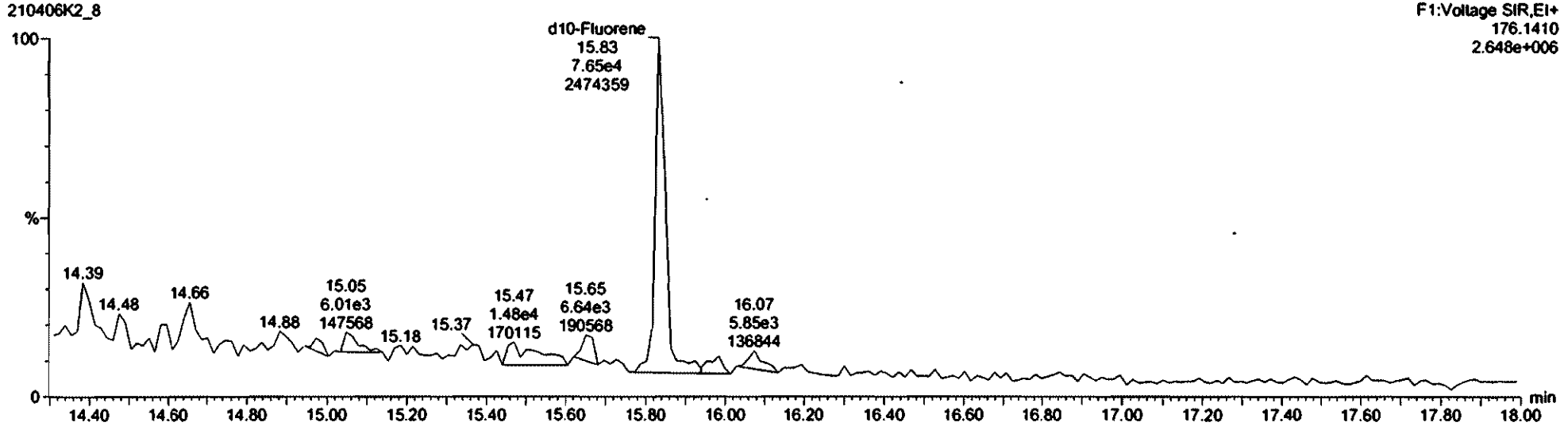
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

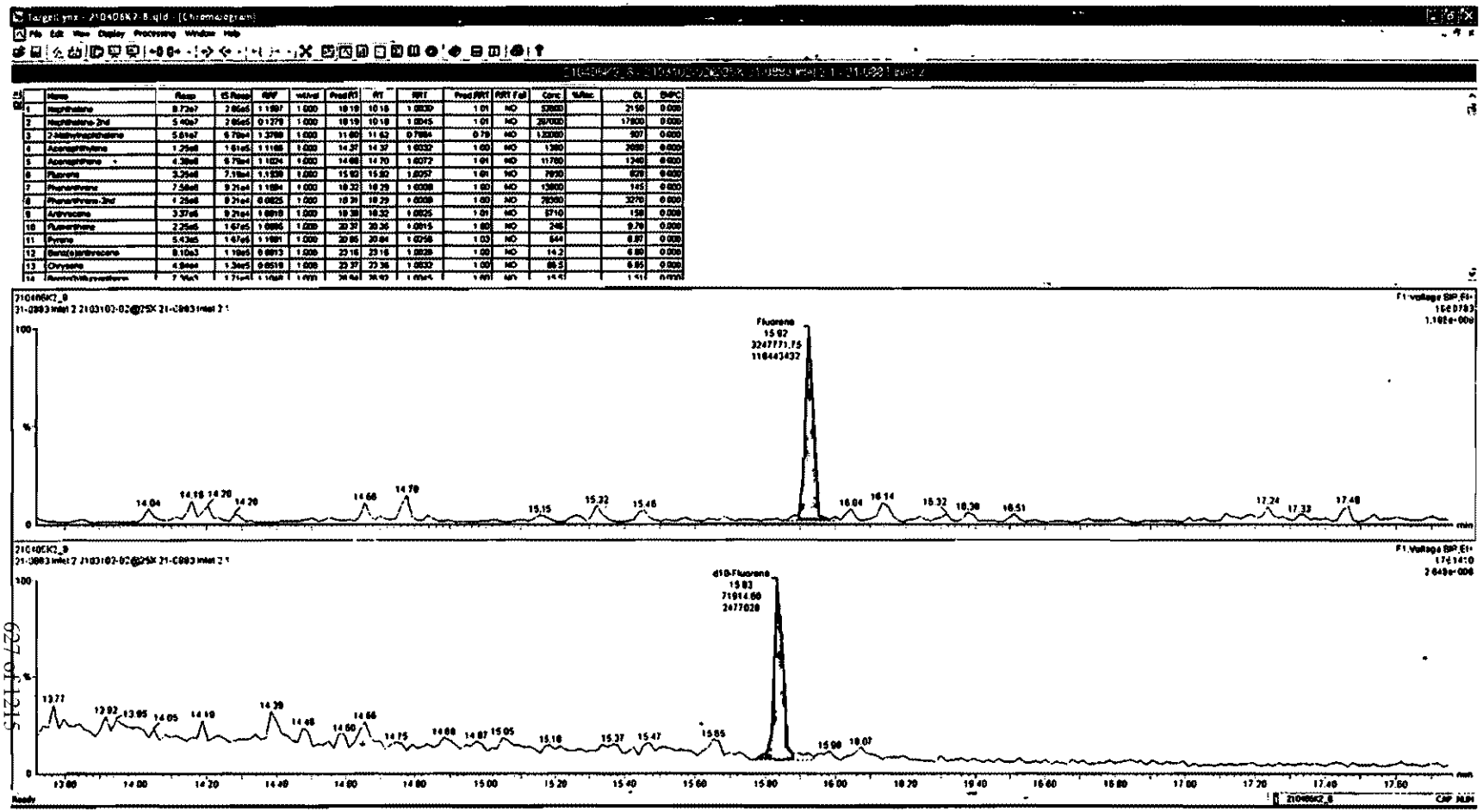
Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Fluorene



d10-Fluorene



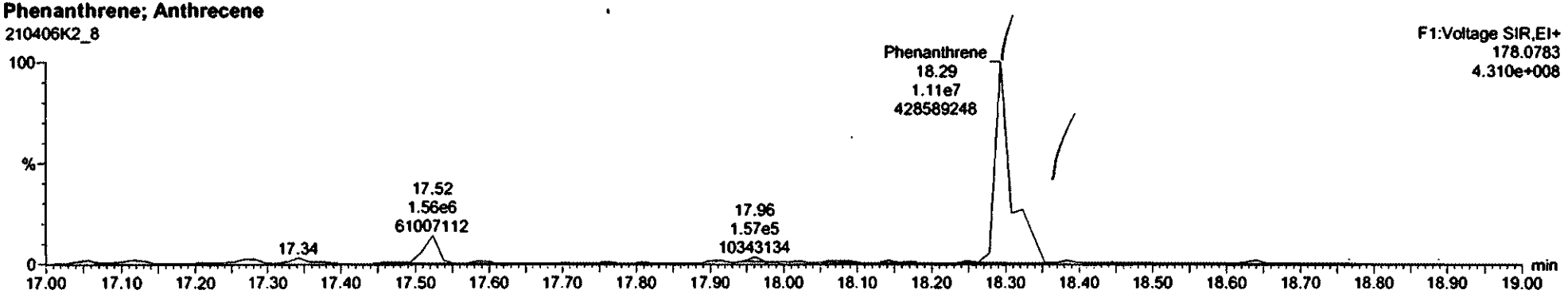

Fluorene
15.92
3247771.75
118443432
d10-Fluorene
15.83
71914.60
2477028

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

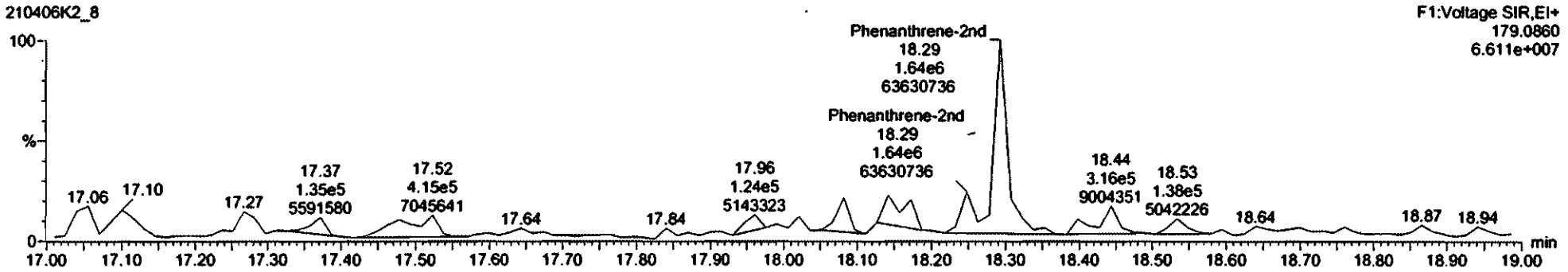
Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Phenanthrene; Anthrecene

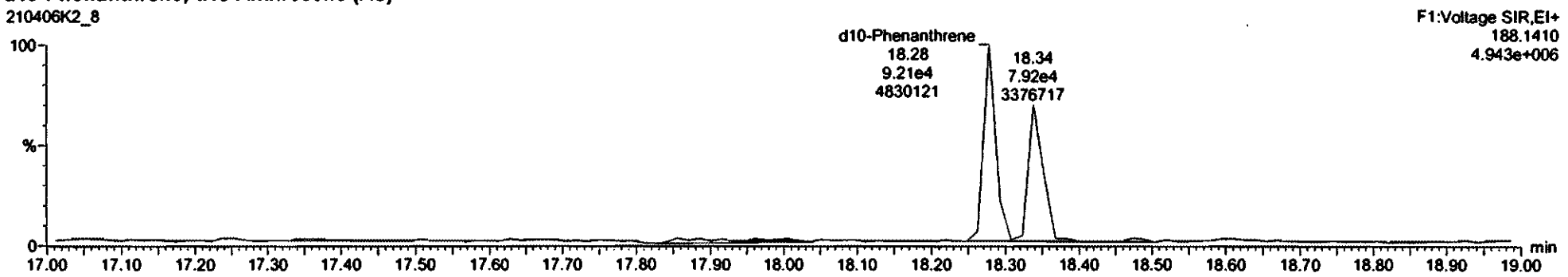


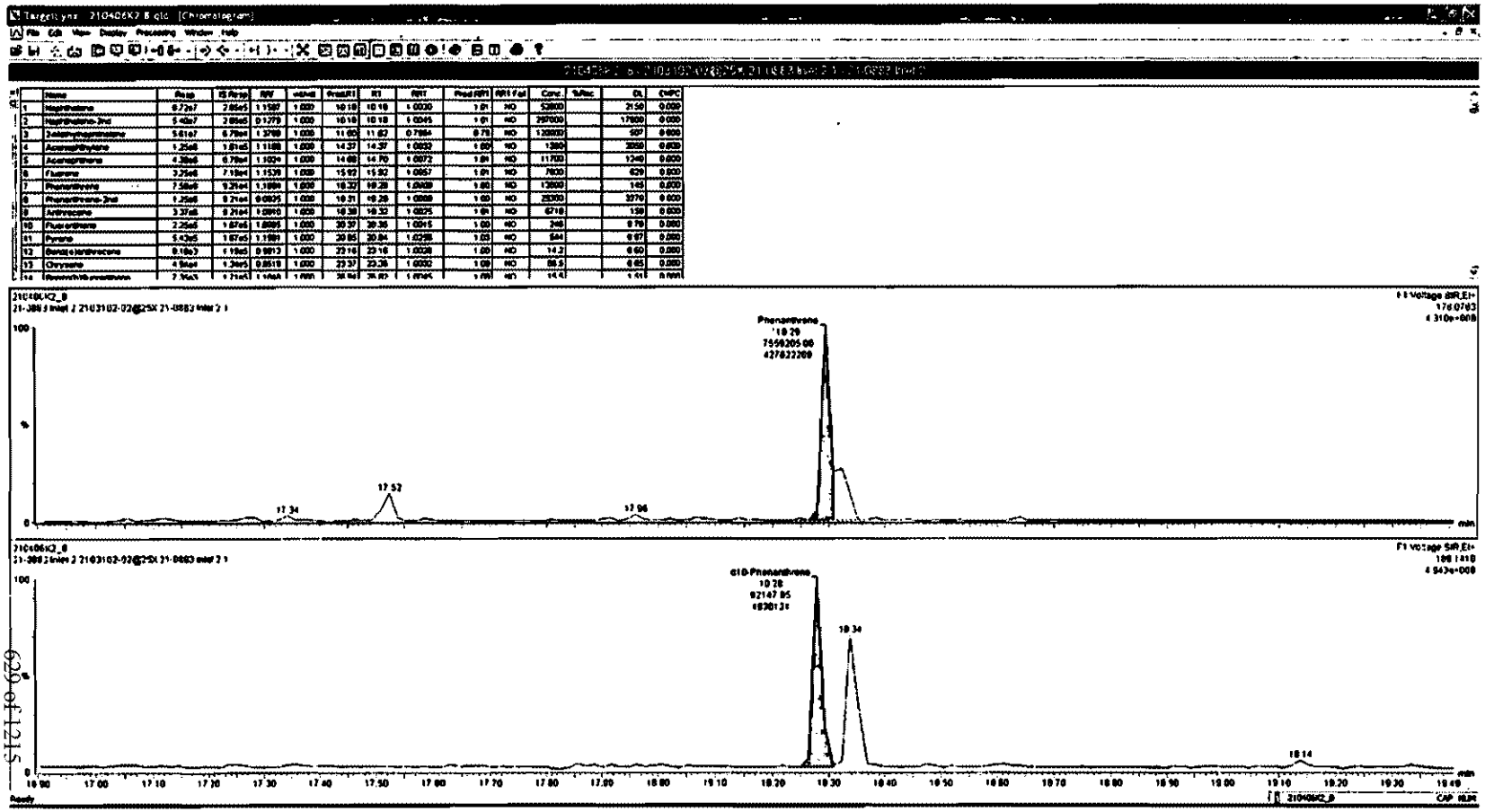
628 of 1215

Phenanthrene-2nd



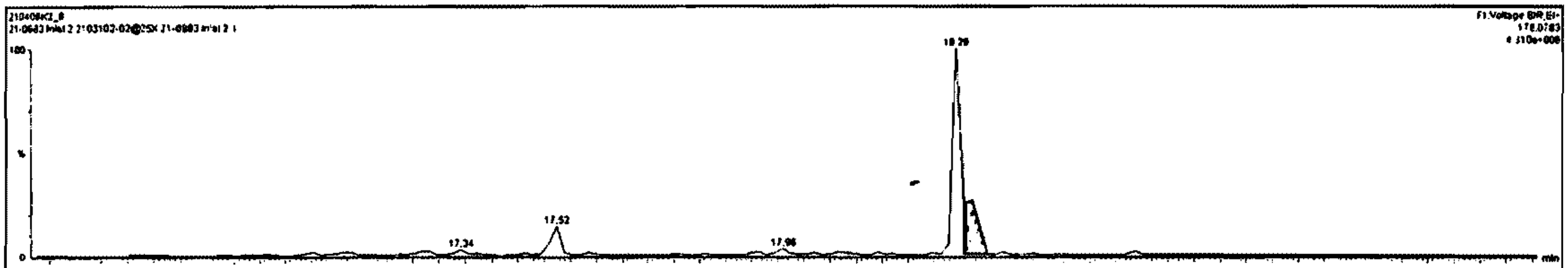
d10-Phenanthrene; d10-Anthrecene (AS)

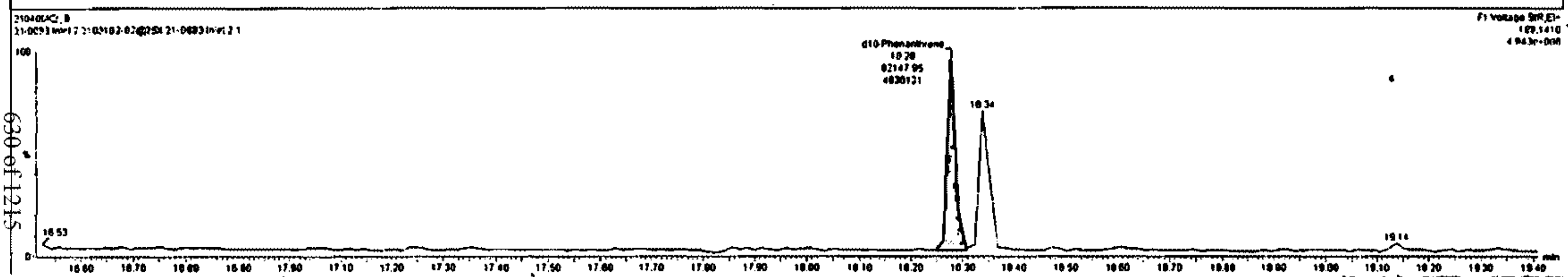



Phenanthrene
10.29
7556205.00
427822200
17.34
17.52
17.96
d10-Phenanthrene
10.28
92147.85
19.34
18.14
17.00
17.10
17.20
17.30
17.40
17.50
17.60
17.70
17.80
17.90
18.00
18.10
18.20
18.30
18.40
18.50
18.60
18.70
18.80
18.90
19.00
19.10
19.20
19.30
19.40
min

TargetLynx - 210408K2_B.qld - [Chromatogram]

	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	8.73e7	2.85e5	1.1587	1.000	10.19	10.18	1.0030	1.01	NO	53000		2150	0.000
2	Naphthalene 2nd	5.40e7	2.85e5	0.1279	1.000	10.19	10.18	1.0045	1.01	NO	297000		17800	0.000
3	2-Methylnaphthalene	5.81e7	8.79e4	1.3780	1.000	11.80	11.83	0.7984	0.78	NO	120000		507	0.000
4	Acenaphthylene	1.25e6	1.81e5	1.1100	1.000	14.37	14.37	1.0032	1.00	NO	1380		2050	0.000
5	Acenaphthene	4.38e6	8.79e4	1.1024	1.000	14.80	14.70	1.0072	1.01	NO	11700		1240	0.000
6	Fluorene	3.25e6	7.18e4	1.1539	1.000	15.82	15.82	1.0067	1.01	NO	7830		628	0.000
7	Phenanthrene	7.58e6	9.21e4	1.1884	1.000	18.32	18.29	1.0008	1.00	NO	13800		145	0.000
8	Phenanthrene 2nd	1.25e6	8.21e4	0.0825	1.000	18.31	18.29	1.0008	1.00	NO	28300		3270	0.000
9	Anthracene	3.37e6	9.21e4	1.0910	1.000	18.30	18.32	1.0025	1.01	NO	8710		188	0.000
10	Fluoranthene	2.26e5	1.67e5	1.0885	1.000	20.37	20.36	1.0015	1.00	NO	246		8.78	0.000
11	Pyrene	5.42e5	1.67e6	1.1881	1.000	20.86	20.84	1.0254	1.03	NO	344		8.97	0.000
12	Benz(a)anthracene	8.10e3	1.19e5	0.9813	1.000	23.16	23.16	1.0026	1.00	NO	14.2		6.80	0.000
13	Chrysene	4.84e4	1.34e5	0.8519	1.000	23.37	23.38	1.0032	1.00	NO	88.5		6.66	0.000
14	Benzo(b)fluoranthene	2.35e3	1.71e5	1.1868	1.000	26.84	26.82	1.0045	1.00	NO	15.5		1.51	0.000





Ready 210408K2_B CAP NUM

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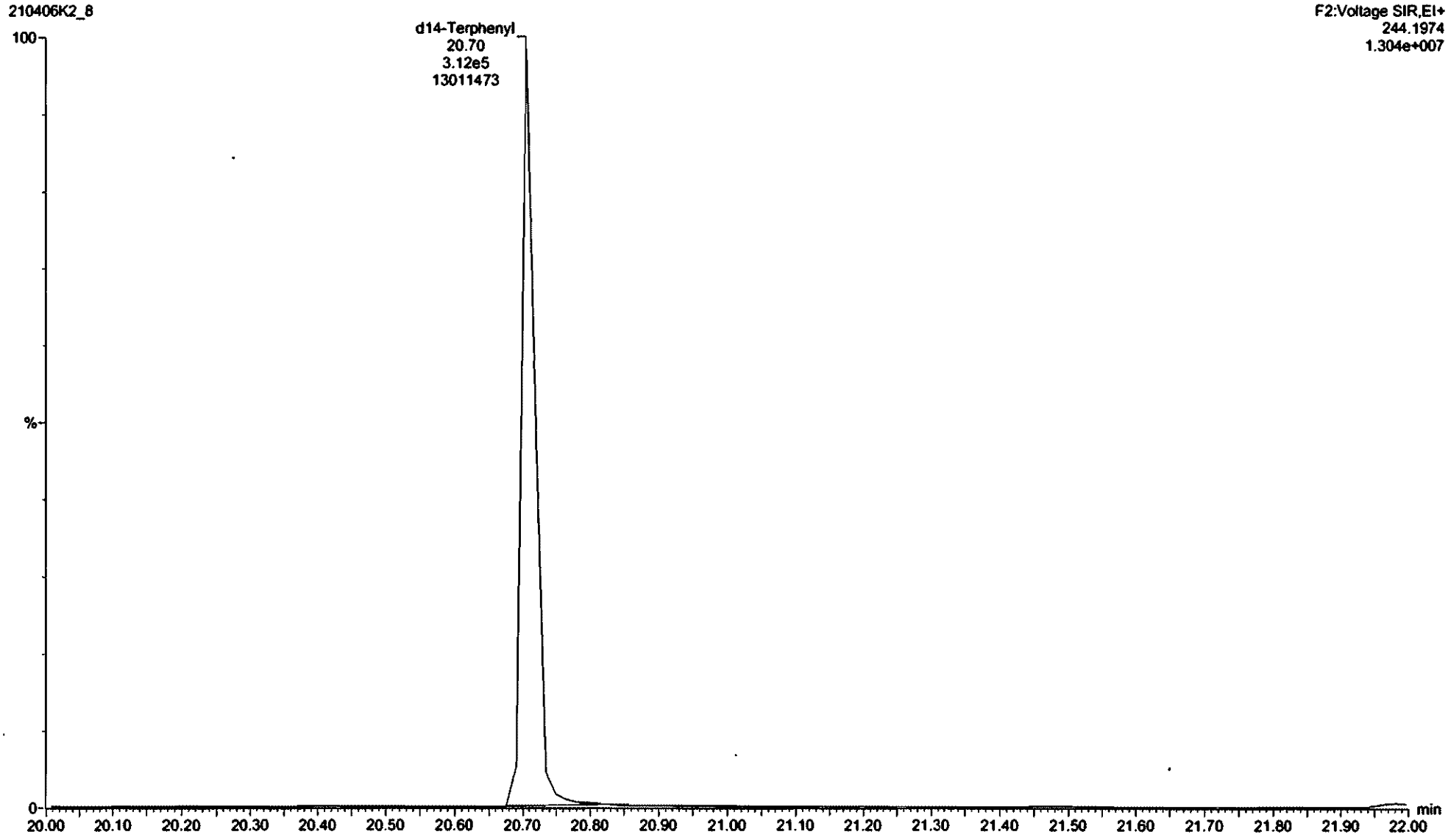
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

d14-Terphenyl (PS)



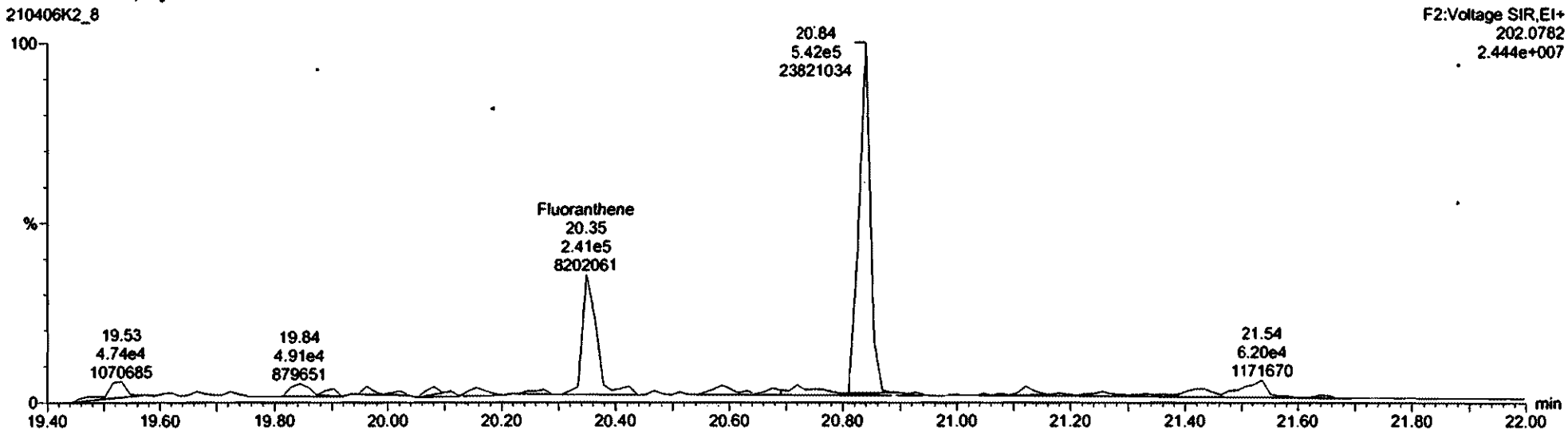
631 of 1215

Dataset: Untitled

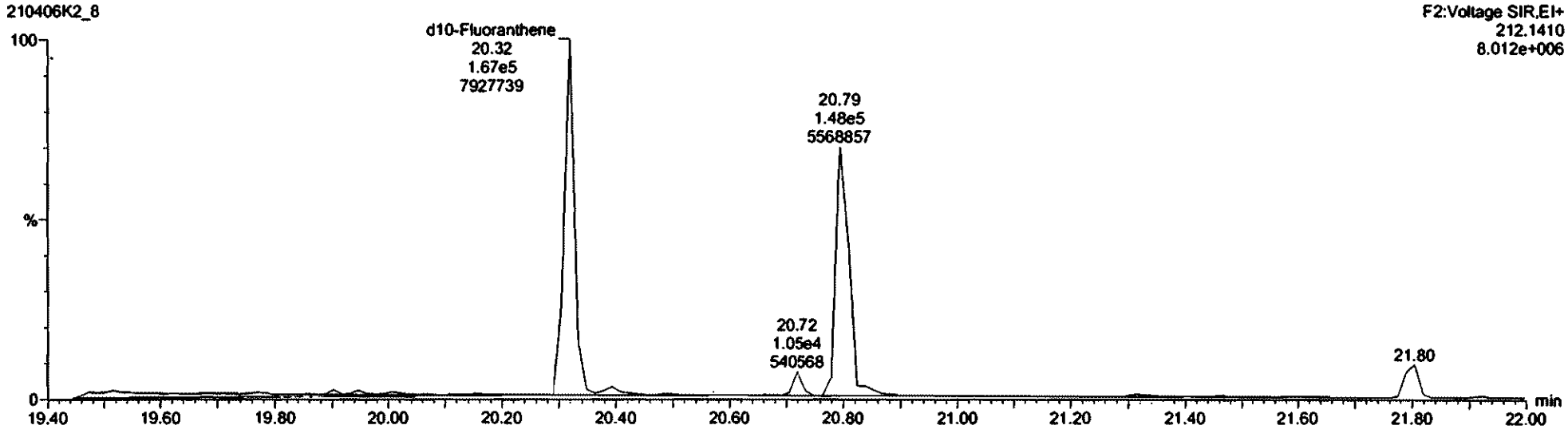
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

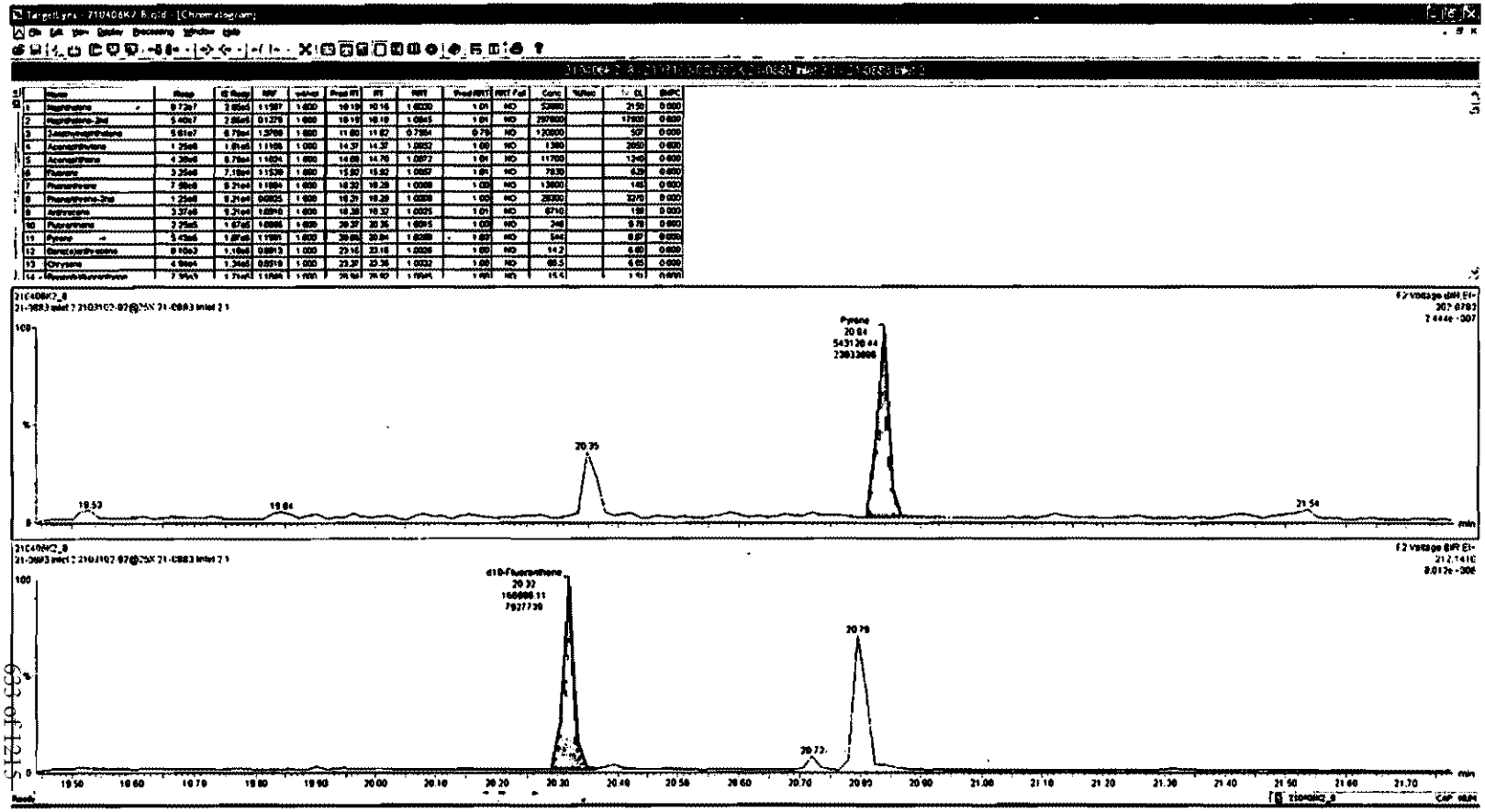
Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



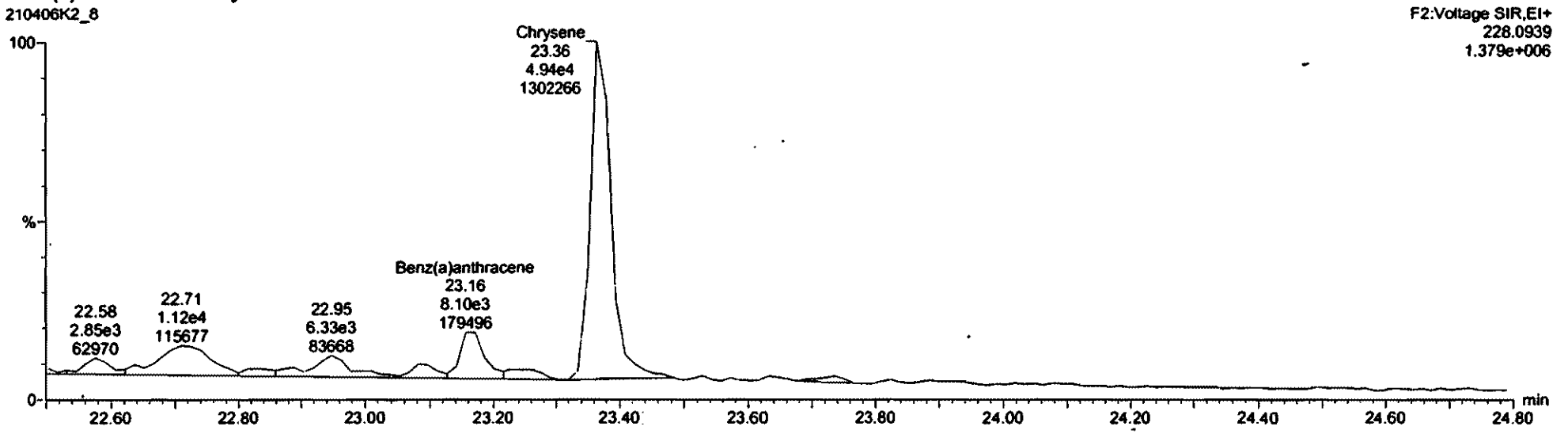

Pyrene
20.84
19.53
19.84
20.35
21.54
d10-Fluoranthene
20.32
20.79
20.73

Dataset: Untitled

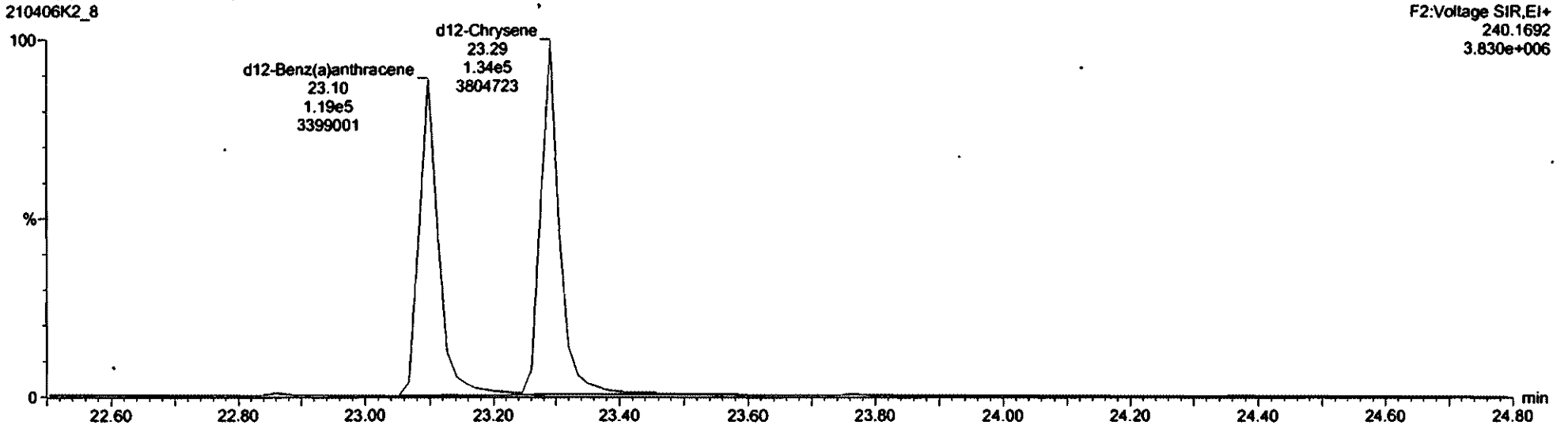
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



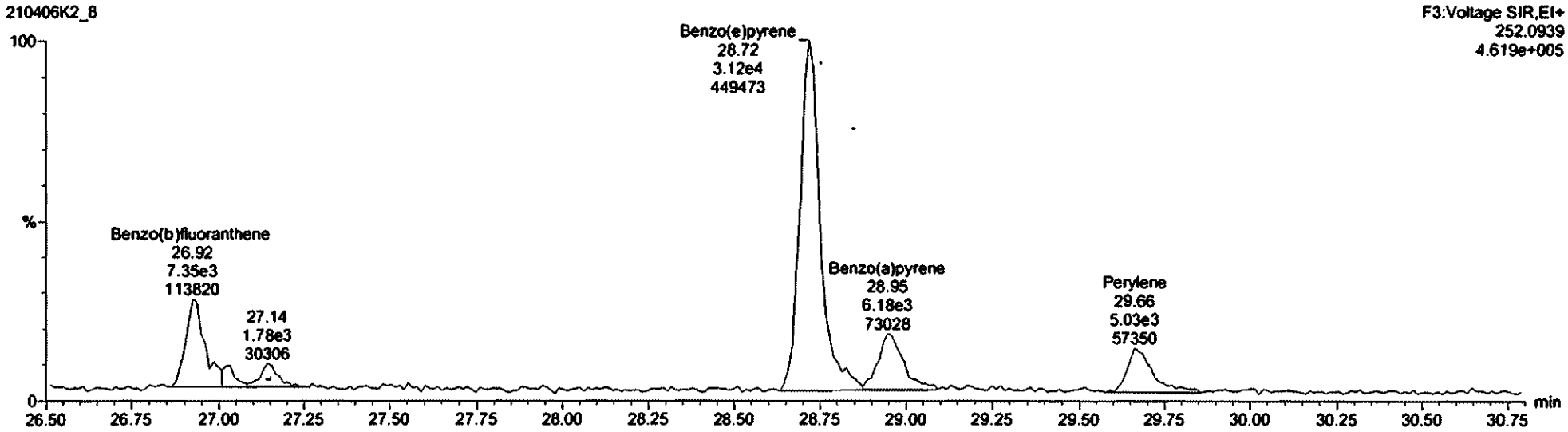
634 of 1215

Dataset: Untitled

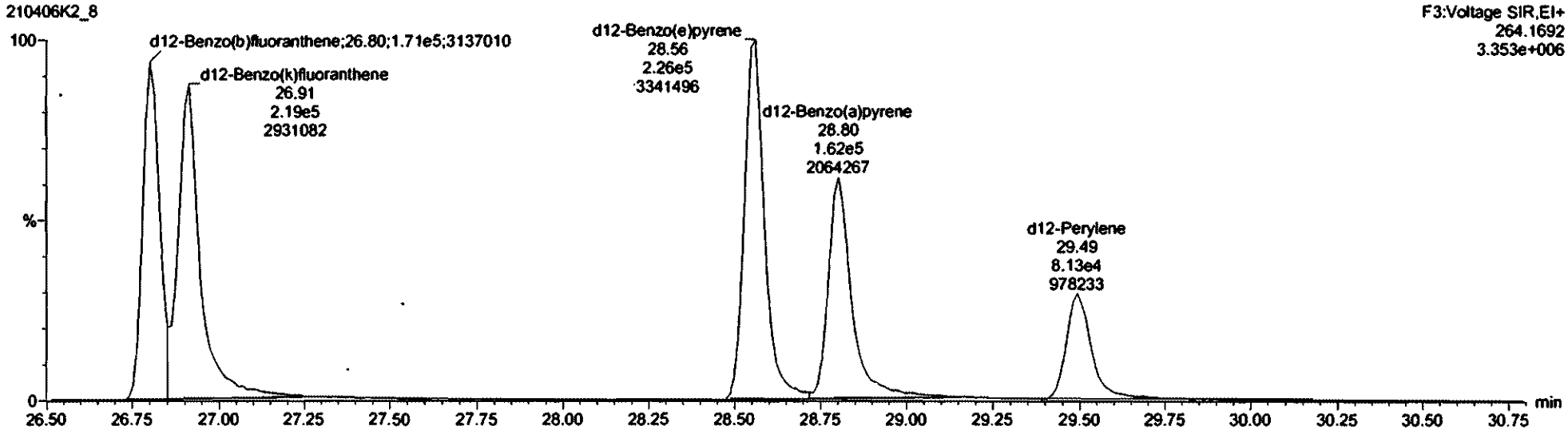
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Benzo-PAHs



Benzo-Isotopes



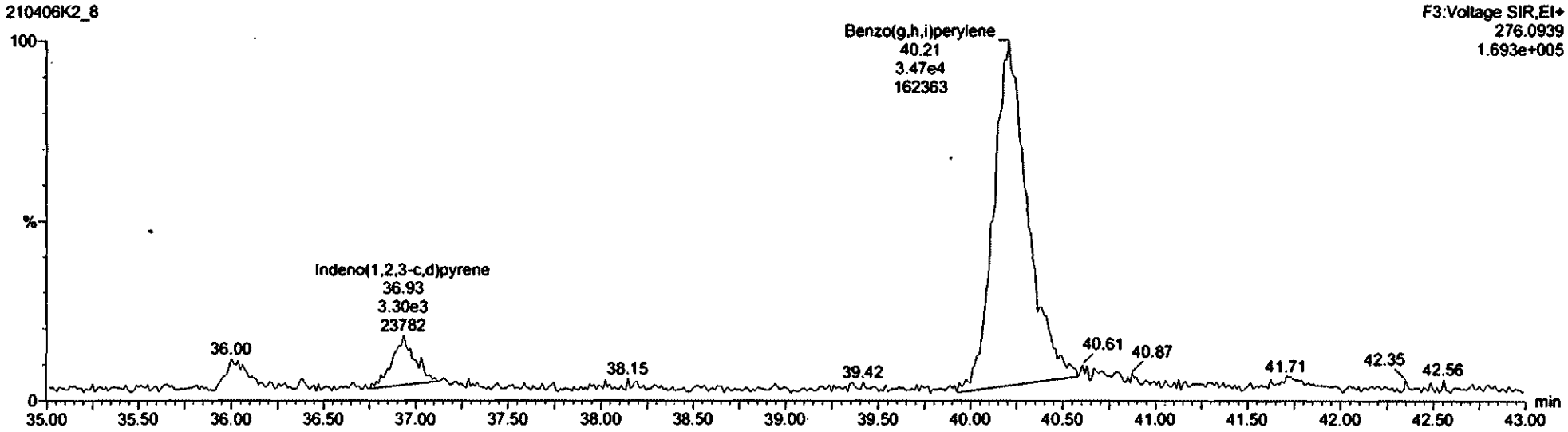
635 of 1215

Dataset: Untitled

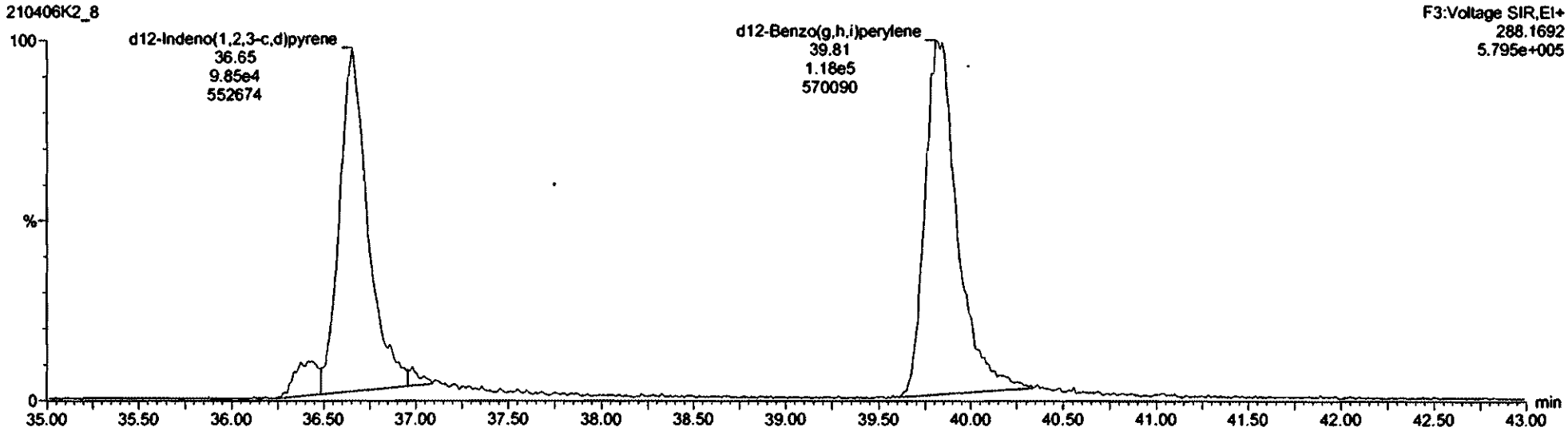
Last Altered: Wednesday, April 07, 2021 10:48:27 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:48:57 AM Pacific Daylight Time

Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



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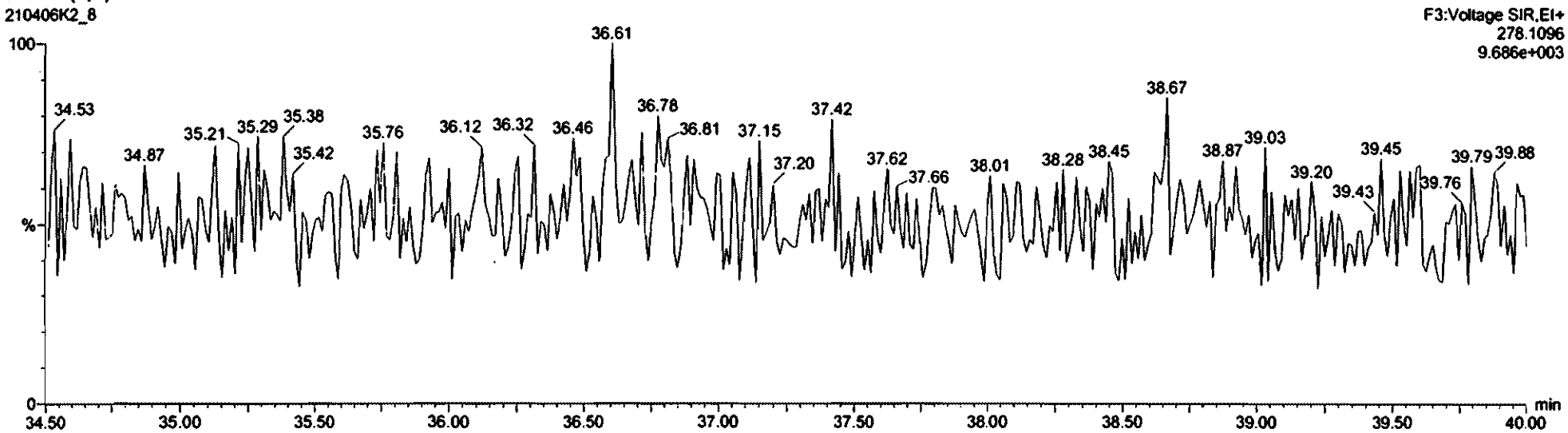
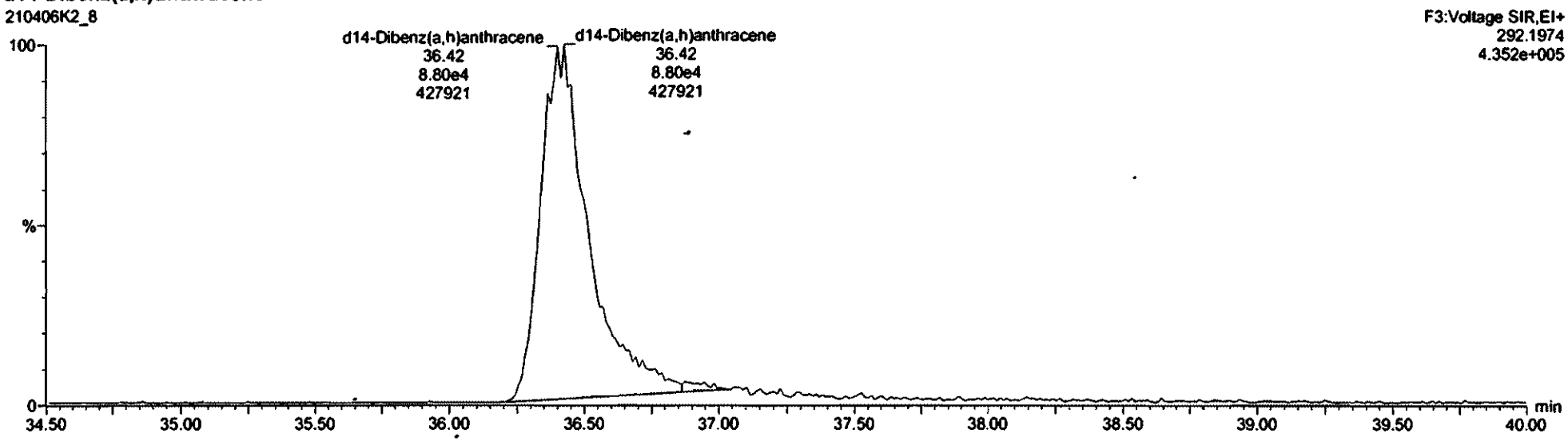
Name: 210406K2_8, Date: 07-Apr-2021, Time: 07:35:35, ID: 2103102-02@25X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



637 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210407K1\210407K1-5.qld

Last Altered: Thursday, April 08, 2021 11:49:29 Pacific Daylight Time
Printed: Thursday, April 08, 2021 11:50:05 Pacific Daylight Time

HC 4.8.2021 CT04/09/2021

* Conc needs to be x 1000

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

ng/sample

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	5.59e7	3.88e6	1.16	1.000	10.16	10.15	1.006	1.004	NO	~~2490~~ 549		6.06
2	2	Naphthalene-2nd	1.01e7	3.88e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	* 4070	4,070,000	26.3
3	3	2-Methylnaphthalene	2.05e7	2.17e6	1.38	1.000	11.60	11.62	0.794	0.796	NO	* 1380	1,380,000	0.950
4	4	Acenaphthylene	7.82e4	3.30e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	* 4.26	4,260	0.528
5	22	d8-Naphthalene	3.88e6	7.86e5	1.20	1.000	10.10	10.10	0.848	0.848	NO	207	103	0.112
6	23	d8-Acenaphthylene	3.30e6	7.86e5	0.905	1.000	14.31	14.32	1.201	1.203	NO	234	117	1.03
7	24	d10-Acenaphthene	2.17e6	7.86e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	234	116	0.124
8	40	d10-Pyrene	7.86e5	7.86e5	1.00	1.000	20.81	20.81	1.000	1.000	NO	50.4	100	0.0166

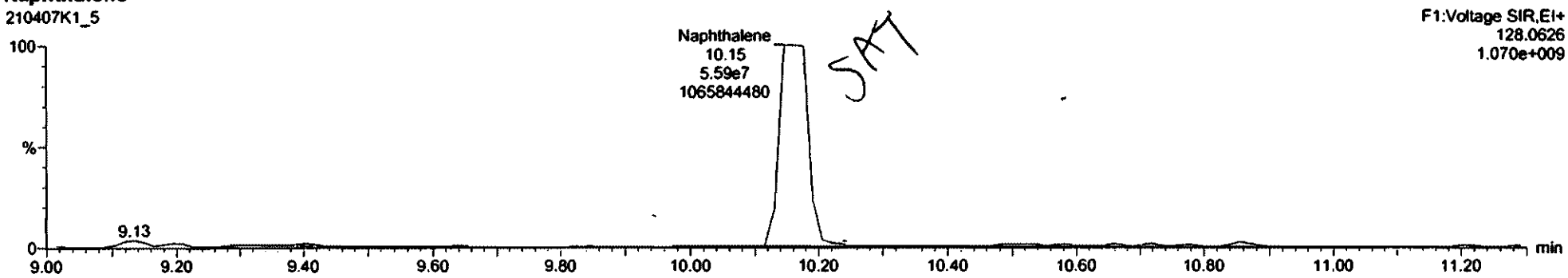
638 of 1215

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

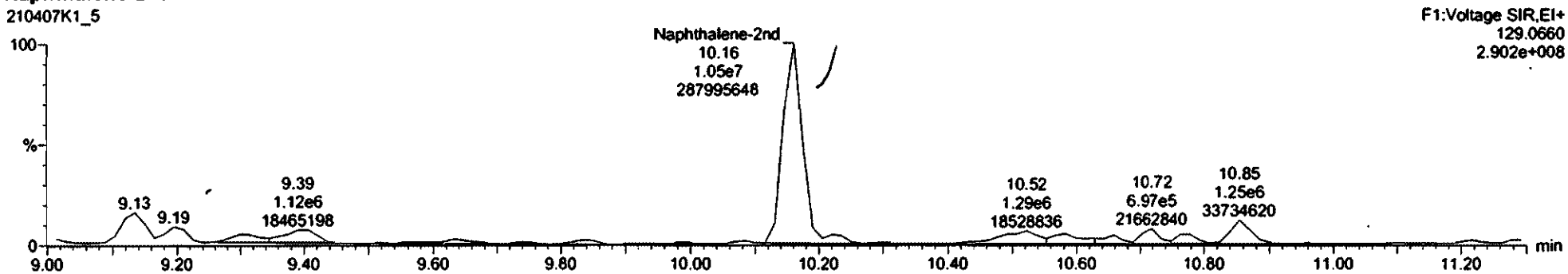
Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Naphthalene

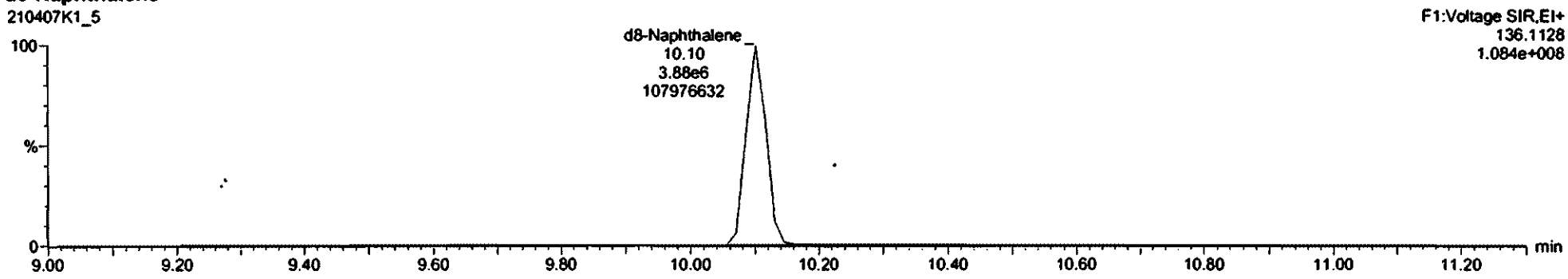


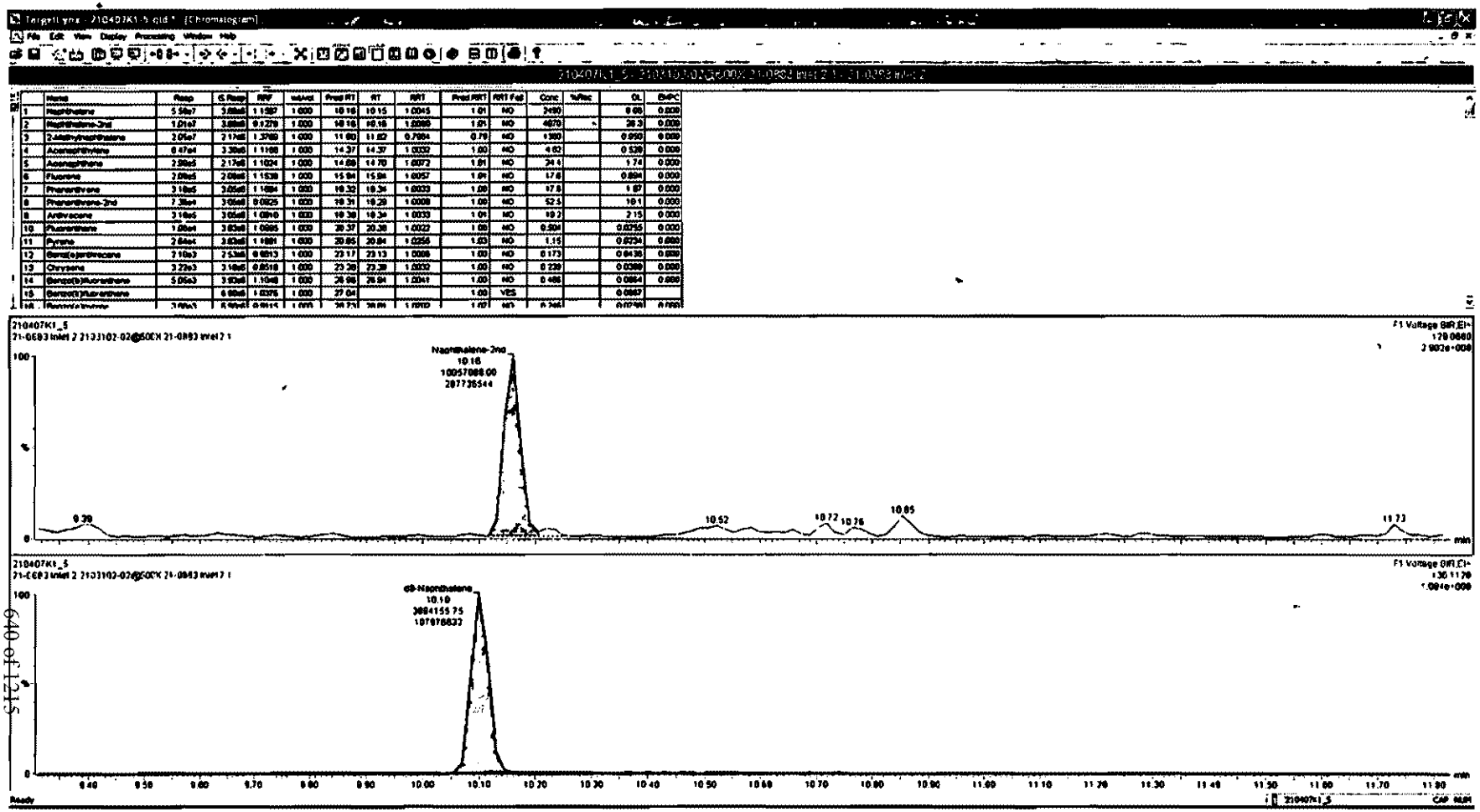
639 of 1215

Naphthalene-2nd



d8-Naphthalene



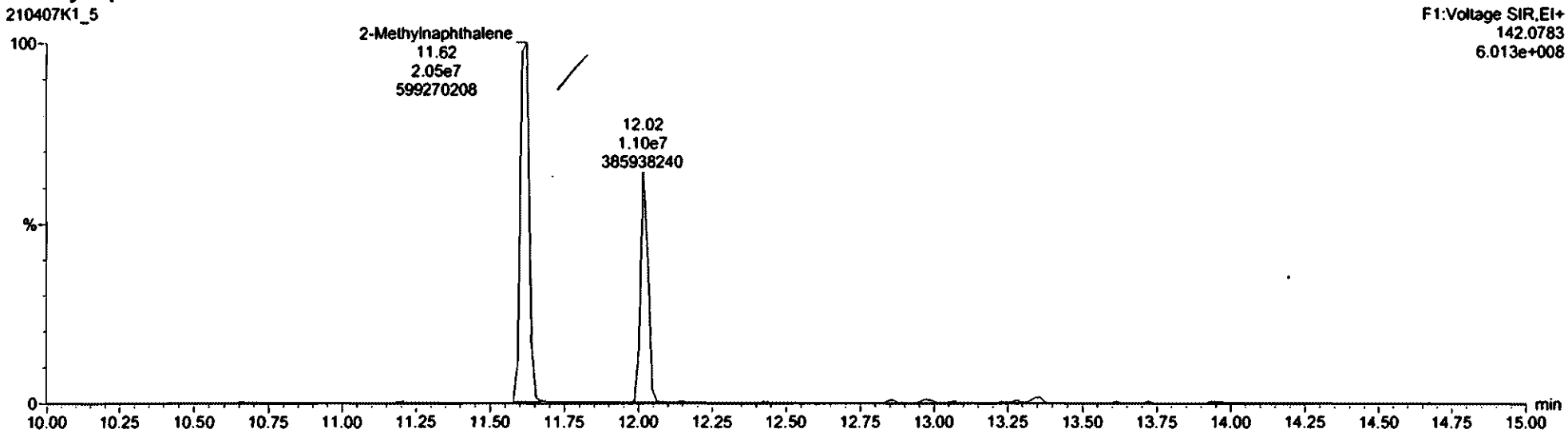

Naphthalene-2nd
10.16
10057088.00
287736544
9.39
10.52
10.72
10.76
10.85
11.73
d8-Naphthalene
10.10
3884155.75
107976632

Dataset: Untitled

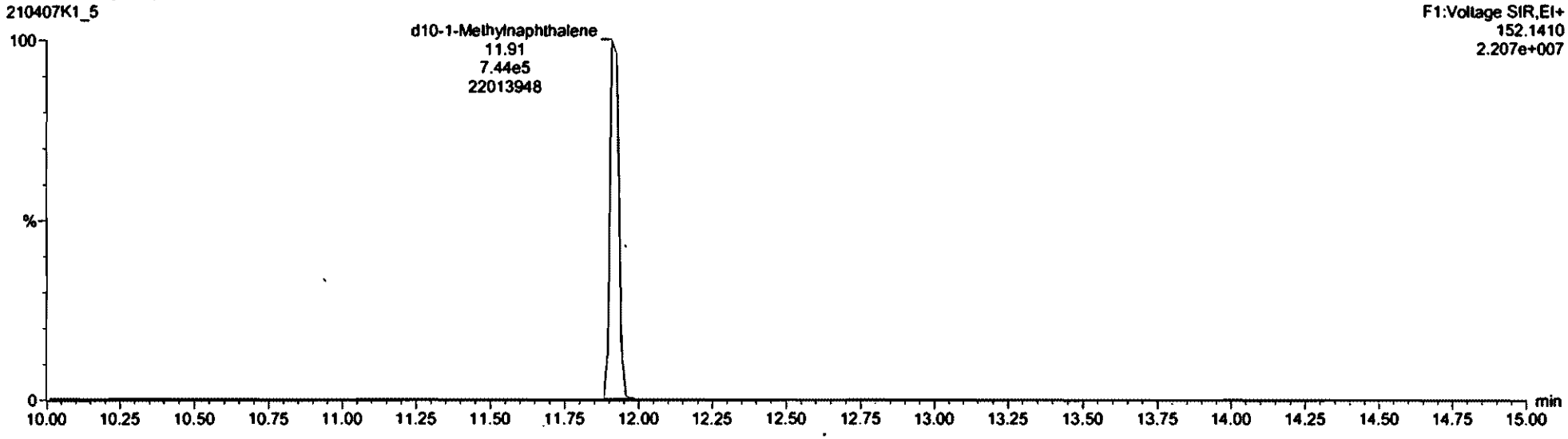
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



641 of 1215

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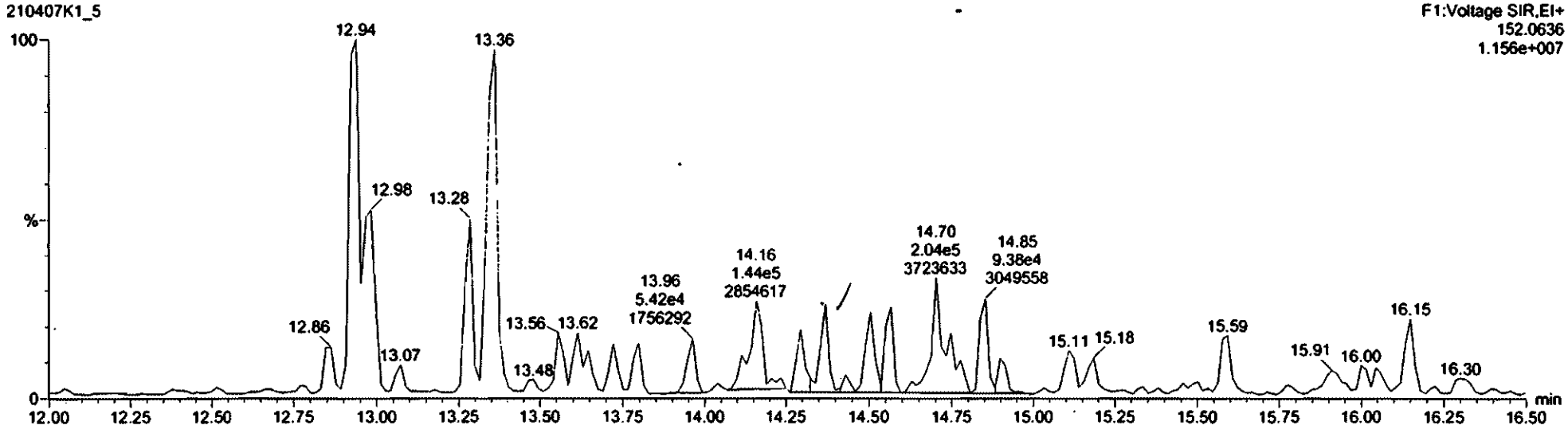
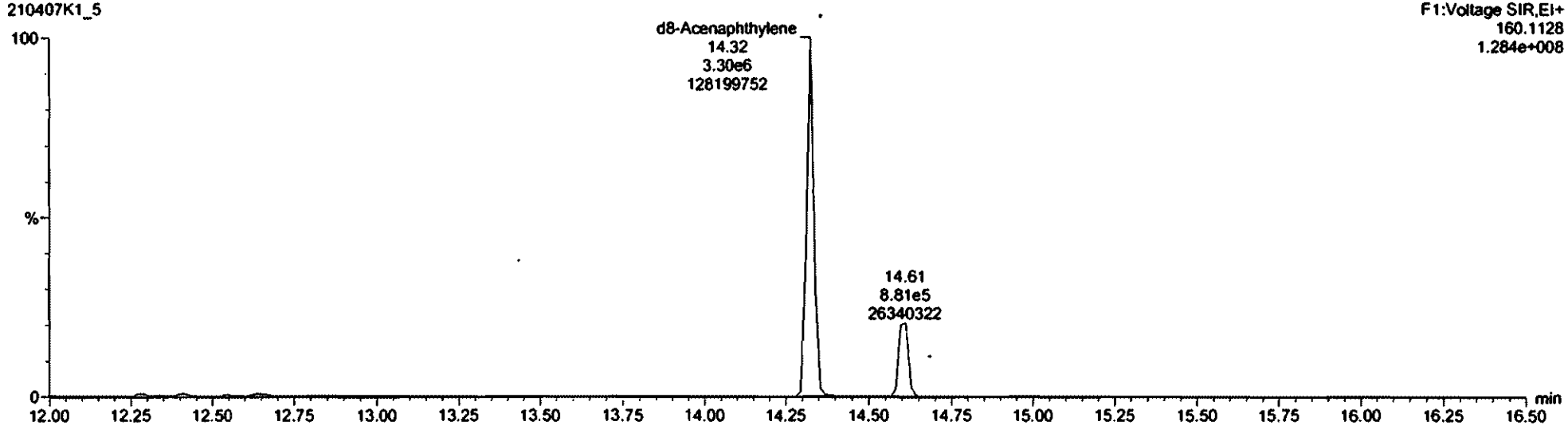
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

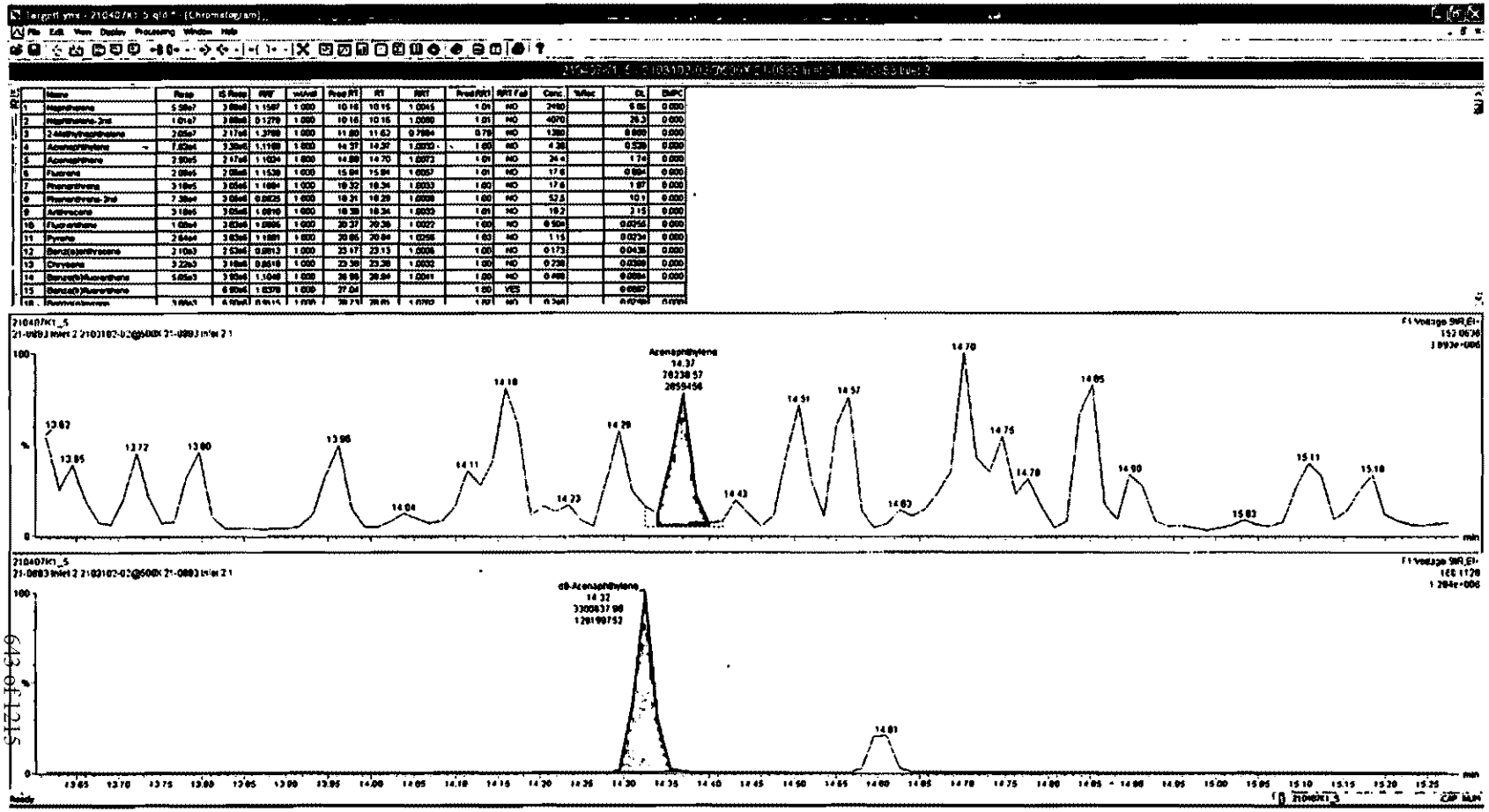
Acenaphthylene



d8-Acenaphthylene



642 of 1215

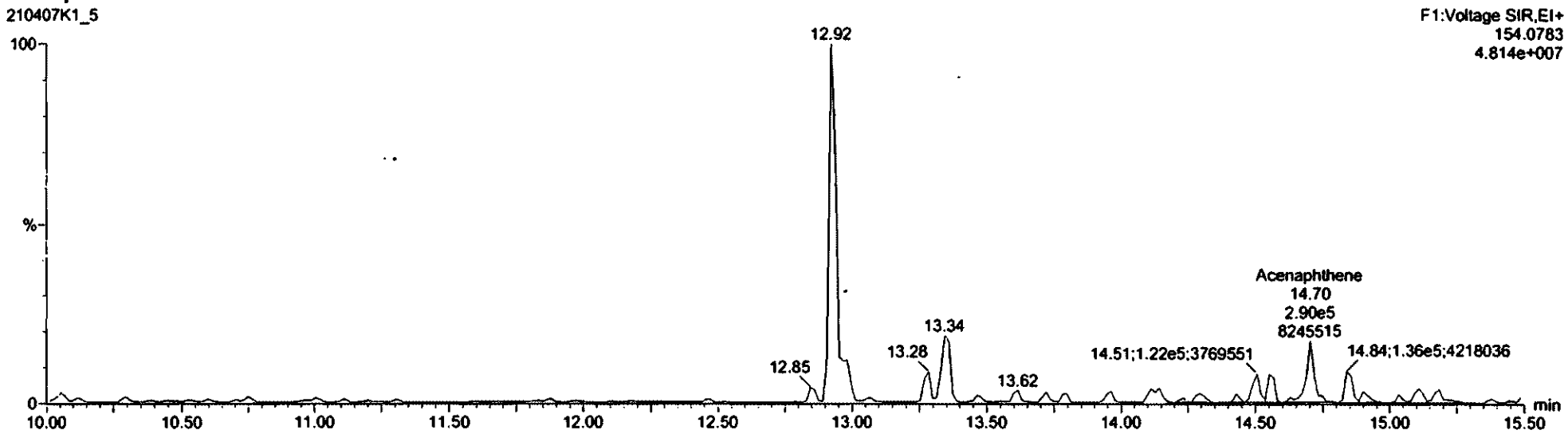

Acenaphthylene
14.37
70238.57
2859456
d8-Acenaphthylene
14.32
3300837.98
129199752
14.01
min

Dataset: Untitled

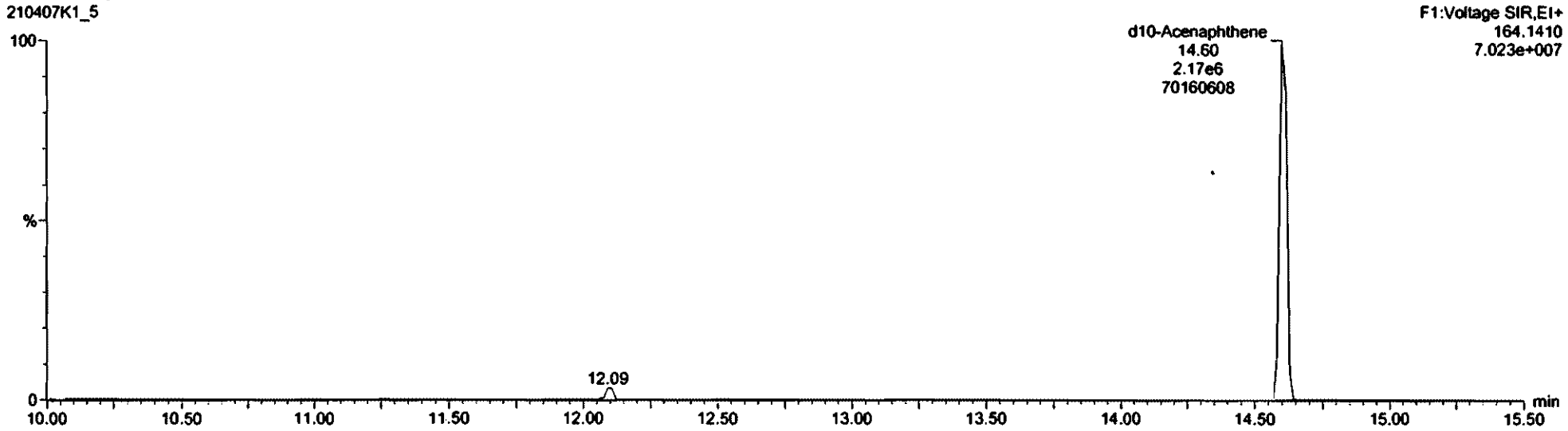
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Acenaphthene



d10-Acenaphthene



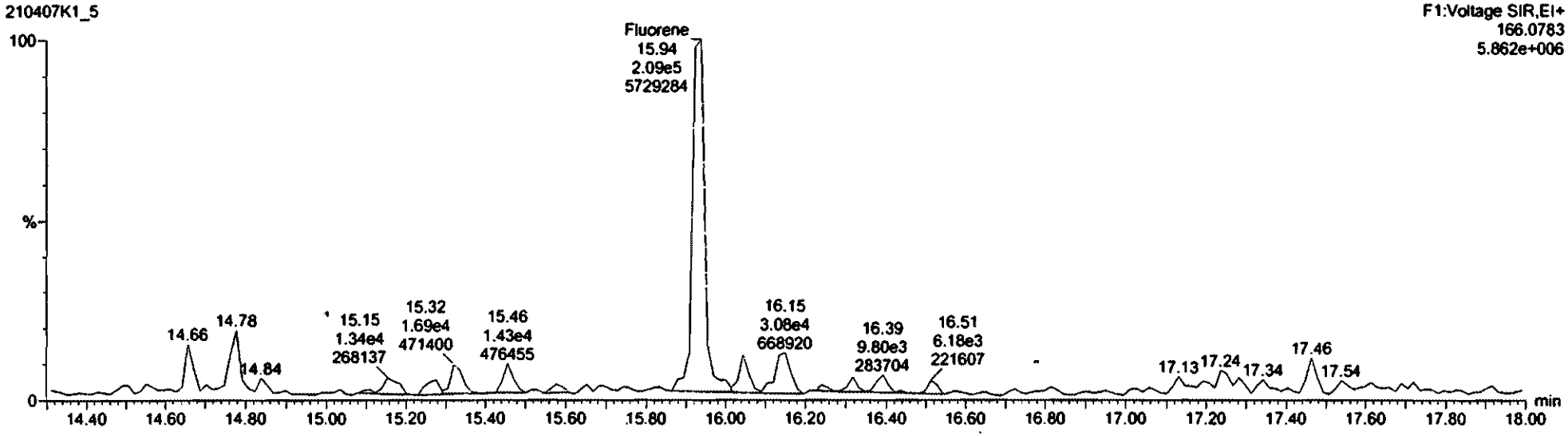
644 of 1215

Dataset: Untitled

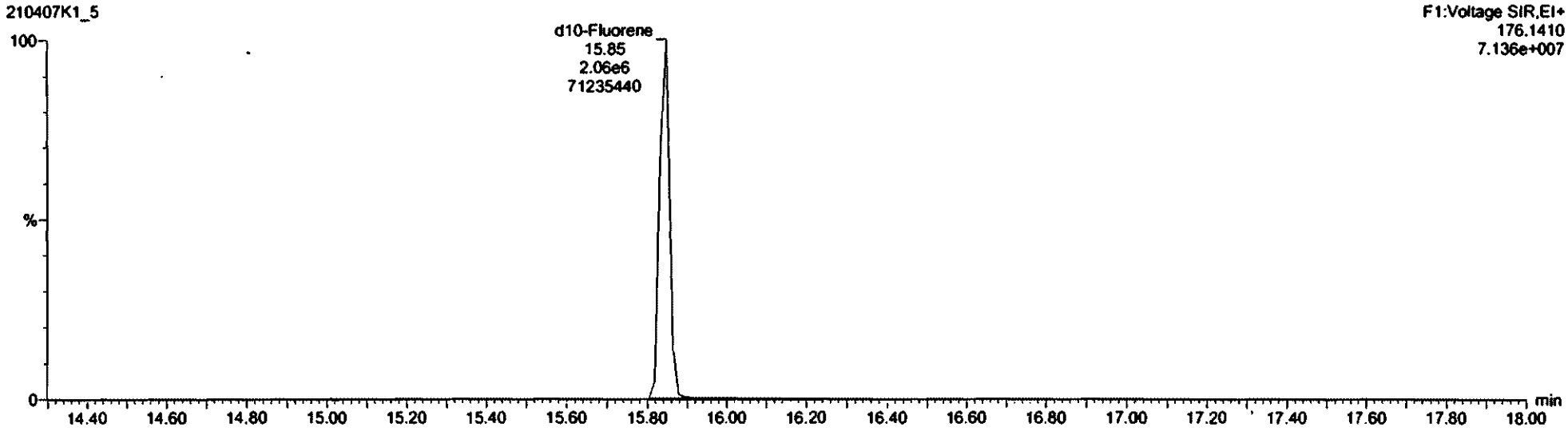
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Fluorene



d10-Fluorene



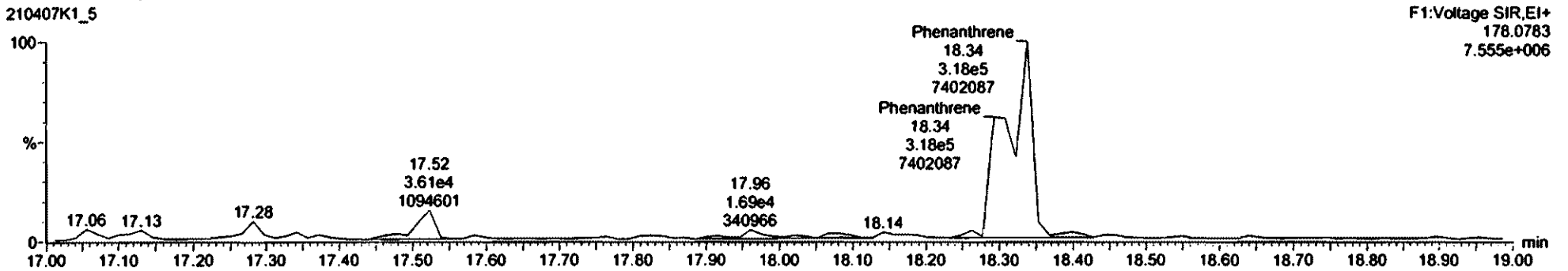
645 of 1215

Dataset: Untitled

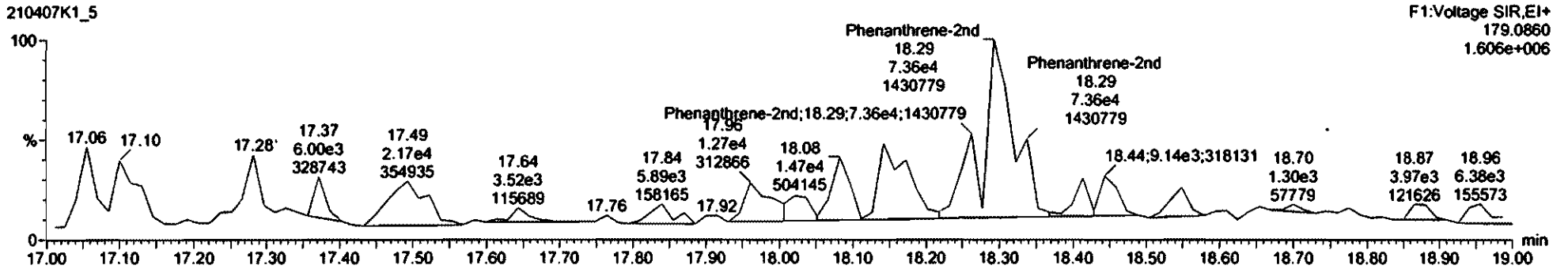
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

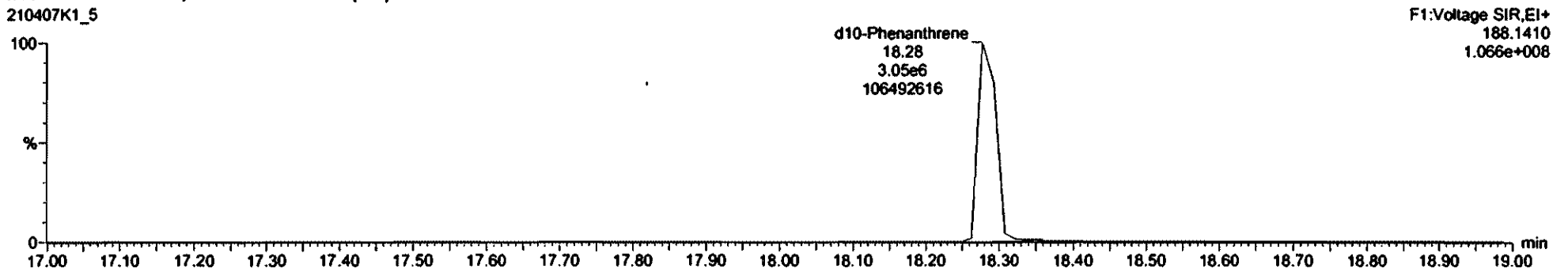
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



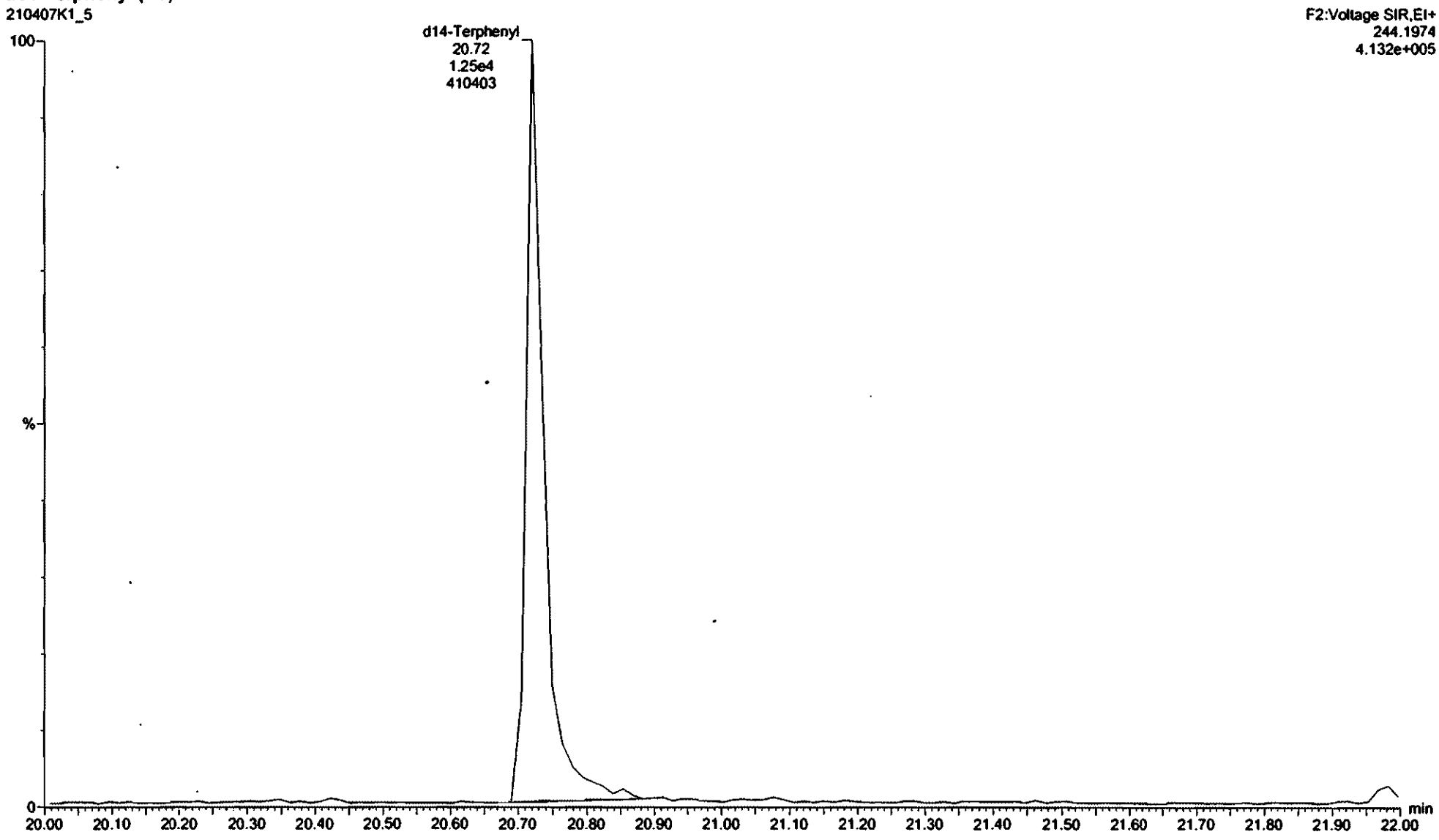
646 of 1215

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

d14-Terphenyl (PS)



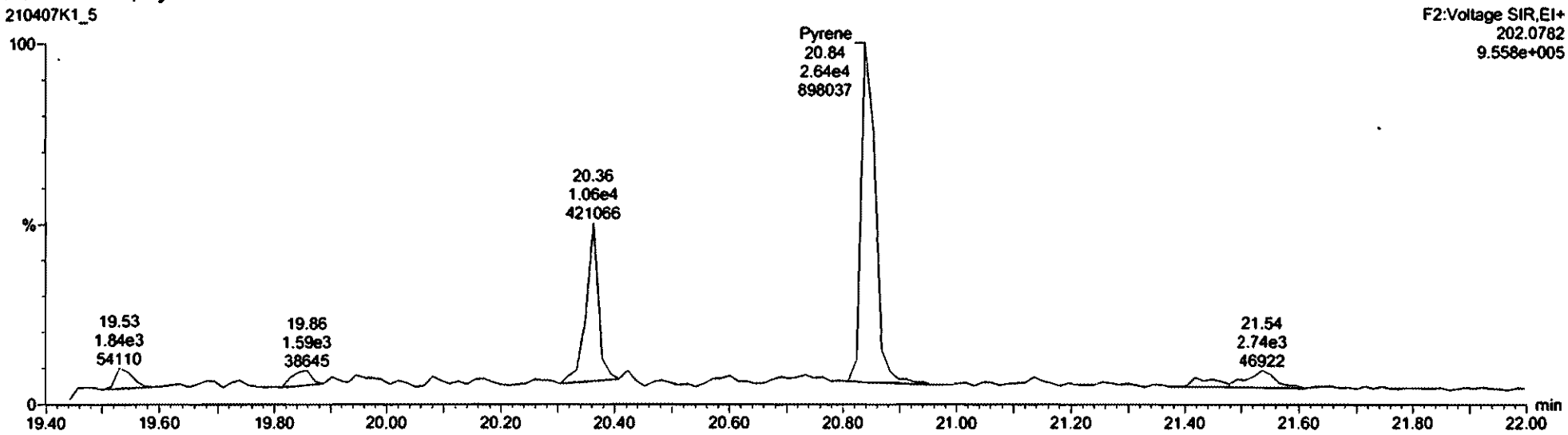
647 of 1215

Dataset: Untitled

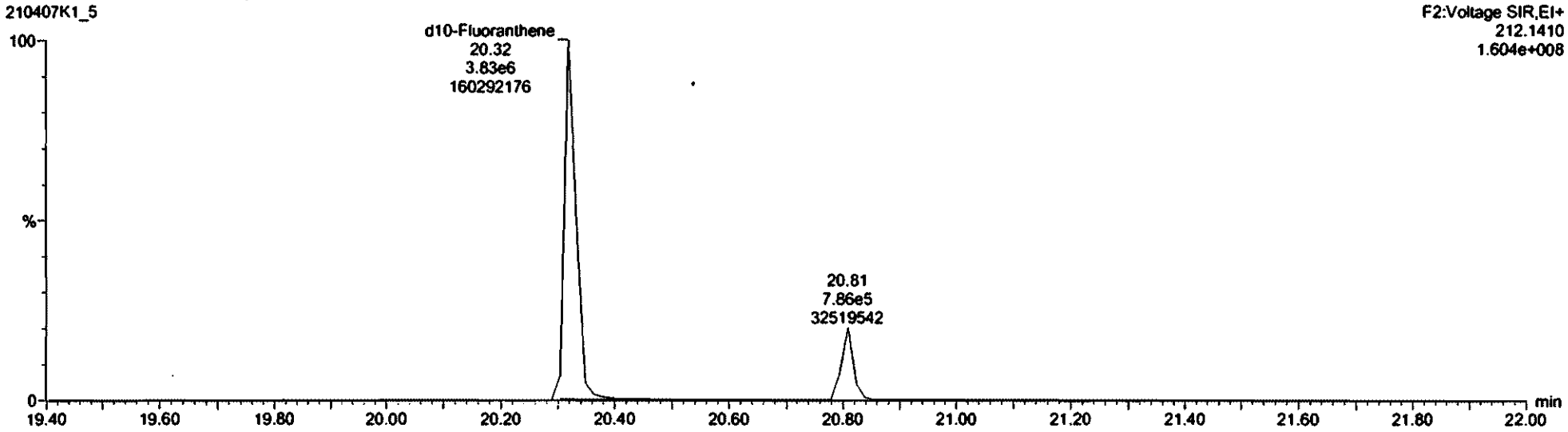
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

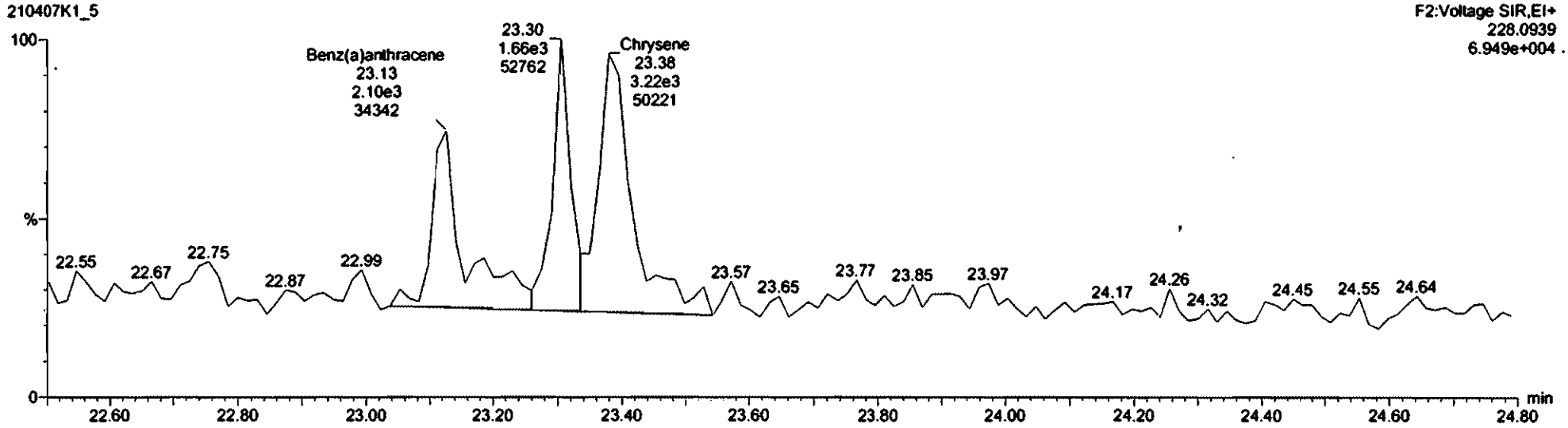


Dataset: Untitled

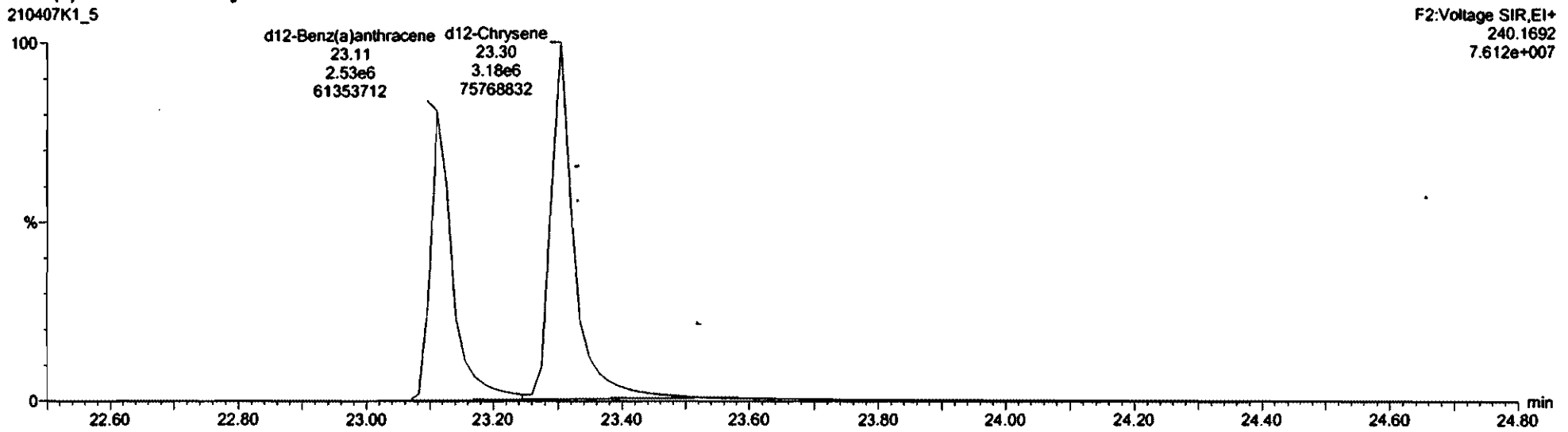
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



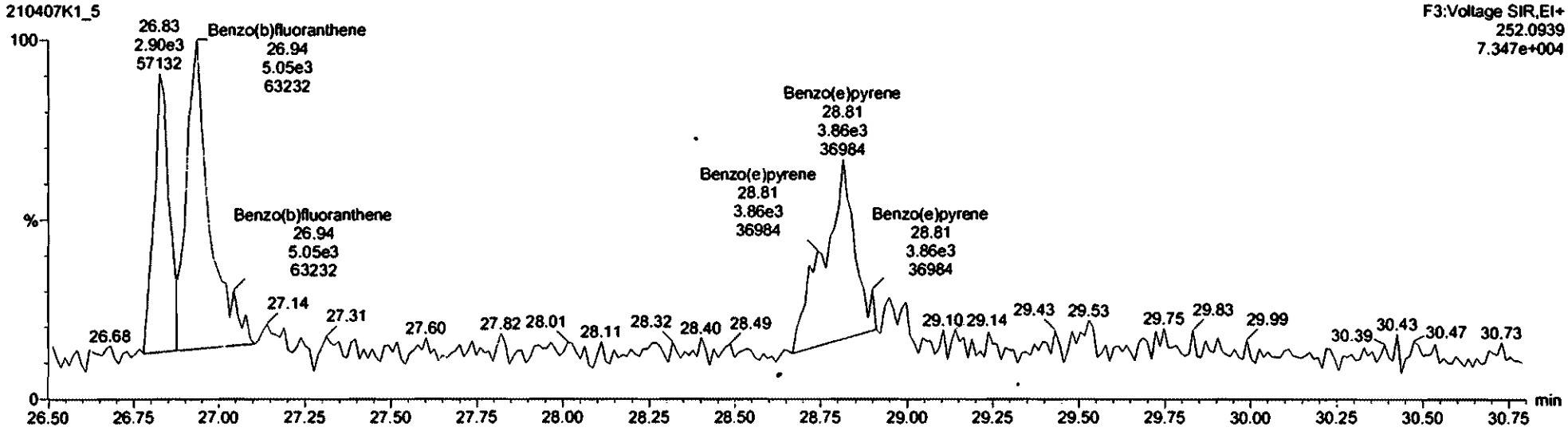
649 of 1215

Dataset: Untitled

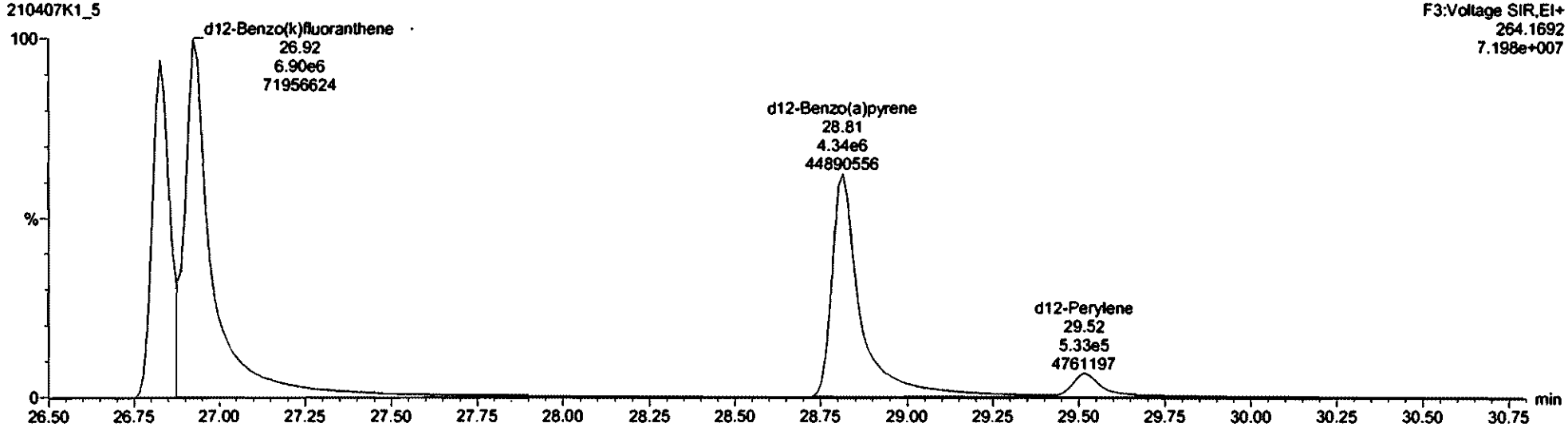
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Benzo-PAHs



Benzo-Isotopes



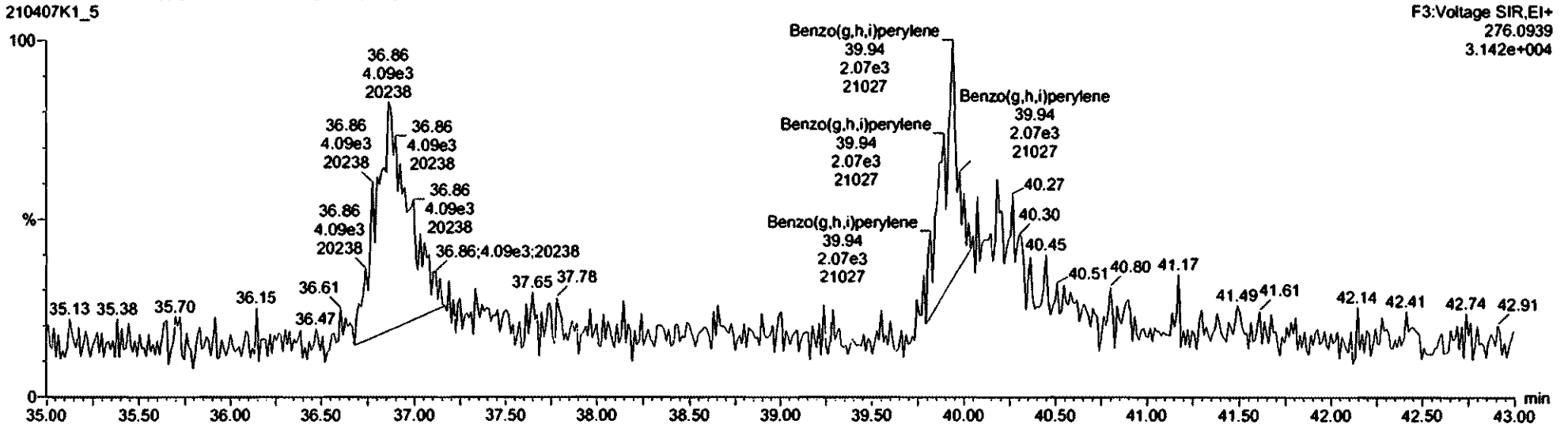
650 of 1215

Dataset: Untitled

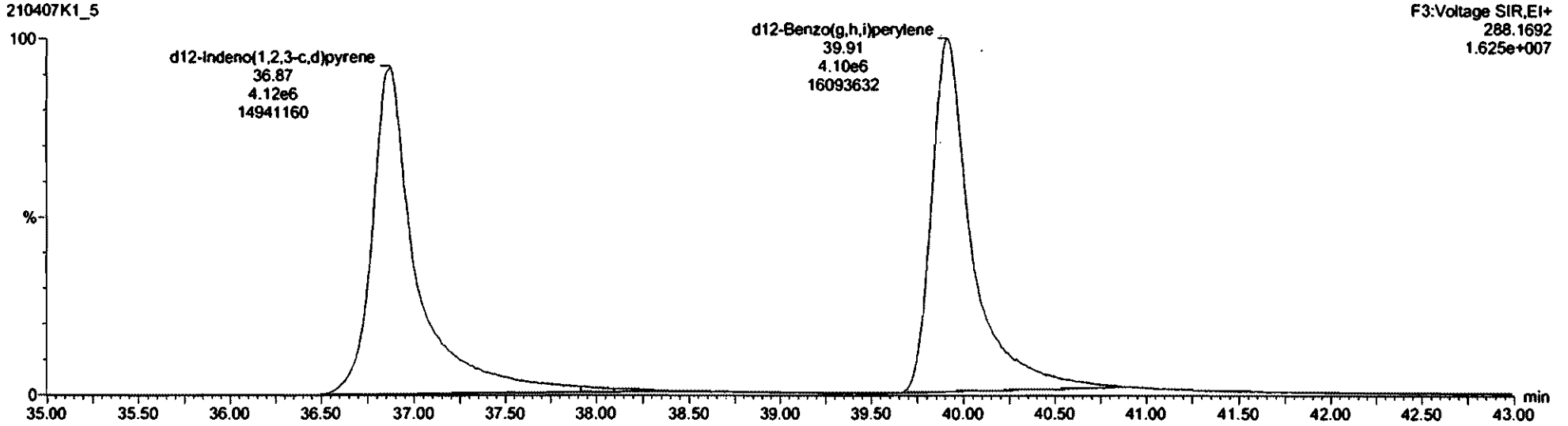
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



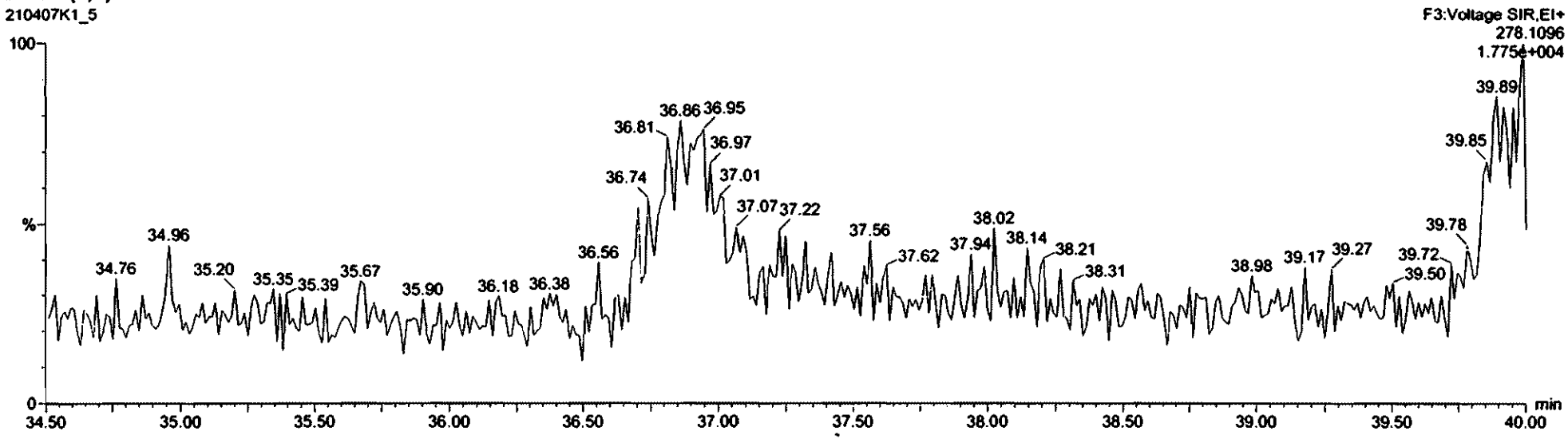
651 of 1215

Dataset: Untitled

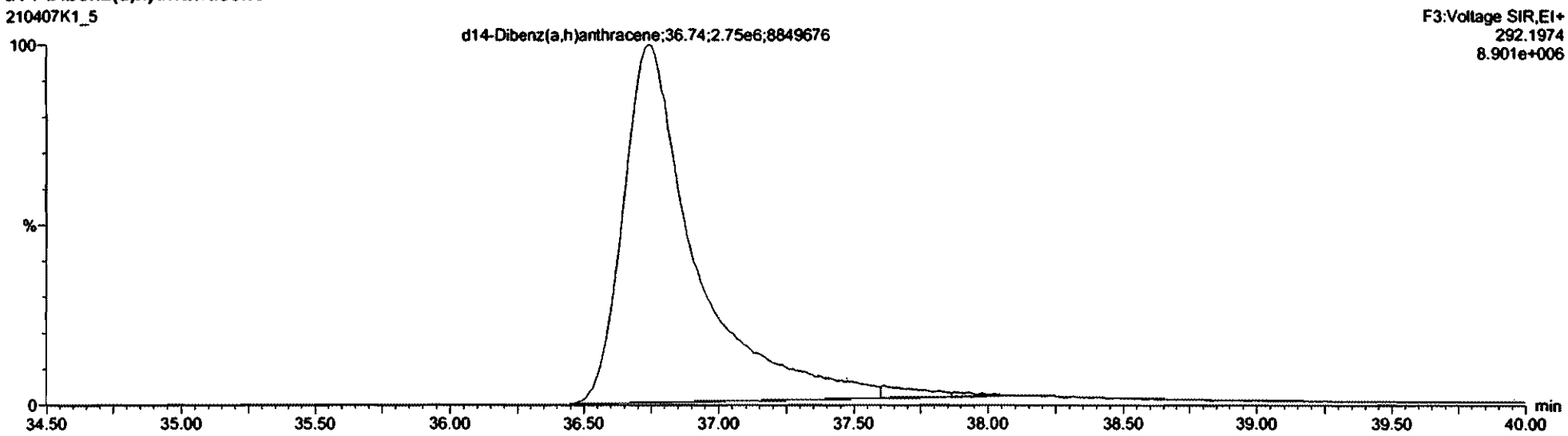
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_5, Date: 07-Apr-2021, Time: 19:20:52, ID: 2103102-02@500X 21-0883 Inlet 2 1, Description: 21-0883 Inlet 2

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



652 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 11:31:04 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:31:21 AM Pacific Daylight Time

HZ 4.7.2021

CM 04/09/2021

S/N on IS not 10:1

see d.1

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1 Naphthalene	2.00e8	1.08e6	1.16	1.000	10.17	10.30	1.006	1.018	YES	~~91900~~ SAT		1080
2	2 Naphthalene-2nd	3.47e7	1.08e6	0.128	1.000	10.17	10.33	1.006	1.021	YES	~~50200~~ SAT		4920
3	3 2-Methylnaphthalene	1.47e8	6.71e5	1.38	1.000	11.64	11.74	0.794	0.801	YES	~~21000~~ SAT		258
4	4 Acenaphthylene	7.08e6	4.00e6	1.12	1.000	14.41	14.43	1.003	1.004	NO	317		336
5	5 Acenaphthene	3.04e7	6.71e5	1.10	1.000	14.74	14.76	1.006	1.007	NO	8220 E		402
6	6 Fluorene	3.09e7	6.82e5	1.15	1.000	15.95	15.95	1.006	1.006	NO	7860 E		242
7	7 Phenanthrene	3.95e7	4.16e5	1.19	1.000	18.33	18.31	1.002	1.001	NO	~~16000~~ SAT		465
8	8 Phenanthrene-2nd	7.77e6	4.16e5	0.0925	1.000	18.33	18.31	1.002	1.001	NO	40400 E		5770
9	9 Anthracene	2.54e7	4.16e5	1.09	1.000	18.39	18.34	1.005	1.002	NO	11200 E		507
10	10 Fluoranthene	7.72e6	2.32e6	1.10	1.000	20.37	20.35	1.002	1.001	NO	605 E		10.9
11	11 Pyrene	2.01e7	2.32e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	1450 E		9.97
12	12 Benz(a)anthracene	1.66e5	2.29e6	0.961	1.000	23.16	23.16	1.003	1.003	NO	15.1		1.23
13	13 Chrysene	1.12e6	2.51e6	0.852	1.000	23.37	23.36	1.003	1.003	NO	105		1.28
14	14 Benzo(b)fluoranthene	7.06e5	4.02e6	1.10	1.000	26.94	26.91	1.005	1.004	NO	63.6		0.125
15	15 Benzo(k)fluoranthene	1.80e5	4.44e6	1.04	1.000	27.02	27.01	1.004	1.004	NO	15.6		0.134
16	16 Benzo(e)pyrene	4.67e6	4.44e6	0.911	1.000	28.70	28.72	1.067	1.068	NO	461		0.152
17	17 Benzo(a)pyrene	4.66e5	3.64e6	1.02	1.000	28.97	28.95	1.006	1.005	NO	50.4		0.187
18	18 Perylene	9.75e4	3.64e6	0.987	1.000	29.71	29.66	1.031	1.030	NO	10.8		0.193
19	19 Indeno(1,2,3-c,d)pyrene	5.72e5	2.71e6	0.915	1.000	36.73	36.73	1.007	1.007	NO	92.4		0.654
20	20 Benzo(g,h,i)perylene	4.13e6	2.69e6	0.940	1.000	40.08	40.04	1.009	1.008	NO	654 E		0.762
21	21 Dibenz(a,h)anthracene		2.40e6	0.948	1.000	36.66		1.011		NO			0.491
22	22 d8-Naphthalene	1.08e6	2.35e6	1.20	1.000	10.23	10.12	0.848	0.839	YES	76.3	~~36.1~~	15.2
23	23 d8-Acenaphthylene	4.00e6	2.35e6	0.905	1.000	14.49	14.37	1.201	1.191	YES	375	~~186~~	125
24	24 d10-Acenaphthene	6.71e5	2.35e6	0.594	1.000	14.78	14.66	1.226	1.215	YES OK	95.9	48.0	39.2
25	25 d10-Fluorene	6.82e5	2.35e6	0.563	1.000	16.04	15.86	1.330	1.315	YES OK	103	51.5	57.7
26	26 d10-Phenanthrene	4.16e5	2.35e6	0.735	1.000	18.49	18.29	1.533	1.517	YES OK	48.0	24.0	54.6
27	27 d10-Fluoranthene	2.32e6	2.35e6	1.29	1.000	20.31	20.32	0.977	0.977	NO	153	76.6	3.21
28	28 d12-Benz(a)anthracene	2.29e6	2.35e6	0.900	1.000	23.09	23.10	1.110	1.111	NO	216	108	2.17
29	29 d12-Chrysene	2.51e6	2.35e6	1.02	1.000	23.28	23.29	1.120	1.120	NO	208	104	1.91
30	30 d12-Benzo(b)fluoranthene	4.02e6	1.96e6	1.18	1.000	26.76	26.80	0.907	0.909	NO	347	86.9	0.134
31	31 d12-Benzo(k)fluoranthene	4.44e6	1.96e6	1.50	1.000	26.87	26.90	0.911	0.912	NO	302	75.5	0.106

653 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 11:31:04 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:31:21 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.64e6	1.96e6	1.24	1.000	28.76	28.80	0.975	0.977	NO	301	75.1	0.128
33	33	d12-Indeno(1,2,3-c,d)pyrene	2.71e6	1.96e6	1.02	1.000	36.78	36.49	1.247	1.237	NO	272	67.9	0.195
34	34	d12-Benzo(g,h,i)perylene	2.69e6	1.96e6	1.00	1.000	40.18	39.71	1.362	1.346	YES	273	68.2	0.197
35	35	d14-Dibenz(a,h)anthracene	2.40e6	1.96e6	0.765	1.000	36.55	36.25	1.239	1.229	YES	321	80.2	0.195
36	36	d10-Anthracene	5.86e5	1.96e6	0.989	1.000	18.58	18.35	1.541	1.522	YES	60.5	30.3	119
37	37	d14-Terphenyl	4.63e6	2.32e6	0.576	1.000	20.69	20.70	1.018	1.019	NO	692	138	0.517
38	38	d12-Benzo(e)pyrene	4.61e6	4.44e6	0.738	1.000	28.52	28.55	1.060	1.061	NO	563	113	0.161
39	39	d10-1-Methylnaphthalene	6.88e5	6.88e5	1.00	1.000	11.93	12.06	1.000	1.000	YES	200	100	173
40	40	d10-Pyrene	2.35e6	2.35e6	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	4.12
41	41	d12-Perylene	1.96e6	1.96e6	1.00	1.000	29.59	29.49	1.000	1.000	NO	200	100	0.159

654 of 1215

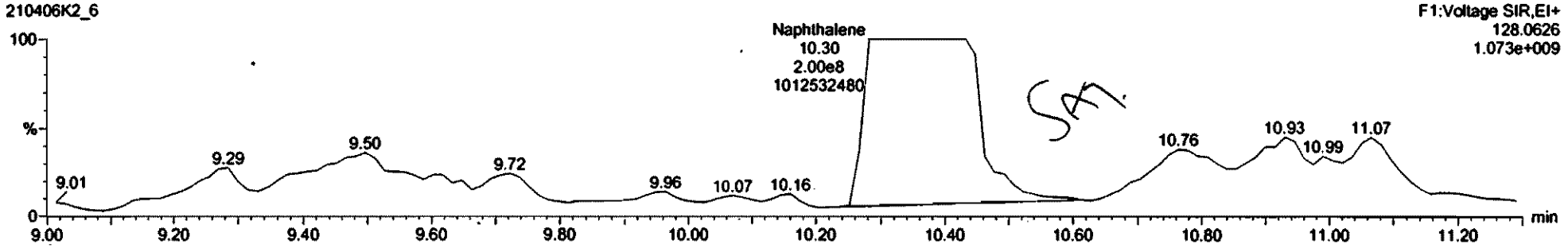
Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

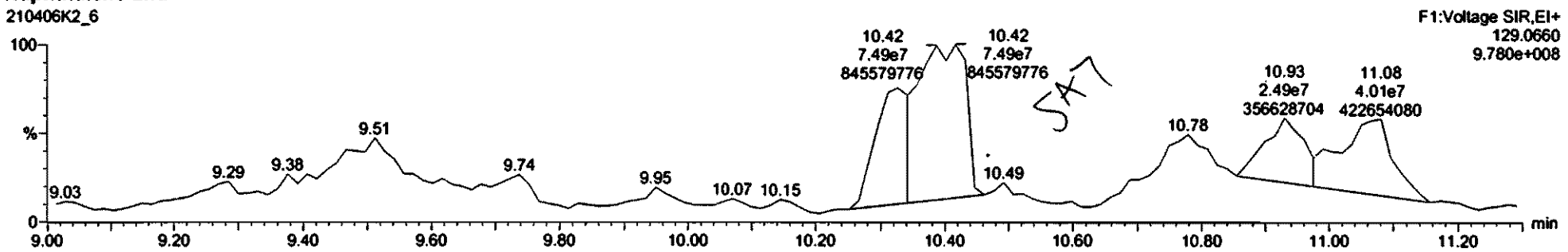
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

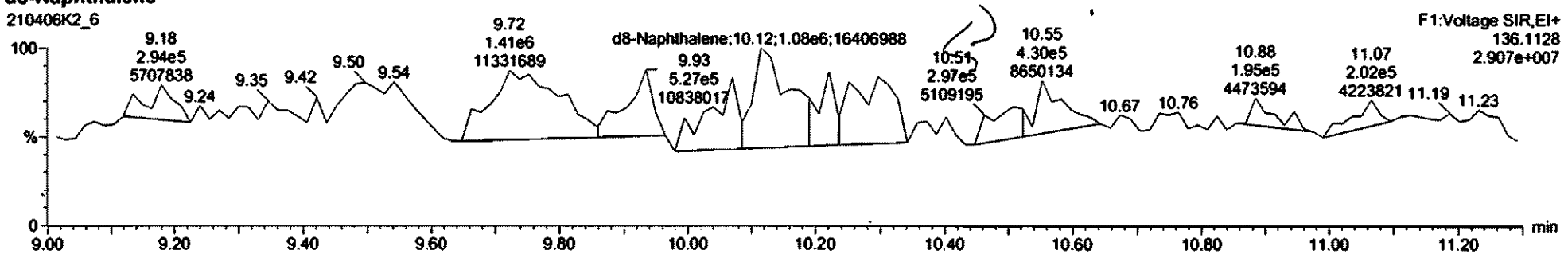
Naphthalene



Naphthalene-2nd



d8-Naphthalene



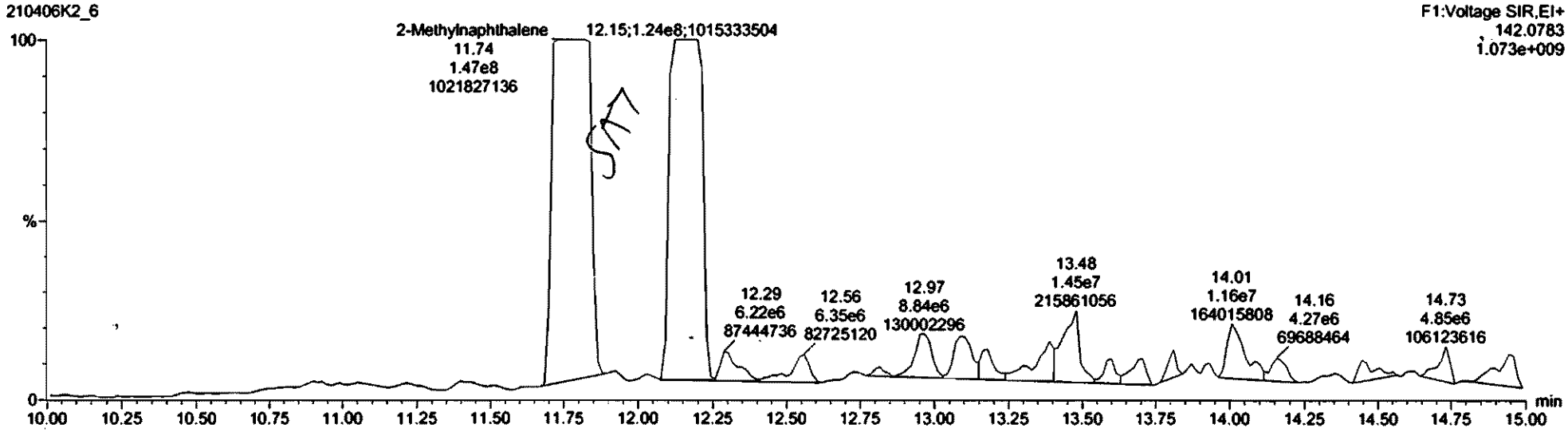
655 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

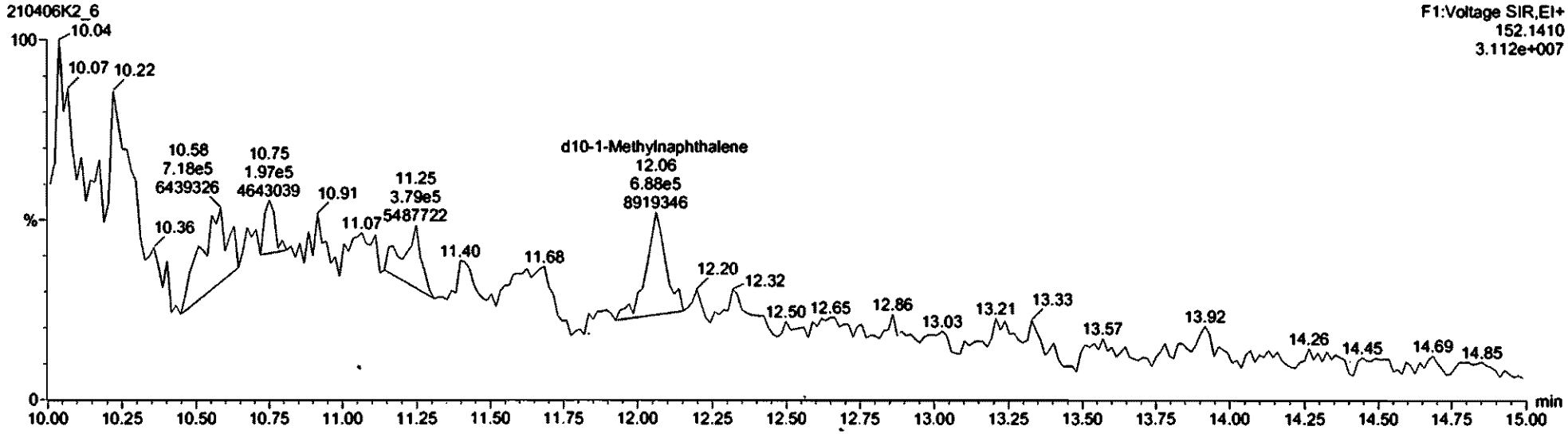
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



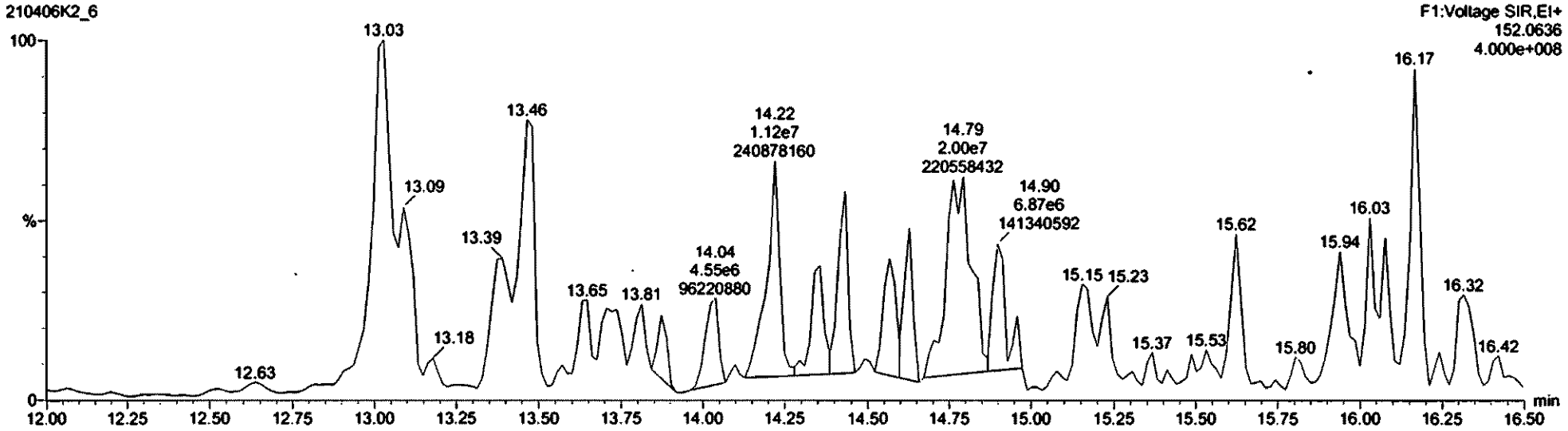
656 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

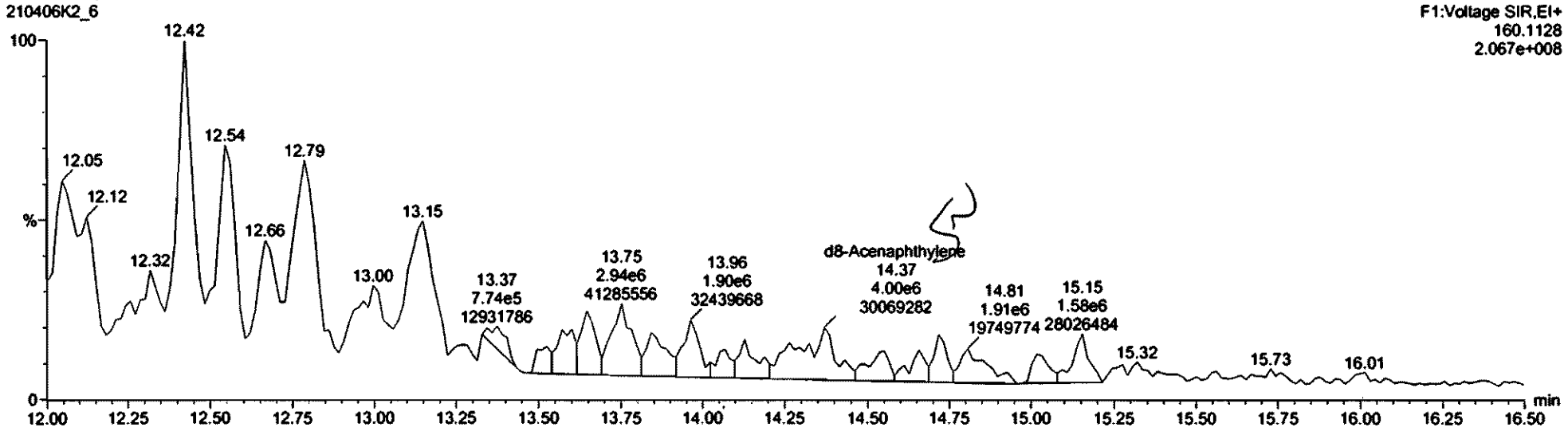
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Acenaphthylene



d8-Acenaphthylene

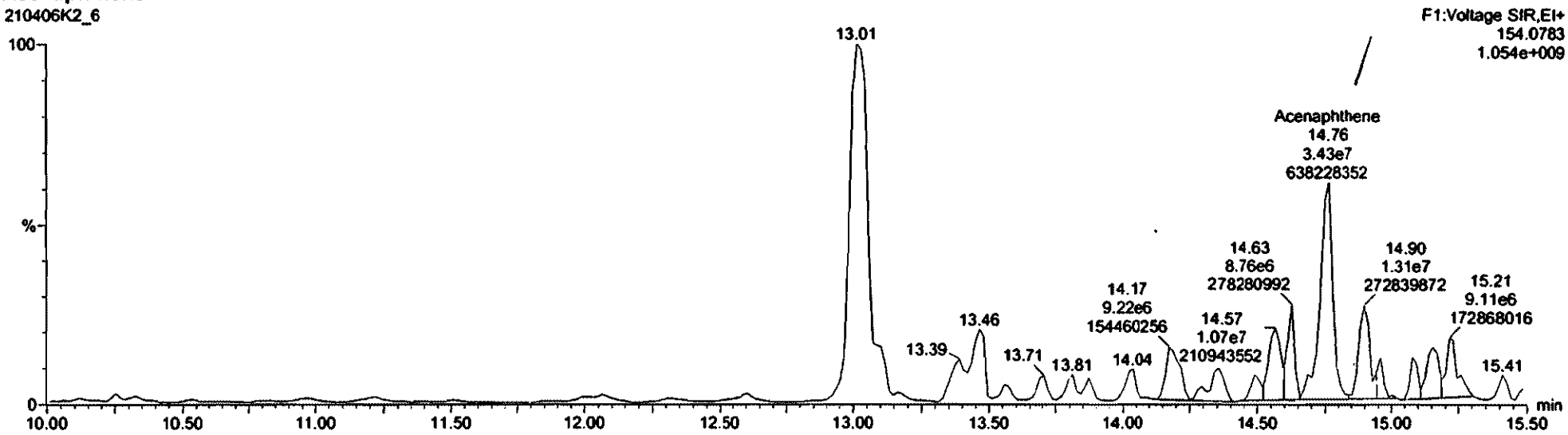


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

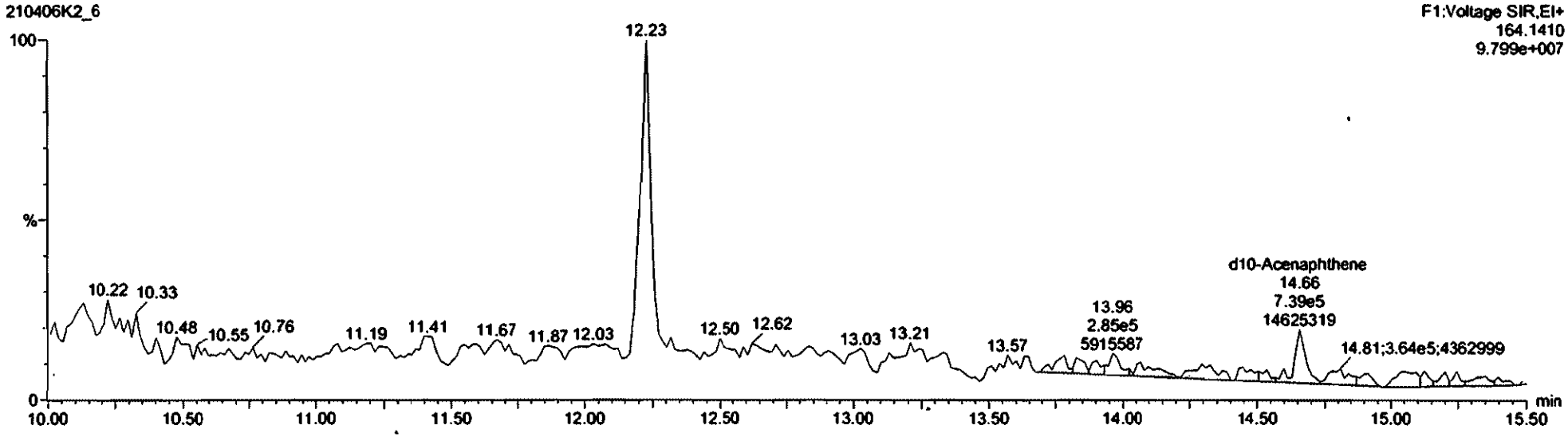
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

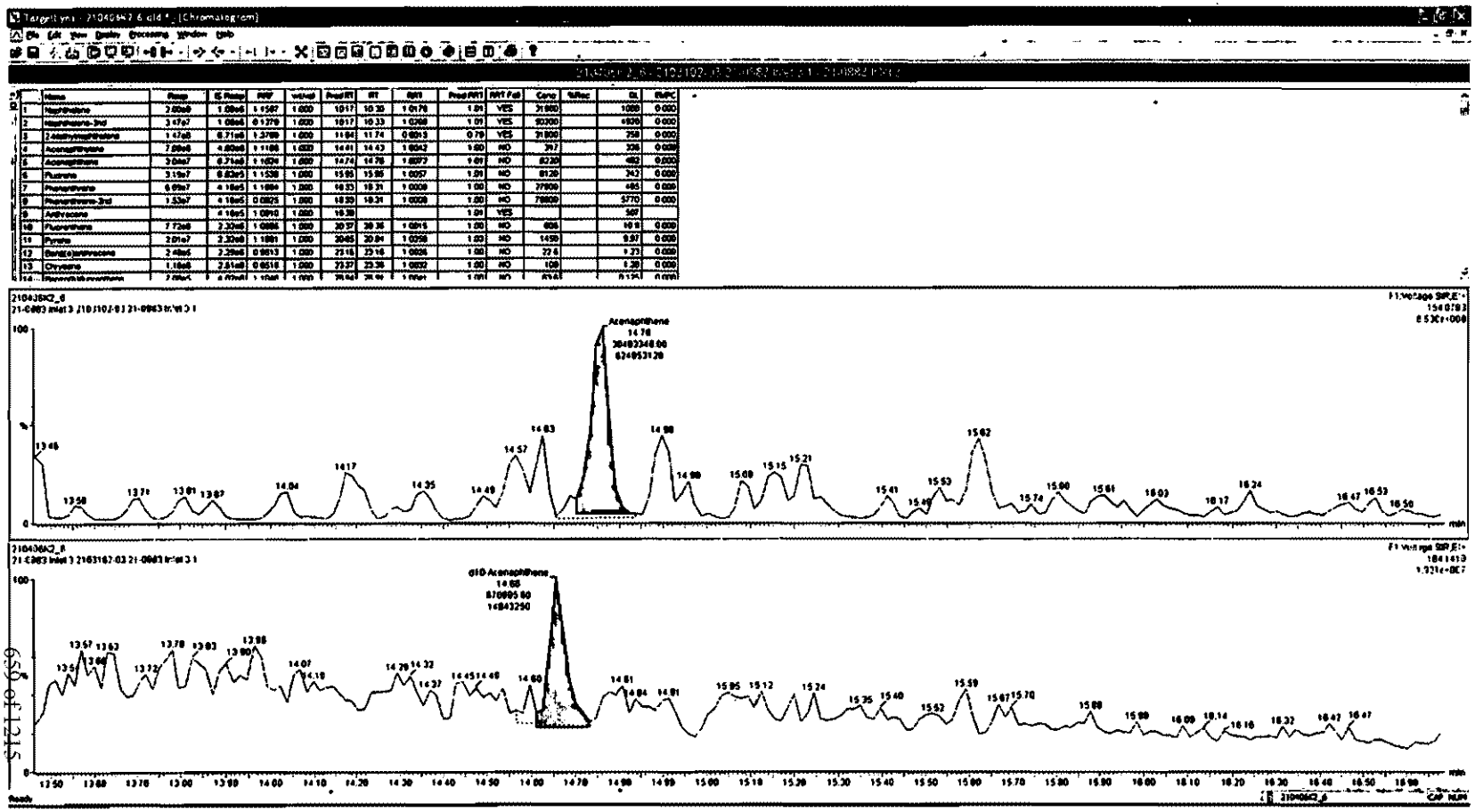
Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Acenaphthene



d10-Acenaphthene



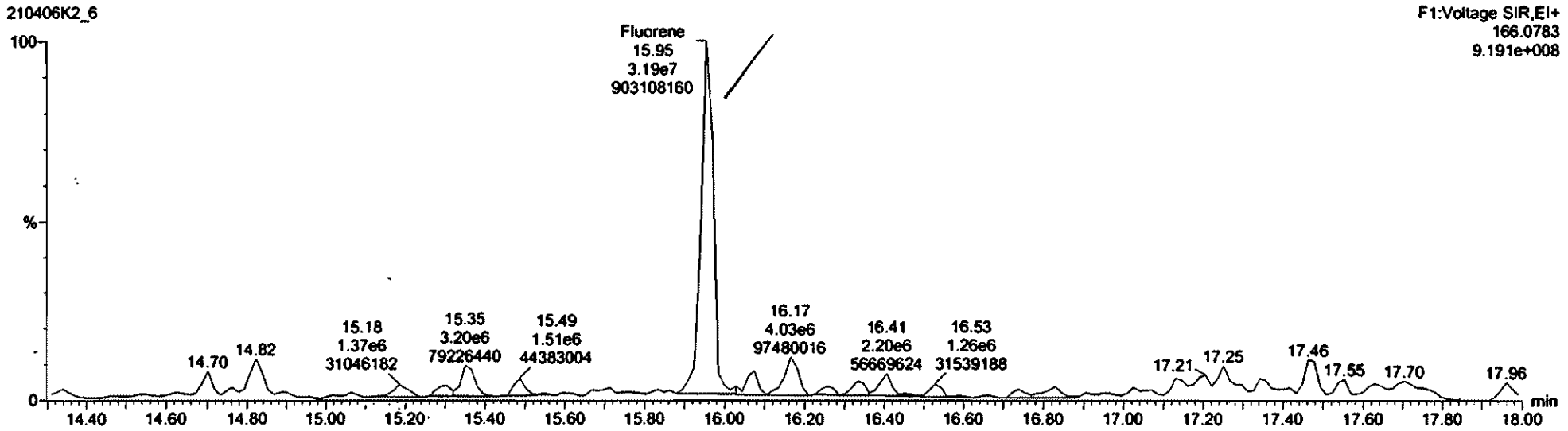


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

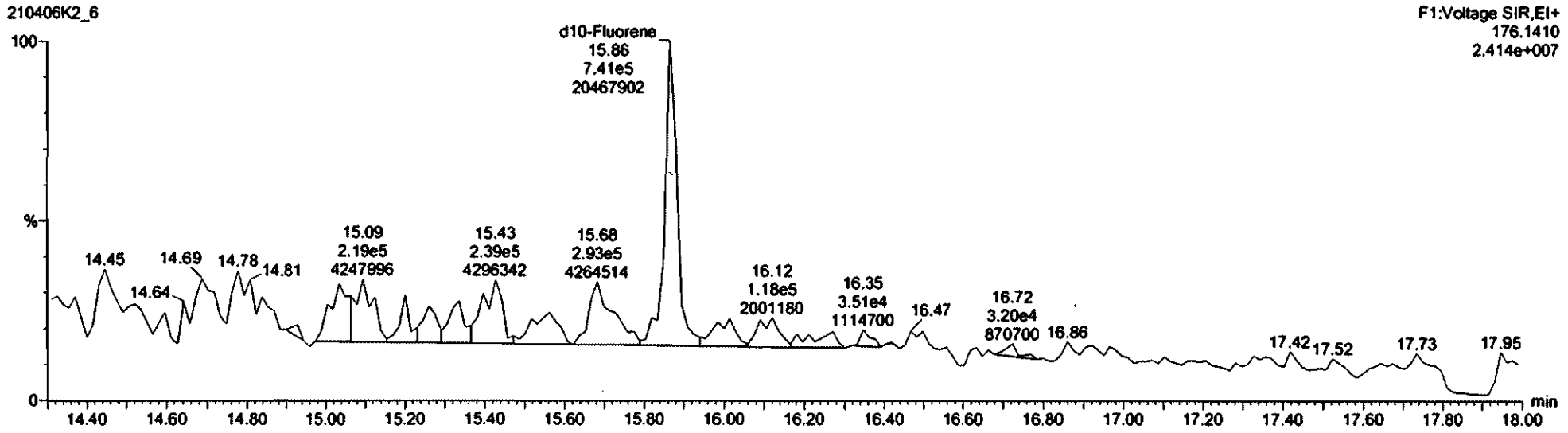
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

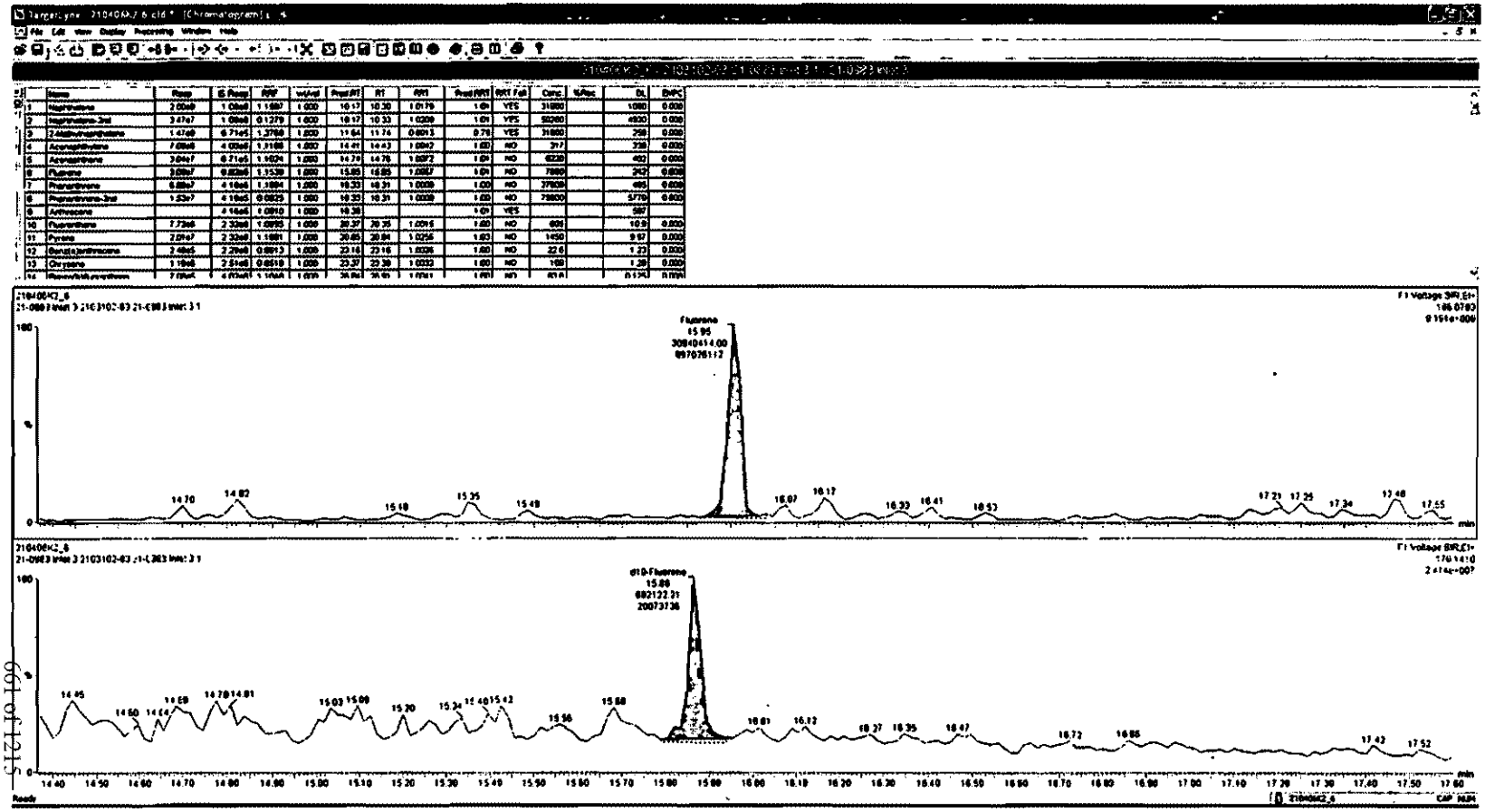
Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluorene



d10-Fluorene




Fluorene
15.95
30940414.00
d10-Fluorene
15.88
882122.21
20073736

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
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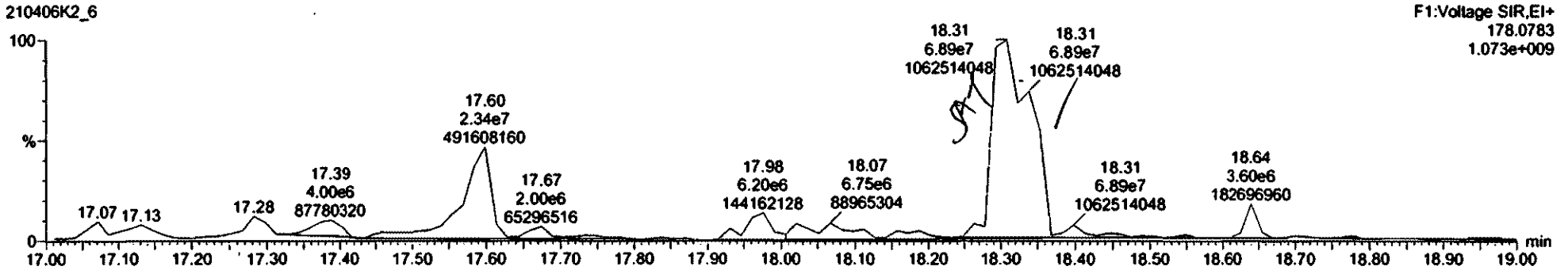
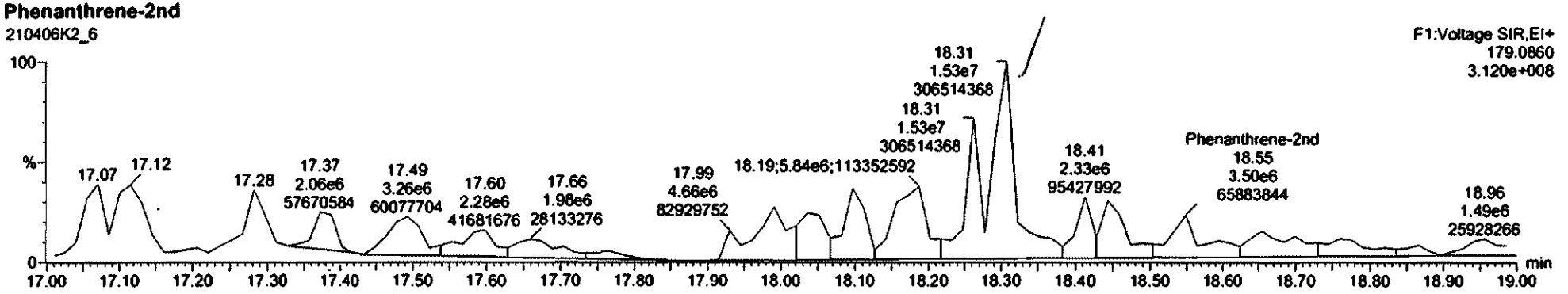
Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

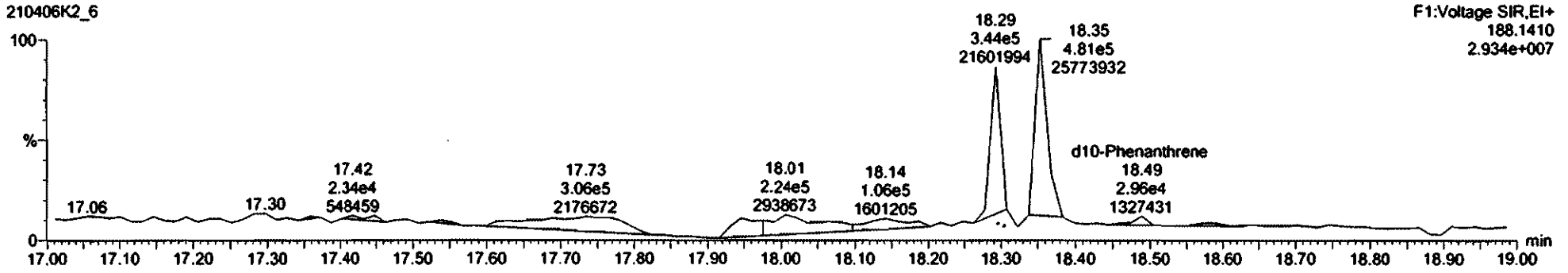
Phenanthrene; Anthrecene

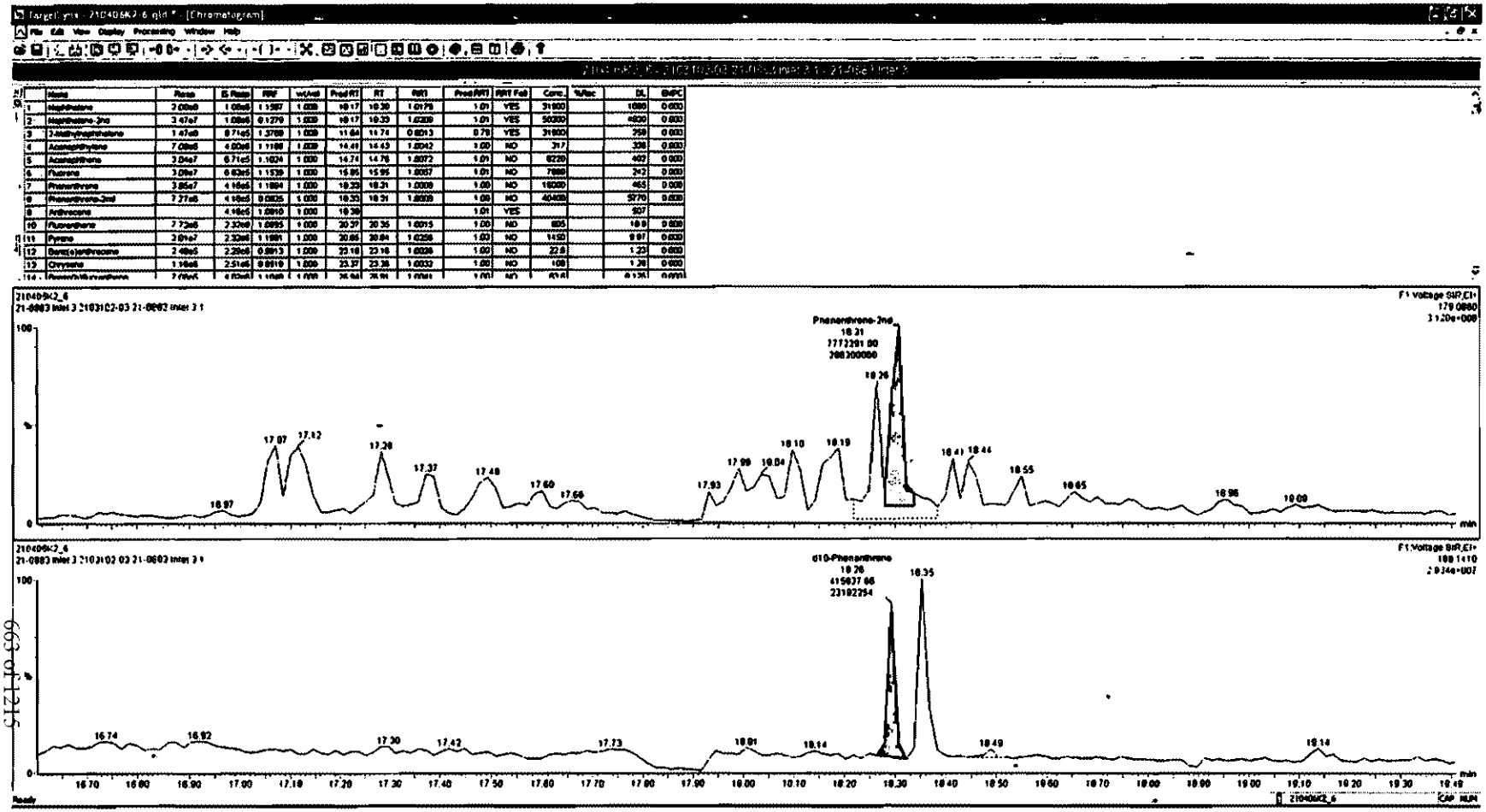


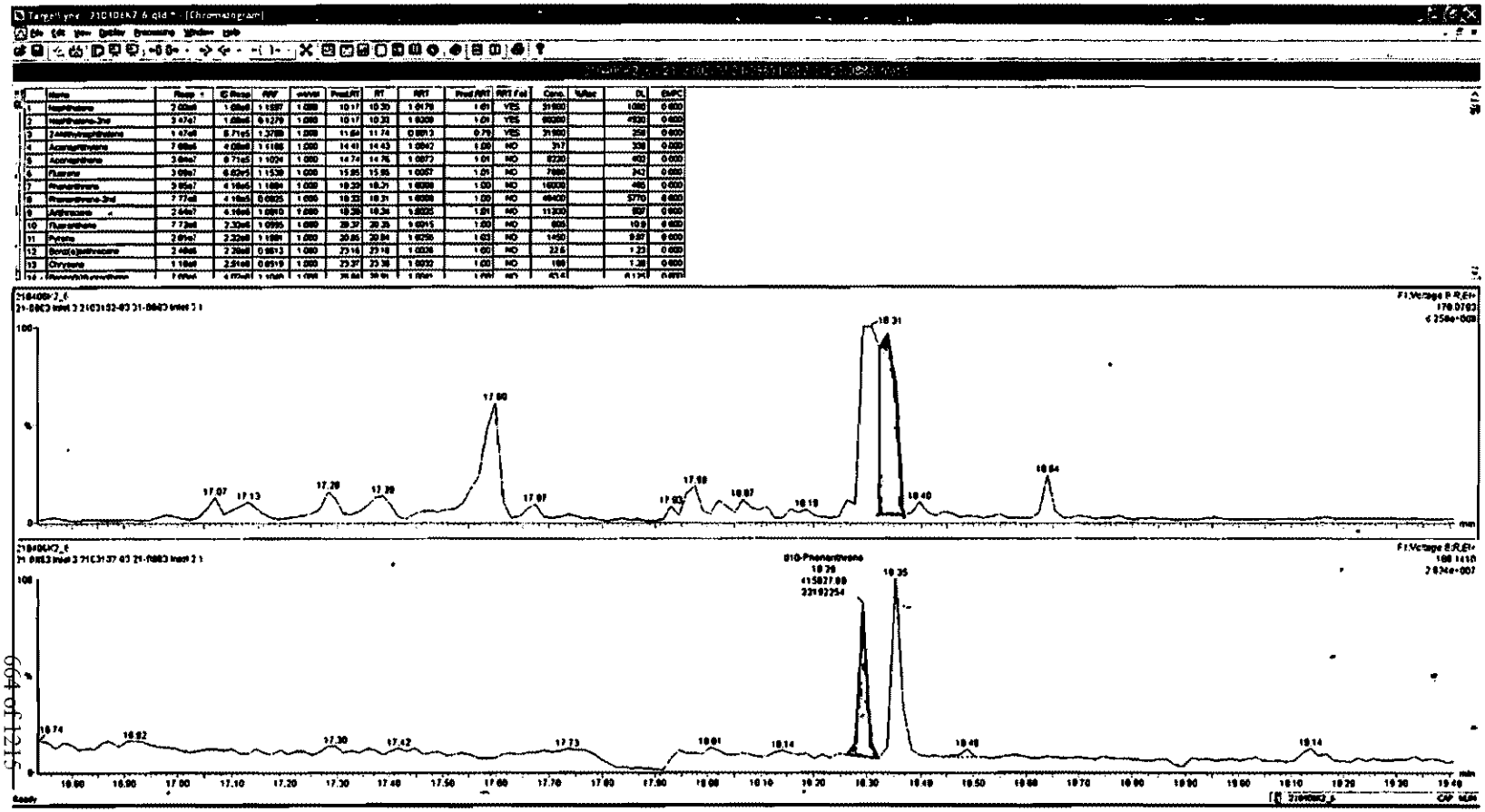
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene-2nd
18.21
7772291.00
208300000
18.26
d10-Phenanthrene
18.26
415637.66
23182254
18.35


17.07
17.13
17.20
17.30
17.60
17.87
17.93
17.98
18.07
18.19
18.31
18.40
18.64
810-Phenanthrene
18.29
415827.88
23192254
18.35
18.74
18.92
17.30
17.42
17.73
18.01
18.14
18.48
19.14

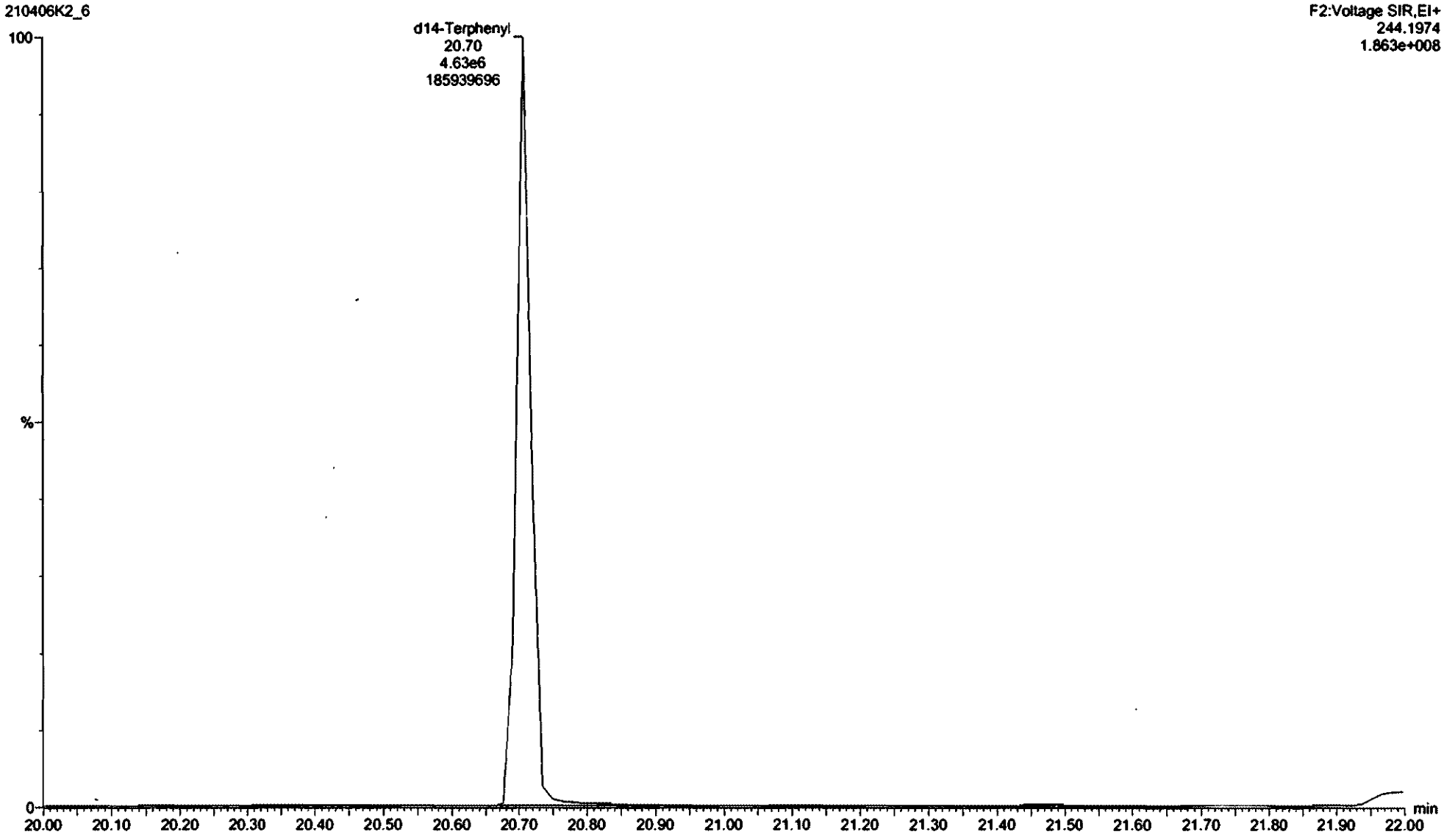
664 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

d14-Terphenyl (PS)

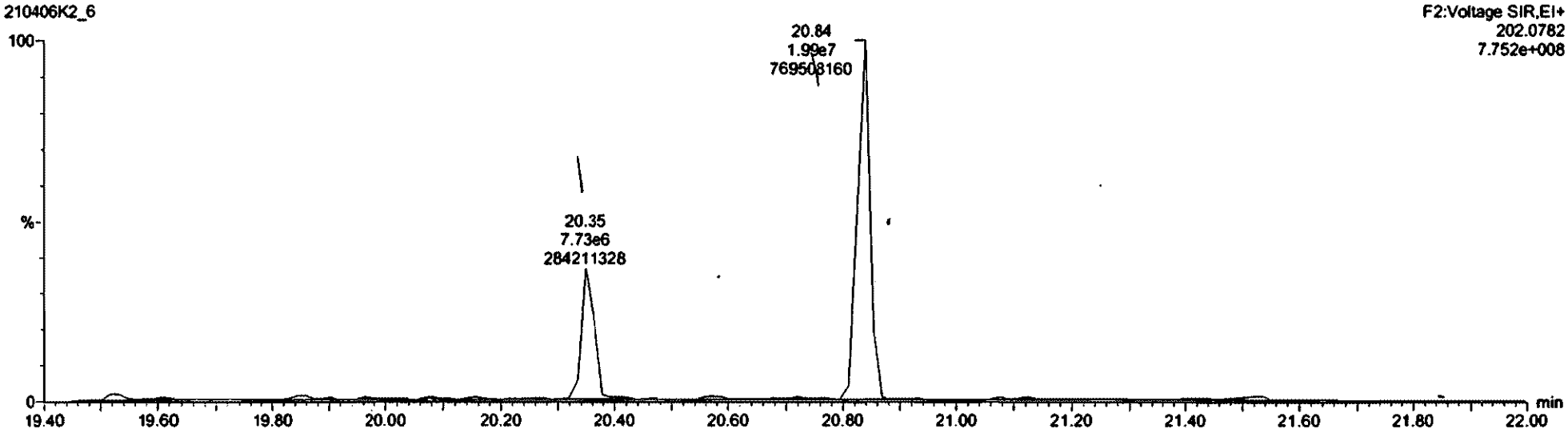


Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

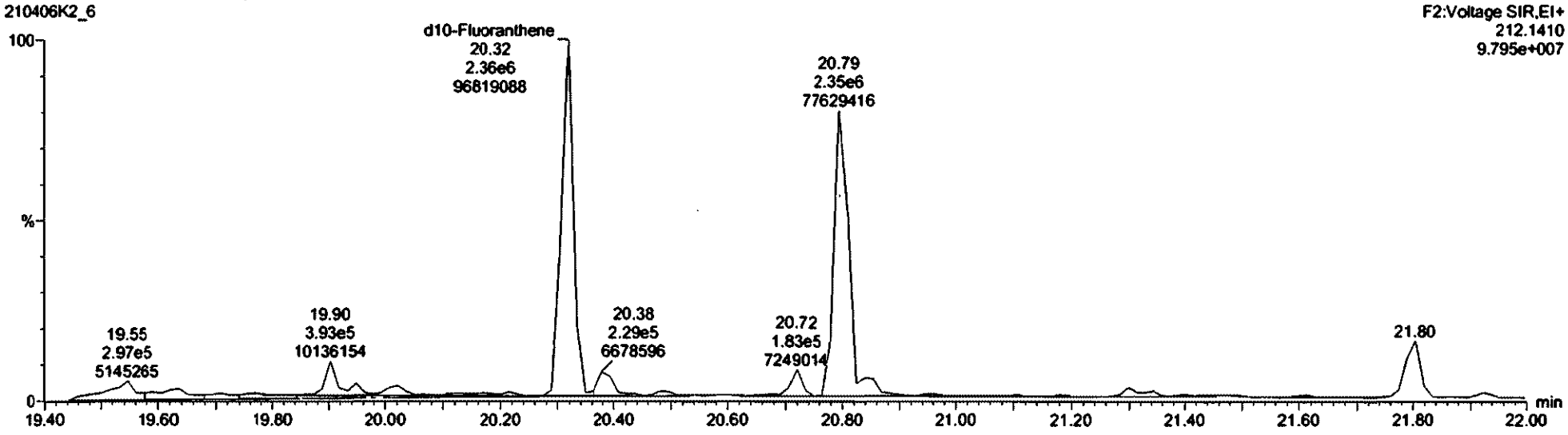
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
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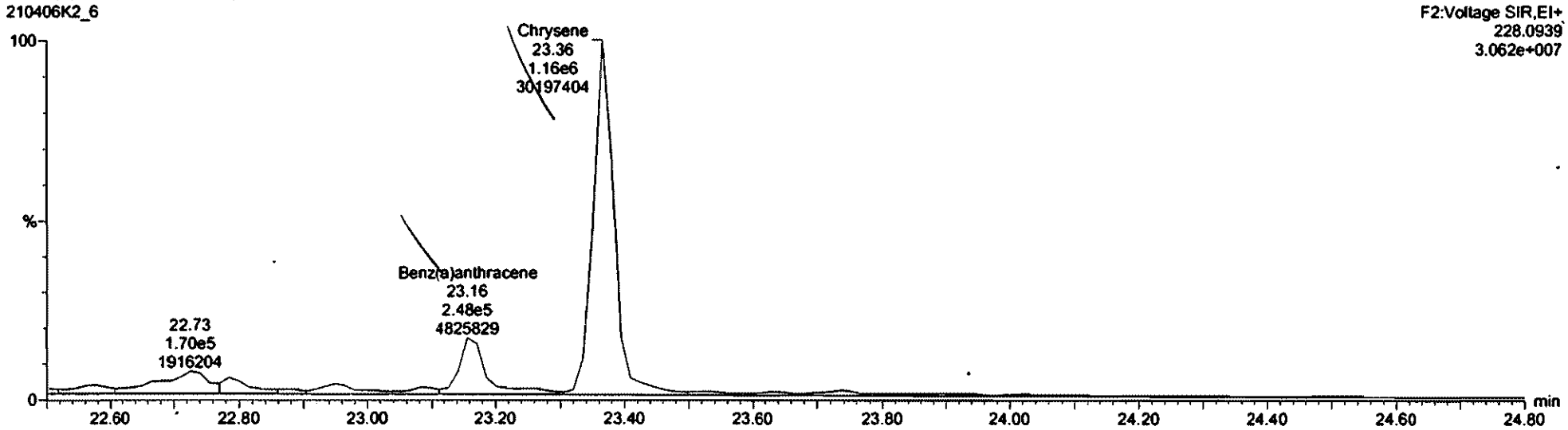
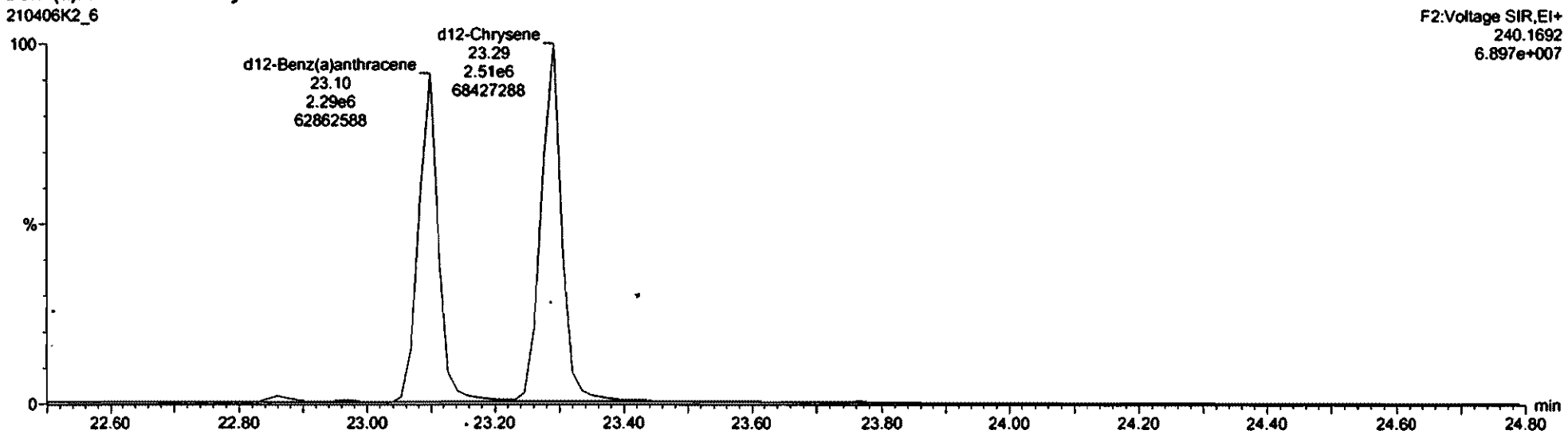
Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso

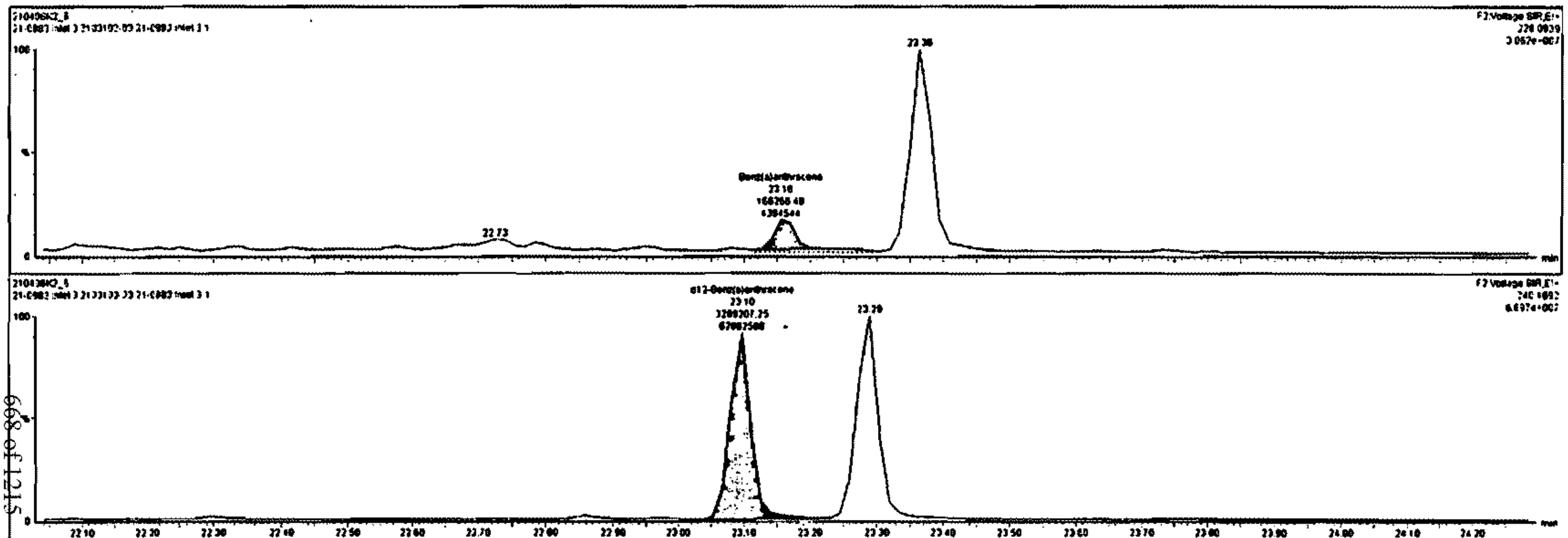


667 of 1215

TargetLynx - 210406K2_6.qld * - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	2.00e8	1.08e6	1.1567	1.000	10.17	10.39	1.0179	1.01	YES	31800		1080	0.000
2	Naphthalene-2nd	3.47e7	1.88e6	0.1275	1.000	10.17	10.33	1.0209	1.01	YES	93000		4030	0.000
3	2-Methylnaphthalene	1.17e8	8.71e6	1.3780	1.000	11.64	11.74	0.8093	0.79	YES	31800		298	0.000
4	Acenaphthylene	7.08e6	4.58e6	1.1165	1.000	14.41	14.43	1.0042	1.00	NO	317		338	0.000
5	Acenaphthene	3.04e7	8.71e6	1.1034	1.000	14.74	14.78	1.0072	1.01	NO	8220		402	0.000
6	Fluorene	3.09e7	6.83e6	1.1538	1.000	15.85	15.85	1.0087	1.01	NO	7880		242	0.000
7	Phenanthrene	3.95e7	4.18e6	1.1884	1.000	18.33	18.31	1.0008	1.00	NO	18000		485	0.000
8	Phenanthrene-2nd	7.77e6	4.16e6	0.0875	1.000	18.33	18.31	1.0008	1.00	NO	40480		5770	0.000
9	Anthracene	2.54e7	4.16e6	1.0810	1.000	18.38	18.34	1.0025	1.01	NO	11200		927	0.000
10	Fluoranthene	7.72e6	2.32e6	1.0885	1.000	20.37	20.35	1.0015	1.00	NO	685		18.8	0.000
11	Pyrene	2.01e7	2.33e6	1.1081	1.000	20.85	20.84	1.0250	1.03	NO	1450		9.97	0.000
12	Benz(a)anthracene	1.68e6	2.29e6	0.8813	1.000	23.14	23.18	1.0008	1.00	NO	✓ 16.1		1.23	0.000
13	Chrysene	1.18e6	2.51e6	0.8519	1.000	23.37	23.38	1.0032	1.00	NO	108		1.28	0.000
14	[illegible]	7.08e5	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		[illegible]	[illegible]

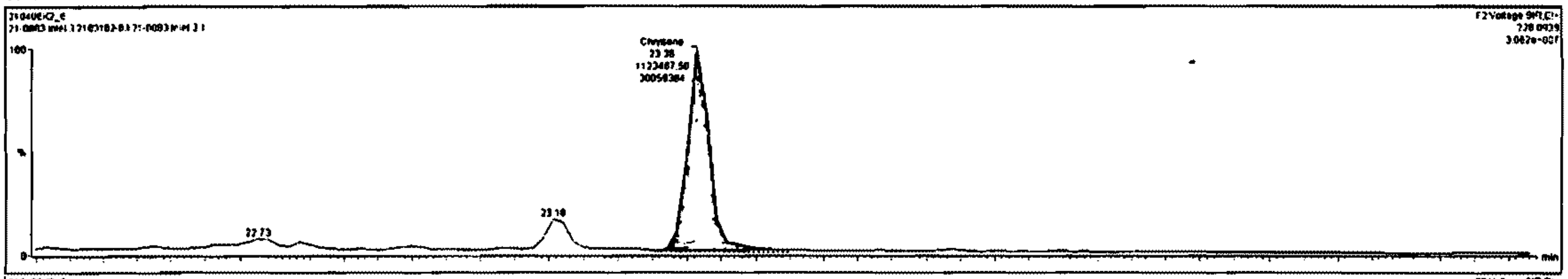


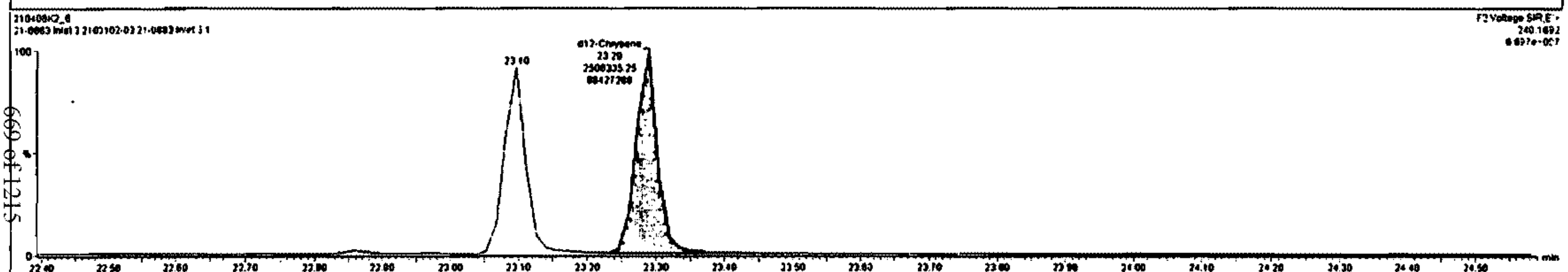
Ready

TargetLynx - 210406K2_6.qld - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	2.00e8	1.88e6	1.1597	1.000	10.17	10.30	1.0170	1.01	YES	31900		1080	0.000
2	Naphthalene-2nd	3.47e7	1.88e6	0.1279	1.000	10.17	10.33	1.0200	1.01	YES	50200		4820	0.000
3	2-Methylnaphthalene	1.47e8	6.71e5	1.3760	1.000	11.84	11.74	0.8043	0.78	YES	31900		298	0.000
4	Acenaphthylene	7.08e6	4.00e6	1.1160	1.000	14.41	14.43	1.0042	1.00	NO	317		338	0.000
5	Acenaphthene	3.84e7	6.71e5	1.1024	1.000	14.74	14.76	1.0077	1.01	NO	6220		402	0.000
6	Fluorene	3.88e7	6.87e5	1.1530	1.000	15.86	15.95	1.0057	1.01	NO	7080		242	0.000
7	Phenanthrene	3.95e7	4.18e5	1.1804	1.000	18.33	18.31	1.0000	1.00	NO	18000		485	0.000
8	Phenanthrene-2nd	7.77e6	4.18e6	0.0025	1.000	18.33	18.31	1.0030	1.00	NO	40400		5770	0.000
9	Anthracene	2.54e7	4.18e5	1.0810	1.000	18.39	18.34	1.0025	1.01	NO	11300		987	0.000
10	Fluoranthene	7.72e6	2.32e6	1.0866	1.000	20.37	20.35	1.0015	1.00	NO	606		10.8	0.000
11	Pyrene	2.01e7	2.32e6	1.1181	1.000	20.85	20.84	1.0256	1.03	NO	1450		9.97	0.000
12	Benz(a)anthracene	1.88e5	2.78e6	0.9813	1.000	23.16	23.16	1.0008	1.00	NO	15.1		1.23	0.000
13	Chrysene	1.12e6	2.51e6	0.8593	1.000	23.37	23.38	1.0032	1.00	NO	106		1.28	0.000
14	[illegible]	7.08e5	4.07e6	1.1060	1.000	[illegible]	[illegible]	1.0061	1.00	NO	[illegible]		0.125	0.000





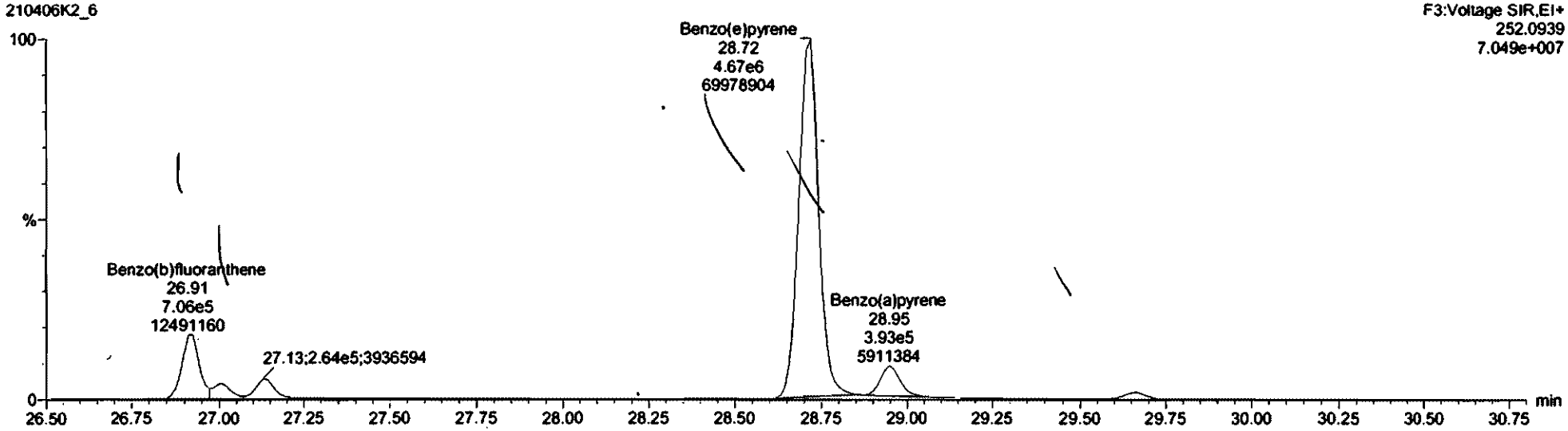
Ready 210406K2_6 CAP NUM

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

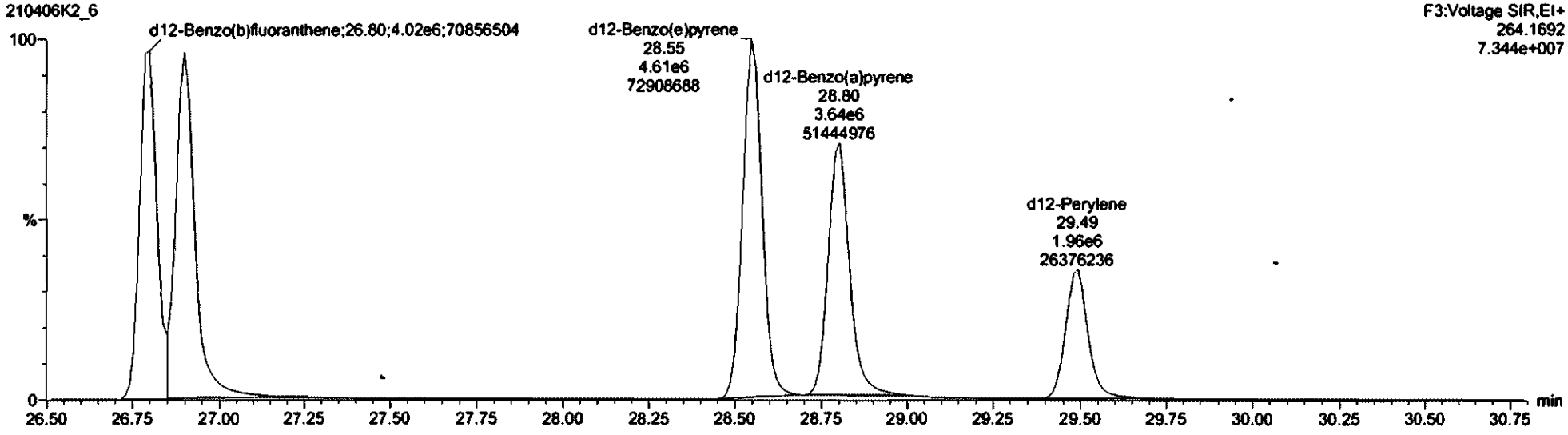
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

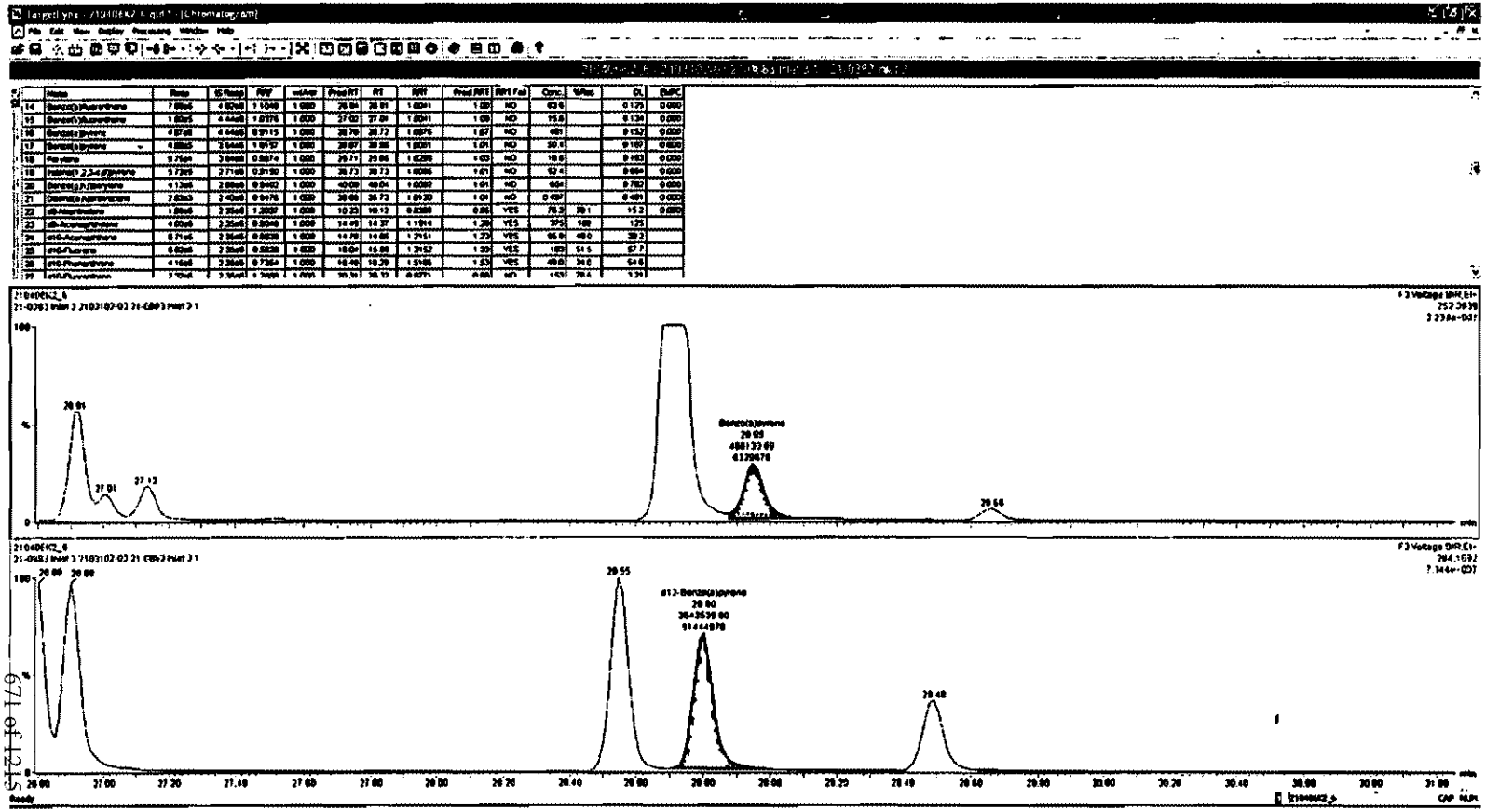
Benzo-PAHs



Benzo-Isotopes



670 of 1215


28.91
37.01
37.13
Benzo(b)pyrene
29.55
d12-Benzo(b)pyrene
29.48

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
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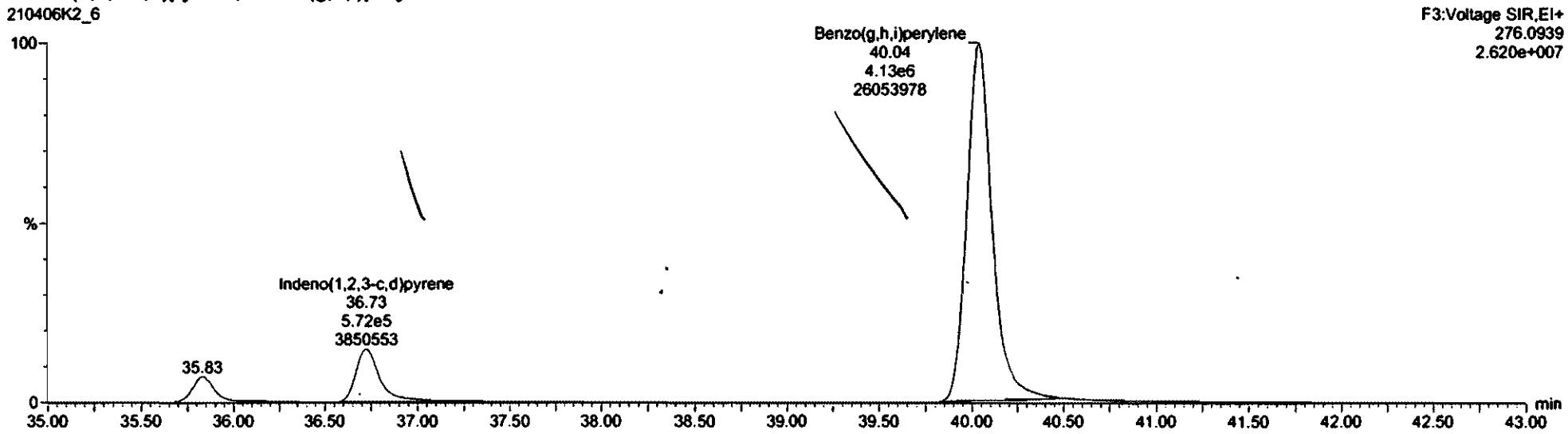
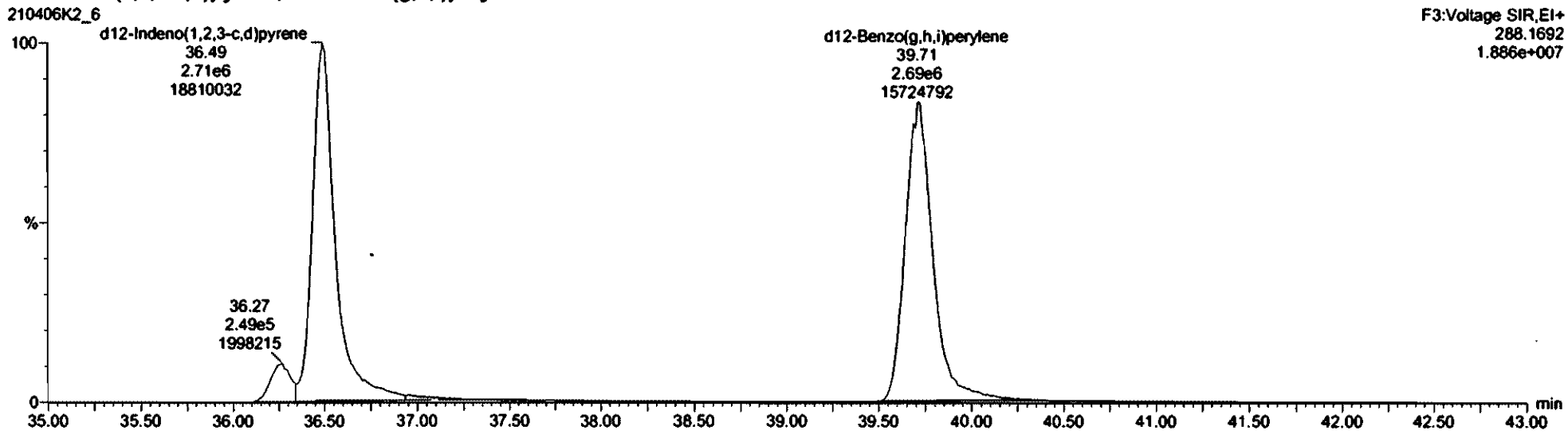
Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



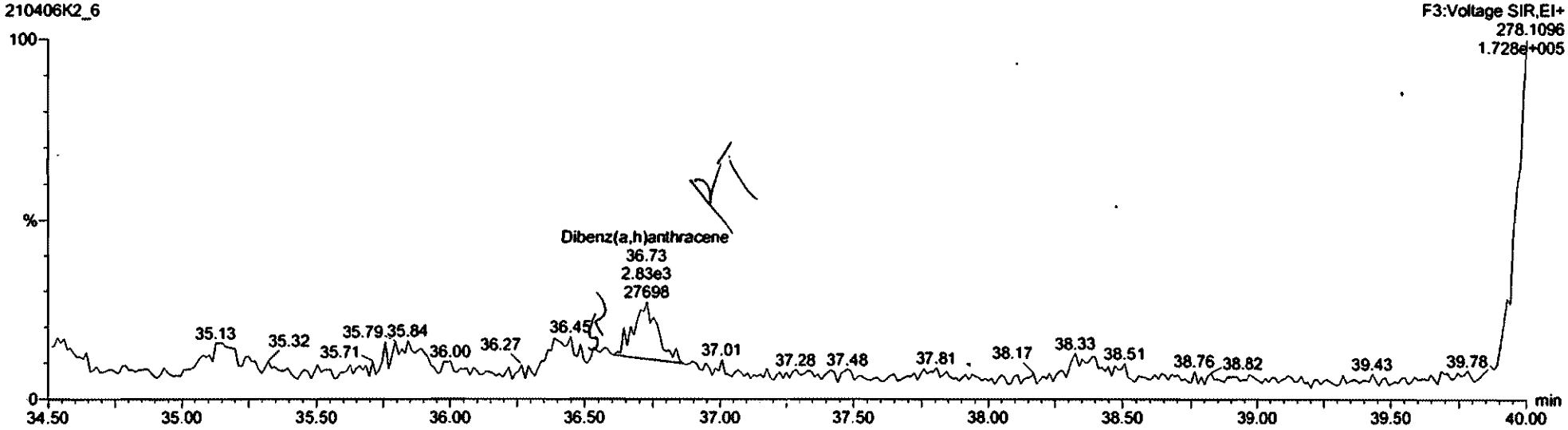
672 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-6.qld

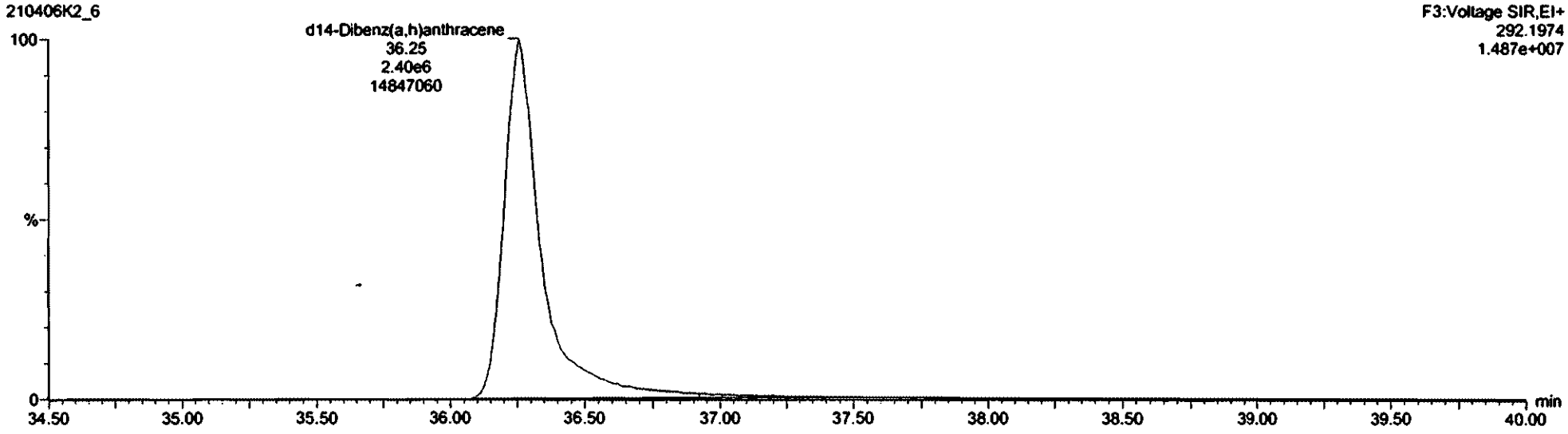
Last Altered: Wednesday, April 07, 2021 10:18:59 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:19:12 AM Pacific Daylight Time

Name: 210406K2_6, Date: 07-Apr-2021, Time: 06:01:47, ID: 2103102-03 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



673 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-13.qld

Last Altered: Wednesday, April 07, 2021 12:29:21 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:29:56 PM Pacific Daylight Time

CT 04/09/2021

4.7.21

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_13, Date: 07-Apr-2021, Time: 11:32:11, ID: 2103102-03@100X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3 1

	#.	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	2	Naphthalene-2nd	2.48e7	4.49e4	0.128	1.000	10.16	10.16	1.006	1.006	NO	863000 E		32500
2	5	Acenaphthene	1.16e6	1.76e4	1.10	1.000	14.70	14.70	1.006	1.006	NO	12000		1030
3	22	d8-Naphthalene	4.49e4	2.88e4	1.20	1.000	10.12	10.10	0.848	0.847	NO	259	130	49.8
4	24	d10-Acenaphthene	1.76e4	2.88e4	0.594	1.000	14.62	14.61	1.226	1.225	NO	206	103	132
5	40	d10-Pyrene	2.88e4	2.88e4	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	6.32

see 500x dil

674 of 1215

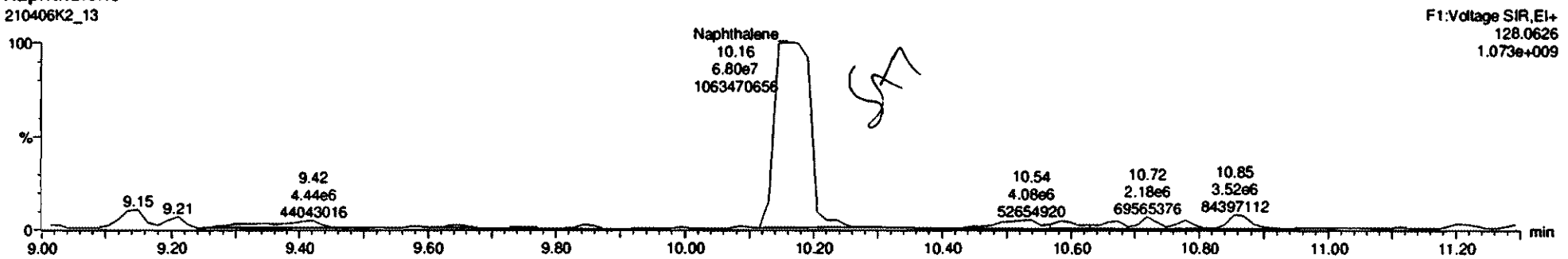
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 12:26:18 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:26:33 PM Pacific Daylight Time

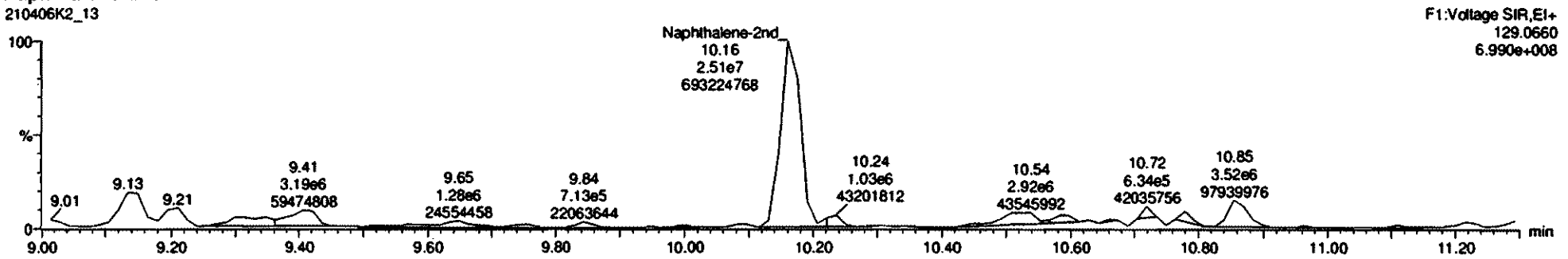
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_13, Date: 07-Apr-2021, Time: 11:32:11, ID: 2103102-03@100X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3 1

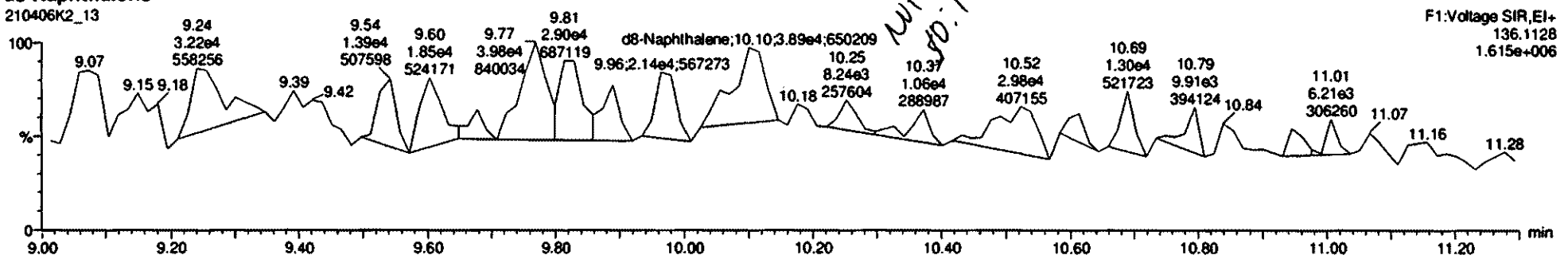
Naphthalene



Naphthalene-2nd



d8-Naphthalene

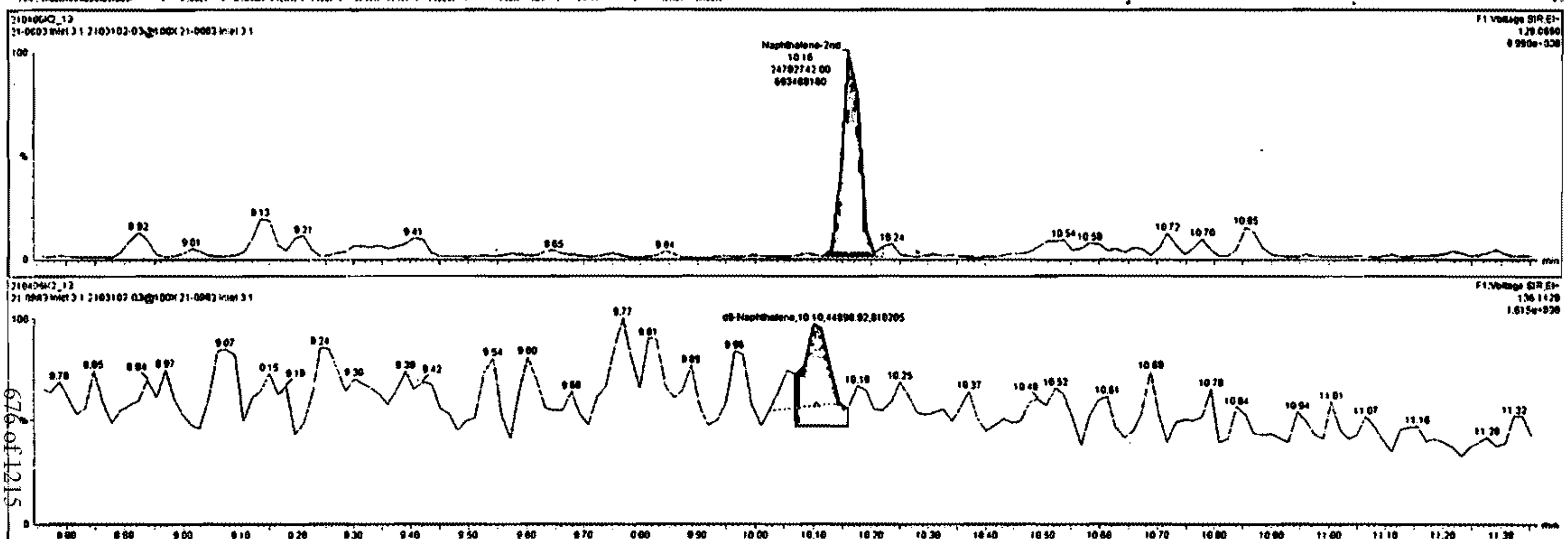


675 of 1215

TargetLynx - 210406K2_1.qld * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
2	Naphthalene-2nd	3.40e7	4.48e4	0.1279	1.000	10.16	10.16	1.0000	1.01	NO	663000		22500	0.000
3	2-Methylnaphthalene	4.35e7	1.78e4	1.3708	1.000	11.61	11.62	0.7866	0.79	NO	351000		643	0.000
4	Acenaphthylene	3.53e5	4.59e4	1.4188	1.000	14.37	14.37	1.0031	1.00	NO	1300		2700	0.000
5	Acenaphthene	1.16e6	1.76e4	1.1824	1.000	14.70	14.70	1.0082	1.01	NO	12000		1030	0.000
6	Fluorene	8.48e6	1.32e4	1.1539	1.000	15.94	15.94	1.0067	1.01	NO	12500		873	0.000
7	Phenanthrene	7.05e6	1.78e4	1.1884	1.000	18.33	18.31	1.0008	1.00	NO	20300		183	0.000
8	Phenanthrene-2nd	3.82e5	1.78e4	0.0825	1.000	18.33	18.35	1.0028	1.00	NO	38500		8310	0.000
9	Anthracene		1.70e4	1.0810	1.000	18.38			1.01	YES			210	
10	Fluoranthene	1.68e6	2.88e4	1.0885	1.000	20.30	20.30	1.0015	1.00	NO	440		8.22	0.000
11	Pyrene	2.60e6	2.98e4	1.1881	1.000	20.87	20.85	1.0256	1.03	NO	1400		7.54	0.000
12	Benz(a)anthracene	1.61e3	1.95e4	0.9813	1.000	23.18	23.20	1.0032	1.00	NO	17.2		10.8	0.000
13	Chrysene	1.69e4	2.22e4	0.8619	1.000	23.40	23.41	1.0030	1.00	NO	115		10.7	0.000
14	Benzo(b)fluoranthene	5.71e3	3.10e4	1.1048	1.000	28.98	28.98	1.0060	1.00	NO	65.5		6.50	0.000
15	[illegible]	2.30e3	4.30e4	1.0026	1.000	27.00	27.00	1.0030	1.00	NO	[illegible]		9.90	0.000



Ready

Dataset: Untitled

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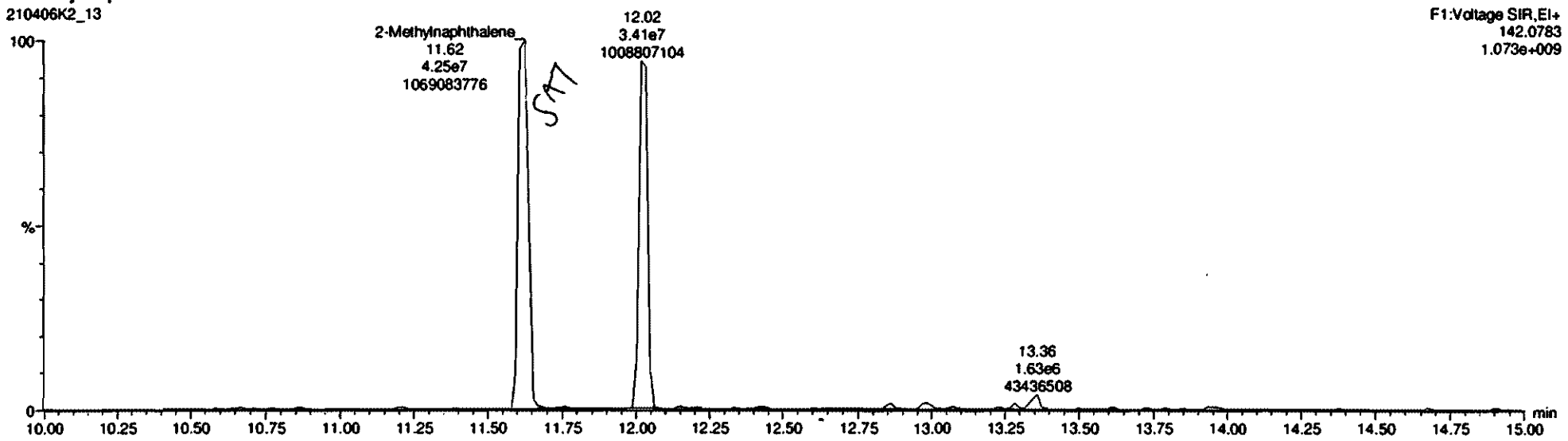
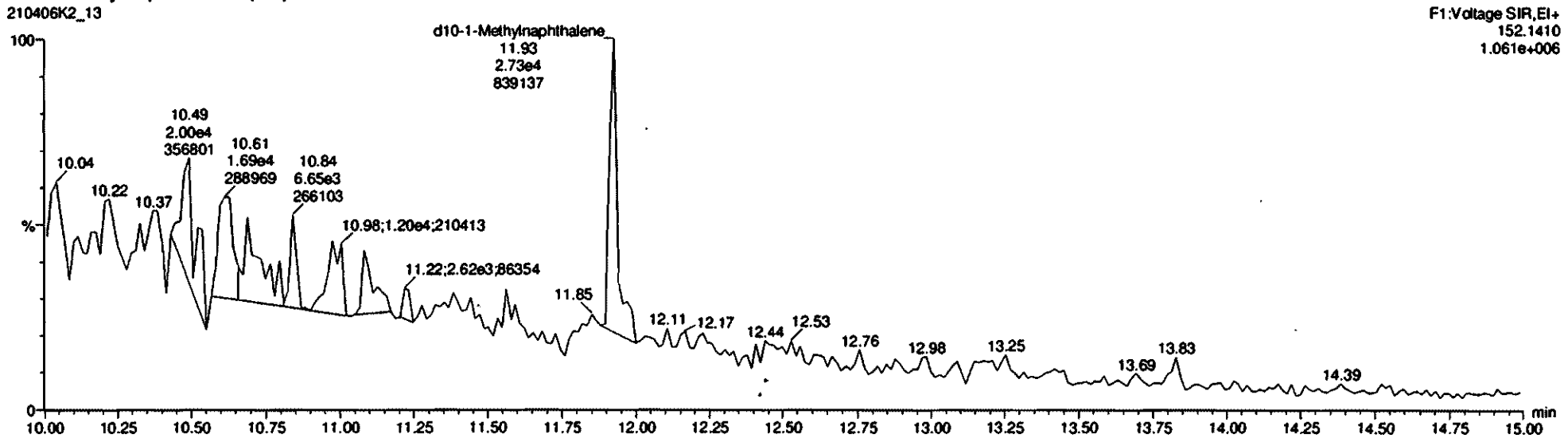
Printed: Wednesday, April 07, 2021 12:26:33 PM Pacific Daylight Time

Name: 210406K2_13, Date: 07-Apr-2021, Time: 11:32:11, ID: 2103102-03@100X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3 1

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



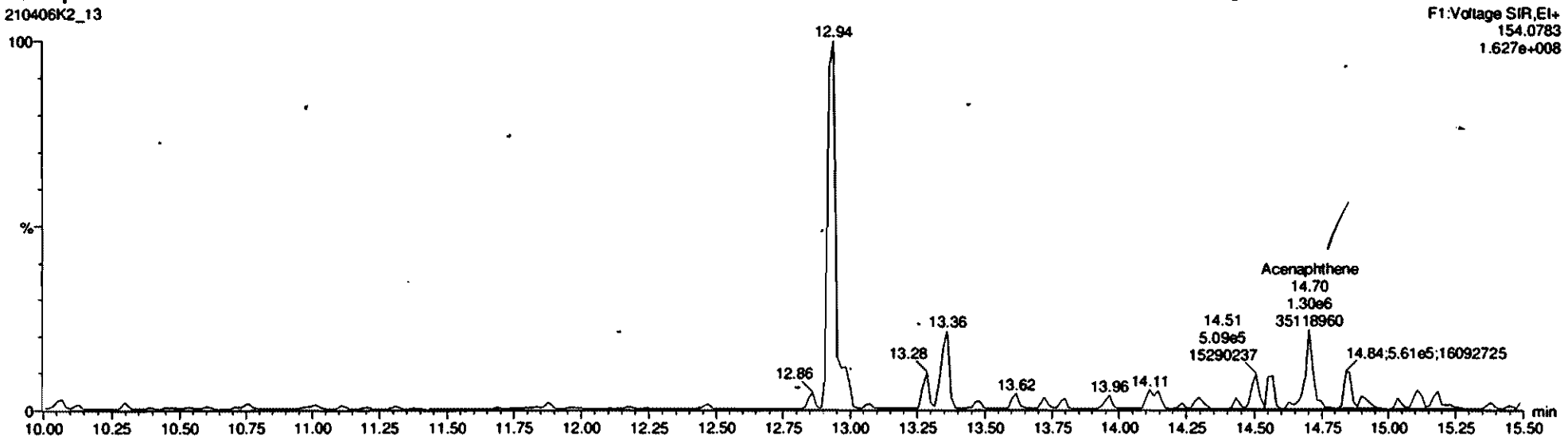
677 of 1215

Dataset: Untitled

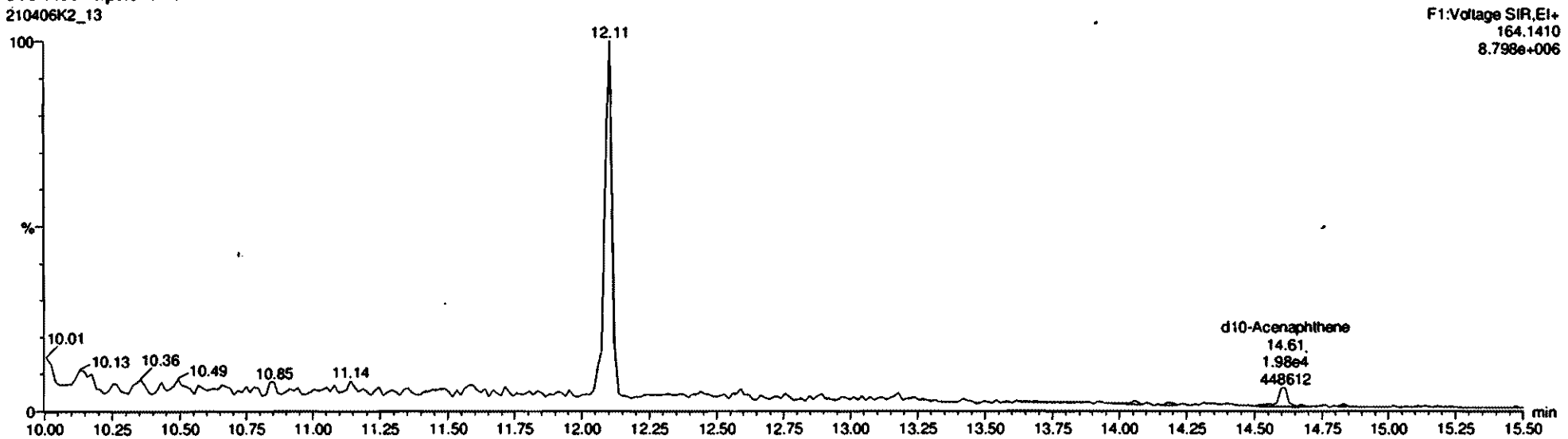
Last Altered: Wednesday, April 07, 2021 12:26:18 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:26:33 PM Pacific Daylight Time

Name: 210406K2_13, Date: 07-Apr-2021, Time: 11:32:11, ID: 2103102-03@100X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3 1

Acenaphthene



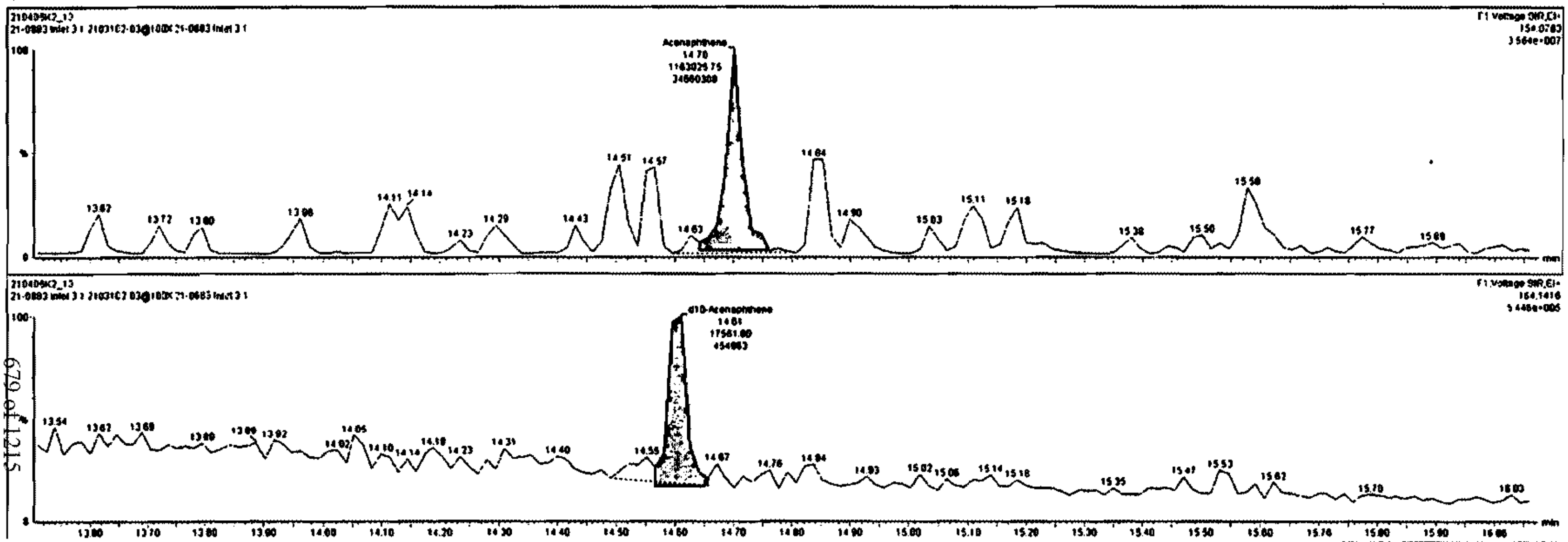
d10-Acenaphthene



678 of 1215

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	6.80e7	6.00e4	1.1597	1.000	10.16	10.18	1.0020	1.01	NO	194000		4200	0.000
2	Naphthalene-2nd	2.48e7	6.00e4	0.1279	1.000	10.16	10.16	1.0020	1.01	NO	640000		32600	0.000
3	2-Methylnaphthalene	4.25e7	1.70e4	1.3789	1.000	11.84	11.82	0.7955	0.79	NO	361000		843	0.000
4	Acenaphthylene	2.53e5	4.50e4	1.1168	1.000	14.37	14.37	1.0032	1.00	NO	1380		2700	0.000
5	Acenaphthene	1.18e6	1.76e4	1.1024	1.000	14.70	14.70	1.0052	1.01	NO	12000		1000	0.000
6	Fluorene	9.48e5	1.33e4	1.1538	1.000	15.94	15.94	1.0007	1.01	NO	12900		679	0.000
7	Phenanthrene	2.65e6	1.70e4	1.1884	1.000	18.33	18.31	1.0008	1.00	NO	20300		183	0.000
8	Phenanthrene-2nd	3.07e5	1.70e4	0.0825	1.000	18.33	18.31	1.0008	1.00	NO	38500		8310	0.000
9	Anthracene		1.70e4	1.0810	1.000	18.38			1.01	YES			318	
10	Fluoranthene	1.88e5	2.98e4	1.0086	1.000	20.38	20.38	1.0015	1.00	NO	688		8.22	0.000
11	Pyrene	7.88e5	2.98e4	1.1981	1.000	20.87	20.85	1.0056	1.00	NO	1480		7.54	0.000
12	Benz(a)anthracene	1.81e3	1.95e4	0.9813	1.000	23.18	23.20	1.0002	1.00	NO	17.2		18.8	0.000
13	Chrysene	1.09e4	2.22e4	0.8519	1.000	23.40	23.41	1.0030	1.00	NO	115		10.7	0.000
14	Benzo(b)fluoranthene	5.71e5	3.14e4	1.1068	1.000	[illegible]	[illegible]	1.0099	1.00	NO	66.5		8.50	[illegible]

210409K2_13
21-0883 Inlet 3.1 2103102-03@100X 21-0883 Inlet 3.1



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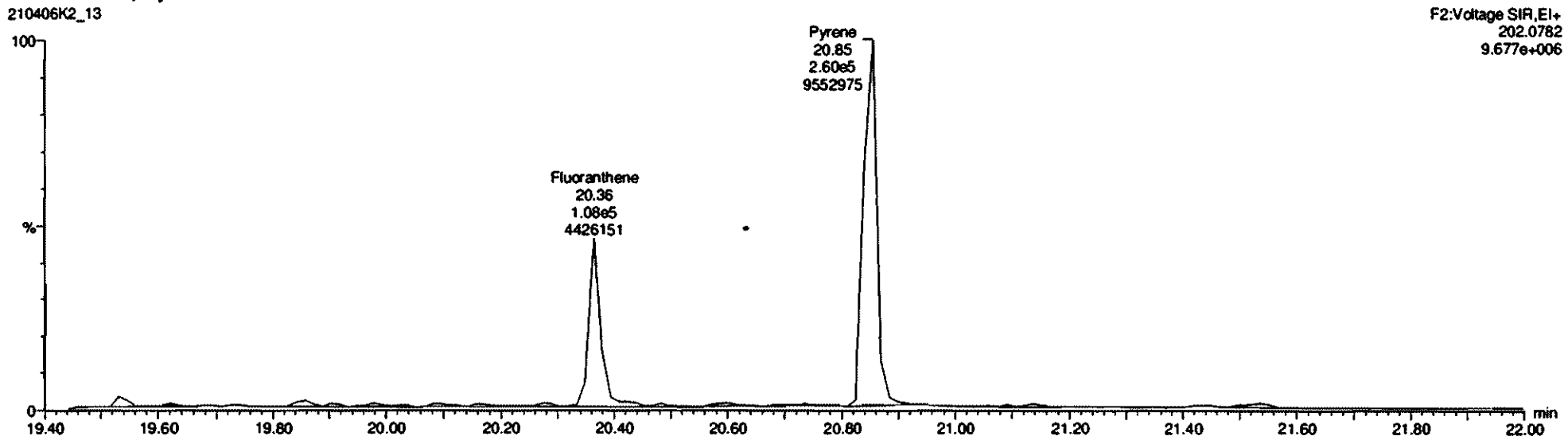
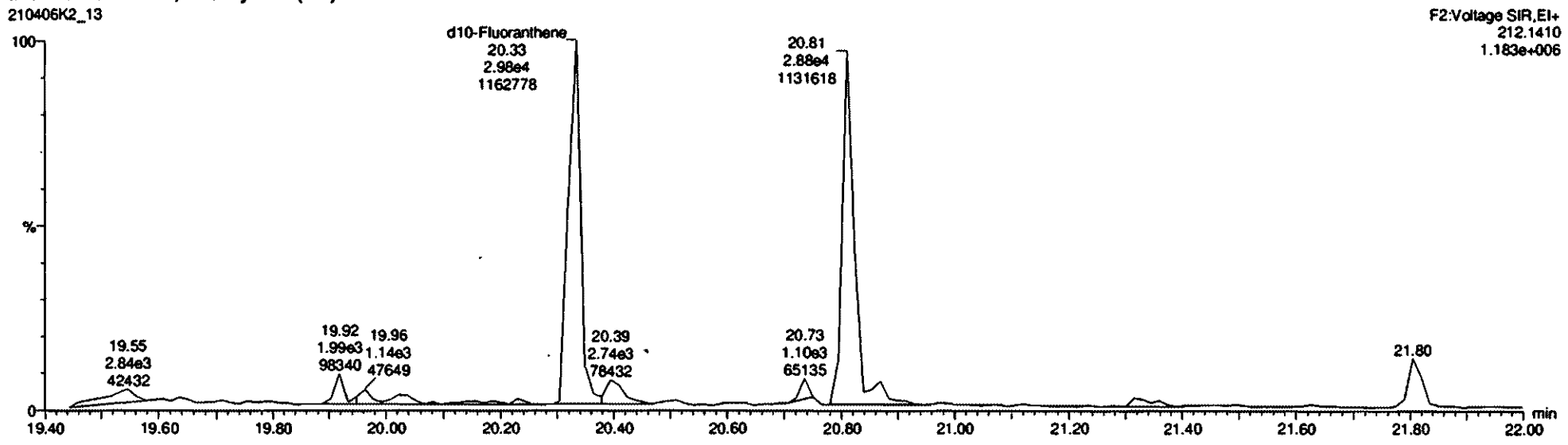
Printed: Wednesday, April 07, 2021 12:26:33 PM Pacific Daylight Time

Name: 210406K2_13, Date: 07-Apr-2021, Time: 11:32:11, ID: 2103102-03@100X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

Last Altered: Wednesday, April 07, 2021 11:58:01 Pacific Daylight Time
Printed: Friday, April 09, 2021 10:19:38 Pacific Daylight Time

4.9.2021

x see d.l

xA: see 500x dilution

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	4	Acenaphthylene	1.23e6	1.62e5	1.12	1.000	14.37	14.37	1.003	1.003	NO	1360 xA		2360
2	5	Acenaphthene	4.28e6	5.31e4	1.10	1.000	14.68	14.70	1.006	1.007	NO	14600 Ex		2000
3	6	Fluorene	3.04e6	6.05e4	1.15	1.000	15.92	15.92	1.006	1.006	NO	8700		550
4	7	Phenanthrene	5.83e6	8.07e4	1.19	1.000	18.32	18.29	1.002	1.001	NO	12100		188
5	9	Anthracene	3.47e6	8.07e4	1.09	1.000	18.38	18.32	1.005	1.003	NO	7880		205
6	10	Fluoranthene	4.46e5	1.33e5	1.10	1.000	20.37	20.35	1.002	1.001	NO	612		13.8
7	11	Pyrene	1.06e6	1.33e5	1.20	1.000	20.85	20.84	1.026	1.026	NO	1330		12.6
8	20	Benzo(g,h,i)perylene	1.63e5	1.10e5	0.940	1.000	40.12	40.06	1.009	1.008	NO	630		7.66
9	23	d8-Acenaphthylene	1.62e5	1.28e5	0.905	1.000	14.33	14.32	1.201	1.201	NO	281	141 xA	469
10	24	d10-Acenaphthene	5.31e4	1.28e5	0.594	1.000	14.62	14.60	1.226	1.224	NO	140	70.0 x	128
11	25	d10-Fluorene	6.05e4	1.28e5	0.563	1.000	15.86	15.83	1.330	1.328	NO	168	84.2	138
12	26	d10-Phenanthrene	8.07e4	1.28e5	0.735	1.000	18.28	18.28	1.533	1.533	NO	172	85.9	293
13	27	d10-Fluoranthene	1.33e5	1.28e5	1.29	1.000	20.31	20.32	0.977	0.977	NO	162	80.8	1.14
14	34	d12-Benzo(g,h,i)perylene	1.10e5	8.08e4	1.00	1.000	40.19	39.74	1.362	1.347	YES	272	68.0	1.51

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

Last Altered: Wednesday, April 07, 2021 11:58:01 Pacific Daylight Time
Printed: Friday, April 09, 2021 10:19:50 Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

	#-Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	36 d10-Anthracene	5.61e4	8.08e4	0.989	1.000	18.37	18.34	1.541	1.538	NO	141	70.3	1120
2	40 d10-Pyrene	1.28e5	1.28e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	1.46
3	41 d12-Perylene	8.08e4	8.08e4	1.00	1.000	29.59	29.50	1.000	1.000	NO	200	100	1.60

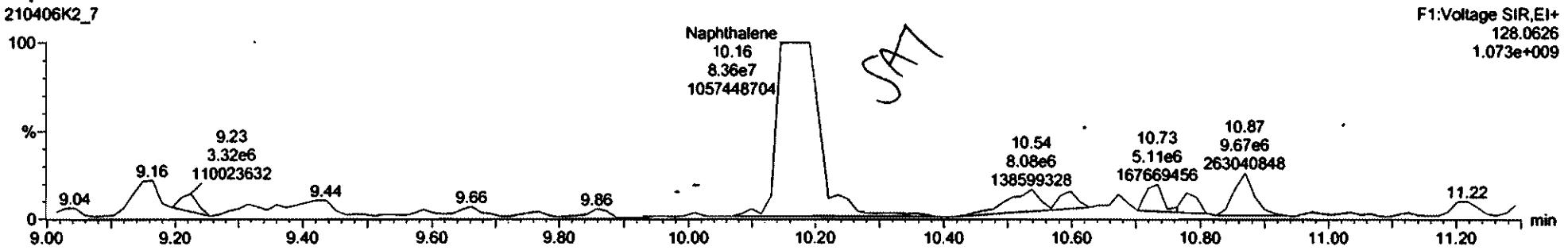
Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

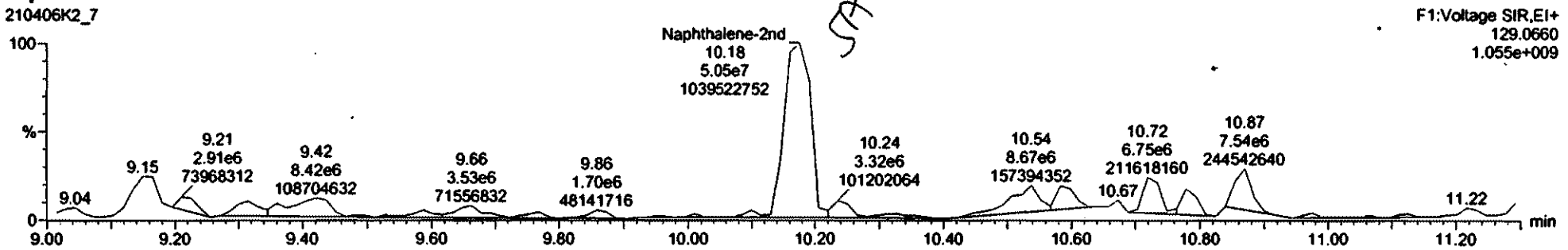
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

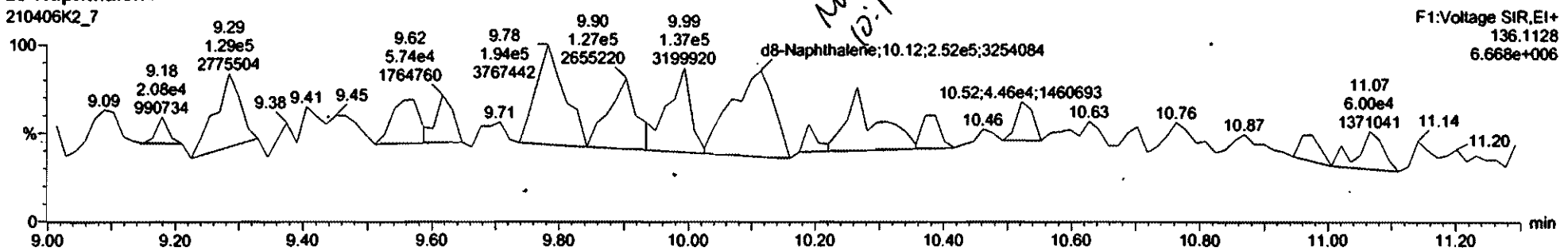
Naphthalene



Naphthalene-2nd



d8-Naphthalene



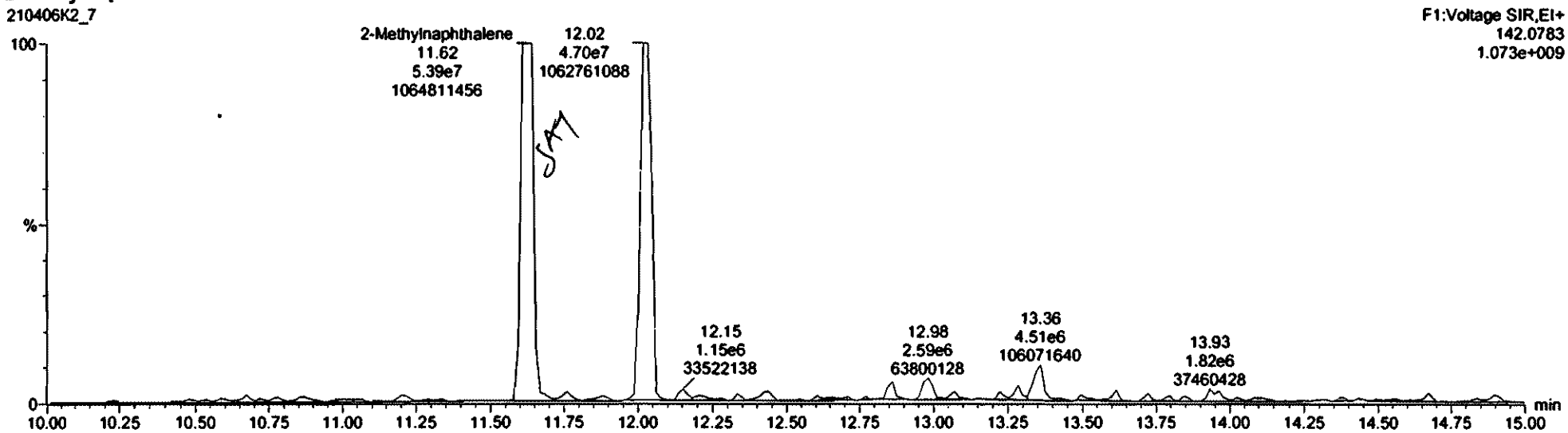
683 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

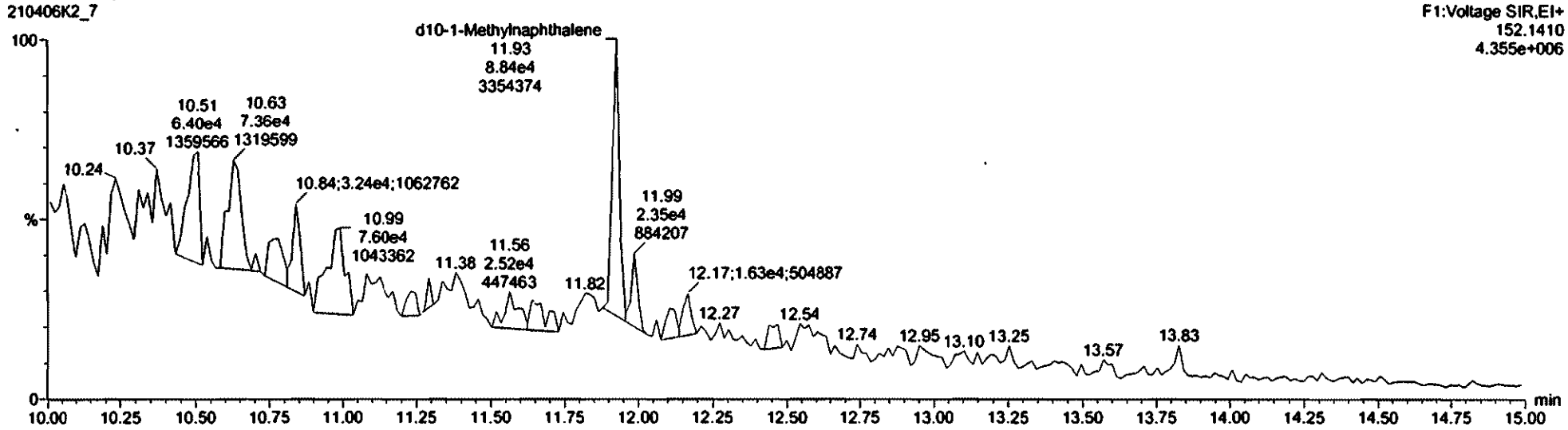
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

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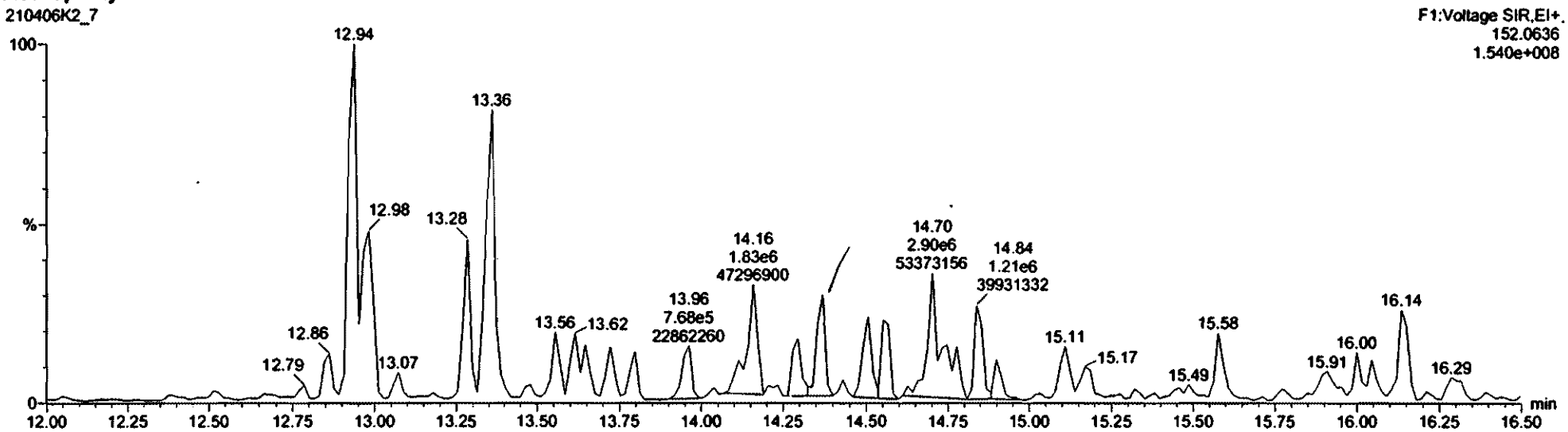
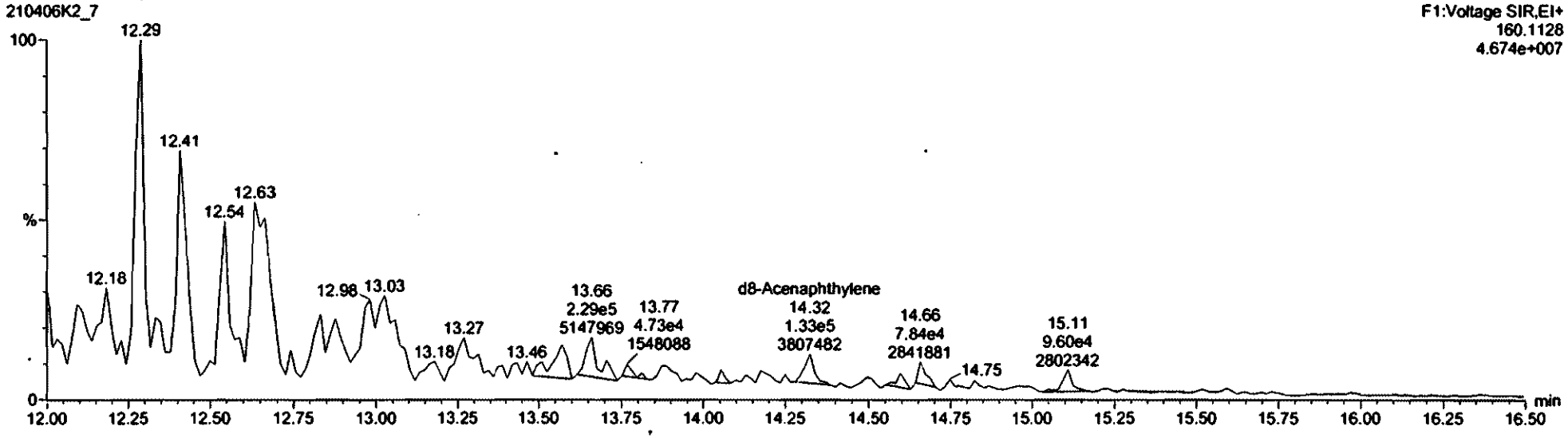
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

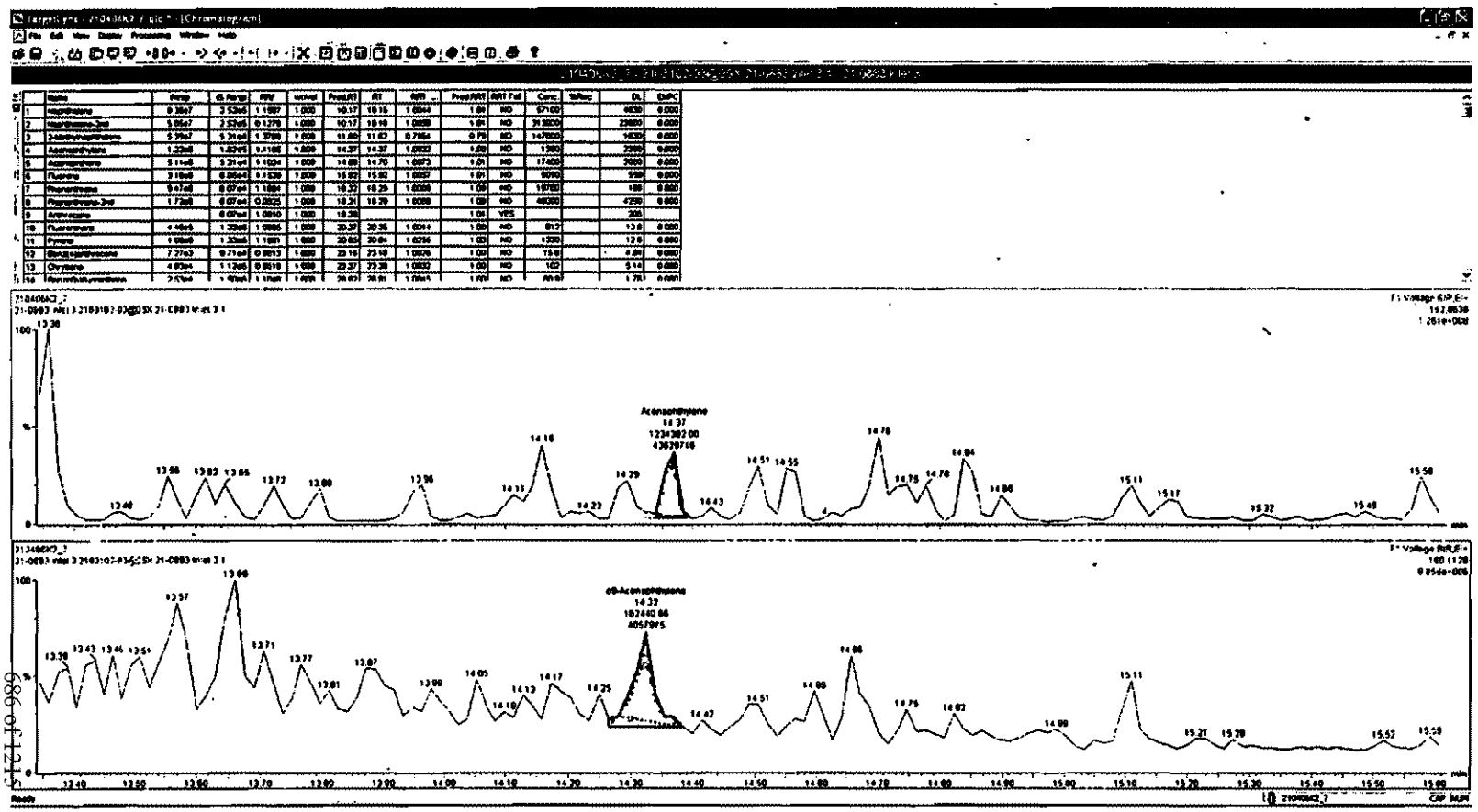
Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Acenaphthylene



d8-Acenaphthylene




Acenaphthylene
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09-Acenaphthylene
14.32
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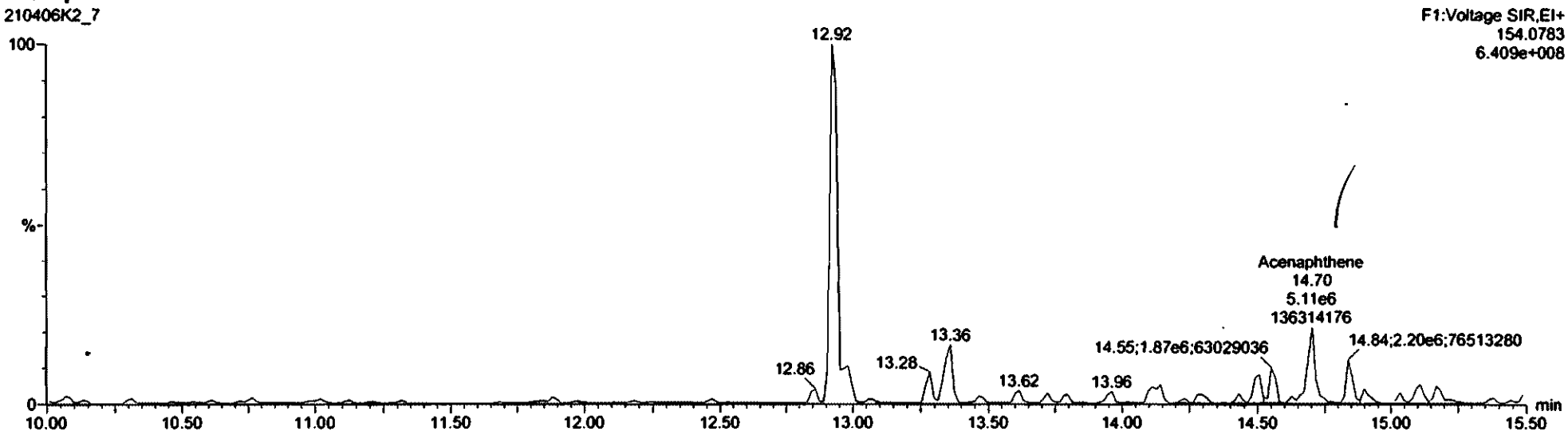
Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

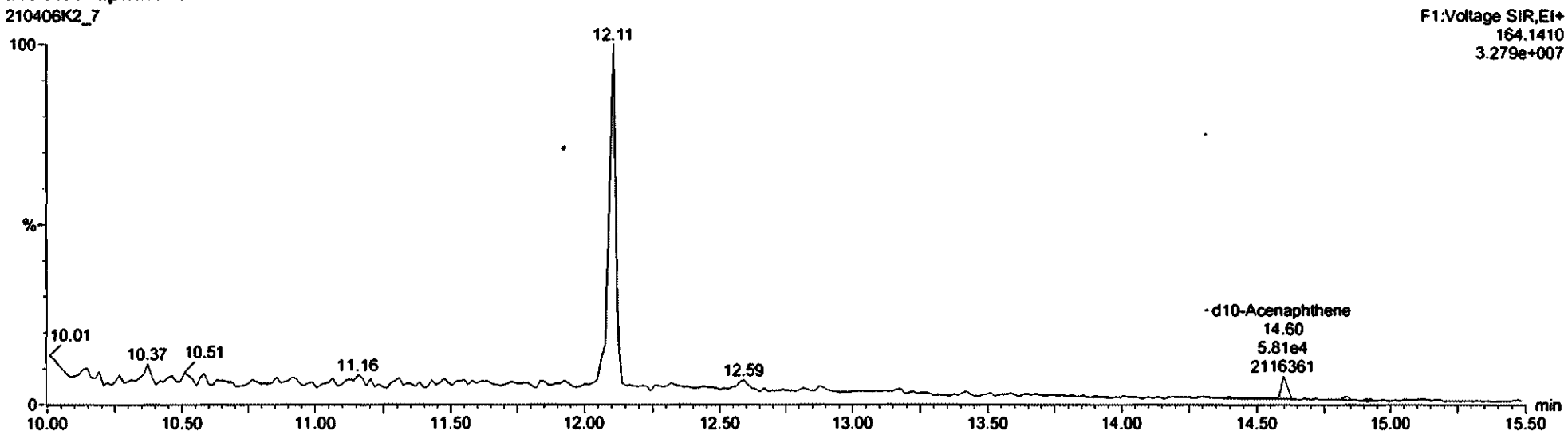
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Acenaphthene



d10-Acenaphthene

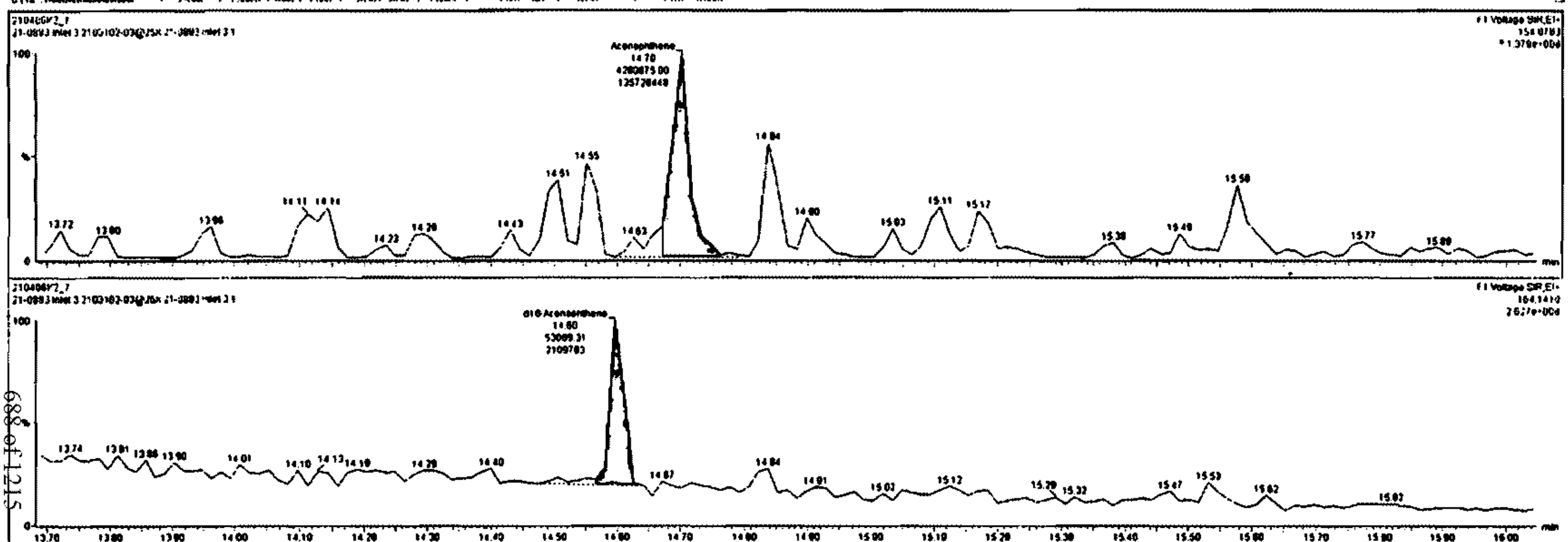


687 of 1215

TargetLynx - 2104D6K2 / qld * [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	QL	EMPC
1	Naphthalene	6.36e7	2.52e5	1.1597	1.000	10.17	10.16	1.0044	1.01	NO	57100		4600	0.000
2	Naphthalene-2nd	5.06e7	2.53e5	0.1279	1.000	10.17	10.18	1.0059	1.01	NO	343000		23000	0.000
3	2-Methylnaphthalene	5.36e7	5.31e4	1.3788	1.000	11.60	11.62	0.7884	0.79	NO	147000		1600	0.000
4	Acenaphthylene	1.23e6	1.63e5	1.1108	1.000	14.37	14.37	1.0032	1.00	NO	1380		2380	0.000
5	Acenaphthene	6.28e6	5.31e4	1.1624	1.000	14.69	14.70	1.0072	1.01	NO	14800		2000	0.000
6	Fluorene	3.19e6	5.06e4	1.1538	1.000	15.82	15.82	1.0057	1.01	NO	9050		960	0.000
7	Phenanthrene	9.47e6	8.07e4	1.1884	1.000	18.32	18.29	1.0008	1.00	NO	18780		180	0.000
8	Phenanthrene-2nd	1.72e6	8.07e4	0.0825	1.000	18.31	18.28	1.0008	1.00	NO	48000		4280	0.000
9	Anthracene		8.07e4	1.0810	1.000	18.38			1.01	YES			205	
10	Fluoranthene	4.40e6	1.33e5	1.0886	1.000	20.37	20.35	1.0014	1.00	NO	812		13.8	0.000
11	Pyrene	1.08e6	1.33e5	1.1891	1.000	20.65	20.84	1.0256	1.03	NO	1330		12.8	0.000
12	Benz[a]anthracene	7.27e3	8.71e4	0.8813	1.000	23.16	23.16	1.0828	1.00	NO	15.8		4.84	0.000
13	Chrysene	4.83e4	1.12e5	0.8619	1.000	23.37	23.36	1.0032	1.00	NO	102		5.14	0.000
14	Benzo(b)fluoranthene	2.53e4	1.58e5	1.1046	1.000	26.97	26.86	1.0045	1.00	NO	80.4		1.78	0.000



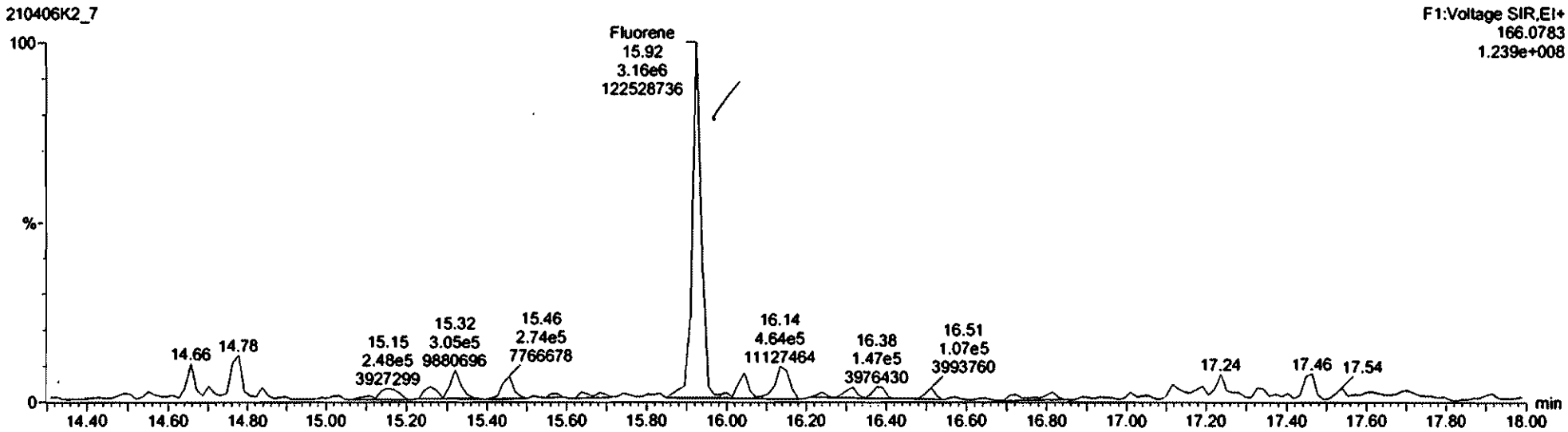
Ready

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

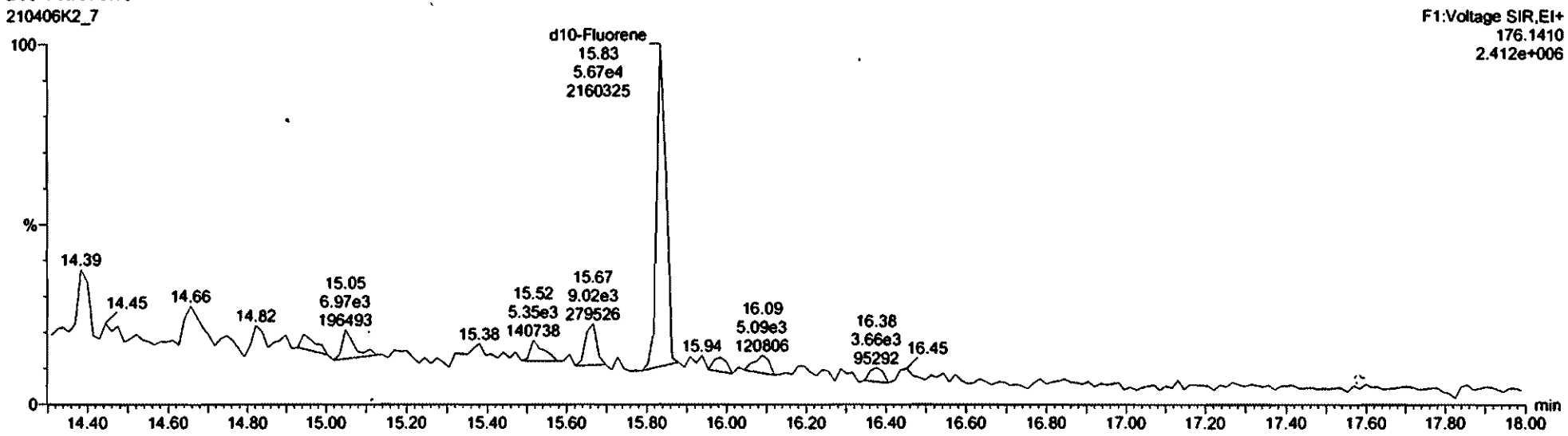
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluorene



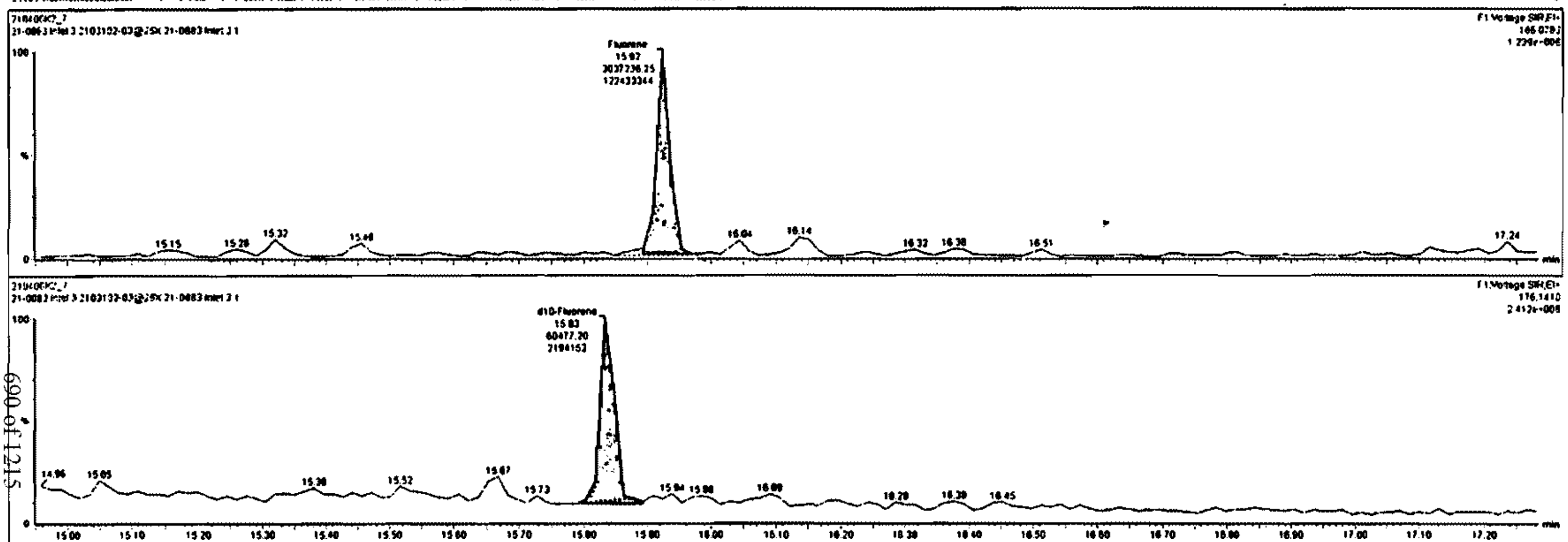
d10-Fluorene



TargetLynx - 210406A2_7.qld - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Area	IS Resp	RRF	wUval	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	6.38e7	2.53e5	1.1987	1.000	10.17	10.16	1.0044	1.01	NO	57100		4830	0.000
2	Naphthalene-2nd	5.05e7	2.53e5	0.1279	1.000	10.17	10.19	1.0068	1.01	NO	313000		23000	0.000
3	2-Methylnaphthalene	5.38e7	5.31e4	1.3789	1.000	11.80	11.62	0.7884	0.79	NO	147000		1030	0.000
4	Acenaphthylene	1.23e6	1.62e5	1.1186	1.000	14.37	14.37	1.0032	1.00	NO	1380		2380	0.000
5	Acenaphthene	4.26e6	5.31e4	1.1824	1.000	14.80	14.70	1.0072	1.01	NO	14800		3030	0.000
6	Fluorene	3.04e6	8.06e4	1.1630	1.000	15.82	15.82	1.0067	1.01	NO	8700		550	0.000
7	Phenanthrene	8.47e6	8.07e4	1.1684	1.000	18.22	18.29	1.0038	1.00	NO	19700		100	0.000
8	Phenanthrene-2nd	1.73e6	8.07e4	0.0825	1.000	18.31	18.29	1.0038	1.00	NO	48000		4290	0.000
9	Anthracene		8.07e4	1.0910	1.000	18.38			1.01	YES			306	
10	Fluoranthene	4.48e5	1.33e5	1.0985	1.000	20.37	20.36	1.0014	1.00	NO	612		13.8	0.000
11	Pyrene	1.68e6	1.33e5	1.1881	1.000	20.65	20.64	1.0256	1.03	NO	1330		12.6	0.000
12	Benz(a)anthracene	7.27e3	9.71e4	0.9815	1.000	23.16	23.16	1.0030	1.00	NO	15.0		4.84	0.000
13	Chrysene	4.63e4	1.12e5	0.8519	1.000	23.27	23.38	1.0032	1.00	NO	102		5.14	0.000
14	[illegible]	[illegible]	1.50e5	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		1.76	0.000



Ready

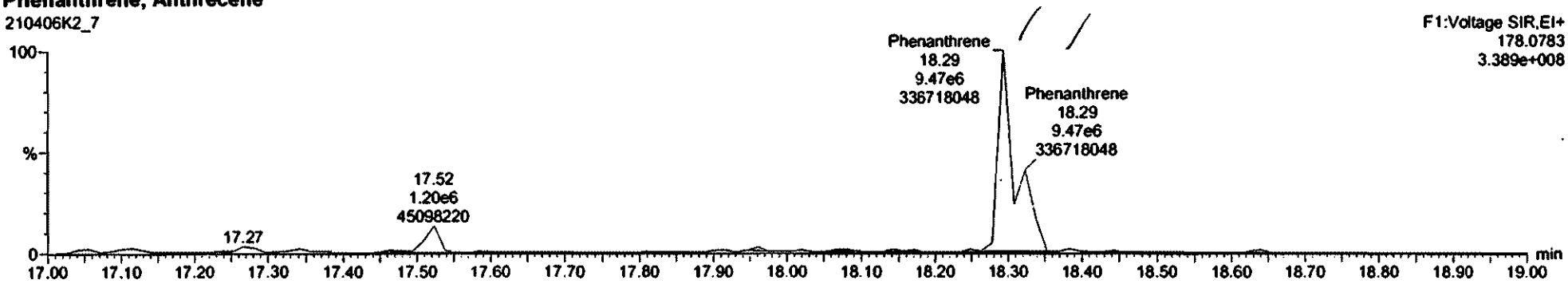
690 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

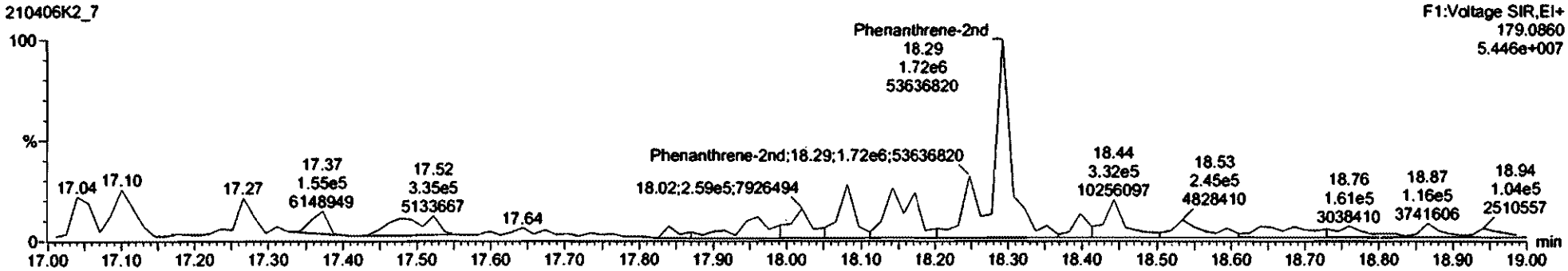
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

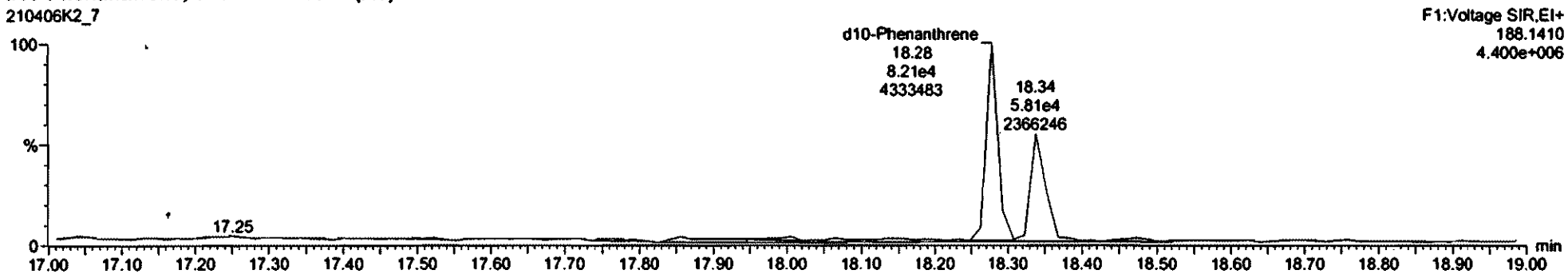
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



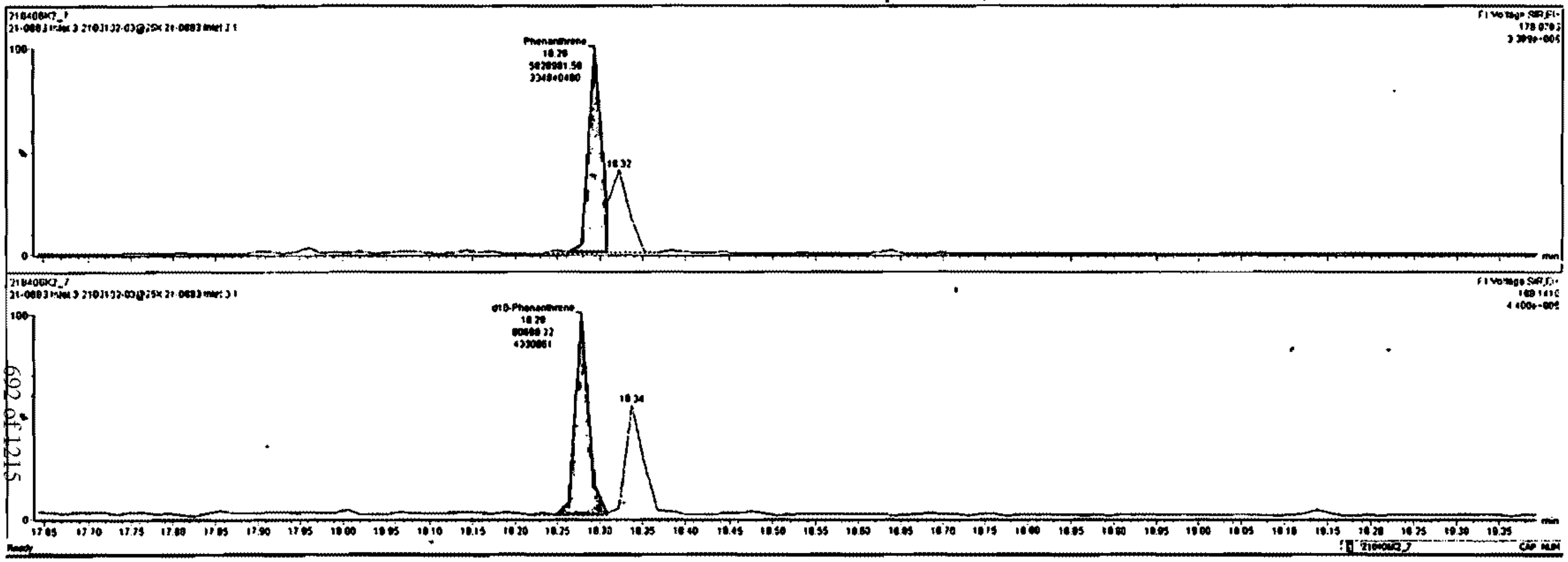
691 of 1215

TargetLynx - 210406K2_7.qld * - [Chromatogram]

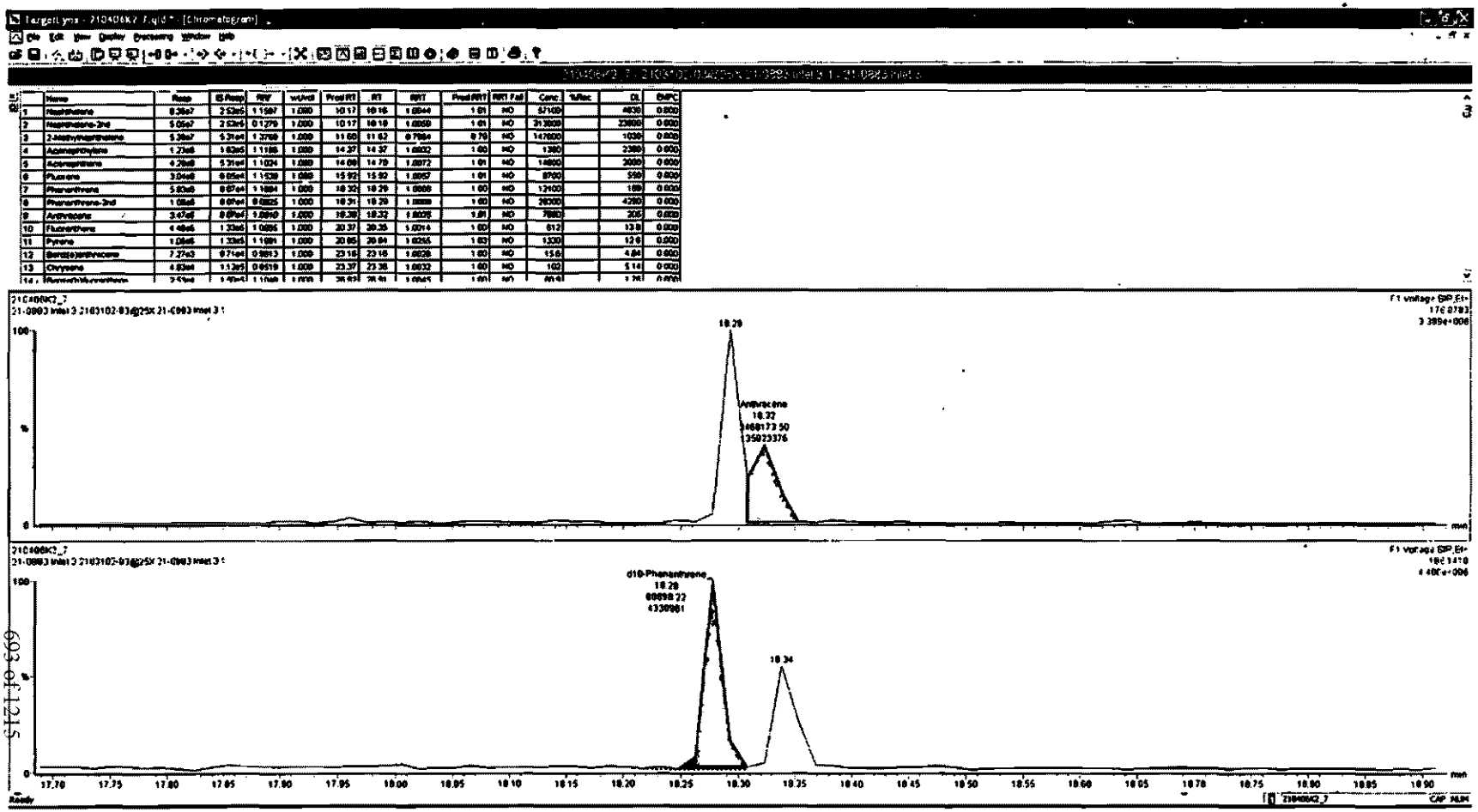
File Edit View Display Processing Window Help

210406K2_7 - 21-0883 Inlet 3 2103102-03@25X 21-0883 Inlet 3 1

	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	8.38e7	2.52e5	1.1587	1.000	10.17	10.18	1.0044	1.01	NO	57100		4830	0.000
2	Naphthalene-d8	5.05e7	2.52e5	0.1279	1.000	10.17	10.18	1.0059	1.01	NO	313000		23800	0.000
3	2-Methylnaphthalene	5.38e7	5.31e4	1.3788	1.000	11.80	11.62	0.7984	0.79	NO	147000		1600	0.000
4	Acenaphthylene	1.23e6	1.62e5	1.3108	1.000	14.37	14.37	1.0032	1.00	NO	1380		2380	0.000
5	Acenaphthene	4.28e6	5.31e4	1.1024	1.000	14.88	14.70	1.0072	1.01	NO	14800		2030	0.000
6	Fluorene	3.04e6	8.08e4	1.1539	1.000	15.92	15.92	1.0067	1.01	NO	8700		550	0.000
7	Phenanthrene	5.83e6	8.07e4	1.1884	1.000	18.32	18.28	1.0088	1.00	NO	12100		188	0.000
8	Phenanthrene-d10	1.73e8	8.07e4	0.0826	1.000	18.31	18.29	1.0088	1.00	NO	48000		4280	0.000
9	Anthracene		8.07e4	1.0840	1.000	18.38			1.01	YES			205	
10	Fluoranthene	4.48e5	1.33e5	1.0886	1.000	20.37	20.36	1.0014	1.00	NO	812		13.8	0.000
11	Pyrene	1.05e6	1.33e5	1.1881	1.000	20.85	20.84	1.0255	1.00	NO	1330		12.8	0.000
12	Benz(a)anthracene	7.27e3	9.71e4	0.8813	1.000	23.16	23.16	1.0028	1.00	NO	15.6		4.84	0.000
13	Chrysene	4.83e4	1.12e5	0.8519	1.000	23.37	23.36	1.0032	1.00	NO	102		5.14	0.000
14	[illegible]	2.53e4	1.40e5	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		1.78	0.000



Ready 210406K2_7 CAP NUM

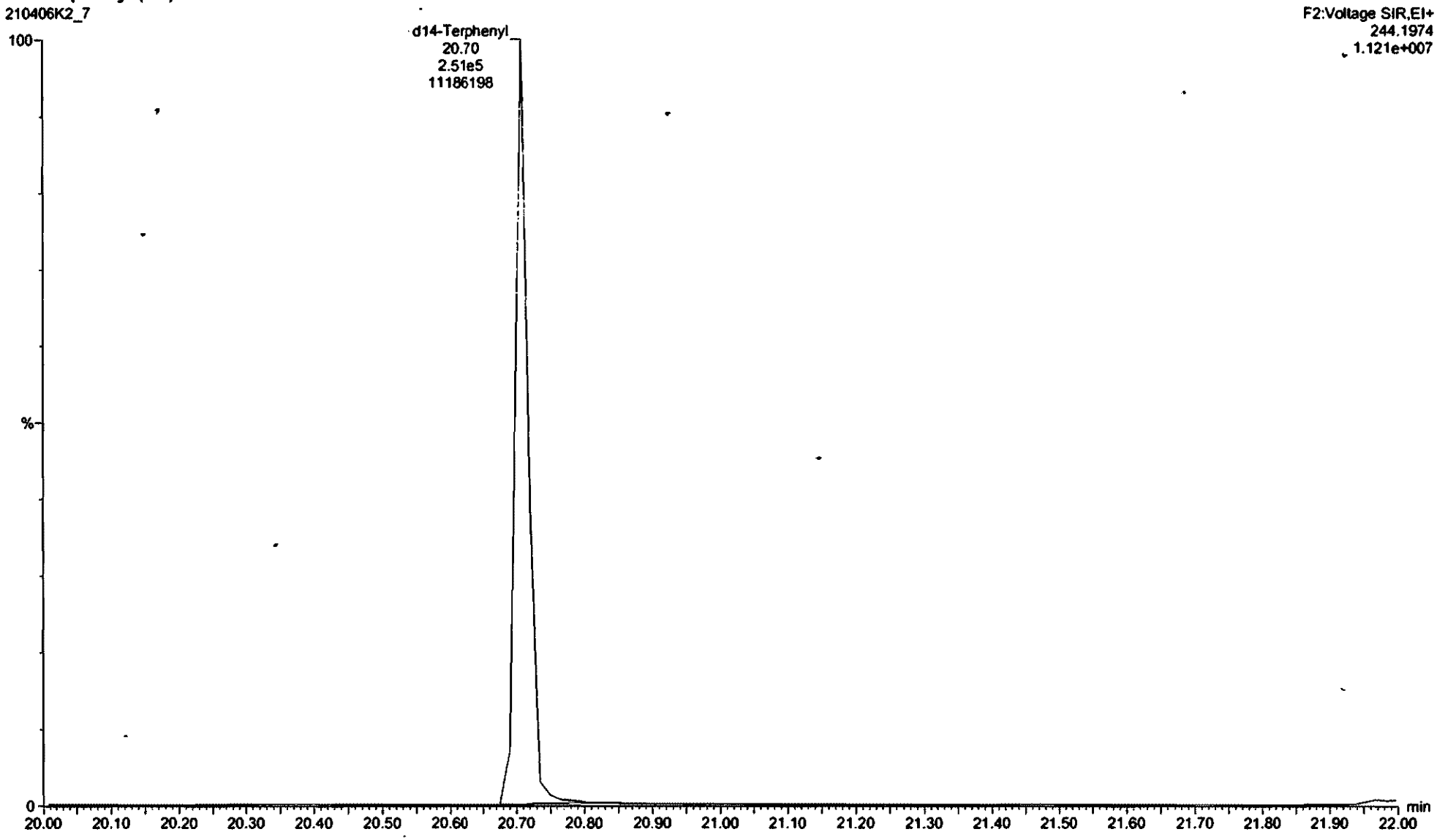

18.29
Anthracene
18.32
d10-Phenanthrene
18.28
18.34

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

d14-Terphenyl (PS)



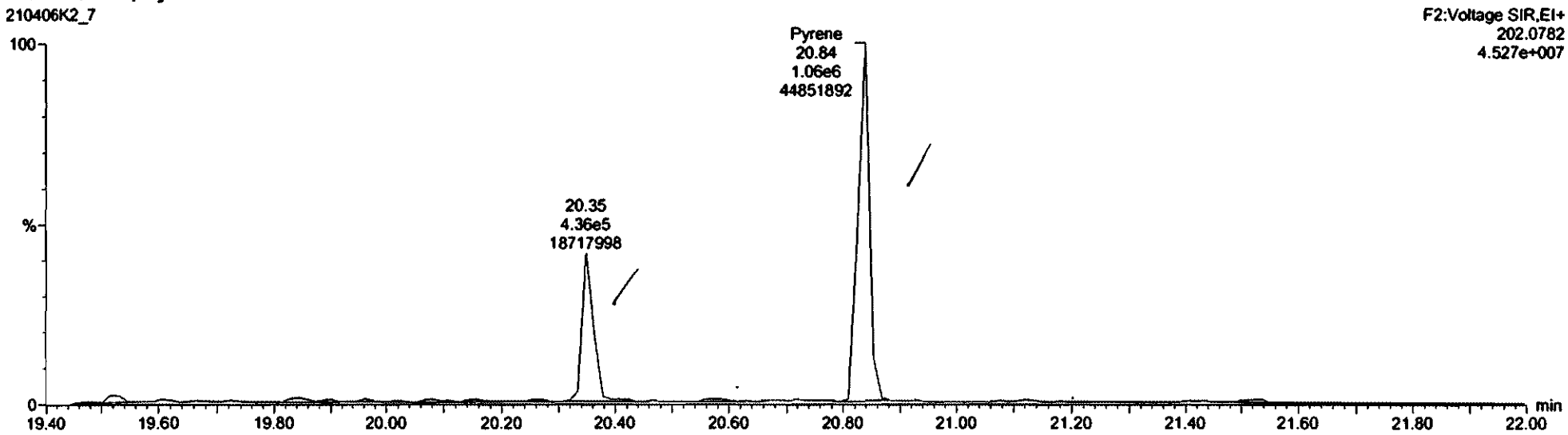
694 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

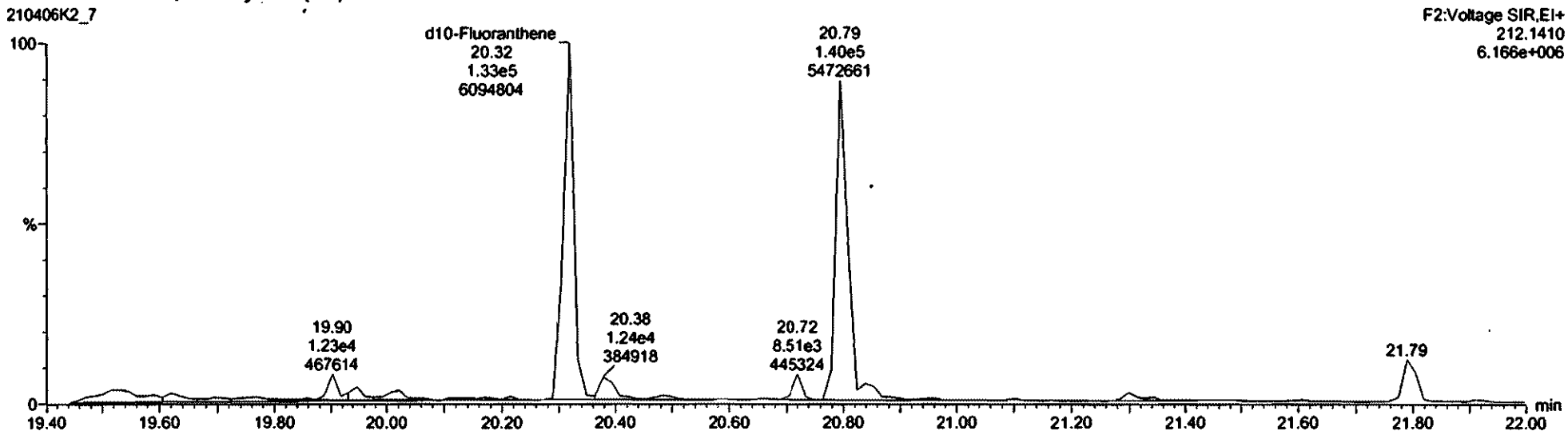
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



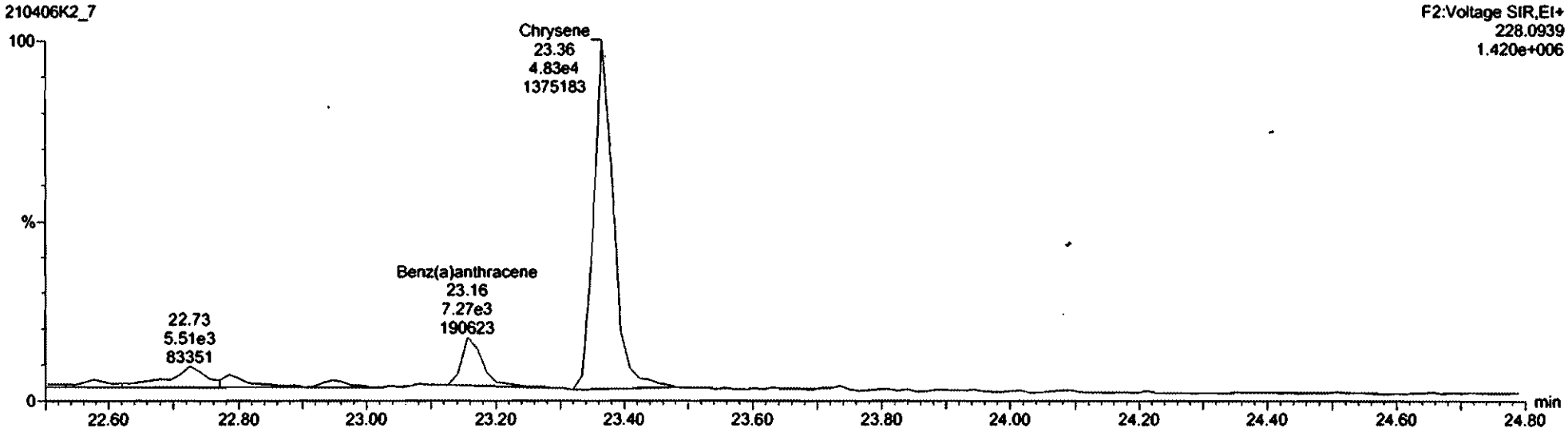
695 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

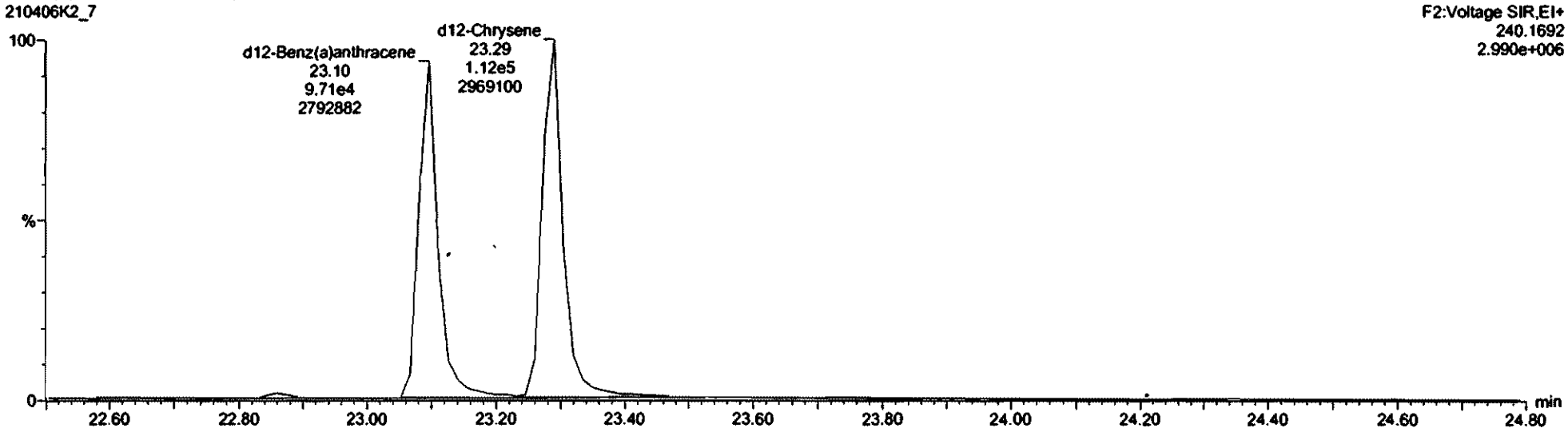
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



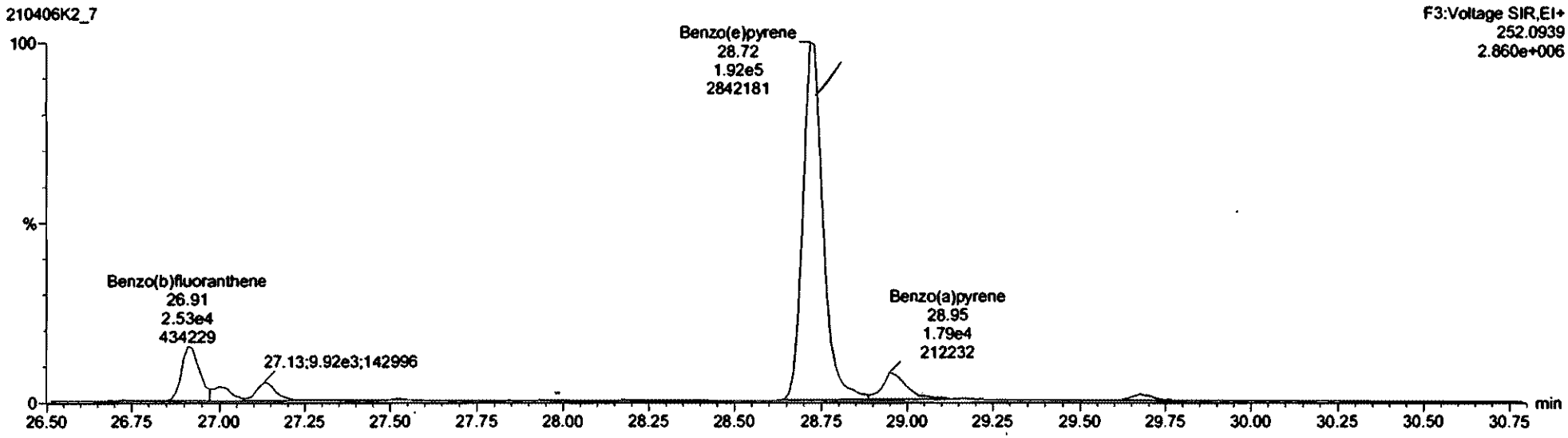
696 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

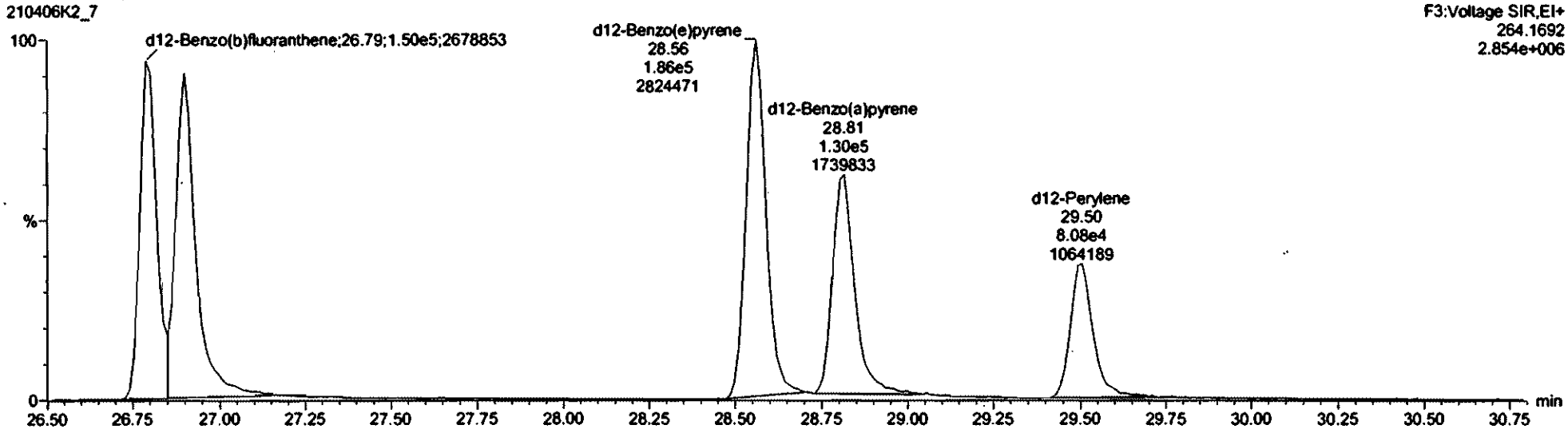
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

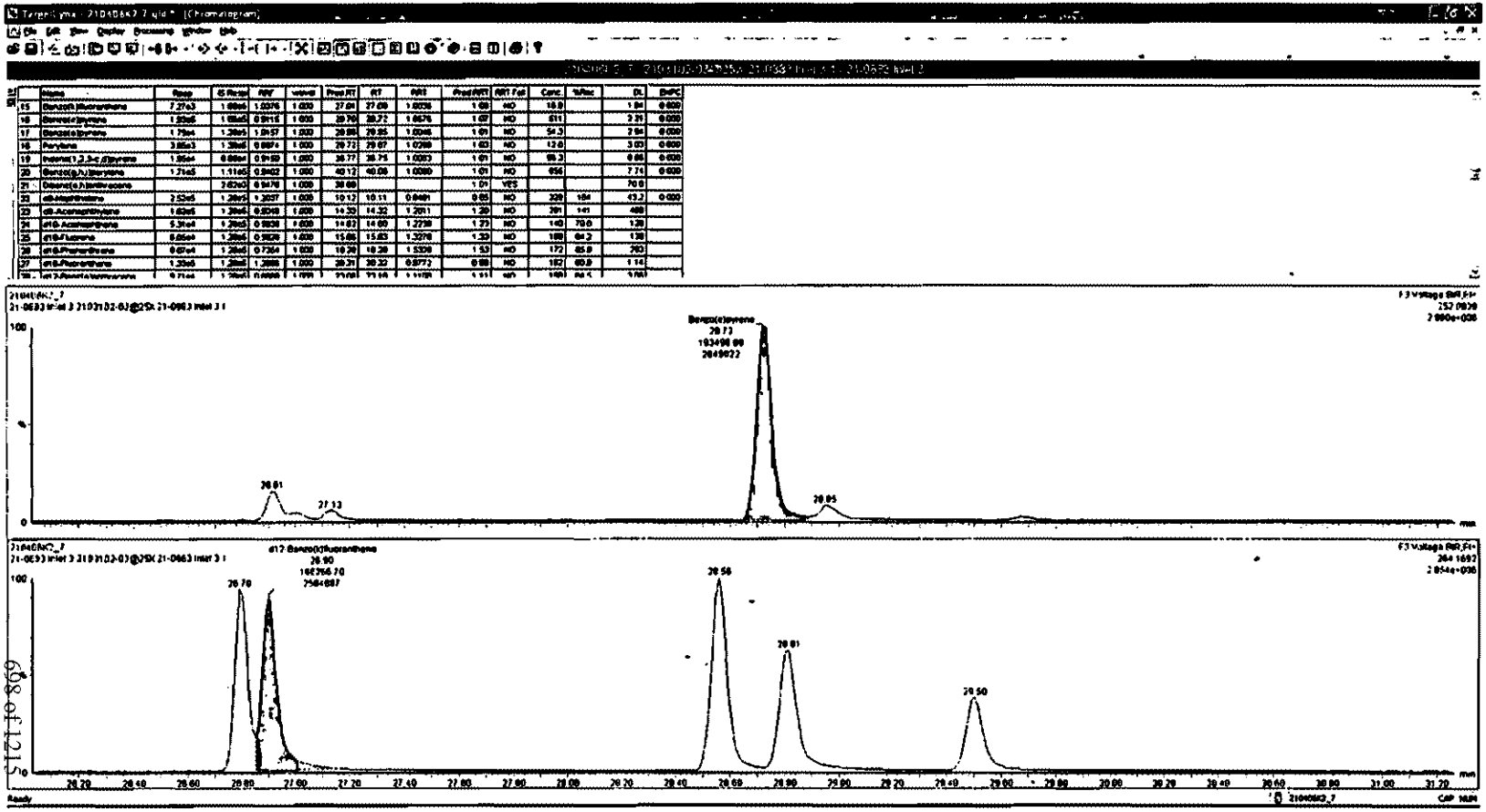
Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Benzo-PAHs



Benzo-Isotopes



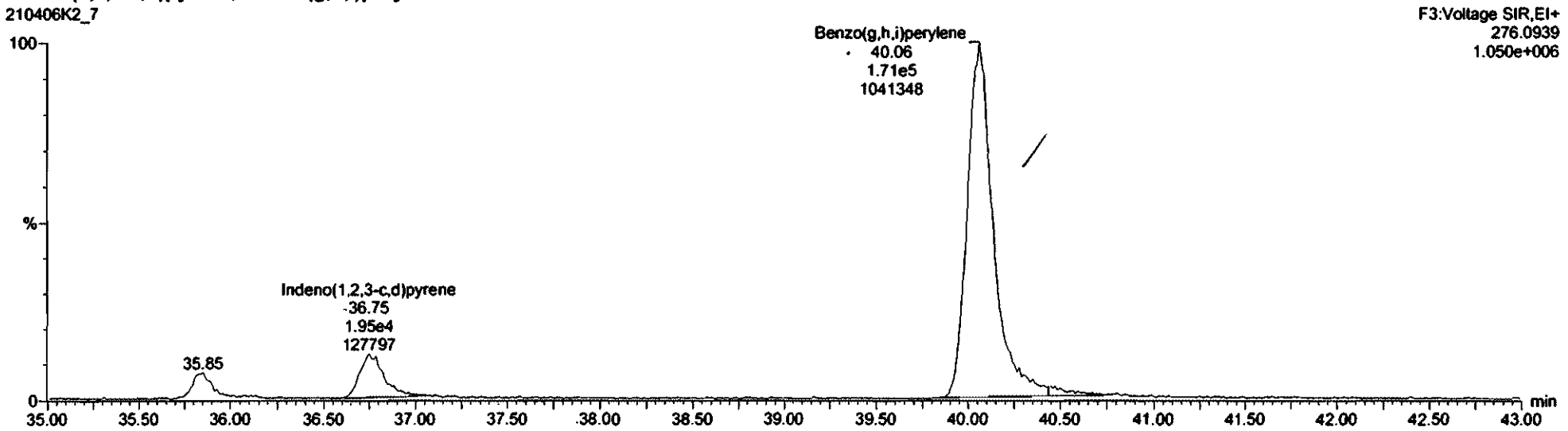

Benzo(e)pyrene
28.73
193498.99
2649922
28.81
27.13
28.85
d12 Benzo(b)fluoranthene
26.90
166766.70
2584687
26.70
28.56
28.81
28.50

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

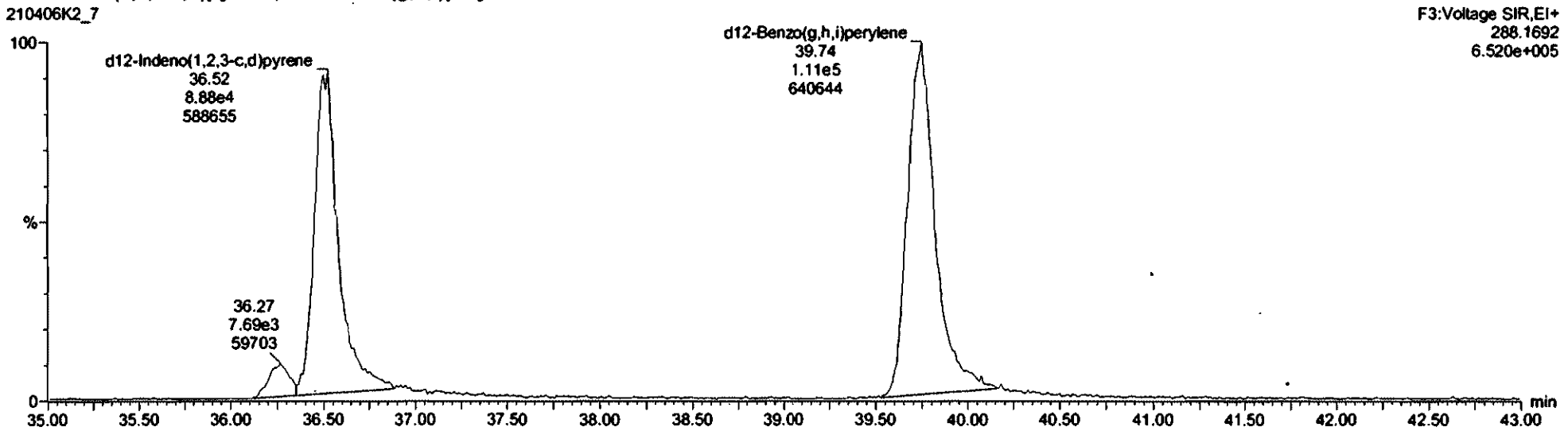
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

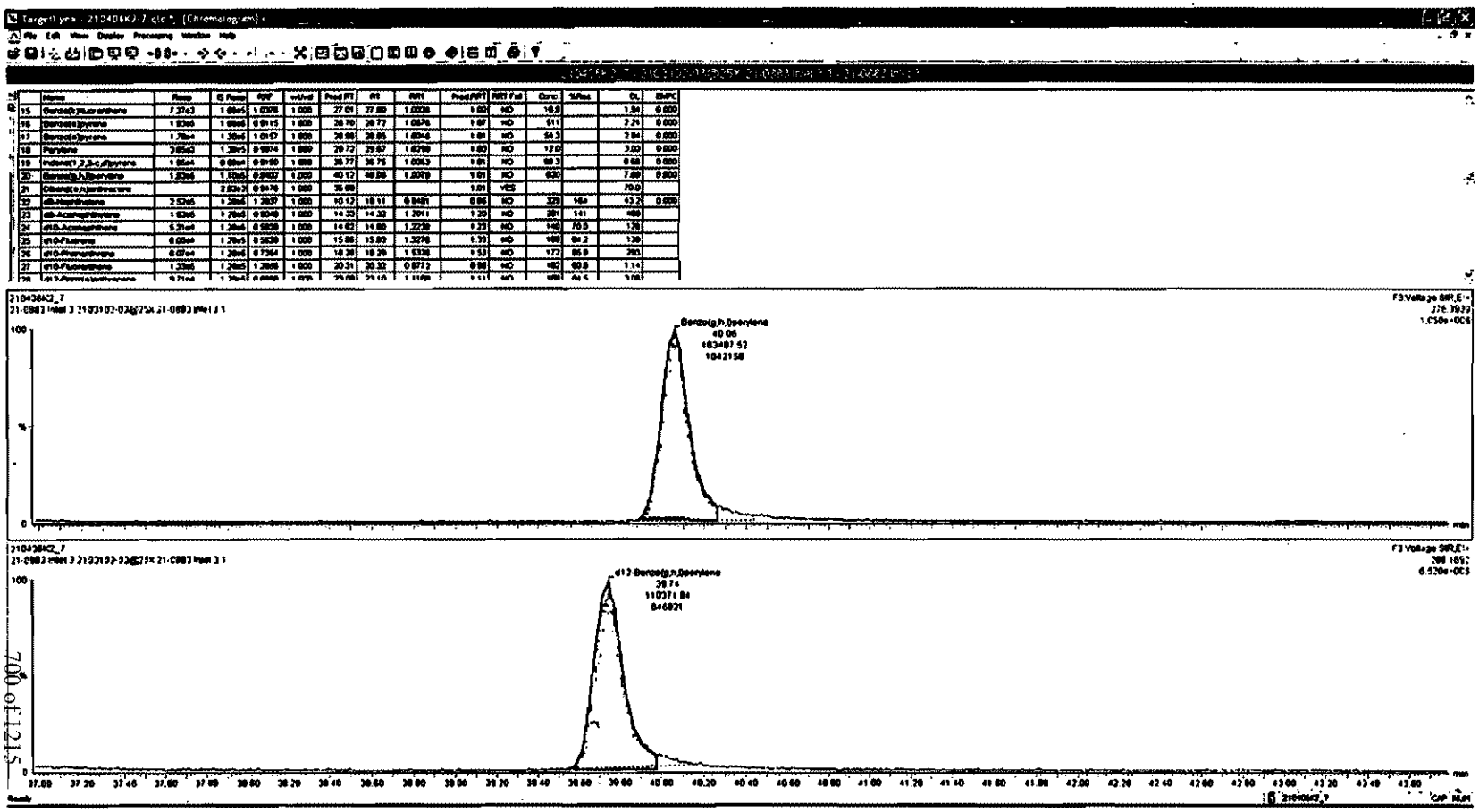
Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



699 of 1215

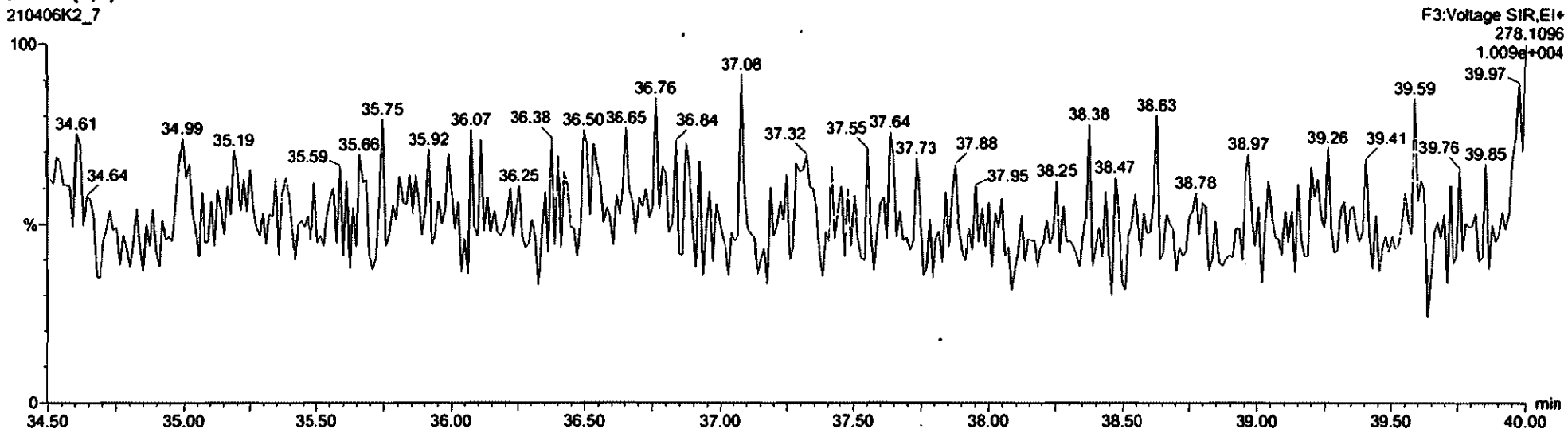

Benzo(g,h,i)perylene
40.06
183487.52
1042158
d12-Benzo(g,h,i)perylene
39.74
110371.84
846821

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-7.qld

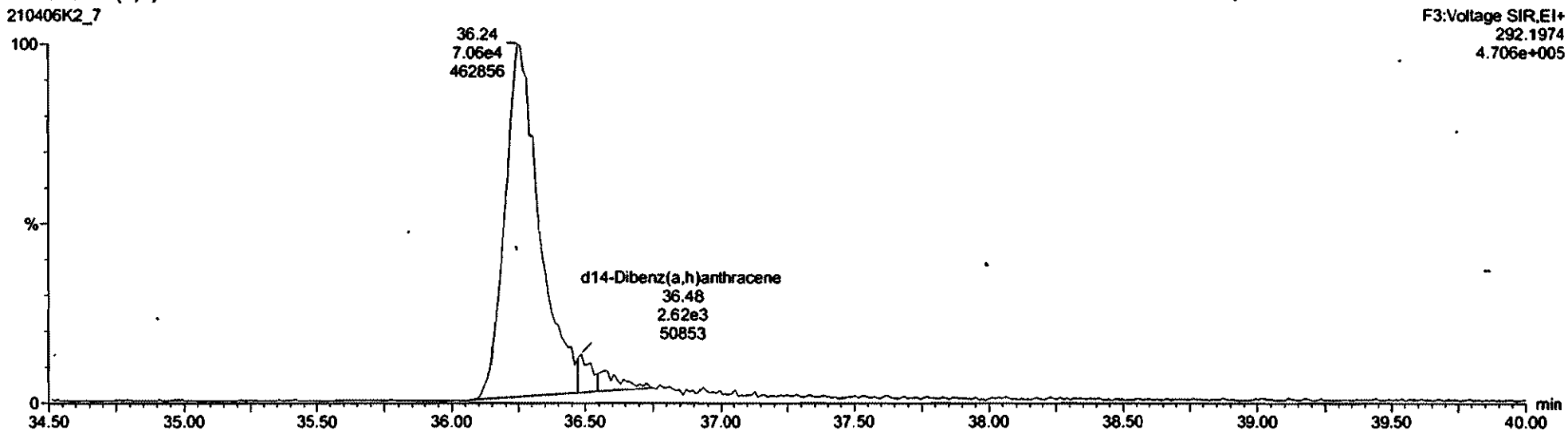
Last Altered: Wednesday, April 07, 2021 11:51:09 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 11:52:40 AM Pacific Daylight Time

Name: 210406K2_7, Date: 07-Apr-2021, Time: 06:48:41, ID: 2103102-03@25X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



701 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210407K1\210407K1-7.qld

Last Altered: Thursday, April 08, 2021 11:51:38 Pacific Daylight Time
Printed: Thursday, April 08, 2021 11:52:05 Pacific Daylight Time

HL 4.8.2021 CT 04/09/2021

* conc needs to be x1000

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

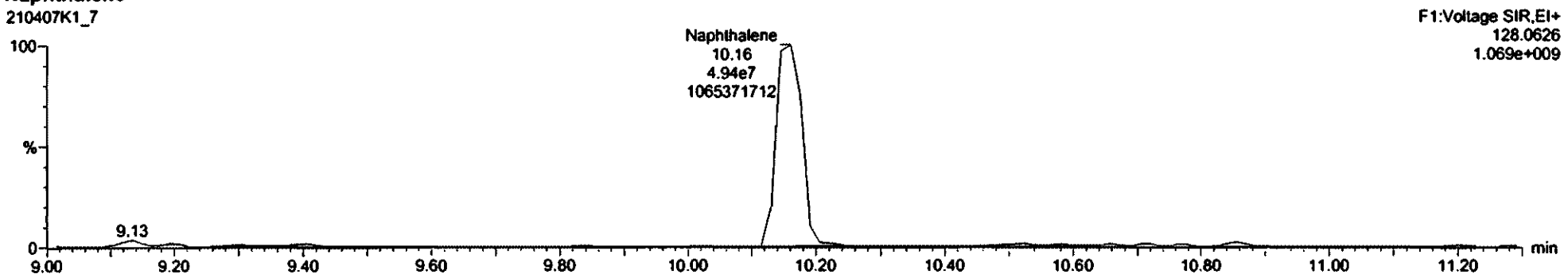
	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R	Conc	%Rec	DL
1	1	Naphthalene	4.94e7	3.17e6	1.16	1.000	10.16	10.16	1.006	1.006	NO	~~2700~~ SAT		4.15
2	2	Naphthalene-2nd	7.53e6	3.17e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	* 3730	3,730,000	67.9
3	3	2-Methylnaphthalene	1.90e7	1.92e6	1.38	1.000	11.60	11.61	0.794	0.795	NO	* 1440	1,440,000	2.04
4	4	Acenaphthylene	9.64e4	3.00e6	1.12	1.000	14.37	14.35	1.003	1.002	NO	* 5.77	5,770	2.71
5	22	d8-Naphthalene	3.17e6	7.28e5	1.20	1.000	10.11	10.10	0.848	0.848	NO	182	90.8	0.173
6	23	d8-Acenaphthylene	3.00e6	7.28e5	0.905	1.000	14.31	14.32	1.201	1.203	NO	230	114	0.790
7	24	d10-Acenaphthene	1.92e6	7.28e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	224	111	0.128
8	40	d10-Pyrene	7.28e5	7.28e5	1.00	1.000	20.81	20.81	1.000	1.000	NO	50.4	100	0.0171

Dataset: Untitled

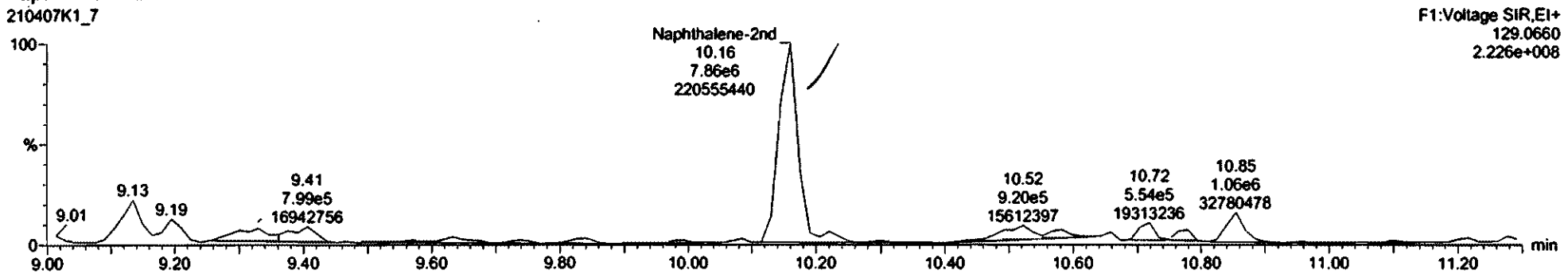
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

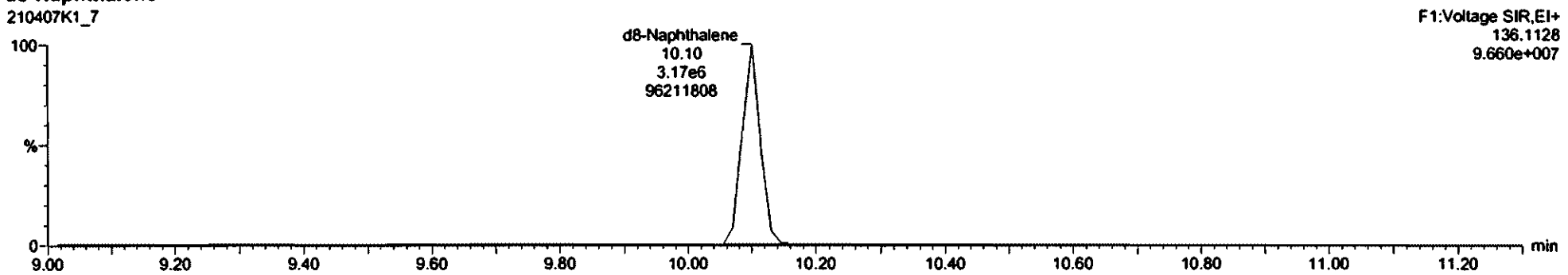
Naphthalene



Naphthalene-2nd



d8-Naphthalene



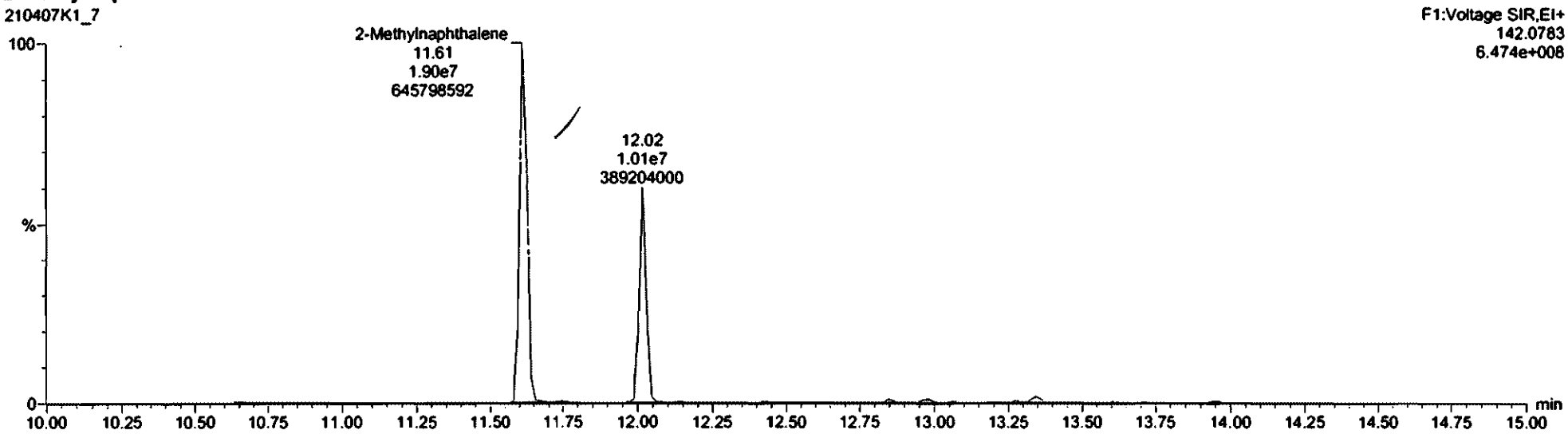
703 of 1215

Dataset: Untitled

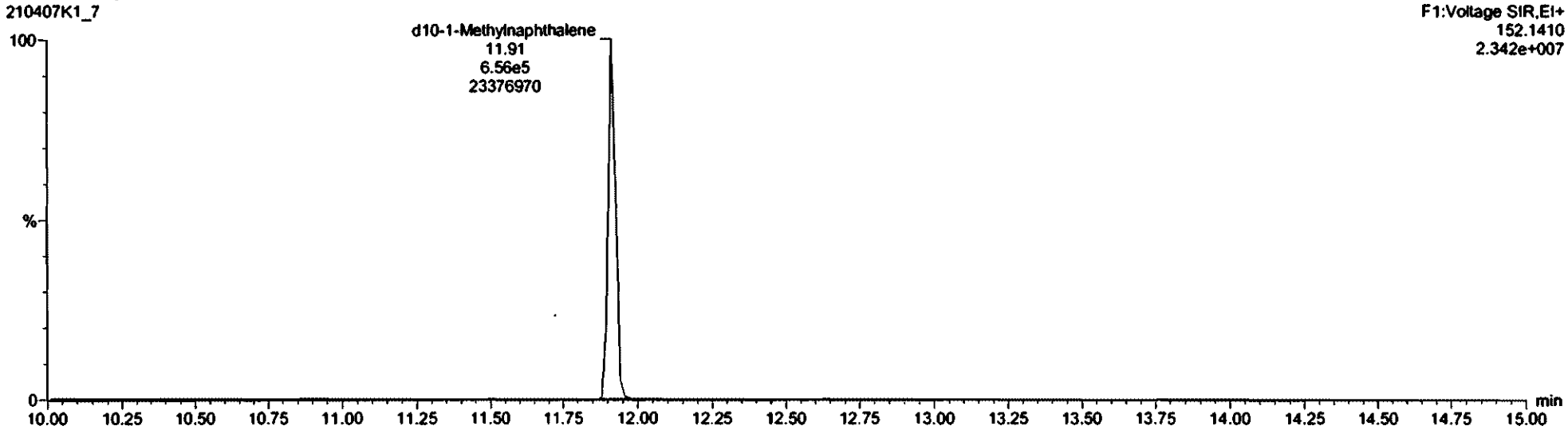
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

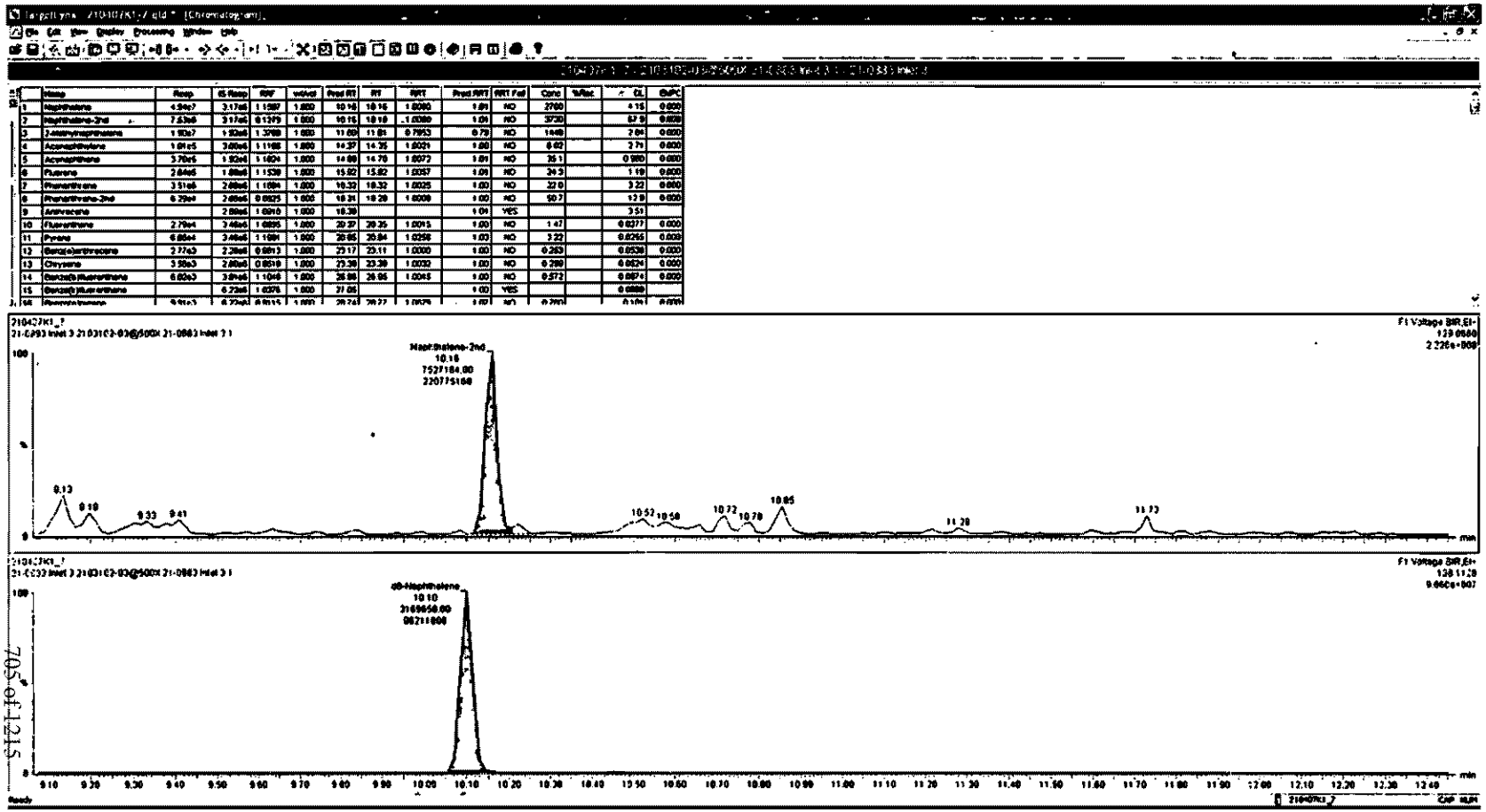
2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



704 of 1215

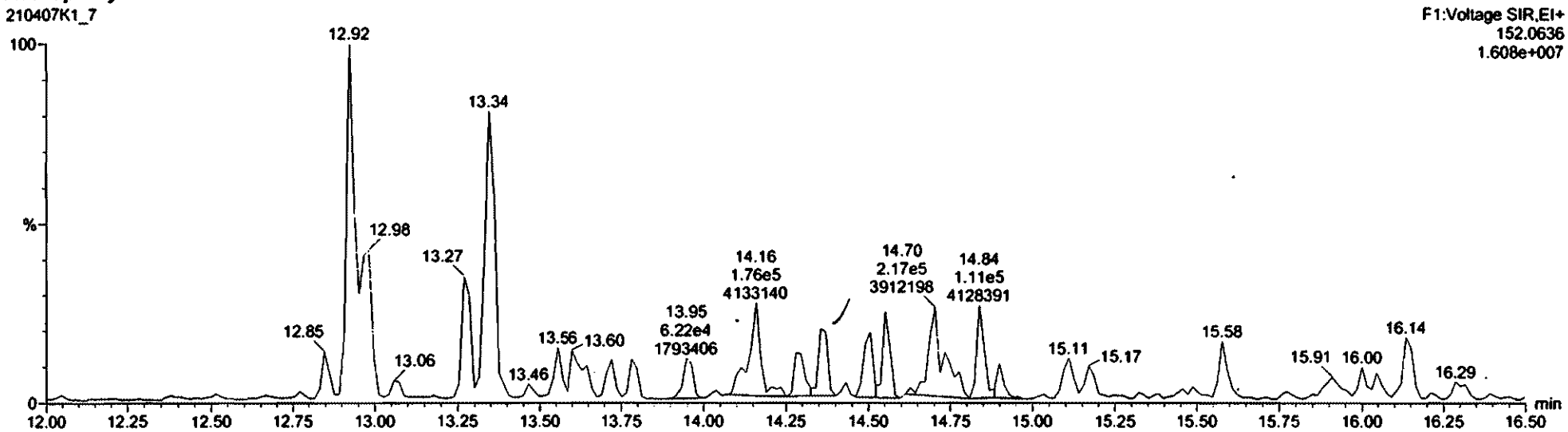


Dataset: Untitled

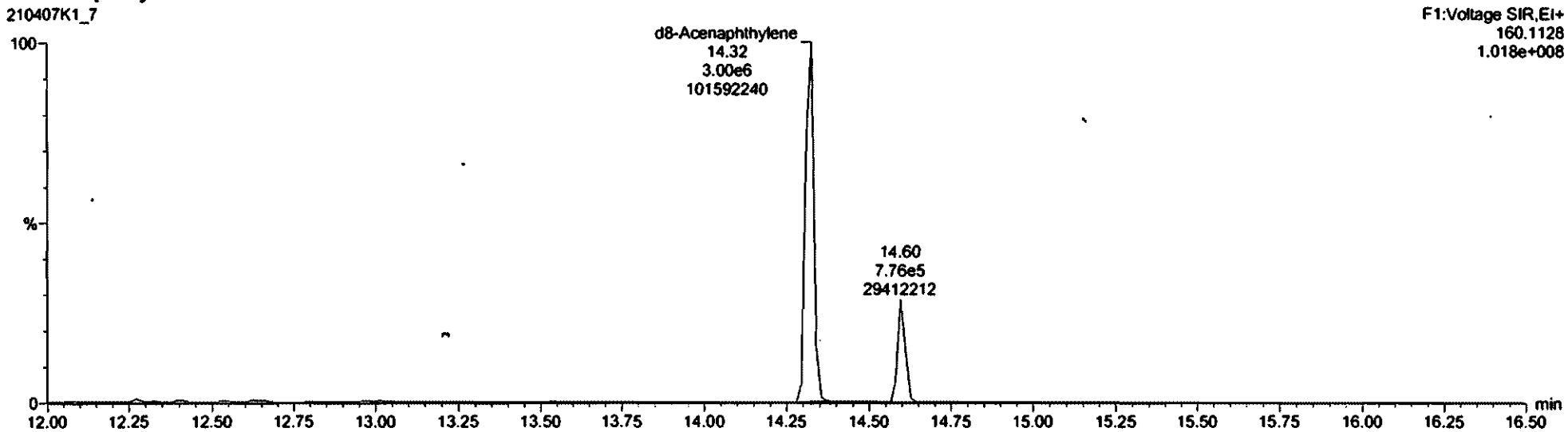
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

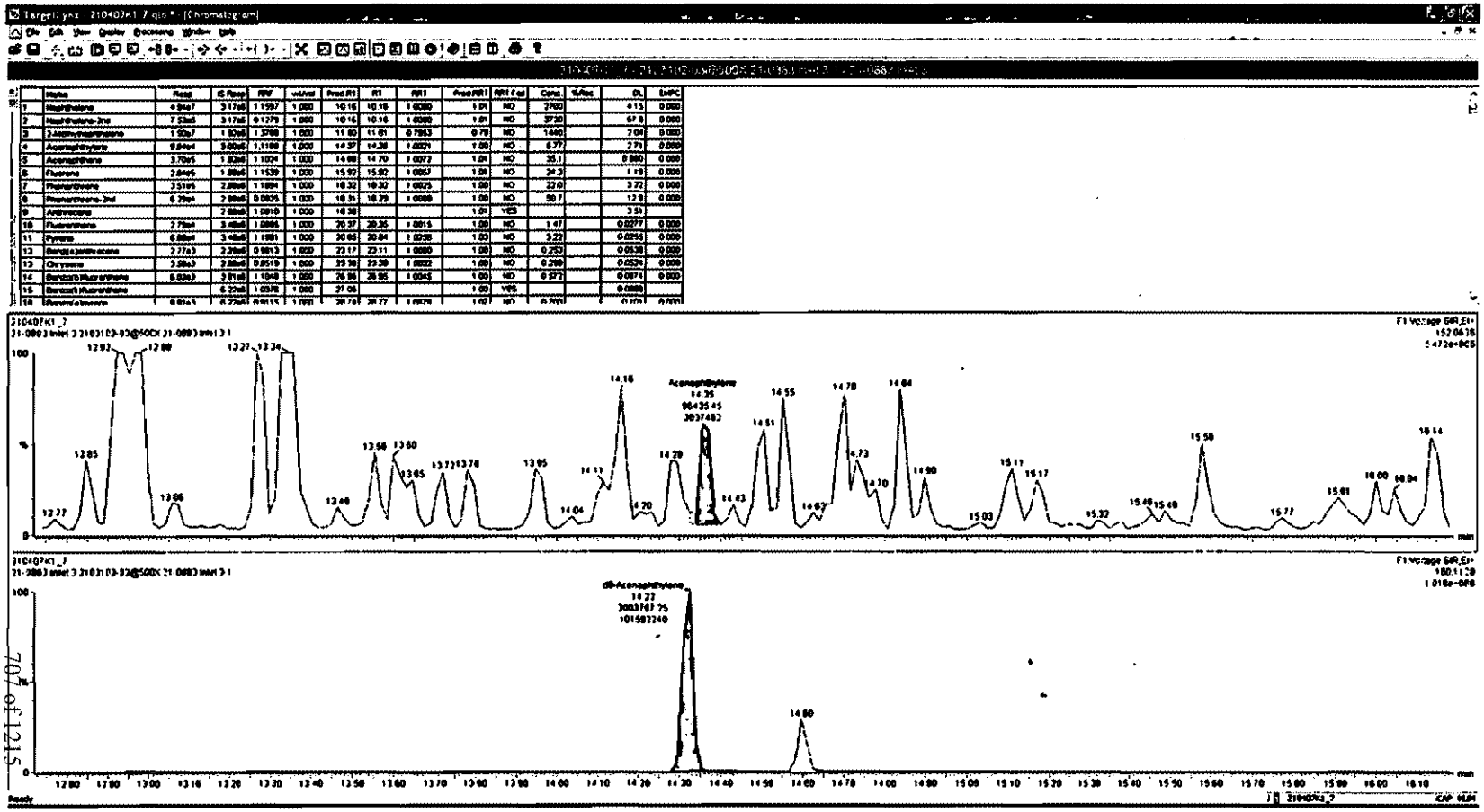
Acenaphthylene



d8-Acenaphthylene



706 of 1215

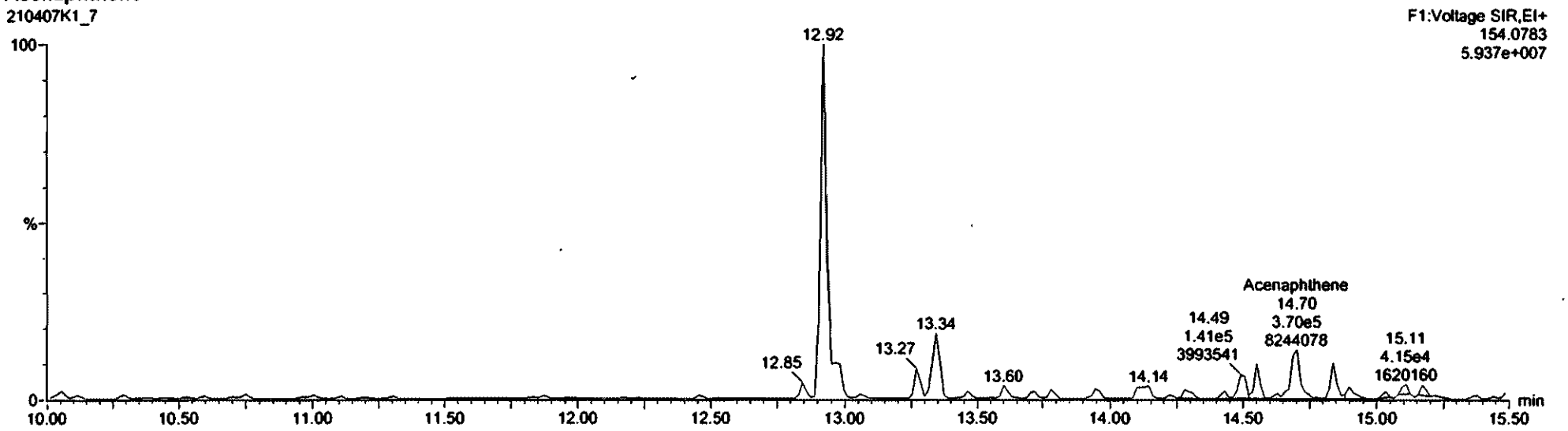


Dataset: Untitled

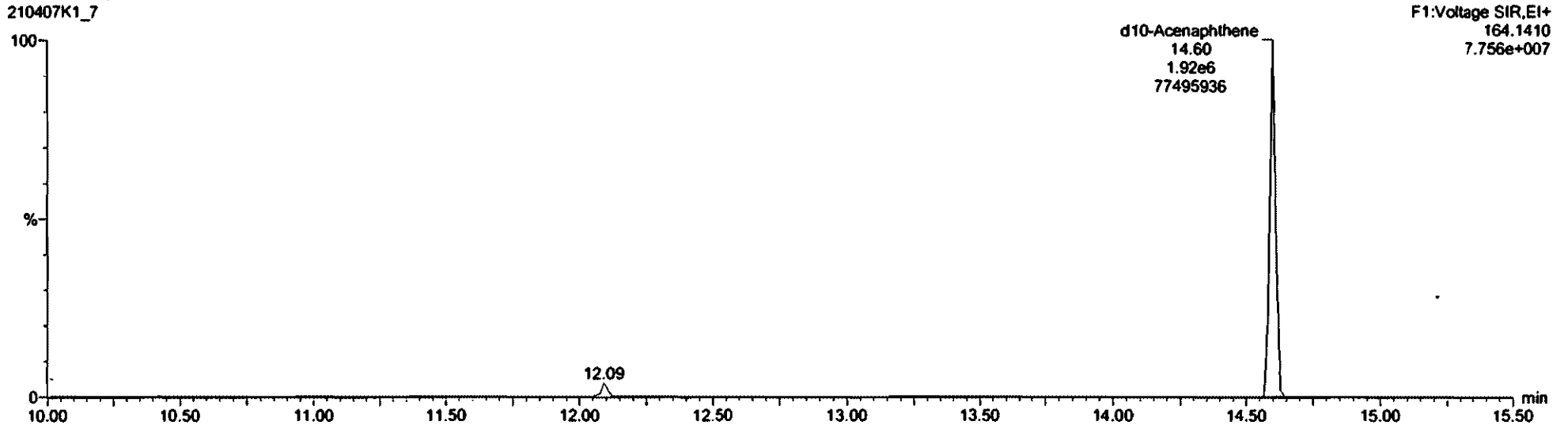
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Acenaphthene



d10-Acenaphthene



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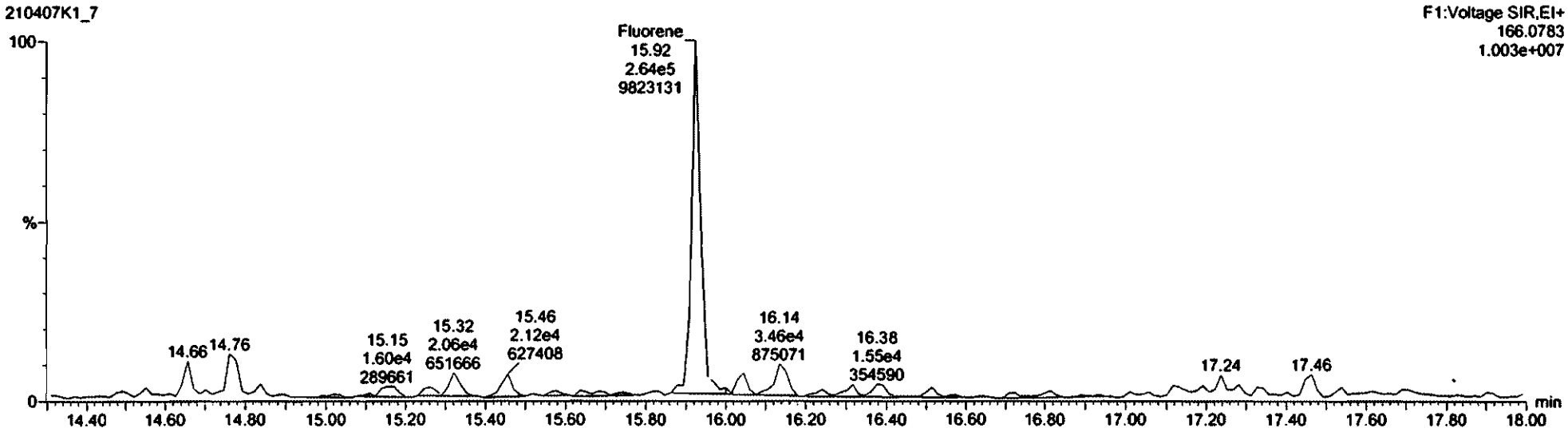
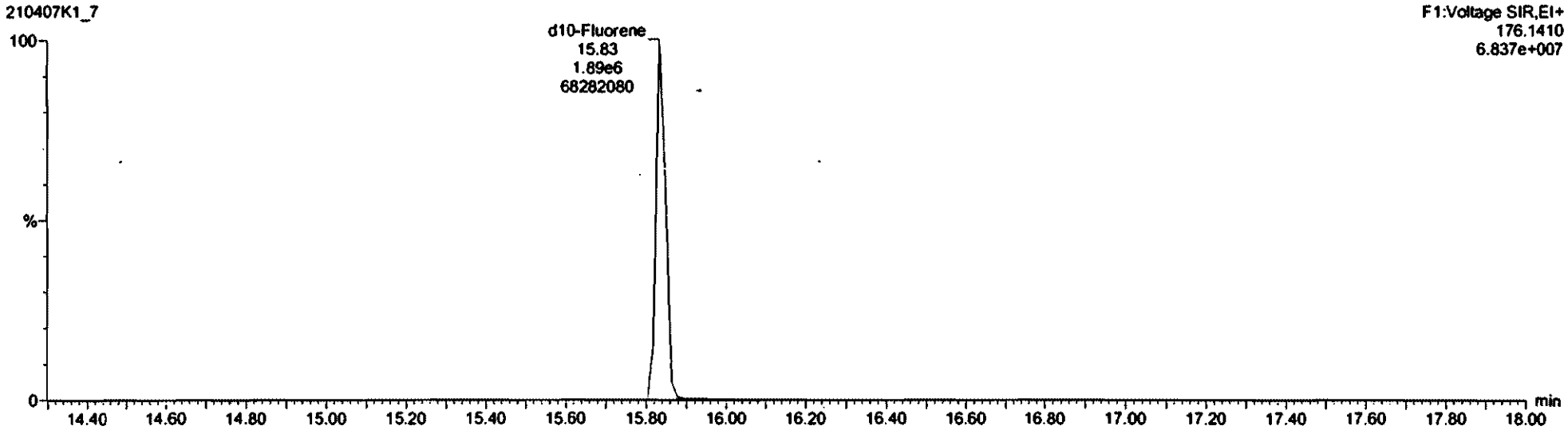
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluorene



d10-Fluorene



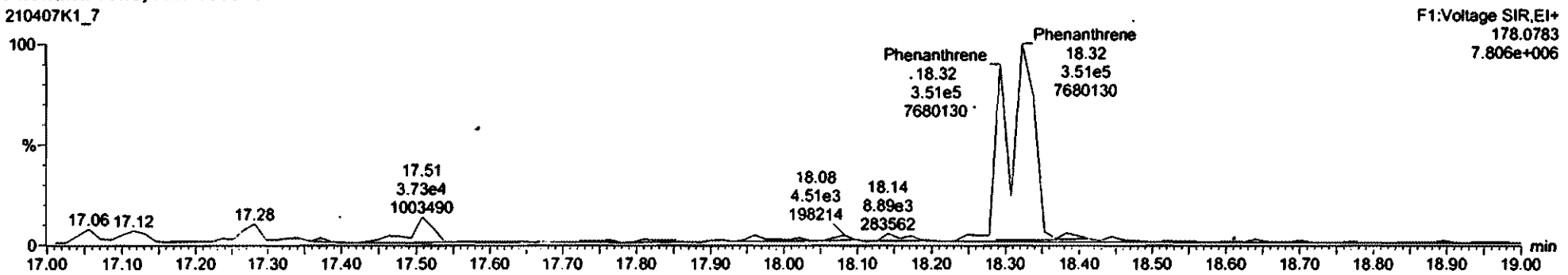
709 of 1215

Dataset: Untitled

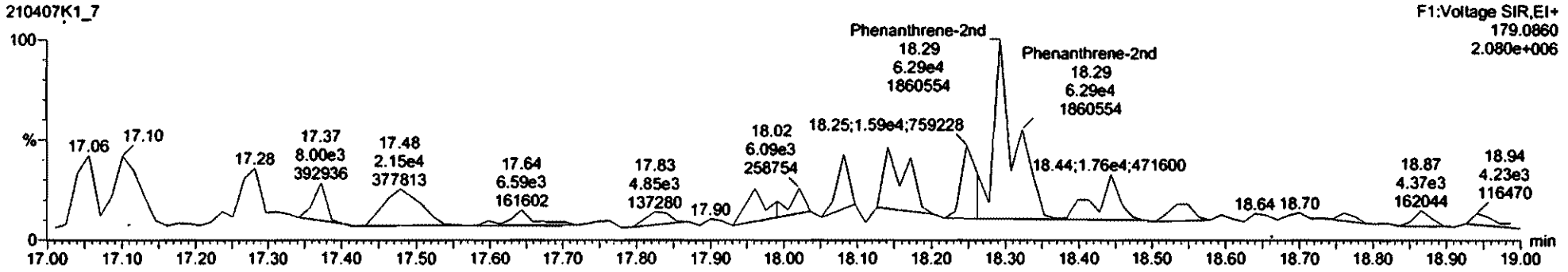
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

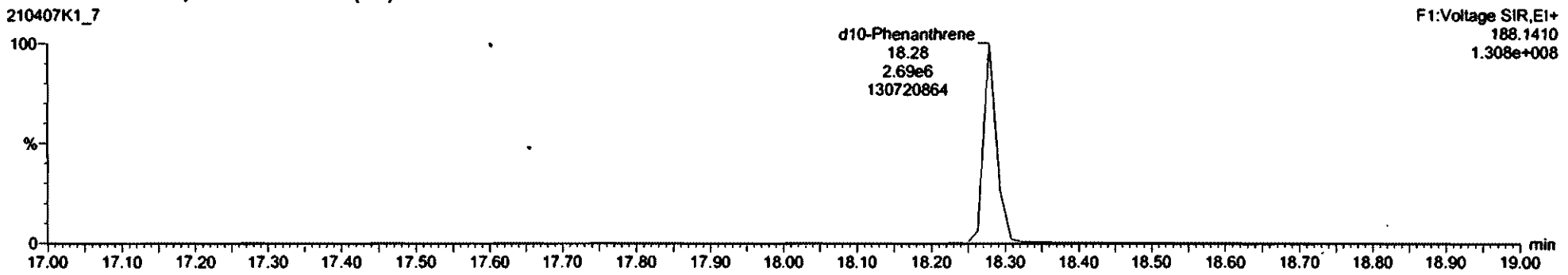
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



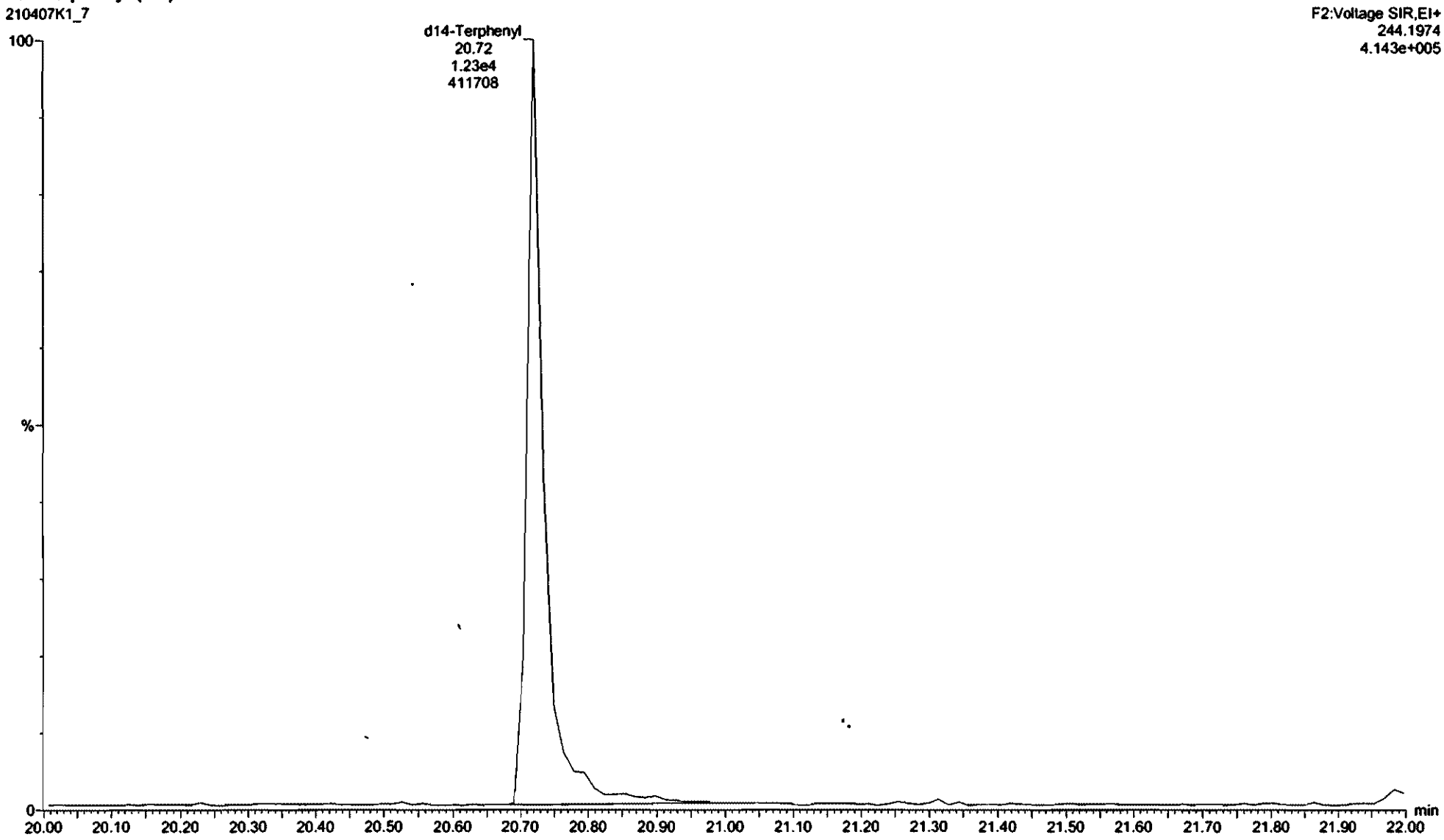
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

d14-Terphenyl (PS)



711 of 1215

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
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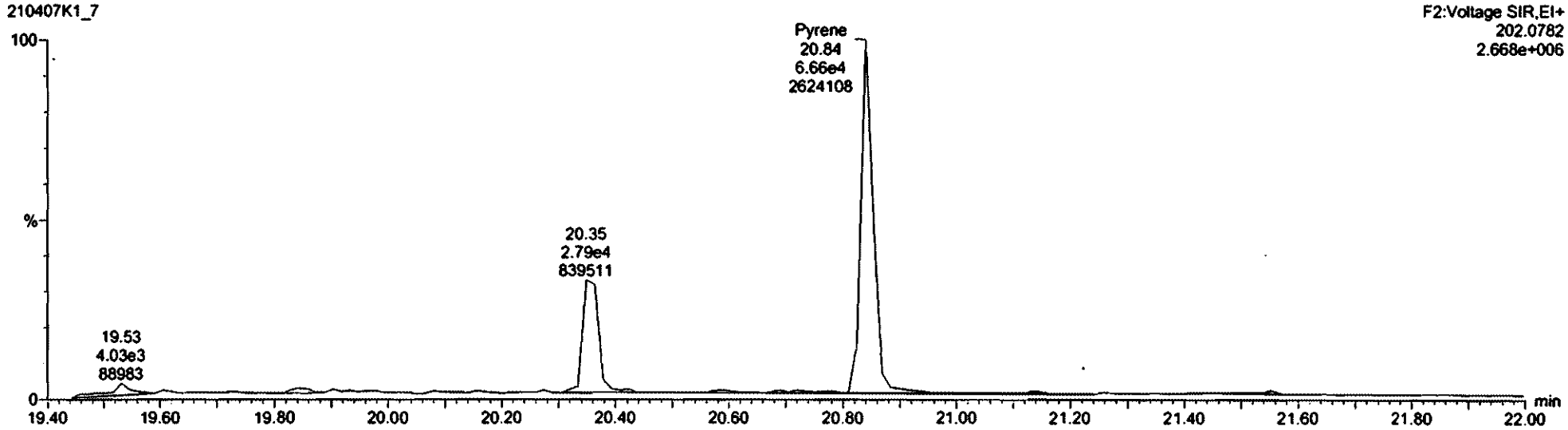
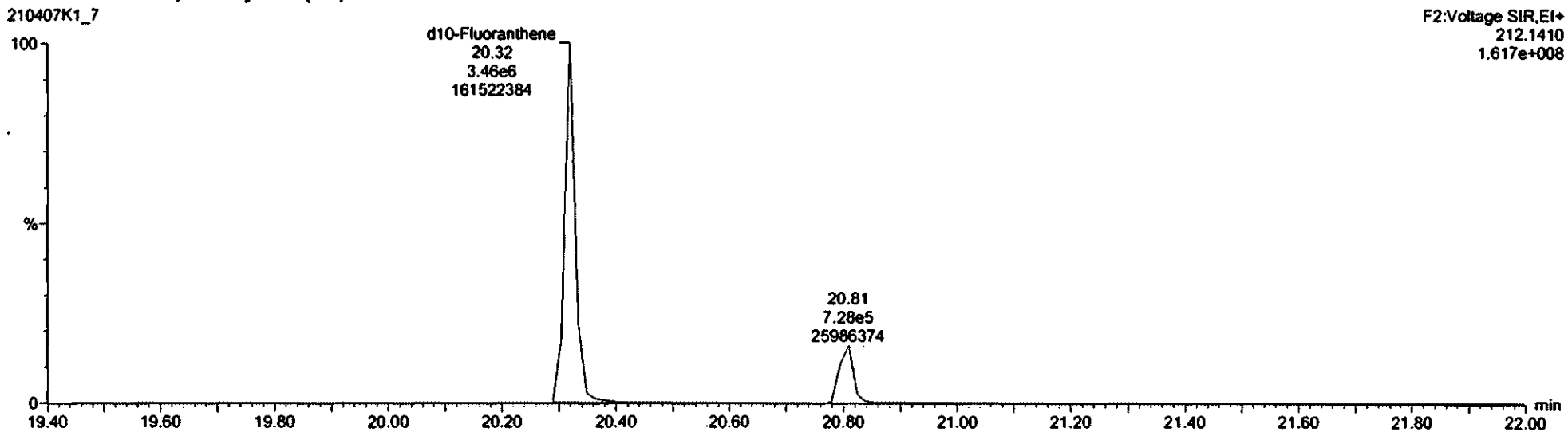
Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



712 of 1215

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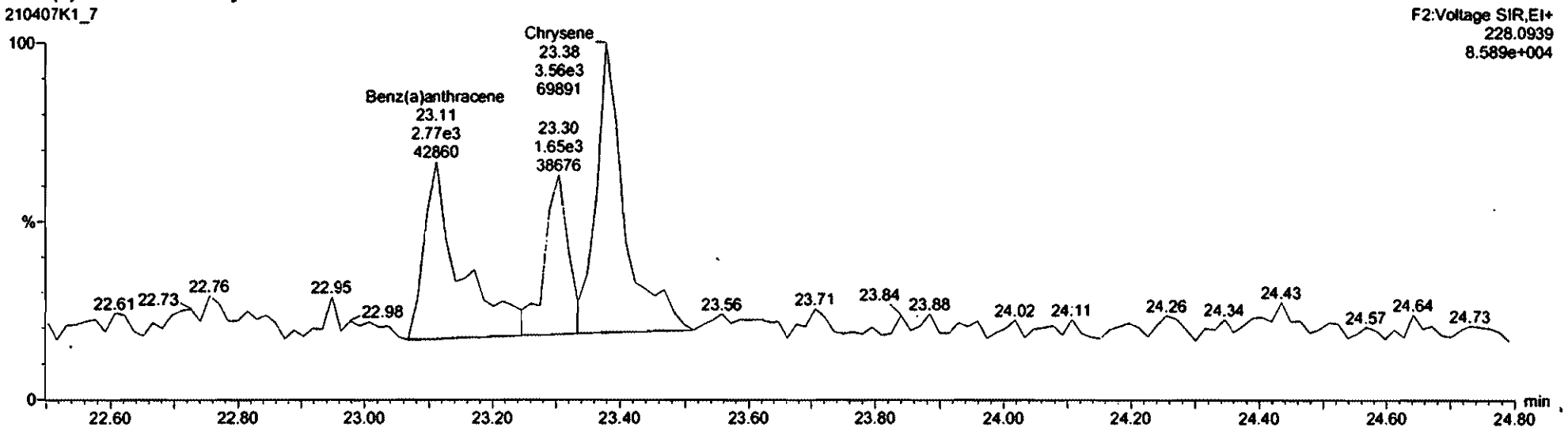
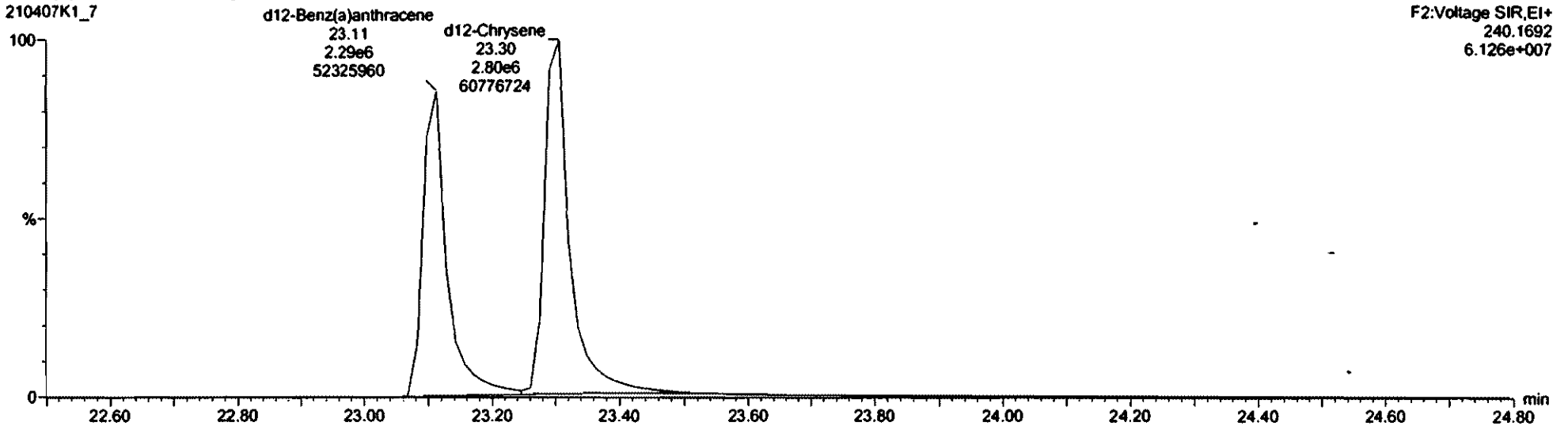
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



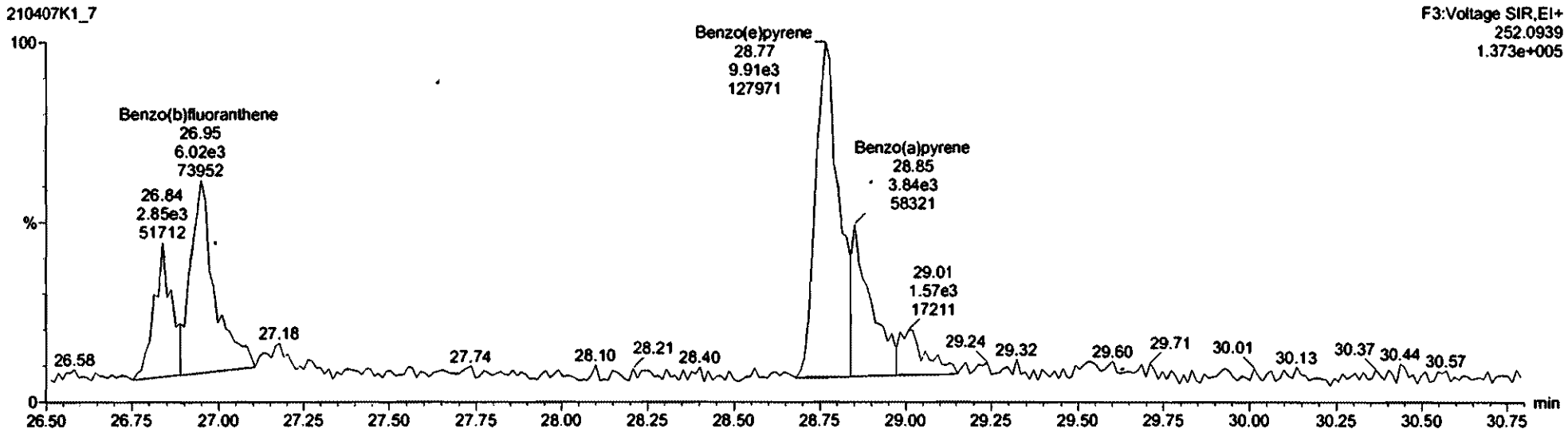
713 of 1215

Dataset: Untitled

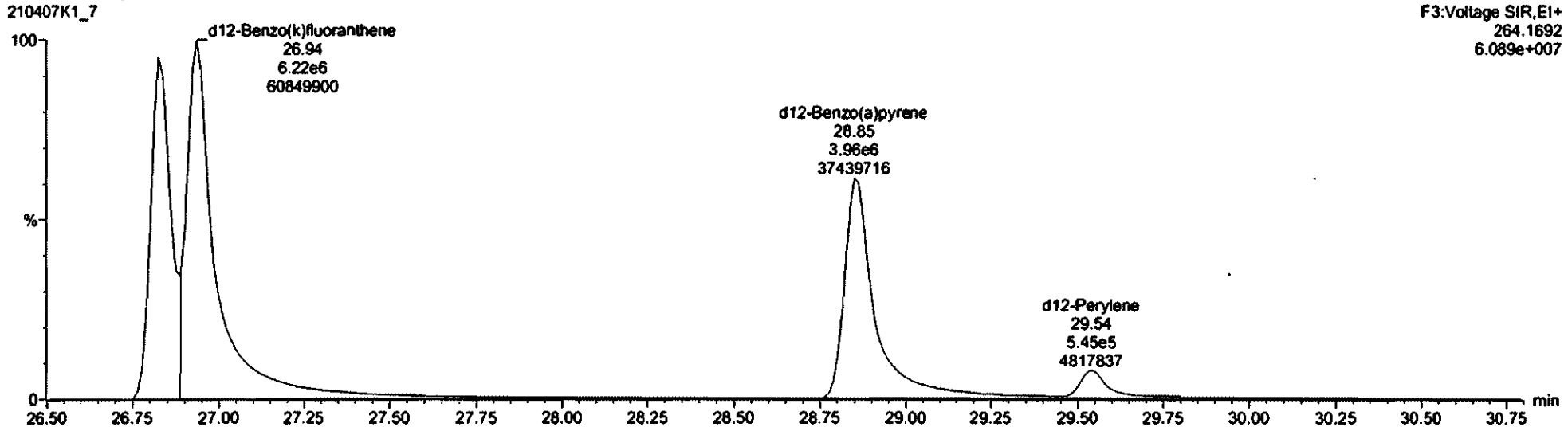
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Benzo-PAHs



Benzo-Isotopes



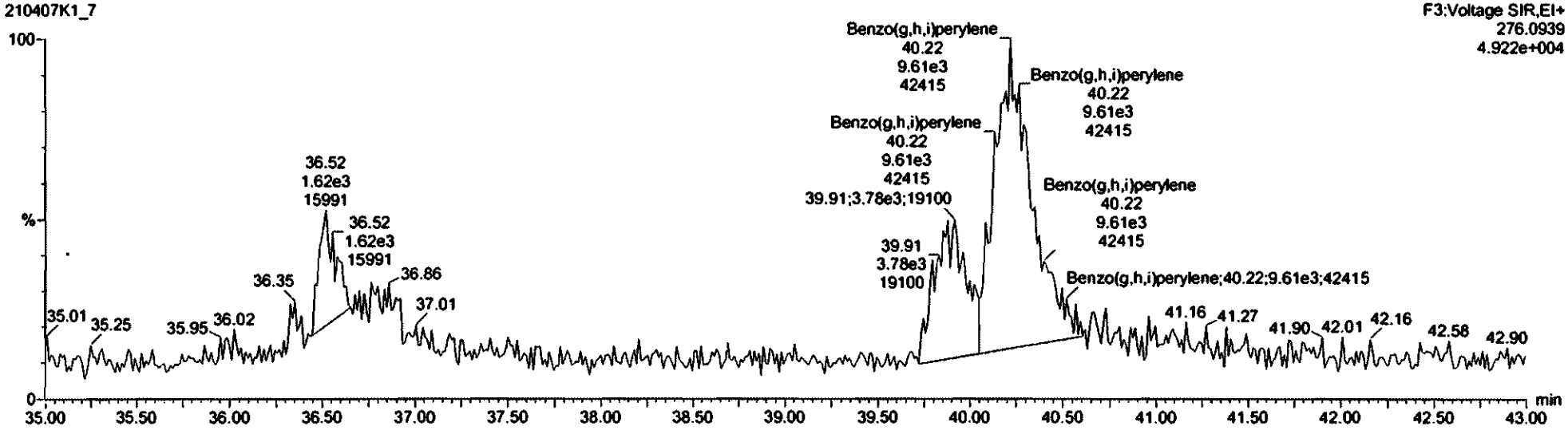
714 of 1215

Dataset: Untitled

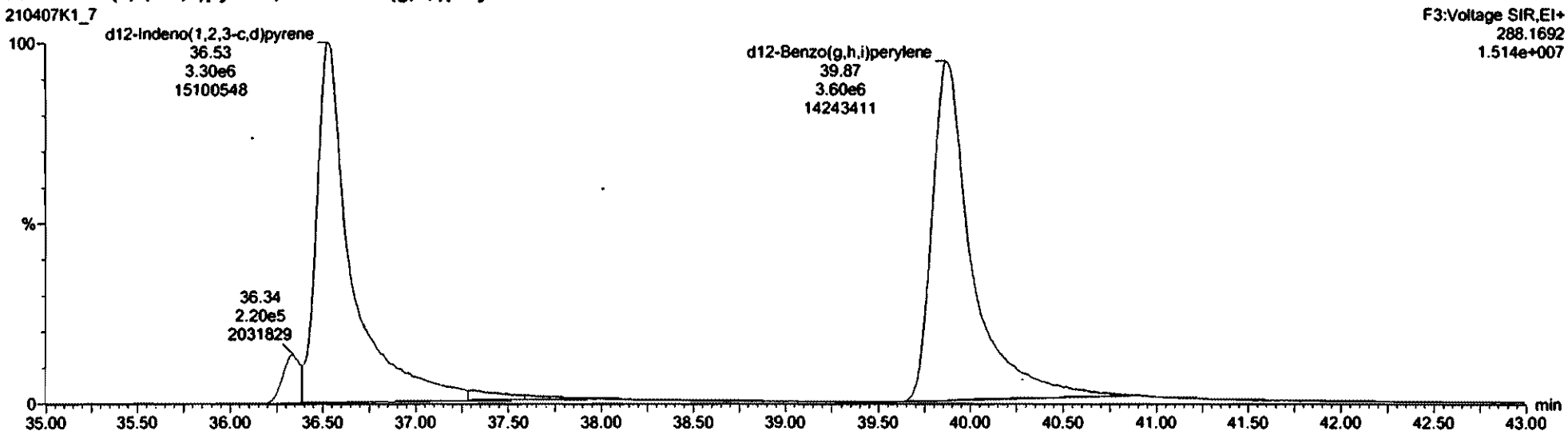
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



715 of 1215

Dataset: Untitled

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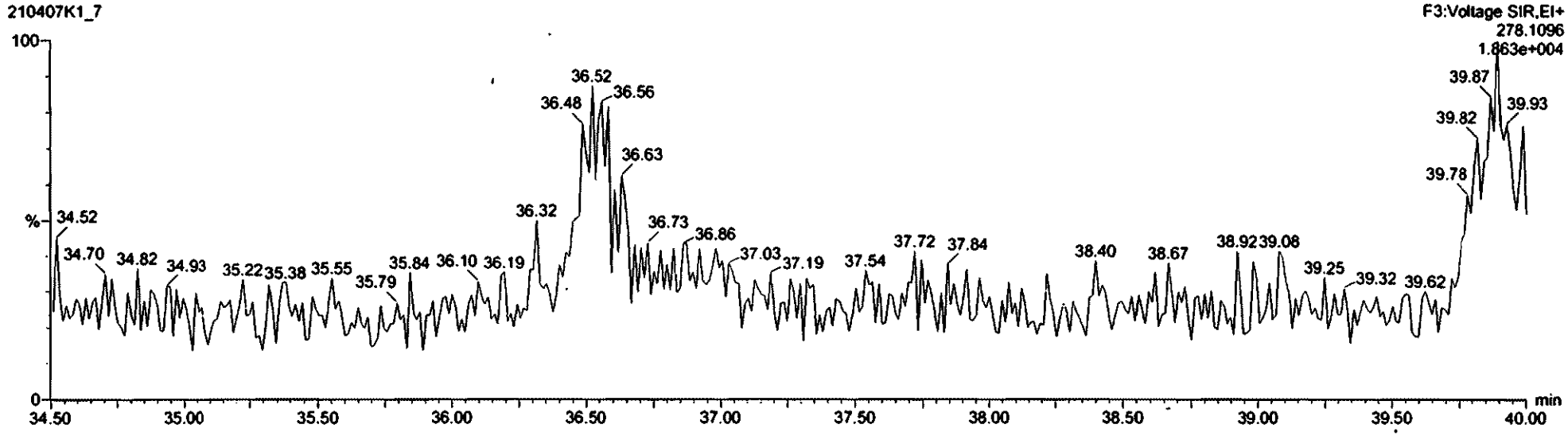
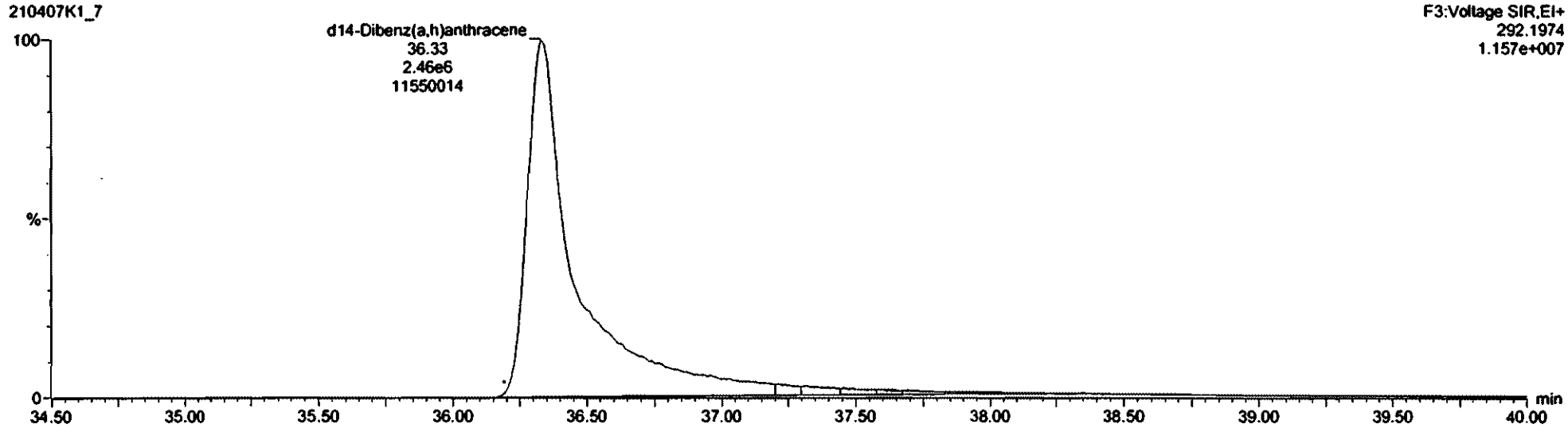
Name: 210407K1_7, Date: 07-Apr-2021, Time: 20:54:32, ID: 2103102-03@500X 21-0883 Inlet 3 1, Description: 21-0883 Inlet 3

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



716 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-16.qld

Last Altered: Wednesday, April 07, 2021 10:00:45 AM Pacific Daylight Time.
Printed: Wednesday, April 07, 2021 10:01:21 AM Pacific Daylight Time

HL 4.7.2021 CT 04/08/2021

* see d.l

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	5.53e6	1.64e6	1.16	1.000	10.17	10.16	1.006	1.004	NO	581		47.5
2	2	Naphthalene-2nd	6.05e5	1.64e6	0.128	1.000	10.17	10.16	1.006	1.004	NO	577		61.7
3	3	2-Methylnaphthalene	5.09e6	9.77e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	757 E *		7.98
4	4	Acenaphthylene	2.43e5	1.60e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	27.2		37.9
5	5	Acenaphthene	5.85e6	9.77e5	1.10	1.000	14.70	14.70	1.006	1.006	NO	1090 E *		142
6	6	Fluorene	1.41e7	9.94e5	1.15	1.000	15.94	15.92	1.006	1.005	NO	2460 E *		74.9
7	7	Phenanthrene	2.05e7	1.48e6	1.19	1.000	18.32	18.34	1.002	1.003	NO	2330 E *		9.96
8	8	Phenanthrene-2nd	1.34e6	1.48e6	0.0925	1.000	18.31	18.34	1.002	1.003	NO	~~1950 E~~		243
9	9	Anthracene	6.01e5	1.48e6	1.09	1.000	18.38	18.38	1.005	1.006	NO	74.5		10.9
10	10	Fluoranthene	1.86e6	2.83e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	120		1.13
11	11	Pyrene	2.82e6	2.83e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	167		1.04
12	12	Benz(a)anthracene	2.64e4	1.99e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	2.76		0.213
13	13	Chrysene	2.20e5	2.24e6	0.852	1.000	23.37	23.36	1.003	1.003	NO	23.2		0.219
14	14	Benzo(b)fluoranthene	8.45e4	3.16e6	1.10	1.000	26.92	26.91	1.005	1.005	NO	9.67		0.130
15	15	Benzo(k)fluoranthene	1.82e4	3.75e6	1.04	1.000	27.01	27.01	1.004	1.004	NO	1.87		0.153
16	16	Benzo(e)pyrene	2.14e5	3.75e6	0.911	1.000	28.70	28.70	1.067	1.067	NO	25.0		0.175
17	17	Benzo(a)pyrene	4.31e4	2.93e6	1.02	1.000	28.96	28.93	1.006	1.005	NO	5.79		0.223
18	18	Perylene	1.52e4	2.93e6	0.987	1.000	29.70	29.66	1.031	1.030	NO	2.10		0.230
19	19	Indeno(1,2,3-c,d)pyrene	4.80e4	1.92e6	0.915	1.000	36.84	36.88	1.007	1.008	NO	10.9		0.987
20	20	Benzo(g,h,i)perylene	4.23e5	2.17e6	0.940	1.000	40.15	40.13	1.009	1.009	NO	82.8		0.725
21	21	Dibenz(a,h)anthracene		1.61e6	0.948	1.000	36.73		1.011		YES			0.751
22	22	d8-Naphthalene	1.64e6	2.65e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	103	51.4	0.290
23	23	d8-Acenaphthylene	1.60e6	2.65e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	134	66.8	0.386
24	24	d10-Acenaphthene	9.77e5	2.65e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	124	62.0 *	0.115
25	25	d10-Fluorene	9.94e5	2.65e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	133	66.6 *	0.133
26	26	d10-Phenanthrene	1.48e6	2.65e6	0.735	1.000	18.28	18.28	1.533	1.533	NO	152	75.9	0.148
27	27	d10-Fluoranthene	2.83e6	2.65e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	166	82.9	0.0265
28	28	d12-Benz(a)anthracene	1.99e6	2.65e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	167	83.4	0.0537
29	29	d12-Chrysene	2.24e6	2.65e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	165	82.5	0.0474
30	30	d12-Benzo(b)fluoranthene	3.16e6	1.89e6	1.18	1.000	26.75	26.79	0.907	0.909	NO	284	70.9	0.157
31	31	d12-Benzo(k)fluoranthene	3.75e6	1.89e6	1.50	1.000	26.86	26.90	0.911	0.912	NO	264	66.1	0.124

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-16.qld

Last Altered: Wednesday, April 07, 2021 10:00:45 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:01:21 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

	# Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	Pred RRT	RRT	Check R...	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	2.93e6	1.89e6	1.24	1.000	28.74	28.79	0.975	0.977	NO	251	62.8	0.150
33	33 d12-Indeno(1,2,3-c,d)pyrene	1.92e6	1.89e6	1.02	1.000	36.76	36.59	1.247	1.241	NO	200	50.1	0.172
34	34 d12-Benzo(g,h,i)perylene	2.17e6	1.89e6	1.00	1.000	40.16	39.78	1.362	1.349	YES	229	57.3	0.174
35	35 d14-Dibenz(a,h)anthracene	1.61e6	1.89e6	0.765	1.000	36.53	36.33	1.239	1.232	NO	222	55.6	0.239
36	36 d10-Anthracene	1.27e6	1.89e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	137	68.3	0.489
37	37 d14-Terphenyl	4.74e6	2.83e6	0.576	1.000	20.69	20.72	1.018	1.020	NO	582	116	0.0349
38	38 d12-Benzo(e)pyrene	4.25e6	3.75e6	0.738	1.000	28.52	28.55	1.060	1.061	NO	615	123	0.221
39	39 d10-1-Methylnaphthalene	1.64e6	1.64e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.125
40	40 d10-Pyrene	2.65e6	2.65e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0341
41	41 d12-Perylene	1.89e6	1.89e6	1.00	1.000	29.59	29.48	1.000	1.000	NO	200	100	0.186

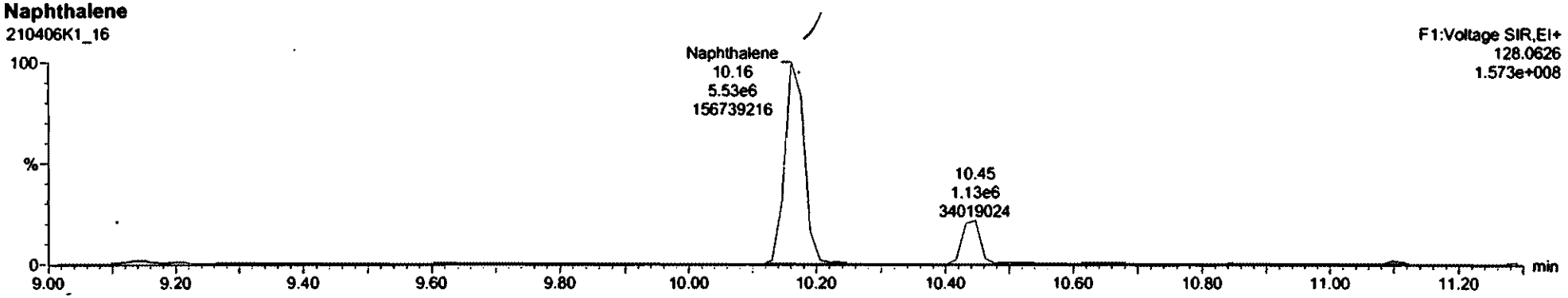
718 of 1215

Dataset: Untitled

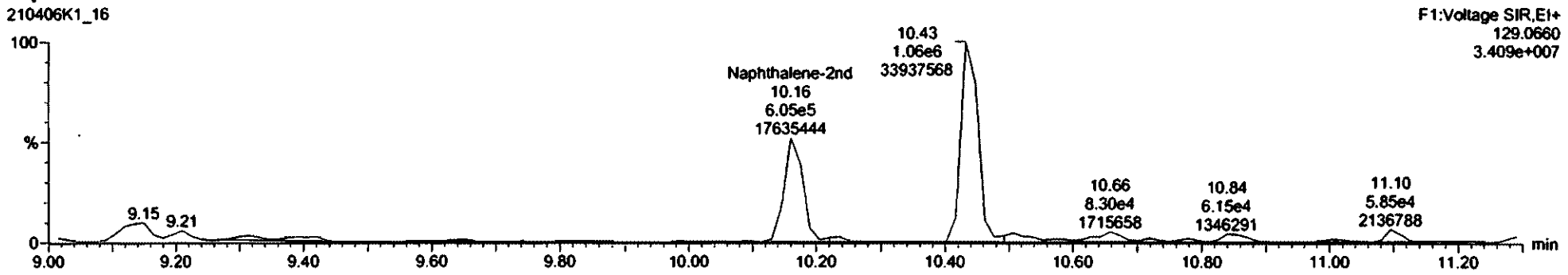
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

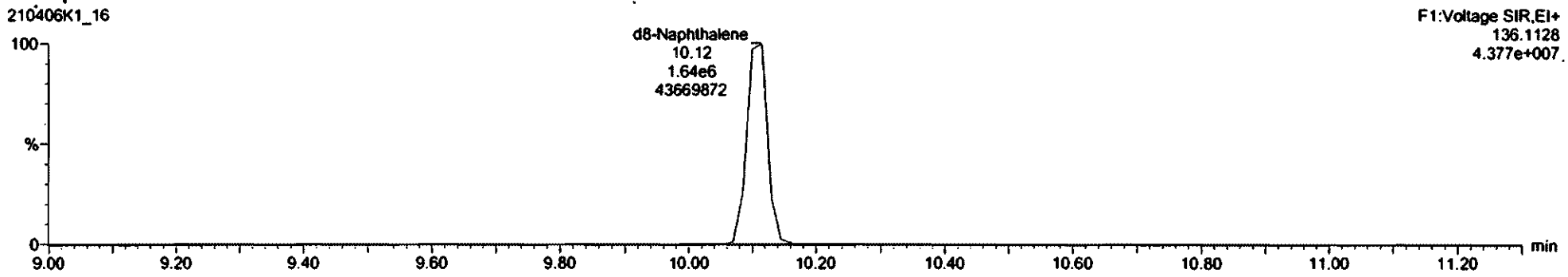
Naphthalene



Naphthalene-2nd



d8-Naphthalene



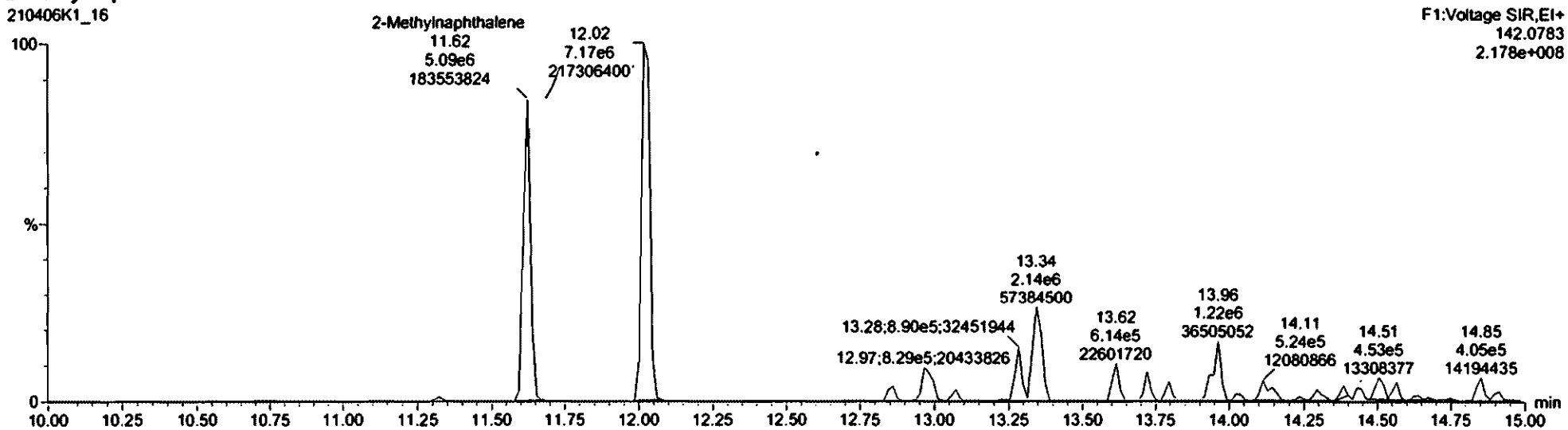
719 of 1215

Dataset: Untitled

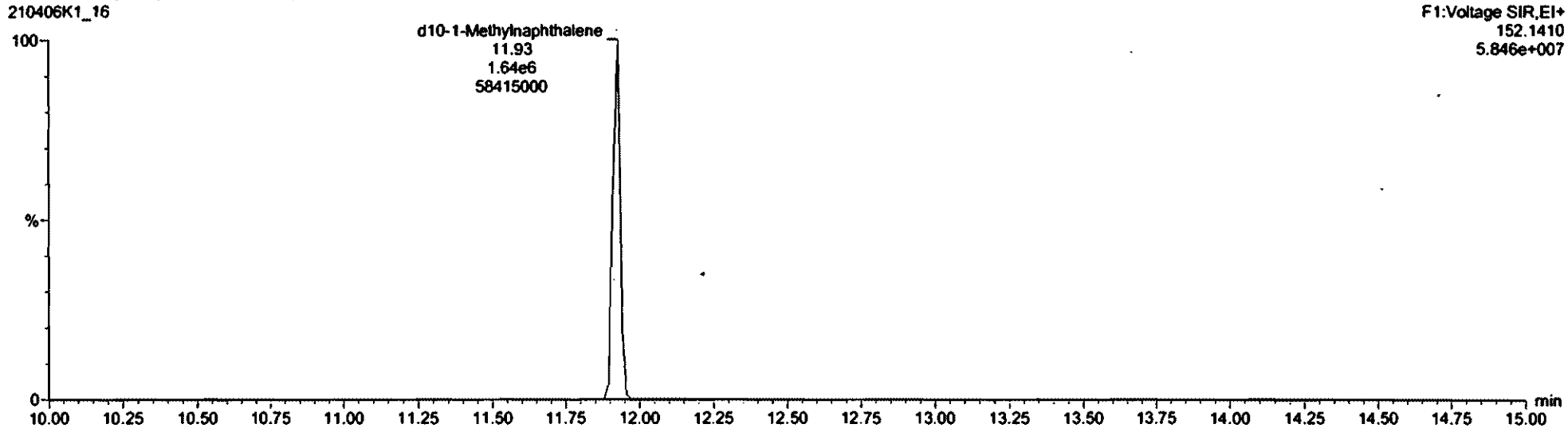
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



720 of 1215

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Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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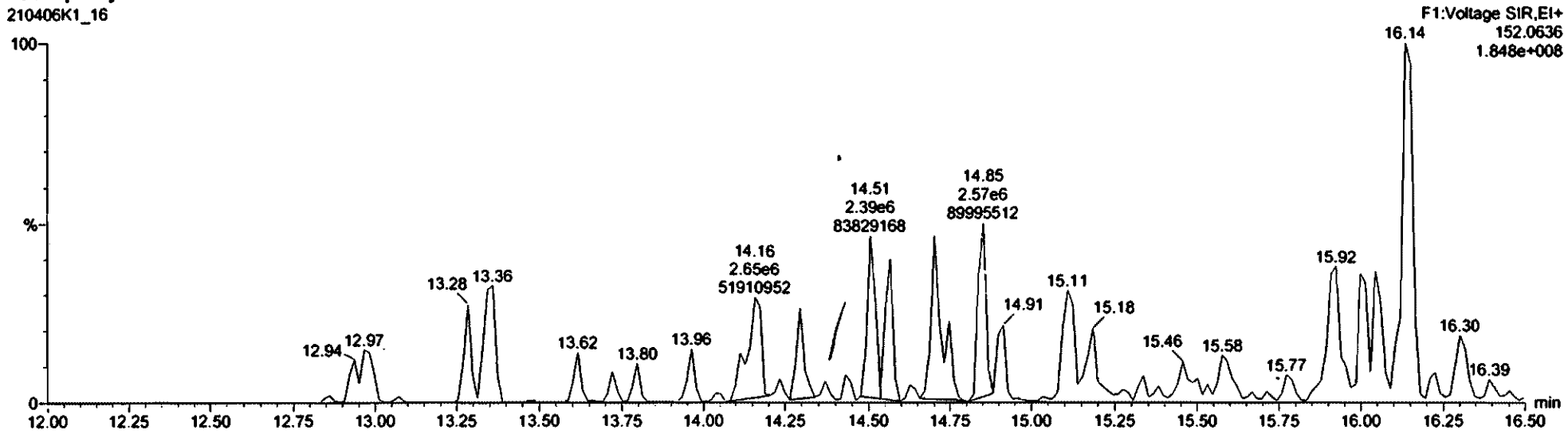
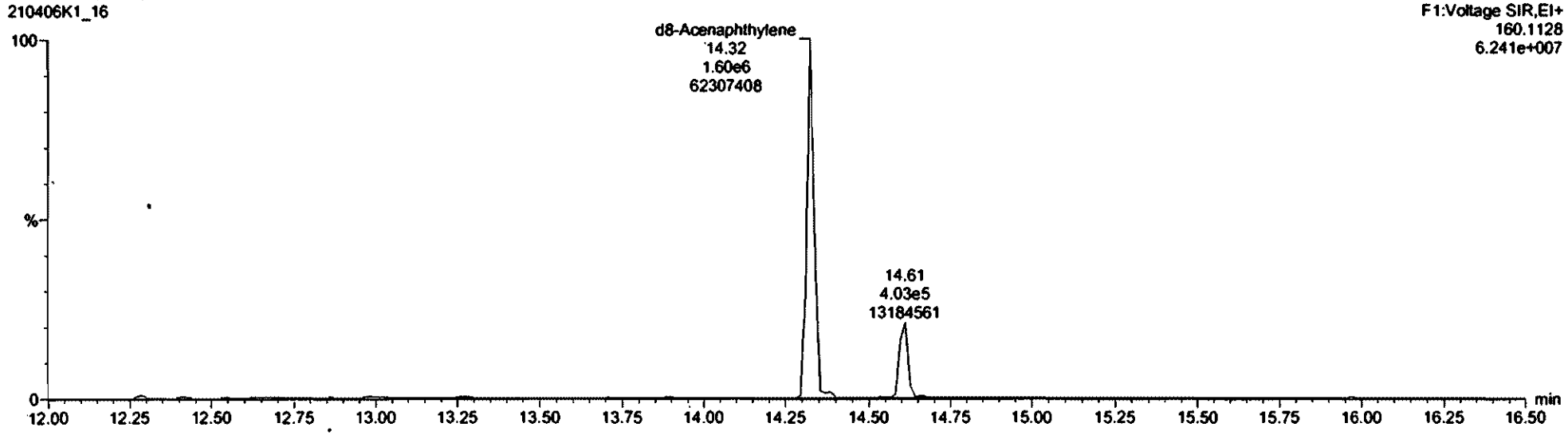
Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

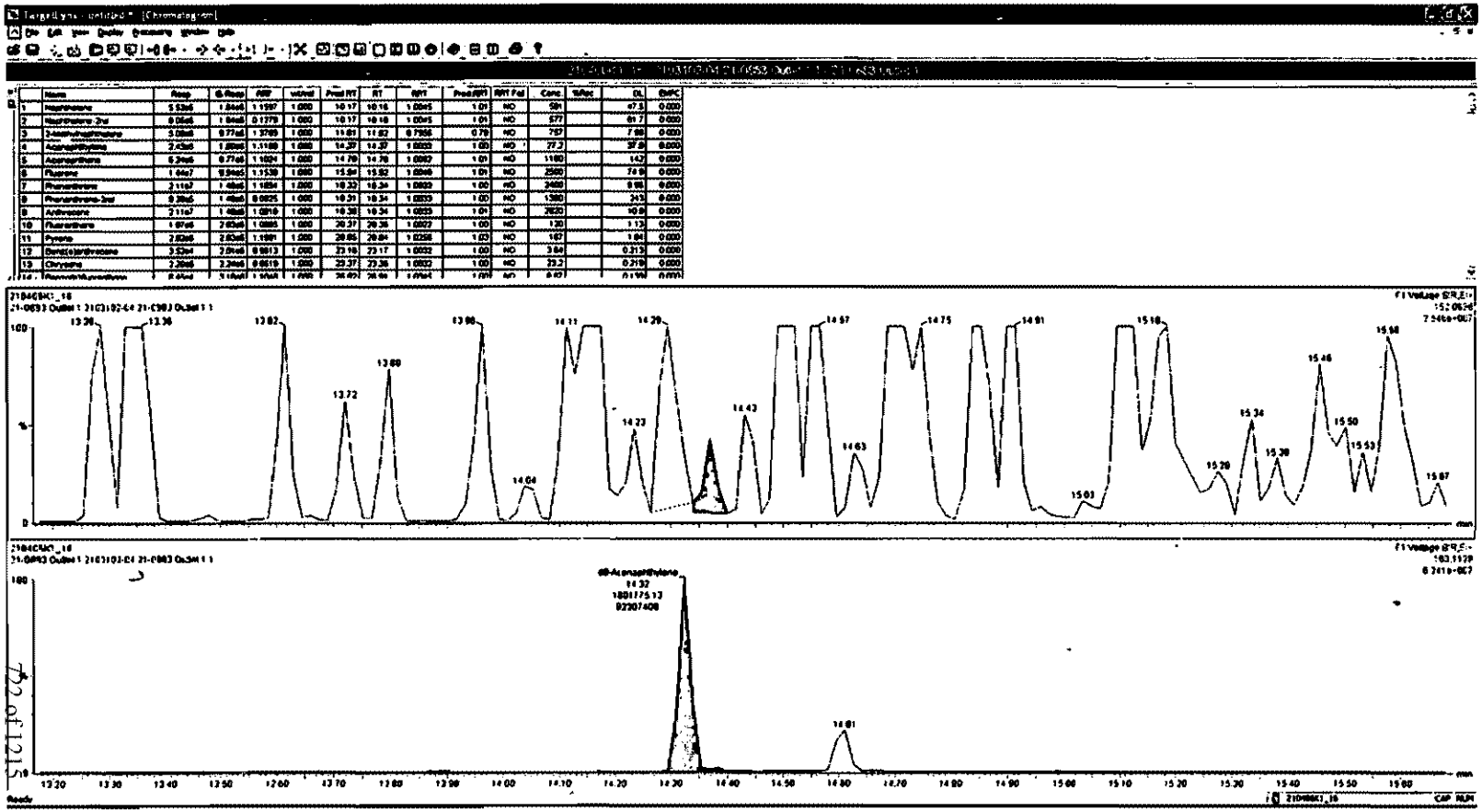
Acenaphthylene



d8-Acenaphthylene



721 of 1215



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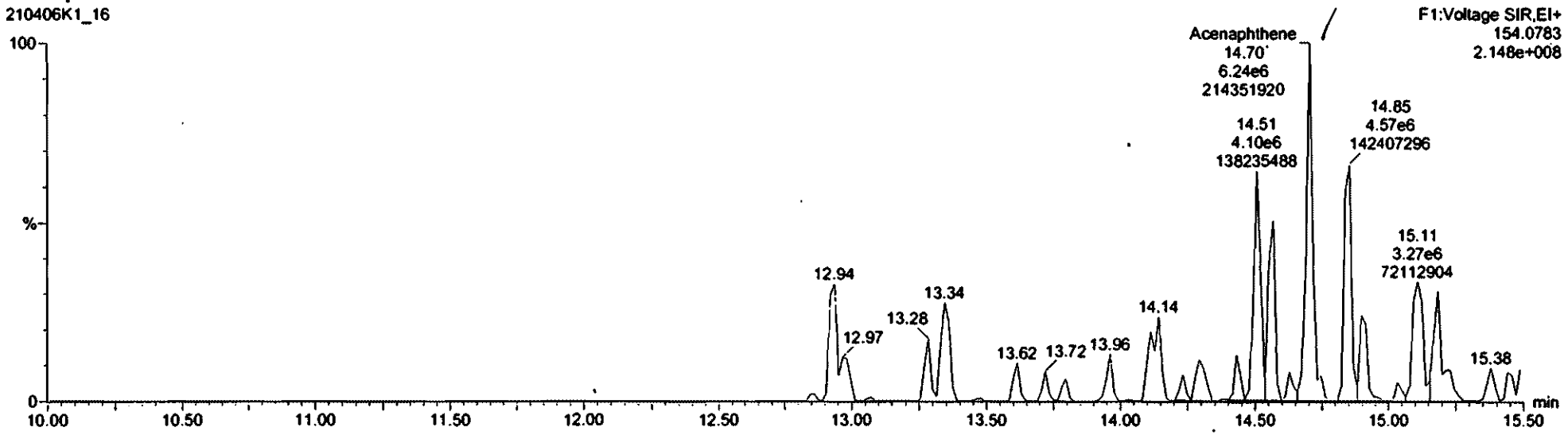
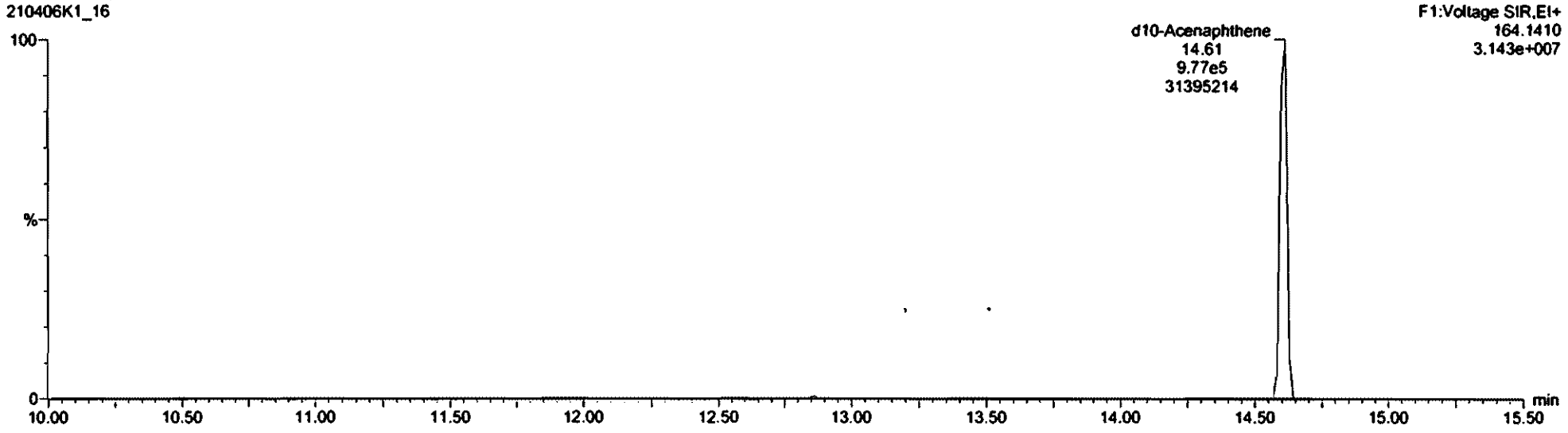
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

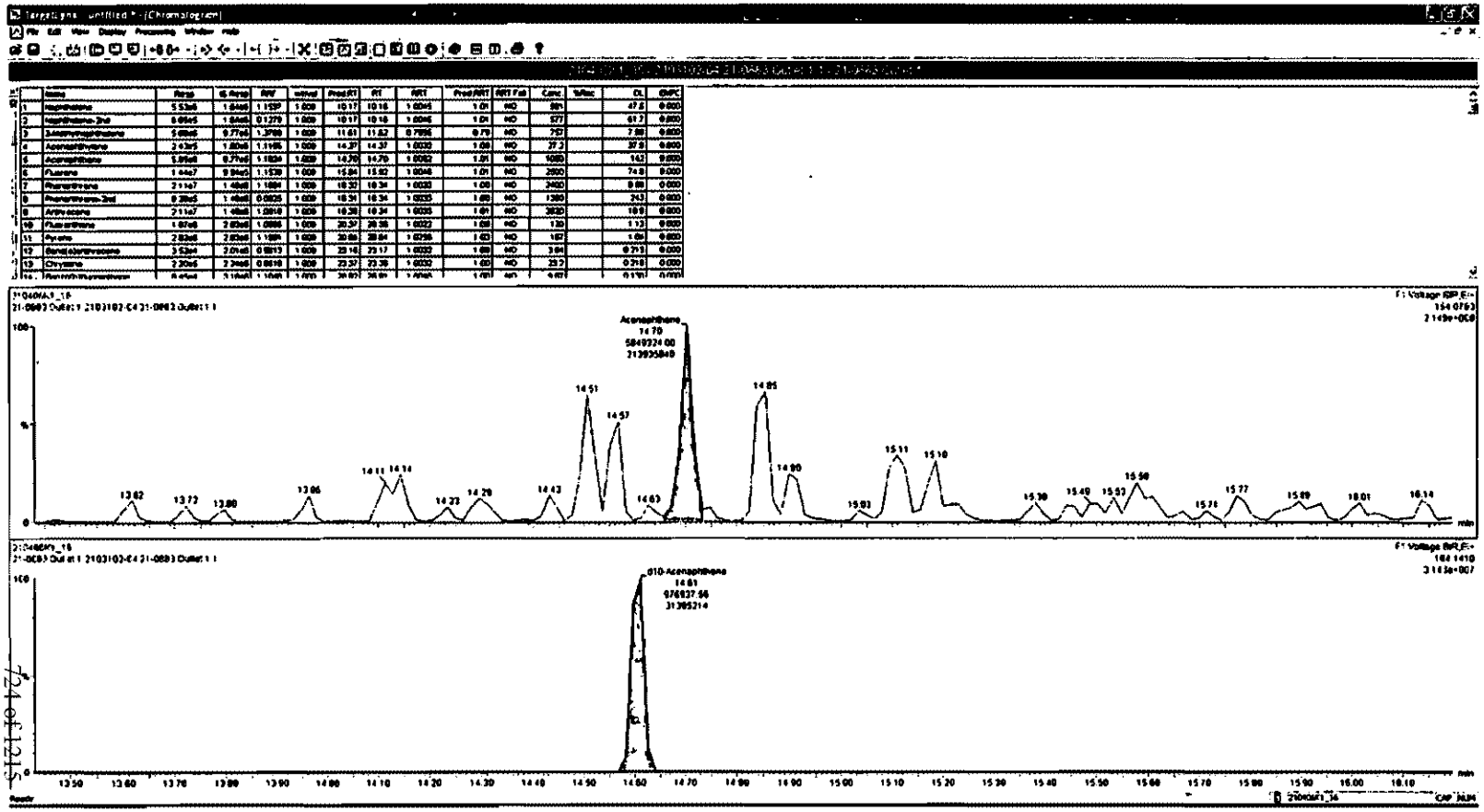
Acenaphthene



d10-Acenaphthene



723 of 1215

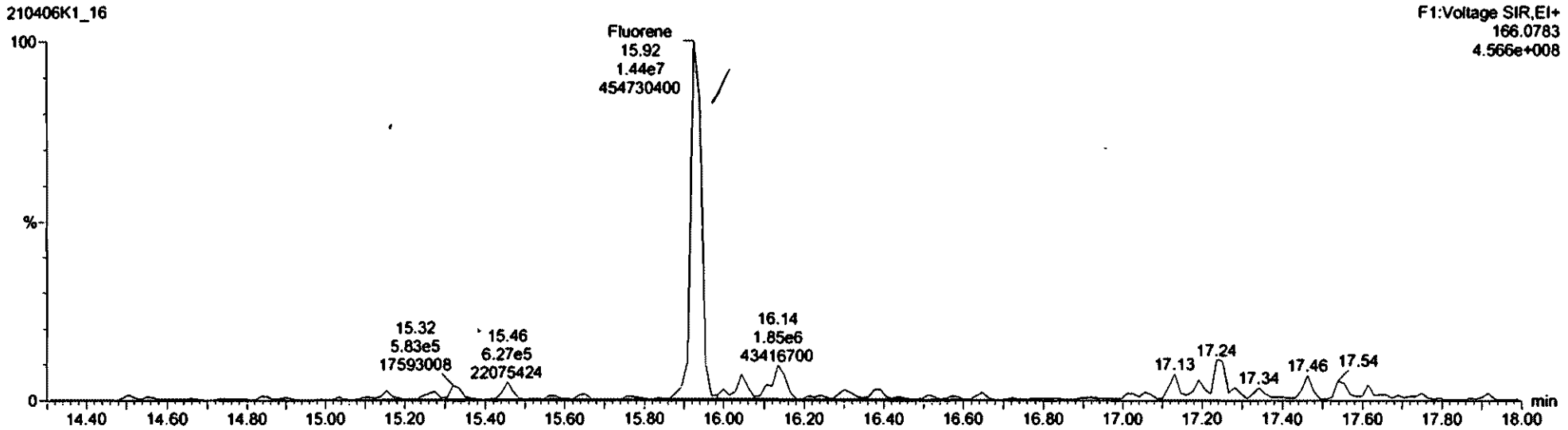

Acenaphthene
14.70
5849324.00
213935849
14.51
14.57
14.85
14.90
15.11
15.10
15.50
13.62
13.72
13.80
13.96
14.11
14.14
14.23
14.29
14.43
14.63
15.03
15.30
15.40
15.53
15.71
15.77
15.89
16.01
16.14
min
010-Acenaphthene
14.61
976937.56
31305214
13.50
13.60
13.70
13.80
13.90
14.00
14.10
14.20
14.30
14.40
14.50
14.60
14.70
14.80
14.90
15.00
15.10
15.20
15.30
15.40
15.50
15.60
15.70
15.80
15.90
16.00
16.10

Dataset: Untitled

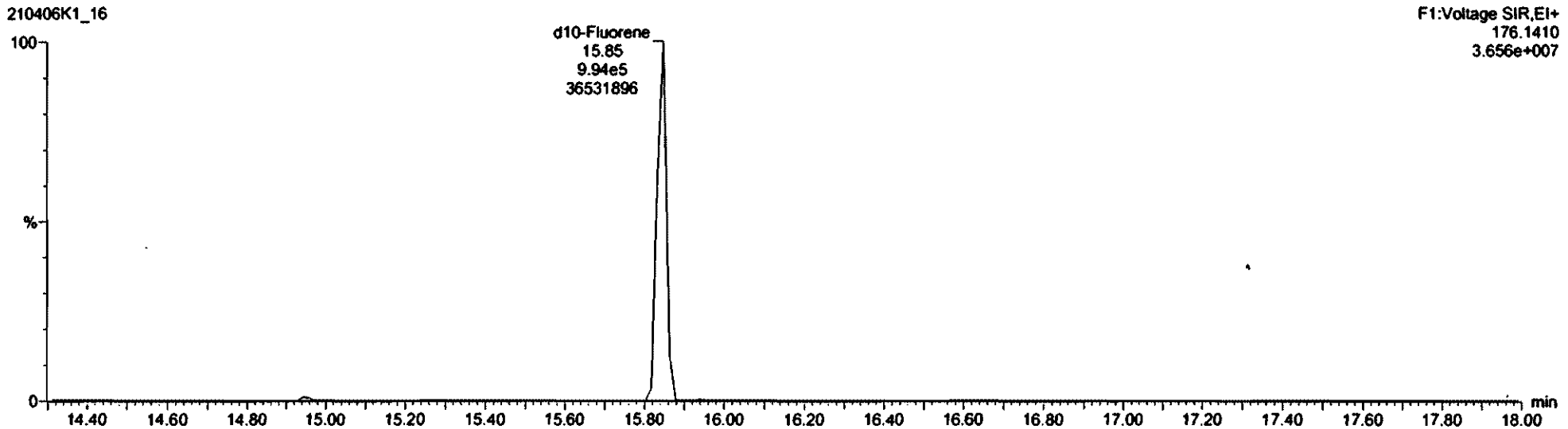
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

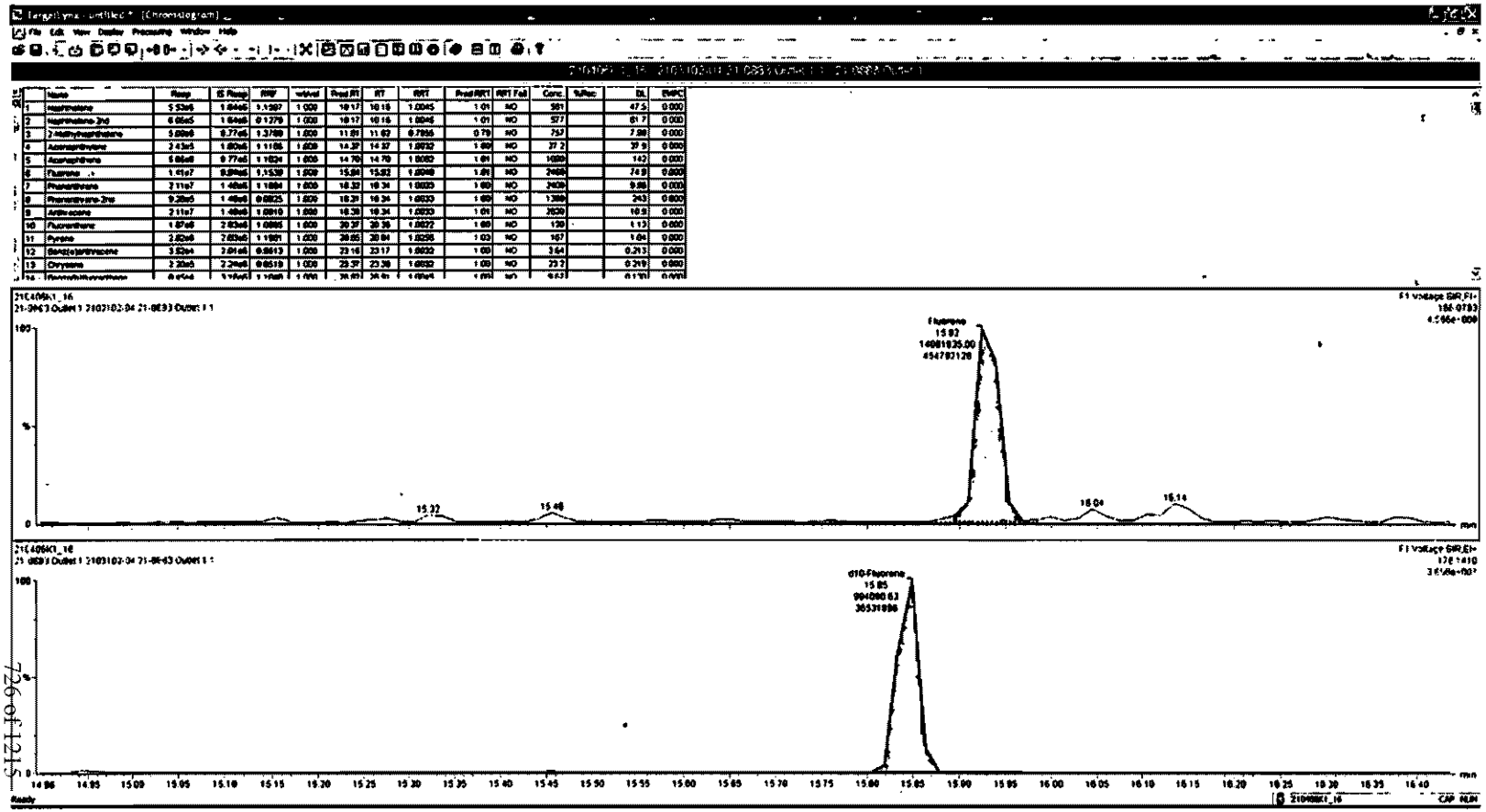
Fluorene



d10-Fluorene



725 of 1215


Fluorene
15.92
14081835.00
454793128
15.32
15.48
16.04
16.14
d10-Fluorene
15.85
904060.63
36531896

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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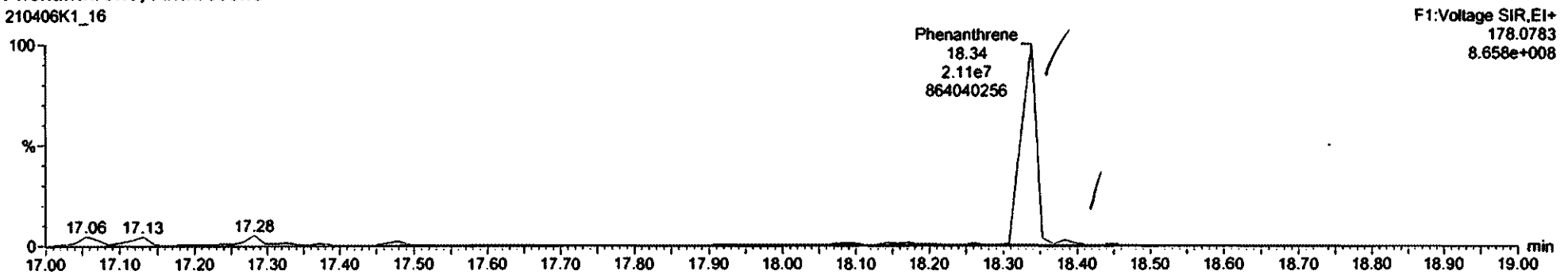
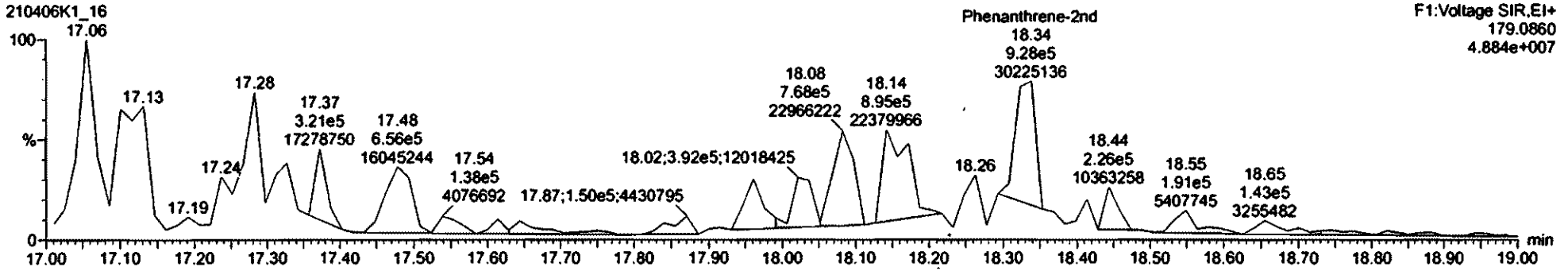
Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

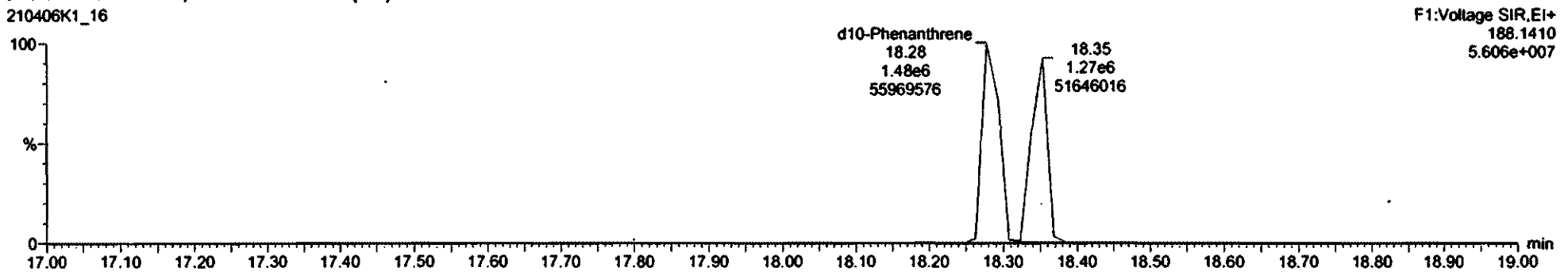
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



727 of 1215

TargetLynx - Untitled * - [Chromatogram]

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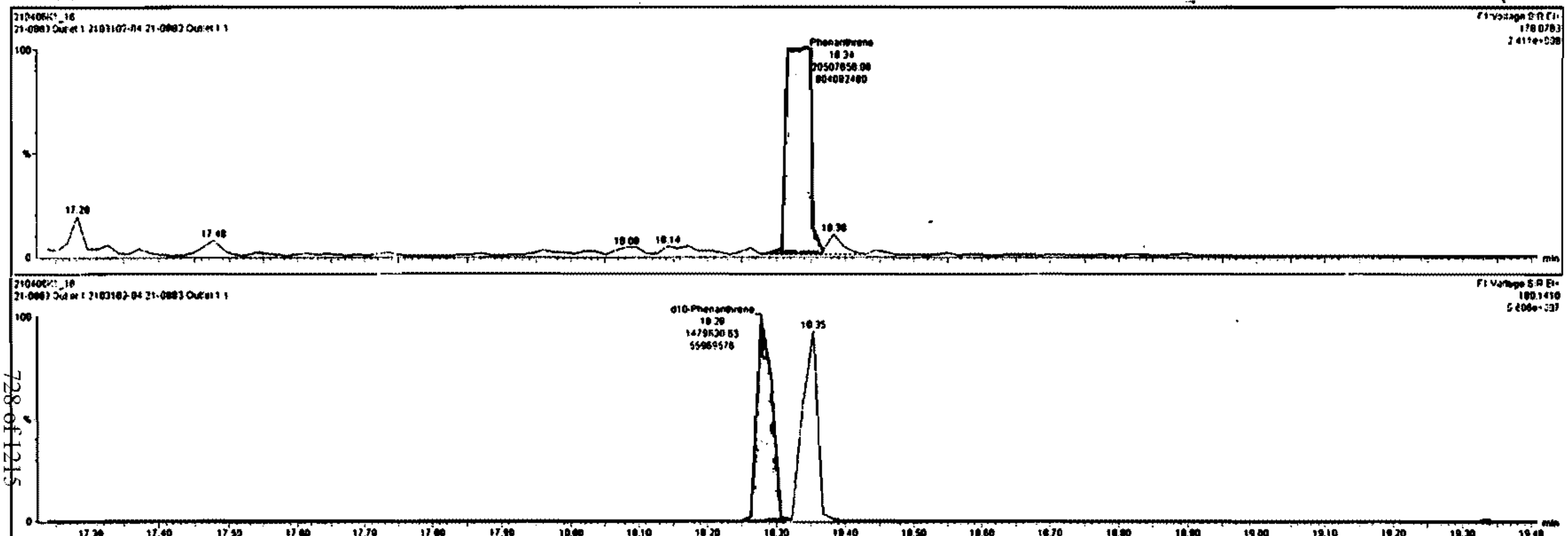
#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	5.53e6	1.84e6	1.1587	1.000	10.17	10.16	1.0045	1.01	NO	581		47.5	0.000
2	Naphthalene-2nd	6.05e5	1.84e6	0.1278	1.000	10.17	10.16	1.0046	1.01	NO	577		81.7	0.000
3	2-Methylnaphthalene	5.08e6	9.77e5	1.3780	1.000	11.61	11.62	0.7956	0.79	NO	757		7.90	0.000
4	Acenaphthylene	2.43e6	1.80e6	1.1186	1.000	14.37	14.37	1.0032	1.00	NO	27.2		37.8	0.000
5	Acenaphthene	5.86e6	9.77e5	1.1024	1.000	14.70	14.70	1.0082	1.01	NO	1080		142	0.000
6	Fluorene	1.41e7	8.94e5	1.1539	1.000	15.84	15.82	1.0049	1.01	NO	2480		74.9	0.000
7	Phenanthrene	2.85e7	1.48e6	1.1884	1.000	18.32	18.34	1.0033	1.00	NO	2330		8.88	0.000
8	Phenanthrene-2nd	9.28e5	1.48e6	0.0825	1.000	18.31	18.34	1.0033	1.00	NO	1380		243	0.000
9	Anthracene	2.11e7	1.48e6	1.0810	1.000	18.38	18.34	1.0033	1.01	NO	2030		10.8	0.000
10	Fluoranthene	1.87e6	2.83e6	1.0885	1.000	20.37	20.36	1.0022	1.00	NO	130		1.13	0.000
11	Pyrene	2.82e6	2.82e6	1.1891	1.000	20.85	20.84	1.0258	1.03	NO	187		1.04	0.000
12	Benz[a]anthracene	3.82e4	2.81e6	0.9813	1.000	23.16	23.17	1.0032	1.00	NO	3.84		0.213	0.000
13	Chrysene	2.20e5	2.74e6	0.8519	1.000	23.37	23.38	1.0032	1.00	NO	29.2		0.718	0.000
14	Benzo[b]fluoranthene	8.45e4	3.18e6	1.1068	1.000	26.82	26.81	1.0065	1.00	NO	8.67		0.130	0.000



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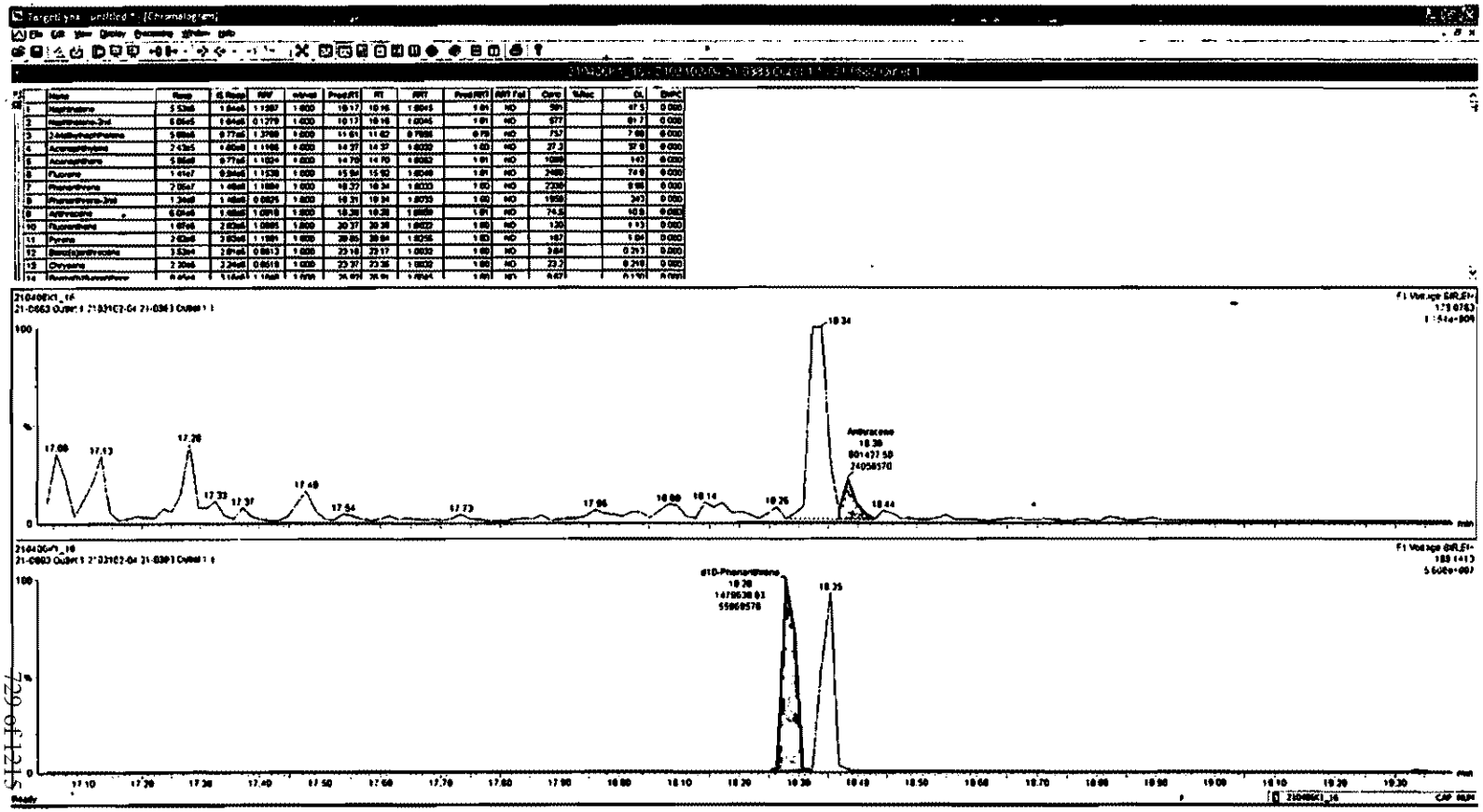

18.34
Anthracene
18.38
801437.50
24058570
d10-Phenanthrene
18.28
1479638.63
55060578
18.35

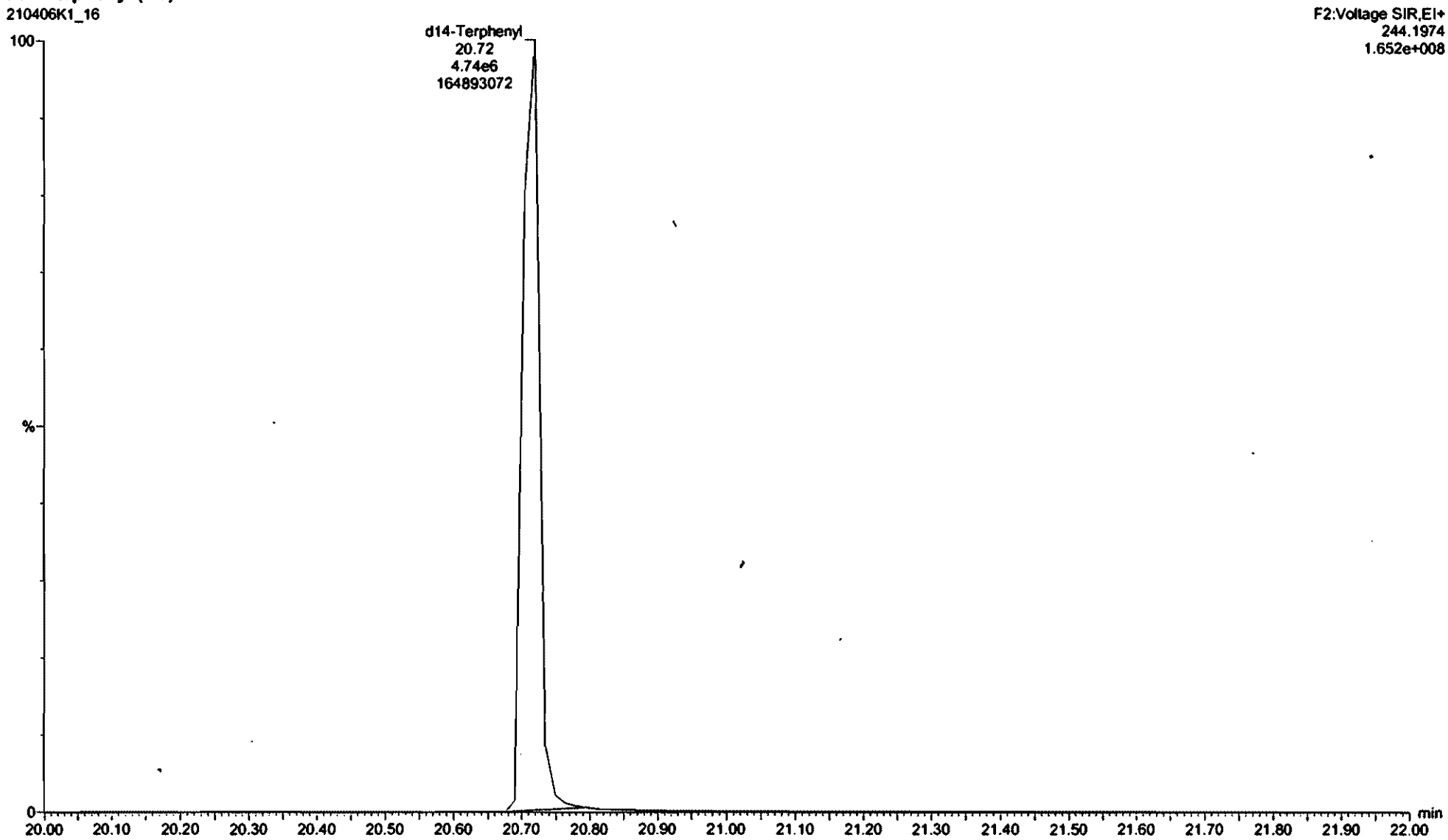
729 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

d14-Terphenyl (PS)



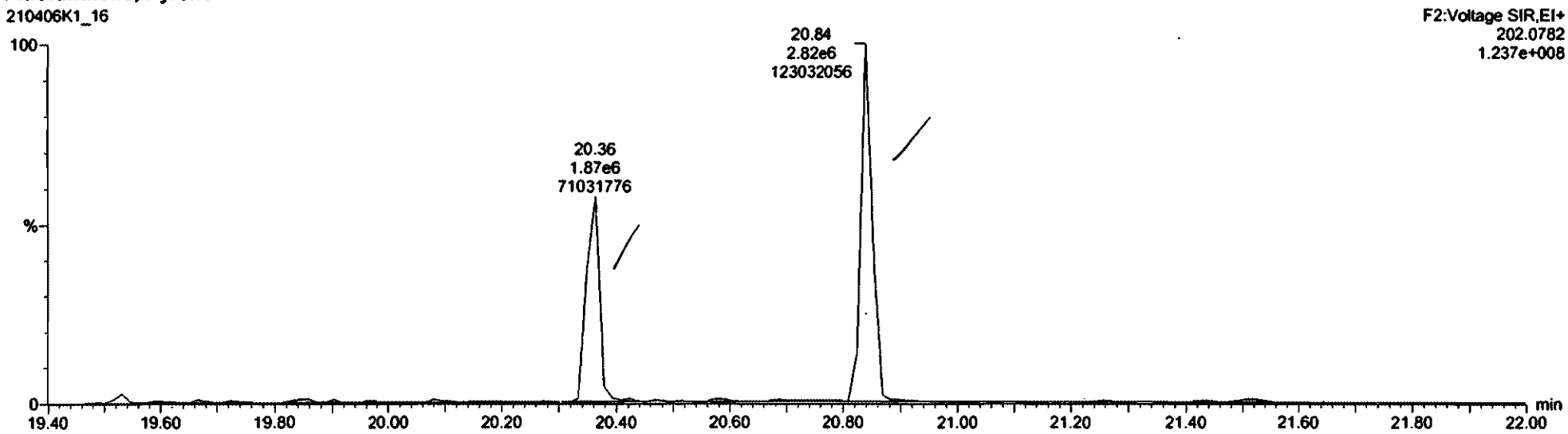
730 of 1215

Dataset: Untitled

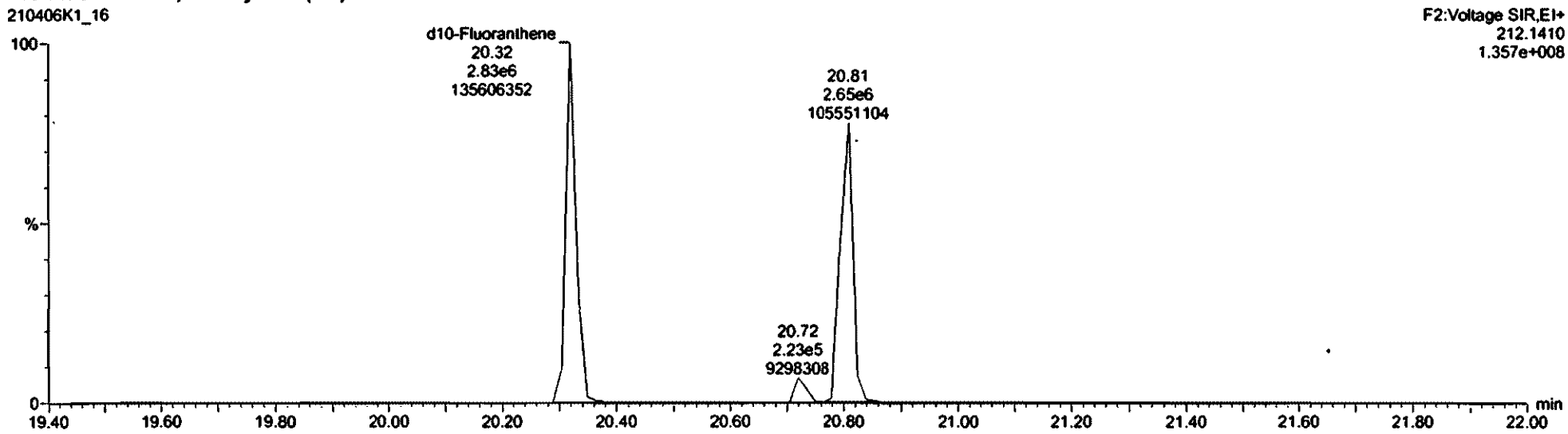
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



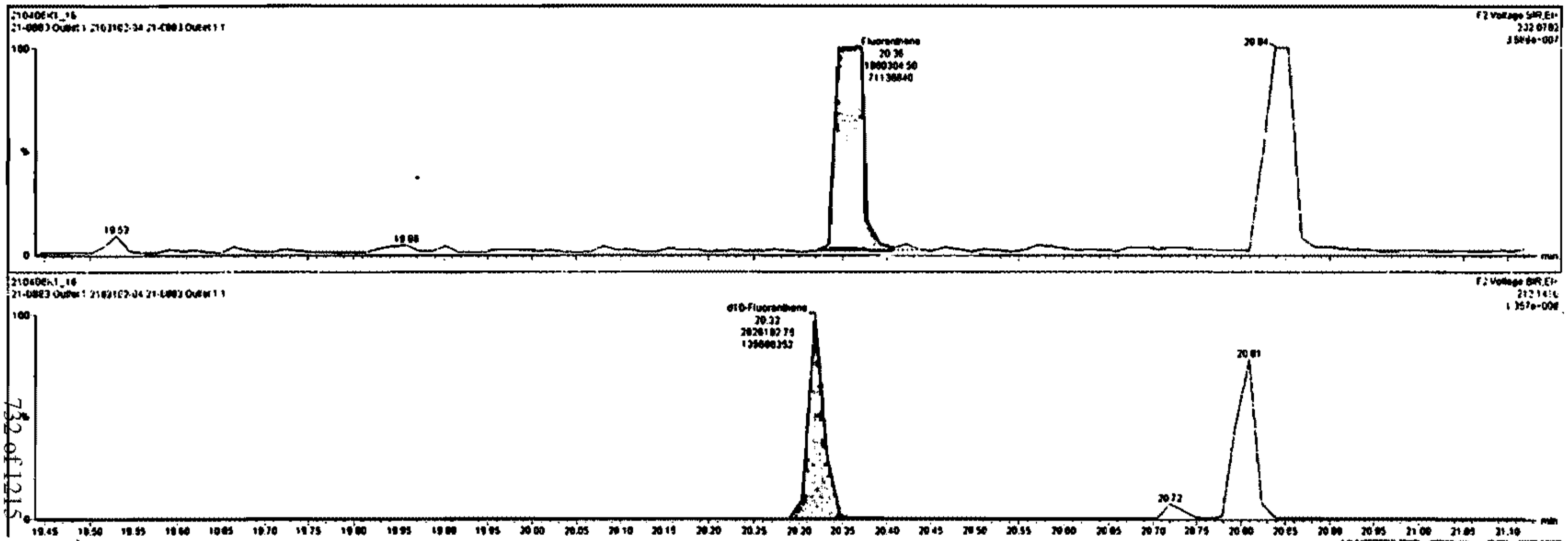
731 of 1215

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

210406KI_16 - 2103102-04 21-0883 Outlet 1 1 - 2103102 Outlet 1

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	5.53e6	1.64e6	1.1587	1.000	10.17	10.16	1.0045	1.01	NO	891		47.5	0.000
2	Naphthalene-2nd	6.05e5	1.64e6	0.1275	1.000	10.17	10.16	1.0045	1.01	NO	577		61.7	0.000
3	2-Methylnaphthalene	5.98e6	9.77e5	1.3788	1.000	11.61	11.62	0.7866	0.79	NO	757		7.98	0.000
4	Acenaphthylene	2.43e5	1.48e6	1.1188	1.000	14.37	14.37	1.0032	1.00	NO	27.2		37.9	0.000
5	Acenaphthene	5.85e6	9.77e5	1.1024	1.000	14.70	14.78	1.0087	1.01	NO	1080		147	0.000
6	Fluorene	1.41e7	9.94e5	1.1538	1.000	15.94	15.92	1.0048	1.01	NO	2480		74.3	0.000
7	Phenanthrene	2.85e7	1.48e6	1.1884	1.000	18.32	18.34	1.0033	1.00	NO	2330		9.98	0.000
8	Phenanthrene-2nd	1.34e6	1.48e6	0.0825	1.000	18.31	18.34	1.0033	1.00	NO	1850		243	0.000
9	Anthracene	6.01e5	1.48e6	1.0818	1.000	18.38	18.38	1.0058	1.01	NO	74.5		10.9	0.000
10	Fluoranthene	1.85e6	2.02e6	1.0000	1.000	20.37	20.36	1.0027	1.00	NO	120		1.13	0.000
11	Pyrene	2.82e6	2.02e6	1.1881	1.000	20.85	20.84	1.0258	1.03	NO	187		1.06	0.000
12	Benz(a)anthracene	3.53e4	2.04e6	0.8813	1.000	23.16	23.17	1.0032	1.00	NO	3.64		0.213	0.000
13	Chrysene	2.20e5	2.24e6	0.8519	1.000	23.37	23.38	1.0032	1.00	NO	23.2		0.219	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		[illegible]	[illegible]



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Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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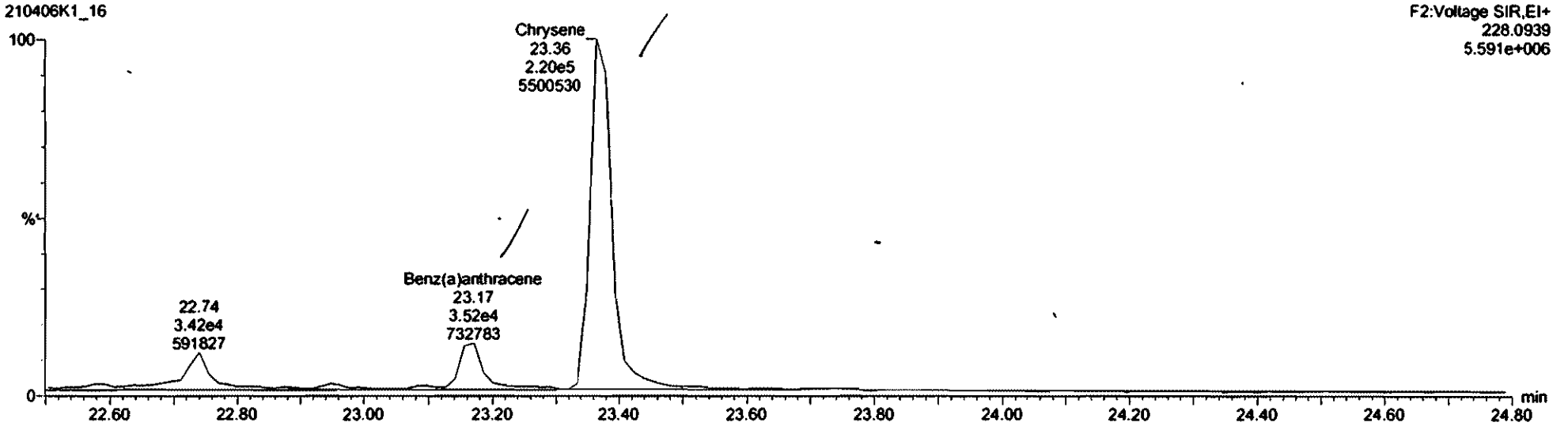
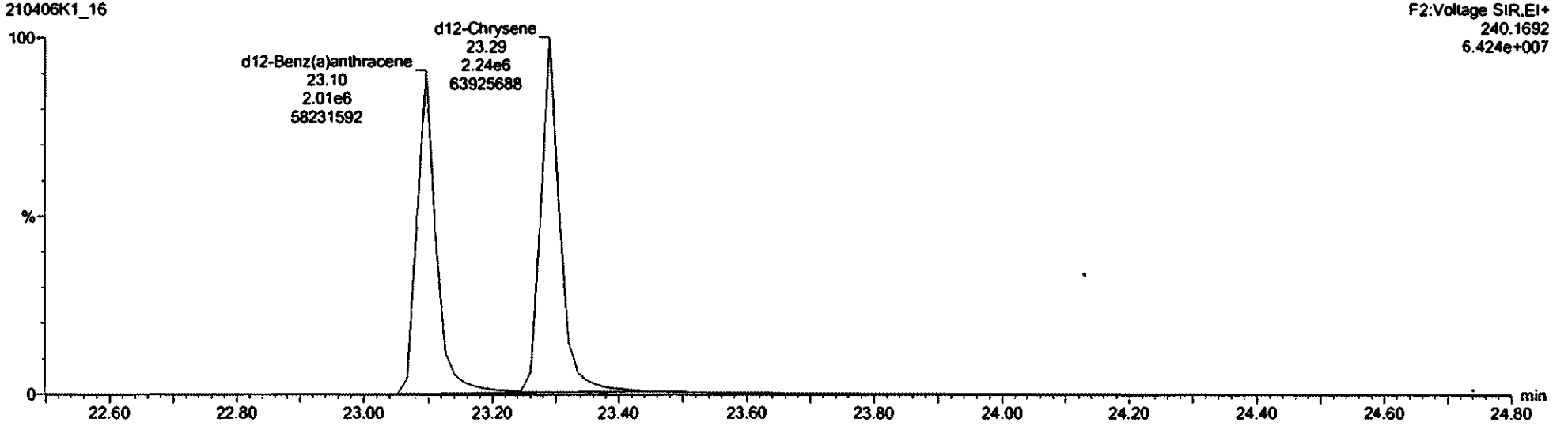
Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso

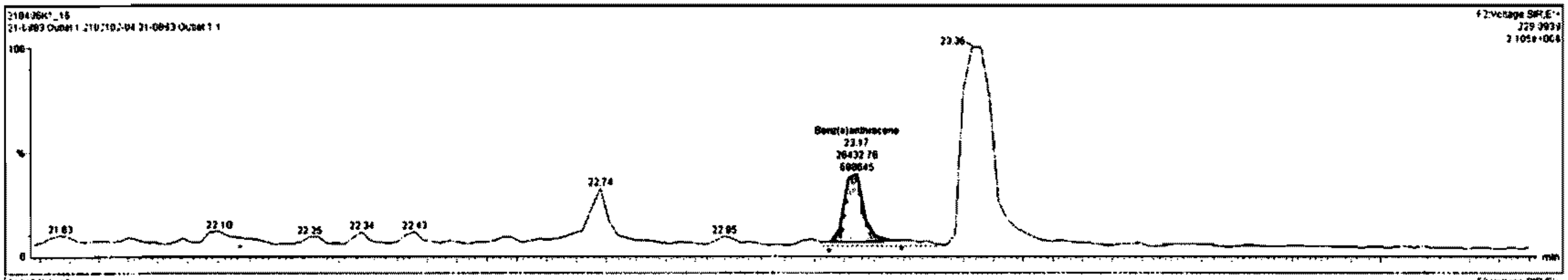


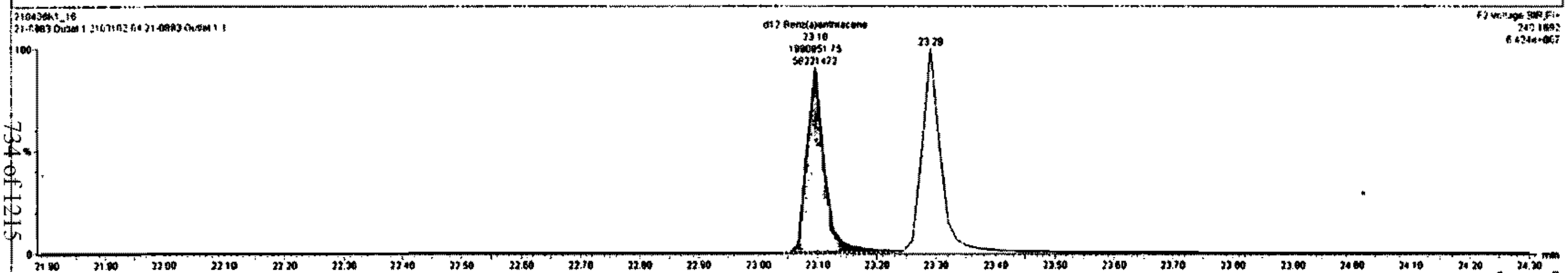
733 of 1215

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	5.53e6	1.84e6	1.1587	1.000	10.17	10.18	1.0045	1.01	NO	581		47.5	0.000
2	Naphthalene-2nd	6.05e5	1.84e6	0.1279	1.000	10.17	10.16	1.0045	1.01	NO	577		61.7	0.000
3	2-Methylnaphthalene	5.90e6	9.77e5	1.3788	1.000	11.81	11.82	0.7855	0.79	NO	757		7.80	0.000
4	Acenaphthylene	2.43e5	1.80e6	1.1168	1.000	14.37	14.37	1.0032	1.00	NO	27.2		37.9	0.000
5	Acenaphthene	5.85e6	9.77e5	1.1024	1.000	14.70	14.70	1.0062	1.01	NO	1090		142	0.000
6	Fluorene	1.41e7	9.94e5	1.1539	1.000	15.94	15.92	1.0040	1.01	NO	3480		74.9	0.000
7	Phenanthrene	2.05e7	1.48e6	1.1884	1.000	18.32	18.34	1.0033	1.00	NO	2330		8.98	0.000
8	Phenanthrene-2nd	1.34e6	1.48e6	0.0826	1.000	18.31	18.34	1.0033	1.00	NO	1850		243	0.000
9	Anthracene	6.01e5	1.48e6	1.0810	1.000	18.38	18.39	1.0058	1.01	NO	74.5		10.9	0.000
10	Fluoranthene	1.86e6	2.83e6	1.0885	1.000	20.37	20.36	1.0022	1.00	NO	120		1.13	0.000
11	Pyrene	2.82e6	2.80e6	1.1981	1.000	20.85	20.84	1.0258	1.03	NO	187		1.04	0.000
12	Benz(a)anthracene	2.84e4	1.80e6	0.8813	1.000	23.16	23.17	1.0032	1.00	NO	2.78		0.213	0.000
13	Chrysene	2.20e5	2.24e6	0.8518	1.000	23.37	23.38	1.0032	1.00	NO	23.2		0.219	0.000
14	[illegible]	4.65e4	[illegible]	[illegible]	1.000	[illegible]	[illegible]	1.0065	1.00	NO	[illegible]		[illegible]	0.000





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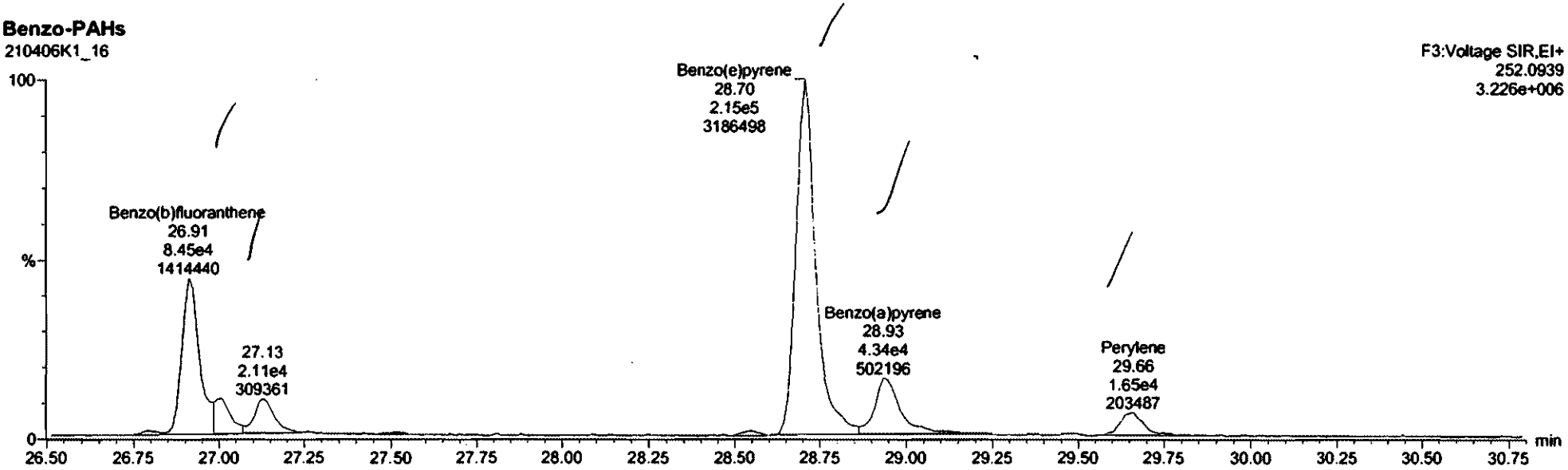
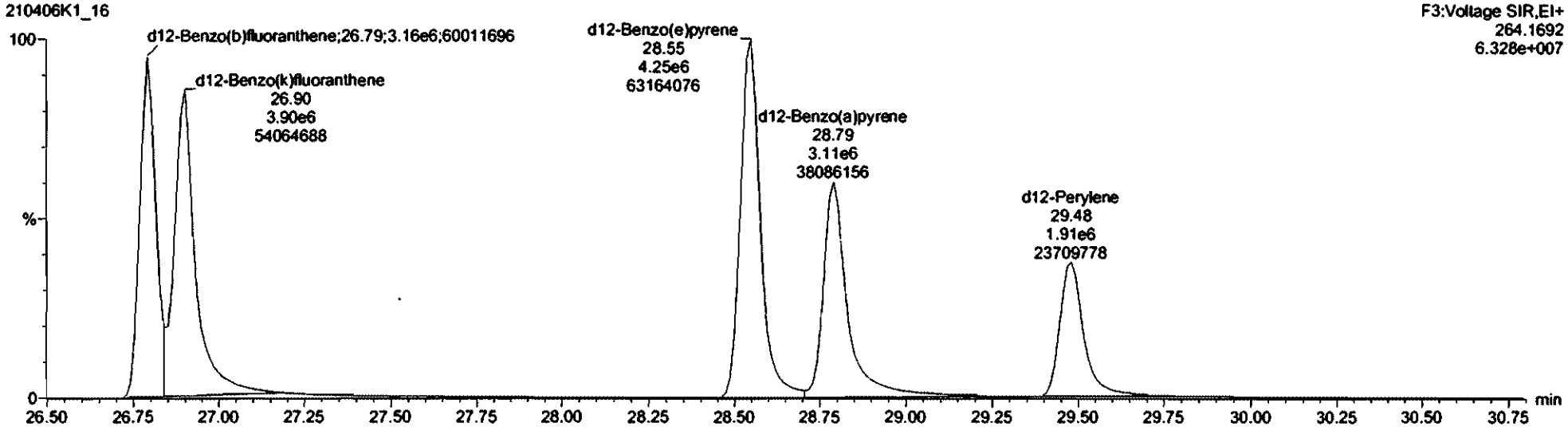
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

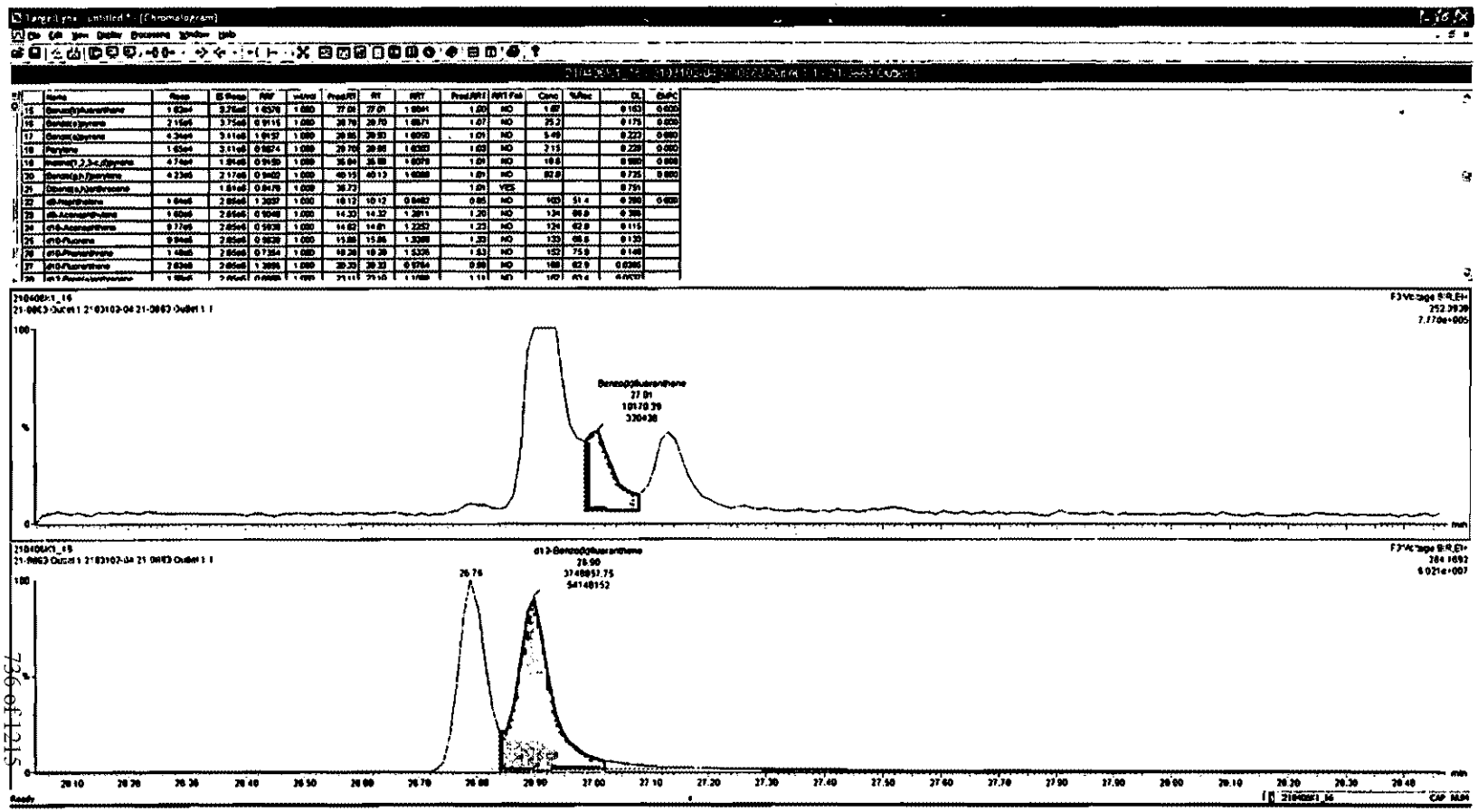
Benzo-PAHs

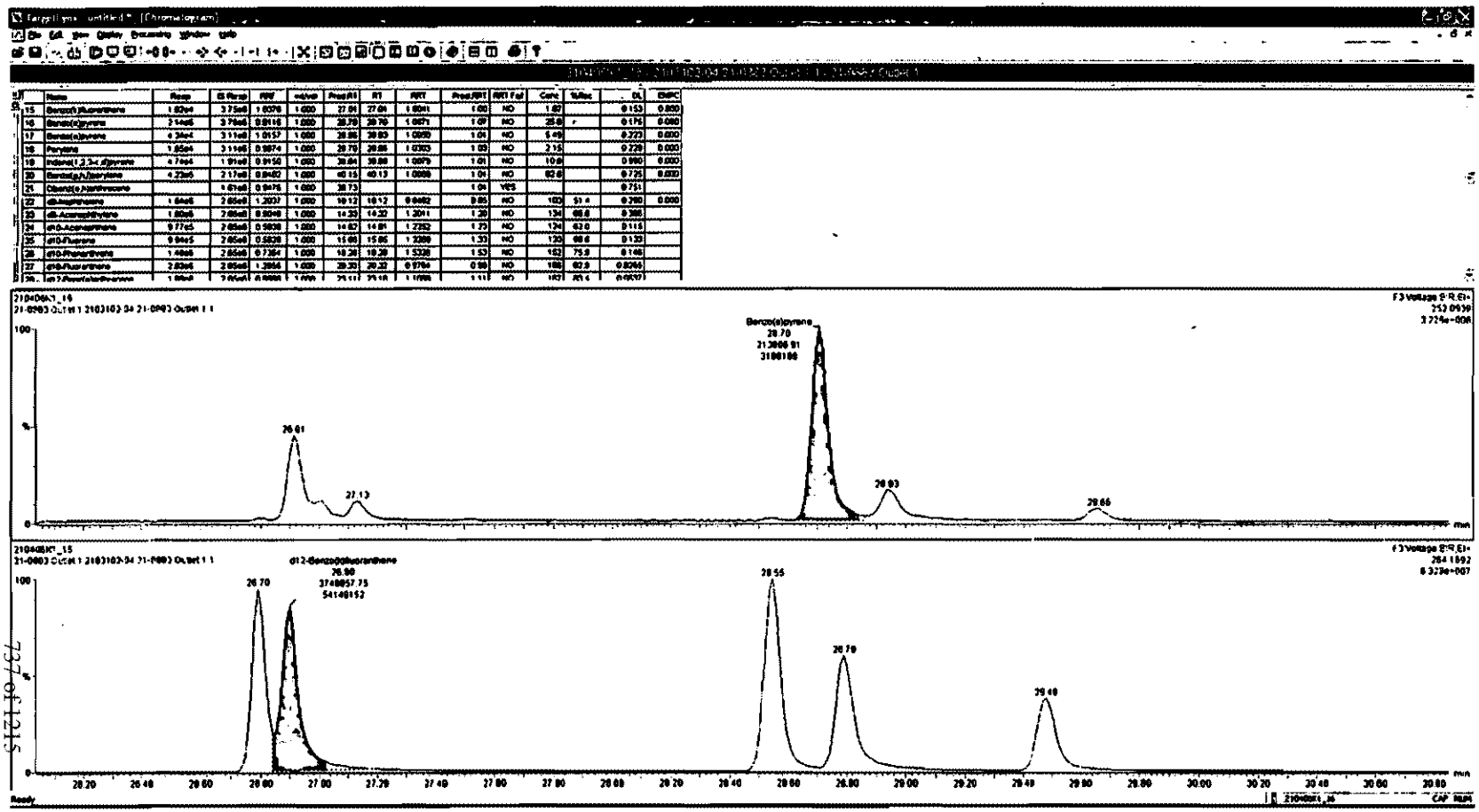


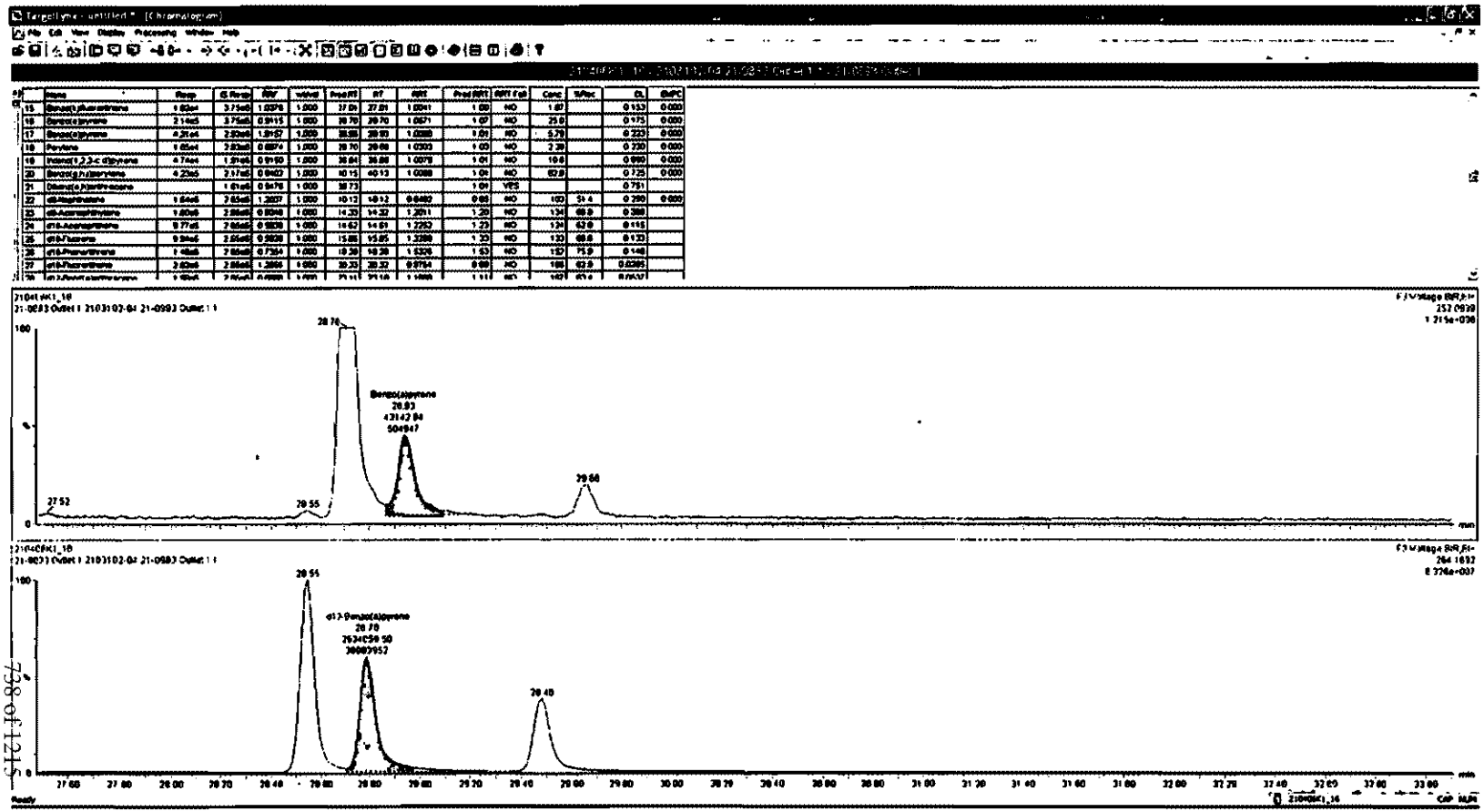
Benzo-Isotopes



735 of 1215




Benzo(e)pyrene
28.70
21.3806 91
3188188
26.61
27.13
28.93
29.65
d12-Benzo(b)fluoranthene
26.70
26.80
37488057.75
54148852
28.56
28.79
29.48


27.52
28.55
28.70
Benzo(a)pyrene
28.83
29.48
d12-Benzo(a)pyrene
28.70
29.48

TargetLynx - untitled * - [Chromatogram]

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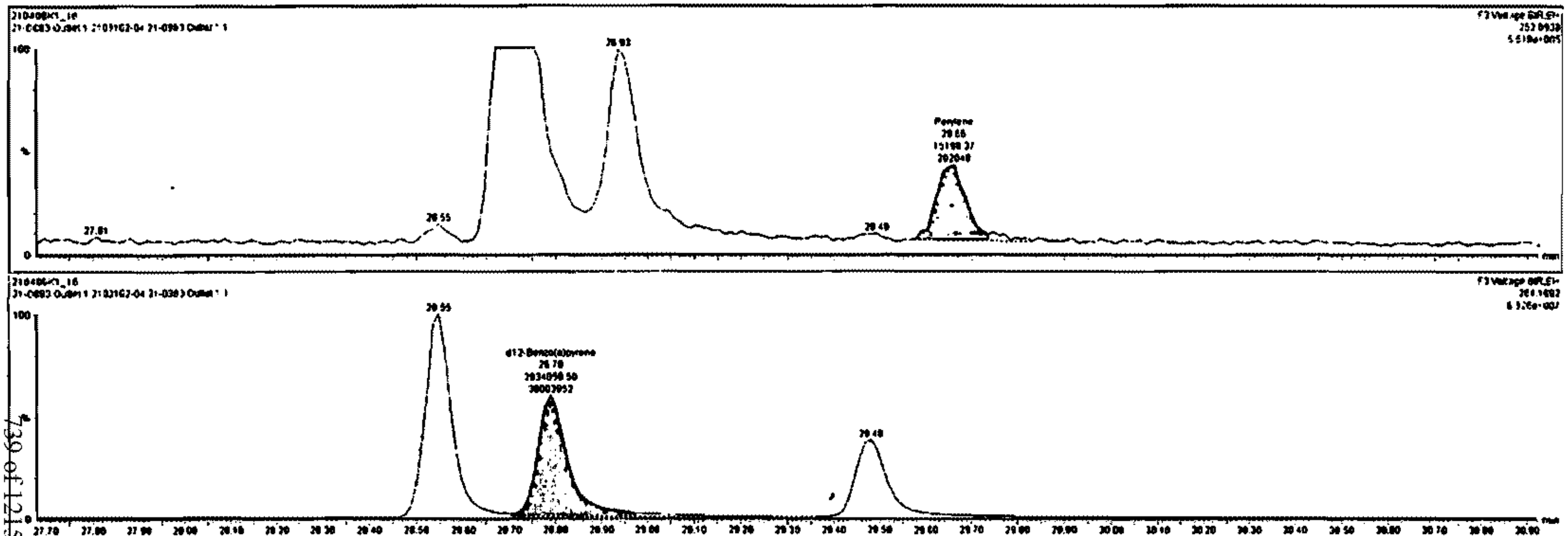
#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.60e4	3.75e6	1.0376	1.000	27.01	27.0[illegible]	1.0041	1.00	NO	1.87		0.153	0.000
16	Benzo(e)pyrene	2.14e5	3.75e6	0.9115	1.000	28.70	28.70	1.0071	1.07	NO	25.0		0.175	0.000
17	Benzo(a)pyrene	4.31e4	2.83e6	1.0157	1.000	28.86	28.80	1.0080	1.01	NO	5.79		0.223	0.000
18	Perylene	1.52e4	2.83e6	0.9874	1.000	29.70	29.66	1.0300	1.03	NO	2.10		0.230	0.000
19	Indeno(1,2,3-c,d)pyrene	4.74e4	1.81e6	0.9130	1.000	35.64	35.6[illegible]	1.0070	1.01	NO	10.0		0.180	0.000
20	Benzo(g,h,i)perylene	4.23e5	2.17e6	0.9402	1.000	40.15	40.13	1.0000	1.01	NO	82.0		0.725	0.000
21	Dibenzo(a,h)anthracene		1.81e6	0.9475	1.000	38.73			1.01	YES			0.751	
22	d8-Naphthalene	1.64e6	2.86e6	1.3057	1.000	10.12	10.12	0.8482	0.85	NO	103	51.4	0.280	0.000
23	d8-Acenaphthylene	1.60e6	2.65e6	0.8840	1.000	14.33	14.32	1.2011	1.20	NO	134	66.8	0.388	
24	d10-Acenaphthene	9.77e5	2.86e6	0.5858	1.000	14.82	14.81	1.2252	1.23	NO	124	62.0	0.115	
25	d10-Fluorene	8.84e5	2.86e6	0.5828	1.000	15.8[illegible]	15.85	1.3280	1.33	NO	133	66.6	0.120	
26	d10-Phenanthrene	1.48e6	2.86e6	0.7354	1.000	18.28	18.28	1.5326	1.53	NO	152	75.9	0.149	
27	d10-Fluoranthene	2.03e6	2.86e6	1.3885	1.000	20.33	20.32	0.9784	0.99	NO	168	82.8	0.0285	
28	[illegible]	1.90e6	2.86e6	[illegible]	1.000	21.11	21.10	[illegible]	1.11	NO	167	83.6	[illegible]	



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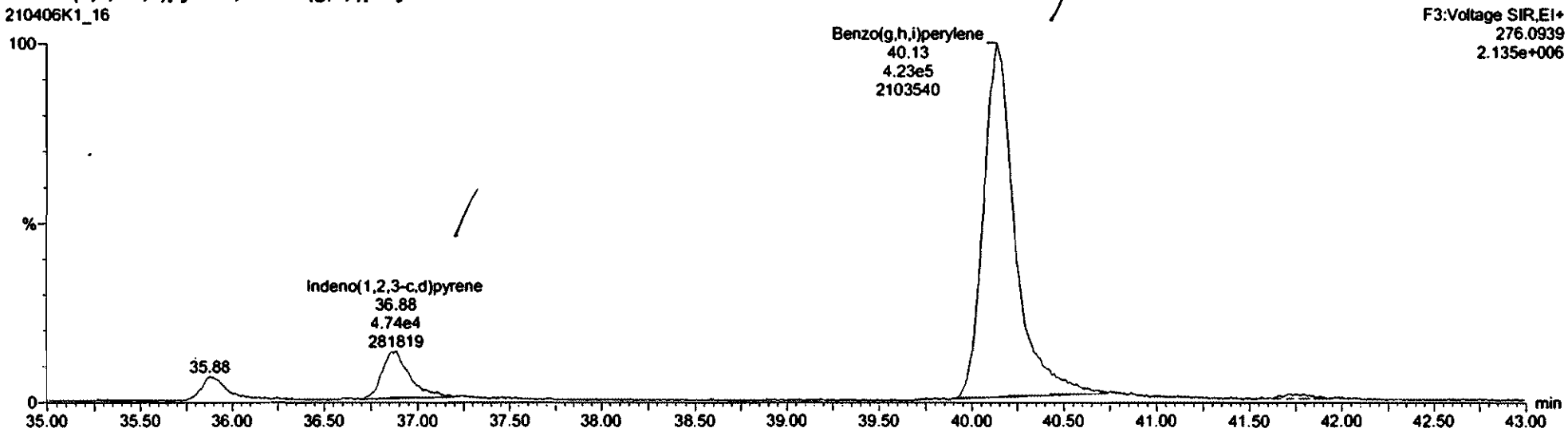
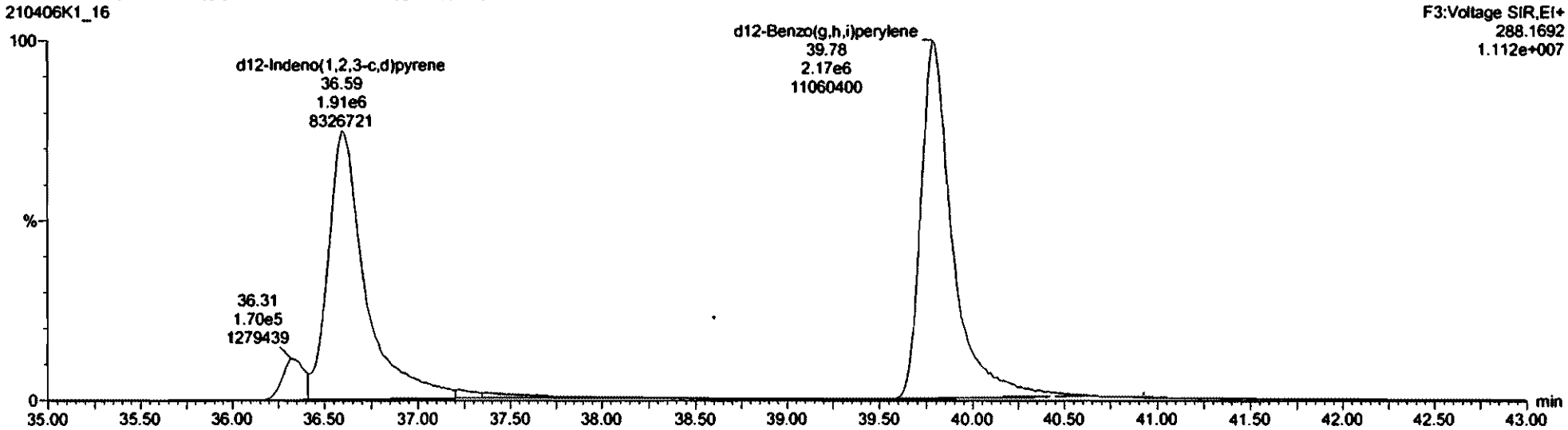
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene

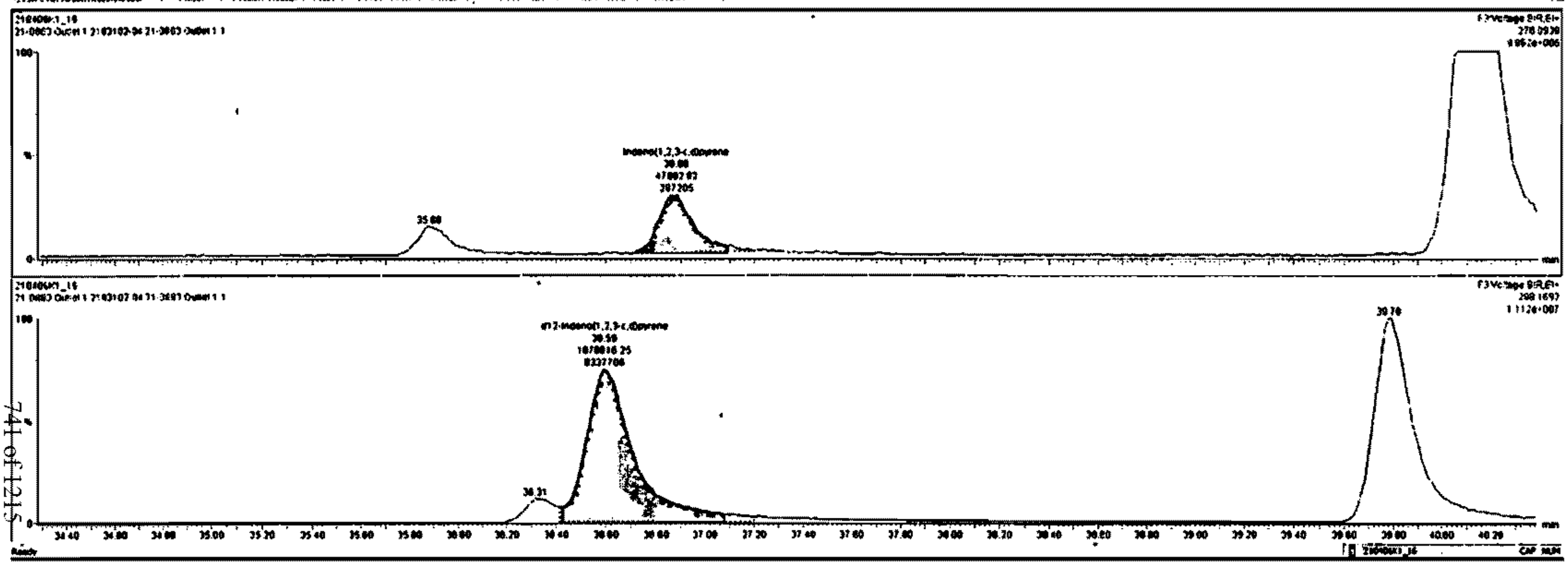


740 of 1215

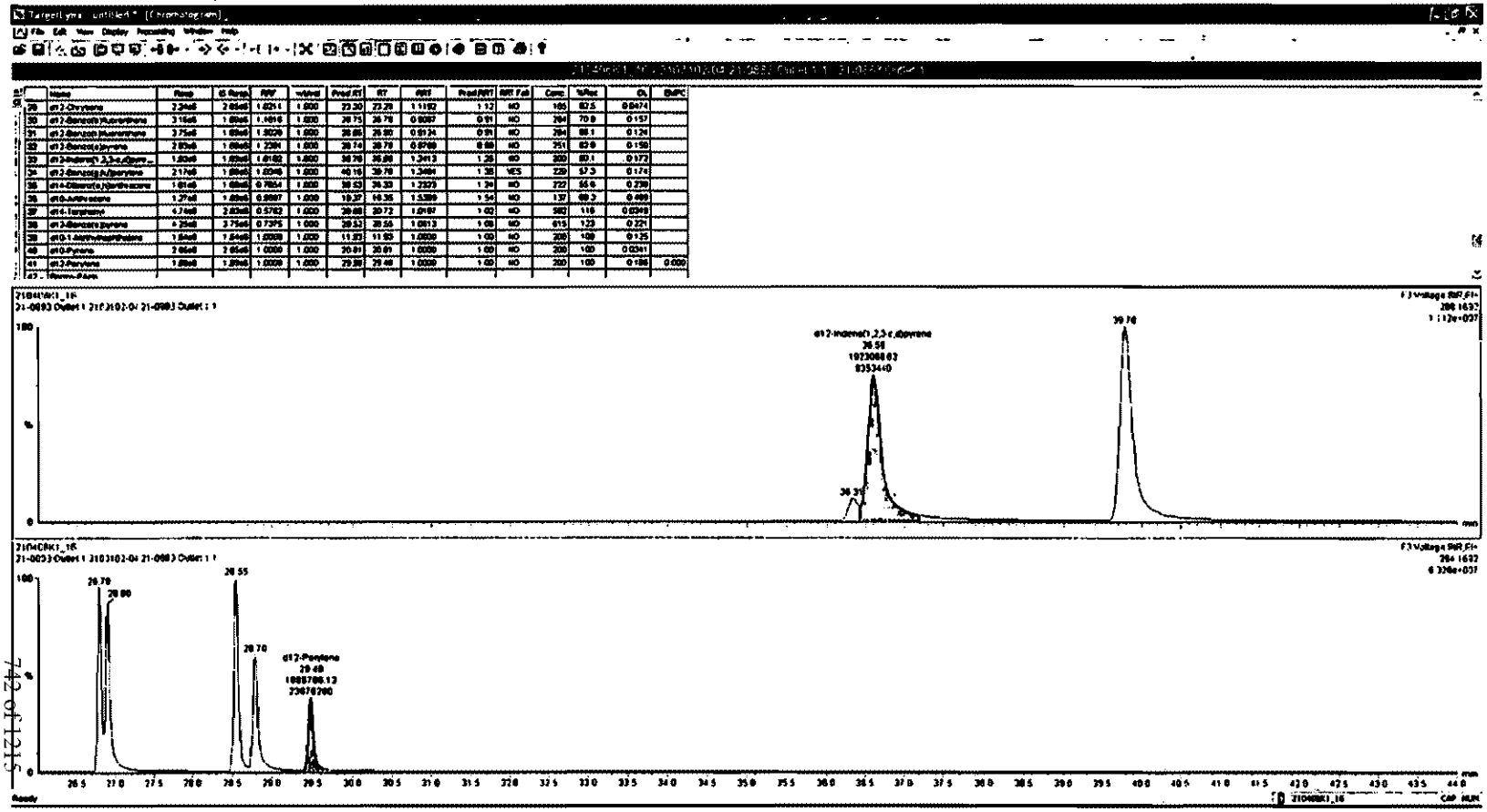
TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(b)fluoranthene	1.83e4	3.75e6	1.0376	1.000	27.01	27.01	1.0041	1.00	NO	1.07		0.153	0.000
16	Benzo(e)pyrene	2.14e5	3.75e6	0.9115	1.000	28.70	28.70	1.0671	1.07	NO	25.8		0.175	0.000
17	Benzo(a)pyrene	4.39e4	2.33e6	1.0457	1.000	28.95	28.93	1.0050	1.01	NO	5.79		0.223	0.000
18	Perylene	1.52e4	2.83e6	0.8874	1.000	28.70	28.80	1.0300	1.03	NO	2.10		0.250	0.000
19	Indeno(1,2,3-c,d)pyrene	4.80e4	1.87e6	0.9190	1.000	36.84	36.88	1.0079	1.01	NO	11.2		0.288	0.000
20	Benzo(g,h,i)perylene	4.23e5	2.17e6	0.8402	1.000	40.15	40.13	1.0000	1.01	NO	92.8		0.725	0.000
21	Dibenz(a,h)anthracene		1.81e6	0.8476	1.000	36.73			1.01	YES			0.751	
22	d8-Naphthalene	1.84e6	2.86e6	1.2037	1.000	10.12	10.12	0.8442	0.85	NO	103	51.4	0.280	0.000
23	d8-Acenaphthylene	1.68e6	2.86e6	0.8048	1.000	14.33	14.32	1.2011	1.20	NO	134	66.8	0.386	
24	d10-Acenaphthene	9.77e5	2.85e6	0.5836	1.000	14.82	14.81	1.2252	1.23	NO	134	67.0	0.115	
25	d10-Fluorene	8.94e5	2.86e6	0.5830	1.000	15.88	15.88	1.3300	1.33	NO	133	66.6	0.133	
26	d10-Phenanthrene	1.48e6	2.86e6	0.7354	1.000	18.28	18.28	1.5328	1.53	NO	152	75.9	0.140	
27	d10-Fluoranthene	2.83e6	2.65e6	1.2896	1.000	20.33	20.32	0.9784	0.98	NO	165	82.9	0.0286	
28	[illegible]	1.90e6	2.65e6	[illegible]	1.000	23.11	23.10	1.1098	1.11	NO	167	83.4	0.0537	



741 of 1215

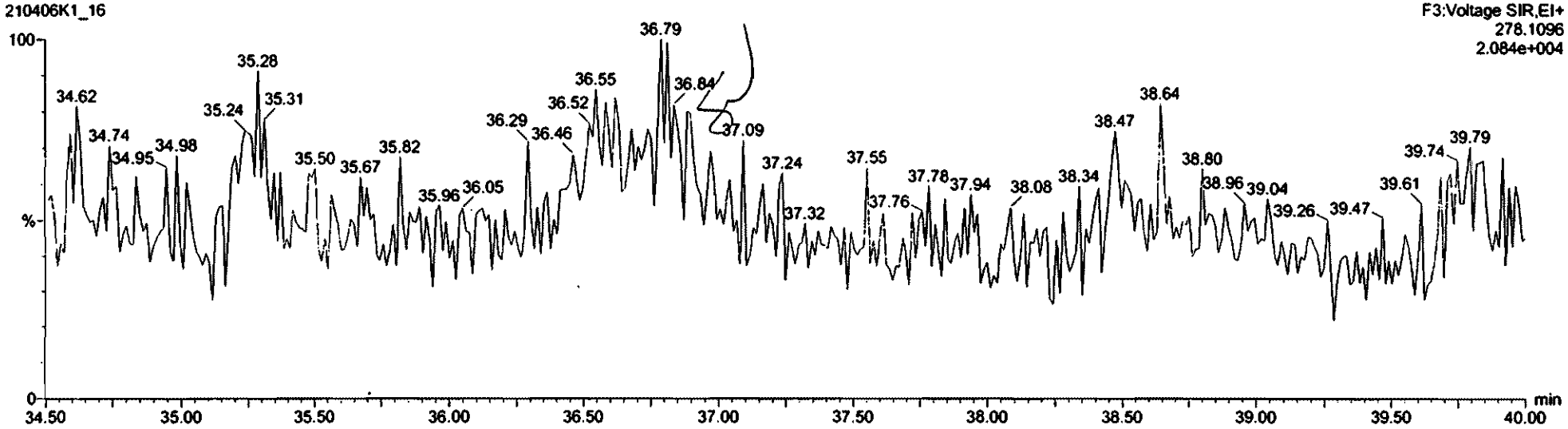

d12-Indeno[1,2,3-cd]pyrene
d12-Perylene

Dataset: Untitled

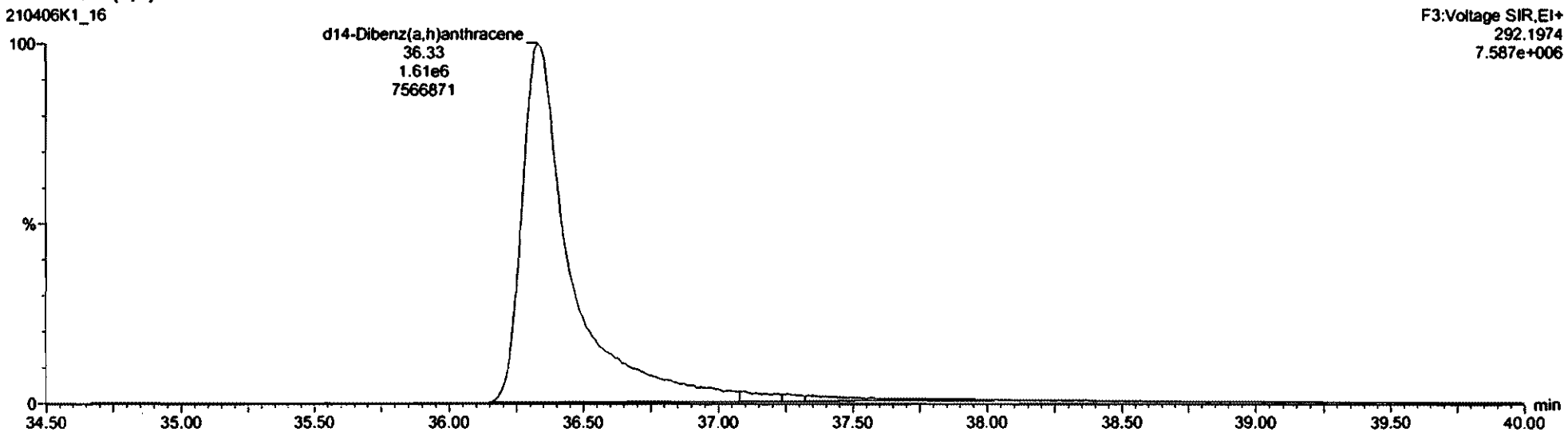
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_16, Date: 06-Apr-2021, Time: 22:57:16, ID: 2103102-04 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



743 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

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Printed: Wednesday, April 07, 2021 12:14:47 PM Pacific Daylight Time

4/7/2021 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

	#	Name	Resp	IS Resp	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	3	2-Methylnaphthalene	3.91e5	7.46e4	1.38	1.000	11.60	11.61	0.794	0.795	NO	761		5.81
2	5	Acenaphthene	4.43e5	7.46e4	1.10	1.000	14.68	14.69	1.006	1.006	NO	1080		31.1
3	6	Fluorene	1.02e6	6.15e4	1.15	1.000	15.92	15.92	1.006	1.006	NO	2860		63.3
4	7	Phenanthrene	1.79e6	1.05e5	1.19	1.000	18.32	18.32	1.002	1.002	NO	2860		17.5
5	24	d10-Acenaphthene	7.46e4	1.52e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	165	82.7	0.774
6	25	d10-Fluorene	6.15e4	1.52e5	0.563	1.000	15.84	15.83	1.330	1.329	NO	144	71.9	0.843
7	26	d10-Phenanthrene	1.05e5	1.52e5	0.735	1.000	18.26	18.28	1.533	1.535	NO	188	94.2	0.654
8	40	d10-Pyrene	1.52e5	1.52e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	0.239

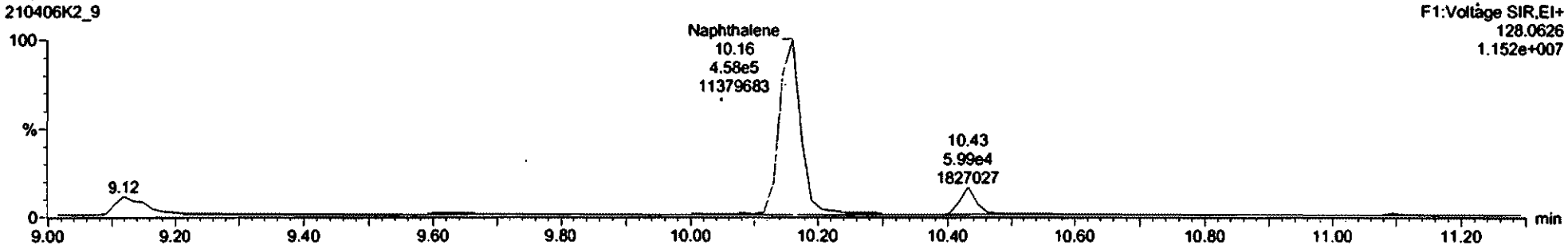
Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

Last Altered: Wednesday, April 07, 2021 12:11:16 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

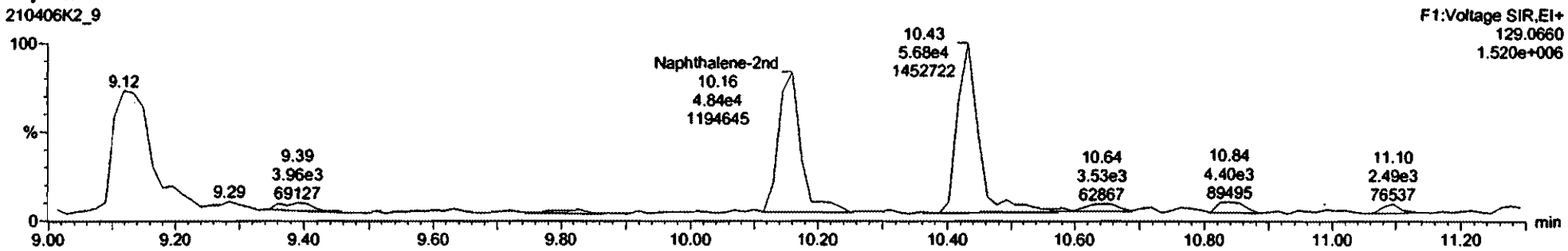
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

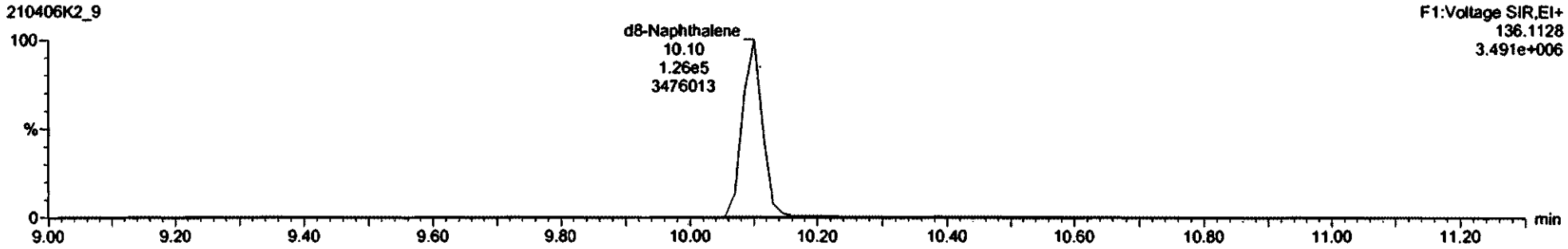
Naphthalene



Naphthalene-2nd



d8-Naphthalene



745 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

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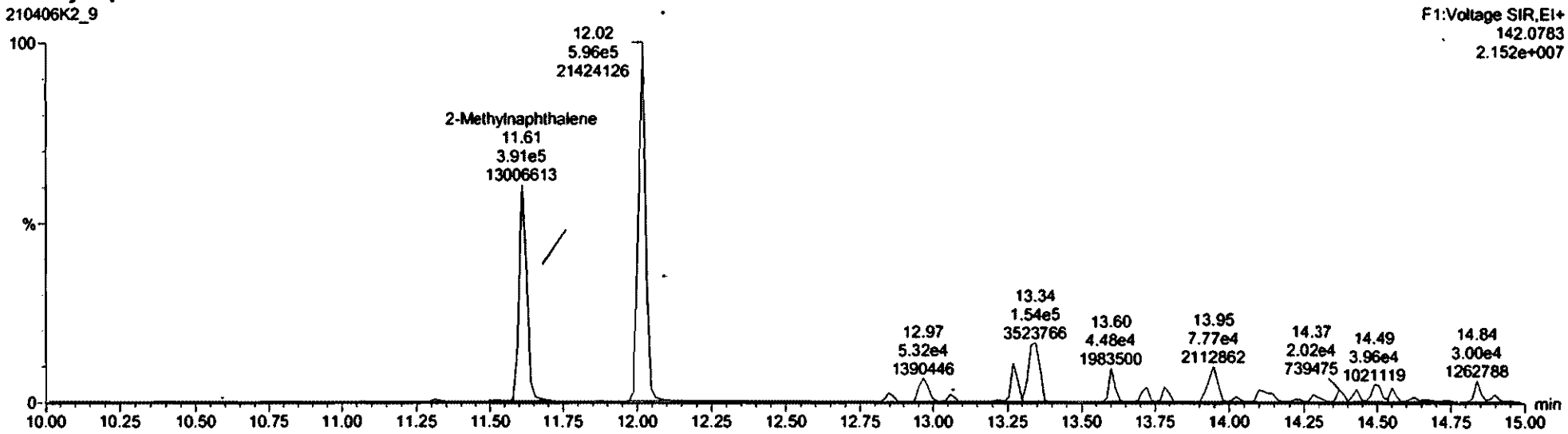
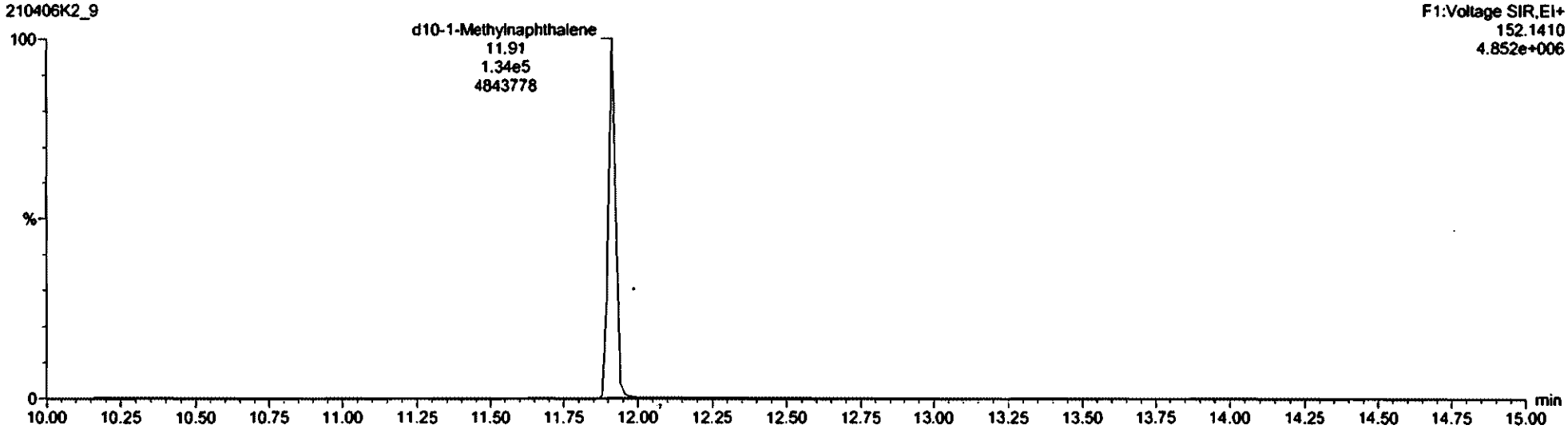
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



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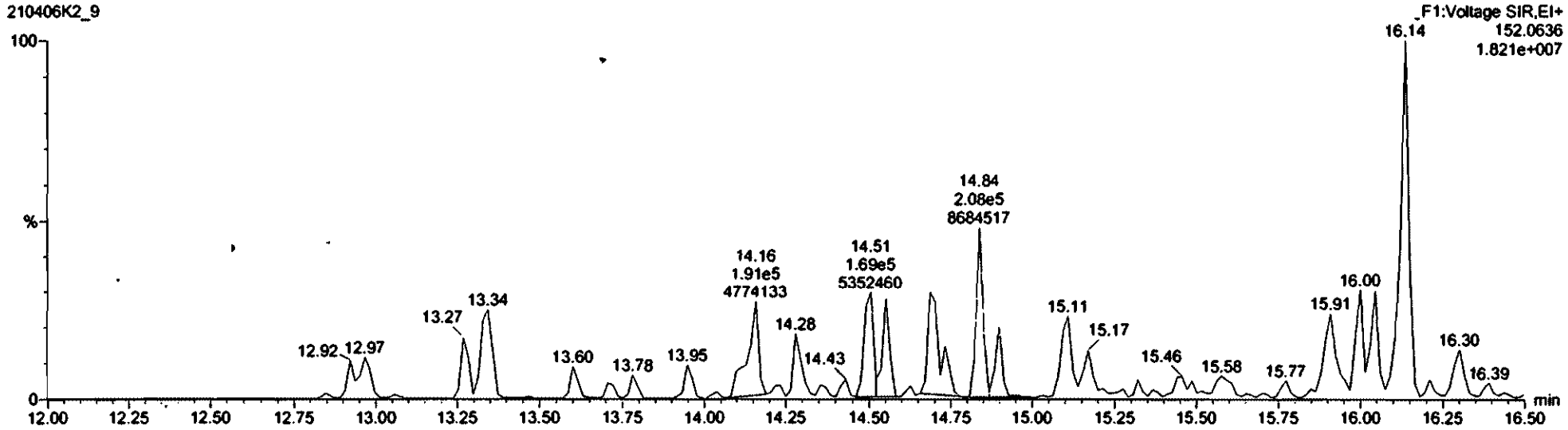
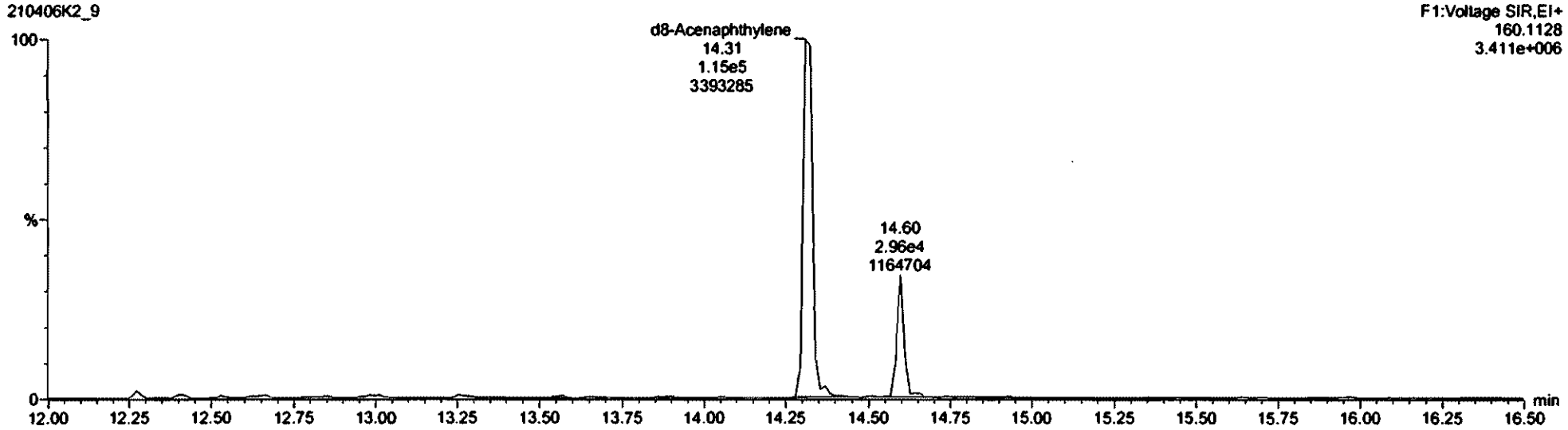
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Acenaphthylene



d8-Acenaphthylene



747 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

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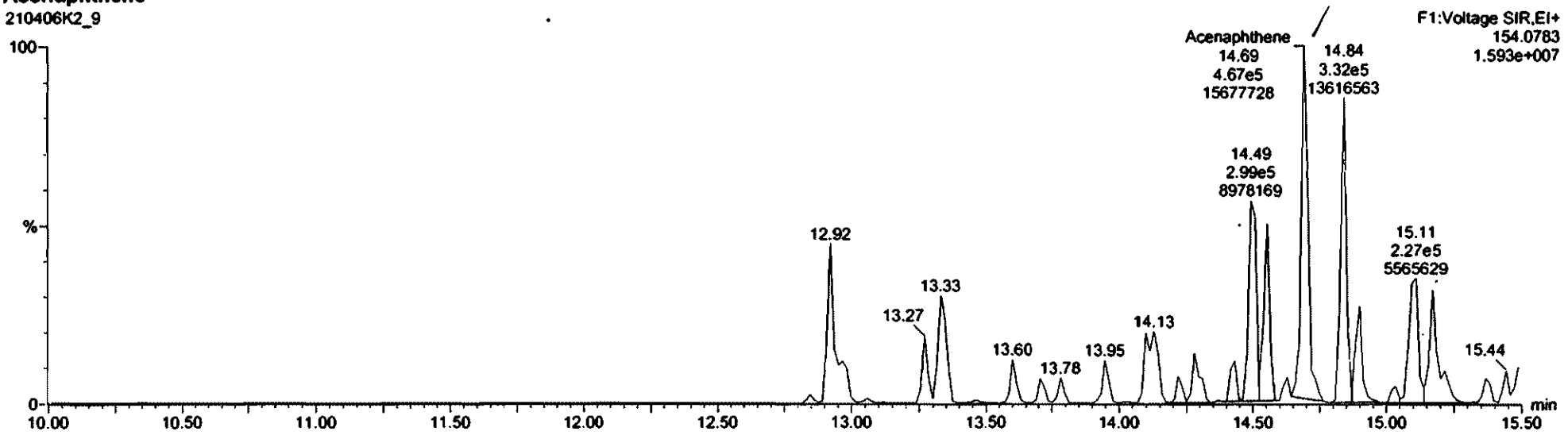
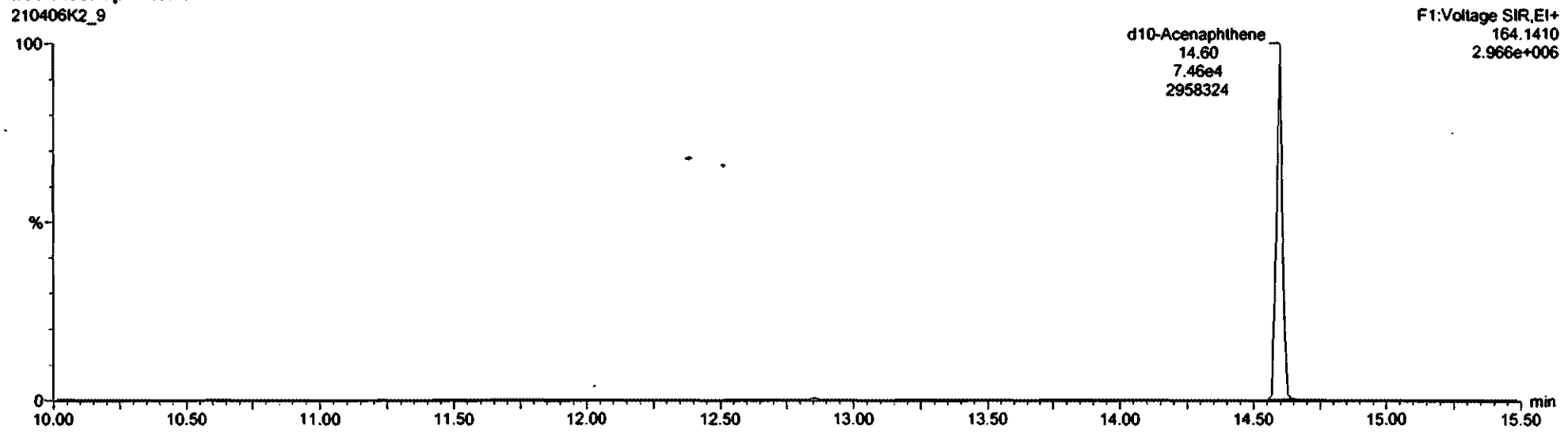
Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

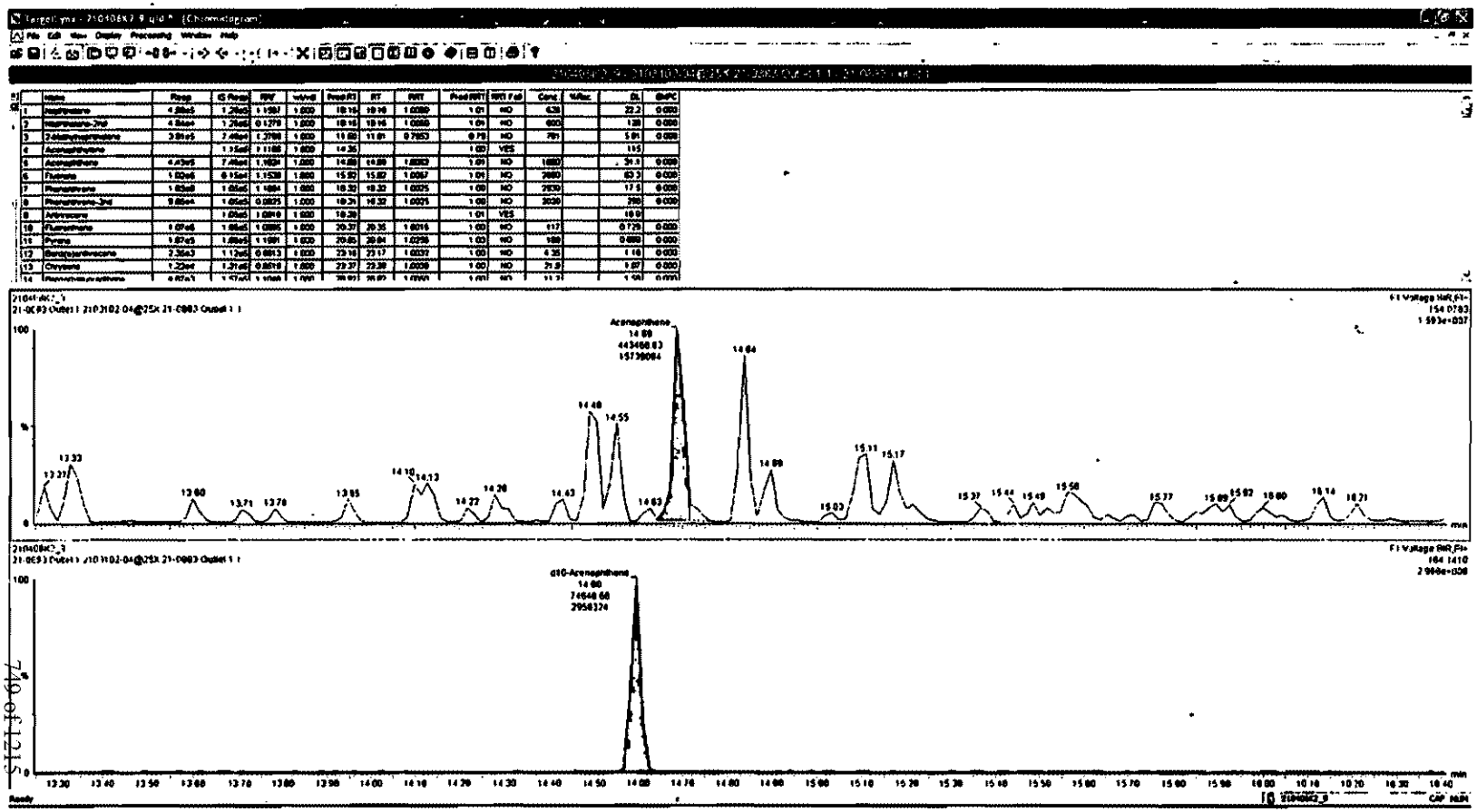
Acenaphthene



d10-Acenaphthene



748 of 1215

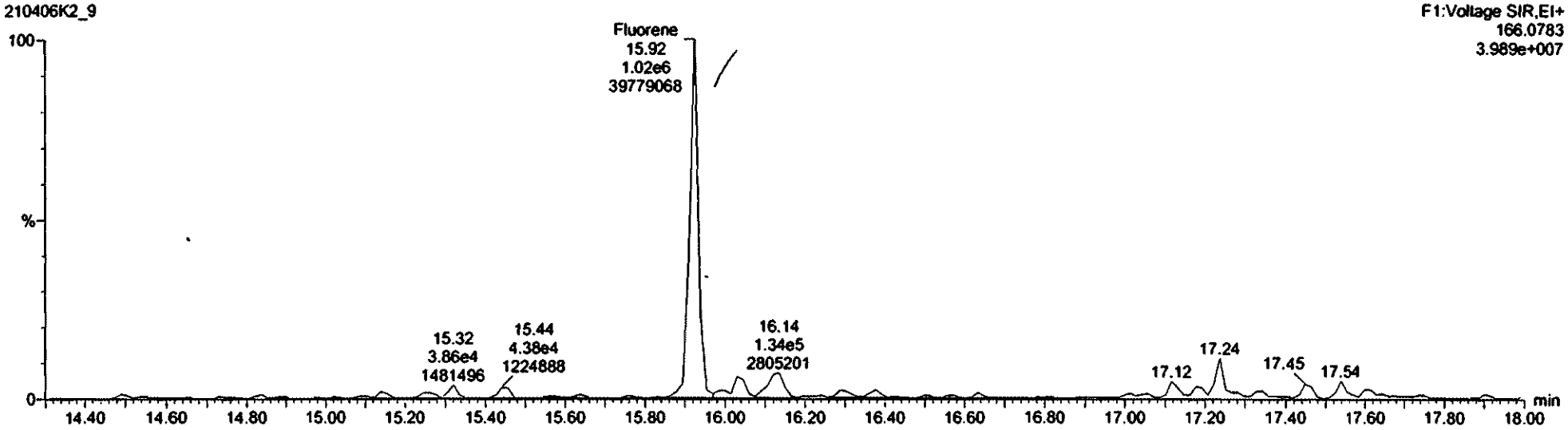

Acenaphthene
14.68
443468.83
1573084
d10-Acenaphthene
14.68
74648.68
2956324

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

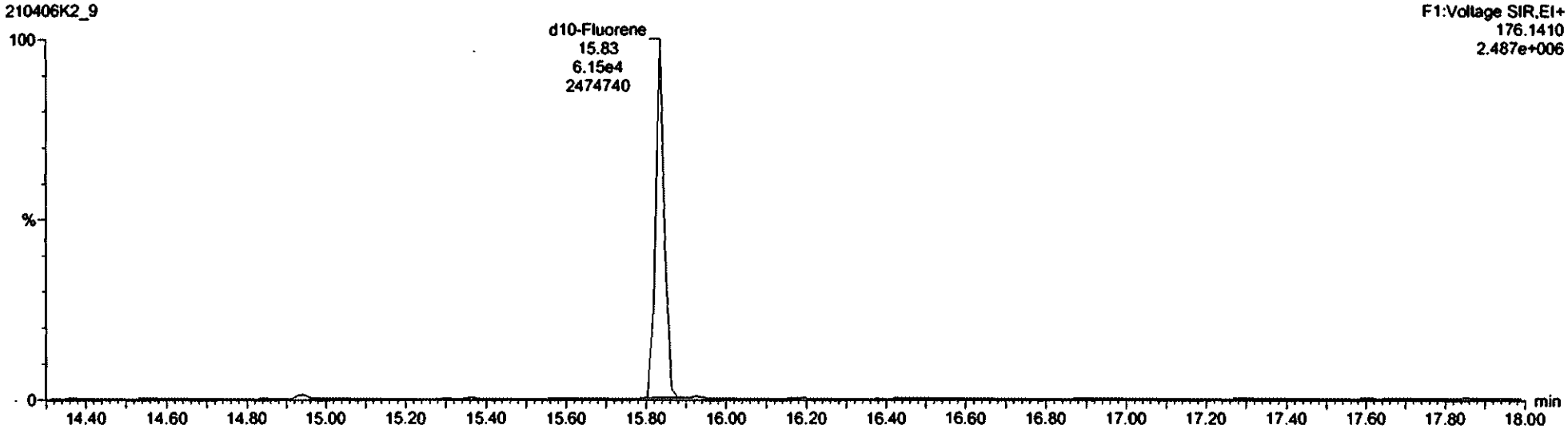
Last Altered: Wednesday, April 07, 2021 12:11:16 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Fluorene



d10-Fluorene



750 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

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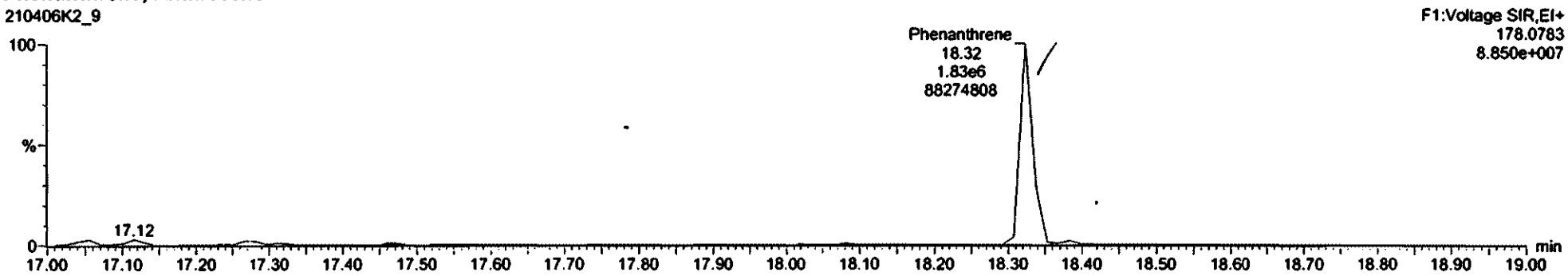
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

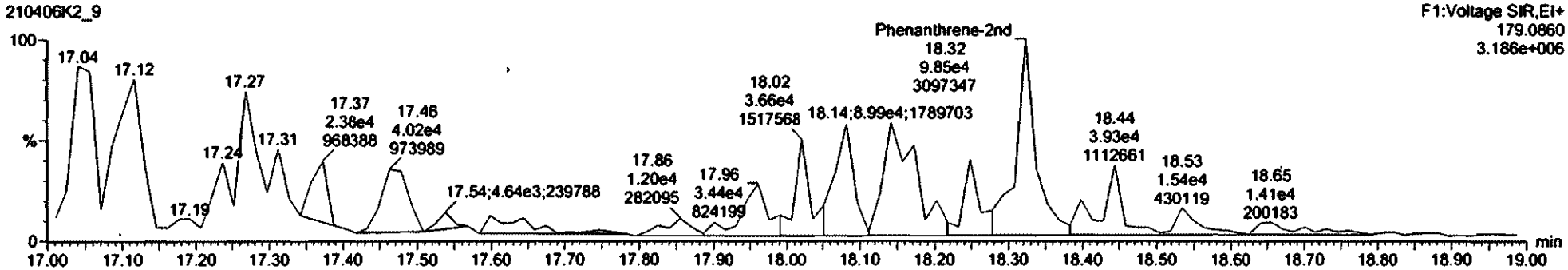
Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Phenanthrene; Anthrecene

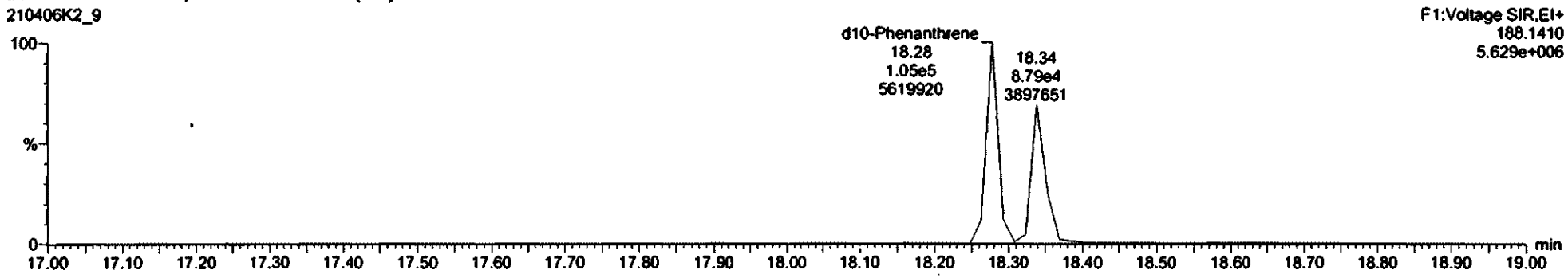


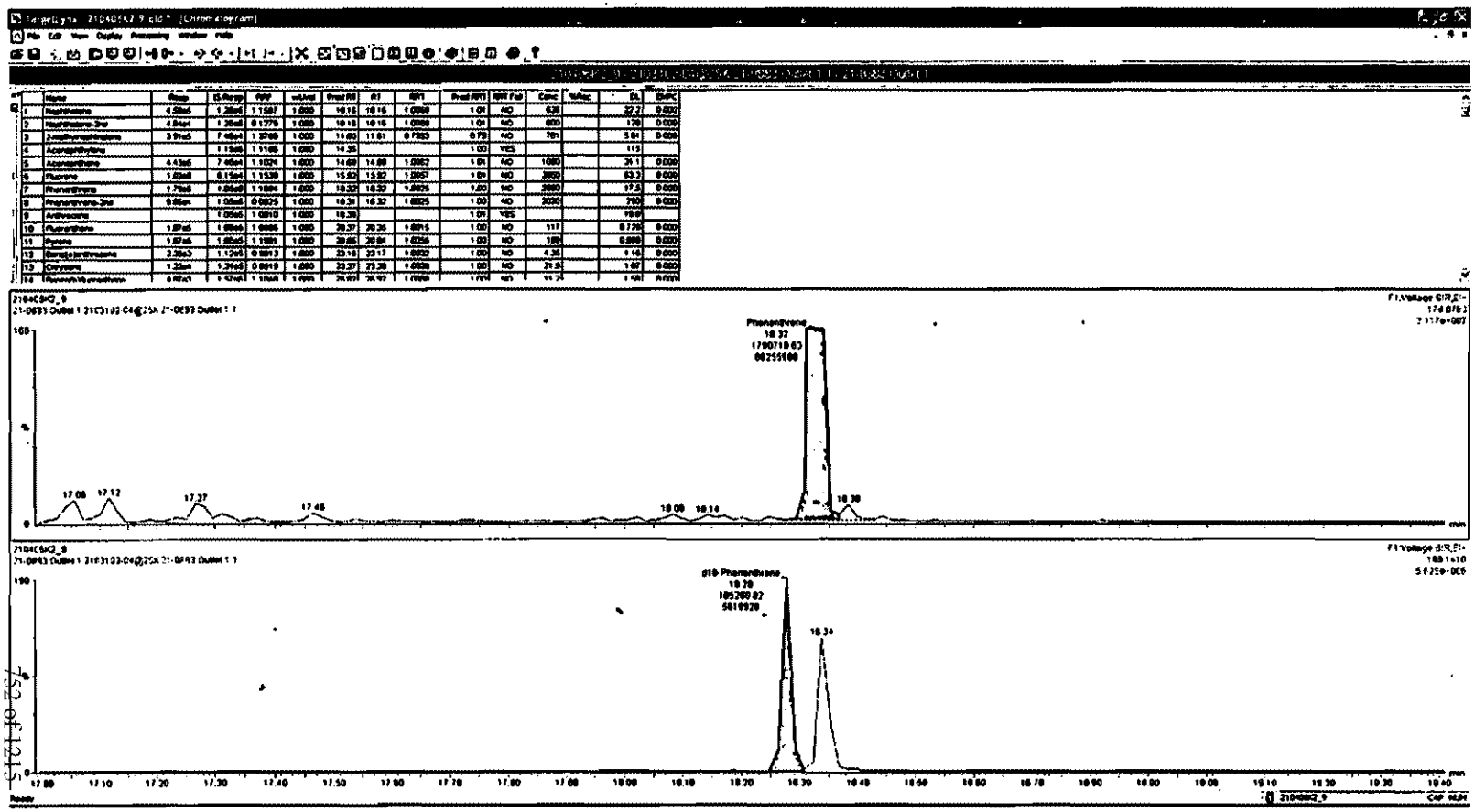
751 of 1215

Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene
18.32
1790710.63
00255000
17.08
17.12
17.27
17.46
18.08
18.14
18.30
d10 Phenanthrene
18.28
185200.82
5819920
18.34

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

Last Altered: Wednesday, April 07, 2021 12:11:16 PM Pacific Daylight Time
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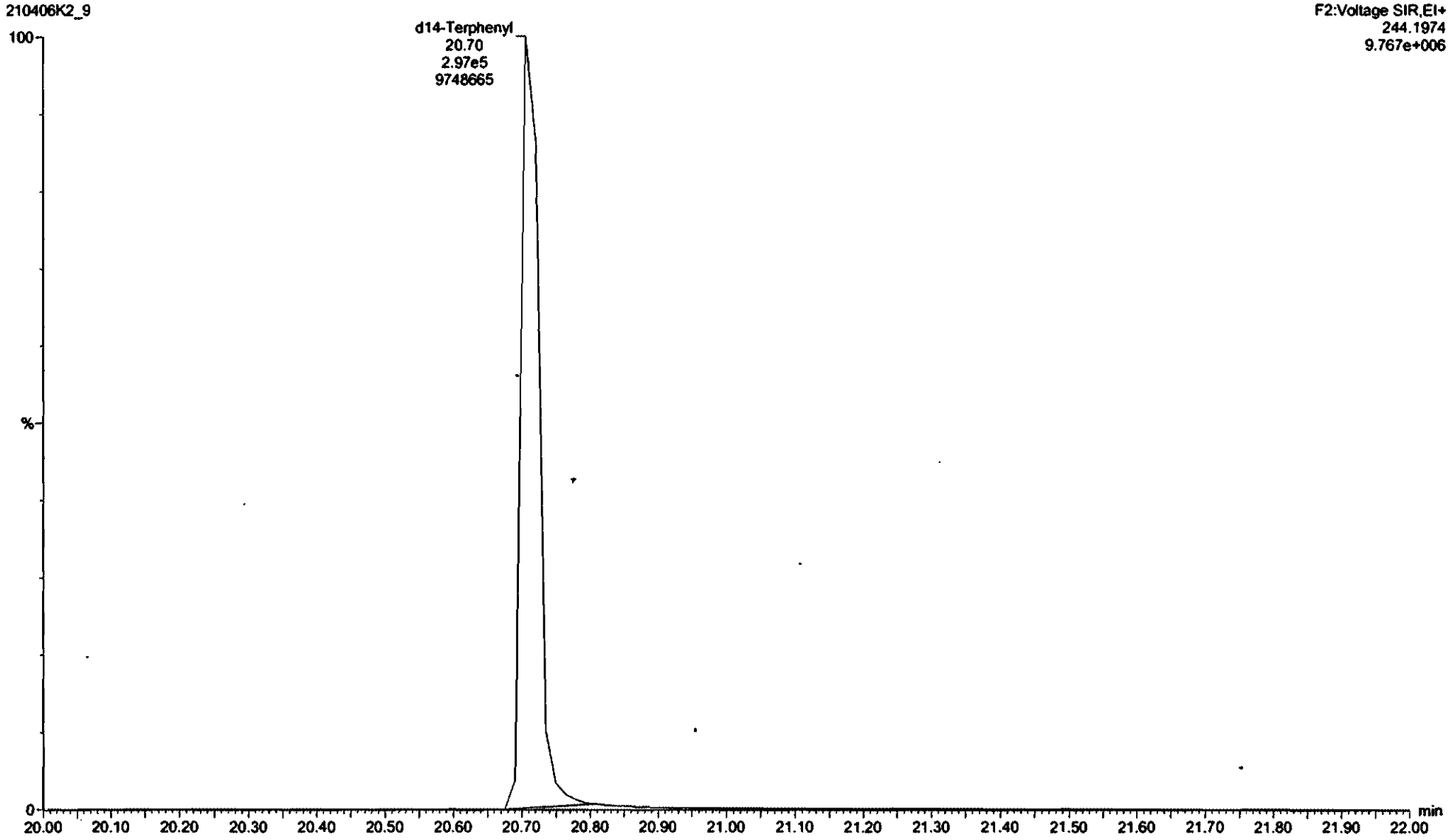
Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

d14-Terphenyl (PS)



753 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

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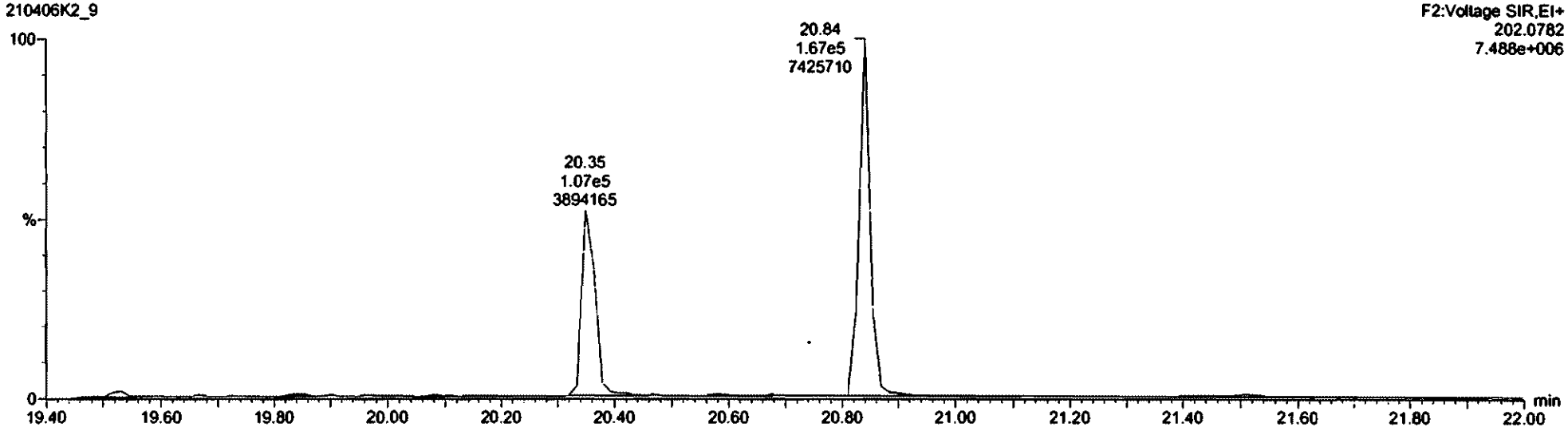
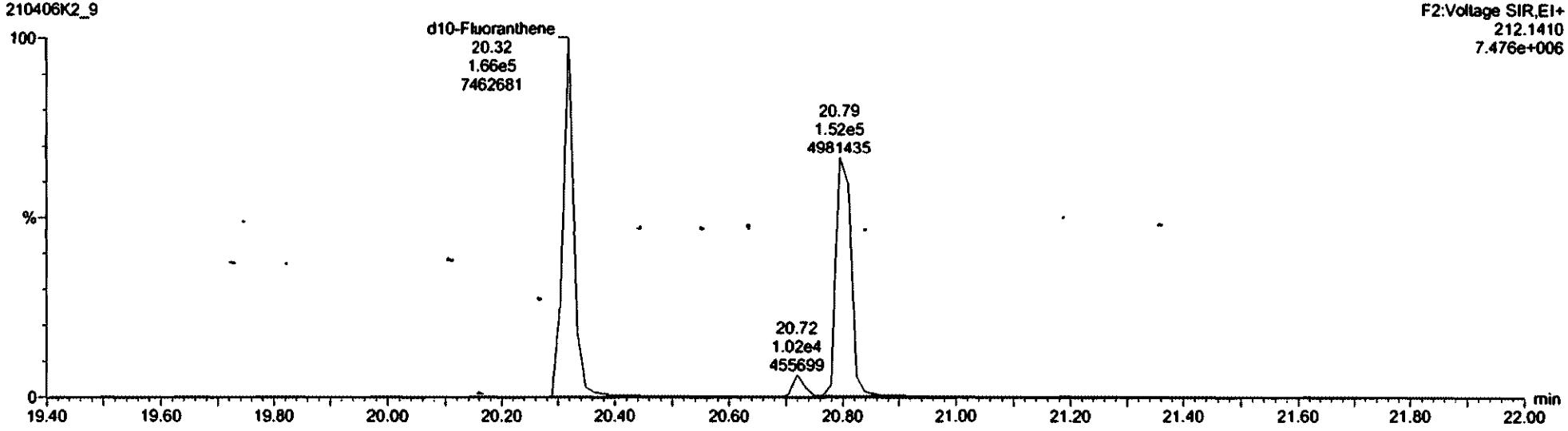
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



754 of 1215

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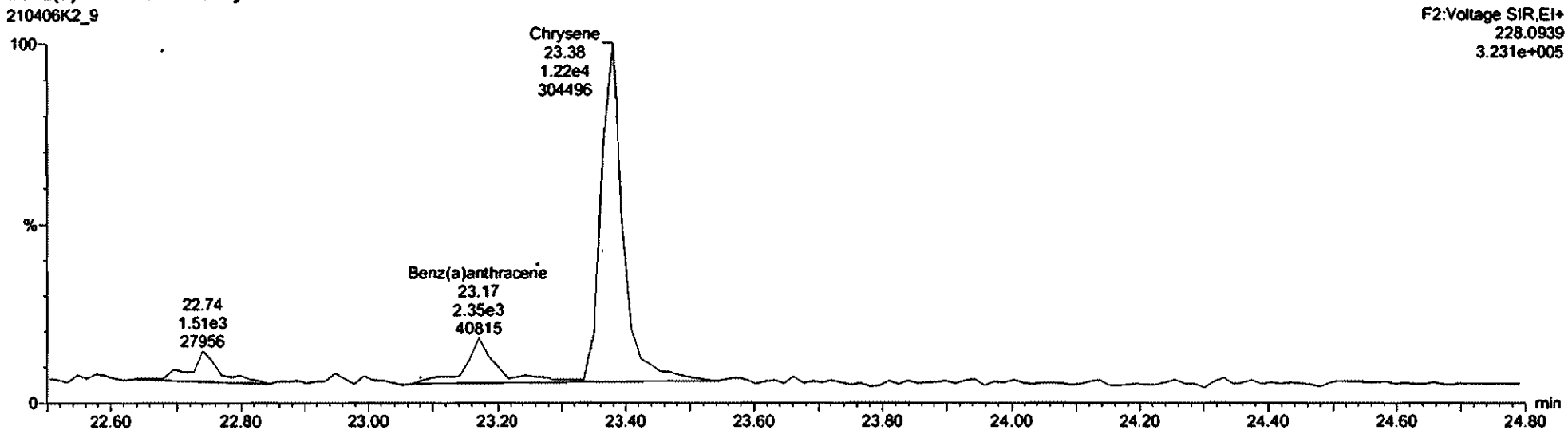
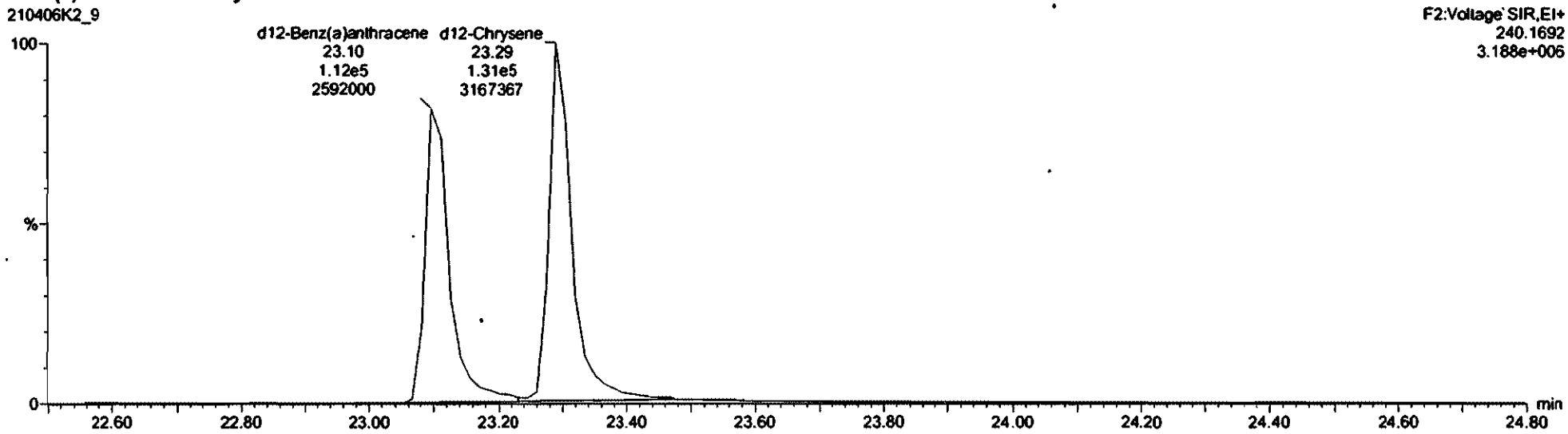
Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



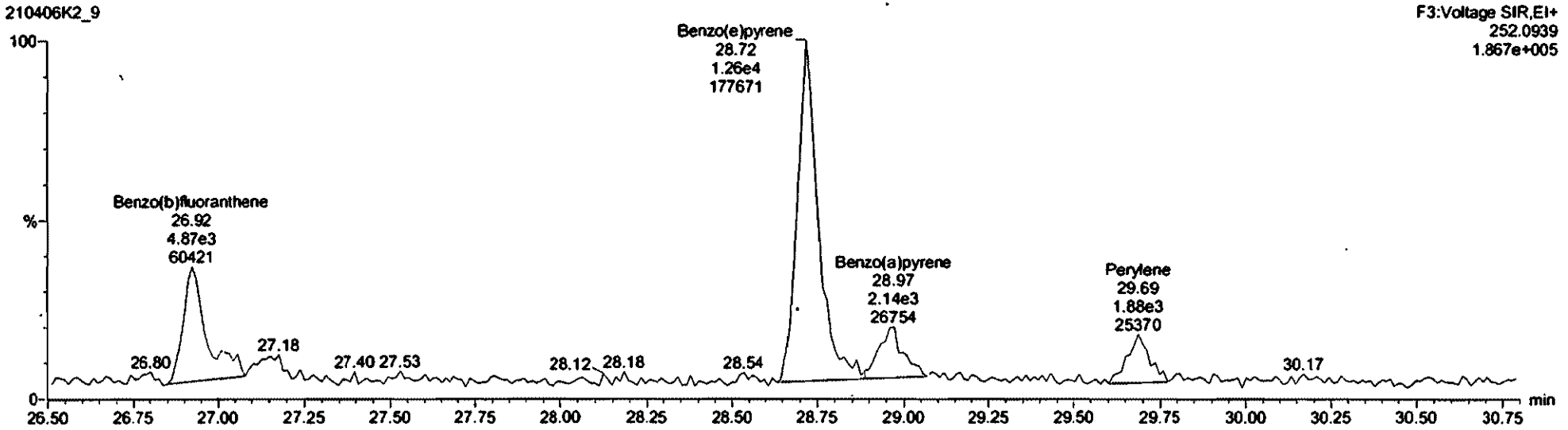
755 of 1215

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-9.qld

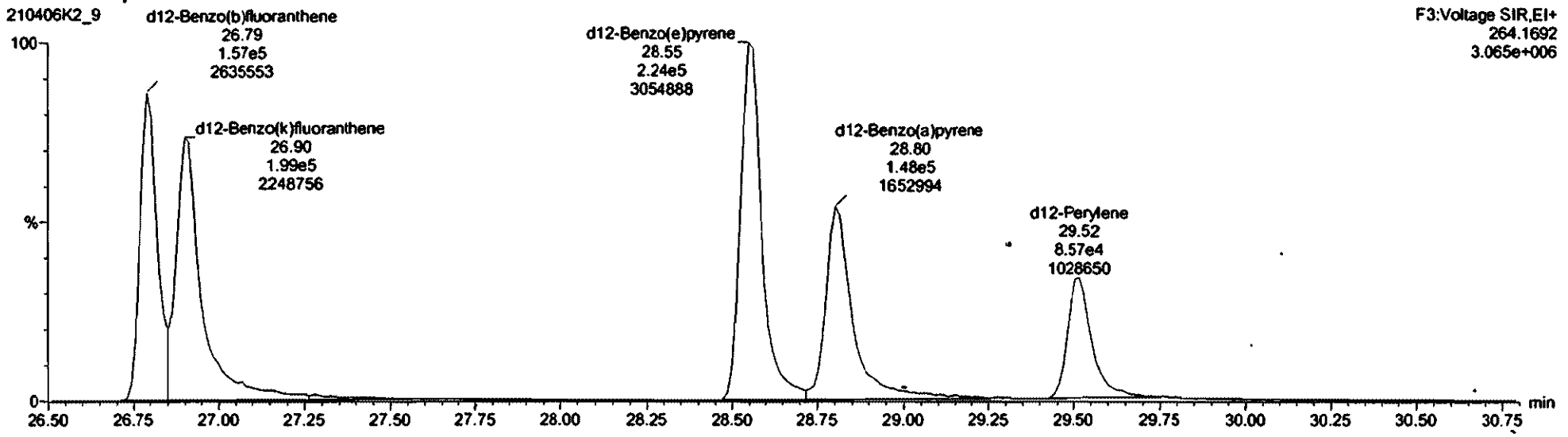
Last Altered: Wednesday, April 07, 2021 12:11:16 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Benzo-PAHs



Benzo-Isotopes



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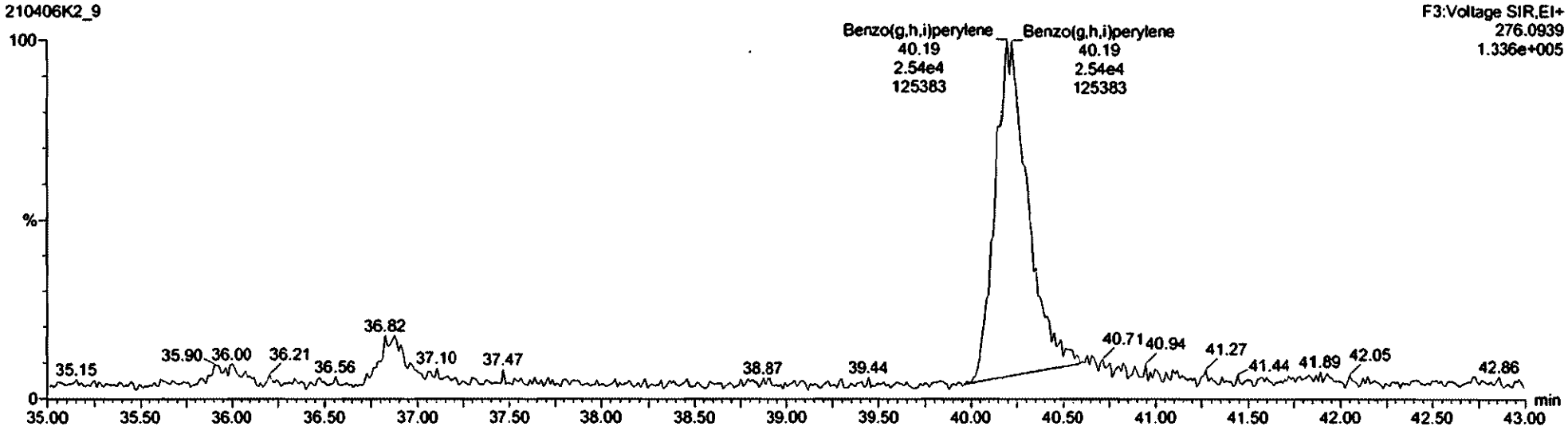
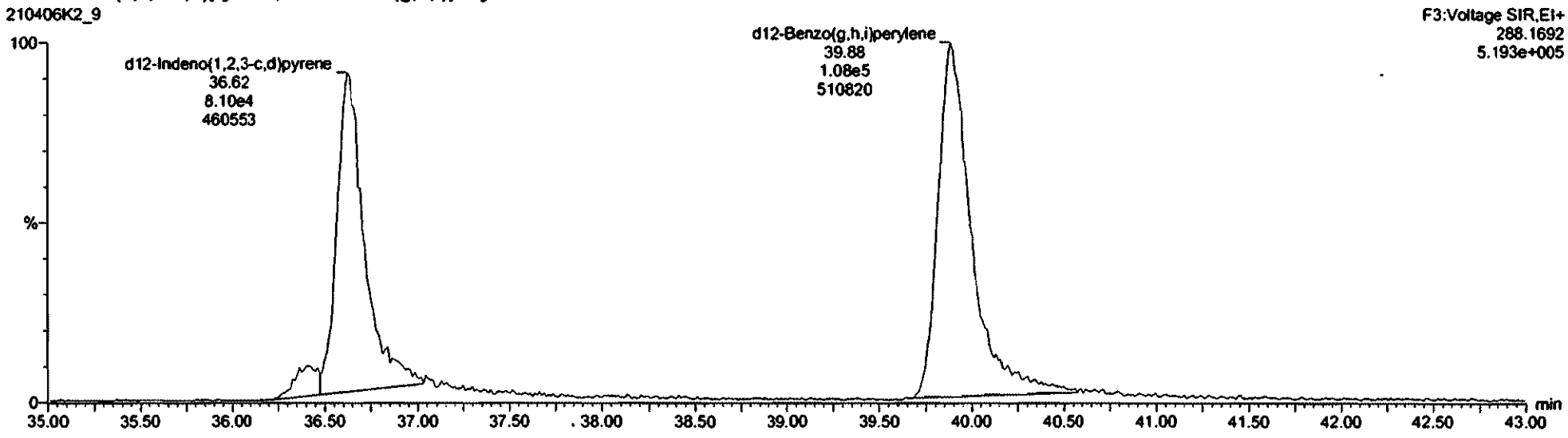
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



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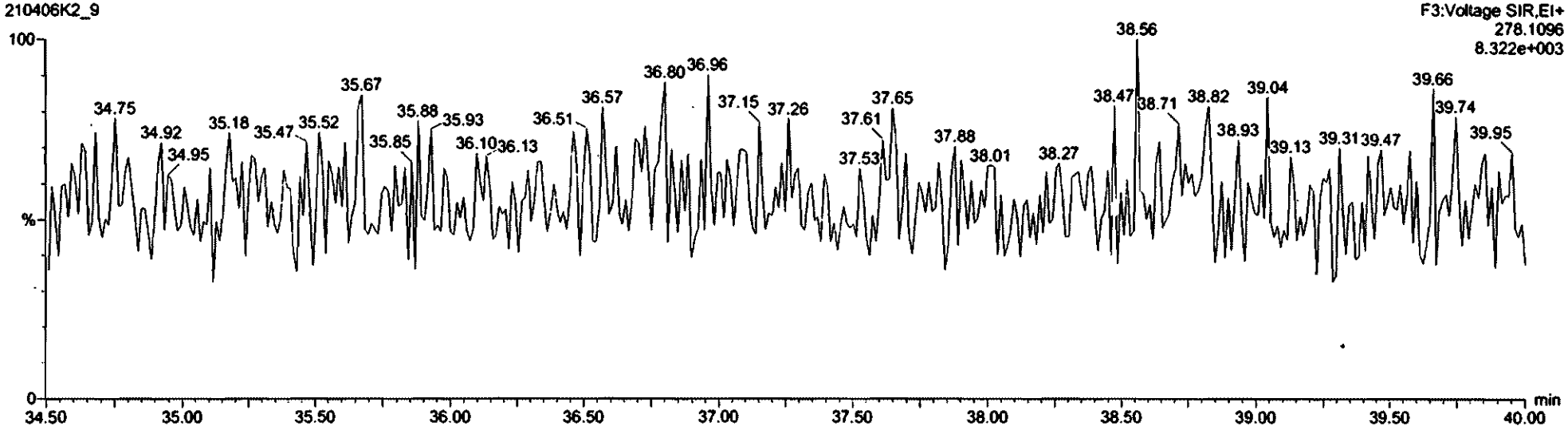
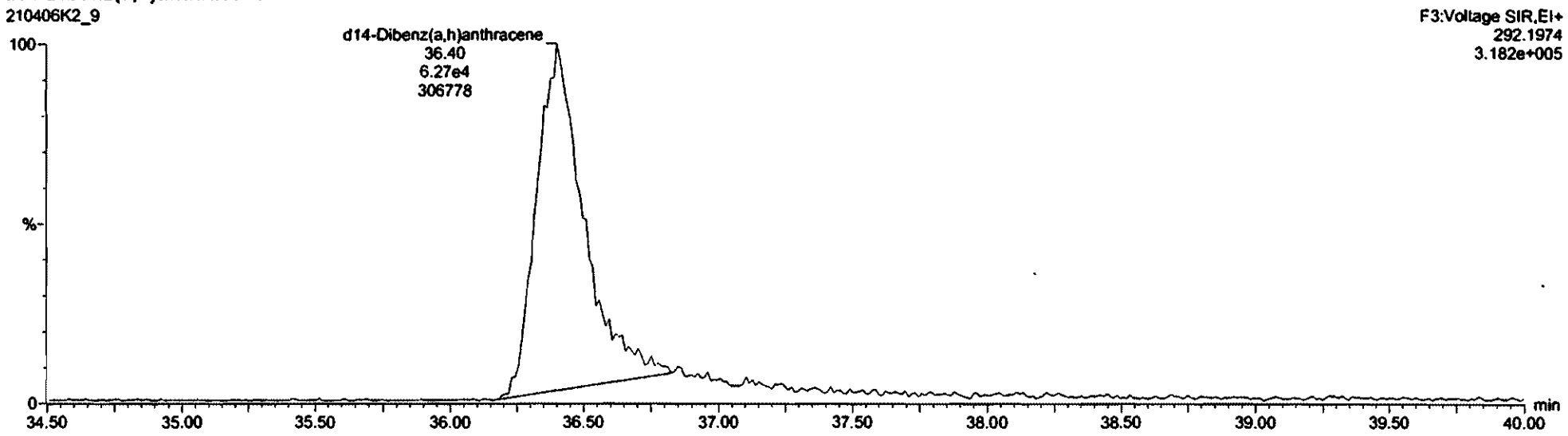
Printed: Wednesday, April 07, 2021 12:11:43 PM Pacific Daylight Time

Name: 210406K2_9, Date: 07-Apr-2021, Time: 08:22:29, ID: 2103102-04@25X 21-0883 Outlet 1 1, Description: 21-0883 Outlet 1

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



758 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-17.qld

Last Altered: Wednesday, April 07, 2021 10:07:15 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:07:43 AM Pacific Daylight Time

HL 4.7.21 CT 04/08/2021

x gu d.l

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

	L #	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	3.33e6	1.64e6	1.16	1.000	10.17	10.18	1.006	1.006	NO	350		21.5
2	2	Naphthalene-2nd	3.60e5	1.64e6	0.128	1.000	10.17	10.18	1.006	1.006	NO	343		80.8
3	3	2-Methylnaphthalene	3.29e6	9.47e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	505 E		6.41
4	4	Acenaphthylene	1.44e5	1.60e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	16.2		25.0
5	5	Acenaphthene	4.25e6	9.47e5	1.10	1.000	14.70	14.70	1.006	1.006	NO	815 E		34.0
6	6	Fluorene	1.04e7	1.01e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	1790 E		33.4
7	7	Phenanthrene	1.82e7	1.36e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	2240 E		14.8
8	8	Phenanthrene-2nd	1.17e6	1.36e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	1800		316
9	9	Anthracene	4.84e5	1.36e6	1.09	1.000	18.39	18.40	1.005	1.006	NO	65.2		16.2
10	10	Fluoranthene	1.64e6	2.62e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	114		0.821
11	11	Pyrene	3.01e6	2.62e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	192		0.754
12	12	Benz(a)anthracene	2.24e4	1.97e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	2.37		0.188
13	13	Chrysene	1.60e5	2.23e6	0.852	1.000	23.37	23.38	1.003	1.004	NO	16.9		0.180
14	14	Benzo(b)fluoranthene	6.82e4	3.44e6	1.10	1.000	26.94	26.92	1.005	1.005	NO	7.18		0.111
15	15	Benzo(k)fluoranthene	1.59e4	4.00e6	1.04	1.000	27.02	27.01	1.004	1.004	NO	1.53		0.126
16	16	Benzo(e)pyrene	2.21e5	4.00e6	0.911	1.000	28.70	28.72	1.067	1.068	NO	24.2		0.143
17	17	Benzo(a)pyrene	4.53e4	3.29e6	1.02	1.000	28.97	28.95	1.006	1.005	NO	5.43		0.186
18	18	Perylene	1.65e4	3.29e6	0.987	1.000	29.71	29.65	1.031	1.029	NO	2.04		0.191
19	19	Indeno(1,2,3-c,d)pyrene	5.26e4	1.91e6	0.915	1.000	36.77	36.75	1.007	1.006	NO	12.1		0.673
20	20	Benzo(g,h,i)perylene	5.30e5	2.24e6	0.940	1.000	40.14	40.07	1.009	1.008	NO	101		0.621
21	21	Dibenz(a,h)anthracene		1.71e6	0.948	1.000	36.70		1.011		YES			0.605
22	22	d8-Naphthalene	1.64e6	2.61e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	104	52.2	0.0664
23	23	d8-Acenaphthylene	1.60e6	2.61e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	135	67.5	0.249
24	24	d10-Acenaphthene	9.47e5	2.61e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	122	61.0	0.103
25	25	d10-Fluorene	1.01e6	2.61e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	137	68.6	0.114
26	26	d10-Phenanthrene	1.36e6	2.61e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	142	70.8	0.0985
27	27	d10-Fluoranthene	2.62e6	2.61e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	156	77.9	0.0222
28	28	d12-Benz(a)anthracene	1.97e6	2.61e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	167	83.6	0.0392
29	29	d12-Chrysene	2.23e6	2.61e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	167	83.5	0.0345
30	30	d12-Benzo(b)fluoranthene	3.44e6	1.98e6	1.18	1.000	26.75	26.80	0.907	0.909	NO	295	73.7	0.138
31	31	d12-Benzo(k)fluoranthene	4.00e6	1.98e6	1.50	1.000	26.86	26.90	0.911	0.912	NO	269	67.3	0.109

759 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-17.qld

Last Altered: Wednesday, April 07, 2021 10:07:15 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:07:43 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.29e6	1.98e6	1.24	1.000	28.74	28.80	0.975	0.977	NO	269	67.2	0.132
33	33	d12-Indeno(1,2,3-c,d)pyrene	1.91e6	1.98e6	1.02	1.000	36.76	36.52	1.247	1.239	NO	189	47.4	0.247
34	34	d12-Benzo(g,h,i)perylene	2.24e6	1.98e6	1.00	1.000	40.16	39.77	1.362	1.349	YES	226	56.5	0.250
35	35	d14-Dibenz(a,h)anthracene	1.71e6	1.98e6	0.765	1.000	36.54	36.29	1.239	1.231	NO	227	56.7	0.185
36	36	d10-Anthracene	1.17e6	1.98e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	120	60.0	0.353
37	37	d14-Terphenyl	4.69e6	2.62e6	0.576	1.000	20.70	20.72	1.018	1.019	NO	622	124	0.0441
38	38	d12-Benzo(e)pyrene	4.38e6	4.00e6	0.738	1.000	28.52	28.55	1.060	1.061	NO	594	119	0.180
39	39	d10-1-Methylnaphthalene	1.56e6	1.56e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.109
40	40	d10-Pyrene	2.61e6	2.61e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0286
41	41	d12-Perylene	1.98e6	1.98e6	1.00	1.000	29.59	29.48	1.000	1.000	NO	200	100	0.163

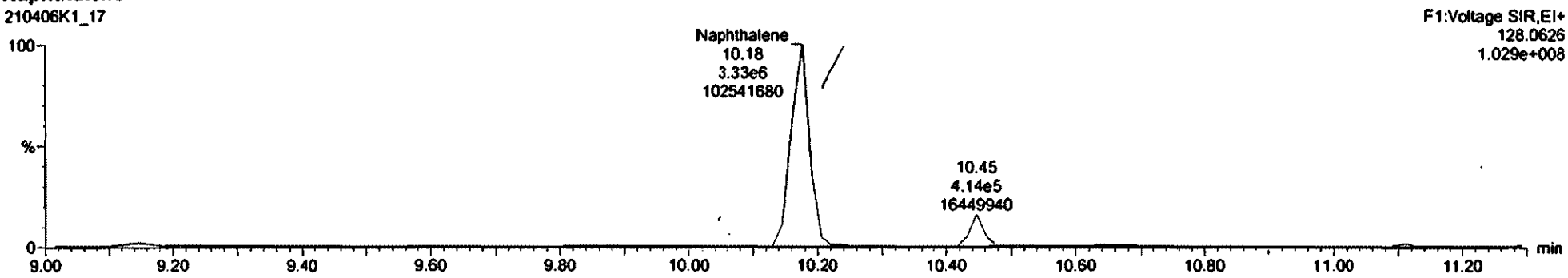
760 of 1215

Dataset: Untitled

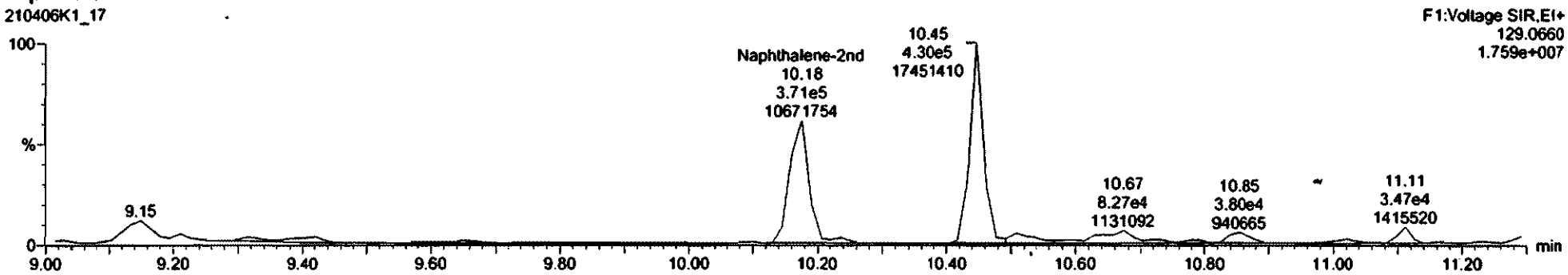
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

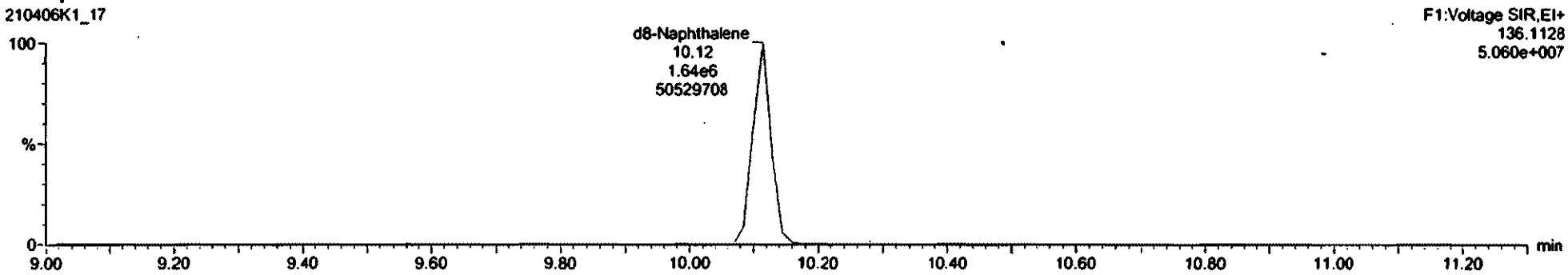
Naphthalene



Naphthalene-2nd



d8-Naphthalene



761 of 1215

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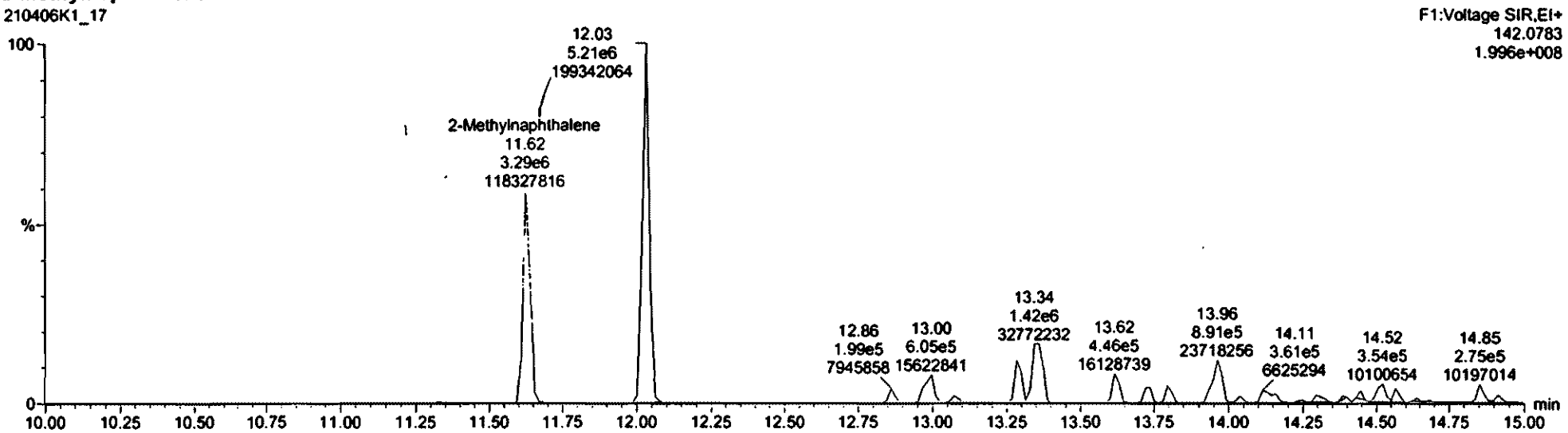
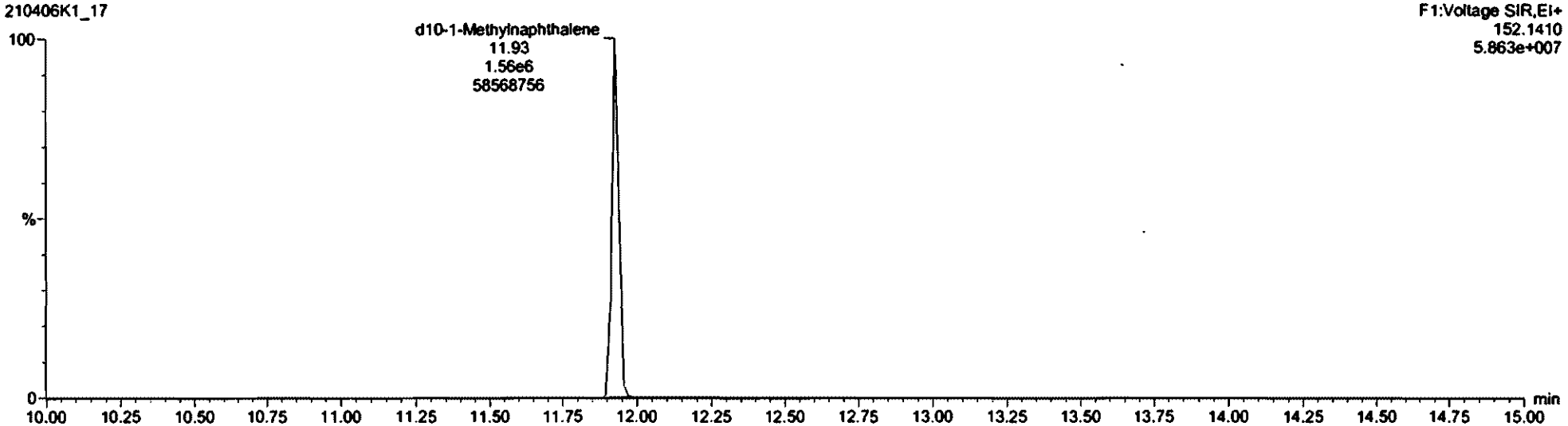
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



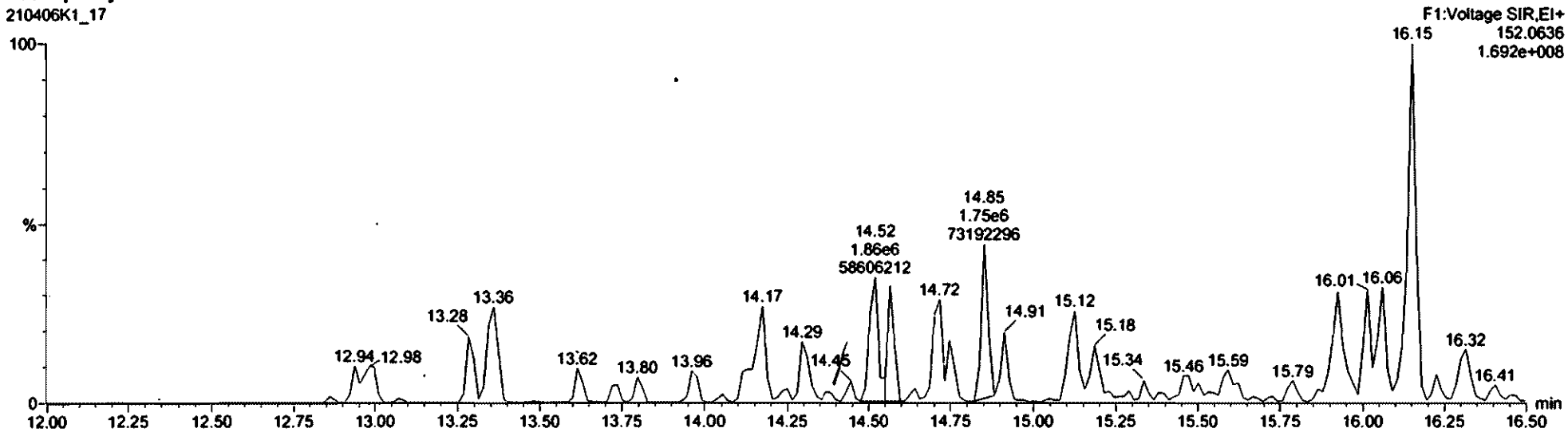
762 of 1215

Dataset: Untitled

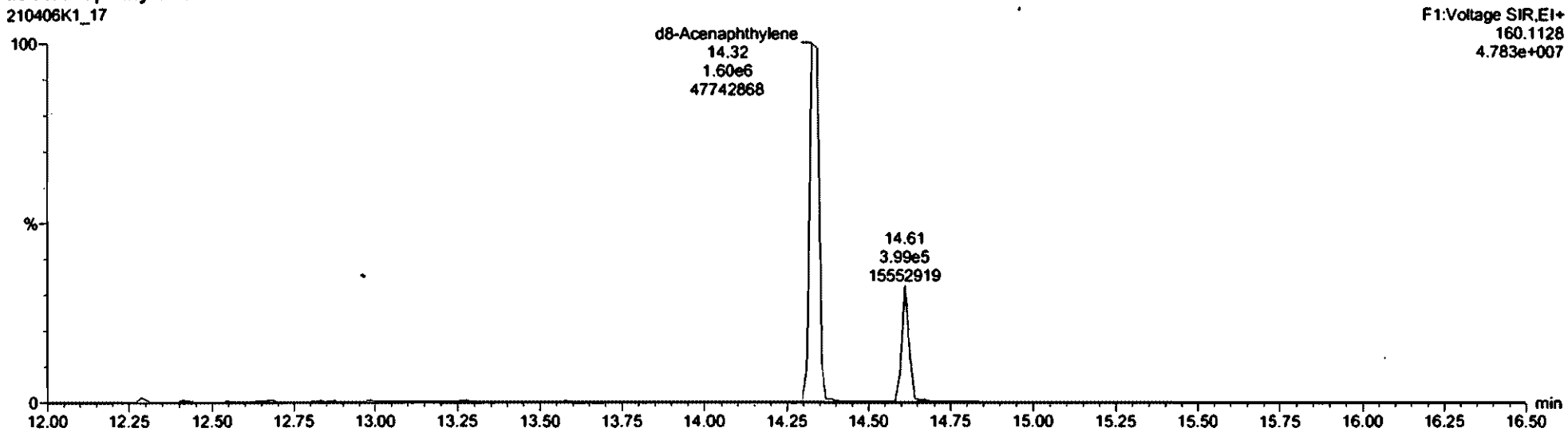
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

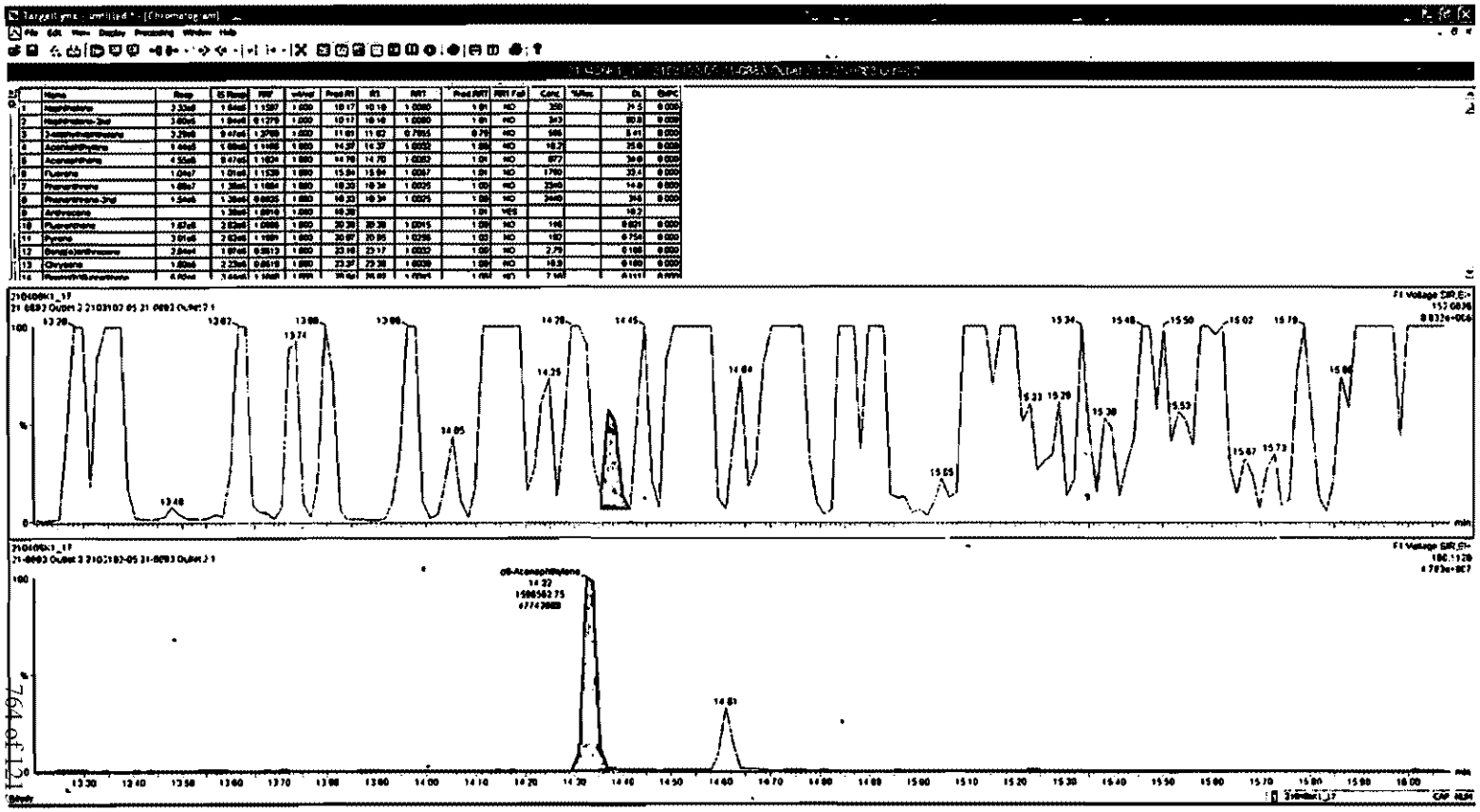
Acenaphthylene



d8-Acenaphthylene



763 of 1215



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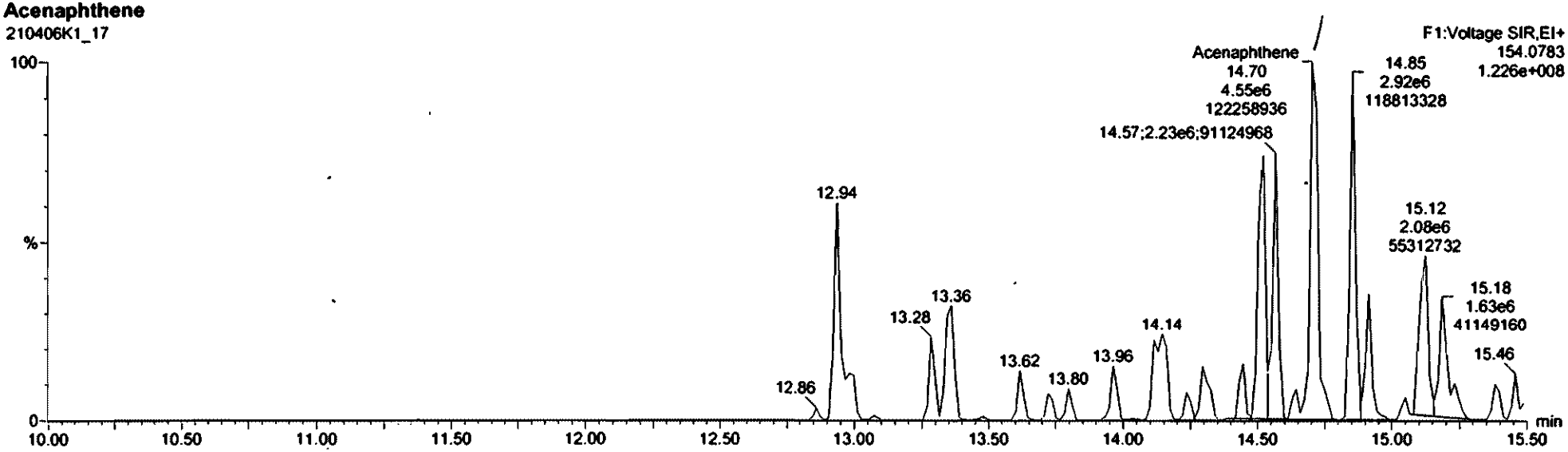
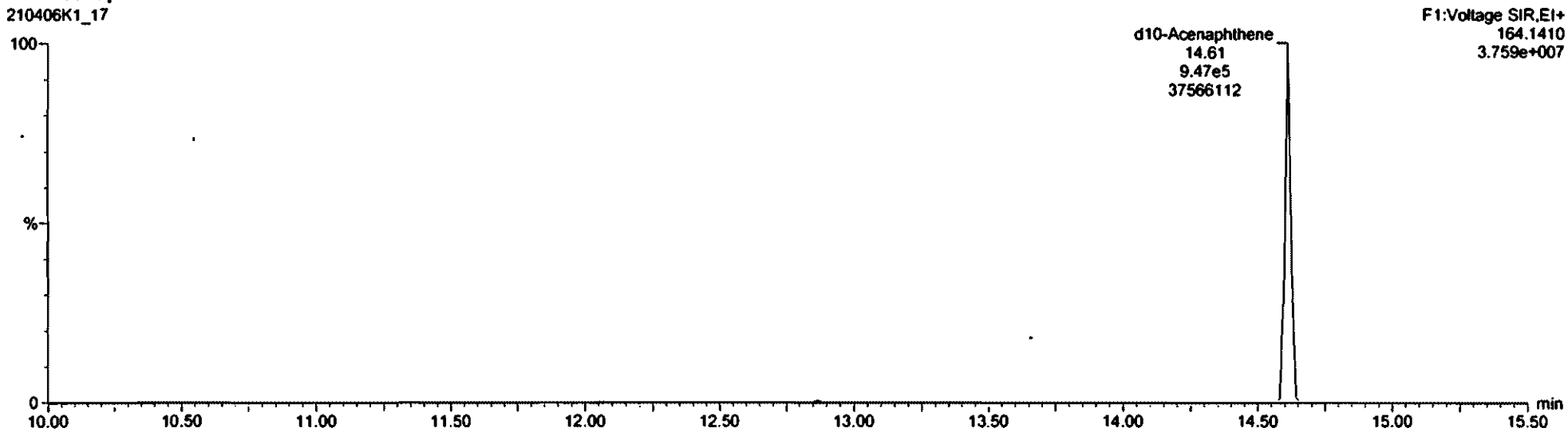
Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Acenaphthene

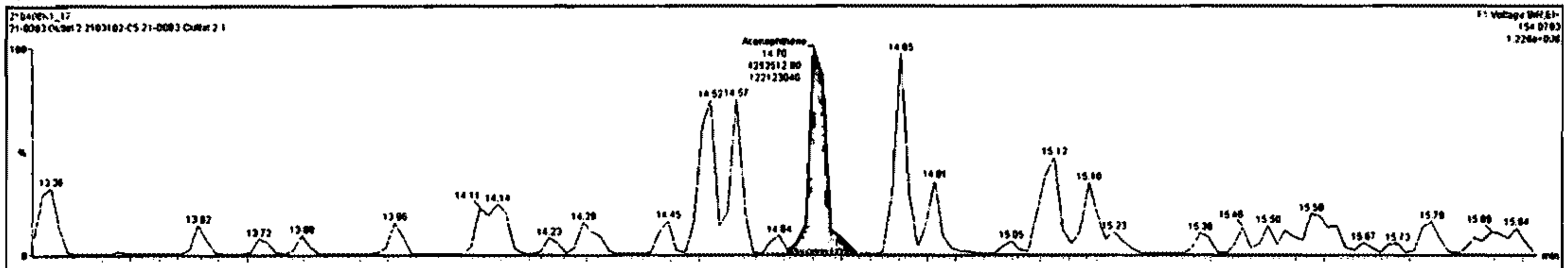


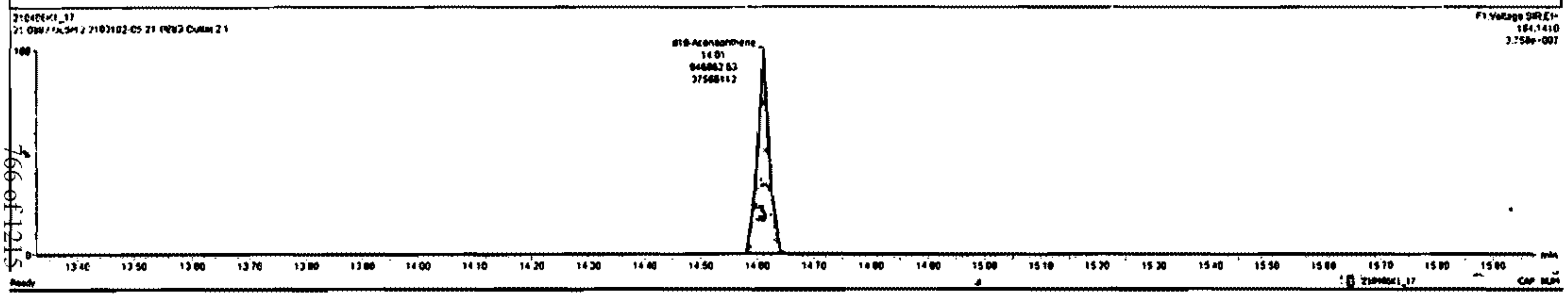
765 of 1215

d10-Acenaphthene



#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	3.33e8	1.64e8	1.1587	1.000	10.17	10.18	1.0009	1.01	NO	380		21.5	0.000
2	Naphthalene-2nd	3.80e6	1.64e8	0.1779	1.000	10.17	10.18	1.0008	1.01	NO	343		69.8	0.000
3	2-Methylnaphthalene	3.29e6	9.47e5	1.3788	1.000	11.86	11.62	0.7855	0.79	NO	586		6.41	0.000
4	Acenaphthylene	1.44e5	1.60e6	1.1186	1.000	14.37	14.37	1.0007	1.00	NO	16.2		25.0	0.000
5	Acenaphthene	4.25e8	9.47e5	1.1824	1.000	14.70	14.70	1.0002	1.01	NO	895		34.0	0.000
6	Fluorene	1.04e7	1.61e6	1.1530	1.000	15.84	15.84	1.0007	1.01	NO	1780		33.4	0.000
7	Phenanthrene	1.68e7	1.36e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	2340		14.8	0.000
8	Phenanthrene-2nd	1.54e6	1.36e6	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	2440		316	0.000
9	Anthracene		1.36e6	1.0810	1.000	18.39			1.01	YES			18.2	
10	Fluoranthene	1.07e6	2.42e6	1.0890	1.000	20.36	20.36	1.0015	1.00	NO	116		0.621	0.000
11	Pyrene	3.81e6	2.42e6	1.1081	1.000	20.97	20.86	1.0256	1.00	NO	182		0.754	0.000
12	Benz(a)anthracene	2.04e6	1.97e6	0.9813	1.000	23.16	23.17	1.0002	1.00	NO	279		0.186	0.000
13	Chrysene	1.60e6	2.23e6	0.8516	1.000	23.37	23.38	1.0008	1.00	NO	15.9		0.189	0.000
14	Benzo(b)fluoranthene	6.02e6	3.44e6	1.1060	1.005	26.64	26.67	1.0045	1.00	NO	7.18		0.111	0.000





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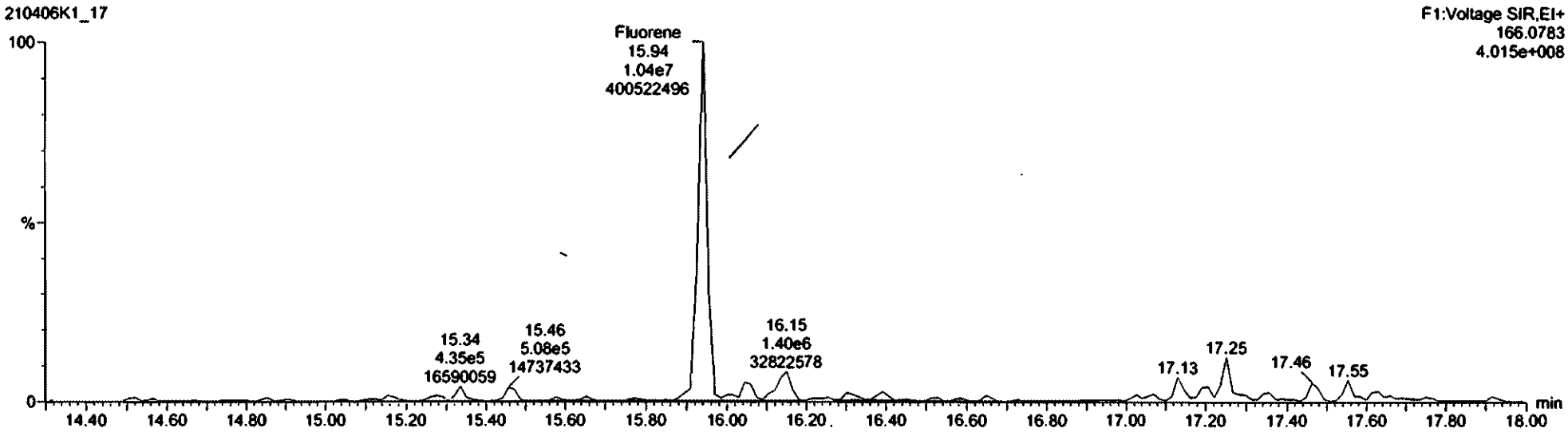
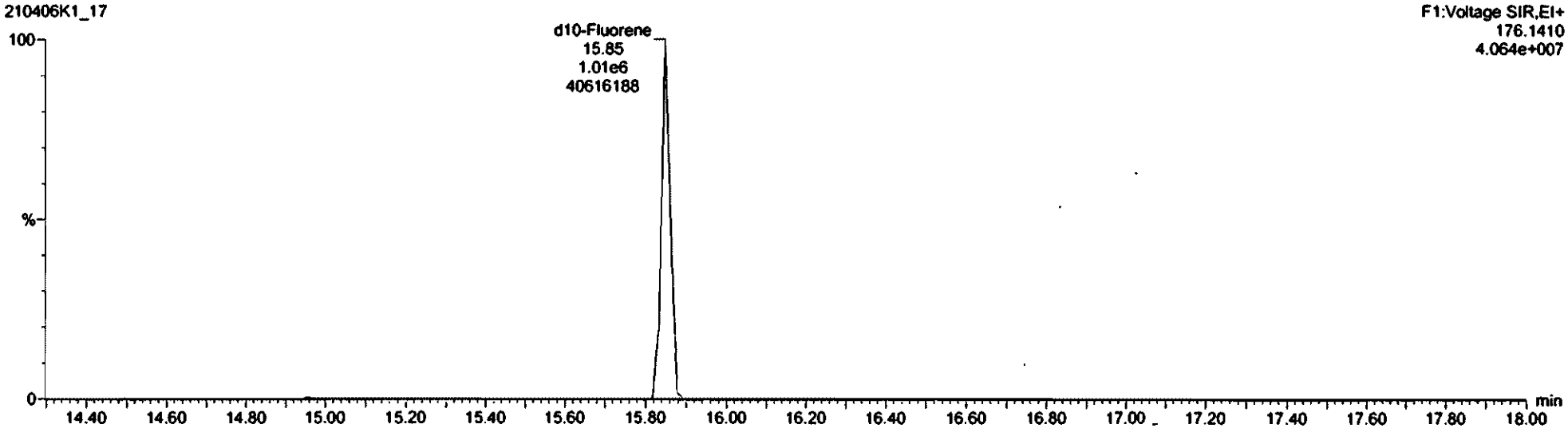
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Fluorene



d10-Fluorene



767 of 1215

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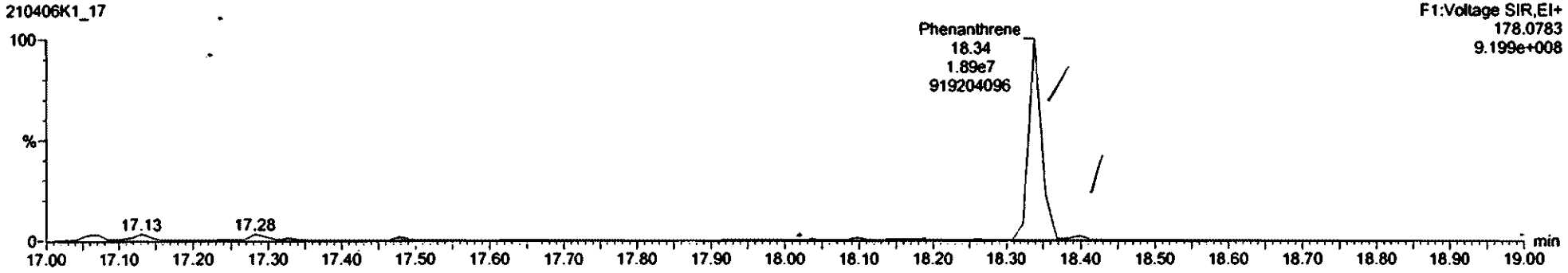
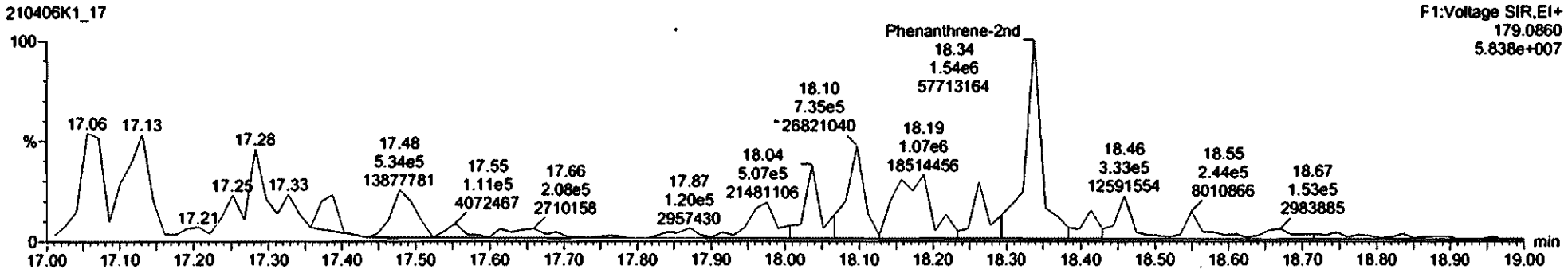
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

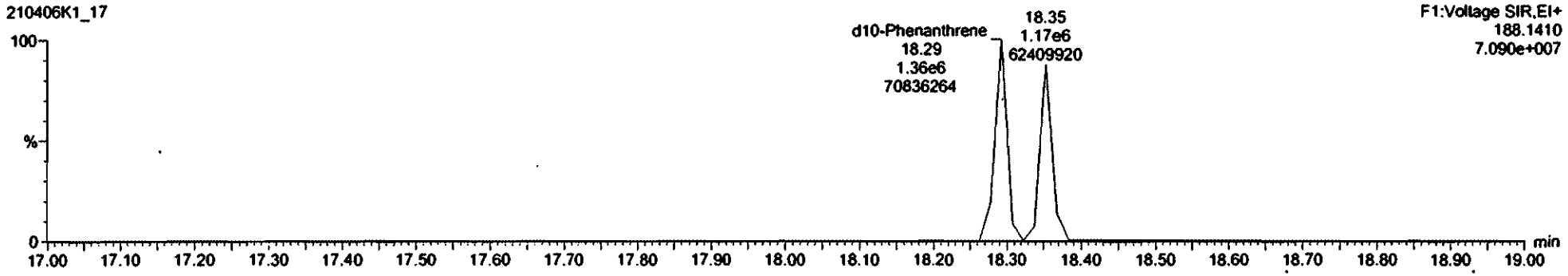
Phenanthrene; Anthrecene



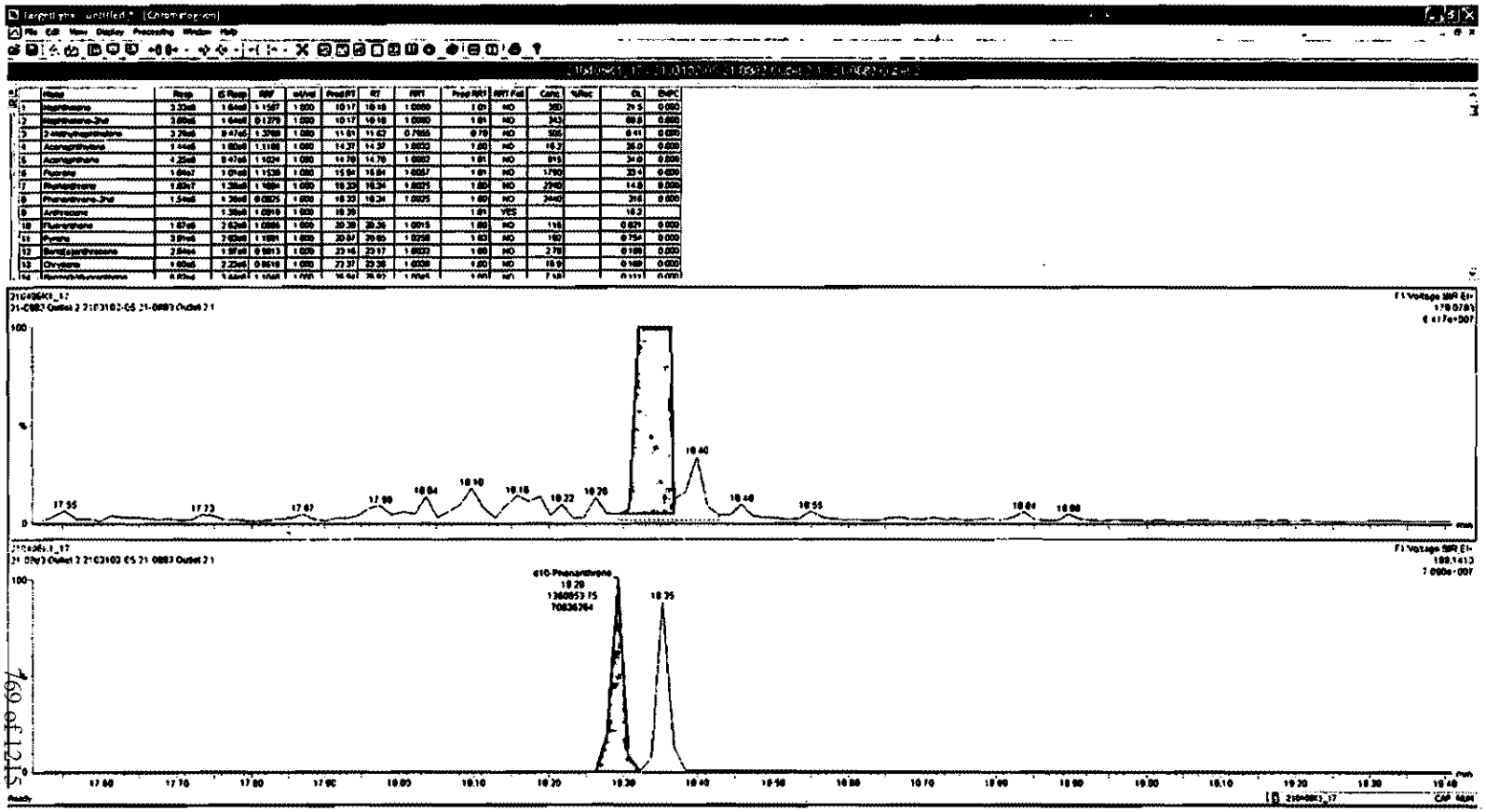
Phenanthrene-2nd

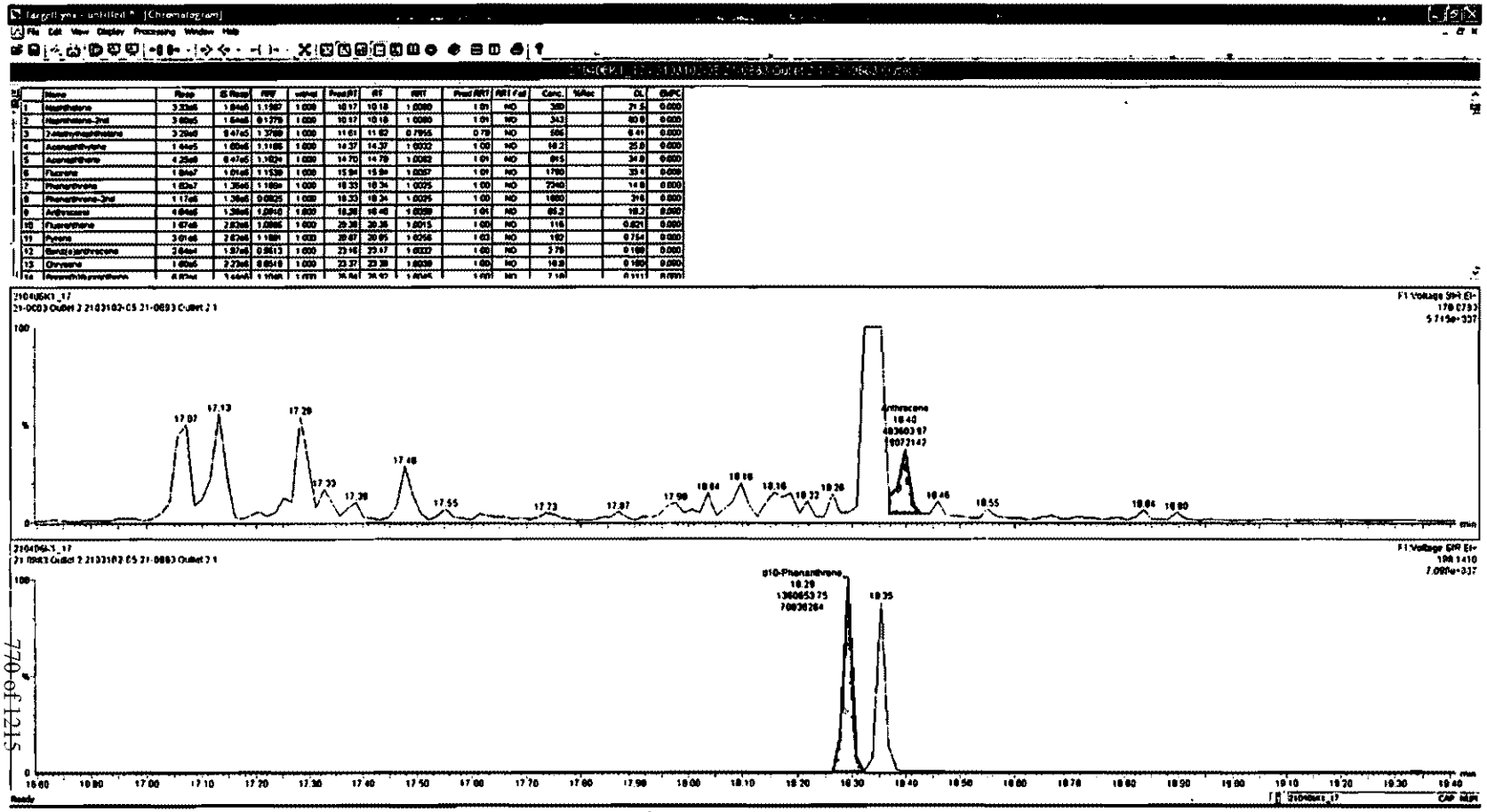


d10-Phenanthrene; d10-Anthrecene (AS)



768 of 1215


17.55
17.73
17.87
17.99
18.04
18.10
18.15
18.22
18.26
18.40
18.48
18.55
18.84
18.88
d10-Phenanthrene
18.20
18.25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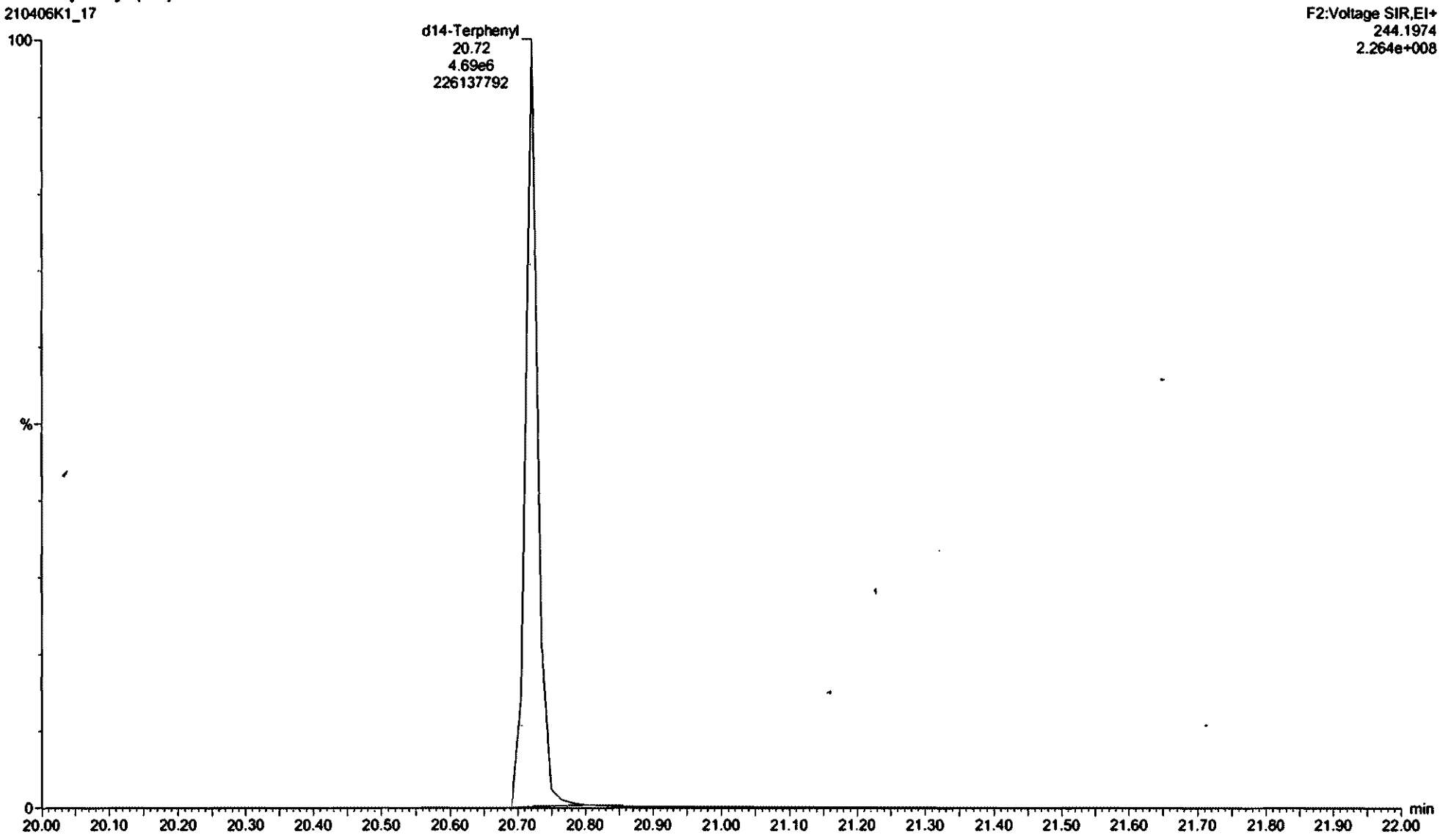
17.13
17.29
17.32
17.38
17.48
17.55
17.73
17.87
17.98
18.04
18.16
18.26
18.32
18.40
Anthracene
18.40
18.45
18.55
18.84
18.90
d10-Phenanthrene
18.29
18.35

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

d14-Terphenyl (PS)



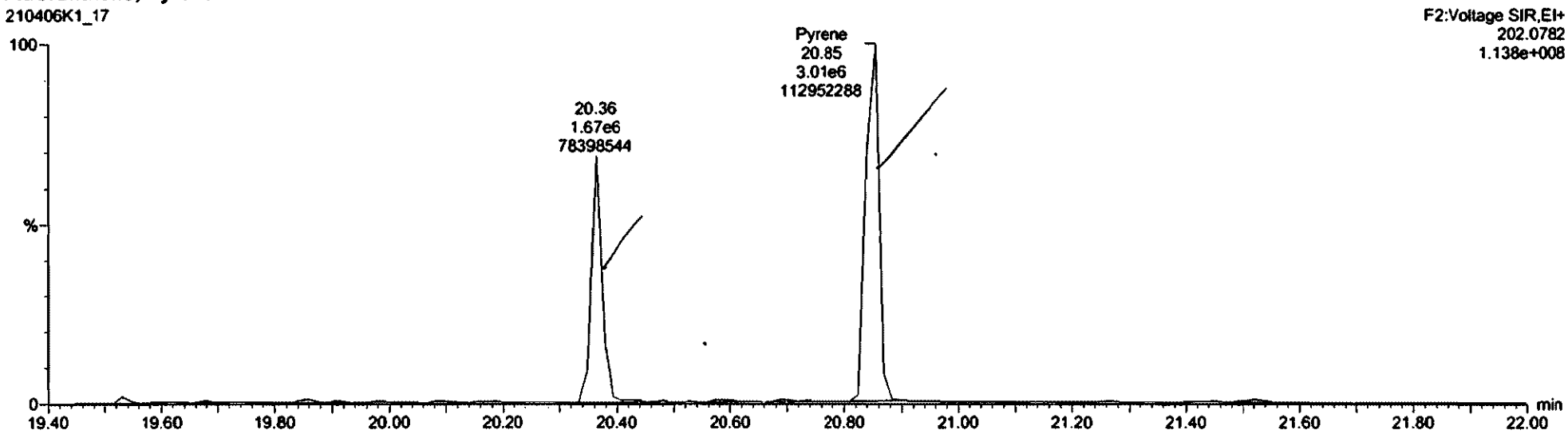
771 of 1215

Dataset: Untitled

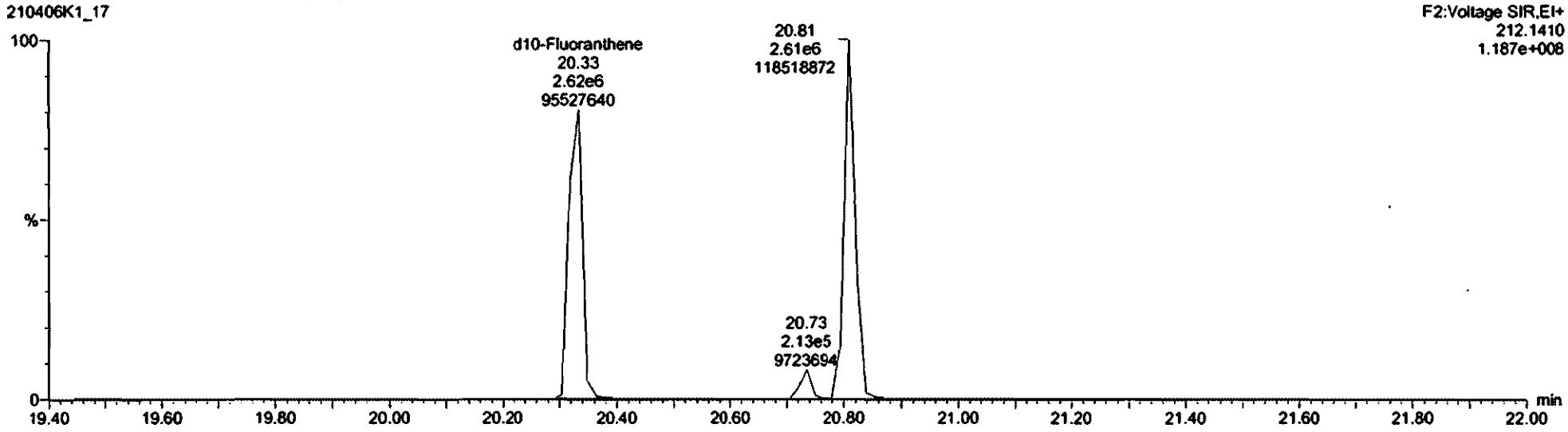
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Fluoranthene; Pyrene

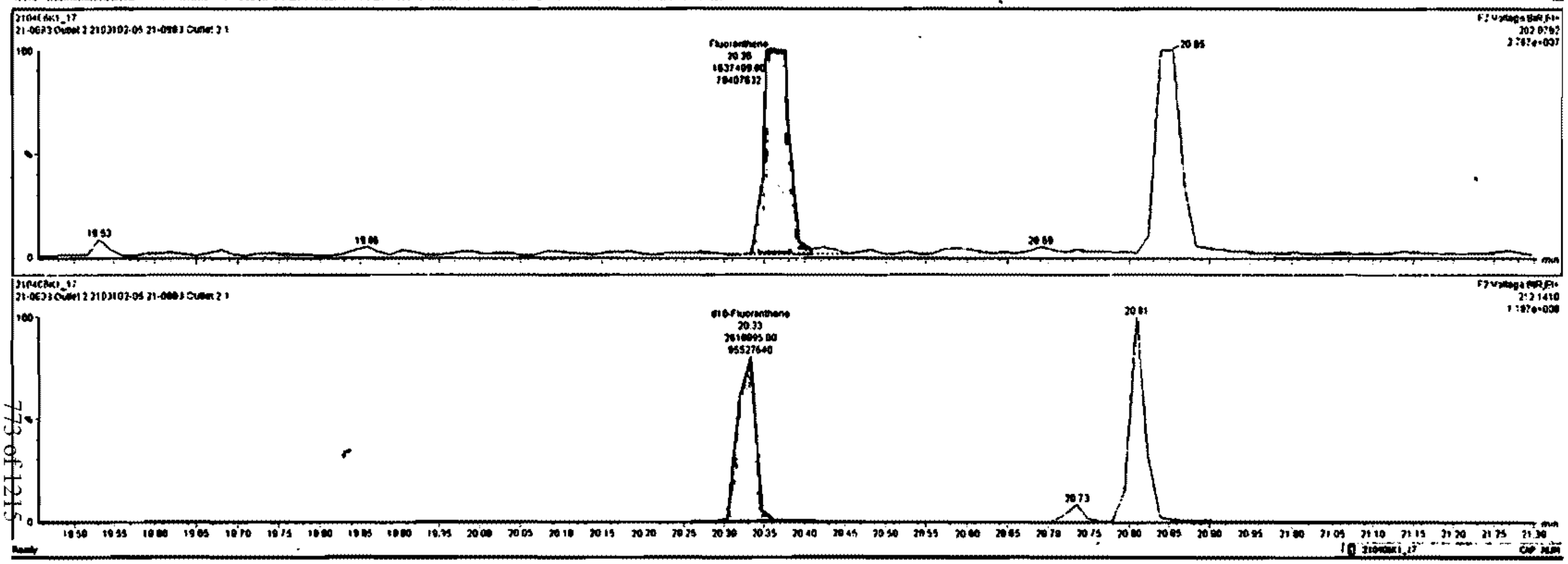


d10-Fluoranthene; d10-Pyrene (RS)



772 of 1215

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	2.33e6	1.84e6	1.1587	1.000	10.17	10.18	1.0000	1.01	NO	350		21.5	0.000
2	Naphthalene-2nd	3.80e5	1.84e6	0.1279	1.000	10.17	10.18	1.0000	1.01	NO	343		60.6	0.000
3	2-Methylnaphthalene	2.28e6	9.47e5	1.3780	1.000	11.81	11.82	0.7955	0.79	NO	505		8.41	0.000
4	Acenaphthylene	1.44e5	1.80e6	1.1188	1.000	14.37	14.37	1.0002	1.00	NO	18.2		25.0	0.000
5	Acenaphthene	4.25e6	8.47e5	1.1824	1.000	14.70	14.78	1.0052	1.01	NO	815		34.9	0.000
6	Fluorene	1.04e7	1.81e6	1.1530	1.000	15.84	15.84	1.0057	1.01	NO	1780		33.4	0.000
7	Phenanthrene	1.82e7	1.38e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	2240		14.9	0.000
8	Phenanthrene-2nd	1.17e6	1.38e6	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	1880		318	0.000
9	Anthracene	4.84e5	1.38e6	1.0919	1.000	18.38	18.40	1.0058	1.01	NO	65.2		16.2	0.000
10	Fluoranthene	1.64e6	2.62e6	1.0000	1.000	20.30	20.36	1.0016	1.00	NO	114		0.827	0.000
11	Pyrene	3.01e6	2.62e6	1.1089	1.000	20.67	20.85	1.0256	1.03	NO	182		0.754	0.000
12	Benz(a)anthracene	2.64e4	1.87e6	0.9913	1.000	23.16	23.17	1.0030	1.00	NO	2.78		0.188	0.000
13	Chrysene	1.80e5	2.27e6	0.8819	1.000	23.37	23.38	1.0038	1.00	NO	10.8		0.180	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	1.00	NO	[illegible]		[illegible]	[illegible]

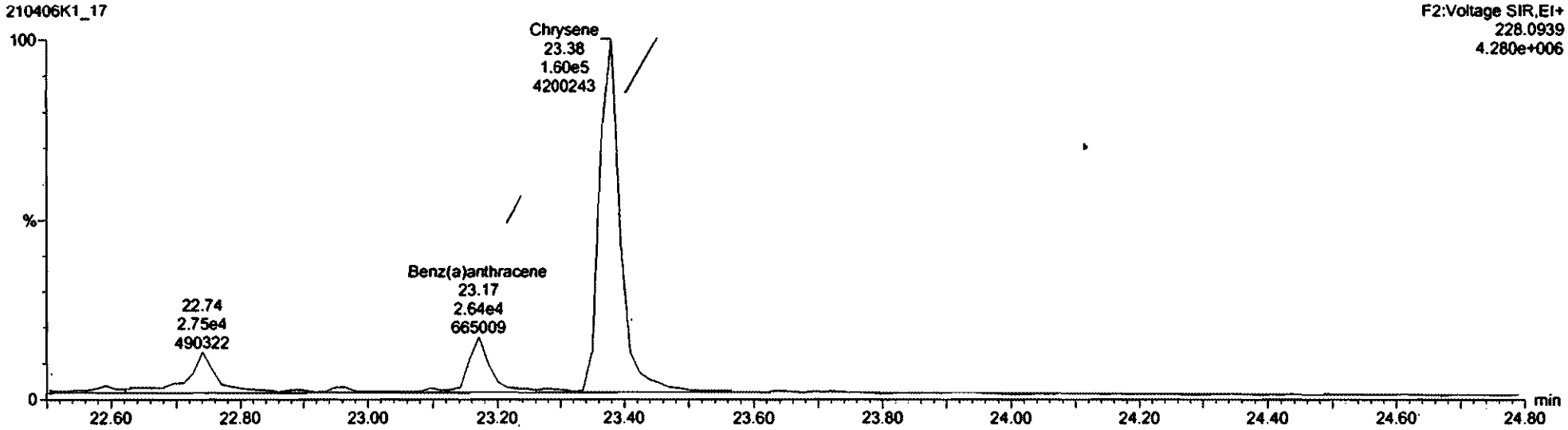


Dataset: Untitled

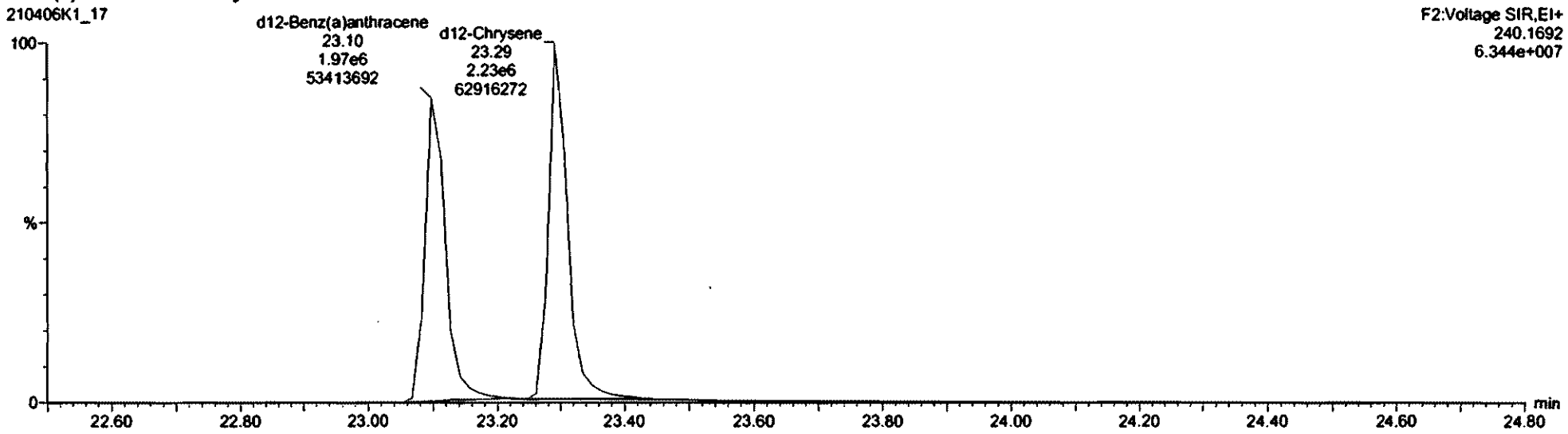
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

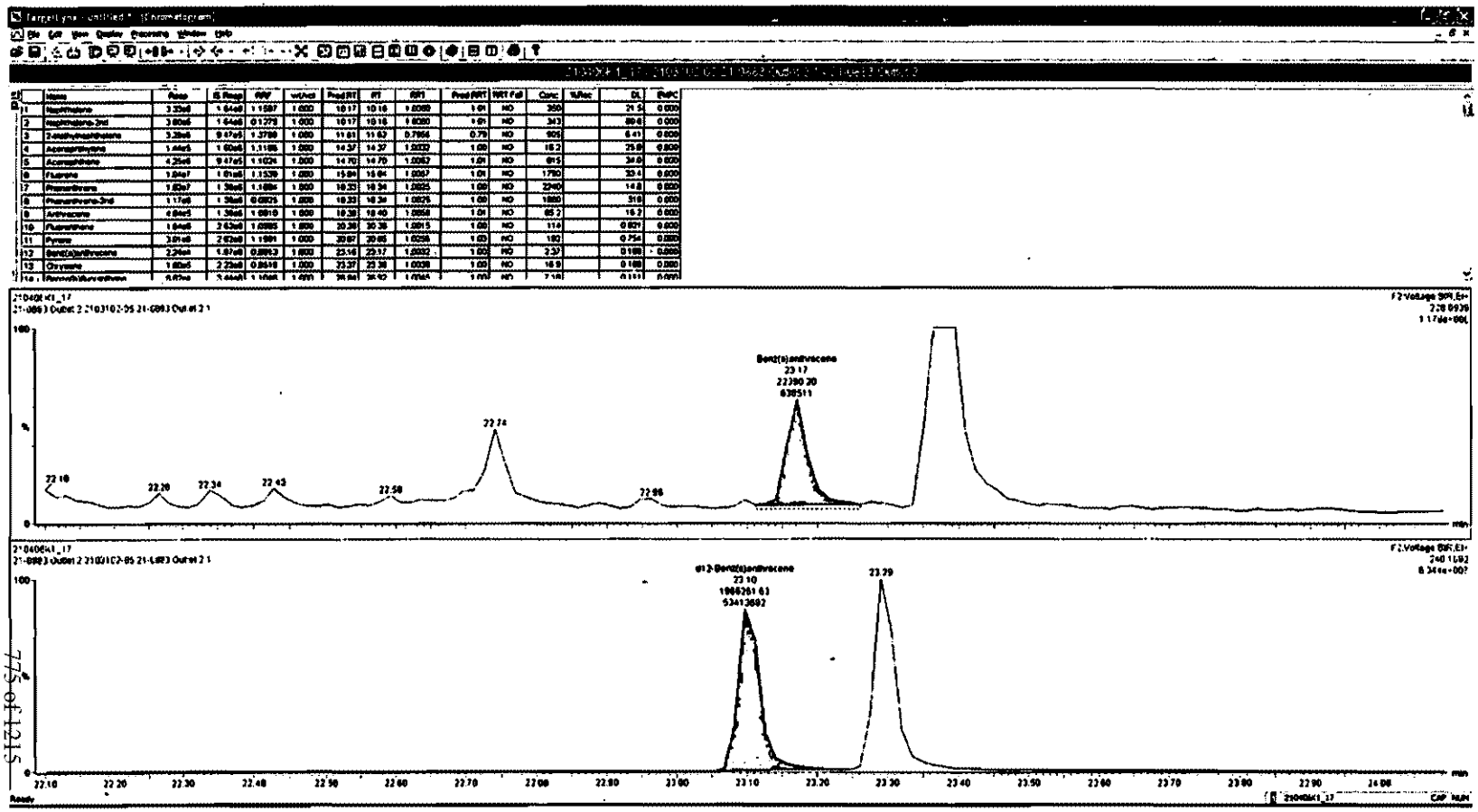
Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



774 of 1215


Benz(a)anthracene
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22390.20
630511
22.74
22.10
22.20
22.34
22.43
22.58
22.96
Benz(a)anthracene
23.10
1966361.63
53413692
23.29

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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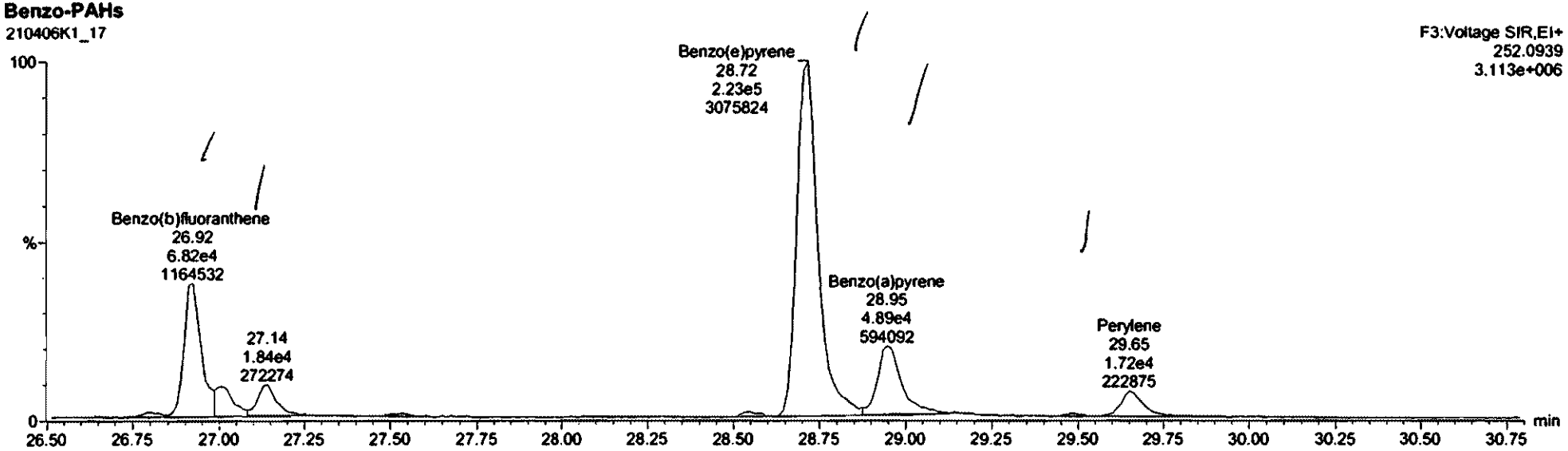
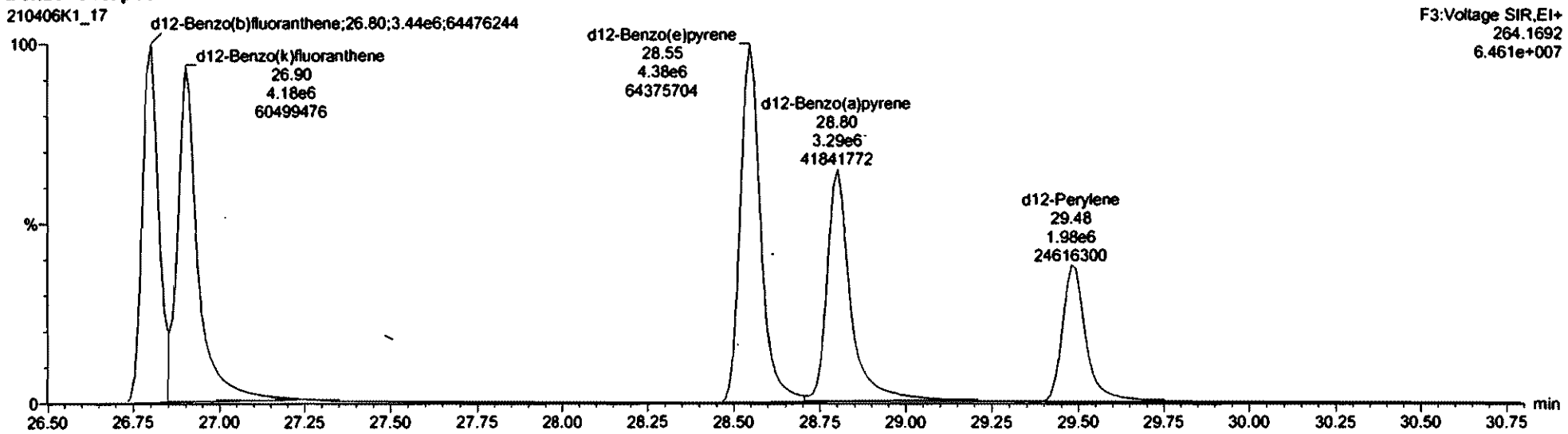
Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Benzo-PAHs



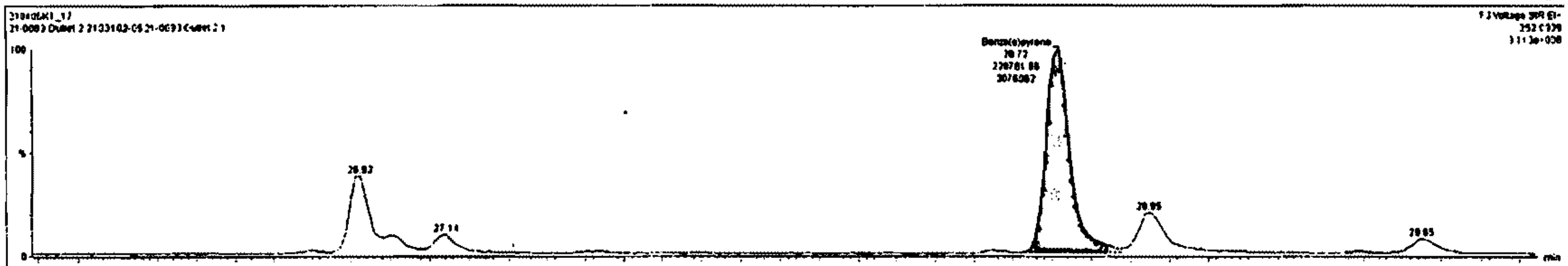
Benzo-Isotopes

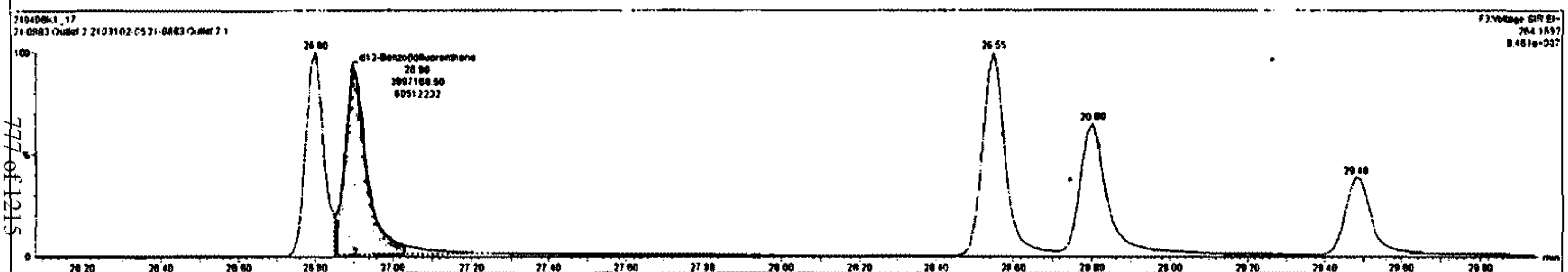


Targetlynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Area	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.58e4	4.00e6	1.0378	1.000	27.02	27.01	1.0041	1.00	NO	1.53		0.128	0.000
16	Benzo(a)pyrene	2.21e6	4.00e6	0.9116	1.000	28.70	28.72	1.0876	1.07	NO	24.3		0.143	0.000
17	Benzo(e)pyrene	4.89e4	3.29e6	1.0157	1.000	28.97	28.95	1.0051	1.01	NO	5.88		0.186	0.000
18	Perylene	1.72e4	3.29e6	0.8874	1.000	29.71	29.85	1.0095	1.00	NO	2.12		0.191	0.000
19	Indeno(1,2,3-c,d)pyrene	5.44e4	2.88e6	0.9150	1.000	38.77	38.75	1.0083	1.01	NO	11.5		0.471	0.000
20	Benzo(g,h,i)perylene	5.33e4	2.29e6	0.8402	1.000	40.14	40.07	1.0076	1.01	NO	101		0.624	0.000
21	Dibenz(a,h)anthracene		1.71e6	0.8478	1.000	38.70			1.01	YES			0.806	
22	d8-Naphthalene	1.64e6	2.81e6	1.2037	1.000	10.12	10.13	0.8482	0.85	NO	104	52.2	0.0884	0.000
23	d8-Acenaphthylene	1.40e6	2.61e6	0.8040	1.000	14.33	14.32	1.3012	1.20	NO	136	67.5	0.249	
24	d10-Acenaphthene	9.17e5	2.61e6	0.5838	1.000	14.63	14.61	1.2752	1.23	NO	122	61.0	0.183	
25	d10-Fluorene	1.61e6	2.81e6	0.5428	1.000	15.86	15.85	1.3288	1.30	NO	137	68.6	0.114	
26	d10-Phenanthrene	1.38e6	2.81e6	0.7354	1.000	18.28	18.29	1.5308	1.53	NO	142	70.8	0.0885	
27	d10-Fluoranthene	2.63e6	2.81e6	1.2898	1.000	20.33	20.33	0.8771	0.88	NO	158	77.8	0.0222	
28	d12-Benz(a)anthracene	1.57e6	2.61e6	0.9998	1.000	23.11	23.10	1.1088	1.11	NO	167	83.5	0.0582	



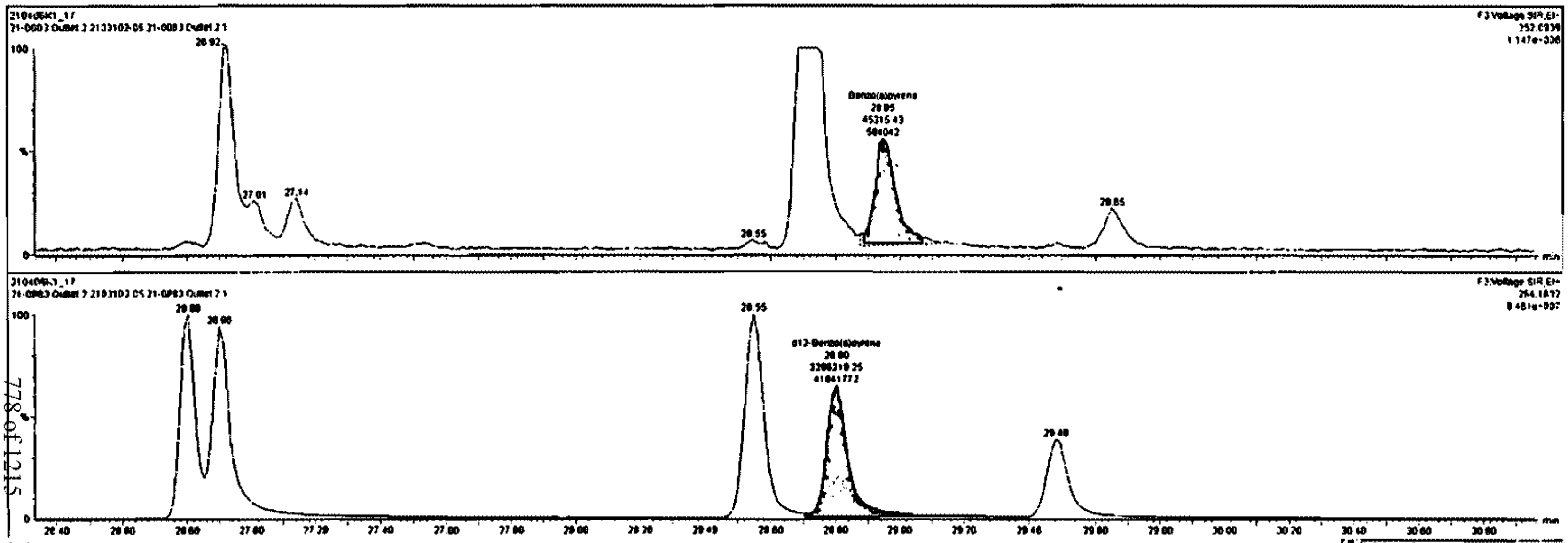


Ready 210406K1_17 CAP NUM

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

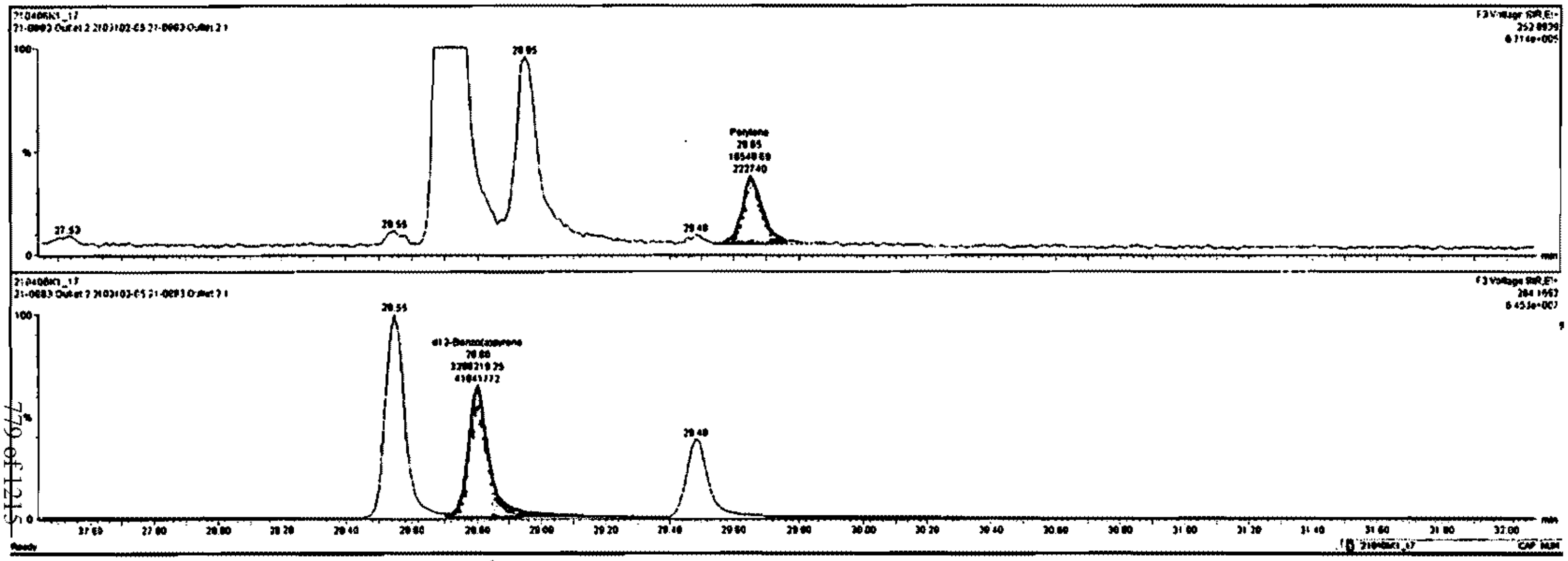
	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.98e4	4.00e6	1.0370	1.000	27.02	27.01	1.0041	1.00	NO	1.53		0.128	0.000
16	Benzo(e)pyrene	2.21e5	4.00e6	0.9115	1.000	28.70	28.72	1.0876	1.07	NO	34.2		0.143	0.000
17	Benzo(a)pyrene	4.53e4	3.29e6	1.0157	1.000	28.87	28.85	1.0051	1.01	NO	5.43		0.188	0.000
18	Perylene	1.72e4	3.29e6	0.9874	1.000	28.71	28.65	1.0095	1.00	NO	2.12		0.191	0.000
19	Indeno(1,2,3-c,d)pyrene	5.44e4	2.08e6	0.9180	1.000	38.77	38.75	1.0083	1.01	NO	11.5		0.874	0.000
20	Benzo(g,h,i)perylene	1.33e5	2.25e6	0.9402	1.000	40.14	40.07	1.0076	1.01	NO	101		0.024	0.000
21	Dibenz(a,h)anthracene		1.71e6	0.9478	1.000	36.70			1.01	YES			0.005	
22	d8-Naphthalene	1.64e6	2.81e6	1.2037	1.000	10.12	10.12	0.8482	0.85	NO	104	52.2	0.0084	0.000
23	d8-Acenaphthylene	1.88e6	2.81e6	0.8046	1.000	14.33	14.32	1.2012	1.20	NO	135	67.5	0.249	
24	d10-Acenaphthene	8.47e5	2.81e6	0.5809	1.000	14.62	14.61	1.2252	1.23	NO	122	61.0	0.103	
25	d10-Fluorene	1.04e6	2.81e6	0.5820	1.000	15.86	15.85	1.3280	1.30	NO	137	68.6	0.114	
26	d10-Phenanthrene	1.38e6	2.81e6	0.7364	1.000	18.28	18.29	1.5330	1.53	NO	142	70.8	0.0886	
27	d10-Fluoranthene	2.63e6	2.81e6	1.2858	1.000	20.33	20.30	0.9771	0.98	NO	198	77.8	0.0222	
28	[illegible]	1.92e6	2.81e6	[illegible]	1.000	23.11	23.10	1.1580	1.11	NO	167	83.6	[illegible]	



TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Area	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.98e4	4.80e6	1.8376	1.000	27.02	27.01	1.0041	1.00	NO	1.53		0.126	0.000
16	Benzo(e)pyrene	3.21e5	4.80e6	0.9115	1.000	28.70	28.72	1.0076	1.07	NO	34.2		0.143	0.000
17	Benzo(a)pyrene	4.53e4	3.28e6	1.0157	1.000	28.87	28.85	1.0051	1.09	NO	5.43		0.188	0.000
18	Perylene	1.88e4	3.28e6	0.8874	1.000	28.71	28.85	1.0086	1.03	NO	2.84	-	0.191	0.000
19	Indeno(1,2,3-cd)pyrene	5.44e4	2.08e6	0.9150	1.000	38.77	38.75	1.0080	1.09	NO	11.5		0.674	0.000
20	Benzo(g,h,i)perylene	5.33e5	2.25e6	0.9402	1.000	40.14	40.07	1.0076	1.09	NO	101		0.634	0.000
21	Dibenz(a,h)anthracene		1.71e6	0.9476	1.000	38.78			1.01	YES			0.605	
22	d8-Naphthalene	1.64e6	2.01e6	1.2037	1.000	10.12	10.12	0.8482	0.85	NO	104	57.2	0.0884	0.000
23	d8-Acenaphthylene	1.60e6	2.01e6	0.8048	1.000	14.33	14.32	1.3017	1.30	NO	136	67.5	0.249	
24	d10-Acenaphthene	9.47e5	2.01e6	0.5878	1.000	14.82	14.81	1.7257	1.23	NO	122	61.0	0.100	
25	d10-Fluorene	1.01e6	2.01e6	0.5828	1.000	15.86	15.85	1.3288	1.33	NO	137	68.6	0.114	
26	d10-Phenanthrene	1.38e6	2.01e6	0.7364	1.000	18.28	18.29	1.5309	1.53	NO	142	70.8	0.0885	
27	d10-Fluoranthene	2.63e6	2.01e6	1.2838	1.000	20.33	20.33	0.8771	0.88	NO	156	77.6	0.0222	
28	d12-Benz(a)anthracene	1.87e6	2.0[illegible]	[illegible]	1.000	29.11	29.10	1.1088	1.11	NO	142	49.6	[illegible]	



Ready

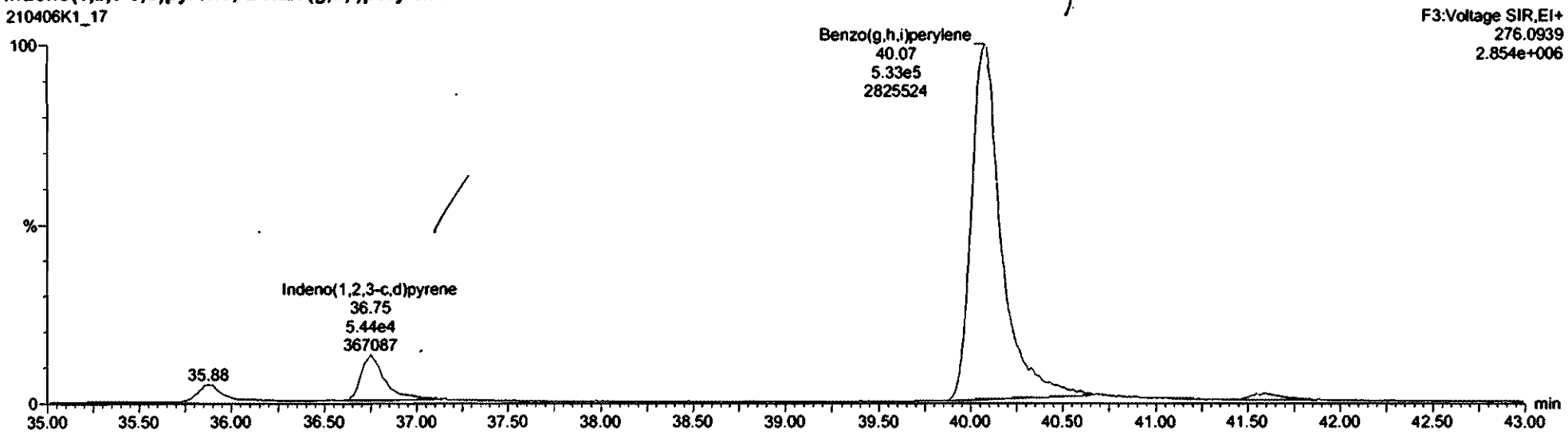
779 of 1215

Dataset: Untitled

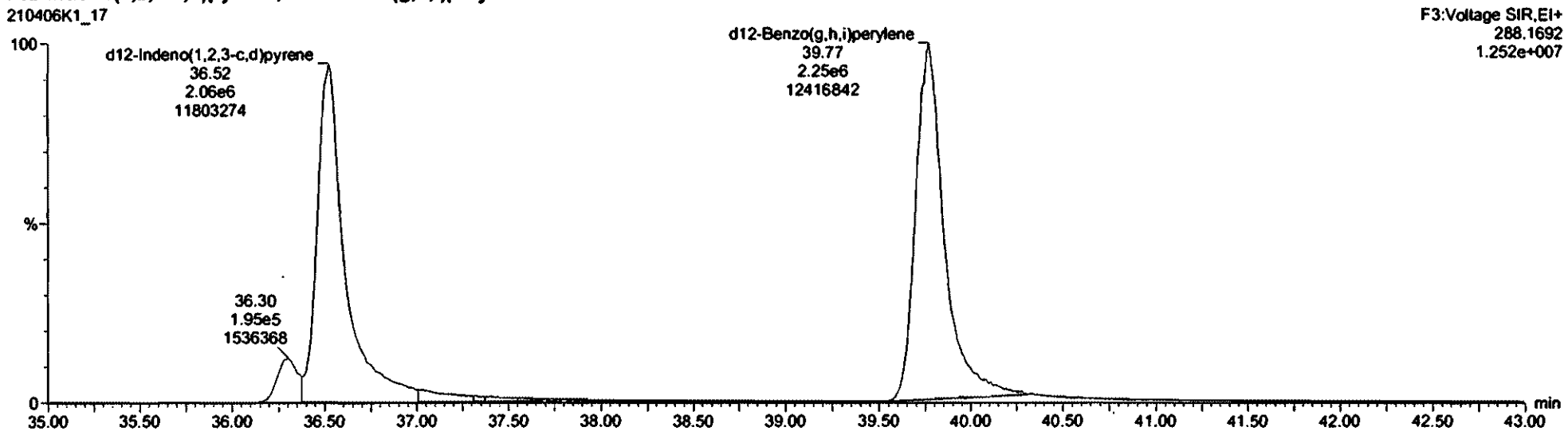
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene

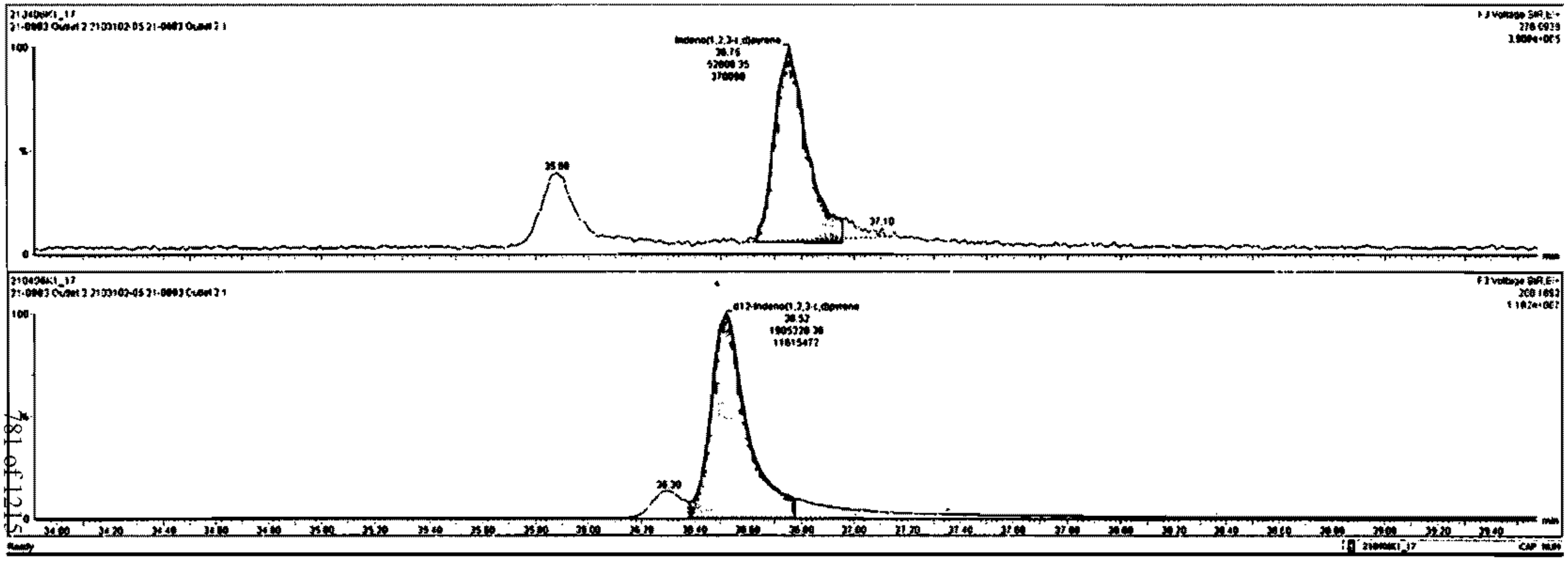


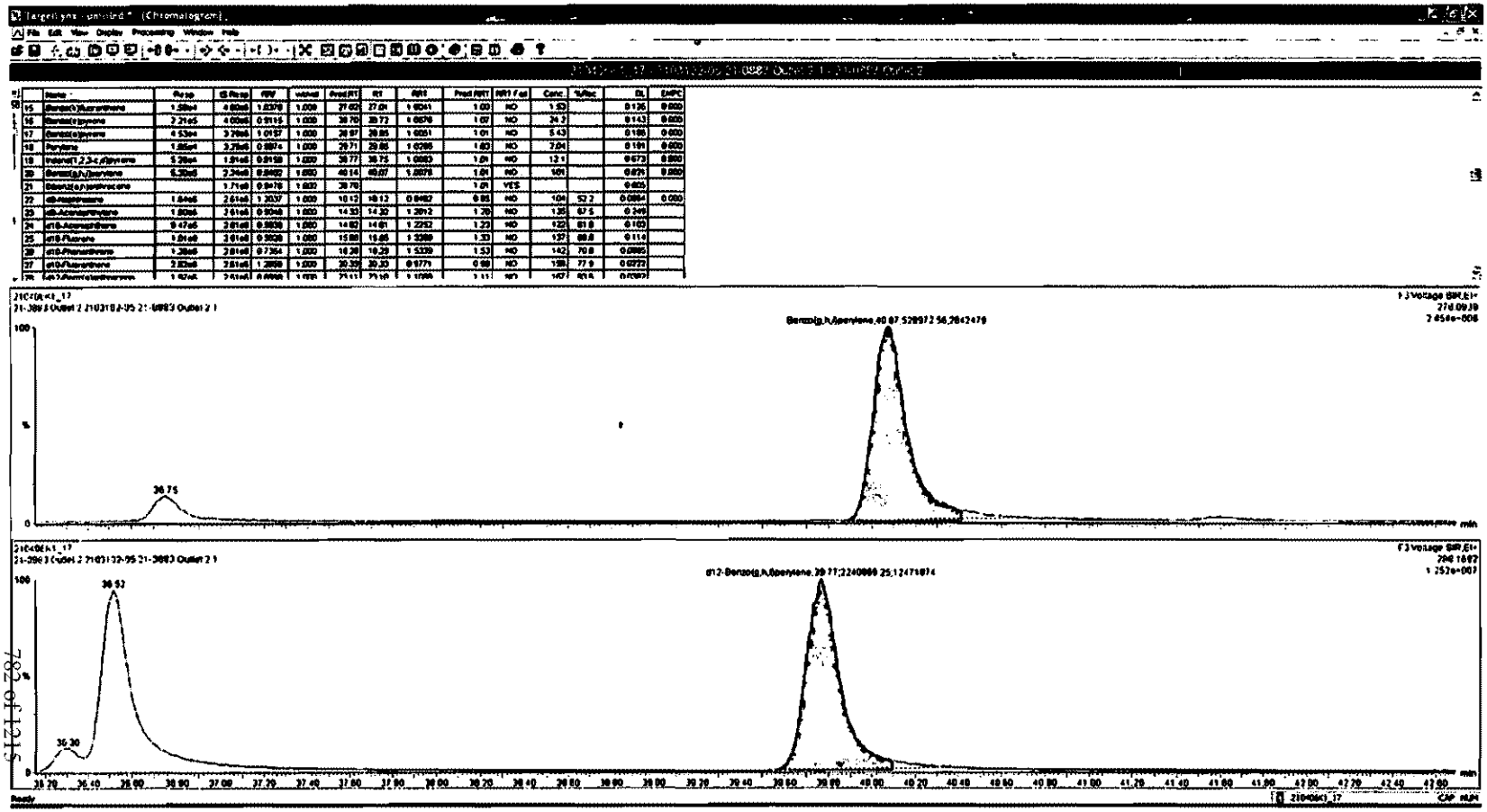
780 of 1215

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.59e4	4.00e6	1.0376	1.000	27.02	27.81	1.0041	1.00	NO	1.53		0.178	0.000
16	Benzo(e)pyrene	2.21e6	4.00e6	0.9115	1.000	28.70	28.72	1.0078	1.07	NO	24.2		0.143	0.000
17	Benzo(a)pyrene	4.53e4	3.29e6	1.0137	1.000	28.97	28.95	1.0051	1.01	NO	5.43		0.186	0.000
18	Perylene	1.86e4	3.29e6	0.9874	1.000	29.71	29.05	1.0286	1.00	NO	2.04		0.191	0.000
19	Indeno(1,2,3-c,d)pyrene	5.26e4	1.81e6	0.9190	1.000	38.77	38.75	1.0063	1.01	NO	12.1		0.673	0.000
20	Benzo(g,h,i)perylene	5.33e6	2.23e6	0.9462	1.000	40.14	40.87	1.0076	1.01	NO	101		0.634	0.000
21	Dibenz(a,h)anthracene		1.71e6	0.9476	1.000	36.70			1.01	YES			0.005	
22	d8-Naphthalene	1.64e6	2.81e6	1.2807	1.000	10.13	10.13	0.8482	0.86	NO	104	52.2	0.0064	0.000
23	d8-Acenaphthylene	1.66e6	2.81e6	0.8840	1.000	14.33	14.32	1.2012	1.20	NO	136	67.5	0.249	
24	d10-Acenaphthene	8.47e6	2.81e6	0.5828	1.000	14.62	14.81	1.2262	1.23	NO	172	81.0	0.103	
25	d10-Fluorene	1.01e6	2.81e6	0.5828	1.000	15.86	15.86	1.3288	1.33	NO	137	68.4	0.114	
26	d10-Phenanthrene	1.35e6	2.81e6	0.7354	1.000	18.30	18.29	1.5330	1.53	NO	142	70.8	0.0886	
27	d10-Fluoranthene	2.62e6	2.81e6	1.2858	1.000	20.33	20.33	0.8771	0.88	NO	156	77.9	0.0227	
28	d12-Benz(a)anthracene	1.97e6	2.81e6	[illegible]	1.000	23.11	23.10	1.1066	1.11	NO	167	83.6	0.0307	



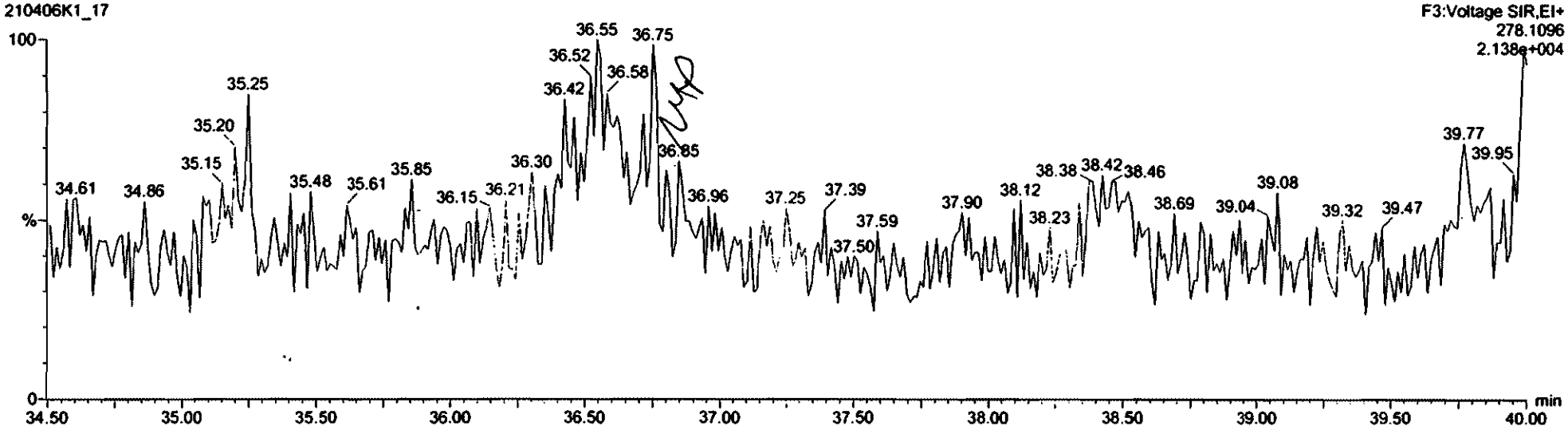

36.75
36.52
36.30

Dataset: Untitled

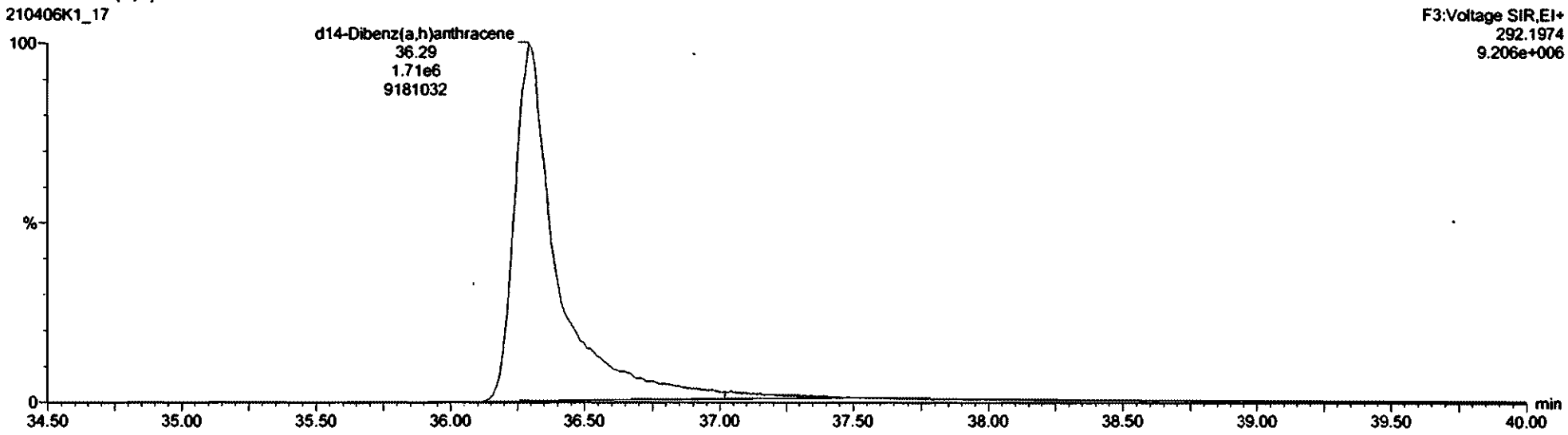
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_17, Date: 06-Apr-2021, Time: 23:44:05, ID: 2103102-05 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



783 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-10.qld

Last Altered: Wednesday, April 07, 2021 12:16:54 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:17:59 PM Pacific Daylight Time

HL 4.7.2021 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R	Conc.	%Rec	DL
1	3	2-Methylnaphthalene	2.30e5	7.26e4	1.38	1.000	11.60	11.61	0.794	0.795	NO	461		3.02
2	5	Acenaphthene	2.84e5	7.26e4	1.10	1.000	14.68	14.69	1.006	1.006	NO	709		23.7
3	6	Fluorene	6.85e5	6.28e4	1.15	1.000	15.92	15.92	1.006	1.006	NO	1890		28.6
4	7	Phenanthrene	1.36e6	8.01e4	1.19	1.000	18.32	18.32	1.002	1.002	NO	2850		16.7
5	24	d10-Acenaphthene	7.26e4	1.38e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	177	88.4	0.567
6	25	d10-Fluorene	6.28e4	1.38e5	0.563	1.000	15.84	15.83	1.330	1.329	NO	161	80.7	0.596
7	26	d10-Phenanthrene	8.01e4	1.38e5	0.735	1.000	18.26	18.28	1.533	1.535	NO	158	78.8	0.480
8	40	d10-Pyrene	1.38e5	1.38e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	0.163

Vista Analytical Laboratory

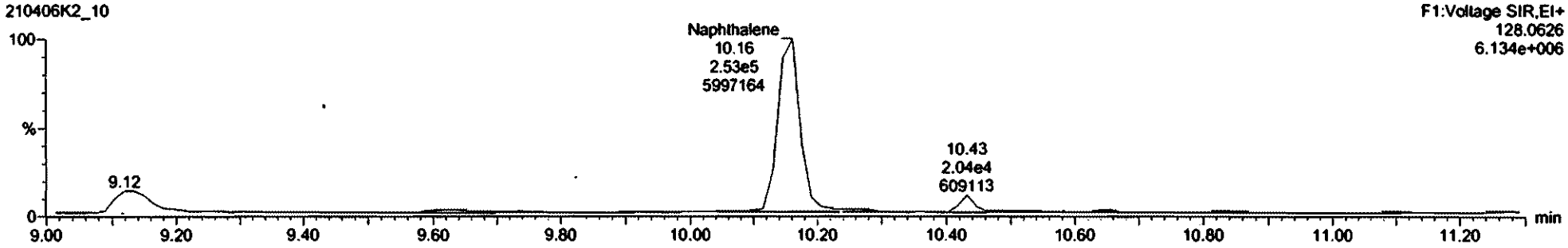
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

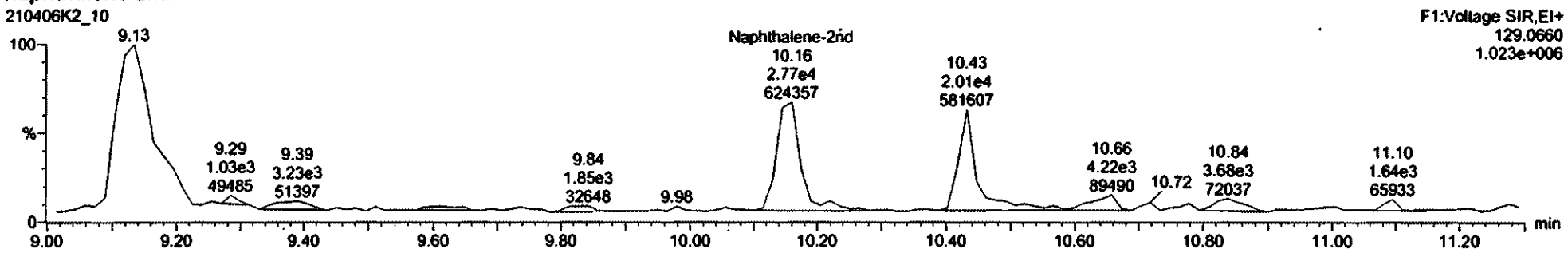
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2.1, Description: 21-0883 Outlet 2

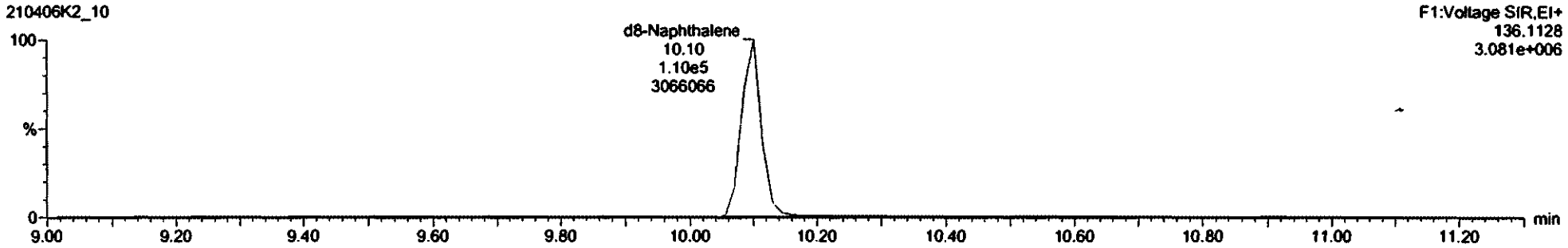
Naphthalene



Naphthalene-2nd



d8-Naphthalene



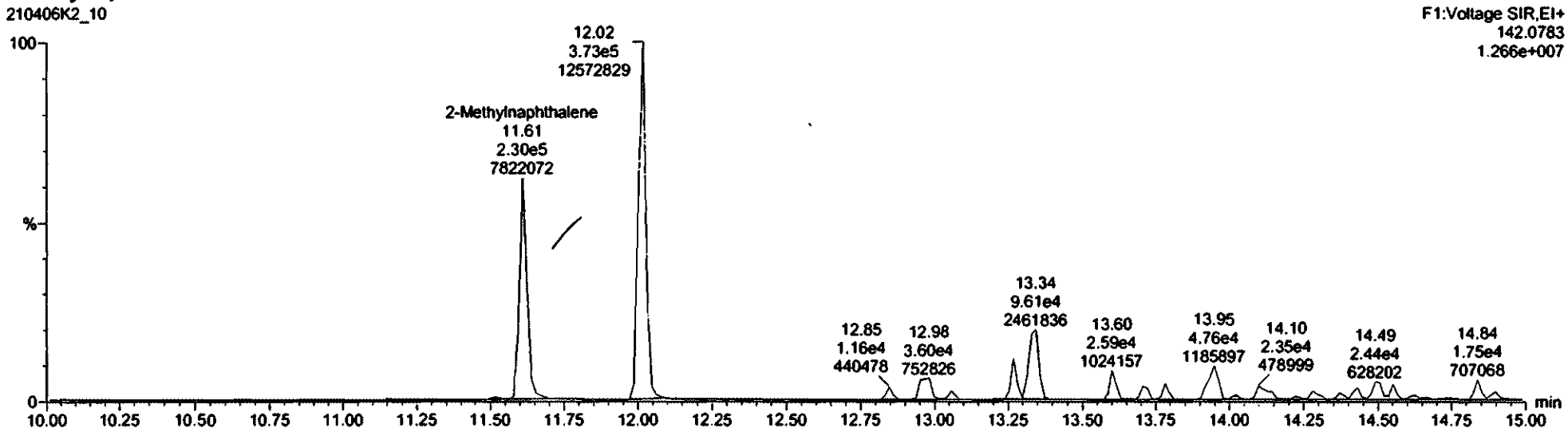
785 of 1215

Dataset: Untitled

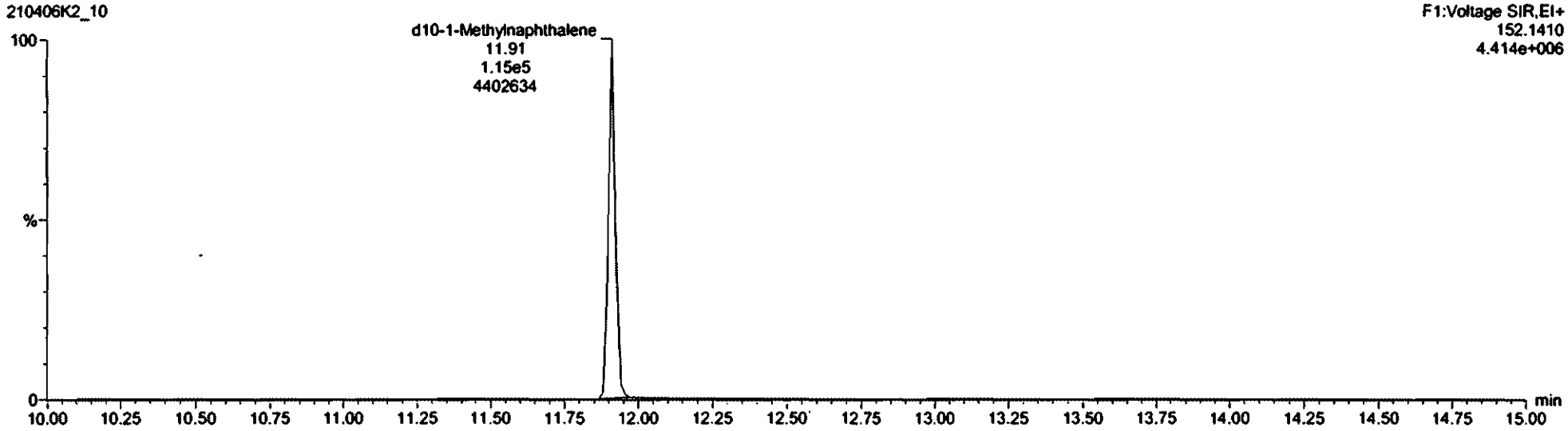
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

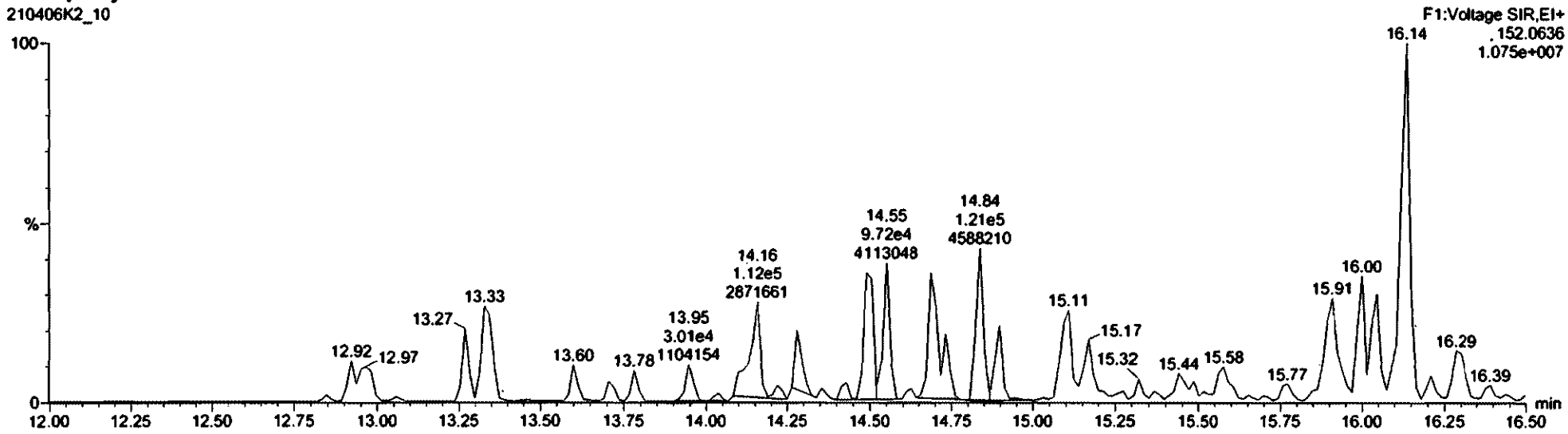


Dataset: Untitled

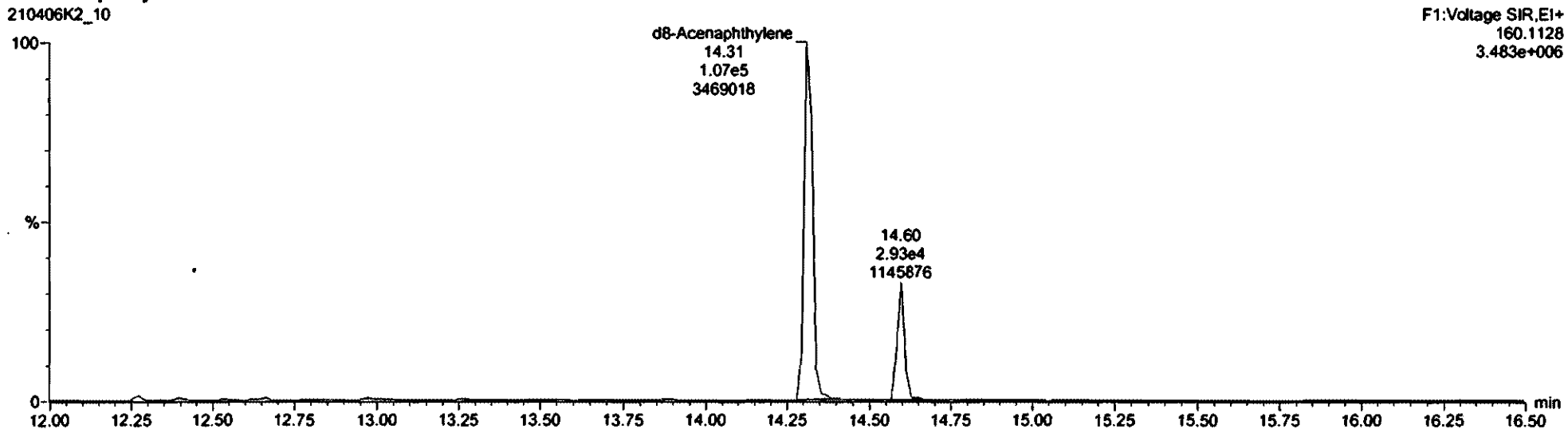
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Acenaphthylene



d8-Acenaphthylene

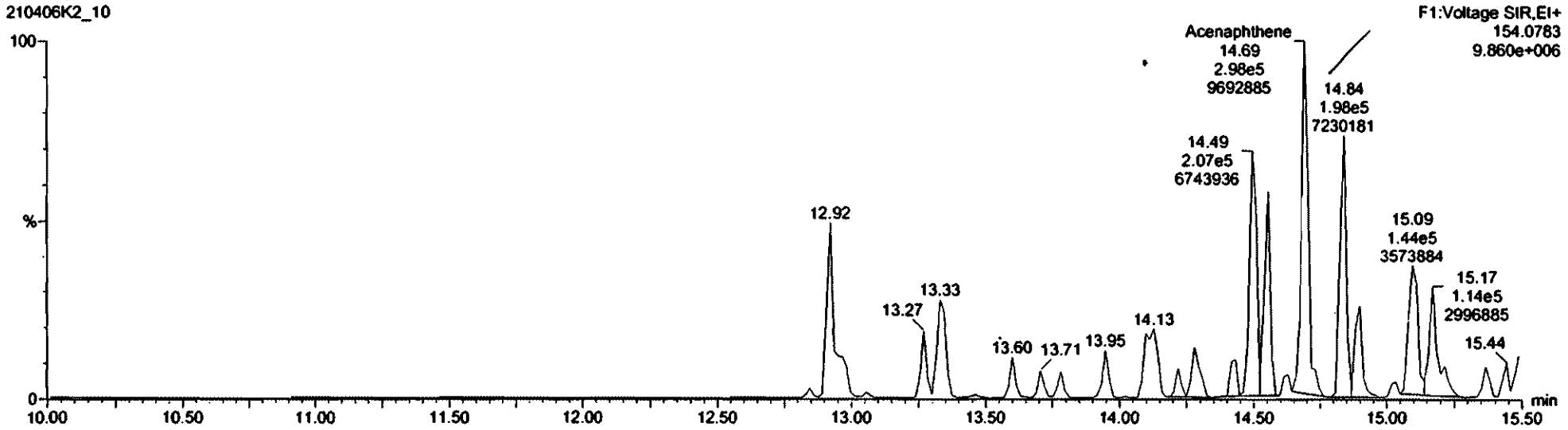


Dataset: Untitled

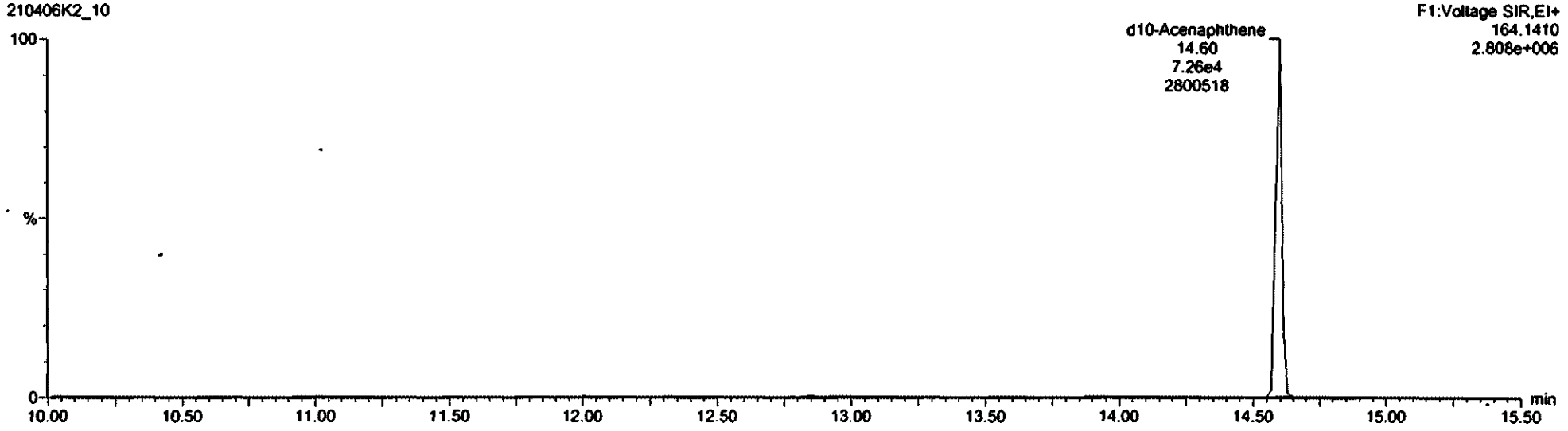
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

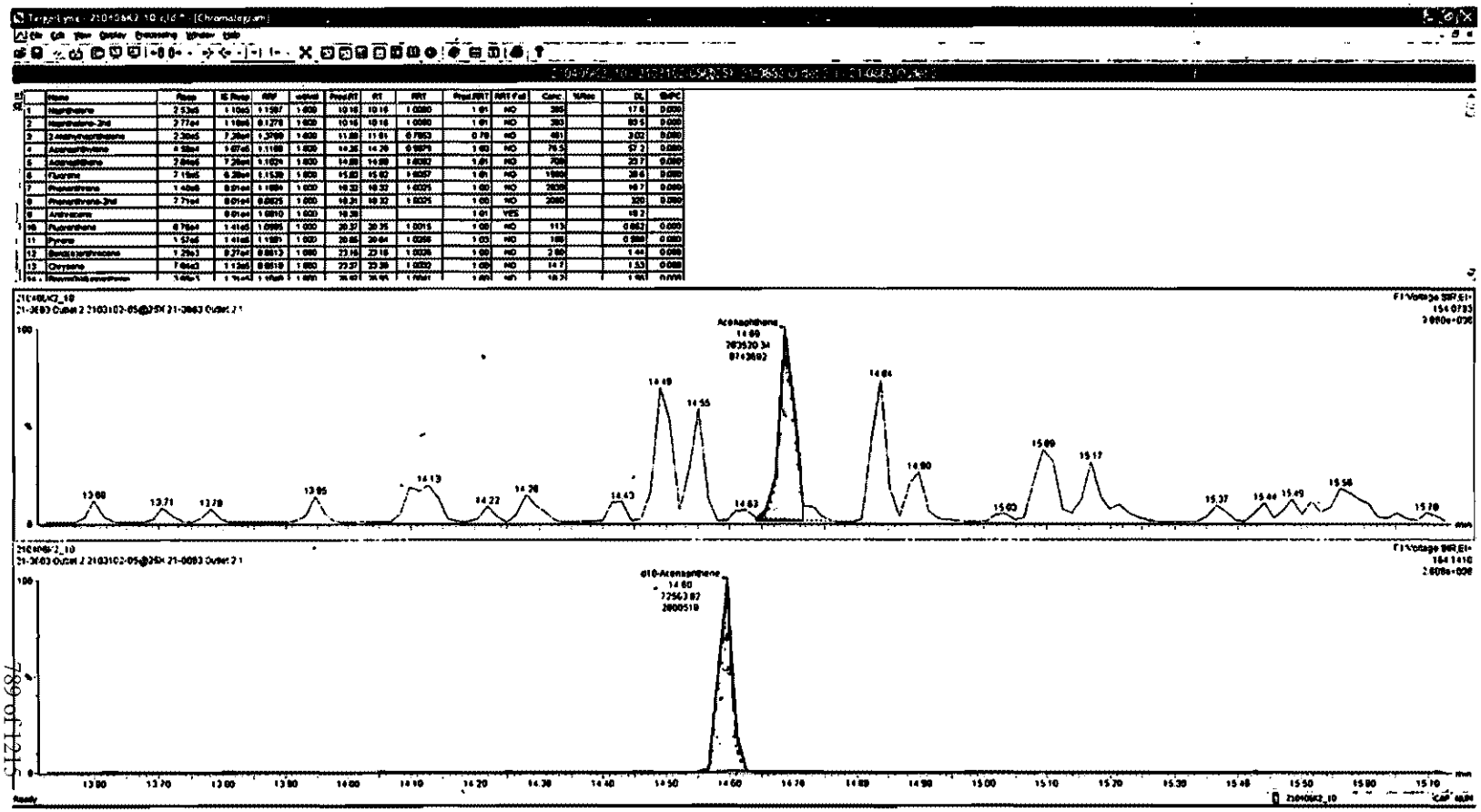
Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Acenaphthene



d10-Acenaphthene



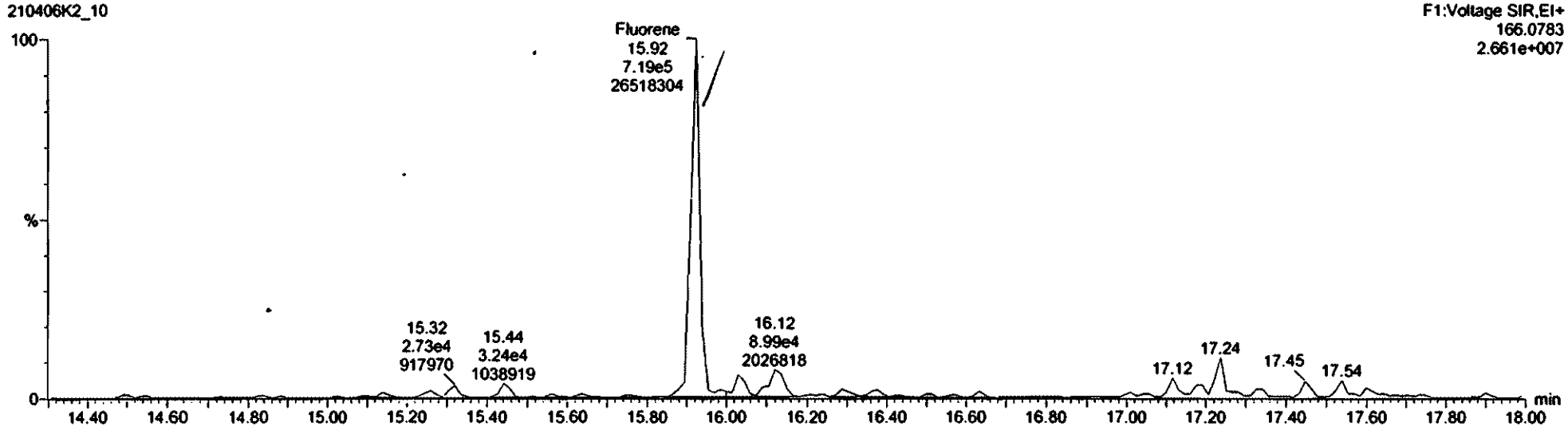

Acenaphthene
14.60
d10-Acenaphthene
14.60

Dataset: Untitled

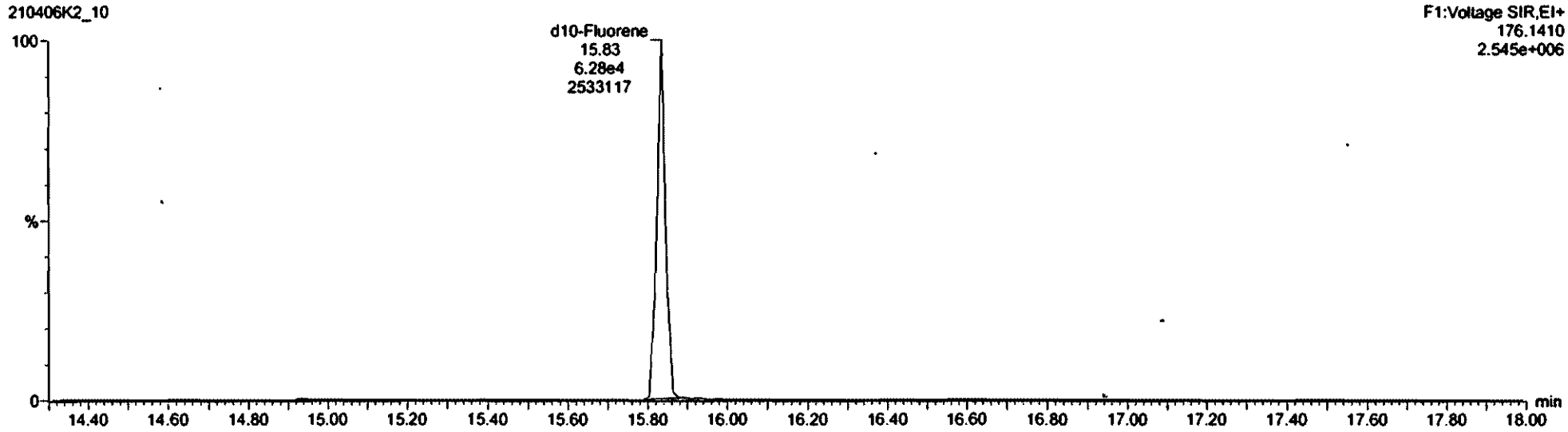
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

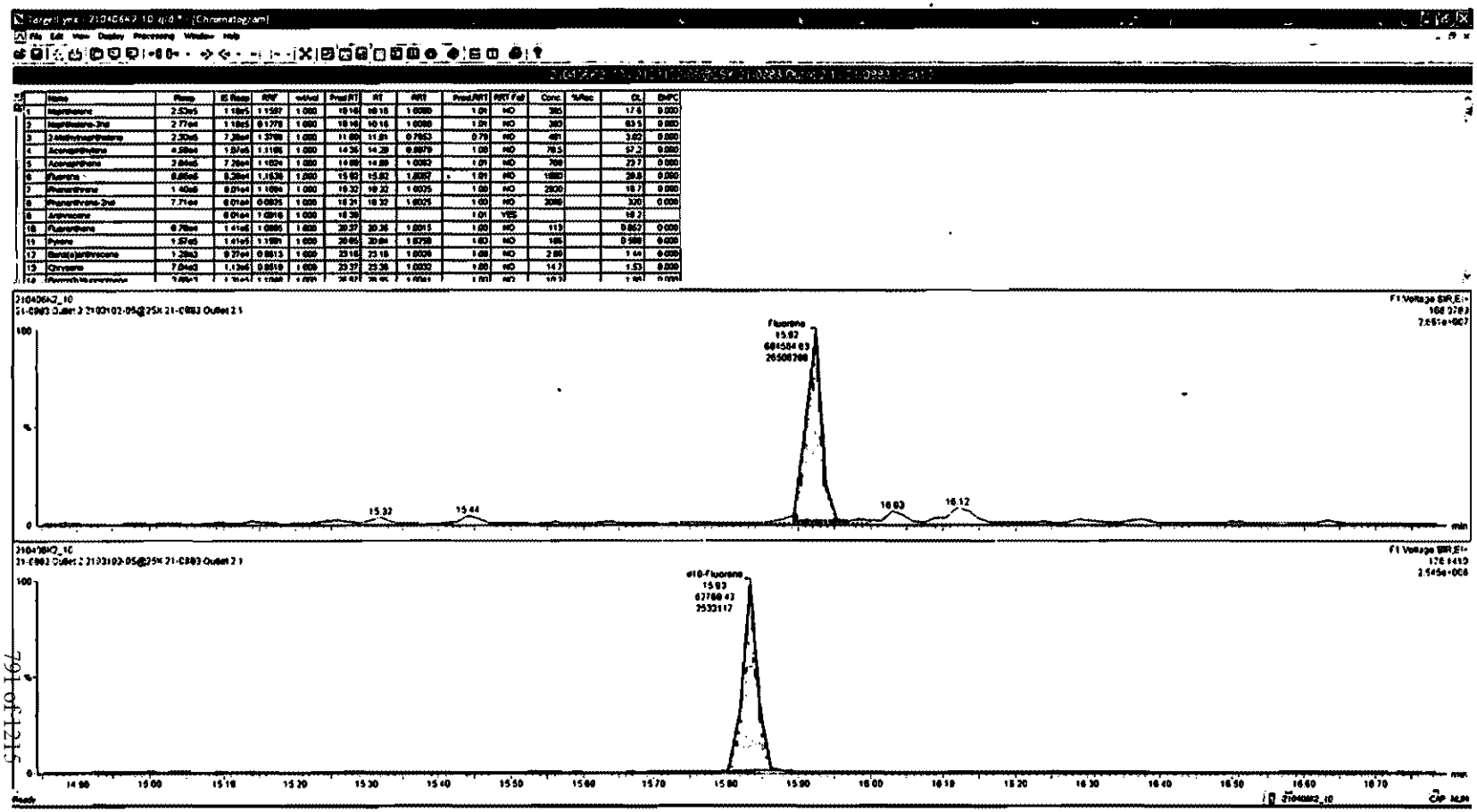
Fluorene



d10-Fluorene



790 of 1215

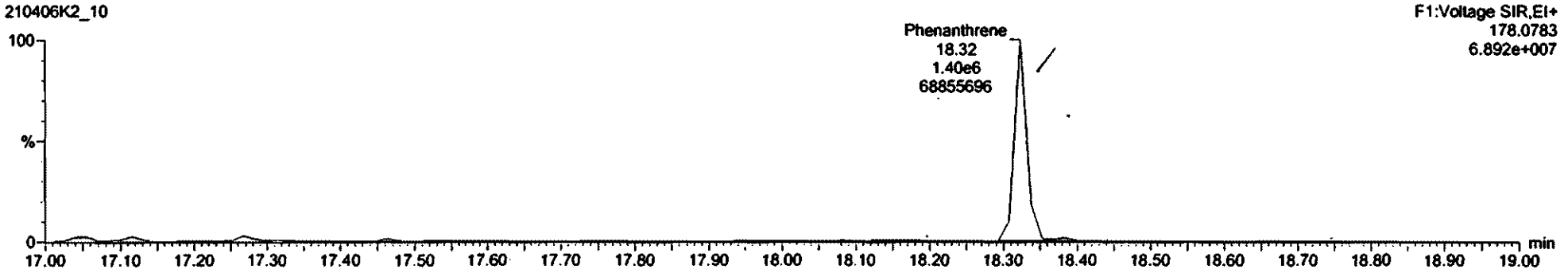

Fluorene
15.82
15.32
15.44
16.03
16.12
d10-Fluorene
15.80

Dataset: Untitled

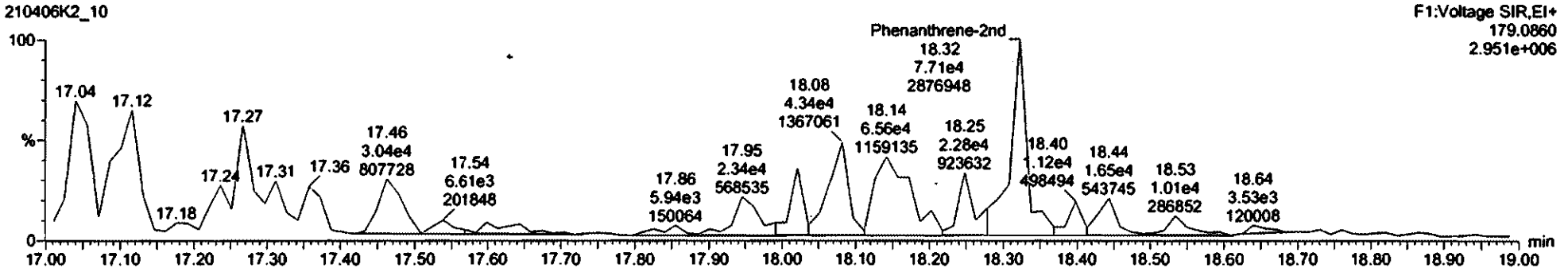
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

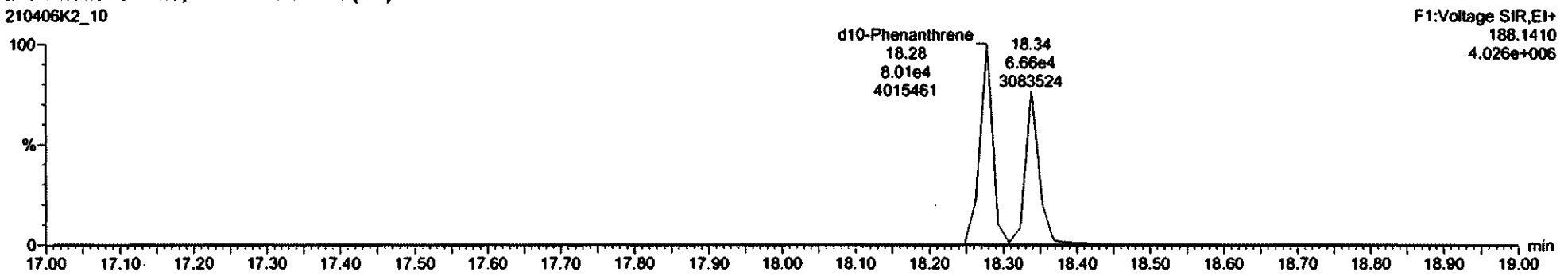
Phenanthrene; Anthrecene



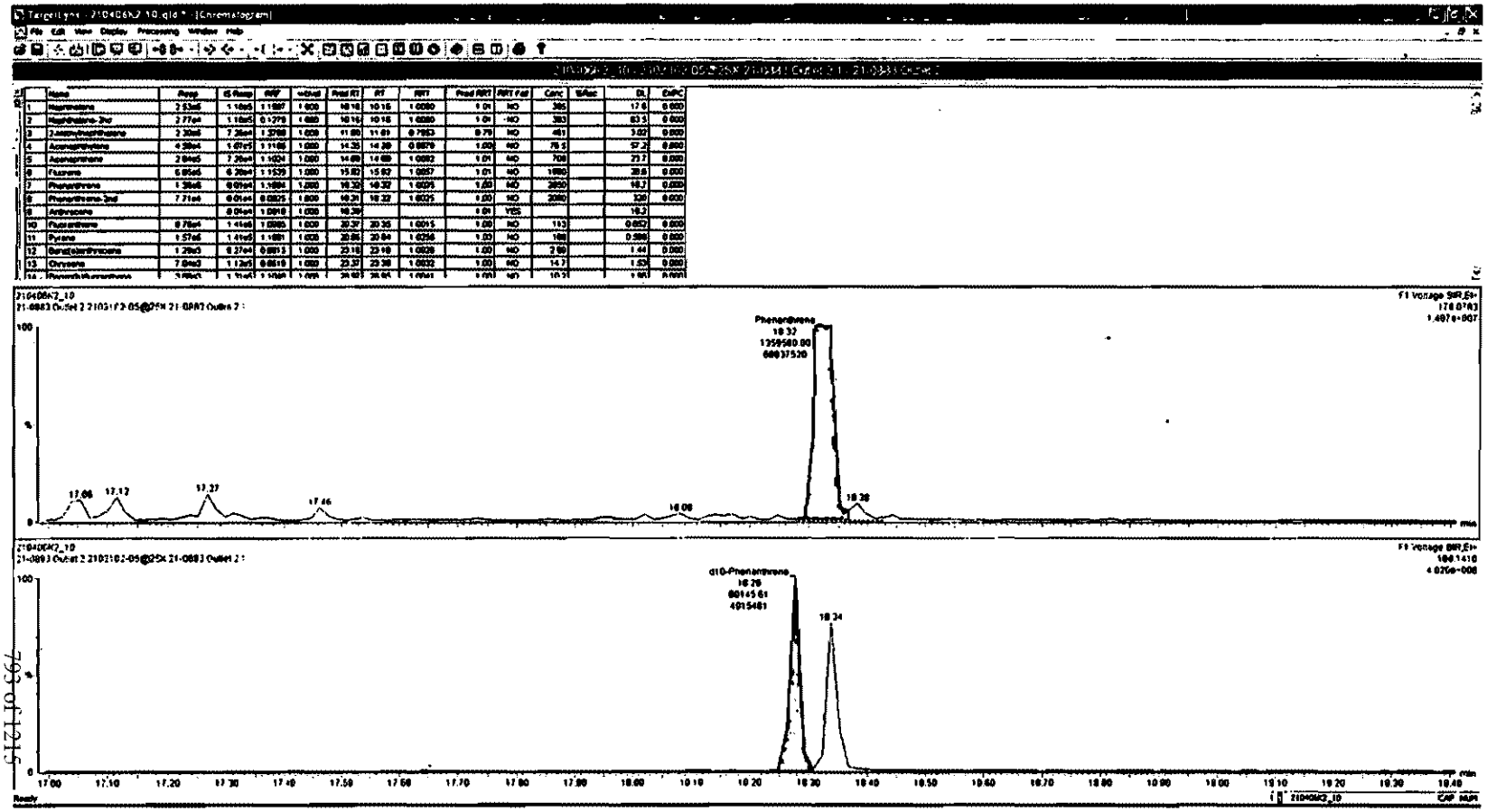
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



792 of 1215

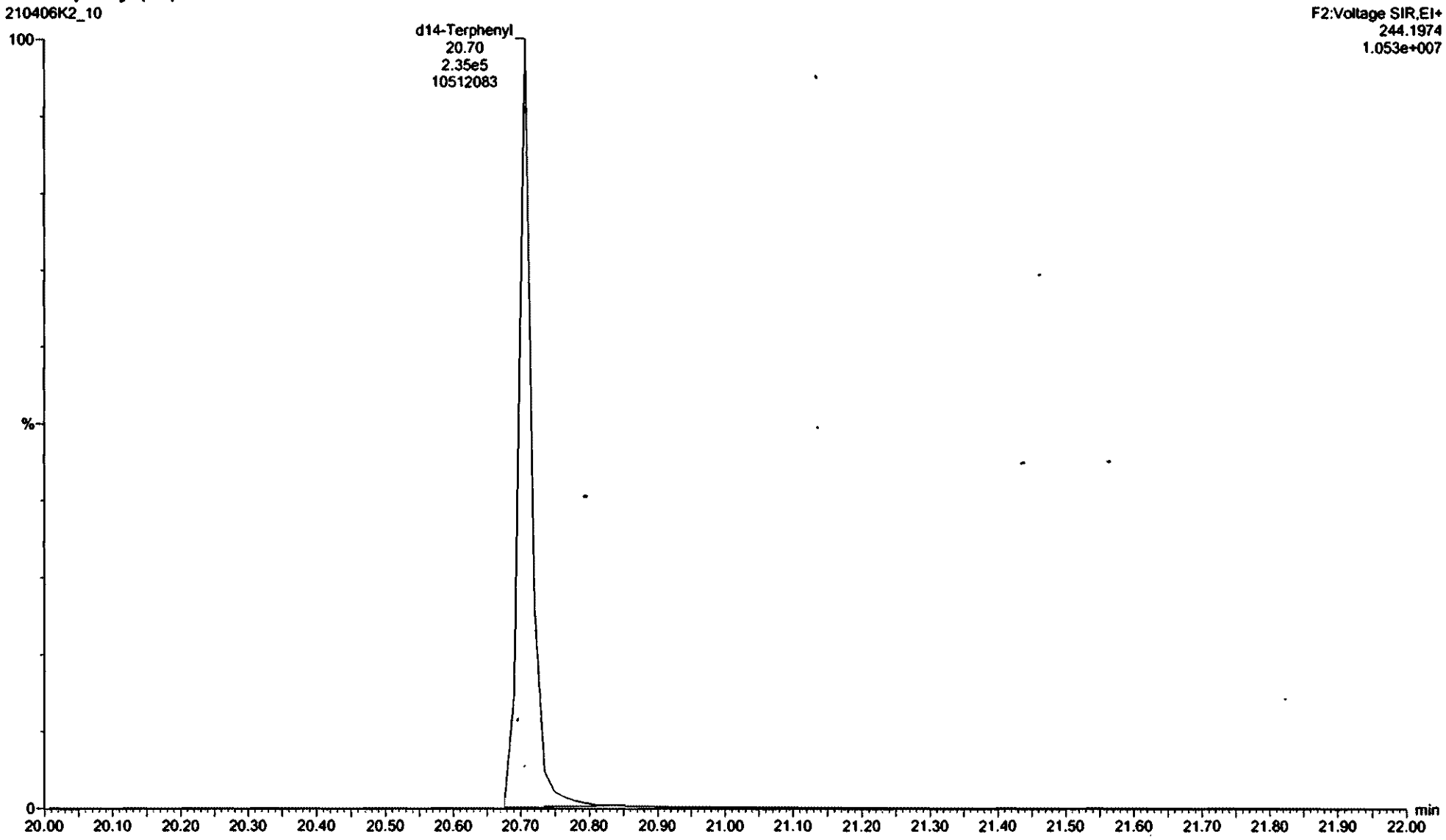

Phenanthrene
18.37
d10-Phenanthrene
18.29
18.34
17.06
17.12
17.27
17.46
18.08
18.38

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

d14-Terphenyl (PS)



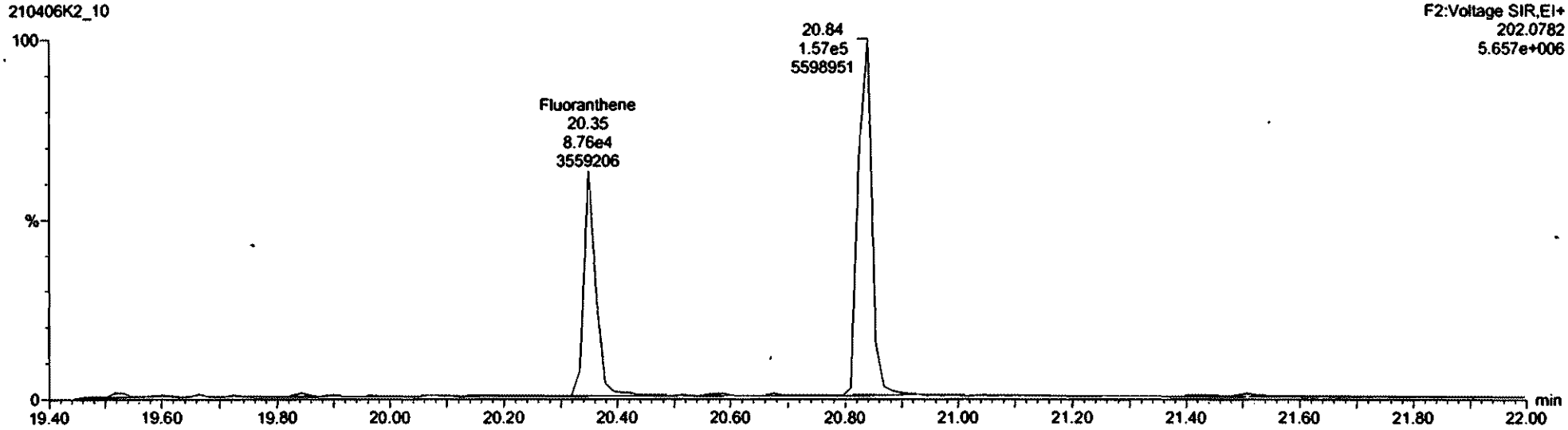
794 of 1215

Dataset: Untitled

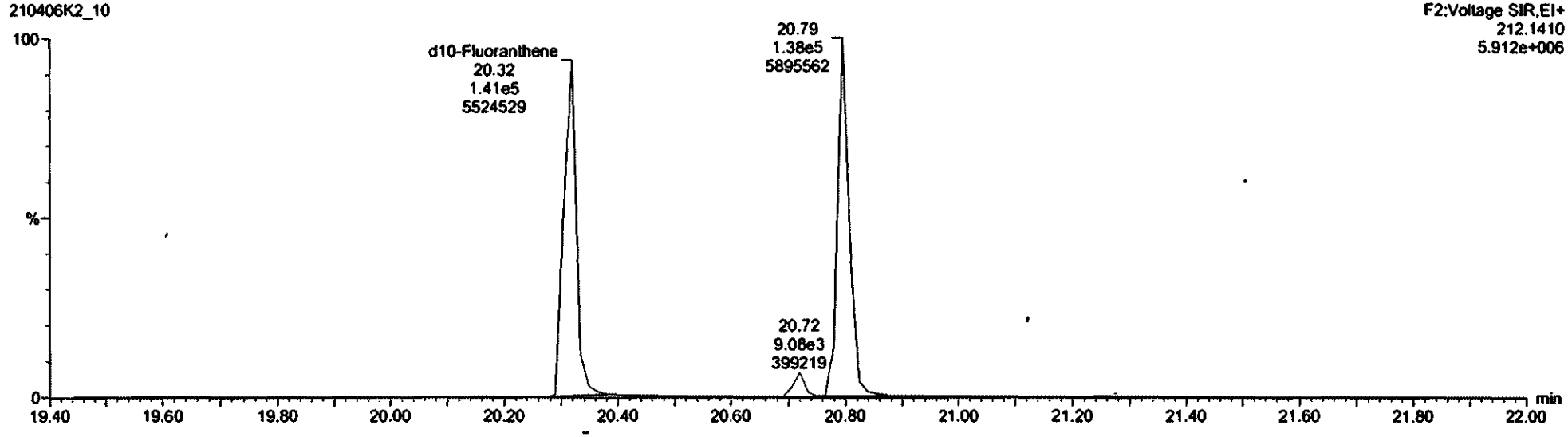
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



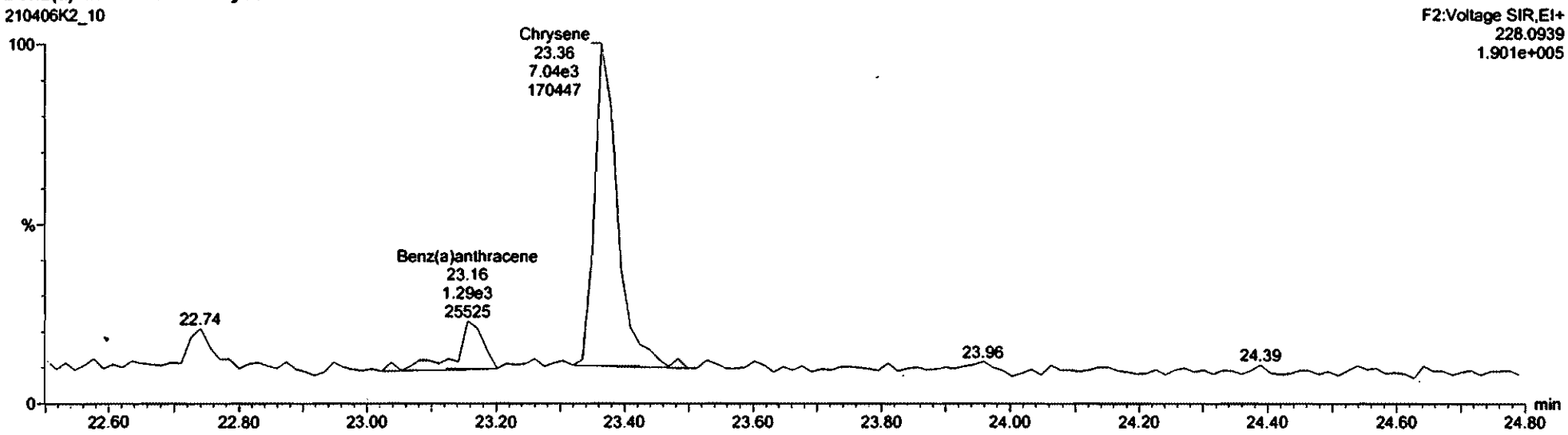
795 of 1215

Dataset: Untitled

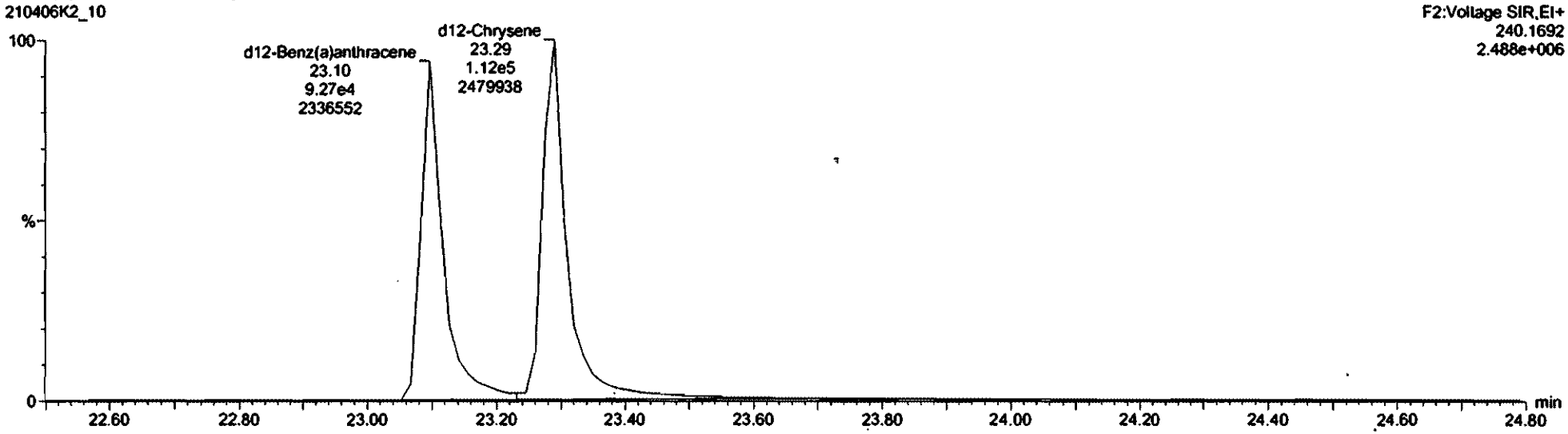
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



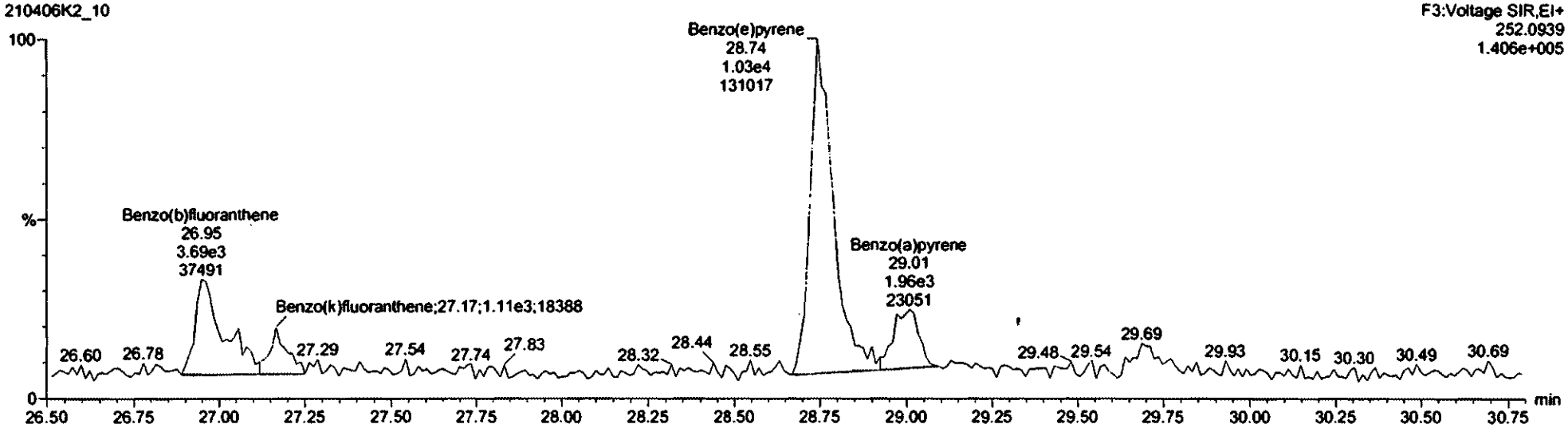
796 of 1215

Dataset: Untitled

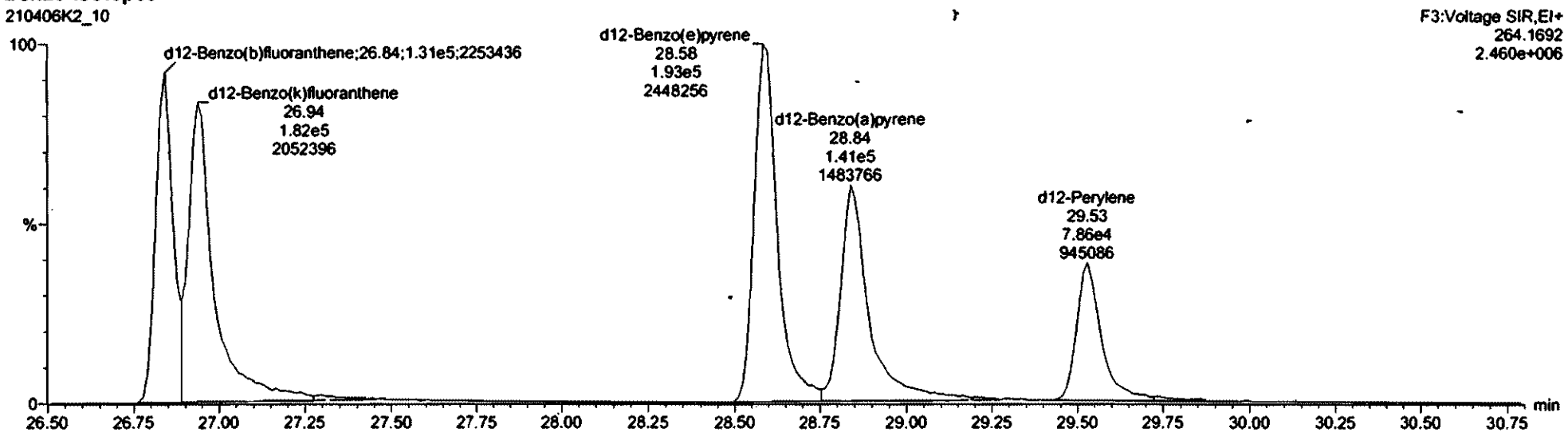
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Benzo-PAHs



Benzo-Isotopes



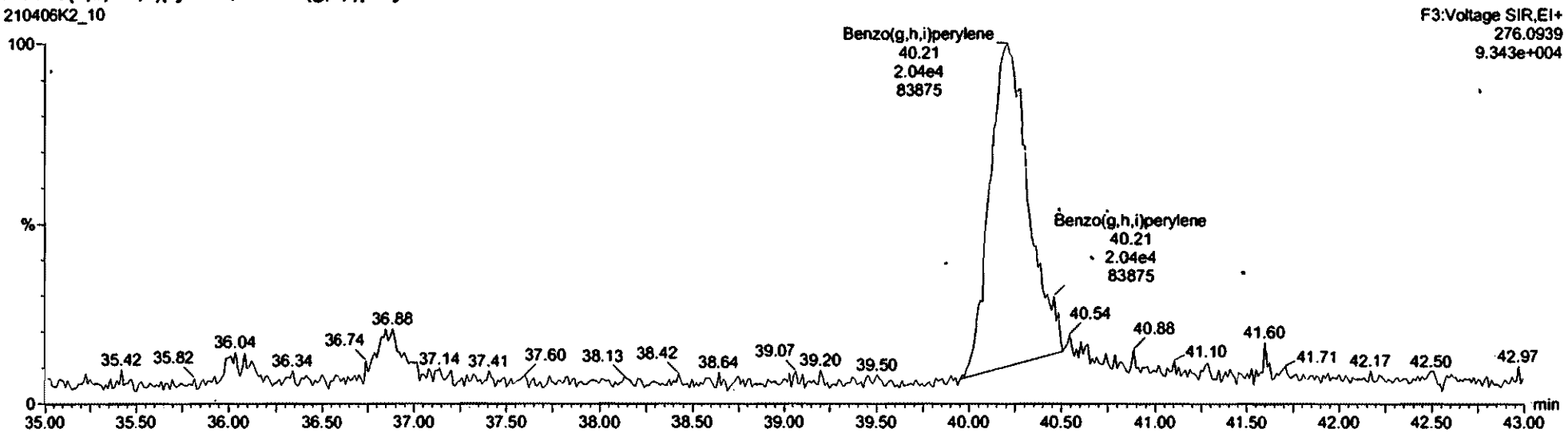
797 of 1215

Dataset: Untitled

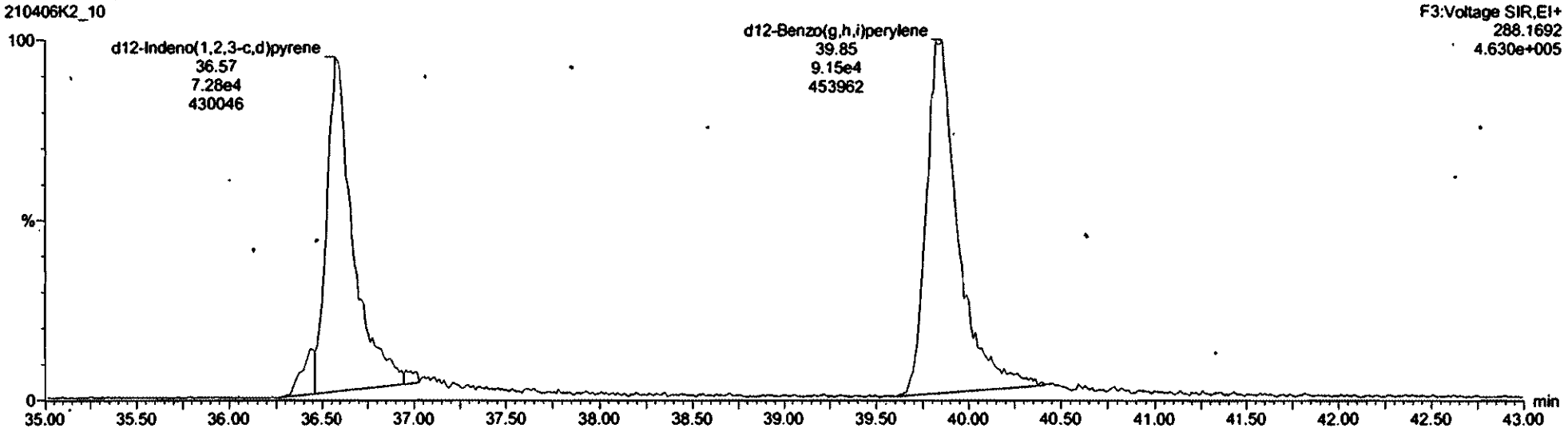
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



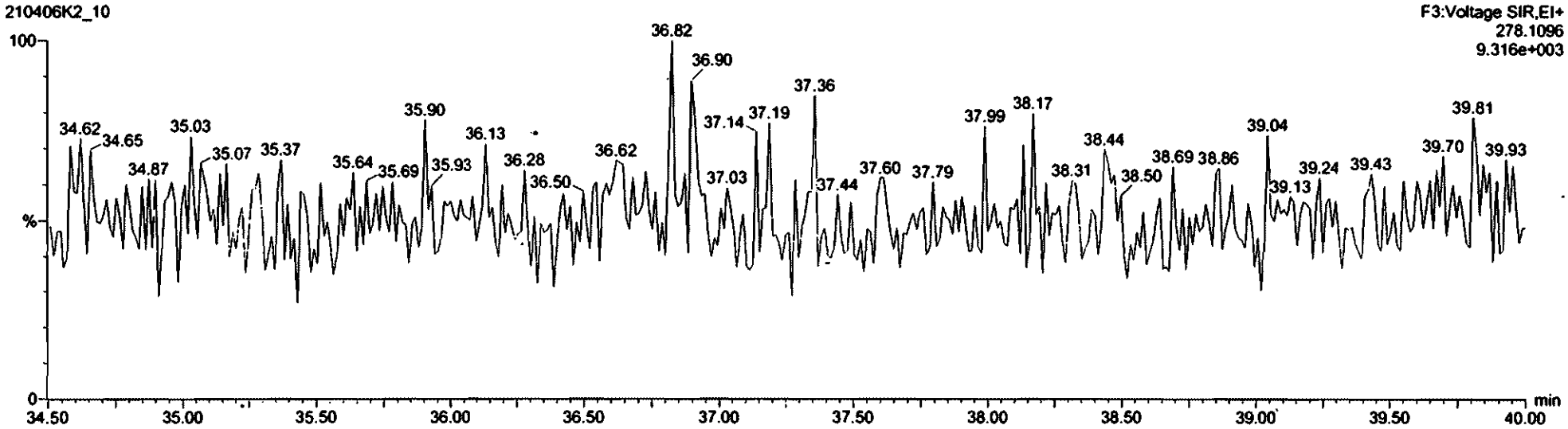
798 of 1215

Dataset: Untitled

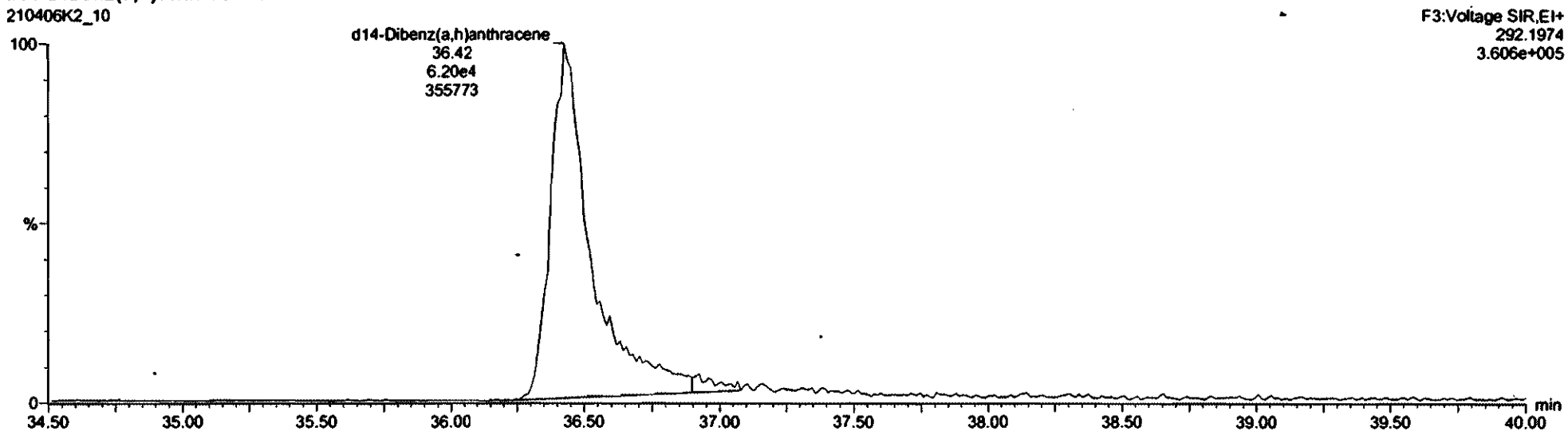
Last Altered: Wednesday, April 07, 2021 12:15:26 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:15:35 PM Pacific Daylight Time

Name: 210406K2_10, Date: 07-Apr-2021, Time: 09:09:23, ID: 2103102-05@25X 21-0883 Outlet 2 1, Description: 21-0883 Outlet 2

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



Quantify Sample Summary Report **MassLynx 4.1 SCN815**
Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-18.qld

Last Altered: Wednesday, April 07, 2021 10:14:55 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:15:35 AM Pacific Daylight Time

Hz 4.7.2021 C 04/08/2021

x ue d.i

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

	# Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1 Naphthalene	2.42e6	1.64e6	1.16	1.000	10.17	10.18	1.006	1.006	NO	254		20.3
2	2 Naphthalene-2nd	2.66e5	1.64e6	0.128	1.000	10.17	10.18	1.006	1.006	NO	259		62.1
3	3 2-Methylnaphthalene	2.56e6	9.98e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	373		5.95
4	4 Acenaphthylene	1.59e5	1.68e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	16.9		58.5
5	5 Acenaphthene	3.87e6	9.98e5	1.10	1.000	14.70	14.70	1.006	1.006	NO	703 E		112
6	6 Fluorene	9.94e6	1.05e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	1640 E		31.2
7	7 Phenanthrene	1.78e7	1.37e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	2190 E		17.2
8	8 Phenanthrene-2nd	7.22e5	1.37e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	1140		433
9	9 Anthracene	4.38e5	1.37e6	1.09	1.000	18.39	18.40	1.005	1.006	NO	58.6		18.8
10	10 Fluoranthene	1.36e6	2.73e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	90.5		1.81
11	11 Pyrene	2.75e6	2.73e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	168		1.66
12	12 Benz(a)anthracene	2.01e4	2.11e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	1.98		0.137
13	13 Chrysene	1.34e5	2.28e6	0.852	1.000	23.38	23.38	1.003	1.003	NO	13.8		0.150
14	14 Benzo(b)fluoranthene	6.64e4	3.66e6	1.10	1.000	26.94	26.92	1.005	1.005	NO	6.58		0.120
15	15 Benzo(k)fluoranthene	1.48e4	4.24e6	1.04	1.000	27.03	27.02	1.004	1.004	NO	1.34		0.127
16	16 Benzo(e)pyrene	3.06e5	4.24e6	0.911	1.000	28.72	28.72	1.067	1.067	NO	31.7		0.145
17	17 Benzo(a)pyrene	6.70e4	3.43e6	1.02	1.000	28.98	28.96	1.006	1.005	NO	7.70		0.196
18	18 Perylene	1.67e4	3.43e6	0.987	1.000	29.72	29.67	1.031	1.030	NO	1.97		0.202
19	19 Indeno(1,2,3-c,d)pyrene	6.40e4	2.19e6	0.915	1.000	36.71	36.70	1.007	1.007	NO	12.8		0.653
20	20 Benzo(g,h,i)perylene	5.55e5	2.31e6	0.940	1.000	40.03	40.01	1.009	1.009	NO	102		0.649
21	21 Dibenz(a,h)anthracene		1.72e6	0.948	1.000	36.61		1.011		YES			0.574
22	22 d8-Naphthalene	1.64e6	2.72e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	100	50.2	0.0546
23	23 d8-Acenaphthylene	1.68e6	2.72e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	137	68.4	0.202
24	24 d10-Acenaphthene	9.98e5	2.72e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	124	61.8	0.0853
25	25 d10-Fluorene	1.05e6	2.72e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	138	68.8 *	0.0905
26	26 d10-Phenanthrene	1.37e6	2.72e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	137	68.5	0.0831
27	27 d10-Fluoranthene	2.73e6	2.72e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	156	78.0	0.0214
28	28 d12-Benz(a)anthracene	2.11e6	2.72e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	172	86.2	0.0361
29	29 d12-Chrysene	2.28e6	2.72e6	1.02	1.000	23.30	23.30	1.120	1.120	NO	164	82.2	0.0318
30	30 d12-Benzo(b)fluoranthene	3.66e6	2.02e6	1.18	1.000	26.77	26.80	0.907	0.908	NO	307	76.7	0.146
31	31 d12-Benzo(k)fluoranthene	4.24e6	2.02e6	1.50	1.000	26.88	26.91	0.911	0.912	NO	280	70.0	0.114

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-18.qld

Last Altered: Wednesday, April 07, 2021 10:14:55 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 10:15:35 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

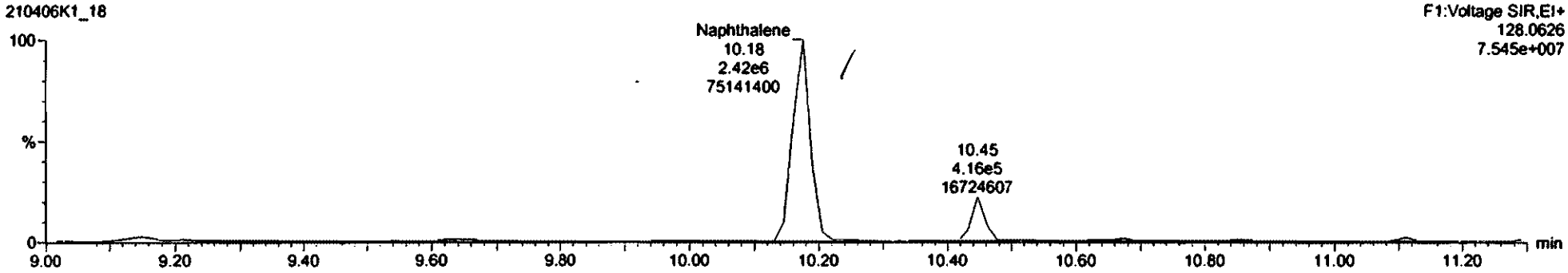
	#-Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	3.43e6	2.02e6	1.24	1.000	28.77	28.81	0.975	0.977	NO	274	68.6	0.139
33	33 d12-Indeno(1,2,3-c,d)pyrene	2.19e6	2.02e6	1.02	1.000	36.79	36.46	1.247	1.236	YES	213	53.2	0.245
34	34 d12-Benzo(g,h,i)perylene	2.31e6	2.02e6	1.00	1.000	40.19	39.66	1.362	1.344	YES	228	57.0	0.248
35	35 d14-Dibenz(a,h)anthracene	1.72e6	2.02e6	0.765	1.000	36.56	36.21	1.239	1.227	YES	223	55.8	0.189
36	36 d10-Anthracene	1.20e6	2.02e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	121	60.3	0.291
37	37 d14-Terphenyl	4.88e6	2.73e6	0.576	1.000	20.70	20.72	1.018	1.019	NO	621	124	0.0392
38	38 d12-Benzo(e)pyrene	4.56e6	4.24e6	0.738	1.000	28.53	28.56	1.060	1.061	NO	583	117	0.191
39	39 d10-1-Methylnaphthalene	1.67e6	1.67e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0774
40	40 d10-Pyrene	2.72e6	2.72e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0275
41	41 d12-Perylene	2.02e6	2.02e6	1.00	1.000	29.59	29.50	1.000	1.000	NO	200	100	0.172

Dataset: Untitled

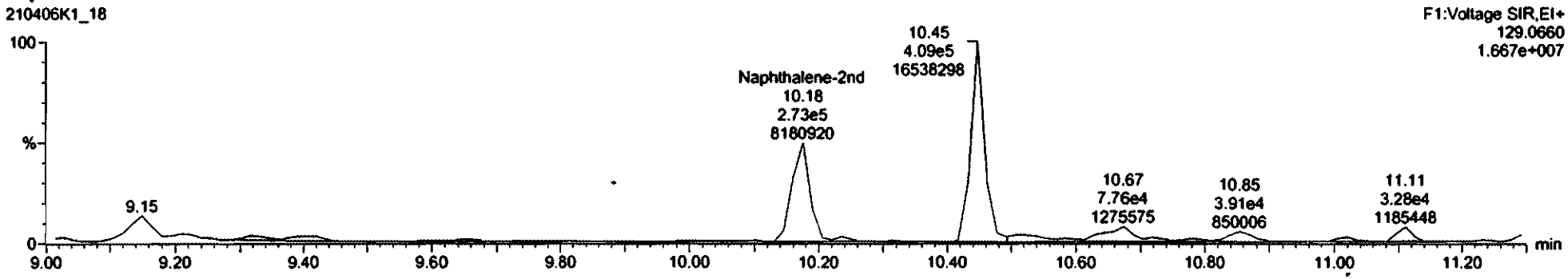
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

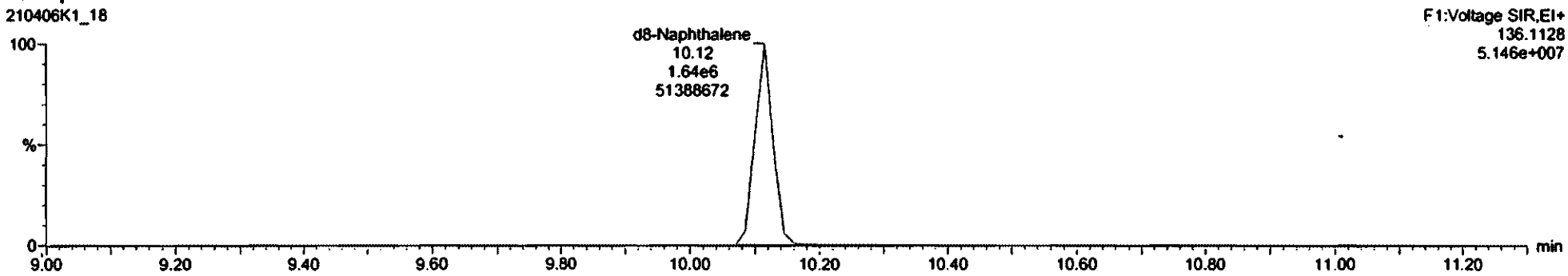
Naphthalene



Naphthalene-2nd



d8-Naphthalene



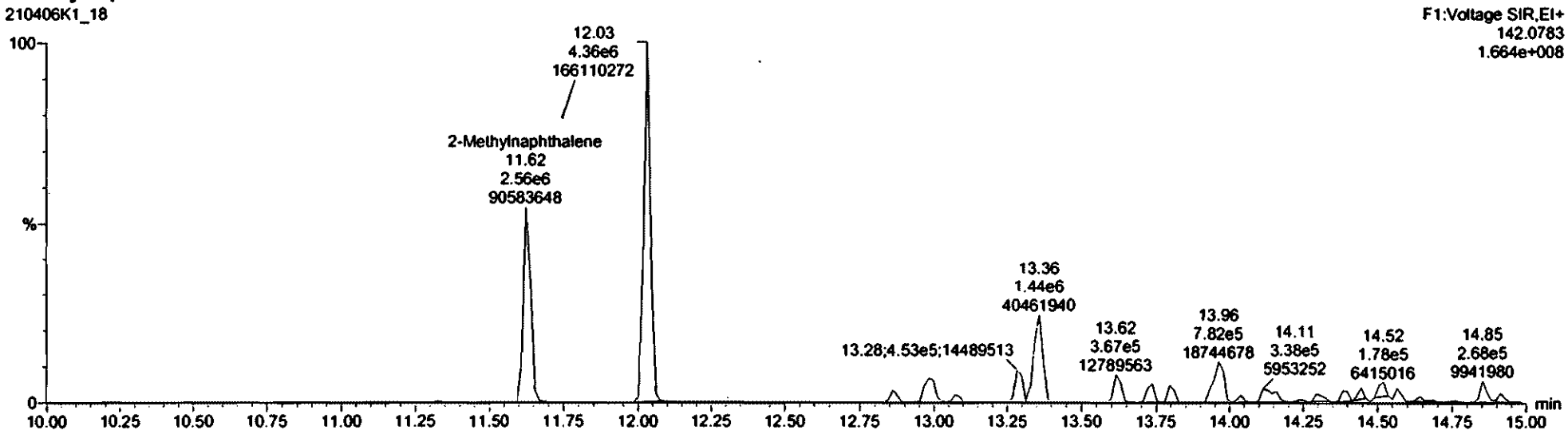
802 of 1215

Dataset: Untitled

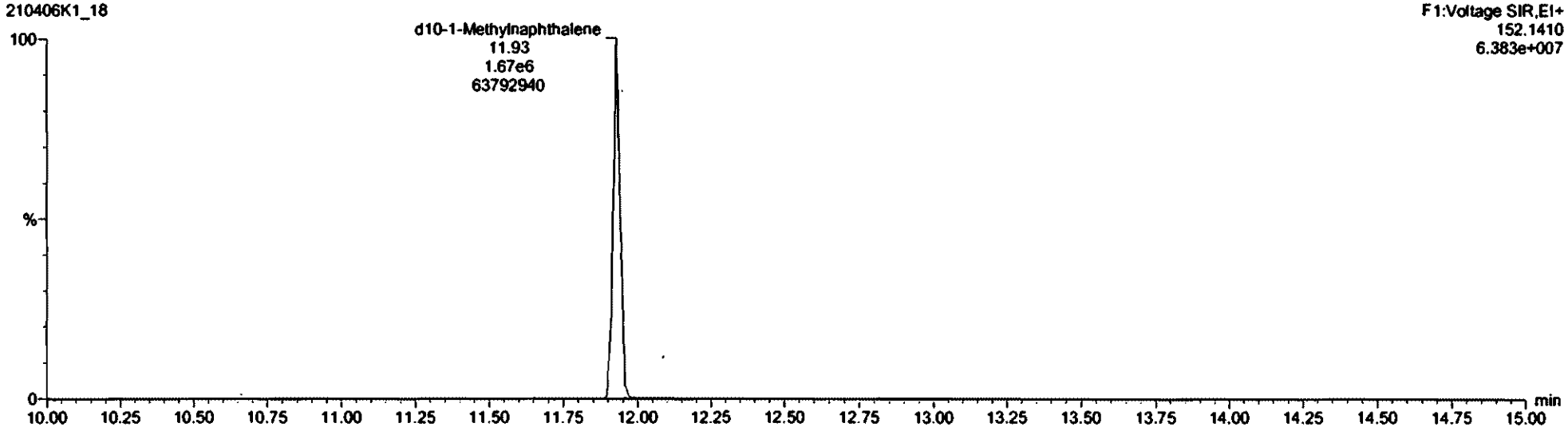
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



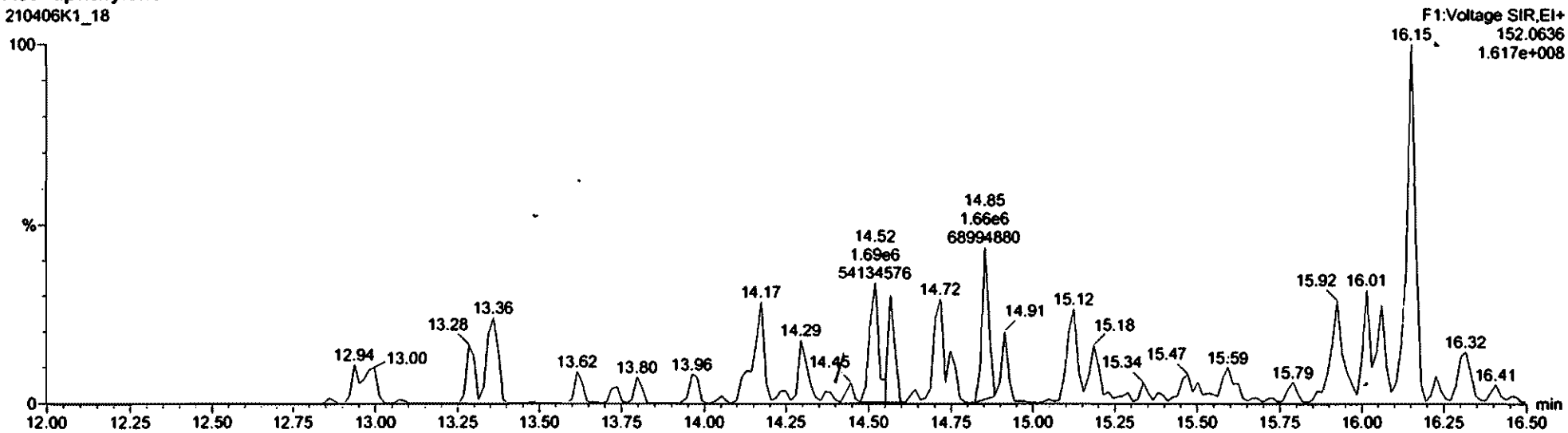
803 of 1215

Dataset: Untitled

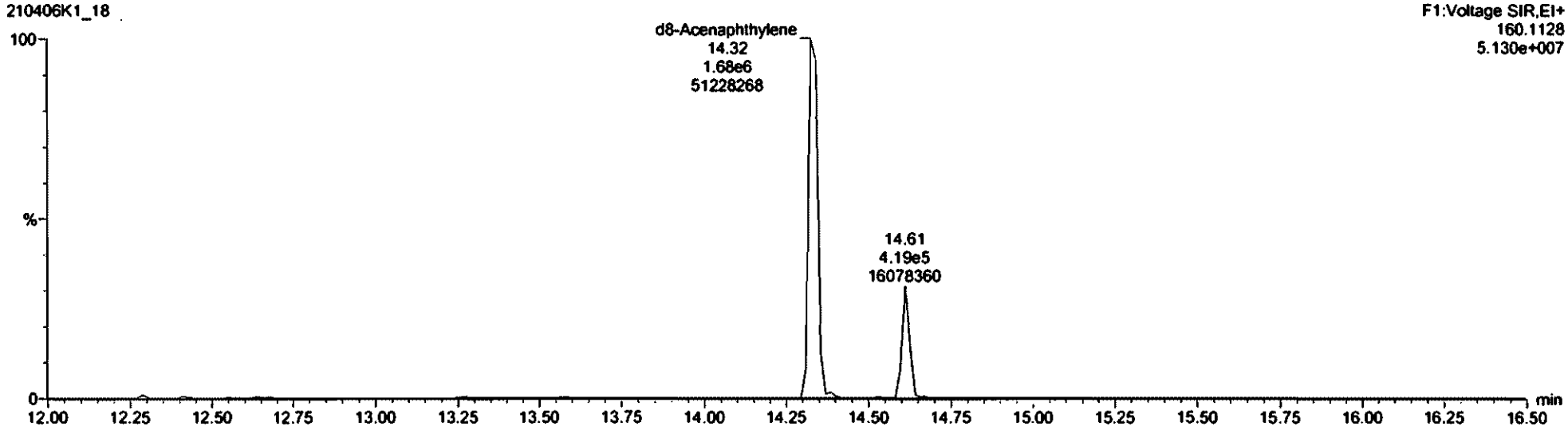
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

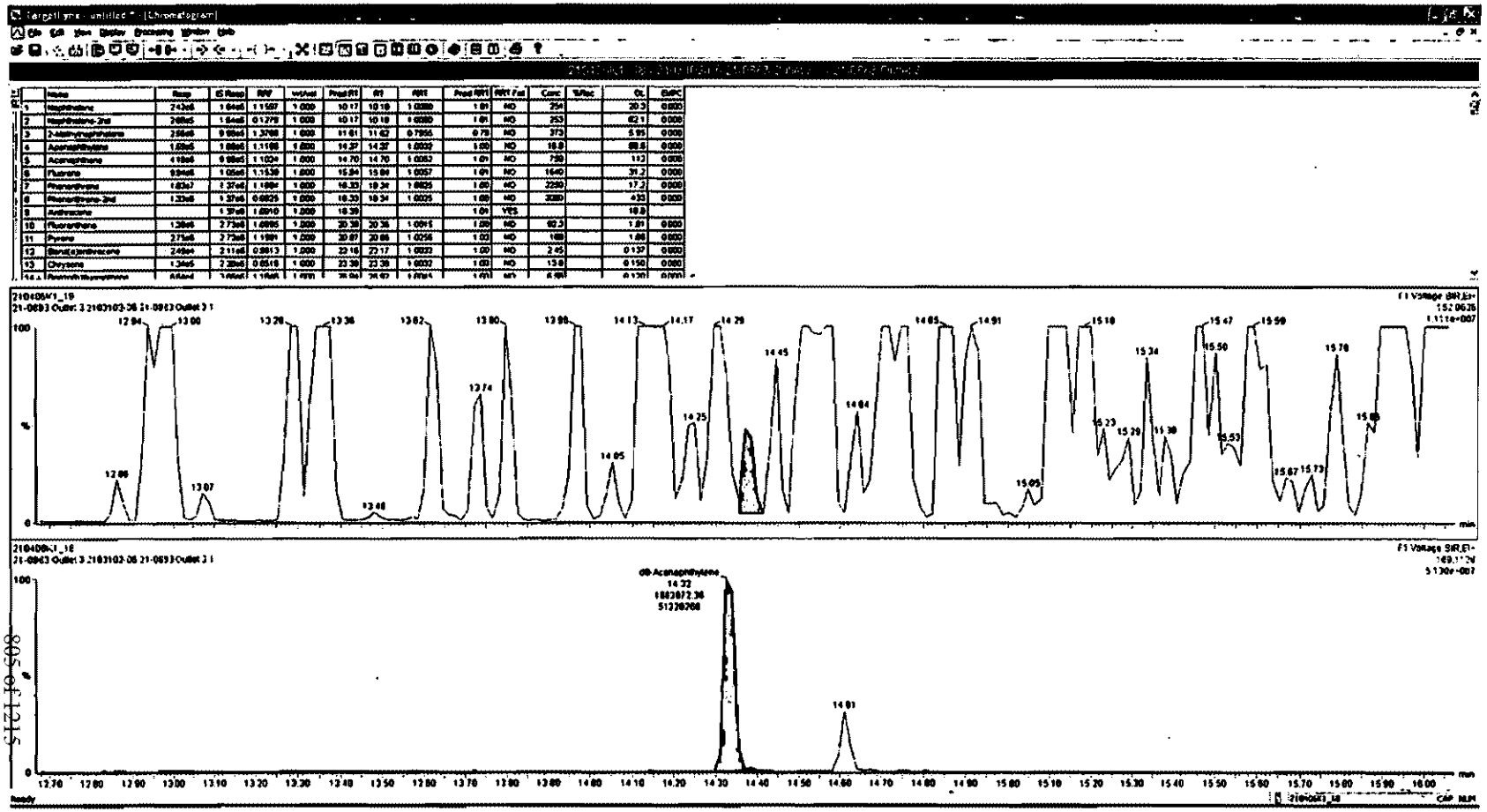
Acenaphthylene



d8-Acenaphthylene



804 of 1215



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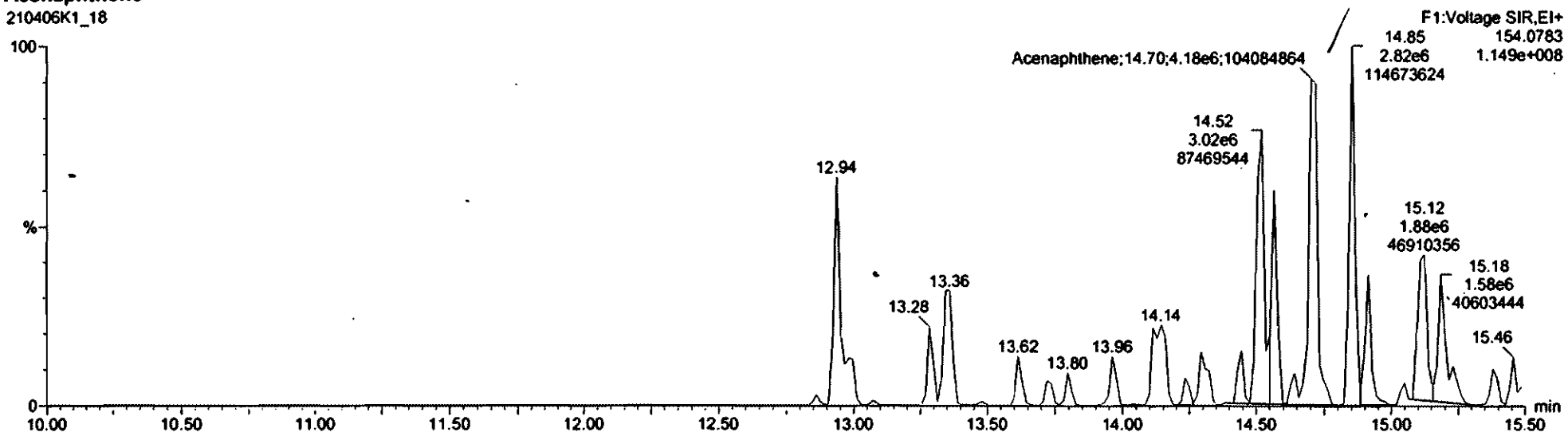
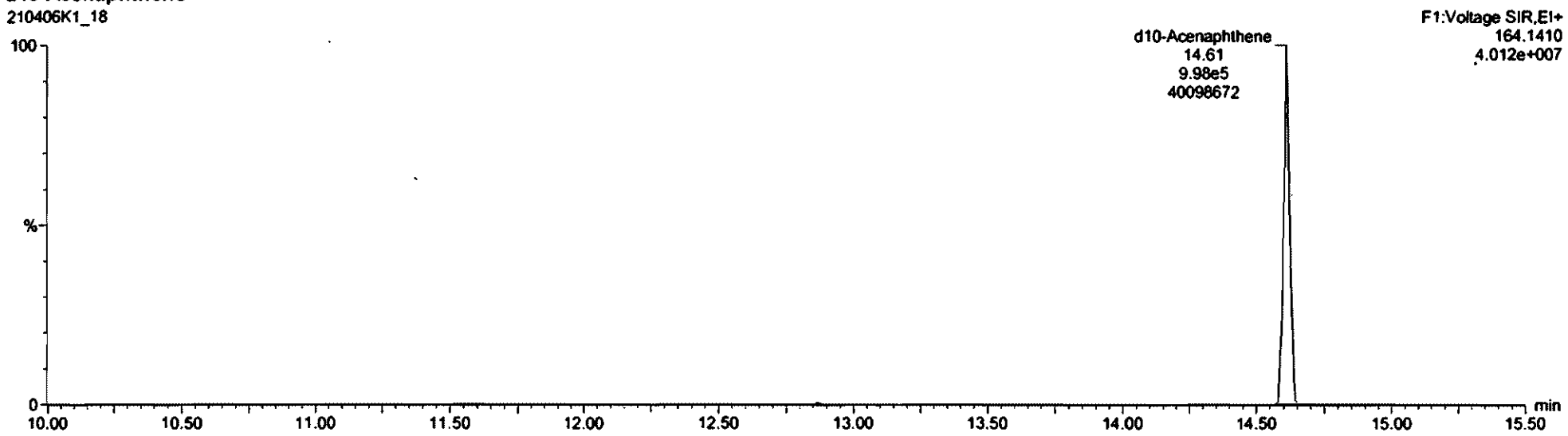
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

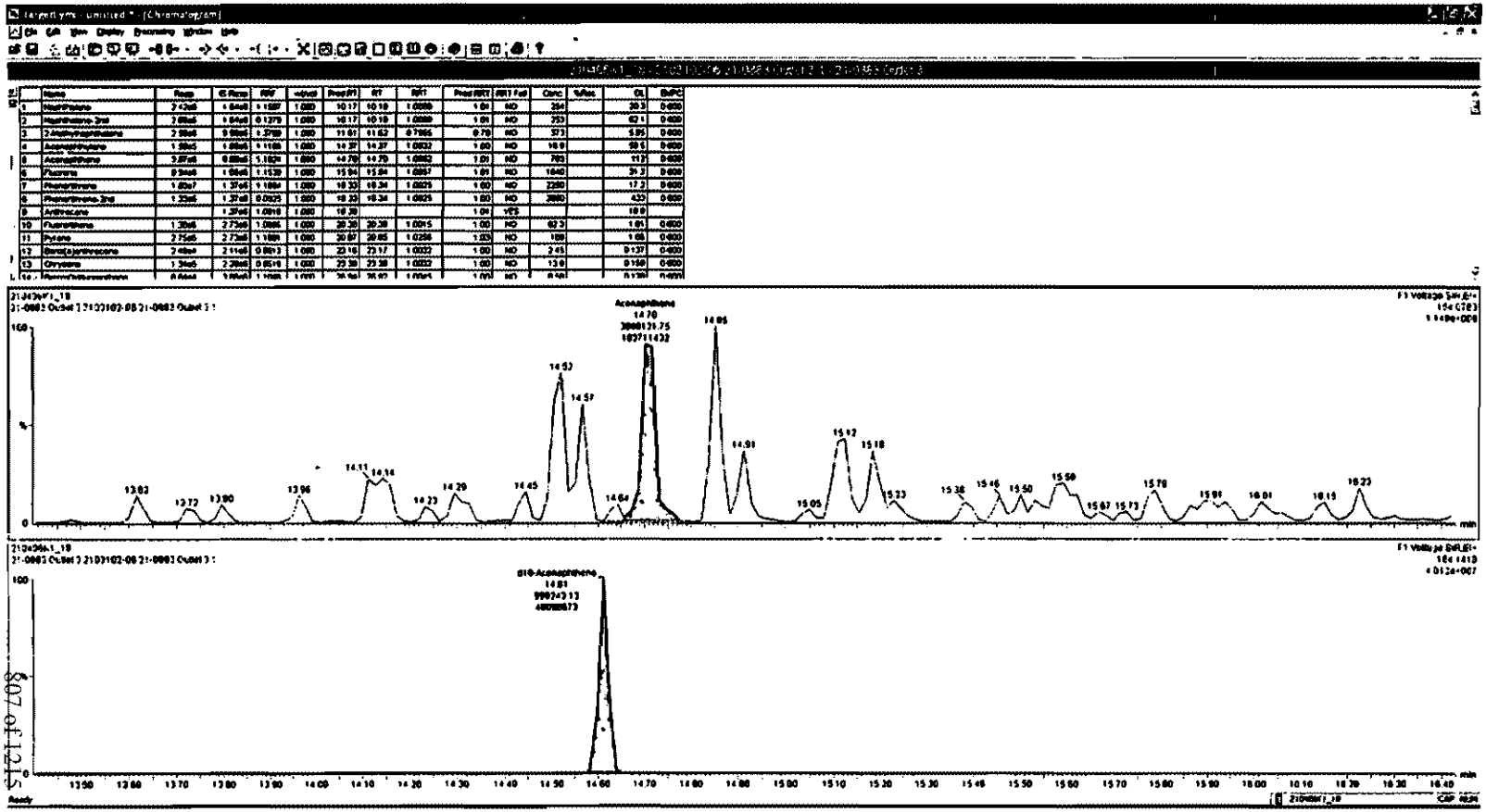
Acenaphthene



d10-Acenaphthene



806 of 1215



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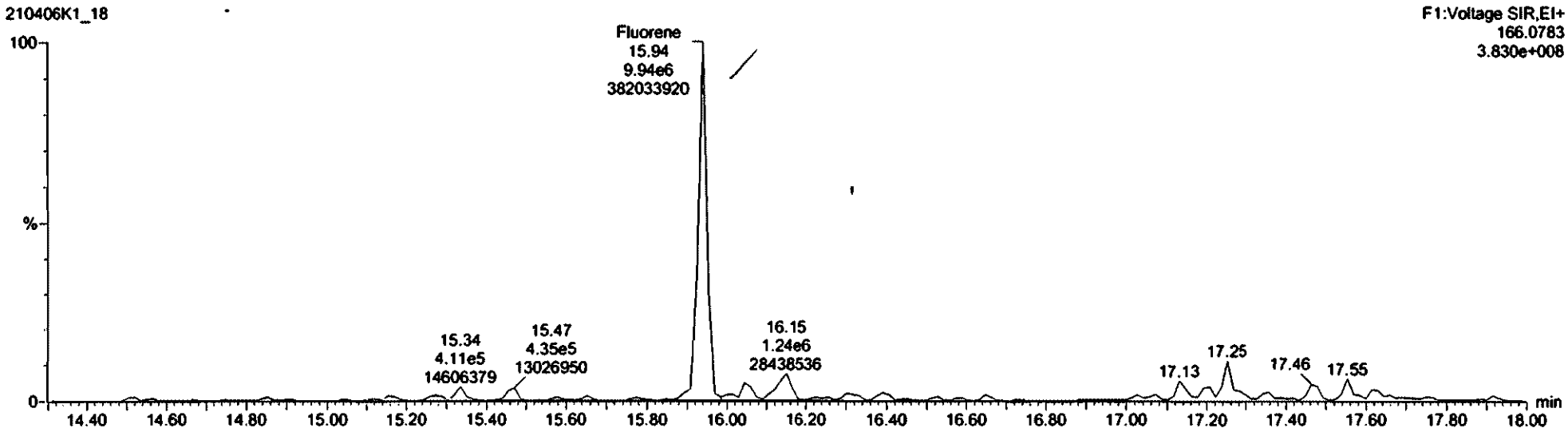
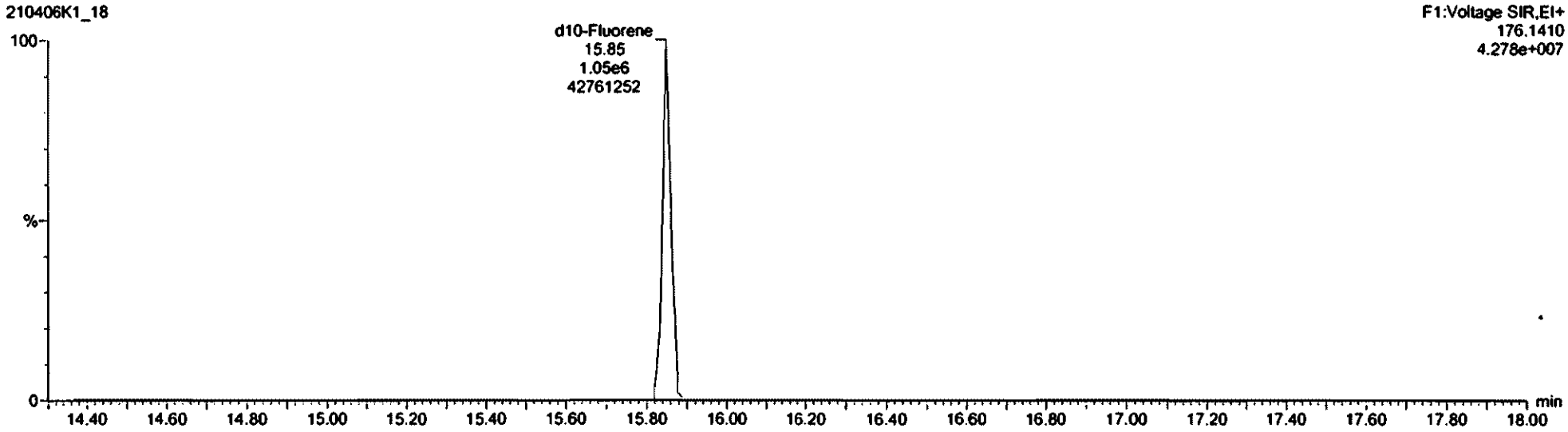
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Fluorene



d10-Fluorene



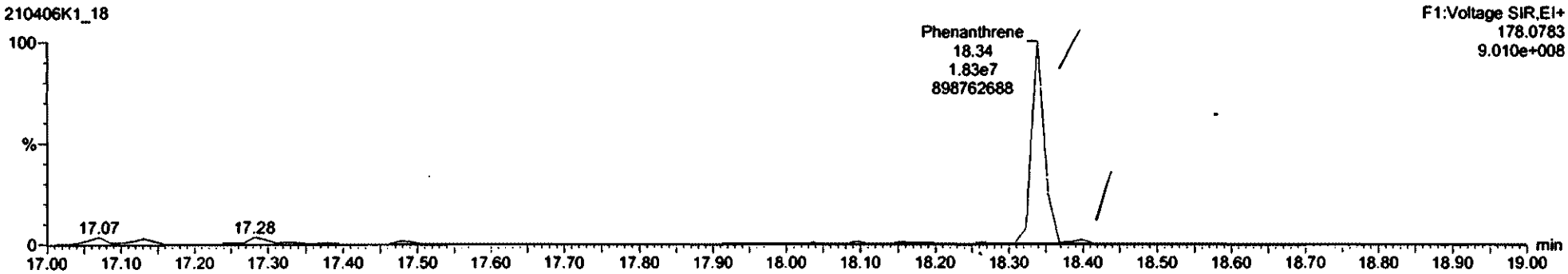
808 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

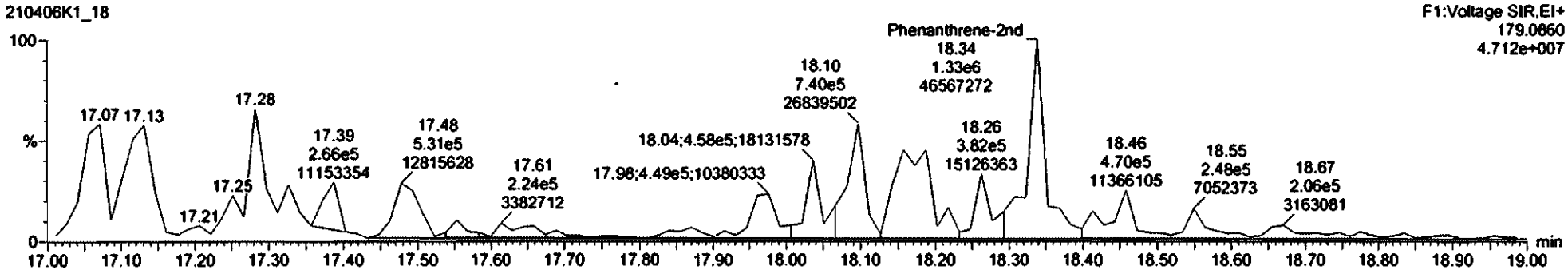
Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Phenanthrene; Anthrecene

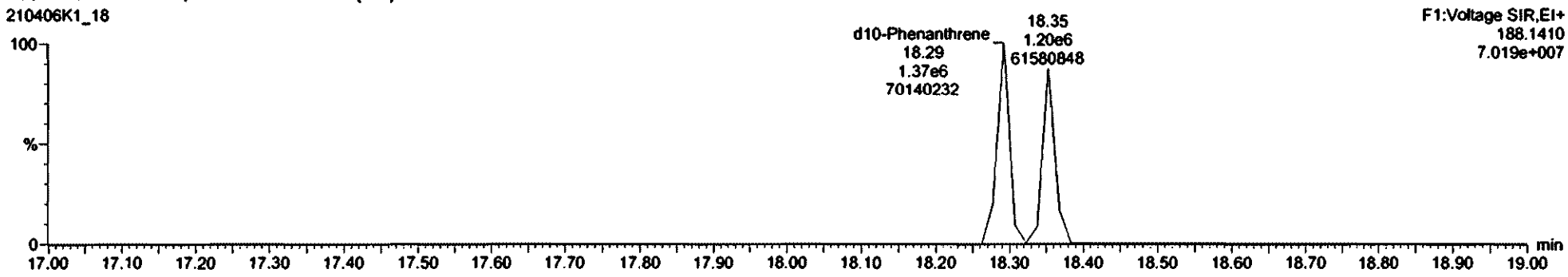


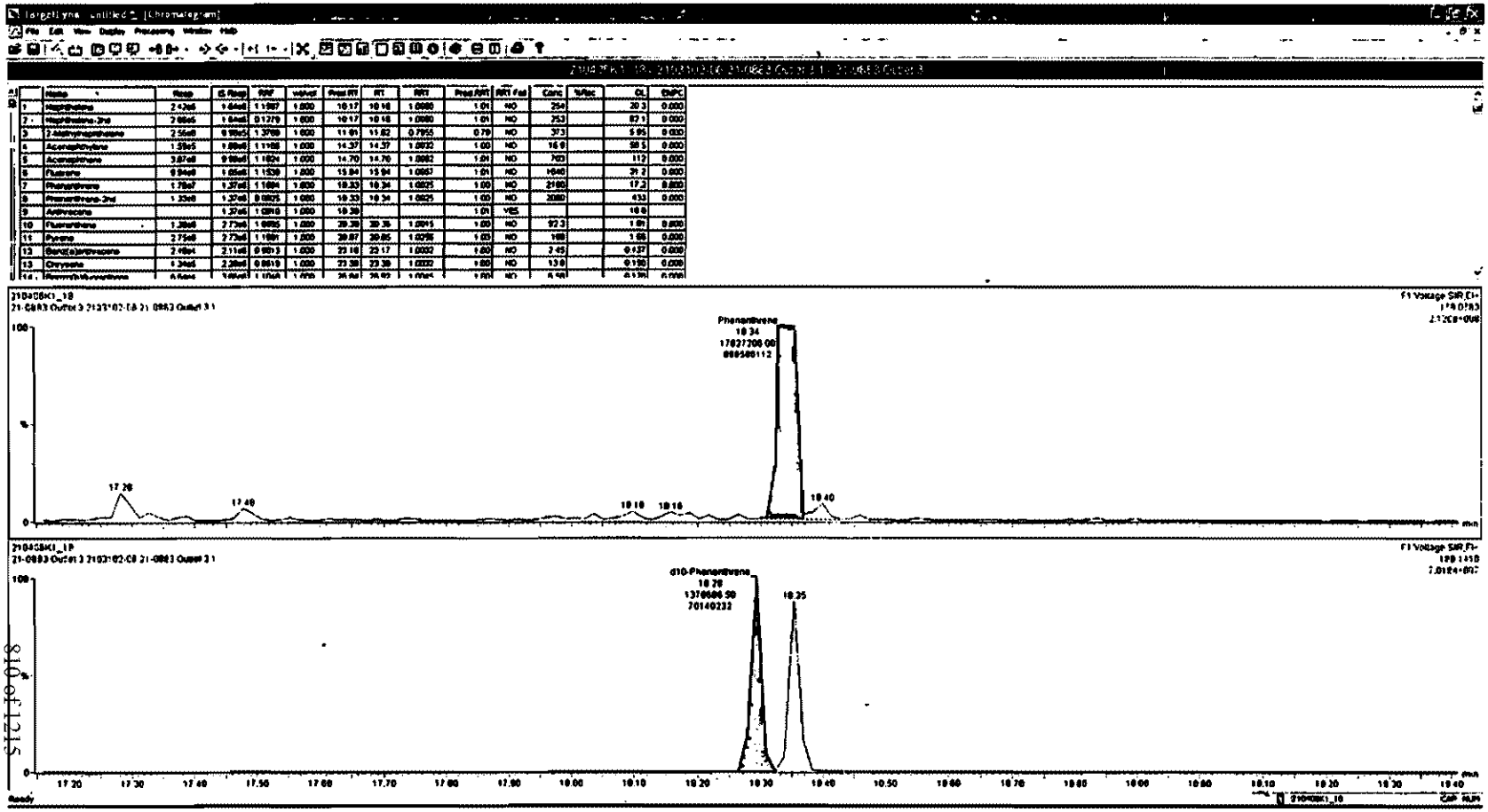
809 of 1215

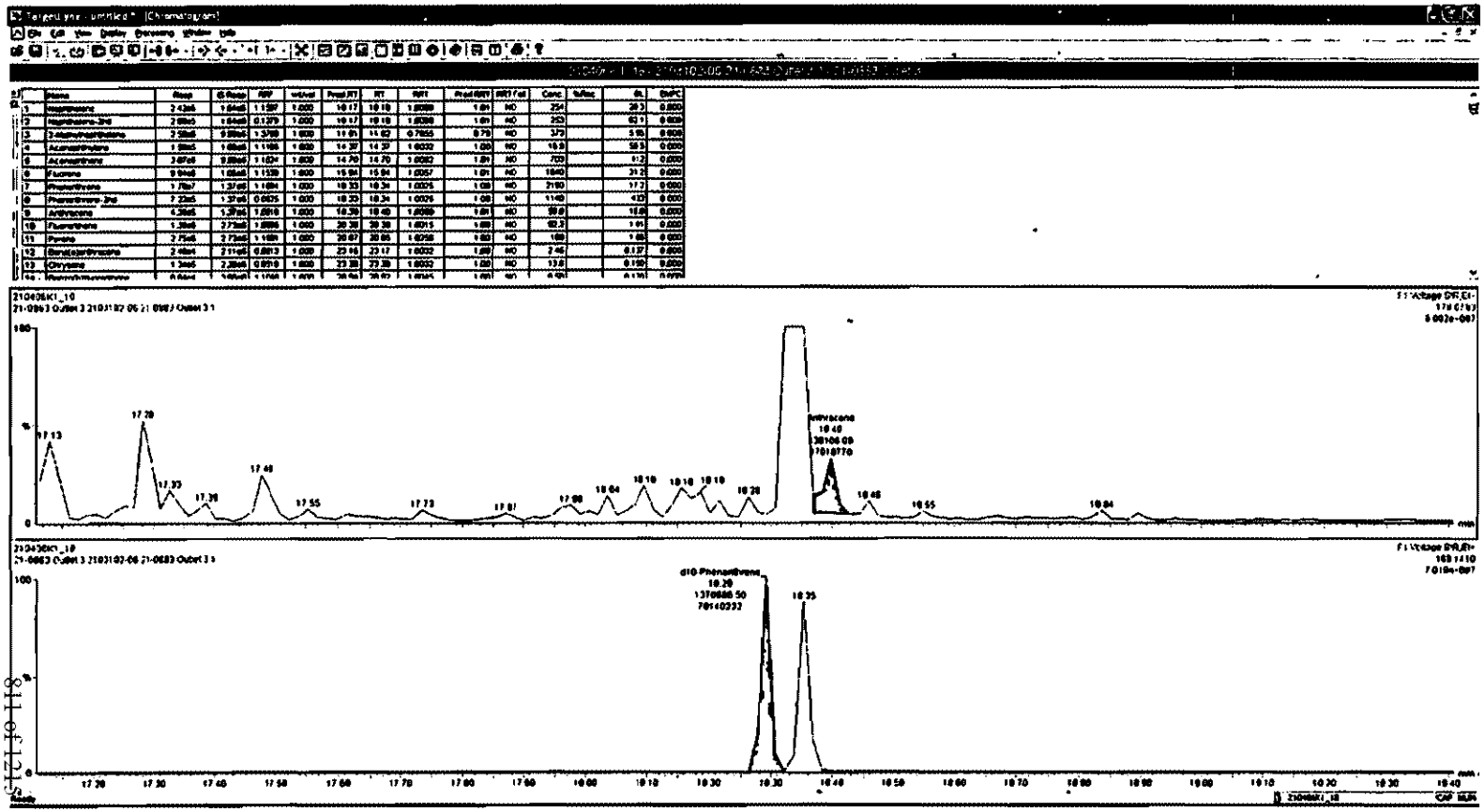
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene
18.34
17027206.00
d10-Phenanthrene
18.29
1370686.50
70140232
18.35

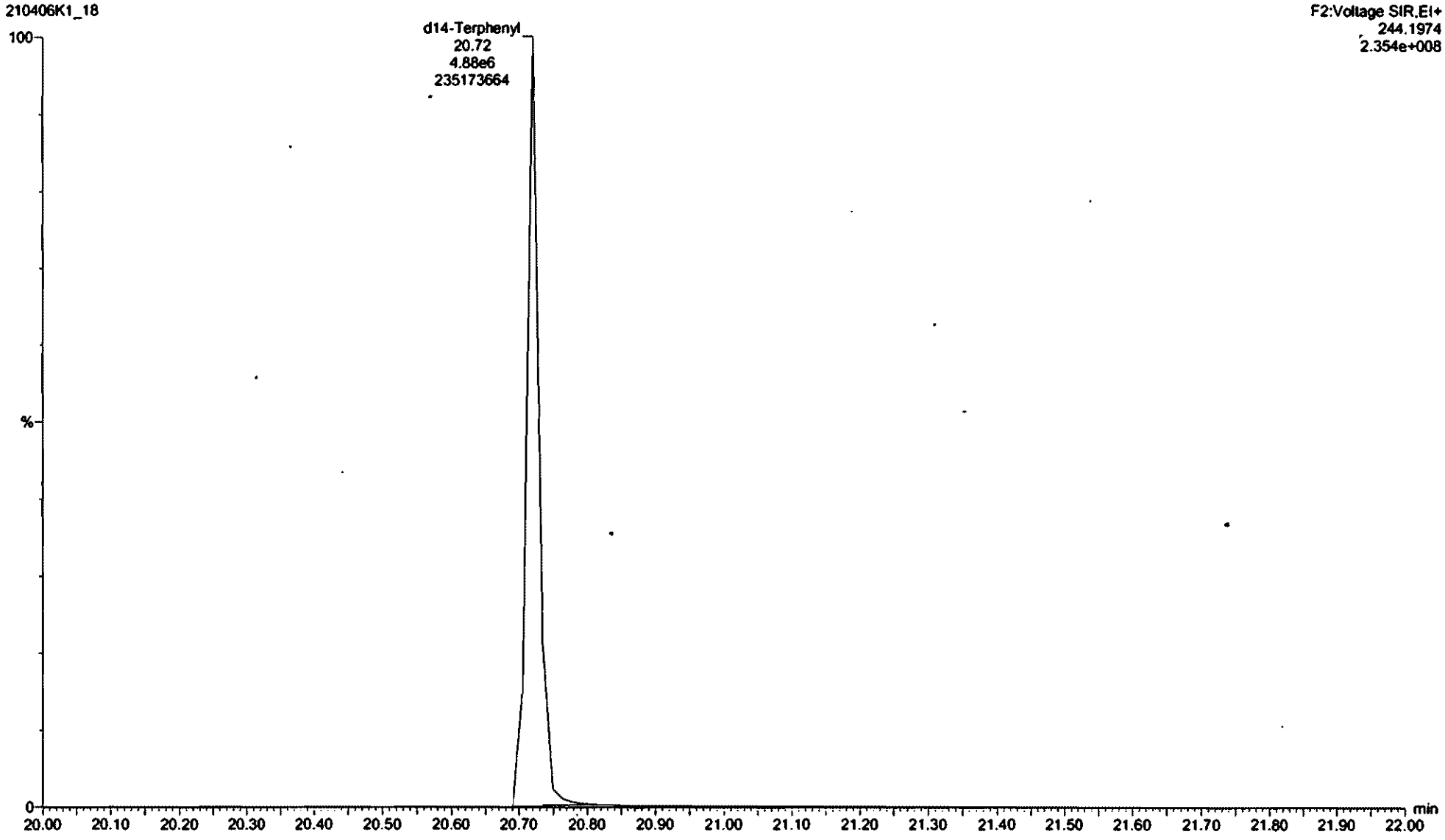


Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

d14-Terphenyl (PS)



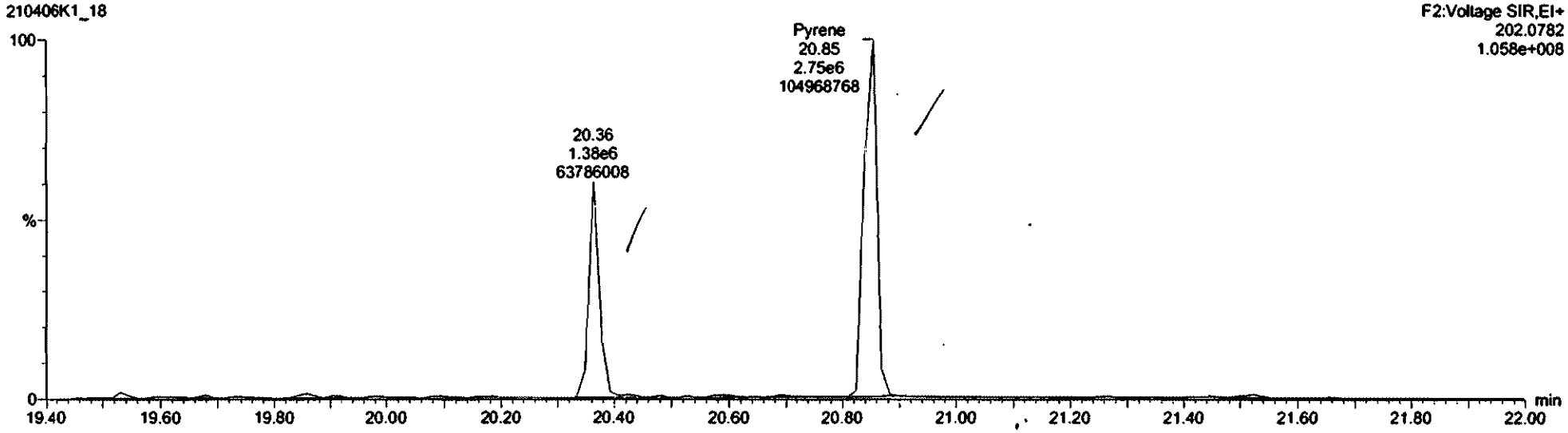
812 of 1215

Dataset: Untitled

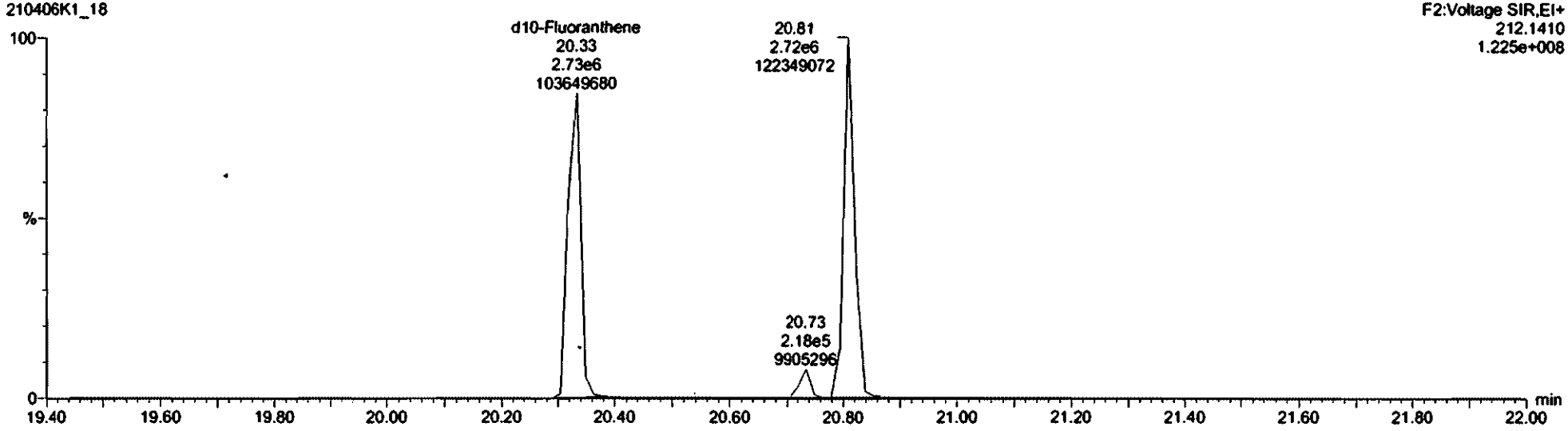
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

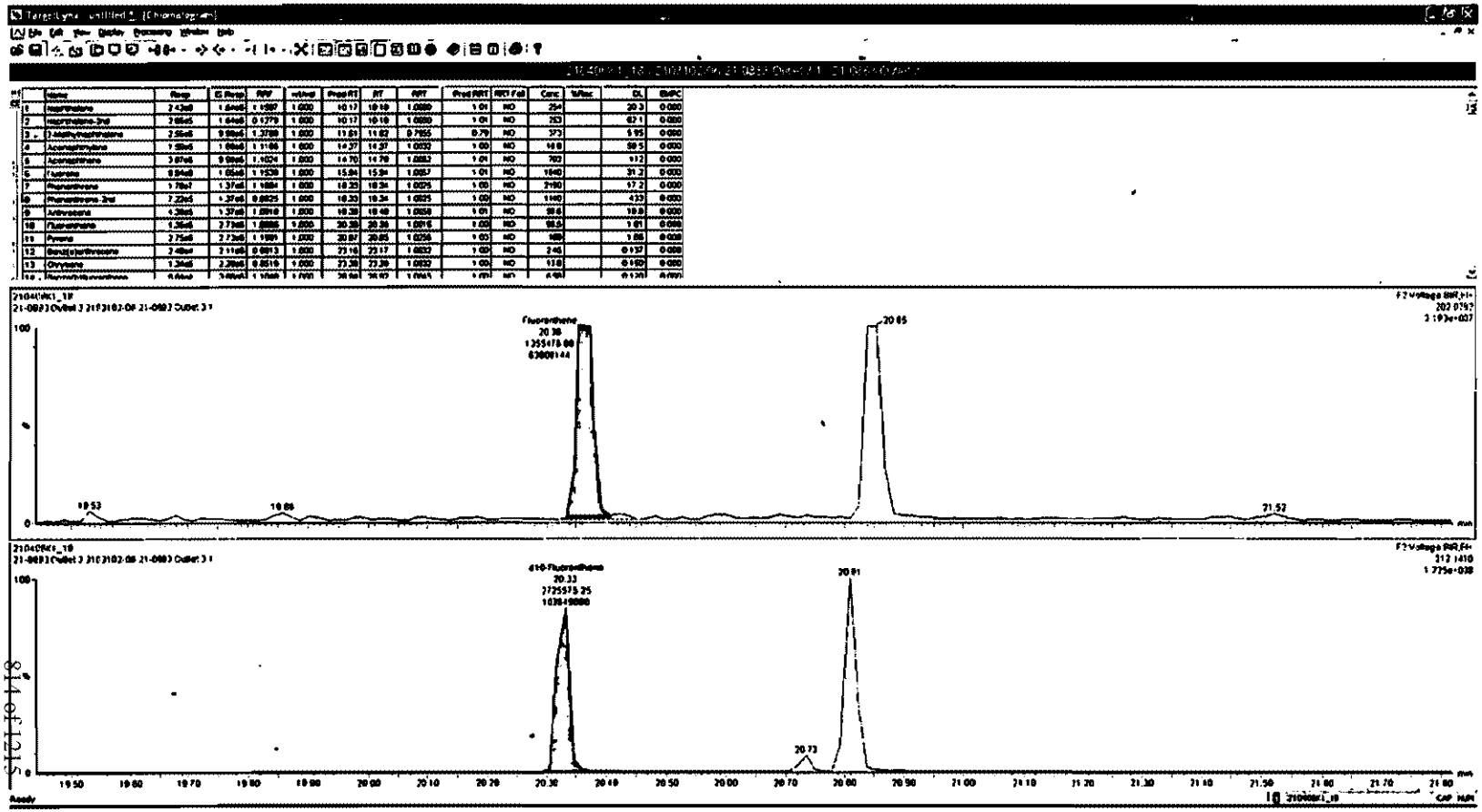
Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



813 of 1215

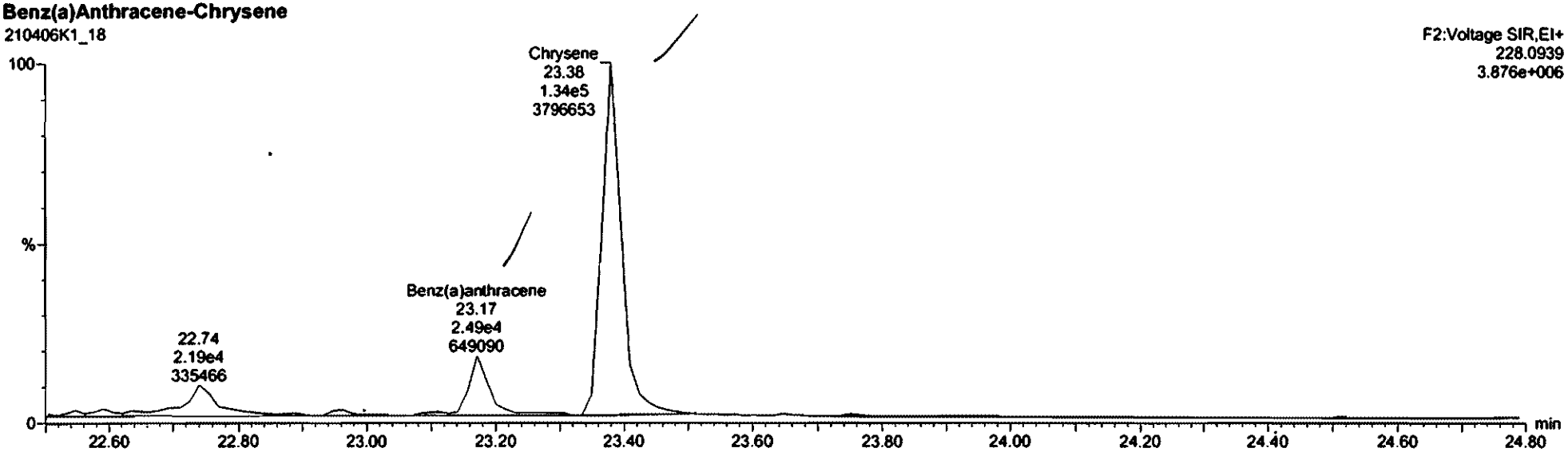

Fluoranthene
20.38
20.65
18.53
19.86
21.52
d10-Fluoranthene
20.33
20.91
20.73

Dataset: Untitled

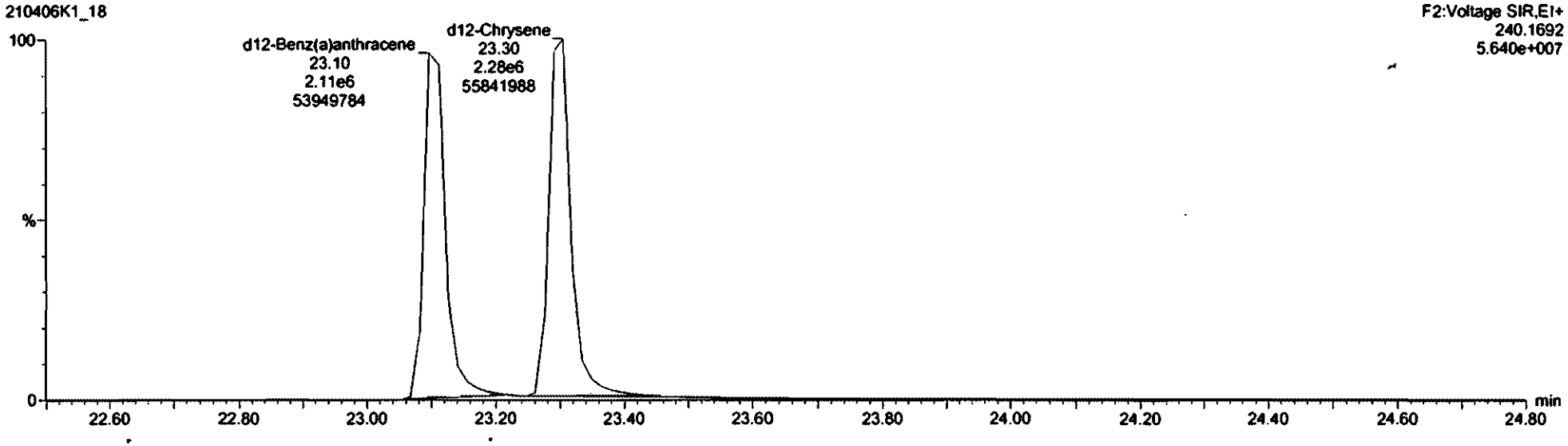
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

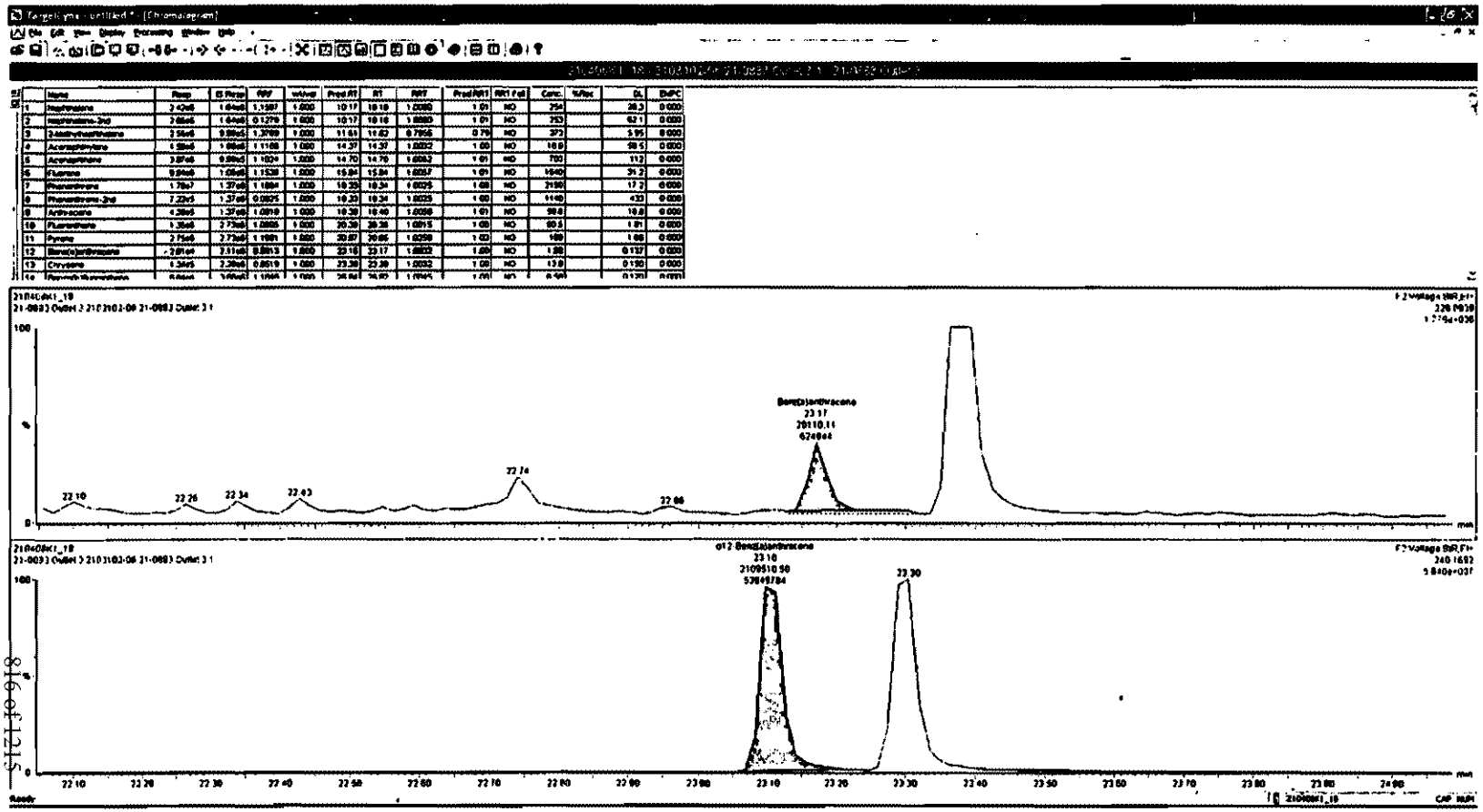
Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



815 of 1215

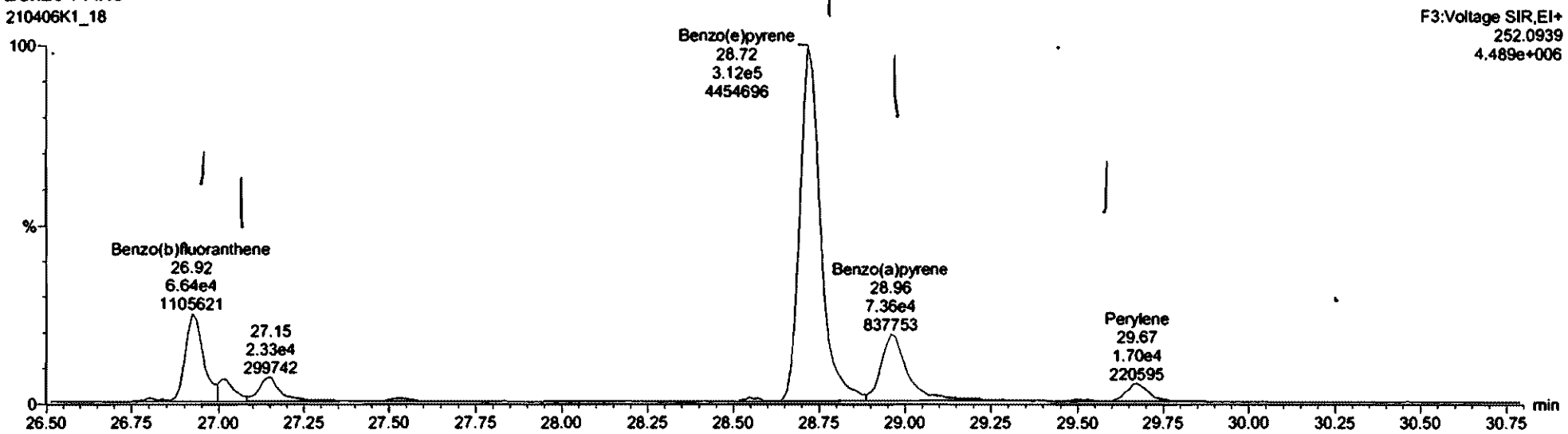

Benz(a)anthracene
23.17
20110.11
624864
22.10
22.26
22.34
22.63
22.74
22.86
Benz(a)anthracene
23.10
2109510.50
53849784
23.30

Dataset: Untitled

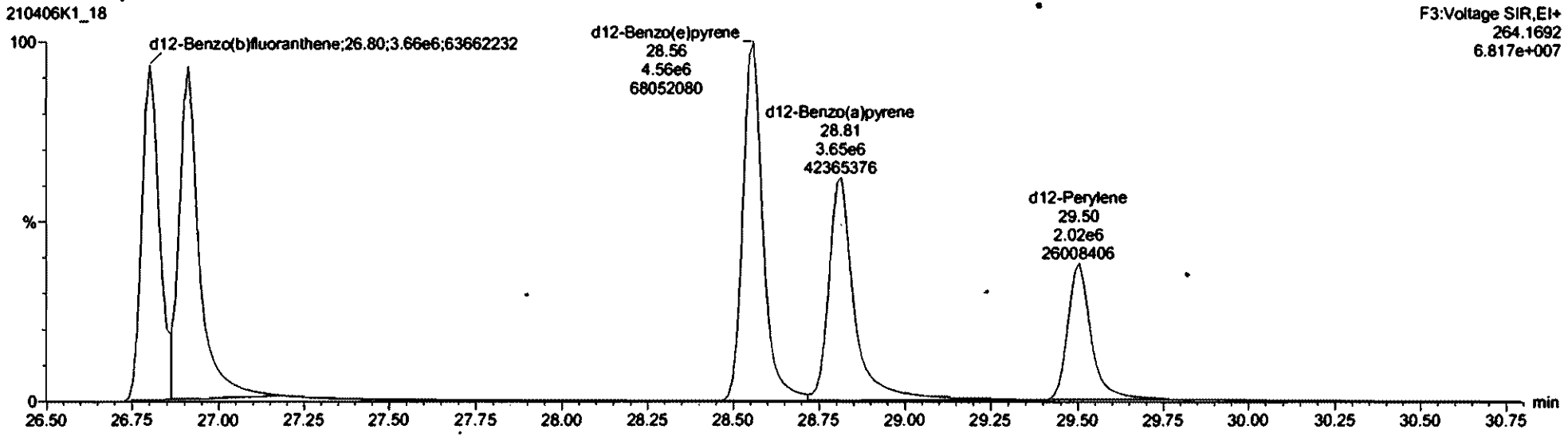
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

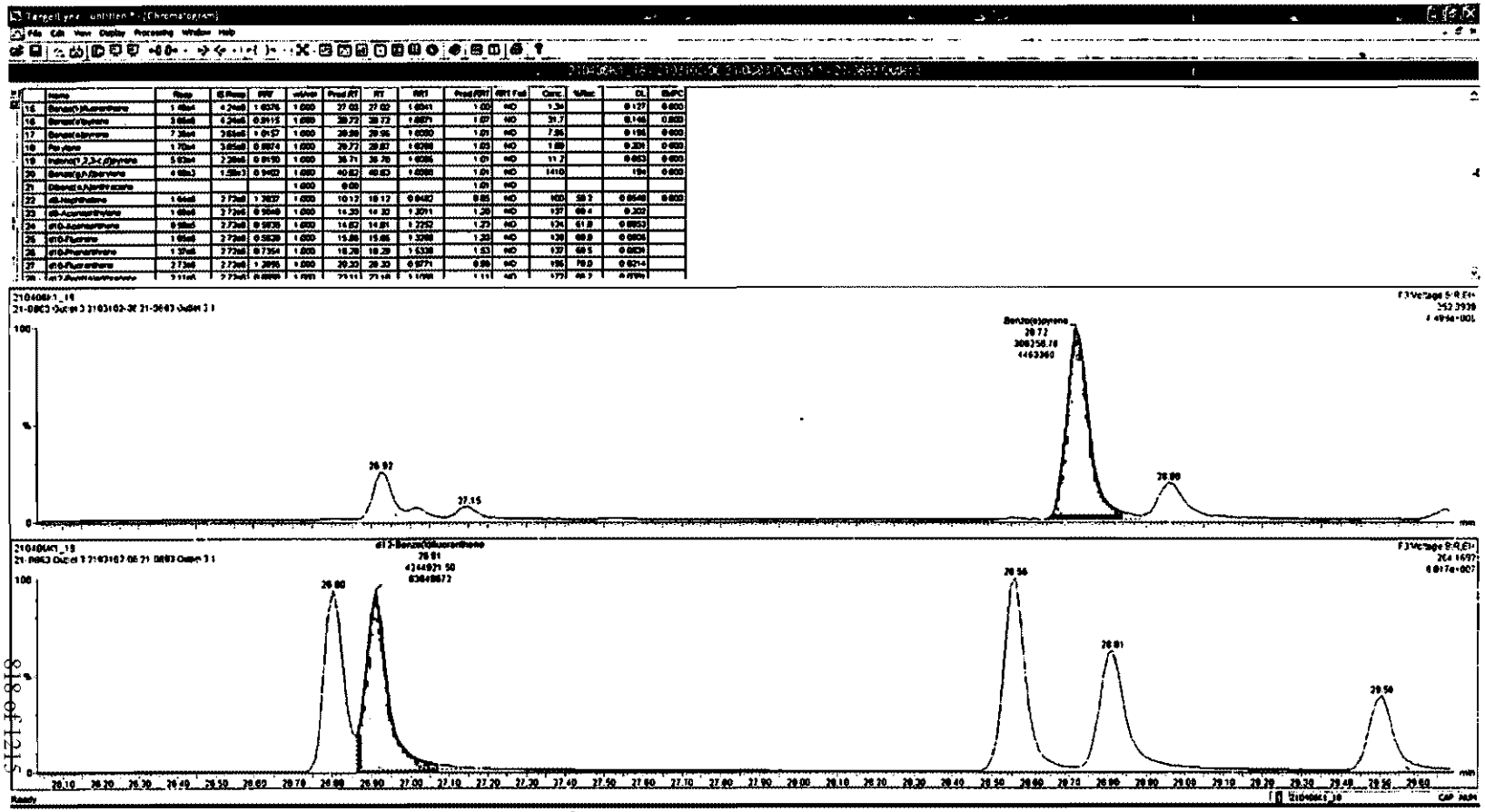
Benzo-PAHs

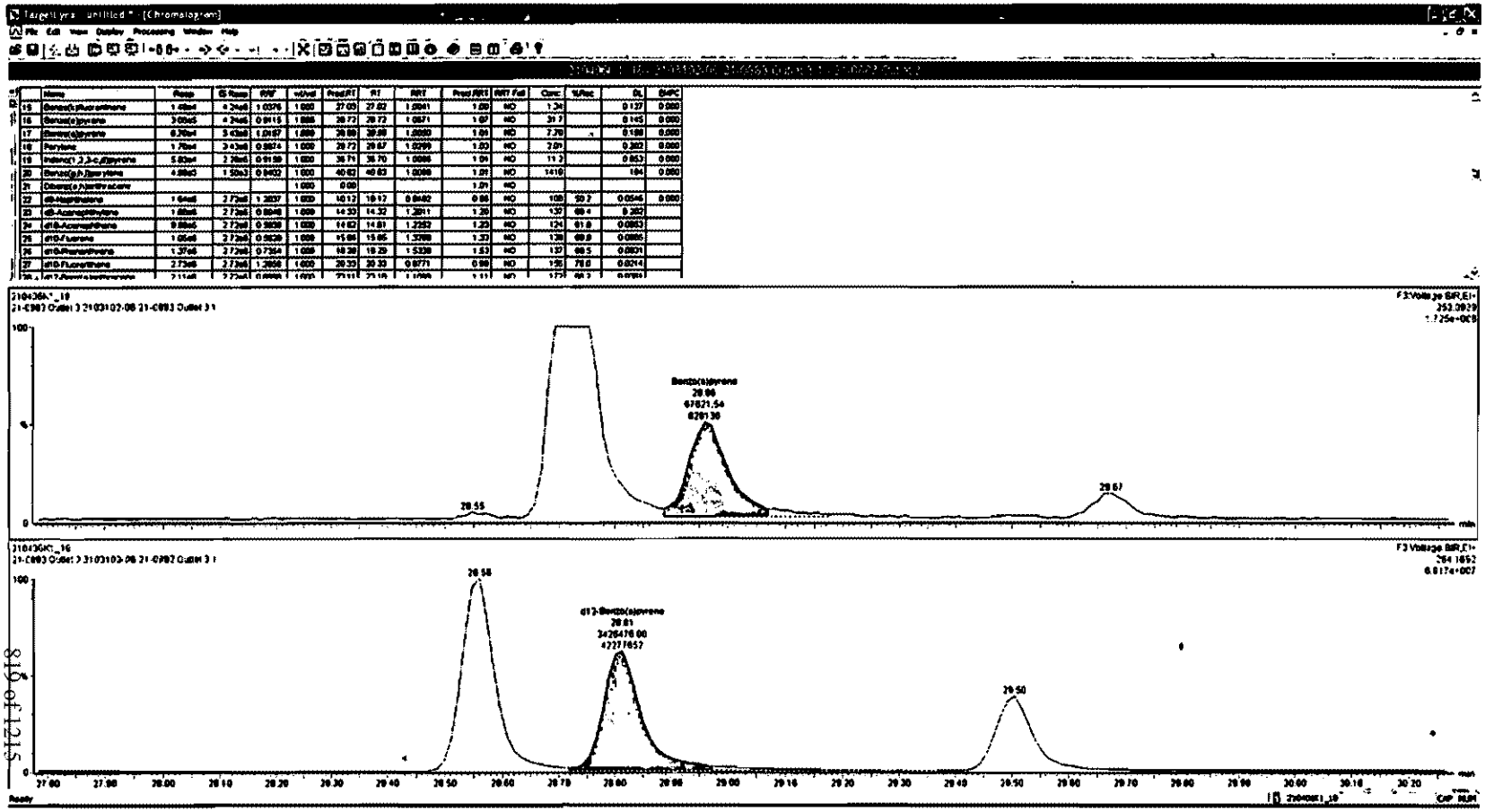


Benzo-Isotopes



817 of 1215

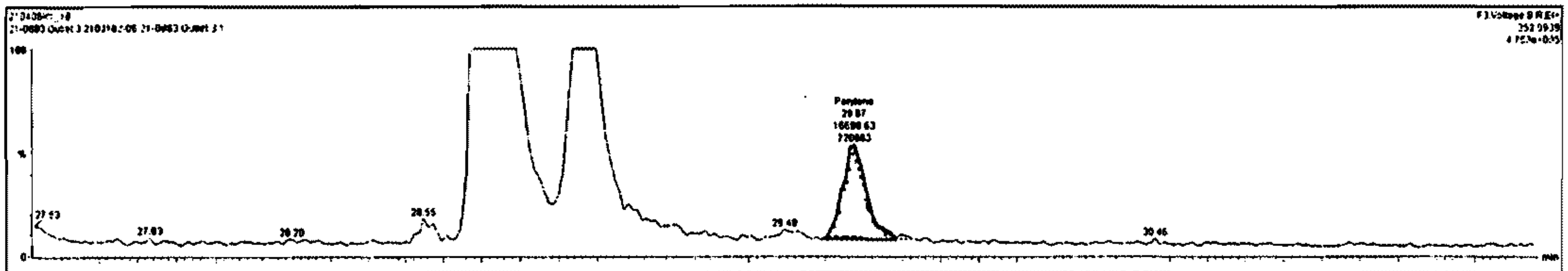


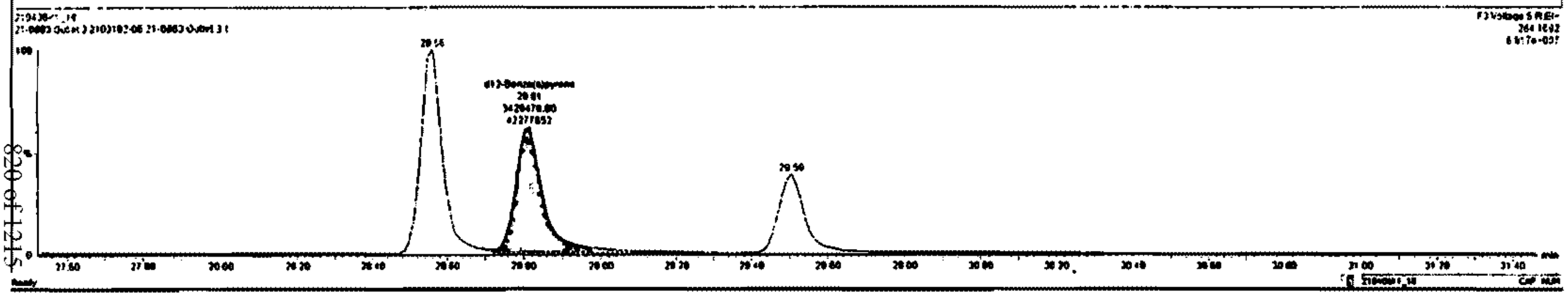

Benzo(a)pyrene
29.55
29.67
d12-Benzo(a)pyrene
29.58
29.50

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	1.48e4	4.24e6	1.0378	1.000	27.80	27.82	1.0041	1.00	NO	1.34		0.127	0.000
16	Benzo(e)pyrene	3.08e5	4.24e6	0.9115	1.000	28.72	28.72	1.0671	1.07	NO	31.7		0.146	0.000
17	Benzo(a)pyrene	6.70e4	3.43e6	1.0157	1.000	28.80	28.85	1.0030	1.01	NO	7.70		0.196	0.000
18	Perylene	1.87e4	3.43e6	0.8874	1.000	29.72	29.87	1.0288	1.03	NO	1.37		0.282	0.000
19	Indeno(1,2,3-c,d)pyrene	5.83e4	2.28e6	0.9130	1.000	38.74	38.70	1.0088	1.01	NO	11.2		0.053	0.000
20	Benzo(g,h,i)perylene	4.98e3	1.90e3	0.8402	1.000	40.62	40.63	1.0088	1.01	NO	1410		194	0.000
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.84e6	2.72e6	1.2037	1.000	10.13	10.13	0.8482	0.85	NO	180	90.2	0.0546	0.000
23	d8-Acenaphthylene	1.80e6	2.72e6	0.8049	1.000	14.33	14.32	1.2011	1.20	NO	137	68.4	0.202	
24	d10-Acenaphthene	9.88e5	2.72e6	0.5858	1.000	14.82	14.81	1.2252	1.23	NO	134	61.0	0.0853	
25	d10-Fluorene	1.06e6	2.72e6	0.5858	1.000	15.86	15.86	1.3088	1.33	NO	138	68.8	0.0806	
26	d10-Phenanthrene	1.37e6	2.72e6	0.7354	1.000	18.28	18.27	1.5230	1.53	NO	137	68.5	0.0835	
27	d10-Fluoranthene	2.72e6	2.72e6	1.3886	1.000	20.33	20.33	0.8771	0.88	NO	158	78.8	0.0214	
28	d12-Benz(a)anthracene	2.11e6	2.72e6	0.8888	1.000	23.11	23.16	1.1888	1.11	NO	177	88.2	[illegible]	





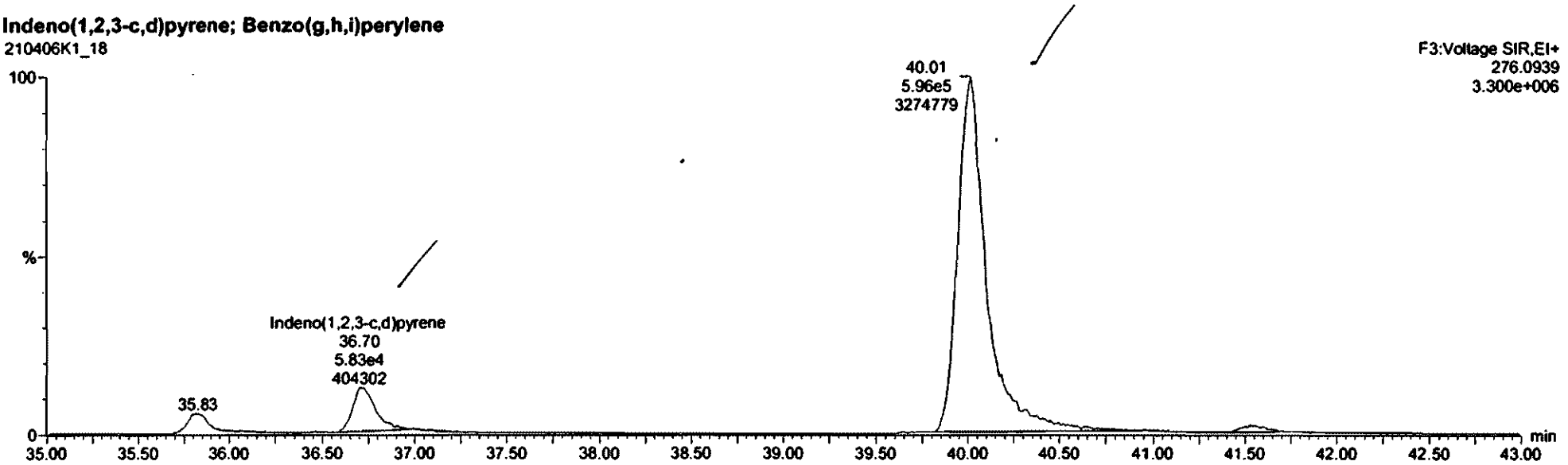
Ready

Dataset: Untitled

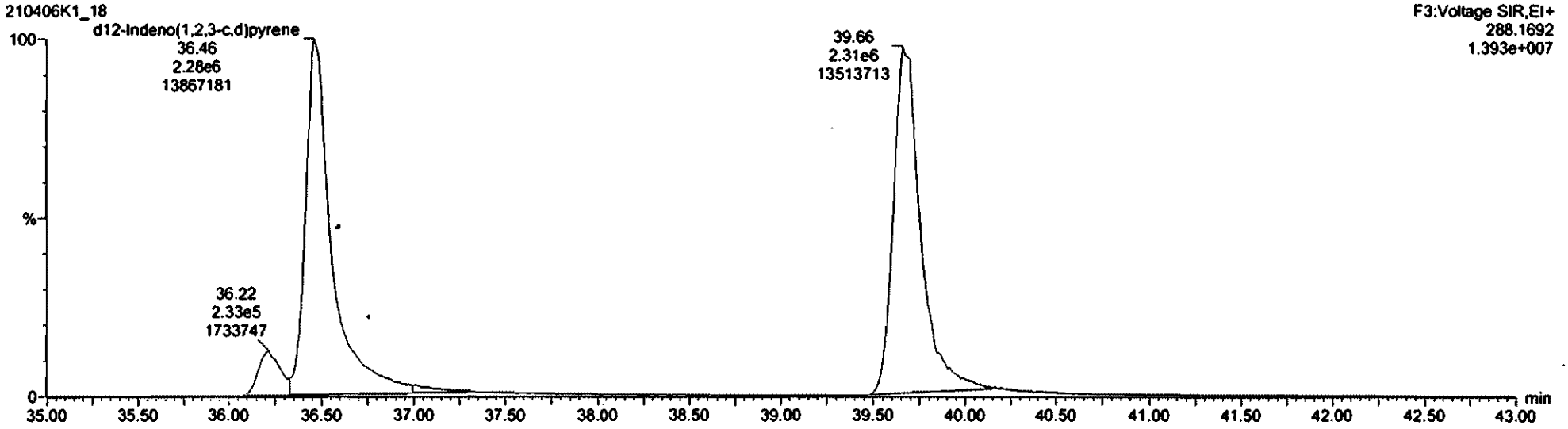
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

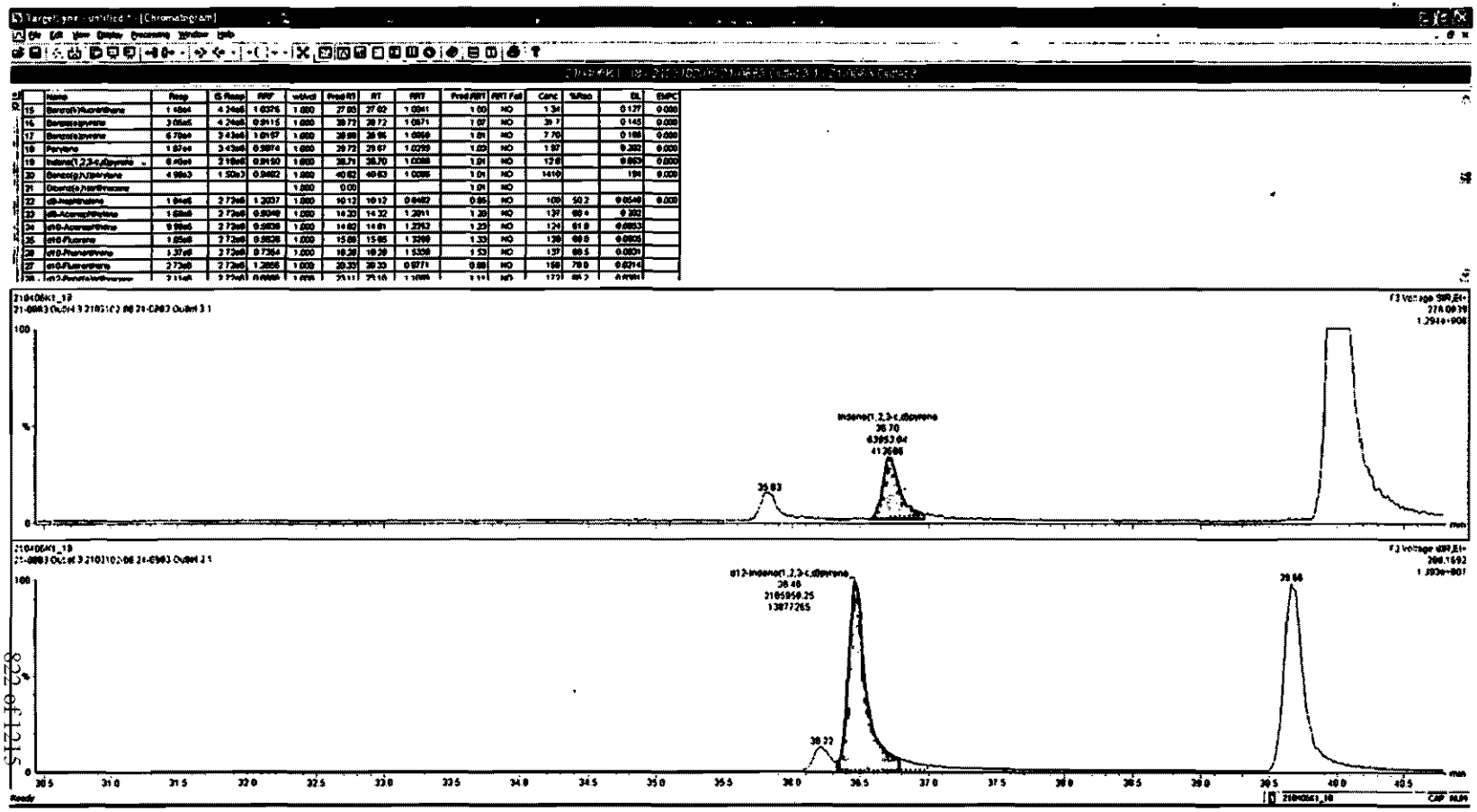
Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

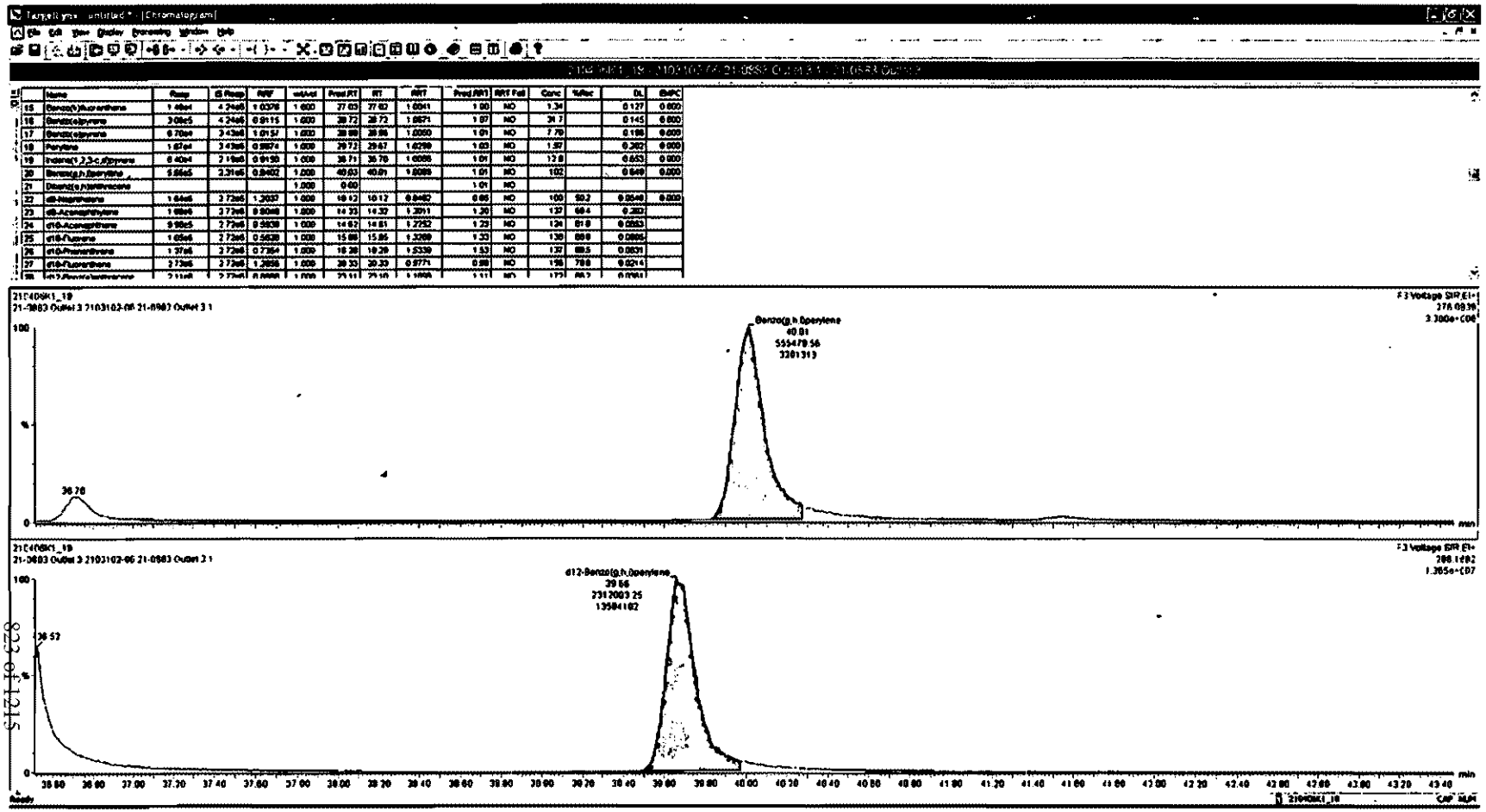
Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene




Indeno(1,2,3-cd)pyrene
36.70
63953.04
413686
35.83
d12-Indeno(1,2,3-cd)pyrene
36.46
2165958.25
13877265
38.22
39.66

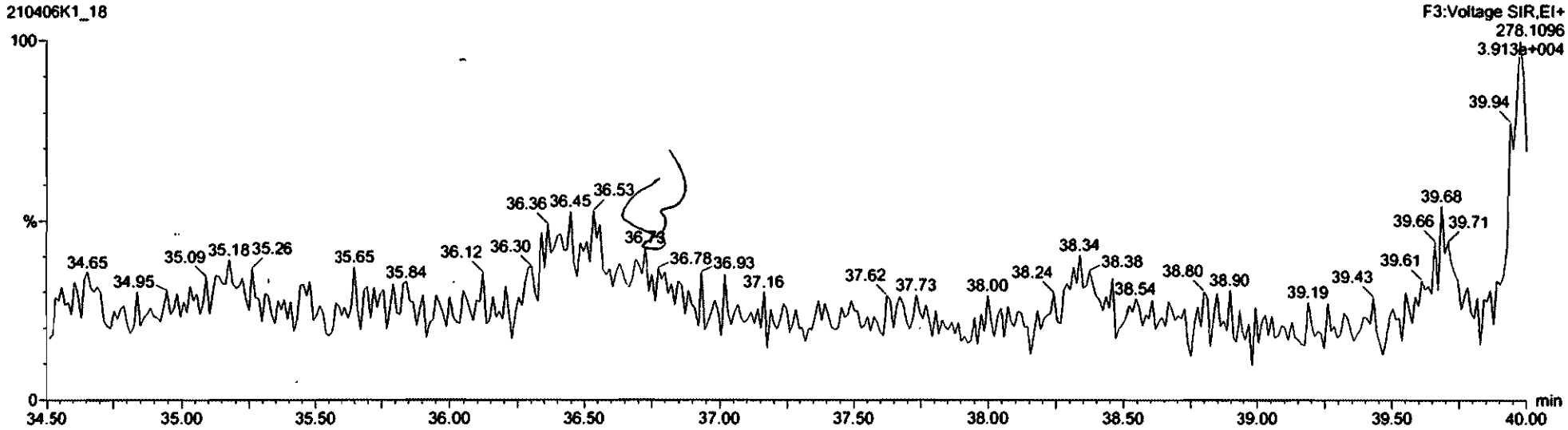

Benzo(g,h,i)perylene
40.81
5554770.56
3201313
36.70
d12-Benzo(g,h,i)perylene
39.66
2312003.25
13584182
36.52

Dataset: Untitled

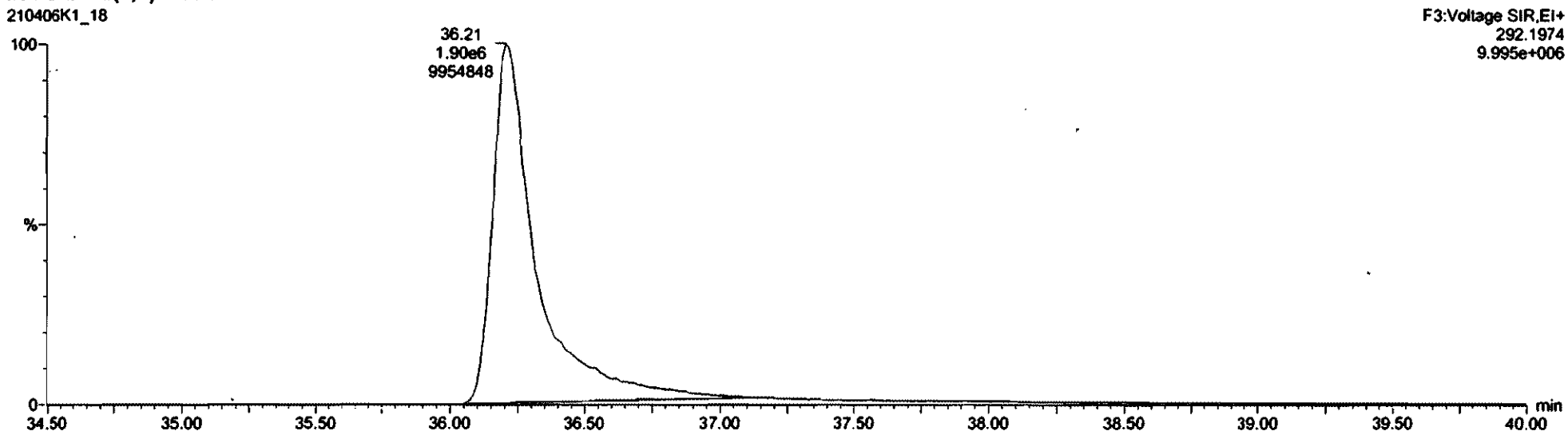
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

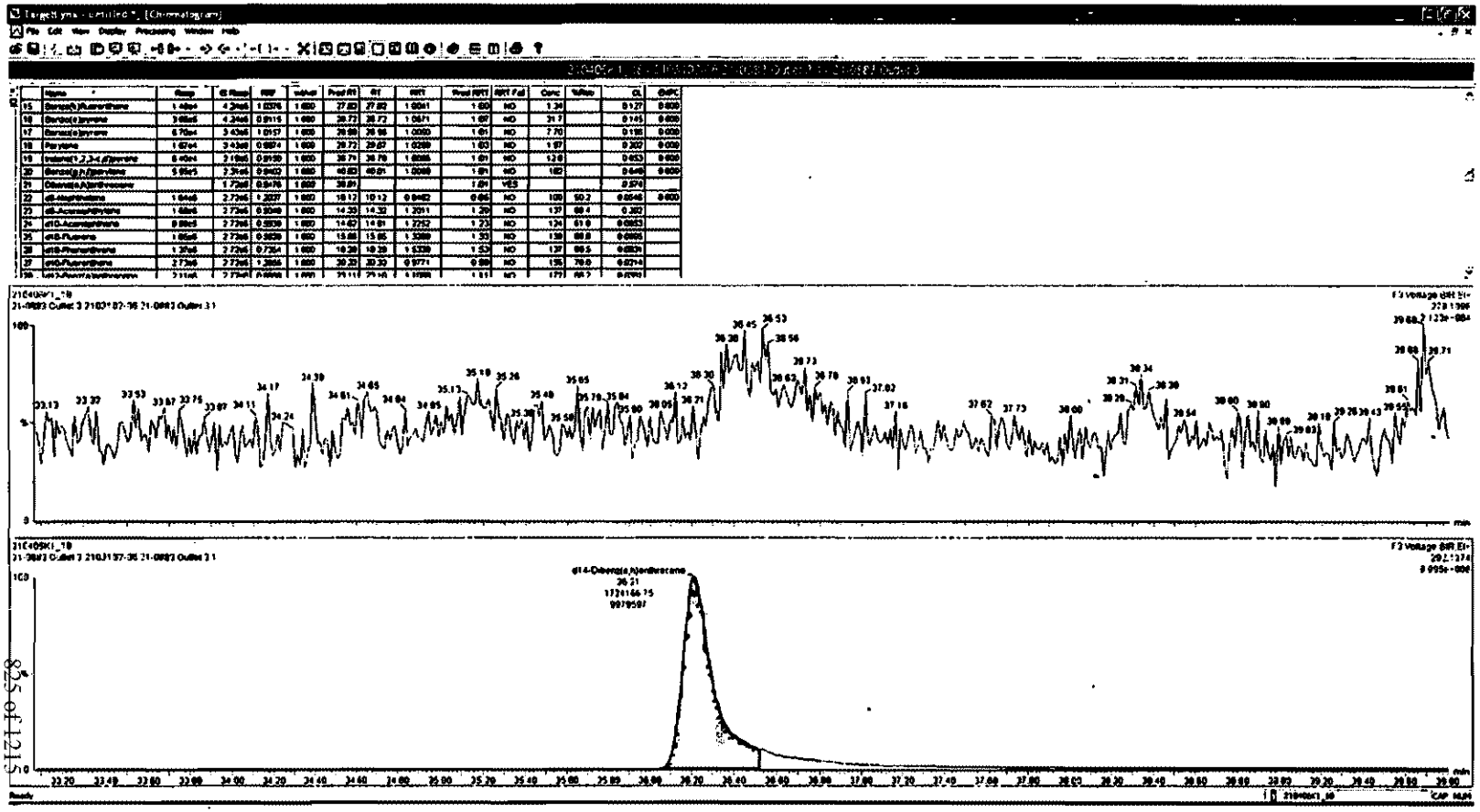
Name: 210406K1_18, Date: 07-Apr-2021, Time: 00:30:58, ID: 2103102-06 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene





Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-11.qld

Last Altered: Wednesday, April 07, 2021 12:20:20 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:20:54 PM Pacific Daylight Time

HL 4.7.2021 CTO4/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	5	Acenaphthene	4.40e5	1.18e5	1.10	1.000	14.68	14.69	1.006	1.006	NO	679		26.9
2	6	Fluorene	1.15e6	1.18e5	1.15	1.000	15.92	15.92	1.006	1.006	NO	1700		14.7
3	7	Phenanthrene	2.40e6	1.65e5	1.19	1.000	18.32	18.32	1.002	1.002	NO	2440		15.3
4	24	d10-Acenaphthene	1.18e5	2.62e5	0.594	1.000	14.60	14.60	1.226	1.225	NO	151	75.5	0.551
5	25	d10-Fluorene	1.18e5	2.62e5	0.563	1.000	15.84	15.83	1.330	1.329	NO	159	79.6	0.575
6	26	d10-Phenanthrene	1.65e5	2.62e5	0.735	1.000	18.26	18.28	1.533	1.535	NO	171	85.7	0.461
7	40	d10-Pyrene	2.62e5	2.62e5	1.00	1.000	20.81	20.79	1.000	1.000	NO	200	100	0.131

826 of 1215

Vista Analytical Laboratory

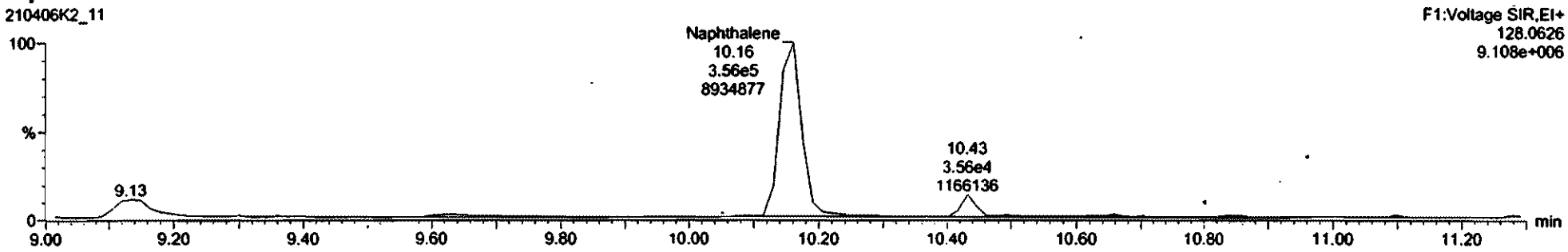
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

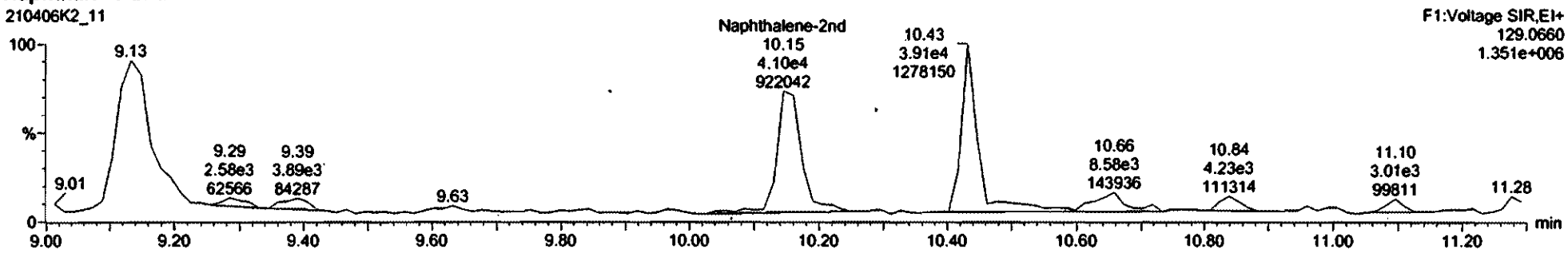
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

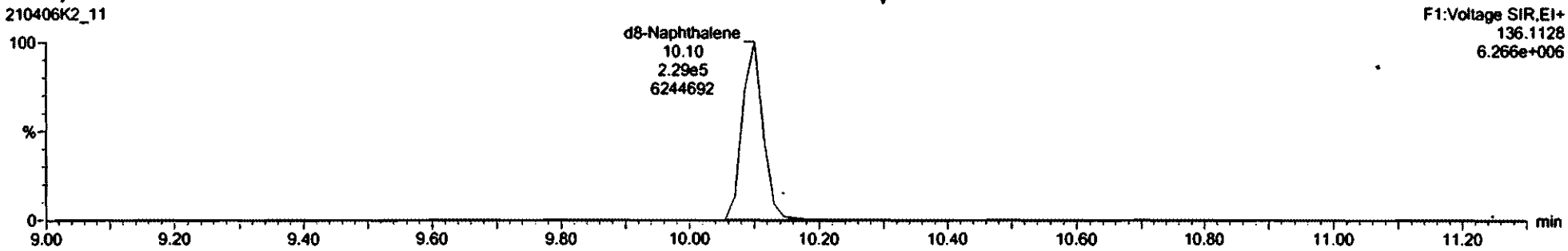
Naphthalene



Naphthalene-2nd



d8-Naphthalene



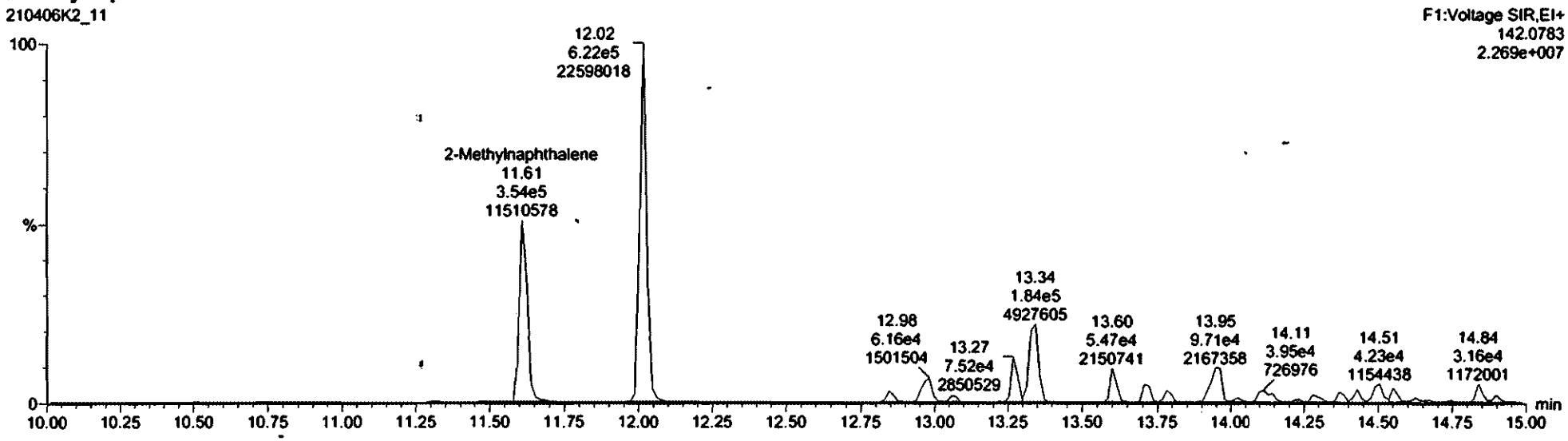
827 of 1215

Dataset: Untitled

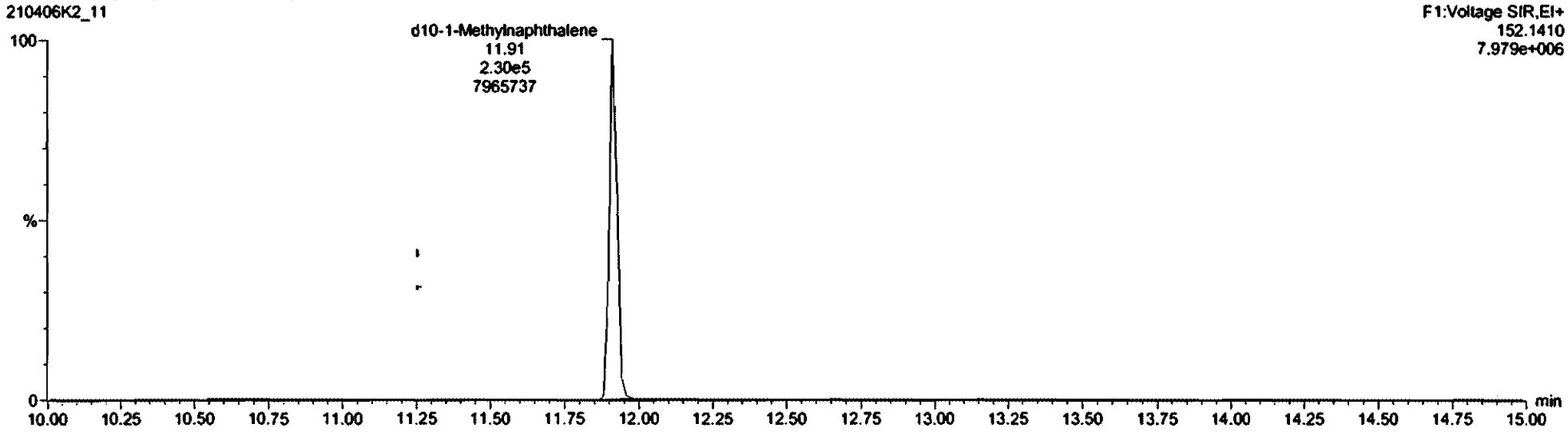
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



828 of 1215

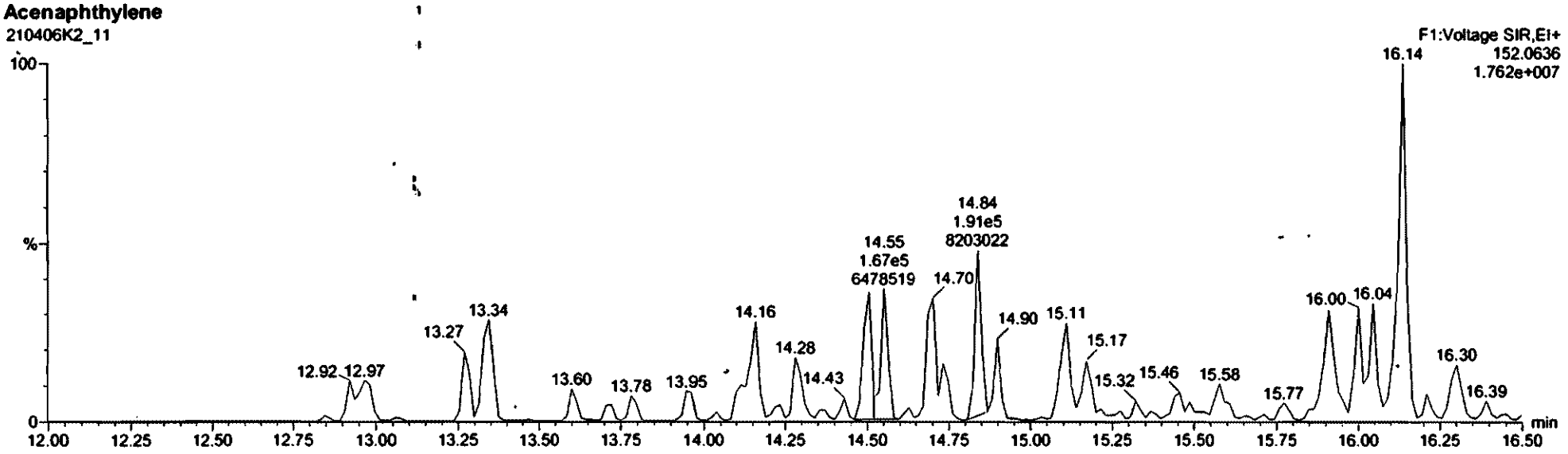
Vista Analytical Laboratory

Dataset: Untitled

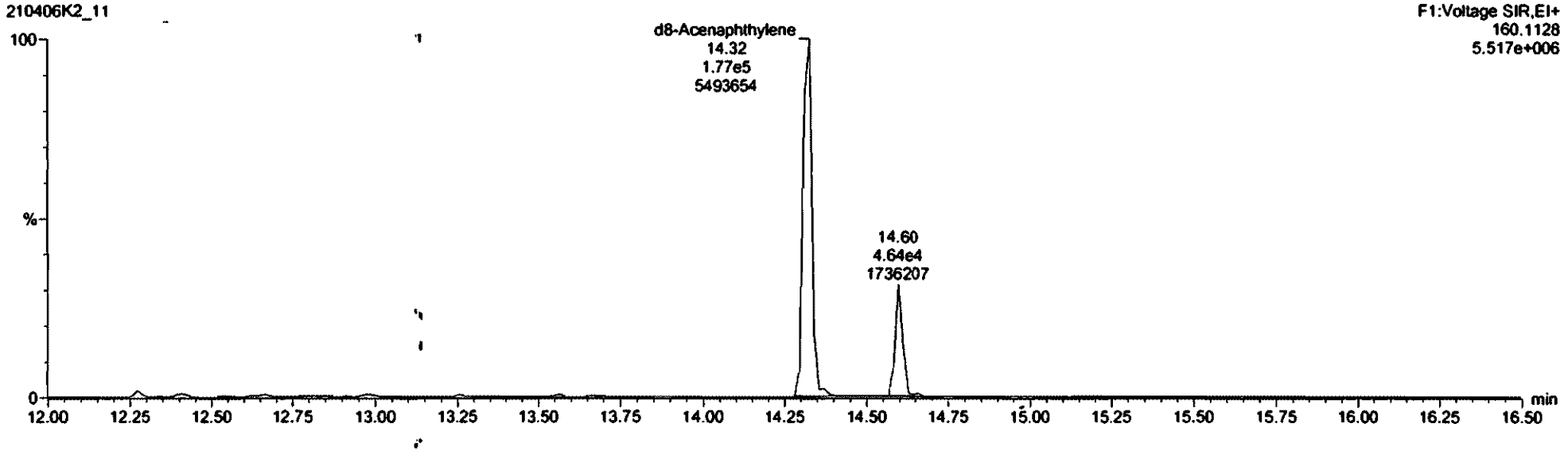
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Acenaphthylene



d8-Acenaphthylene



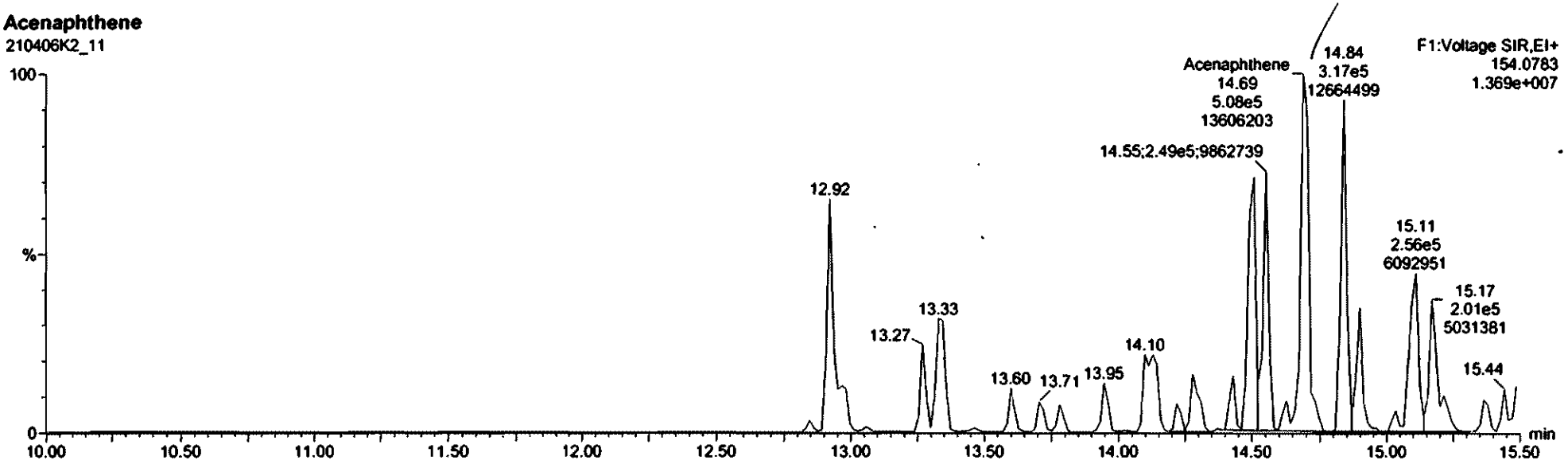
829 of 1215

Dataset: Untitled

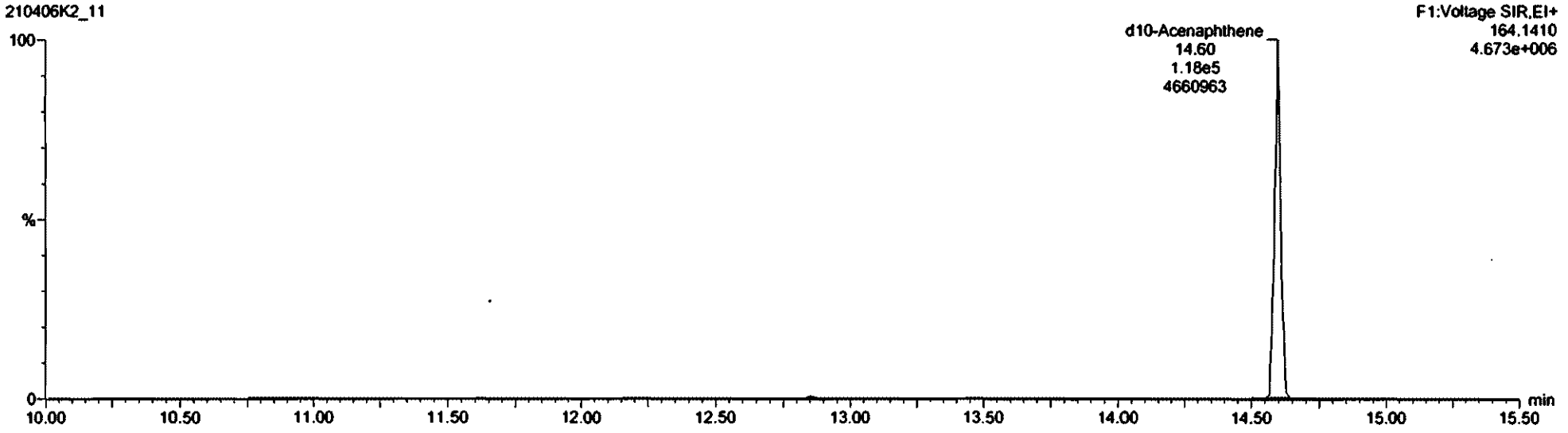
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

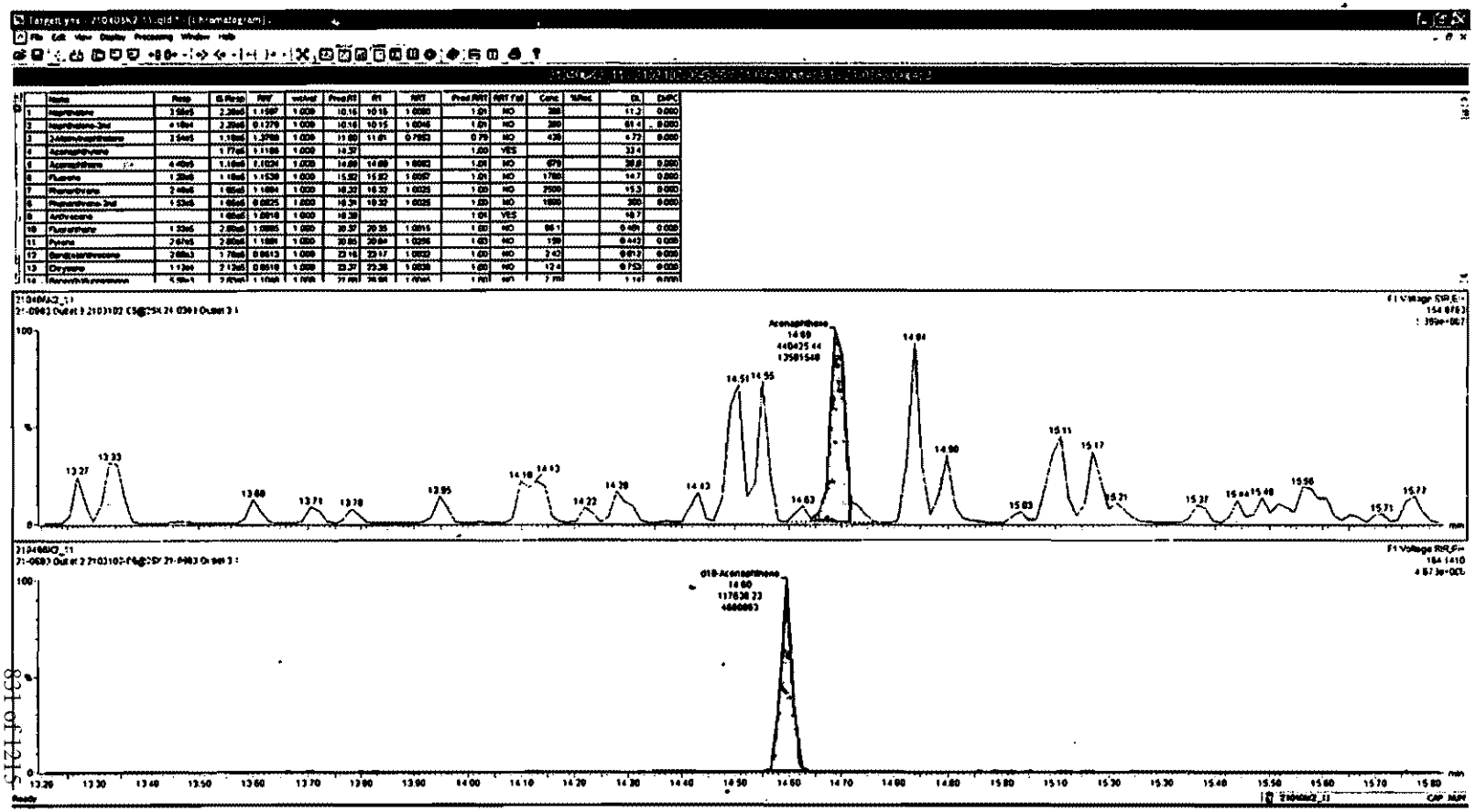
Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Acenaphthene



d10-Acenaphthene



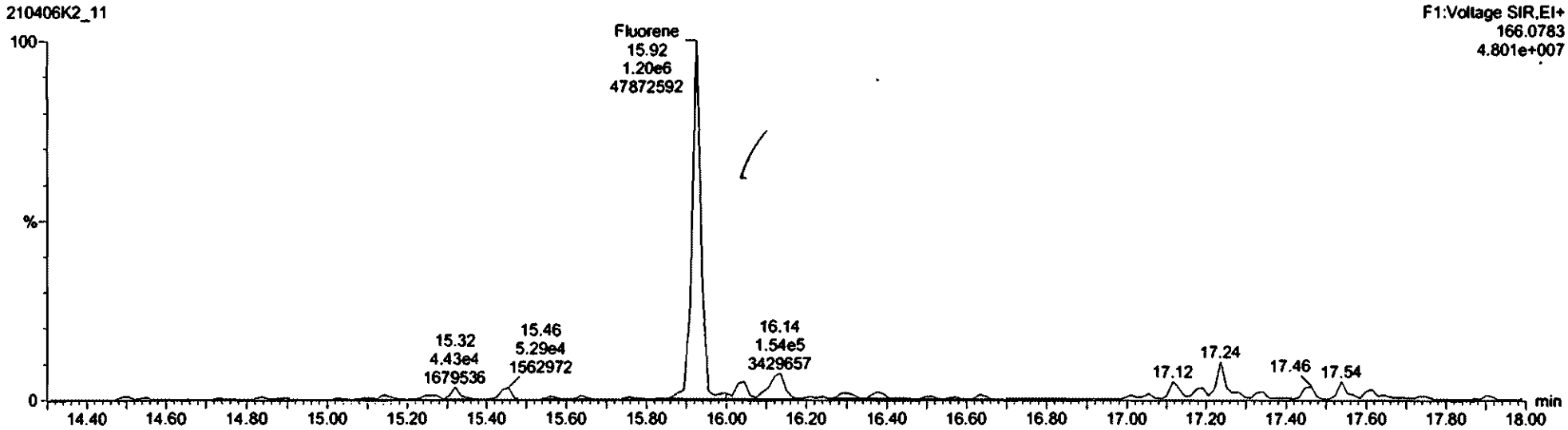


Dataset: Untitled

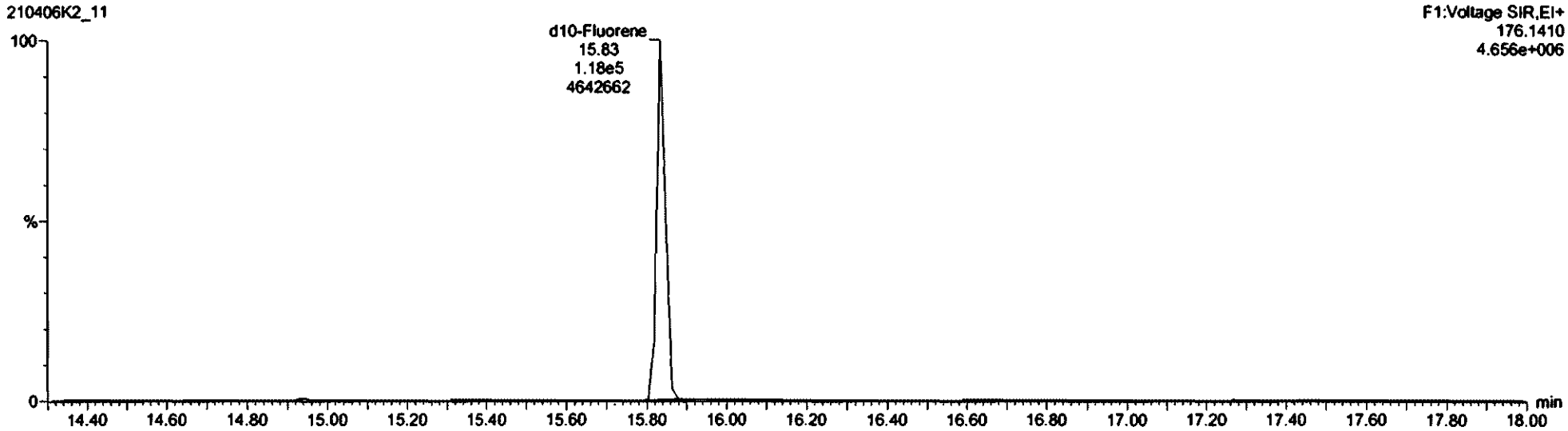
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

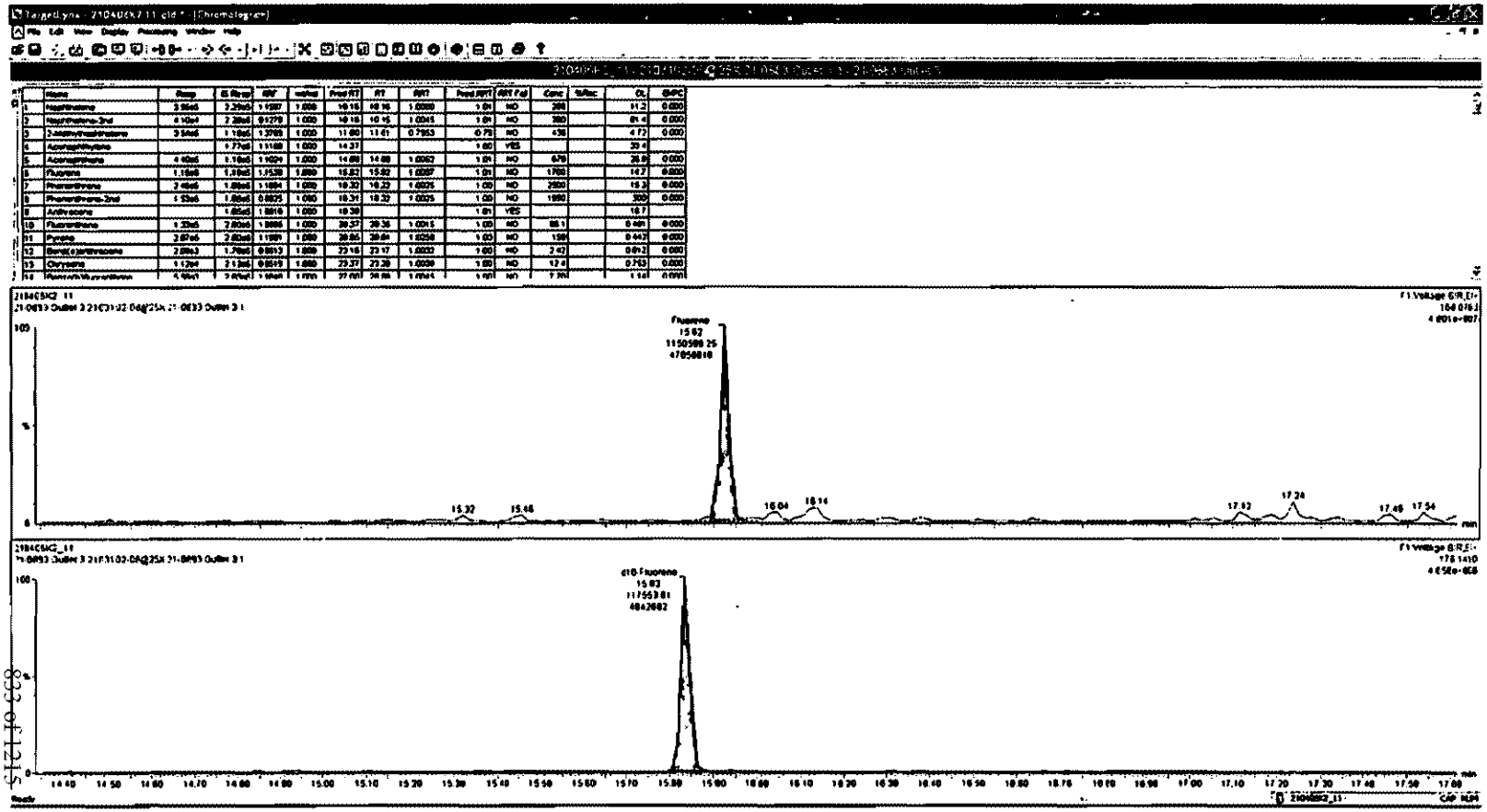
Fluorene



d10-Fluorene



832 of 1215

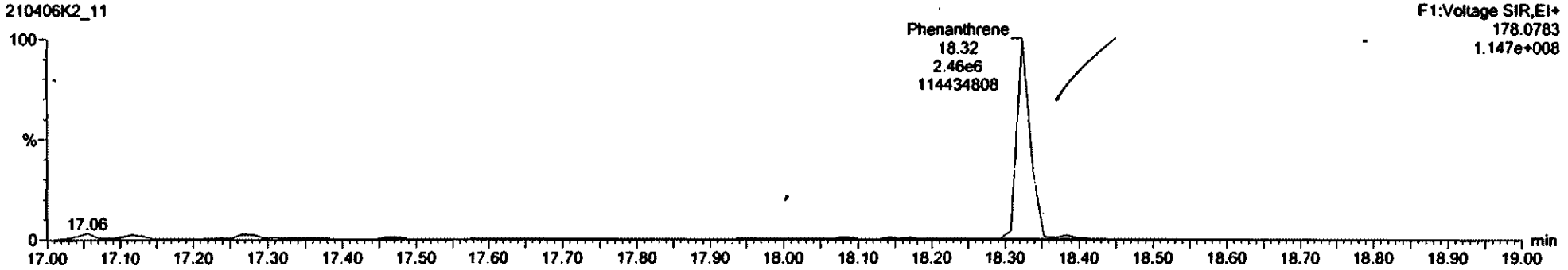

Fluorene
15.02
1150598.25
47050810
15.32
15.46
16.04
16.14
17.02
17.24
17.46
17.54
d10-Fluorene
15.02
1175631.81
4842682

Dataset: Untitled

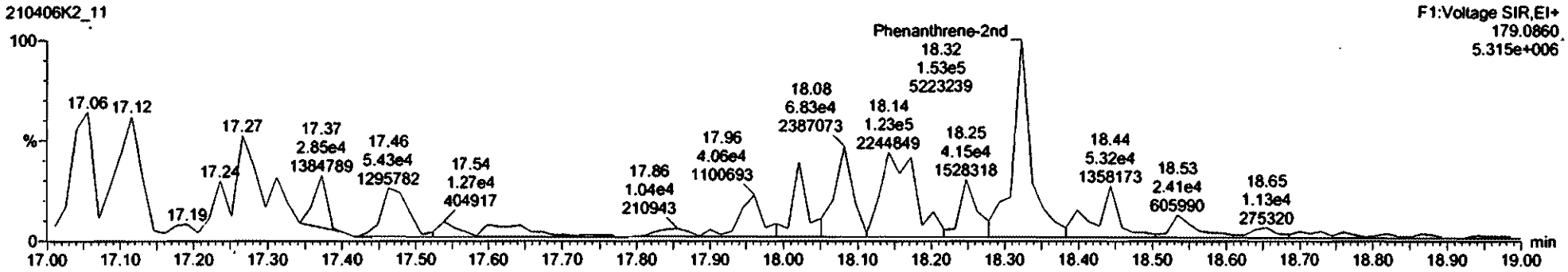
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

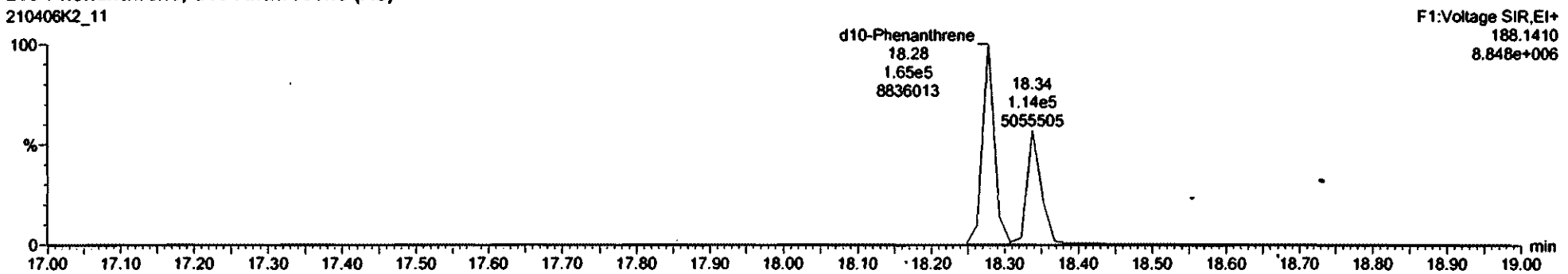
Phenanthrene; Anthrecene



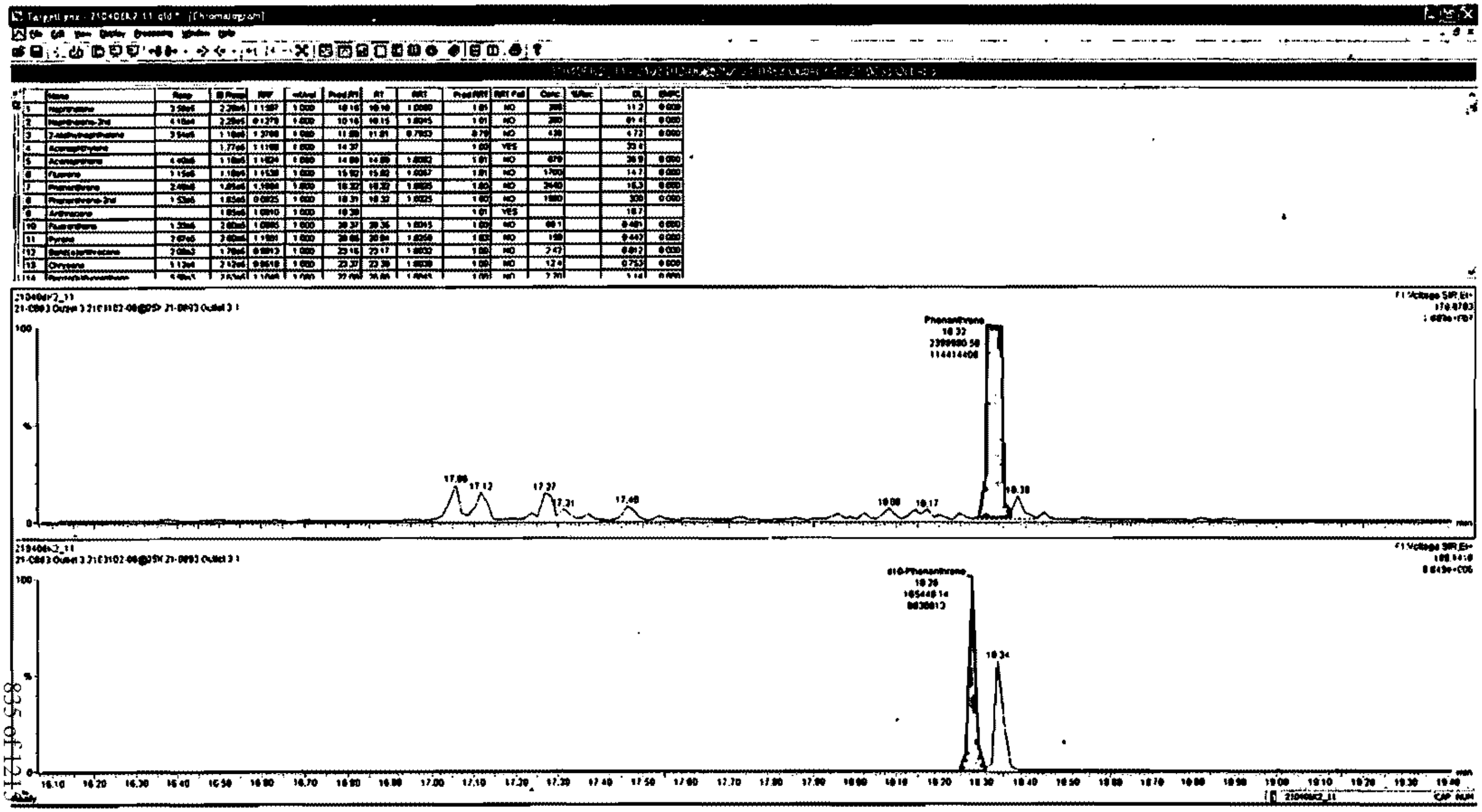
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



834 of 1215

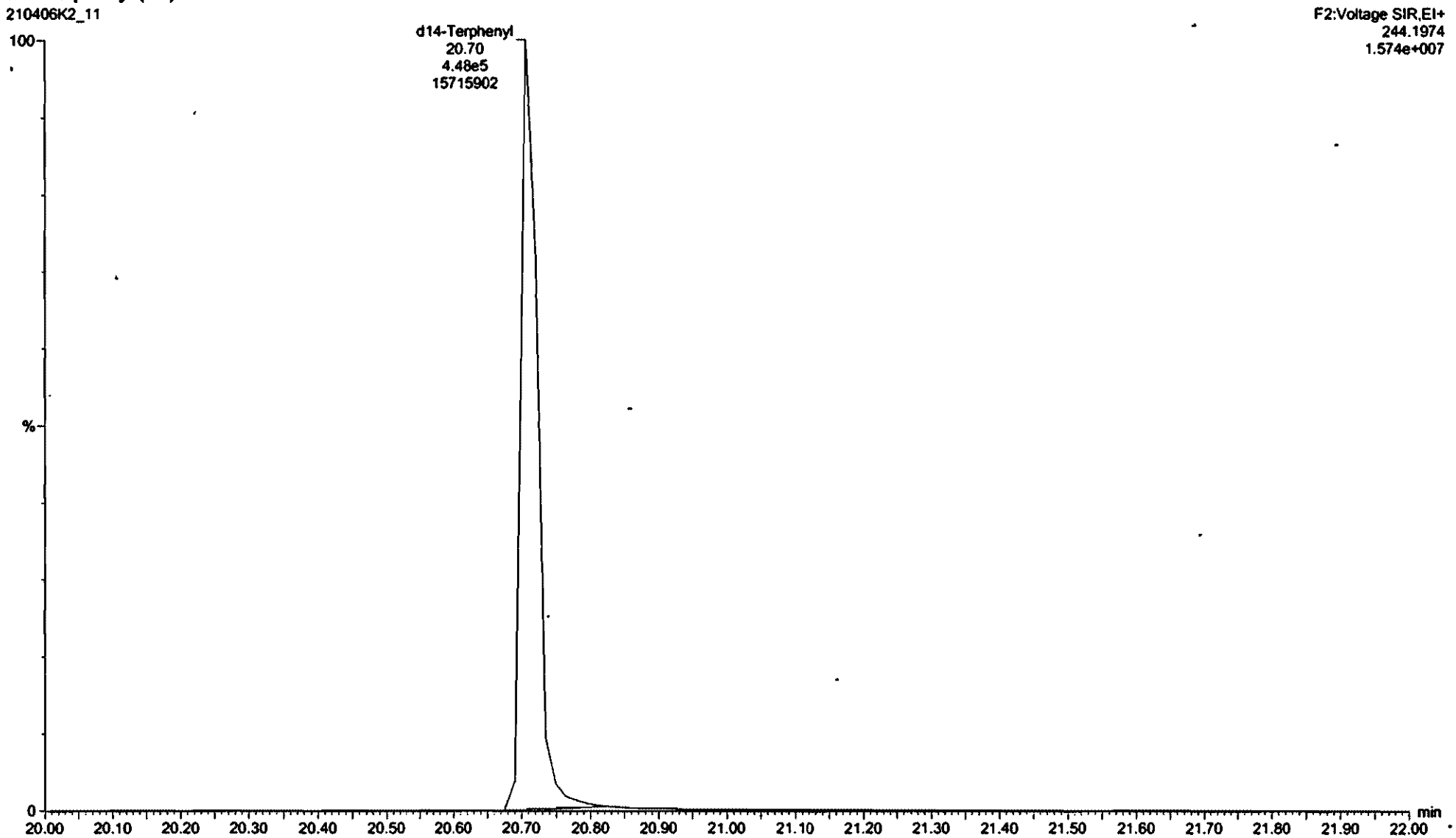

Phenanthrene
d10-Phenanthrene
17.06
17.12
17.27
17.31
17.48
18.08
18.17
18.38
18.34
100
min

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

d14-Terphenyl (PS)



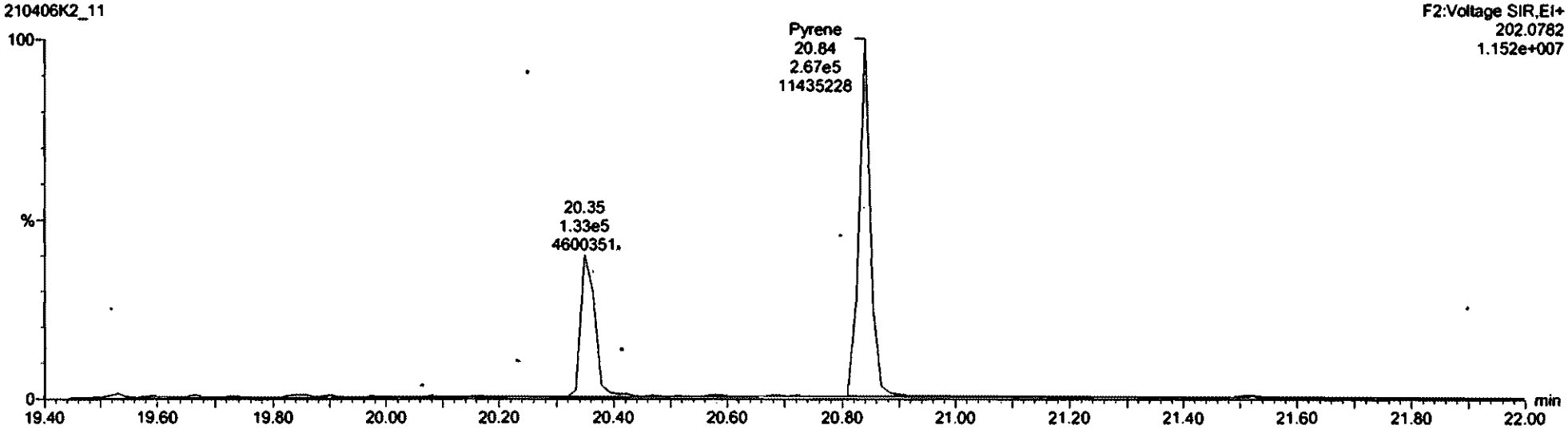
836 of 1215

Dataset: Untitled

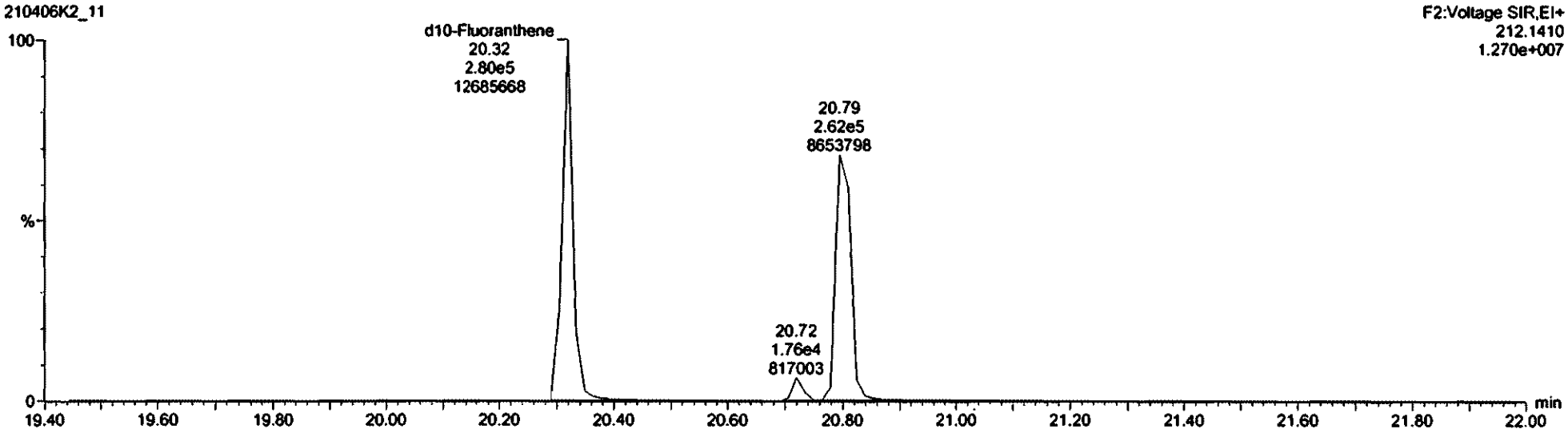
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



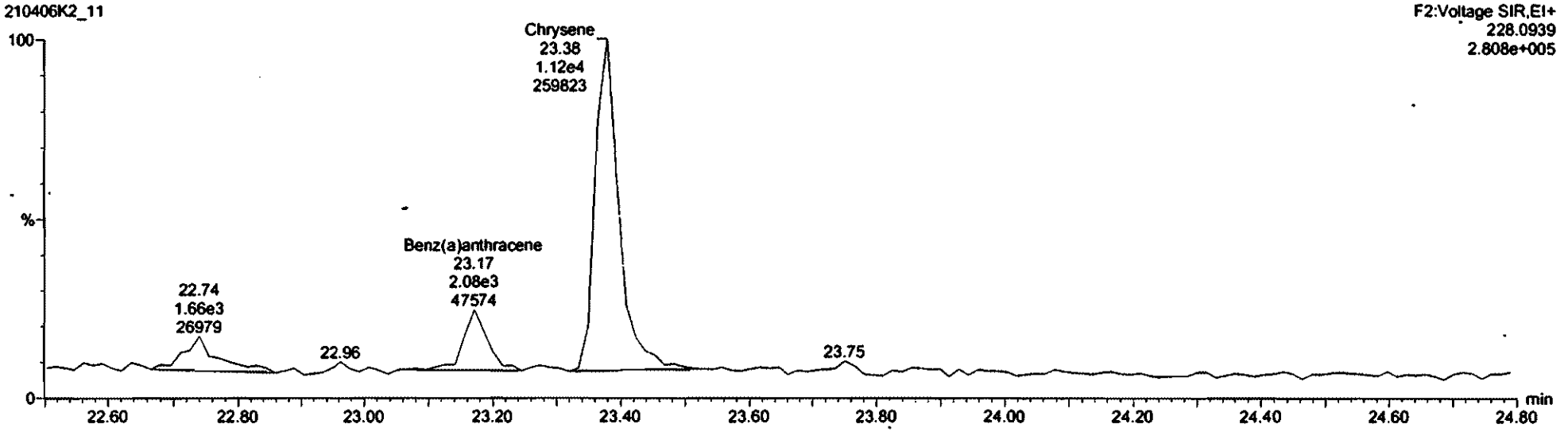
837 of 1215

Dataset: Untitled

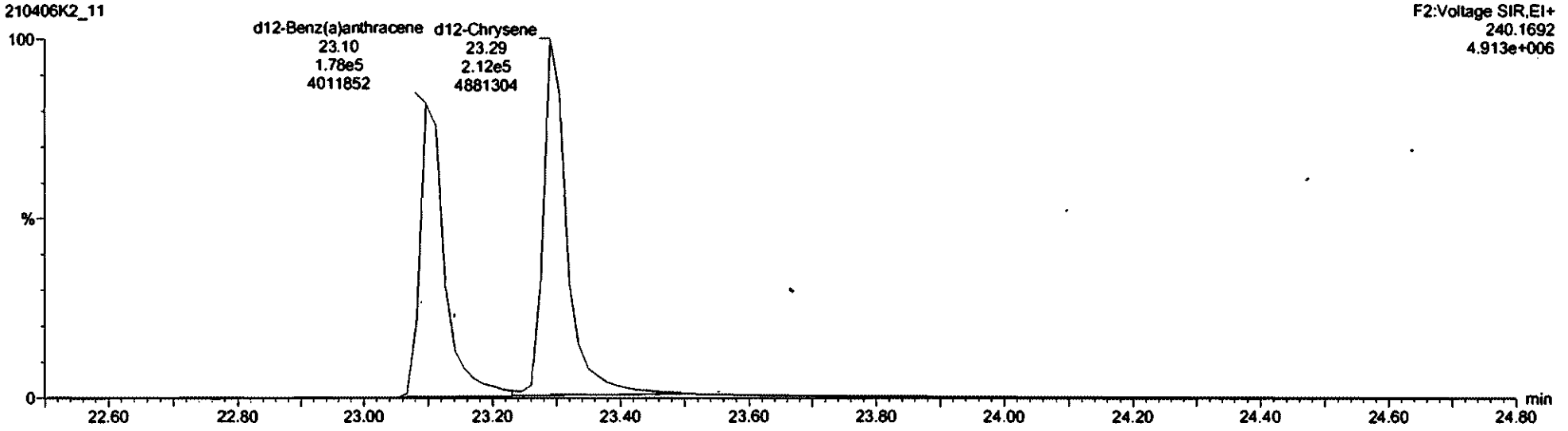
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



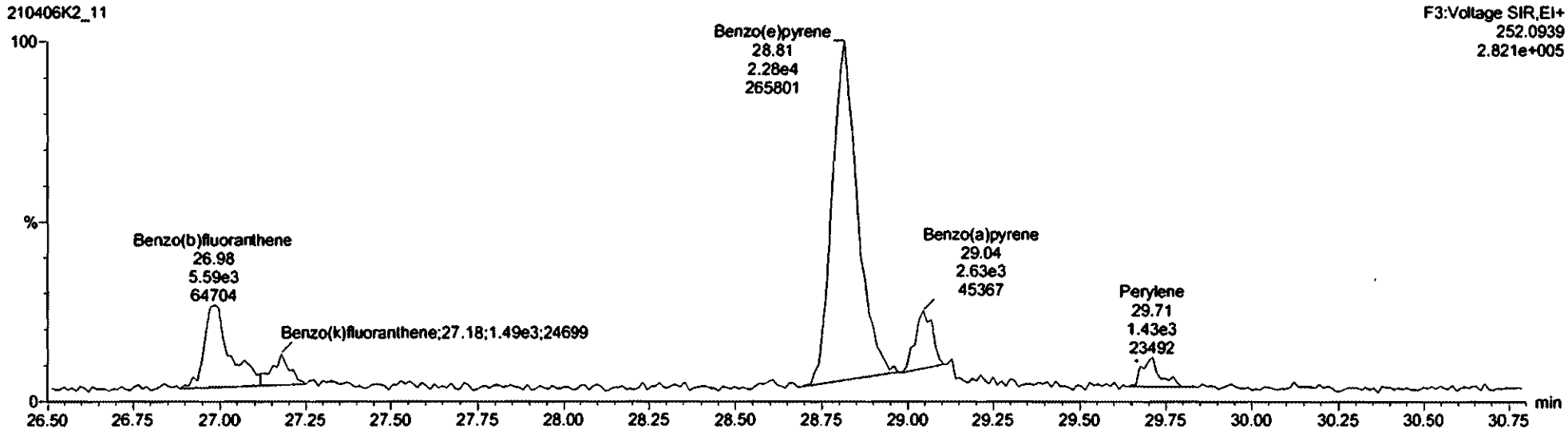
838 of 1215

Dataset: Untitled

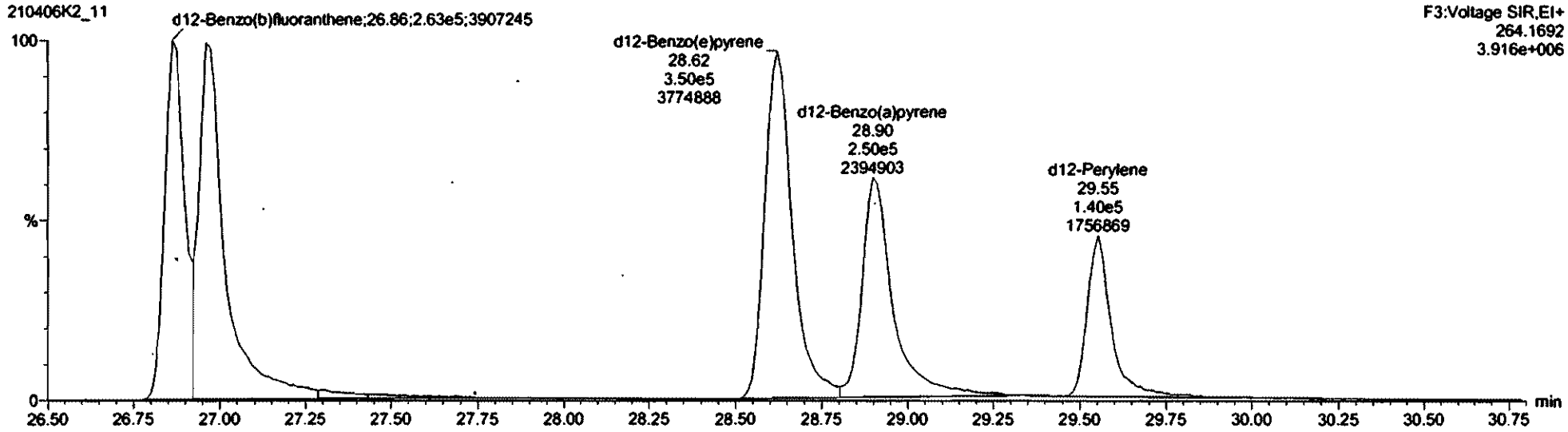
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Benzo-PAHs



Benzo-Isotopes



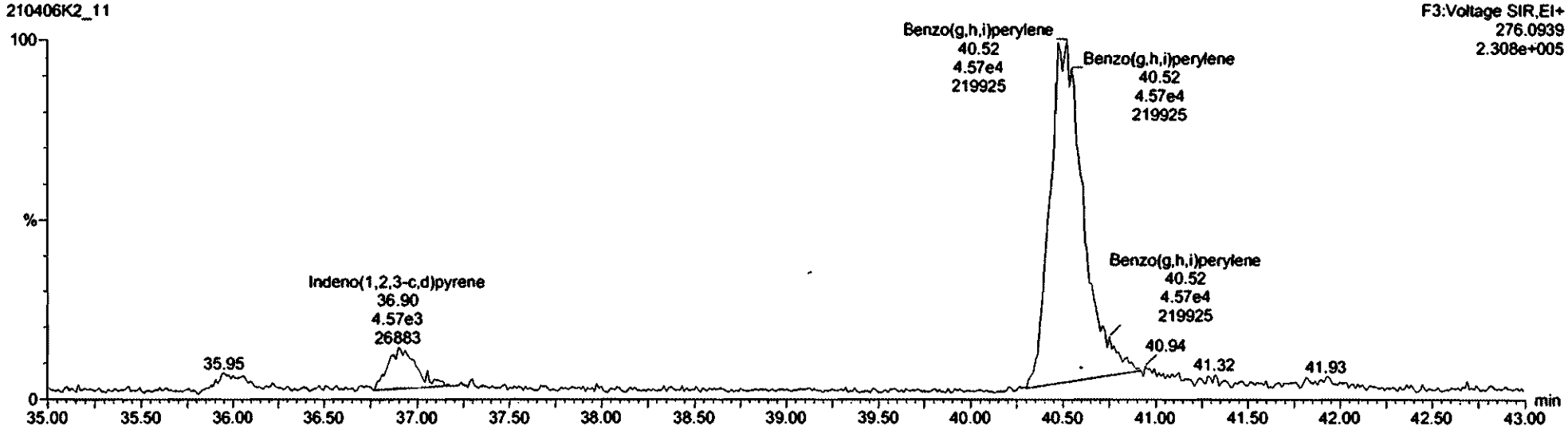
839 of 1215

Dataset: Untitled

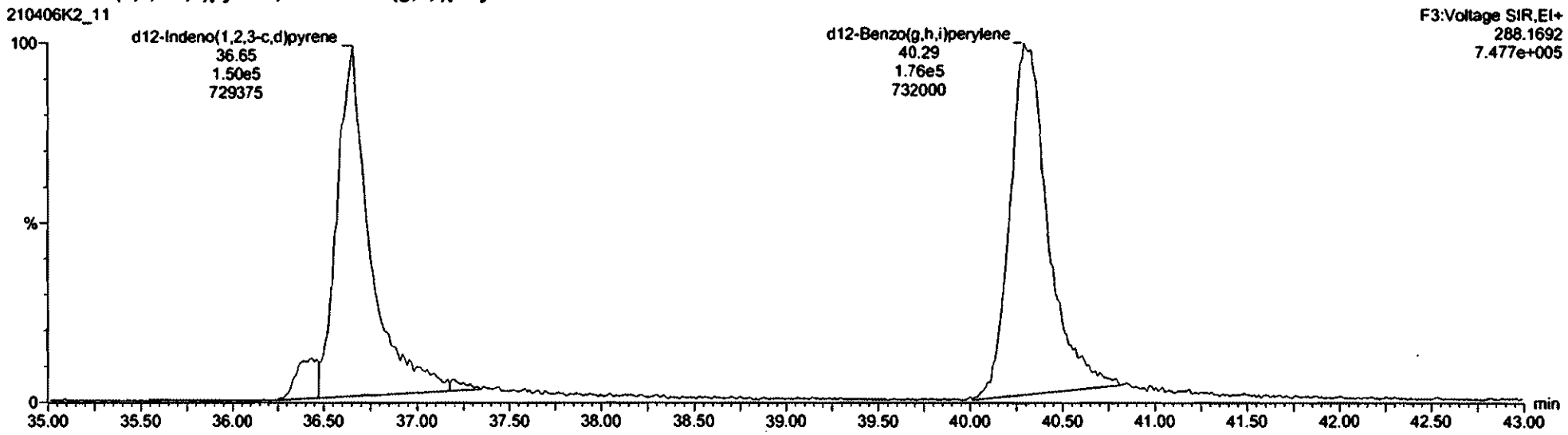
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



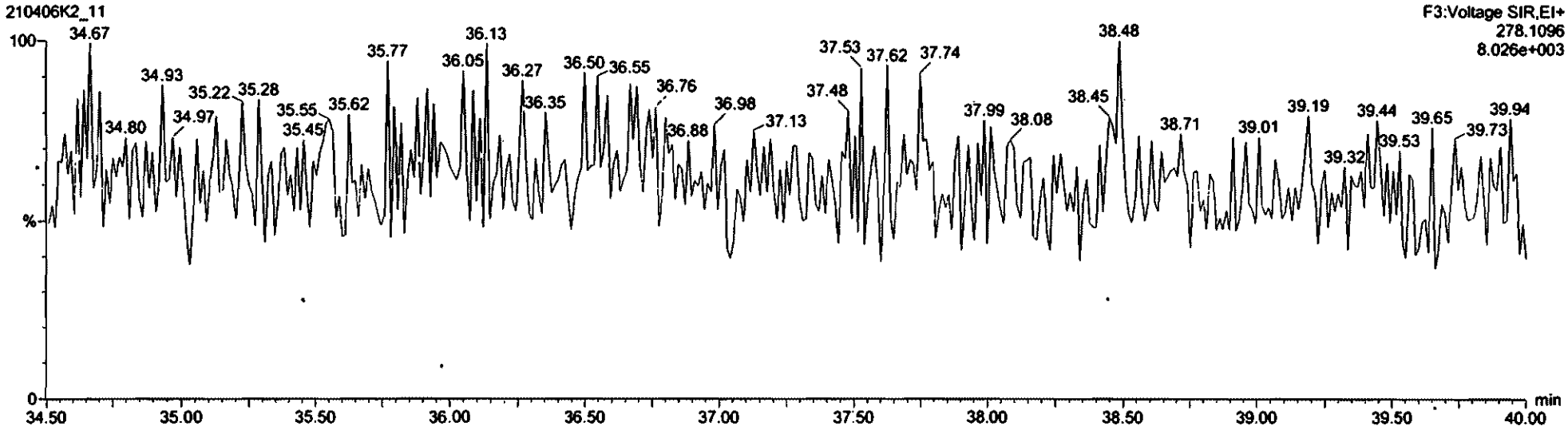
840 of 1215

Dataset: Untitled

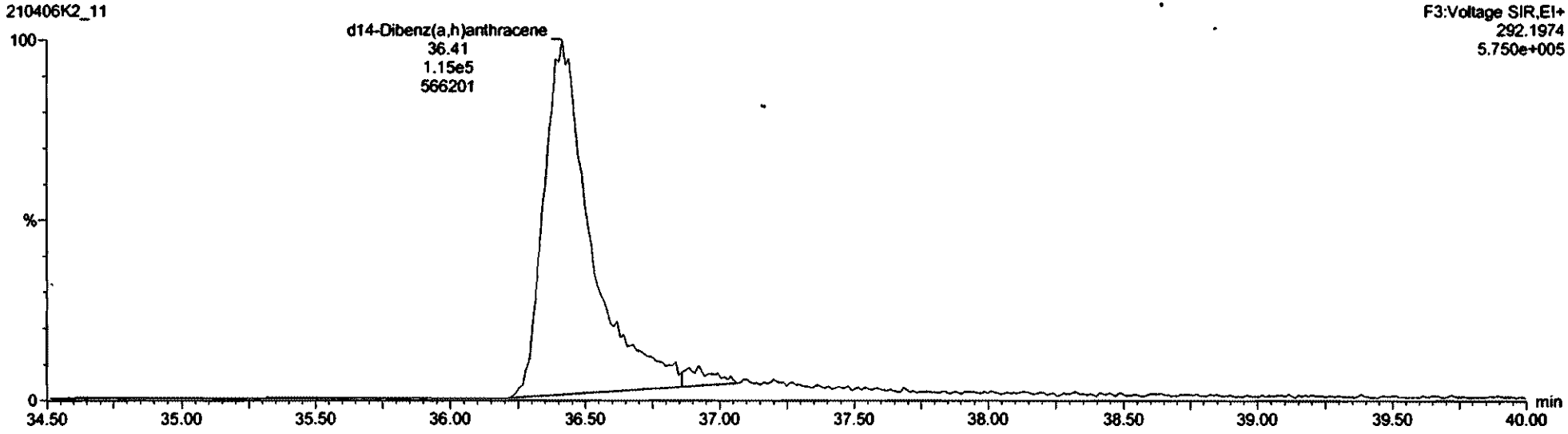
Last Altered: Wednesday, April 07, 2021 12:18:43 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 12:18:52 PM Pacific Daylight Time

Name: 210406K2_11, Date: 07-Apr-2021, Time: 09:56:17, ID: 2103102-06@25X 21-0883 Outlet 3 1, Description: 21-0883 Outlet 3

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-14.qld

Last Altered: Wednesday, April 07, 2021 9:48:29 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:49:18 AM Pacific Daylight Time

4.7.2021 CT 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

	#	Name	Resp	IS Resp	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	4.58e6	1.98e6	1.16	1.000	10.16	10.15	1.006	1.006	NO	398		0.951
2	2	Naphthalene-2nd	4.96e5	1.98e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	391		11.8
3	3	2-Methylnaphthalene	1.01e6	1.15e6	1.38	1.000	11.61	11.62	0.794	0.796	NO	128		0.716
4	4	Acenaphthylene	2.15e4	1.81e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	2.13		0.275
5	5	Acenaphthene	7.03e3	1.15e6	1.10	1.000	14.70	14.70	1.006	1.006	NO	1.11		0.494
6	6	Fluorene	3.52e4	1.24e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	4.93		0.268
7	7	Phenanthrene	2.65e5	1.95e6	1.19	1.000	18.32	18.34	1.002	1.003	NO	22.9		1.46
8	8	Phenanthrene-2nd	1.46e4	1.95e6	0.0925	1.000	18.31	18.34	1.002	1.003	NO	16.2		6.03
9	9	Anthracene	1.55e4	1.95e6	1.09	1.000	18.38	18.38	1.005	1.006	NO	1.45		1.59
10	10	Fluoranthene	4.40e5	3.22e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	24.8		0.0672
11	11	Pyrene	1.06e6	3.22e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	54.9		0.0616
12	12	Benz(a)anthracene	1.27e4	2.47e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	1.07		0.0845
13	13	Chrysene	6.14e4	2.72e6	0.852	1.000	23.37	23.38	1.003	1.004	NO	5.31		0.0886
14	14	Benzo(b)fluoranthene	6.72e4	4.24e6	1.10	1.000	26.94	26.94	1.005	1.005	NO	5.74		0.0923
15	15	Benzo(k)fluoranthene	2.35e4	5.25e6	1.04	1.000	27.03	27.02	1.004	1.004	NO	1.73		0.0963
16	16	Benzo(e)pyrene	4.96e5	5.25e6	0.911	1.000	28.72	28.73	1.067	1.068	NO	41.5		0.110
17	17	Benzo(a)pyrene	1.33e5	4.21e6	1.02	1.000	28.98	28.96	1.006	1.005	NO	12.4		0.135
18	18	Perylene	1.16e4	4.21e6	0.987	1.000	29.72	29.67	1.031	1.030	NO	1.12		0.139
19	19	Indeno(1,2,3-c,d)pyrene	1.73e5	3.24e6	0.915	1.000	36.87	36.88	1.007	1.007	NO	23.4		0.517
20	20	Benzo(g,h,i)perylene	1.39e6	3.55e6	0.940	1.000	40.13	40.22	1.009	1.012	NO	167		0.463
21	21	Dibenz(a,h)anthracene		2.77e6	0.948	1.000	36.71		1.011		YES			0.389
22	22	d8-Naphthalene	1.98e6	3.01e6	1.20	1.000	10.12	10.10	0.848	0.847	NO	110	54.8	0.0349
23	23	d8-Acenaphthylene	1.81e6	3.01e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	133	66.4	0.115
24	24	d10-Acenaphthene	1.15e6	3.01e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	129	64.4	0.0646
25	25	d10-Fluorene	1.24e6	3.01e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	146	73.2	0.0521
26	26	d10-Phenanthrene	1.95e6	3.01e6	0.735	1.000	18.28	18.28	1.533	1.533	NO	176	88.2	0.0353
27	27	d10-Fluoranthene	3.22e6	3.01e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	167	83.3	0.0175
28	28	d12-Benz(a)anthracene	2.47e6	3.01e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	183	91.3	0.0286
29	29	d12-Chrysene	2.72e6	3.01e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	177	88.4	0.0252
30	30	d12-Benzo(b)fluoranthene	4.24e6	2.19e6	1.18	1.000	26.77	26.80	0.907	0.908	NO	328	81.9	0.152
31	31	d12-Benzo(k)fluoranthene	5.25e6	2.19e6	1.50	1.000	26.88	26.91	0.911	0.912	NO	319	79.7	0.119

842 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-14.qld

Last Altered: Wednesday, April 07, 2021 9:48:29 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:49:18 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

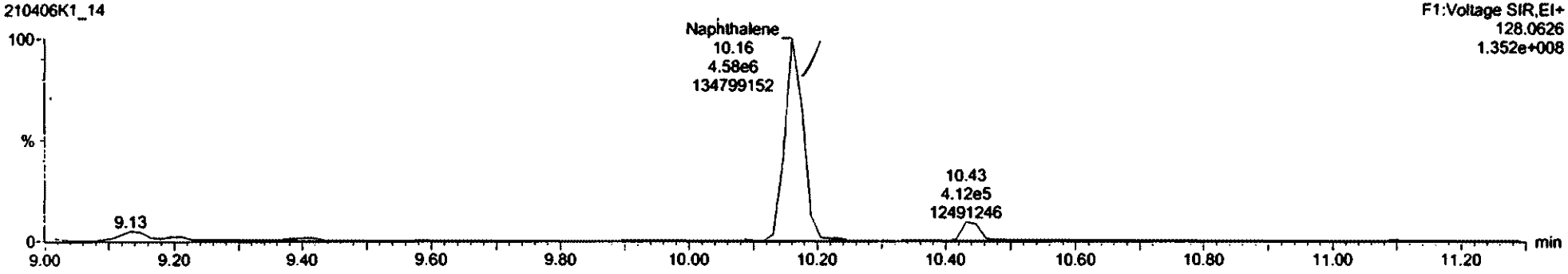
	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	4.21e6	2.19e6	1.24	1.000	28.77	28.81	0.975	0.977	NO	311	77.7	0.145
33	33	d12-Indeno(1,2,3-c,d)pyrene	3.24e6	2.19e6	1.02	1.000	36.79	36.62	1.247	1.241	NO	290	72.6	0.218
34	34	d12-Benzo(g,h,i)perylene	3.55e6	2.19e6	1.00	1.000	40.19	39.76	1.362	1.347	YES ok	323	80.7	0.221
35	35	d14-Dibenz(a,h)anthracene	2.77e6	2.19e6	0.765	1.000	36.57	36.30	1.239	1.230	NO	330	82.5	0.209
36	36	d10-Anthracene	1.43e6	2.19e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	132	66.2	0.115
37	37	d14-Terphenyl	5.65e6	3.22e6	0.576	1.000	20.69	20.72	1.018	1.020	NO	609	122	0.0297
38	38	d12-Benzo(e)pyrene	5.22e6	5.25e6	0.738	1.000	28.53	28.56	1.060	1.061	NO	540	108	0.182
39	39	d10-1-Methylnaphthalene	1.83e6	1.83e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0849
40	40	d10-Pyrene	3.01e6	3.01e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0225
41	41	d12-Perylene	2.19e6	2.19e6	1.00	1.000	29.59	29.50	1.000	1.000	NO	200	100	0.179

Dataset: Untitled

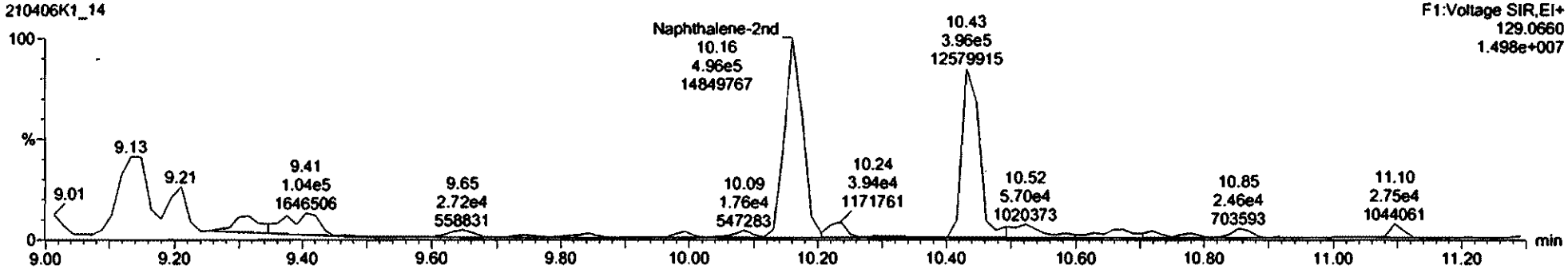
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

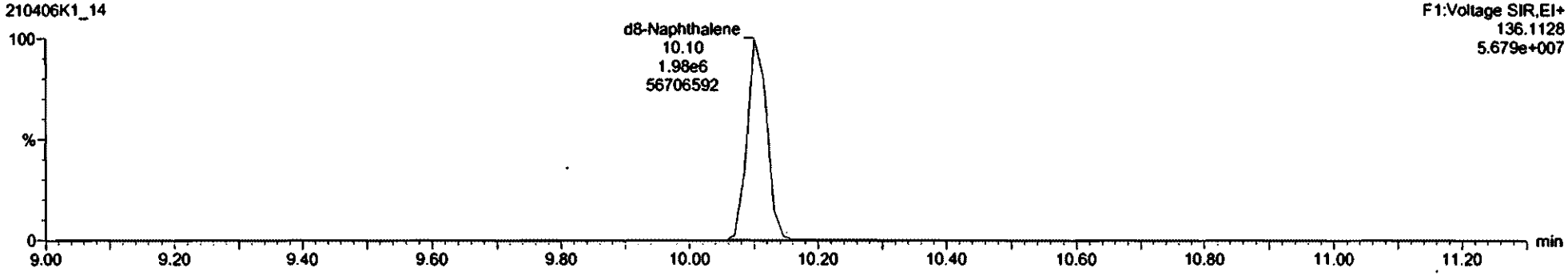
Naphthalene



Naphthalene-2nd



d8-Naphthalene



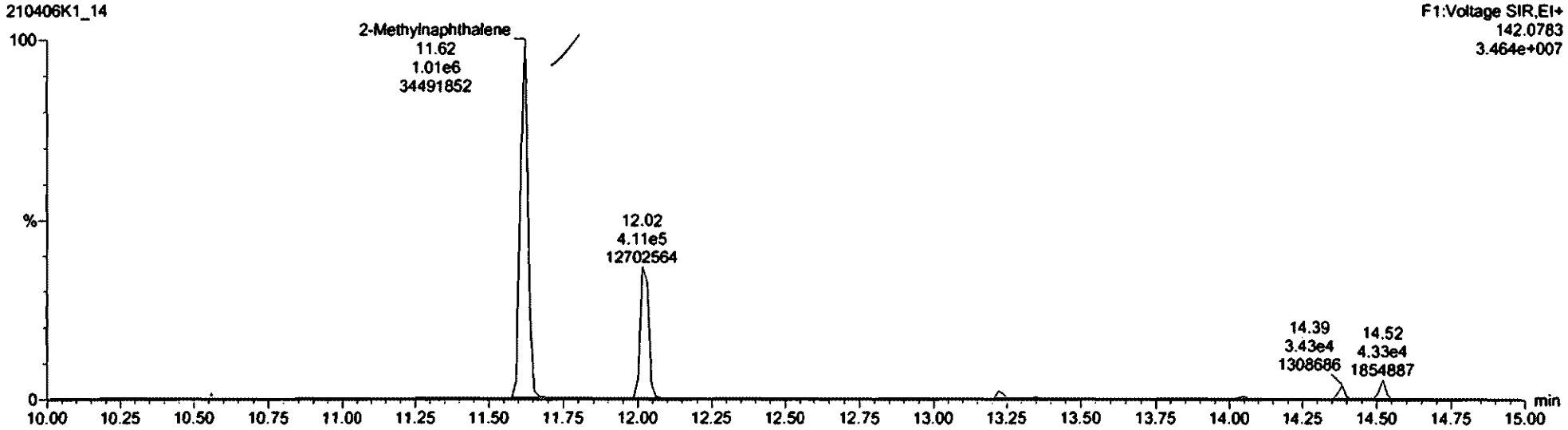
844 of 1215

Dataset: Untitled

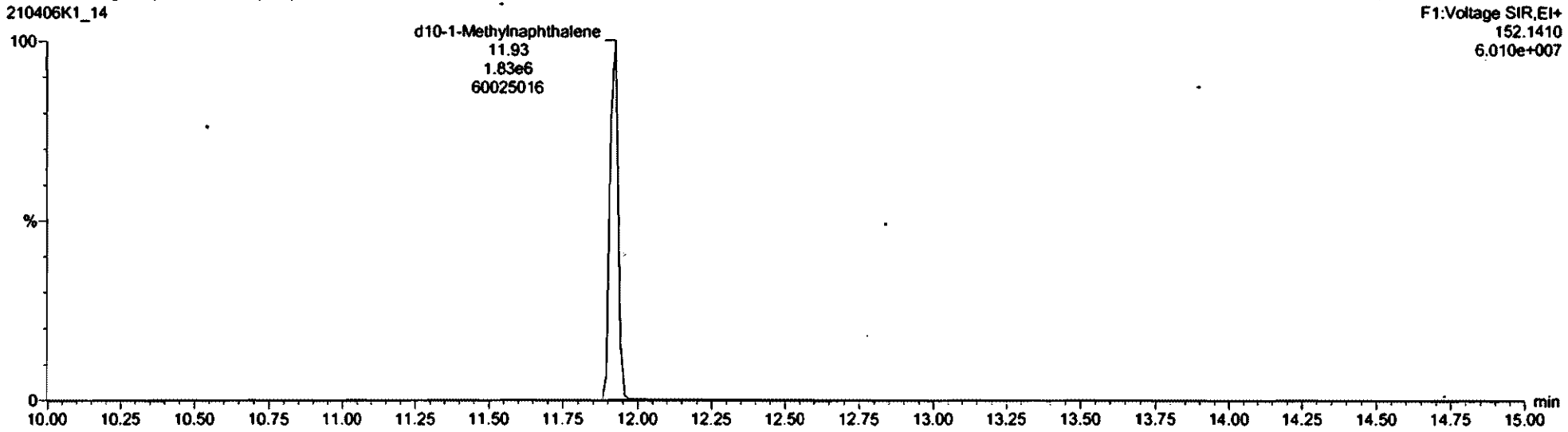
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



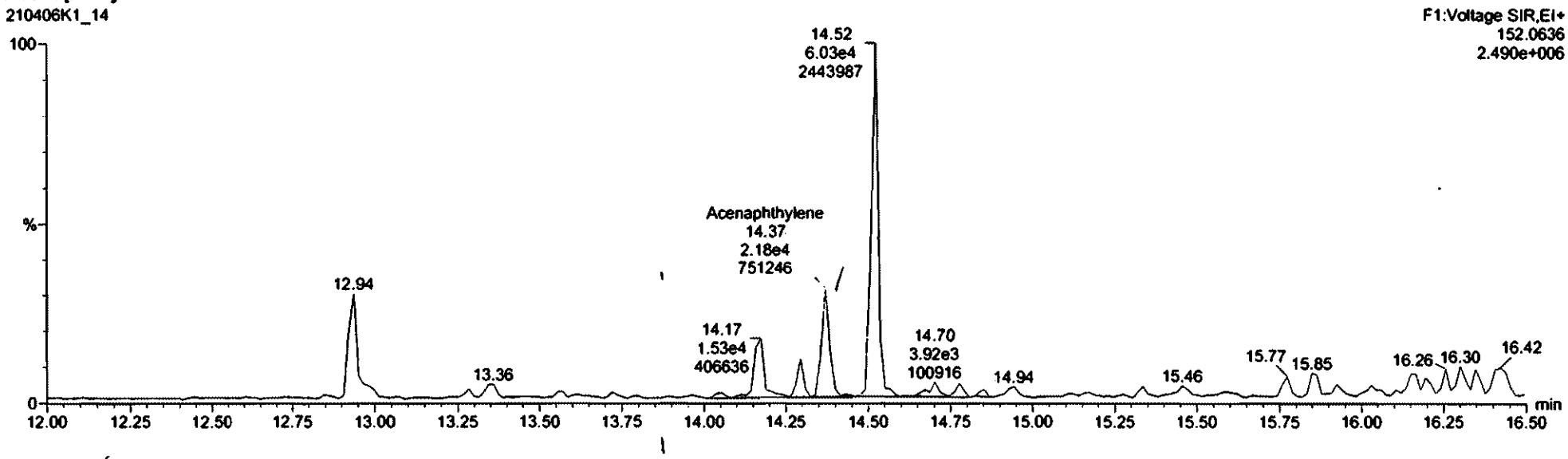
845 of 1215

Dataset: Untitled

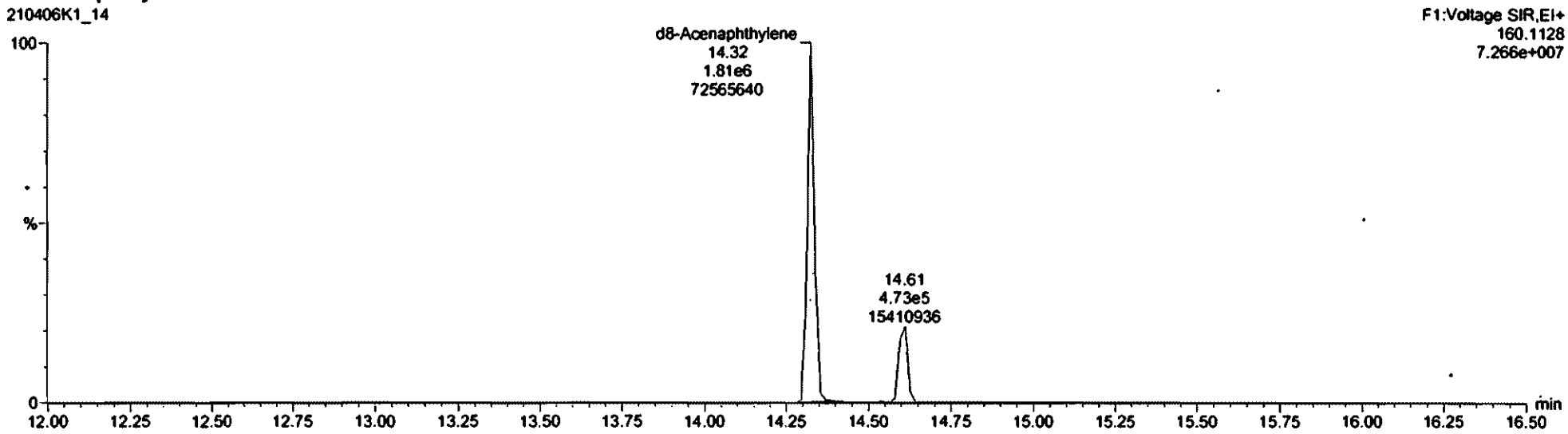
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

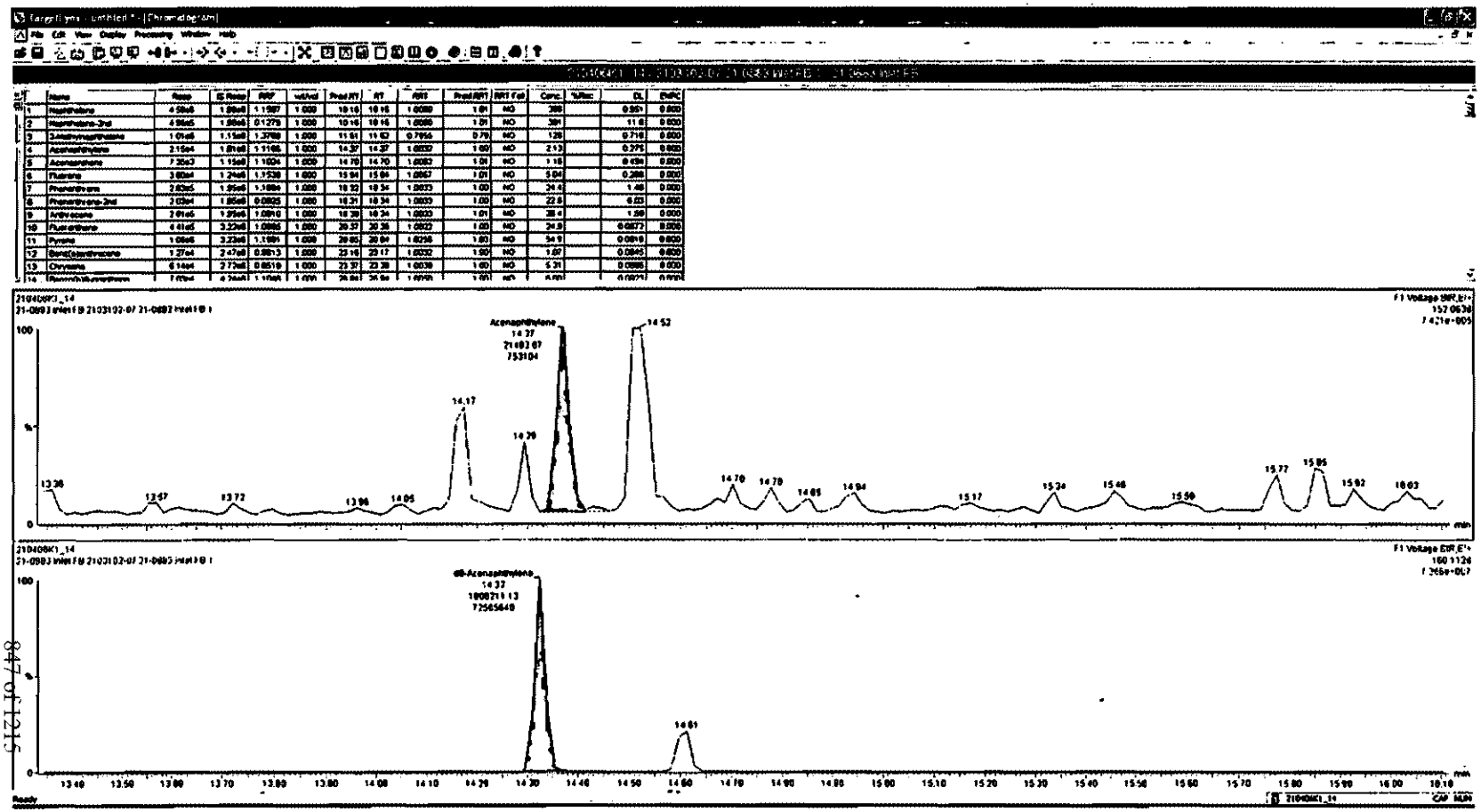
Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Acenaphthylene



d8-Acenaphthylene




Acenaphthylene
14.37
753104
14.52
14.17
14.39
d8-Acenaphthylene
14.37
72565648
14.61

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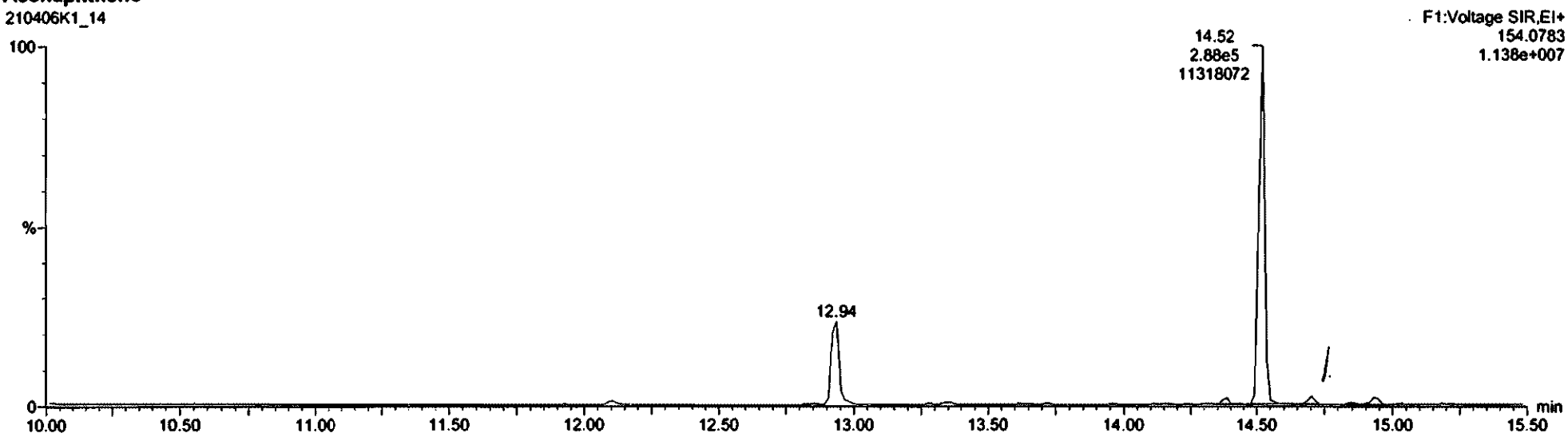
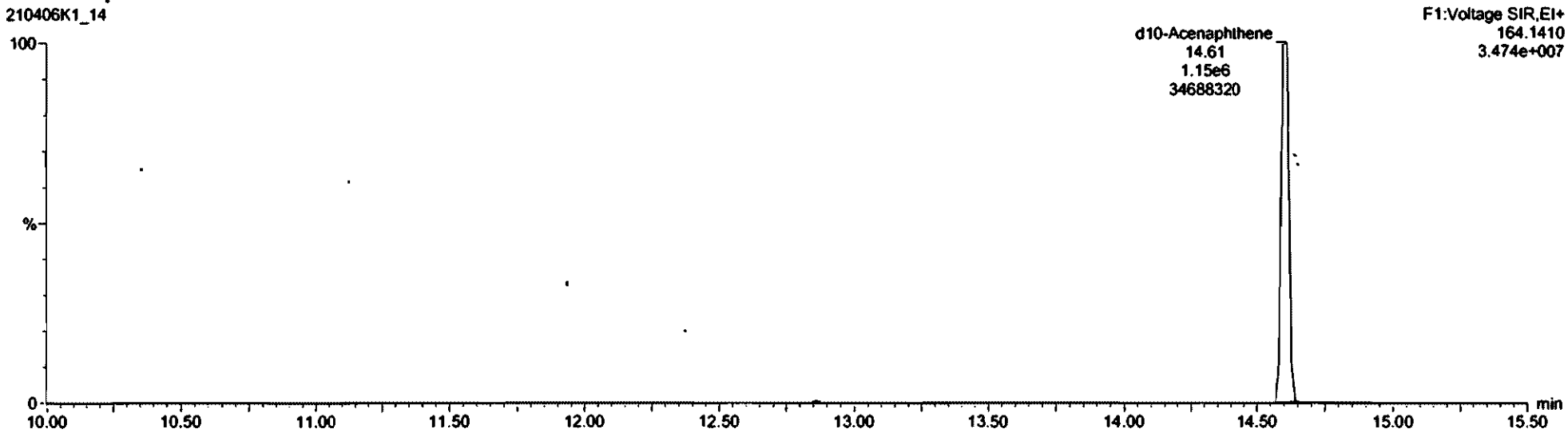
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Acenaphthene



d10-Acenaphthene

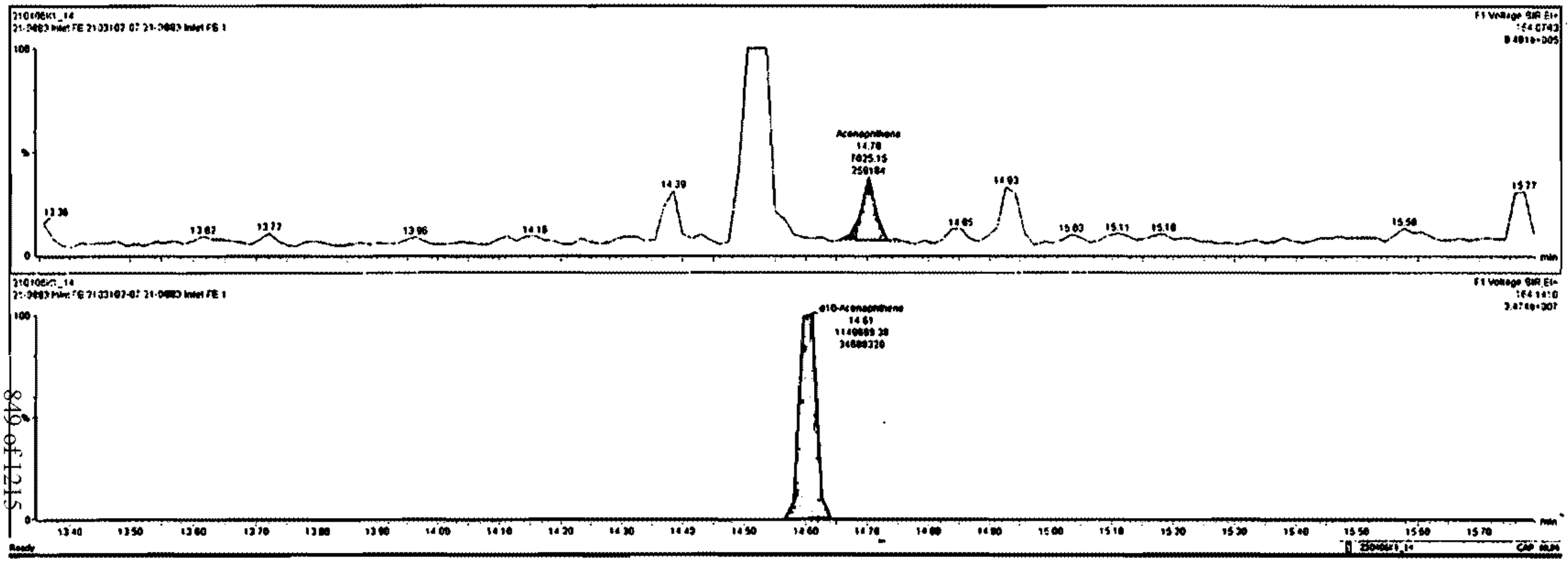


848 of 1215

TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/Vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	4.56e6	1.98e6	1.1587	1.000	10.16	10.16	1.0000	1.01	NO	388		0.851	0.000
2	Naphthalene-2nd	4.56e5	1.98e6	0.1270	1.000	10.16	10.16	1.0000	1.01	NO	391		11.0	0.000
3	2-Methylnaphthalene	1.01e6	1.15e6	1.3700	1.000	11.61	11.62	0.7866	0.79	NO	128		0.716	0.000
4	Acenaphthylene	2.15e4	1.69e6	1.1100	1.000	14.37	14.37	1.0032	1.00	NO	2.13		0.275	0.000
5	Acenaphthene	7.03e3	1.19e6	1.1024	1.000	14.70	14.70	1.0082	1.01	NO	1.35		0.484	0.000
6	Fluorene	3.80e4	1.24e6	1.1530	1.000	15.84	15.84	1.0067	1.01	NO	5.04		0.380	0.000
7	Phenanthrene	2.83e5	1.95e6	1.1884	1.000	18.32	18.34	1.0033	1.00	NO	24.4		1.48	0.000
8	Phenanthrene-2nd	2.03e4	1.95e6	0.0825	1.000	18.32	18.34	1.0033	1.00	NO	22.8		8.83	0.000
9	Anthracene	2.81e5	1.95e6	1.0919	1.000	18.39	18.34	1.0033	1.01	NO	26.4		1.59	0.000
10	Fluoranthene	4.41e5	3.22e6	1.0886	1.000	20.37	20.36	1.0022	1.00	NO	24.9		0.0872	0.000
11	Pyrene	1.08e6	3.22e6	1.1984	1.000	20.85	20.84	1.0256	1.03	NO	54.9		0.0898	0.000
12	Benz(a)anthracene	1.27e4	2.47e6	0.8913	1.000	23.16	23.17	1.0032	1.00	NO	1.87		0.0845	0.000
13	Chrysene	6.14e4	2.72e6	0.8610	1.000	23.37	23.38	1.0039	1.00	NO	5.31		0.0885	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]		[illegible]	[illegible]



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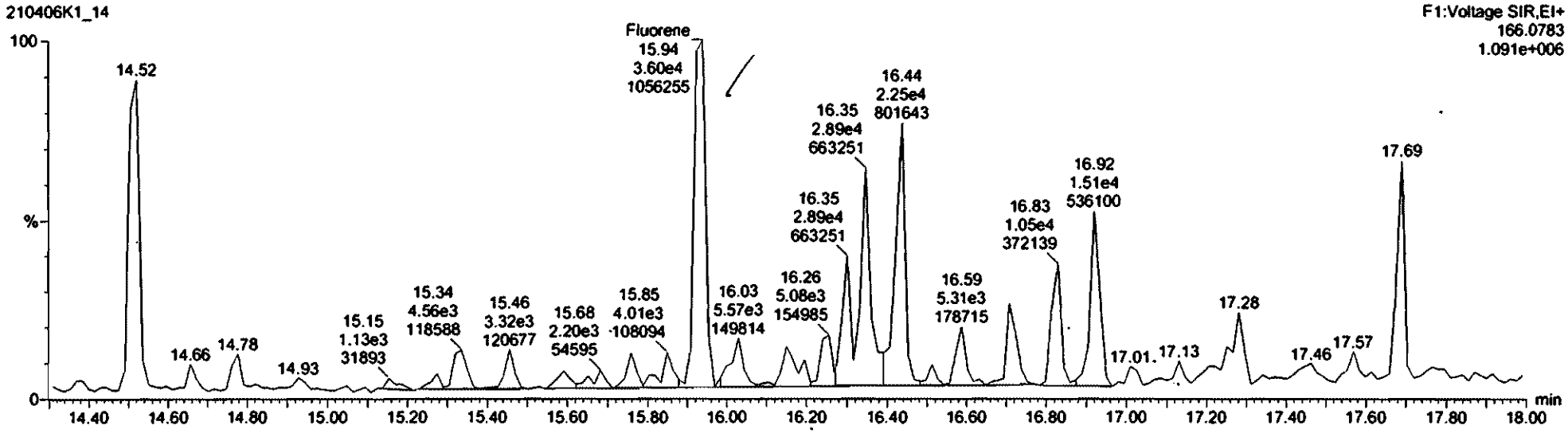
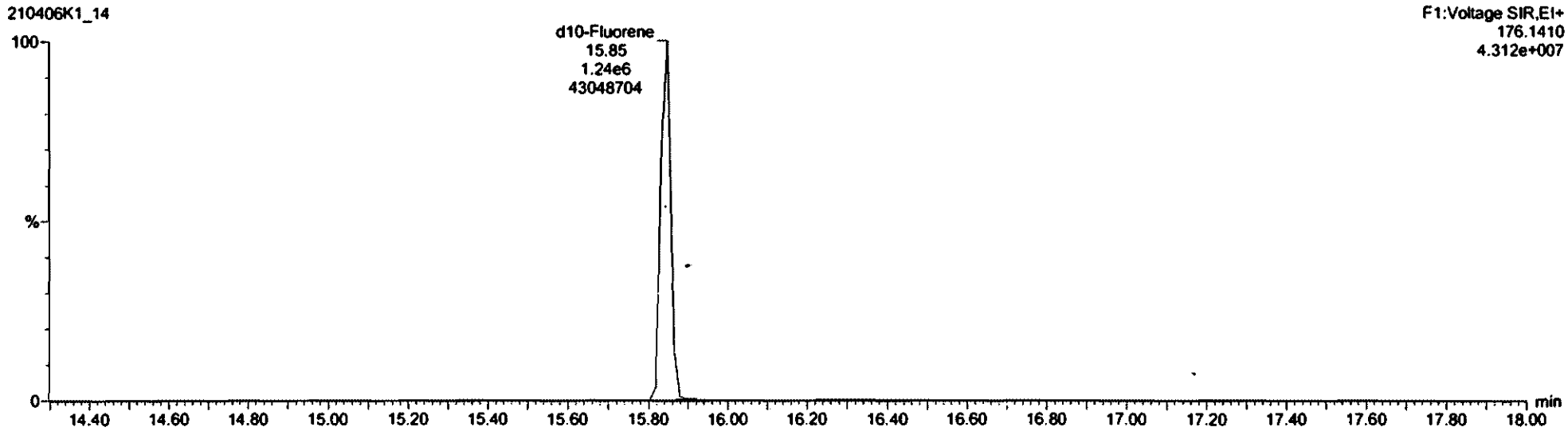
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Fluorene



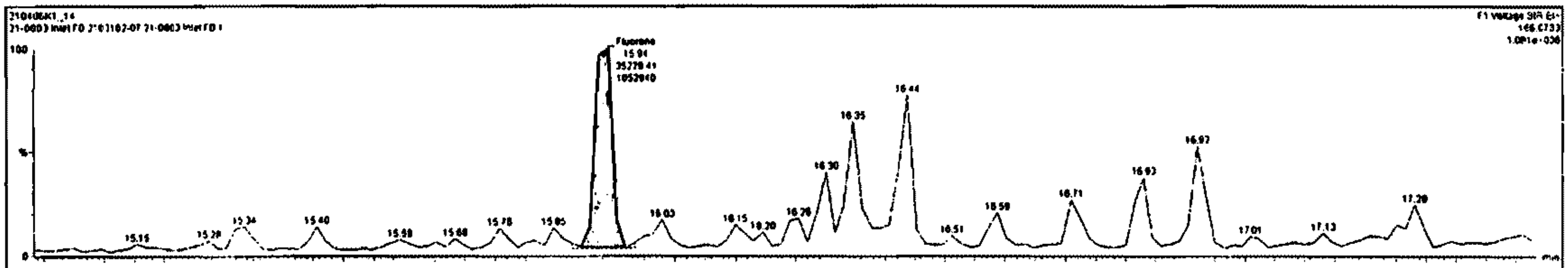
d10-Fluorene

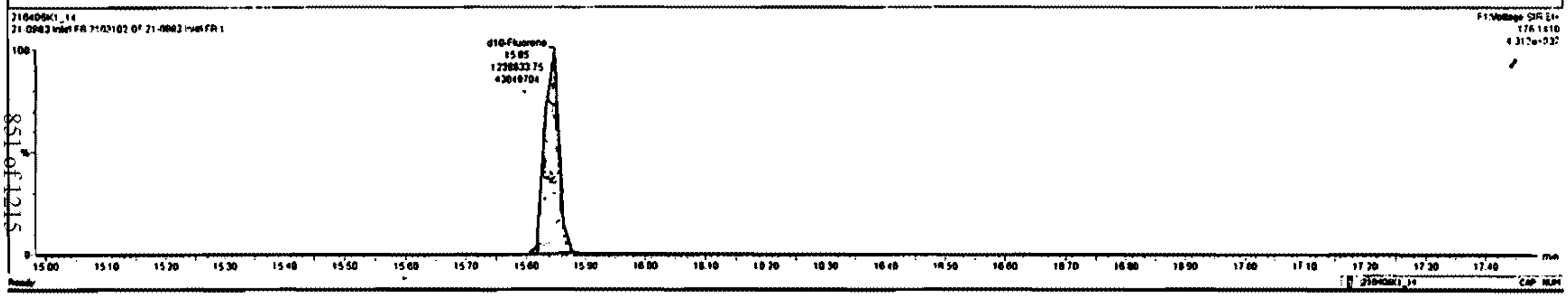


TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Area	IS Area	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT(a)	Conc.	%Rec	DL	EMPC
1	Naphthalene	4.39e6	1.39e6	1.1597	1.000	10.16	10.16	1.0080	1.01	NO	389		0.861	0.000
2	Naphthalene-2nd	4.89e6	1.89e6	0.1379	1.000	10.14	10.16	1.0088	1.01	NO	391		11.8	0.000
3	2-Methylnaphthalene	1.04e6	1.15e6	1.3769	1.000	11.61	11.62	0.7855	0.78	NO	128		0.716	0.000
4	Acenaphthylene	2.15e4	1.81e6	1.1186	1.000	14.37	14.37	1.0032	1.00	NO	2.13		0.275	0.000
5	Acenaphthene	7.03e3	1.15e6	1.1024	1.000	14.70	14.70	1.0082	1.01	NO	1.11		0.484	0.000
6	Fluorene	3.53e4	1.24e6	1.1538	1.000	15.94	15.94	1.0087	1.01	NO	4.83		0.388	0.000
7	Phenanthrene	2.83e6	1.95e6	1.1084	1.000	18.32	18.34	1.0033	1.00	NO	24.4		1.48	0.000
8	Phenanthrene-2nd	2.83e4	1.95e6	0.0825	1.000	18.31	18.34	1.0020	1.00	NO	22.8		8.03	0.000
9	Anthracene	2.81e6	1.85e6	1.0810	1.000	18.38	18.34	1.0030	1.01	NO	28.4		1.59	0.000
10	Fluoranthene	4.41e6	3.22e6	1.0885	1.000	20.37	20.38	1.0022	1.00	NO	24.9		0.0872	0.000
11	Pyrene	1.05e6	3.27e6	1.1181	1.000	20.85	20.84	1.0216	1.00	NO	54.9		0.0816	0.000
12	Benz(a)anthracene	1.27e4	2.47e6	0.9813	1.000	23.16	23.17	1.0032	1.00	NO	1.07		0.0845	0.000
13	Chrysene	6.14e4	2.72e6	0.8519	1.000	23.37	23.39	1.0038	1.00	NO	5.31		0.0888	0.000
14	[illegible]	[illegible]	[illegible]	[illegible]	1.000	26.84	26.84	1.0000	1.00	NO	6.00		[illegible]	0.000





Ready

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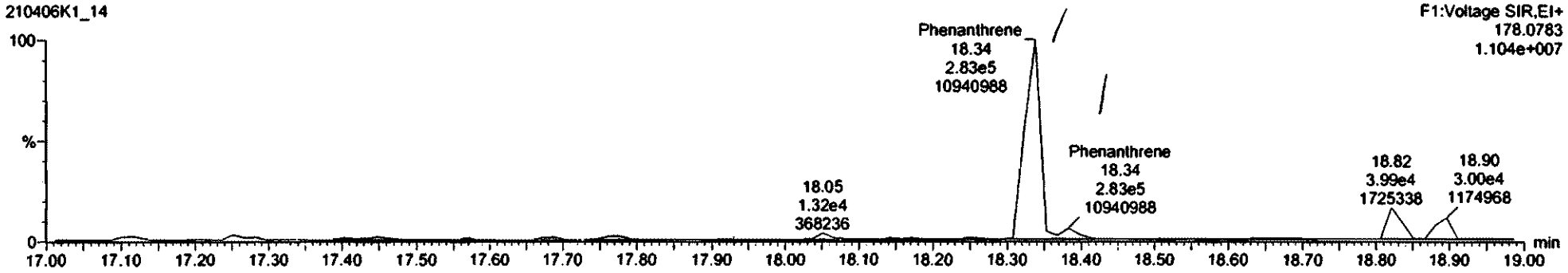
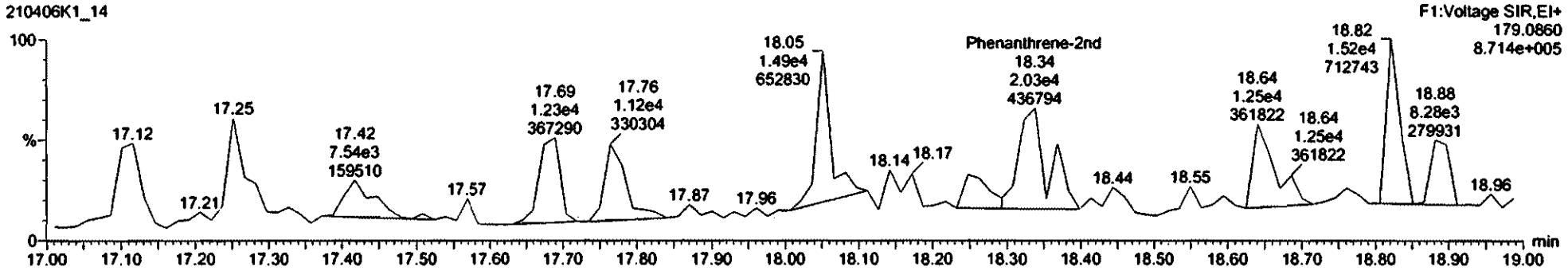
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

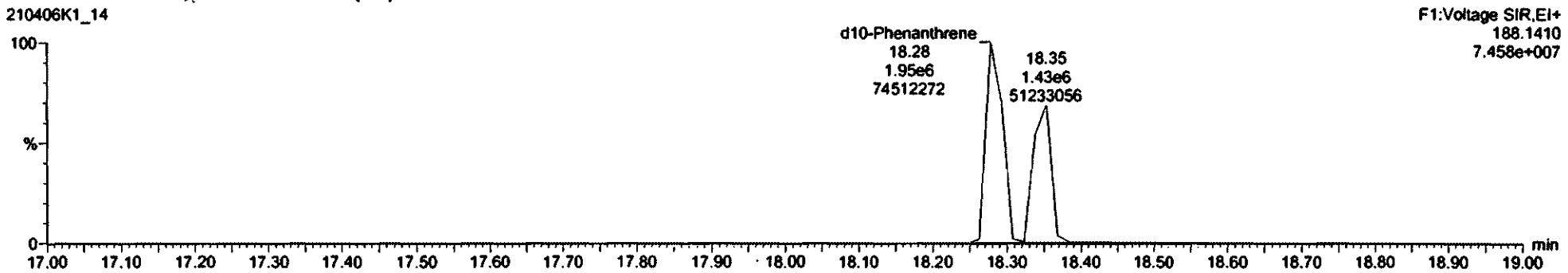
Phenanthrene; Anthrecene



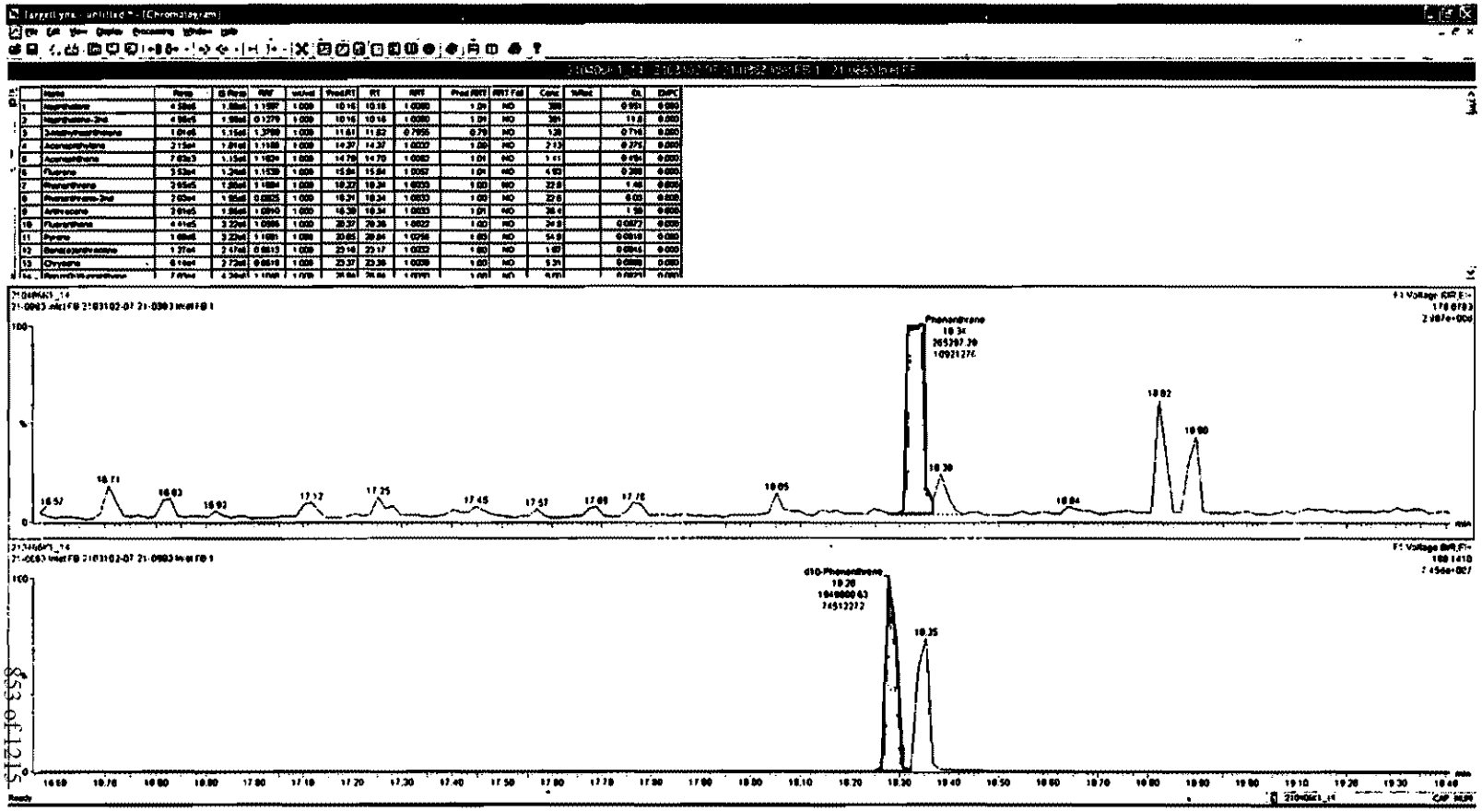
Phenanthrene-2nd

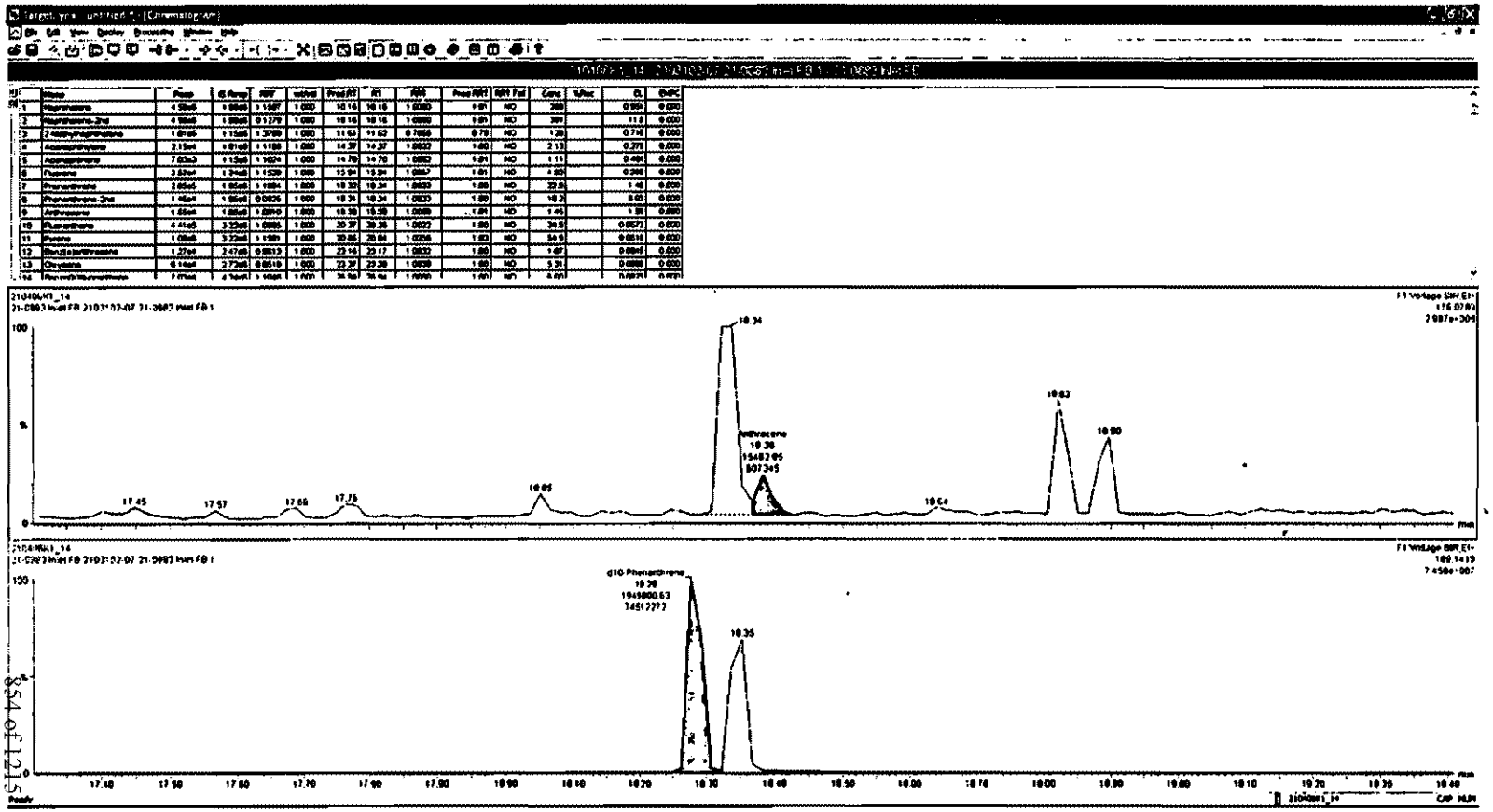


d10-Phenanthrene; d10-Anthrecene (AS)



852 of 1215


Phenanthrene
d10-Phenanthrene
853 of 1215

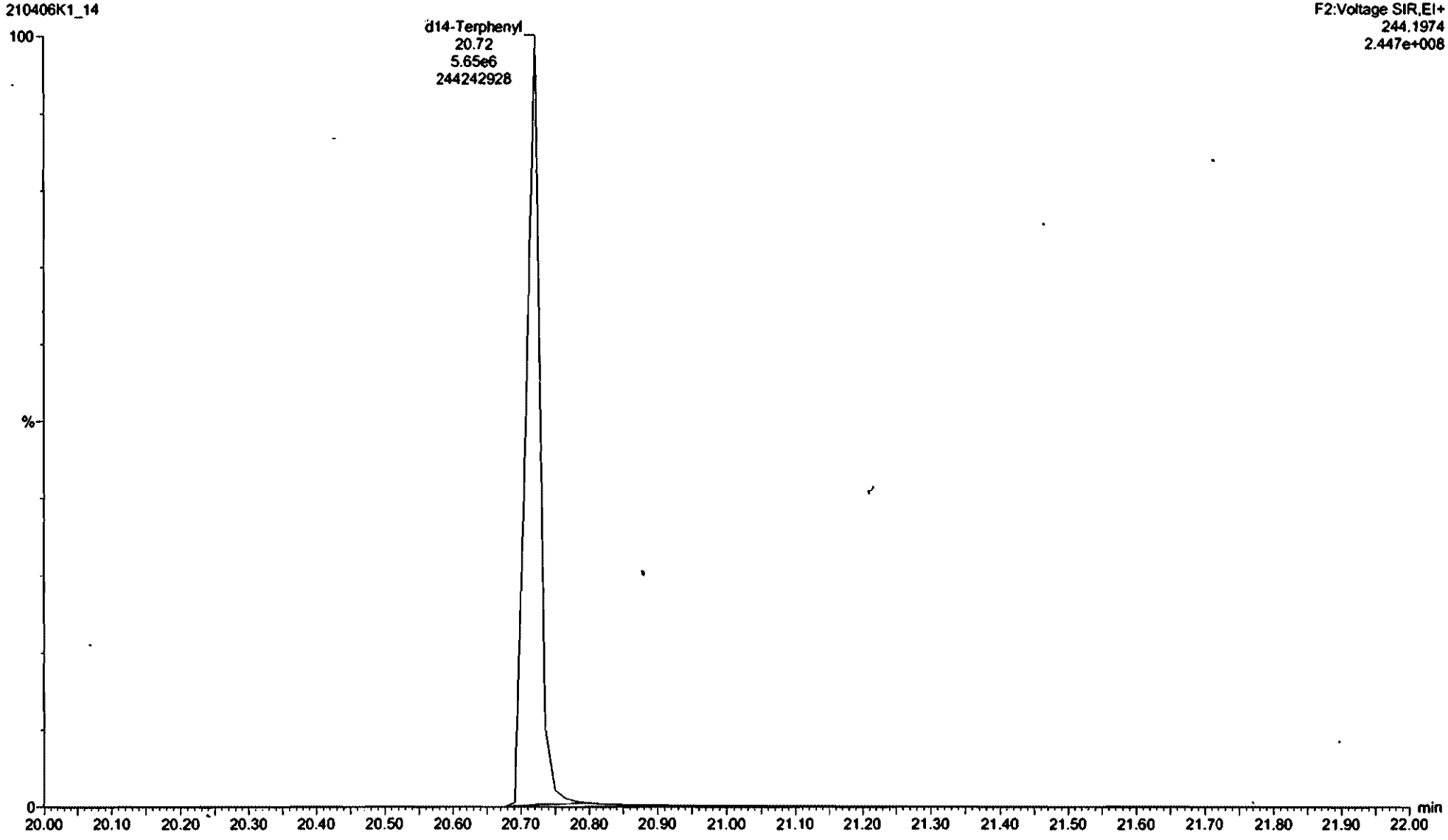


Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

d14-Terphenyl (PS)



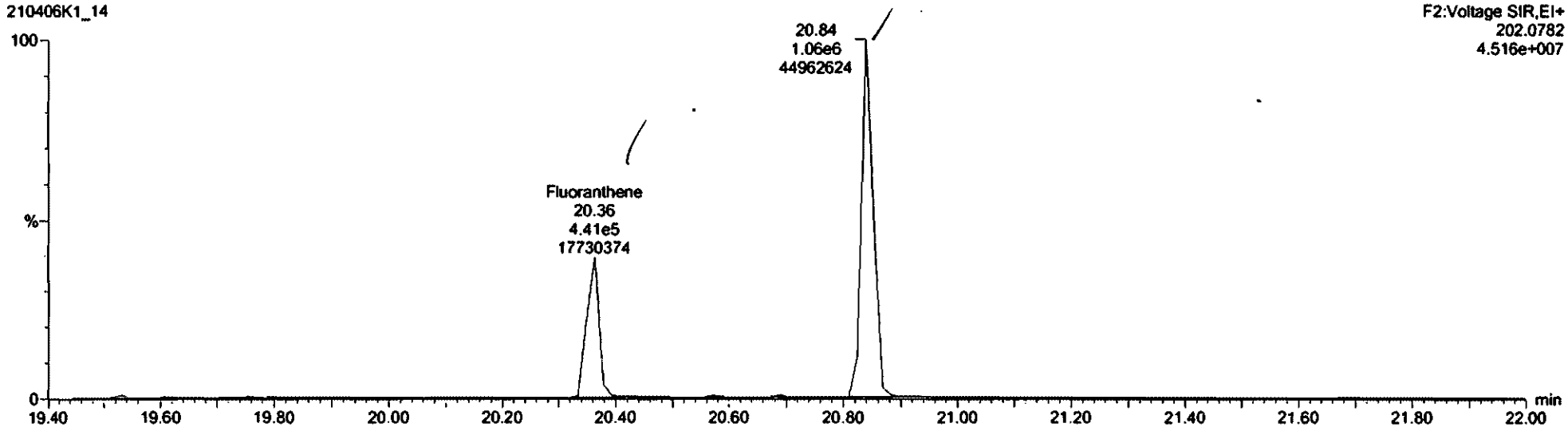
855 of 1215

Dataset: Untitled

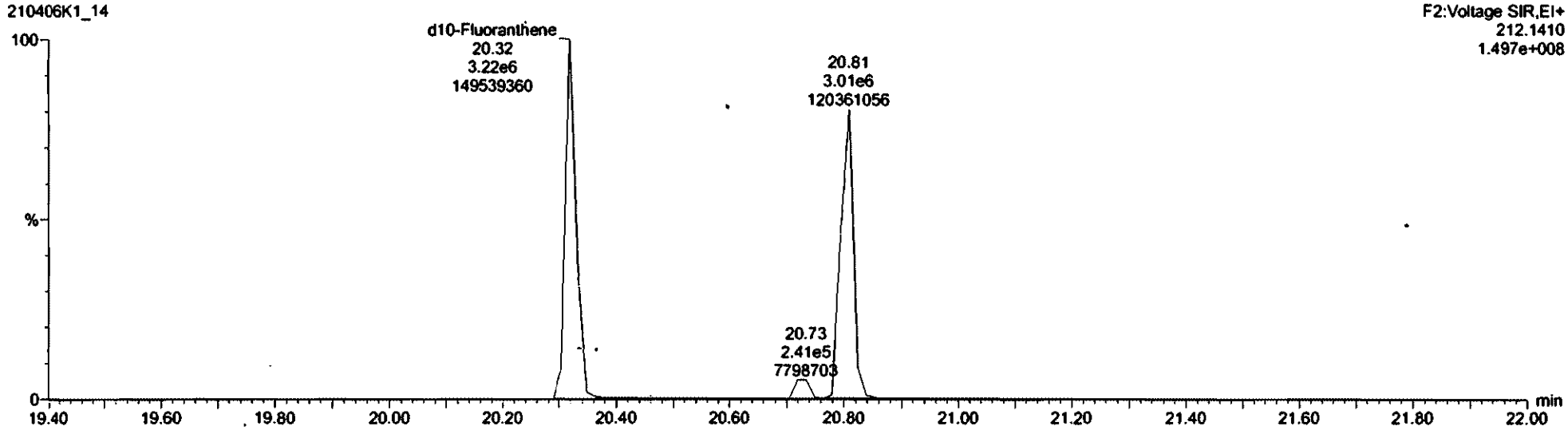
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

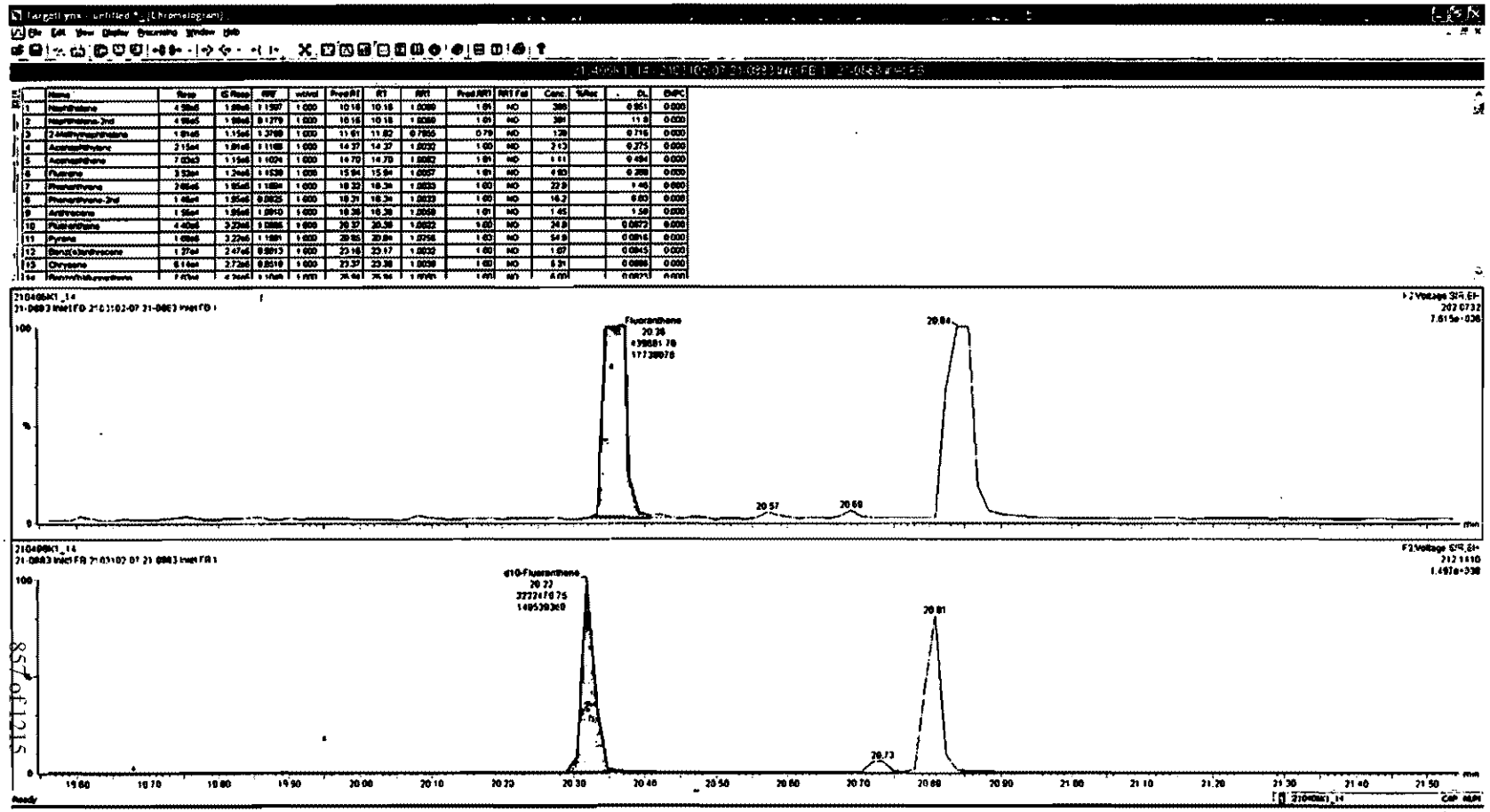
Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



856 of 1215


Fluoranthene
20.36
d10-Fluoranthene
20.72
20.84
20.57
20.68
20.73
20.81

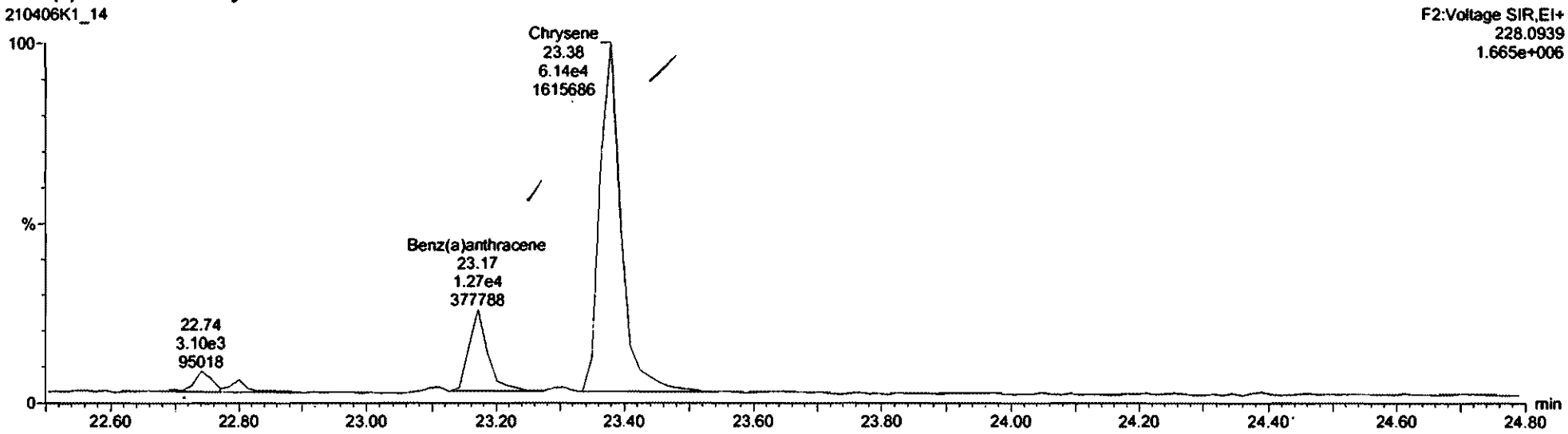
Vista Analytical Laboratory

Dàtaset: Untitled

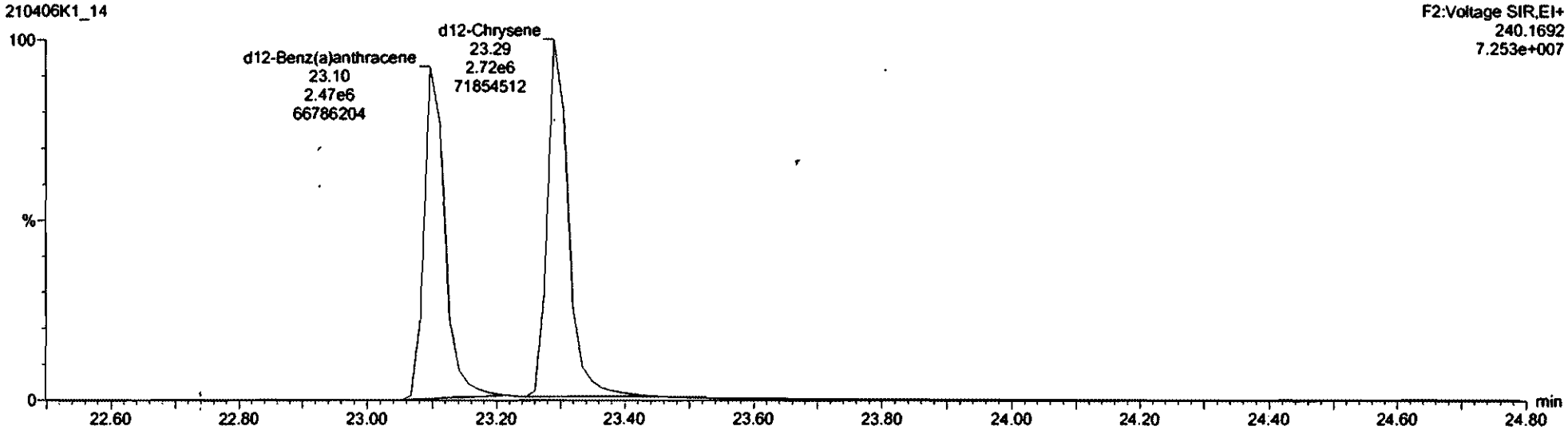
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



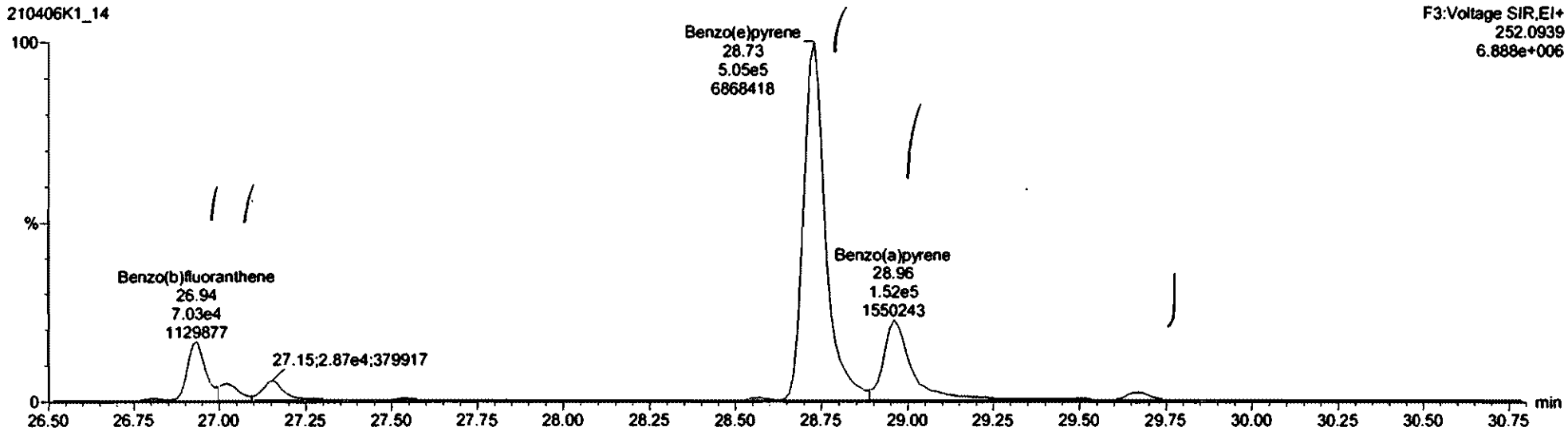
858 of 1215

Dataset: Untitled

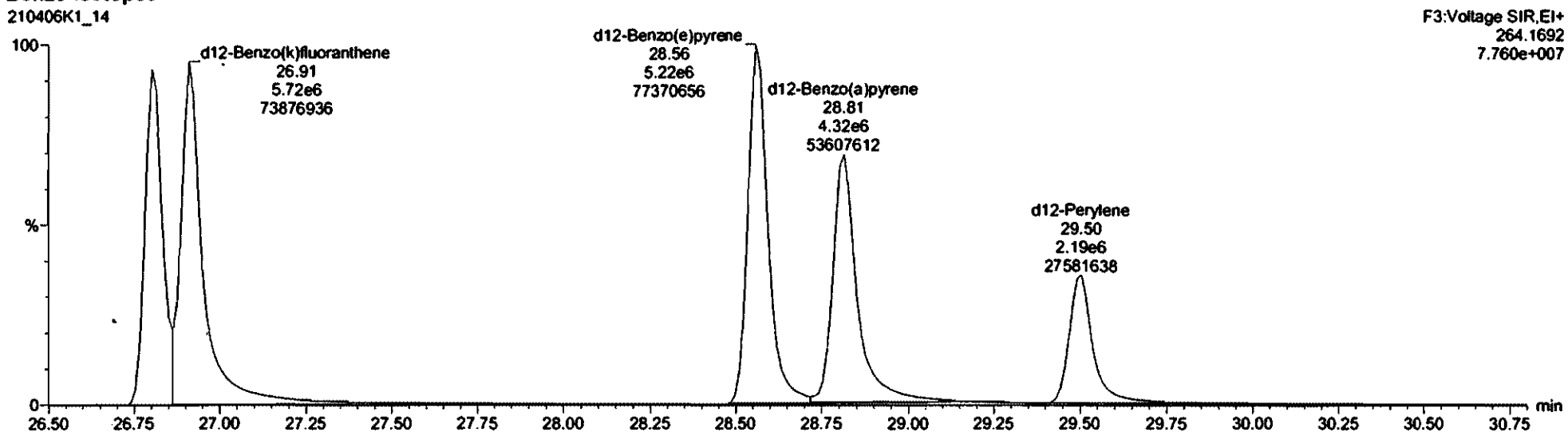
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

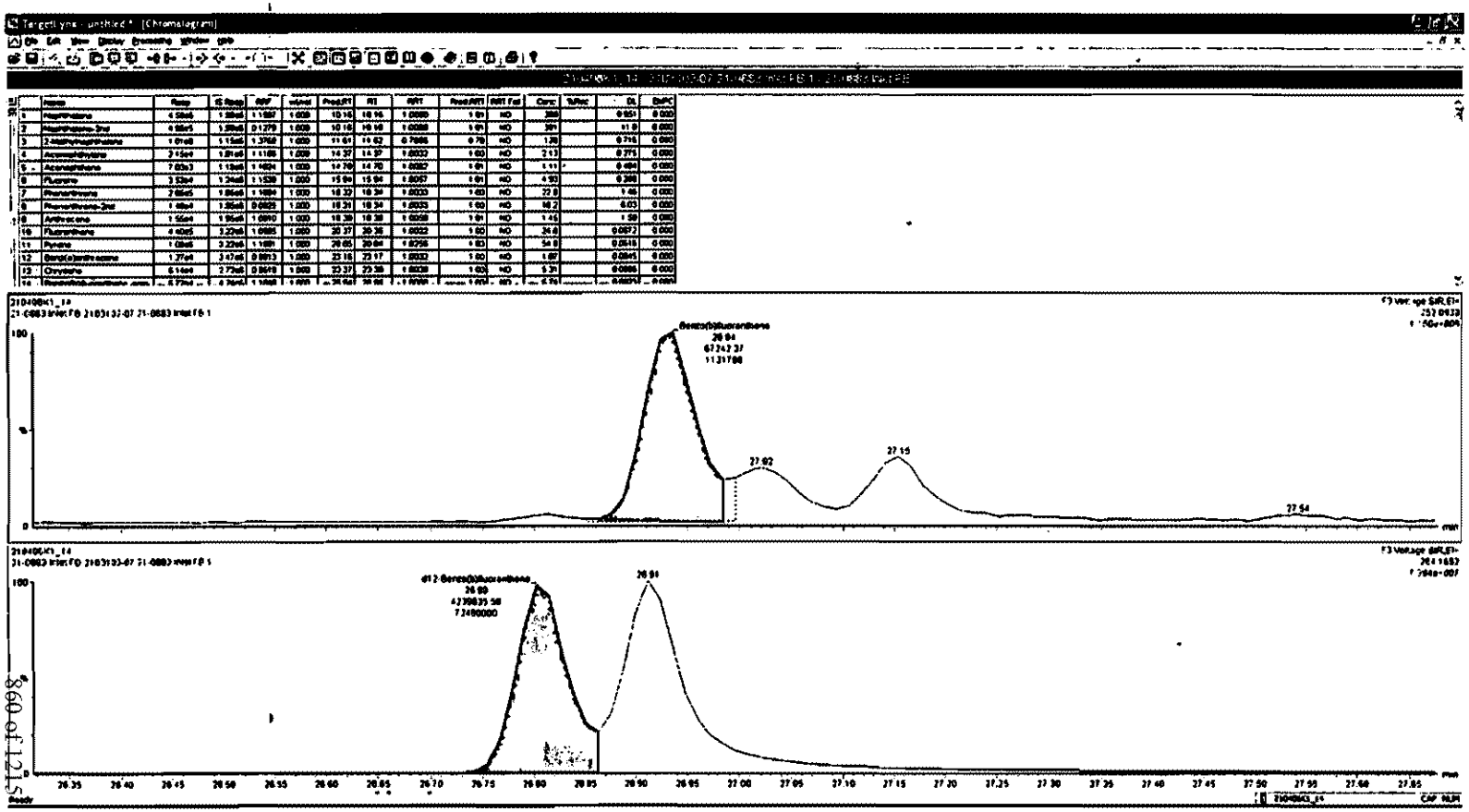
Benzo-PAHs

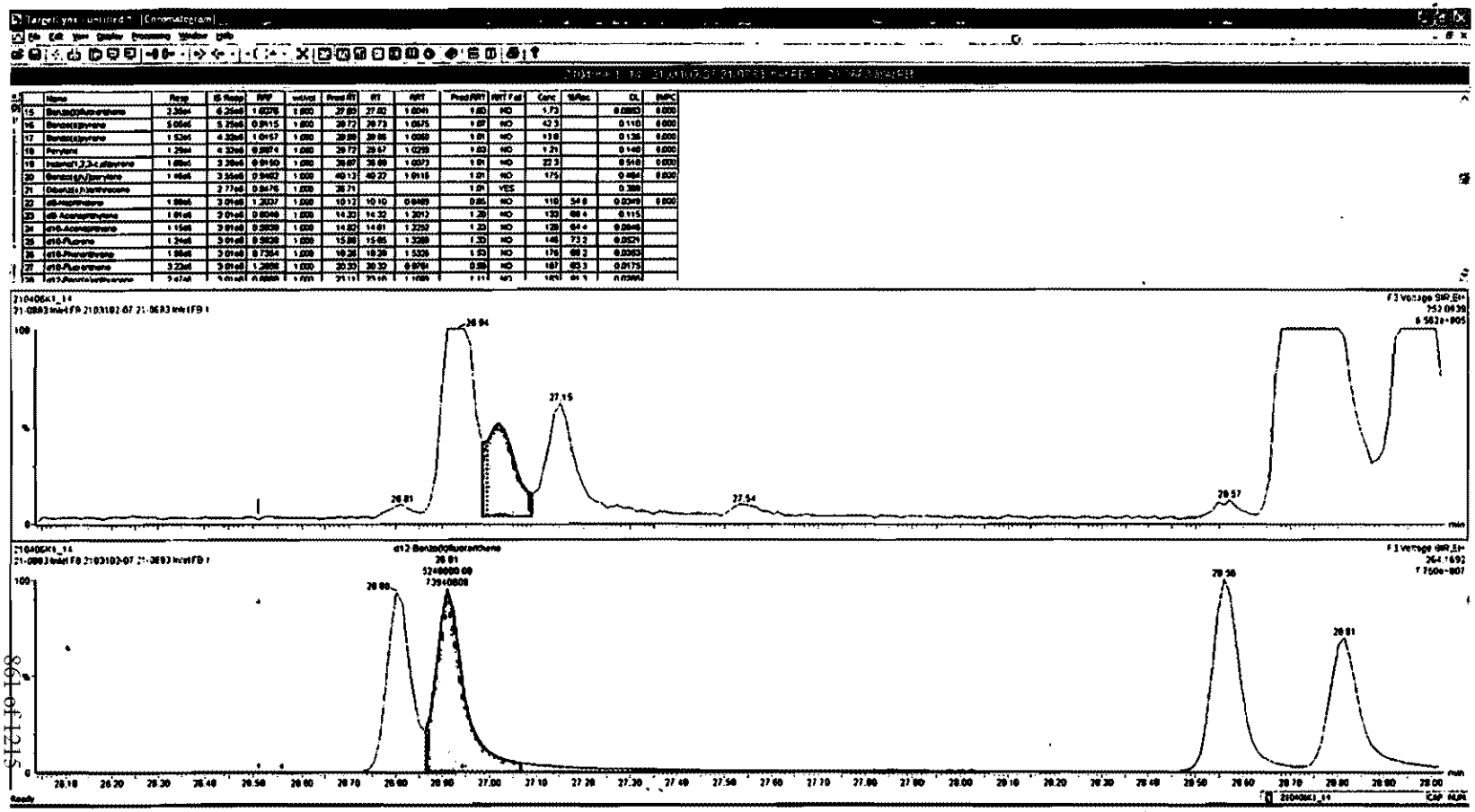


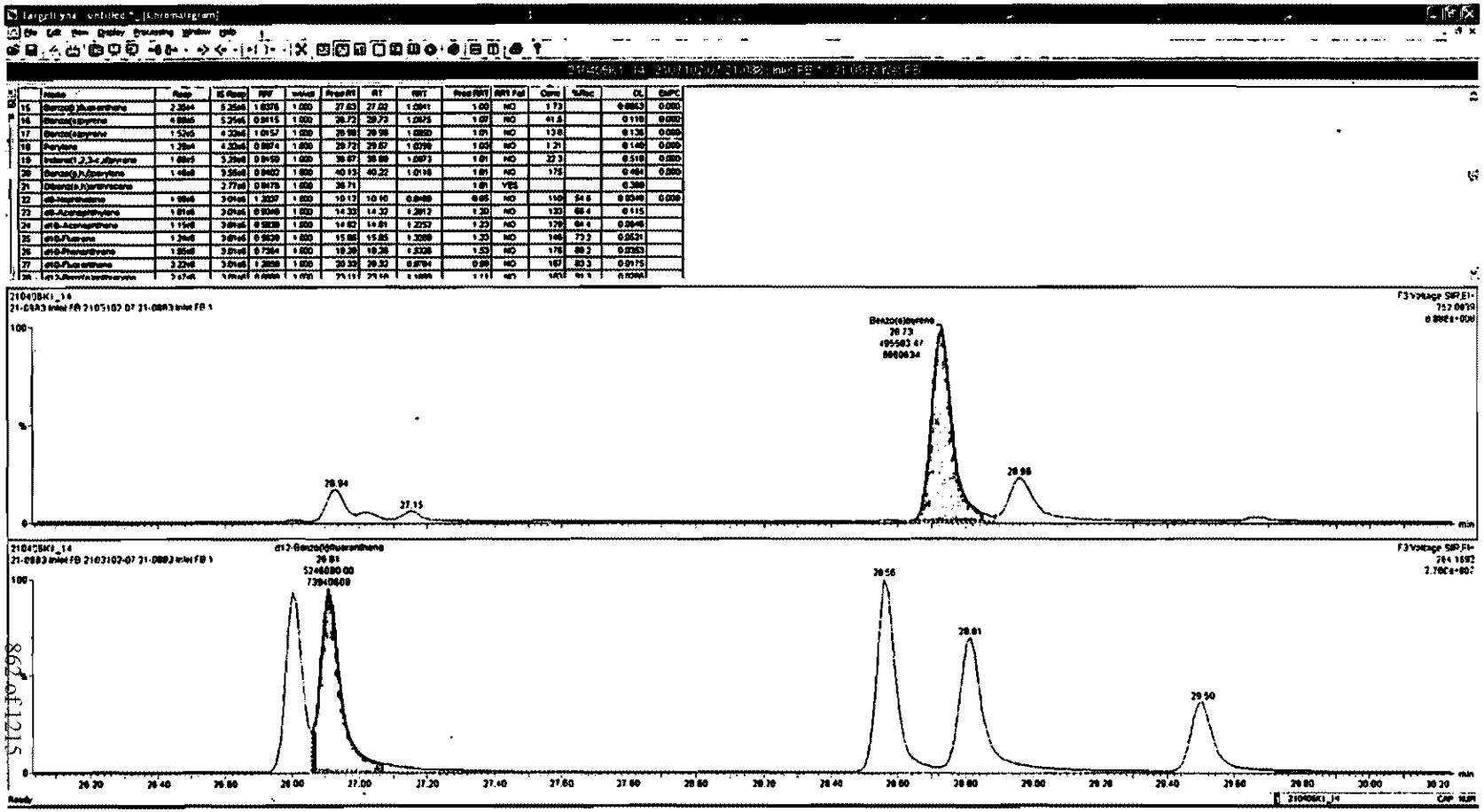
Benzo-Isotopes



859 of 1215



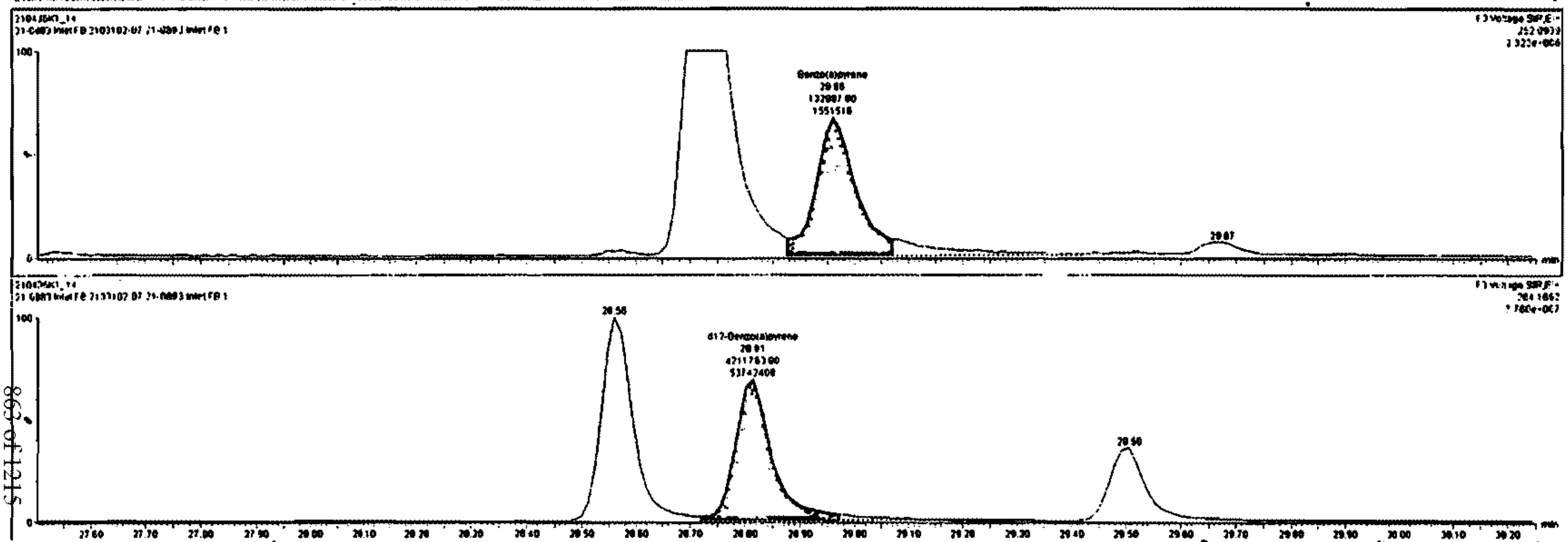



Benzo(e)pyrene
28.73
495583 47
8808634
28.94
27.15
28.98
d12-Benzo(b)fluoranthene
28.81
5246880.00
7394060.9
28.56
28.81
29.50

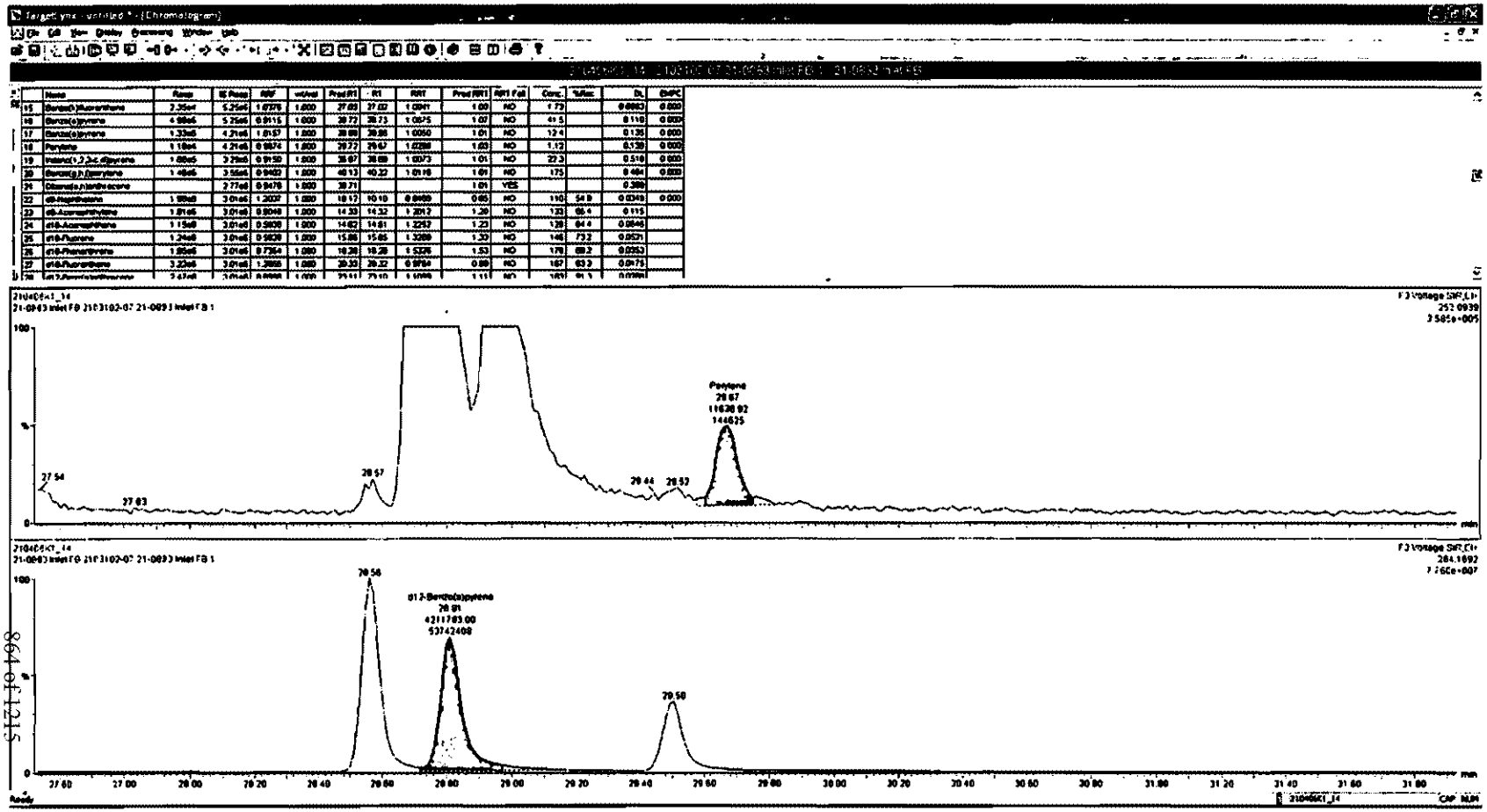
TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/Vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.35e4	5.35e6	1.0376	1.000	27.00	27.02	1.0041	1.00	NO	1.73		0.0983	0.000
16	Benzo(e)pyrene	4.98e6	5.25e6	0.9115	1.000	28.72	28.73	1.0675	1.07	NO	41.5		0.110	0.000
17	Benzo(a)pyrene	1.33e5	4.29e6	1.8167	1.000	28.88	28.88	1.0060	1.01	NO	12.4		0.135	0.000
18	Perylene	1.28e4	4.29e6	0.9874	1.000	28.72	28.87	1.0290	1.03	NO	1.24		0.130	0.000
19	Indeno(1,2,3-c,d)pyrene	1.88e5	3.29e6	0.9159	1.000	35.87	35.88	1.0073	1.01	NO	22.3		0.518	0.000
20	Benzo(g,h,i)perylene	1.46e6	3.55e6	0.9422	1.000	40.13	40.22	1.0118	1.01	NO	175		0.404	0.000
21	Dibenz(a,h)anthracene		2.77e6	0.9476	1.000	38.71			1.01	YES			0.380	
22	d8-Naphthalene	1.68e6	3.01e6	1.2037	1.000	10.12	10.18	0.8480	0.85	NO	110	54.8	0.0349	0.000
23	d8-Acenaphthylene	1.81e6	3.01e6	0.8849	1.000	14.33	14.32	1.2012	1.20	NO	133	66.4	0.115	
24	d10-Acenaphthene	1.11e6	3.01e6	0.5809	1.000	14.63	14.61	1.2262	1.23	NO	129	64.4	0.0846	
25	d10-Fluorene	1.34e6	3.01e6	0.5828	1.000	15.88	15.85	1.3280	1.33	NO	146	73.2	0.0521	
26	d10-Phenanthrene	1.95e6	3.01e6	0.7394	1.000	18.28	18.28	1.5330	1.53	NO	176	88.2	0.0363	
27	d10-Fluoranthene	3.22e6	3.01e6	1.2888	1.000	20.33	20.32	0.8784	0.88	NO	187	93.3	0.0175	
28	[illegible]	2.47e6	3.01e6	[illegible]	1.000	23.13	23.16	[illegible]	1.11	NO	183	91.3	[illegible]	



Ready

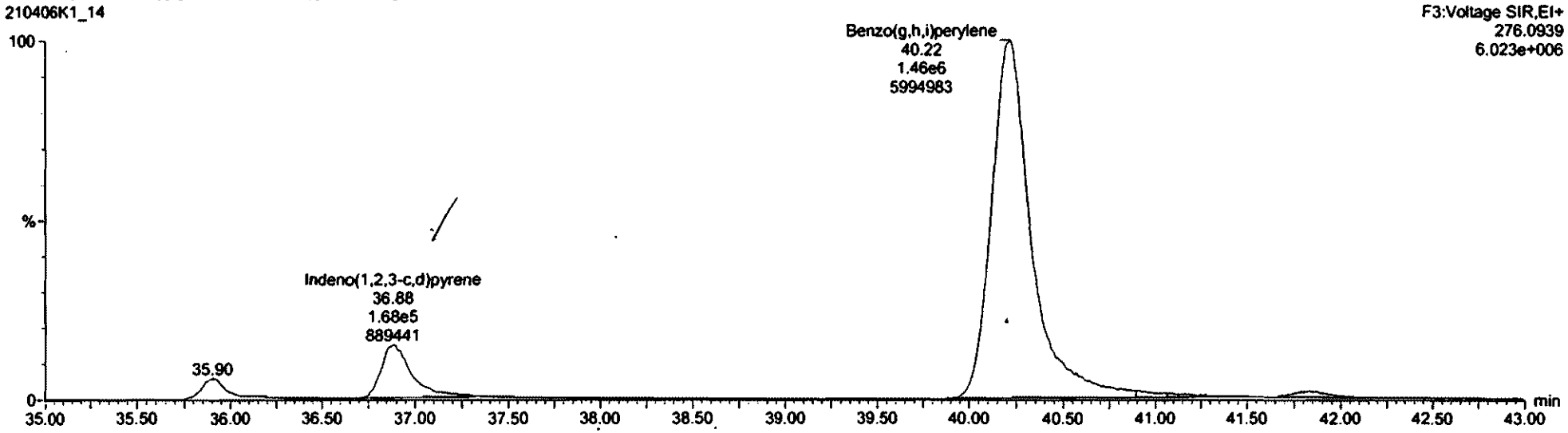

27.54
27.83
28.57
29.44
29.52
Perylene
29.67
11638.92
144625
29.56
31-2-Benzo(a)pyrene
29.81
4211703.00
53742408
29.50

Dataset: Untitled

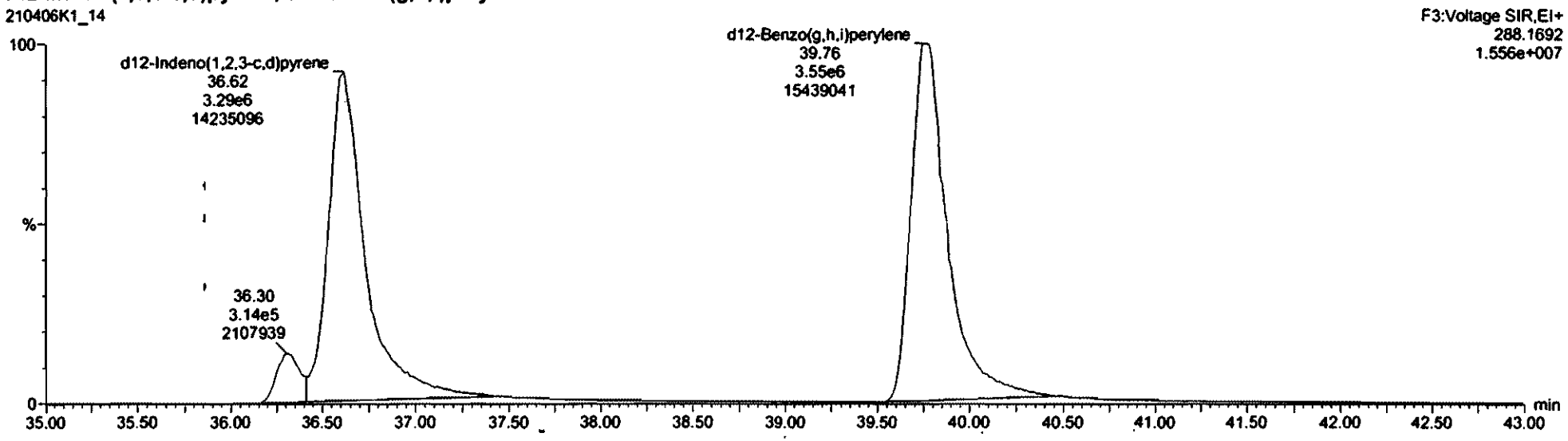
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

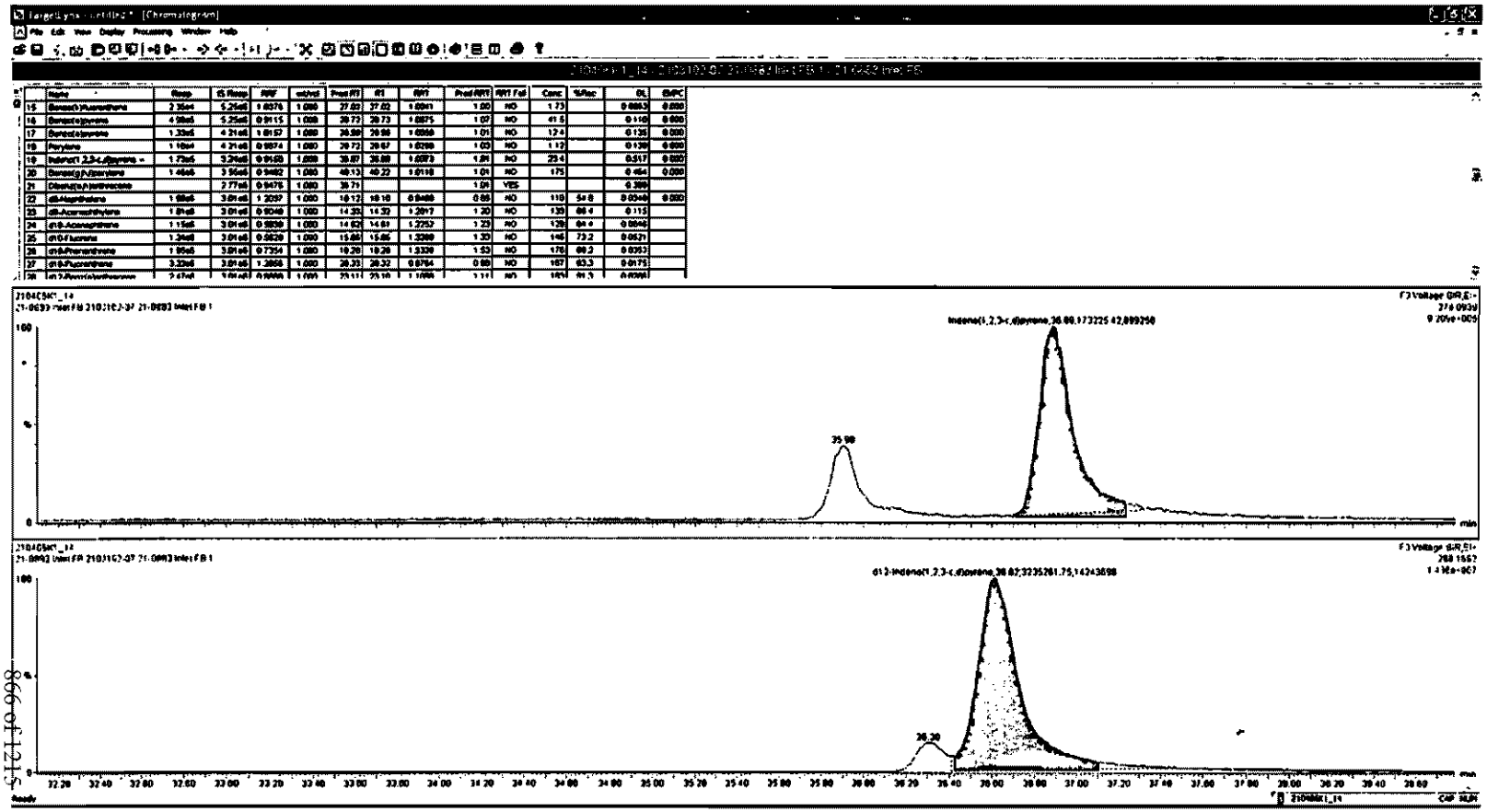
Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene




35.99
36.20

TargetLynx - untitled * - [Chromatogram]

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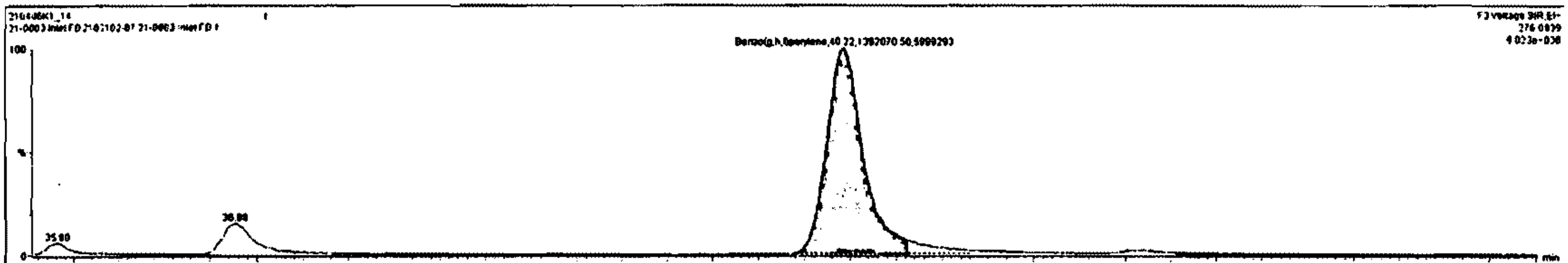
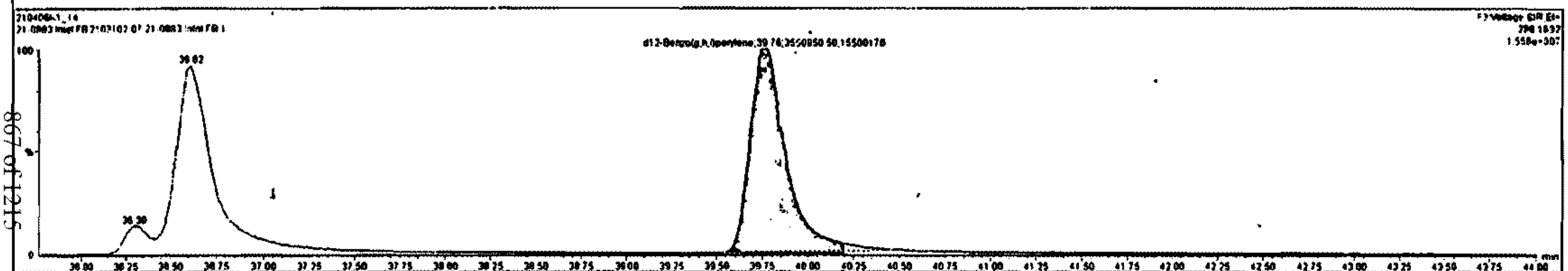
2104066K1_14 : 2103102-07 21-0083 Inlet FB 1 : 21-0083 Inlet FB

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	2.36e4	5.25e6	1.0376	1.000	27.03	27.02	1.0041	1.00	NO	1.73		0.0083	0.000
16	Benzo(e)pyrene	4.98e6	6.25e6	0.9115	1.000	28.72	28.73	1.0675	1.07	NO	41.5		0.110	0.000
17	Benzo(a)pyrene	1.33e5	4.21e6	1.0157	1.000	28.90	28.86	1.0060	1.01	NO	12.4		0.135	0.000
18	Perylene	1.16e4	4.21e6	0.8874	1.000	28.72	28.67	1.0090	1.00	NO	1.12		0.130	0.000
19	Indeno(1,2,3-c,d)pyrene	1.73e6	3.24e6	0.8150	1.000	38.87	38.88	1.0073	1.01	NO	22.4		0.517	0.000
20	Benzo(g,h,i)perylene	1.38e6	3.56e6	0.8402	1.000	40.13	40.22	1.0116	1.01	NO	167		0.483	0.000
21	Dibenz(a,h)anthracene		2.77e6	0.9476	1.000	38.71			1.01	YES			0.380	
22	d8-Naphthalene	1.90e6	3.01e6	1.2037	1.000	10.12	10.10	0.6480	0.65	NO	110	54.8	0.0349	0.000
23	d8-Acenaphthylene	1.61e6	3.01e6	0.8048	1.000	14.30	14.32	1.3012	1.30	NO	133	66.4	0.115	
24	d10-Acenaphthene	1.15e6	3.01e6	0.5838	1.000	14.82	14.81	1.2252	1.23	NO	129	64.4	0.0846	
25	d10-Fluorene	1.24e6	3.01e6	0.5628	1.000	15.86	15.85	1.3209	1.30	NO	146	73.2	0.0521	
26	d10-Phenanthrene	1.95e6	3.01e6	0.7354	1.000	18.28	18.28	1.5336	1.53	NO	178	89.2	0.0063	
27	d10-Fluoranthene	3.22e6	3.01e6	1.2869	1.000	20.33	20.32	0.9784	0.98	NO	167	83.3	0.0175	
28	d12-Benz(a)anthracene	2.47e6	3.01e6	[illegible]	1.000	25.11	25.10	[illegible]	1.11	NO	183	91.3	[illegible]	





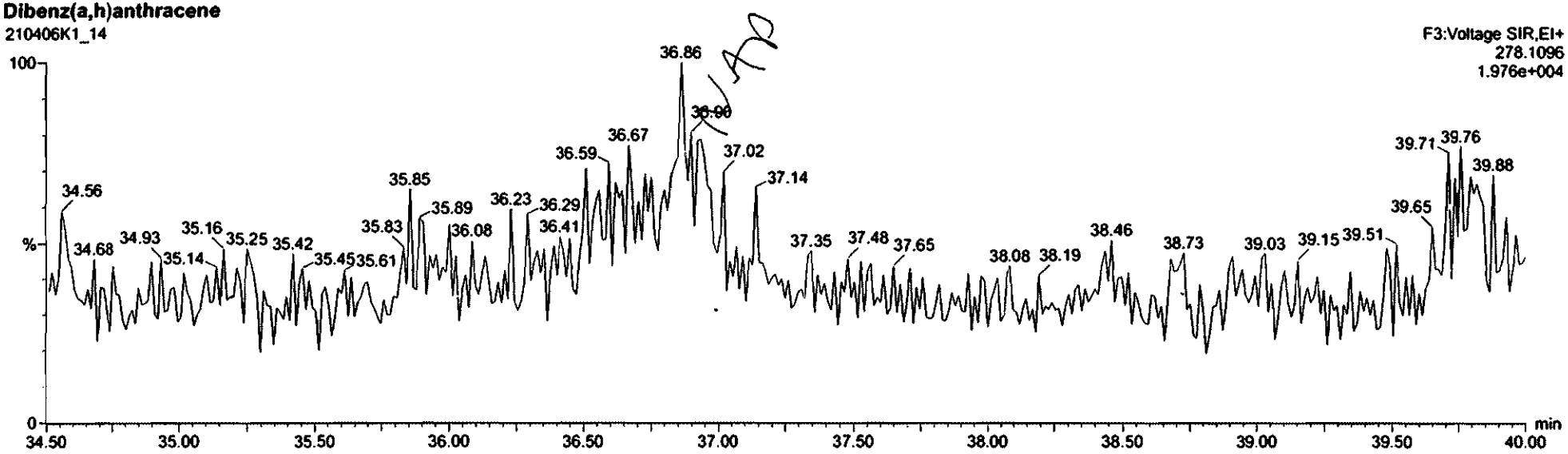
Ready CAP NUM

Dataset: Untitled

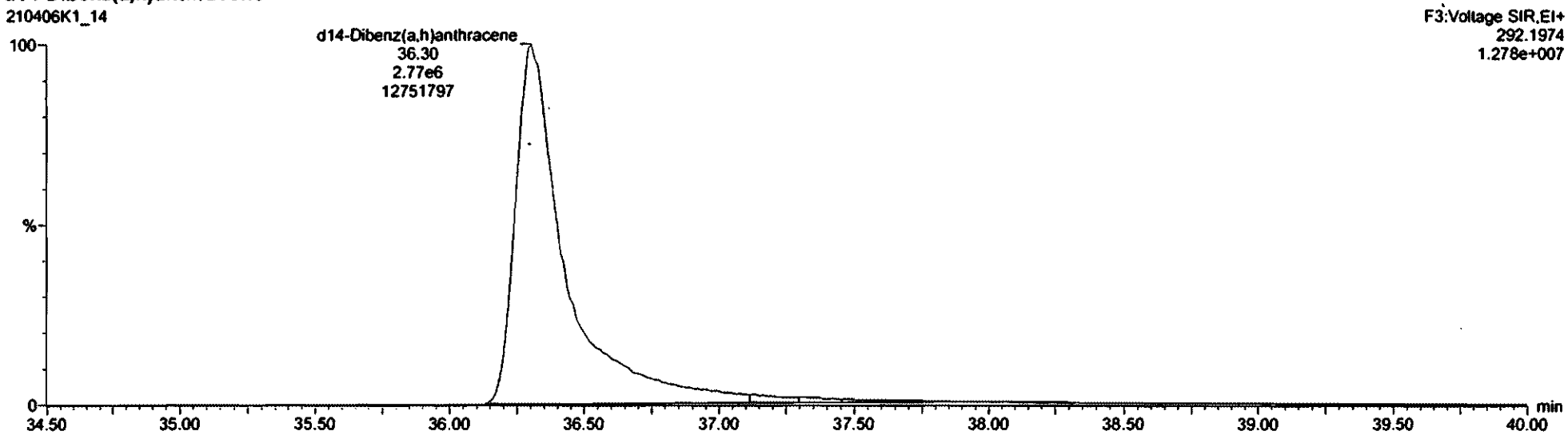
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_14, Date: 06-Apr-2021, Time: 21:23:40, ID: 2103102-07 21-0883 Inlet FB 1, Description: 21-0883 Inlet FB

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



868 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-15.qld

Last Altered: Wednesday, April 07, 2021 9:54:39 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:55:12 AM Pacific Daylight Time

HZ 4.7.2021 CTO4/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

	#	Name	Resp.	IS Resp.	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	1	Naphthalene	4.06e6	1.63e6	1.16	1.000	10.17	10.16	1.006	1.004	NO	428		1.48
2	2	Naphthalene-2nd	4.33e5	1.63e6	0.128	1.000	10.17	10.16	1.006	1.004	NO	415		20.4
3	3	2-Methylnaphthalene	1.00e6	9.21e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	158		0.566
4	4	Acenaphthylene	4.97e4	1.43e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	6.22		0.262
5	5	Acenaphthene	1.26e4	9.21e5	1.10	1.000	14.70	14.70	1.006	1.006	NO	2.48		0.462
6	6	Fluorene	5.28e4	9.43e5	1.15	1.000	15.94	15.94	1.006	1.006	NO	9.70		0.788
7	7	Phenanthrene	4.20e5	1.30e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	54.4		1.49
8	8	Phenanthrene-2nd	1.59e4	1.30e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	28.4		8.69
9	9	Anthracene	2.18e4	1.30e6	1.09	1.000	18.39	18.38	1.005	1.005	NO	3.07		1.63
10	10	Fluoranthene	3.25e5	2.61e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	22.6		0.0877
11	11	Pyrene	4.50e5	2.61e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	28.8		0.0805
12	12	Benz(a)anthracene	9.23e3	2.16e6	0.961	1.000	23.16	23.17	1.003	1.003	NO	0.890		0.0786
13	13	Chrysene	7.27e4	2.40e6	0.852	1.000	23.37	23.38	1.003	1.004	NO	7.11		0.0828
14	14	Benzo(b)fluoranthene	2.98e4	3.70e6	1.10	1.000	26.92	26.91	1.005	1.005	NO	2.92		0.0972
15	15	Benzo(k)fluoranthene	8.36e3	4.55e6	1.04	1.000	27.02	27.01	1.004	1.004	NO	0.709		0.100
16	16	Benzo(e)pyrene	6.88e4	4.55e6	0.911	1.000	28.70	28.72	1.067	1.068	NO	6.65		0.114
17	17	Benzo(a)pyrene	8.95e3	3.68e6	1.02	1.000	28.97	28.95	1.006	1.005	NO	0.958		0.149
18	18	Perylene	3.09e3	3.68e6	0.987	1.000	29.71	29.64	1.031	1.029	NO	0.340		0.153
19	19	Indeno(1,2,3-c,d)pyrene	1.54e4	2.64e6	0.915	1.000	36.75	36.73	1.007	1.006	NO	2.55		0.375
20	20	Benzo(g,h,i)perylene	1.09e5	2.97e6	0.940	1.000	40.15	40.10	1.009	1.008	NO	15.6		0.352
21	21	Dibenz(a,h)anthracene		2.26e6	0.948	1.000	36.69		1.011		YES			0.404
22	22	d8-Naphthalene	1.63e6	2.50e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	108	54.2	0.137
23	23	d8-Acenaphthylene	1.43e6	2.50e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	126	63.2	0.0852
24	24	d10-Acenaphthene	9.21e5	2.50e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	124	61.9	0.0606
25	25	d10-Fluorene	9.43e5	2.50e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	134	66.9	0.0585
26	26	d10-Phenanthrene	1.30e6	2.50e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	141	70.6	0.0533
27	27	d10-Fluoranthene	2.61e6	2.50e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	162	81.2	0.0176
28	28	d12-Benz(a)anthracene	2.16e6	2.50e6	0.900	1.000	23.11	23.10	1.110	1.110	NO	191	95.7	0.0281
29	29	d12-Chrysene	2.40e6	2.50e6	1.02	1.000	23.30	23.29	1.120	1.119	NO	188	94.0	0.0247
30	30	d12-Benzo(b)fluoranthene	3.70e6	1.87e6	1.18	1.000	26.76	26.79	0.907	0.908	NO	335	83.7	0.156
31	31	d12-Benzo(k)fluoranthene	4.55e6	1.87e6	1.50	1.000	26.87	26.90	0.911	0.912	NO	323	80.8	0.122

869 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-15.qld

Last Altered: Wednesday, April 07, 2021 9:54:39 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:55:12 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

	# Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	3.68e6	1.87e6	1.24	1.000	28.76	28.80	0.975	0.977	NO	318	79.4	0.149
33	33 d12-Indeno(1,2,3-c,d)pyrene	2.64e6	1.87e6	1.02	1.000	36.78	36.50	1.247	1.237	NO	278	69.4	0.215
34	34 d12-Benzo(g,h,i)perylene	2.97e6	1.87e6	1.00	1.000	40.18	39.78	1.362	1.349	YES OK	316	79.0	0.218
35	35 d14-Dibenz(a,h)anthracene	2.26e6	1.87e6	0.765	1.000	36.55	36.28	1.239	1.230	NO	315	78.7	0.221
36	36 d10-Anthracene	1.08e6	1.87e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	117	58.3	0.195
37	37 d14-Terphenyl	4.59e6	2.61e6	0.576	1.000	20.69	20.72	1.018	1.020	NO	610	122	0.0305
38	38 d12-Benzo(e)pyrene	4.30e6	4.55e6	0.738	1.000	28.52	28.56	1.060	1.062	NO	513	103	0.176
39	39 d10-1-Methylnaphthalene	1.52e6	1.52e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0813
40	40 d10-Pyrene	2.50e6	2.50e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0227
41	41 d12-Perylene	1.87e6	1.87e6	1.00	1.000	29.59	29.49	1.000	1.000	NO	200	100	0.184

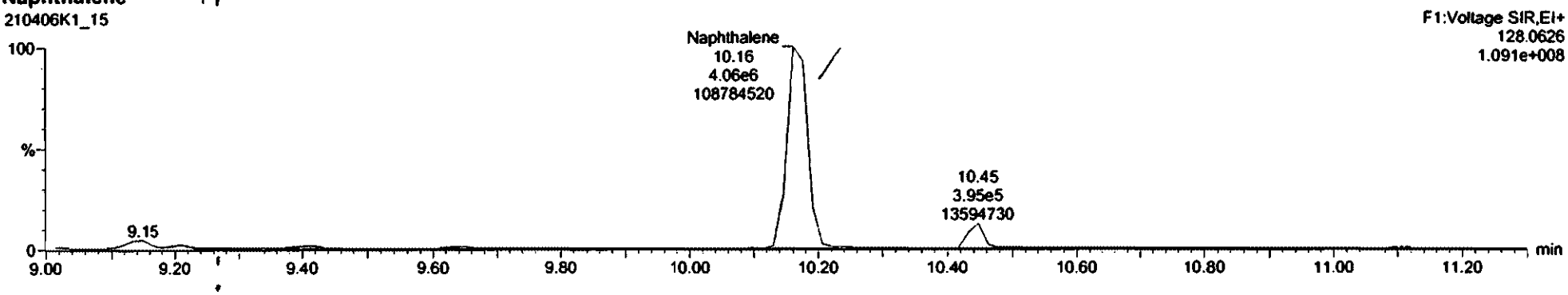
870 of 1215

Dataset: Untitled

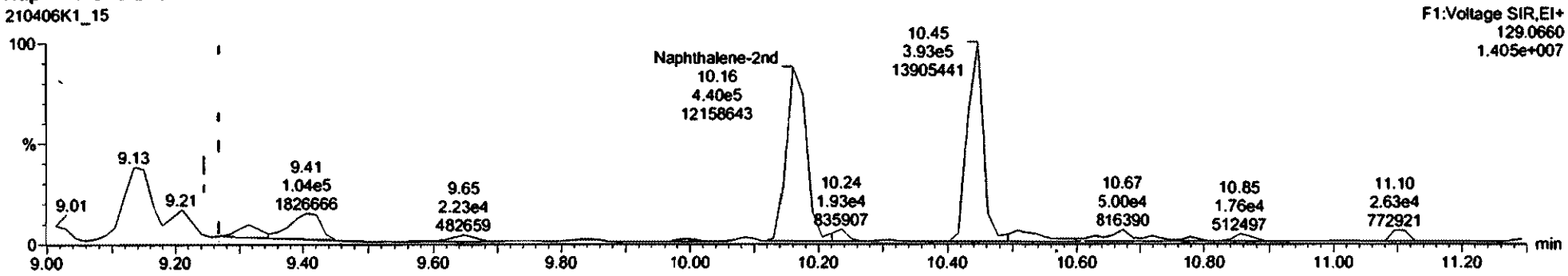
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

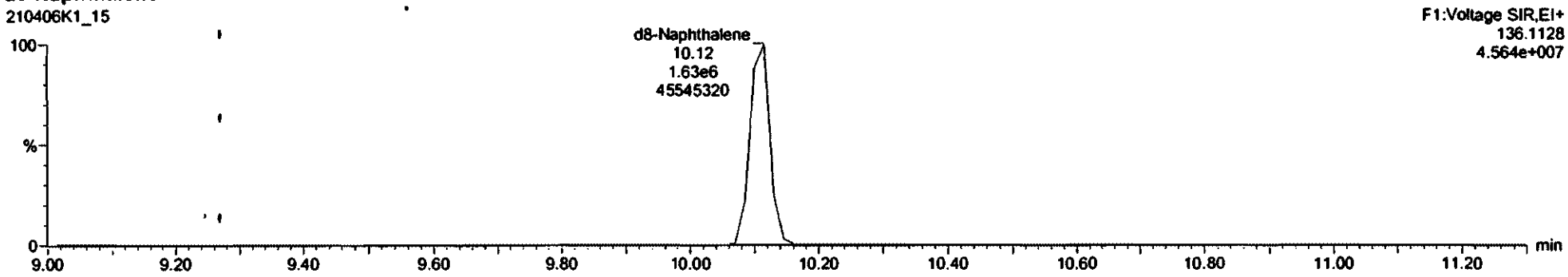
Naphthalene
210406K1_15



Naphthalene-2nd
210406K1_15



d8-Naphthalene
210406K1_15



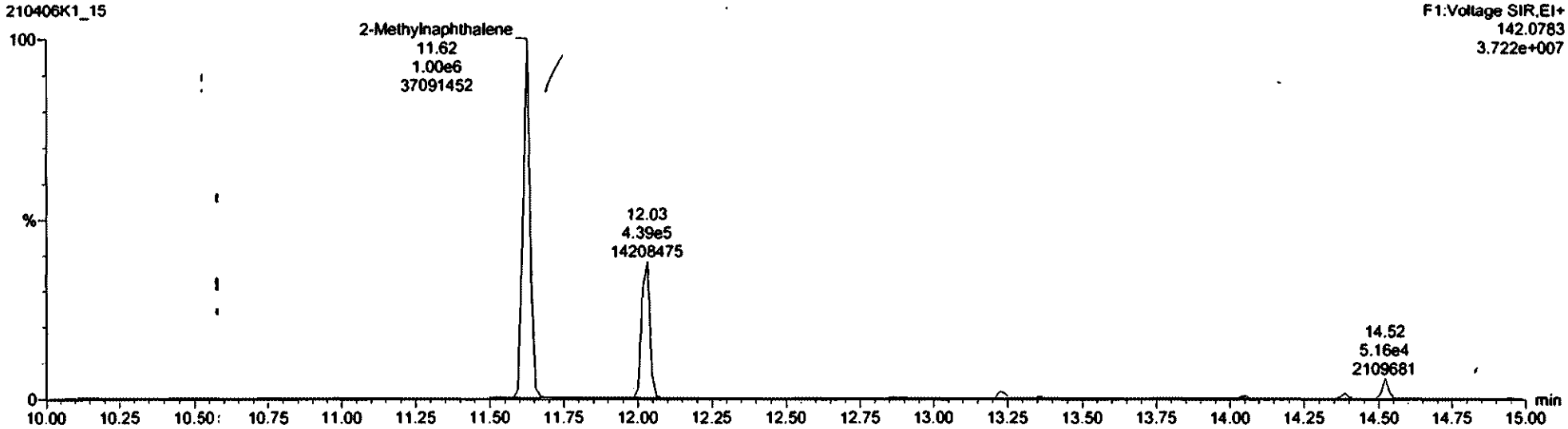
871 of 1215

Dataset: Untitled

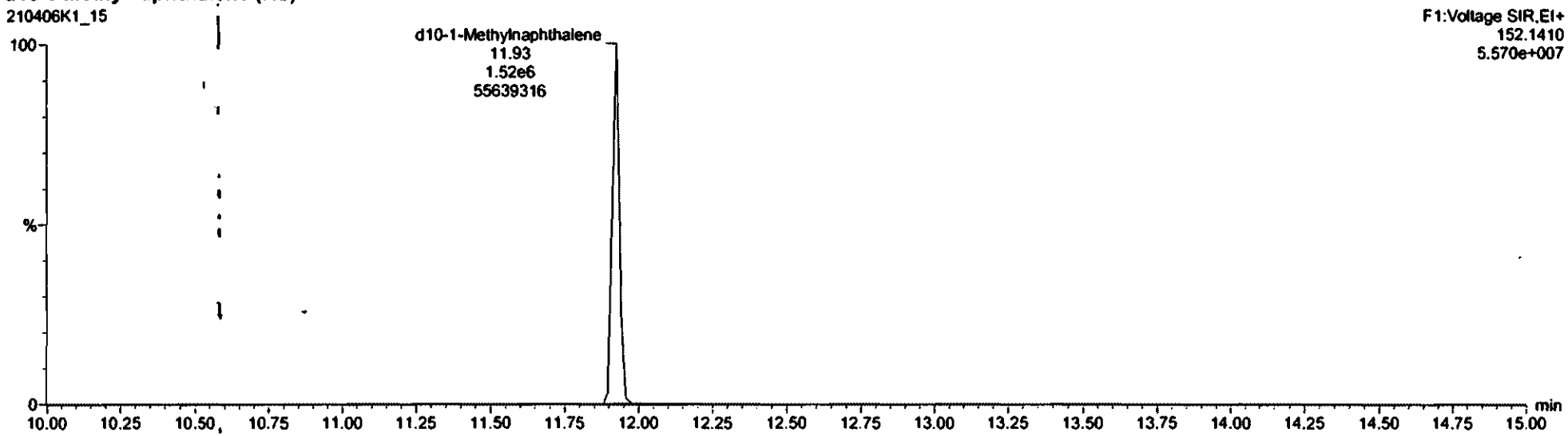
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



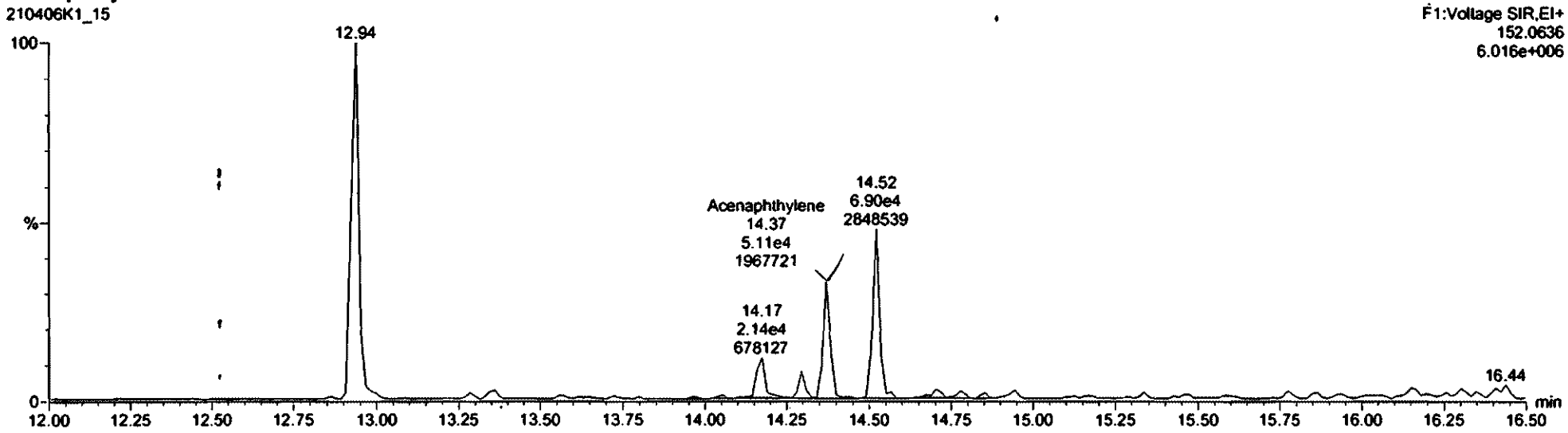
872 of 1215

Dataset: Untitled

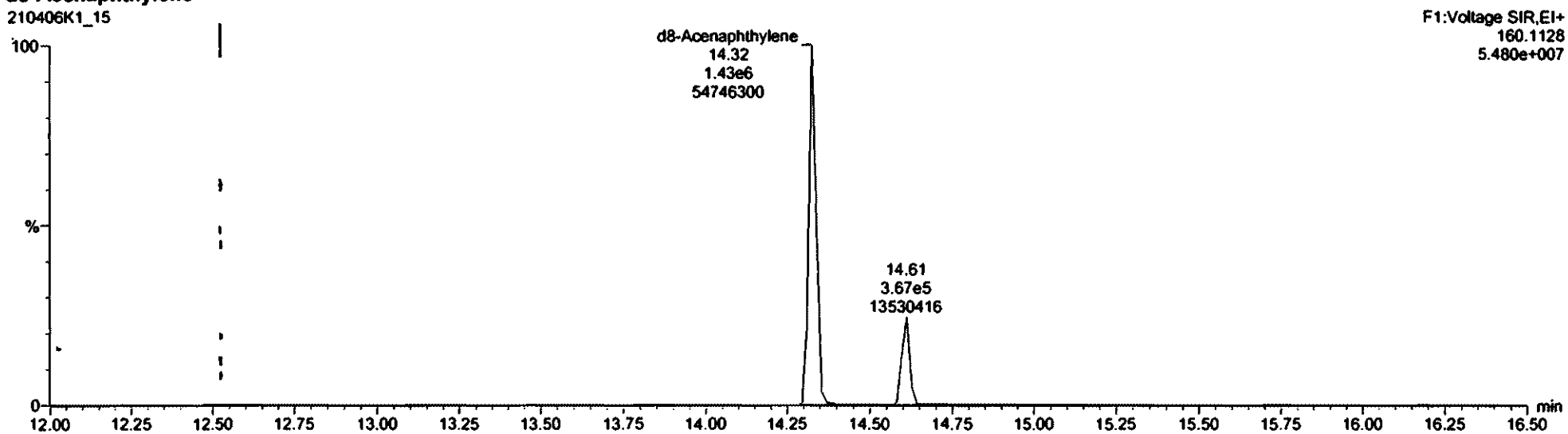
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

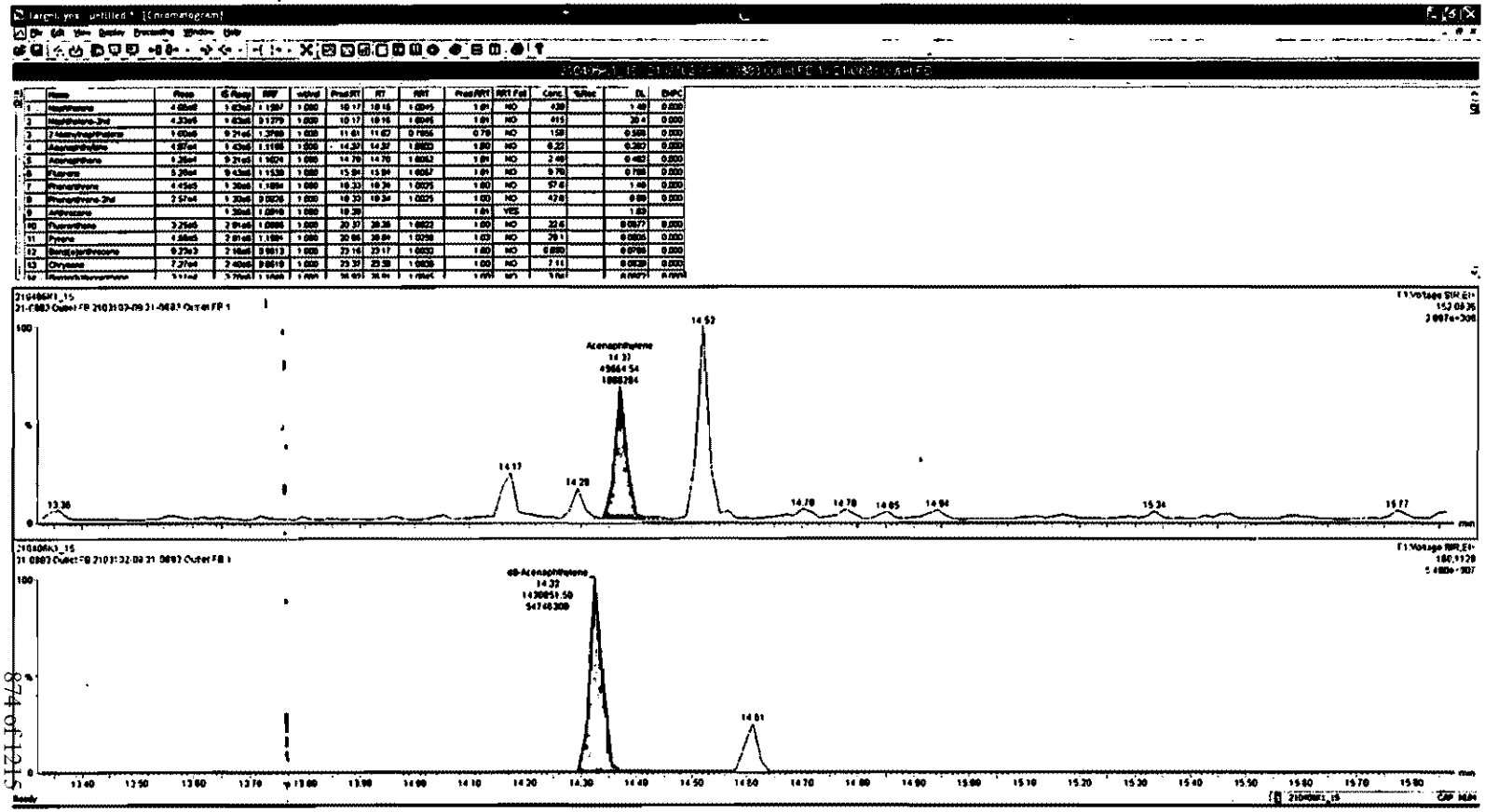
Acenaphthylene



d8-Acenaphthylene



873 of 1215

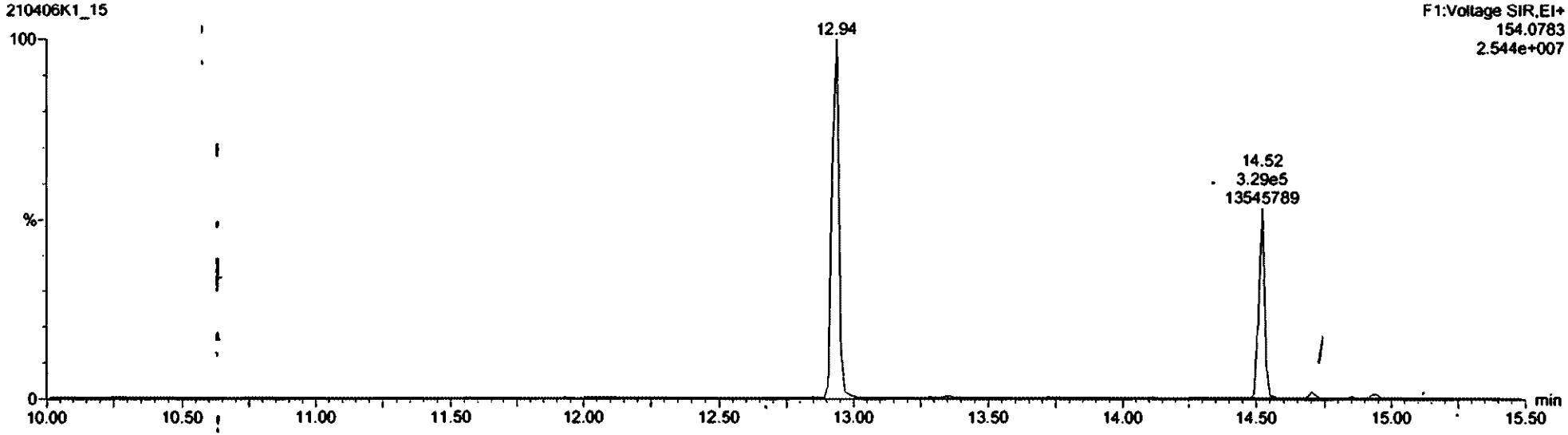

Acenaphthylene
14.33
d8-Acenaphthylene
14.32
14.52
14.17
14.28
14.01

Dataset: Untitled

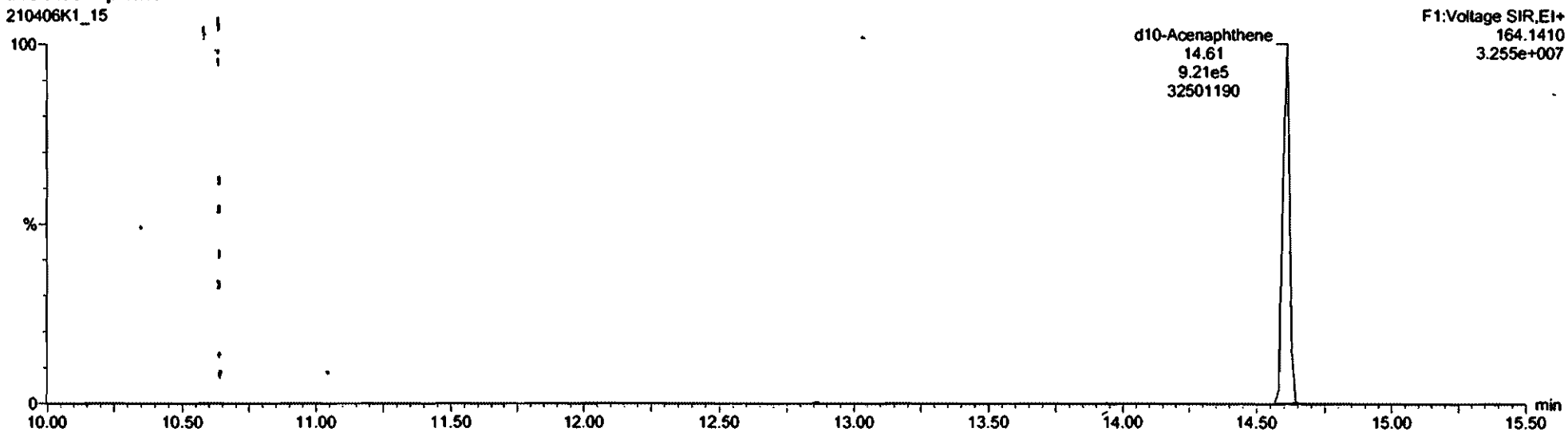
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Acenaphthene



d10-Acenaphthene



875 of 1215

TargetLynx - untitled 5 - [Chromatogram]

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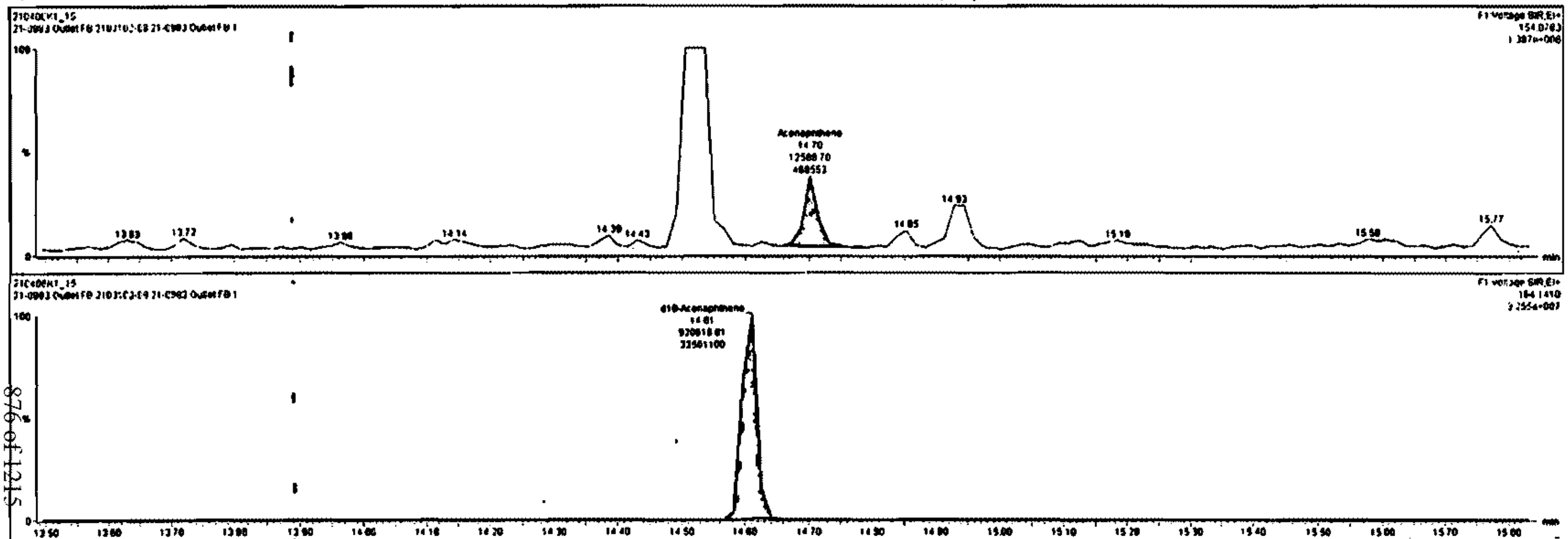
#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	CL	EMPC
1	Naphthalene	4.86e5	1.63e6	1.1587	1.000	10.17	10.16	1.0045	1.01	NO	420		1.46	0.000
2	Naphthalene-2nd	4.33e5	1.63e6	0.1279	1.000	10.17	10.16	1.0045	1.01	NO	416		20.4	0.000
3	2-Methylnaphthalene	1.00e6	9.71e5	1.3700	1.000	11.61	11.62	0.7866	0.78	NO	150		0.986	0.000
4	Acenaphthylene	4.87e4	1.43e6	1.1180	1.000	14.37	14.37	1.0032	1.00	NO	6.22		0.267	0.000
5	Acenaphthene	1.26e4	9.31e5	1.1024	1.000	14.70	14.70	1.0082	1.01	NO	2.40		0.462	0.000
6	Fluorene	5.28e4	9.43e5	1.1530	1.000	15.84	15.84	1.0067	1.01	NO	9.70		0.780	0.000
7	Phenanthrene	4.45e5	1.30e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	57.8		1.49	0.000
8	Phenanthrene-2nd	2.57e4	1.30e6	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	42.0		8.48	0.000
9	Anthracene		1.30e6	1.0810	1.000	18.39			1.01	YES			1.43	
10	Fluoranthene	3.25e5	2.81e6	1.0985	1.000	20.37	20.38	1.0022	1.00	NO	22.8		0.0877	0.000
11	Pyrene	4.58e5	2.81e6	1.1981	1.000	20.85	20.84	1.0258	1.03	NO	29.1		0.0865	0.000
12	Benz(a)anthracene	9.23e3	2.18e6	0.9812	1.000	23.16	23.17	1.0032	1.00	NO	0.880		0.0788	0.000
13	Chrysene	7.27e4	2.40e6	0.8519	1.000	23.37	23.38	1.0038	1.00	NO	7.11		0.0828	0.000
14	[illegible]	3.11e4	3.70e6	1.1060	1.000	[illegible]	[illegible]	1.0065	1.00	NO	3.0[illegible]		0.0873	0.000



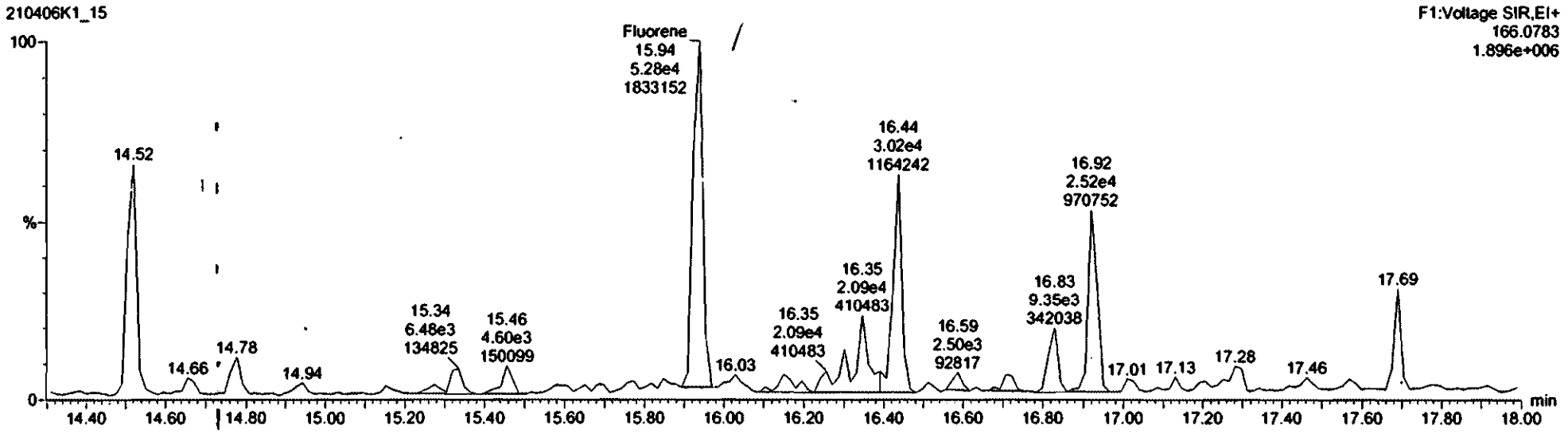
Ready

Dataset: Untitled

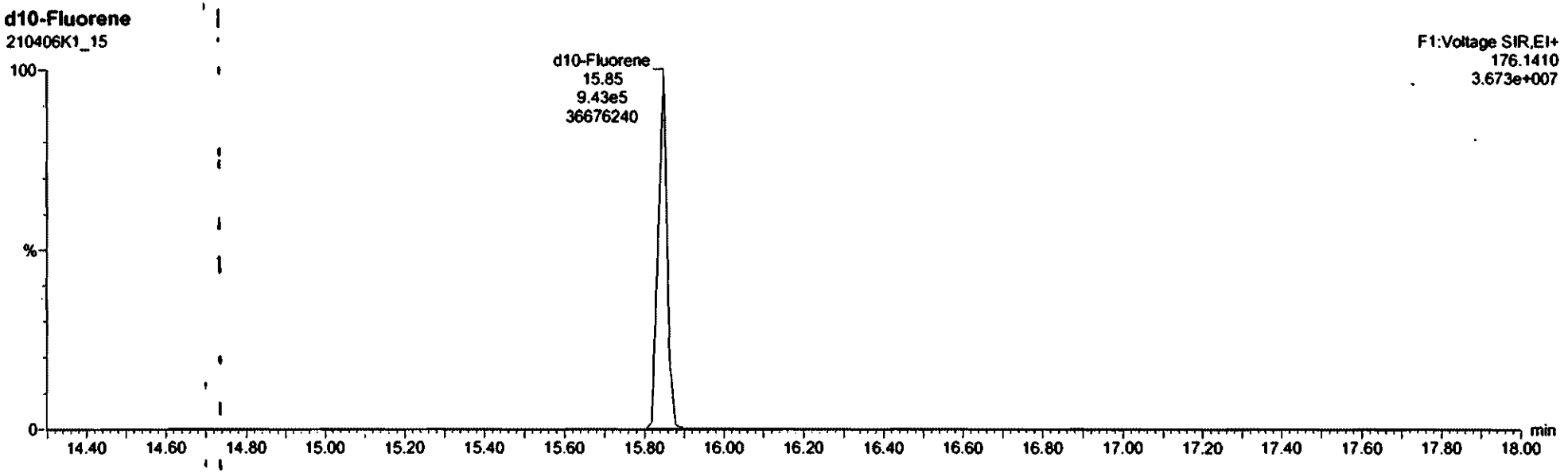
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Fluorene



d10-Fluorene



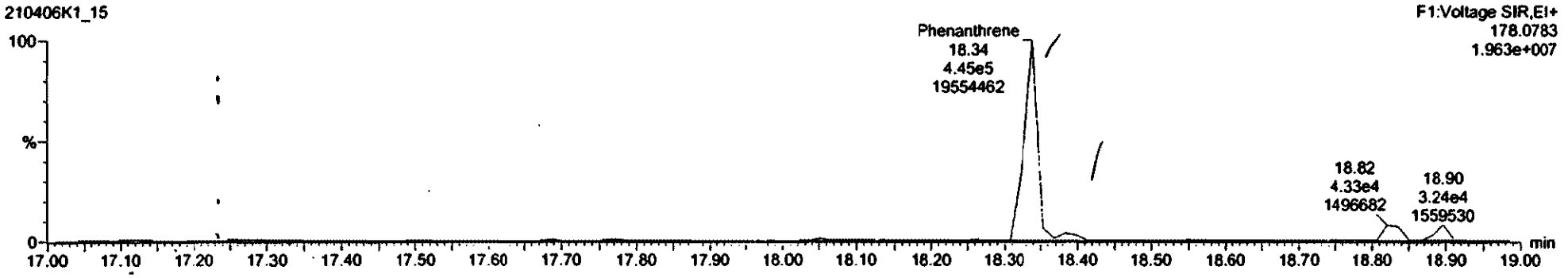
877 of 1215

Dataset: Untitled

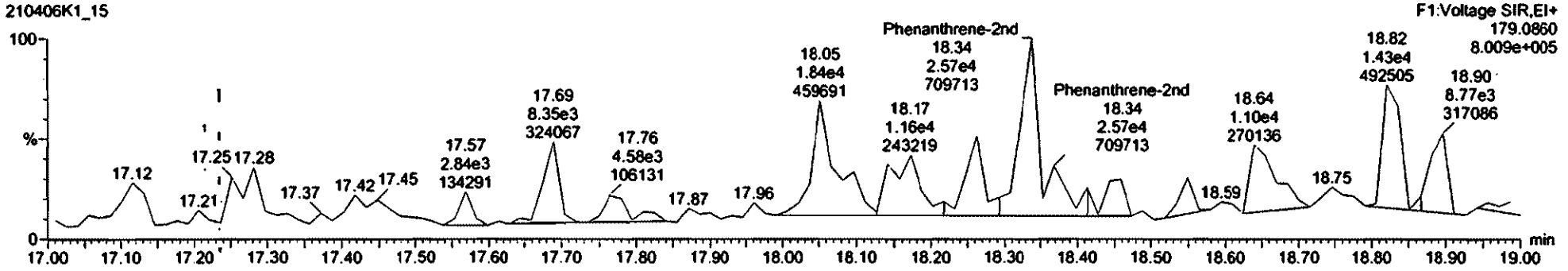
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

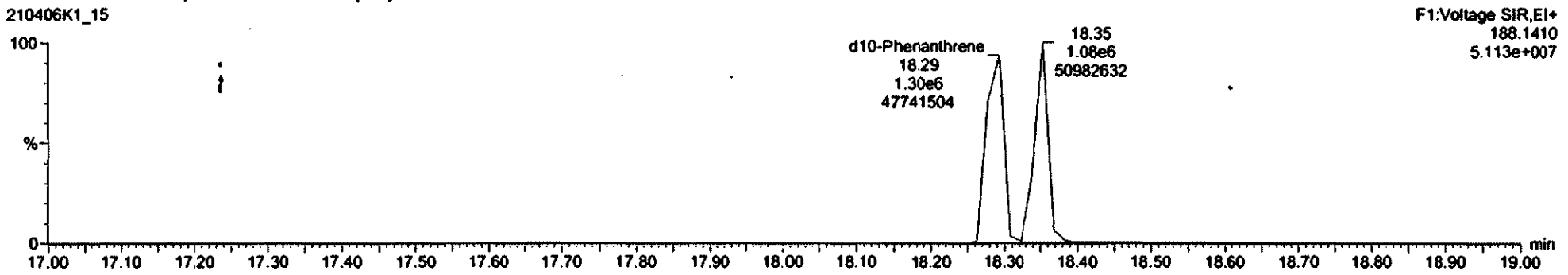
Phenanthrene; Anthrecene



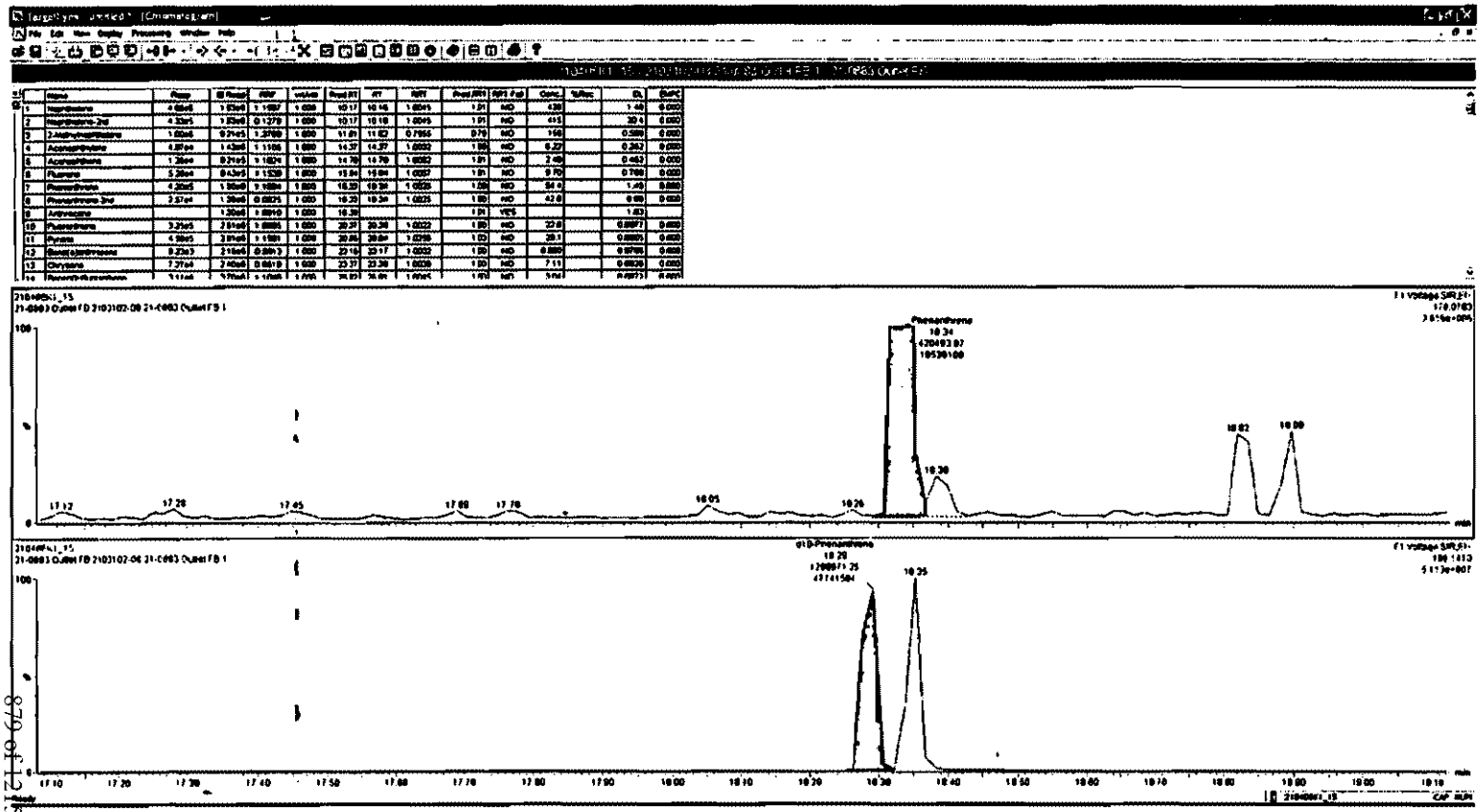
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



878 of 1215


Phenanthrene
10.34
10.30
10.02
10.00
17.12
17.28
17.45
17.68
17.78
18.05
18.26
9/10-Phenanthrene
10.29
10.35
17.10
17.20
17.30
17.40
17.50
17.60
17.70
17.80
17.90
18.00
18.10
18.20
18.30
18.40
18.50
18.60
18.70
18.80
18.90
19.00
19.10

TargetLynx - untitled * [Chromatogram]

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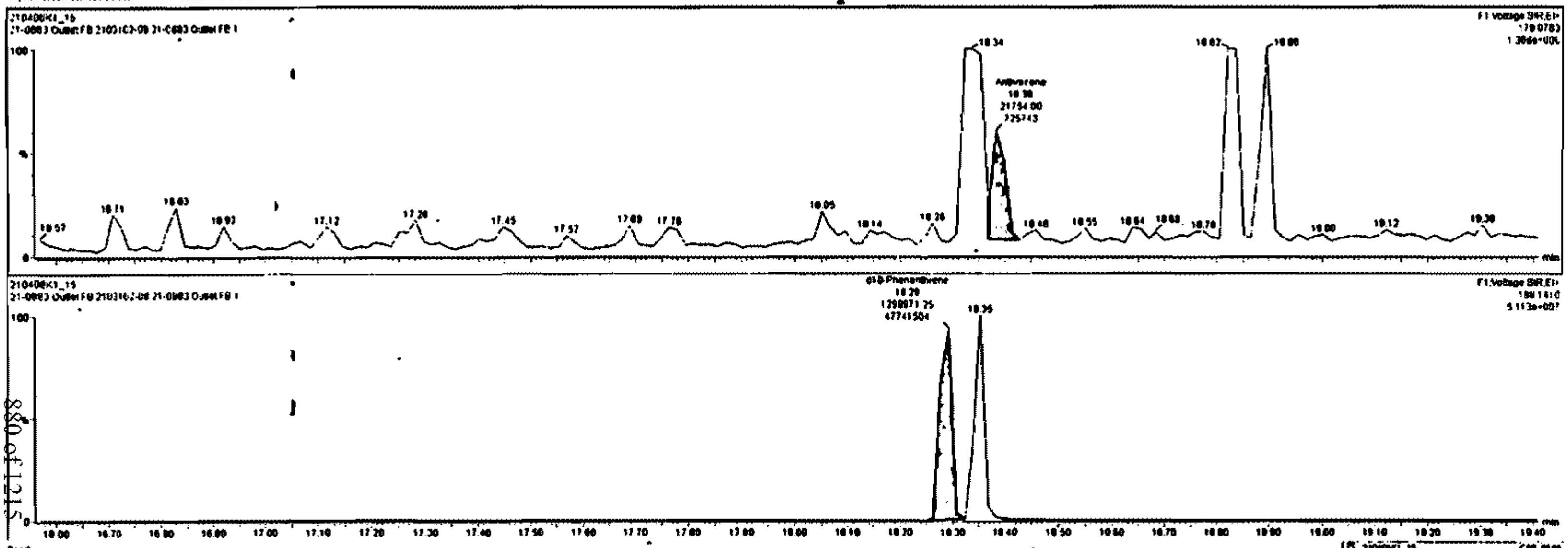
210406K1_15 - 2103102-08 21-0883 Outlet FB 1 - 21-0883 Outlet FB 1

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	4.00e6	1.63e6	1.1507	1.000	10.17	10.18	1.0045	1.01	NO	478		1.40	0.000
2	Naphthalene-2ref	4.33e5	1.63e6	0.9279	1.000	10.17	10.18	1.0045	1.01	NO	415		70.4	0.000
3	2-Methylnaphthalene	1.60e6	8.31e6	1.3769	1.000	11.61	11.62	0.7965	0.79	NO	150		0.966	0.000
4	Acenaphthylene	4.97e4	1.43e6	1.1186	1.000	14.37	14.37	1.0032	1.00	NO	6.22		0.262	0.000
5	Acenaphthene	1.28e4	9.31e5	1.1024	1.000	14.70	14.70	1.0062	1.01	NO	2.40		0.462	0.000
6	Fluorene	5.38e4	9.43e6	1.1539	1.000	15.84	15.84	1.0057	1.01	NO	9.70		0.700	0.000
7	Phenanthrene	4.20e5	1.38e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	54.4		1.40	0.000
8	Phenanthrene-2ref	1.58e4	1.38e6	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	26.4		8.00	0.000
9	Anthracene	2.10e4	1.38e6	1.0998	1.000	18.38	18.38	1.0080	1.01	NO	3.07		1.63	0.000
10	Fluoranthene	3.25e5	2.01e6	1.0895	1.000	20.37	20.38	1.0022	1.00	NO	22.6		0.0877	0.000
11	Pyrene	4.55e5	2.01e6	1.1981	1.000	20.85	20.84	1.0258	1.03	NO	29.1		0.0885	0.000
12	Benz(a)anthracene	8.22e3	2.16e6	0.8813	1.000	23.16	23.17	1.0032	1.00	NO	0.886		0.0708	0.000
13	Chrysene	7.27e4	2.46e6	0.8518	1.000	23.37	23.38	1.0036	1.00	NO	7.11		0.0828	0.000
14	Benzo(b)fluoranthene	3.11e4	3.76e6	1.1060	1.000	26.97	26.98	1.0065	1.00	NO	3.04		0.0972	0.000



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Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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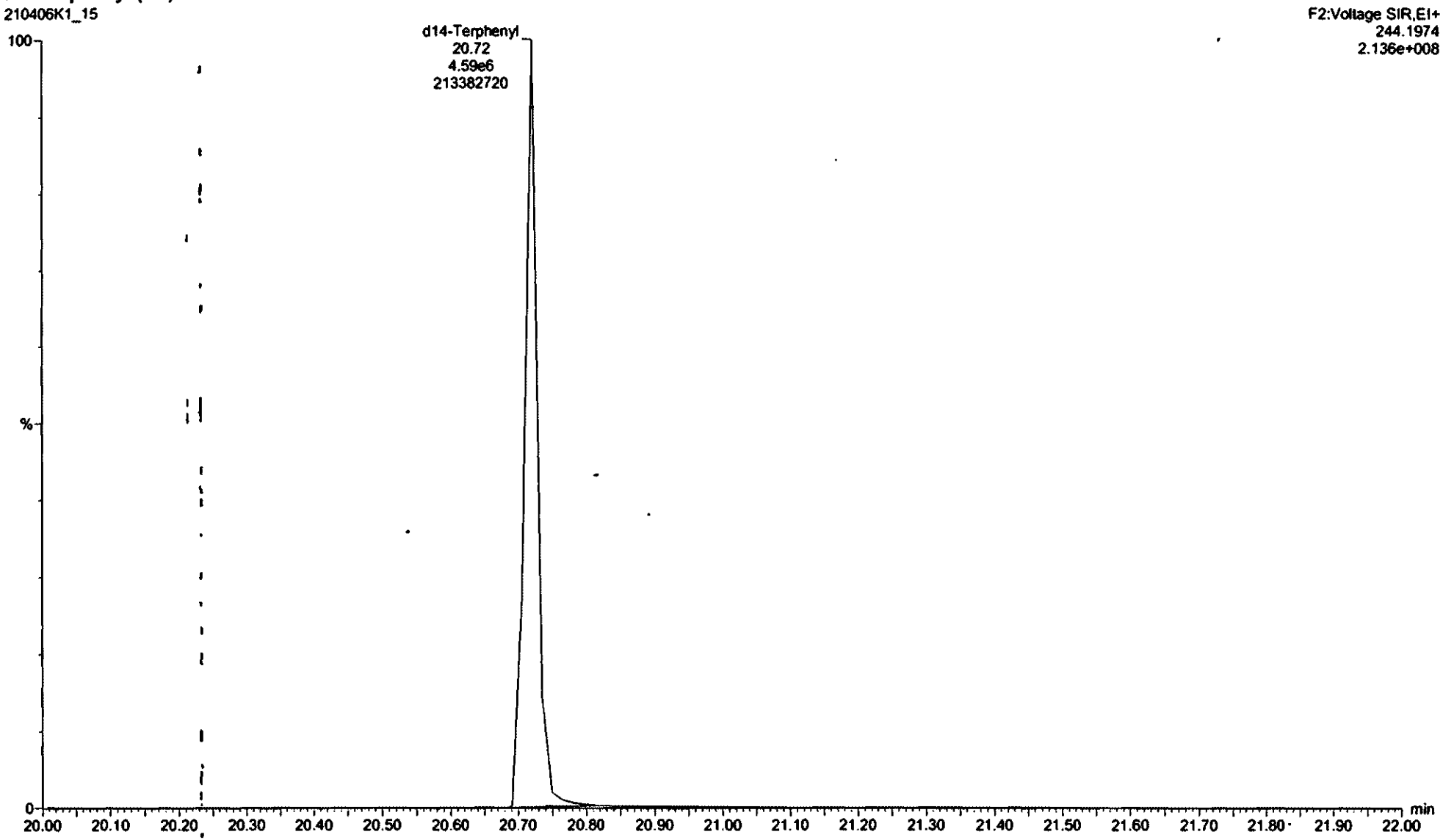
Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

d14-Terphenyl (PS)



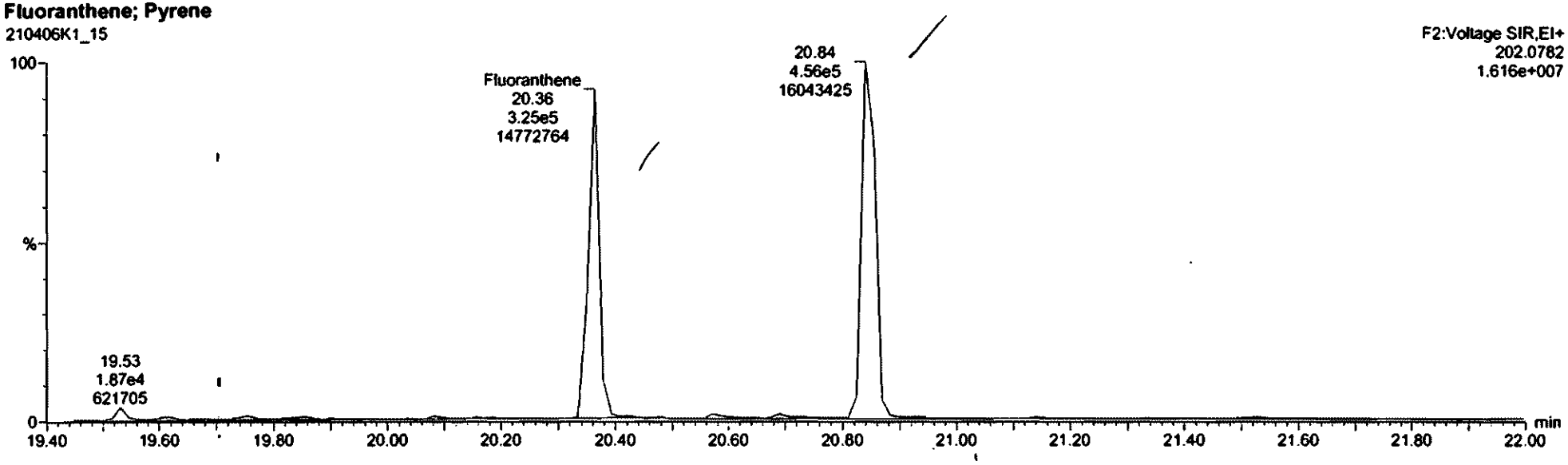
881 of 1215

Dataset: Untitled

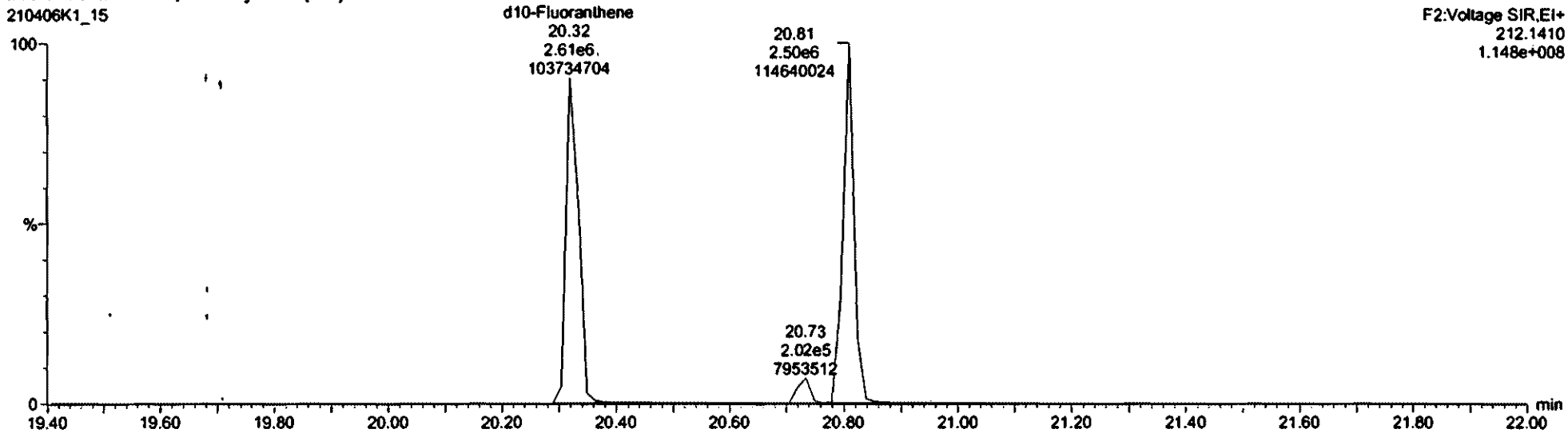
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

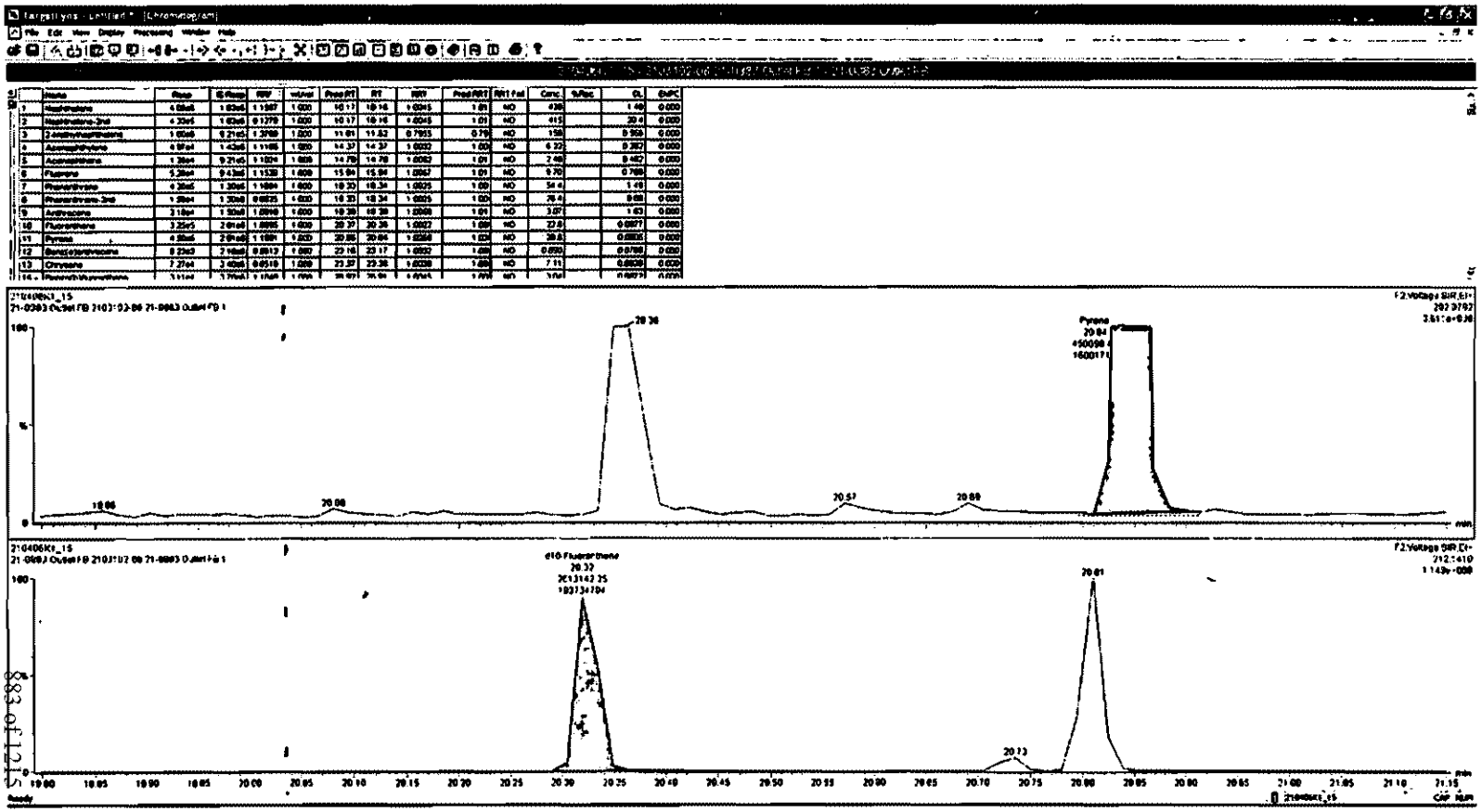
Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



882 of 1215

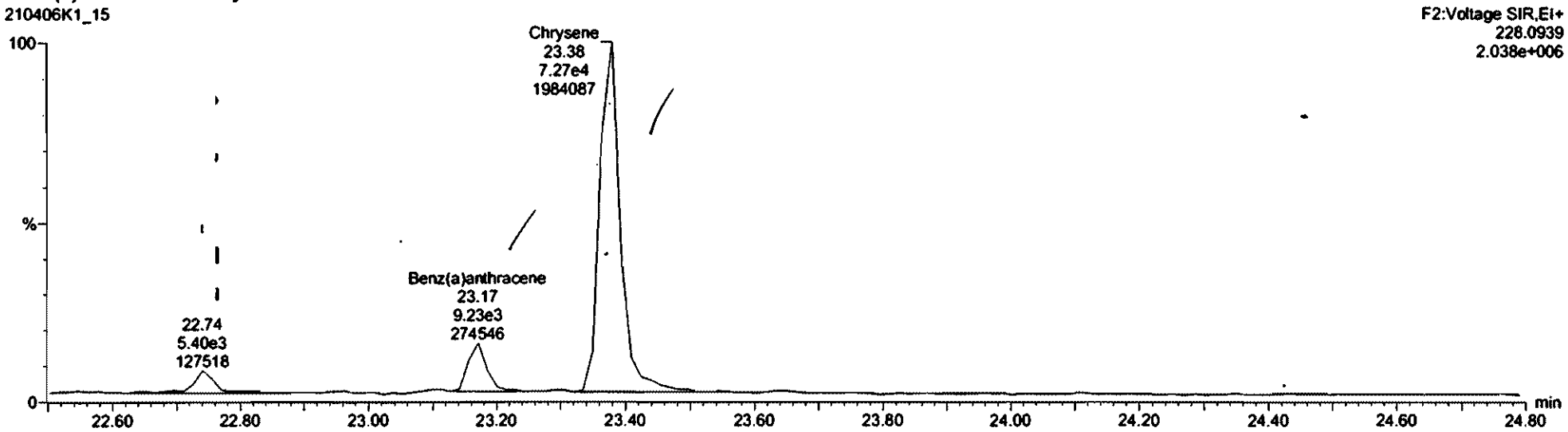


Dataset: Untitled

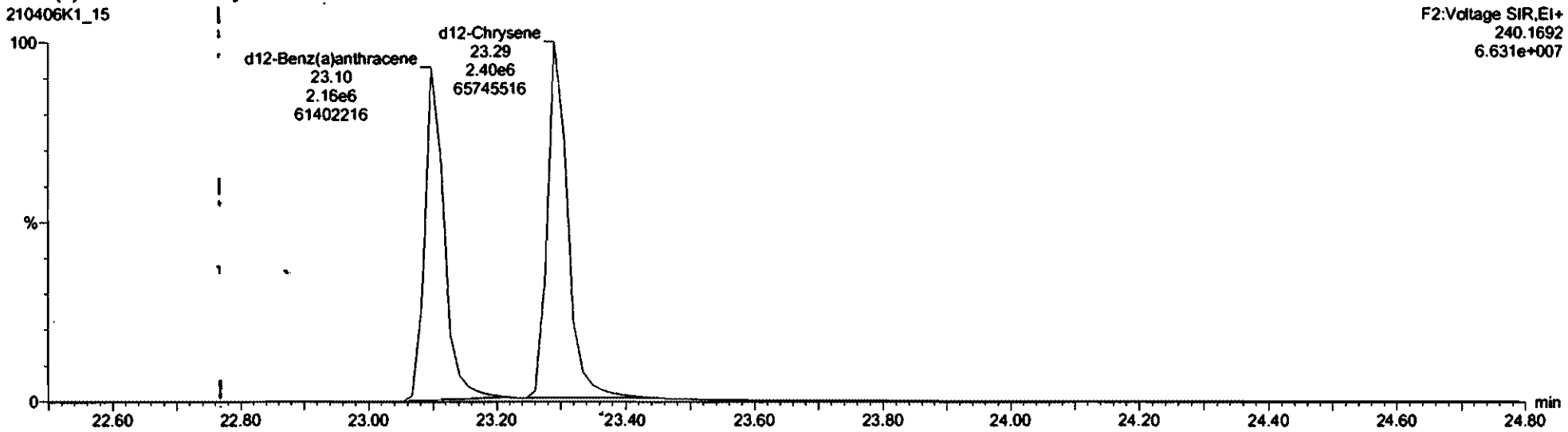
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



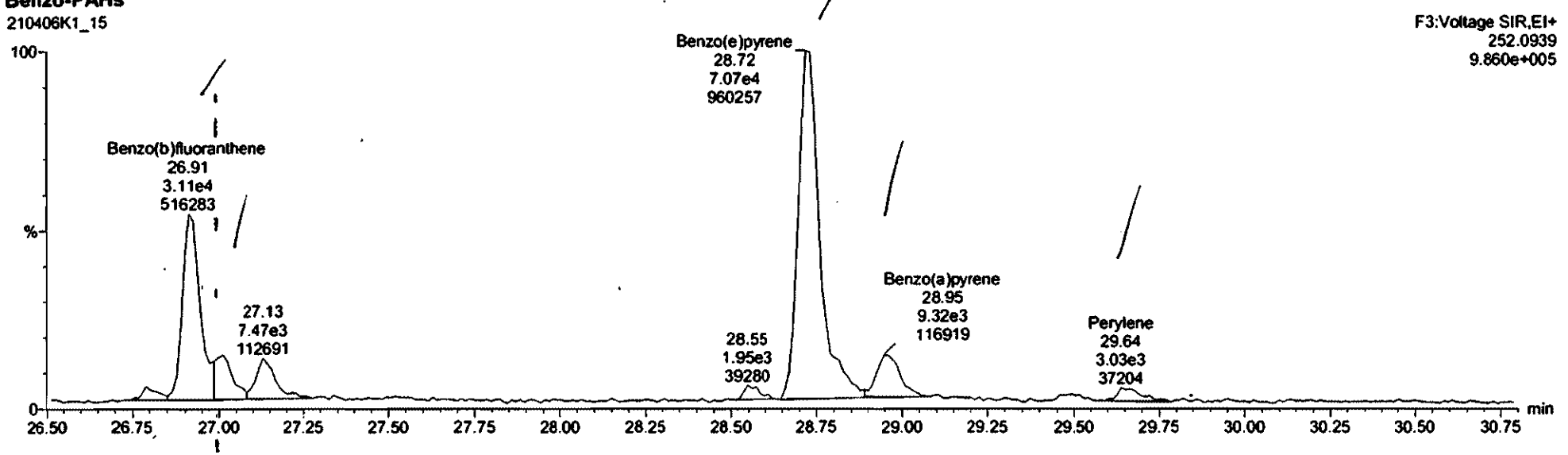
884 of 1215

Dataset: Untitled

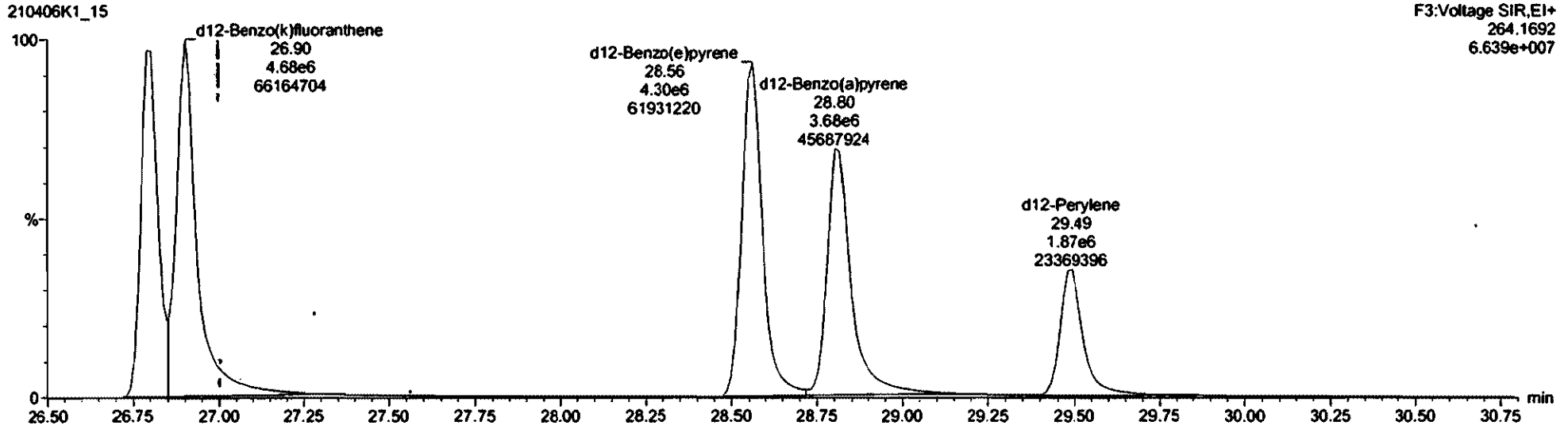
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Benzo-PAHs



Benzo-Isotopes



TargetLynx - untitled * - [Chromatogram]

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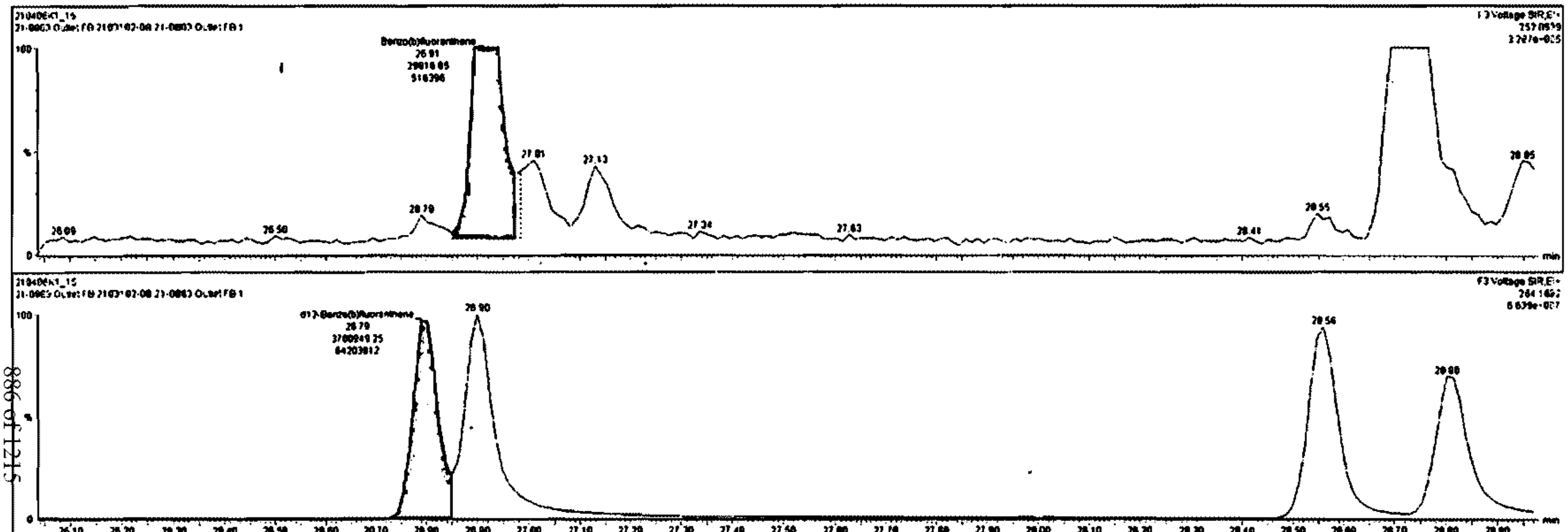
#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	4.08e6	1.83e6	1.1597	1.000	10.17	10.18	1.0045	1.01	NO	438		1.40	0.000
2	Naphthalene-2nd	4.33e6	1.63e6	0.1279	1.000	10.17	10.18	1.0046	1.01	NO	415		20.4	0.000
3	2-Methylnaphthalene	1.00e6	8.21e5	1.3700	1.000	11.81	11.82	0.7955	0.78	NO	138		0.585	0.000
4	Acenaphthylene	4.97e4	1.43e6	1.1108	1.000	14.37	14.37	1.0032	1.00	NO	6.22		0.282	0.000
5	Acenaphthene	1.28e4	8.21e5	1.1024	1.000	14.70	14.70	1.0082	1.01	NO	2.48		0.482	0.000
6	Fluorene	5.78e4	9.43e5	1.1530	1.000	15.94	15.94	1.0057	1.01	NO	8.70		0.788	0.000
7	Phenanthrene	4.39e5	1.30e6	1.1884	1.000	18.33	18.34	1.0005	1.00	NO	54.4		1.48	0.000
8	Phenanthrene-2nd	1.58e4	1.30e6	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	28.4		8.80	0.000
9	Anthracene	2.10e4	1.30e6	1.0810	1.000	18.39	18.39	1.0050	1.01	NO	3.07		1.83	0.000
10	Fluoranthene	3.75e5	2.81e6	1.0885	1.000	20.37	20.38	1.0022	1.00	NO	22.8		0.0877	0.000
11	Pyrene	4.50e5	2.81e6	1.1981	1.000	20.85	20.84	1.0256	1.03	NO	28.8		0.0805	0.000
12	Benz(a)anthracene	9.23e3	2.16e6	0.9813	1.000	23.16	23.17	1.0032	1.00	NO	0.880		0.0706	0.000
13	Chrysene	7.27e4	2.40e6	0.8519	1.000	23.37	23.38	1.0030	1.00	NO	7.11		0.0838	0.000
14	Benzo(b)fluoranthene	2.90e4	3.70e6	1.1048	1.000	26.87	26.91	1.0065	1.01	NO	2.97		0.0922	0.000



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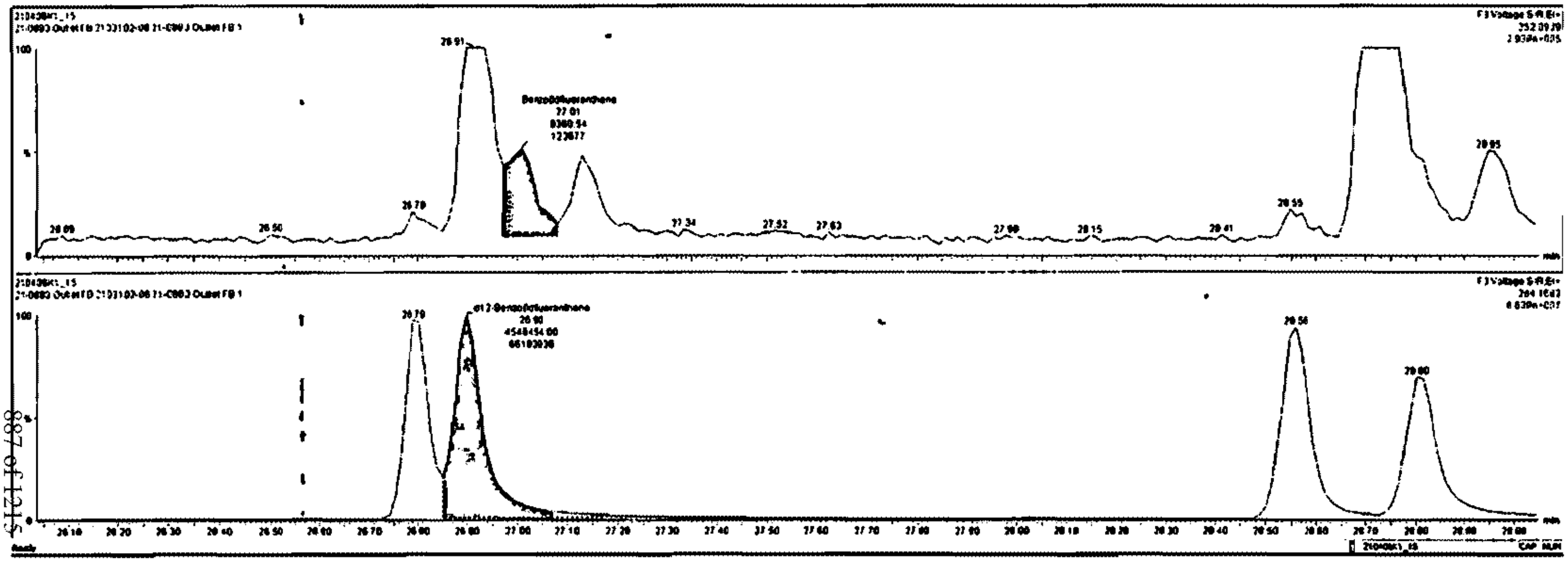
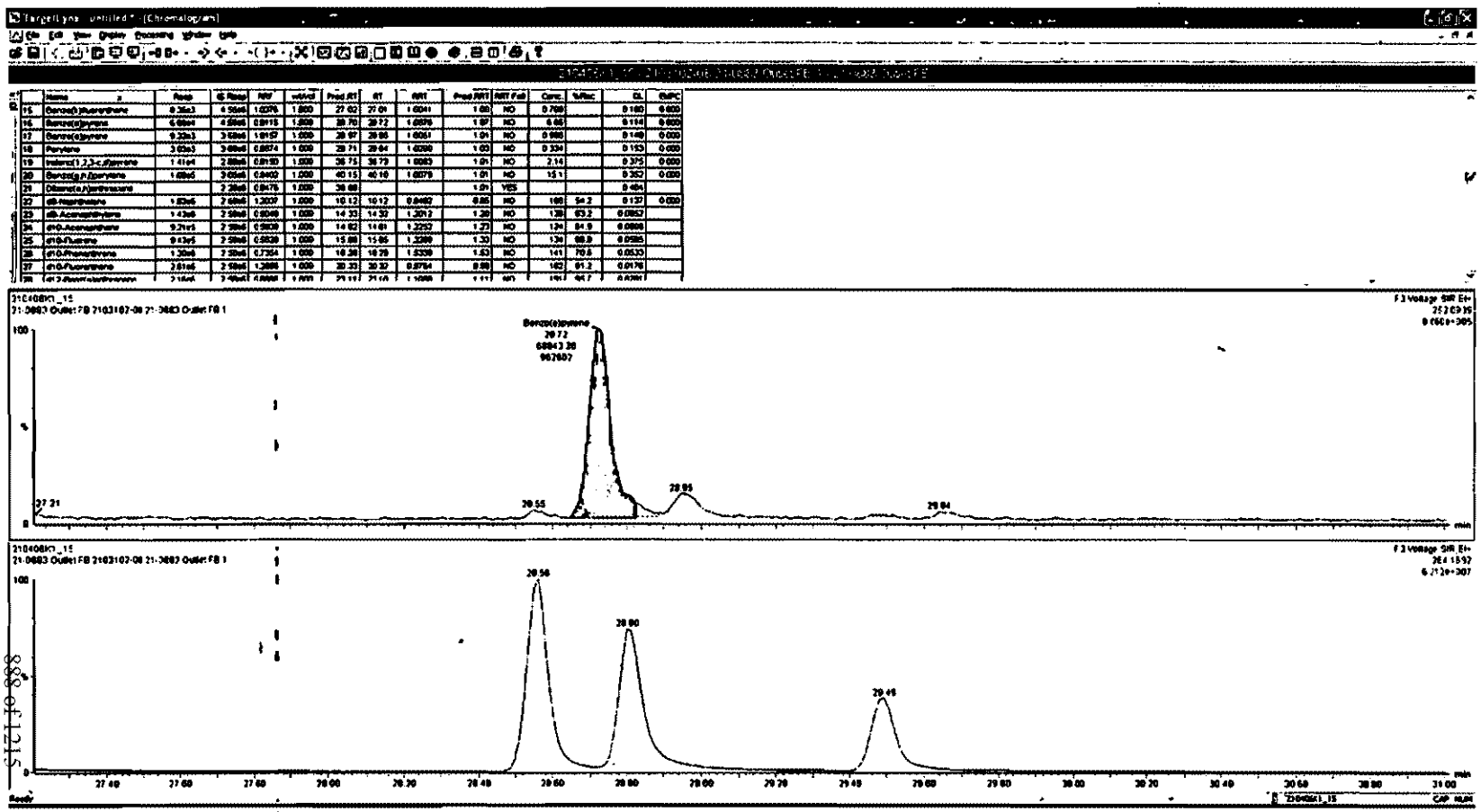
TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
15	Benzo(j/k)fluoranthene	8.38e3	4.88e6	1.0370	1.000	27.02	27.01	1.0044	1.00	NO	0.700		0.105	0.000
16	Benzo(e)pyrene	7.07e4	4.98e6	0.7615	1.000	28.70	28.72	1.0676	1.07	NO	6.83		0.114	0.000
17	Benzo(a)pyrene	9.33e3	3.88e6	1.0157	1.000	28.97	28.96	1.0054	1.01	NO	0.990		0.140	0.000
18	Perylene	3.00e3	3.88e6	0.9874	1.000	28.71	28.84	1.0080	1.00	NO	0.334		0.153	0.000
19	Indeno(1,2,3-c,d)pyrene	1.41e4	7.88e6	0.9180	1.000	38.75	38.73	1.0083	1.01	NO	2.14		0.375	0.000
20	Benzo(g,h,i)perylene	1.08e6	3.85e6	0.9482	1.000	40.16	40.10	1.0079	1.01	NO	151		0.352	0.000
21	Dibenz(a,h)anthracene		2.26e6	0.9478	1.000	38.88			1.01	YES			0.404	
22	d8-Naphthalene	1.83e6	2.50e6	1.2097	1.000	10.13	10.17	0.6462	0.66	NO	108	54.2	0.137	0.000
23	d8-Acenaphthylene	1.43e6	2.50e6	0.9046	1.000	14.33	14.32	1.2012	1.20	NO	126	63.2	0.0853	
24	d10-Acenaphthene	9.71e5	2.50e6	0.5838	1.000	14.87	14.81	1.2252	1.23	NO	124	61.9	0.0808	
25	d10-Fluorene	9.43e5	2.50e6	0.5878	1.000	15.88	15.86	1.3280	1.33	NO	134	66.9	0.0566	
26	d10-Phenanthrene	1.30e6	2.50e6	0.7364	1.000	18.28	18.25	1.5730	1.53	NO	141	70.6	0.0635	
27	d10-Fluoranthene	2.61e6	2.50e6	1.2858	1.000	20.33	20.32	0.9784	0.98	NO	162	81.2	0.0176	
28	d12-Benzo(e)pyrene	2.14e6	2.50e6	0.8880	1.000	25.11	25.10	1.1080	1.11	NO	161	80.7	0.0260	




Benzo(a)pyrene
29.72
68843.38
967607
27.21
29.55
29.84
29.56
29.80
29.48

888 of 1215

TargetLynx - untitled * - [Chromatogram]

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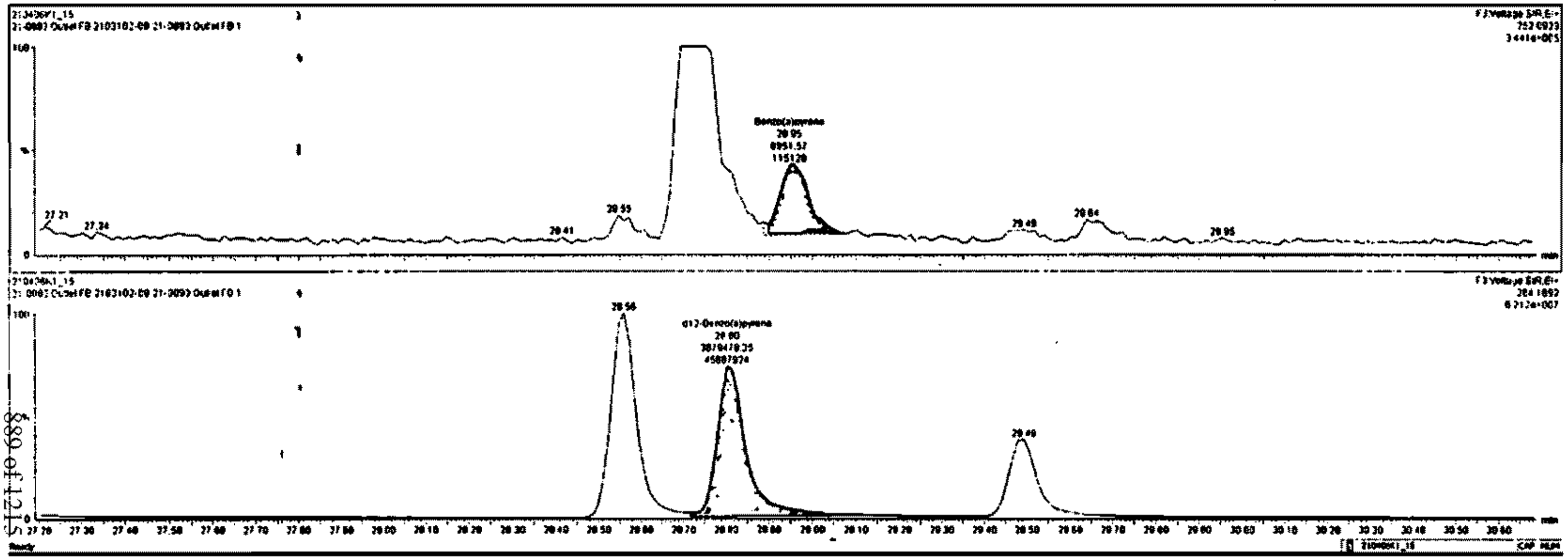
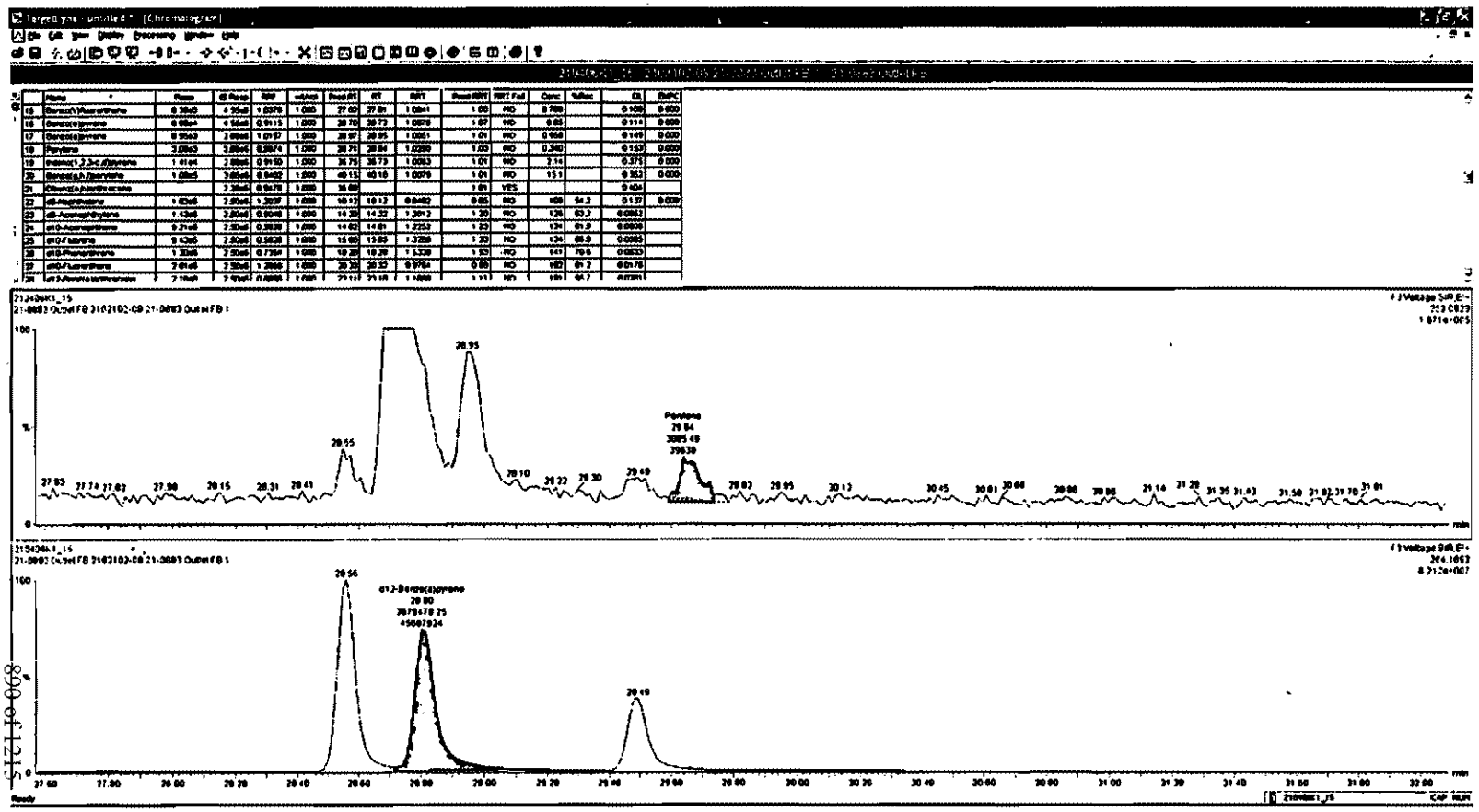
#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	8.38e3	4.56e6	1.0378	1.000	27.02	27.01	1.0041	1.00	NO	0.709		0.109	0.000
16	Benzo(e)pyrene	9.99e4	4.56e6	0.9115	1.000	28.70	28.72	1.0076	1.07	NO	6.66		0.114	0.000
17	Benzo(a)pyrene	8.36e3	3.88e6	1.0157	1.000	28.97	28.95	1.0084	1.01	NO	0.588		0.149	0.000
18	Perylene	3.03e3	3.88e6	0.9874	1.000	28.71	28.84	1.0280	1.03	NO	0.334		0.153	0.000
19	Indeno(1,2,3-c,d)pyrene	1.41e4	2.88e6	0.9159	1.000	38.75	38.73	1.0083	1.01	NO	2.14		0.275	0.000
20	Benzo(g,h,i)perylene	1.08e5	3.05e6	0.9402	1.000	40.15	40.18	1.0079	1.01	NO	15.1		0.352	0.000
21	Dibenz(a,h)anthracene		2.26e6	0.9476	1.000	36.88			1.01	YES			0.404	
22	d8-Naphthalene	1.63e6	2.50e6	1.2037	1.000	10.12	10.12	0.8482	0.85	NO	108	54.2	0.137	0.000
23	d8-Acenaphthylene	1.43e6	2.50e6	0.8048	1.000	14.33	14.30	1.2012	1.20	NO	126	63.2	0.0852	
24	d10-Acenaphthene	9.21e5	2.50e6	0.5809	1.000	14.82	14.81	1.2262	1.23	NO	124	61.9	0.0806	
25	d10-Fluorene	9.43e5	2.50e6	0.5829	1.000	15.88	15.86	1.3289	1.33	NO	134	66.9	0.0586	
26	d10-Phenanthrene	1.30e6	2.50e6	0.7264	1.000	18.28	18.29	1.5308	1.53	NO	141	70.6	0.0530	
27	d10-Fluoranthene	2.01e6	2.50e6	1.2856	1.000	28.33	28.32	0.9784	0.98	NO	162	81.2	0.0176	
28	[illegible]	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]	[illegible]	[illegible]	



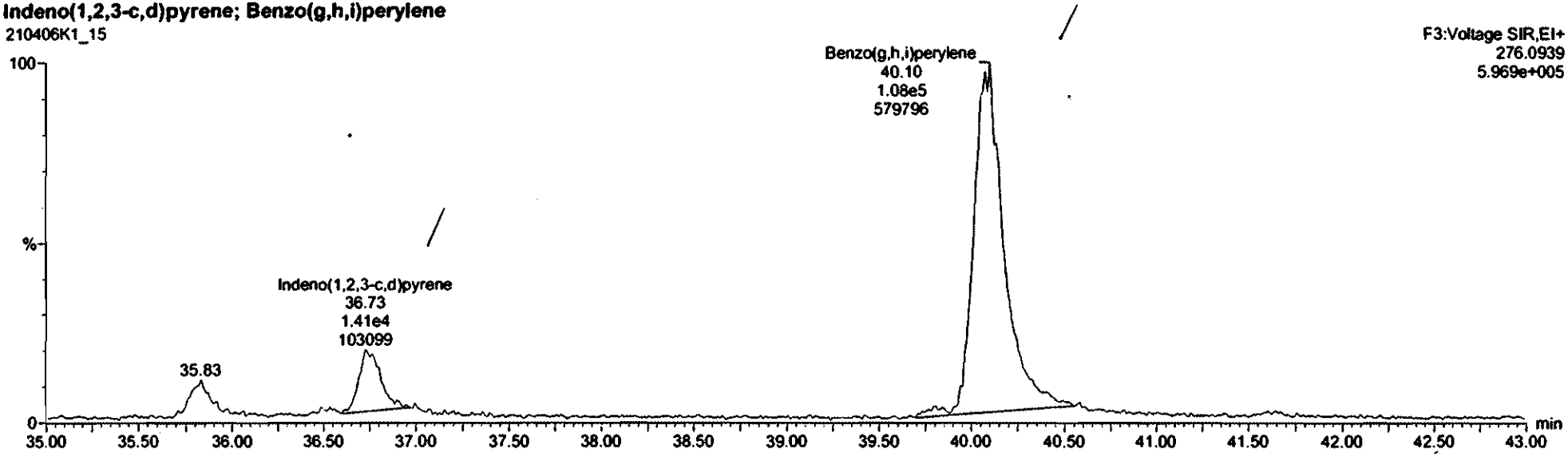

Perylene
d12-Benzo(a)pyrene

Dataset: Untitled

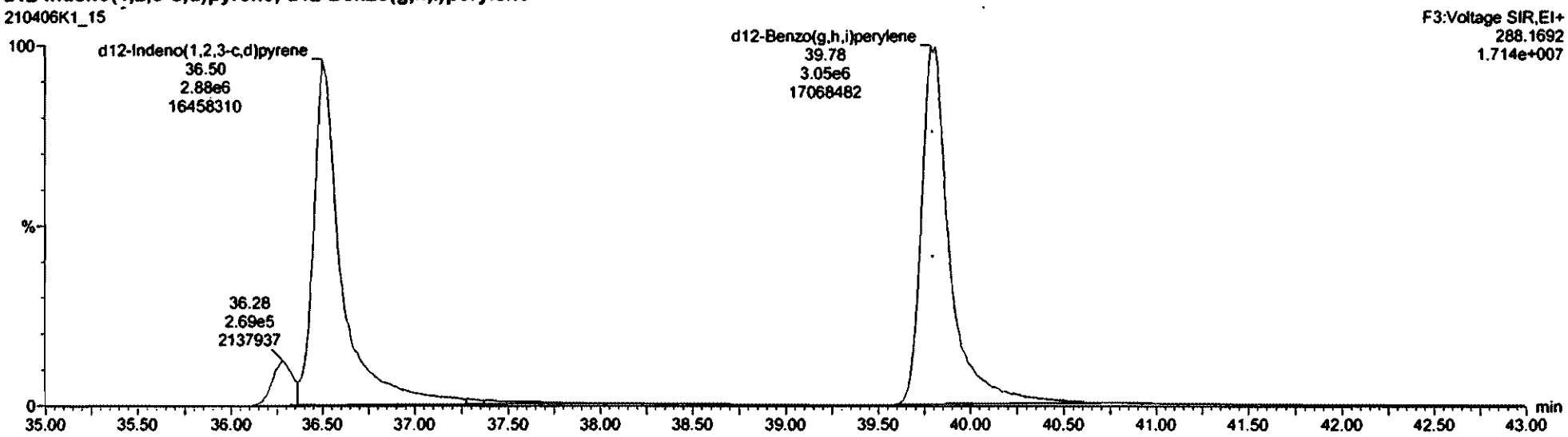
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

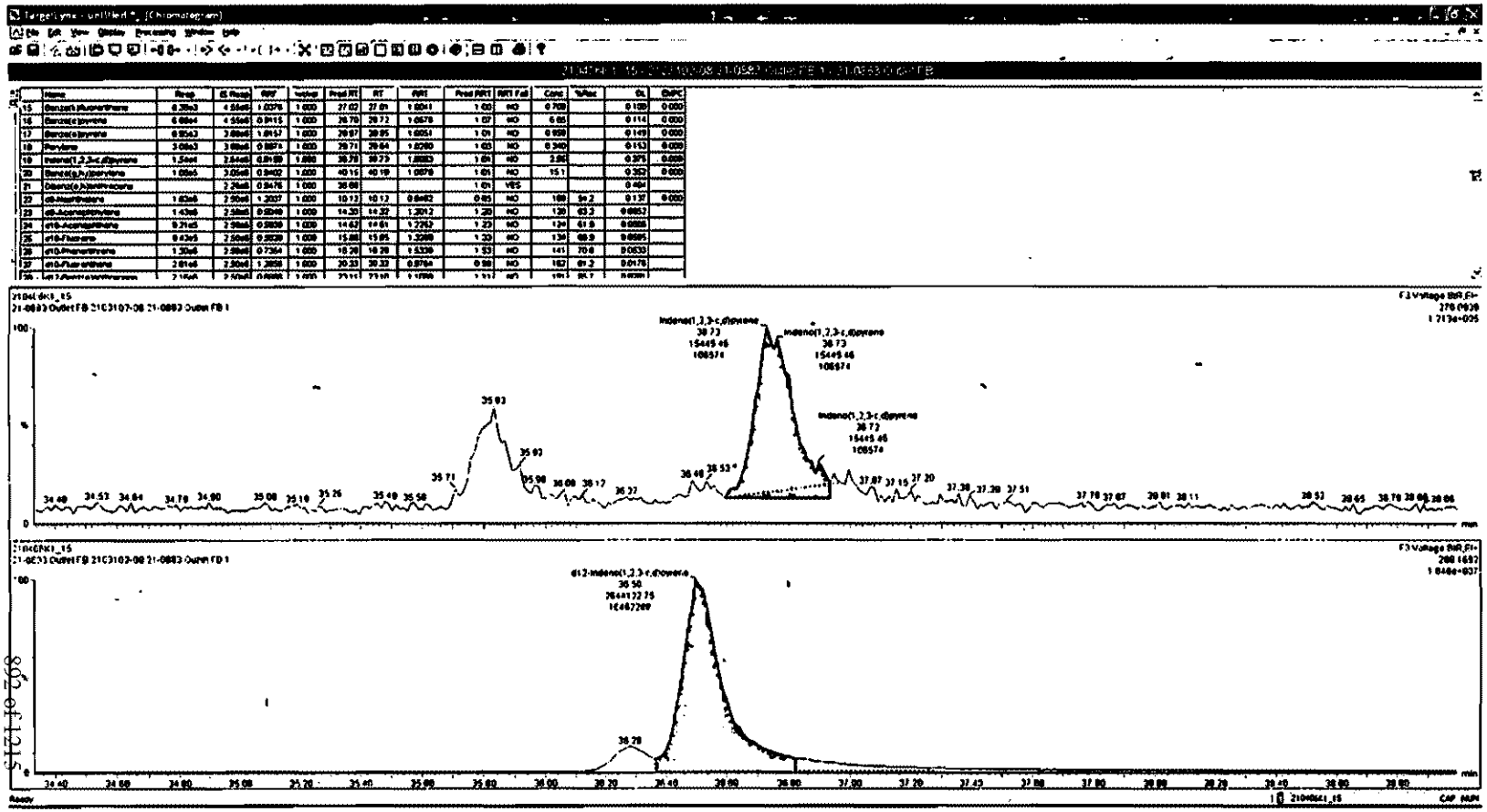
Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene

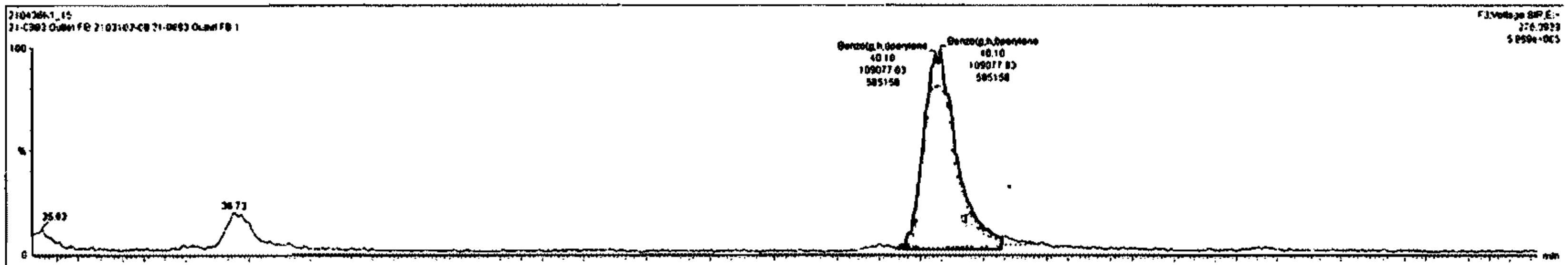


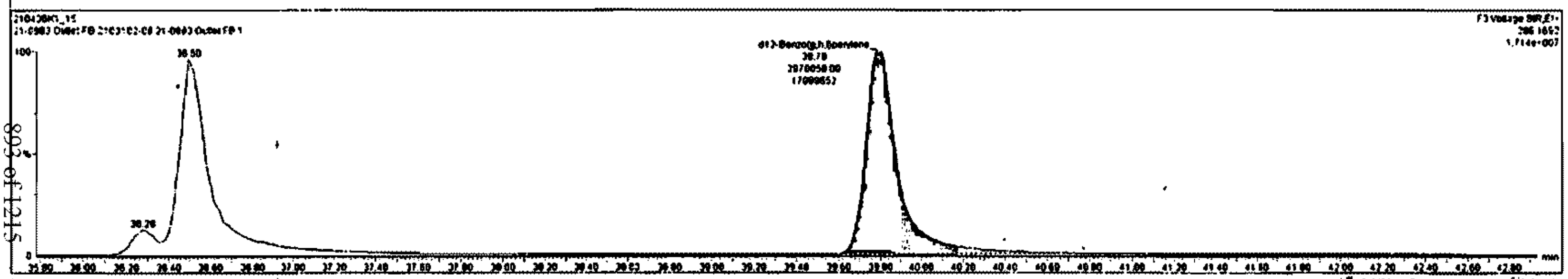


TargetLynx - untitled* - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
15	Benzo(k)fluoranthene	8.36e3	4.95e6	1.0376	1.000	27.02	27.01	1.0041	1.00	NO	0.700		0.180	0.000
16	Benzo(e)pyrene	6.88e4	4.95e6	0.9115	1.000	28.70	28.72	1.0076	1.07	NO	6.65		0.114	0.000
17	Benzo(a)pyrene	8.85e3	3.68e6	1.0157	1.000	28.87	28.95	1.0051	1.01	NO	0.888		0.118	0.000
18	Perylene	3.08e3	3.68e6	0.9874	1.000	29.71	29.84	1.0290	1.07	NO	0.340		0.153	0.000
19	Indeno(1,2,3-c,d)pyrene	1.54e4	2.64e6	0.9150	1.000	38.75	38.73	1.0063	1.01	NO	2.95		0.375	0.000
20	Benzo(g,h,i)perylene	1.09e6	2.97e6	0.8482	1.000	40.16	40.10	1.0079	1.01	NO	15.8		0.382	0.000
21	Dibenz(a,h)anthracene		2.28e6	0.8476	1.000	38.69			1.01	YES			0.404	
22	d8-Naphthalene	1.63e6	2.50e6	1.2027	1.000	10.12	10.12	0.8402	0.85	NO	108	54.2	0.137	0.000
23	d8-Acenaphthylene	1.43e6	2.50e6	0.9048	1.000	14.33	14.32	1.2012	1.20	NO	126	63.2	0.0852	
24	d10-Acenaphthene	8.21e5	2.50e6	0.5838	1.000	14.82	14.81	1.2252	1.23	NO	124	61.9	0.0888	
25	d10-Fluorene	9.43e5	2.50e6	0.5838	1.000	15.86	15.85	1.3289	1.37	NO	134	66.9	0.0685	
26	d10-Phenanthrene	1.30e6	2.50e6	0.7364	1.000	18.30	18.29	1.5330	1.53	NO	141	70.6	0.0633	
27	d10-Fluoranthene	2.81e6	2.50e6	1.3868	1.000	20.33	20.32	0.9784	0.98	NO	182	91.2	0.0178	
28	d12-Benz(a)anthracene	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]	[illegible]	[illegible]	





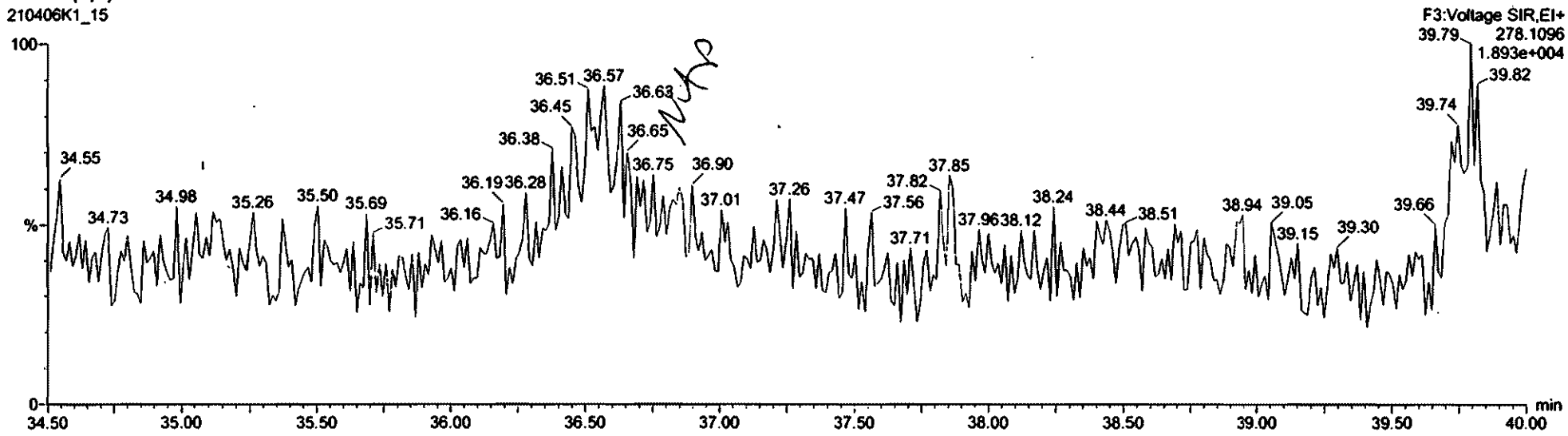
Ready 210406K1_15 CAP NUM

Dataset: Untitled

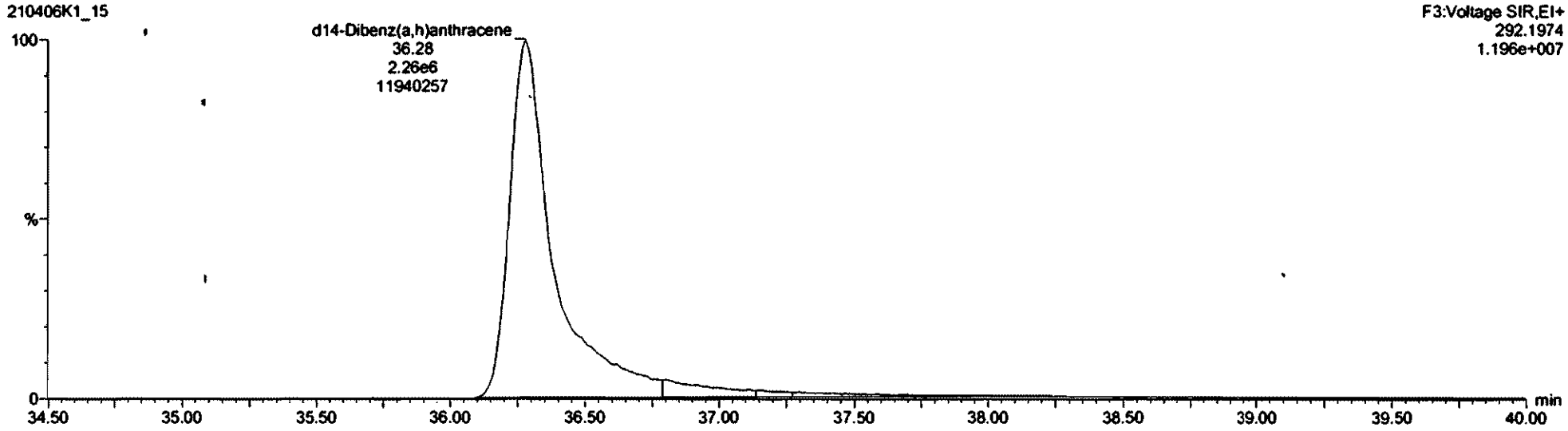
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_15, Date: 06-Apr-2021, Time: 22:10:28, ID: 2103102-08 21-0883 Outlet FB 1, Description: 21-0883 Outlet FB

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



894 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-13.qld

Last Altered: Wednesday, April 07, 2021 9:41:46 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:42:30 AM Pacific Daylight Time

4.7.21 C 04/08/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

	#.Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	1 Naphthalene	9.21e4	1.86e6	1.16	1.000	10.16	10.16	1.006	1.006	NO	8.56		0.216
2	2 Naphthalene-2nd	1.03e4	1.86e6	0.128	1.000	10.16	10.16	1.006	1.006	NO	8.68		1.84
3	3 2-Methylnaphthalene	7.61e4	1.03e6	1.38	1.000	11.61	11.62	0.794	0.796	NO	10.7		0.148
4	4 Acenaphthylene	1.58e3	1.60e6	1.12	1.000	14.37	14.37	1.003	1.003	NO	0.177		0.109
5	5 Acenaphthene		1.03e6	1.10	1.000	14.70		1.006		YES			0.220
6	6 Fluorene	3.44e3	1.01e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	0.587		0.123
7	7 Phenanthrene	1.15e4	1.51e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	1.28		0.0912
8	8 Phenanthrene-2nd		1.51e6	0.0925	1.000	18.33		1.002		NO			1.08
9	9 Anthracene	1.65e3	1.51e6	1.09	1.000	18.39	18.38	1.005	1.005	NO	0.199		0.0994
10	10 Fluoranthene	6.79e3	2.25e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	0.550		0.0413
11	11 Pyrene	1.23e4	2.25e6	1.20	1.000	20.87	20.84	1.026	1.025	NO	0.912		0.0379
12	12 Benz(a)anthracene	9.38e2	1.54e6	0.961	1.000	23.19	23.19	1.003	1.003	NO	0.127		0.0679
13	13 Chrysene	1.84e3	1.87e6	0.852	1.000	23.40	23.39	1.003	1.003	NO	0.231		0.0733
14	14 Benzo(b)fluoranthene	3.92e3	3.16e6	1.10	1.000	26.96	26.94	1.005	1.004	NO	0.449		0.0940
15	15 Benzo(k)fluoranthene		4.00e6	1.04	1.000	27.05		1.004		YES			0.101
16	16 Benzo(e)pyrene	1.22e3	4.00e6	0.911	1.000	28.74	28.75	1.067	1.067	NO	0.134		0.115
17	17 Benzo(a)pyrene		2.94e6	1.02	1.000	29.01		1.006		YES			0.164
18	18 Perylene		2.94e6	0.987	1.000	29.75		1.031		NO			0.169
19	19 Indeno(1,2,3-c,d)pyrene		2.68e6	0.915	1.000	37.03		1.007		YES			0.357
20	20 Benzo(g,h,i)perylene		2.68e6	0.940	1.000	40.60		1.009		YES			0.367
21	21 Dibenz(a,h)anthracene		2.09e6	0.948	1.000	36.92		1.011		YES			0.468
22	22 d8-Naphthalene	1.86e6	1.96e6	1.20	1.000	10.12	10.10	0.848	0.847	NO	157	78.5	0.126
23	23 d8-Acenaphthylene	1.60e6	1.96e6	0.905	1.000	14.33	14.32	1.201	1.201	NO	180	90.2	0.0329
24	24 d10-Acenaphthene	1.03e6	1.96e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	177	88.5	0.0280
25	25 d10-Fluorene	1.01e6	1.96e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	184	91.8	0.0308
26	26 d10-Phenanthrene	1.51e6	1.96e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	210	105	0.0215
27	27 d10-Fluoranthene	2.25e6	1.96e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	178	89.0	0.0123
28	28 d12-Benz(a)anthracene	1.54e6	1.96e6	0.900	1.000	23.11	23.13	1.110	1.111	NO	175	87.4	0.0261
29	29 d12-Chrysene	1.87e6	1.96e6	1.02	1.000	23.30	23.32	1.120	1.121	NO	187	93.3	0.0230
30	30 d12-Benzo(b)fluoranthene	3.16e6	1.50e6	1.18	1.000	26.81	26.83	0.907	0.908	NO	356	88.9	0.206
31	31 d12-Benzo(k)fluoranthene	4.00e6	1.50e6	1.50	1.000	26.91	26.94	0.911	0.912	NO	354	88.6	0.162

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-13.qld

Last Altered: Wednesday, April 07, 2021 9:41:46 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 9:42:30 AM Pacific Daylight Time

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

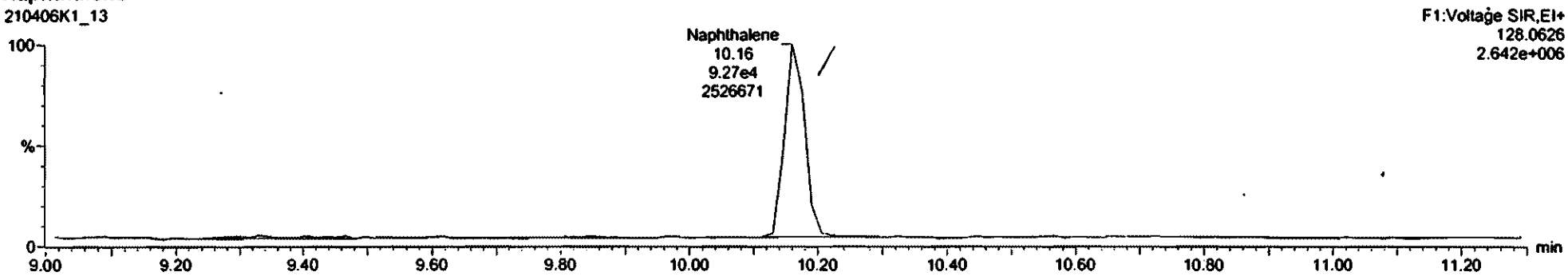
	L #	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	2.94e6	1.50e6	1.24	1.000	28.80	28.84	0.975	0.976	NO	316	78.9	0.196
33	33	d12-Indeno(1,2,3-c,d)pyrene	2.68e6	1.50e6	1.02	1.000	36.84	36.78	1.247	1.245	NO	350	87.4	0.289
34	34	d12-Benzo(g,h,i)perylene	2.68e6	1.50e6	1.00	1.000	40.24	40.22	1.362	1.361	NO	354	88.6	0.293
35	35	d14-Dibenz(a,h)anthracene	2.09e6	1.50e6	0.765	1.000	36.61	36.51	1.239	1.236	NO	363	90.6	0.311
36	36	d10-Anthracene	1.10e6	1.50e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	148	74.1	0.0863
37	39	d10-1-Methylnaphthalene	1.76e6	1.76e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0286
38	40	d10-Pyrene	1.96e6	1.96e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	200	100	0.0159
39	41	d12-Perylene	1.50e6	1.50e6	1.00	1.000	29.59	29.54	1.000	1.000	NO	200	100	0.243

Dataset: Untitled

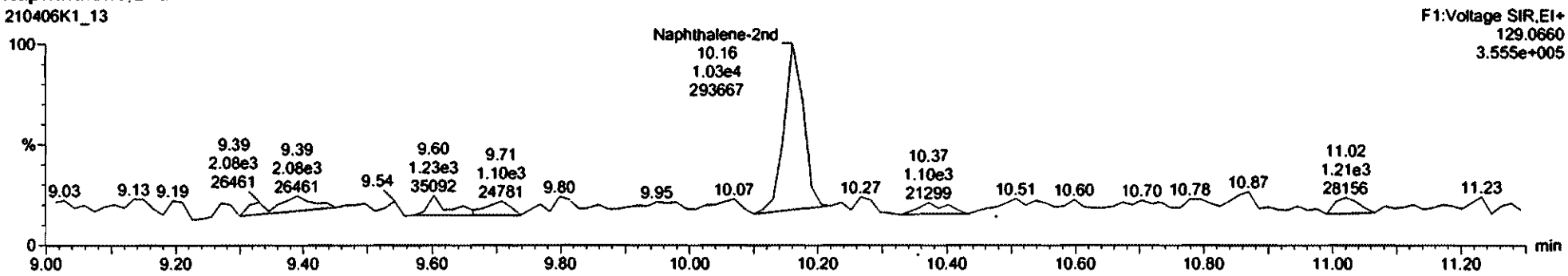
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

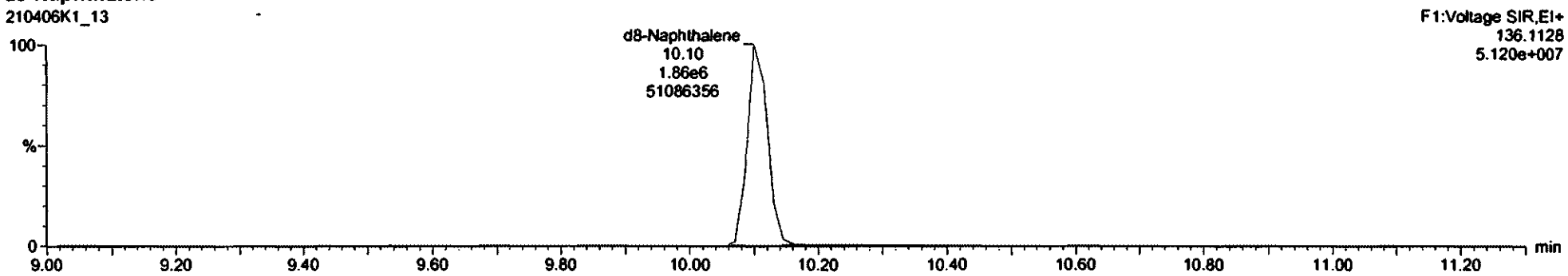
Naphthalene



Naphthalene-2nd



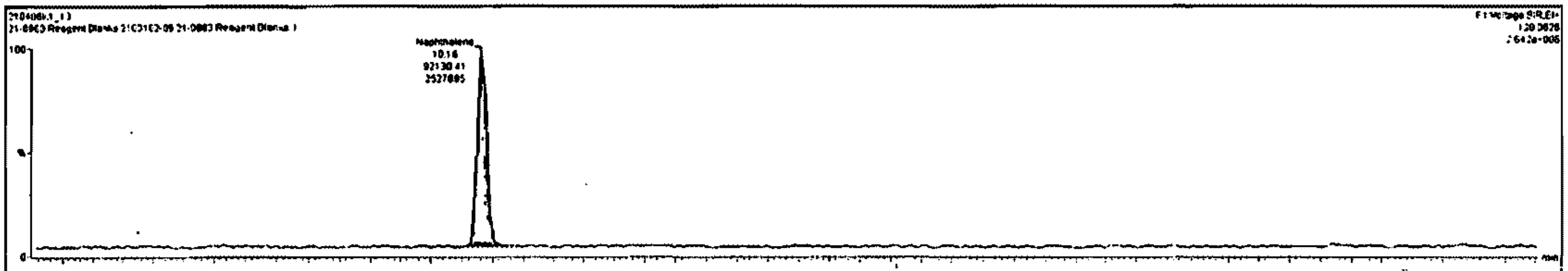
d8-Naphthalene

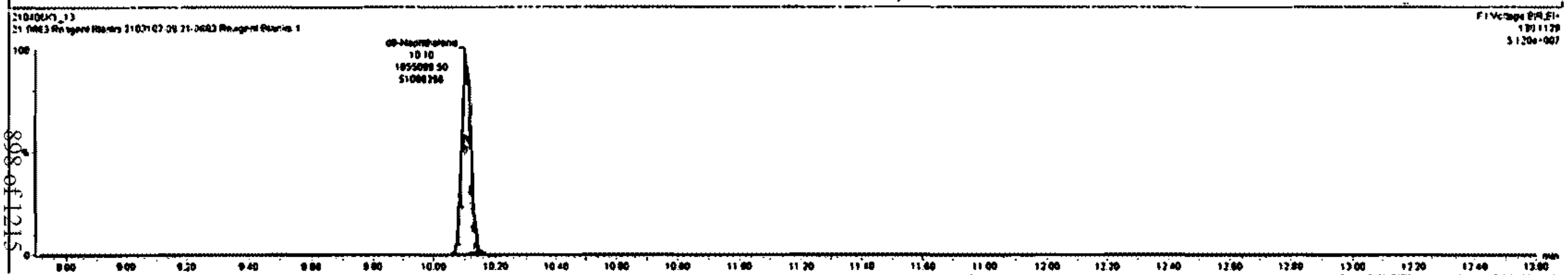


TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	9.71e4	1.08e8	1.1557	1.000	10.18	10.16	1.0080	1.01	NO	9.56		0.216	0.000
2	Naphthalene-2nd	1.60e4	1.86e6	0.1279	1.000	10.18	10.16	1.0080	1.01	NO	6.80		1.04	0.000
3	2-Methylnaphthalene	7.51e4	1.60e8	1.3700	1.000	11.61	11.62	0.7856	0.79	NO	10.7		0.140	0.000
4	Acenaphthylene	1.59e3	1.60e8	1.1166	1.000	14.37	14.37	1.0032	1.00	NO	0.177		0.108	0.000
5	Acenaphthene		1.60e8	1.1074	1.000	14.70			1.01	YES			0.220	
6	Fluorene	3.30e3	1.01e8	1.1538	1.000	15.94	15.94	1.0057	1.01	NO	0.580		0.123	0.000
7	Phenanthrene	1.15e4	1.51e8	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	1.38		0.0812	0.000
8	Phenanthrene-2nd	1.58e3	1.51e8	0.0825	1.000	18.33	18.34	1.0025	1.00	NO	1.90		1.08	0.000
9	Anthracene	1.56e3	1.51e8	1.0918	1.000	18.38	18.38	1.0049	1.01	NO	0.189		0.0884	0.000
10	Fluoranthene	7.11e3	2.25e8	1.0886	1.000	20.28	20.28	1.0015	1.00	NO	0.576		0.0413	0.000
11	Pyrene	1.30e4	2.25e8	1.1981	1.000	20.87	20.84	1.0040	1.00	NO	0.979		0.0378	0.000
12	Benz(a)anthracene		1.54e8	0.9513	1.000	23.19			1.00	YES			0.0878	
13	Chrysene	1.70e3	1.87e8	0.8519	1.000	23.40	23.38	1.0032	1.00	NO	0.223		0.0730	0.000
14	Benzo(b)fluoranthene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]		[illegible]	[illegible]





Ready

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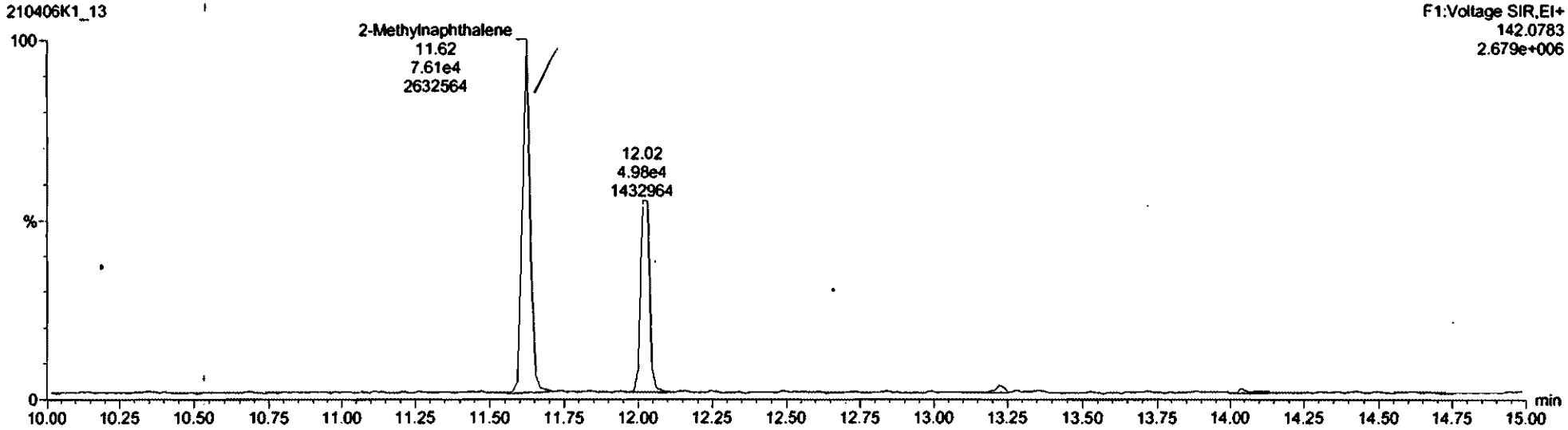
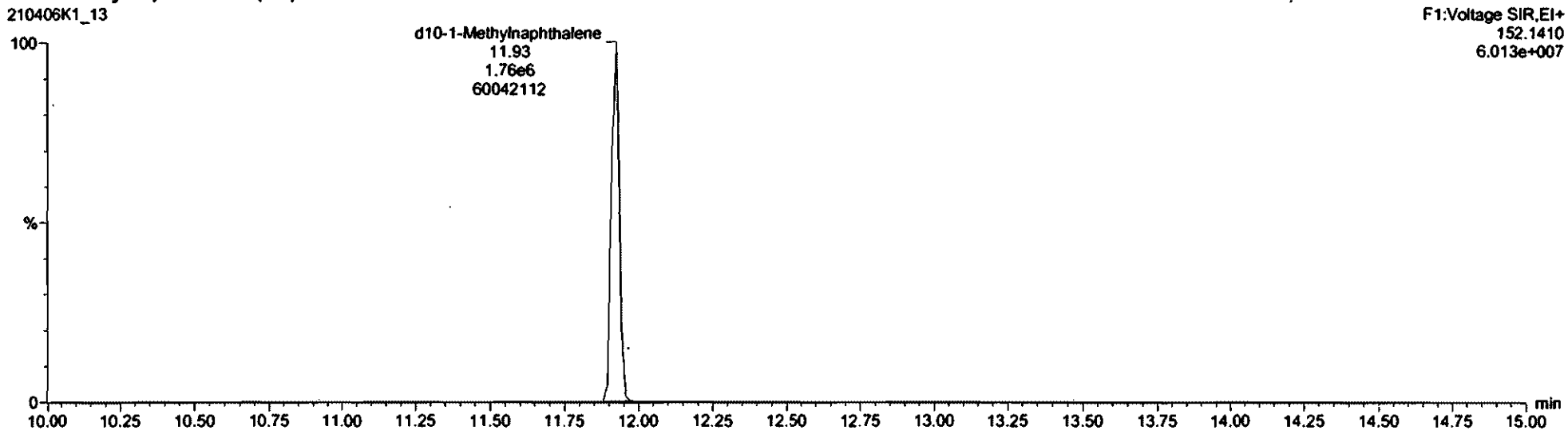
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



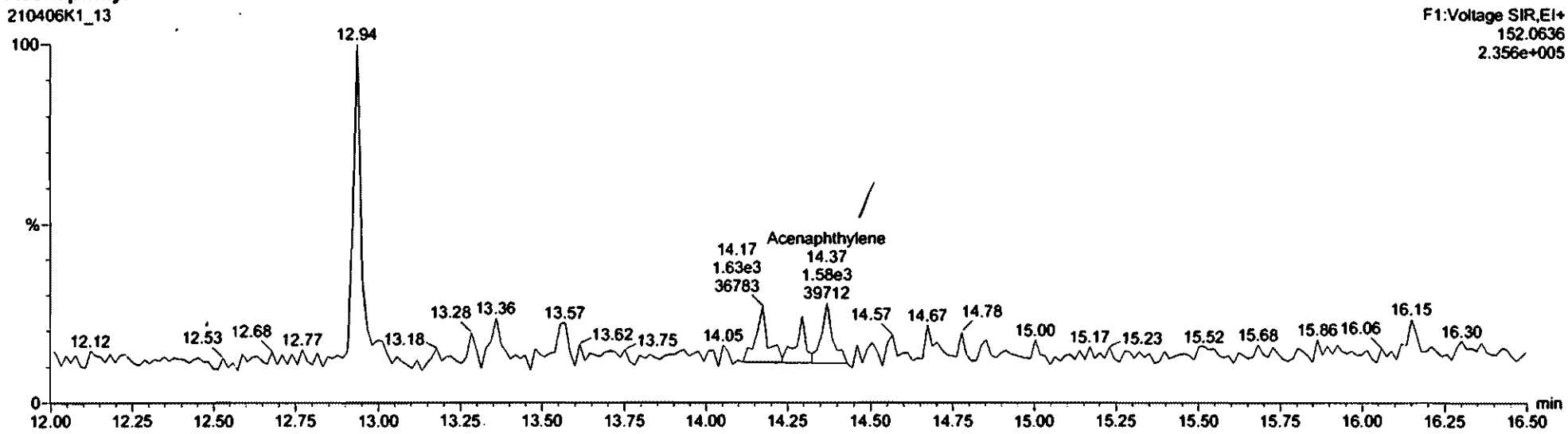
899 of 1215

Dataset: Untitled

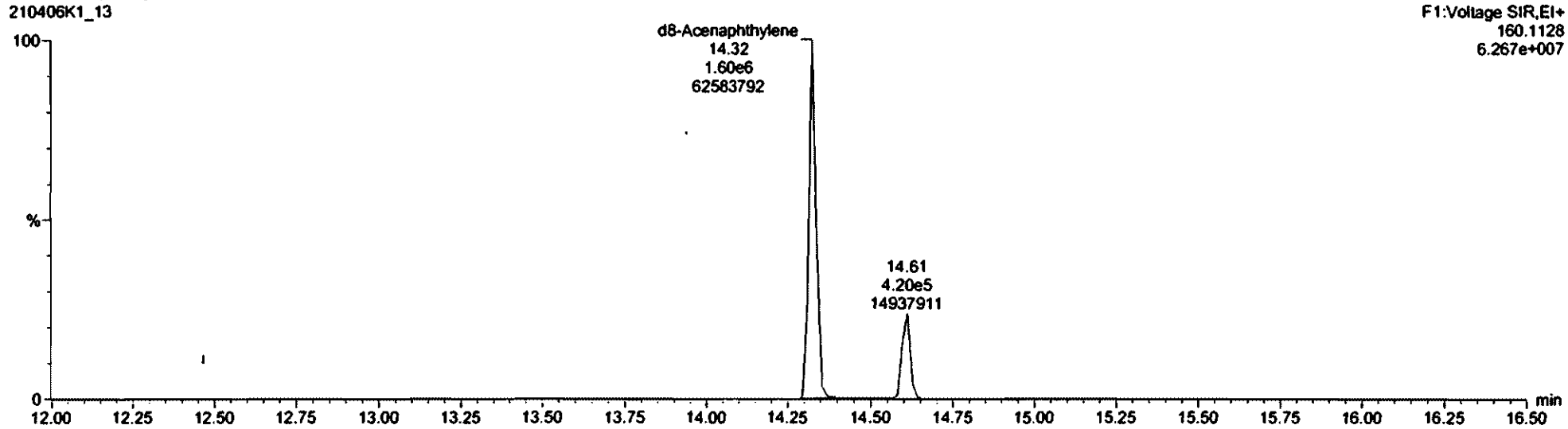
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Acenaphthylene

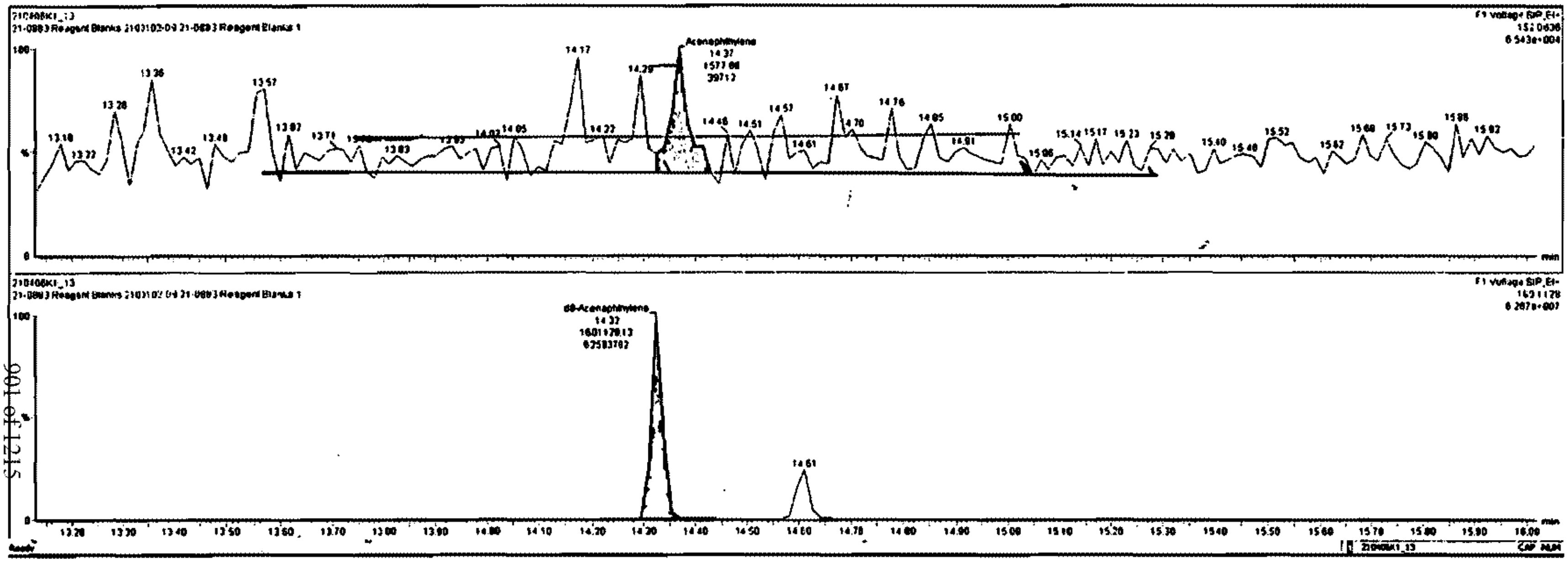


d8-Acenaphthylene



210406K1_13 - 2103102-09 21-0893 Reagent Blanks 1 - 21-0893 Reagent Blanks 1

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	9.21e4	1.86e6	1.1987	1.000	10.16	10.16	1.0000	1.01	NO	0.58		0.216	0.000
2	Naphthalene-2nd	1.03e4	1.86e6	0.1270	1.000	10.18	10.16	1.0000	1.01	NO	0.88		1.94	0.000
3	2-Methylnaphthalene	7.61e4	1.63e6	1.3760	1.000	11.61	11.62	0.7956	0.78	NO	10.7		0.149	0.000
4	Acenaphthylene	1.58e3	1.60e6	1.1166	1.000	14.37	14.37	1.0032	1.00	NO	0.177		0.108	0.000
5	Acenaphthene		1.60e6	1.1024	1.000	14.70			1.01	YES			0.230	
6	Fluorene	3.38e3	1.61e6	1.1530	1.000	15.94	15.94	1.0057	1.01	NO	0.580		0.129	0.000
7	Phenanthrene	1.15e4	1.54e6	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	1.20		0.0817	0.000
8	Phenanthrene-2nd	1.38e3	1.51e6	0.0825	1.000	18.35	18.39	1.0025	1.00	NO	1.86		1.08	0.000
9	Anthracene	1.56e3	1.51e6	1.0910	1.000	18.38	18.38	1.0049	1.01	NO	0.188		0.0084	0.000
10	Fluoranthene	7.11e3	2.25e6	1.0985	1.000	20.28	20.35	1.0015	1.00	NO	0.576		0.0413	0.000
11	Pyrene	1.32e4	2.25e6	1.1181	1.000	20.87	20.84	1.0240	1.03	NO	0.879		0.0379	0.000
12	Benz(a)anthracene		1.54e6	0.9813	1.000	23.18			1.00	YES			0.0879	
13	Chrysene	1.78e3	1.87e6	0.9518	1.000	23.40	23.38	1.0032	1.00	NO	0.223		0.0733	0.000
14	[illegible]	2.86e3	[illegible]	1.1868	1.000	26.96	26.94	1.0041	1.00	NO	0.339		0.0660	0.000



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Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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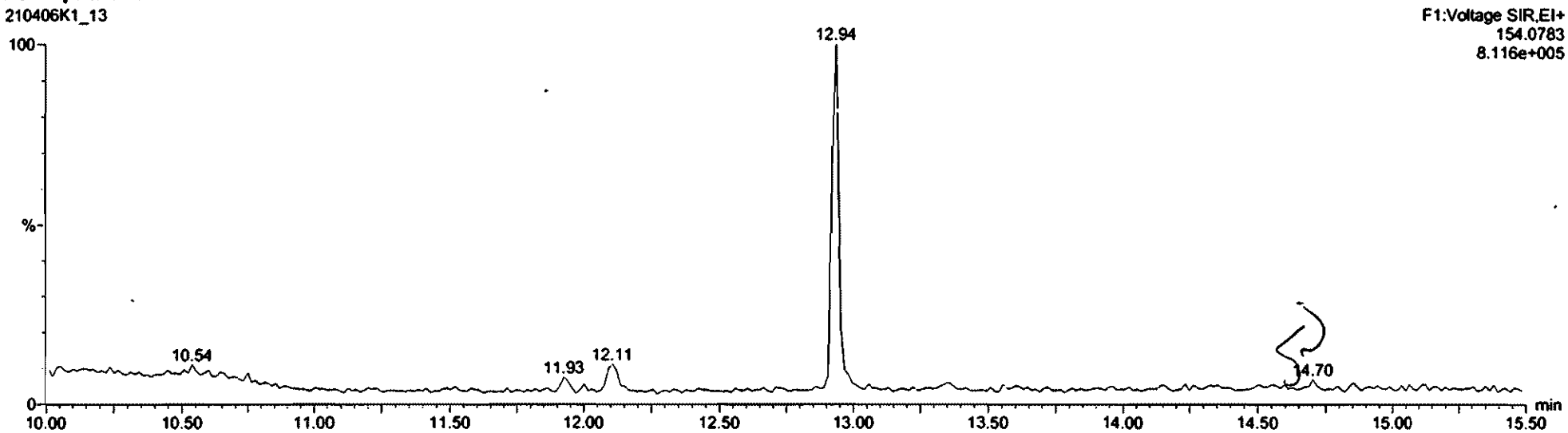
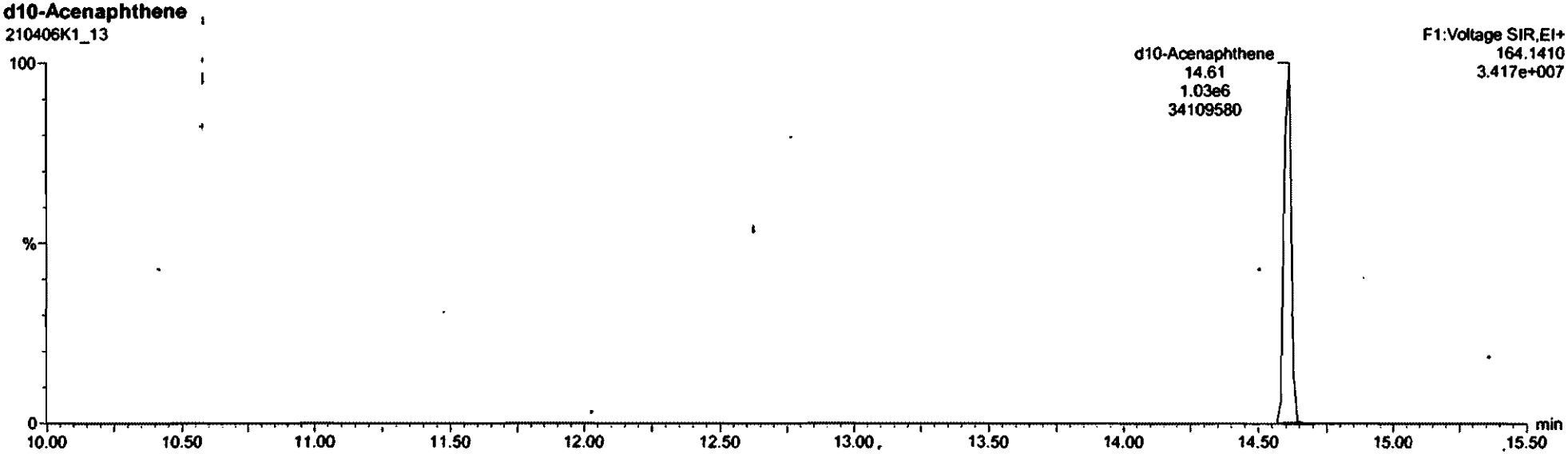
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Acenaphthene



d10-Acenaphthene



902 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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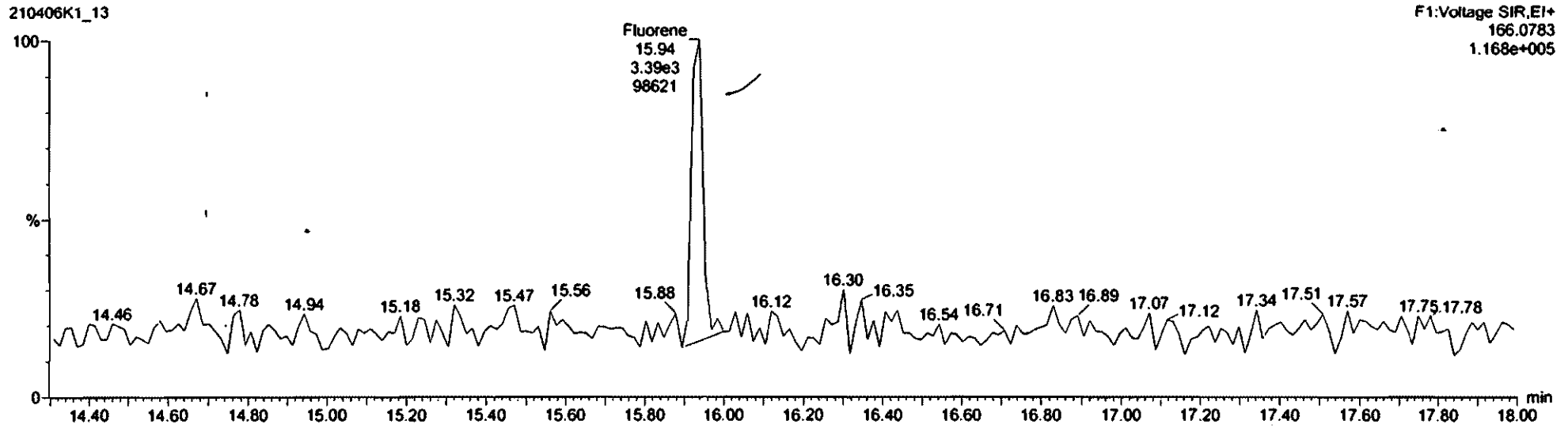
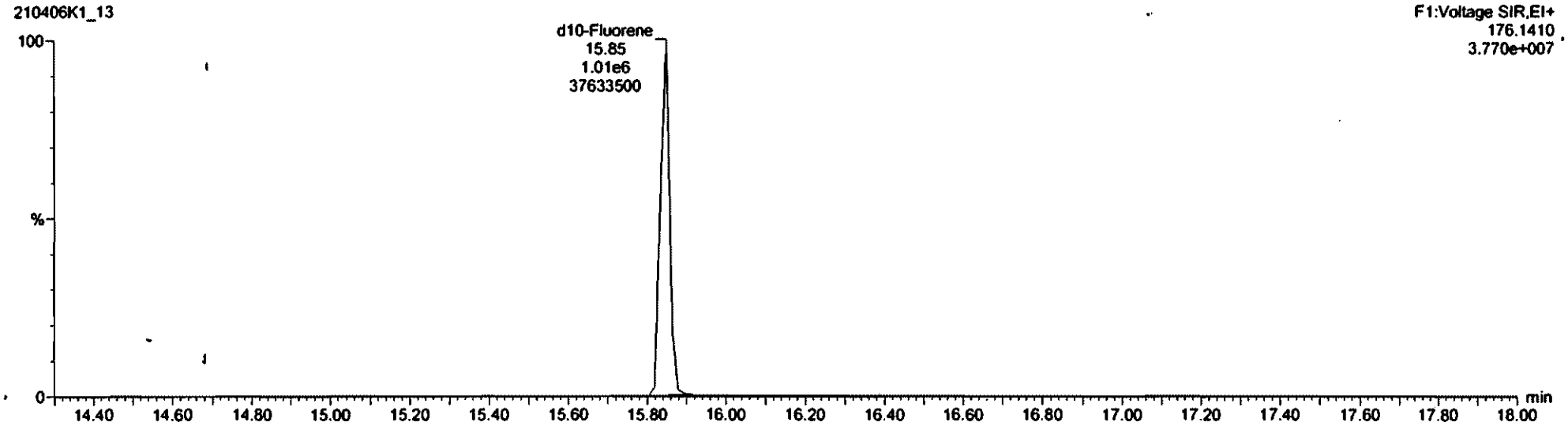
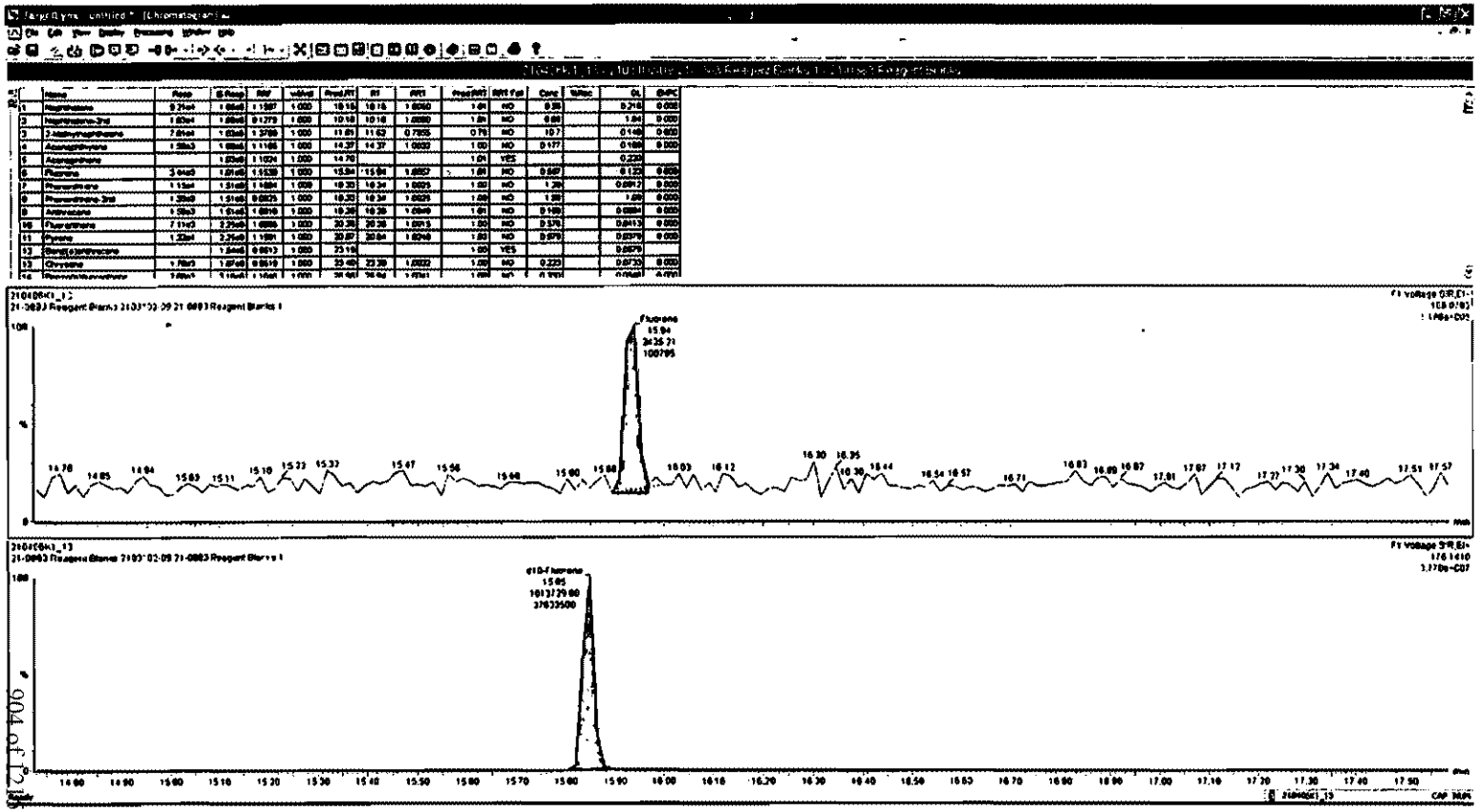
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Fluorene



d10-Fluorene




Fluorene
15.94
2e35 21
100795
16.78
14.85
14.94
15.83
15.11
15.10
15.22
15.32
15.47
15.56
15.68
15.80
15.88
16.03
16.12
16.30
16.35
16.30
16.44
16.54
16.57
16.71
16.83
16.89
16.87
17.01
17.07
17.17
17.27
17.36
17.34
17.40
17.51
17.57
d10-Fluorene
15.85
1013729.00
37033500
14.90
15.00
15.10
15.20
15.30
15.40
15.50
15.60
15.70
15.80
15.90
16.00
16.10
16.20
16.30
16.40
16.50
16.60
16.70
16.80
16.90
17.00
17.10
17.20
17.30
17.40
17.50

Dataset: Untitled

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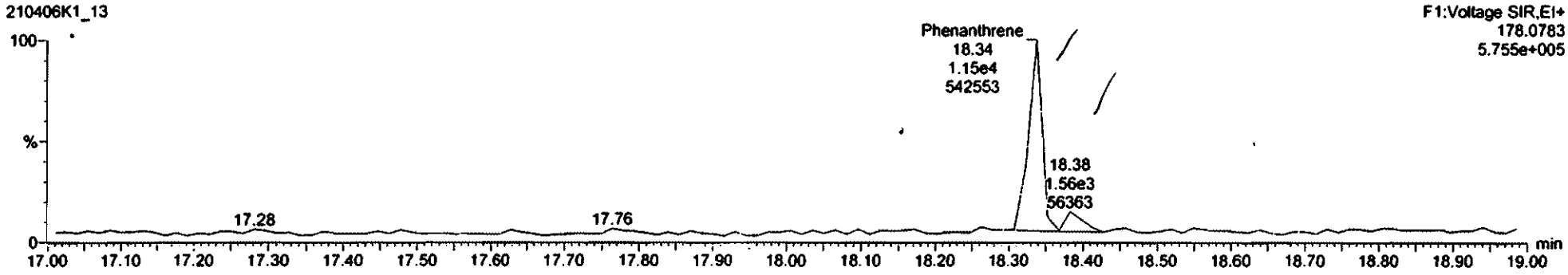
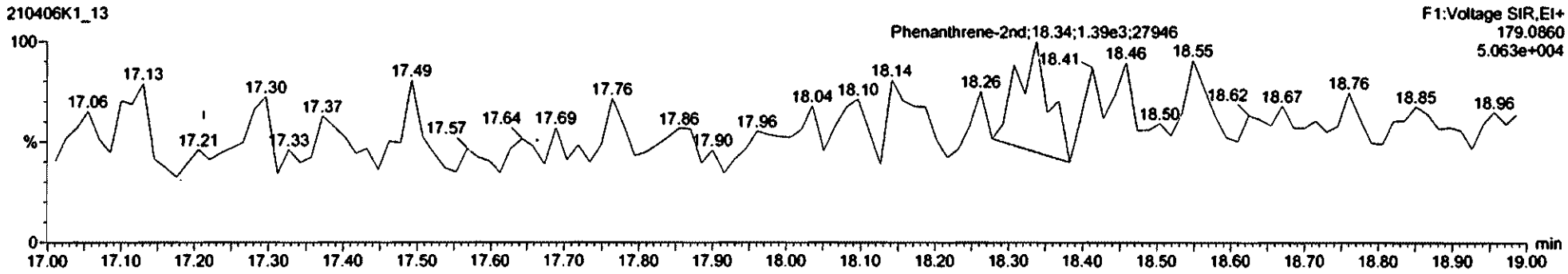
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

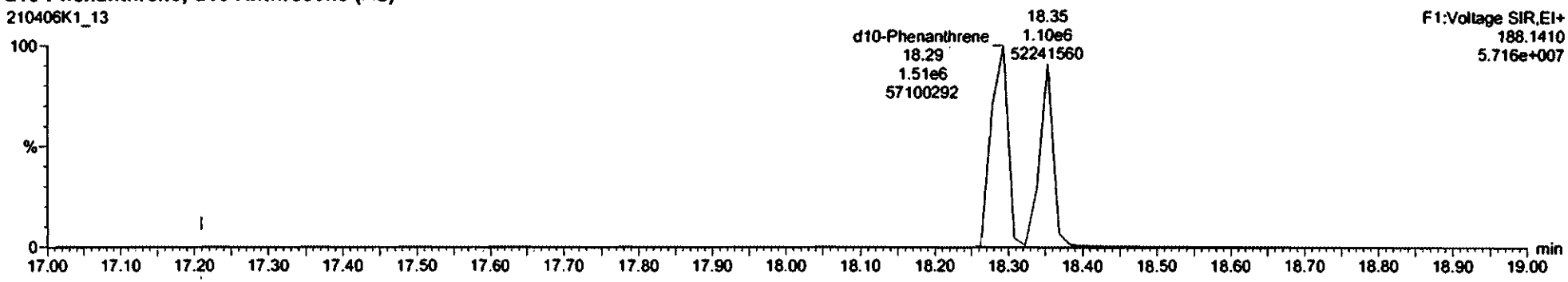
Phenanthrene; Anthrecene



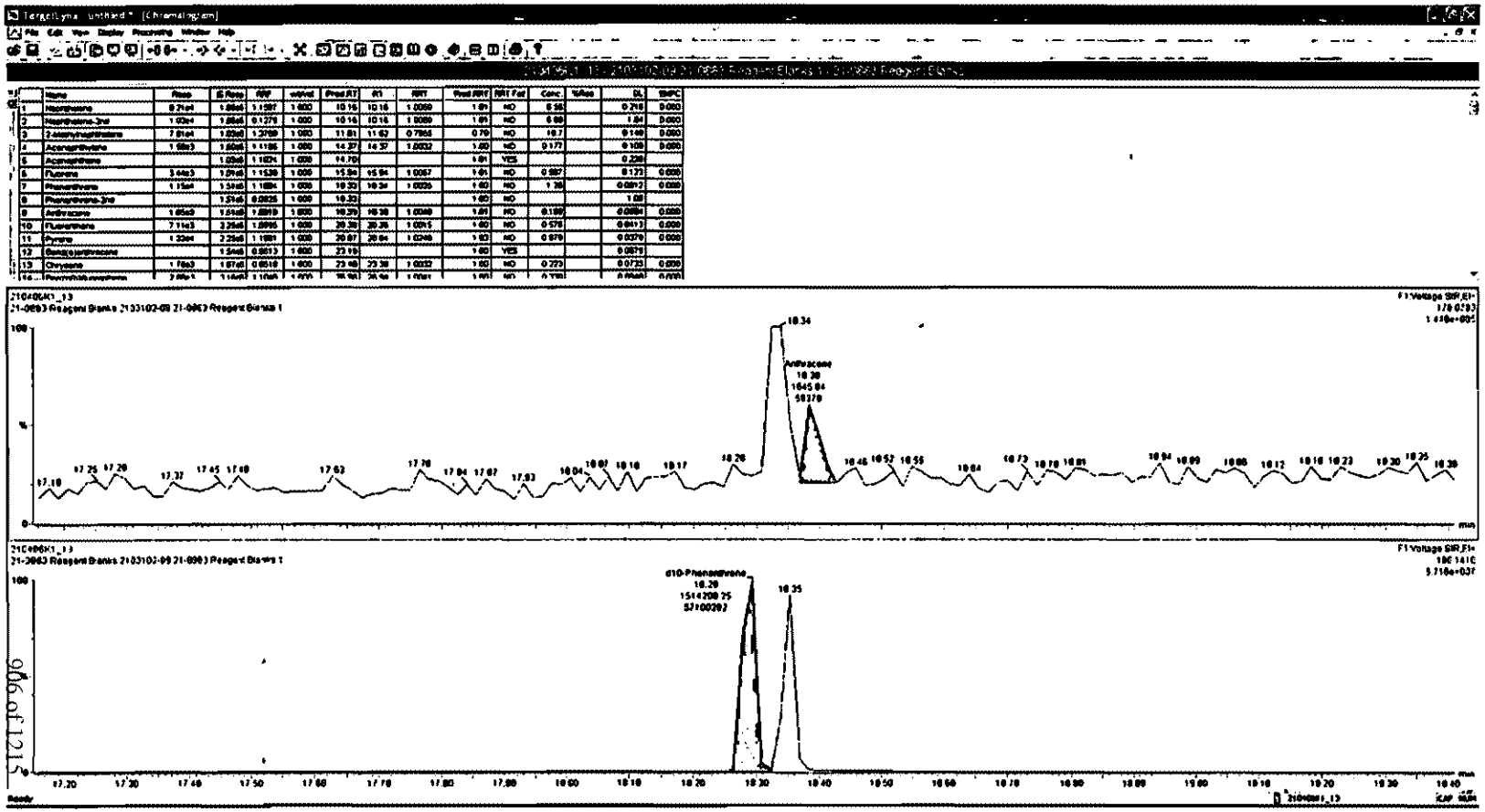
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



905 of 1215


Anthracene
10.34
d10-Phenanthrene
10.35

Dataset: Untitled

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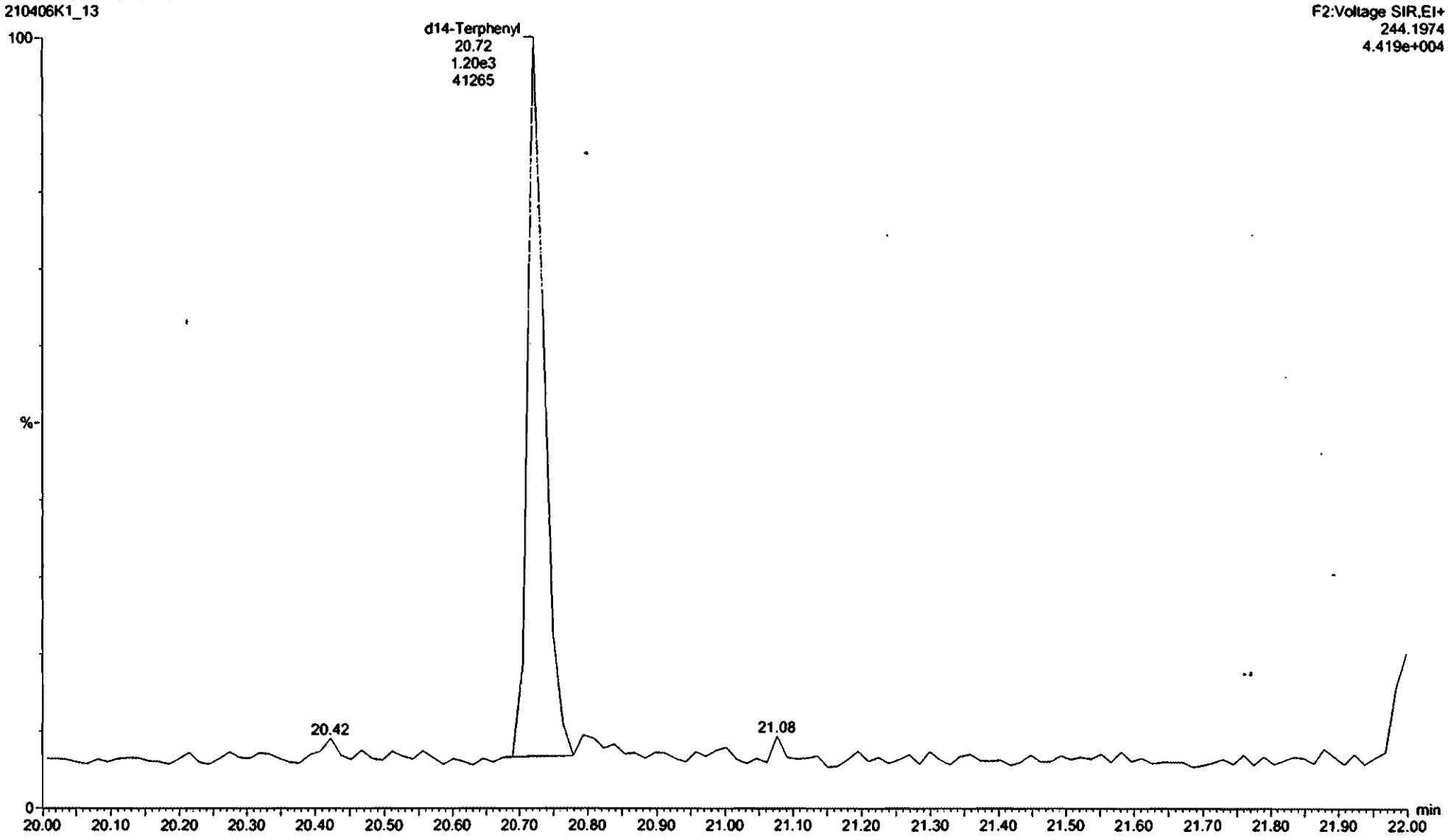
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

d14-Terphenyl (PS)



907 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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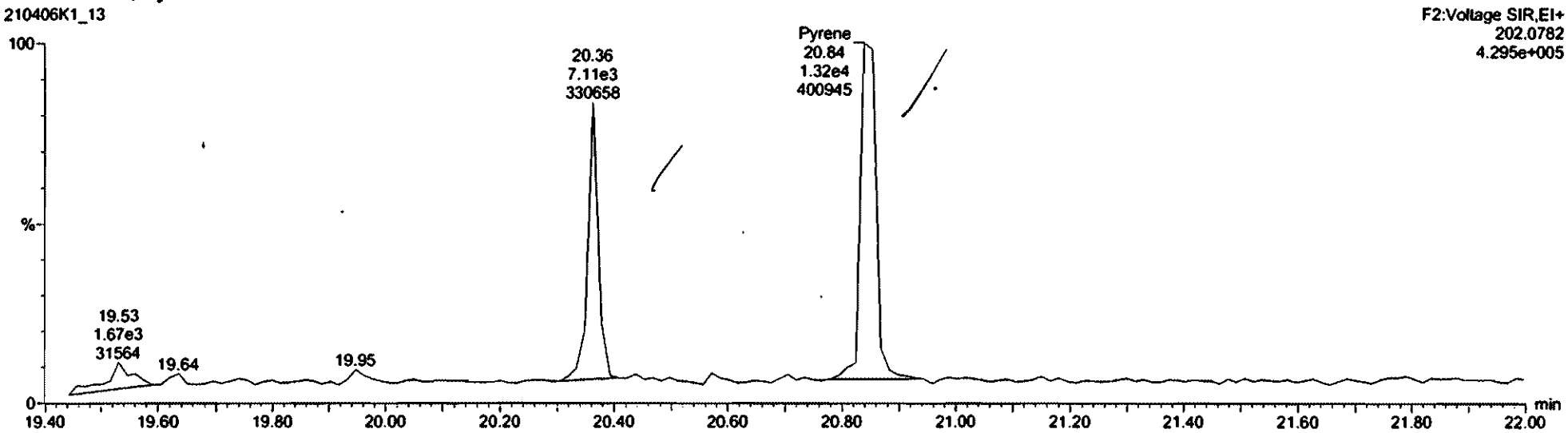
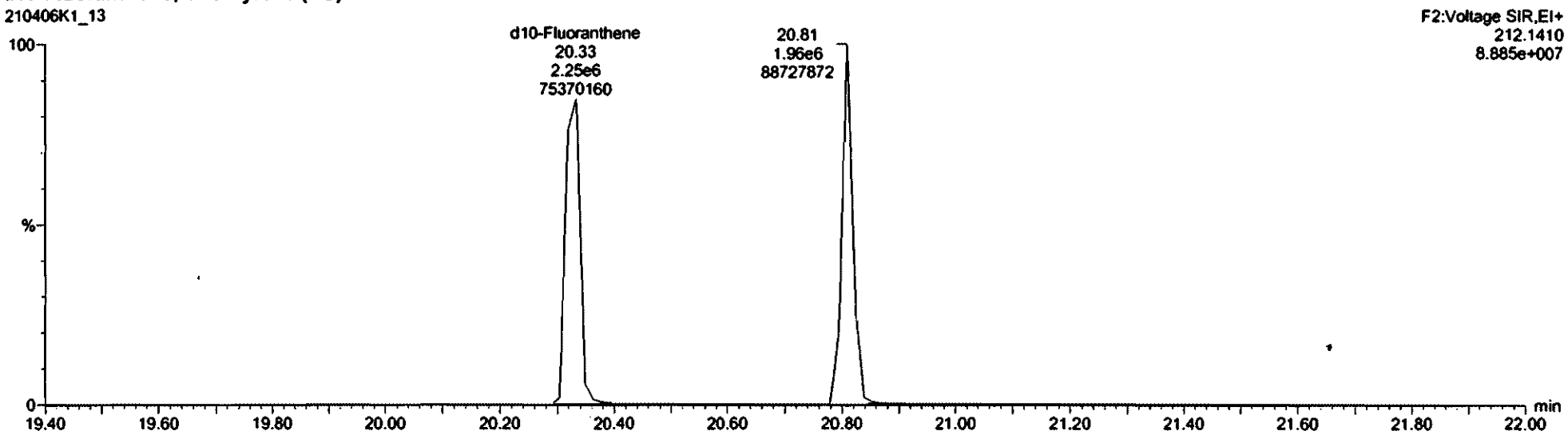
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

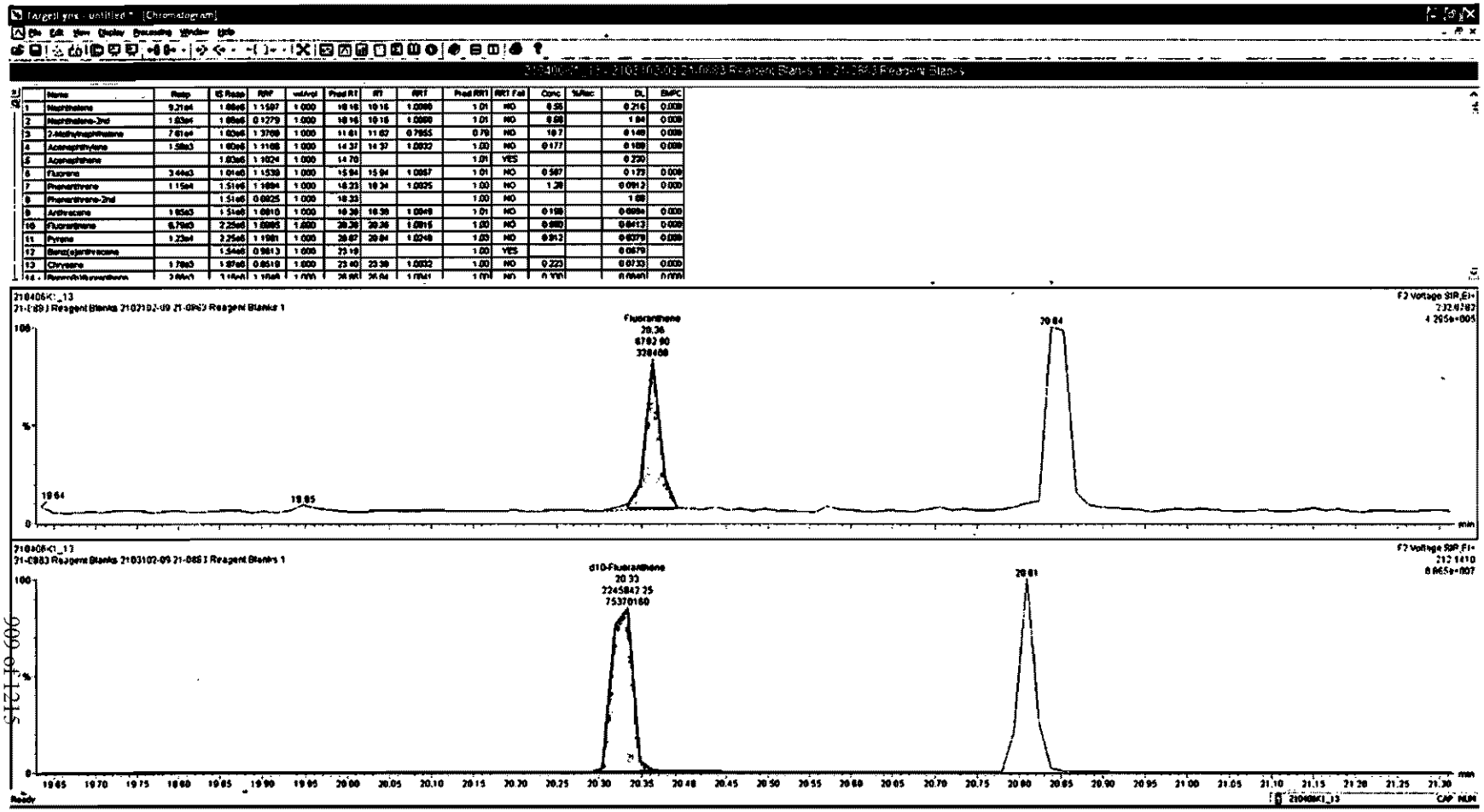
Fluoranthene; Pyrene

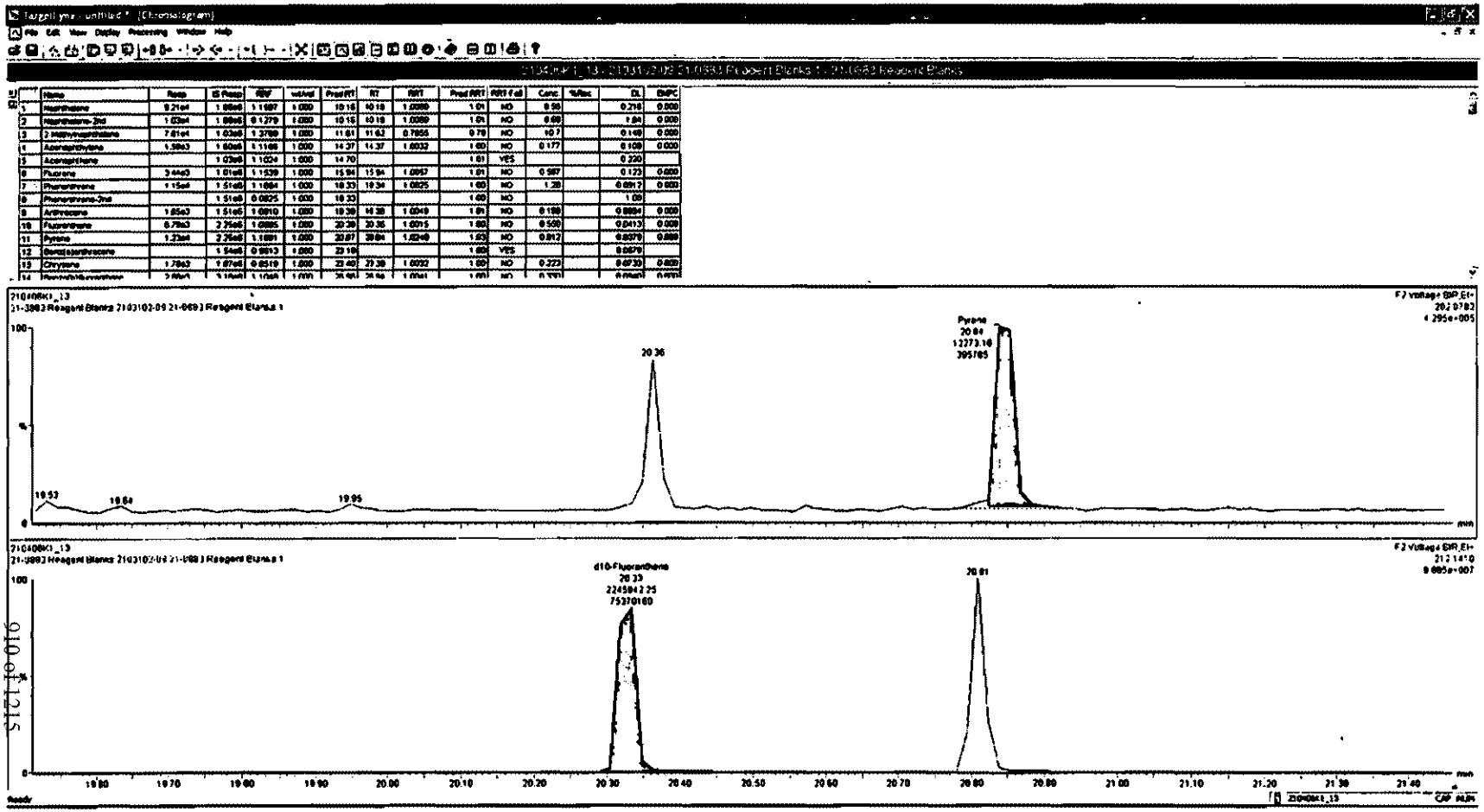


d10-Fluoranthene; d10-Pyrene (RS)



908 of 1215


Fluoranthene
20.36
6792.90
328408
20.84
19.64
19.85
d10-Fluoranthene
20.33
2245847.25
75370160
20.81


Pyrene
20.84
12273.10
395785
20.36
19.53
19.84
19.95
d10-Fluoranthene
20.33
22459425
75370160
20.81

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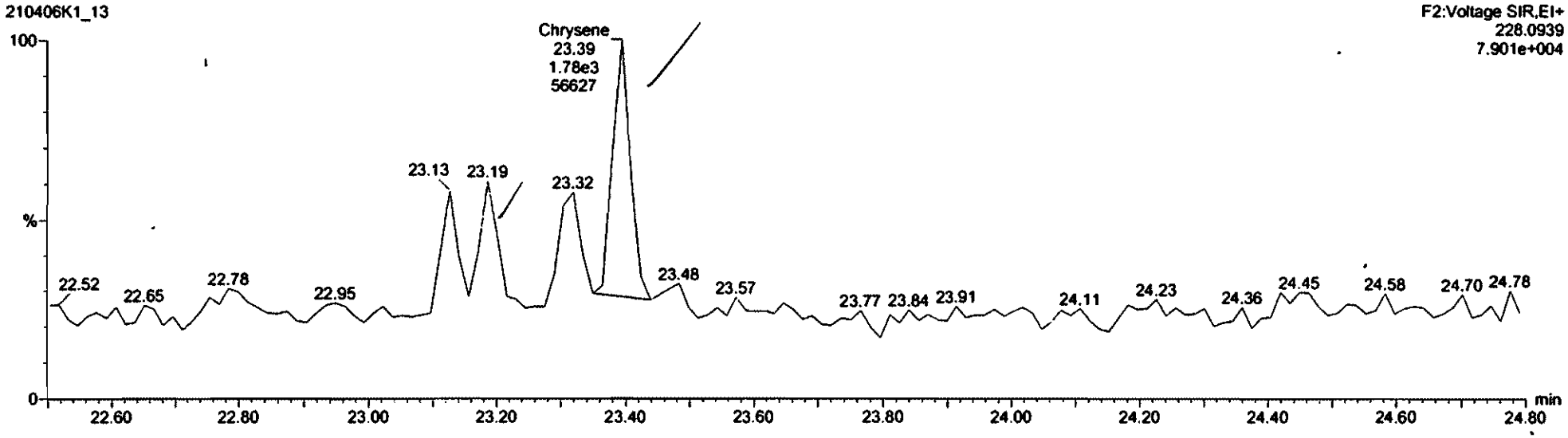
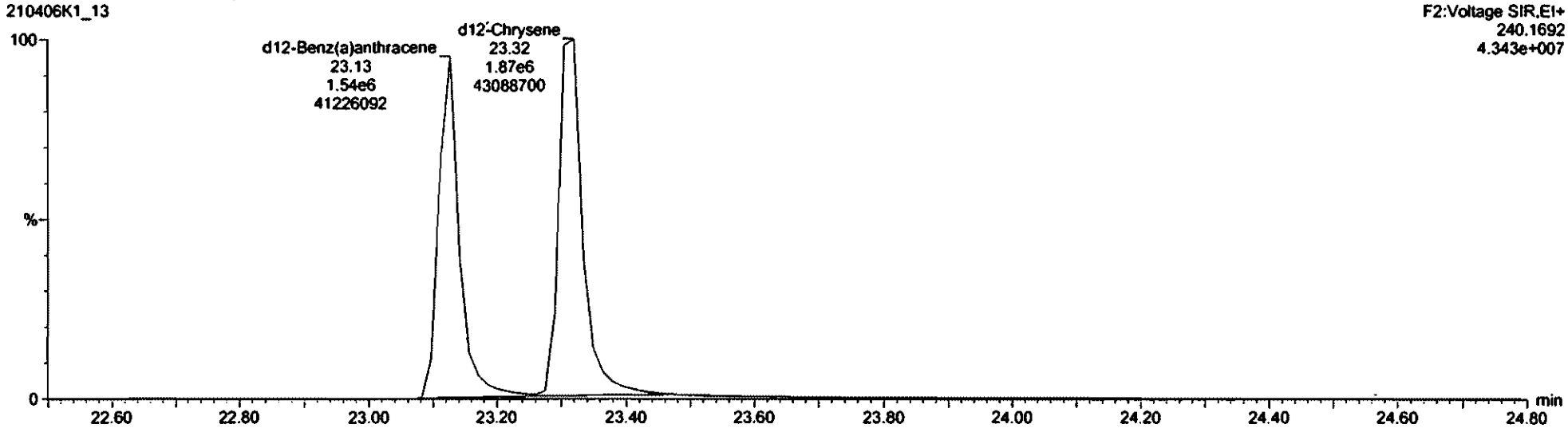
Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



911 of 1215

TargetLynx - untitled * - [Chromatogram]

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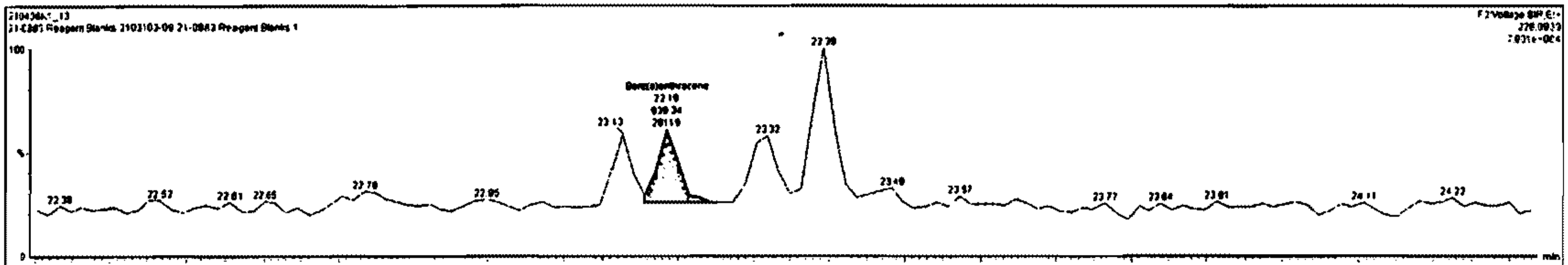
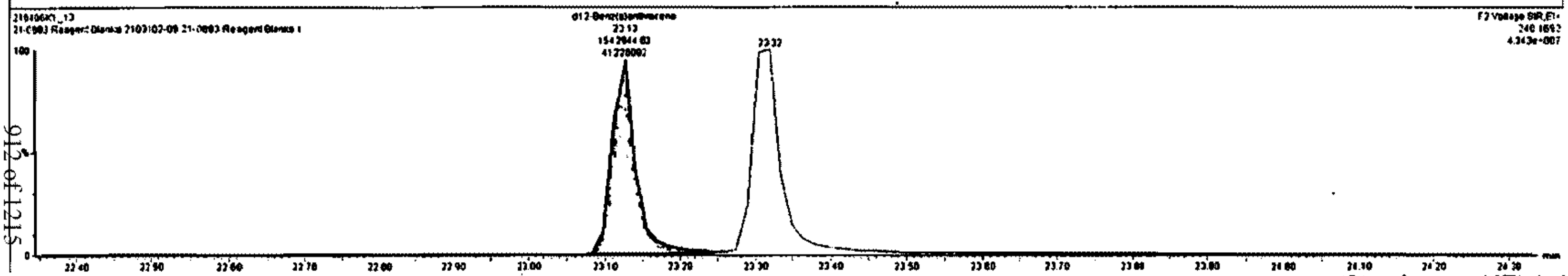
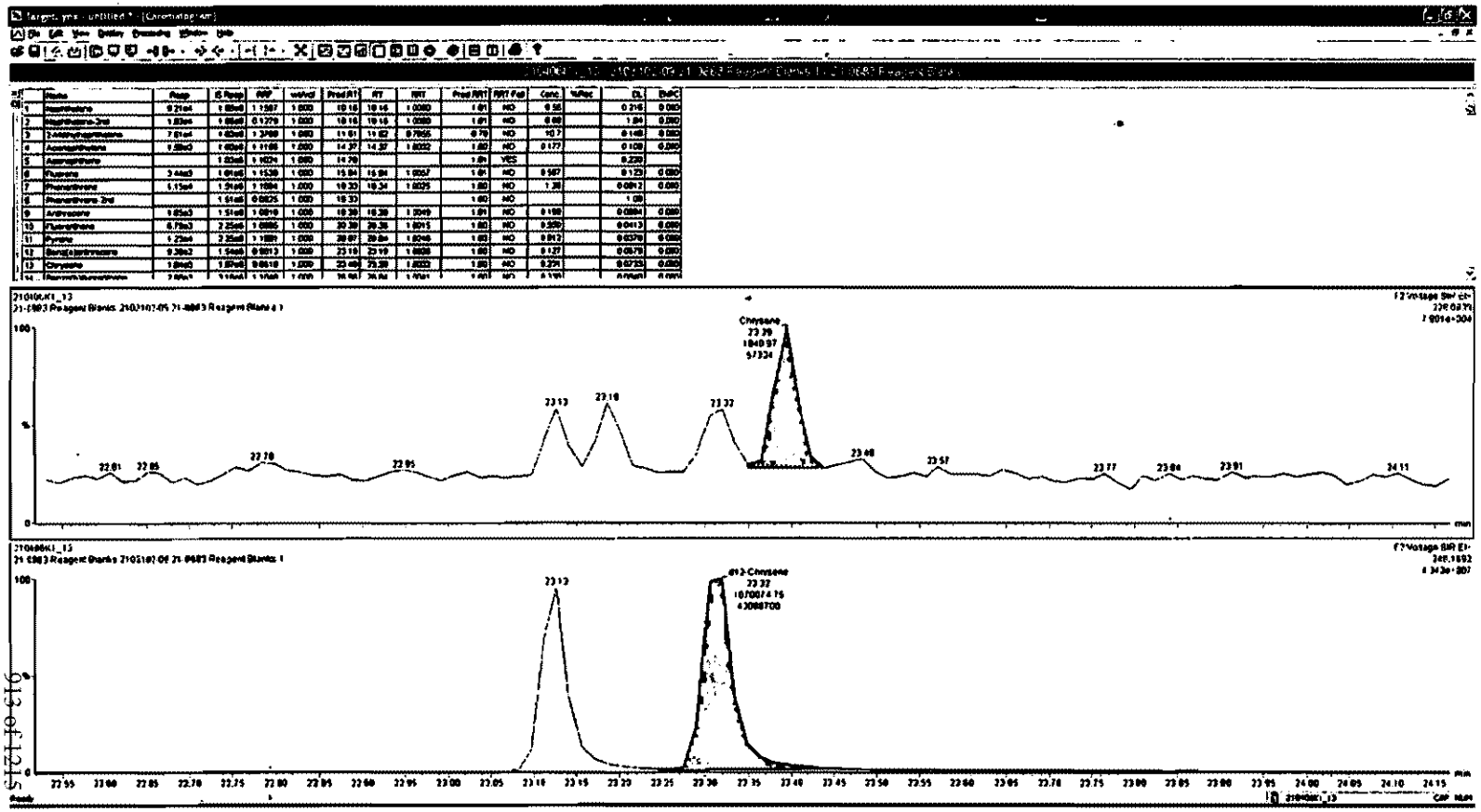
	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	9.21e4	1.86e6	1.1587	1.000	10.10	10.10	1.0000	1.01	NO	0.58		0.216	0.000
2	Naphthalene-2nd	1.03e4	1.86e6	0.1276	1.000	10.16	10.16	1.0000	1.01	NO	0.60		1.64	0.000
3	2-Methylnaphthalene	7.81e4	1.00e6	1.3700	1.000	11.61	11.62	0.7856	0.79	NO	10.7		0.148	0.000
4	Acenaphthylene	1.58e3	1.80e6	1.1168	1.000	14.37	14.37	1.0032	1.00	NO	0.177		0.100	0.000
5	Acenaphthene		1.80e6	1.1024	1.000	14.70			1.01	YES			0.270	
6	Fluorene	3.44e3	1.01e6	1.1538	1.000	15.94	15.94	1.0057	1.01	NO	0.587		0.123	0.000
7	Phenanthrene	1.15e4	1.51e6	1.1084	1.000	18.32	18.39	1.0025	1.00	NO	1.38		0.0912	0.000
8	Phenanthrene-2nd		1.51e6	0.0835	1.000	18.33			1.00	NO			1.08	
9	Anthracene	1.66e3	1.51e6	1.0910	1.000	18.38	18.39	1.0046	1.01	NO	0.198		0.0994	0.000
10	Fluoranthene	6.79e3	2.25e6	1.0885	1.000	20.30	20.30	1.0015	1.00	NO	0.500		0.0413	0.000
11	Pyrene	1.23e4	2.25e6	1.1891	1.000	20.87	20.84	1.0240	1.03	NO	0.912		0.0378	0.000
12	Benz(a)anthracene	8.38e2	1.54e6	0.8913	1.000	23.19	23.19	1.0026	1.00	NO	0.127		0.0870	0.000
13	Chrysene	1.78e3	1.87e6	0.8610	1.000	23.40	23.39	1.0032	1.00	NO	0.223		0.0733	0.000






Chrysene
23.39
1849.97
57334
23.13
23.18
23.32
22.81
22.85
22.78
22.95
23.48
23.57
23.77
23.84
23.91
24.11
d12-Chrysene
23.32
1070074.75
43088700
23.13

Dataset: Untitled

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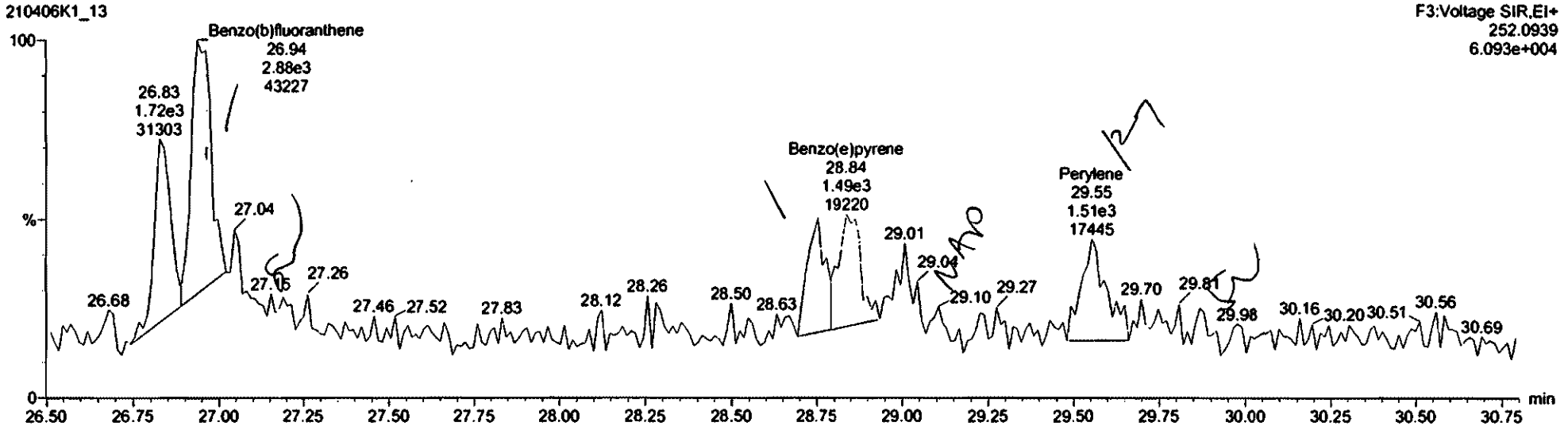
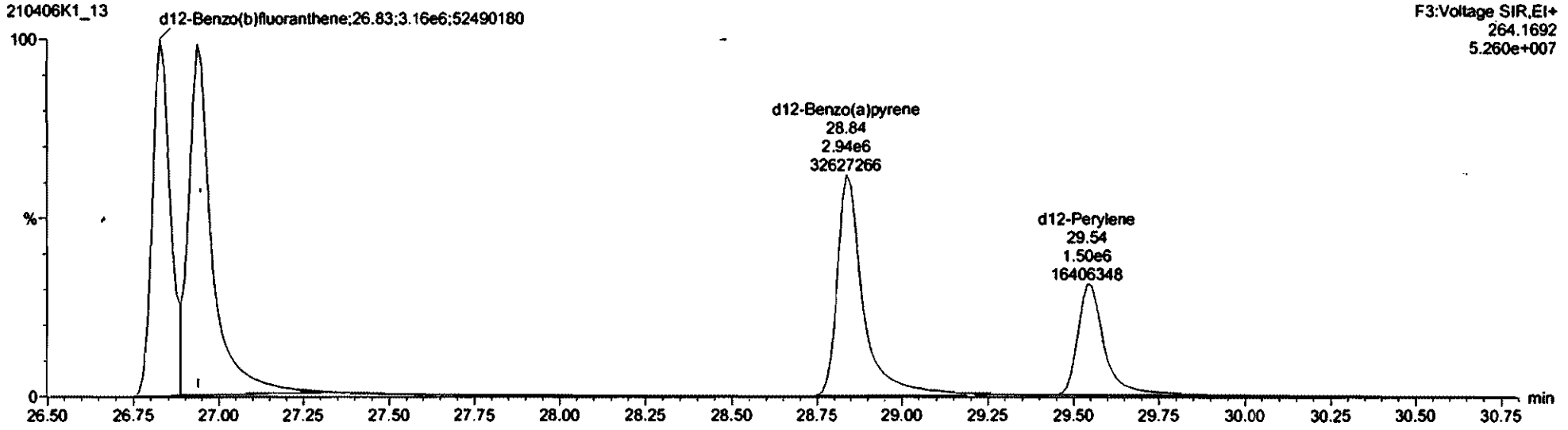
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Benzo-PAHs



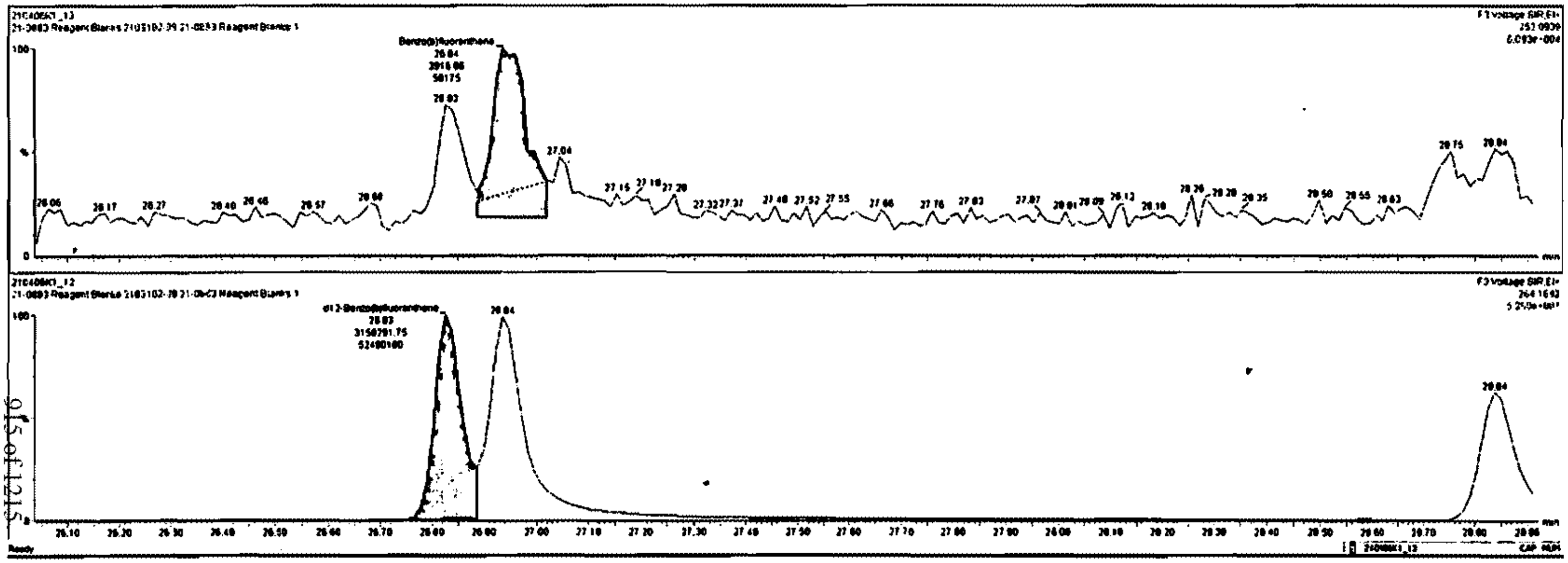
Benzo-Isotopes



914 of 1215

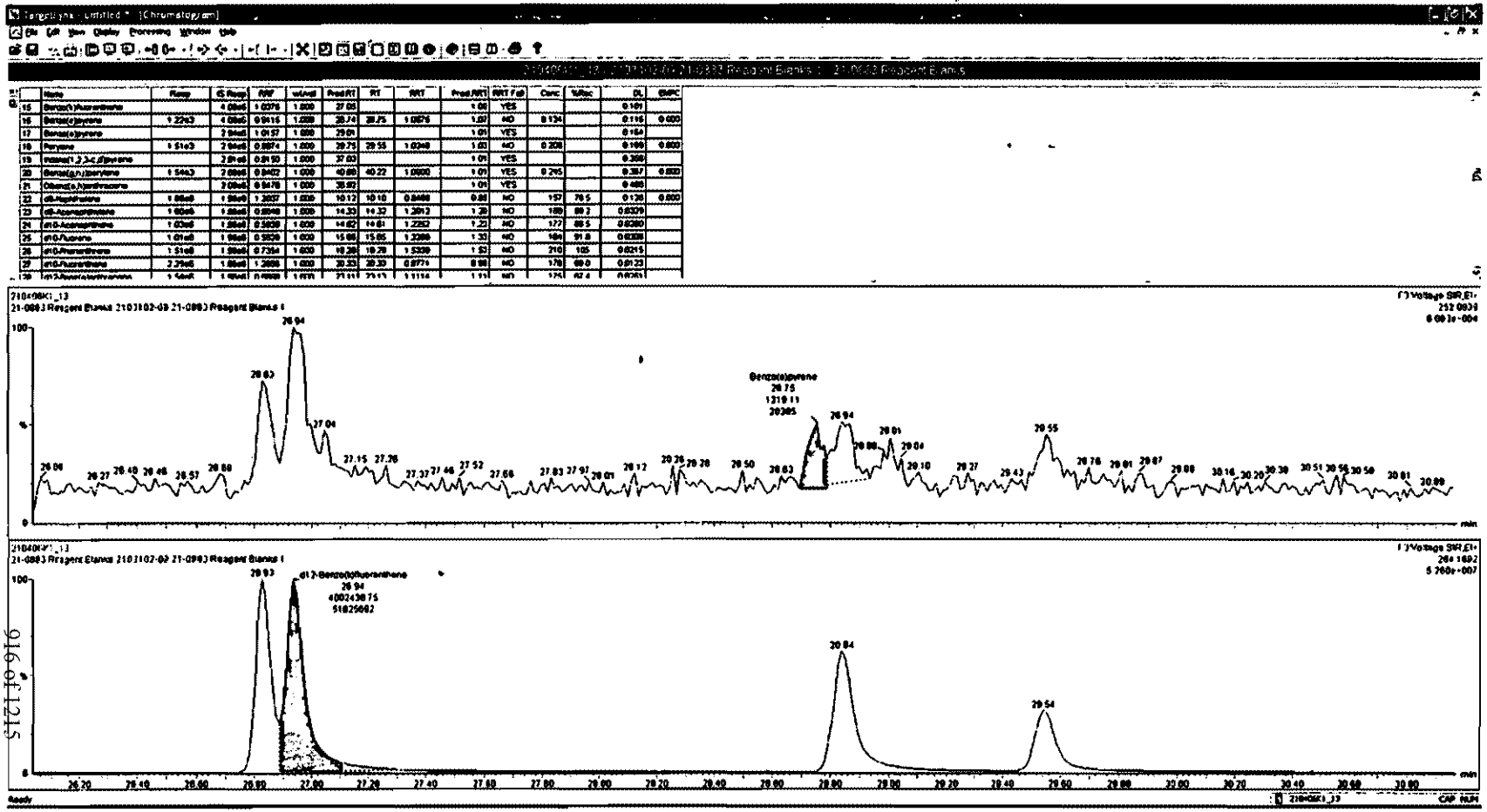
TargetLynx - untitled * - [Chromatogram]

#	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	9.21e4	1.65e5	1.1597	1.000	10.16	10.16	1.0000	1.01	NO	0.56		0.216	0.000
2	Naphthalene-2rd	1.03e4	1.66e5	0.1779	1.000	10.16	10.16	1.0000	1.01	NO	0.68		1.84	0.000
3	2-Methylnaphthalene	7.81e4	1.03e5	1.3788	1.000	11.61	11.62	0.7856	0.78	NO	10.7		0.140	0.000
4	Acenaphthylene	1.98e3	1.60e5	1.1186	1.000	14.37	14.37	1.0032	1.00	NO	0.177		0.108	0.000
5	Acenaphthene		1.03e5	1.1824	1.000	14.70			1.01	YES			0.220	
6	Fluorene	3.44e3	1.01e5	1.1538	1.000	15.84	15.94	1.0067	1.01	NO	0.387		0.173	0.000
7	Phenanthrene	1.15e4	1.51e5	1.1894	1.000	18.33	18.34	1.0025	1.00	NO	1.28		0.0812	0.000
8	Phenanthrene-2rd		1.51e5	0.6825	1.000	18.33			1.00	NO			1.08	
9	Anthracene	1.65e3	1.51e5	1.0910	1.000	18.39	18.39	1.0049	1.01	NO	0.100		0.0884	0.000
10	Fluoranthene	8.78e3	2.23e5	1.0886	1.000	20.38	20.38	1.0045	1.00	NO	0.568		0.0413	0.000
11	Pyrene	1.22e4	2.25e5	1.1891	1.000	20.87	20.84	1.0049	1.00	NO	0.912		0.0378	0.000
12	Benz(a)anthracene	9.38e2	1.54e5	0.8643	1.000	23.19	23.18	1.0028	1.00	NO	0.127		0.0879	0.000
13	Chrysene	1.04e3	1.67e5	0.8616	1.000	23.40	23.38	1.0030	1.00	NO	0.231		0.0733	0.000
14	Benzo(b)fluoranthene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.00	NO	0.440		[illegible]	[illegible]



Ready

915 of 1215



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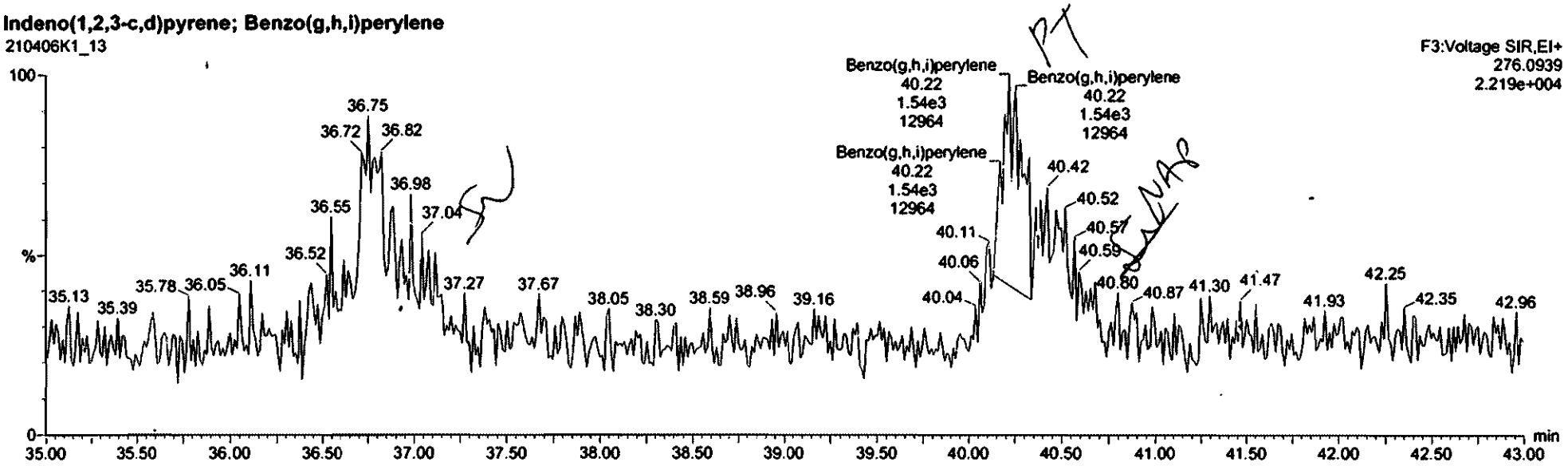
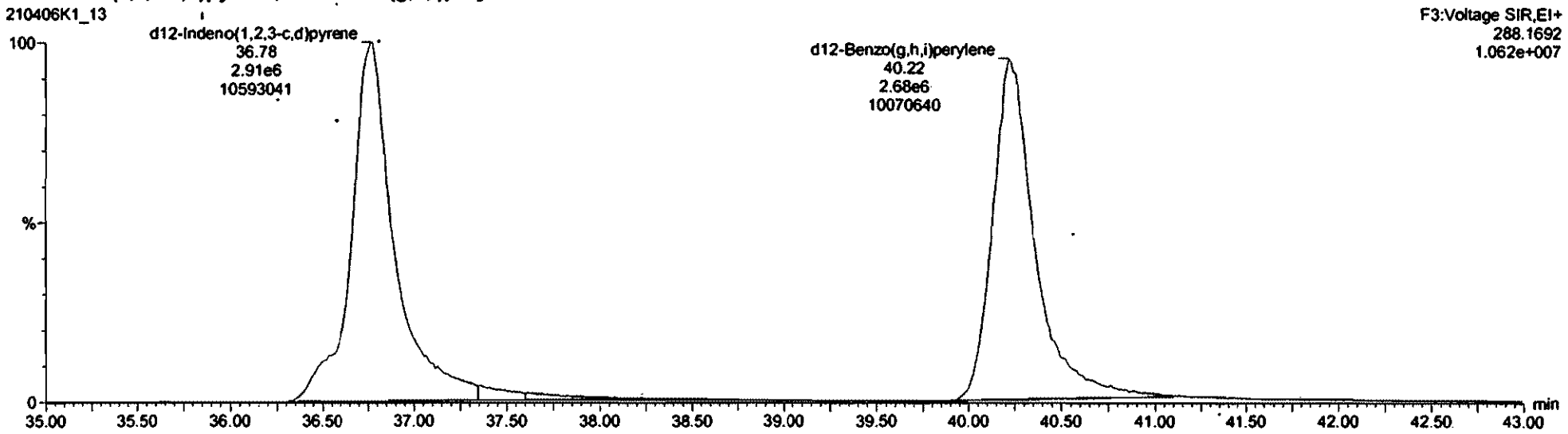
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

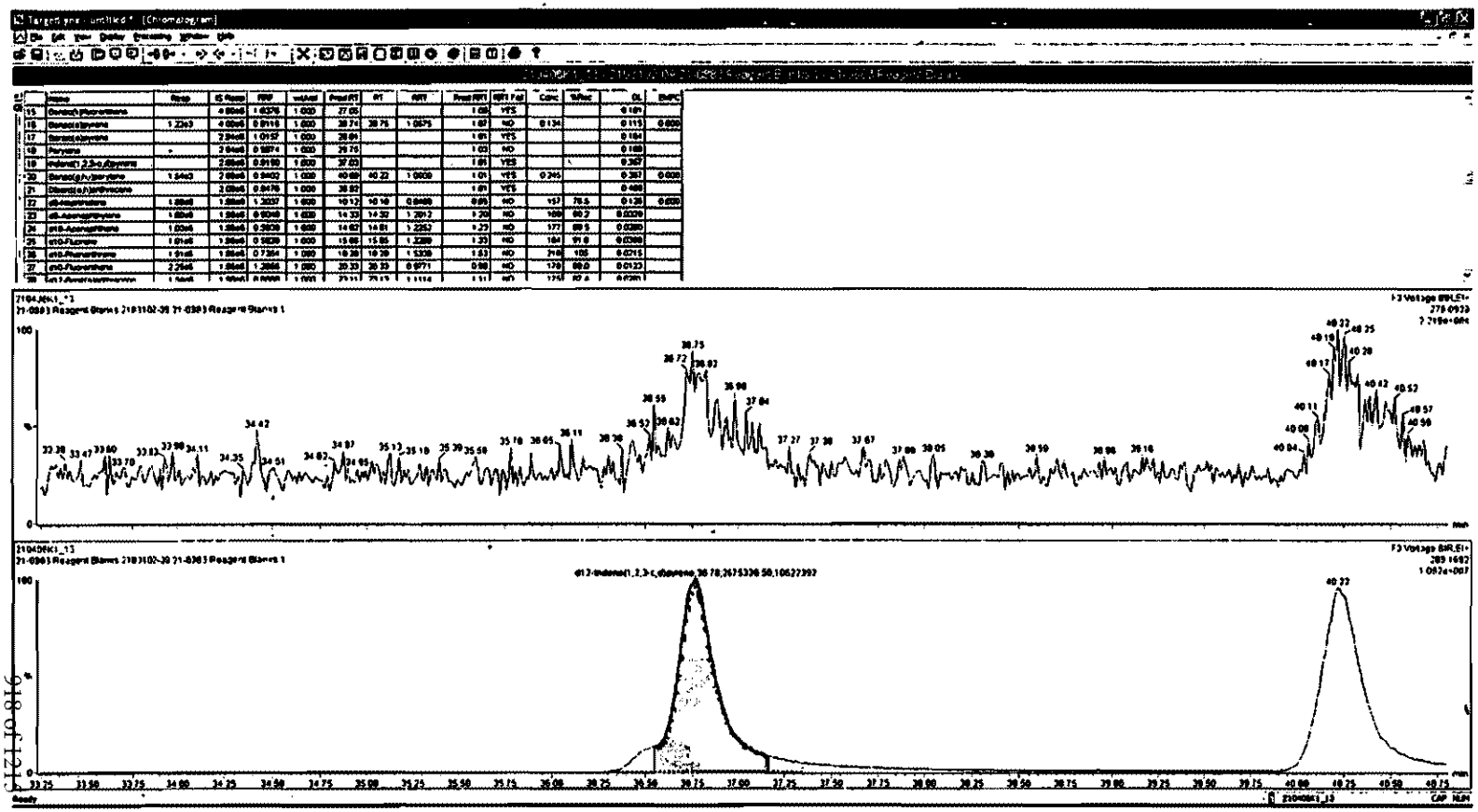
Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



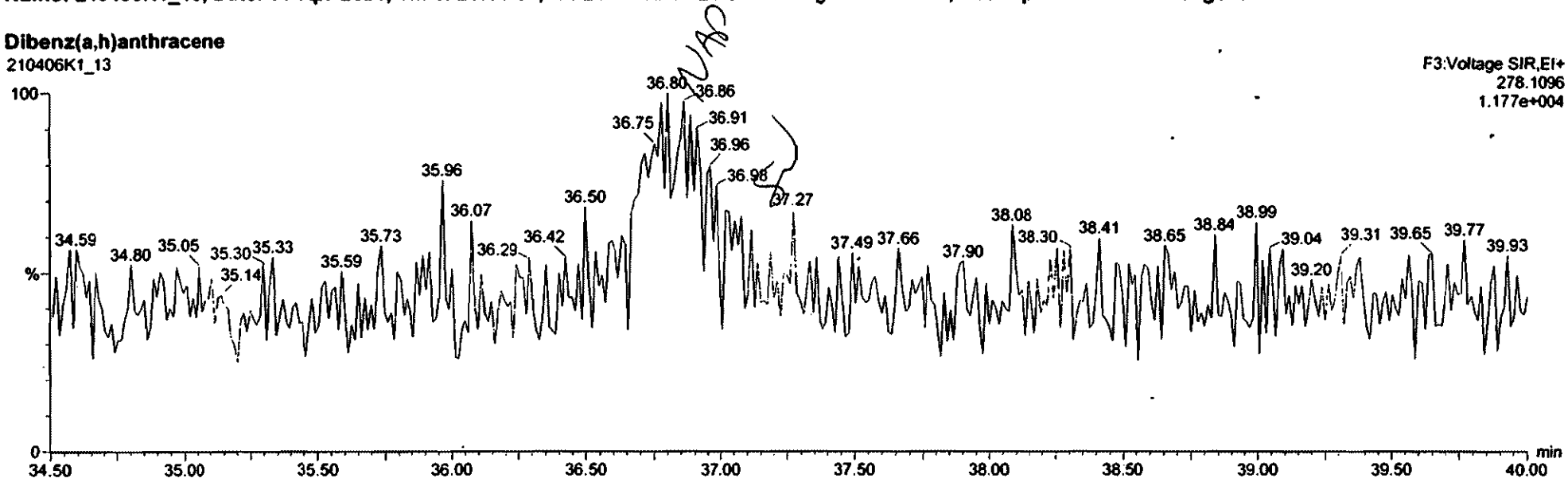


Dataset: Untitled

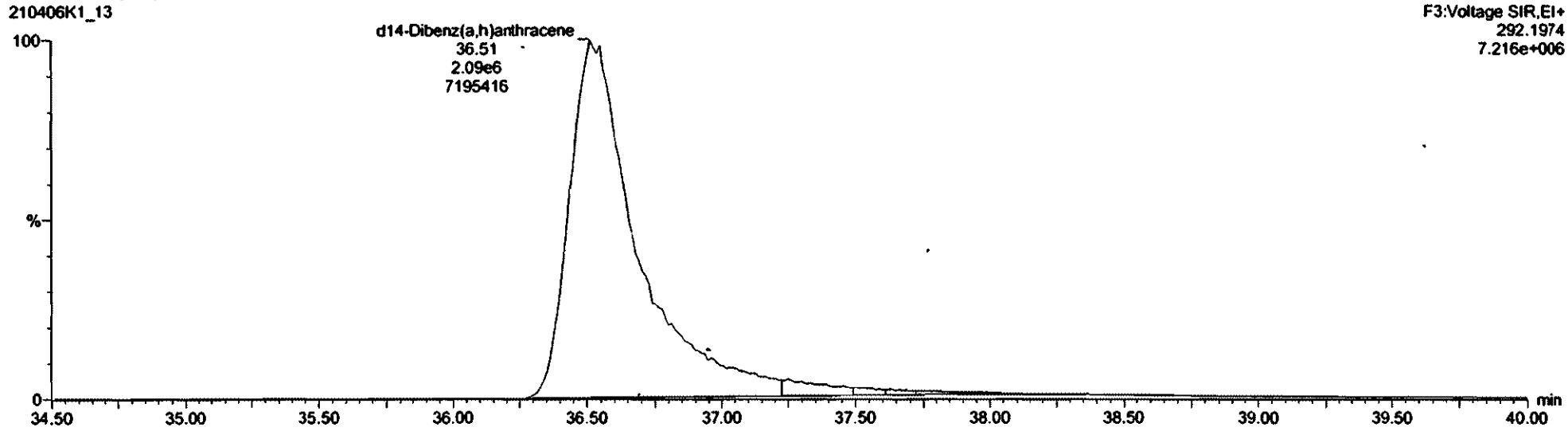
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_13, Date: 06-Apr-2021, Time: 20:36:51, ID: 2103102-09 21-0883 Reagent Blanks 1, Description: 21-0883 Reagent Blanks

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



AIR QC RAW DATA

Quality Control Form

Vista Analytical Laboratory

Fill out form completely before handing in for review.

Category:
Equipment (Syringes/Glassware/Containers/Etc.) ☐ Materials (Solvent/Standards/Disposables) ☒
Analytical Method/SOP ☐ Other ☐

Method: PFAS PCDD/F PCB (PAH) PEST Other: _____
HRMS

QC No: 210315-03 **Instr. RUN:** VG-11

LOT #: MKCL5522 **ICAL:** 4.1.2021

Reason for QC: XAD QC PAH

#	Description	PASS	FAIL	Date/Initial
1	XAD PAH (HRMS - 210315-03)	Y		4.6.2021 ft

Analysis:

IS: (V7)	RS: (V12)	Final Vol. & Solvent (µL):
20H2503, 25mL	20H2506, 50mL	C6, 500mL

Procedure/Notes:

Start: 03/15/21 1330
End. 03/16/21 0650
1625 Extraction 16 hrs
spiked XAD w/ ES, sample was split 1:2
proceed to cleanup procedure ~ fv.

Chemist Name, Date, Hours: RR, 03/15/21, 16 hrs

Analyst Name, Date, Hours: 4.6.2021 1 hr.

Reviewed By, Date: 04/06/2021

L: Archive/ ALL QC SCANNING/ Select Category/ Select Year
Save as Method/Description/QC No.

Process Sheet

Workorder: 2103171

Prep Expiration: 2021-04-04
Client: Vista Analytical Laboratory

Workorder Due: 06-Apr-21 00:00

TAT: 21

Method: **CARB 429 Full List**
Matrix: **Air**
Client Matrix: Air

Prep Batch: B1C0141

Prep Data Entered: 03/18/21 RR
Date and Initials

Initial Sequence: S1C0066

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
2103171-01	☐	HRMS-210315-03; Lot#MKCL5522 (XAD)	15-Mar-21 17:16	Consumed	

Pre-Prep Check Out: NA
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: NA
Spike Reconciled Initals/Date: NA
VialBoxID: TRE

Page 1 of 1

Batch: B1C0141

Matrix: Air

LabNumber	WetWeight Initial (N/A)	% Solids (Extraction Solids)	DryWeight Initial (N/A)	Final (uL)	Extracted	Ext By	Spike	SpikeAmount (uL)	ClientMatrix	Analysis
2103171-01	**1**			**500**	**15-Mar-21 17:38**	**RR**			Air	CARB 429 Full List

All bolded data on report verified against written benchsheet by (initial/date) RR / 03/19/21

Printed: 3/18/2021 2:58:57PM
Page 1 of 1

PREPARATION BENCH SHEET

Matrix: Air

Method(s): CARB 429 Full List

B1C0141

Chemist: RR

Prep Date\Time: 15-Mar-21 17:38

Prepared using: HRMS - Soxhlet

1:2 RR 03/18/21

C	VISTA Sample ID	PUF/Trap Prep Date	XAD/PUF Lot#	IS/NS CHEM/WIT DATE	Impinger Extraction Date	AS CHEM/WIT DATE	SiGEL / ABSG / Florisil / CC CHEM/DATE (Circle one)		RS CHEM/WIT DATE
☐	2103171-01	03/15/21		RR ME 03/15/21	NA	NA	RR 03/18/21	NA	RR ME 03/18/21

924 of 1215

IS Name	NS Name	AS Name	RS Name	Cycle #1	#2	Split	Check Out:
PCDD/F	PCDD/F	PCDD/F	PCDD/F	Start Date/Time 03/15/21 1330			Chemist/Date: NA
PCB (V7)	PCB NA	PCB NA	PCB (V12)	Stop Date/Time 03/16/21 0650		1:4	Check In:
PAH 2014250325ML	PAH	PAH	PAH 20H2506 50ML	Final Volume(s) C6 500uL		(1:2)	Chemist/Date: NA

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

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-16.qld

Last Altered: Friday, April 02, 2021 08:55:17 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:55:51 Pacific Daylight Time

4.2.21 04/05/2021

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

	#-Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1 Naphthalene	1.29e4	1.35e6	1.16	1.000	10.17	10.18	1.006	1.006	NO	1.65		0.331
2	2 Naphthalene-2nd		1.35e6	0.128	1.000	10.17		1.006		NO			2.45
3	3 2-Methylnaphthalene	2.01e3	7.76e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	0.377		0.181
4	4 Acenaphthylene		1.17e6	1.12	1.000	14.38		1.003		YES			0.167
5	5 Acenaphthene		7.76e5	1.10	1.000	14.70		1.006		YES			0.251
6	6 Fluorene		7.44e5	1.15	1.000	15.94		1.006		YES			0.213
7	7 Phenanthrene	3.55e3	9.60e5	1.19	1.000	18.33	18.34	1.002	1.002	NO	0.621		0.0964
8	8 Phenanthrene-2nd		9.60e5	0.0925	1.000	18.33		1.002		YES			1.23
9	9 Anthracene		9.60e5	1.09	1.000	18.39		1.005		YES			0.105
10	10 Fluoranthene	2.85e3	1.91e6	1.10	1.000	20.38	20.38	1.002	1.002	NO	0.272		0.0419
11	11 Pyrene	3.81e3	1.91e6	1.20	1.000	20.87	20.87	1.026	1.026	NO	0.333		0.0384
12	12 Benz(a)anthracene		1.08e6	0.961	1.000	23.20		1.003		NO			0.103
13	13 Chrysene	4.95e2	1.25e6	0.852	1.000	23.41	23.41	1.003	1.003	NO	0.0926		0.101
14	14 Benzo(b)fluoranthene	5.17e3	2.27e6	1.10	1.000	27.03	27.02	1.005	1.005	NO	0.826		0.150
15	15 Benzo(k)fluoranthene		2.99e6	1.04	1.000	27.12		1.004		YES			0.154
16	16 Benzo(e)pyrene		2.99e6	0.911	1.000	28.82		1.067		NO			0.176
17	17 Benzo(a)pyrene		2.33e6	1.02	1.000	29.07		1.006		YES			0.221
18	18 Perylene		2.33e6	0.987	1.000	29.81		1.031		YES			0.227
19	19 Indeno(1,2,3-c,d)pyrene		1.84e6	0.915	1.000	36.81		1.007		YES			0.370
20	20 Benzo(g,h,i)perylene		1.77e6	0.940	1.000	40.19		1.009		YES			0.372
21	21 Dibenz(a,h)anthracene		1.36e6	0.948	1.000	36.73		1.011		YES			0.395
22	22 d8-Naphthalene	1.35e6	1.77e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	126	63.1	0.0199
23	23 d8-Acenaphthylene	1.17e6	1.77e6	0.905	1.000	14.33	14.34	1.201	1.202	NO	146	73.0	0.0244
24	24 d10-Acenaphthene	7.76e5	1.77e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	147	73.6	0.0195
25	25 d10-Fluorene	7.44e5	1.77e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	149	74.5	0.0184
26	26 d10-Phenanthrene	9.60e5	1.77e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	147	73.6	0.0148
27	27 d10-Fluoranthene	1.91e6	1.77e6	1.29	1.000	20.34	20.33	0.977	0.976	NO	167	83.7	0.0112
28	28 d12-Benz(a)anthracene	1.08e6	1.77e6	0.900	1.000	23.12	23.14	1.110	1.111	NO	135	67.6	0.0272
29	29 d12-Chrysene	1.25e6	1.77e6	1.02	1.000	23.32	23.33	1.120	1.121	NO	139	69.3	0.0240
30	30 d12-Benzo(b)fluoranthene	2.27e6	1.20e6	1.18	1.000	26.86	26.90	0.907	0.909	NO	320	80.0	0.197

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-16.qld

Last Altered: Friday, April 02, 2021 08:55:17 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:55:51 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

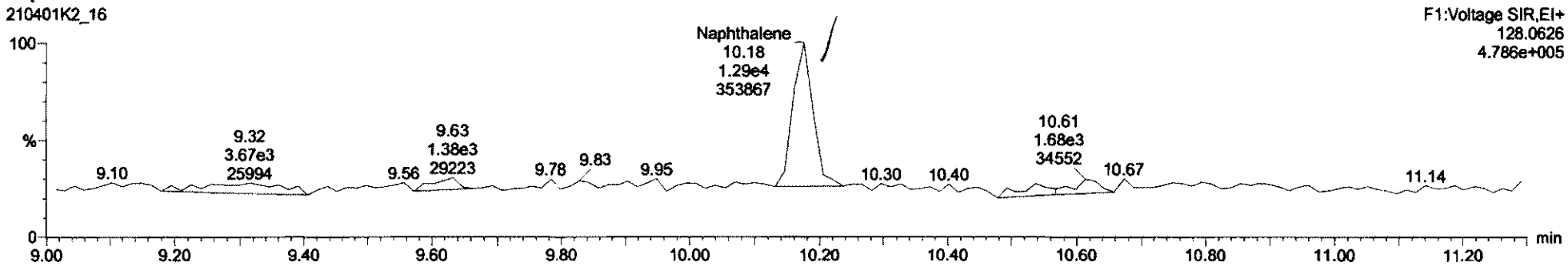
	# Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
31	31 d12-Benzo(k)fluoranthene	2.99e6	1.20e6	1.50	1.000	26.97	27.01	0.911	0.912	NO	332	83.0	0.155
32	32 d12-Benzo(a)pyrene	2.33e6	1.20e6	1.24	1.000	28.86	28.90	0.975	0.976	NO	314	78.5	0.188
33	33 d12-Indeno(1,2,3-c,d)pyrene	1.84e6	1.20e6	1.02	1.000	36.91	36.56	1.247	1.235	YES	301	75.3	0.274
34	34 d12-Benzo(g,h,i)perylene	1.77e6	1.20e6	1.00	1.000	40.33	39.82	1.362	1.345	YES	295	73.7	0.278
35	35 d14-Dibenz(a,h)anthracene	1.36e6	1.20e6	0.765	1.000	36.69	36.33	1.239	1.227	YES	297	74.3	0.271
36	36 d10-Anthracene	9.60e5	1.20e6	0.989	1.000	18.37	18.29	1.541	1.534	NO	162	81.1	0.0639
37	39 d10-1-Methylnaphthalene	1.49e6	1.49e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	200	100	0.0269
38	40 d10-Pyrene	1.77e6	1.77e6	1.00	1.000	20.81	20.82	1.000	1.000	NO	200	100	0.0144
39	41 d12-Perylene	1.20e6	1.20e6	1.00	1.000	29.59	29.60	1.000	1.000	NO	200	100	0.233

Dataset: Untitled

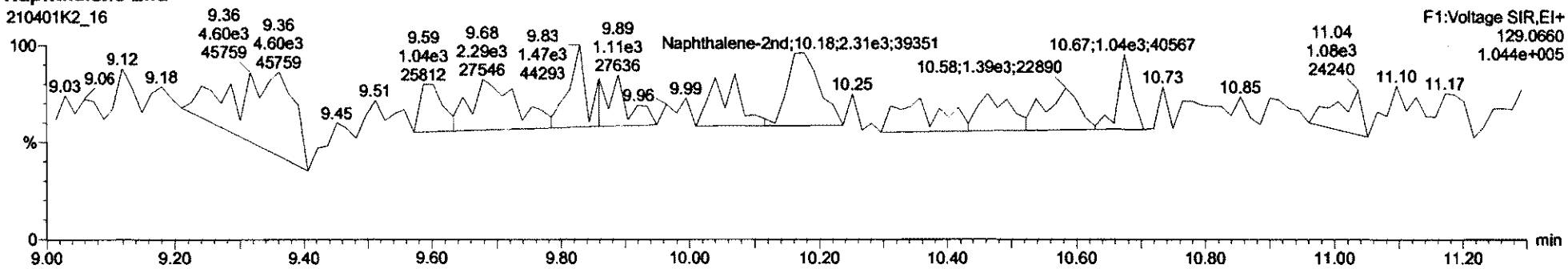
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

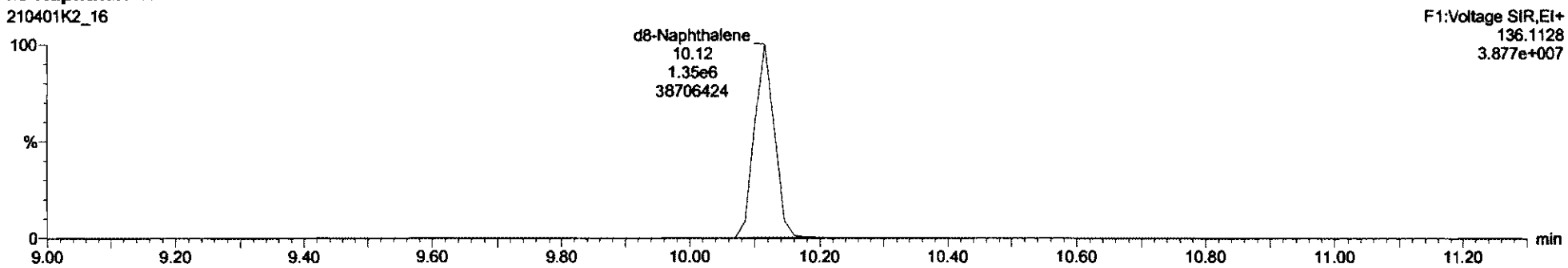
Naphthalene



Naphthalene-2nd



d8-Naphthalene



927 of 1215

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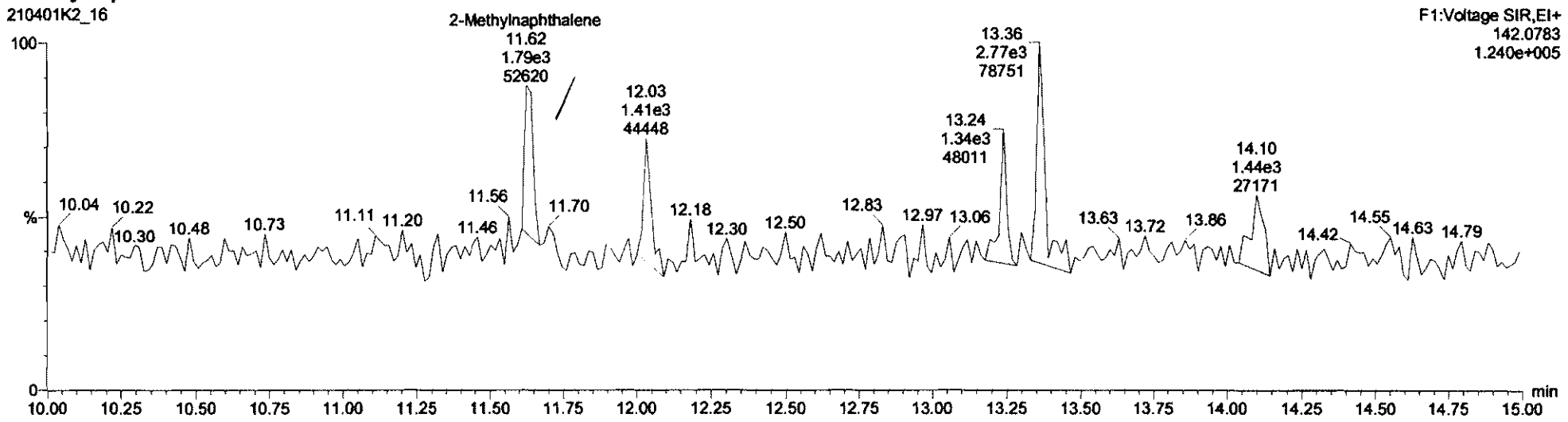
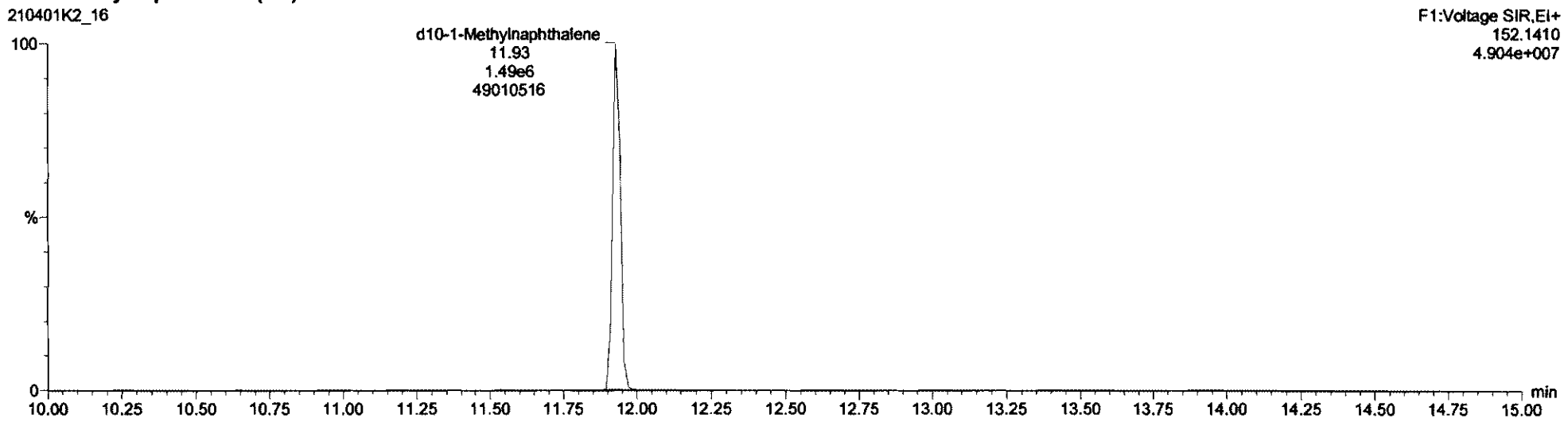
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

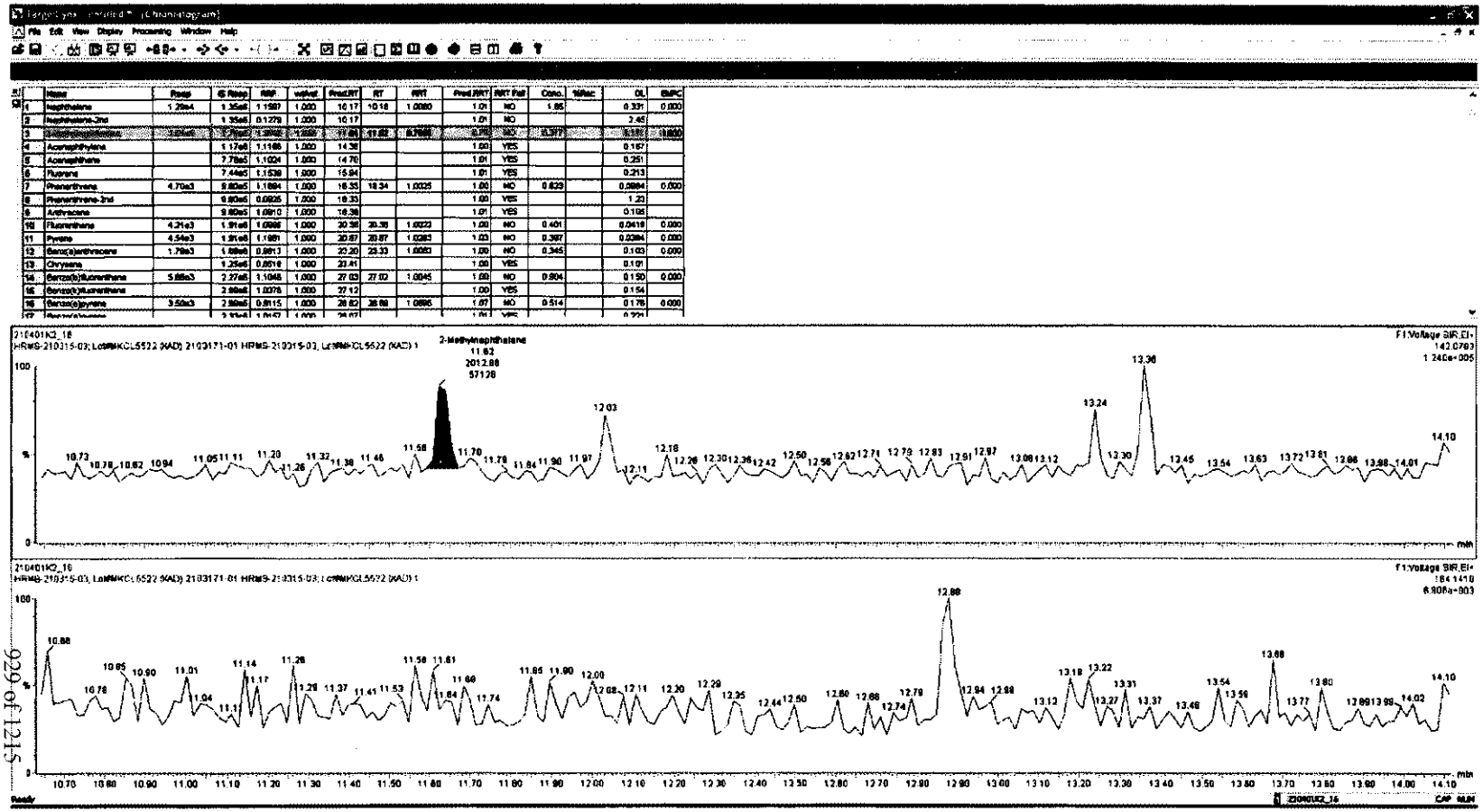
2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



928 of 1215

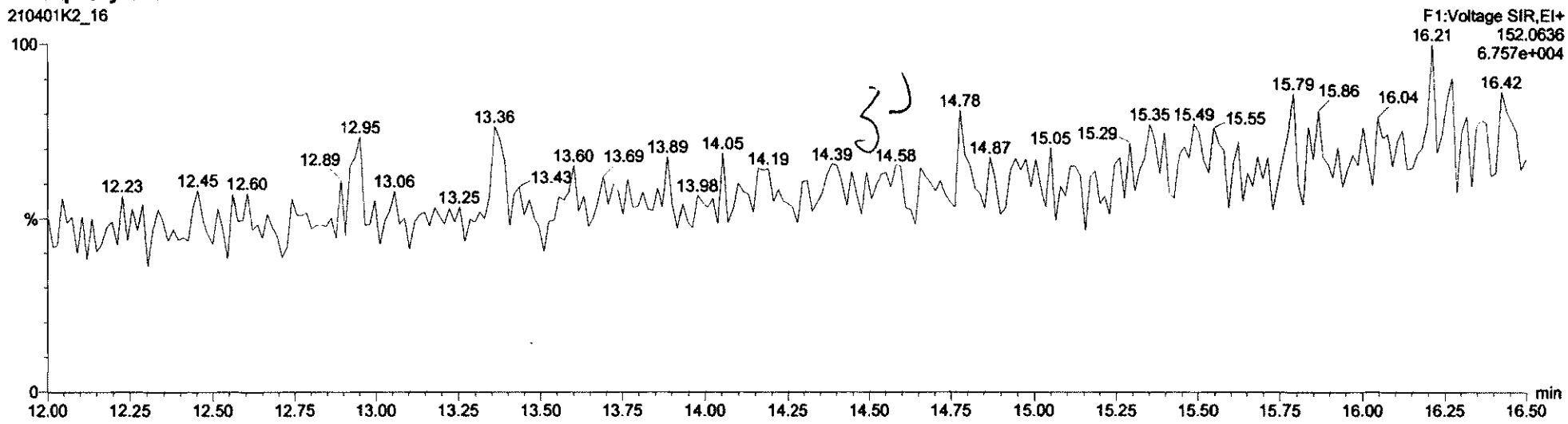

2-Methylnaphthalene
11.83
201288
57128
F1:Voltage SIR,EI+
142.0783
1.24e+005
F1:Voltage SIR,EI+
184.1416
6.90e+003
min

Dataset: Untitled

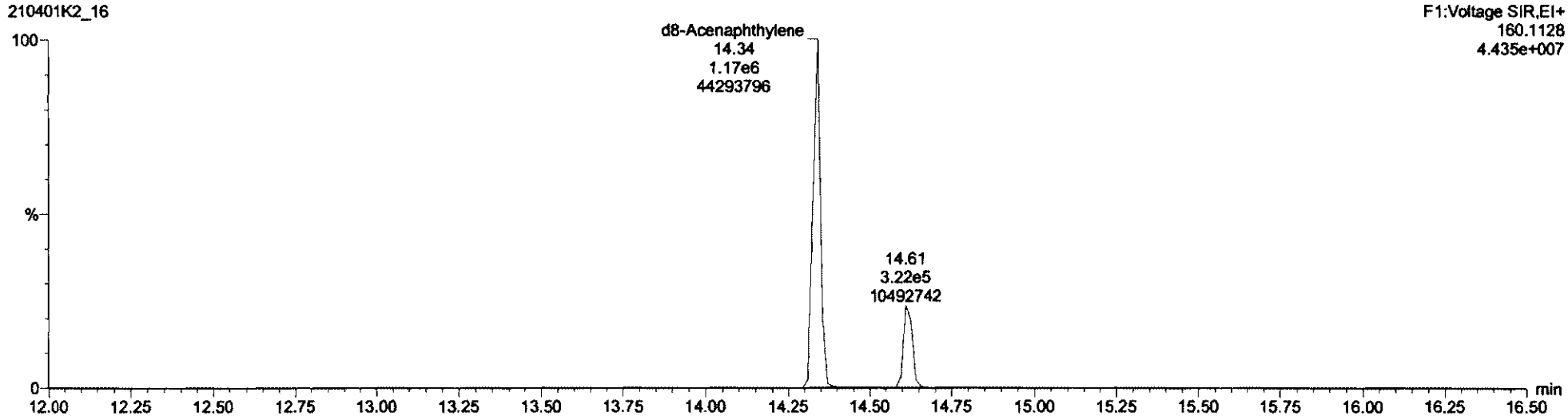
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Acenaphthylene



d8-Acenaphthylene

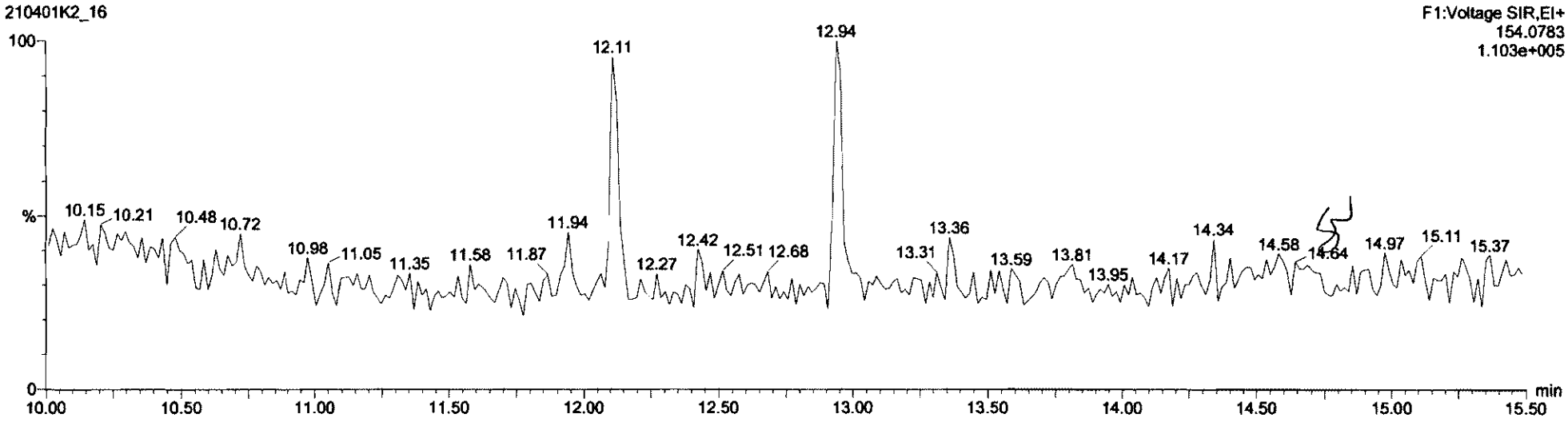


Dataset: Untitled

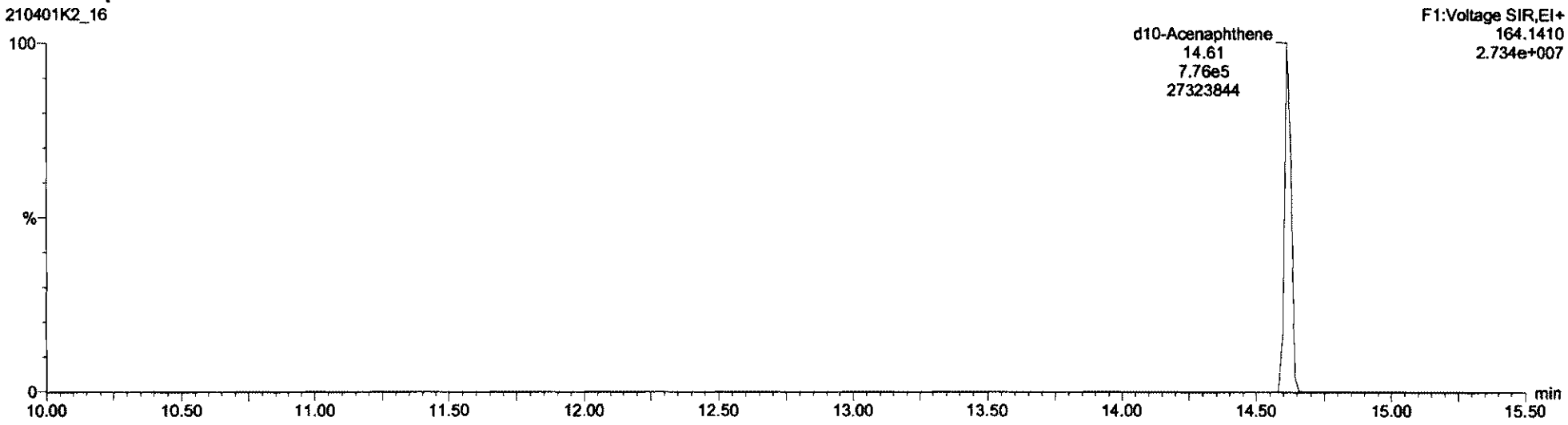
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Acenaphthene



d10-Acenaphthene



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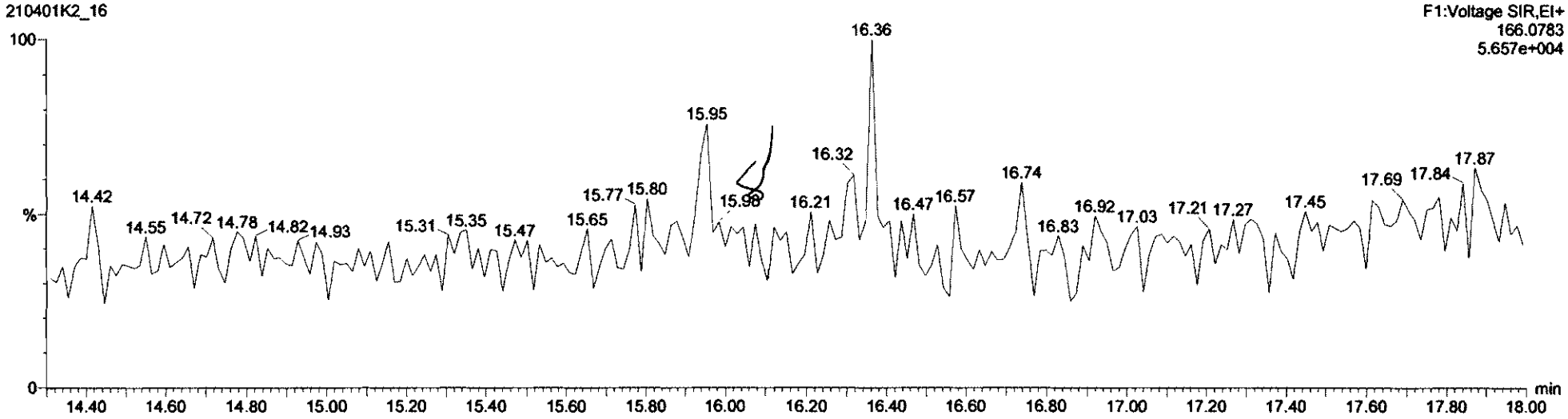
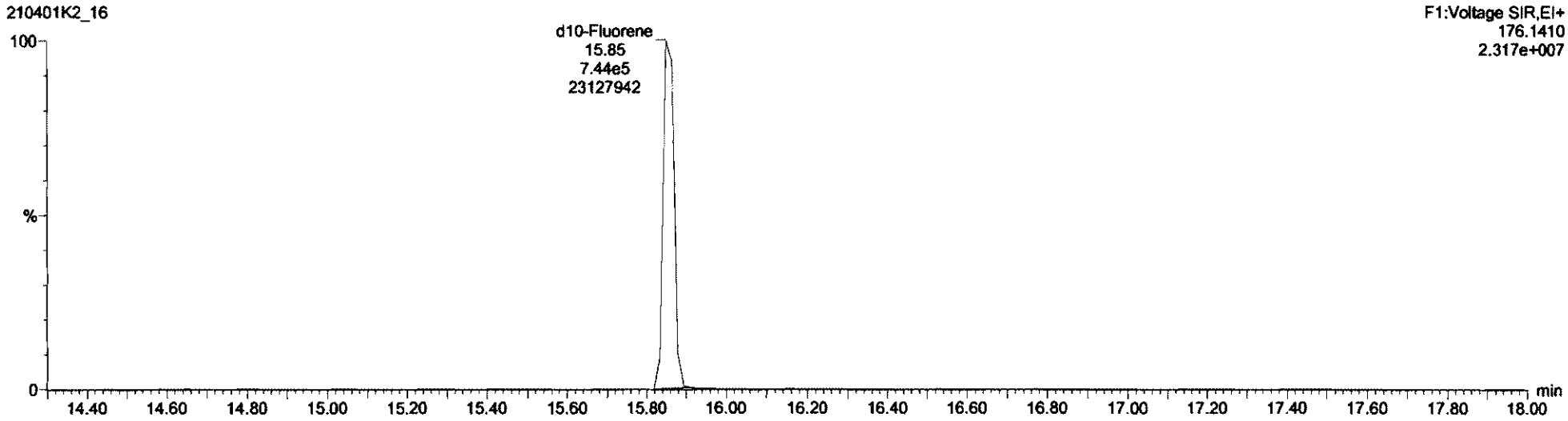
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Fluorene



d10-Fluorene



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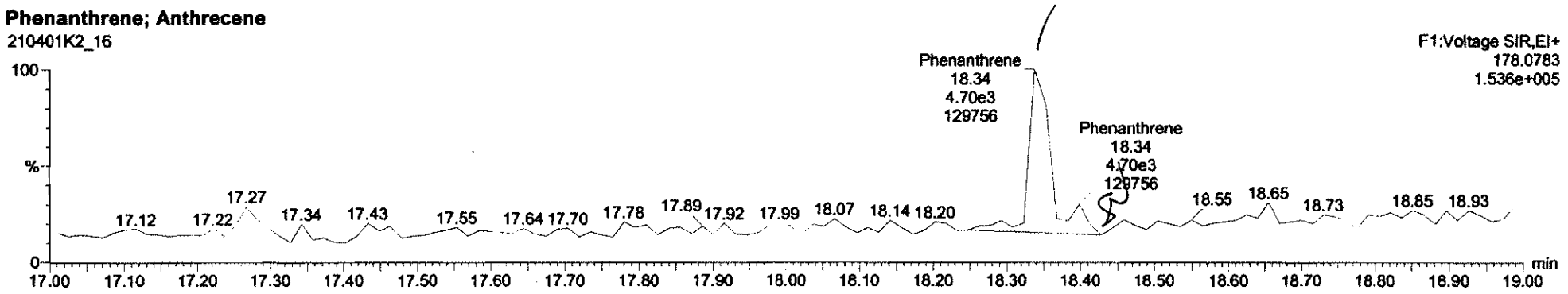
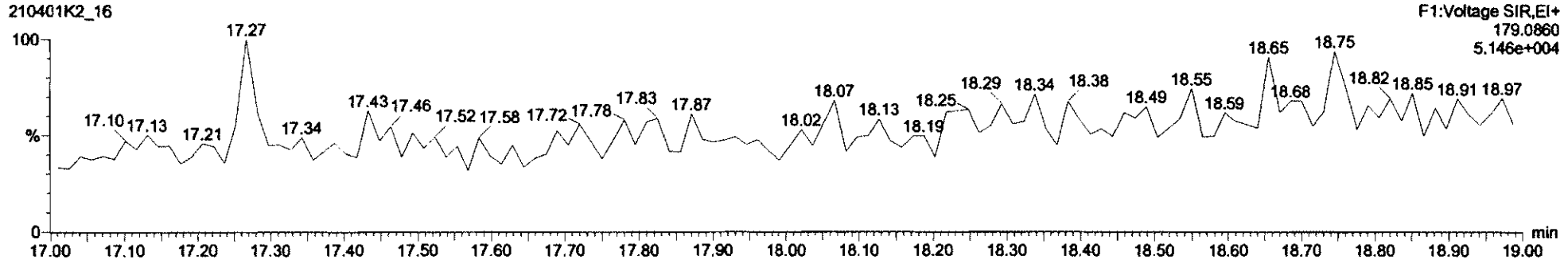
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

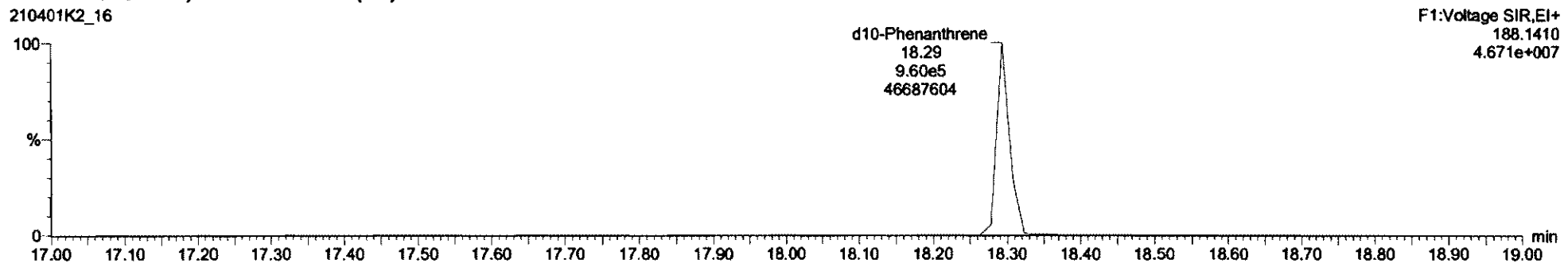
Phenanthrene; Anthrecene



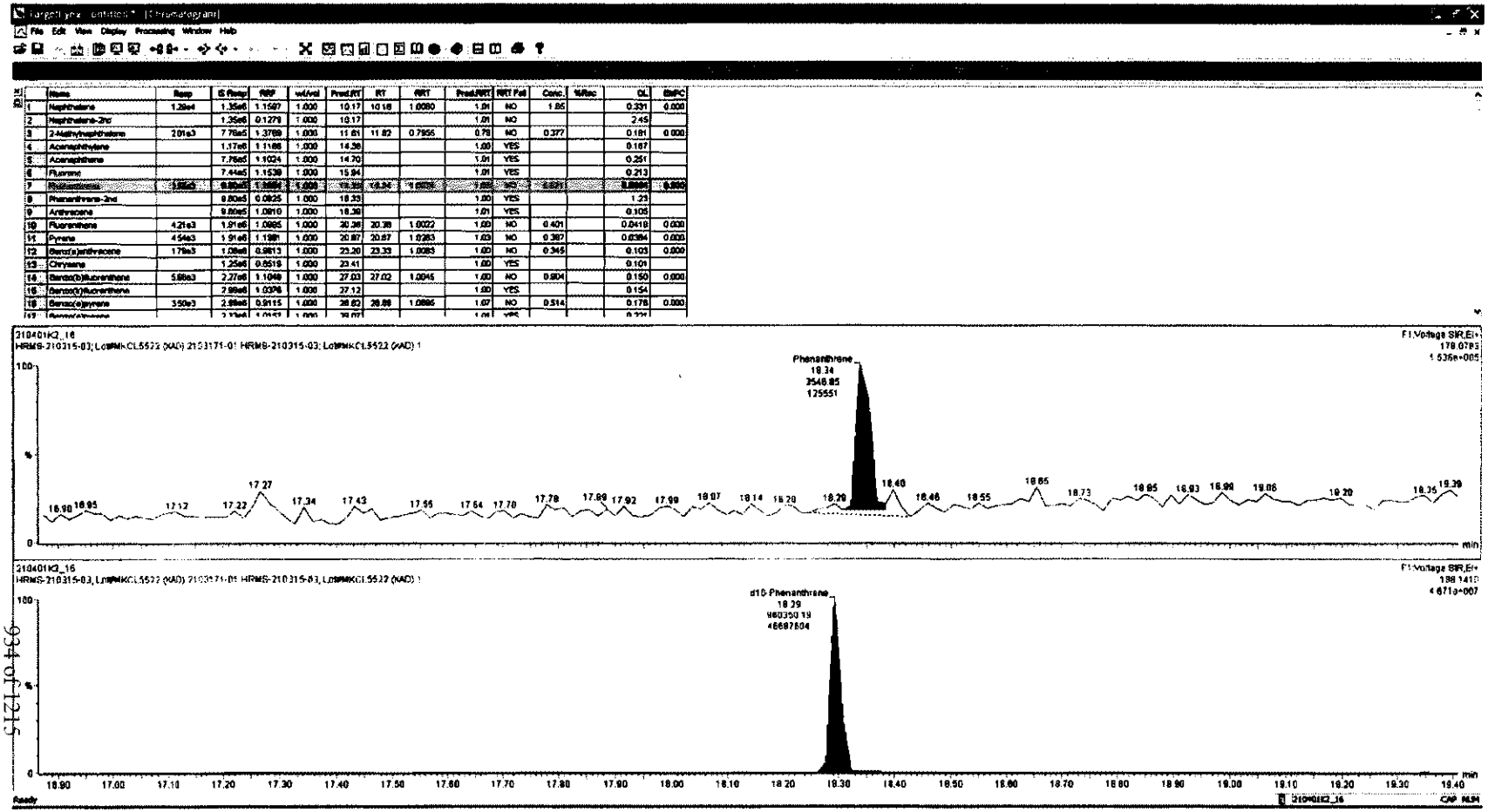
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



933 of 1215



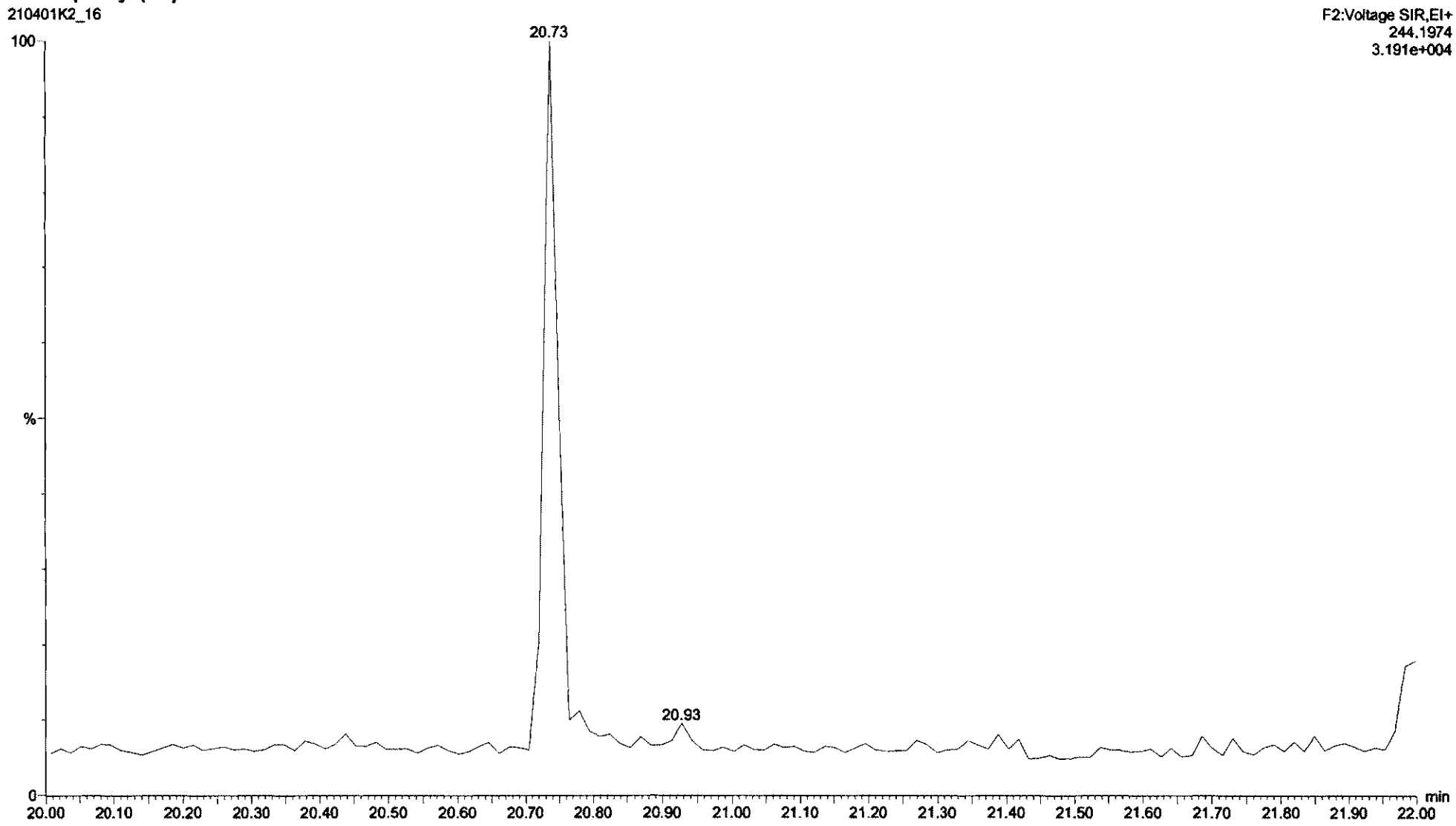
	Name	Resp	S:Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	1.39e4	1.35e6	1.1587	1.000	10.17	10.16	1.0080	1.01	NO	1.85		0.331	0.000
2	Naphthalene-2nd		1.35e6	0.1279	1.000	10.17			1.01	NO			2.45	
3	2-Methylnaphthalene	201e3	7.76e5	1.3769	1.000	11.81	11.82	0.7956	0.78	NO	0.377		0.181	0.000
4	Acenaphthylene		1.17e6	1.1186	1.000	14.36			1.00	YES			0.187	
5	Acenaphthene		7.76e5	1.1024	1.000	14.70			1.01	YES			0.251	
6	Fluorene		7.44e5	1.1539	1.000	15.84			1.01	YES			0.213	
7	Phenanthrene	1.86e3	8.80e5	1.0000	1.000	18.34	18.34	1.0000	1.00	NO	0.401		0.0418	0.000
8	Phenanthrene-2nd		8.80e5	0.0825	1.000	18.33			1.00	YES			1.29	
9	Anthracene		8.80e5	1.0810	1.000	18.38			1.01	YES			0.105	
10	Fluoranthene	4.21e3	1.91e6	1.0885	1.000	20.38	20.39	1.0022	1.00	NO	0.401		0.0418	0.000
11	Pyrene	454e3	1.91e6	1.1981	1.000	20.87	20.87	1.0263	1.03	NO	0.387		0.0394	0.000
12	Benz(a)anthracene	178e3	1.08e6	0.9813	1.000	23.26	23.33	1.0083	1.00	NO	0.346		0.103	0.000
13	Chrysene		1.25e6	0.8519	1.000	23.41			1.00	YES			0.101	
14	Benzo(b)fluoranthene	588e3	2.27e6	1.1049	1.000	27.03	27.02	1.0045	1.00	NO	0.804		0.150	0.000
15	Benzo(k)fluoranthene		2.99e6	1.0376	1.000	27.12			1.00	YES			0.154	
16	Benzo(e)pyrene	350e3	2.99e6	0.9115	1.000	28.82	28.88	1.0066	1.07	NO	0.514		0.178	0.000

Dataset: Untitled

Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

d14-Terphenyl (PS)



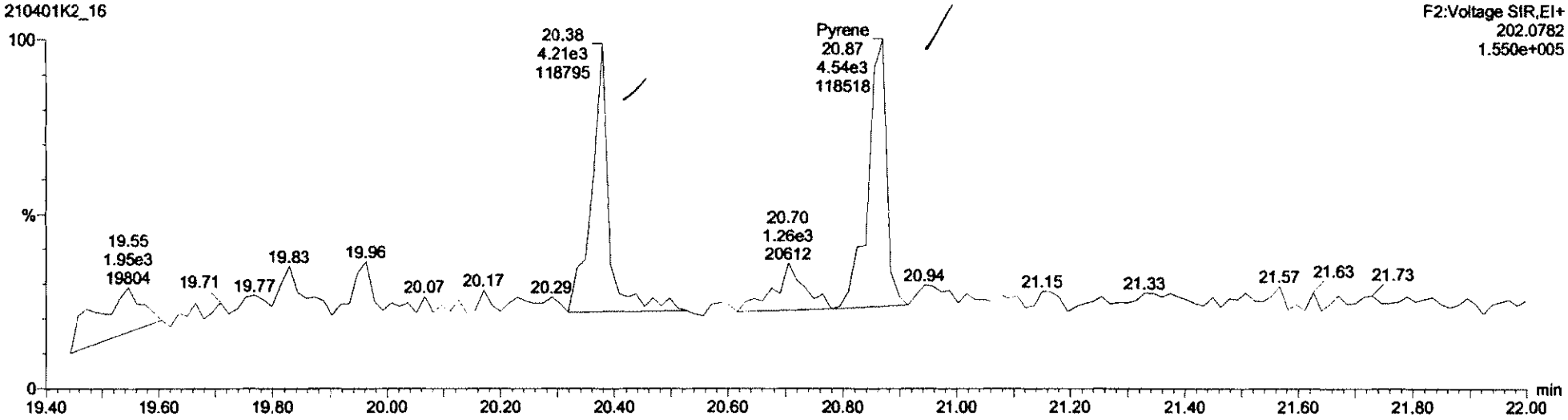
935 of 1215

Dataset: Untitled

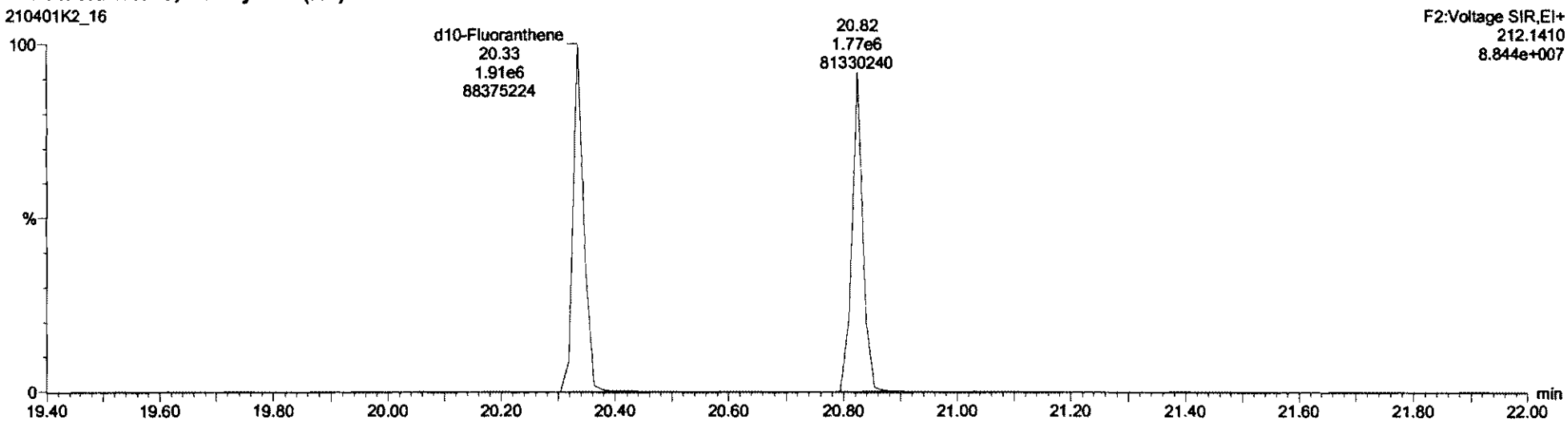
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

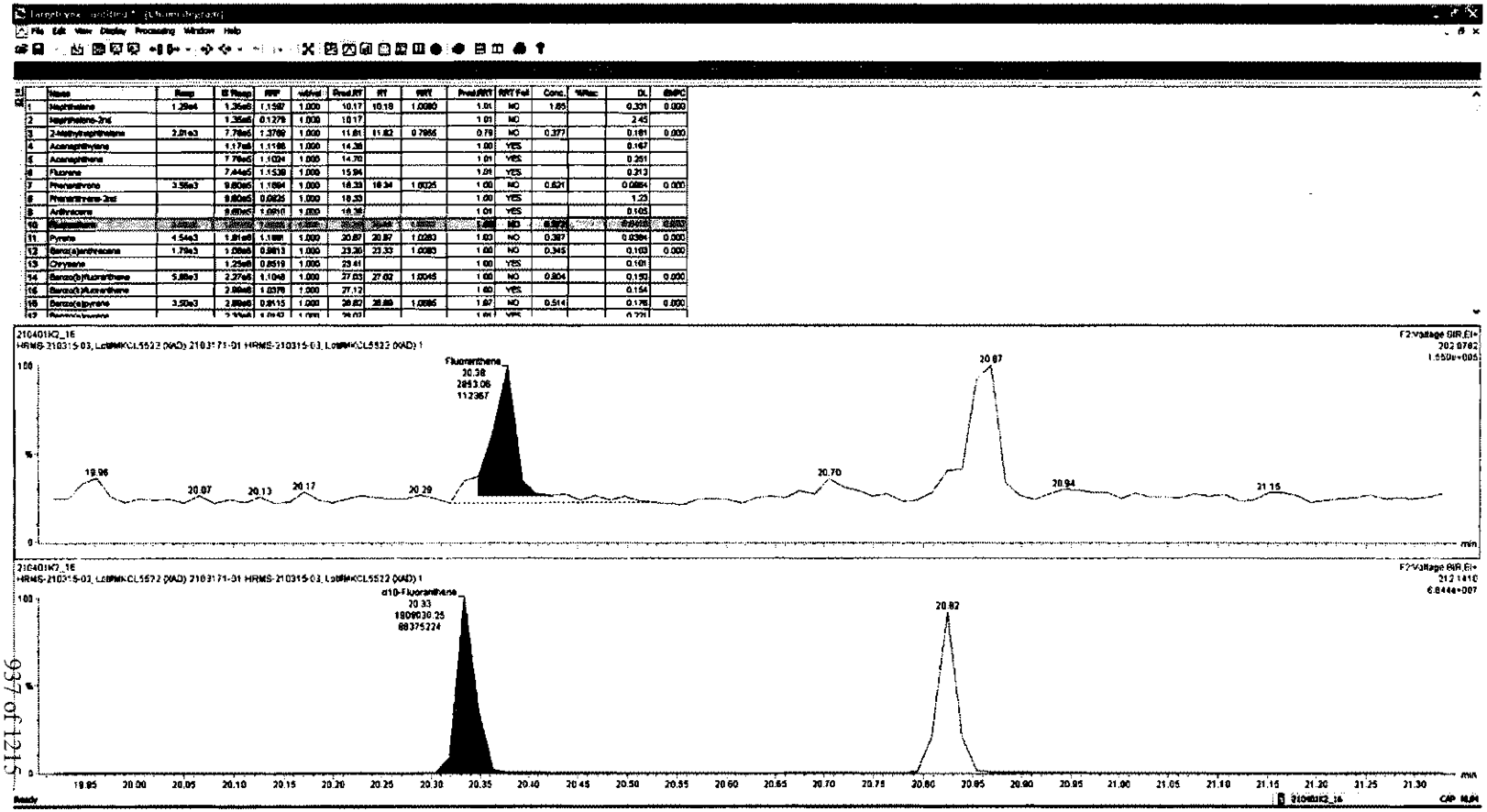
Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

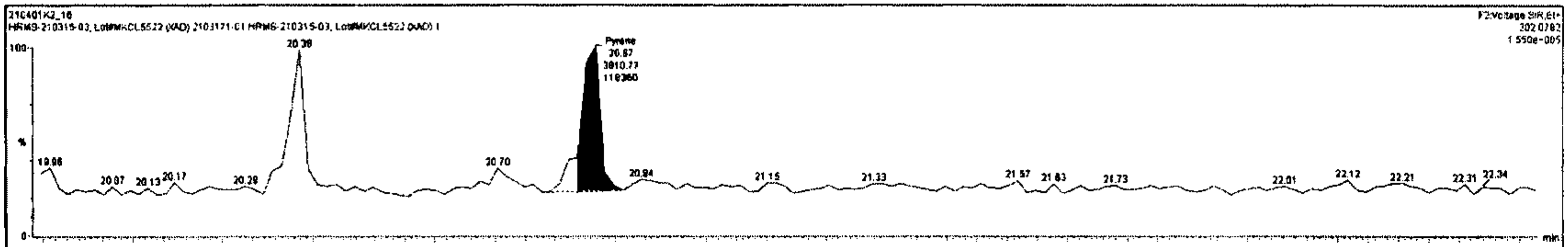


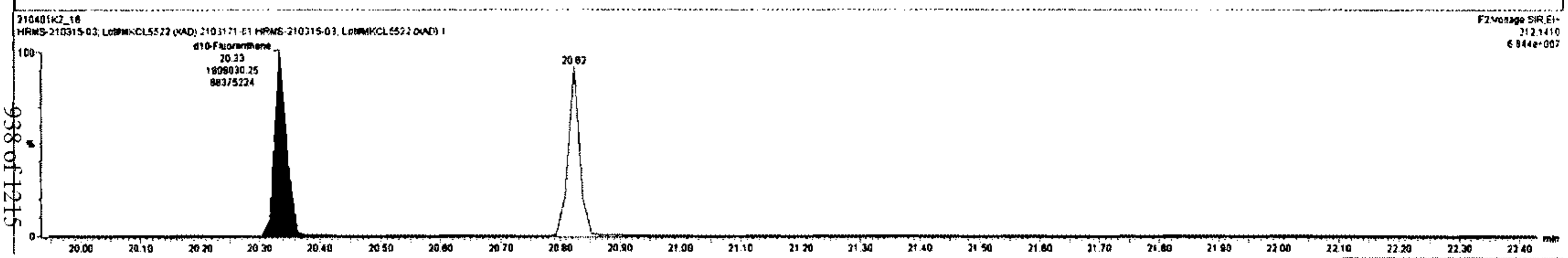

Fluoranthene
20.38
2883.06
11.2367
20.07
19.96
20.07
20.13
20.17
20.29
20.70
20.94
21.15
d10-Fluoranthene
20.33
1809030.25
88375224
20.82

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	1.29e4	1.35e6	1.1587	1.000	10.17	10.18	1.0080	1.01	NO	1.85		0.331	0.000
2	Naphthalene-2nd		1.35e6	0.1279	1.000	10.17			1.01	NO			2.45	
3	2-Methylnaphthalene	2.01e3	7.78e5	1.3788	1.000	11.61	11.62	0.7855	0.79	NO	0.377		0.181	0.000
4	Acenaphthylene		1.17e6	1.1188	1.000	14.38			1.00	YES			0.167	
5	Acenaphthene		7.78e5	1.1024	1.000	14.70			1.01	YES			0.251	
6	Fluorene		7.44e5	1.1539	1.000	15.94			1.01	YES			0.213	
7	Phenanthrene	3.55e3	9.80e5	1.1494	1.000	18.33	18.34	1.0026	1.00	NO	0.621		0.0984	0.000
8	Phenanthrene-2nd		9.80e5	0.0825	1.000	18.33			1.00	YES			1.23	
9	Anthracene		9.80e5	1.0910	1.000	18.39			1.01	YES			0.105	
10	Fluoranthene	2.85e3	1.91e6	1.0885	1.000	20.30	20.38	1.0022	1.00	NO	0.272		0.0419	0.000
11	Pyrene	[illegible]	[illegible]	[illegible]	1.000	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]		[illegible]	[illegible]
12	Benz(a)anthracene	1.75e3	1.08e6	0.9813	1.000	23.20	23.30	1.0083	1.00	NO	0.345		0.103	0.000
13	Chrysene		1.25e6	0.8519	1.000	23.41			1.00	YES			0.101	
14	Benzo(b)fluoranthene	5.86e3	2.27e6	1.1048	1.000	27.03	27.02	1.0045	1.00	NO	0.904		0.150	0.000
15	Benzo(k)fluoranthene		2.98e6	1.0376	1.000	27.13			1.00	YES			0.154	
16	Benzo(a)pyrene	3.50e3	2.90e6	0.9115	1.000	28.82	28.89	1.0888	1.07	NO	0.514		0.178	0.000
17	[illegible]		[illegible]	[illegible]	1.000	28.07			1.01	YES			0.221	





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Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
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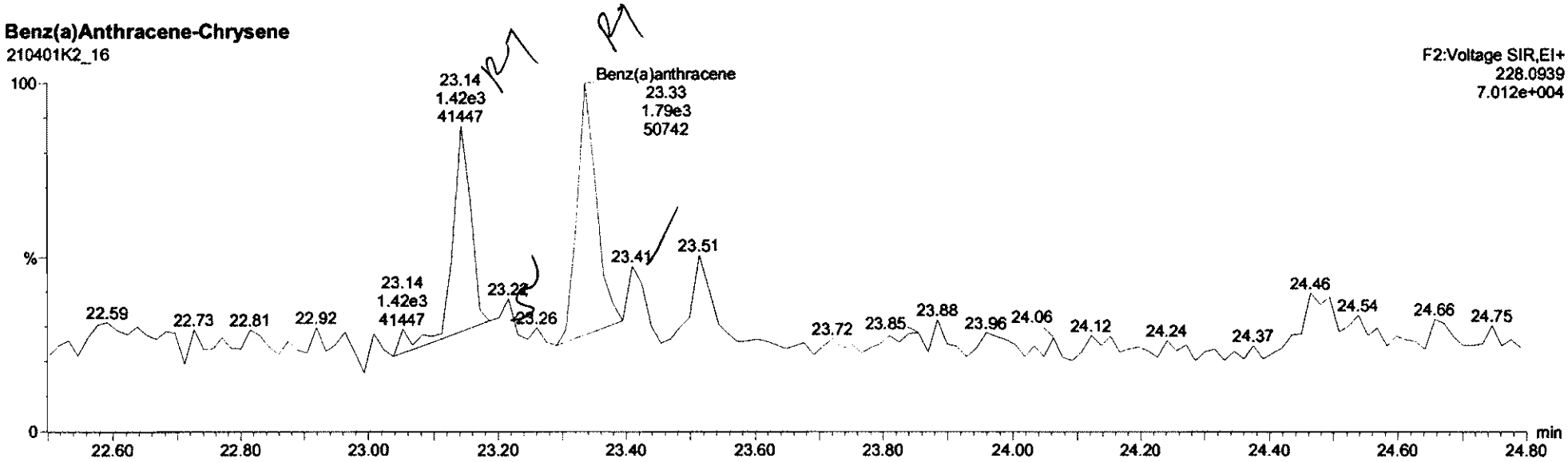
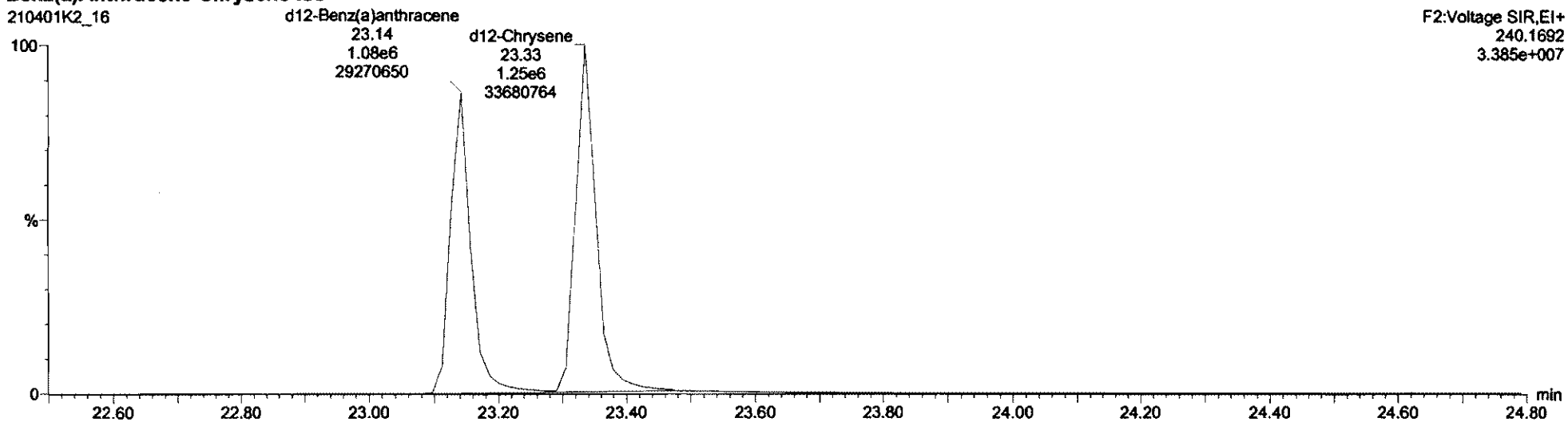
Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso

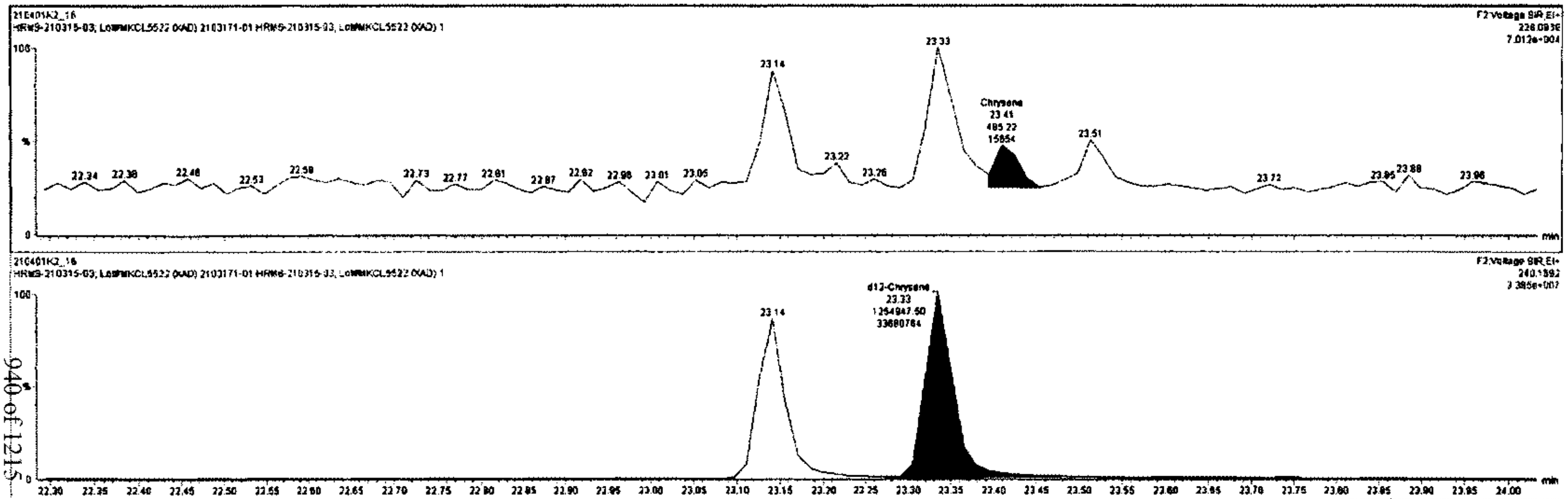


939 of 1215

TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	1.28e4	1.35e6	1.1587	1.000	10.17	10.18	1.0080	1.01	NO	1.86		0.331	0.000
2	Naphthalene-2nd		1.35e6	0.1279	1.000	10.17			1.01	NO			2.46	
3	2-Methylnaphthalene	2.01e3	7.78e5	1.3768	1.000	11.81	11.82	0.7965	0.79	NO	0.377		0.181	0.000
4	Acenaphthylene		1.17e6	1.1168	1.000	14.38			1.00	YES			0.167	
5	Acenaphthene		7.78e5	1.1024	1.000	14.70			1.01	YES			0.251	
6	Fluorene		7.44e5	1.1538	1.000	15.94			1.01	YES			0.213	
7	Phenanthrene	3.55e3	9.80e5	1.1884	1.000	18.33	18.34	1.0025	1.00	NO	0.624		0.0864	0.000
8	Phenanthrene-2nd		9.80e5	0.0825	1.000	18.33			1.00	YES			1.23	
9	Anthracene		9.80e5	1.0810	1.000	18.39			1.01	YES			0.105	
10	Fluoranthene	2.65e3	1.91e6	1.0885	1.000	20.38	20.38	1.0022	1.00	NO	0.272		0.0419	0.000
11	Pyrene	3.81e3	1.91e6	1.1981	1.000	20.87	20.87	1.0263	1.03	NO	0.335		0.0384	0.000
12	Benz(a)anthracene		1.08e6	0.9813	1.000	22.30			1.00	NO			0.102	
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]		[illegible]	[illegible]
14	Benzo(b)fluoranthene	5.88e3	2.27e6	1.1048	1.000	27.03	27.02	1.2046	1.00	NO	0.304		0.150	0.000
15	Benzo(k)fluoranthene		2.98e6	1.0376	1.000	27.12			1.00	YES			0.154	
16	Benzo(e)pyrene	3.50e3	2.89e6	0.9115	1.000	28.82	28.88	1.0885	1.07	NO	0.514		0.178	0.000
17	Benzo(a)pyrene		2.35e6	1.0147	1.000	29.07			1.00	YES			0.221	



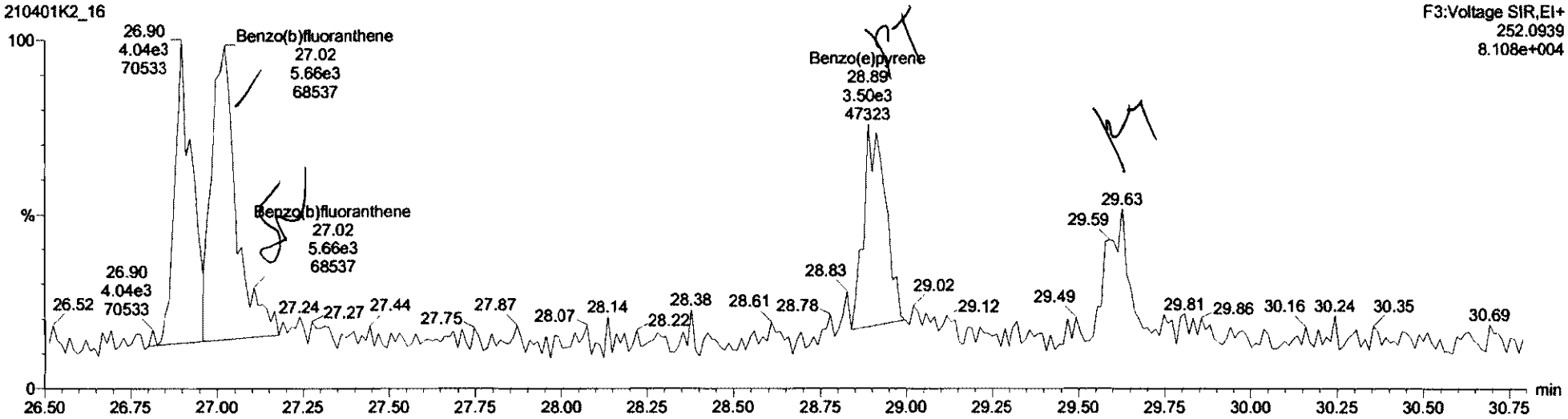
Ready 210401K2_16 CAP NUM

Dataset: Untitled

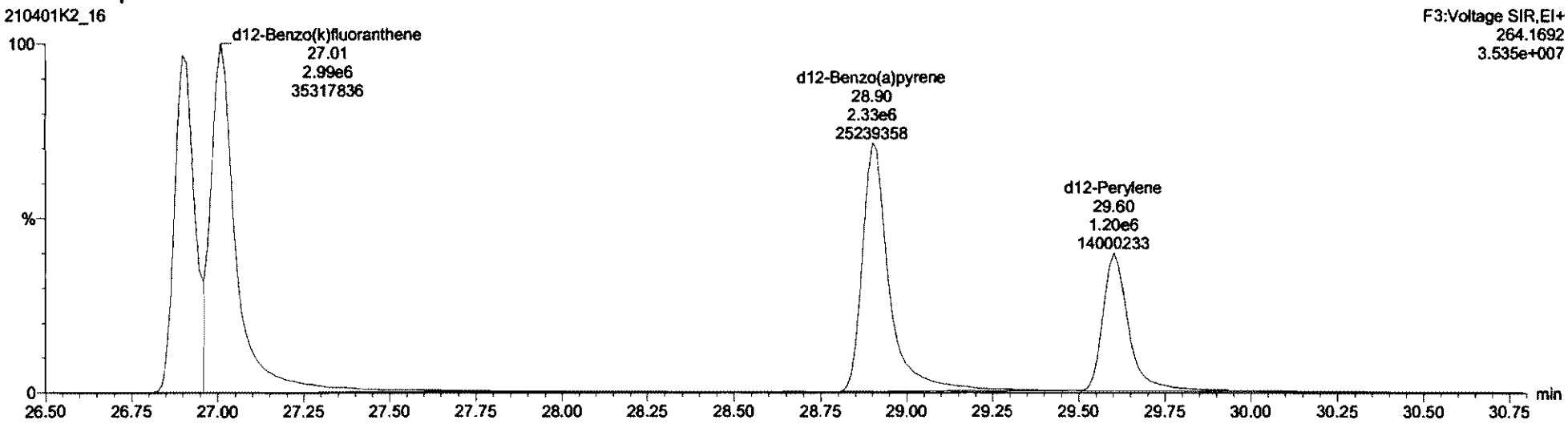
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Benzo-PAHs

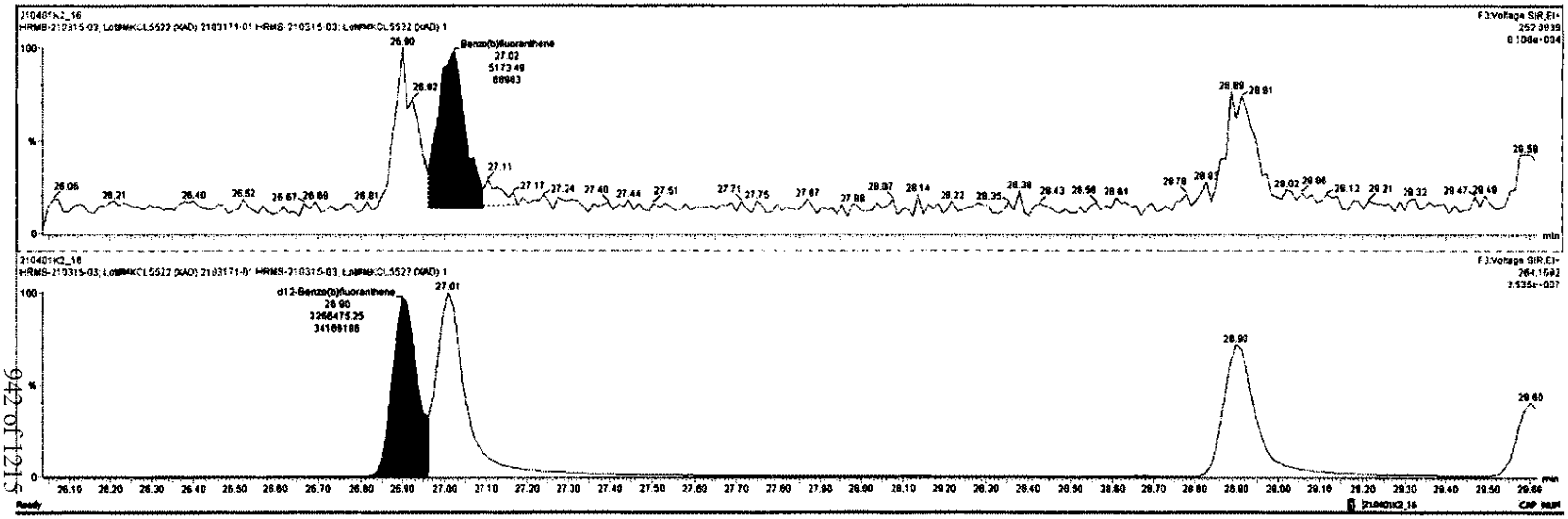


Benzo-Isotopes



941 of 1215

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	1.29e4	1.35e6	1.1587	1.000	10.17	10.18	1.0000	1.01	NO	1.85		0.331	0.000
2	Naphthalene-2nd		1.35e6	0.1279	1.000	10.17			1.01	NO			2.45	
3	2-Methylnaphthalene	2.01e3	7.76e5	1.3788	1.000	11.81	11.82	0.7954	0.79	NO	0.377		0.181	0.000
4	Acenaphthylene		1.13e6	1.1186	1.000	14.38			1.00	YES			0.187	
5	Acenaphthene		7.78e5	1.1024	1.000	14.70			1.01	YES			0.251	
6	Fluorene		7.44e5	1.1530	1.000	15.94			1.01	YES			0.213	
7	Phenanthrene	3.58e3	9.80e5	1.1694	1.000	18.30	18.34	1.0025	1.00	NO	0.621		0.0854	0.000
8	Phenanthrene-2nd		9.80e5	0.0825	1.000	18.33			1.00	YES			1.23	
9	Anthracene		9.80e5	1.0810	1.000	18.38			1.01	YES			0.105	
10	Fluoranthene	2.85e3	1.91e6	1.0885	1.000	20.38	20.38	1.0022	1.00	NO	0.272		0.0419	0.000
11	Pyrene	3.81e3	1.91e6	1.1981	1.000	20.87	20.87	1.0283	1.03	NO	0.333		0.0384	0.000
12	Benz(a)anthracene		1.06e6	0.9813	1.000	23.20			1.00	NO			0.103	
13	Chrysene	4.66e2	1.25e6	0.9519	1.000	23.41	23.41	1.0032	1.00	NO	0.0828		0.101	0.000
14	Benzo(b)fluoranthene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NO	[illegible]		[illegible]	[illegible]
15	Benzo(k)fluoranthene		2.66e6	1.0376	1.000	27.12			1.00	YES			0.154	
16	Benzo(a)pyrene	3.50e3	2.99e6	0.9115	1.000	28.83	28.89	1.0885	1.07	NO	0.514		0.176	0.000
17	Benzo(e)pyrene		2.71e6	1.0157	1.000	29.07			1.01	YES			0.771	



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Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
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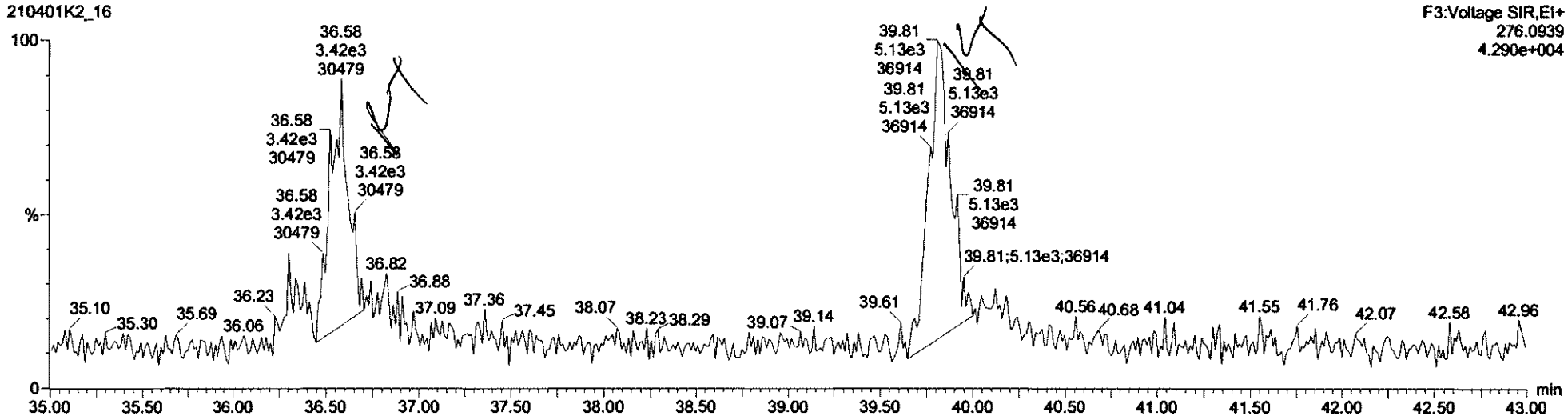
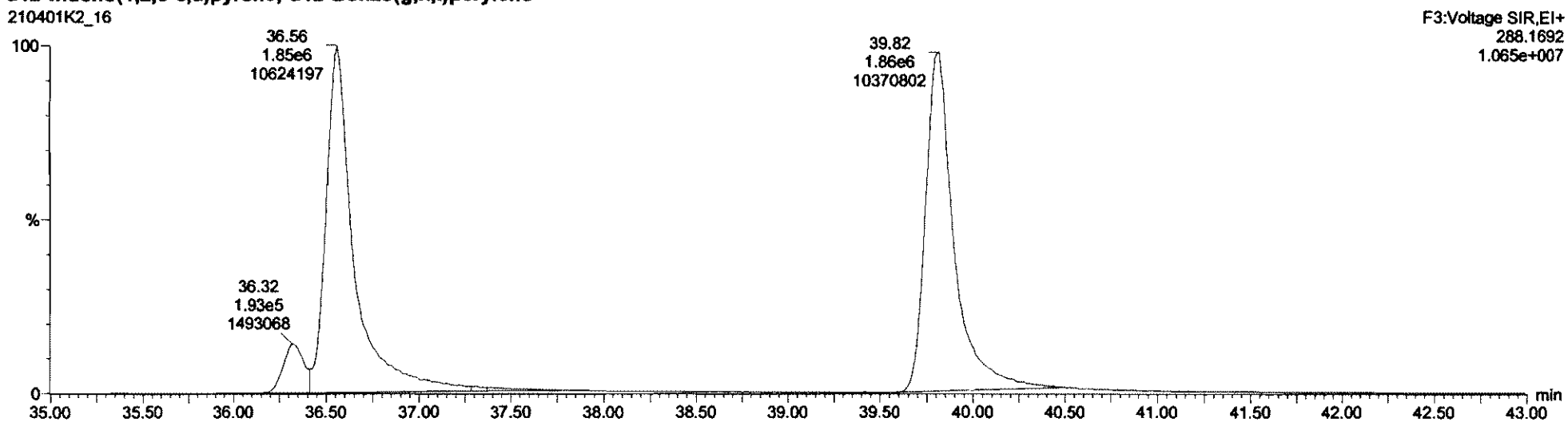
Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



943 of 1215

TargetLynx - Untitled * - [Chromatogram]

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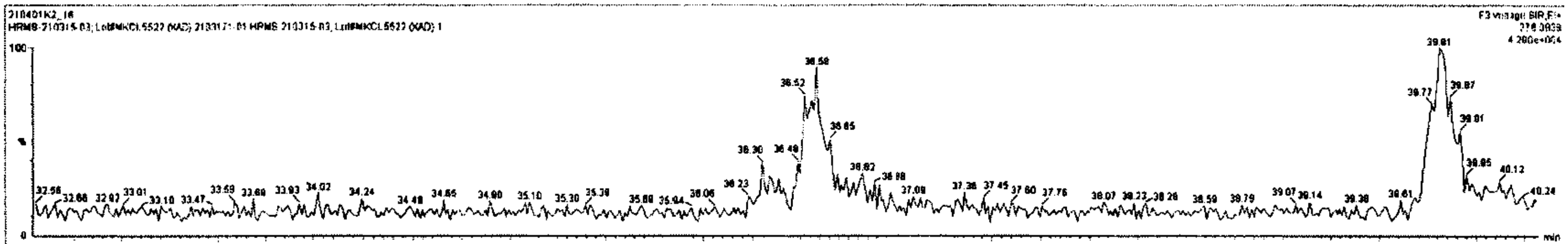
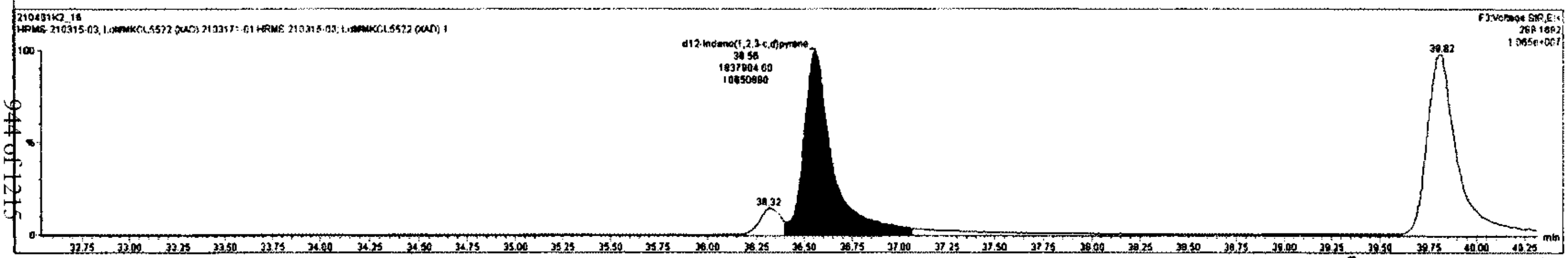
#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
18	Perylene		2.33e6	0.9874	1.000	29.81			1.03	YES			0.227	
19	Indeno(1,2,3-c,d)pyrene		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	YES			[illegible]	
20	Benzo(g,h,i)perylene				1.000	0.00			1.01	NO				
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.35e6	1.77e6	1.2037	1.000	10.12	10.12	0.8482	0.85	NO	128	63.1	0.0198	0.000
23	d8-Acenaphthylene	1.17e6	1.77e6	0.9046	1.000	14.33	14.34	1.2024	1.20	NO	148	73.0	0.0244	
24	d10-Acenaphthene	7.71e5	1.77e6	0.5936	1.000	14.62	14.61	1.2262	1.23	NO	147	73.6	0.0185	
25	d10-Fluorene	7.44e5	1.77e6	0.5628	1.000	15.86	15.86	1.3286	1.33	NO	149	74.5	0.0184	
26	d10-Phenanthrene	9.80e5	1.77e6	0.7354	1.000	18.28	18.29	1.5336	1.53	NO	147	73.6	0.0148	
27	d10-Fluoranthene	1.91e6	1.77e6	1.2866	1.000	20.34	20.33	0.8786	0.98	NO	167	83.7	0.0112	
28	d12-Benz(a)anthracene	1.08e6	1.77e6	0.8886	1.000	23.12	23.14	1.1113	1.11	NO	135	67.6	0.0273	
29	d12-Chrysene	1.25e6	1.77e6	1.0211	1.000	23.32	23.33	1.1208	1.12	NO	139	69.3	0.0240	
30	d12-Benzo(b)fluoranthene	2.27e6	1.20e6	1.1818	1.000	26.88	26.80	0.8087	0.81	NO	320	80.0	0.187	
31	d12-Benzo(k)fluoranthene	2.89e6	1.20e6	1.3028	1.000	26.97	27.01	0.8124	0.81	NO	332	83.0	0.155	
32	d12-Benzo(a)pyrene	2.33e6	1.20e6	1.2381	1.000	28.88	28.80	0.9763	0.98	NO	314	78.5	0.198	
33	d12-Indeno(1,2,3-c,d)pyre...	1.84e6	1.20e6	1.0142	1.000	36.61	36.58	1.2360	1.25	YES	301	75.3	0.274	
34	d12-Benzo(g,h,i)perylene		1.20e6	1.0046	1.000	40.31			1.30	YES			0.276	



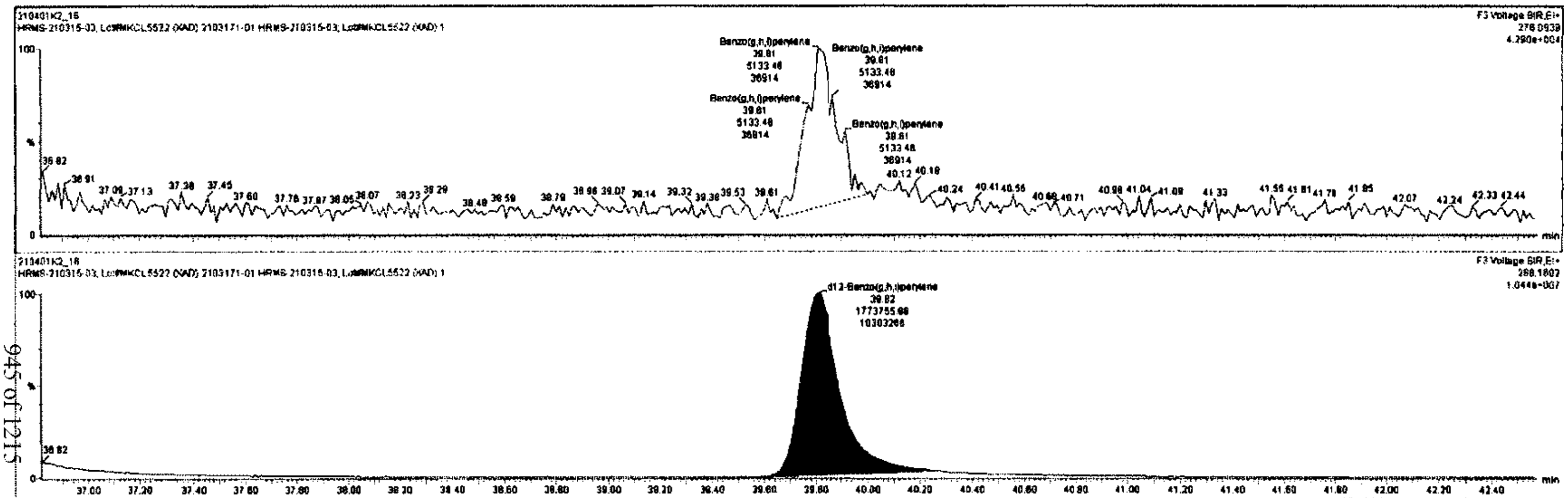


Ready

TargetLynx - Untitled * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
18	Perylene		2.33e8	0.9874	1.000	29.81			1.03	YES			0.227	
19	Indeno(1,2,3-c,d)pyrene		1.84e8	0.9150	1.000	38.81			1.01	YES			0.370	
20	Benzo(g,h,i)perylene		1.77e6	0.9442	1.000	40.19			1.09	YES			0.372	
21	Dibenz(a,h)anthracene				1.000	0.00			1.01	NO				
22	d8-Naphthalene	1.35e6	1.77e6	1.2007	1.000	10.12	10.12	0.8487	0.85	NO	126	63.1	0.0199	0.000
23	d8-Acenaphthylene	1.17e6	1.77e6	0.9046	1.000	14.33	14.34	1.2024	1.20	NO	146	73.0	0.0244	
24	d10-Acenaphthene	7.76e5	1.77e6	0.5908	1.000	14.82	14.61	1.2252	1.23	NO	147	73.6	0.0195	
25	d10-Fluorene	7.44e5	1.77e6	0.5628	1.000	15.86	15.85	1.3288	1.33	NO	149	74.5	0.0184	
26	d10-Phenanthrene	9.80e5	1.77e6	0.7364	1.000	18.28	18.29	1.5339	1.53	NO	147	73.8	0.0148	
27	d10-Fluoranthene	1.91e6	1.77e6	1.2858	1.000	20.34	20.33	0.8785	0.88	NO	167	83.7	0.0112	
28	d12-Benz(a)anthracene	1.08e6	1.77e6	0.8890	1.000	23.12	23.14	1.1113	1.11	NO	135	67.6	0.0272	
29	d12-Chrysene	1.25e6	1.77e6	1.0211	1.000	23.32	23.33	1.1208	1.12	NO	139	69.3	0.0040	
30	d12-Benzo(b)fluoranthene	2.27e6	1.20e6	1.1618	1.000	26.86	26.80	0.9087	0.91	NO	320	80.0	0.197	
31	d12-Benzo(k)fluoranthene	2.99e6	1.20e6	1.5026	1.000	26.97	27.01	0.9124	0.91	NO	332	83.0	0.155	
32	d12-Benzo(a)pyrene	2.33e6	1.20e6	1.2281	1.000	28.86	28.80	0.9763	0.98	NO	314	78.5	0.188	
33	d12-Indeno(1,2,3-c,d)pyre...	1.84e6	1.20e6	1.0182	1.000	38.91	38.56	1.2350	1.25	YES	301	75.3	0.274	
34	d12-Benzo(g,h,i)perylene	1.77e6	1.20e6	1.0048	1.000	40.21	39.82	1.3451	1.36	YES	295	73.7	0.378	



Ready

210401K2_16

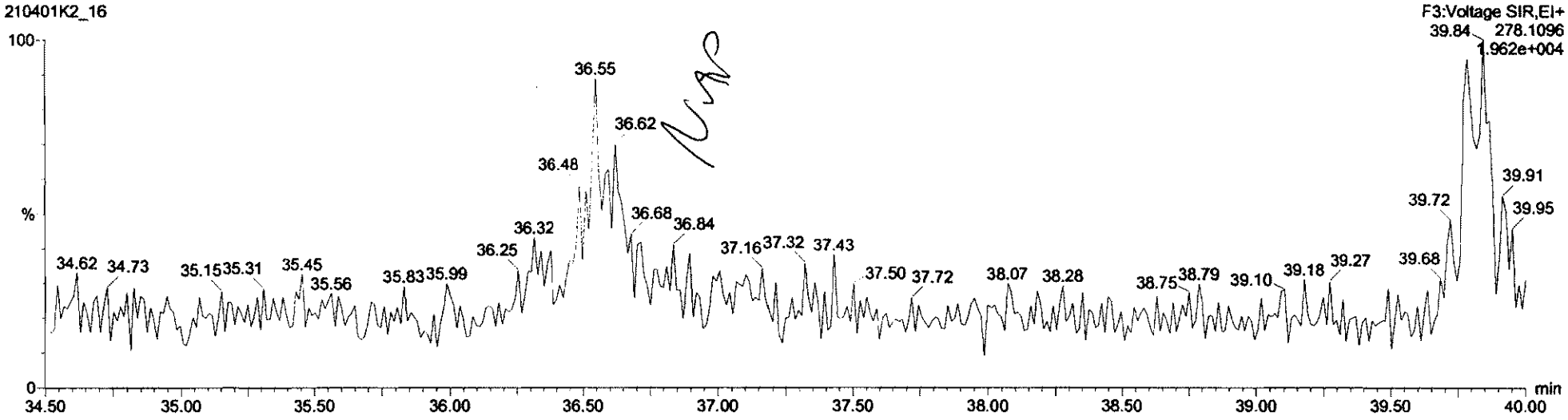
CAP NUM

Dataset: Untitled

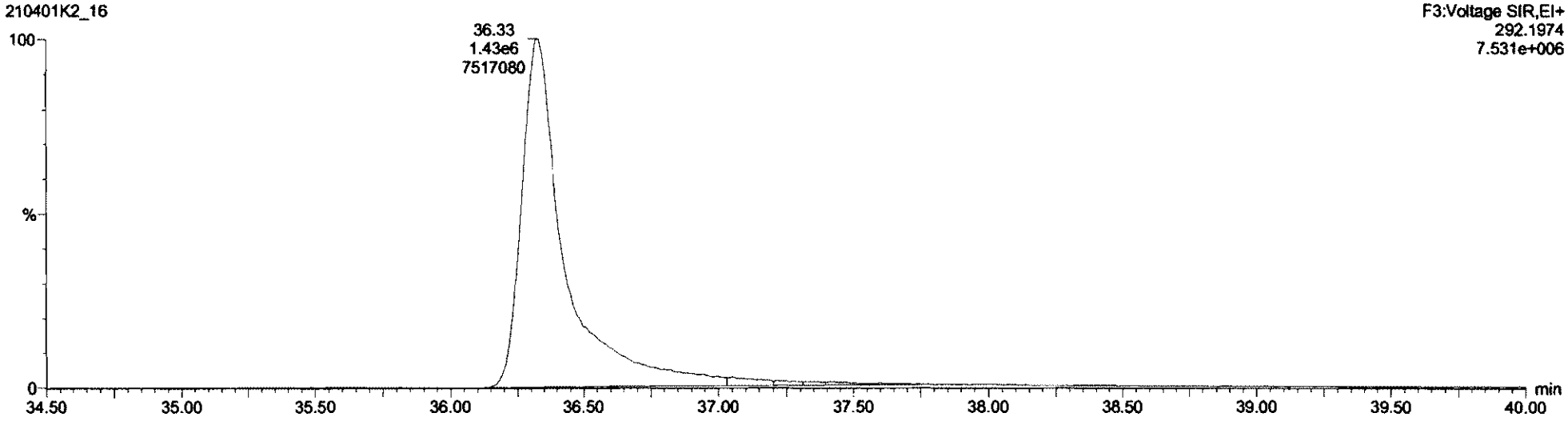
Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
Printed: Friday, April 02, 2021 08:18:56 Pacific Daylight Time

Name: 210401K2_16, Date: 01-Apr-2021, Time: 21:19:44, ID: 2103171-01 HRMS-210315-03; Lot#MKCL5522 (XAD) 1,
Description: HRMS-210315-03; Lot#MKCL5522 (XAD)

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



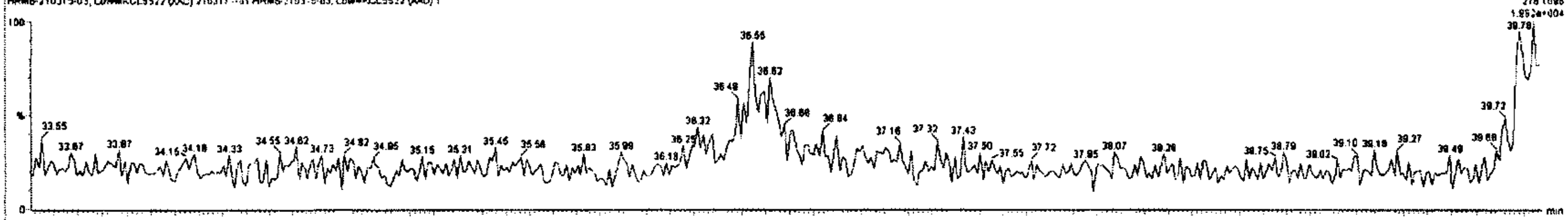
946 of 1215

TargetLynx - untitled * - [Chromatogram]

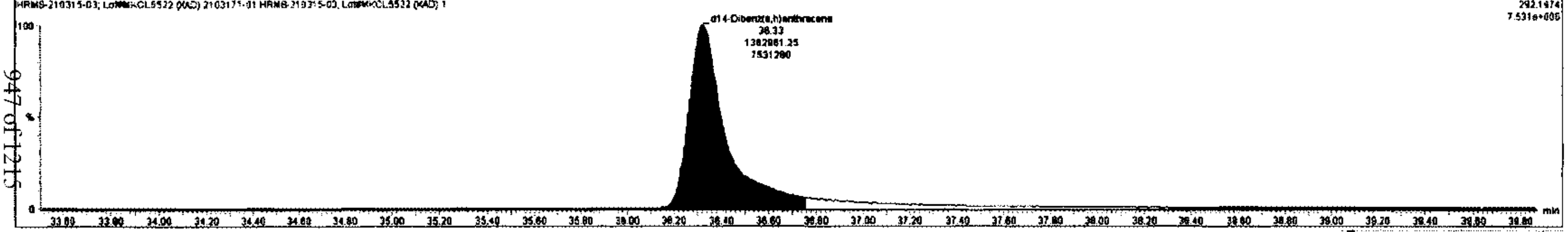
File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
18	Perylene		2.33e6	0.8874	1.000	29.81			1.03	YES			0.227	
19	Indeno(1,2,3-c,d)pyrene		1.84e6	0.8150	1.000	36.81			1.01	YES			0.370	
20	Benzo(g,h,i)perylene		1.77e6	0.8482	1.000	40.18			1.01	YES			0.372	
21	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	YES			[illegible]	
22	d8-Naphthalene	1.35e6	1.77e6	1.2037	1.000	10.12	10.12	0.8482	0.85	NO	128	83.1	0.0198	0.000
23	d8-Acenaphthylene	1.17e6	1.77e6	0.8048	1.000	14.33	14.34	1.2024	1.20	NO	146	73.0	0.0244	
24	d10-Acenaphthene	7.71e5	1.77e6	0.5808	1.000	14.62	14.61	1.2252	1.23	NO	147	73.6	0.0185	
25	d10-Fluorene	7.44e5	1.77e6	0.5828	1.000	15.88	15.85	1.3289	1.33	NO	149	74.5	0.0184	
26	d10-Phenanthrene	9.60e5	1.77e6	0.7354	1.000	18.28	18.29	1.5338	1.53	NO	147	73.8	0.0146	
27	d10-Fluoranthene	1.91e6	1.77e6	1.2856	1.000	20.34	20.33	0.8785	0.88	NO	167	83.7	0.0112	
28	d12-Benz(a)anthracene	1.08e6	1.77e6	0.8898	1.000	23.12	23.14	1.1113	1.11	NO	135	67.8	0.0072	
29	d12-Chrysene	1.25e6	1.77e6	1.0311	1.000	23.32	23.33	1.1206	1.12	NO	139	69.3	0.0240	
30	d12-Benzo(b)fluoranthene	2.27e6	1.20e6	1.1616	1.000	26.86	26.90	0.9087	0.91	NO	320	60.0	0.197	
31	d12-Benzo(k)fluoranthene	2.88e6	1.20e6	1.5028	1.000	26.97	27.01	0.9124	0.91	NO	332	83.0	0.156	
32	d12-Benzo(e)pyrene	2.33e6	1.20e6	1.2381	1.000	26.86	28.90	0.9763	0.98	NO	314	78.5	0.188	
33	d12-Indeno(1,2,3-c,d)pyre...	1.84e6	1.20e6	1.0182	1.000	36.91	36.58	1.2380	1.25	YES	301	75.3	0.274	
34	d12-Benzo(g,h,i)perylene	1.77e6	1.20e6	1.0065	1.000	40.33	39.82	1.3451	1.36	YES	295	73.7	0.270	

210401K2_16
HRMS-210315-03; Lot#KCL5522 (XAD) 2103171-01 HRMS-210315-03; Lot#KCL5522 (XAD) 1



210401K2_16
HRMS-210315-03; Lot#KCL5522 (XAD) 2103171-01 HRMS-210315-03; Lot#KCL5522 (XAD) 1



Ready 210401K2_16 CAP NUM

CONTINUING CALIBRATION

HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST210406LL5 **Reviewed By:** DF 04/08/21
Initials & Date

End Calibration ID: NA

	Beg.	End
Ion abundance within QC limits?	NA	NA
Concentrations within criteria?	☒	☐
TCDD/TCDF Valleys <25%	NA	☐
First and last eluters present?	NA	☐
Retention Times within criteria?	☒	☐
Verification Std. named correctly?	☒	☐
(ST-Year-Month-Day-VG ID)		
Forms signed and dated?	☒	☐
Correct ICAL referenced?	HL	☐

Run Log:

- Correct instrument listed?	☒	NA
- Samples within 12 hour clock?	(Y)	N
- Bottle position verfied?	HL	

	Beg.	End
Mass resolution ≥	☒	NA
☐ 5k ☐ 6-8K ☒ 8K ☐ 10K		
1614 1699 429 1613/1668/8280		
Intergrated peaks display correctly?	☒	NA
GC Break <20%	NA	

8280 CS1 End Standard:

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	NA

Comments:

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-5.qld

Last Altered: Wednesday, April 07, 2021 8:52:45 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:53:11 AM Pacific Daylight Time

4.7.21
DF 04/08/21

Method: Untitled 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	4.96e6	1.77e6	1.16	1.000	10.17	10.18	1.006	1.006	NO	242	96.6	0.143
2	2	Naphthalene-2nd	5.46e5	1.77e6	0.128	1.000	10.17	10.18	1.006	1.006	NO	241	96.4	1.35
3	3	2-Methylnaphthalene	1.21e6	9.53e5	1.38	1.000	11.61	11.62	0.794	0.796	NO	92.2	92.2	0.0929
4	4	Acenaphthylene	1.37e6	1.39e6	1.12	1.000	14.38	14.37	1.003	1.002	NO	88.0	88.0	0.0895
5	5	Acenaphthene	9.85e5	9.53e5	1.10	1.000	14.70	14.72	1.006	1.007	NO	93.8	93.8	0.138
6	6	Fluorene	1.06e6	9.34e5	1.15	1.000	15.94	15.94	1.006	1.006	NO	98.2	98.2	0.0986
7	7	Phenanthrene	3.91e6	1.42e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	232	92.8	0.0459
8	8	Phenanthrene-2nd	2.82e5	1.42e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	215	86.0	0.562
9	9	Anthracene	1.51e6	1.42e6	1.09	1.000	18.39	18.40	1.005	1.006	NO	97.7	97.7	0.0500
10	10	Fluoranthene	2.04e6	2.03e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	91.7	91.7	0.0225
11	11	Pyrene	2.22e6	2.03e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	91.3	91.3	0.0207
12	12	Benz(a)anthracene	1.60e6	1.67e6	0.961	1.000	23.19	23.20	1.003	1.003	NO	99.6	99.6	0.0457
13	13	Chrysene	1.62e6	1.95e6	0.852	1.000	23.41	23.41	1.003	1.003	NO	97.6	97.6	0.0497
14	14	Benzo(b)fluoranthene	1.69e6	3.32e6	1.10	1.000	27.07	27.06	1.005	1.005	NO	91.9	91.9	0.104
15	15	Benzo(k)fluoranthene	2.00e6	3.84e6	1.04	1.000	27.16	27.15	1.004	1.004	NO	100	100	0.104
16	16	Benzo(e)pyrene	1.73e6	3.84e6	0.911	1.000	28.86	28.93	1.067	1.070	NO	99.0	99.0	0.119
17	17	Benzo(a)pyrene	1.66e6	3.39e6	1.02	1.000	29.20	29.20	1.006	1.006	NO	96.6	96.6	0.183
18	18	Perylene	1.62e6	3.39e6	0.987	1.000	29.95	29.99	1.031	1.033	NO	96.5	96.5	0.188
19	19	Indeno(1,2,3-c,d)pyrene	1.46e6	3.26e6	0.915	1.000	37.51	37.41	1.007	1.004	NO	97.5	97.5	0.562
20	20	Benzo(g,h,i)perylene	1.40e6	2.96e6	0.940	1.000	41.10	40.97	1.009	1.006	NO	100	100	0.681
21	21	Dibenz(a,h)anthracene	1.14e6	2.48e6	0.948	1.000	37.60	37.43	1.011	1.007	NO	97.0	97.0	0.496
22	22	d8-Naphthalene	1.77e6	1.54e6	1.20	1.000	10.12	10.11	0.848	0.848	NO	95.7	95.7	0.0166
23	23	d8-Acenaphthylene	1.39e6	1.54e6	0.905	1.000	14.33	14.34	1.201	1.202	NO	99.9	99.9	0.0202
24	24	d10-Acenaphthene	9.53e5	1.54e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	104	104	0.0188
25	25	d10-Fluorene	9.34e5	1.54e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	108	108	0.0191
26	26	d10-Phenanthrene	1.42e6	1.54e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	125	125	0.0142
27	27	d10-Fluoranthene	2.03e6	1.54e6	1.29	1.000	20.34	20.33	0.977	0.976	NO	102	102	0.0102
28	28	d12-Benz(a)anthracene	1.67e6	1.54e6	0.900	1.000	23.13	23.13	1.110	1.111	NO	121	121	0.0153
29	29	d12-Chrysene	1.95e6	1.54e6	1.02	1.000	23.32	23.33	1.120	1.121	NO	124	124	0.0135
30	30	d12-Benzo(b)fluoranthene	3.32e6	1.31e6	1.18	1.000	26.94	26.93	0.904	0.904	NO	215	108	0.188
31	31	d12-Benzo(k)fluoranthene	3.84e6	1.31e6	1.50	1.000	27.04	27.05	0.907	0.907	NO	196	97.9	0.148

70-130%
65-135%

950 of 1215

Dataset: U:\VG11.PRO\Results\210406K1\210406K1-5.qld

Last Altered: Wednesday, April 07, 2021 8:52:45 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:53:11 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

	# Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	Pred RRT	RRT	Check R...	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	3.39e6	1.31e6	1.24	1.000	29.06	29.03	0.975	0.974	NO	210	105	0.179
33	33 d12-Indeno(1,2,3-c,d)pyrene	3.26e6	1.31e6	1.02	1.000	37.17	37.26	1.247	1.250	NO	246	123	0.226
34	34 d12-Benzo(g,h,i)perylene	2.96e6	1.31e6	1.00	1.000	40.61	40.71	1.362	1.366	NO	226	113	0.229
35	35 d14-Dibenz(a,h)anthracene	2.48e6	1.31e6	0.765	1.000	36.94	37.19	1.239	1.248	NO	248	124	0.271
36	36 d10-Anthracene	1.39e6	1.31e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	108	108	0.0694
37	37 d14-Terphenyl	2.58e6	2.03e6	0.576	1.000	20.70	20.74	1.018	1.020	NO	221	111	0.0137
38	38 d12-Benzo(e)pyrene	2.88e6	3.84e6	0.738	1.000	28.67	28.76	1.060	1.064	NO	204	102	0.124
39	39 d10-1-Methylnaphthalene	1.24e6	1.24e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	100	100	0.0201
40	40 d10-Pyrene	1.54e6	1.54e6	1.00	1.000	20.81	20.82	1.000	1.000	NO	100	100	0.0131
41	41 d12-Perylene	1.31e6	1.31e6	1.00	1.000	29.59	29.81	1.000	1.000	NO	100	100	0.222

951 of 1215

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:44:41 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Compound name: Naphthalene

	Name	ID	Acq.Date	Acq.Time
1	210406K1_1	ST210406K1_1 429 CS1 20H2510	06-Apr-21	11:16:41
2	210406K1_2	ST210406K1_2 429 CS2 20H2511	06-Apr-21	12:02:13
3	210406K1_3	ST210406K1_3 429 CS4 20H2513	06-Apr-21	12:48:35
4	210406K1_4	ST210406K1_4 429 CS5 20H2514	06-Apr-21	13:36:10
5	210406K1_5	ST210406K1_5 429 CS3 20H2512 Ⓡ	06-Apr-21	14:22:15
6	210406K1_6	SS210406K1_1 429 SS 20H2515	06-Apr-21	15:09:05
7	210406K1_7	SOLVENT BLANK	06-Apr-21	15:55:57
8	210406K1_8	SOLVENT BLANK	06-Apr-21	16:42:42
9	210406K1_9	B1D0016-BS1 OPR 1	06-Apr-21	17:29:34
10	210406K1_10	B1D0016-BSD1 LCSD 1	06-Apr-21	18:16:23
11	210406K1_11	SOLVENT BLANK	06-Apr-21	19:03:12
12	210406K1_12	B1D0016-BLK1 Method Blank 1	06-Apr-21	19:50:02
13	210406K1_13	2103102-09 21-0883 Reagent Blanks 1	06-Apr-21	20:36:51
14	210406K1_14	2103102-07 21-0883 Inlet FB 1	06-Apr-21	21:23:40
15	210406K1_15	2103102-08 21-0883 Outlet FB 1	06-Apr-21	22:10:28
16	210406K1_16	2103102-04 21-0883 Outlet 1 1	06-Apr-21	22:57:16
17	210406K1_17	2103102-05 21-0883 Outlet 2 1	06-Apr-21	23:44:05
18	210406K1_18	2103102-06 21-0883 Outlet 3 1	07-Apr-21	00:30:58
19	210406K1_19	2103102-02 21-0883 Inlet 2 1	07-Apr-21	01:17:50

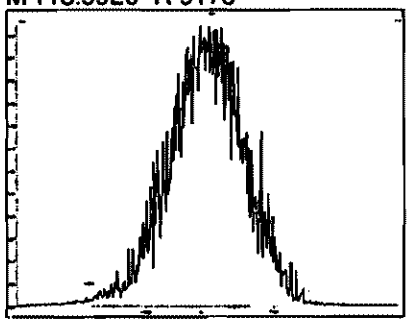
Ⓡ ST210406K1-5 used as CCR referencing current valid FCAL from 4.1.2021 LR 4.7.2021

952 of 1215

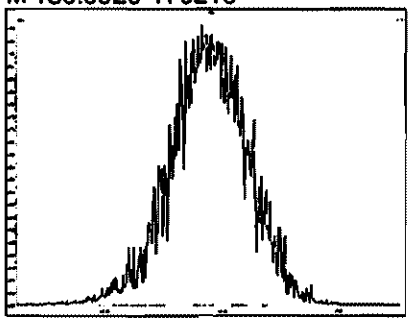
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 1 @ 250 (ppm)

Printed: Tuesday, April 06, 2021 11:12:30 Pacific Daylight Time

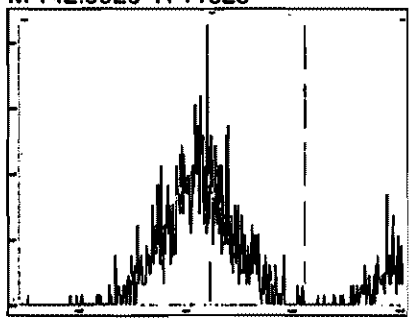
M 118.9920 R 9173



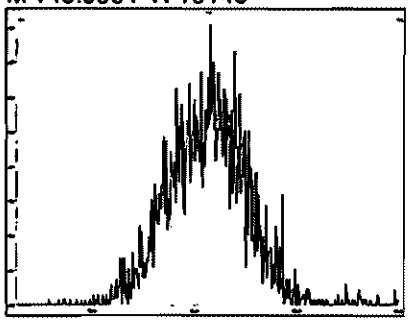
M 130.9920 R 9216



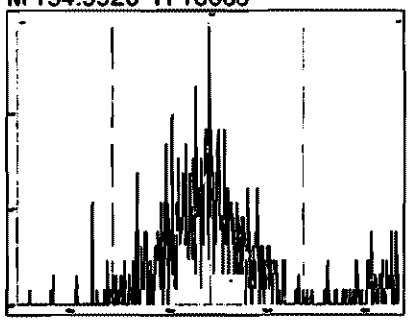
M 142.9920 R 11625



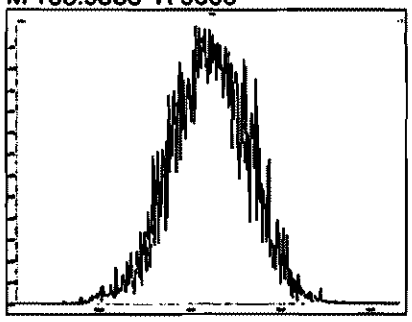
M 149.9904 R 10149



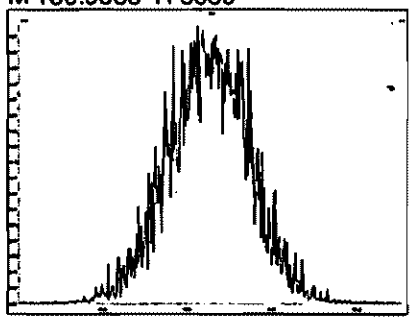
M 154.9920 R 16668



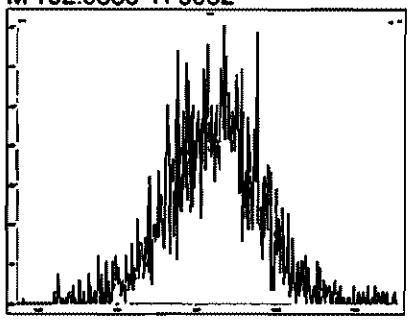
M 168.9888 R 9806



M 180.9888 R 8889



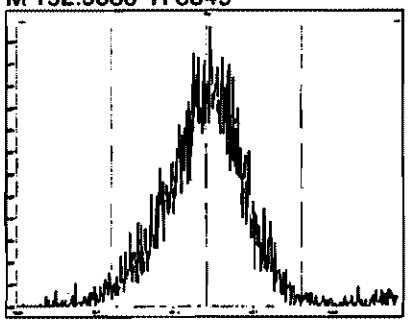
M 192.9888 R 9052



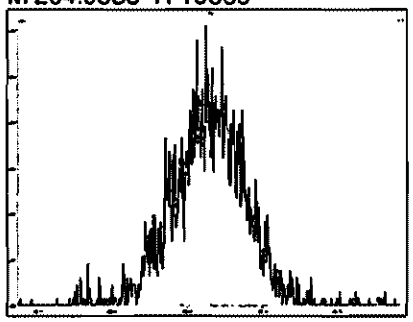
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 2 @ 250 (ppm)

Printed: Tuesday, April 06, 2021 11:13:25 Pacific Daylight Time

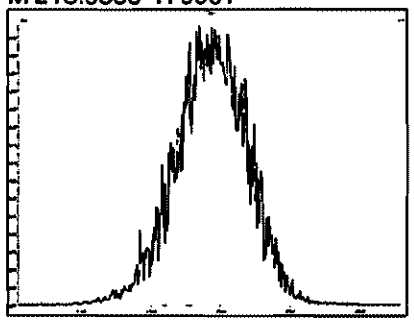
M 192.9888 R 8849



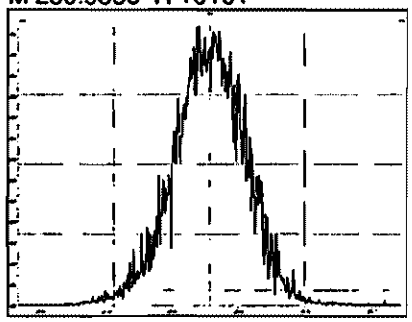
M 204.9888 R 10869



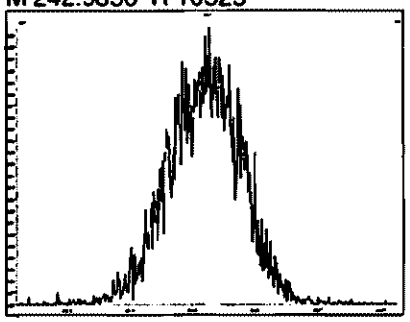
M 218.9856 R 9901



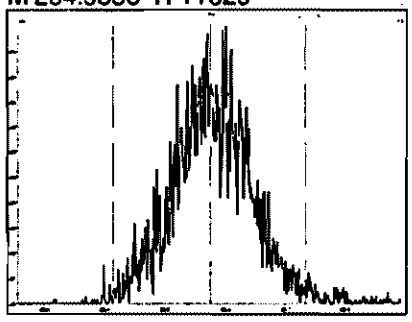
M 230.9856 R 10101



M 242.9856 R 10525



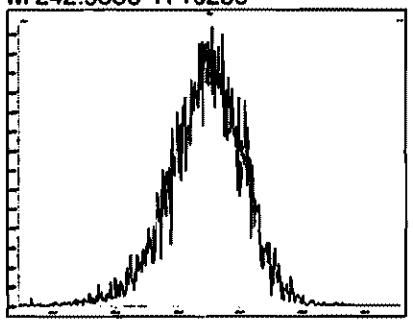
M 254.9856 R 11629



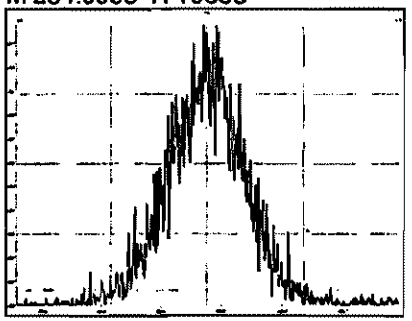
File: Experiment: PAH_ZB50.exp Reference: Plk.ref Function: 3 @ 250 (ppm)

Printed: Tuesday, April 06, 2021 11:14:13 Pacific Daylight Time

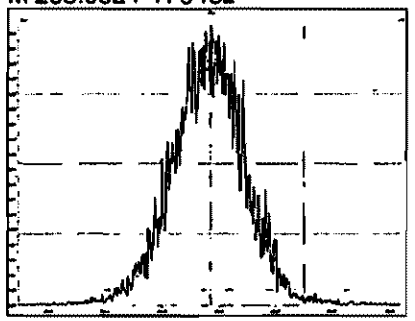
M 242.9856 R 10256



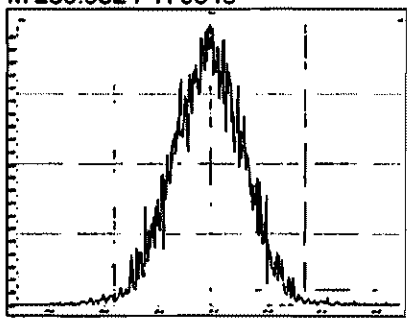
M 254.9856 R 10638



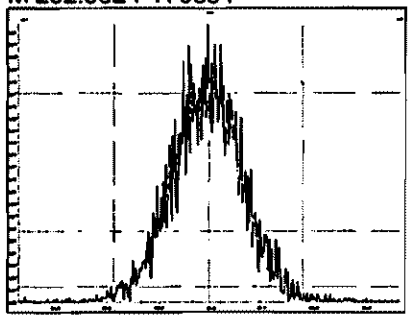
M 268.9824 R 9432



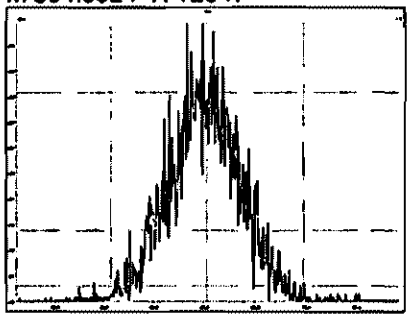
M 280.9824 R 9848



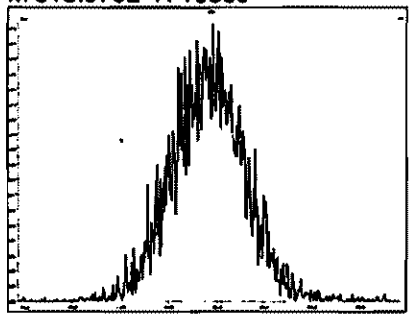
M 292.9824 R 9854



M 304.9824 R 12047



M 318.9792 R 10580



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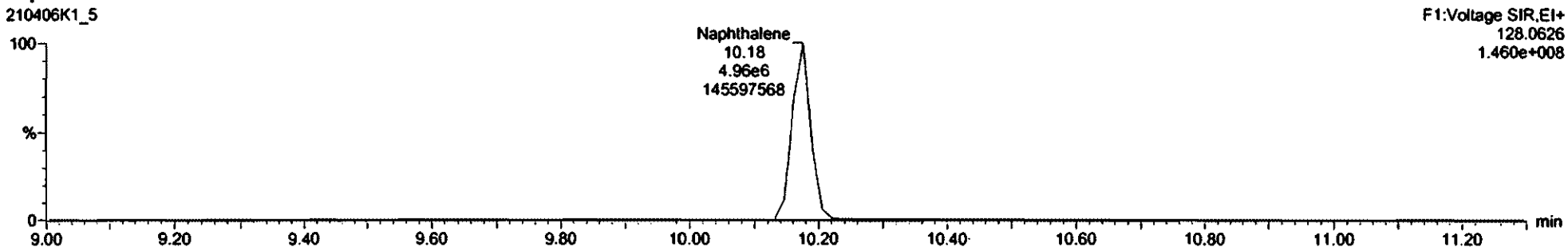
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

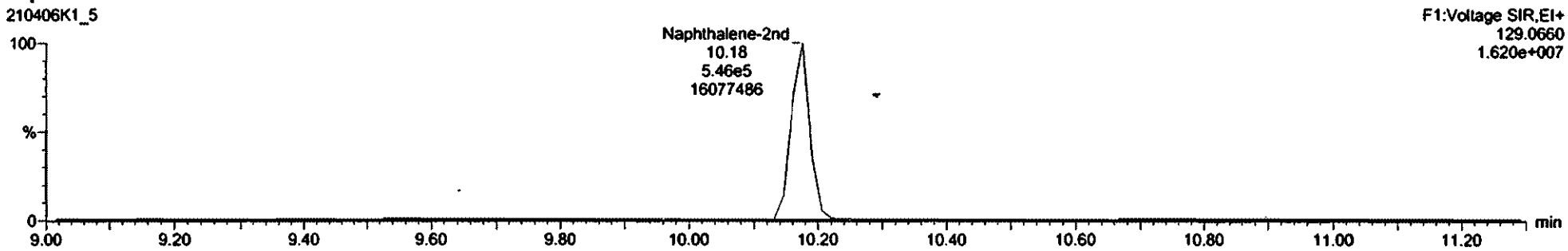
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

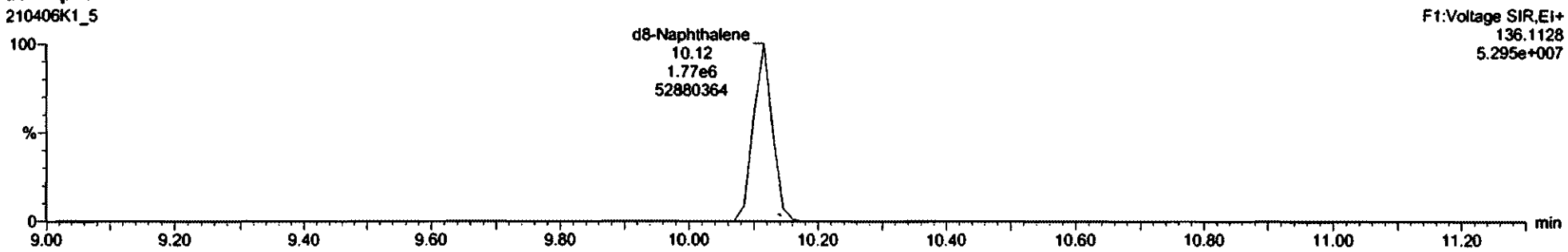
Naphthalene



Naphthalene-2nd



d8-Naphthalene



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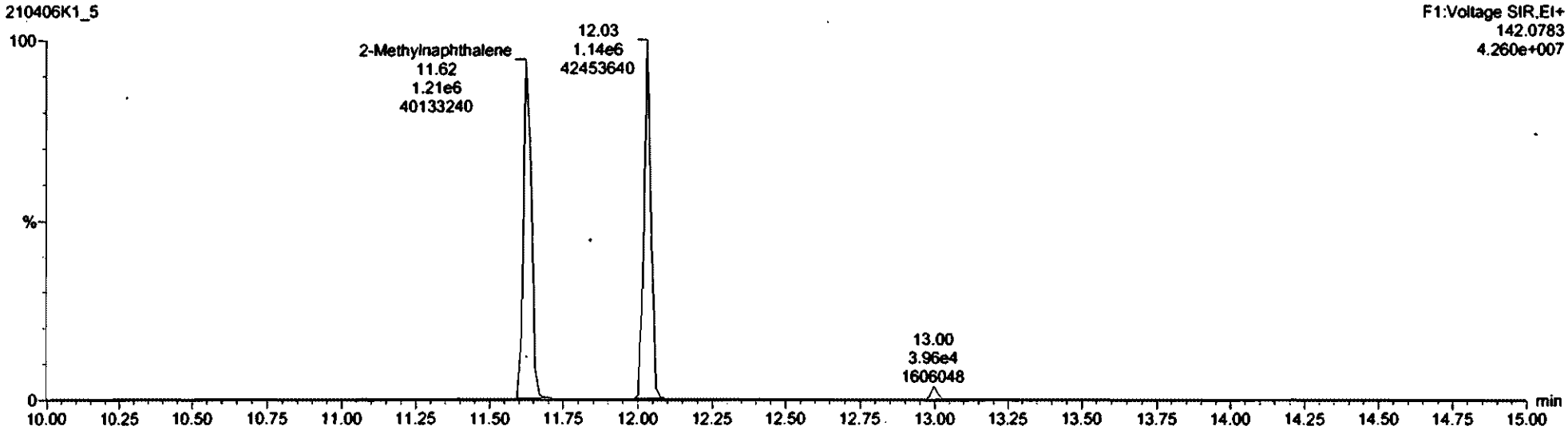
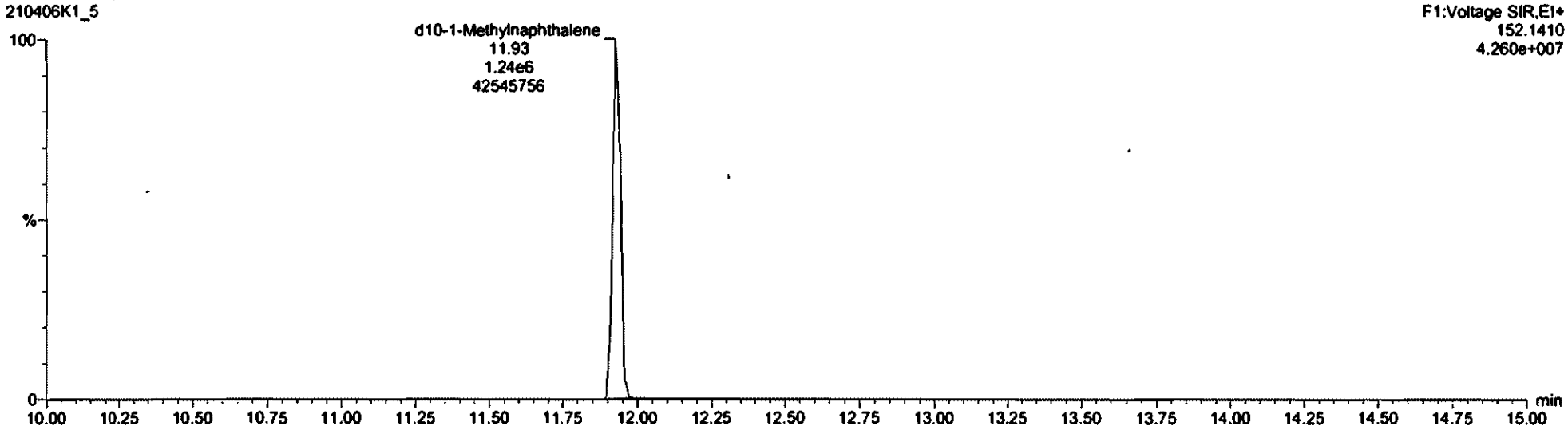
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



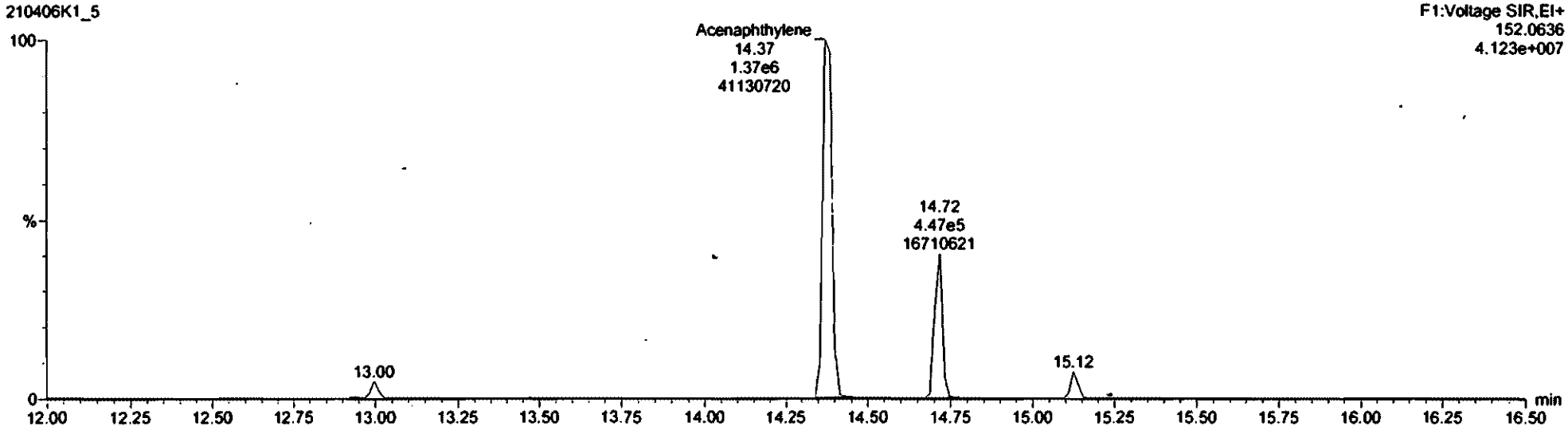
957 of 1215

Dataset: Untitled

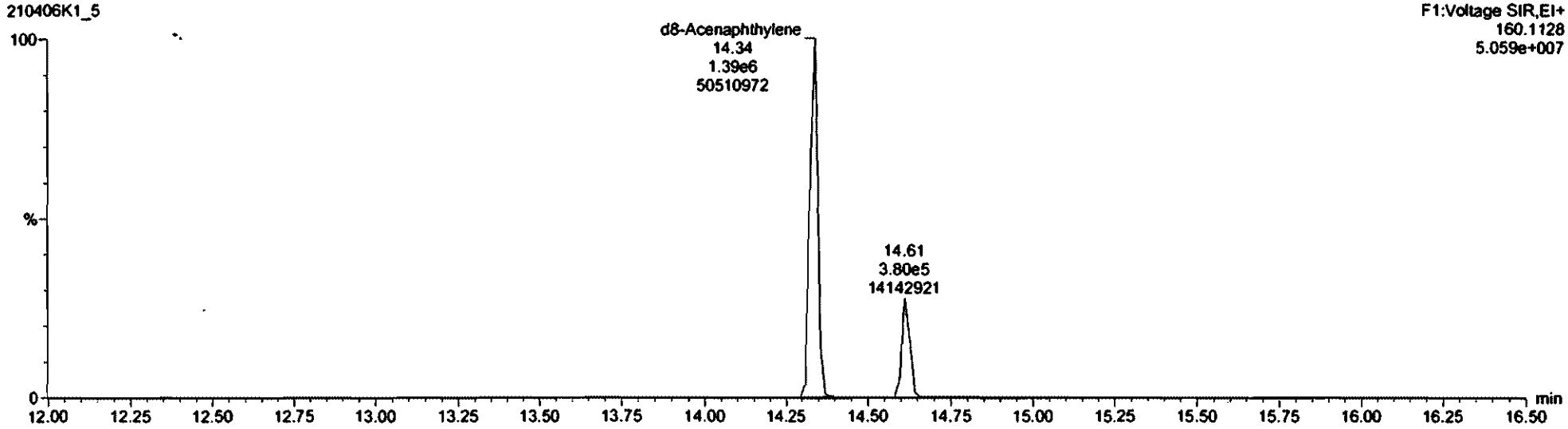
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthylene



d8-Acenaphthylene



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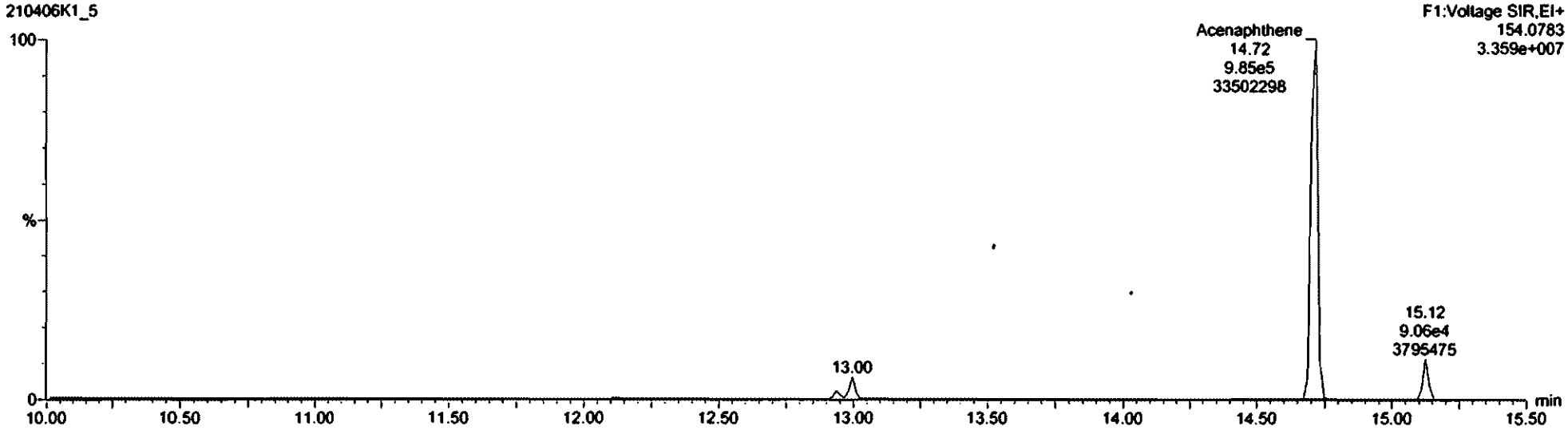
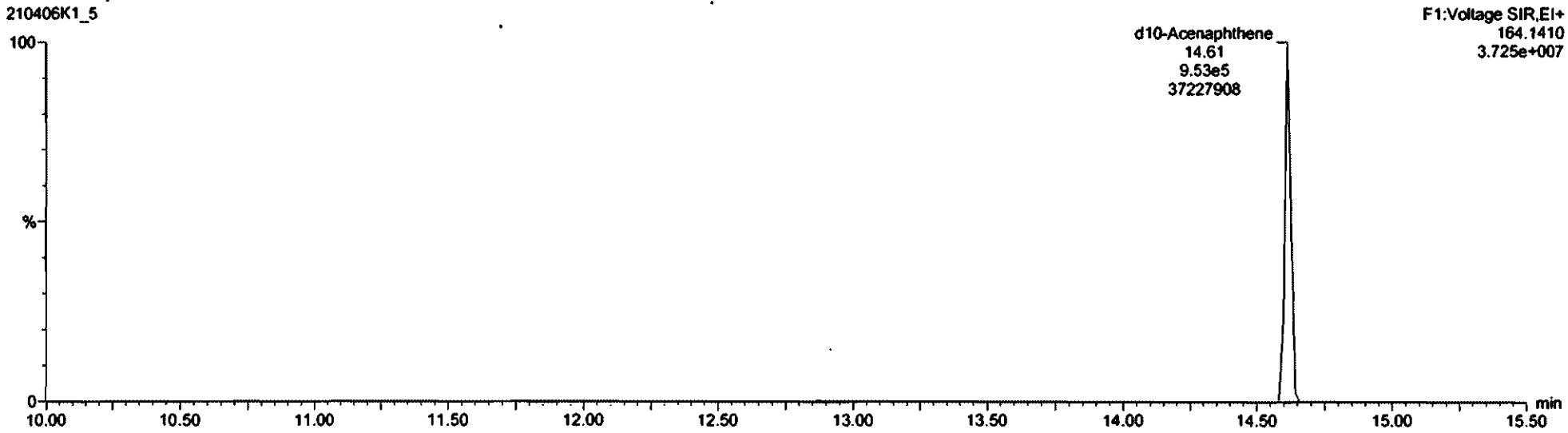
Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthene



d10-Acenaphthene



959 of 1215

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
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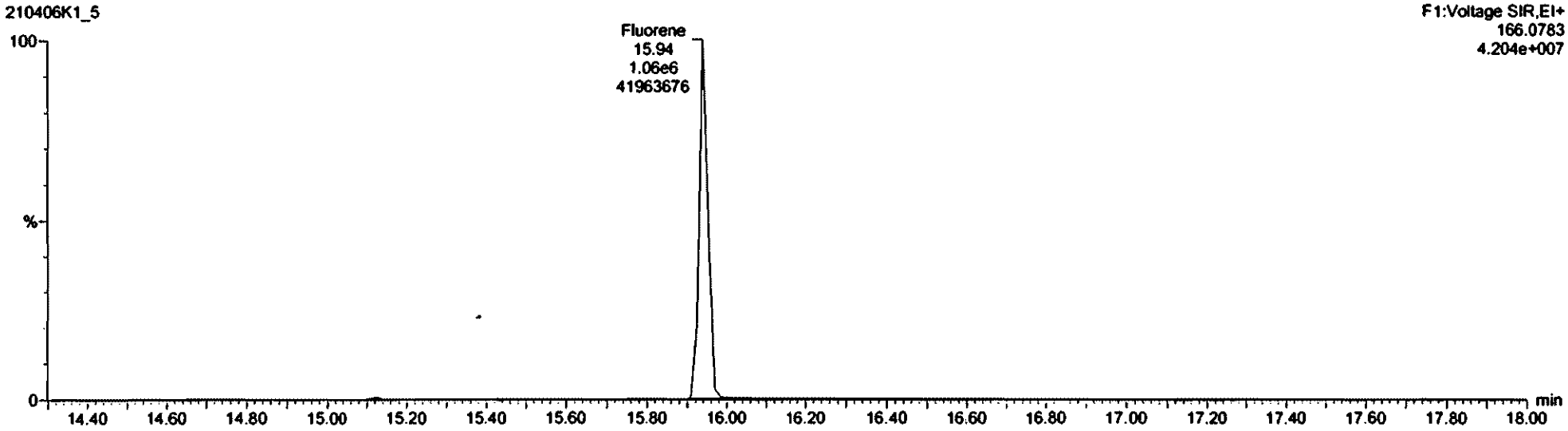
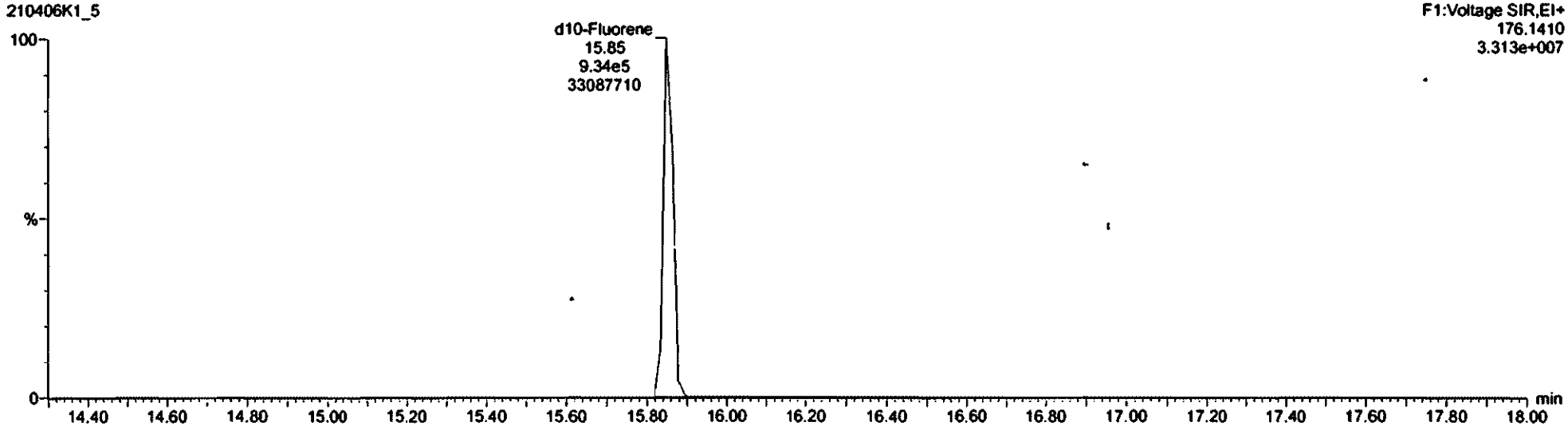
Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluorene



d10-Fluorene



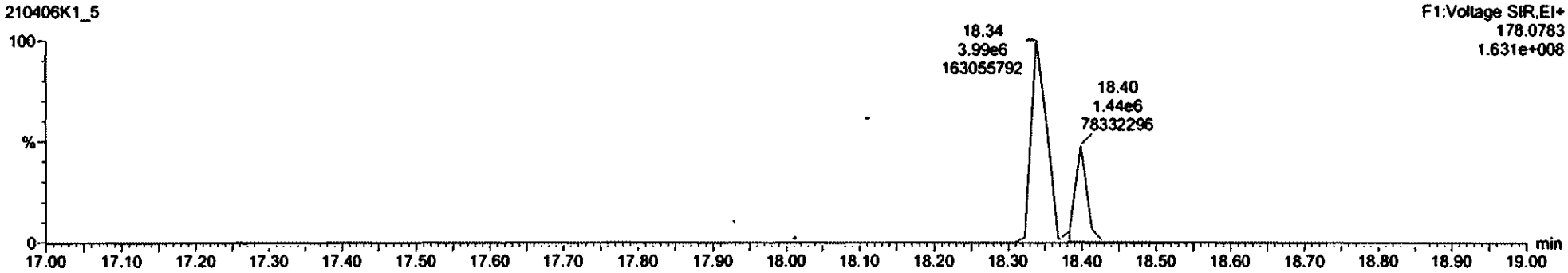
960 of 1215

Dataset: Untitled

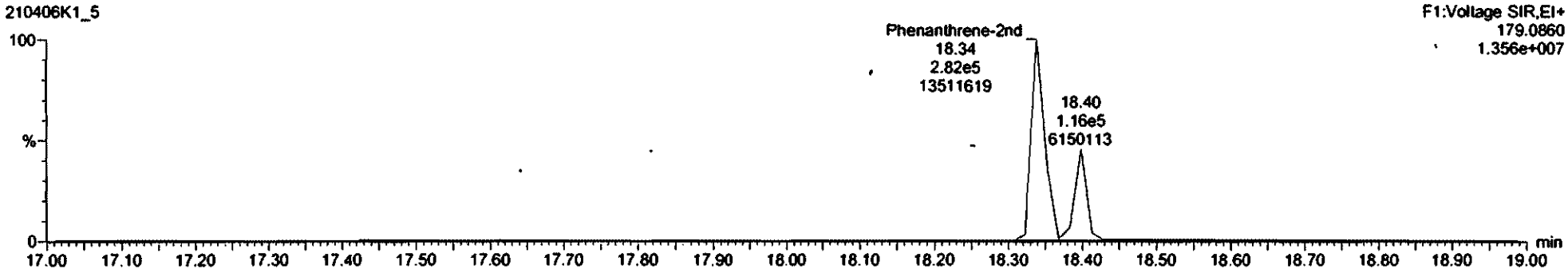
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

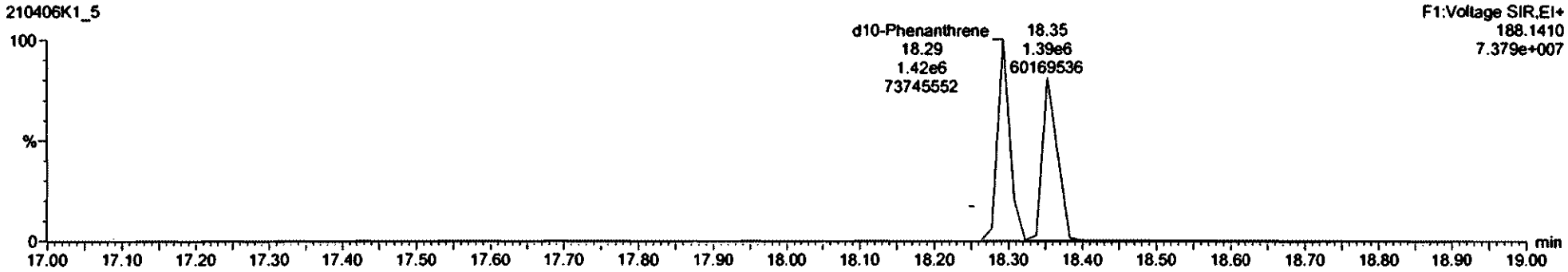
Phenanthrene; Anthrecene



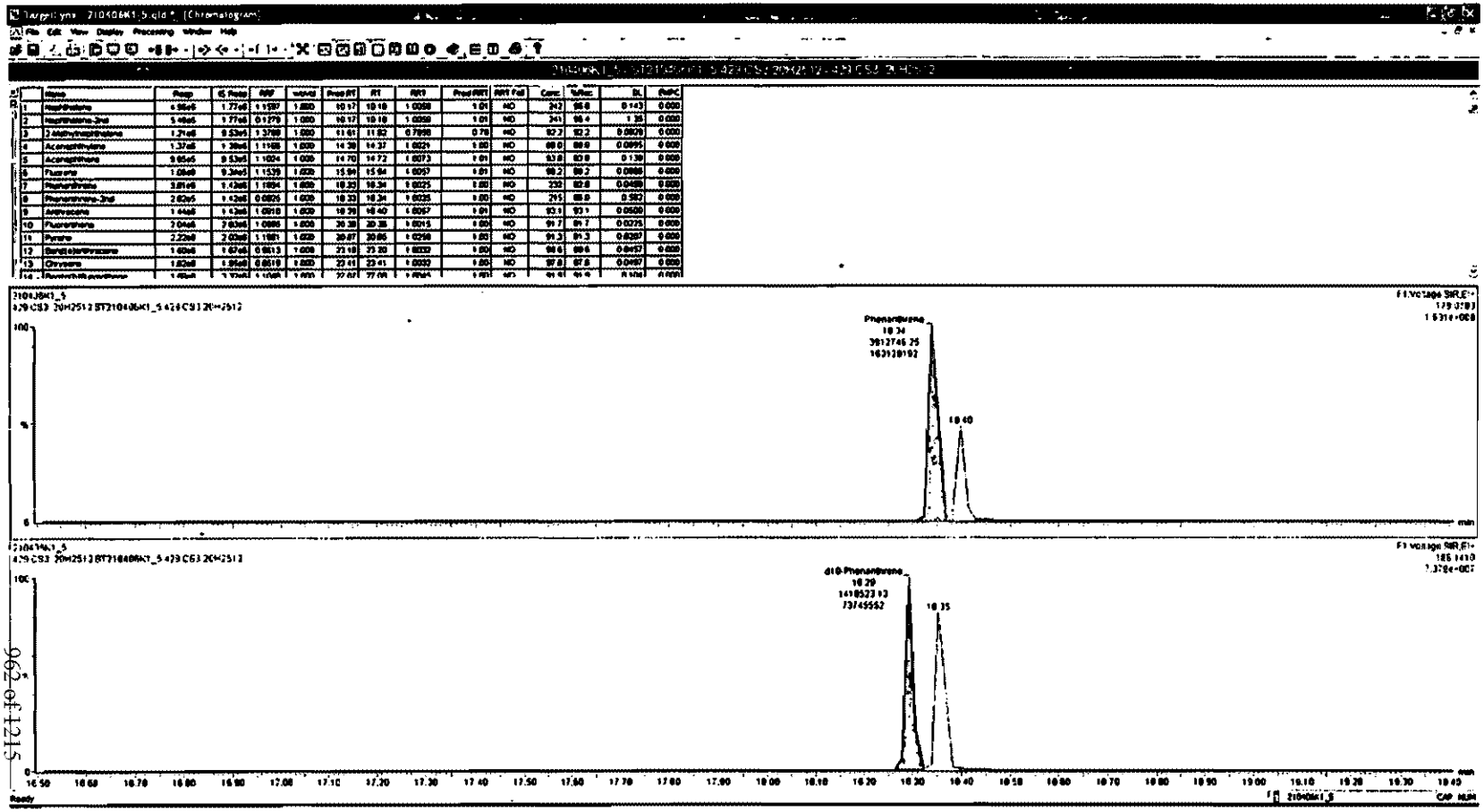
Phenanthrene-2nd

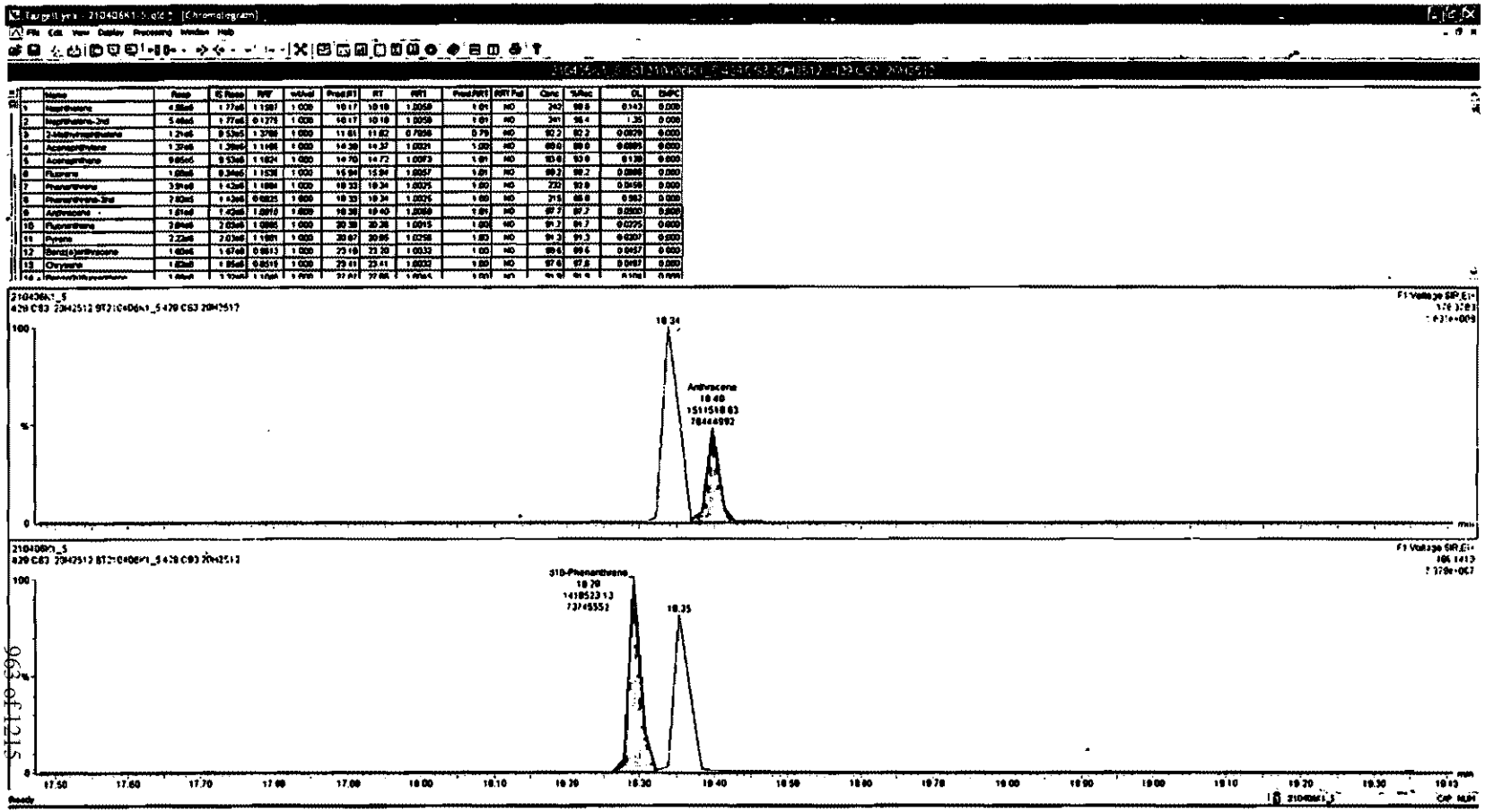


d10-Phenanthrene; d10-Anthrecene (AS)



961 of 1215


Phenanthrene
10.34
3912746.25
10.40
d10-Phenanthrene
10.29
1418523.93
73745552
10.35

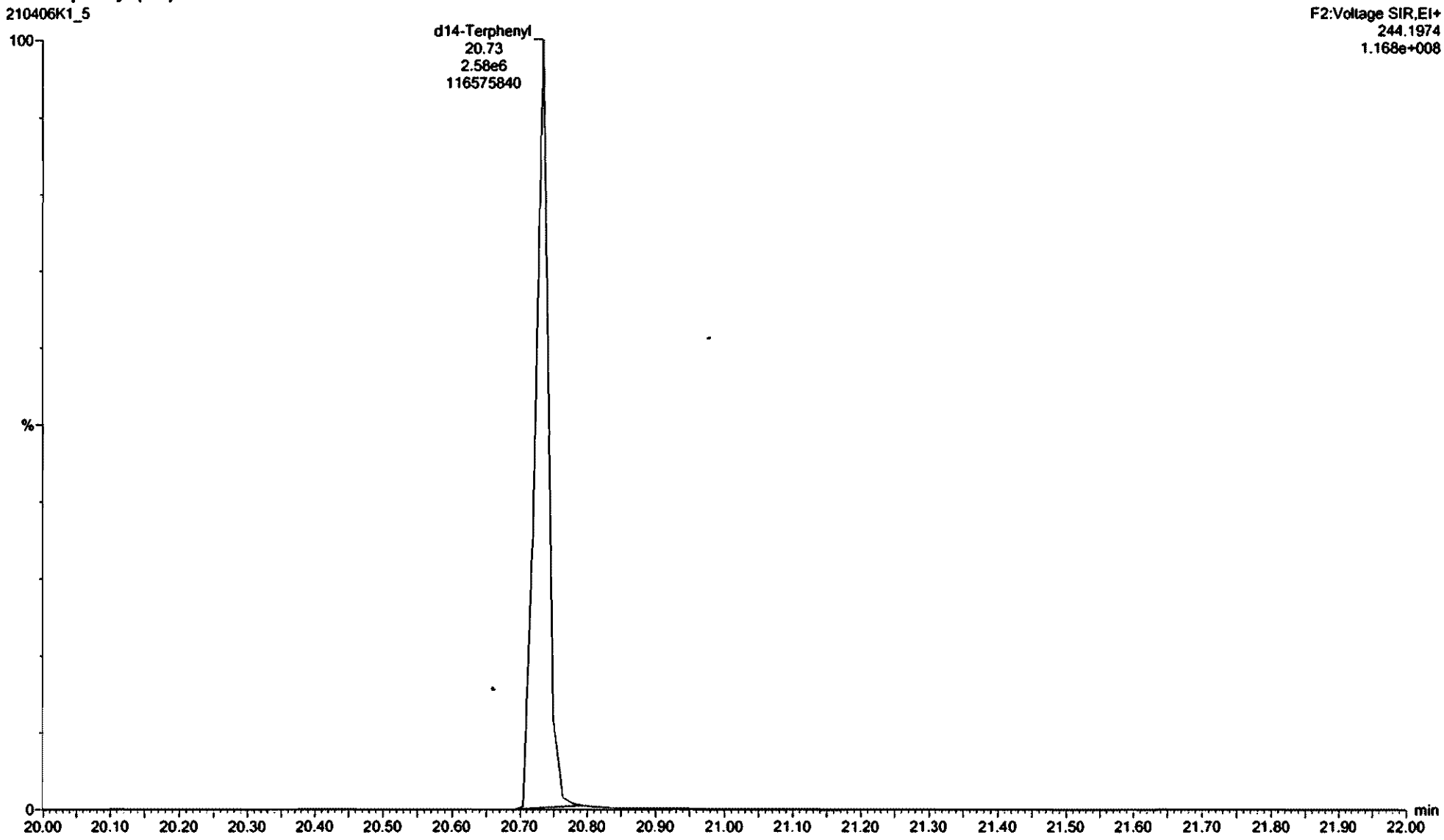

10.34
Anthracene
10.40
9-10-Phenanthrene
10.20
10.35
17.50
17.60
17.70
17.80
17.90
18.00
18.10
18.20
18.30
18.40
18.50
18.60
18.70
18.80
18.90
19.00
19.10
19.20
19.30
19.40
min

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

d14-Terphenyl (PS)



964 of 1215

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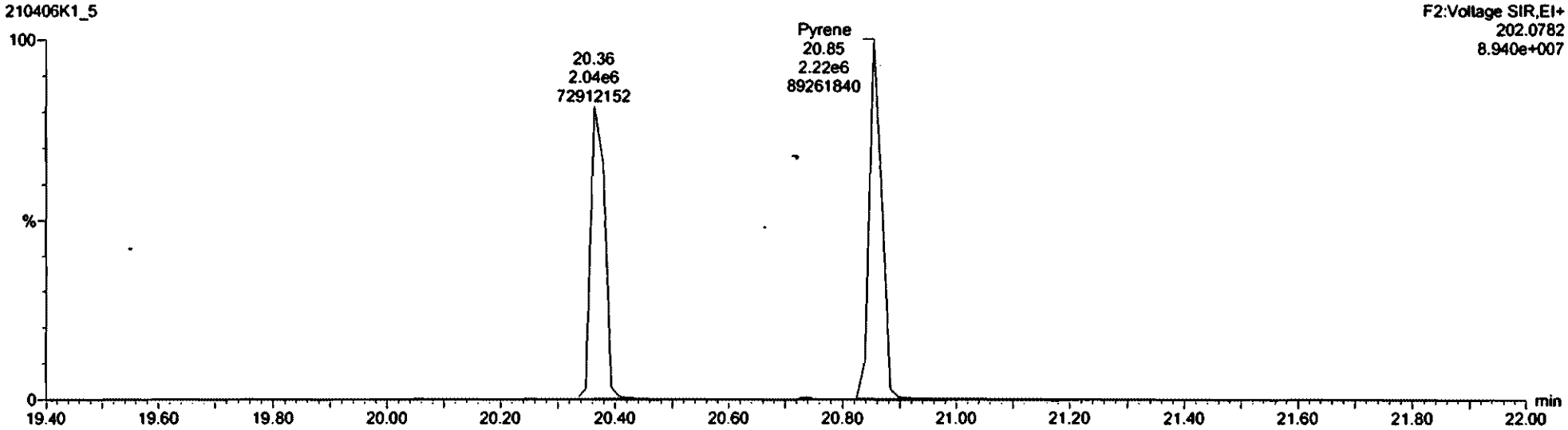
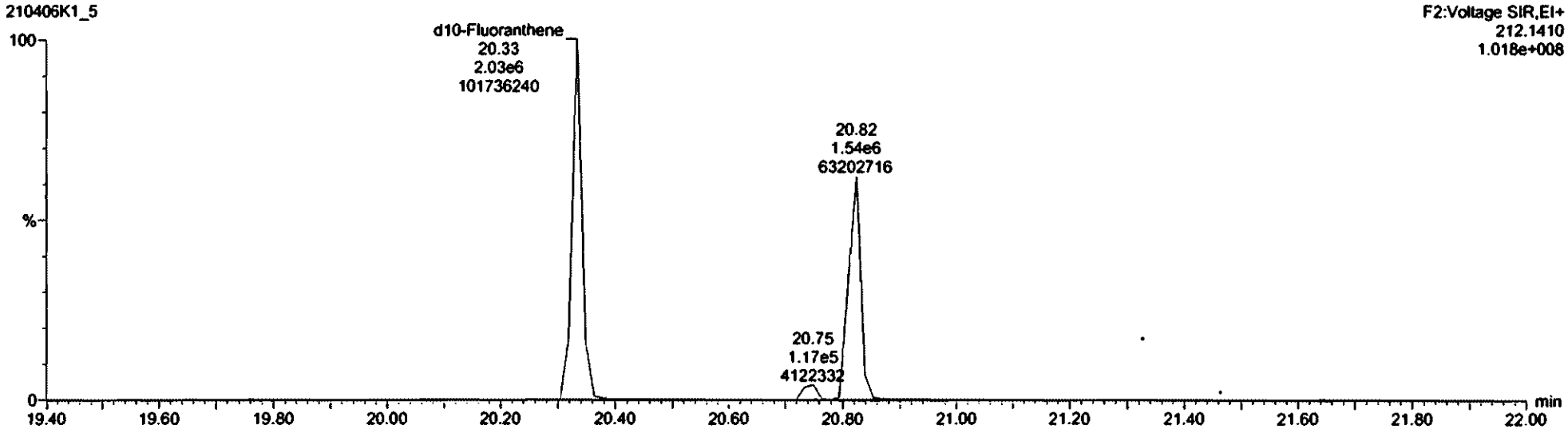
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



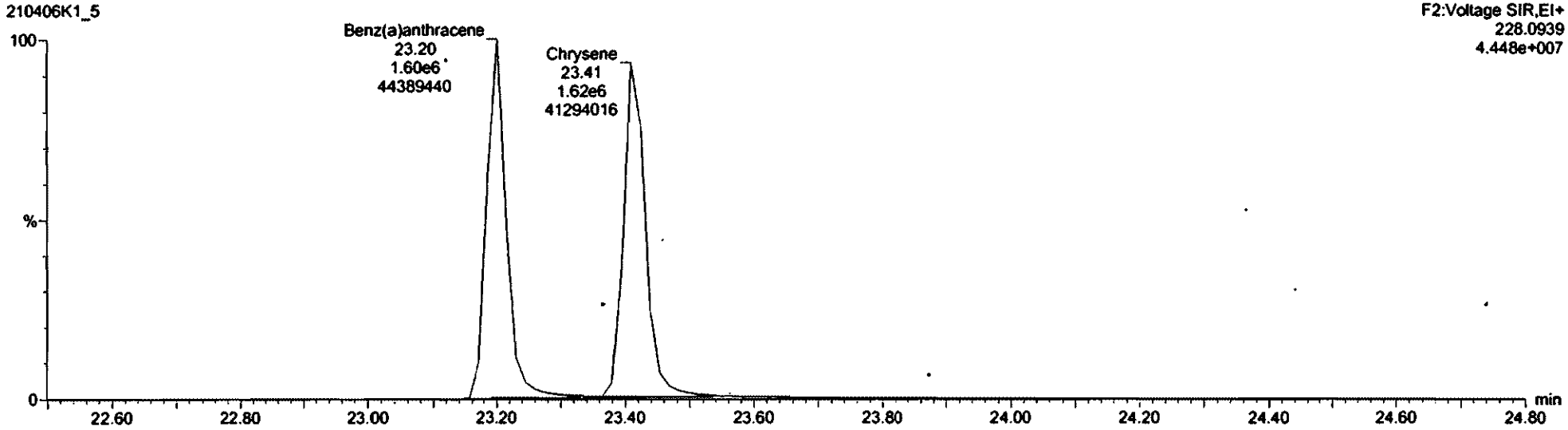
965 of 1215

Dataset: Untitled

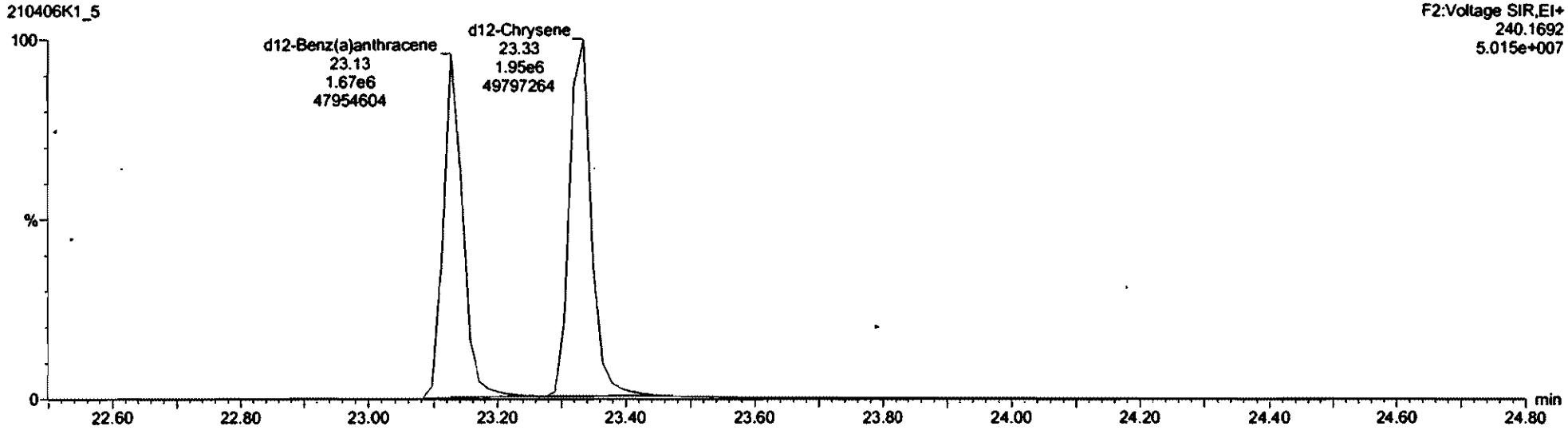
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



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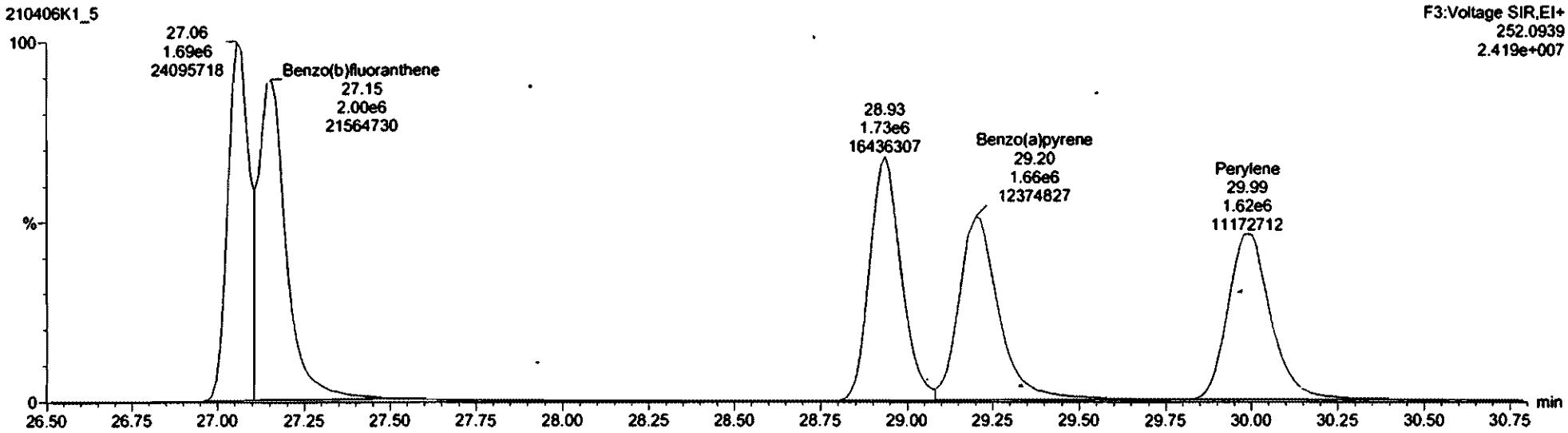
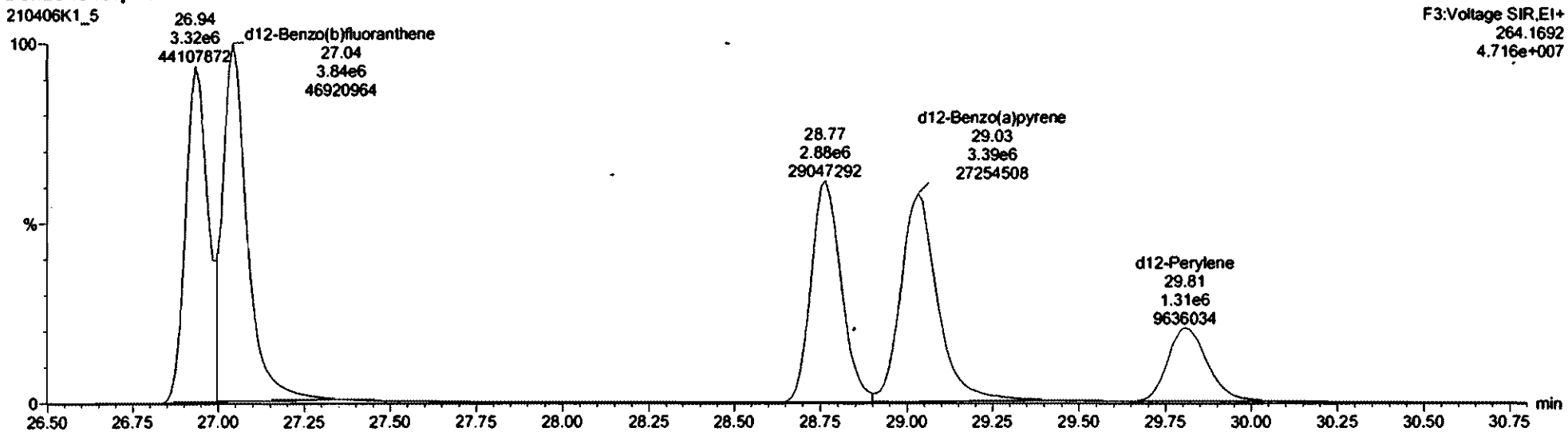
Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Benzo-PAHs



Benzo-Isotopes



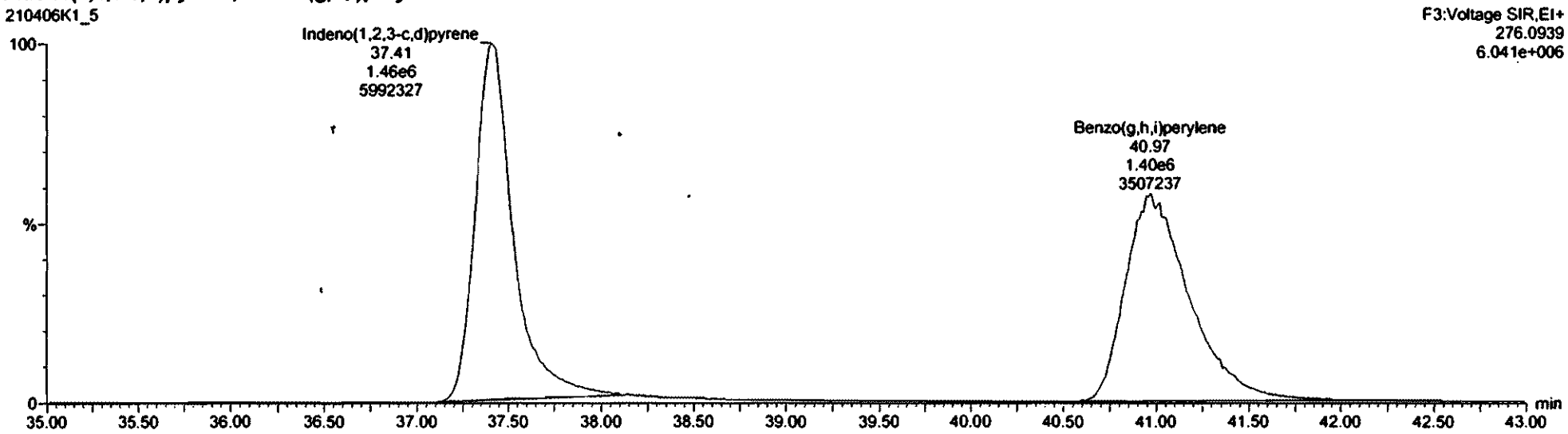
967 of 1215

Dataset: Untitled

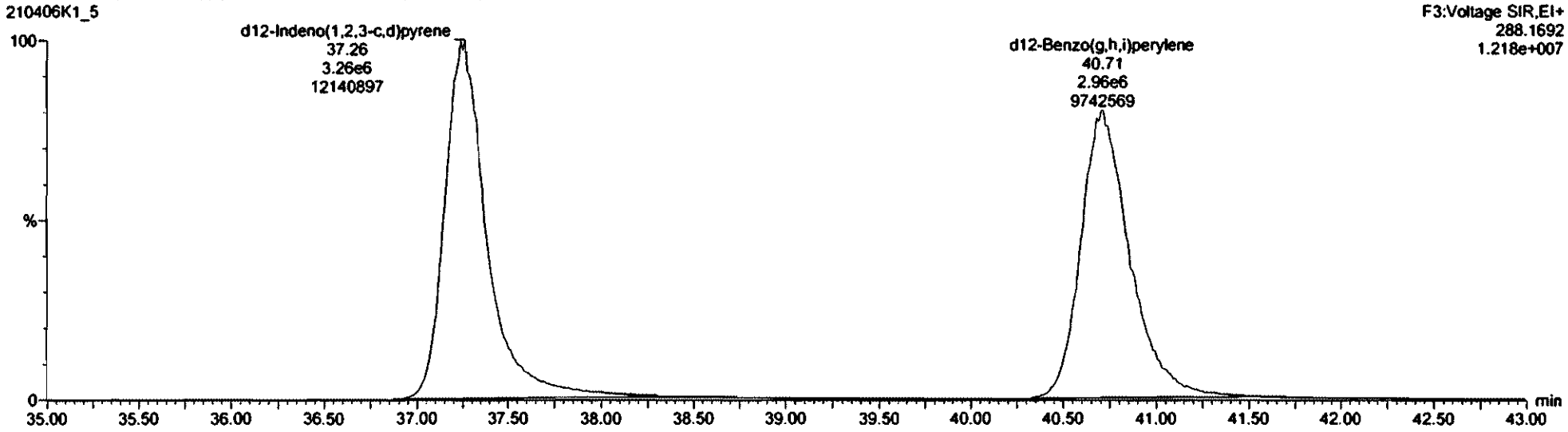
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



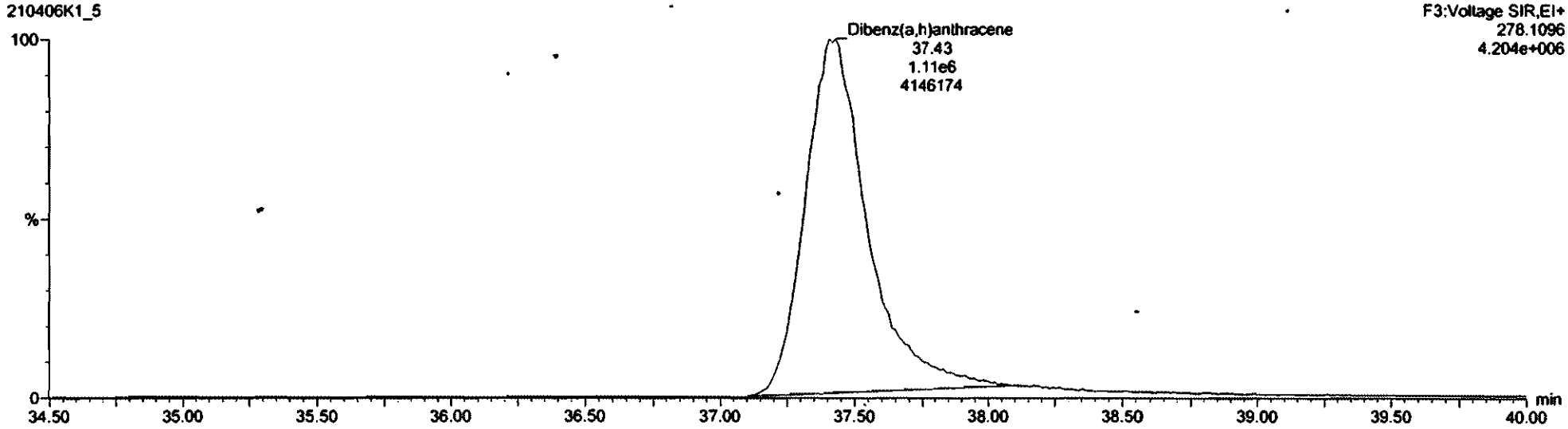
968 of 1215

Dataset: Untitled

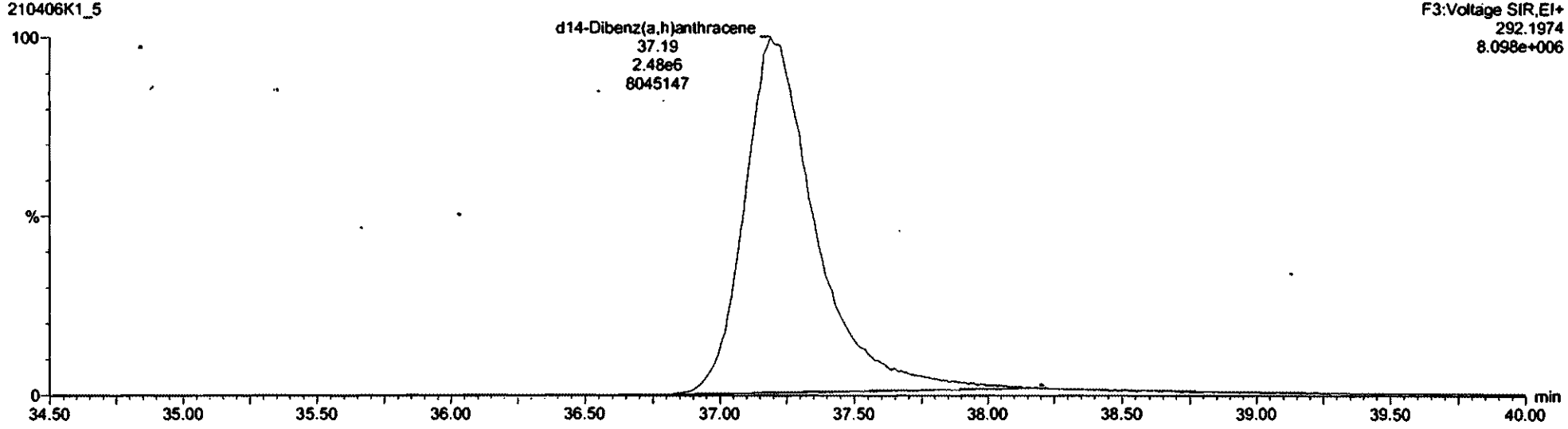
Last Altered: Wednesday, April 07, 2021 8:44:11 AM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 8:46:02 AM Pacific Daylight Time

Name: 210406K1_5, Date: 06-Apr-2021, Time: 14:22:15, ID: ST210406K1_5 429 CS3 20H2512, Description: 429 CS3 20H2512

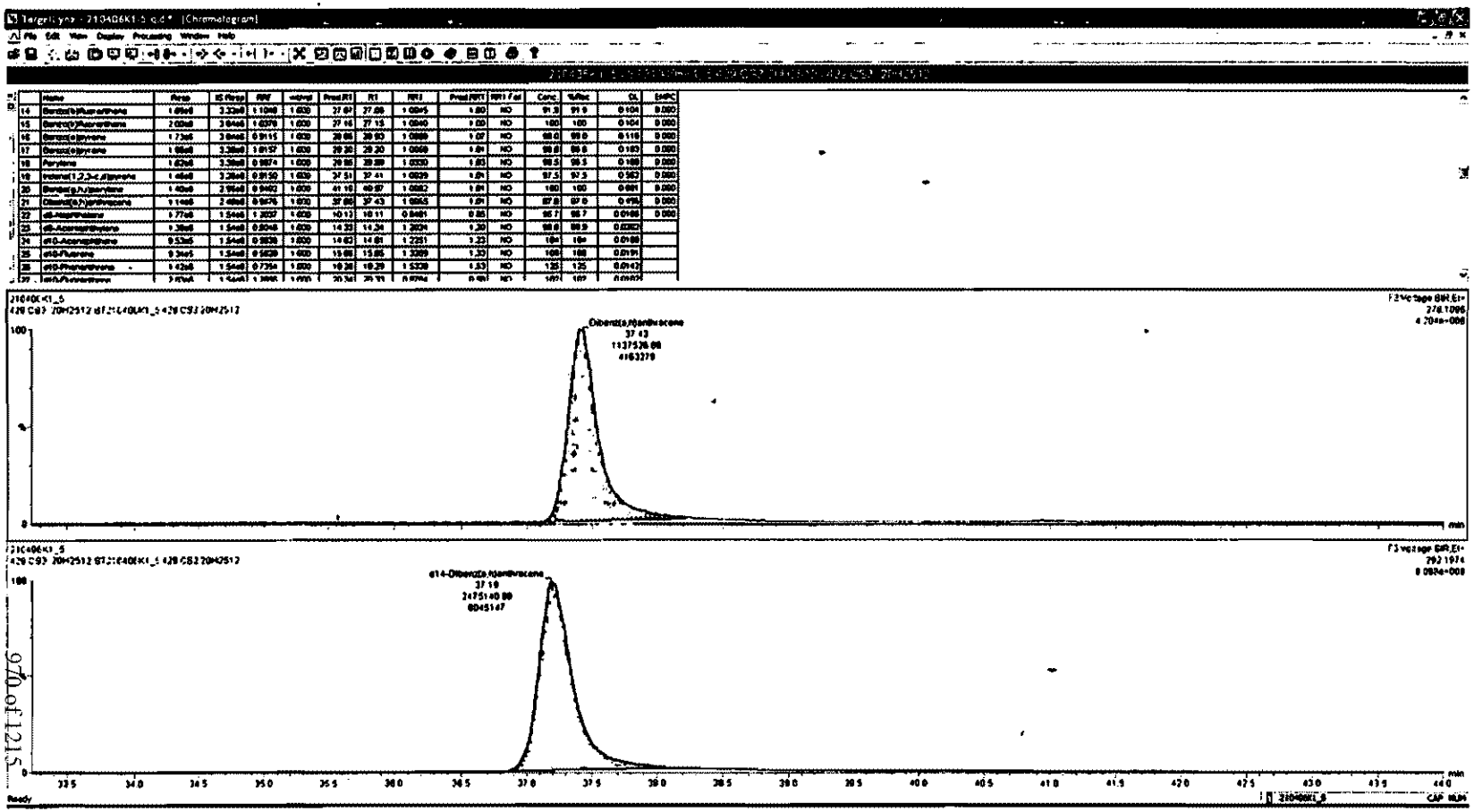
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



969 of 1215


Dibenz(a,h)anthracene
37.43
1137536.88
4163270
d14-Dibenz(a,h)anthracene
37.19
2475140.88
8045147
min

HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: ST210406K2-1 **Reviewed By:** SF 04/08/21

Initials & Date

End Calibration ID: N.A

	Beg.	End
Ion abundance within QC limits?	NA	NA
Concentrations within criteria?	⊘	☐
TCDD/TCDF Valleys <25%	NA	☐
First and last eluters present?	NA	☐
Retention Times within criteria?	⊘	☐
Verification Std. named correctly?	⊘	☐
(ST-Year-Month-Day-VG ID)		
Forms signed and dated?	⊘	☐
Correct ICAL referenced?	HL	☐

Run Log:

- Correct instrument listed?	⊘	NA
- Samples within 12 hour clock?	(Y)	N
- Bottle position verfied?		HL

	(R) Beg.	End
Mass resolution ≥	⊘	NA
☐ 5k ☐ 6-8K ☒ 8K ☐ 10K 1614 1699 429 1613/1668/8280		
Intergrated peaks display correctly?	⊘	NA
GC Break <20%	NA	

8280 CS1 End Standard:

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	NA

Comments:

(R) 1 mass didn't centroid

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-2.qld

Last Altered: Wednesday, April 07, 2021 2:53:53 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:54:19 PM Pacific Daylight Time

lfe 4-7-2021
DF 04/08/21
(R) not used.

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check	R..	Conc.	%Rec	DL
1	1	Naphthalene	1.05e7	3.70e6	1.16	1.000	10.16	10.16	1.006	1.006	NO		244	97.5	0.0527
2	2	Naphthalene-2nd	1.14e6	3.70e6	0.128	1.000	10.16	10.16	1.006	1.006	NO		242	96.8	0.411
3	3	2-Methylnaphthalene	2.71e6	2.05e6	1.38	1.000	11.60	11.62	0.794	0.796	NO		95.8	95.8	0.0430
4	4	Acenaphthylene	3.07e6	3.00e6	1.12	1.000	14.37	14.37	1.003	1.003	NO		91.6	91.6	0.0266
5	5	Acenaphthene	2.27e6	2.05e6	1.10	1.000	14.68	14.70	1.006	1.007	NO		100	100	0.0524
6	6	Fluorene	2.14e6	2.05e6	1.15	1.000	15.94	15.92	1.006	1.005	NO		90.5	90.5	0.0361
7	7	Phenanthrene	8.35e6	2.82e6	1.19	1.000	18.32	18.34	1.002	1.003	NO		249	99.5	40.4
8	8	Phenanthrene-2nd	2.95e5	2.82e6	0.0925	1.000	18.31	18.32	1.002	1.002	NO		113	(R) 45.2	0.224
9	9	Anthracene	3.04e6	2.82e6	1.09	1.000	18.38	18.38	1.005	1.006	NO		98.7	98.7	44.1
10	10	Fluoranthene	4.56e6	4.43e6	1.10	1.000	20.37	20.35	1.002	1.001	NO		93.5	93.5	0.0107
11	11	Pyrene	4.92e6	4.43e6	1.20	1.000	20.85	20.84	1.026	1.026	NO		92.7	92.7	0.00981
12	12	Benz(a)anthracene	3.40e6	3.71e6	0.961	1.000	23.16	23.16	1.003	1.003	NO		95.4	95.4	0.0148
13	13	Chrysene	3.37e6	4.16e6	0.852	1.000	23.37	23.36	1.003	1.003	NO		94.9	94.9	0.0163
14	14	Benzo(b)fluoranthene	3.38e6	6.53e6	1.10	1.000	26.92	26.90	1.005	1.004	NO		93.7	93.7	0.0350
15	15	Benzo(k)fluoranthene	3.94e6	8.08e6	1.04	1.000	27.00	27.00	1.004	1.004	NO		94.0	94.0	0.0349
16	16	Benzo(e)pyrene	3.41e6	8.08e6	0.911	1.000	28.69	28.70	1.067	1.068	NO		92.5	92.5	0.0398
17	17	Benzo(a)pyrene	2.99e6	6.48e6	1.02	1.000	28.96	28.93	1.006	1.005	NO		90.7	90.7	0.0524
18	18	Perylene	2.98e6	6.48e6	0.987	1.000	29.70	29.65	1.031	1.030	NO		93.3	93.3	0.0539
19	19	Indeno(1,2,3-c,d)pyrene	2.28e6	5.28e6	0.915	1.000	36.76	36.74	1.007	1.006	NO		94.5	94.5	0.108
20	20	Benzo(g,h,i)perylene	2.44e6	5.58e6	0.940	1.000	40.07	40.01	1.009	1.008	NO		93.2	93.2	0.108
21	21	Dibenz(a,h)anthracene	2.08e6	4.46e6	0.948	1.000	36.67	36.59	1.011	1.009	NO		98.4	98.4	0.117
22	22	d8-Naphthalene	3.70e6	3.45e6	1.20	1.000	10.10	10.10	0.848	0.848	NO		89.0	89.0	0.00901
23	23	d8-Acenaphthylene	3.00e6	3.45e6	0.905	1.000	14.31	14.32	1.201	1.203	NO		96.1	96.1	0.0179
24	24	d10-Acenaphthene	2.05e6	3.45e6	0.594	1.000	14.60	14.60	1.226	1.226	NO		100	100	0.0129
25	25	d10-Fluorene	2.05e6	3.45e6	0.563	1.000	15.84	15.85	1.330	1.331	NO		106	106	0.0127
26	26	d10-Phenanthrene	2.82e6	3.45e6	0.735	1.000	18.26	18.28	1.533	1.535	NO		111	111	0.0120
27	27	d10-Fluoranthene	4.43e6	3.45e6	1.29	1.000	20.33	20.32	0.977	0.976	NO		99.9	99.9	0.00614
28	28	d12-Benz(a)anthracene	3.71e6	3.45e6	0.900	1.000	23.11	23.10	1.110	1.110	NO		119	119	0.0136
29	29	d12-Chrysene	4.16e6	3.45e6	1.02	1.000	23.30	23.29	1.120	1.119	NO		118	118	0.0120
30	30	d12-Benzo(b)fluoranthene	6.53e6	2.54e6	1.18	1.000	26.74	26.79	0.907	0.909	NO		217	109	0.0578
31	31	d12-Benzo(k)fluoranthene	8.08e6	2.54e6	1.50	1.000	26.85	26.89	0.911	0.912	NO		211	106	0.0454

70-130%
65-135%

Dataset: U:\VG11.PRO\Results\210406K2\210406K2-2.qld

Last Altered: Wednesday, April 07, 2021 2:53:53 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:54:19 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

	#.Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	6.48e6	2.54e6	1.24	1.000	28.73	28.79	0.975	0.977	NO	206	103	0.0552
33	33 d12-Indeno(1,2,3-c,d)pyrene	5.28e6	2.54e6	1.02	1.000	36.75	36.51	1.247	1.239	NO	204	102	0.0763
34	34 d12-Benzo(g,h,i)perylene	5.58e6	2.54e6	1.00	1.000	40.14	39.70	1.362	1.347	YES	218	109	0.0774
35	35 d14-Dibenz(a,h)anthracene	4.46e6	2.54e6	0.765	1.000	36.52	36.27	1.239	1.231	NO	229	115	0.0914
36	36 d10-Anthracene	2.62e6	2.54e6	0.989	1.000	18.35	18.34	1.541	1.540	NO	104	104	0.0312
37	37 d14-Terphenyl	6.15e6	4.43e6	0.576	1.000	20.69	20.70	1.018	1.019	NO	241	120	0.00643
38	38 d12-Benzo(e)pyrene	5.82e6	8.08e6	0.738	1.000	28.50	28.53	1.060	1.061	NO	195	97.7	0.0470
39	39 d10-1-Methylnaphthalene	2.83e6	2.83e6	1.00	1.000	11.93	11.91	1.000	1.000	NO	100	100	0.0108
40	40 d10-Pyrene	3.45e6	3.45e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	100	100	0.00789
41	41 d12-Perylene	2.54e6	2.54e6	1.00	1.000	29.59	29.47	1.000	1.000	NO	100	100	0.0683

973 of 1215

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:28 PM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Compound name: Naphthalene

	Name	ID	Acq.Date	Acq.Time
1	210406K2_1	SOLVENT BLANK	07-Apr-21	02:09:07
2	210406K2_2	ST210406K2_1 429 CS3 20H2512	07-Apr-21	02:54:13
3	210406K2_3	SOLVENT BLANK	07-Apr-21	03:41:06
4	210406K2_4	2103102-01 21-0883 Inlet 1 1	07-Apr-21	04:27:58
5	210406K2_5	2103102-01@25X 21-0883 Inlet 1 1	07-Apr-21	05:14:52
6	210406K2_6	2103102-03 21-0883 Inlet 3 1	07-Apr-21	06:01:47
7	210406K2_7	2103102-03@25X 21-0883 Inlet 3 1	07-Apr-21	06:48:41
8	210406K2_8	2103102-02@25X 21-0883 Inlet 2 1	07-Apr-21	07:35:35
9	210406K2_9	2103102-04@25X 21-0883 Outlet 1 1	07-Apr-21	08:22:29
10	210406K2_10	2103102-05@25X 21-0883 Outlet 2 1	07-Apr-21	09:09:23
11	210406K2_11	2103102-06@25X 21-0883 Outlet 3 1	07-Apr-21	09:56:17
12	210406K2_12	2103102-02@100X 21-0883 Inlet 2 1	07-Apr-21	10:43:24
13	210406K2_13	2103102-03@100X 21-0883 Inlet 3 1	07-Apr-21	11:32:11
14	210406K2_14	2103102-02@250X 21-0883 Inlet 2 1	07-Apr-21	12:17:18
15	210406K2_15	2103102-01@250X 21-0883 Inlet 1 1	07-Apr-21	13:15:56
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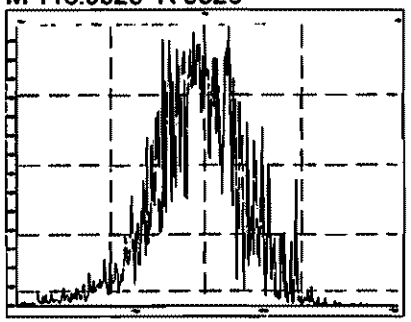
M 118.9920 R 9526



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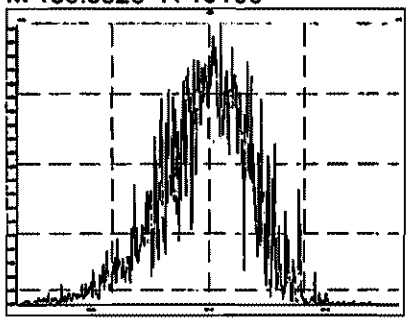

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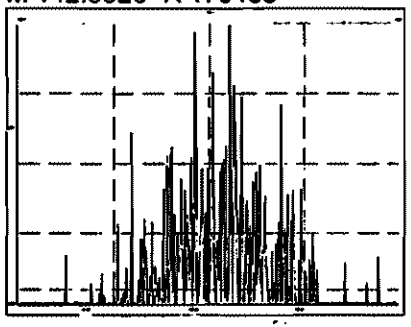

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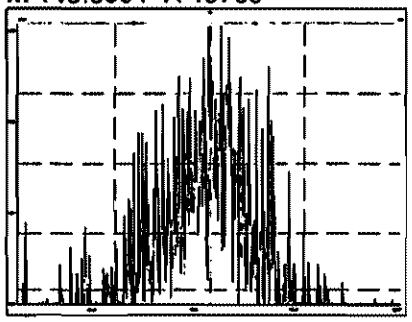

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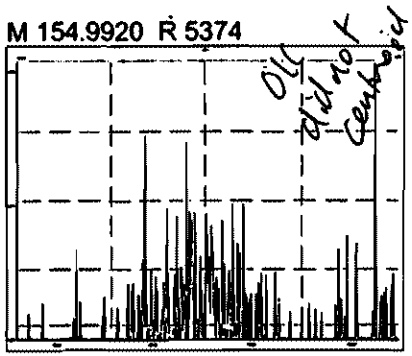
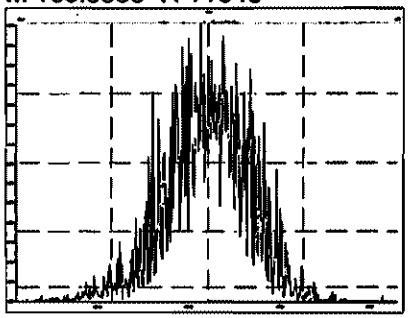
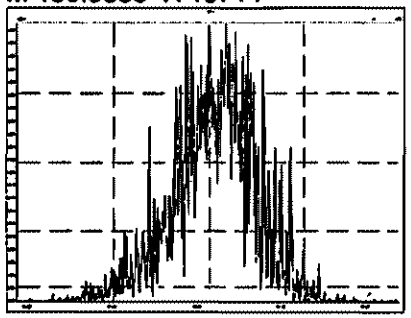


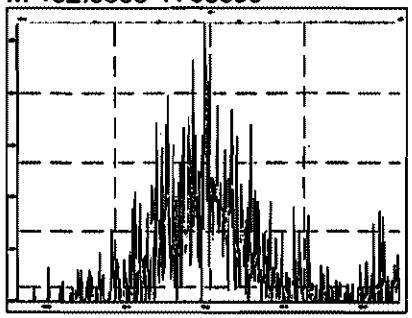
M 168.9888 R 11645



M 180.9888 R 13714



M 192.9888 R 55598



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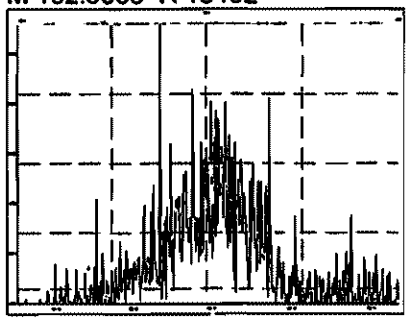

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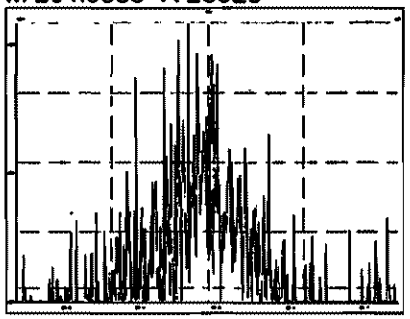

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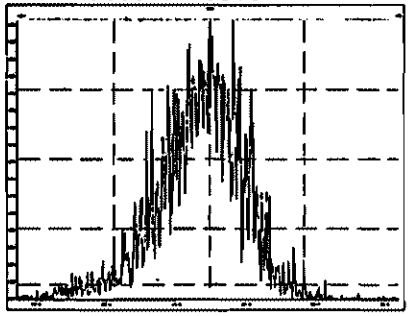

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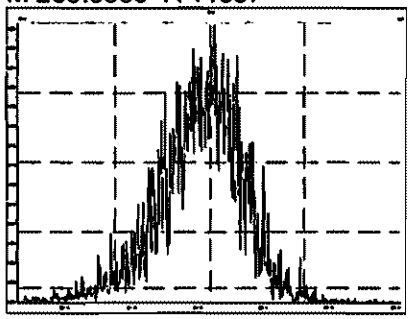
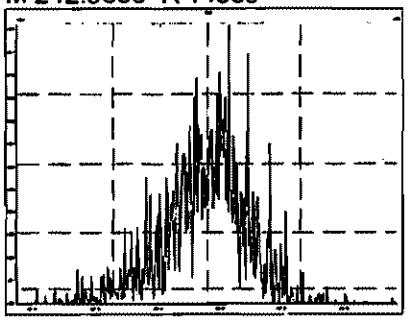
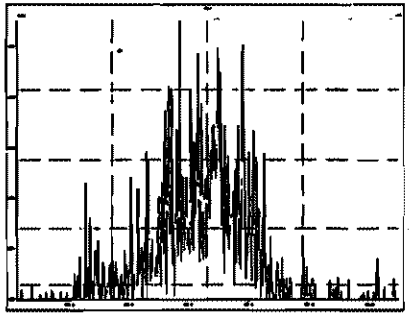


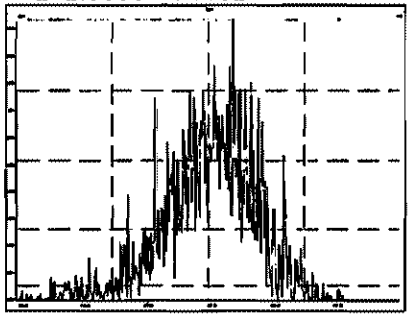
M 242.9856 R 14359



M 254.9856 R 17858



M 242.9856 R 11627



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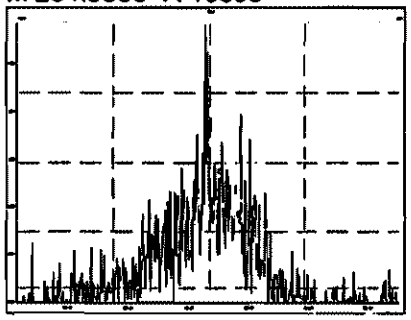
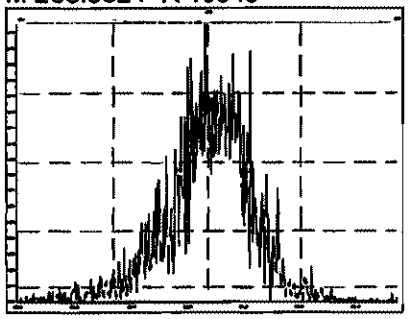
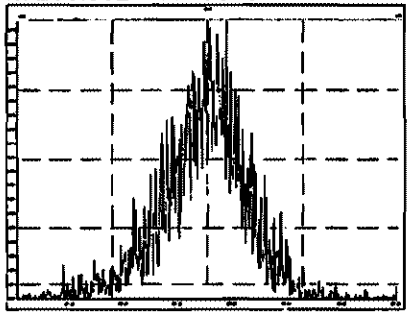


M 268.9824 R 10949



M 280.9824 R 10649



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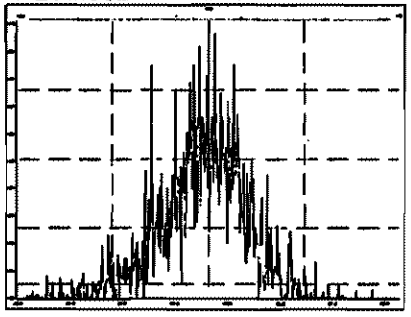

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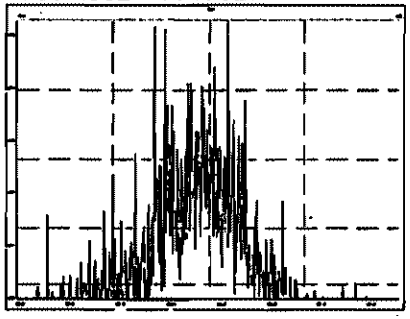

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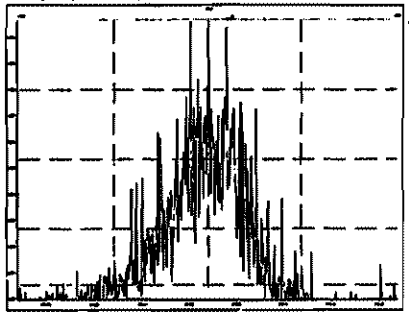


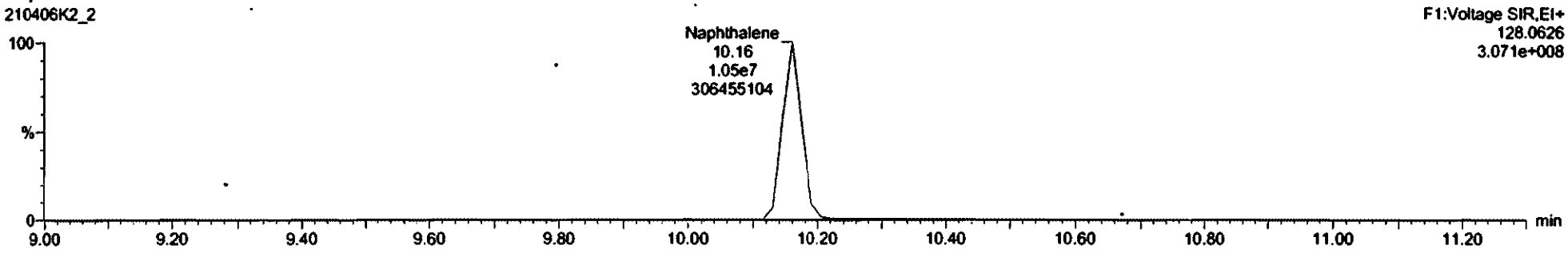
Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

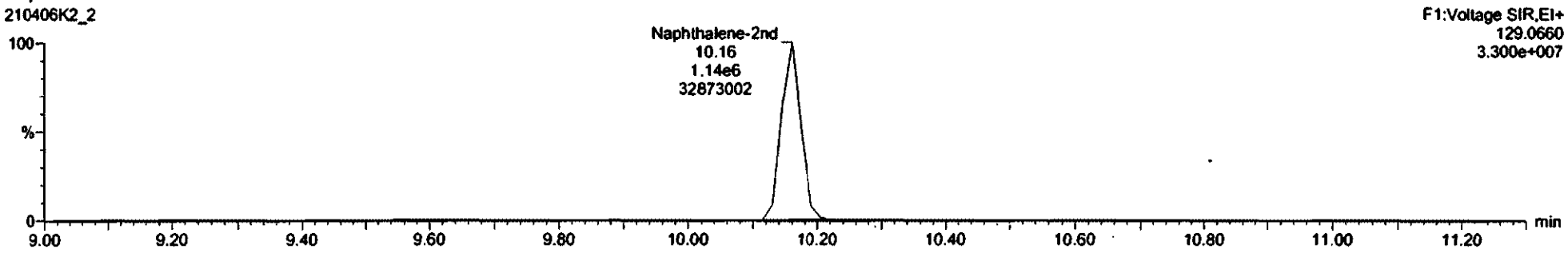
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

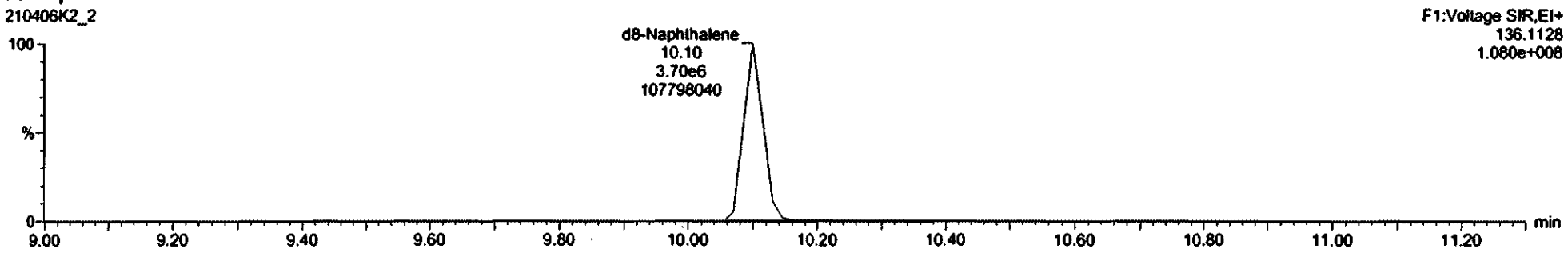
Naphthalene



Naphthalene-2nd



d8-Naphthalene



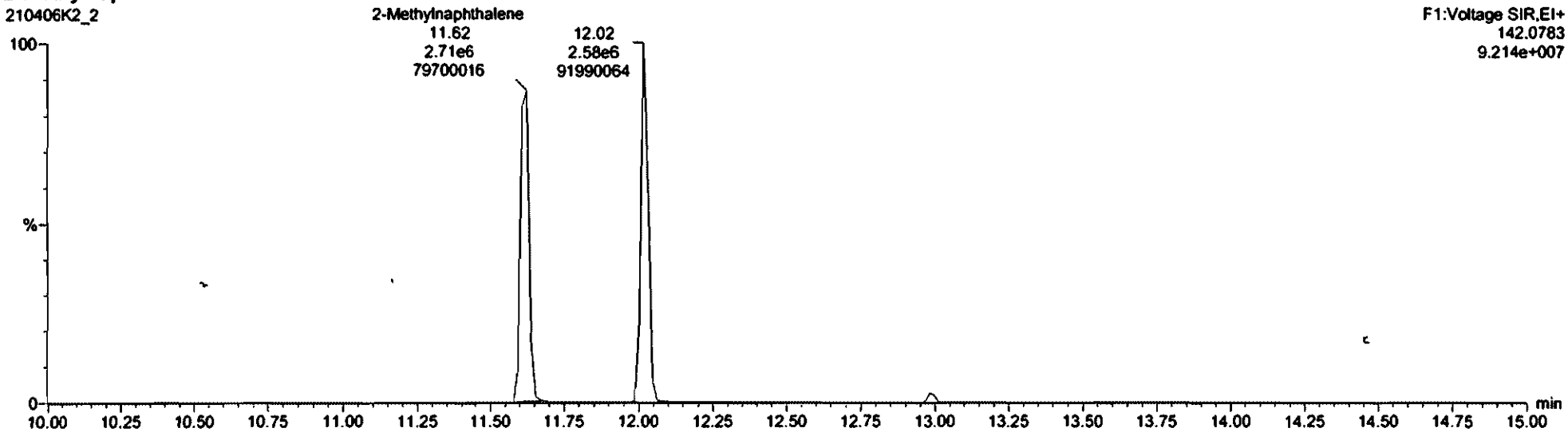
977 of 1215

Dataset: Untitled

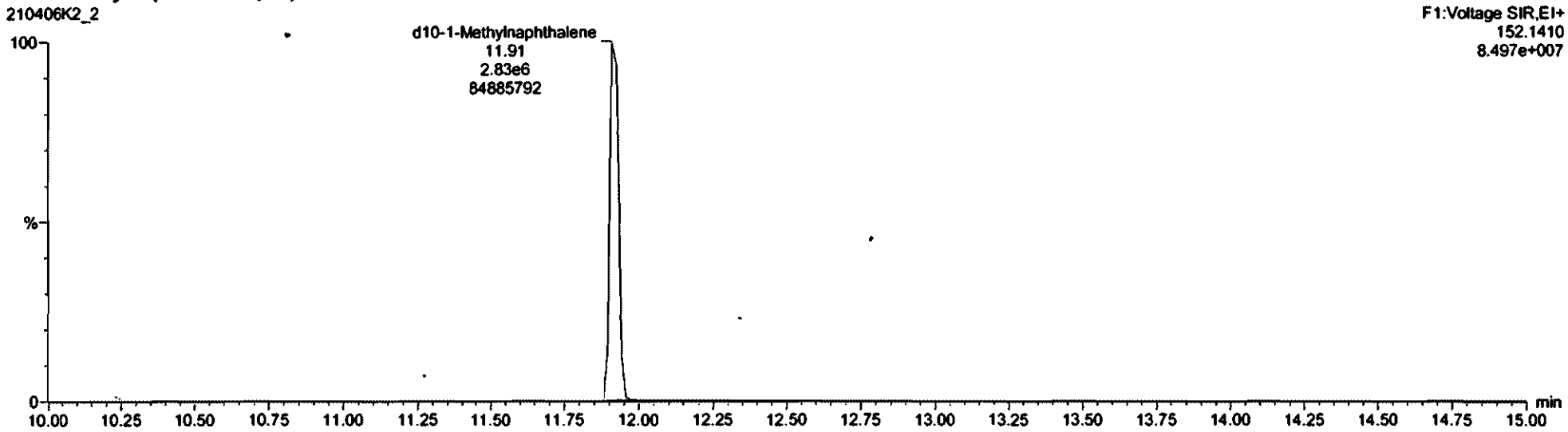
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



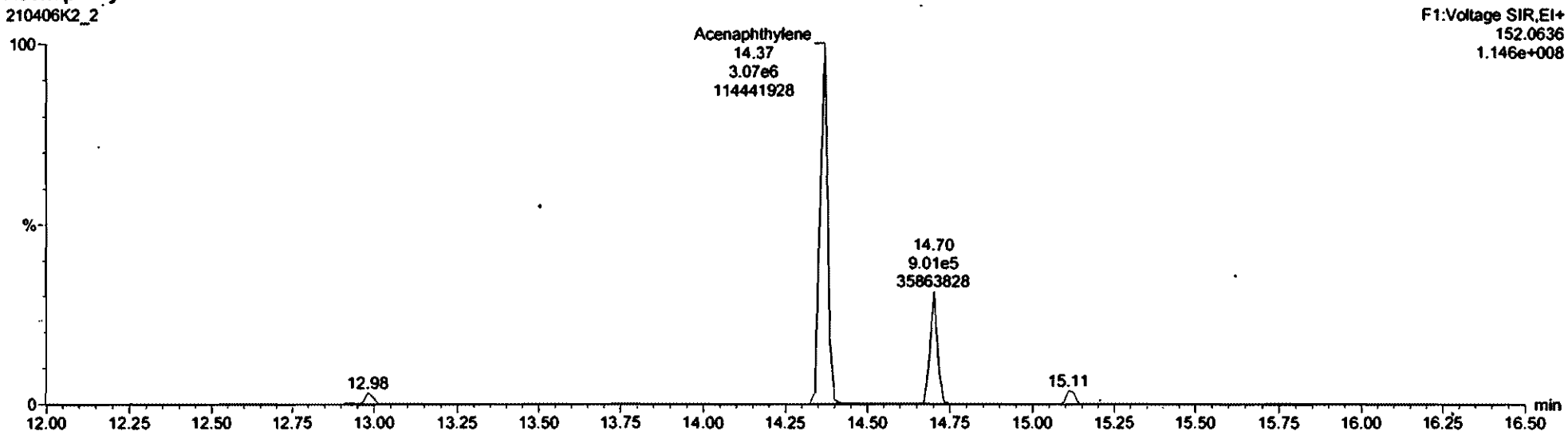
978 of 1215

Dataset: Untitled

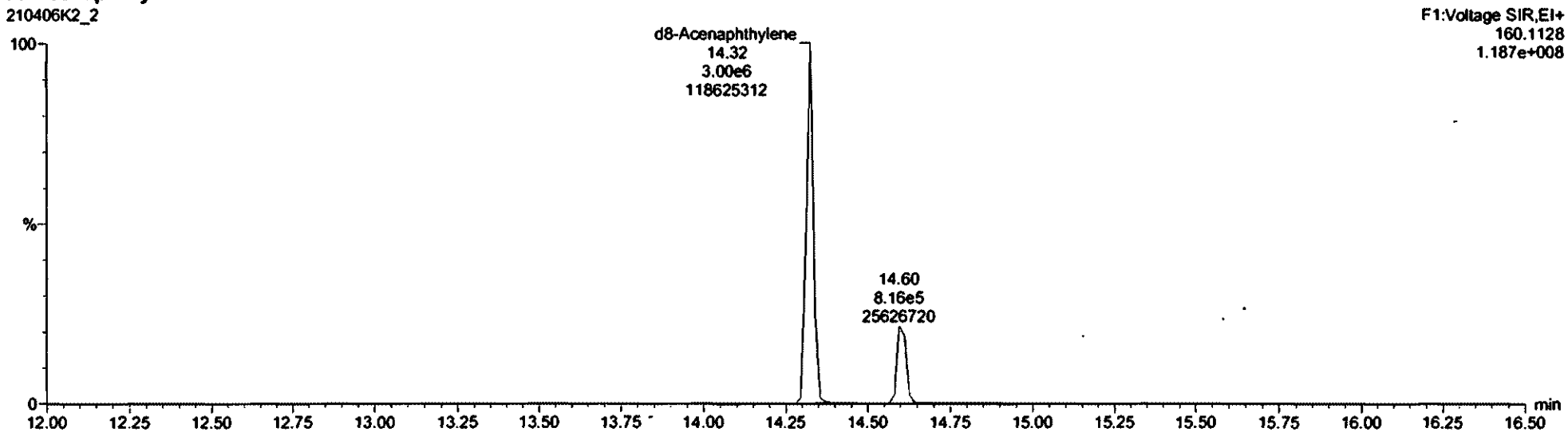
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthylene



d8-Acenaphthylene



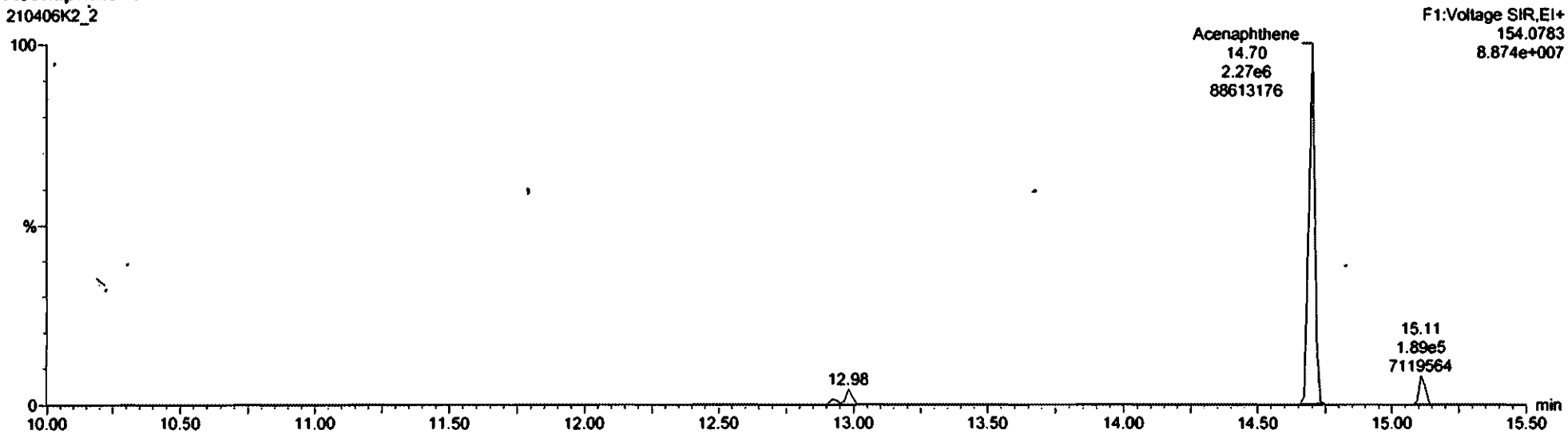
979 of 1215

Dataset: Untitled

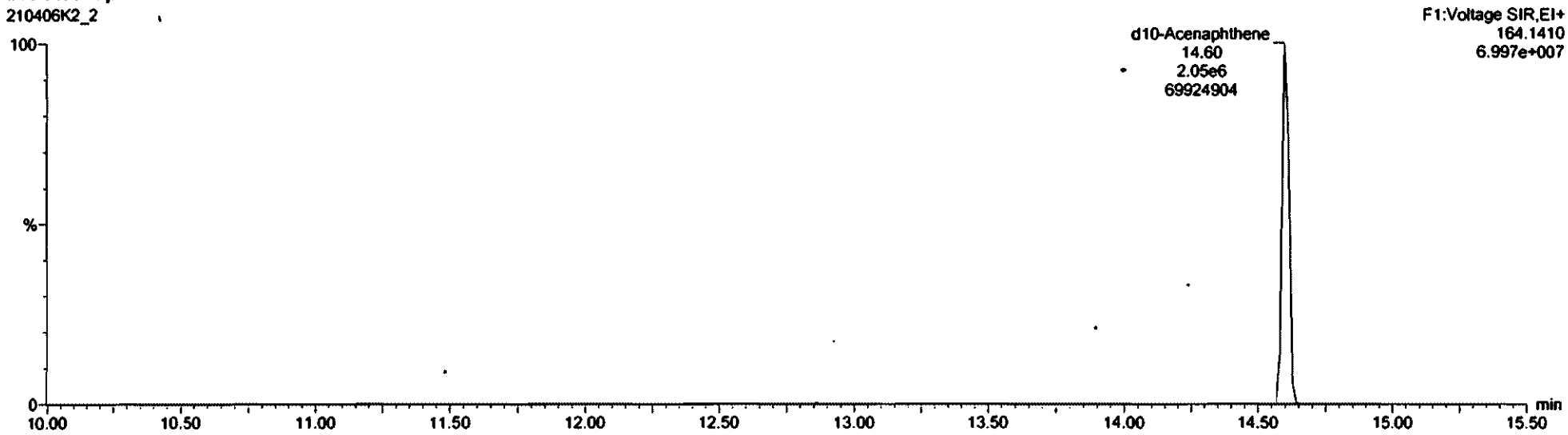
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthene



d10-Acenaphthene



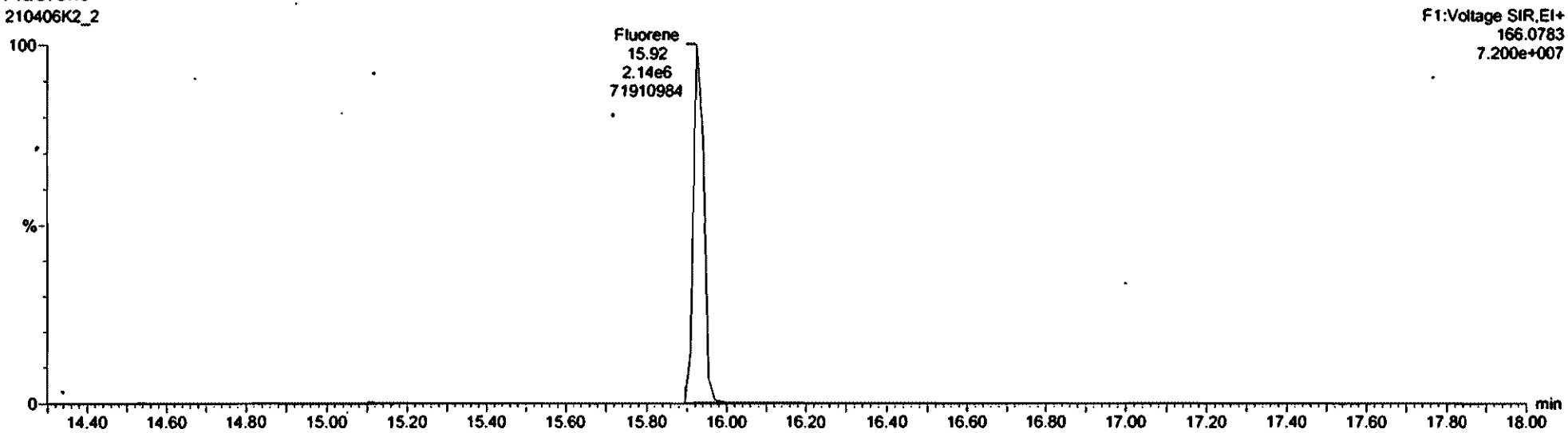
980 of 1215

Dataset: Untitled

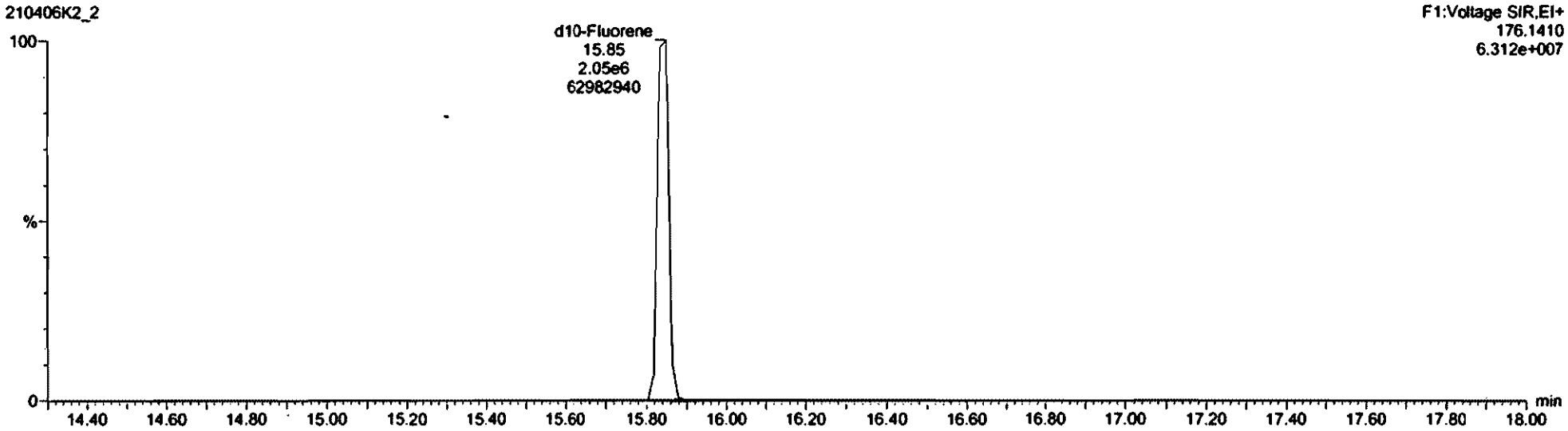
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluorene



d10-Fluorene



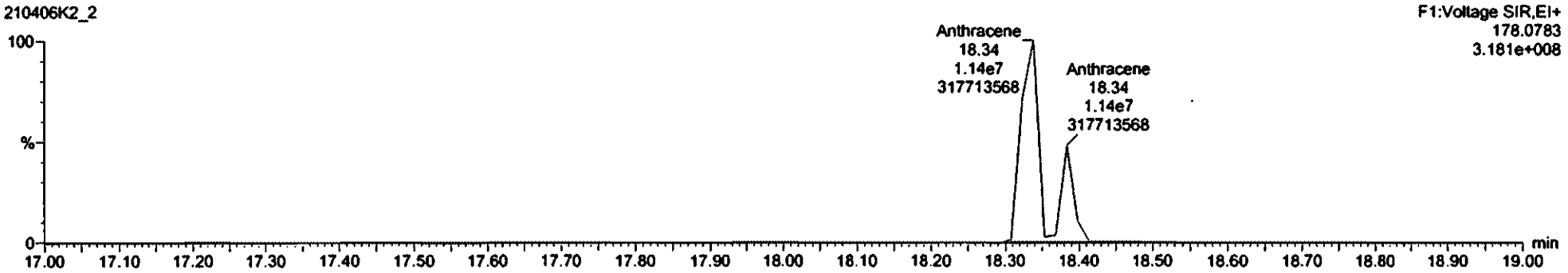
981 of 1215

Dataset: Untitled

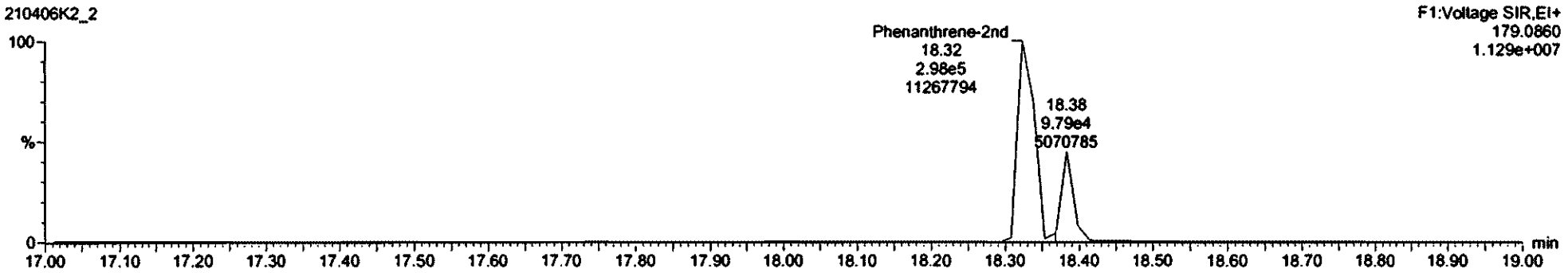
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

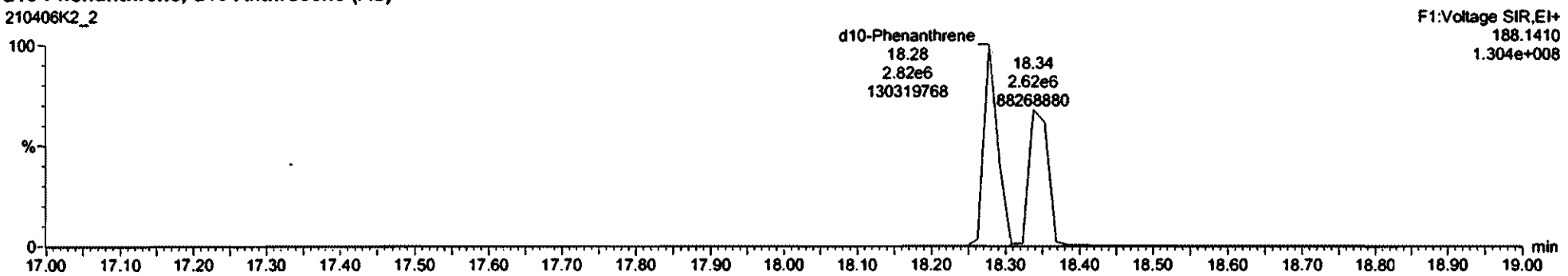
Phenanthrene; Anthrecene



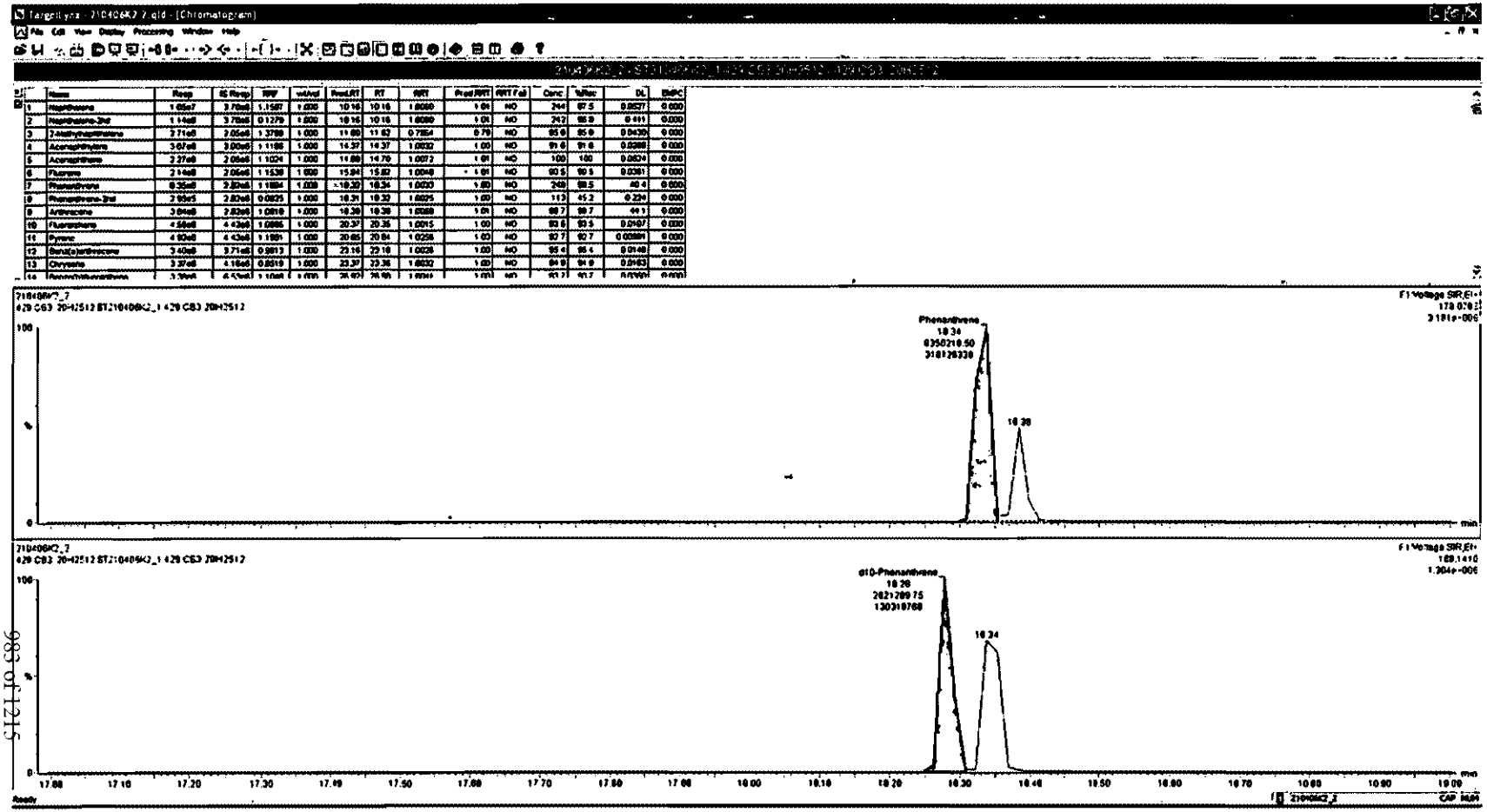
Phenanthrene-2nd

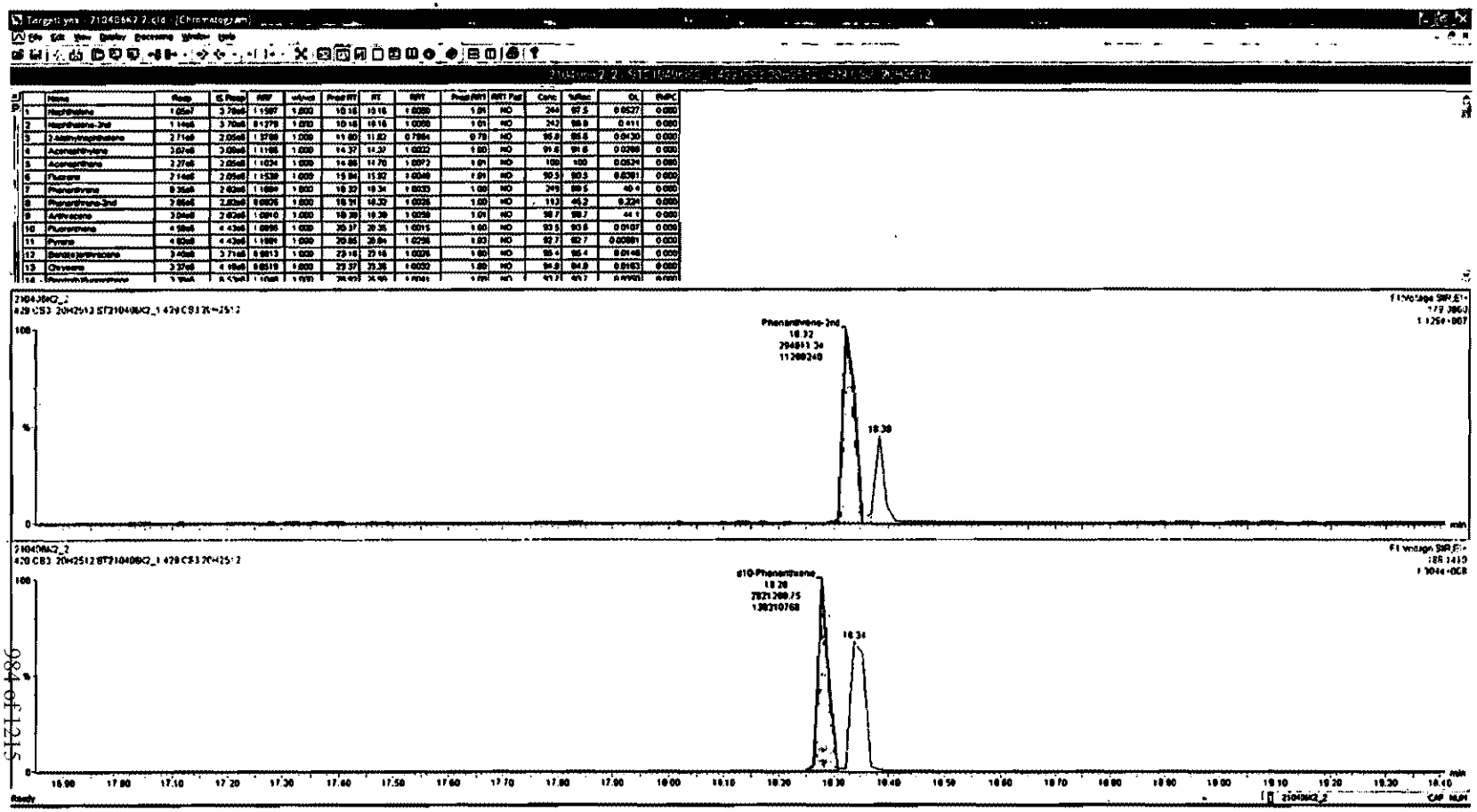


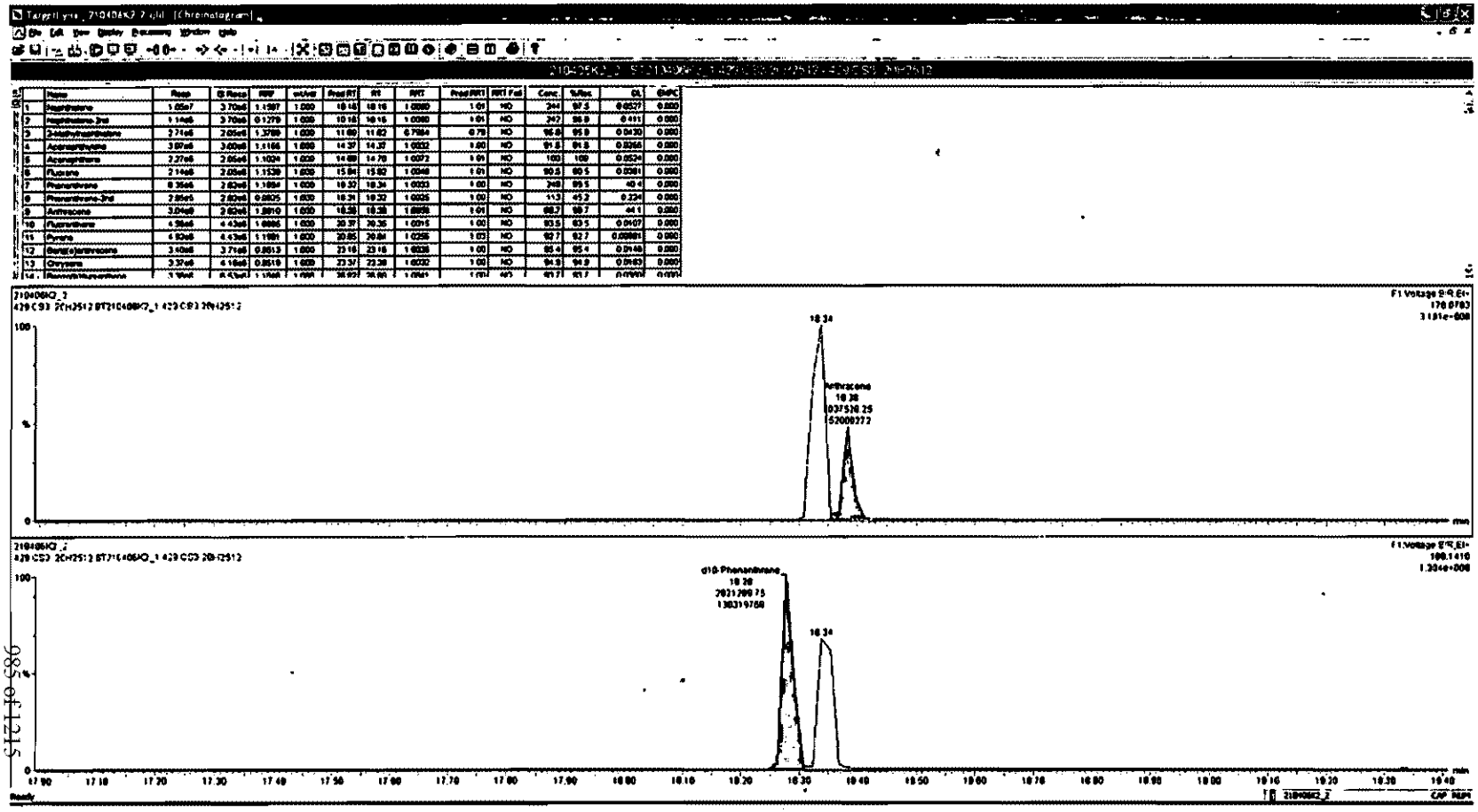
d10-Phenanthrene; d10-Anthrecene (AS)



982 of 1215


Phenanthrene
10.34
d10-Phenanthrene
10.26
10.34


Phenanthrene-2nd
18.32
18.30
d10-Phenanthrene
18.28
18.34

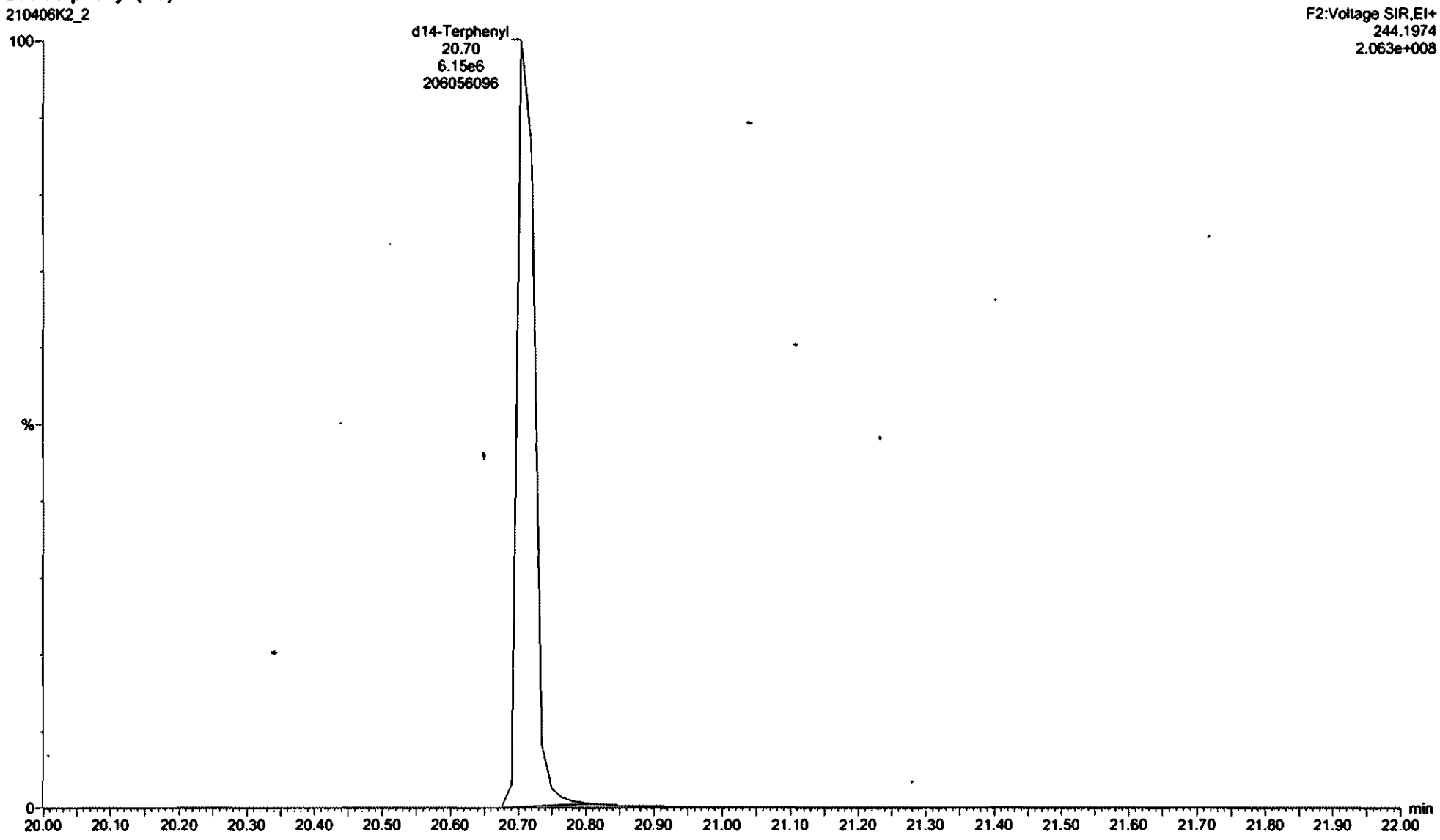

Anthracene
10.38
d10-Phenanthrene
10.30
10.34

Dataset: Untitled

Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

d14-Terphenyl (PS)



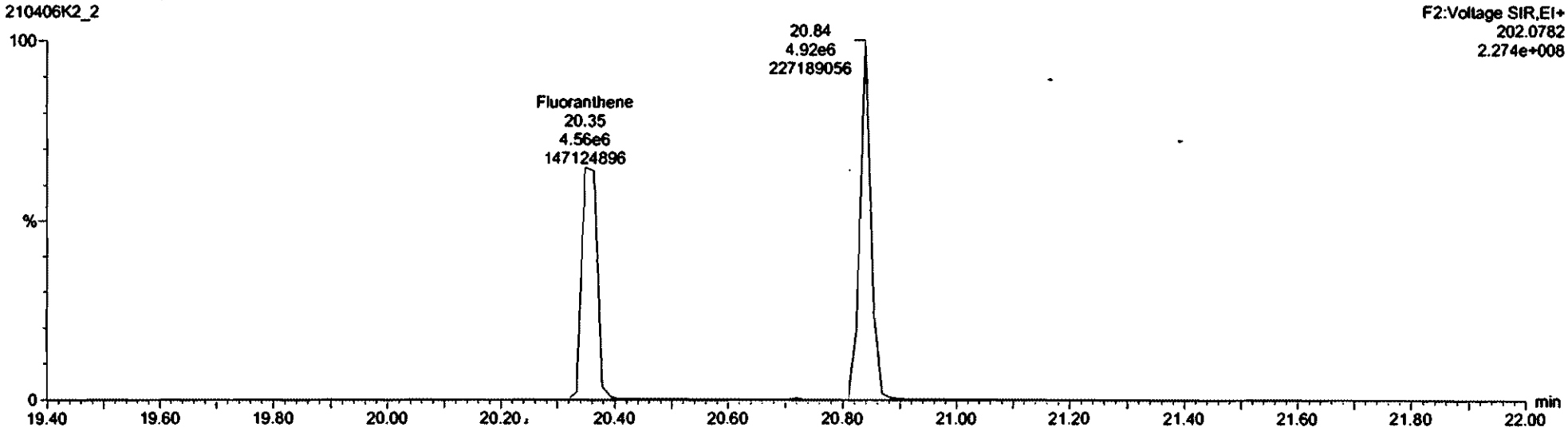
986 of 1215

Dataset: Untitled

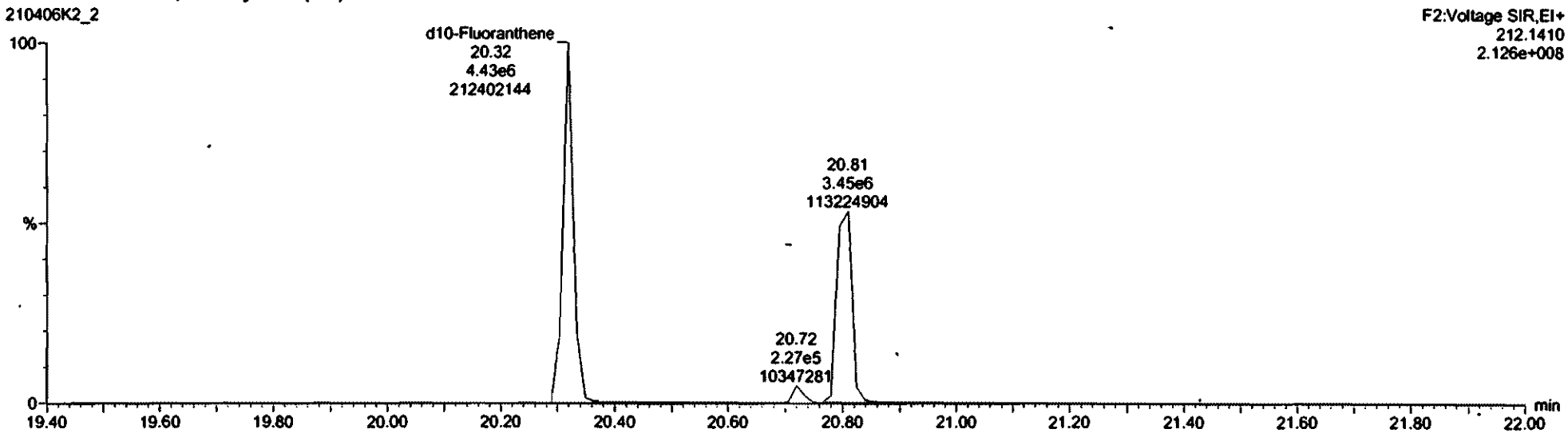
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

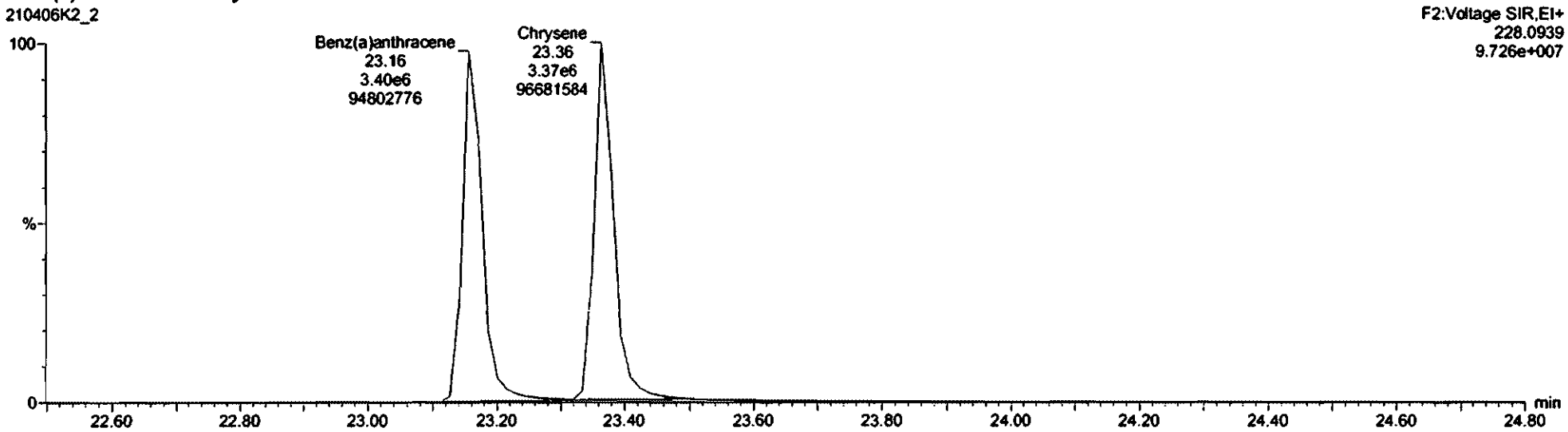


Dataset: Untitled

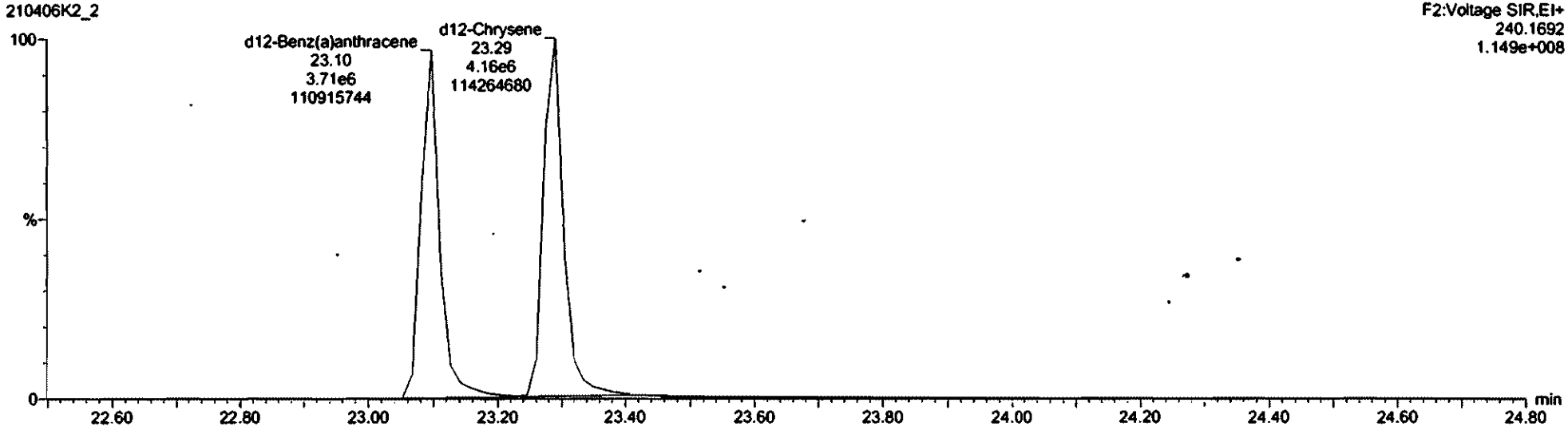
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



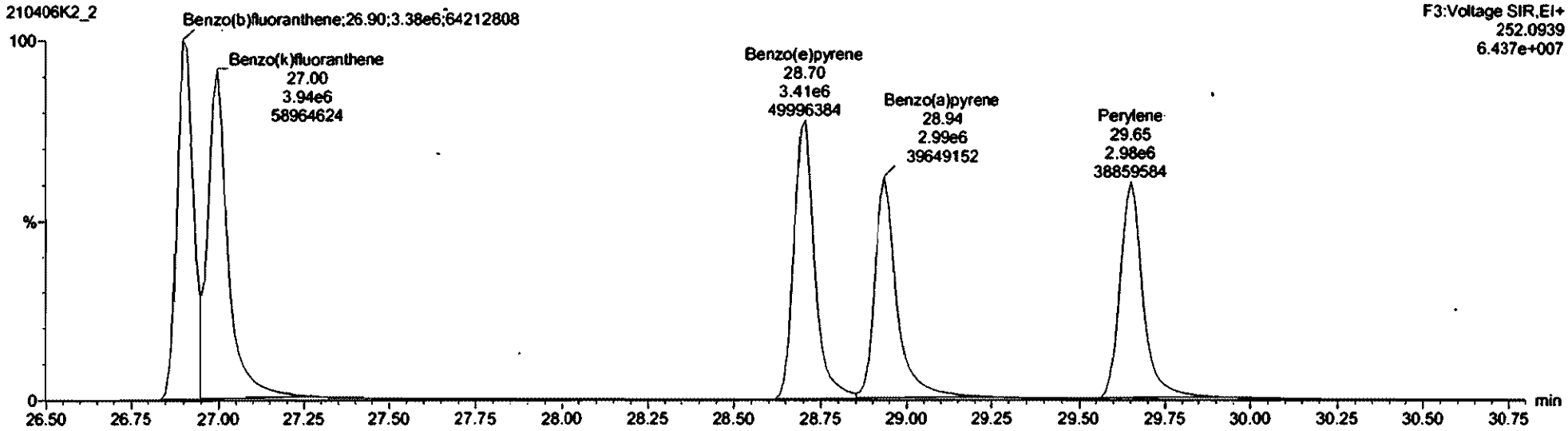
988 of 1215

Dataset: Untitled

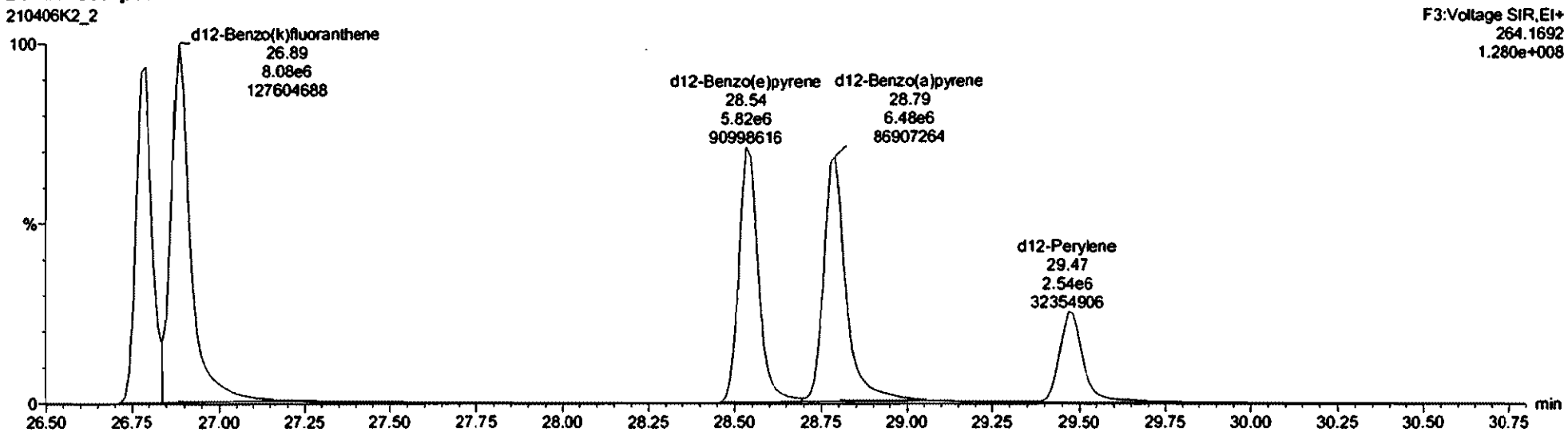
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Benzo-PAHs



Benzo-Isotopes

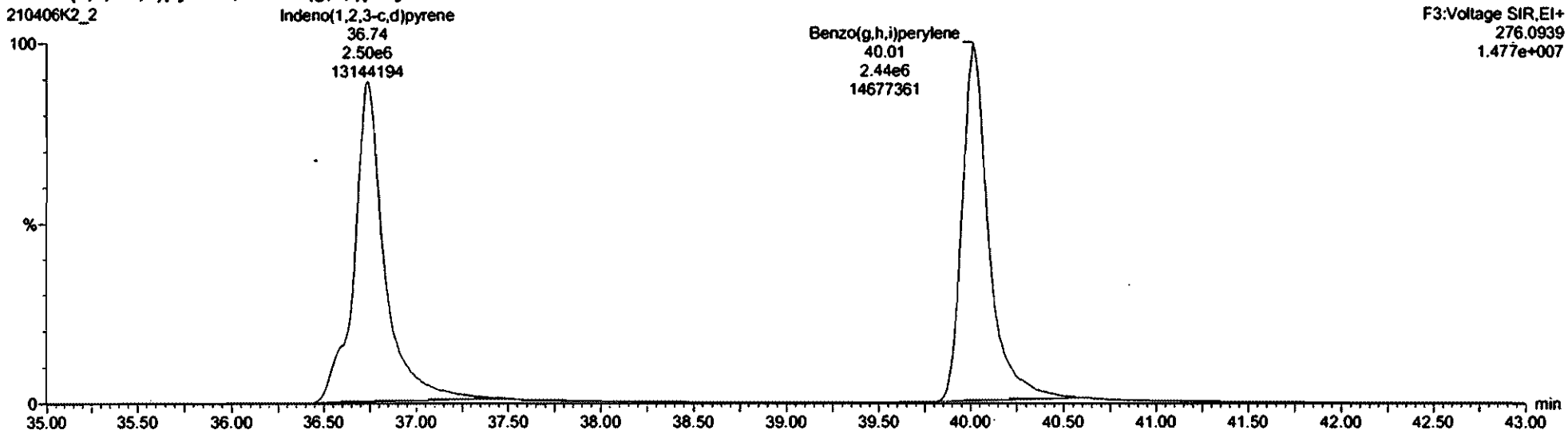


Dataset: Untitled

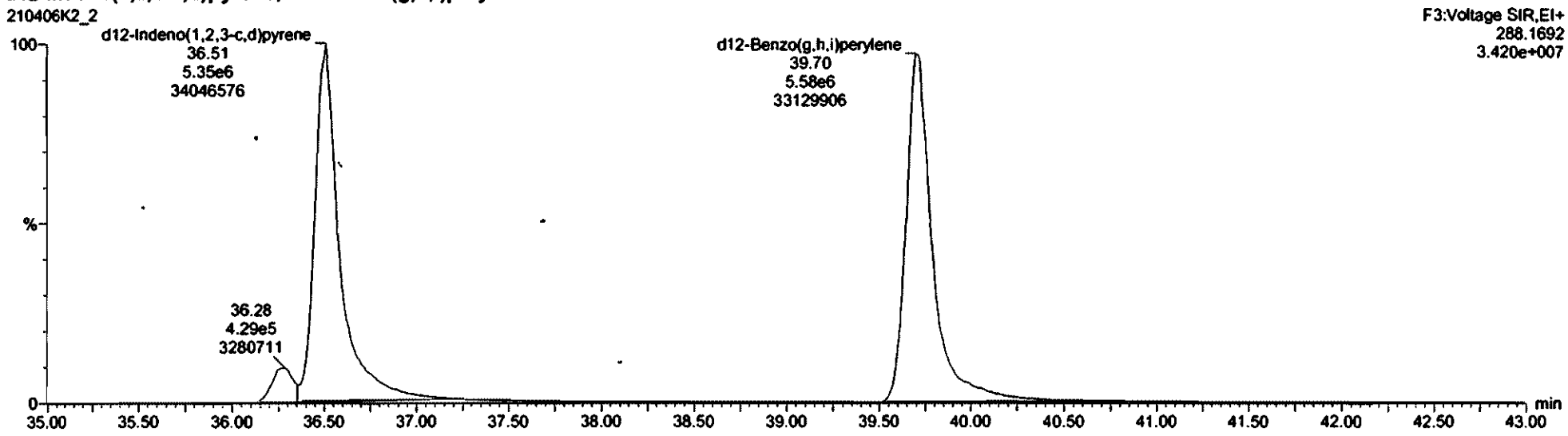
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

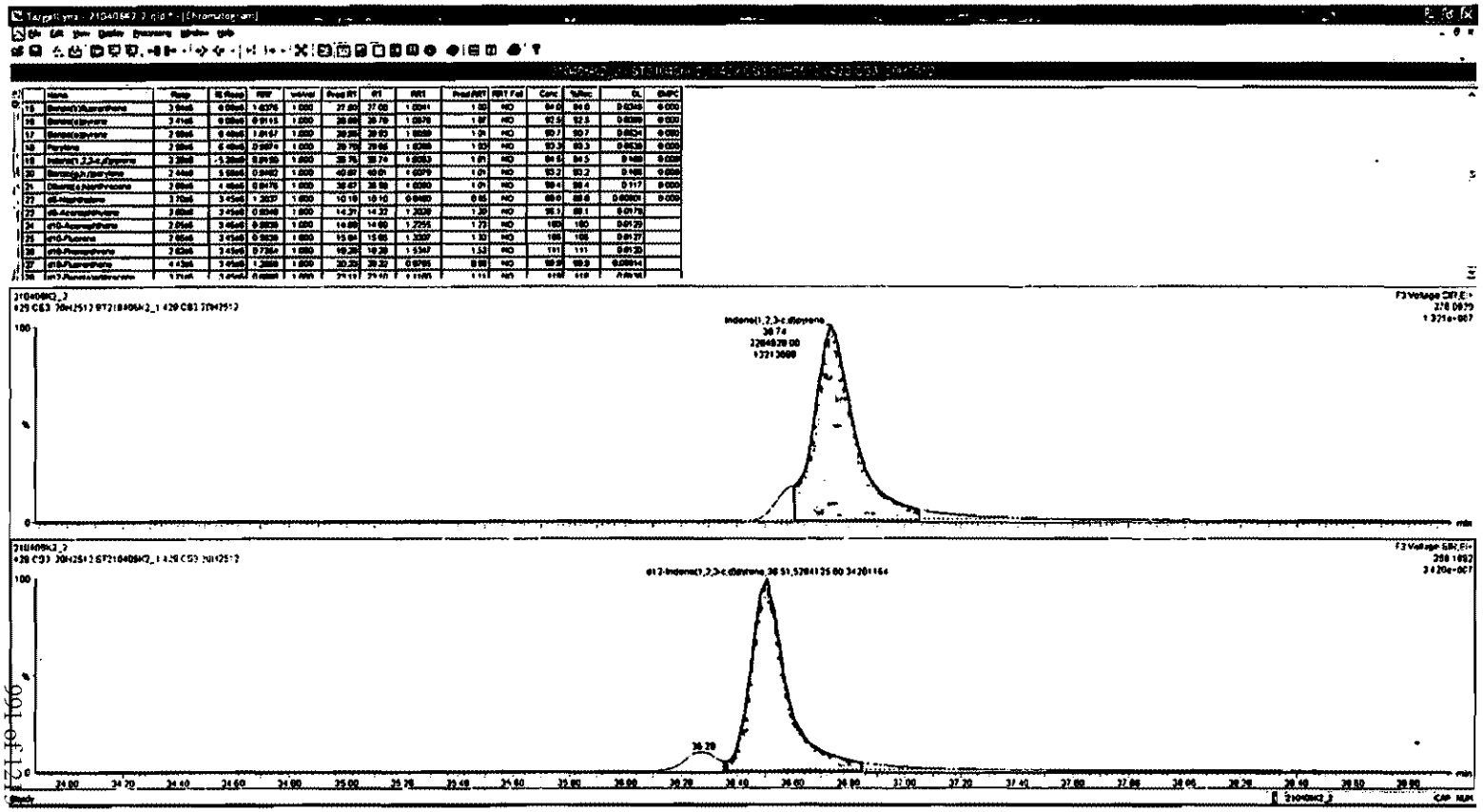
Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



990 of 1215

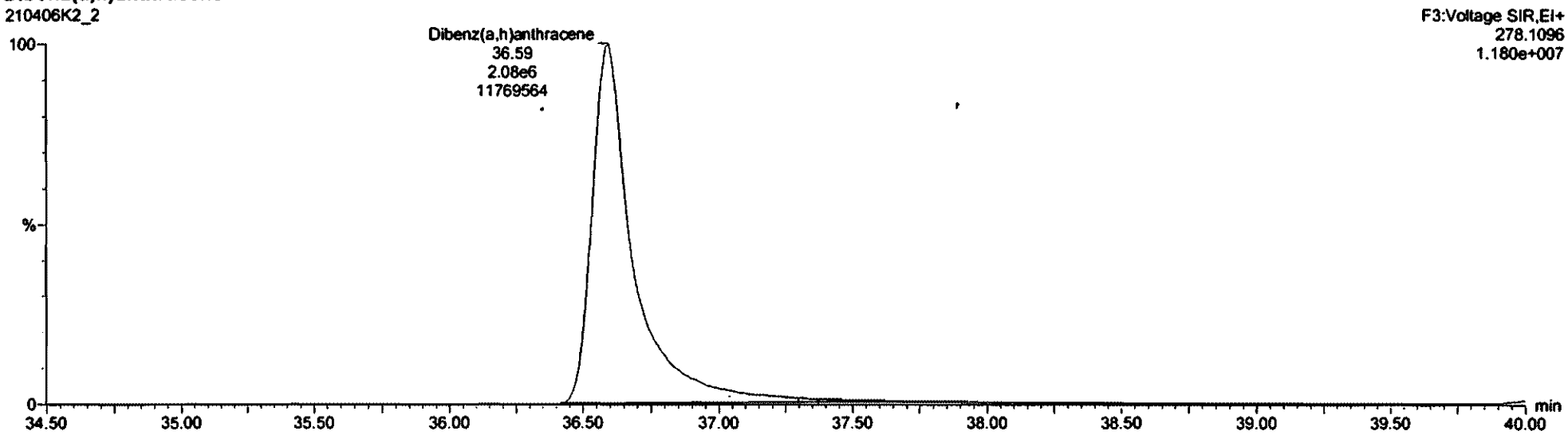


Dataset: Untitled

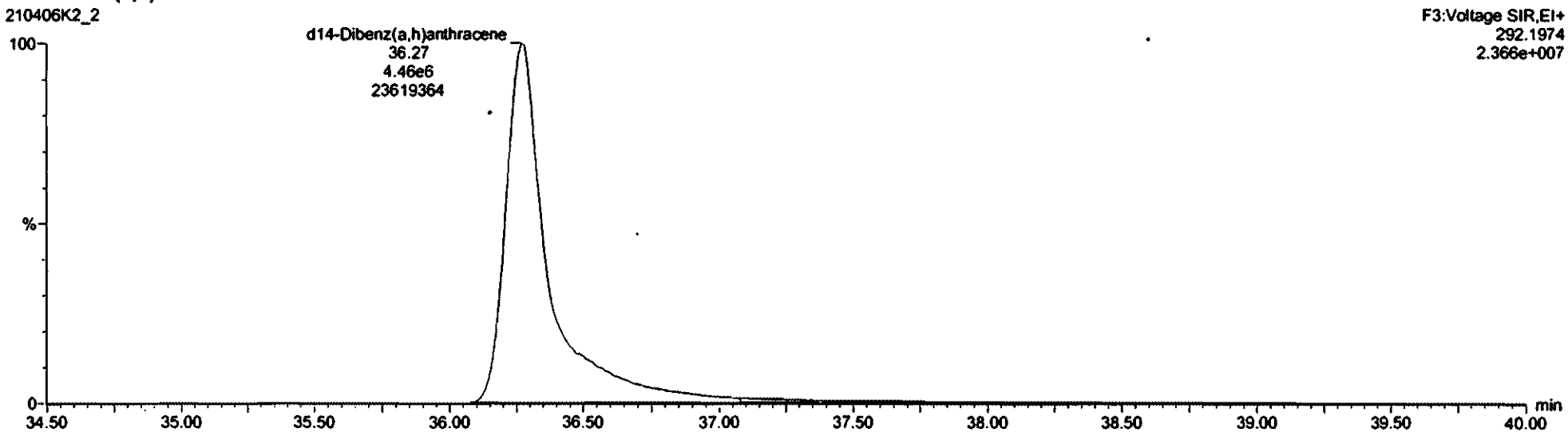
Last Altered: Wednesday, April 07, 2021 2:51:17 PM Pacific Daylight Time
Printed: Wednesday, April 07, 2021 2:51:53 PM Pacific Daylight Time

Name: 210406K2_2, Date: 07-Apr-2021, Time: 02:54:13, ID: ST210406K2_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



992 of 1215

HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST210407K1-1 **Reviewed By:** DF 04/08/21

Initials & Date

End Calibration ID: NA

	Beg.	End
Ion abundance within QC limits?	NA	NA
Concentrations within criteria?	(A) ☒	☐
TCDD/TCDF Valleys <25%	NA	☐
First and last eluters present?	NA	☐
Retention Times within criteria?	☒	☐
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	☒	☐
Forms signed and dated?	☒	☐
Correct ICAL referenced?	HC	D
Run Log:		
- Correct instrument listed?	☒	NA
- Samples within 12 hour clock?	(Y)	N
- Bottle position verfied?	HC	

	Beg.	End
Mass resolution ≥	☒	NA
☐ 5k ☐ 6-8K ☒ 8K ☐ 10K 1614 1699 429 1613/1668/8280		
Intergrated peaks display correctly?	☒	NA
GC Break <20%	NA	

8280 CS1 End Standard:

- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	NA

Comments:

(A) Phenanthrene 2nd failed, OK not needed

993 of 1215

Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210407K1\210407K1-1.qld

Last Altered: Thursday, April 08, 2021 9:29:59 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:30:18 AM Pacific Daylight Time

4/8/2021
DF 04/08/21
(R) OK, not used

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
1	1	Naphthalene	5.22e6	1.79e6	1.16	1.000	10.14	10.15	1.006	1.006	NO	252	101	0.152
2	2	Naphthalene-2nd	5.65e5	1.79e6	0.128	1.000	10.14	10.15	1.006	1.006	NO	247	98.9	1.29
3	3	2-Methylnaphthalene	1.22e6	8.92e5	1.38	1.000	11.60	11.61	0.794	0.795	NO	99.5	99.5	0.0845
4	4	Acenaphthylene	1.51e6	1.35e6	1.12	1.000	14.37	14.35	1.003	1.002	NO	100	100	0.0708
5	5	Acenaphthene	1.01e6	8.92e5	1.10	1.000	14.68	14.70	1.006	1.007	NO	103	103	0.117
6	6	Fluorene	1.01e6	8.63e5	1.15	1.000	15.92	15.92	1.006	1.006	NO	101	101	0.0878
7	7	Phenanthrene	4.07e6	1.41e6	1.19	1.000	18.32	18.32	1.002	1.002	NO	242	96.8	0.0396
8	8	Phenanthrene-2nd	4.78e5	1.41e6	0.0925	1.000	18.31	18.32	1.002	1.002	NO	366	146 (R)	0.502
9	9	Anthracene	1.56e6	1.41e6	1.09	1.000	18.38	18.38	1.005	1.006	NO	101	101	0.0432
10	10	Fluoranthene	2.17e6	2.15e6	1.10	1.000	20.37	20.36	1.002	1.002	NO	91.8	91.8	0.0183
11	11	Pyrene	2.40e6	2.15e6	1.20	1.000	20.85	20.84	1.026	1.026	NO	93.3	93.3	0.0168
12	12	Benz(a)anthracene	1.46e6	1.48e6	0.961	1.000	23.17	23.19	1.003	1.003	NO	103	103	0.0444
13	13	Chrysene	1.50e6	1.81e6	0.852	1.000	23.38	23.39	1.003	1.004	NO	97.1	97.1	0.0461
14	14	Benzo(b)fluoranthene	1.37e6	2.51e6	1.10	1.000	26.96	26.94	1.005	1.004	NO	98.8	98.8	0.0975
15	15	Benzo(k)fluoranthene	1.78e6	3.59e6	1.04	1.000	27.04	27.02	1.004	1.004	NO	95.7	95.7	0.0992
16	16	Benzo(e)pyrene	1.55e6	3.59e6	0.911	1.000	28.73	28.72	1.067	1.067	NO	94.5	94.5	0.113
17	17	Benzo(a)pyrene	1.27e6	2.60e6	1.02	1.000	28.97	28.96	1.006	1.005	NO	95.9	95.9	0.168
18	18	Perylene	1.12e6	2.60e6	0.987	1.000	29.71	29.66	1.031	1.030	NO	87.2	87.2	0.173
19	19	Indeno(1,2,3-c,d)pyrene	1.01e6	2.16e6	0.915	1.000	36.94	36.98	1.007	1.008	NO	102	102	0.448
20	20	Benzo(g,h,i)perylene	1.06e6	2.25e6	0.940	1.000	40.50	40.44	1.009	1.008	NO	99.8	99.8	0.479
21	21	Dibenz(a,h)anthracene	7.67e5	1.50e6	0.948	1.000	36.89	36.82	1.011	1.009	NO	108	106	1.31
22	22	d8-Naphthalene	1.79e6	1.62e6	1.20	1.000	10.10	10.09	0.848	0.847	NO	91.5	91.5	0.0239
23	23	d8-Acenaphthylene	1.35e6	1.62e6	0.905	1.000	14.31	14.32	1.201	1.203	NO	91.6	91.6	0.0239
24	24	d10-Acenaphthene	8.92e5	1.62e6	0.594	1.000	14.60	14.60	1.226	1.226	NO	92.5	92.5	0.0218
25	25	d10-Fluorene	8.63e5	1.62e6	0.563	1.000	15.84	15.83	1.330	1.329	NO	94.4	94.4	0.0235
26	26	d10-Phenanthrene	1.41e6	1.62e6	0.735	1.000	18.26	18.28	1.533	1.535	NO	118	118	0.0143
27	27	d10-Fluoranthene	2.15e6	1.62e6	1.29	1.000	20.33	20.32	0.977	0.976	NO	103	103	0.0118
28	28	d12-Benz(a)anthracene	1.48e6	1.62e6	0.900	1.000	23.11	23.11	1.110	1.111	NO	101	101	0.0193
29	29	d12-Chrysene	1.81e6	1.62e6	1.02	1.000	23.30	23.31	1.120	1.120	NO	109	109	0.0170
30	30	d12-Benzo(b)fluoranthene	2.51e6	1.03e6	1.18	1.000	26.76	26.83	0.907	0.910	NO	206	103	0.159
31	31	d12-Benzo(k)fluoranthene	3.59e6	1.03e6	1.50	1.000	26.87	26.92	0.911	0.913	NO	231	116	0.125

994 of 1215

Dataset: U:\VG11.PRO\Results\210407K1\210407K1-1.qld

Last Altered: Thursday, April 08, 2021 9:29:59 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:30:18 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

	#.Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R..	Conc.	%Rec	DL
32	32 d12-Benzo(a)pyrene	2.60e6	1.03e6	1.24	1.000	28.76	28.80	0.975	0.977	NO	203	102	0.152
33	33 d12-Indeno(1,2,3-c,d)pyrene	2.16e6	1.03e6	1.02	1.000	36.78	36.69	1.247	1.244	NO	206	103	0.192
34	34 d12-Benzo(g,h,i)perylene	2.25e6	1.03e6	1.00	1.000	40.18	40.12	1.362	1.360	NO	217	109	0.195
35	35 d14-Dibenz(a,h)anthracene	1.50e6	1.03e6	0.765	1.000	36.55	36.48	1.239	1.237	NO	189	94.7	0.223
36	36 d10-Anthracene	1.34e6	1.03e6	0.989	1.000	18.35	18.34	1.541	1.540	NO	132	132	0.0582
37	37 d14-Terphenyl	2.75e6	2.15e6	0.576	1.000	20.69	20.72	1.018	1.020	NO	222	111	0.0141
38	38 d12-Benzo(e)pyrene	2.62e6	3.59e6	0.738	1.000	28.54	28.56	1.060	1.061	NO	198	98.9	0.120
39	39 d10-1-Methylnaphthalene	1.23e6	1.23e6	1.00	1.000	11.93	11.91	1.000	1.000	NO	100	100	0.0186
40	40 d10-Pyrene	1.62e6	1.62e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	100	100	0.0152
41	41 d12-Perylene	1.03e6	1.03e6	1.00	1.000	29.59	29.49	1.000	1.000	NO	100	100	0.188

995 of 1215

Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:22:44 AM Pacific Daylight Time

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

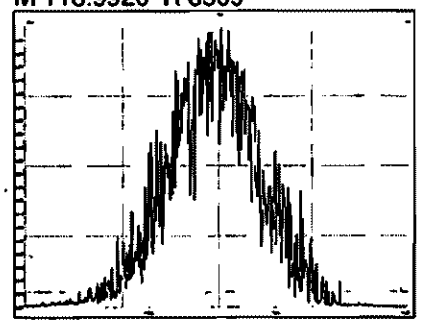
Compound name: Naphthalene

	Name	ID	Acq.Date	Acq.Time
1	210407K1_1	ST210407K1_1 429 CS3 20H2512	07-Apr-21	16:03:21
2	210407K1_2	SOLVENT BLANK	07-Apr-21	16:49:52
3	210407K1_3	2103102-01@500X 21-0883 Inlet 1 1	07-Apr-21	17:48:57
4	210407K1_4	2103102-01@2000X 21-0883 Inlet 1 1	07-Apr-21	18:34:02
5	210407K1_5	2103102-02@500X 21-0883 Inlet 2 1	07-Apr-21	19:20:52
6	210407K1_6	2103102-02@2000X 21-0883 Inlet 2 1	07-Apr-21	20:07:42
7	210407K1_7	2103102-03@500X 21-0883 Inlet 3 1	07-Apr-21	20:54:32
8	210407K1_8	2103102-03@2000X 21-0883 Inlet 3 1	07-Apr-21	21:41:21

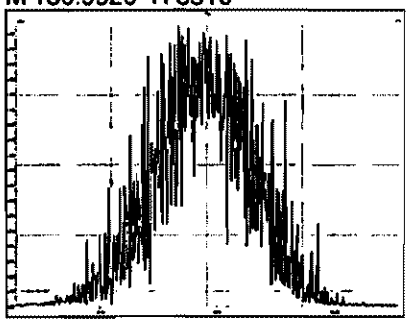
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 1 @ 250 (ppm)

Printed: Wednesday, April 07, 2021 16:00:17 Pacific Daylight Time

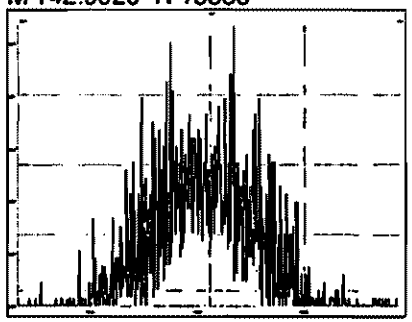
M 118.9920 R 8509



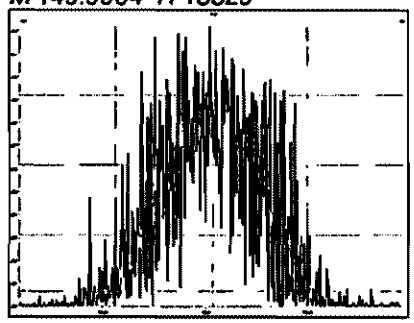
M 130.9920 R 8510



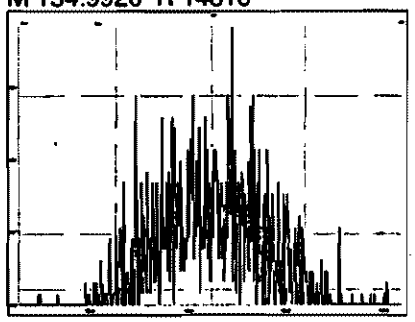
M 142.9920 R 13330



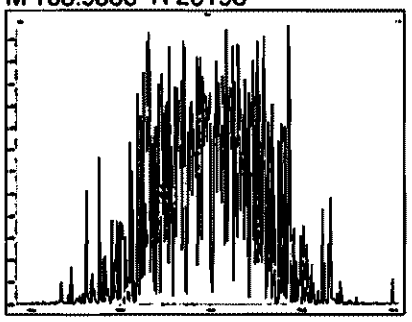
M 149.9904 R 13329



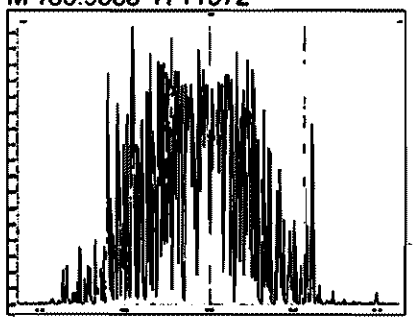
M 154.9920 R 14816



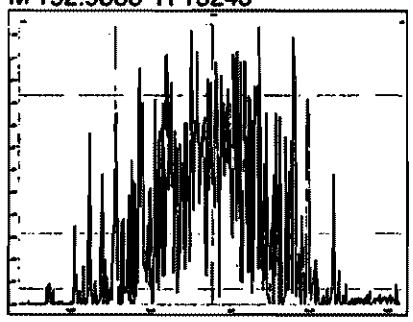
M 168.9888 R 20198



M 180.9888 R 11972



M 192.9888 R 13243

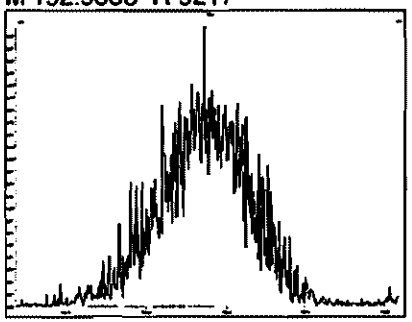


997 of 1215

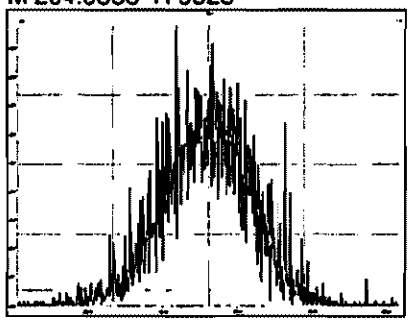
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 2 @ 250 (ppm)

Printed: Wednesday, April 07, 2021 16:00:35 Pacific Daylight Time

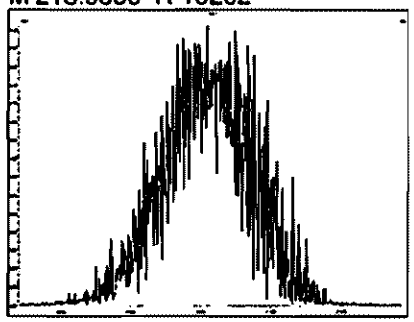
M 192.9888 R 9217



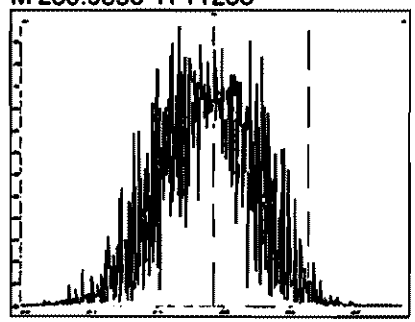
M 204.9888 R 9523



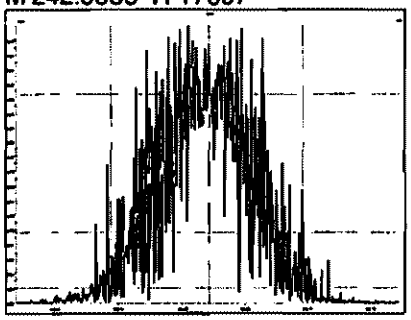
M 218.9856 R 10202



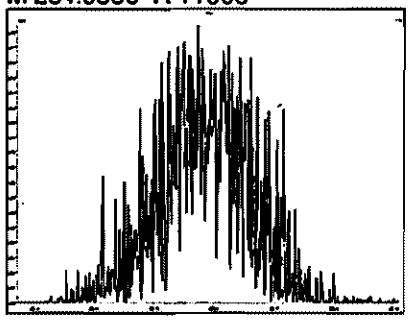
M 230.9856 R 11233



M 242.9856 R 17097



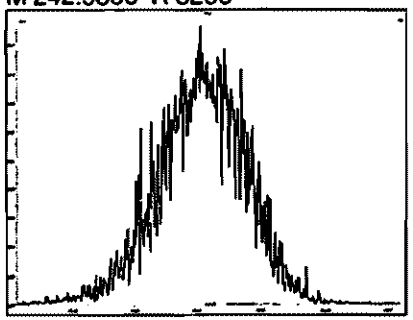
M 254.9856 R 11906



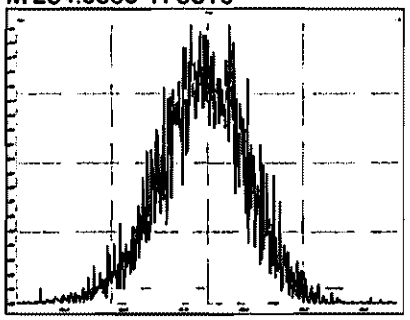
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 3 @ 250 (ppm)

Printed: Wednesday, April 07, 2021 16:01:04 Pacific Daylight Time

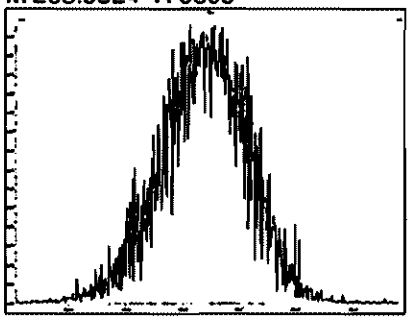
M 242.9856 R 8299



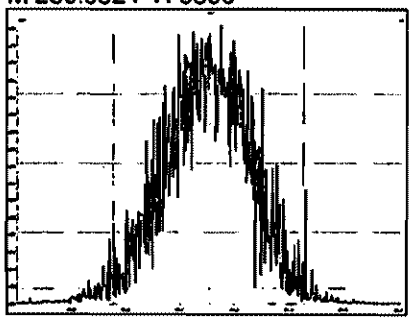
M 254.9856 R 8810



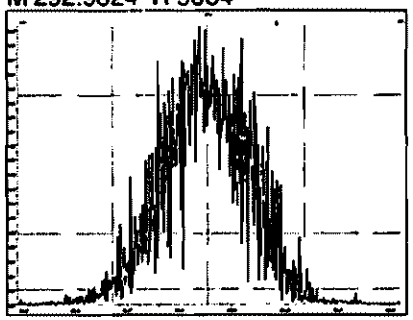
M 268.9824 R 9803



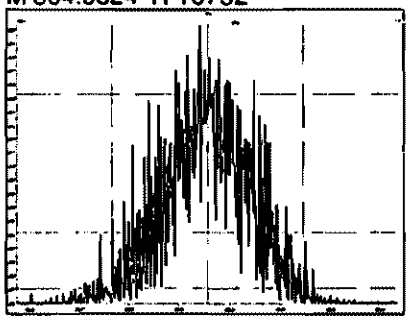
M 280.9824 R 9390



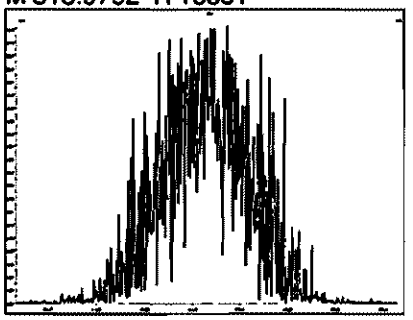
M 292.9824 R 9664



M 304.9824 R 10752



M 318.9792 R 13331



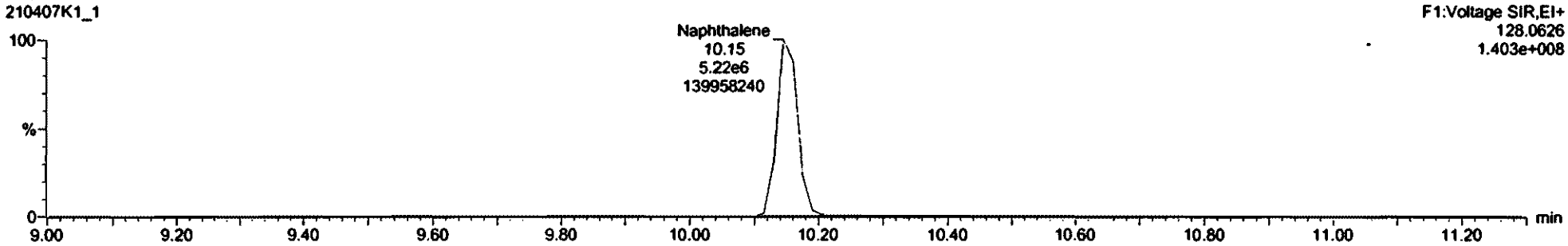
Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

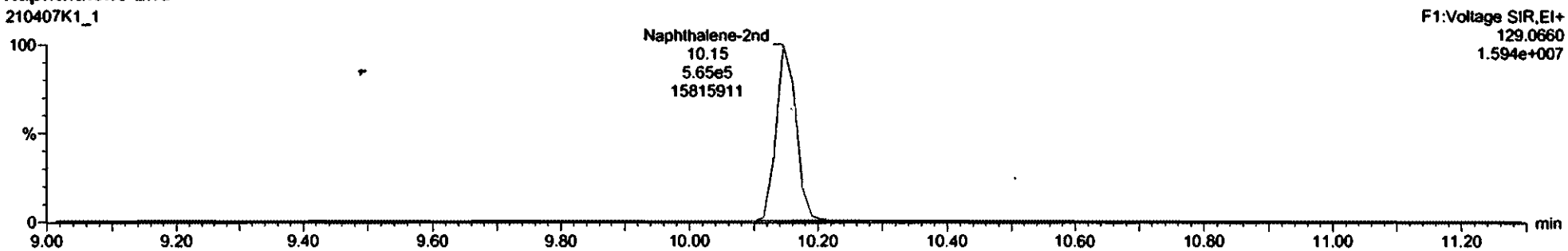
Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

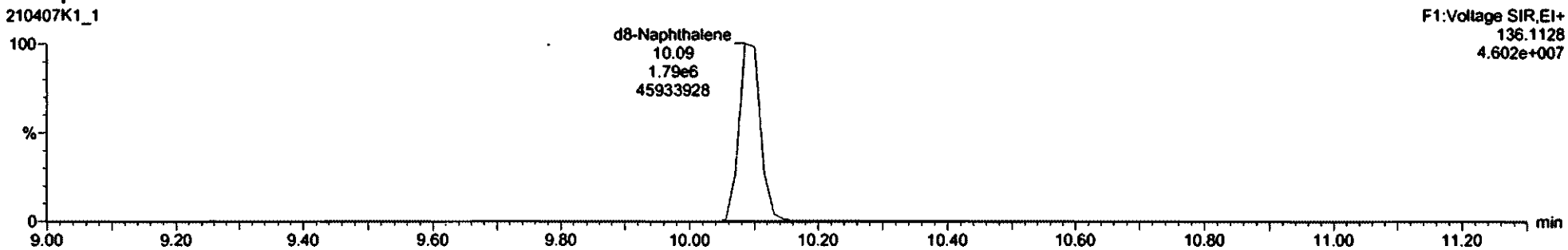
Naphthalene



Naphthalene-2nd



d8-Naphthalene



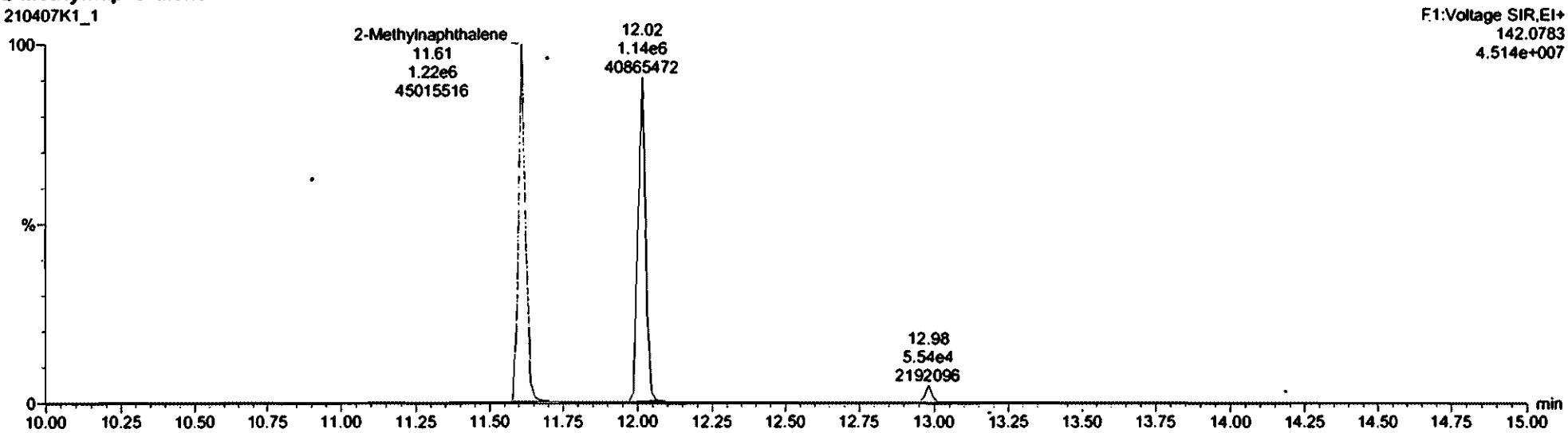
1000 of 1215

Dataset: Untitled

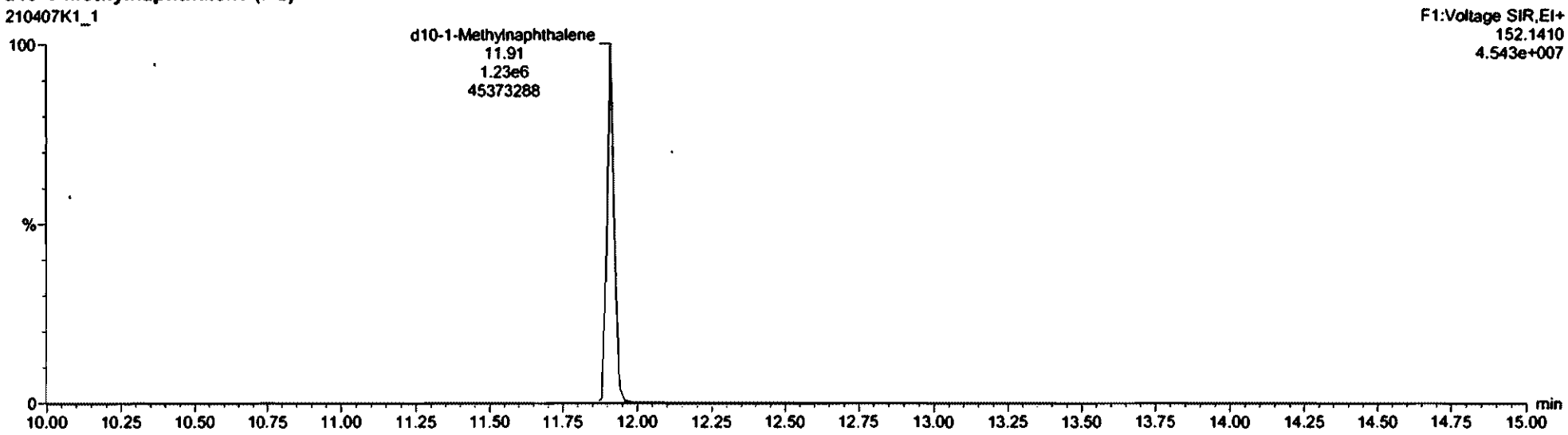
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

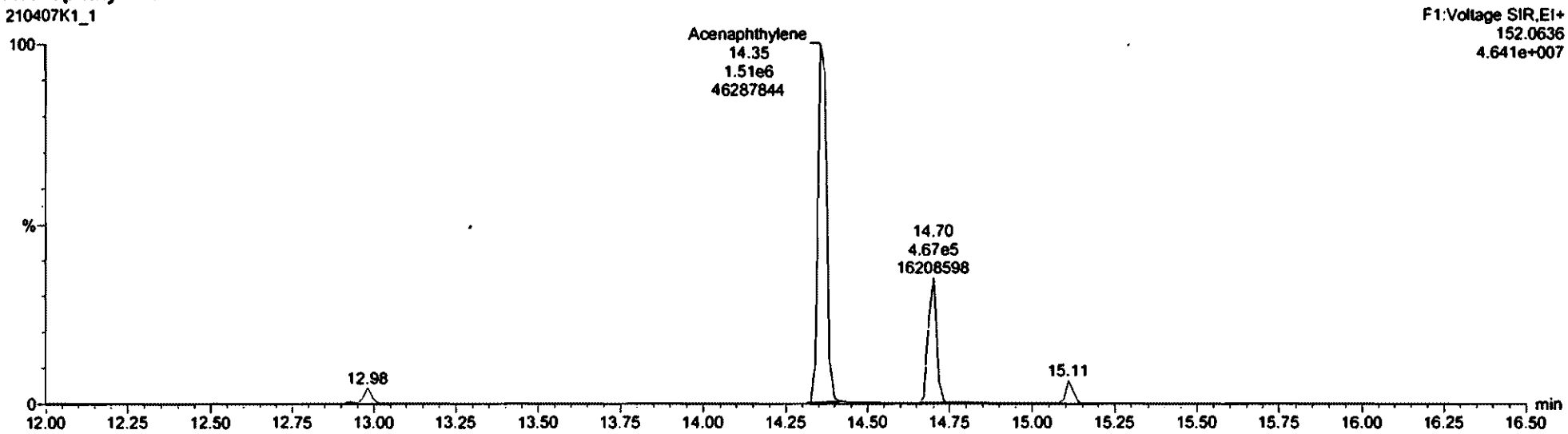


Dataset: Untitled

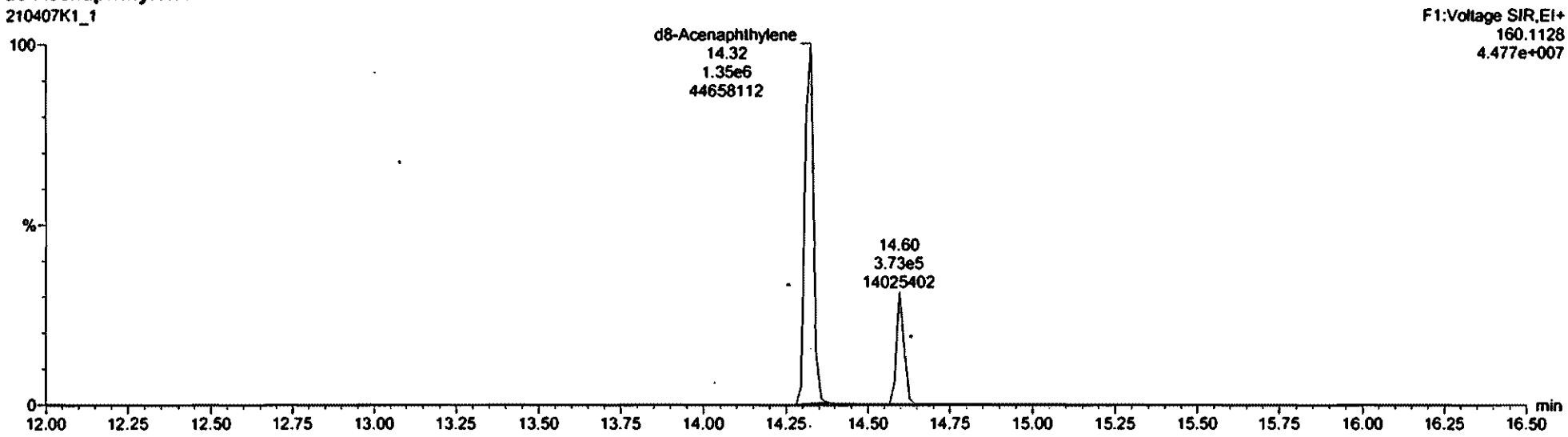
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthylene



d8-Acenaphthylene



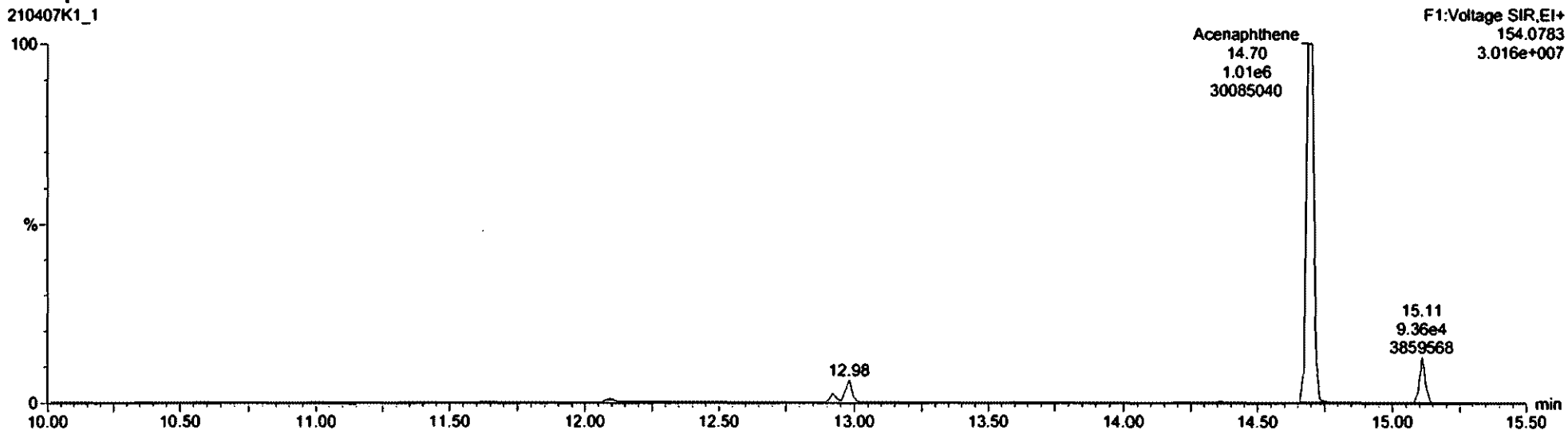
1002 of 1215

Dataset: Untitled

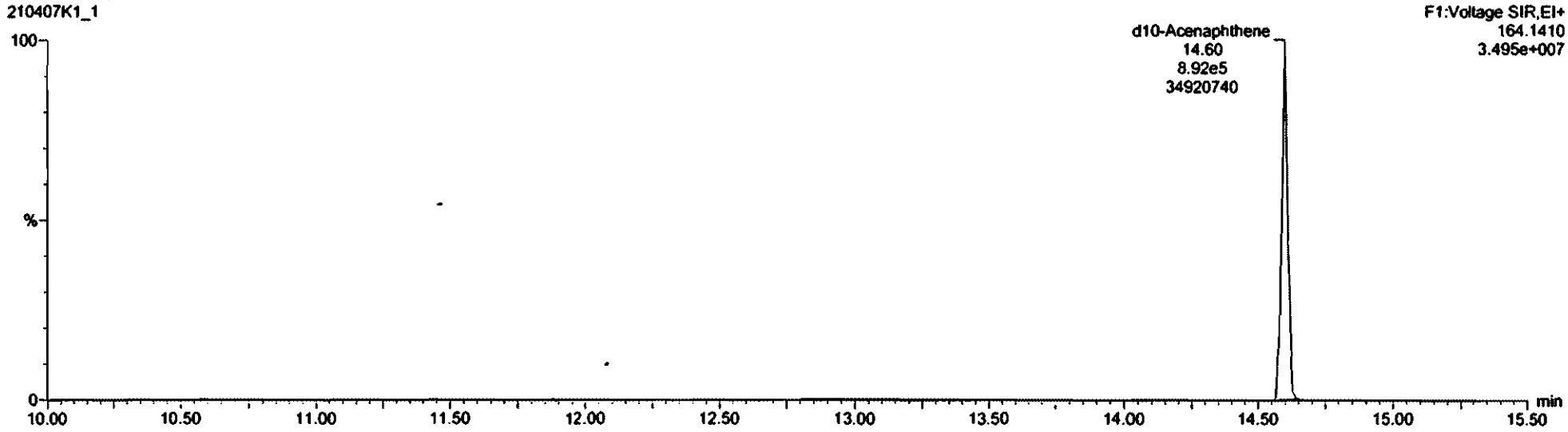
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthene



d10-Acenaphthene



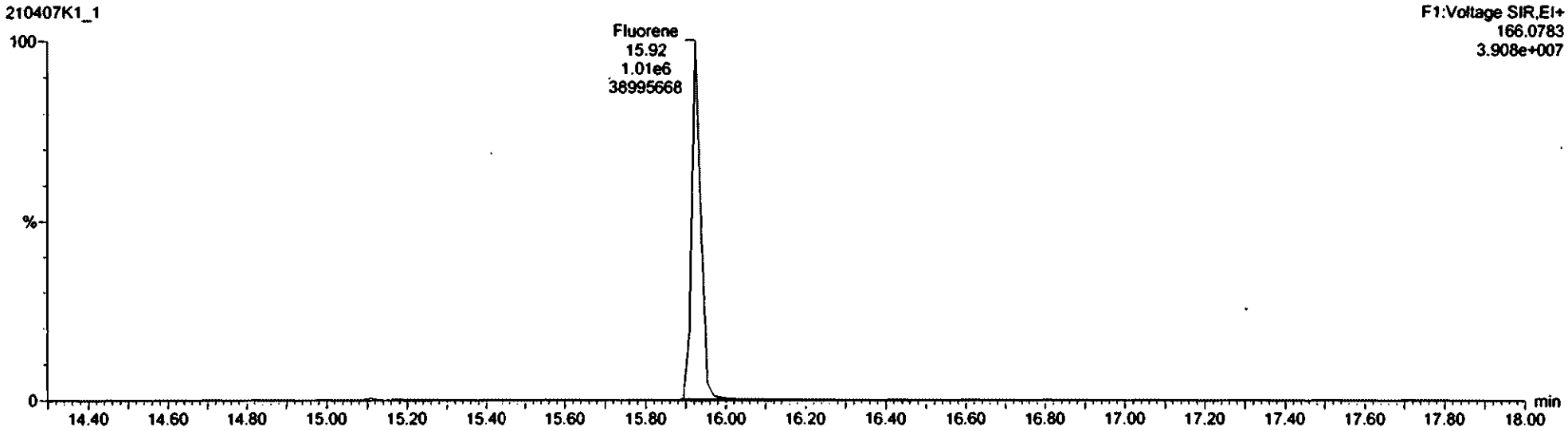
1003 of 1215

Dataset: Untitled

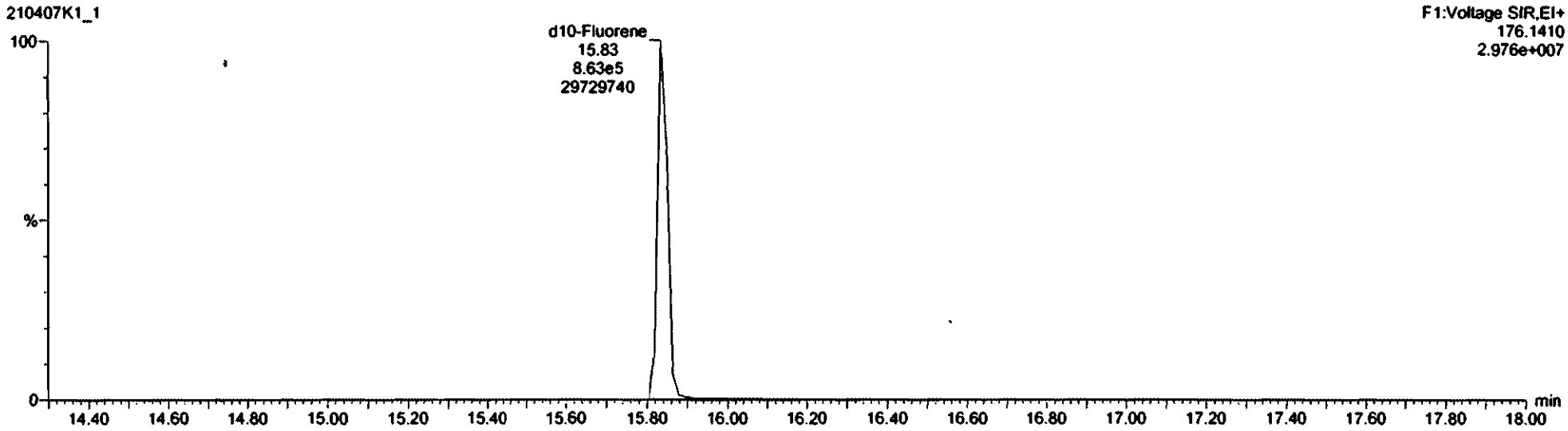
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluorene



d10-Fluorene



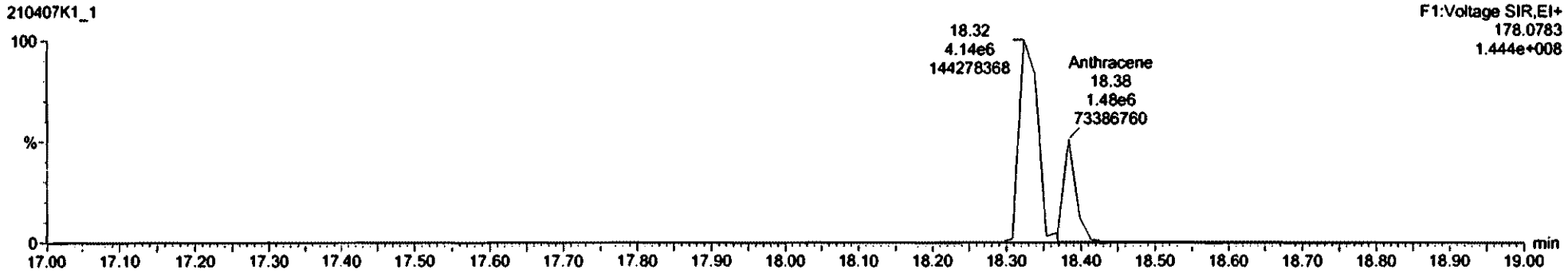
1004 of 1215

Dataset: Untitled

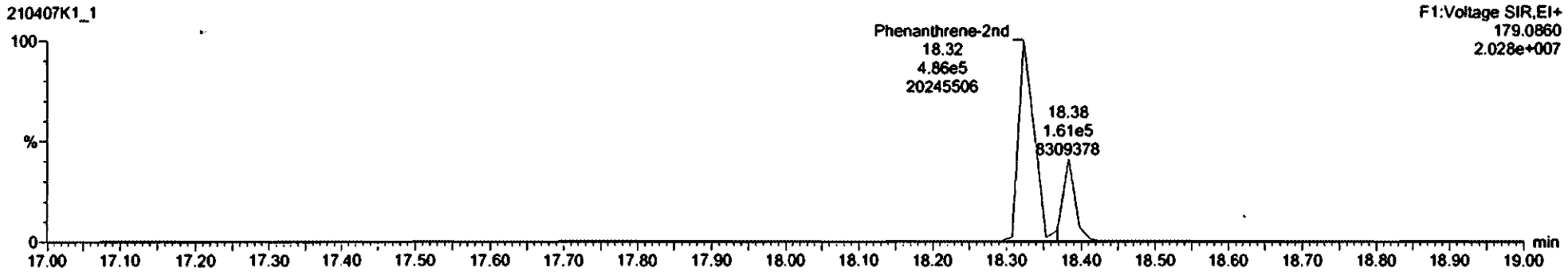
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

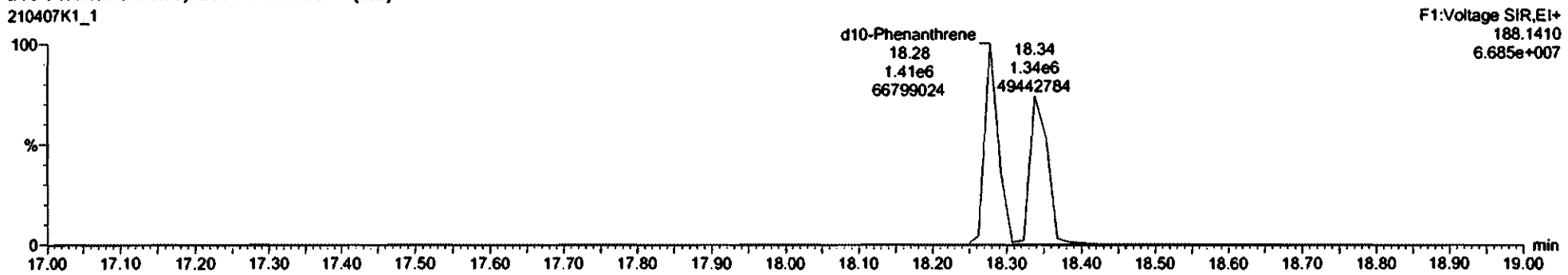
Phenanthrene; Anthrecene



Phenanthrene-2nd



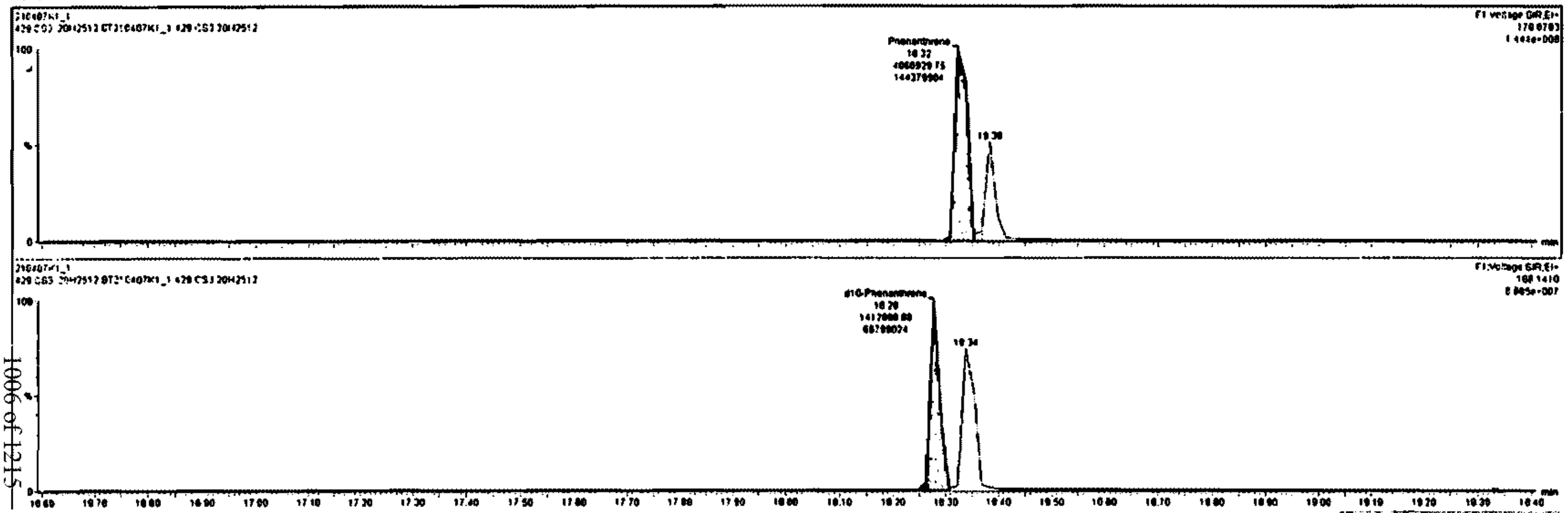
d10-Phenanthrene; d10-Anthrecene (AS)

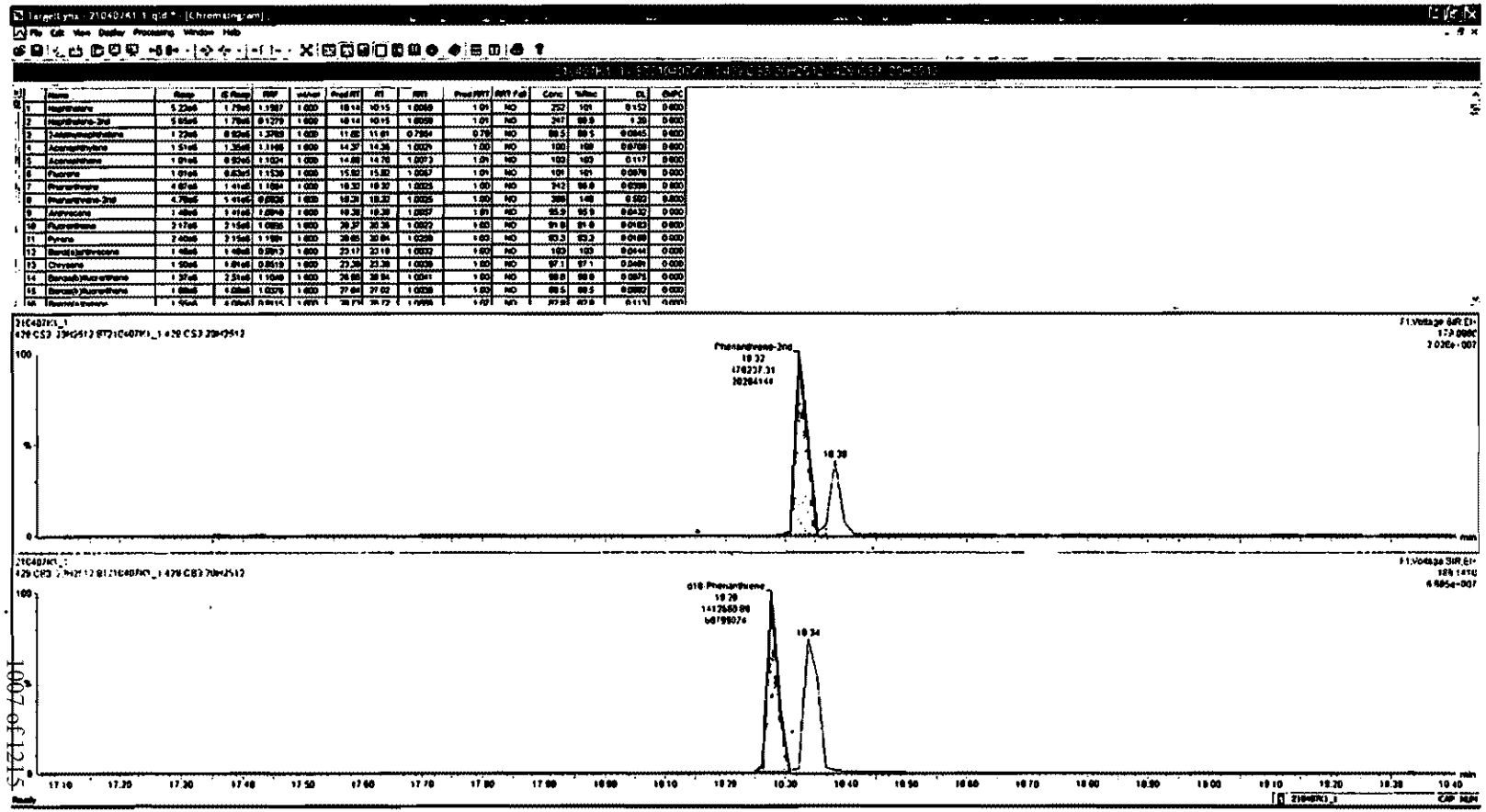


TargetLynx - 210407K1-1.qld * - [Chromatogram]

File Edit View Display Processing Window Help

#	Name	Resp	IS Resp	RRF	wtVol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
1	Naphthalene	5.22e6	1.79e6	1.1587	1.000	10.14	10.15	1.0058	1.01	NO	252	101	0.152	0.000
2	Naphthalene-2nd	5.85e5	1.79e6	0.1279	1.000	10.14	10.15	1.0058	1.01	NO	247	98.8	1.20	0.000
3	2-Methylnaphthalene	1.22e6	8.80e5	1.3780	1.000	11.80	11.01	0.7954	0.79	NO	99.5	99.5	0.0845	0.000
4	Acenaphthylene	1.51e6	1.35e6	1.1180	1.000	14.37	14.36	1.0021	1.00	NO	100	100	0.0708	0.000
5	Acenaphthene	1.01e6	8.82e5	1.1824	1.000	14.80	14.78	1.0073	1.01	NO	100	103	0.117	0.000
6	Fluorene	1.01e6	8.63e5	1.1530	1.000	15.92	15.80	1.0057	1.01	NO	101	101	0.0876	0.000
7	Phenanthrene	4.07e6	1.41e6	1.1884	1.000	18.32	18.32	1.0035	1.00	NO	242	98.8	0.0388	0.000
8	Phenanthrene-2nd	4.79e5	1.41e6	0.0925	1.000	18.31	18.32	1.0025	1.00	NO	366	146	0.502	0.000
9	Anthracene	1.48e6	1.41e6	1.0910	1.000	18.38	18.39	1.0087	1.01	NO	95.9	95.9	0.0432	0.000
10	Fluoranthene	3.17e6	2.15e6	1.0886	1.000	20.37	20.36	1.0022	1.00	NO	91.8	91.8	0.0183	0.000
11	Pyrene	2.40e6	2.15e6	1.1981	1.000	20.86	20.84	1.0288	1.00	NO	93.3	93.3	0.0188	0.000
12	Benz(a)anthracene	1.48e6	1.48e6	0.9813	1.000	23.17	23.19	1.0032	1.00	NO	103	103	0.0444	0.000
13	Chrysene	1.50e6	1.61e6	0.8519	1.000	23.38	23.39	1.0038	1.00	NO	97.1	97.1	0.0461	0.000
14	Benzo(b)fluoranthene	1.37e6	2.51e6	1.1048	1.000	26.86	26.84	1.0041	1.00	NO	98.8	98.8	0.0875	0.000
15	Benzo(k)fluoranthene	1.98e6	4.08e6	1.0376	1.000	27.04	27.02	1.0036	1.00	NO	98.5	98.5	0.0882	0.000
16	[illegible]	1.55e6	4.08e6	0.9115	1.000	28.75	28.72	1.0009	1.00	NO	92.9	92.9	0.113	0.000

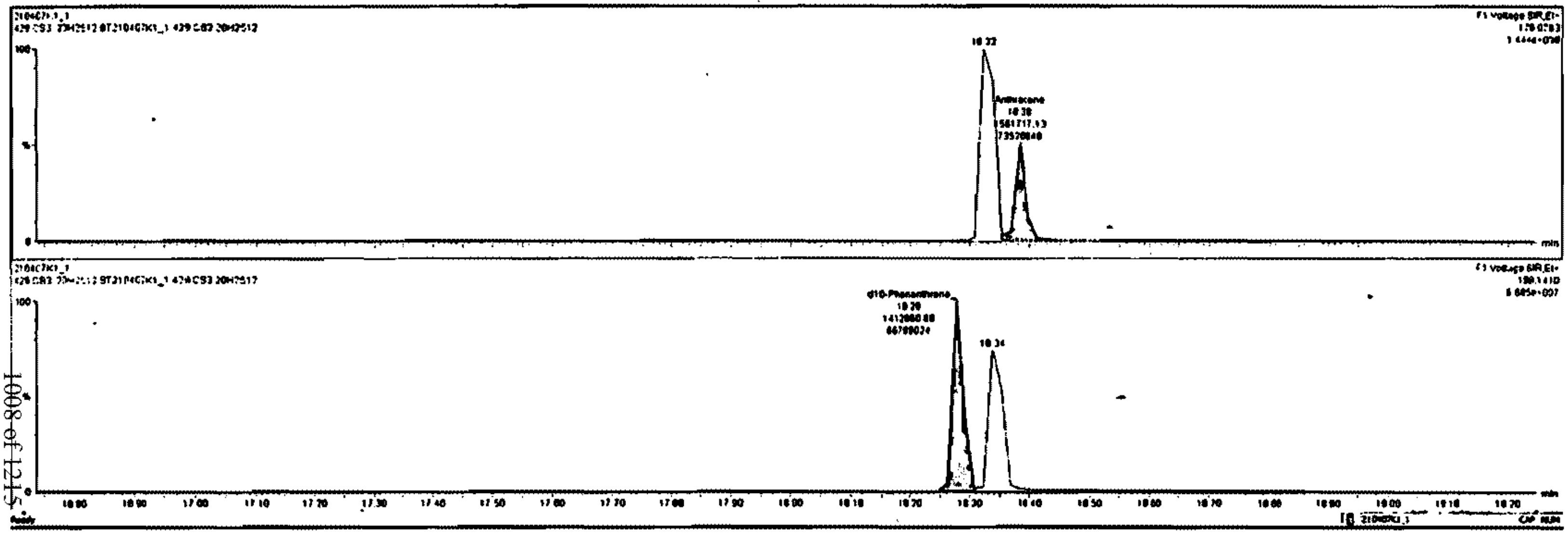


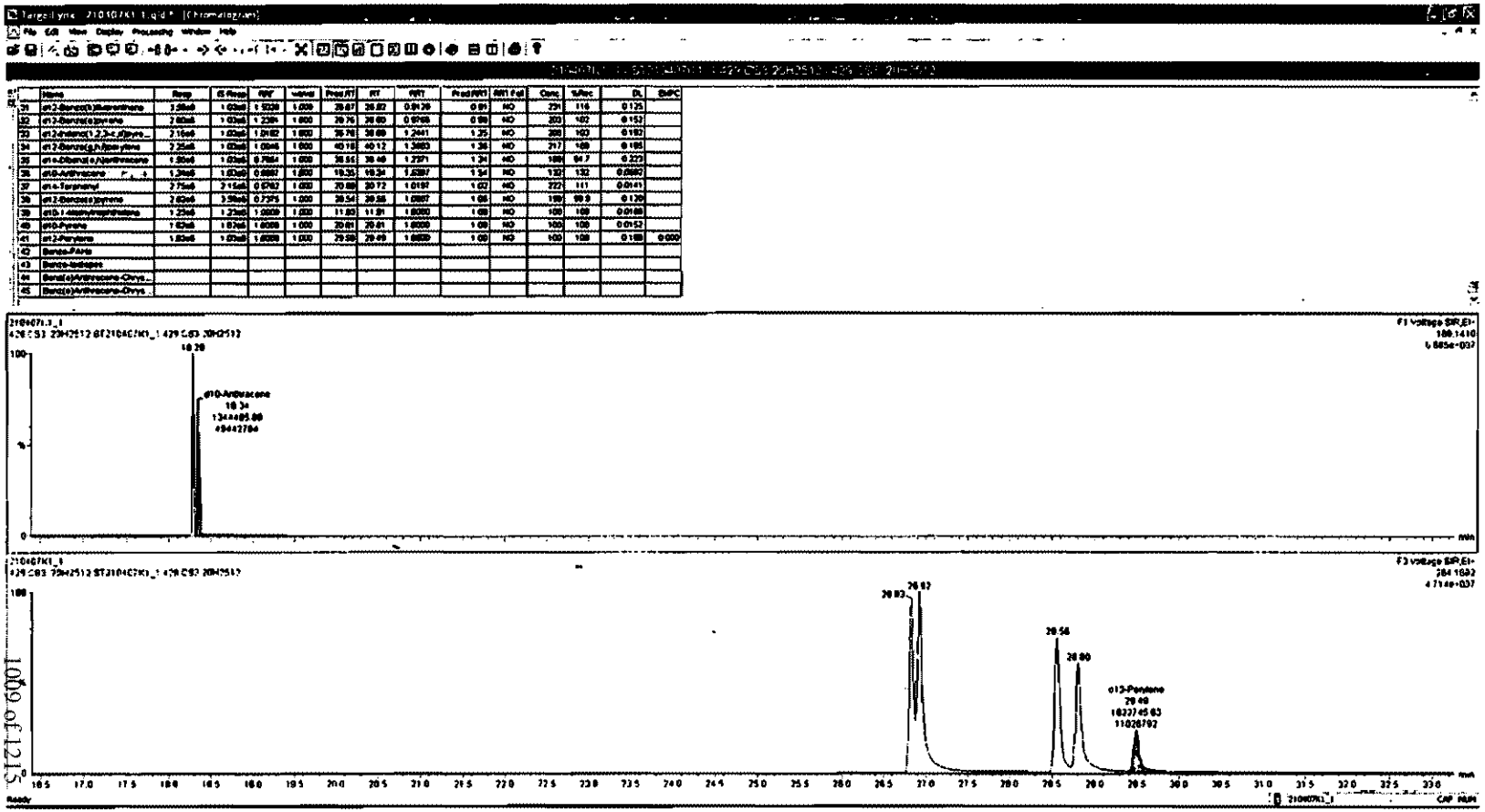

Phenanthrene-2nd
10.32
478237.31
Phenanthrene
10.28
10.34

TargetLynx - 210407K1 Liquid * [Chromatogram]

File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wt/vol	Pred RT	RT	RRT	Pred RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	[illegible]	5.22e6	1.79e6	1.1987	1.000	18.14	18.15	1.0066	1.01	NO	252	101	0.152	0.000
2	[illegible]	5.66e5	1.79e6	0.1379	1.000	18.14	18.15	1.0059	1.01	NO	247	98.9	1.29	0.000
3	[illegible]	1.22e6	8.82e5	1.3788	1.000	11.60	11.61	0.7964	0.79	NO	99.5	99.5	0.0845	0.000
4	[illegible]	1.51e6	1.36e6	1.1100	1.000	14.37	14.36	1.0021	1.00	NO	100	100	0.0700	0.000
5	[illegible]	1.01e6	8.82e5	1.1024	1.000	14.69	14.70	1.0073	1.01	NO	103	103	0.117	0.000
6	[illegible]	1.01e6	8.83e5	1.1538	1.000	15.82	15.82	1.0057	1.01	NO	104	104	0.0878	0.000
7	[illegible]	4.07e6	1.41e6	1.1884	1.000	18.32	18.32	1.0025	1.00	NO	247	98.8	0.0386	0.000
8	[illegible]	4.78e5	1.41e6	0.8825	1.000	18.31	18.32	1.0025	1.00	NO	306	146	0.502	0.000
9	[illegible]	1.58e6	1.41e6	1.0910	1.000	18.28	18.38	1.0059	1.01	NO	101	101	0.0432	0.000
10	[illegible]	2.17e6	2.15e6	1.0865	1.000	20.37	20.38	1.0022	1.00	NO	91.8	91.8	0.0183	0.000
11	[illegible]	2.40e6	2.15e6	1.1981	1.000	20.85	20.84	1.0258	1.03	NO	93.3	93.3	0.0169	0.000
12	[illegible]	1.46e6	1.46e6	0.9813	1.000	23.17	23.19	1.0032	1.00	NO	103	103	0.0444	0.000
13	[illegible]	1.50e6	1.81e6	0.8610	1.000	23.28	23.30	1.0038	1.00	NO	97.1	97.1	0.0481	0.000
14	[illegible]	1.37e6	2.51e6	1.1048	1.000	26.86	26.94	1.0041	1.00	NO	88.8	88.8	0.0875	0.000
15	[illegible]	1.88e6	4.09e6	1.0370	1.000	27.00	27.02	1.0038	1.00	NO	88.5	88.5	0.0882	0.000
16	[illegible]	1.95e6	4.09e6	0.9115	1.000	28.73	28.73	1.0006	1.00	NO	92.9	92.9	0.113	0.000



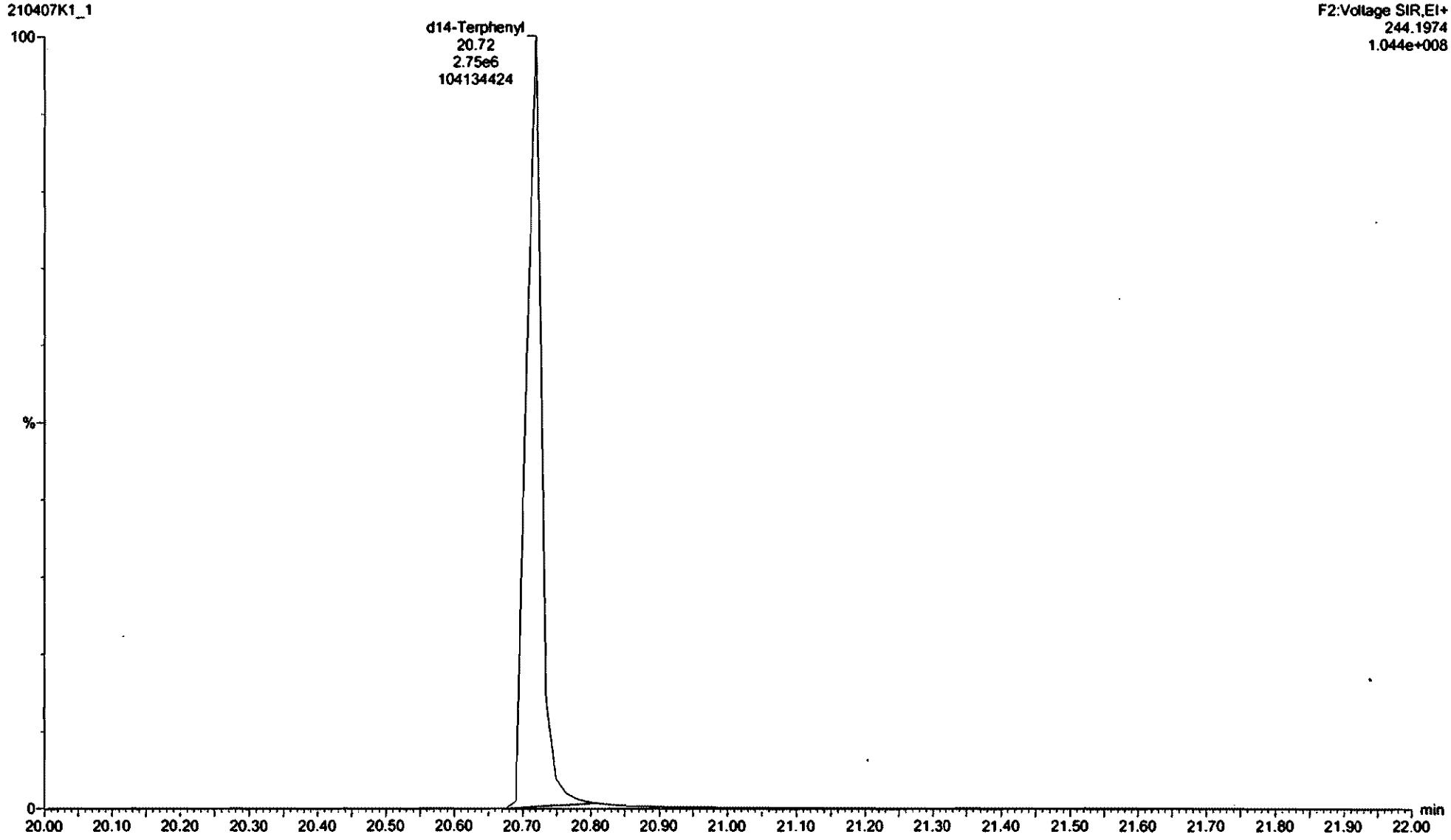


Dataset: Untitled

Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

d14-Terphenyl (PS)



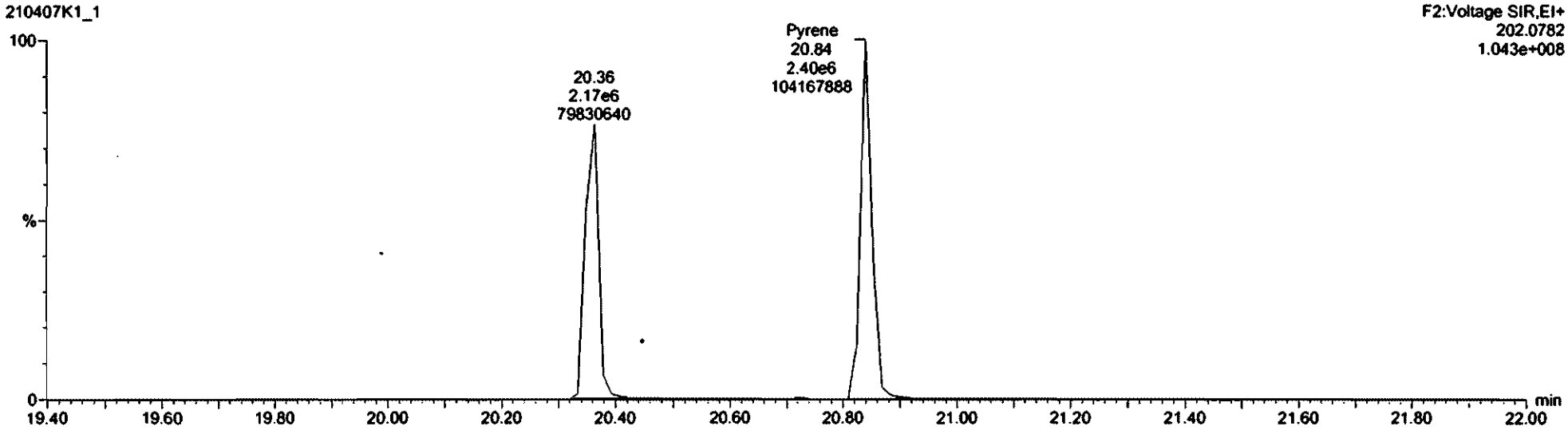
1010 of 1215

Dataset: Untitled

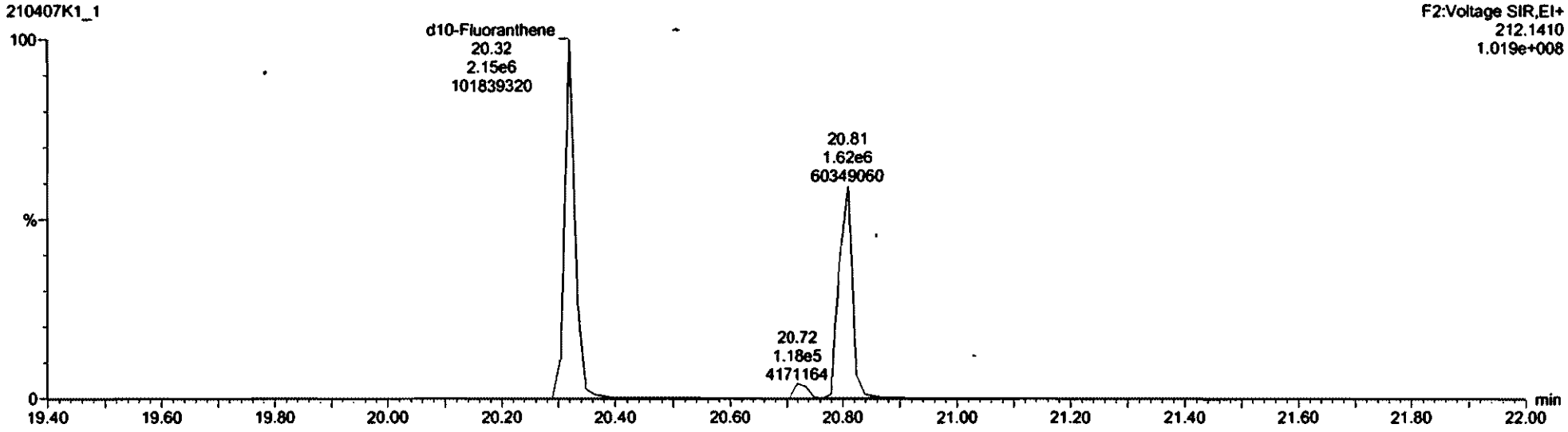
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



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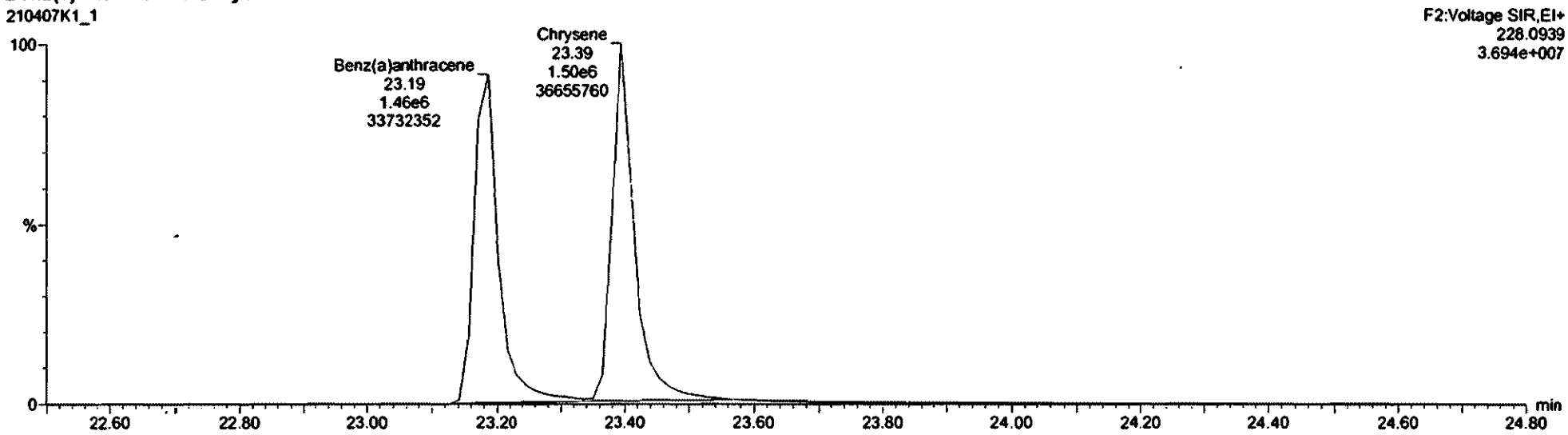
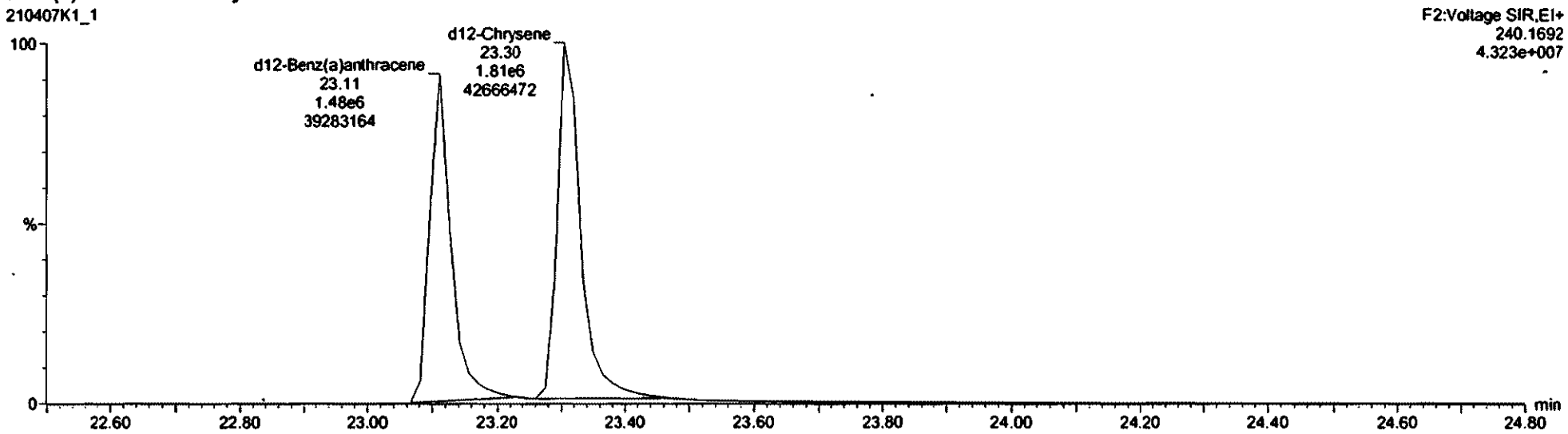
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



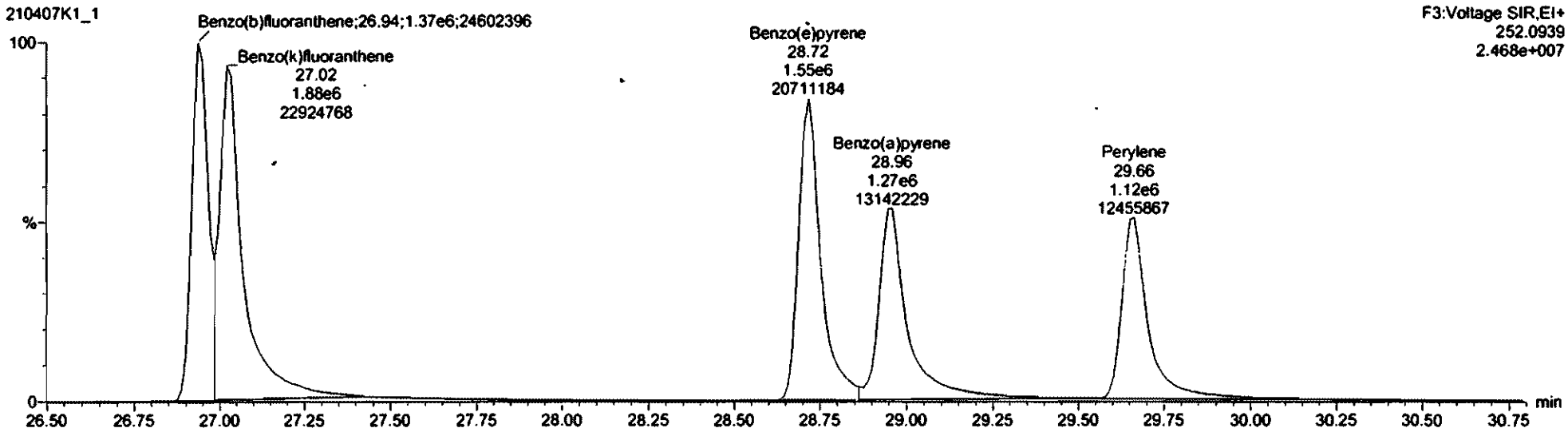
1012 of 1215

Dataset: Untitled

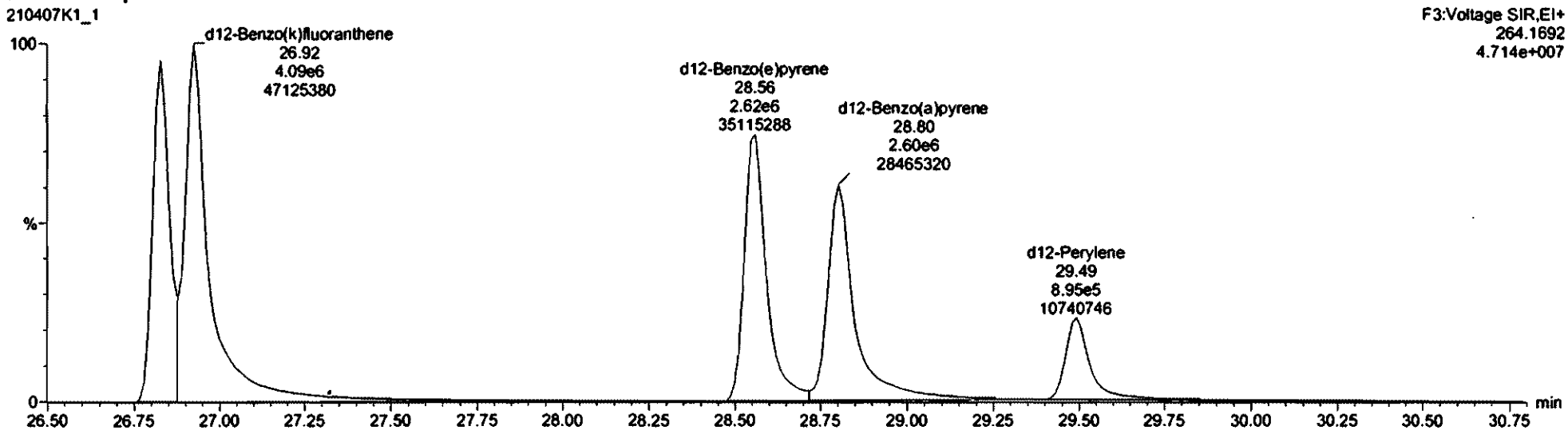
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Benzo-PAHs



Benzo-Isotopes



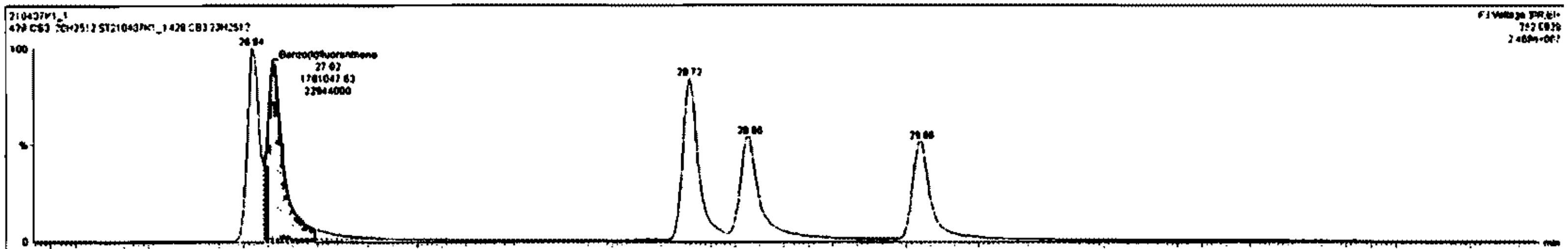
1013 of 1215

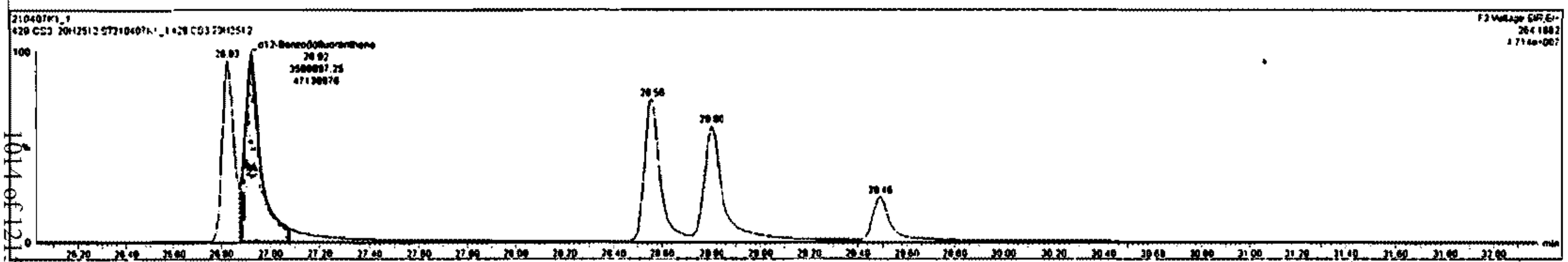
TargetLynx - 210407K1_1.qld * (Chromatogram)

File Edit View Display Processing Window Help

210407K1_1 - ST210407K1_1 429 CS3 20H2512 429 CS3 20H2512

#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc	%Rec	DL	EMPC
1	Naphthalene	5.22e6	1.79e6	1.1597	1.000	10.14	10.15	1.0009	1.01	NO	252	101	0.152	0.000
2	Naphthalene_2nd	5.66e6	1.79e6	0.1279	1.000	10.14	10.15	1.0050	1.01	NO	247	98.9	1.29	0.000
3	2-Methylnaphthalene	1.22e6	8.93e6	1.3768	1.000	11.60	11.61	0.7854	0.79	NO	98.5	98.5	0.0845	0.000
4	Acenaphthylene	1.51e6	1.35e6	1.1108	1.000	14.37	14.36	1.0021	1.00	NO	108	108	0.0708	0.000
5	Acenaphthene	1.01e6	8.93e5	1.1026	1.000	14.69	14.70	1.0073	1.01	NO	103	103	0.117	0.000
6	Fluorene	1.01e6	8.83e5	1.1539	1.000	15.92	15.92	1.0057	1.01	NO	101	101	0.0079	0.000
7	Phenanthrene	4.07e6	1.41e6	1.1084	1.000	18.32	18.32	1.0025	1.00	NO	242	96.8	0.0386	0.000
8	Phenanthrene_2nd	4.70e6	1.41e6	0.8825	1.000	18.31	18.32	1.0025	1.00	NO	366	146	0.502	0.000
9	Anthracene	1.56e6	1.41e6	1.0810	1.000	18.38	18.39	1.0060	1.01	NO	101	101	0.0432	0.000
10	Fluoranthene	2.17e6	2.15e6	1.0985	1.000	20.37	20.38	1.0022	1.00	NO	91.8	91.8	0.0483	0.000
11	Pyrene	2.40e6	2.15e6	1.1081	1.000	20.65	20.84	1.0256	1.00	NO	93.3	93.3	0.0469	0.000
12	Benz(a)anthracene	1.46e6	1.48e6	0.9813	1.000	23.17	23.19	1.0022	1.00	NO	103	103	0.0444	0.000
13	Chrysene	1.50e6	1.81e6	0.8519	1.000	23.30	23.30	1.0030	1.00	NO	97.1	97.1	0.0461	0.000
14	Benzo(b)fluoranthene	1.37e6	2.51e6	1.1049	1.000	26.85	26.94	1.0044	1.00	NO	98.0	98.0	0.0875	0.000
15	Benzo(k)fluoranthene	1.78e6	2.98e6	1.0976	1.000	27.04	27.02	1.0036	1.00	NO	85.7	95.7	0.0882	0.000
16	[illegible]	1.46e6	[illegible]	0.9115	1.000	28.73	28.72	1.0000	[illegible]	NO	96.5	96.5	0.113	0.000





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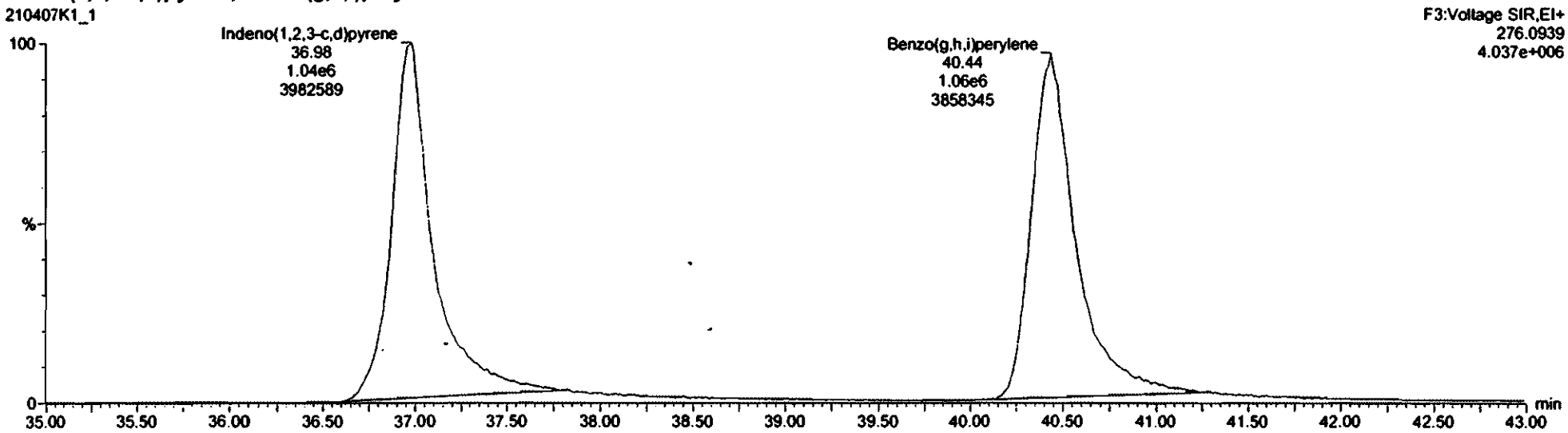
Dataset: Untitled

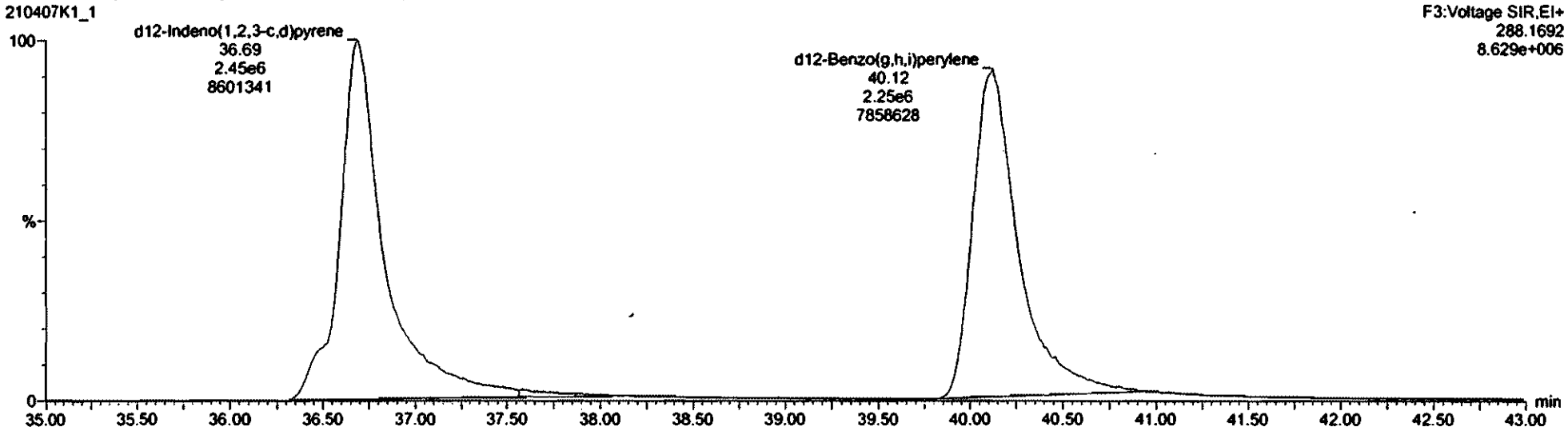
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene

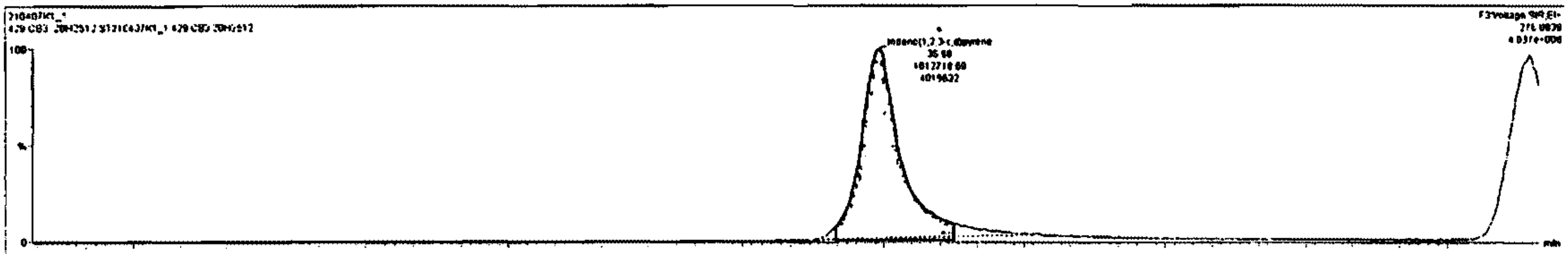


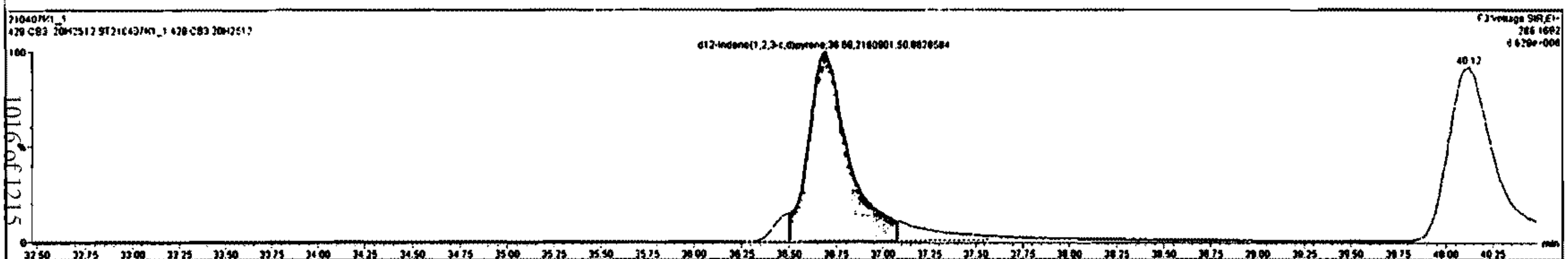
1015 of 1215

targetlynx - 210407K1-1.qld - [Chromatogram]

210407K1_1 - ST210407K1_1 429 CB3 20H2512 - 429 CB3 20H2512

#	Name	Area	IS Resp	RRF	wt/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
17	Benzo(e)pyrene	1.27e6	2.80e6	1.0157	1.000	28.97	28.98	1.0055	1.01	NO	95.8	95.8	0.180	0.000
18	Perylene	1.13e6	2.80e6	0.8874	1.000	29.71	29.66	1.0290	1.03	NO	87.2	87.2	0.173	0.000
19	Indeno(1,2,3-c,d)pyrene	1.01e6	2.16e6	0.9193	1.000	36.84	36.88	1.0079	1.01	NO	102	102	0.440	0.000
20	Benzo(g,h,i)perylene	1.08e6	2.25e6	0.8402	1.000	40.50	40.44	1.0079	1.01	NO	98.8	98.8	0.478	0.000
21	Dibenz(a,h)anthracene	7.73e5	1.78e6	0.9478	1.000	38.89	38.83	1.0080	1.01	NO	95.7	95.7	1.32	0.000
22	d8-Naphthalene	1.79e6	1.62e6	1.2037	1.000	10.10	10.08	0.8400	0.85	NO	91.5	91.5	0.0230	0.000
23	d8-Acenaphthylene	1.35e6	1.62e6	0.9040	1.000	14.31	14.32	1.2020	1.20	NO	91.6	91.6	0.0230	
24	d10-Acenaphthene	8.82e5	1.62e6	0.5830	1.000	14.80	14.80	1.2256	1.23	NO	92.5	92.5	0.0210	
25	d10-Fluorene	8.83e5	1.62e6	0.5820	1.000	15.84	15.83	1.3294	1.33	NO	94.4	94.4	0.0230	
26	d10-Phenanthrene	1.41e6	1.60e6	0.7284	1.000	18.28	18.28	1.5347	1.53	NO	118	118	0.0143	
27	d10-Fluoranthene	2.15e6	1.62e6	1.2858	1.000	20.33	20.32	0.8785	0.88	NO	103	103	0.0118	
28	d12-Benz(a)anthracene	1.48e6	1.62e6	0.8880	1.000	23.11	23.11	1.1107	1.11	NO	101	101	0.0180	
29	d12-Chrysene	1.61e6	1.60e6	1.0211	1.000	23.30	23.31	1.1189	1.12	NO	100	100	0.0170	
30	d12-Benzo(b)fluoranthene	2.51e6	8.96e5	1.1010	1.000	26.76	26.83	0.9086	0.91	NO	237	119	0.164	
31	d12-Benzo(k)fluoranthene	2.59e6	8.95e5	1.3020	1.000	26.87	26.92	0.9129	0.91	NO	267	133	0.129	
32	d12-Benzo(a)pyrene	2.40e6	8.95e5	1.2700	1.000	28.76	28.80	0.9785	0.98	NO	235	117	0.150	





Ready 210407K1_1 CAP NUM

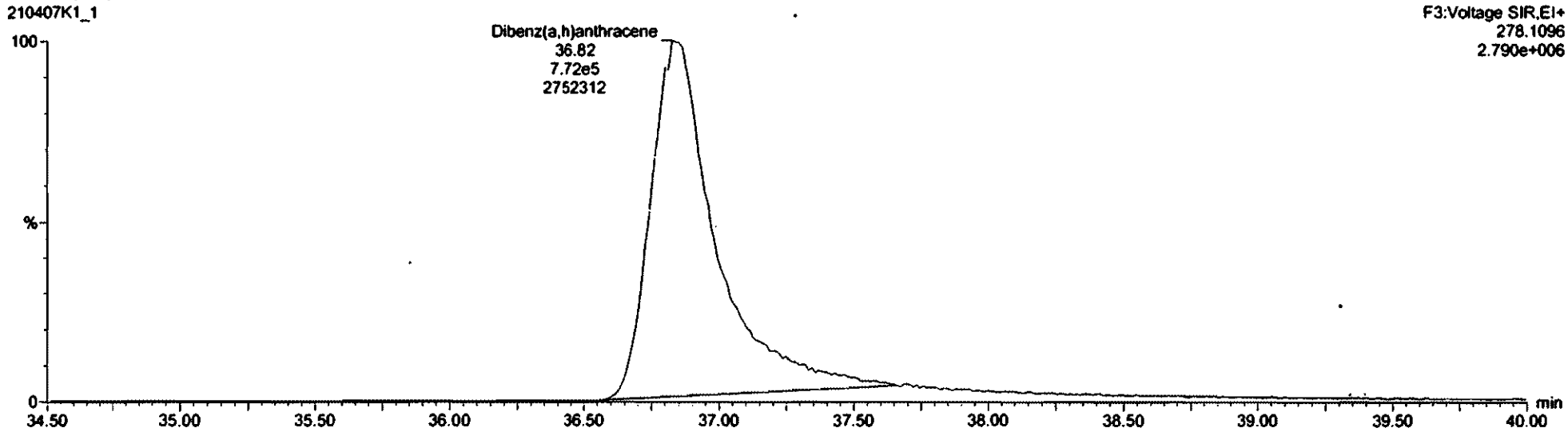
1016 of 1215

Dataset: Untitled

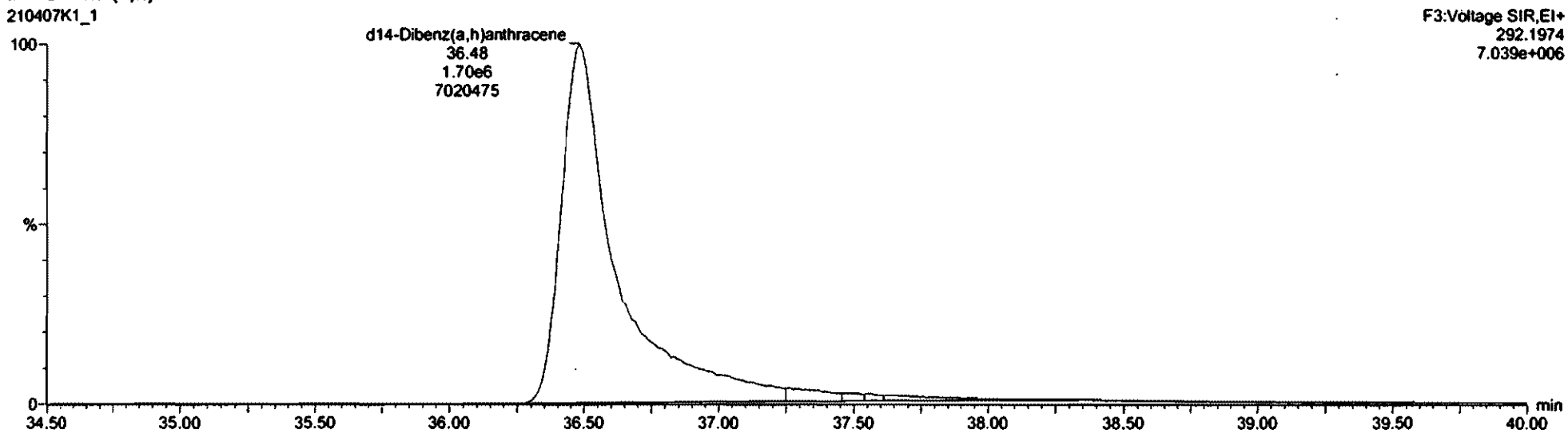
Last Altered: Thursday, April 08, 2021 9:21:25 AM Pacific Daylight Time
Printed: Thursday, April 08, 2021 9:23:23 AM Pacific Daylight Time

Name: 210407K1_1, Date: 07-Apr-2021, Time: 16:03:21, ID: ST210407K1_1 429 CS3 20H2512, Description: 429 CS3 20H2512

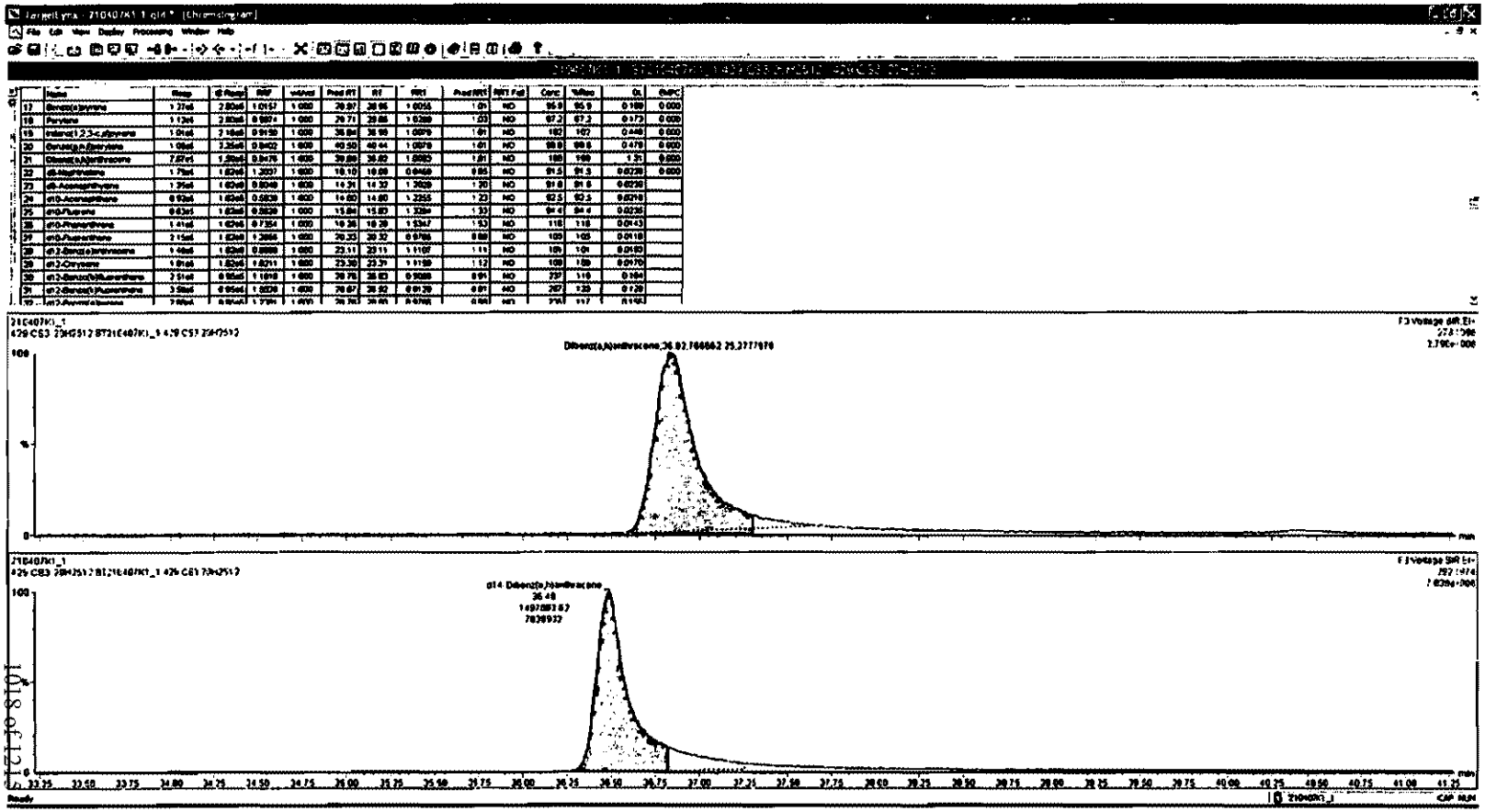
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



1017 of 1215



INITIAL CALIBRATION

Quantify Compound Summary Report **MassLynx 4.1 SCN815**
Vista Analytical Laboratory

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

HZ 4.1.2021
DF 04/02/21
dated e 325

Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Compound name: Naphthalene
Response Factor: 1.15973
RRF SD: 0.0180321, Relative SD: 1.55484
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	210401K2_1	25.0			10.18	1.006	4.40e5	1.50e6	25.3	1.3	1.18	bb
2	210401K2_3	500			10.16	1.006	1.01e7	1.74e6	501	0.1	1.16	bb
3	210401K2_4	125			10.16	1.005	2.79e6	1.89e6	127	1.7	1.18	bb
4	210401K2_5	1250			10.18	1.006	2.78e7	1.95e6	1230	-1.6	1.14	bb
5	210401K2_6	250			10.16	1.006	5.88e6	2.06e6	246	-1.6	1.14	bb

Compound name: Naphthalene-2nd
Response Factor: 0.127893
RRF SD: 0.003115, Relative SD: 2.43563
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	210401K2_1	25.0			10.16	1.005	4.91e4	1.50e6	25.7	2.6	0.131	bb
2	210401K2_3	500			10.16	1.006	1.12e6	1.74e6	503	0.5	0.129	bb
3	210401K2_4	125			10.16	1.005	3.08e5	1.89e6	127	1.8	0.130	bb
4	210401K2_5	1250			10.18	1.006	3.02e6	1.95e6	1210	-3.1	0.124	bb
5	210401K2_6	250			10.16	1.006	6.46e5	2.06e6	245	-1.8	0.126	bb

Compound name: 2-Methylnaphthalene
Response Factor: 1.37694
RRF SD: 0.0799214, Relative SD: 5.80428
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	210401K2_1	10.0			11.62	0.795	9.76e4	7.81e5	9.08	-9.2	1.25	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: 2-Methylnaphthalene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
2	210401K2_3	200			11.62	0.796	2.33e6	8.35e5	202	1.2	1.39	bb
3	210401K2_4	50.0			11.62	0.795	6.58e5	9.14e5	52.3	4.6	1.44	bb
4	210401K2_5	500			11.62	0.795	6.93e6	1.02e6	492	-1.5	1.36	bb
5	210401K2_6	100			11.62	0.796	1.37e6	9.51e5	105	4.9	1.44	bb

Compound name: Acenaphthylene
Response Factor: 1.11665
RRF SD: 0.0148279, Relative SD: 1.3279
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	210401K2_1	10.0			14.39	1.003	1.32e5	1.19e6	9.94	-0.6	1.11	bb
2	210401K2_3	200			14.37	1.003	2.83e6	1.26e6	202	0.8	1.13	bb
3	210401K2_4	50.0			14.37	1.003	7.62e5	1.39e6	49.0	-2.0	1.09	bb
4	210401K2_5	500			14.37	1.002	8.70e6	1.55e6	502	0.5	1.12	bb
5	210401K2_6	100			14.37	1.003	1.67e6	1.48e6	101	1.3	1.13	bb

Compound name: Acenaphthene
Response Factor: 1.10245
RRF SD: 0.0274302, Relative SD: 2.48811
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	210401K2_1	10.0			14.72	1.007	8.32e4	7.81e5	9.66	-3.4	1.06	bb
2	210401K2_3	200			14.70	1.006	1.81e6	8.35e5	197	-1.7	1.08	bb
3	210401K2_4	50.0			14.70	1.006	5.16e5	9.14e5	51.3	2.5	1.13	bb
4	210401K2_5	500			14.72	1.007	5.68e6	1.02e6	504	0.8	1.11	bb
5	210401K2_6	100			14.70	1.006	1.07e6	9.51e5	102	1.8	1.12	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Fluorene
Response Factor: 1.15391
RRF SD: 0.0239027, Relative SD: 2.07145
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	210401K2_1	10.0			15.94	1.006	8.31e4	7.42e5	9.71	-2.9	1.12	bb
2	210401K2_3	200			15.94	1.006	1.83e6	7.89e5	200	0.2	1.16	bb
3	210401K2_4	50.0			15.94	1.006	5.06e5	8.69e5	50.5	1.0	1.17	bb
4	210401K2_5	500			15.94	1.006	5.86e6	9.89e5	513	2.6	1.18	bb
5	210401K2_6	100			15.94	1.006	1.00e6	8.77e5	99.0	-1.0	1.14	bb

Compound name: Phenanthrene
Response Factor: 1.18944
RRF SD: 0.0545992, Relative SD: 4.59033
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	210401K2_1	25.0			18.34	1.003	2.74e5	9.48e5	24.3	-2.8	1.16	MM
2	210401K2_3	500			18.34	1.002	6.15e6	1.00e6	517	3.4	1.23	bd
3	210401K2_4	125			18.34	1.003	1.73e6	1.13e6	129	3.2	1.23	bd
4	210401K2_5	1250			18.34	1.003	1.88e7	1.36e6	1170	-6.8	1.11	bd
5	210401K2_6	250			18.34	1.003	3.52e6	1.15e6	257	2.9	1.22	MM

Compound name: Phenanthrene-2nd
Response Factor: 0.0924947
RRF SD: 0.00820607, Relative SD: 8.87194
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	210401K2_1	25.0			18.34	1.003	2.06e4	9.48e5	23.5	-5.9	0.0871	MM
2	210401K2_3	500			18.34	1.002	4.65e5	1.00e6	503	0.6	0.0931	bd
3	210401K2_4	125			18.34	1.003	1.29e5	1.13e6	124	-1.0	0.0916	bd
4	210401K2_5	1250			18.34	1.003	1.44e6	1.36e6	1150	-8.3	0.0849	bd

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Phenanthrene-2nd

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	250			18.34	1.003	3.05e5	1.15e6	286	14.5	0.106	MM

Compound name: Anthracene
Response Factor: 1.09104
RRF SD: 0.0308545, Relative SD: 2.82799
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	210401K2_1	10.0			18.40	1.006	1.07e5	9.48e5	10.4	3.9	1.13	MM
2	210401K2_3	200			18.40	1.006	2.10e6	1.00e6	192	-3.9	1.05	db
3	210401K2_4	50.0			18.40	1.006	6.20e5	1.13e6	50.4	0.9	1.10	db
4	210401K2_5	500			18.40	1.006	7.36e6	1.36e6	496	-0.8	1.08	db
5	210401K2_6	100			18.38	1.006	1.25e6	1.15e6	100	-0.0	1.09	MM

Compound name: Fluoranthene
Response Factor: 1.09951
RRF SD: 0.0202108, Relative SD: 1.83816
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	210401K2_1	10.0			20.38	1.002	1.81e5	1.68e6	9.80	-2.0	1.08	bb
2	210401K2_3	200			20.36	1.001	4.02e6	1.85e6	198	-1.0	1.09	bb
3	210401K2_4	50.0			20.36	1.002	1.14e6	2.02e6	51.3	2.6	1.13	bb
4	210401K2_5	500			20.36	1.002	1.17e7	2.11e6	506	1.2	1.11	bb
5	210401K2_6	100			20.36	1.002	2.27e6	2.08e6	99.3	-0.7	1.09	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Pyrene
Response Factor: 1.19809
RRF SD: 0.0140443, Relative SD: 1.17222
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	210401K2_1	10.0			20.85	1.026	2.00e5	1.68e6	9.93	-0.7	1.19	bb
2	210401K2_3	200			20.85	1.026	4.39e6	1.85e6	198	-0.8	1.19	bb
3	210401K2_4	50.0			20.85	1.026	1.23e6	2.02e6	50.9	1.8	1.22	bb
4	210401K2_5	500			20.85	1.026	1.27e7	2.11e6	502	0.5	1.20	bb
5	210401K2_6	100			20.85	1.026	2.47e6	2.08e6	99.1	-0.9	1.19	bb

Compound name: Benz(a)anthracene
Response Factor: 0.961302
RRF SD: 0.0252463, Relative SD: 2.62626
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	210401K2_1	10.0			23.22	1.003	1.03e5	1.11e6	9.61	-3.9	0.923	bb
2	210401K2_3	200			23.20	1.003	2.48e6	1.27e6	204	1.8	0.978	bd
3	210401K2_4	50.0			23.17	1.003	7.22e5	1.48e6	50.8	1.6	0.976	bd
4	210401K2_5	500			23.17	1.003	7.51e6	1.58e6	493	-1.5	0.947	bb
5	210401K2_6	100			23.20	1.003	1.37e6	1.40e6	102	2.1	0.981	MM

Compound name: Chrysene
Response Factor: 0.851913
RRF SD: 0.0280349, Relative SD: 3.29082
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	210401K2_1	10.0			23.42	1.004	1.05e5	1.29e6	9.53	-4.7	0.812	MM
2	210401K2_3	200			23.41	1.004	2.51e6	1.48e6	199	-0.7	0.846	db
3	210401K2_4	50.0			23.38	1.003	7.05e5	1.61e6	51.5	3.0	0.877	db
4	210401K2_5	500			23.39	1.004	7.39e6	1.75e6	495	-1.0	0.843	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Chrysene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	100			23.41	1.003	1.42e6	1.62e6	103	3.3	0.880	MM

Compound name: Benzo(b)fluoranthene
Response Factor: 1.10484
RRF SD: 0.0620022, Relative SD: 5.61186
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	210401K2_1	10.0			27.02	1.005	1.20e5	2.18e6	9.97	-0.3	1.10	dd
2	210401K2_3	200			27.05	1.004	2.59e6	2.59e6	181	-9.4	1.00	bd
3	210401K2_4	50.0			26.97	1.005	7.69e5	2.74e6	50.7	1.5	1.12	dd
4	210401K2_5	500			27.01	1.005	7.91e6	2.73e6	525	4.9	1.16	bd
5	210401K2_6	100			26.95	1.004	1.50e6	2.64e6	103	3.3	1.14	dd

Compound name: Benzo(k)fluoranthene
Response Factor: 1.03762
RRF SD: 0.058133, Relative SD: 5.60252
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	210401K2_1	10.0			27.12	1.004	1.31e5	2.70e6	9.34	-6.6	0.969	MM
2	210401K2_3	200			27.14	1.004	3.41e6	3.14e6	210	4.8	1.09	MM
3	210401K2_4	50.0			27.07	1.004	9.51e5	3.44e6	53.3	6.6	1.11	MM
4	210401K2_5	500			27.10	1.004	9.07e6	3.64e6	481	-3.8	0.998	db
5	210401K2_6	100			27.03	1.004	1.80e6	3.51e6	99.0	-1.0	1.03	MM

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Benzo(e)pyrene
Response Factor: 0.911484
RRF SD: 0.0132601, Relative SD: 1.45478
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	210401K2_1	10.0			28.90	1.070	1.22e5	2.70e6	9.94	-0.6	0.906	MM
2	210401K2_3	200			28.86	1.068	2.88e6	3.14e6	201	0.7	0.918	bd
3	210401K2_4	50.0			28.76	1.067	8.00e5	3.44e6	51.0	2.1	0.930	MM
4	210401K2_5	500			28.81	1.067	8.24e6	3.64e6	498	-0.5	0.907	bd
5	210401K2_6	100			28.73	1.067	1.57e6	3.51e6	98.3	-1.7	0.896	bd

Compound name: Benzo(a)pyrene
Response Factor: 1.01571
RRF SD: 0.0341411, Relative SD: 3.36129
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	210401K2_1	10.0			29.15	1.006	1.07e5	2.23e6	9.46	-5.4	0.961	MM
2	210401K2_3	200			29.10	1.005	2.72e6	2.66e6	201	0.6	1.02	db
3	210401K2_4	50.0			29.01	1.005	7.17e5	2.79e6	50.6	1.3	1.03	db
4	210401K2_5	500			29.06	1.005	7.89e6	3.00e6	519	3.7	1.05	db
5	210401K2_6	100			28.97	1.005	1.44e6	2.83e6	99.9	-0.1	1.01	db

Compound name: Perylene
Response Factor: 0.987377
RRF SD: 0.0370306, Relative SD: 3.7504
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	210401K2_1	10.0			29.81	1.028	1.03e5	2.23e6	9.37	-6.3	0.925	MM
2	210401K2_3	200			29.89	1.033	2.63e6	2.66e6	200	-0.0	0.987	bd
3	210401K2_4	50.0			29.76	1.031	7.08e5	2.79e6	51.4	2.8	1.02	MM
4	210401K2_5	500			29.75	1.029	7.60e6	3.00e6	514	2.7	1.01	bb

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Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Perylene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	100			29.67	1.030	1.41e6	2.83e6	101	0.8	0.995	bb

Compound name: Indeno(1,2,3-c,d)pyrene
Response Factor: 0.914956
RRF SD: 0.0498137, Relative SD: 5.44438
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	210401K2_1	10.0			37.26	1.006	7.91e4	1.90e6	9.08	-9.2	0.831	MM
2	210401K2_3	200			37.35	1.008	1.99e6	2.15e6	202	1.2	0.926	MM
3	210401K2_4	50.0			37.15	1.007	5.22e5	2.26e6	50.4	0.8	0.922	MM
4	210401K2_5	500			37.33	1.009	5.93e6	2.46e6	526	5.2	0.963	MM
5	210401K2_6	100			37.25	1.006	1.09e6	2.33e6	102	2.0	0.933	MM

Compound name: Benzo(g,h,i)perylene
Response Factor: 0.940245
RRF SD: 0.0396648, Relative SD: 4.21856
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	210401K2_1	10.0			40.79	1.007	8.15e4	1.82e6	9.51	-4.9	0.894	MM
2	210401K2_3	200			40.68	1.007	2.04e6	2.13e6	203	1.6	0.956	bb
3	210401K2_4	50.0			40.69	1.009	5.47e5	2.35e6	49.6	-0.8	0.933	bb
4	210401K2_5	500			40.28	1.006	5.83e6	2.33e6	531	6.2	0.999	bb
5	210401K2_6	100			40.36	1.008	1.07e6	2.32e6	97.9	-2.1	0.920	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: Dibenz(a,h)anthracene
Response Factor: 0.947599
RRF SD: 0.0642343, Relative SD: 6.77864
Response type: Internal Std (Ref 35), 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	210401K2_1	10.0			37.25	1.011	6.09e4	1.42e6	9.03	-9.7	0.856	MM
2	210401K2_3	200			37.27	1.010	1.57e6	1.65e6	201	0.3	0.951	MM
3	210401K2_4	50.0			37.08	1.011	4.03e5	1.72e6	49.6	-0.9	0.939	MM
4	210401K2_5	500			37.30	1.012	4.71e6	1.82e6	547	9.4	1.04	MM
5	210401K2_6	100			37.21	1.007	8.28e5	1.73e6	101	0.9	0.956	MM

Compound name: d8-Naphthalene
Response Factor: 1.20367
RRF SD: 0.0352776, Relative SD: 2.93085
Response type: Internal Std (Ref 40), 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	210401K2_1	100			10.11	0.848	1.50e6	1.28e6	96.9	-3.1	1.17	bb
2	210401K2_3	100			10.10	0.847	1.74e6	1.43e6	101	1.2	1.22	bb
3	210401K2_4	100			10.11	0.848	1.89e6	1.61e6	97.7	-2.3	1.18	bb
4	210401K2_5	100			10.11	0.848	1.95e6	1.62e6	100	0.0	1.20	bb
5	210401K2_6	100			10.10	0.847	2.06e6	1.64e6	104	4.2	1.25	bb

Compound name: d8-Acenaphthylene
Response Factor: 0.9048
RRF SD: 0.0370822, Relative SD: 4.09839
Response type: Internal Std (Ref 40), 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	210401K2_1	100			14.34	1.202	1.19e6	1.28e6	102	2.3	0.926	bb
2	210401K2_3	100			14.32	1.201	1.26e6	1.43e6	97.1	-2.9	0.879	bb
3	210401K2_4	100			14.32	1.201	1.39e6	1.61e6	95.5	-4.5	0.864	bb
4	210401K2_5	100			14.34	1.202	1.55e6	1.62e6	106	5.7	0.957	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d8-Acenaphthylene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	100			14.32	1.201	1.48e6	1.64e6	99.3	-0.7	0.898	bb

Compound name: d10-Acenaphthene
Response Factor: 0.593806
RRF SD: 0.025441, Relative SD: 4.2844
Response type: Internal Std (Ref 40), 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	210401K2_1	100			14.61	1.225	7.81e5	1.28e6	102	2.5	0.608	bb
2	210401K2_3	100			14.61	1.225	8.35e5	1.43e6	98.4	-1.6	0.584	bb
3	210401K2_4	100			14.61	1.225	9.14e5	1.61e6	95.5	-4.5	0.567	bb
4	210401K2_5	100			14.61	1.225	1.02e6	1.62e6	106	6.2	0.631	bb
5	210401K2_6	100			14.61	1.225	9.51e5	1.64e6	97.5	-2.5	0.579	bb

Compound name: d10-Fluorene
Response Factor: 0.562754
RRF SD: 0.0314615, Relative SD: 5.59062
Response type: Internal Std (Ref 40), 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	210401K2_1	100			15.85	1.329	7.42e5	1.28e6	103	2.6	0.578	bb
2	210401K2_3	100			15.85	1.329	7.89e5	1.43e6	98.1	-1.9	0.552	bb
3	210401K2_4	100			15.85	1.329	8.69e5	1.61e6	95.8	-4.2	0.539	bb
4	210401K2_5	100			15.85	1.329	9.89e5	1.62e6	108	8.5	0.610	bb
5	210401K2_6	100			15.85	1.329	8.77e5	1.64e6	95.0	-5.0	0.534	bb

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d10-Phenanthrene
Response Factor: 0.735398
RRF SD: 0.0600773, Relative SD: 8.16935
Response type: Internal Std (Ref 40), 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	210401K2_1	100			18.29	1.534	9.48e5	1.28e6	100	0.4	0.738	bd
2	210401K2_3	100			18.29	1.534	1.00e6	1.43e6	95.2	-4.8	0.700	bd
3	210401K2_4	100			18.29	1.534	1.13e6	1.61e6	95.1	-4.9	0.700	bd
4	210401K2_5	100			18.29	1.534	1.36e6	1.62e6	114	14.1	0.839	MM
5	210401K2_6	100			18.28	1.533	1.15e6	1.64e6	95.2	-4.8	0.700	bd

Compound name: d10-Fluoranthene
Response Factor: 1.28564
RRF SD: 0.0227155, Relative SD: 1.76687
Response type: Internal Std (Ref 40), 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	210401K2_1	100			20.33	0.976	1.68e6	1.28e6	102	1.9	1.31	bb
2	210401K2_3	100			20.33	0.977	1.85e6	1.43e6	100	0.5	1.29	bb
3	210401K2_4	100			20.33	0.977	2.02e6	1.61e6	97.7	-2.3	1.26	bb
4	210401K2_5	100			20.33	0.977	2.11e6	1.62e6	101	1.3	1.30	bb
5	210401K2_6	100			20.32	0.976	2.08e6	1.64e6	98.6	-1.4	1.27	bb

Compound name: d12-Benz(a)anthracene
Response Factor: 0.899801
RRF SD: 0.0505242, Relative SD: 5.61504
Response type: Internal Std (Ref 40), 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	210401K2_1	100			23.14	1.111	1.11e6	1.28e6	96.3	-3.7	0.867	bd
2	210401K2_3	100			23.13	1.111	1.27e6	1.43e6	98.5	-1.5	0.886	bb
3	210401K2_4	100			23.11	1.111	1.48e6	1.61e6	102	2.0	0.918	bd
4	210401K2_5	100			23.11	1.111	1.58e6	1.62e6	109	8.7	0.978	bd

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d12-Benz(a)anthracene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	100			23.14	1.112	1.40e6	1.64e6	94.5	-5.5	0.850	bd

Compound name: d12-Chrysene
Response Factor: 1.02108
RRF SD: 0.0395777, Relative SD: 3.87607
Response type: Internal Std (Ref 40), 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	210401K2_1	100			23.33	1.121	1.29e6	1.28e6	98.3	-1.7	1.00	db
2	210401K2_3	100			23.32	1.121	1.48e6	1.43e6	102	1.7	1.04	bb
3	210401K2_4	100			23.31	1.120	1.61e6	1.61e6	97.6	-2.4	0.997	db
4	210401K2_5	100			23.31	1.120	1.75e6	1.62e6	106	6.0	1.08	db
5	210401K2_6	100			23.33	1.121	1.62e6	1.64e6	96.4	-3.6	0.984	db

Compound name: d12-Benzo(b)fluoranthene
Response Factor: 1.18176
RRF SD: 0.0440034, Relative SD: 3.72355
Response type: Internal Std (Ref 41), 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	210401K2_1	200			26.89	0.907	2.18e6	9.42e5	196	-2.0	1.16	bd
2	210401K2_3	200			26.92	0.907	2.59e6	1.04e6	210	5.2	1.24	bd
3	210401K2_4	200			26.85	0.907	2.74e6	1.13e6	205	2.7	1.21	bd
4	210401K2_5	200			26.89	0.909	2.73e6	1.19e6	194	-2.8	1.15	bd
5	210401K2_6	200			26.85	0.910	2.64e6	1.15e6	194	-3.0	1.15	bd

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d12-Benzo(k)fluoranthene
Response Factor: 1.50282
RRF SD: 0.0411963, Relative SD: 2.74126
Response type: Internal Std (Ref 41), 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	210401K2_1	200			27.01	0.911	2.70e6	9.42e5	190	-4.8	1.43	MM
2	210401K2_3	200			27.03	0.910	3.14e6	1.04e6	200	0.2	1.51	db
3	210401K2_4	200			26.96	0.911	3.44e6	1.13e6	202	1.2	1.52	db
4	210401K2_5	200			27.00	0.912	3.64e6	1.19e6	203	1.7	1.53	db
5	210401K2_6	200			26.94	0.913	3.51e6	1.15e6	203	1.6	1.53	db

1032 of 1215

Compound name: d12-Benzo(a)pyrene
Response Factor: 1.2381
RRF SD: 0.0347184, Relative SD: 2.80417
Response type: Internal Std (Ref 41), 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	210401K2_1	200			28.98	0.978	2.23e6	9.42e5	192	-4.2	1.19	MM
2	210401K2_3	200			28.95	0.975	2.66e6	1.04e6	206	3.2	1.28	MM
3	210401K2_4	200			28.85	0.975	2.79e6	1.13e6	199	-0.4	1.23	db
4	210401K2_5	200			28.90	0.977	3.00e6	1.19e6	204	1.8	1.26	db
5	210401K2_6	200			28.81	0.977	2.83e6	1.15e6	199	-0.4	1.23	db

Compound name: d12-Indeno(1,2,3-c,d)pyrene
Response Factor: 1.01816
RRF SD: 0.0146744, Relative SD: 1.44127
Response type: Internal Std (Ref 41), 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	210401K2_1	200			37.03	1.249	1.90e6	9.42e5	199	-0.7	1.01	MM
2	210401K2_3	200			37.07	1.248	2.15e6	1.04e6	203	1.3	1.03	MM
3	210401K2_4	200			36.90	1.247	2.26e6	1.13e6	197	-1.7	1.00	MM
4	210401K2_5	200			36.99	1.250	2.46e6	1.19e6	203	1.7	1.04	MM

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d12-Indeno(1,2,3-c,d)pyrene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	200			37.04	1.255	2.33e6	1.15e6	199	-0.6	1.01	MM

Compound name: d12-Benzo(g,h,i)perylene
Response Factor: 1.00461
RRF SD: 0.0292191, Relative SD: 2.90851
Response type: Internal Std (Ref 41), 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	210401K2_1	200			40.50	1.366	1.82e6	9.42e5	193	-3.6	0.968	MM
2	210401K2_3	200			40.41	1.361	2.13e6	1.04e6	204	1.9	1.02	MM
3	210401K2_4	200			40.31	1.362	2.35e6	1.13e6	207	3.4	1.04	bb
4	210401K2_5	200			40.04	1.353	2.33e6	1.19e6	195	-2.3	0.981	bb
5	210401K2_6	200			40.05	1.357	2.32e6	1.15e6	201	0.6	1.01	bb

Compound name: d14-Dibenz(a,h)anthracene
Response Factor: 0.765358
RRF SD: 0.0155455, Relative SD: 2.03115
Response type: Internal Std (Ref 41), 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	210401K2_1	200			36.85	1.243	1.42e6	9.42e5	198	-1.2	0.756	MM
2	210401K2_3	200			36.92	1.243	1.65e6	1.04e6	207	3.5	0.792	MM
3	210401K2_4	200			36.67	1.239	1.72e6	1.13e6	199	-0.7	0.760	MM
4	210401K2_5	200			36.85	1.245	1.82e6	1.19e6	200	-0.0	0.765	MM
5	210401K2_6	200			36.96	1.253	1.73e6	1.15e6	197	-1.6	0.753	MM

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d10-Anthracene
Response Factor: 0.988652
RRF SD: 0.0727568, Relative SD: 7.35919
Response type: Internal Std (Ref 41), 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	210401K2_1	100			18.35	1.539	8.77e5	9.42e5	94.1	-5.9	0.931	db
2	210401K2_3	100			18.35	1.539	9.88e5	1.04e6	96.0	-4.0	0.949	db
3	210401K2_4	100			18.35	1.539	1.12e6	1.13e6	100	0.0	0.989	db
4	210401K2_5	100			18.35	1.539	1.32e6	1.19e6	113	12.6	1.11	MM
5	210401K2_6	100			18.35	1.539	1.10e6	1.15e6	97.2	-2.8	0.961	db

Compound name: d14-Terphenyl
Response Factor: 0.576182
RRF SD: 0.0201863, Relative SD: 3.50346
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	210401K2_1	200			20.74	1.020	1.88e6	1.68e6	194	-3.1	0.559	bb
2	210401K2_3	200			20.74	1.020	2.07e6	1.85e6	195	-2.7	0.561	bb
3	210401K2_4	200			20.72	1.019	2.35e6	2.02e6	202	0.8	0.581	bb
4	210401K2_5	200			20.72	1.019	2.57e6	2.11e6	211	5.6	0.608	bb
5	210401K2_6	200			20.72	1.020	2.38e6	2.08e6	199	-0.6	0.573	bb

Compound name: d12-Benzo(e)pyrene
Response Factor: 0.737507
RRF SD: 0.0202212, Relative SD: 2.74183
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	210401K2_1	200			28.73	1.064	2.06e6	2.70e6	207	3.6	0.764	bd
2	210401K2_3	200			28.70	1.062	2.32e6	3.14e6	201	0.4	0.740	bd
3	210401K2_4	200			28.58	1.060	2.57e6	3.44e6	202	1.2	0.747	bd
4	210401K2_5	200			28.65	1.061	2.58e6	3.64e6	193	-3.6	0.711	bd

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d12-Benzo(e)pyrene

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
5	210401K2_6	200			28.57	1.061	2.55e6	3.51e6	197	-1.5	0.726	bd

Compound name: d10-1-Methylnaphthalene
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 39), 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	210401K2_1	100			11.93	1.000	1.03e6	1.03e6	100	0.0	1.00	bb
2	210401K2_3	100			11.93	1.000	1.22e6	1.22e6	100	0.0	1.00	bb
3	210401K2_4	100			11.93	1.000	1.30e6	1.30e6	100	0.0	1.00	bb
4	210401K2_5	100			11.93	1.000	1.46e6	1.46e6	100	0.0	1.00	bb
5	210401K2_6	100			11.93	1.000	1.38e6	1.38e6	100	0.0	1.00	bb

Compound name: d10-Pyrene
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 40), 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	210401K2_1	100			20.82	1.000	1.28e6	1.28e6	100	0.0	1.00	db
2	210401K2_3	100			20.81	1.000	1.43e6	1.43e6	100	0.0	1.00	db
3	210401K2_4	100			20.81	1.000	1.61e6	1.61e6	100	0.0	1.00	db
4	210401K2_5	100			20.81	1.000	1.62e6	1.62e6	100	0.0	1.00	bb
5	210401K2_6	100			20.81	1.000	1.64e6	1.64e6	100	0.0	1.00	db

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-CRV.qld

Last Altered: Thursday, April 01, 2021 16:11:11 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:18:29 Pacific Daylight Time

Compound name: d12-Perylene
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 41), 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	210401K2_1	100			29.65	1.000	9.42e5	9.42e5	100	0.0	1.00	dd
2	210401K2_3	100			29.70	1.000	1.04e6	1.04e6	100	0.0	1.00	db
3	210401K2_4	100			29.59	1.000	1.13e6	1.13e6	100	0.0	1.00	bd
4	210401K2_5	100			29.59	1.000	1.19e6	1.19e6	100	0.0	1.00	bd
5	210401K2_6	100			29.50	1.000	1.15e6	1.15e6	100	0.0	1.00	bd

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Friday, April 02, 2021 08:14:41 Pacific Daylight Time
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Method: U:\VG11.PRO\MethDB\PAH-4-1-21.mdb 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Compound name: Naphthalene

	Name	ID	Acq.Date	Acq.Time
1	210401K2_1	ST210401K2_1 429 CS1 20H2510	01-Apr-21	09:34:39
2	210401K2_2	ST210401K2_2 429 CS2 20H2511	01-Apr-21	10:20:36
3	210401K2_3	ST210401K2_3 429 CS4 20H2513	01-Apr-21	11:06:32
4	210401K2_4	ST210401K2_4 429 CS2 20H2511	01-Apr-21	11:55:05
5	210401K2_5	ST210401K2_5 429 CS5 20H2514	01-Apr-21	12:40:15
6	210401K2_6	ST210401K2_6 429 CS3 20H2512	01-Apr-21	13:27:05
7	210401K2_7	SS210401K2_1 429 SS 20H2515	01-Apr-21	14:17:38
8	210401K2_8	B1C0153-BS1 OPR 1	01-Apr-21	15:07:02
9	210401K2_9	B1C0153-BSD1 LCSD 1	01-Apr-21	15:52:05
10	210401K2_10	B1C0146-BS1 LCS 1	01-Apr-21	16:38:54
11	210401K2_11	B1C0130-BS1 LCS 1	01-Apr-21	17:25:43
12	210401K2_12	SOLVENT BLANK	01-Apr-21	18:12:32
13	210401K2_13	B1C0130-BLK1 Blank 1	01-Apr-21	18:59:21
14	210401K2_14	B1C0146-BLK1 Blank 1	01-Apr-21	19:46:09
15	210401K2_15	B1C0153-BLK1 Method Blank 1	01-Apr-21	20:32:57
16	210401K2_16	2103171-01 HRMS-210315-03; Lot#MKCL552...	01-Apr-21	21:19:44
17	210401K2_17	2103009-04 Lb-M429-FB 1	01-Apr-21	22:06:32
18	210401K2_18	2103009-01 Lb-M429-1 1	01-Apr-21	22:53:25
19	210401K2_19	2103009-02 Lb-M429-2 1	01-Apr-21	23:40:18
20	210401K2_20	2103009-03 Lb-M429-3 1	02-Apr-21	00:27:10

File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 1 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:33:14 Pacific Daylight Time

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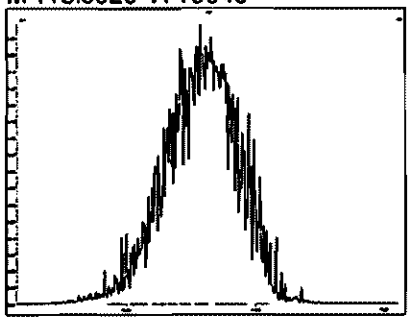

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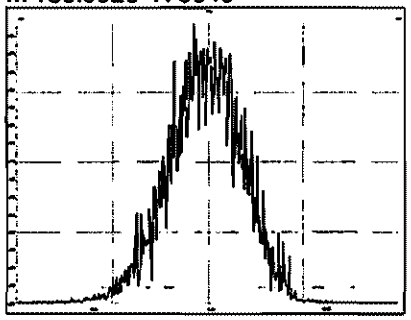

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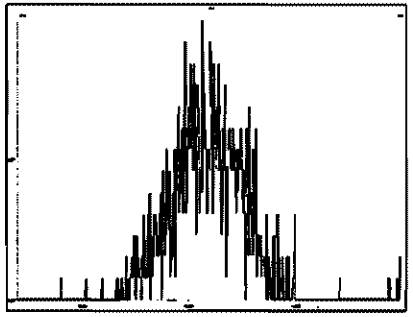

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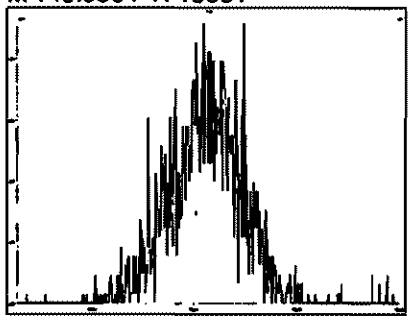
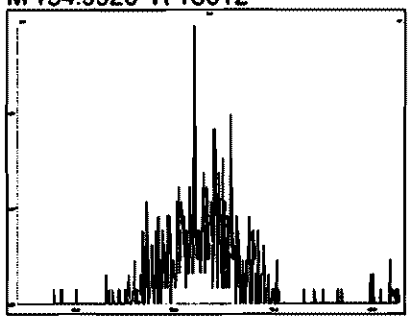
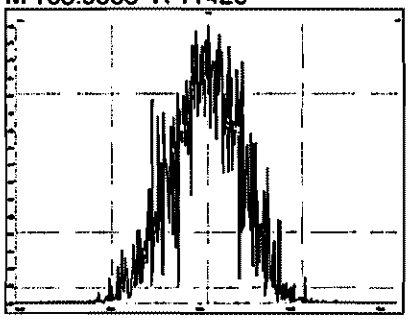


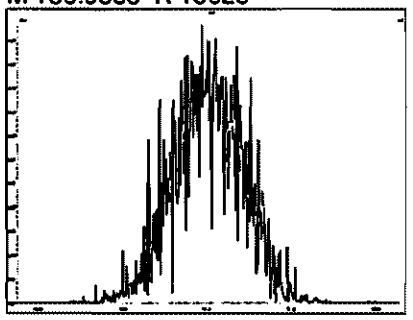
M 154.9920 R 18012



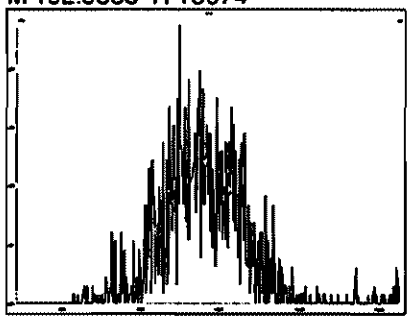
M 168.9888 R 11426



M 180.9888 R 15625



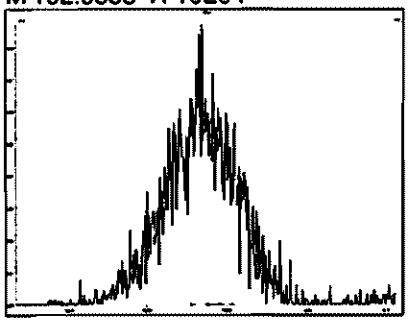
M 192.9888 R 13074



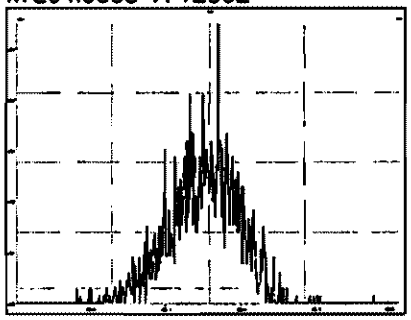
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 2 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:33:41 Pacific Daylight Time

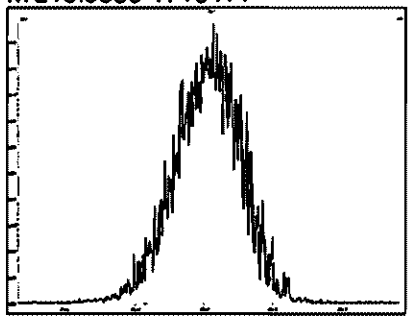
M 192.9888 R 10204



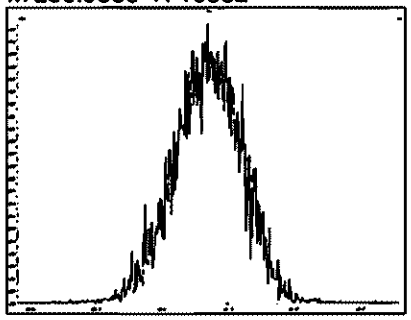
M 204.9888 R 12902



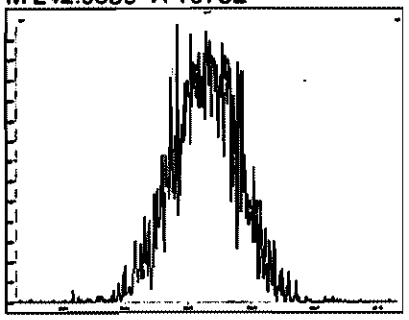
M 218.9856 R 10414



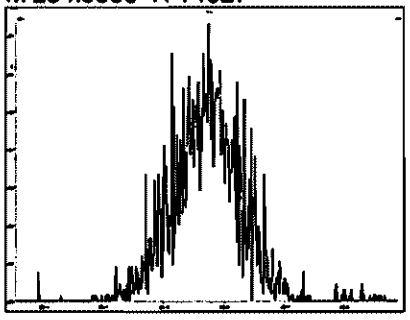
M 230.9856 R 10582



M 242.9856 R 10752



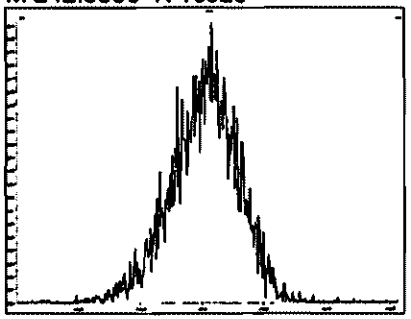
M 254.9856 R 14927



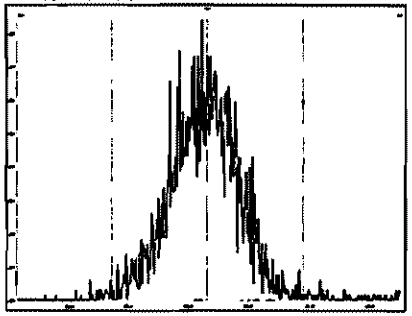
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 3 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:34:00 Pacific Daylight Time

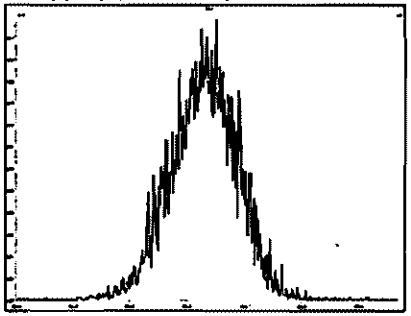
M 242.9856 R 10926



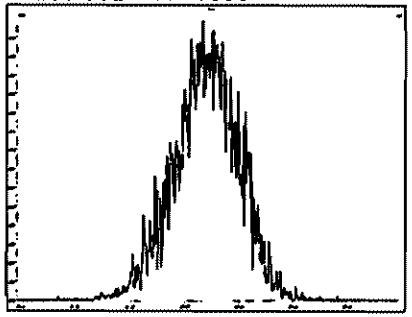
M 254.9856 R 10810



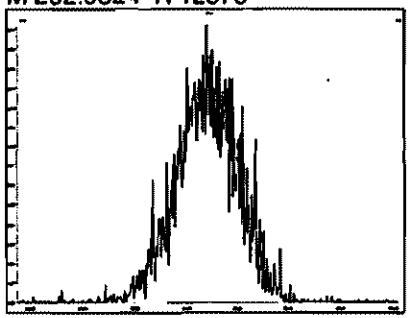
M 268.9824 R 11234



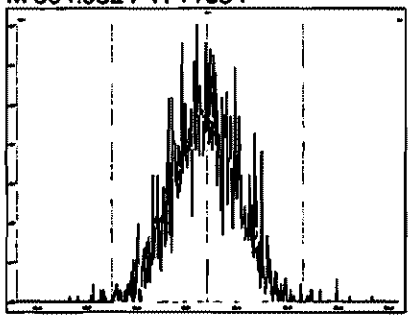
M 280.9824 R 11696



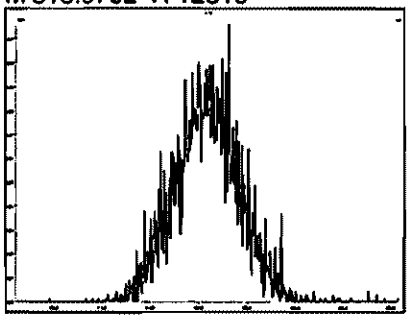
M 292.9824 R 12576



M 304.9824 R 11834



M 318.9792 R 12819



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Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

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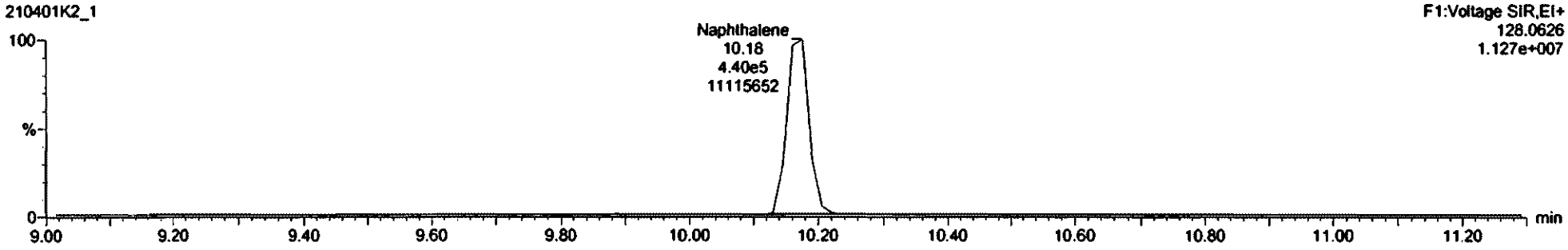
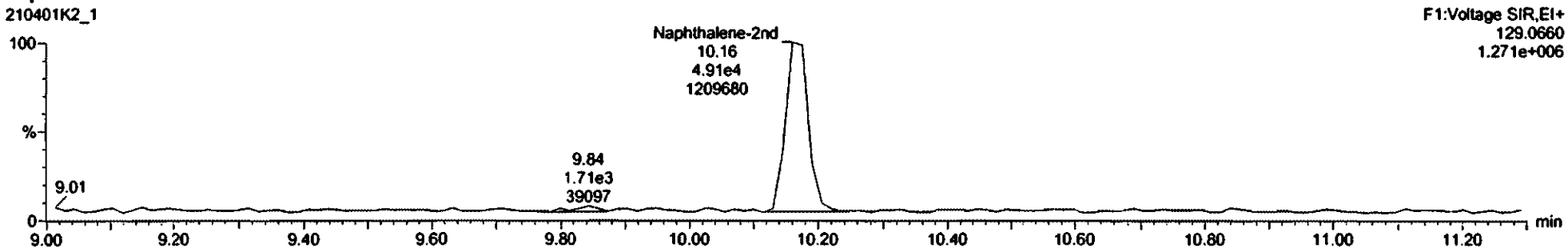
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

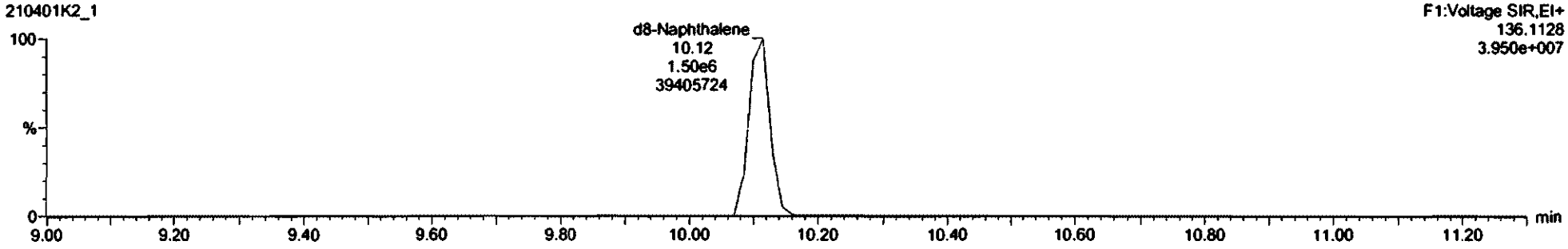
Naphthalene



Naphthalene-2nd



d8-Naphthalene



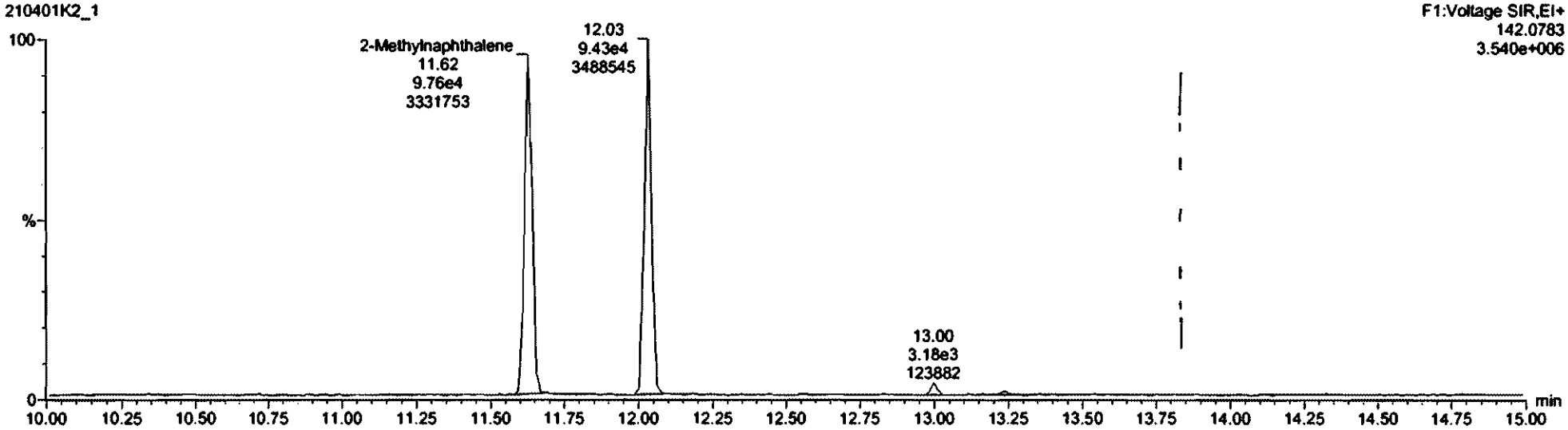
1041 of 1215

Dataset: Untitled

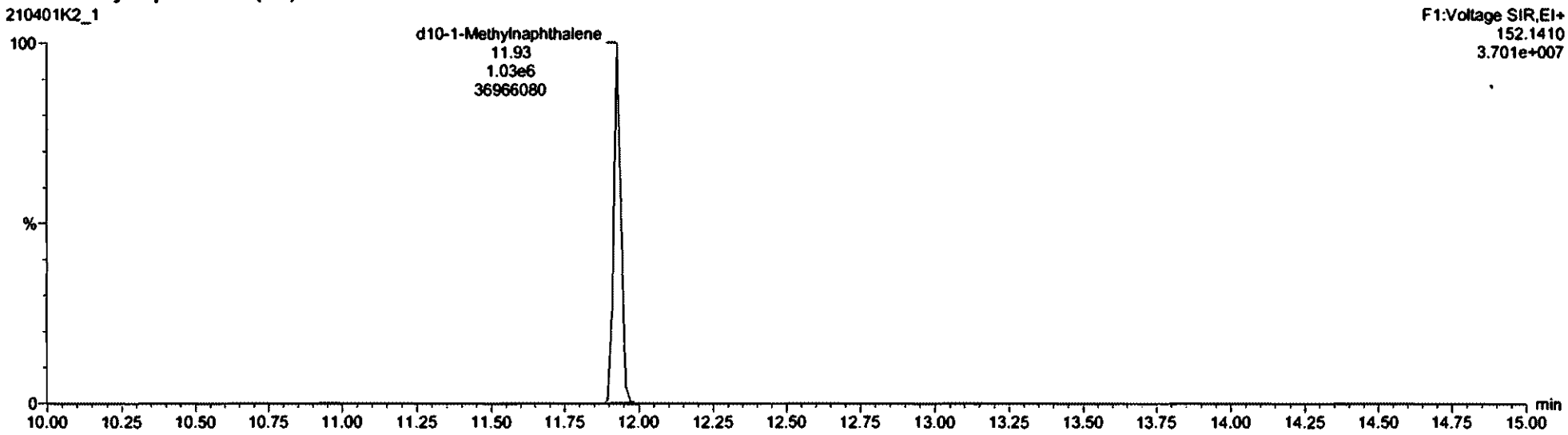
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



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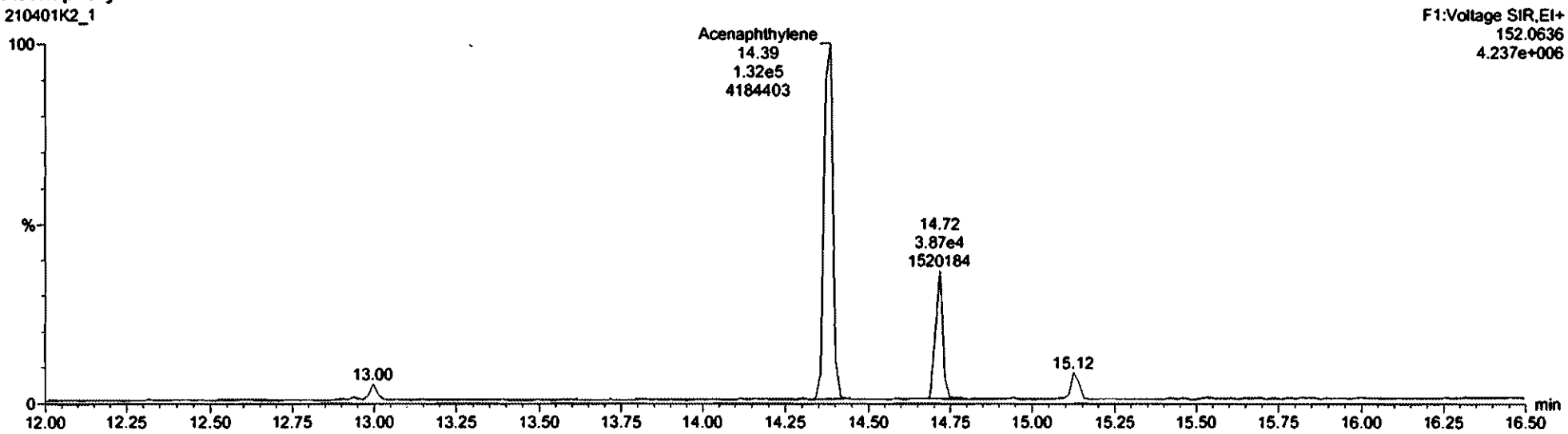
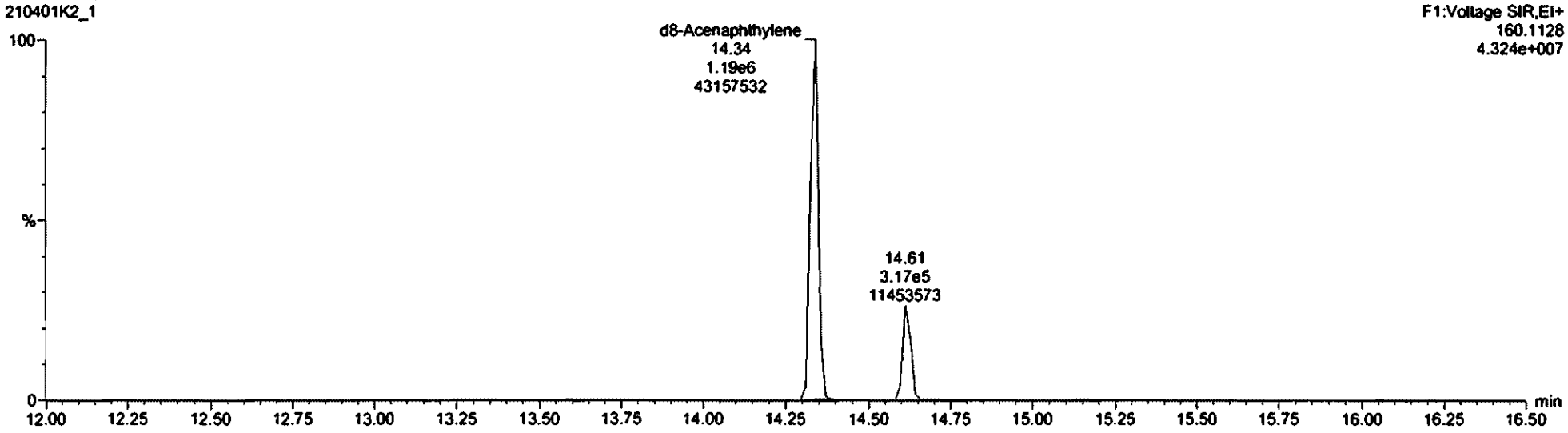
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

Acenaphthylene



d8-Acenaphthylene



1043 of 1215

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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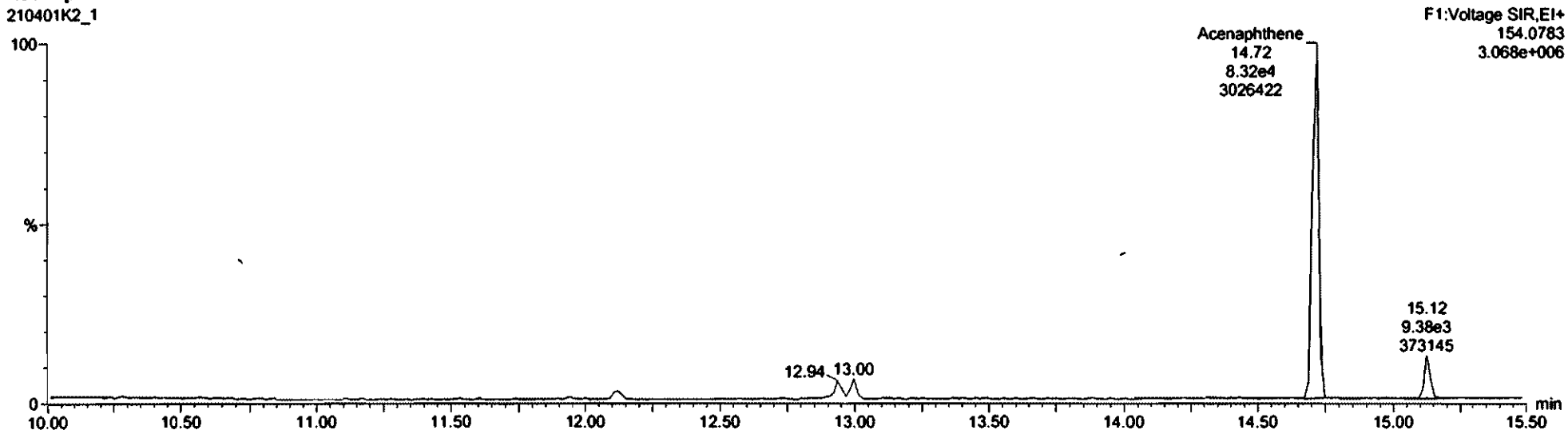
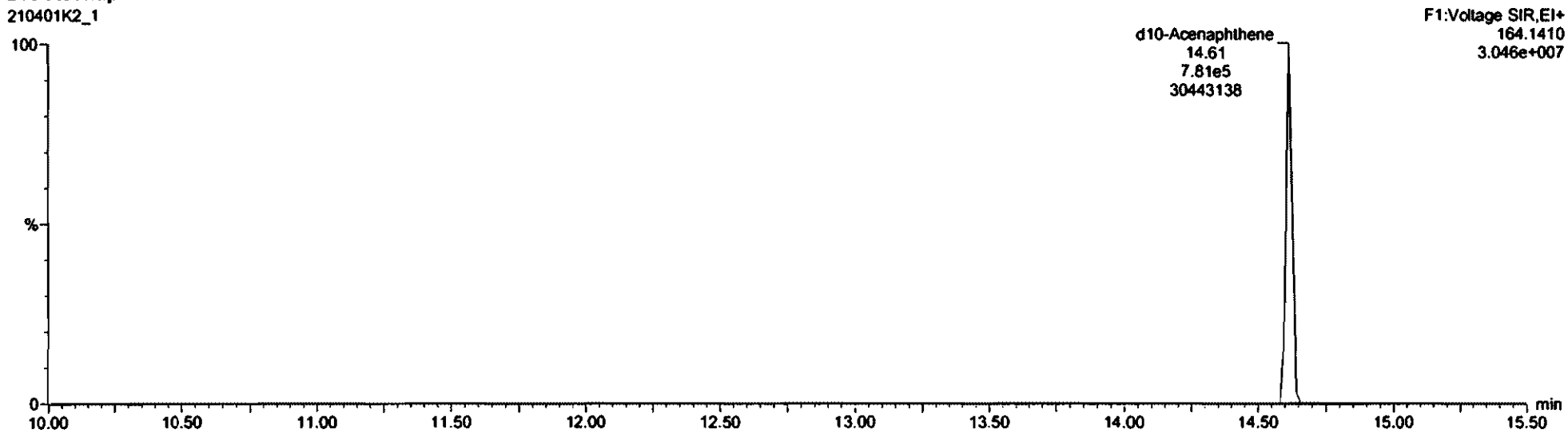
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

Acenaphthene



d10-Acenaphthene



1044 of 1215

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Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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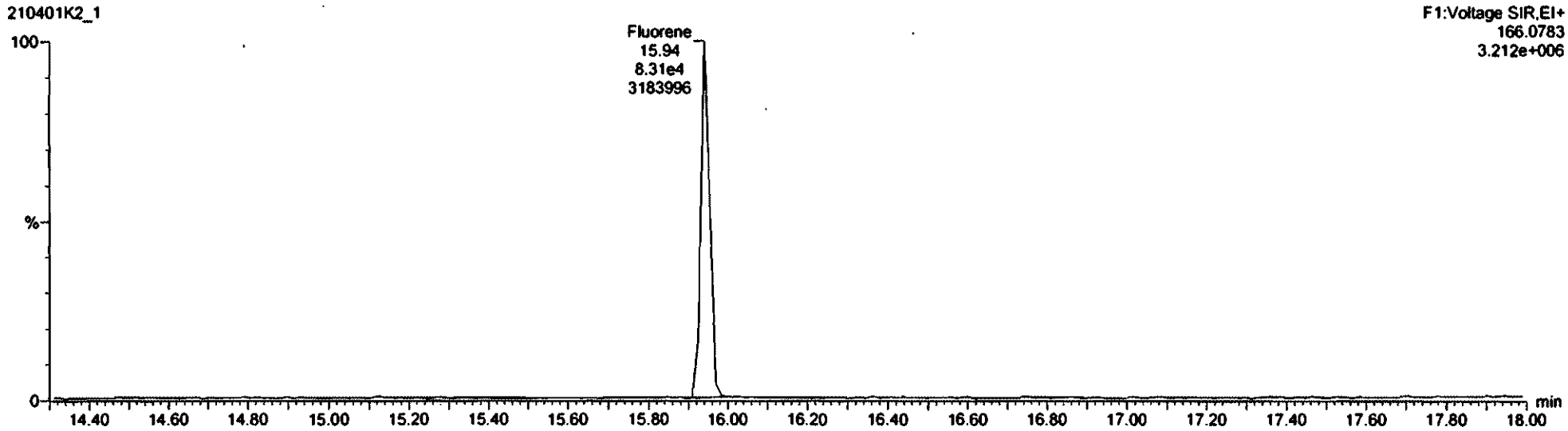
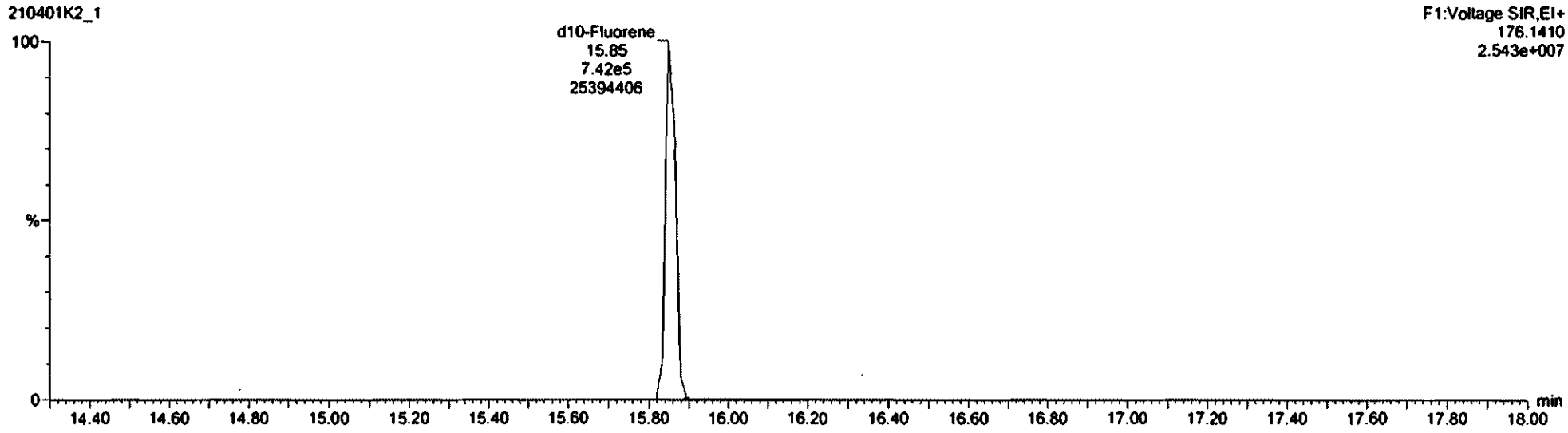
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

Fluorene



d10-Fluorene



1045 of 1215

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Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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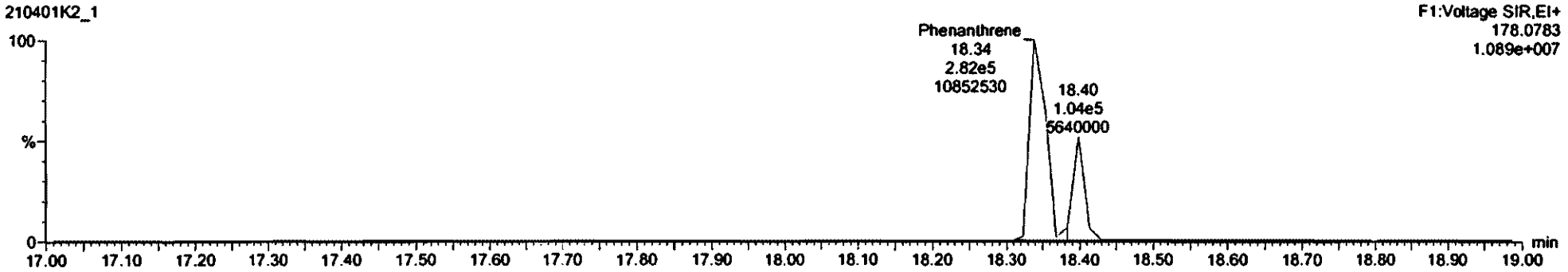
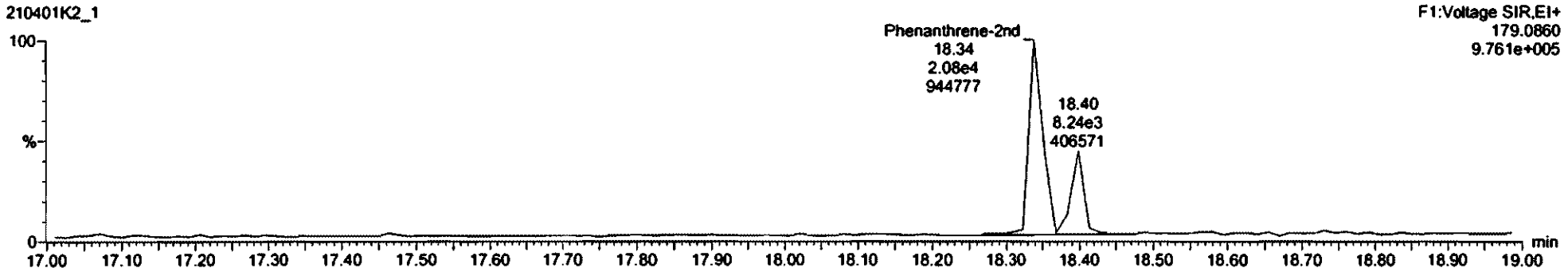
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

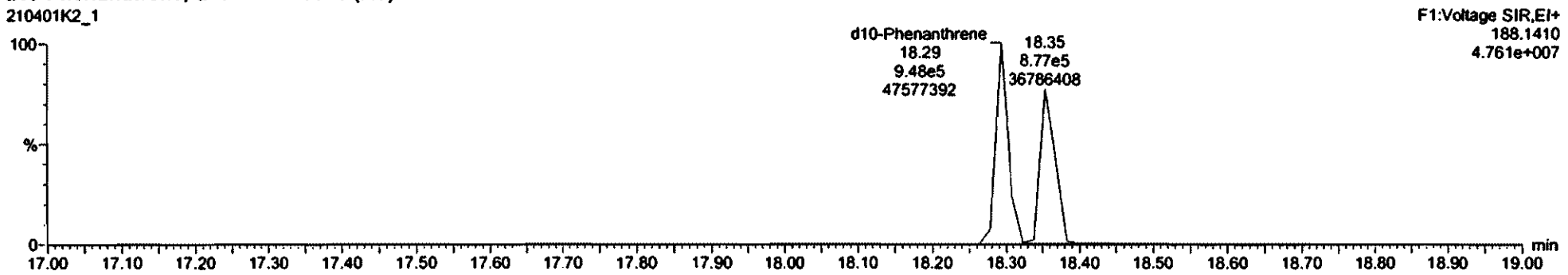
Phenanthrene; Anthrecene



Phenanthrene-2nd



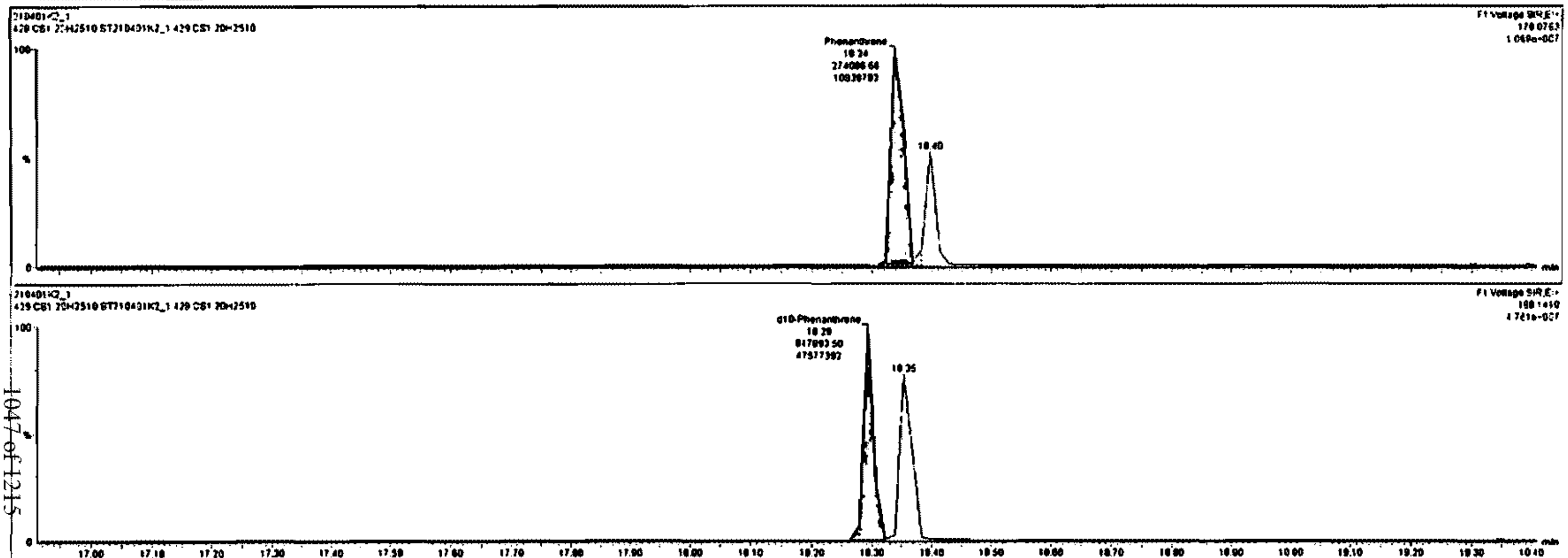
d10-Phenanthrene; d10-Anthrecene (AS)



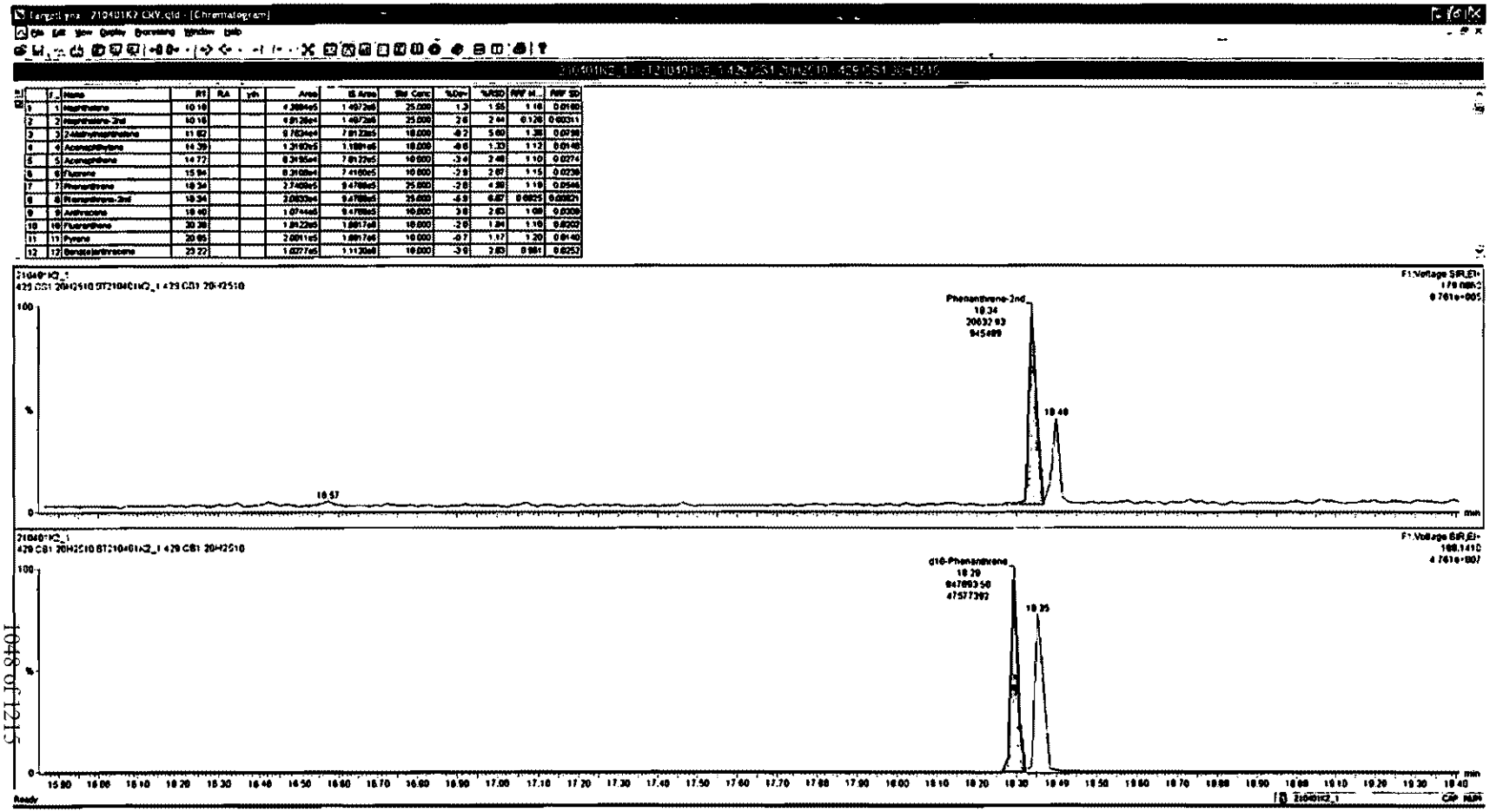
TargetLynx 210401K2 CRV.qld [Chromatogram]

File Edit View Display Processing Window Help

#	#	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M	RRF SD
1	1	Naphthalene	10.18			4.388e4	1.497e6	25.000	1.3	1.55	1.18	0.0180
2	2	Naphthalene-2nd	10.16			4.913e4	1.497e6	25.000	2.6	2.44	0.139	0.00311
3	3	2-Methylnaphthalene	11.82			9.763e4	7.817e5	10.000	-8.2	5.80	1.39	0.0790
4	4	Acenaphthylene	14.39			1.316e5	1.189e6	10.000	-0.6	1.30	1.12	0.0148
5	5	Acenaphthene	14.72			8.316e4	7.812e5	10.000	-3.9	2.49	1.10	0.0274
6	6	Fluorene	15.94			8.310e4	7.418e5	10.000	-2.9	3.07	1.15	0.0279
7	7	Phenanthrene	18.34			2.740e6	9.470e5	25.000	-2.9	4.58	1.19	0.0546
8	8	Phenanthrene-2nd	18.34			2.083e4	9.470e5	25.000	-5.9	9.87	0.0825	0.00821
9	9	Anthracene	18.40			1.874e5	9.470e5	10.000	3.9	2.82	1.08	0.0309
10	10	Fluoranthene	20.38			1.812e6	1.881e6	10.000	-2.0	1.84	1.10	0.0302
11	11	Pyrene	20.86			2.001e6	1.881e6	10.000	-0.7	1.17	1.20	0.0140
12	12	Benz(a)anthracene	23.22			1.027e5	1.113e6	10.000	-3.9	2.83	0.881	0.0252



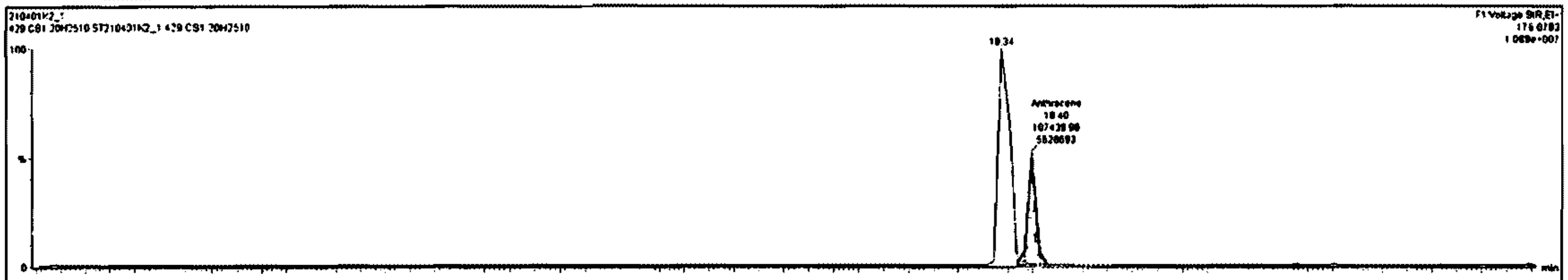
Ready

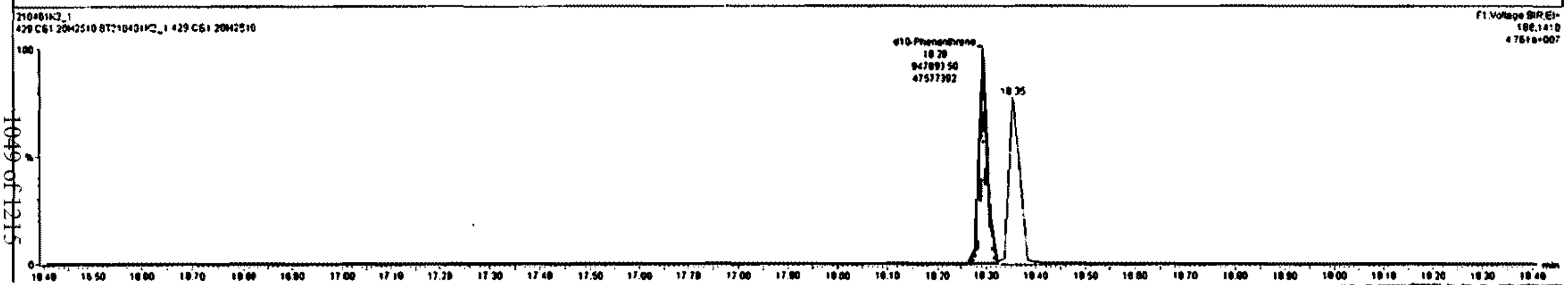

Phenanthrene-2nd
10.34
20632.93
945489
10.48
10.57
d10-Phenanthrene
10.29
847892.50
47577392
10.35

TargetLynx - 210401K2 CHT.cld - [Chromatogram]

File Edit View Display Processing Window Help

	#	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
1	1	Naphthalene	10.18			4.3094e5	1.4872e6	25.000	1.3	1.55	1.16	0.0180
2	2	Naphthalene-2nd	10.16			4.8128e4	1.4872e6	25.000	2.6	2.44	0.120	0.00317
3	3	2-Methylnaphthalene	11.82			9.7634e4	7.8122e5	10.000	-8.2	5.80	1.38	0.0788
4	4	Acenaphthylene	14.30			1.3192e5	1.1881e6	10.000	-0.8	1.33	1.12	0.0148
5	5	Acenaphthene	14.73			8.3195e4	7.8122e5	10.000	-3.4	2.49	1.10	0.0274
6	6	Fluorene	15.84			8.3108e4	7.4160e5	10.000	-2.9	3.07	1.15	0.0739
7	7	Phenanthrene	18.34			2.7408e5	9.4789e5	25.000	-2.0	4.58	1.19	0.0546
8	8	Phenanthrene-2nd	18.34			2.0833e4	9.4789e5	25.000	-5.8	8.87	0.0805	0.00871
9	9	Anthracene	18.40			1.0744e5	9.4789e5	10.000	3.8	2.85	1.08	0.0309
10	10	Fluoranthene	20.38			1.8122e5	1.6817e6	10.000	-3.0	1.04	1.10	0.0202
11	11	Pyrene	20.85			2.0011e6	1.6817e6	10.000	-8.7	1.17	1.20	0.0140
12	12	Benz(a)anthracene	23.22			1.0277e6	1.1130e6	10.000	-3.9	2.63	0.961	0.0252





Ready

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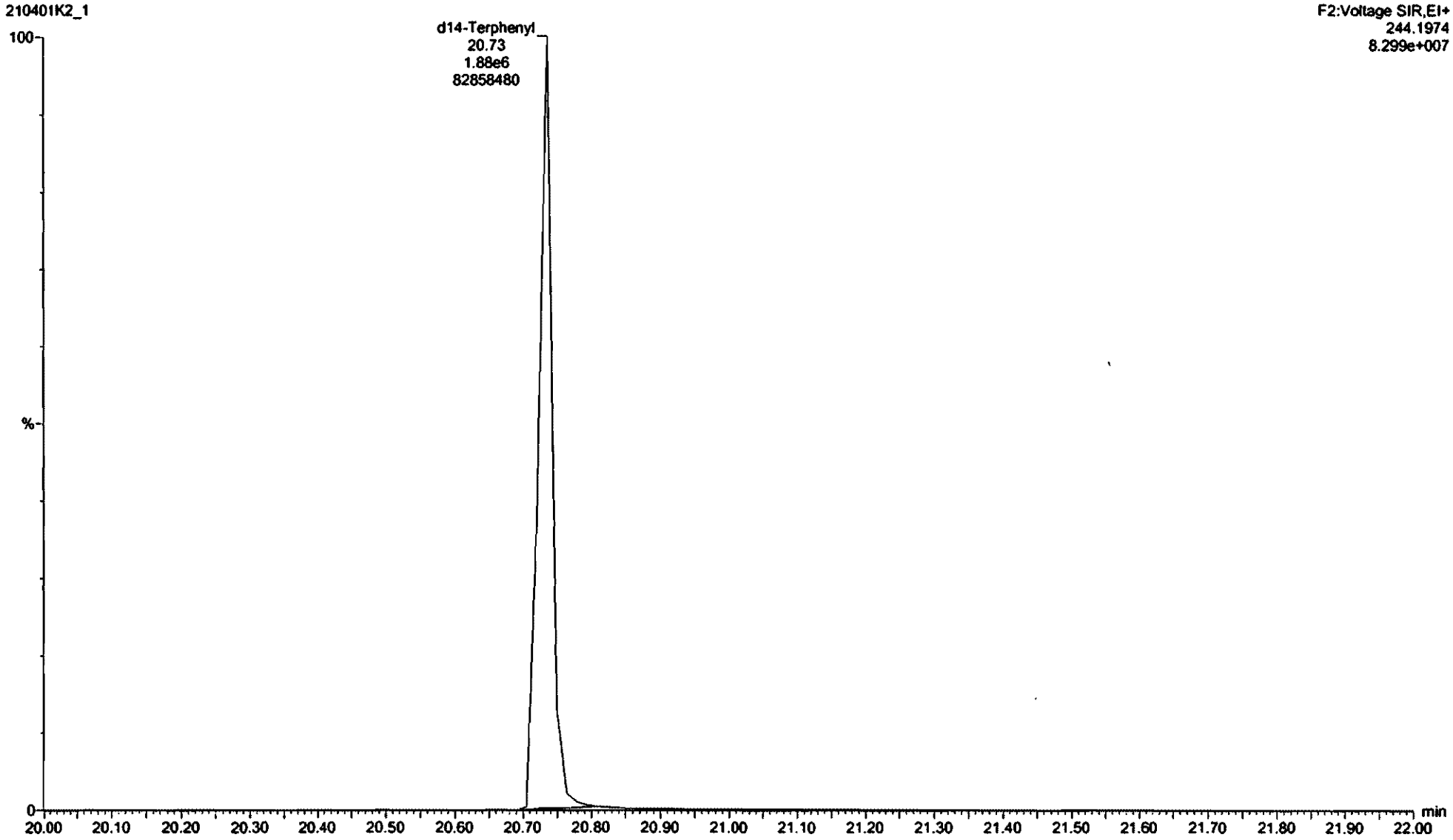
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

d14-Terphenyl (PS)



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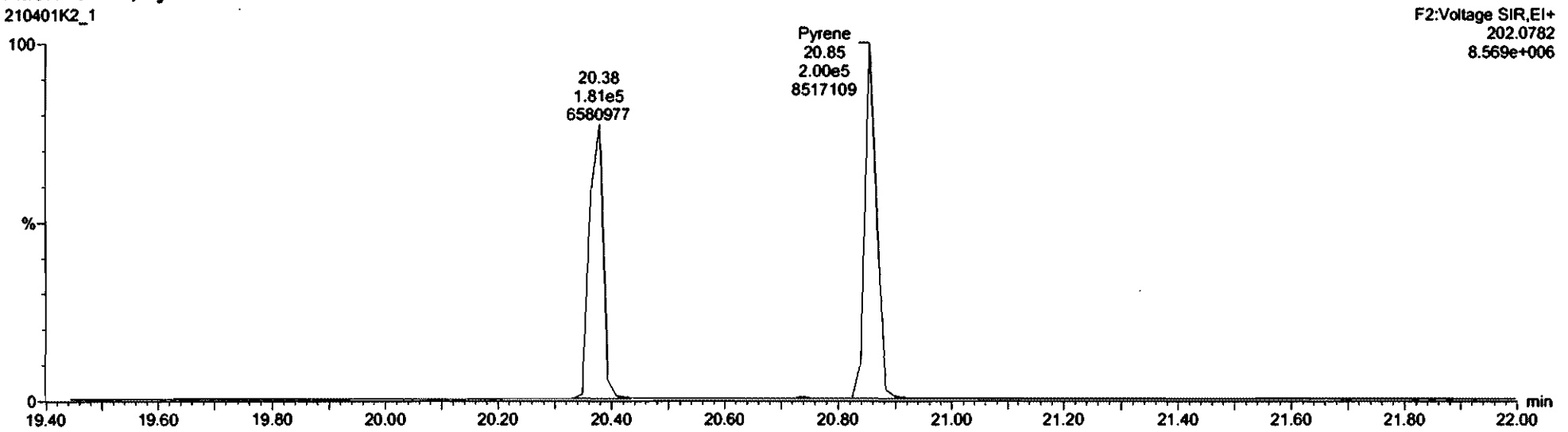
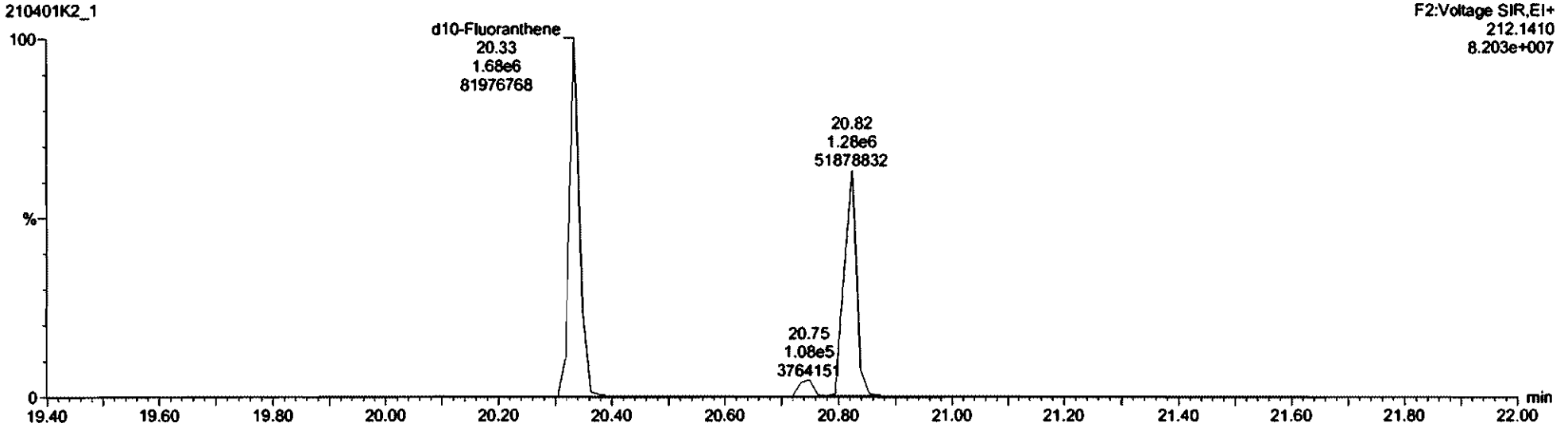
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



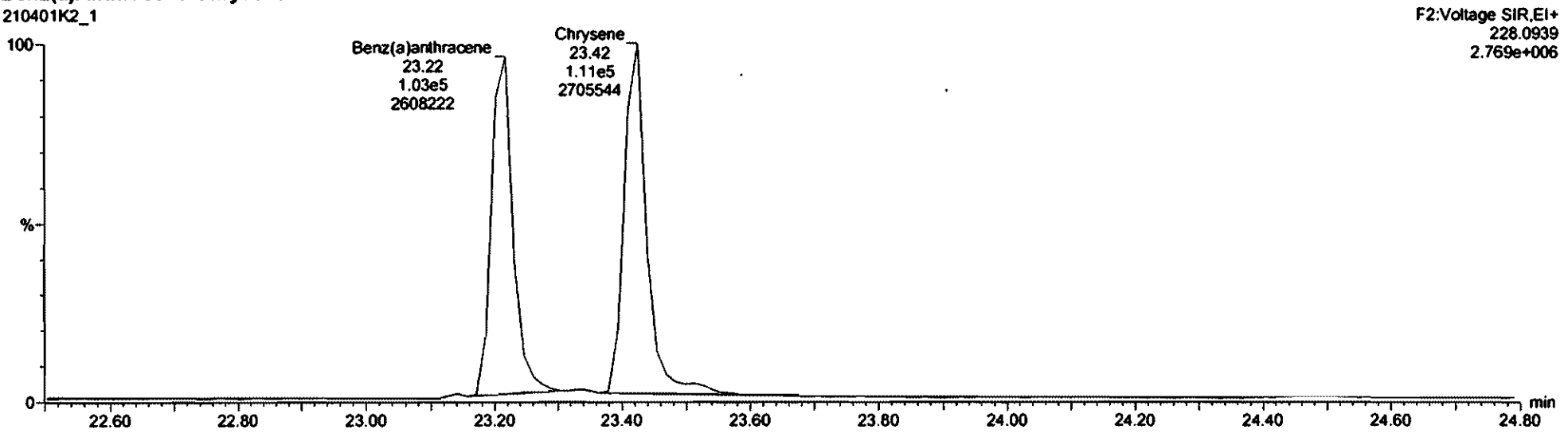
1051 of 1215

Dataset: Untitled

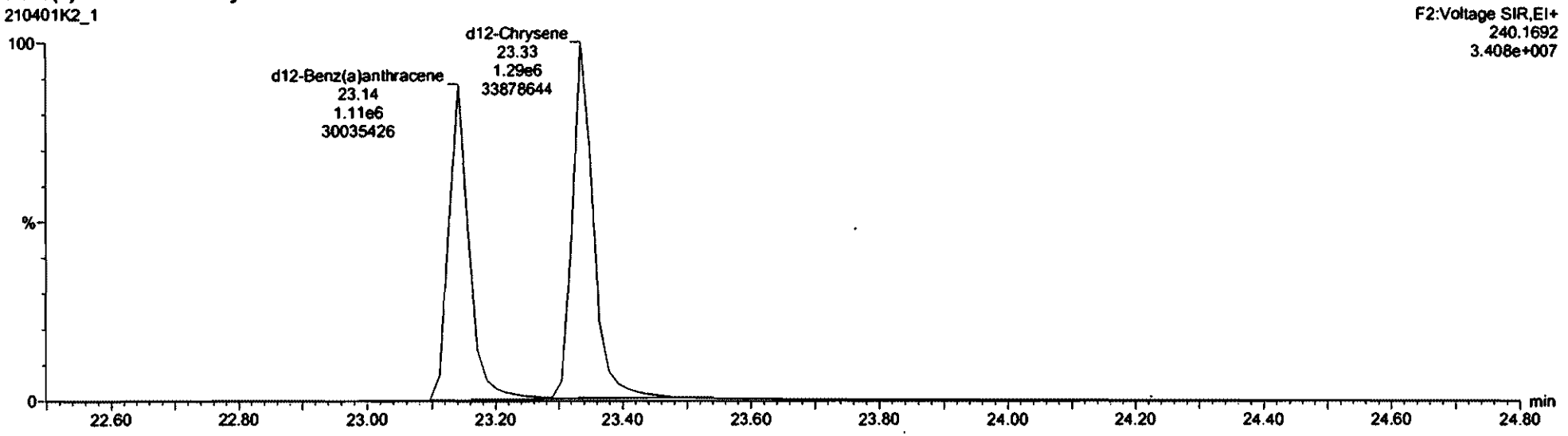
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

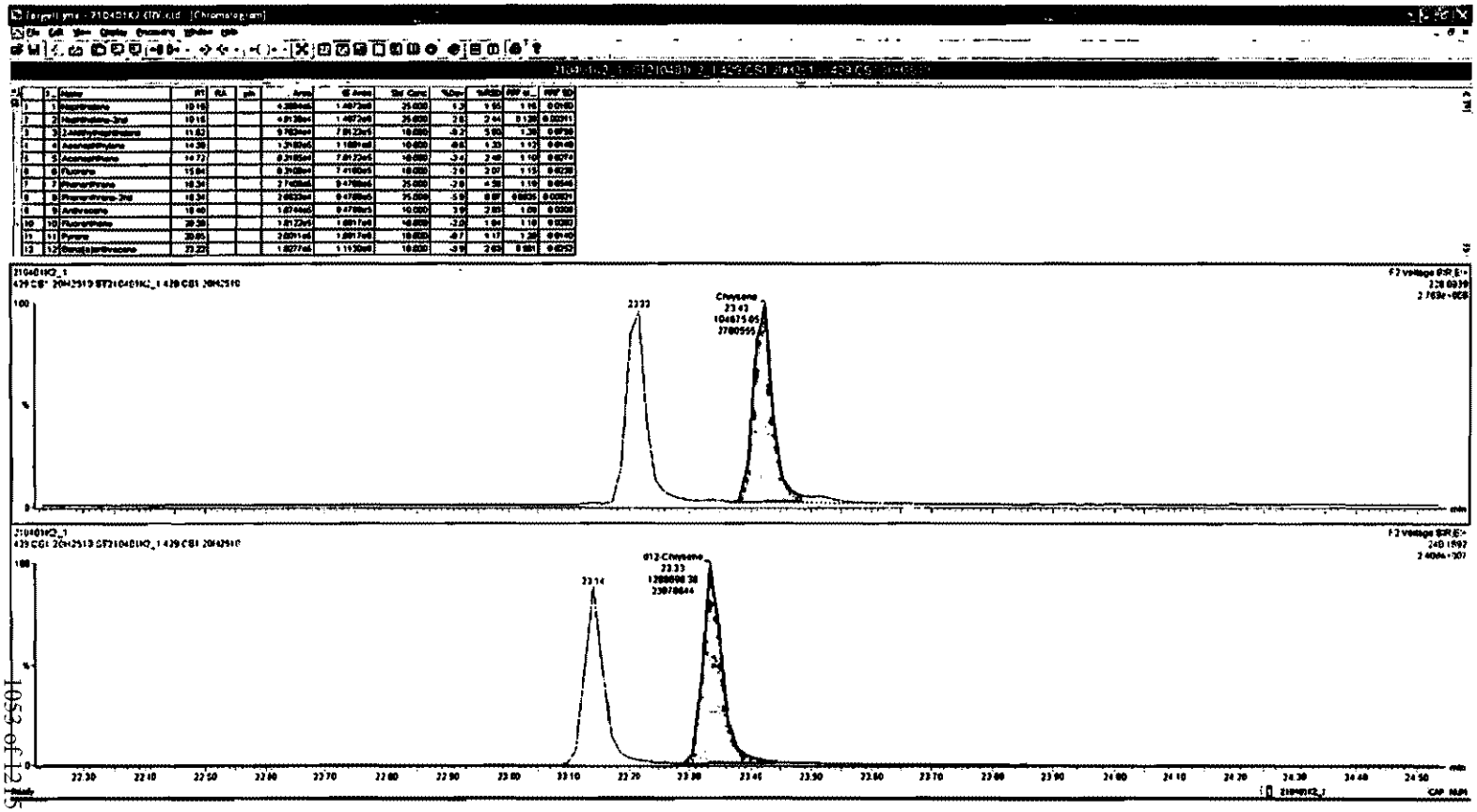
Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



1052 of 1215

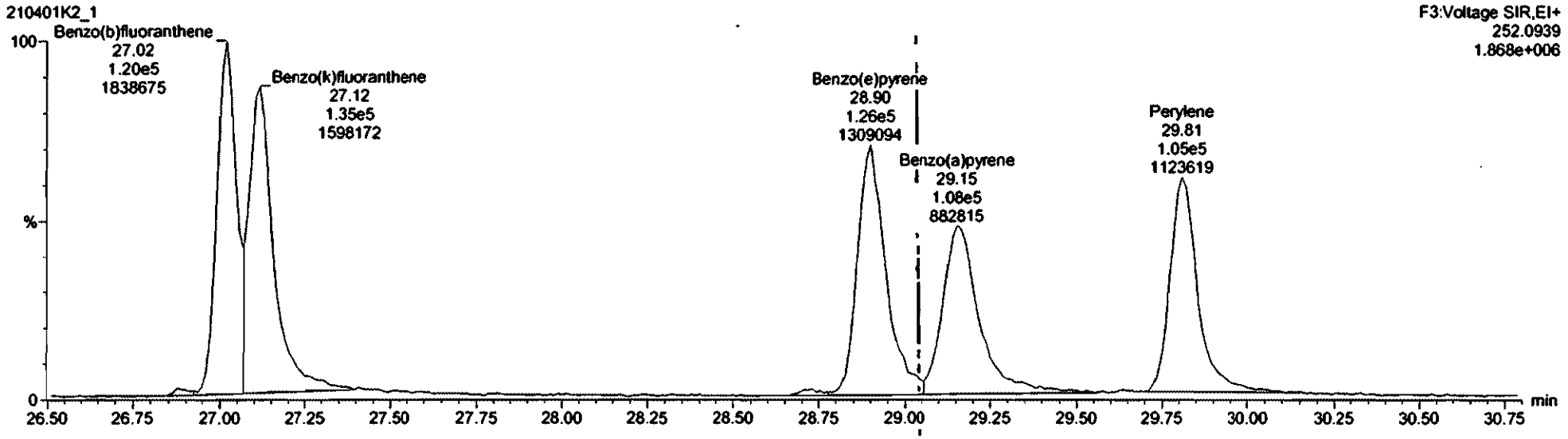


Dataset: Untitled

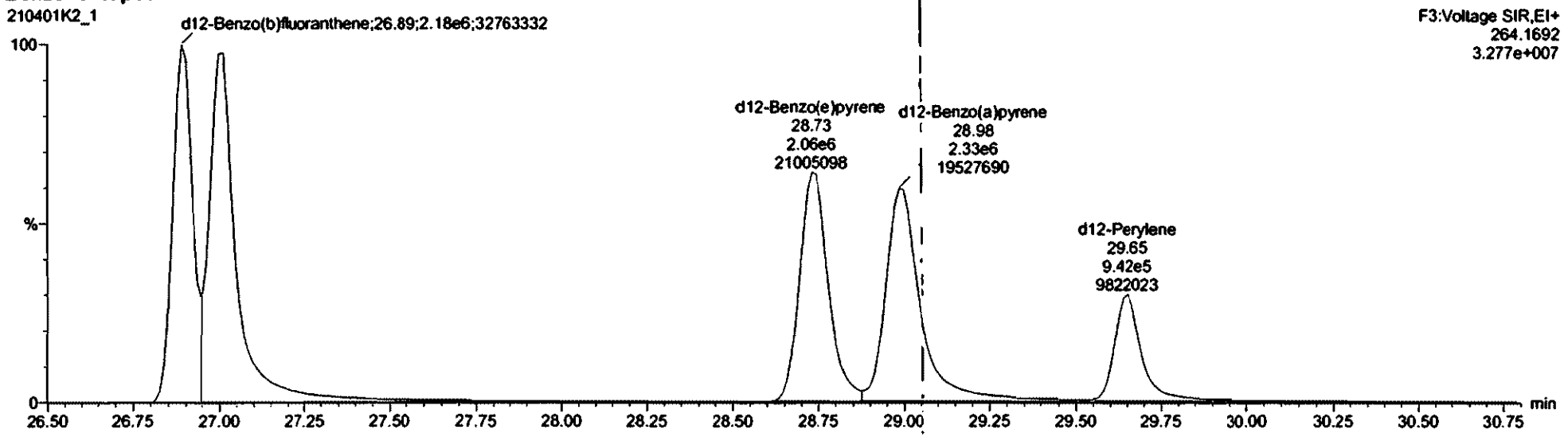
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

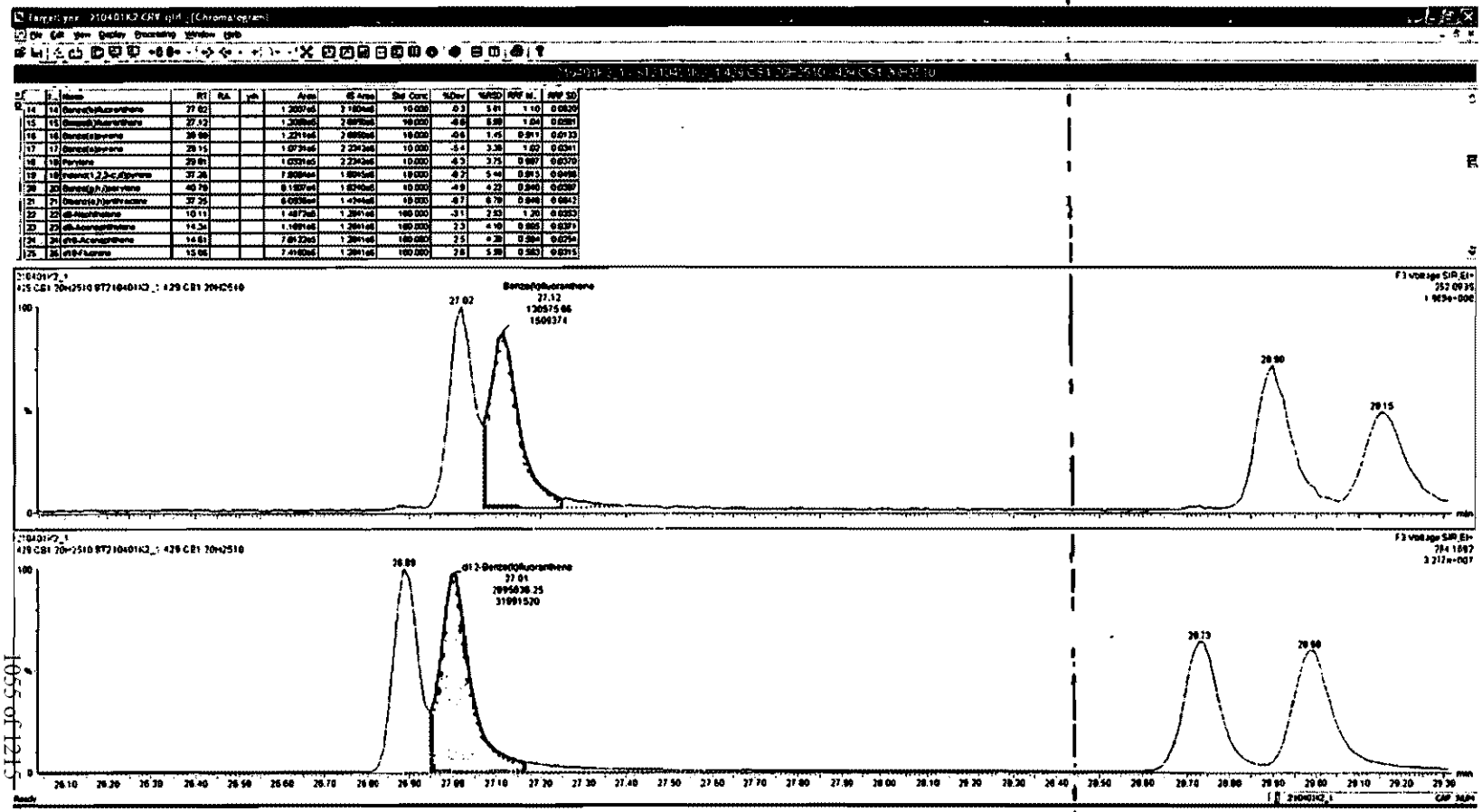
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

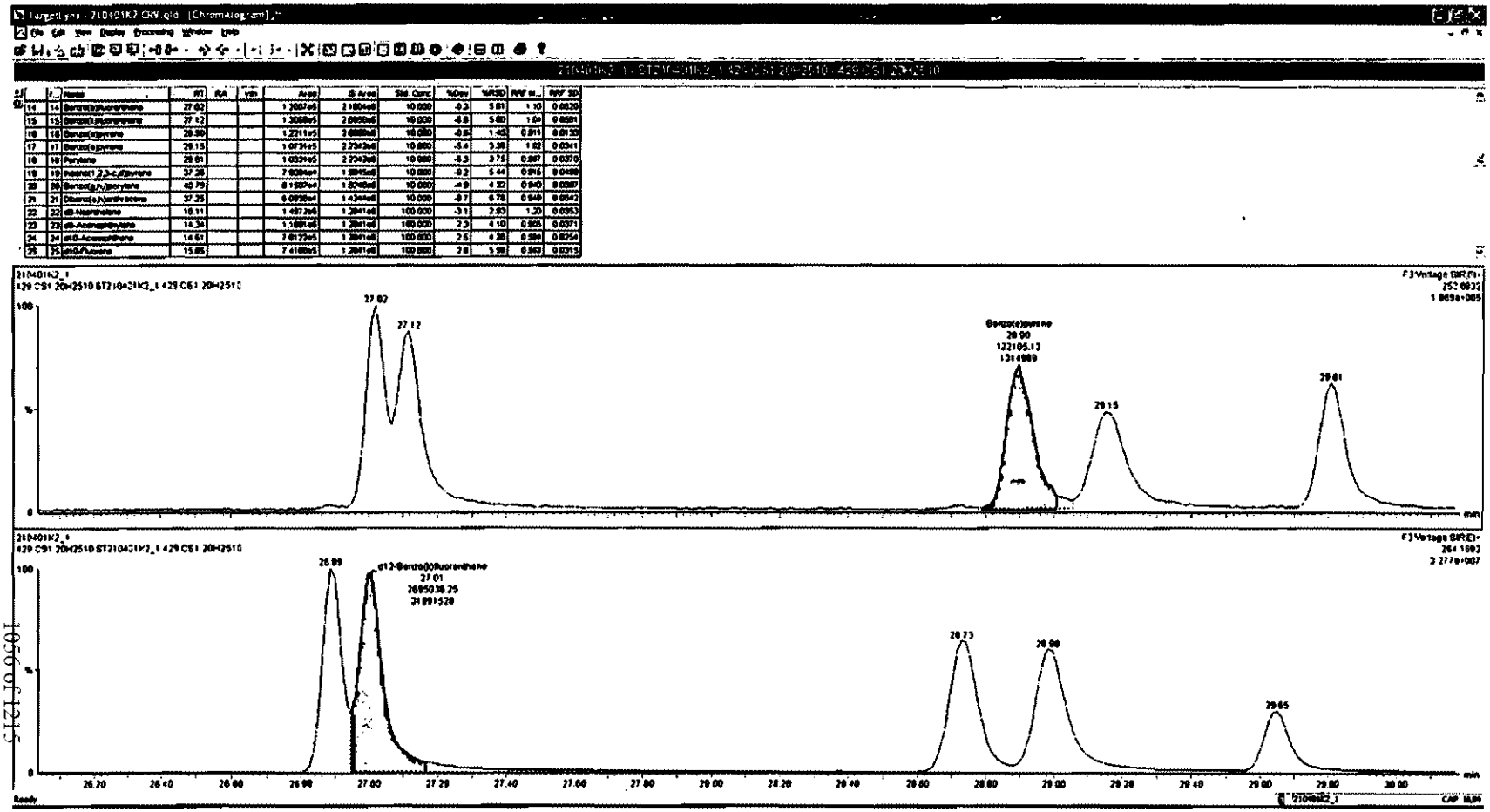
Benzo-PAHs

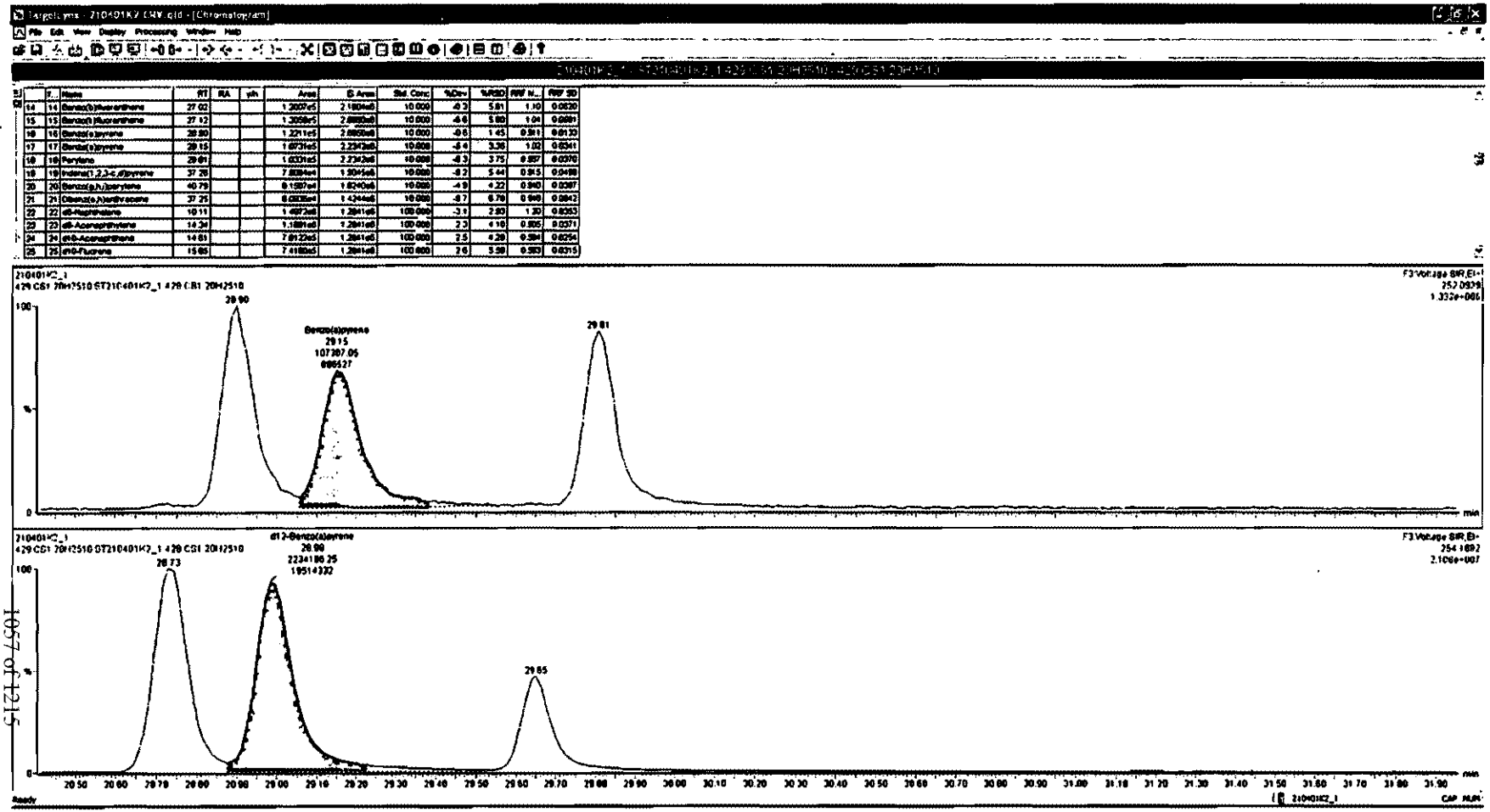


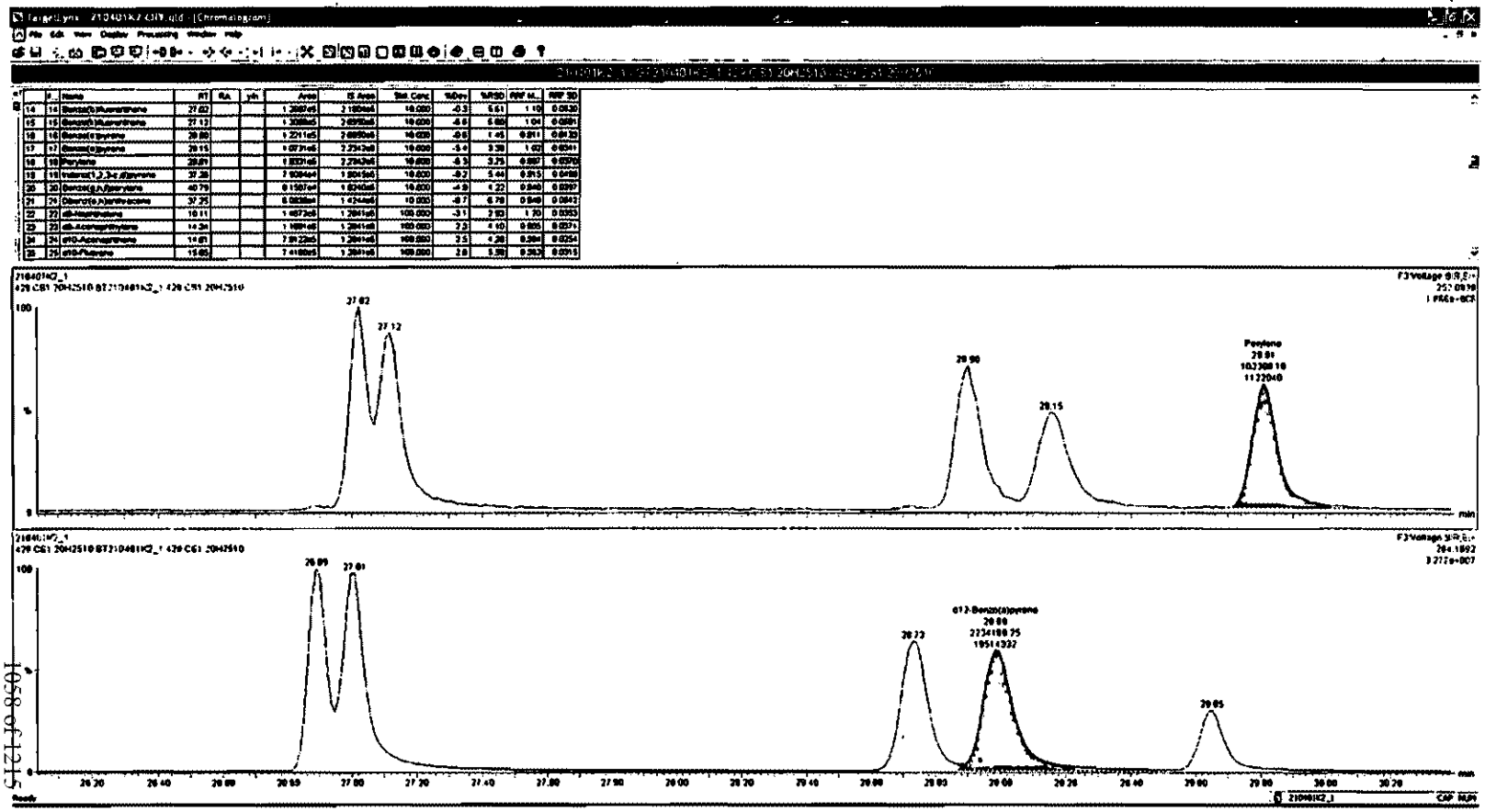
Benzo-Isotopes




27.02
Benzo[b]fluoranthene
27.12
1305756.66
1506374
28.90
28.15
26.89
d12-Benzo[b]fluoranthene
27.01
7095838.25
31991520
28.73
28.90


27.02
27.12
Benzo(e)pyrene
28.90
122105.12
1364989
29.15
29.61
28.99
d12-Benzo(b)fluoranthene
27.01
2695038.25
31891528
28.73
28.90
29.65


Benzo(a)pyrene
29.15
107307.05
886527
29.90
29.81
d12-Benzo(a)pyrene
28.90
2234180.25
19514332
28.73
29.65


27.02
27.12
29.90
29.15
Perylene
29.01
29.09
27.01
29.23
612-Benzo(a)pyrene
29.05

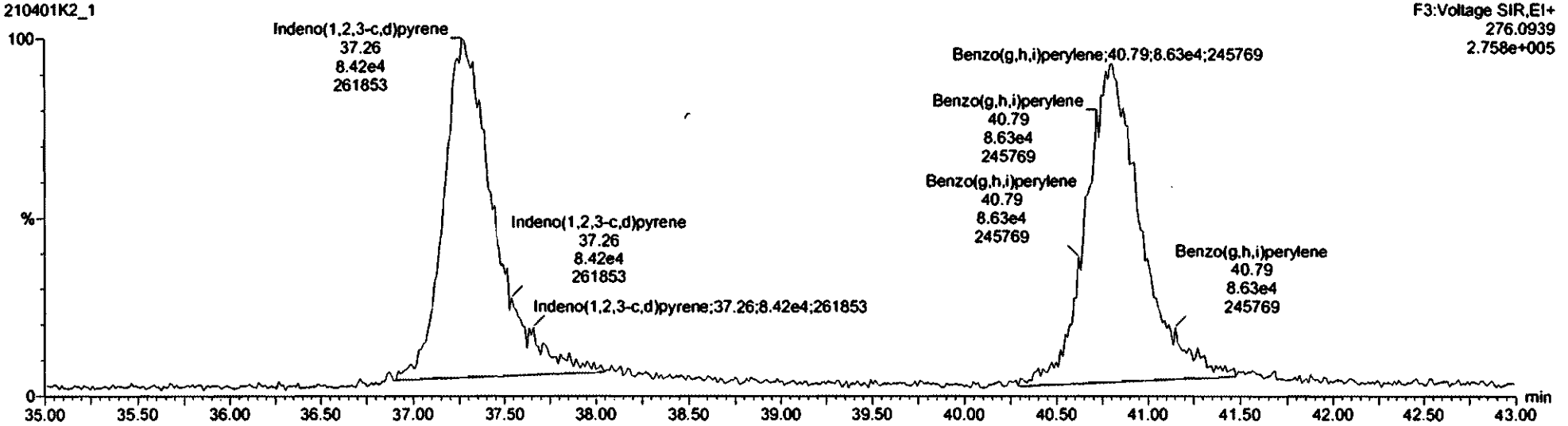
1058 of 1215

Dataset: Untitled

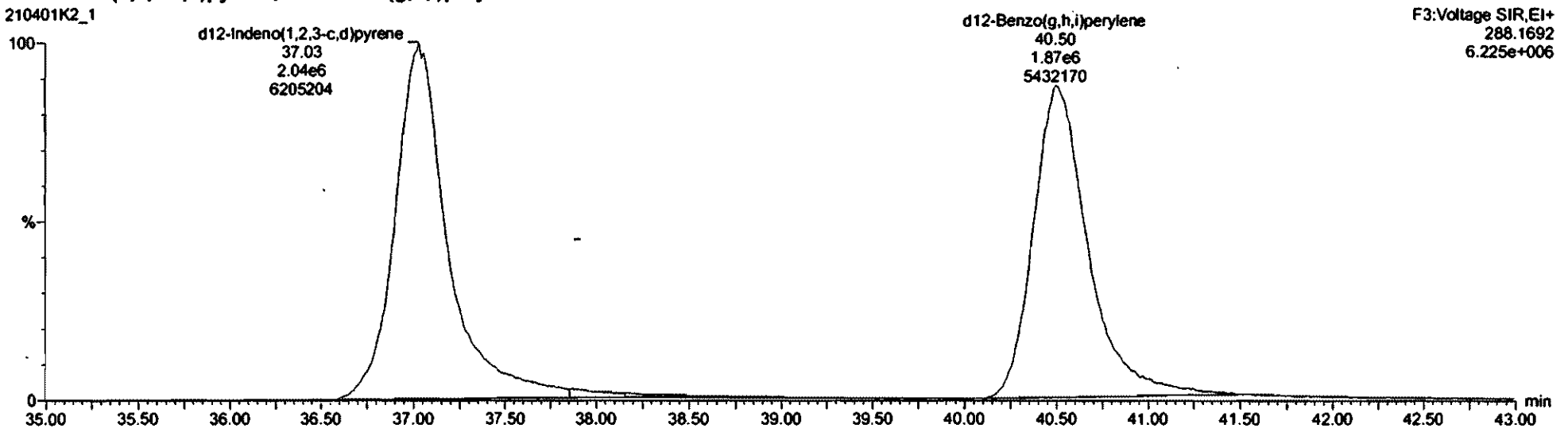
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

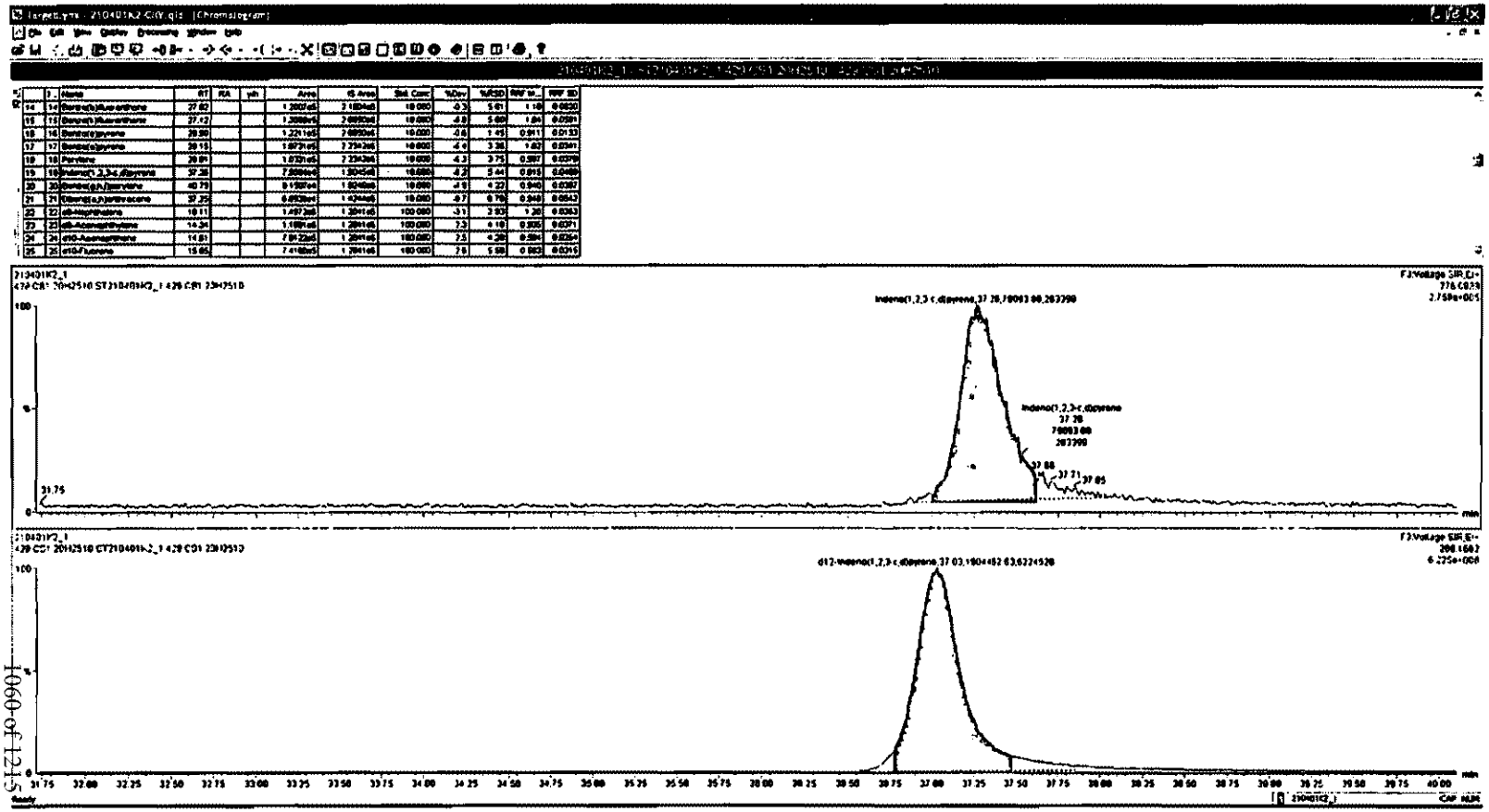
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

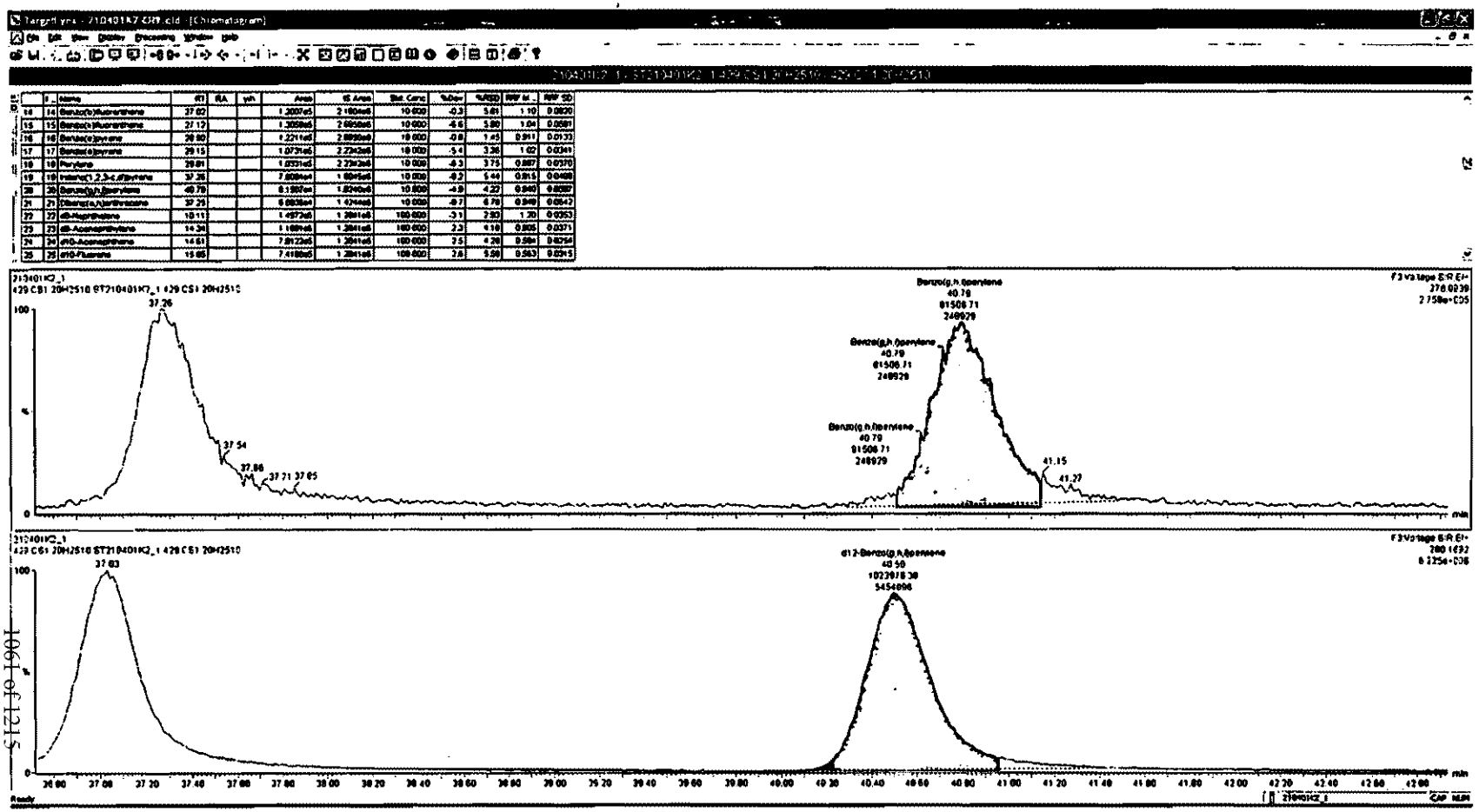
Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene





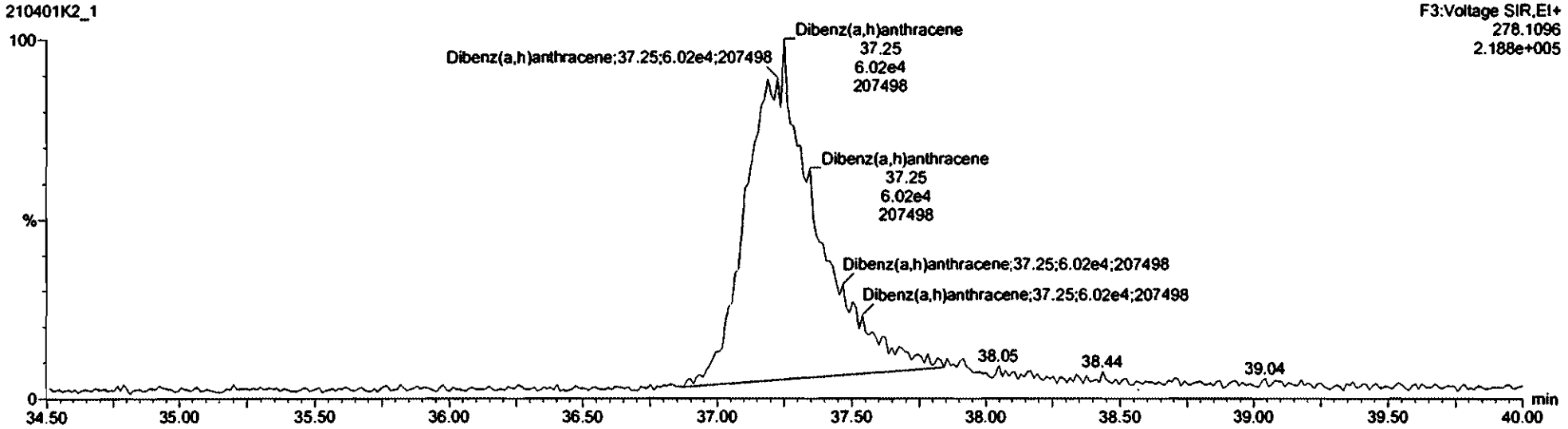

37.26
37.54
37.86
37.71 37.95
Benzo(g,h,i)perylene
40.79
91506.71
248929
41.15
41.27
d12-Benzo(g,h,i)perylene
40.59
102397.8.38
5454096
37.83

Dataset: Untitled

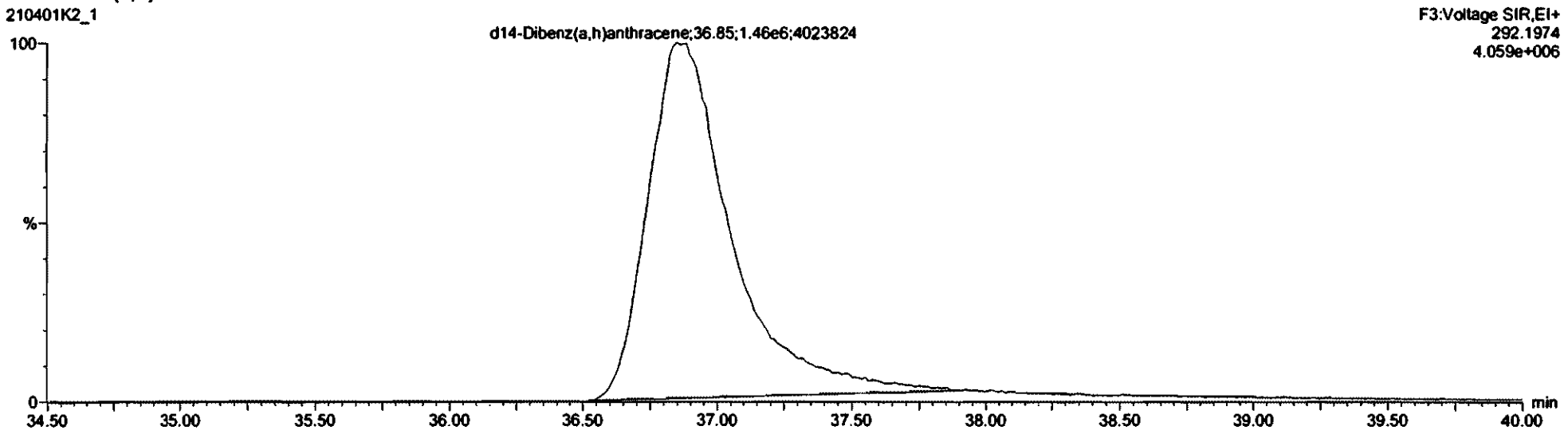
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

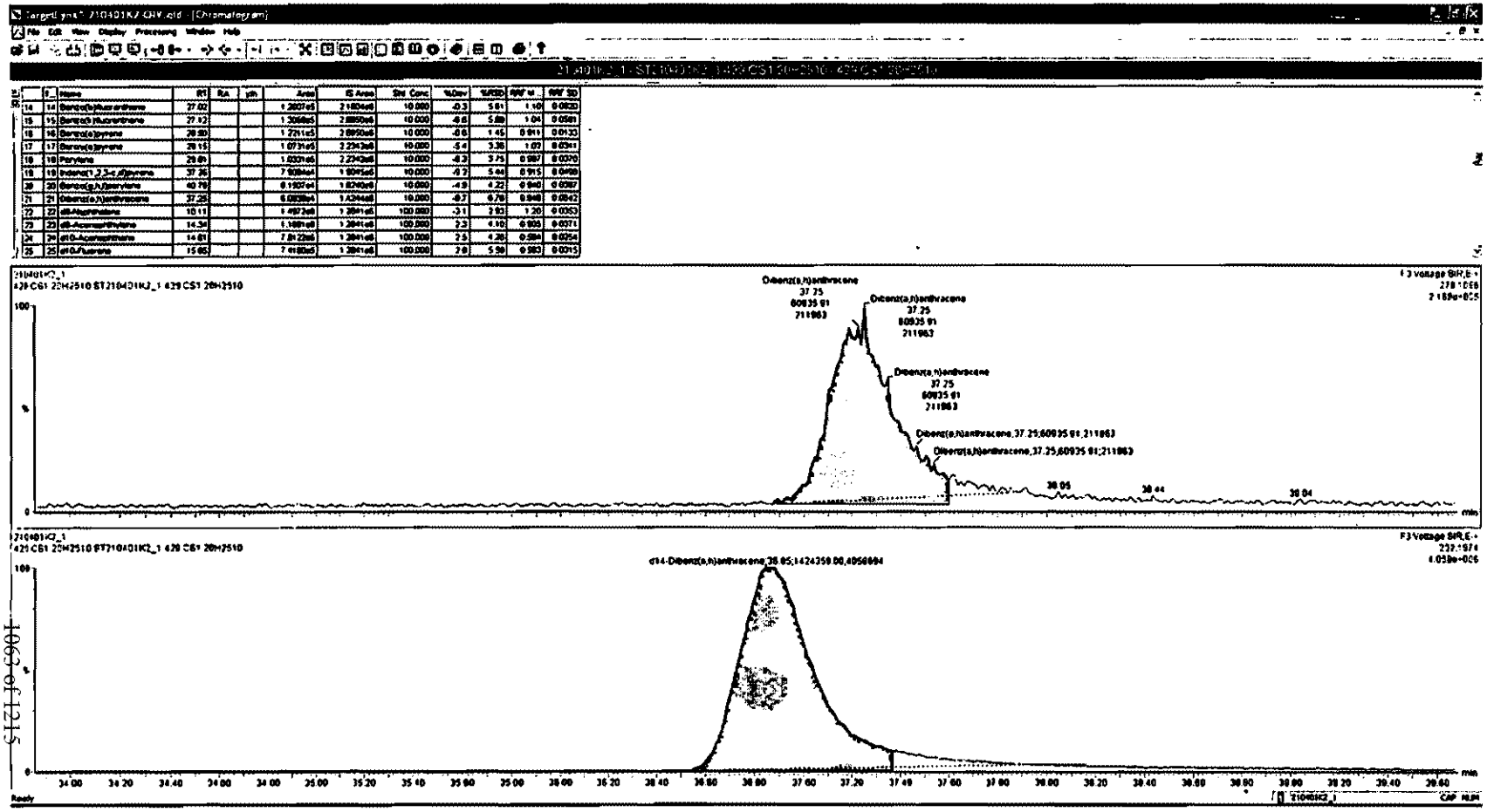
Name: 210401K2_1, Date: 01-Apr-2021, Time: 09:34:39, ID: ST210401K2_1 429 CS1 20H2510, Description: 429 CS1 20H2510

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



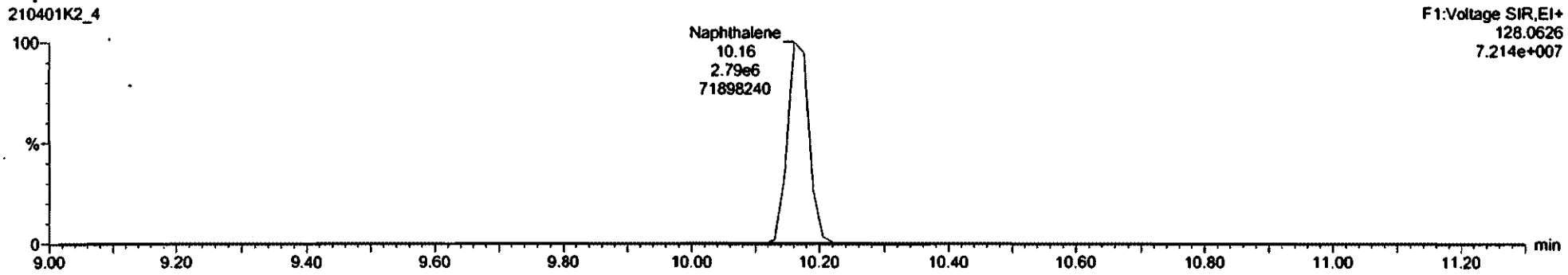

Dibenz(a,h)anthracene
37.25
60835.91
211863
38.05
38.44
38.84
d14-Dibenz(a,h)anthracene,38.05,1424359.00,4056694

Dataset: Untitled

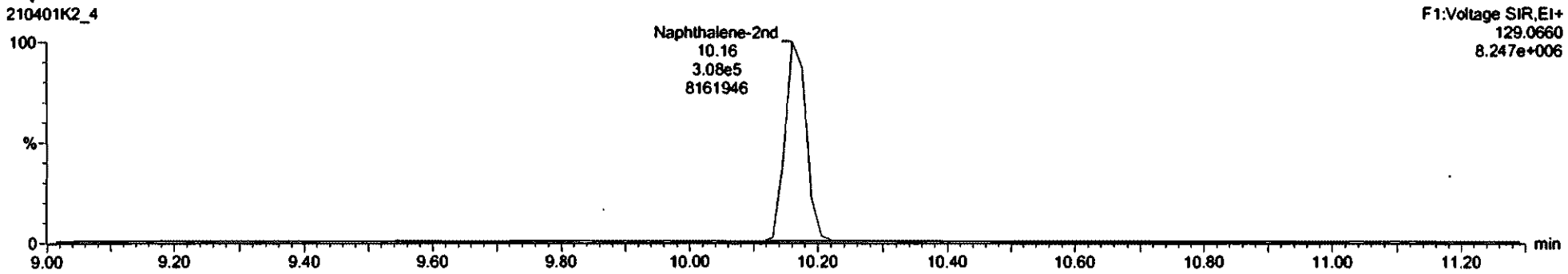
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

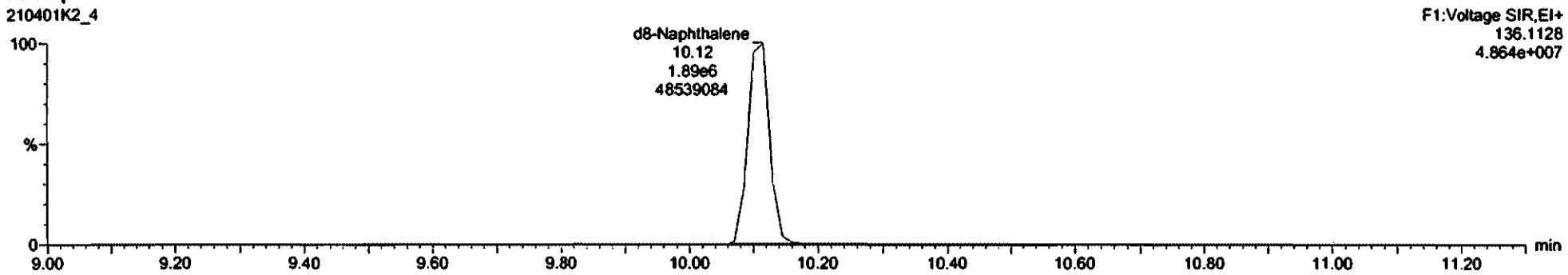
Naphthalene



Naphthalene-2nd



d8-Naphthalene



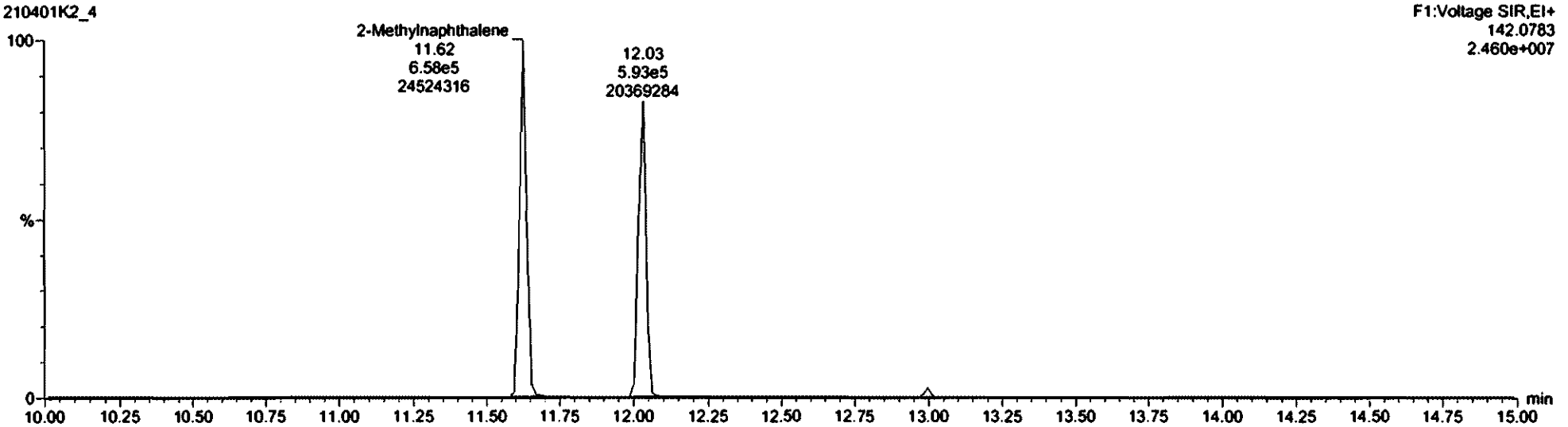
1064 of 1215

Dataset: Untitled

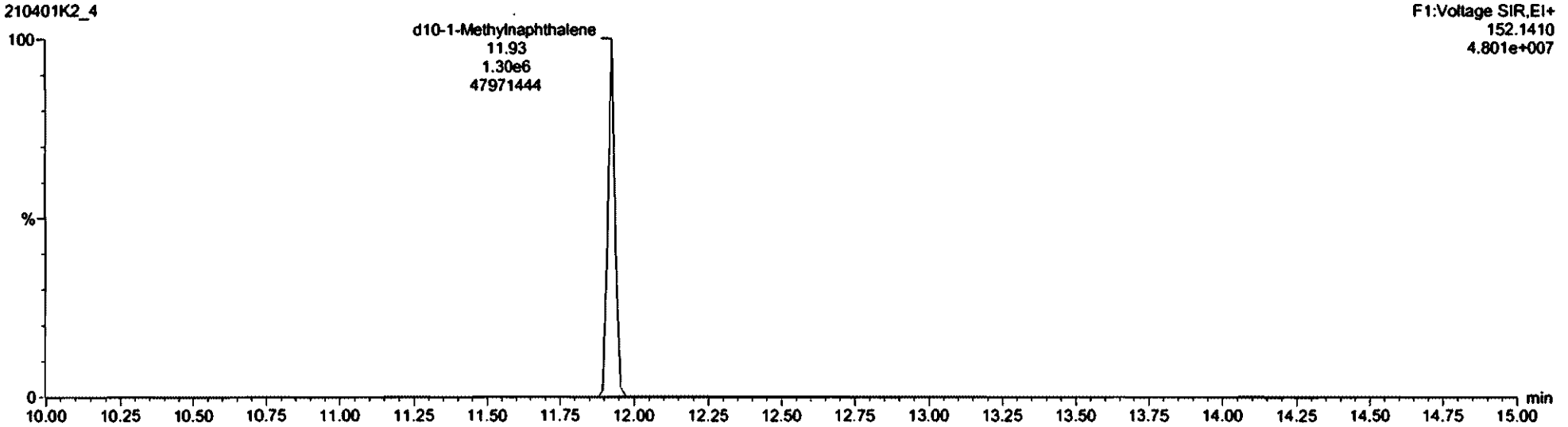
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

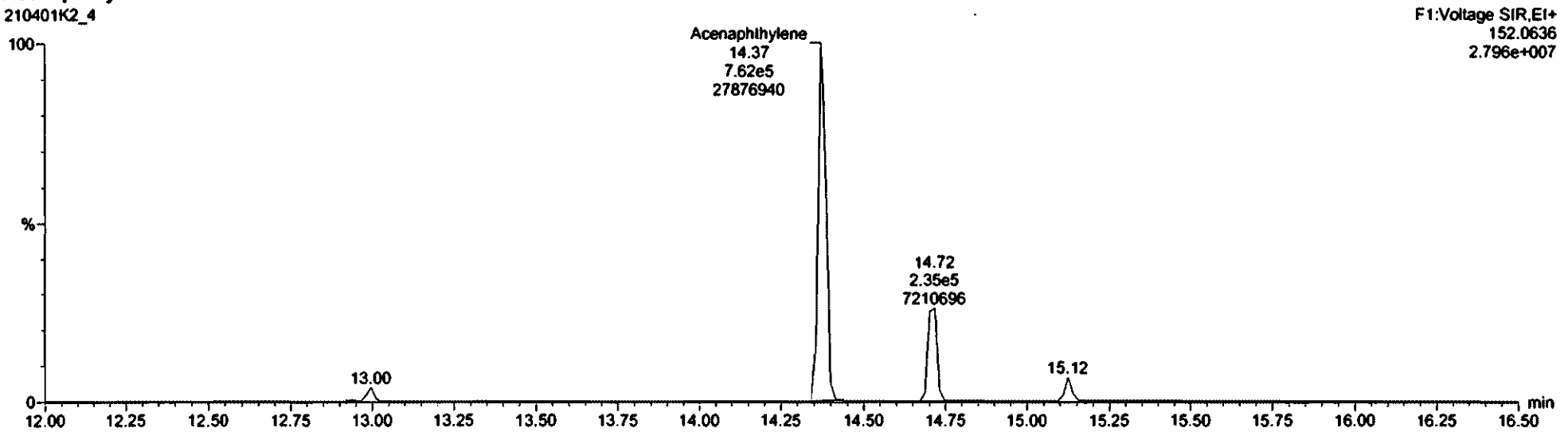


Dataset: Untitled

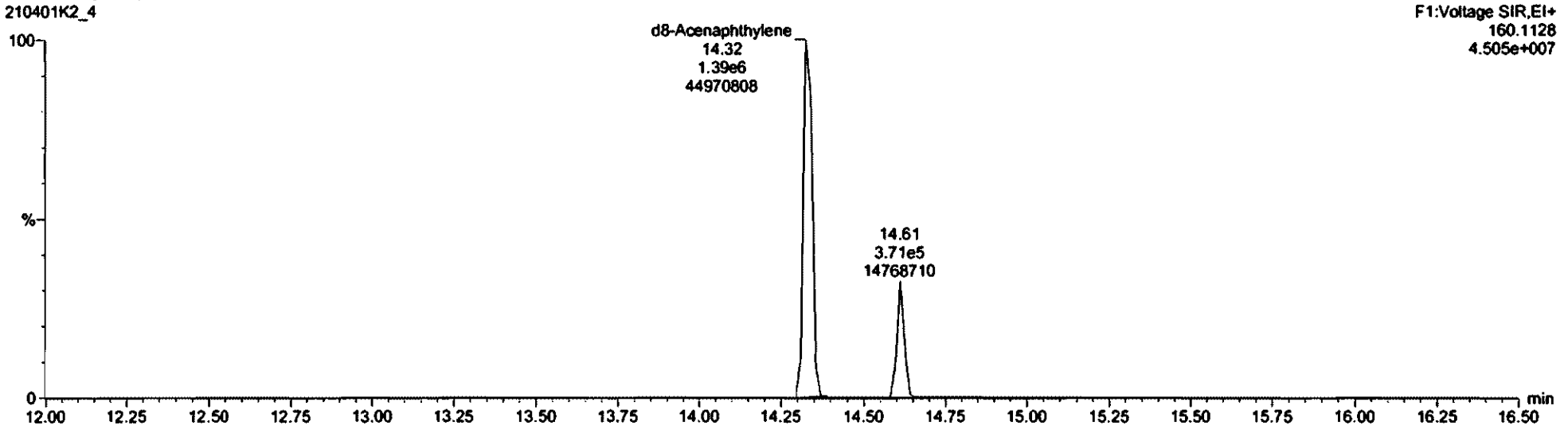
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Acenaphthylene



d8-Acenaphthylene



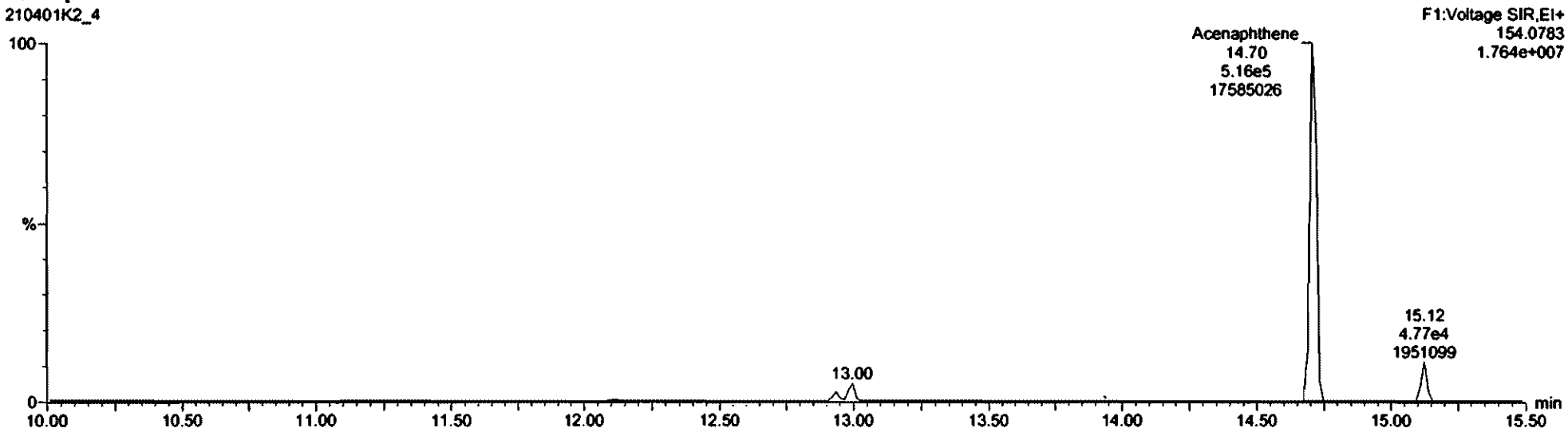
1066 of 1215

Dataset: Untitled

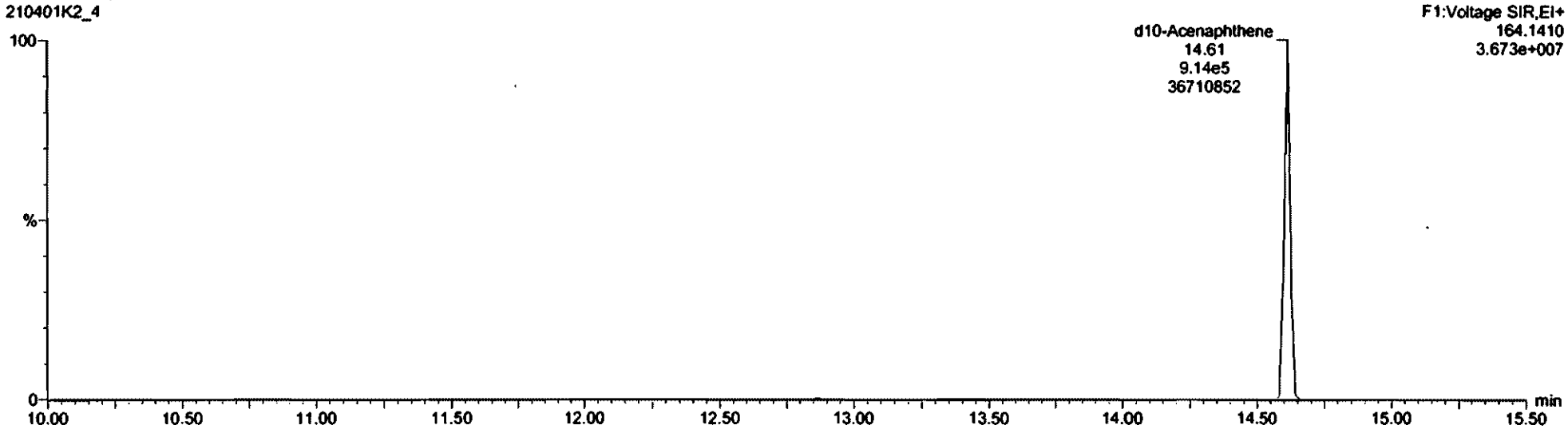
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Acenaphthene



d10-Acenaphthene



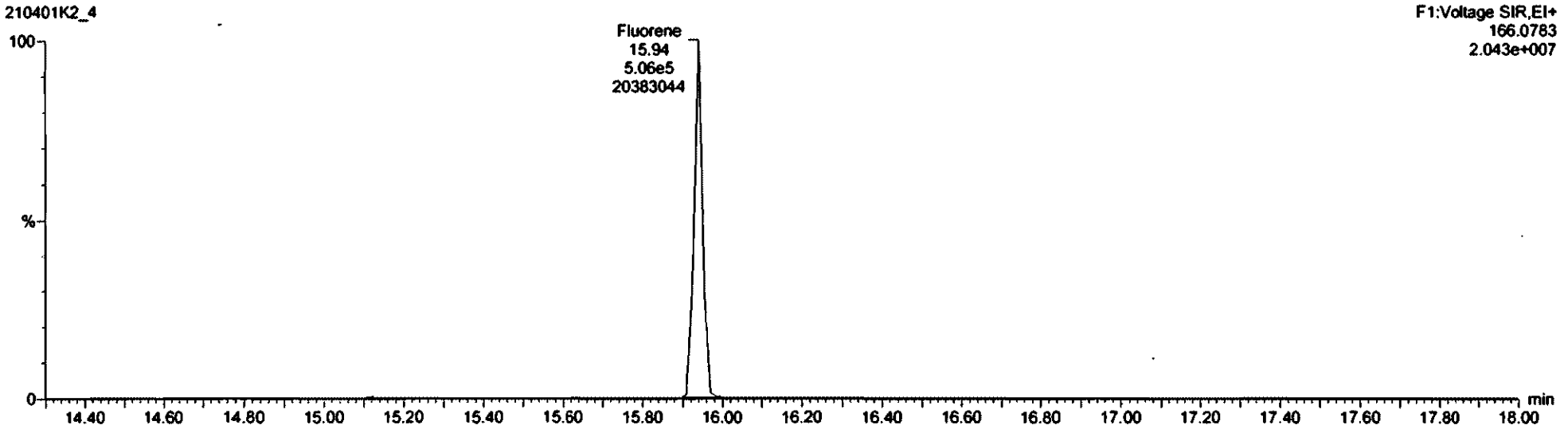
1067 of 1215

Dataset: Untitled

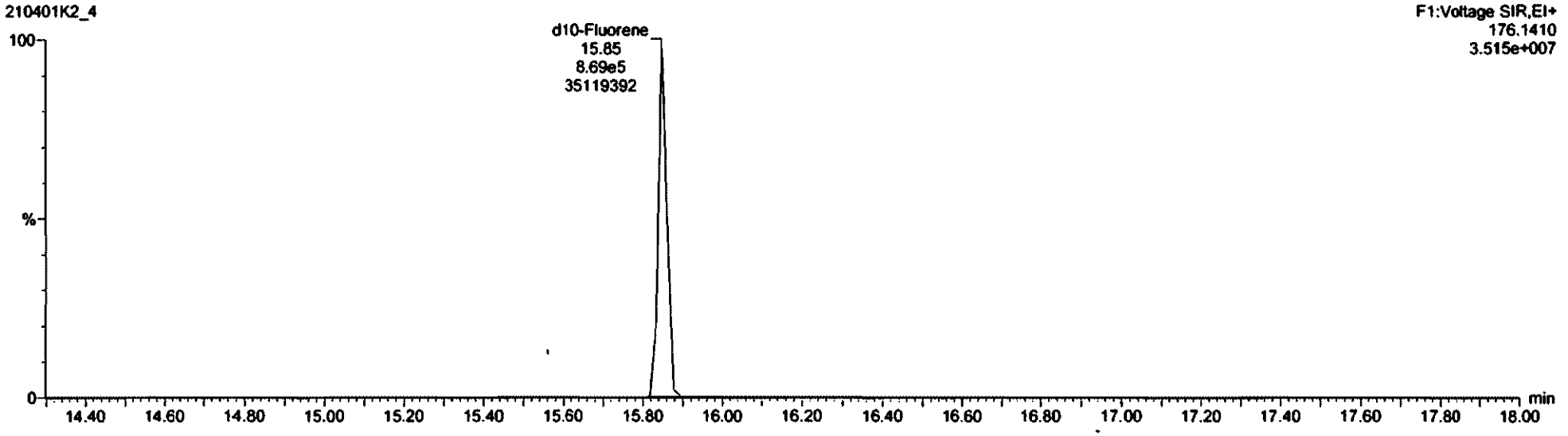
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Fluorene



d10-Fluorene

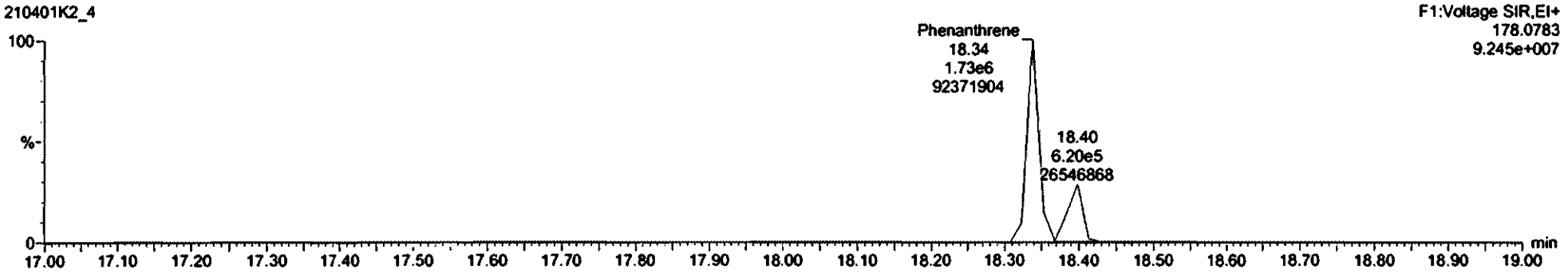


Dataset: Untitled

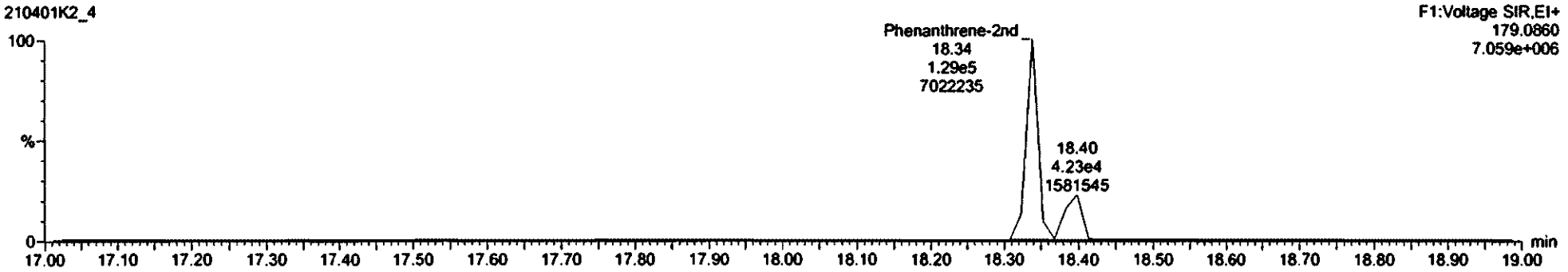
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

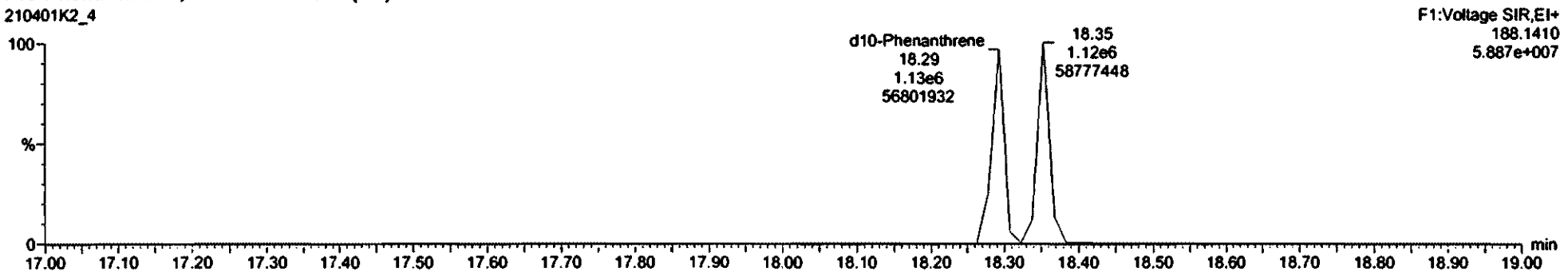
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)

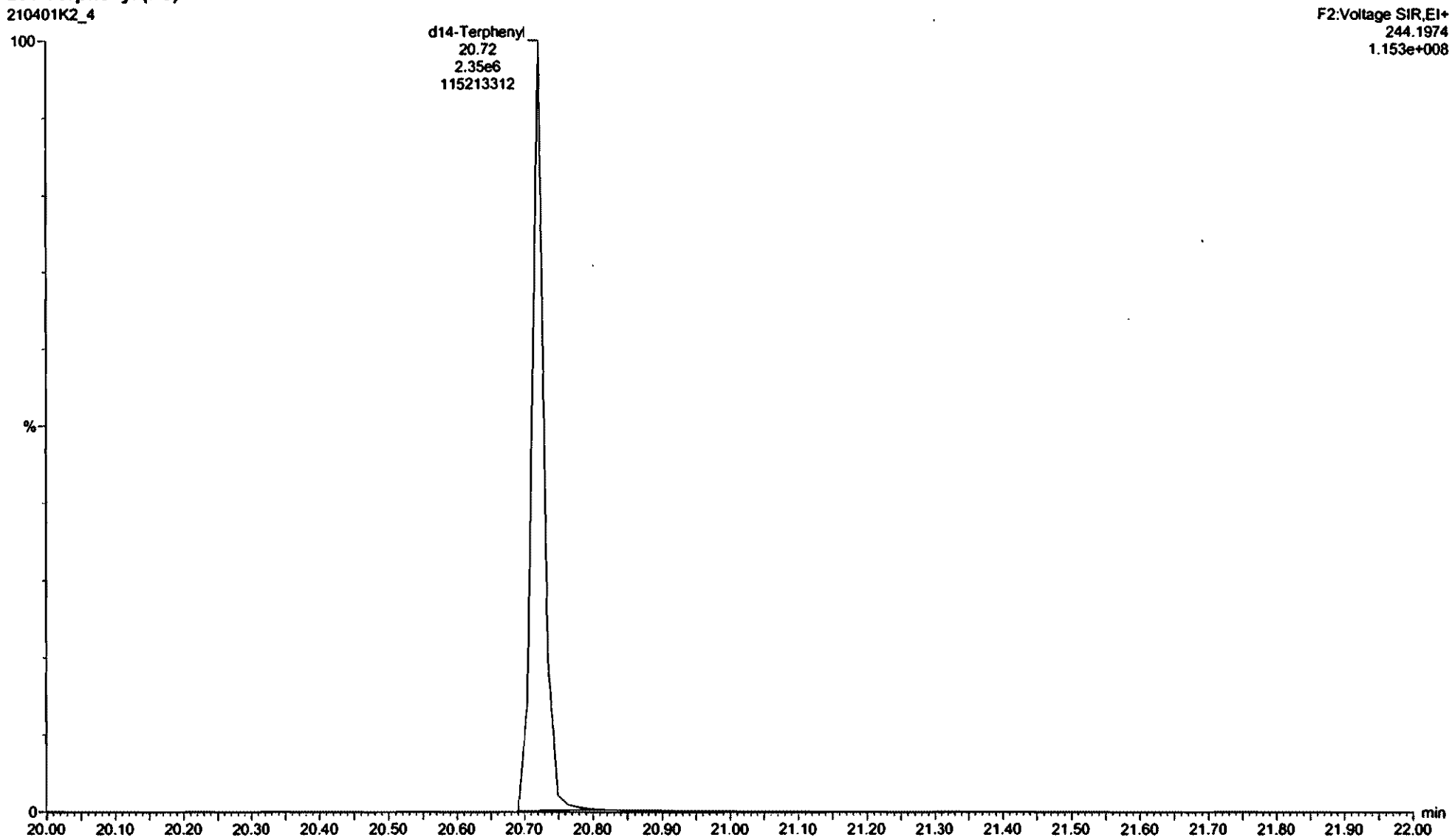


Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

d14-Terphenyl (PS)



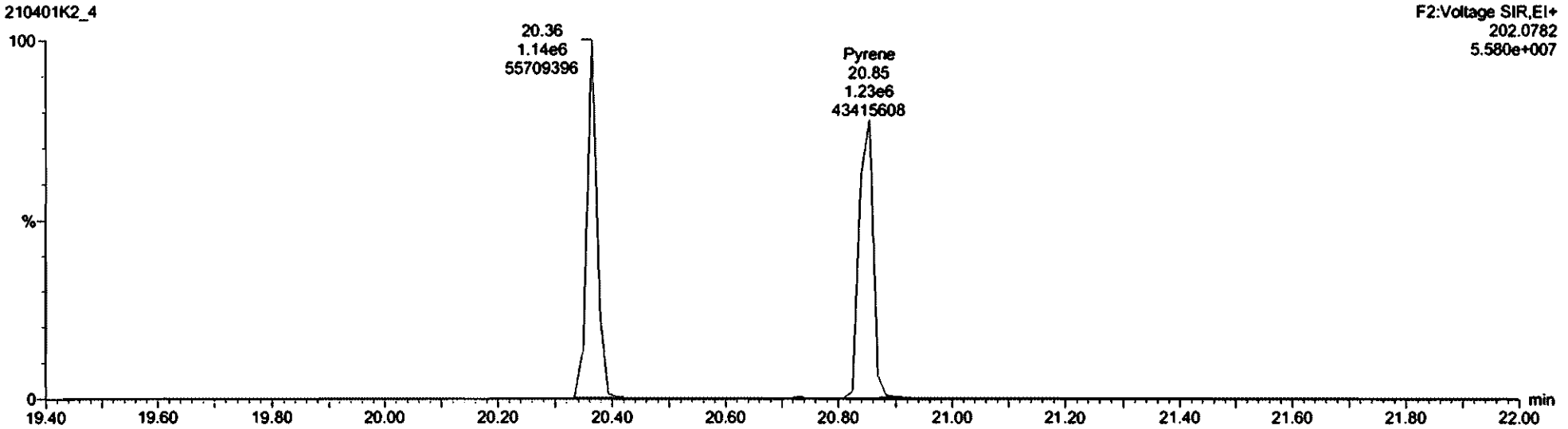
1070 of 1215

Dataset: Untitled

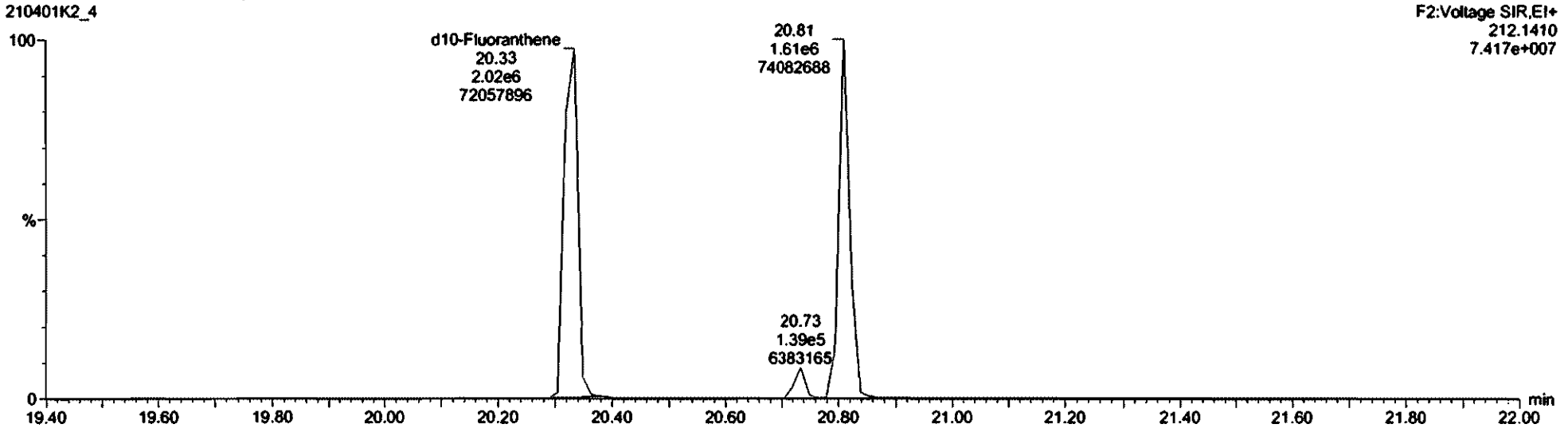
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

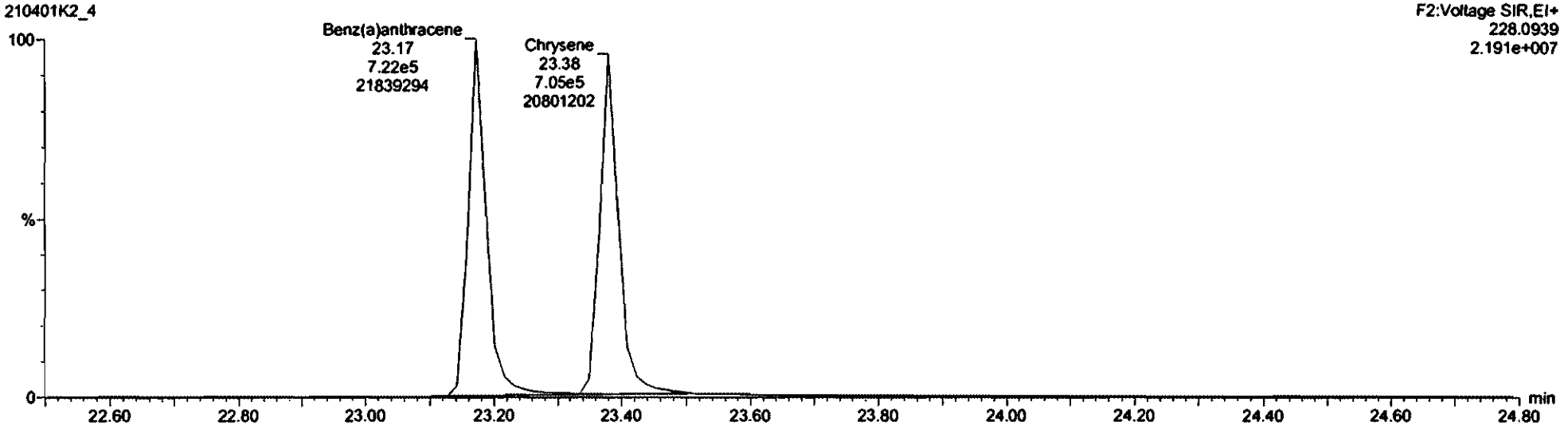


Dataset: Untitled

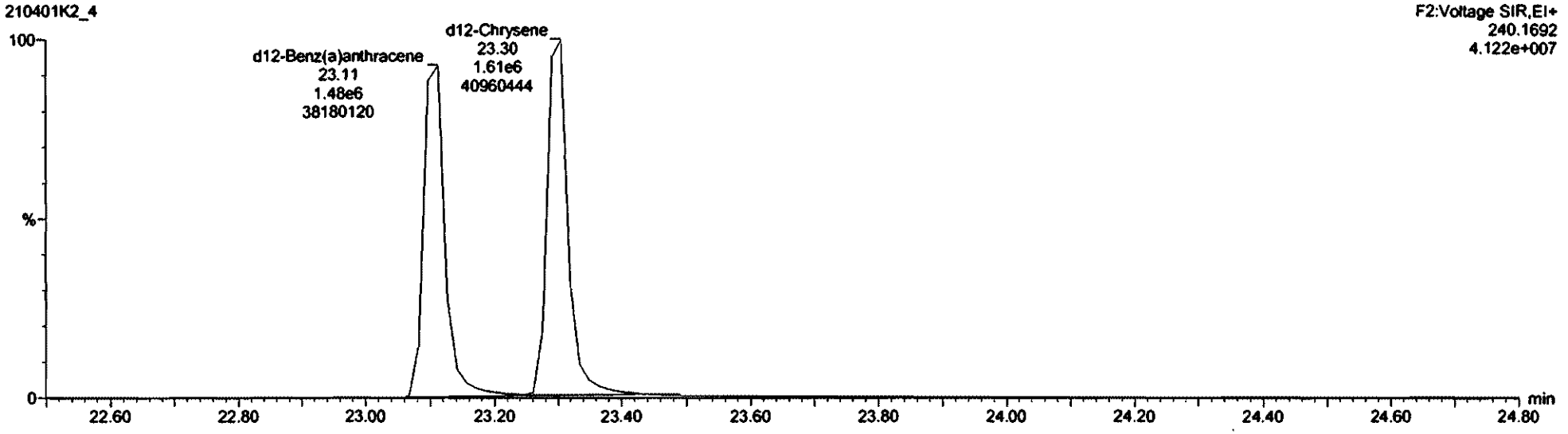
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



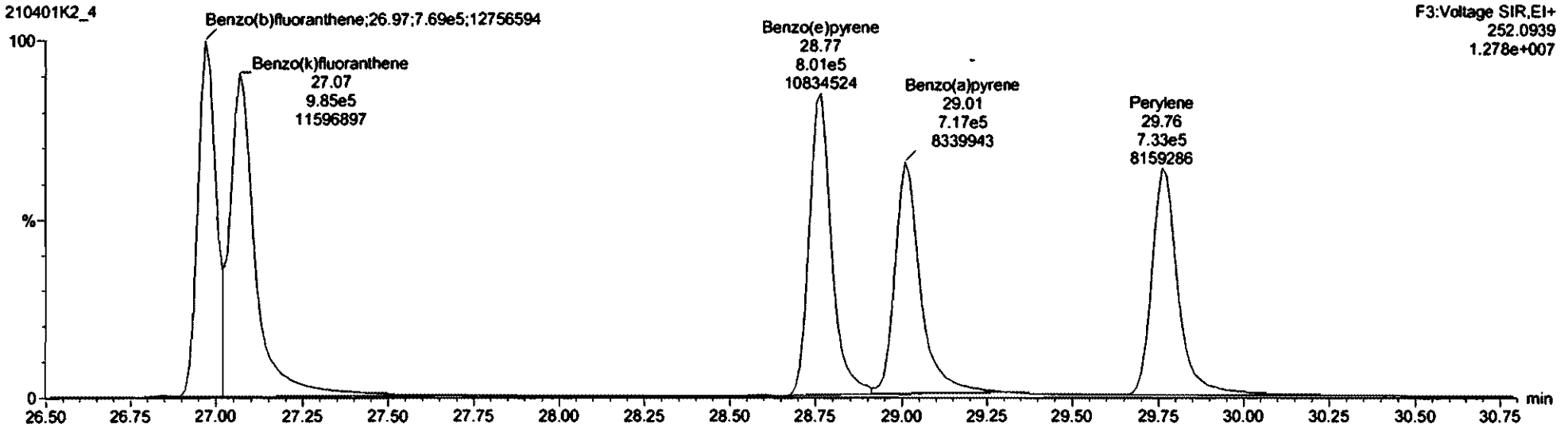
1072 of 1215

Dataset: Untitled

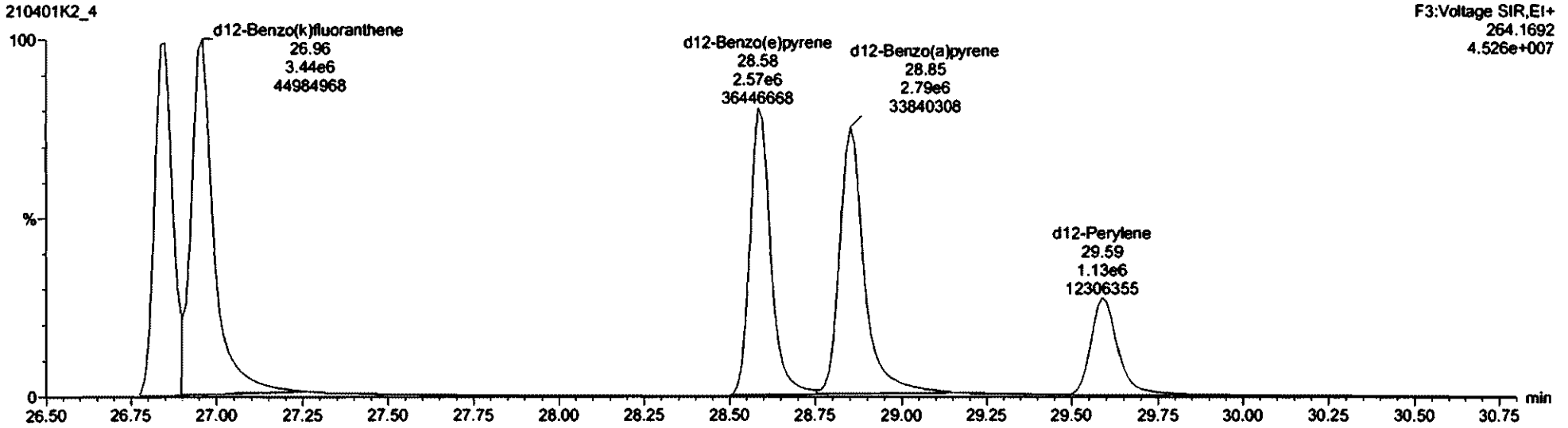
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Benzo-PAHs



Benzo-Isotopes

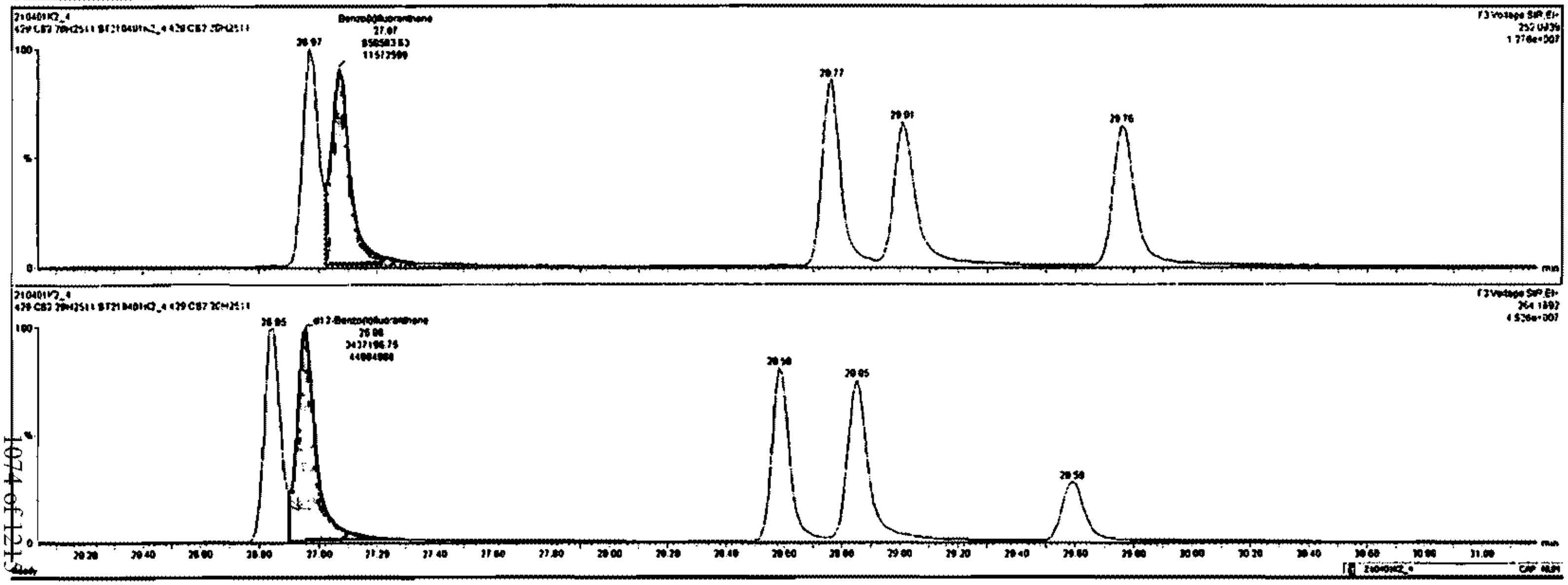


1073 of 1215

Targetlynx - 210401K2 CRV.mld - [Chromatogram]

File Edit View Display Processing Window Help

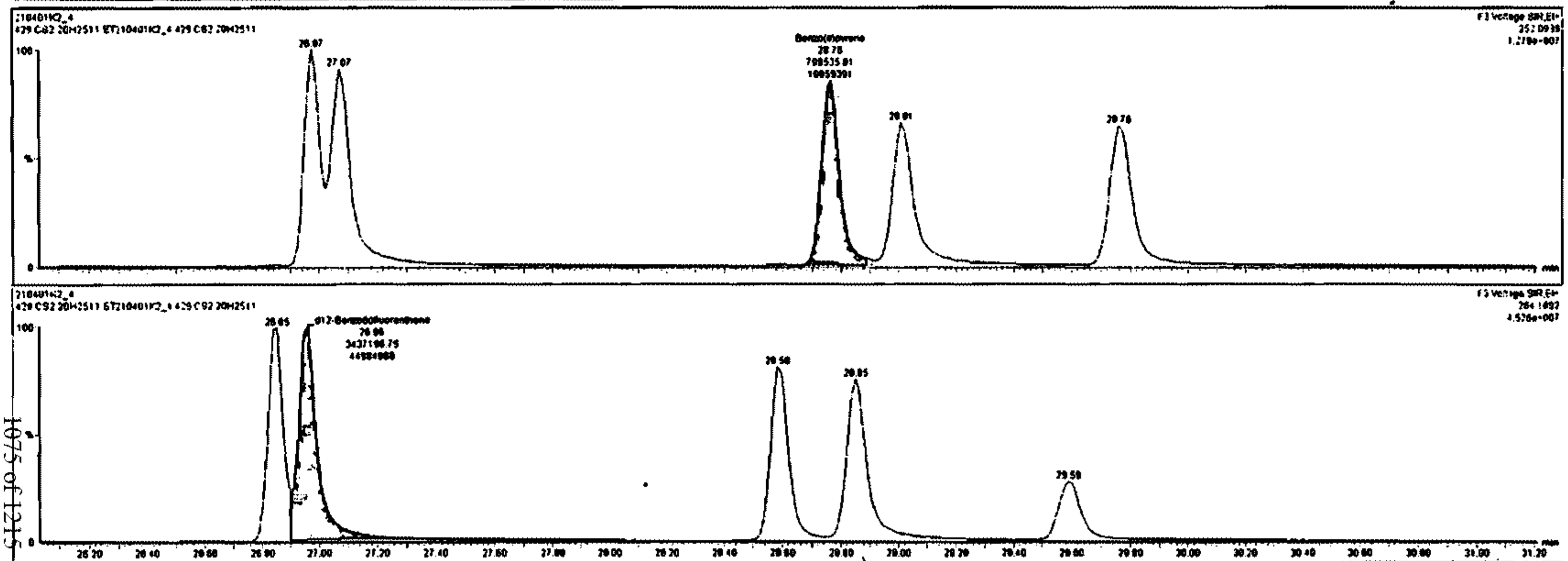
	#	Name	RT	RA	y/n	Area	IS Area	Std Conc	%Dev	%RSD	RRF M...	RRF SD
14	14	Benzo(b)fluoranthene	26.97			7.[illegible]	2.7440e6	50.000	1.5	5.61	1.10	0.0[illegible]
15	15	Benzo(k)fluoranthene	27.07			[illegible]	3.4372e6	50.000	6.8	5.60	1.04	0.0[illegible]
16	16	Benzo(e)pyrene	28.7[illegible]			7.[illegible]	3.4372e6	50.000	3.1	1.45	0.911	0.0133
17	17	Benzo(a)pyrene	28.91			7.[illegible]	2.7875e6	50.000	1.3	3.30	1.02	0.0341
18	18	Perylene	2[illegible]			7.[illegible]	2.7875e6	50.000	2.8	3.75	0.987	0.0370
19	19	Indeno(1,2,3-c,d)pyrene	37.15			5.[illegible]	2.[illegible]	50.000	0.8	5.44	0.915	0.0[illegible]
20	20	Benzo(g,h,i)perylene	40.0[illegible]			5.4744e5	2.3072e6	50.000	-6.6	4.27	0.940	0.0[illegible]
21	21	Dibenz(a,h)anthracene	37.08			4.[illegible]	1.7[illegible]	50.000	-0.9	6.70	0.[illegible]	0.0[illegible]
22	22	d8-Naphthalene	10.11			1.[illegible]	1.[illegible]	100.000	-3.3	2.[illegible]	1.20	0.0063
23	23	d8-Acenaphthylene	14.32			1.[illegible]	1.[illegible]	100.000	-4.5	4.10	0.[illegible]	0.0071
24	24	d10-Acenaphthene	14.61			9.1363e6	1.[illegible]	100.000	-4.5	4.26	0.[illegible]	0.0254
25	25	d10-Fluorene	15.05			[illegible]	1.[illegible]	100.000	-4.2	5.30	0.[illegible]	0.0315



TargetLynx - 210401K2 CRV.qld - [Chromatogram]

File Edit View Display Processing Window Help

	#_	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
14	14	Benzo(b)fluoranthene	26.97			7.6882e5	2.7440e6	50.000	1.8	5.61	1.10	0.0630
15	15	Benzo(k)fluoranthene	27.07			9.5088e5	3.4377e6	50.000	6.5	5.60	1.04	0.0681
16	16	Benzo(a)pyrene	28.76			7.8664e5	3.4377e6	50.000	2.1	1.45	0.911	0.0133
17	17	Benzo(e)pyrene	29.01			7.1898e5	2.7675e6	50.000	1.3	3.36	1.02	0.0341
18	18	Perylene	29.76			7.6758e5	2.7675e6	50.000	3.8	3.75	0.887	0.0370
19	19	Indeno(1,2,3-c,d)pyrene	37.15			5.2183e5	2.2620e6	50.000	0.6	5.44	0.915	0.0498
20	20	Benzo(g,h,i)perylene	40.80			5.4744e5	2.3472e6	50.000	-0.8	4.22	0.940	0.0387
21	21	Dibenz(a,h)anthracene	37.80			4.0328e5	1.7176e6	50.000	-0.9	6.76	0.948	0.0642
22	22	d8-Naphthalene	10.11			1.8847e6	1.8112e6	100.000	-2.2	2.83	1.20	0.0052
23	23	d8-Acenaphthylene	14.32			1.3828e6	1.8112e6	100.000	-4.6	4.10	0.806	0.0071
24	24	d10-Acenaphthene	14.81			8.1353e5	1.8112e6	100.000	-4.5	4.28	0.584	0.0254
25	25	d10-Fluorene	15.85			8.8875e5	1.8112e6	100.000	-4.2	5.59	0.983	0.0315



Ready

TargetLynx - 210421K2 CRY.qld - [Chromatogram]

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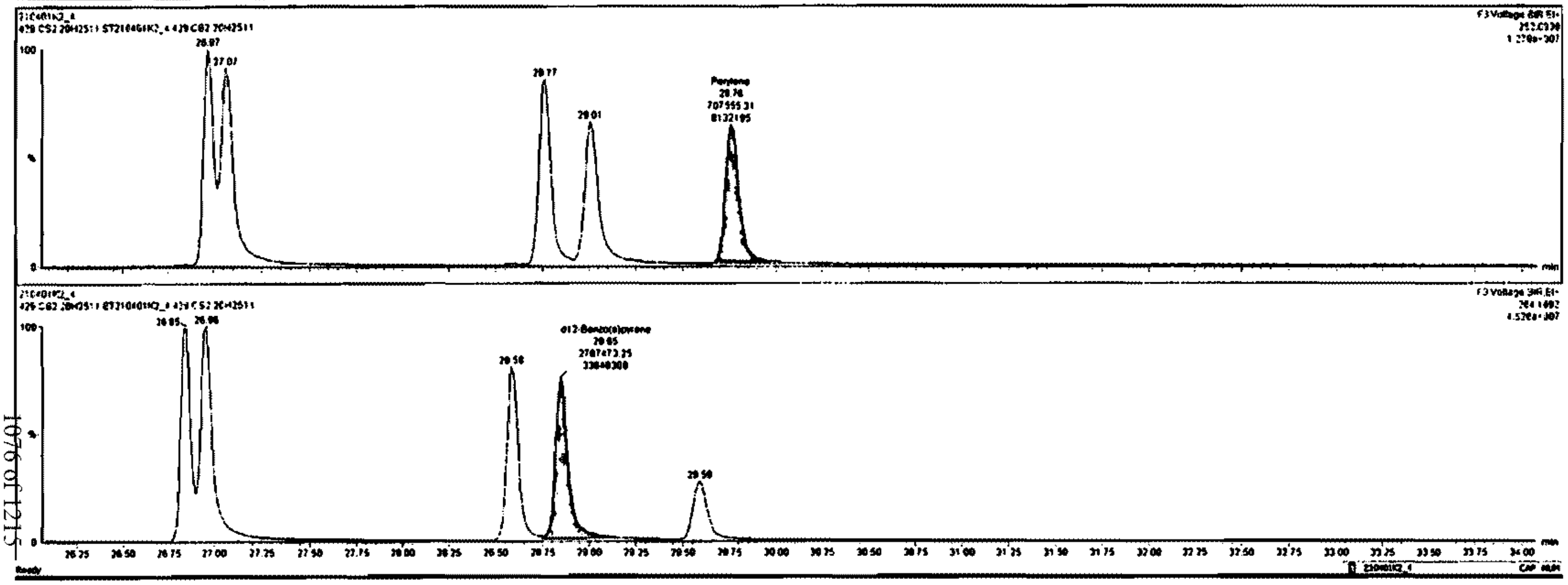
	#	Name	RT	RA	y/n	Area	IS Area	Std Conc	%Dev	%RSD	RRF M...	RRF SD
14	14	Benzo(b)fluoranthene	26.97			7.6882e5	2.7440e6	50.000	1.5	5.61	1.10	0.0620
15	15	Benzo(k)fluoranthene	27.07			9.5050e5	3.4372e6	50.000	6.6	5.80	1.04	0.0591
16	16	Benzo(a)pyrene	28.76			7.9854e5	3.4372e6	50.000	2.1	1.45	0.911	0.0130
17	17	Benzo(e)pyrene	29.01			7.1886e5	2.7875e6	50.000	1.3	3.38	1.02	0.0341
18	18	Perylene	29.76			7.0756e5	2.7875e6	50.000	2.0	3.75	0.887	0.0330
19	19	Indeno(1,2,3-c,d)pyrene	37.15			6.2183e5	2.2830e6	50.000	0.8	5.44	0.915	0.0488
20	20	Benzo(g,h,i)perylene	40.88			5.4744e5	2.3472e6	50.000	-0.8	4.22	0.940	0.0397
21	21	Dibenz(a,h)anthracene	37.88			4.0328e5	1.7178e6	50.000	-0.9	6.79	0.948	0.0642
22	22	d8-Naphthalene	10.11			1.8847e6	1.0113e6	100.000	-2.3	2.93	1.20	0.0353
23	23	d8-Acenaphthylene	14.32			1.3828e6	1.0113e6	100.000	-4.5	4.10	0.888	0.0371
24	24	d10-Acenaphthene	14.89			8.1353e5	1.0113e6	100.000	-4.5	4.29	0.584	0.0254
25	25	d10-Fluorene	15.85			8.8875e5	1.0113e6	100.000	-4.2	5.58	0.583	0.0315

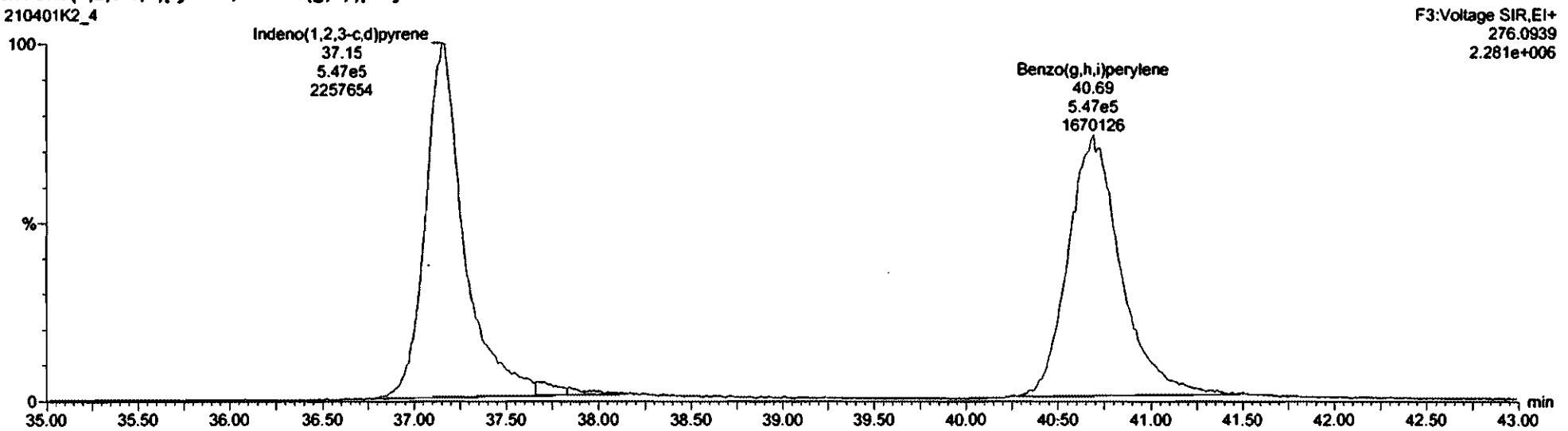


Dataset: Untitled

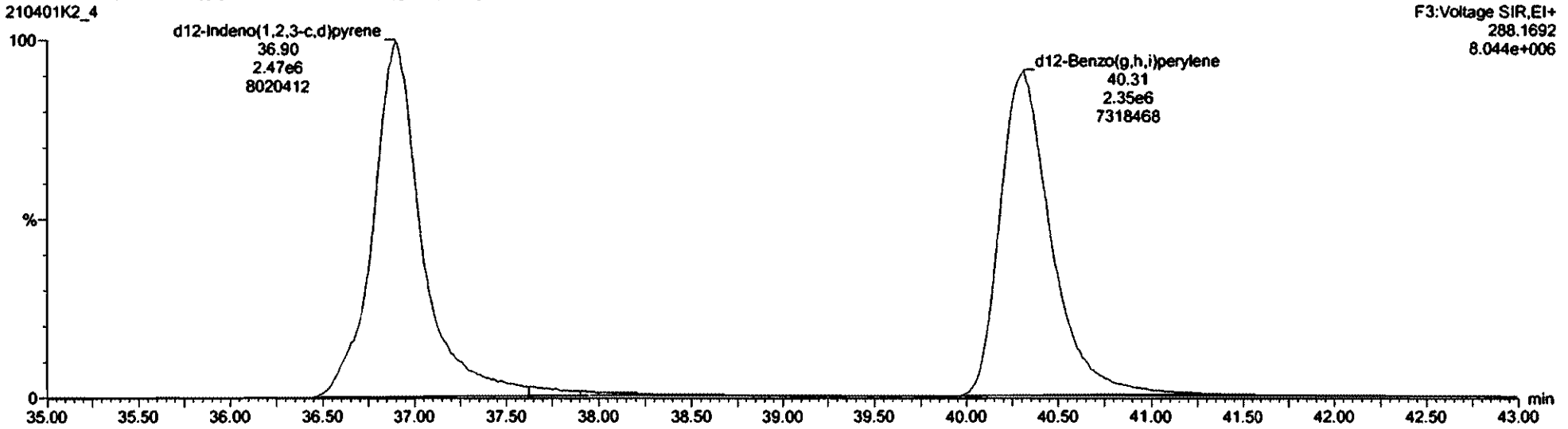
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

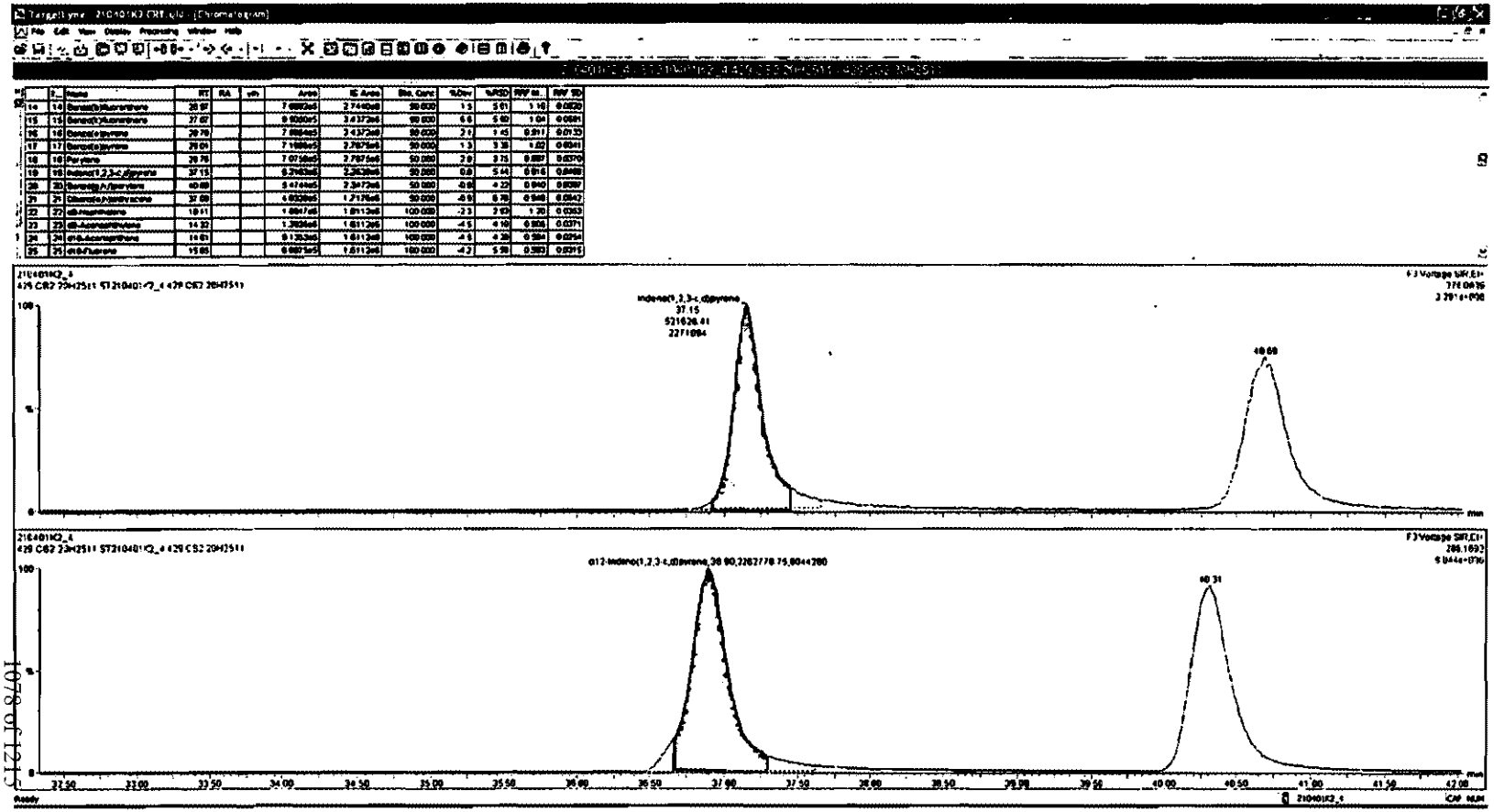
Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



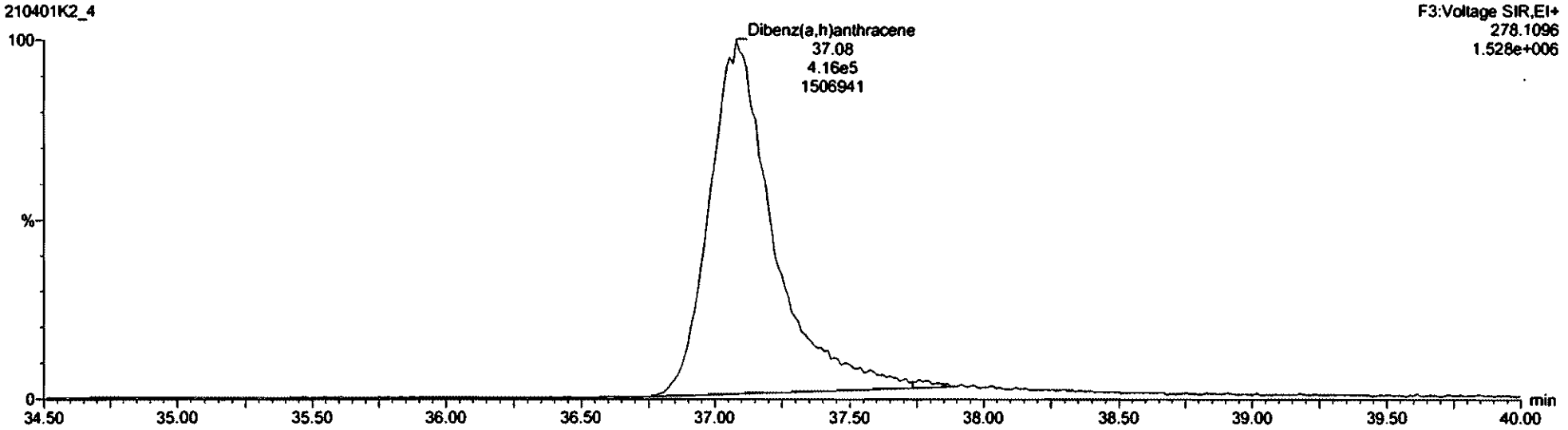

indeno(1,2,3-cd)pyrene
37.15
521626.41
2271084
40.68
40.31

Dataset: Untitled

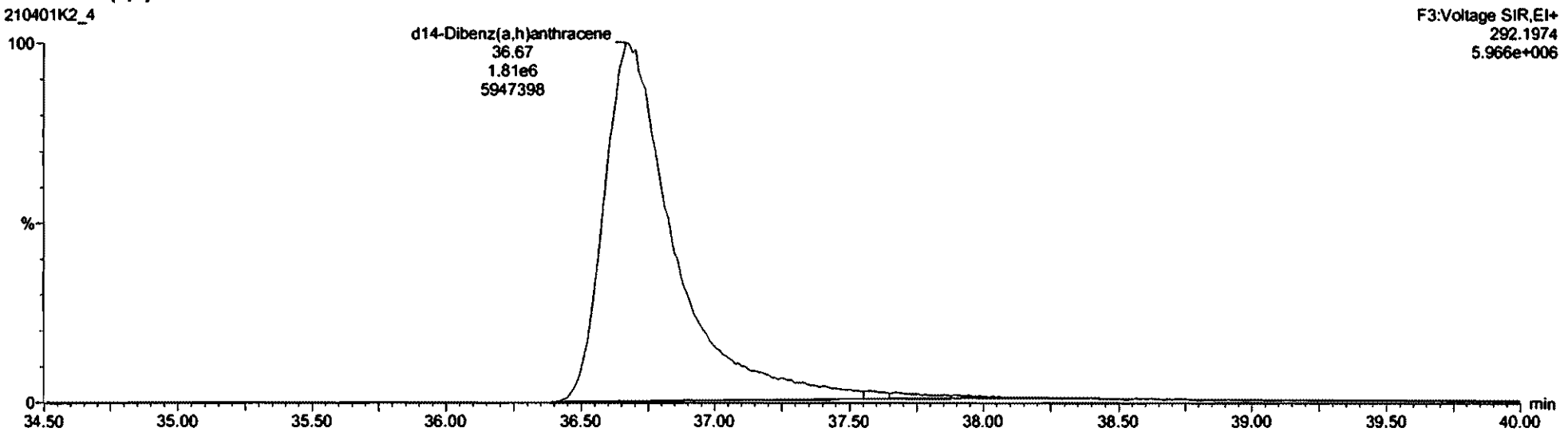
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_4, Date: 01-Apr-2021, Time: 11:55:05, ID: ST210401K2_4 429 CS2 20H2511, Description: 429 CS2 20H2511

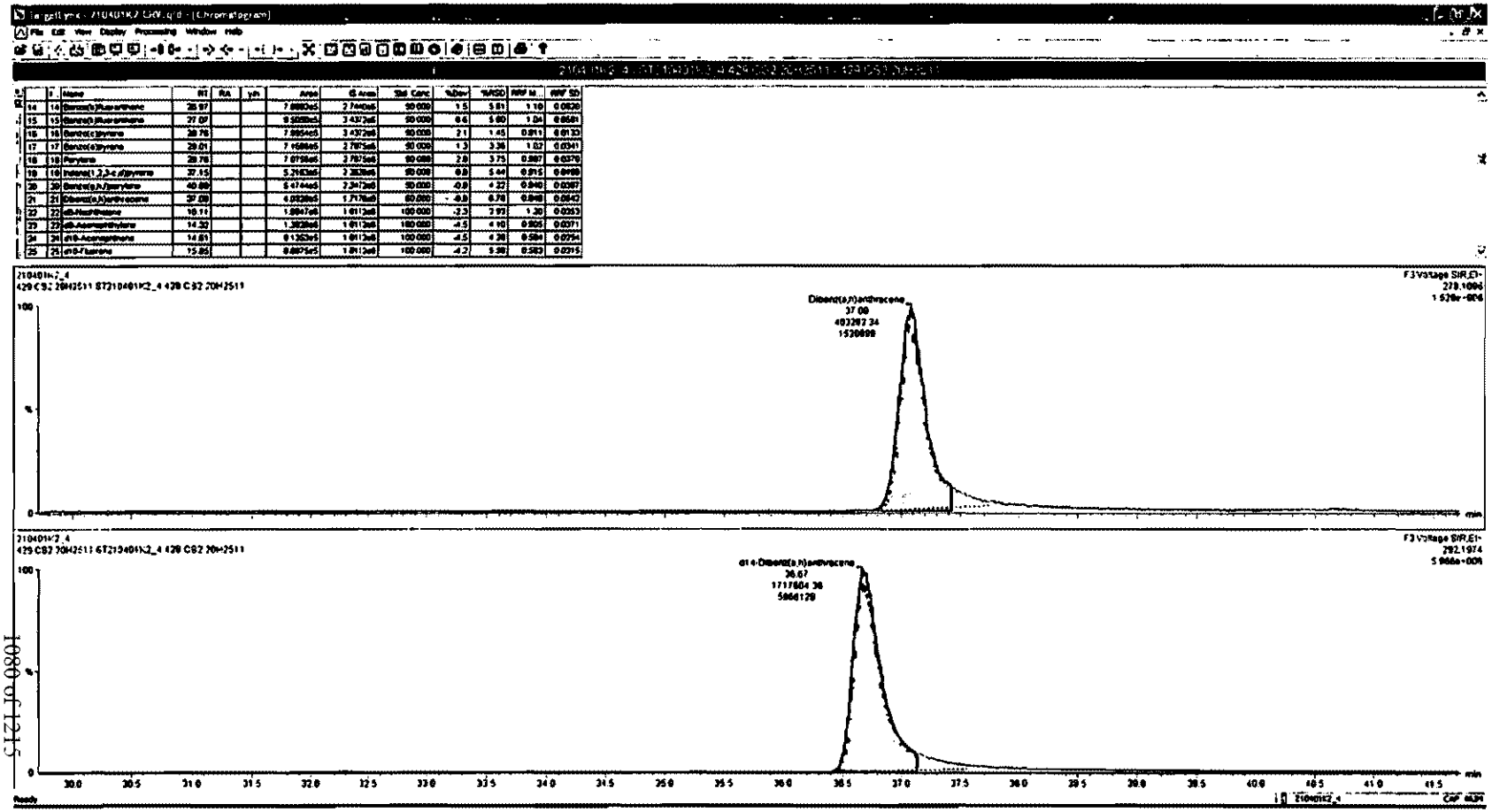
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



1079 of 1215

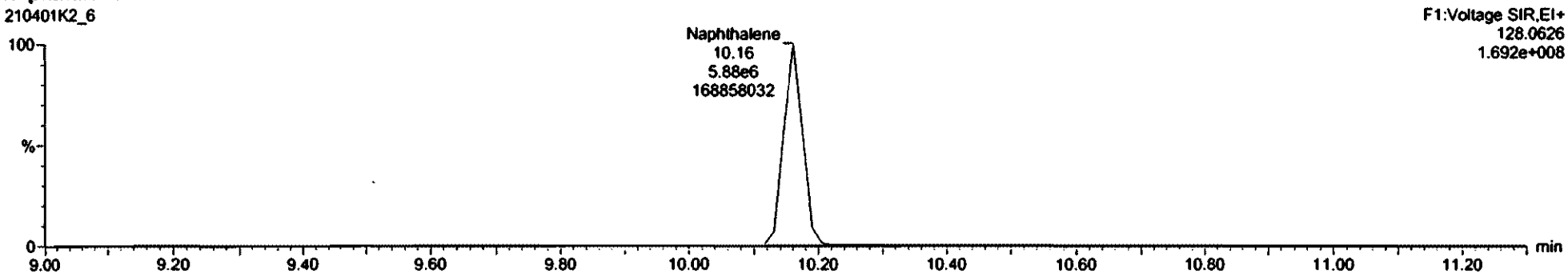

Dibenz(a,h)anthracene
37.00
Dibenz(a,h)anthracene
36.67

Dataset: Untitled

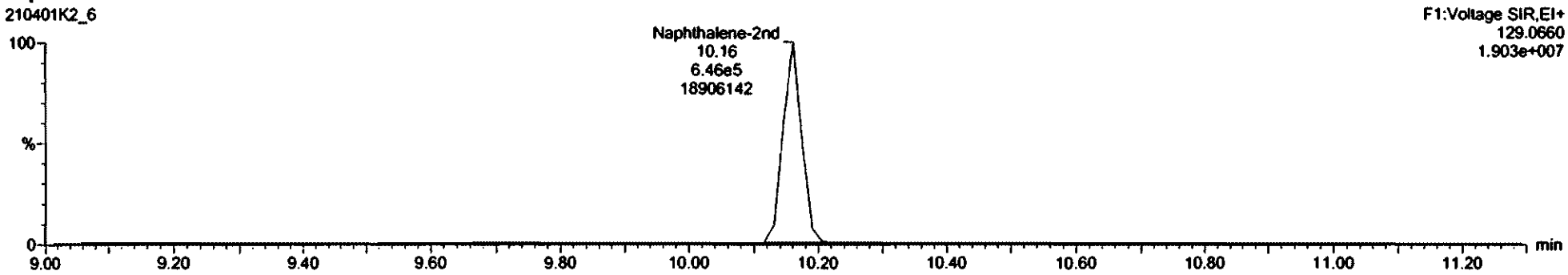
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

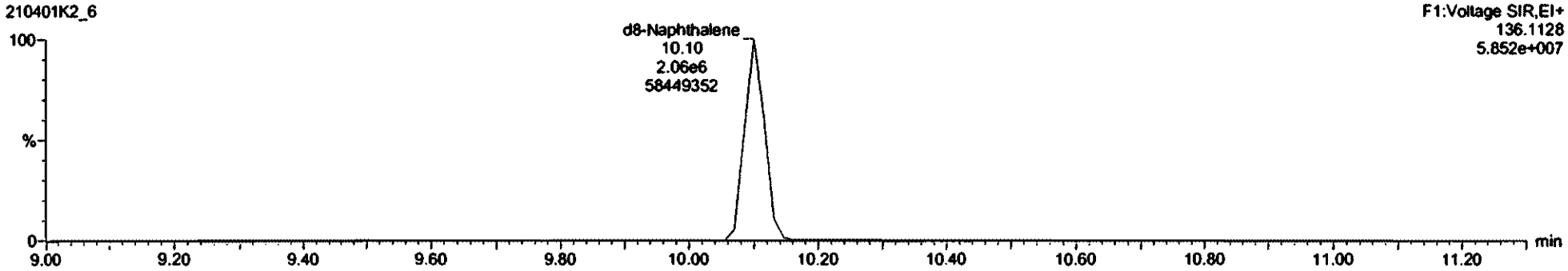
Naphthalene



Naphthalene-2nd



d8-Naphthalene



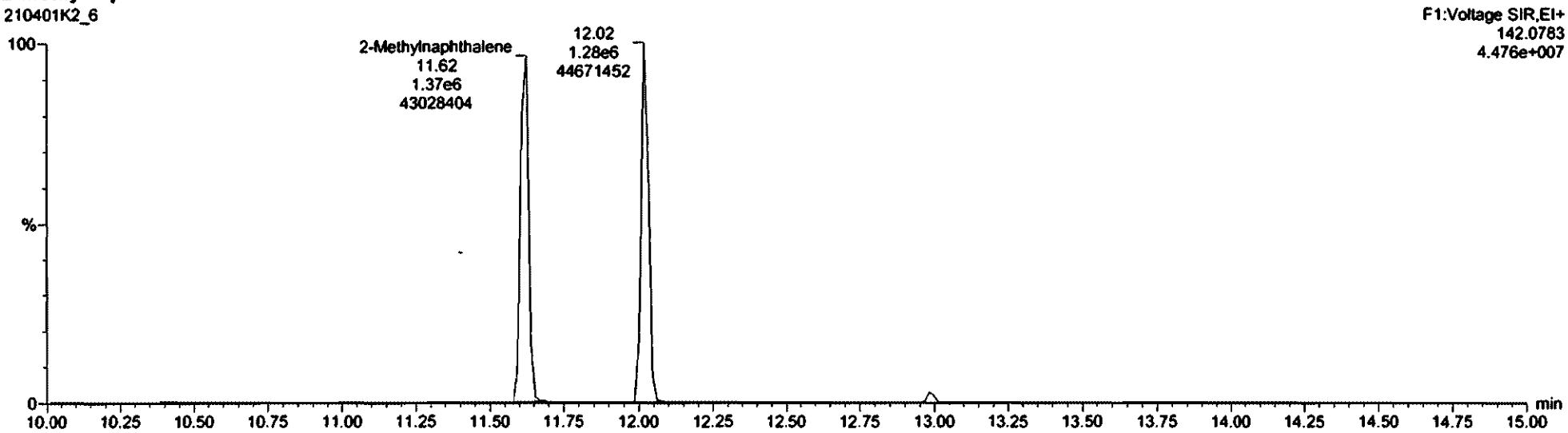
1081 of 1215

Dataset: Untitled

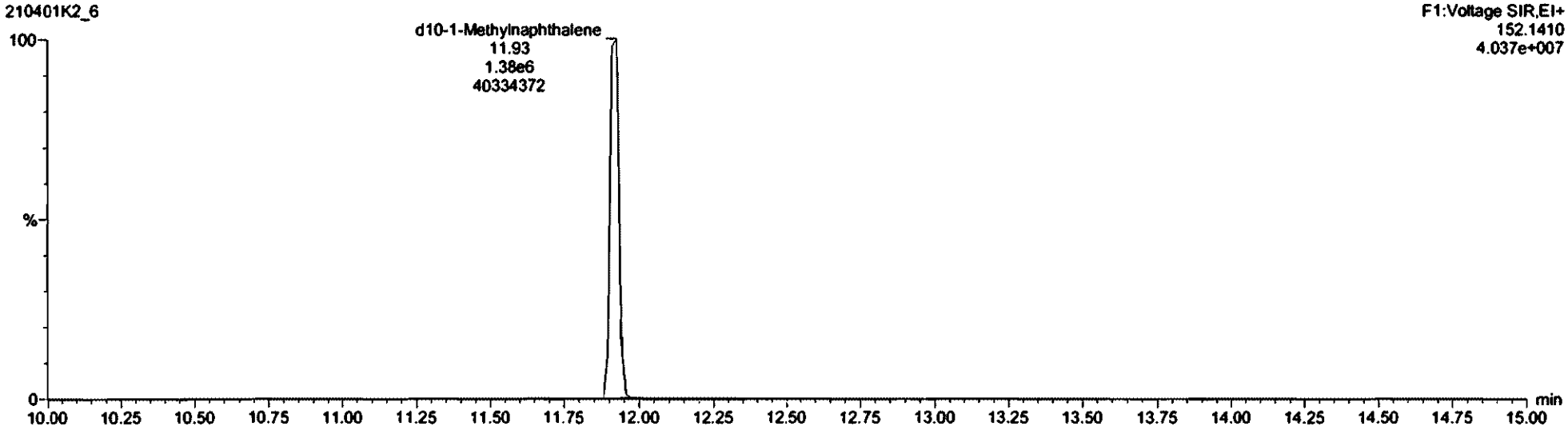
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



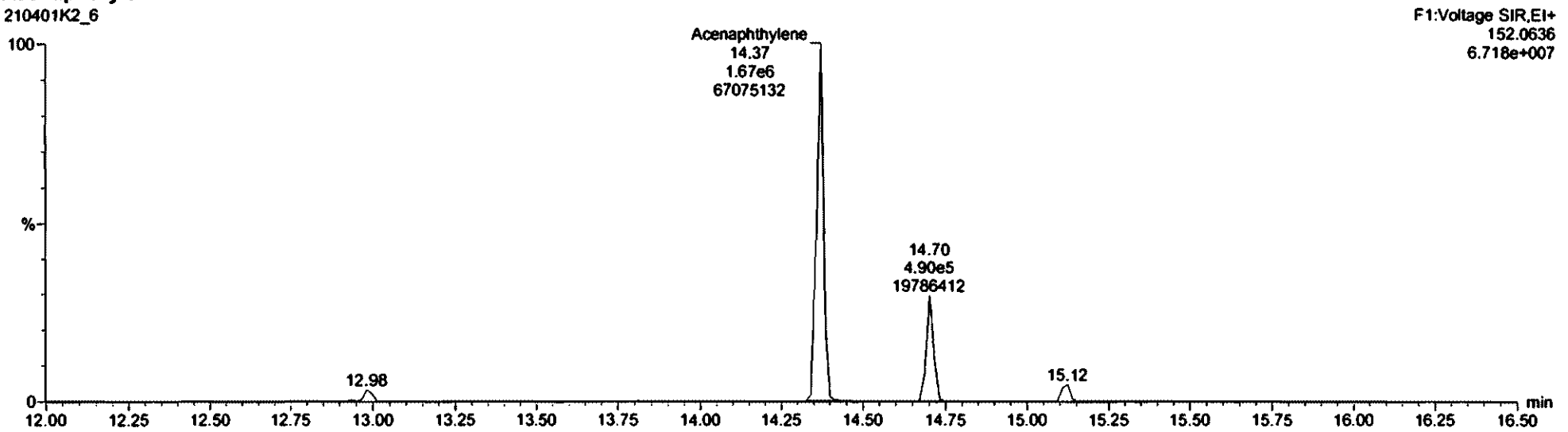
1082 of 1215

Dataset: Untitled

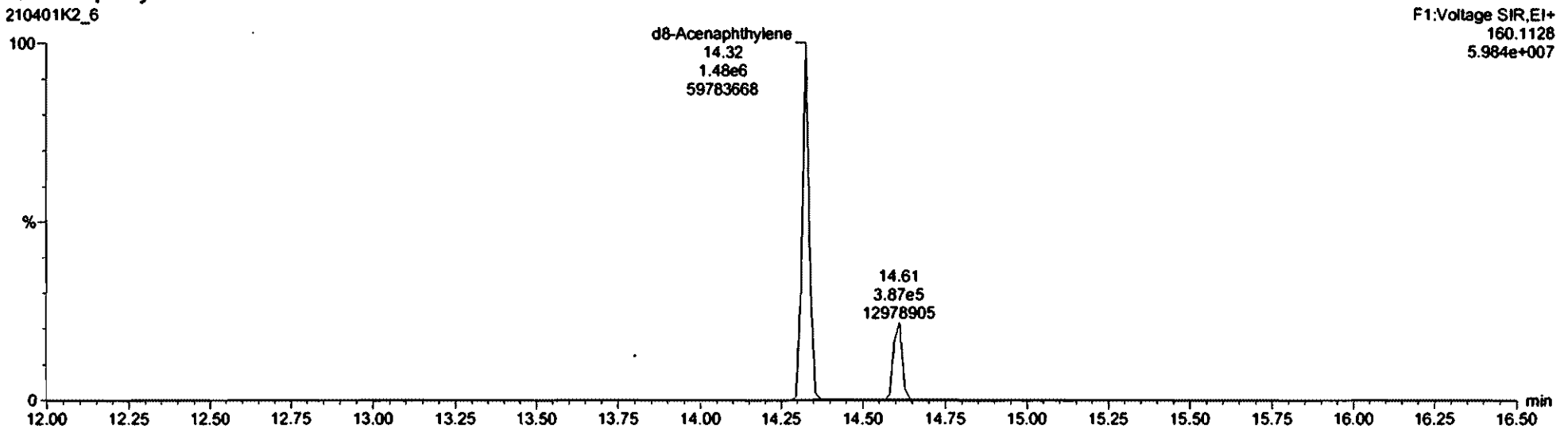
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthylene



d8-Acenaphthylene



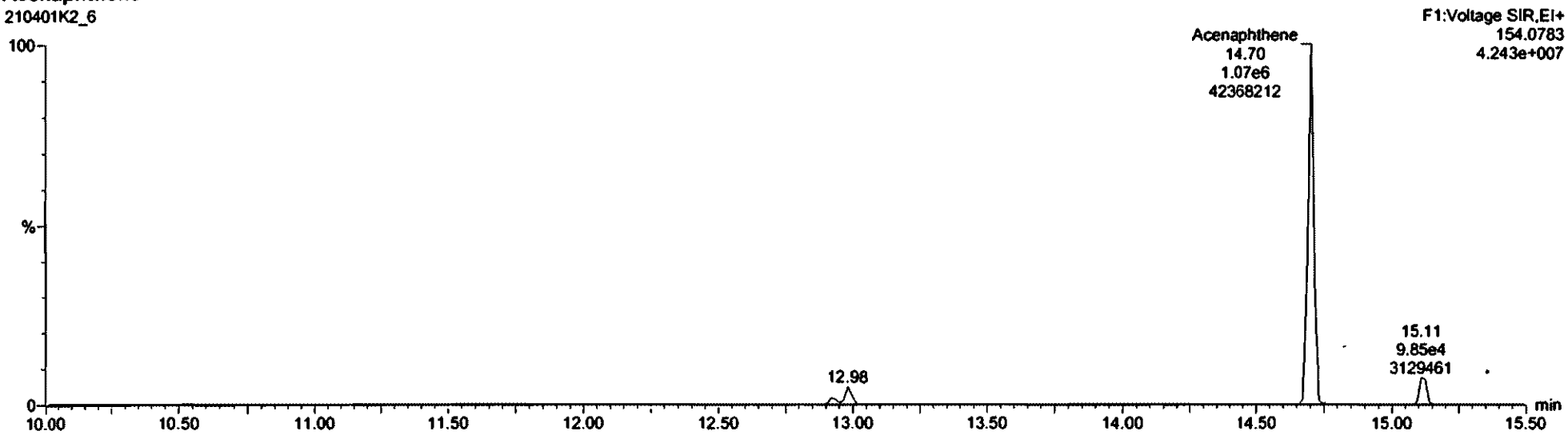
1083 of 1215

Dataset: Untitled

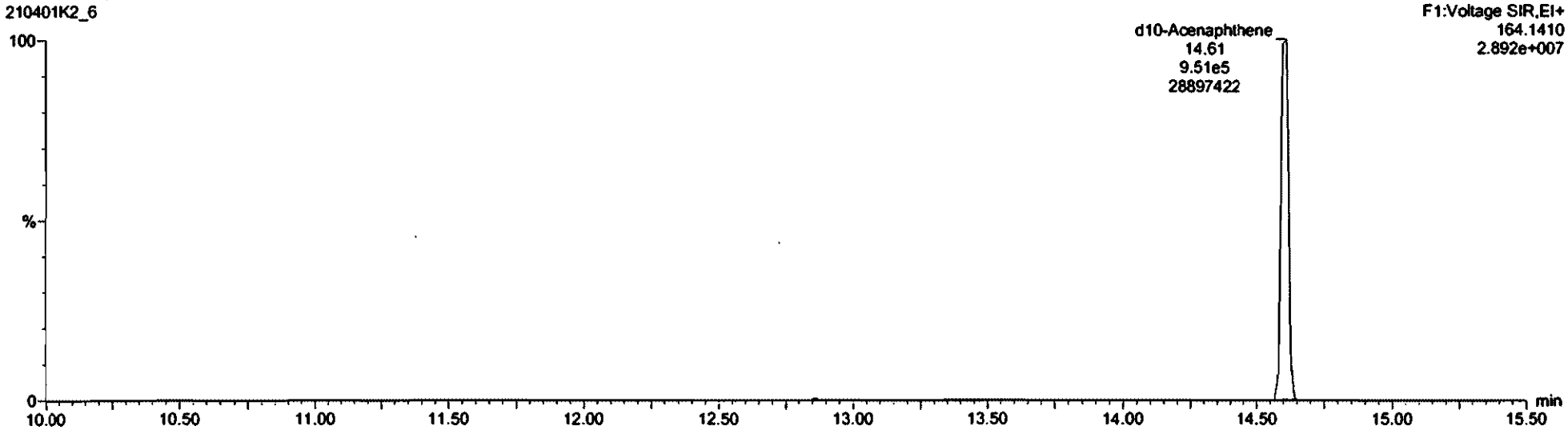
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Acenaphthene



d10-Acenaphthene



1084 of 1215

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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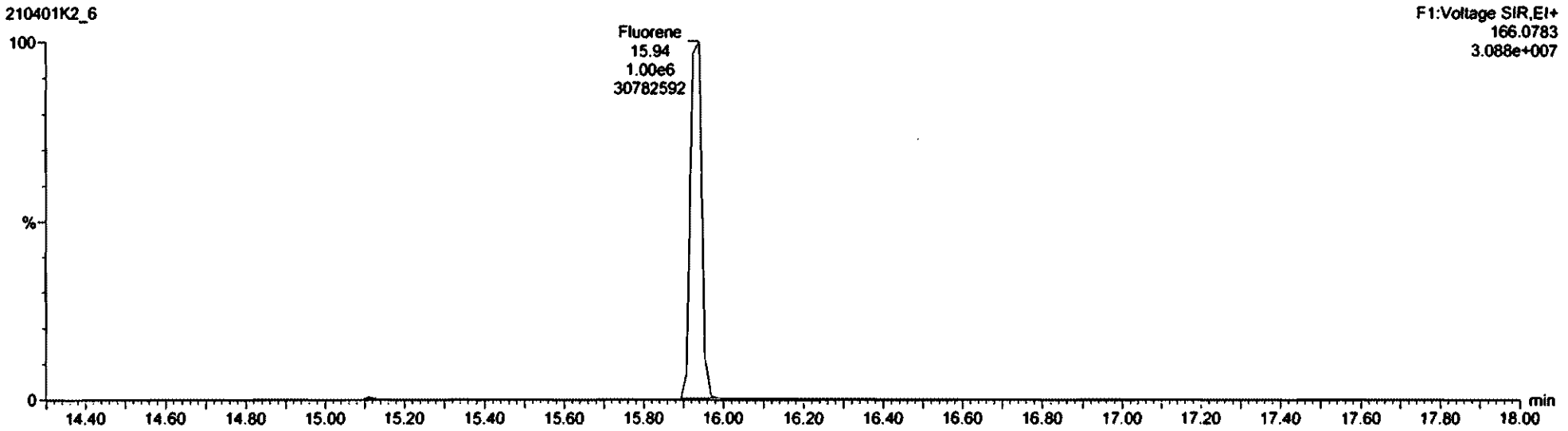
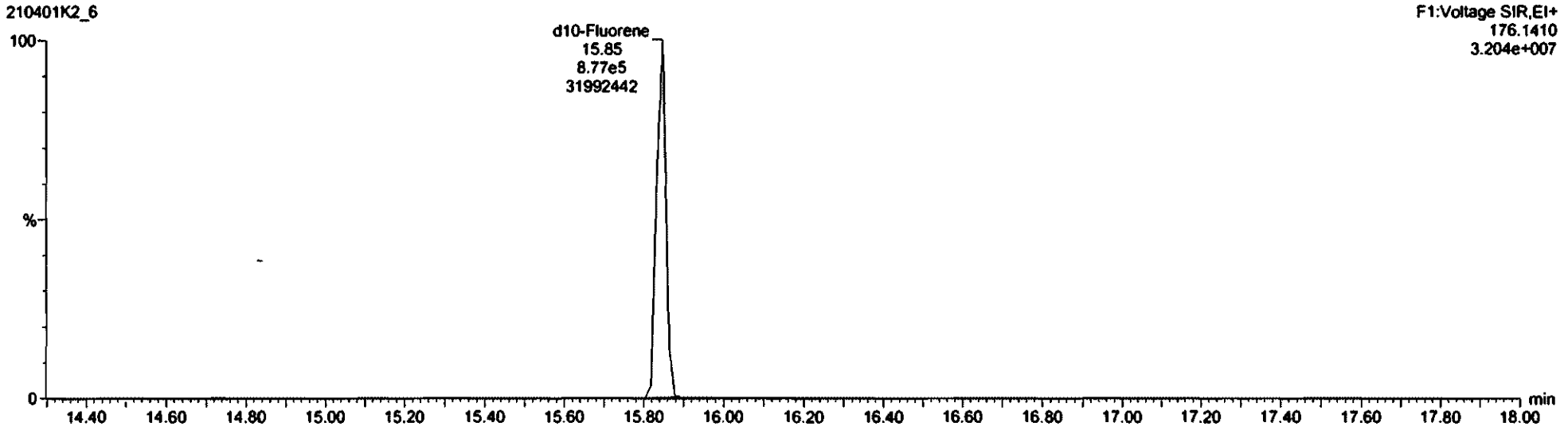
Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluorene



d10-Fluorene

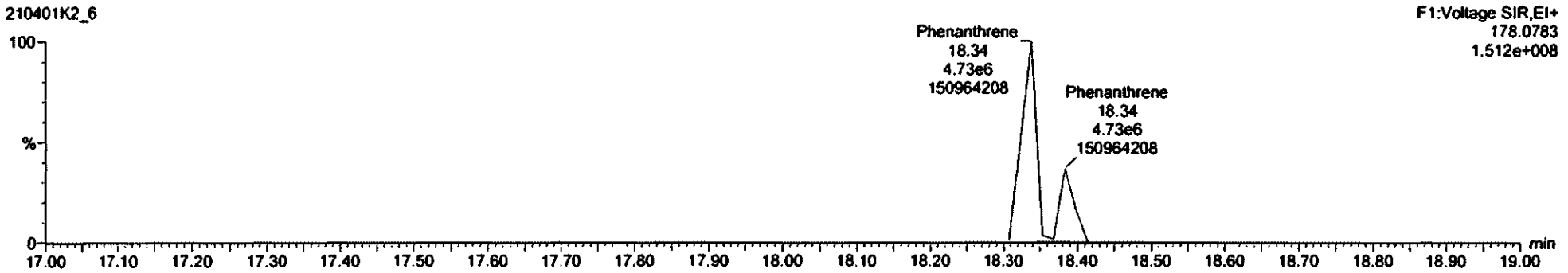


Dataset: Untitled

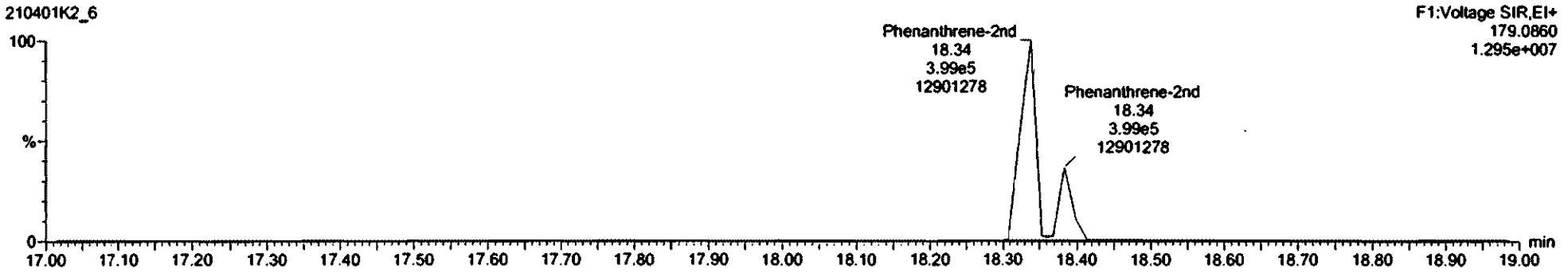
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

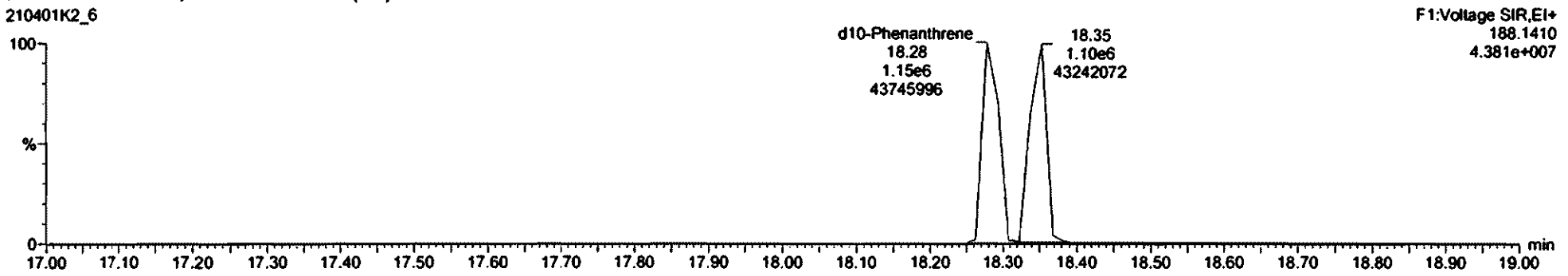
Phenanthrene; Anthrecene

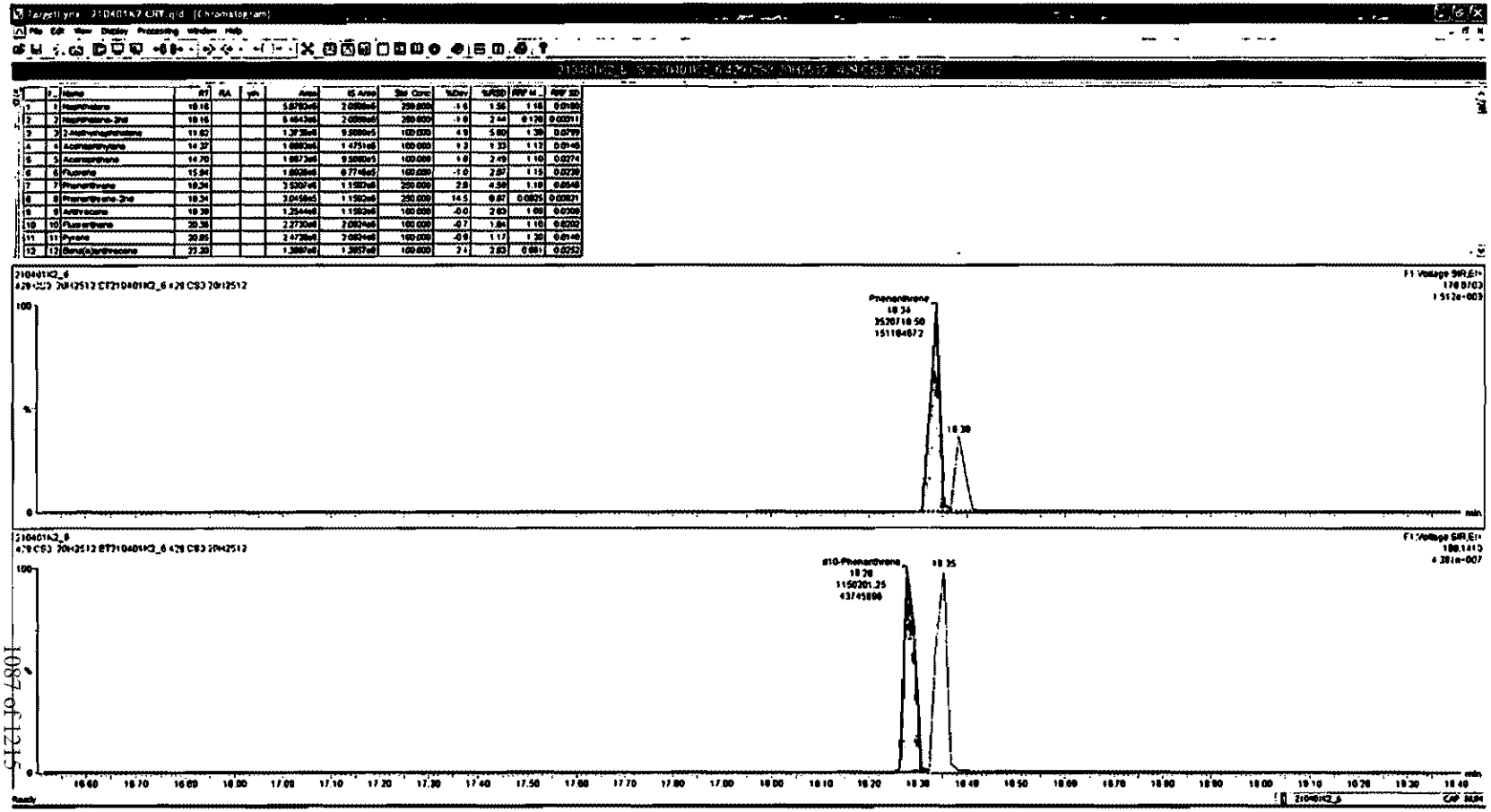


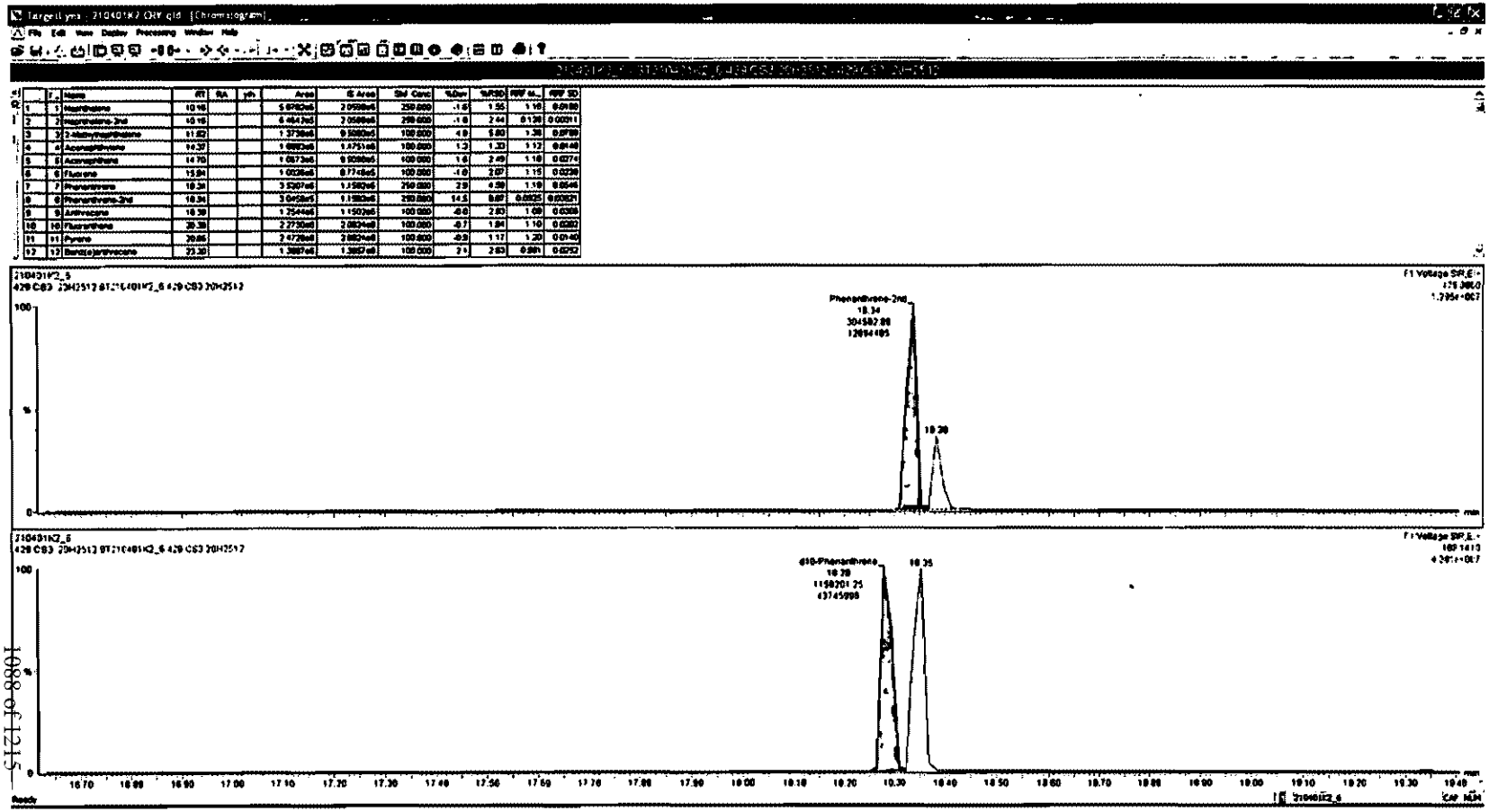
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene
18.34
35207818.50
151184872
18.39
d10-Phenanthrene
18.28
1150201.25
43745896
18.35


Phenanthrene-2nd
18.34
304582.88
12094495
19.39
d10-Phenanthrene
18.29
1159201.25
43745998
18.35

TargetLynx - 210401K2 CRS.qld - [Chromatogram]

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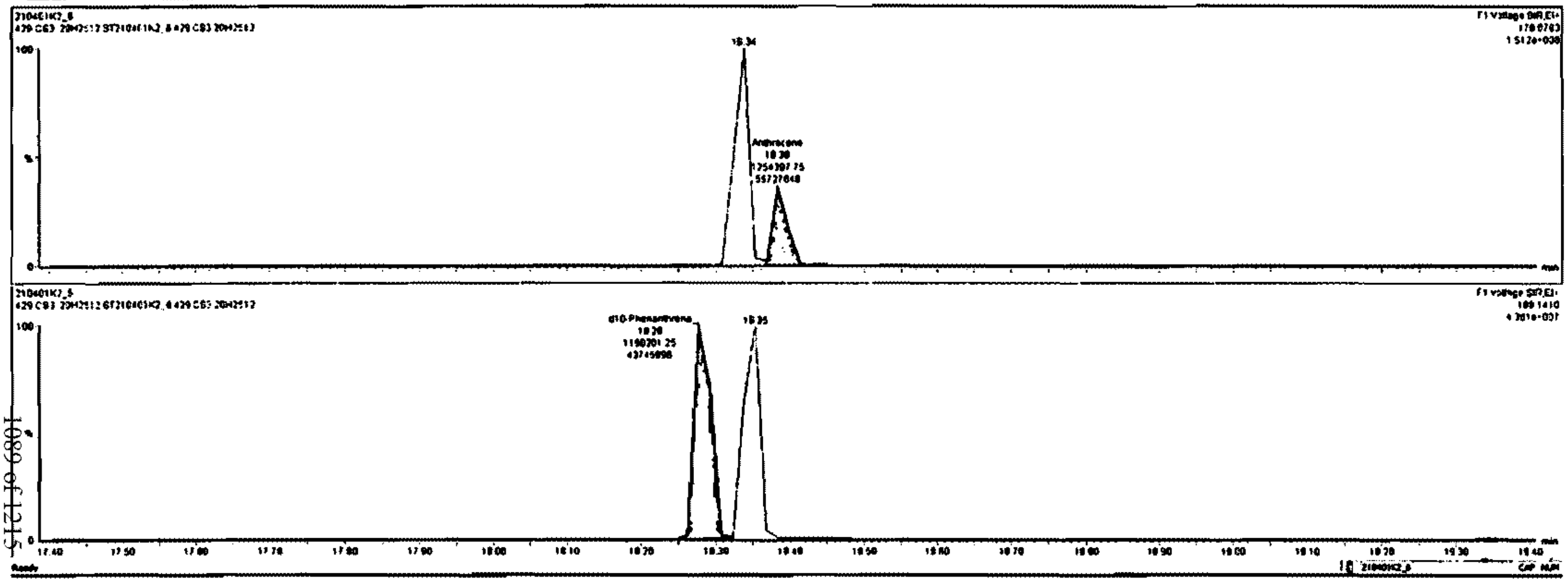
	#	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
1	1	Naphthalene	10.16			5.8782e6	2.0690e6	250.000	-1.6	1.55	1.10	0.0180
2	2	Naphthalene-2nd	10.16			6.4647e5	2.0580e6	250.000	-1.6	2.44	0.120	0.00311
3	3	2-Methylnaphthalene	11.82			1.2738e6	9.5080e5	100.000	4.9	5.80	1.30	0.0789
4	4	Acenaphthylene	14.37			1.6880e6	1.4751e6	100.000	1.3	1.35	1.12	0.0148
5	5	Acenaphthene	14.78			1.0673e6	9.5080e5	100.000	1.8	2.49	1.10	0.0274
6	6	Fluorene	15.94			1.0072e6	8.7746e5	100.000	-1.0	2.07	1.15	0.0238
7	7	Phenanthrene	18.34			3.5207e6	1.1502e6	250.000	7.9	4.89	1.19	0.0646
8	8	Phenanthrene-2nd	18.34			3.0458e5	1.1502e6	250.000	14.5	0.67	0.0875	0.00571
9	9	Anthracene	18.38			1.2544e6	1.1502e6	100.000	-0.8	2.83	1.09	0.0300
10	10	Fluoranthene	20.36			2.2730e6	2.0824e6	100.000	-0.7	1.84	1.10	0.0202
11	11	Pyrene	20.85			2.4728e6	2.0824e6	100.000	-0.9	1.17	1.20	0.0140
12	12	Benz(a)anthracene	23.20			1.3867e6	1.3867e6	100.000	2.1	2.63	0.981	0.0252



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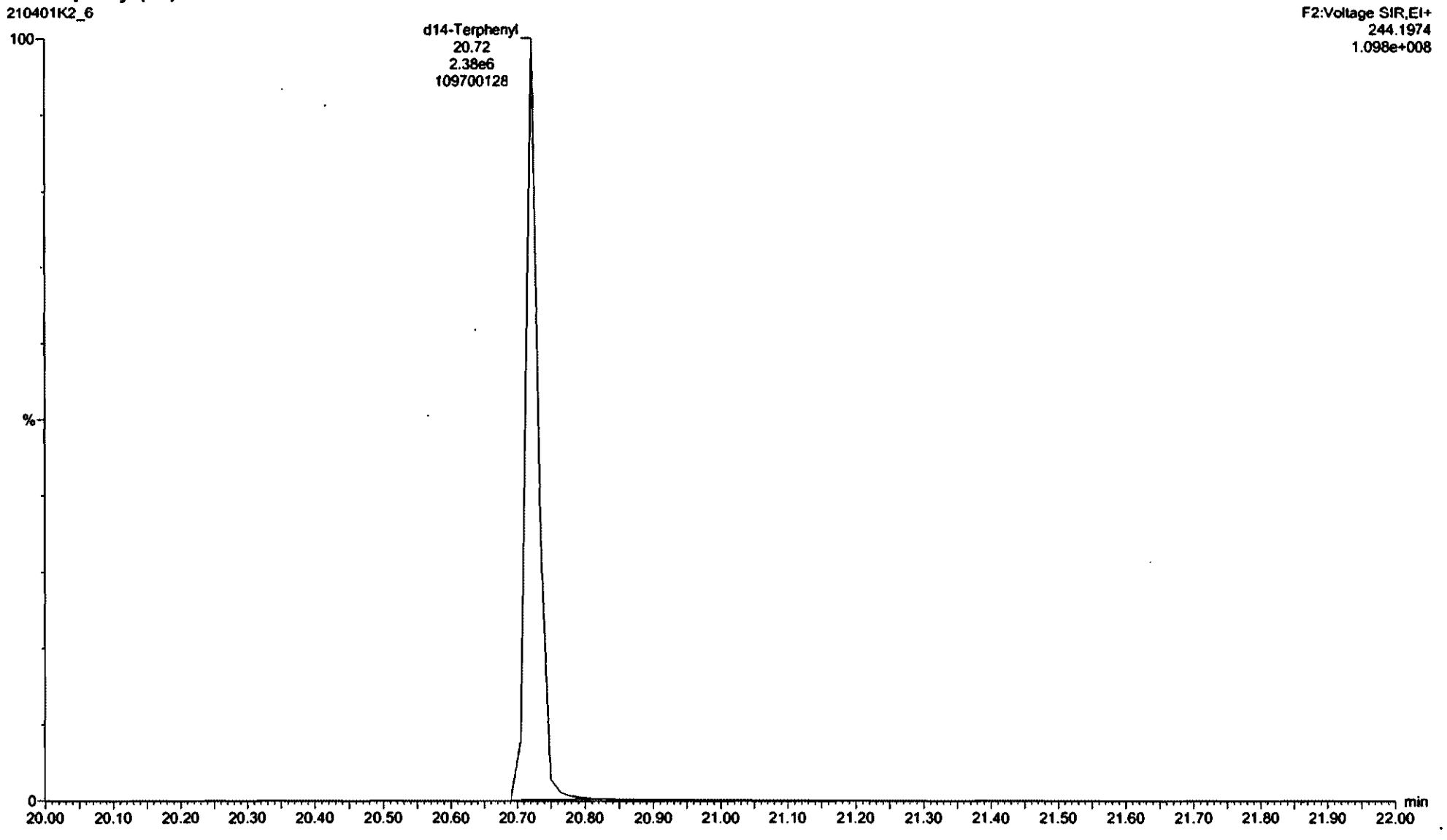
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

d14-Terphenyl (PS)



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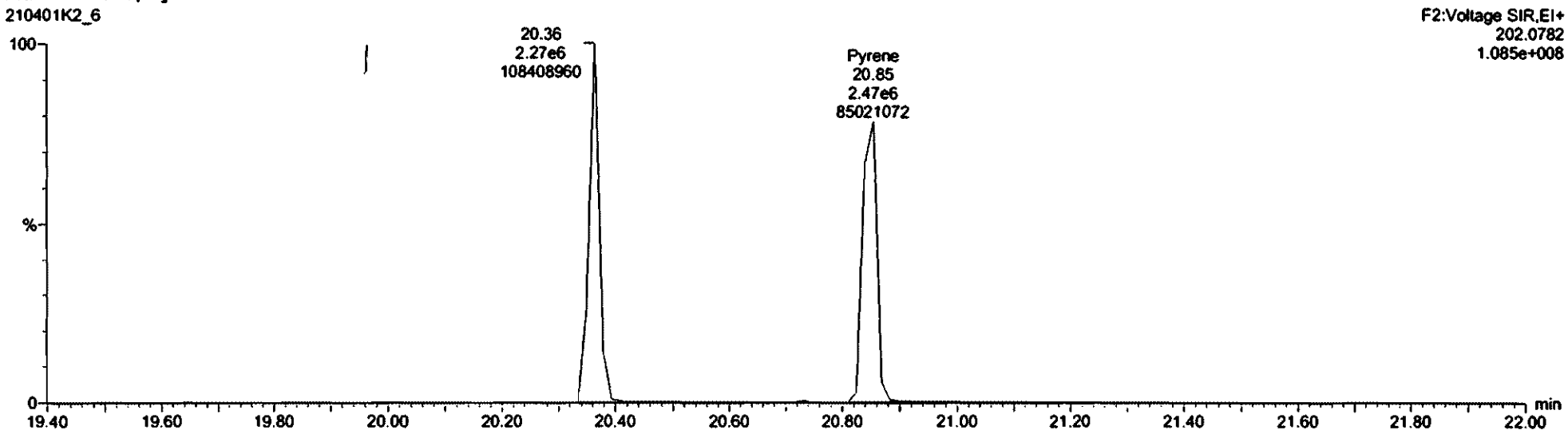
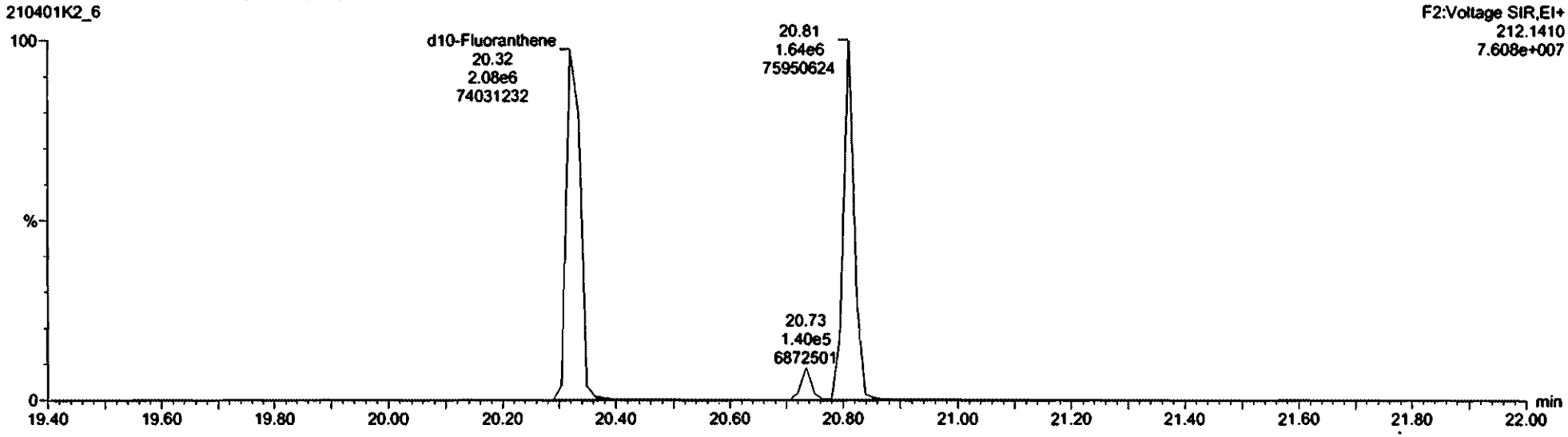
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



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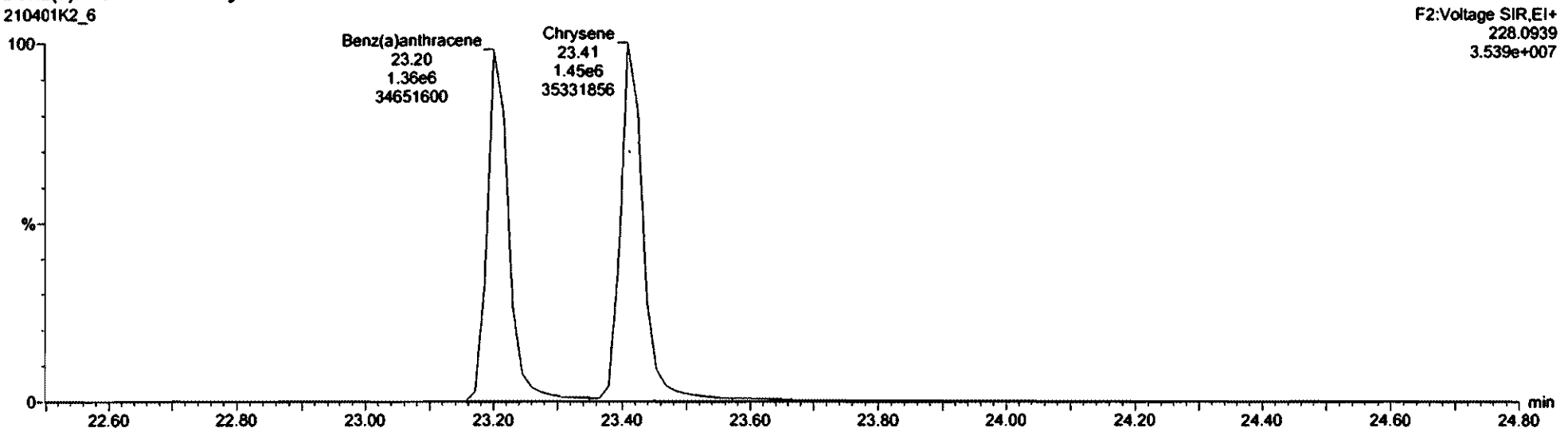
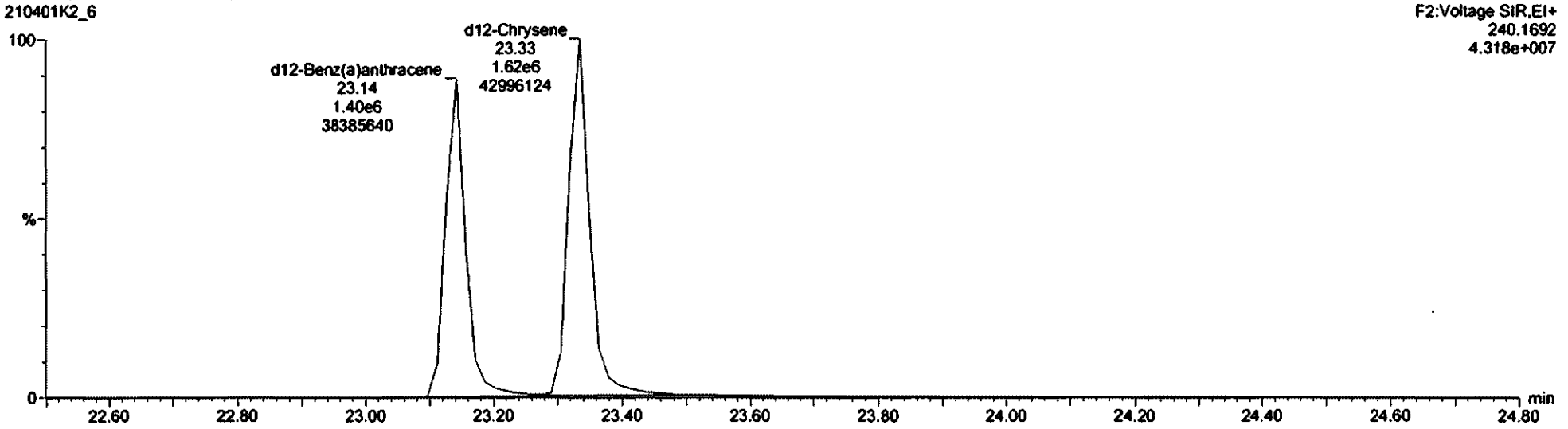
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

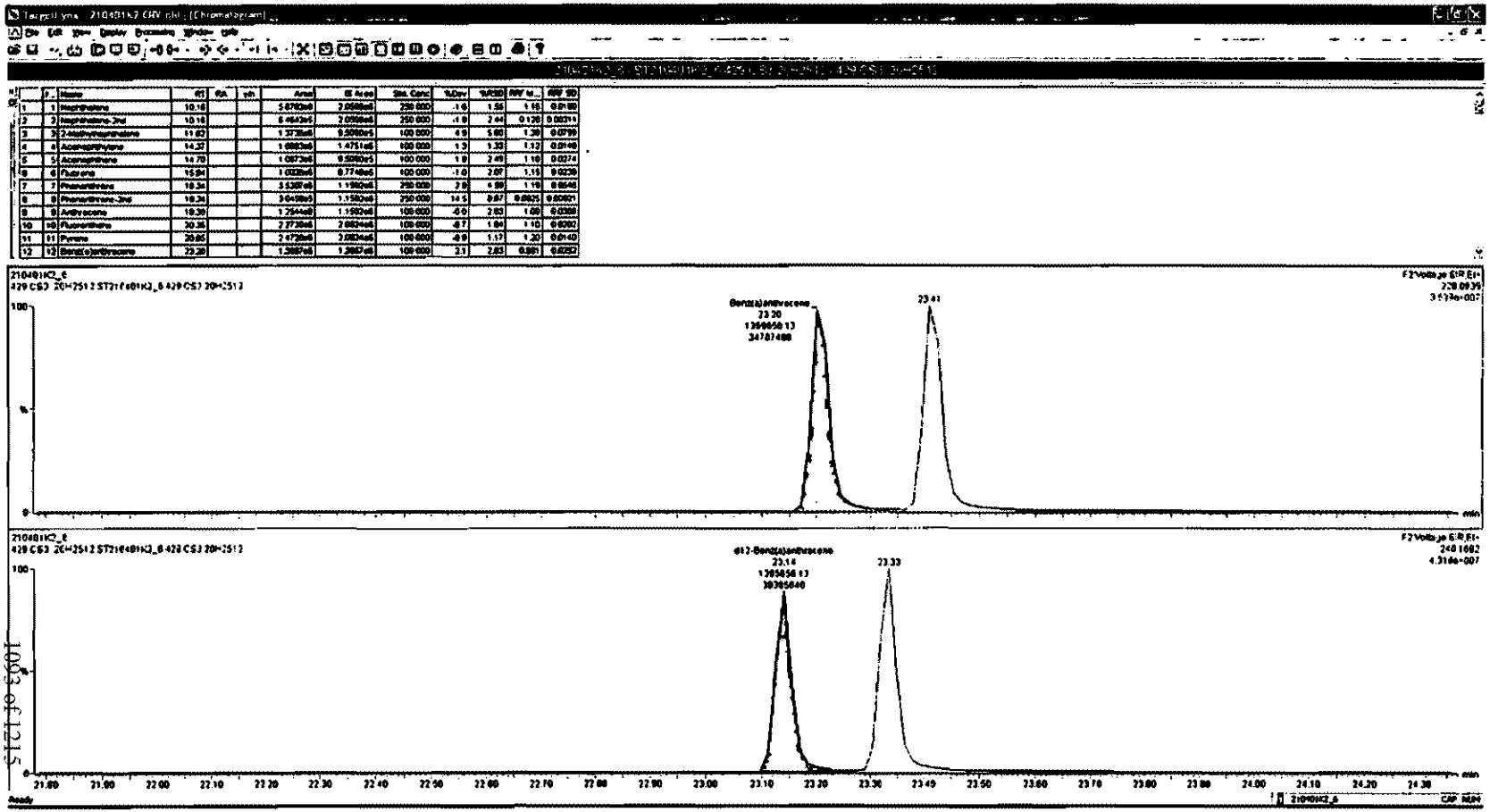
Benz(a)Anthracene-Chrysene

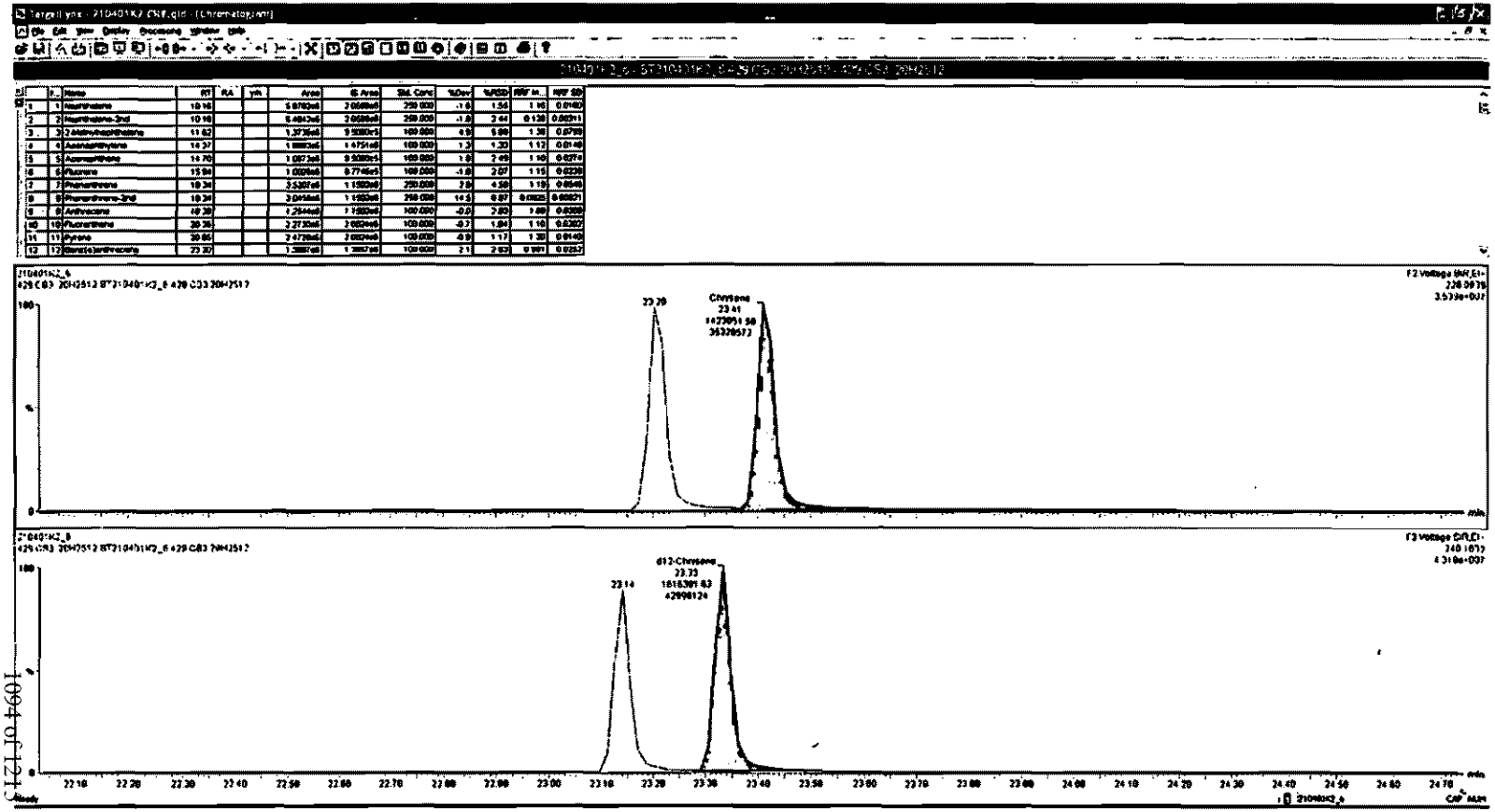


Benz(a)Anthracene-Chrysene-Iso



1092 of 1215


Benz(a)anthracene
23.20
23.41
d12-Benz(a)anthracene
23.14
23.33
100
%
0
min
21.80
21.90
22.00
22.10
22.20
22.30
22.40
22.50
22.60
22.70
22.80
22.90
23.00
23.10
23.20
23.30
23.40
23.50
23.60
23.70
23.80
23.90
24.00
24.10
24.20
24.30
Ready

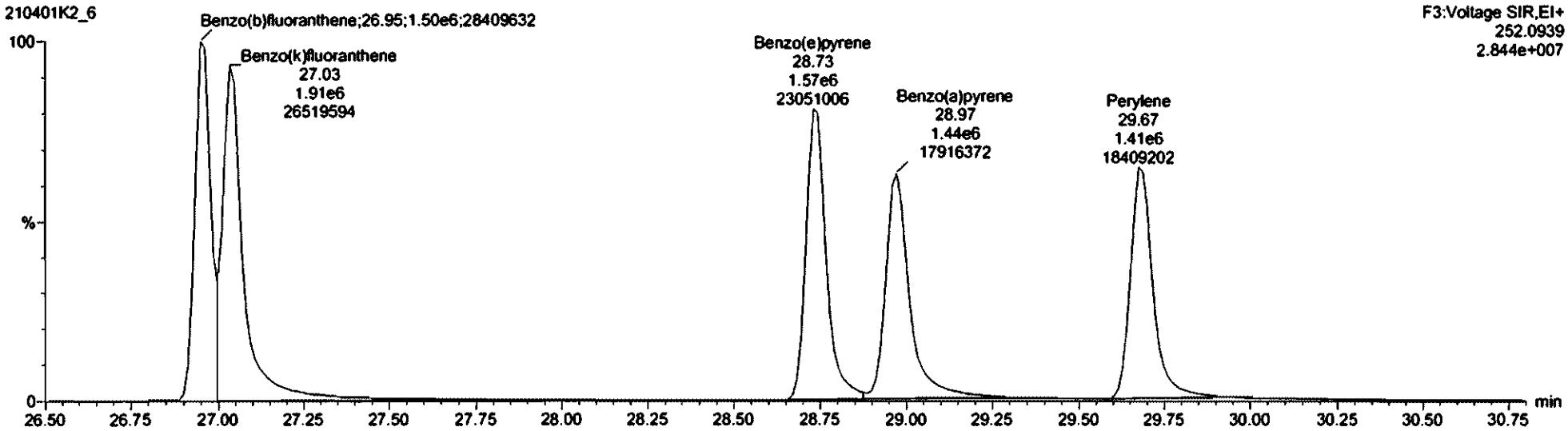

Chrysene
23.41
d12-Chrysene
23.33
23.14

Dataset: Untitled

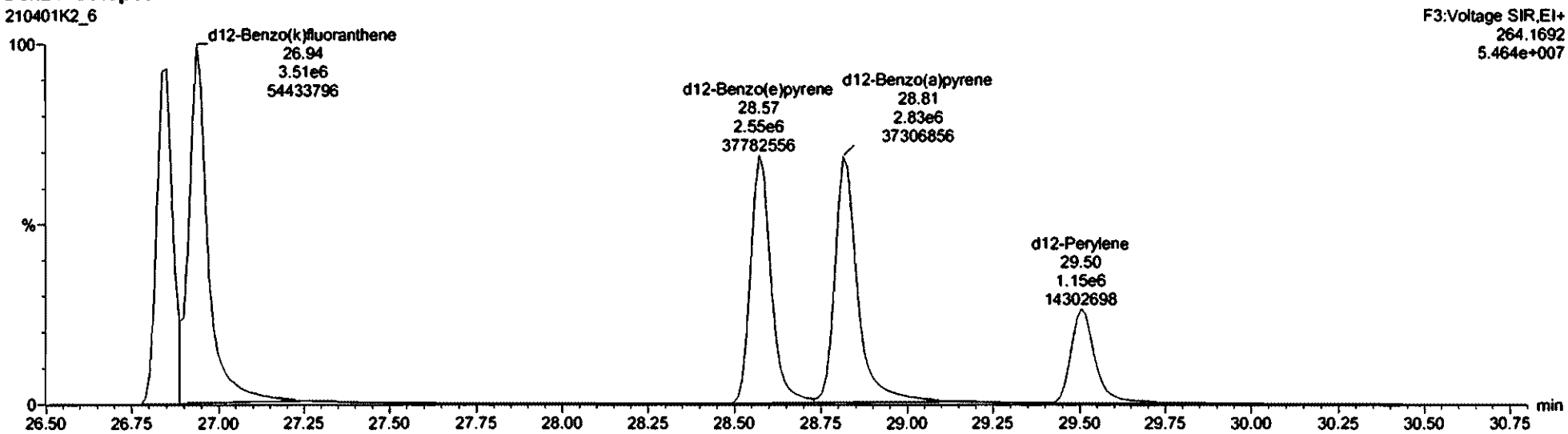
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

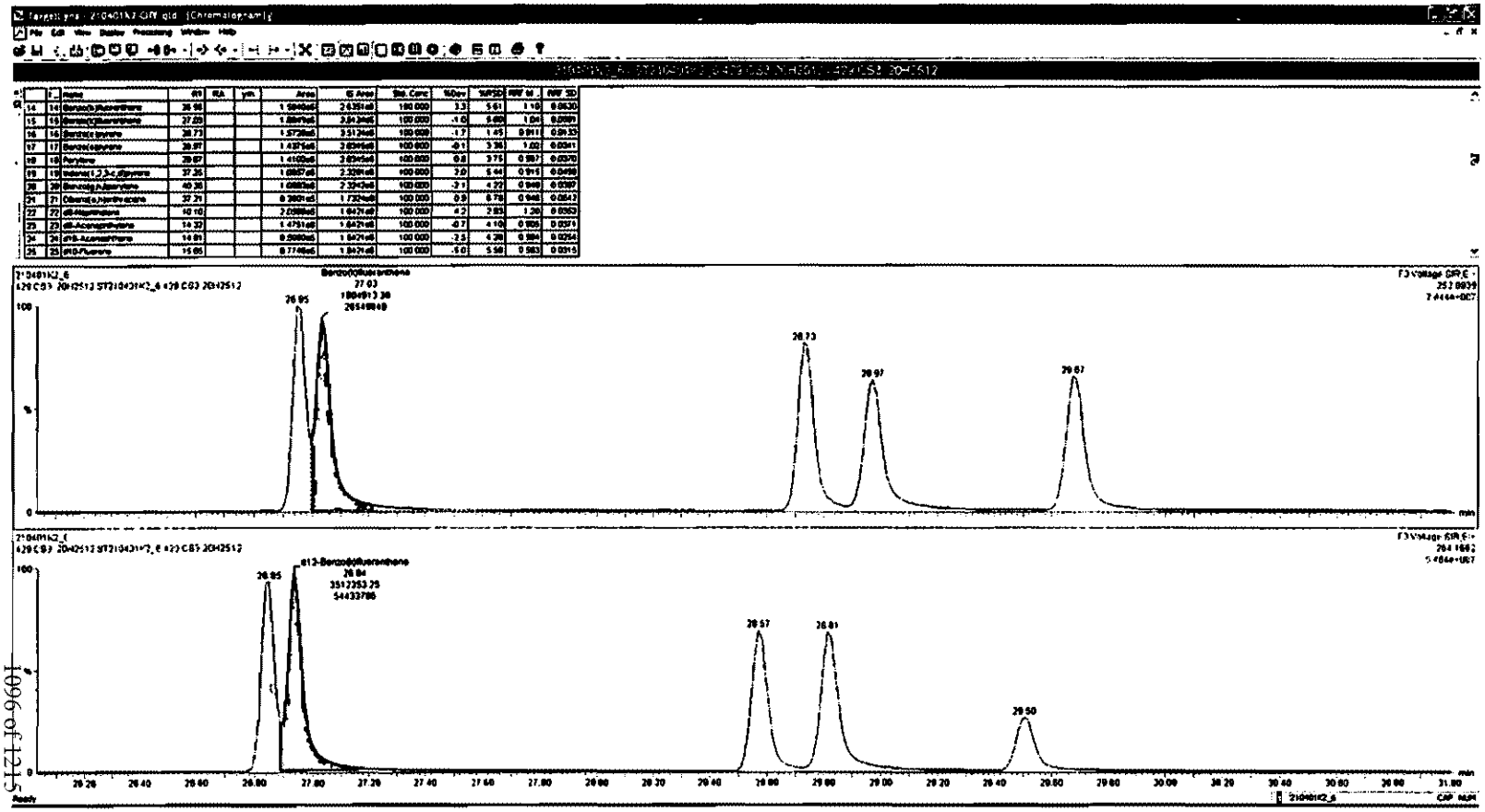
Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Benzo-PAHs



Benzo-Isotopes



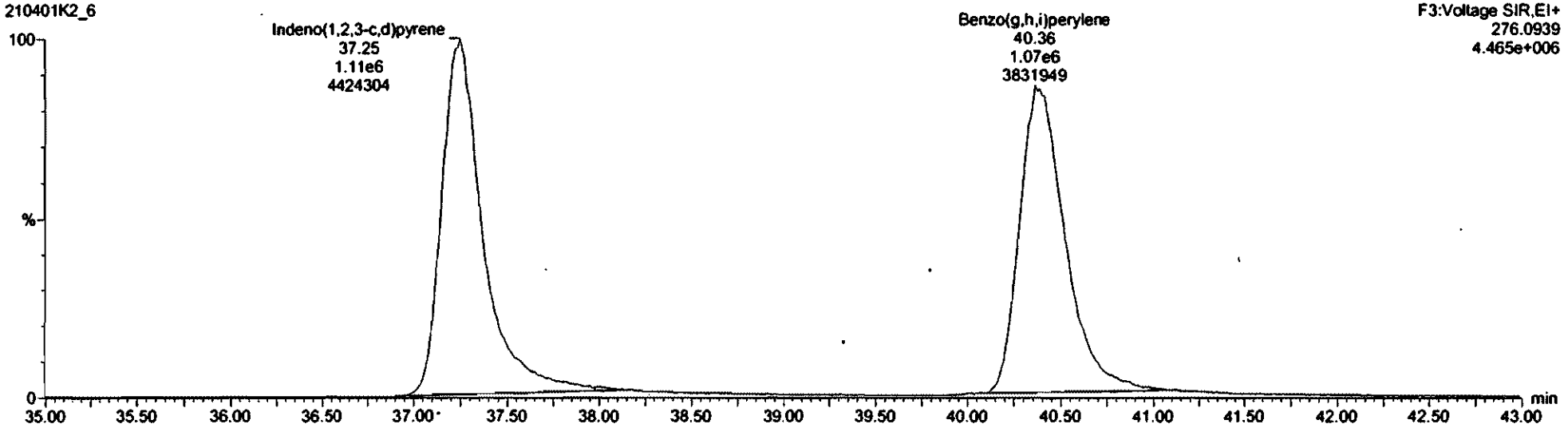


Dataset: Untitled

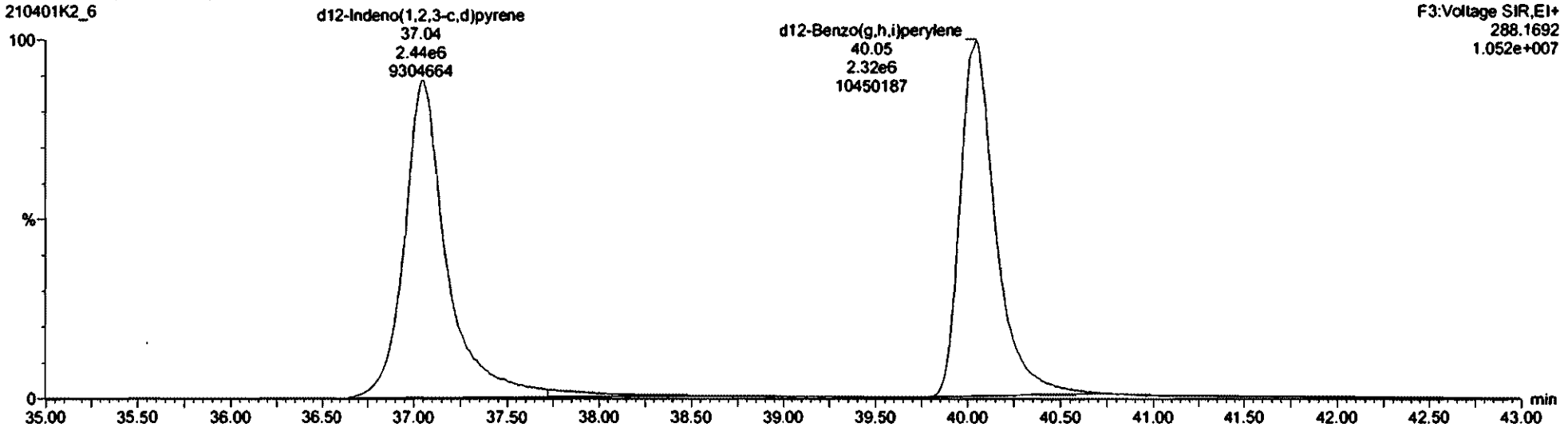
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

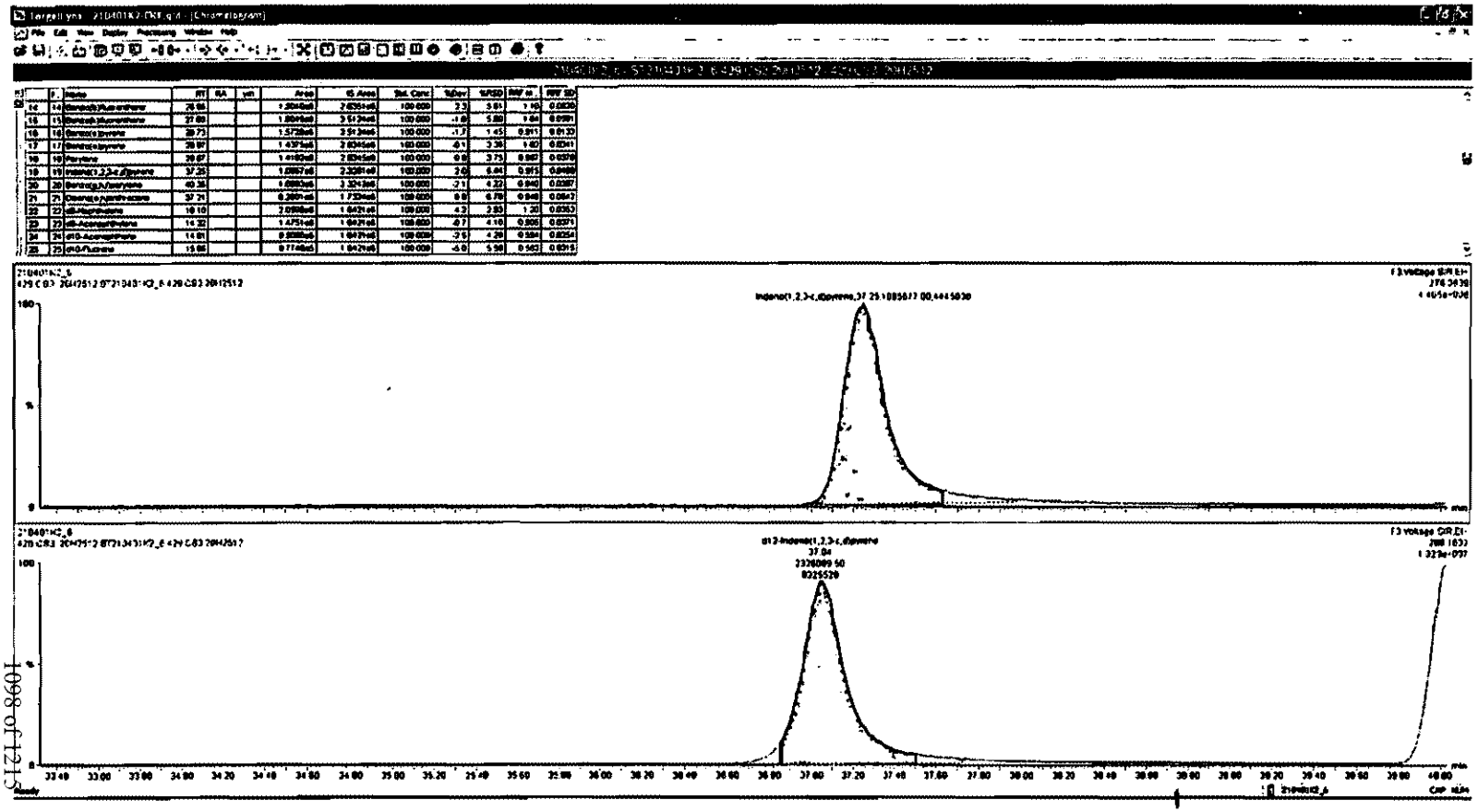
Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



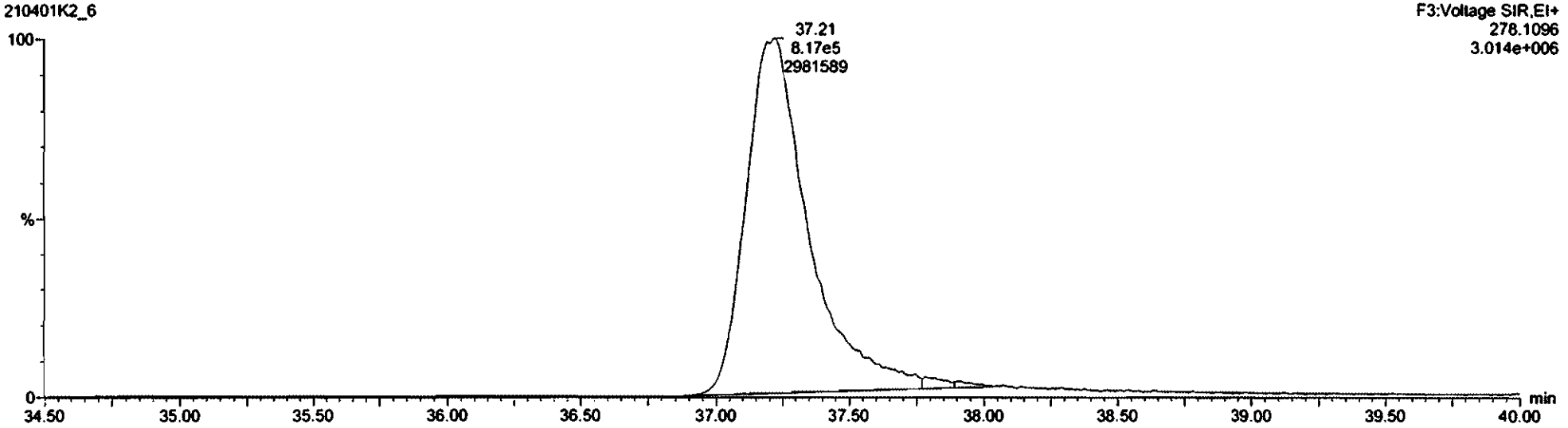


Dataset: Untitled

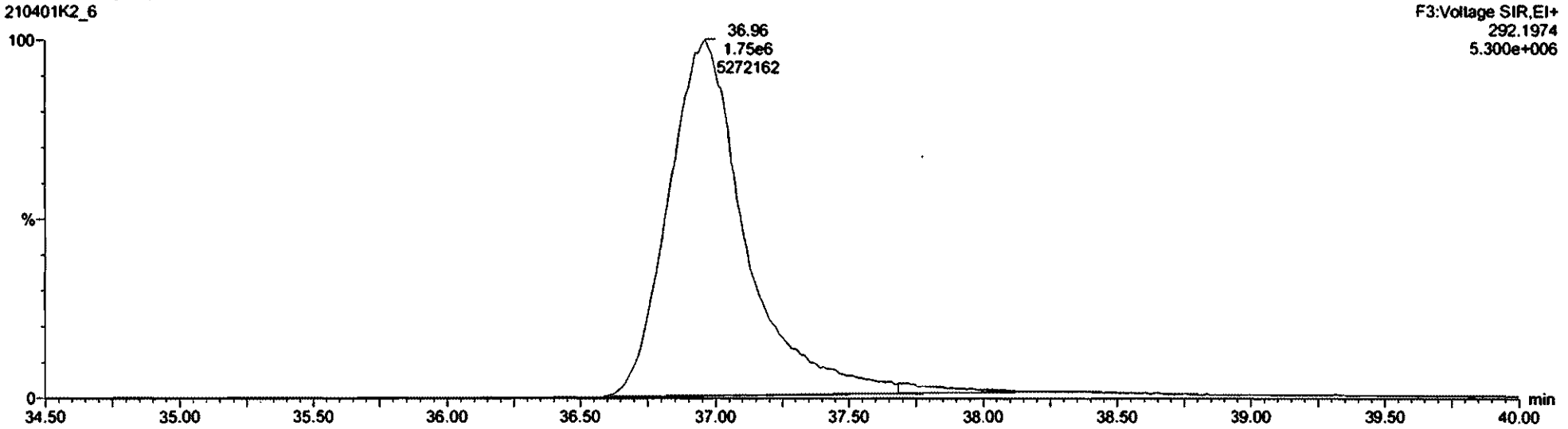
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

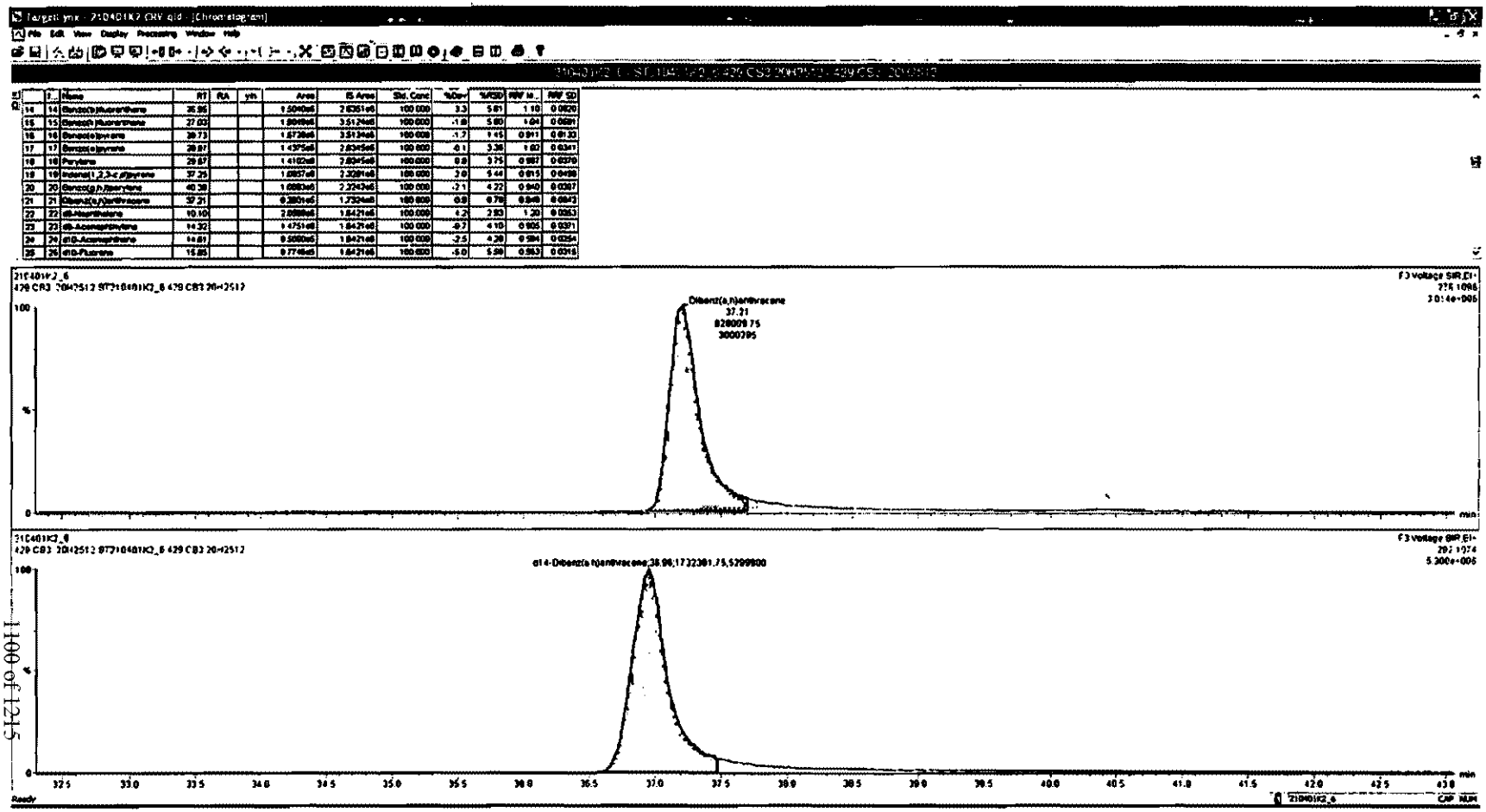
Name: 210401K2_6, Date: 01-Apr-2021, Time: 13:27:05, ID: ST210401K2_6 429 CS3 20H2512, Description: 429 CS3 20H2512

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene




Dibenz(a,h)anthracene
37.21
828009.75
3000395
dl4-Dibenz(a,h)anthracene,38.96,1732381.75,5299800
32.5
33.0
33.5
34.0
34.5
35.0
35.5
36.0
36.5
37.0
37.5
38.0
38.5
39.0
39.5
40.0
40.5
41.0
41.5
42.0
42.5
43.0
min

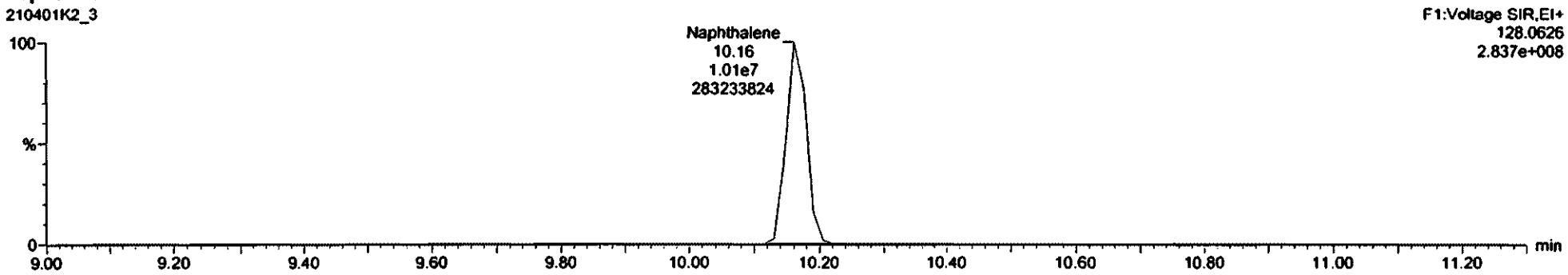
1100 of 1215

Dataset: Untitled

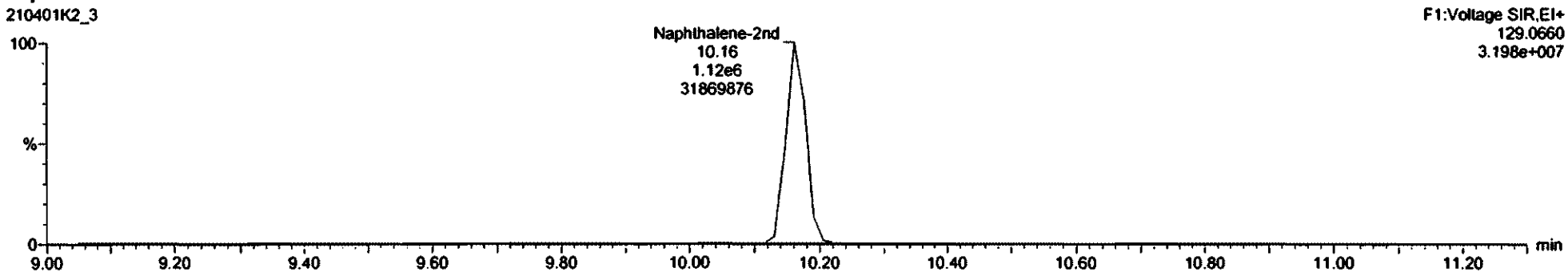
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

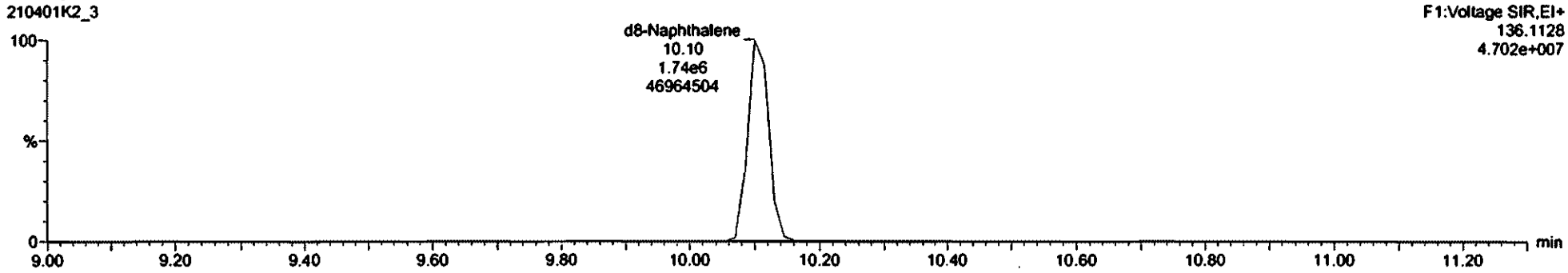
Naphthalene



Naphthalene-2nd



d8-Naphthalene



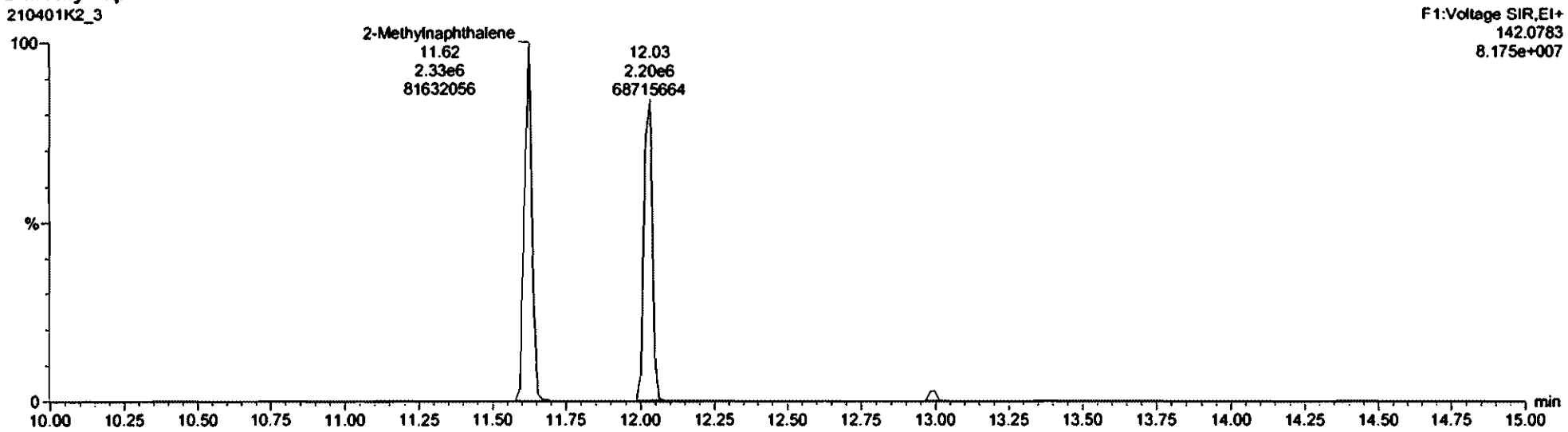
1101 of 1215

Dataset: Untitled

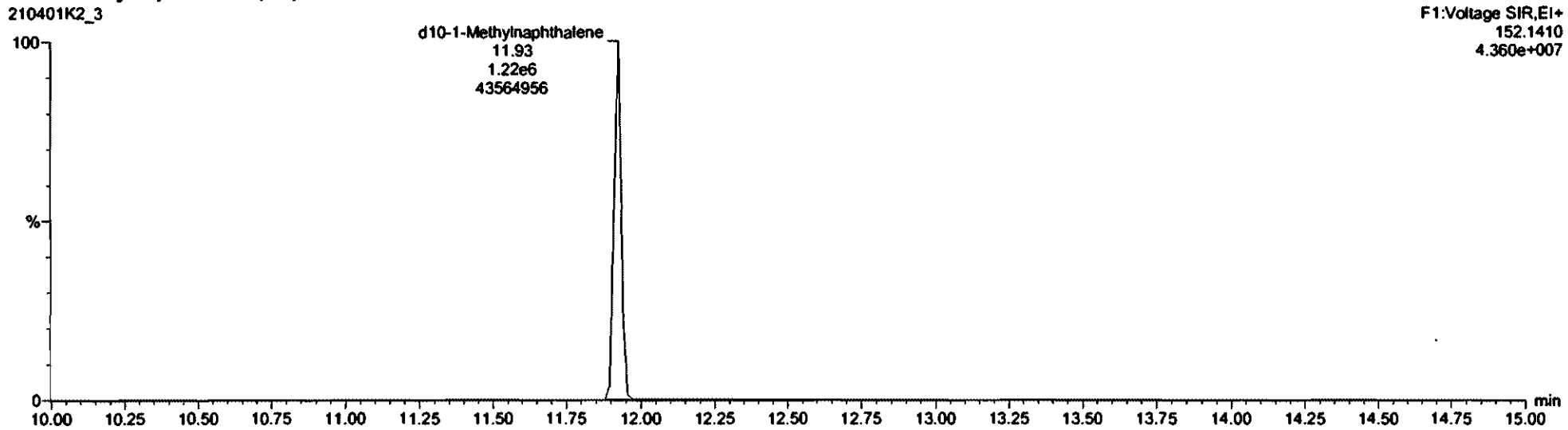
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



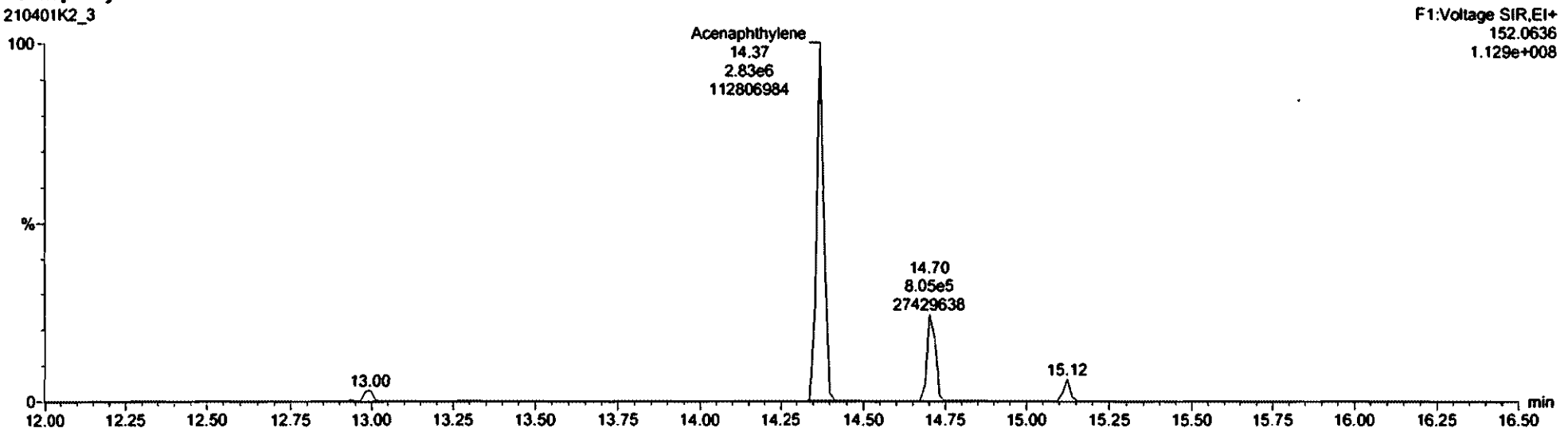
1102 of 1215

Dataset: Untitled

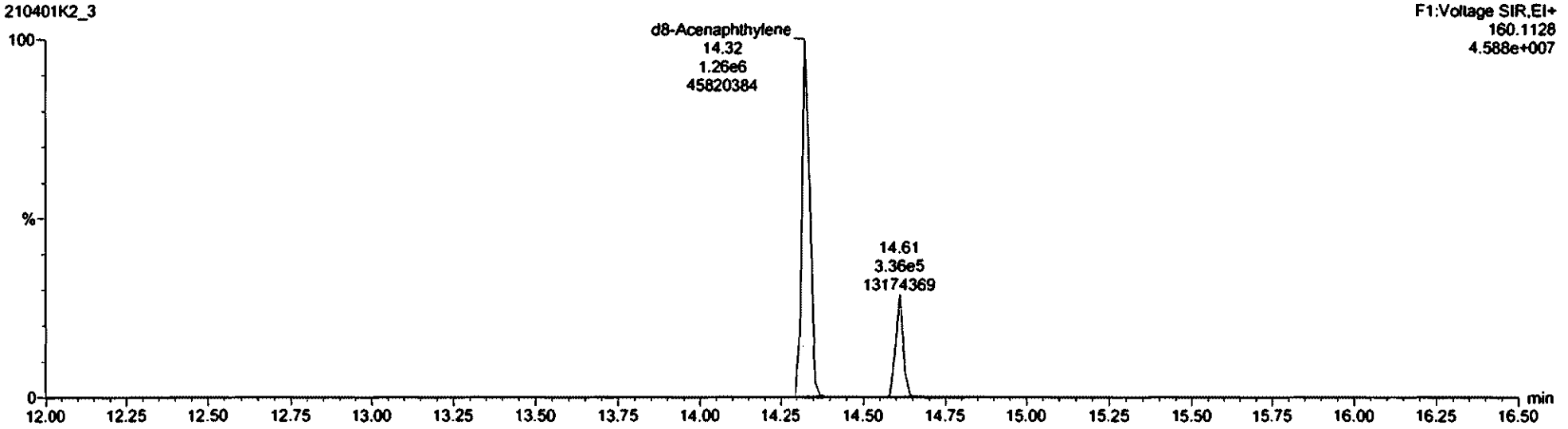
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Acenaphthylene



d8-Acenaphthylene



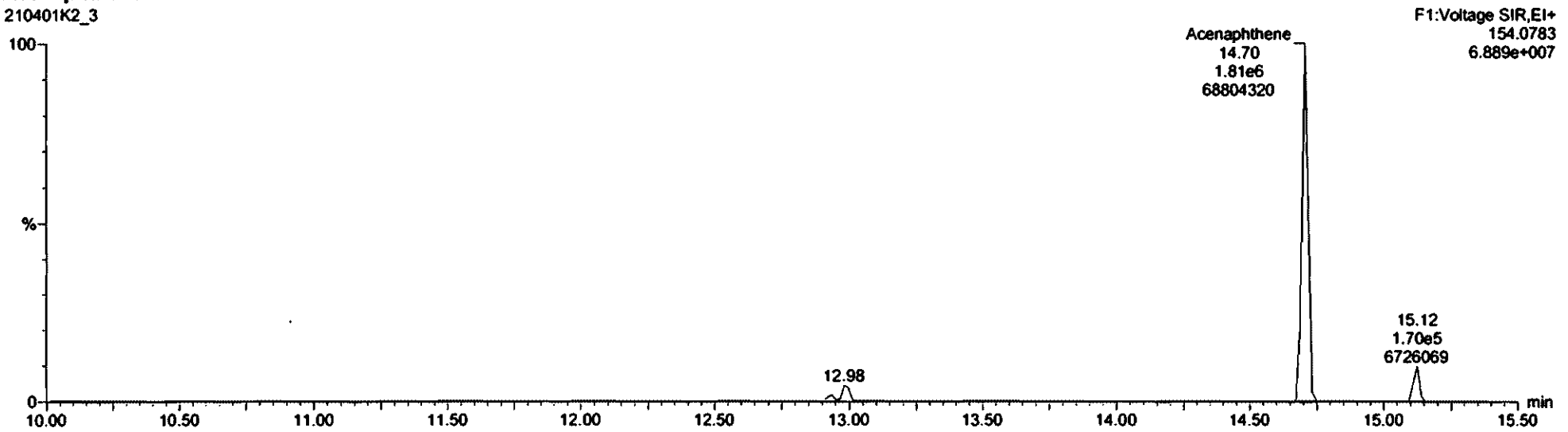
1103 of 1215

Dataset: Untitled

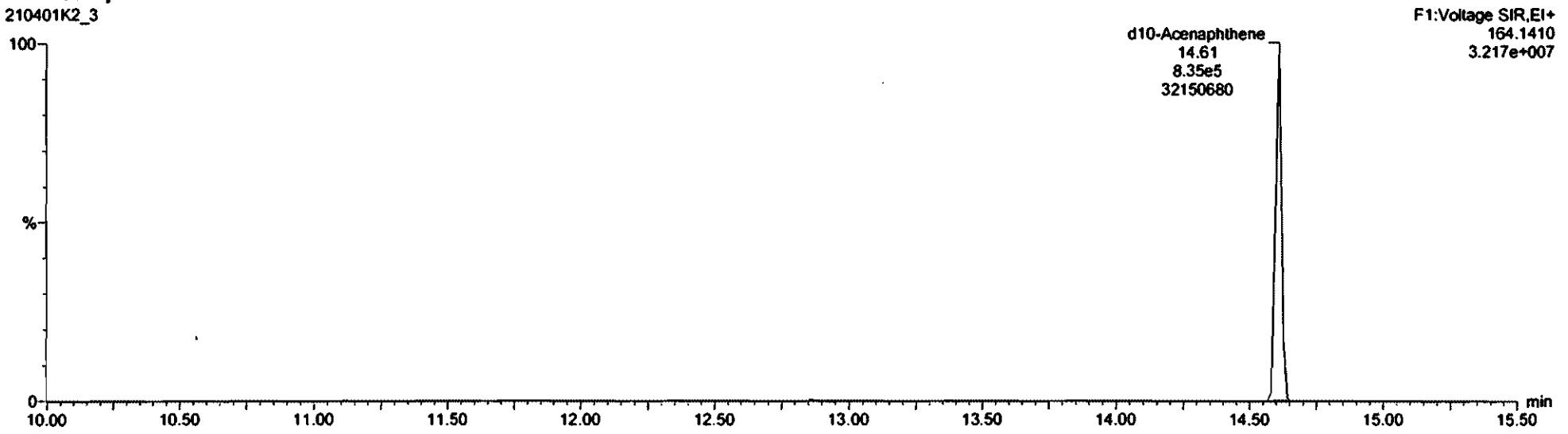
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Acenaphthene



d10-Acenaphthene



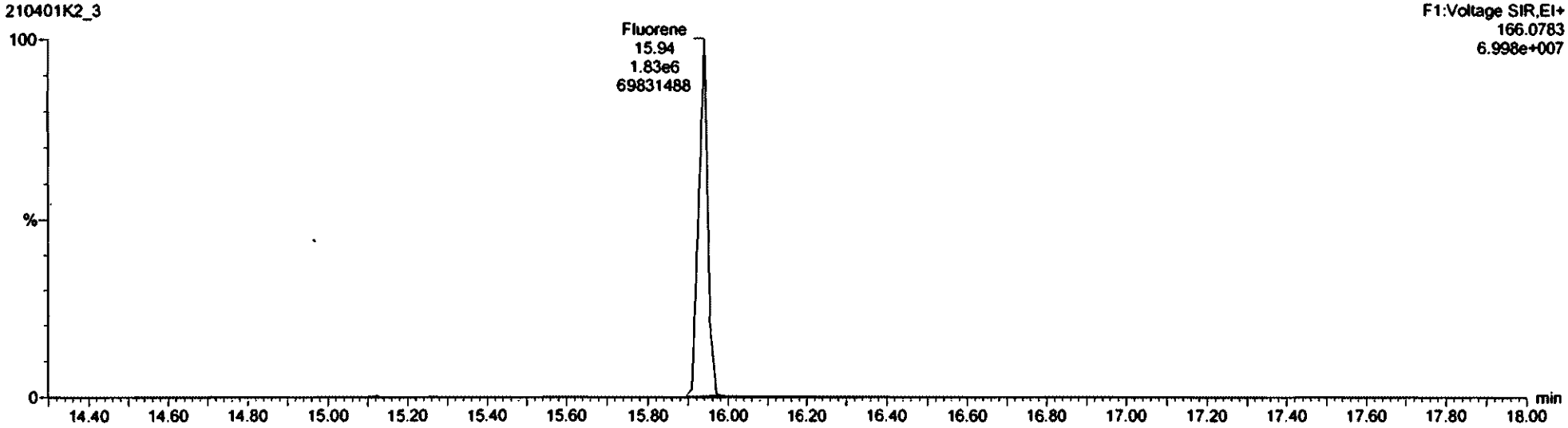
1104 of 1215

Dataset: Untitled

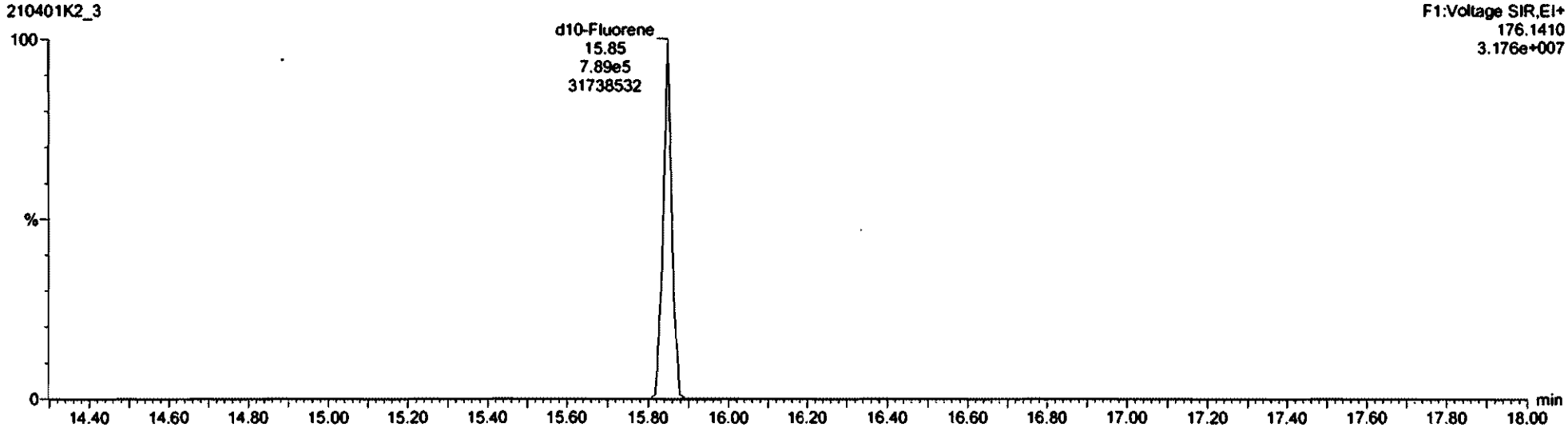
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Fluorene



d10-Fluorene



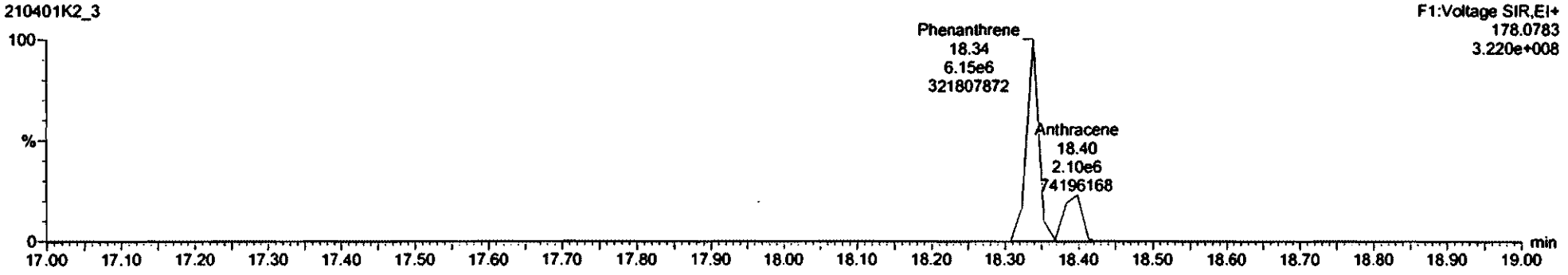
1105 of 1215

Dataset: Untitled

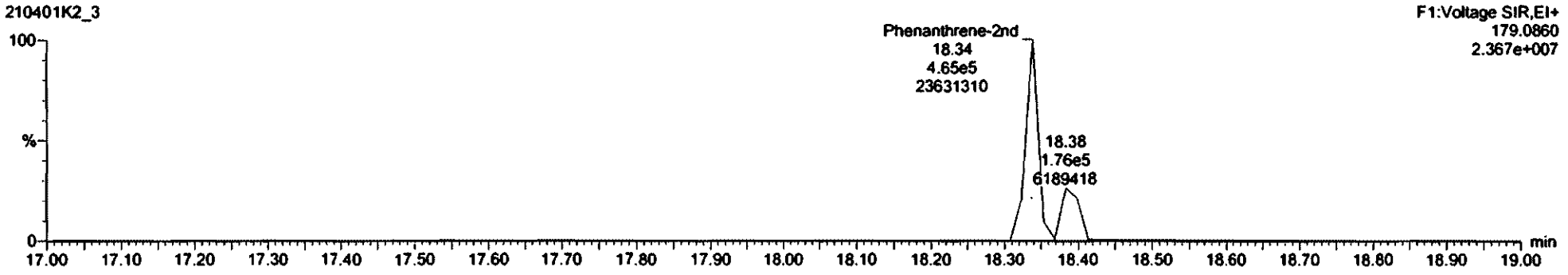
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

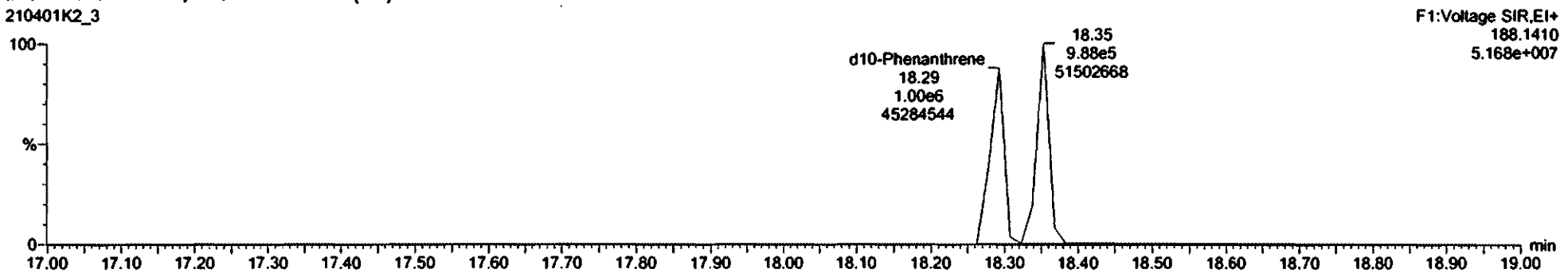
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



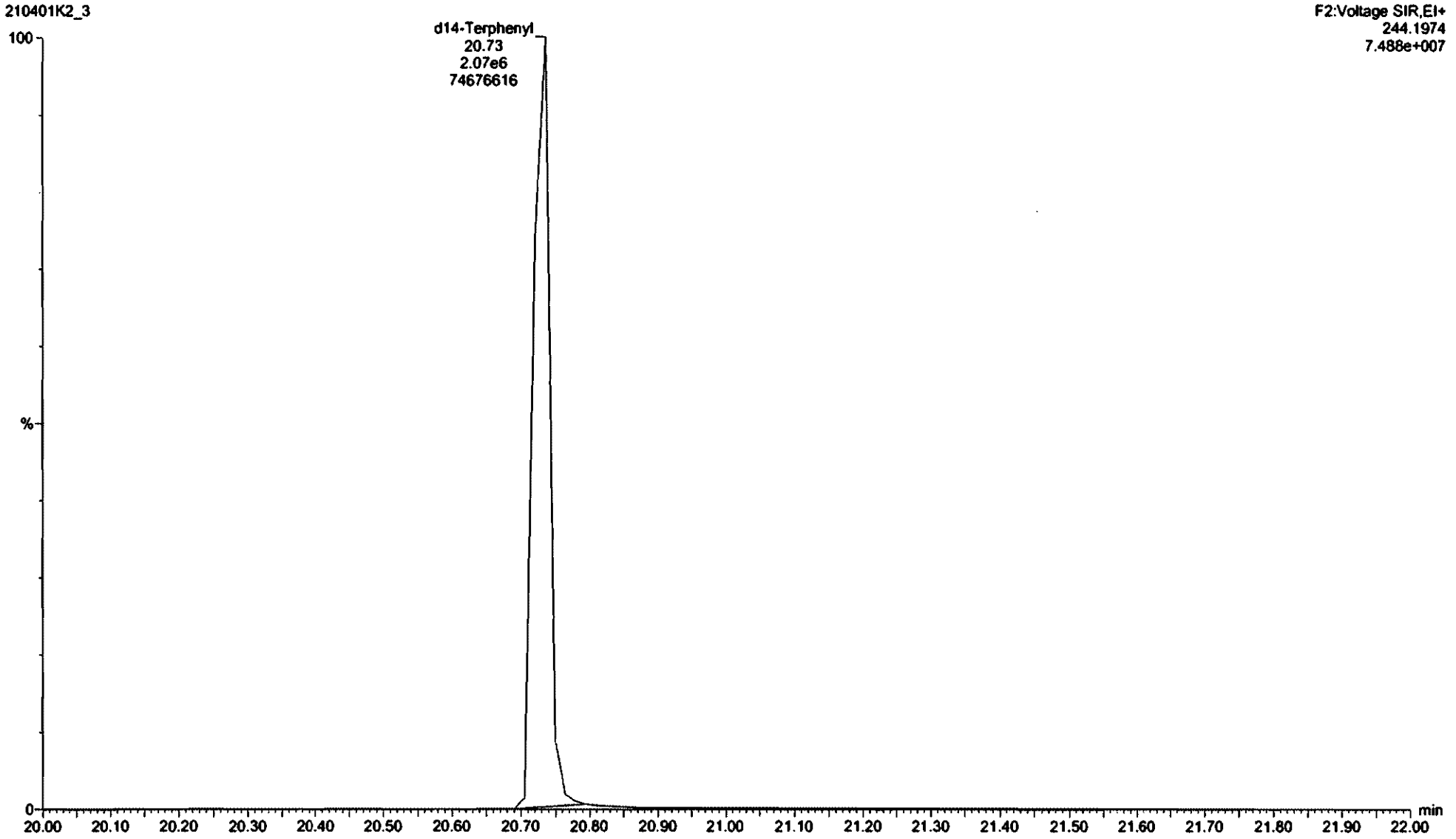
1106 of 1215

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

d14-Terphenyl (PS)



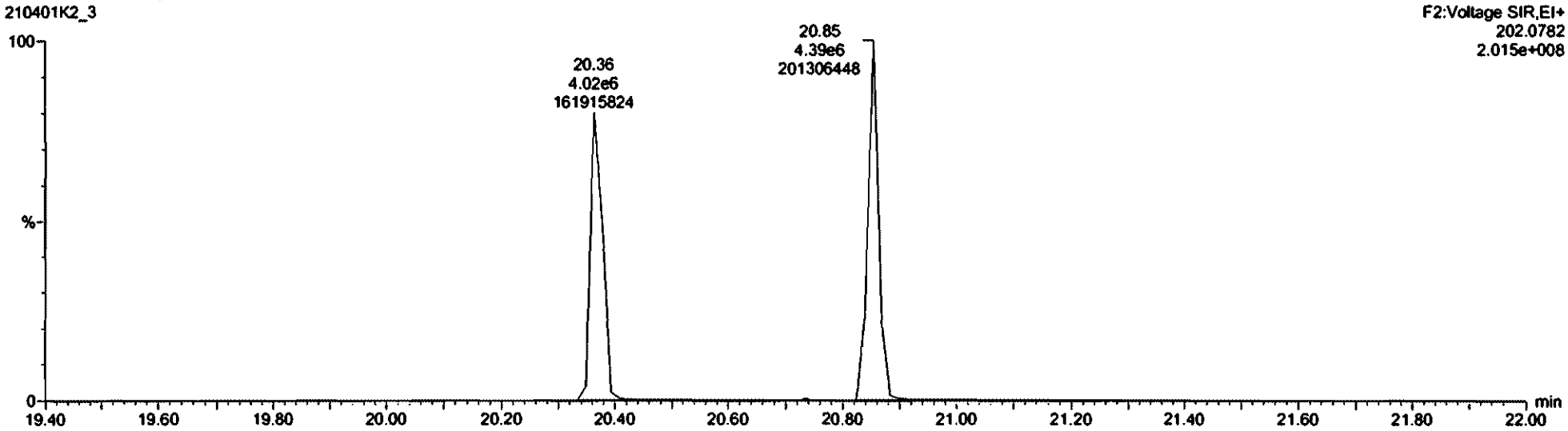
1107 of 1215

Dataset: Untitled

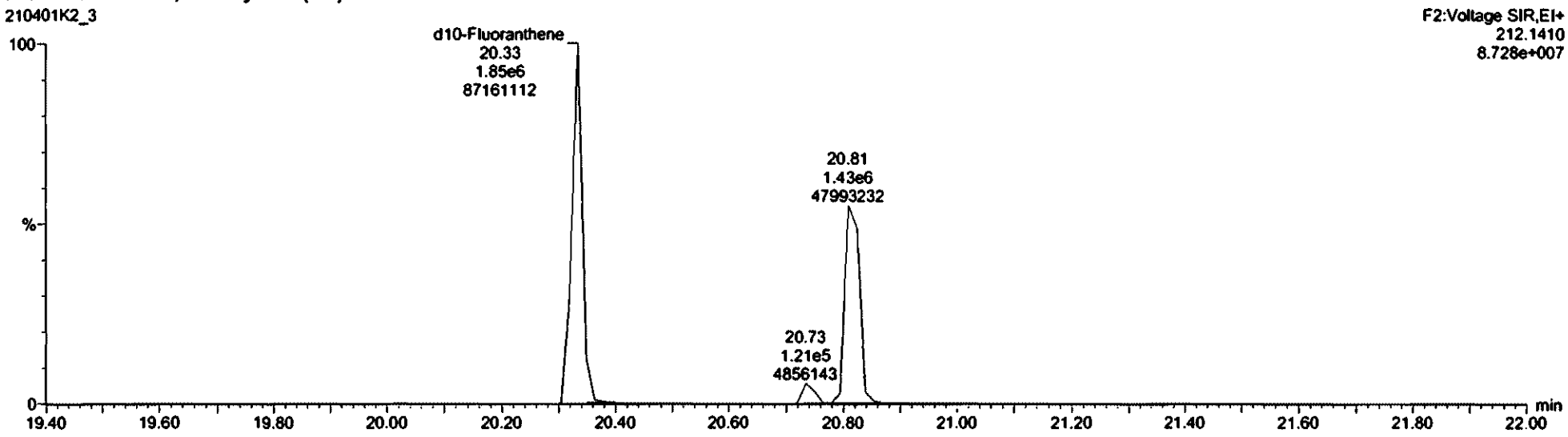
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)

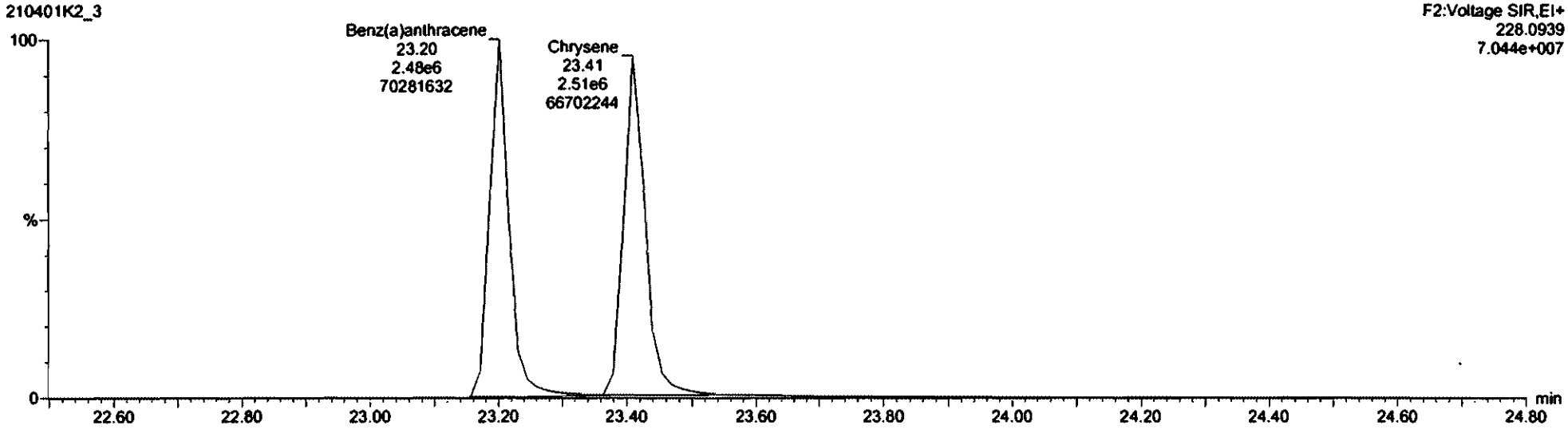


Dataset: Untitled

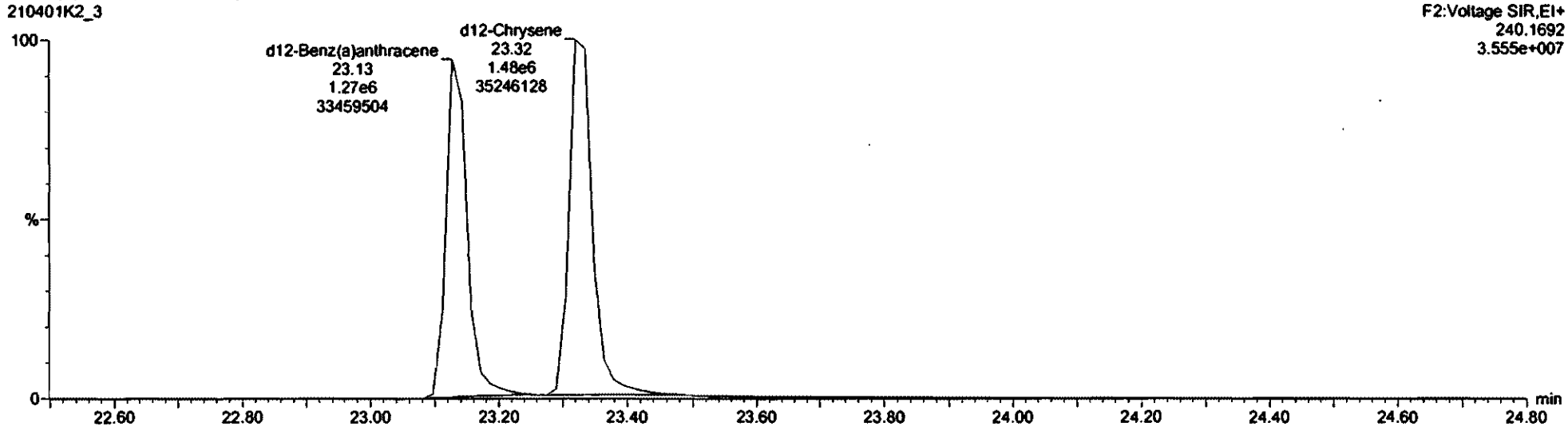
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



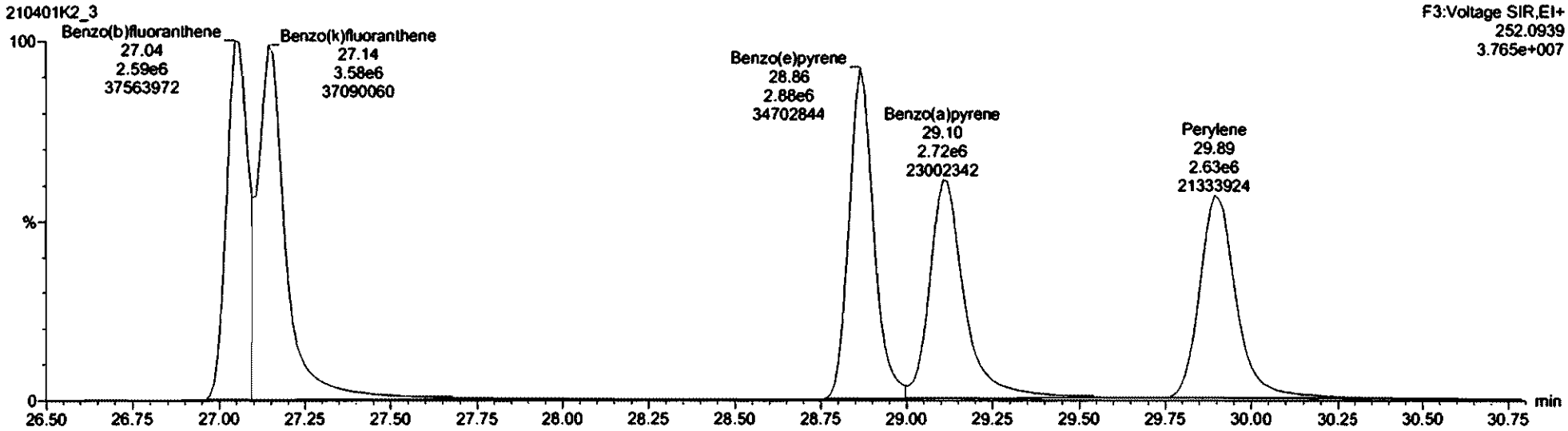
1109 of 1215

Dataset: Untitled

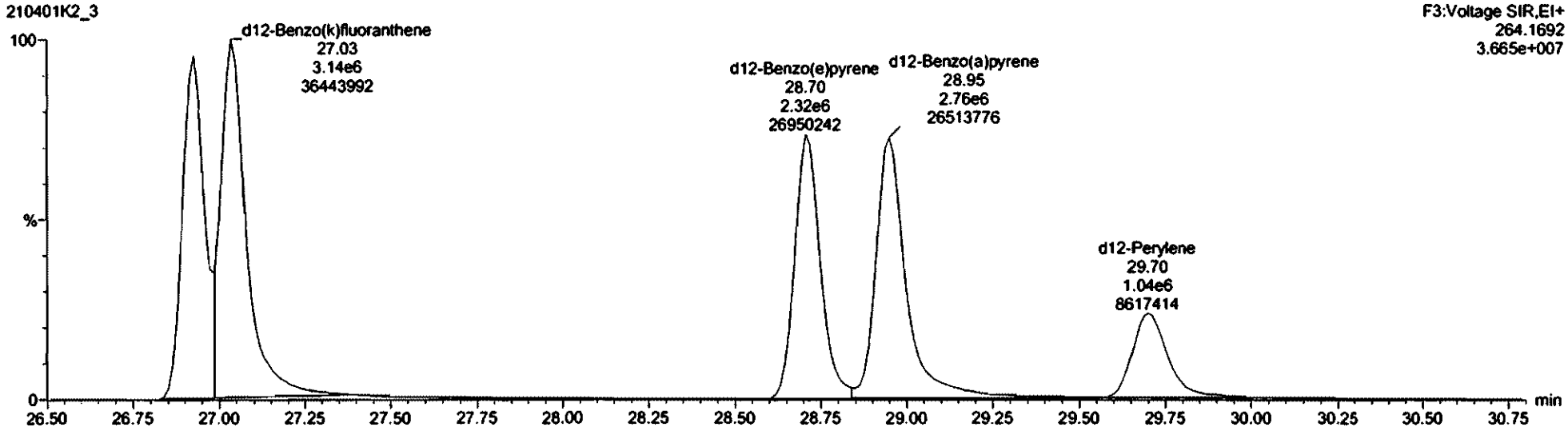
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

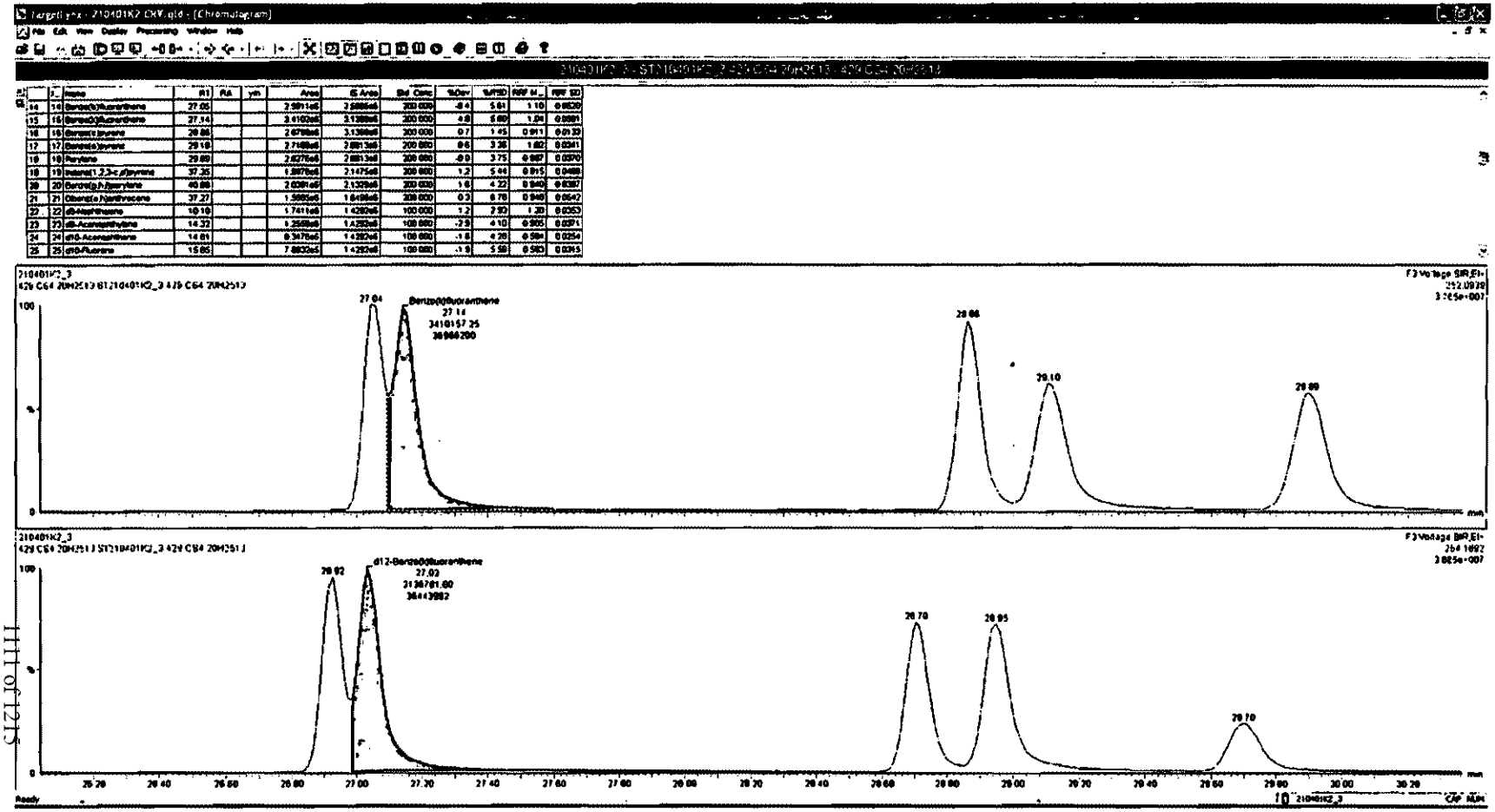
Benzo-PAHs

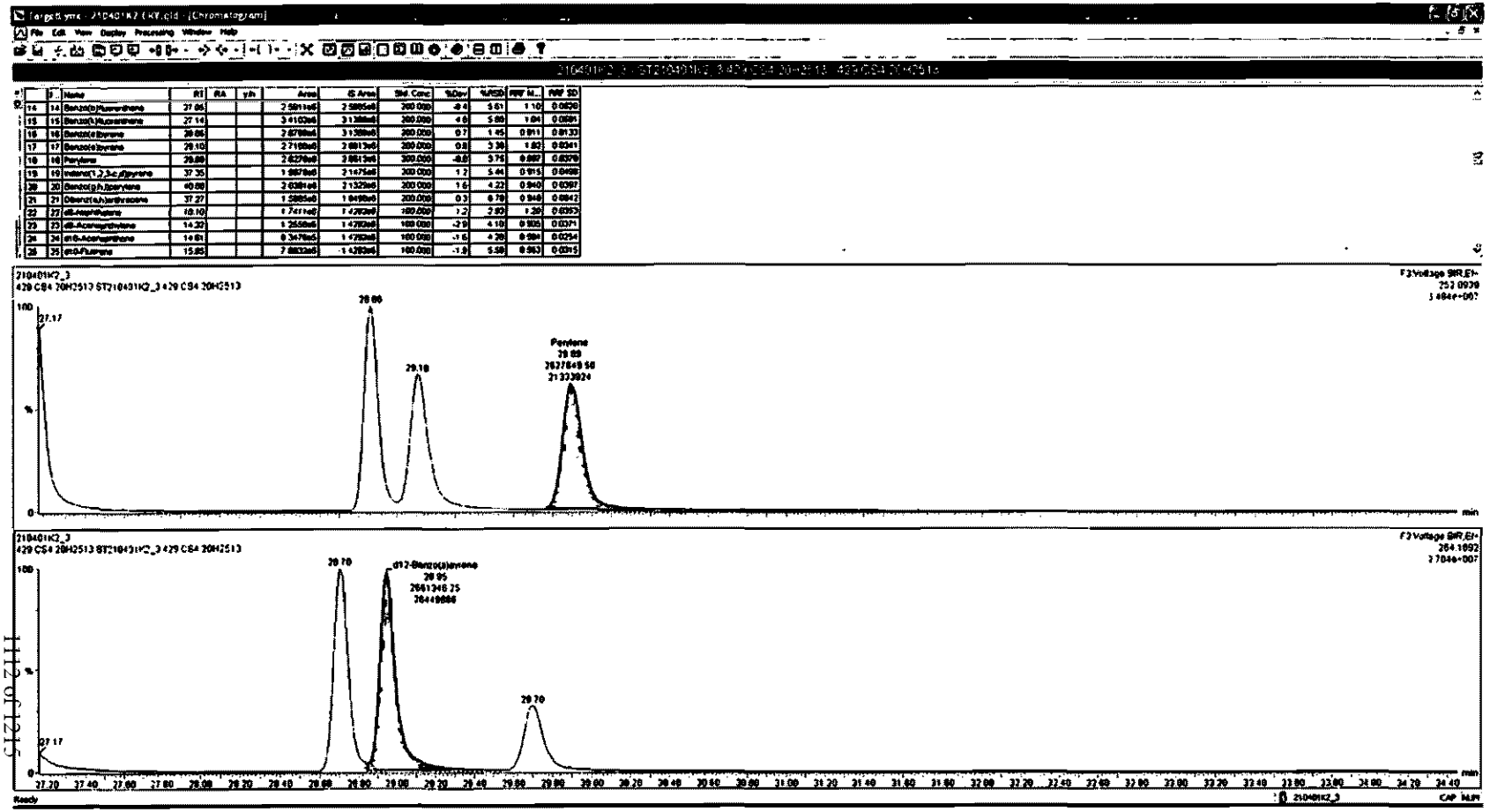


Benzo-Isotopes



1110 of 1215


27.04
Benzo(b)fluoranthene
27.14
34101157.25
36986290
28.86
29.10
29.89
d12-Benzo(b)fluoranthene
27.02
31367781.80
36443982
28.92
28.70
28.95
28.70



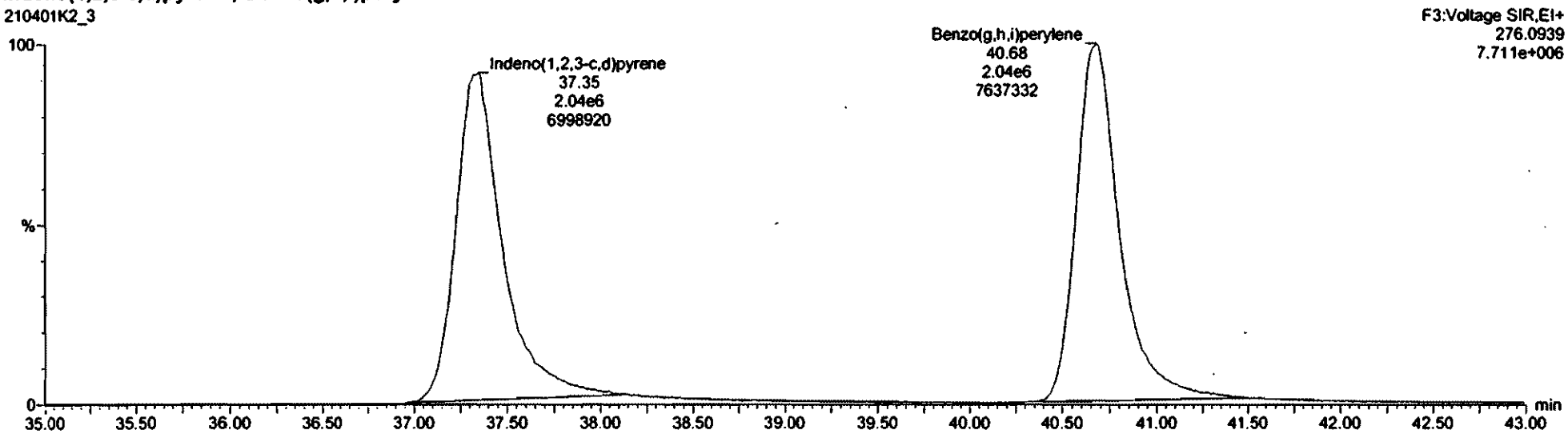
1112 of 1215

Dataset: Untitled

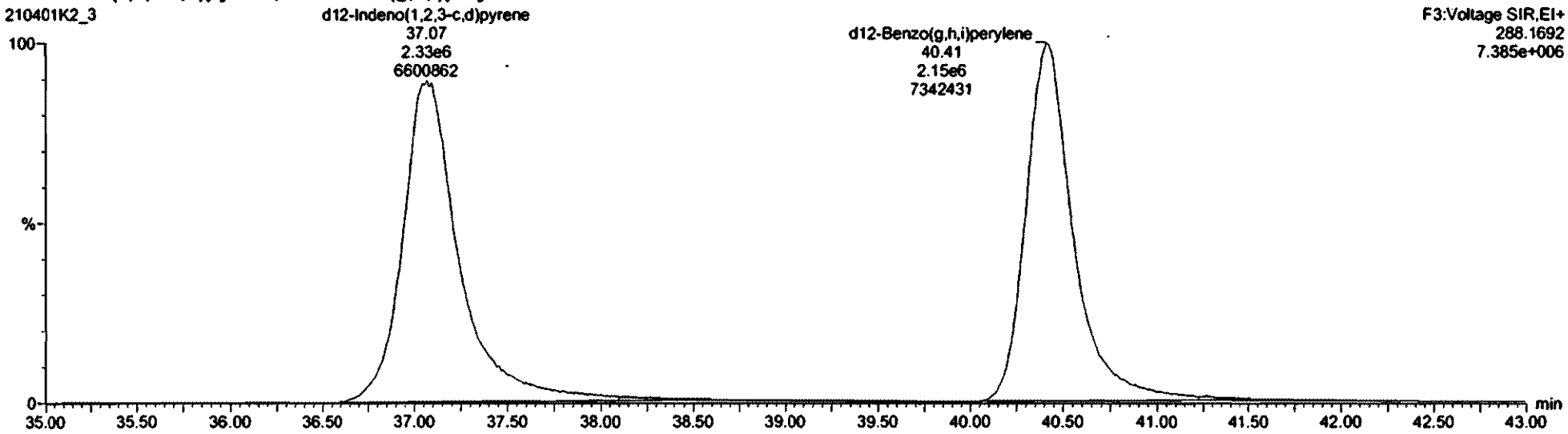
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



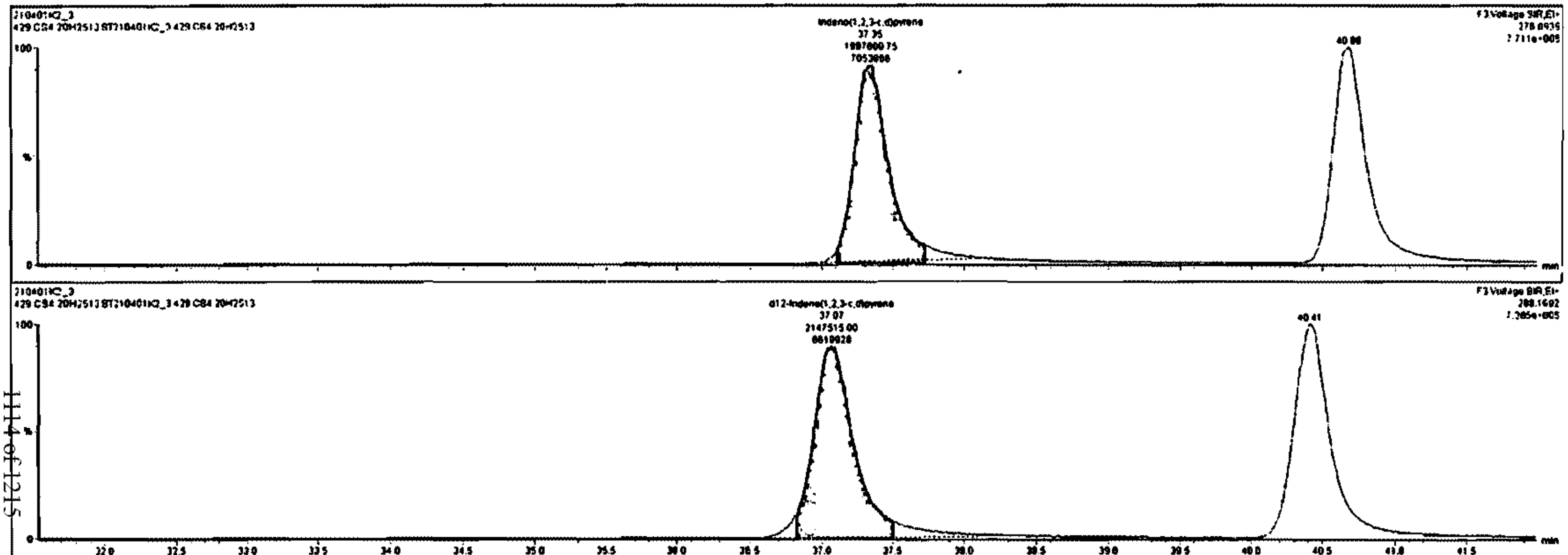
1113 of 1215

TargetLynx - 210401K2 CRV.qld - [Chromatogram]

File Edit View Display Processing Window Help

210401K2_3 : ST210401K2_3 429 CS4 20H2513 : 429 CS4 20H2513

#	#_	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
14	14	Benzo(b)fluoranthene	27.05			2.581e6	2.580e6	200.000	-9.4	5.81	1.10	0.0620
15	15	Benzo(k)fluoranthene	27.14			3.418e6	3.130e6	200.000	4.8	5.80	1.04	0.0601
16	16	Benzo(e)pyrene	28.85			2.879e6	3.130e6	200.000	0.7	1.45	0.911	0.0130
17	17	Benzo(a)pyrene	29.10			2.710e6	2.681e6	200.000	0.6	3.38	1.02	0.0341
18	18	Perylene	29.88			2.627e6	2.681e6	200.000	-0.0	3.75	0.987	0.0370
19	19	Indeno(1,2,3-c,d)pyrene	37.35			1.987e6	2.147e6	200.000	1.2	5.44	0.915	0.0498
20	20	Benzo(g,h,i)perylene	40.88			2.828e6	3.132e6	200.000	1.6	4.22	0.940	0.0397
21	21	Dibenz(a,h)anthracene	37.27			1.580e6	1.649e6	200.000	0.3	6.78	0.948	0.0642
22	22	d8-Naphthalene	10.10			1.741e6	1.428e6	100.000	1.3	2.83	1.20	0.0363
23	23	d8-Acenaphthylene	14.32			1.290e6	1.428e6	100.000	-2.9	4.10	0.905	0.0371
24	24	d10-Acenaphthene	14.61			8.347e5	1.428e6	100.000	-1.6	4.20	0.584	0.0254
25	25	d10-Fluorene	15.65			7.883e5	1.429e6	100.000	-1.9	5.50	0.563	0.0315

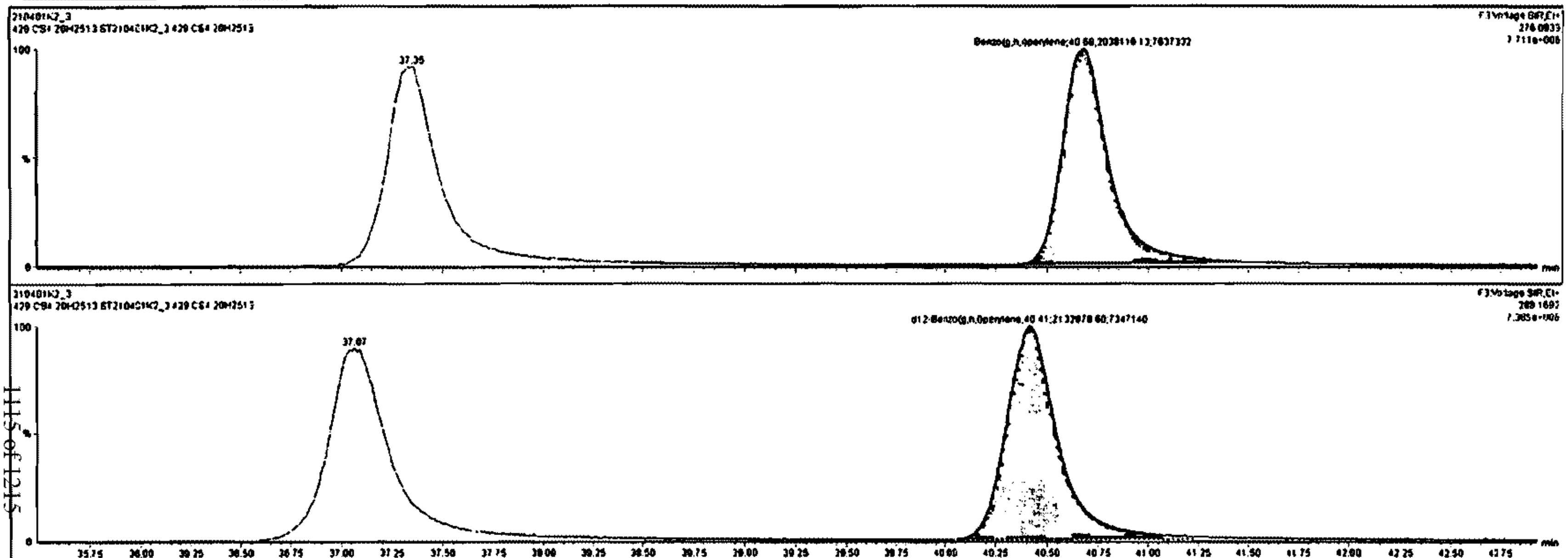


Ready

TargetLynx - 210401K2 CRV.qld - [Chromatogram]

File Edit View Display Processing Window Help

	#	Name	RT	RA	y/n	Area	IS Area	Std. Conc	%Dev	%RSD	RRF M...	RRF SD
14	14	Benzo(b)fluoranthene	27.05			2.9911e6	2.5885e6	200.000	-9.4	5.61	1.10	0.0630
15	15	Benzo(k)fluoranthene	27.14			3.4102e6	3.1308e6	200.000	4.8	5.69	1.09	0.0681
16	16	Benzo(e)pyrene	28.86			2.8708e6	3.1308e6	200.000	0.7	1.45	0.841	0.0430
17	17	Benzo(a)pyrene	29.10			2.7108e6	2.8813e6	200.000	0.6	3.38	1.02	0.0941
18	18	Perylene	29.80			2.6270e6	2.8813e6	200.000	-0.0	3.75	0.887	0.0570
19	19	Indeno(1,2,3-c,d)pyrene	37.35			1.8870e6	2.1475e6	200.000	1.2	5.44	0.915	0.0488
20	20	Benzo(g,h,i)perylene	40.58			2.0381e6	2.1329e6	200.000	1.6	4.22	0.940	0.0397
21	21	Dibenz(a,h)anthracene	37.27			1.5865e6	1.8498e6	200.000	0.3	6.70	0.848	0.0842
22	22	d8-Naphthalene	10.10			1.7411e6	1.4292e6	100.000	1.2	2.83	1.20	0.0363
23	23	d8-Acenaphthylene	14.32			1.2558e6	1.4292e6	100.000	-2.9	4.18	0.886	0.0371
24	24	d10-Acenaphthene	14.61			8.3476e5	1.4292e6	100.000	-1.6	4.39	0.584	0.0254
25	25	d10-Fluorene	15.85			7.8832e5	1.4292e6	100.000	-1.9	5.90	0.563	0.0315



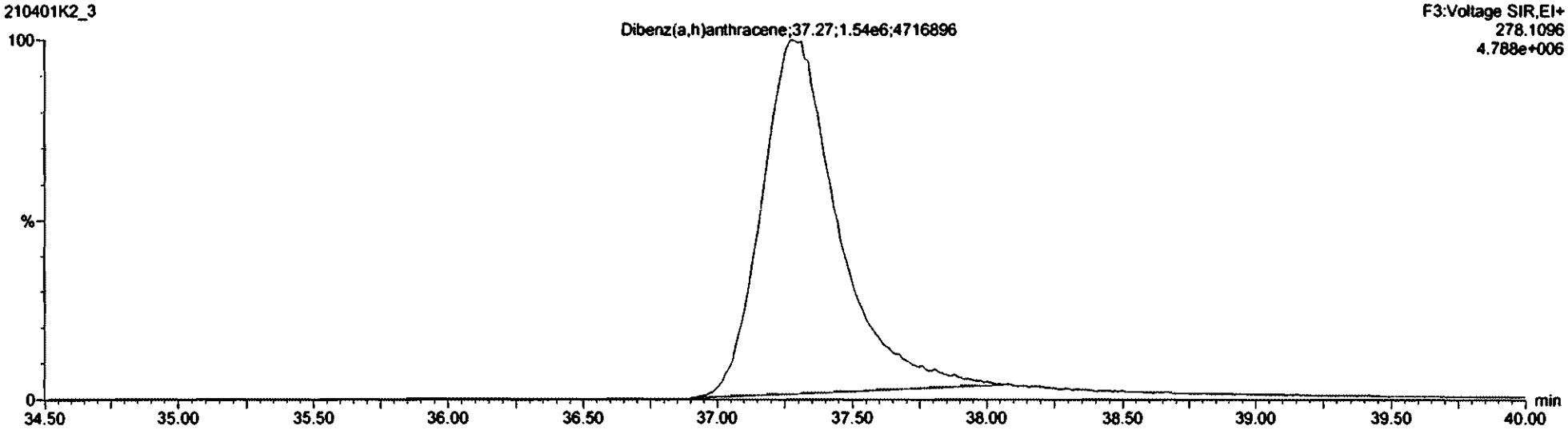
Ready 210401K2_3 CAP NUM

Dataset: Untitled

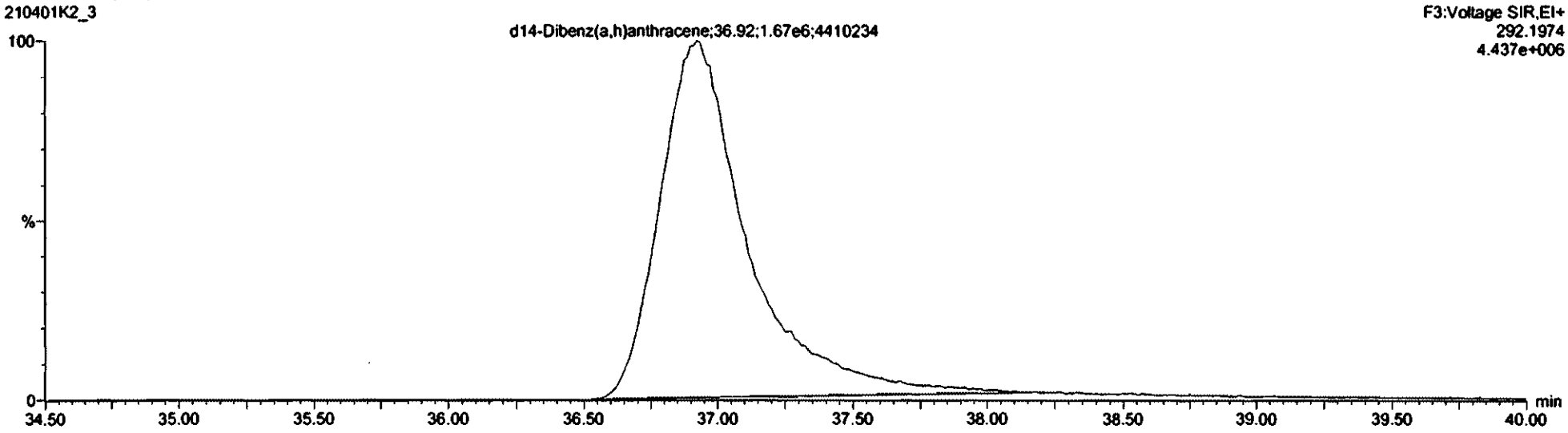
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_3, Date: 01-Apr-2021, Time: 11:06:32, ID: ST210401K2_3 429 CS4 20H2513, Description: 429 CS4 20H2513

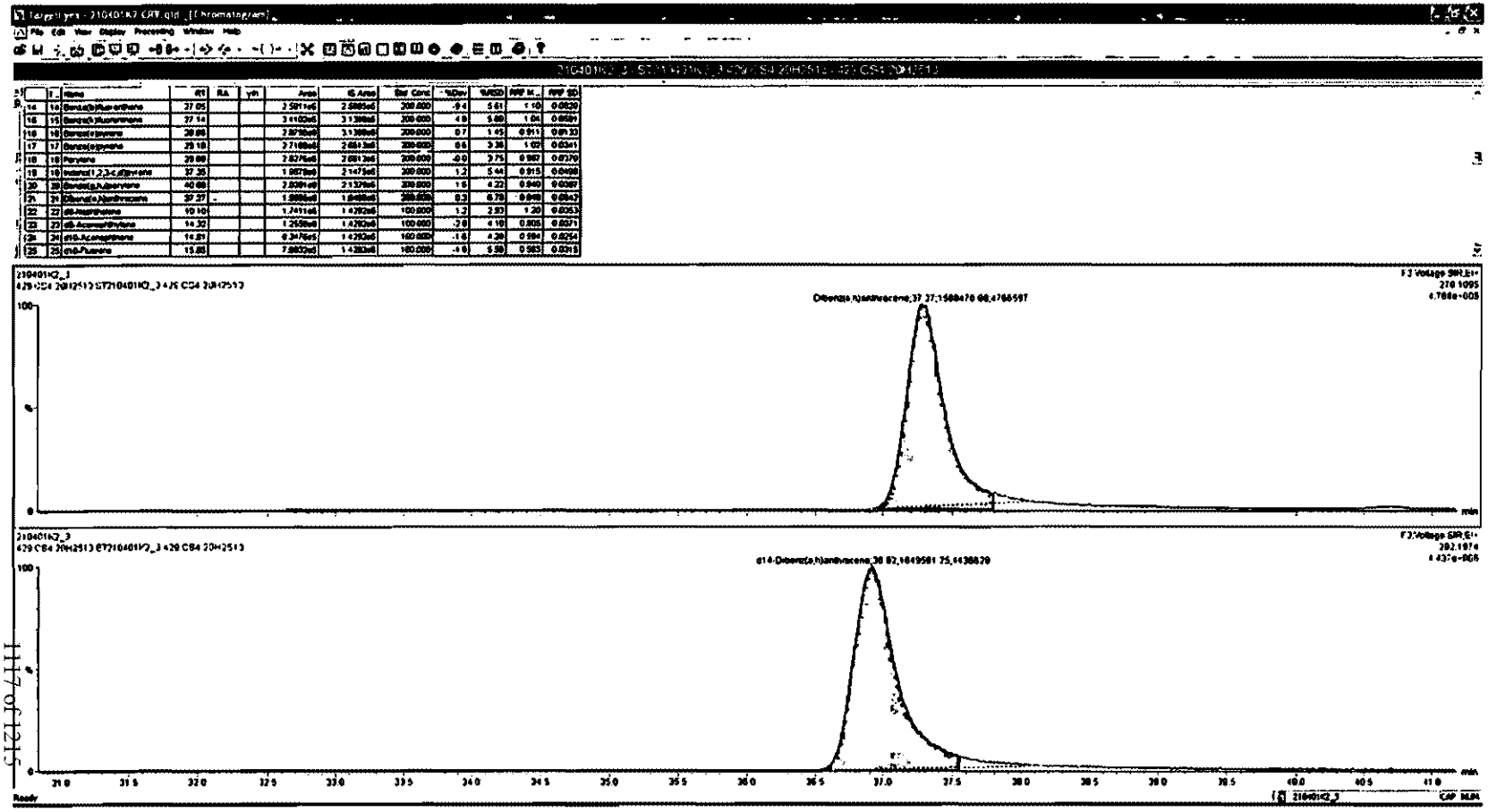
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



1116 of 1215



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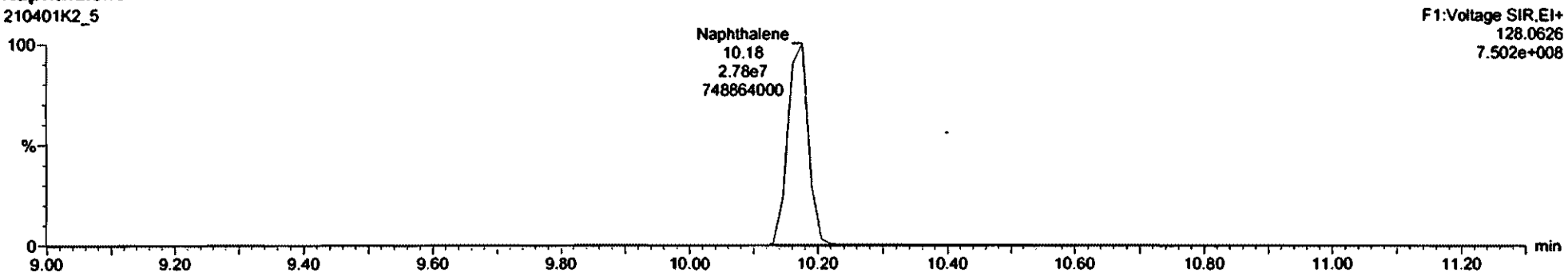
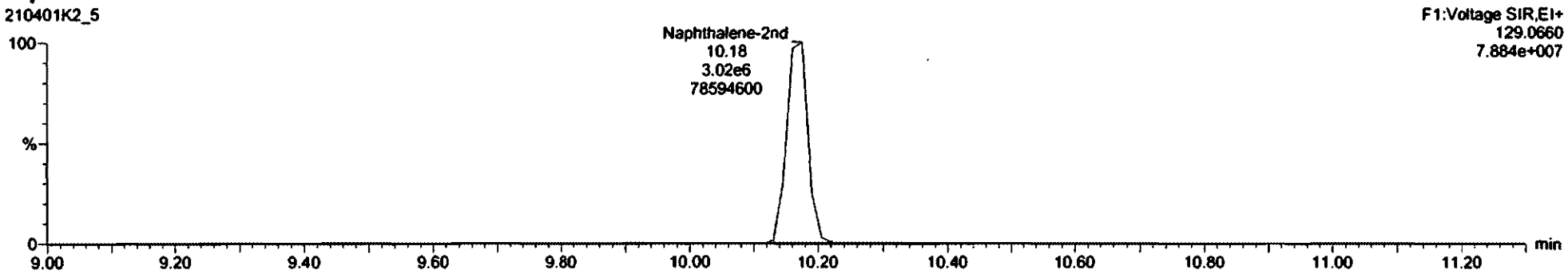
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

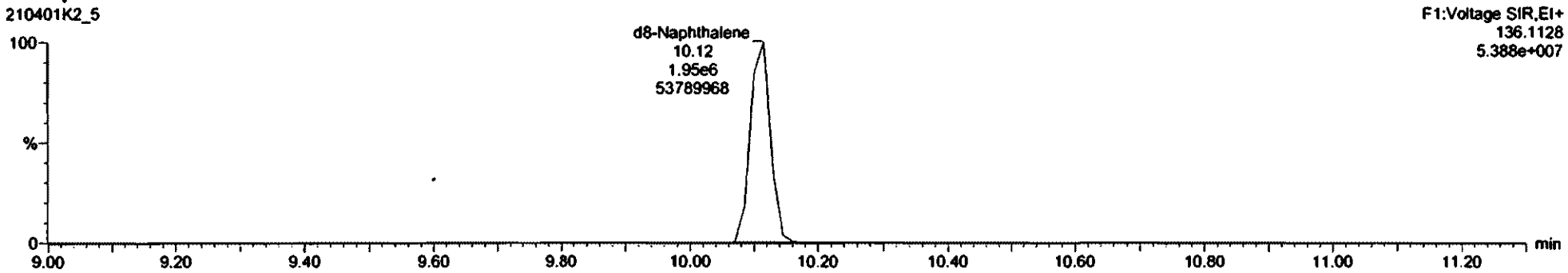
Naphthalene



Naphthalene-2nd



d8-Naphthalene

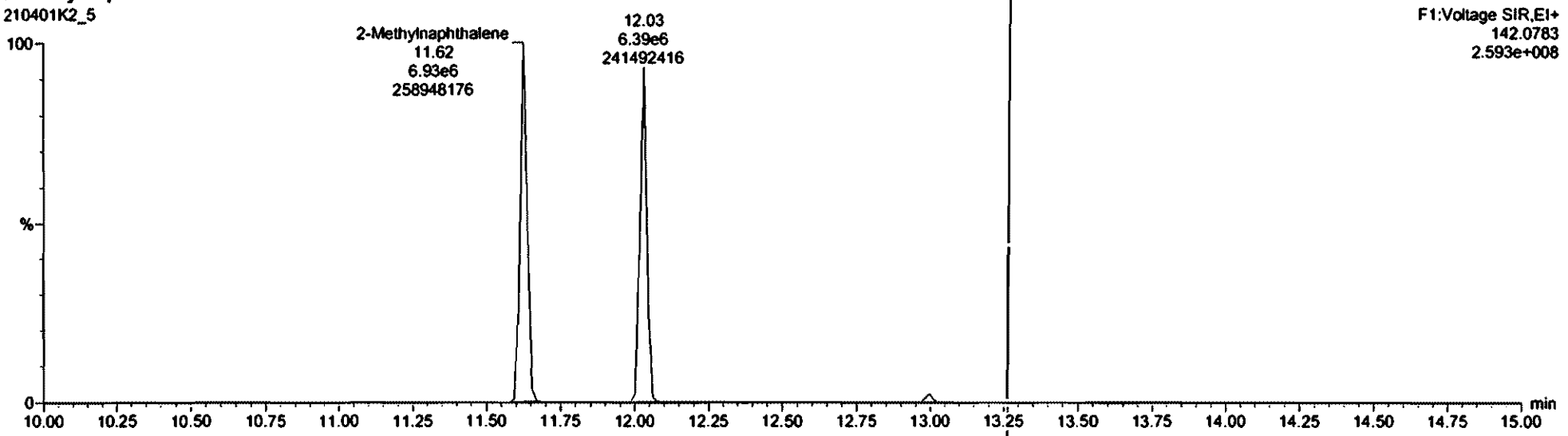


Dataset: Untitled

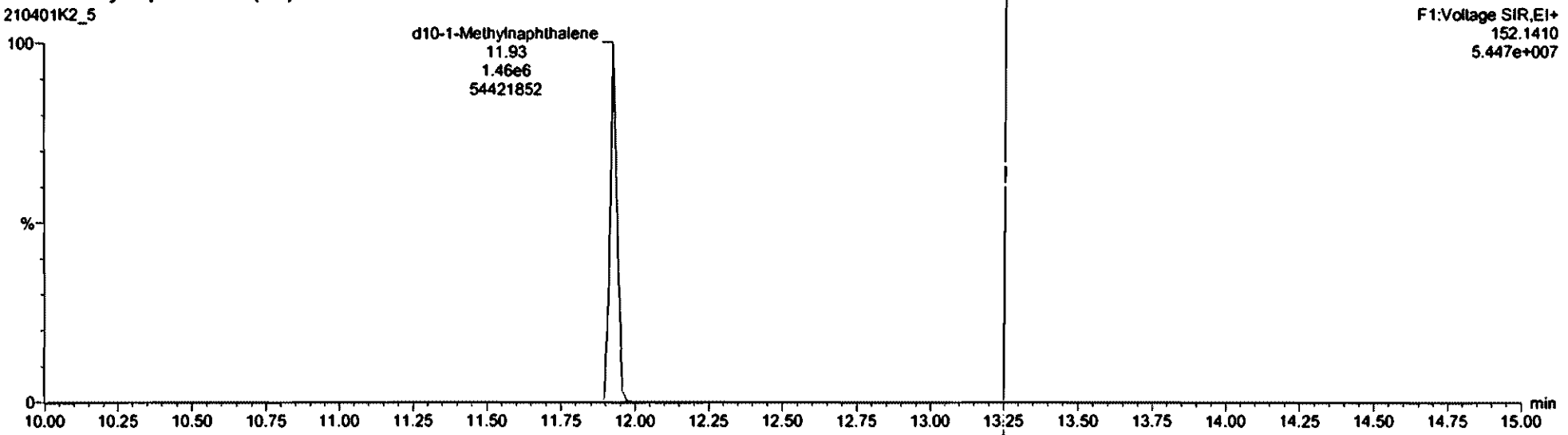
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)

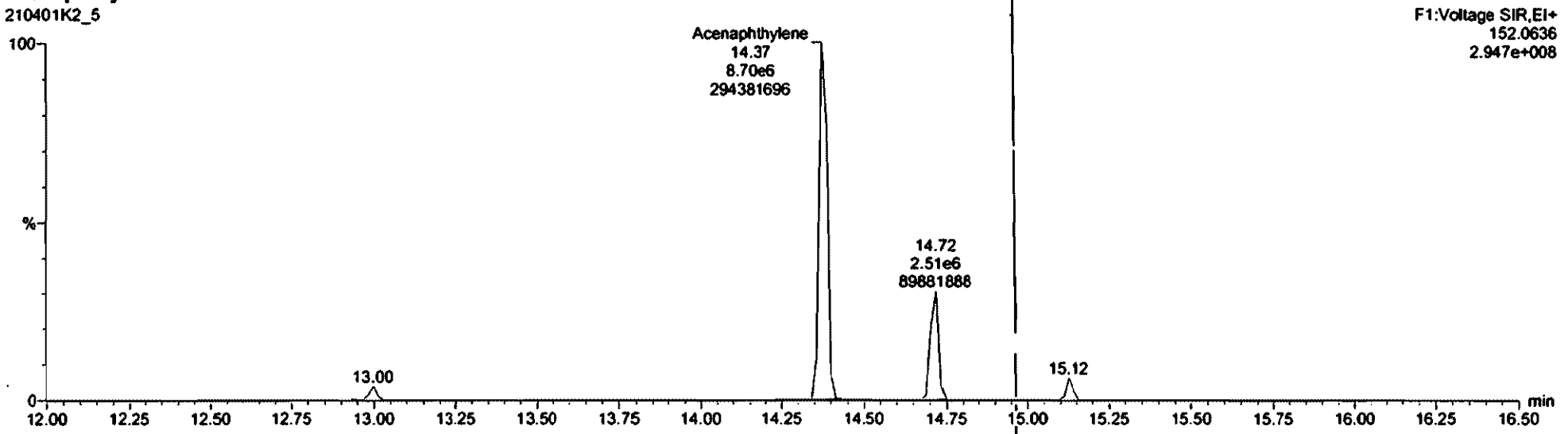


Dataset: Untitled

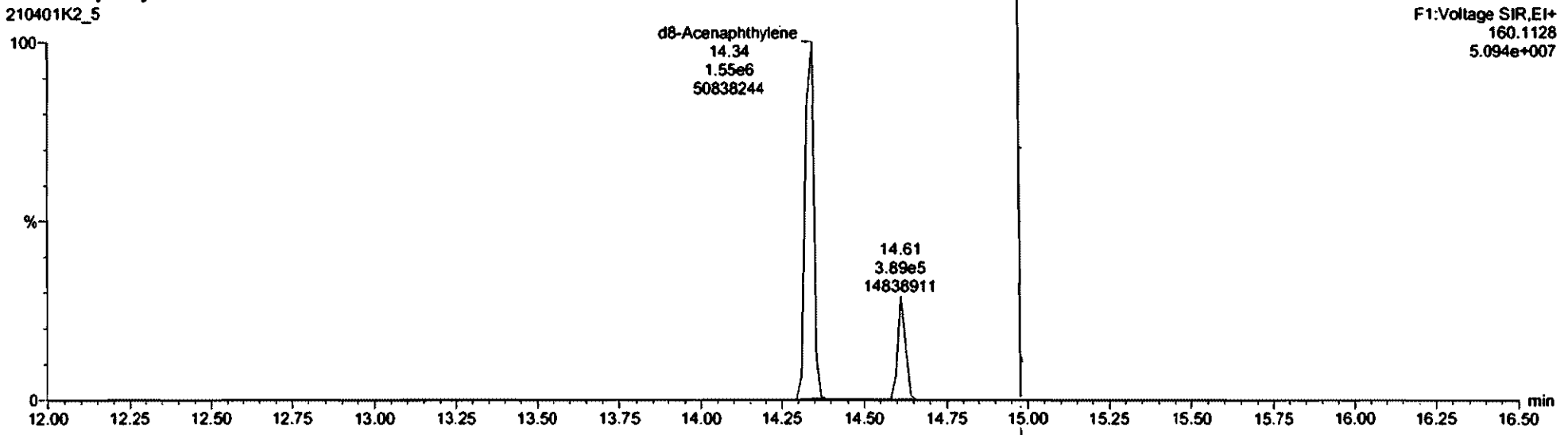
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Acenaphthylene



d8-Acenaphthylene



1120 of 1215

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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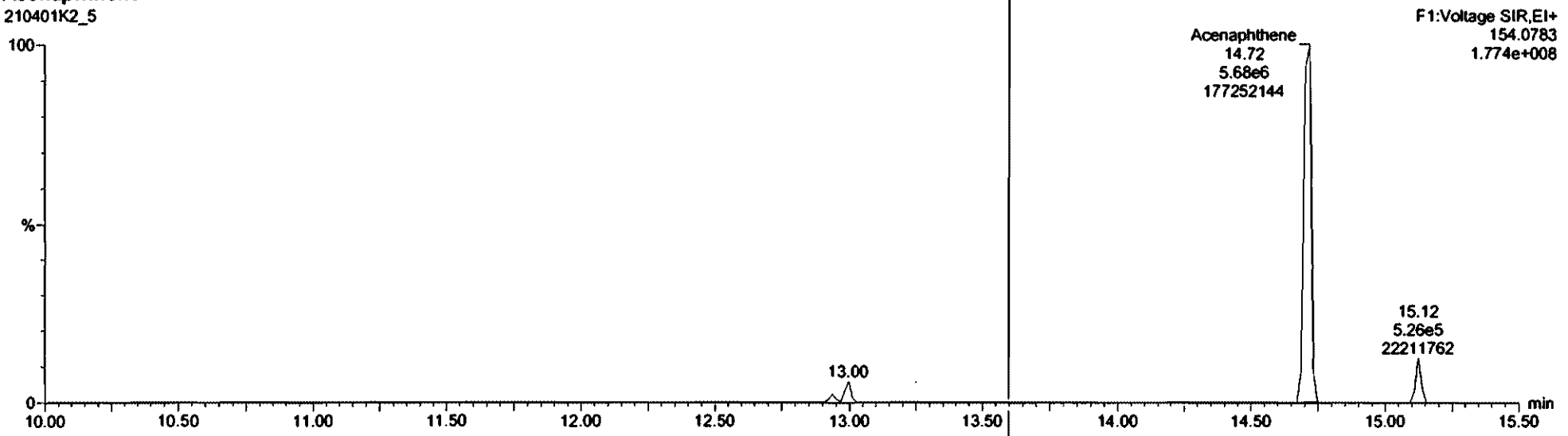
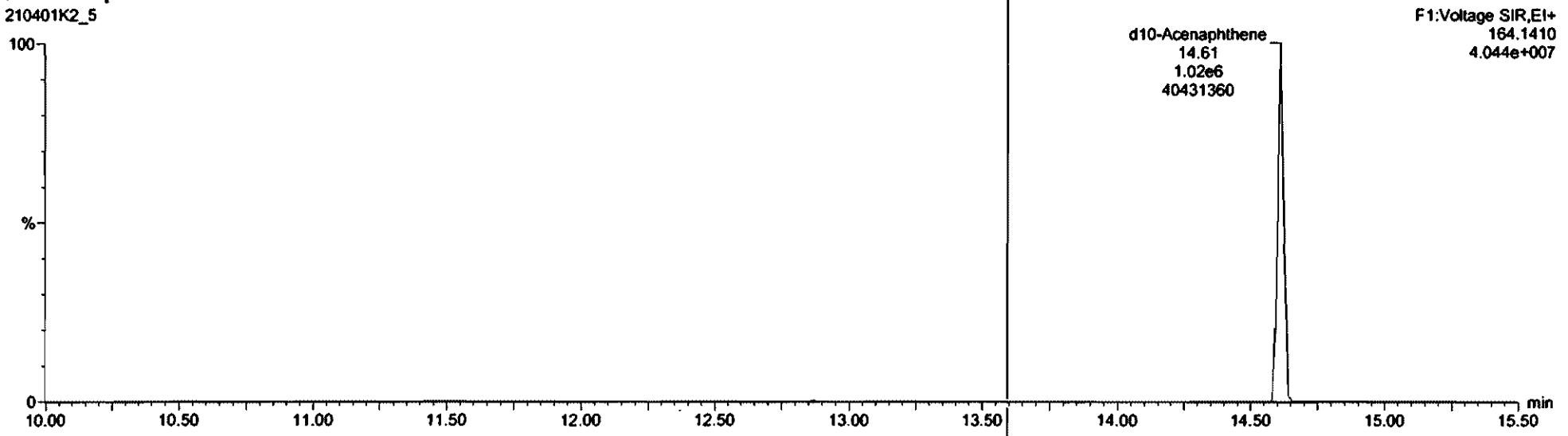
Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Acenaphthene



d10-Acenaphthene



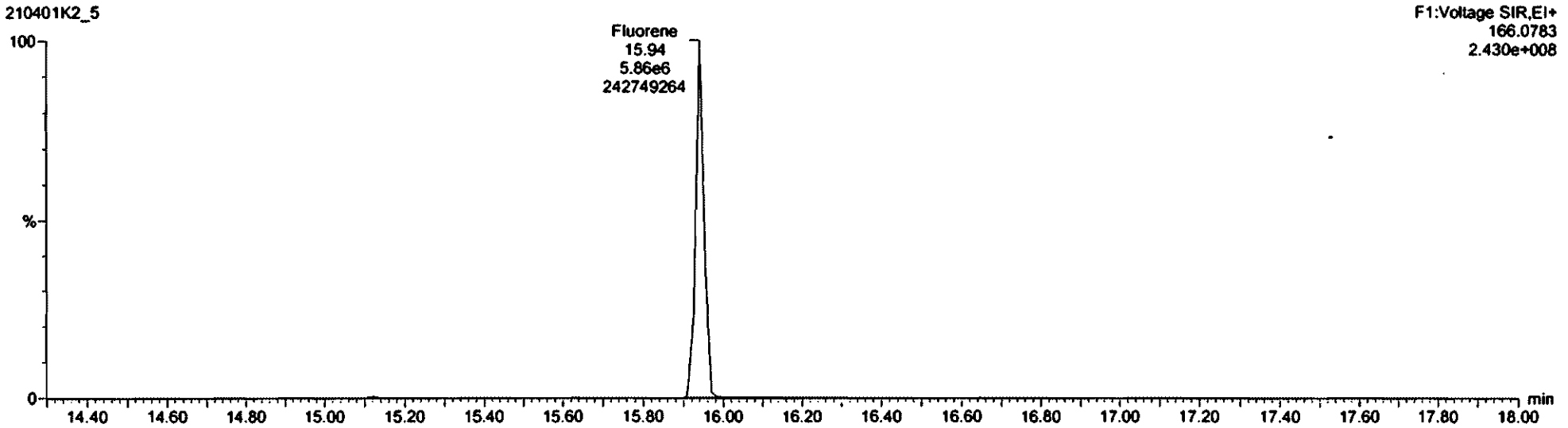
1121 of 1215

Dataset: Untitled

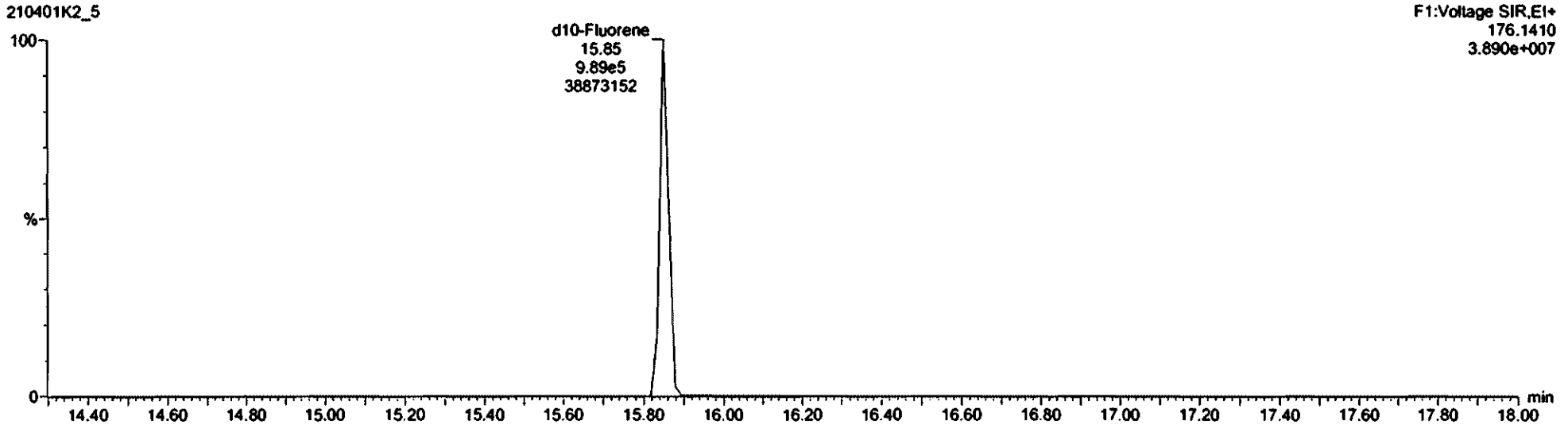
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Fluorene



d10-Fluorene



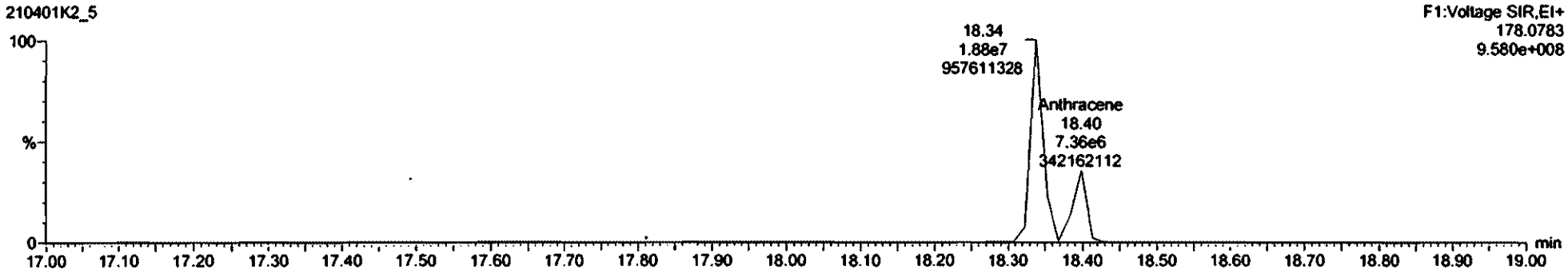
1122 of 1215

Dataset: Untitled

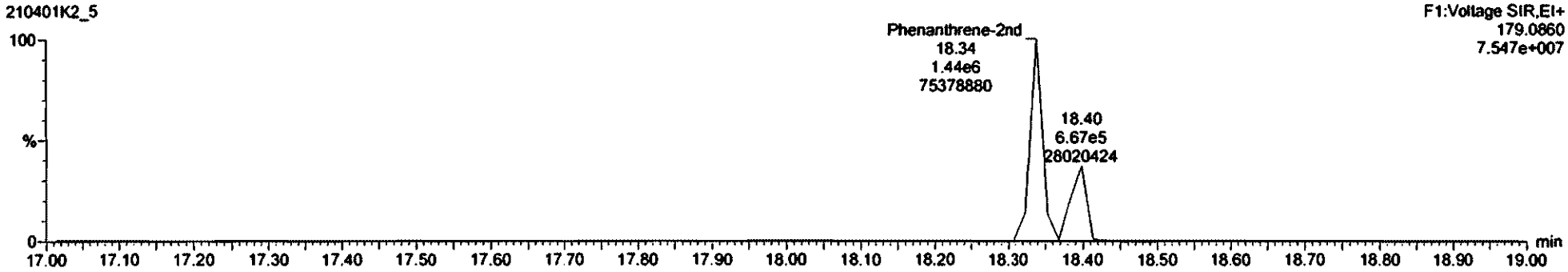
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

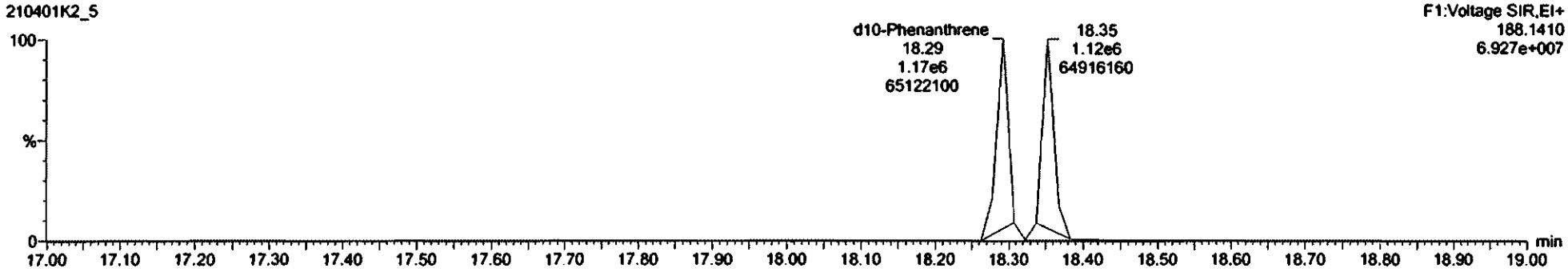
Phenanthrene; Anthrecene

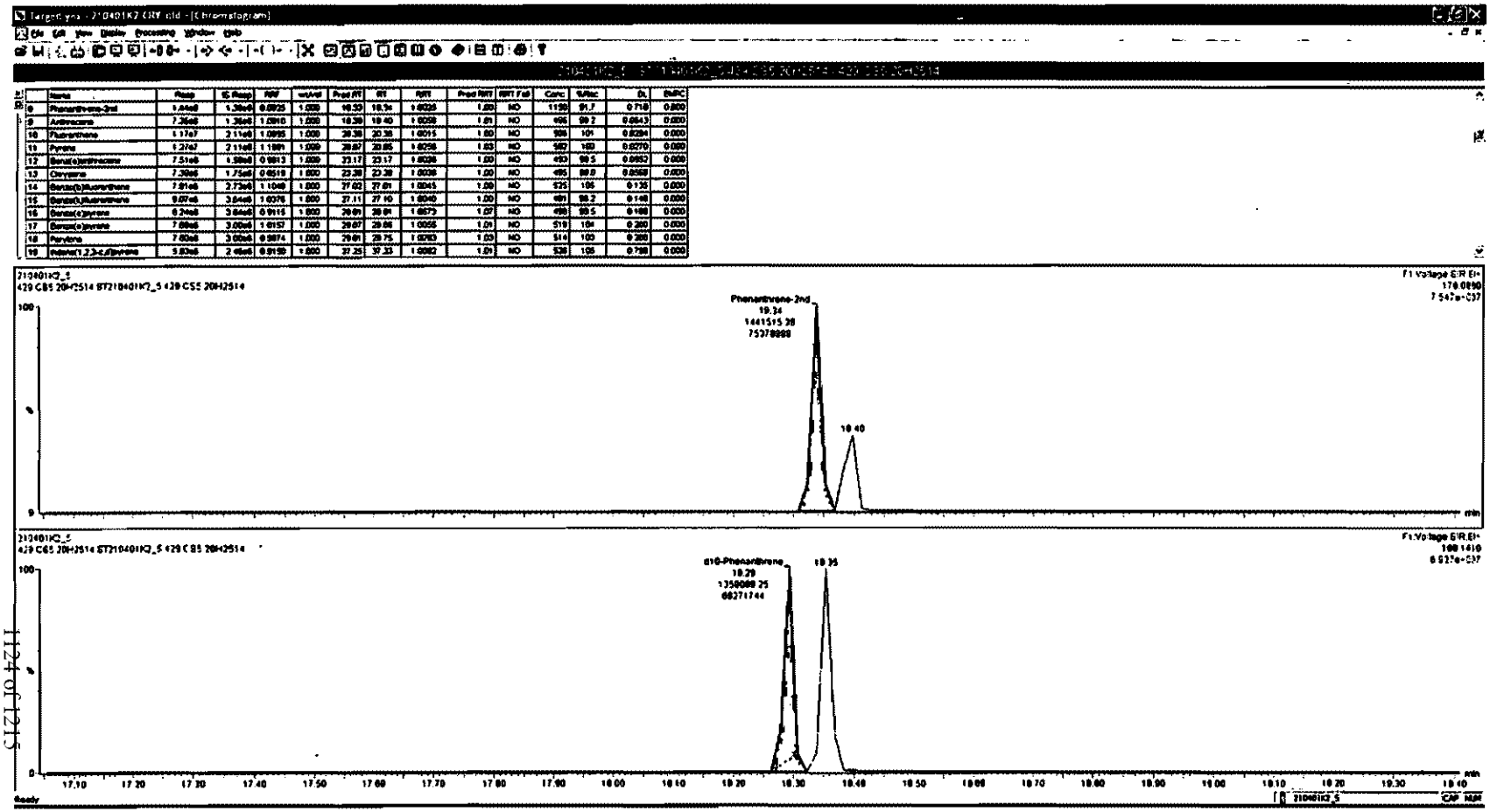


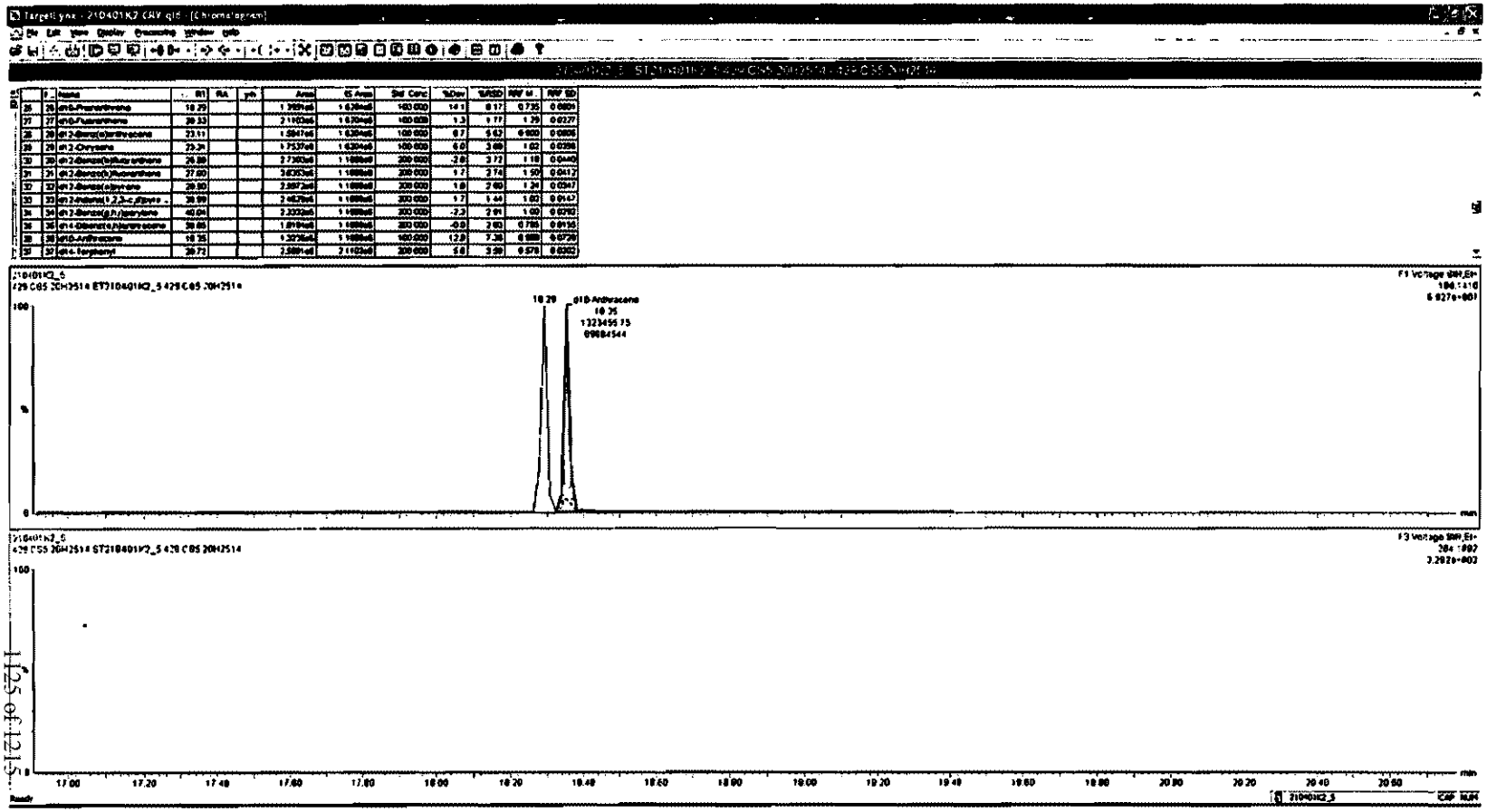
Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)




Phenanthrene-2nd
19.34
1441515.38
75378888
19.40
d10-Phenanthrene
19.29
1350088.25
68271744
19.35

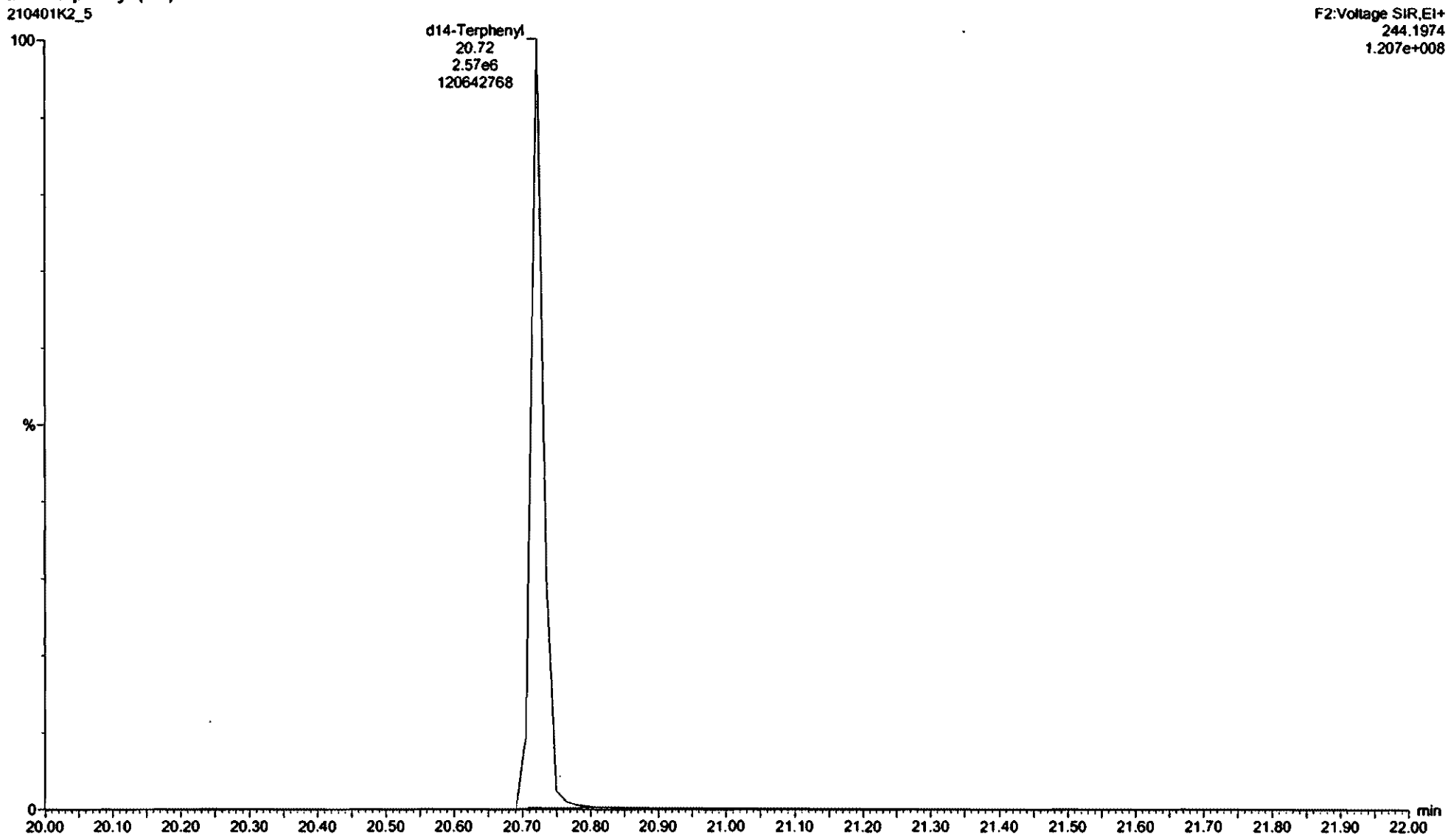

18.29
d18-Anthracene
18.35
1323456.75
09084544
100
0
min
17.00
17.20
17.40
17.60
17.80
18.00
18.20
18.40
18.60
18.80
19.00
19.20
19.40
19.60
19.80
20.00
20.20
20.40
20.60

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

d14-Terphenyl (PS)



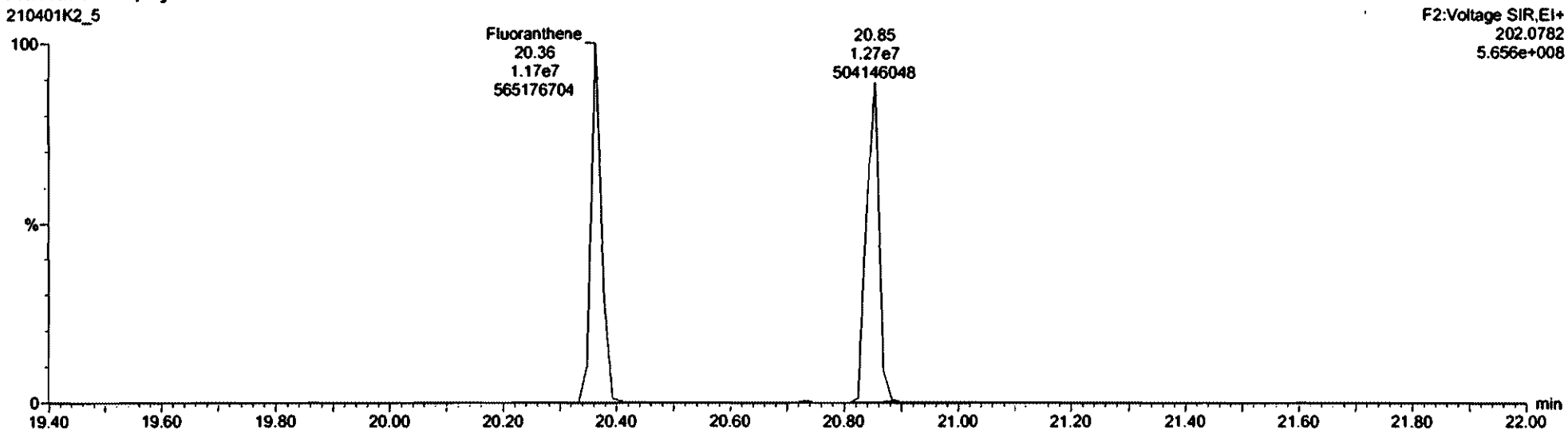
1126 of 1215

Dataset: Untitled

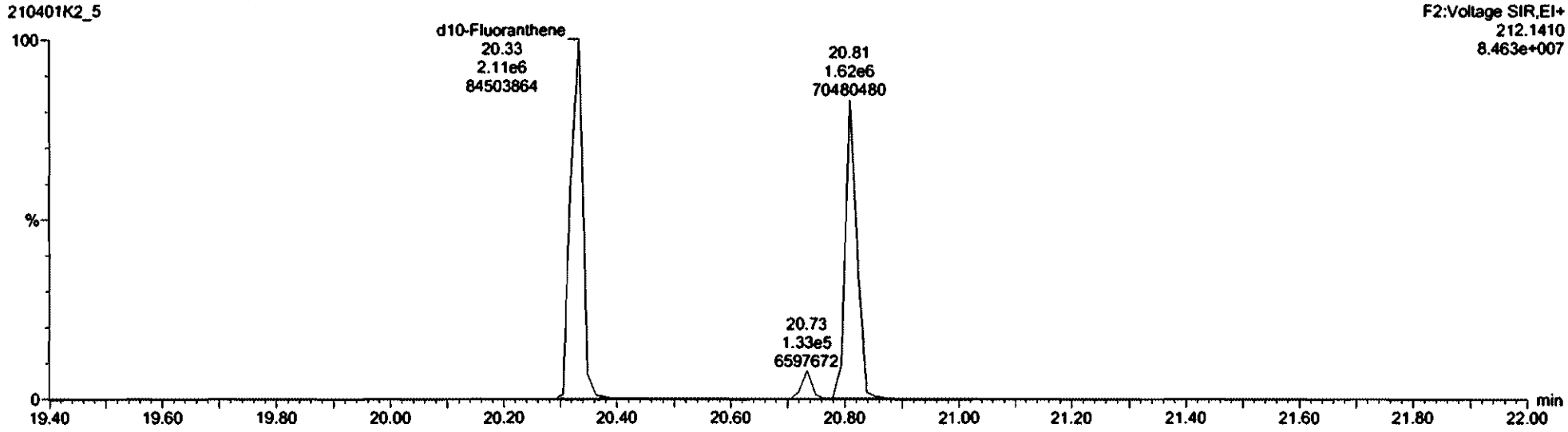
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



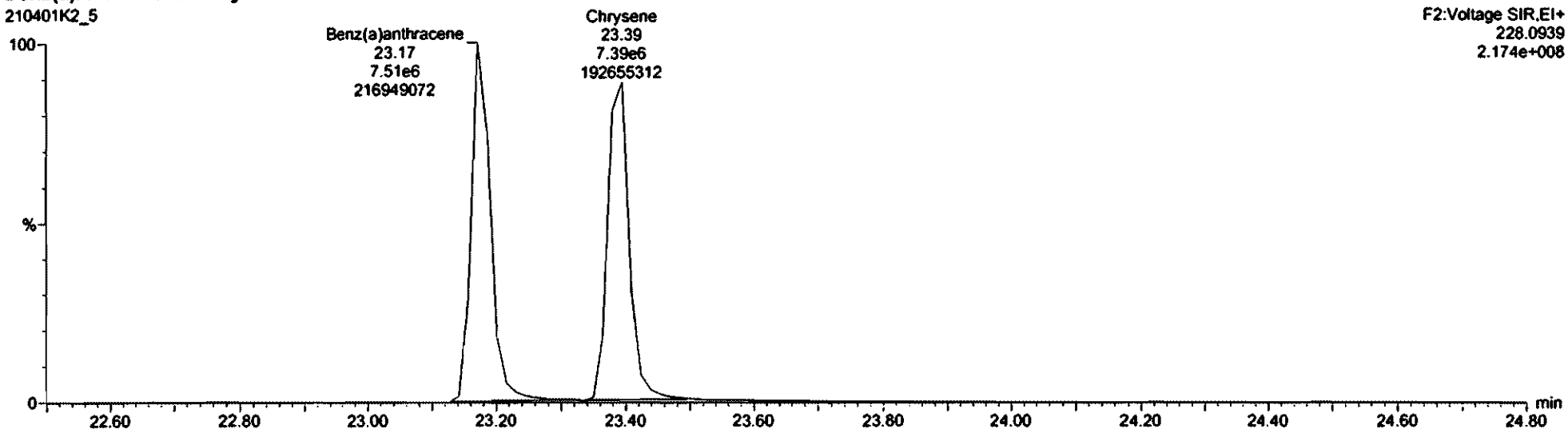
1127 of 1215

Dataset: Untitled

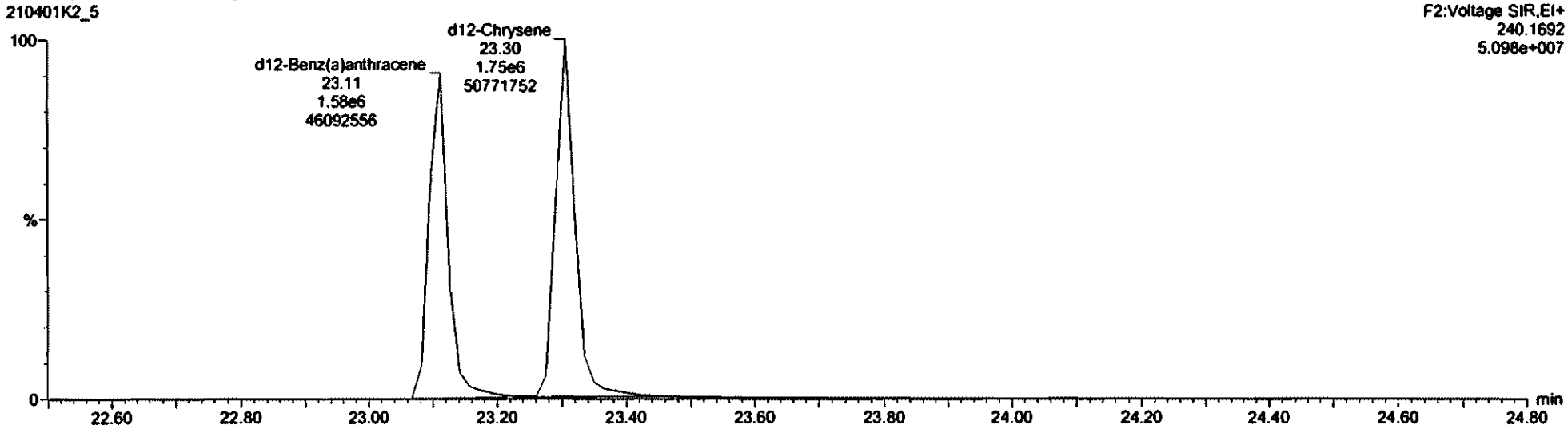
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



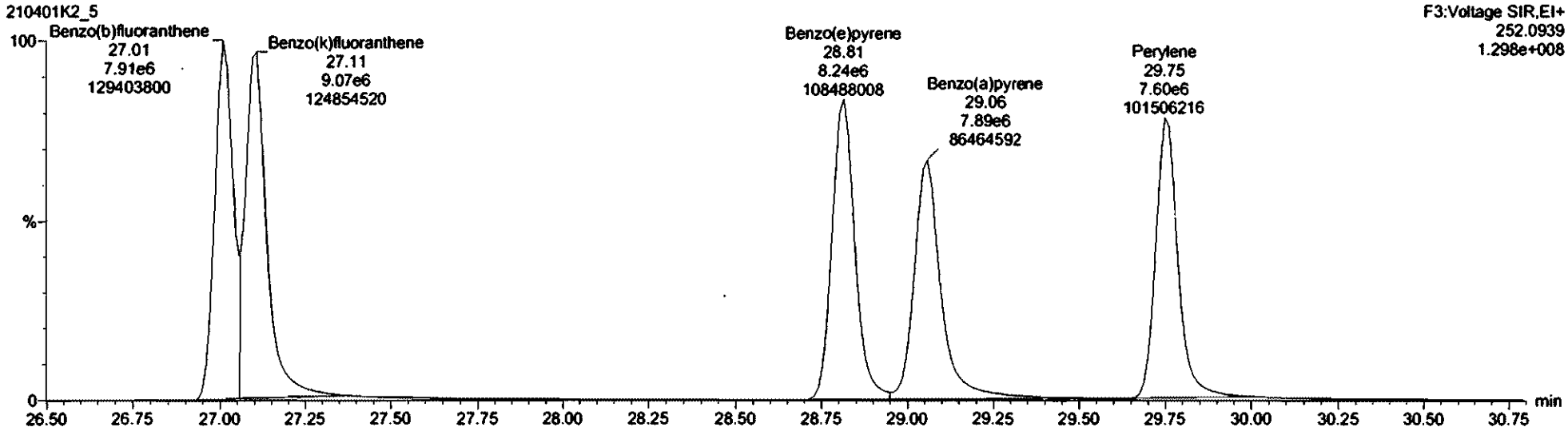
1128 of 1215

Dataset: Untitled

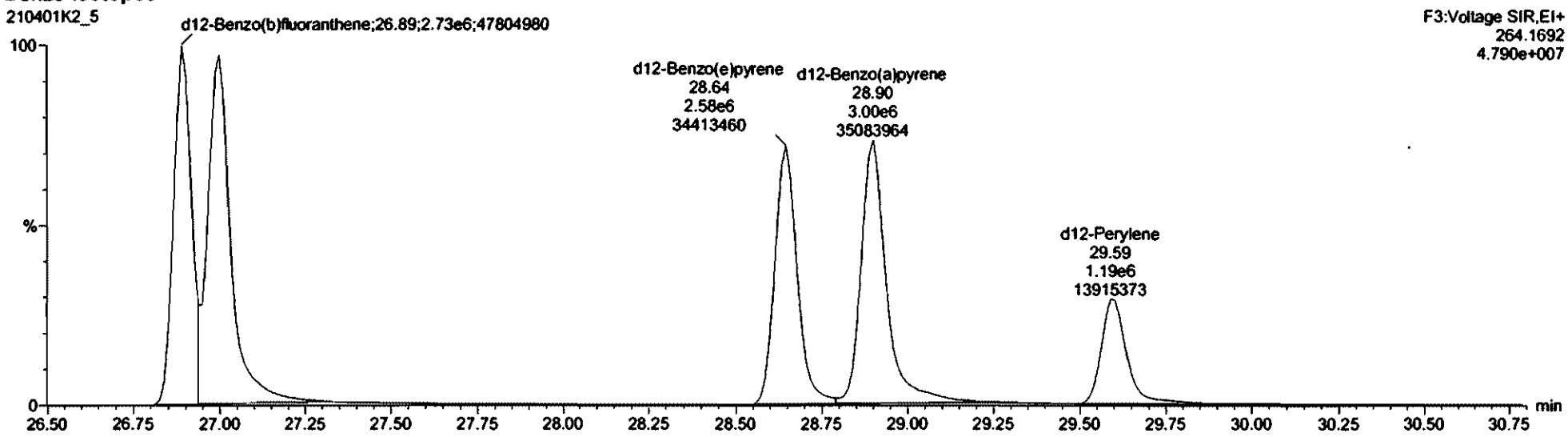
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

Benzo-PAHs



Benzo-Isotopes



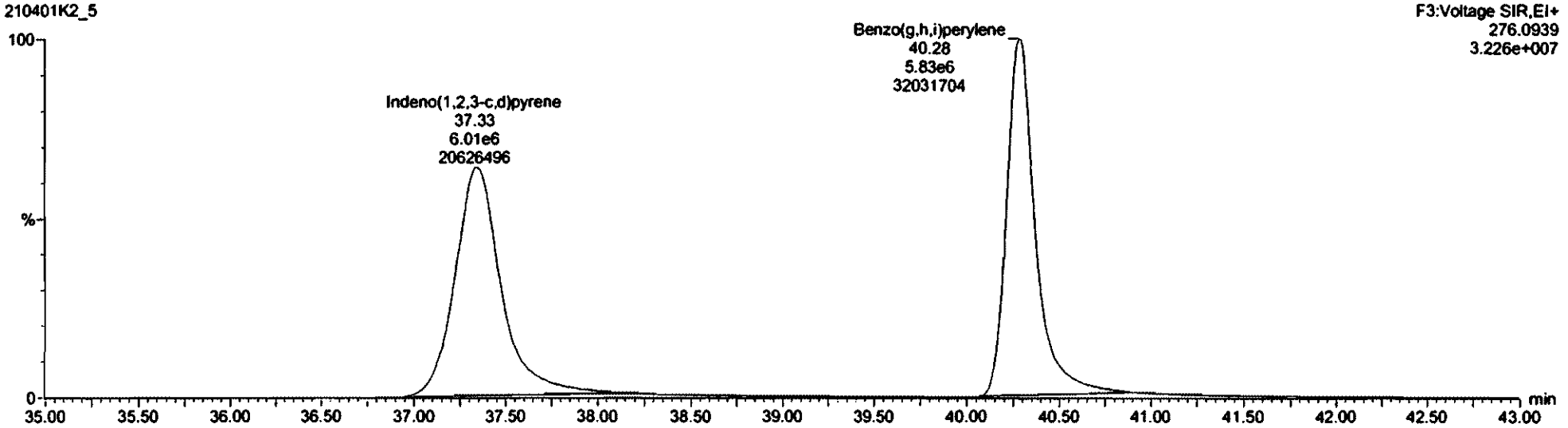
1129 of 1215

Dataset: Untitled

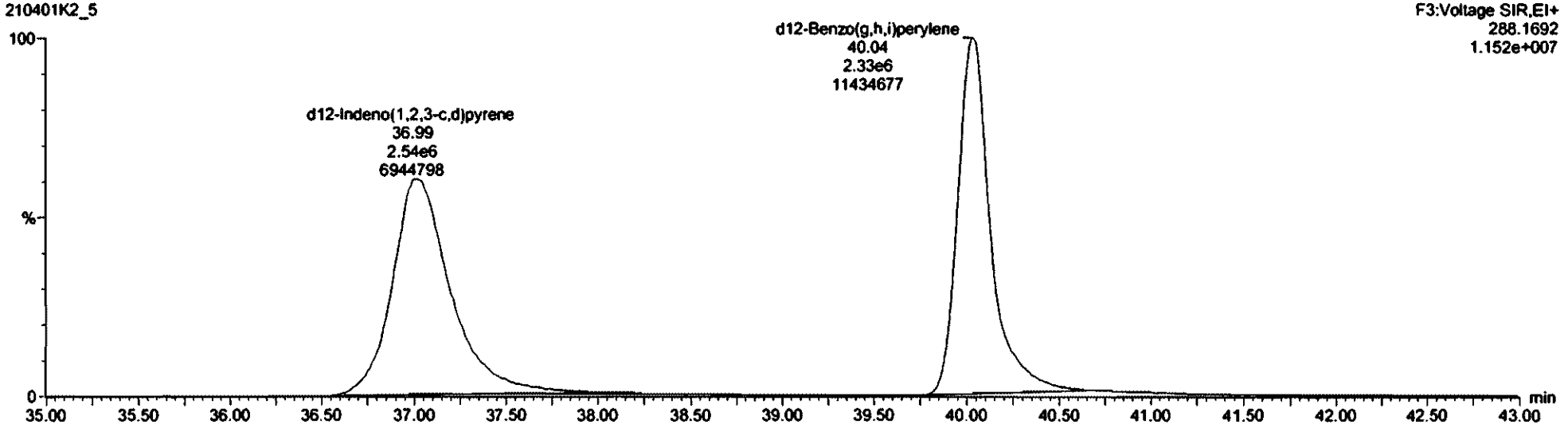
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

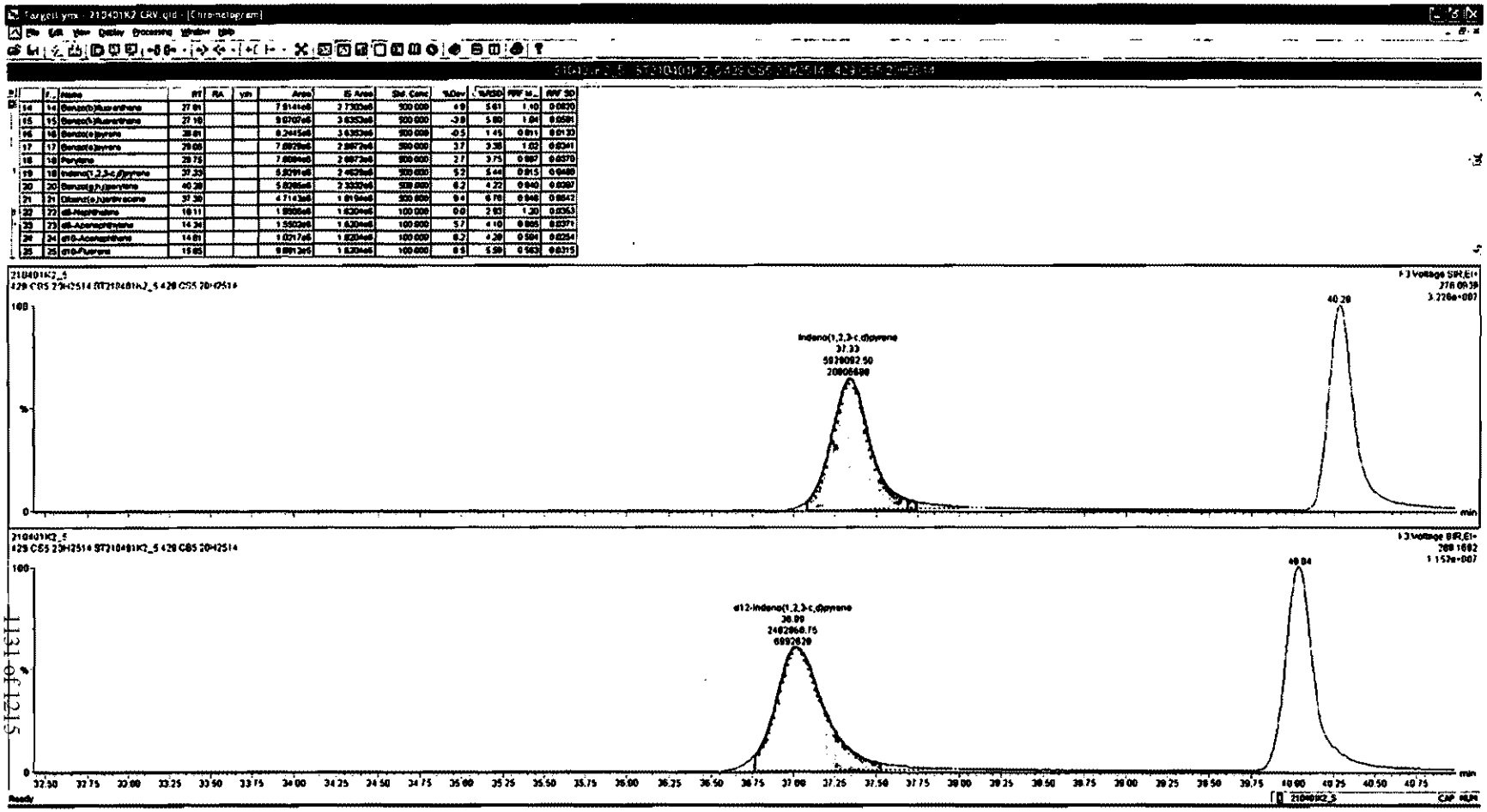
Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene



1130 of 1215

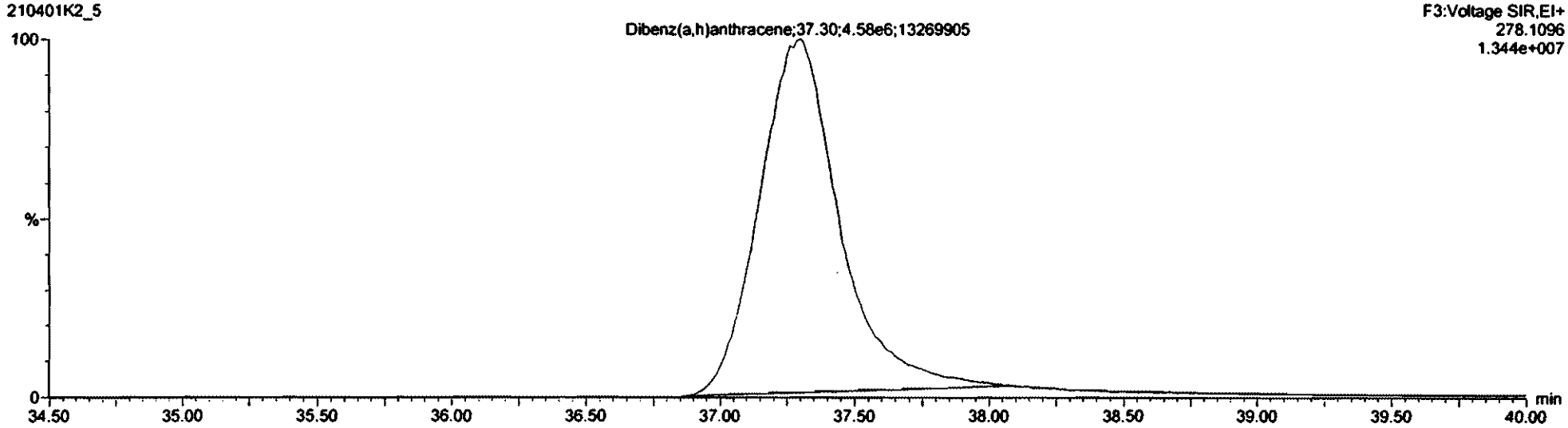

Indeno(1,2,3-c,d)pyrene
37.33
5019082.50
20905490
40.28
d12-Indeno(1,2,3-c,d)pyrene
36.99
2402868.75
6892829
40.04

Dataset: Untitled

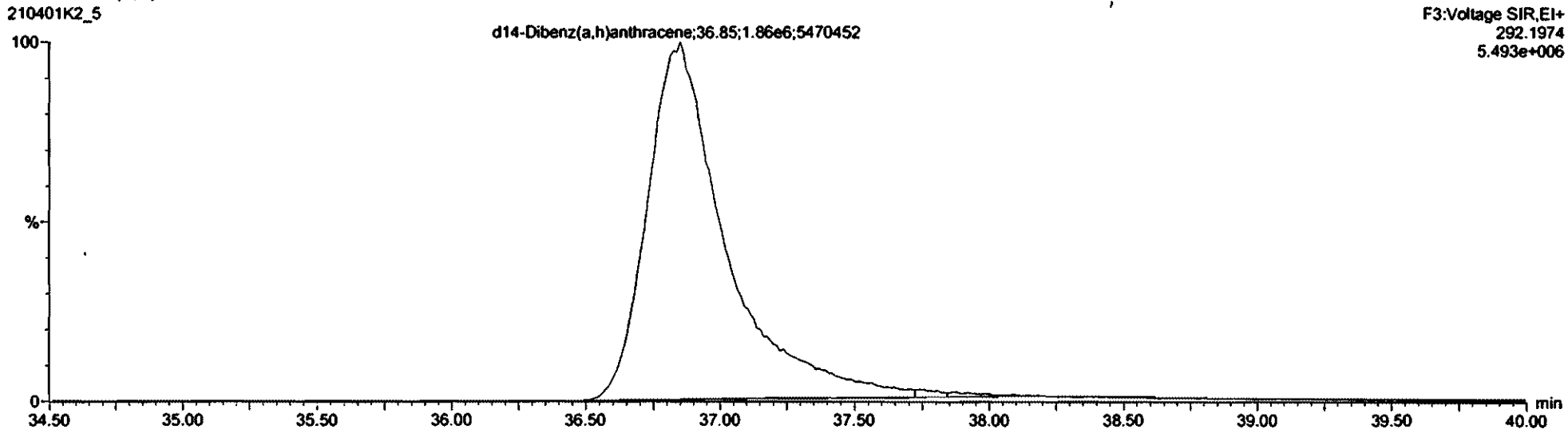
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_5, Date: 01-Apr-2021, Time: 12:40:15, ID: ST210401K2_5 429 CS5 20H2514, Description: 429 CS5 20H2514

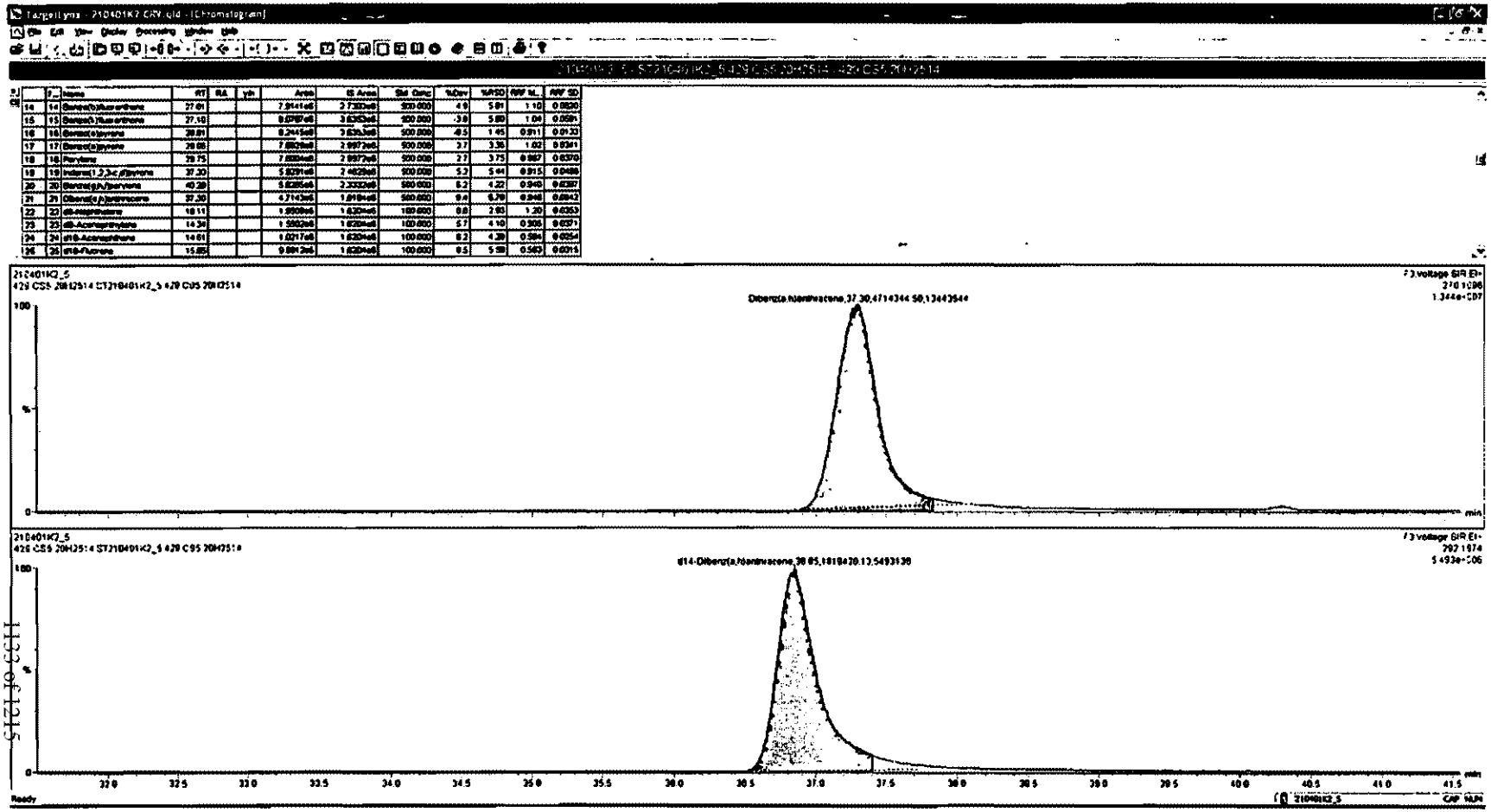
Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



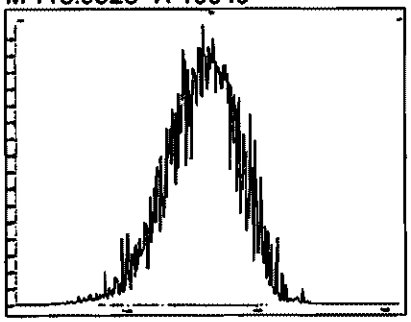
1132 of 1215



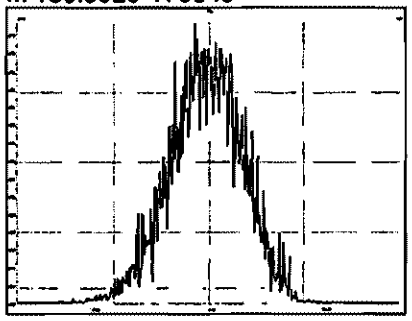
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 1 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:33:14 Pacific Daylight Time

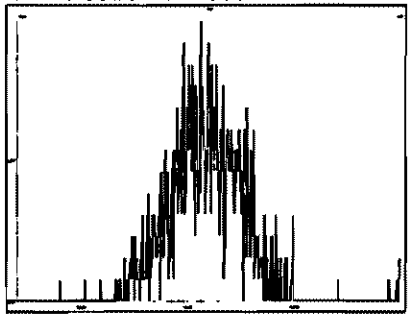
M 118.9920 R 10049



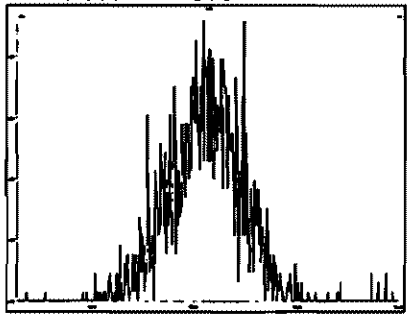
M 130.9920 R 9049



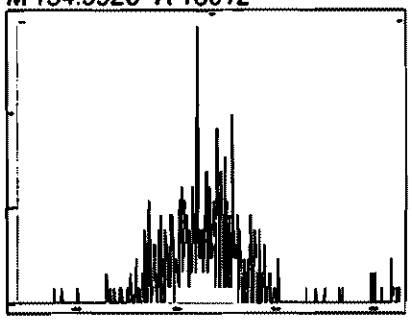
M 142.9920 R 11558



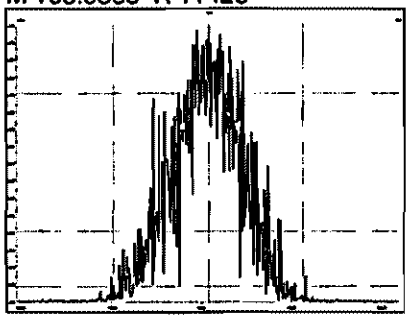
M 149.9904 R 13981



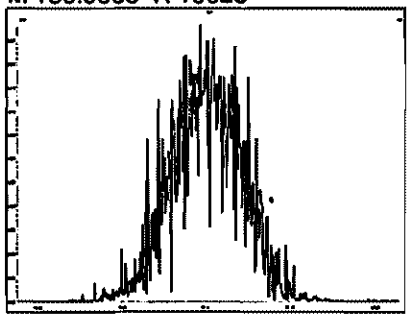
M 154.9920 R 18012



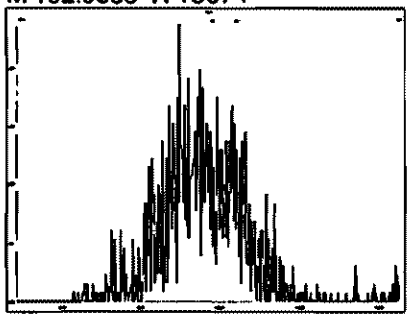
M 168.9888 R 11426



M 180.9888 R 15625



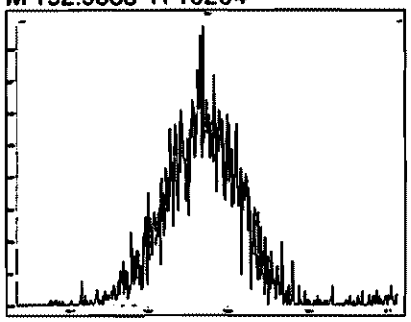
M 192.9888 R 13074



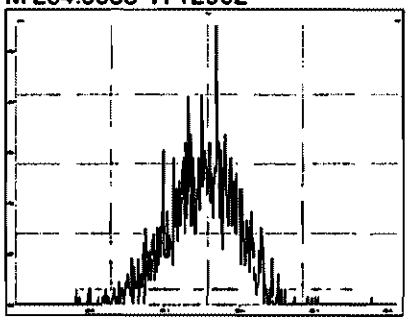
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 2 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:33:41 Pacific Daylight Time

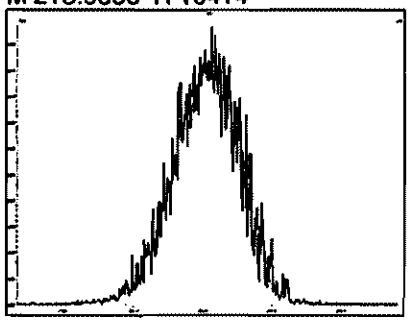
M 192.9888 R 10204



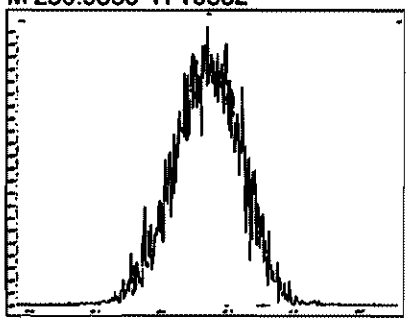
M 204.9888 R 12902



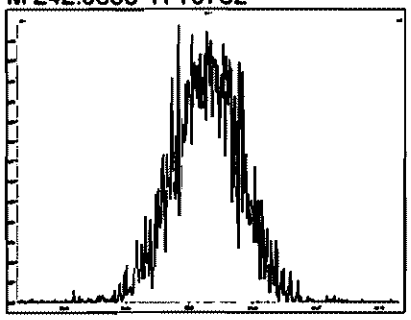
M 218.9856 R 10414



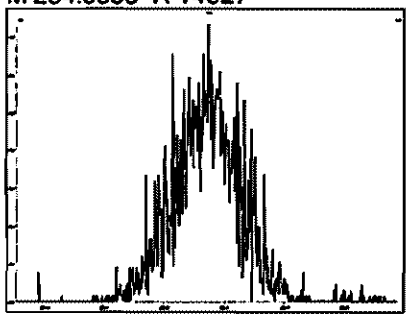
M 230.9856 R 10582



M 242.9856 R 10752



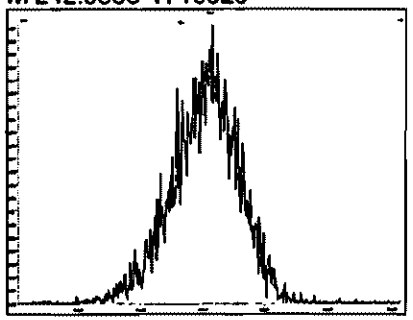
M 254.9856 R 14927



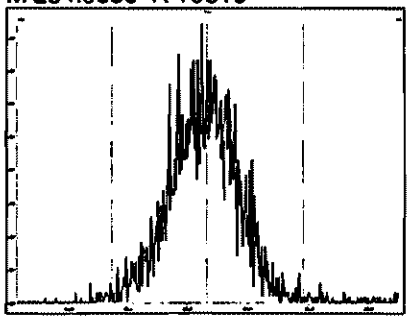
File: Experiment: PAH_ZB50.exp Reference: Pfk.ref Function: 3 @ 250 (ppm)

Printed: Thursday, April 01, 2021 09:34:00 Pacific Daylight Time

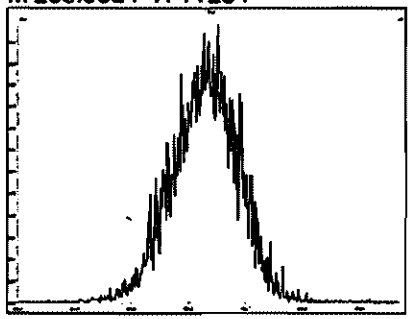
M 242.9856 R 10926



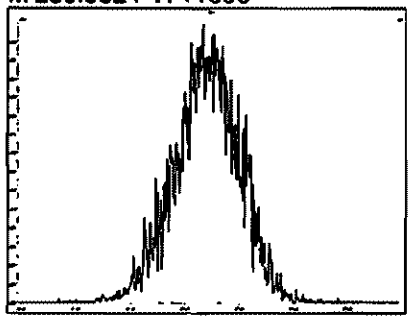
M 254.9856 R 10810



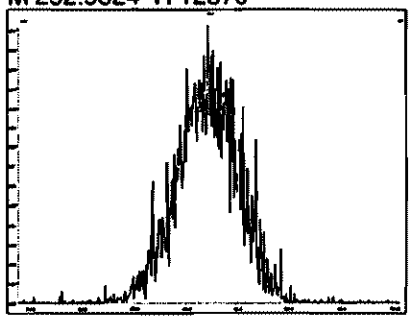
M 268.9824 R 11234



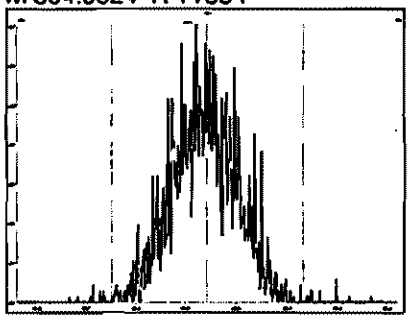
M 280.9824 R 11696



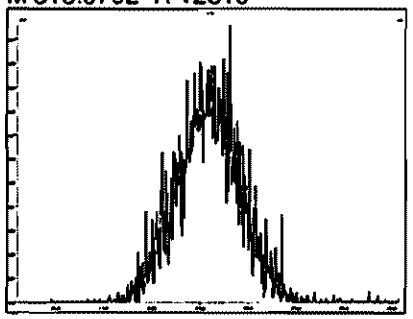
M 292.9824 R 12576



M 304.9824 R 11834



M 318.9792 R 12819



Dataset: U:\VG11.PRO\Results\210401K2\210401K2-7.qld

Last Altered: Thursday, April 01, 2021 16:20:29 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:21:03 Pacific Daylight Time

4.1.2021
DF 04/02/21
@ ND's not present in SS

Method: Untitled 01 Apr 2021 13:23:22
Calibration: U:\VG11.PRO\CurveDB\db_50_PAHvg11-4-1-21.cdb 01 Apr 2021 16:11:11

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

	#	Name	Resp	IS Resp	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Check R...	Conc.	%Rec	DL
1	1	Naphthalene	2.75e6	2.46e6	1.16	1.000	10.17	10.16	1.006	1.004	NO	96.4		0.0977
2	2	Naphthalene-2nd	2.98e5	2.46e6	0.128	1.000	10.17	10.16	1.006	1.004	NO	94.8		0.880
3	3	2-Methylnaphthalene	R	1.12e6	1.38	1.000	11.61		0.794		NO			0.0589
4	4	Acenaphthylene	1.63e6	1.74e6	1.12	1.000	14.38	14.37	1.003	1.002	NO	83.9		0.0803
5	5	Acenaphthene	1.40e6	1.12e6	1.10	1.000	14.70	14.72	1.006	1.007	NO	113		0.0982
6	6	Fluorene	1.20e6	1.08e6	1.15	1.000	15.94	15.94	1.006	1.006	NO	96.5		0.0741
7	7	Phenanthrene	1.64e6	1.53e6	1.19	1.000	18.33	18.34	1.002	1.002	NO	90.4		0.0345
8	8	Phenanthrene-2nd	1.30e5	1.53e6	0.0925	1.000	18.33	18.34	1.002	1.002	NO	92.0		0.389
9	9	Anthracene	1.56e6	1.53e6	1.09	1.000	18.39	18.40	1.005	1.006	NO	93.4		0.0376
10	10	Fluoranthene	2.50e6	2.77e6	1.10	1.000	20.38	20.36	1.002	1.001	NO	82.2		0.0171
11	11	Pyrene	2.67e6	2.77e6	1.20	1.000	20.87	20.85	1.026	1.026	NO	80.5		0.0157
12	12	Benz(a)anthracene	1.67e6	1.88e6	0.961	1.000	23.19	23.20	1.003	1.003	NO	92.6		0.0338
13	13	Chrysene	1.63e6	2.17e6	0.852	1.000	23.40	23.41	1.003	1.004	NO	87.9		0.0376
14	14	Benzo(b)fluoranthene	1.92e6	3.75e6	1.10	1.000	27.06	27.04	1.005	1.005	NO	92.6		0.0769
15	15	Benzo(k)fluoranthene	1.60e6	4.48e6	1.04	1.000	27.15	27.13	1.004	1.004	NO	68.8		0.0808
16	16	Benzo(e)pyrene	R	4.48e6	0.911	1.000	27.57		1.020		YES			0.0920
17	17	Benzo(a)pyrene	1.87e6	3.87e6	1.02	1.000	29.07	29.04	1.006	1.005	NO	95.2		0.0932
18	18	Perylene	ND	3.87e6	0.987	1.000	29.81		1.031		NO			0.0958
19	19	Indeno(1,2,3-c,d)pyrene	1.27e6	3.04e6	0.915	1.000	36.92	36.93	1.007	1.007	NO	91.3		0.248
20	20	Benzo(g,h,i)perylene	1.21e6	3.13e6	0.940	1.000	40.52	40.47	1.009	1.008	NO	82.6		0.306
21	21	Dibenz(a,h)anthracene	1.02e6	2.40e6	0.948	1.000	36.83	36.78	1.011	1.010	NO	89.6		0.297
22	22	d8-Naphthalene	2.46e6	1.77e6	1.20	1.000	10.12	10.12	0.848	0.848	NO	115	115	0.0135
23	23	d8-Acenaphthylene	1.74e6	1.77e6	0.905	1.000	14.33	14.34	1.201	1.202	NO	109	109	0.0165
24	24	d10-Acenaphthene	1.12e6	1.77e6	0.594	1.000	14.62	14.61	1.226	1.225	NO	107	107	0.0142
25	25	d10-Fluorene	1.08e6	1.77e6	0.563	1.000	15.86	15.85	1.330	1.329	NO	108	108	0.0125
26	26	d10-Phenanthrene	1.53e6	1.77e6	0.735	1.000	18.28	18.29	1.533	1.534	NO	117	117	0.0100
27	27	d10-Fluoranthene	2.77e6	1.77e6	1.29	1.000	20.33	20.33	0.977	0.977	NO	122	122	0.00908
28	28	d12-Benz(a)anthracene	1.88e6	1.77e6	0.900	1.000	23.11	23.13	1.110	1.111	NO	118	118	0.0159
29	29	d12-Chrysene	2.17e6	1.77e6	1.02	1.000	23.30	23.32	1.120	1.121	NO	120	120	0.0140
30	30	d12-Benzo(b)fluoranthene	3.75e6	1.26e6	1.18	1.000	26.83	26.92	0.907	0.911	NO	251	126	0.107
31	31	d12-Benzo(k)fluoranthene	4.48e6	1.26e6	1.50	1.000	26.94	27.03	0.911	0.914	NO	236	118	0.0841

750 ng/sample

1137 of 1215

Dataset: U:\VG11.PRO\Results\210401K2\210401K2-7.qld

Last Altered: Thursday, April 01, 2021 16:20:29 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:21:03 Pacific Daylight Time

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

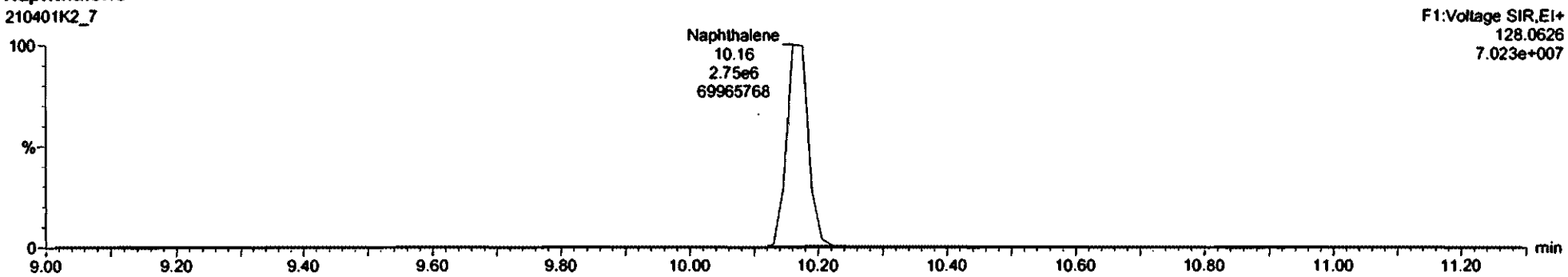
	#	Name	Resp	IS Resp	RRF	w/vol	Pred.RT	RT	Pred.RRT	RRT	Check R	Conc.	%Rec	DL
32	32	d12-Benzo(a)pyrene	3.87e6	1.26e6	1.24	1.000	28.83	28.90	0.975	0.977	NO	248	124	0.102
33	33	d12-Indeno(1,2,3-c,d)pyrene	3.04e6	1.26e6	1.02	1.000	36.87	36.67	1.247	1.240	NO	236	118	0.128
34	34	d12-Benzo(g,h,i)perylene	3.13e6	1.26e6	1.00	1.000	40.28	40.14	1.362	1.358	NO	247	123	0.130
35	35	d14-Dibenz(a,h)anthracene	2.40e6	1.26e6	0.765	1.000	36.64	36.42	1.239	1.232	NO	249	124	0.161
36	36	d10-Anthracene	1.50e6	1.26e6	0.989	1.000	18.37	18.35	1.541	1.539	NO	120	120	0.0304
37	37	d14-Terphenyl	2.65e6	2.77e6	0.576	1.000	20.70	20.72	1.018	1.019	NO	166	82.9	0.00666
38	38	d12-Benzo(e)pyrene	2.83e6	4.48e6	0.738	1.000	28.66	28.69	1.060	1.061	NO	171	85.7	0.0965
39	39	d10-1-Methylnaphthalene	1.48e6	1.48e6	1.00	1.000	11.93	11.93	1.000	1.000	NO	100	100	0.0139
40	40	d10-Pyrene	1.77e6	1.77e6	1.00	1.000	20.81	20.81	1.000	1.000	NO	100	100	0.0117
41	41	d12-Perylene	1.26e6	1.26e6	1.00	1.000	29.59	29.57	1.000	1.000	NO	100	100	0.126

Dataset: Untitled

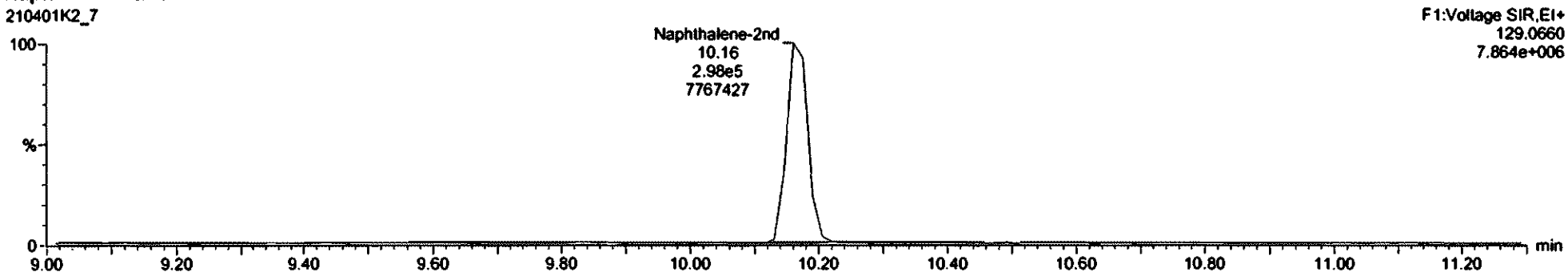
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

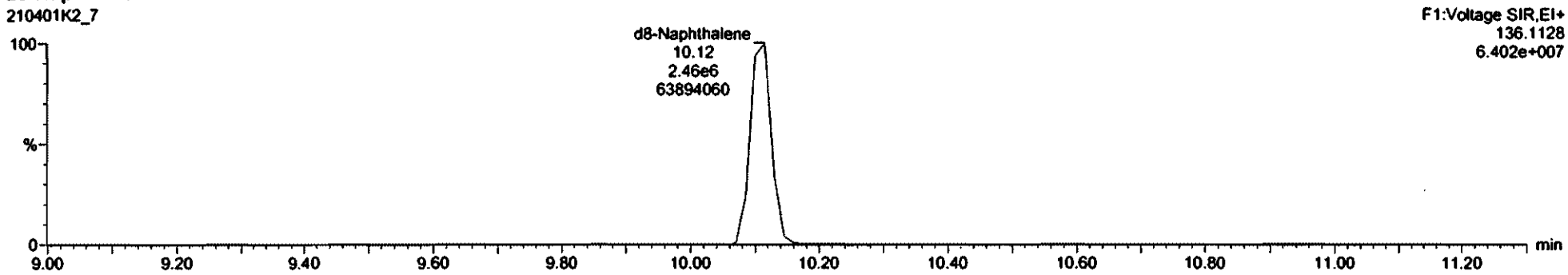
Naphthalene



Naphthalene-2nd



d8-Naphthalene



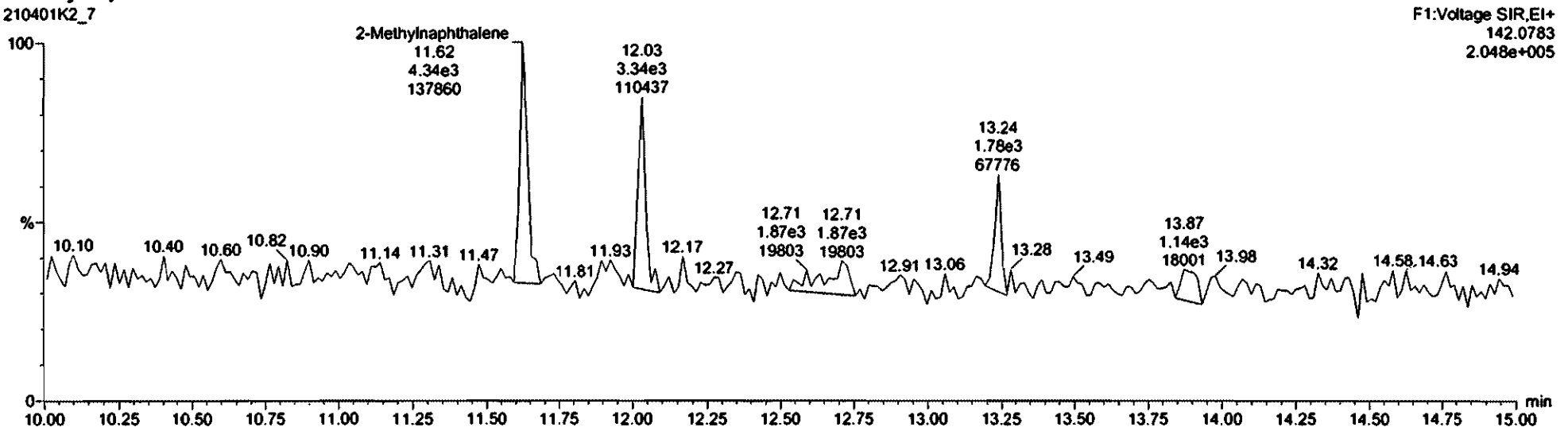
1139 of 1215

Dataset: Untitled

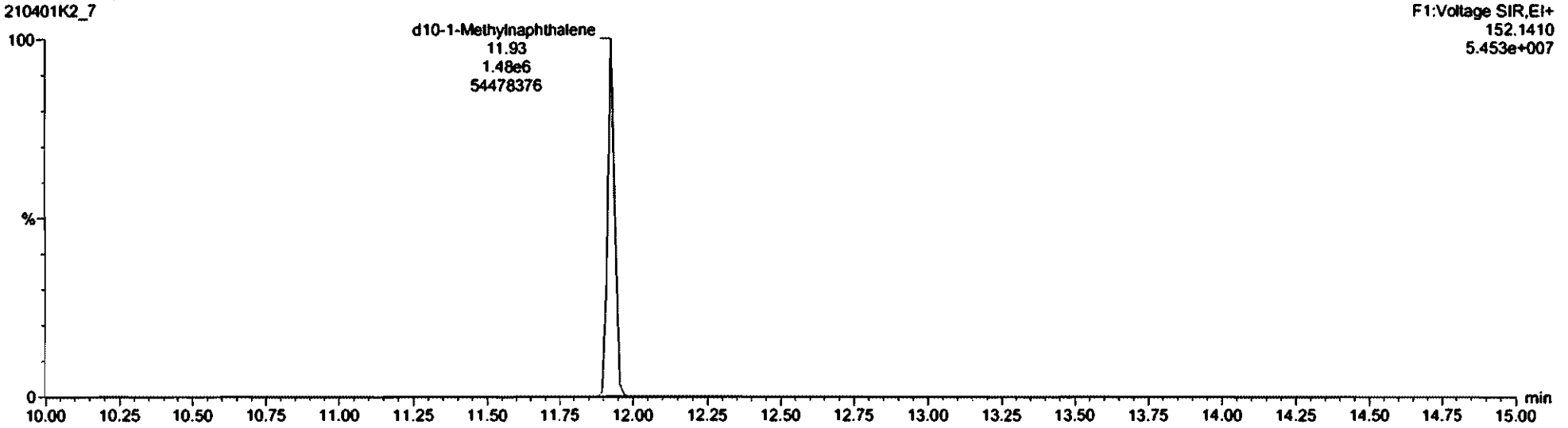
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

2-Methylnaphthalene



d10-1-Methylnaphthalene (RS)



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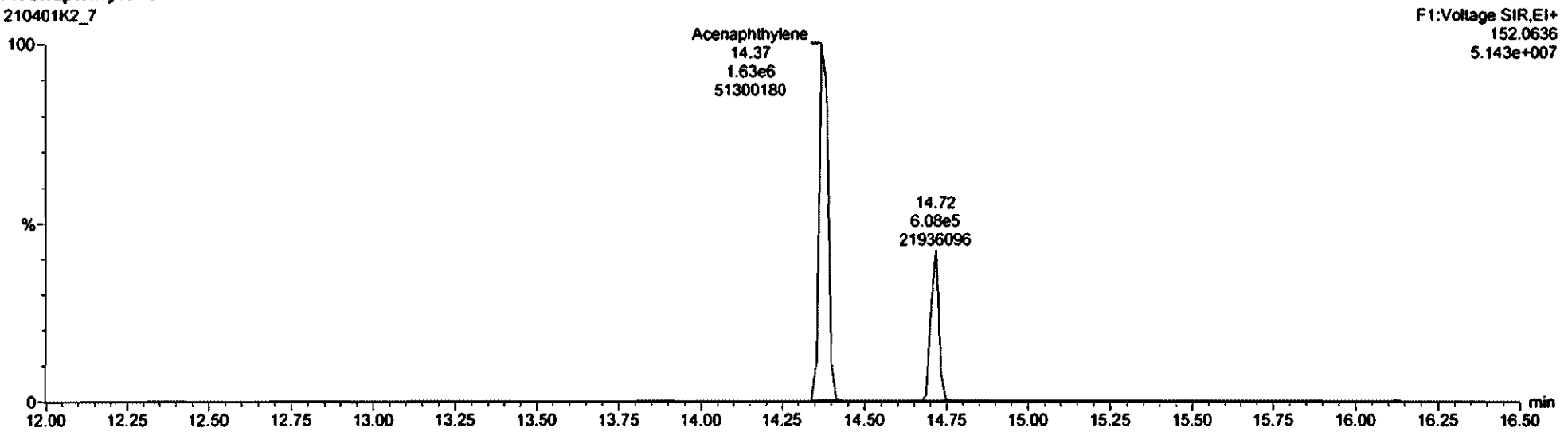
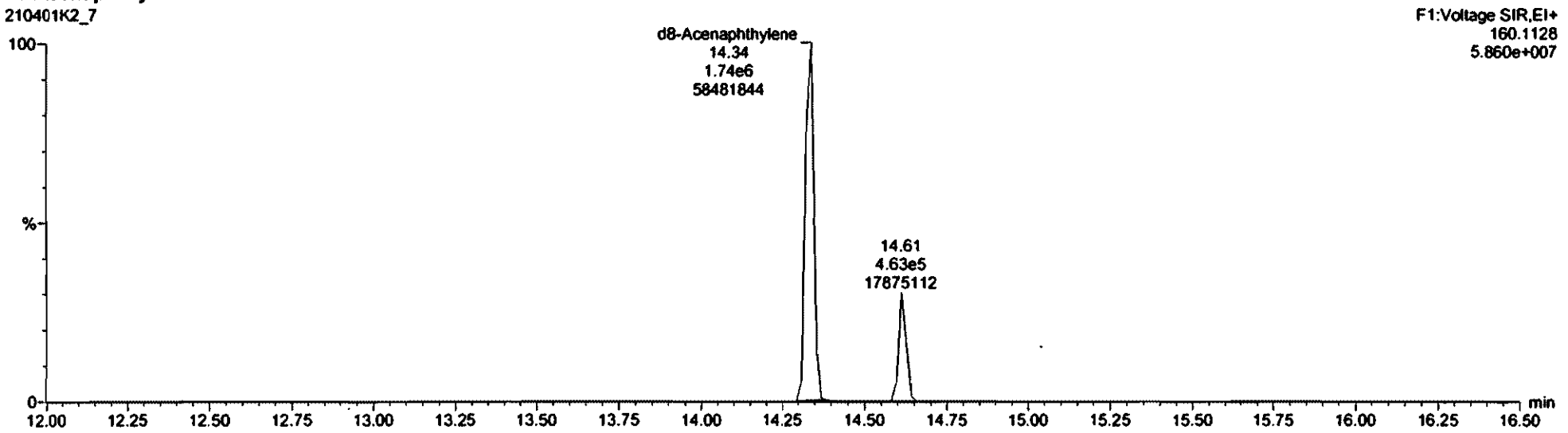
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Acenaphthylene



d8-Acenaphthylene



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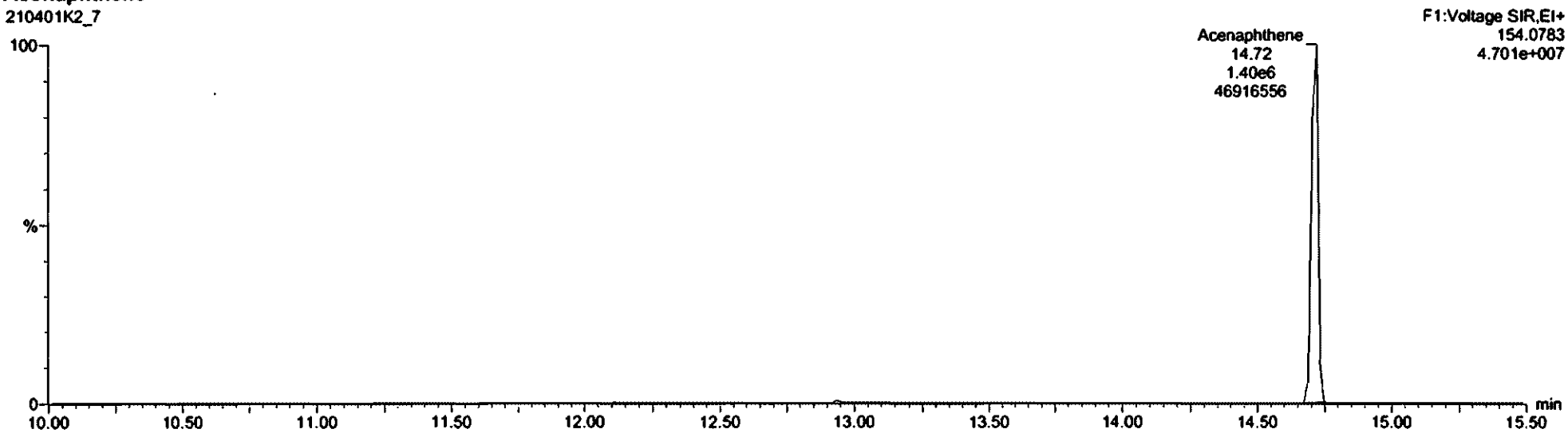
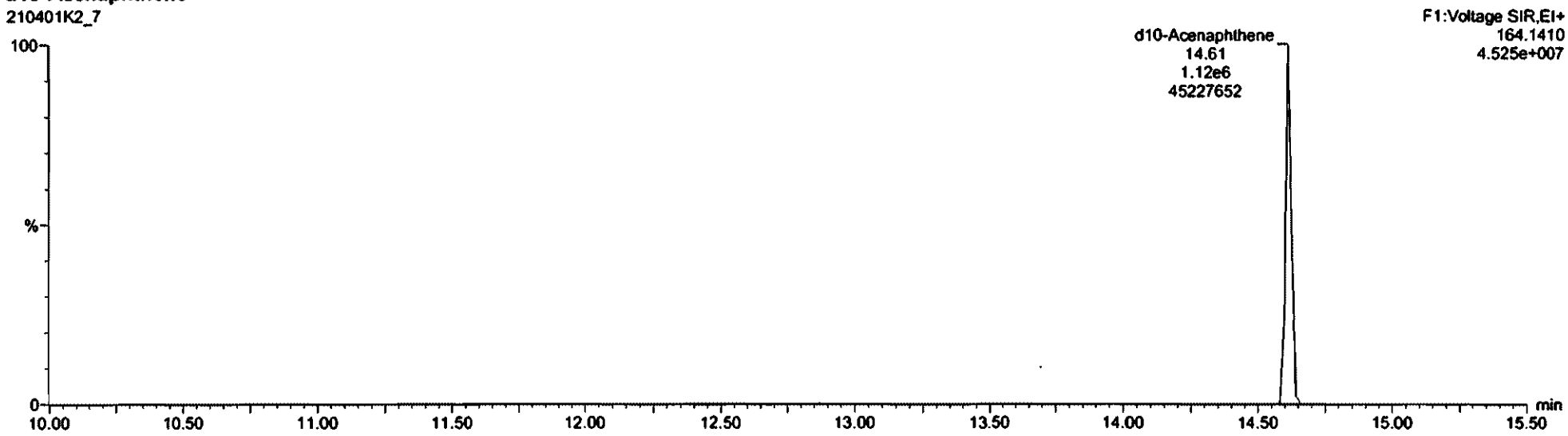
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Acenaphthene



d10-Acenaphthene



1142 of 1215

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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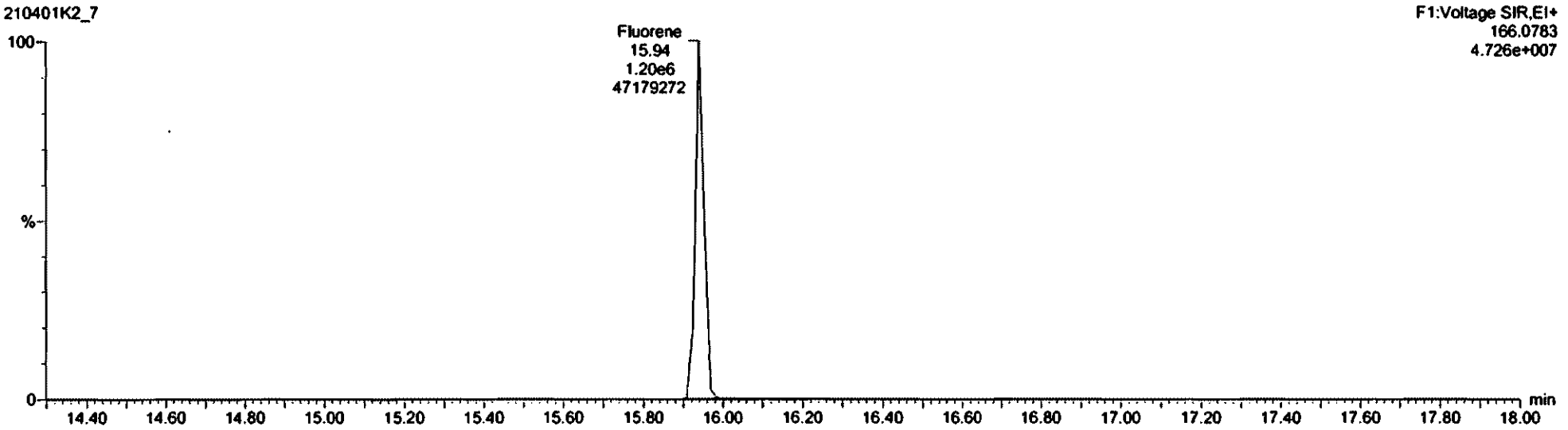
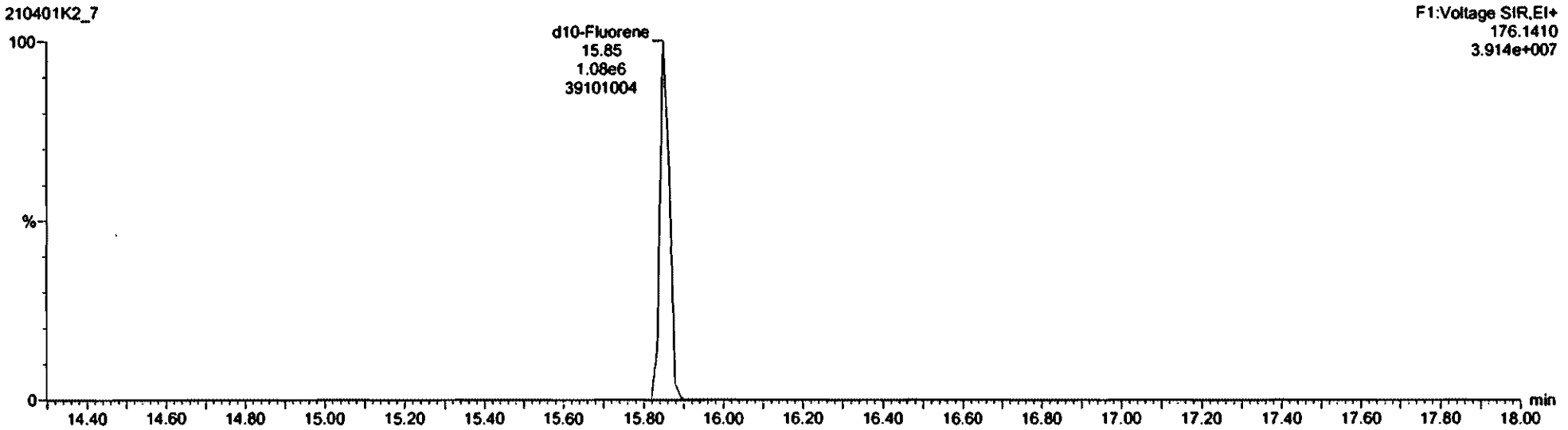
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Fluorene



d10-Fluorene



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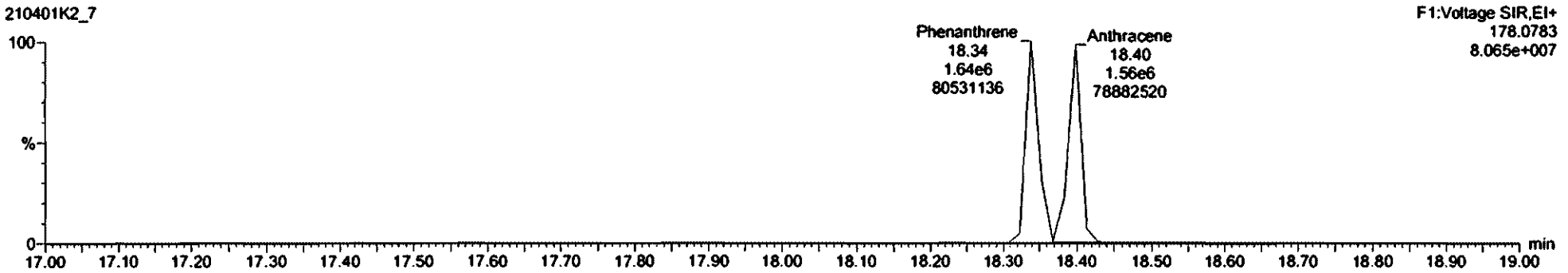
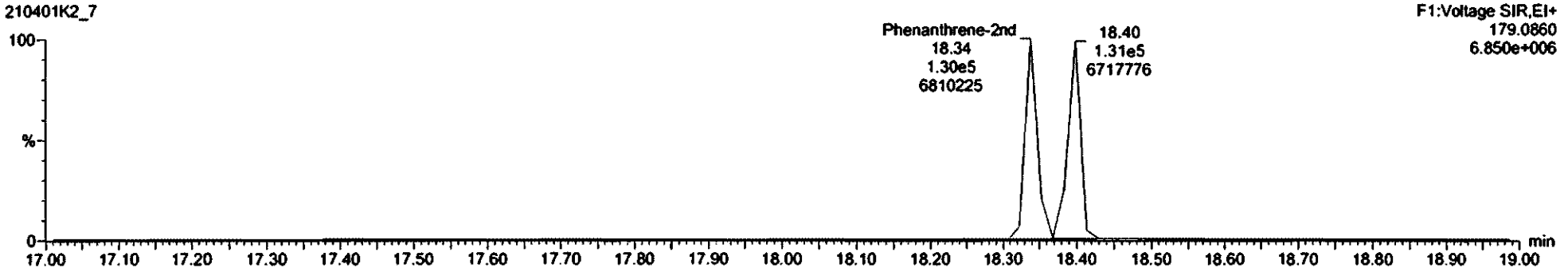
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

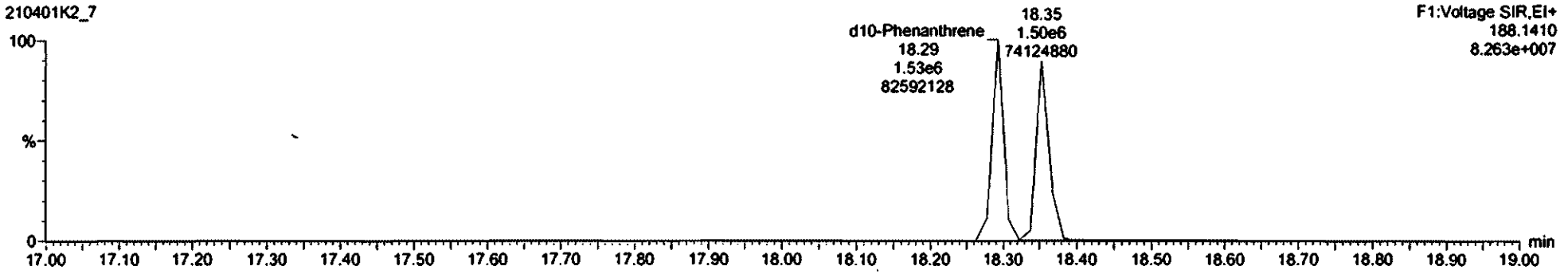
Phenanthrene; Anthrecene



Phenanthrene-2nd



d10-Phenanthrene; d10-Anthrecene (AS)



1144 of 1215

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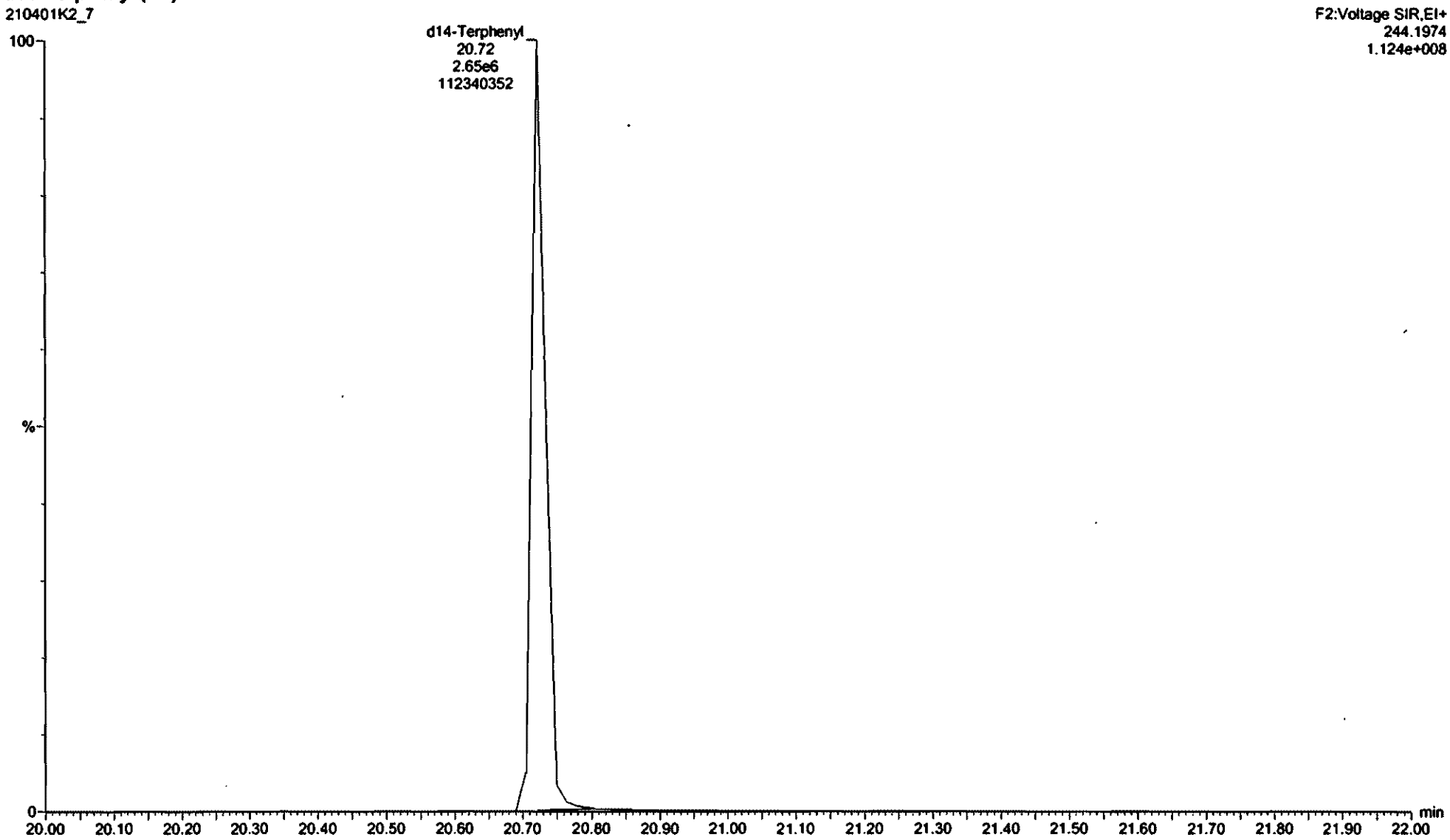
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

d14-Terphenyl (PS)



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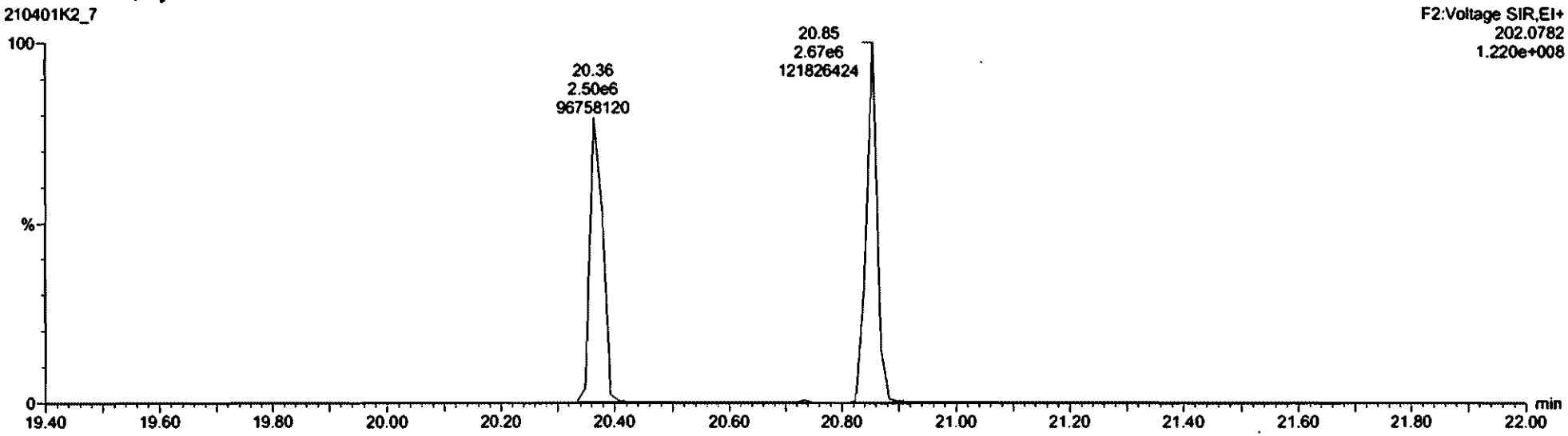
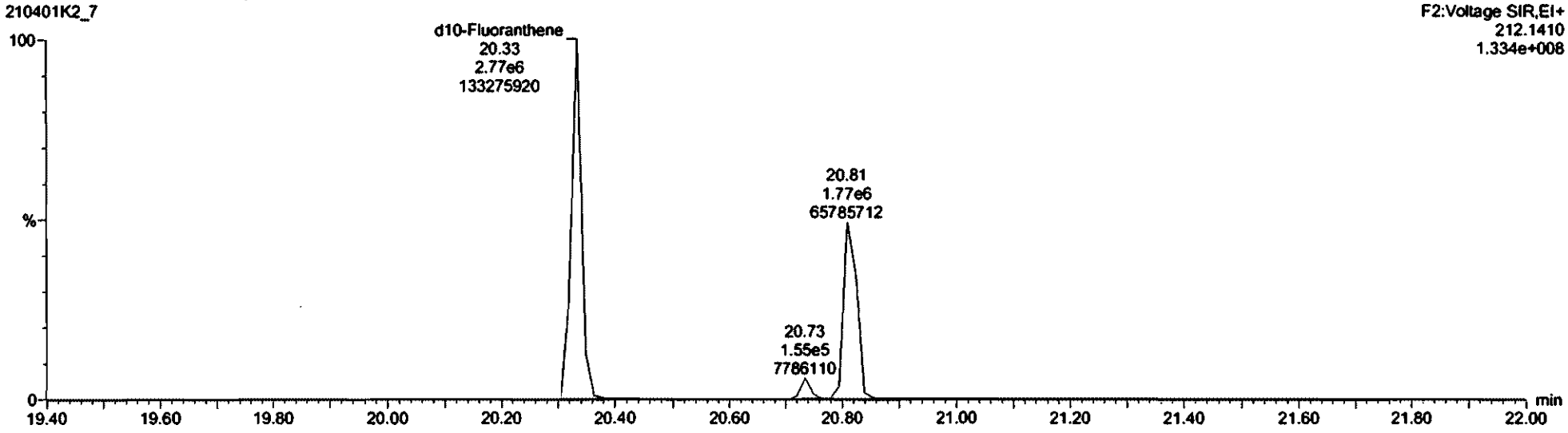
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Fluoranthene; Pyrene



d10-Fluoranthene; d10-Pyrene (RS)



1146 of 1215

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Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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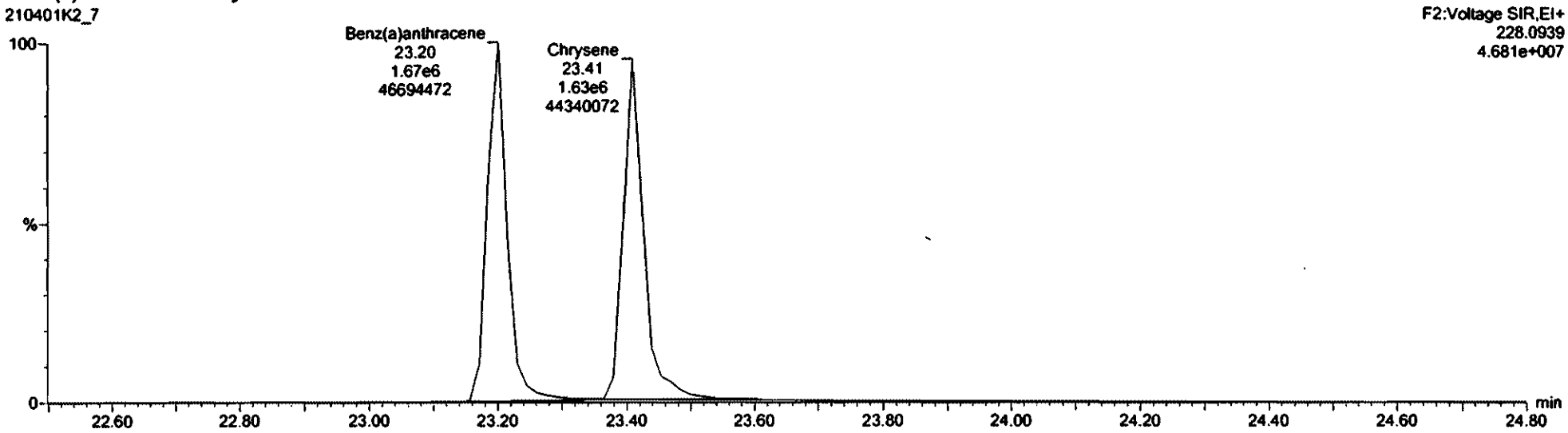
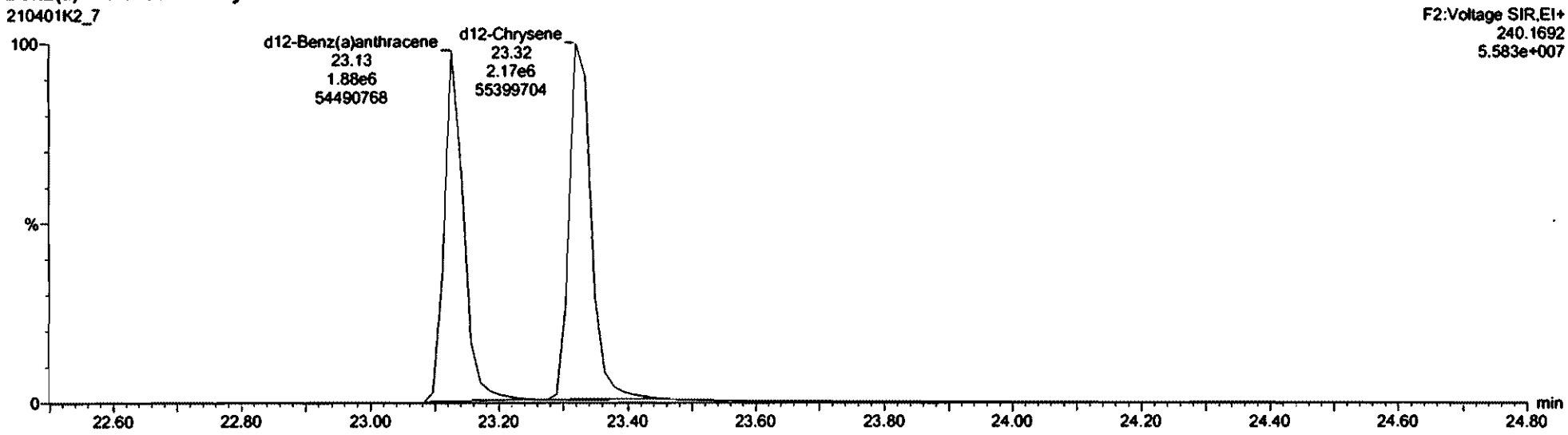
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Benz(a)Anthracene-Chrysene



Benz(a)Anthracene-Chrysene-Iso



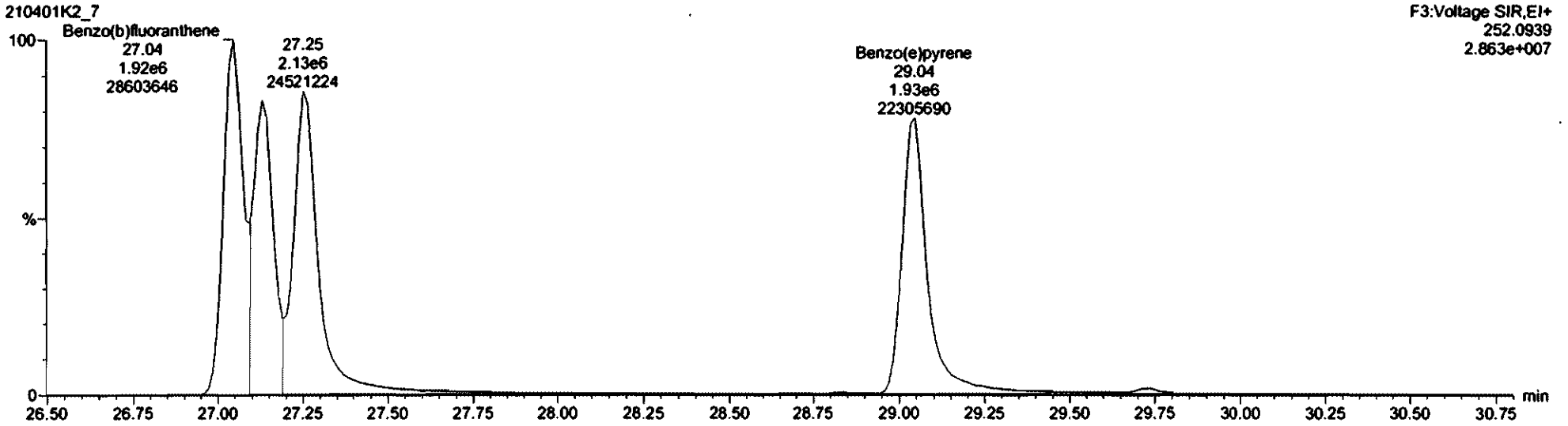
1147 of 1215

Dataset: Untitled

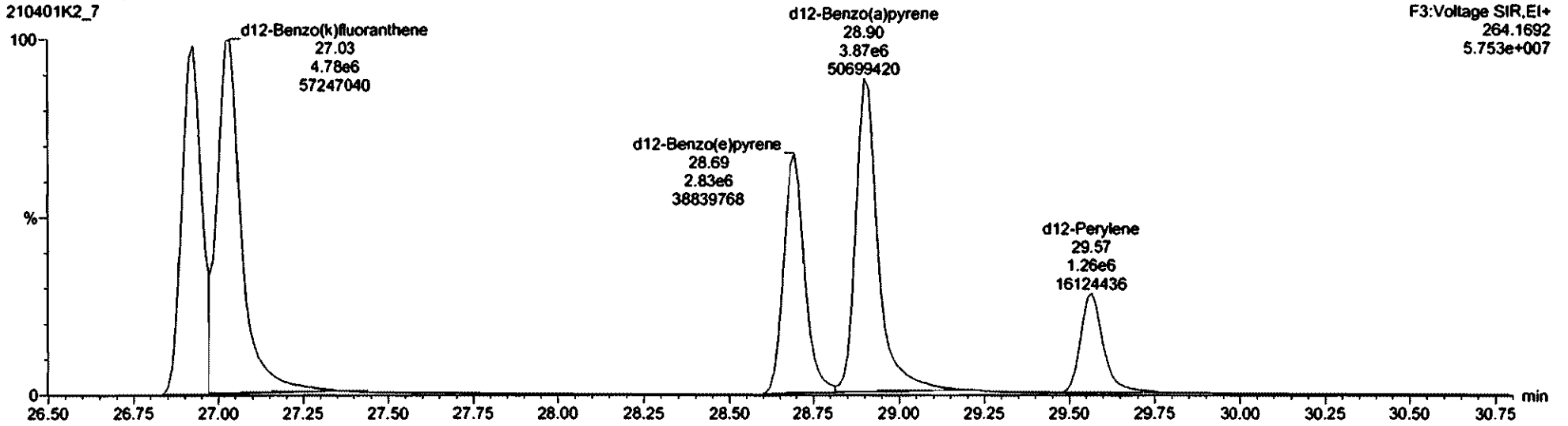
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Benzo-PAHs



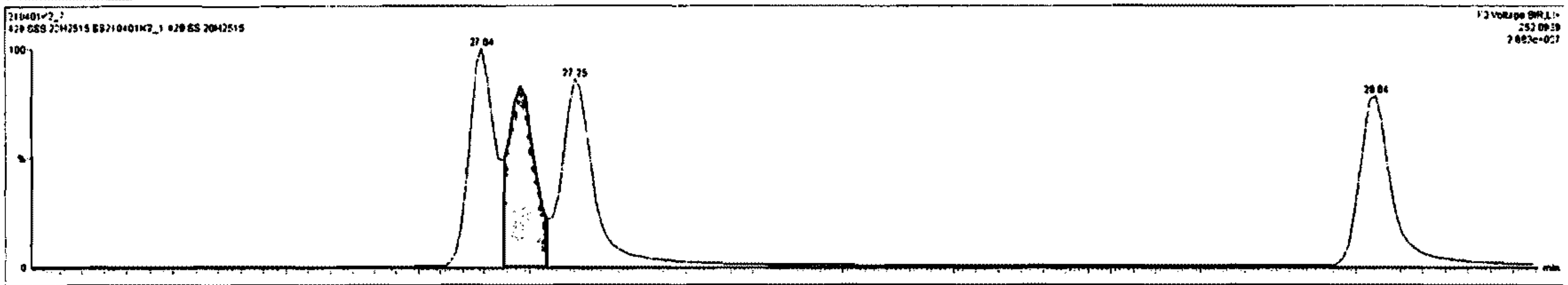
Benzo-Isotopes

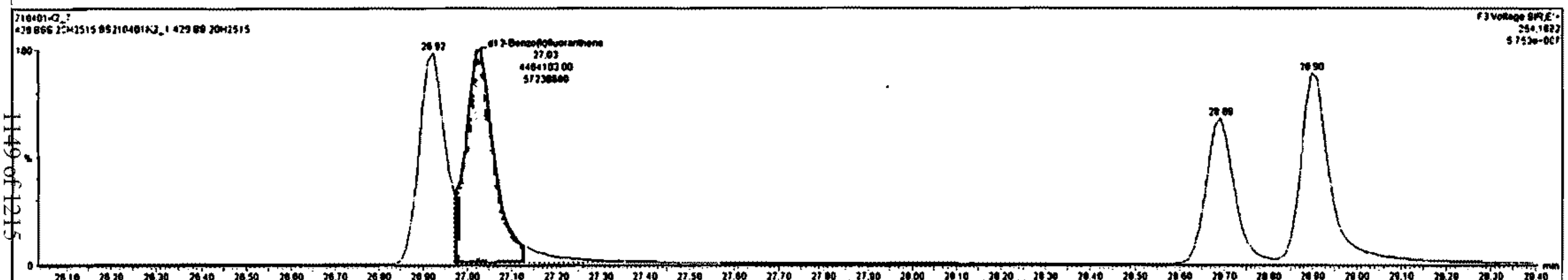


TargetLynx - untitled - [Chromatogram]

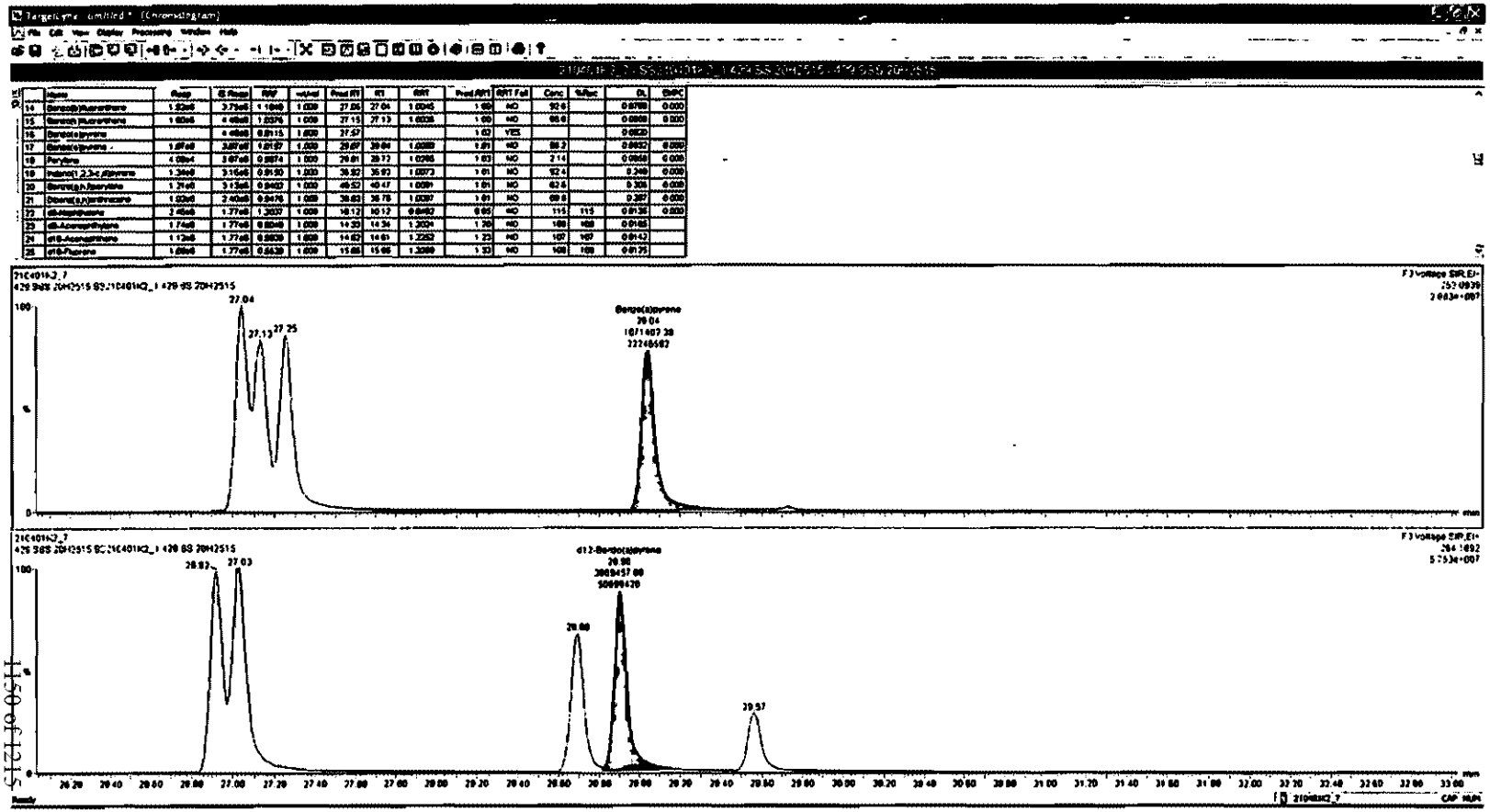
File Edit View Display Processing Window Help

	Name	Resp	IS Resp	RRF	wtd/vol	Pred.RT	RT	RRT	Pred.RRT	RRT Fail	Conc.	%Rec	DL	EMPC
14	Benzo(b)fluoranthene	1.92e6	3.75e6	1.1040	1.000	27.08	27.04	1.0045	1.00	NO	92.6		0.0799	0.000
15	Benzo(k)fluoranthene	1.80e6	4.48e6	1.0376	1.000	27.15	27.13	1.0056	1.00	NO	88.9		0.0808	0.000
16	Benzo(e)pyrene	1.93e6	4.48e6	0.9115	1.000	28.05	28.04	1.0744	1.07	NO	94.2		0.0820	0.000
17	Benzo(a)pyrene		3.87e6	1.0157	1.000	29.07			1.01	YES			0.0832	
18	Perylene	4.08e4	3.87e6	0.9874	1.000	29.81	29.72	1.0086	1.00	NO	2.14		0.0808	0.000
19	Indeno(1,2,3-c,d)pyrene	1.34e6	3.18e6	0.9150	1.000	36.97	36.80	1.0073	1.01	NO	92.4		0.240	0.000
20	Benzo(g,h,i)perylene	1.21e6	3.13e6	0.9402	1.000	40.52	40.47	1.0081	1.01	NO	87.6		0.306	0.000
21	Dibenz(a,h)anthracene	1.02e6	2.40e6	0.9476	1.000	36.83	36.78	1.0087	1.01	NO	89.6		0.297	0.000
22	d8-Naphthalene	2.48e6	1.77e6	1.2027	1.000	10.12	10.12	0.8482	0.85	NO	115	115	0.0135	0.000
23	d8-Acenaphthylene	1.74e6	1.77e6	0.8040	1.000	14.33	14.34	1.2024	1.20	NO	109	109	0.0185	
24	d10-Acenaphthene	1.13e6	1.77e6	0.5808	1.000	14.82	14.85	1.2252	1.23	NO	107	107	0.0142	
25	d10-Fluorene	1.08e6	1.77e6	0.5820	1.000	15.86	15.85	1.3288	1.33	NO	109	109	0.0125	





Ready

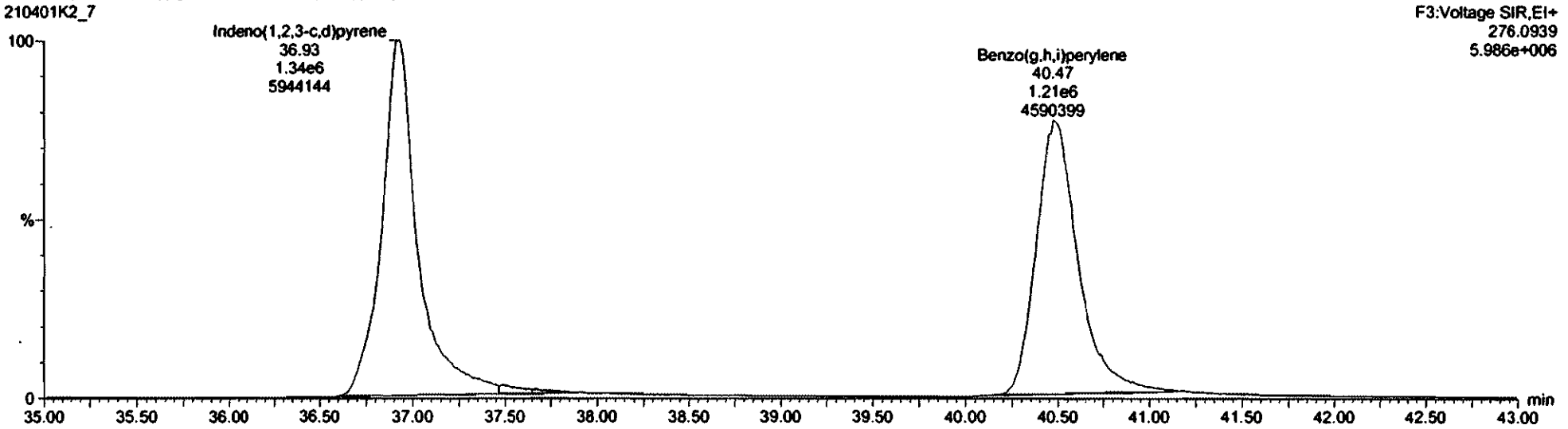

27.04
27.13
27.25
Benzo(b)perylene
29.04
29.82
27.03
d12-Benzo(b)perylene
29.00
29.57

Dataset: Untitled

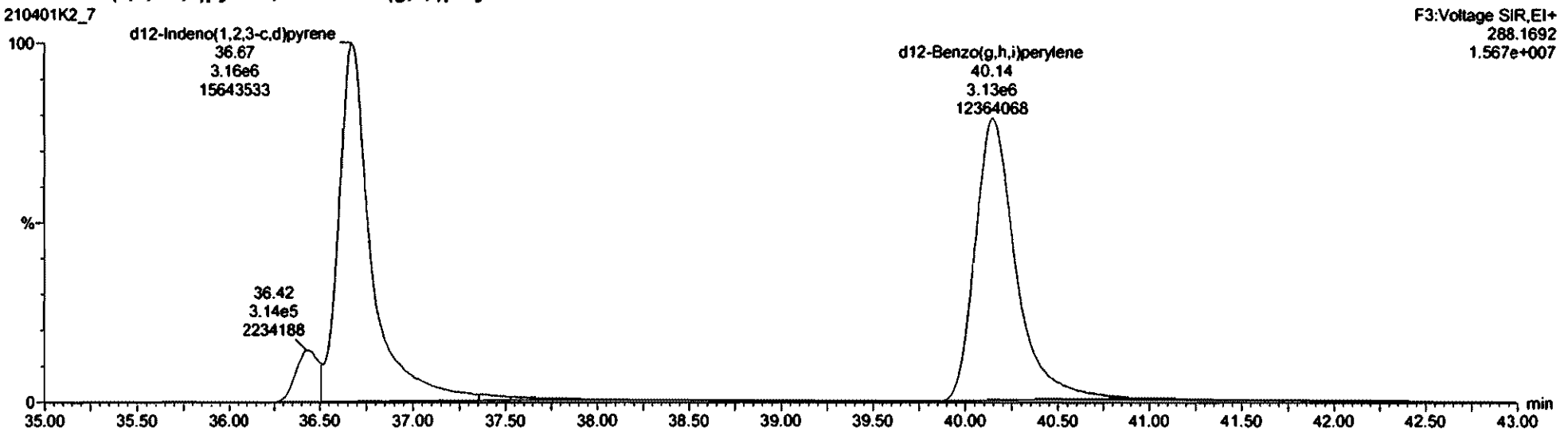
Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
Printed: Thursday, April 01, 2021 16:24:39 Pacific Daylight Time

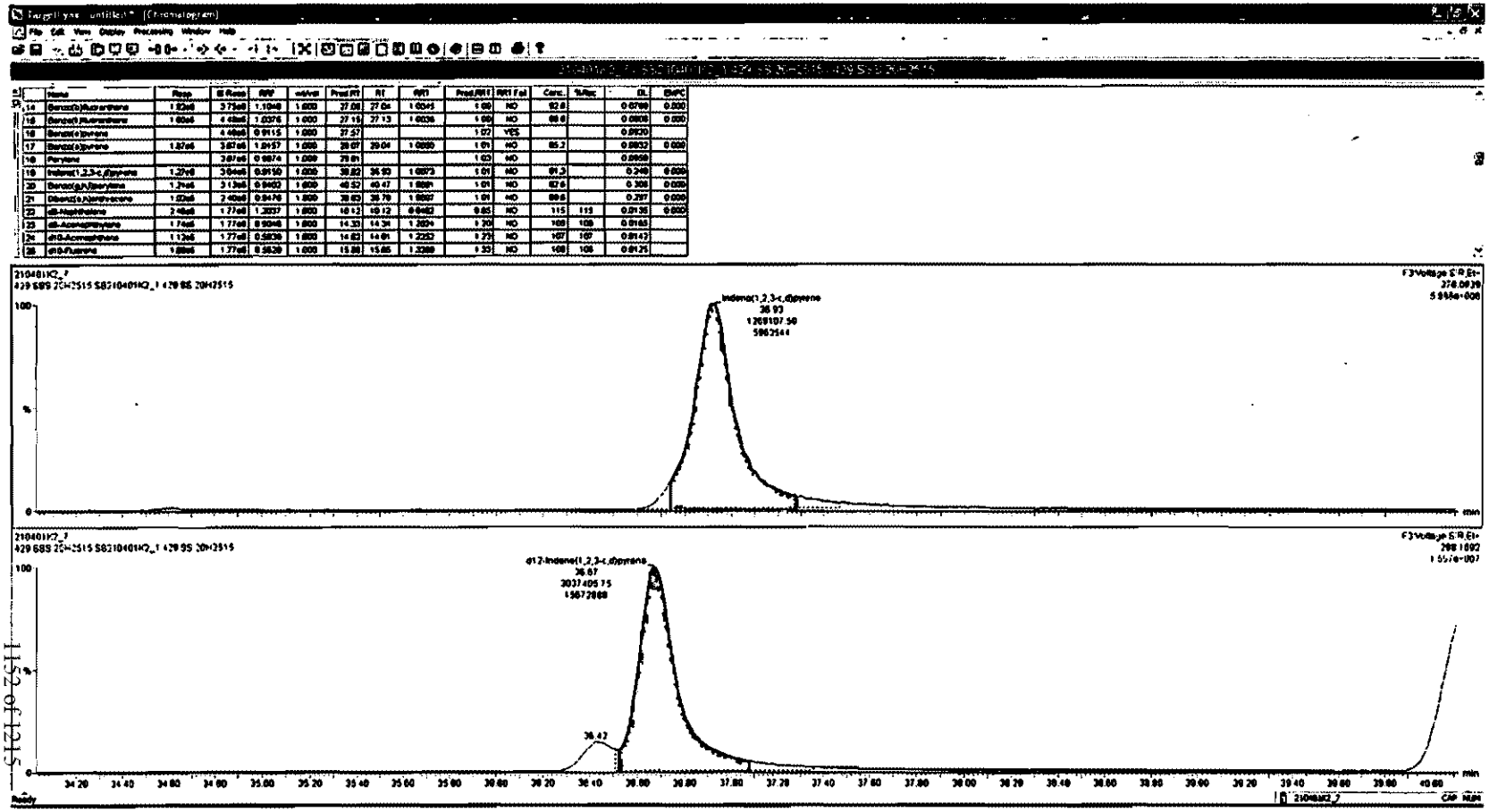
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Indeno(1,2,3-c,d)pyrene; Benzo(g,h,i)perylene



d12-Indeno(1,2,3-c,d)pyrene; d12-Benzo(g,h,i)perylene




Indeno(1,2,3-cd)pyrene
36.93
1269107.50
5962544
d12-Indeno(1,2,3-cd)pyrene
36.67
3037405.75
15672868
36.42
min

Dataset: Untitled

Last Altered: Thursday, April 01, 2021 16:21:46 Pacific Daylight Time
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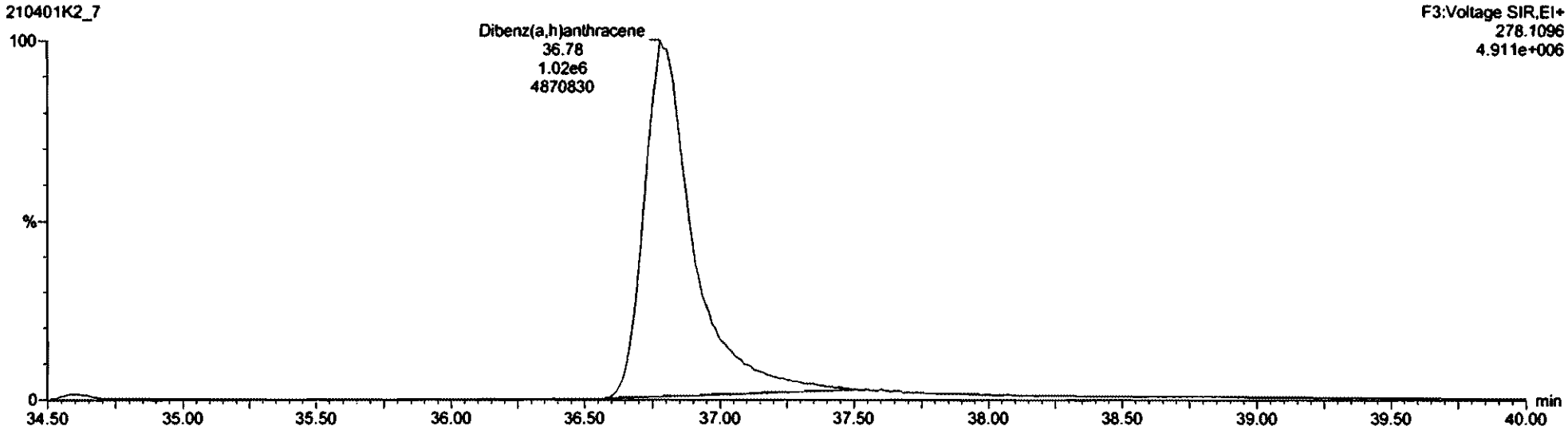
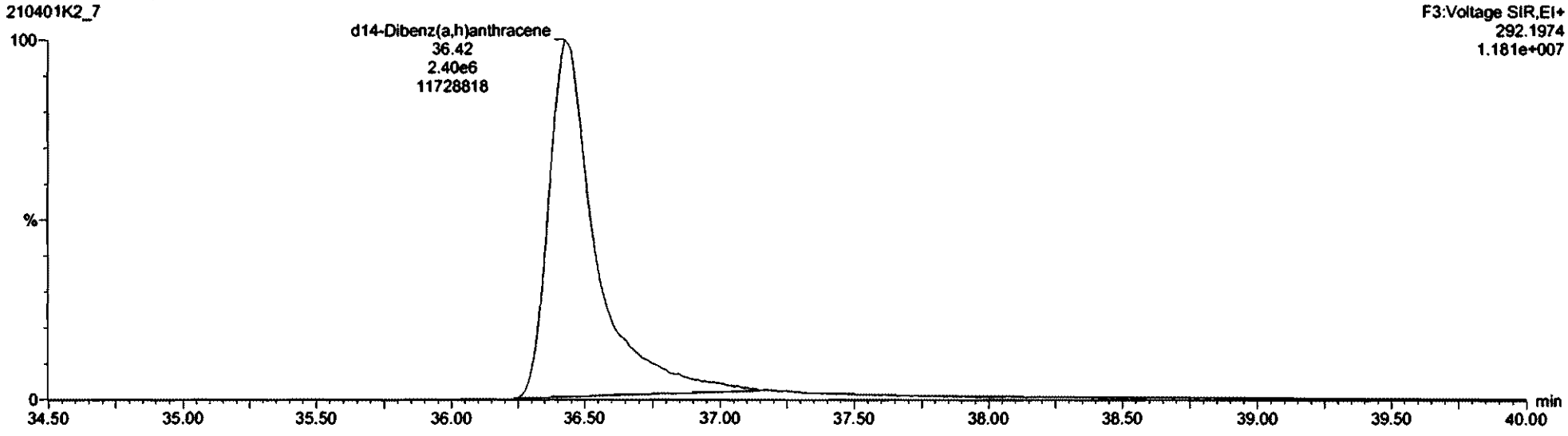
Name: 210401K2_7, Date: 01-Apr-2021, Time: 14:17:38, ID: SS210401K2_1 429 SS 20H2515, Description: 429 SSS 20H2515

Dibenz(a,h)anthracene



d14-Dibenz(a,h)anthracene



1153 of 1215

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 1C22044

Project: 21-0883 All American Asphalt

Attn: Charles Figueroa

Client: Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Report Date: 4/09/2021
Received Date: 3/22/2021
Turnaround Time: Normal
Phones: (714) 889-4000
Fax: (714) 889-7030
P.O. #: 21-0883
Billing Code:

DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • ISO17025 ANAB #L2457.01 • LACSD #10143 • NJ-DEP #CA015

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Charles Figueroa,

Enclosed are the results of analyses for samples received 3/22/21 with the Chain-of-Custody document. The samples were received in good condition, at 22.1 °C. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:

Brandon Gee
Operations Manager/Senior PM

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Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
M436 - CAU Inlet - Run 1, Alias: M436-Filter	Client	1C22044-01	Filter	03/17/21 15:00	
M436 - CAU Inlet - Run 1, Alias: M436-Knockout	Client	1C22044-04	Filter	03/17/21 15:00	
M436 - CAU Inlet - Run 1, Alias: M436-KMnO4	Client	1C22044-05	Filter	03/17/21 15:00	
M436 - CAU Inlet - Run 1, Alias: M436-HCL Rinse	Client	1C22044-06	Filter	03/17/21 15:00	
M436 - CAU Inlet - Run 2, Alias: M436-Filter	Client	1C22044-07	Filter	03/18/21 14:00	
M436 - CAU Inlet - Run 2, Alias: M436-Knockout	Client	1C22044-10	Filter	03/18/21 14:00	
M436 - CAU Inlet - Run 2, Alias: M436-KMnO4	Client	1C22044-11	Filter	03/18/21 14:00	
M436 - CAU Inlet - Run 2, Alias: M436-HCL Rinse	Client	1C22044-12	Filter	03/18/21 14:00	
M436 - CAU Inlet - Run 3, Alias: M436-Filter	Client	1C22044-13	Filter	03/19/21 14:00	
M436 - CAU Inlet - Run 3, Alias: M436-Knockout	Client	1C22044-16	Filter	03/19/21 14:00	
M436 - CAU Inlet - Run 3, Alias: M436-KMnO4	Client	1C22044-17	Filter	03/19/21 14:00	
M436 - CAU Inlet - Run 3, Alias: M436-HCL Rinse	Client	1C22044-18	Filter	03/19/21 14:00	
M436 - CAU Outlet - Run 1, Alias: M436-Filter	Client	1C22044-19	Filter	03/17/21 15:00	
M436 - CAU Outlet - Run 1, Alias: M436-Knockout	Client	1C22044-22	Filter	03/17/21 15:00	
M436 - CAU Outlet - Run 1, Alias: M436-KMnO4	Client	1C22044-23	Filter	03/17/21 15:00	
M436 - CAU Outlet - Run 1, Alias: M436-HCL Rinse	Client	1C22044-24	Filter	03/17/21 15:00	
M436 - CAU Outlet - Run 2, Alias: M436-Filter	Client	1C22044-25	Filter	03/18/21 14:00	
M436 - CAU Outlet - Run 2, Alias: M436-Knockout	Client	1C22044-28	Filter	03/18/21 14:00	
M436 - CAU Outlet - Run 2, Alias: M436-KMnO4	Client	1C22044-29	Filter	03/18/21 14:00	
M436 - CAU Outlet - Run 2, Alias: M436-HCL Rinse	Client	1C22044-30	Filter	03/18/21 14:00	
M436 - CAU Outlet - Run 3, Alias: M436-Filter	Client	1C22044-31	Filter	03/19/21 14:00	
M436 - CAU Outlet - Run 3, Alias: M436-Knockout	Client	1C22044-34	Filter	03/19/21 14:00	
M436 - CAU Outlet - Run 3, Alias: M436-KMnO4	Client	1C22044-35	Filter	03/19/21 14:00	
M436 - CAU Outlet - Run 3, Alias: M436-HCL Rinse	Client	1C22044-36	Filter	03/19/21 14:00	
M436 - Field Blank / Inlet, Alias: M436-Filter	Client	1C22044-37	Filter	03/19/21 15:00	
M436 - Field Blank / Inlet, Alias: M436-Knockout	Client	1C22044-40	Filter	03/19/21 15:00	
M436 - Field Blank / Inlet, Alias: M436-KMnO4	Client	1C22044-41	Filter	03/19/21 15:00	
M436 - Field Reagent Blanks, Alias: M436-Filter	Client	1C22044-42	Filter	03/19/21 06:00	
M436 - Field Reagent Blanks, Alias: M436-Knockout	Client	1C22044-45	Filter	03/19/21 06:00	
M436 - Field Reagent Blanks, Alias: M436-KMnO4	Client	1C22044-46	Filter	03/19/21 06:00	
M436 - Field Blank / Outlet, Alias: M436-Filter	Client	1C22044-47	Filter	03/19/21 15:00	
M436 - Field Blank / Outlet, Alias: M436-Knockout	Client	1C22044-50	Filter	03/19/21 15:00	
M436 - Field Blank / Outlet, Alias: M436-KMnO4	Client	1C22044-51	Filter	03/19/21 15:00	

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	ANAB ISO 17025
CARB 101 in Air			
Mercury, Total	7439-97-6	✓	

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Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported: 04/09/2021 15:50

Sample Results

Sample: M436 - CAU Inlet - Run 1, Alias: M436-Filter — Sampled: 03/17/21 15:00 by Client

1C22044-01 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	**0.0088**	0.00036	0.0046	ug/filter	1	03/31/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1C1714 **Preparation:** CARB 436			**Prepared:** 03/29/21 09:23				**Analyst:** ALN
Aluminum, Total	**100**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	M-04
Arsenic, Total	**0.88**	0.27	2.7	ug/filter	5	04/05/21	M-04, J
Barium, Total	**5.3**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	M-04
Cadmium, Total	**0.17**	0.14	2.7	ug/filter	5	04/05/21	M-04, J
Chromium, Total	**3.7**	0.14	0.54	ug/filter	1	04/05/21	
Cobalt, Total	**0.10**	0.054	0.54	ug/filter	1	04/05/21	J
Copper, Total	**4.5**	1.4	5.4	ug/filter	1	04/05/21	J
Lead, Total	**1.7**	0.11	0.54	ug/filter	1	04/07/21	
Manganese, Total	**8.2**	0.14	0.54	ug/filter	1	04/05/21	
Nickel, Total	**4.4**	0.11	0.54	ug/filter	1	04/05/21	
Phosphorus, Total	**32**	3.1	68	ug/filter	5	04/05/21	M-04, J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/05/21	M-04
Silver, Total	**0.88**	0.020	0.20	ug/filter	1	04/05/21	
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/05/21	
Zinc, Total	**9.8**	2.4	22	ug/filter	4	04/06/21	M-04, J

Sample: M436 - CAU Inlet - Run 1, Alias: M436-Knockout — Sampled: 03/17/21 15:00 by Client

1C22044-04 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	**0.0047**	0.00076	0.0098	ug/filter	1	03/29/21	J

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

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Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Inlet - Run 1, Alias: M436-KMnO4 — Sampled: 03/17/21 15:00 by Client

1C22044-05 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	0.044	0.0039	0.050	ug/filter	1	03/29/21	J

Sample: M436 - CAU Inlet - Run 1, Alias: M436-HCL Rinse — Sampled: 03/17/21 15:00 by Client

1C22044-06 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	1.9	0.0078	0.10	ug/filter	2	03/31/21	

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Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Inlet - Run 2, Alias: M436-Filter — Sampled: 03/18/21 14:00 by Client

1C22044-07 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	**0.0054**	0.00037	0.0048	ug/filter	1	03/31/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1C1714 **Preparation:** CARB 436			**Prepared:** 03/29/21 09:23				**Analyst:** ALN
Aluminum, Total	**94**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	M-04
Arsenic, Total	**0.40**	0.27	2.7	ug/filter	5	04/05/21	M-04, J
Barium, Total	**6.6**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	M-04
Cadmium, Total	**0.16**	0.14	2.7	ug/filter	5	04/05/21	M-04, J
Chromium, Total	**2.5**	0.14	0.54	ug/filter	1	04/05/21	
Cobalt, Total	**0.059**	0.054	0.54	ug/filter	1	04/05/21	J
Copper, Total	**2.5**	1.4	5.4	ug/filter	1	04/05/21	J
Lead, Total	**0.53**	0.11	0.54	ug/filter	1	04/07/21	J
Manganese, Total	**4.9**	0.14	0.54	ug/filter	1	04/05/21	
Nickel, Total	**3.3**	0.11	0.54	ug/filter	1	04/05/21	
Phosphorus, Total	**32**	3.1	68	ug/filter	5	04/05/21	M-04, J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/05/21	M-04
Silver, Total	**0.36**	0.020	0.20	ug/filter	1	04/05/21	
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/05/21	
Zinc, Total	**8.3**	2.4	22	ug/filter	4	04/06/21	M-04, J

Sample: M436 - CAU Inlet - Run 2, Alias: M436-Knockout — Sampled: 03/18/21 14:00 by Client

1C22044-10 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	**0.0019**	0.00075	0.0096	ug/filter	1	03/29/21	J

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Inlet - Run 2, Alias: M436-KMnO4 — Sampled: 03/18/21 14:00 by Client

1C22044-11 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	**0.86**	0.0039	0.050	ug/filter	1	03/29/21	

Sample: M436 - CAU Inlet - Run 2, Alias: M436-HCL Rinse — Sampled: 03/18/21 14:00 by Client

1C22044-12 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	03/31/21	

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Inlet - Run 3, Alias: M436-Filter — Sampled: 03/19/21 14:00 by Client

1C22044-13 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	**0.0058**	0.00036	0.0046	ug/filter	1	03/31/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1C1714 **Preparation:** CARB 436			**Prepared:** 03/29/21 09:23				**Analyst:** ALN
Aluminum, Total	**96**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	M-04
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	M-04
Barium, Total	**7.3**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	M-04
Cadmium, Total	ND	0.14	2.7	ug/filter	5	04/05/21	M-04
Chromium, Total	**2.0**	0.14	0.54	ug/filter	1	04/05/21	
Cobalt, Total	**0.054**	0.054	0.54	ug/filter	1	04/05/21	J
Copper, Total	**9.2**	1.4	5.4	ug/filter	1	04/05/21	
Lead, Total	**0.45**	0.11	0.54	ug/filter	1	04/07/21	J
Manganese, Total	**2.8**	0.14	0.54	ug/filter	1	04/05/21	
Nickel, Total	**2.5**	0.11	0.54	ug/filter	1	04/05/21	
Phosphorus, Total	**26**	3.1	68	ug/filter	5	04/05/21	M-04, J
Selenium, Total	**0.28**	0.27	2.7	ug/filter	5	04/05/21	M-04, J
Silver, Total	**0.19**	0.020	0.20	ug/filter	1	04/05/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/05/21	
Zinc, Total	**9.6**	2.4	22	ug/filter	4	04/06/21	M-04, J

Sample: M436 - CAU Inlet - Run 3, Alias: M436-Knockout — Sampled: 03/19/21 14:00 by Client

1C22044-16 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	ND	0.00080	0.010	ug/filter	1	03/29/21	

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Inlet - Run 3, Alias: M436-KMnO4 — Sampled: 03/19/21 14:00 by Client

1C22044-17 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	**1.6**	0.0039	0.050	ug/filter	1	03/29/21	

Sample: M436 - CAU Inlet - Run 3, Alias: M436-HCL Rinse — Sampled: 03/19/21 14:00 by Client

1C22044-18 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	**0.12**	0.0039	0.050	ug/filter	1	03/31/21	

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Project Number: 21-0883 All American Asphalt

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Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 1, Alias: M436-Filter — Sampled: 03/17/21 15:00 by Client

1C22044-19 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30			**Analyst:** mem	
Mercury, Total	**0.034**	0.00035	0.0045	ug/filter	1	04/06/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1D0017 **Preparation:** CARB 436			**Prepared:** 04/01/21 10:10			**Analyst:** ALN	
Aluminum, Total	**110**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	
Barium, Total	**8.4**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	
Cadmium, Total	**0.30**	0.14	2.7	ug/filter	5	04/05/21	J
Chromium, Total	**4.4**	0.14	0.54	ug/filter	1	04/06/21	
Cobalt, Total	**0.32**	0.054	0.54	ug/filter	1	04/06/21	J
Copper, Total	**2.6**	1.4	5.4	ug/filter	1	04/06/21	J
Lead, Total	**0.61**	0.11	0.54	ug/filter	1	04/07/21	
Manganese, Total	**16**	0.14	0.54	ug/filter	1	04/06/21	
Nickel, Total	**3.6**	0.11	0.54	ug/filter	1	04/06/21	
Phosphorus, Total	**24**	3.1	68	ug/filter	5	04/05/21	J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/09/21	
Silver, Total	**0.16**	0.020	0.20	ug/filter	1	04/06/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/06/21	
Zinc, Total	**7.0**	2.4	22	ug/filter	4	04/07/21	J

Sample: M436 - CAU Outlet - Run 1, Alias: M436-Knockout — Sampled: 03/17/21 15:00 by Client

1C22044-22 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45			**Analyst:** mem	
Mercury, Total	ND	0.00076	0.0098	ug/filter	1	04/05/21	

Almega Environmental & Technical Services
10602 Walker St
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Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 1, Alias: M436-KMnO4 — Sampled: 03/17/21 15:00 by Client

1C22044-23 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	04/05/21	

Sample: M436 - CAU Outlet - Run 1, Alias: M436-HCL Rinse — Sampled: 03/17/21 15:00 by Client

1C22044-24 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**1.9**	0.0039	0.050	ug/filter	1	04/06/21	

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Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 2, Alias: M436-Filter — Sampled: 03/18/21 14:00 by Client

1C22044-25 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**0.028**	0.00037	0.0047	ug/filter	1	04/06/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1D0017 **Preparation:** CARB 436			**Prepared:** 04/01/21 10:10				**Analyst:** ALN
Aluminum, Total	**110**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	
Barium, Total	**6.7**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	
Cadmium, Total	**0.20**	0.14	2.7	ug/filter	5	04/05/21	J
Chromium, Total	**1.9**	0.14	0.54	ug/filter	1	04/06/21	
Cobalt, Total	**0.16**	0.054	0.54	ug/filter	1	04/06/21	J
Copper, Total	**3.5**	1.4	5.4	ug/filter	1	04/06/21	J
Lead, Total	**0.55**	0.11	0.54	ug/filter	1	04/07/21	
Manganese, Total	**21**	0.14	0.54	ug/filter	1	04/06/21	
Nickel, Total	**2.6**	0.11	0.54	ug/filter	1	04/06/21	
Phosphorus, Total	**26**	3.1	68	ug/filter	5	04/05/21	J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/09/21	
Silver, Total	**0.18**	0.020	0.20	ug/filter	1	04/06/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/06/21	
Zinc, Total	**10**	2.4	22	ug/filter	4	04/07/21	J

Sample: M436 - CAU Outlet - Run 2, Alias: M436-Knockout — Sampled: 03/18/21 14:00 by Client

1C22044-28 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	**0.035**	0.00078	0.010	ug/filter	1	04/05/21	

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 2, Alias: M436-KMnO4 — Sampled: 03/18/21 14:00 by Client

1C22044-29 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	04/05/21	

Sample: M436 - CAU Outlet - Run 2, Alias: M436-HCL Rinse — Sampled: 03/18/21 14:00 by Client

1C22044-30 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**0.64**	0.0039	0.050	ug/filter	1	04/06/21	

Almega Environmental & Technical Services
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Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 3, Alias: M436-Filter — Sampled: 03/19/21 14:00 by Client

1C22044-31 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**0.031**	0.00035	0.0045	ug/filter	1	04/06/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1D0017 **Preparation:** CARB 436			**Prepared:** 04/01/21 10:10				**Analyst:** ALN
Aluminum, Total	**120**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	
Barium, Total	**8.2**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	
Cadmium, Total	**0.15**	0.14	2.7	ug/filter	5	04/05/21	J
Chromium, Total	**2.4**	0.14	0.54	ug/filter	1	04/06/21	
Cobalt, Total	**0.34**	0.054	0.54	ug/filter	1	04/06/21	J
Copper, Total	**9.6**	1.4	5.4	ug/filter	1	04/06/21	
Lead, Total	**1.3**	0.11	0.54	ug/filter	1	04/07/21	
Manganese, Total	**15**	0.14	0.54	ug/filter	1	04/06/21	
Nickel, Total	**3.6**	0.11	0.54	ug/filter	1	04/06/21	
Phosphorus, Total	**32**	3.1	68	ug/filter	5	04/05/21	J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/09/21	
Silver, Total	**0.073**	0.020	0.20	ug/filter	1	04/06/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/06/21	
Zinc, Total	**15**	2.4	22	ug/filter	4	04/07/21	J

Sample: M436 - CAU Outlet - Run 3, Alias: M436-Knockout — Sampled: 03/19/21 14:00 by Client

1C22044-34 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	**0.015**	0.00080	0.010	ug/filter	1	04/05/21	

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - CAU Outlet - Run 3, Alias: M436-KMnO4 — Sampled: 03/19/21 14:00 by Client

1C22044-35 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101				**Instr:** HG03			
Batch ID: W1D0095 **Preparation:** EPA 7470A				**Prepared:** 04/04/21 11:45			**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	04/05/21	

Sample: M436 - CAU Outlet - Run 3, Alias: M436-HCL Rinse — Sampled: 03/19/21 14:00 by Client

1C22044-36 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101				**Instr:** HG03			
Batch ID: W1D0096 **Preparation:** EPA 7470A				**Prepared:** 04/05/21 15:30			**Analyst:** mem
Mercury, Total	**1.0**	0.0039	0.050	ug/filter	1	04/06/21	

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Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - Field Blank / Inlet, Alias: M436-Filter — Sampled: 03/19/21 15:00 by Client

1C22044-37 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1796 **Preparation:** EPA 7470A			**Prepared:** 03/31/21 10:00				**Analyst:** mem
Mercury, Total	**0.037**	0.00035	0.0045	ug/filter	1	03/31/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1C1714 **Preparation:** CARB 436			**Prepared:** 03/29/21 09:23				**Analyst:** ALN
Aluminum, Total	**87**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	M-04
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	M-04
Barium, Total	**7.6**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	M-04
Cadmium, Total	**0.16**	0.14	2.7	ug/filter	5	04/05/21	M-04, J
Chromium, Total	**1.6**	0.14	0.54	ug/filter	1	04/05/21	
Cobalt, Total	**0.25**	0.054	0.54	ug/filter	1	04/05/21	J
Copper, Total	ND	1.4	5.4	ug/filter	1	04/05/21	
Lead, Total	**0.33**	0.11	0.54	ug/filter	1	04/07/21	J
Manganese, Total	**1.5**	0.14	0.54	ug/filter	1	04/05/21	
Nickel, Total	**1.7**	0.11	0.54	ug/filter	1	04/05/21	
Phosphorus, Total	**27**	3.1	68	ug/filter	5	04/05/21	M-04, J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/05/21	M-04
Silver, Total	**0.043**	0.020	0.20	ug/filter	1	04/05/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/05/21	
Zinc, Total	**3.1**	2.4	22	ug/filter	4	04/06/21	M-04, J

Sample: M436 - Field Blank / Inlet, Alias: M436-Knockout — Sampled: 03/19/21 15:00 by Client

1C22044-40 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18				**Analyst:** mem
Mercury, Total	ND	0.00078	0.010	ug/filter	1	03/29/21	

Almega Environmental & Technical Services
10602 Walker St
Cypress, CA 90630

Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported: 04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - Field Blank / Inlet, Alias: M436-KMnO4 — Sampled: 03/19/21 15:00 by Client

1C22044-41 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1C1729 **Preparation:** EPA 7470A			**Prepared:** 03/29/21 11:18			**Analyst:** mem	
Mercury, Total	ND	0.0039	0.050	ug/filter	1	03/29/21	

Sample: M436 - Field Reagent Blanks, Alias: M436-Filter — Sampled: 03/19/21 6:00 by Client

1C22044-42 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30			**Analyst:** mem	
Mercury, Total	**0.014**	0.00027	0.0035	ug/filter	1	04/06/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1D0017 **Preparation:** CARB 436			**Prepared:** 04/01/21 10:10			**Analyst:** ALN	
Aluminum, Total	**98**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	
Barium, Total	**4.2**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	
Cadmium, Total	ND	0.14	2.7	ug/filter	5	04/05/21	
Chromium, Total	**1.7**	0.14	0.54	ug/filter	1	04/06/21	
Cobalt, Total	ND	0.054	0.54	ug/filter	1	04/06/21	
Copper, Total	**1.7**	1.4	5.4	ug/filter	1	04/06/21	J
Lead, Total	**0.32**	0.11	0.54	ug/filter	1	04/07/21	J
Manganese, Total	**0.87**	0.14	0.54	ug/filter	1	04/06/21	
Nickel, Total	**1.8**	0.11	0.54	ug/filter	1	04/06/21	
Phosphorus, Total	**26**	3.1	68	ug/filter	5	04/05/21	J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/09/21	
Silver, Total	**0.032**	0.020	0.20	ug/filter	1	04/06/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/06/21	
Zinc, Total	**2.4**	2.4	22	ug/filter	4	04/07/21	J

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Project Number: 21-0883 All American Asphalt

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Reported:
04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - Field Reagent Blanks, Alias: M436-Knockout — Sampled: 03/19/21 6:00 by Client

1C22044-45 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	04/05/21	

Sample: M436 - Field Reagent Blanks, Alias: M436-KMnO4 — Sampled: 03/19/21 6:00 by Client

1C22044-46 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**0.013**	0.0039	0.050	ug/filter	1	04/06/21	J

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Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

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Sample Results

(Continued)

Sample: M436 - Field Blank / Outlet, Alias: M436-Filter — Sampled: 03/19/21 15:00 by Client

1C22044-47 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0096 **Preparation:** EPA 7470A			**Prepared:** 04/05/21 15:30				**Analyst:** mem
Mercury, Total	**0.016**	0.00034	0.0044	ug/filter	1	04/06/21	
Metals (Non-Aqueous) by EPA 6000/7000 Series Methods							
Method: EPA 6020			**Instr:** ICPMS03				
Batch ID: W1D0017 **Preparation:** CARB 436			**Prepared:** 04/01/21 10:10				**Analyst:** ALN
Aluminum, Total	**92**		27	ug/filter	5	04/05/21	
Antimony, Total	ND	0.68	6.8	ug/filter	5	04/05/21	
Arsenic, Total	ND	0.27	2.7	ug/filter	5	04/05/21	
Barium, Total	**7.6**	0.19	0.54	ug/filter	1	04/07/21	
Beryllium, Total	ND	2.3	6.8	ug/filter	5	04/05/21	
Cadmium, Total	**0.18**	0.14	2.7	ug/filter	5	04/05/21	J
Chromium, Total	**1.8**	0.14	0.54	ug/filter	1	04/06/21	
Cobalt, Total	**0.37**	0.054	0.54	ug/filter	1	04/06/21	J
Copper, Total	ND	1.4	5.4	ug/filter	1	04/06/21	
Lead, Total	**0.31**	0.11	0.54	ug/filter	1	04/06/21	J
Manganese, Total	**0.99**	0.14	0.54	ug/filter	1	04/06/21	
Nickel, Total	**1.9**	0.11	0.54	ug/filter	1	04/06/21	
Phosphorus, Total	**29**	3.1	68	ug/filter	5	04/05/21	J
Selenium, Total	ND	0.27	2.7	ug/filter	5	04/09/21	
Silver, Total	**0.033**	0.020	0.20	ug/filter	1	04/06/21	J
Thallium, Total	ND	0.054	0.54	ug/filter	1	04/07/21	
Vanadium, Total	ND	0.18	2.7	ug/filter	1	04/06/21	
Zinc, Total	**3.1**	2.4	22	ug/filter	4	04/07/21	J

Sample: M436 - Field Blank / Outlet, Alias: M436-Knockout — Sampled: 03/19/21 15:00 by Client

1C22044-50 (Filter)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101			**Instr:** HG03				
Batch ID: W1D0095 **Preparation:** EPA 7470A			**Prepared:** 04/04/21 11:45				**Analyst:** mem
Mercury, Total	ND	0.00078	0.010	ug/filter	1	04/05/21	

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04/09/2021 15:50

Sample Results

(Continued)

Sample: M436 - Field Blank / Outlet, Alias: M436-KMnO4
1C22044-51 (Filter)

Sampled: 03/19/21 15:00 by Client

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Mercury - Low Level by CVAFS							
Method: CARB 101				**Instr:** HG03			
Batch ID: W1D0095 **Preparation:** EPA 7470A				**Prepared:** 04/04/21 11:45			**Analyst:** mem
Mercury, Total	ND	0.0039	0.050	ug/filter	1	04/05/21	

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Project Manager: Charles Figueroa

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Quality Control Results

Mercury - Low Level by CVAFS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W1C1729 - CARB 101											
Blank (W1C1729-BLK1)					**Prepared & Analyzed: 03/29/21**						
Mercury, Total	ND	0.0000078	0.00010	ug/filter							
LCS (W1C1729-BS1)					**Prepared & Analyzed: 03/29/21**						
Mercury, Total	0.00105	0.0000078	0.00010	ug/filter	0.00100		105	85-115			
Matrix Spike (W1C1729-MS1)	**Source: 1C22044-11**				**Prepared & Analyzed: 03/29/21**						
Mercury, Total	1.33	0.0039	0.050	ug/filter	0.500	0.862	94	70-130			
Matrix Spike Dup (W1C1729-MSD1)	**Source: 1C22044-11**				**Prepared & Analyzed: 03/29/21**						
Mercury, Total	1.32	0.0039	0.050	ug/filter	0.500	0.862	92	70-130	0.7	30	
Batch: W1C1796 - CARB 101											
Blank (W1C1796-BLK1)					**Prepared & Analyzed: 03/31/21**						
Mercury, Total	ND	0.0000078	0.00010	ug/filter							
LCS (W1C1796-BS1)					**Prepared & Analyzed: 03/31/21**						
Mercury, Total	0.000976	0.0000078	0.00010	ug/filter	0.00100		98	85-115			
Matrix Spike (W1C1796-MS1)	**Source: 1C22044-06**				**Prepared & Analyzed: 03/31/21**						
Mercury, Total	2.37	0.0078	0.10	ug/filter	0.500	1.86	101	70-130			
Matrix Spike Dup (W1C1796-MSD1)	**Source: 1C22044-06**				**Prepared & Analyzed: 03/31/21**						
Mercury, Total	2.37	0.0078	0.10	ug/filter	0.500	1.86	103	70-130	0.3	30	
Batch: W1D0095 - CARB 101											
Blank (W1D0095-BLK1)					**Prepared: 04/04/21 Analyzed: 04/05/21**						
Mercury, Total	ND	0.0000078	0.00010	ug/filter							
LCS (W1D0095-BS1)					**Prepared: 04/04/21 Analyzed: 04/05/21**						
Mercury, Total	0.00104	0.0000078	0.00010	ug/filter	0.00100		104	85-115			
Matrix Spike (W1D0095-MS1)	**Source: 1C22044-23**				**Prepared: 04/04/21 Analyzed: 04/05/21**						
Mercury, Total	0.501	0.0039	0.050	ug/filter	0.500	ND	100	70-130			
Matrix Spike Dup (W1D0095-MSD1)	**Source: 1C22044-23**				**Prepared: 04/04/21 Analyzed: 04/05/21**						
Mercury, Total	0.506	0.0039	0.050	ug/filter	0.500	ND	101	70-130	1	30	
Batch: W1D0096 - CARB 101											
Blank (W1D0096-BLK1)					**Prepared: 04/05/21 Analyzed: 04/06/21**						
Mercury, Total	ND	0.0000078	0.00010	ug/filter							
LCS (W1D0096-BS1)					**Prepared: 04/05/21 Analyzed: 04/06/21**						
Mercury, Total	0.00110	0.0000078	0.00010	ug/filter	0.00100		110	85-115			
Matrix Spike (W1D0096-MS1)	**Source: 1C22044-30**				**Prepared: 04/05/21 Analyzed: 04/06/21**						
Mercury, Total	1.14	0.0039	0.050	ug/filter	0.500	0.640	100	70-130			
Matrix Spike Dup (W1D0096-MSD1)	**Source: 1C22044-30**				**Prepared: 04/05/21 Analyzed: 04/06/21**						
Mercury, Total	1.14	0.0039	0.050	ug/filter	0.500	0.640	100	70-130	0.2	30	

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Reported: 04/09/2021 15:50

Quality Control Results

(Continued)

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W1C1714 - EPA 6020											
Blank (W1C1714-BLK1)					**Prepared: 03/29/21 Analyzed: 04/05/21**						
Aluminum, Total	8.75		10	ug/filter							J
Antimony, Total	ND	0.25	2.5	ug/filter							
Arsenic, Total	ND	0.10	1.0	ug/filter							
Barium, Total	0.0700	0.070	0.20	ug/filter							J
Beryllium, Total	ND	0.85	2.5	ug/filter							
Cadmium, Total	ND	0.050	1.0	ug/filter							
Chromium, Total	0.0538	0.050	0.20	ug/filter							J
Cobalt, Total	ND	0.020	0.20	ug/filter							
Copper, Total	ND	0.52	2.0	ug/filter							
Lead, Total	ND	0.040	0.20	ug/filter							
Manganese, Total	ND	0.050	0.20	ug/filter							
Nickel, Total	ND	0.040	0.20	ug/filter							
Phosphorus, Total	3.71	1.2	25	ug/filter							J
Selenium, Total	ND	0.10	1.0	ug/filter							
Silver, Total	ND	0.020	0.20	ug/filter							
Thallium, Total	ND	0.020	0.20	ug/filter							
Vanadium, Total	ND	0.068	1.0	ug/filter							
Zinc, Total	ND	0.88	8.0	ug/filter							
LCS (W1C1714-BS1)					**Prepared: 03/29/21 Analyzed: 04/05/21**						
Aluminum, Total	89.9		10	ug/filter	85.0		106	80-120			
Antimony, Total	4.89	0.25	2.5	ug/filter	5.00		98	80-120			
Arsenic, Total	4.44	0.10	1.0	ug/filter	5.00		89	80-120			
Barium, Total	4.81	0.070	0.20	ug/filter	5.00		96	80-120			
Beryllium, Total	4.44	0.85	2.5	ug/filter	5.00		89	80-120			
Cadmium, Total	4.45	0.050	1.0	ug/filter	5.00		89	80-120			
Chromium, Total	5.49	0.050	0.20	ug/filter	5.00		110	80-120			
Cobalt, Total	5.39	0.020	0.20	ug/filter	5.00		108	80-120			
Copper, Total	8.11	0.52	2.0	ug/filter	7.99		102	80-120			
Lead, Total	4.73	0.040	0.20	ug/filter	5.00		94	80-120			
Manganese, Total	5.36	0.050	0.20	ug/filter	5.00		107	80-120			
Nickel, Total	5.14	0.040	0.20	ug/filter	5.00		103	80-120			
Phosphorus, Total	46.7	1.2	25	ug/filter	50.0		93	80-120			
Selenium, Total	4.19	0.10	1.0	ug/filter	5.00		84	80-120			
Silver, Total	4.54	0.020	0.20	ug/filter	5.00		91	80-120			
Thallium, Total	4.72	0.020	0.20	ug/filter	5.00		94	80-120			
Vanadium, Total	5.36	0.068	1.0	ug/filter	5.00		107	80-120			
Zinc, Total	8.09	0.88	8.0	ug/filter	10.0		81	80-120			
LCS Dup (W1C1714-BSD1)					**Prepared: 03/29/21 Analyzed: 04/05/21**						
Aluminum, Total	93.4		10	ug/filter	85.0		110	80-120	4	20	

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Quality Control Results (Continued)

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W1C1714 - EPA 6020 (Continued)											
LCS Dup (W1C1714-BSD1)					**Prepared: 03/29/21 Analyzed: 04/05/21**						
Antimony, Total	4.73	0.25	2.5	ug/filter	5.00		95	80-120	3	20	
Arsenic, Total	4.40	0.10	1.0	ug/filter	5.00		88	80-120	0.8	20	
Barium, Total	4.84	0.070	0.20	ug/filter	5.00		97	80-120	0.5	20	
Beryllium, Total	4.41	0.85	2.5	ug/filter	5.00		88	80-120	0.5	20	
Cadmium, Total	4.39	0.050	1.0	ug/filter	5.00		88	80-120	2	20	
Chromium, Total	5.32	0.050	0.20	ug/filter	5.00		106	80-120	3	20	
Cobalt, Total	5.31	0.020	0.20	ug/filter	5.00		106	80-120	1	20	
Copper, Total	7.99	0.52	2.0	ug/filter	7.99		100	80-120	1	20	
Lead, Total	4.73	0.040	0.20	ug/filter	5.00		94	80-120	0.03	20	
Manganese, Total	5.17	0.050	0.20	ug/filter	5.00		103	80-120	4	20	
Nickel, Total	5.05	0.040	0.20	ug/filter	5.00		101	80-120	2	20	
Phosphorus, Total	44.9	1.2	25	ug/filter	50.0		90	80-120	4	20	
Selenium, Total	4.11	0.10	1.0	ug/filter	5.00		82	80-120	2	20	
Silver, Total	4.54	0.020	0.20	ug/filter	5.00		91	80-120	0.1	20	
Thallium, Total	4.75	0.020	0.20	ug/filter	5.00		95	80-120	0.7	20	
Vanadium, Total	5.29	0.068	1.0	ug/filter	5.00		106	80-120	1	20	
Zinc, Total	8.13	0.88	8.0	ug/filter	10.0		81	80-120	0.5	20	
Batch: W1D0017 - EPA 6020											
Blank (W1D0017-BLK1)					**Prepared: 04/01/21 Analyzed: 04/05/21**						
Aluminum, Total	1.81		10	ug/filter							J
Antimony, Total	ND	0.25	2.5	ug/filter							
Arsenic, Total	ND	0.10	1.0	ug/filter							
Barium, Total	ND	0.070	0.20	ug/filter							
Beryllium, Total	ND	0.85	2.5	ug/filter							
Cadmium, Total	ND	0.050	1.0	ug/filter							
Chromium, Total	0.0764	0.050	0.20	ug/filter							J
Cobalt, Total	ND	0.020	0.20	ug/filter							
Copper, Total	ND	0.52	2.0	ug/filter							
Lead, Total	ND	0.040	0.20	ug/filter							
Manganese, Total	ND	0.050	0.20	ug/filter							
Nickel, Total	ND	0.040	0.20	ug/filter							
Phosphorus, Total	4.64	1.2	25	ug/filter							J
Selenium, Total	ND	0.10	1.0	ug/filter							
Silver, Total	ND	0.020	0.20	ug/filter							
Thallium, Total	ND	0.020	0.20	ug/filter							
Vanadium, Total	ND	0.068	1.0	ug/filter							
Zinc, Total	ND	0.88	8.0	ug/filter							
LCS (W1D0017-BS1)					**Prepared: 04/01/21 Analyzed: 04/05/21**						
Aluminum, Total	90.2		10	ug/filter	85.0		106	80-120			

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10602 Walker St
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Project Number: 21-0883 All American Asphalt

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Reported: 04/09/2021 15:50

Quality Control Results (Continued)

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W1D0017 - EPA 6020 (Continued)											
LCS (W1D0017-BS1)					**Prepared: 04/01/21 Analyzed: 04/05/21**						
Antimony, Total	4.77	0.25	2.5	ug/filter	5.00		95	80-120			
Arsenic, Total	4.43	0.10	1.0	ug/filter	5.00		88	80-120			
Barium, Total	4.65	0.070	0.20	ug/filter	5.00		93	80-120			
Beryllium, Total	4.59	0.85	2.5	ug/filter	5.00		92	80-120			
Cadmium, Total	4.65	0.050	1.0	ug/filter	5.00		93	80-120			
Chromium, Total	5.42	0.050	0.20	ug/filter	5.00		108	80-120			
Cobalt, Total	5.20	0.020	0.20	ug/filter	5.00		104	80-120			
Copper, Total	7.71	0.52	2.0	ug/filter	7.99		96	80-120			
Lead, Total	4.66	0.040	0.20	ug/filter	5.00		93	80-120			
Manganese, Total	5.48	0.050	0.20	ug/filter	5.00		110	80-120			
Nickel, Total	4.86	0.040	0.20	ug/filter	5.00		97	80-120			
Phosphorus, Total	46.7	1.2	25	ug/filter	50.0		93	80-120			
Selenium, Total	4.11	0.10	1.0	ug/filter	5.00		82	80-120			
Silver, Total	4.62	0.020	0.20	ug/filter	5.00		92	80-120			
Thallium, Total	4.62	0.020	0.20	ug/filter	5.00		92	80-120			
Vanadium, Total	5.51	0.068	1.0	ug/filter	5.00		110	80-120			
Zinc, Total	8.18	0.88	8.0	ug/filter	10.0		82	80-120			
LCS Dup (W1D0017-BSD1)					**Prepared: 04/01/21 Analyzed: 04/05/21**						
Aluminum, Total	94.5		10	ug/filter	85.0		111	80-120	5	20	
Antimony, Total	5.06	0.25	2.5	ug/filter	5.00		101	80-120	6	20	
Arsenic, Total	4.58	0.10	1.0	ug/filter	5.00		91	80-120	3	20	
Barium, Total	4.93	0.070	0.20	ug/filter	5.00		98	80-120	6	20	
Beryllium, Total	4.84	0.85	2.5	ug/filter	5.00		97	80-120	5	20	
Cadmium, Total	5.02	0.050	1.0	ug/filter	5.00		100	80-120	8	20	
Chromium, Total	5.55	0.050	0.20	ug/filter	5.00		111	80-120	2	20	
Cobalt, Total	5.42	0.020	0.20	ug/filter	5.00		108	80-120	4	20	
Copper, Total	7.89	0.52	2.0	ug/filter	7.99		99	80-120	2	20	
Lead, Total	4.90	0.040	0.20	ug/filter	5.00		98	80-120	5	20	
Manganese, Total	5.42	0.050	0.20	ug/filter	5.00		108	80-120	1	20	
Nickel, Total	4.93	0.040	0.20	ug/filter	5.00		99	80-120	1	20	
Phosphorus, Total	50.4	1.2	25	ug/filter	50.0		101	80-120	8	20	
Selenium, Total	4.22	0.10	1.0	ug/filter	5.00		84	80-120	2	20	
Silver, Total	4.73	0.020	0.20	ug/filter	5.00		95	80-120	2	20	
Thallium, Total	4.83	0.020	0.20	ug/filter	5.00		97	80-120	5	20	
Vanadium, Total	5.73	0.068	1.0	ug/filter	5.00		114	80-120	4	20	
Zinc, Total	8.60	0.88	8.0	ug/filter	10.0		86	80-120	5	20	

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Project Number: 21-0883 All American Asphalt

Project Manager: Charles Figueroa

Reported:
04/09/2021 15:50

Notes and Definitions

Item	Definition
J	Estimated conc. detected <MRL and >MDL.
M-04	Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Appendix D

Alliance SOURCE TESTING

QA/QC Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter PAH

Date	Nozzle ID	Nozzle Diameter (in.) #1	#2	#3	Dn (Average)	Difference	Criteria	Material
3/16/21	209	0.196	0.196	0.196	0.196	0.000	≤ 0.004 in.	glass

Date	Pitot ID	Evidence of damage?	Evidence of mis-alignment?	Calibration or Repair required?
3/16/21	ADP 1	no	no	no

Date	Probe ID	Reference Temp. (°F)	Indicated Temp. (°F)	Difference	Criteria	Probe Length
3/16/21	PR502-4	55.0	57.0	0.4%	± 1.5 % (absolute)	2'

Field Balance Check

Date	03/16/21	03/17/21	03/18/21	03/19/21		
Balance ID:	ML58-1	ML58-1	ML58-1	ML58-1		
Test Weight ID:	SLC-1 KG-2	SLC-1 KG-2	SLC-1 KG-2	SLC-1 KG-2		
Certified Weight (g):	1000.0	1000.0	1000.0	1000.0		
Measured Weight (g):	999.9	999.8	999.9	999.7		
Weight Difference (g):	0.1	0.2	0.1	0.3	--	--

Date	Barometric Pressure	Evidence of damage?	Reading Verified	Calibration or Repair required?	Weather Station Location
3/16/21	Weather Station	NA	NA	NA	Irvine, CA

Date	Meter Box ID	Positive Pressure Leak Check
3/19/21	M5-9	Pass

Reagent	Lot#	Field Prep performed	Field Lot	Date	By
Acetone	195346	No			
Hexane	202186	No			
Methylene Chloride	135922	No			

Alliance SOURCE TESTING

QA/QC Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter PAH

Date	Nozzle ID	Nozzle Diameter (in.) #1	#2	#3	Dn (Average)	Difference	Criteria	Material
3/16/21	G-195-1	0.195	0.195	0.195	0.195	0.000	≤ 0.004 in.	glass

Date	Pitot ID	Evidence of damage?	Evidence of mis-alignment?	Calibration or Repair required?
3/16/21	PS-2	no	no	no

Date	Probe ID	Reference Temp. (°F)	Indicated Temp. (°F)	Difference	Criteria	Probe Length
3/16/21	P702-3	60.0	61.0	0.2%	± 1.5 % (absolute)	--

Field Balance Check

Date	03/16/21	03/17/21	03/18/21	03/19/21		
Balance ID:	ML58-1	ML58-1	ML58-1	ML58-1		
Test Weight ID:	SLC-1 KG-2	SLC-1 KG-2	SLC-1 KG-2	SLC-1 KG-2		
Certified Weight (g):	1000.0	1000.0	1000.0	1000.0		
Measured Weight (g):	999.9	999.8	999.9	999.7		
Weight Difference (g):	0.1	0.2	0.1	0.3	--	--

Date	Barometric Pressure	Evidence of damage?	Reading Verified	Calibration or Repair required?	Weather Station Location
3/16/21	Weather Station	NA	NA	NA	Irvine, CA

Date	Meter Box ID	Positive Pressure Leak Check
3/19/21	M5-30	Pass

Reagent	Lot#	Field Prep performed	Field Lot	Date	By
Acetone	195346	No			
Hexane	202186	No			
Methylene Chloride	135922	No			

Alliance SOURCE TESTING

QA/QC Data

Location All American Asphalt
Source CAU - Inlet
Project No. 2021-0883
Parameter Metals

Date	Nozzle ID	Nozzle Diameter (in.) #1	#2	#3	Dn (Average)	Difference	Criteria	Material
3/16/21	.204	0.204	0.204	0.204	0.204	0.000	≤ 0.004 in.	glass

Date	Pitot ID	Evidence of damage?	Evidence of mis-alignment?	Calibration or Repair required?
3/16/21	ADP 1	no	no	no

Date	Probe ID	Reference Temp. (°F)	Indicated Temp. (°F)	Difference	Criteria	Probe Length
3/16/21	PR502-3	55.0	57.0	0.4%	± 1.5 % (absolute)	2'

Date	Barometric Pressure	Evidence of damage?	Reading Verified	Calibration or Repair required?	Weather Station Location
3/16/21	Weather Station	NA	NA	NA	Irvine, CA

Date	Meter Box ID	Positive Pressure Leak Check
3/19/21	M5-69	Pass

Reagent	Lot#	Field Prep performed	Field Lot	Date	By
.1N HNO3	AST DEN	No			
5%/10% HNO3/H2O2	AST DEN	No			
KMNO4	190378	No			
10%H2SO4	AST DEN	No			

Alliance SOURCE TESTING

QA/QC Data

Location All American Asphalt
Source CAU - Outlet
Project No. 2021-0883
Parameter Metals

Date	Nozzle ID	Nozzle Diameter (in.) #1	#2	#3	Dn (Average)	Difference	Criteria	Material
3/16/21	G-196-1	0.196	0.196	0.197	0.196	0.001	≤ 0.004 in.	glass

Date	Pitot ID	Evidence of damage?	Evidence of mis-alignment?	Calibration or Repair required?
3/16/21	PS-2	no	no	no

Date	Probe ID	Reference Temp. (°F)	Indicated Temp. (°F)	Difference	Criteria	Probe Length
3/16/21	P702-3-2	65.0	66.0	0.2%	± 1.5 % (absolute)	3 '

Date	Barometric Pressure	Evidence of damage?	Reading Verified	Calibration or Repair required?	Weather Station Location
3/16/21	Weather Station	NA	NA	NA	Irvine, CA

Date	Meter Box ID	Positive Pressure Leak Check
3/19/21	M5-26	Pass

Reagent	Lot#	Field Prep performed	Field Lot	Date	By
.1N HNO3	AST DEN	No			
5%/10% HNO3/H2O2	AST DEN	No			
KMNO4	190378	No			
10%H2SO4	AST DEN	No			

Semi-Annual Field Dry Gas Meter Calibration*

Calibration Date: 3/13/2021

Orifice Series: 33-73

Serial Number: AE_1/AE_2

Cal Type: Semi-Annual

Calibrated by: JV

(signature):

Reviewed by:

DRY GAS METER CALIBRATION FACTOR Y	ORIFICE CALIBRATION FACTOR dH@
Yds = 0.9939	dH@ = 1.841

DRY GAS METER READINGS								QUALITY CONTROL CHECKS			
DGM INLET		DGM OUTLET		Meter Reading		Orifice Reading		($Y_{fm,max}$ - $Y_{fm,min}$) <	0.98 < ($Y_{fm,i}/Y_{fm}$)	Average Coeff (Y)	$dH@_{i,avg}$ < (dH@
Initial (°F)	Final (°F)	Initial (°F)	Final (°F)	Initial (cu.ft.)	Final (cu.ft.)	Initial (in.H2O)	Final (in.H2O)	0.010 **	1.02	(0.95<Y<1.05)	± 0.15)
66.0	66.0	64.0	64.0	332.994	338.699	0.110	0.110				
66.0	66.0	64.0	65.0	338.699	344.409	0.110	0.110	0.0027	0.994	0.988	1.813
66.0	66.0	65.0	65.0	344.409	350.135	0.110	0.110	PASS	PASS	PASS	PASS
67.0	67.0	64.0	64.0	315.291	321.189	0.650	0.650				
67.0	66.0	64.0	65.0	321.189	327.094	0.650	0.650	0.0012	1.002	0.996	1.815
66.0	66.0	65.0	64.0	327.094	332.994	0.650	0.650	PASS	PASS	PASS	PASS
68.0	68.0	64.0	64.0	299.254	304.598	1.600	1.600				
68.0	68.0	64.0	64.0	304.598	309.939	1.600	1.600	0.0021	1.007	1.001	1.837
68.0	68.0	64.0	64.0	309.939	315.291	1.600	1.600	PASS	PASS	PASS	PASS
65.0	66.0	63.0	63.0	280.266	286.612	3.100	3.100				
66.0	67.0	63.0	64.0	286.612	292.915	3.100	3.100	0.0082	0.997	0.991	1.898
67.0	68.0	64.0	64.0	292.915	299.254	3.100	3.100	PASS	PASS	PASS	PASS

DGM ID: M5-09

Serial #: 16621844

Calibration Interval:

Semi-Annual: X

Bi-monthly:

Other:

Standard Temperature (deg.F)

Tstd = 68

Barometric Pressure (in.Hg)

Initial: 25.4

Final: 25.4

$Pbar_{avg}$: 25.40

Orifice Series No.	Run Time (min)	CRITICAL ORIFICE					DRY GAS METER					CALCULATIONS	
		Orifice K-factor	Tested Vacuum (in.Hg)	Ambient Temp. (°F)	Corrected Flowrate Q'rm (SCFM)	Corrected Volume (cu.ft.)	Orifice dH (in.H2O)	AVG Temp. (°F)	NET Volume (cu.ft.)	Corrected Flowrate Q'fm (SCFM)	Corrected Volume (SCF)	Coefficient $Y_{fm,i}$ (0.95 < $Y_{fm,i}$ < 1.05)	Orifice $dH@_i$ (in.H2O)
33	28	0.1549	22.50	63.0	0.1721	4.819	0.110	65.00	5.705	0.174	4.873	0.9888	1.814
33	28	0.1549	22.50	63.0	0.172	4.819	0.110	65.25	5.710	0.174	4.875	0.9884	1.813
33	28	0.1549	22.50	63.0	0.172	4.819	0.110	65.50	5.726	0.175	4.887	0.9861	1.812
52	12	0.3769	19.80	63.0	0.419	5.025	0.650	65.50	5.898	0.420	5.041	0.9967	1.814
52	12	0.3769	19.90	63.0	0.419	5.025	0.650	65.50	5.905	0.421	5.047	0.9956	1.814
52	12	0.3769	19.90	63.0	0.419	5.025	0.650	65.25	5.900	0.420	5.045	0.9959	1.815
63	7	0.5890	17.30	63.0	0.654	4.581	1.600	66.00	5.344	0.654	4.576	1.0010	1.837
63	7	0.5890	17.30	63.0	0.654	4.581	1.600	66.00	5.341	0.653	4.573	1.0016	1.837
63	7	0.5890	17.30	63.0	0.654	4.581	1.600	66.00	5.352	0.655	4.583	0.9995	1.837
73	6	0.8109	14.70	63.0	0.901	5.405	3.100	64.25	6.346	0.913	5.476	0.9872	1.900
73	6	0.8109	14.70	63.0	0.901	5.405	3.100	65.00	6.303	0.905	5.431	0.9953	1.898
73	6	0.8109	14.70	63.0	0.901	5.405	3.100	65.75	6.339	0.909	5.454	0.9911	1.895

* Critical Orifice used.

Semi-Annual Field Dry Gas Meter Calibration*

Calibration Date: 3/13/2021

Orifice Series: 33-73

Serial Number: AE_1/AE_2

Cal Type: Semi-Annual

Calibrated by: JV

(signature):

Reviewed by:

DRY GAS METER CALIBRATION FACTOR Y	ORIFICE CALIBRATION FACTOR dH@
Yds = 0.9995	dH@ = 1.726

DRY GAS METER READINGS								QUALITY CONTROL CHECKS			
DGM INLET		DGM OUTLET		Meter Reading		Orifice Reading		($Y_{fm,max}$ - $Y_{fm,min}$) <	0.98 < ($Y_{fm,i}/Y_{fm}$)	Average Coeff (Y)	$dH@_{i,avg}$ < (dH@
Initial (°F)	Final (°F)	Initial (°F)	Final (°F)	Initial (cu.ft.)	Final (cu.ft.)	Initial (in.H2O)	Final (in.H2O)	0.010 **	1.02	(0.95<Y<1.05)	± 0.15)
61.0	62.0	61.0	62.0	471.869	477.559	0.105	0.105				
62.0	63.0	62.0	63.0	477.559	483.250	0.105	0.105	0.0027	0.988	0.987	1.739
63.0	63.0	63.0	63.0	483.250	488.941	0.105	0.105	PASS	PASS	PASS	PASS
64.0	65.0	64.0	64.0	523.828	529.678	0.580	0.580				
65.0	66.0	64.0	65.0	529.678	535.528	0.580	0.580	0.0024	1.005	1.005	1.619
66.0	66.0	65.0	65.0	535.528	541.378	0.580	0.580	PASS	PASS	PASS	PASS
66.0	66.0	65.0	65.0	507.844	513.172	1.500	1.500				
66.0	67.0	65.0	65.0	513.172	518.500	1.500	1.500	0.0014	1.005	1.005	1.721
67.0	67.0	65.0	66.0	518.500	523.828	1.500	1.500	PASS	PASS	PASS	PASS
67.0	68.0	66.0	66.0	488.941	495.242	3.000	3.000				
68.0	68.0	66.0	66.0	495.242	501.543	3.000	3.000	0.0014	1.001	1.001	1.827
68.0	69.0	66.0	67.0	501.543	507.844	3.000	3.000	PASS	PASS	PASS	PASS

DGM ID: M5-26

Serial #: 16621844

Calibration Interval:

Semi-Annual: X

Bi-monthly:

Other:

Standard Temperature (deg.F)

Tstd = 68

Barometric Pressure (in.Hg)

Initial: 25.37

Final: 25.37

$Pbar_{avg}$: 25.37

Orifice Series No.	Run Time (min)	CRITICAL ORIFICE					DRY GAS METER					CALCULATIONS	
		Orifice K-factor	Tested Vacuum (in.Hg)	Ambient Temp. (°F)	Corrected Flowrate Q'rm (SCFM)	Corrected Volume (cu.ft.)	Orifice dH (in.H2O)	AVG Temp. (°F)	NET Volume (cu.ft.)	Corrected Flowrate Q'fm (SCFM)	Corrected Volume (SCF)	Coefficient $Y_{fm,i}$ (0.95 < $Y_{fm,i}$ < 1.05)	Orifice $dH@_i$ (in.H2O)
33	28	0.1549	22.00	62.0	0.1721	4.818	0.105	61.50	5.690	0.175	4.887	0.9857	1.742
33	28	0.1549	22.00	62.0	0.172	4.818	0.105	62.50	5.691	0.174	4.879	0.9874	1.738
33	28	0.1549	22.00	62.0	0.172	4.818	0.105	63.00	5.691	0.174	4.874	0.9884	1.737
52	12	0.3769	19.50	62.0	0.419	5.024	0.580	64.25	5.850	0.417	5.005	1.0037	1.621
52	12	0.3769	19.50	62.0	0.419	5.024	0.580	65.00	5.850	0.417	4.998	1.0051	1.619
52	12	0.3769	19.50	62.0	0.419	5.024	0.580	65.50	5.850	0.416	4.993	1.0061	1.617
63	7	0.5890	17.00	62.0	0.654	4.580	1.500	65.50	5.328	0.651	4.560	1.0043	1.722
63	7	0.5890	17.00	62.0	0.654	4.580	1.500	65.75	5.328	0.651	4.558	1.0048	1.721
63	7	0.5890	17.00	62.0	0.654	4.580	1.500	66.25	5.328	0.650	4.553	1.0058	1.719
73	6	0.8109	13.50	62.0	0.901	5.404	3.000	66.75	6.301	0.901	5.403	1.0002	1.828
73	6	0.8109	13.50	62.0	0.901	5.404	3.000	67.00	6.301	0.900	5.400	1.0007	1.827
73	6	0.8109	13.50	62.0	0.901	5.404	3.000	67.50	6.301	0.899	5.395	1.0016	1.825

* Critical Orifice used.

Semi-Annual Field Dry Gas Meter Calibration*

Calibration Date: 3/13/2021

Orifice Series: 33-73

Serial Number: AE_1/AE_2

Cal Type: Semi-Annual

Calibrated by: JV

(signature):

Reviewed by:

DRY GAS METER CALIBRATION FACTOR Y	ORIFICE CALIBRATION FACTOR dH@
Yds = 0.9958	dH@ = 1.887

DRY GAS METER READINGS								QUALITY CONTROL CHECKS			
DGM INLET		DGM OUTLET		Meter Reading		Orifice Reading		($Y_{fm,max}$ - $Y_{fm,min}$) <	0.98 < ($Y_{fm,i}/Y_{fm}$)	Average Coeff (Y)	$dH@_{i,avg}$ < (dH@
Initial (°F)	Final (°F)	Initial (°F)	Final (°F)	Initial (cu.ft.)	Final (cu.ft.)	Initial (in.H2O)	Final (in.H2O)	0.010 **	1.02	(0.95<Y<1.05)	± 0.15)
67.0	67.0	66.0	66.0	144.886	150.617	0.110	0.110				
67.0	67.0	66.0	66.0	150.617	156.348	0.110	0.110	0.0000	0.992	0.988	1.806
67.0	67.0	66.0	66.0	156.348	162.079	0.110	0.110	PASS	PASS	PASS	PASS
67.0	67.0	66.0	66.0	127.207	133.100	0.680	0.680				
67.0	67.0	66.0	66.0	133.100	138.993	0.680	0.680	0.0000	1.005	1.000	1.892
67.0	67.0	66.0	66.0	138.993	144.886	0.680	0.680	PASS	PASS	PASS	PASS
66.0	66.0	65.0	65.0	99.856	105.206	1.650	1.650				
66.0	66.0	65.0	65.0	105.206	110.556	1.650	1.650	0.0000	1.004	1.000	1.894
66.0	66.0	65.0	65.0	110.556	115.906	1.650	1.650	PASS	PASS	PASS	PASS
66.0	66.0	64.0	65.0	80.908	87.224	3.200	3.200				
66.0	67.0	65.0	65.0	87.224	93.540	3.200	3.200	0.0014	0.999	0.995	1.955
67.0	67.0	65.0	65.0	93.540	99.856	3.200	3.200	PASS	PASS	PASS	PASS

DGM ID: M5-30

Serial #: 16621844

Calibration Interval:

Semi-Annual: X

Bi-monthly:

Other:

Standard Temperature (deg.F)

Tstd = 68

Barometric Pressure (in.Hg)

Initial: 25.37

Final: 25.4

$Pbar_{avg}$: 25.39

Orifice Series No.	Run Time (min)	CRITICAL ORIFICE					DRY GAS METER					CALCULATIONS	
		Orifice K-factor	Tested Vacuum (in.Hg)	Ambient Temp. (°F)	Corrected Flowrate Q'rm (SCFM)	Corrected Volume (cu.ft.)	Orifice dH (in.H2O)	AVG Temp. (°F)	NET Volume (cu.ft.)	Corrected Flowrate Q'fm (SCFM)	Corrected Volume (SCF)	Coefficient $Y_{fm,i}$ (0.95 < $Y_{fm,i}$ < 1.05)	Orifice $dH@_i$ (in.H2O)
33	28	0.1549	22.50	62.0	0.1722	4.820	0.110	66.50	5.731	0.174	4.879	0.9880	1.806
33	28	0.1549	22.50	62.0	0.172	4.820	0.110	66.50	5.731	0.174	4.879	0.9880	1.806
33	28	0.1549	22.50	62.0	0.172	4.820	0.110	66.50	5.731	0.174	4.879	0.9880	1.806
52	12	0.3769	20.00	62.0	0.419	5.027	0.680	66.50	5.893	0.419	5.025	1.0004	1.892
52	12	0.3769	20.00	62.0	0.419	5.027	0.680	66.50	5.893	0.419	5.025	1.0004	1.892
52	12	0.3769	20.00	62.0	0.419	5.027	0.680	66.50	5.893	0.419	5.025	1.0004	1.892
63	7	0.5890	17.50	62.0	0.655	4.582	1.650	65.50	5.350	0.655	4.583	0.9998	1.894
63	7	0.5890	17.50	62.0	0.655	4.582	1.650	65.50	5.350	0.655	4.583	0.9998	1.894
63	7	0.5890	17.50	62.0	0.655	4.582	1.650	65.50	5.350	0.655	4.583	0.9998	1.894
73	6	0.8109	16.00	62.0	0.901	5.407	3.200	65.25	6.316	0.906	5.438	0.9944	1.957
73	6	0.8109	16.00	62.0	0.901	5.407	3.200	65.75	6.316	0.905	5.433	0.9954	1.955
73	6	0.8109	16.00	62.0	0.901	5.407	3.200	66.00	6.316	0.905	5.430	0.9959	1.954

* Critical Orifice used.

Semi-Annual Field Dry Gas Meter Calibration*

Calibration Date: 3/12/2021

Orifice Series: 33-73

Serial Number: AE_1/AE_2

Cal Type: Semi-Annual

Calibrated by: GWH

(signature): GWH

Reviewed by:

DRY GAS METER CALIBRATION FACTOR Y	ORIFICE CALIBRATION FACTOR dH@
Yds = 0.9850	dH@ = 1.930

DRY GAS METER READINGS								QUALITY CONTROL CHECKS			
DGM INLET		DGM OUTLET		Meter Reading		Orifice Reading		($Y_{fm,max}$ - $Y_{fm,min}$) <	0.98 < ($Y_{fm,i}/Y_{fm}$)	Average Coeff (Y)	$dH@_{i,avg}$ < (dH@
Initial (°F)	Final (°F)	Initial (°F)	Final (°F)	Initial (cu.ft.)	Final (cu.ft.)	Initial (in.H2O)	Final (in.H2O)	0.010 **	1.02	(0.95<Y<1.05)	± 0.15)
NA	NA	64.0	64.0	940.104	945.814	0.120	0.120				
		64.0	65.0	945.814	951.498	0.120	0.120	0.0054	1.002	0.987	1.952
		65.0	66.0	951.498	957.204	0.120	0.120	PASS	PASS	PASS	PASS
NA	NA	59.0	59.0	887.168	893.082	0.690	0.690				
		60.0	61.0	893.082	898.974	0.690	0.680	0.0065	1.002	0.987	1.895
		61.0	61.0	898.974	904.868	0.680	0.680	PASS	PASS	PASS	PASS
NA	NA	61.0	61.0	904.868	910.235	1.700	1.700				
		61.0	62.0	910.235	915.609	1.700	1.700	0.0013	1.001	0.986	1.937
		62.0	62.0	915.609	920.988	1.700	1.700	PASS	PASS	PASS	PASS
NA	NA	62.0	63.0	920.988	927.347	3.200	3.200				
		63.0	63.0	927.347	933.724	3.200	3.200	0.0018	0.995	0.980	1.936
		63.0	64.0	933.724	940.104	3.200	3.200	PASS	PASS	PASS	PASS

DGM ID: M5-69

Serial #: 20035537

Calibration Interval:

Semi-Annual: X

Bi-monthly:

Other:

Standard Temperature (deg.F)

Tstd = 68

Barometric Pressure (in.Hg)

Initial: 25.86

Final: 25.86

$Pbar_{avg}$: 25.86

Orifice Series No.	Run Time (min)	CRITICAL ORIFICE					DRY GAS METER					CALCULATIONS	
		Orifice K-factor	Tested Vacuum (in.Hg)	Ambient Temp. (°F)	Corrected Flowrate Q'rm (SCFM)	Corrected Volume (cu.ft.)	Orifice dH (in.H2O)	AVG Temp. (°F)	NET Volume (cu.ft.)	Corrected Flowrate Q'fm (SCFM)	Corrected Volume (SCF)	Coefficient $Y_{fm,i}$ (0.95 < $Y_{fm,i}$ < 1.05)	Orifice $dH@_i$ (in.H2O)
33	28	0.1549	21.50	65.0	0.1749	4.897	0.120	64.00	5.710	0.178	4.976	0.9841	1.955
33	28	0.1549	21.50	65.0	0.175	4.897	0.120	64.50	5.684	0.177	4.948	0.9896	1.953
33	28	0.1549	21.50	65.0	0.175	4.897	0.120	65.50	5.706	0.177	4.958	0.9876	1.949
52	12	0.3769	19.50	62.0	0.427	5.121	0.690	59.00	5.914	0.434	5.211	0.9826	1.912
52	12	0.3769	19.50	62.0	0.427	5.121	0.685	60.50	5.892	0.431	5.177	0.9891	1.893
52	12	0.3769	19.50	63.0	0.426	5.116	0.680	61.00	5.894	0.431	5.174	0.9888	1.881
63	7	0.5890	17.50	63.0	0.666	4.664	1.700	61.00	5.367	0.675	4.725	0.9871	1.936
63	7	0.5890	17.50	64.0	0.666	4.659	1.700	61.50	5.374	0.675	4.726	0.9858	1.938
63	7	0.5890	17.50	64.0	0.666	4.659	1.700	62.00	5.379	0.675	4.726	0.9858	1.936
73	6	0.8109	15.00	64.0	0.916	5.498	3.200	62.50	6.359	0.934	5.606	0.9808	1.938
73	6	0.8109	15.00	64.0	0.916	5.498	3.200	63.00	6.377	0.936	5.616	0.9790	1.936
73	6	0.8109	15.00	64.0	0.916	5.498	3.200	63.50	6.380	0.936	5.613	0.9795	1.934

* Critical Orifice used.

Appendix E

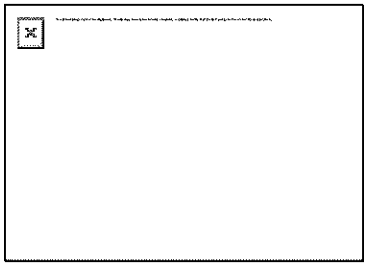
Charles Figueroa

From: John Gardner <jgardner@allamericanasphalt.com>
Sent: Monday, March 29, 2021 10:27 AM
To: Charles Figueroa
Cc: Austin Keough; Scott Taylor
Subject: RE: Testing follow up

Good morning Charles,

- 17th = [redacted] of material processed.
- 18th = [redacted] of material processed.
- 19th = [redacted] of material processed.

Thank you,



John Gardner
All American Asphalt
jgardner@allamericanasphalt.com
Office (951) 736-3844
Cell (951) 232-4145

From: Charles Figueroa [mailto:charles.figueroa@stacktest.com]
Sent: Wednesday, March 24, 2021 11:13 AM
To: John Gardner <jgardner@allamericanasphalt.com>

Cc: Austin Keough <austin.keough@stacktest.com>; Scott Taylor <scott.taylor@tayloresinc.com>
Subject: Testing follow up

John

Following up on the testing performed last week

As discussed we will need the "Total quantity of material processed during our testing".
Also useful would be a description of the product and the associated ingredients (oil and crumb rubber batch description)

Thanks

Test times for your info:

- 3/17 05:52 – 14:37
- 3/18 04:40 – 12:46
- 3/19 04:40 – 12:49

Thanks

Charles M. Figueroa
Field Technical Director
Direct: 714-889-4000 | Mobile: 714-809-9681
10602 Walker Street | Cypress, CA 90630

Process temps:

While loading operation active:

Exhaust temp at the reaction/holding tank between the condenser and the steel wool filter:

~ 240 deg F

Feed line of the asphalt oil into the mixing tank:

~ 390 deg F

Appendix F

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Asphalt Inlet metals | Start Time: 5:52 | Source:
Date: 3/17/21 | Run 1 | End Time: 14:37 | Project No.: | Parameter:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 5	% est.	Meter Box ID: M5-69		Est. Tm:	°F		Pb: 29.52	in. Hg	Vlc (ml)
Barometric: 29.52	in. Hg	Y: 1.985		Est. Ts: 65	°F		Pg: -.8	in. WC	
Static Press: -.8	in. WC	ΔH @ (in.WC): 1.93		Est. ΔP: .64	in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	in. Hg	Probe ID: PR562-3		Est. Dn: .212	in.		O_2: 20.9	%	
CO_2: 0	%	Liner Material: Quartz		Target Rate: .75	scfm				
O_2: 20.9	%	Pitot ID: ADP2		LEAK CHECKS	Pre	Mid 1	Mid 2	Post	Check Pt. Initial Final Corr.
N_2/CO:	%	Pitot Cp/Type: .99 / Stand		Leak Rate (cfm):	.007	.005		.003	Mid 1 (cf) -
Md:	lb/lb-mole	Nozzle ID: .204		Vacuum (in Hg):	12	10		6	Mid 2 (cf) -
Ms:	lb/lb-mole	Nozzle Dn (in.): .204		Pitot Tube:	Pass	Pass		Pass	Mid 3 (cf) -
									Mid-Point Leak Check Vol (cf): -

Sample Pt.	Sample Time (min) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temps (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temps (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0	20	959.521	.64	42	46	1.61	1.6	4	250	250	42			-
2	20	40	974.280	.76	42	47	1.76	1.8	4	250	250	43			-
3	40	60	988.710	.72	44	46	1.80	1.8	4	250	250	51			-
4	60	80	1003.25	.75	45	46	1.9	1.9	4	250	249	55			-
5	80	100	1018.56	.80	47	46	2.03	2.0	4	251	250	54			-
6	100	120	1034.19	.85	48	47	2.16	2.2	4	251	250	56			-
7	120	140	1051.27	.85	49	47	2.16	2.2	4	250	250	58			-
8	140	160	1067.21	.86	50	50	2.18	2.2	5	250	250	55			-
9	160	180	1083.67	.86	52	51	2.18	2.2	5	250	250	52			-
10	180	200	1099.74	.86	53	53	2.18	2.2	5	250	250	53			-
11	200	220	1116.46	.88	55	54	2.23	2.3	5	250	250	55			-
12	220	240	1132.86	.89	56	59	2.24	2.3	5	251	250	49			-
D1	240	260	1149.45	.72	57	68	1.79	1.8	5	247	249	49			-
2	260	280	1164.47	.75	62	70	1.87	1.9	5	249	250	48			-
3	280	300	1179.82	.78	66	72	1.95	2	5	251	251	55			-
4	300	320	1195.76	.81	69	74	2.03	2	5	250	251	55			-
5	320	340	1211.96	.82	73	77	2.06	2.1	5	249	248	53			-
6	340	360	1228.55	.85	75	78	2.14	2.1	5	251	251	53			-
7	360	380	1244.99	.86	77	80	2.17	2.2	5	249	253	53			-
8	380	400	1261.81	.85	80	81	2.15	2.2	5	249	246	53			-
9	400	420	1278.61	.81	82	83	2.05	2.1	5	249	248	50			-
10	420	440	1295.67	.74	83	79	1.89	1.9	5	250	248	50			-
11	440	460	1311.75	.72	81	77	1.84	1.8	5	252	252	49			-
12	460	480	1327.650	.71	80	75	1.82	1.8	5	249	250	51			-
			1343.359												-
	Final DGM:														

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Inlet PAH | Start Time: 5:52 | Source:
Date: 3/17/21 | Run 1 | End Time: 14:37 | Project No.: | Parameter:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 5	% est.	Meter Box ID: M5-9		Est. Tm: 60	°F		Pb: 29.52	in. Hg	Vlc (ml)
Barometric:	in. Hg	Y: .993		Est. Ts: 60	°F		Pg: -.8	in. WC	
Static Press:	in. WC	ΔH @ (in.WC): 1.841		Est. ΔP: 1.9	in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	in. Hg	Probe ID: PR502-4		Est. Dn: .212	in.		O_2: 20.9	%	
CO_2:	%	Liner Material: Quartz		Target Rate: .75	scfm			Check Pt. Initial Final Corr.	
O_2:	%	Pitot ID: ADP1		LEAK CHECKS	Pre	Mid 1 / Mid 2 / Post			
N_2/CO:	%	Pitot Cp/Type: .99 Stand		Leak Rate (cfm):	.003	.005 / / .003	Mid 1 (cf)		-
Md:	lb/lb-mole	Nozzle ID: .269		Vacuum (in Hg):	12	10 / / 10	Mid 2 (cf)		-
Ms:	lb/lb-mole	Nozzle Dn (in.): .196		Pitot Tube:	Pass	/ / Pass	Mid 3 (cf)		-
							Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1			352.794	.64	44	46	1.31	1.3	5	255	249	47	47		-
2			366.420	.76	47	47	1.44	1.4	5	250	252	58	44		-
3			381.020	.72	51	46	1.50	1.5	5	230	258	59	44		-
4			395.95	.75	53	47	1.56	1.6	5	250	251	55	44		-
5			409.17	.80	55	46	1.68	1.7	7	250	253	51	44		-
6			423.02	.85	56	47	1.78	1.8	7	250	253	51	44		-
7			438.95	.85	59	49	1.79	1.8	7	250	249	52	47		-
8			453.73	.86	50	60	1.74	1.8	7	250	251	52	47		-
9			469.63	.86	61	51	1.81	1.8	7	250	249	52	48		-
10			483.73	.86	62	53	1.8	1.8	7	250	248	53	50		-
11			498.85	.88	65	54	1.85	1.9	7	250	249	54	51		-
12			513.92	.89	67	57	1.87	1.9	7	251	249	52	51		-
B1			529.110	.72	69	68	1.49	1.5	7	250	250	49	59		-
2			543.39	.75	61	70	1.52	1.5	7	250	251	59	39		-
3			557.95	.78	76	72	1.62	1.6	7	249	252	55	39		-
4			572.74	.81	80	74	1.69	1.7	7	250	248	51	40		-
5			587.75	.82	82	77	1.71	1.7	7	251	249	56	42		-
6			602.420	.85	84	78	1.77	1.8	7	250	253	57	44		-
7			617.620	.86	84	80	1.79	1.8	7	250	250	58	45		-
8			632.75	.85	86	80	1.77	1.8	7	249	249	57	49		-
9			647.96	.81	87	83	1.68	1.7	7	250	250	55	40		-
10			663.42	.74	88	80	1.55	1.6	7	250	250	57	42		-
11			678.34	.72	86	76	1.51	1.5	7	251	250	55	41		-
12			693.01	.71	86	75	1.49	1.5	7	250	251	53	43		-
			707.201												-
	Final DGM:														

Alliance SOURCE TESTING

Isokinetic Field Data

Location: AAA Inlet Metals | Start Time: 4:40 | Source: | Parameter:
Date: 3/18/21 | Run 2 | End Time: 12 46 | Project No.:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 1	% est.	Meter Box ID:	M5-69	Est. Tm: 61	°F		Pb: 29.55	in. Hg	Vlc (ml)
Barometric:	in. Hg	Y:	.9985	Est. Ts: 63	°F		Pg: -.8	in. WC	
Static Press:	in. WC	ΔH @ (in.WC):	1.93	Est. ΔP: .8	in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	in. Hg	Probe ID:	PR502-3	Est. Dn: .197	in.		O_2: 20.9	%	
CO_2:	%	Liner Material:	Quartz	Target Rate: .75	scfm				
O_2:	%	Pitot ID:	ADP 1						
N_2/CO:	%	Pitot Cp/Type:	.99 Stand						
Md:	lb/lb-mole	Nozzle ID:	.204						
Ms:	lb/lb-mole	Nozzle Dn (in.):	.204						

LEAK CHECKS	Pre	Mid 1	Mid 2	Post
Leak Rate (cfm):	0			
Vacuum (in Hg):	8			
Pitot Tube:	Pass			

Check Pt.	Initial	Final	Corr.
Mid 1 (cf)			-
Mid 2 (cf)			-
Mid 3 (cf)			-
Mid-Point Leak Check Vol (cf):			-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0	20	343.716	.65	45	47	1.76	1.8	3	251	250	46			-
2	20	40	358.21	.67	46	52	1.8	1.8	3	250	251	46			-
3	40	60	373.820	.68	47	53	1.82	1.8	3	251	249	55			-
4	60	80	387.52	.69	49	53	1.86	1.9	3	249	250	51			-
5	80	100	402.71	.71	50	53	1.91	1.9	3	248	248	47			-
6	100	120	417.67	.74	50	54	1.99	2.0	3	249	249	47			-
7	120	140	432.71	.73	51	54	1.97	2.0	3	250	250	48			-
8	140	160	448.15	.71	52	54	1.92	1.9	3	249	249	48			-
9	180	~~200~~	466.07	.69	52	55	1.86	1.9	3	251	250	48			-
10	160	200	478.83	.68	53	56	1.83	1.8	3	251	252	49			-
11	200	220	494.27	.69	53	57	1.86	1.9	3	250	251	49			-
12	220	240	509.720	.68	54	58	1.83	1.8	3	252	250	50			-
B1	240	260	524.68	.7	56	59	1.89	1.9	3	249	250	50			-
2	260	280	539.43	.73	58	54	1.99	2.0	3	247	251	48			-
3	280	300	556.07	.76	59	55	2.08	2.1	3	253	252	51			-
4	300	320	570.86	.78	60	57	2.13	2.10	3	248	251	52			-
5	320	340	587.19	.77	62	58	2.10	2.1	3	251	248	53			-
6	340	360	603.57	.78	64	58	2.14	2.2	3	251	250	54			-
7	360	380	619.32	.76	67	62	2.08	2.1	3	249	249	56			-
8	380	400	636.31	.72	69	63	1.97	2.0	3	251	249	56			-
9	400	420	652.02	.71	72	64	1.94	2	3	251	254	55			-
10	420	440	667.621	.70	75	74	1.9	1.9	3	248	247	52			-
11	440	460	683.74	.70	77	69	1.93	1.9	3	250	247	57			-
12	460	480	699.42	.69	79	80	1.87	1.9	3	251	250	51			-
	480		715.212												

Final DGM:

Alliance SOURCE TESTING

Isokinetic Field Data

Location: AAA Inlet PAH | Start Time: 41;40 | Source:
Date: 3/18/21 | Run 2 | End Time: 1246 | Project No.: | Parameter:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 1	% est.	Meter Box ID:	M5-9	Est. Tm:	°F		Pb: 29.55	in. Hg	Vlc (ml)
Barometric:	in. Hg	Y:	1.993	Est. Ts:	°F		Pg: -.8	in. WC	
Static Press:	in. WC	ΔH @ (in.WC):	1.841	Est. ΔP:	in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	in. Hg	Probe ID:	PR502-4	Est. Dn:	in.		O_2: 20.9	%	
CO_2:	%	Liner Material:	Quartz	Target Rate:	scfm				
O_2:	%	Pitot ID:	ADP 1	LEAK CHECKS	Pre	Mid 1 / Mid 2 / Post	Check Pt.	Initial	Final / Corr.
N_2/CO:	%	Pitot Cp/Type:	.99 Stand	Leak Rate (cfm):	.004		Mid 1 (cf)		-
Md:	lb/lb-mole	Nozzle ID:	.209	Vacuum (in Hg):	11		Mid 2 (cf)		-
Ms:	lb/lb-mole	Nozzle Dn (in.):	.196	Pitot Tube:	Pass		Mid 3 (cf)		-
							Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1			707.524	.65	46	47	1.43	1.4	7	252	252	43	48		-
2			721.06	.67	51	52	1.47	1.5	7	250	248	51	47		-
3			735.46	.68	55	53	1.51	1.5	7	250	250	54	46		-
4			748.71	.69	66	53	1.56	1.6	8	251	251	53	46		-
5			763.020	.71	67	53	1.61	1.6	8	250	251	51	46		-
6			777.41	.74	57	54	1.64	1.7	8	250	251	53	48		-
7			791.35	.73	57	54	1.62	1.6	8	250	250	53	47		-
8			806.05	.71	59	54	1.58	1.6	8	230	251	52	47		-
9			820.51	.69	60	55	1.54	1.5	8	258	252	52	48		-
10			835.04	.68	61	56	1.51	1.5	8	250	251	52	49		-
11			849.27	.69	61	57	1.53	1.5	8	250	253	52	49		-
12			864.11	.68	64	58	1.52	1.5	8	249	249	54	52		-
B1			878.101	.78	66	58	1.57	1.6	8	250	250	50	44		-
2			892.41	.73	66	55	1.64	1.6	9	249	251	50	44		-
3			907.71	.76	71	55	1.73	1.7	9	250	252	47	48		-
4			922.72	.78	72	56	1.77	1.8	9	250	250	45	47		-
5			936.99	.77	72	57	1.75	1.8	9	250	252	52	53		-
6			951.34	.78	73	59	1.77	1.8	9	249	251	54	52		-
7			966.42	.76	77	61	1.73	1.8	9	251	250	56	49		-
8			982.33	.72	79	62	1.64	1.7	9	250	250	52	45		-
9			997.15	.71	82	68	1.59	1.6	9	250	251	47	44		-
10			1012.45	.70	85	74	1.58	1.6	9	251	251	38	41		-
11			1028.50	.70	86	69	1.59	1.6	9	251	251	35	42		-
12			1043.51	.69	86	80	1.54	1.5	9	251	252	30	40		-
			1057.858												-
	Final DGM:														

Alliance SOURCE TESTING

Isokinetic Field Data

Location: AAA Inlet PAH | Start Time: 4:40 | Source: | Parameter:

Date: 3/19/21 | Run 3 | End Time: 12:45 | Project No.:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1 % est.	Meter Box ID:	M5-9	Est. Tm:	67 °F		Pb:	29.59 in. Hg	Vlc (ml)
Barometric:	in. Hg	Y:	.993	Est. Ts:	59 °F		Pg:	-.8 in. WC	
Static Press:	in. WC	ΔH @ (in.WC):	1.541	Est. ΔP:	.71 in. WC		CO_2:	0 %	K-FACTOR
Stack Press:	in. Hg	Probe ID:	PR205-4	Est. Dn:	.201 in.		O_2:	20.9 %	
CO_2:	%	Liner Material:	Quartz	Target Rate:	.75 scfm			Check Pt. Initial Final Corr.	
O_2:	%	Pitot ID:	ADP1	LEAK CHECKS	Pre Mid 1 Mid 2 Post		Mid 1 (cf)		-
N_2/CO:	%	Pitot Cp/Type:	.99 Stand	Leak Rate (cfm):	0 .001		Mid 2 (cf)		-
Md:	lb/lb-mole	Nozzle ID:	.209	Vacuum (in Hg):	12 11		Mid 3 (cf)		-
Ms:	lb/lb-mole	Nozzle Dn (in.):	.196	Pitot Tube:	Pass Pass		Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
1		–	58.259	.71	45	48	1.56	1.6	8	253	253	116	43		-
2	–	–	71.79	.76	52	54	1.67	1.7	8	250	250	54	48		-
3	–	–	85.81	.74	55	55	1.63	1.6	8	250	250	51	48		-
4	–	–	99.67	.72	58	55	1.60	1.6	8	250	250	54	35		-
5	–	–	113.92	.68	59	55	1.51	1.5	8	250	251	50	35		-
6	–	–	126.94	.65	61	55	1.45	1.5	8	250	250	48	35		-
7	–	–	140.98	.68	61	56	1.51	1.5	8	250	248	48	35		-
8	–	–	155.89	.66	61	56	1.47	1.5	8	250	258	47	35		-
9	–	–	170.64	.70	61	56	1.56	1.6	8	250	253	47	35		-
10	–	–	184.52	.72	62	56	1.61	1.6	8	250	251	46	36		-
11	–	–	198.87	.69	64	58	1.54	1.5	8	250	251	46	36		-
12	–	–	213.02	.71	65	60	1.58	1.6	8	250	251	47	37		-
B1	–	–	226.94	.76	66	61	1.69	1.7	8	252	248	48	37		-
2	–	–	241.28	.78	68	56	1.76	1.7	8	251	248	48	37		-
3	–	–	255.82	.77	75	64	1.73	1.7	8	250	251	51	37		-
4	–	–	270.42	.76	76	66	1.71	1.7	8	249	250	51	39		-
5	–	–	284.93	.75	76	68	1.68	1.7	8	250	252	55	41		-
6	–	–	300.42	.71	77	73	1.58	1.6	8	250	250	51	41		-
7	–	–	315.53	.68	81	76	1.51	1.5	8	251	252	51	44		-
8	–	–	329.74	.65	85	79	1.45	1.5	8	250	251	52	46		-
9	–	–	344.48	.64	85	80	1.42	1.4	8	251	245	54	49		-
10	–	–	358.71	.66	90	82	1.48	1.5	8	250	249	48	36		-
11	–	–	372.27	.68	92	84	1.52	1.5	8	250	253	47	36		-
12	–	–	386.11	.68	93	86	1.47	1.5	8	250	252	47	37		-

Final DGM:

Alliance SOURCE TESTING

Isokinetic Field Data

Location: AAA Inlet metals | Start Time: 4:40 | Source:
Date: 3/19/21 | Run 3 | End Time: 12:49 | Project No.: | Parameter:

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 1	% est.	Meter Box ID: M5-69		Est. Tm: 58	°F		Pb: 29.59	in. Hg	Vlc (ml)
Barometric:	in. Hg	Y: .985		Est. Ts: 58	°F		Pg: -.4	in. WC	
Static Press:	in. WC	ΔH @ (in.WC): 1.93		Est. ΔP: .71	in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	in. Hg	Probe ID: PR205-3		Est. Dn: .203	in.		O_2: 20.9	%	
CO_2:	%	Liner Material: Quartz		Target Rate: .73	scfm		Check Pt.	Initial	Final Corr.
O_2:	%	Pitot ID: ADP1		LEAK CHECKS	Pre	Mid 1 Mid 2 Post	Mid 1 (cf)		-
N_2/CO:	%	Pitot Cp/Type: .99 / Stand		Leak Rate (cfm):	0	.002	Mid 2 (cf)		-
Md:	lb/lb-mole	Nozzle ID: .204		Vacuum (in Hg):	9	8	Mid 3 (cf)		-
Ms:	lb/lb-mole	Nozzle Dn (in.): .204		Pitot Tube:	Pass	Pass	Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1		–	715.534	.71	45	48	1.91	1.9	3	249	250	46			-
2	–	–	730.77	.176	46	54	2.03	2	3	250	249	48			-
3	–	–	746.62	.74	49	55	1.98	2	3	251	251	58			-
4	–	–	762.55	.72	51	55	1.94	1.9	3	250	251	58			-
5	–	–	778.71	.68	52	55	1.83	1.8	3	251	251	52			-
6	–	–	793.15	.65	53	55	1.76	1.8	3	251	250	50			-
7	–	–	808.91	.68	53	56	1.83	1.8	3	250	251	51			-
8	–	–	824.83	.66	53	56	1.78	1.8	3	250	250	50			-
9	–	–	839.72	.70	54	56	1.89	1.9	3	250	250	50			-
10	–	–	854.74	.72	54	56	1.94	1.9	3	250	248	50			-
11	–	–	869.91	.69	54	58	1.86	1.9	3	249	248	52			-
12	–	–	884.71	.71	56	60	1.91	1.9	3	251	247	53			-
B1	–	–	899.53	.76	57	61	2.04	2	3	250	251	53			-
2	–	–	914.66	.78	59	56	2.13	2.1	3	249	251	54			-
3	–	–	929.85	.77	62	65	2.07	2.1	3	250	251	58			-
4	–	–	945.51	.76	64	66	2.05	2.1	3	250	249	59			-
5	–	–	962.05	.75	65	68	2.02	2	3	250	251	51			-
6	–	–	978.76	.71	68	73	1.91	1.9	3	252	251	57			-
7	–	–	994.72	.68	71	76	1.83	1.8	3	251	250	51			-
8	–	–	1010.91	.65	74	79	1.75	1.8	3	251	250	53			-
9	–	–	1026.72	.64	77	79	1.73	1.7	3	251	249	56			-
10	–	–	1041.43	.66	80	82	1.78	1.8	3	251	251	54			-
11	–	–	1055.77	.68	83	83	1.84	1.8	3	251	251	55			-
12	–	–	1071.95	.66	85	86	1.79	1.8	3	249	249	56			-
															-

Final DGM:

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Asphalt | Start Time: 5:52 | Source: CAU
Date: 3/17/21 | Run 1 | Val: 6 | End Time: 14:45 | Project No.: 2021-0883 | Parameter: Metals

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	5.0 % est.	Meter Box ID:	M5-26	Est. Tm:	50 °F		Pb:	~~30.08~~ in. Hg	Vlc (ml)
Barometric:	30.08 in. Hg	Y:	0.999	Est. Ts:	65 °F	0.86	Pg:	29.52 in. WC	
Static Press:	1.00 in. WC	ΔH @ (in.WC):	1.726	Est. ΔP:	1.25 in. WC		CO_2:	20.9 %	K-FACTOR
Stack Press:	30.15 in. Hg	Probe ID:	P702-3-2	Est. Dn:	0.182 in.		O_2:	0.0 %	1.885
CO_2:	0.0 %	Liner Material:	Glass	Target Rate:	0.75 scfm				
O_2:	20.9 %	Pitot ID:	PS-2						
N_2/CO:	79.1 %	Pitot Cp/Type:	0.990 Standard						
Md:	28.84 lb/lb-mole	Nozzle ID:	6-196-1						
Ms:	28.24 lb/lb-mole	Nozzle Dn (in.):	0.196						

LEAK CHECKS	Pre	Mid 1	Mid 2	Post
Leak Rate (cfm):	0.000	0.000		
Vacuum (in Hg):	15	6		
Pitot Tube:	Pass	Pass		

Check Pt.	Initial	Final	Corr.
Mid 1 (cf)	702.068	702.441	
Mid 2 (cf)			-
Mid 3 (cf)			-
Mid-Point Leak Check Vol (cf):			-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	~~0.000~~	20.00	503.222	1.30	45	55	2.47	2.50	3	248	254	41		94.5	-
2	20.00	40.00	520.280	1.30	48	55	2.48	2.50	3	250	251	45		94.3	-
3	40.00	60.00	537.400	1.20	51	57	2.30	2.30	3	250	251	46		97.0	-
4	60.00	80.00	554.390	1.20	52	60	2.29	2.30	3	250	252	48		97.4	-
5	80.00	100.00	571.520	1.20	53	63	2.28	2.30	3	250	250	50		95.3	-
6	100.00	120.00	588.180	1.20	53	66	2.27	2.30	3	250	250	49		94.9	-
7	120.00	140.00	604.720	1.20	54	68	2.26	2.30	3	250	244	51		94.3	-
8	140.00	160.00	621.170	1.20	56	72	2.26	2.30	3	250	250	52		97.8	-
9	160.00	180.00	638.220	1.20	57	75	2.25	2.30	3	250	246	56		91.9	-
10	180.00	200.00	654.240	1.20	58	78	2.24	2.20	3	250	251	59		93.5	-
11	200.00	220.00	670.520	1.00	60	82	1.86	1.90	3	251	249	57		96.5	-
12	220.00	240.00	685.880	1.00	61	85	1.85	1.90	3	250	246	57		95.5	-
B1	240.00	260.00	701.068	0.82	70	92	1.53	1.50	2	249	251	62		105.1	-
2	260.00	280.00	716.170	1.10	76	95	2.06	2.10	2	249	~~238~~ 248	60		97.7	-
3	280.00	300.00	732.970	1.20	78	97	2.25	2.30	2	250	238	58		96.5	-
4	300.00	320.00	750.170	0.88	78	100	1.64	1.60	2	250	244	56		97.2	-
5	320.00	340.00	766.890	0.95	78	100	1.77	1.80	2	250	246	57		98.2	-
6	340.00	360.00	780.390	1.00	80	102	1.86	1.90	2	250	240	58		96.3	-
7	360.00	380.00	796.010	1.10	82	101	2.06	2.10	2	250	255	51		97.3	-
8	380.00	400.00	812.630	1.10	83	101	2.06	2.10	2	250	254	52		98.0	-
9	400.00	420.00	829.400	1.10	84	101	2.07	2.10	2	249	259	52		97.8	-
10	420.00	440.00	846.180	1.10	82	102	2.06	2.10	2	250	258	50		98.1	-
11	440.00	460.00	862.920	0.92	81	98	1.73	1.70	2	249	245	51		96.8	-
12	460.00	480.00	878.080	1.00	80	98	1.88	1.90	2	251	258	60			-
															-
	Final DGM:		893.742												

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Asphalt | Start Time: 5:52 | Source: LAU
Date: 3/17/21 | Run 1 | Valid | End Time: 14:45 | Project No.: 2021-0883 | Parameter: M23

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	5.0 % est.	Meter Box ID:	M5-30	Est. Tm:	50 °F		Pb: ~~29.55~~ 29.05	in. Hg	Vlc (ml)
Barometric:	30.08 in. Hg	Y:	0.995	Est. Ts:	65 °F	0.186	Pg: ~~-1.00~~	in. WC	
Static Press:	-1.00 in. WC	ΔH @ (in.WC):	1.887	Est. ΔP:	1.11 in. WC		CO_2: 20.9	%	K-FACTOR
Stack Press:	30.01 in. Hg	Probe ID:	P702-3	Est. Dn:	0.158 in.		O_2: 0.0	%	2.064
CO_2:	0.0 %	Liner Material:	Glass	Target Rate:	0.75 scfm				
O_2:	20.9 %	Pitot ID:	PS-2	LEAK CHECKS	Pre	Mid 1	Mid 2	Post	
N_2/CO:	79.2 %	Pitot Cp/Type:	0.990 standard	Leak Rate (cfm):	0.005	0.000			
Md:	28.84 lb/lb-mole	Nozzle ID:	G-196-1	Vacuum (in Hg):	1.0	18			
Ms:	28.29 lb/lb-mole	Nozzle Dn (in.):	0.196	Pitot Tube:	Pass	Pass			

Check Pt.	Initial	Final	Corr.
Mid 1 (cf)	331.904	332.227	-
Mid 2 (cf)			-
Mid 3 (cf)			-
Mid-Point Leak Check Vol (cf):			-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
					45	45				45	45	45	45		
A1	0.00	20.00	121.838	1.30	45	55	2.70	2.70	10	246	252	42	52	101.6	-
2	20.00	40.00	140.250	1.30	52	55	2.74	2.70	10	250	248	44	52	99.4	-
3	40.00	60.00	158.520	1.20	53	57	2.53	2.50	10	249	254	46	53	99.8	-
4	60.00	80.00	176.160	1.20	54	60	2.52	2.50	10	252	250	46	54	97.8	-
5	80.00	100.00	193.430	1.20	54	63	2.50	2.50	10	250	248	46	51	100.1	-
6	100.00	120.00	211.040	1.20	54	66	2.49	2.50	10	247	249	47	54	99.3	-
7	120.00	140.00	228.470	1.20	55	68	2.48	2.50	10	247	250	48	58	98.7	-
8	140.00	160.00	245.790	1.20	57	72	2.47	2.50	10	249	250	48	~~58~~ 59	100.7	-
9	160.00	180.00	263.460	1.20	58	75	2.47	2.50	10	250	253	49	50	97.6	-
10	180.00	200.00	280.570	1.20	60	78	2.46	2.50	10	249	250	45	~~45~~ 50	104.4	-
11	200.00	220.00	298.900	1.00	61	82	2.04	2.00	10	247	251	44	36	102.6	-
12	220.00	240.00	316.140	1.00	62	85	2.03	2.00	10	240	253	46	37	98.5	-
21	240.00	260.00	331.904	0.82	70	97	1.67	1.70	5	238	250	50	43	102.2	-
2	260.00	280.00	346.860	1.10	74	95	2.25	2.20	8	246	242	54	40	94.7	-
3	280.00	300.00	362.970	1.20	78	97	2.46	2.50	9	248	251	56	38	98.0	-
4	300.00	320.00	380.460	0.88	81	100	1.81	1.80	8	254	248	55	39	97.0	-
5	320.00	340.00	395.350	0.95	81	100	1.95	2.00	8	251	247	61	41	98.5	-
6	340.00	360.00	411.060	1.00	83	102	2.05	2.00	8	247	246	60	40	92.5	-
7	360.00	380.00	426.220	1.10	84	101	2.26	2.30	8	250	248	54	38	97.1	-
8	380.00	400.00	442.940	1.10	84	101	2.26	2.30	9	247	250	55	36	100.0	-
9	400.00	420.00	460.170	1.10	85	101	2.27	2.30	9	247	248	56	43	96.2	-
10	420.00	440.00	476.780	1.10	83	102	2.26	2.30	9	248	251	58	48	103.9	-
11	440.00	460.00	494.630	0.92	82	98	1.90	1.90	8	243	248	60	54	100.2	-
12	460.00	480.00	510.410	1.10	80	98	2.26	2.30	8	252	249	61	59		-
															-

Final DGM: 526.962

Alliance SOURCE TESTING

Metals

Isokinetic Field Data

Location: All American Asphalt | Start Time: 4:40 | Source: CAN

Date: 3/18/21 | Run ~~#~~ 2 | End Time: 12:46 | Project No.: 2021-0883 | Parameter: Metals

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0 % est.	Meter Box ID:	M5-26	Est. Tm:	67 °F	29.55	Pb: ~~30.10~~	in. Hg	Vlc (ml)
Barometric:	30.08 in. Hg	Y:	0.999	Est. Ts:	83 °F		Pg: ~~+0.21~~	in. WC	
Static Press:	1.00 in. WC	ΔH @ (in.WC):	1.726	Est. ΔP:	1.10 in. WC		CO_2: 0	%	K-FACTOR
Stack Press:	30.15 in. Hg	Probe ID:	P702-3-2	Est. Dn:	0.183 in.		O_2: 20.9	%	2.01
CO_2:	0.0 %	Liner Material:	Glass	Target Rate:	0.75 scfm			Check Pt. Initial	Final Corr.
O_2:	20.9 %	Pitot ID:	PS-2	LEAK CHECKS	Pre Mid 1 Mid 2 Post			Mid 1 (cf)	-
N_2/CO:	79.1 %	Pitot Cp/Type:	0.990 standard	Leak Rate (cfm):	0.002		0.000	Mid 2 (cf)	-
Md:	28.84 lb/lb-mole	Nozzle ID:	G-196-1	Vacuum (in Hg):	15		5	Mid 3 (cf)	-
Ms:	28.73 lb/lb-mole	Nozzle Dn (in.):	0.196	Pitot Tube:	Pass		Pass	Mid-Point Leak Check Vol (cf):	-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	894.933	1.20	51	75	2.38	2.40	3	248	250	41	–	95.6	72.86
2	20.00	40.00	911.950	1.10	48	80	2.15	2.20	3	250	251	38	–	97.6	70.08
3	40.00	60.00	928.420	1.00	48	78	1.96	2.00	3	250	250	37	–	95.8	66.70
4	60.00	80.00	943.870	1.20	48	76	2.36	2.40	3	250	252	35	–	97.1	72.83
5	80.00	100.00	961.050	1.20	48	76	2.36	2.40	3	242	251	46	–	98.2	72.93
6	100.00	120.00	978.410	1.20	47	75	2.36	2.40	3	250	250	37	–	98.3	72.86
7	120.00	140.00	995.770	1.10	49	78	2.16	2.20	3	250	252	37	–	98.6	69.96
8	140.00	160.00	1012.470	1.10	51	77	2.17	2.20	3	250	249	39	–	98.0	69.89
9	160.00	180.00	1029.160	1.10	51	77	2.17	2.20	3	250	247	43	–	98.1	69.89
10	180.00	200.00	1045.870	1.20	53	79	2.37	2.40	3	249	246	43	–	102.6	73.13
11	200.00	220.00	1064.150	1.10	56	80	2.18	2.20	3	251	251	45	–	92.5	70.08
12	220.00	240.00	1080.000	0.90	56	83	1.78	1.80	3	250	249	46	–	101.5	63.57
B1	240.00	260.00	1095.717	1.10	56	86	2.16	2.20	3	247	250	48	–	94.6	70.47
2	260.00	280.00	1111.850	1.10	58	88	2.16	2.20	3	249	253	47	–	93.0	70.60
3	280.00	300.00	1127.730	1.20	59	88	2.36	2.40	3	250	247	52	–	97.5	73.74
4	300.00	320.00	1145.150	1.20	66	91	2.37	2.40	3	249	250	51	–	96.3	73.94
5	320.00	340.00	1162.550	1.20	73	93	2.40	2.40	3	251	248	53	–	96.2	74.08
6	340.00	360.00	1180.120	1.20	77	95	2.41	2.40	3	251	248	54	–	95.9	74.21
7	360.00	380.00	1197.730	1.10	79	98	2.20	2.20	3	250	249	56	–	95.7	71.24
8	~~380.00~~ 379.00	400.00	1214.590	1.10	81	98	2.21	2.20	3	250	249	58	–	95.4	71.24
9	400.00	420.00	1231.450	1.00	82	99	2.01	2.00	3	246	250	58	–	96.8	67.99
10	420.00	440.00	1247.800	0.88	81	100	1.76	1.80	3	250	252	59	–	99.7	63.84
11	440.00	460.00	1263.550	0.77	80	102	1.54	1.50	3	249	248	56	–	94.6	59.82
12	460.00	480.00	1277.490	0.83	82	104	1.66	1.70	3	249	245	56	–	99.3	62.27
															-

Final DGM: 1292.705

PAH

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Asphalt | Start Time: 9:40 | Source: CAM
Date: 3/18/21 | Run 2 Valid | End Time: 12:46 | Project No.: 2021-0883 | Parameter: M23

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0 % est.	Meter Box ID:	M5-30	Est. Tm:	68 °F	2955	Pb:	30.1 in. Hg	Vlc (ml)
Barometric:	30.08 in. Hg	Y:	0.995	Est. Ts:	83 °F		Pg:	40.81 in. WC	
Static Press:	-1.00 in. WC	ΔH @ (in.WC):	1.887	Est. ΔP:	1.11 in. WC		CO_2:	20.9 %	K-FACTOR
Stack Press:	30.01 in. Hg	Probe ID:	P702-3	Est. Dn:	0.153 in.		O_2:	0 %	2.15
CO_2:	0.0 %	Liner Material:	Glass	Target Rate:	0.75 scfm				
O_2:	20.9 %	Pitot ID:	PS-2	LEAK CHECKS	Pre / Mid 1 / Mid 2 / Post		Check Pt.	Initial / Final / Corr.	
N_2/CO:	79.1 %	Pitot Cp/Type:	0.990 / standard	Leak Rate (cfm):	0.000 / / / 0.000		Mid 1 (cf)		-
Md:	28.84 lb/lb-mole	Nozzle ID:	G-195-1	Vacuum (in Hg):	15 / / / 10		Mid 2 (cf)		-
Ms:	28.73 lb/lb-mole	Nozzle Dn (in.):	0.195	Pitot Tube:	Pass / / / Pass		Mid 3 (cf)		-
							Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	~~20.00~~ 20.00	527.498	1.20	52	75	2.54	2.50	4	250	250	46	38	96.9	73.04
2	20.00	~~40.00~~ 40.00	544.640	1.10	51	80	2.30	2.30	6	246	250	44	37	98.9	70.26
3	~~40.00~~	~~60.00~~ 60.00	561.250	1.00	51	78	2.10	2.10	6	280	250	45	37	99.3	66.86
4	60.00	80.00	577.250	1.20	50	76	2.52	2.50	6	244	250	50	36	98.0	73.11
5	~~80.00~~	100.00	594.490	1.20	52	76	2.53	2.50	6	243	250	47	37	97.6	73.11
6	100.00	120.00	611.740	1.20	51	75	2.53	2.50	6	270	250	47	36	98.1	73.04
7	120.00	140.00	629.050	1.10	53	78	2.32	2.30	6	242	250	47	37	98.7	70.13
8	140.00	160.00	645.750	1.10	53	77	2.32	2.30	6	242	250	48	39	98.4	70.06
9	160.00	180.00	662.420	1.10	54	77	2.33	2.30	6	248	250	49	40	99.9	70.06
10	180.00	200.00	679.280	1.20	56	79	2.54	2.50	6	247	249	52	43	97.5	73.31
11	200.00	220.00	696.700	1.10	56	80	2.32	2.30	6	245	251	54	46	98.7	70.26
12	220.00	240.00	713.470	0.90	59	83	1.90	1.90	5	250	249	60	49	99.8	63.73
B1	240.00	260.00	728.858	1.10	58	88	2.31	2.30	6	244	250	58	44	98.9	70.65
2	260.00	280.00	745.650	1.10	60	88	2.31	2.30	6	252	249	61	51	91.2	70.77
3	280.00	300.00	761.160	1.20	61	88	2.52	2.50	6	246	249	55	41	98.3	73.92
4	300.00	320.00	778.630	1.20	70	91	2.55	2.60	7	249	250	53	41	99.7	74.12
5	320.00	340.00	796.600	1.20	73	93	2.55	2.60	7	251	246	53	41	97.8	74.26
6	340.00	360.00	814.300	1.20	76	95	2.56	2.60	7	247	251	55	42	98.4	74.39
7	360.00	380.00	832.180	1.10	78	98	2.34	2.40	7	251	249	56	43	100.1	71.42
8	380.00	400.00	849.620	1.10	82	98	2.36	2.40	7	244	250	58	45	97.7	71.42
9	400.00	420.00	866.770	1.00	83	99	2.15	2.20	6	250	251	62	51	102.9	68.18
10	420.00	440.00	884.010	0.88	84	100	1.89	1.90	6	249	249	70	57	101.2	63.99
11	440.00	460.00	899.950	0.77	80	102	1.64	1.60	5	248	248	64	45	98.1	59.97
12	460.00	480.00	914.280	0.83	85	104	1.77	1.80	5	247	246	58	44	98.9	62.37
				~~0.83~~ SKIP											-
	Final DGM:		929.384												

Alliance SOURCE TESTING

Metals

Isokinetic Field Data

Location: All American Asphalt | Start Time: 4:40 | Source: CAM

Date: 3/19/21 | Run#3 | Valid | End Time: 12:49 | Project No.: 2021-0883 | Parameter: Metals

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture:	1.0 % est.	Meter Box ID:	MS-26	Est. Tm:	63 °F	2955	Pb: ~~30.10~~	in. Hg	Vlc (ml)
Barometric:	30.08 in. Hg	Y:	0.999	Est. Ts:	87 °F		Pg: ~~+0.79~~	in. WC	
Static Press:	1.00 in. WC	ΔH @ (in.WC):	1.726	Est. ΔP:	1.09 in. WC		CO_2: 0.0	%	K-FACTOR
Stack Press:	30.15 in. Hg	Probe ID:	P702-3-2	Est. Dn:	0.185 in.		O_2: 20.9	%	1.982
CO_2:	0.0 %	Liner Material:	Glass	Target Rate:	0.75 scfm			Check Pt. Initial Final Corr.	
O_2:	20.9 %	Pitot ID:	PS-2	LEAK CHECKS	Pre Mid 1 Mid 2 Post		Mid 1 (cf)		-
N_2/CO:	79.1 %	Pitot Cp/Type:	0.990 Standard	Leak Rate (cfm):	0.002		Mid 2 (cf)		-
Md:	28.84 lb/lb-mole	Nozzle ID:	G-196-1	Vacuum (in Hg):	15		Mid 3 (cf)		-
Ms:	28.73 lb/lb-mole	Nozzle Dn (in.):	0.196	Pitot Tube:	Pass	Pass	Mid-Point Leak Check Vol (cf):		-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	295.292	0.98	50	78	1.93	1.90	3	249	248	47	-	94.8	66.03
2	20.00	40.00	310.500	1.20	52	83	2.35	2.40	2	250	250	46	-	96.1	73.40
3	40.00	60.00	327.520	1.20	54	82	2.36	2.40	2	250	249	46	-	97.4	73.44
4	60.00	80.00	344.860	1.20	56	83	2.36	2.40	2	250	249	48	-	99.1	73.40
5	80.00	100.00	362.550	1.20	54	83	2.35	2.40	2	251	251	46	-	94.3	73.40
6	100.00	120.00	379.320	1.20	55	82	2.36	2.40	2	250	249	48	-	96.5	73.34
7	~~140.00~~	140.00	396.530	1.20	55	82	2.36	2.40	2	250	253	46	-	98.9	73.34
8	140.00	160.00	414.170	1.10	54	82	2.16	2.20	2	250	252	48	-	97.3	70.21
9	160.00	180.00	430.760	1.10	55	80	2.18	2.20	2	250	250	47	-	97.1	70.08
10	180.00	200.00	447.370	1.20	55	81	2.37	2.40	2	251	249	49	-	96.9	73.27
11	200.00	220.00	464.670	1.00	57	82	1.98	2.00	2	250	251	52	-	96.5	66.95
12	220.00	240.00	480.450	0.95	58	83	1.88	1.90	2	250	251	54	-	100.6	65.31
B1	240.00	260.00	496.510	1.00	58	85	1.97	2.00	2	252	251	55	-	92.0	67.13
2	260.00	280.00	511.550	1.10	62	86	2.18	2.20	2	250	249	59	-	99.0	70.47
3	280.00	300.00	528.630	1.20	63	89	2.37	2.40	2	249	248	64	-	93.3	73.81
4	300.00	320.00	545.410	1.20	70	91	2.39	2.40	3	249	250	65	-	95.7	73.94
5	320.00	340.00	562.820	1.20	76	93	2.41	2.40	3	250	252	65	-	97.6	74.08
6	340.00	360.00	580.750	1.20	92	95	2.43	2.40	2	250	250	~~69~~ 54	-	96.5	74.21
7	360.00	380.00	598.650	1.20	88	97	2.45	2.40	2	250	250	~~70~~ 48	-	96.0	74.34
8	380.00	400.00	616.610	1.10	89	99	2.24	2.20	2	251	250	61	-	95.7	71.31
9	400.00	420.00	633.770	1.00	87	100	2.03	2.00	2	250	249	62	-	94.4	68.05
10	420.00	440.00	649.840	1.00	85	102	2.01	2.00	2	250	253	62	-	94.7	68.17
11	440.00	460.00	665.870	0.88	84	103	1.76	1.80	2	248	250	60	-	100.8	64.01
12	460.00	480.00	681.840	0.85	84	103	1.71	1.70	2	251	251	62	-	94.0	62.91
															-

Final DGM: 696.478

PAH

Alliance SOURCE TESTING

Isokinetic Field Data

Location: All American Asphalt | Start Time: 4:40 | Source: CAU
Date: 3/19/21 | Run 3 | Valid | End Time: 12:49 | Project No.: 7021-0843 | Parameter: M23

STACK DATA (EST)		EQUIPMENT		STACK DATA (EST)		FILTER NO.	STACK DATA (FINAL)		MOIST. DATA
Moisture: 1.0 % est		Meter Box ID: M5-30		Est. Tm: 64 °F		29.55	Pb: ~~30.10~~ in. Hg		Vlc (ml)
Barometric: 30.08 in. Hg		Y: 0.995		Est. Ts: 87 °F			Pg: +0.79 in. WC		
Static Press: 1.00 in. WC		ΔH @ (in.WC): 1.887		Est. ΔP: 1.09 in. WC			CO_2: 0.0 %		K-FACTOR
Stack Press: 30.01 in. Hg		Probe ID: P702-3		Est. Dn: 0.185 in.			O_2: 20.9 %		2.119
CO_2: 0.0 %		Liner Material: Glass		Target Rate: 0.75 scfm				Check Pt. Initial Final Corr.	
O_2: 20.9 %		Pitot ID: P5-2		LEAK CHECKS	Pre	Mid 1 Mid 2 Post		Mid 1 (cf)	-
N_2/CO: 79.1 %		Pitot Cp/Type: 0.990	Standard	Leak Rate (cfm):	0.000			Mid 2 (cf)	-
Md: 28.84 lb/lb-mole		Nozzle ID: G-195-1		Vacuum (in Hg):	15			Mid 3 (cf)	-
Ms: 28.73 lb/lb-mole		Nozzle Dn (in.): 0.195		Pitot Tube:	Pass	Pass		Mid-Point Leak Check Vol (cf):	-

Sample Pt.	Sample Time (minutes) Begin	End	Dry Gas Meter Reading (ft^3)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F) DGM Average Amb.	Stack Amb.	Orifice Press. ΔH (in. WC) Ideal	Actual	Pump Vac (in. Hg)	Gas Temperatures (°F) Probe Amb.	Filter Amb.	Imp Exit Amb.	Aux Amb.	% ISO	Vs (fps)
A1	0.00	20.00	929.848	0.98	52	78	2.06	2.10	5	250	252	48	37	102.1	66.19
2	20.00	40.00	946.130	1.20	53	83	2.50	2.50	6	247	249	48	38	100.4	73.58
3	~~Error~~	60.00	963.780	1.20	55	82	2.52	2.50	6	248	251	49	39	100.5	73.52
4	60.00	80.00	981.540	1.20	56	83	2.52	2.50	6	248	248	49	40	98.9	~~71.50~~
5	80.00	100.00	999.040	1.20	56	83	2.52	2.50	6	244	251	52	37	97.2	~~73.52~~
6	100.00	120.00	1016.240	1.20	55	82	2.52	2.50	6	247	250	51	38	98.0	73.52
7	120.00	140.00	1033.550	1.20	56	82	2.52	2.50	6	245	251	52	39	97.5	~~70.59~~
8	140.00	160.00	1050.820	1.10	55	82	2.31	2.30	6	246	252	53	40	99.4	~~70.26~~
9	160.00	180.00	1067.650	1.10	56	80	2.32	2.30	6	248	250	54	42	97.0	~~73.48~~
10	180.00	200.00	1084.130	1.20	56	81	2.53	2.50	6	242	250	58	48	97.3	~~67.11~~
11	200.00	220.00	1101.370	1.00	58	82	2.11	2.10	5	240	251	60	54	101.7	~~65.47~~
12	220.00	240.00	1117.890	0.95	60	83	2.01	2.00	5	246	251	57	38	90.2	65.47
B1	240.00	260.00	1132.220	1.00	60	85	2.11	2.10	6	241	250	58	39	99.1	67.30
2	260.00	280.00	1148.340	1.10	64	86	2.33	2.30	6	239	248	59	40	99.3	70.65
3	280.00	300.00	~~1165.630~~	1.20	64	89	2.53	2.60	6	237	246	58	41	94.6	73.99
4	300.00	320.00	1182.280	1.20	73	91	2.56	2.60	6	239	249	59	42	99.1	74.12
5	320.00	340.00	1200.260	1.20	76	93	~~2.58~~	2.60	6	241	246	60	47	97.5	74.26
6	340.00	360.00	1218.010	1.20	79	96	2.57	2.60	9	249	249	61	~~49~~	96.0	74.46
7	360.00	380.00	1235.530	1.20	84	97	2.59	2.60	9	241	252	58	37	98.3	74.53
8	380.00	400.00	1253.630	1.10	87	99	2.39	2.40	9	248	251	59	40	102.4	71.48
9	400.00	420.00	1271.750	1.00	91	100	2.17	2.20	9	249	250	60	40	98.5	68.22
10	420.00	440.00	1288.490	1.00	92	102	2.17	2.20	9	249	248	62	43	98.1	68.34
11	440.00	460.00	1305.160	0.88	94	103	1.92	1.90	8	248	250	62	48	99.3	64.16
12	460.00	480.00	1321.040	0.85	94	103	1.85	1.90	8	250	251	63	51	104.7	63.06
															-

Final DGM: 1337.504

3-17-21 Inlet

TO-15 430 start 1030 end

Leak check pre ✓ ✓ post ✓ ✓

	1A	D122	D154	1B
				30"
Start	30"			
5	27			28
10	25			26
15	22			23
20	20			20
25	19			18
30	18			16
35	16			14
40	14			12
45	12			10
50	10			8
55	8			6
60	6			5

	1A	D155	D855	1B	
Outlet	30"			30"	Leak Check
5	29			27	pre ✓ ✓
10	28			26	post ✓ ✓
15	25			23	
20	23			21	
25	21			19	
30	20			17	
35	18			15	
40	16			13	
45	14			11	
50	12			9	
55	10			7	
60	8			6	

3-18-21 Inlet

start ✓
end 0930

post ✓

TO15

	AD24 2A D129	AD04 2B D145
Start	30	30
5	28	28
10	25	26
15	23	24
20	20	22
25	17	20
30	14	18
35	12	16
40	10	14
45	8	12
50	7	10
55	6	10
60	5	8

Outlet	AD51 2A D834	AD36 2B D531
Start	30	30
5	28	27
10	26	25
15	23	23
20	21	21
25	18	19
30	15	17
35	12	14
40	10	12
45	8	10
50	6	8
55	5	7
60	-	6

Leak Check

pre	✓	✓
post	✓	✓

3-19-21 Inlet 10 15 end 0600 pre ✓ ✓ post ✓ ✓

	AD04 3A D149	AD24 3B D181
Start	30	30
5	29	28
10	28	27
15	27	26
20	25	24
25	22	22
30	20	20
35	18	17
40	16	14
45	14	12
50	12	11
55	11	10
60	10	8

Outlet	AD36 3A SIM035	AD51 3B D791
Start	28	28
5	26	26 leak check
10	24	24 pre ✓ ✓
15	22	22 post ✓ ✓
20	20	20
25	18	18
30	16	16
35	14	14
40	12	12
45	10	10
50	8	9
55	6	8
60	5	7

3-17-21

START 06:15 M25-3 (Low)

	PRE	POST
Leak	✓	✓
Check	✓	✓

ID	1A	1B
TANK	54083	4111
TRAP	1	2
27" start	VAC	VAC
5	27	27
10	25	25
15	22	21
20	20	19
25	18	17.5
30	17	16.5
35	16	15
40	14	13
45	12	11
50	11	8
55	9	6
60	7	4

Leak pre	✓	✓
Leak post	✓	✓

3-17-21

START 0615

Leak Checks
Pre ✓
Post ✓

Mas. 1 (High)

ID	1A	1B
TANK	T-17	T-10
TRAP	TP110	TP066
	30	30
5	27	27
10	25	25
15	23	22
20	22	21
25	21	19.5
30	19.5	18
35	17	17
40	16	15
45	14	12
50	12	10
55	10	8
60	9	7

Pre	LV	✓	✓
Post	LV	✓	✓

3/18/21 Start 4:53

Leak Check
Pre ✓
Post ✓

M25.3 (Low)

ID	2A	2B
Tank	5055	5029
Trap	4	5
0	27	27
5	25	25
10	23	23
15	21	21
20	19	19
25	17	17
30	15	15
35	13	13
40	11	11
45	9	9
50	7	7
55	5	5
60	4	4

3/18/21 Start 4:53

Leak Check
Pre ✓ ✓
Post ✓ ✓

M25.1 (High)

ID	2A	2B
Tank	T-13	T-16
Trap	102	060
0	27	23
5	25	20
10	24	18
15	22	16
20	20	14
25	18	12
30	16	10
35	14	8
40	12	6
45	10	5
50	9	–
505	7	–
60	5	–

VOC FIELD DATA SHEET - SCAQMD METHOD 25.3

Outlet

Date: 3/18/21
Client: AAA
Unit: CAU
Operator Name: TCH
Fuel:
Location: Outlet

Test No.: 2
Barometric Pressure (in. Hg): 29.62
Pretest Leak Check:
A: ✓ B: ✓
Post-test Leak check:
A: ✓ B:

SAMPLE ~~A~~ C

Tank #54116 Trap # 7
Control ID: 56

SAMPLE ~~B~~ D

Tank #5050 Trap # 8
Control ID: 58

Time Minutes	Start Time	Flow ml/min.	Vacuum inch Hg	Flow ml/min.	Vacuum inch Hg
0	1016	~80	28	~80	27
5			26		25
10			24		24
15			22		22
20			20		20
25			18		18
30			16		16
35			14		14
40			12		12
45			11		10
50			9		8
55	End Time		7		6
60	1116		5		5

VOC FIELD DATA SHEET - SCAQMD METHOD 25.1 Inlet

Date: 3/18/21 Test No.: 2

Client: AAA Barometric Pressure (in. Hg): 29.62

Unit: CAU Pretest Leak Check:

Operator Name: TCH A: ✓ B: ✓

Fuel: Post-test Leak check:

Location: Inlet A: ✓ B: ✓

SAMPLE ~~A~~ C SAMPLE ~~B~~ D

Time Minutes	Start Time	Tank # T-1 Trap # 059 Control ID: Flow ml/min.	Vacuum inch Hg	Tank # T-7 Trap # 085 Control ID: Flow ml/min.	Vacuum inch Hg
0	1016	~80	29	~80	28
5			27		26
10			25		24
15			23		23
20			21		21
25			19		19
30			17		17
35			15		16
40			13		14
45			11		12
50			9		10
55	End Time		7		8
60	1116		5		6

VOC FIELD DATA SHEET - SCAQMD METHOD 25.3

Date: 3-19-21 Test No.: 3

Client: AAA Barometric Pressure (in. Hg): 29.76

Unit: CAU Pretest Leak Check:

Operator Name: AMK/TCH A: ✓ B: ✓

Fuel: Post-test Leak check:

Location: Irvine CA A: ✓ B: ✓

		SAMPLE A		SAMPLE B	
		Tank # A127 Trap # 11 Control ID:		Tank # 777 Trap # 12 Control ID:	
Time Minutes	Start Time	Flow ml/min.	Vacuum inch Hg	Flow ml/min.	Vacuum inch Hg
0	0900	~80	28	~80	27
5			26		25
10			24		23
15			22		21
20			20		19
25			18		18
30			16		15
35			14		13
40			12		11
45			10		10
50			8		8
55	End Time		6		6
60	1000		4		4

VOC FIELD DATA SHEET - SCAQMD METHOD 25.1

Date: 3/19/21 Test No.: 3

Client: AAA Barometric Pressure (in. Hg): 29.76

Unit: CAU Pretest Leak Check:

Operator Name: AMK/TCH A: ✓ B: ✓

Fuel: Post-test Leak check:

Location: Irvine, CA A: ✓ B: ✓

		SAMPLE A		SAMPLE B	
		Tank # 1 Trap # 065 Control ID: 1451		Tank # 19 Trap # 074 Control ID: 1820	
Time Minutes	Start Time	Flow ml/min.	Vacuum inch Hg	Flow ml/min.	Vacuum inch Hg
0	0900	~80	28	~80	27
5			26		25
10			25		23
15			23		21
20			21		20
25			20		19
30			19		18
35			17		16
40			16		14
45			15		13
50			13		11
55	End Time		11		9
60	1000		10		8

Last Page of Report