



Sent via Email to kelder@pricemeese.com

August 12, 2021

Ms. Karen Elder, Esq.
Price, Meese, Schulman & D'Arminio
50 Tice boulevard, Suite 380
Woodcliff Lake, New Jersey 07677

**Re: Limited Phase II Investigation Summary Letter
1004 Route 206
Montgomery Township, Somerset County, New Jersey 08502
Block 34001, Lot 58.01
ESA Project No. X4259**

Dear Ms. Elder:

Environmental Strategies and Applications, Inc. (ESA) respectfully submits this letter report summarizing the findings of the limited Phase II Investigation (Phase II) conducted at the property located at 1004 Route 206 Montgomery Township, Somerset County, New Jersey, herein referred to as the "Site" or "Subject Property", conducted on behalf of Price, Meese, Schulman & D'Arminio LLC c/o Karen Elder, herein referred to as (CLIENT)."

1. Background

ADR Environmental (ADR) prepared a Phase I Environmental Site Assessment (Phase I ESA) dated June 2021 for the Subject Property on behalf of Panella Property (Potential Buyer) to facilitate prospective purchasing of the property. The Phase I identified two (2) Recognized Environmental Concerns (RECs). Per CLIENT's request, ESA was retained to investigate the 2 RECs identified as out of service heating oil Aboveground Storage Tanks (ASTs). In addition, per CLIENT's request, ESA was retained to investigate a buried metal structure as shown in the photo log of the Phase I. It should be noted that the Phase II environmental investigation activities were conducted for due diligence purposes on behalf of CLIENT and were not completed under the direction / supervision of a New Jersey Department of Environmental Protection (NJDEP) Licensed Site Remediation Professional (LSRP), nor was the limited investigation intended to satisfy / comply with the NJDEP *Technical Requirements for Site Remediation*.

ENVIRONMENTAL STRATEGIES & APPLICATIONS, INC.

495 Union Avenue, Suite 1D, Middlesex, NJ 08846

phone: 732.469.8888

email: info@askESA.com

web: askESA.com

2. Limited Phase II Investigation

ESA's limited Phase II investigation activities included an investigation of the buried metal structure and installation of soil borings (via hand auger) in the areas of the ASTs, and collection of soil samples for laboratory analysis for comparison to current NJDEP compliance standards.:

On July 20, 2021, ESA investigated the buried metal structure. ESA utilized a metal detector and visual observations to identify the metal structure which did not appear consistent with an Underground Storage Tank (UST). ESA also conducted a limited soil investigation in the areas of the ASTs via installation of borings advanced as follows:

- Soil borings designated as SS-1A and SS-1B were advanced near the base of AST-1.
- Soil borings designated as SS-2A and SS-2B were advanced at the near the base of AST-2.

The soil borings were strategically located to investigate the suspected ASTs for a discharge. The locations of the soil borings/samples are depicted on **Figure 1**.

Soil from each boring were evaluated using olfactory/visual senses and screened with a photoionization detector (PID), an instrument used to detect the presence of vapors from volatile organic compounds (VOCs). The following observations were made at the soil borings:

- Evidence of discharge (soil staining/odors or elevated PID readings) were not observed in any of the borings advanced.
- The highest PID reading was in soil boring SS-2A with a recorded reading of 0.4ppm.

ESA biased sampling to the highest identified impacted soil (highest PID measurements) and collected a total of four (4) soil samples from the Subject Property. Four (4) soil sample, designated as SS-1A, SS-1B, SS-2A, and SS-2B, were collected at a depth of 0.0 to 0.5 feet bgs. Photographs taken during the investigation are provided as **Appendix A**.

Soil samples SS-1A through SS-2B were collected to investigate / evaluate soil conditions around the ASTs. The soil samples were collected and submitted to the laboratory for analysis based on the No.2 Heating oil contents of the ASTs, field observations, and NJDEP's Table 2-1: "Analytical Requirements for Petroleum Storage And Discharge Areas". Soil samples were analyzed for EPH with contingent naphthalene and 2-methylnaphthalene.

3. Limited Phase II Analytical Results

Based on a review of all analytical results, no exceedances of the NJDEP's standards were identified for any of the compounds analyzed.

The July 20, 2021 analytical results are summarized in Table 1 and depicted on Figure 1. The full analytical data package for the July 20, 2021 sampling event is provided in Appendix B.

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4. Conclusions and Recommendations

Based on the findings presented above, no further investigation of the AST or metal structure area is warranted.

If you have any questions regarding this report, please call me to discuss at 732-469-8888. Thank you for the opportunity to assist you in this regard.

Sincerely,

Environmental Strategies & Applications, Inc.



Christopher Martell
President

Tables

Table 1 – July 20, 2021 Sample Results Table

Figures

Figure 1 – July 20, 2020 Soil Sample Location and Results Figure

Appendices

Appendix A – Site Photographs

Appendix B – Laboratory Analytical Data Package

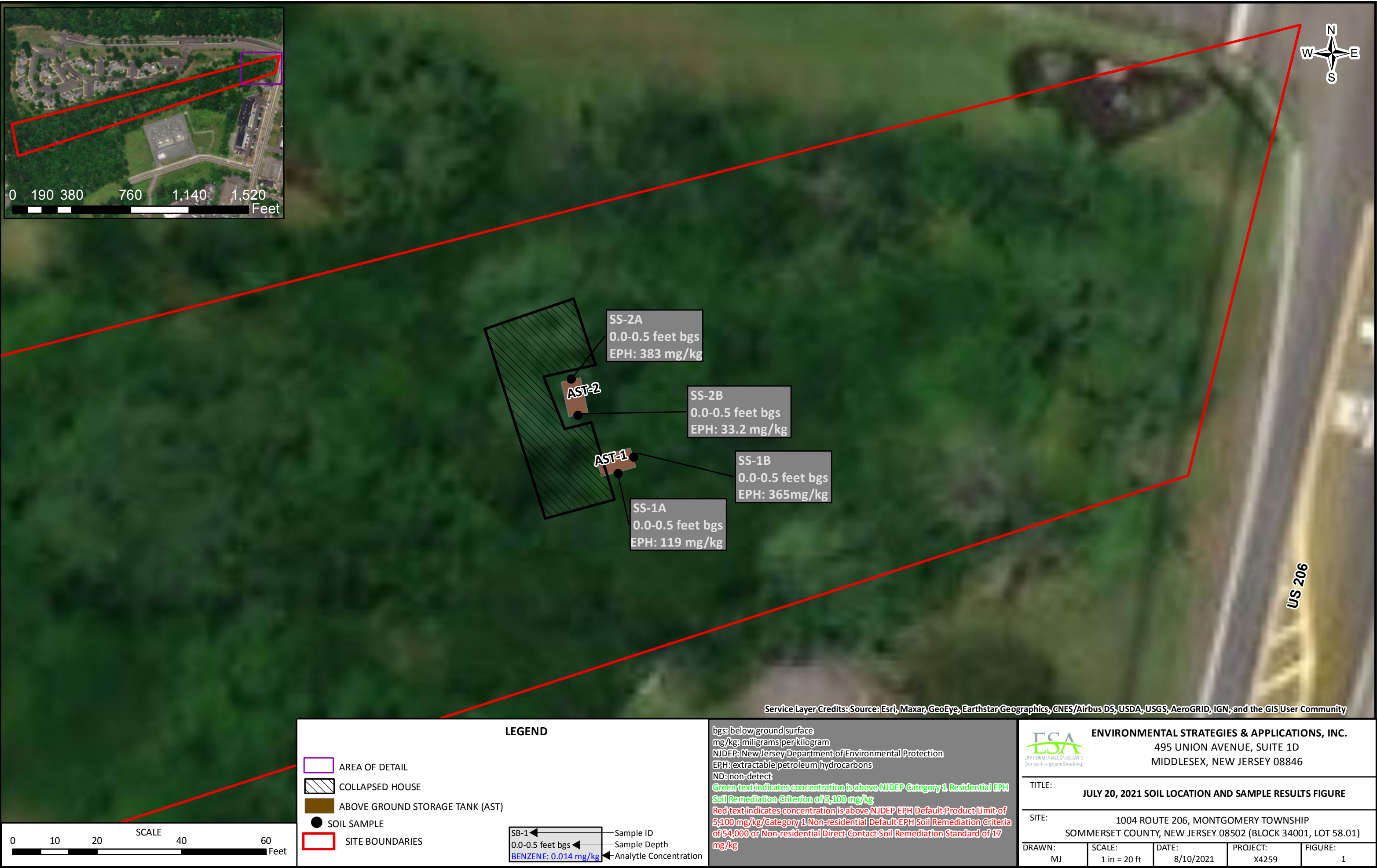
ENVIRONMENTAL STRATEGIES & APPLICATIONS, INC.

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bgs: below ground surface
mg/kg: milligrams per kilogram
NJDEP: New Jersey Department of Environmental Protection
EPH: extractable petroleum hydrocarbons
ND: non-detect
Green text indicates concentration is above NJDEP Category 1 Residential EPH Soil Remediation Criterion of 5,100 mg/kg
Red text indicates concentration is above NJDEP EPH Default Product Limit of 5,100 mg/kg/Category 1 Non-residential Default EPH Soil Remediation Criteria of 54,000 or Non-residential Direct Contact Soil Remediation Standard of 17 mg/kg



ENVIRONMENTAL STRATEGIES & APPLICATIONS, INC.
495 UNION AVENUE, SUITE 1D
MIDDLESEX, NEW JERSEY 08846

TITLE: JULY 20, 2021 SOIL LOCATION AND SAMPLE RESULTS FIGURE				
SITE: 1004 ROUTE 206, MONTGOMERY TOWNSHIP SOMMERSET COUNTY, NEW JERSEY 08502 (BLOCK 34001, LOT 58.01)				
DRAWN: MJ	SCALE: 1 in = 20 ft	DATE: 8/10/2021	PROJECT: X4259	FIGURE: 1

Table 1
July 20, 2021 Soil Sample Results Table
1004 RT 206 Montgomery, New Jersey 08502
ESA Project No. X4259

SAMPLE ID:	NJDEP						SS-1A				SS-1B				SS-2A				SS-2B			
LAB ID:	CAS	MGW-SRS	NRI-SRS	NRID-SRS	RI-SRS	RID-SRS	L2138850-01				L2138850-02				L2138850-03				L2138850-04			
COLLECTION DATE:							7/20/2021				7/20/2021				7/20/2021				7/20/2021			
SAMPLE DEPTH (feet bgs):							0.0-0.5				0.0-0.5				0.0-0.5				0.0-0.5			
SAMPLE MATRIX:							SOIL(mg/kg)				SOIL(mg/kg)				SOIL(mg/kg)				SOIL(mg/kg)			
ANALYTE							Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
NJ EXTRACTABLE PETROLEUM HYDROCARBONS (TO																						
Total EPH	NONE			75000		5300	119		32	32	365		31.1	31.1	383		91.9	91.9	33.2		30.6	30.6
GENERAL CHEMISTRY																						
Solids, Total	NONE						70.9		0.1	NA	75.6		0.1	NA	75.5		0.1	NA	76.9		0.1	NA

Notes: NJDEP = New Jersey Department of Environmental Protection
CAS No. = Chemical Abstracts Service Registry Number
bgs = below ground surface
mg/kg = milligrams per kilograms = parts per million (ppm)
Conc = Concentration
Q = Qualifier
RL = Reporting Limit
MDL = Method Detection Limit
J = Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
E = Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
-- = Compound not analyzed
TICs = Tentatively Identified Compounds
NJ-MGW-SRS: New Jersey 2021 Migration to Groundwater Exposure Pathway Soil Remediation Standards Criteria per Remediation Standards, last amended May 17, 2021
NJ-NRI-SRS: New Jersey 2021 Non-Residential Inhalation Exposure Pathway Soil Remediation Standards Criteria per Remediation Standards, last amended May 17, 2021
NJ-NRID-SRS: New Jersey 2021 Non-Residential Ingestion-Dermal Exposure Pathway Soil Remediation Standards Criteria per Remediation Standards, last amended May 17, 2021
NJ-RI-SRS: New Jersey 2021 Residential Inhalation Exposure Pathway Soil Remediation Standards Criteria per Remediation Standards, last amended May 17, 2021
NJ-RID-SRS: New Jersey 2021 Residential Ingestion-Dermal Exposure Pathway Soil Remediation Standards Criteria per Remediation Standards, last amended May 17, 2021
NJ-SIRS-MGW: New Jersey 2021 Soil Leachate Remediation Standard-Migration to Ground Water Criteria per Remediation Standards, last amended May 17, 2021
NJ-IGW-SRS: Calculated Site-Specific Impact to Ground Water Soil Remediation Standard

	blank concentration indicates concentration was not detected (ND) above RL and/or MDL
BOLD	text indicates RL or MDL exceeds applicable SRS
BOLD	text indicates concentration exceeds MGW-SRS
BOLD	text indicates concentrations exceeds RI-SRS and/or RID-SRS
BOLD	text indicates concentration exceeds NRI-SRS and/or NRID-SRS



Photograph Number 1: View of metal structure



Photograph Number 2: View of ASTs



www.alphalab.com



Lab Number: L2138850

Client: Environmental Strategies and Ap

ATTN: Chris Martell

Project Name: X4259

Project Number: X4259

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

**ANALYTICAL DATA PACKAGE FOR THE
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON NEW JERSEY 08625**

Agency/Division:		Bureau/Office:	
Project No: X4259		Contract No:	
Laboratory: Alpha Analytical		Laboratory Location: Westborough, Ma.	
		Laboratory Phone Number: (508) 898-9220	
SDG No: L2138850		NJDEP Certification #: MA935	
Date of First Sample Receipt: 07/20/2021		Date of Last Sample Receipt: 07/20/2021	
Agency Sample Number	Laboratory Sample Number	Sample Location	Date/Time of Collection
SS-1A	L2138850-01	X4259	07/20/2021 14:05
SS-1B	L2138850-02	X4259	07/20/2021 14:10
SS-2A	L2138850-03	X4259	07/20/2021 14:20
SS-2B	L2138850-04	X4259	07/20/2021 14:30

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on disk or electronically has been authorized by the laboratory director or his/her designee, as verified by the following signature.

Technical Director/Representative (Typed) Caitlin Walukevich

08/10/21

Technical Director/Representative (Signature)

Caitlin Walukevich

Table of Contents

New Jersey Reduced Data Deliverable Package.....	1
Title Page	2
Table of Contents	3
Chain of Custody	5
External Chain of Custody	6
Lims COC (LN01)	7
Sample Receipt Tracking Report	8
Methodology Review	10
Method References	11
Laboratory Chronicle	12
Sample Receipt and Container Information	13
NJ DEP DKQP Summary Questionnaire.....	14
DKQP Summary Questionnaire	15
Conformance/Non-Conformance (Reliability) Summary.....	16
Conformance/Non-Conformance (Reliability) Report	17
Glossary	19
Glossary Report	20
Organics Analysis	23
Total Extractable Petroleum Hydrocarbon Analysis	24
Sample Results Summary	25
Form 1 - Organics	26
SS-2B (L2138850-04) Analyzed: 07/23/21 11:56	32
SS-1A (L2138850-01) Analyzed: 07/23/21 13:26	35
SS-1B (L2138850-02) Analyzed: 07/23/21 13:56	38
SS-2A (L2138850-03) Analyzed: 07/23/21 14:27	41
Quality Control Data Summary	44
Surrogate Summary	45
Form 2 - Organics	46
Blank Results Summary	47
Form 4 - Organics	48
Batch QC Summary	49
Form 3 - Organics	50
Standards Data	53
Initial Calibration	54
Form 6 - Organics	55
ICAL for PETRO23B on 05/25/21 ICAL17991	57
Initial Calibration Summary - Cal Date: 05/25/21 00:00	57
L1 Injected on: 05/24/21 10:52	58
L2 Injected on: 05/24/21 11:22	62
L3 Injected on: 05/21/21 08:17	65
L4 Injected on: 05/21/21 08:47	68
L5 Injected on: 05/21/21 09:17	71
L6 Injected on: 05/21/21 09:47	74
Initial Calibration Verification	77
ICV SUMMARY REPORT	78
ICV QUANT REPORT Injected on: 05/24/21 11:53	80
ICAL for PETRO19A on 06/04/21 ICAL18032	83
Initial Calibration Summary - Cal Date: 06/04/21 00:00	83
L1 Injected on: 05/31/21 14:52	84
L2 Injected on: 05/31/21 15:22	87

Table of Contents

L3 Injected on: 05/31/21 15:53	90
L4 Injected on: 05/28/21 18:23	93
L5 Injected on: 05/28/21 18:53	96
L6 Injected on: 05/28/21 19:23	99
Initial Calibration Verification	102
ICV SUMMARY REPORT	103
ICV QUANT REPORT Injected on: 05/31/21 16:23	105
Continuing Calibration	108
Form 7 - Organics	109
CC Summary - PETRO23B Run: 07/22/21 08:46	113
CC Quant - WG1526606-2 PETRO23B Run: 07/22/21 08:46	115
CC Summary - PETRO23B Run: 07/22/21 12:17	119
CC Quant - WG1526606-3 PETRO23B Run: 07/22/21 12:17	121
CC Summary - PETRO19A Run: 07/23/21 07:39	124
CC Quant - WG1527130-1 PETRO19A Run: 07/23/21 07:39	126
CC Summary - PETRO19A Run: 07/23/21 14:57	129
CC Quant - WG1527130-2 PETRO19A Run: 07/23/21 14:57	131
Raw Quality Control Data	136
Method Blank Raw Data	137
Laboratory Method BI (WG1526243-1) Analyzed: 07/22/21 10:16	138
LCS Raw Data	141
Laboratory Control S (WG1526243-2) Analyzed: 07/22/21 09:16	142
LCS Duplicate Raw Data	145
LCS Duplicate (WG1526243-3) Analyzed: 07/22/21 09:46	146
Matrix Spike Data	149
Matrix Spike (WG1526243-4) Analyzed: 07/22/21 11:17	150
Duplicate Raw Data	154
Duplicate Sample (WG1526243-5) Analyzed: 07/22/21 11:47	155
Sample Preparation	158
Organic ELN-Workgroup:WG1526243	159
Standards Data	162
Initial Calibration Standard	163
Continuing Calibration Standard	169
Spike Standard	170
Surrogate Standard	171
Wet Chemistry Analysis	172
Total Solids Analysis	173
Results Summary	174
Form 1 - Inorganics	175
Duplicate Sample Results Summary	180
Form 6 - Inorganics	181

Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Aug 10 2021, 03:32 pm

Login Number: L2138850

Account: ESA Environmental Strategies and Application Project: X4259

Received: 20JUL21 Due Date: 10AUG21

Sample # Client ID Mat PR Collected

L2138850-01 SS-1A 3 S0 20JUL21 14:05

| NJ-RED Package Due Date: 08/10/21

HOLD-8270, NJ-RED, NJDEP, NJEPH-TPH-CAT1, TS

L2138850-02 SS-1B 3 S0 20JUL21 14:10

| Package Due Date: 08/10/21

HOLD-8270, NJEPH-TPH-CAT1, TS

L2138850-03 SS-2A 3 S0 20JUL21 14:20

| Package Due Date: 08/10/21

HOLD-8270, NJEPH-TPH-CAT1, TS

L2138850-04 SS-2B 3 S0 20JUL21 14:30

| Package Due Date: 08/10/21

HOLD-8270, NJEPH-TPH-CAT1, TS

Page 1

Logged By: Ben Rao

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2138850-01A	Glass-A.25	INTACT	21-JUL-21	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	W14-S2-C	CUSTODY	W14-S2-C CUSTODY Sam Bardsley
L2138850-01A	Glass-A.25	INTACT	21-JUL-21		ORGPREP	Sydney Saari	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Sydney Saari
L2138850-01A	Glass-A.25	INTACT	21-JUL-21		W14-S2-A	CUSTODY Sydney Saari	ORGPREP	ORGPREP	Sydney Saari
L2138850-01A	Glass-A.25	INTACT	21-JUL-21		RETURN WALK-IN	CUSTODY Caroline Negrin	W14-S2-A	CUSTODY	W14-S2-A CUSTODY Caroline Negrin
L2138850-01A	Glass-A.25	INTACT	21-JUL-21		LOGIN	Romany Ibrahim	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Romany Ibrahim
L2138850-01A	Glass-A.25	INTACT	21-JUL-21		CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L2138850-01A	Glass-A.25	INTACT	21-JUL-21	LOGIN	LOGIN	Phillip Renaud	CUSTODY	CUSTODY	Phillip Renaud
L2138850-02A	Glass-A.25	INTACT	21-JUL-21	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	W14-S2-C	CUSTODY	W14-S2-C CUSTODY Sam Bardsley
L2138850-02A	Glass-A.25	INTACT	21-JUL-21		ORGPREP	Sydney Saari	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Sydney Saari
L2138850-02A	Glass-A.25	INTACT	21-JUL-21		W14-S2-A	CUSTODY Sydney Saari	ORGPREP	ORGPREP	Sydney Saari
L2138850-02A	Glass-A.25	INTACT	21-JUL-21		RETURN WALK-IN	CUSTODY Caroline Negrin	W14-S2-A	CUSTODY	W14-S2-A CUSTODY Caroline Negrin
L2138850-02A	Glass-A.25	INTACT	21-JUL-21		LOGIN	Romany Ibrahim	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Romany Ibrahim
L2138850-02A	Glass-A.25	INTACT	21-JUL-21		CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L2138850-02A	Glass-A.25	INTACT	21-JUL-21	LOGIN	LOGIN	Phillip Renaud	CUSTODY	CUSTODY	Phillip Renaud
L2138850-03A	Glass-A.25	INTACT	21-JUL-21	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	W14-S2-C	CUSTODY	W14-S2-C CUSTODY Sam Bardsley
L2138850-03A	Glass-A.25	INTACT	21-JUL-21		ORGPREP	Sydney Saari	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Sydney Saari
L2138850-03A	Glass-A.25	INTACT	21-JUL-21		W14-S2-A	CUSTODY Sydney Saari	ORGPREP	ORGPREP	Sydney Saari
L2138850-03A	Glass-A.25	INTACT	21-JUL-21		RETURN WALK-IN	CUSTODY Caroline Negrin	W14-S2-A	CUSTODY	W14-S2-A CUSTODY Caroline Negrin
L2138850-03A	Glass-A.25	INTACT	21-JUL-21		LOGIN	Romany Ibrahim	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Romany Ibrahim
L2138850-03A	Glass-A.25	INTACT	21-JUL-21		CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L2138850-03A	Glass-A.25	INTACT	21-JUL-21	LOGIN	LOGIN	Phillip Renaud	CUSTODY	CUSTODY	Phillip Renaud
L2138850-04A	Glass-A.25	INTACT	21-JUL-21	CUSTODY	RETURN WALK-IN	CUSTODY Sam Bardsley	W14-S2-C	CUSTODY	W14-S2-C CUSTODY Sam Bardsley
L2138850-04A	Glass-A.25	INTACT	21-JUL-21		ORGPREP	Sydney Saari	RETURN WALK-IN	CUSTODY	RETURN WALK-IN CUSTODY Sydney Saari
L2138850-04A	Glass-A.25	INTACT	21-JUL-21		W14-S2-A	CUSTODY Sydney Saari	ORGPREP	ORGPREP	Sydney Saari
L2138850-04A	Glass-A.25	INTACT	21-JUL-21		RETURN WALK-IN	CUSTODY Caroline Negrin	W14-S2-A	CUSTODY	W14-S2-A CUSTODY Caroline Negrin

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L2138850-04A Glass-A.25	INTACT	21-JUL-21		LOGIN	Romany Ibrahim	RETURN WALK-IN CUSTODY	RETURN WALK-IN CUSTODY	Romany Ibrahim
L2138850-04A Glass-A.25	INTACT	21-JUL-21		CUSTODY	Romany Ibrahim	LOGIN	LOGIN	Romany Ibrahim
L2138850-04A Glass-A.25	INTACT	21-JUL-21	LOGIN	LOGIN	Phillip Renaud	CUSTODY	CUSTODY	Phillip Renaud

Methodology Review

Project Name: X4259

Lab Number: L2138850

Project Number: X4259

Report Date: 08/10/21

REFERENCES

- 103 Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices. New Jersey Department of Environmental Protection, Site Remediation Program, (Version 1.1), Document # NJDEP EPH 10/08, Revision 3, August 2010.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Laboratory Chronicle

Project Name: X4259

Project Number: X4259

Lab Number: L2138850

Report Date: 08/10/21

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2138850-01A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NJEPH-TPH-CAT1(14),TS(7),HOLD-8270(14)
L2138850-02A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NJEPH-TPH-CAT1(14),TS(7),HOLD-8270(14)
L2138850-03A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NJEPH-TPH-CAT1(14),TS(7),HOLD-8270(14)
L2138850-04A	Glass 250ml/8oz unpreserved	A	NA		3.5	Y	Absent		NJEPH-TPH-CAT1(14),TS(7),HOLD-8270(14)

NJ DEP
Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

Project Name: X4259
Project Number: X4259

Lab Number: L2138850
Report Date: 08/10/21

**NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	YES
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature ($4 \pm 2^{\circ} \text{C}$)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	YES
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Conformance/Non-Conformance Summary

Project Name: X4259

Lab Number: L2138850

Project Number: X4259

Report Date: 08/10/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: X4259
Project Number: X4259

Lab Number: L2138850
Report Date: 08/10/21

Case Narrative (continued)

Report Submission

August 10, 2021: This final report includes the results of all requested analyses.

July 27, 2021: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Sample Receipt

L2138850-01: The collection date and time on the chain of custody was 20-JUL-21 14.05; however, the collection date/time on the container label was 20-JUL-21 12.05. At the client's request, the collection date/time is reported as 20-JUL-21 14:05.

L2138850-02: The collection date and time on the chain of custody was 20-JUL-21 14.10; however, the collection date/time on the container label was 20-JUL-21 13.10. At the client's request, the collection date/time is reported as 20-JUL-21 14:10.

The Project Name was specified by the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Caitlin Walukh

Report Date: 08/10/21

Title: Technical Director/Representative



Glossary

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: X4259
Project Number: X4259

Lab Number: L2138850
Report Date: 08/10/21

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.

Report Format: DU Report with 'J' Qualifiers



Project Name: X4259

Lab Number: L2138850

Project Number: X4259

Report Date: 08/10/21

Data Qualifiers

- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Organics

Total Extractable Petroleum Hydrocarbons Analysis

Sample Results Summary

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : L2138850-01 Client ID : SS-1A Sample Location : 1004 RT 206 Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P1921072324 Sample Amount : 15.86 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : 07/20/21 14:05 Date Received : 07/20/21 Date Analyzed : 07/23/21 13:26 Date Extracted : 07/21/21 Dilution Factor : 1 Analyst : JB Instrument ID : PETRO19A GC Column : RTX5-MS %Solids : 71 Injection Volume : 1 uL
---	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	119	32.0	32.0	

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : L2138850-02 Client ID : SS-1B Sample Location : 1004 RT 206 Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P1921072326 Sample Amount : 15.33 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : 07/20/21 14:10 Date Received : 07/20/21 Date Analyzed : 07/23/21 13:56 Date Extracted : 07/21/21 Dilution Factor : 1 Analyst : JB Instrument ID : PETRO19A GC Column : RTX5-MS %Solids : 76 Injection Volume : 1 uL
---	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	365	31.1	31.1	

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : L2138850-03 Client ID : SS-2A Sample Location : 1004 RT 206 Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P1921072328 Sample Amount : 15.57 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : 07/20/21 14:20 Date Received : 07/20/21 Date Analyzed : 07/23/21 14:27 Date Extracted : 07/21/21 Dilution Factor : 3 Analyst : JB Instrument ID : PETRO19A GC Column : RTX5-MS %Solids : 76 Injection Volume : 1 uL
---	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	383	91.9	91.9	

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : L2138850-04 Client ID : SS-2B Sample Location : 1004 RT 206 Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P1921072318 Sample Amount : 15.3 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : 07/20/21 14:30 Date Received : 07/20/21 Date Analyzed : 07/23/21 11:56 Date Extracted : 07/21/21 Dilution Factor : 1 Analyst : JB Instrument ID : PETRO19A GC Column : RTX5-MS %Solids : 77 Injection Volume : 1 uL
--	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	33.2	30.6	30.6	

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : WG1526243-1 Client ID : WG1526243-1BLANK Sample Location : Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P23210722-17 Sample Amount : 15.15 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : NA Date Received : NA Date Analyzed : 07/22/21 10:16 Date Extracted : 07/21/21 Dilution Factor : 1 Analyst : SC Instrument ID : PETRO23B GC Column : RTX5-MS %Solids : NA Injection Volume : 1 uL
---	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	ND	23.8	23.8	U

Results Summary

Form 1

NJ Extractable Petroleum Hydrocarbons (Total)

Client : Environmental Strategies and Applic Project Name : X4259 Lab ID : WG1526243-5 Client ID : 9 WCDUP Sample Location : Sample Matrix : SOIL Analytical Method : 103,NJDEP EPH Lab File ID : P23210722-23 Sample Amount : 15.21 g Extraction Method : EPA 3546 Extract Volume : 1000 uL GPC Cleanup : N Sulfur Cleanup : N	Lab Number : L2138850 Project Number : X4259 Date Collected : 07/16/21 08:45 Date Received : 07/16/21 Date Analyzed : 07/22/21 11:47 Date Extracted : 07/21/21 Dilution Factor : 1 Analyst : SC Instrument ID : PETRO23B GC Column : RTX5-MS %Solids : 79 Injection Volume : 1 uL
--	--

CAS NO.	Parameter	mg/kg			Qualifier
		Results	RL	MDL	
NONE	Total EPH	42.2	29.8	29.8	

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072318.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 11:56 am
 Operator : Petro19a:jb
 Sample : L2138850-04,42,,
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 26 11:04:04 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	7.034	2046387	79.142	
Spiked Amount 100.000		Recovery	=	79.14%
11) s 1-chloro-octadecane	8.212	1653330	81.380	
Spiked Amount 100.000		Recovery	=	81.38%
Target Compounds				
1) Nonane (C9)	0.000	0	N.D.	d
2) Decane (C10)	0.000	0	N.D.	d
3) Dodecane (C12)	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane (C14)	0.000	0	N.D.	d
7) Hexadecane (C16)	0.000	0	N.D.	d
8) Octadecane (C18)	0.000	0	N.D.	d
10) Eicosane (C20)	0.000	0	N.D.	d
12) Heneicosane (C21)	0.000	0	N.D.	d
13) Docosane (C22)	0.000	0	N.D.	d
14) Tetracosane (C24)	0.000	0	N.D.	d
15) Hexacosane (C26)	0.000	0	N.D.	d
16) Octacosane (C28)	0.000	0	N.D.	d
17) Triacontane (C30)	0.000	0	N.D.	d
18) Dotriacontane (C32)	0.000	0	N.D.	d
19) Tetratriacontane (C34)	0.000	0	N.D.	d
20) Hexatriacontane (C36)	0.000	0	N.D.	d
21) Octatriacontane (C38)	0.000	0	N.D.	d
22) Tertracontane (C40)	0.000	0	N.D.	d
23) h Total EPH	21.821f	8906047	391.159	M5

(f)=RT Delta > 1/2 Window

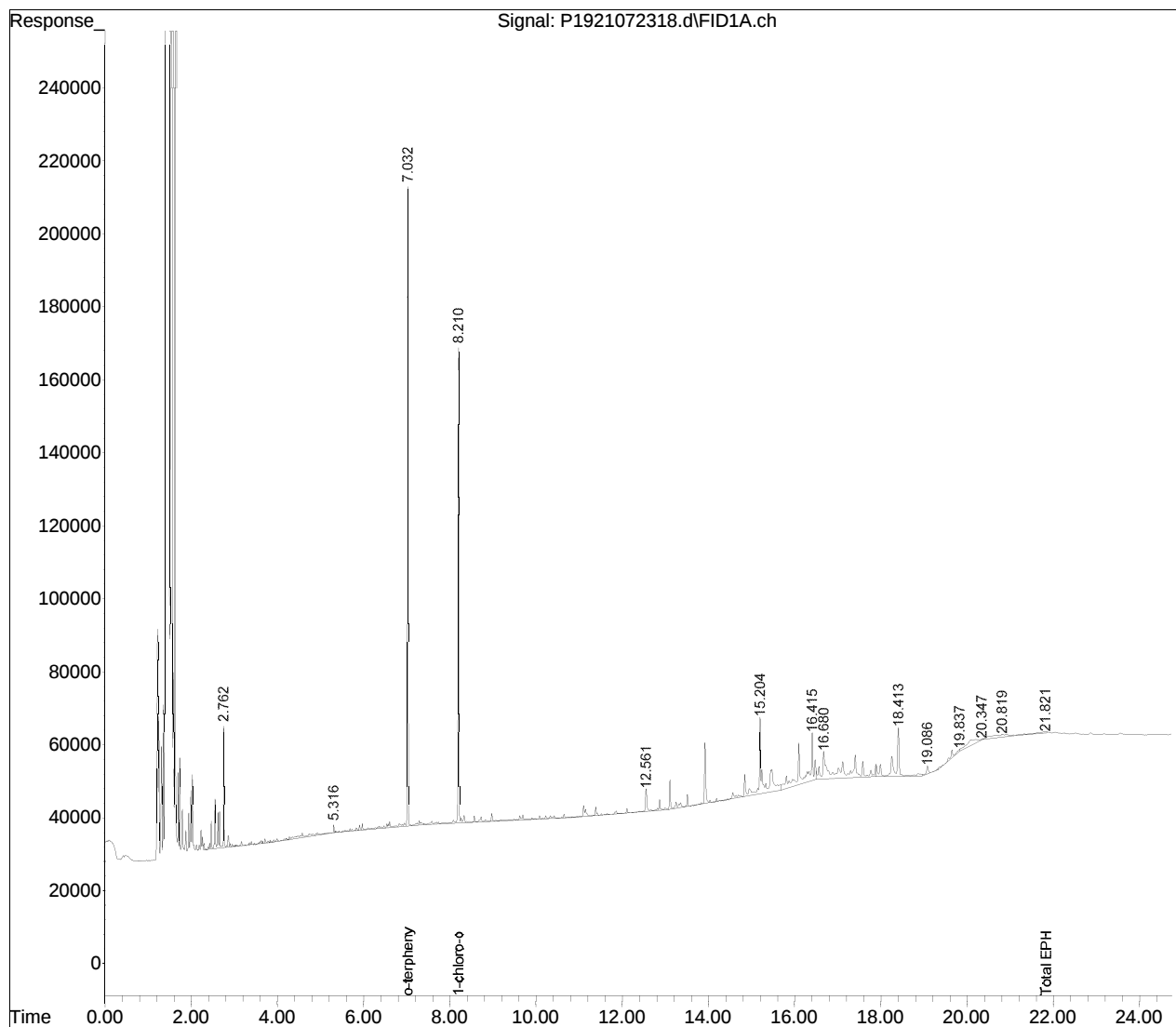
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072318.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 11:56 am
Operator : Petro19a:jb
Sample : L2138850-04,42,,
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 11:04:04 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

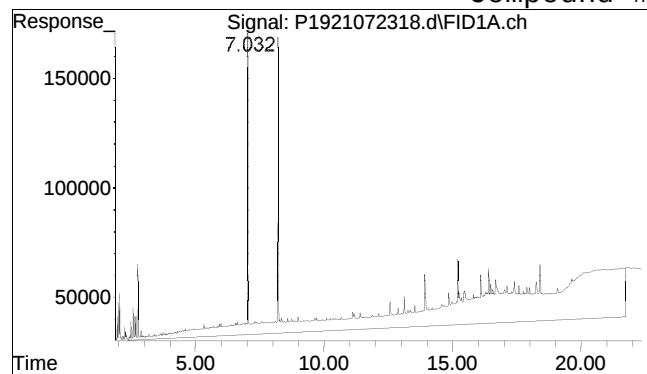
Volume Inj. :
Signal Phase :
Signal Info :



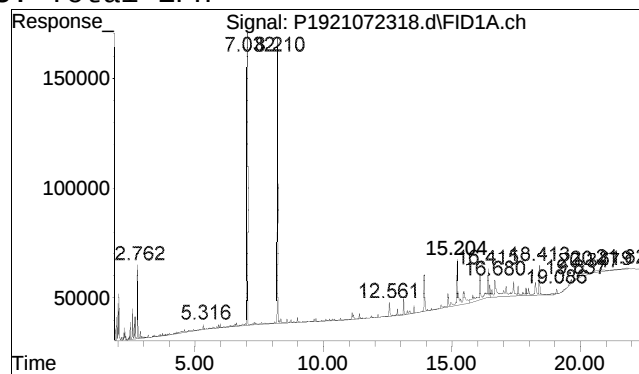
Manual Integration Report

Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072318.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 11:56 am Instrument : Petro19
Sample : L2138850-04,42,, Quant Date : 7/26/2021 11:01 am

Compound #23: Total EPH



Original Peak Response = 99795136



Manual Peak Response = 8906047 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072324.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 1:26 pm
 Operator : Petro19a:jb
 Sample : L2138850-01,42,,
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 26 11:07:21 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	7.034	2205279	85.287	
Spiked Amount 100.000		Recovery =	85.29%	
11) s 1-chloro-octadecane	8.212	1857122	91.411	
Spiked Amount 100.000		Recovery =	91.41%	
Target Compounds				
1) Nonane (C9)	0.000	0	N.D.	d
2) Decane (C10)	0.000	0	N.D.	d
3) Dodecane (C12)	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane (C14)	0.000	0	N.D.	d
7) Hexadecane (C16)	0.000	0	N.D.	d
8) Octadecane (C18)	0.000	0	N.D.	d
10) Eicosane (C20)	0.000	0	N.D.	d
12) Heneicosane (C21)	0.000	0	N.D.	d
13) Docosane (C22)	0.000	0	N.D.	d
14) Tetracosane (C24)	0.000	0	N.D.	d
15) Hexacosane (C26)	0.000	0	N.D.	d
16) Octacosane (C28)	0.000	0	N.D.	d
17) Triacontane (C30)	0.000	0	N.D.	d
18) Dotriacontane (C32)	0.000	0	N.D.	d
19) Tetratriacontane (C34)	0.000	0	N.D.	d
20) Hexatriacontane (C36)	0.000	0	N.D.	d
21) Octatriacontane (C38)	0.000	0	N.D.	d
22) Tertracontane (C40)	0.000	0	N.D.	d
23) h Total EPH	21.559f	30401819	1335.268	M5

(f)=RT Delta > 1/2 Window

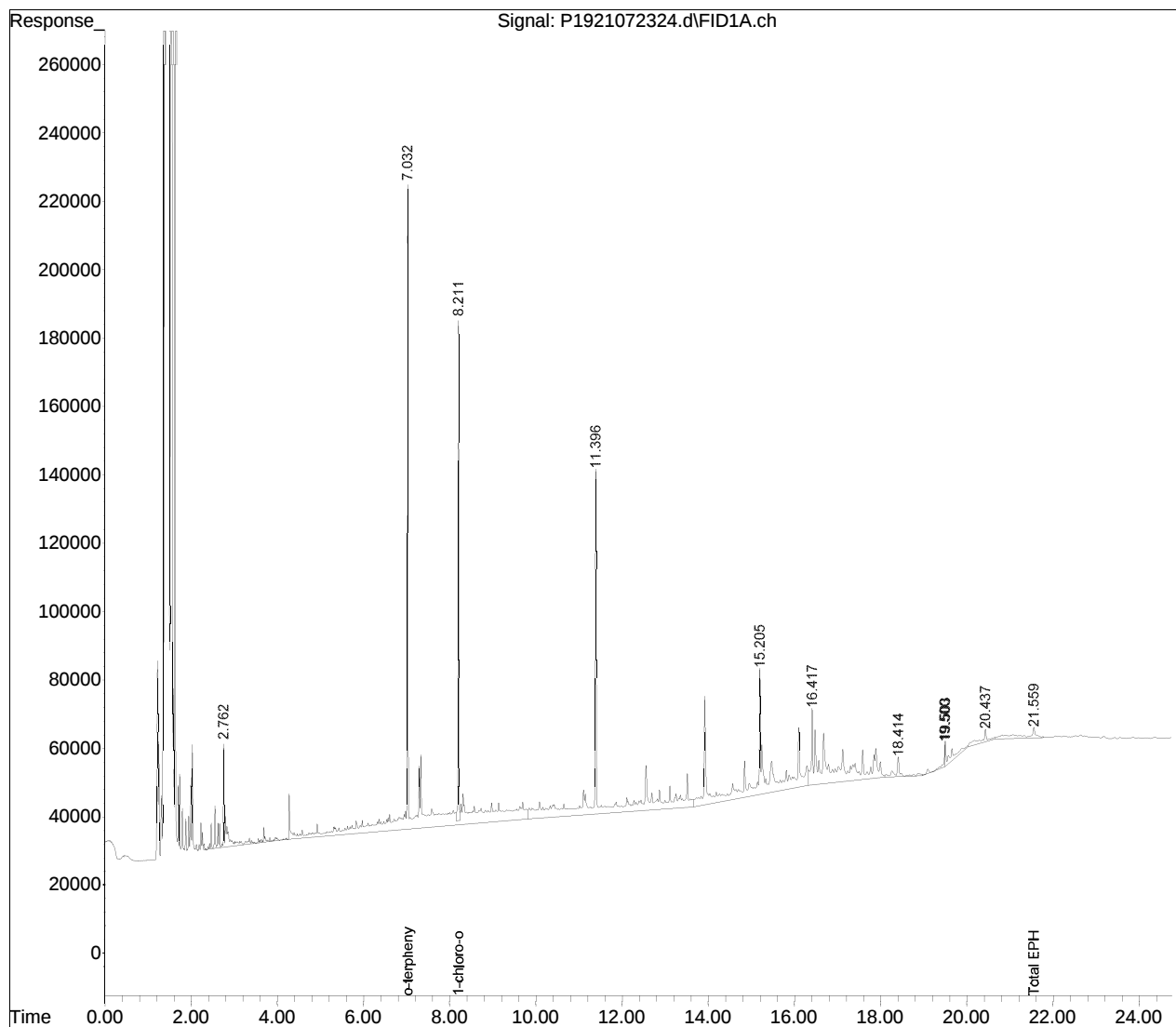
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072324.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 1:26 pm
Operator : Petro19a:jb
Sample : L2138850-01,42,,
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 11:07:21 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

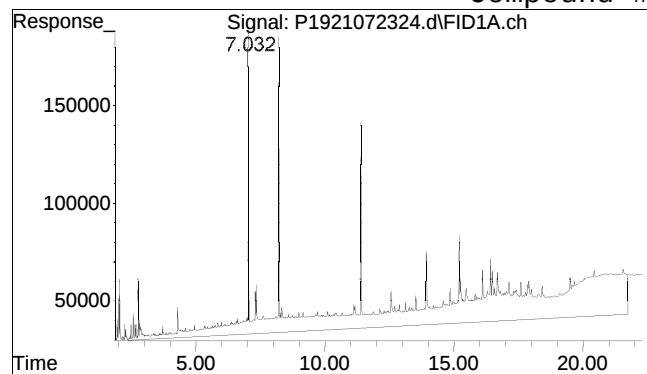
Volume Inj. :
Signal Phase :
Signal Info :



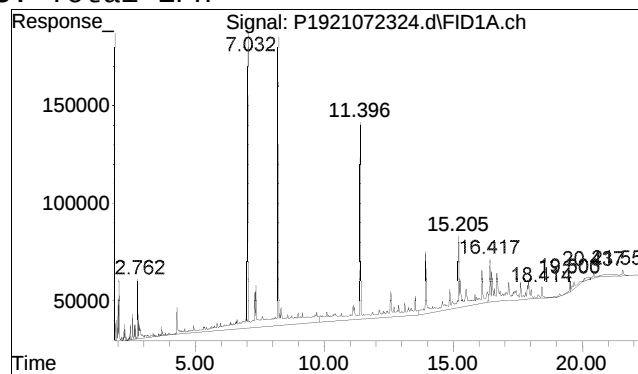
Manual Integration Report

Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072324.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 1:26 pm Instrument : Petro19
Sample : L2138850-01,42,, Quant Date : 7/26/2021 11:05 am

Compound #23: Total EPH



Original Peak Response = 111481447



Manual Peak Response = 30401819 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072326.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 1:56 pm
 Operator : Petro19a:jb
 Sample : L2138850-02,42,,
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 26 11:10:01 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	7.033	2138454	82.702	M4
Spiked Amount 100.000		Recovery =	82.70%	
11) s 1-chloro-octadecane	8.211	1670746	82.238	M4
Spiked Amount 100.000		Recovery =	82.24%	
Target Compounds				
1) Nonane (C9)	0.000	0	N.D.	d
2) Decane (C10)	0.000	0	N.D.	d
3) Dodecane (C12)	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane (C14)	0.000	0	N.D.	d
7) Hexadecane (C16)	0.000	0	N.D.	d
8) Octadecane (C18)	0.000	0	N.D.	d
10) Eicosane (C20)	0.000	0	N.D.	d
12) Heneicosane (C21)	0.000	0	N.D.	d
13) Docosane (C22)	0.000	0	N.D.	d
14) Tetracosane (C24)	0.000	0	N.D.	d
15) Hexacosane (C26)	0.000	0	N.D.	d
16) Octacosane (C28)	0.000	0	N.D.	d
17) Triacontane (C30)	0.000	0	N.D.	d
18) Dotriacontane (C32)	0.000	0	N.D.	d
19) Tetratriacontane (C34)	0.000	0	N.D.	d
20) Hexatriacontane (C36)	0.000	0	N.D.	d
21) Octatriacontane (C38)	0.000	0	N.D.	d
22) Tertracontane (C40)	0.000	0	N.D.	d
23) h Total EPH	21.219f	96301656	4229.632	M5

(f)=RT Delta > 1/2 Window

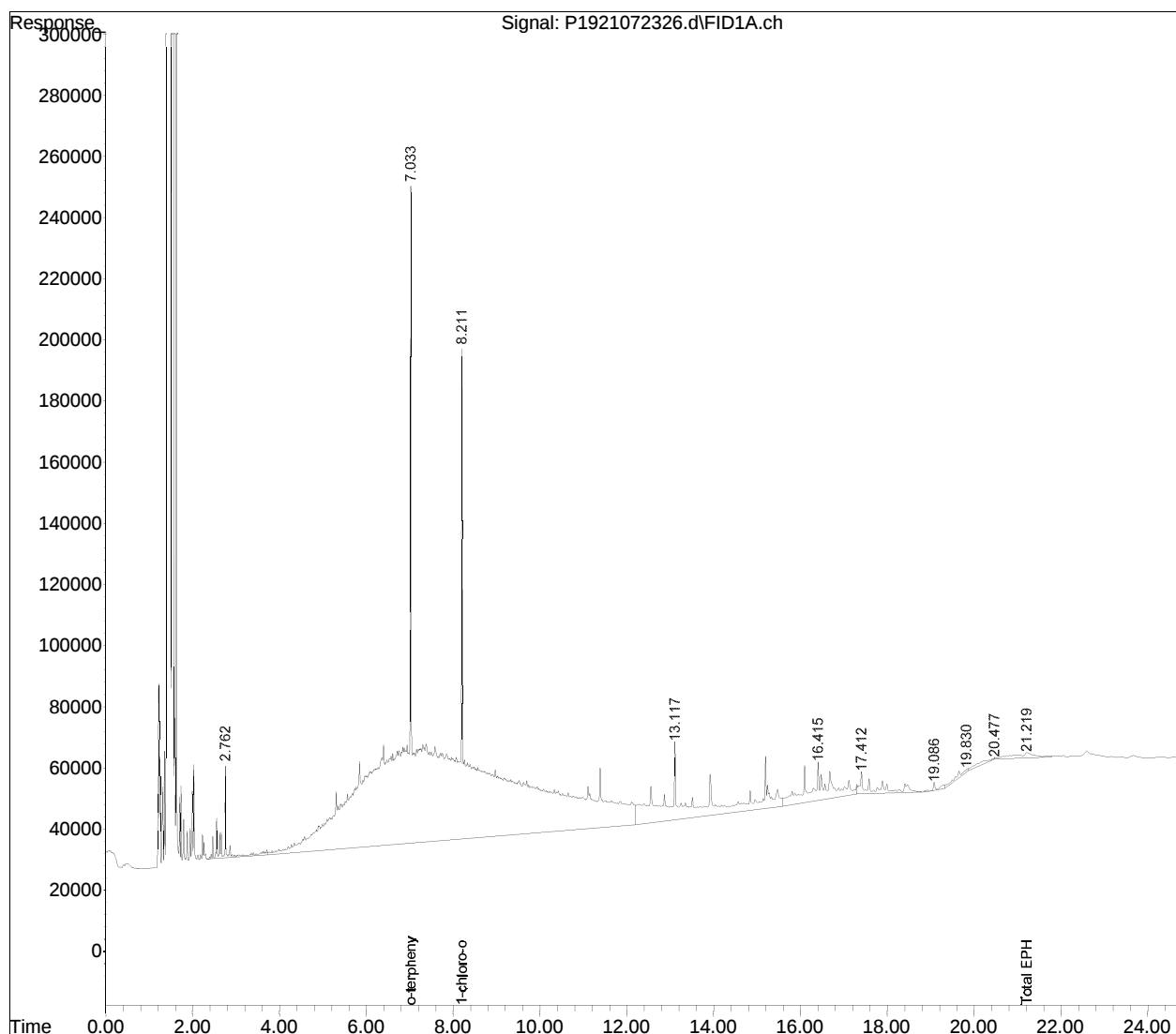
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072326.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 1:56 pm
Operator : Petro19a:jb
Sample : L2138850-02,42,,
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 13 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 11:10:01 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

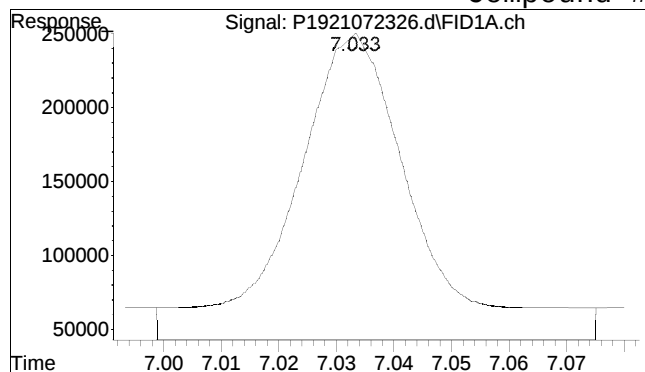
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

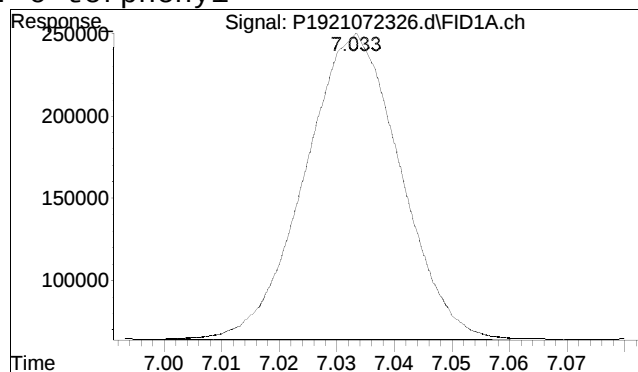
Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
 Data File : P1921072326.d Operator : Petro19a:jb
 Date Inj'd : 7/23/2021 1:56 pm Instrument : Petro19
 Sample : L2138850-02,42,, Quant Date : 7/26/2021 11:07 am

Compound #9: o-terphenyl



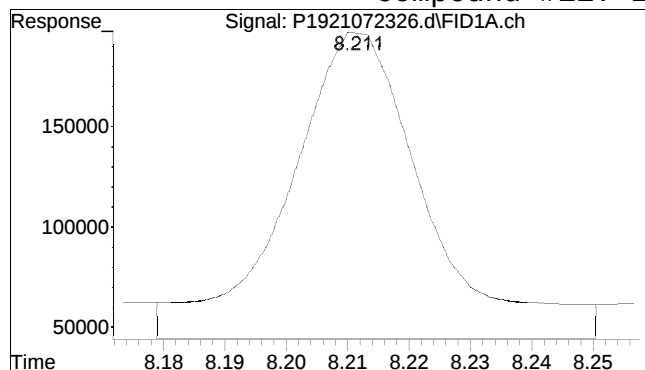
Original Peak Response = 3108520

M4 = Poor automated baseline construction.



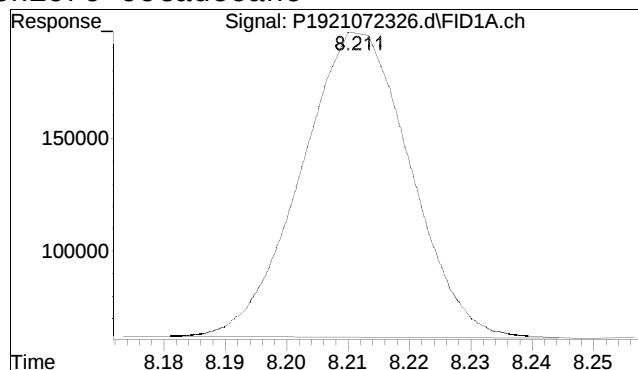
Manual Peak Response = 2138454 M4

Compound #11: 1-chloro-octadecane



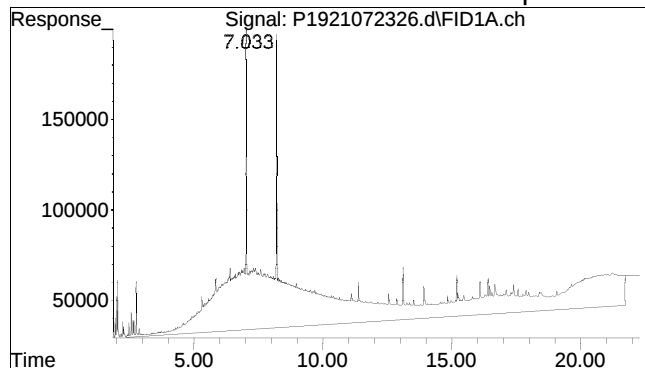
Original Peak Response = 2416984

M4 = Poor automated baseline construction.



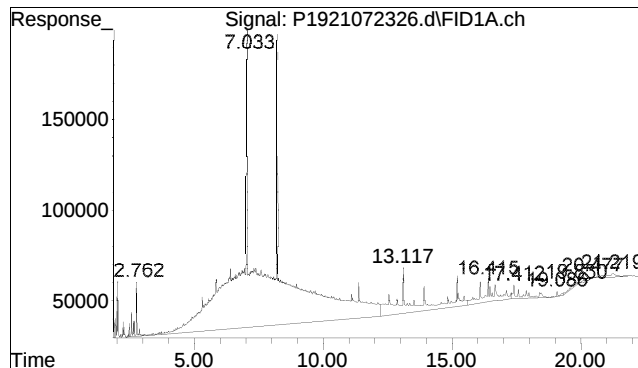
Manual Peak Response = 1670746 M4

Compound #23: Total EPH



Original Peak Response = 153237688

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.



Manual Peak Response = 96301656 M5

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072328.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 2:27 pm
 Operator : Petro19a:jb
 Sample : L2138850-03,42,3, fv3
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 26 11:19:23 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	7.033	829710	32.088	
Spiked Amount 100.000		Recovery =	32.09%	
11) s 1-chloro-octadecane	8.211	671116	33.034	
Spiked Amount 100.000		Recovery =	33.03%	
Target Compounds				
1) Nonane (C9)	0.000	0	N.D.	d
2) Decane (C10)	0.000	0	N.D.	d
3) Dodecane (C12)	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane (C14)	0.000	0	N.D.	d
7) Hexadecane (C16)	0.000	0	N.D.	d
8) Octadecane (C18)	0.000	0	N.D.	d
10) Eicosane (C20)	0.000	0	N.D.	d
12) Heneicosane (C21)	0.000	0	N.D.	d
13) Docosane (C22)	0.000	0	N.D.	d
14) Tetracosane (C24)	0.000	0	N.D.	d
15) Hexacosane (C26)	0.000	0	N.D.	d
16) Octacosane (C28)	0.000	0	N.D.	d
17) Triacontane (C30)	0.000	0	N.D.	d
18) Dotriacontane (C32)	0.000	0	N.D.	d
19) Tetratriacontane (C34)	0.000	0	N.D.	d
20) Hexatriacontane (C36)	0.000	0	N.D.	d
21) Octatriacontane (C38)	0.000	0	N.D.	d
22) Tertracontane (C40)	0.000	0	N.D.	d
23) h Total EPH	21.627f	34163957	1500.503	M5

(f)=RT Delta > 1/2 Window

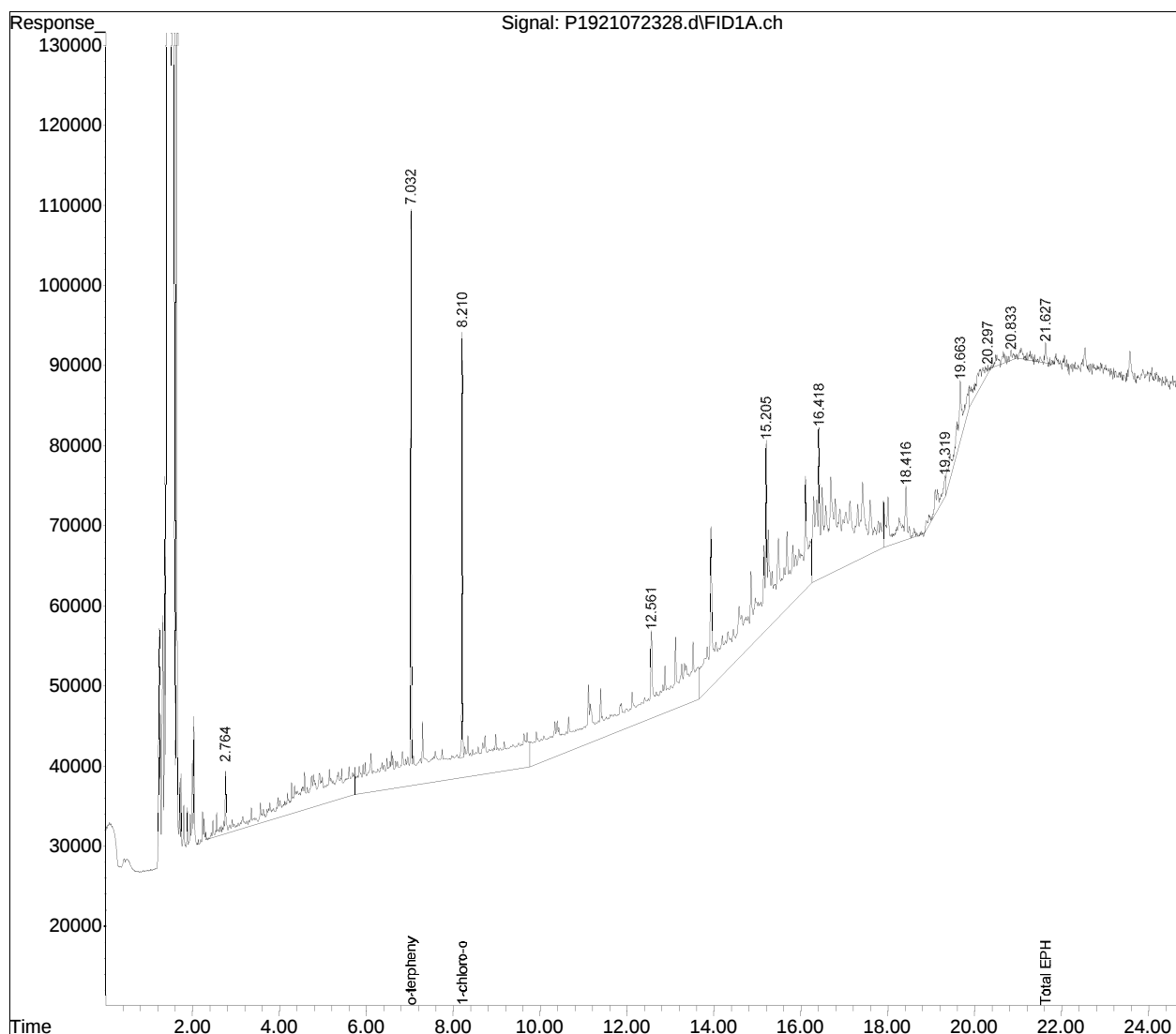
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072328.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 2:27 pm
Operator : Petro19a:jb
Sample : L2138850-03,42,3, fv3
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 14 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 26 11:19:23 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

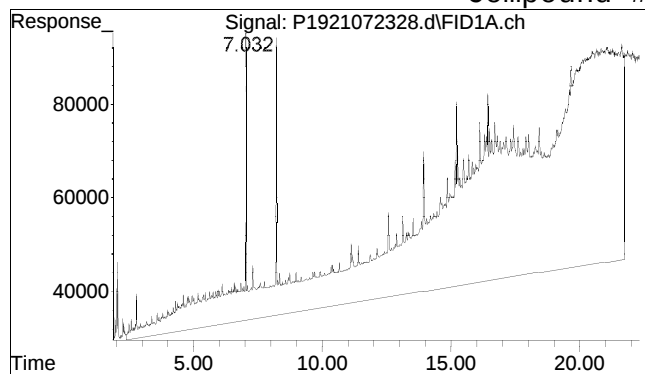
Volume Inj. :
Signal Phase :
Signal Info :



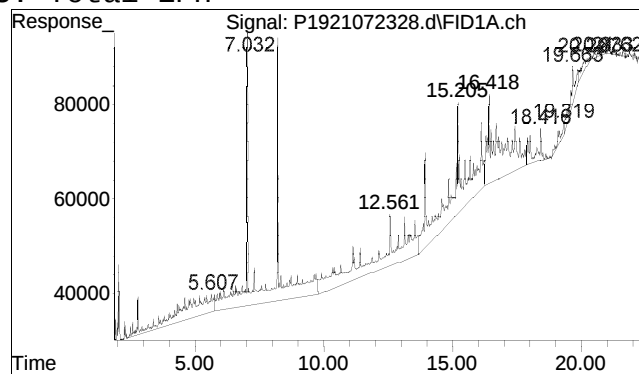
Manual Integration Report

Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072328.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 2:27 pm Instrument : Petro19
Sample : L2138850-03,42,3, fv3 Quant Date : 7/26/2021 11:10 am

Compound #23: Total EPH



Original Peak Response = 187388488



Manual Peak Response = 34163957 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Quality Control Data Summary

Surrogate Summary

Surrogate Recovery Summary

Form 2

Petroleum

Client: Environmental Strategies and Application
Project Name: X4259

Lab Number: L2138850
Project Number: X4259
Matrix: Soil

GC Column 1: RTX5-MS

CLIENT ID (LAB SAMPLE NO.)	COD %REC	OTP %REC	%REC	%REC	OTHER (1)	OTHER (2)	TOT OUT
SS-1A (L2138850-01)	91	85	--	--			0
SS-1B (L2138850-02)	82	83	--	--			0
SS-2A (L2138850-03)	99	96	--	--			0
SS-2B (L2138850-04)	81	79	--	--			0
WG1526243-1BLANK	71	73	--	--			0
WG1526243-2LCS	73	74	--	--			0
WG1526243-3LCSD	74	75	--	--			0
9 WCMS	63	65	--	--			0
9 WCDUP	74	76	--	--			0

QC LIMITS

(40-140) COD = CHLORO-OCTADECANE

(40-140) OTP = O-TERPHENYL

* Values outside of QC limits

FORM II NJEPH-TPH-CAT1



Blank Results Summary

**Method Blank Summary
Form 4
Petroleum**

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab Sample ID	: WG1526243-1	Lab File ID	: P23210722-17
Instrument ID	: PETRO23B	Extraction Date	: 07/21/21
Matrix	: SOIL	Analysis Date	: 07/22/21 10:16
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG1526243-2LCS	WG1526243-2	07/22/21 09:16
WG1526243-3LCSD	WG1526243-3	07/22/21 09:46
9 WCMS	WG1526243-4	07/22/21 11:17
9 WCDUP	WG1526243-5	07/22/21 11:47
SS-2B	L2138850-04	07/23/21 11:56
SS-1A	L2138850-01	07/23/21 13:26
SS-1B	L2138850-02	07/23/21 13:56
SS-2A	L2138850-03	07/23/21 14:27

Batch QC Summary

Lab Duplicate Sample Summary **Form 3** **Petroleum**

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Client Sample ID	: NA	Matrix	: SOIL
Lab Sample ID	: NA	Analysis Date	: 07/22/21 10:46
Lab File ID	: P23210722-19	DUP File ID	: P23210722-23
Dup Sample ID	: WG1526243-5	DUP Analysis Date	: 07/22/21 11:47

Parameter	Sample Concentration (mg/kg)	Duplicate Concentration (mg/kg)	RPD	RPD Limit
Total EPH	30.0	42.2	34	50

Laboratory Control Sample Summary

Form 3

Petroleum

Client : Environmental Strategies and Applic Lab Number : L2138850
 Project Name : X4259 Project Number : X4259
 Matrix : SOIL
 LCS Sample ID : WG1526243-2 Analysis Date : 07/22/21 09:16 File ID : P23210722-13
 LCSD Sample ID : WG1526243-3 Analysis Date : 07/22/21 09:46 File ID : P23210722-15

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (mg/kg)	Found (mg/kg)	%R	True (mg/kg)	Found (mg/kg)	%R			
Total EPH	233	217	93	236	226	96	3	40-140	25
Nonane (C9)	6.48	6.44	99	6.56	6.78	103	4	40-140	25
Decane (C10)	6.48	6.38	98	6.56	6.66	102	4	40-140	25
Dodecane (C12)	6.48	6.14	95	6.56	6.43	98	3	40-140	25
Tetradecane (C14)	6.48	5.96	92	6.56	6.30	96	4	40-140	25
Hexadecane (C16)	6.48	5.87	90	6.56	6.15	94	4	40-140	25
Octadecane (C18)	6.48	5.47	84	6.56	5.69	87	4	40-140	25
Eicosane (C20)	6.48	5.44	84	6.56	5.64	86	2	40-140	25
Heneicosane (C21)	6.48	5.35	82	6.56	5.54	84	2	40-140	25
Docosane (C22)	6.48	5.30	82	6.56	5.48	83	1	40-140	25
Tetracosane (C24)	6.48	5.22	81	6.56	5.40	82	1	40-140	25
Hexacosane (C26)	6.48	5.19	80	6.56	5.36	82	2	40-140	25
Octacosane (C28)	6.48	5.11	79	6.56	5.29	80	1	40-140	25
triacontane (C30)	6.48	5.24	81	6.56	5.36	82	1	40-140	25
Dotriacontane (C32)	6.48	5.21	80	6.56	5.41	82	2	40-140	25
Tetratriacontane (C34)	6.48	5.11	79	6.56	5.36	82	4	40-140	25
Hexatriacontane (C36)	6.48	5.20	80	6.56	5.46	83	4	40-140	25
Octatriacontane (C38)	6.48	5.34	82	6.56	5.61	85	4	40-140	25
Tetracontane (C40)	6.48	5.34	82	6.56	5.67	86	5	40-140	25

Matrix Spike Sample Summary

Form 3

Petroleum

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Client Sample ID	: NA	Matrix	: SOIL
Lab Sample ID	: NA	Analysis Date	: 07/22/21 10:46
Matrix Spike	: WG1526243-4	MS Analysis Date	: 07/22/21 11:17
Matrix Spike Dup	:	MSD Analysis Date	:

Parameter	Sample Conc. (mg/kg)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (mg/kg)	Spike Conc. (mg/kg)	%R	Spike Added (mg/kg)	Spike Conc. (mg/kg)	%R			
Total EPH	30.0	299	278	83					40-140	50
Nonane (C9)	ND	8.32	8.09	97					40-140	50
Decane (C10)	ND	8.32	7.81	94					40-140	50
Dodecane (C12)	ND	8.32	7.58	91					40-140	50
Tetradecane (C14)	ND	8.32	7.42	89					40-140	50
Hexadecane (C16)	ND	8.32	7.23	87					40-140	50
Octadecane (C18)	ND	8.32	6.66	80					40-140	50
Eicosane (C20)	ND	8.32	6.58	79					40-140	50
Heneicosane (C21)	ND	8.32	6.42	77					40-140	50
Docosane (C22)	ND	8.32	6.34	76					40-140	50
Tetracosane (C24)	ND	8.32	6.23	75					40-140	50
Hexacosane (C26)	ND	8.32	6.15	74					40-140	50
Octacosane (C28)	ND	8.32	6.07	73					40-140	50
triacontane (C30)	ND	8.32	6.16	74					40-140	50
Dotriacontane (C32)	ND	8.32	6.23	75					40-140	50
Tetratriacontane (C34)	ND	8.32	6.14	74					40-140	50
Hexatriacontane (C36)	ND	8.32	6.31	76					40-140	50
Octatriacontane (C38)	ND	8.32	6.50	78					40-140	50
Tetracontane (C40)	ND	8.32	6.55	79					40-140	50

Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Petroleum

Client : Environmental Strategies and Applic
Project Name : X4259
Instrument ID : PETRO23B
Calibration dates : 05/21/21 08:17 05/24/21 11:22
Lab Number : L2138850
Project Number : X4259
Ical Ref : ICAL17991

Calibration Files

L1 =P23210521-17.D L2 =P23210521-19.D L3 =P23210521-07.D L4 =P23210521-09.D L5 =P23210521-11.D
 L6 =P23210521-13.D

	Compound	L1	L2	L3	L4	L5	L6	Avg	%RSD
1)	Nonane	3.549	3.441	3.444	3.480	3.403	3.478	3.466 E4	1.43
2)	Decane	3.590	3.424	3.463	3.506	3.414	3.506	3.484 E4	1.87
3)	Dodecane	3.559	3.461	3.489	3.523	3.417	3.536	3.498 E4	1.50
4)	Naphthalene	3.939	3.831	3.878	3.931	3.818	3.940	3.889 E4	1.43
5)	2-Methylnaphthalene	3.853	3.744	3.792	3.835	3.720	3.853	3.800 E4	1.51
6)	Tetradecane	3.620	3.494	3.525	3.539	3.427	3.555	3.527 E4	1.82
7)	Hexadecane	3.623	3.484	3.526	3.525	3.417	3.546	3.520 E4	1.94
8)	Octadecane	3.794	3.619	3.633	3.622	3.528	3.659	3.643 E4	2.38
9) s	o-terphenyl	4.095	3.917	3.938	3.932	3.821	3.972	3.946 E4	2.25
10)	Eicosane	3.715	3.499	3.506	3.491	3.416	3.543	3.528 E4	2.85
11) s	1-Chlorooctadecane	3.232	3.067	3.069	3.056	2.991	3.105	3.087 E4	2.60
12)	Heneicosane	3.698	3.497	3.503	3.488	3.420	3.548	3.526 E4	2.67
13)	Docosane	3.690	3.489	3.484	3.469	3.405	3.533	3.512 E4	2.76
14)	Tetracosane	3.708	3.480	3.466	3.453	3.399	3.533	3.507 E4	3.07
15)	Hexacosane	3.701	3.465	3.445	3.433	3.379	3.526	3.491 E4	3.24
16)	Octacosane	3.701	3.443	3.432	3.425	3.364	3.529	3.482 E4	3.43
17)	triacontane	3.717	3.414	3.404	3.408	3.334	3.519	3.466 E4	3.94
18)	Dotriacontane	3.830	3.380	3.360	3.370	3.283	3.476	3.450 E4	5.69
19)	Tetratriacontane	3.577	3.373	3.366	3.357	3.238	3.460	3.395 E4	3.35
20)	Hexatriacontane	3.700	3.270	3.273	3.243	3.071	3.336	3.316 E4	6.29
21)	Octatriacontane	3.312	3.150	3.107	3.067	2.873	3.139	3.108 E4	4.58
22)	Tetracontane	3.292	3.135	3.149	3.106	2.887	3.153	3.120 E4	4.21
23) H	Total EPH	3.632	3.418	3.421	3.417	3.315	3.476	3.447 E4	3.04

Initial Calibration Summary

Form 6

Petroleum

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Instrument ID	: PETRO19A	Ical Ref	: ICAL18032
Calibration dates	: 05/28/21 18:23 05/31/21 15:53		

Calibration Files

L1 =P1921052818.d L2 =P1921052820.d L3 =P1921052822.d L4 =P1921052810.d L5 =P1921052812.d
 L6 =P1921052814.d

	Compound	L1	L2	L3	L4	L5	L6	Avg	%RSD
1)	Nonane (C9)	2.279	2.234	2.185	2.284	2.387	2.286	2.276 E4	2.94
2)	Decane (C10)	2.305	2.234	2.198	2.293	2.401	2.299	2.288 E4	3.03
3)	Dodecane (C12)	2.297	2.234	2.206	2.309	2.418	2.307	2.295 E4	3.20
4)	Naphthalene	2.548	2.482	2.455	2.566	2.684	2.566	2.550 E4	3.15
5)	2-Methylnaphthalene	2.483	2.440	2.403	2.511	2.626	2.505	2.495 E4	3.06
6)	Tetradecane (C14)	2.320	2.254	2.224	2.328	2.434	2.316	2.313 E4	3.13
7)	Hexadecane (C16)	2.362	2.258	2.229	2.326	2.426	2.308	2.318 E4	3.08
8)	Octadecane (C18)	2.447	2.337	2.298	2.396	2.500	2.382	2.393 E4	3.05
9) s	o-terphenyl	2.630	2.522	2.485	2.593	2.706	2.577	2.586 E4	3.03
10)	Eicosane (C20)	2.390	2.257	2.217	2.316	2.418	2.308	2.318 E4	3.30
11) s	1-chloro-octadecane	2.102	1.975	1.943	2.029	2.118	2.023	2.032 E4	3.37
12)	Heneicosane (C21)	2.391	2.252	2.217	2.317	2.421	2.312	2.318 E4	3.38
13)	Docosane (C22)	2.376	2.245	2.206	2.306	2.416	2.304	2.309 E4	3.38
14)	Tetracosane (C24)	2.388	2.247	2.201	2.303	2.412	2.305	2.309 E4	3.49
15)	Hexacosane (C26)	2.373	2.233	2.193	2.295	2.407	2.301	2.300 E4	3.52
16)	Octacosane (C28)	2.362	2.227	2.191	2.295	2.409	2.303	2.298 E4	3.53
17)	triacontane (C30)	2.358	2.230	2.183	2.287	2.401	2.297	2.293 E4	3.49
18)	Dotriacontane	2.306	2.203	2.170	2.263	2.374	2.275	2.265 E4	3.22
19)	Tetratriacontane (C34)	2.312	2.211	2.182	2.265	2.364	2.276	2.268 E4	2.91
20)	Hexatriacontane	2.242	2.176	2.131	2.207	2.285	2.214	2.209 E4	2.41
21)	Octatriacontane	2.141	2.046	2.036	2.098	2.160	2.100	2.097 E4	2.36
22)	Tertracontane (C40)	2.159	2.080	2.042	2.121	2.171	2.117	2.115 E4	2.28
23) h	Total EPH	2.323	2.220	2.184	2.278	2.378	2.278	2.277 E4	3.06

Response Factor Report Petro 23

Method Path : I:\PETRO\Petro23\210521.SEC\
 Method File : Aliphatics210521B.M
 Title : NJ EPH TPH
 Last Update : Tue May 25 07:42:37 2021
 Response Via : Initial Calibration

Calibration Files

L1 =P23210521-17.D L2 =P23210521-19.D L3 =P23210521-07.D L4 =P23210521-09.D L5 =P23210521-11.D
 L6 =P23210521-13.D

	Compound	L1	L2	L3	L4	L5	L6	Avg	%RSD
1)	Nonane	3.549	3.441	3.444	3.480	3.403	3.478	3.466 E4	1.43
2)	Decane	3.590	3.424	3.463	3.506	3.414	3.506	3.484 E4	1.87
3)	Dodecane	3.559	3.461	3.489	3.523	3.417	3.536	3.498 E4	1.50
4)	Naphthalene	3.939	3.831	3.878	3.931	3.818	3.940	3.889 E4	1.43
5)	2-Methylnapht...	3.853	3.744	3.792	3.835	3.720	3.853	3.800 E4	1.51
6)	Tetradecane	3.620	3.494	3.525	3.539	3.427	3.555	3.527 E4	1.82
7)	Hexadecane	3.623	3.484	3.526	3.525	3.417	3.546	3.520 E4	1.94
8)	Octadecane	3.794	3.619	3.633	3.622	3.528	3.659	3.643 E4	2.38
9) s	o-terphenyl	4.095	3.917	3.938	3.932	3.821	3.972	3.946 E4	2.25
10)	Eicosane	3.715	3.499	3.506	3.491	3.416	3.543	3.528 E4	2.85
11) s	1-Chlorooctad...	3.232	3.067	3.069	3.056	2.991	3.105	3.087 E4	2.60
12)	Heneicosane	3.698	3.497	3.503	3.488	3.420	3.548	3.526 E4	2.67
13)	Docosane	3.690	3.489	3.484	3.469	3.405	3.533	3.512 E4	2.76
14)	Tetracosane	3.708	3.480	3.466	3.453	3.399	3.533	3.507 E4	3.07
15)	Hexacosane	3.701	3.465	3.445	3.433	3.379	3.526	3.491 E4	3.24
16)	Octacosane	3.701	3.443	3.432	3.425	3.364	3.529	3.482 E4	3.43
17)	triacontane	3.717	3.414	3.404	3.408	3.334	3.519	3.466 E4	3.94
18)	Dotriacontane	3.830	3.380	3.360	3.370	3.283	3.476	3.450 E4	5.69
19)	Tetratriacontane	3.577	3.373	3.366	3.357	3.238	3.460	3.395 E4	3.35
20)	Hexatriacontane	3.700	3.270	3.273	3.243	3.071	3.336	3.316 E4	6.29
21)	Octatriacontane	3.312	3.150	3.107	3.067	2.873	3.139	3.108 E4	4.58
22)	Tetracontane	3.292	3.135	3.149	3.106	2.887	3.153	3.120 E4	4.21
23) H	Total EPH	3.632	3.418	3.421	3.417	3.315	3.476	3.447 E4	3.04

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-17.D
 Signal(s) : FID2B.ch
 Acq On : 24 May 2021 10:52 am
 Operator : Petro23B:SC
 Sample : IL1,42,,4356
 Misc : WG1503221,
 ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:38:54 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:37:21 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.670	409523	10.400	
Spiked Amount 100.000		Recovery	=	10.40%
11) s 1-Chlorooctadecane	7.800	323197	10.530	
Spiked Amount 100.000		Recovery	=	10.53%
Target Compounds				
1) Nonane	2.292	354868	10.304	
2) Decane	2.722	359021	10.366	
3) Dodecane	3.567	355878	10.199	
4) Naphthalene	3.610	393871	10.157	
5) 2-Methylnaphthalene	4.053	385342	10.161	
6) Tetradecane	4.339	361958	10.268	
7) Hexadecane	5.116	362334	10.275	
8) Octadecane	6.051	379447	10.445	
10) Eicosane	7.208	371518	10.597	
12) Heneicosane	7.862	369793	10.557	
13) Docosane	8.548	369028	10.592	
14) Tetracosane	9.967	370766	10.696	
15) Hexacosane	11.386	370065	10.742	
16) Octacosane	12.757	370125	10.784	
17) Triacontane	14.063	371726	10.921	
18) Dotriacontane	15.300	383024	11.398	
19) Tetratriacontane	16.470	357726	10.629	M4
20) Hexatriacontane	17.798	370013	11.305	M4
21) Octatriacontane	19.441	331174	10.660	M4
22) Tetracontane	20.780	329164	10.452	M4
23) H Total EPH	15.000	18943039	321.666	

(f)=RT Delta > 1/2 Window

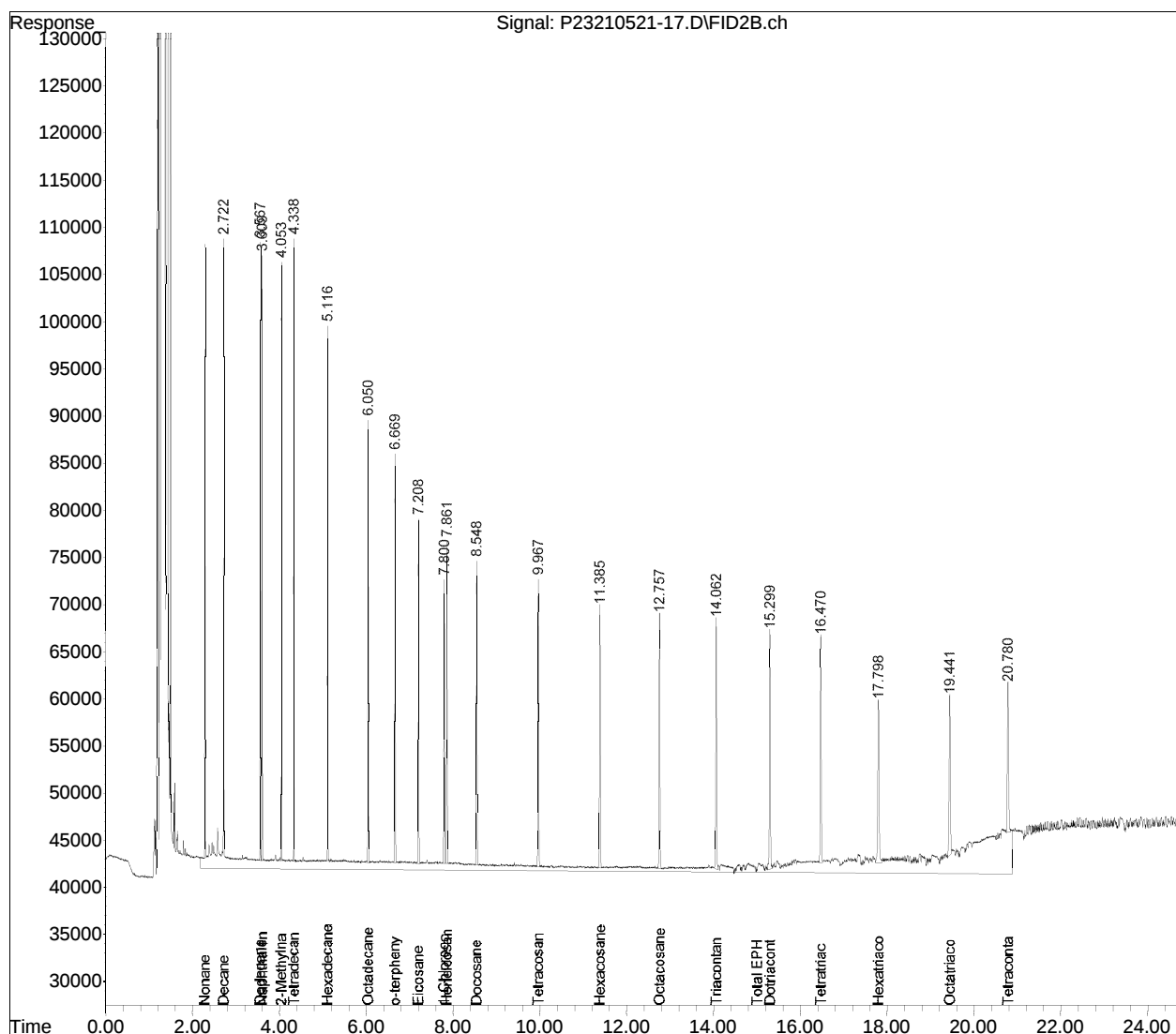
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-17.D
Signal(s) : FID2B.ch
Acq On : 24 May 2021 10:52 am
Operator : Petro23B:SC
Sample : IL1,42,,4356
Misc : WG1503221,
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:38:54 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:37:21 2021
Response via : Initial Calibration
Integrator: ChemStation

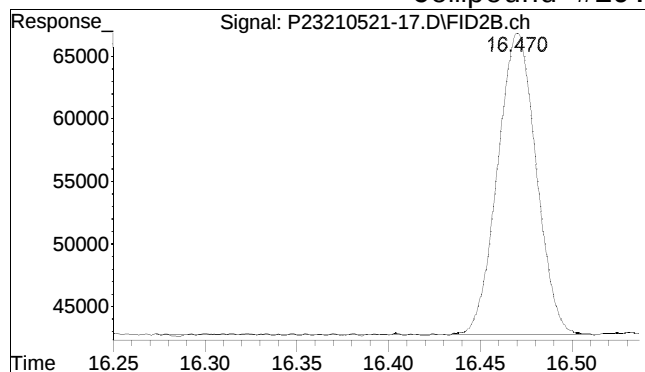
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

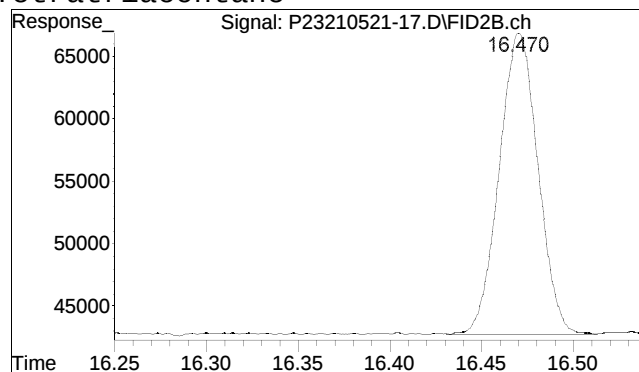
Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-17.D Operator : Petro23B:SC
Date Inj'd : 5/24/2021 10:52 am Instrument : Petro 23
Sample : IL1,42,,4356 Quant Date : 5/25/2021 7:38 am

Compound #19: Tetratriacontane



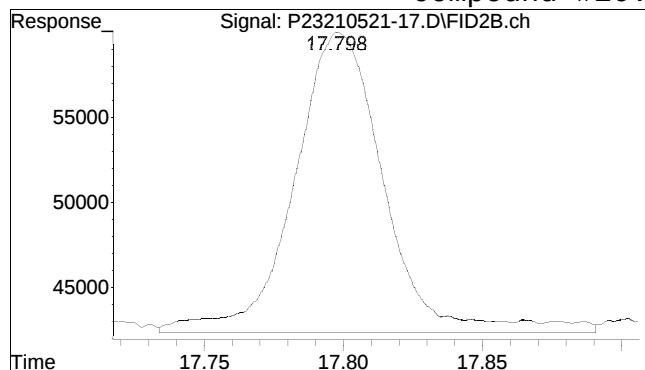
Original Peak Response = 357359

M4 = Poor automated baseline construction.



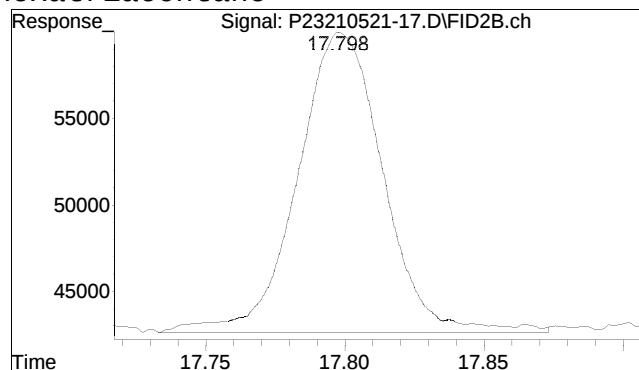
Manual Peak Response = 357726 M4

Compound #20: Hexatriacontane



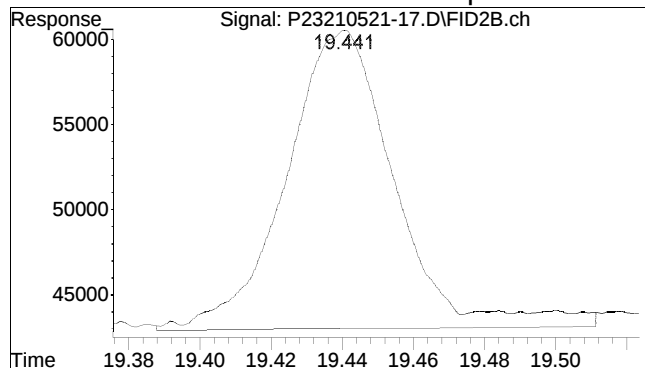
Original Peak Response = 398957

M4 = Poor automated baseline construction.



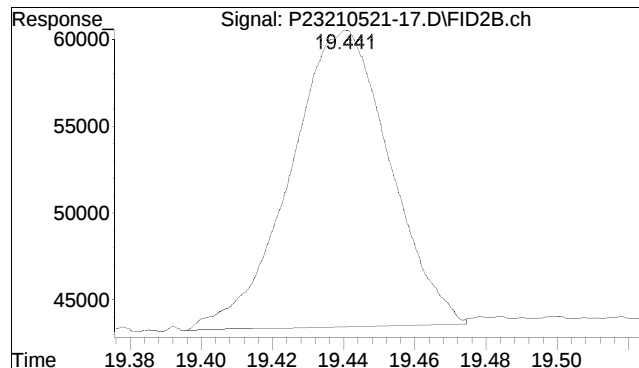
Manual Peak Response = 370013 M4

Compound #21: Octatriacontane



Original Peak Response = 372657

M4 = Poor automated baseline construction.

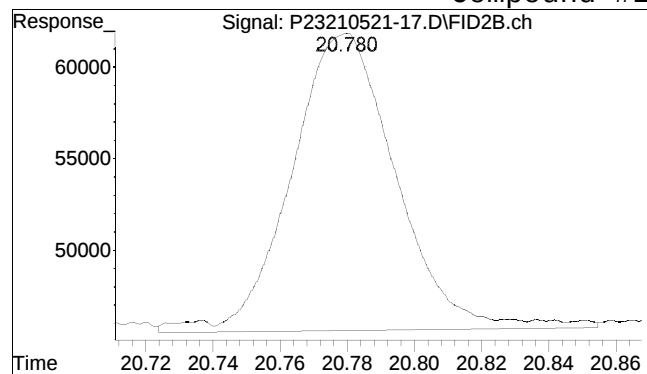


Manual Peak Response = 331174 M4

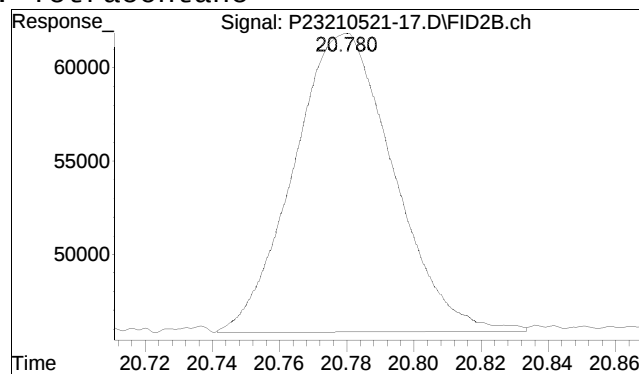
Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-17.D Operator : Petro23B:SC
Date Inj'd : 5/24/2021 10:52 am Instrument : Petro 23
Sample : IL1,42,,4356 Quant Date : 5/25/2021 7:38 am

Compound #22: Tetracontane



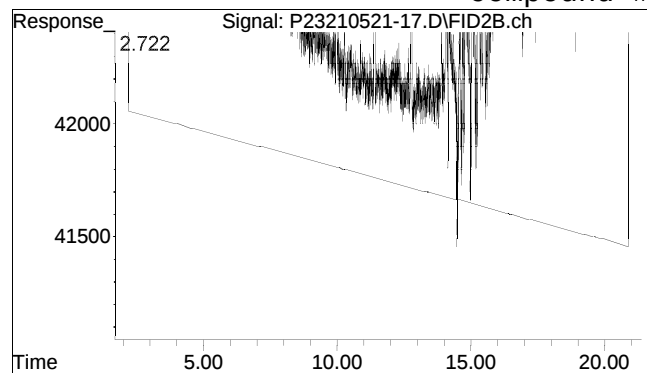
Original Peak Response = 350948



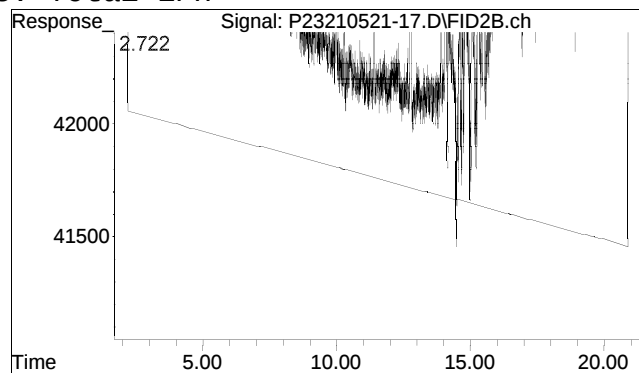
Manual Peak Response = 329164 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 18943039



Manual Peak Response = 18943039 m

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-19.D
 Signal(s) : FID2B.ch
 Acq On : 24 May 2021 11:22 am
 Operator : Petro23B:SC
 Sample : IL2,42,,4355
 Misc : WG1503221,
 ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:39:44 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:39:28 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.669	783369	19.504
Spiked Amount 100.000		Recovery =	19.50%
11) s 1-Chlorooctadecane	7.800	613373	19.468
Spiked Amount 100.000		Recovery =	19.47%
Target Compounds			
1) Nonane	2.292	688108	19.681
2) Decane	2.722	684764	19.416
3) Dodecane	3.566	692173	19.642
4) Naphthalene	3.609	766269	19.606
5) 2-Methylnaphthalene	4.052	748854	19.589
6) Tetradecane	4.337	698784	19.561
7) Hexadecane	5.115	696883	19.494
8) Octadecane	6.050	723869	19.492
10) Eicosane	7.208	699816	19.383
12) Heneicosane	7.862	699372	19.425
13) Docosane	8.548	697831	19.454
14) Tetracosane	9.968	696049	19.405
15) Hexacosane	11.385	693009	19.396
16) Octacosane	12.756	688518	19.304
17) Triacontane	14.063	682744	19.175
18) Dotriacontane	15.299	676096	18.805
19) Tetraatriacontane	16.472	674647	19.434
20) Hexatriacontane	17.800	654047	18.759
21) Octatriacontane	19.440	630032	19.632
22) Tetracontane	20.779	626965	19.468
23) H Total EPH	15.000	23230764	283.078

(f)=RT Delta > 1/2 Window

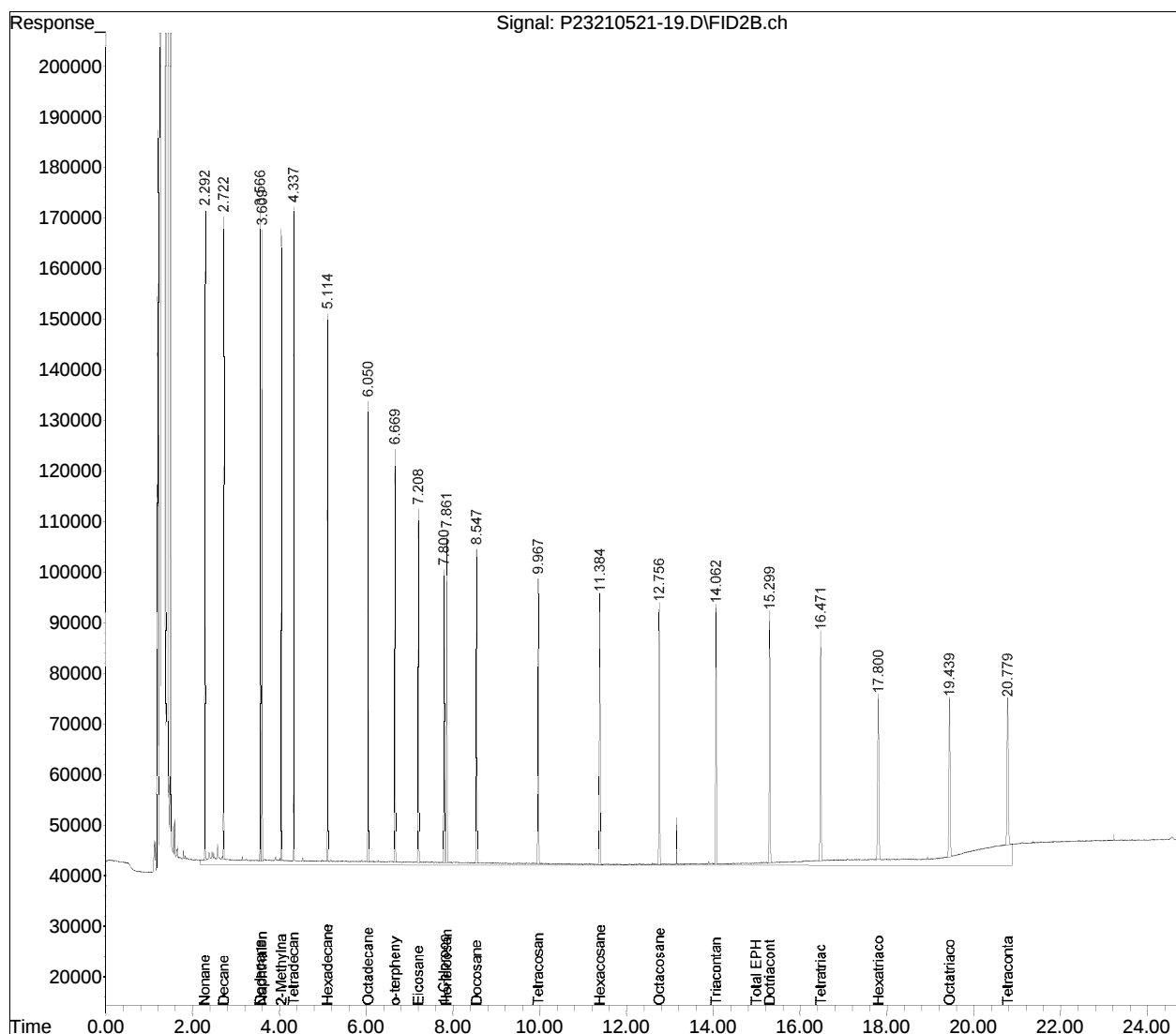
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-19.D
Signal(s) : FID2B.ch
Acq On : 24 May 2021 11:22 am
Operator : Petro23B:SC
Sample : IL2,42,,4355
Misc : WG1503221,
ALS Vial : 60 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:39:44 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:39:28 2021
Response via : Initial Calibration
Integrator: ChemStation

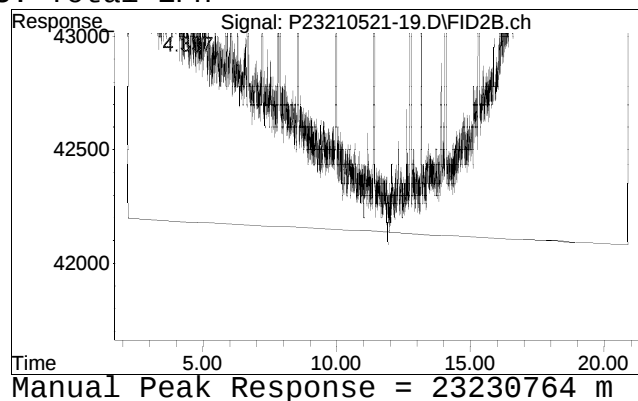
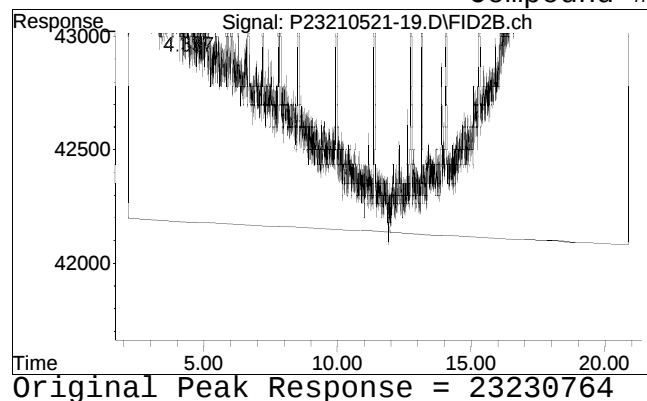
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-19.D Operator : Petro23B:SC
Date Inj'd : 5/24/2021 11:22 am Instrument : Petro 23
Sample : IL2,42,,4355 Quant Date : 5/25/2021 7:39 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-07.D
 Signal(s) : FID2B.ch
 Acq On : 21 May 2021 08:17 am
 Operator : Petro23B:SC
 Sample : IL3,42,,4354
 Misc : WG1503221,
 ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 06:18:11 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 06:18:05 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.671	3937824	100.000
Spiked Amount	100.000	Recovery	= 100.00%
11) s 1-Chlorooctadecane	7.801	3069268	100.000
Spiked Amount	100.000	Recovery	= 100.00%
Target Compounds			
1) Nonane	2.293	3443849	100.000
2) Decane	2.723	3463462	100.000
3) Dodecane	3.567	3489266	100.000
4) Naphthalene	3.609	3877891	100.000
5) 2-Methylnaphthalene	4.053	3792332	100.000
6) Tetradecane	4.338	3524956	100.000
7) Hexadecane	5.116	3526397	100.000
8) Octadecane	6.052	3632703	100.000
10) Eicosane	7.210	3505905	100.000
12) Heneicosane	7.863	3502688	100.000
13) Docosane	8.550	3484035	100.000
14) Tetracosane	9.969	3466373	100.000
15) Hexacosane	11.387	3445133	100.000
16) Octacosane	12.759	3432091	100.000
17) Triacontane	14.066	3403824	100.000
18) Dotriacontane	15.303	3360306	100.000
19) Tetratriacontane	16.475	3365585	100.000
20) Hexatriacontane	17.803	3273143	100.000
21) Octatriacontane	19.445	3106829	100.000
22) Tetracontane	20.782	3149219	100.000
23) H Total EPH	15.000	106002768	1800.000

(f)=RT Delta > 1/2 Window

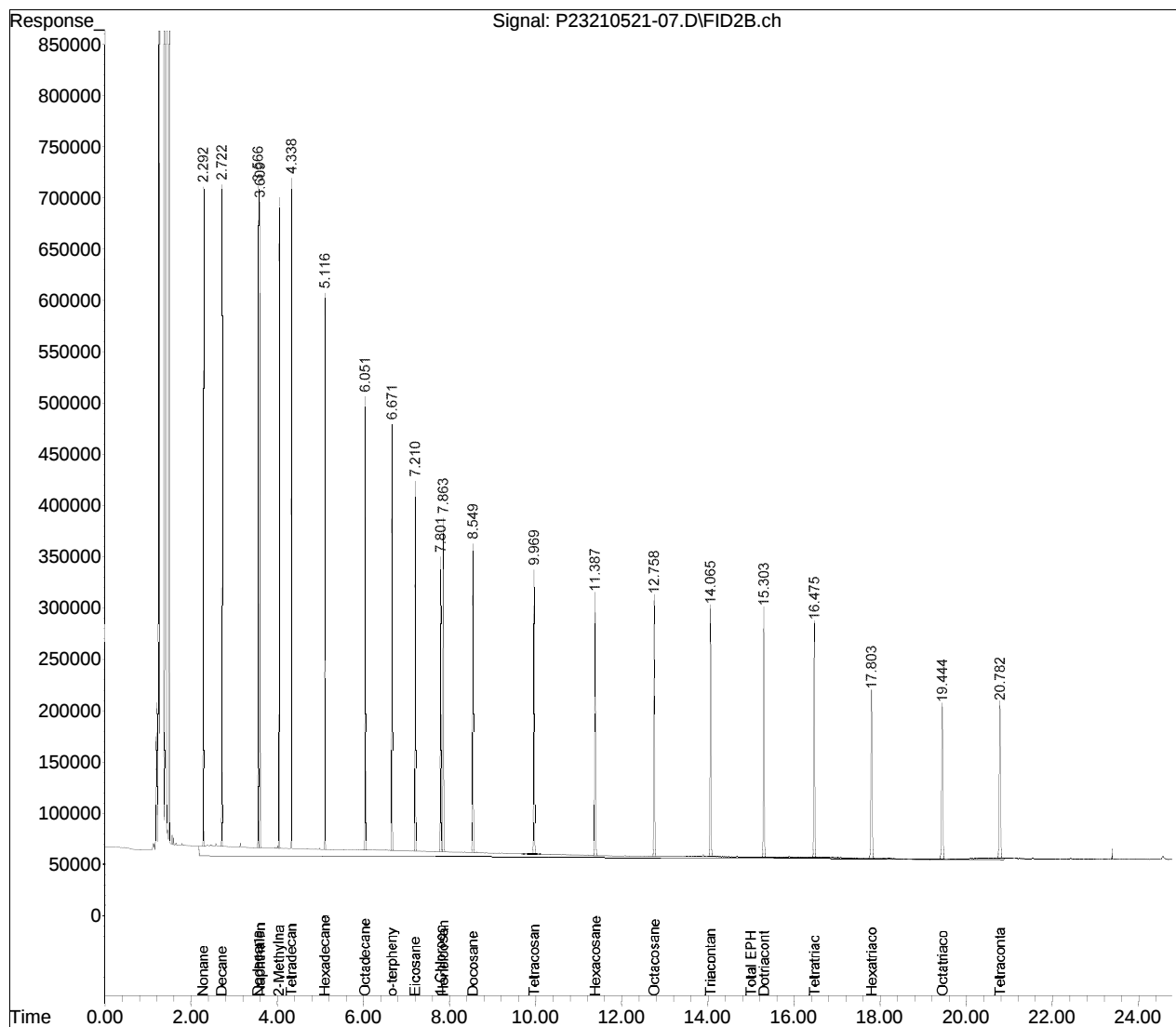
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-07.D
Signal(s) : FID2B.ch
Acq On : 21 May 2021 08:17 am
Operator : Petro23B:SC
Sample : IL3,42,,4354
Misc : WG1503221,
ALS Vial : 54 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 06:18:11 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 06:18:05 2021
Response via : Initial Calibration
Integrator: ChemStation

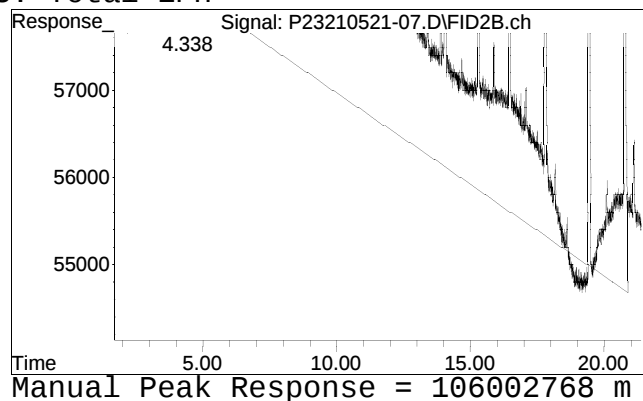
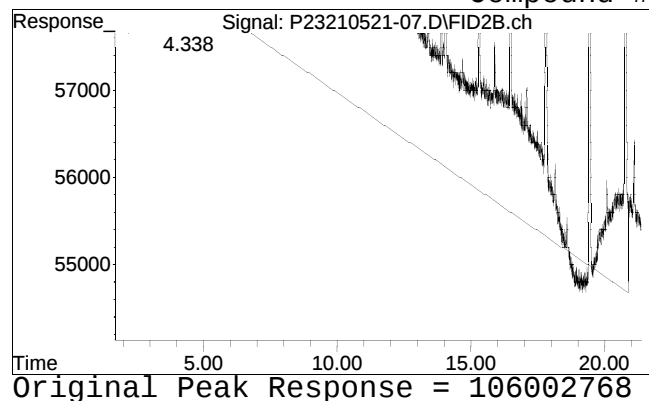
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQMethod : Aliphatics210521B.M
Data File : P23210521-07.D Operator : Petro23B:SC
Date Inj'd : 5/21/2021 8:17 am Instrument : Petro 23
Sample : IL3,42,,4354 Quant Date : 5/25/2021 6:18 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-09.D
 Signal(s) : FID2B.ch
 Acq On : 21 May 2021 08:47 am
 Operator : Petro23B:SC
 Sample : IL4,42,,4353
 Misc : WG1503221,
 ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:40:39 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:40:19 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.673	9831055	246.807
Spiked Amount 100.000		Recovery	= 246.81%
11) s 1-Chlorooctadecane	7.804	7639124	244.632
Spiked Amount 100.000		Recovery	= 244.63%
Target Compounds			
1) Nonane	2.294	8699123	250.141
2) Decane	2.724	8764858	250.962
3) Dodecane	3.568	8807691	251.435
4) Naphthalene	3.611	9827257	253.107
5) 2-Methylnaphthalene	4.054	9587119	252.514
6) Tetradecane	4.340	8848658	249.528
7) Hexadecane	5.117	8812144	248.599
8) Octadecane	6.054	9055926	245.940
10) Eicosane	7.213	8726726	244.214
12) Heneicosane	7.866	8721107	244.575
13) Docosane	8.552	8672233	243.980
14) Tetracosane	9.973	8632018	243.058
15) Hexacosane	11.392	8581262	242.618
16) Octacosane	12.764	8563688	242.920
17) Triacontane	14.071	8520238	242.631
18) Dotriacontane	15.308	8424582	239.085
19) Tetratriacontane	16.480	8392018	244.047
20) Hexatriacontane	17.811	8108135	237.462
21) Octatriacontane	19.451	7666374	240.357
22) Tetracontane	20.790	7763984	243.241
23) H Total EPH	15.000	184490832	2420.510

(f)=RT Delta > 1/2 Window

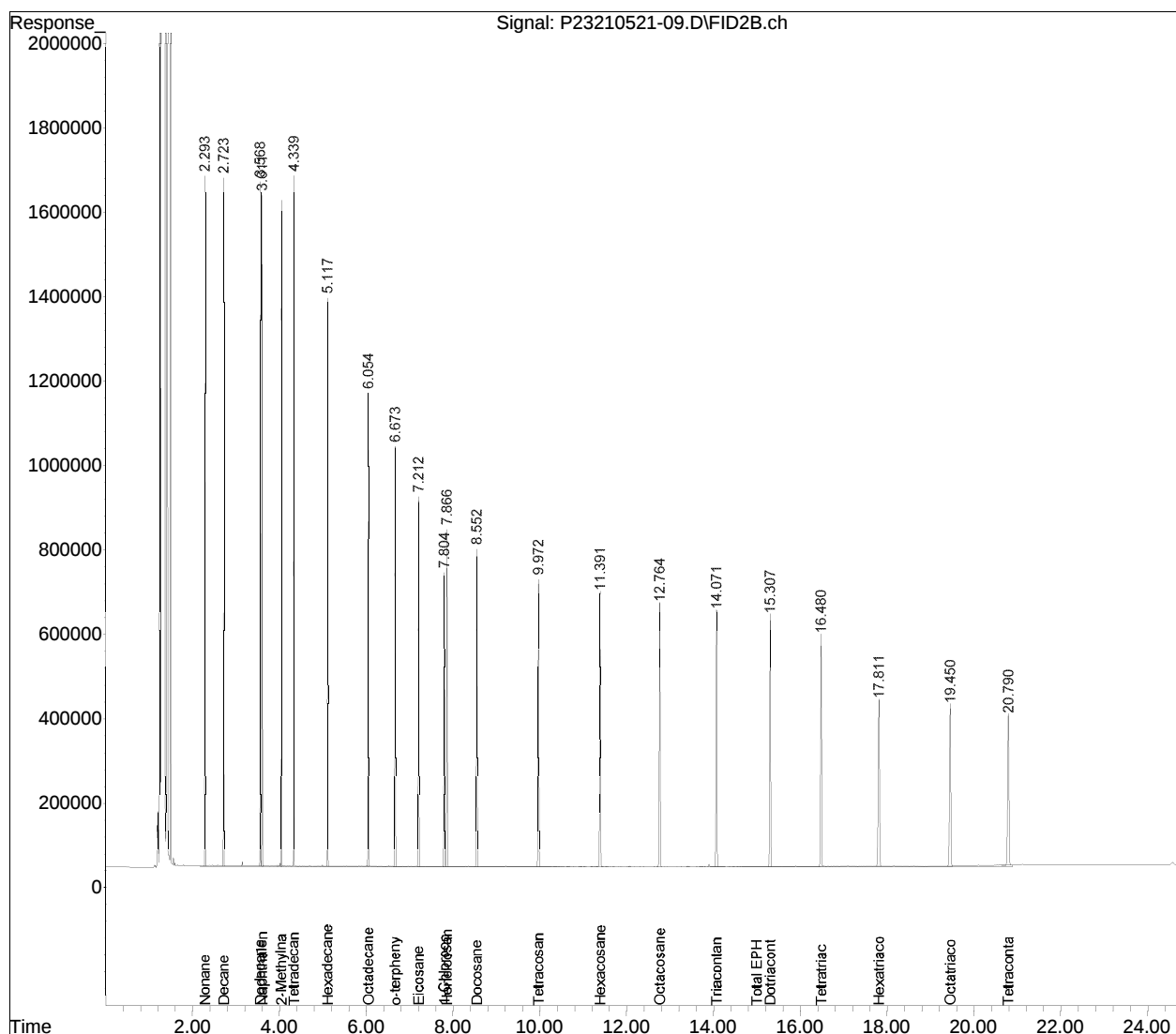
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-09.D
Signal(s) : FID2B.ch
Acq On : 21 May 2021 08:47 am
Operator : Petro23B:SC
Sample : IL4,42,,4353
Misc : WG1503221,
ALS Vial : 55 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:40:39 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:40:19 2021
Response via : Initial Calibration
Integrator: ChemStation

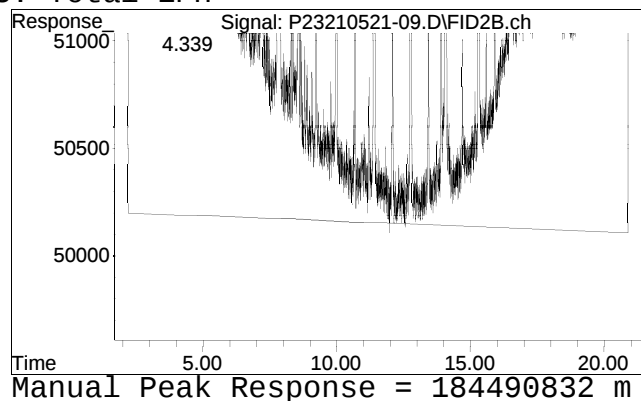
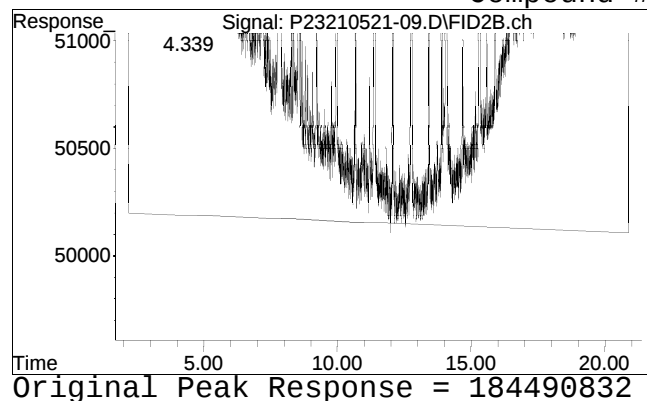
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQMethod : Aliphatics210521B.M
Data File : P23210521-09.D Operator : Petro23B:SC
Date Inj'd : 5/21/2021 8:47 am Instrument : Petro 23
Sample : IL4,42,,4353 Quant Date : 5/25/2021 7:40 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-11.D
 Signal(s) : FID2B.ch
 Acq On : 21 May 2021 09:17 am
 Operator : Petro23B:SC
 Sample : IL5,42,,4352
 Misc : WG1503221,
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:41:38 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:41:06 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.676	19107391	481.224
Spiked Amount 100.000		Recovery	= 481.22%
11) s 1-Chlorooctadecane	7.808	14954632	481.485
Spiked Amount 100.000		Recovery	= 481.49%
Target Compounds			
1) Nonane	2.295	17013645	489.154
2) Decane	2.725	17067763	488.228
3) Dodecane	3.569	17085472	487.044
4) Naphthalene	3.612	19087959	490.099
5) 2-Methylnaphthalene	4.056	18600121	488.677
6) Tetradecane	4.341	17137144	483.488
7) Hexadecane	5.119	17086539	482.704
8) Octadecane	6.056	17640250	481.025
10) Eicosane	7.215	17077680	480.694
12) Heneicosane	7.870	17098524	482.127
13) Docosane	8.557	17025706	481.893
14) Tetracosane	9.978	16996932	481.940
15) Hexacosane	11.397	16894968	481.224
16) Octacosane	12.769	16820218	480.529
17) Triacontane	14.076	16668248	478.186
18) Dotriacontane	15.313	16413966	470.960
19) Tetratriacontane	16.484	16190653	473.657
20) Hexatriacontane	17.819	15355147	455.414
21) Octatriacontane	19.458	14366042	454.791
22) Tetracontane	20.798	14432602	455.241
23) H Total EPH	15.000	348145626	5164.266

(f)=RT Delta > 1/2 Window

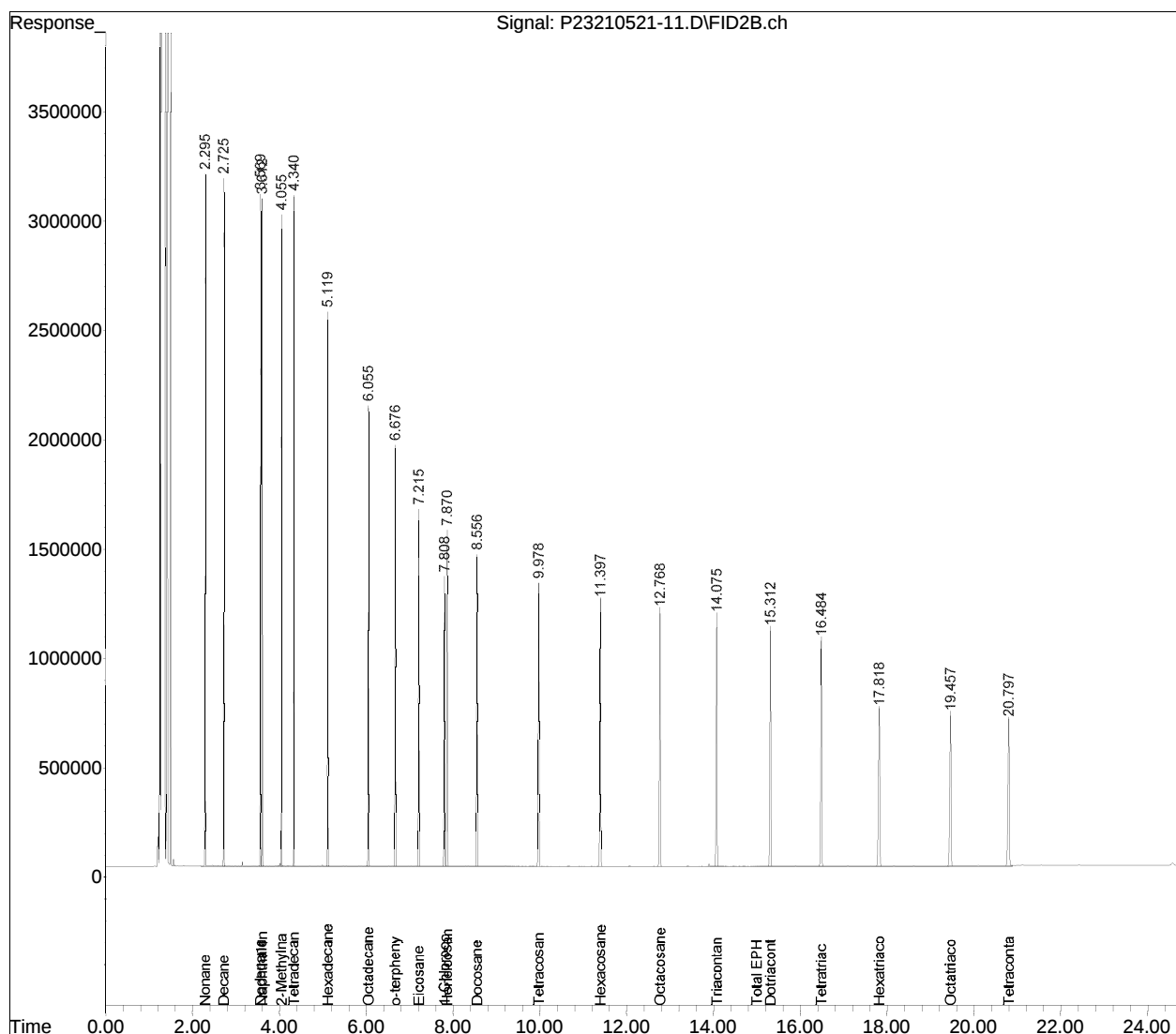
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-11.D
Signal(s) : FID2B.ch
Acq On : 21 May 2021 09:17 am
Operator : Petro23B:SC
Sample : IL5,42,,4352
Misc : WG1503221,
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:41:38 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:41:06 2021
Response via : Initial Calibration
Integrator: ChemStation

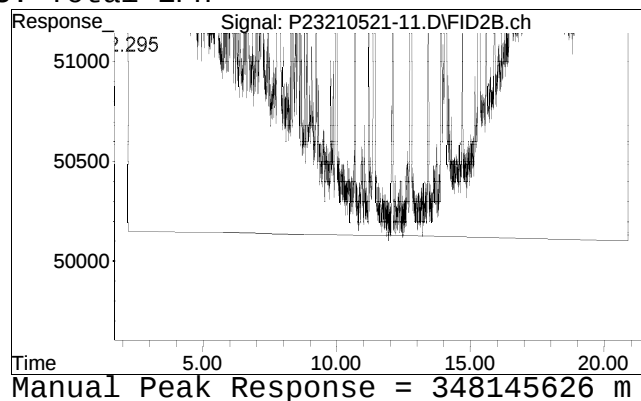
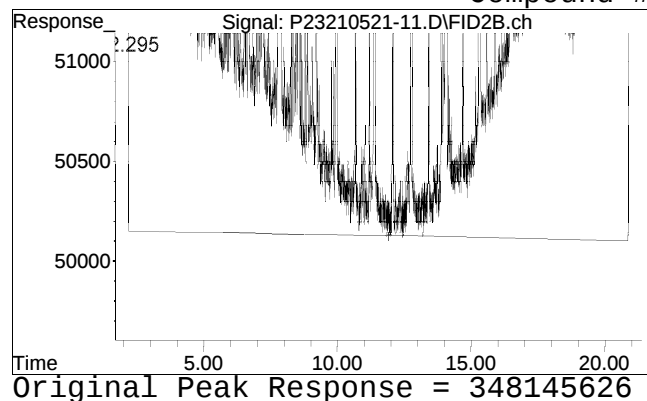
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-11.D Operator : Petro23B:SC
Date Inj'd : 5/21/2021 9:17 am Instrument : Petro 23
Sample : IL5,42,,4352 Quant Date : 5/25/2021 7:41 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-13.D
 Signal(s) : FID2B.ch
 Acq On : 21 May 2021 09:47 am
 Operator : Petro23B:SC
 Sample : IL6,42,,5351
 Misc : WG1503221,
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:42:18 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:42:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.683	39716824	1007.847
Spiked Amount 100.000		Recovery	= 1007.85%
11) s 1-Chlorooctadecane	7.815	31054870	1007.315
Spiked Amount 100.000		Recovery	= 1007.32%
Target Compounds			
1) Nonane	2.298	34780385	1004.316
2) Decane	2.728	35061618	1007.692
3) Dodecane	3.572	35362657	1013.310
4) Naphthalene	3.615	39402573	1015.717
5) 2-Methylnaphthalene	4.058	38528742	1016.864
6) Tetradecane	4.343	35553644	1009.740
7) Hexadecane	5.123	35458689	1008.707
8) Octadecane	6.061	36590579	1005.405
10) Eicosane	7.223	35425621	1004.903
12) Heneicosane	7.879	35479510	1007.619
13) Docosane	8.566	35334322	1007.393
14) Tetracosane	9.988	35333793	1009.164
15) Hexacosane	11.407	35262625	1011.996
16) Octacosane	12.779	35285763	1015.976
17) Triacontane	14.087	35187281	1018.354
18) Dotriacontane	15.324	34762106	1009.139
19) Tetratriacontane	16.498	34597712	1022.934
20) Hexatriacontane	17.835	33356391	1007.271
21) Octatriacontane	19.476	31393340	1012.134
22) Tetracontane	20.817	31526711	1012.562
23) H Total EPH	15.000	717852054	11640.583

(f)=RT Delta > 1/2 Window

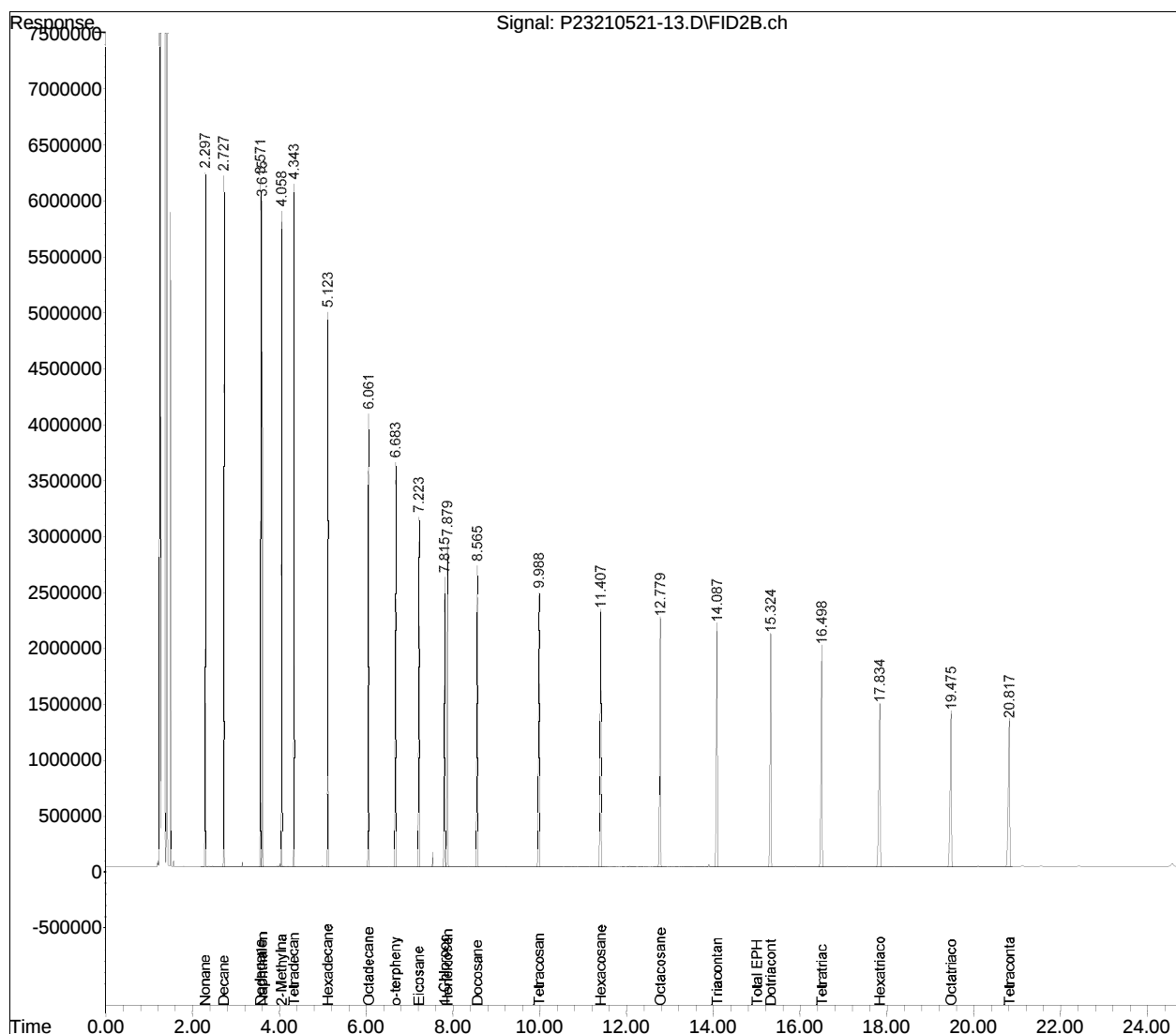
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-13.D
Signal(s) : FID2B.ch
Acq On : 21 May 2021 09:47 am
Operator : Petro23B:SC
Sample : IL6,42,,5351
Misc : WG1503221,
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:42:18 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:42:03 2021
Response via : Initial Calibration
Integrator: ChemStation

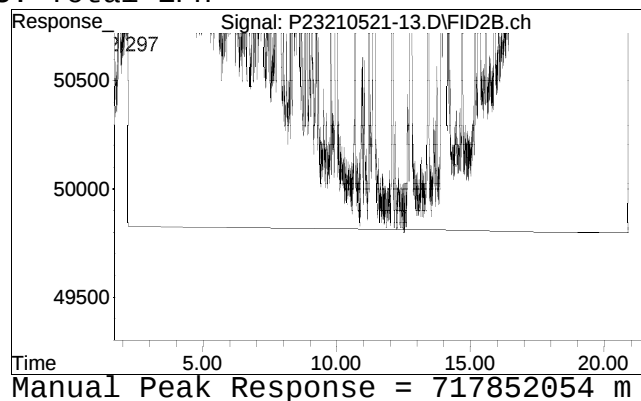
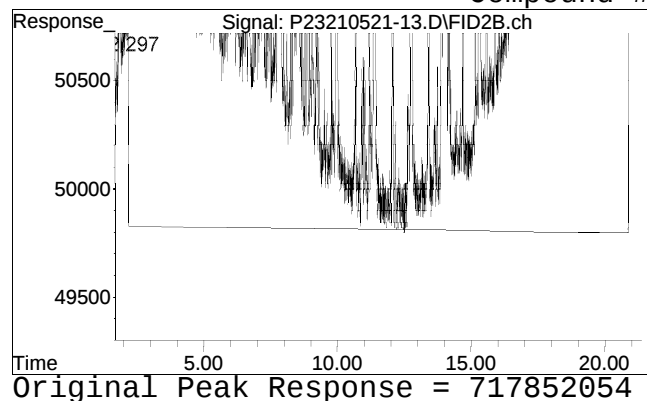
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-13.D Operator : Petro23B:SC
Date Inj'd : 5/21/2021 9:47 am Instrument : Petro 23
Sample : IL6,42,,5351 Quant Date : 5/25/2021 7:42 am

Compound #23: Total EPH



Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-21.D
 Signal(s) : FID2B.ch
 Acq On : 24 May 2021 11:53 am
 Operator : Petro23B:SC
 Sample : CICV,42,,4357
 Misc : WG1503221,
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:44:17 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:43:10 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane	34.656	34.668 E3	-0.0	100	0.00
2	Decane	34.839	34.606 E3	0.7	99	0.00
3	Dodecane	34.976	34.977 E3	-0.0	99	0.00
6	Tetradecane	35.268	35.102 E3	0.5	99	0.00
7	Hexadecane	35.204	35.173 E3	0.1	100	0.00
8	Octadecane	36.427	35.128 E3	3.6	97	0.00
9 s	o-terphenyl	39.459	38.735 E3	1.8	99	-0.01
10	Eicosane	35.282	34.921 E3	1.0	100	0.00
11 s	1-Chlorooctadecane	30.867	30.787 E3	0.3	101	-0.01
12	Heneicosane	35.256	34.760 E3	1.4	100	-0.01
13	Docosane	35.118	34.644 E3	1.3	100	-0.01
14	Tetracosane	35.066	34.449 E3	1.8	100	-0.01
15	Hexacosane	34.914	34.201 E3	2.0	100	-0.02
16	Octacosane	34.823	33.735 E3	3.1	98	-0.02
17	triacontane	34.659	33.990 E3	1.9	100	-0.02
18	Dotriacontane	34.500	34.099 E3	1.2	101	-0.02
19	Tetratriacontane	33.951	33.233 E3	2.1	99	-0.02
20	Hexatriacontane	33.156	33.426 E3	-0.8	103	-0.03
21	Octatriacontane	31.080	32.753 E3	-5.4	107	-0.03
22	Tetracontane	31.201	33.628 E3	-7.8	108	-0.03
23 H	Total EPH	34.465	34.305 E3	0.5	100	0.00

Evaluate Continuing Calibration Report - Not Found

4	Naphthalene	38.894	0.000 E3	100.0#	0#	-3.61#
5	2-Methylnaphthalene	37.996	0.000 E3	100.0#	0#	-4.06#

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response) Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-21.D
 Signal(s) : FID2B.ch
 Acq On : 24 May 2021 11:53 am
 Operator : Petro23B:SC
 Sample : CICV,42,,4357
 Misc : WG1503221,
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:44:17 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:43:10 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)
-----	-----	-----	-----	-----
Triacontane to Eicosane			0.97	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
 Data File : P23210521-21.D
 Signal(s) : FID2B.ch
 Acq On : 24 May 2021 11:53 am
 Operator : Petro23B:SC
 Sample : CICV,42,,4357
 Misc : WG1503221,
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
 Quant Time: May 25 07:44:17 2021
 Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue May 25 07:43:10 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.673	9683837	245.414	
Spiked Amount 100.000		Recovery	= 245.41%	
11) s 1-Chlorooctadecane	7.804	7696727	249.352	
Spiked Amount 100.000		Recovery	= 249.35%	
Target Compounds				
1) Nonane	2.295	8666951	250.086	
2) Decane	2.724	8651424	248.329	
3) Dodecane	3.568	8744238	250.010	
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane	4.340	8775409	248.822	
7) Hexadecane	5.118	8793297	249.784	
8) Octadecane	6.053	8782004	241.087	
10) Eicosane	7.213	8730165	247.442	
12) Heneicosane	7.867	8690039	246.484	
13) Docosane	8.552	8660895	246.621	
14) Tetracosane	9.973	8612154	245.596	
15) Hexacosane	11.391	8550234	244.892	
16) Octacosane	12.762	8433745	242.186	
17) Triacontane	14.069	8497509	245.176	
18) Dotriacontane	15.307	8524875	247.099	
19) Tetratriacontane	16.477	8308235	244.710	
20) Hexatriacontane	17.808	8356459	252.037	
21) Octatriacontane	19.449	8188361	263.463	
22) Tetracontane	20.789	8406975	269.448	M4
23) H Total EPH	15.000	163474319	4743.167	

(f)=RT Delta > 1/2 Window

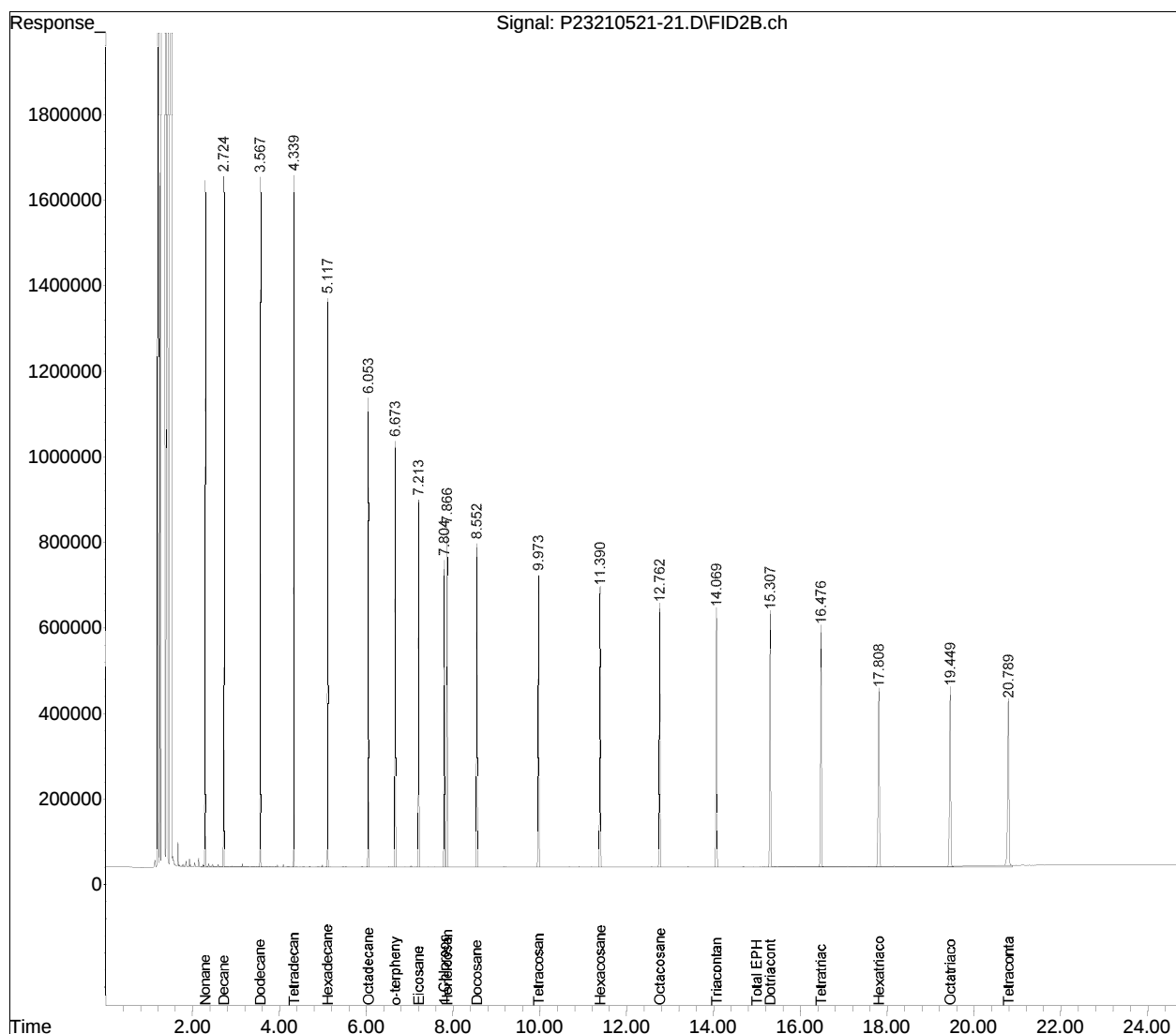
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210521.SEC\
Data File : P23210521-21.D
Signal(s) : FID2B.ch
Acq On : 24 May 2021 11:53 am
Operator : Petro23B:SC
Sample : CICV, 42,, 4357
Misc : WG1503221,
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: May 25 07:44:17 2021
Quant Method : I:\PETRO\Petro23\210521.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue May 25 07:43:10 2021
Response via : Initial Calibration
Integrator: ChemStation

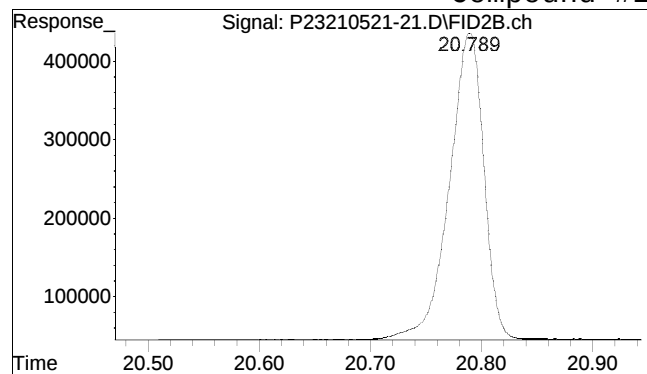
Volume Inj. :
Signal Phase :
Signal Info :



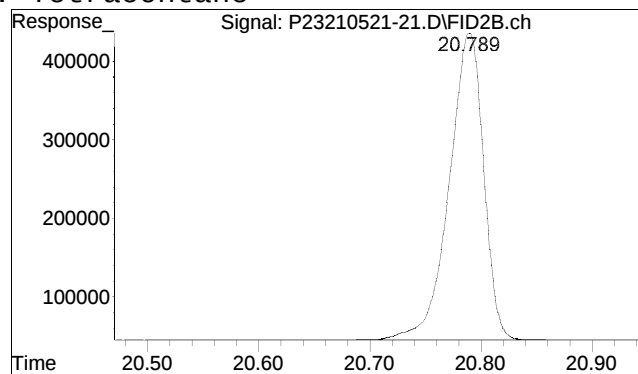
Manual Integration Report

Data Path : I:\PETRO\Petro23\210521.SEQ Method : Aliphatics210521B.M
Data File : P23210521-21.D Operator : Petro23B:SC
Date Inj'd : 5/24/2021 11:53 am Instrument : Petro 23
Sample : CICV,42,,4357 Quant Date : 5/25/2021 7:44 am

Compound #22: Tetracontane



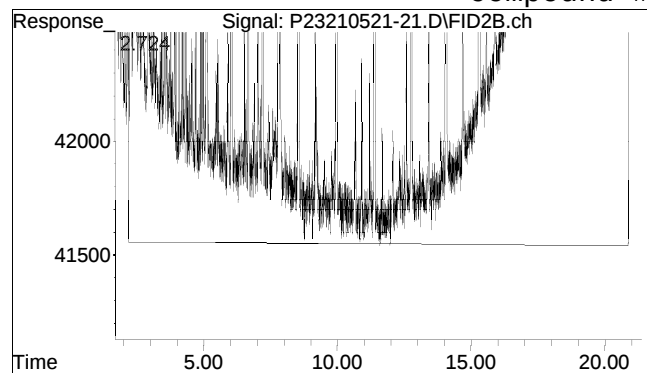
Original Peak Response = 8574757



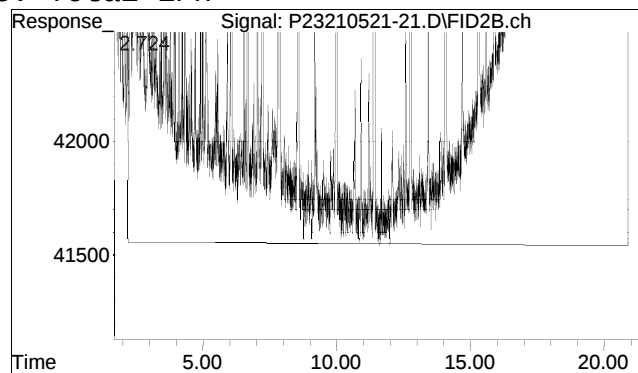
Manual Peak Response = 8406975 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 163474319



Manual Peak Response = 163474319 m

Response Factor Report Petro19

Method Path : I:\PETRO\Petro19\210528\
 Method File : Aliphatics210528A.M
 Title : NJ EPH TPH
 Last Update : Fri Jun 04 05:49:22 2021
 Response Via : Initial Calibration

Calibration Files

L1 =P1921052818.d L2 =P1921052820.d L3 =P1921052822.d L4 =P1921052810.d L5 =P1921052812.d
 L6 =P1921052814.d

	Compound	L1	L2	L3	L4	L5	L6	Avg	%RSD
1)	Nonane (C9)	2.279	2.234	2.185	2.284	2.387	2.286	2.276 E4	2.94
2)	Decane (C10)	2.305	2.234	2.198	2.293	2.401	2.299	2.288 E4	3.03
3)	Dodecane (C12)	2.297	2.234	2.206	2.309	2.418	2.307	2.295 E4	3.20
4)	Naphthalene	2.548	2.482	2.455	2.566	2.684	2.566	2.550 E4	3.15
5)	2-Methylnapht...	2.483	2.440	2.403	2.511	2.626	2.505	2.495 E4	3.06
6)	Tetradecane (...)	2.320	2.254	2.224	2.328	2.434	2.316	2.313 E4	3.13
7)	Hexadecane (C16)	2.362	2.258	2.229	2.326	2.426	2.308	2.318 E4	3.08
8)	Octadecane (C18)	2.447	2.337	2.298	2.396	2.500	2.382	2.393 E4	3.05
9) s	o-terphenyl	2.630	2.522	2.485	2.593	2.706	2.577	2.586 E4	3.03
10)	Eicosane (C20)	2.390	2.257	2.217	2.316	2.418	2.308	2.318 E4	3.30
11) s	1-chloro-octa...	2.102	1.975	1.943	2.029	2.118	2.023	2.032 E4	3.37
12)	Heneicosane (...)	2.391	2.252	2.217	2.317	2.421	2.312	2.318 E4	3.38
13)	Docosane (C22)	2.376	2.245	2.206	2.306	2.416	2.304	2.309 E4	3.38
14)	Tetracosane (...)	2.388	2.247	2.201	2.303	2.412	2.305	2.309 E4	3.49
15)	Hexacosane (C26)	2.373	2.233	2.193	2.295	2.407	2.301	2.300 E4	3.52
16)	Octacosane (C28)	2.362	2.227	2.191	2.295	2.409	2.303	2.298 E4	3.53
17)	triacontane (...)	2.358	2.230	2.183	2.287	2.401	2.297	2.293 E4	3.49
18)	Dotriacontane...	2.306	2.203	2.170	2.263	2.374	2.275	2.265 E4	3.22
19)	Tetratriacont...	2.312	2.211	2.182	2.265	2.364	2.276	2.268 E4	2.91
20)	Hexatriaconta...	2.242	2.176	2.131	2.207	2.285	2.214	2.209 E4	2.41
21)	Octatriaconta...	2.141	2.046	2.036	2.098	2.160	2.100	2.097 E4	2.36
22)	Tertracontane...	2.159	2.080	2.042	2.121	2.171	2.117	2.115 E4	2.28
23) h	Total EPH	2.323	2.220	2.184	2.278	2.378	2.278	2.277 E4	3.06

(#) = Out of Range

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052818.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 2:52 pm
 Operator : Petro19a:sc
 Sample : IL1,42,,4356
 Misc : WG1507470,
 ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:46:41 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.924	263009	10.584	
Spiked Amount 100.000		Recovery =	10.58%	
11) s 1-chloro-octadecane	8.098	210214	10.817	
Spiked Amount 100.000		Recovery =	10.82%	
Target Compounds				
1) Nonane (C9)	2.399	227869	10.427	
2) Decane (C10)	2.835	230453	10.483	
3) Dodecane (C12)	3.686	229698	10.411	
4) Naphthalene	3.732	254783	10.378	
5) 2-Methylnaphthalene	4.178	248347	10.334	
6) Tetradecane (C14)	4.466	232041	10.433	
7) Hexadecane (C16)	5.283	236243	10.600	
8) Octadecane (C18)	6.274	244652	10.646	
10) Eicosane (C20)	7.486	239007	10.780	
12) Heneicosane (C21)	8.161	239091	10.785	
13) Docosane (C22)	8.866	237638	10.772	
14) Tetracosane (C24)	10.311	238790	10.851	
15) Hexacosane (C26)	11.747	237297	10.823	
16) Octacosane (C28)	13.130	236235	10.781	
17) Triacontane (C30)	14.446	235755	10.798	
18) Dotriacontane (C32)	15.690	230617	10.628	
19) Tetratriaocntane (C34)	16.905	231190	10.595	
20) Hexatriacontane (C36)	18.403	224222	10.522	
21) Octatriacontane (C38)	19.951	214095	10.514	M4
22) Tertracontane (C40)	21.411	215852	10.571	
23) h Total EPH	10.000	17281522	538.691	

(f)=RT Delta > 1/2 Window

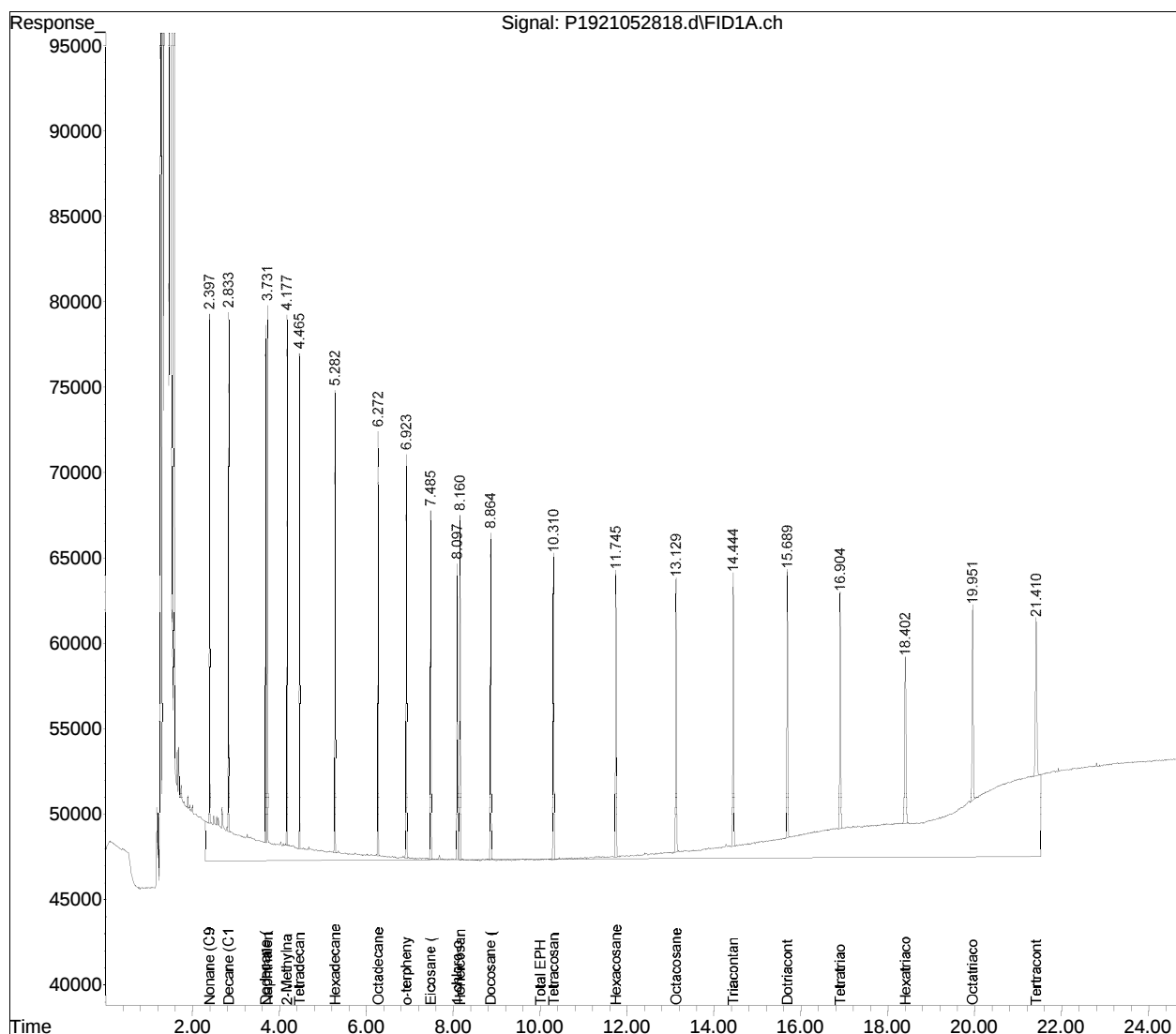
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052818.d
Signal(s) : FID1A.ch
Acq On : 31 May 2021 2:52 pm
Operator : Petro19a:sc
Sample : IL1,42,,4356
Misc : WG1507470,
ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:46:41 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

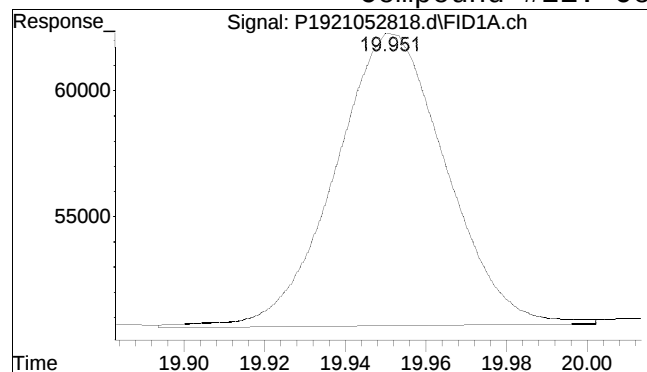
Volume Inj. :
Signal Phase :
Signal Info :



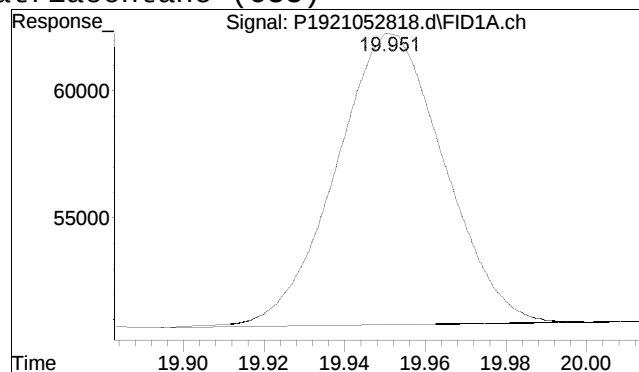
Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052818.d Operator : Petro19a:sc
Date Inj'd : 5/31/2021 2:52 pm Instrument : Petro19
Sample : IL1,42,,4356 Quant Date : 6/4/2021 5:45 am

Compound #21: Octatriacontane (C38)



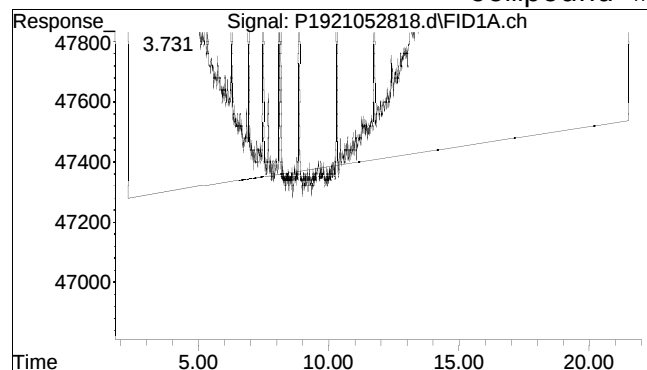
Original Peak Response = 222257



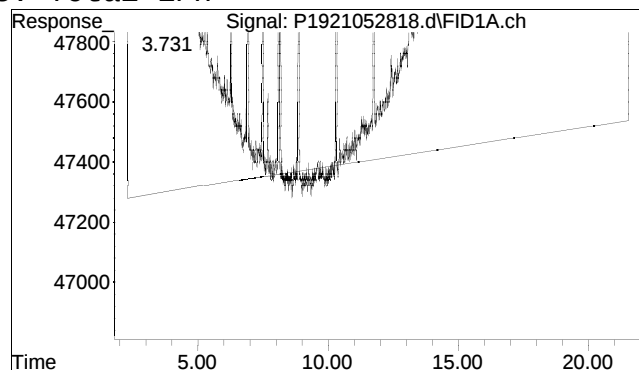
Manual Peak Response = 214095 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 17281522



Manual Peak Response = 17281522 m

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052820.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 3:22 pm
 Operator : Petro19a:sc
 Sample : IL2,42,,4355
 Misc : WG1507470,
 ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:47:14 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.925	504453	20.300	
Spiked Amount 100.000		Recovery =	20.30%	
11) s 1-chloro-octadecane	8.100	394965	20.324	
Spiked Amount 100.000		Recovery =	20.32%	
Target Compounds				
1) Nonane (C9)	2.399	446825	20.445	
2) Decane (C10)	2.835	446742	20.322	
3) Dodecane (C12)	3.686	446850	20.253	
4) Naphthalene	3.732	496363	20.219	
5) 2-Methylnaphthalene	4.178	487969	20.305	
6) Tetradecane (C14)	4.466	450881	20.272	
7) Hexadecane (C16)	5.283	451550	20.261	
8) Octadecane (C18)	6.274	467405	20.338	
10) Eicosane (C20)	7.487	451306	20.355	
12) Heneicosane (C21)	8.163	450309	20.313	
13) Docosane (C22)	8.867	449084	20.356	
14) Tetracosane (C24)	10.314	449463	20.424	
15) Hexacosane (C26)	11.749	446518	20.366	
16) Octacosane (C28)	13.132	445338	20.324	
17) Triacontane (C30)	14.448	445913	20.423	
18) Dotriacontane (C32)	15.693	440678	20.310	
19) Tetratriaocntane (C34)	16.910	442254	20.268	
20) Hexatriacontane (C36)	18.409	435138	20.420	
21) Octatriacontane (C38)	19.956	409132	20.091	M4
22) Tertracontane (C40)	21.415	416087	20.377	
23) h Total EPH	10.000	21936579	683.796	

(f)=RT Delta > 1/2 Window

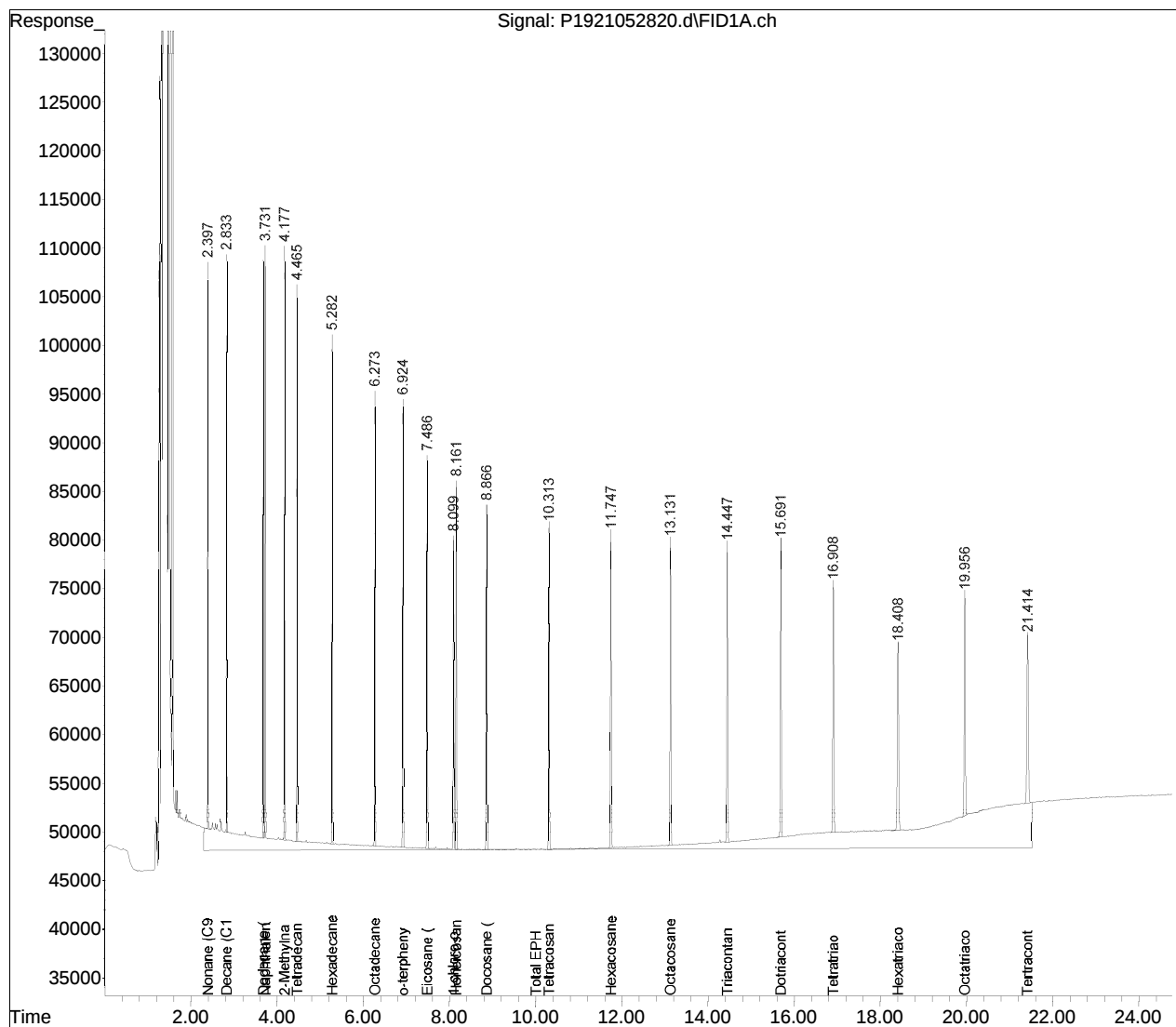
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052820.d
Signal(s) : FID1A.ch
Acq On : 31 May 2021 3:22 pm
Operator : Petro19a:sc
Sample : IL2,42,,4355
Misc : WG1507470,
ALS Vial : 10 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:47:14 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

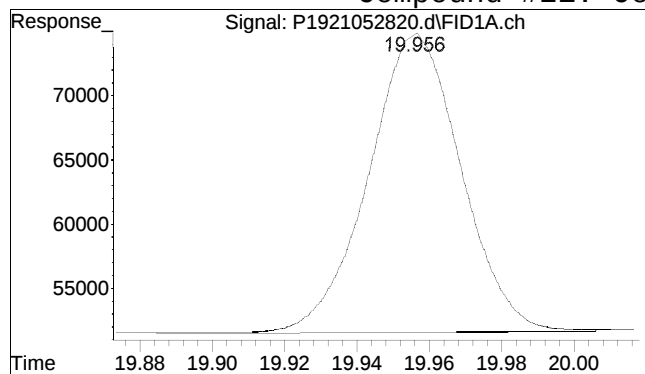
Volume Inj. :
Signal Phase :
Signal Info :



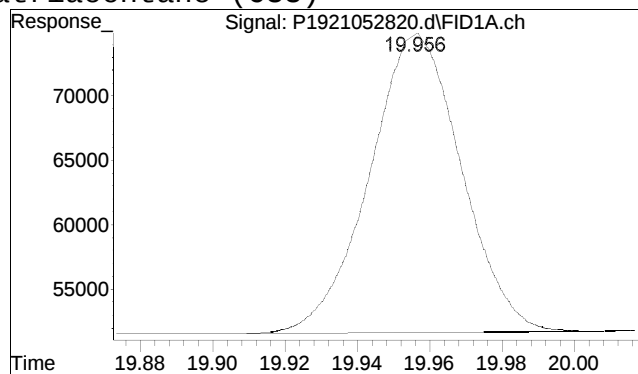
Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052820.d Operator : Petro19a:sc
Date Inj'd : 5/31/2021 3:22 pm Instrument : Petro19
Sample : IL2,42,,4355 Quant Date : 6/4/2021 5:45 am

Compound #21: Octatriacontane (C38)



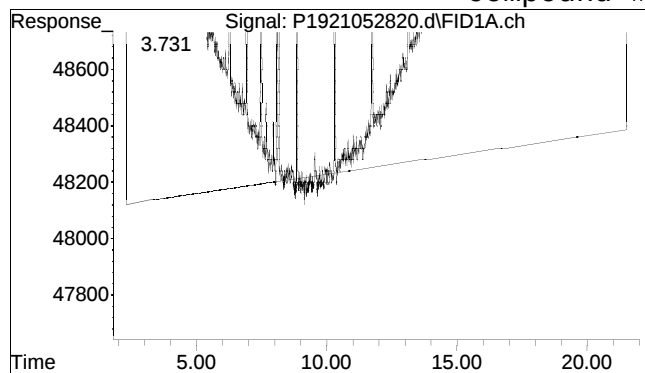
Original Peak Response = 415147



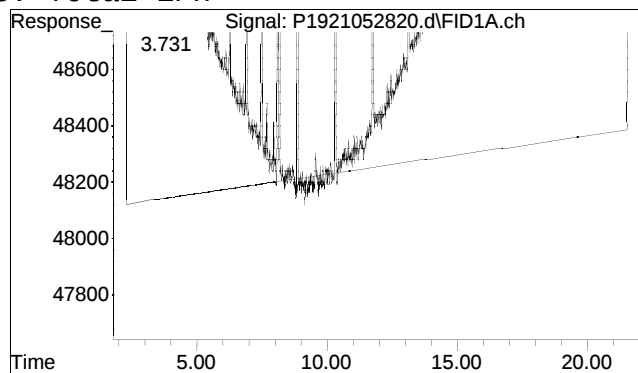
Manual Peak Response = 409132 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 21936579



Manual Peak Response = 21936579 m

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052822.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 3:53 pm
 Operator : Petro19a:sc
 Sample : IL3,42,,4354
 Misc : WG1507470,
 ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:44:53 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.926	2484970	100.000
Spiked Amount	100.000	Recovery	= 100.00%
11) s 1-chloro-octadecane	8.102	1943386	100.000
Spiked Amount	100.000	Recovery	= 100.00%
Target Compounds			
1) Nonane (C9)	2.400	2185468	100.000
2) Decane (C10)	2.835	2198347	100.000
3) Dodecane (C12)	3.686	2206302	100.000
4) Naphthalene	3.733	2454976	100.000
5) 2-Methylnaphthalene	4.179	2403246	100.000
6) Tetradecane (C14)	4.467	2224160	100.000
7) Hexadecane (C16)	5.285	2228619	100.000
8) Octadecane (C18)	6.276	2298136	100.000
10) Eicosane (C20)	7.489	2217145	100.000
12) Heneicosane (C21)	8.165	2216859	100.000
13) Docosane (C22)	8.868	2206120	100.000
14) Tetracosane (C24)	10.316	2200619	100.000
15) Hexacosane (C26)	11.752	2192520	100.000
16) Octacosane (C28)	13.135	2191152	100.000
17) Triacontane (C30)	14.451	2183410	100.000
18) Dotriacontane (C32)	15.696	2169810	100.000
19) Tetratriacontane (C34)	16.912	2182037	100.000
20) Hexatriacontane (C36)	18.413	2130912	100.000
21) Octatriacontane (C38)	19.959	2036345	100.000
22) Tertracontane (C40)	21.420	2041899	100.000
23) h Total EPH	10.000	57745069	1800.000

(f)=RT Delta > 1/2 Window

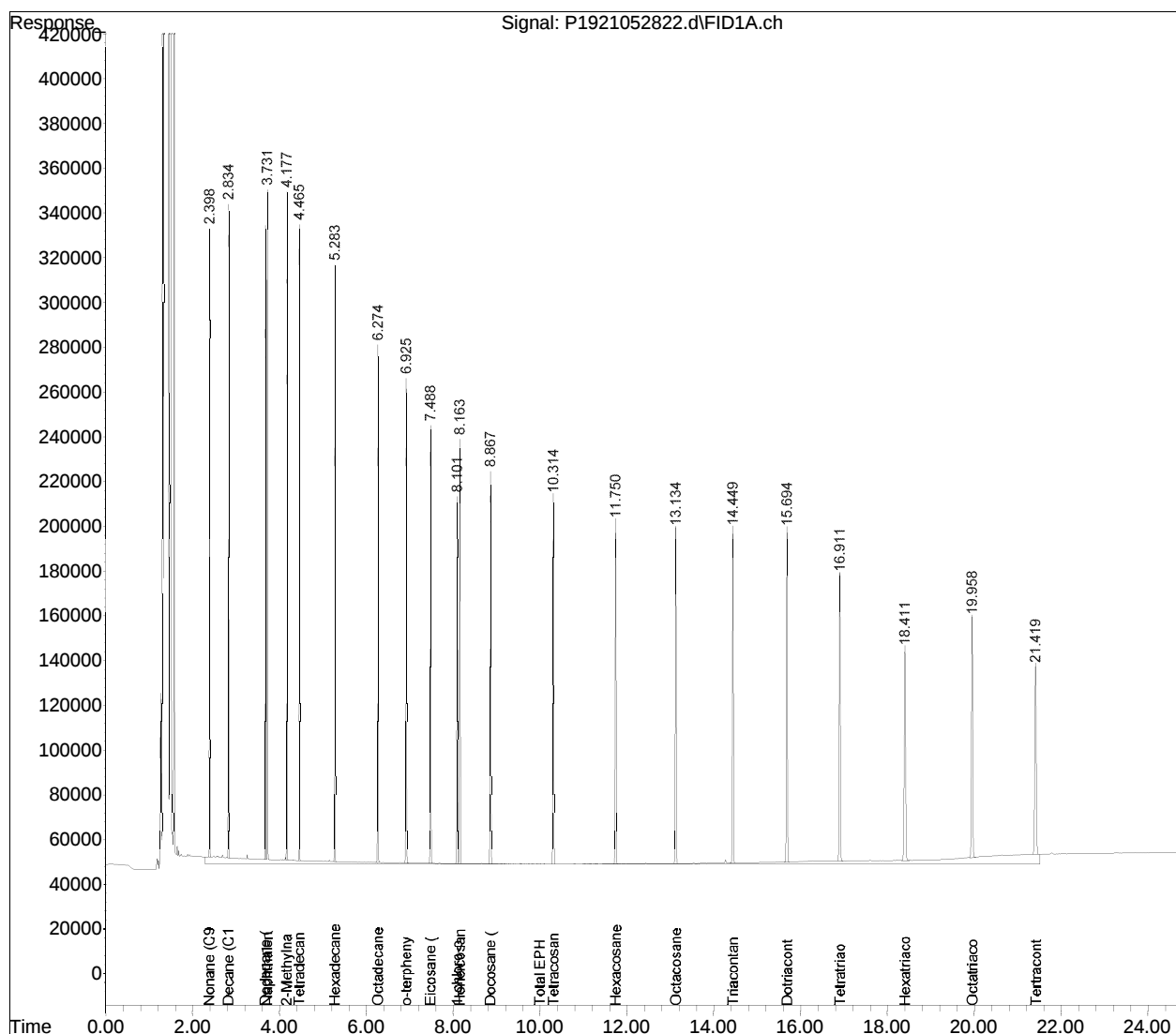
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052822.d
Signal(s) : FID1A.ch
Acq On : 31 May 2021 3:53 pm
Operator : Petro19a:sc
Sample : IL3,42,,4354
Misc : WG1507470,
ALS Vial : 11 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:44:53 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

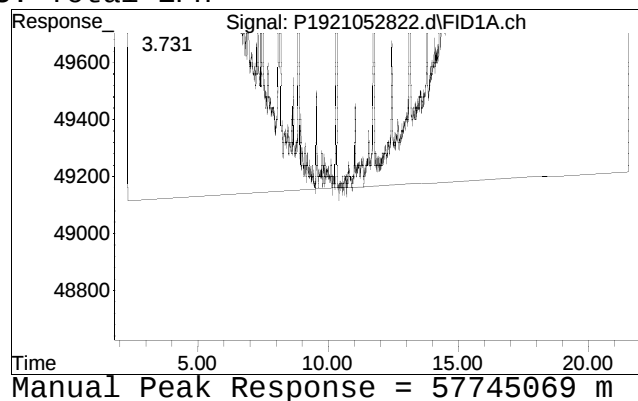
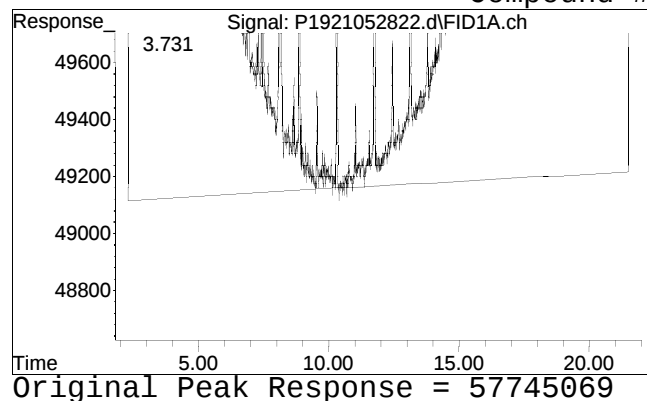
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052822.d Operator : Petro19a:sc
Date Inj'd : 5/31/2021 3:53 pm Instrument : Petro19
Sample : IL3,42,,4354 Quant Date : 6/4/2021 5:44 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052810.d
 Signal(s) : FID1A.ch
 Acq On : 28 May 2021 6:23 pm
 Operator : Petro19a:sc
 Sample : IL4,42,,4353
 Misc : WG1507470,
 ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:45:40 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.935	6483650	260.915
Spiked Amount 100.000		Recovery	= 260.92%
11) s 1-chloro-octadecane	8.111	5072780	261.028
Spiked Amount 100.000		Recovery	= 261.03%
Target Compounds			
1) Nonane (C9)	2.402	5711018	261.318
2) Decane (C10)	2.838	5732448	260.762
3) Dodecane (C12)	3.689	5772256	261.626
4) Naphthalene	3.736	6413774	261.256
5) 2-Methylnaphthalene	4.182	6277271	261.200
6) Tetradecane (C14)	4.470	5821239	261.728
7) Hexadecane (C16)	5.289	5815199	260.933
8) Octadecane (C18)	6.283	5989362	260.618
10) Eicosane (C20)	7.498	5788783	261.092
12) Heneicosane (C21)	8.175	5793037	261.317
13) Docosane (C22)	8.880	5765312	261.333
14) Tetracosane (C24)	10.328	5758355	261.670
15) Hexacosane (C26)	11.767	5737636	261.691
16) Octacosane (C28)	13.151	5737857	261.865
17) Triacontane (C30)	14.467	5717580	261.865
18) Dotriacontane (C32)	15.712	5656480	260.690
19) Tetratriacontane (C34)	16.932	5662558	259.508
20) Hexatriacontane (C36)	18.441	5516545	258.882
21) Octatriacontane (C38)	19.981	5244370	257.538
22) Tertracontane (C40)	21.450	5302240	259.672
23) h Total EPH	10.000	143607656	4476.465

(f)=RT Delta > 1/2 Window

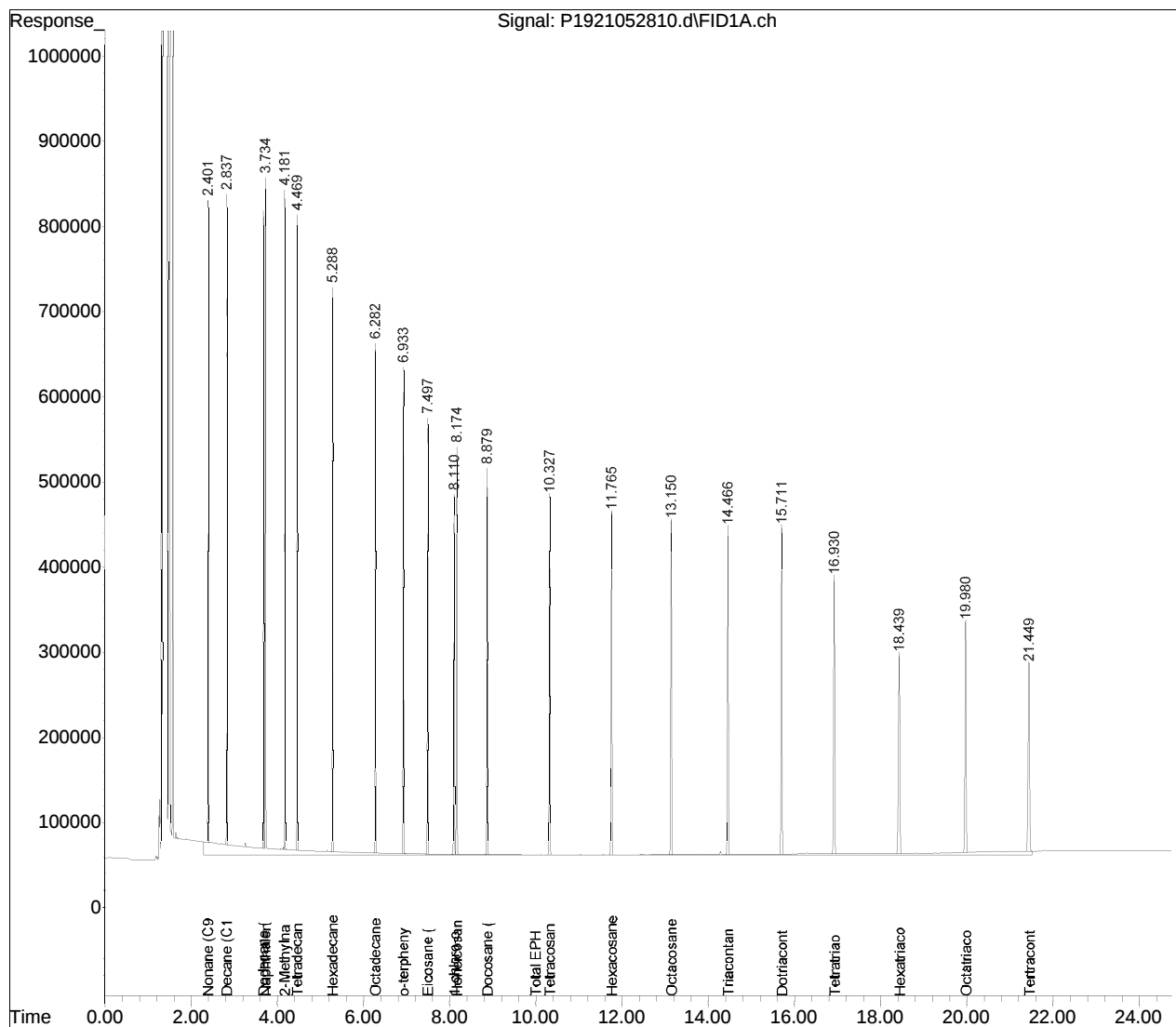
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052810.d
Signal(s) : FID1A.ch
Acq On : 28 May 2021 6:23 pm
Operator : Petro19a:sc
Sample : IL4,42,,4353
Misc : WG1507470,
ALS Vial : 5 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:45:40 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

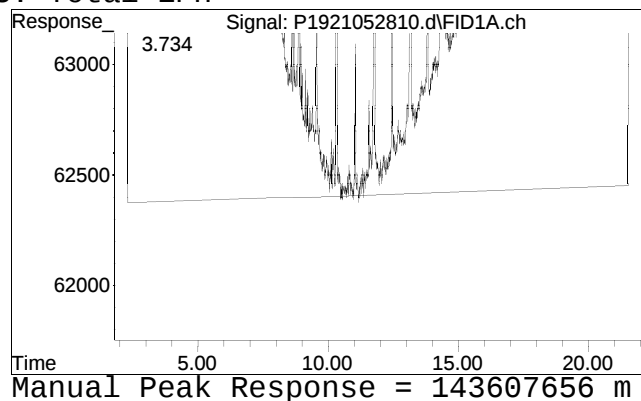
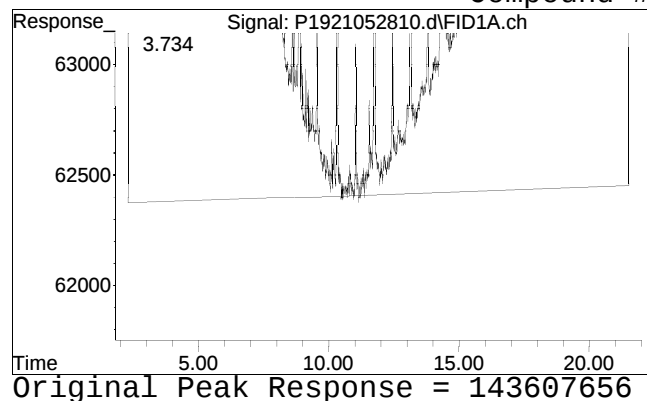
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052810.d Operator : Petro19a:sc
Date Inj'd : 5/28/2021 6:23 pm Instrument : Petro19
Sample : IL4,42,,4353 Quant Date : 6/4/2021 5:45 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052812.d
 Signal(s) : FID1A.ch
 Acq On : 28 May 2021 6:53 pm
 Operator : Petro19a:sc
 Sample : IL5,42,,4352
 Misc : WG1507470,
 ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:45:43 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.938	13530758	544.504
Spiked Amount 100.000		Recovery	= 544.50%
11) s 1-chloro-octadecane	8.114	10588109	544.828
Spiked Amount 100.000		Recovery	= 544.83%
Target Compounds			
1) Nonane (C9)	2.404	11934443	546.082
2) Decane (C10)	2.839	12002818	545.993
3) Dodecane (C12)	3.690	12087979	547.884
4) Naphthalene	3.737	13421808	546.718
5) 2-Methylnaphthalene	4.183	13130569	546.368
6) Tetradecane (C14)	4.471	12169534	547.152
7) Hexadecane (C16)	5.291	12130442	544.303
8) Octadecane (C18)	6.285	12501862	544.000
10) Eicosane (C20)	7.502	12090174	545.304
12) Heneicosane (C21)	8.179	12105405	546.061
13) Docosane (C22)	8.885	12077527	547.456
14) Tetracosane (C24)	10.334	12059702	548.014
15) Hexacosane (C26)	11.771	12033994	548.866
16) Octacosane (C28)	13.155	12043040	549.621
17) Triacontane (C30)	14.473	12006707	549.906
18) Dotriacontane (C32)	15.717	11871715	547.132
19) Tetratriacontane (C34)	16.939	11817562	541.584
20) Hexatriacontane (C36)	18.453	11426973	536.248
21) Octatriacontane (C38)	19.989	10802045	530.462
22) Tertracontane (C40)	21.461	10855394	531.632
23) h Total EPH	10.000	274045560	8542.409

(f)=RT Delta > 1/2 Window

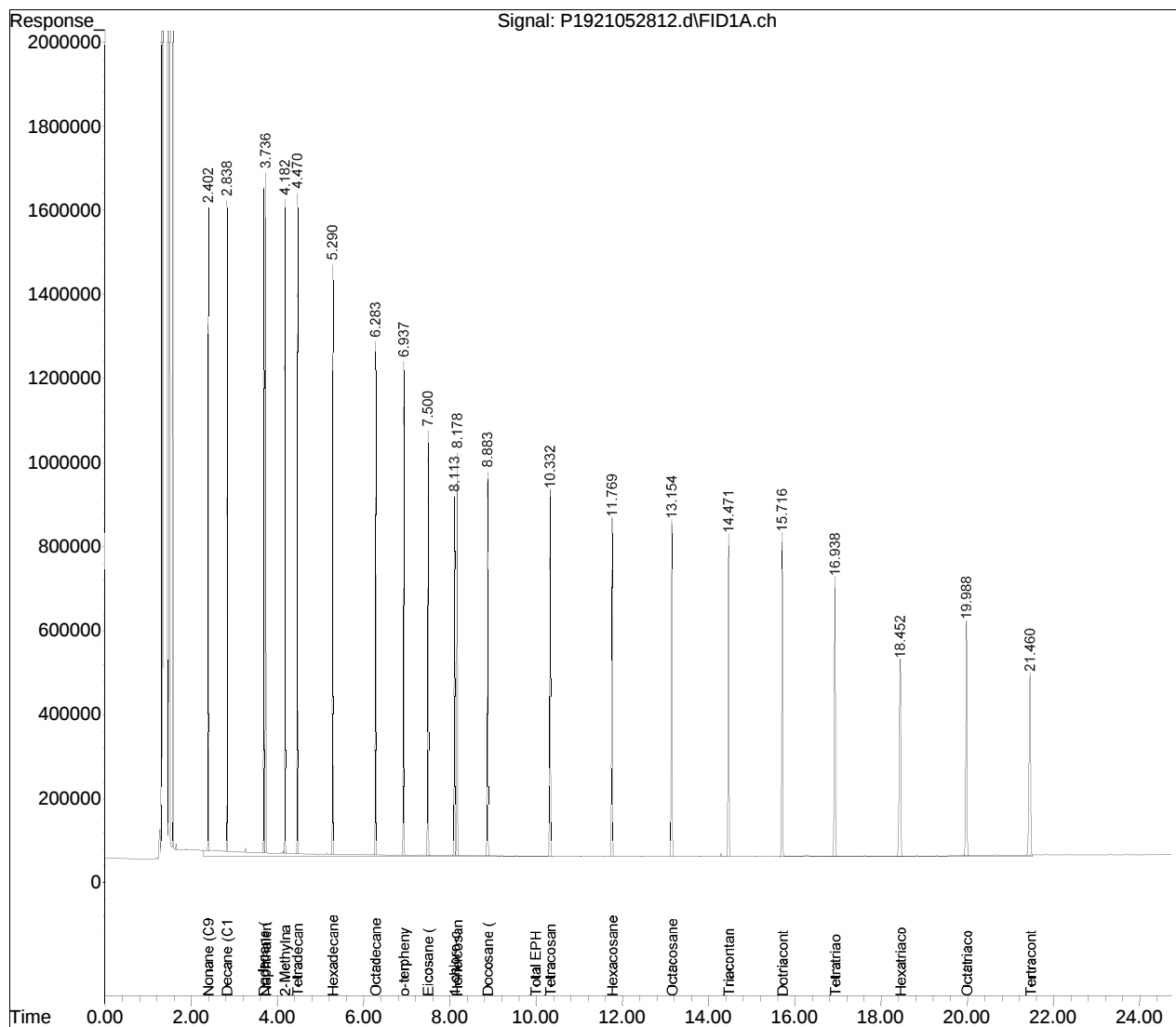
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052812.d
Signal(s) : FID1A.ch
Acq On : 28 May 2021 6:53 pm
Operator : Petro19a:sc
Sample : IL5,42,,4352
Misc : WG1507470,
ALS Vial : 6 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:45:43 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

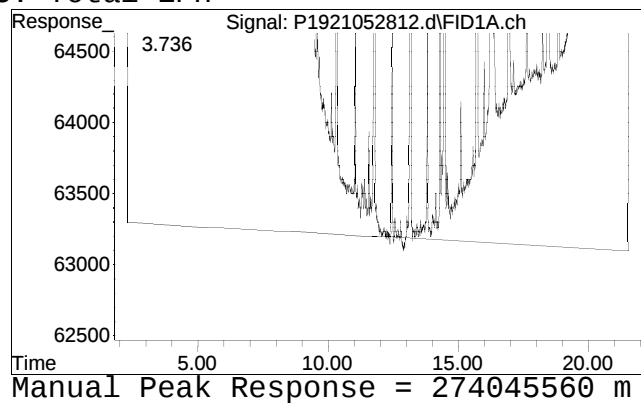
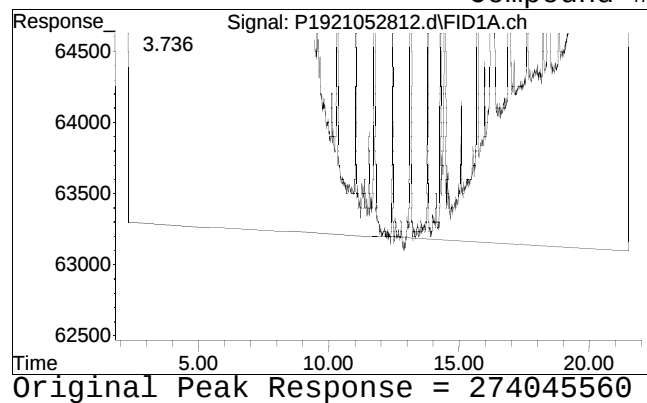
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052812.d Operator : Petro19a:sc
Date Inj'd : 5/28/2021 6:53 pm Instrument : Petro19
Sample : IL5,42,,4352 Quant Date : 6/4/2021 5:45 am

Compound #23: Total EPH



Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052814.d
 Signal(s) : FID1A.ch
 Acq On : 28 May 2021 7:23 pm
 Operator : Petro19a:sc
 Sample : IL6,42,,4351
 Misc : WG1507470,
 ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:45:46 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:44:47 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.944	25774059	1037.198
Spiked Amount 100.000		Recovery	= 1037.20%
11) s 1-chloro-octadecane	8.121	20225760	1040.749
Spiked Amount 100.000		Recovery	= 1040.75%
Target Compounds			
1) Nonane (C9)	2.406	22860801	1046.037
2) Decane (C10)	2.842	22991699	1045.863
3) Dodecane (C12)	3.693	23073136	1045.783
4) Naphthalene	3.739	25658924	1045.180
5) 2-Methylnaphthalene	4.186	25047119	1042.220
6) Tetradecane (C14)	4.474	23160758	1041.326
7) Hexadecane (C16)	5.294	23082797	1035.745
8) Octadecane (C18)	6.289	23821706	1036.566
10) Eicosane (C20)	7.508	23078745	1040.922
12) Heneicosane (C21)	8.186	23124332	1043.113
13) Docosane (C22)	8.892	23040909	1044.409
14) Tetracosane (C24)	10.341	23047473	1047.318
15) Hexacosane (C26)	11.779	23009447	1049.452
16) Octacosane (C28)	13.165	23032149	1051.143
17) Triacontane (C30)	14.482	22969821	1052.016
18) Dotriacontane (C32)	15.727	22745156	1048.256
19) Tetratriacontane (C34)	16.951	22757823	1042.962
20) Hexatriacontane (C36)	18.468f	22135137	1038.764
21) Octatriacontane (C38)	20.002	21003156	1031.414
22) Tertracontane (C40)	21.479f	21174287	1036.990
23) h Total EPH	10.000	496691580	15482.618

(f)=RT Delta > 1/2 Window

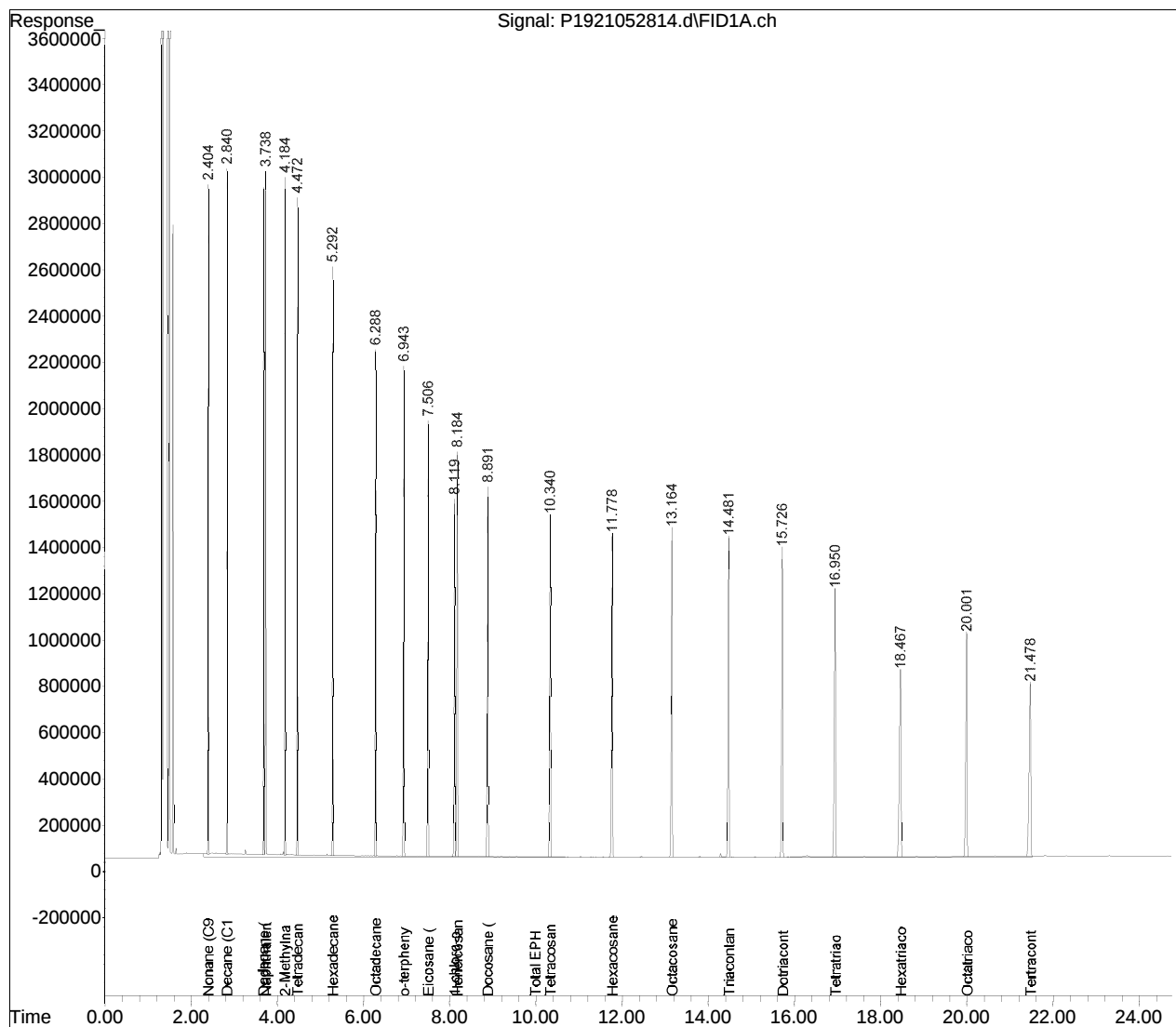
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052814.d
Signal(s) : FID1A.ch
Acq On : 28 May 2021 7:23 pm
Operator : Petro19a:sc
Sample : IL6,42,,4351
Misc : WG1507470,
ALS Vial : 7 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:45:46 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:44:47 2021
Response via : Initial Calibration
Integrator: ChemStation

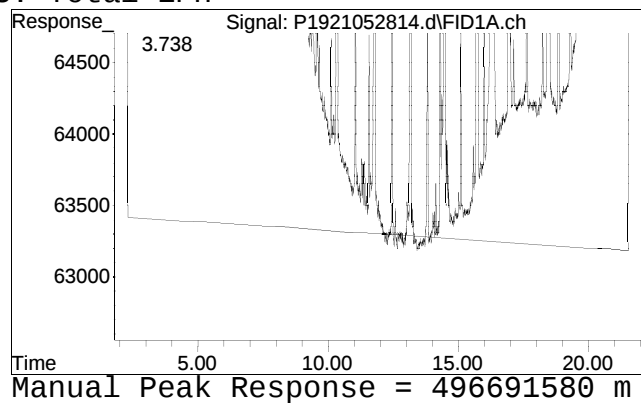
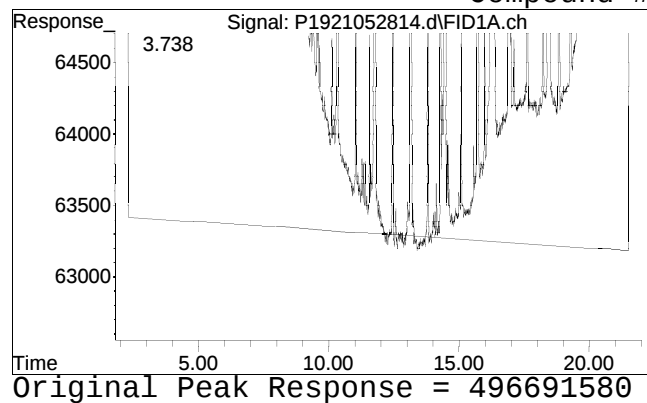
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052814.d Operator : Petro19a:sc
Date Inj'd : 5/28/2021 7:23 pm Instrument : Petro19
Sample : IL6,42,,4351 Quant Date : 6/4/2021 5:45 am

Compound #23: Total EPH



Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052824.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 4:23 pm
 Operator : Petro19a:sc
 Sample : CICV,42,,4357
 Misc : WG1507470,
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:50:57 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:49:41 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane (C9)	22.759	22.484 E3	1.2	98	0.00
2	Decane (C10)	22.882	22.405 E3	2.1	98	0.00
3	Dodecane (C12)	22.952	22.615 E3	1.5	98	0.00
6	Tetradecane (C14)	23.129	22.738 E3	1.7	98	0.00
7	Hexadecane (C16)	23.182	22.855 E3	1.4	98	0.00
8	Octadecane (C18)	23.933	22.881 E3	4.4	96	-0.01
9 s	o-terphenyl	25.857	25.071 E3	3.0	97	-0.02
10	Eicosane (C20)	23.175	22.792 E3	1.7	98	-0.02
11 s	1-chloro-octadecane	20.316	20.081 E3	1.2	99	-0.02
12	Heneicosane (C21)	23.183	22.739 E3	1.9	98	-0.02
13	Docosane (C22)	23.089	22.665 E3	1.8	98	-0.02
14	Tetracosane (C24)	23.093	22.613 E3	2.1	98	-0.02
15	Hexacosane (C26)	23.001	22.482 E3	2.3	98	-0.02
16	Octacosane (C28)	22.979	22.233 E3	3.2	97	-0.03
17	triacontane (C30)	22.926	22.417 E3	2.2	98	-0.03
18	Dotriacontane (C32)	22.651	22.503 E3	0.7	99	-0.03
19	Tetratriacontane (C34)	22.683	21.978 E3	3.1	97	-0.03
20	Hexatriacontane (C36)	22.091	22.251 E3	-0.7	101	-0.05
21	Octatriacontane (C38)	20.969	21.840 E3	-4.2	104	-0.04
22	Tertracontane (C40)	21.150	22.478 E3	-6.3	106	-0.05
23 h	Total EPH	22.768	22.498 E3	1.2	99	0.00

Evaluate Continuing Calibration Report - Not Found

4	Naphthalene	25.501	0.000 E3	100.0#	0#	-3.74#
5	2-Methylnaphthalene	24.947	0.000 E3	100.0#	0#	-4.19#

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response) Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052824.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 4:23 pm
 Operator : Petro19a:sc
 Sample : CICV,42,,4357
 Misc : WG1507470,
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:50:57 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:49:41 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)
-----	-----	-----	-----	-----
Triacontane to Eicosane			0.98	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210528\
 Data File : P1921052824.d
 Signal(s) : FID1A.ch
 Acq On : 31 May 2021 4:23 pm
 Operator : Petro19a:sc
 Sample : CICV,42,,4357
 Misc : WG1507470,
 ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jun 04 05:50:57 2021
 Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Fri Jun 04 05:49:41 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.929	6267789	242.400	
Spiked Amount 100.000		Recovery	= 242.40%	
11) s 1-chloro-octadecane	8.104	5020203	247.105	
Spiked Amount 100.000		Recovery	= 247.10%	
Target Compounds				
1) Nonane (C9)	2.402	5620895	246.970	
2) Decane (C10)	2.837	5601234	244.786	
3) Dodecane (C12)	3.687	5653869	246.332	
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane (C14)	4.467	5684447	245.770	
7) Hexadecane (C16)	5.285	5713689	246.470	
8) Octadecane (C18)	6.277	5720328	239.011	
10) Eicosane (C20)	7.491	5697992	245.865	
12) Heneicosane (C21)	8.168	5684748	245.208	
13) Docosane (C22)	8.872	5666162	245.401	
14) Tetracosane (C24)	10.318	5653159	244.798	
15) Hexacosane (C26)	11.755	5620414	244.350	
16) Octacosane (C28)	13.139	5558343	241.892	
17) Triacontane (C30)	14.455	5604222	244.443	
18) Dotriacontane (C32)	15.699	5625690	248.360	
19) Tetratriacontane (C34)	16.918	5494586	242.239	
20) Hexatriacontane (C36)	18.419	5562743	251.815	
21) Octatriacontane (C38)	19.964	5459913	260.380	M4
22) Tertracontane (C40)	21.429	5619611	265.697	
23) h Total EPH	10.000	115449763	5070.629	

(f)=RT Delta > 1/2 Window

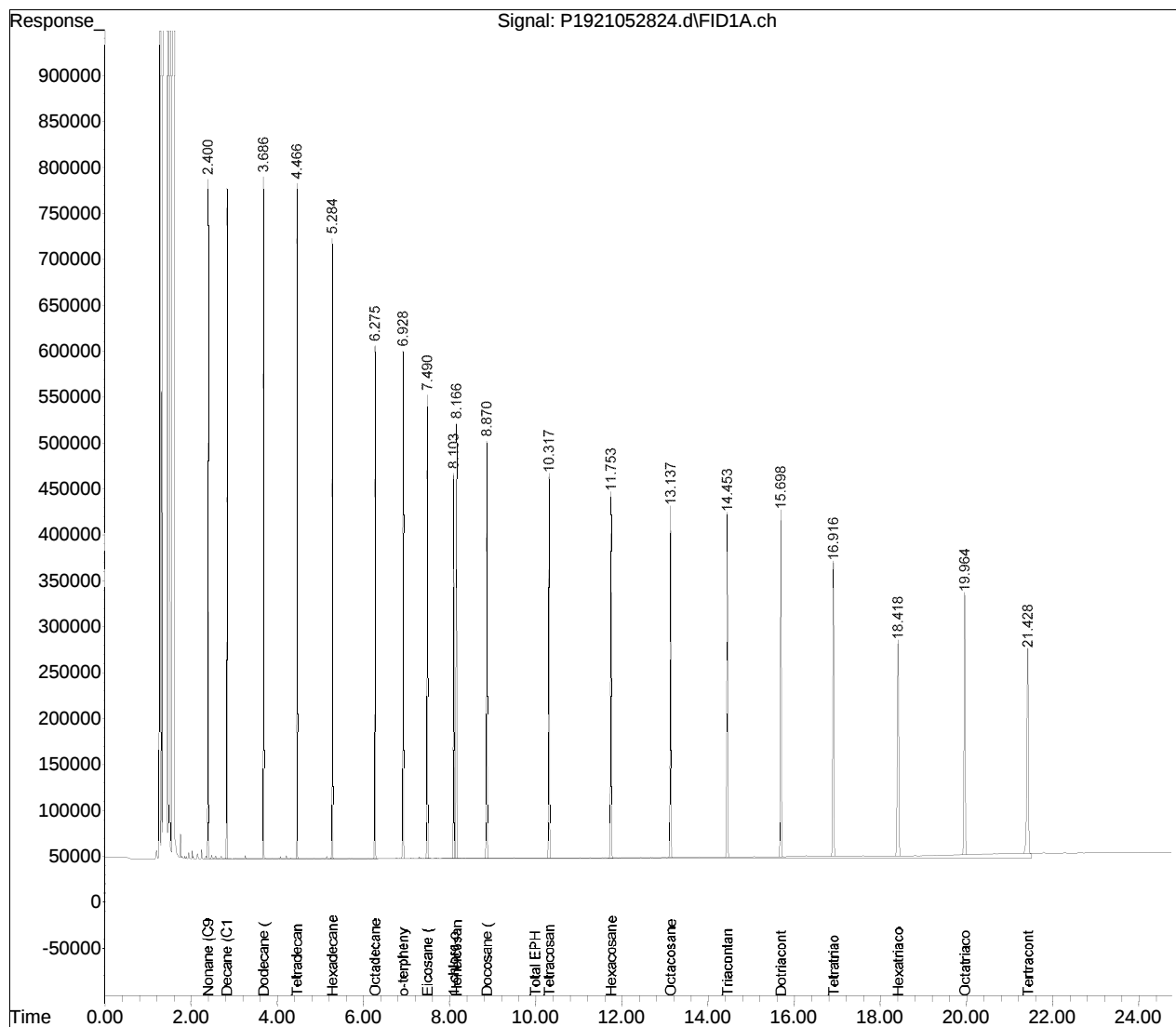
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210528\
Data File : P1921052824.d
Signal(s) : FID1A.ch
Acq On : 31 May 2021 4:23 pm
Operator : Petro19a:sc
Sample : CICV, 42,, 4357
Misc : WG1507470,
ALS Vial : 12 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jun 04 05:50:57 2021
Quant Method : I:\PETRO\Petro19\210528\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Fri Jun 04 05:49:41 2021
Response via : Initial Calibration
Integrator: ChemStation

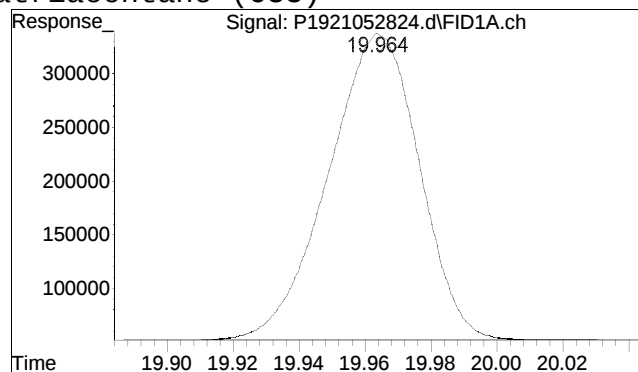
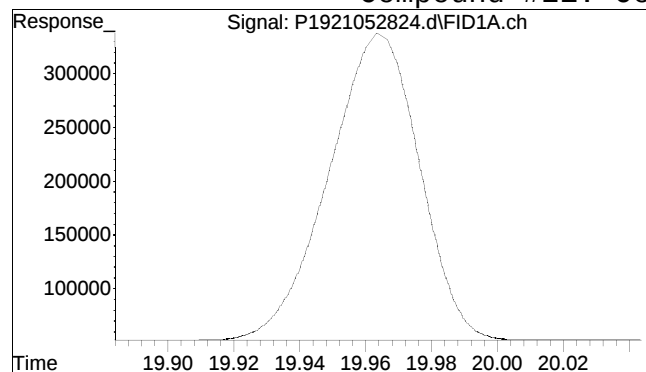
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

Data Path : I:\PETRO\Petro19\210528\ QMethod : Aliphatics210528A.M
Data File : P1921052824.d Operator : Petro19a:sc
Date Inj'd : 5/31/2021 4:23 pm Instrument : Petro19
Sample : CICV,42,,4357 Quant Date : 6/4/2021 5:50 am

Compound #21: Octatriacontane (C38)

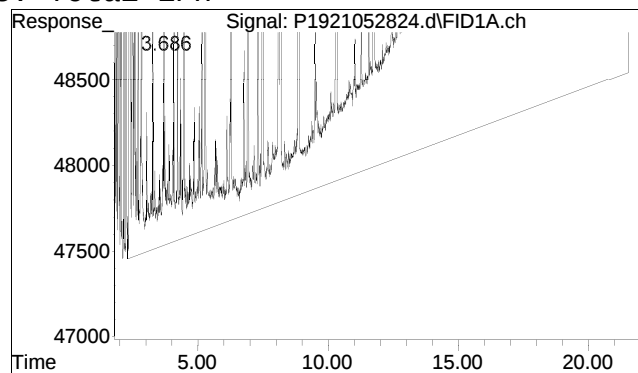
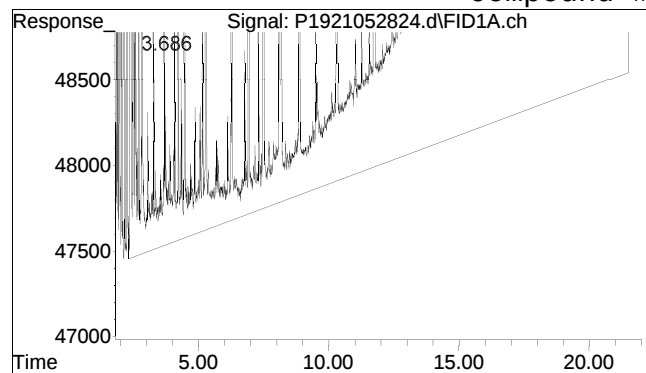


Original Peak Response =

Manual Peak Response = 5459913 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 115449763

Manual Peak Response = 115449763 m

Continuing Calibration

Calibration Verification Summary

Form 7

Petroleum

Client : Environmental Strategies and Applic
 Project Name : X4259
 Instrument ID : PETRO23B
 Lab File ID : P23210722-11
 Sample No : WG1526606-2
 Channel :

Lab Number : L2138850
 Project Number : X4259
 Calibration Date : 07/22/21 08:46
 Init. Calib. Date(s) : 05/21/21 05/24/21
 Init. Calib. Times : 08:17 11:22

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Nonane	34.656	39.684	-	-14.5	25	114	0
Decane	34.839	39.519	-	-13.4	25	113	0
Dodecane	34.976	38.57	-	-10.3	25	109	0
Naphthalene	38.894	42.2	-	-8.5	25	107	0
2-Methylnaphthalene	37.996	39.565	-	-4.1	25	103	0
Tetradecane	35.268	37.033	-	-5	25	105	0
Hexadecane	35.204	34.77	-	1.2	25	99	0
Octadecane	36.427	34.954	-	4	25	96	0
o-terphenyl	39.459	36.1	-	8.5	25	92	0
Eicosane	35.282	32.747	-	7.2	25	94	0
1-Chlorooctadecane	30.867	27.486	-	11	25	90	0
Heneicosane	35.256	32.335	-	8.3	25	93	0
Docosane	35.118	31.92	-	9.1	25	92	0
Tetracosane	35.066	31.257	-	10.9	25	91	0
Hexacosane	34.914	30.765	-	11.9	25	90	0
Octacosane	34.823	30.466	-	12.5	25	89	0
triacontane	34.659	30.106	-	13.1	25	88	0
Dotriacontane	34.5	29.776	-	13.7	25	88	0
Tetratriacontane	33.951	29.506	-	13.1	25	88	0
Hexatriacontane	33.156	28.92	-	12.8	25	89	-.01
Octatriacontane	31.08	27.812	-	10.5	25	91	0
Tetracontane	31.201	28.368	-	9.1	25	91	0
Total EPH	34.465	32.695	-	5.1	25	96	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Environmental Strategies and Applic Project Name : X4259 Instrument ID : PETRO23B Lab File ID : P23210722-25 Sample No : WG1526606-3 Channel :	Lab Number : L2138850 Project Number : X4259 Calibration Date : 07/22/21 12:17 Init. Calib. Date(s) : 05/21/21 05/24/21 Init. Calib. Times : 08:17 11:22
--	---

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Nonane	34.656	39.089	-	-12.8	25	112	0
Decane	34.839	38.673	-	-11	25	110	0
Dodecane	34.976	37.677	-	-7.7	25	107	0
Naphthalene	38.894	41.08	-	-5.6	25	105	0
2-Methylnaphthalene	37.996	38.497	-	-1.3	25	100	0
Tetradecane	35.268	36.203	-	-2.7	25	102	0
Hexadecane	35.204	34.019	-	3.4	25	97	0
Octadecane	36.427	34.221	-	6.1	25	94	0
o-terphenyl	39.459	35.298	-	10.5	25	90	0
Eicosane	35.282	32.105	-	9	25	92	0
1-Chlorooctadecane	30.867	26.97	-	12.6	25	88	0
Heneicosane	35.256	31.692	-	10.1	25	91	0
Docosane	35.118	31.325	-	10.8	25	90	0
Tetracosane	35.066	30.733	-	12.4	25	89	-.01
Hexacosane	34.914	30.331	-	13.1	25	88	0
Octacosane	34.823	30.098	-	13.6	25	88	0
triacontane	34.659	29.781	-	14.1	25	87	0
Dotriacontane	34.5	29.466	-	14.6	25	87	0
Tetratriacontane	33.951	29.338	-	13.6	25	87	0
Hexatriacontane	33.156	28.716	-	13.4	25	89	-.01
Octatriacontane	31.08	27.705	-	10.9	25	90	0
Tetracontane	31.201	28.346	-	9.2	25	91	0
Total EPH	34.465	32.195	-	6.6	25	94	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Environmental Strategies and Applic Project Name : X4259 Instrument ID : PETRO19A Lab File ID : P1921072304 Sample No : WG1527130-1 Channel :	Lab Number : L2138850 Project Number : X4259 Calibration Date : 07/23/21 07:39 Init. Calib. Date(s) : 05/28/21 05/31/21 Init. Calib. Times : 18:23 15:53
---	---

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Nonane (C9)	22.759	22.236	-	2.3	25	97	0
Decane (C10)	22.882	22.12	-	3.3	25	96	0
Dodecane (C12)	22.952	22.108	-	3.7	25	96	0
Naphthalene	25.501	24.802	-	2.7	25	97	0
2-Methylnaphthalene	24.947	23.856	-	4.4	25	95	0
Tetradecane (C14)	23.129	21.968	-	5	25	94	0
Hexadecane (C16)	23.182	21.457	-	7.4	25	92	0
Octadecane (C18)	23.933	22.27	-	6.9	25	93	0
o-terphenyl	25.857	23.629	-	8.6	25	91	0
Eicosane (C20)	23.175	21.539	-	7.1	25	93	0
1-chloro-octadecane	20.316	18.455	-	9.2	25	91	0
Heneicosane (C21)	23.183	21.515	-	7.2	25	93	0
Docosane (C22)	23.089	21.43	-	7.2	25	93	0
Tetracosane (C24)	23.093	21.296	-	7.8	25	92	0
Hexacosane (C26)	23.001	21.174	-	7.9	25	92	0
Octacosane (C28)	22.979	21.064	-	8.3	25	92	0
triacontane (C30)	22.926	20.888	-	8.9	25	91	0
Dotriacontane (C32)	22.651	20.57	-	9.2	25	91	0
Tetratriacontane (C34)	22.683	20.402	-	10.1	25	90	0
Hexatriacontane (C36)	22.091	20.058	-	9.2	25	91	0
Octatriacontane (C38)	20.969	19.408	-	7.4	25	93	0
Tetracontane (C40)	21.15	19.887	-	6	25	94	0
Total EPH	22.768	21.188	-	6.9	25	93	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Petroleum

Client : Environmental Strategies and Applic Project Name : X4259 Instrument ID : PETRO19A Lab File ID : P1921072330 Sample No : WG1527130-2 Channel :	Lab Number : L2138850 Project Number : X4259 Calibration Date : 07/23/21 14:57 Init. Calib. Date(s) : 05/28/21 05/31/21 Init. Calib. Times : 18:23 15:53
---	---

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Nonane (C9)	22.759	25.18	-	-10.6	25	110	0
Decane (C10)	22.882	24.842	-	-8.6	25	108	0
Dodecane (C12)	22.952	24.431	-	-6.4	25	106	0
Naphthalene	25.501	27.322	-	-7.1	25	106	0
2-Methylnaphthalene	24.947	26.119	-	-4.7	25	104	0
Tetradecane (C14)	23.129	23.962	-	-3.6	25	103	0
Hexadecane (C16)	23.182	23.308	-	-0.5	25	100	0
Octadecane (C18)	23.933	24.064	-	-0.5	25	100	0
o-terphenyl	25.857	25.403	-	1.8	25	98	0
Eicosane (C20)	23.175	23.132	-	0.2	25	100	0
1-chloro-octadecane	20.316	19.779	-	2.6	25	97	0
Heneicosane (C21)	23.183	23.039	-	0.6	25	99	0
Docosane (C22)	23.089	22.921	-	0.7	25	99	0
Tetracosane (C24)	23.093	22.68	-	1.8	25	98	0
Hexacosane (C26)	23.001	22.538	-	2	25	98	0
Octacosane (C28)	22.979	22.318	-	2.9	25	97	0
triacontane (C30)	22.926	21.905	-	4.5	25	96	0
Dotriacontane (C32)	22.651	21.738	-	4	25	96	0
Tetratriacontane (C34)	22.683	21.831	-	3.8	25	96	0
Hexatriacontane (C36)	22.091	21.221	-	3.9	25	96	0
Octatriacontane (C38)	20.969	20.57	-	1.9	25	98	0
Tetracontane (C40)	21.15	21.172	-	-0.1	25	100	0
Total EPH	22.768	22.825	-	-0.3	25	100	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-11.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 08:46 am
 Operator : Petro23b:sc
 Sample : WG1526606-2,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526341,ICAL17991
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 11:45:10 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane	34.656	39.684 E3	-14.5	114	0.00
2	Decane	34.839	39.519 E3	-13.4	113	0.00
3	Dodecane	34.976	38.570 E3	-10.3	109	0.00
4	Naphthalene	38.894	42.200 E3	-8.5	107	0.00
5	2-Methylnaphthalene	37.996	39.565 E3	-4.1	103	0.00
6	Tetradecane	35.268	37.033 E3	-5.0	105	0.00
7	Hexadecane	35.204	34.770 E3	1.2	99	0.00
8	Octadecane	36.427	34.954 E3	4.0	96	0.00
9 s	o-terphenyl	39.459	36.100 E3	8.5	92	0.00
10	Eicosane	35.282	32.747 E3	7.2	94	0.00
11 s	1-Chlorooctadecane	30.867	27.486 E3	11.0	90	0.00
12	Heneicosane	35.256	32.335 E3	8.3	93	0.00
13	Docosane	35.118	31.920 E3	9.1	92	0.00
14	Tetracosane	35.066	31.257 E3	10.9	91	0.00
15	Hexacosane	34.914	30.765 E3	11.9	90	0.00
16	Octacosane	34.823	30.466 E3	12.5	89	0.00
17	triacontane	34.659	30.106 E3	13.1	88	0.00
18	Dotriacontane	34.500	29.776 E3	13.7	88	0.00
19	Tetratriacontane	33.951	29.506 E3	13.1	88	0.00
20	Hexatriacontane	33.156	28.920 E3	12.8	89	-0.01
21	Octatriacontane	31.080	27.812 E3	10.5	91	0.00
22	Tetracontane	31.201	28.368 E3	9.1	91	0.00
23 H	Total EPH	34.465	32.695 E3	5.1	96	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)

Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-11.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 08:46 am
 Operator : Petro23b:sc
 Sample : WG1526606-2,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526341,ICAL17991
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 11:45:10 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)

Triacontane to Eicosane			0.92	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-11.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 08:46 am
 Operator : Petro23b:sc
 Sample : WG1526606-2,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526341,ICAL17991
 ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 11:45:10 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.901	9024976	228.717
Spiked Amount 100.000		Recovery	= 228.72%
11) s 1-Chlorooctadecane	8.043	6871443	222.615
Spiked Amount 100.000		Recovery	= 222.62%
Target Compounds			
1) Nonane	2.436	9921044	286.274
2) Decane	2.870	9879750	283.586
3) Dodecane	3.712	9642465	275.691
4) Naphthalene	3.765	10550082	271.249
5) 2-Methylnaphthalene	4.207	9891141	260.319
6) Tetradecane	4.484	9258134	262.509
7) Hexadecane	5.286	8692461	246.919
8) Octadecane	6.251	8738483	239.893
10) Eicosane	7.437	8186630	232.037
12) Heneicosane	8.101	8083724	229.287
13) Docosane	8.796	7979962	227.231
14) Tetracosane	10.228	7814168	222.839
15) Hexacosane	11.651	7691185	220.287
16) Octacosane	13.025	7616389	218.715
17) Triacontane	14.331	7526542	217.161
18) Dotriacontane	15.568	7443973	215.769
19) Tetratriacontane	16.757	7376406	217.264 M4
20) Hexatriacontane	18.181	7230093	218.065
21) Octatriacontane	19.779	6953081	223.718 M4
22) Tetracontane	21.165	7092102	227.305 M4
23) H Total EPH	15.000	199822384	5797.797

(f)=RT Delta > 1/2 Window

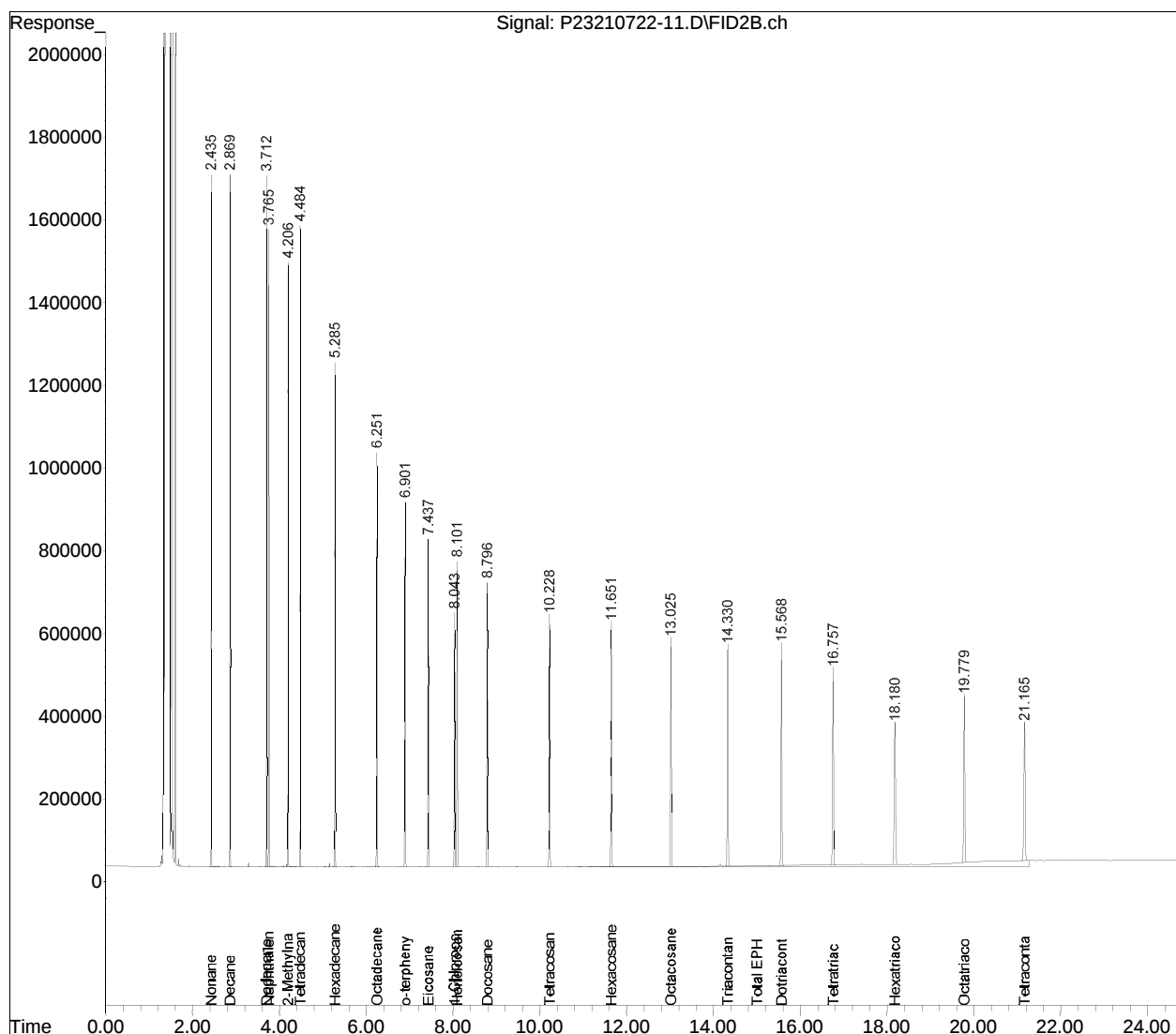
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-11.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 08:46 am
Operator : Petro23b:sc
Sample : WG1526606-2,42,,STD EPH 250 4429
Misc : WG1526606,WG1526341,ICAL17991
ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 22 11:45:10 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

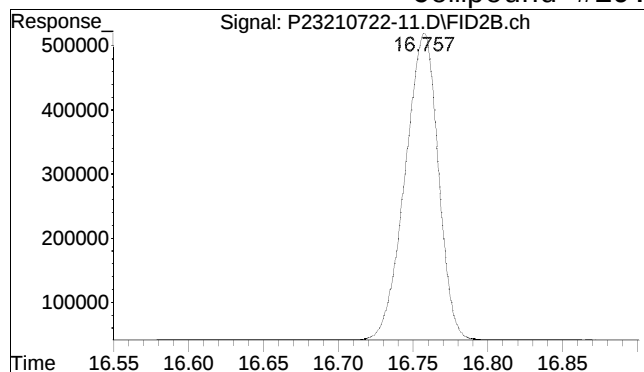
Volume Inj. :
Signal Phase :
Signal Info :



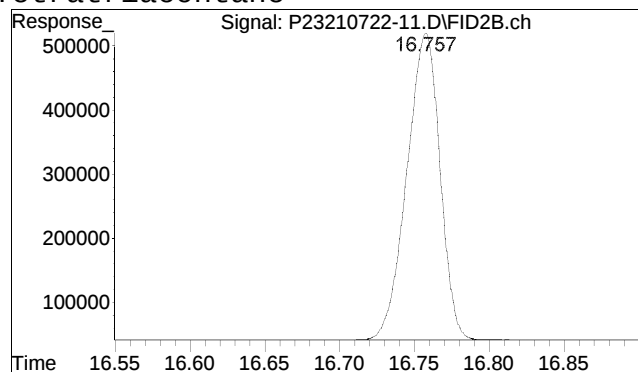
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQMethod : Aliphatics210521B.M
Data File : P23210722-11.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 8:46 am Instrument : Petro 23
Sample : WG1526606-2,42,,STD EPH 25Quant Date : 7/22/2021 11:44 am

Compound #19: Tetratriacontane



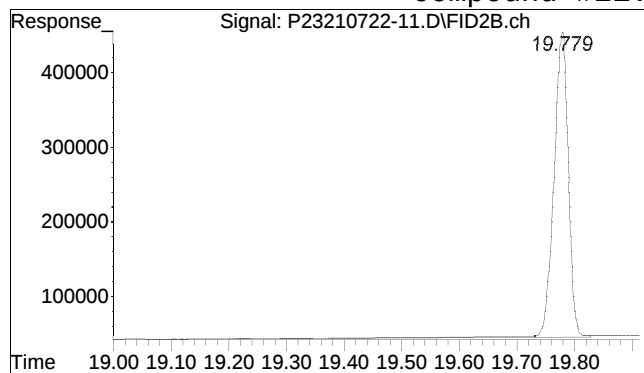
Original Peak Response = 7474754



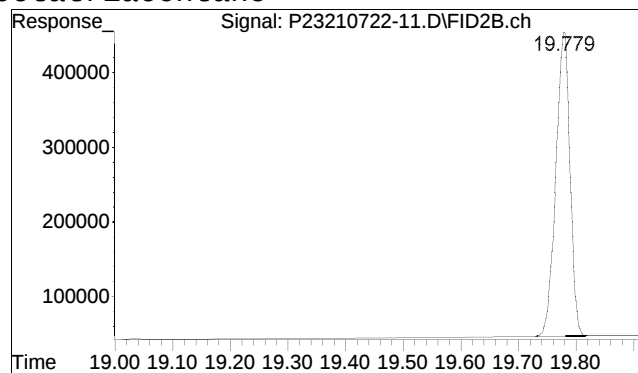
Manual Peak Response = 7376406 M4

M4 = Poor automated baseline construction.

Compound #21: Octatriacontane



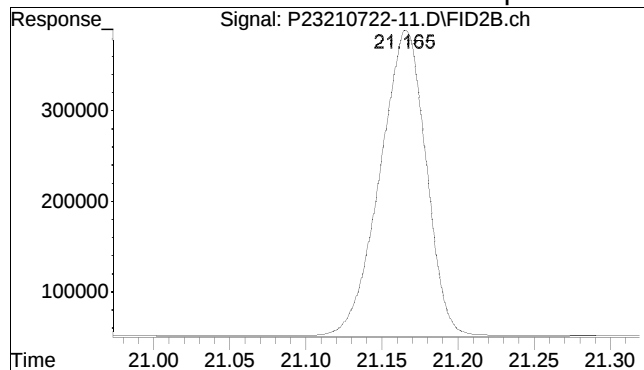
Original Peak Response = 7247706



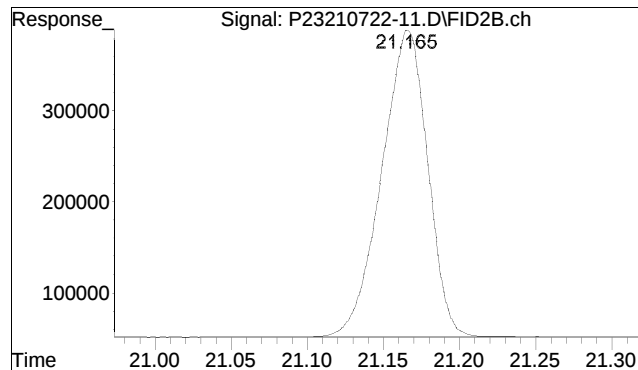
Manual Peak Response = 6953081 M4

M4 = Poor automated baseline construction.

Compound #22: Tetracontane



Original Peak Response = 7285662



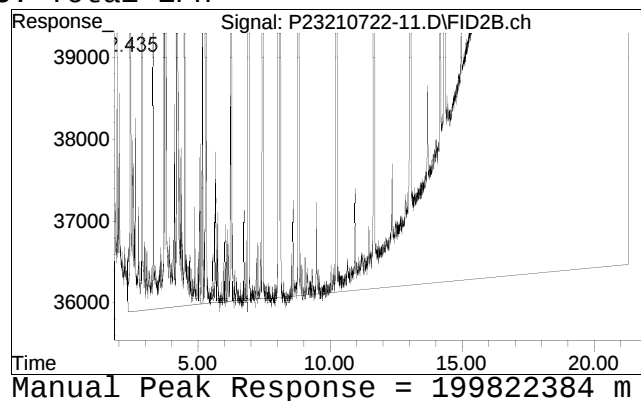
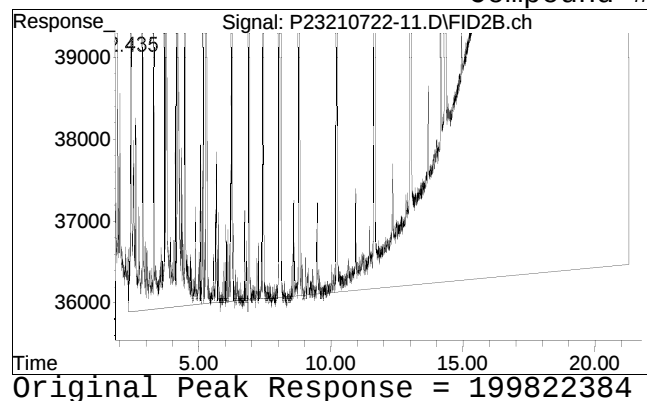
Manual Peak Response = 7092102 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQMethod : Aliphatics210521B.M
Data File : P23210722-11.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 8:46 am Instrument : Petro 23
Sample : WG1526606-2,42,,STD EPH 25Quant Date : 7/22/2021 11:44 am

Compound #23: Total EPH



Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-25.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 12:17 pm
 Operator : Petro23b:sc
 Sample : WG1526606-3,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 16:30:09 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane	34.656	39.089 E3	-12.8	112	0.00
2	Decane	34.839	38.673 E3	-11.0	110	0.00
3	Dodecane	34.976	37.677 E3	-7.7	107	0.00
4	Naphthalene	38.894	41.080 E3	-5.6	105	0.00
5	2-Methylnaphthalene	37.996	38.497 E3	-1.3	100	0.00
6	Tetradecane	35.268	36.203 E3	-2.7	102	0.00
7	Hexadecane	35.204	34.019 E3	3.4	97	0.00
8	Octadecane	36.427	34.221 E3	6.1	94	0.00
9 s	o-terphenyl	39.459	35.298 E3	10.5	90	0.00
10	Eicosane	35.282	32.105 E3	9.0	92	0.00
11 s	1-Chlorooctadecane	30.867	26.970 E3	12.6	88	0.00
12	Heneicosane	35.256	31.692 E3	10.1	91	0.00
13	Docosane	35.118	31.325 E3	10.8	90	0.00
14	Tetracosane	35.066	30.733 E3	12.4	89	-0.01
15	Hexacosane	34.914	30.331 E3	13.1	88	0.00
16	Octacosane	34.823	30.098 E3	13.6	88	0.00
17	triacontane	34.659	29.781 E3	14.1	87	0.00
18	Dotriacontane	34.500	29.466 E3	14.6	87	0.00
19	Tetratriacontane	33.951	29.338 E3	13.6	87	0.00
20	Hexatriacontane	33.156	28.716 E3	13.4	89	-0.01
21	Octatriacontane	31.080	27.705 E3	10.9	90	0.00
22	Tetracontane	31.201	28.346 E3	9.2	91	0.00
23 H	Total EPH	34.465	32.195 E3	6.6	94	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)

Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-25.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 12:17 pm
 Operator : Petro23b:sc
 Sample : WG1526606-3,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 16:30:09 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)

Triacontane to Eicosane			0.93	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-25.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 12:17 pm
 Operator : Petro23b:sc
 Sample : WG1526606-3,42,,STD EPH 250 4429
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 22 16:30:09 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	6.901	8824548	223.638
Spiked Amount 100.000		Recovery	= 223.64%
11) s 1-Chlorooctadecane	8.042	6742412	218.435
Spiked Amount 100.000		Recovery	= 218.44%
Target Compounds			
1) Nonane	2.436	9772170	281.978
2) Decane	2.869	9668198	277.514
3) Dodecane	3.712	9419165	269.307
4) Naphthalene	3.765	10270006	264.048
5) 2-Methylnaphthalene	4.206	9624253	253.295
6) Tetradecane	4.484	9050796	256.630
7) Hexadecane	5.286	8504814	241.589
8) Octadecane	6.251	8555257	234.863
10) Eicosane	7.437	8026328	227.493
12) Heneicosane	8.100	7923033	224.729
13) Docosane	8.795	7831155	222.994
14) Tetracosane	10.227	7683330	219.108
15) Hexacosane	11.650	7582856	217.185
16) Octacosane	13.024	7524613	216.079
17) Triacontane	14.331	7445126	214.812
18) Dotriacontane	15.568	7366452	213.522
19) Tetratriacontane	16.756	7334384	216.026
20) Hexatriacontane	18.181	7179028	216.525
21) Octatriacontane	19.780	6926281	222.855
22) Tetracontane	21.165	7086484	227.125
23) H Total EPH	15.000	201049524	5833.402

M4

(f)=RT Delta > 1/2 Window

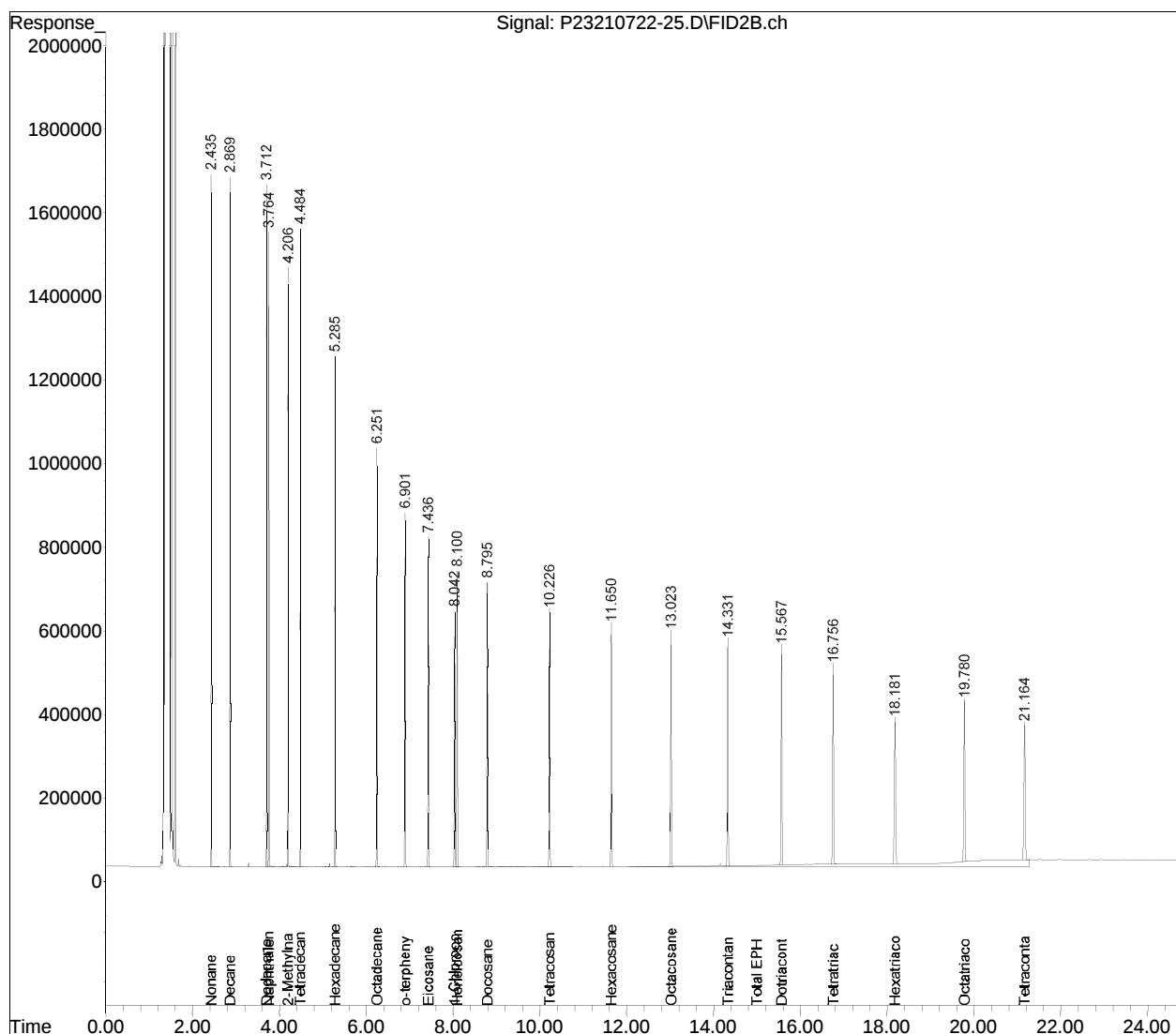
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-25.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 12:17 pm
Operator : Petro23b:sc
Sample : WG1526606-3,42,,STD EPH 250 4429
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 63 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 22 16:30:09 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

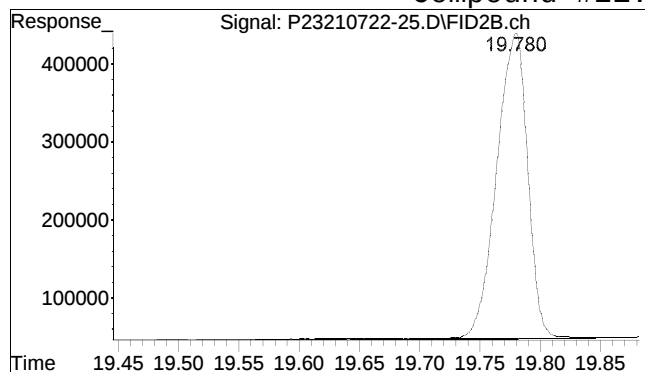
Volume Inj. :
Signal Phase :
Signal Info :



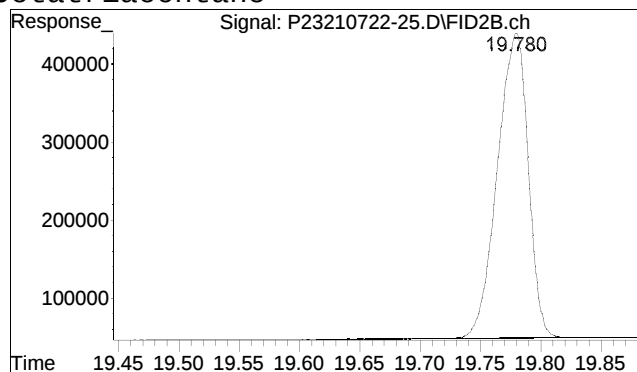
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQMethod : Aliphatics210521B.M
Data File : P23210722-25.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 12:17 pm Instrument : Petro 23
Sample : WG1526606-3,42,,STD EPH 25Quant Date : 7/22/2021 4:29 pm

Compound #21: Octatriacontane



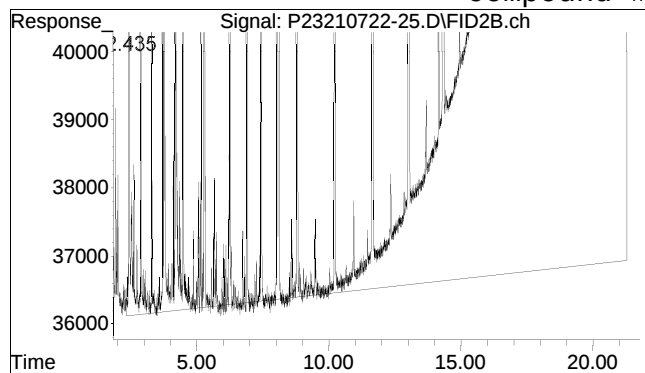
Original Peak Response = 7120931



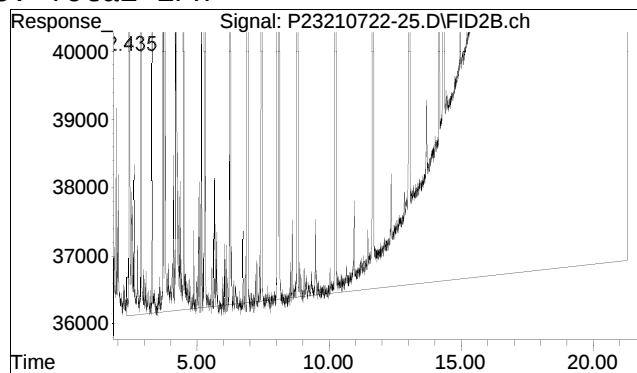
Manual Peak Response = 6926281 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 201049524



Manual Peak Response = 201049524 m

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072304.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 7:39 am
 Operator : Petro19a:jb
 Sample : wg1527130-1,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 08:30:26 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane (C9)	22.759	22.236 E3	2.3	97	0.00
2	Decane (C10)	22.882	22.120 E3	3.3	96	0.00
3	Dodecane (C12)	22.952	22.108 E3	3.7	96	0.00
4	Naphthalene	25.501	24.802 E3	2.7	97	0.00
5	2-Methylnaphthalene	24.947	23.856 E3	4.4	95	0.00
6	Tetradecane (C14)	23.129	21.968 E3	5.0	94	0.00
7	Hexadecane (C16)	23.182	21.457 E3	7.4	92	0.00
8	Octadecane (C18)	23.933	22.270 E3	6.9	93	0.00
9 s	o-terphenyl	25.857	23.629 E3	8.6	91	0.00
10	Eicosane (C20)	23.175	21.539 E3	7.1	93	0.00
11 s	1-chloro-octadecane	20.316	18.455 E3	9.2	91	0.00
12	Heneicosane (C21)	23.183	21.515 E3	7.2	93	0.00
13	Docosane (C22)	23.089	21.430 E3	7.2	93	0.00
14	Tetracosane (C24)	23.093	21.296 E3	7.8	92	0.00
15	Hexacosane (C26)	23.001	21.174 E3	7.9	92	0.00
16	Octacosane (C28)	22.979	21.064 E3	8.3	92	0.00
17	triacontane (C30)	22.926	20.888 E3	8.9	91	0.00
18	Dotriacontane (C32)	22.651	20.570 E3	9.2	91	0.00
19	Tetratriacontane (C34)	22.683	20.402 E3	10.1	90	0.00
20	Hexatriacontane (C36)	22.091	20.058 E3	9.2	91	0.00
21	Octatriacontane (C38)	20.969	19.408 E3	7.4	93	0.00
22	Tertracontane (C40)	21.150	19.887 E3	6.0	94	0.00
23 h	Total EPH	22.768	21.188 E3	6.9	93	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)

Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072304.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 7:39 am
 Operator : Petro19a:jb
 Sample : wg1527130-1,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 08:30:26 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)

Triacontane to Eicosane			0.97	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072304.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 7:39 am
 Operator : Petro19a:jb
 Sample : wg1527130-1,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 08:30:26 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) s o-terphenyl	7.045	5907233	228.456
Spiked Amount 100.000		Recovery	= 228.46%
11) s 1-chloro-octadecane	8.224	4613672	227.094
Spiked Amount 100.000		Recovery	= 227.09%
Target Compounds			
1) Nonane (C9)	2.470	5559060	244.253
2) Decane (C10)	2.907	5530024	241.674
3) Dodecane (C12)	3.758	5526973	240.803
4) Naphthalene	3.811	6200503	243.151
5) 2-Methylnaphthalene	4.258	5964113	239.070
6) Tetradecane (C14)	4.542	5491931	237.447
7) Hexadecane (C16)	5.372	5364213	231.395
8) Octadecane (C18)	6.377	5567581	232.629
10) Eicosane (C20)	7.604	5384680	232.346
12) Heneicosane (C21)	8.285	5378852	232.013
13) Docosane (C22)	8.994	5357506	232.033
14) Tetracosane (C24)	10.447	5324122	230.550
15) Hexacosane (C26)	11.885	5293591	230.141
16) Octacosane (C28)	13.272	5265991	229.169
17) Triacontane (C30)	14.588	5221888	227.767
18) Dotriacontane (C32)	15.833	5142608	227.033
19) Tetratriacontane (C34)	17.071	5100600	224.869
20) Hexatriacontane (C36)	18.625	5014395	226.992
21) Octatriacontane (C38)	20.131	4851937	231.386
22) Tertracontane (C40)	21.642	4971667	235.062
23) h Total EPH	10.000	198068906	8699.316

M4

(f)=RT Delta > 1/2 Window

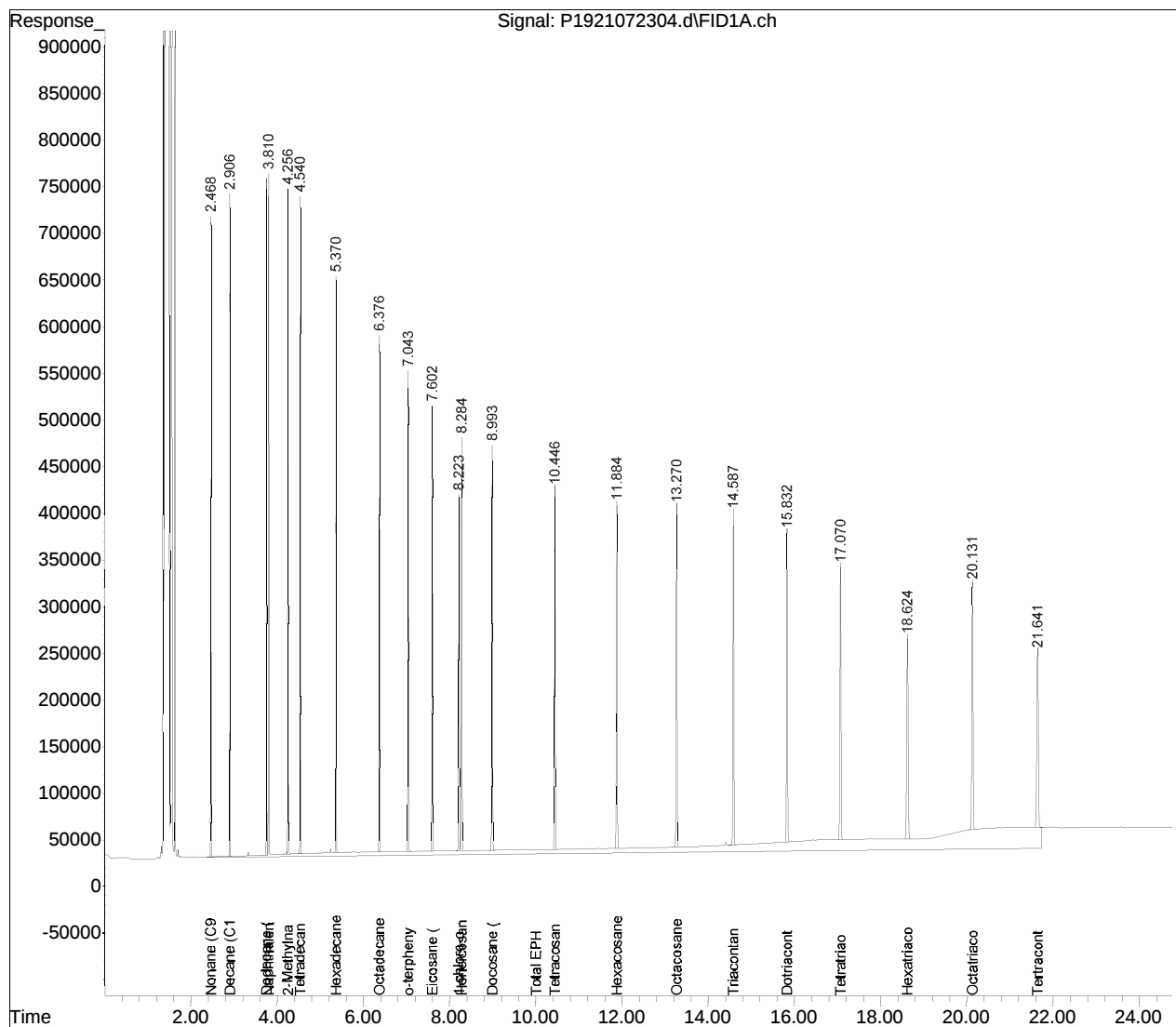
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072304.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 7:39 am
Operator : Petro19a:jb
Sample : wg1527130-1,42,,std 250 eph 4429
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 08:30:26 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

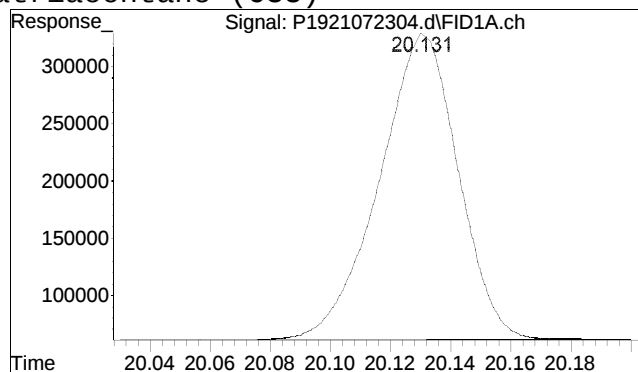
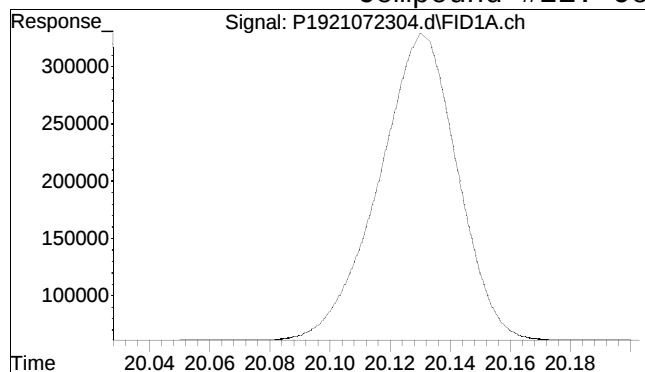
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

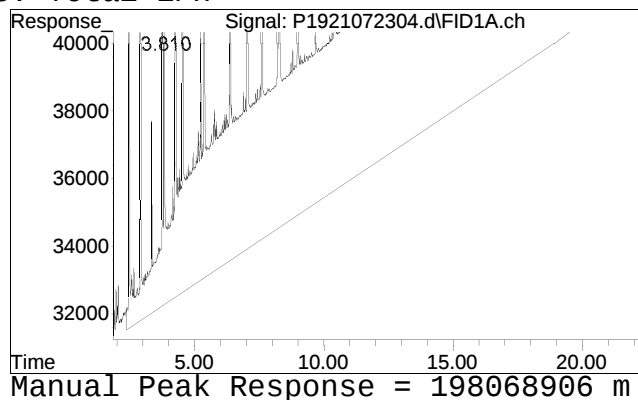
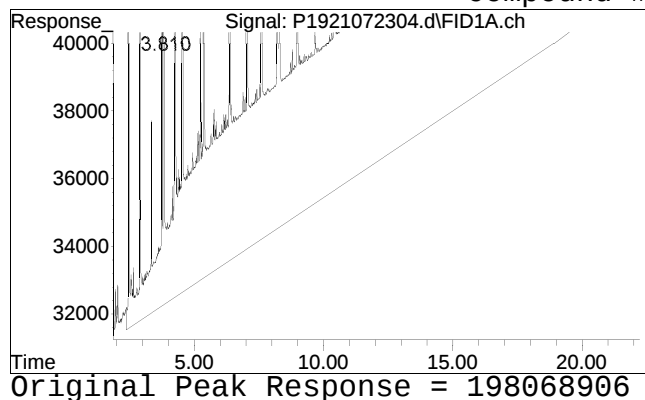
Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072304.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 7:39 am Instrument : Petro19
Sample : wg1527130-1,42,,std 250 epQuant Date : 7/23/2021 8:30 am

Compound #21: Octatriacontane (C38)



M4 = Poor automated baseline construction.

Compound #23: Total EPH



Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072330.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 2:57 pm
 Operator : Petro19a:jb
 Sample : wg1527130-2,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 25 09:56:11 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	Nonane (C9)	22.759	25.180 E3	-10.6	110	0.00
2	Decane (C10)	22.882	24.842 E3	-8.6	108	0.00
3	Dodecane (C12)	22.952	24.431 E3	-6.4	106	0.00
4	Naphthalene	25.501	27.322 E3	-7.1	106	0.00
5	2-Methylnaphthalene	24.947	26.119 E3	-4.7	104	0.00
6	Tetradecane (C14)	23.129	23.962 E3	-3.6	103	0.00
7	Hexadecane (C16)	23.182	23.308 E3	-0.5	100	0.00
8	Octadecane (C18)	23.933	24.064 E3	-0.5	100	0.00
9 s	o-terphenyl	25.857	25.403 E3	1.8	98	0.00
10	Eicosane (C20)	23.175	23.132 E3	0.2	100	0.00
11 s	1-chloro-octadecane	20.316	19.779 E3	2.6	97	0.00
12	Heneicosane (C21)	23.183	23.039 E3	0.6	99	0.00
13	Docosane (C22)	23.089	22.921 E3	0.7	99	0.00
14	Tetracosane (C24)	23.093	22.680 E3	1.8	98	0.00
15	Hexacosane (C26)	23.001	22.538 E3	2.0	98	0.00
16	Octacosane (C28)	22.979	22.318 E3	2.9	97	0.00
17	triacontane (C30)	22.926	21.905 E3	4.5	96	0.00
18	Dotriacontane (C32)	22.651	21.738 E3	4.0	96	0.00
19	Tetratriacontane (C34)	22.683	21.831 E3	3.8	96	0.00
20	Hexatriacontane (C36)	22.091	21.221 E3	3.9	96	0.00
21	Octatriacontane (C38)	20.969	20.570 E3	1.9	98	0.00
22	Tertracontane (C40)	21.150	21.172 E3	-0.1	100	0.00
23 h	Total EPH	22.768	22.825 E3	-0.3	100	0.00

Evaluate Continuing Calibration Report - Not Found

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Mass Discrimination (Response)

Ratio Range Limits

Evaluate Continuing Calibration Report

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072330.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 2:57 pm
 Operator : Petro19a:jb
 Sample : wg1527130-2,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 25 09:56:11 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area% Dev(Min)
-----	-----	-----	-----	-----
Triacontane to Eicosane			0.95	>0.80

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro19\210723\
 Data File : P1921072330.d
 Signal(s) : FID1A.ch
 Acq On : 23 Jul 2021 2:57 pm
 Operator : Petro19a:jb
 Sample : wg1527130-2,42,,std 250 eph 4429
 Misc : wg1527130,wg1526243,ical18032
 ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 25 09:56:11 2021
 Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
 Quant Title : NJ EPH TPH
 QLast Update : Thu Jul 15 11:10:03 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	7.037	6350758	245.609	
Spiked Amount 100.000		Recovery	= 245.61%	
11) s 1-chloro-octadecane	8.216	4944694	243.388	
Spiked Amount 100.000		Recovery	= 243.39%	
Target Compounds				
1) Nonane (C9)	2.467	6295075	276.592	
2) Decane (C10)	2.905	6210506	271.413	
3) Dodecane (C12)	3.755	6107700	266.105	
4) Naphthalene	3.807	6830607	267.860	
5) 2-Methylnaphthalene	4.253	6529751	261.743	
6) Tetradecane (C14)	4.537	5990577	259.006	
7) Hexadecane (C16)	5.366	5827075	251.361	
8) Octadecane (C18)	6.370	6016093	251.369	
10) Eicosane (C20)	7.596	5782913	249.529	
12) Heneicosane (C21)	8.277	5759842	248.447	
13) Docosane (C22)	8.986	5730347	248.181	
14) Tetracosane (C24)	10.439	5670004	245.528	
15) Hexacosane (C26)	11.879	5634429	244.960	
16) Octacosane (C28)	13.266	5579432	242.810	
17) Triacontane (C30)	14.582	5476147	238.857	M4
18) Dotriacontane (C32)	15.829	5434564	239.922	M4
19) Tetratriacontane (C34)	17.068	5457802	240.617	M4
20) Hexatriacontane (C36)	18.621	5305252	240.159	M4
21) Octatriacontane (C38)	20.128	5142512	245.243	M4
22) Tertracontane (C40)	21.643	5293020	250.256	M4
23) h Total EPH	10.000	261959902	11505.450	

(f)=RT Delta > 1/2 Window

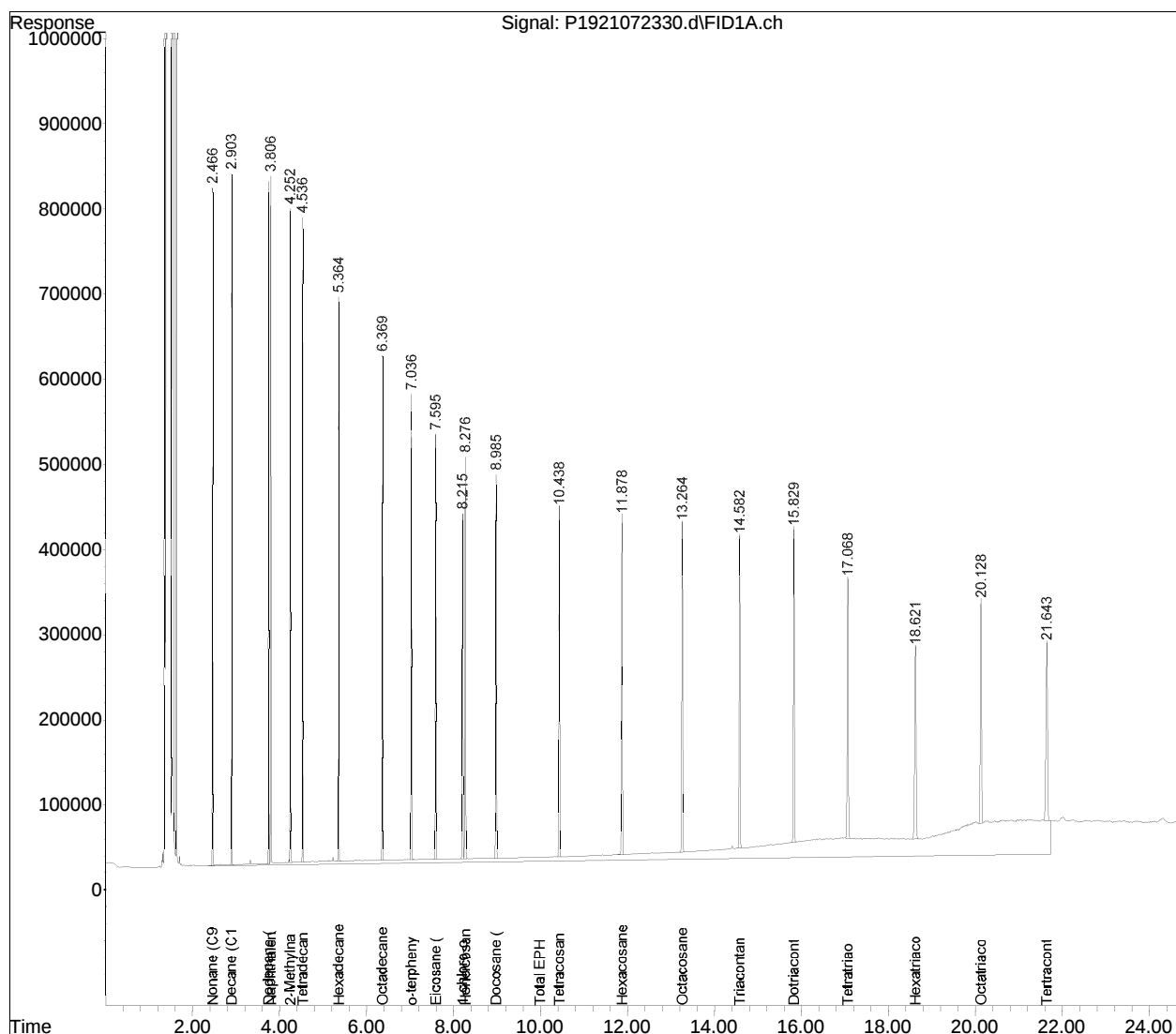
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro19\210723\
Data File : P1921072330.d
Signal(s) : FID1A.ch
Acq On : 23 Jul 2021 2:57 pm
Operator : Petro19a:jb
Sample : wg1527130-2,42,,std 250 eph 4429
Misc : wg1527130,wg1526243,ical18032
ALS Vial : 15 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 25 09:56:11 2021
Quant Method : I:\PETRO\Petro19\210723\Aliphatics210528A.M
Quant Title : NJ EPH TPH
QLast Update : Thu Jul 15 11:10:03 2021
Response via : Initial Calibration
Integrator: ChemStation

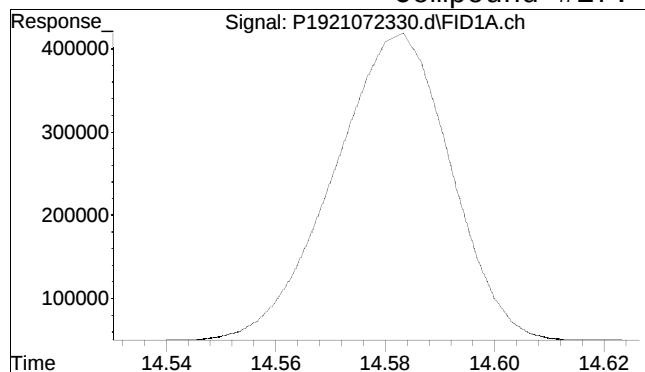
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

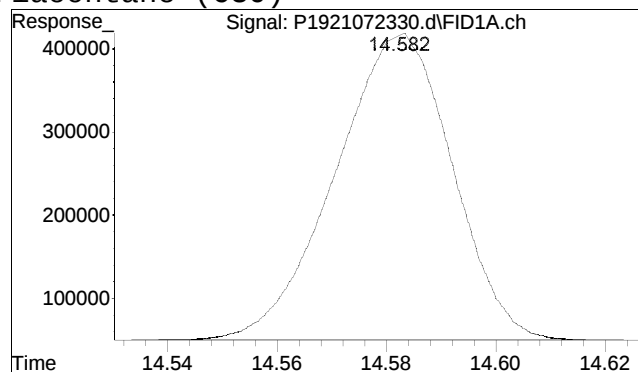
Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072330.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 2:57 pm Instrument : Petro19
Sample : wg1527130-2,42,,std 250 epQuant Date : 7/25/2021 9:55 am

Compound #17: Triacontane (C30)



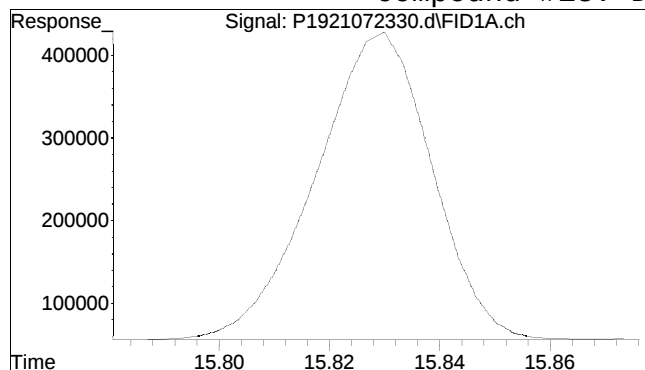
Original Peak Response =

M4 = Poor automated baseline construction.



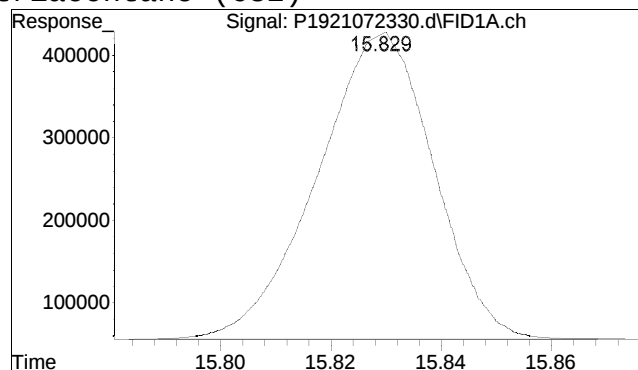
Manual Peak Response = 5476147 M4

Compound #18: Dotriacontane (C32)



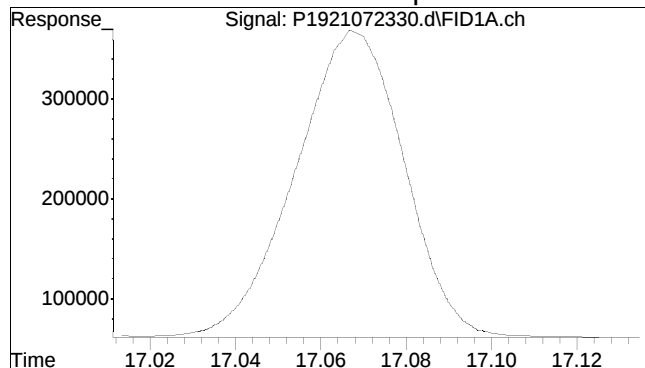
Original Peak Response =

M4 = Poor automated baseline construction.



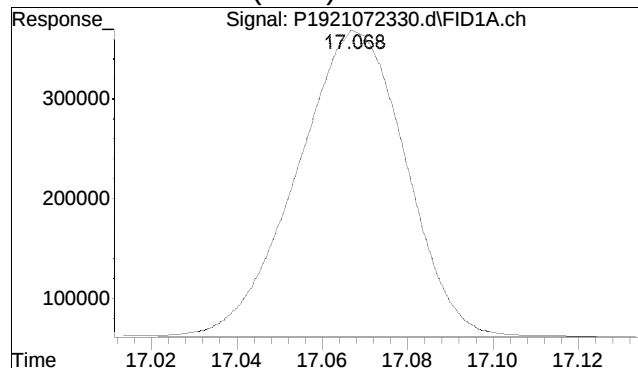
Manual Peak Response = 5434564 M4

Compound #19: Tetratriacontane (C34)



Original Peak Response =

M4 = Poor automated baseline construction.

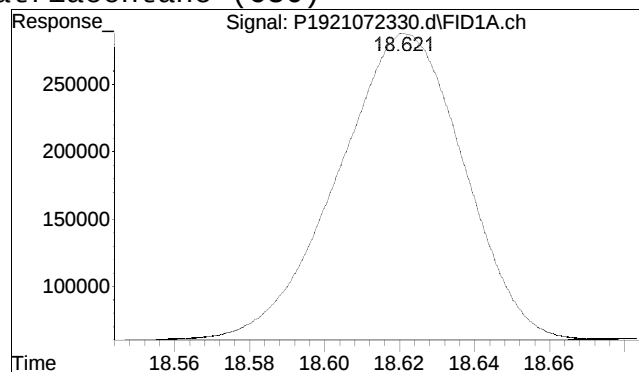
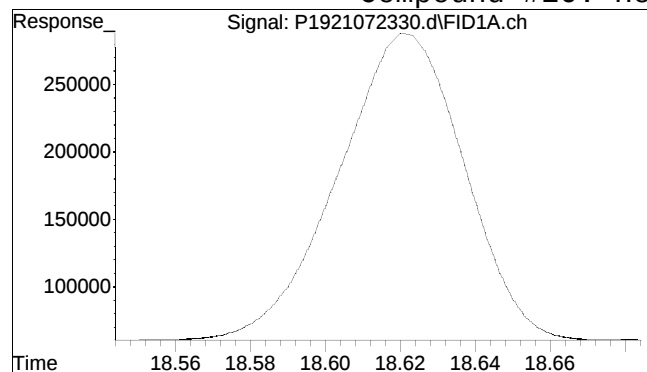


Manual Peak Response = 5457802 M4

Manual Integration Report

Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072330.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 2:57 pm Instrument : Petro19
Sample : wg1527130-2,42,,std 250 epQuant Date : 7/25/2021 9:55 am

Compound #20: Hexatriacontane (C36)

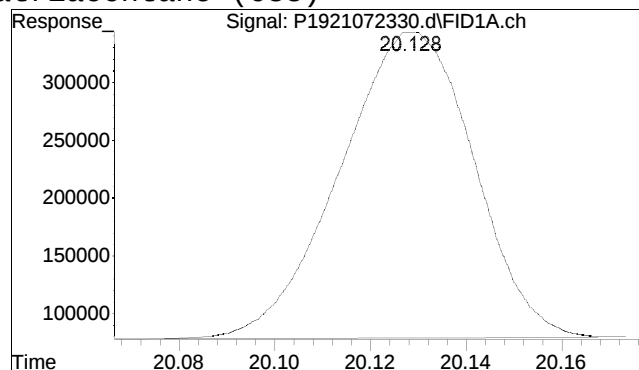
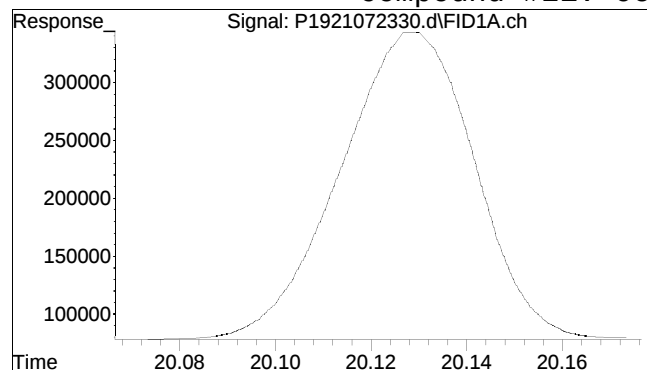


Original Peak Response =

Manual Peak Response = 5305252 M4

M4 = Poor automated baseline construction.

Compound #21: Octatriacontane (C38)

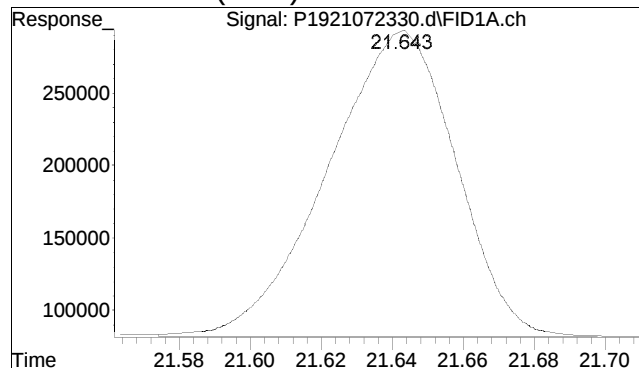
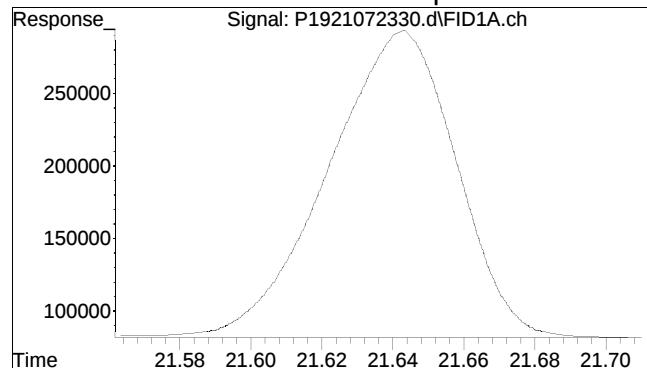


Original Peak Response =

Manual Peak Response = 5142512 M4

M4 = Poor automated baseline construction.

Compound #22: Tetracontane (C40)



Original Peak Response =

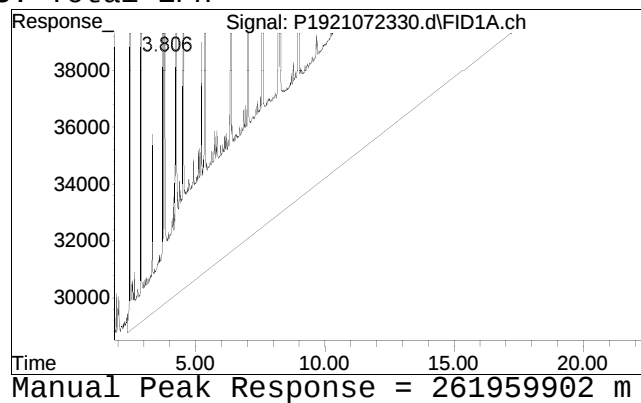
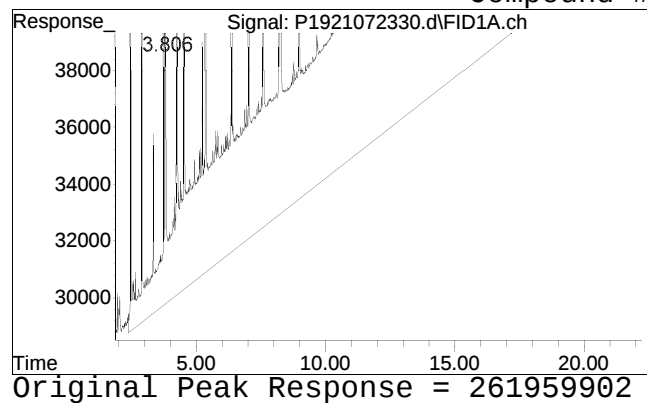
Manual Peak Response = 5293020 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : I:\PETRO\Petro19\210723\ QMethod : Aliphatics210528A.M
Data File : P1921072330.d Operator : Petro19a:jb
Date Inj'd : 7/23/2021 2:57 pm Instrument : Petro19
Sample : wg1527130-2,42,,std 250 epQuant Date : 7/25/2021 9:55 am

Compound #23: Total EPH



Raw Quality Control Data

Method Blank

Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-17.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 10:16 am
 Operator : Petro23b:sc
 Sample : WG1526243-1,42,,
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 10:07:04 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	6.898	2898851	73.465	
Spiked Amount 100.000		Recovery =	73.47%	
11) s 1-Chlorooctadecane	8.039	2206393	71.481	
Spiked Amount 100.000		Recovery =	71.48%	
Target Compounds				
1) Nonane	0.000	0	N.D.	d
2) Decane	0.000	0	N.D.	d
3) Dodecane	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane	0.000	0	N.D.	d
7) Hexadecane	0.000	0	N.D.	d
8) Octadecane	0.000	0	N.D.	d
10) Eicosane	0.000	0	N.D.	d
12) Heneicosane	0.000	0	N.D.	d
13) Docosane	0.000	0	N.D.	d
14) Tetracosane	0.000	0	N.D.	d
15) Hexacosane	0.000	0	N.D.	d
16) Octacosane	0.000	0	N.D.	d
17) Triacontane	0.000	0	N.D.	d
18) Dotriacontane	0.000	0	N.D.	d
19) Tetratriacontane	0.000	0	N.D.	d
20) Hexatriacontane	0.000	0	N.D.	d
21) Octatriacontane	0.000	0	N.D.	d
22) Tetracontane	0.000	0	N.D.	d
23) H Total EPH	21.322f	5325608	154.521	M5

(f)=RT Delta > 1/2 Window

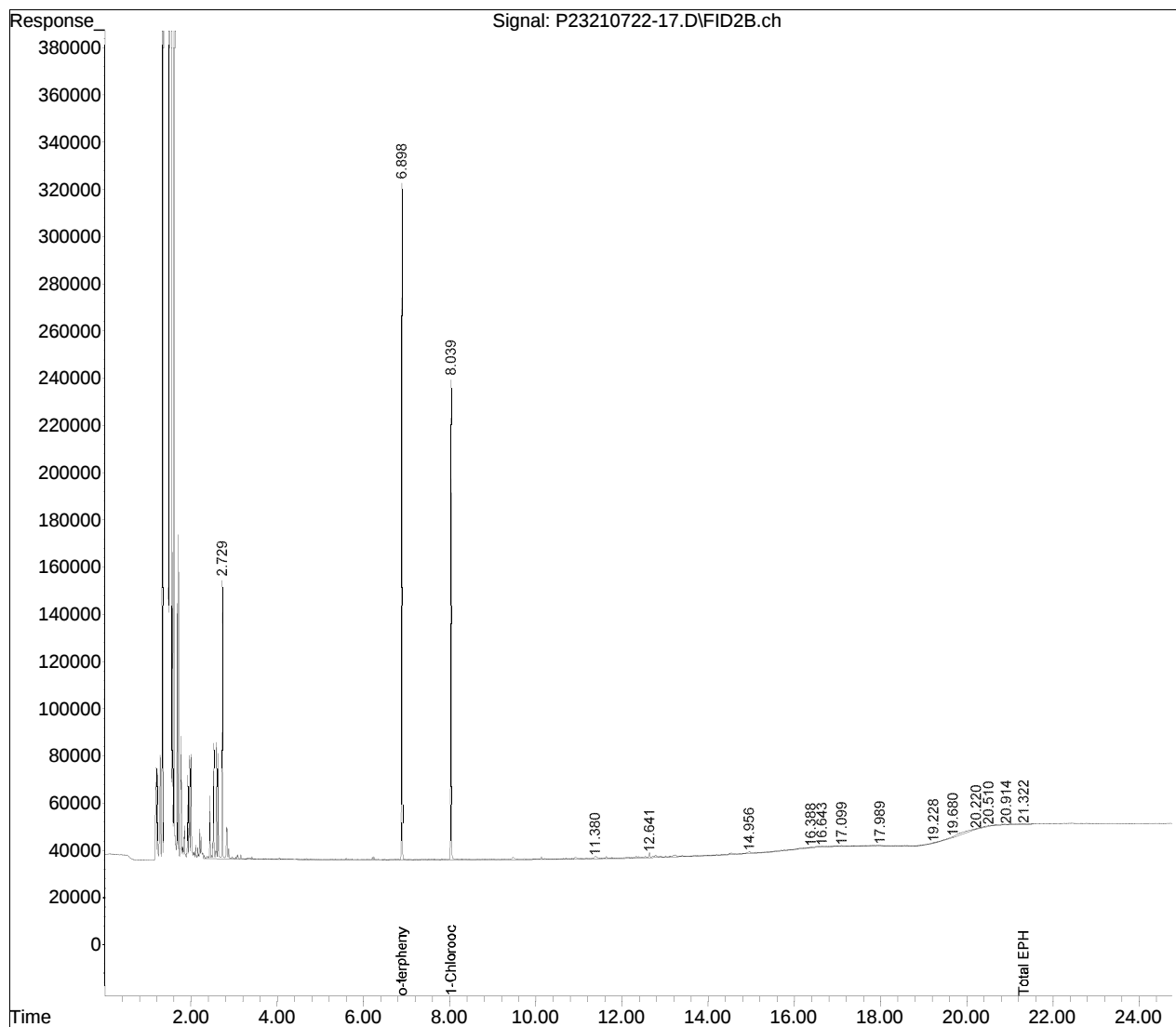
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-17.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 10:16 am
Operator : Petro23b:sc
Sample : WG1526243-1,42,,
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 59 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 10:07:04 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

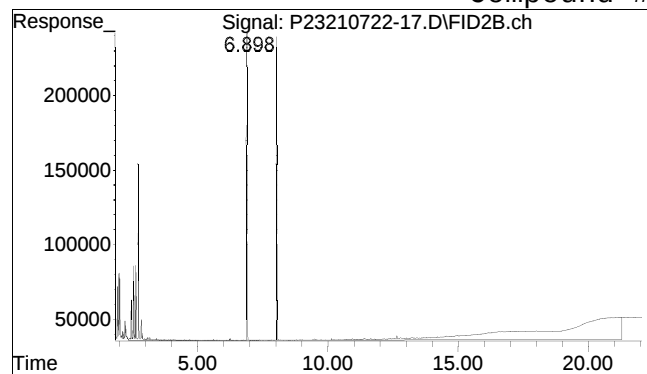
Volume Inj. :
Signal Phase :
Signal Info :



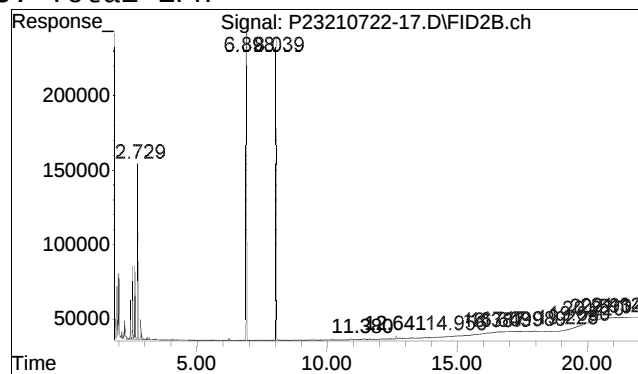
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
Data File : P23210722-17.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 10:16 am Instrument : Petro 23
Sample : WG1526243-1,42,, Quant Date : 7/23/2021 10:05 am

Compound #23: Total EPH



Original Peak Response = 32940838



Manual Peak Response = 5325608 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-13.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 09:16 am
 Operator : Petro23b:sc
 Sample : WG1526243-2,42,,CT1
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 10:03:37 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.899	2918381	73.960	
Spiked Amount 100.000		Recovery =	73.96%	
11) s 1-Chlorooctadecane	8.040	2247646	72.817	
Spiked Amount 100.000		Recovery =	72.82%	
Target Compounds				
1) Nonane	2.433	3445183	99.411	
2) Decane	2.868	3428292	98.405	
3) Dodecane	3.711	3311967	94.694	
4) Naphthalene	3.763	3436422	88.352	
5) 2-Methylnaphthalene	4.205	3342935	87.981	
6) Tetradecane	4.483	3246138	92.042	
7) Hexadecane	5.285	3188872	90.584	
8) Octadecane	6.249	3074268	84.396	
10) Eicosane	7.435	2960224	83.903	
12) Heneicosane	8.099	2908673	82.502	
13) Docosane	8.793	2870854	81.748	
14) Tetracosane	10.225	2827380	80.629	
15) Hexacosane	11.647	2795298	80.062	
16) Octacosane	13.020	2744034	78.799	
17) Triacontane	14.327	2804990	80.932	
18) Dotriacontane	15.563	2773367	80.388	
19) Tetratriacontane	16.752	2678529	78.893	
20) Hexatriacontane	18.176	2661139	80.262	
21) Octatriacontane	19.774	2562941	82.463	M4
22) Tetracontane	21.157	2570548	82.387	M4
23) H Total EPH	21.157f	115460787	3350.066	M5

(f)=RT Delta > 1/2 Window

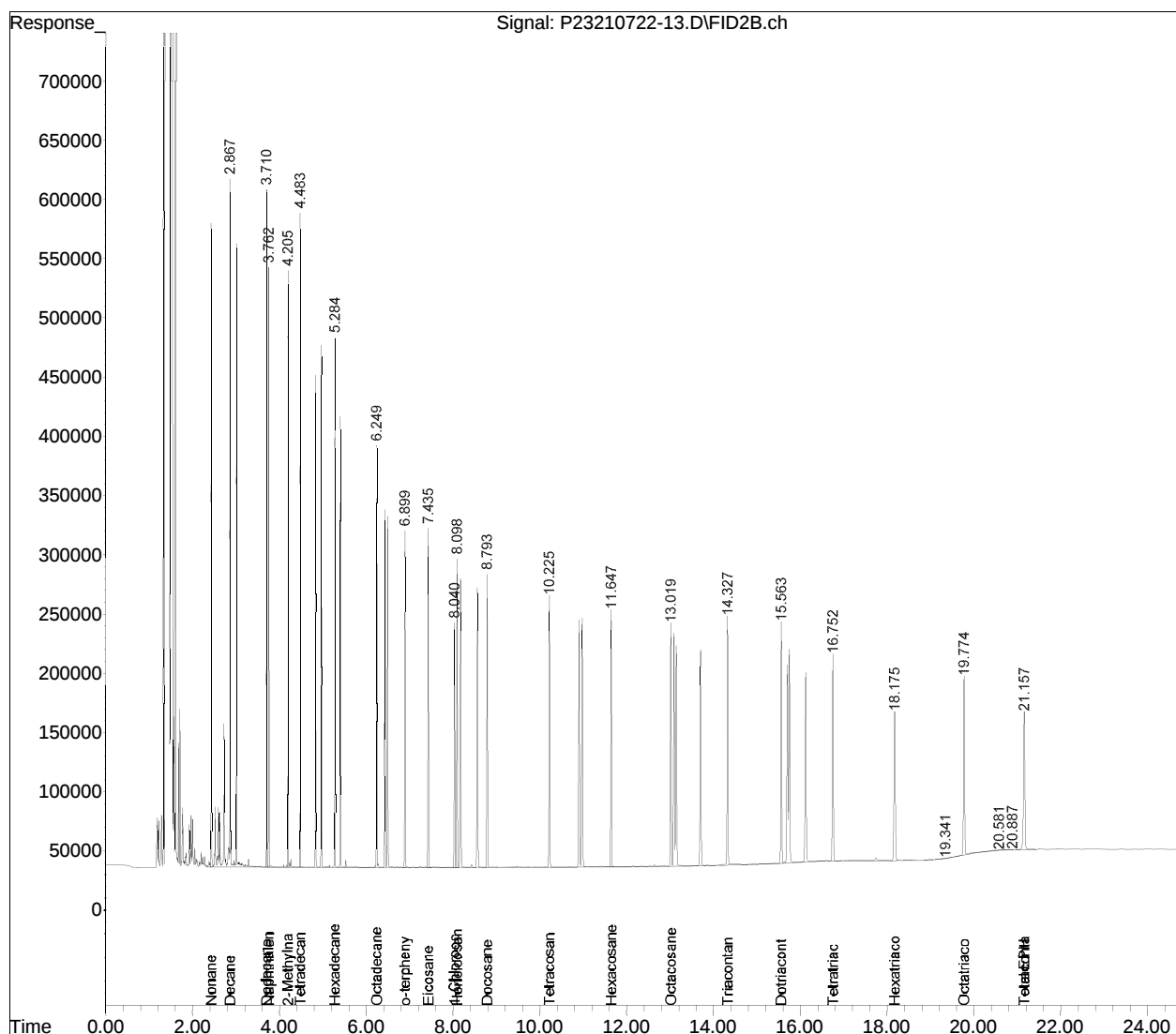
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-13.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 09:16 am
Operator : Petro23b:sc
Sample : WG1526243-2,42,,CT1
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 57 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 10:03:37 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

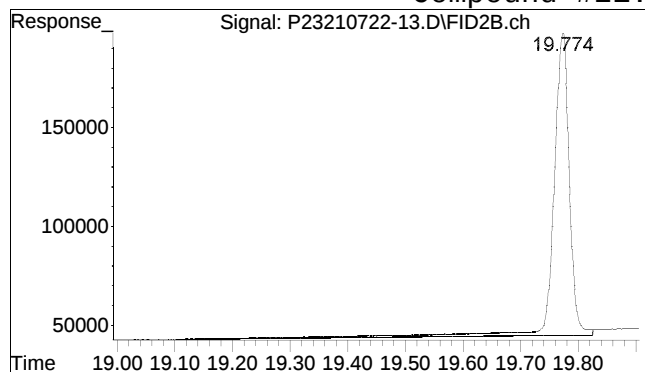
Volume Inj. :
Signal Phase :
Signal Info :



Manual Integration Report

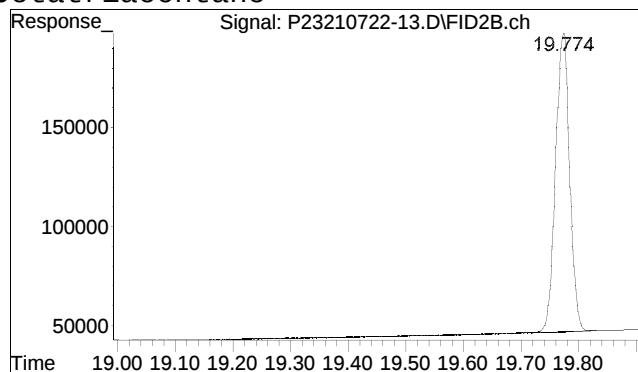
Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
 Data File : P23210722-13.D Operator : Petro23b:sc
 Date Inj'd : 7/22/2021 9:16 am Instrument : Petro 23
 Sample : WG1526243-2,42,,CT1 Quant Date : 7/23/2021 10:01 am

Compound #21: Octatriacontane



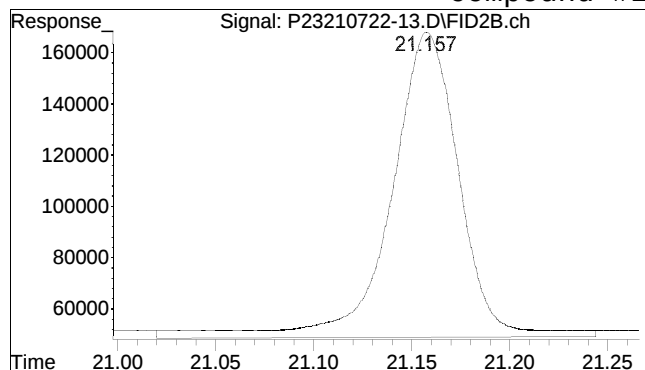
Original Peak Response = 2978810

M4 = Poor automated baseline construction.



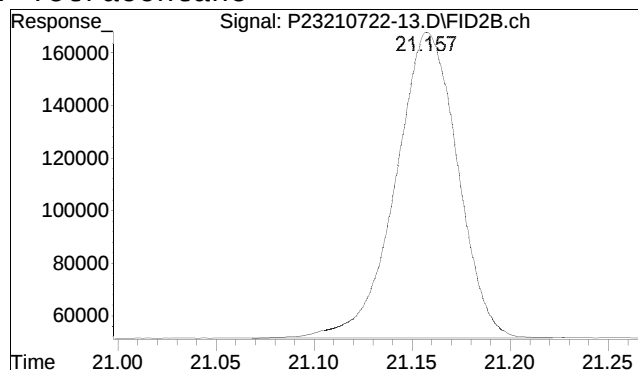
Manual Peak Response = 2562941 M4

Compound #22: Tetracontane



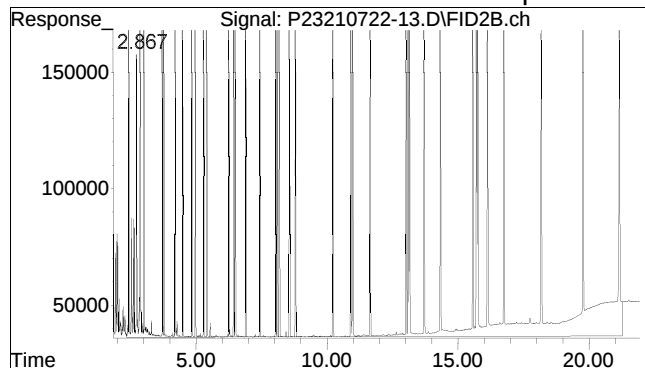
Original Peak Response = 2932081

M4 = Poor automated baseline construction.



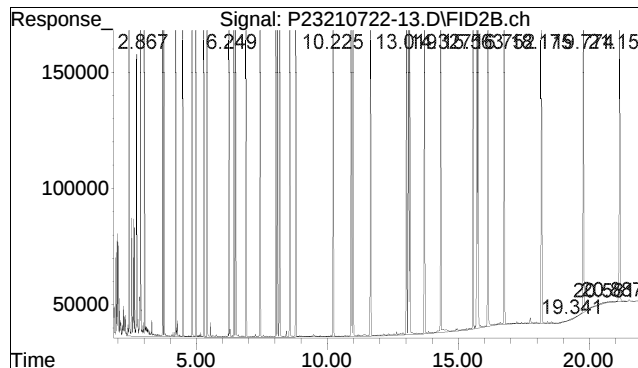
Manual Peak Response = 2570548 M4

Compound #23: Total EPH



Original Peak Response = 142785585

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.



Manual Peak Response = 115460787 M5

LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-15.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 09:46 am
 Operator : Petro23b:sc
 Sample : WG1526243-3,42,,
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 10:05:28 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.899	2962553	75.079	
Spiked Amount 100.000		Recovery	=	75.08%
11) s 1-Chlorooctadecane	8.040	2271824	73.601	
Spiked Amount 100.000		Recovery	=	73.60%
Target Compounds				
1) Nonane	2.434	3579180	103.278	
2) Decane	2.868	3536794	101.519	
3) Dodecane	3.711	3425734	97.946	
4) Naphthalene	3.763	3557039	91.454	
5) 2-Methylnaphthalene	4.205	3457990	91.009	
6) Tetradecane	4.484	3385901	96.005	
7) Hexadecane	5.285	3298316	93.692	
8) Octadecane	6.249	3158865	86.719	
10) Eicosane	7.435	3031900	85.934	
12) Heneicosane	8.098	2975583	84.399	
13) Docosane	8.793	2931511	83.475	
14) Tetracosane	10.225	2884033	82.245	
15) Hexacosane	11.647	2849242	81.607	
16) Octacosane	13.021	2803627	80.510	
17) Triacontane	14.327	2831989	81.711	
18) Dotriacontane	15.563	2841738	82.370	
19) Tetratriacontane	16.752	2771992	81.646	
20) Hexatriacontane	18.175	2759942	83.242	
21) Octatriacontane	19.773	2656610	85.477	M4
22) Tetracontane	21.160	2693342	86.323	
23) H Total EPH	21.160f	118585940	3440.742	M5

(f)=RT Delta > 1/2 Window

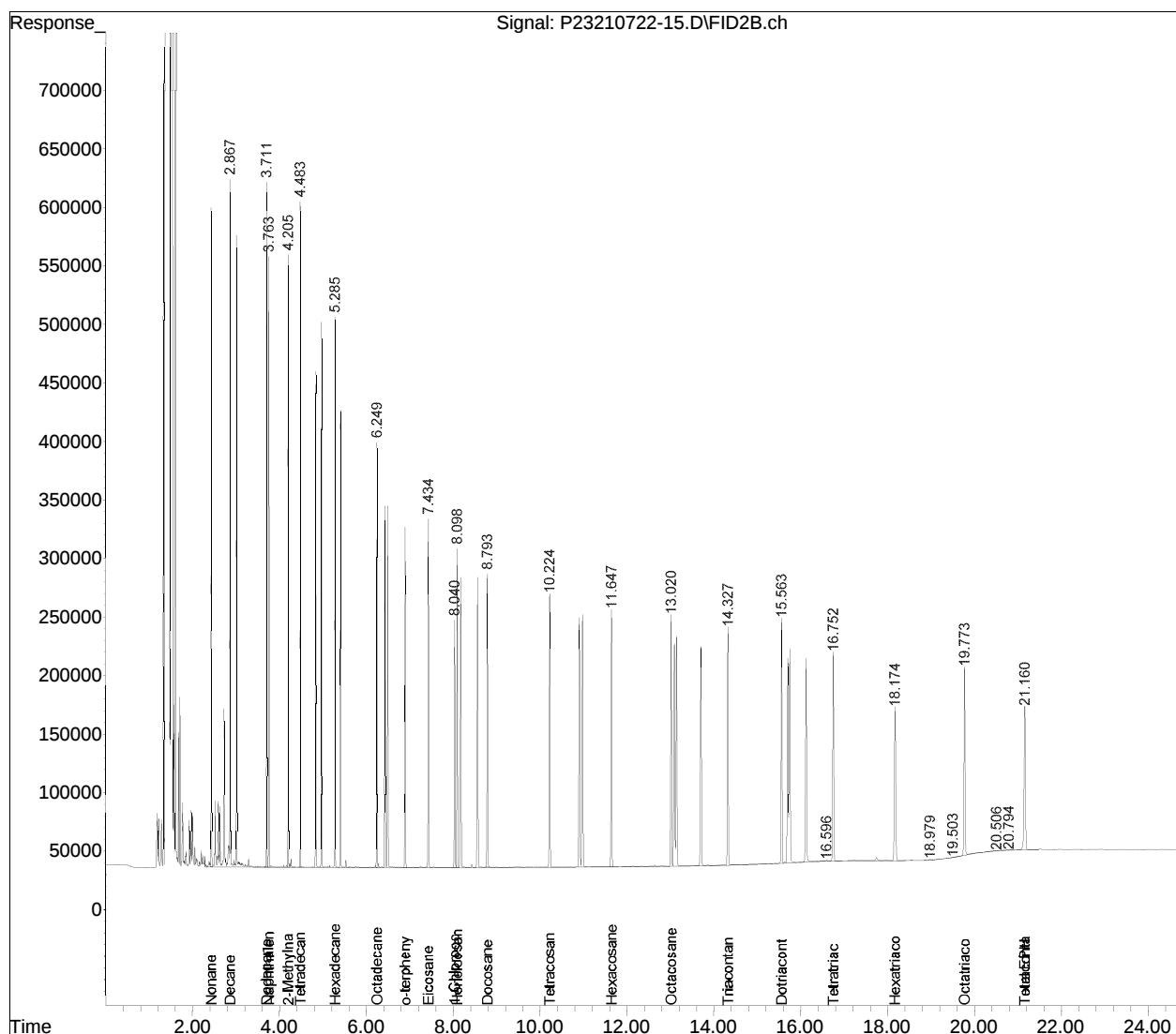
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-15.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 09:46 am
Operator : Petro23b:sc
Sample : WG1526243-3,42,,
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 58 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 10:05:28 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

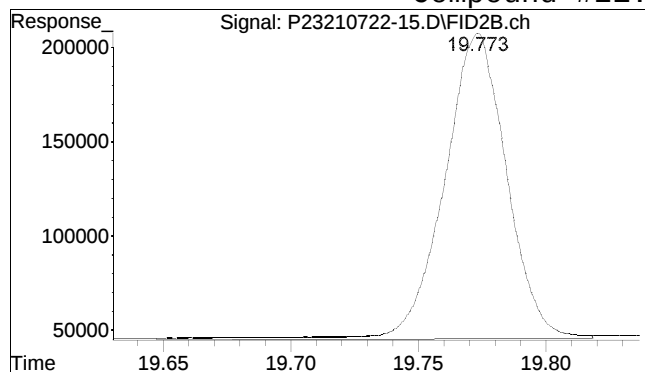
Volume Inj. :
Signal Phase :
Signal Info :



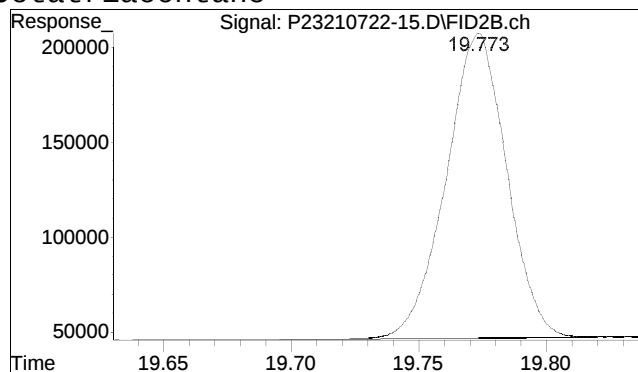
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
 Data File : P23210722-15.D Operator : Petro23b:sc
 Date Inj'd : 7/22/2021 9:46 am Instrument : Petro 23
 Sample : WG1526243-3,42,, Quant Date : 7/23/2021 10:03 am

Compound #21: Octatriacontane



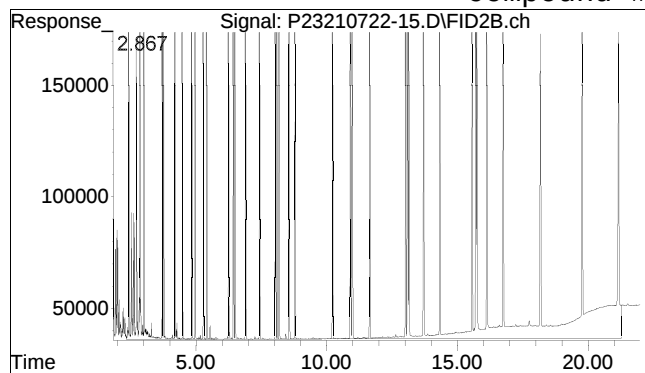
Original Peak Response = 2768385



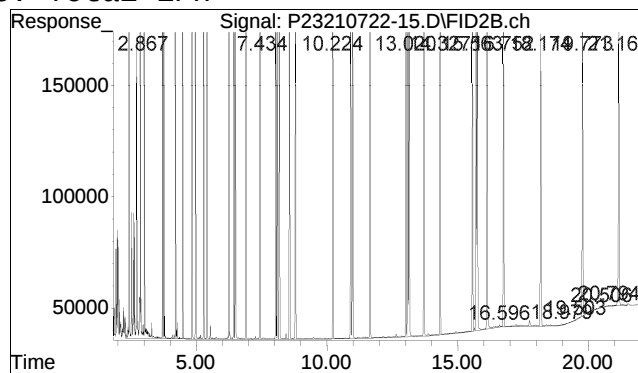
Manual Peak Response = 2656610 M4

M4 = Poor automated baseline construction.

Compound #23: Total EPH



Original Peak Response = 146184478



Manual Peak Response = 118585940 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Matrix Spike Data

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-21.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 11:17 am
 Operator : Petro23b:sc
 Sample : WG1526243-4,42,,
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 10:09:22 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc Units	

System Monitoring Compounds				
9) s o-terphenyl	6.898	2572758	65.201	
Spiked Amount 100.000		Recovery	=	65.20%
11) s 1-Chlorooctadecane	8.039	1957546	63.419	
Spiked Amount 100.000		Recovery	=	63.42%
Target Compounds				
1) Nonane	2.433	3371138	97.275	
2) Decane	2.867	3269386	93.844	
3) Dodecane	3.711	3188968	91.177	
4) Naphthalene	3.763	3315175	85.235	
5) 2-Methylnaphthalene	4.205	3235160	85.144	
6) Tetradecane	4.483	3146748	89.224	
7) Hexadecane	5.284	3058990	86.894	
8) Octadecane	6.249	2915922	80.049	
10) Eicosane	7.434	2791261	79.114	
12) Heneicosane	8.097	2720577	77.166	
13) Docosane	8.792	2678334	76.266	
14) Tetracosane	10.224	2627498	74.929	
15) Hexacosane	11.647	2582612	73.970	
16) Octacosane	13.020	2542543	73.013	
17) Triacontane	14.327	2565934	74.034	
18) Dotriacontane	15.563	2582984	74.870	
19) Tetratriacontane	16.751	2504671	73.772	M4
20) Hexatriacontane	18.174	2513557	75.811	
21) Octatriacontane	19.772	2427285	78.099	M4
22) Tetracontane	21.156	2456402	78.729	M4
23) H Total EPH	21.156f	115063104	3338.527	M5

(f)=RT Delta > 1/2 Window

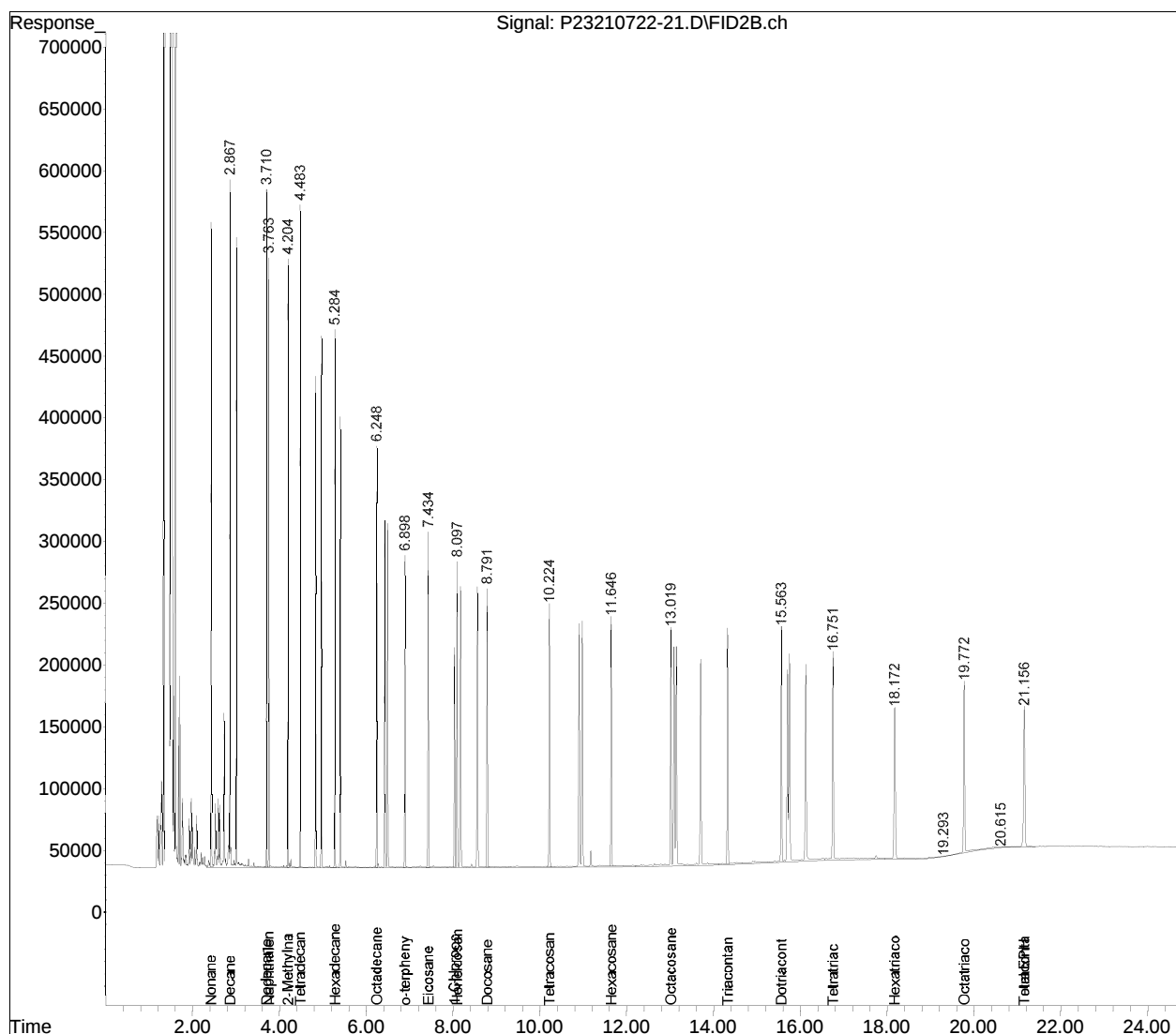
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-21.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 11:17 am
Operator : Petro23b:sc
Sample : WG1526243-4,42,,
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 61 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 10:09:22 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

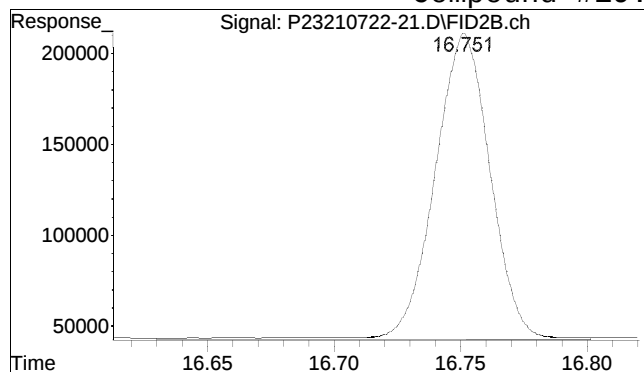
Volume Inj. :
Signal Phase :
Signal Info :



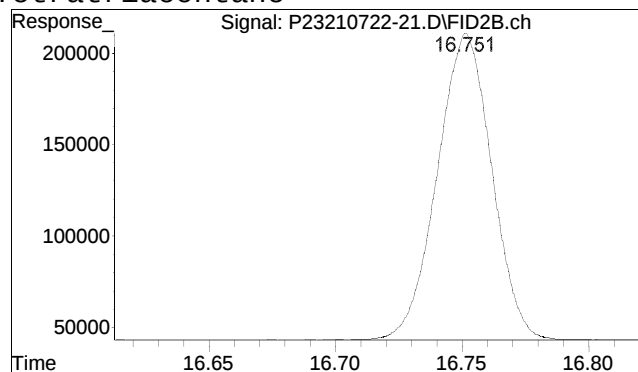
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
Data File : P23210722-21.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 11:17 am Instrument : Petro 23
Sample : WG1526243-4,42,, Quant Date : 7/23/2021 10:08 am

Compound #19: Tetratriacontane



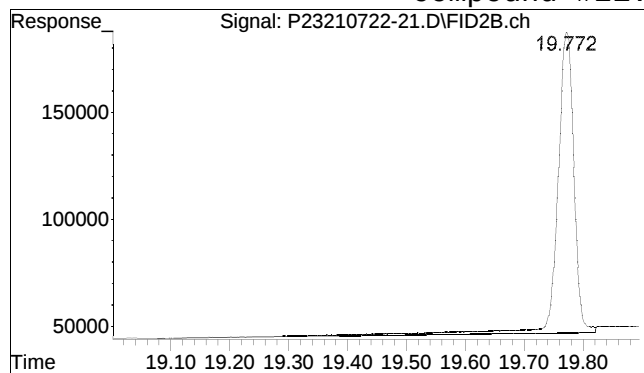
Original Peak Response = 2580770



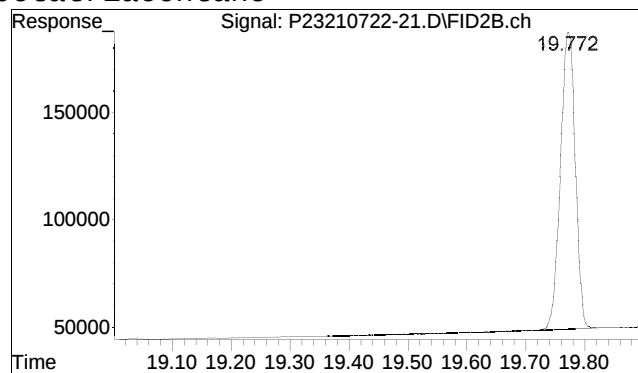
Manual Peak Response = 2504671 M4

M4 = Poor automated baseline construction.

Compound #21: Octatriacontane



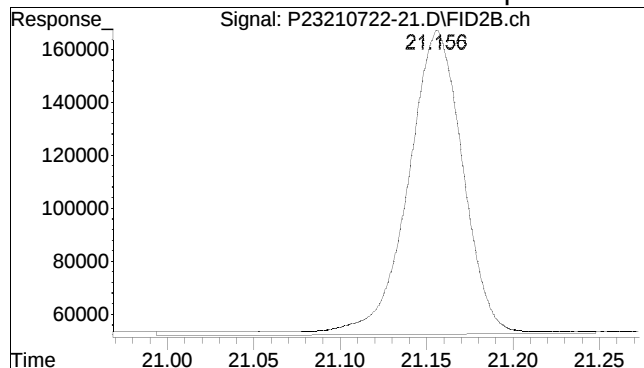
Original Peak Response = 2816586



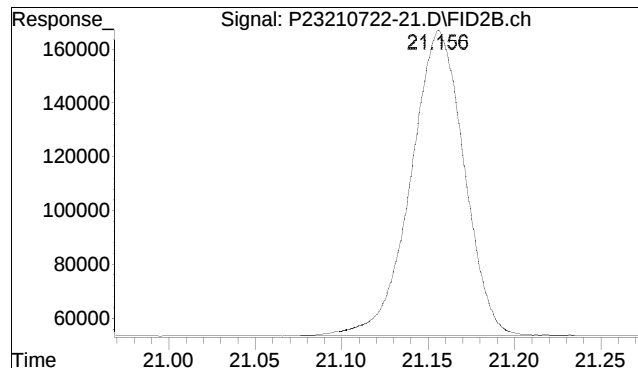
Manual Peak Response = 2427285 M4

M4 = Poor automated baseline construction.

Compound #22: Tetracontane



Original Peak Response = 2630082



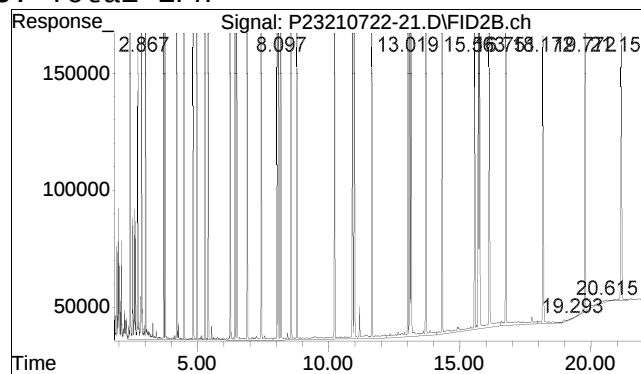
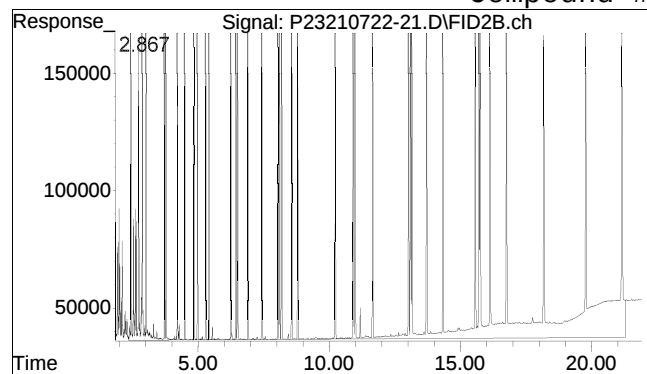
Manual Peak Response = 2456402 M4

M4 = Poor automated baseline construction.

Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
Data File : P23210722-21.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 11:17 am Instrument : Petro 23
Sample : WG1526243-4,42,, Quant Date : 7/23/2021 10:08 am

Compound #23: Total EPH



Original Peak Response = 142457376

Manual Peak Response = 115063104 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
 Data File : P23210722-23.D
 Signal(s) : FID2B.ch
 Acq On : 22 Jul 2021 11:47 am
 Operator : Petro23b:sc
 Sample : WG1526243-5,42,,
 Misc : WG1526606,WG1526243,ICAL17991
 ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
 Quant Time: Jul 23 10:10:04 2021
 Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
 Quant Title : NJ EPH TPH
 QLast Update : Tue Jul 13 06:11:49 2021
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. :
 Signal Phase :
 Signal Info :

Sub List : Default - All compounds listed

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
9) s o-terphenyl	6.899	3001354	76.062	
Spiked Amount 100.000		Recovery =	76.06%	
11) s 1-Chlorooctadecane	8.040	2287950	74.123	
Spiked Amount 100.000		Recovery =	74.12%	
Target Compounds				
1) Nonane	0.000	0	N.D.	d
2) Decane	0.000	0	N.D.	d
3) Dodecane	0.000	0	N.D.	d
4) Naphthalene	0.000	0	N.D.	d
5) 2-Methylnaphthalene	0.000	0	N.D.	d
6) Tetradecane	0.000	0	N.D.	d
7) Hexadecane	0.000	0	N.D.	d
8) Octadecane	0.000	0	N.D.	d
10) Eicosane	0.000	0	N.D.	d
12) Heneicosane	0.000	0	N.D.	d
13) Docosane	0.000	0	N.D.	d
14) Tetracosane	0.000	0	N.D.	d
15) Hexacosane	0.000	0	N.D.	d
16) Octacosane	0.000	0	N.D.	d
17) Triacontane	0.000	0	N.D.	d
18) Dotriacontane	0.000	0	N.D.	d
19) Tetratriacontane	0.000	0	N.D.	d
20) Hexatriacontane	0.000	0	N.D.	d
21) Octatriacontane	0.000	0	N.D.	d
22) Tetracontane	0.000	0	N.D.	d
23) H Total EPH	21.150f	17528728	508.592	M5

(f)=RT Delta > 1/2 Window

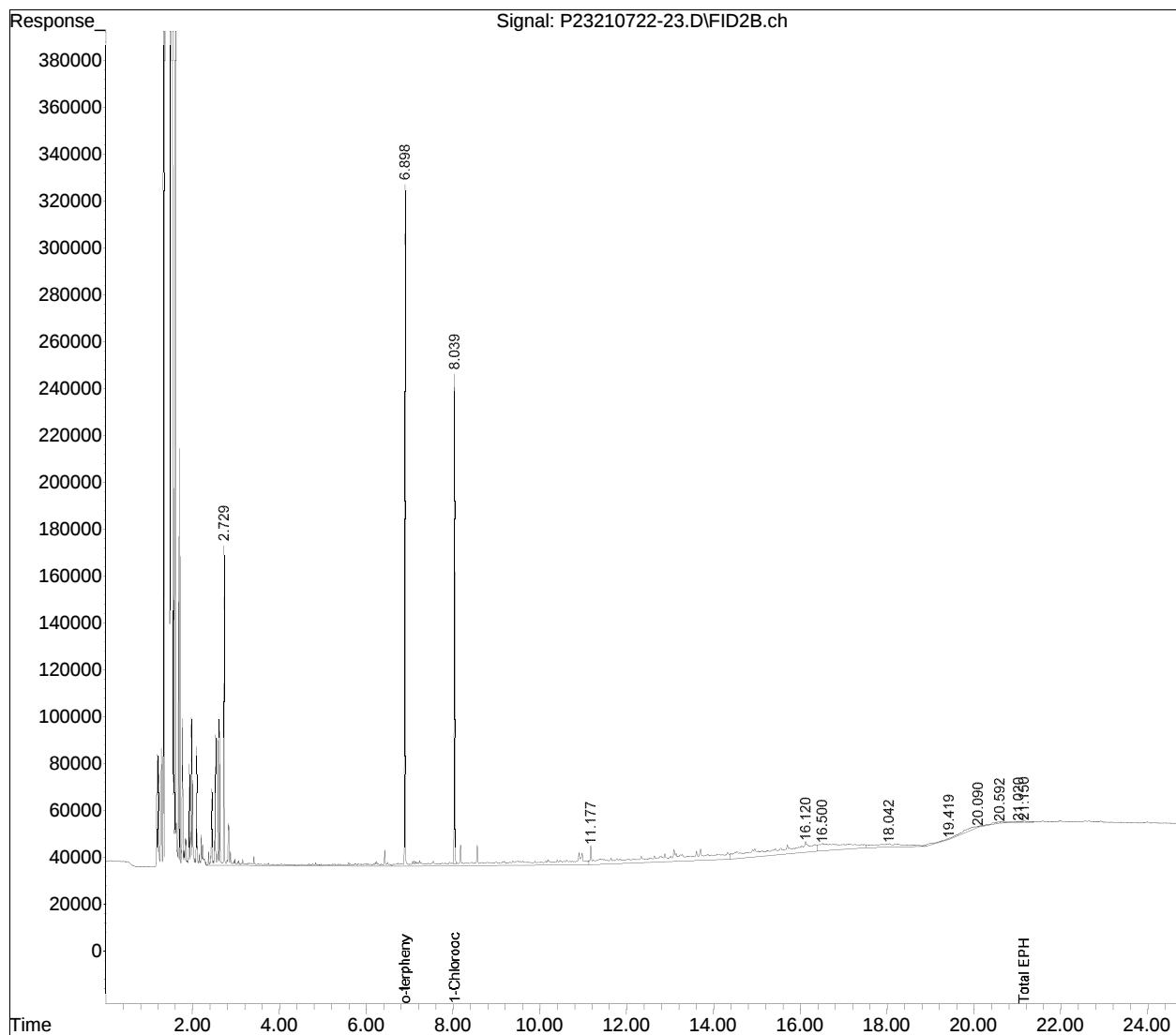
(m)=manual int.

Sub List : Default - All compounds listed Reviewed)

Data Path : I:\PETRO\Petro23\210722.SEC\
Data File : P23210722-23.D
Signal(s) : FID2B.ch
Acq On : 22 Jul 2021 11:47 am
Operator : Petro23b:sc
Sample : WG1526243-5,42,,
Misc : WG1526606,WG1526243,ICAL17991
ALS Vial : 62 Sample Multiplier: 1

Integration File: events.e
Quant Time: Jul 23 10:10:04 2021
Quant Method : I:\PETRO\Petro23\210722.SEC\Aliphatics210521B.M
Quant Title : NJ EPH TPH
QLast Update : Tue Jul 13 06:11:49 2021
Response via : Initial Calibration
Integrator: ChemStation

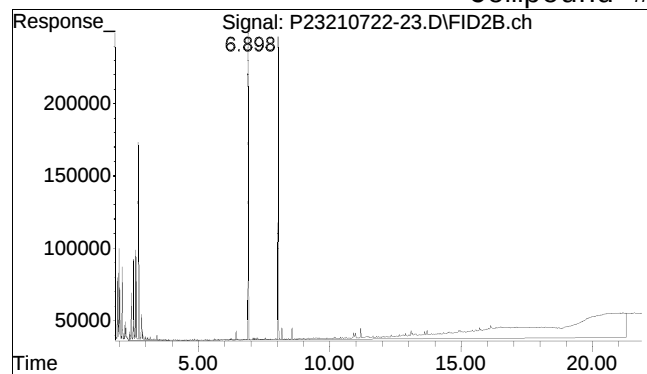
Volume Inj. :
Signal Phase :
Signal Info :



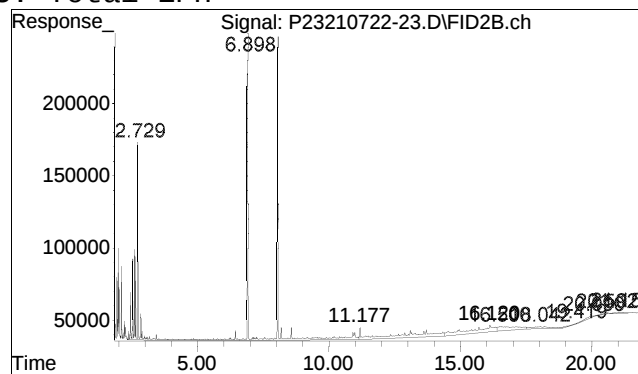
Manual Integration Report

Data Path : I:\PETRO\Petro23\210722.SEQ Method : Aliphatics210521B.M
Data File : P23210722-23.D Operator : Petro23b:sc
Date Inj'd : 7/22/2021 11:47 am Instrument : Petro 23
Sample : WG1526243-5,42,, Quant Date : 7/23/2021 10:09 am

Compound #23: Total EPH



Original Peak Response = 45666313



Manual Peak Response = 17528728 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.

Sample Preparation



ORGANIC ELN REPORT

Workgroup: WG1526243

Prep Method: EPA 3546 Solvent Type: DCM Surrogate Type: NJEPH Spike Type: NJEPH Spike Verify by: TBC / AGK / MKL Lims Spikelot: NJEPH01 Additional Reagents/Std Na2SO40000282563	Conc.Method: S-EVAP/N-EVAP Solvent Type: Hexane Lot #: EB718 Additional Reagents/Std	Cleanup 1 Cleanup Method 1: Cleanup Method 2: Solvent Type: Lot #: Additional Reagents/Std
---	---	---

Sample/ Type	Extraction								Concentration				
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Extract Unit Id	Stop Date/Ti me	Conc Date	Analyst	Final Conc Volume	Final Vol ml	
L2138302-02 SOIL	07/21/21 09:10	Tian- Long Chheou	15.96	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
L2138302-04 SOIL	07/21/21 09:10	Tian- Long Chheou	15.86	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
L2138302-06 SOIL	07/21/21 09:10	Tian- Long Chheou	15.15	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
L2138302-08 SOIL	07/21/21 09:10	Tian- Long Chheou	15.33	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
L2138302-10 SOIL	07/21/21 09:10	Tian- Long Chheou	15.53	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
L2138302-12 SOIL	07/21/21 09:10	Tian- Long Chheou	15.67	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1



ORGANIC ELN REPORT

Workgroup: WG1526243

Sample/ Type	Extraction								Concentration				
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Extract Unit Id	Stop Date/Ti me	Conc Date	Analyst	Final Conc Volume	Final Vol ml	
L2138600-01 SOIL	07/21/21 13:34	Michael Lamb	15.51	51	1		MW9	NA	07/22/21 16:58	Paolo Roffo	1	1	I&H,N# 1
L2138718-01 SOIL	07/21/21 13:34	Michael Lamb	15.98	51	1		MW9	NA	07/22/21 16:58	Paolo Roffo	1	1	I&H,N# 1
L2138850-01 SOIL	07/21/21 13:34	Michael Lamb	15.86	51	1		MW9	NA	07/22/21 16:58	Paolo Roffo	1	1	I&H,N# 1
L2138850-02 SOIL	07/21/21 13:34	Michael Lamb	15.33	51	1		MW9	NA	07/22/21 16:58	Paolo Roffo	1	1	I&H,N# 1
L2138850-03 SOIL	07/21/21 13:49	Michael Lamb	15.57	51	1		MW9	NA	07/22/21 16:12	Paolo Roffo	3	1	I&H,N# 1
L2138850-04 SOIL	07/21/21 13:49	Michael Lamb	15.30	51	1		MW9	NA	07/22/21 16:58	Paolo Roffo	1	1	I&H,N# 1
WG1526243- 1 BLANK	07/21/21 09:10	Tian- Long Chheou	15.15	41	1		MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
WG1526243- 2 LCS	07/21/21 09:10	Tian- Long Chheou	15.43	41	1	1	MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
WG1526243- 3 LCSD	07/21/21 09:10	Tian- Long Chheou	15.23	41	1	1	MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1



ORGANIC ELN REPORT

Workgroup: WG1526243

Sample/ Type	Extraction								Concentration				
	Extract Date	Analyst	Sample Weight g	Balanc e Id	Surr Amt ml	Spike Amt ml	Extract Unit Id	Stop Date/Ti me	Conc Date	Analyst	Final Conc Volume	Final Vol ml	
WG1526243- 4 MS	07/21/21 09:10	Tian- Long Chheou	15.16	41	1	1	MWL2	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
WG1526243- 5 DUP	07/21/21 10:56	Tian- Long Chheou	15.21	41	1		MW7	NA	07/22/21 05:58	Samy Dakkash	1	1	I&H,N# 1
REDONE; DRIED IN MW													

Standards Data

MA EPH ARO LEVEL 2 ICAL STD

5, 42, MA EPH ARO
mg/mL in DCM
4345 Exp: 05/13/21

1 mL } fV = 10 mL
in DCM
Lot # EB256

Conc: 5 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: EPH 4348
JB 05/13/21

MA EPH ARO LEVEL 1 ICAL STD

1, 42, MA EPH ARO
µg/mL in DCM
4347 Exp: 05/13/21

1 mL } fV = 10 mL
in DCM
Lot # EB256

Conc: 1 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: EPH 4349
JB 05/13/21

MA EPH ARO ICV

AccuStandard® 125 Market St, New Haven, CT 06513
www.AccuStandard.com

H-0065
posed DEP(MA) - PAH Mix
10 µg/mL in CH₂Cl₂
219121344
Dec 24, 2029

521-1084
17 comp(s)
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H315 H335
H332 H302
H350 H350
P338 P360
P331 P233
P262 P202
Refer to SDS



Signal
Word **Danger**

31097
o-Terphenyl Standard
Lot# A0166821
Expire: 07/2024 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride

RESTEK

521-1136

31480
MA Fractionation Surrogate Spike Mix
Lot# A0165512
Expire: 09/2026 Store: 10°C or colder
4000 µg/mL each in Hexane

RESTEK

521-1018

100 µL }
10 µL } fV = 10 mL
in DCM
25 µL } Lot # EB256
Conc: 10 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: 4350
JB 05/13/21

MA EPH TPH (CATS) LEVEL 6 ICAL STD

Octadecane Standard
71297
Store: 10°C or colder
each in Methylene Chloride

521-1177

any Standard
166821
Store: 10°C or colder
each in Methylene Chloride

521-1138

Aliphatics Calibration Standard
68421
Store: 25°C nominal
each in Hexane/Carbon Disulfide (80:20)

521-1120

1 mL }
1 mL } fV = 10 mL
in Hexane
5 mL } Lot # EA548

Conc: 1000 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: 4351

JB 05/13/21

To Page No. _____

Date

Invented by:

Date

Recorded by:

From Page No. _____

NJ EPH TPH (CATS) LEVEL 5 ICAL STD

IL6, 412, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

2.5 mL

fu = 5 mL
in Hexane
Lot # EA548

Conc: 500 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4352

JB 05/13/21

NJ EPH TPH (CATS) LEVEL 4 ICAL STD

IL6, 412, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

1.25 mL

fu = 5 mL
in Hexane
Lot # EA548

Conc: 250 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4353

JB 05/13/21

NJ EPH TPH (CATS) LEVEL 3 ICAL STD

IL6, 412, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

500 µL

fu = 5 mL
in Hexane
Lot # EA548

Conc: 100 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4354

JB 05/13/21

NJ EPH TPH (CATS) LEVEL 2 ICAL STD

IL6, 412, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

100 µL

fu = 5 mL
in Hexane
Lot # EA548

Conc: 20 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4355

JB 05/13/21

NJ EPH TPH (CATS) LEVEL 1 ICAL STD

IL6, 412, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

50 µL

fu = 5 mL
in Hexane
Lot # EA548

Conc: 10 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4356

JB 05/13/21

To Page No. _____

Witnessed & Understood by me,

Date

Invented by:

Date

Recorded by:

From Page No. _____

NJ EPH TPH (CATS) ICV

Part #: 51075 Laboratory Use Only - See MSDS
 Lot #: 071720 Exp: 071725 Storage 4 °C
 MA - EPH Surrogate Spike Rev 1.0/1.1
 2 components 521-1111
 2000 µg/mL in acetone 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

0.625 mL

Conc: 250 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4357

JB 05/13/21

Part #: 95708 Laboratory Use Only - See MSDS
 Lot #: 020520 Exp: 020530 Storage 20 °C
 NJ EPH Aliphatic n-Hydrocarbons 521-1152
 18 components CAUTION: Sonicate Before Use
 1000 µg/mL in cyclohexane 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

1.25 mL

fv = 5 mL

in Hexane

Lot # EAS48

DRO SURROGATE

31097
 o-Terphenyl Standard
 Lot# A0166821
 Expire: 07/2024 Store: 10°C or colder
 10000 µg/mL each in Methylene Chloride
 RESTEK 521-1138

15 mL

fv = 500 mL

in Acetone

Lot # EB259

Conc: 300 µg/mL

Prep: 05/17/21

Exp: 11/17/21

Lot #: EPH 4358

JB 05/17/21

DRO SPIKE

AccuStandard® 125 Market St, New Haven, CT 06513
 www.AccuStandard.com
 DRH-009S 1 mL
 CT ETPH Alkane Standard
 1000 µg/mL in Methylene chloride
 Lot: 219091082 15 comp(s)
 Exp: Sep 12, 2029 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY

H315 H336
 H332 H302
 H351 H350
 P338 P360
 P331 P233
 P262 P202
 Refer to SDS

Signal Word **Warning**

10 mL

fv = 100 mL

in Pentane

Lot # 0000256489

Conc: 100 µg/mL

Prep: 05/18/21

Exp: 11/18/21

Lot #: EPH 4359

JB 05/18/21

Part #: 71647 Laboratory Use Only - See MSDS
 Lot #: 011321 Exp: 011331 Storage 20 °C
 n-Tetradetracontane
 CAUTION: Sonicate Before Use
 1000 µg/mL in carbon disulfide 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

10 mL

To Page No. _____

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Date

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Date

MA EPH ARO LEVEL 2 ICAL STD

5, 42, MA EPH ARO
mg/mL in DCM
4345 Exp: 05/13/21

1 mL } fV = 10 mL
in DCM
Lot # EB256

Conc: 5 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: EPH 4348
JB 05/13/21

MA EPH ARO LEVEL 1 ICAL STD

1, 42, MA EPH ARO
µg/mL in DCM
4347 Exp: 05/13/21

1 mL } fV = 10 mL
in DCM
Lot # EB256

Conc: 1 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: EPH 4349
JB 05/13/21

MA EPH ARO ICV

AccuStandard® 125 Market St, New Haven, CT 06513
www.AccuStandard.com

H-0065
posed DEP(MA) - PAH Mix
10 µg/mL in CH₂Cl₂
219121344
Dec 24, 2029

1 mL
521-1084
17 comp(s)
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H315 H335
H332 H302
H350 H350
P338 P360
P331 P233
P262 P202
Refer to SDS



Signal
Word **Danger**

31097
o-Terphenyl Standard
Lot# A0166821
Expire: 07/2024 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride

RESTEK

521-1136

31480
MA Fractionation Surrogate Spike Mix
Lot# A0165512
Expire: 09/2026 Store: 10°C or colder
4000 µg/mL each in Hexane

RESTEK

521-1018

100 µL }
10 µL } fV = 10 mL
in DCM
25 µL } Lot # EB256
Conc: 10 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: 4350
JB 05/13/21

MA EPH TPH (CATS) LEVEL 6 ICAL STD

Octadecane Standard
171297
Store: 10°C or colder
each in Methylene Chloride

521-1177

anyl Standard
166821
Store: 10°C or colder
each in Methylene Chloride

521-1138

liphetics Calibration Standard
68421
Store: 25°C nominal
each in Hexane/Carbon Disulfide (80:20)

521-1120

1 mL }
1 mL } fV = 10 mL
in Hexane
5 mL } Lot # EA548

Conc: 1000 µg/mL
Prep: 05/13/21
Exp: 11/13/21
Lot #: 4351
JB 05/13/21

To Page No. _____

Date

Invented by:

Date

Recorded by:

From Page No. _____

IL6, 42, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

2.5 mL

NJ EPH TPH (CATS) LEVEL 5 ICAL STD

fu = 5 mL
in Hexane
Lot # EA548

Conc: 500 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4352

JB 05/13/21

IL6, 42, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

1.25 mL

NJ EPH TPH (CATS) LEVEL 4 ICAL STD

fu = 5 mL
in Hexane
Lot # EA548

Conc: 250 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4353

JB 05/13/21

IL6, 42, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

500 µL

NJ EPH TPH (CATS) LEVEL 3 ICAL STD

fu = 5 mL
in Hexane
Lot # EA548

Conc: 100 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4354

JB 05/13/21

IL6, 42, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

100 µL

NJ EPH TPH (CATS) LEVEL 2 ICAL STD

fu = 5 mL
in Hexane
Lot # EA548

Conc: 20 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4355

JB 05/13/21

IL6, 42, NJ EPH CATS
1000 µg/mL in Hexane
EPH 4351 Exp: 11/13/21

50 µL

NJ EPH TPH (CATS) LEVEL 1 ICAL STD

fu = 5 mL
in Hexane
Lot # EA548

Conc: 10 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4356

JB 05/13/21

To Page No. _____

Witnessed & Understood by me,

Date

Invented by:

Date

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From Page No. _____

NJ EPH TPH (CATS) ICV

Part #: 51075 Laboratory Use Only - See MSDS
 Lot #: 071720 Exp: 071725 Storage 4 °C
 MA - EPH Surrogate Spike Rev 1.0/1.1
 2 components 521-1111
 2000 µg/mL in acetone 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

0.625 mL

Conc: 250 µg/mL

Prep: 05/13/21

Exp: 11/13/21

Lot #: EPH 4357

JB 05/13/21

Part #: 95708 Laboratory Use Only - See MSDS
 Lot #: 020520 Exp: 020530 Storage 20 °C
 NJ EPH Aliphatic n-Hydrocarbons 521-1152
 18 components CAUTION: Sonicate Before Use
 1000 µg/mL in cyclohexane 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

1.25 mL

fv = 5 mL

in Hexane

Lot # EAS48

DRO SURROGATE

31097
 o-Terphenyl Standard
 Lot# A0166821
 Expire: 07/2024 Store: 10°C or colder
 10000 µg/mL each in Methylene Chloride
 RESTEK 521-1138

15 mL

fv = 500 mL

in Acetone

Lot # EB259

Conc: 300 µg/mL

Prep: 05/17/21

Exp: 11/17/21

Lot #: EPH 4358

JB 05/17/21

DRO SPIKE

AccuStandard® 125 Market St, New Haven, CT 06513
 www.AccuStandard.com

DRH-009S 1 mL
 CT ETPH Alkane Standard
 1000 µg/mL in Methylene chloride
 Lot: 219091082 15 comp(s)
 Exp: Sep 12, 2029 Storage: Ambient (>5 °C)/Sonicate

FOR LABORATORY USE ONLY

H315 H336
 H332 H302
 H351 H350
 P338 P360
 P331 P233
 P262 P202
 Refer to SDS

Signal Word **Warning**

10 mL

fv = 100 mL

in Pentane

Lot # 0000256489

Conc: 100 µg/mL

Prep: 05/18/21

Exp: 11/18/21

Lot #: EPH 4359

JB 05/18/21

Part #: 71647 Laboratory Use Only - See MSDS
 Lot #: 011321 Exp: 011331 Storage 20 °C
 n-Tetradetracontane
 CAUTION: Sonicate Before Use
 1000 µg/mL in carbon disulfide 1 mL
 ABSOLUTE STANDARDS, INC. • 800-368-1131

10 mL

To Page No. _____

Date

Invented by:

Recorded by:

Date

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From Page No. _____

MA EPH ALI Working Standard

conc: 200 µg/mL

Prep: 7/14/21

exp: 1/14/22

Lot #: EPH4427

QM 7/14/21

FV: 20 mL in Hexane
EB483

AccuStandard 125 Market St, New Haven, CT 06513
www.AccuStandard.com

APP-9-133-20X 1 mL
2-Methylnaphthalene in Dichloromethane
2.0 mg/mL in Dichloromethane
Lot: 220091171
Exp: Sep 17, 2030
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H315 H335
H332 H362
H351 H360
P331 P333
P332 P333
P332 P333
Refer to SDS

Signal Word **Warning**

AccuStandard 125 Market St, New Haven, CT 06513
www.AccuStandard.com

DRH-MA-FSS-50X 1 mL
Fractionation Surrogate Spike Mix
2.0 mg/mL in Hexane
Lot: 217101396
Exp: Nov 06, 2027
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H304 H335
H336 H361
H315 H335
H332 H362
H351 H360
P331 P333
P332 P333
Refer to SDS

Signal Word **Danger**

AccuStandard 125 Market St, New Haven, CT 06513
www.AccuStandard.com

M-502-40-10X 1 mL
Naphthalene
2.0 mg/mL in MeOH
Lot: 217111009
Exp: Nov 01, 2027
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY

H304 H335
H336 H361
H315 H335
H332 H362
H351 H360
H350 P333
Refer to SDS

Signal Word **Danger**

Part #: 93459 Laboratory Use Only - See MSDS
Lot #: 102020 Exp: 102030 Storage 20 °C
MA - EPH n-Hydrocarbon Standard
14 components CAUTION: Sonicate Before Use
2000 µg/mL in hexane 5 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

Agilent Technologies

1 Chlorooctadecane Standard 1 mL
Item: IST-470-1
Lot: 0006546480
Expires: 31-Aug 2024
Full safety on outer box Contains dichloromethane

MA EPH ALI CCAL

conc: 10 µg/mL

Prep: 7/14/21

exp: 1/14/22

Lot #: EPH4428

QM 7/14/21

MA EPH ALI Working Std.

200 µg/mL in Hexane

Prep 7/14/21 exp 1/14/22

EPH4427

2.5 mL

FV: 50 mL in Hexane

EB483

30540
NUEPH Aliphatics Calibration Standard
Lot# A0172037
Expire: 09/2028 Store: 25°C nominal
2000 µg/mL each in Hexane/Carbon Dioxide (80:20)

RESTEK

31098
1-Chlorooctadecane Standard
Lot# A0171297
Expire: 09/2028 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride

RESTEK

31097
o-Terphenyl Standard
Lot# A0170836
Expire: 10/2024 Store: 10°C or colder
0000 µg/mL each in Methylene Chloride

RESTEK

NUEPH-TPH CCAL

conc: 250 µg/mL

Prep: 7/14/21

exp: 1/14/22

Lot #: EPH4429

QM 7/14/21

5 mL

FV: 40 mL in Hexane

EB483

1 mL

1 mL

Date

Invented by:

Recorded by:

To Page No. _____

Date

Project No. _____
Book No. _____

109

Confidential

TITLE _____
From Page No. _____

MA EPH SPIKE

Part #: 93459 Laboratory Use Only - See MSDS
Lot #: 102020 Exp: 102030 Storage 20 °C
MA - EPH n-Hydrocarbon Standard
14 components CAUTION: Sonicate Before Use
2000 ug/mL in hexane S 21-1235 5 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

Part #: 50003 Laboratory Use Only - See MSDS
Lot #: 021220 Exp: 021225 Storage 4 °C
MA - EPH Aromatic Hydrocarbons
17 components S 10444
2000 ug/mL in methylene chloride 5 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

} 5 mL
}
} 5 mL

FV: 100 mL in
Pentane
lot # 0000 256489

conc: 100 ug/mL
prep: 7/2/2021
exp: 01/2/2022
lot #: EPH 4416
AG 7/2/2021

NJEPH - TPH SPIKE

Part #: 95709 Laboratory Use Only - See MSDS
Lot #: 060420 Exp: 060425 Storage 4 °C
NJ EPH Aromatic Hydrocarbons
18 components S 21-1238
2000 ug/mL in methylene chloride 1 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

Part #: 95708 Laboratory Use Only - See MSDS
Lot #: 020520 Exp: 020530 Storage 20 °C
NJ EPH Aliphatic n-Hydrocarbons
18 components CAUTION: Sonicate Before Use
1000 ug/mL in cyclohexane S 21-1152 1 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

} 5 mL
}
} 10 mL

FV: 100 mL in
Pentane
lot #: 0000 256489

conc: 100 ug/mL
prep: 7/2/2021
exp: 01/2/2021
lot #: EPH 4417

AG 7/2/2021

PETRO CCAL

N-nonane for CCV/ICV
2000 ug/mL in DCM
Exp 12/18/21 EPH 4348
} 2.5 mL

Agilent Technologies
n-Tetradecane Standard
Item: IST-480-1 S 21-1169 1 mL
Lot: 0006496041
Expires: 30-Nov-2023
Full safety on outer box
Contains dichloromethane

} 2.5 mL

Part #: 71647 Laboratory Use Only - See MSDS
Lot #: 011321 Exp: 011331 Storage 20 °C
n-Tetradecane
CAUTION: Sonicate Before Use
1000 ug/mL in carbon disulfide 1 mL
ABSOLUTE STANDARDS, INC. • 800-368-1131

} 5 mL

conc: 100 ug/mL
prep: 7/5/21
exp: 1/2/22
lot #: EPH 4418
js 7/5/21
FV = 100 ug/mL
in DCM
lot # E3682

557534
Custom Florida TRPH Standard (1000 ppm)
Lot# A0171141
Expires: 04/2024 Store: 10°C or colder
1000 ug/mL each in Hexane
S 21-1152 8 mL
RESTEK
Contains dichloromethane

} 5 mL

To Page No. _____

Date

Invented by:

Date

Recorded by:

From Page No. _____

MA EPH Surrogate

Part #: 51075 Laboratory Use Only - See MSDS
 Lot #: 071720 Exp: 071725 Storage 4 °C
 MA - EPH Surrogate Spike Rev 1.0/1.1
 2 components 521-1260 1 mL
 2000 µg/mL in acetone
 ABSOLUTE STANDARDS, INC. • 800-368-1131

10mL

FV: 500 mL in
Acetone

lot #: EB697

conc: 40 µg/mL

Prep: 7/6/21

exp: 1/6/22

lot #: EPH4419
SC 7/8

AG 7/6/21

31097
o-Terphenyl Standard
Lot# A0170836
Expire: 10/2024 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride
RESTEK
521-1252

DRO Surrogate

15mL

FV: 500 mL in
Acetone
lot #: EB697

conc: 30 µg/mL

prep: 7/6/21

exp: 1/6/22

Lot #: EPH4420

QM 7/6/21

NJEPH-TPH Surrogate

31098
1-Chlorooctadecane Standard
Lot# A0171297
Expire: 09/2028 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride
RESTEK
521-1229
and 521-1177

5mL

FV: 500 mL in
Acetone

lot #: EB697

EB697

QM 7/7/21

conc: 100 µg/mL

prep: 7/7/21

exp: 1/7/21

Lot #: EPH4421

QM 7/7/21

31097
o-Terphenyl Standard
Lot# A0170836
Expire: 10/2024 Store: 10°C or colder
10000 µg/mL each in Methylene Chloride
RESTEK
521-1252

5mL

MA FRAC Check

Agilent Technologies
Surrogate Spiking Standard 1 mL
Item: ISM-580-1
Lot: 0006540661
Expires: 30-Jun 2023
Full safety on outer box
510382
Contains acetone

1mL

Agilent Technologies
Aromatic Hydrocarbon Standard 1 mL
Item: SMA-300-1
Lot: 0006596364
Expires: 30-Apr 2024
Full safety on outer box
521-1117
DANGER
Contains benzene, toluene, xylene, and ethylbenzene

1mL

FV: 50 mL in Hexane

Lot #: EB697

Agilent Technologies
Aliphatic Hydrocarbon Standard 1 mL
Item: SMA-310-1
Lot: CS-4191
Expires: 30-Sep 2021
Full safety on outer box
501237
DANGER
Contains n-hexane, dodecane, nonane, decane

1mL

conc: 40 µg/mL

Prep: 7/8/21

exp: 9/30/21

Lot #: EPH4422

QM 7/8/21

To Page No. _____

W by me,

Date

Invented by:

Date

Recorded by:

Wet Chemistry

Total Solids / Percent Moisture Analysis

Results Summary

Form 1

WETCHEM

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab ID	: L2138850-01	Date Collected	: 07/20/21 14:05
Client ID	: SS-1A	Date Received	: 07/20/21
Sample Location	: 1004 RT 206	Date Analyzed	: 07/21/21 12:29
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 121,2540G	Analyst	: RI
Lab File ID	: WG1526310.pdf	Instrument ID	: BALANCE#53
Sample Amount	:	%Solids	: 71
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	%			Qualifier
		Results	RL	MDL	
NONE	Solids, Total	70.9	0.100	NA	

Form 1

WETCHEM

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab ID	: L2138850-02	Date Collected	: 07/20/21 14:10
Client ID	: SS-1B	Date Received	: 07/20/21
Sample Location	: 1004 RT 206	Date Analyzed	: 07/21/21 12:29
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 121,2540G	Analyst	: RI
Lab File ID	: WG1526310.pdf	Instrument ID	: BALANCE#53
Sample Amount	:	%Solids	: 76
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	%			Qualifier
		Results	RL	MDL	
NONE	Solids, Total	75.6	0.100	NA	

Form 1

WETCHEM

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab ID	: L2138850-03	Date Collected	: 07/20/21 14:20
Client ID	: SS-2A	Date Received	: 07/20/21
Sample Location	: 1004 RT 206	Date Analyzed	: 07/21/21 12:29
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 121,2540G	Analyst	: RI
Lab File ID	: WG1526310.pdf	Instrument ID	: BALANCE#53
Sample Amount	:	%Solids	: 76
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	%			Qualifier
		Results	RL	MDL	
NONE	Solids, Total	75.5	0.100	NA	

Form 1

WETCHEM

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab ID	: L2138850-04	Date Collected	: 07/20/21 14:30
Client ID	: SS-2B	Date Received	: 07/20/21
Sample Location	: 1004 RT 206	Date Analyzed	: 07/21/21 12:29
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 121,2540G	Analyst	: RI
Lab File ID	: WG1526310.pdf	Instrument ID	: BALANCE#53
Sample Amount	:	%Solids	: 77
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	%			Qualifier
		Results	RL	MDL	
NONE	Solids, Total	76.9	0.100	NA	

Form 1

WETCHEM

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Lab ID	: WG1526310-1	Date Collected	: 07/20/21 14:05
Client ID	: SS-1ADUP	Date Received	: 07/20/21
Sample Location	:	Date Analyzed	: 07/21/21 12:29
Sample Matrix	: SOIL	Dilution Factor	: 1
Analytical Method	: 121,2540G	Analyst	: RI
Lab File ID	: WG1526310.pdf	Instrument ID	: BALANCE#53
Sample Amount	:	%Solids	: 71
Digestion Method	:	Date Digested	:

CAS NO.	Parameter	%			Qualifier
		Results	RL	MDL	
NONE	Solids, Total	71.2	0.100	NA	



Duplicate Sample Results Summary

Form 6 Lab Duplicates

Client	: Environmental Strategies and Applic	Lab Number	: L2138850
Project Name	: X4259	Project Number	: X4259
Client Sample ID	: SS-1A	Matrix	: SOIL
Lab Sample ID	: L2138850-01	Analysis Date	: 07/21/21 12:29
Dup Sample ID	: WG1526310-1	DUP Analysis Date	: 07/21/21 12:29

Parameter	Sample Concentration (%)	Duplicate Concentration (%)	RPD	RPD Limit
Solids, Total	70.9	71.2	0	20