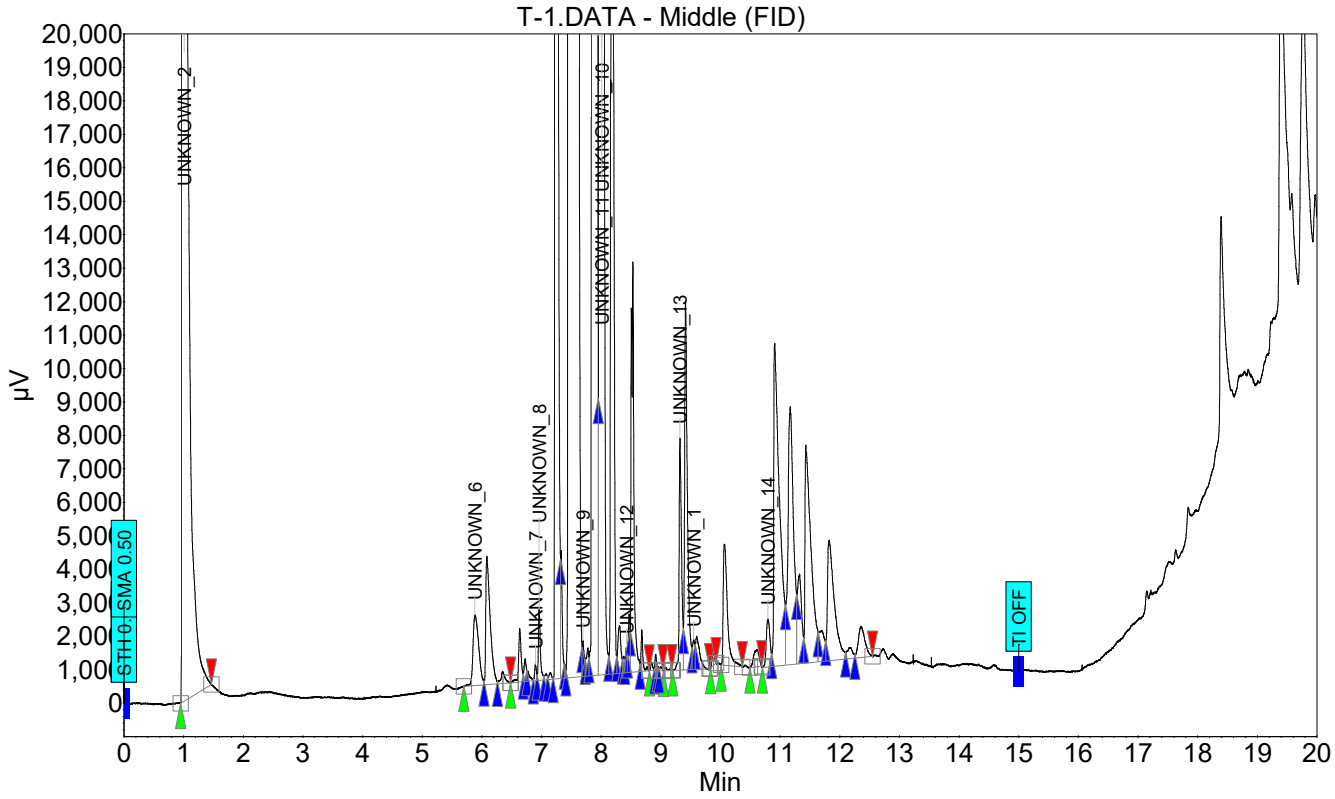
Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.



CHROMATOGRAM METHOD REPORT :

Control method :

Scion/Bruker/Varian 400-GC Series (Exclu

Autosampler (8410)

Autosampler	ENABLED
First injector used	Position 2
Syringe volume	10 uL
Advance tray	NO
Clean between injections	NO
Use injection delay	NO
Delay between injections	1.0 min
Injection mode	Std (Split/Splitless)
Sample penetration depth	90 %
Solvent penetration depth	90 %

Abort clean

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Vial	I
Volume	5.0 uL
Strokes	1
Drawup speed	5.0 uL/s

Clean mode

Pre-injection solvent flushes	3
Pre-injection sample flushes	0
Post-injection solvent flushes	5
Clean solvent source	I

Injectors

Front (PWOC)

EFC 23 - Flow program	Rate (mL/min/min)	Step (mL/min)	Time (min)
	Initial	10.0	0.00
		Total time	0.00

EFC 23

Enabled	OFF

Heat-only zone 1

Heater	OFF
Setpoint	50 °C

Middle (S/SL)

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Split event table	Time (min)	Split state	Split ratio
	Initial	ON	25

EFC 25

Enabled	ON

Heat-only zone 2

Heater	ON
Setpoint	230 °C

Column oven

Stabilization time	0.50 min

Column oven zone

Heater	ON

Temperature program	Rate (°C/min)	Step (°C)	Time (min)
	Initial	100	4.00
	25.0	200	8.00
	20.0	250	5.00
		Total time	23.50

Valve oven

Rear (Small valve oven)

Heat-only zone 3

Heater	OFF
Setpoint	50 °C

Columns

Front

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Carrier gas	Helium
Length	15.00 m
Inside diameter	200 um
Type	WCOT

Middle

Carrier gas	Helium
Length	30.00 m
Inside diameter	320 um
Type	PLOT

Pressure mode	Constant flow
Column flow	2.20 mL/min
Pressure pulse	DISABLED

Detectors

Heat-only zone 4

Heater	OFF
Setpoint	50 °C

Front (TCD)

Electronics	OFF
Time constant	Fast
Data rate	10 Hz

Filament temp. limit	390 °C
Filament temperature	50 °C

TCD event table	Time (min)	Range	Autozero	Polarity
	Initial	0.05	YES	POSITIVE

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

EFC 14

Enabled	OFF
Make-up (Helium) flow	25 mL/min
Reference (Helium) flow	30.0 mL/min

Heat-only zone 5

Heater	ON
Setpoint	250 °C

Middle (FID)

Electronics	ON
Time constant	Fast
Data rate	10 Hz

FID event table	Time (min)	Range	Autozero
	Initial	12	YES

EFC 11

Enabled	ON
Make-up (Nitrogen) flow	28 mL/min
Combustion (H2) flow	30.0 mL/min
Combustion (Air) flow	300.0 mL/min

Ouput ports

Front

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Front	0

Middle

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Middle	0

Rear

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Rear	0

Valves

Valve event table	Time (min)	Gas Sample Valve
	Initial	Fill

Miscellaneous

Start automatically when ready	NO

Acquisition :
Run Name : T-1
Run Id. : -1
Run Time : 24.00

Integration method :
Reduce Noise : Yes
Spike Parameter : 1
Use Relative Threshold ? : Yes
Peak saturation level : min = 0 max = 0

Integration events :

Active	Time	Event	ON	Value
Yes	0.00	Set Peak Width		0.5
Yes	0.00	Set Threshold		0.05
Yes	0.00	Set Minimal Area		0.5
Yes	15.00	Turn Integration	OFF	

Manual actions :

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Manual integration action count : 26
Action #1 : 20/10/2025 04:02:22 p. m. : SPLIT peak # 3 at 6.26
Action #2 : 20/10/2025 04:02:25 p. m. : SPLIT peak # 5 at 6.75
Action #3 : 20/10/2025 04:02:27 p. m. : SPLIT peak # 6 at 6.93
Action #4 : 20/10/2025 04:02:29 p. m. : SPLIT peak # 26 at 7.04
Action #5 : 20/10/2025 04:02:31 p. m. : SPLIT peak # 27 at 7.11
Action #6 : 20/10/2025 04:02:33 p. m. : SPLIT peak # 7 at 7.38
Action #7 : 20/10/2025 04:02:37 p. m. : SPLIT peak # 8 at 7.68
Action #8 : 20/10/2025 04:02:39 p. m. : SPLIT peak # 9 at 7.80
Action #9 : 20/10/2025 04:02:41 p. m. : SPLIT peak # 7 at 7.32
Action #10 : 20/10/2025 04:02:50 p. m. : SPLIT peak # 12 at 8.36
Action #11 : 20/10/2025 04:03:02 p. m. : SPLIT peak # 13 at 8.44
Action #12 : 20/10/2025 04:03:04 p. m. : SPLIT peak # 34 at 8.49
Action #13 : 20/10/2025 04:03:13 p. m. : ADD peak between t=8.810 and t=9.187
Action #14 : 20/10/2025 04:03:22 p. m. : MOVE stop baseline # 7 from t=9.187 y=980.461 to t=9.037 y=983.381
Action #15 : 20/10/2025 04:03:25 p. m. : MOVE stop peak # 36 from t=9.187 to t=9.035
Action #16 : 20/10/2025 04:03:30 p. m. : ADD peak between t=9.045 and t=9.185
Action #17 : 20/10/2025 04:03:37 p. m. : SPLIT peak # 36 at 8.89
Action #18 : 20/10/2025 04:03:40 p. m. : SPLIT peak # 38 at 8.94
Action #19 : 20/10/2025 04:03:42 p. m. : SPLIT peak # 39 at 8.97
Action #20 : 20/10/2025 04:03:44 p. m. : SPLIT peak # 15 at 9.38
Action #21 : 20/10/2025 04:03:48 p. m. : SPLIT peak # 16 at 9.57
Action #22 : 20/10/2025 04:03:51 p. m. : ADD peak between t=9.833 and t=9.923
Action #23 : 20/10/2025 04:04:02 p. m. : ADD peak between t=10.493 and t=10.690
Action #24 : 20/10/2025 04:04:11 p. m. : SPLIT peak # 20 at 11.28
Action #25 : 20/10/2025 04:04:14 p. m. : SPLIT peak # 21 at 11.64
Action #26 : 20/10/2025 04:04:22 p. m. : SPLIT peak # 22 at 12.10

Peak Identification table :

Peak Name	RT [min]	Abs.Window[min]	Window %	Ref?	Mode
UNKNOWN_2	1.14	0.20	0.00		Nearest
heptano	1.48	0.20	0.00		Nearest
UNKNOWN_4	2.11	0.20	0.00		Nearest
UNKNOWN_5	4.10	0.20	0.00		Nearest
UNKNOWN_6	5.86	0.20	0.00		Nearest
UNKNOWN_7	6.93	0.20	0.00		Nearest
UNKNOWN_8	6.96	0.20	0.00		Nearest
UNKNOWN_9	7.71	0.20	0.00		Nearest
UNKNOWN_10	7.84	0.20	0.00		Nearest
UNKNOWN_11	8.04	0.20	0.00		Nearest
UNKNOWN_12	8.41	0.20	0.00		Nearest
UNKNOWN_13	9.32	0.20	0.00		Nearest
UNKNOWN_1	9.54	0.20	0.00		Nearest
UNKNOWN_14	10.71	0.20	0.00		Nearest

Resolve with references : No

Group Identification table :

Group Name	Group type	Parameters

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Peak results :

Index	Name	Time [Min]	Quantity [% Area]	Height [µV]	Area [µV.Min]	Area % [%]
1	UNKNOWN_2	0.97	96.07	457111740.8	3075616.0	96.069
2	UNKNOWN_6	5.88	0.01	2103.7	232.0	0.007
3	UNKNOWN	6.08	0.01	3839.2	326.9	0.010
24	UNKNOWN	6.35	0.00	339.3	27.2	0.001
4	UNKNOWN	6.63	0.00	1594.5	80.4	0.003
5	UNKNOWN	6.72	0.00	657.7	28.1	0.001
25	UNKNOWN	6.75	0.00	306.0	16.3	0.001
6	UNKNOWN_7	6.90	0.00	489.0	16.7	0.001
26	UNKNOWN_8	6.96	0.00	2120.6	82.6	0.003
27	UNKNOWN	7.08	0.00	170.6	8.9	0.000
28	UNKNOWN	7.15	0.00	187.9	10.1	0.000
7	UNKNOWN	7.22	0.14	95486.8	4456.7	0.139
32	UNKNOWN	7.33	0.00	3826.7	125.5	0.004
29	UNKNOWN	7.39	0.00	405.5	8.2	0.000
8	UNKNOWN	7.44	2.27	834162.0	72822.9	2.275
30	UNKNOWN_9	7.70	0.00	1069.4	41.3	0.001
9	UNKNOWN	7.78	0.00	829.1	40.6	0.001
31	UNKNOWN_10	7.84	0.67	371327.8	21584.4	0.674
10	UNKNOWN_11	7.96	0.53	318911.9	16814.2	0.525
11	UNKNOWN	8.17	0.10	94010.2	3057.3	0.095
12	UNKNOWN	8.31	0.00	1421.4	86.7	0.003
33	UNKNOWN	8.38	0.00	497.1	17.2	0.001
13	UNKNOWN_12	8.42	0.00	757.5	26.5	0.001
34	UNKNOWN	8.47	0.00	1741.3	59.7	0.002
35	UNKNOWN	8.53	0.02	12257.1	634.3	0.020
14	UNKNOWN	8.68	0.00	1243.1	43.1	0.001
36	UNKNOWN	8.85	0.00	245.1	8.9	0.000
38	UNKNOWN	8.91	0.00	450.5	13.2	0.000
39	UNKNOWN	8.95	0.00	100.2	3.4	0.000
40	UNKNOWN	9.00	0.00	76.5	3.6	0.000
37	UNKNOWN	9.08	0.00	102.5	5.2	0.000
15	UNKNOWN_13	9.32	0.01	6932.6	318.2	0.010
41	UNKNOWN	9.41	0.02	11030.1	601.1	0.019
16	UNKNOWN_1	9.55	0.00	901.3	41.0	0.001
42	UNKNOWN	9.60	0.00	988.8	79.8	0.002
43	UNKNOWN	9.88	0.00	370.2	19.0	0.001
17	UNKNOWN	10.07	0.01	3605.4	294.2	0.009
44	UNKNOWN	10.61	0.00	491.5	53.3	0.002
18	UNKNOWN_14	10.79	0.00	1435.9	101.3	0.003
19	UNKNOWN	10.91	0.03	9640.4	1074.5	0.034
20	UNKNOWN	11.17	0.03	7694.2	838.5	0.026
45	UNKNOWN	11.33	0.01	2676.3	226.9	0.007
21	UNKNOWN	11.43	0.02	6508.2	769.4	0.024
46	UNKNOWN	11.69	0.00	908.4	105.5	0.003
22	UNKNOWN	11.82	0.02	3598.5	482.9	0.015
47	UNKNOWN	12.18	0.00	303.2	35.6	0.001
23	UNKNOWN	12.36	0.00	921.9	118.4	0.004
Total			100.00	458920478.2	3201457.7	100.000

CHROMATOGRAM METHOD REPORT :

Control method :

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Scion/Bruker/Varian 400-GC Series (Exclu

Autosampler (8410)

Autosampler	ENABLED
First injector used	Position 2
Syringe volume	10 uL
Advance tray	NO
Clean between injections	NO
Use injection delay	NO
Delay between injections	1.0 min
Injection mode	Std (Split/Splitless)
Sample penetration depth	90 %
Solvent penetration depth	90 %

Abort clean

Vial	I
Volume	5.0 uL
Strokes	1
Drawup speed	5.0 uL/s

Clean mode

Pre-injection solvent flushes	3
Pre-injection sample flushes	0
Post-injection solvent flushes	5
Clean solvent source	I

Injectors

Front (PWOC)

EFC 23 - Flow program	Rate (mL/min/min)	Step (mL/min)	Time (min)
	Initial	10.0	0.00
		Total time	0.00

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

EFC 23

Enabled	OFF

Heat-only zone 1

Heater	OFF
Setpoint	50 °C

Middle (S/SL)

Split event table	Time (min)	Split state	Split ratio
	Initial	ON	25

EFC 25

Enabled	ON

Heat-only zone 2

Heater	ON
Setpoint	230 °C

Column oven

Stabilization time	0.50 min

Column oven zone

Heater	ON

Temperature program	Rate (°C/min)	Step (°C)	Time (min)
	Initial	100	4.00
	25.0	200	8.00
	20.0	250	5.00
		Total time	23.50

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Valve oven

Rear (Small valve oven)

Heat-only zone 3

Heater	OFF
Setpoint	50 °C

Columns

Front

Carrier gas	Helium
Length	15.00 m
Inside diameter	200 um
Type	WCOT

Middle

Carrier gas	Helium
Length	30.00 m
Inside diameter	320 um
Type	PLOT

Pressure mode	Constant flow
Column flow	2.20 mL/min
Pressure pulse	DISABLED

Detectors

Heat-only zone 4

Heater	OFF
Setpoint	50 °C

Front (TCD)

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Electronics	OFF
Time constant	Fast
Data rate	10 Hz

Filament temp. limit	390 °C
Filament temperature	50 °C

TCD event table	Time (min)	Range	Autozero	Polarity
	Initial	0.05	YES	POSITIVE

EFC 14

Enabled	OFF
Make-up (Helium) flow	25 mL/min
Reference (Helium) flow	30.0 mL/min

Heat-only zone 5

Heater	ON
Setpoint	250 °C

Middle (FID)

Electronics	ON
Time constant	Fast
Data rate	10 Hz

FID event table	Time (min)	Range	Autozero
	Initial	12	YES

EFC 11

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Enabled	ON
Make-up (Nitrogen) flow	28 mL/min
Combustion (H2) flow	30.0 mL/min
Combustion (Air) flow	300.0 mL/min

Ouput ports

Front

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Front	0

Middle

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Middle	0

Rear

ENABLED	NO

Output port program	Time (min)	Detector source	Attenuation (2^X)
	Initial	Rear	0

Valves

Valve event table	Time (min)	Gas Sample Valve
	Initial	Fill

Miscellaneous

Start automatically when ready	NO

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Acquisition :
System : 456-GC
Project : Aceites
Run Name : T-1
Description
Run Id. : -1
Run Time : 24.00
Vial : 5
Rack : 0
Analysis : Unknown
Injection volume : 1.00

Scale :
RT Min : 0.00
RT Max : 20.00
Y Min : -1,000.00
Y Max : 20,000.00
Divisor factor : 1.00
Multiplier factor : 1.00
Sample mass : 0.00

Run log :

Injection report for Position 2

Injection occured at 20/10/2025 12:08:08 p. m.

Scion/Bruker/Varian 400-GC Series (Exclu [Scion/Bruker/Varian 400-GC Series (Excluding 430)]
Wrapper 5.0.8.31952
Firmware 32834
Driver 4.1.0.394

Preprocessing :
Blank Subtract :
File:
N.A.

Integration method :
Reduce Noise : Yes
Spike Parameter : 1
Use Relative Threshold ? : Yes
Peak saturation level : min = 0 max = 0

Integration events :

Active	Time	Event	ON	Value
Yes	0.00	Set Peak Width		0.5
Yes	0.00	Set Threshold		0.05
Yes	0.00	Set Minimal Area		0.5
Yes	15.00	Turn Integration	OFF	

Manual actions :
Manual integration action count : 26
Action #1 : 20/10/2025 04:02:22 p. m. : SPLIT peak # 3 at 6.26
Action #2 : 20/10/2025 04:02:25 p. m. : SPLIT peak # 5 at 6.75
Action #3 : 20/10/2025 04:02:27 p. m. : SPLIT peak # 6 at 6.93

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Action #4 : 20/10/2025 04:02:29 p. m. : SPLIT peak # 26 at 7.04
Action #5 : 20/10/2025 04:02:31 p. m. : SPLIT peak # 27 at 7.11
Action #6 : 20/10/2025 04:02:33 p. m. : SPLIT peak # 7 at 7.38
Action #7 : 20/10/2025 04:02:37 p. m. : SPLIT peak # 8 at 7.68
Action #8 : 20/10/2025 04:02:39 p. m. : SPLIT peak # 9 at 7.80
Action #9 : 20/10/2025 04:02:41 p. m. : SPLIT peak # 7 at 7.32
Action #10 : 20/10/2025 04:02:50 p. m. : SPLIT peak # 12 at 8.36
Action #11 : 20/10/2025 04:03:02 p. m. : SPLIT peak # 13 at 8.44
Action #12 : 20/10/2025 04:03:04 p. m. : SPLIT peak # 34 at 8.49
Action #13 : 20/10/2025 04:03:13 p. m. : ADD peak between t=8.810 and t=9.187
Action #14 : 20/10/2025 04:03:22 p. m. : MOVE stop baseline # 7 from t=9.187 y=980.461 to t=9.037 y=983.381
Action #15 : 20/10/2025 04:03:25 p. m. : MOVE stop peak # 36 from t=9.187 to t=9.035
Action #16 : 20/10/2025 04:03:30 p. m. : ADD peak between t=9.045 and t=9.185
Action #17 : 20/10/2025 04:03:37 p. m. : SPLIT peak # 36 at 8.89
Action #18 : 20/10/2025 04:03:40 p. m. : SPLIT peak # 38 at 8.94
Action #19 : 20/10/2025 04:03:42 p. m. : SPLIT peak # 39 at 8.97
Action #20 : 20/10/2025 04:03:44 p. m. : SPLIT peak # 15 at 9.38
Action #21 : 20/10/2025 04:03:48 p. m. : SPLIT peak # 16 at 9.57
Action #22 : 20/10/2025 04:03:51 p. m. : ADD peak between t=9.833 and t=9.923
Action #23 : 20/10/2025 04:04:02 p. m. : ADD peak between t=10.493 and t=10.690
Action #24 : 20/10/2025 04:04:11 p. m. : SPLIT peak # 20 at 11.28
Action #25 : 20/10/2025 04:04:14 p. m. : SPLIT peak # 21 at 11.64
Action #26 : 20/10/2025 04:04:22 p. m. : SPLIT peak # 22 at 12.10

Peak Identification table :

Peak Name	RT [min]	Abs.Window[min]	Window %	Ref?	Mode
UNKNOWN_2	1.14	0.20	0.00		Nearest
heptano	1.48	0.20	0.00		Nearest
UNKNOWN_4	2.11	0.20	0.00		Nearest
UNKNOWN_5	4.10	0.20	0.00		Nearest
UNKNOWN_6	5.86	0.20	0.00		Nearest
UNKNOWN_7	6.93	0.20	0.00		Nearest
UNKNOWN_8	6.96	0.20	0.00		Nearest
UNKNOWN_9	7.71	0.20	0.00		Nearest
UNKNOWN_10	7.84	0.20	0.00		Nearest
UNKNOWN_11	8.04	0.20	0.00		Nearest
UNKNOWN_12	8.41	0.20	0.00		Nearest
UNKNOWN_13	9.32	0.20	0.00		Nearest
UNKNOWN_1	9.54	0.20	0.00		Nearest
UNKNOWN_14	10.71	0.20	0.00		Nearest

Resolve with references : No

Group Identification table :

Group Name	Group type	Parameters

Calibration Method :

Method type : Response %
Response : Area
Standard Unit : g/l
Calibration curve file name :

Factors : Curve
Subtract internal standard mass
Response unit : Curve

Unknown mode : None

Chromatogram : T-1_channel1

System : 456-GC
Method : Biodiesel FAME 2023
User : User1

Acquired : 20/10/2025 12:08:08 p. m.
Processed : 20/10/2025 04:04:22 p. m.
Printed : 20/10/2025 04:05:04 p. m.

Calibration components :

Component	Level 1	Level 2	Level 3	Level 4	Control Sample

Suitability tests :

Export :

Post Run :

Print Method :
File name : : default_standard
Copies : 0

Summary :