

Cover Page

Order ID : P4873

Project ID : Scotia, NY - Annual Testing

Client : EA Engineering Science & Technology

Lab Sample Number

P4873-01
P4873-02
P4873-03
P4873-04
P4873-05
P4873-06
P4873-07
P4873-08
P4873-09

Client Sample Number

FSND-RB-4-20241114
FSND-MW-30-20241114
TB-2
FSND-MW-19-20241114
FSND-MW-32-20241114
FSND-MW-34-20241114
FSND-GEP-3-20241114
FSND-MW-28-20241114
FSND-MW-29-20241114

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/25/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



284 Sheffield Street, Mountainside, NJ 07092
Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

EA Engineering Science & Technology

Project Name: Scotia, NY - Annual Testing

Project # N/A

Chemtech Project # P4873

Test Name: Gases

A. Number of Samples and Date of Receipt:

9 Water samples were received on 11/15/2024.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Alkalinity, Anions Group1, Gases, TOC and VOC-TCLVOA-10. This data package contains results for Gases.

C. Analytical Techniques:

RT-U Plot 30m X 0.32mm The analysis of Gases was based on method RSK-175 and extraction was done based on method 3510.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Retention Times were acceptable for all samples.

The RPD met criteria

The Blank Spike met requirements for all samples .

The Blank Spike Duplicate met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements .

The Continuous Calibration met the requirements .

Sample FSND-MW-30-20241114 was diluted due to high concentration.

E. Additional Comments:

The not QT review data is reported in the Miscellaneous.

F. Manual Integration Comments:

Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed



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above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following "Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P4873

MATRIX: Water

METHOD: RSK-175/3510

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified.			✓
2. Standard Summary Submitted.			✓
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD. The Initial Calibration met the requirements . The Continuous Calibration met the requirements			✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The Blank Spike met requirements for all samples . The Blank Spike Duplicate met requirements for all samples . The RPD met criteria			✓
7. Retention Time Shift Meet Criteria (if applicable) Comments:			✓
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample:			✓
9. Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

Sample FSND-MW-30-20241114 was diluted due to high concentration.

The not QT review data is reported in the Miscellaneous.

QA REVIEW

Date

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4873

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 11/25/2024

LAB CHRONICLE

OrderID:	P4873	OrderDate:	11/15/2024 10:19:00 AM
Client:	EA Engineering Science & Technology	Project:	Scotia, NY - Annual Testing
Contact:	Jim Hayward	Location:	M11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4873-01	FSND-RB-4-20241114	Water	Gases	RSK-175	11/14/24		11/19/24	11/15/24
P4873-02	FSND-MW-30-20241114	Water			11/14/24			11/15/24
P4873-02DL	FSND-MW-30-20241114DL	Water	Gases	RSK-175			11/19/24	
			Gases	RSK-175	11/14/24			11/15/24

Hit Summary Sheet
SW-846

SDG No.: P4873

Order ID: P4873

Client: EA Engineering Science & Technology

Project ID: Scotia, NY - Annual Testing

Sample ID	Client ID	Parameter	Concentration	C	MDL	RDL	Units
Client ID : FSND-MW-30-20241114							
P4873-02	FSND-MW-30-202411	Water Ethylene	4.30	J	0.93	13.2	ug/L
P4873-02	FSND-MW-30-202411	Water Methane	737	E	0.43	4.70	ug/L
Total Concentration:			741.300				
Client ID : FSND-MW-30-20241114DL							
P4873-02DL	FSND-MW-30-202411	Water Methane	828	D	8.60	94.0	ug/L
Total Concentration:			828.000				



QC SUMMARY



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4873

Client: EA Engineering Science & Technology

Analytical Method: RSK175 Datafile : FA004272.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
BSA1119G1	Ethane	38.3	37.4	ug/L	98				70	130	
	Ethylene	52.7	47.3	ug/L	90				70	130	
	Methane	18.8	18.5	ug/L	98				70	130	



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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4873

Client: EA Engineering Science & Technology

Analytical Method: RSK175 Datafile : FA004273.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD		Limits	
								Qual	Low	High	RPD
BSA1119G2	Ethane	38.3	36.9	ug/L	96	2			70	130	20
	Ethylene	52.7	45.5	ug/L	86	5			70	130	20
	Methane	18.8	18.6	ug/L	99	1			70	130	20

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBA1119G1

Lab Name: CHEMTECH

Contract: EAEN05

Lab Code: CHEM Case No.: P4873

SAS No.: P4873 SDG NO.: P4873

Lab File ID: FA004271.D

Lab Sample ID: VBA1119G1

Date Analyzed: 11/19/2024

Time Analyzed: 11:37

GC Column: RT-U Plot ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: FID_A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSA1119G1	BSA1119G1	FA004272.D	11/19/2024
BSA1119G2	BSA1119G2	FA004273.D	11/19/2024
FSND-RB-4-20241114	P4873-01	FA004274.D	11/19/2024
FSND-MW-30-20241114	P4873-02	FA004275.D	11/19/2024
FSND-MW-30-20241114DL	P4873-02DL	FA004276.D	11/19/2024

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	11/14/24
Project:	Scotia, NY - Annual Testing	Date Received:	11/15/24
Client Sample ID:	FSND-RB-4-20241114	SDG No.:	P4873
Lab Sample ID:	P4873-01	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0
Water Phase Vol :	36 mL	Decanted:	
Gas Phase Vol :	4 mL	Test:	Gases

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004274.D	1	11/19/24 12:27

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	1.92	U	0.66	1.92	9.60	ug/L
74-85-1	Ethylene	2.64	U	0.93	2.64	13.2	ug/L
74-82-8	Methane	0.94	U	0.43	0.94	4.70	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004274.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:27
Operator : YP\AJ
Sample : P4873-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-RB-4-20241114

Integration File: autoint1.e
Quant Time: Nov 19 11:04:58 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units
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Target Compounds

(f)=RT Delta > 1/2 Window

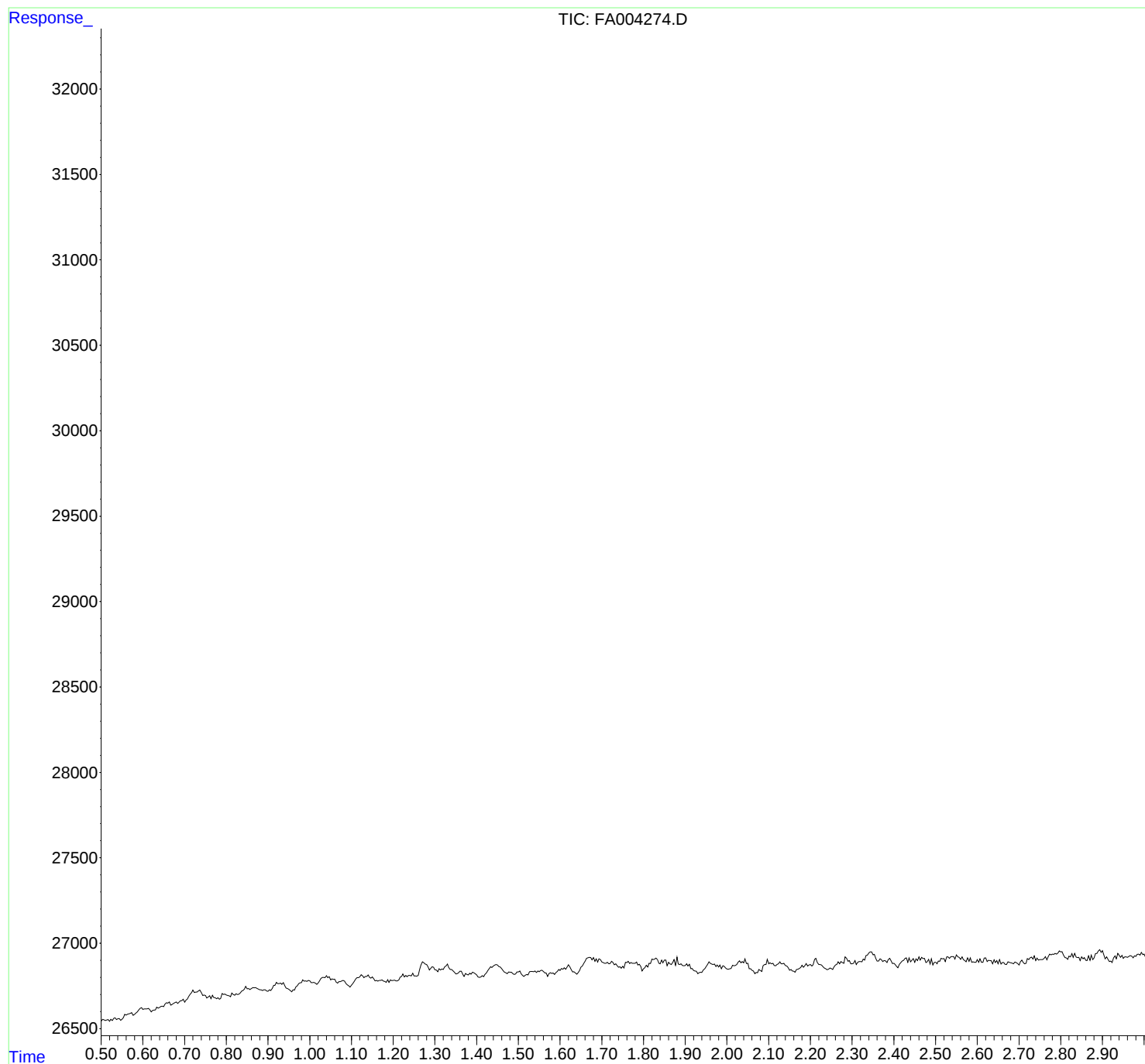
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004274.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:27
Operator : YP\AJ
Sample : P4873-01
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-RB-4-20241114

Integration File: autoint1.e
Quant Time: Nov 19 11:04:58 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm



Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	11/14/24
Project:	Scotia, NY - Annual Testing	Date Received:	11/15/24
Client Sample ID:	FSND-MW-30-20241114	SDG No.:	P4873
Lab Sample ID:	P4873-02	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0
Water Phase Vol :	36 mL	Decanted:	
Gas Phase Vol :	4 mL	Test:	Gases

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004275.D	1	11/19/24 12:31

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	1.92	U	0.66	1.92	9.60	ug/L
74-85-1	Ethylene	4.30	J	0.93	2.64	13.2	ug/L
74-82-8	Methane	737	E	0.43	0.94	4.70	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004275.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:31
Operator : YP\AJ
Sample : P4873-02
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-MW-30-20241114

Integration File: autoint1.e
Quant Time: Nov 19 11:16:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
2) Ethylene	1.668	7344	16.206 ppmv
3) Methane	1.302	1965427	7817.822 ppmv

(f)=RT Delta > 1/2 Window

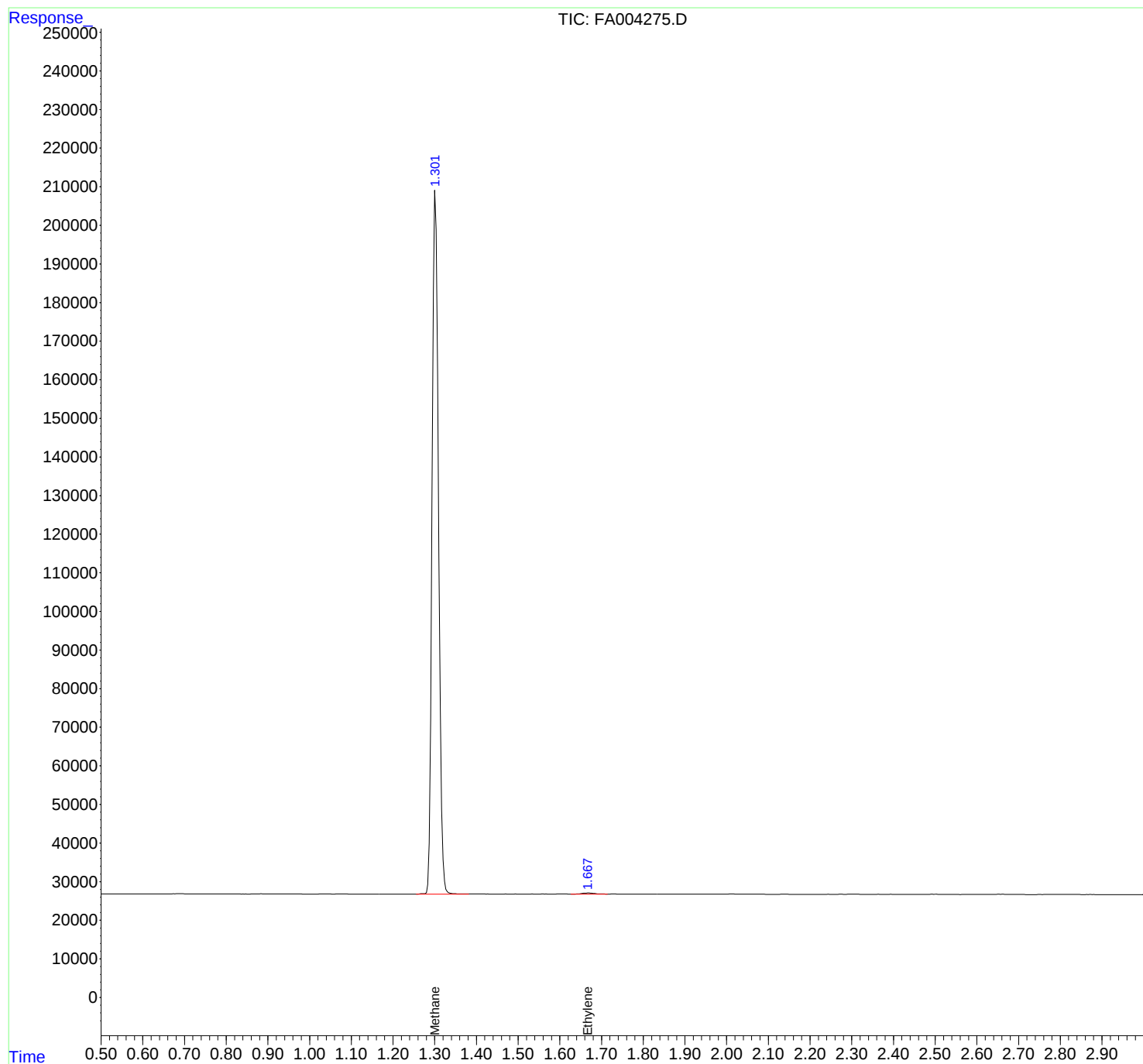
(m)=manual int.

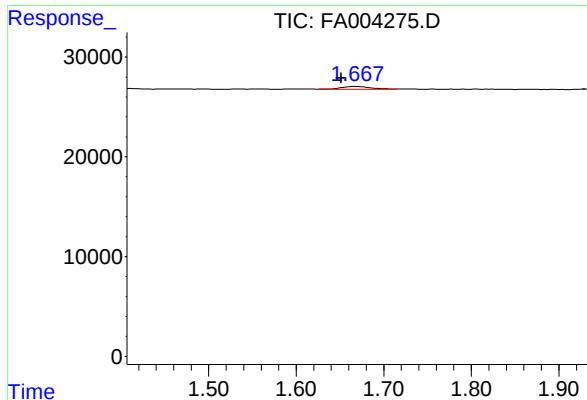
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004275.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:31
Operator : YP\AJ
Sample : P4873-02
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-MW-30-20241114

Integration File: autoint1.e
Quant Time: Nov 19 11:16:16 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm





#2 Ethylene

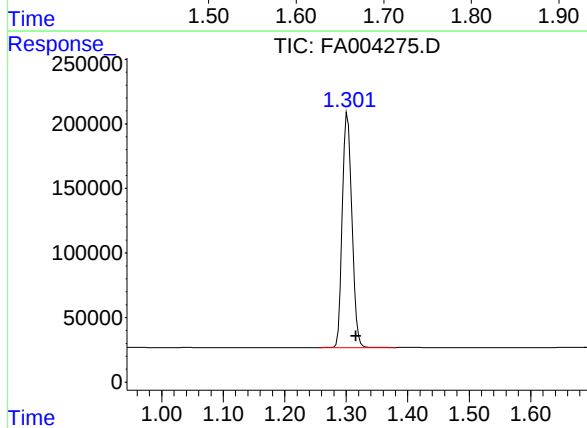
R.T.: 1.668 min
Delta R.T.: 0.017 min
Response: 7344
Conc: 16.21 ppmv

Instrument :

FID_A

ClientSampleId :

FSND-MW-30-20241114



#3 Methane

R.T.: 1.302 min
Delta R.T.: -0.013 min
Response: 1965427
Conc: 7817.82 ppmv

Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	11/14/24
Project:	Scotia, NY - Annual Testing	Date Received:	11/15/24
Client Sample ID:	FSND-MW-30-20241114DL	SDG No.:	P4873
Lab Sample ID:	P4873-02DL	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0
Water Phase Vol :	36 mL	Decanted:	
Gas Phase Vol :	4 mL	Test:	Gases

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004276.D	20	11/19/24 12:41

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	38.4	UD	13.2	38.4	192	ug/L
74-85-1	Ethylene	52.8	UD	18.6	52.8	264	ug/L
74-82-8	Methane	828	D	8.60	18.8	94.0	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004276.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:41
Operator : YP\AJ
Sample : P4873-02DL 20X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-MW-30-20241114DL

Integration File: autoint1.e
Quant Time: Nov 19 11:16:54 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
3) Methane	1.306	110507	439.561 ppmv

(f)=RT Delta > 1/2 Window

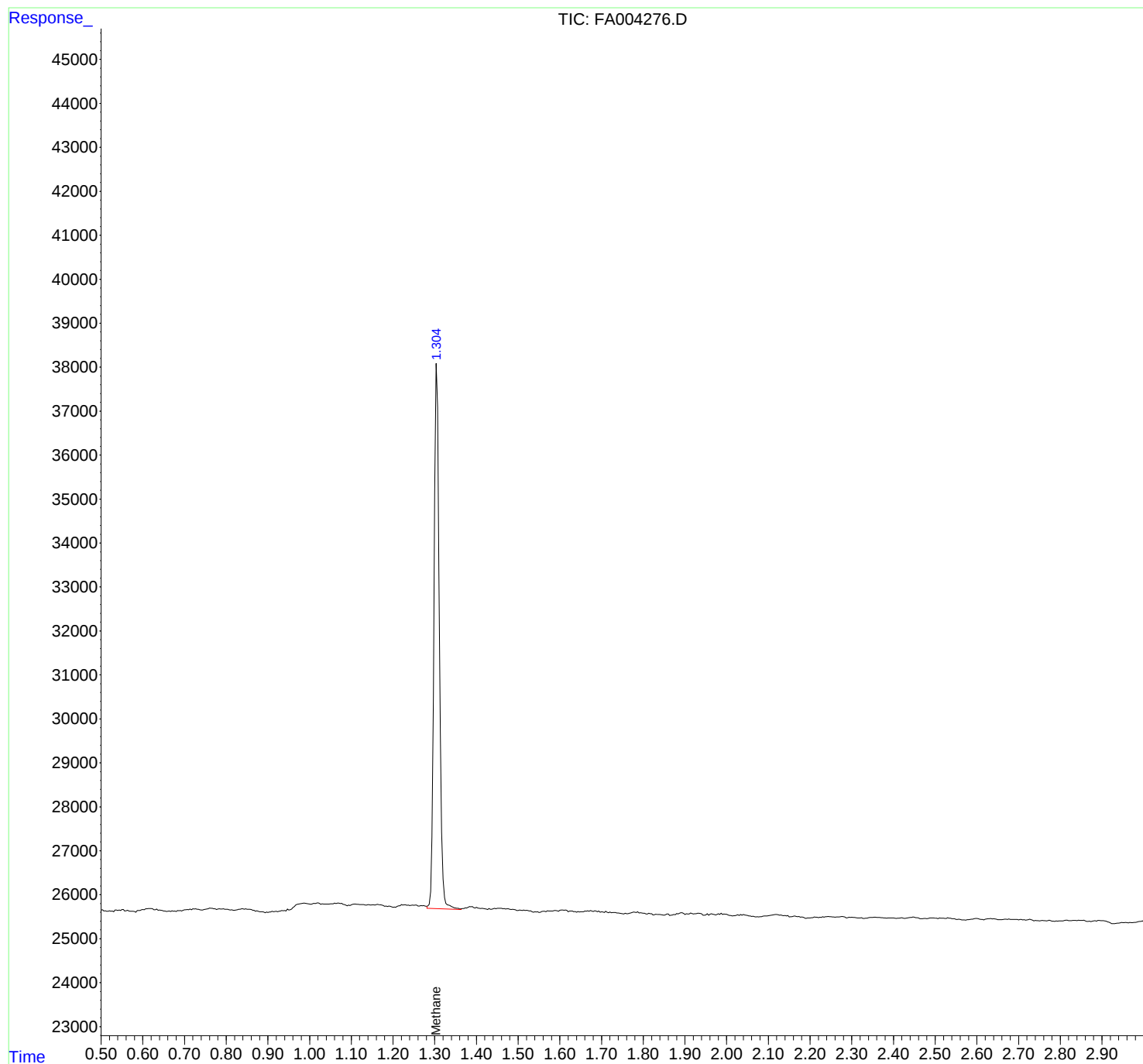
(m)=manual int.

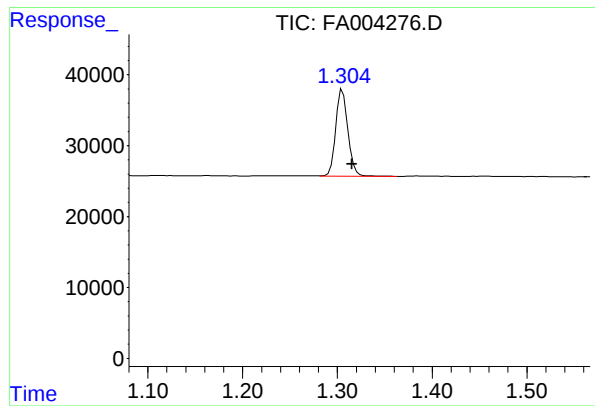
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004276.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:41
Operator : YP\AJ
Sample : P4873-02DL 20X
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
FSND-MW-30-20241114DL

Integration File: autoint1.e
Quant Time: Nov 19 11:16:54 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm





#3 Methane

R.T.: 1.306 min
Delta R.T.: -0.010 min
Response: 110507
Conc: 439.56 ppmv

Instrument :

FID_A

ClientSampleId :

FSND-MW-30-20241114DL



CALIBRATION SUMMARY

RETENTION TIMES OF INITIAL CALIBRATION

Contract: EAEN05
Lab Code: CHEM **Case No.:** P4873 **SAS No.:** P4873 **SDG NO.:** P4873
Instrument ID: FID_A **Calibration Date(s):** 11/19/2024 11/19/2024
Calibration Times: 10:21 10:57

GC Column: RT-U Plot ID: 0.32 (mm)

LAB FILE ID:	RT 500 = <u>FA004264.D</u>	RT 300 = <u>FA004265.D</u>
RT 200 = <u>FA004266.D</u>	RT 100 = <u>FA004267.D</u>	RT 050 = <u>FA004268.D</u>

COMPOUND	RT 500	RT 300	RT 200	RT 100	RT 050	MEAN RT	RT WINDOW	
							FROM	TO
Ethane	1.74	1.73	1.72	1.71	1.71	1.72	1.62	1.82
Ethylene	1.67	1.66	1.65	1.64	1.65	1.65	1.55	1.75
Methane	1.32	1.31	1.32	1.31	1.32	1.31	1.21	1.41

Initial Calibration Summary GASES

Contract: EAEN05

Case No.: P4873

Lab Code: CHEM

SAS No.: P4873

SDG NO.: P4873

Date(s) Analyzed: 11/19/2024

11/19/2024

FileName	Std Conc	Ethane Response1	Ethane Conc1	Ethylene Response2	Ethylene Conc2	Methane Response3	Methane Conc3
FA004268.D	50	21796	44.85	20088	43.23	13215	53.88
FA004267.D	100	50669	104.26	47001	101.15	25696	104.77
FA004266.D	200	92683	200	86260	200	45630	200
FA004265.D	300	148524	308.49	141518	306.89	75246	310.33
FA004264.D	500	249744	538.92	245495	569.2	128396	562.76

Date Analyzed	11/19/2024									
	50 PPM	100 PPM	200 PPM	300 PPM	500 PPM					CORR
Analyte	Cal Fac 1	Cal Fac 2	Cal Fac 3	Cal Fac 4	Cal Fac 5	Avg CF	Std Dev	%RSD	Flag	COEFF
Ethane	435.92	506.69	463.42	495.08	499.49	480.12	29.7	6		0.9994
Ethylene	401.76	470.01	431.30	471.73	490.99	453.16	36	8		0.9988
Methane	264.30	256.96	228.15	250.82	256.79	251.40	13.8	5		0.9985

Denotes outside control criteria: 30% RSD for initial calibration 20% drift for continuing calibration
 (When calibration factor fails correlation coefficient is used as per RSK-175)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004264.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:21
Operator : YP\AJ
Sample : 500 PPMV GASES ICC
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
500 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:08:41 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:08:33 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.742	249744	538.921 ppmv
2) Ethylene	1.668	245495	569.199 ppmv
3) Methane	1.315	128396	562.765 ppmv

(f)=RT Delta > 1/2 Window

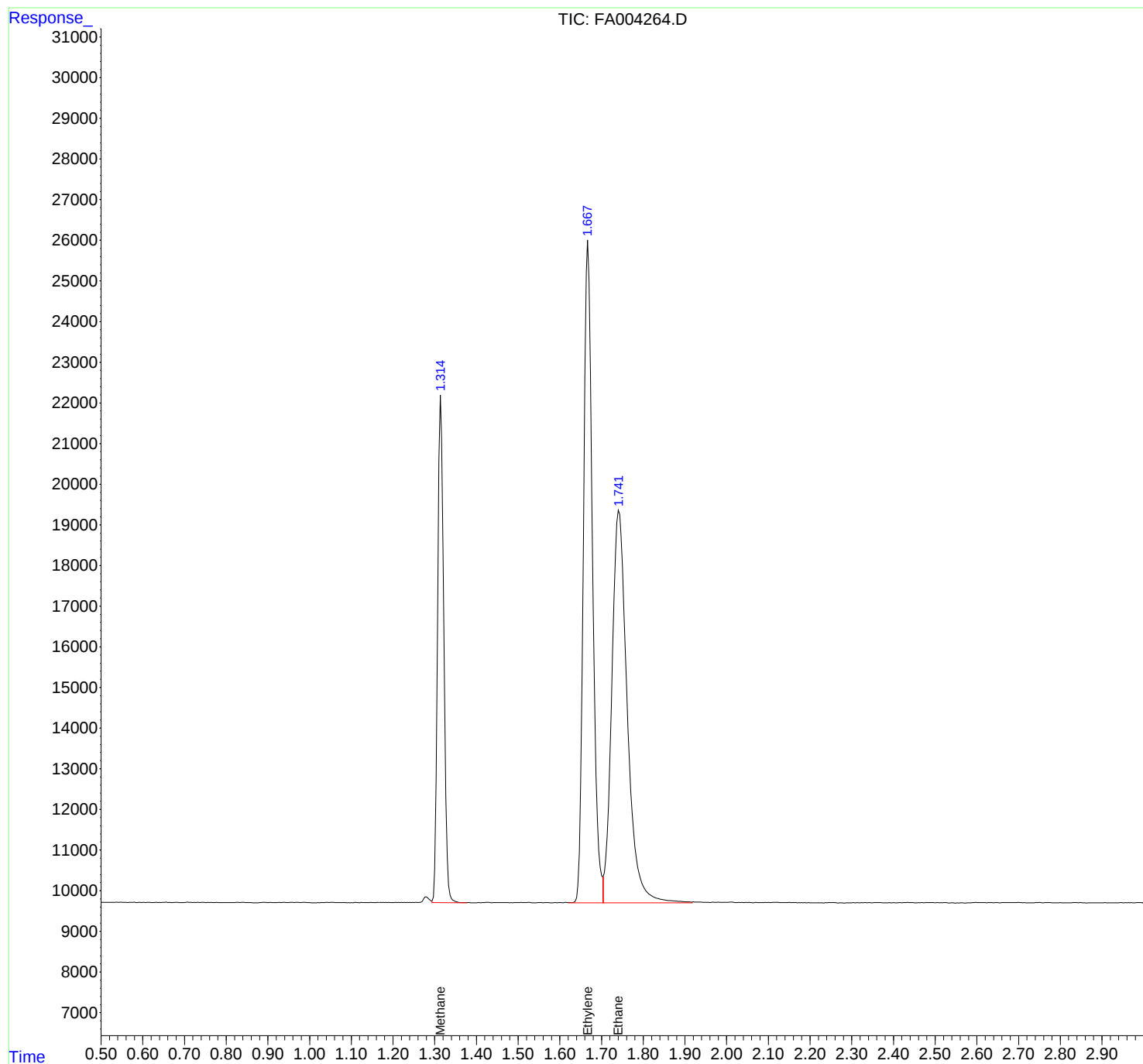
(m)=manual int.

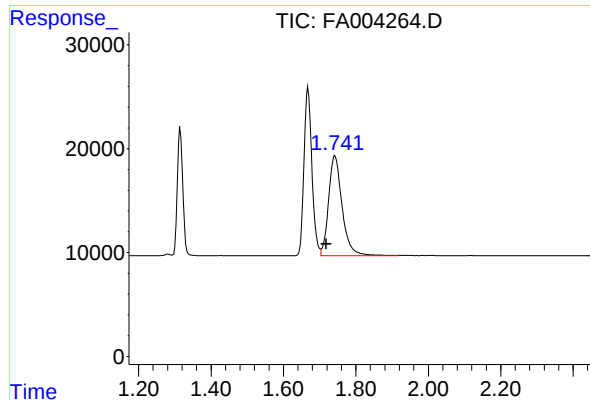
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004264.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:21
Operator : YP\AJ
Sample : 500 PPMV GASES ICC
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
500 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:08:41 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:08:33 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

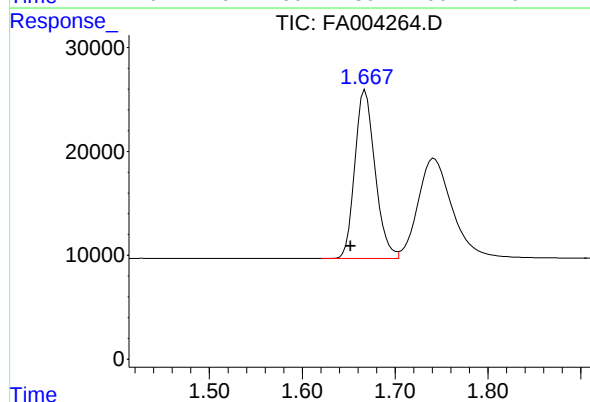




#1 Ethane

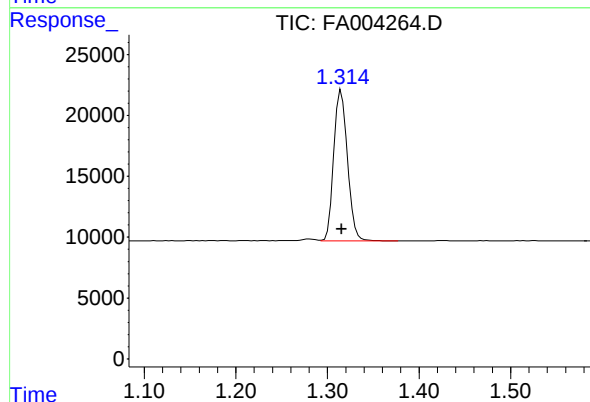
R.T.: 1.742 min
Delta R.T.: 0.024 min
Response: 249744
Conc: 538.92 ppmv

Instrument :
FID_A
ClientSampleId :
500 PPMV GASES ICC



#2 Ethylene

R.T.: 1.668 min
Delta R.T.: 0.016 min
Response: 245495
Conc: 569.20 ppmv



#3 Methane

R.T.: 1.315 min
Delta R.T.: 0.000 min
Response: 128396
Conc: 562.76 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004265.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:28
Operator : YP\AJ
Sample : 300 PPMV GASES ICC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
300 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:09:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:06 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.727	148524	308.492 ppmv
2) Ethylene	1.658	141518	306.885 ppmv
3) Methane	1.314	75246	310.328 ppmv

(f)=RT Delta > 1/2 Window

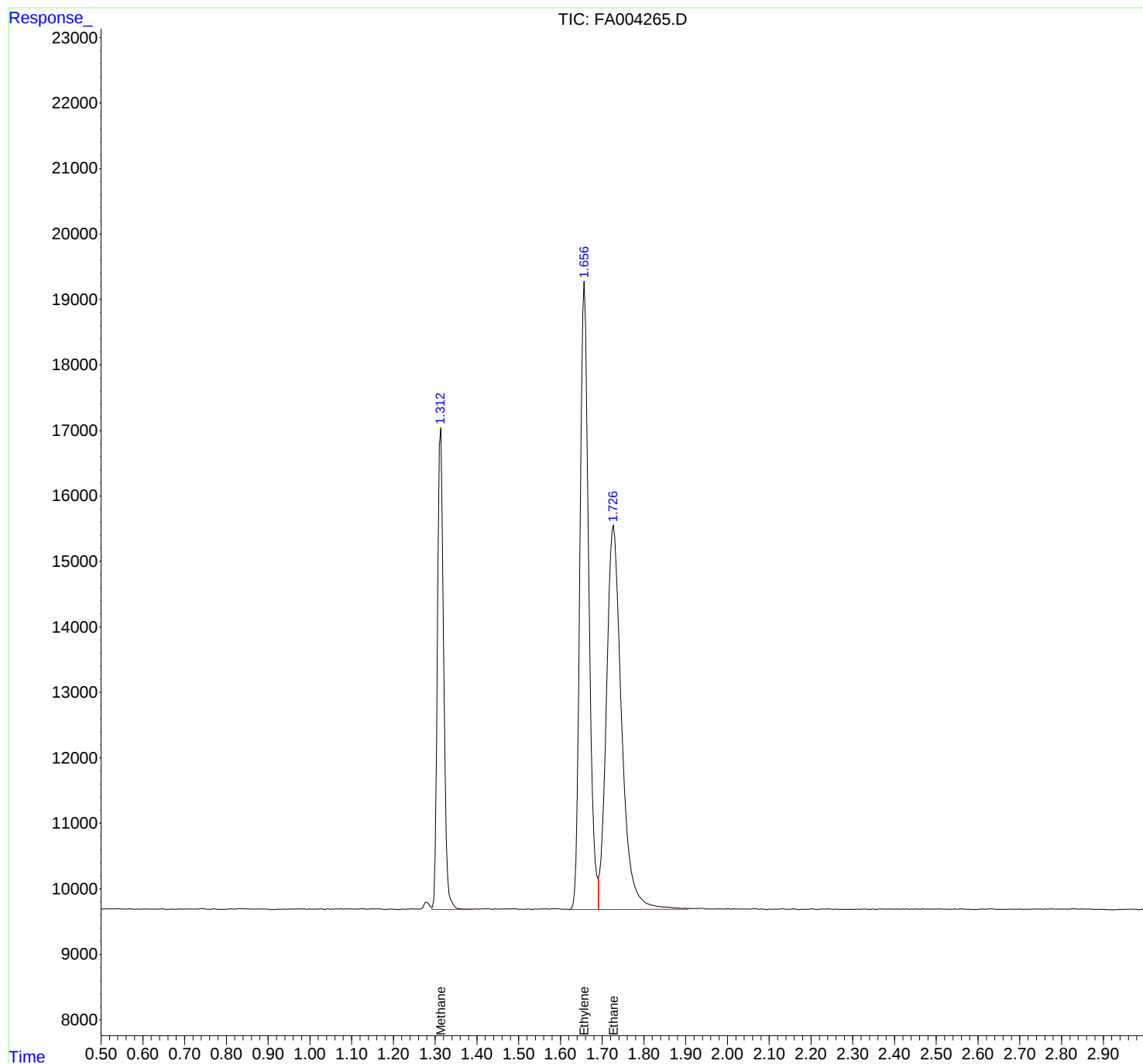
(m)=manual int.

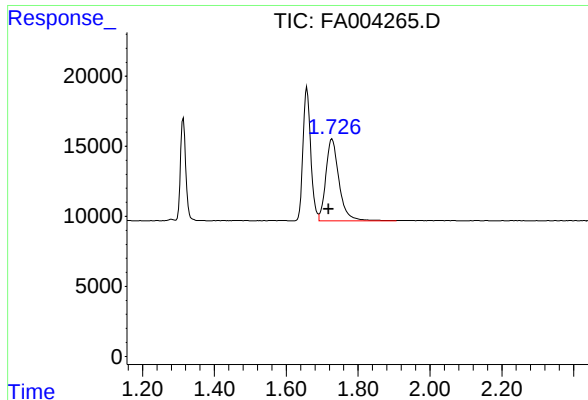
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004265.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:28
Operator : YP\AJ
Sample : 300 PPMV GASES ICC
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
300 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:09:15 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:06 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

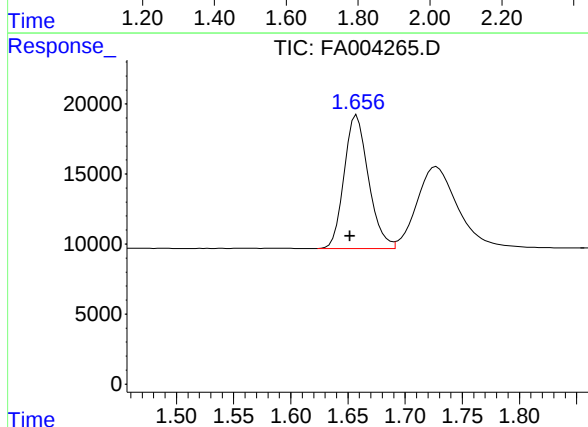




#1 Ethane

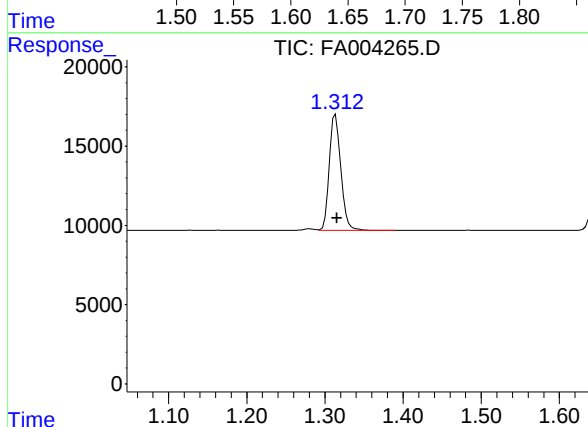
R.T.: 1.727 min
Delta R.T.: 0.009 min
Response: 148524
Conc: 308.49 ppmv

Instrument :
FID_A
ClientSampleId :
300 PPMV GASES ICC



#2 Ethylene

R.T.: 1.658 min
Delta R.T.: 0.006 min
Response: 141518
Conc: 306.89 ppmv



#3 Methane

R.T.: 1.314 min
Delta R.T.: -0.002 min
Response: 75246
Conc: 310.33 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004266.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:32
Operator : YP\AJ
Sample : 200 PPMV GASES ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:08:09 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:07:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.718	92683	200.000 ppmv
2) Ethylene	1.652	86260	200.000 ppmv
3) Methane	1.315	45630	200.000 ppmv

(f)=RT Delta > 1/2 Window

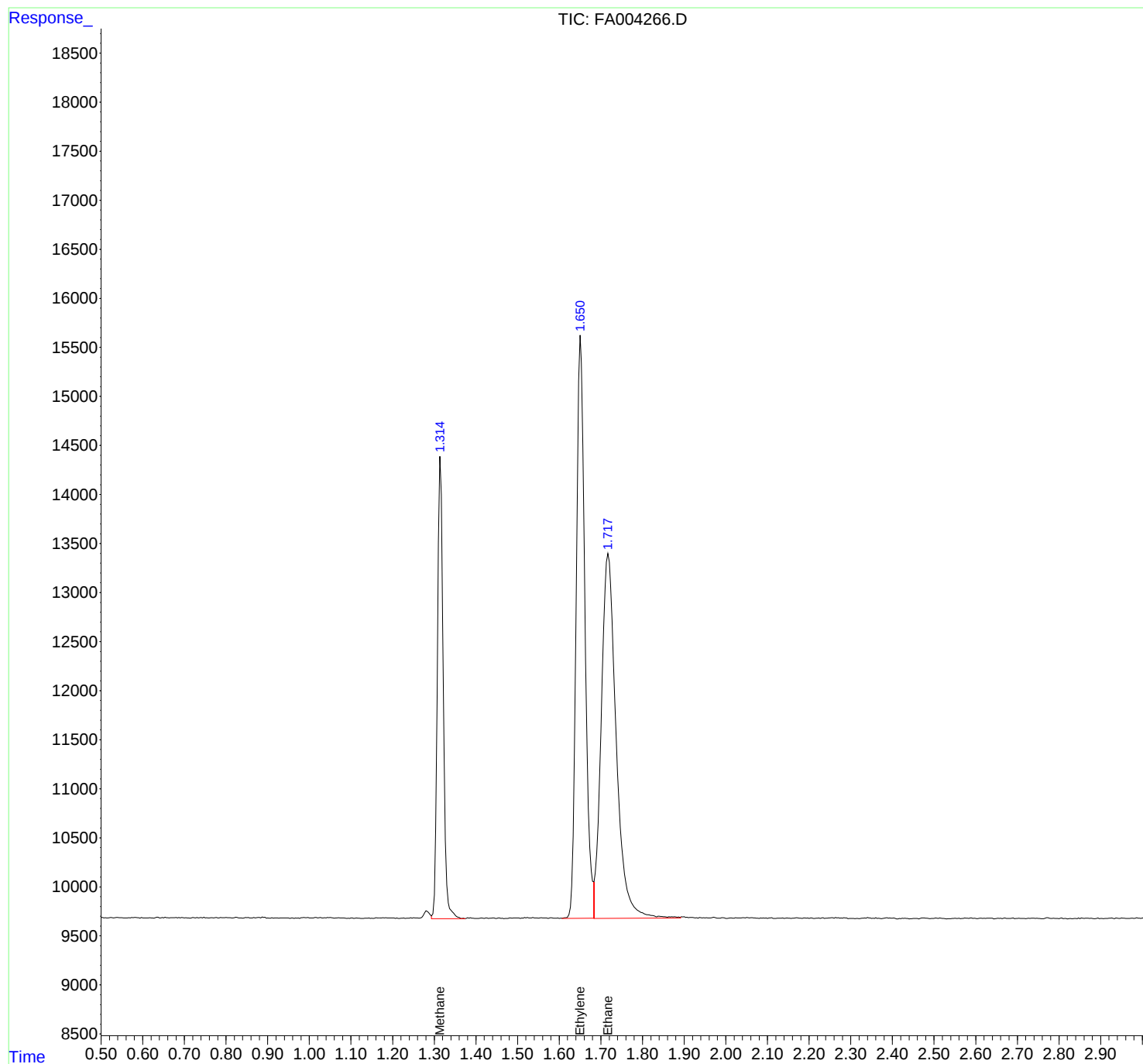
(m)=manual int.

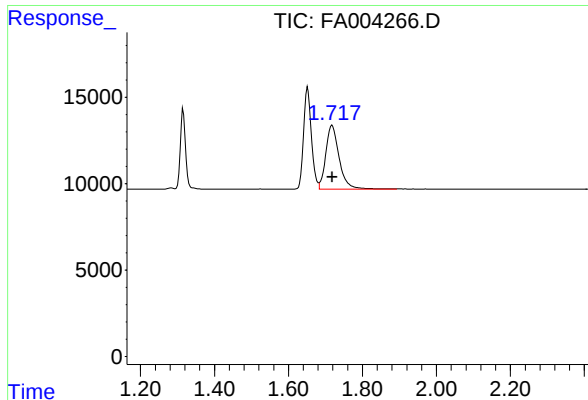
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004266.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:32
Operator : YP\AJ
Sample : 200 PPMV GASES ICC
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:08:09 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:07:55 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

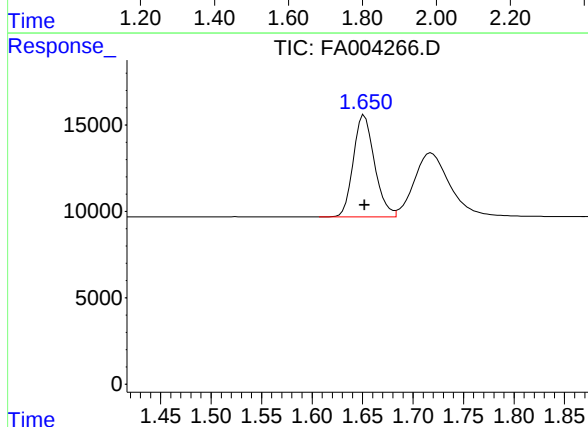




#1 Ethane

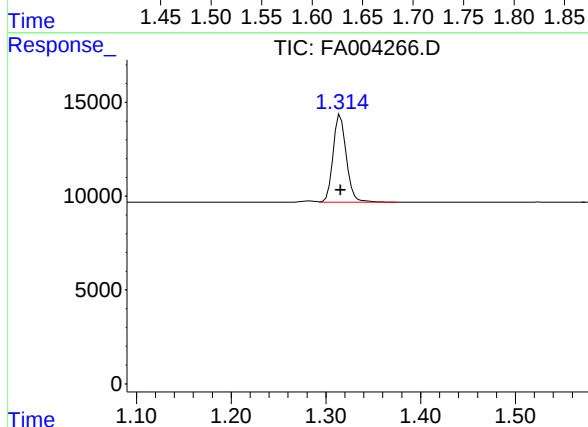
R.T.: 1.718 min
Delta R.T.: 0.000 min
Response: 92683
Conc: 200.00 ppmv

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICC



#2 Ethylene

R.T.: 1.652 min
Delta R.T.: 0.000 min
Response: 86260
Conc: 200.00 ppmv



#3 Methane

R.T.: 1.315 min
Delta R.T.: 0.000 min
Response: 45630
Conc: 200.00 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004267.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:39
Operator : YP\AJ
Sample : 100 PPMV GASES ICC
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
100 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:16:08 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:37 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.709	50669	104.259 ppmv
2) Ethylene	1.644	47001	101.149 ppmv
3) Methane	1.310	25696	104.772 ppmv

(f)=RT Delta > 1/2 Window

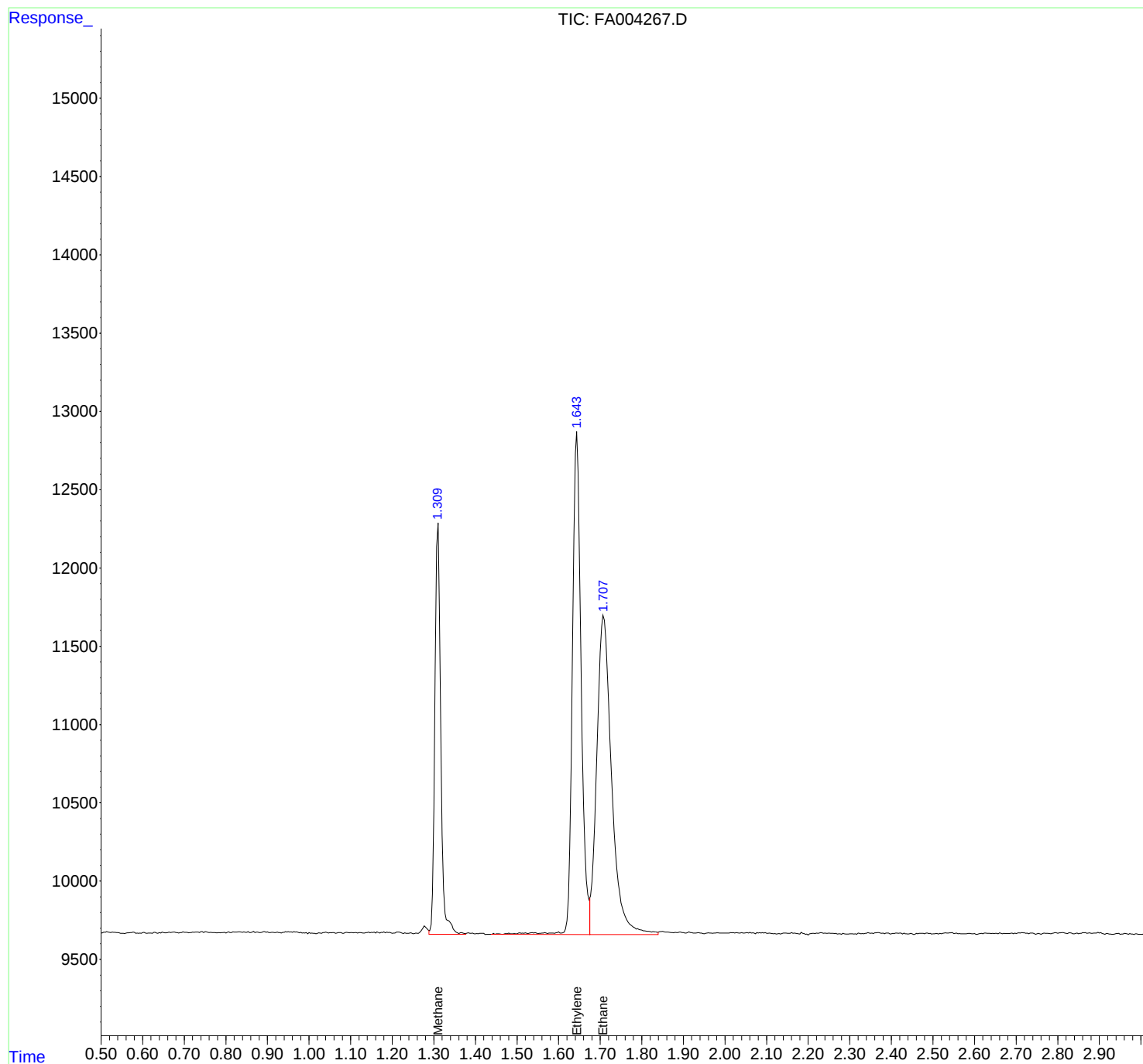
(m)=manual int.

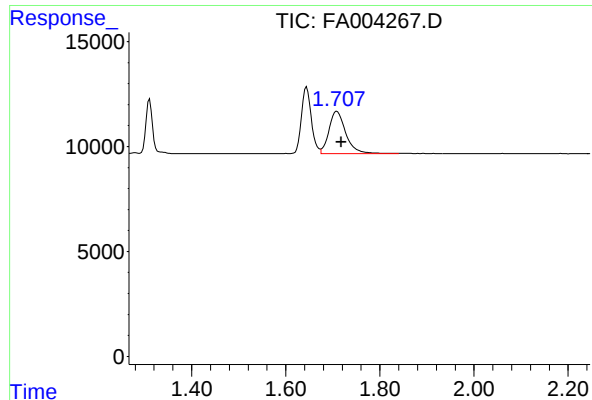
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004267.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:39
Operator : YP\AJ
Sample : 100 PPMV GASES ICC
Misc :
ALS Vial : 4 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
100 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:16:08 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:37 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

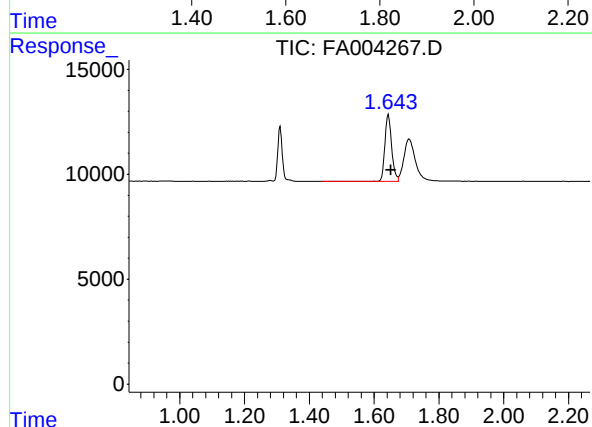




#1 Ethane

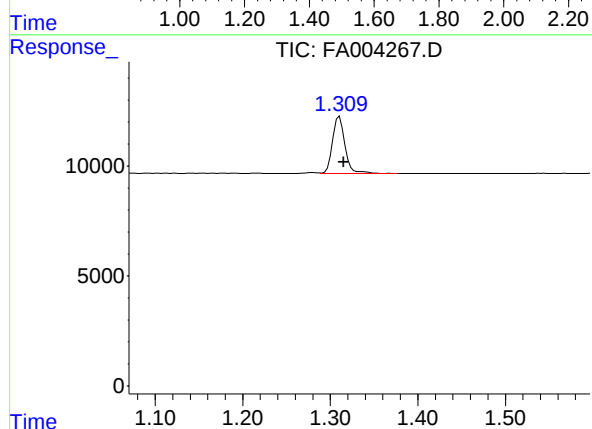
R.T.: 1.709 min
Delta R.T.: -0.009 min
Response: 50669
Conc: 104.26 ppmv

Instrument :
FID_A
ClientSampleId :
100 PPMV GASES ICC



#2 Ethylene

R.T.: 1.644 min
Delta R.T.: -0.008 min
Response: 47001
Conc: 101.15 ppmv



#3 Methane

R.T.: 1.310 min
Delta R.T.: -0.005 min
Response: 25696
Conc: 104.77 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004268.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:57
Operator : YP\AJ
Sample : 50 PPMV GASES ICC
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
50 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:33:50 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:37 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.709	21796	44.849 ppmv
2) Ethylene	1.648	20088	43.230 ppmv
3) Methane	1.318	13215	53.883 ppmv

(f)=RT Delta > 1/2 Window

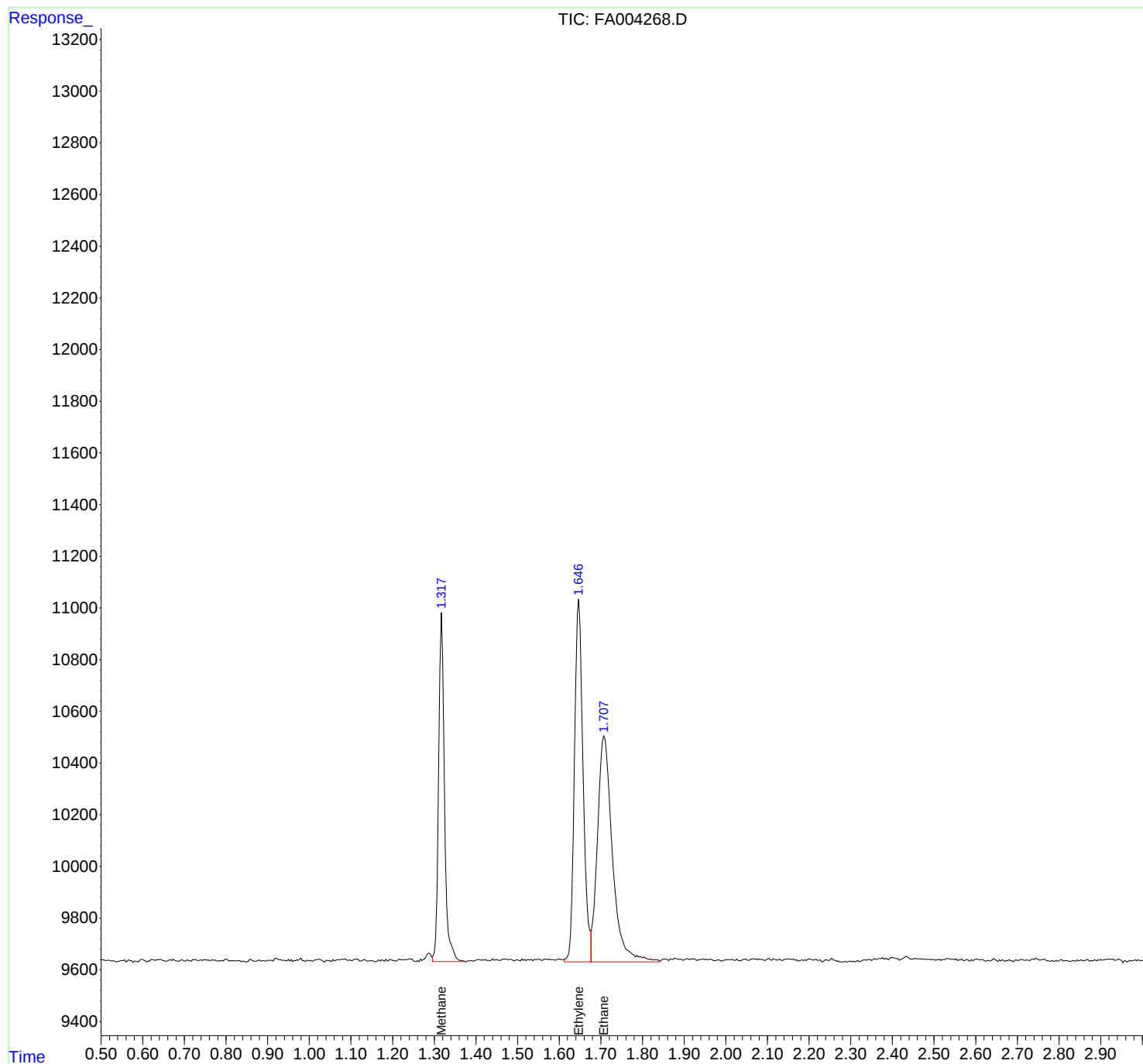
(m)=manual int.

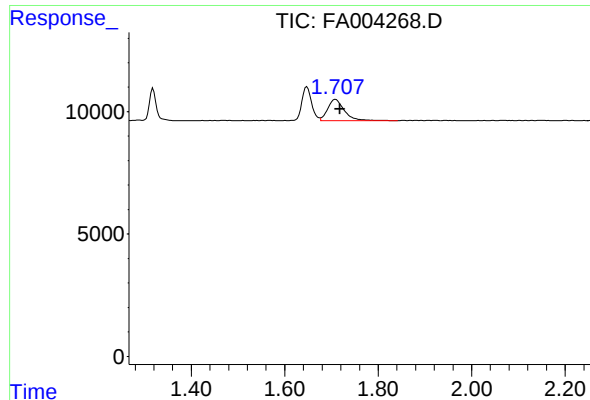
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004268.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 10:57
Operator : YP\AJ
Sample : 50 PPMV GASES ICC
Misc :
ALS Vial : 5 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
50 PPMV GASES ICC

Integration File: autoint1.e
Quant Time: Nov 19 09:33:50 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:09:37 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

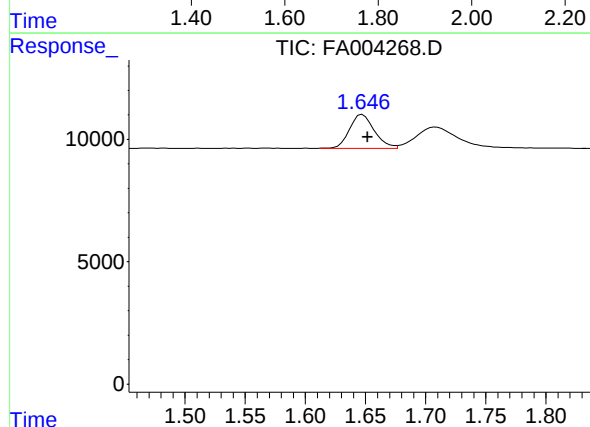




#1 Ethane

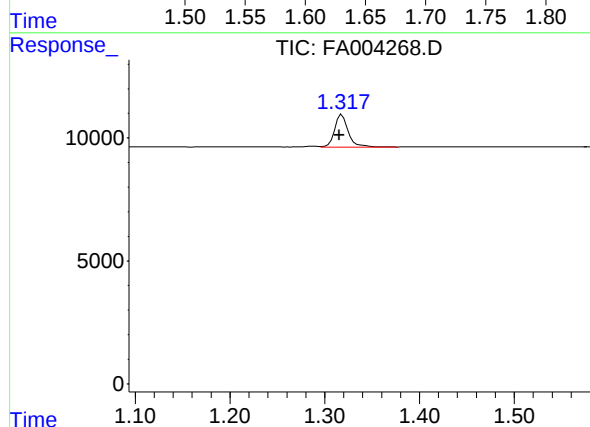
R.T.: 1.709 min
Delta R.T.: -0.009 min
Response: 21796
Conc: 44.85 ppmv

Instrument :
FID_A
ClientSampleId :
50 PPMV GASES ICC



#2 Ethylene

R.T.: 1.648 min
Delta R.T.: -0.004 min
Response: 20088
Conc: 43.23 ppmv



#3 Methane

R.T.: 1.318 min
Delta R.T.: 0.003 min
Response: 13215
Conc: 53.88 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004269.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:04
Operator : YP\AJ
Sample : 200 PPMV GASES ICV
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICV

Integration File: autoint1.e
Quant Time: Nov 19 10:03:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.698	85103	177.254 ppmv
2) Ethylene	1.638	77823	171.736 ppmv
3) Methane	1.311	45108	179.425 ppmv

(f)=RT Delta > 1/2 Window

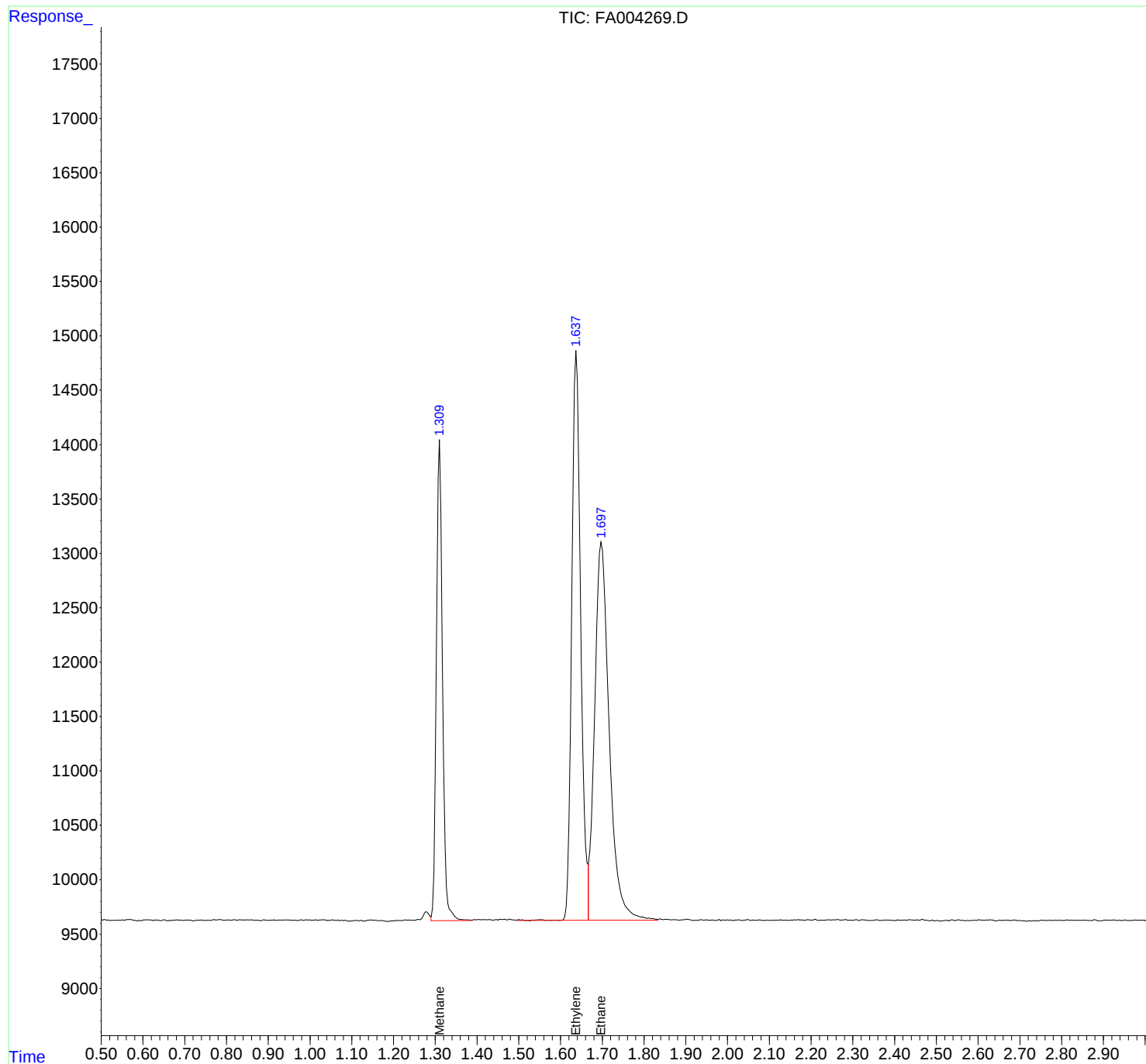
(m)=manual int.

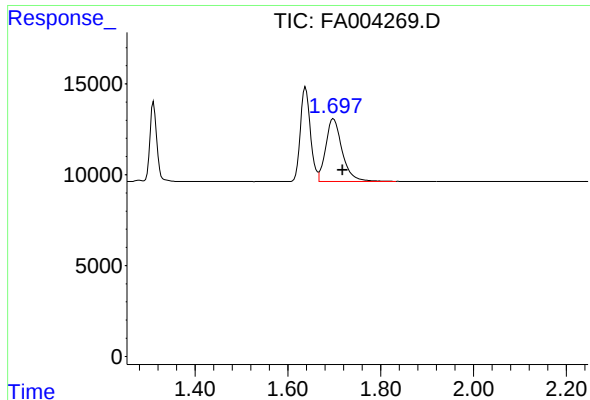
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004269.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:04
Operator : YP\AJ
Sample : 200 PPMV GASES ICV
Misc :
ALS Vial : 6 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICV

Integration File: autoint1.e
Quant Time: Nov 19 10:03:44 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

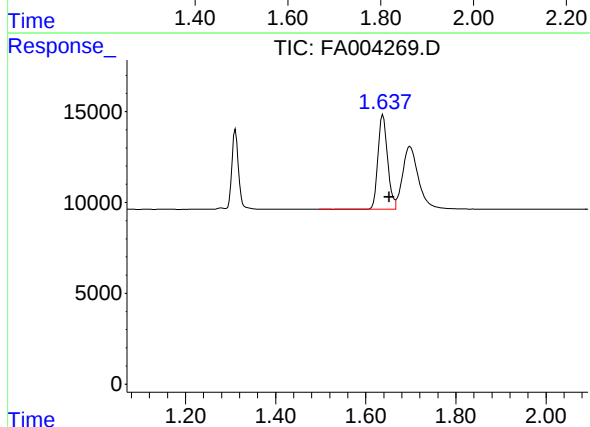




#1 Ethane

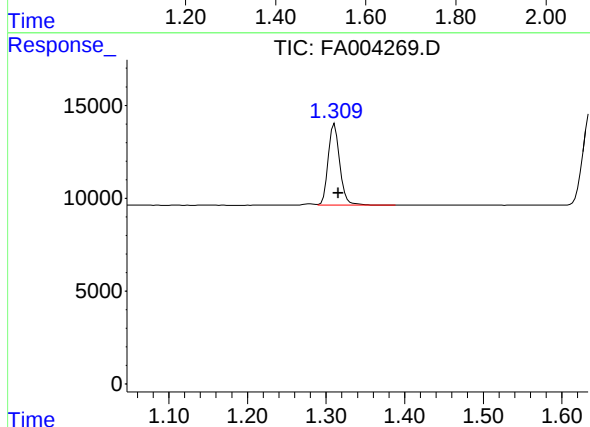
R.T.: 1.698 min
Delta R.T.: -0.020 min
Response: 85103
Conc: 177.25 ppmv

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES ICV



#2 Ethylene

R.T.: 1.638 min
Delta R.T.: -0.014 min
Response: 77823
Conc: 171.74 ppmv



#3 Methane

R.T.: 1.311 min
Delta R.T.: -0.005 min
Response: 45108
Conc: 179.43 ppmv



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: P4873 SAS No.: P4873 SDG NO.: P4873

Continuing Calib Date: 11/19/2024 Initial Calibration Date(s): 11/19/2024 11/19/2024

Continuing Calib Time: 11:33 Initial Calibration Time(s): 10:21 10:57

GC Column: RT-U Plot ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM TO		DIFF RT
Ethane	1.70	1.74	1.64	1.84	0.04
Ethylene	1.64	1.67	1.57	1.77	0.03
Methane	1.31	1.32	1.22	1.42	0.01



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Continuing Calibration Summary GASES

Contract: EAEN05 **Initi. Calib. Date(s):** 11/19/2024 11/19/2024
Lab Code: CHEM **Date Analyzed:** 11/19/2024 **Time Analyzed:** 11:33
GC Column: RT-U Plot **ID:** 0.32 (mm) **Data File :** FA004270.D
Client Sample No.: CCAL01 **SAS No.:** P4873 **SDG NO.:** P4873
Lab Sample No.: 200 PPMV GASES CCC **Case No.:** P4873

Analyte	Cal Fac	%D	Flag	Conc PPM	%Rec	Lower Limit	Upper Limit
Ethane	496.35	3		207	103.5	80	120
Ethylene	438.48	3		194	97	80	120
Methane	262.4	4		209	104.5	80	120

Denotes outside control criteria: 30% RSD for initial calibration 20 %D for continuing calibration
 (When calibration factor fails correlation coefficient is used as per RSK-175)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004270.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:33
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 10:08:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.697	99269	206.759 ppmv
2) Ethylene	1.639	87696	193.522 ppmv
3) Methane	1.314	52480	208.746 ppmv

(f)=RT Delta > 1/2 Window

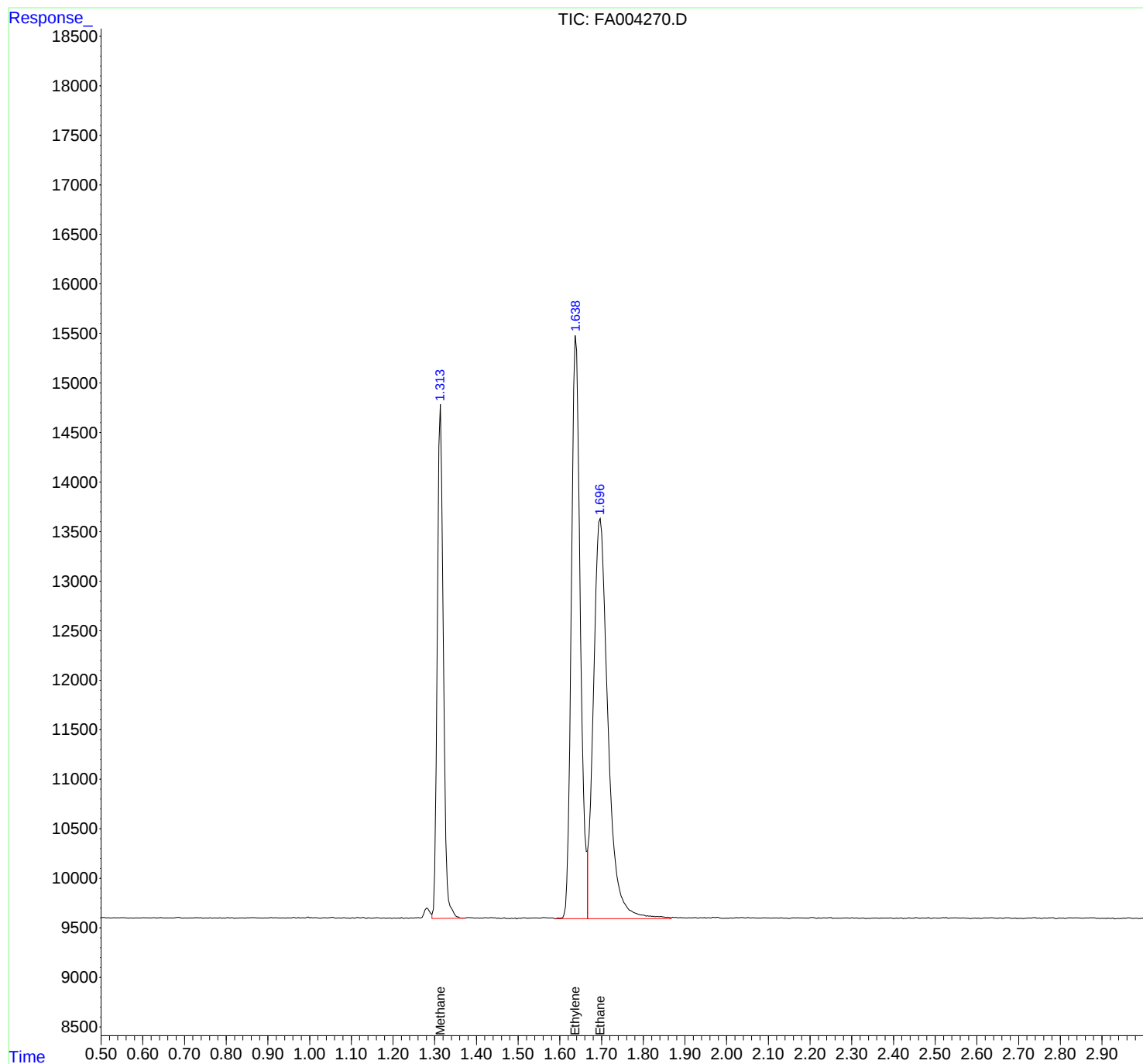
(m)=manual int.

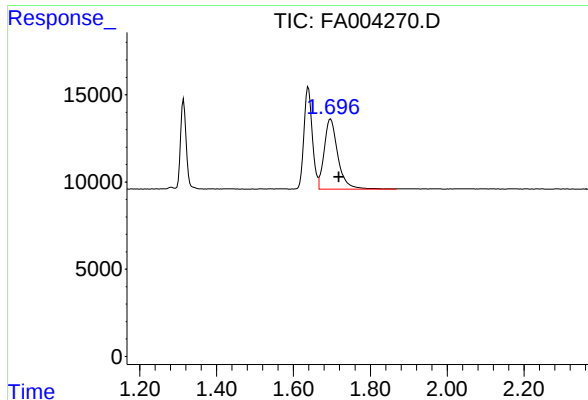
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004270.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:33
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 7 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 10:08:06 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

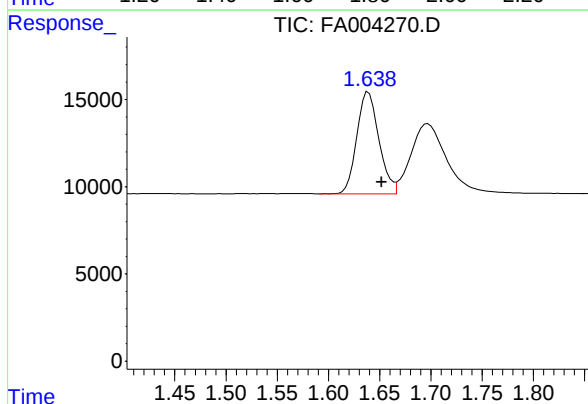




#1 Ethane

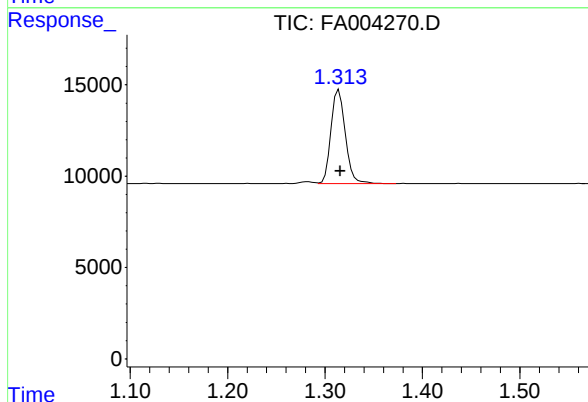
R.T.: 1.697 min
Delta R.T.: -0.021 min
Response: 99269
Conc: 206.76 ppmv

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC



#2 Ethylene

R.T.: 1.639 min
Delta R.T.: -0.013 min
Response: 87696
Conc: 193.52 ppmv



#3 Methane

R.T.: 1.314 min
Delta R.T.: -0.001 min
Response: 52480
Conc: 208.75 ppmv



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: EAEN05

Lab Code: CHEM Case No.: P4873 SAS No.: P4873 SDG NO.: P4873

Continuing Calib Date: 11/19/2024 Initial Calibration Date(s): 11/19/2024 11/19/2024

Continuing Calib Time: 13:17 Initial Calibration Time(s): 10:21 10:57

GC Column: RT-U Plot ID: 0.32 (mm)

COMPOUND	CCAL RT	AVG RT	RT WINDOW FROM TO		DIFF RT
Ethane	1.69	1.74	1.64	1.84	0.06
Ethylene	1.63	1.67	1.57	1.77	0.04
Methane	1.31	1.32	1.22	1.42	0.01



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Continuing Calibration Summary GASES

Contract: EAEN05 **Initi. Calib. Date(s):** 11/19/2024 11/19/2024
Lab Code: CHEM **Date Analyzed:** 11/19/2024 **Time Analyzed:** 13:17
GC Column: RT-U Plot **ID:** 0.32 (mm) **Data File :** FA004280.D
Client Sample No.: CCAL02 **SAS No.:** P4873 **SDG NO.:** P4873
Lab Sample No.: 200 PPMV GASES CCC **Case No.:** P4873

Analyte	Cal Fac	%D	Flag	Conc PPM	%Rec	Lower Limit	Upper Limit
Ethane	477.52	1		199	99.5	80	120
Ethylene	388.44	14		171	85.5	80	120
Methane	260.62	4		207	103.5	80	120

Denotes outside control criteria: 30% RSD for initial calibration 20 %D for continuing calibration
 (When calibration factor fails correlation coefficient is used as per RSK-175)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004280.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 13:17
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 11:53:26 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.685	95505	198.920 ppmv
2) Ethylene	1.630	77688	171.436 ppmv
3) Methane	1.309	52124	207.330 ppmv

(f)=RT Delta > 1/2 Window

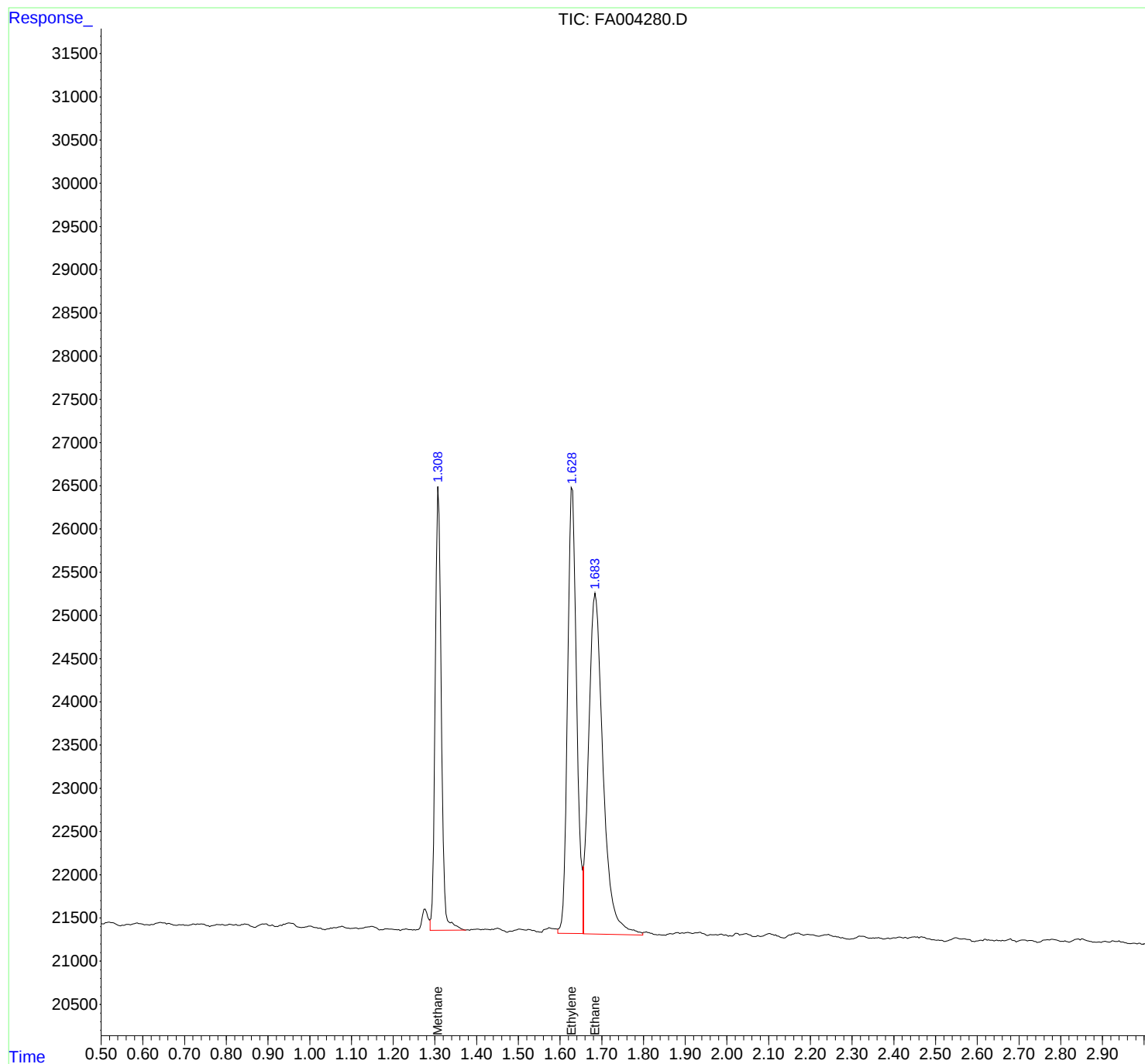
(m)=manual int.

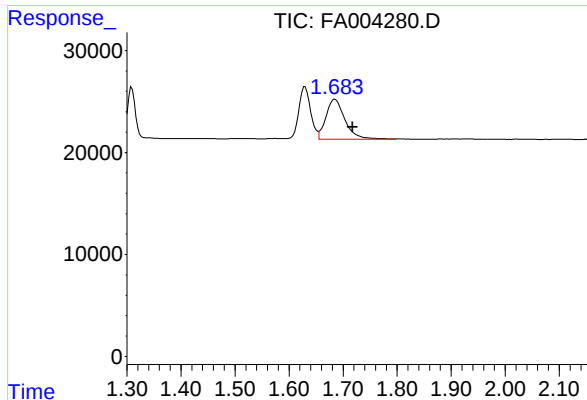
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004280.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 13:17
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 11:53:26 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

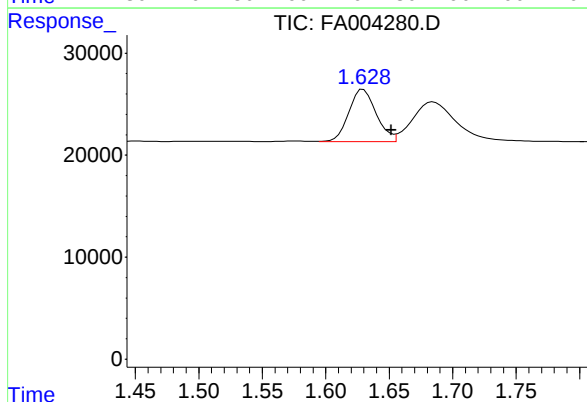




#1 Ethane

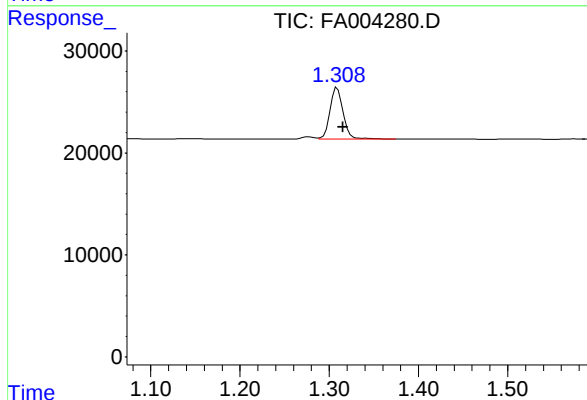
R.T.: 1.685 min
Delta R.T.: -0.033 min
Response: 95505
Conc: 198.92 ppmv

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC



#2 Ethylene

R.T.: 1.630 min
Delta R.T.: -0.022 min
Response: 77688
Conc: 171.44 ppmv



#3 Methane

R.T.: 1.309 min
Delta R.T.: -0.007 min
Response: 52124
Conc: 207.33 ppmv



QC SAMPLE DATA

Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	
Project:	Scotia, NY - Annual Testing	Date Received:	
Client Sample ID:	VBA1119G1	SDG No.:	P4873
Lab Sample ID:	VBA1119G1	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0 Decanted:
Water Phase Vol :	36 mL	Test:	Gases
Gas Phase Vol :	4 mL		

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004271.D	1	11/19/24 11:37

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	1.92	U	0.66	1.92	9.60	ug/L
74-85-1	Ethylene	2.64	U	0.93	2.64	13.2	ug/L
74-82-8	Methane	0.94	U	0.43	0.94	4.70	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004271.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:37
Operator : YP\AJ
Sample : VBA1119G1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
VBA1119G1

Integration File: autoint1.e
Quant Time: Nov 19 10:20:52 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units
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Target Compounds

(f)=RT Delta > 1/2 Window

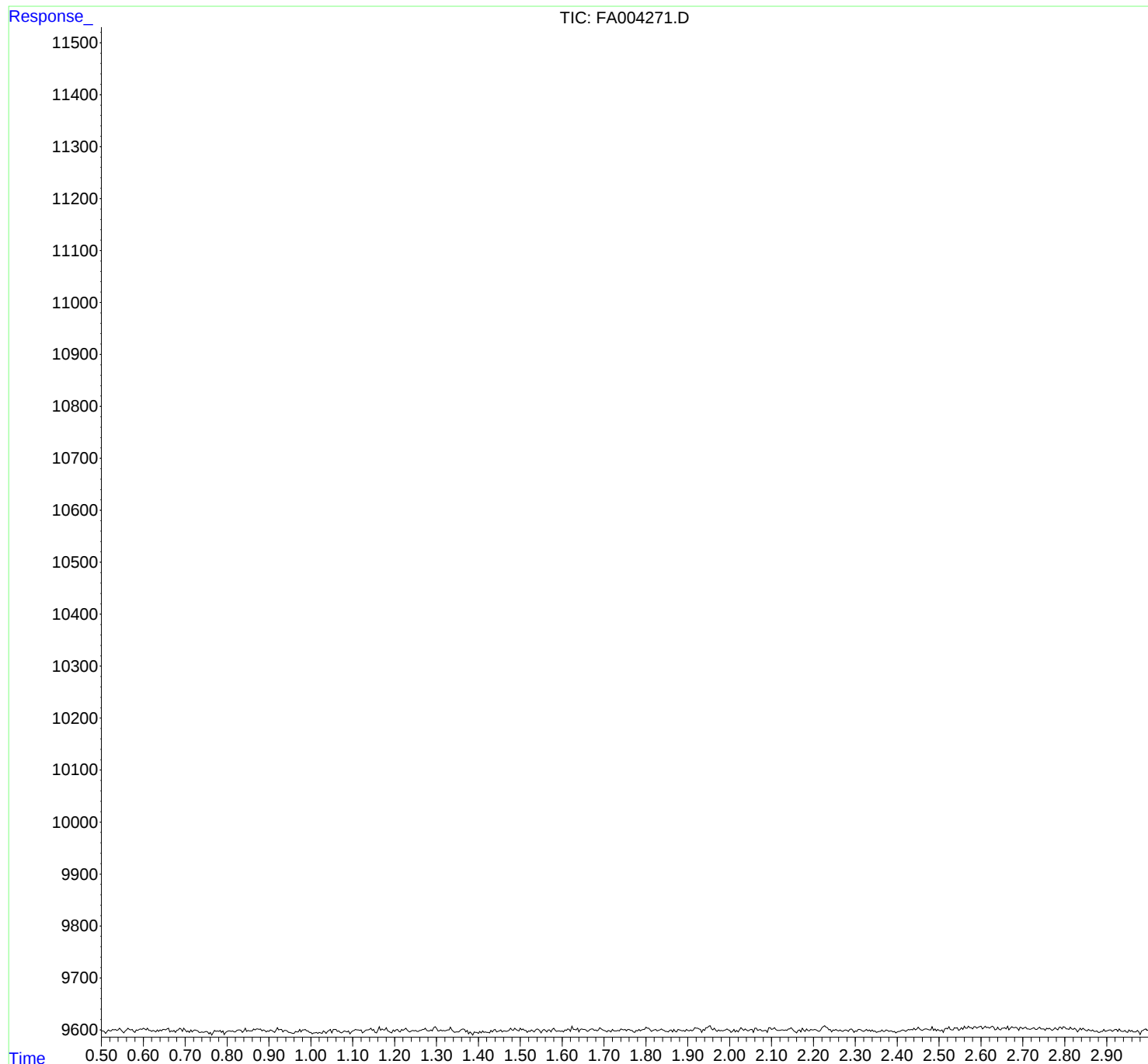
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004271.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:37
Operator : YP\AJ
Sample : VBA1119G1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
VBA1119G1

Integration File: autoint1.e
Quant Time: Nov 19 10:20:52 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm



Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	
Project:	Scotia, NY - Annual Testing	Date Received:	
Client Sample ID:	BSA1119G1	SDG No.:	P4873
Lab Sample ID:	BSA1119G1	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0 Decanted:
Water Phase Vol :	36 mL	Test:	Gases
Gas Phase Vol :	4 mL		

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004272.D	1	11/19/24 11:51

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	37.4		0.66	1.92	9.60	ug/L
74-85-1	Ethylene	47.3		0.93	2.64	13.2	ug/L
74-82-8	Methane	18.5		0.43	0.94	4.70	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004272.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:51
Operator : YP\AJ
Sample : BSA1119G1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
BSA1119G1

Integration File: autoint1.e
Quant Time: Nov 19 10:38:57 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.685	93741	195.245 ppmv
2) Ethylene	1.630	81268	179.337 ppmv
3) Methane	1.310	49326	196.202 ppmv

(f)=RT Delta > 1/2 Window

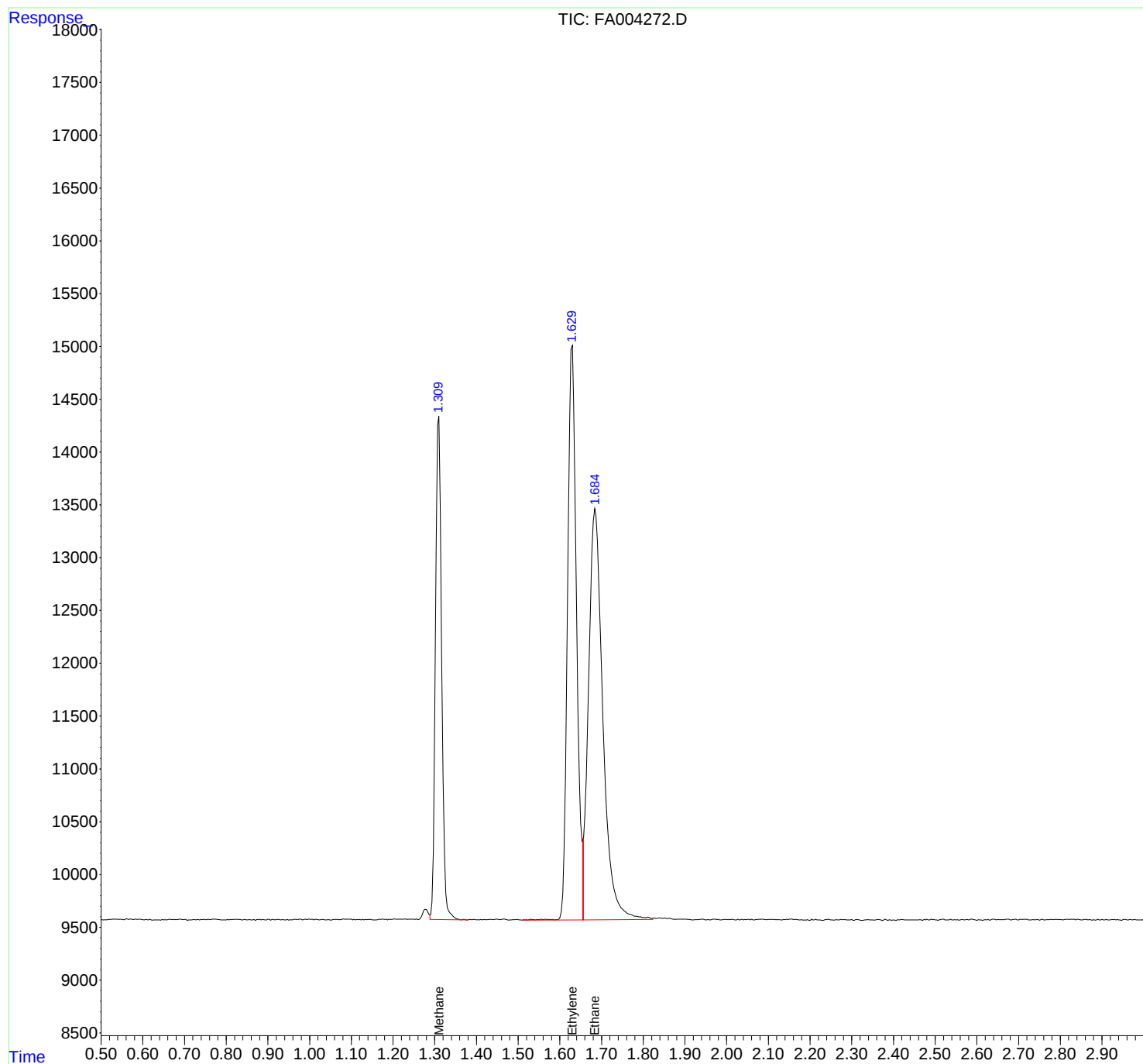
(m)=manual int.

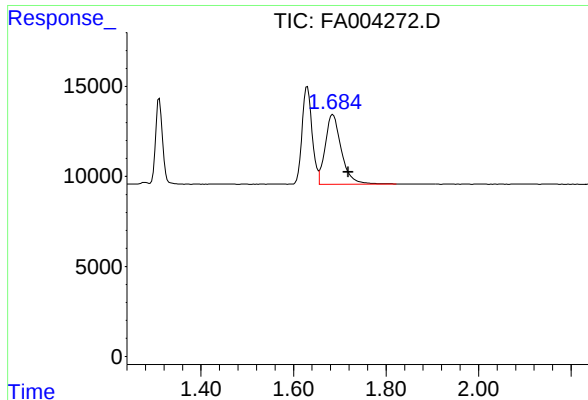
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004272.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 11:51
Operator : YP\AJ
Sample : BSA1119G1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
BSA1119G1

Integration File: autoint1.e
Quant Time: Nov 19 10:38:57 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

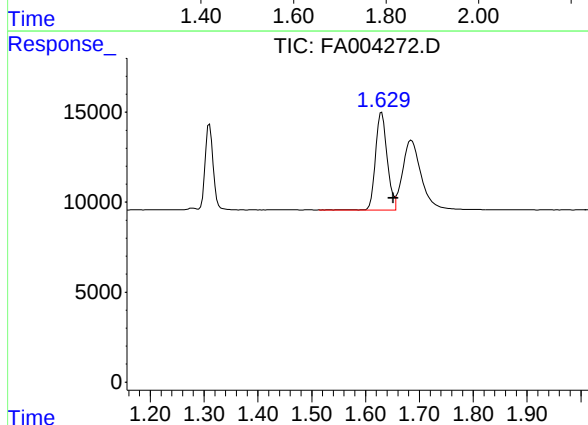




#1 Ethane

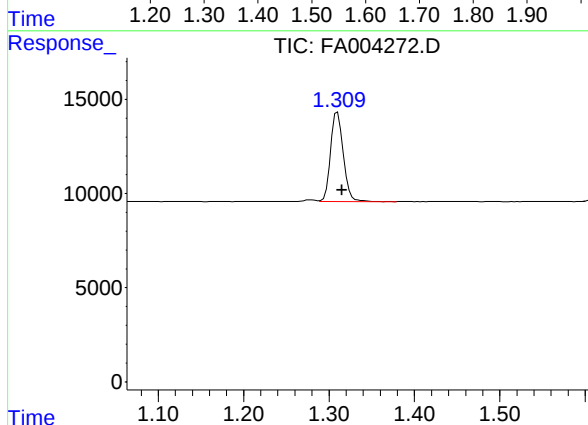
R.T.: 1.685 min
Delta R.T.: -0.033 min
Response: 93741
Conc: 195.25 ppmv

Instrument :
FID_A
ClientSampleId :
BSA1119G1



#2 Ethylene

R.T.: 1.630 min
Delta R.T.: -0.022 min
Response: 81268
Conc: 179.34 ppmv



#3 Methane

R.T.: 1.310 min
Delta R.T.: -0.005 min
Response: 49326
Conc: 196.20 ppmv

Report of Analysis

Client:	EA Engineering Science & Technology	Date Collected:	
Project:	Scotia, NY - Annual Testing	Date Received:	
Client Sample ID:	BSA1119G2	SDG No.:	P4873
Lab Sample ID:	BSA1119G2	Matrix:	Water
Analytical Method:	RSK175	% Solid:	0 Decanted:
Water Phase Vol :	36 mL	Test:	Gases
Gas Phase Vol :	4 mL		

File ID/Qc Batch:	Dilution:	Date Analyzed
FA004273.D	1	11/19/24 12:08

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-84-0	Ethane	36.9		0.66	1.92	9.60	ug/L
74-85-1	Ethylene	45.5		0.93	2.64	13.2	ug/L
74-82-8	Methane	18.6		0.43	0.94	4.70	ug/L

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004273.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:08
Operator : YP\AJ
Sample : BSA1119G2
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :

FID_A

ClientSampleId :

BSA1119G2

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 11/19/2024

Supervised By :Ankita Jodhani 11/20/2024

Integration File: autoint1.e
Quant Time: Nov 19 10:45:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
1) Ethane	1.678	92601	192.871 ppmv
2) Ethylene	1.623	78173	172.508 ppmv m
3) Methane	1.306	49745	197.870 ppmv

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004273.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:08
Operator : YP\AJ
Sample : BSA1119G2
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :

FID_A

ClientSampleId :

BSA1119G2

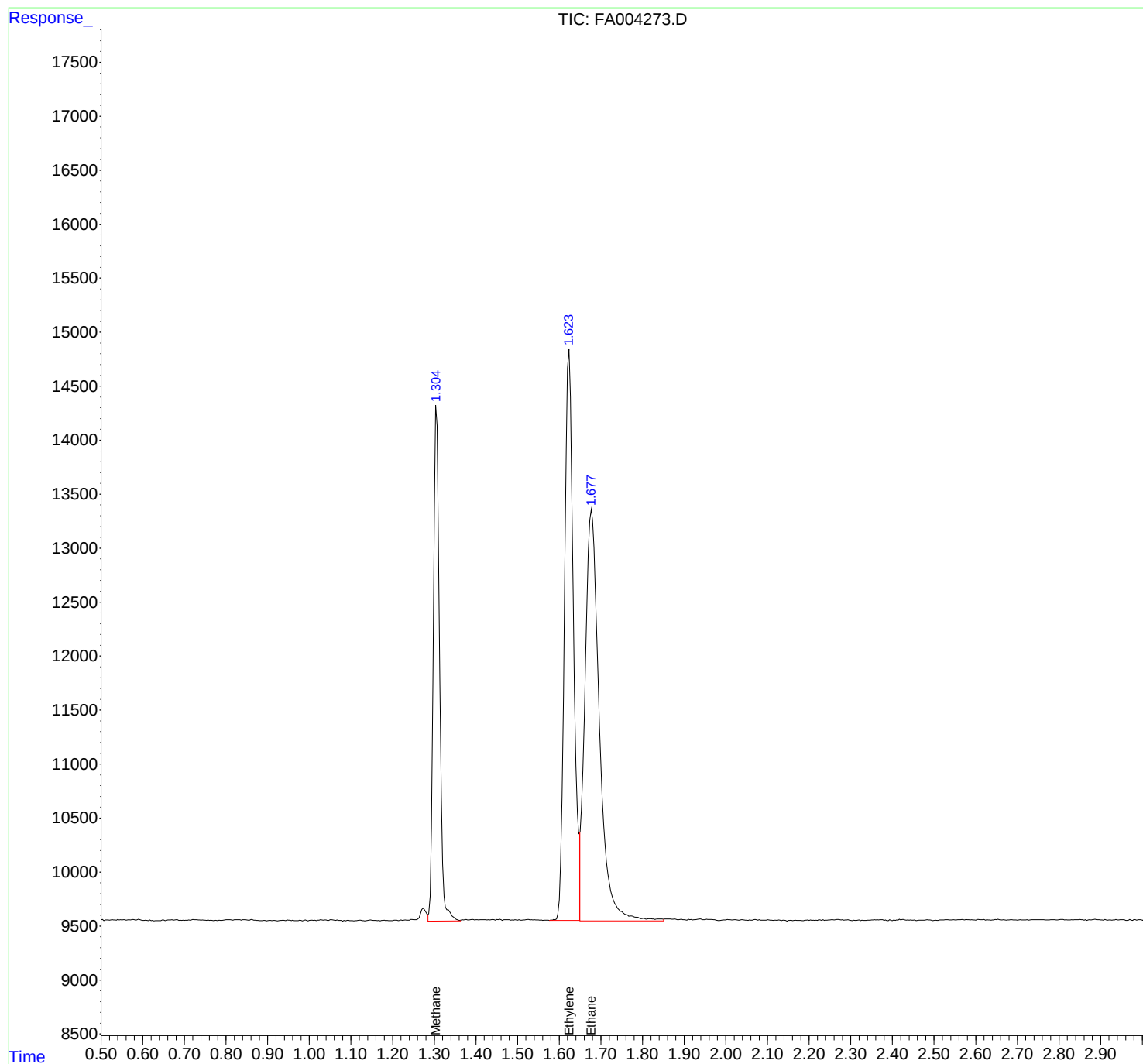
Manual Integrations**APPROVED**

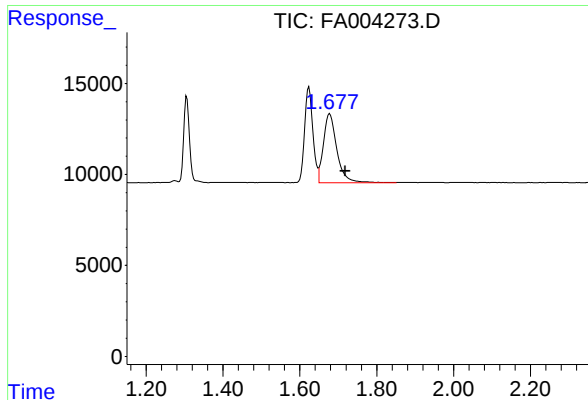
Reviewed By :Yogesh Patel 11/19/2024

Supervised By :Ankita Jodhani 11/20/2024

Integration File: autoint1.e
Quant Time: Nov 19 10:45:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm





#1 Ethane

R.T.: 1.678 min
Delta R.T.: -0.040 min
Response: 92601
Conc: 192.87 ppmv

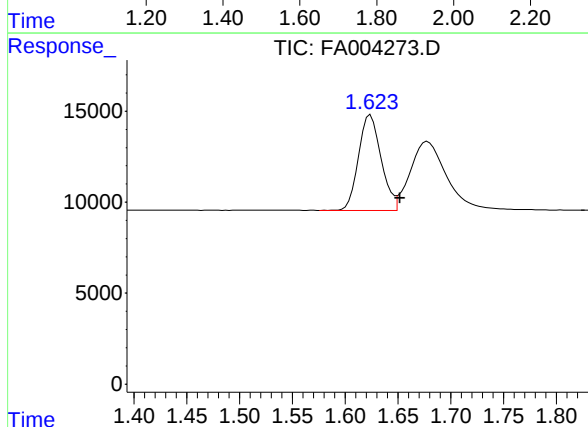
Instrument :

FID_A

ClientSampleId :
BSA1119G2

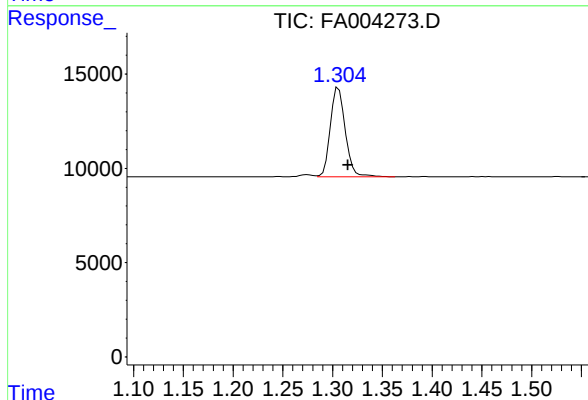
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 11/19/2024
Supervised By :Ankita Jodhani 11/20/2024



#2 Ethylene

R.T.: 1.623 min
Delta R.T.: -0.029 min
Response: 78173
Conc: 172.51 ppmv m



#3 Methane

R.T.: 1.306 min
Delta R.T.: -0.010 min
Response: 49745
Conc: 197.87 ppmv

Manual Integration Report

Sequence:

FA111924

Instrument

FID_a

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
BSA1119G2	FA004273.D	Ethylene	yogesh	11/19/2024 4:08:44 PM	Ankita	11/20/2024 9:37:54	Peak Integrated by Software
200 PPMV GASES CCC	FA004291.D	Ethane	yogesh	11/19/2024 4:08:50 PM	Ankita	11/20/2024 9:38:00	Peak Integrated by Software
200 PPMV GASES CCC	FA004291.D	Ethylene	yogesh	11/19/2024 4:08:50 PM	Ankita	11/20/2024 9:38:00	Peak Integrated by Software

Instrument ID: FID_A

Daily Analysis Runlog For Sequence/QC Batch ID # FA111924

Review By	yogesh	Review On	11/19/2024 4:15:37 PM
Supervise By	Ankita	Supervise On	11/20/2024 9:38:07 AM
SubDirectory	FA111924	HP Acquire Method	HP Processing Method FA111924
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23991,PP23993,PP23994,PP23995,PP23996,PP23997		
CCC Internal Standard/PEM	PP23999,PP24000,PP24001,PP24002		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23992,PP23998		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	500 PPMV GASES ICC	FA004264.D	19 Nov 2024 10:21	YP\AJ	Ok
2	300 PPMV GASES ICC	FA004265.D	19 Nov 2024 10:28	YP\AJ	Ok
3	200 PPMV GASES ICC	FA004266.D	19 Nov 2024 10:32	YP\AJ	Ok
4	100 PPMV GASES ICC	FA004267.D	19 Nov 2024 10:39	YP\AJ	Ok
5	50 PPMV GASES ICC	FA004268.D	19 Nov 2024 10:57	YP\AJ	Ok
6	200 PPMV GASES ICV	FA004269.D	19 Nov 2024 11:04	YP\AJ	Ok
7	200 PPMV GASES CCC	FA004270.D	19 Nov 2024 11:33	YP\AJ	Ok
8	VBA1119G1	FA004271.D	19 Nov 2024 11:37	YP\AJ	Ok
9	BSA1119G1	FA004272.D	19 Nov 2024 11:51	YP\AJ	Ok
10	BSA1119G2	FA004273.D	19 Nov 2024 12:08	YP\AJ	Ok,M
11	P4873-01	FA004274.D	19 Nov 2024 12:27	YP\AJ	Ok
12	P4873-02	FA004275.D	19 Nov 2024 12:31	YP\AJ	Dilution
13	P4873-02DL	FA004276.D	19 Nov 2024 12:41	YP\AJ	Ok
14	P4846-01	FA004277.D	19 Nov 2024 12:49	YP\AJ	Ok
15	P4846-02	FA004278.D	19 Nov 2024 13:00	YP\AJ	Ok,M
16	P4846-03	FA004279.D	19 Nov 2024 13:08	YP\AJ	Ok,M
17	200 PPMV GASES CCC	FA004280.D	19 Nov 2024 13:17	YP\AJ	Ok
18	P4846-04	FA004281.D	19 Nov 2024 13:35	YP\AJ	Ok
19	P4846-05	FA004282.D	19 Nov 2024 13:43	YP\AJ	Ok,M
20	P4846-06MS	FA004283.D	19 Nov 2024 13:47	YP\AJ	Ok
21	P4846-07MSD	FA004284.D	19 Nov 2024 13:53	YP\AJ	Ok

Instrument ID: FID_A

Daily Analysis Runlog For Sequence/QC Batch ID # FA111924

Review By	yogesh	Review On	11/19/2024 4:15:37 PM
Supervise By	Ankita	Supervise On	11/20/2024 9:38:07 AM
SubDirectory	FA111924	HP Acquire Method	HP Processing Method FA111924
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23991,PP23993,PP23994,PP23995,PP23996,PP23997		
CCC Internal Standard/PEM	PP23999,PP24000,PP24001,PP24002		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23992,PP23998		

22	P4846-08	FA004285.D	19 Nov 2024 13:59	YP\AJ	Ok
23	P4846-10	FA004286.D	19 Nov 2024 14:03	YP\AJ	Ok
24	P4846-11	FA004287.D	19 Nov 2024 14:22	YP\AJ	Ok
25	P4846-12	FA004288.D	19 Nov 2024 14:31	YP\AJ	Ok
26	P4846-13	FA004289.D	19 Nov 2024 14:35	YP\AJ	Ok
27	P4846-14	FA004290.D	19 Nov 2024 14:48	YP\AJ	Ok
28	200 PPMV GASES CCC	FA004291.D	19 Nov 2024 14:59	YP\AJ	Ok,M
29	P4846-15	FA004292.D	19 Nov 2024 15:05	YP\AJ	Ok,M
30	P4846-16	FA004293.D	19 Nov 2024 15:09	YP\AJ	Dilution
31	P4846-16DL	FA004294.D	19 Nov 2024 15:24	YP\AJ	Ok
32	P4846-17	FA004295.D	19 Nov 2024 15:35	YP\AJ	Ok,M
33	200 PPMV GASES CCC	FA004296.D	19 Nov 2024 16:14	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_A

Daily Analysis Runlog For Sequence/QC Batch ID # FA111924

Review By	yogesh	Review On	11/19/2024 4:15:37 PM
Supervise By	Ankita	Supervise On	11/20/2024 9:38:07 AM
SubDirectory	FA111924	HP Acquire Method	HP Processing Method FA111924

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23991,PP23993,PP23994,PP23995,PP23996,PP23997
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23999,PP24000,PP24001,PP24002 PP23992,PP23998

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	500 PPMV GASES ICC	500 PPMV GASES ICC	FA004264.D	19 Nov 2024 10:21		YPIAJ	Ok
2	300 PPMV GASES ICC	300 PPMV GASES ICC	FA004265.D	19 Nov 2024 10:28		YPIAJ	Ok
3	200 PPMV GASES ICC	200 PPMV GASES ICC	FA004266.D	19 Nov 2024 10:32		YPIAJ	Ok
4	100 PPMV GASES ICC	100 PPMV GASES ICC	FA004267.D	19 Nov 2024 10:39		YPIAJ	Ok
5	50 PPMV GASES ICC	50 PPMV GASES ICC	FA004268.D	19 Nov 2024 10:57		YPIAJ	Ok
6	200 PPMV GASES ICV	200 PPMV GASES ICV	FA004269.D	19 Nov 2024 11:04		YPIAJ	Ok
7	200 PPMV GASES CCC	200 PPMV GASES CCC	FA004270.D	19 Nov 2024 11:33		YPIAJ	Ok
8	VBA1119G1	VBA1119G1	FA004271.D	19 Nov 2024 11:37		YPIAJ	Ok
9	BSA1119G1	BSA1119G1	FA004272.D	19 Nov 2024 11:51		YPIAJ	Ok
10	BSA1119G2	BSA1119G2	FA004273.D	19 Nov 2024 12:08		YPIAJ	Ok,M
11	P4873-01	FSND-RB-4-20241114	FA004274.D	19 Nov 2024 12:27		YPIAJ	Ok
12	P4873-02	FSND-MW-30-2024111	FA004275.D	19 Nov 2024 12:31	Need 20X	YPIAJ	Dilution
13	P4873-02DL	FSND-MW-30-2024111	FA004276.D	19 Nov 2024 12:41		YPIAJ	Ok
14	P4846-01	FSND-MW-EVAL-03D-2	FA004277.D	19 Nov 2024 12:49		YPIAJ	Ok
15	P4846-02	FSND-MW-EVAL-03S-2	FA004278.D	19 Nov 2024 13:00		YPIAJ	Ok,M
16	P4846-03	FSND-FD-3-20241113	FA004279.D	19 Nov 2024 13:08		YPIAJ	Ok,M
17	200 PPMV GASES CCC	200 PPMV GASES CCC	FA004280.D	19 Nov 2024 13:17		YPIAJ	Ok
18	P4846-04	FSND-MW-EVAL-04S-2	FA004281.D	19 Nov 2024 13:35		YPIAJ	Ok

Instrument ID: FID_A

Daily Analysis Runlog For Sequence/QC Batch ID # FA111924

Review By	yogesh	Review On	11/19/2024 4:15:37 PM
Supervise By	Ankita	Supervise On	11/20/2024 9:38:07 AM
SubDirectory	FA111924	HP Acquire Method	HP Processing Method FA111924
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23991,PP23993,PP23994,PP23995,PP23996,PP23997		
CCC Internal Standard/PEM	PP23999,PP24000,PP24001,PP24002		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23992,PP23998		

19	P4846-05	FSND-MW-EVAL-04D-2	FA004282.D	19 Nov 2024 13:43		YPIAJ	Ok,M
20	P4846-06MS	FSND-MW-EVAL-04D-2	FA004283.D	19 Nov 2024 13:47		YPIAJ	Ok
21	P4846-07MSD	FSND-MW-EVAL-04D-2	FA004284.D	19 Nov 2024 13:53		YPIAJ	Ok
22	P4846-08	FSND-MW-26-2024111	FA004285.D	19 Nov 2024 13:59		YPIAJ	Ok
23	P4846-10	FSND-RB-3-20241113	FA004286.D	19 Nov 2024 14:03		YPIAJ	Ok
24	P4846-11	FSND-MW-24-2024111	FA004287.D	19 Nov 2024 14:22		YPIAJ	Ok
25	P4846-12	FSWD-MW-15-2024111	FA004288.D	19 Nov 2024 14:31		YPIAJ	Ok
26	P4846-13	FSND-MW-EVAL-02D-2	FA004289.D	19 Nov 2024 14:35		YPIAJ	Ok
27	P4846-14	FSND-MW-EVAL-02S-2	FA004290.D	19 Nov 2024 14:48		YPIAJ	Ok
28	200 PPMV GASES CC	200 PPMV GASES CC	FA004291.D	19 Nov 2024 14:59		YPIAJ	Ok,M
29	P4846-15	FSND-FD-4-20241113	FA004292.D	19 Nov 2024 15:05		YPIAJ	Ok,M
30	P4846-16	FSND-MW-EVAL-01D-2	FA004293.D	19 Nov 2024 15:09	Need 5X	YPIAJ	Dilution
31	P4846-16DL	FSND-MW-EVAL-01D-2	FA004294.D	19 Nov 2024 15:24		YPIAJ	Ok
32	P4846-17	FSND-MW-EVAL-01S-2	FA004295.D	19 Nov 2024 15:35		YPIAJ	Ok,M
33	200 PPMV GASES CC	200 PPMV GASES CC	FA004296.D	19 Nov 2024 16:14		YPIAJ	Ok

M : Manual Integration

Prep Standard - Chemical Standard Summary

Order ID : P4873

Test : Gases

Prepbatch ID :

Sequence ID/Qc Batch ID: FA111924,

Standard ID :

PP23991,PP23992,PP23993,PP23994,PP23995,PP23996,PP23997,PP23998,PP23999,PP24000,PP24001,PP24002,

Chemical ID :

P11978,P9156,W3112,

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2714	1000 PPMV GASES Working STD	PP23991	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 36.00000ml of W3112 + 4.00000ml of P11978 = Final Quantity: 40.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3617	2000 PPMV GASES Working STD - ICV	PP23992	11/19/2024	12/04/2024	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 36.00000ml of W3112 + 4.00000ml of P9156 = Final Quantity: 40.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2551	500 PPMV GAS STD	PP23993	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 0.50000ml of PP23991 = Final Quantity: 0.500 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2606	300 PPMV GAS STD	PP23994	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 0.30000ml of PP23991 = Final Quantity: 0.300 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2552	200 PPMV GAS STD	PP23995	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 0.20000ml of PP23991 = Final Quantity: 0.200 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2553	100 PPMV GAS STD	PP23996	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 0.10000ml of PP23991 = Final Quantity: 0.100 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2554	50 PPMV GAS STD	PP23997	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 0.05000ml of PP23991 = Final Quantity: 0.050 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2555	200 PPMV ICV STD	PP23998	11/19/2024	12/04/2024	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								

FROM 0.10000ml of PP23992 = Final Quantity: 0.100 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2552	200 PPMV GAS STD	PP23999	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 0.20000ml of PP23991 = Final Quantity: 0.200 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2552	200 PPMV GAS STD	PP24000	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 0.20000ml of PP23991 = Final Quantity: 0.200 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2552	200 PPMV GAS STD	PP24001	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								
FROM 0.20000ml of PP23991 = Final Quantity: 0.200 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2552	200 PPMV GAS STD	PP24002	11/19/2024	05/19/2025	Yogesh Patel	None	None	Ankita Jodhani
11/21/2024								
FROM 0.20000ml of PP23991 = Final Quantity: 0.200 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
AIR LIQUIDE	0702E400000PCL / 3 Gases Components Mix, 1000 PPM	160-402482954-1	07/15/2030	08/10/2022 / yogesh	07/29/2022 / Ankita	P11978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
AIR LIQUIDE	0702E400000PCL / 3 Gases Components Mix, 2000 PPM	160-401645978-1	12/04/2024	02/10/2020 / DHAVAL	12/04/2019 / Ankita	P9156

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04NI99C33A00P7	Reference Number:	160-402482954-1
Cylinder Number:	CLM007359	Cylinder Volume:	32.0 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2217 PSIG
Analysis Date:	Jul 15, 2022	Valve Outlet:	350
Lot Number:	160-402482954-1		
Expiration Date: Jul 15, 2030			

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	1000 PPM	1021 PPM	+/-2%
ETHYLENE	1000 PPM	1000 PPM	+/-2%
METHANE	1000 PPM	1000 PPM	+/-2%
NITROGEN	Balance		

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X04NI99C33A00J9	Reference Number:	160-401645978-1
Cylinder Number:	EA0004927	Cylinder Volume:	31.6 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2216 PSIG
Analysis Date:	Nov 19, 2019	Valve Outlet:	350
Lot Number:	160-401645978-1		

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

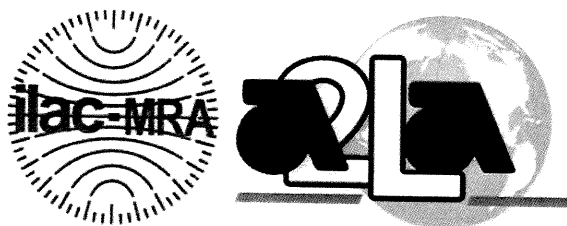
Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHANE	2000 PPM	2094 PPM	+/- 2%
ETHYLENE	2000 PPM	2091 PPM	+/- 2%
METHANE	2000 PPM	1999 PPM	+/- 2%
NITROGEN	Balance		



Received by
SG on 12/14/19

P9156
AJ
12/24/19

[Signature]
Approved for Release



Accredited Laboratory

A2LA has accredited

AIRGAS USA, LLC - PLUMSTEADVILLE

Plumsteadville, PA

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of any additional program requirements in the Chemical field. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 21st day of May 2018.

A stylized, handwritten signature in black ink, positioned above a horizontal line.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3082.05
Valid to February 28, 2020
Revised on May 15, 2019

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

AIRGAS USA, LLC – PLUMSTEADVILLE
6141 Easton Road
Plumsteadville PA 18949
Lee Payton Phone: 609 820 8800
Ricky Doney Phone: 860 405 6084
Brandon Capetillo Phone: 832 514 9928

CHEMICAL

Valid To: February 28, 2020

Certificate Number: 3082.05

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on manufactured gases:

Technology

Chemiluminescence

Determination of Nitric Oxide in Nitrogen
Determination of Total Oxides of Nitrogen in Nitrogen
Determination of Nitrogen Dioxide in Nitrogen or Air
Determination of Ammonia in Nitrogen or Air

FTIR

Determination of Carbon Dioxide in Nitrogen or Air
Determination of Carbon Monoxide in Nitrogen or Air
Determination of Nitric Oxide in Nitrogen
Determination of Sulfur Dioxide in Nitrogen or Air
Determination of Nitrogen Dioxide in Nitrogen or Air
Determination of Methane in Nitrogen or Air
Determination of Propane in Nitrogen or Air
Determination of Ammonia in Nitrogen or Air
Determination of Nitrous Oxide in Nitrogen or Air
Determination of Hydrogen Chloride in Nitrogen or Air

Paramagnetic

Determination of Oxygen in Nitrogen

NDIR

Determination of Carbon Dioxide in Nitrogen or Air
Determination of Carbon Monoxide in Nitrogen or Air

NDUV

Determination of Sulfur Dioxide in Nitrogen or Air
Determination of Hydrogen Sulfide in Nitrogen or Air

All testing is carried out according to AIRGAS EPA Methods 4.01, 4.02, 4.03 and 4.04 and is in compliance with EPA 600/R12/531.



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. **P4873**
QUOTE NO.
COC Number **2042605**

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: **EA Engineering**
ADDRESS: **333 West Washington St**
CITY: **Syracuse** STATE: **NY** ZIP: **13202**
ATTENTION: **Jim Hayward**
PHONE: **315 431 4610** FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **Former Scotia Navy Depot**
PROJECT NO.: LOCATION: **Scotia NY**
PROJECT MANAGER: **Jim Hayward**
e-mail: **j.hayward@eaest.com**
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: **northwest ap@eaest.com** O#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: **STD TAT** DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☒ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other
☐ EDD FORMAT

VOC 8260D
TOC SM 5310B
MEE PSK 175
ALK SM 2320
ANION SW 9050A

CHEMTECH SAMPLE ID		PROJECT SAMPLE IDENTIFICATION		SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
					COMP	GRAB	DATE	TIME		A	C	C	E	E					← Specify Preservatives	
										1	2	3	4	5	6	7	8	9	A-HCl B-HNO3 C-H2SO4	D-NaOH E-ICE F-OTHER
1.		FSND-RB-4-20241114		GW		X	11/14/24	1200	8	X	X	X	X	X						
2.		FSND-MW-30-20241114		I		I		1055	8	X	X	X	X	X						
3.		TB-2		-		-		1205	2	X									Lab prepared	
4.		FSND-MW-19-20241114		GW		X		0945												
5.		FSND-MW-32-20241114		I		I		1120												
6.		FSND-MW-34-20241114		I		I		1025												
7.		FSND-GEP-3-20241114		I		I		0925												
8.		FSND-MW-28-20241114		I		I		0930												
9.		FSND-MW-29-20241114		I		I		0830												
10.																				

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. Emily	DATE/TIME: 11/14/24 1300	RECEIVED BY: 1. [Signature]	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 20-25
RELINQUISHED BY SAMPLER: 2. [Signature]	DATE/TIME: 11-15-24	RECEIVED BY: 2. [Signature]	Comments: after 1
RELINQUISHED BY SAMPLER: 3. [Signature]	DATE/TIME:	RECEIVED BY: 3. [Signature]	Page ____ of ____ CLIENT: ☐ Hand Delivered ☐ Other CHEMTECH: ☐ Picked Up ☐ Field Sampling Shipment Complete ☐ YES ☐ NO



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4873 EAEN05

Order Date : 11/15/2024 10:19:00 AM

Project Mgr :

Client Name : EA Engineering Science & '

Project Name : Scotia, NY - Annual Testing

Report Type : Level 4

Client Contact : Jim Hayward

Receive DateTime : 11/15/2024 9:20:00 AM

EDD Type : NYSDEC EDD V-4

Invoice Name : EA Engineering Science & '

Purchase Order :

Hard Copy Date :

Invoice Contact : Jim Hayward

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4873-01	FSND-RB-4-20241114	Water	11/14/2024	12:00					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-02	FSND-MW-30-20241114	Water	11/14/2024	10:55					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-03	TB-2	Water	11/14/2024	12:05					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-04	FSND-MW-19-20241114	Water	11/14/2024	09:45					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-05	FSND-MW-32-20241114	Water	11/14/2024	11:20					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-06	FSND-MW-34-20241114	Water	11/14/2024	10:25					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-07	FSND-GEP-3-20241114	Water	11/14/2024	09:25					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-08	FSND-MW-28-20241114	Water	11/14/2024	09:30					

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4873	EAEN05	Order Date : 11/15/2024 10:19:00 AM	Project Mgr :
Client Name : EA Engineering Science & ' "		Project Name : Scotia, NY - Annual Testing	Report Type : Level 4
Client Contact : Jim Hayward		Receive DateTime : 11/15/2024 9:20:00 AM	EDD Type : NYSDEC EDD V-4
Invoice Name : EA Engineering Science & ' "		Purchase Order :	Hard Copy Date :
Invoice Contact : Jim Hayward			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	
P4873-09	FSND-MW-29-20241114	Water	11/14/2024	08:30					
					VOC-TCLVOA-10		8260-Low	10 Bus. Days	

Relinquished By :

Date / Time : 11-15-24 11:55

Received By :

Date / Time : 11-15-24 11:55

Storage Area : VOA Refridgerator Room

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004273.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:08
Operator : YP\AJ
Sample : BSA1119G2
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
BSA1119G2

Integration File: autoint1.e
Quant Time: Nov 19 10:45:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

	Compound	R.T.	Response	Conc Units

Target Compounds				
1)	Ethane	1.678	92601	192.871 ppmv
2)	Ethylene	1.678	92601	204.347 ppmv
3)	Methane	1.306	49745	197.870 ppmv

(f)=RT Delta > 1/2 Window

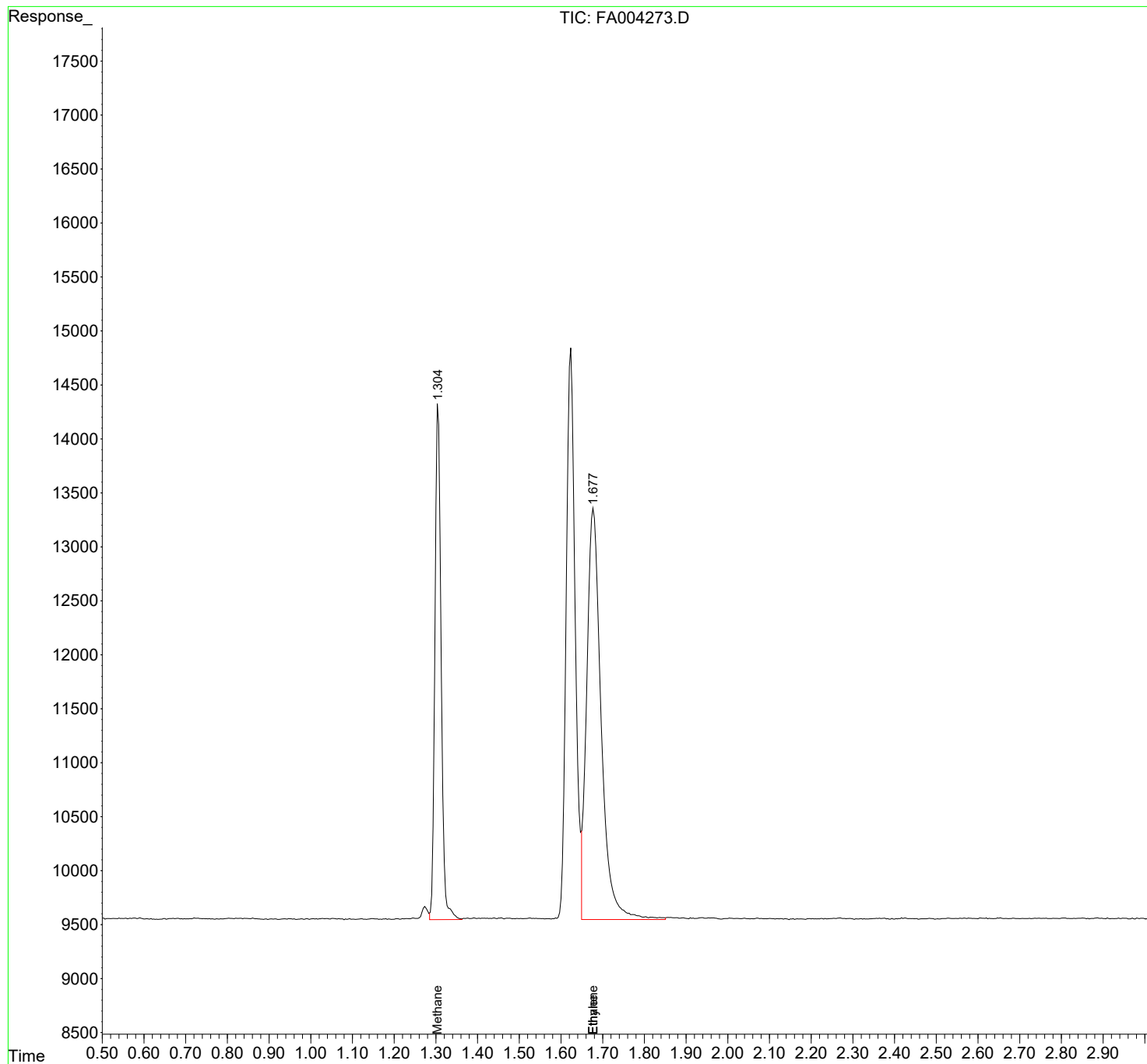
(m)=manual int.

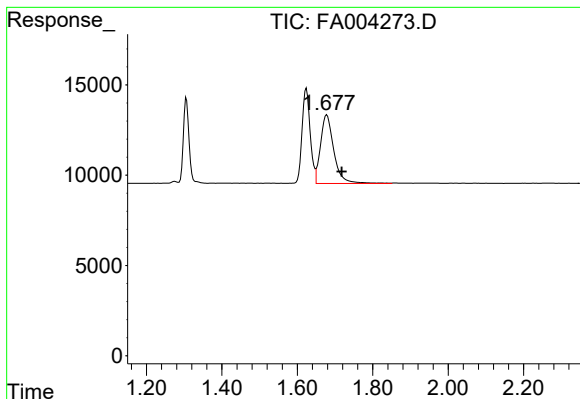
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004273.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 12:08
Operator : YP\AJ
Sample : BSA1119G2
Misc :
ALS Vial : 10 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
BSA1119G2

Integration File: autoint1.e
Quant Time: Nov 19 10:45:01 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

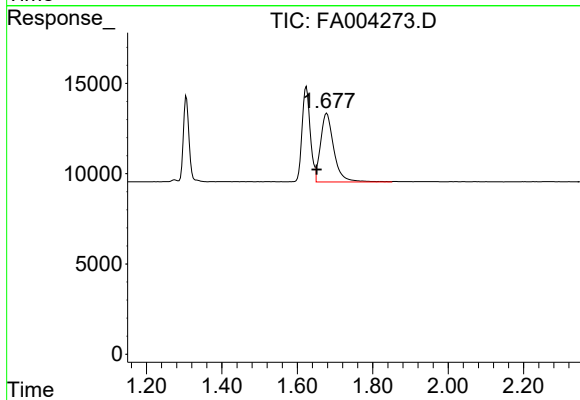




#1 Ethane

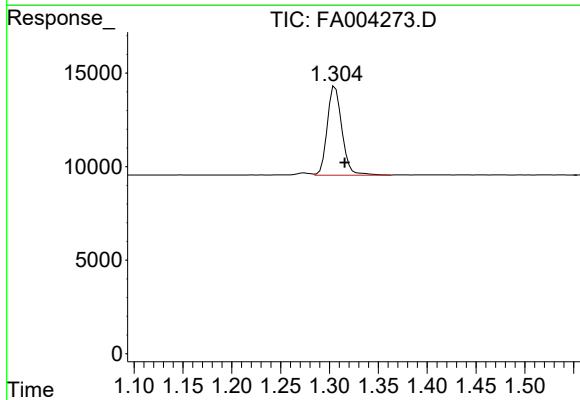
R.T.: 1.678 min
Delta R.T.: -0.040 min
Response: 92601
Conc: 192.87 ppmv

Instrument :
FID_A
ClientSampleId :
BSA1119G2



#2 Ethylene

R.T.: 1.678 min
Delta R.T.: 0.026 min
Response: 92601
Conc: 204.35 ppmv



#3 Methane

R.T.: 1.306 min
Delta R.T.: -0.010 min
Response: 49745
Conc: 197.87 ppmv

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004291.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 14:59
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 13:35:40 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm

Compound	R.T.	Response	Conc Units

Target Compounds			
2) Ethylene	1.668	97375	214.881 ppmv
3) Methane	1.308	54139	215.347 ppmv

(f)=RT Delta > 1/2 Window

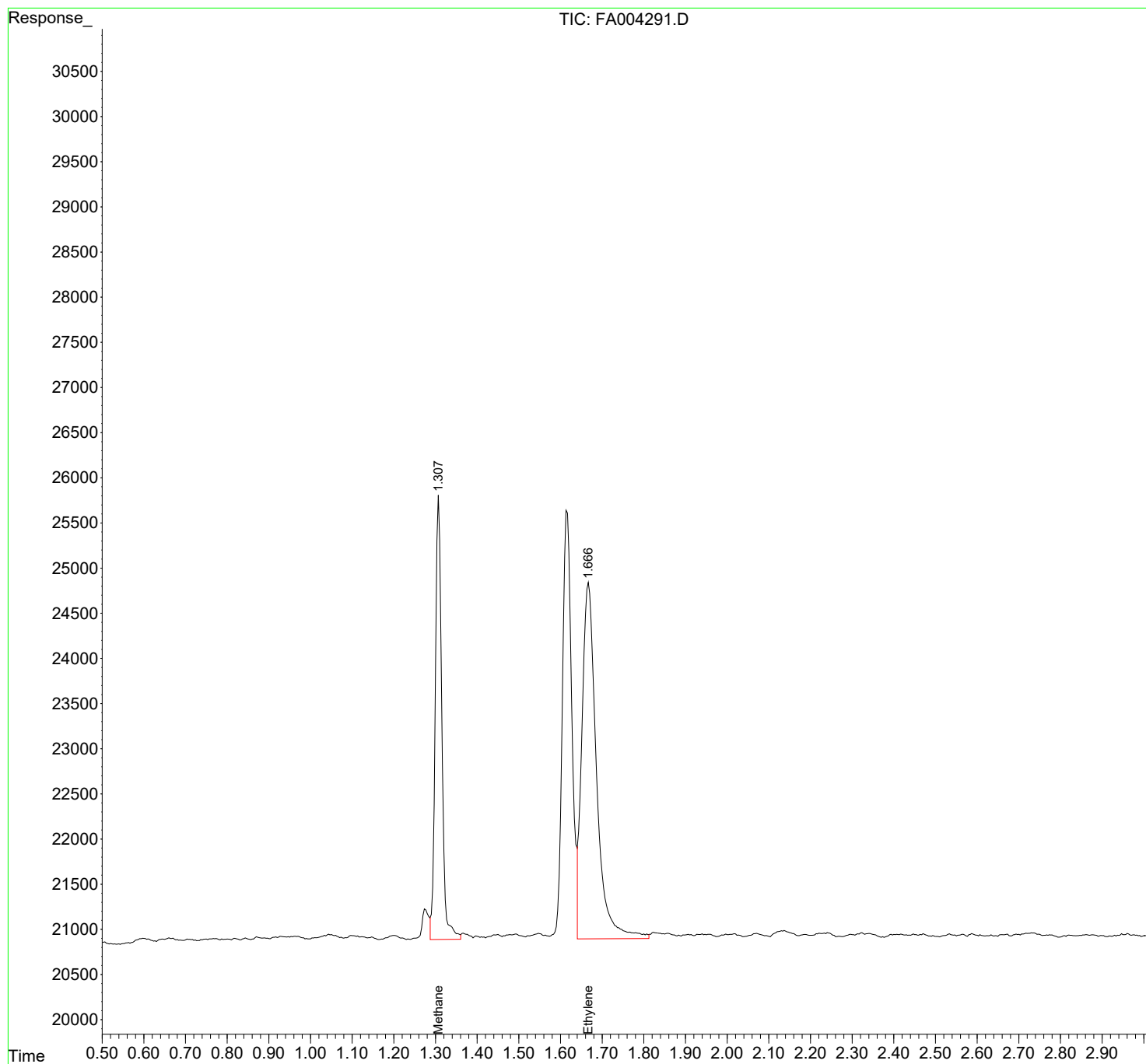
(m)=manual int.

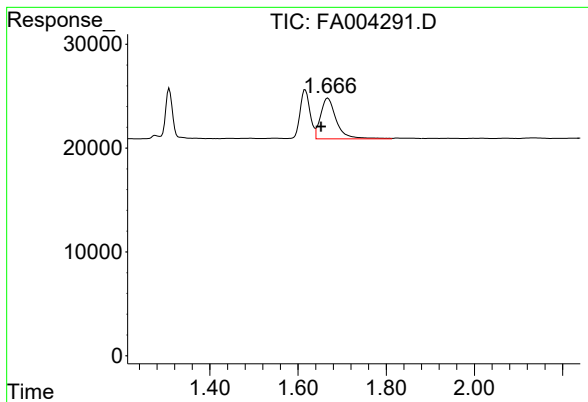
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_A\Data\FA111924\
Data File : FA004291.D
Signal(s) : FID1A.CH
Acq On : 19 Nov 2024 14:59
Operator : YP\AJ
Sample : 200 PPMV GASES CCC
Misc :
ALS Vial : 28 Sample Multiplier: 1

Instrument :
FID_A
ClientSampleId :
200 PPMV GASES CCC

Integration File: autoint1.e
Quant Time: Nov 19 13:35:40 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_A\Method\FA111924 GASES.M
Quant Title :
QLast Update : Tue Nov 19 09:34:35 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal Phase : RT-U Plot
Signal Info : 30M x 0.32mm





#2 Ethylene

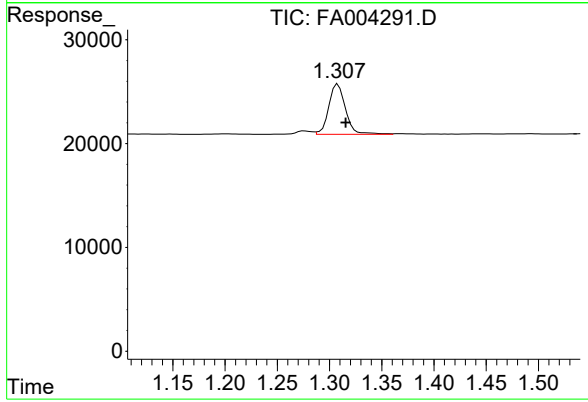
R.T.: 1.668 min
 Delta R.T.: 0.016 min
 Response: 97375
 Conc: 214.88 ppmv

Instrument :

FID_A

ClientSampleId :

200 PPMV GASES CCC



#3 Methane

R.T.: 1.308 min
 Delta R.T.: -0.007 min
 Response: 54139
 Conc: 215.35 ppmv