

# **Tetra Tech, Inc.**

1955 Evergreen Blvd  
Bldg 200, Suite 300  
Duluth, GA 30096

Warrenton

## **Global Laboratory Services Analytical Report (0211-22B)**

### ***Pesticide Residue Analysis***

Pyrethrins (Sum)



### **Enthalpy Analytical, Inc.**

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / [www.enthalpy.com](http://www.enthalpy.com)  
2202 Ellis Road Durham, NC 27703 - 5518

# Summary of Results



Company	Tetra Tech, Inc.
Analyst	Global Laboratory Services
Parameters	Pesticide Analysis
# Samples	5 Samples

Client #	Warrenton
Job #	0211-22
PO #	Verbal
Report Date	2/10/2011

Compound	Sample ID / Catch Weight (ug)			
	<b>AH01</b>	<b>AH02</b>	<b>AH03</b>	<b>AH04</b>
Pyrethrins (sum) #	0.500 ND	0.500 ND	0.500 ND	0.500 ND
	<b>MB02</b>			
Pyrethrins (sum) #	0.500 ND			
<p># Note: The pyrethrins are based on the sum of isomers including Pyrethrin 1, Pyrethrin 2, Cinerin 1, Cinerin 2, Jasmolin 1 and Jasmolin 2.</p>				

# **Narrative Summary**



## Enthalpy Analytical Narrative Summary

<b>Company</b>	Tetra Tech, Inc.
<b>Analyst</b>	Global Laboratory Services
<b>Parameters</b>	GC/ECD Analysis
<b># Samples</b>	4 Runs, 1 Blank

<b>Client #</b>	Warrenton
<b>Job #</b>	0211-22
<b>PO #</b>	Verbal
<b>Report Date</b>	February 10, 2011

### Analysis

An aliquot of hexane extract was sent to Global Laboratory Services in Wilson NC on 2/7/2011. Global Laboratory Services is ISO 17025 registered for the analysis of pesticide residues.

The samples were analyzed by GC with an ECD. The samples were tested for the presence of the natural pyrethrins, Pyrethrins 1, Pyrethrins 2, Cinerins 1, Cinerins 2, Jasmolins 1 and Jasmolins 2 using authentic standards. The instrument LOD was reported as 0.1 ppm (calibration range was 0.01 to 0.16 µg/ml) as the sum of all the natural pyrethrins isomers.

Synthetic pyrethroids were not calibrated for with authentic standard material but are structurally similar enough that they should be easy visible in the chromatography if present at levels approaching 1 µg/ml. This confirms the results from Enthalpy's GC-MS scan analysis that the samples are N.D. for the presence of pyrethrins and pyrethroids.

### Reporting Notes

The results presented in this report are representative of the samples as provided to the laboratory.

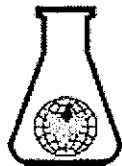


# Results



# Pesticide Residue Analysis

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## Global Laboratory Services

2107 Black Creek Road  
Wilson, NC 27893P.O. Box 309  
Wilson, NC 27894-0309

Telephone: 252-234-4950

Fax: 252-234-4959

Customer: **Enthalpy Analytical**2202 Ellis Road  
Durham NC 27703

www.globallaboratory.com

Requestor: Gillman, Gene

Sample No.	Grade	Crop	Container Nos.	Received Date	Project
02394-11	AH01			2/7/2011	191-00
			Limit of Quantitation	Found*	Report Date
Individual Pesticide Tests					
Pyrethrins (sum)			0.10 ppm	BQL ppm	2/9/2011

Comments:

Signed -

\* BQL = Below Quantitation Limit

All analytical methods are performed under controlled conditions to consistently produce accurate and reliable results to the best of our ability.

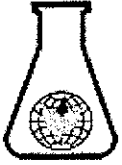
Prepared by : Rusty Ross  
Approved by: Tom Carpenter, MR

R05-01

Date Issued: 9/01/98  
Revision level and Date: 5, 6/09/2008

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Customer: **Enthalpy Analytical**

2202 Ellis Road  
Durham NC 27703

[www.globallaboratory.com](http://www.globallaboratory.com)

Requestor: Gillman, Gene

Sample No.	Grade	Crop	Container Nos.	Received Date	Project
02395-11	AH02			2/7/2011	191-00

Individual Pesticide Tests	Limit of Quantitation	Found*	Report Date
Pyrethrins (sum)	0.10 ppm	BQL ppm	2/9/2011

Comments:

Signed -

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Date Issued: 9/01/98  
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Customer: **Enthalpy Analytical**2202 Ellis Road  
Durham NC 27703

www.globallaboratory.com

Requestor: Gillman, Gene

Sample No.	Grade	Crop	Container Nos.	Received Date	Project
02396-11	AH03			2/7/2011	191-00
			Limit of Quantitation	Found*	Report Date
Individual Pesticide Tests			Pyrethrins (sum)	0.10 ppm	BQL ppm
					2/9/2011

Comments:

Signed -

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Durham NC 27703[www.globallaboratory.com](http://www.globallaboratory.com)

Requestor: Gillman, Gene

Sample No.	Grade	Crop	Container Nos.	Received Date	Project
02397-11	AH04			2/7/2011	191-00
Individual Pesticide Tests			Limit of Quantitation	Found*	Report Date
Pyrethrins (sum)			0.10 ppm	BQL ppm	2/9/2011

Comments:

Signed -

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Customer: **Enthalpy Analytical**2202 Ellis Road  
Durham NC 27703[www.globallaboratory.com](http://www.globallaboratory.com)

Requestor: Gillman, Gene

Sample No.	Grade	Crop	Container Nos.	Received Date	Project
02398-11	MB02			2/7/2011	191-00
			Limit of Quantitation	Found*	Report Date
Individual Pesticide Tests			Pyrethrins (sum)	0.10 ppm	BQL ppm
					2/9/2011

Comments:

Signed -

\* BQL = Below Quantitation Limit

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Prepared by : Rusty Ross  
Approved by: Tom Carpenter, MR

R05-01

Date Issued: 9/01/98  
Revision level and Date: 5, 6/09/2008

# Sample Custody



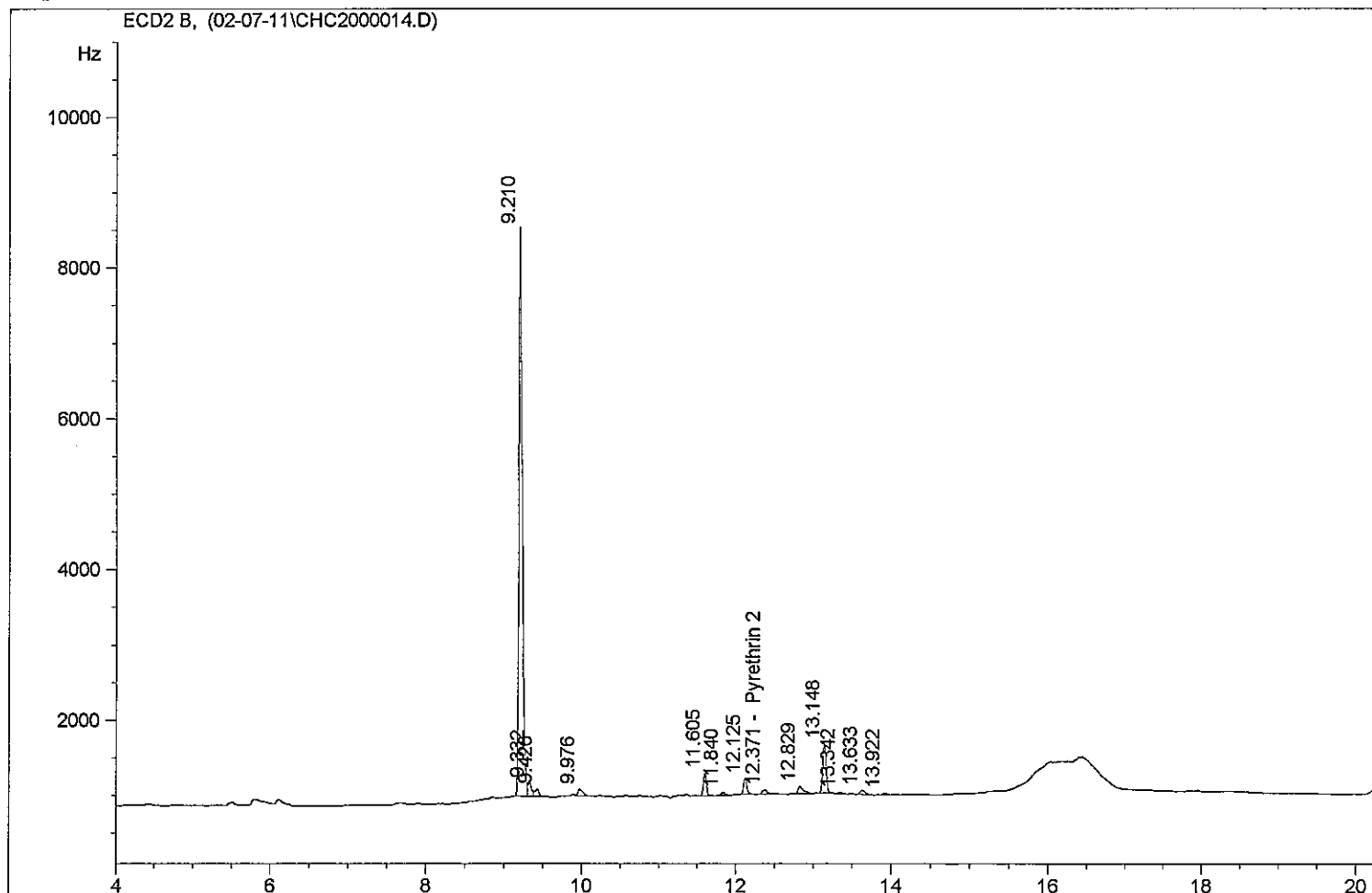
# Chain of Custody Record

# **Sample Chromatograms**



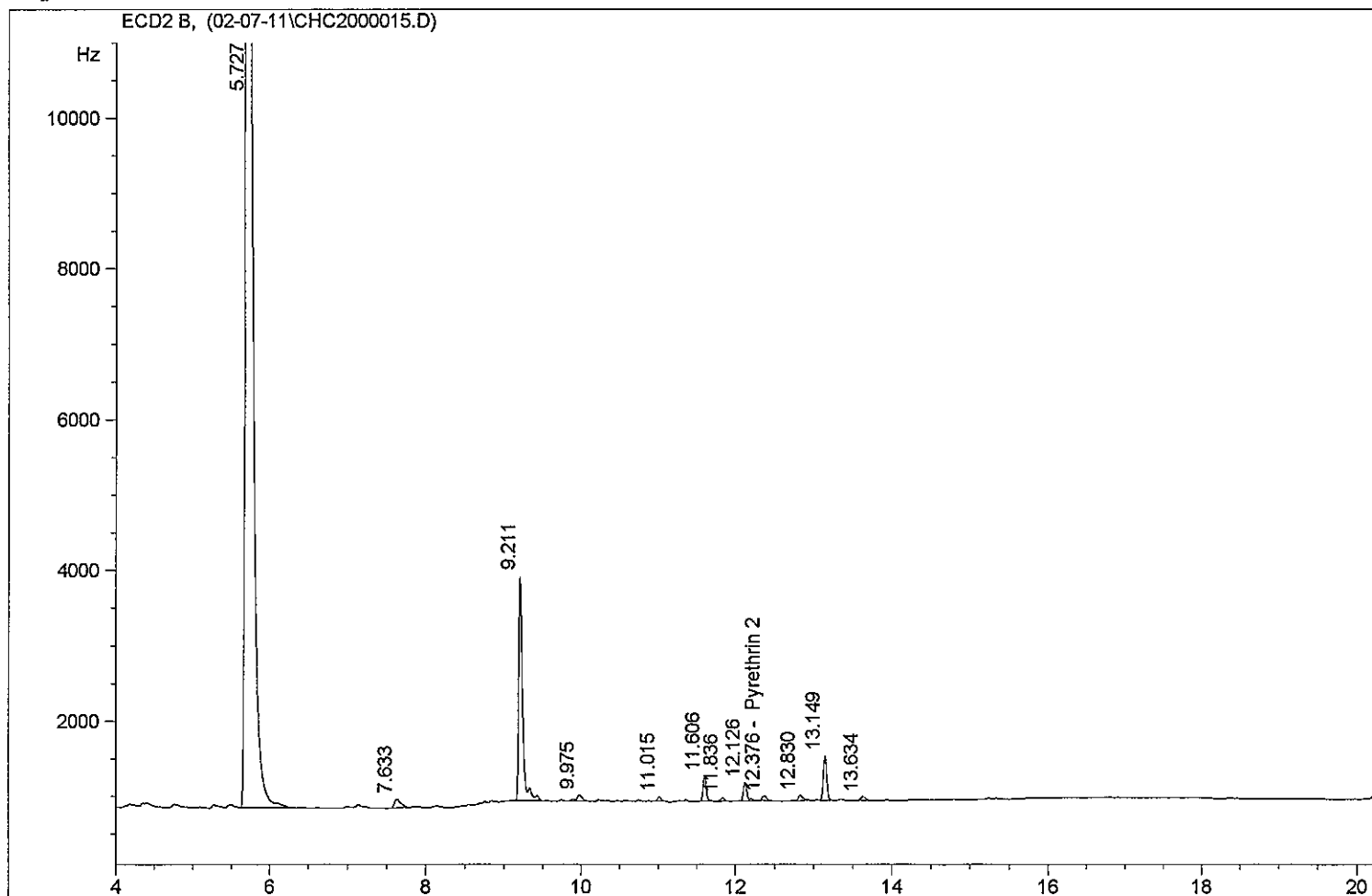
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Acquisition Method: C:\CHEM32\1\METHODS\CHCAQUI.M  
Sample Name: 2394  
Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
	0	0.000	0.000	9.210	22612.072
	0	0.000	0.000	9.332	606.252
	0	0.000	0.000	9.426	362.779
	0	0.000	0.000	9.976	369.795
Prothiofos	0	10.741	10.741	0.000	0.000
Pyrethrin 1	0	11.319	11.319	0.000	0.000
	0	0.000	0.000	11.605	820.067
	0	0.000	0.000	11.840	123.387
	0	0.000	0.000	12.125	583.026
Pyrethrin 2	0	12.375	12.375	12.371	245.227
	0	0.000	0.000	12.829	444.935
	0	0.000	0.000	13.148	1942.175
	0	0.000	0.000	13.342	75.740
	0	0.000	0.000	13.633	239.230
	0	0.000	0.000	13.922	80.133
Pyrethrin 3	0	14.330	14.330	0.000	0.000
Pyrethrin 4	0	15.530	15.530	0.000	0.000
Pyrethrin 5	0	17.080	17.080	0.000	0.000



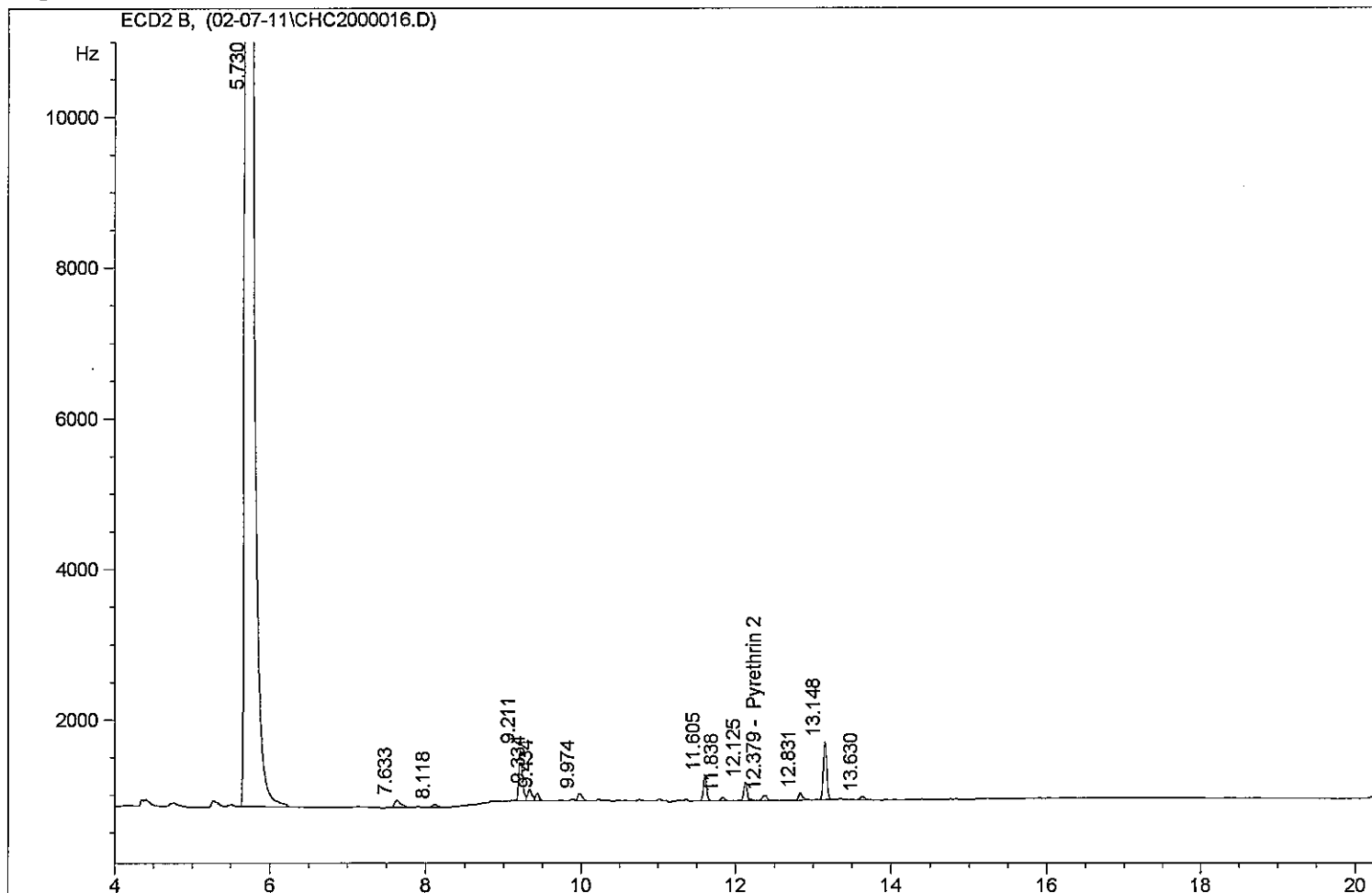
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 Sample Name: 2395  
 Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
	0	0.000	0.000	5.727	111135.719
	0	0.000	0.000	7.633	671.472
	0	0.000	0.000	9.211	10107.805
	0	0.000	0.000	9.975	447.314
Prothiofos	0	10.741	10.741	0.000	0.000
	0	0.000	0.000	11.015	198.111
Pyrethrin 1	0	11.319	11.319	0.000	0.000
	0	0.000	0.000	11.606	976.178
	0	0.000	0.000	11.836	169.610
	0	0.000	0.000	12.126	786.759
Pyrethrin 2	0	12.375	12.375	12.376	244.544
	0	0.000	0.000	12.830	305.661
	0	0.000	0.000	13.149	1788.094
	0	0.000	0.000	13.634	190.757
Pyrethrin 3	0	14.330	14.330	0.000	0.000
Pyrethrin 4	0	15.530	15.530	0.000	0.000
Pyrethrin 5	0	17.080	17.080	0.000	0.000



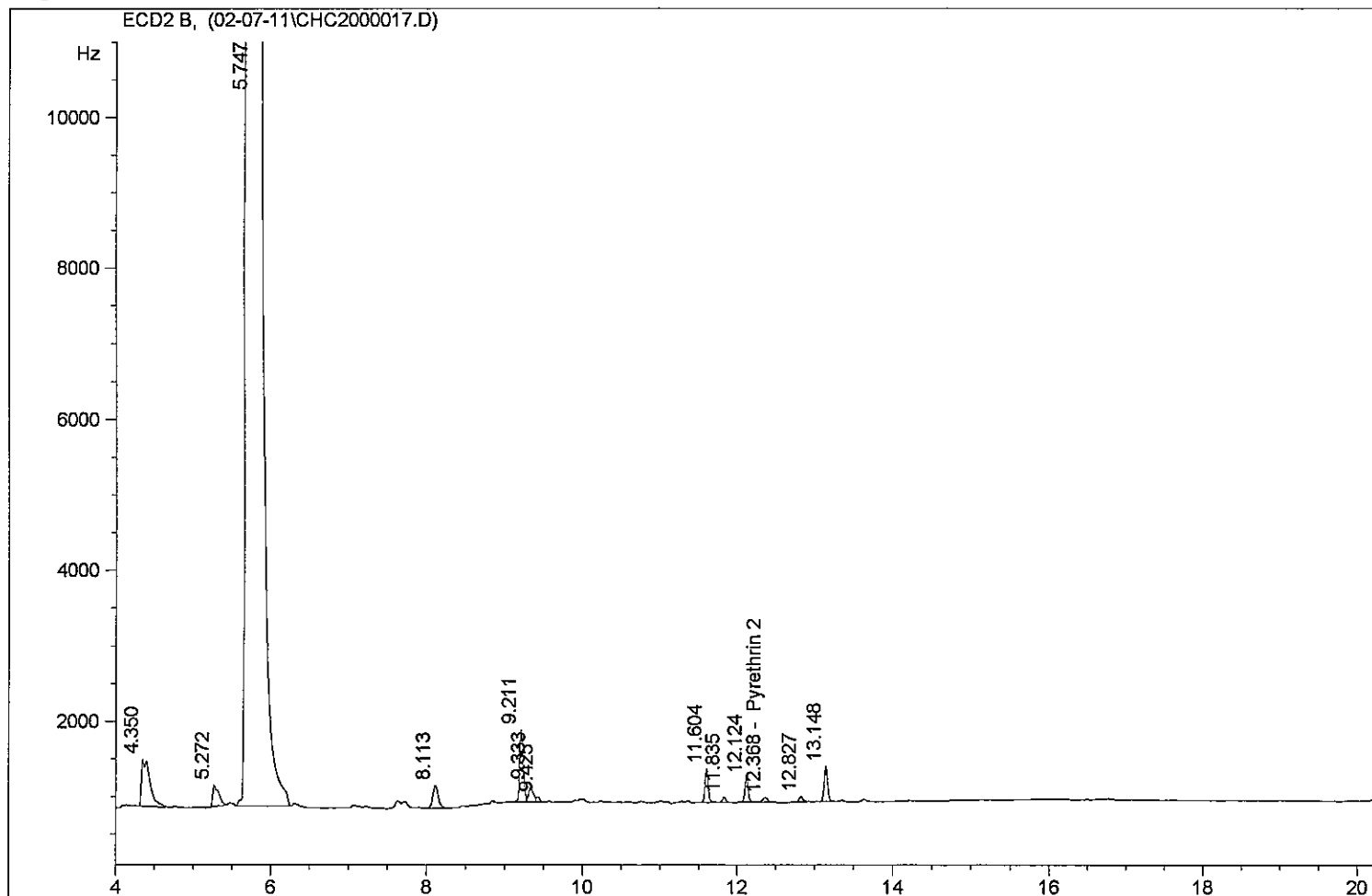
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 Sample Name: 2396  
 Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
	0	0.000	0.000	5.730	203276.453
	0	0.000	0.000	7.633	522.168
	0	0.000	0.000	8.118	175.165
	0	0.000	0.000	9.211	2135.514
	0	0.000	0.000	9.334	580.856
	0	0.000	0.000	9.434	309.784
	0	0.000	0.000	9.974	391.921
Prothiofos	0	10.741	10.741	0.000	0.000
Pyrethrin 1	0	11.319	11.319	0.000	0.000
	0	0.000	0.000	11.605	927.552
	0	0.000	0.000	11.838	142.181
	0	0.000	0.000	12.125	736.755
Pyrethrin 2	0	12.375	12.375	12.379	293.232
	0	0.000	0.000	12.831	364.912
	0	0.000	0.000	13.148	2286.267
	0	0.000	0.000	13.630	186.584
Pyrethrin 3	0	14.330	14.330	0.000	0.000
Pyrethrin 4	0	15.530	15.530	0.000	0.000
Pyrethrin 5	0	17.080	17.080	0.000	0.000



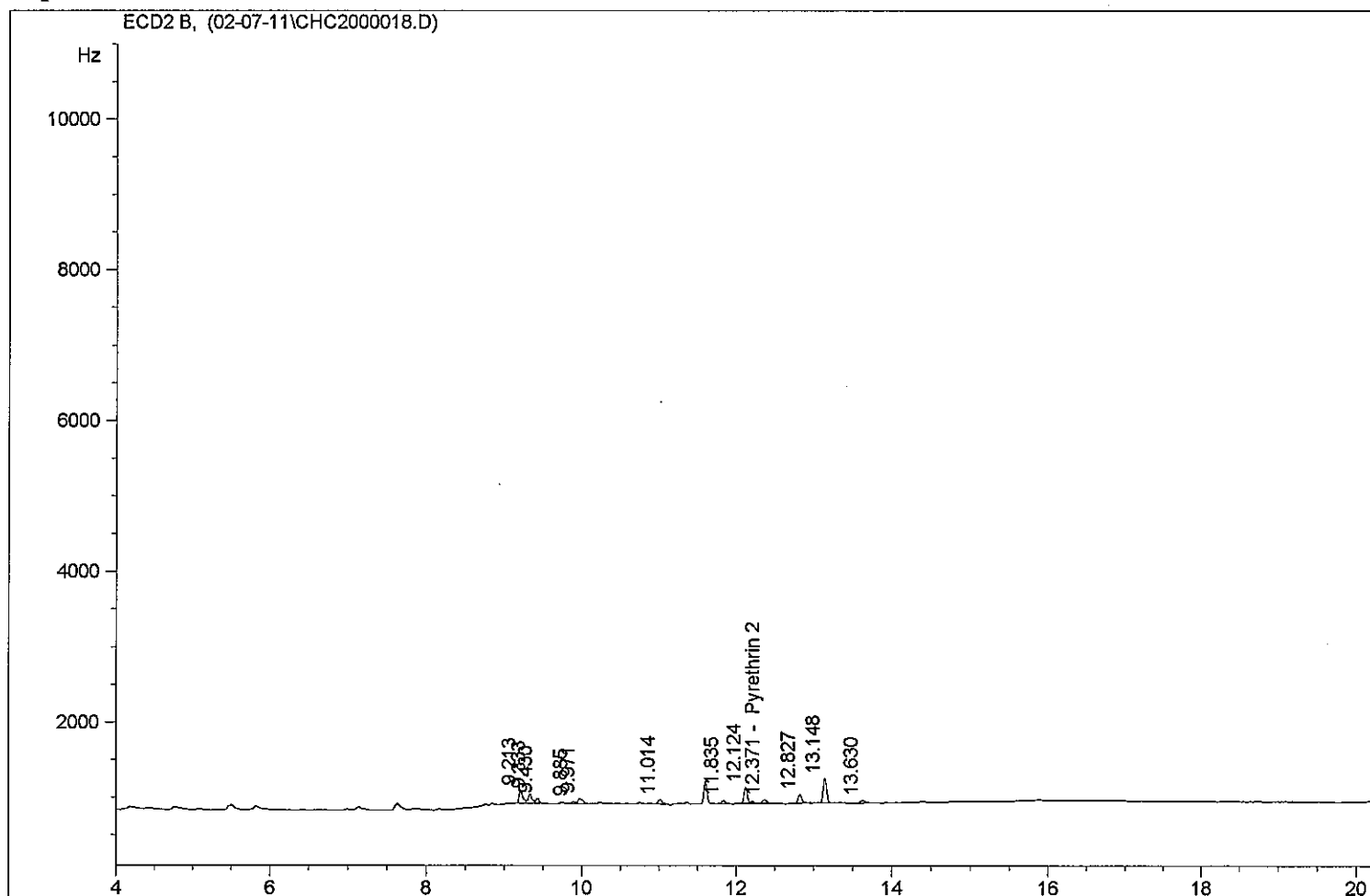
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 Sample Name:                2397  
 Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
	0	0.000	0.000	4.350	4745.353
	0	0.000	0.000	5.272	1501.225
	0	0.000	0.000	5.747	2958237.750
	0	0.000	0.000	8.113	1470.661
	0	0.000	0.000	9.211	3003.173
	0	0.000	0.000	9.333	862.413
	0	0.000	0.000	9.425	178.048
Prothiofos	0	10.741	10.741	0.000	0.000
Pyrethrin 1	0	11.319	11.319	0.000	0.000
	0	0.000	0.000	11.604	1299.993
	0	0.000	0.000	11.835	223.397
	0	0.000	0.000	12.124	938.412
Pyrethrin 2	0	12.375	12.375	12.368	262.879
	0	0.000	0.000	12.827	251.432
	0	0.000	0.000	13.148	1433.543
Pyrethrin 3	0	14.330	14.330	0.000	0.000
Pyrethrin 4	0	15.530	15.530	0.000	0.000
Pyrethrin 5	0	17.080	17.080	0.000	0.000



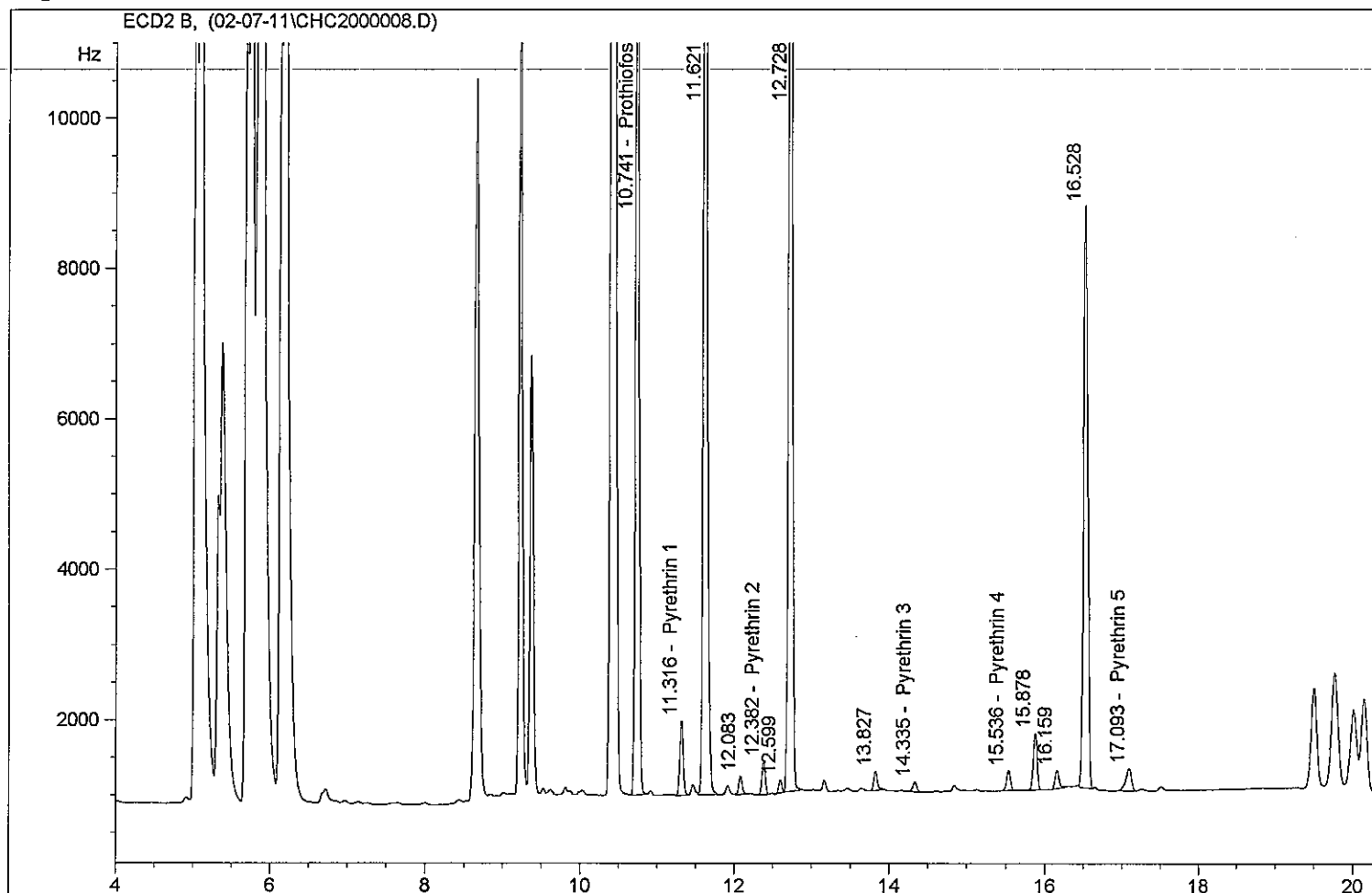
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Acquisition Method: C:\CHEM32\1\METHODS\CHCAQUI.M  
Sample Name: 2398  
Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
	0	0.000	0.000	9.213	577.499
	0	0.000	0.000	9.333	445.053
	0	0.000	0.000	9.430	179.262
	0	0.000	0.000	9.885	66.629
	0	0.000	0.000	9.971	284.989
Prothiofos	0	10.741	10.741	0.000	0.000
	0	0.000	0.000	11.014	223.874
Pyrethrin 1	0	11.319	11.319	0.000	0.000
	0	0.000	0.000	11.835	138.360
	0	0.000	0.000	12.124	666.905
Pyrethrin 2	0	12.375	12.375	12.371	186.363
	0	0.000	0.000	12.827	382.465
	0	0.000	0.000	13.148	967.604
	0	0.000	0.000	13.630	138.647
Pyrethrin 3	0	14.330	14.330	0.000	0.000
Pyrethrin 4	0	15.530	15.530	0.000	0.000
Pyrethrin 5	0	17.080	17.080	0.000	0.000



Acq. Operator: fwc  
 Raw Data File: C:\CHEM32\1\DATA\02-07-11\ ->  
 Acquisition Method: C:\CHEM32\1\METHODS\CHCAQUI.M  
 Sample Name: 0.08 chc 2  
 Sample Info:

Compound Name	Amount	Exp	Corr	Meas	Area
Prothiofos	0	10.740	10.740	10.741	42390.063
Pyrethrin 1	0.01185	11.319	11.319	11.316	2945.727
	0	0.000	0.000	11.621	55379.008
	0	0.000	0.000	12.083	742.542
Pyrethrin 2	0	12.375	12.375	12.382	1342.029
	0	0.000	0.000	12.599	482.333
	0	0.000	0.000	12.728	52147.504
	0	0.000	0.000	13.827	893.417
Pyrethrin 3	0	14.330	14.330	14.335	481.957
Pyrethrin 4	0.00057	15.530	15.530	15.536	912.101
	0	0.000	0.000	15.878	2559.504
	0	0.000	0.000	16.159	855.731
	0	0.000	0.000	16.528	28300.305
Pyrethrin 5	0	17.080	17.080	17.093	1469.165



**This Is The Last Page  
Of This Report.**

