



EQUIPO ARGENTINO DE  
ANTROPOLOGIA FORENSE

Fundado en 1984

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*e. Informe Laboratorio Actlabs de Canadá.*

**SAMPLES RECEIVED FROM:**

Argentine Forensics Anthropologic Team (EAAS)  
578A Halsey St.  
Brooklyn, New York  
USA, 11233

Report to: Mercedes Doretti  
Onsite Investigator: Gregory Olson  
Fire Location: Cocula, Mexico  
Sampled: November 15, 2014

**--- CERTIFICATE OF ANALYSIS ---**

ACTLABS ORGANICS REQUEST #: **RN3701**Invoice #: **OR-4670****BACKGROUND INFORMATION**

On December 15, 2014, Activation Laboratories Ltd. received samples from Gregory Olson by hand delivery. The samples were received in acceptable condition.

**SAMPLE INFORMATION****EAAS File: MEX-IG-DEC**

| ACTLAB I.D. | Client I.D.           | Client Sample Description                   | Analyst Description/Container |
|-------------|-----------------------|---------------------------------------------|-------------------------------|
| RN3701-01   | Cocula,<br>Mexico- 18 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-02   | Cocula,<br>Mexico- 19 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-03   | Cocula,<br>Mexico-20  | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-04   | Cocula,<br>Mexico- 21 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-05   | Cocula,<br>Mexico- 22 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-06   | Cocula,<br>Mexico- 23 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-07   | Cocula,<br>Mexico- 24 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-08   | Cocula,<br>Mexico- 25 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-09   | Cocula,<br>Mexico- 26 | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-10   | Cocula,<br>Mexico-27  | Una bolsa de nylon con muestra de sedimento | Nylon Bag- Black Soil         |
| RN3701-11   | Cocula,<br>Mexico- F6 | Tubo de plastic con muestra de sedimento    | Plastic Vial- Black Soil      |
| RN3701-12   | Cocula,<br>Mexico- G6 | Tubo de plastic con muestra de sedimento    | Plastic Vial- Black Soil      |
| RN3701-13   | Cocula,<br>Mexico- M7 | Tubo de plastic con muestra de sedimento    | Plastic Vial- Black Soil      |

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**SAMPLE RESULTS**

| Client I.D.                                                                                                                                                                                                                                             | Analysis             | Sample Results                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cocula,<br>Mexico- 18                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 19                                                                                                                                                                                                                                   | Ignitable<br>Liquids | This sample tested "positive" for the presence of an Ignitable Liquid. Based on the comparison to reference materials, this analysis satisfied the requirements to indicate the presence of a Heavy Petroleum Distillate. The Flammable/ Combustible Liquid in this class primarily include home fuel oil, diesel fuels, kerosene, furnace oil, some jet fuels, and some charcoal starters. (2) |
| Cocula,<br>Mexico- 20                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 21                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 22                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 23                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 24                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 25                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 26                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- 27                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- F6                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- G6                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| Cocula,<br>Mexico- M7                                                                                                                                                                                                                                   | Ignitable<br>Liquids | In comparison to our library of substances, this sample tested "negative" for the presence of a Flammable or Combustible Liquid residue (1)                                                                                                                                                                                                                                                     |
| (1) Note: A "negative" result does not preclude the possibility that an Ignitable Liquid residue is present at a concentration lower than the method can detect, or that an Ignitable liquid may have been present in the sample at some point in time. |                      |                                                                                                                                                                                                                                                                                                                                                                                                 |
| (2) Note: The presence of an Ignitable Liquid residue does not necessarily indicate that the fire was incendiary in nature.                                                                                                                             |                      |                                                                                                                                                                                                                                                                                                                                                                                                 |

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**METHOD INFORMATION**

**Method Summary:** Passive headspace concentration (ASTM E2154-01:2008) followed by GC/MS analysis (ASTM E1618-11)

**Method Comments:** These samples were heated at 90°C for ten minutes. A 5.0-minute headspace sample was taken using a passive-sampling device Gas Chromatography / Mass Spectrometry (GC/MS) was then used for the analysis. On file is a record of all operating parameters and daily laboratory procedures. Note: The individual sample Reconstructed Ion Chromatograms (RIC) attached to this report are included to verify the time and date of analysis for the client. The interpretation procedure of these analyses includes the review of over 80 mass ion chromatograms specific to the diagnosis for the presence or absence of ignitable liquids which exceeds the procedure suggested in ASTM E1618-11 guidelines.

**Date of Analysis:** December 18, 2014

**EVIDENCE RETURN:**

The samples were returned to the client via hand delivery on \_\_\_\_\_.

**VERIFICATION:**

Analyzed by:

Taylor Smith  
Forensic Technologist



Reviewed and Interpreted by:

D. Sutherland, B.Sc., C.Chem.  
Manager Organics, Forensic Scientist  
Director of Research

Accredited for Specific Forensic Test  
Under ISO 17025 and CAN-P-1578

Date:

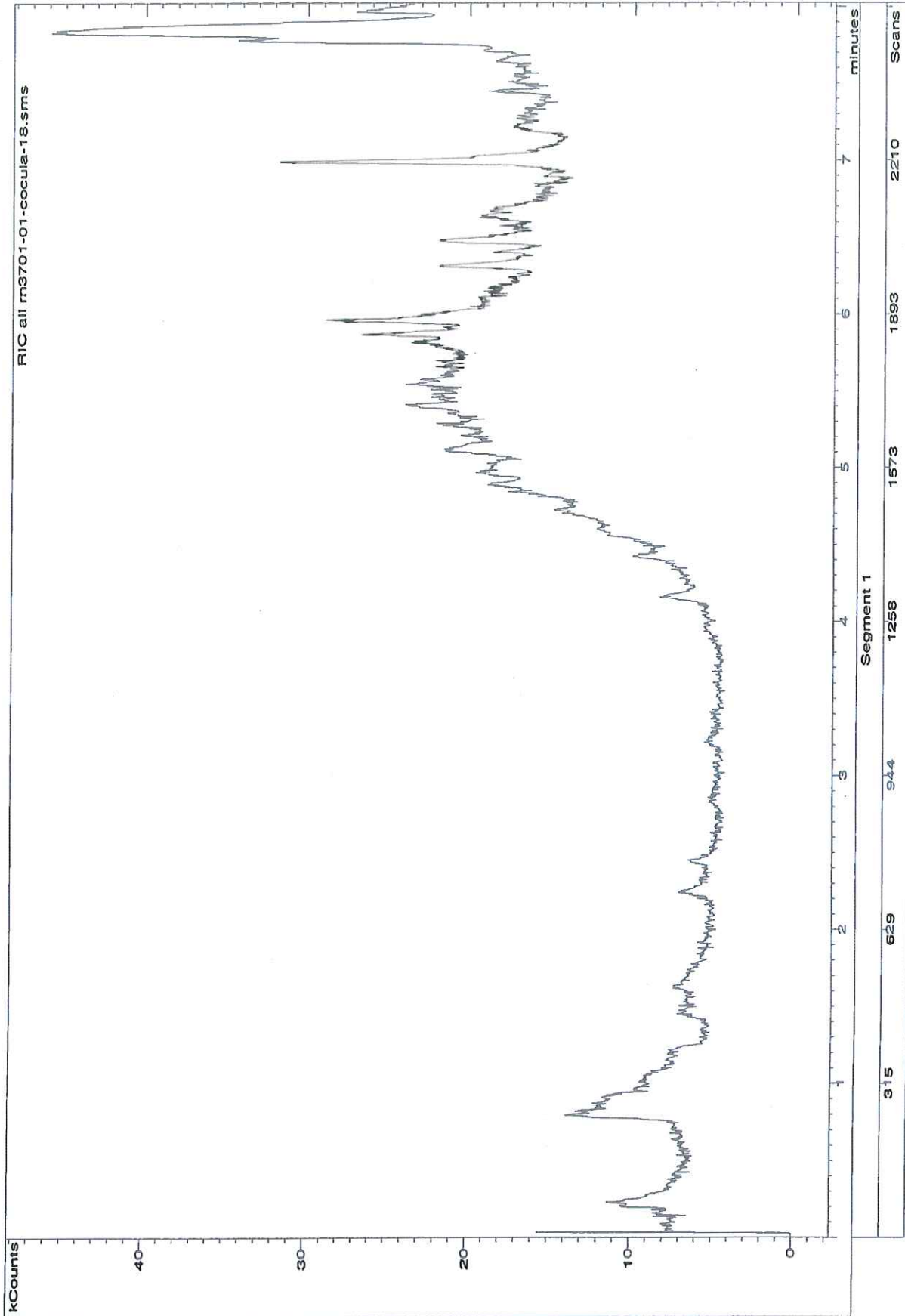
December 23, 2014



## Chromatogram Plot

File: d:\saturn 2000 data\2014 data\121814\m3701-01-cocula-18.sms  
Sample: RN3701-01-COCULA-18  
Scan Range: 1 - 2538 Time Range: 0.00 - 8.03 min.  
Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 9:31 AM



## Chromatogram Plot

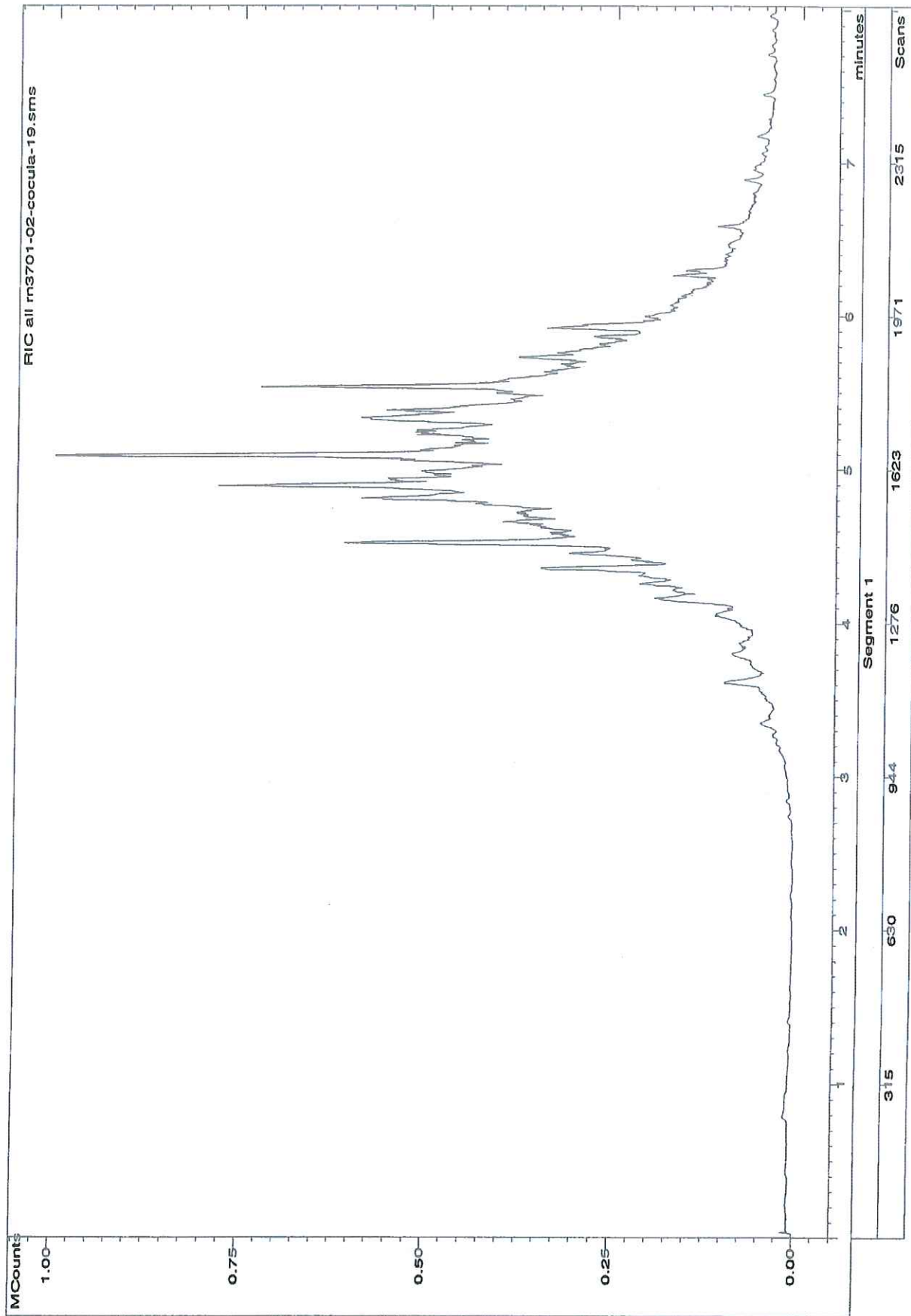
File: d:\saturn 2000 data\2014 data\121814\121814-02-cocula-19.sms

Sample: RN3701-02-COCULA-19

Scan Range: 1 - 2659 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 10:05 AM



## Chromatogram Plot

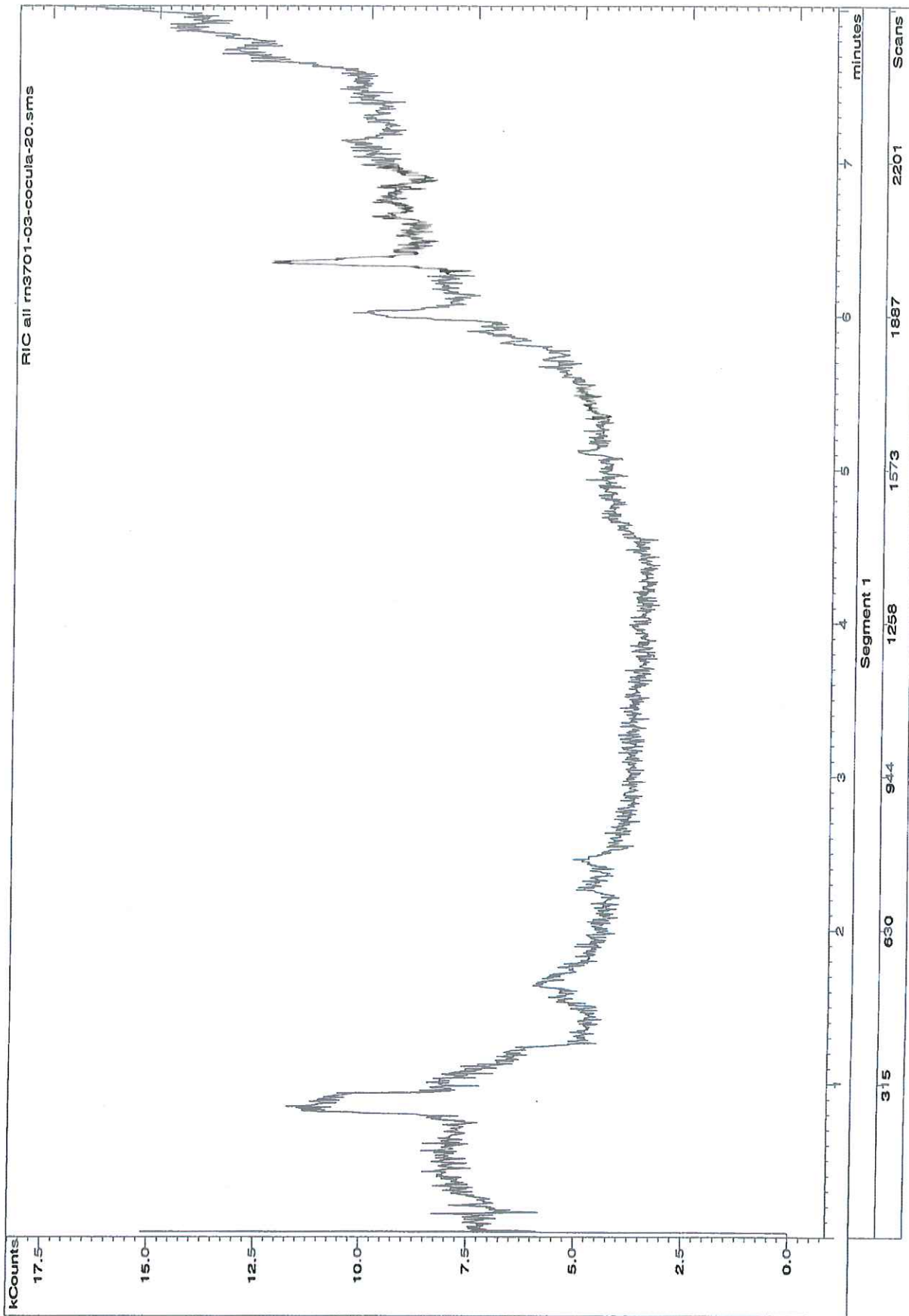
File: d:\saturn 2000 data\2014 data\121814\rn3701-03-cocula-20.sms

Sample: RN3701-03-COCULA-20

Scan Range: 1 - 2524 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 10:42 AM



# Chromatogram Plot

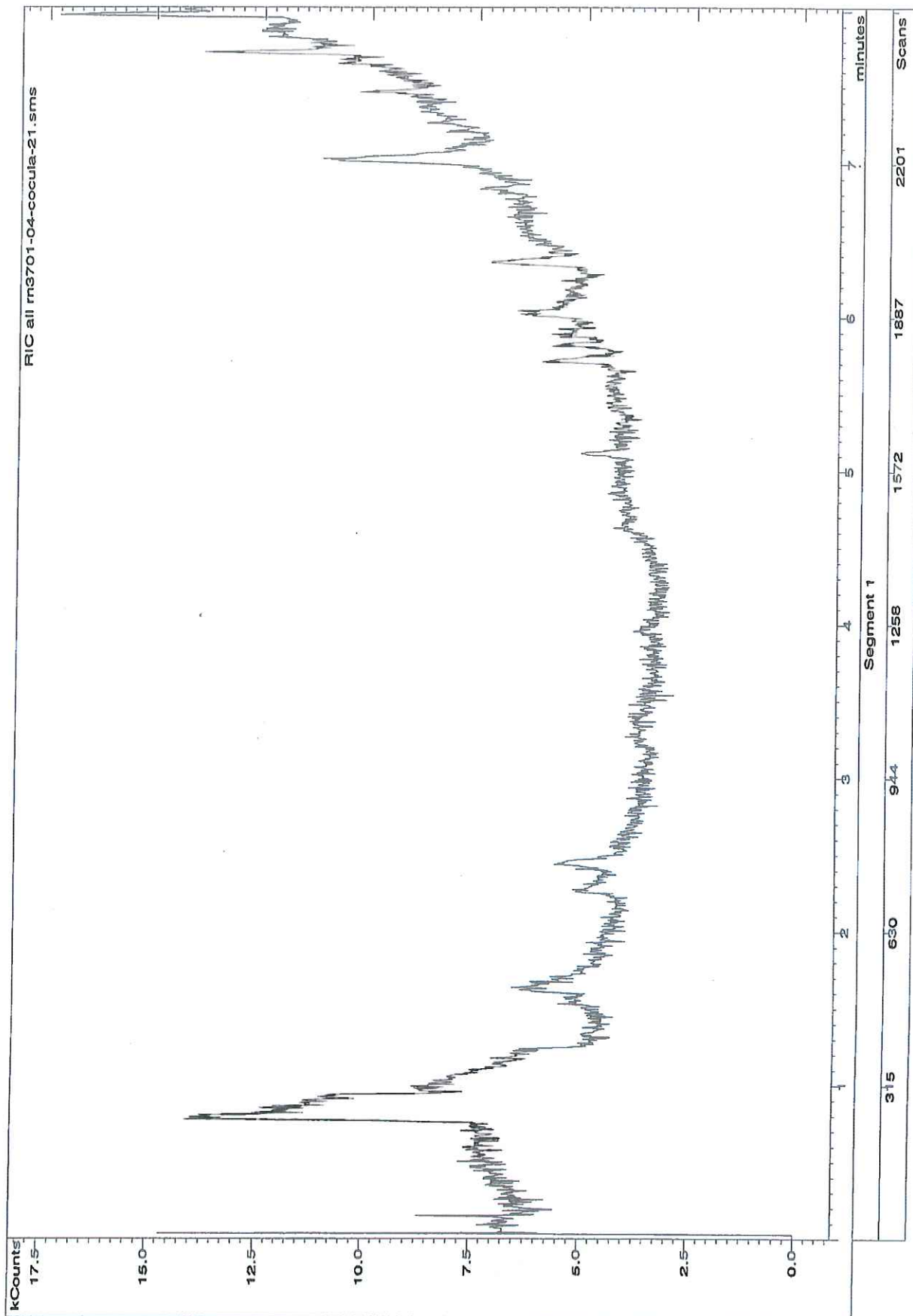
File: d:\saturn 2000 data\2014 data\121814\m3701-04-cocula-21.sms

Sample: RN3701-04-COCULA-21

Scan Range: 1 - 2523 Time Range: 0.00 - 8.02 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 11:16 AM



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# Chromatogram Plot

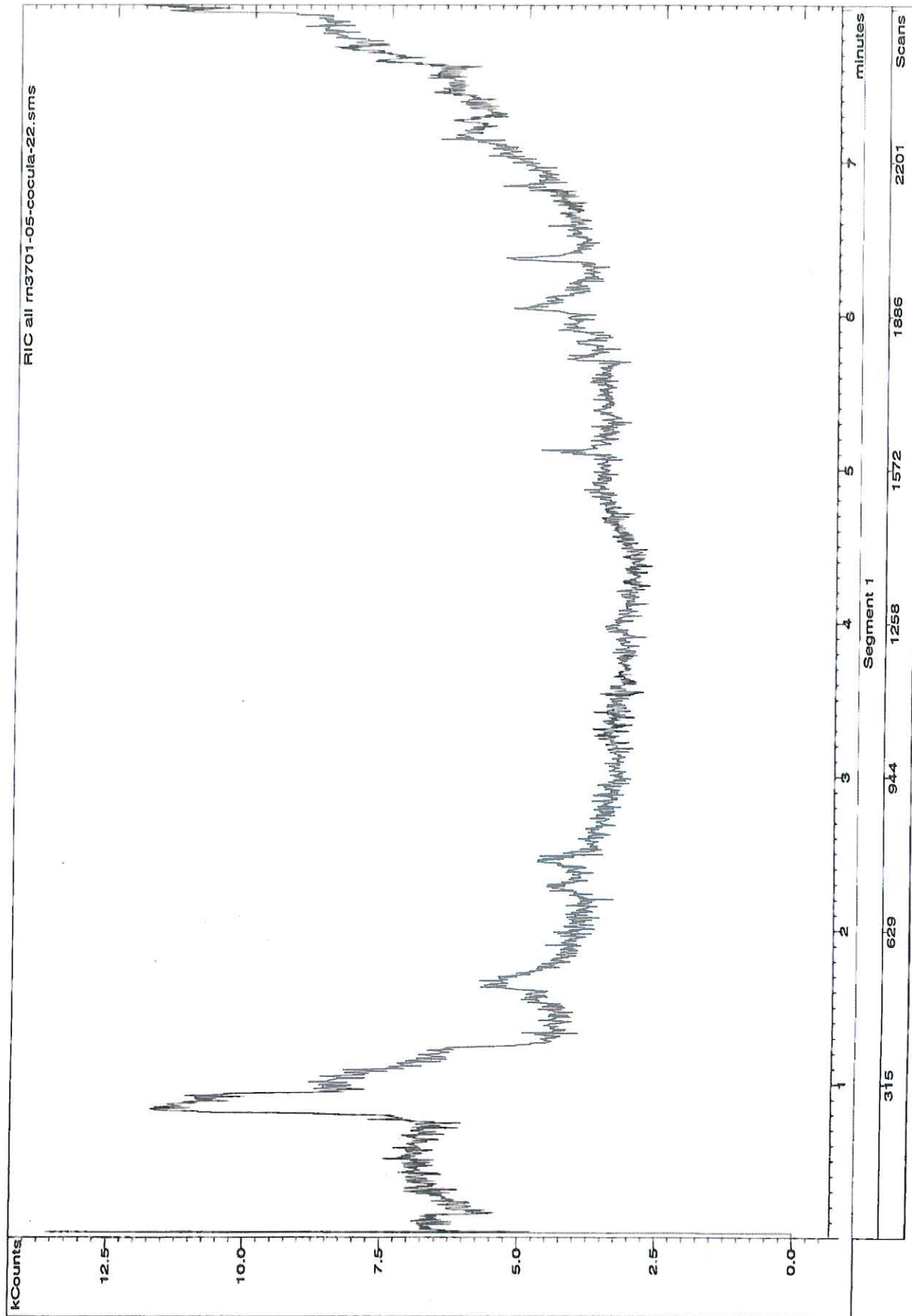
File: d:\saturn 2000 data\2014 data\121814\rn3701-05-cocula-22.sms

Sample: RN3701-05-COCULA-22

Scan Range: 1 - 2523 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 11:43 AM



# Chromatogram Plot

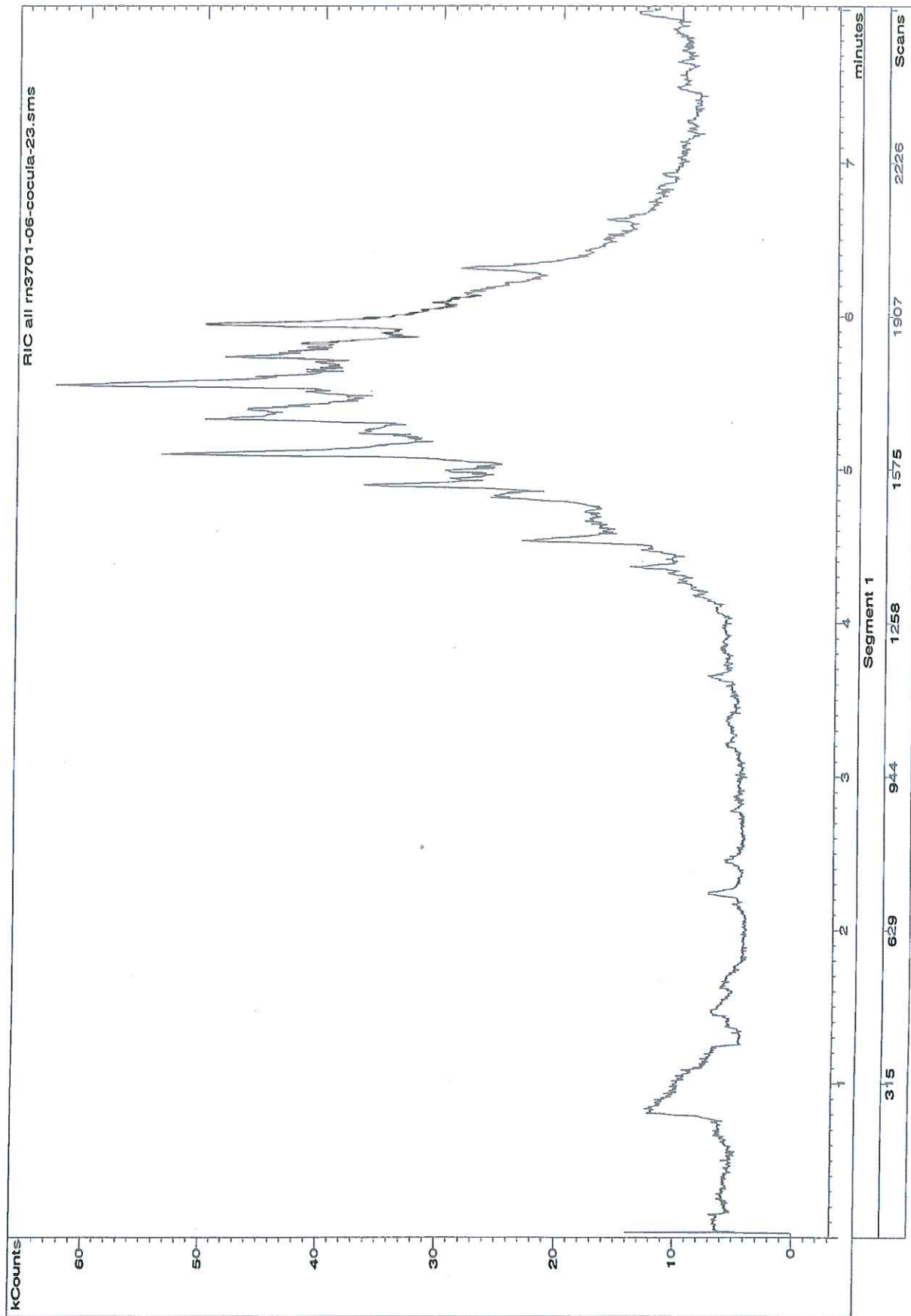
File: d:\saturn 2000 data\2014 data\121814\121814-06-cocula-23.sms

Sample: RN3701-06-COCULA-23

Scan Range: 1 - 2548 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

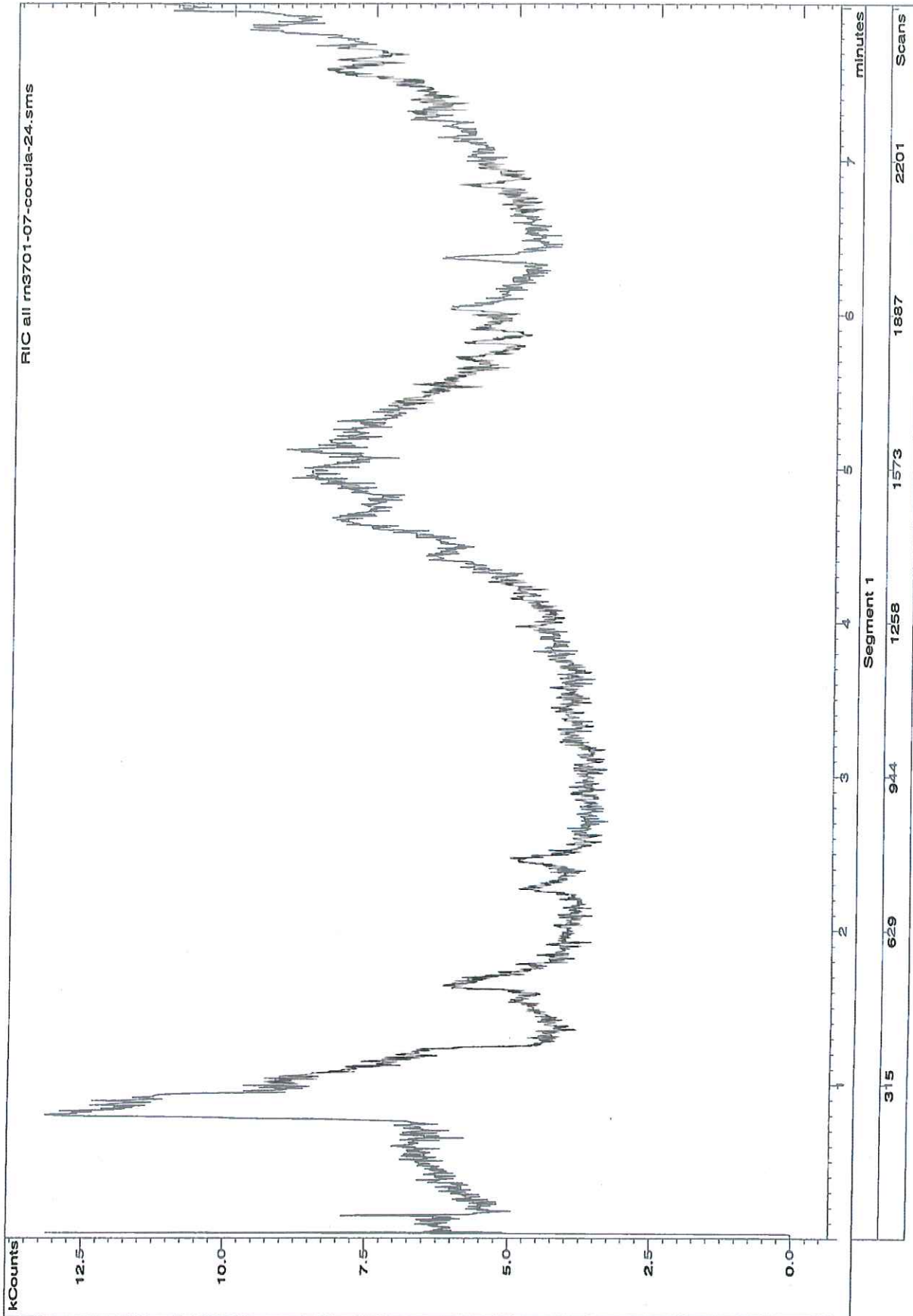
Operator: Taylor Smith  
Date: 12/18/2014 12:44 PM



# Chromatogram Plot

File: d:\saturn 2000 data\2014 data\121814\rn3701-07-cocula-24.sms  
Sample: RN3701-07-COCULA-24  
Scan Range: 1 - 2523 Time Range: 0.00 - 8.02 min.  
Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 1:14 PM



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# Chromatogram Plot

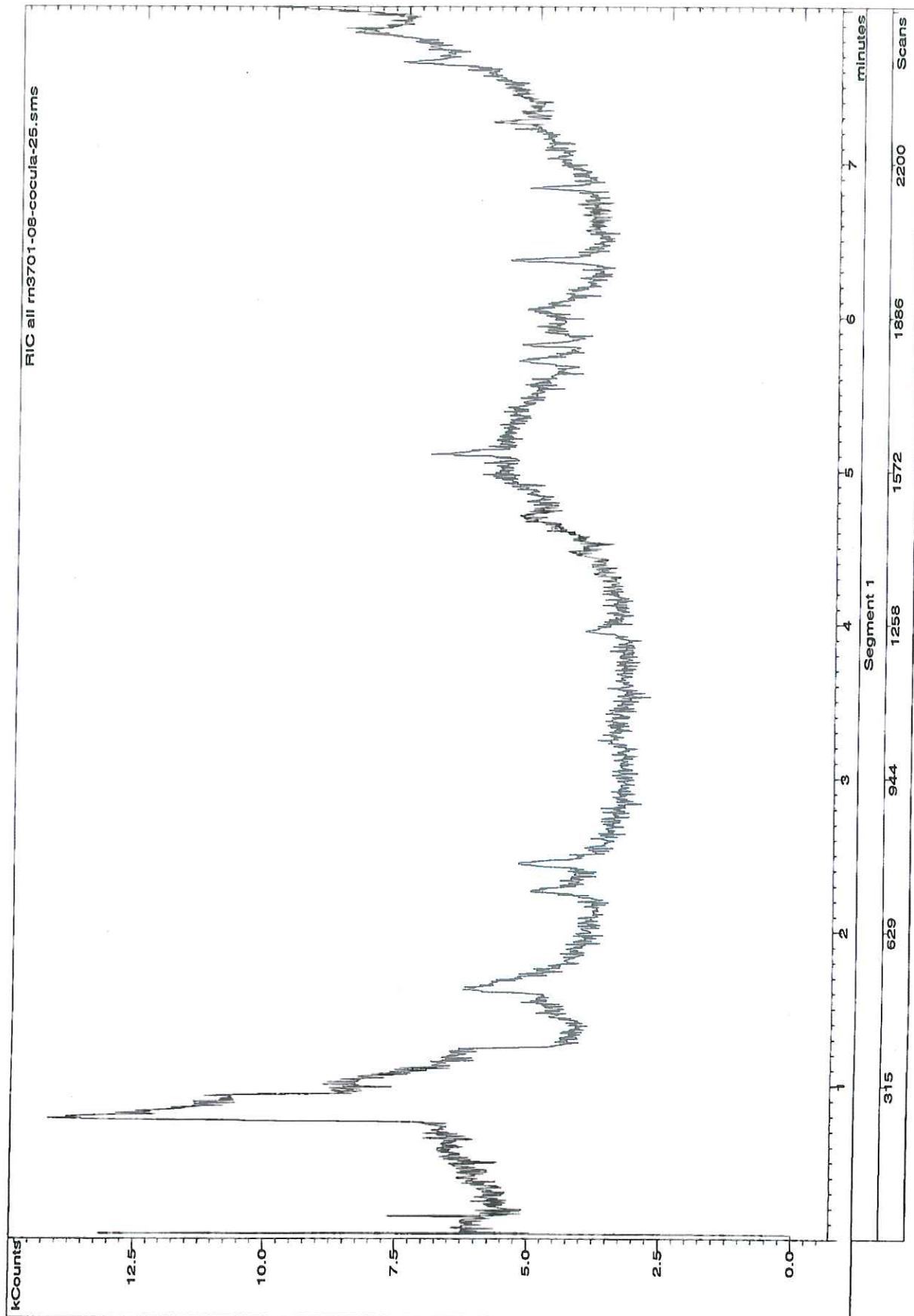
File: d:\saturn 2000 data\2014 data\121814\m3701-08-cocula-25.sms

Sample: RN3701-08-COCULA-25

Scan Range: 1 - 2522 Time Range: 0.00 - 8.02 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 1:45 PM



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DS

# Chromatogram Plot

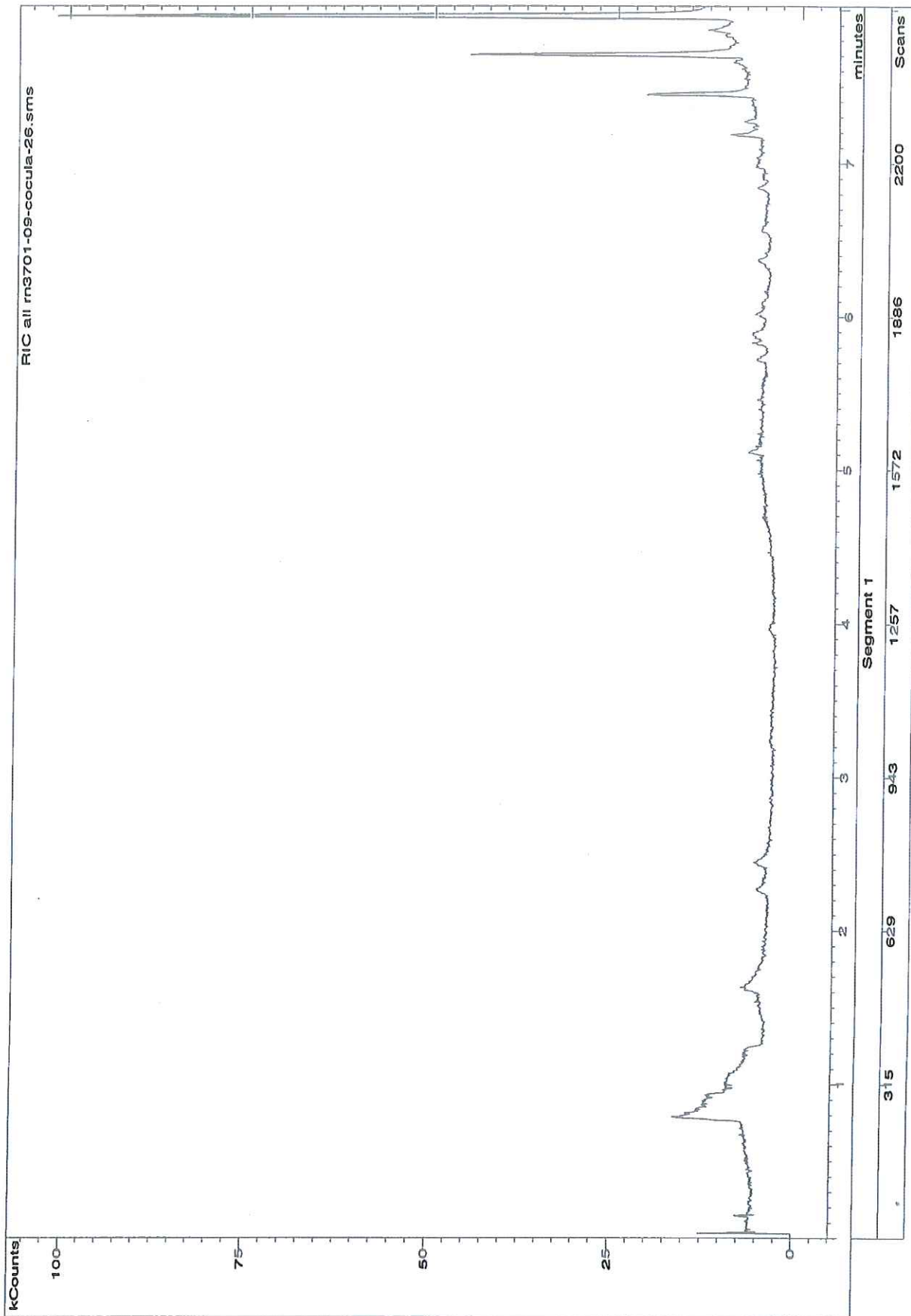
File: d:\saturn 2000 data\2014 data\121814\m3701-09-cocula-26.sms

Sample: RN3701-09-COCULA-26

Scan Range: 1 - 2524 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 2:16 PM



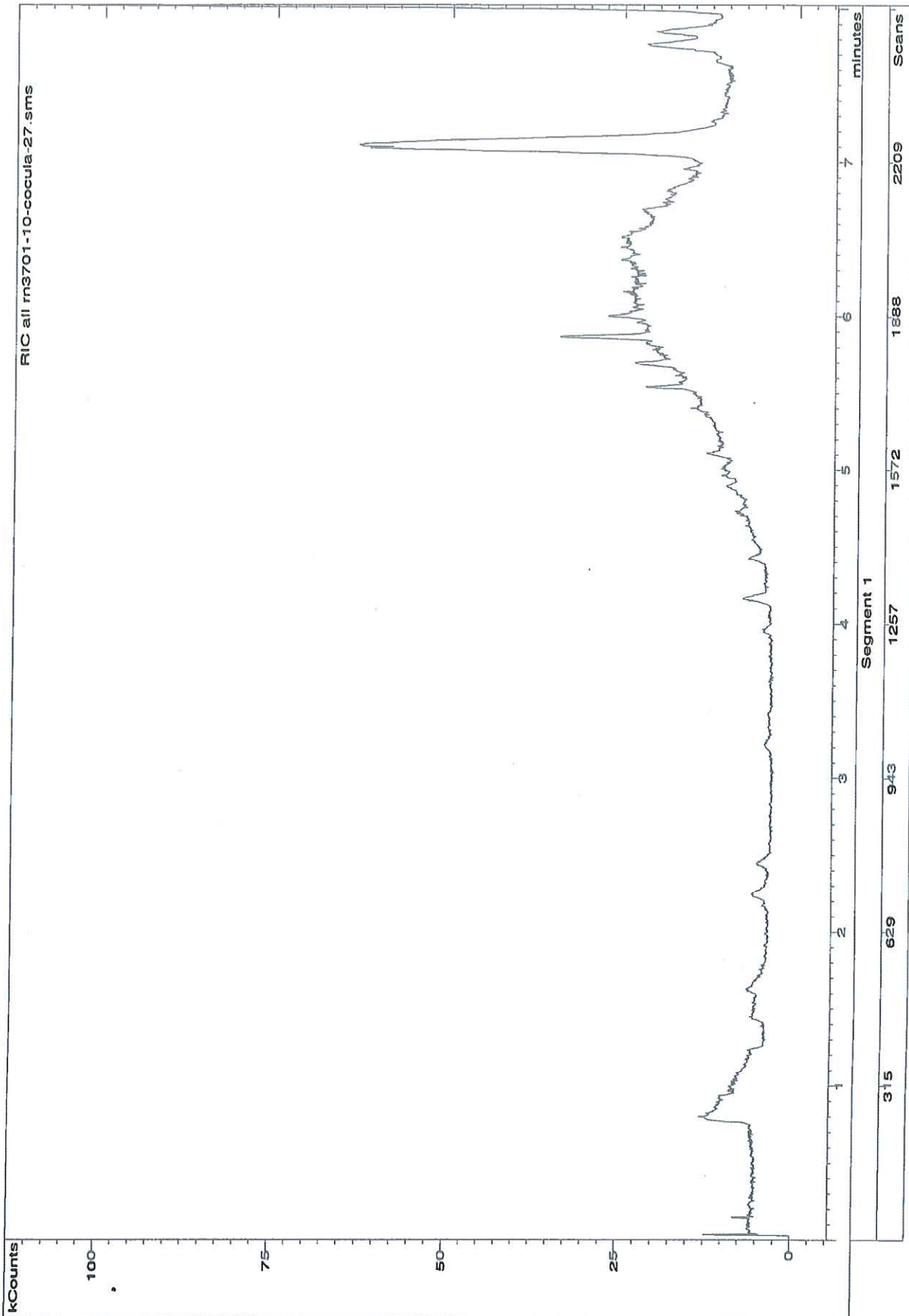
120f16

DS

## Chromatogram Plot

File: d:\saturn 2000 data\2014 data\121814\m3701-10-cocula-27.sms  
Sample: RN3701-10-COCULA-27  
Scan Range: 1 - 2536 Time Range: 0.00 - 8.03 min.  
Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 2:43 PM



# Chromatogram Plot

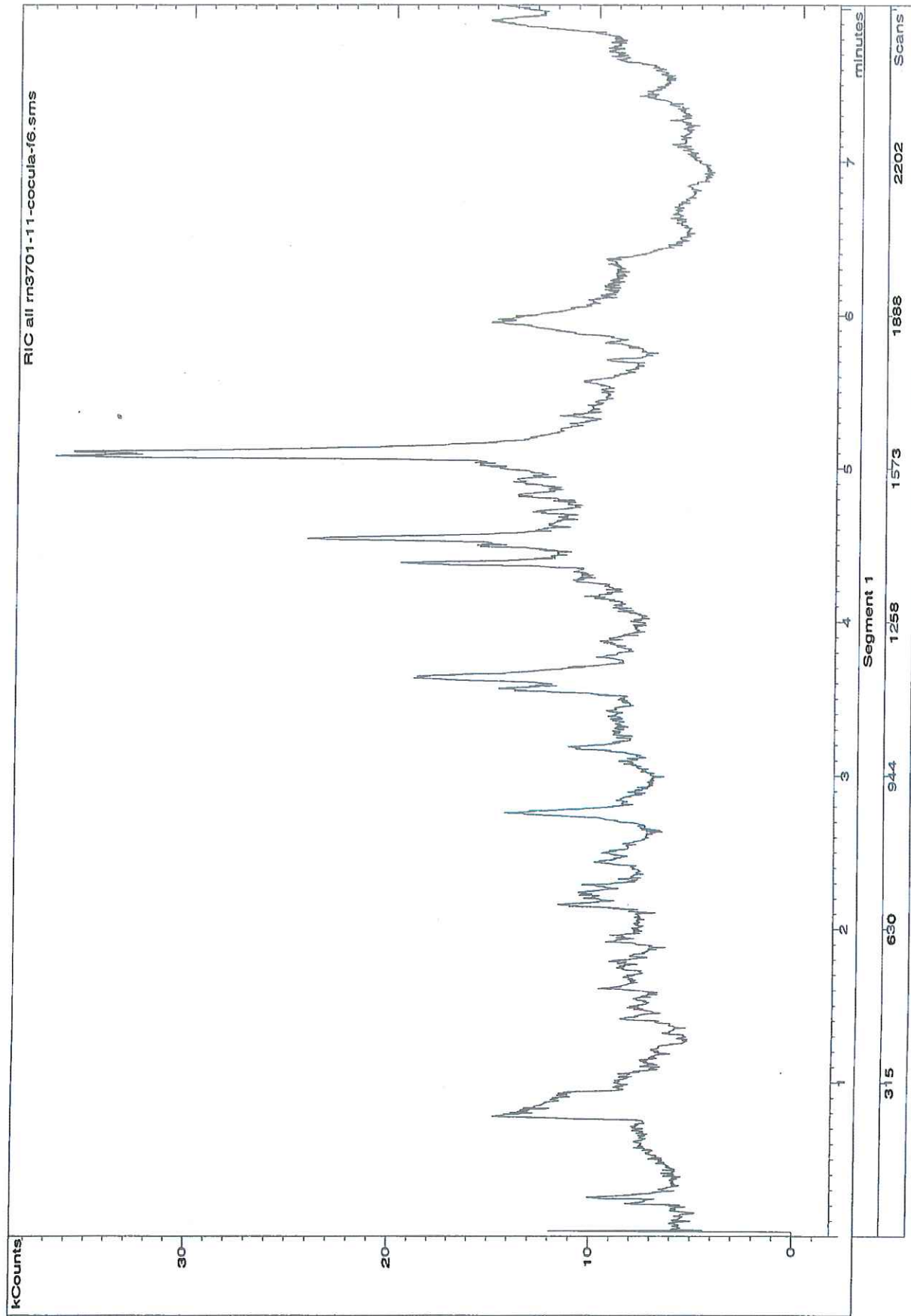
File: d:\saturn 2000 data\2014 data\121814\m3701-11-cocula-f6.sms

Sample: RN3701-11-COCULA-F6

Scan Range: 1 - 2525 Time Range: 0.00 - 8.03 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 3:05 PM



# **Chromatogram Plot**

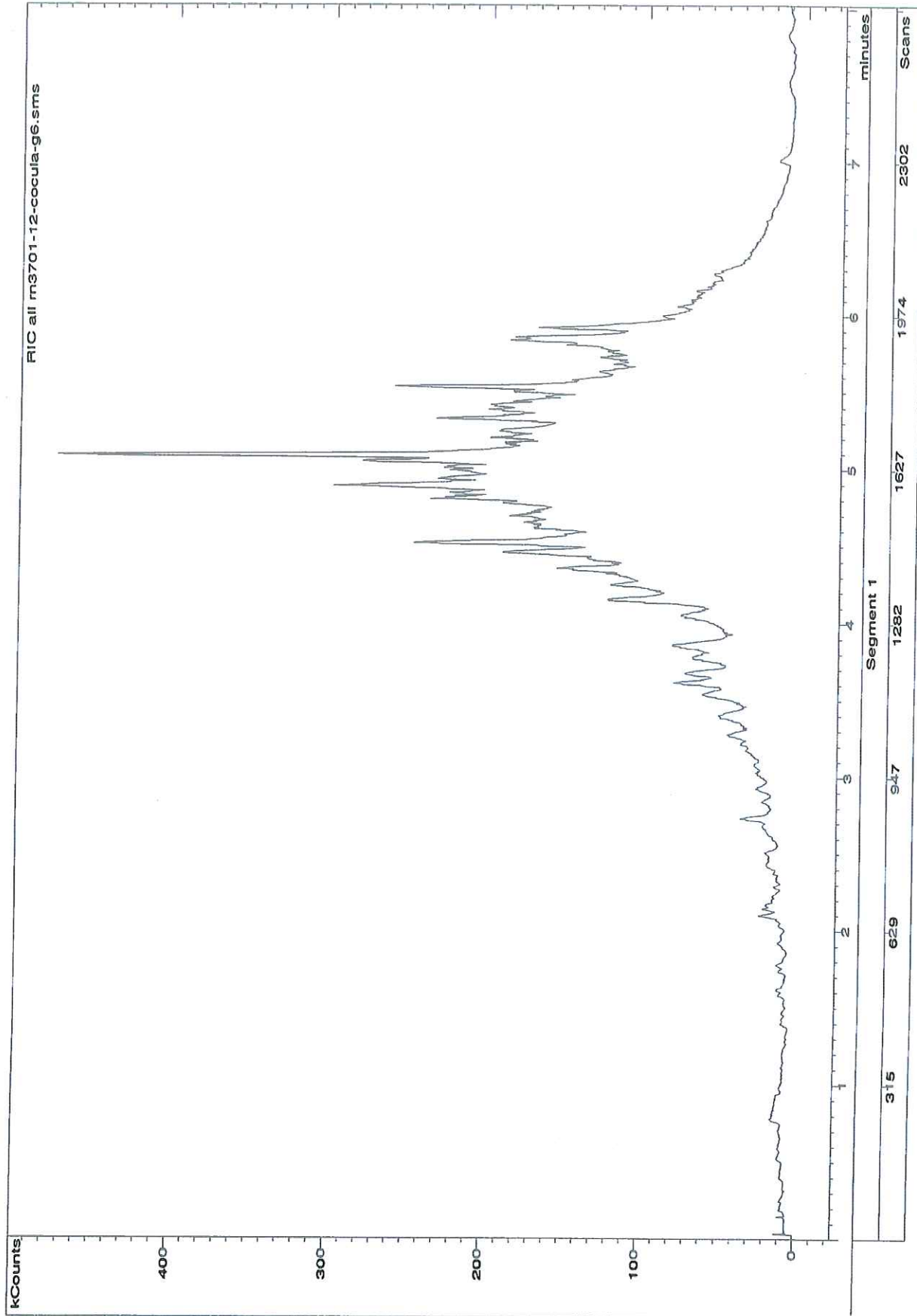
File: d:\saturn 2000 data\2014 data\121814\m3701-12-cocula-g6.sms

Sample: RN3701-12-COCULA-G6

Scan Range: 1 - 2624 Time Range: 0.00 - 8.02 min.

Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 3:26 PM



# Chromatogram Plot

File: d:\saturn 2000 data\2014 data\121814\m3701-13-cocula-m7.sms  
Sample: RN3701-13-COCULA-M7  
Scan Range: 1 - 2541 Time Range: 0.00 - 8.02 min.  
Sample Notes: Soil Sample/5min sample/5min desorb/G76

Operator: Taylor Smith  
Date: 12/18/2014 3:46 PM

