

# TBI-FORENSIC SERVICES DIVISION PERFORMANCE VERIFICATION FORM

Instrument/Method to Verify:

Agilent GC 8890 ASAP Analytical IRD3 EXT GC-FTIR "Sarge" SN US20223007, SN A10045-914

Check the appropriate box: New Validation ☐ Modification ☐ Performance Check ☒

Laboratory: NCL ☐ KCL ☐ JCL ☒ Unit: Forensic Chemistry

Based on training and competency, the following analyst(s) are authorized by the Technical Leader to participate in this study:

Name Rachel R. Strandquist Title SA/FS II Initials RRS

Completed: Rachel Strandquist  
Rachel Strandquist (Jul 15, 2022 15:14 CDT)

Name \_\_\_\_\_ Title \_\_\_\_\_ Initials \_\_\_\_\_

Completed:

Name \_\_\_\_\_ Title \_\_\_\_\_ Initials \_\_\_\_\_

Completed:

Verification of final review:

Unit Supervisor: Bethany McBride  
Bethany McBride (Jul 16, 2022 09:28 CDT)

Section Manager: Mark Dunlap  
Mark Dunlap (Aug 1, 2022 10:19 CDT)

Unit Supervisor:

Section Manager:

Unit Supervisor:

Section Manager:

Regional Administrator: Donna C. Nelson  
Donna Nelson (Aug 1, 2022 12:34 CDT)

Regional Administrator:

Regional Administrator:

Quality Assurance Manager: Chad Johnson  
Chad Johnson (Aug 1, 2022 11:19 CDT)

By signing below, I have verified this study meets all requirements and I deem this procedure/instrument fit for the intended use:

Technical Leader: Brett Trotter  
Brett Trotter (Aug 1, 2022 11:00 CDT)

All information must be submitted to the Quality Assurance Manager prior to the implementation of the procedure/instrument. If applicable, include training plan and competency testing schedule.

## Performance Check of Extended Spectral Range Method on Sarge ASAP Analytical IRD3

A new ASAP Analytical IRD3 method was created on Sarge to extend the IR spectral range from 800-4000  $\text{cm}^{-1}$  to 550-4000  $\text{cm}^{-1}$ . The IRD3 method was named "IRD3 EXT" and all of the parameters are the same except for the extended spectral range from 550-800  $\text{cm}^{-1}$ . A performance check of the new "IRD3 EXT" method on Sarge was achieved by running a series of standards using existing validated Agilent GC methods along with the new "IRD3 EXT" method. A validation of this extended method had been previously performed and approved on another existing ASAP Analytical IRD3 named Hedwig (See instrument for validation manual) and has been deemed fit for its intended use in extending the spectral range from 800-4000  $\text{cm}^{-1}$  to 550-4000  $\text{cm}^{-1}$ . This extended spectral range allows for additional spectral information to be obtained that can further distinguish compounds containing primary and secondary amines such as amphetamines, as well as aromatics (rings), alkenes ( $\text{C}=\text{C}$ ), and halogen (ex. Cl and Br) containing compounds. Due to this spectral range extension, a new IRD3 library was created with the name "TBI GCIR EXT" and each standard that was run was compared to the ASAP Analytical "Project EUCLiD" spectral database. Based on data that was obtained from the validation on Hedwig, it is not recommended that Clonazepam be analyzed using the "IRD3 EXT" method due to insufficient spectra produced for comparison even at 5mg/mL. Additionally, Mitragynine came out past 30 minutes on that ISO270(30MIN) method using a HP-1 30 meter column with a 0.32 ID and 1.00  $\mu\text{m}$  film. Any new standards that are run on the ASAP Analytical IRD3 instruments will be run on the "IRD3" and "IRD3 EXT" methods to build each respective library. All TBI Forensic Chemistry laboratories will be informed about the "IRD3 EXT" method validation and the new library that was created. Any spectra obtained from running additional standards by the "IRD3 EXT" method will be shared and used by all regional laboratories. No competency testing will be required due to it being a modification of an existing IRD3 method to create an extended IRD3 method. All scientists will be trained on the use of the "IRD3 EXT" method along with the new library that has been created. In addition, a spreadsheet of standards that have been run and verified by the "IRD3 EXT" method maintained and available for review next to the instrumentation. This spreadsheet of standards also contains GC methods used and their approximate retention times. The "IRD3 EXT" method on Sarge is now fit for its intended use in extending this spectral range from 800-4000  $\text{cm}^{-1}$  to 550-4000  $\text{cm}^{-1}$ . As each ASAP Analytical IRD3 instrument in all regional laboratories have been performance checked for the "IRD3 EXT" method, the "IRD3 EXT" method will be used for running the monthly GC-IR Test Solution to cover the extended spectral range (550-4000  $\text{cm}^{-1}$ ) and the new wavenumber evaluation worksheet will be used that includes and additional wavenumber within the extended range to be evaluated.

### References:

*Introduction to Infrared and Raman Spectroscopy*, Colthup, Daly Wiberley, Academic Press 2<sup>nd</sup> Edition, 1975.

*Project EUCLiD*, ASAP Analytical, v1-0-2-1, 2021.

*IRD3 ASIC Manual Rev. 1-4.doc4* pages 1-33.

*Essential FTIR Operations Manual for GC IRD User Rev. 0-44* pages 1-36

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# Verified Standards by "IRD3 EXT" on ASAP Analytical GC-FTIR

(HP-1 30 Meter Column, 0.32 ID, 1.00  $\mu$ m Film)

|                         | Approximate RT | Method          |
|-------------------------|----------------|-----------------|
| 4-ANPP                  | 9.16           | 120TO270(20MIN) |
| Acetyl Fentanyl         | 12.40          | 120TO270(20MIN) |
| Alprazolam              | 17.18          | 200TO270(20MIN) |
| Amphetamine             | 4.82           | 60TO270         |
| Cocaine                 | 5.05           | 200TO270        |
| Delta 9 THC             | 9.33           | 120TO270        |
| Diazepam                | 7.25           | 200TO270(20MIN) |
| Etizolam                | 19.26          | ISO270(20MIN)   |
| Fentanyl                | 13.37          | 120TO270(20MIN) |
| Flualprazolam           | 15.41          | 200TO270(20MIN) |
| Para-Fluorofentanyl     | 12.45          | 120TO270(20MIN) |
| Gabapentin              | 4.11           | 120TO270        |
| Heroin                  | 11.71          | 120T270(20MIN)  |
| Hydrocodone             | 7.40           | 200TO270        |
| Hydromorphone           | 6.13           | ISO270(20MIN)   |
| Ketamine                | 3.40           | 200TO270        |
| 3,4-MDMA                | 6.18           | 60TO270         |
| Meperidine              | 2.99           | 200TO270        |
| Methadone               | 6.46           | 120TO270        |
| Methamphetamine         | 5.03           | 60TO270         |
| Oxycodone               | 10.16          | 120TO270(20MIN) |
| Oxymorphone             | 7.29           | ISO270(20MIN)   |
| Phentermine             | 4.97           | 60TO270         |
| Pseudoephedrine         | 5.65           | 60TO270         |
| Testosterone Acetate    | 10.76          | ISO270(20MIN)   |
| Testosterone Propionate | 13.33          | ISO270(20MIN)   |
| Tramadol                | 5.38           | 120TO270(20MIN) |

# Standards for ASAP Analytical IRD3 Extended Method Performance Check on Sarge

## Alprazolam

Cerilliant Lot# FE07061604

MeOH 1 mg/mL Exp. June 13, 2023

## Delta 9 THC

Cerilliant Lot# FE02072001

MeOH 1 mg/mL Exp. June 13, 2023

## Diazepam

Alltech Lot# 0102

MeOH 2.96 mg/ 1.5 mL Exp. June 12, 2023

## Etizolam

Cayman Chemical Co. Batch# 0480732

MeOH 1.25 mg/mL Exp. June 13, 2023

## Flualprazolam

Cayman Chemical Co. Batch# 0567999

MeOH 1 mg/mL Exp. June 13, 2023

## Para-Fluorofentanyl

Cerilliant Lot# FE03232007

MeOH 100 µg/mL Exp. June 13, 2023

## Gabapentin

Cayman Chemical Co Batch# 0433771-59

MeOH 7.82 mg/mL Exp. June 13, 2023

## GC-IR Mix

Methamphetamine Sigma Lot# 057K0666

Phentermine Alltech Lot# 14005

Amphetamine Alltech Lot# 1039

0.5 N NaOH → CHCl<sub>3</sub> 1 mg/mL Exp. February 7, 2023

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**GC-MS Mix**

Cocaine Sigma Lot# 90K1947

Hydrocodone Sigma Lot# 47F0128

Meperidine Alltech Lot# 4162

MeOH 1 mg/mL Exp. April 5, 2023

**Hydromorphone**

Alltech Lot# 01355

MeOH 1 mg/mL Exp. June 13, 2023

**Ketamine**

Alltech Lot# 323

MeOH 1.12 mg/mL Exp. June 13, 2023

**3,4-MDMA**

Grace Lot# 01408

MeOH 1 mg/mL Exp. June 13, 2023

**Methadone**

Alltech Lot# 9007

MeOH 2.40 mg/mL Exp. June 13, 2023

**Oxycodone**

Alltech Lot# 520

MeOH 3.05 mg/mL Exp. June 13, 2023

**Oxymorphone**

Grace Lot# 4039

MeOH 1 mg/mL Exp. June 13, 2023

**Pseudoephedrine**

Fluka Lot# 82448

MeOH 1 mg/mL Exp. June 13, 2023

**Testosterone Acetate**

Sigma Lot# 74H1129

MeOH 1 mg/mL Exp. June 13, 2023

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**Testosterone Propionate**

Sigma Lot# 39H0623

MeOH 1.65 mg/mL Exp. June 13, 2023

**THF4A Mix**

Tramadol Grace Lot# 474

4-ANPP Cayman Chemical Co. Batch# 0532667-20

Heroin Cayman Chemical Co. Batch# 0559235-15

Acetyl Fentanyl Cayman Chemical Co. Batch# 0497037-38

Fentanyl Citrate Cerilliant FE06151802

MeOH 1 mg/mL Exp. March 3, 2023

**MeOH Used:**

193023 Bottle 4 of 4 retest 06-2024

**CHCl<sub>3</sub> Used:**

0000177733 Bottle 2 of 4 retest 06-27-22

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## Addendum (Methods for Agilent/ASAP Analytical IRD3 GC-FTIR)

### Agilent GC:

Front Column: S/SL Injection Port with recommended HP-1 30 meter column, 0.32 column ID, and 1.0 um film thickness:

#### *Stored Methods for AUTOSAMPLE SPLIT INJECTION*

- 60TO270** Initial 60C degrees hold for 2 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 13.827 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.
- 120TO270** Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 17.01 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.
- 120TO270(20MIN)** Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 17.01 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.
- 200TO270** Initial 200C degrees hold for 1 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 21.268 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.
- 200TO270(20MIN)** Initial 200C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow of 6.0 mL/min, Pressure 21.268, Septum purge flow 3mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.
- ISO270(15MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 15.00 minutes.
- ISO270(20MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum

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purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**ISO270(30MIN)**

270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 30.00 minutes.

*Stored Methods for **MANUAL SPLIT INJECTION***

**MAN60TO270**

Initial 60C degrees hold for 2 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 13.827 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**MAN120TO270**

Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 17.01 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**MAN120TO270(20MIN)**

Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 17.01 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**MAN200TO270**

Initial 200C degrees hold for 1 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 21.268 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**MAN200TO270(20MIN)**

Initial 200C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0mL/min, Split ratio of 2.0, Split flow of 6.0 mL/min, Pressure 21.268 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**MANISO270(15MIN)**

270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 15.00 minutes.

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**MANISO270(20MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**MANISO270(30MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Split ratio of 2.0, Split flow 6.0 mL/min, Pressure 24.983 psi, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 30.00 minutes.

*Stored Methods for AUTOSAMPLE SPLITLESS INJECTION*

**SL60TO270** Initial 60C degrees hold for 2 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**SL120TO270** Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**SL120TO270(20MIN)** Initial 120C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**SL200TO270** Initial 200C degrees hold for 1 minutes ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 10.00 minutes.

**SL200TO270(20MIN)** Initial 200C degrees hold for 1 minute ramped to 270C degrees at 70C/min. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**SLISO270(15MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum

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purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 15.00 minutes.

**SLISO270(20MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 20.00 minutes.

**SLISO270(30MIN)** 270C degrees isothermal. Constant carrier flow rate of 3.0 mL/min, Splitless, Purge flow to Split Vent 15 mL/min at 0.75 min, Septum purge flow 3 mL/min, Inlet temperature of 250C degrees. Total run time 30.00 minutes.

### **ASAP Analytical IRD3 (FTIR):**

**IRD3** Resolution of 8 cm<sup>-1</sup> with a Co-Add (Scans) of 2, Background Scans (Collecting Basis Set→Basis Set File 10 times with 6 scans each = 60 Scans) prior to each sample, set at Auto Calculate Gain (typically 1-2), Frequency range 800-4000 cm<sup>-1</sup>, Apodization: Triangle, Phase Correction: Mertz, Zero Fill: 1, Flow Cell, Transfer Lines A & B at 280C, Smoothing Factor: OFF, Length 100, Symmetry: 2, Offset 60, Source Power at 22, and Laser Wavelength of 0.63299.

**IRD3 EXT** Resolution of 8 cm<sup>-1</sup> with a Co-Add (Scans) of 2, Background Scans (Collecting Basis Set→Basis Set File 10 times with 6 scans each = 60 Scans) prior to each sample, set at Auto Calculate Gain (typically 1-2), Frequency range 550-4000 cm<sup>-1</sup>, Apodization: Triangle, Phase Correction: Mertz, Zero Fill: 1, Flow Cell, Transfer Lines A & B at 280C, Smoothing Factor: OFF, Length 100, Symmetry: 2, Offset 60, Source Power at 22, and Laser Wavelength of 0.63299.

**SHUTDOWN** Resolution of 8 cm<sup>-1</sup> with a Co-Add (Scans) of 2, Background Scans (Collecting Basis Set→Basis Set File 10 times with 6 scans each = 60 Scans) prior to each sample, set at Auto Calculate Gain (typically 1-2), Frequency range 800-4000 cm<sup>-1</sup>, Apodization: Triangle, Phase Correction: Mertz, Zero Fill: 1, Flow Cell at 280C, Transfer Lines A & B at 230C, Smoothing Factor: OFF, Length 100, Symmetry: 2, Offset 60, Source Power Off, and Laser Wavelength of 0.63299.

**\*DO NOT\*** use "Default" method for IRD method in casework.

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For Resolution and Co-Add (Scans) Study ONLY:

**8 Resolution 4 Scans** Resolution of 8 cm<sup>-1</sup> with a Co-Add (Scans) of 4, Background Scans (Collecting Basis Set → Basis Set File 10 times with 6 scans each = 60 Scans) prior to each sample, set at Auto Calculate Gain (typically 1-2), Frequency range 800-4000 cm<sup>-1</sup>, Apodization: Triangle, Phase Correction: Mertz, Zero Fill: 1, Flow Cell, Transfer Lines A & B at 280C, Smoothing Factor: OFF, Length 100, Symmetry: 2, Offset 60, Source Power at 22, and Laser Wavelength of 0.63299.

Always verify that the temperature for the GC interface (flow cell) is at least 10 degrees higher than the maximum temperature of the GC oven. The nitrogen purge for the IRD3 should be set at around 20 psi and the nitrogen make-gas for the IRD flow controller's auxiliary lines A & B should be set at around 5 psi.

# Agilent Technologies 7890B GC System with ASAP Analytical IRD3 (GC-FTIR) Operating Procedures

Each GC-FTIR system will be identified from all other GC-FTIR systems by use of a unique identifier. This identifier could be a reference to a particular number, model number, serial number, name, etc. This GC-FTIR system employs OpenLab CDS ChemStation Edition with ASAP Analytical IRD3/eFTIR software. See the instrument's maintenance logbook for the specific software versions.

## Loading IRD3-ASIC Software and Method:

1. Click on the IRD3 - ASIC shortcut from either the Desktop or the Start Menu. A yellow box will come up asking "Do you want to allow this app from an unknown publisher to make changes to your device? IRD3.exe". Select Yes. Upon powering up the IRD3 software the system will load the settings that were last loaded when the program previously closed.
2. Make sure the "IRD3" or "IRD3 EXT" method is loaded by either selecting from the File Menu → Method... → Edit or Load Method... or by selecting the folder icon below the File Menu and then select the sequence line for "IRD3" or "IRD3 EXT" and click on the folder option "Load". If the source was previously turned off from a "SHUTDOWN" method it will ask you if you'd like to turn the source on. Select "Yes" to turn the source on.
3. Remove the black cap off the MCT dewar on top of the ASAP Analytical IRD3 instrument and use a funnel to fill MCT dewar with liquid nitrogen.

**\*NOTE\*** Make sure you have proper PPE (etc. face shield and gloves) when filling the MCT dewar. It will take about 5 funnels full of liquid nitrogen to fill the MCT dewar. Be careful when filling because as you get closer to completely filling the MCT dewar, it may spit out the top of the funnel. When the MCT dewar is full, let it vent off for a few seconds before placing the black cap back on.

4. Once the MCT dewar is filled click on the "MCT Timer" bar under "Menu" and reset the timer. This will turn the status of the MCT to ready (green). It is manufacturer recommendation to wait at least 20 minutes to let the MCT cool down and equilibrate.
5. Left mouse click the System Status bar under "Menu" to check the status of your source, laser, IR, transfer lines A & B, and light pipe. Once all are ready they should turn from red or yellow to green and state that the system is "READY". Exit out of window when you are finished.

**\*NOTE\*** If the source has been turned off from the previous run, it will need approximately 2 hours to turn on and equilibrate. It is also recommended to run a wash first and check your baseline before running your first sample.

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6. Once everything has stabilized and the system is "READY", click on the Optics Align bar under "Menu" and "GLP Status" to check your optics alignment value. The "Current" value should be around +/- 10% of the "Maximum" value. If there is a significant difference in the value, notify the analyst who performs maintenance on the instrument. An optical alignment may be needed prior to analysis. Close out of the window when you are finished.

#### **Loading Control Panel for OpenLab Software:**

7. Click on the Control Panel shortcut from the Desktop. Select "Launch" under Instrument Name (Ex. "Hedwig")→Start Instrument.
8. Agilent OpenLab CDS ChemStation Edition will initialize for a few moments. Select either "OK" or exit out of the window when asked about Adobe Reader not being your default PDF reader (We use Microsoft Word).
9. Once OpenLab CDS ChemStation has loaded you are now ready to create a sequence back in the IRD3 software window.

#### **Creating a Sequence:**

##### **→New Sequence**

10. From the File Menu in the IRD3 software window, select the "Sequence..." option to either create a new sequence or edit an already created sequence.
11. If you are creating a new sequence, type in how you want to label your sequence in the "Sequence Name:" box.
12. In the first line and column of the sequence in the Sequence Setup window, put in the "Type" column the type of sample you are running (ex. Blank, Sample, etc). You do not have put any information in this window, due to the information in this column not being displayed on any of the generated reports in the eFTIR software.
13. In the second column of the sequence under "IRD Method" click on the drop down arrow and select "IRD3" or "IRD3 EXT" for your IRD method.
14. In the third column of the sequence under "GC Method" select the box and then click on the blue icon "Browse GC Methods" a bottom of the Sequence Setup window.
15. Select the following data path to obtain all Agilent OpenLab Chemstation GC methods:

**This PC→Windows (C:)→Users→Public→Public Documents→Chemstation→1→Methods**

16. Select the method you'd like to use for your sample and click "Okay"
17. In the fourth column of the sequence under "Vial" type in the vial location of your sample in the auto sample tray. (For smaller auto sample trays, you will have to add 100 to every numbered position on the auto sample tray. Example, if you are starting at the "1" position in the auto sample tray, you would put vial location "101").
18. In the fifth column of the sequence under "SampleID" name your sample.
19. In the sixth column of the sequence under "Data File Name" name your sample. How you name your sample here will determine how it will appear in the data file. In addition to naming your sample you will need to put a time stamp after. To put a time stamp with the data file name you will add "\$(date)" (example: "Sample2 \$(date)" ). NOTE: There is a limit

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of 38 characters when you add the time stamp to the data file name and it doesn't like symbols such as "/".

20. In the seventh column of the sequence under "Solvent/Extract" you will enter in your solvent or extraction information.
21. In the eighth column of the sequence under "Instrument ID" you will enter in your instrument name (Ex. "Hedwig") as the Instrument ID. Any information put in the seventh and eighth columns will appear in the "Misc. Info" box with a colon dividing the information in any generated report.
22. Once the first line of the sequence setup is completed you can copy and paste information in any sequential lines that need filled out. It will let you copy one line at a time or select several lines to fill down. When pasting after highlighting a line or several lines to copy, just select one line and paste what you have copied.
23. To insert a line, copy a single line right below where you want to insert your sample and select paste in the same line. It will insert a copy of the line right below it. Change any necessary information.
24. Select "Save" to save your sequence when you are finished.

#### →New Sequence from an Existing Sequence

25. To create a sequence by editing an existing sequence, from the File Menu in the IRD3 software window, select the "Sequence...→Edit Sequence..." option.
26. Select the existing sequence where you'd like to create a new one from by clicking/highlighting it and selecting the "Edit" button.
27. Select the "Save As..." button and create your new sequence name, save, and then make any changes to the sequence and select save. **DO NOT save over an existing sequence.**

#### Running a Sequence:

28. For a single sample or sequence run select the green "Start Run" button in the top left corner under "Menu". Fill out any necessary information for a single sample within the required fields and select the "Start Run" button. For the sequence run, select the "Sequence run" tab and then from the "Sequence Name" select the sequence to be run from the drop down (However you named and saved your sequence is how it will appear here). It will order it numerically then alphabetically. Select the line in which you would like to start the sequence otherwise it will default to the first line. Verify the path where the data files will be written under "Data File Storage Path:", print the sequence, and then select the "Start Sequence" button. **Example: C:/ASAP DATA/Hedwig 2020/3-5-2020**

#### Adding Samples to a Sequence Run:

29. To add samples to a sequence while it's running go to File Menu→Sequence→Edit Current Sequence. The sequence will open and you can edit or add to the sequence. Save and exit the window when finished.

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### Manual Injections:

30. For manual injections you will create and set up your sequence the same as you would for autosample (steps 10-24 or steps 25-27 for an existing sequence, also see maintenance book for manual method information). From the IRD3 Software window select File→User Preferences... and then select the check box for "Bypass GC Prep" and select "Save". This will signal to the GC to prep for manual injection once a sequence is started.
31. Remove the autosampler tower from the injection port.
32. Follow step 28.
33. You will have to wait until the GC and IRD3 are ready before manually injecting. Once the "Not Ready" button is no longer highlighted red on the actual Agilent GC instrument panel and the IRD3 states that it is "Waiting for Injection", manually inject your sample and select the "Start" button on the Agilent GC.
34. Once you are finished running manual injections you will need to unselect the "Bypass GC Prep" check box by following the instructions in step 30 and select "Save" to save and exit out of the window.
35. Additionally, load an autosample method in the Chemstation software by double left clicking on a method in the left-hand column. Then place the autosampler tower back on the front inlet.

### Viewing Data Collection:

36. To view your sample chromatogram and spectra while collecting, select the IRD3 Software window.
37. You may select an "eFTIR Snapshot" that will allow for a snapshot to be taken for you to view your data while it is still collecting in the eFTIR software.
38. This will automatically pull up the snapshot in the eFTIR software in the Tool Parameters Window.
39. Select the "Refresh" button to update the sample as it's running in the Tool Parameters Window.
40. See instructions below for Tool Parameter functions (steps 45-49) and obtaining data once samples have finished running.

### EssentialFTIR (eFTIR) Software (Data Analysis):

41. Click on the eFTIR "Essential FTIR" Shortcut from either the Desktop or the Start Menu.
42. Select the "Advanced" tab in the left bottom side menu and then select the "GC-IRD" option.
43. Select the "Load TRC" button. A window will pop up that will allow for you to "Choose a Chromatogram". It will have the last file that was loaded in the window. Where you selected to have your data path before starting a sequence in the IRD3 Software is where your data files will be. **Example: C:/ASAP DATA/Hedwig 2020/3-5-2020**
44. Select your data file name folder and then select the "irdata.cgm" file and click "Open".
45. Depending on what parameters were last used, there will be an "Auto Pick" of the peaks selected in your chromatogram in the Tool Parameters Window. You can adjust these parameters by selecting the "Auto Pick" button (See Essential FTIR manual pages 20-21 for

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- more information). Make sure that the peak markers are the best representation for the baseline and peak. You can adjust the peak markers by left mouse clicking and dragging.
46. Once a file has been opened, the Essential FTIR will automatically show the first spectrum (if not all) of the first identified chromatographic peak. Select the "Next Peak" button to select the next peak and "Previous" button to go back.
  47. To add a peak, select "Add Peak". Follow the instructions on how to add a peak.
  48. To perform a library search of a selected peak click the button "Search" inside the GC-IR Tool window.
  49. To print a report make sure you are back in the "GC-IRD" option under the "Advanced" tab and select the "Report" button on the GC-FTIR Tool window. There are 3 different options for reports. Auto-Search Reports, Standard Report, and All Peaks Report. (See Essential FTIR manual page 11 for more information about each report).
  50. After selecting a report, a "GCIR Report Text" window will appear. You can add more information that will be put on your report here. Click "Ok" to then generate a report in Microsoft Word.
  51. Once the report has generated in Microsoft Word, select and highlight the two lined columns that have information from "Data Filename" to "Date Processed" and copy. Scroll down to the second page of the report and double left click the top portion of the page. The Header option should pop up. Paste the copied information in the Header and check the box "Different First Page" in the "Design" tab of the top menu. Once finished, double left click outside the Header to exit out or select the "Close Header and Footer" box in the menu.
  52. Go to File→Print and select "Print".

### **Manual Weekend Shutdown of IRD3:**

53. To manually load the shutdown method for the IRD3 (Example: If there is no sequence running and you are the last one on Friday in the lab) make sure the "SHUTDOWN" IRD3 method is loaded by either selecting from the File Menu→Method...→Edit or Load Method... or by selecting the folder icon below the File Menu and then select the sequence line for "SHUTDOWN" and click on the folder option "Load".

### **Weekly/Monthly Maintenance**

#### **Weekly:**

54. Follow steps 1-4.
55. Once everything has stabilized and the system is "READY" in the ASAP Analytical – IRD3 window click on the Optics Align bar under "System Status" to check and record your optics alignment value. The "Current" value should be around +/- 10% of the "Maximum" value. If it is not within +/- 10% of the "Maximum" value, an optical alignment may be needed prior to analysis. Close out of the window when you are finished.
56. Change liner, o-ring, septa as needed.

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Monthly:

57. Clip column and change gold seal as needed.
58. Run the GC/IR Test Solution (Amphetamine, Phentermine, Methamphetamine) by following steps **10-28** and select GC method "60TO270" (or run appropriate check/test solution and GC method for type of column used) and IRD method "IRD3" or "IRD3 EXT" and perform a Wavenumber Evaluation of the selected three or four higher resolved peaks across 550-4000  $\text{cm}^{-1}$  for each standard (See **ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation** maintenance sheet for specific peaks). Follow steps **41-52** for obtaining data for the GC/IR Test Solution. Wavenumbers of the three or four selected higher resolved peaks across 550-4000  $\text{cm}^{-1}$  for each standard of the GC/IR Test Solution must be within  $\pm 8 \text{ cm}^{-1}$  of the wavenumbers of the three or four selected higher resolved peaks across 550-4000  $\text{cm}^{-1}$  of comparable concentration of the standards used in validation (See further instructions below). Print and retain records in the instruments calibration and maintenance logbook.

Instructions for Wavenumber Evaluation:

59. Follow steps **41-45**.
60. Select the "Analysis" tab in the bottom left side menu.
61. You will have to view and evaluate one spectrum of each standard at a time by clicking on the checked boxes in the "Available Spectra List" in the upper left side of the window under "Filename" to unselect the spectrums from the "Workspace Window" that you do not wish to view.
62. Then select the "Manual Peak Picking" or "Peak Picking" option. The "Manual Peak Picking" option will let you manual select/deselect peaks by right clicking, the "Peak Picking" option will let you raise and lower a bar by left clicking and dragging to select peaks by height.
63. Select the three or four higher resolved peaks across 550-4000  $\text{cm}^{-1}$  for that standard (See **ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation** maintenance sheet for specific peaks) and select the "Report" button.
64. Once the report has generated in Microsoft Word, go to File  $\rightarrow$  Print and select "Print".
65. Repeat for each standard spectrum starting with step **60**.
66. "Peak at" values for the three or four higher resolved peaks across 550-4000  $\text{cm}^{-1}$  for each individual standard will be recorded in the "Measured" box values in the **ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation** maintenance sheet.
67. Print and retain reports of each individual standard along with the **ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation** maintenance sheet and place in the instrument's calibration and maintenance logbook.

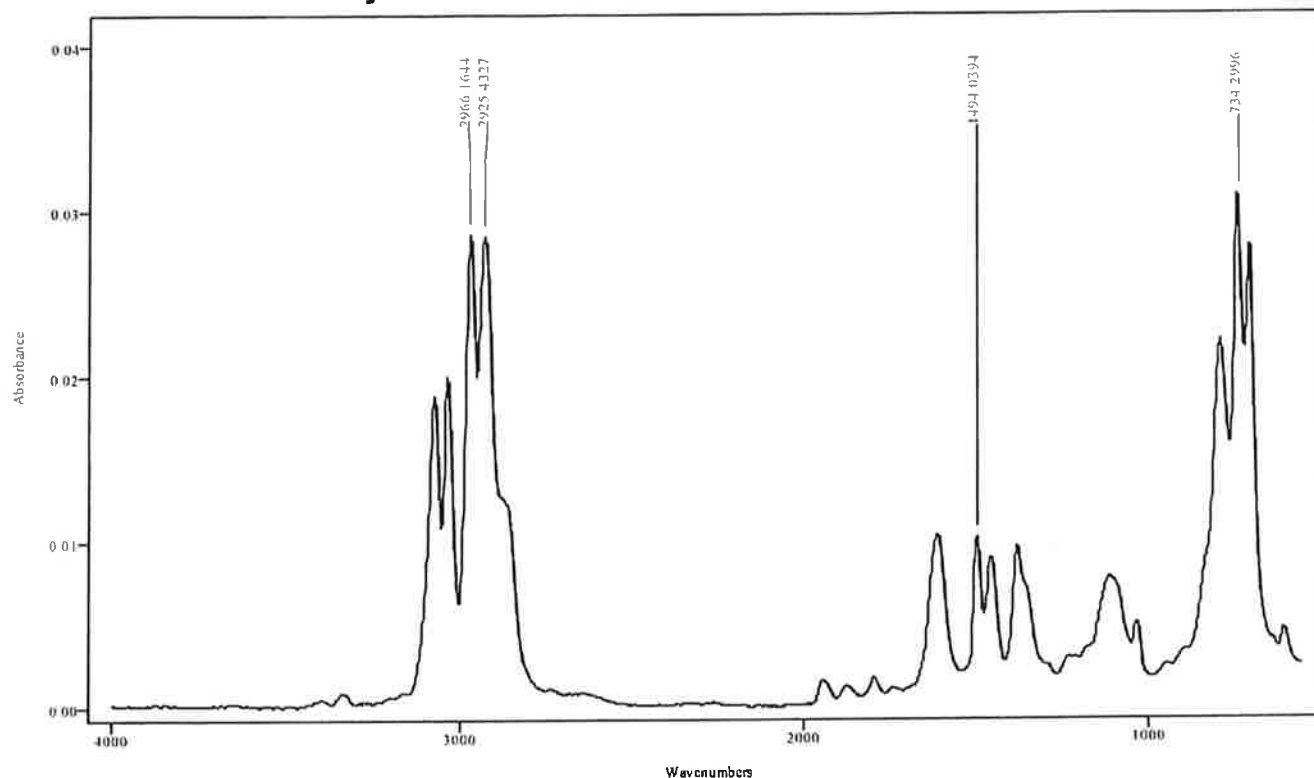
This is not meant to be all-inclusive. There may be other ways to accomplish the same task. See ASAP Analytical manuals for additional information.

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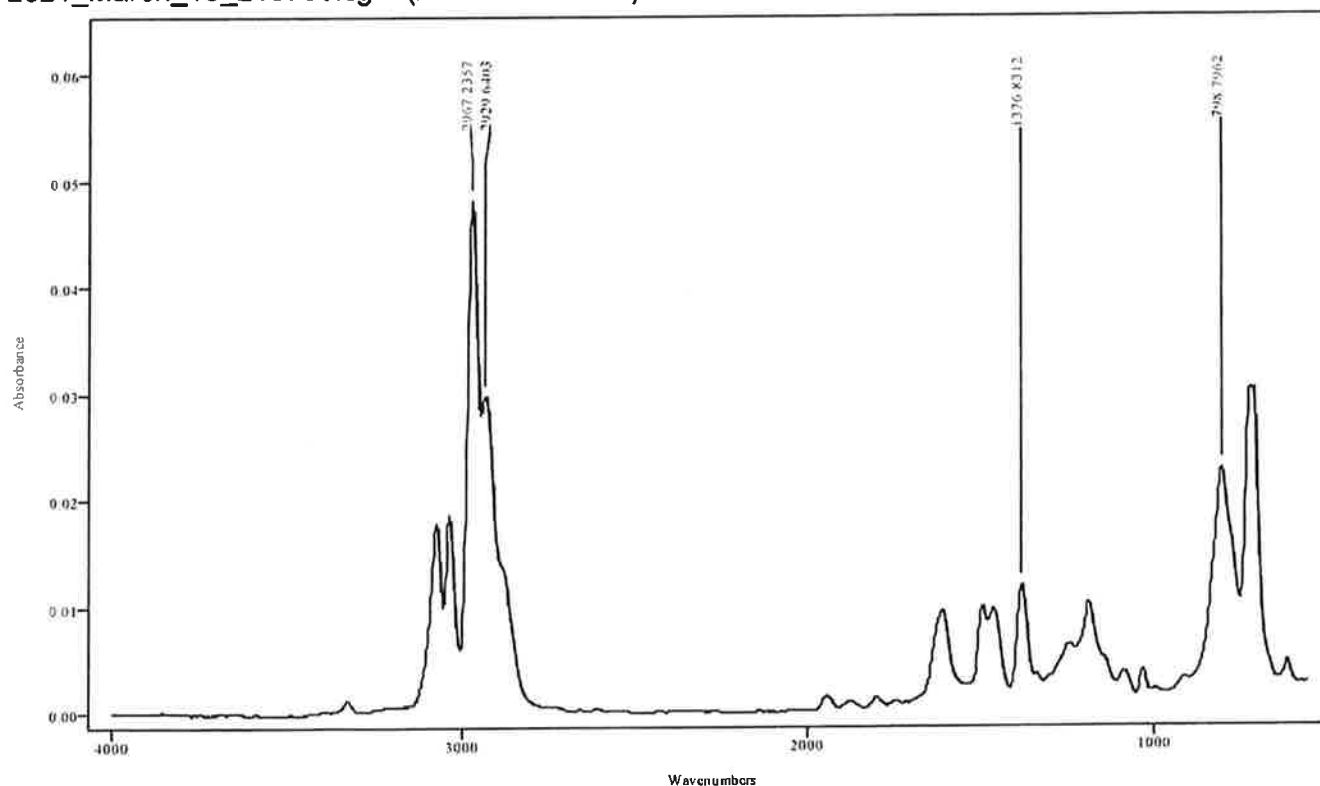
Instrument Name: \_\_\_\_\_

Initials and Date: \_\_\_\_\_

### ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation



IRDATA.SPC: 4.72 minutes: AVE (4.71: 4.73) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm (AMPHETAMINE)

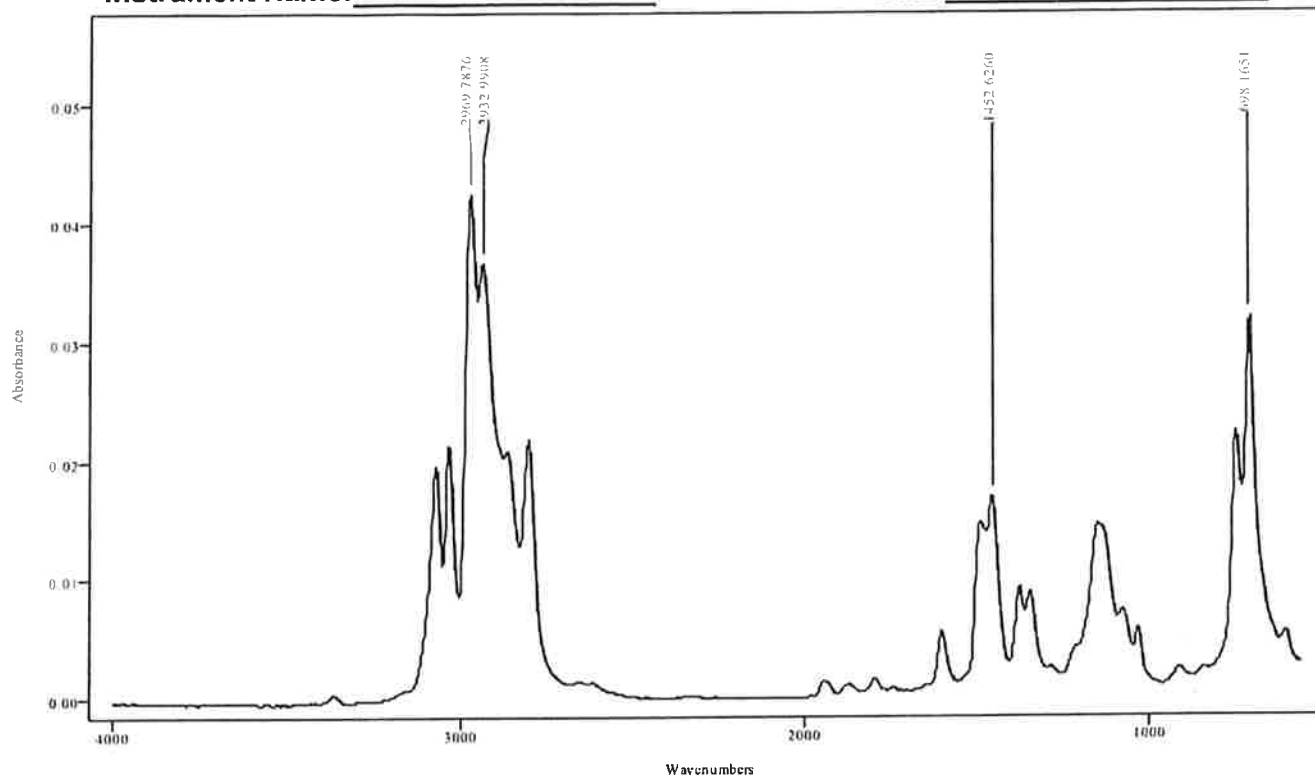


IRDATA.SPC: 4.87 minutes: AVE (4.84: 4.88) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm (PHENTERMINE)

Ref  
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Instrument Name: \_\_\_\_\_

Initials and Date: \_\_\_\_\_



IRDATA.SPC: 4.93 minutes: AVE (4.92: 4.95) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
 2021\_March\_16\_215736.cgm (METHAMPHETAMINE)

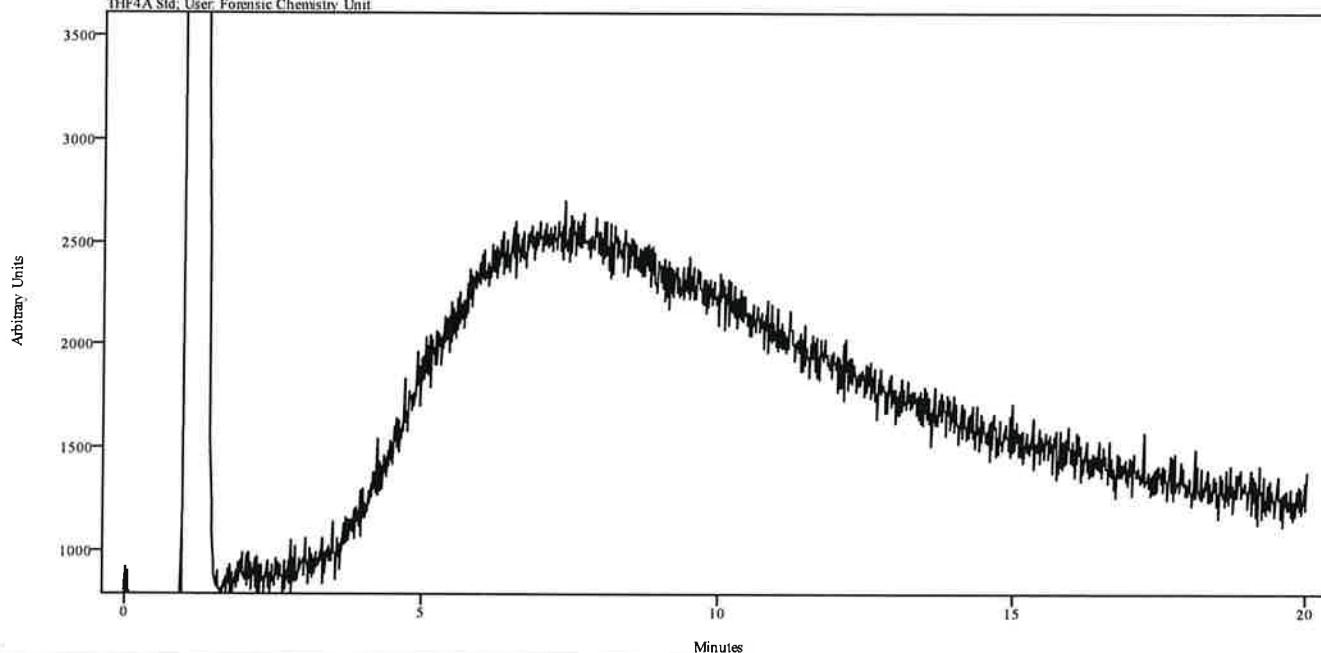
| Compound                      |        | Expected  | Measured | Criteria   | Result                        |
|-------------------------------|--------|-----------|----------|------------|-------------------------------|
| Amphetamine<br>(IRD3 EXT)     | Peak 1 | 734.2996  |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 2 | 1494.0394 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 3 | 2925.4327 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 4 | 2966.1644 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
| Phentermine<br>(IRD3 EXT)     | Peak 1 | 798.7962  |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 2 | 1376.8312 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 3 | 2929.6403 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 4 | 2967.2357 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
| Methamphetamine<br>(IRD3 EXT) | Peak 1 | 698.1651  |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 2 | 1452.6260 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 3 | 2932.9908 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |
|                               | Peak 4 | 2969.7876 |          | +/- 8 cm-1 | Pass <input type="checkbox"/> |

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## IRD Data Analysis Report

|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_103711THF4ASTDBLANK                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 2                                                |
| Sample Name    | Blank THF4A Std                                  |
| Misc. Info     | Methanol:Sarge                                   |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:00:38 2022                         |
| Date Processed | Wed Mar 30 11:26:32 2022                         |

irdata.cgm: 2022\_March\_30\_103711THF4ASTDBLANK  
 irdata.cgm: Misc. Info: Methanol:Sarge, Sample: Blank  
 THF4A Std; User: Forensic Chemistry Unit

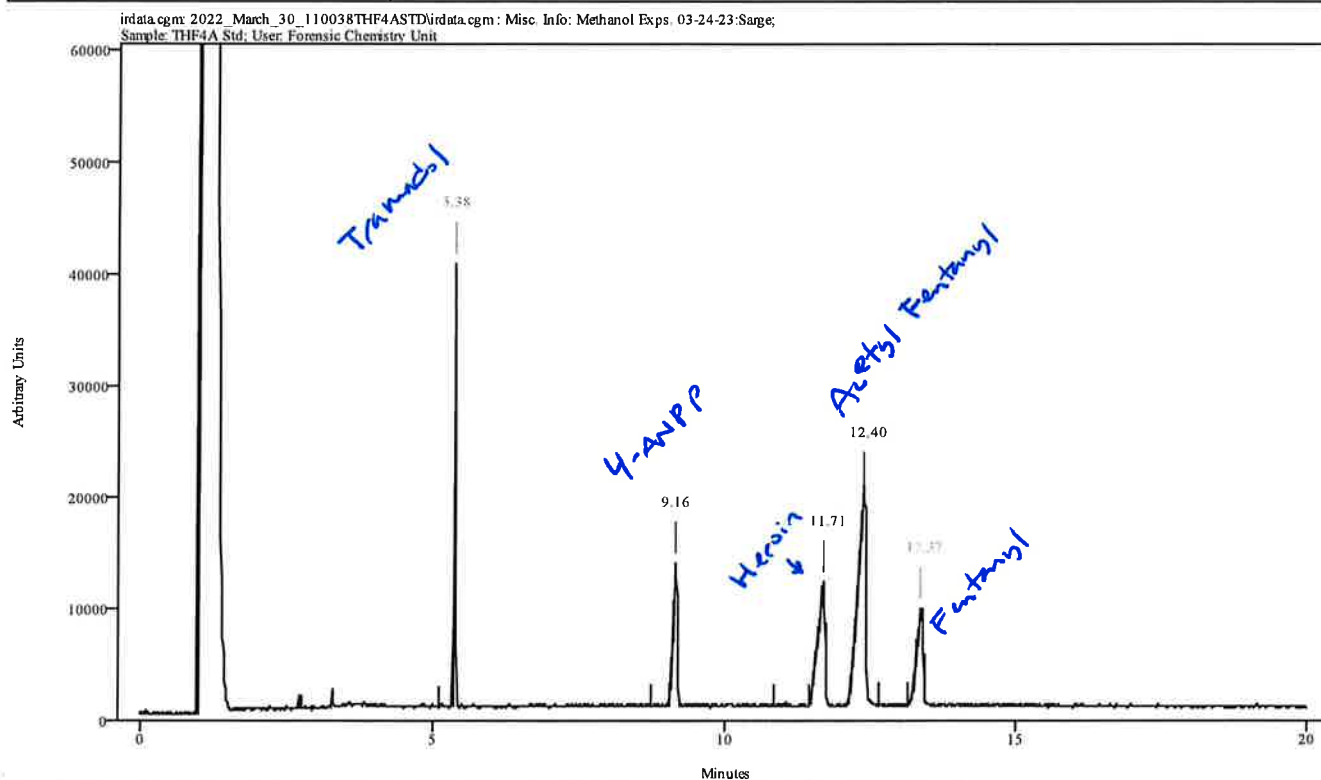


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

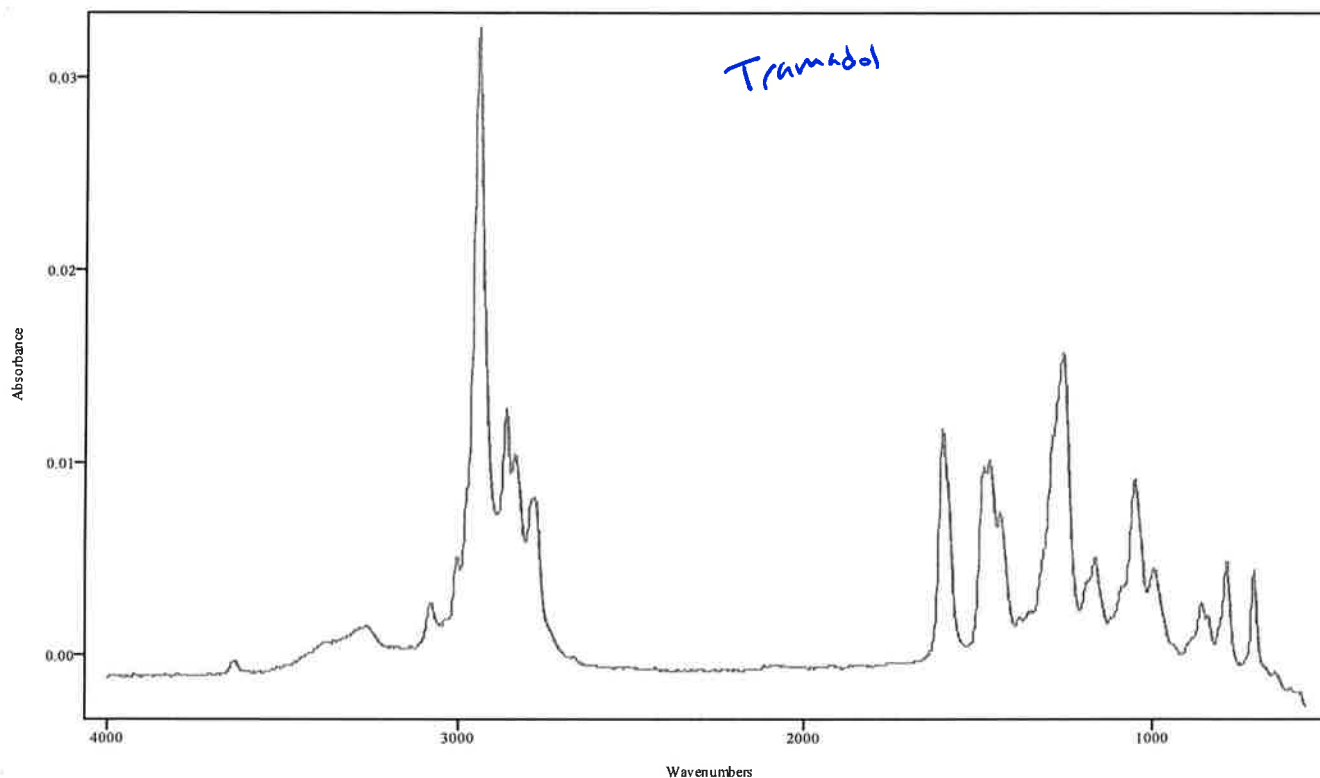
|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 5.356      | 5.401    | 0.044      | 5.112           | 5.334         |
| 9.112      | 9.190    | 0.078      | 8.723           | 9.035         |
| 11.602     | 11.746   | 0.144      | 10.879          | 11.457        |
| 12.279     | 12.435   | 0.156      | 10.879          | 11.457        |
| 13.291     | 13.413   | 0.122      | 12.657          | 13.146        |

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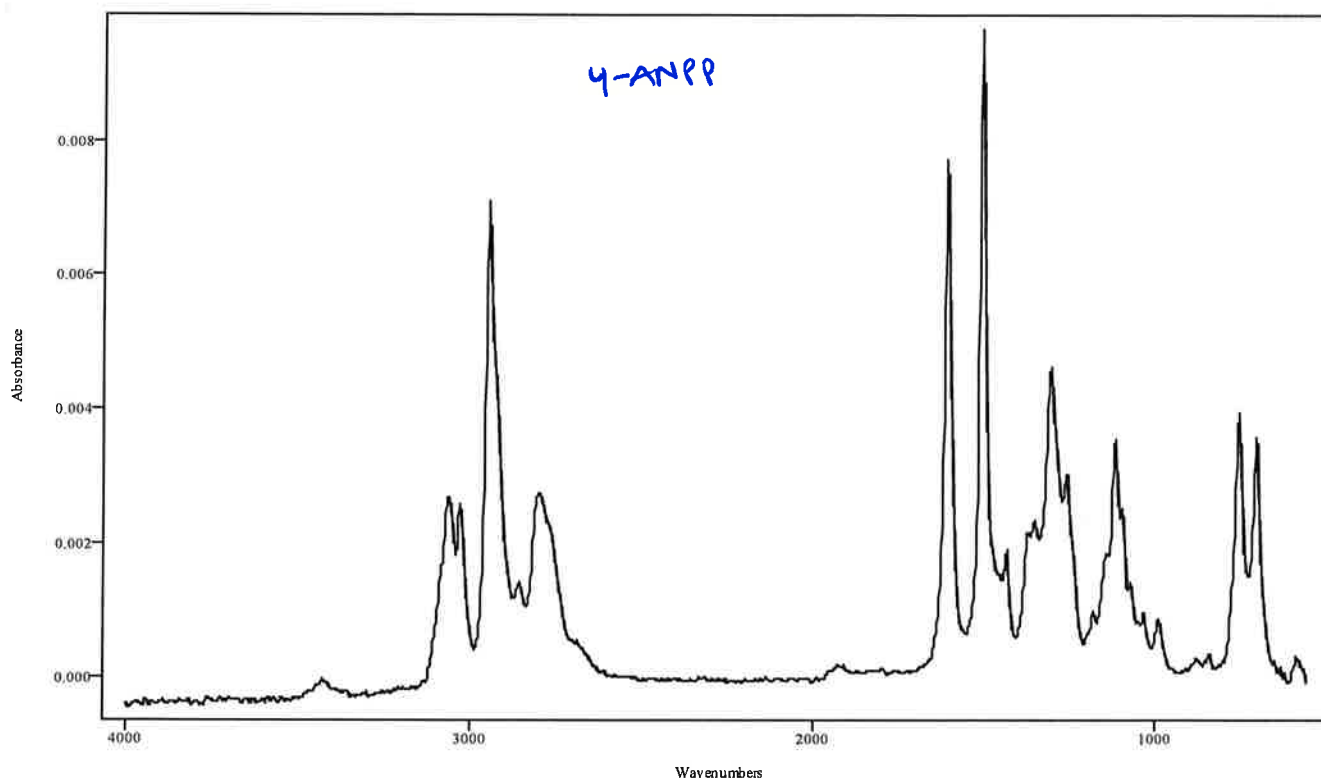
|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



IRDATA.SPC: 5.38 minutes: AVE (5.36: 5.40) Ref. (5.11: 5.33) of  
2022\_March\_30\_110038THF4ASTD.cgm

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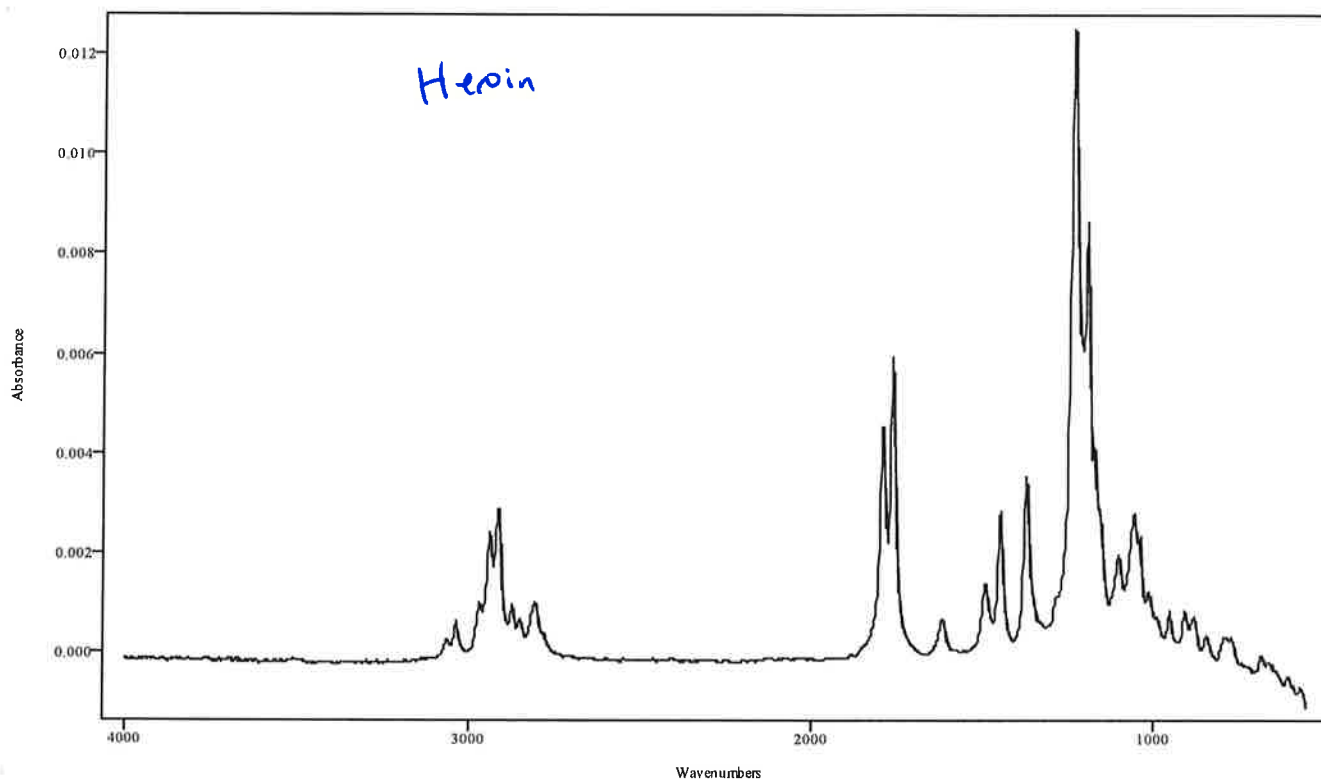
|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



IRDATA.SPC: 9.16 minutes: AVE (9.11: 9.19) Ref. (8.72: 9.03) of  
2022\_March\_30\_110038THF4ASTD.cgm

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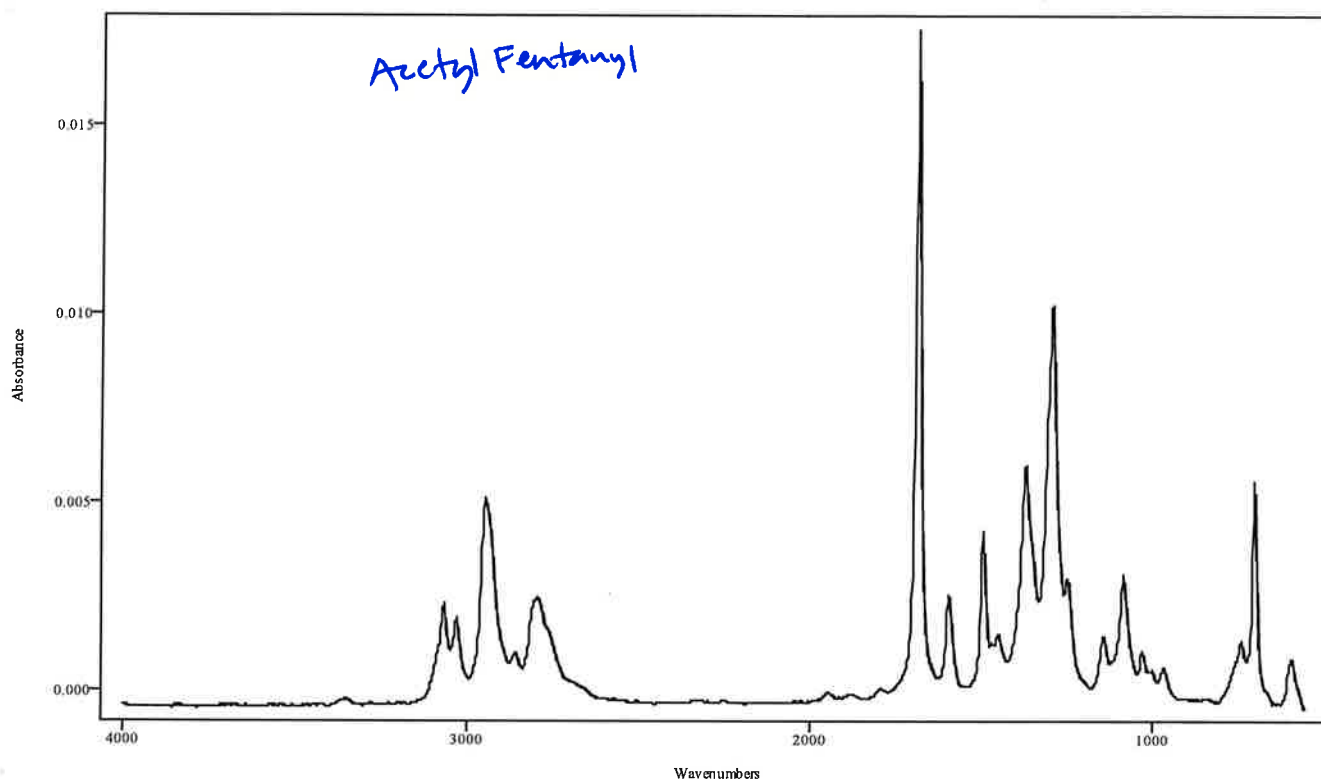
|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



IRDATA.SPC: 11.71 minutes: AVE (11.60: 11.75) Ref. (10.88: 11.46) of 2022\_March\_30\_110038THF4ASTD.cgm

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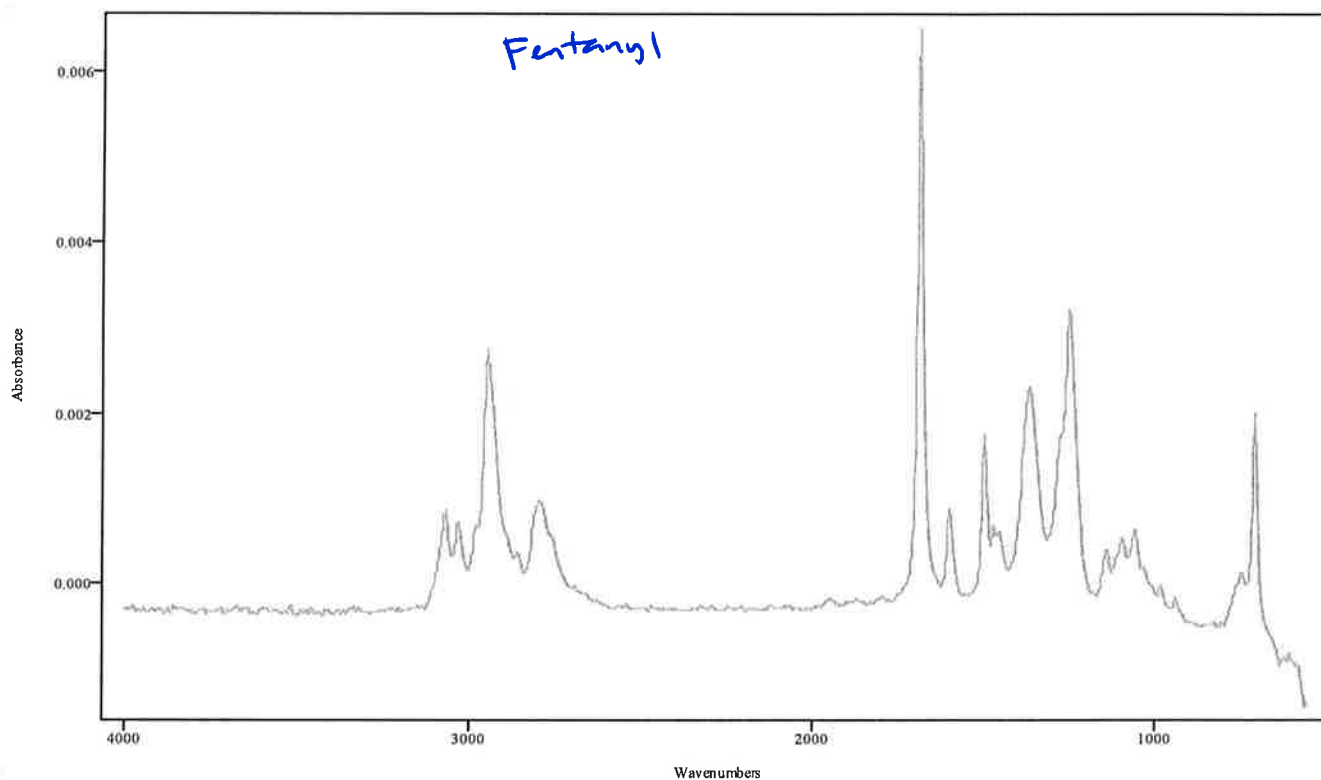
|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



IRDATA.SPC: 12.40 minutes: AVE (12.28: 12.44) Ref. (10.88: 11.46) of 2022\_March\_30\_110038THF4ASTD.cgm

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|                |                                                  |
|----------------|--------------------------------------------------|
| Data Filename  | 2022_March_30_110038THF4ASTD                     |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/March/03-30-22PC |
| IRD Method     | IRD3 EXT                                         |
| GC Method      | 120TO270(20MIN)                                  |
| GC Vial        | 3                                                |
| Sample Name    | THF4A Std                                        |
| Misc. Info     | Methanol Exps. 03-24-23:Sarge                    |
| User ID        | Forensic Chemistry Unit                          |
| Injection Time | Wed Mar 30 11:24:08 2022                         |
| Date Processed | Fri Jul 15 13:46:32 2022                         |



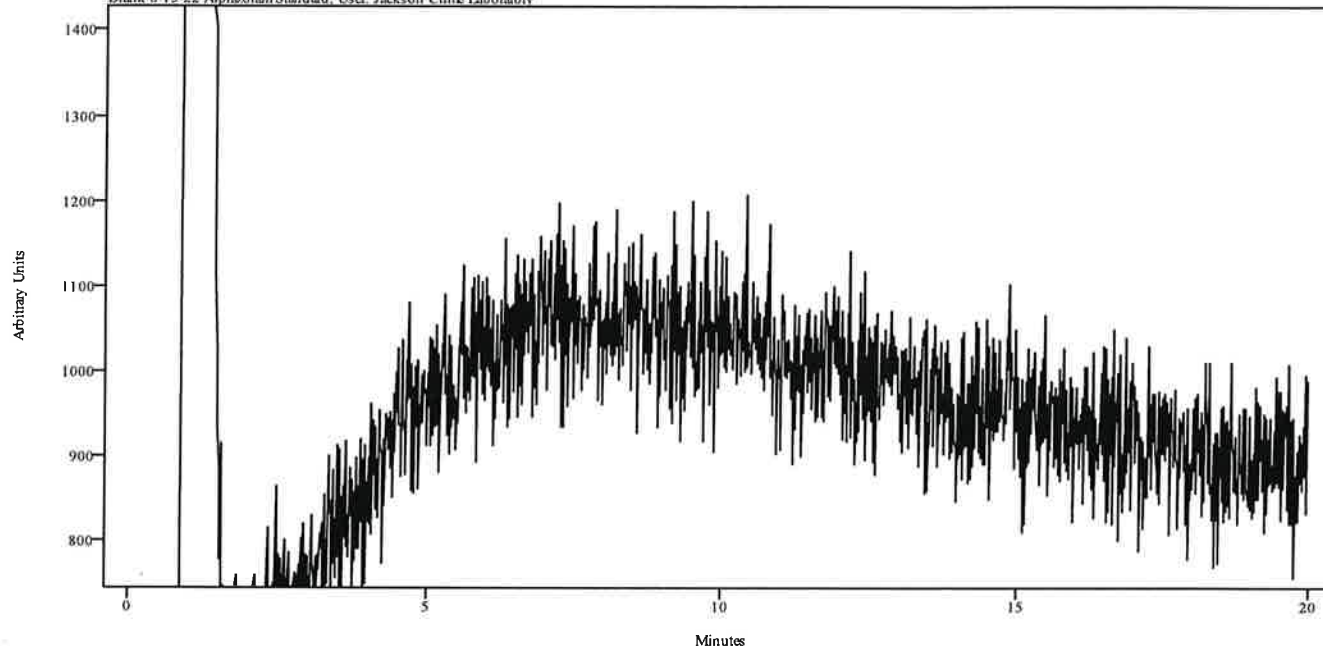
IRDATA.SPC: 13.37 minutes: AVE (13.29: 13.41) Ref. (12.66: 13.15) of 2022\_March\_30\_110038THF4ASTD.cgm

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_174952ALPRAZOLAMSTDBLANK         |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 51                                            |
| Sample Name    | Blank 6-13-22 Alprazolam Standard             |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 18:13:32 2022                      |
| Date Processed | Wed Jun 15 08:35:25 2022                      |

irdata.cgm: 2022\_June\_13\_174952ALPRAZOLAMSTDBLANKirdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank 6-13-22 Alprazolam Standard; User: Jackson Crime Laboratory



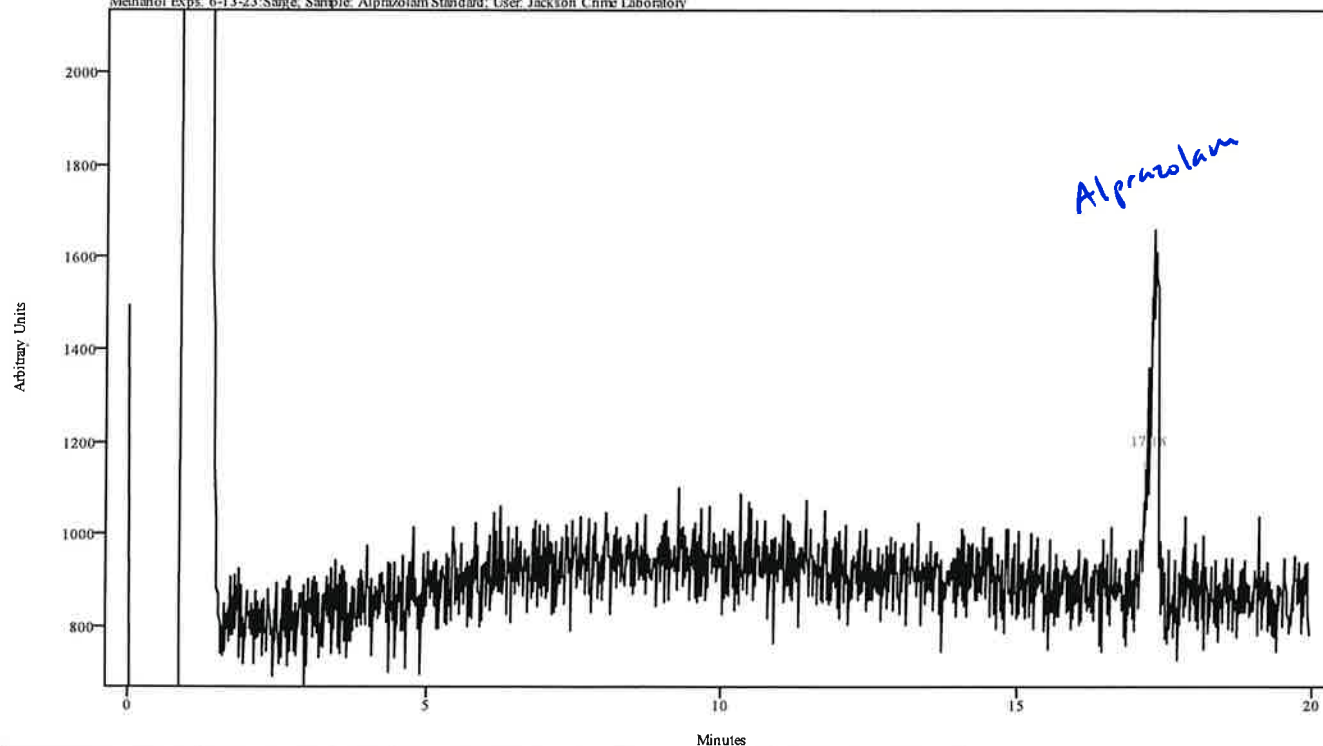
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                                        |
|----------------|--------------------------------------------------------|
| Data Filename  | 2022_June_13_181332ALPRAZOLAMSTD                       |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22          |
| IRD Method     | IRD3 EXT                                               |
| GC Method      | 200TO270(20MIN)                                        |
| GC Vial        | 52                                                     |
| Sample Name    | Alprazolam Standard                                    |
| Misc. Info     | Cerilliant Lot FE07061604 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                               |
| Injection Time | Mon Jun 13 18:37:00 2022                               |
| Date Processed | Wed Jun 15 08:35:56 2022                               |

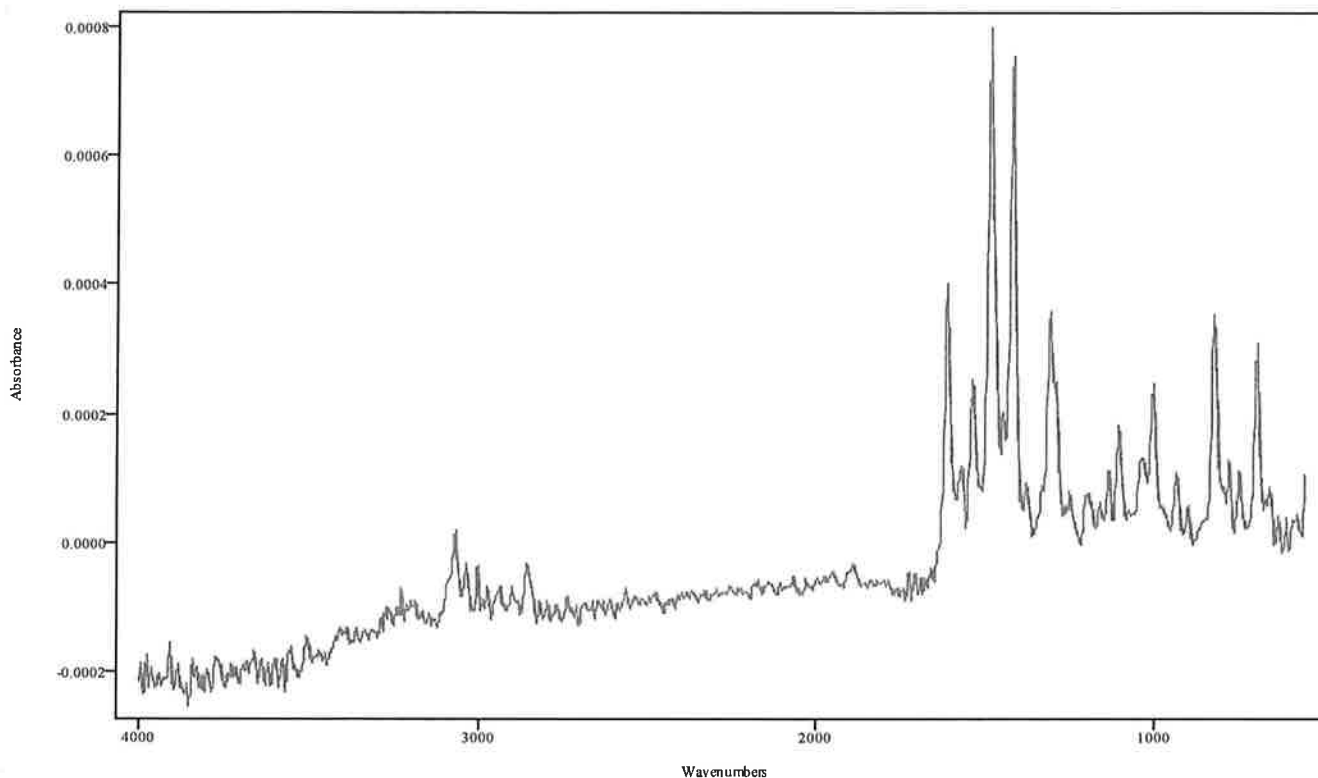
irdata.cgm: 2022\_June\_13\_181332ALPRAZOLAMSTD\data.cgm : Misc. Info: Cerilliant Lot FE07061604  
Methanol Exps. 6-13-23:Sarge, Sample: Alprazolam Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 16.859     | 17.506   | 0.647      | 11.235          | 13.947        |

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|                |                                                        |
|----------------|--------------------------------------------------------|
| Data Filename  | 2022_June_13_181332ALPRAZOLAMSTD                       |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22          |
| IRD Method     | IRD3 EXT                                               |
| GC Method      | 200TO270(20MIN)                                        |
| GC Vial        | 52                                                     |
| Sample Name    | Alprazolam Standard                                    |
| Misc. Info     | Cerilliant Lot FE07061604 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                               |
| Injection Time | Mon Jun 13 18:37:00 2022                               |
| Date Processed | Wed Jun 15 08:35:56 2022                               |

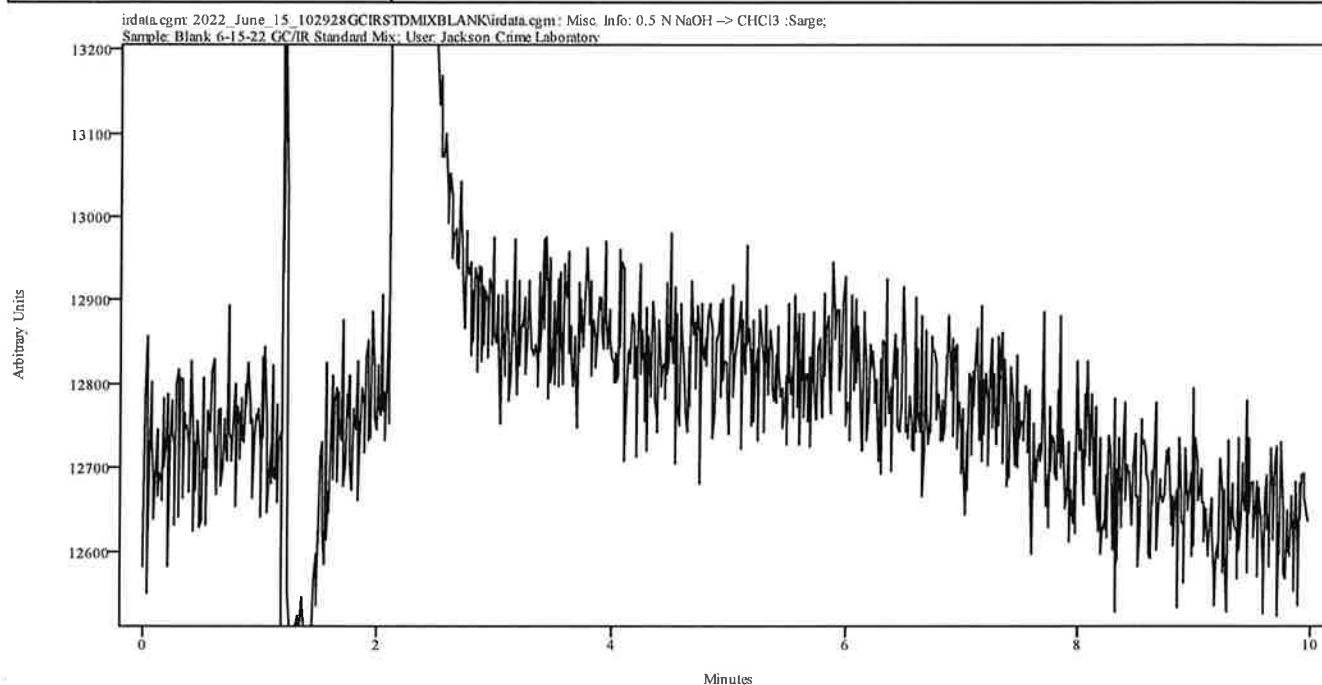


IRDATA.SPC: 17.18 minutes: AVE (16.86: 17.51) Ref. (11.24: 13.95) of 2022\_June\_13\_181332ALPRAZOLAMSTD.cgm

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_102928GCIRSTDMIXBLANK            |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 3                                             |
| Sample Name    | Blank 6-15-22 GC/IR Standard Mix              |
| Misc. Info     | 0.5 N NaOH --> CHCl3 :Sarge                   |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 10:44:05 2022                      |
| Date Processed | Fri Jul 15 13:47:50 2022                      |



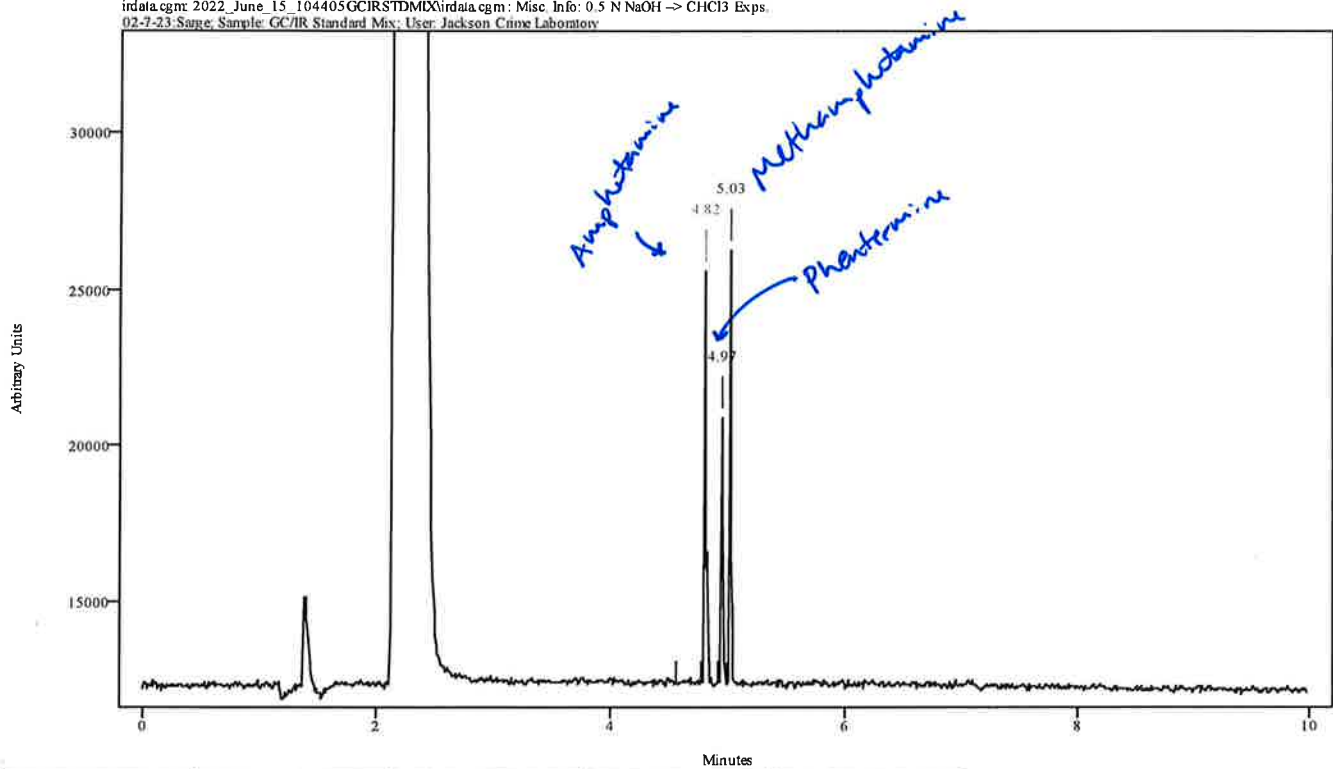
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_104405GCIRSTDMIX                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 4                                             |
| Sample Name    | GC/IR Standard Mix                            |
| Misc. Info     | 0.5 N NaOH --> CHCl3 Exps. 02-7-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 10:58:48 2022                      |
| Date Processed | Fri Jul 15 13:48:06 2022                      |

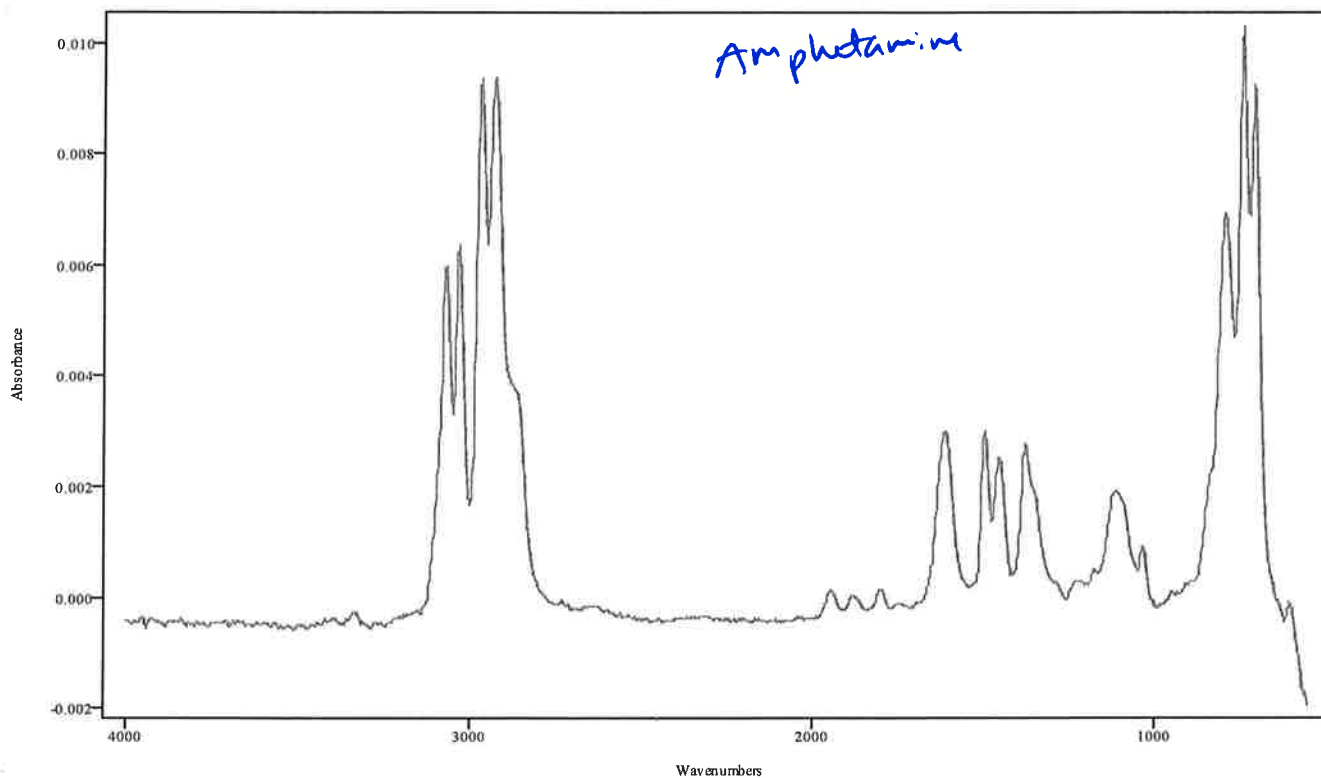
irdata.cgm: 2022\_June\_15\_104405GCIRSTDMIX irdata.cgm: Misc. Info: 0.5 N NaOH --> CHCl3 Exps.  
02-7-23:Sarge; Sample: GC/IR Standard Mix; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 4.789      | 4.833    | 0.045      | 4.566           | 4.789         |
| 4.945      | 4.978    | 0.033      | 4.856           | 4.922         |
| 5.000      | 5.045    | 0.045      | 4.856           | 4.922         |

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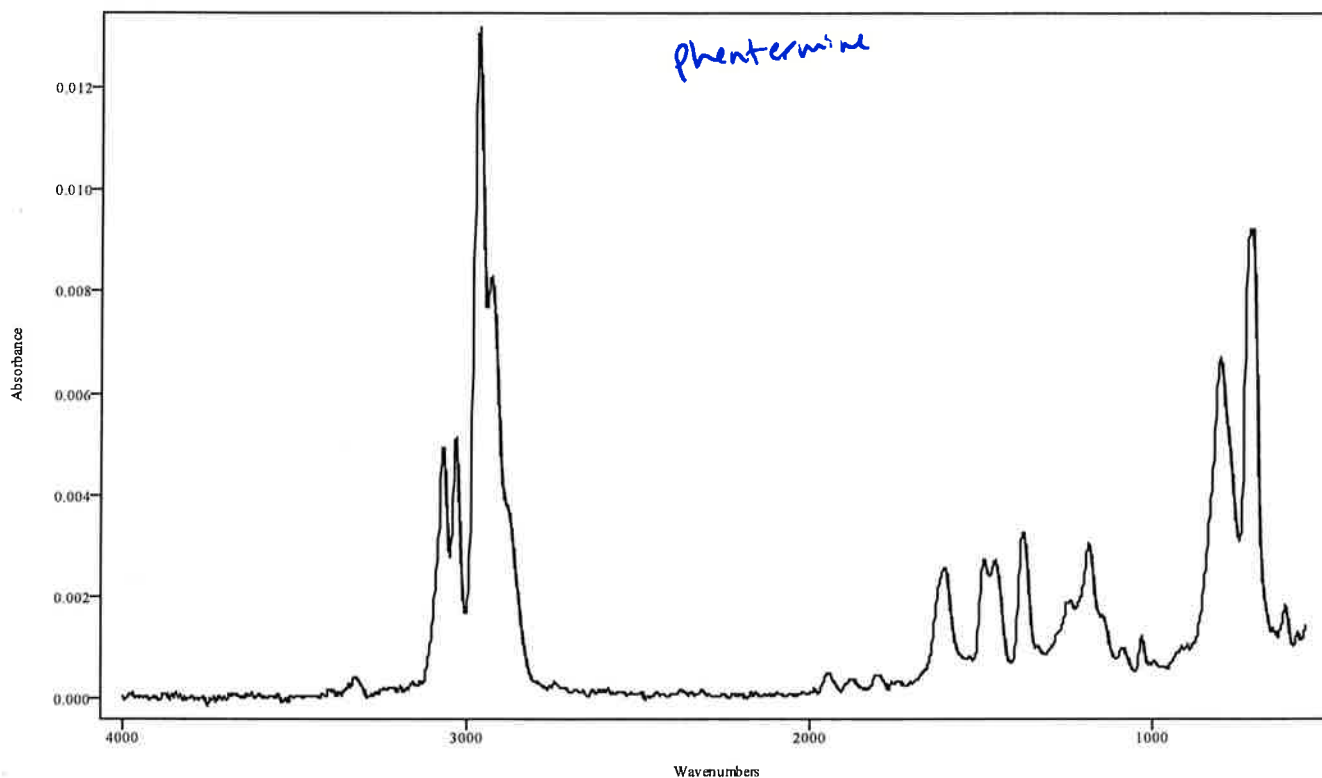
|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_104405GCIRSTDMIX                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 4                                             |
| Sample Name    | GC/IR Standard Mix                            |
| Misc. Info     | 0.5 N NaOH --> CHCl3 Exps. 02-7-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 10:58:48 2022                      |
| Date Processed | Fri Jul 15 13:48:06 2022                      |



IRDATA.SPC: 4.82 minutes: AVE (4.79: 4.83) Ref. (4.57: 4.79) of  
2022\_June\_15\_104405GCIRSTDMIX.cgm

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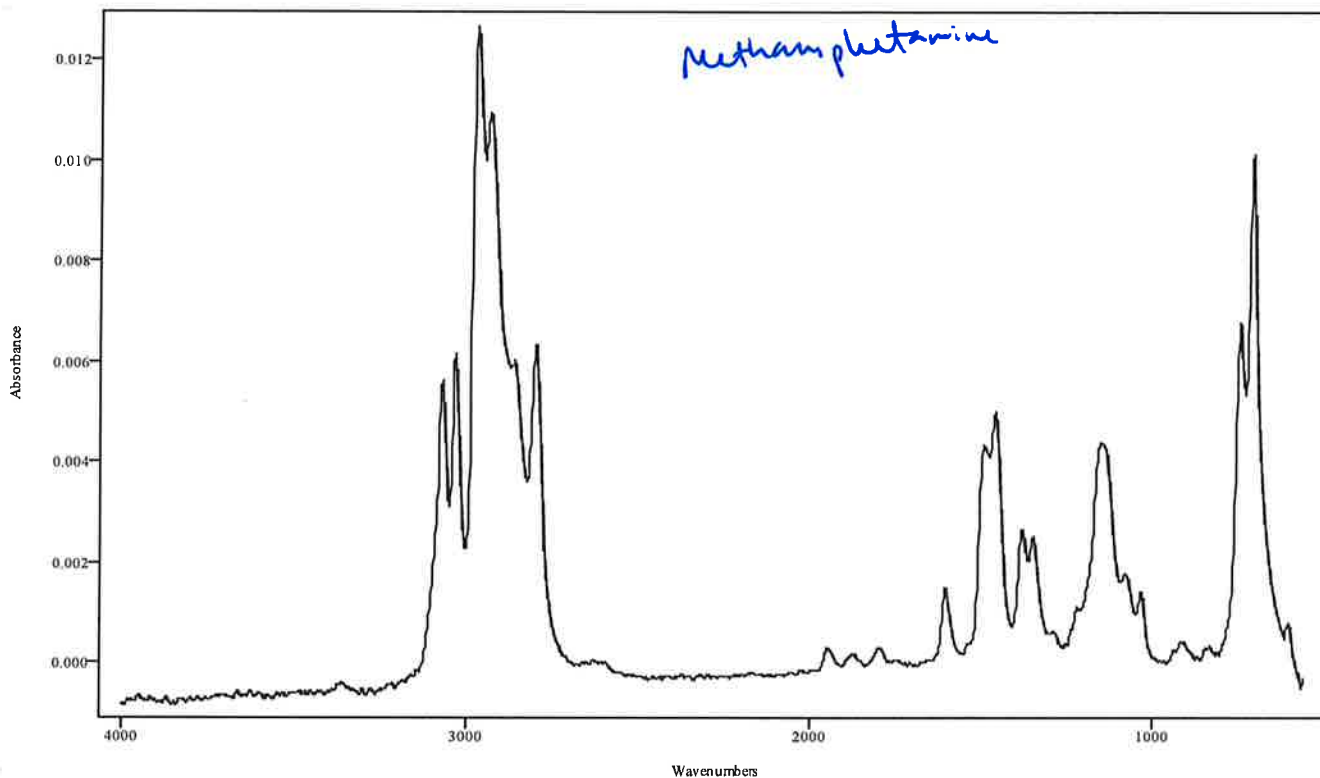
|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_104405GCIRSTDMIX                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 4                                             |
| Sample Name    | GC/IR Standard Mix                            |
| Misc. Info     | 0.5 N NaOH --> CHCl3 Exps. 02-7-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 10:58:48 2022                      |
| Date Processed | Fri Jul 15 13:48:06 2022                      |



IRDATA.SPC: 4.97 minutes: AVE (4.94: 4.98) Ref. (4.86: 4.92) of  
2022\_June\_15\_104405GCIRSTDMIX.cgm

APJ  
07/15/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_104405GCIRSTDMIX                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 4                                             |
| Sample Name    | GC/IR Standard Mix                            |
| Misc. Info     | 0.5 N NaOH --> CHCl3 Exps. 02-7-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 10:58:48 2022                      |
| Date Processed | Fri Jul 15 13:48:06 2022                      |



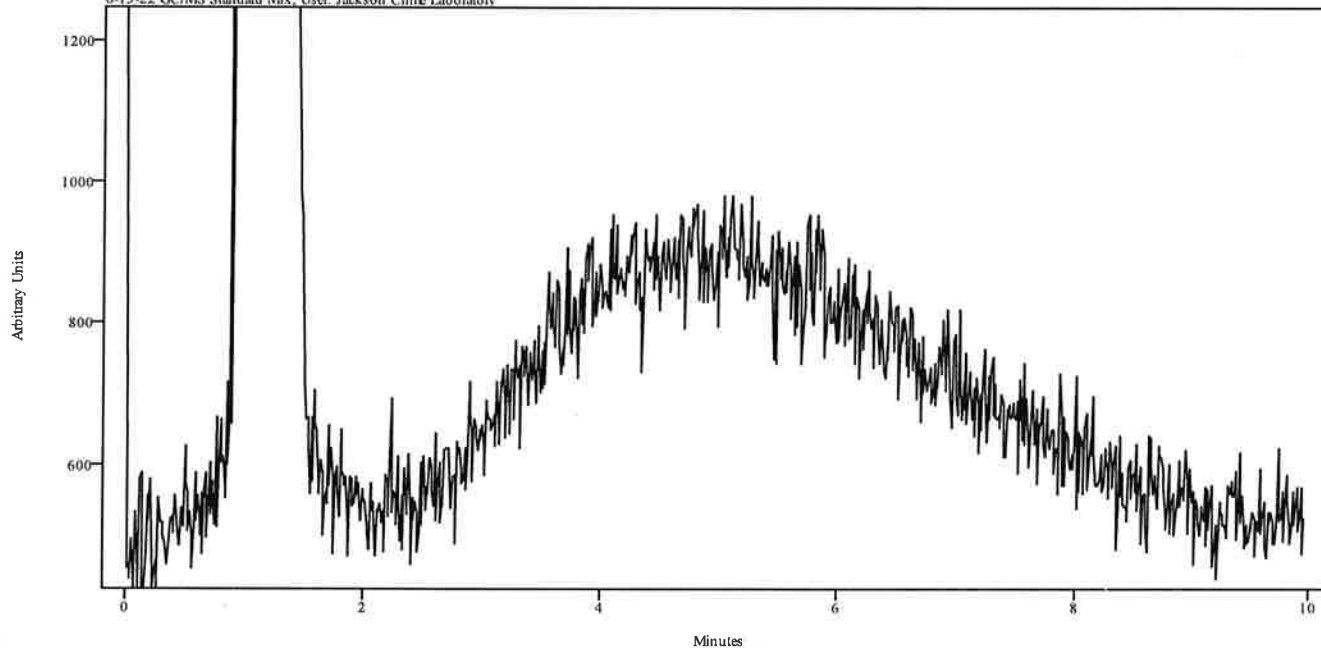
IRDATA.SPC: 5.03 minutes: AVE (5.00: 5.04) Ref. (4.86: 4.92) of  
2022\_June\_15\_104405GCIRSTDMIX.cgm

Res  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_091849GCMSSDMMIXBLANK            |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-15-22 GC/MS Standard Mix              |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 09:32:05 2022                      |
| Date Processed | Wed Jun 15 09:52:17 2022                      |

irdata.cgm: 2022\_June\_15\_091849GCMSSDMMIXBLANKirdata.cgm : Misc. Info: Methanol:Sarge; Sample: Blank  
6-15-22 GC/MS Standard Mix; User: Jackson Crime Laboratory



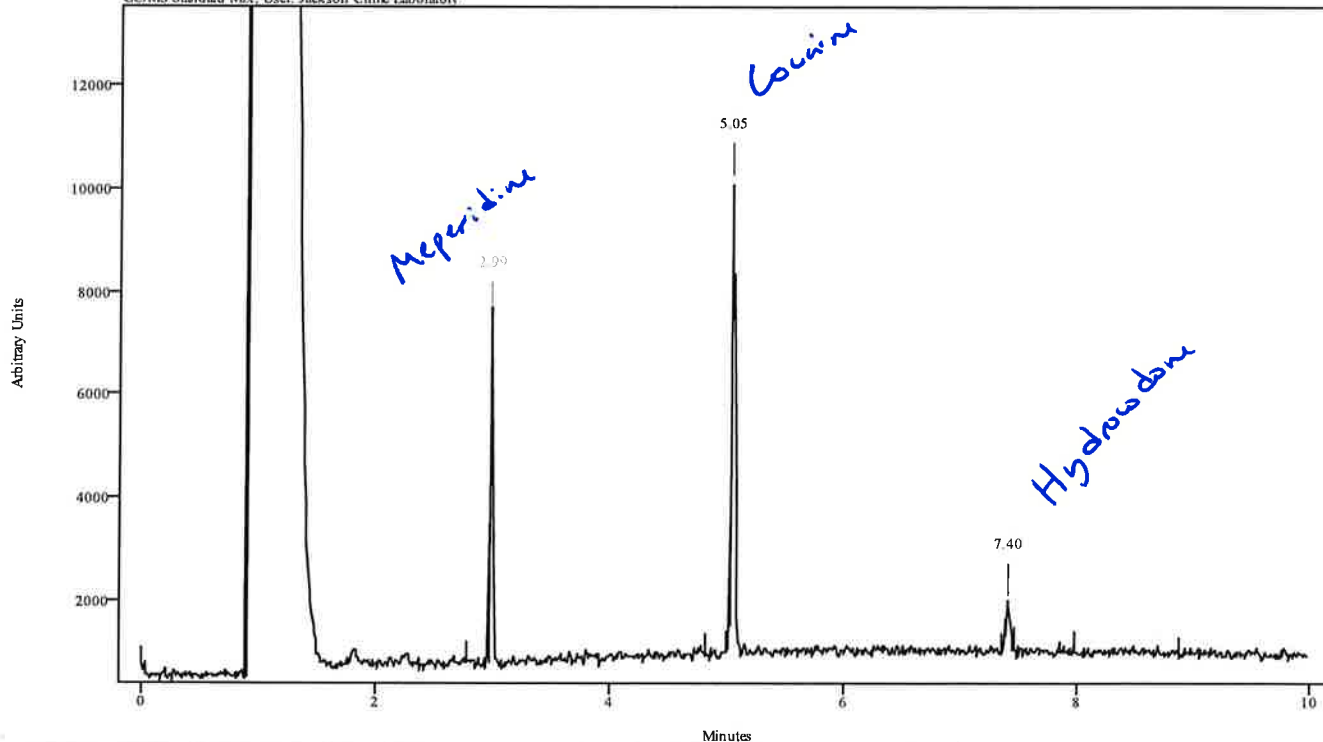
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*Ras*  
*07/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_093205GCMSSTD MIX                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 3                                             |
| Sample Name    | GC/MS Standard Mix                            |
| Misc. Info     | MeOH Exps. 04-05-23:Sarge                     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 09:45:30 2022                      |
| Date Processed | Fri Jul 15 13:49:44 2022                      |

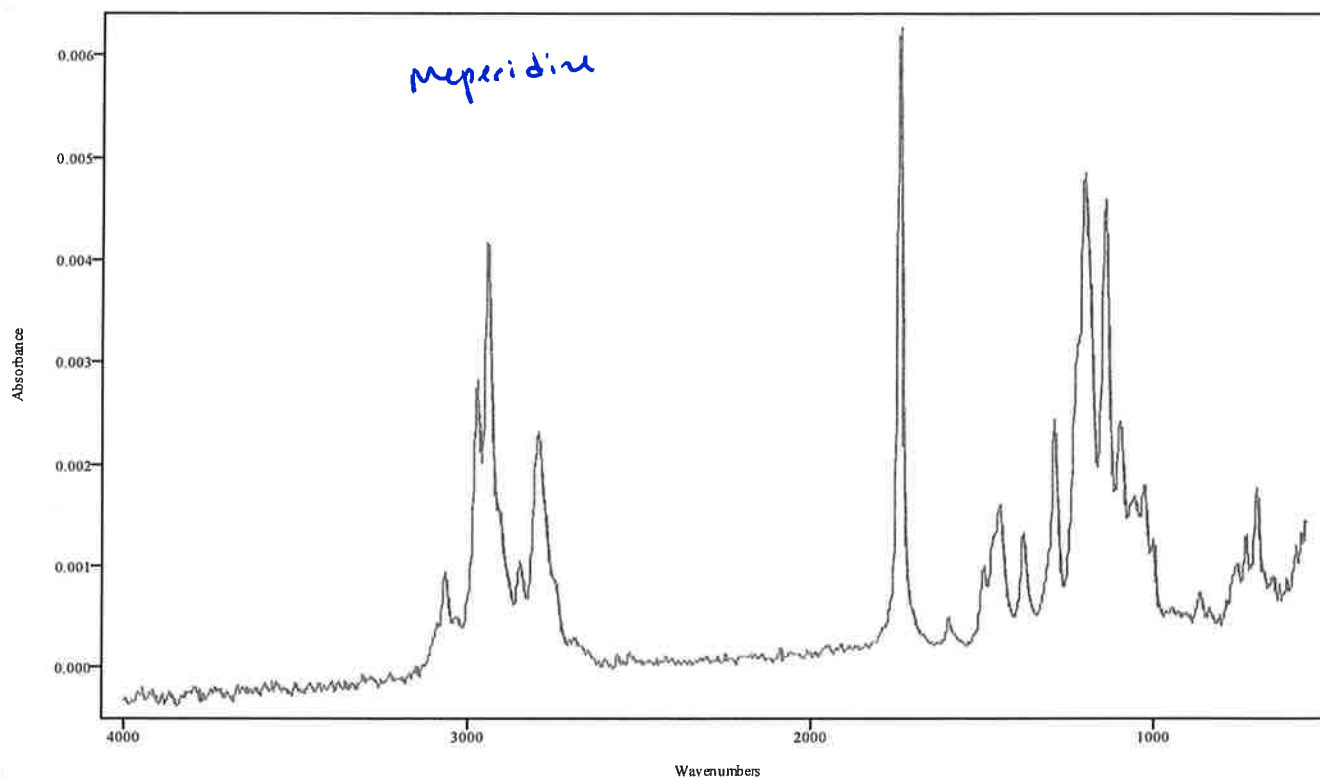
irdata.cgm: 2022\_June\_15\_093205GCMSSTD MIXirdata.cgm : Misc. Info: MeOH Exps. 6-15-23:Sarge; Sample: GC/MS Standard Mix; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 2.973      | 3.006    | 0.033      | 2.772           | 2.950         |
| 5.032      | 5.077    | 0.045      | 4.821           | 4.999         |
| 7.359      | 7.460    | 0.100      | 7.972           | 8.873         |

*APJ  
07/15/22*

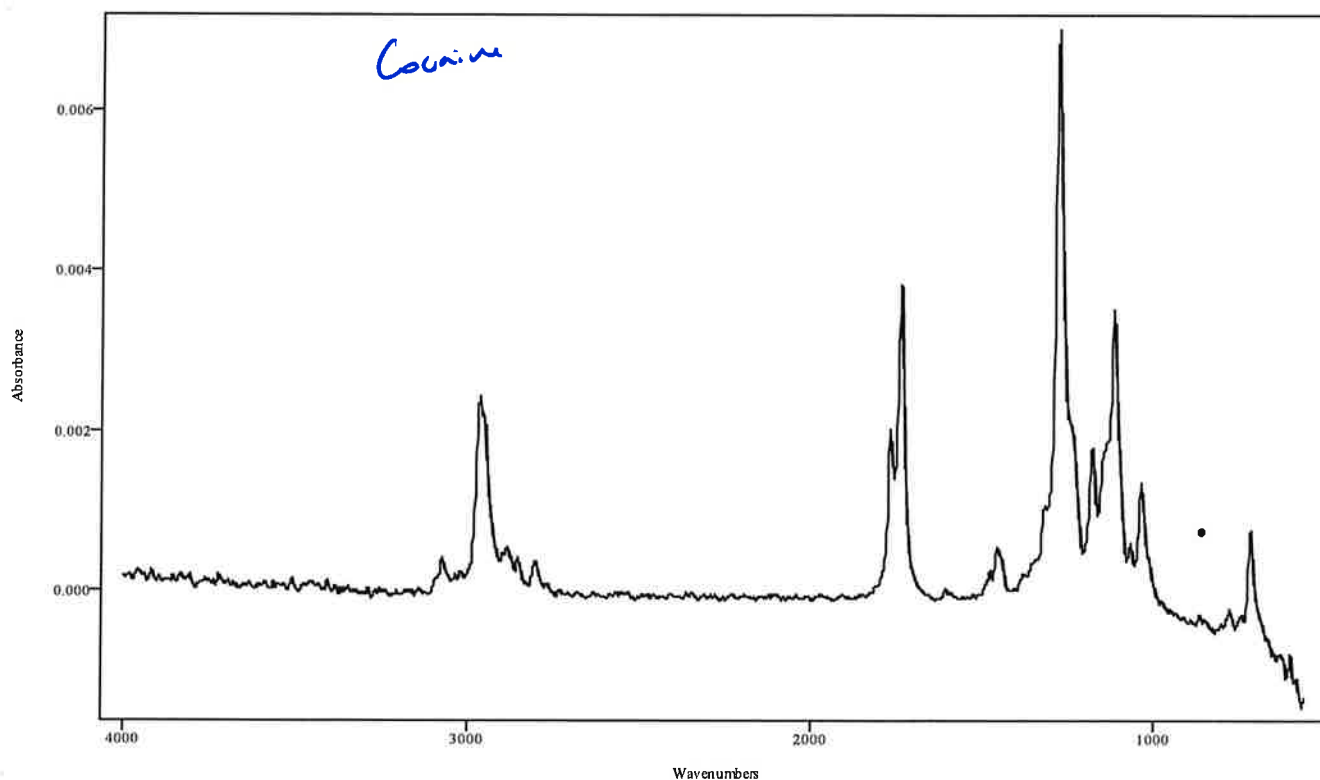
|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_093205GCMSSTD MIX                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 3                                             |
| Sample Name    | GC/MS Standard Mix                            |
| Misc. Info     | MeOH Exps. 04-05-23:Sarge                     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 09:45:30 2022                      |
| Date Processed | Fri Jul 15 13:49:44 2022                      |



IRDATA.SPC: 2.99 minutes: AVE (2.97: 3.01) Ref. (2.77: 2.95) of  
2022\_June\_15\_093205GCMSSTD MIX.cgm

Rachel  
07/15/22

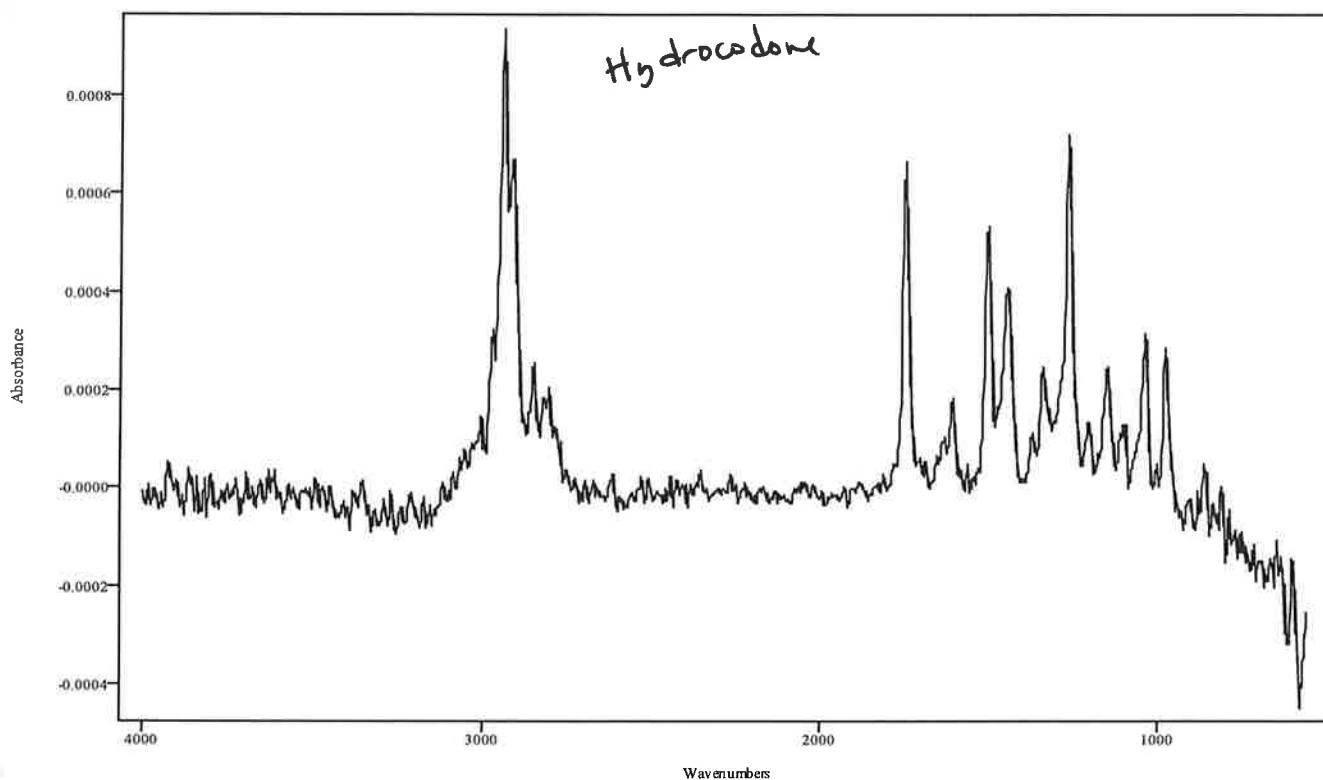
|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_093205GCMSSTD MIX                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 3                                             |
| Sample Name    | GC/MS Standard Mix                            |
| Misc. Info     | MeOH Exps. 04-05-23:Sarge                     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 09:45:30 2022                      |
| Date Processed | Fri Jul 15 13:49:44 2022                      |



IRDATA.SPC: 5.05 minutes: AVE (5.03: 5.08) Ref. (4.82: 5.00) of  
2022\_June\_15\_093205GCMSSTD MIX.cgm

MM  
07/15/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_093205GCMSSTD MIX                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-15-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 3                                             |
| Sample Name    | GC/MS Standard Mix                            |
| Misc. Info     | MeOH Exps. 04-05-23:Sarge                     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 09:45:30 2022                      |
| Date Processed | Fri Jul 15 13:49:44 2022                      |



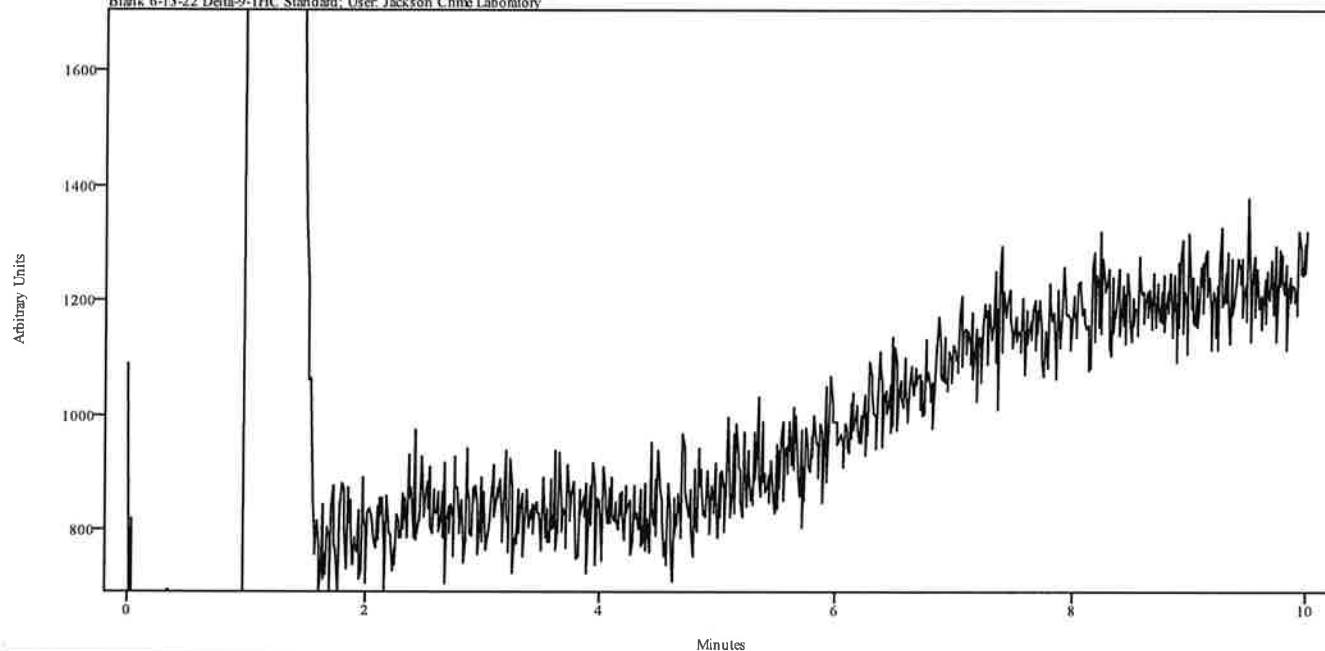
IRDATA.SPC: 7.40 minutes: AVE (7.36: 7.46) Ref. (7.97: 8.87) of  
2022\_June\_15\_093205GCMSSTD MIX.cgm

07/15/22  
RJS

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_185207DELTA-9-THCSTDBLANK        |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270                                      |
| GC Vial        | 51                                            |
| Sample Name    | Blank 6-13-22 Delta-9-THC Standard            |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 19:05:40 2022                      |
| Date Processed | Wed Jun 15 08:36:34 2022                      |

irdata.cgm 2022\_June\_13\_185207DELTA-9-THCSTDBLANK\irdata.cgm : Misc. Info: Methanol:Sarge; Sample: Blank 6-13-22 Delta-9-THC Standard; User: Jackson Crime Laboratory

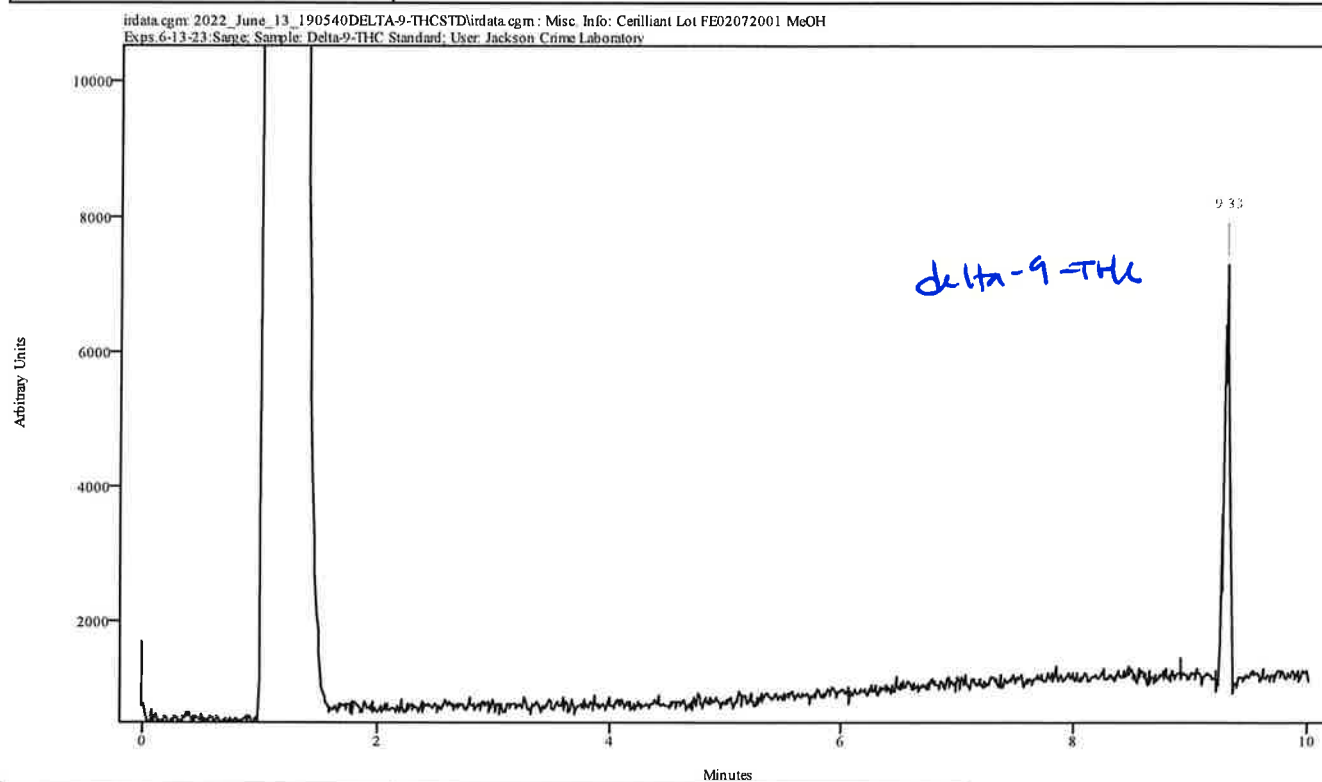


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*Ray*  
07/15/22

## IRD Data Analysis Report

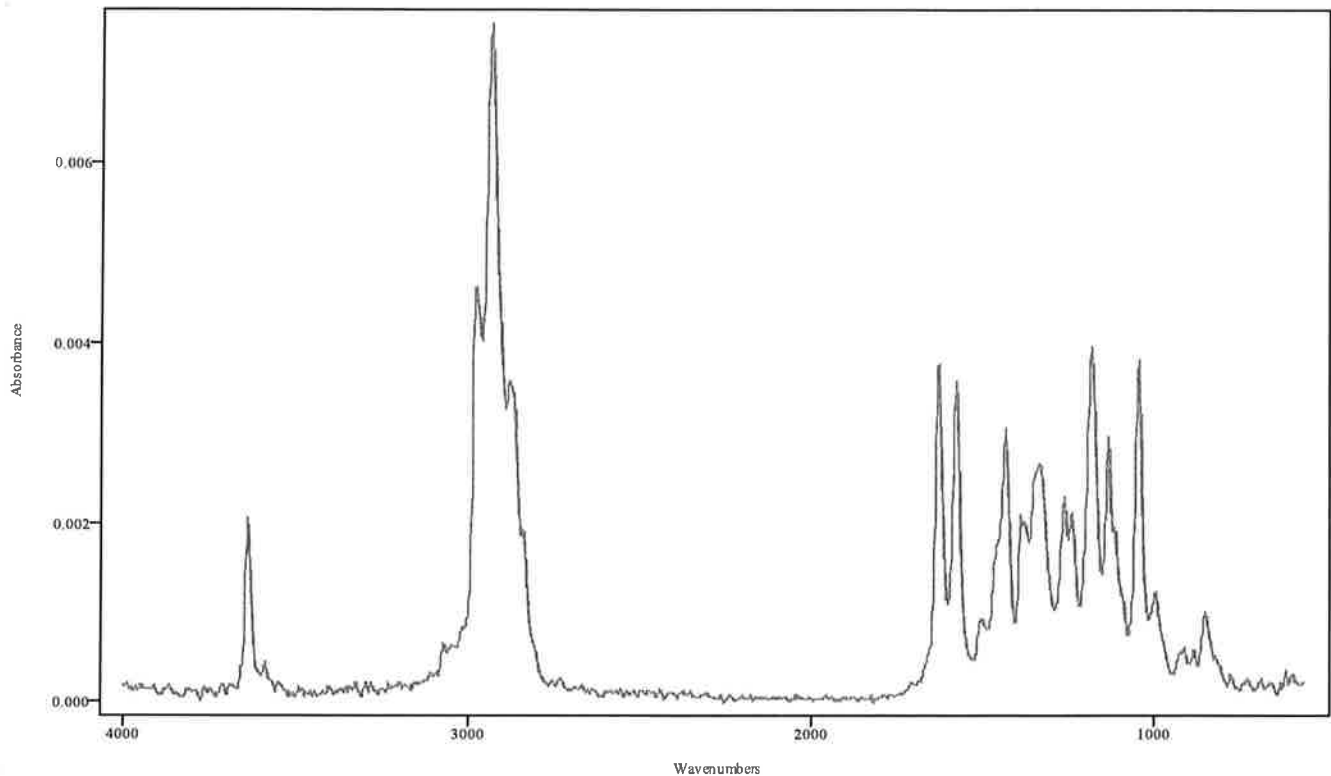
|                |                                                   |
|----------------|---------------------------------------------------|
| Data Filename  | 2022_June_13_190540DELTA-9-THCSTD                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22     |
| IRD Method     | IRD3 EXT                                          |
| GC Method      | 120TO270                                          |
| GC Vial        | 53                                                |
| Sample Name    | Delta-9-THC Standard                              |
| Misc. Info     | Cerilliant Lot FE02072001 MeOH Exps.6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                          |
| Injection Time | Mon Jun 13 19:19:13 2022                          |
| Date Processed | Wed Jun 15 08:36:52 2022                          |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 9.282      | 9.349    | 0.067      | 8.913           | 9.226         |

MS  
07/15/22

|                |                                                   |
|----------------|---------------------------------------------------|
| Data Filename  | 2022_June_13_190540DELTA-9-THCSTD                 |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22     |
| IRD Method     | IRD3 EXT                                          |
| GC Method      | 120TO270                                          |
| GC Vial        | 53                                                |
| Sample Name    | Delta-9-THC Standard                              |
| Misc. Info     | Cerilliant Lot FE02072001 MeOH Exps.6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                          |
| Injection Time | Mon Jun 13 19:19:13 2022                          |
| Date Processed | Wed Jun 15 08:36:52 2022                          |

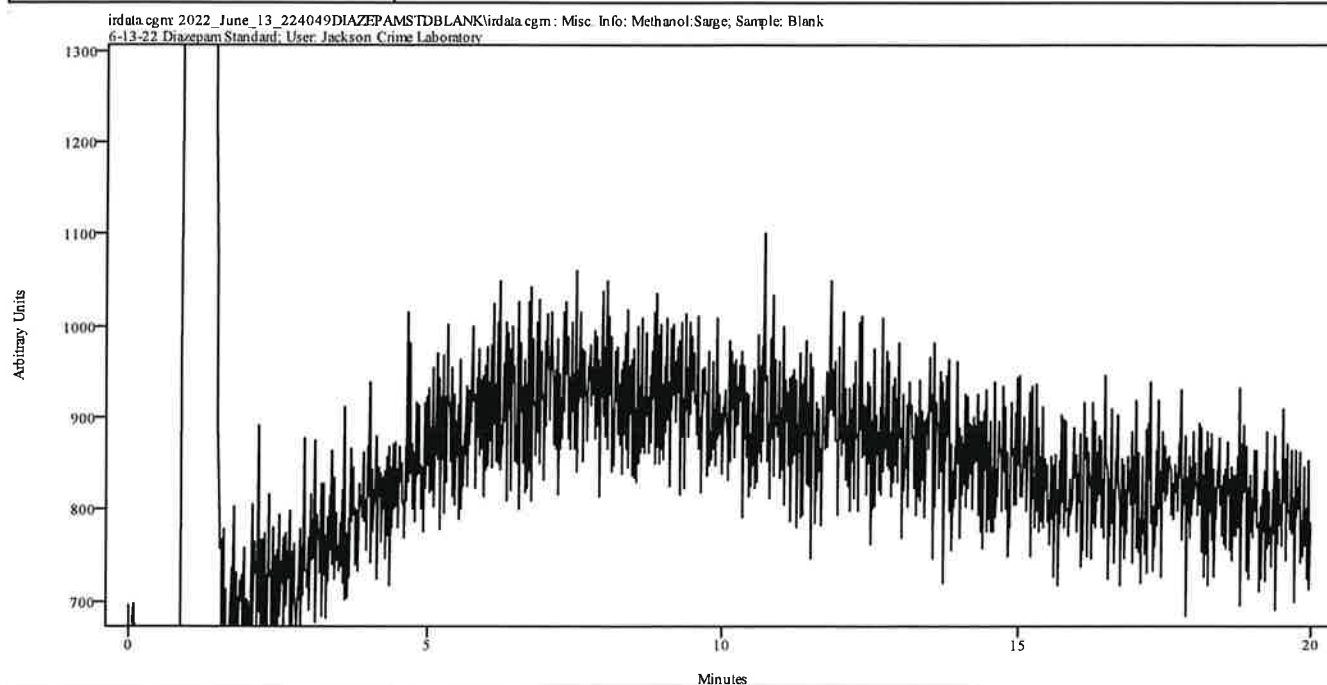


IRDATA.SPC: 9.33 minutes: AVE (9.28: 9.35) Ref. (8.91: 9.23) of  
2022\_June\_13\_190540DELTA-9-THCSTD.cgm

RH  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_224049DIAZEPAMSTDBLANK           |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 51                                            |
| Sample Name    | Blank 6-13-22 Diazepam Standard               |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 23:04:29 2022                      |
| Date Processed | Wed Jun 15 08:44:09 2022                      |



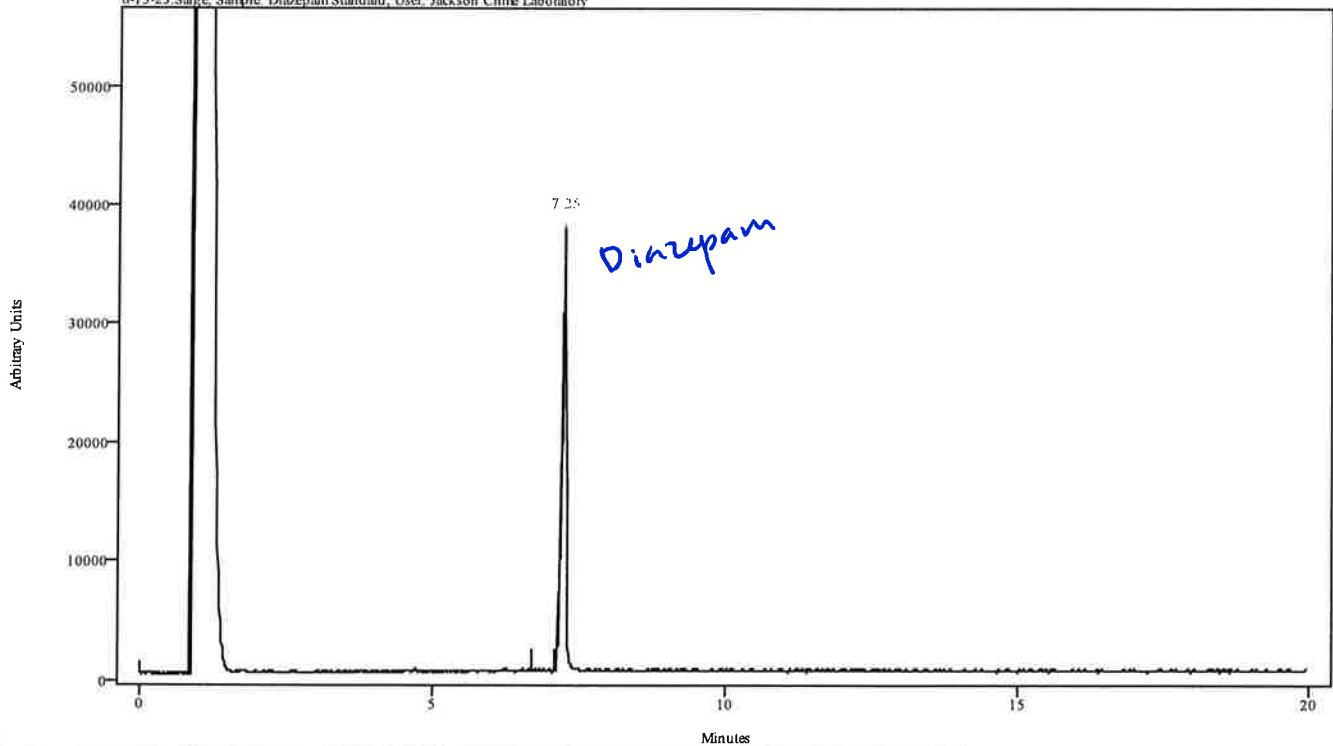
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

Res  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_230429DIAZEPAMSTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 57                                            |
| Sample Name    | Diazepam Standard                             |
| Misc. Info     | Alltech Lot 0102 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 23:27:59 2022                      |
| Date Processed | Wed Jun 15 08:44:32 2022                      |

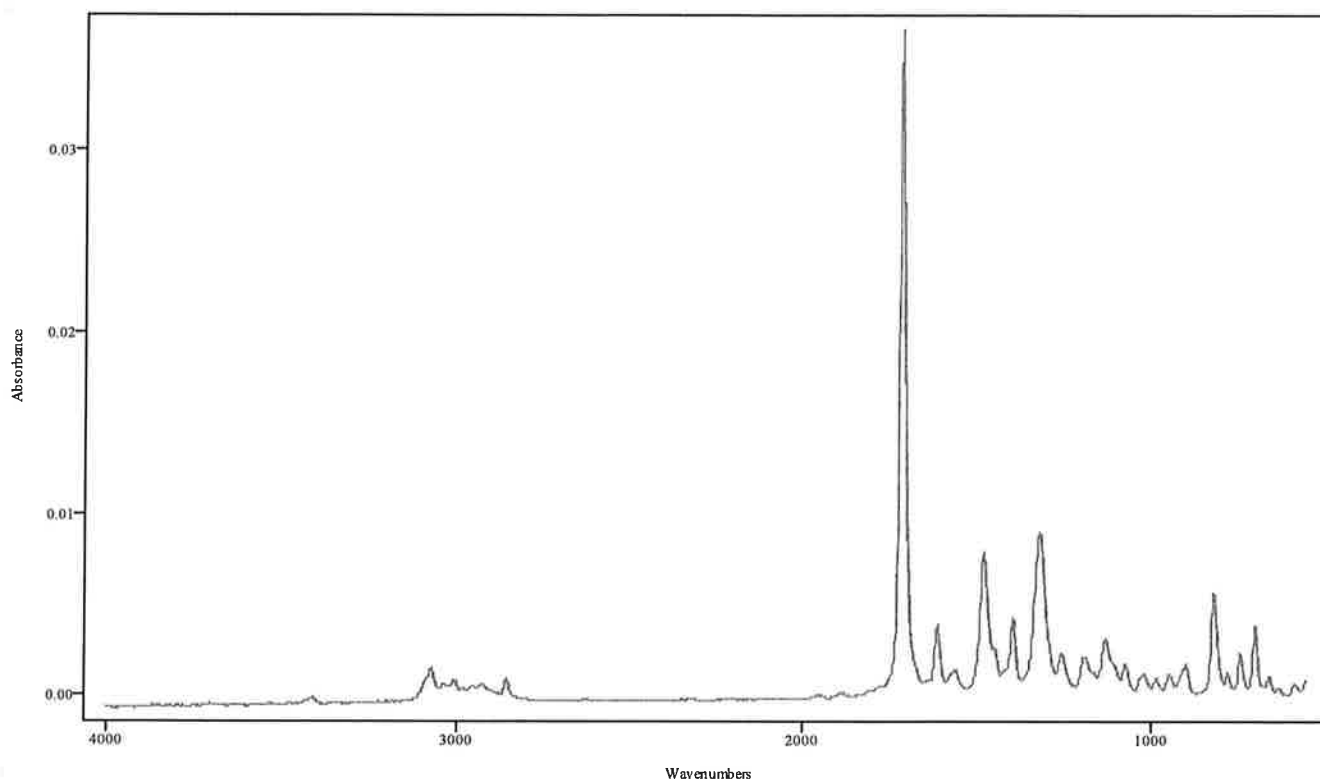
irdata.cgm: 2022\_June\_13\_230429DIAZEPAMSTD\irdata.cgm: Misc. Info: Alltech Lot 0102 Methanol Exps. 6-13-23:Sarge; Sample: Diazepam Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 7.195      | 7.284    | 0.089      | 6.693           | 7.094         |

*Rps*  
07/15/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_230429DIAZEPAMSTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 57                                            |
| Sample Name    | Diazepam Standard                             |
| Misc. Info     | Alltech Lot 0102 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 23:27:59 2022                      |
| Date Processed | Wed Jun 15 08:44:32 2022                      |



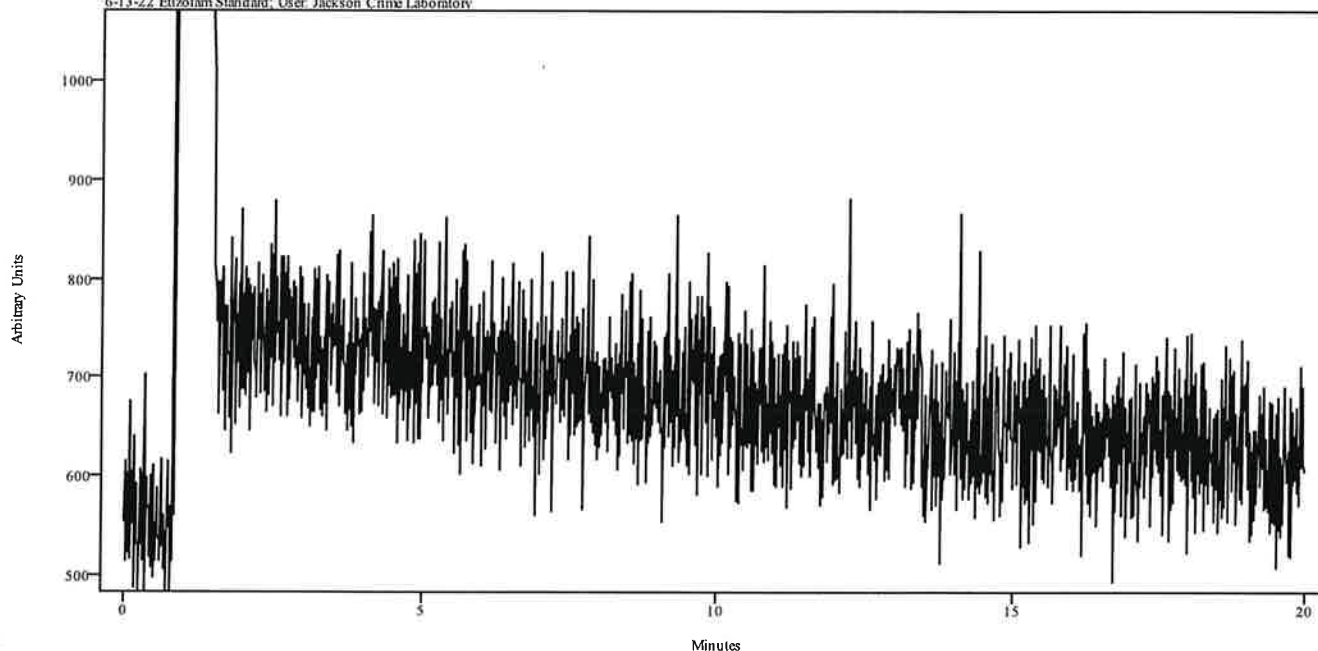
IRDATA.SPC: 7.25 minutes: AVE (7.19: 7.28) Ref. (6.69: 7.09) of  
2022\_June\_13\_230429DIAZEPAMSTD.cgm

*ppp  
5745m*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_213818ETIZOLAMSTDBLANK           |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 51                                            |
| Sample Name    | Blank 6-13-22 Etizolam Standard               |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 22:03:17 2022                      |
| Date Processed | Wed Jun 15 08:43:11 2022                      |

irdata.cgm: 2022\_June\_13\_213818ETIZOLAMSTDBLANKirdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank  
6-13-22 Etizolam Standard; User: Jackson Crime Laboratory



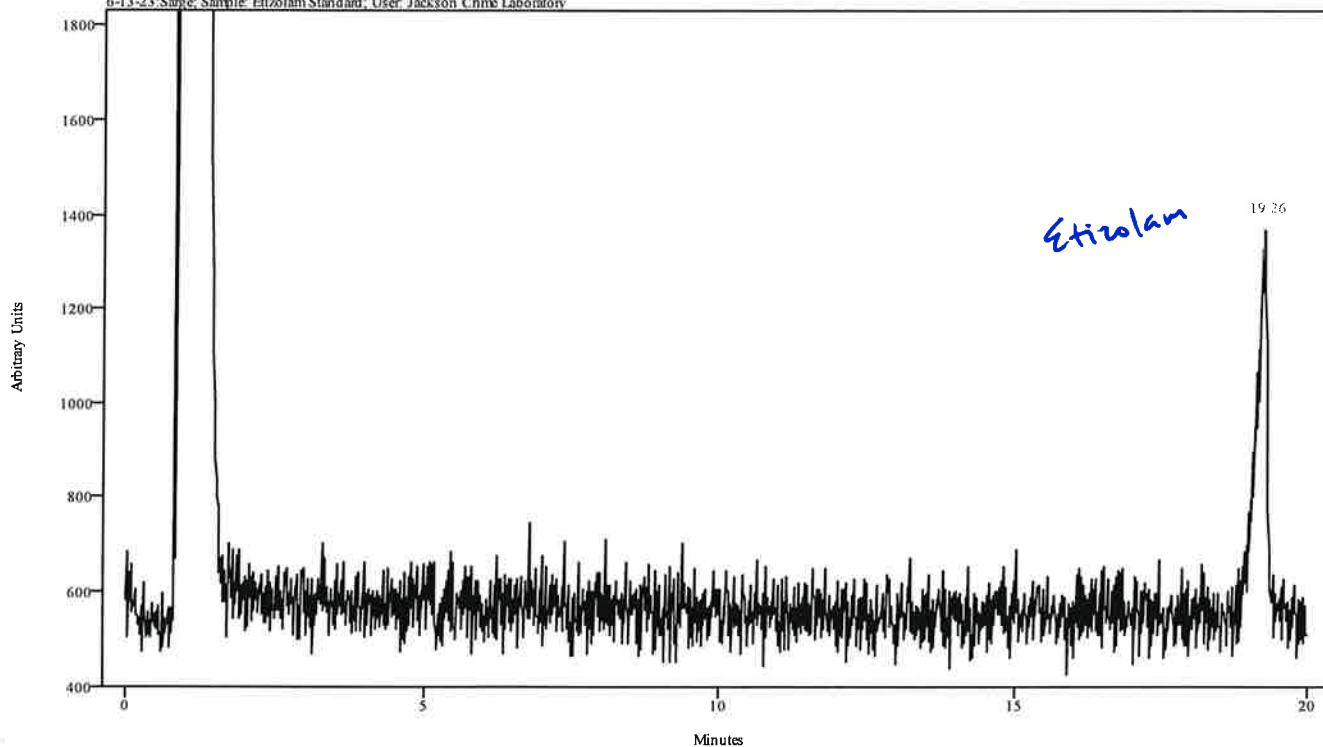
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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RMS  
07/11/2022  
RMS

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_220317ETIZOLAMSTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 56                                            |
| Sample Name    | Etizolam Standard                             |
| Misc. Info     | Cayman Lot 0480732 MeOH Exps. 6-13-23:Sarge   |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 22:25:30 2022                      |
| Date Processed | Wed Jun 15 08:43:36 2022                      |

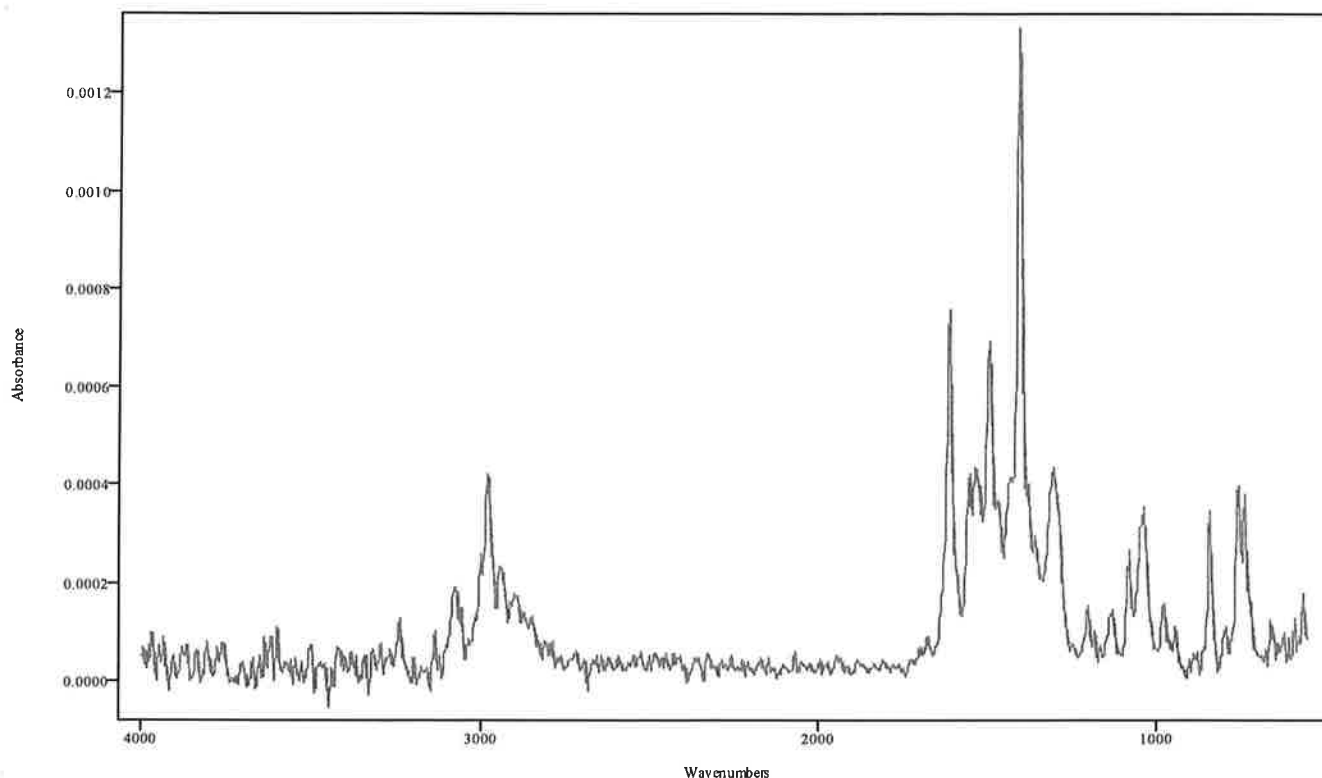
irdata.cgm: 2022\_June\_13\_220317ETIZOLAMSTD\irdata.cgm : Misc. Info: Cayman Lot 0480732 MeOH Exps. 6-13-23:Sarge; Sample: Etizolam Standard, User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 19.129     | 19.318   | 0.189      | 18.217          | 19.018        |

PPS  
5/11/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_220317ETIZOLAMSTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 56                                            |
| Sample Name    | Etizolam Standard                             |
| Misc. Info     | Cayman Lot 0480732 MeOH Exps. 6-13-23:Sarge   |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 22:25:30 2022                      |
| Date Processed | Wed Jun 15 08:43:36 2022                      |



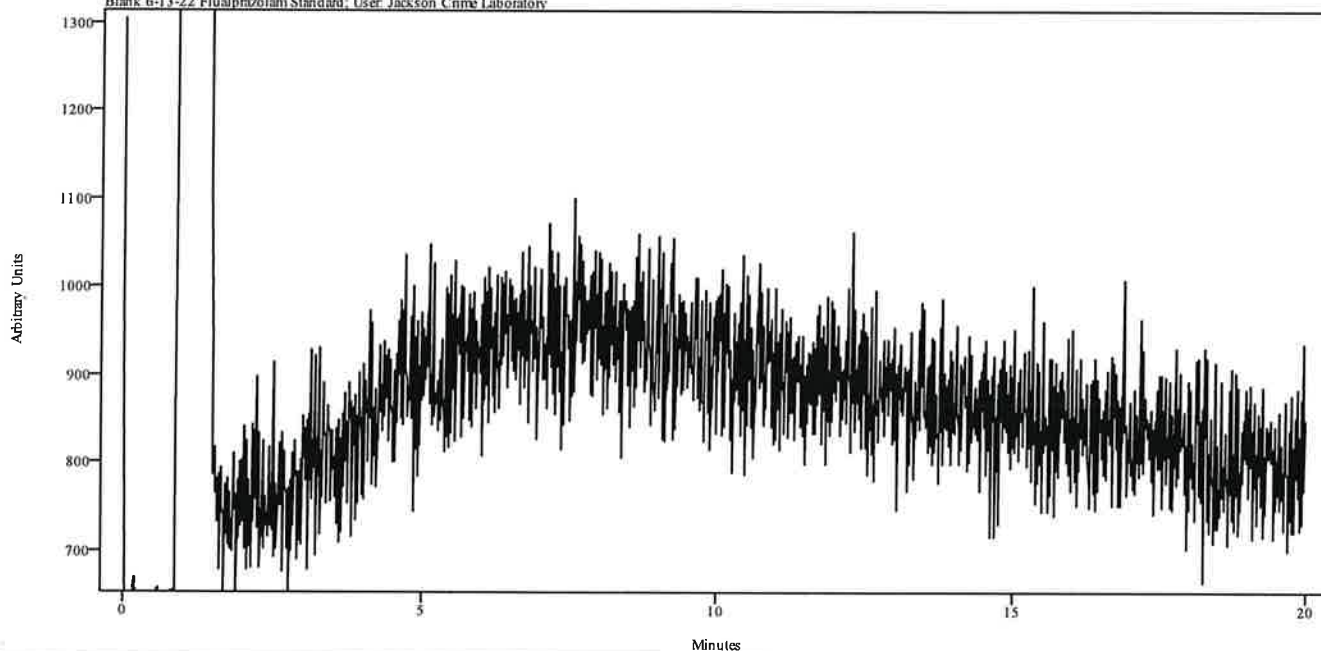
IRDATA.SPC: 19.26 minutes: AVE (19.13: 19.32) Ref. (18.22: 19.02) of 2022\_June\_13\_220317ETIZOLAMSTD.cgm

AK1  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_203611FLUALPRAZOLAMSTDBLANK      |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 51                                            |
| Sample Name    | Blank 6-13-22 Flualprazolam Standard          |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 20:59:50 2022                      |
| Date Processed | Wed Jun 15 08:42:24 2022                      |

irdata.cgm: 2022\_June\_13\_203611FLUALPRAZOLAMSTDBLANK\irdata.cgm : Misc. Info: Methanol:Sarge; Sample: Blank 6-13-22 Flualprazolam Standard; User: Jackson Crime Laboratory

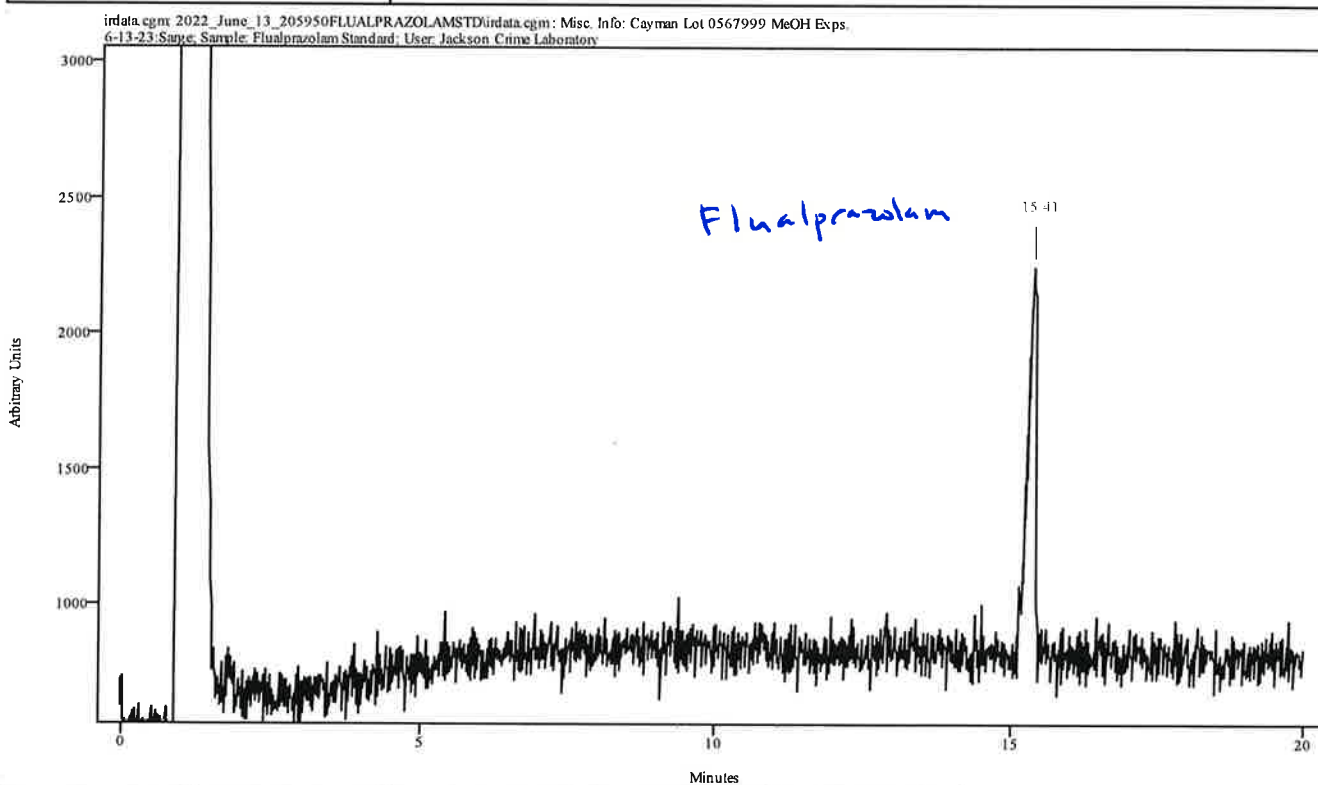


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

APL  
07/15/22

## IRD Data Analysis Report

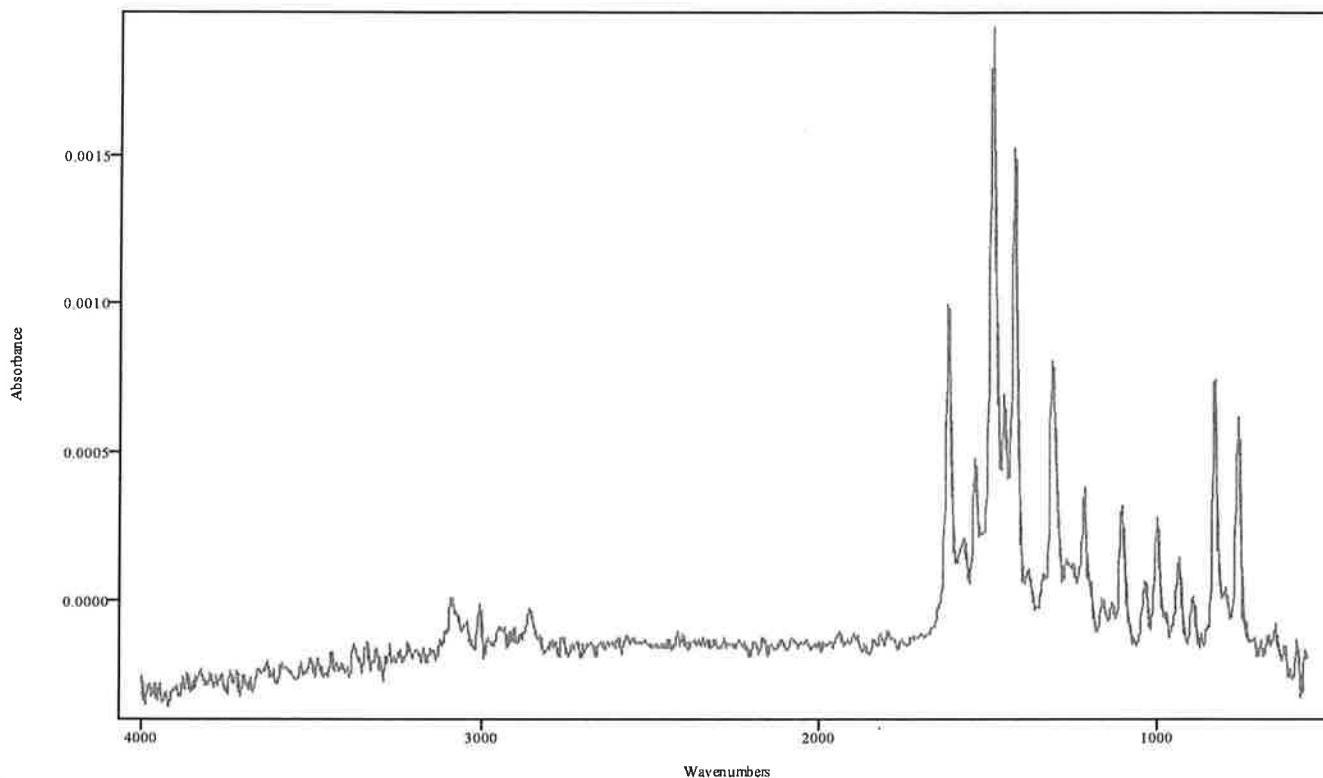
|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_205950FLUALPRAZOLAMSTD           |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 55                                            |
| Sample Name    | Flualprazolam Standard                        |
| Misc. Info     | Cayman Lot 0567999 MeOH Exps. 6-13-23:Sarge   |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 21:23:16 2022                      |
| Date Processed | Wed Jun 15 08:42:41 2022                      |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 15.284     | 15.440   | 0.156      | 14.503          | 15.173        |

Raj  
07/05/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_13_205950FLUALPRAZOLAMSTD           |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270(20MIN)                               |
| GC Vial        | 55                                            |
| Sample Name    | Flualprazolam Standard                        |
| Misc. Info     | Cayman Lot 0567999 MeOH Exps. 6-13-23:Sarge   |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Mon Jun 13 21:23:16 2022                      |
| Date Processed | Wed Jun 15 08:42:41 2022                      |

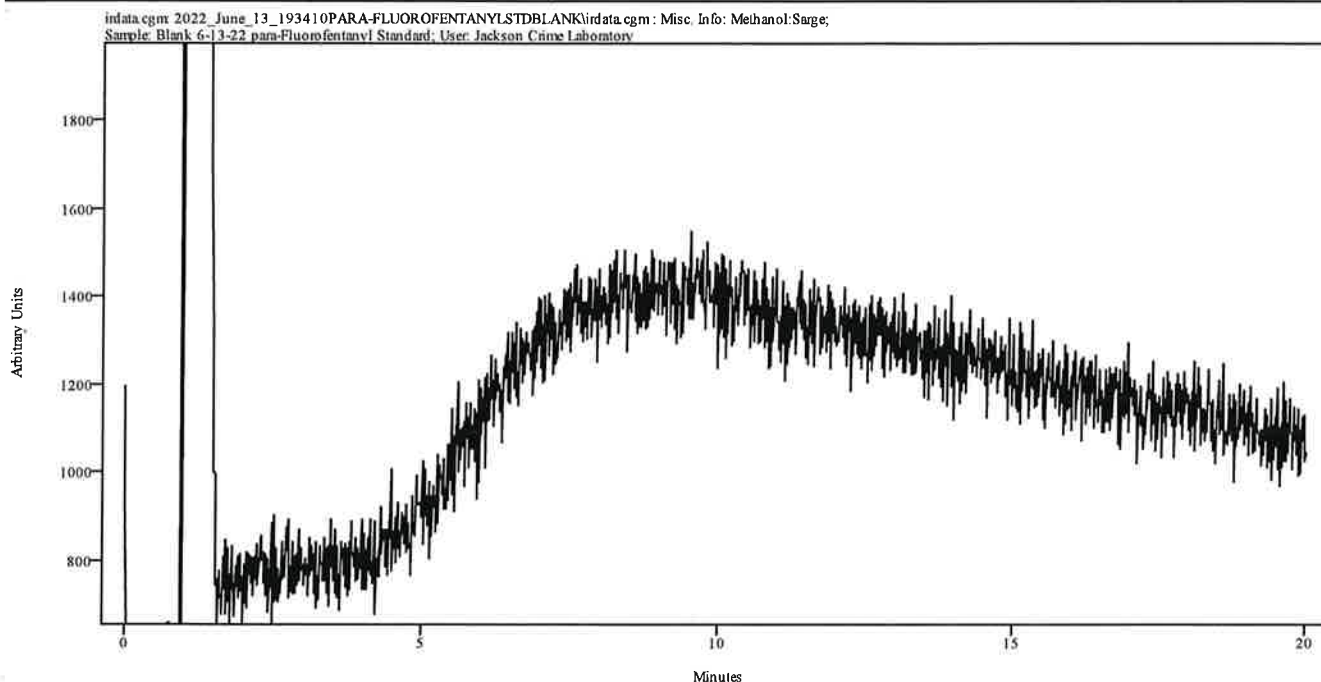


IRDATA.SPC: 15.41 minutes: AVE (15.28: 15.44) Ref. (14.50: 15.17) of  
2022\_June\_13\_205950FLUALPRAZOLAMSTD.cgm

*RPJ*  
07/15/22

## IRD Data Analysis Report

|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_13_193410PARA-FLUOROFENTANYLSTDBLANK |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | 120TO270(20MIN)                                |
| GC Vial        | 51                                             |
| Sample Name    | Blank 6-13-22 para-Fluorofentanyl Standard     |
| Misc. Info     | Methanol:Sarge                                 |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Mon Jun 13 19:57:42 2022                       |
| Date Processed | Wed Jun 15 08:37:33 2022                       |



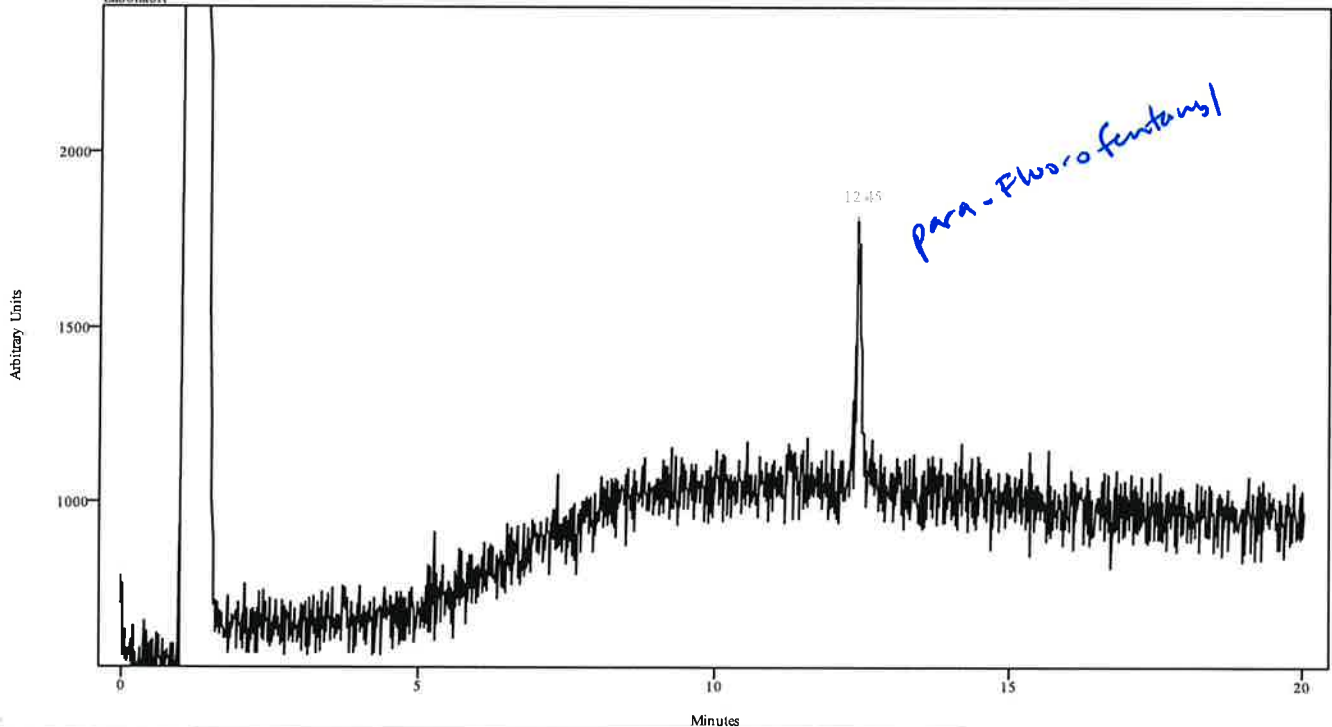
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

RCS  
07/15/22

## IRD Data Analysis Report

|                |                                                        |
|----------------|--------------------------------------------------------|
| Data Filename  | 2022_June_13_195742PARA-FLUOROFENTANYLSTD              |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22          |
| IRD Method     | IRD3 EXT                                               |
| GC Method      | 120TO270(20MIN)                                        |
| GC Vial        | 54                                                     |
| Sample Name    | para-Fluorofentanyl Standard                           |
| Misc. Info     | Cerilliant Lot FE03232007 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                               |
| Injection Time | Mon Jun 13 20:21:21 2022                               |
| Date Processed | Wed Jun 15 08:39:08 2022                               |

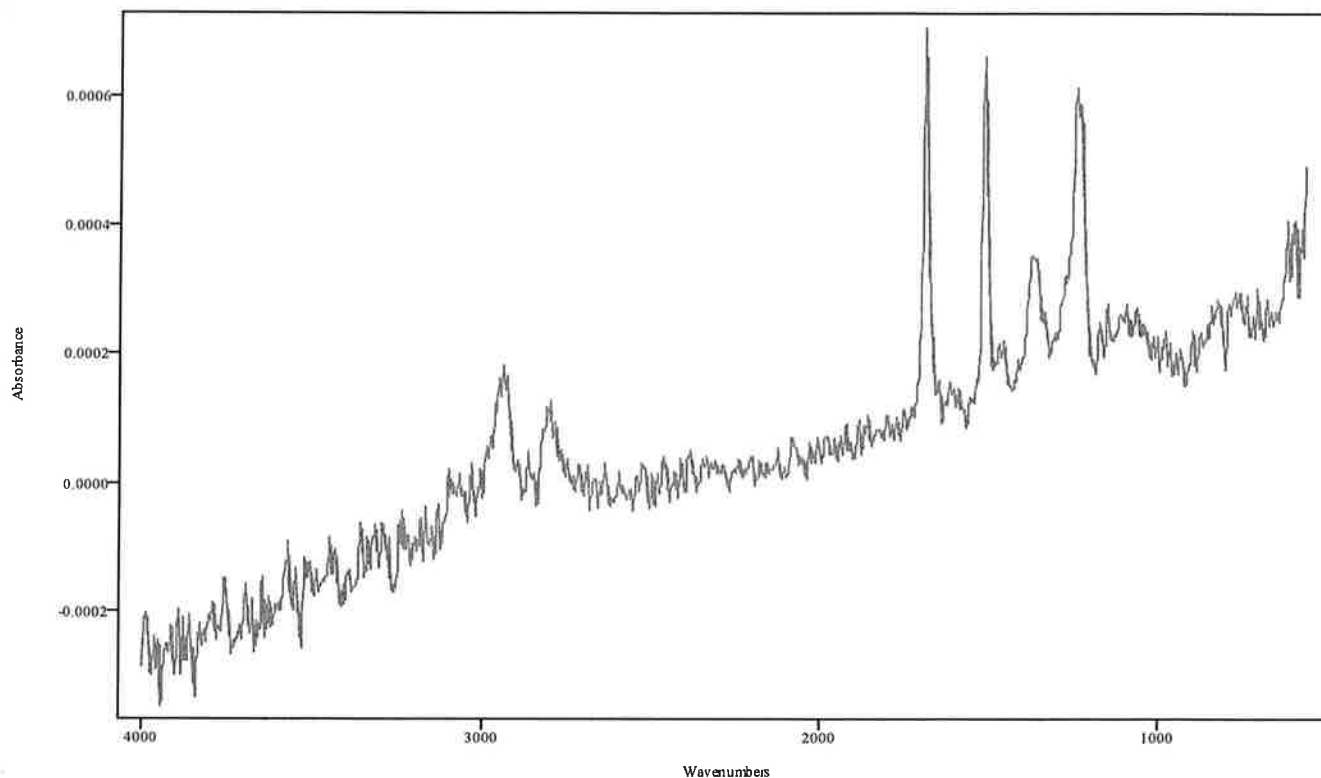
irdata.cgm: 2022\_June\_13\_195742PARA-FLUOROFENTANYLSTD\data.cgm: Misc. Info: Cerilliant Lot FE03232007 Methanol Exps. 6-13-23:Sarge; Sample: para-Fluorofentanyl Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 12.409     | 12.510   | 0.100      | 11.909          | 12.354        |

*RPJ  
07/15/22*

|                |                                                        |
|----------------|--------------------------------------------------------|
| Data Filename  | 2022_June_13_195742PARAM-FLUOROFENTANYLSTD             |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-13-22          |
| IRD Method     | IRD3 EXT                                               |
| GC Method      | 120TO270(20MIN)                                        |
| GC Vial        | 54                                                     |
| Sample Name    | para-Fluorofentanyl Standard                           |
| Misc. Info     | Cerilliant Lot FE03232007 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                               |
| Injection Time | Mon Jun 13 20:21:21 2022                               |
| Date Processed | Wed Jun 15 08:39:08 2022                               |



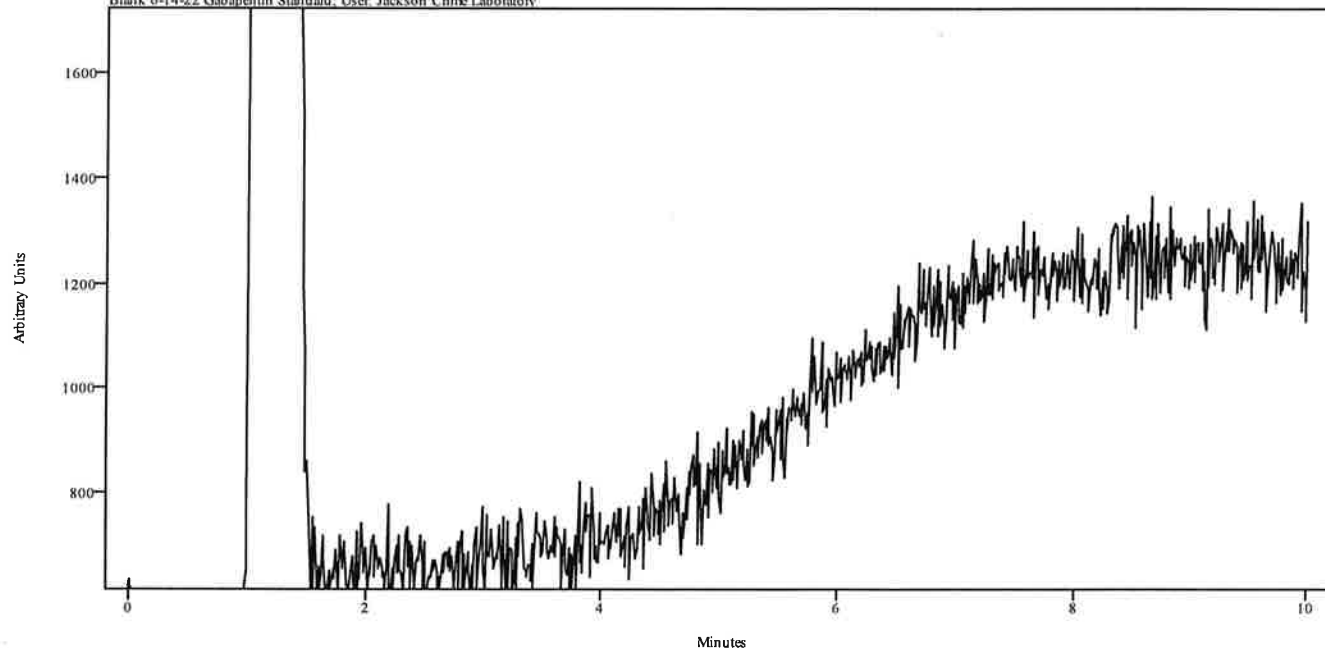
IRDATA.SPC: 12.45 minutes: AVE (12.41: 12.51) Ref. (11.91: 12.35) of 2022\_June\_13\_195742PARAM-FLUOROFENTANYLSTD.cgm

APs  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_160310GABAPENTINSTDBLANK         |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270                                      |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Gabapentin Standard             |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 16:16:41 2022                      |
| Date Processed | Wed Jun 15 08:10:14 2022                      |

irdata.cgm 2022\_June\_14\_160310GABAPENTINSTDBLANK\irdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Gabapentin Standard; User: Jackson Crime Laboratory



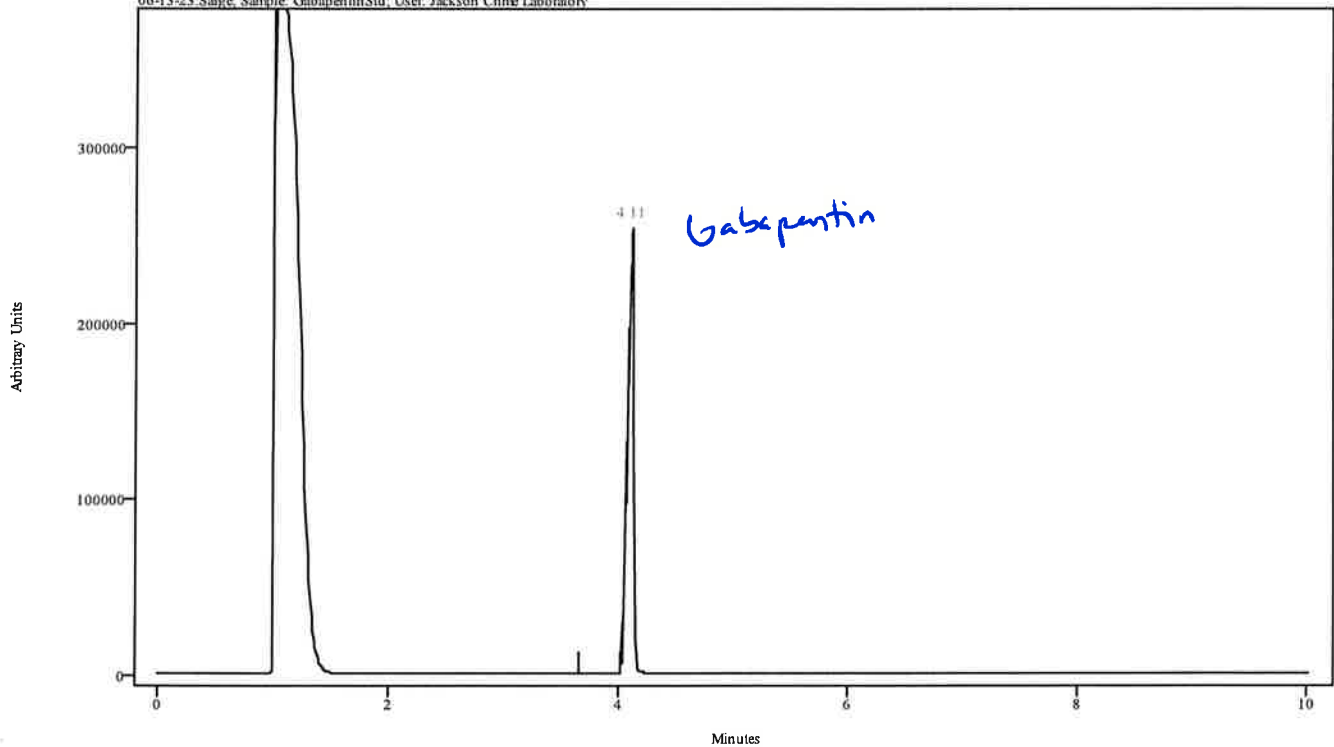
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*PPS  
6/15/22*

## IRD Data Analysis Report

|                |                                                     |
|----------------|-----------------------------------------------------|
| Data Filename  | 2022_June_14_161642GABAPENTINSTD                    |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22       |
| IRD Method     | IRD3 EXT                                            |
| GC Method      | 120TO270                                            |
| GC Vial        | 3                                                   |
| Sample Name    | GabapentinStd                                       |
| Misc. Info     | Cayman Lot 0433771-59 Exps. 06-13-23:Sarge Methanol |
| User ID        | Jackson Crime Laboratory                            |
| Injection Time | Tue Jun 14 16:30:12 2022                            |
| Date Processed | Fri Jul 15 13:53:40 2022                            |

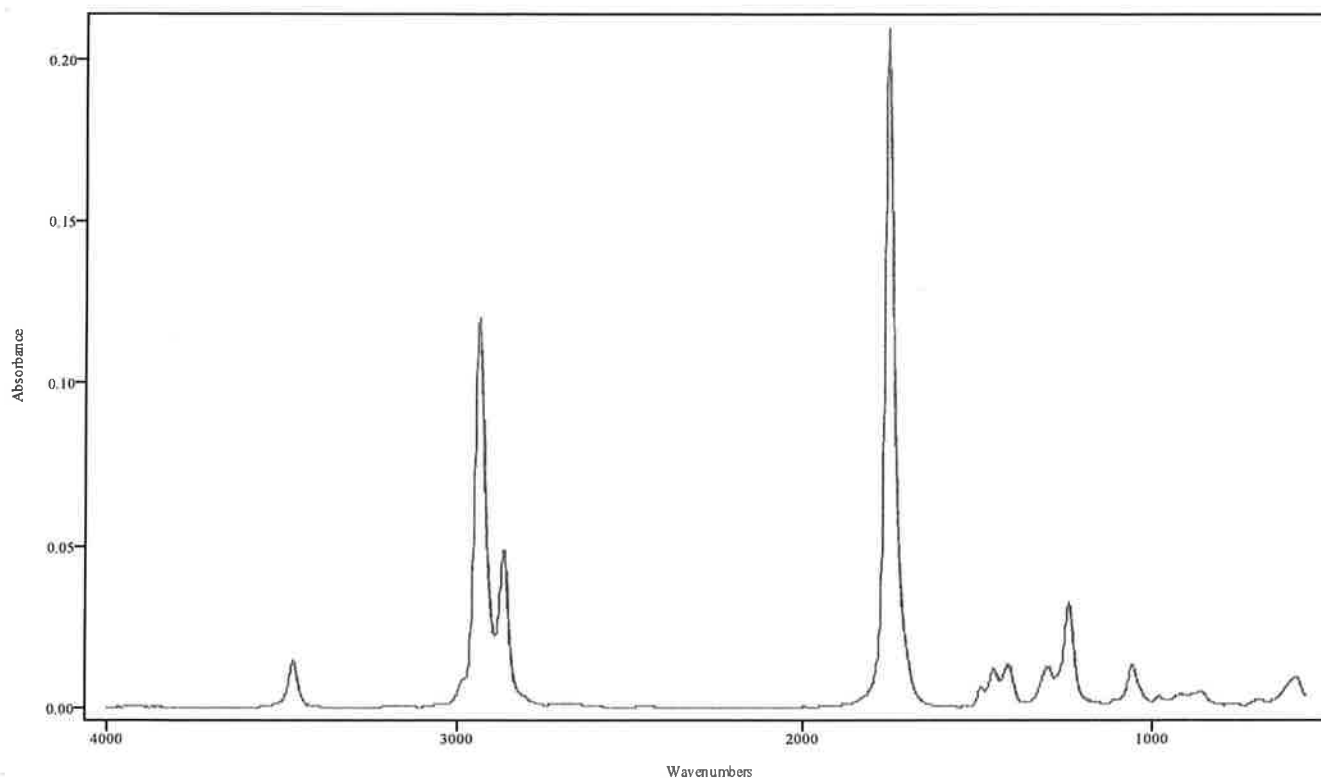
indata.cgm: 2022\_June\_14\_161642GABAPENTINSTD\data.cgm: Misc. Info: Cayman Lot 0433771-59 Exps.  
06-13-23:Sarge, Sample: GabapentinStd, User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 4.067      | 4.145    | 0.078      | 3.655           | 4.011         |

*Res  
07/15/22*

|                |                                                     |
|----------------|-----------------------------------------------------|
| Data Filename  | 2022_June_14_161642GABAPENTINSTD                    |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22       |
| IRD Method     | IRD3 EXT                                            |
| GC Method      | 120TO270                                            |
| GC Vial        | 3                                                   |
| Sample Name    | GabapentinStd                                       |
| Misc. Info     | Cayman Lot 0433771-59 Exps. 06-13-23:Sarge Methanol |
| User ID        | Jackson Crime Laboratory                            |
| Injection Time | Tue Jun 14 16:30:12 2022                            |
| Date Processed | Fri Jul 15 13:53:40 2022                            |



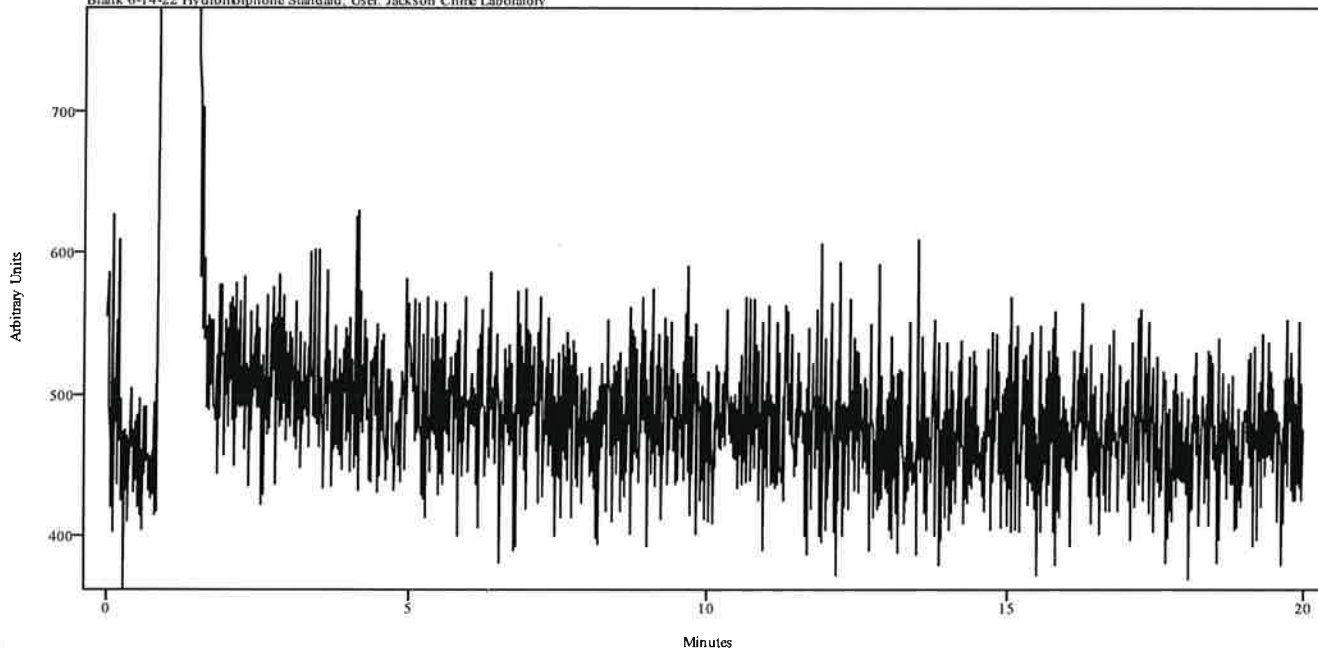
IRDATA.SPC: 4.11 minutes: AVE (4.07: 4.15) Ref. (3.65: 4.01) of 2022\_June\_14\_161642GABAPENTINSTD.cgm

APL  
5/11/5/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_230233HYDROMORPHONESTDBLANK      |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Hydromorphone Standard          |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 23:27:30 2022                      |
| Date Processed | Wed Jun 15 08:22:09 2022                      |

irdata.cgm: 2022\_June\_14\_230233HYDROMORPHONESTDBLANKirdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Hydromorphone Standard; User: Jackson Crime Laboratory



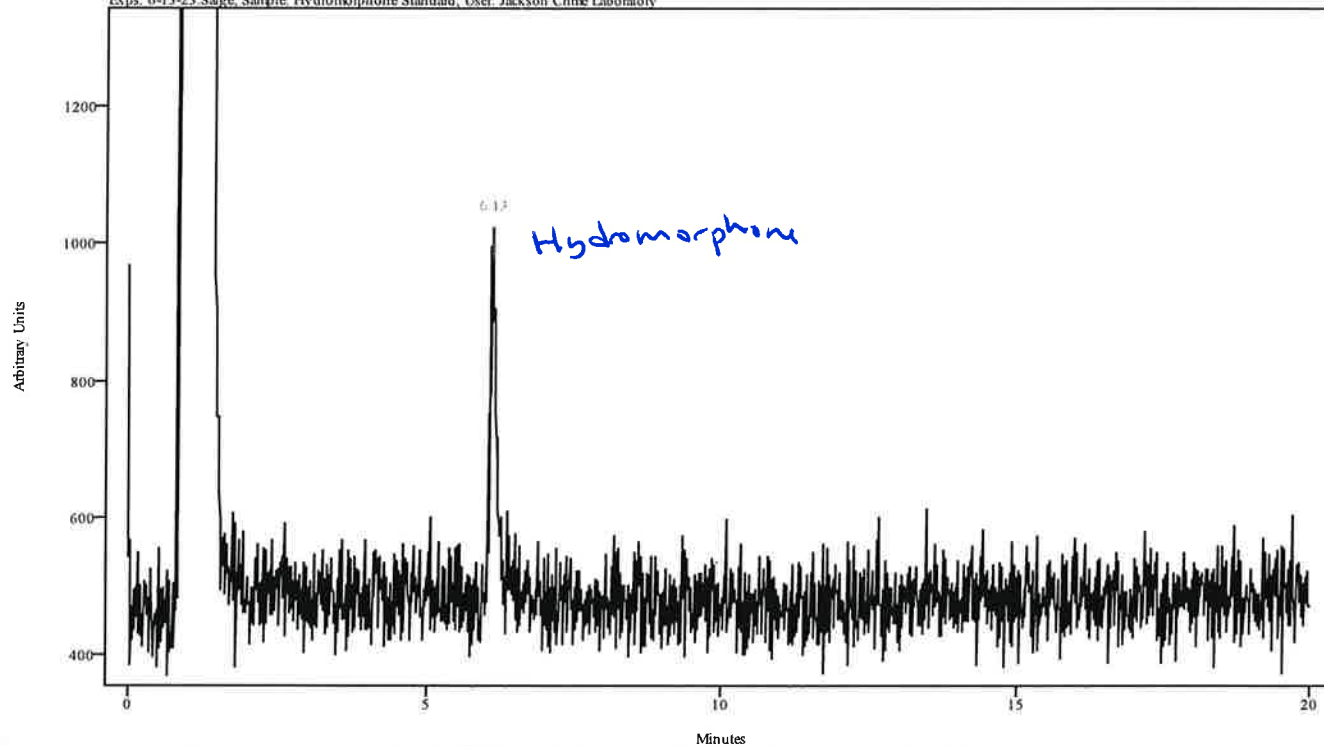
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*Reel  
07/15/22*

## IRD Data Analysis Report

|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_14_232730HYDROMORPHONESTD            |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | ISO270(20MIN)                                  |
| GC Vial        | 11                                             |
| Sample Name    | Hydromorphone Standard                         |
| Misc. Info     | Alltech Lot 01355 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Tue Jun 14 23:49:40 2022                       |
| Date Processed | Wed Jun 15 08:22:36 2022                       |

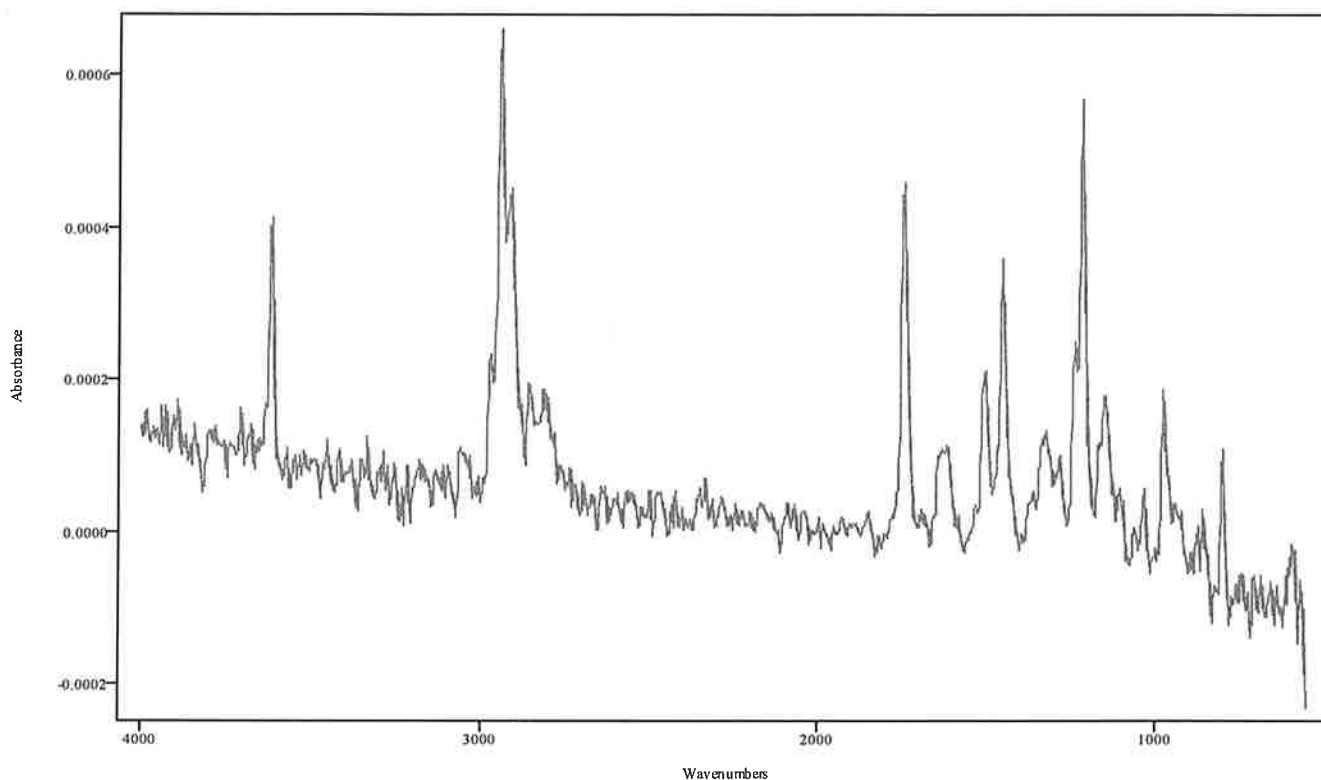
irdata.cgm: 2022\_June\_14\_232730HYDROMORPHONESTD irdata.cgm: Misc. Info: Alltech Lot 01355 Methanol Exps. 6-13-23:Sarge Sample: Hydromorphone Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.072      | 6.194    | 0.123      | 5.459           | 5.994         |

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|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_14_232730HYDROMORPHONESTD            |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | ISO270(20MIN)                                  |
| GC Vial        | 11                                             |
| Sample Name    | Hydromorphone Standard                         |
| Misc. Info     | Alltech Lot 01355 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Tue Jun 14 23:49:40 2022                       |
| Date Processed | Wed Jun 15 08:22:36 2022                       |



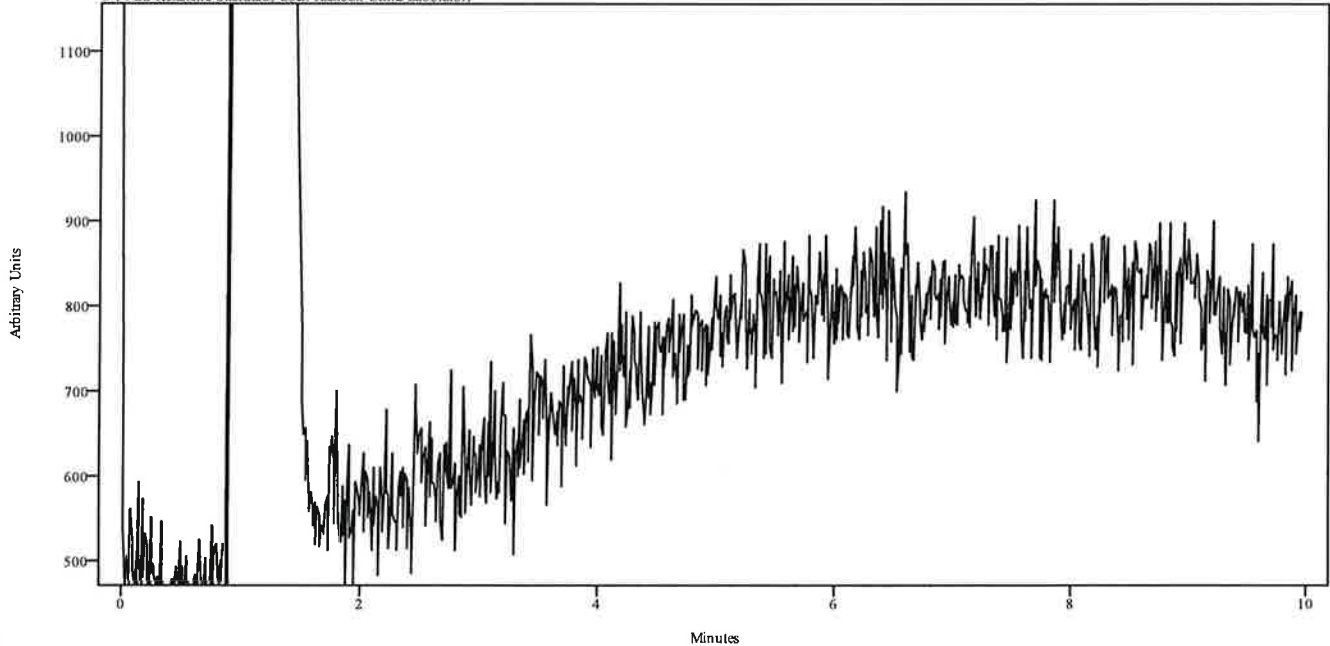
IRDATA.SPC: 6.13 minutes: AVE (6.07: 6.19) Ref. (5.46: 5.99) of  
2022\_June\_14\_232730HYDROMORPHONESTD.cgm

MS  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_164450KETAMINESTDDBLANK          |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Ketamine Standard               |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 16:58:28 2022                      |
| Date Processed | Fri Jul 15 13:54:57 2022                      |

irdata.cgm: 2022\_June\_14\_164450KETAMINESTDDBLANK.irdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank  
6-14-22 Ketamine Standard; User: Jackson Crime Laboratory



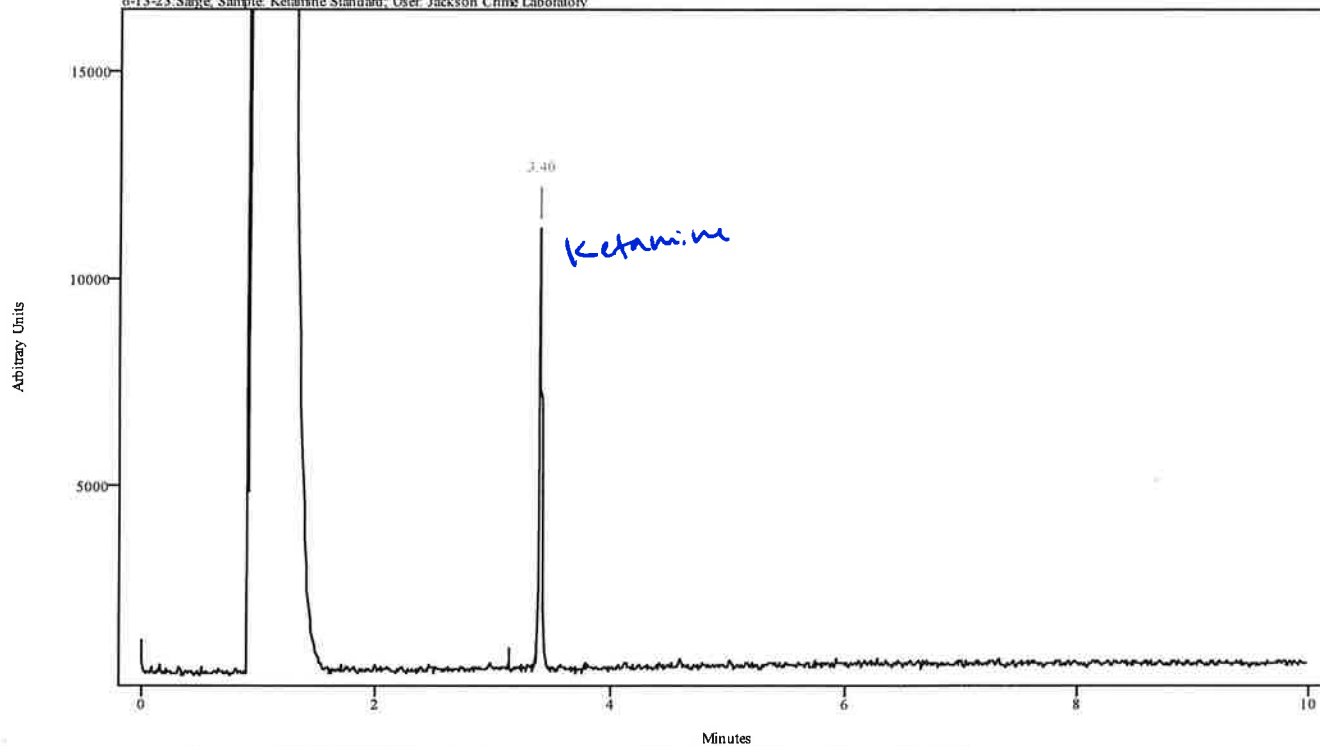
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_165828KETAMINESTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 4                                             |
| Sample Name    | Ketamine Standard                             |
| Misc. Info     | Alltech Lot 323 MeOH Exps. 6-13-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 17:11:48 2022                      |
| Date Processed | Fri Jul 15 13:54:37 2022                      |

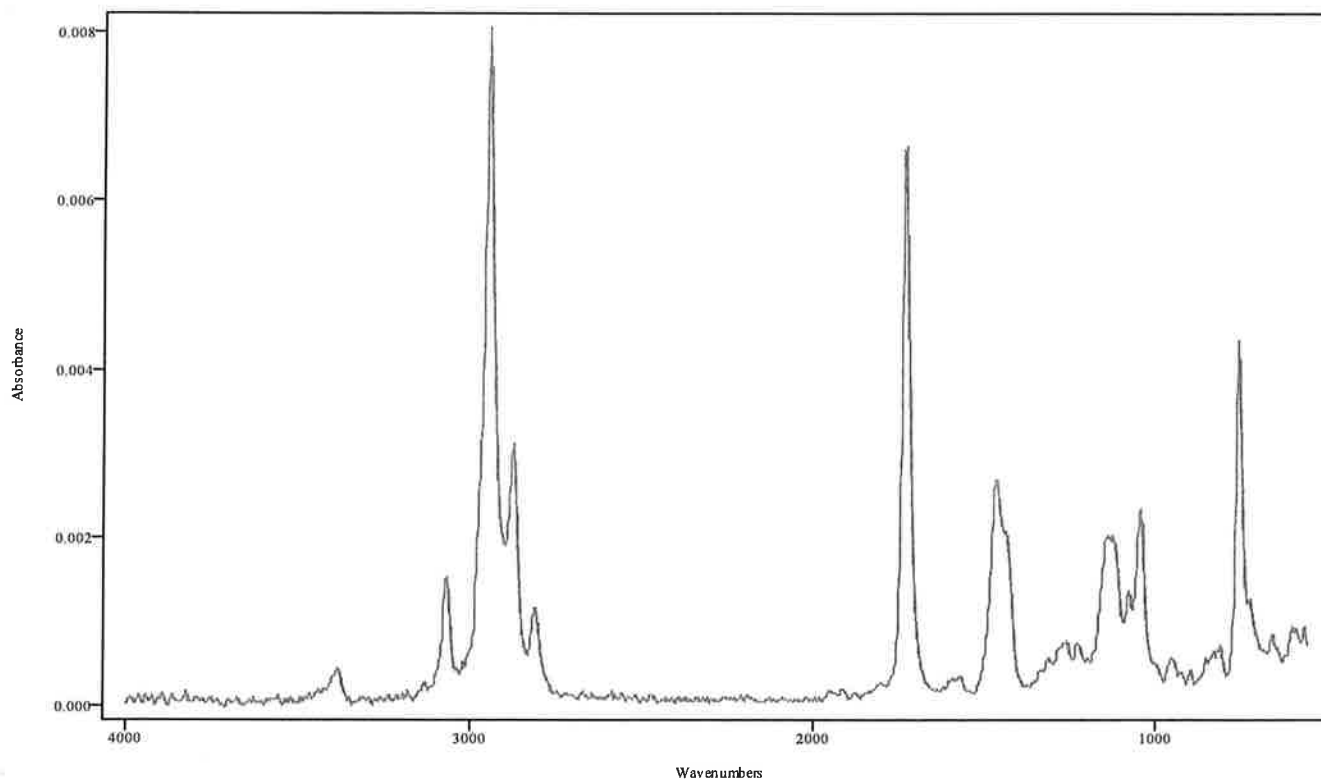
irdata.cgm 2022\_June\_14\_165828KETAMINESTD\irdata.cgm: Misc. Info: Alltech Lot 323 MeOH Exps.  
6-13-23:Sarge; Sample: Ketamine Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 3.376      | 3.421    | 0.045      | 3.131           | 3.354         |

*RPJ  
07/15/22*

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_165828KETAMINESTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 200TO270                                      |
| GC Vial        | 4                                             |
| Sample Name    | Ketamine Standard                             |
| Misc. Info     | Alltech Lot 323 MeOH Exps. 6-13-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 17:11:48 2022                      |
| Date Processed | Fri Jul 15 13:54:37 2022                      |

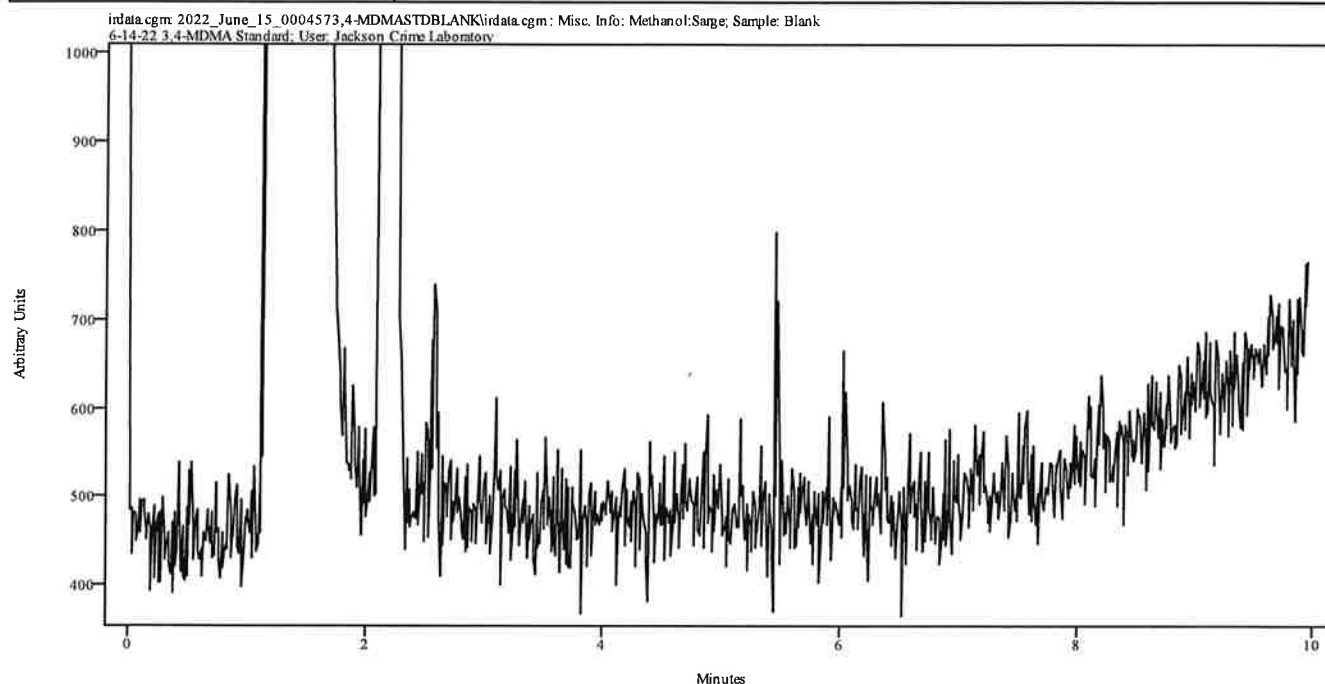


IRDATA.SPC: 3.40 minutes: AVE (3.38: 3.42) Ref. (3.13: 3.35) of  
2022\_June\_14\_165828KETAMINESTD.cgm

Res  
07/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_0004573,4-MDMASTDBLANK           |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 3,4-MDMA Standard               |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 00:19:41 2022                      |
| Date Processed | Wed Jun 15 08:23:09 2022                      |



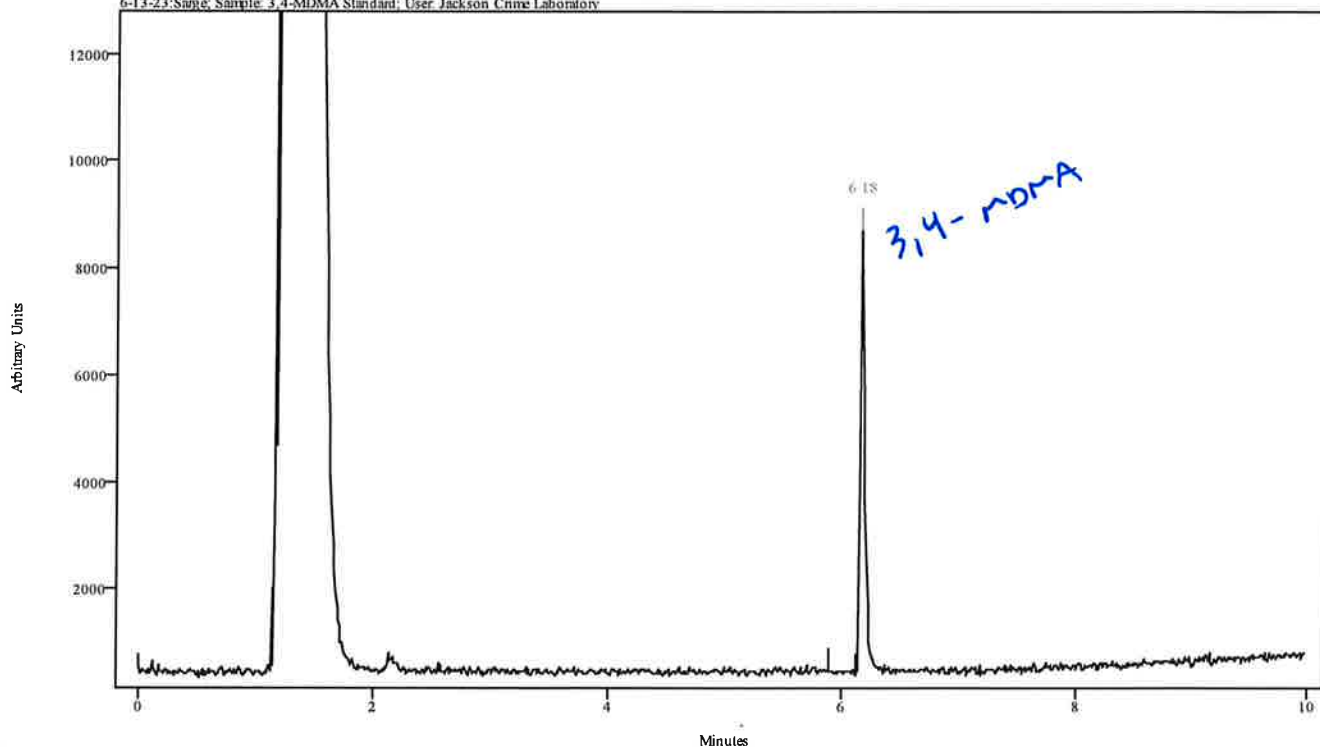
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*APJ  
5/11/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_0019413,4-MDMASTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 12                                            |
| Sample Name    | 3,4-MDMA Standard                             |
| Misc. Info     | Grace Lot 01408 Methanol Exps. 6-13-23:Sarge  |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 00:34:25 2022                      |
| Date Processed | Wed Jun 15 08:23:49 2022                      |

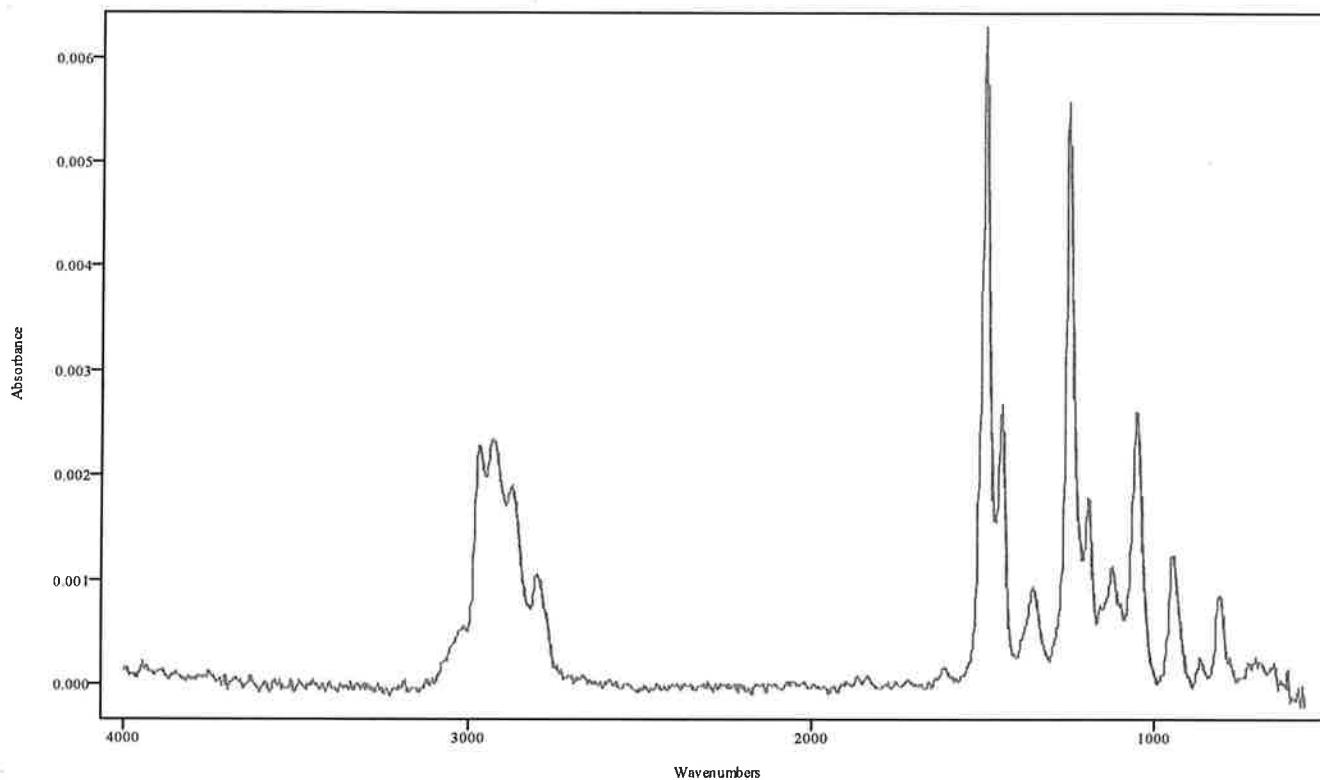
irdata.cgm: 2022\_June\_15\_0019413,4-MDMASTD\irdata.cgm; Misc. Info: Grace Lot 01408 Methanol Exps.  
6-13-23:Sarge, Sample 3,4-MDMA Standard; User Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.161      | 6.206    | 0.045      | 5.905           | 6.128         |

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07/15/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_15_0019413,4-MDMASTD                |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 12                                            |
| Sample Name    | 3,4-MDMA Standard                             |
| Misc. Info     | Grace Lot 01408 Methanol Exps. 6-13-23:Sarge  |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Wed Jun 15 00:34:25 2022                      |
| Date Processed | Wed Jun 15 08:23:49 2022                      |



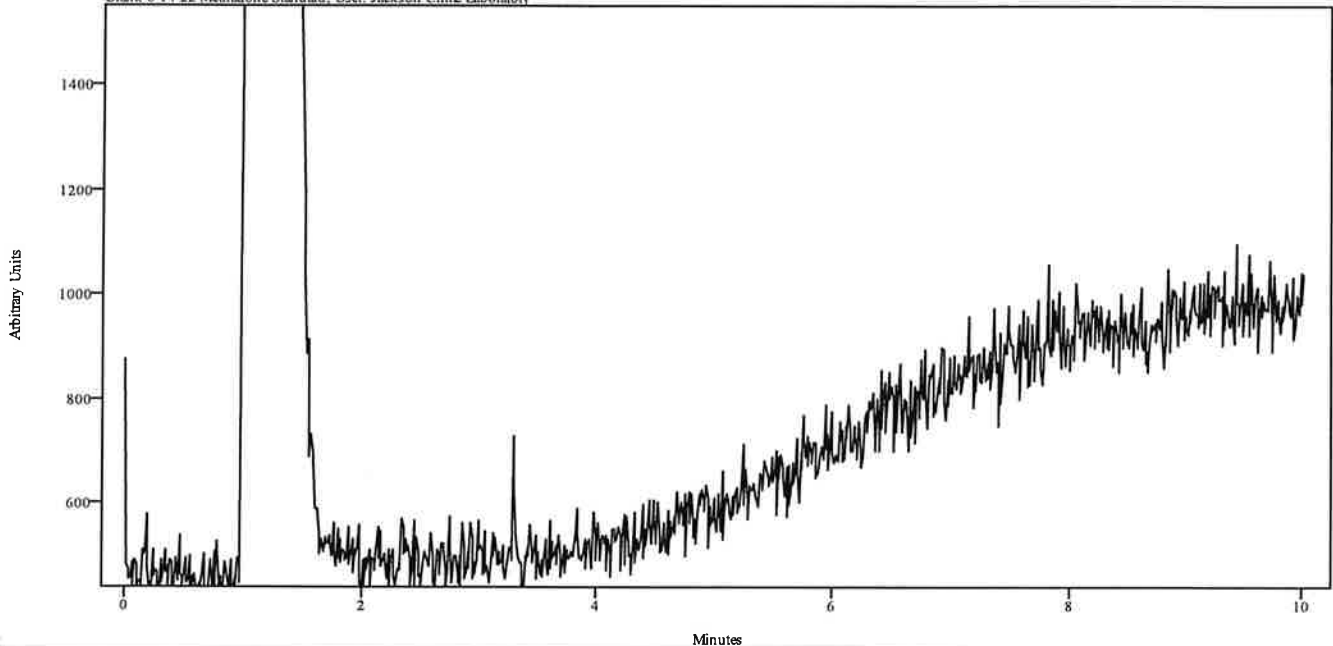
IRDATA.SPC: 6.18 minutes: AVE (6.16: 6.21) Ref. (5.90: 6.13) of  
2022\_June\_15\_0019413,4-MDMASTD.cgm

APP  
6/15/22

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_172656METHADONESTDBLANK          |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270                                      |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Methadone Standard              |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 17:40:25 2022                      |
| Date Processed | Wed Jun 15 08:15:48 2022                      |

irdata.cgm: 2022\_June\_14\_172656METHADONESTDBLANK\irdata.cgm : Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Methadone Standard; User: Jackson Crime Laboratory



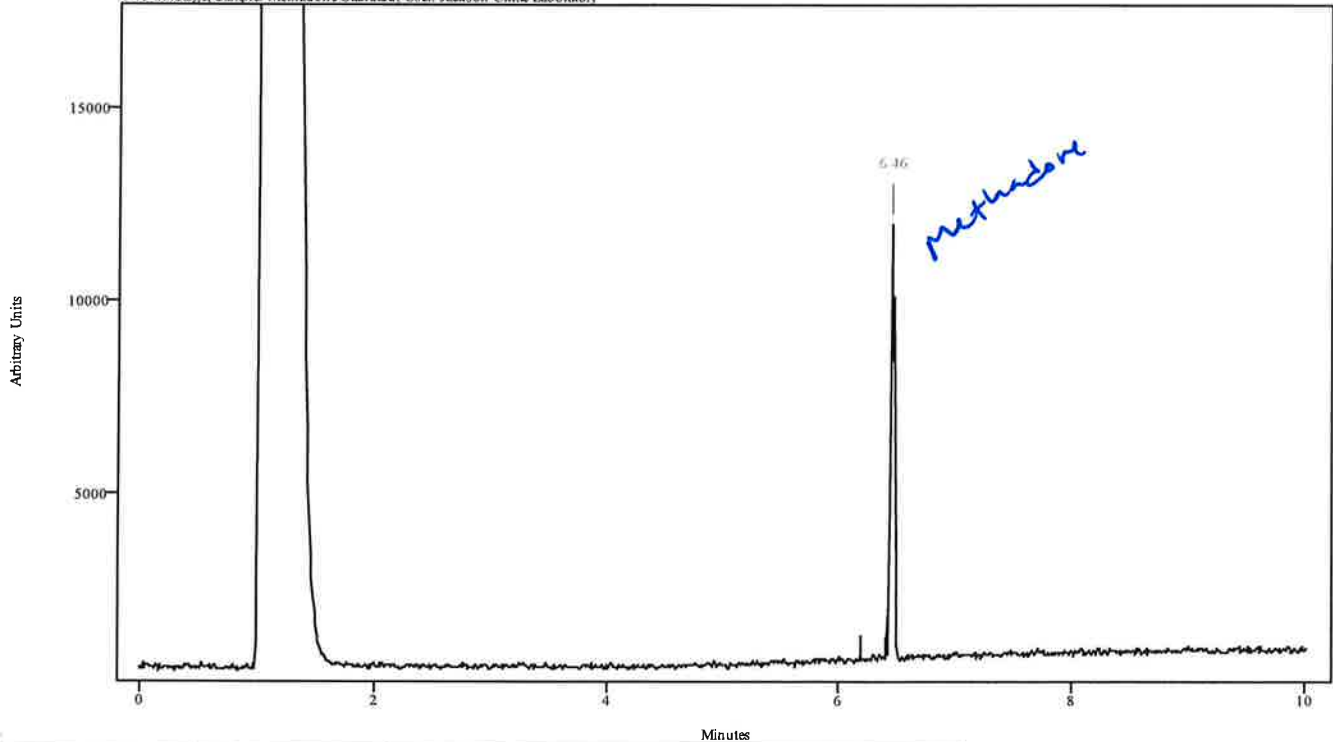
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*Rep  
07/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_174025METHADONESTD               |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270                                      |
| GC Vial        | 5                                             |
| Sample Name    | Methadone Standard                            |
| Misc. Info     | Alltech Lot 9007 MeOH Exps. 6-13-23:Sarge     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 17:53:57 2022                      |
| Date Processed | Wed Jun 15 08:48:18 2022                      |

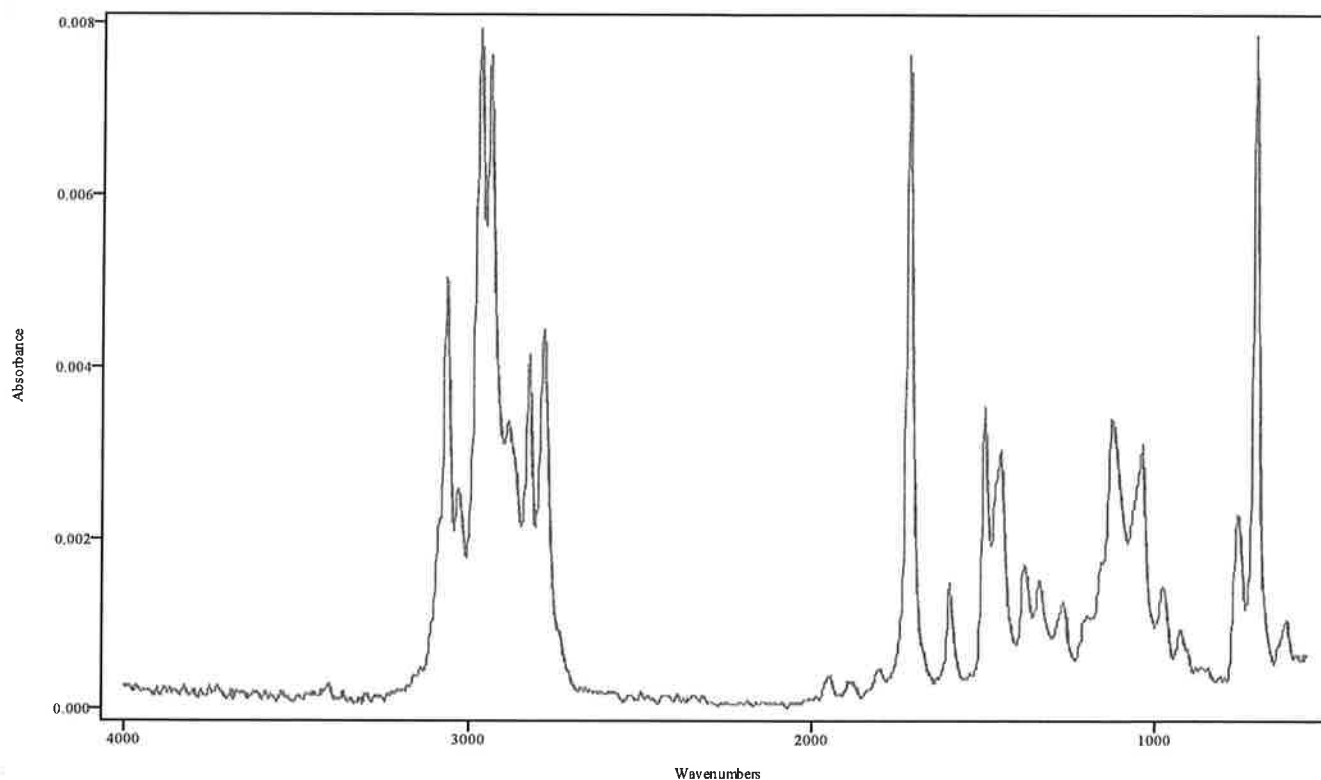
irdata.cgm: 2022\_June\_14\_174025METHADONESTD\irdata.cgm: Misc. Info: Alltech Lot 9007 MeOH Exps.  
6-13-23:Sarge; Sample: Methadone Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.440      | 6.485    | 0.045      | 6.184           | 6.407         |

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07/15/22

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_174025METHADONESTD               |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270                                      |
| GC Vial        | 5                                             |
| Sample Name    | Methadone Standard                            |
| Misc. Info     | Alltech Lot 9007 MeOH Exps. 6-13-23:Sarge     |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 17:53:57 2022                      |
| Date Processed | Wed Jun 15 08:48:18 2022                      |



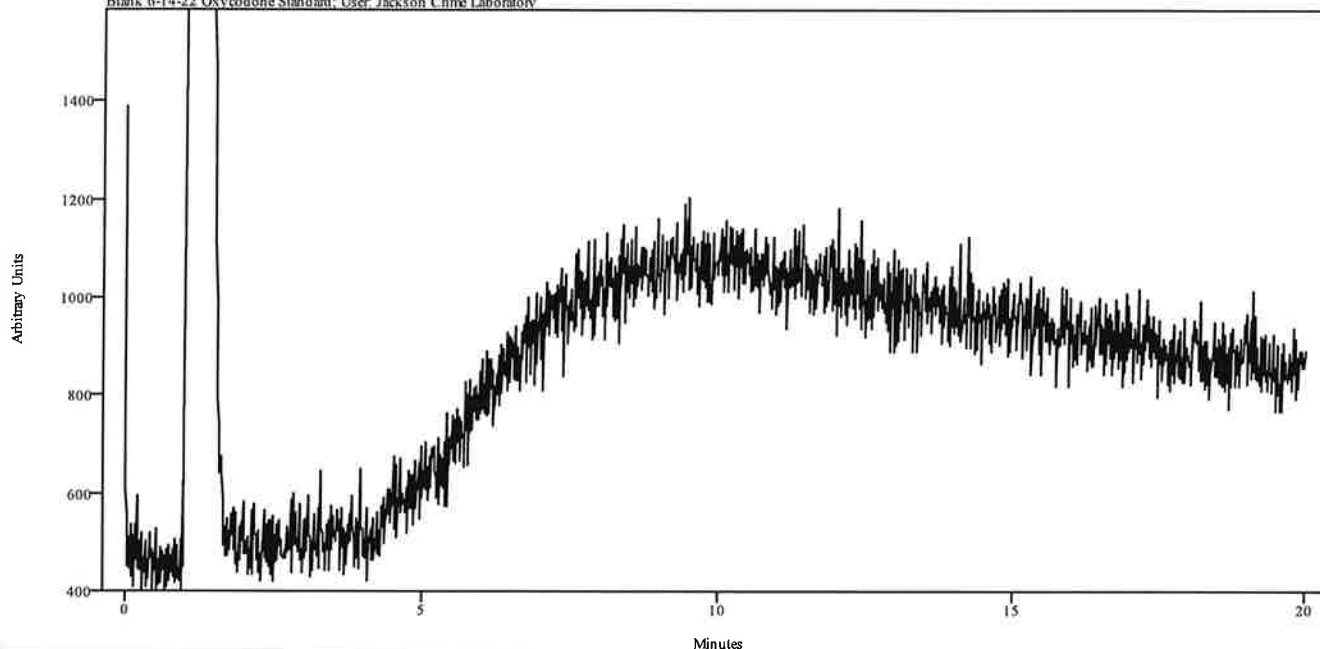
IRDATA.SPC: 6.46 minutes: AVE (6.44: 6.48) Ref. (6.18: 6.41) of  
2022\_June\_14\_174025METHADONESTD.cgm

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07/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_180846OXYCODONESTDBLANK          |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270(20MIN)                               |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Oxycodone Standard              |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 18:32:14 2022                      |
| Date Processed | Wed Jun 15 08:16:53 2022                      |

irdata.cgm: 2022\_June\_14\_180846OXYCODONESTDBLANK\irdata.cgm : Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Oxycodone Standard; User: Jackson Crime Laboratory



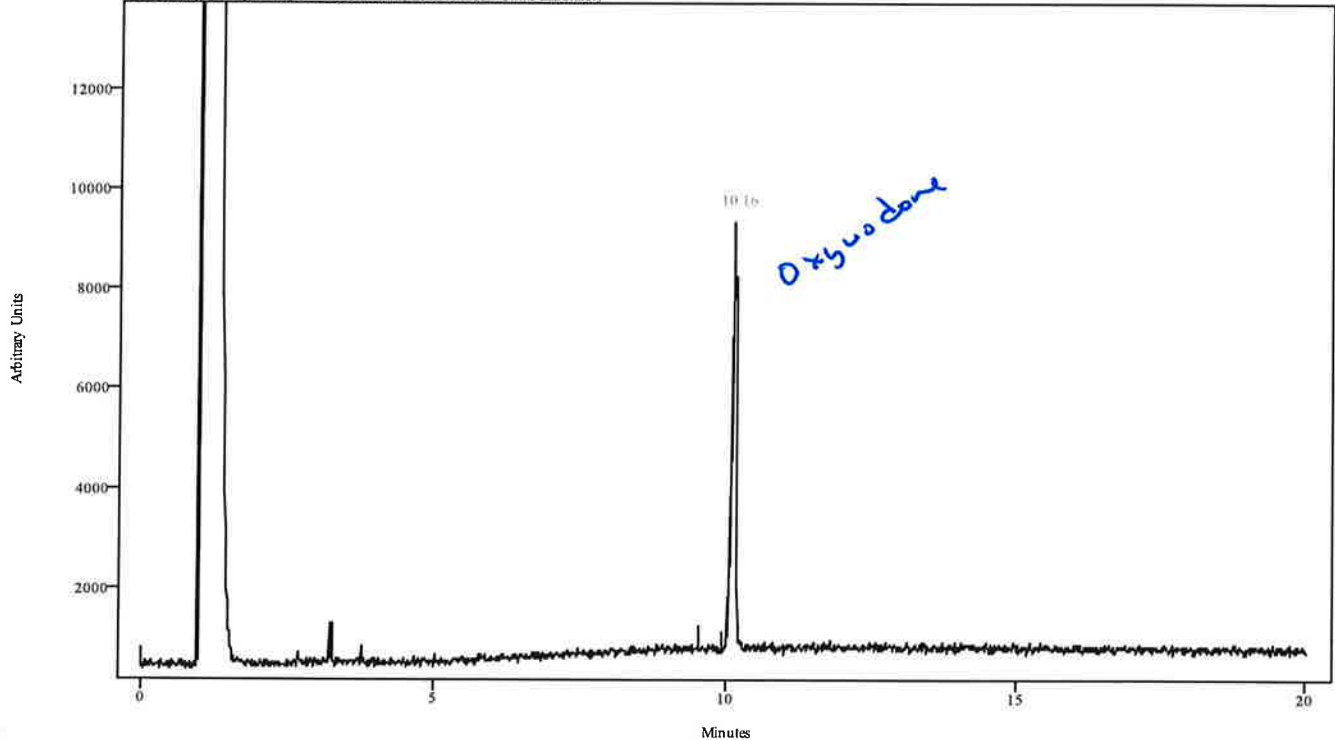
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

*RM*  
*07/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_183214OXYCODONESTD               |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270(20MIN)                               |
| GC Vial        | 6                                             |
| Sample Name    | Oxycodone Standard                            |
| Misc. Info     | Alltech Lot 520 MeOH Exps. 6-13-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 18:55:51 2022                      |
| Date Processed | Wed Jun 15 08:17:20 2022                      |

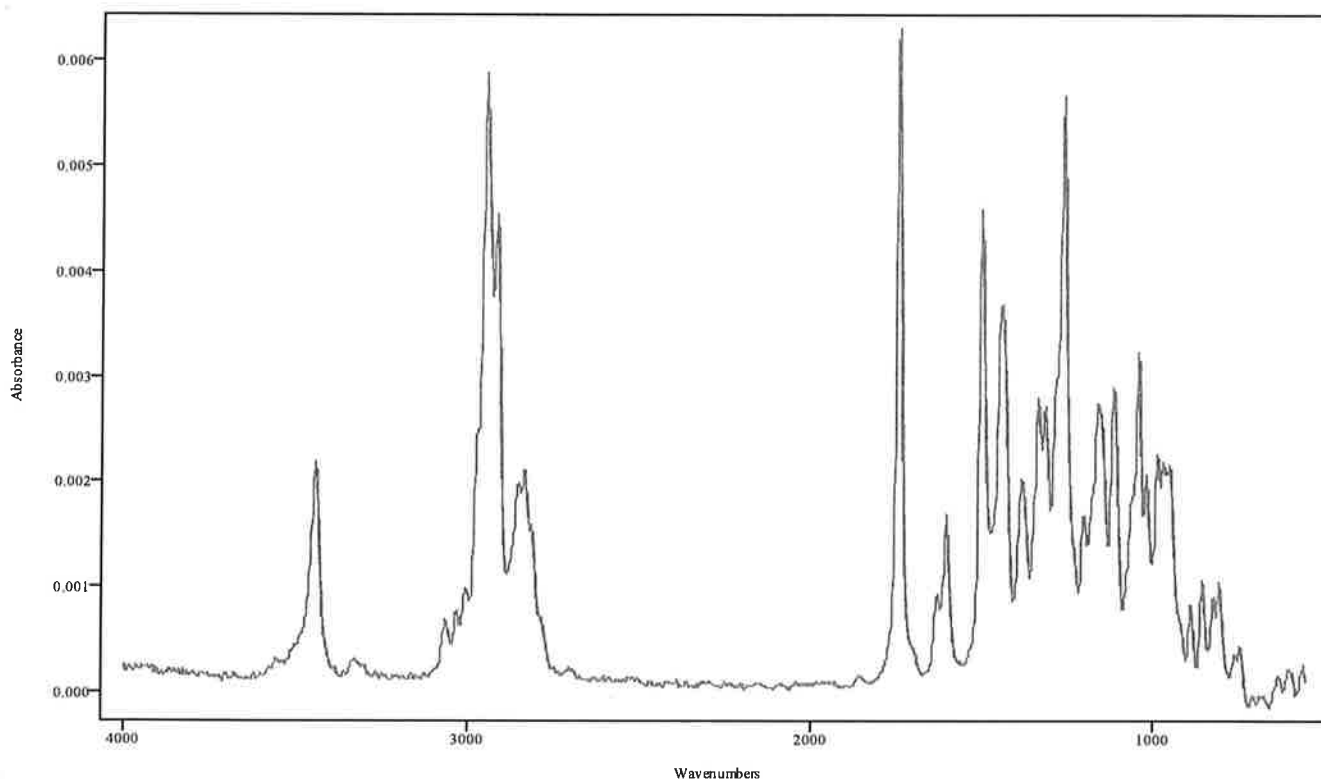
irdata.cgm: 2022\_June\_14\_183214OXYCODONESTD\irdata.cgm : Misc. Info: Alltech Lot 520 MeOH Exps.  
6-13-23.Sarge: Sample: Oxycodone Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 10.106     | 10.195   | 0.089      | 9.549           | 9.950         |

*AM*  
*07/15/22*

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_183214OXYCODONESTD               |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 120TO270(20MIN)                               |
| GC Vial        | 6                                             |
| Sample Name    | Oxycodone Standard                            |
| Misc. Info     | Alltech Lot 520 MeOH Exps. 6-13-23:Sarge      |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 18:55:51 2022                      |
| Date Processed | Wed Jun 15 08:17:20 2022                      |



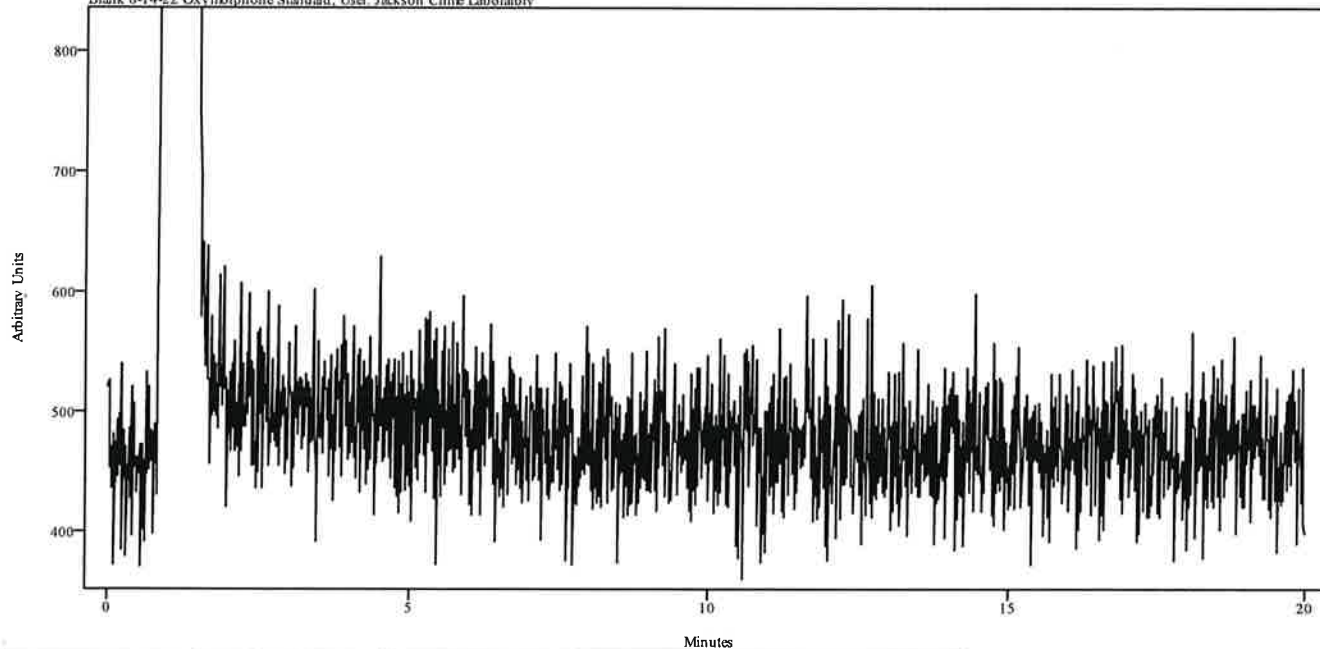
IRDATA.SPC: 10.16 minutes: AVE (10.11: 10.19) Ref. (9.55: 9.95) of  
2022\_June\_14\_183214OXYCODONESTD.cgm

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07/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_191044OXYMORPHONESTDBLANK        |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Oxymorphone Standard            |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 19:35:42 2022                      |
| Date Processed | Wed Jun 15 08:18:00 2022                      |

irdata.cgm: 2022\_June\_14\_191044OXYMORPHONESTDBLANKirdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Oxymorphone Standard; User: Jackson Crime Laboratory



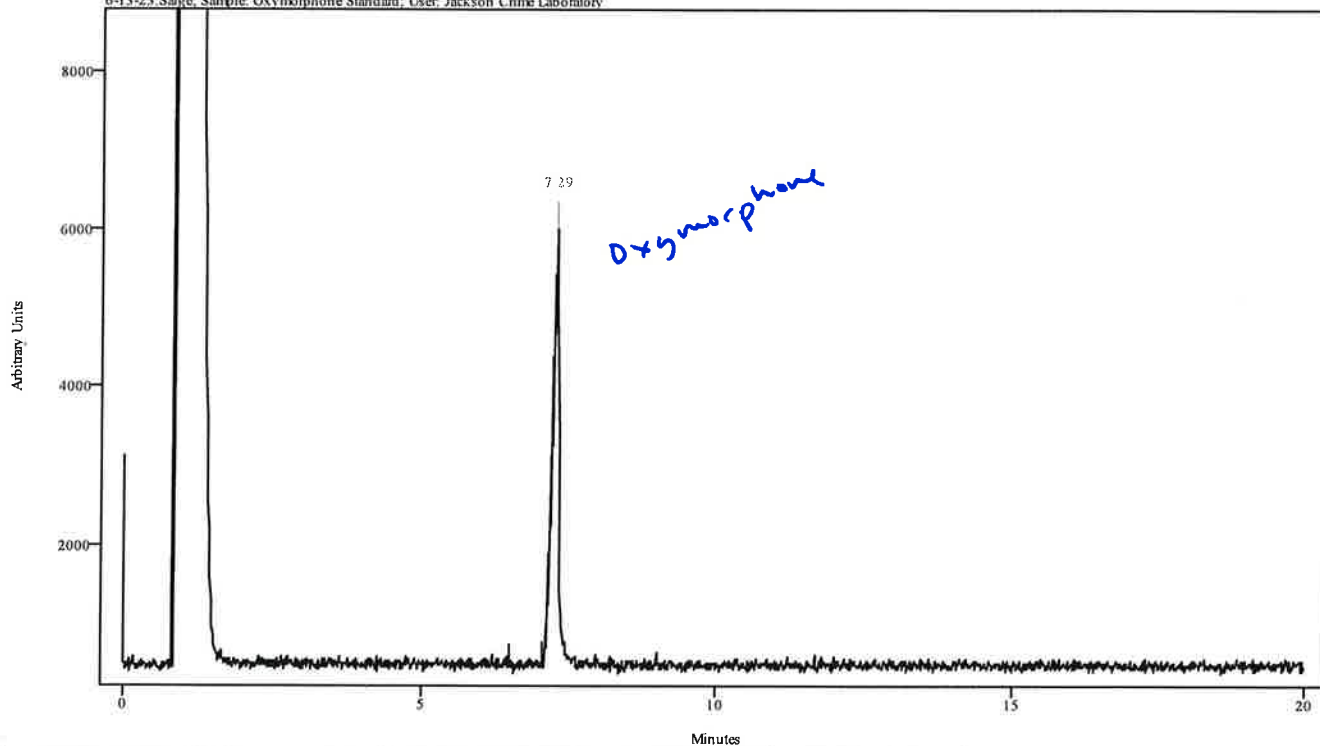
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_193542OXYMORPHONESTD             |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 7                                             |
| Sample Name    | Oxymorphone Standard                          |
| Misc. Info     | Grace Lot 4039 MeOH Exps. 6-13-23:Sarge       |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 19:58:04 2022                      |
| Date Processed | Wed Jun 15 08:18:34 2022                      |

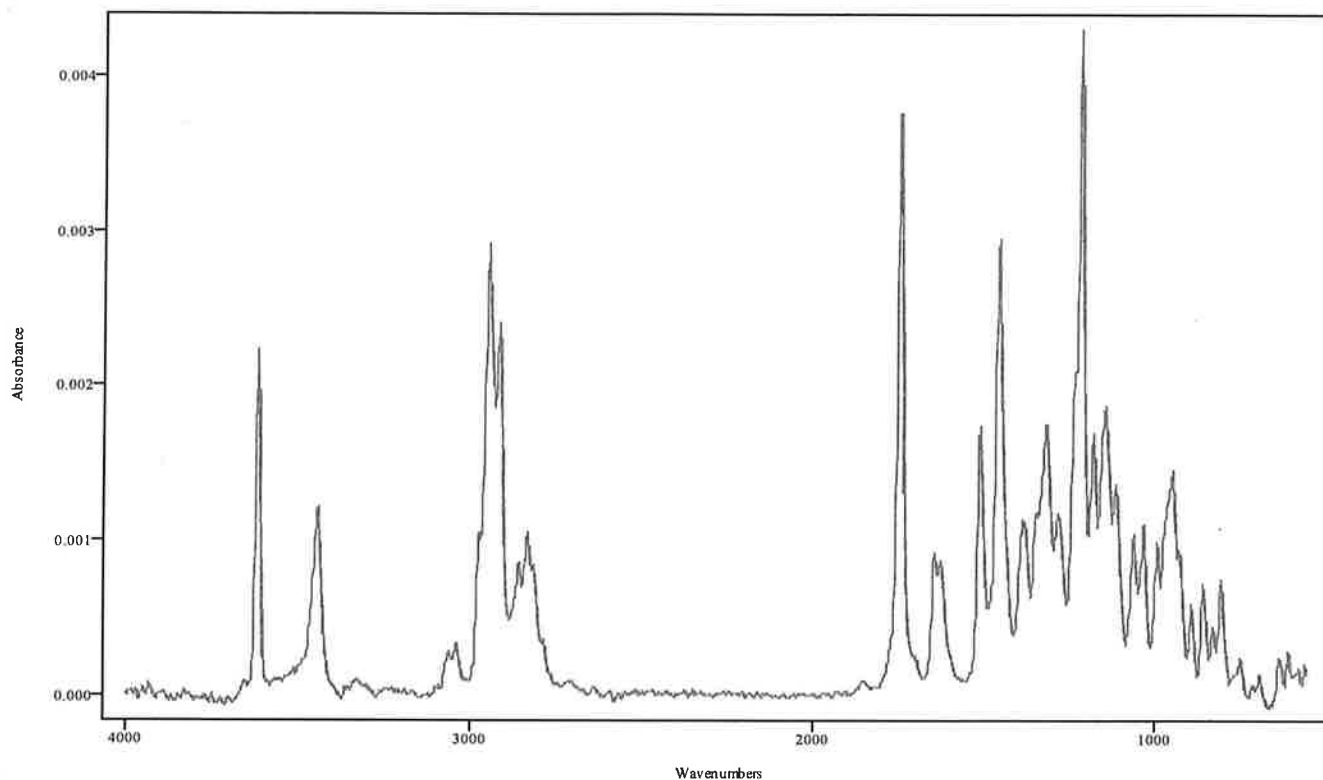
irdata.cgm: 2022\_June\_14\_193542OXYMORPHONESTD\irdata.cgm : Misc. Info: Grace Lot 4039 MeOH Exps.  
6-13-23:Sarge; Sample: Oxymorphone Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 7.198      | 7.331    | 0.134      | 6.485           | 7.064         |

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|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_193542OXYMORPHONESTD             |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 7                                             |
| Sample Name    | Oxymorphone Standard                          |
| Misc. Info     | Grace Lot 4039 MeOH Exps. 6-13-23:Sarge       |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 19:58:04 2022                      |
| Date Processed | Wed Jun 15 08:18:34 2022                      |

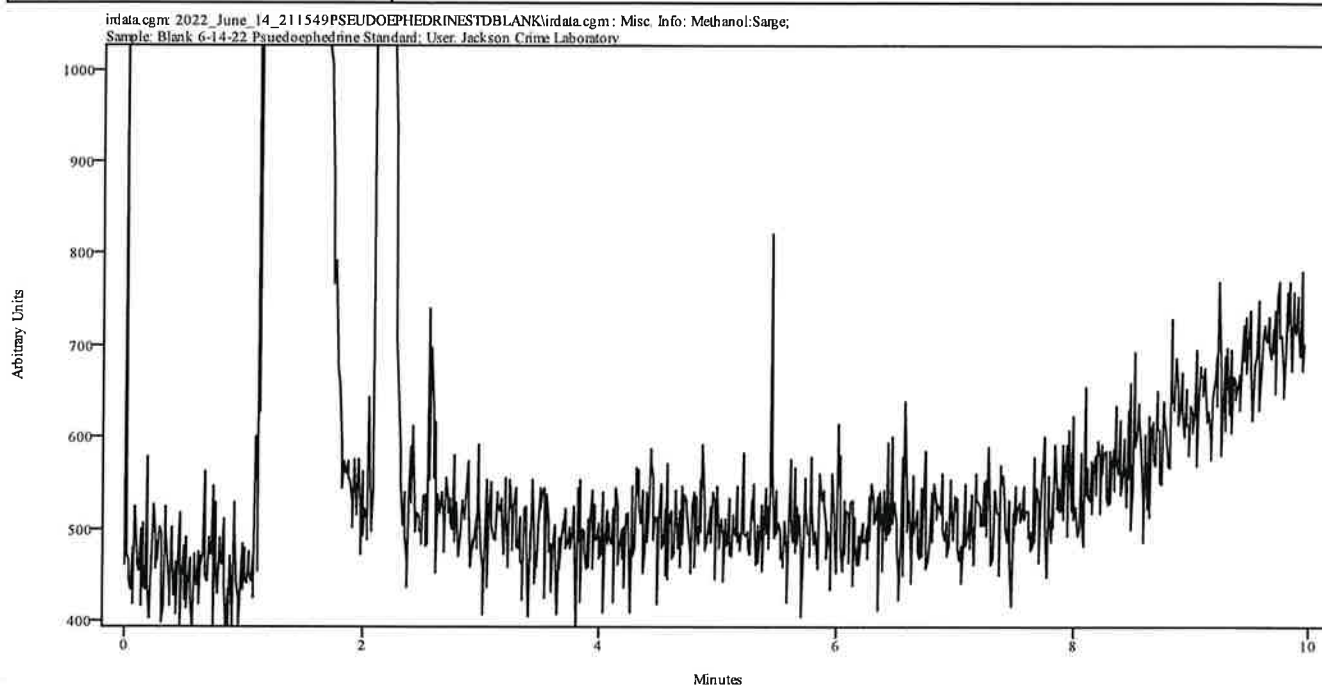


IRDATA.SPC: 7.29 minutes: AVE (7.20: 7.33) Ref. (6.48: 7.06) of  
2022\_June\_14\_193542OXYMORPHONESTD.cgm

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_211549PSEUDOEPHEDRINESTDDBLANK   |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Psuedoephedrine Standard        |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 21:30:33 2022                      |
| Date Processed | Wed Jun 15 08:20:12 2022                      |



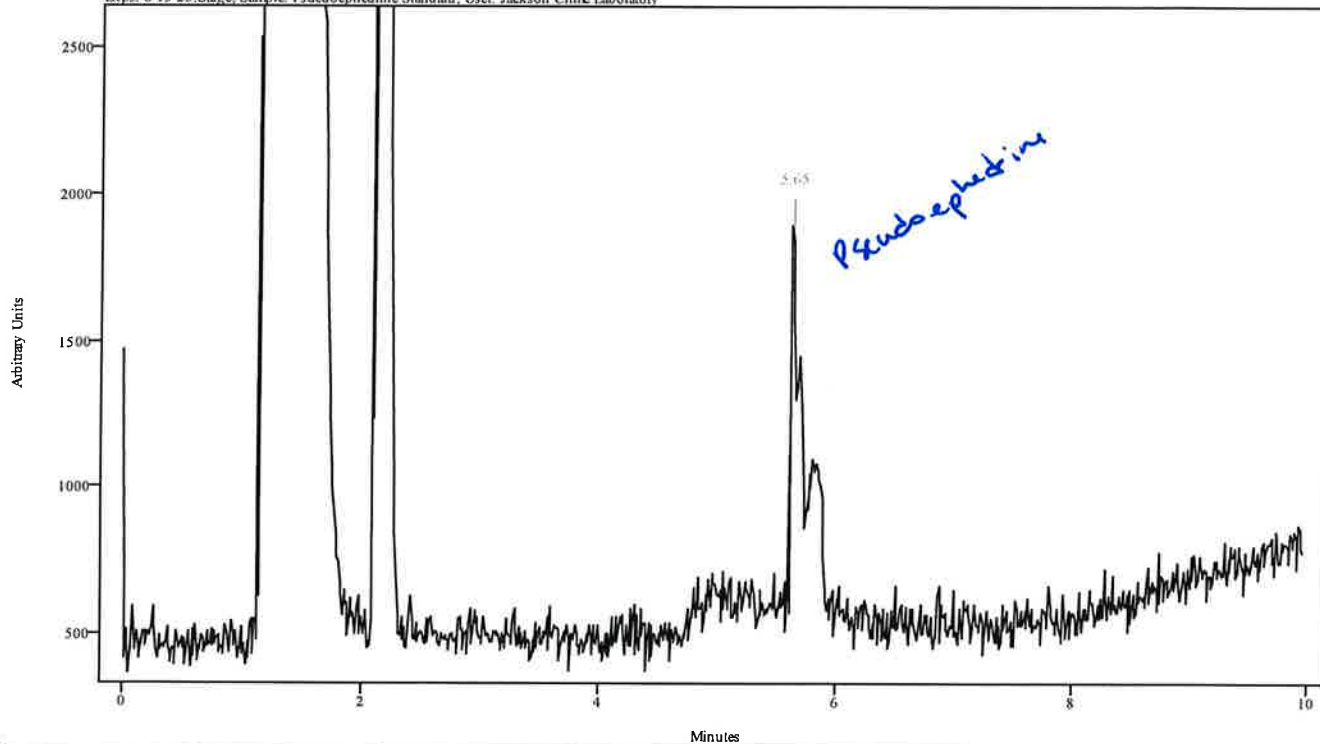
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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6/15/22*

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_213034PSEUDOEPHEDRINESTD         |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 9                                             |
| Sample Name    | Psuedoephedrine Standard                      |
| Misc. Info     | Fluka Lot 82448 Methanol Exps. 6-13-23:Sarge  |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 21:45:17 2022                      |
| Date Processed | Wed Jun 15 08:20:38 2022                      |

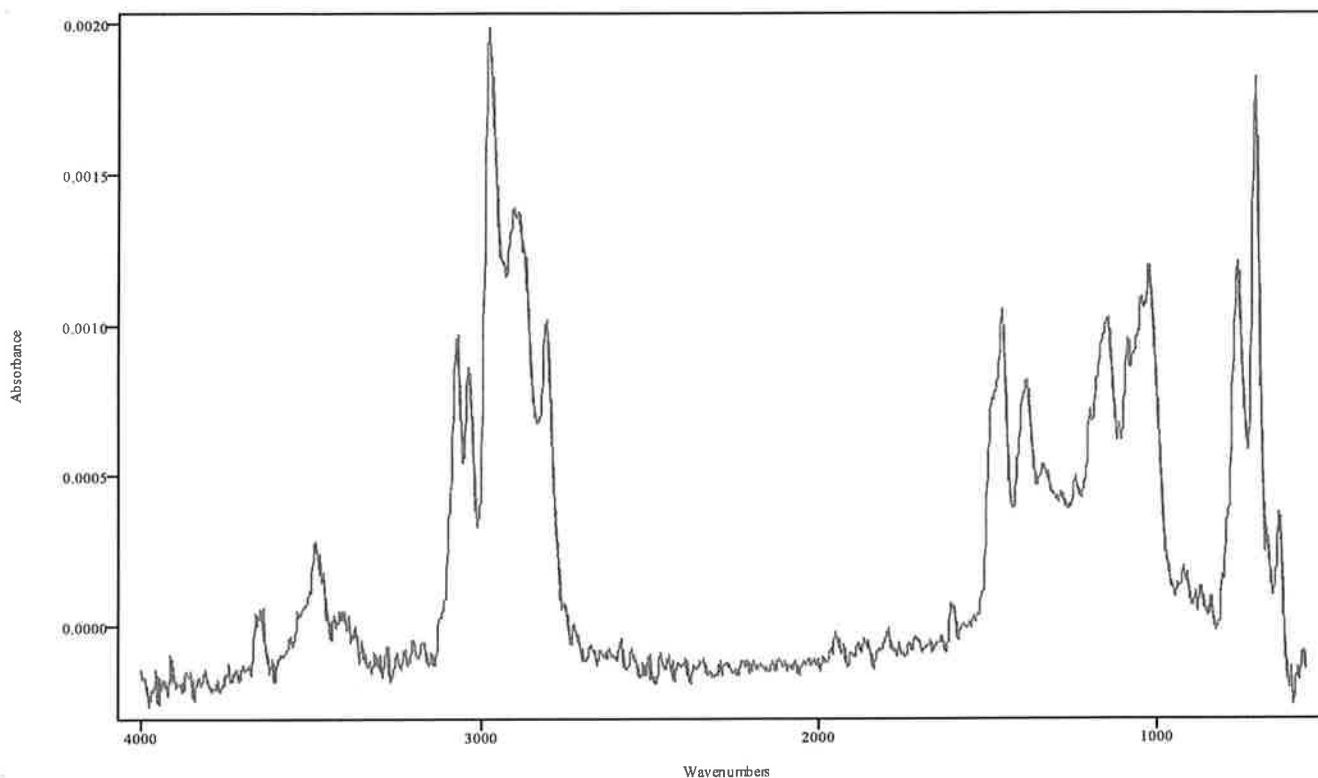
irdata.cgm: 2022\_June\_14\_213034PSEUDOEPHEDRINESTD\irdata.cgm : Misc. Info: Fluka Lot 82448 Methanol Exps. 6-13-23:Sarge, Sample: Psuedoephedrine Standard, User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 5.627      | 5.671    | 0.045      | 5.382           | 5.605         |

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07/15/22*

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_213034PSEUDOEPHEDRINESTD         |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | 60TO270                                       |
| GC Vial        | 9                                             |
| Sample Name    | Psuedoephedrine Standard                      |
| Misc. Info     | Fluka Lot 82448 Methanol Exps. 6-13-23:Sarge  |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 21:45:17 2022                      |
| Date Processed | Wed Jun 15 08:20:38 2022                      |



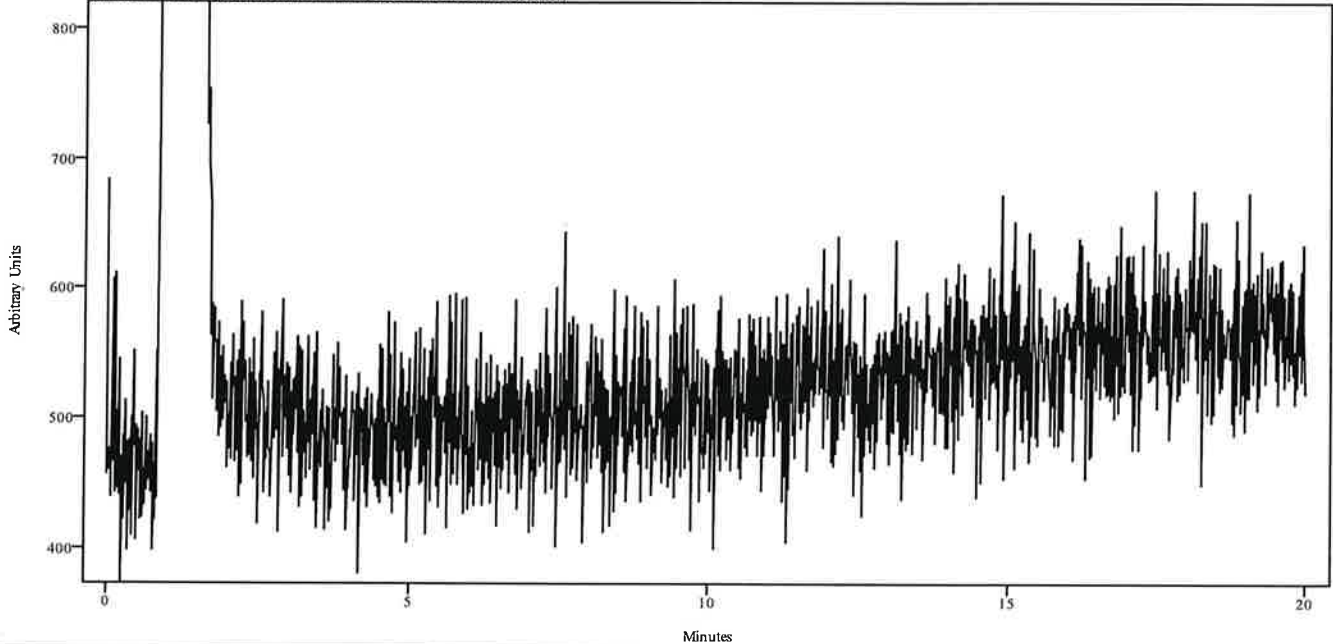
IRDATA.SPC: 5.65 minutes: AVE (5.63: 5.67) Ref. (5.38: 5.60) of  
2022\_June\_14\_213034PSEUDOEPHEDRINESTD.cgm

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571151m

## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_220006TESTACETATESTDBLANK        |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 2                                             |
| Sample Name    | Blank 6-14-22 Testosterone Acetate Standard   |
| Misc. Info     | Methanol:Sarge                                |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 22:25:07 2022                      |
| Date Processed | Wed Jun 15 08:21:15 2022                      |

irdata.cgm: 2022\_June\_14\_220006TESTACETATESTDBLANKirdata.cgm: Misc. Info: Methanol:Sarge; Sample: Blank 6-14-22 Testosterone Acetate Standard; User: Jackson Crime Laboratory



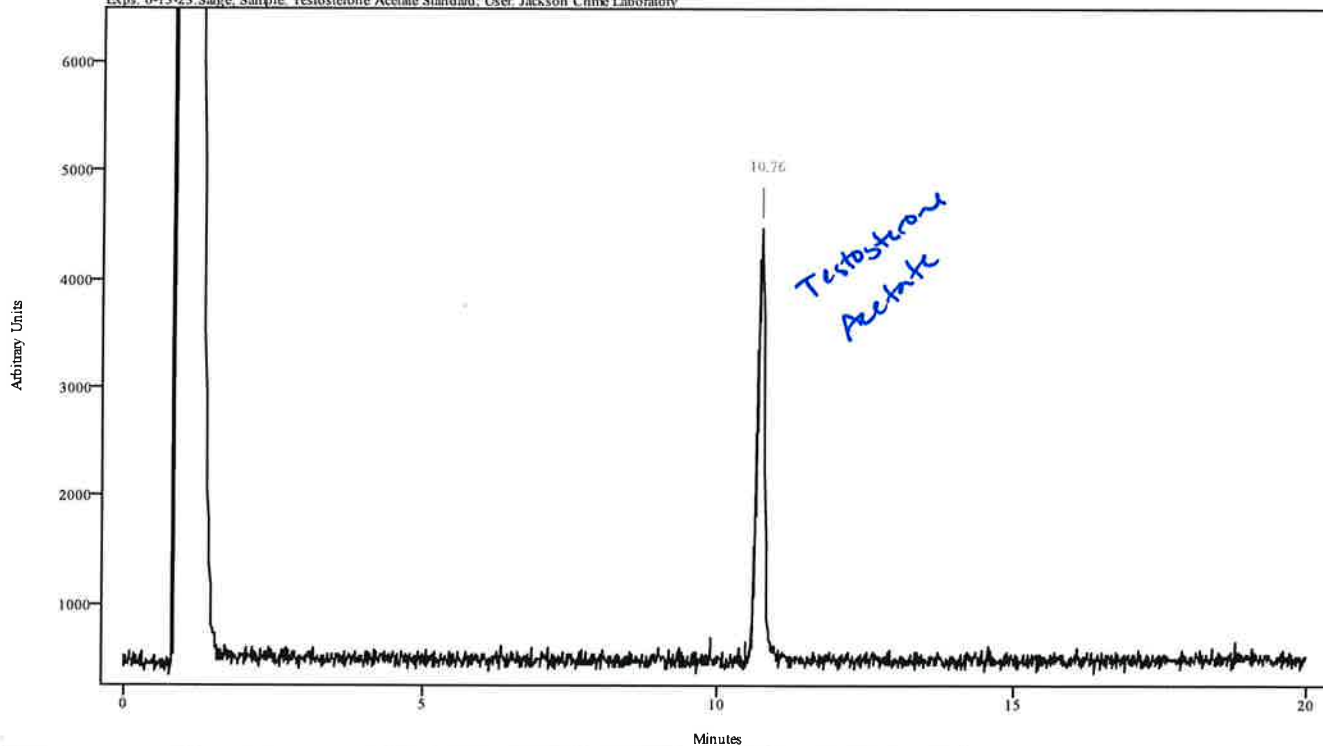
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_14_222507TESTACETATESTD              |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | ISO270(20MIN)                                  |
| GC Vial        | 10                                             |
| Sample Name    | Testosterone Acetate Standard                  |
| Misc. Info     | Sigma Lot 74H1129 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Tue Jun 14 22:47:15 2022                       |
| Date Processed | Wed Jun 15 08:21:40 2022                       |

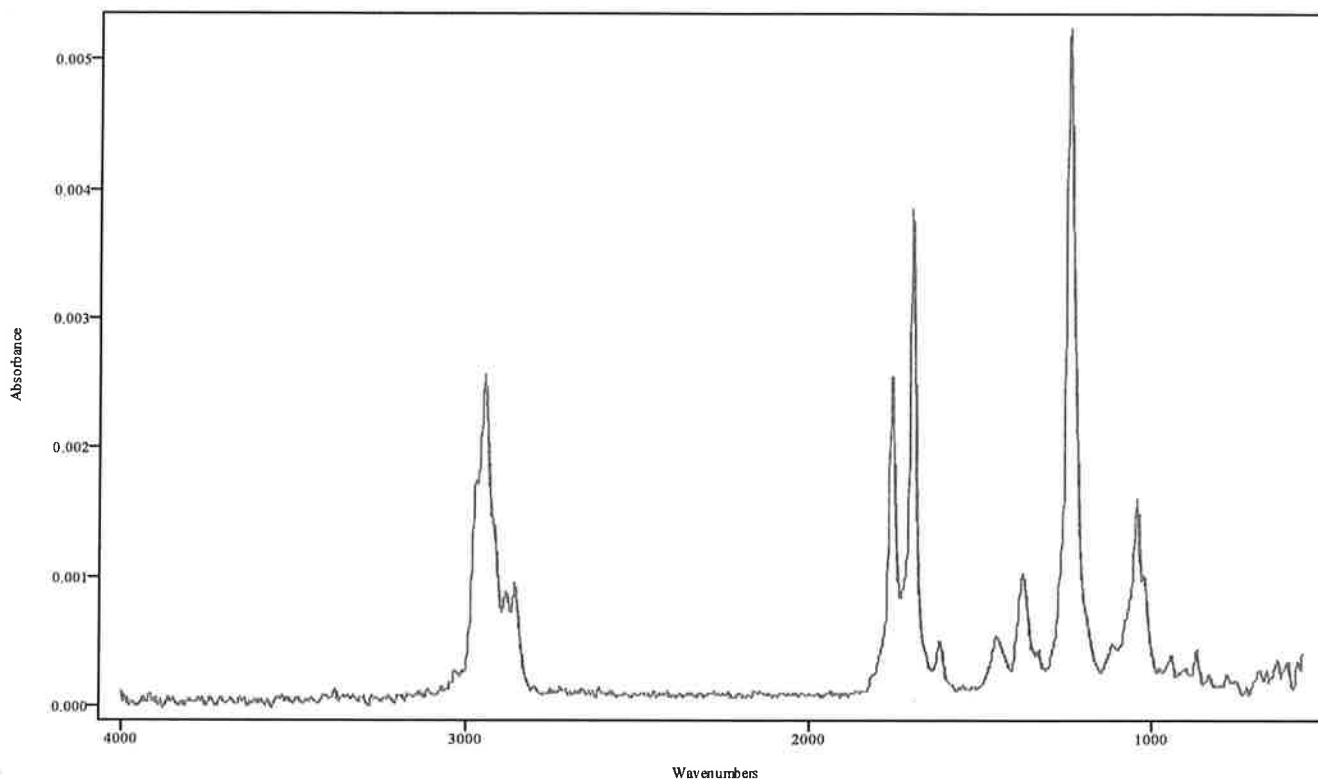
irdata.cgm: 2022\_June\_14\_222507TESTACETATESTD\irdata.cgm: Misc. Info: Sigma Lot 74H1129 Methanol  
Exps. 6-13-23:Sarge; Sample: Testosterone Acetate Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 10.674     | 10.808   | 0.134      | 9.905           | 10.484        |

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|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_14_222507TESTACETATESTD              |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | ISO270(20MIN)                                  |
| GC Vial        | 10                                             |
| Sample Name    | Testosterone Acetate Standard                  |
| Misc. Info     | Sigma Lot 74H1129 Methanol Exps. 6-13-23:Sarge |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Tue Jun 14 22:47:15 2022                       |
| Date Processed | Wed Jun 15 08:21:40 2022                       |

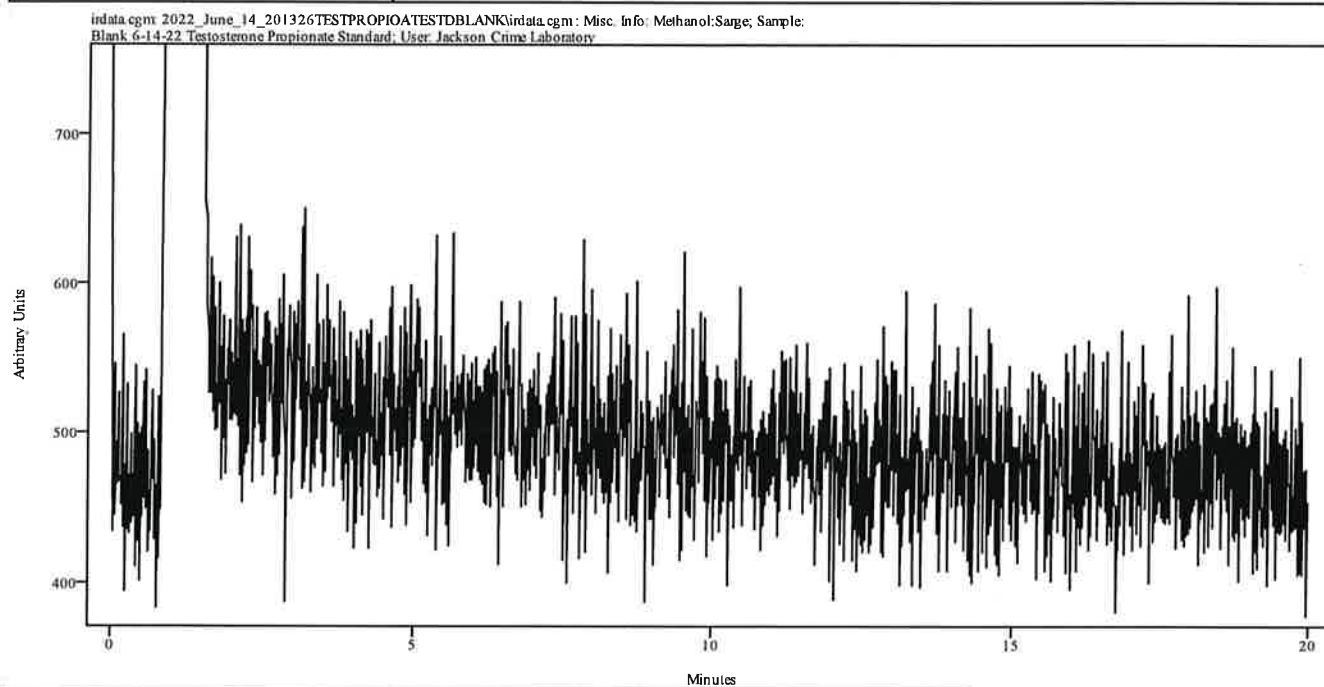


IRDATA.SPC: 10.76 minutes: AVE (10.67: 10.81) Ref. (9.91: 10.48) of 2022\_June\_14\_222507TESTACETATESTD.cgm

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## IRD Data Analysis Report

|                |                                                |
|----------------|------------------------------------------------|
| Data Filename  | 2022_June_14_201326TESTPROPIOATESTDBLANK       |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22  |
| IRD Method     | IRD3 EXT                                       |
| GC Method      | ISO270(20MIN)                                  |
| GC Vial        | 2                                              |
| Sample Name    | Blank 6-14-22 Testosterone Propionate Standard |
| Misc. Info     | Methanol:Sarge                                 |
| User ID        | Jackson Crime Laboratory                       |
| Injection Time | Tue Jun 14 20:38:22 2022                       |
| Date Processed | Wed Jun 15 08:19:06 2022                       |



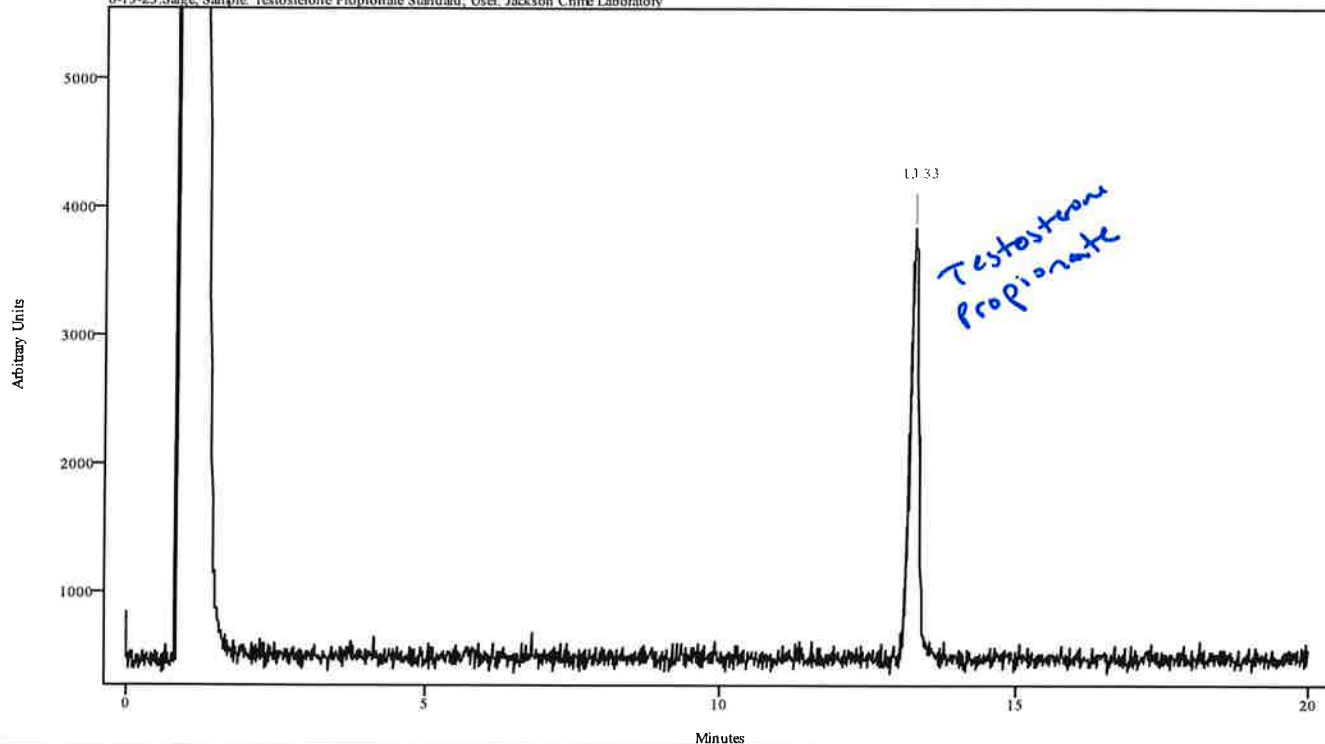
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

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## IRD Data Analysis Report

|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_203823TESTPROPIONATESTD          |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 8                                             |
| Sample Name    | Testosterone Propionate Standard              |
| Misc. Info     | Sigma Lot 39H0623 MeOH Exps. 6-13-23:Sarge    |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 21:00:36 2022                      |
| Date Processed | Wed Jun 15 08:19:41 2022                      |

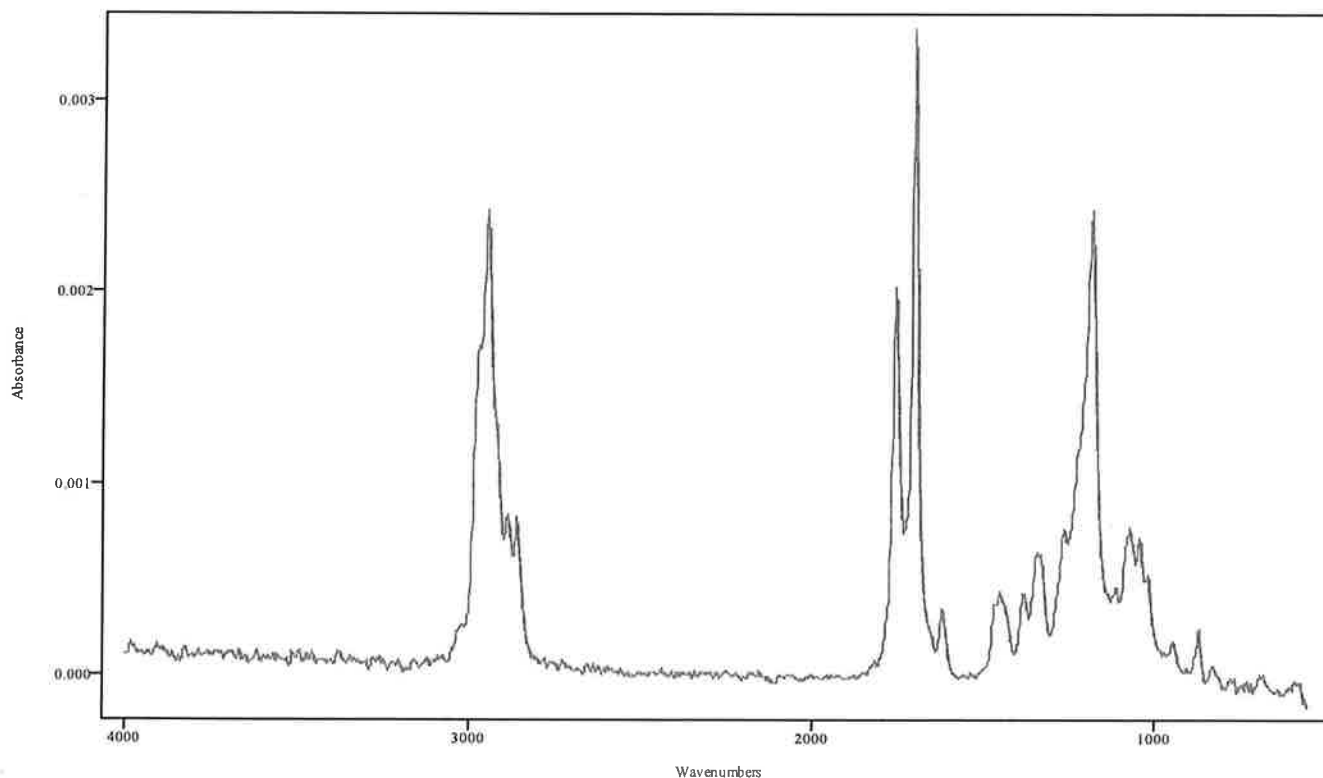
irdata.cgm: 2022\_June\_14\_203823TESTPROPIONATESTD; Misc. Info: Sigma Lot 39H0623 MeOH Exps. 6-13-23:Sarge; Sample: Testosterone Propionate Standard; User: Jackson Crime Laboratory



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 13.226     | 13.381   | 0.156      | 12.423          | 13.092        |

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|                |                                               |
|----------------|-----------------------------------------------|
| Data Filename  | 2022_June_14_203823TESTPROPIONATESTD          |
| Data Path      | C:/ASAP DATA/120920/Rachel/2022/June/06-14-22 |
| IRD Method     | IRD3 EXT                                      |
| GC Method      | ISO270(20MIN)                                 |
| GC Vial        | 8                                             |
| Sample Name    | Testosterone Propionate Standard              |
| Misc. Info     | Sigma Lot 39H0623 MeOH Exps. 6-13-23:Sarge    |
| User ID        | Jackson Crime Laboratory                      |
| Injection Time | Tue Jun 14 21:00:36 2022                      |
| Date Processed | Wed Jun 15 08:19:41 2022                      |



IRDATA.SPC: 13.33 minutes: AVE (13.23: 13.38) Ref. (12.42: 13.09) of  
 2022\_June\_14\_203823TESTPROPIONATESTD.cgm

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