

# TBI-FORENSIC SERVICES DIVISION PERFORMANCE VERIFICATION FORM

Instrument/Method to Verify:

Hedwig-Agilent Technologies 7890B GC System with ASAP IRD3

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

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

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

Name Rebecca Hernandez Title SAFS-II Initials RH

Completed: Signature/Date Rebecca Hernandez  
Digitally signed by Rebecca Hernandez  
DN: cn=Rebecca Hernandez, o=TBI, ou=Forensic Chemistry,  
email=rebecca.hernandez@tn.gov, c=US  
Date: 2021.07.19 14:48:06 -05'00'

Name N/A Title Initials

Completed: Signature/Date

Name N/A Title Initials

Completed: Signature/Date

Verification of final review:

Unit Supervisor/Date Glenn Everett  
Digitally signed by Glenn Everett  
DN: cn=Glenn Everett, o=TBI, ou, email=glenn.everett@tn.gov, c=US  
Date: 2021.07.19 11:15:01 -05'00'

Unit Supervisor/Date

Unit Supervisor/Date

Crime Laboratory Regional Supervisor/Date  
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ou=Nashville Crime Lab, email=jennifer.hall@tn.gov, c=US  
Date: 2021.07.20 08:34:52 -05'00'

Crime Laboratory Regional Supervisor/Date

Crime Laboratory Regional Supervisor/Date

Quality Assurance Manager/Date CDJ  
Digitally signed by Chad D Johnson  
Date: 2021.07.20 08:19:35 -05'00'

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

Technical Leader/Date Glenn Everett  
Digitally signed by Glenn Everett  
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c=US  
Date: 2021.07.19 11:15:30 -05'00'

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.

## Validation of Extended Spectral Range Method on ASAP Analytical IRD3

A new ASAP Analytical IRD3 method was created 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 validation was performed on the new "IRD3 EXT" method by running a series of standards using existing validated Agilent GC methods along with the new "IRD3 EXT" method on Hedwig. 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 "GCIR EXT" and each standard that was run was compared to the ASAP Analytical "Project EUCLiD" spectral database. This database contains spectra with a spectral range from 550-4000  $\text{cm}^{-1}$  provided by laboratories all over the world that use ASAP Analytical IRD3 instrumentation and that has been verified by ASAP Analytical. Several standards were re-made more concentrated and rerun due to needing sufficient spectral resolution and signal to noise for database comparison. It is not recommended that Clonazepam be analyzed using the "IRD3 EXT" method due to insufficient spectra produced for comparison even at 5 mg/mL. Additionally, Mitragynine came out past 30 minutes on the ISO270(30MIN) method and larger compounds such as Nitazene compounds were not studied as part of this validation due to prior knowledge of such compounds coming out past 30 minutes with the ISO270(30MIN) method. Any new standards that are run on the ASAP Analytical IRD3 instruments will be run on the "IRD3" and "IRD3 EXT" methods to build both libraries. All TBI Forensic Chemistry laboratories will be informed about the "IRD3 EXT" method validation that was performed 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 will be maintained and available for review next to the instrumentation. This spreadsheet of standards also contains GC methods used and their approximate retention times.

### 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

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

|                                | Approximate RT                                                         | Method          |
|--------------------------------|------------------------------------------------------------------------|-----------------|
| <b>4-ANPP</b>                  | 8.69                                                                   | 120TO270(20MIN) |
| <b>Acetyl Fentanyl</b>         | 11.63                                                                  | 120TO270(20MIN) |
| <b>Alprazolam</b>              | 16.54                                                                  | 200TO270(20MIN) |
| <b>Amphetamine</b>             | 4.72                                                                   | 60TO270         |
| <b>Cannabidiol</b>             | 6.20                                                                   | 200TO270        |
| <b>Clonazepam</b>              | Use UV, RT, or LCMS.<br>Standard was too weak even at 5 mg/mL          |                 |
| <b>Cocaine</b>                 | 4.77                                                                   | 200TO270        |
| <b>Delta 8 THC</b>             | 8.66                                                                   | 120TO270        |
| <b>Delta 9 THC</b>             | 8.92                                                                   | 120TO270        |
| <b>Etizolam</b>                | 18.47                                                                  | ISO270(20MIN)   |
| <b>Eutylone</b>                | 7.01                                                                   | 60TO270         |
| <b>Fentanyl</b>                | 12.52                                                                  | 120TO270(20MIN) |
| <b>Flualprazolam</b>           | 14.84                                                                  | 200TO270(20MIN) |
| <b>Flubromazepam</b>           | 17.97                                                                  | 200TO270(20MIN) |
| <b>Meta-Fluorofentanyl</b>     | 11.59                                                                  | 120TO270(20MIN) |
| <b>Ortho-Fluorofentanyl</b>    | 12.08                                                                  |                 |
| <b>Para-Fluorofentanyl</b>     | 11.85                                                                  |                 |
| <b>Gabapentin</b>              | 3.91                                                                   | 120TO270        |
| <b>Heroin</b>                  | 11.02                                                                  | 120TO270(20MIN) |
| <b>Hydrocodone</b>             | 6.99                                                                   | 200TO270        |
| <b>Hydromorphone</b>           | 5.68                                                                   | ISO270(20MIN)   |
| <b>Ketamine</b>                | 3.22                                                                   | 200TO270        |
| <b>3,4-MDMA</b>                | 6.03                                                                   | 60TO270         |
| <b>Methadone</b>               | 6.20                                                                   | 120TO270        |
| <b>Methamphetamine</b>         | 4.93                                                                   | 60TO270         |
| <b>Mitragynine</b>             | Came out past 30 minutes on<br>ISO270(30MIN) method, use RT<br>or LCMS |                 |
| <b>Oxycodone</b>               | 9.70                                                                   | 120TO270(20MIN) |
| <b>Oxymorphone</b>             | 6.72                                                                   | ISO270(20MIN)   |
| <b>Pethidine</b>               | 2.82                                                                   | 200TO270        |
| <b>Phentermine</b>             | 4.87                                                                   | 60TO270         |
| <b>Pseudoephedrine</b>         | 5.54                                                                   | 60TO270         |
| <b>Testosterone Acetate</b>    | 10.03                                                                  | ISO270(20MIN)   |
| <b>Testosterone Propionate</b> | 12.41                                                                  | ISO270(20MIN)   |
| <b>Tramadol</b>                | 5.16                                                                   | 120TO270(20MIN) |

## Standards for ASAP Analytical IRD3 Extended Method Validation

### Alprazolam

Cerilliant Lot# FE06102008

MeOH 1 mg/mL Exp. 6-2025

& Upjohn 487RA MeOH 3 mg/mL Exp. 3-28-22

### Cannabidiol

Cerilliant Lot# FE08071702

MeOH 1 mg/mL Exp. 10-2022

### Clonazepam

Cerilliant Lot# FN04232007

Acetonitrile 1 mg/mL Exp. 12-2023

& Batch# 0473513-70 MeOH 5 mg/mL Exp. 4/19/22

### Delta 8 THC

Cerilliant Lot# FE12271903

### Delta 9 THC

Cerilliant Lot# FE02072001

MeOH 1 mg/mL Exp. 1-2025

### Etizolam

Cayman Chemical Co Batch# 0468033-17

MeOH 1 mg/mL Exp. 2-14-22 and 2 mg/500 uL Exp. 4/11/22

### Eutylone

Cayman Chemical Co Batch# 0476237-27

MeOH 1 mg/mL Exp. 9-14-21

**Fentanyl**

USPC Lot# 1275-F

MeOH 1 mg/mL Exp. 4/30/21

**Para, Ortho and Meta FluoroFentanyl**

Cayman Chemical Co Batch# 0577710-6

MeOH 200uL → 1 mg/mL Exp. July 22, 2021

**Flualprazolam**

Cayman Chemical Co Batch# 0583589-8

MeOH 1 mg/mL Exp. 1-16-22

& Batch# 0583589-13 MeOH 5 mg/mL Exp. 4/19/22

**Flubromazolam**

Cerilliant Lot# FN03172013

MeOH 1 mg/mL Exp. 12-2023

& Batch #0539730-19 MeOH 5 mg/mL Exp. 4/19/22

**Gabapentin**

Cerilliant Lot# FN07251801

MeOH 1 mg/mL Exp. 9-2023

**GC-MS Mix**

Pethidine S.B. Penick Lot# 413NMN-027 6.35 mg

Cocaine Base Merck Lot# U7472 2.20 mg

Hydrocodone Merck Lot V1526 8.00 mg

MeOH 10 mL Exp. 10/18/21

**GC-IR Test Solution**

Amphetamine K+K Lot# 83567

Methamphetamine K+K Labs Lot# 732A

Phentermine Sigma Lot# 47H0208

0.5N NaOH→CHCl<sub>3</sub> 2 mg/mL Exp. 12-14-21

**Hydrocodone**

Cerilliant Lot# FE04241902

MeOH 1 mg/mL Exp. Sept. 2024

**Hydromorphone**

Sigma Lot# 69H0625

MeOH 1 mg/mL Exp. 5-16-21

**Ketamine**

Cerilliant Lot# FE0211902

MeOH 1 mg/mL Exp. 3-2024

& Sigma Lot# 58H3534

MeOH 3 mg/mL Exp. 3/28/22

**3,4-MDMA**

Cayman Chemical Co Batch# 0460656-7

MeOH 1 mg/mL Exp. 11-3-21

&

0.5N NaOH→CHCl<sub>3</sub> 1 mg/mL Exp. 5-3-22

**Methadone HCl**

USP Lot# G

MeOH 1 mg/mL Exp. 6-24-21

**Mitragynine**

Cayman Chemical Co. Batch# 0498978-15

MeOH 1 mg/mL Exp. 3-13-22

**MTHF4A Mix**

D,L- Methamphetamine Lipomed Lot# 301.1B4.1

Tramadol Sigma Aldrich Lot# BCBB9210

Heroin Cayman Chemical Co Batch# 0559235-2

Fentanyl Citrate USP Lot# 1275F

4-ANPP Cayman Chemical Co Batch# 0532667-4

Acetyl Fentanyl Cayman Chemical Co Batch #0497037-3

MeOH Exp. 12-10-21 \*See book for concentrations

**Oxycodone**

Sigma Lot# 128H1012

MeOH 1 mg/mL Exp. 9-13-21

**Oxymorphone**

Cerilliant Lot# FE03201901

MeOH 1 mg/mL Exp. 5-2024

**Pseudoephedrine**

Cerilliant Lot# FN04021901

MeOH 1 mg/mL Exp. 4-2024

**Testosterone Acetate**

Sigma Lot# 19F0299

MeOH 1 mg/mL Exp. 2-3-22

**Testosterone Propionate**

Sigma Lot# 117F0618

MeOH 1 mg/mL Exp. 1-27-22

**MeOH Used:**

Lot# 202169 Bottle #5&7 u/c

**0.5N NaOH Used:**

Lot# 200857 Exp. March 2022

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

Lot# 59193 Bottle #4 u/c

## 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

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.

**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

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.

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.

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

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.

### 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

- 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.

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 cm<sup>-1</sup> 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 cm<sup>-1</sup> for each standard of the GC/IR Test Solution must be within +/- 8 cm<sup>-1</sup> of the wavenumbers of the three or four selected higher resolved peaks across 550-4000 cm<sup>-1</sup> 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:

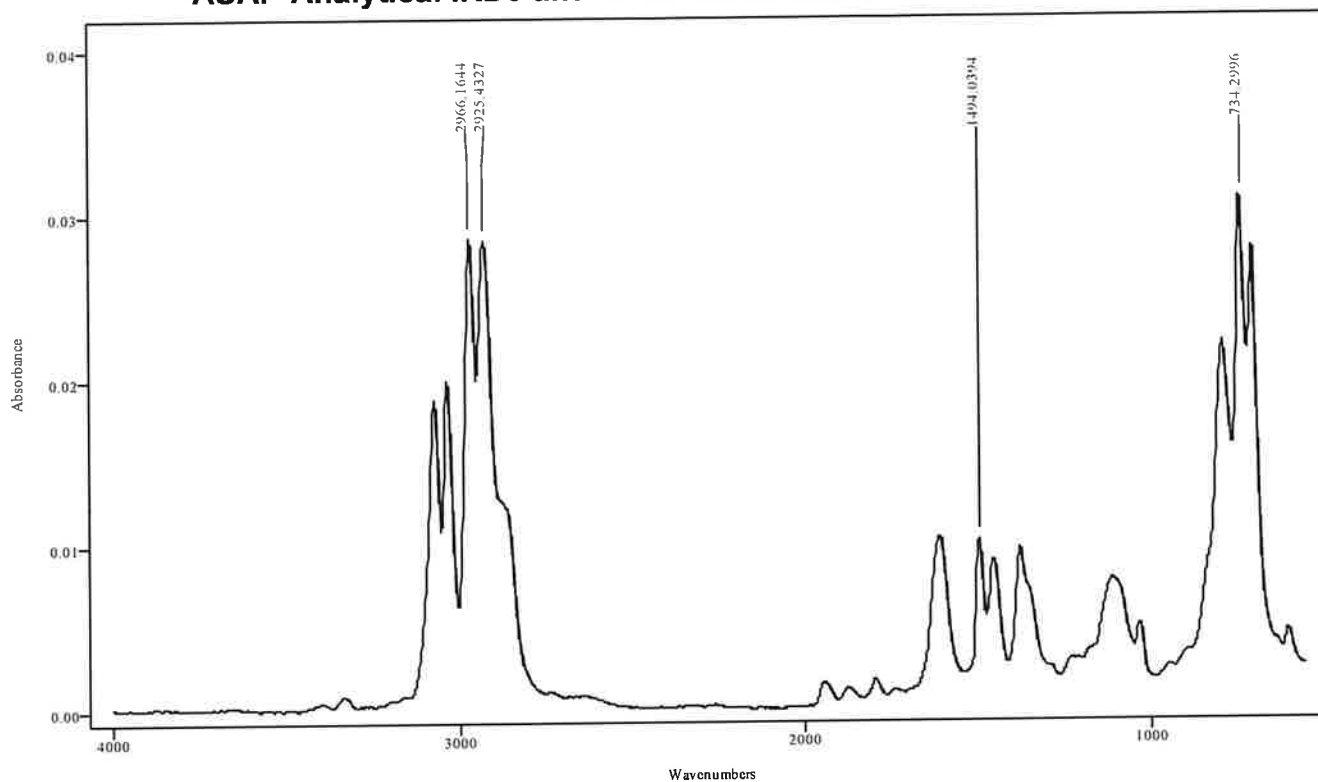
59. Follow steps **41-45**.
60. Select the "Analysis" tab in the bottom left side menu.
61. You will have to view and evaluate one spectrum of each standard at a time by clicking on the checked boxes in the "Available Spectra List" in the upper left side of the window under "Filename" to unselect the 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 cm<sup>-1</sup> 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→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 cm<sup>-1</sup> 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.

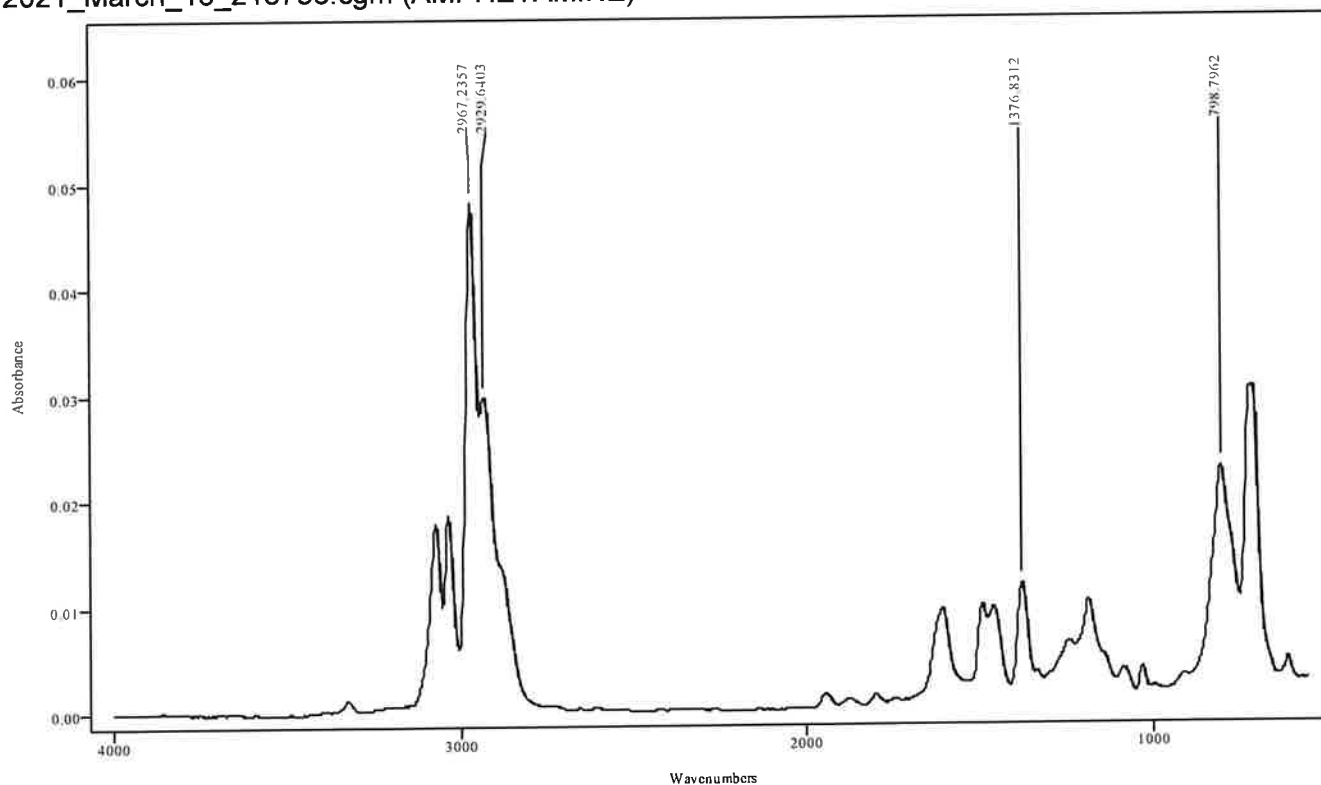
Instrument Name: \_\_\_\_\_

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

### ASAP Analytical IRD3 and IRD3 EXT Wavenumber Evaluation

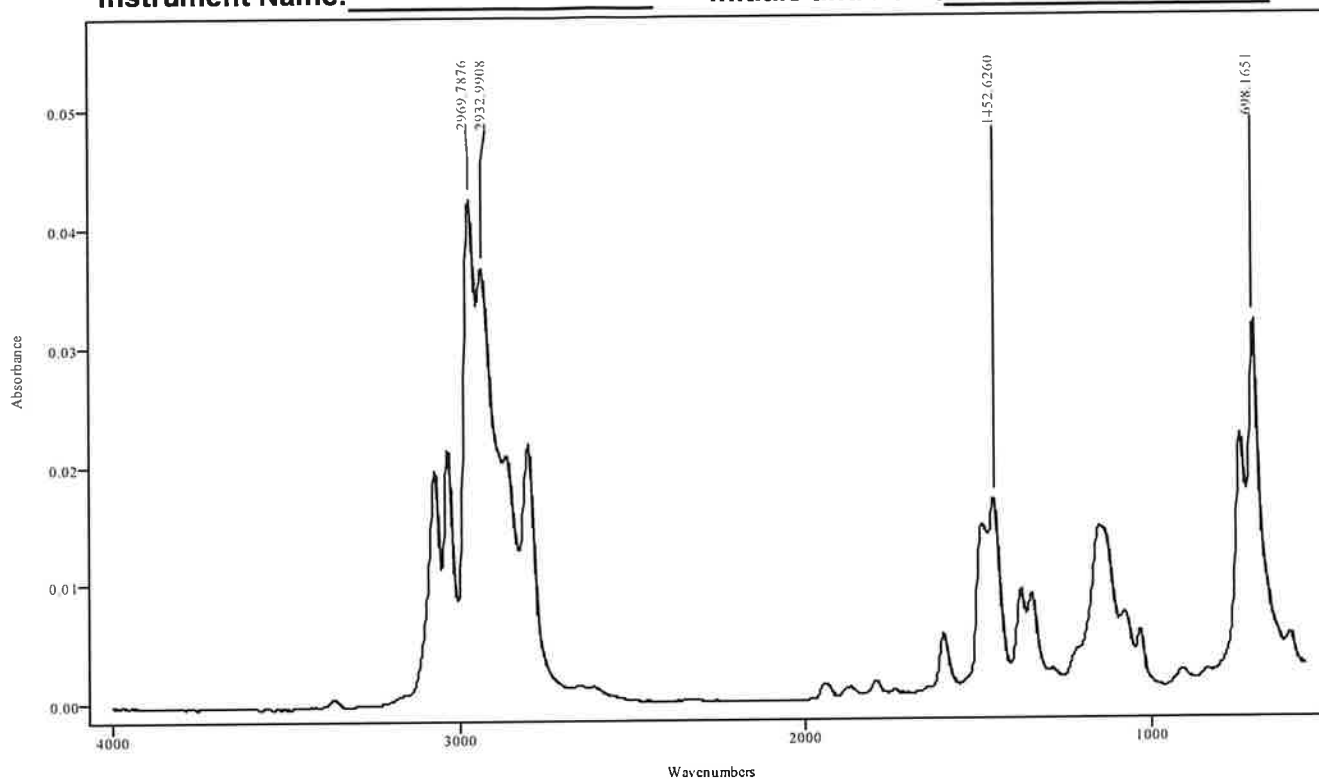


IRDATA.SPC: 4.72 minutes: AVE (4.71: 4.73) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm (AMPHETAMINE)



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)

Instrument Name: \_\_\_\_\_ Initials and Date: \_\_\_\_\_



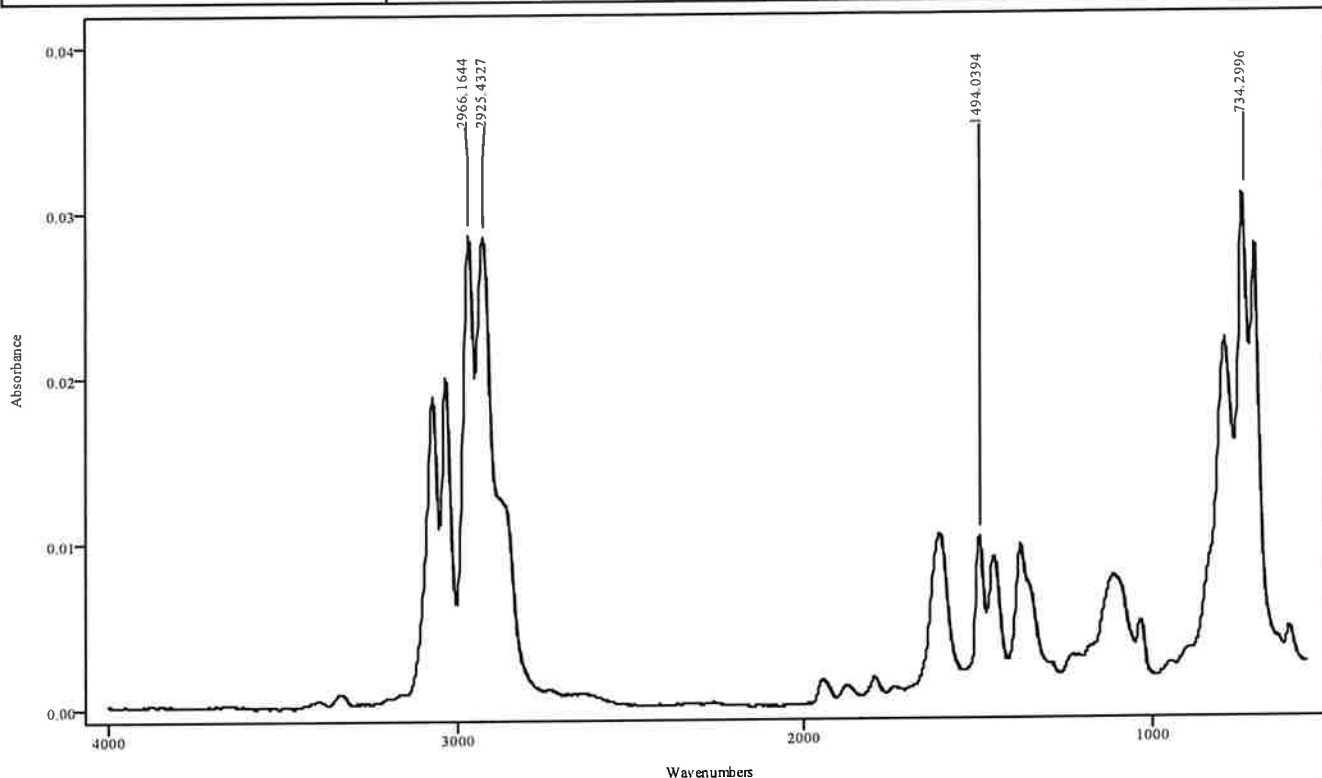
IRDATA.SPC: 4.93 minutes: AVE (4.92: 4.95) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm (METHAMPHETAMINE)

| 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"/> |

JA

## Manual Peak Pick Results

|                 |                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------|
| Sample Filename | IRDATA.SPC                                                                                      |
| File Title      | 4.72 minutes: AVE (4.71: 4.73) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021_March_16_215736.cgm |
| Date            | Wed Jul 07 20:30:39 2021                                                                        |



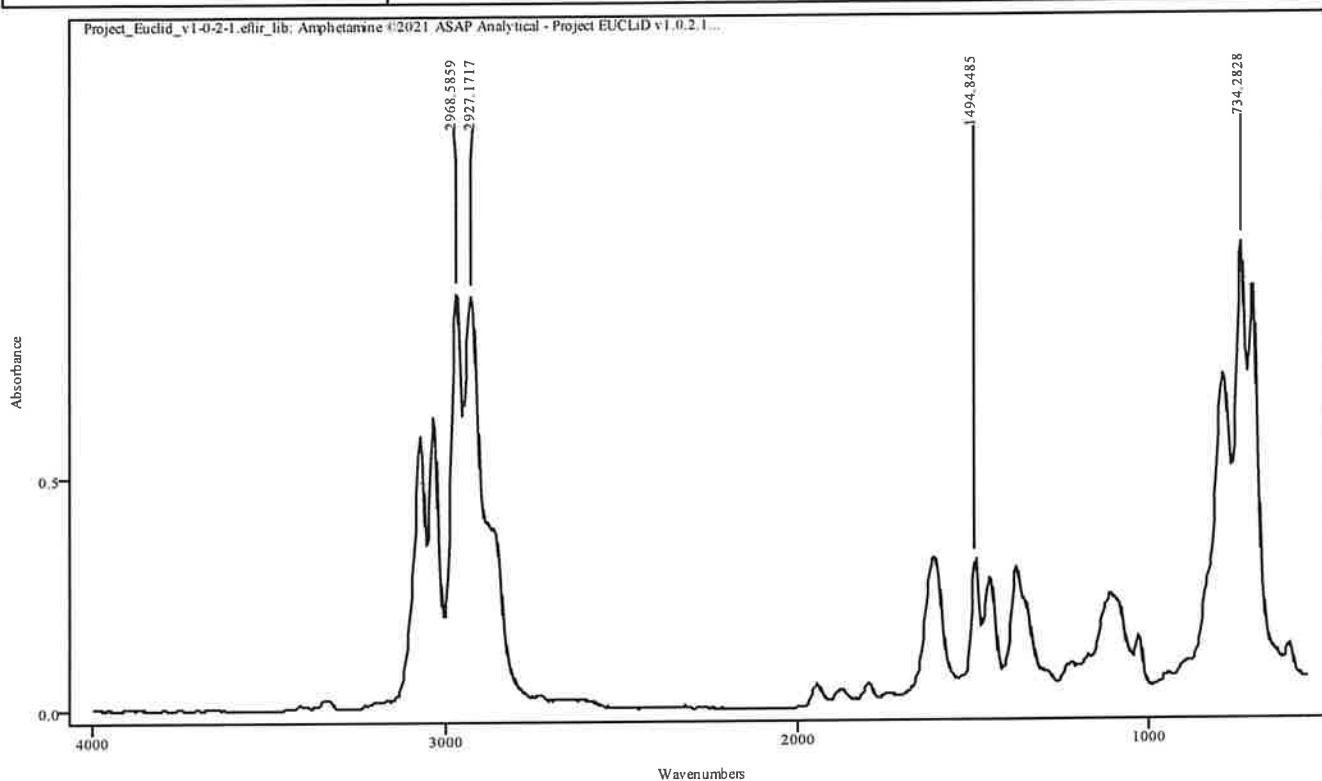
IRDATA.SPC: 4.72 minutes: AVE (4.71: 4.73) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021\_March\_16\_215736.cgm AMPHETAMINE EXT HEDWIG RH

| Filename       | Peak At   | Peak Height |
|----------------|-----------|-------------|
| IRDATA.SPC [0] | 734.2996  | 0.0308      |
| IRDATA.SPC [0] | 1494.0394 | 0.0103      |
| IRDATA.SPC [0] | 2925.4327 | 0.0285      |
| IRDATA.SPC [0] | 2966.1644 | 0.0286      |

MA

## Manual Peak Pick Results

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Sample Filename | Entry 472 from Library Project_Euclid_v1-0-2-1.eftir_lib |
| File Title      | Amphetamine                                              |
| Date            | Wed Jul 07 20:44:05 2021                                 |



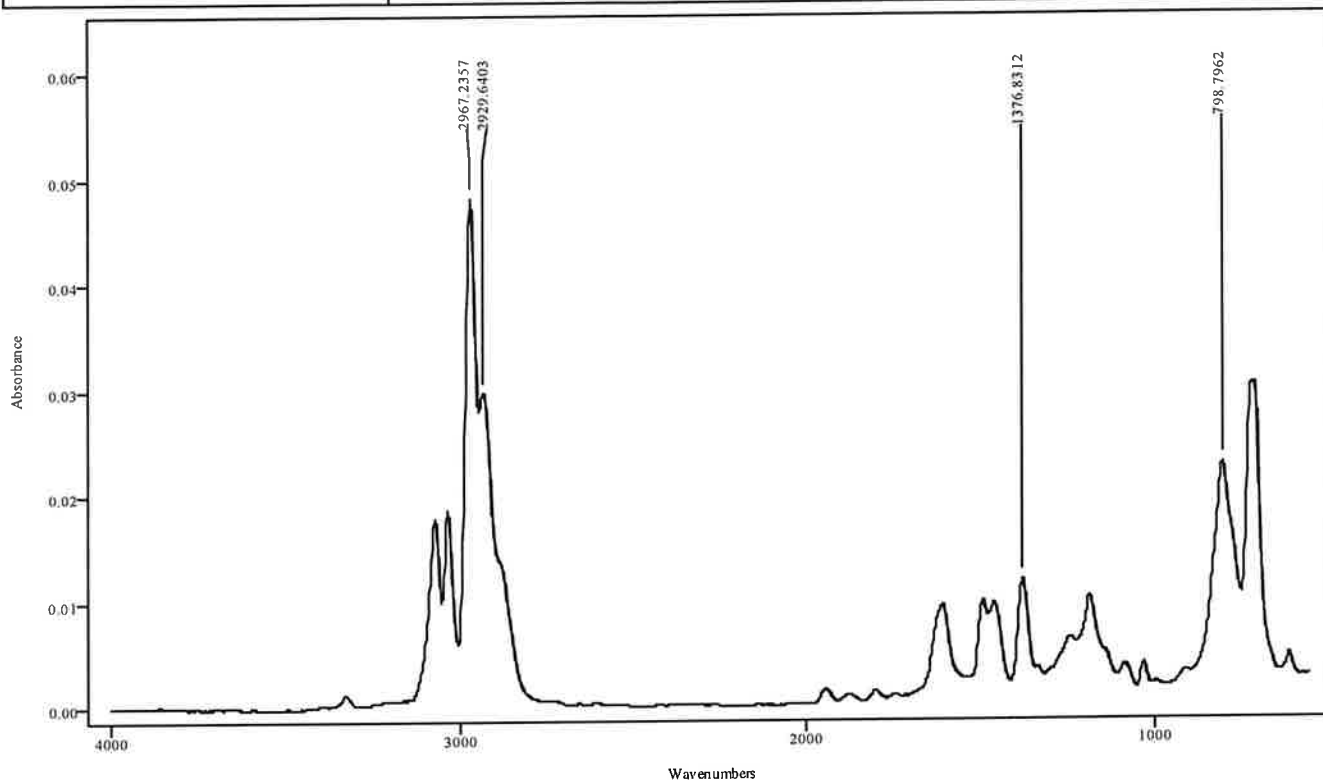
Entry 472 from Library Project\_Euclid\_v1-0-2-1.eftir\_lib: Amphetamine

| Filename                                | Peak At   | Peak Height |
|-----------------------------------------|-----------|-------------|
| Project_Euclid_v1-0-2-1.eftir_lib [472] | 734.2828  | 1.0006      |
| Project_Euclid_v1-0-2-1.eftir_lib [472] | 1494.8485 | 0.3179      |
| Project_Euclid_v1-0-2-1.eftir_lib [472] | 2927.1717 | 0.8934      |
| Project_Euclid_v1-0-2-1.eftir_lib [472] | 2968.5859 | 0.9002      |

## Manual Peak Pick Results

yht

|                 |                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------|
| Sample Filename | IRDATA.SPC                                                                                      |
| File Title      | 4.87 minutes: AVE (4.84: 4.88) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021_March_16_215736.cgm |
| Date            | Wed Jul 07 20:29:28 2021                                                                        |



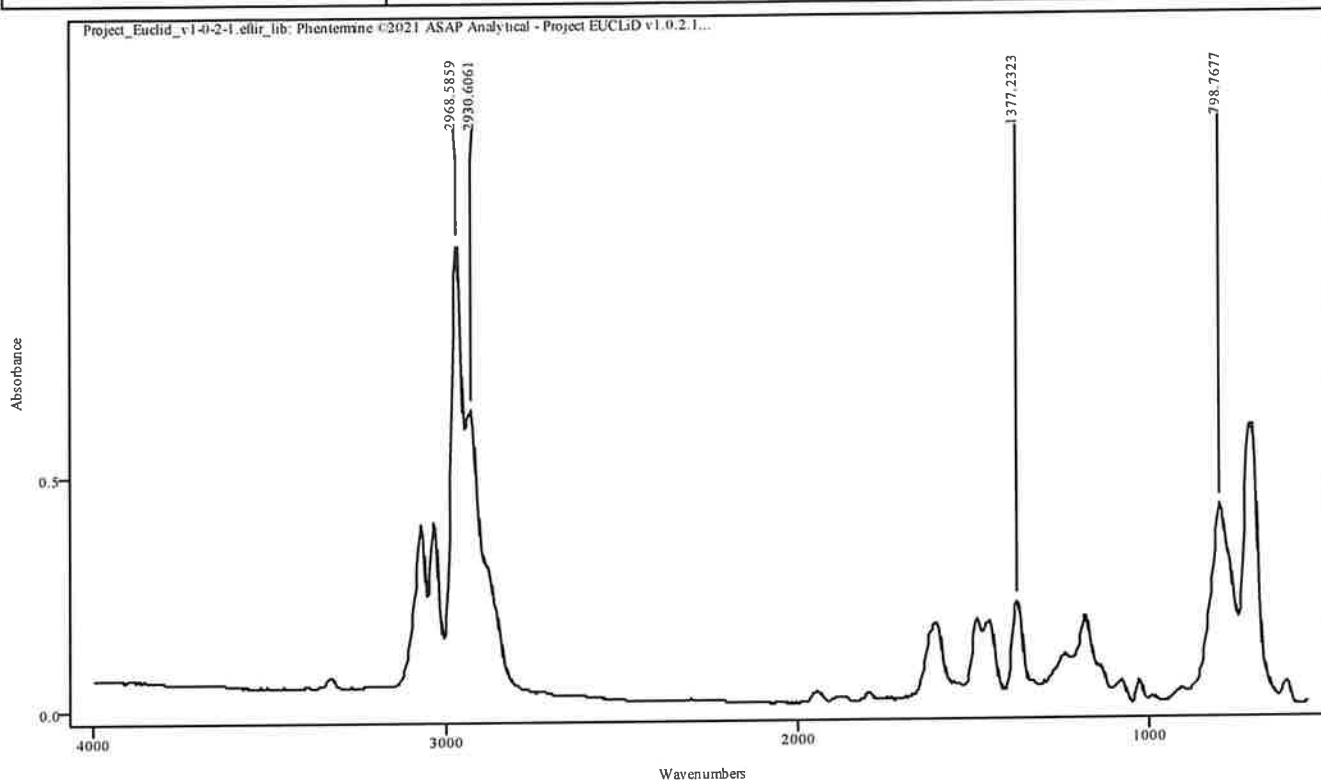
IRDATA.SPC: 4.87 minutes: AVE (4.84: 4.88) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021\_March\_16\_215736.cgm PHENTERMINE EXT HEDWIG RH

| Filename       | Peak At   | Peak Height |
|----------------|-----------|-------------|
| IRDATA.SPC [0] | 798.7962  | 0.0228      |
| IRDATA.SPC [0] | 1376.8312 | 0.0119      |
| IRDATA.SPC [0] | 2929.6403 | 0.0298      |
| IRDATA.SPC [0] | 2967.2357 | 0.0481      |

5/11

## Manual Peak Pick Results

|                 |                                                           |
|-----------------|-----------------------------------------------------------|
| Sample Filename | Entry 1193 from Library Project_Euclid_v1-0-2-1.eftir_lib |
| File Title      | Phentermine                                               |
| Date            | Wed Jul 07 20:47:32 2021                                  |



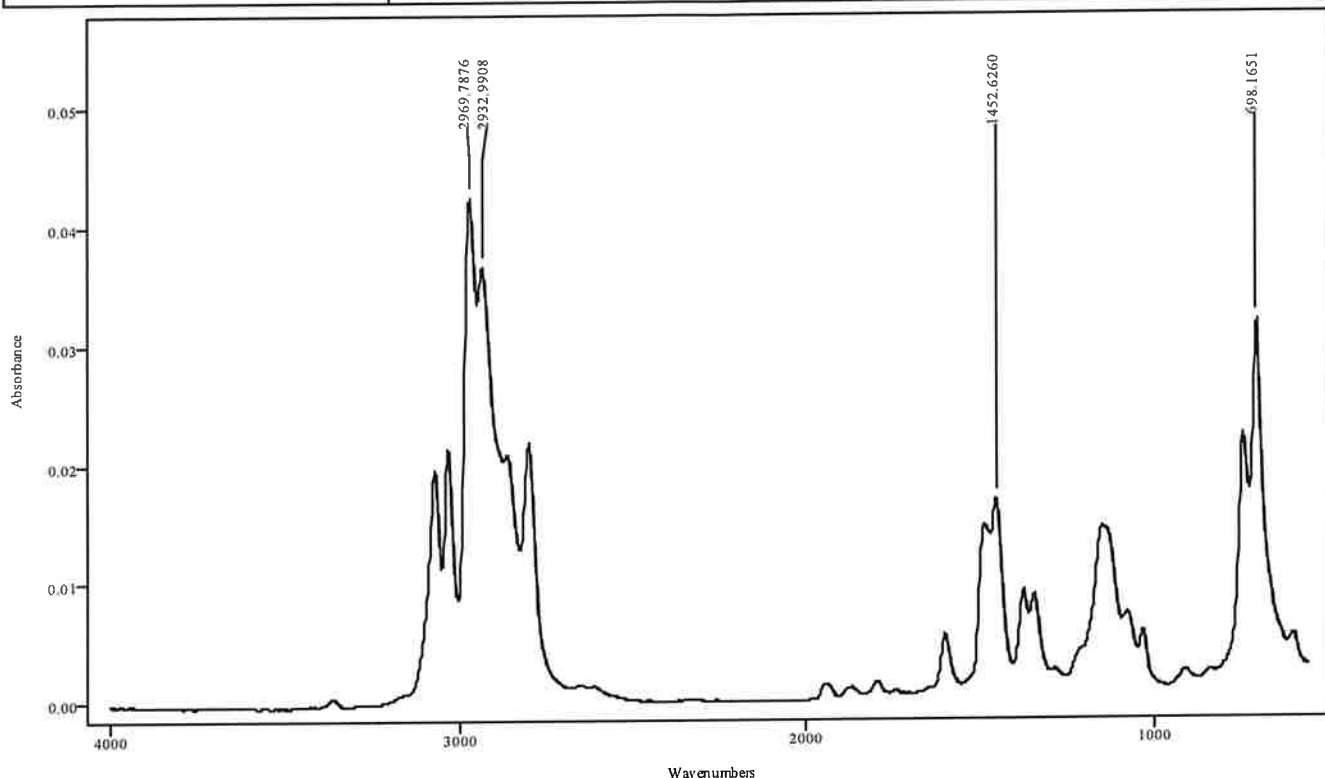
Entry 1193 from Library Project\_Euclid\_v1-0-2-1.eftir\_lib: Phentermine

| Filename                                 | Peak At   | Peak Height |
|------------------------------------------|-----------|-------------|
| Project_Euclid_v1-0-2-1.eftir_lib [1193] | 798.7677  | 0.4306      |
| Project_Euclid_v1-0-2-1.eftir_lib [1193] | 1377.2323 | 0.2239      |
| Project_Euclid_v1-0-2-1.eftir_lib [1193] | 2930.6061 | 0.6431      |
| Project_Euclid_v1-0-2-1.eftir_lib [1193] | 2968.5859 | 1.0008      |

UH

# Manual Peak Pick Results

|                 |                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------|
| Sample Filename | IRDATA.SPC                                                                                      |
| File Title      | 4.93 minutes: AVE (4.92: 4.95) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021_March_16_215736.cgm |
| Date            | Wed Jul 07 20:27:27 2021                                                                        |



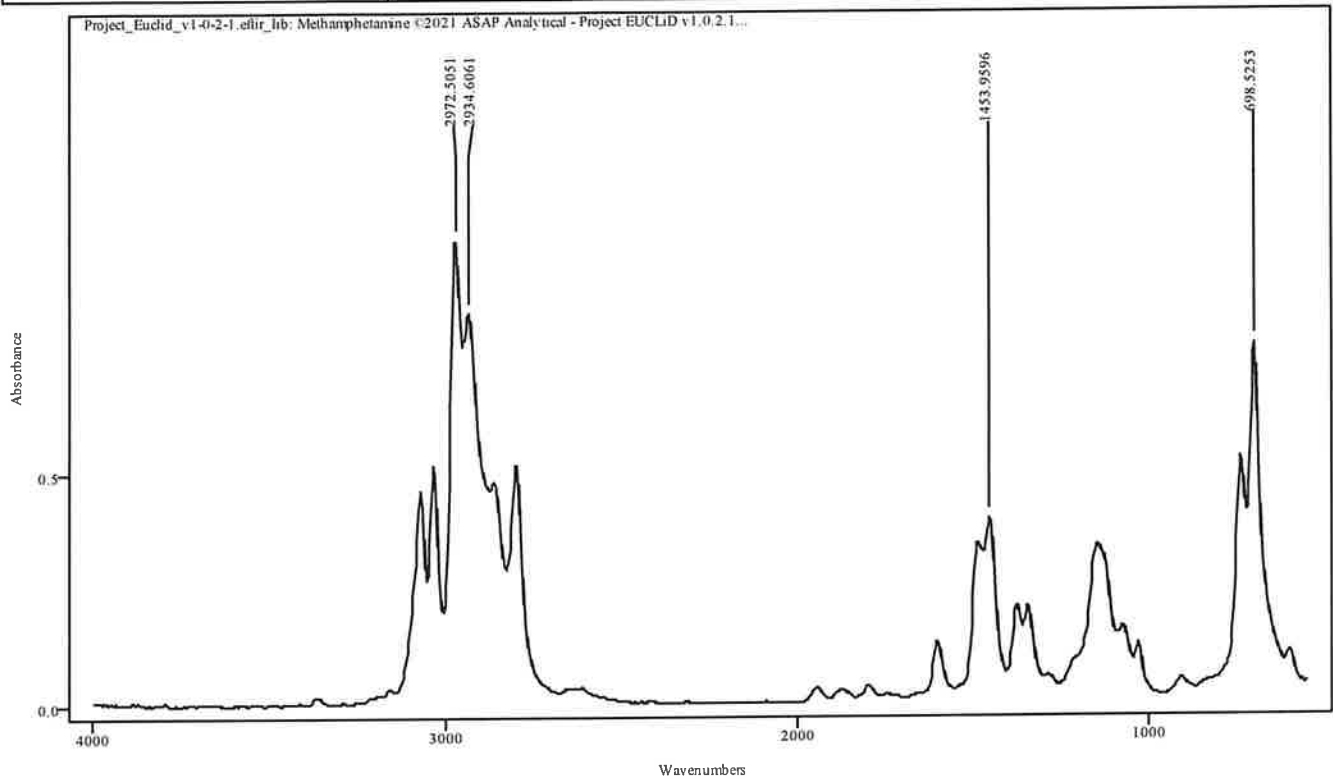
IRDATA.SPC: 4.93 minutes: AVE (4.92: 4.95) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT 2021\_March\_16\_215736.cgm METHAMPHETAMINE EXT HEDWIG RH

| Filename       | Peak At   | Peak Height |
|----------------|-----------|-------------|
| IRDATA.SPC [0] | 698.1651  | 0.0318      |
| IRDATA.SPC [0] | 1452.6260 | 0.0170      |
| IRDATA.SPC [0] | 2932.9908 | 0.0365      |
| IRDATA.SPC [0] | 2969.7876 | 0.0423      |

MA

## Manual Peak Pick Results

|                 |                                                          |
|-----------------|----------------------------------------------------------|
| Sample Filename | Entry 952 from Library Project_Euclid_v1-0-2-1.eftir_lib |
| File Title      | Methamphetamine                                          |
| Date            | Wed Jul 07 20:48:39 2021                                 |



Entry 952 from Library Project\_Euclid\_v1-0-2-1.eftir\_lib: Methamphetamine

| Filename                                | Peak At   | Peak Height |
|-----------------------------------------|-----------|-------------|
| Project_Euclid_v1-0-2-1.eftir_lib [952] | 698.5253  | 0.7727      |
| Project_Euclid_v1-0-2-1.eftir_lib [952] | 1453.9596 | 0.3995      |
| Project_Euclid_v1-0-2-1.eftir_lib [952] | 2934.6061 | 0.8431      |
| Project_Euclid_v1-0-2-1.eftir_lib [952] | 2972.5051 | 1.0021      |

Sequence Name: IRD3 EXT METHOD STANDARDS (3-16-21)

CH

Sample Path: C:\ASAP DATA\HEDWIG 2021\IRD3 EXTENDED METHOD STANDARDS

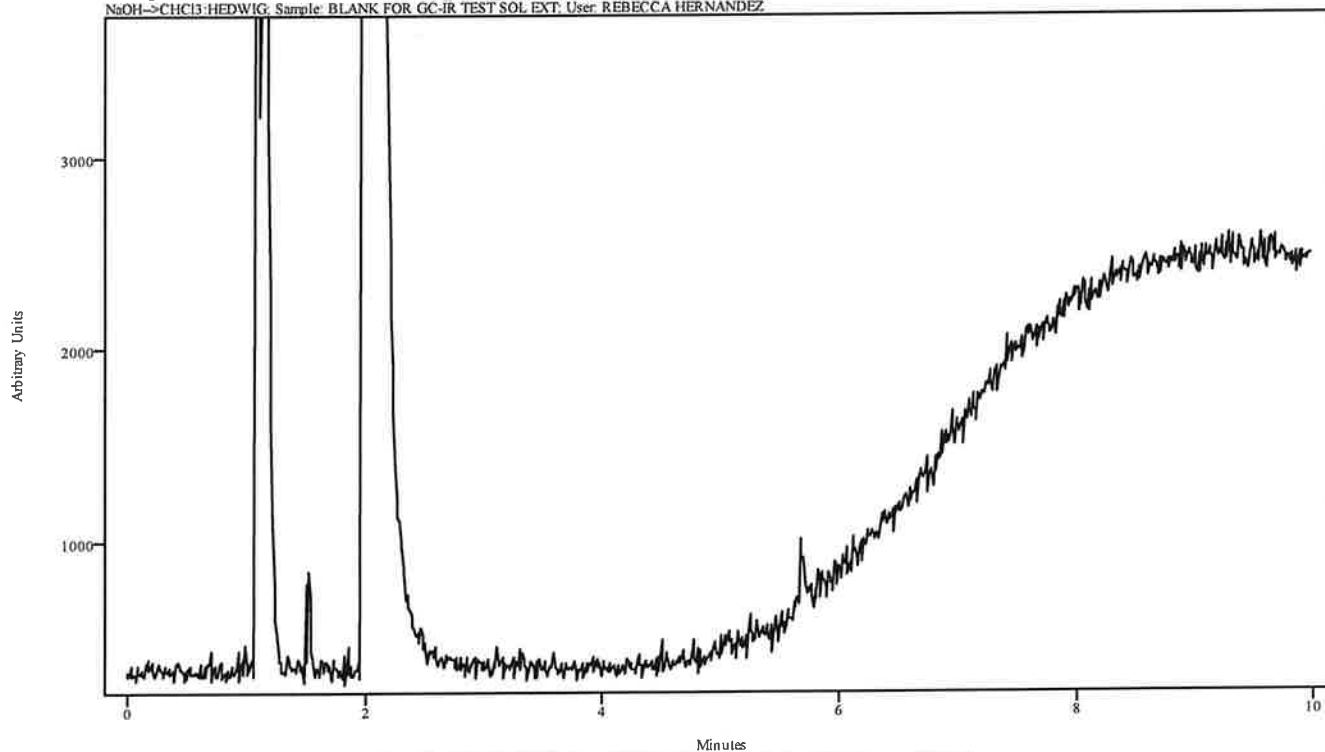
| Type | IRD Method | GC Method   | Vial | Sample ID  | Data File  | Solvent/Extract | Instrument ID |
|------|------------|-------------|------|------------|------------|-----------------|---------------|
| 1    | IRD3 EXT   | 60TO270     | 130  | BLANK FOR  | BLANK FOR  | 0.5N NaOH-->CH  | HEDWIG        |
| 2    | IRD3 EXT   | 60TO270     | 131  | GC-IR TEST | GC-IR TEST | 0.5N NaOH-->CH  | HEDWIG        |
| 3    | IRD3 EXT   | 60TO270     | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 4    | IRD3 EXT   | 60TO270     | 115  | PSEUDOEPHE | PSEUDOEPHE | MEOH            | HEDWIG        |
| 5    | IRD3 EXT   | ISO270 (20M | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 6    | IRD3 EXT   | ISO270 (20M | 117  | TESTOSTERO | TESTOSTERO | MEOH            | HEDWIG        |
| 7    | IRD3 EXT   | 120TO270    | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 8    | IRD3 EXT   | 120TO270    | 118  | DELTA 8 AN | DELTA 8 AN | MEOH            | HEDWIG        |
| 9    | IRD3 EXT   | 120TO270    | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 10   | IRD3 EXT   | 120TO270    | 119  | GABAPENTIN | GABAPENTIN | MEOH            | HEDWIG        |
| 11   | IRD3 EXT   | 200TO270 (2 | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 12   | IRD3 EXT   | 200TO270 (2 | 120  | OXYMORPHON | OXYMORPHON | MEOH            | HEDWIG        |
| 13   | IRD3 EXT   | ISO270 (30M | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 14   | IRD3 EXT   | ISO270 (30M | 121  | MITRAGYNIN | MITRAGYNIN | MEOH            | HEDWIG        |
| 15   | IRD3 EXT   | 200TO270 (2 | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 16   | IRD3 EXT   | 200TO270 (2 | 122  | HYDROMORPH | HYDROMORPH | MEOH            | HEDWIG        |
| 17   | IRD3 EXT   | 120TO270 (2 | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 18   | IRD3 EXT   | 120TO270 (2 | 123  | MTHF4A MIX | MTHF4A MIX | MEOH            | HEDWIG        |
| 19   | IRD3 EXT   | 120TO270 (2 | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 20   | IRD3 EXT   | 120TO270 (2 | 124  | OXYCODONE  | OXYCODONE  | MEOH            | HEDWIG        |
| 21   | IRD3 EXT   | 200TO270    | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 22   | IRD3 EXT   | 200TO270    | 125  | CANNABIDIO | CANNABIDIO | MEOH            | HEDWIG        |
| 23   | IRD3 EXT   | ISO270 (20M | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 24   | IRD3 EXT   | ISO270 (20M | 129  | ETIZOLAM E | ETIZOLAM E | MEOH            | HEDWIG        |
| 25   | IRD3 EXT   | 60TO270     | 114  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 26   | IRD3 EXT   | 60TO270     | 116  | EUTYLONE E | EUTYLONE E | MEOH            | HEDWIG        |

CH 3-19-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR GC-IR TEST SOL EXT 2021_March_16_214459       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 130                                                     |
| Sample Name    | BLANK FOR GC-IR TEST SOL EXT                            |
| Misc. Info     | 0.5N NaOH-->CHCl3:HEDWIG                                |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 21:57:36 2021                                |
| Date Processed | Fri Mar 19 20:54:27 2021                                |

irdata.cgm: BLANK FOR GC-IR TEST SOL EXT 2021\_March\_16\_214459\irdata.cgm : Misc. Info: 0.5N NaOH-->CHCl3:HEDWIG; Sample: BLANK FOR GC-IR TEST SOL EXT; User: REBECCA HERNANDEZ



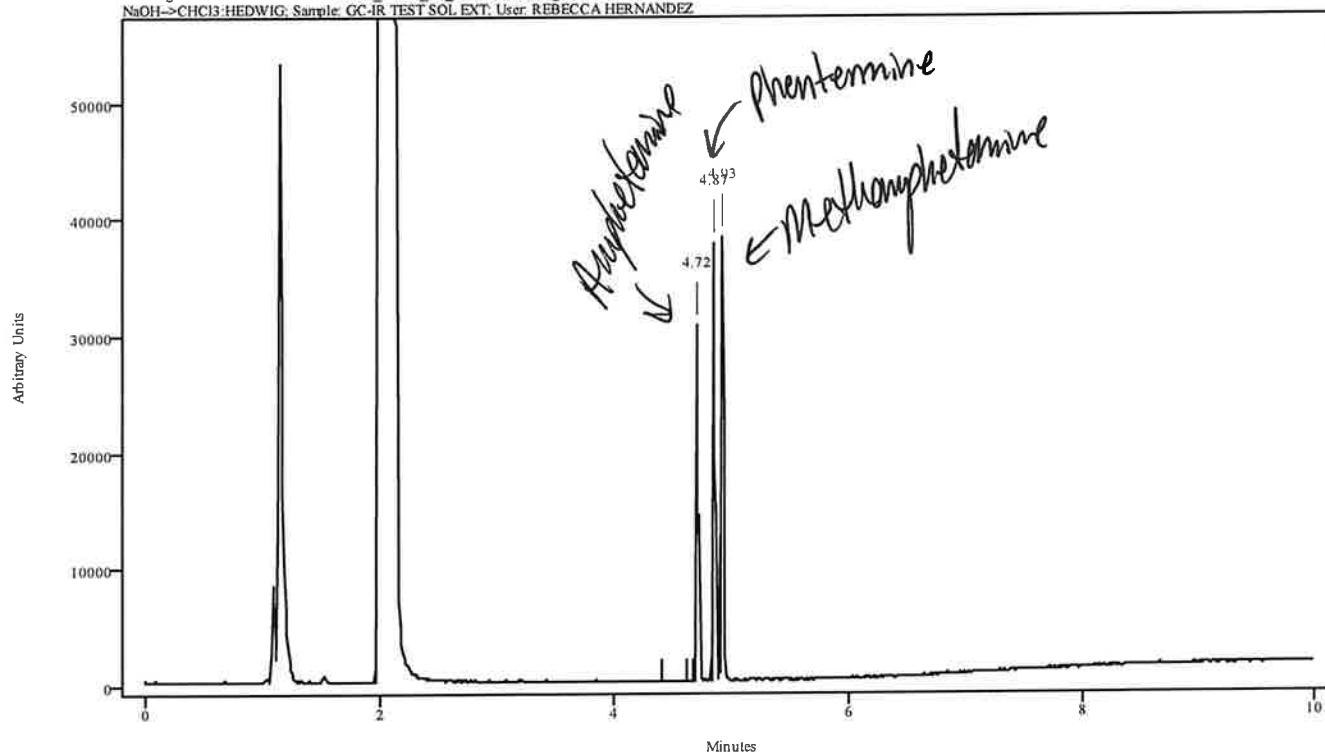
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

MA 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GC-IR TEST SOL EXT 2021_March_16_215736                 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 131                                                     |
| Sample Name    | GC-IR TEST SOL EXT                                      |
| Misc. Info     | 0.5N NaOH-->CHCl3:HEDWIG                                |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:12:37 2021                                |
| Date Processed | Fri Mar 19 20:55:11 2021                                |

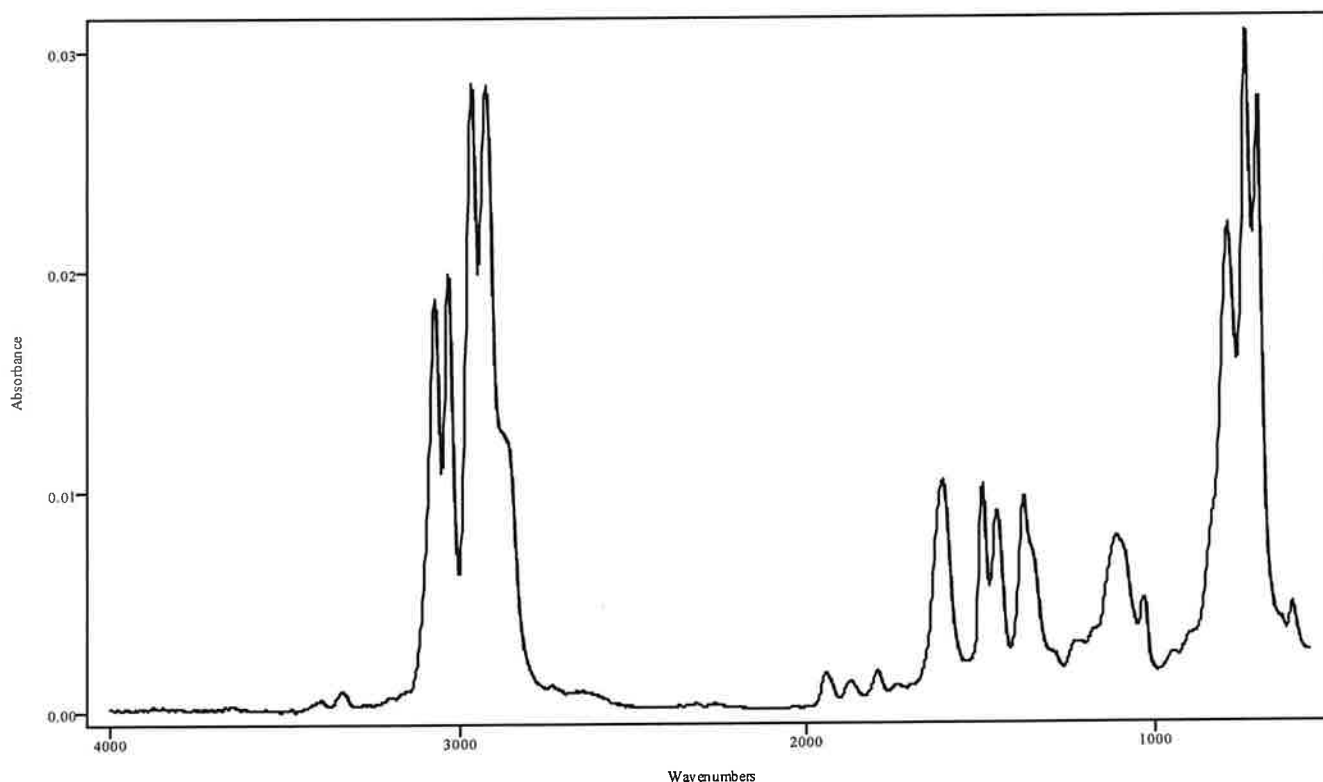
irdata.cgm: GC-IR TEST SOL EXT 2021\_March\_16\_215736\irdata.cgm: Misc. Info: 0.5N NaOH-->CHCl3:HEDWIG; Sample: GC-IR TEST SOL EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 4.709      | 4.733    | 0.022      | 4.412           | 4.618         |
| 4.843      | 4.876    | 0.033      | 4.412           | 4.677         |
| 4.912      | 4.954    | 0.044      | 4.412           | 4.677         |

3-19-21

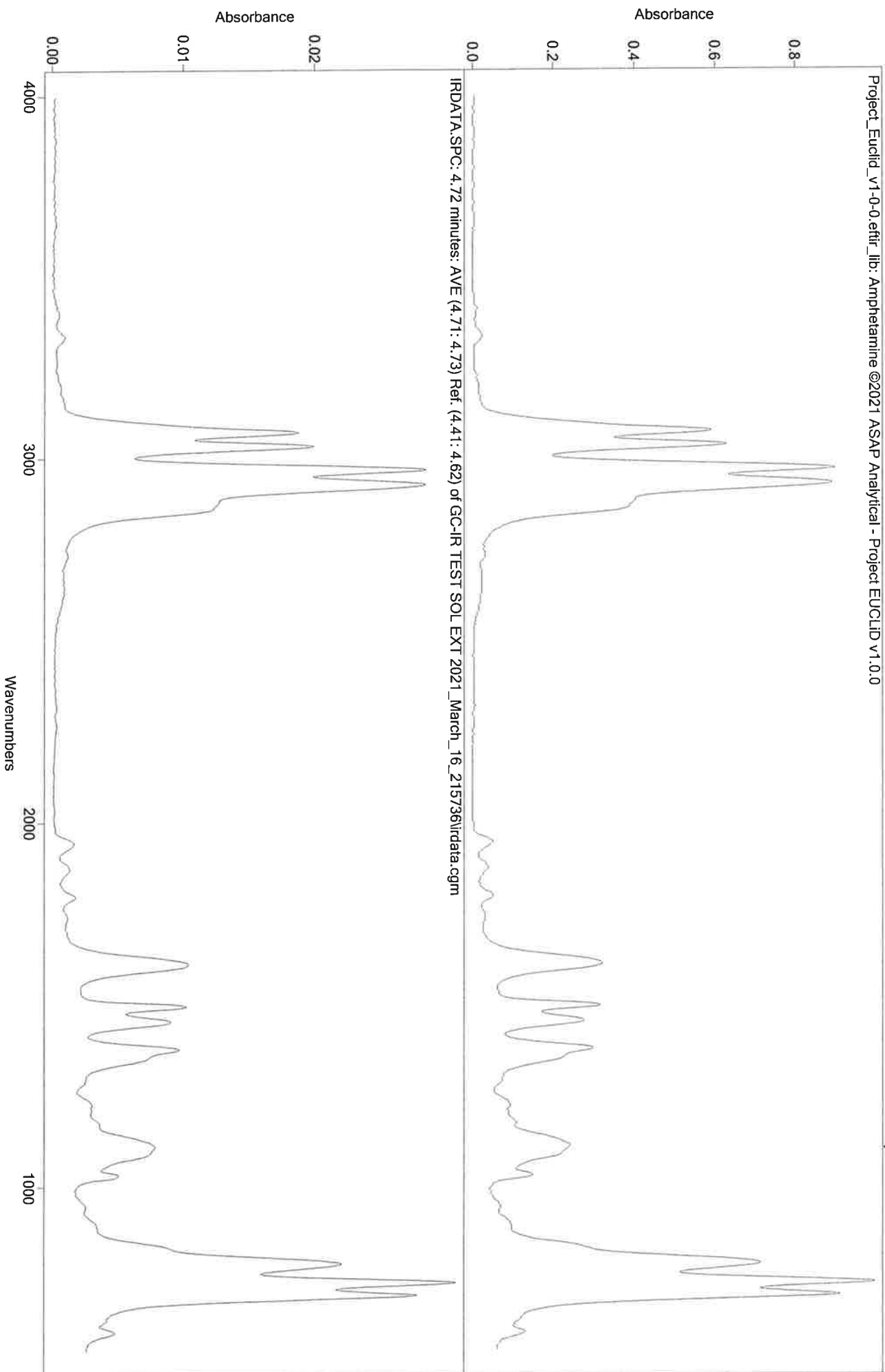
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GC-IR TEST SOL EXT 2021_March_16_215736                 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 131                                                     |
| Sample Name    | GC-IR TEST SOL EXT                                      |
| Misc. Info     | 0.5N NaOH-->CHCl3:HEDWIG                                |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:12:37 2021                                |
| Date Processed | Fri Mar 19 20:55:11 2021                                |



IRDATA.SPC: 4.72 minutes: AVE (4.71: 4.73) Ref. (4.41: 4.62) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm

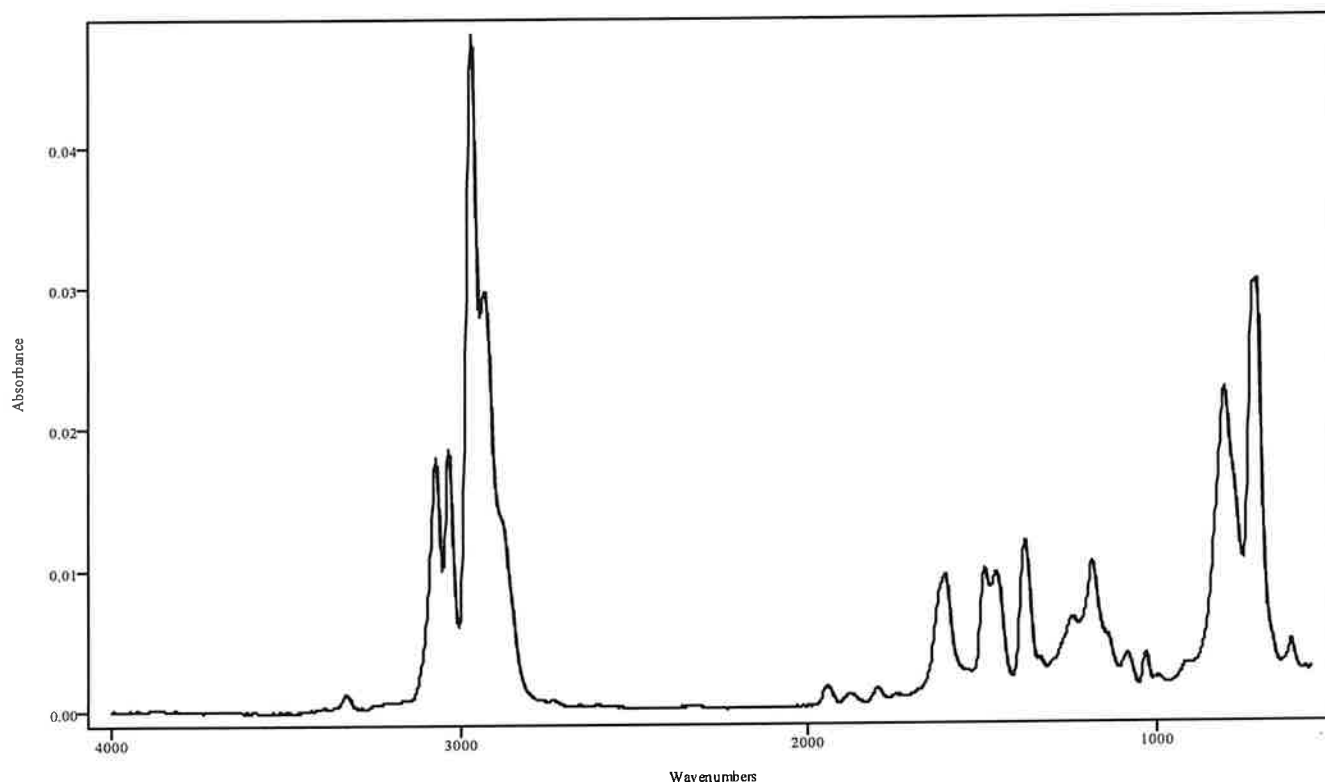
Amphetamine

445321



UH 3-19-21

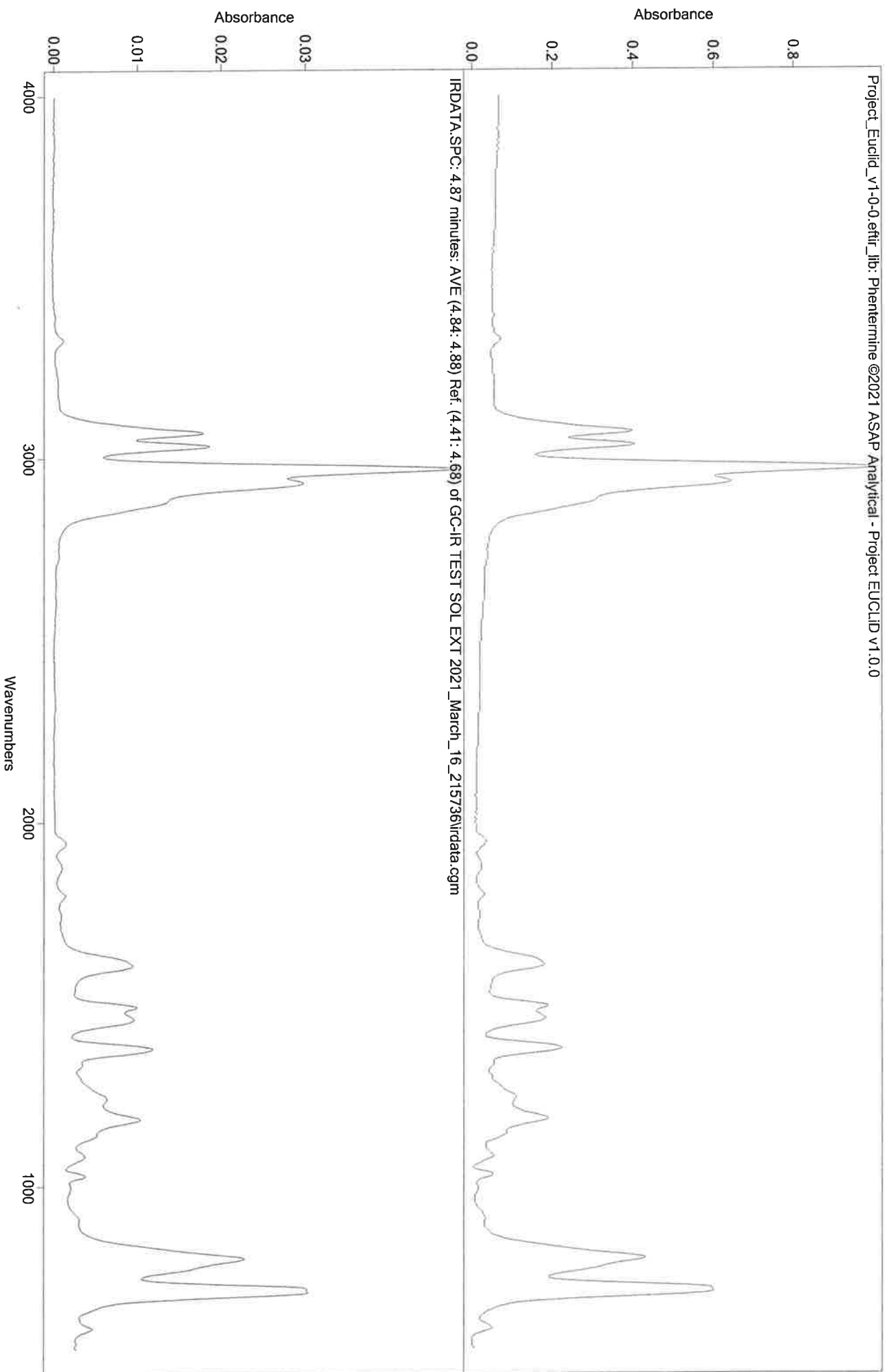
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GC-IR TEST SOL EXT 2021_March_16_215736                 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 131                                                     |
| Sample Name    | GC-IR TEST SOL EXT                                      |
| Misc. Info     | 0.5N NaOH-->CHCl3:HEDWIG                                |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:12:37 2021                                |
| Date Processed | Fri Mar 19 20:55:11 2021                                |



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

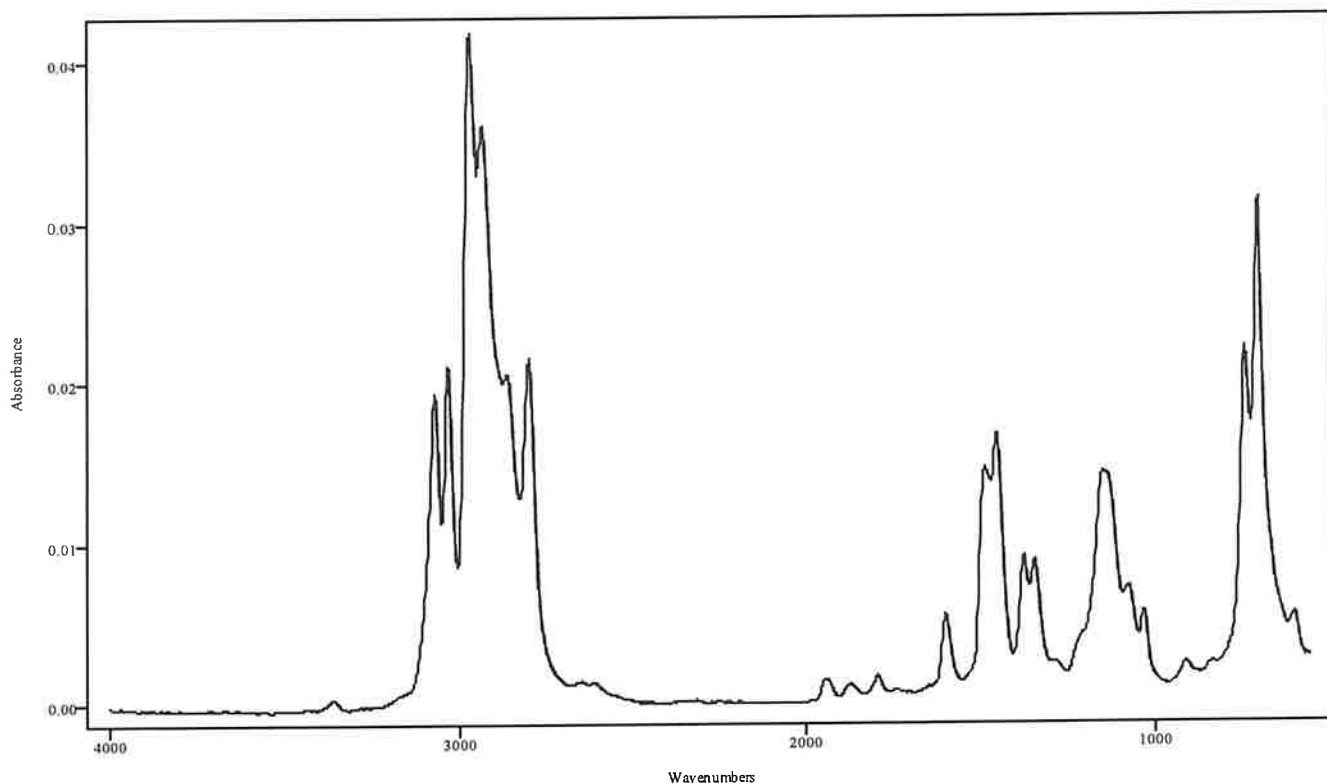
Phentermine

445-3-21



11/3-19-21

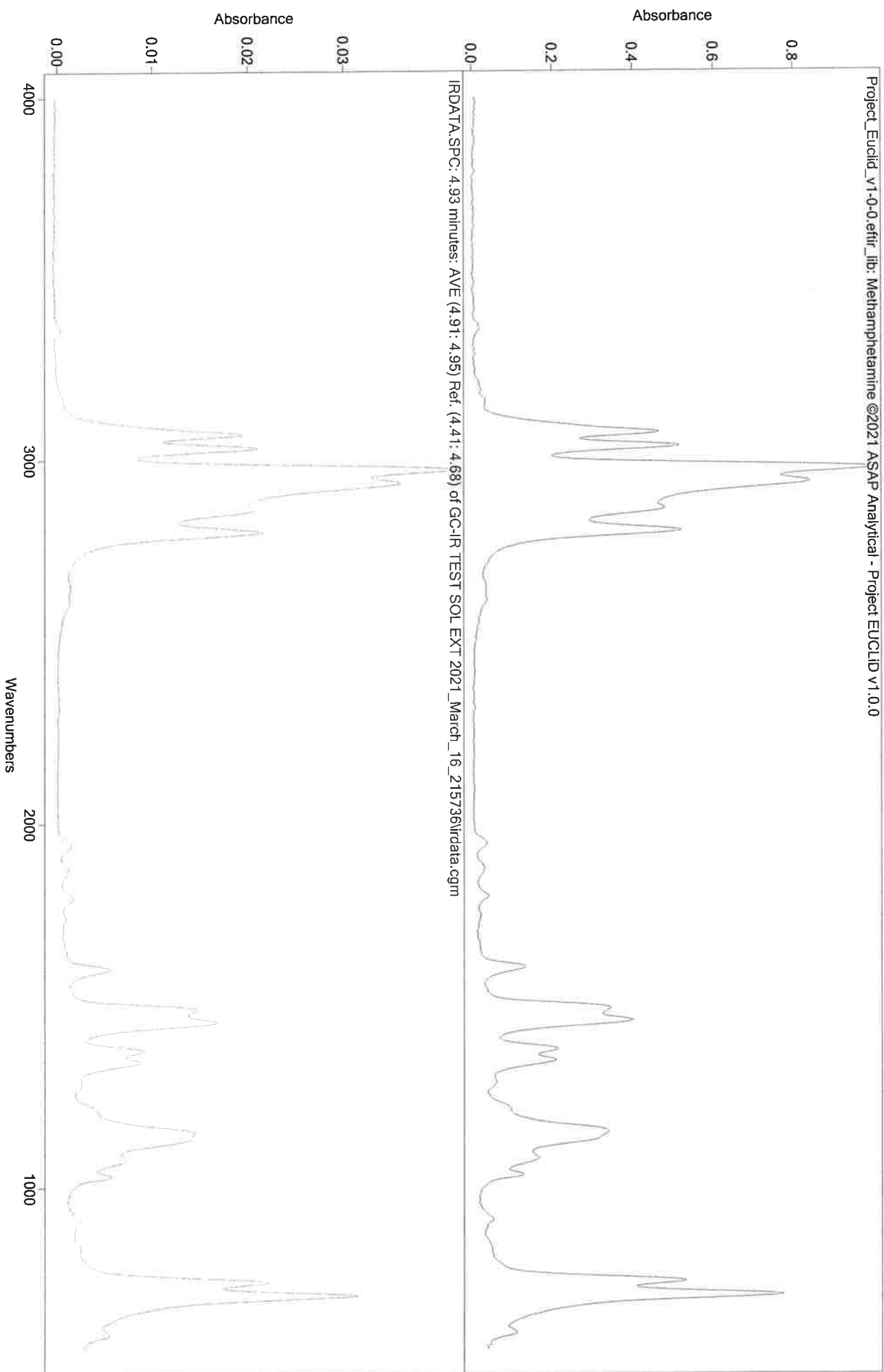
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GC-IR TEST SOL EXT 2021_March_16_215736                 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 131                                                     |
| Sample Name    | GC-IR TEST SOL EXT                                      |
| Misc. Info     | 0.5N NaOH-->CHCl3:HEDWIG                                |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:12:37 2021                                |
| Date Processed | Fri Mar 19 20:55:11 2021                                |



IRDATA.SPC: 4.93 minutes: AVE (4.91: 4.95) Ref. (4.41: 4.68) of GC-IR TEST SOL EXT  
2021\_March\_16\_215736.cgm

methamphetamine

MS-3-21

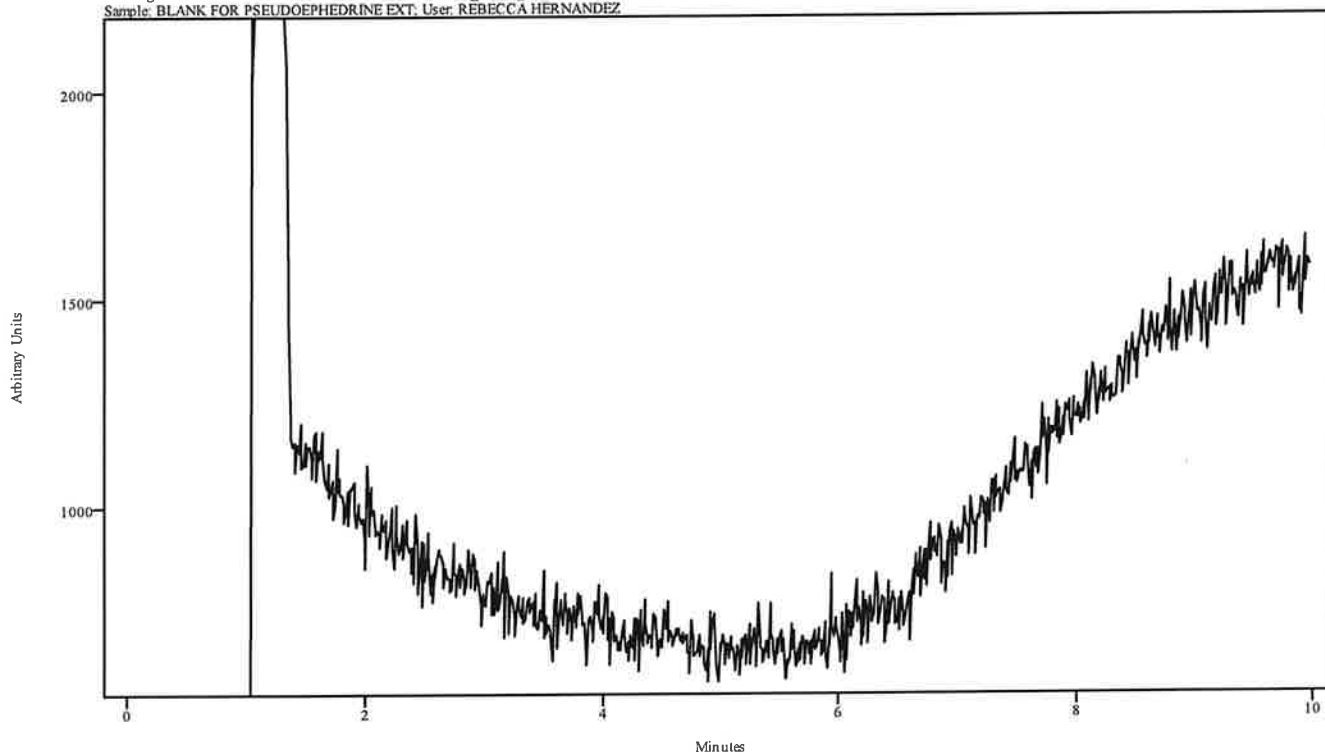


3-19-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR PSEUDOEPHEDRINE EXT 2021_March_16_221237      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR PSEUDOEPHEDRINE EXT                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:27:43 2021                                |
| Date Processed | Fri Mar 19 21:16:54 2021                                |

irdata.cgm: BLANK FOR PSEUDOEPHEDRINE EXT 2021\_March\_16\_221237\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR PSEUDOEPHEDRINE EXT; User: REBECCA HERNANDEZ



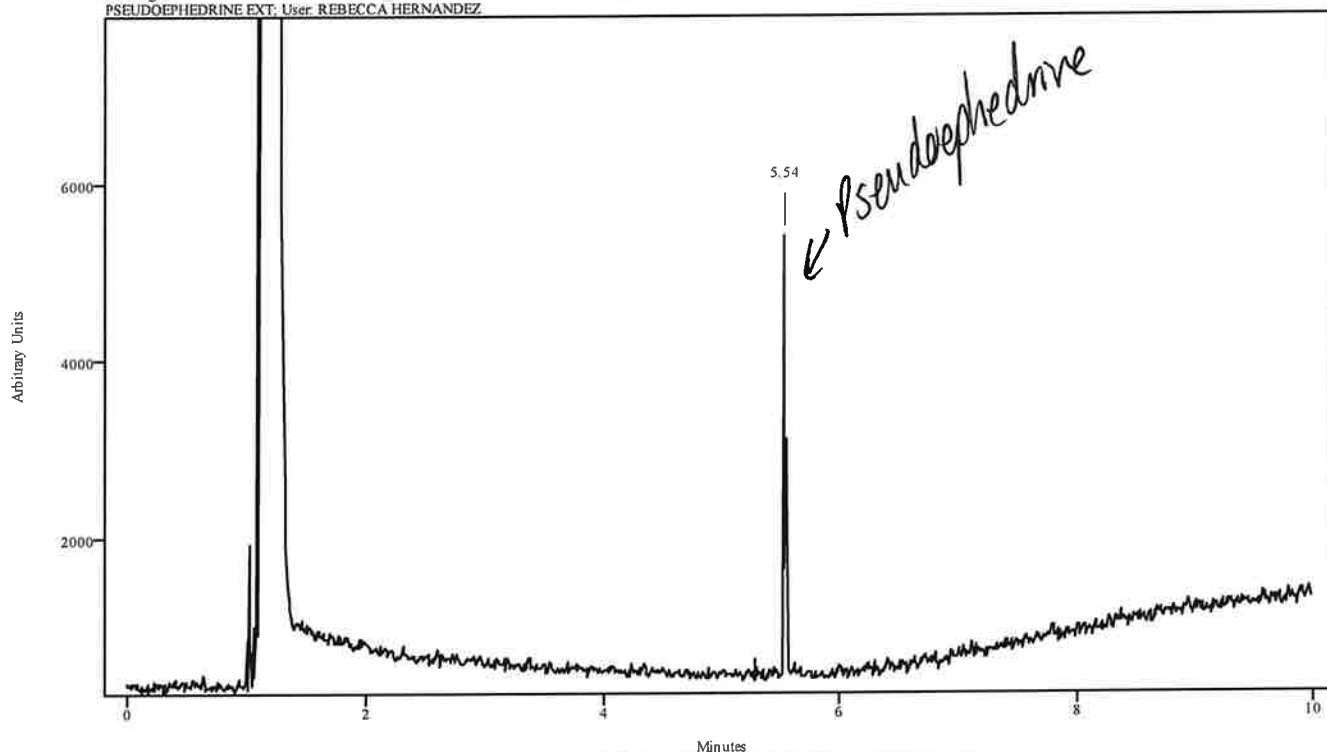
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

4/13/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | PSEUDOEPHEDRINE EXT 2021_March_16_222743                |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 115                                                     |
| Sample Name    | PSEUDOEPHEDRINE EXT                                     |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:42:50 2021                                |
| Date Processed | Fri Mar 19 21:18:31 2021                                |

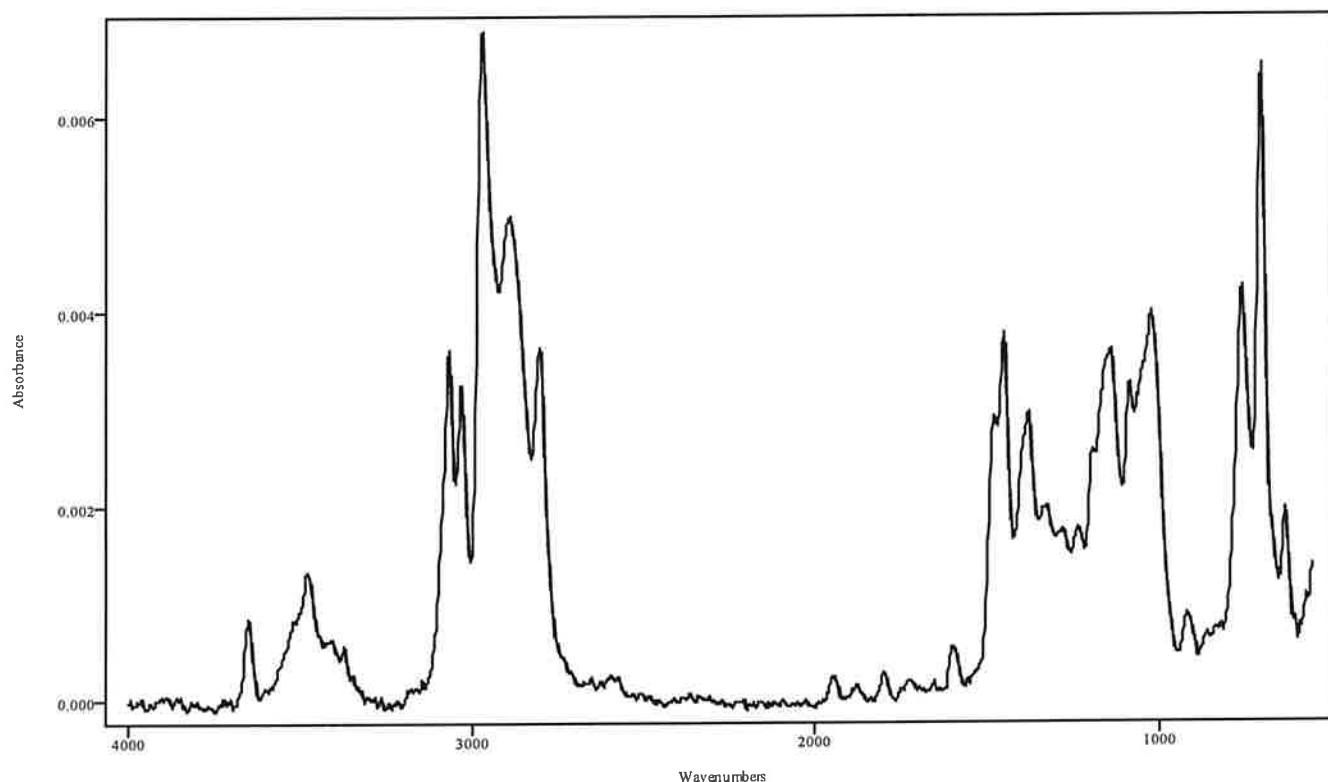
irdata.cgm: PSEUDOEPHEDRINE EXT 2021\_March\_16\_222743\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: PSEUDOEPHEDRINE EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 5.530      | 5.550    | 0.022      | 5.285           | 5.506         |

44 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | PSEUDOEPHEDRINE EXT 2021_March_16_222743                |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 115                                                     |
| Sample Name    | PSEUDOEPHEDRINE EXT                                     |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 22:42:50 2021                                |
| Date Processed | Fri Mar 19 21:18:31 2021                                |

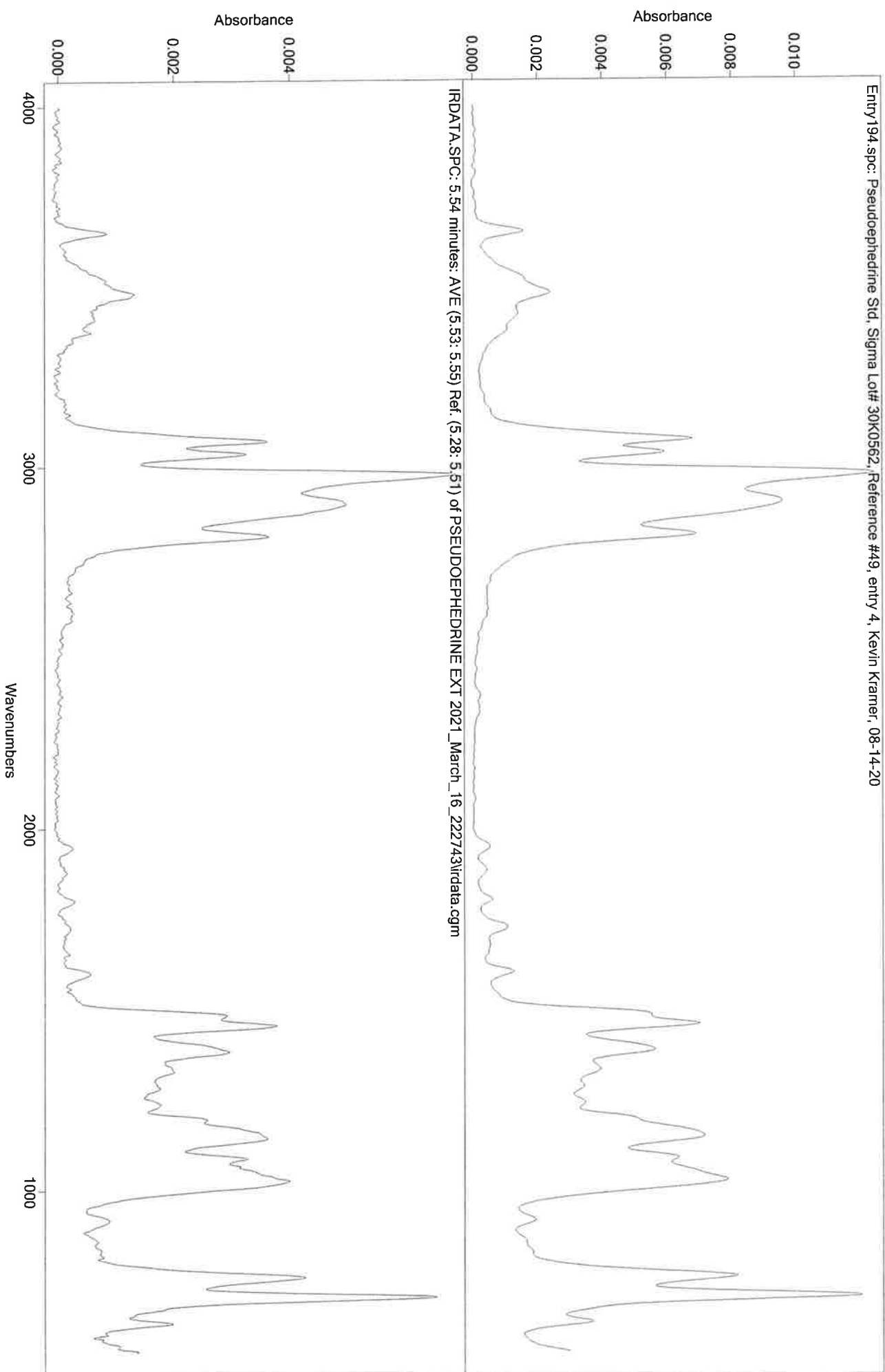


IRDATA.SPC: 5.54 minutes: AVE (5.53: 5.55) Ref. (5.28: 5.51) of PSEUDOEPHEDRINE EXT 2021\_March\_16\_222743.cgm

*Pseudoephedrine*

IRDATA.SPC: 5.54 minutes: AVE (5.53: 5.55) Ref. (5.28: 5.51) of PSEUDOEPHEDRINE EXT 2021\_March\_16\_222743\irdata.cgm

445-321

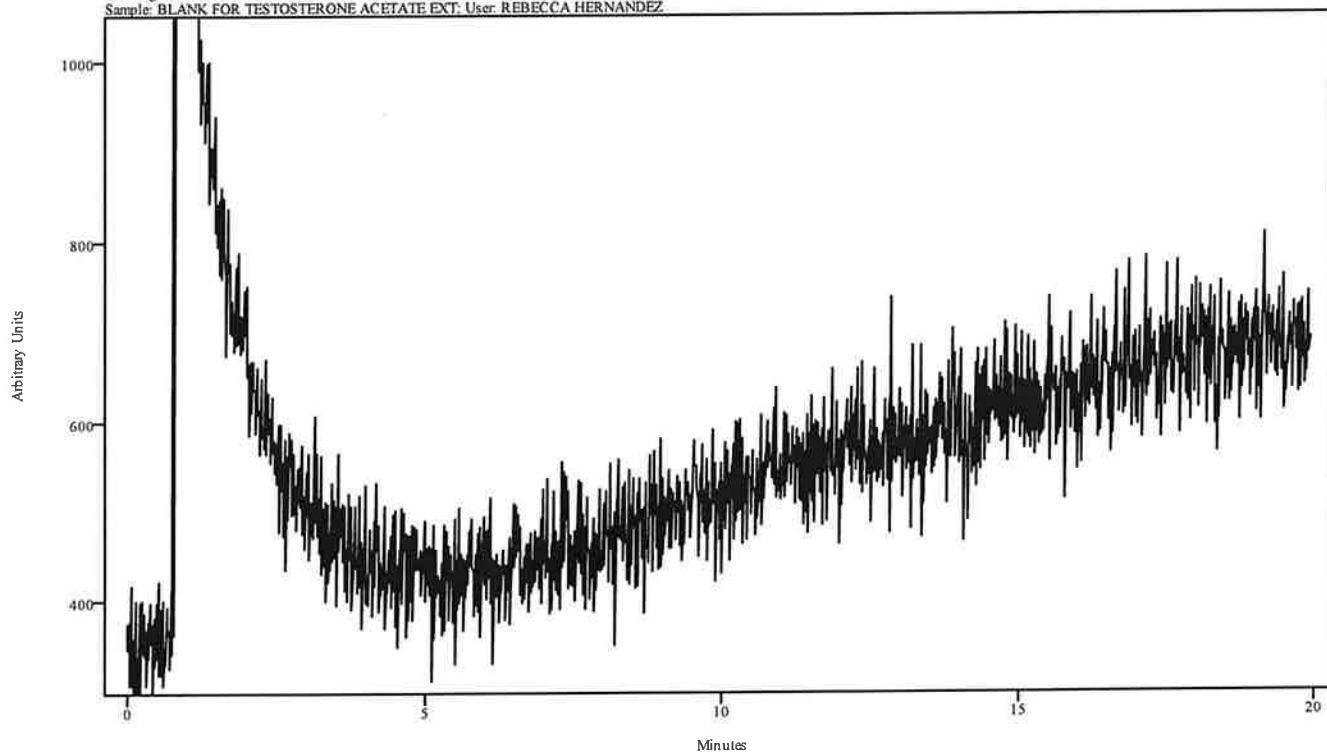


4A 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR TEST ACETATE EXT 2021_March_16_224250         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR TESTOSTERONE ACETATE EXT                      |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:08:16 2021                                |
| Date Processed | Fri Mar 19 21:19:30 2021                                |

irdata.cgm: BLANK FOR TEST ACETATE EXT 2021\_March\_16\_224250  
 Sample: BLANK FOR TESTOSTERONE ACETATE EXT; User: REBECCA HERNANDEZ



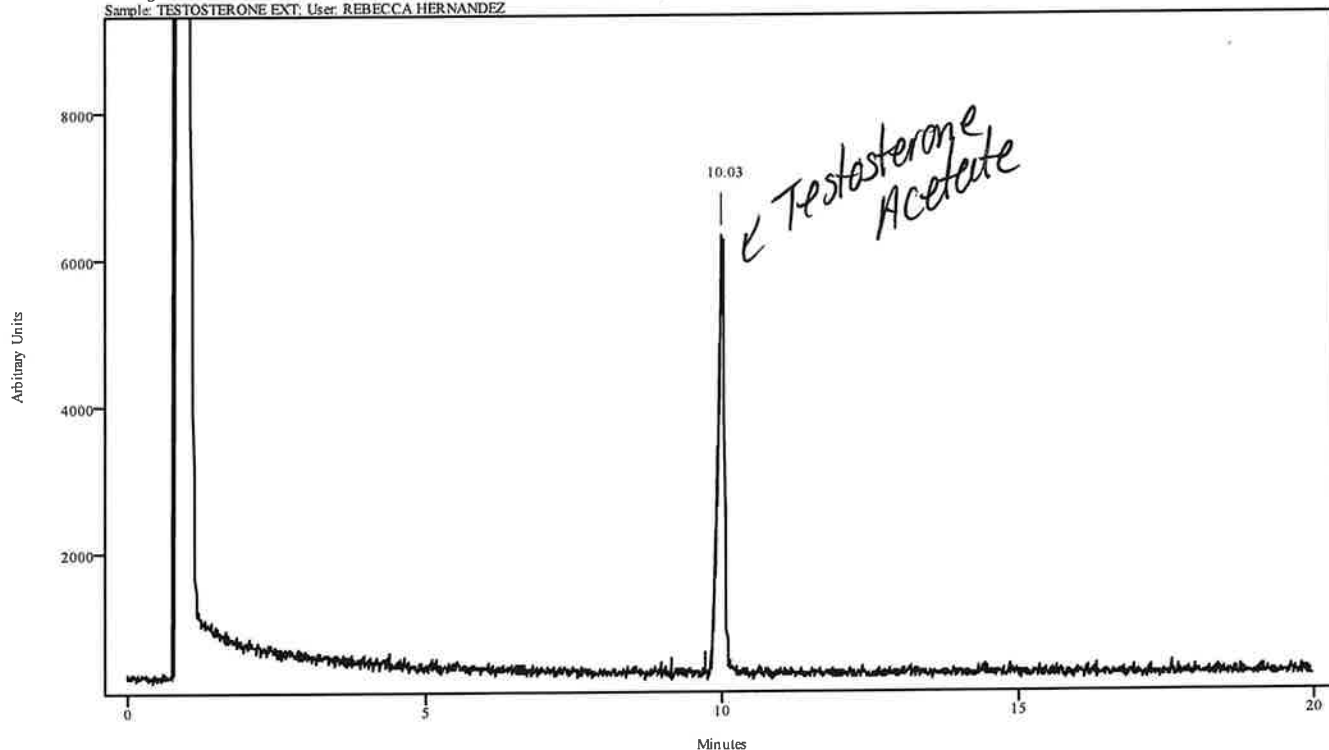
|            |          |            |                 |               |
|------------|----------|------------|-----------------|---------------|
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|

UH 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | TESTOSTERONE ACETATE EXT 2021_March_16_230816           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 117                                                     |
| Sample Name    | TESTOSTERONE ACETATE EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:30:46 2021                                |
| Date Processed | Fri Mar 19 21:36:26 2021                                |

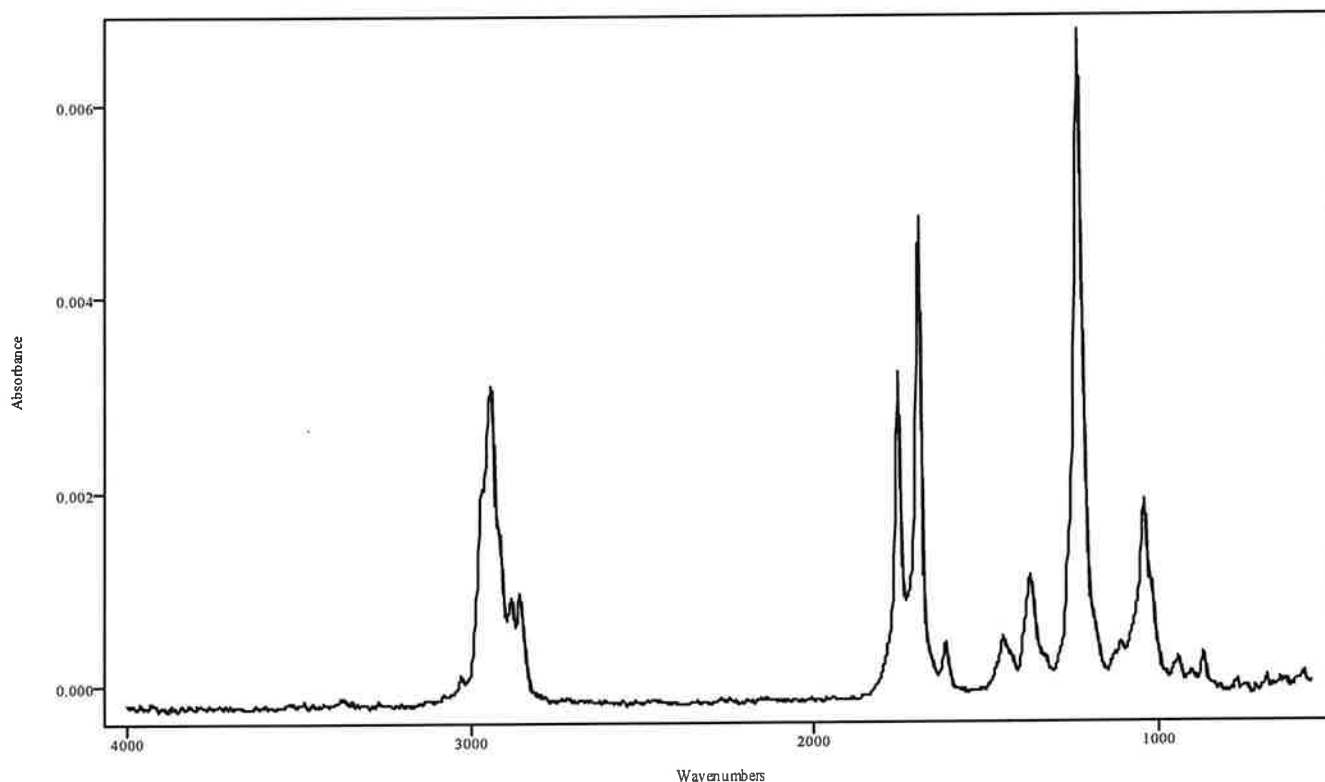
irdata.cgm: TESTOSTERONE ACETATE EXT 2021\_March\_16\_230816irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: TESTOSTERONE EXT, User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 9.939      | 10.072   | 0.133      | 9.165           | 9.740         |

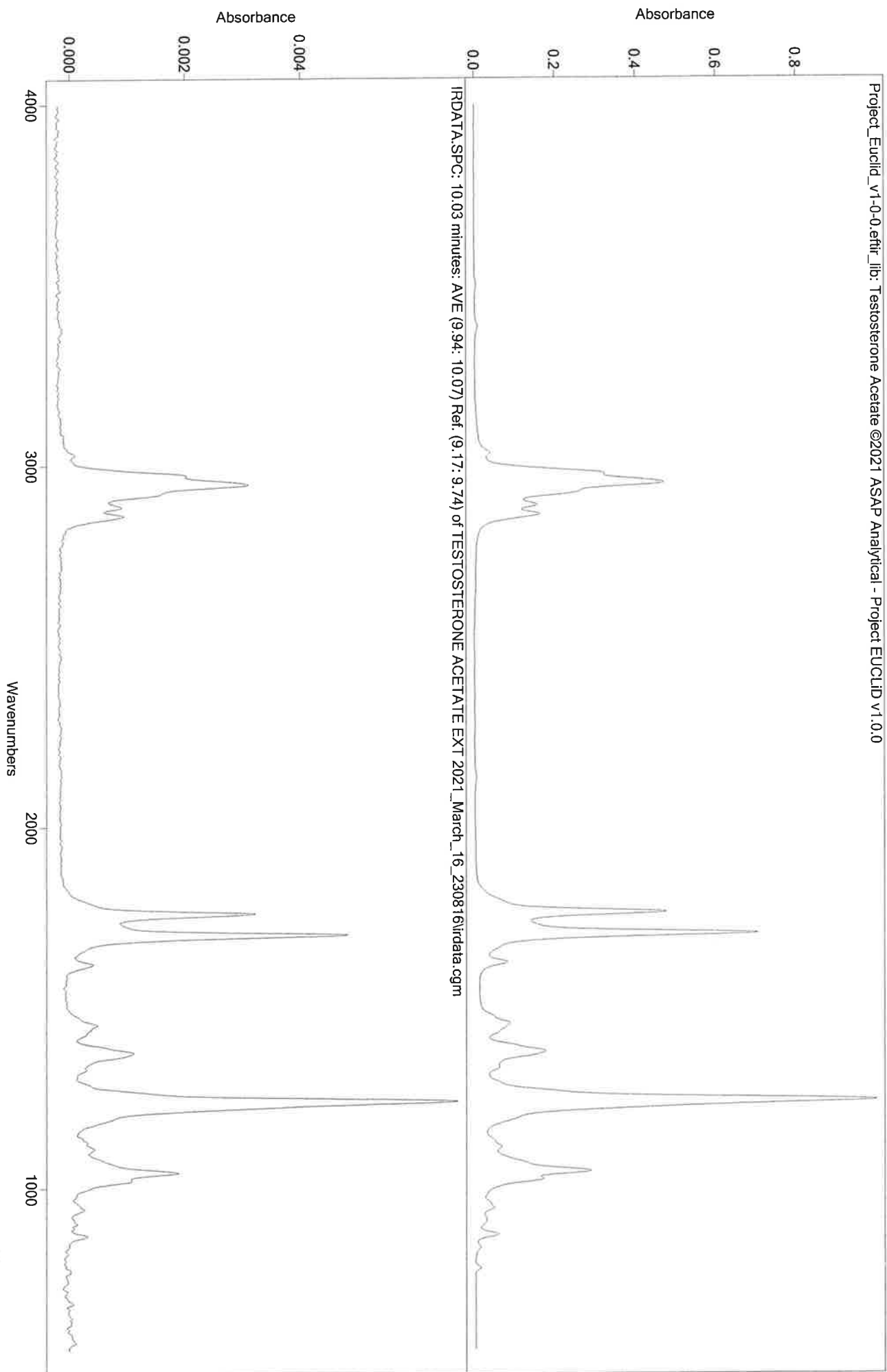
4A 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | TESTOSTERONE ACETATE EXT 2021_March_16_230816           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 117                                                     |
| Sample Name    | TESTOSTERONE ACETATE EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:30:46 2021                                |
| Date Processed | Fri Mar 19 21:36:26 2021                                |



IRDATA.SPC: 10.03 minutes: AVE (9.94: 10.07) Ref. (9.17: 9.74) of TESTOSTERONE ACETATE  
 EXT 2021\_March\_16\_230816.cgm *Testosterone Acetate*

4/4/2021

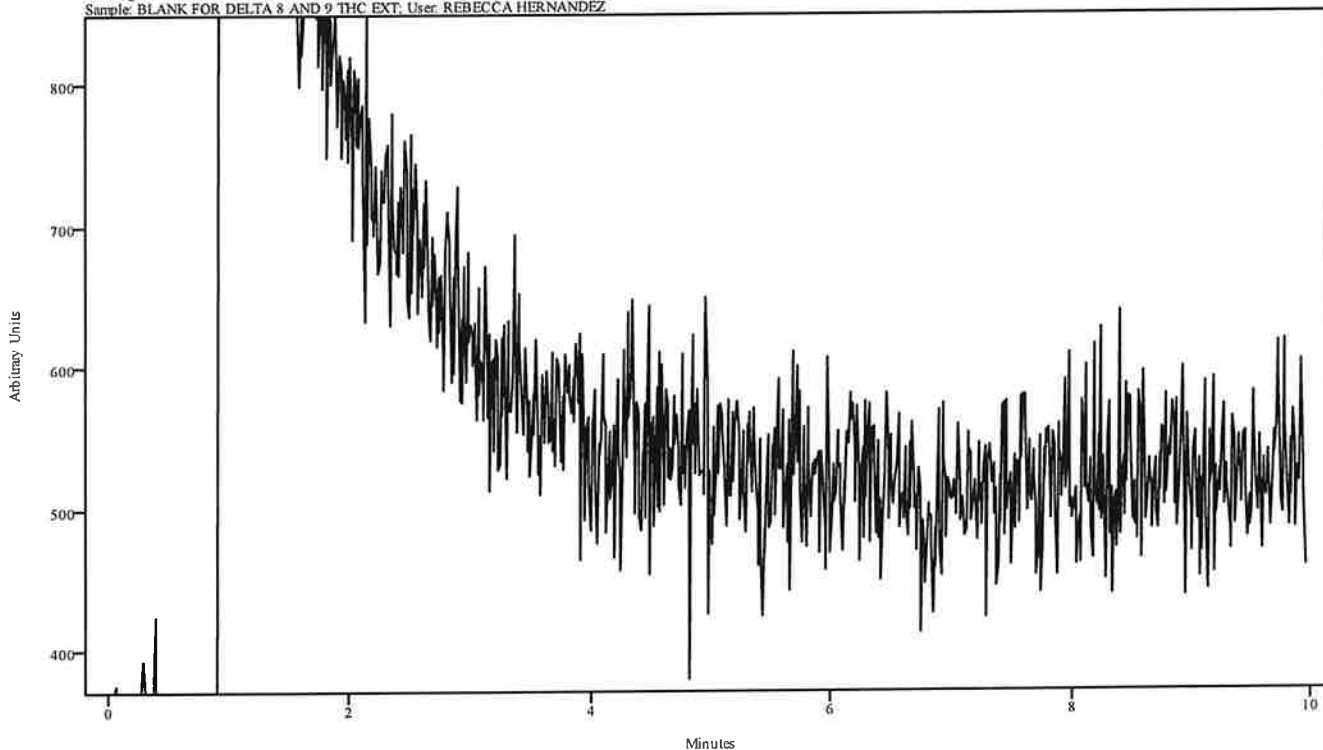


3/19/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR DELTA 8 9 THC EXT 2021_March_16_233047        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR DELTA 8 AND 9 THC EXT                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:45:11 2021                                |
| Date Processed | Fri Mar 19 20:29:57 2021                                |

indata.cgm: BLANK FOR DELTA 8 9 THC EXT 2021\_March\_16\_233047; Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR DELTA 8 AND 9 THC EXT; User: REBECCA HERNANDEZ



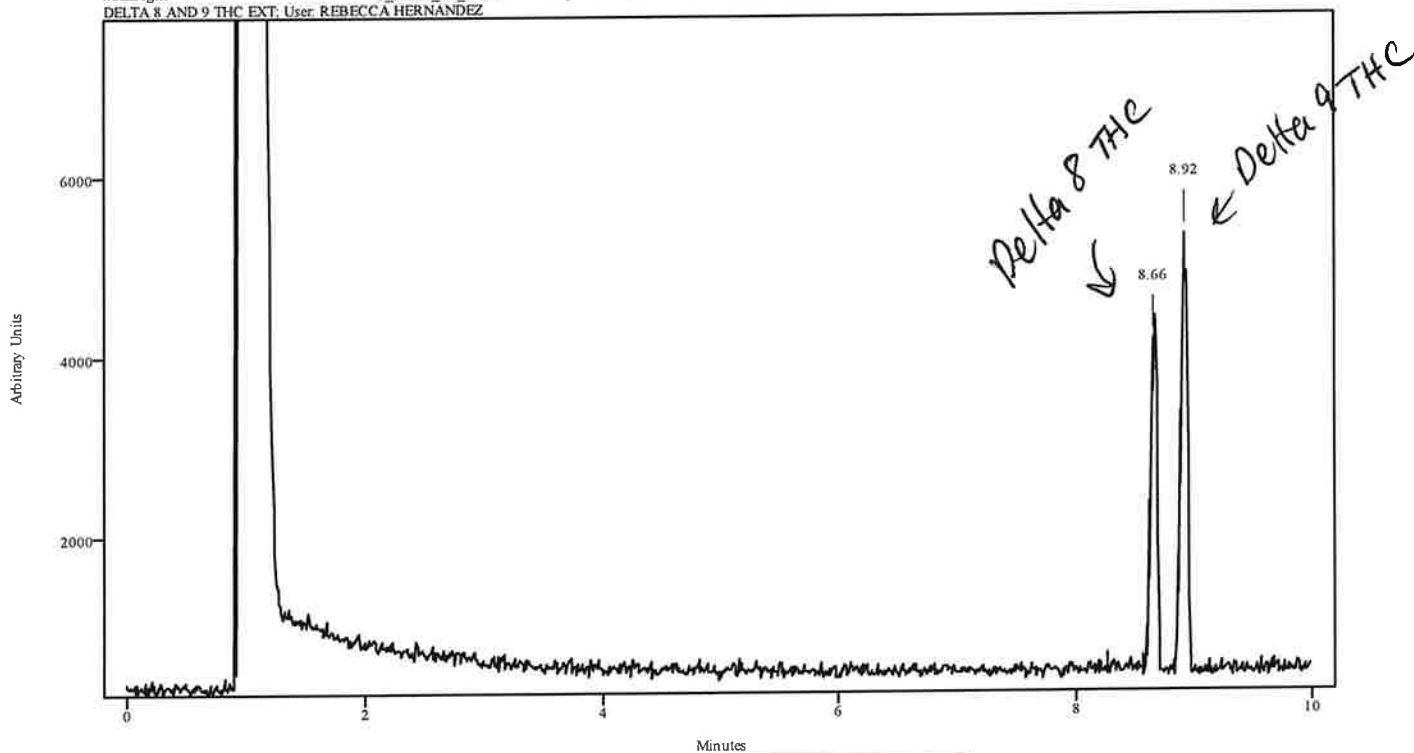
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

4/13/19.21

## IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | DELTA 8 AND 9 THC EXT 2021_March_16_234511              |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 118                                                     |
| Sample Name    | DELTA 8 AND 9 THC EXT                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:59:10 2021                                |
| Date Processed | Fri Mar 19 20:30:44 2021                                |

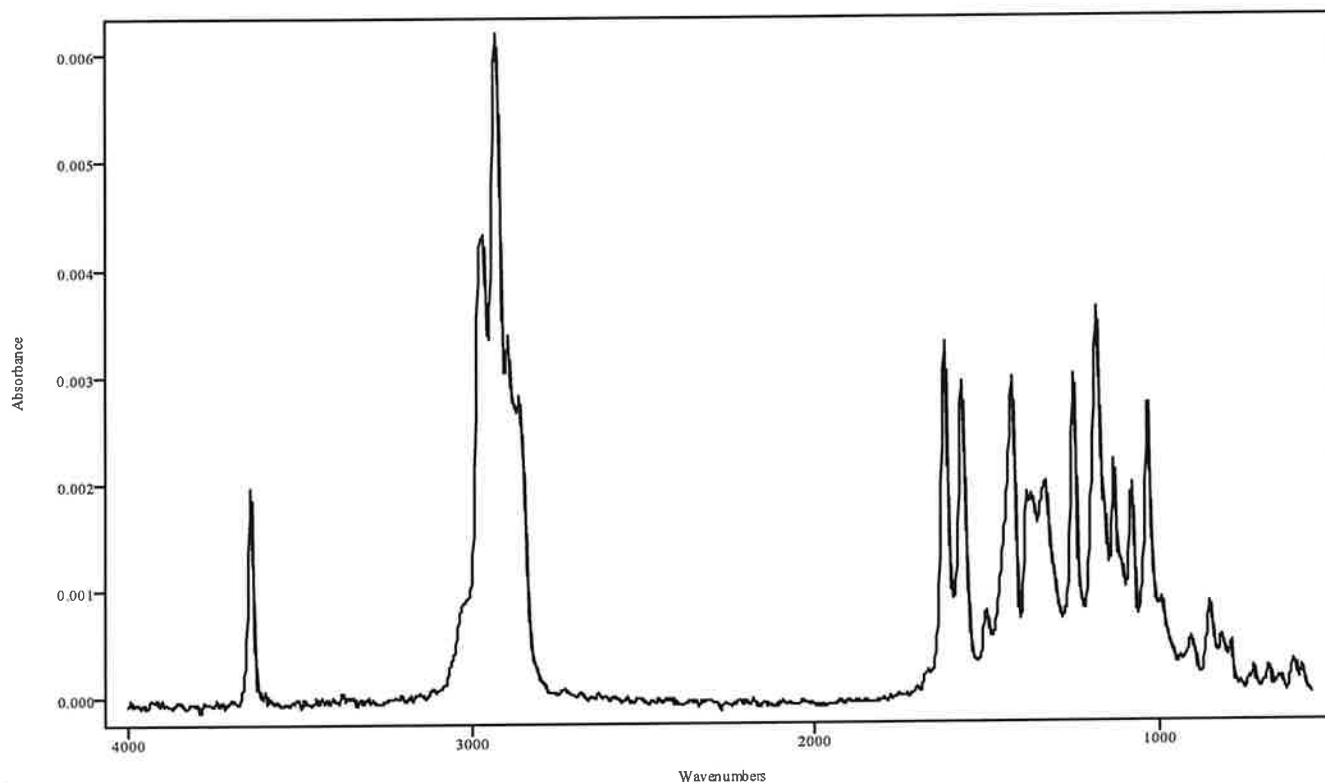
irdata.cgm: DELTA 8 AND 9 THC EXT 2021\_March\_16\_234511 | irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: DELTA 8 AND 9 THC EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 8.624      | 8.690    | 0.066      | 8.259           | 8.568         |
| 8.878      | 8.955    | 0.077      | 8.259           | 8.568         |

4/4 4/2021

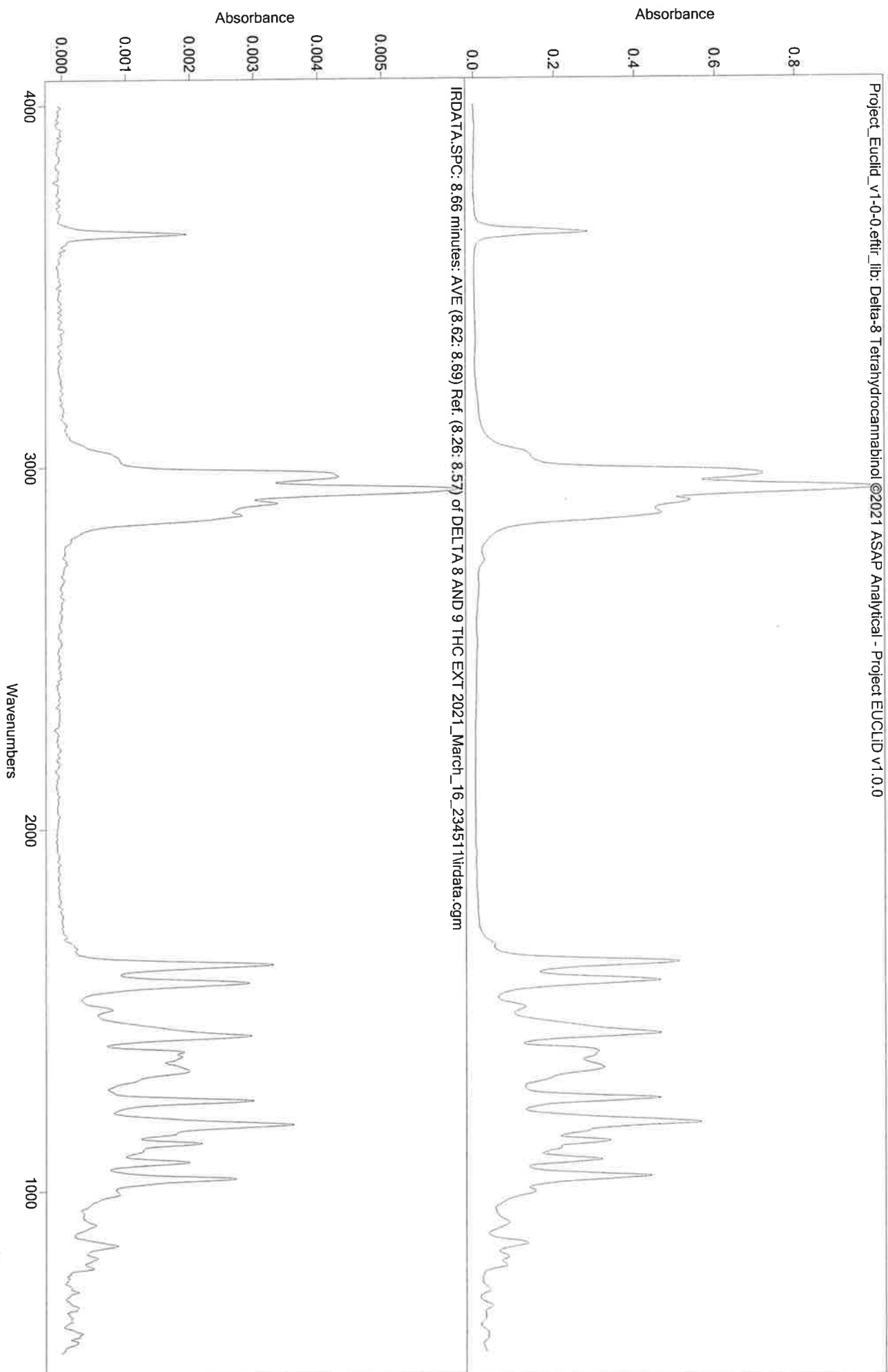
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | DELTA 8 AND 9 THC EXT 2021_March_16_234511              |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 118                                                     |
| Sample Name    | DELTA 8 AND 9 THC EXT                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:59:10 2021                                |
| Date Processed | Fri Mar 19 20:30:44 2021                                |



IRDATA.SPC: 8.66 minutes: AVE (8.62: 8.69) Ref. (8.26: 8.57) of DELTA 8 AND 9 THC EXT 2021\_March\_16\_234511.cgm

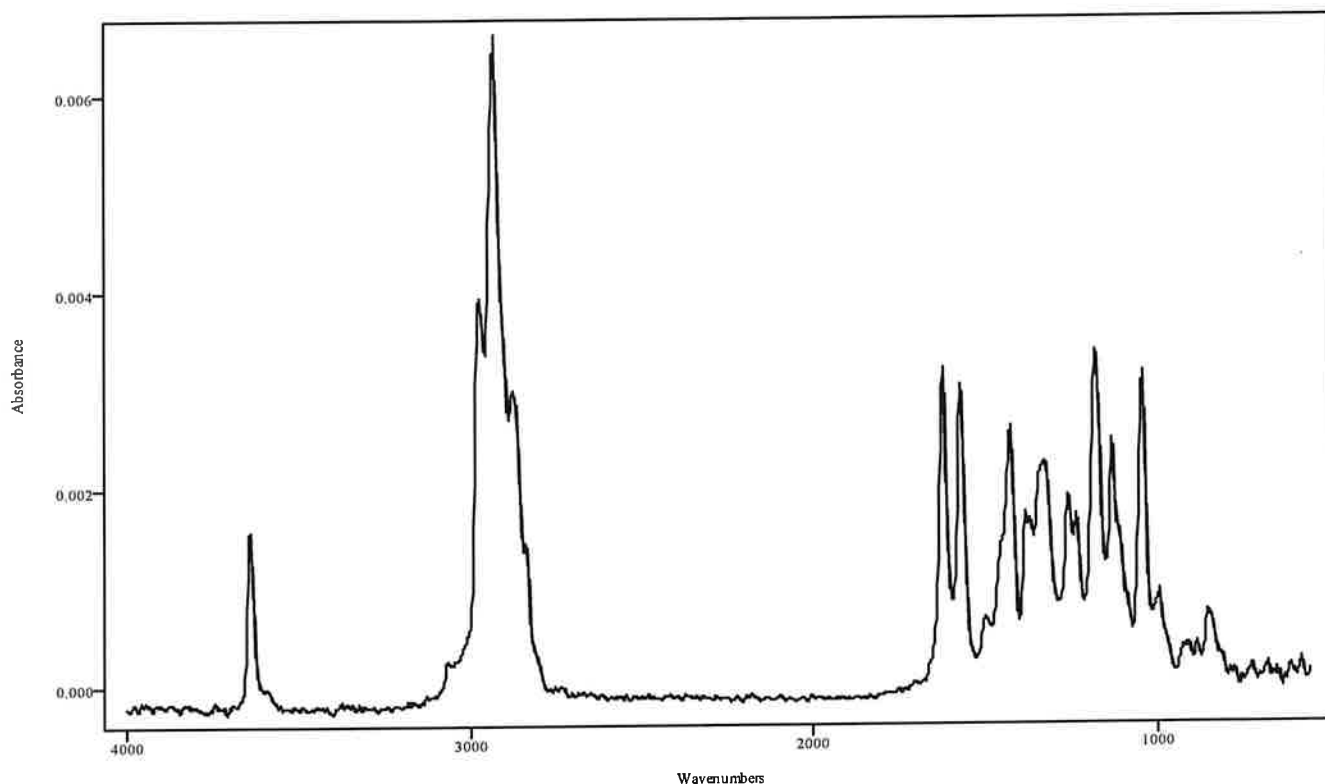
DeHa-8-THC#AH

04/4/2021



4/13/21

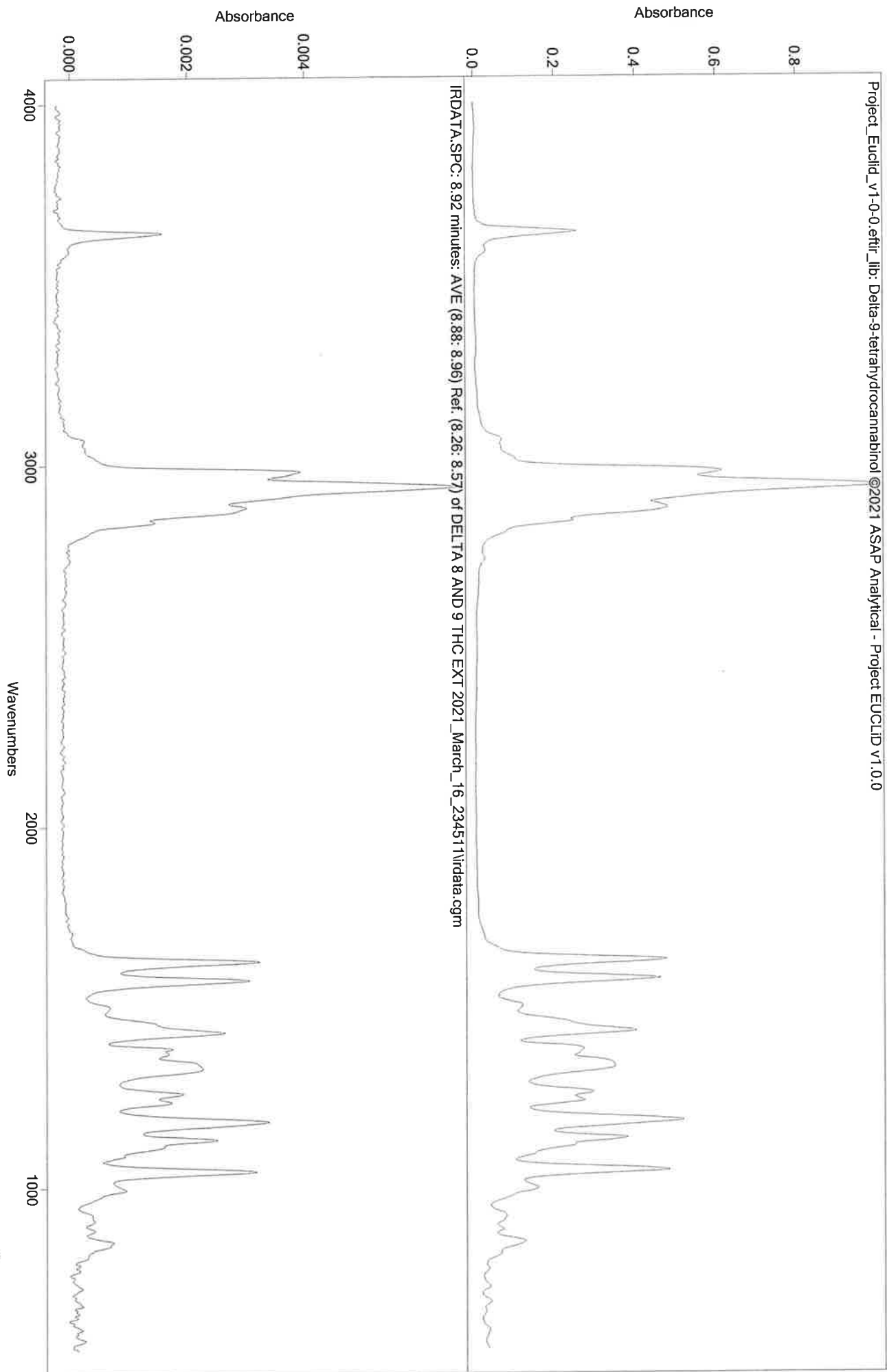
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | DELTA 8 AND 9 THC EXT 2021_March_16_234511              |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 118                                                     |
| Sample Name    | DELTA 8 AND 9 THC EXT                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Tue Mar 16 23:59:10 2021                                |
| Date Processed | Fri Mar 19 20:30:44 2021                                |



IRDATA.SPC: 8.92 minutes: AVE (8.88: 8.96) Ref. (8.26: 8.57) of DELTA 8 AND 9 THC EXT 2021\_March\_16\_234511.cgm

*Delta-9-THC*

CH 4/20/21

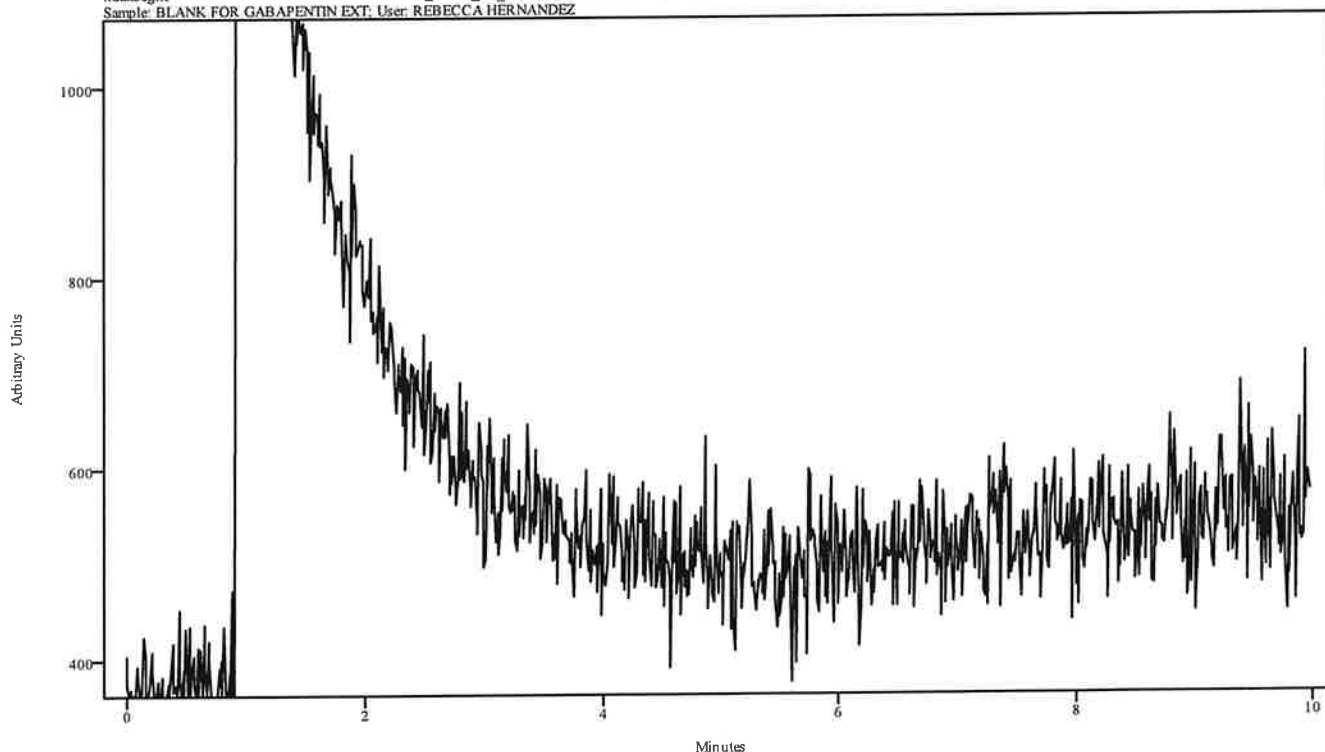


# IRD Data Analysis Report

MA 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR GABAPENTIN EXT 2021_March_16_235910           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR GABAPENTIN EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 00:13:04 2021                                |
| Date Processed | Fri Mar 19 20:53:13 2021                                |

irdata.cgm: BLANK FOR GABAPENTIN EXT 2021\_March\_16\_235910\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR GABAPENTIN EXT; User: REBECCA HERNANDEZ



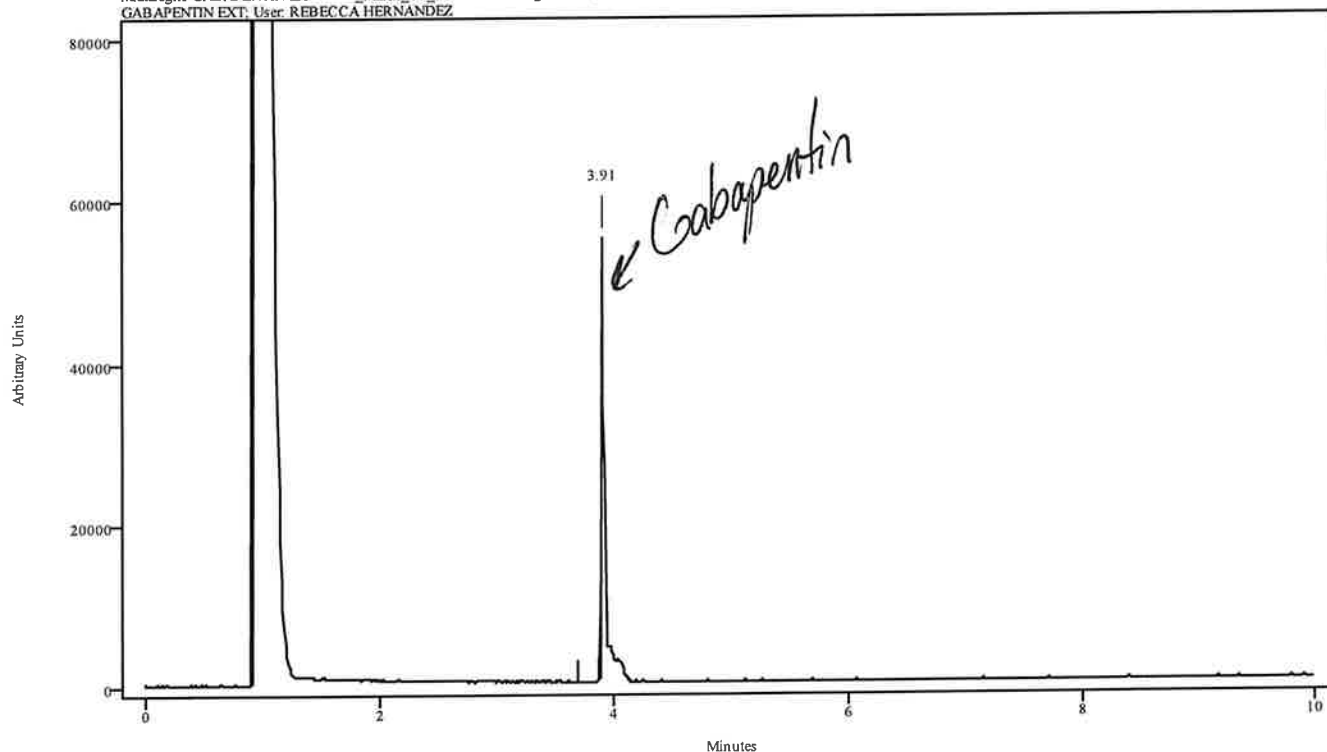
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GABAPENTIN EXT 2021_March_17_001305                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 119                                                     |
| Sample Name    | GABAPENTIN EXT                                          |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 00:27:00 2021                                |
| Date Processed | Fri Mar 19 20:53:44 2021                                |

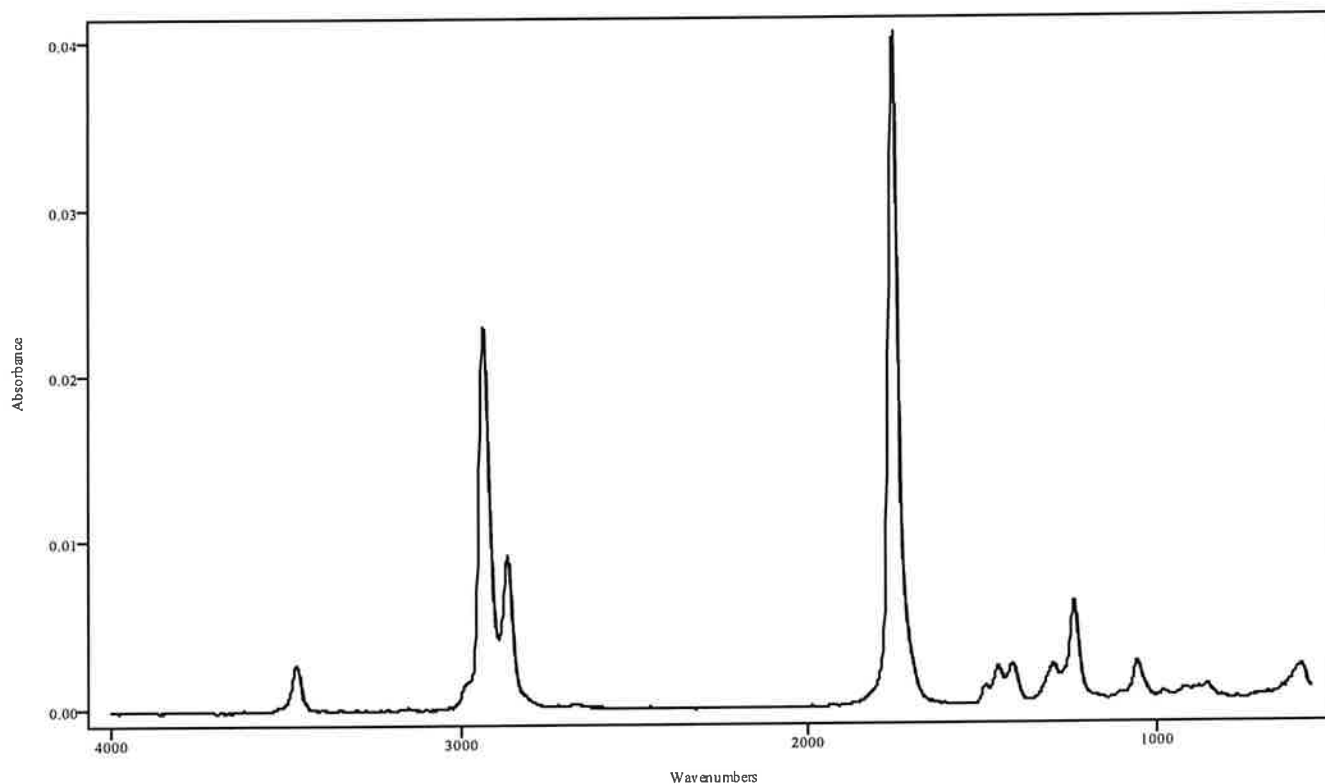
irdata.cgm: GABAPENTIN EXT 2021\_March\_17\_001305\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: GABAPENTIN EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 3.892      | 3.934    | 0.044      | 3.693           | 3.870         |

11/3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GABAPENTIN EXT 2021_March_17_001305                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 119                                                     |
| Sample Name    | GABAPENTIN EXT                                          |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 00:27:00 2021                                |
| Date Processed | Fri Mar 19 20:53:44 2021                                |

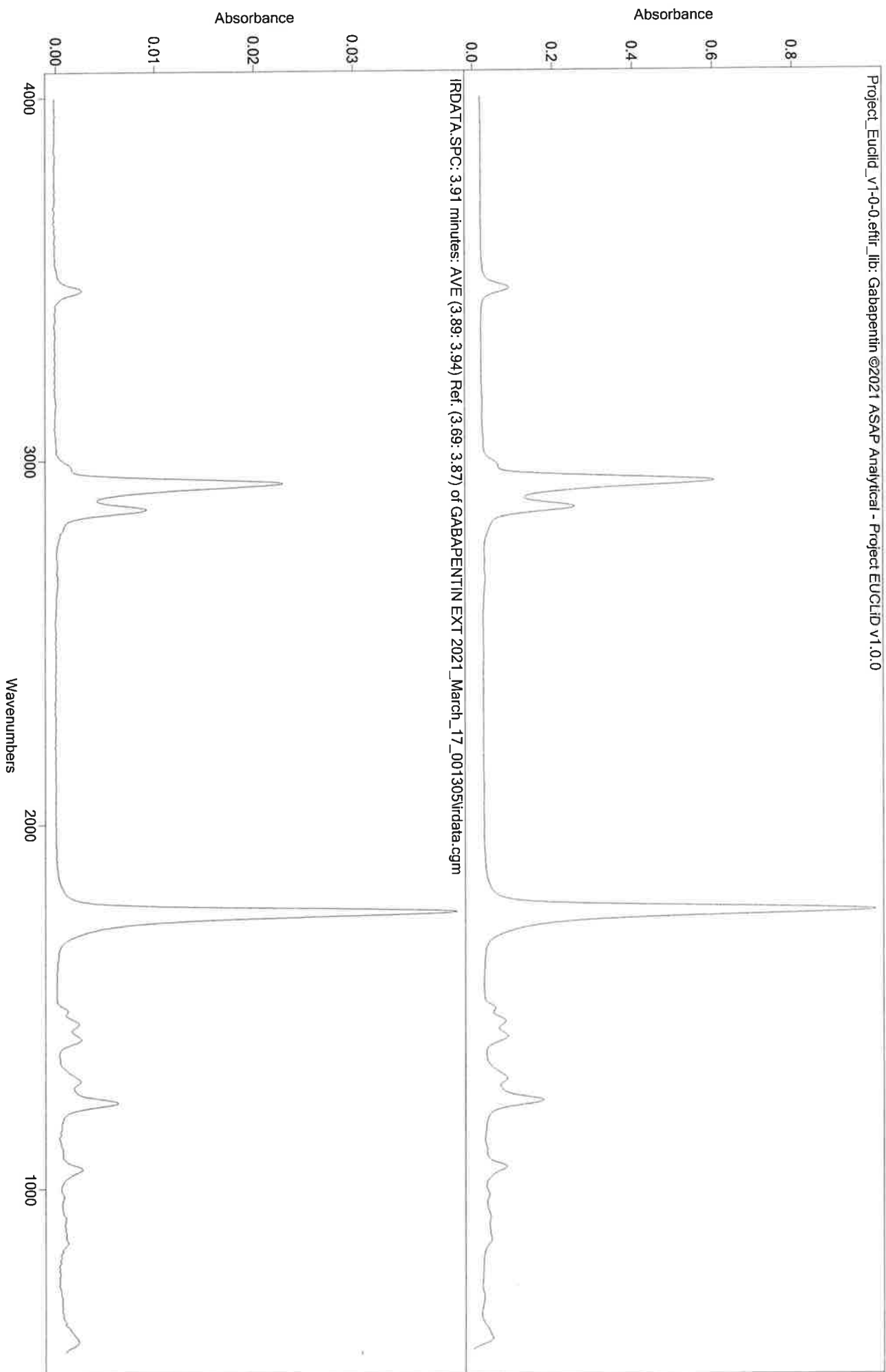


IRDATA.SPC: 3.91 minutes: AVE (3.89: 3.94) Ref. (3.69: 3.87) of GABAPENTIN EXT  
2021\_March\_17\_001305.cgm

*Gabapentin*

IRDATA.SPC: 3.91 minutes: AVE (3.89: 3.94) Ref. (3.69: 3.87) of GABAPENTIN EXT 2021\_March\_17\_001305\irdata.cgm

4/15-3-21

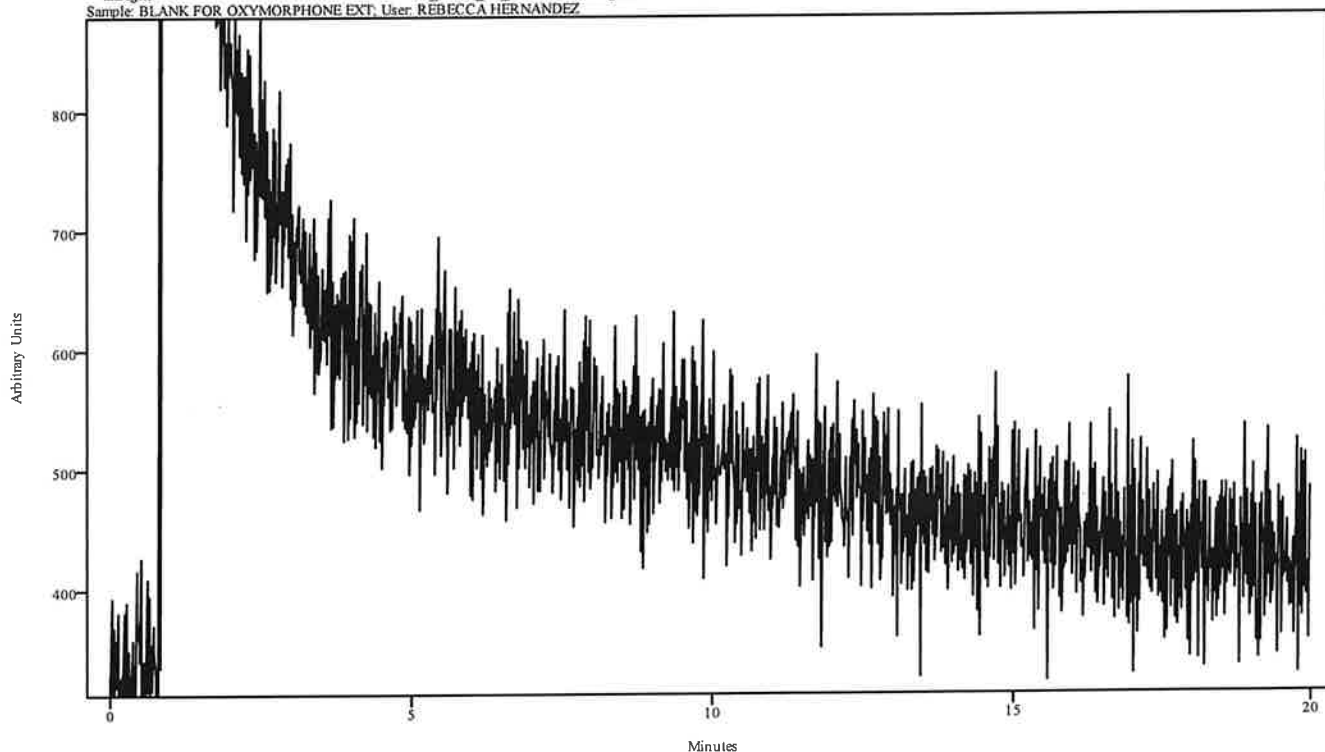


# IRD Data Analysis Report

YH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR OXYMORPHONE EXT 2021_March_17_002700          |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR OXYMORPHONE EXT                               |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 00:50:55 2021                                |
| Date Processed | Fri Mar 19 21:08:20 2021                                |

irdata.cgm: BLANK FOR OXYMORPHONE EXT 2021\_March\_17\_002700\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR OXYMORPHONE EXT, User: REBECCA HERNANDEZ



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

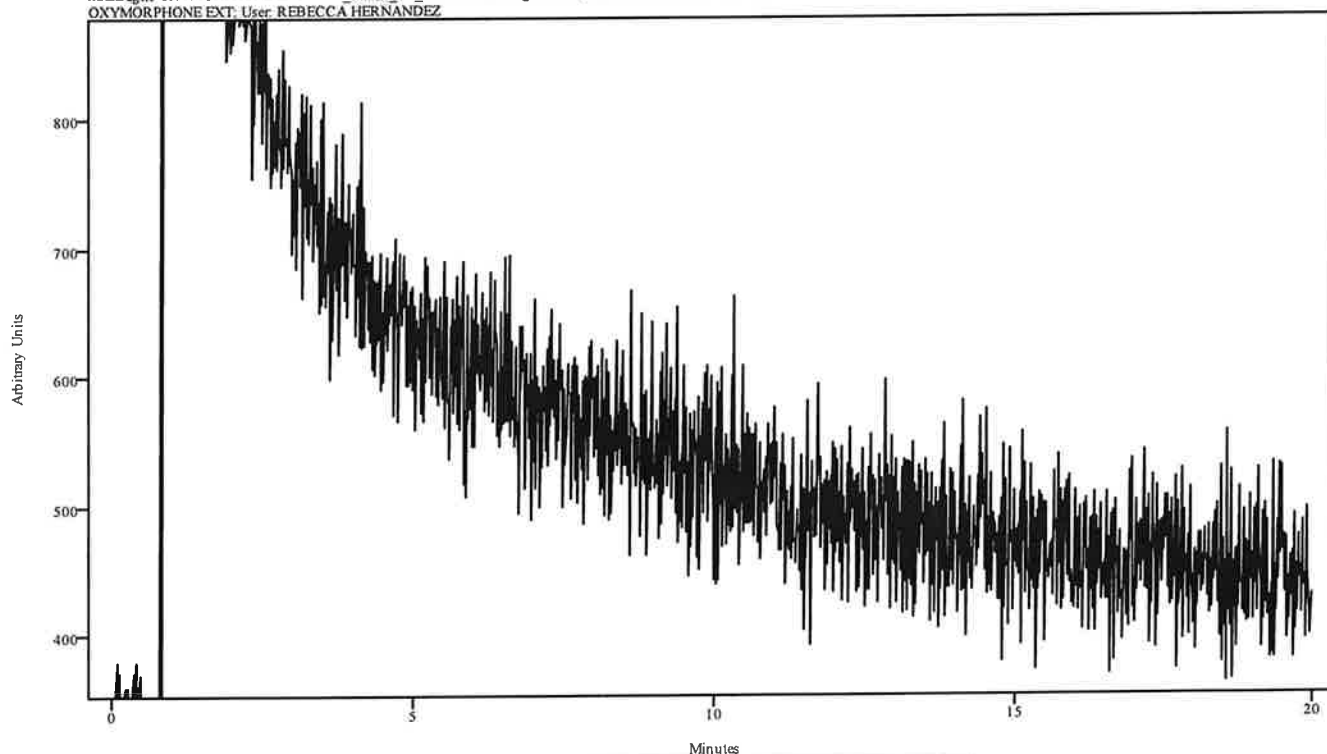
~~BLANK~~ - See standard run.  
Data was still used  
to verify methods.

11/3-1921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | OXYMORPHONE EXT 2021_March_17_005055                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 120                                                     |
| Sample Name    | OXYMORPHONE EXT                                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 01:14:20 2021                                |
| Date Processed | Fri Mar 19 21:08:41 2021                                |

irdata.cgm: OXYMORPHONE EXT 2021\_March\_17\_005055\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: OXYMORPHONE EXT; User: REBECCA HERNANDEZ



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

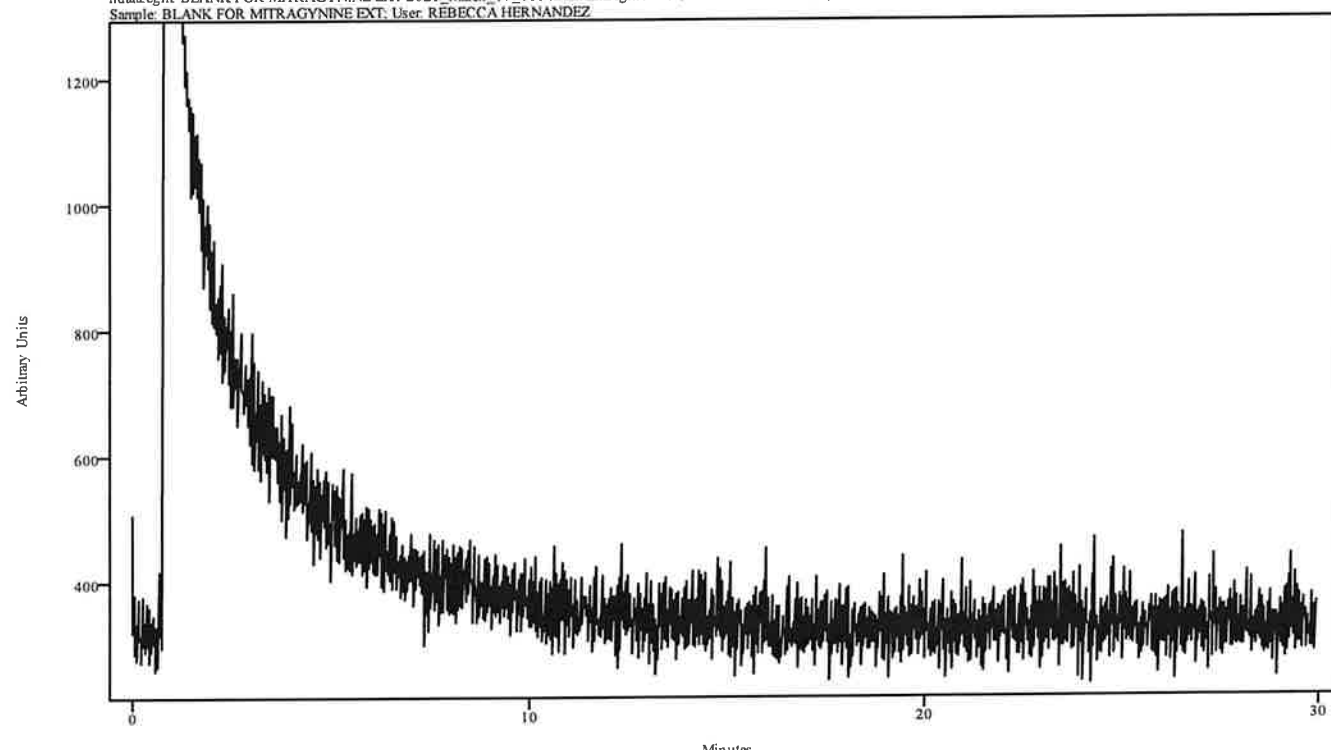
~~ADNU~~ see standard run. pH  
 Make more concentrated  
 & rerun.  
 Data was still used to  
 verify methods.

4/13/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR MITRAGYNINE EXT 2021_March_17_011420          |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR MITRAGYNINE EXT                               |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 01:48:46 2021                                |
| Date Processed | Fri Mar 19 21:14:06 2021                                |

irdata.cgm: BLANK FOR MITRAGYNINE EXT 2021\_March\_17\_011420\irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR MITRAGYNINE EXT; User: REBECCA HERNANDEZ



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

~~\* DNU~~ ~~Make more~~ <sup>4/13</sup> standard exceeds ISO270(30MIN) run & carry over occurred in following blank for Hydromorphone. Not recommended to run unless longer method created.

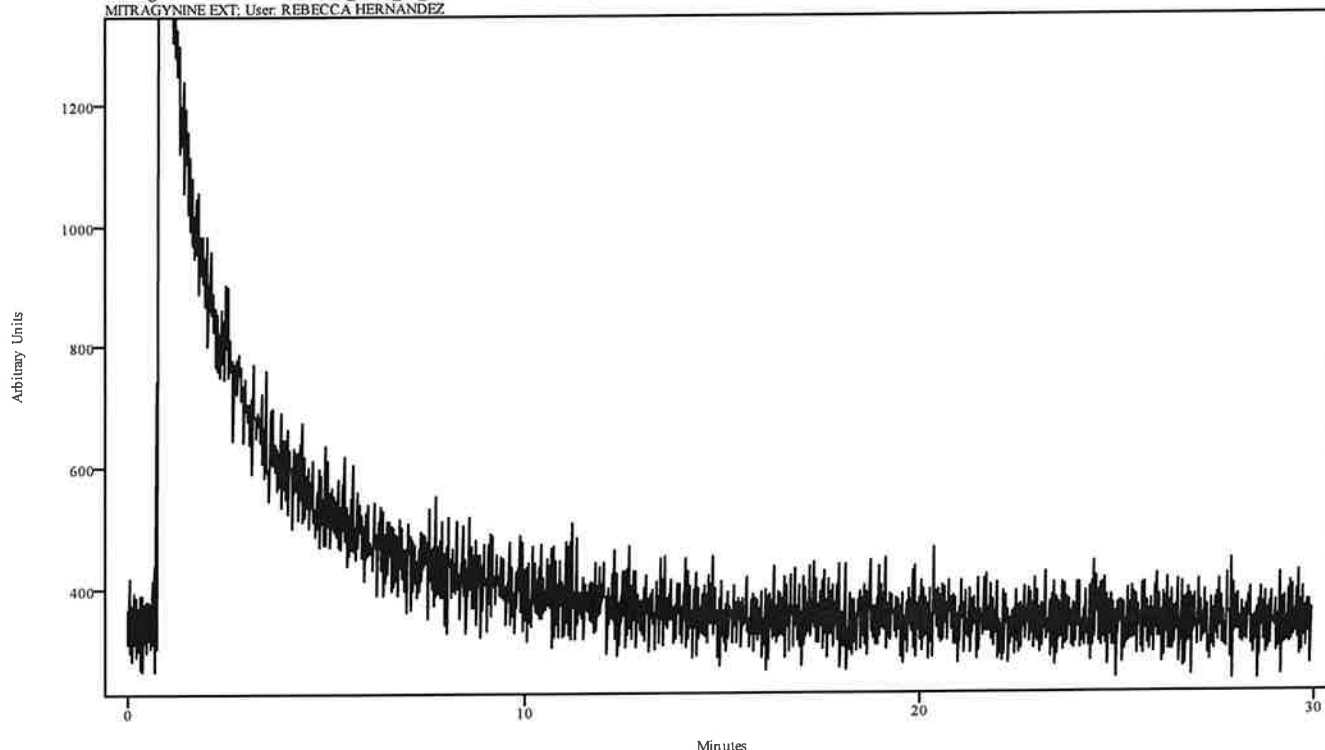
\* Data was still used to verify methods.

11/3/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MITRAGYNINE EXT 2021_March_17_014846                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 121                                                     |
| Sample Name    | MITRAGYNINE EXT                                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 02:21:17 2021                                |
| Date Processed | Fri Mar 19 21:14:41 2021                                |

irdata.cgm: MITRAGYNINE EXT 2021\_March\_17\_014846\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: MITRAGYNINE EXT; User: REBECCA HERNANDEZ



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

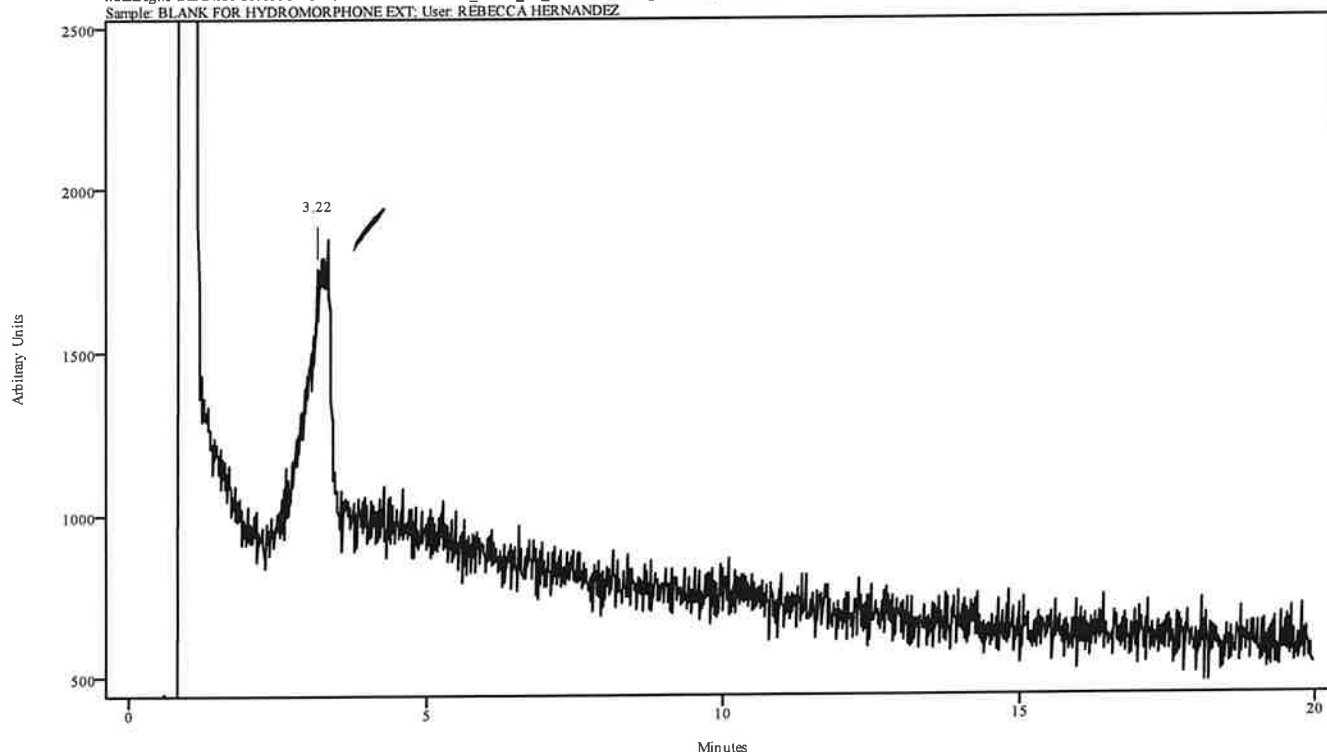
~~NO~~ See blank  
Data was still used to  
verify methods.

# IRD Data Analysis Report

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR HYDROMORPHONE EXT 2021_March_17_022117        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR HYDROMORPHONE EXT                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 02:45:11 2021                                |
| Date Processed | Fri Mar 19 21:01:08 2021                                |

irdata.cgm: BLANK FOR HYDROMORPHONE EXT 2021\_March\_17\_022117\irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR HYDROMORPHONE EXT; User: REBECCA HERNANDEZ

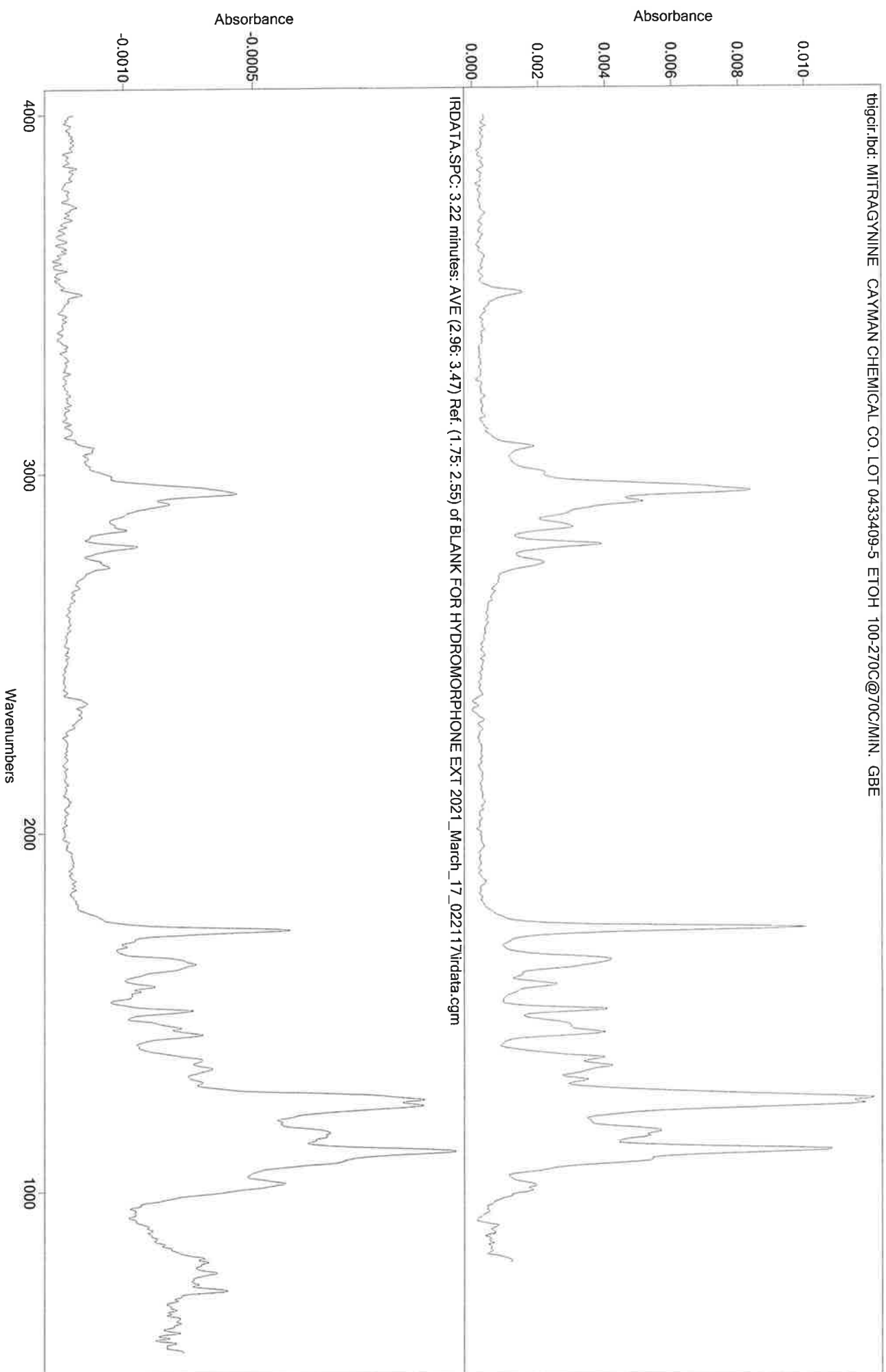


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 2.962      | 3.472    | 0.510      | 1.753           | 2.551         |

RDNU - Carryover of Mitragynine.  
Rerun & make standard  
more concentrated.

IRDATA.SPC: 3.22 minutes: AVE (2.96: 3.47) Ref. (1.75: 2.55) of BLANK FOR HYDROMORPHONE EXT 2021\_March\_17\_022117\data.cgm

44 3-19-21

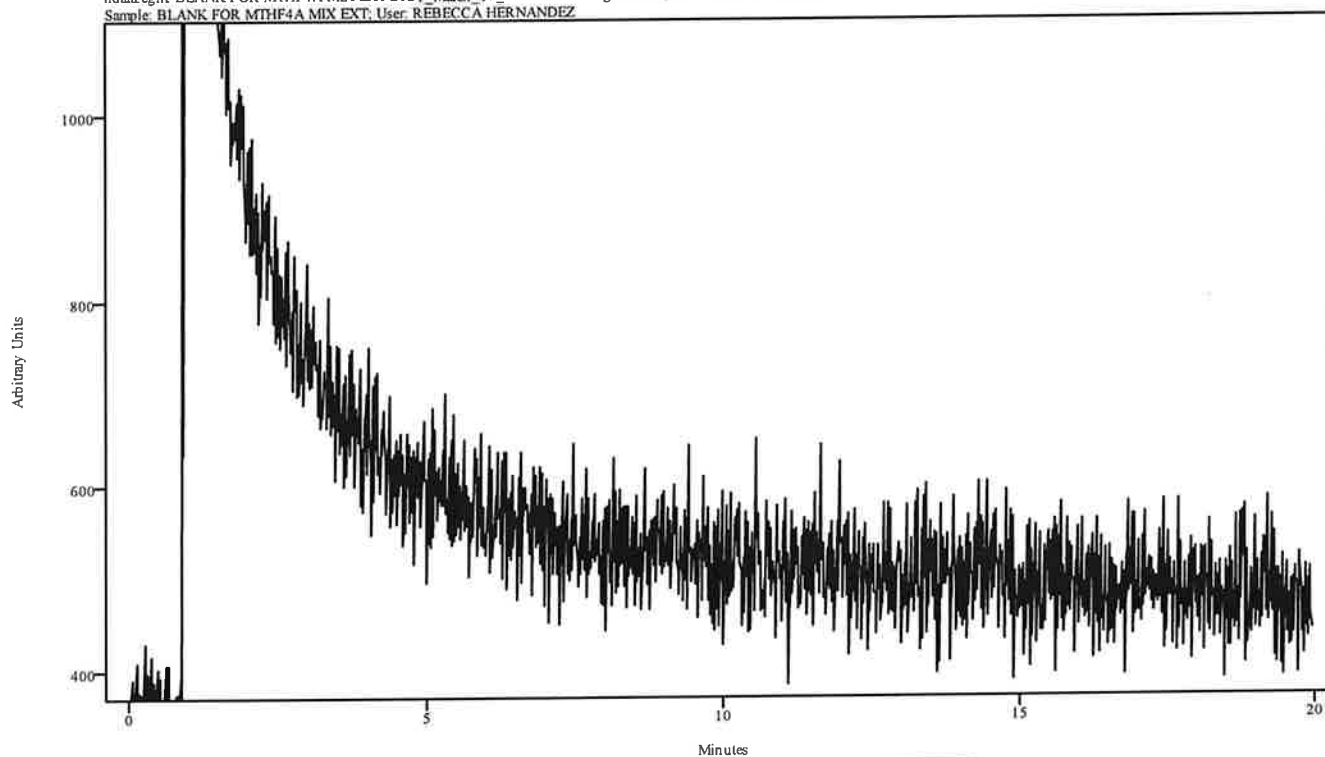


# IRD Data Analysis Report

4/3/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR MTHF4A MIX EXT 2021_March_17_030831           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR MTHF4A MIX EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:32:38 2021                                |
| Date Processed | Fri Mar 19 21:04:20 2021                                |

irdata.cgm: BLANK FOR MTHF4A MIX EXT 2021\_March\_17\_030831\irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR MTHF4A MIX EXT; User: REBECCA HERNANDEZ



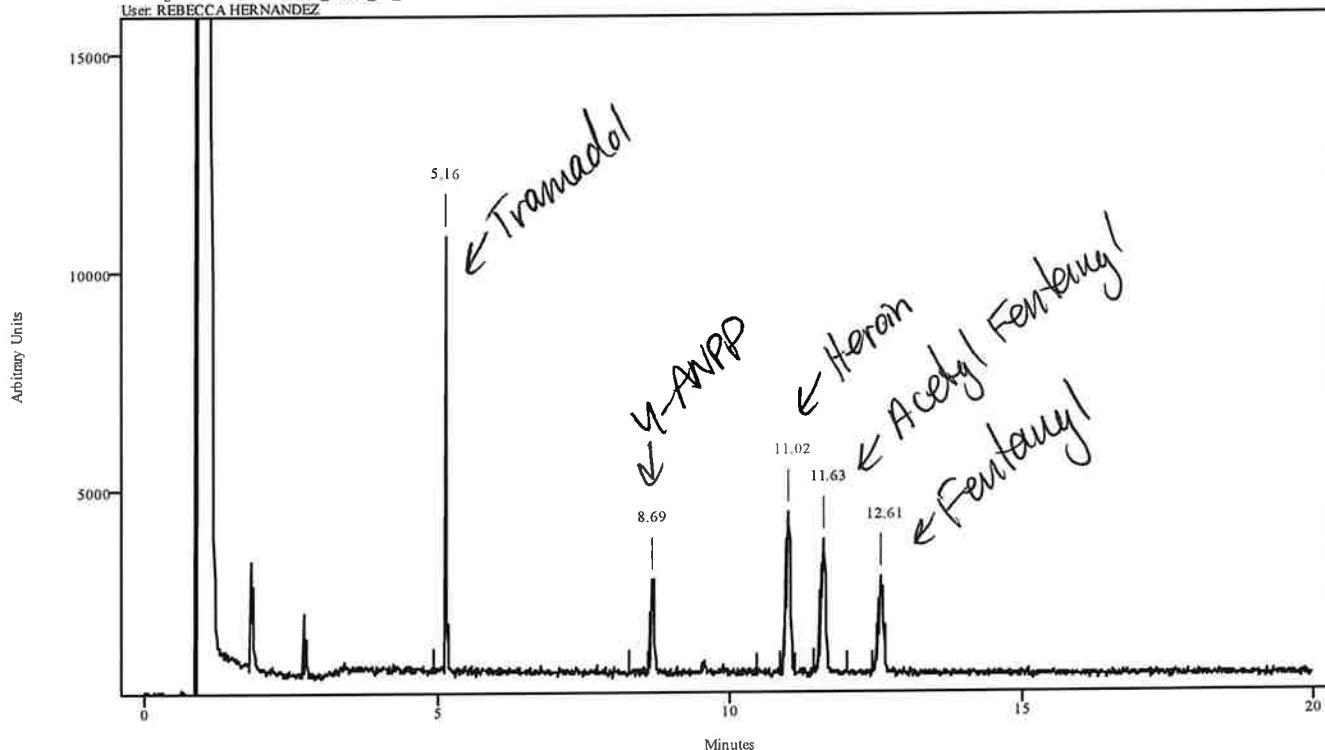
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

4/13/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |

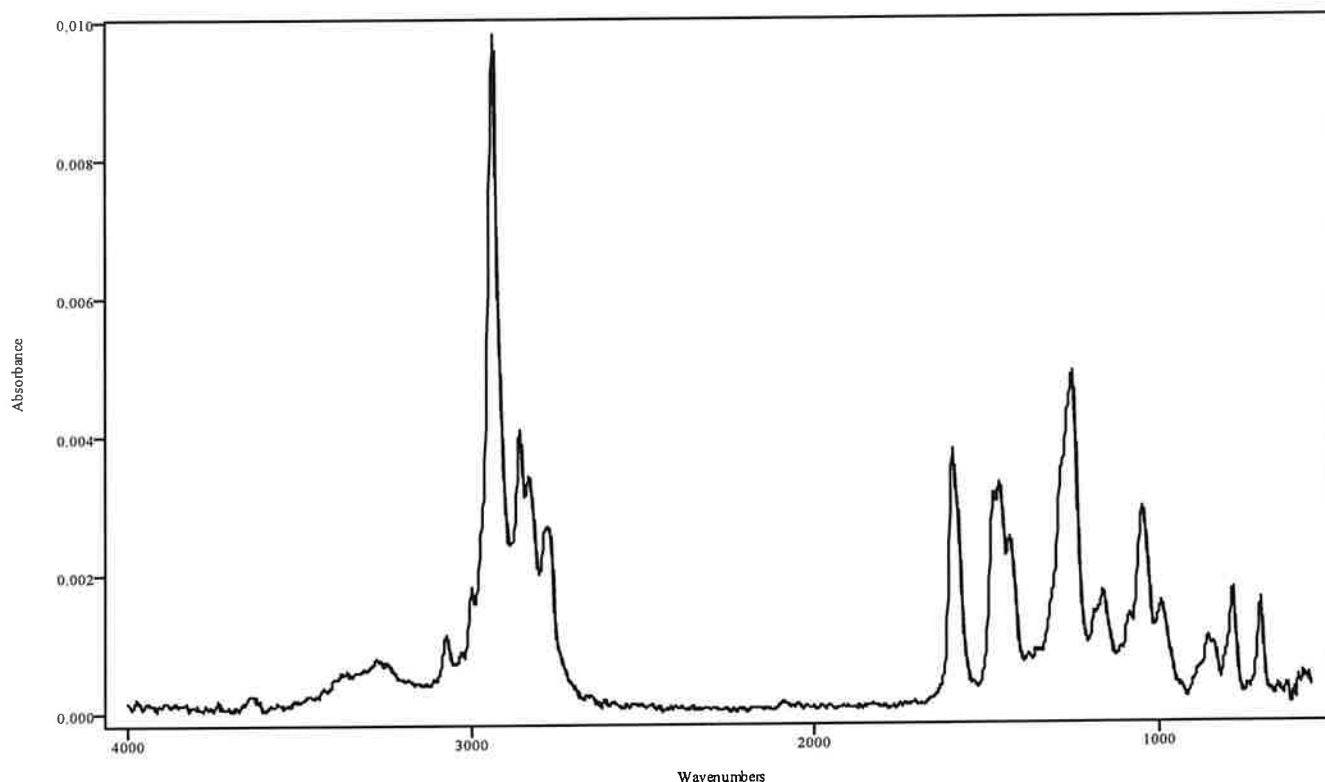
irdata.cgmx MTHF4A MIX 2021\_March\_17\_033238 irdata.cgmx: Misc. Info: MEOH:HEDWIG; Sample: MTHF4A MIX;  
User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 5.140      | 5.187    | 0.044      | 4.941           | 5.118         |
| 8.656      | 8.733    | 0.077      | 8.302           | 8.612         |
| 10.966     | 11.066   | 0.099      | 10.491          | 10.889        |
| 11.574     | 11.663   | 0.088      | 11.143          | 11.466        |
| 12.536     | 12.658   | 0.122      | 12.028          | 12.470        |

4431921

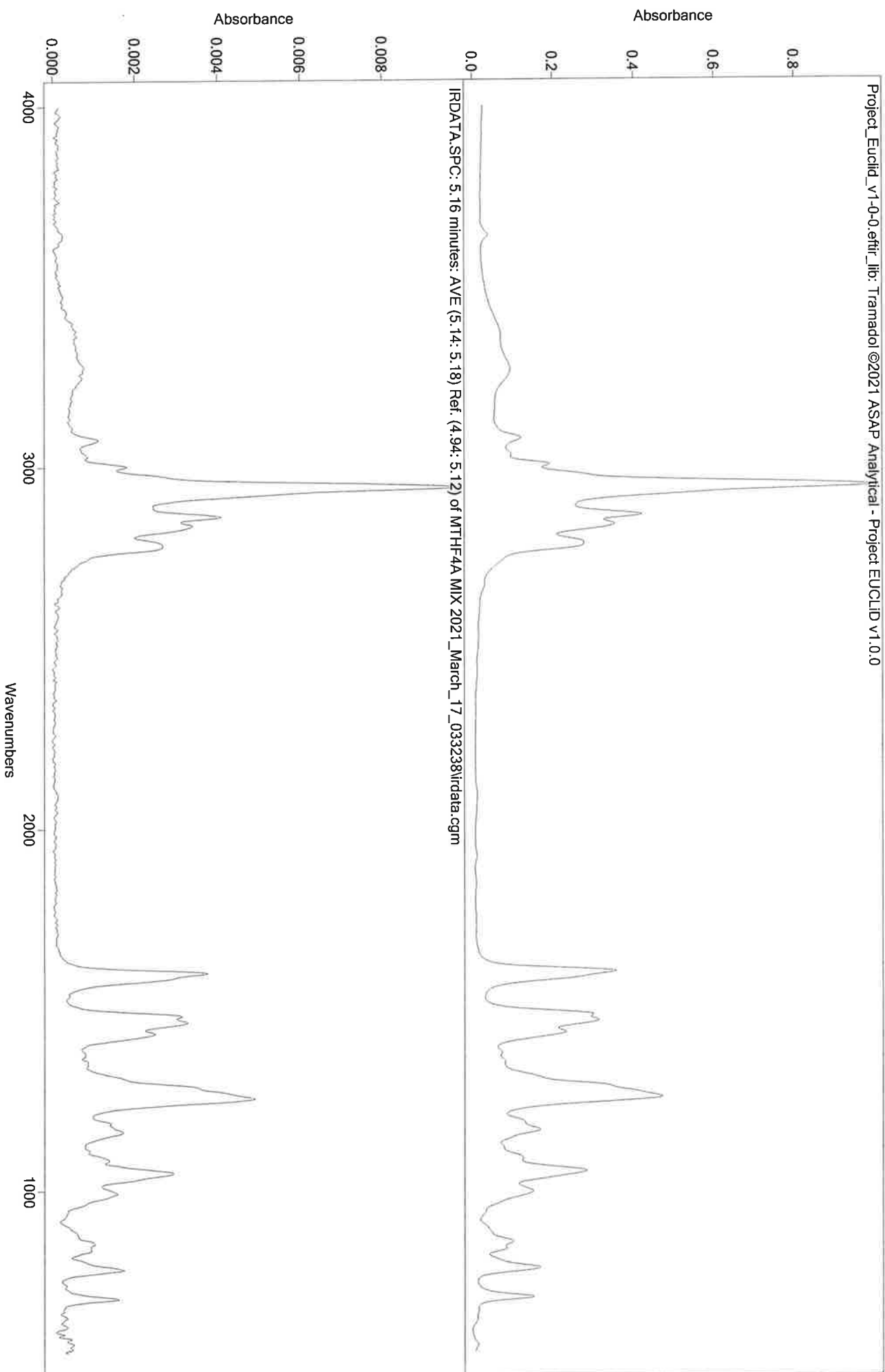
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |



IRDATA.SPC: 5.16 minutes: AVE (5.14: 5.18) Ref. (4.94: 5.12) of MTHF4A MIX  
2021\_March\_17\_033238.cgm

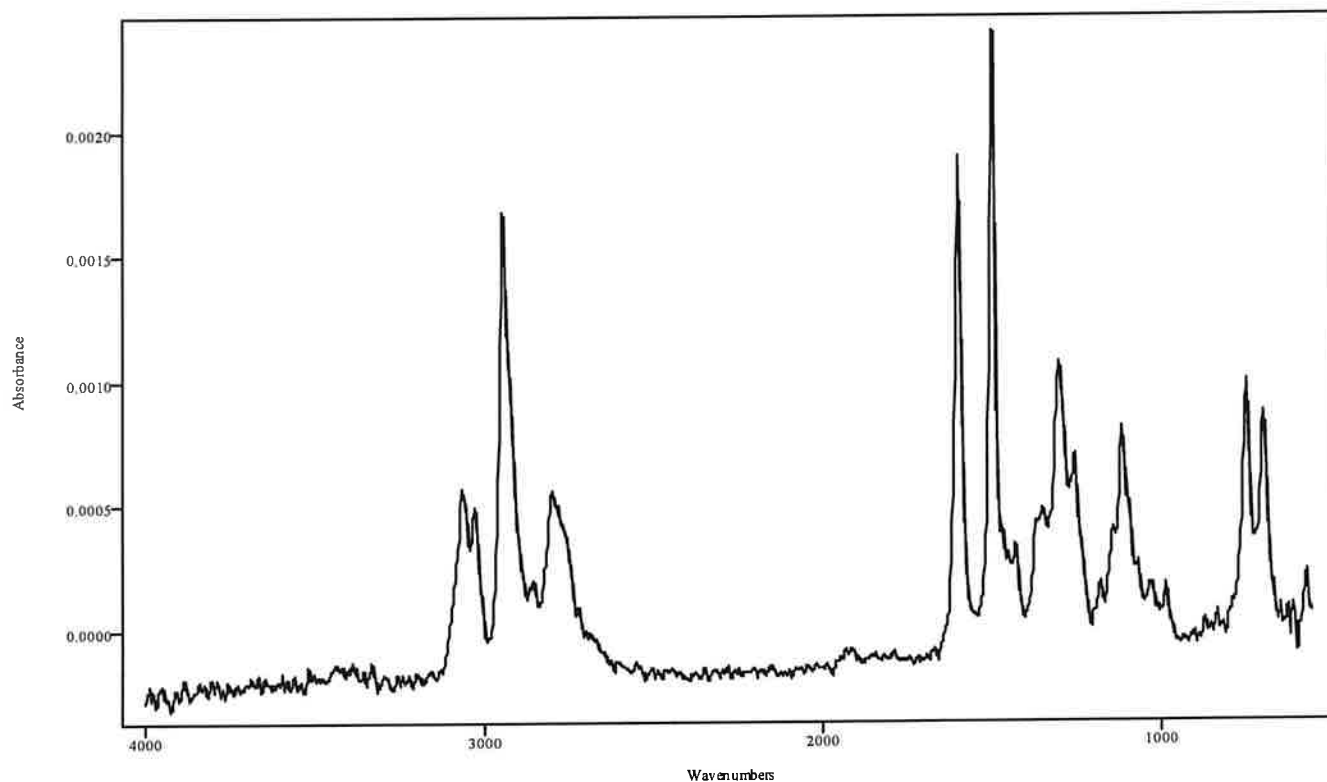
Tramadol

UHS-301



UH 31921

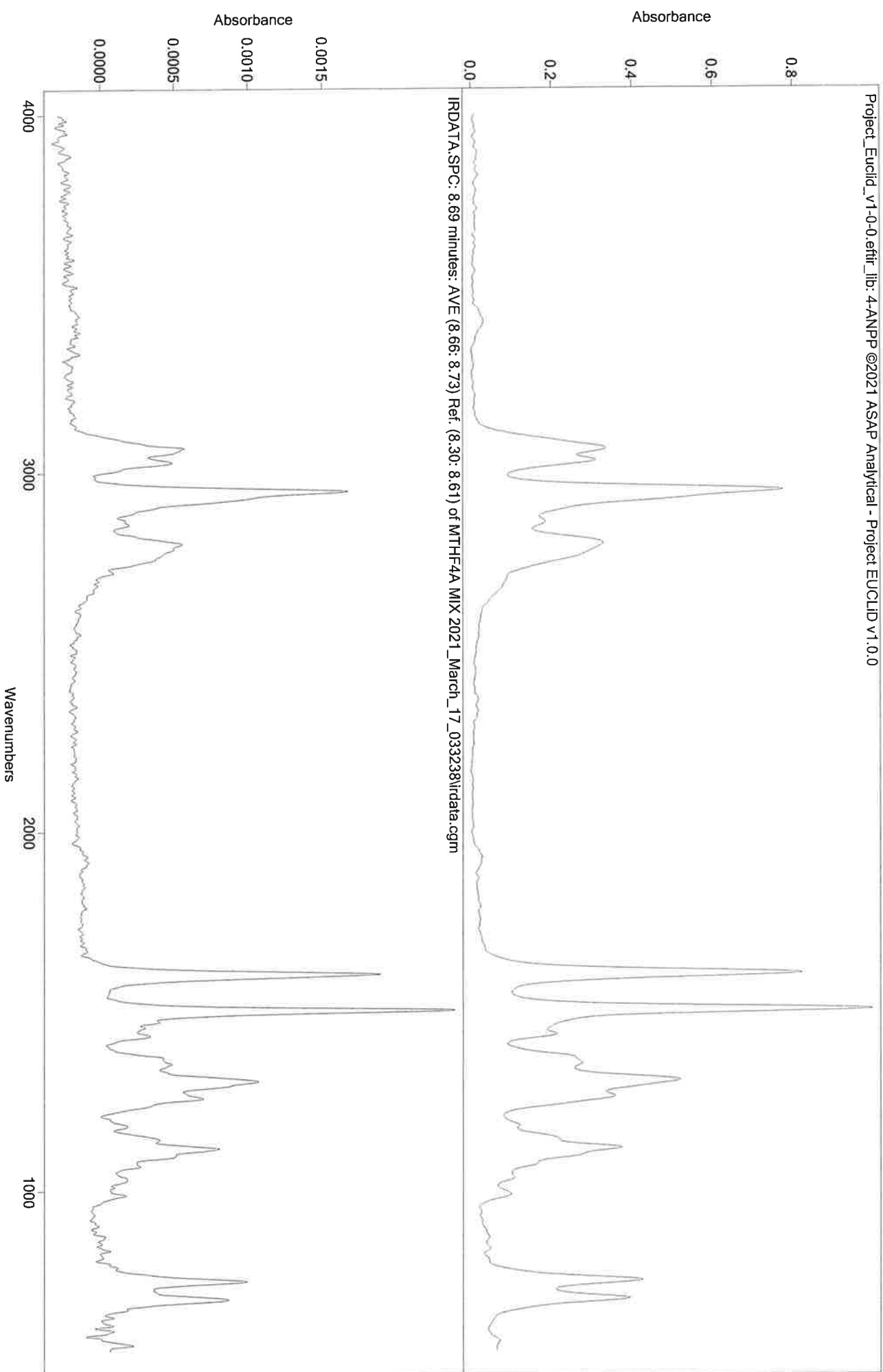
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |



IRDATA.SPC: 8.69 minutes: AVE (8.66: 8.73) Ref. (8.30: 8.61) of MTHF4A MIX  
2021\_March\_17\_033238.cgm

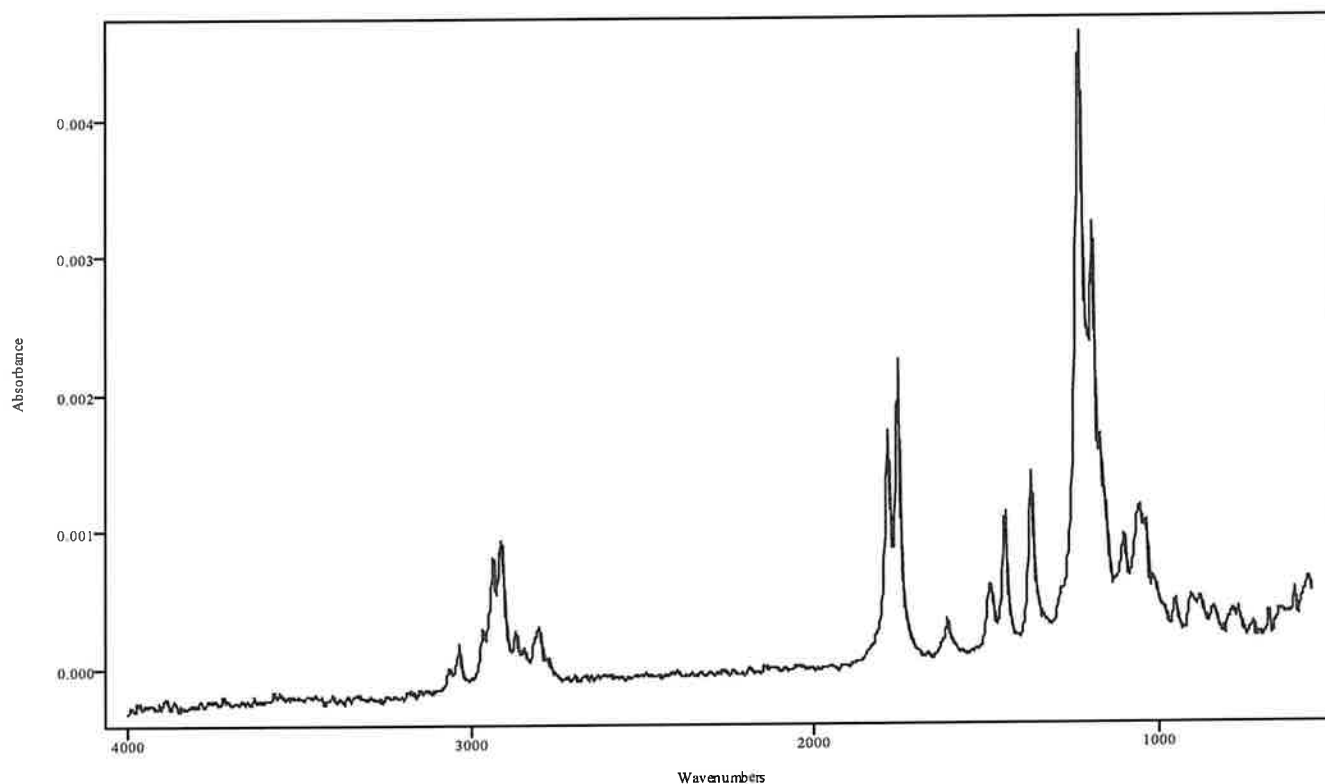
4-ANPP

pk5-3-21



11 3-19-21

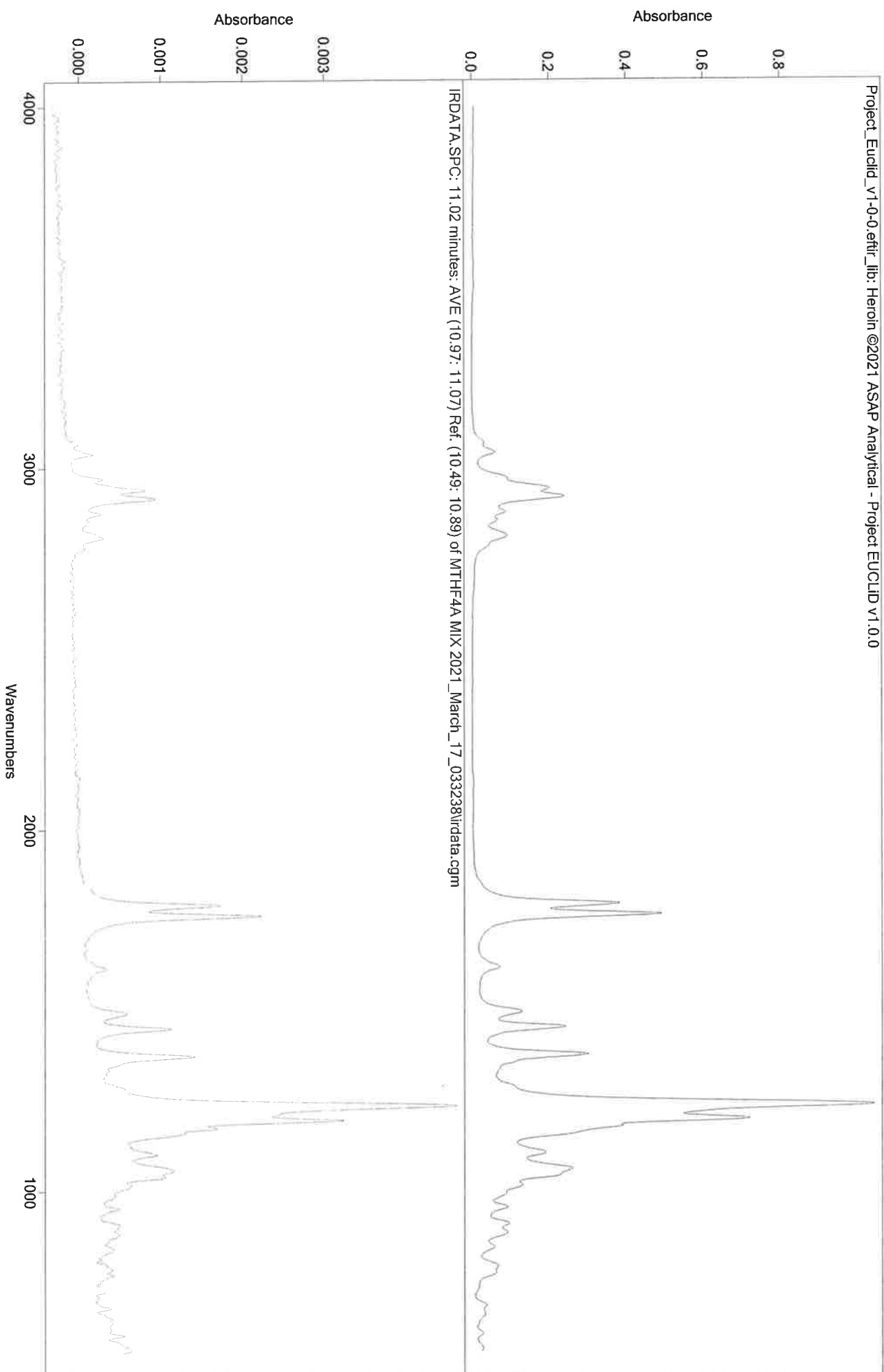
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |



IRDATA.SPC: 11.02 minutes: AVE (10.97: 11.07) Ref. (10.49: 10.89) of MTHF4A MIX  
2021\_March\_17\_033238.cgm

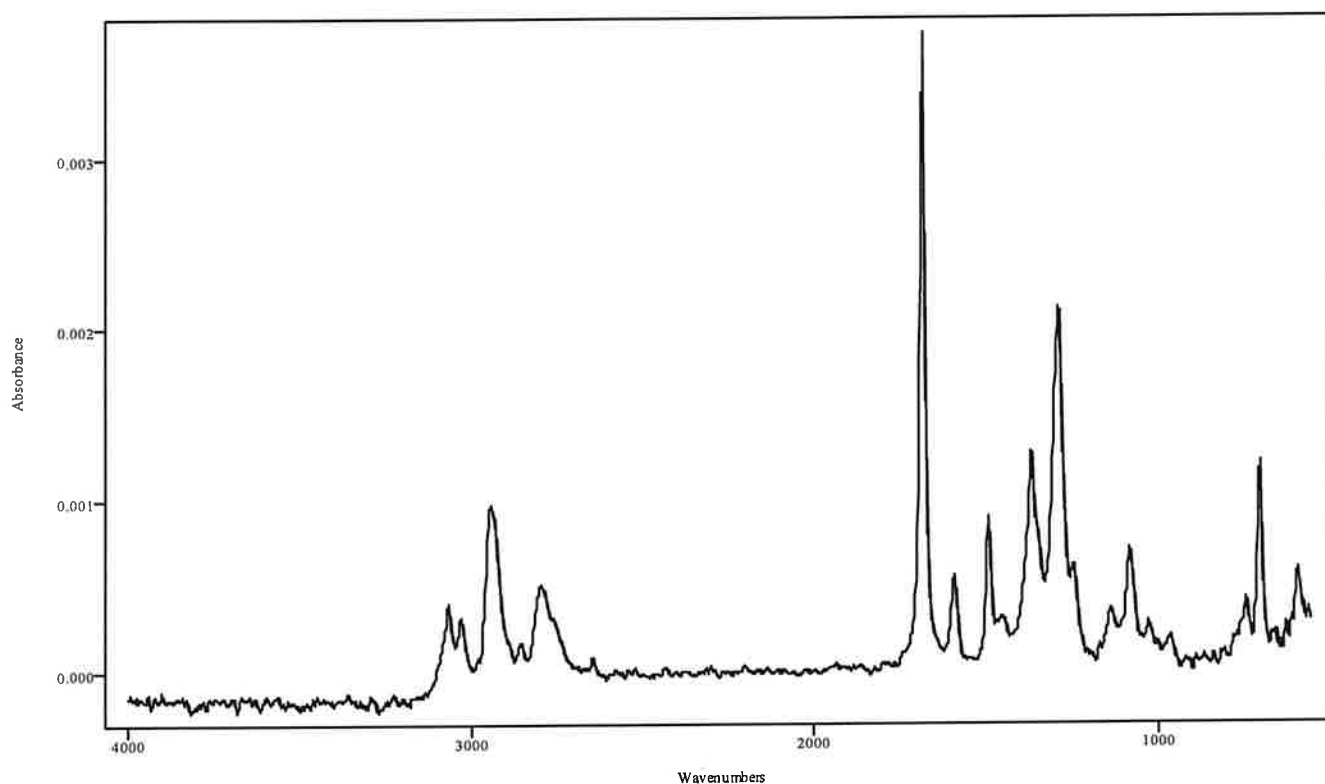
Heroin

MH 5-3-21



UH 3<sup>rd</sup> 17-21  
UH

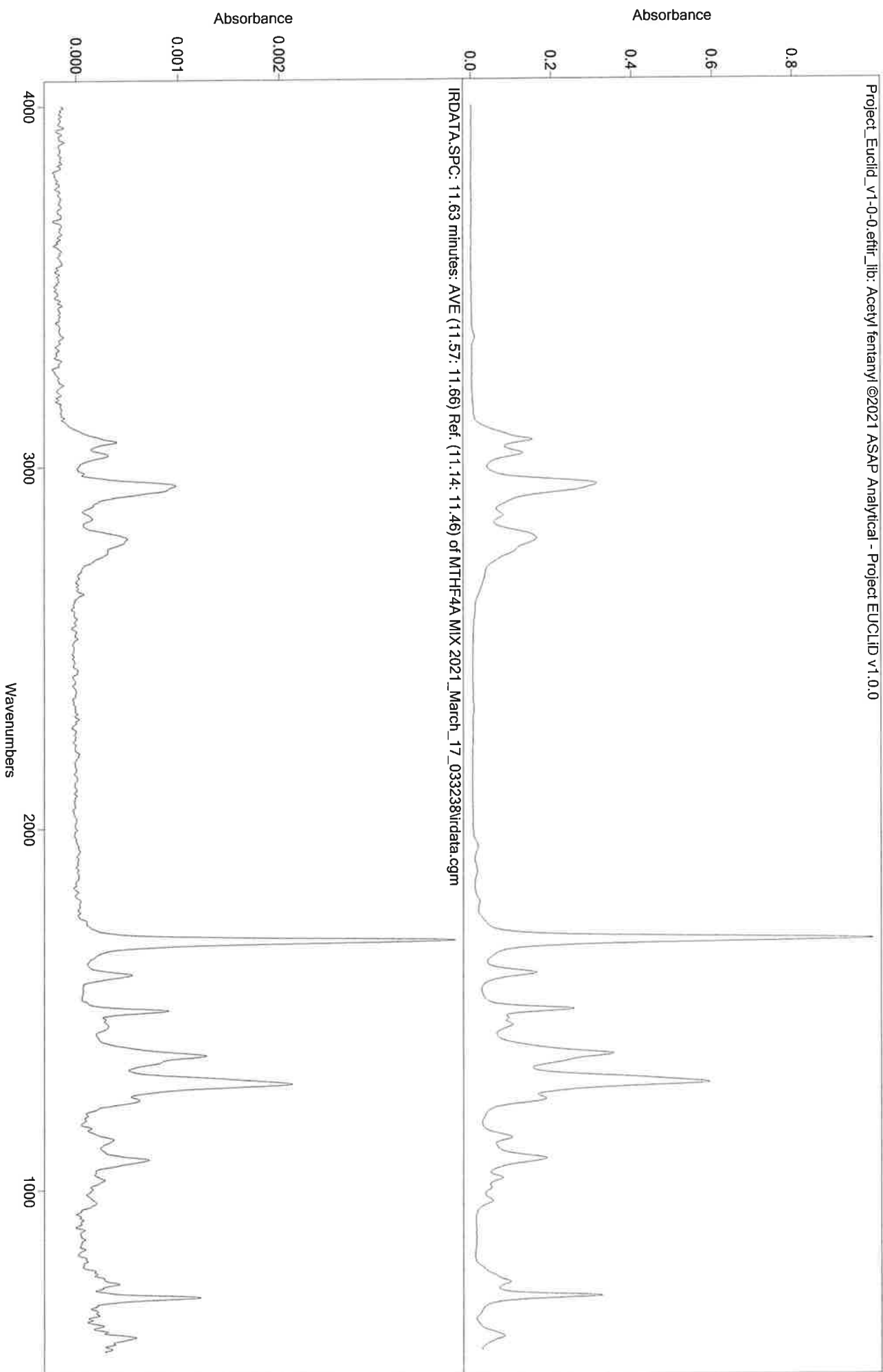
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |



IRDATA.SPC: 11.63 minutes: AVE (11.57: 11.66) Ref. (11.14: 11.46) of MTHF4A MIX  
2021\_March\_17\_033238.cgm

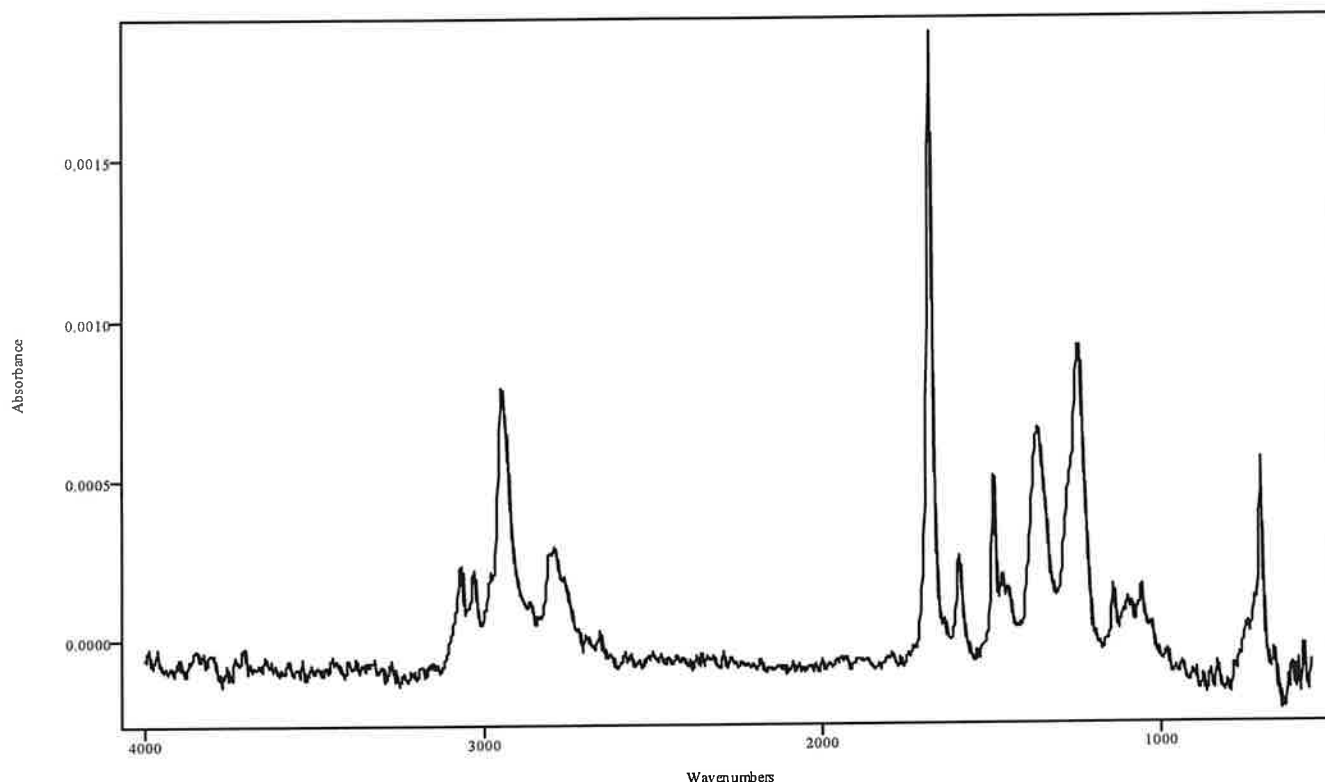
Acetyl Fentanyl

445-3-21



UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | MTHF4A MIX 2021_March_17_033238                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 123                                                     |
| Sample Name    | MTHF4A MIX                                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 03:56:37 2021                                |
| Date Processed | Fri Mar 19 21:06:01 2021                                |



IRDATA.SPC: 12.61 minutes: AVE (12.54: 12.66) Ref. (12.03: 12.47) of MTHF4A MIX  
2021\_March\_17\_033238.cgm

Fentanyl

Decided to rerun Fentanyl by its  
own 1mg/1mL standard.

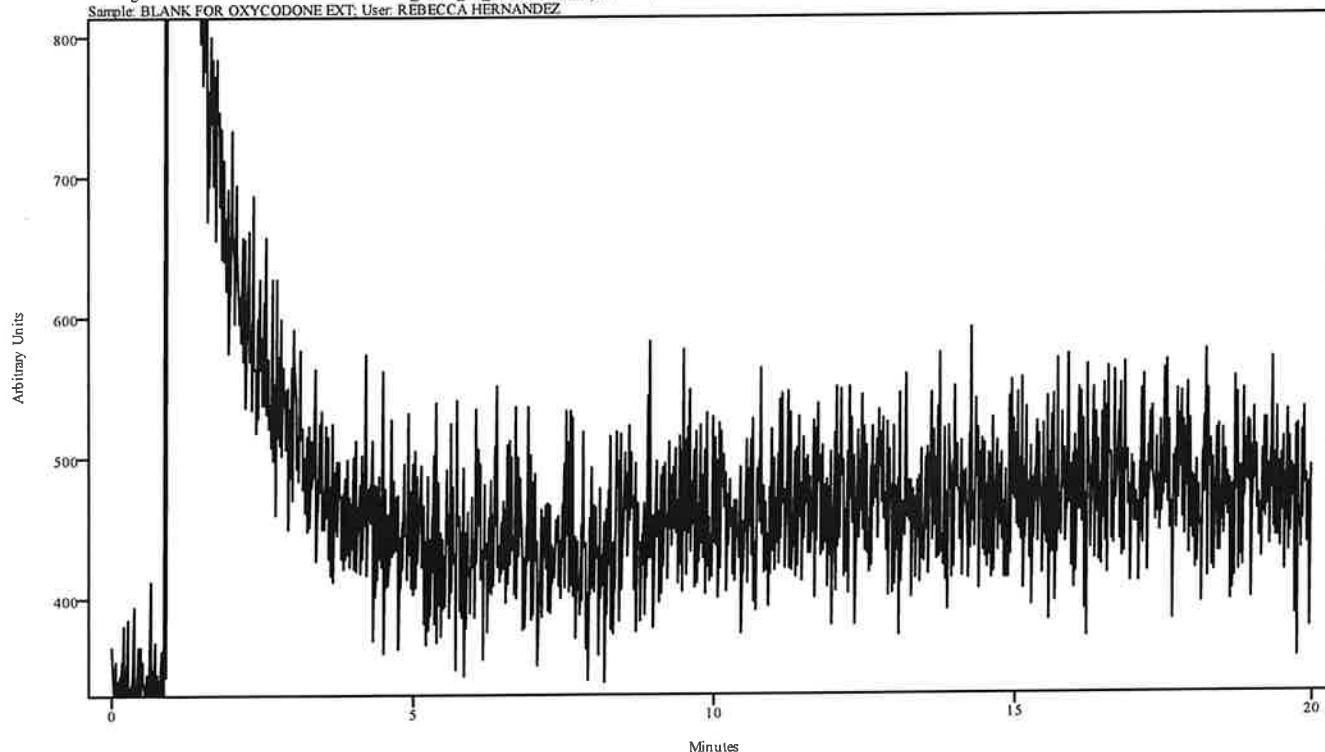
~~#DNU~~ #DNU

# IRD Data Analysis Report

CH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR OXYCODONE EXT 2021_March_17_035637            |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR OXYCODONE EXT                                 |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 04:20:31 2021                                |
| Date Processed | Fri Mar 19 21:07:00 2021                                |

irdata.cgm: BLANK FOR OXYCODONE EXT 2021\_March\_17\_035637irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR OXYCODONE EXT, User: REBECCA HERNANDEZ

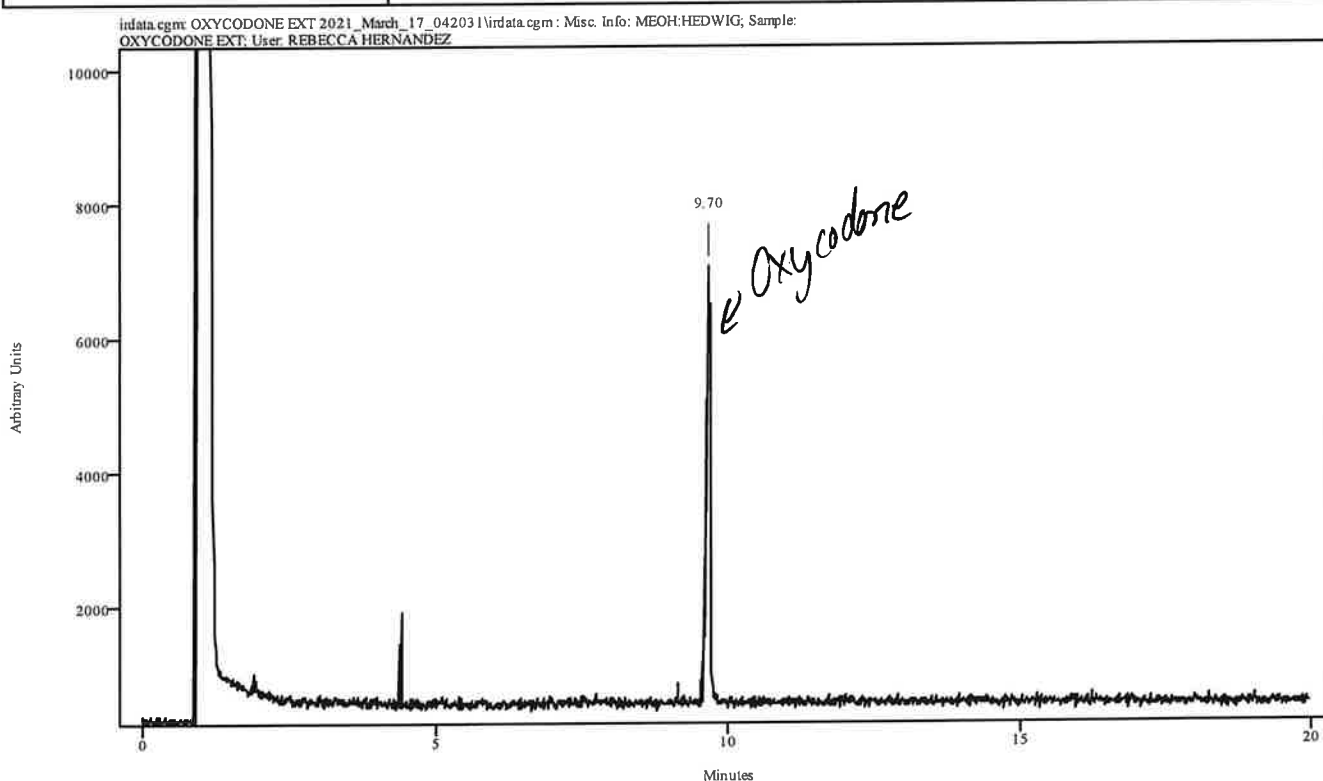


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UH 3-19-21

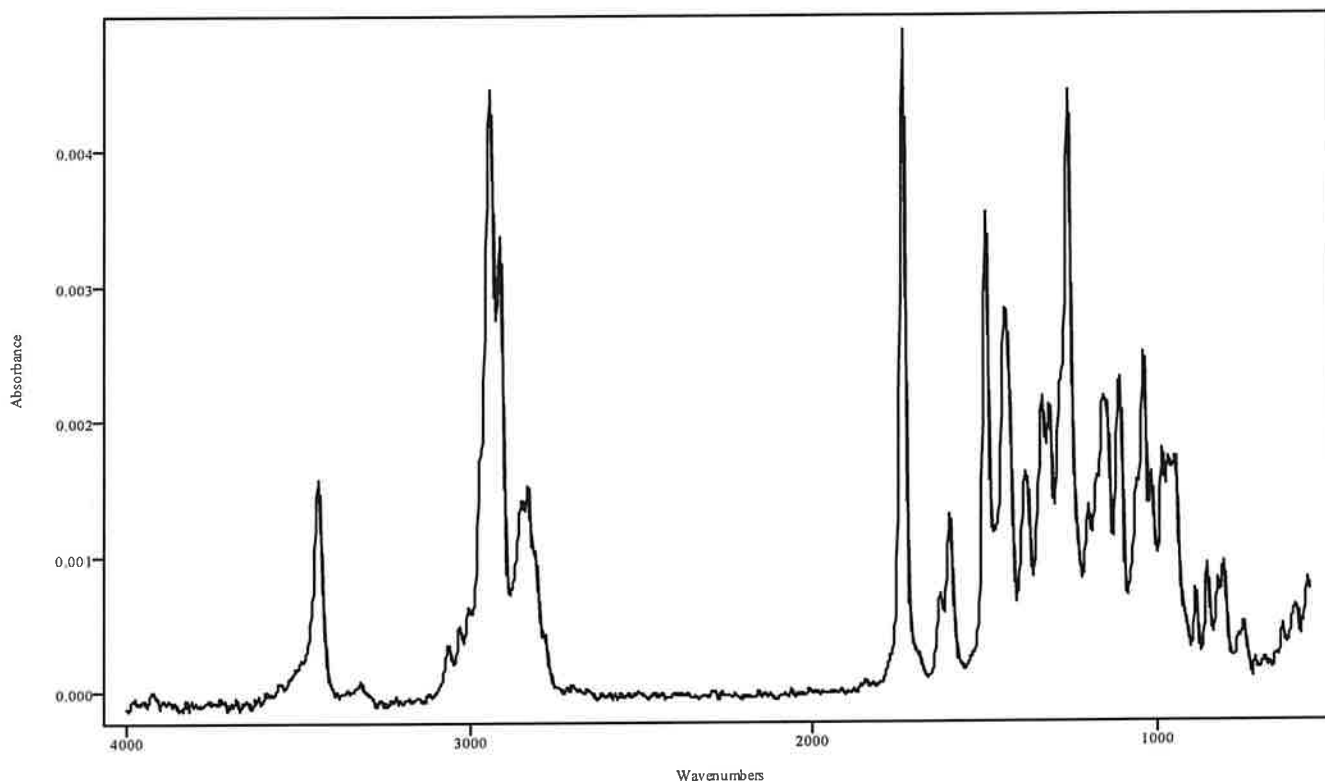
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | OXYCODONE EXT 2021_March_17_042031                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 124                                                     |
| Sample Name    | OXYCODONE EXT                                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 04:44:23 2021                                |
| Date Processed | Fri Mar 19 21:07:47 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 9.641      | 9.729    | 0.088      | 9.154           | 9.552         |

4431921

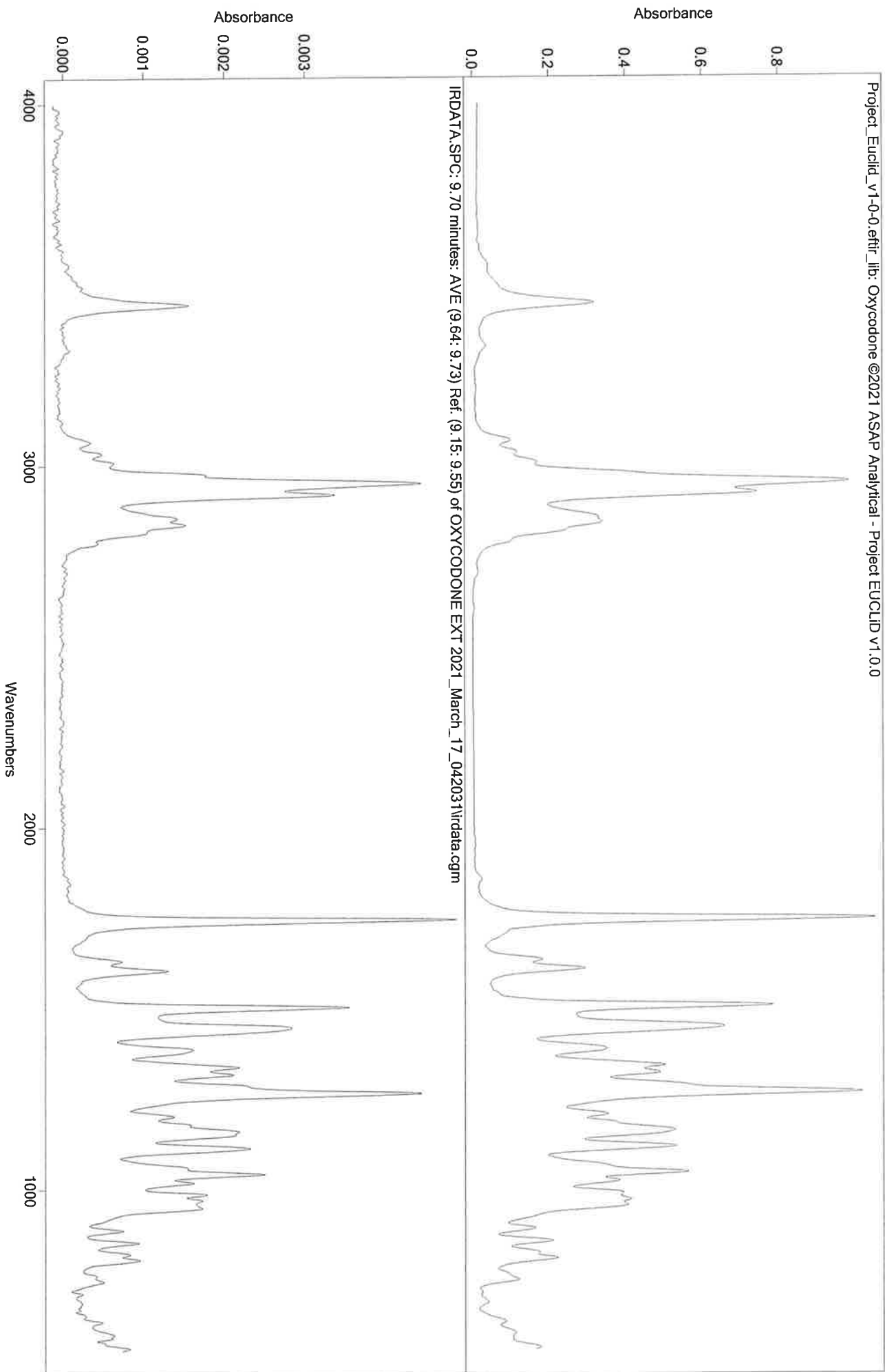
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | OXYCODONE EXT 2021_March_17_042031                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 124                                                     |
| Sample Name    | OXYCODONE EXT                                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 04:44:23 2021                                |
| Date Processed | Fri Mar 19 21:07:47 2021                                |



IRDATA.SPC: 9.70 minutes: AVE (9.64: 9.73) Ref. (9.15: 9.55) of OXYCODONE EXT  
2021\_March\_17\_042031.cgm

*Oxycodone*

MS-3-21

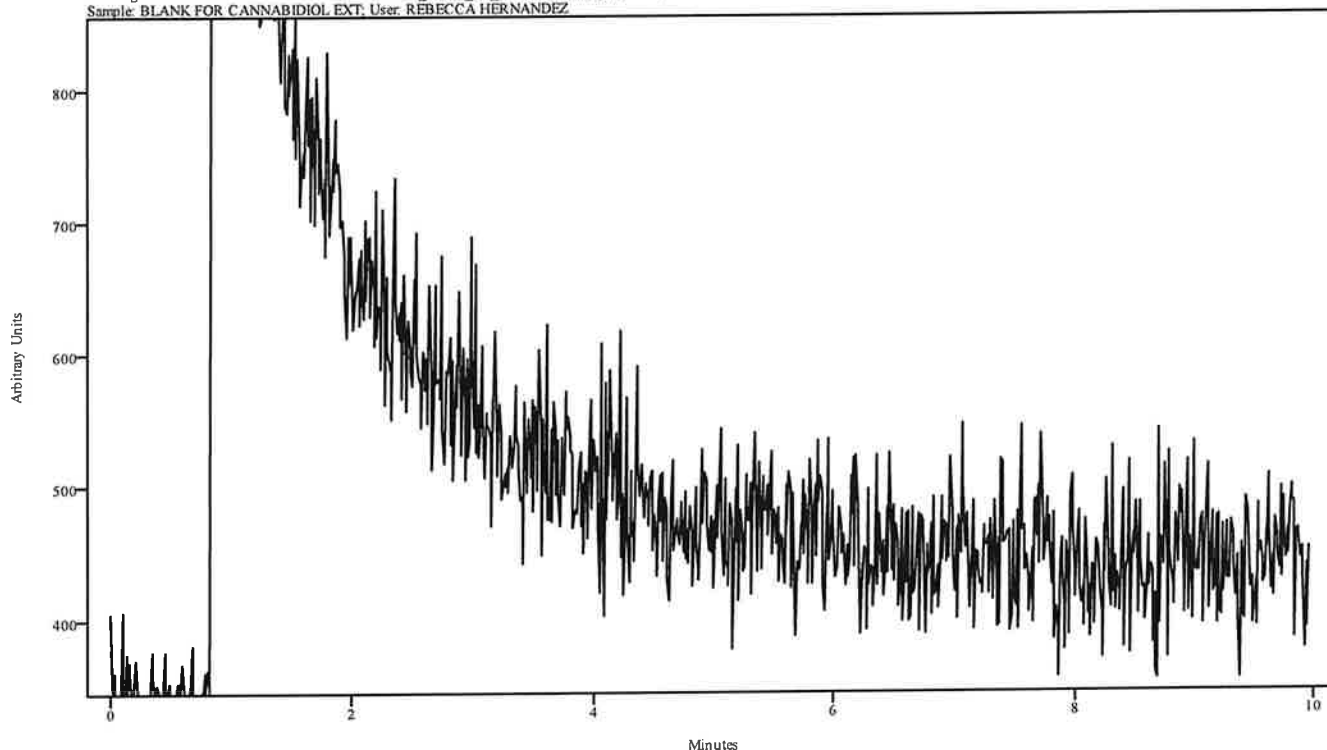


MA 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR CANNABIDIOL EXT 2021_March_17_044423          |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR CANNABIDIOL EXT                               |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 04:58:24 2021                                |
| Date Processed | Fri Mar 19 20:25:52 2021                                |

irdata.cgm: BLANK FOR CANNABIDIOL EXT 2021\_March\_17\_044423; Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR CANNABIDIOL EXT; User: REBECCA HERNANDEZ



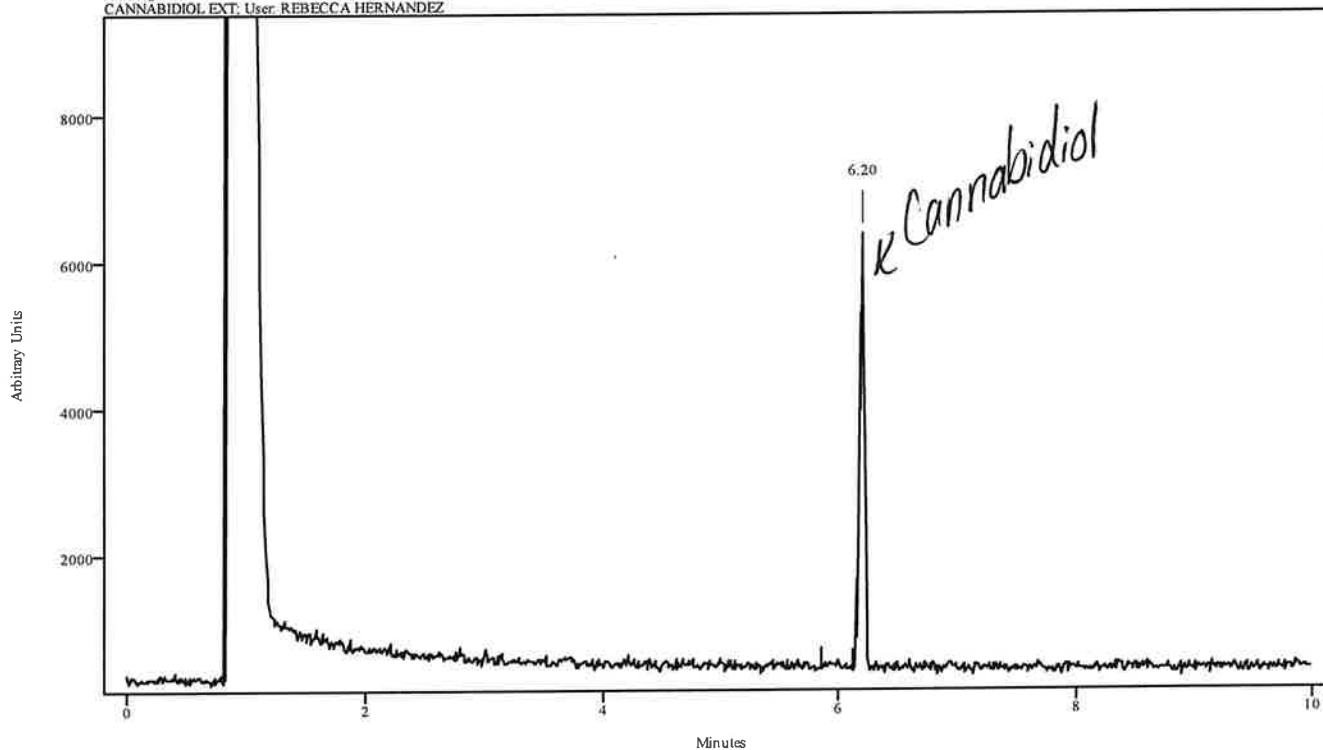
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

MT 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CANNABIDIOL EXT 2021_March_17_045824                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 125                                                     |
| Sample Name    | CANNABIDIOL EXT                                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 05:11:42 2021                                |
| Date Processed | Fri Mar 19 20:26:22 2021                                |

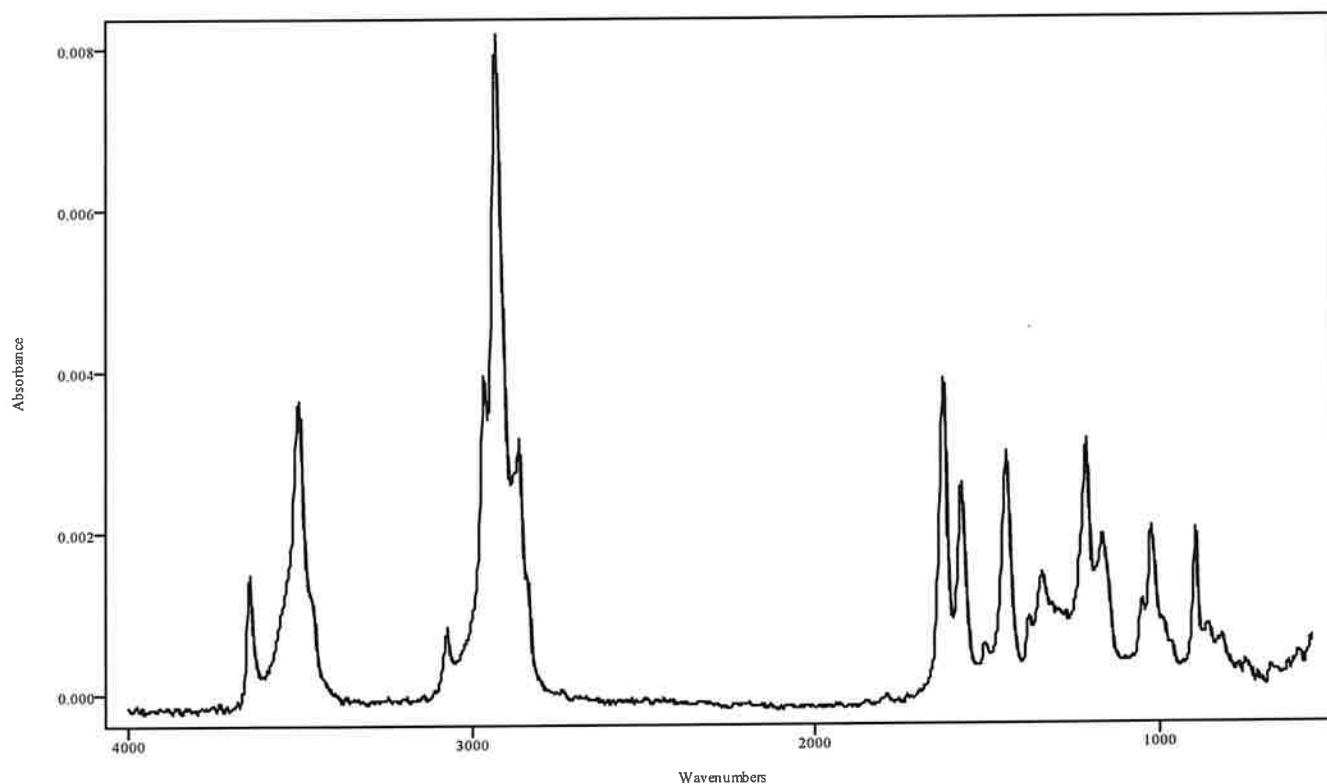
irdata.cgm CANNABIDIOL EXT 2021\_March\_17\_045824\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: CANNABIDIOL EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.170      | 6.225    | 0.055      | 5.860           | 6.125         |

44 3-19-21

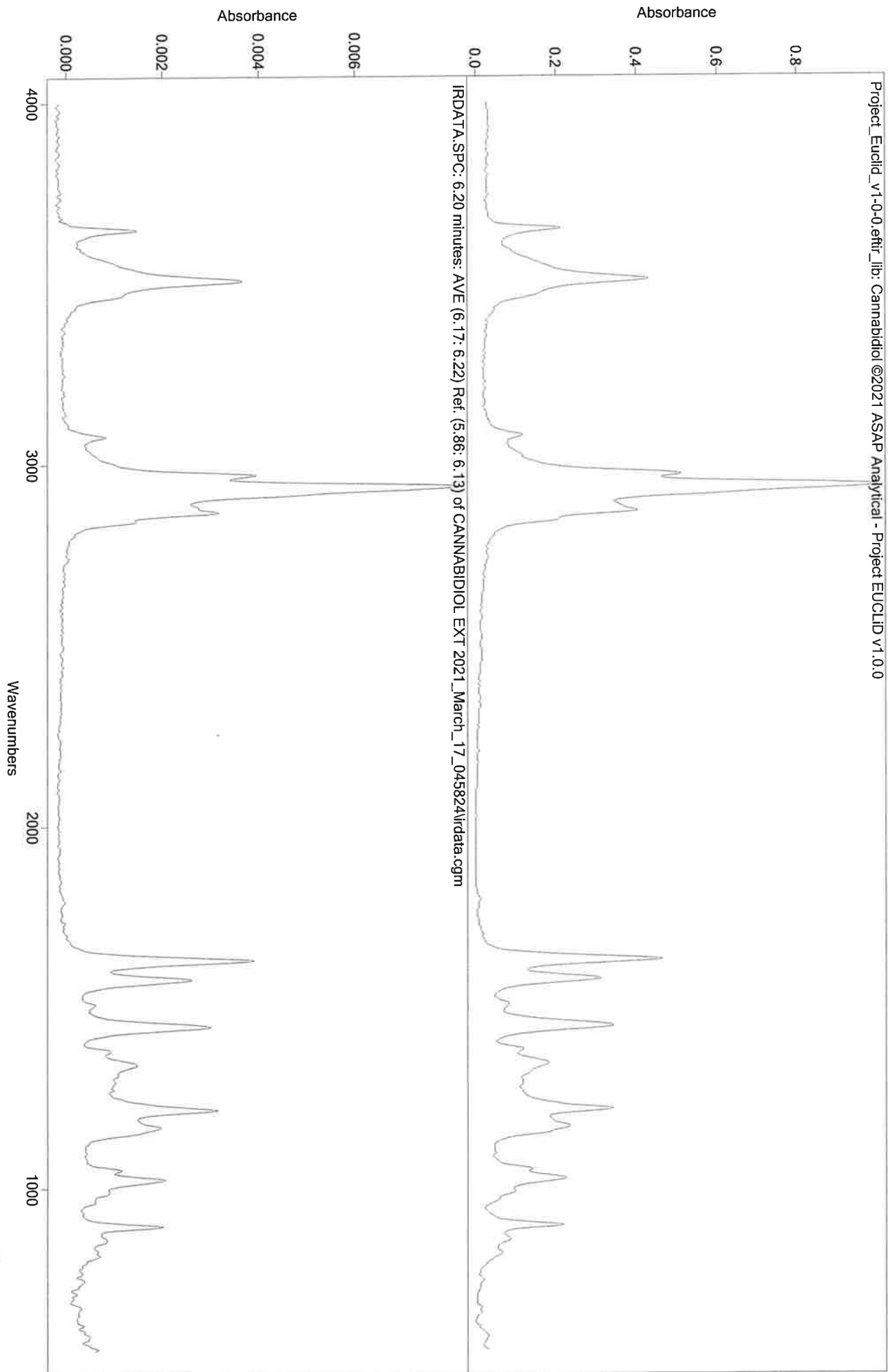
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CANNABIDIOL EXT 2021_March_17_045824                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 125                                                     |
| Sample Name    | CANNABIDIOL EXT                                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 05:11:42 2021                                |
| Date Processed | Fri Mar 19 20:26:22 2021                                |



IRDATA.SPC: 6.20 minutes: AVE (6.17: 6.22) Ref. (5.86: 6.13) of CANNABIDIOL EXT  
2021\_March\_17\_045824.cgm

*Cannabidiol*

MS-3-21

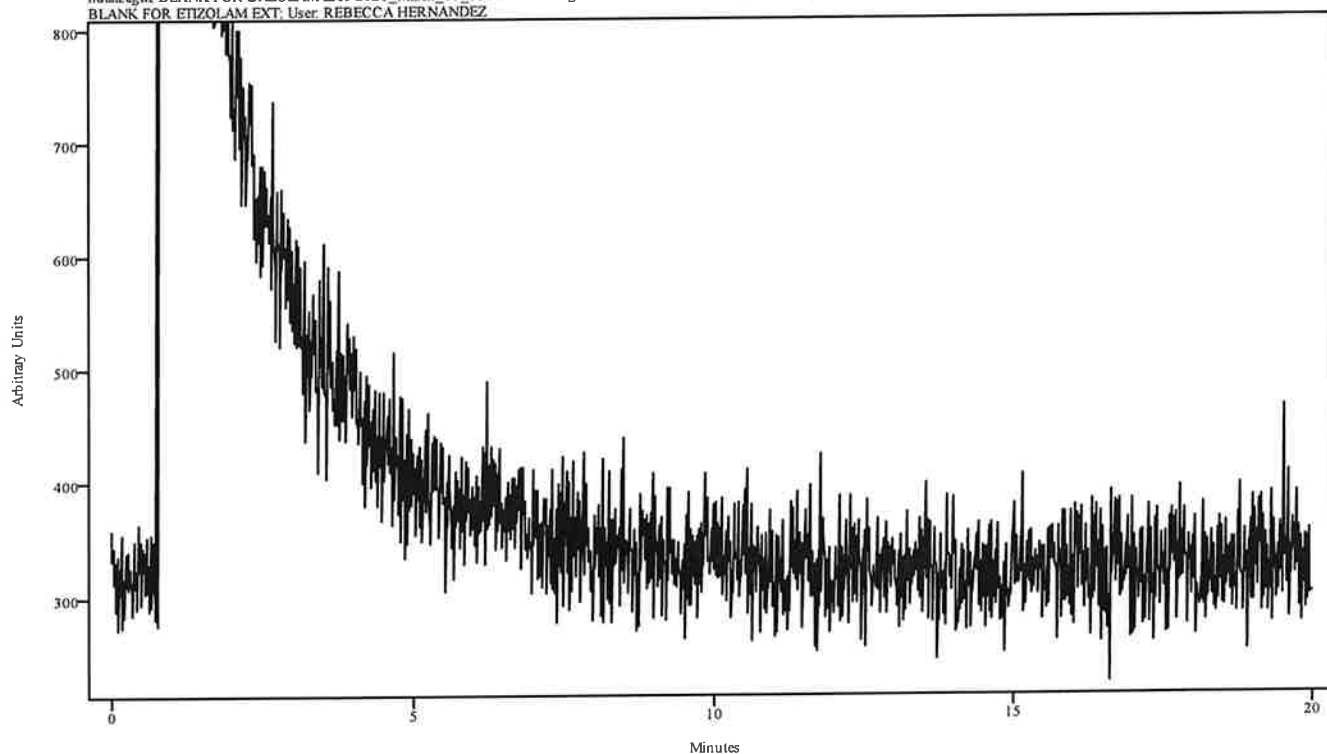


# IRD Data Analysis Report

UH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR ETIZOLAM EXT 2021_March_17_051142             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR ETIZOLAM EXT                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 05:36:08 2021                                |
| Date Processed | Fri Mar 19 20:31:52 2021                                |

irdsta.cgm: BLANK FOR ETIZOLAM EXT 2021\_March\_17\_051142\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR ETIZOLAM EXT; User: REBECCA HERNANDEZ



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

~~ANU~~ UH

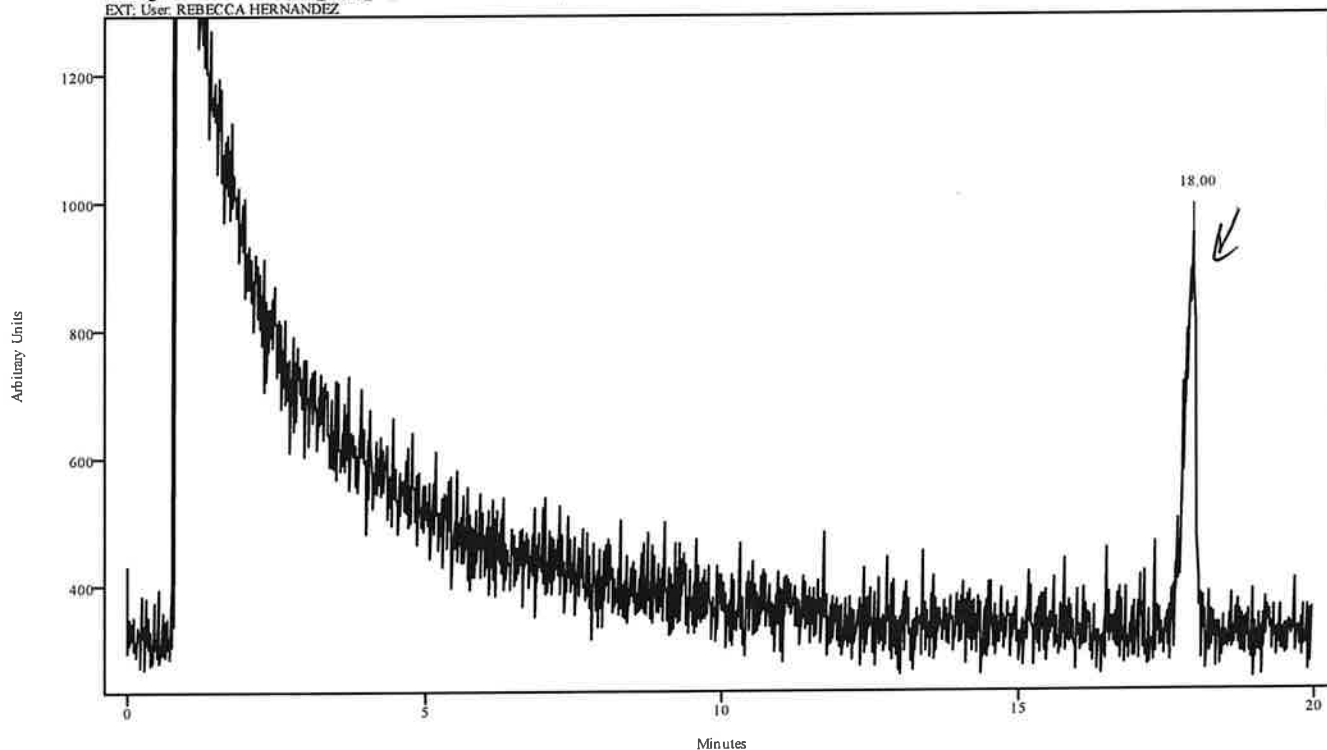
See standard run.  
Data was still used  
to verify methods.

# IRD Data Analysis Report

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ETIZOLAM EXT 2021_March_17_053608                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 129                                                     |
| Sample Name    | ETIZOLAM EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 05:58:41 2021                                |
| Date Processed | Fri Mar 19 20:41:05 2021                                |

irdata.cgm: ETIZOLAM EXT 2021\_March\_17\_053608\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: ETIZOLAM EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 17.755     | 18.046   | 0.287      | 16.864          | 17.395        |

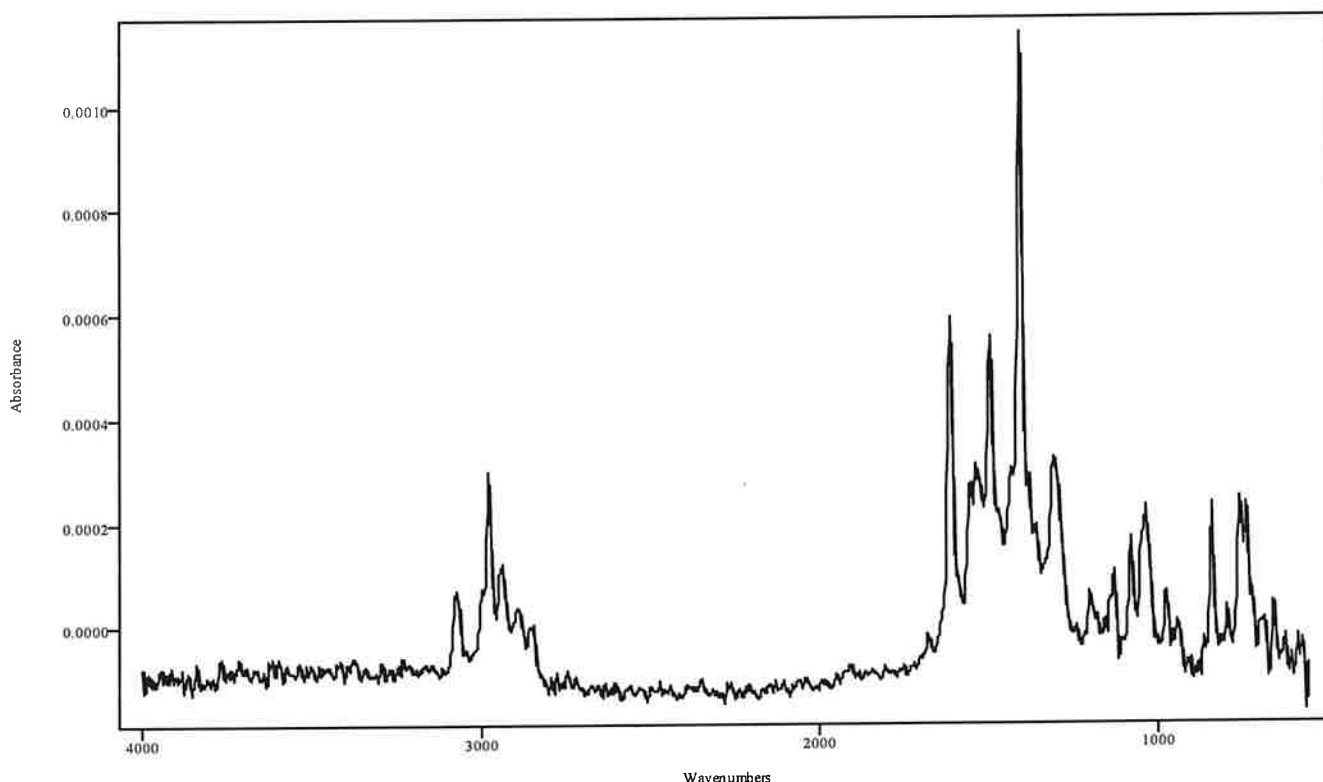
~~BDNU~~ UH

make more concentrated's  
rerun.

Data was still used to verify  
methods.

MA 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ETIZOLAM EXT 2021_March_17_053608                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 129                                                     |
| Sample Name    | ETIZOLAM EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 05:58:41 2021                                |
| Date Processed | Fri Mar 19 20:41:05 2021                                |



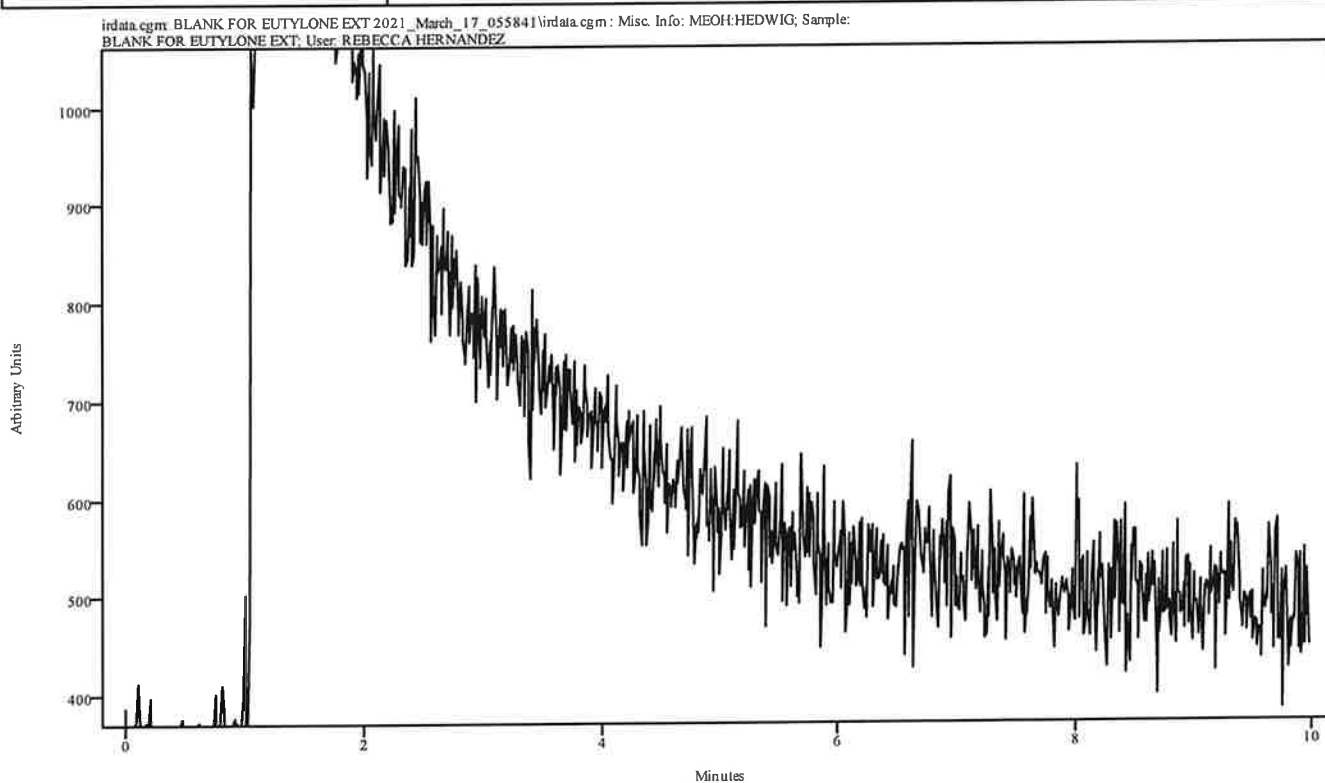
IRDATA.SPC: 18.00 minutes: AVE (17.76: 18.04) Ref. (16.86: 17.39) of ETIZOLAM EXT  
2021\_March\_17\_053608.cgm

MA  
~~DATA~~ - Make more concentrated  
s rerun.  
Data was still used to  
verify methods.

# IRD Data Analysis Report

UH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR EUTYLONE EXT 2021_March_17_055841             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 114                                                     |
| Sample Name    | BLANK FOR EUTYLONE EXT                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 06:14:34 2021                                |
| Date Processed | Fri Mar 19 20:43:23 2021                                |



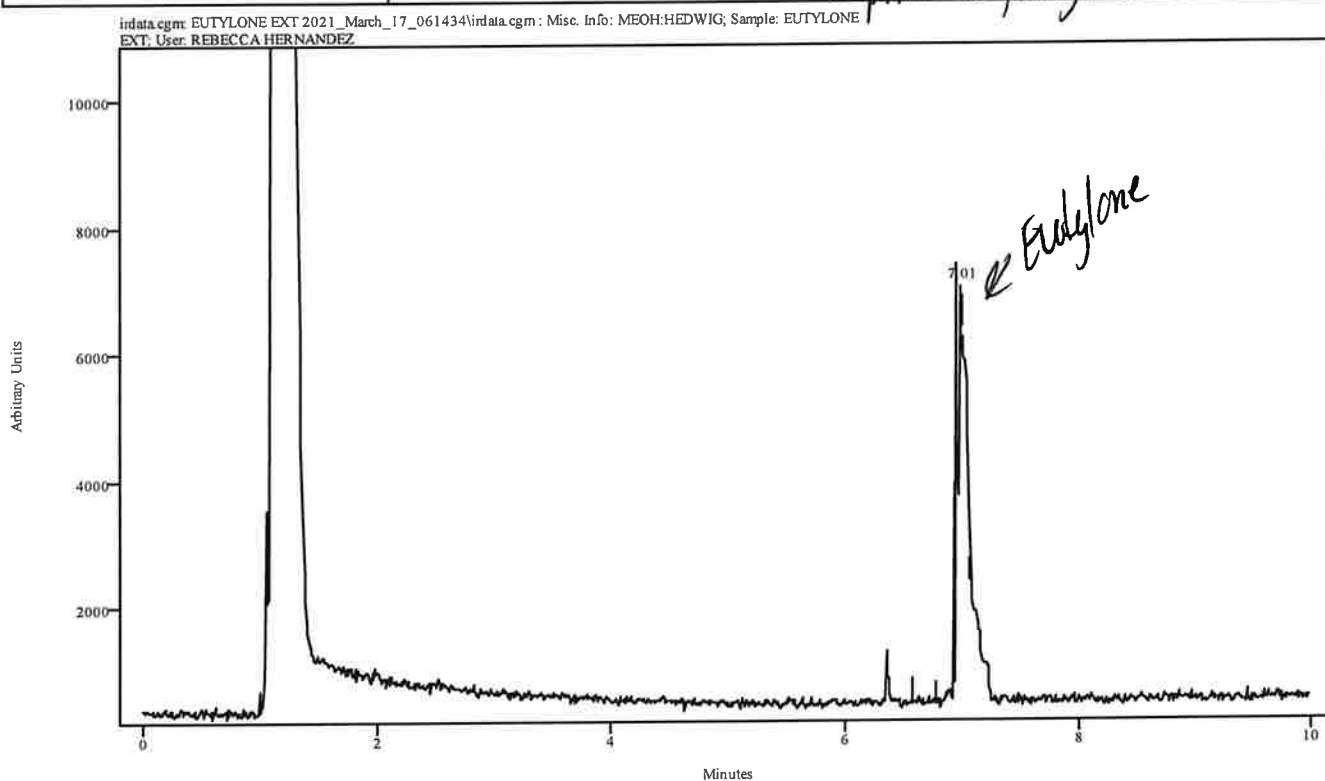
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

11/5/21

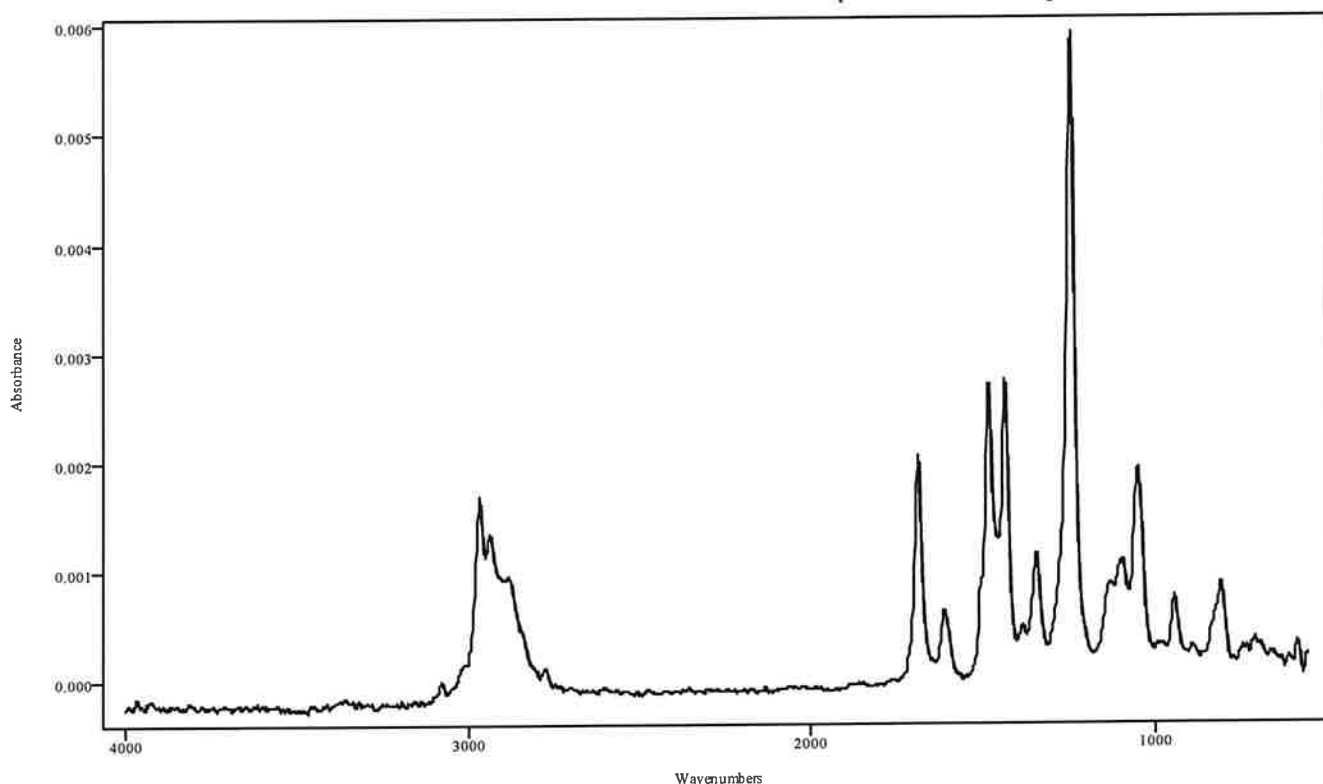
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | EUTYLONE EXT 2021_March_17_061434                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 116                                                     |
| Sample Name    | EUTYLONE EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 06:29:41 2021                                |
| Date Processed | Mon May 03 12:20:45 2021                                |

Reprinted, original 3-19-21



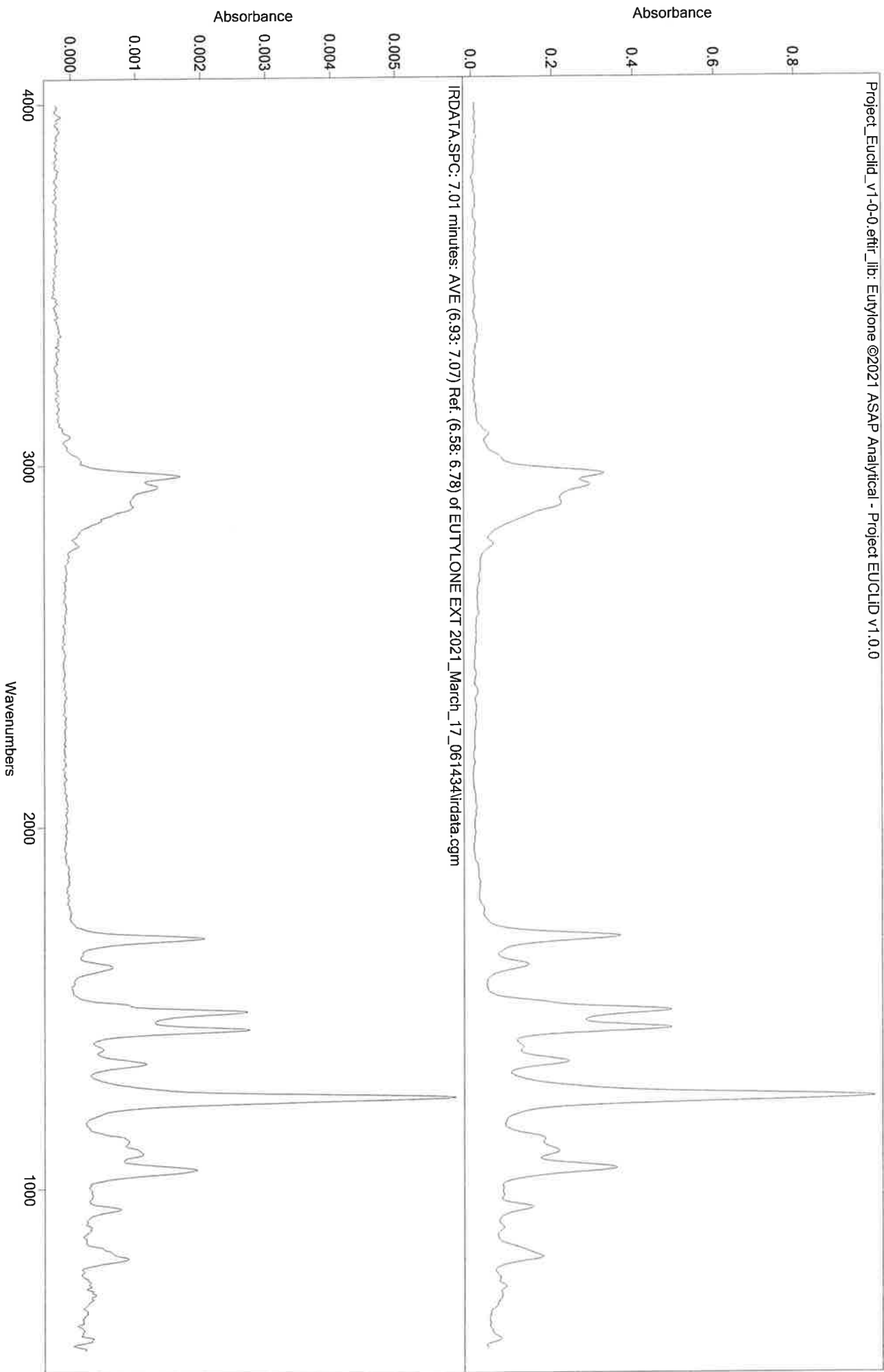
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.933      | 7.074    | 0.144      | 6.577           | 6.774         |

|                |                                                             |
|----------------|-------------------------------------------------------------|
| Data Filename  | EUTYLONE EXT 2021_March_17_061434                           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS     |
| IRD Method     | IRD3 EXT                                                    |
| GC Method      | 60TO270                                                     |
| GC Vial        | 116                                                         |
| Sample Name    | EUTYLONE EXT                                                |
| Misc. Info     | MEOH:HEDWIG                                                 |
| User ID        | REBECCA HERNANDEZ                                           |
| Injection Time | Wed Mar 17 06:29:41 2021                                    |
| Date Processed | Mon May 03 12:20:45 2021 <i>Reprinted, original 3-19-21</i> |



IRDATA.SPC: 7.01 minutes: AVE (6.93: 7.07) Ref. (6.58: 6.78) of EUTYLONE EXT  
 2021\_March\_17\_061434.cgm *Eutylone*

MS-3-21



Sequence Name: IRD3 EXT METHOD STANDARDS (3-17-21)

44

Sample Path: C:\ASAP DATA\HEDWIG 2021\IRD3 EXTENDED METHOD STANDARDS

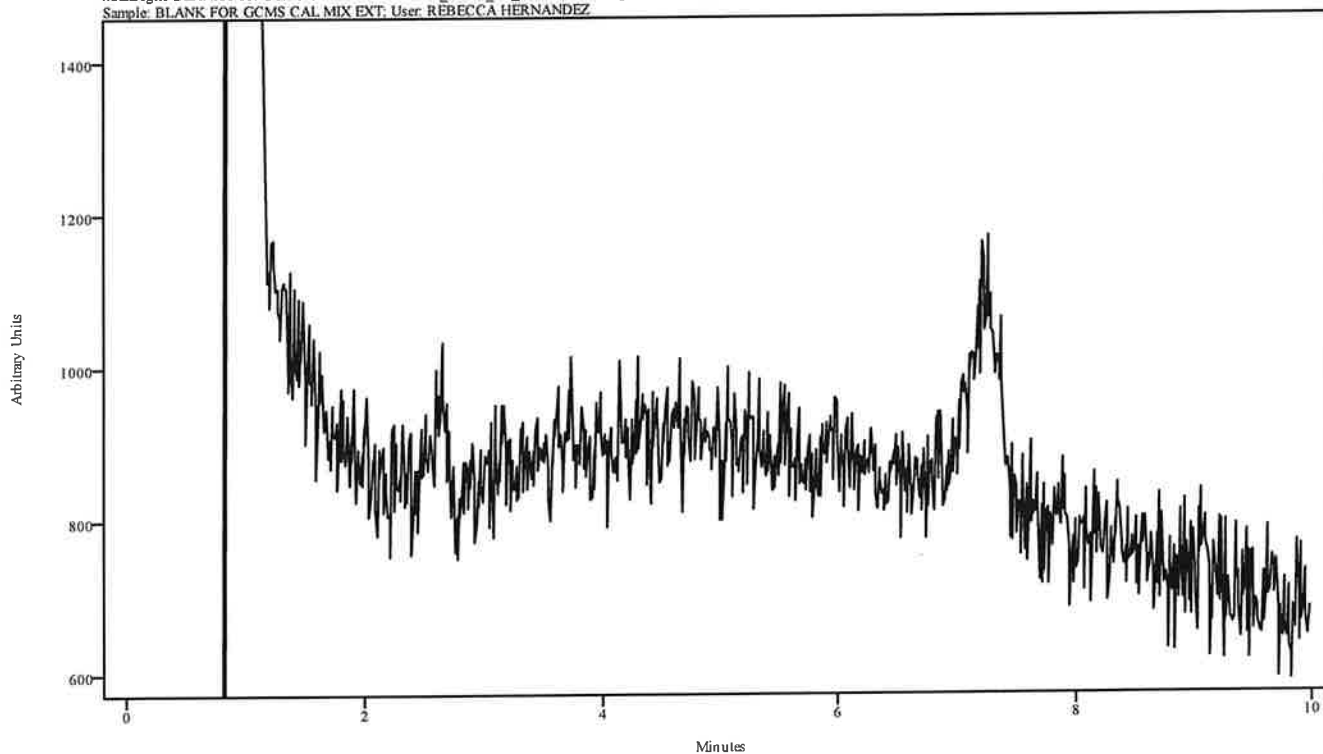
|    | Type | IRD Method | GC Method   | Vial | Sample ID  | Data File  | Solvent/Extract | Instrument ID |
|----|------|------------|-------------|------|------------|------------|-----------------|---------------|
| 1  |      | IRD3 EXT   | 200TO270    | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 2  |      | IRD3 EXT   | 200TO270    | 102  | GCMS CAL M | GCMS CAL M | MEOH            | HEDWIG        |
| 3  |      | IRD3 EXT   | ISO270 (20M | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 4  |      | IRD3 EXT   | ISO270 (20M | 103  | TESTOSTERO | TEST PROP  | MEOH            | HEDWIG        |
| 5  |      | IRD3 EXT   | ISO270 (15M | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 6  |      | IRD3 EXT   | ISO270 (15M | 104  | KETAMINE E | KETAMINE E | MEOH            | HEDWIG        |
| 7  |      | IRD3 EXT   | 120TO270    | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 8  |      | IRD3 EXT   | 120TO270    | 105  | METHADONE  | METHADONE  | MEOH            | HEDWIG        |
| 9  |      | IRD3 EXT   | 60TO270     | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 10 |      | IRD3 EXT   | 60TO270     | 106  | 3,4 MDMA E | 3,4 MDMA E | MEOH            | HEDWIG        |
| 11 |      | IRD3 EXT   | ISO270 (30M | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 12 |      | IRD3 EXT   | ISO270 (30M | 107  | FLUALPRAZO | FLUALPRAZO | MEOH            | HEDWIG        |
| 13 |      | IRD3 EXT   | ISO270 (30M | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 14 |      | IRD3 EXT   | ISO270 (30M | 108  | FLUBROMAZO | FLUBROMAZO | MEOH            | HEDWIG        |
| 15 |      | IRD3 EXT   | 200TO270 (2 | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 16 |      | IRD3 EXT   | 200TO270 (2 | 109  | ALPRAZOLAM | ALPRAZOLAM | MEOH            | HEDWIG        |
| 17 |      | IRD3 EXT   | ISO270 (30M | 101  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 18 |      | IRD3 EXT   | ISO270 (30M | 110  | CLONAZOLAM | CLONAZOLAM | ACETONITRILE    | HEDWIG        |

UH 31921

## IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR GCMS CAL MIX EXT 2021_March_17_201811         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR GCMS CAL MIX EXT                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 20:32:57 2021                                |
| Date Processed | Fri Mar 19 20:55:45 2021                                |

irdata.cgm: BLANK FOR GCMS CAL MIX EXT 2021\_March\_17\_201811Virdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR GCMS CAL MIX EXT, User: REBECCA HERNANDEZ



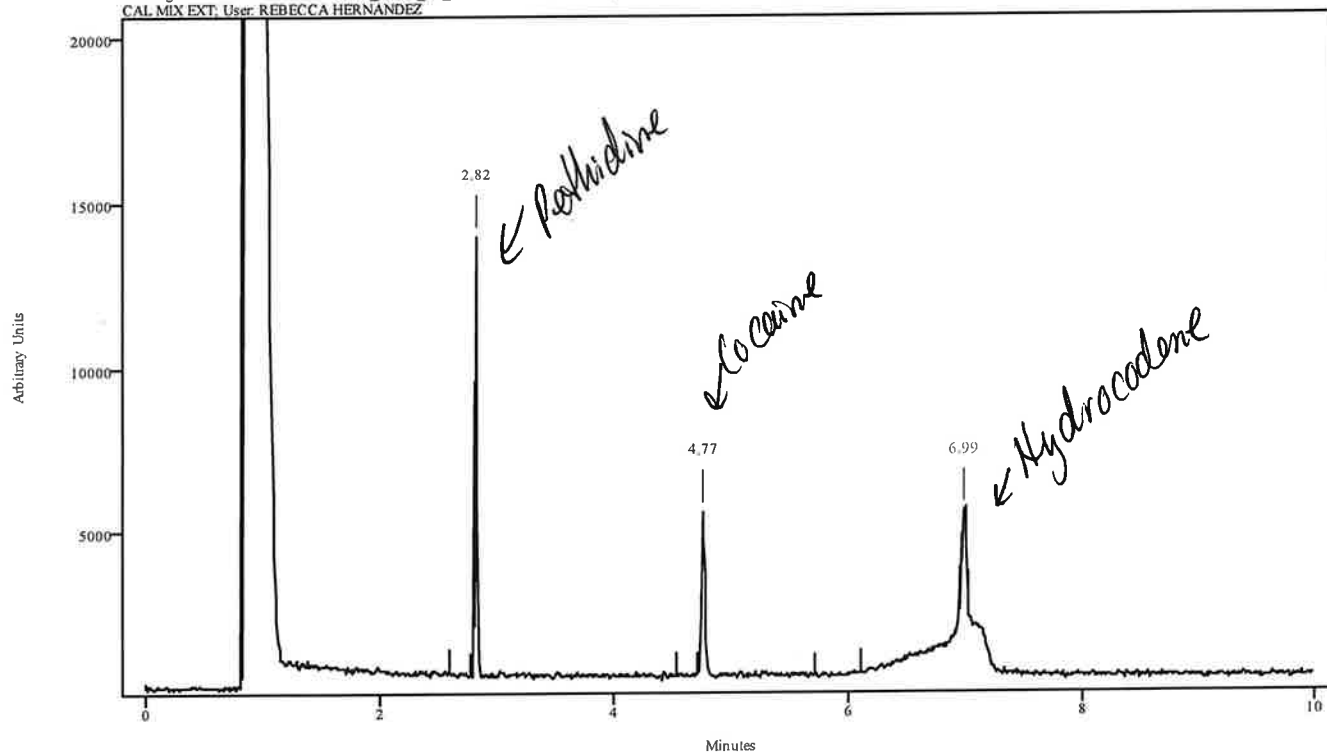
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

4/11/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GCMS CAL MIX EXT 2021_March_17_203257                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 102                                                     |
| Sample Name    | GCMS CAL MIX EXT                                        |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 20:46:14 2021                                |
| Date Processed | Fri Mar 19 20:56:35 2021                                |

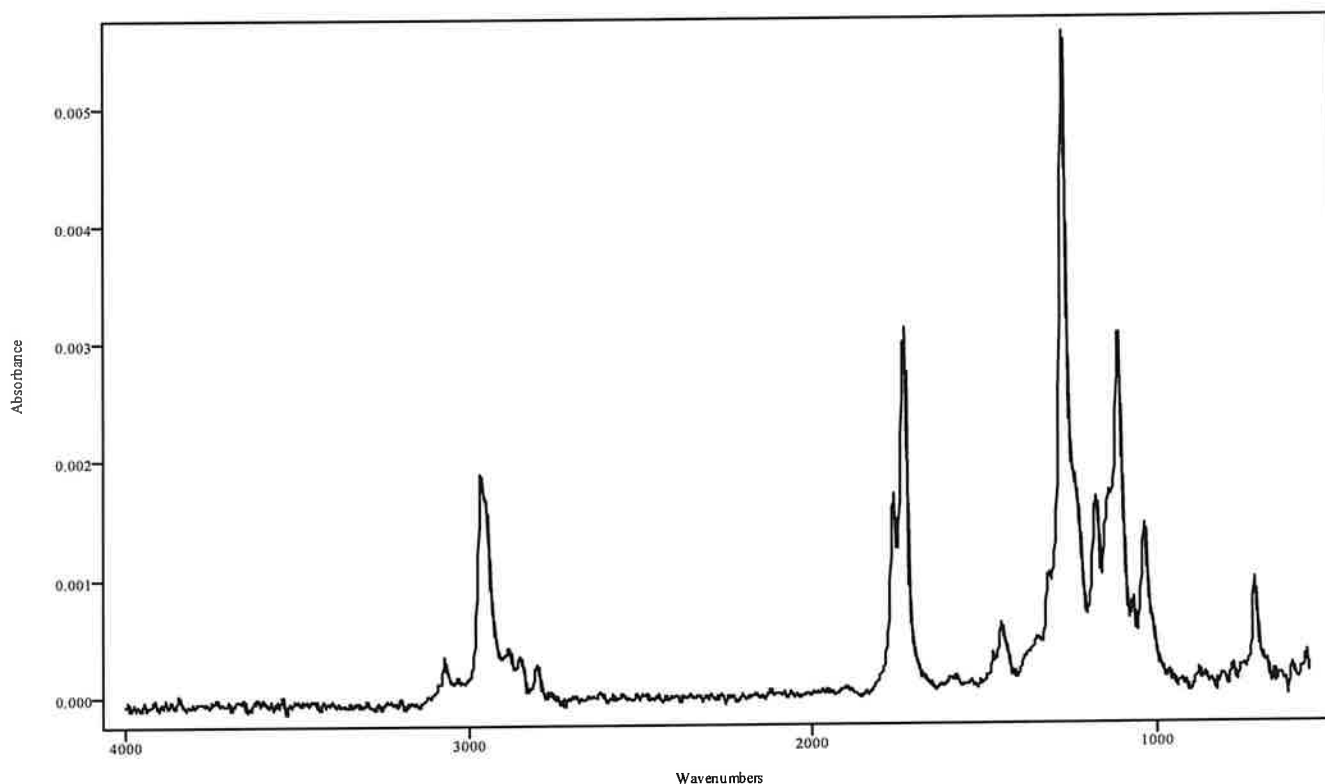
irdata.cgm: GCMS CAL MIX EXT 2021\_March\_17\_203257\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: GCMS CAL MIX EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 2.800      | 2.833    | 0.033      | 2.601           | 2.778         |
| 4.748      | 4.792    | 0.044      | 4.538           | 4.715         |
| 6.961      | 7.028    | 0.066      | 5.718           | 6.121         |

3-19-21

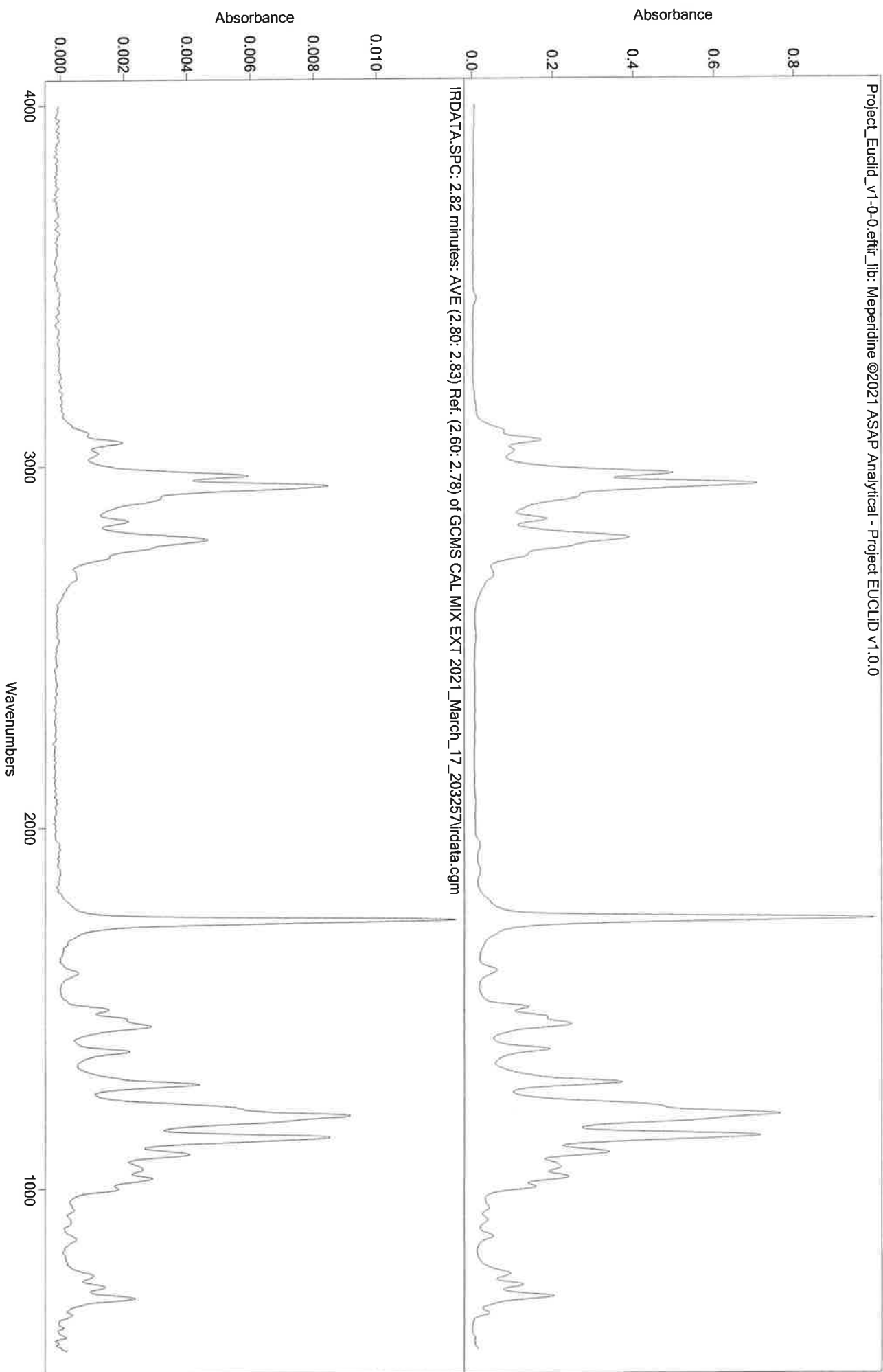
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GCMS CAL MIX EXT 2021_March_17_203257                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 102                                                     |
| Sample Name    | GCMS CAL MIX EXT                                        |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 20:46:14 2021                                |
| Date Processed | Fri Mar 19 20:56:35 2021                                |



IRDATA.SPC: 4.77 minutes: AVE (4.75: 4.79) Ref. (4.54: 4.71) of GCMS CAL MIX EXT 2021\_March\_17\_203257.cgm

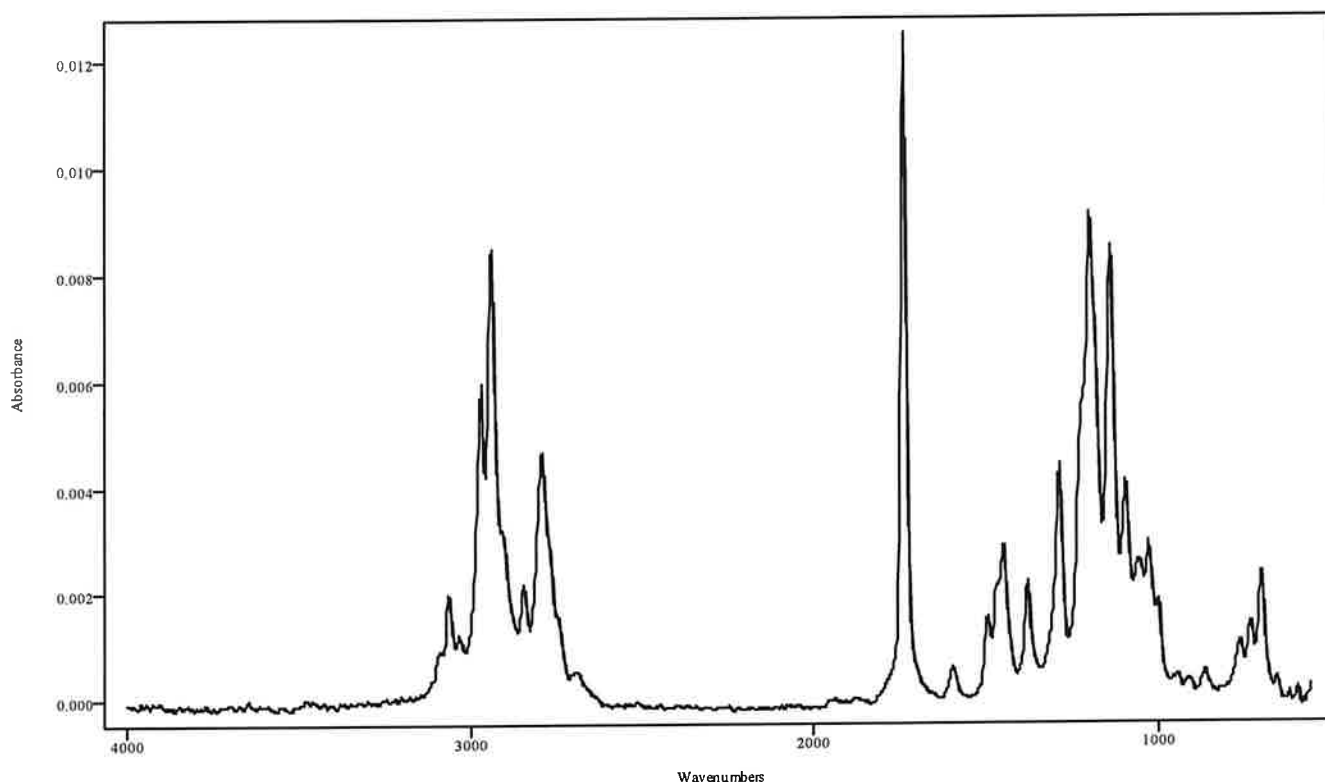
Cocaine

44 5-3-21



MA 31921

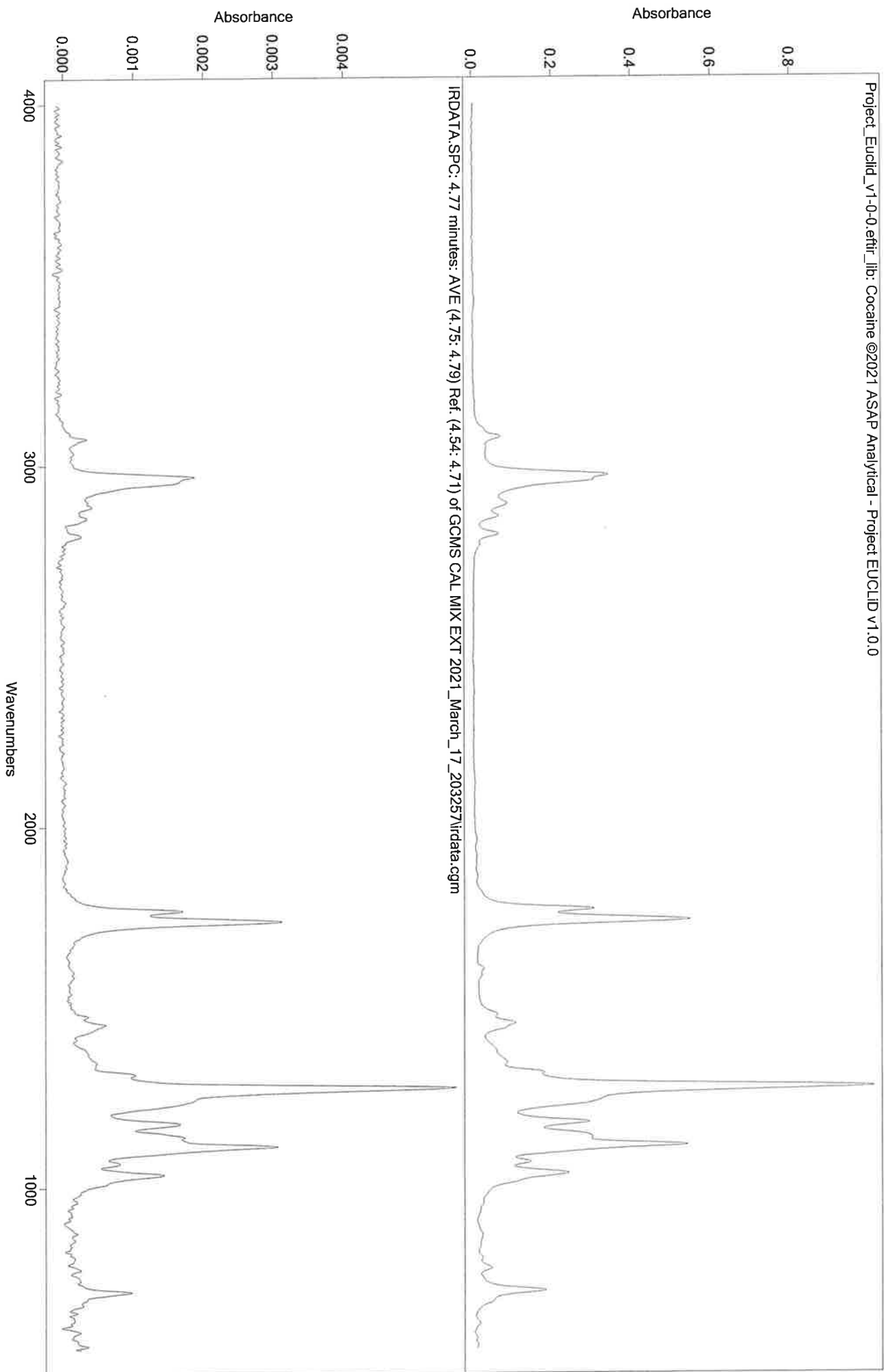
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GCMS CAL MIX EXT 2021_March_17_203257                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 102                                                     |
| Sample Name    | GCMS CAL MIX EXT                                        |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 20:46:14 2021                                |
| Date Processed | Fri Mar 19 20:56:35 2021                                |



IRDATA.SPC: 2.82 minutes: AVE (2.80: 2.83) Ref. (2.60: 2.78) of GCMS CAL MIX EXT 2021\_March\_17\_203257.cgm

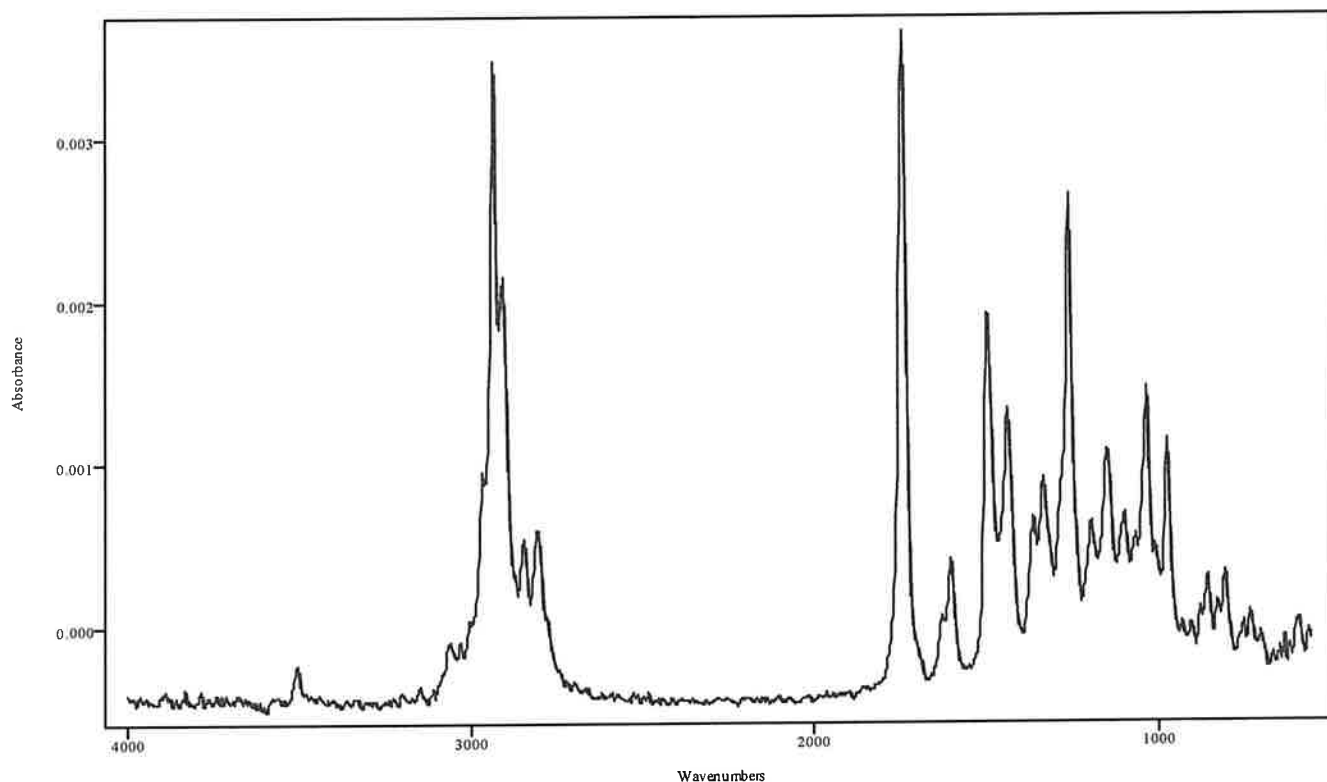
*pethidine*

445-3-21



MA 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | GCMS CAL MIX EXT 2021_March_17_203257                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 102                                                     |
| Sample Name    | GCMS CAL MIX EXT                                        |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 20:46:14 2021                                |
| Date Processed | Fri Mar 19 20:56:35 2021                                |

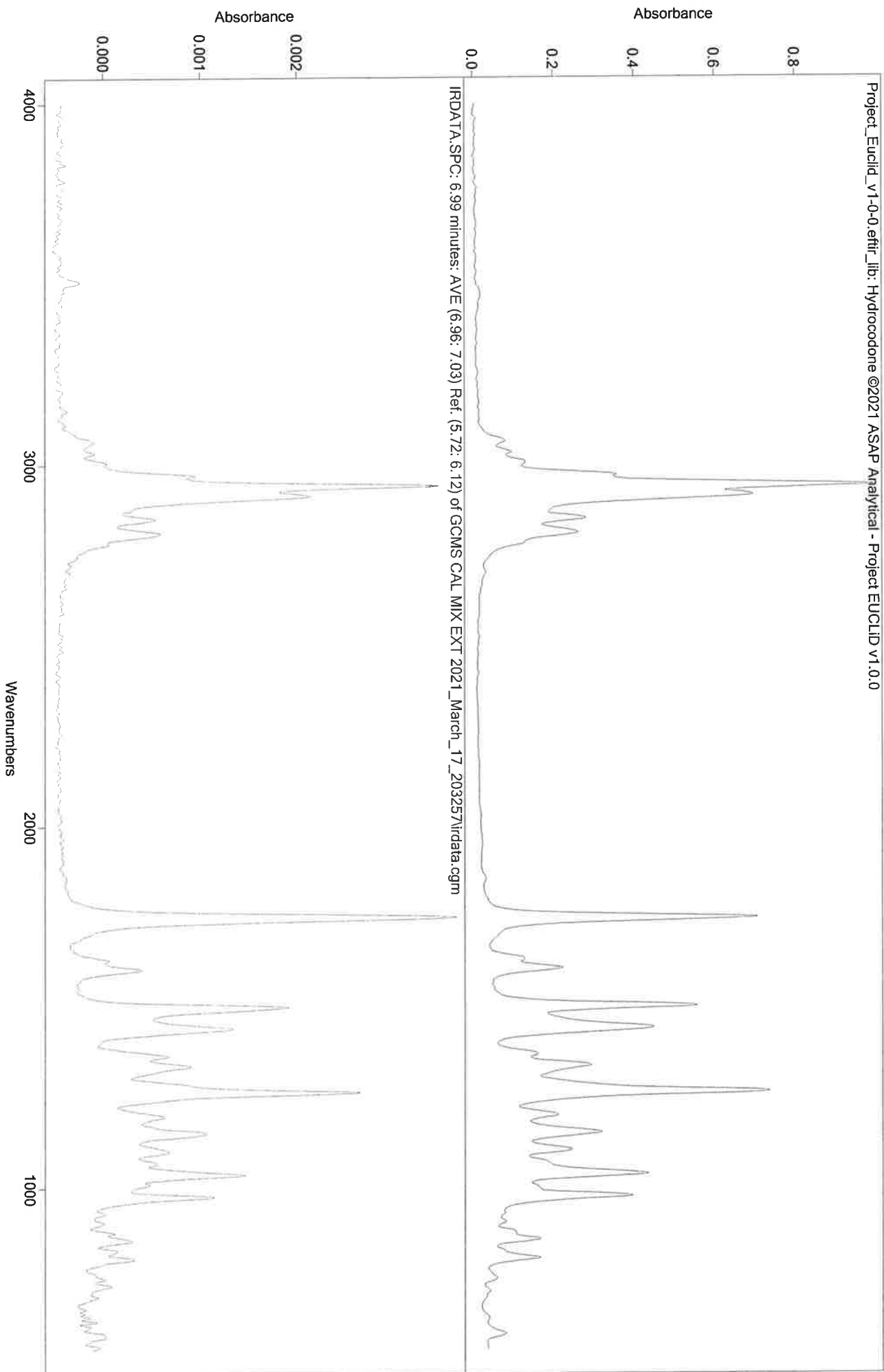


IRDATA.SPC: 6.99 minutes: AVE (6.96: 7.03) Ref. (5.72: 6.12) of GCMS CAL MIX EXT 2021\_March\_17\_203257.cgm

Hydrocodone

\*DNV- Reran Individual Hydrocodone Standard

44-5-3-21

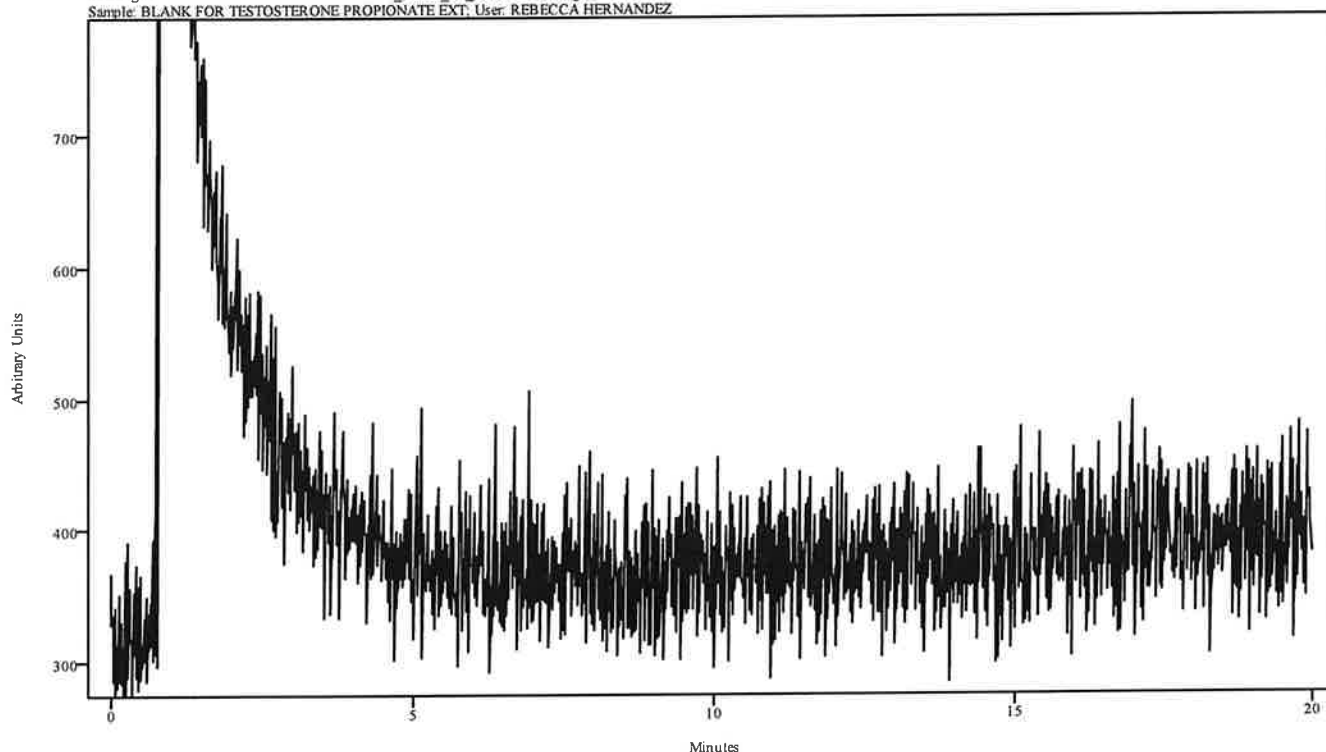


UH 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR TEST PROP EXT 2021_March_17_204614            |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR TESTOSTERONE PROPIONATE EXT                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 21:10:36 2021                                |
| Date Processed | Fri Mar 19 21:36:56 2021                                |

irdata.cgm: BLANK FOR TEST PROP EXT 2021\_March\_17\_204614; Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR TESTOSTERONE PROPIONATE EXT; User: REBECCA HERNANDEZ



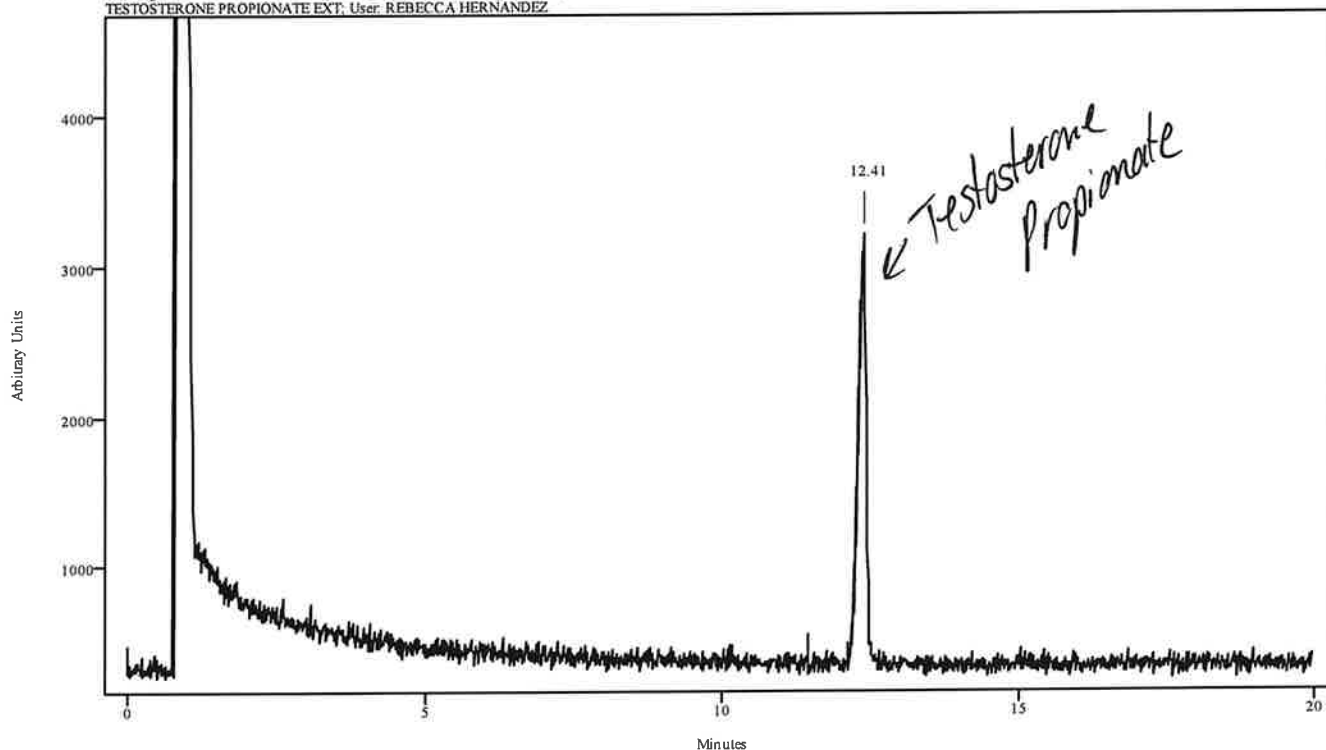
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | TEST PROP EXT 2021_March_17_211036                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 103                                                     |
| Sample Name    | TESTOSTERONE PROPIONATE EXT                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 21:33:03 2021                                |
| Date Processed | Fri Mar 19 21:37:19 2021                                |

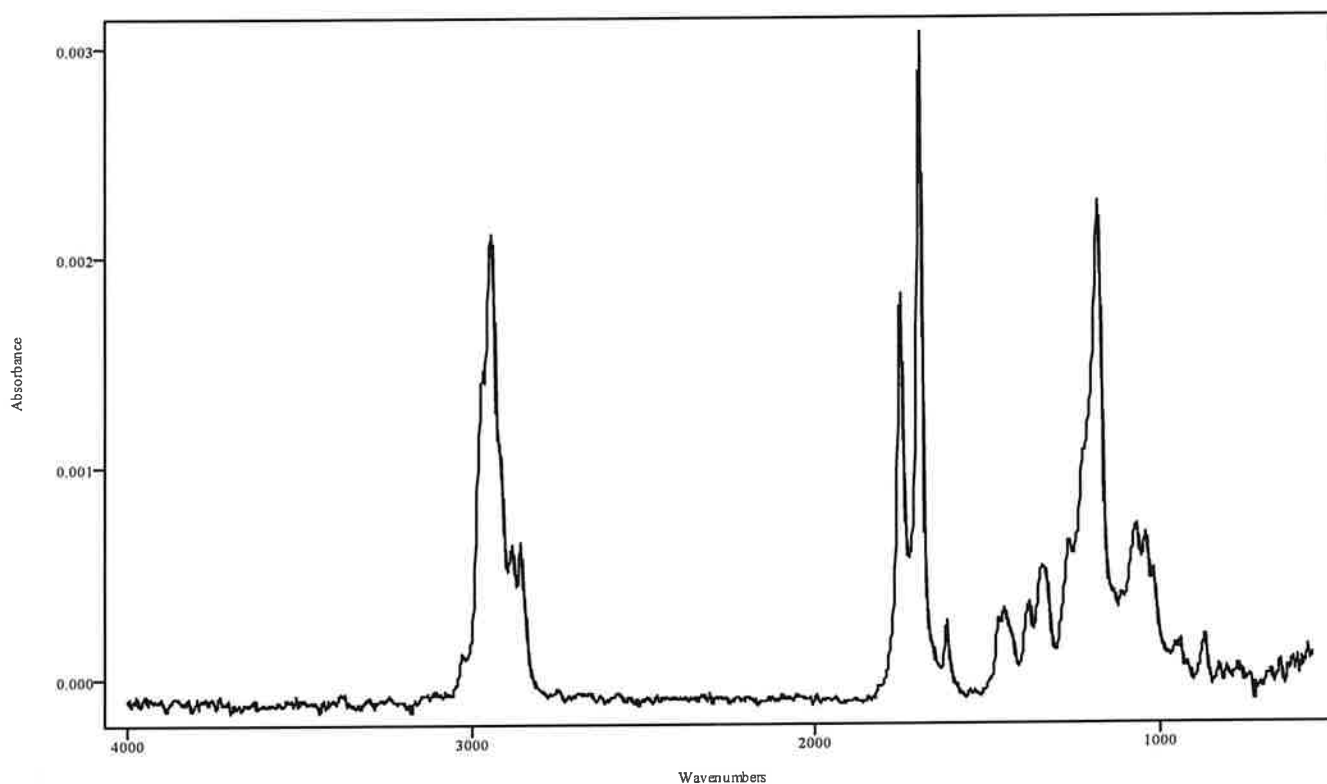
irdata.cgm: TEST PROP EXT 2021\_March\_17\_211036 irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: TESTOSTERONE PROPIONATE EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 12.299     | 12.454   | 0.155      | 11.470          | 12.133        |

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | TEST PROP EXT 2021_March_17_211036                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 103                                                     |
| Sample Name    | TESTOSTERONE PROPIONATE EXT                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 21:33:03 2021                                |
| Date Processed | Fri Mar 19 21:37:19 2021                                |

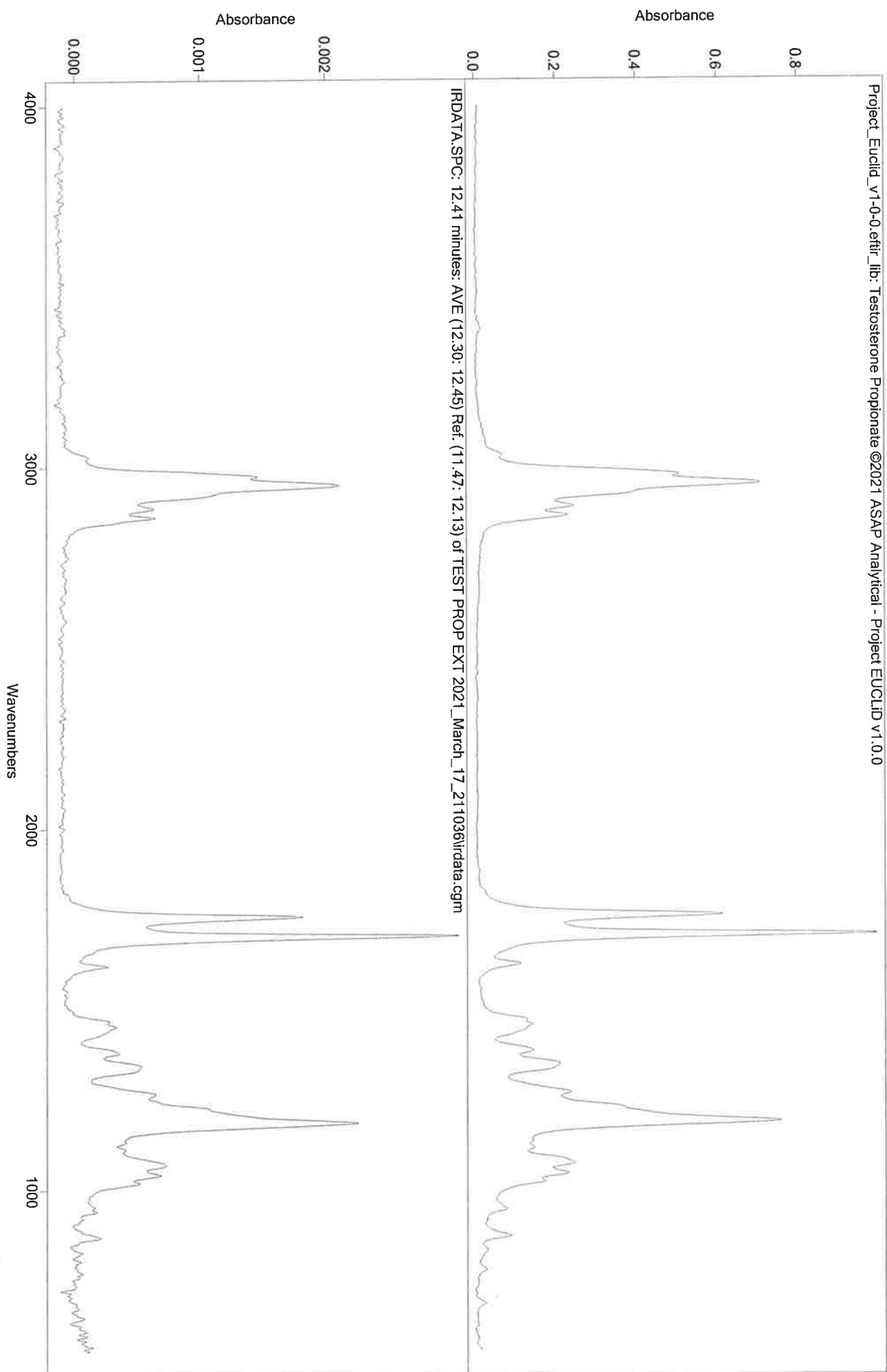


IRDATA.SPC: 12.41 minutes: AVE (12.30: 12.45) Ref. (11.47: 12.13) of TEST PROP EXT 2021\_March\_17\_211036.cgm

*Testosterone Propionate Ext*

IRDATA.SPC: 12.41 minutes: AVE (12.30: 12.45) Ref. (11.47: 12.13) of TEST PROP EXT 2021\_March\_17\_2110361rdata.cgm

4/4-20-21

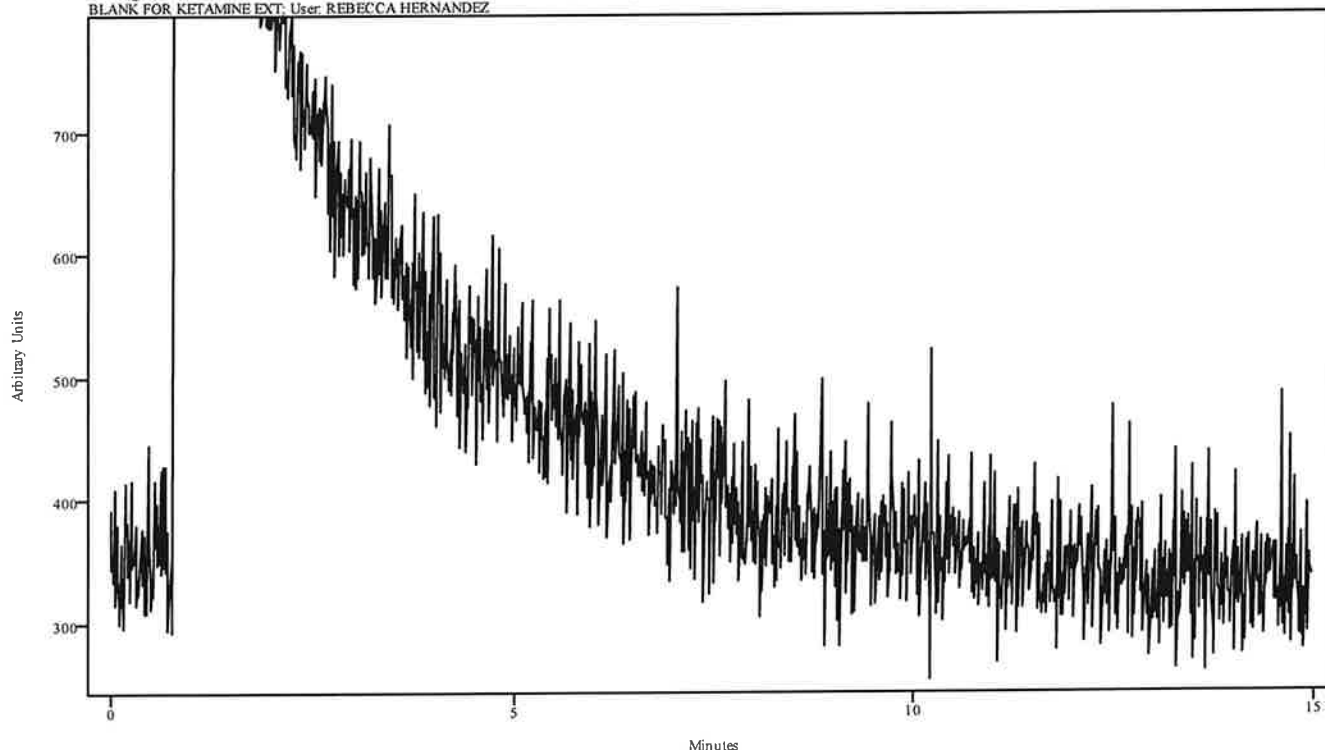


# IRD Data Analysis Report

4/13/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR KETAMINE EXT 2021_March_17_213303             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(15MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR KETAMINE EXT                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 21:50:35 2021                                |
| Date Processed | Fri Mar 19 21:09:57 2021                                |

irdata.cgm: BLANK FOR KETAMINE EXT 2021\_March\_17\_213303\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR KETAMINE EXT; User: REBECCA HERNANDEZ



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

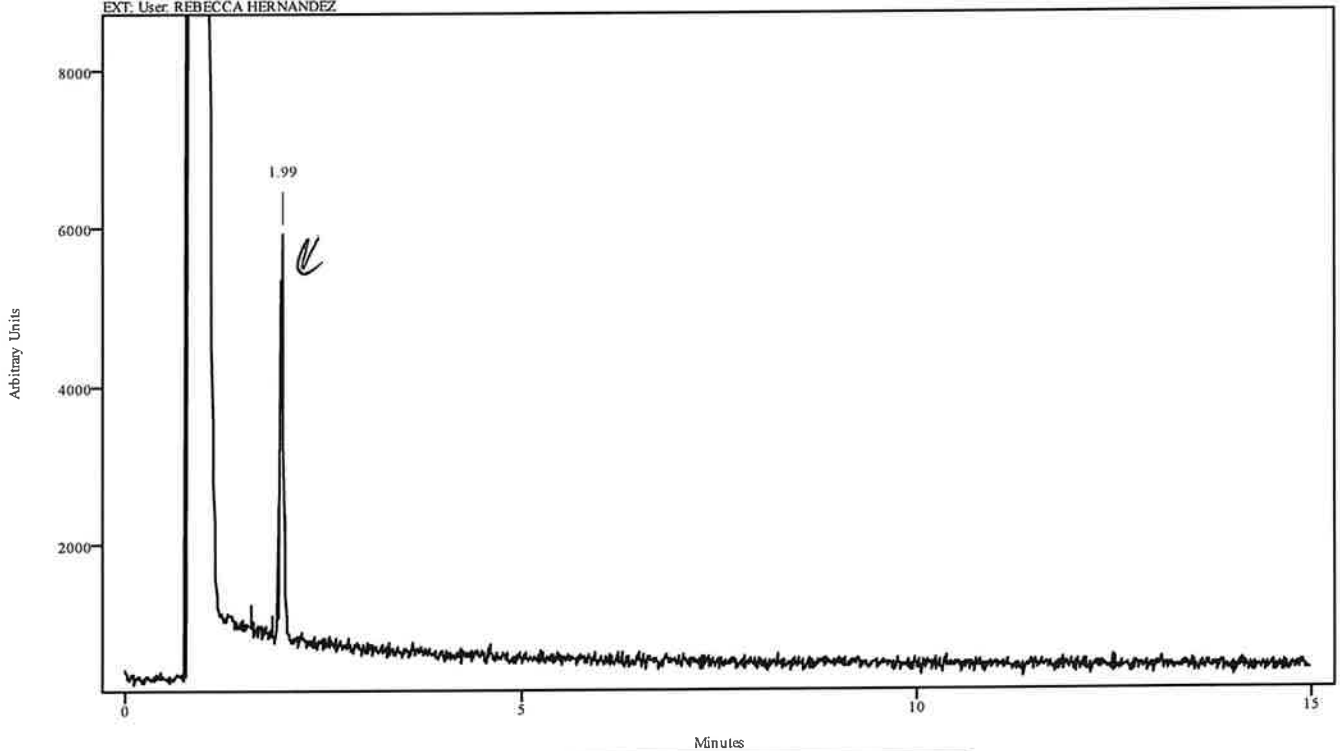
See standard run.  
Data was still used to verify methods.

UH 31921

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | KETAMINE EXT 2021_March_17_215035                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(15MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | KETAMINE EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:08:04 2021                                |
| Date Processed | Fri Mar 19 21:12:42 2021                                |

indata.cgm: KETAMINE EXT 2021\_March\_17\_215035\indata.cgm : Misc. Info: MEOH:HEDWIG; Sample: KETAMINE  
EXT: User: REBECCA HERNANDEZ

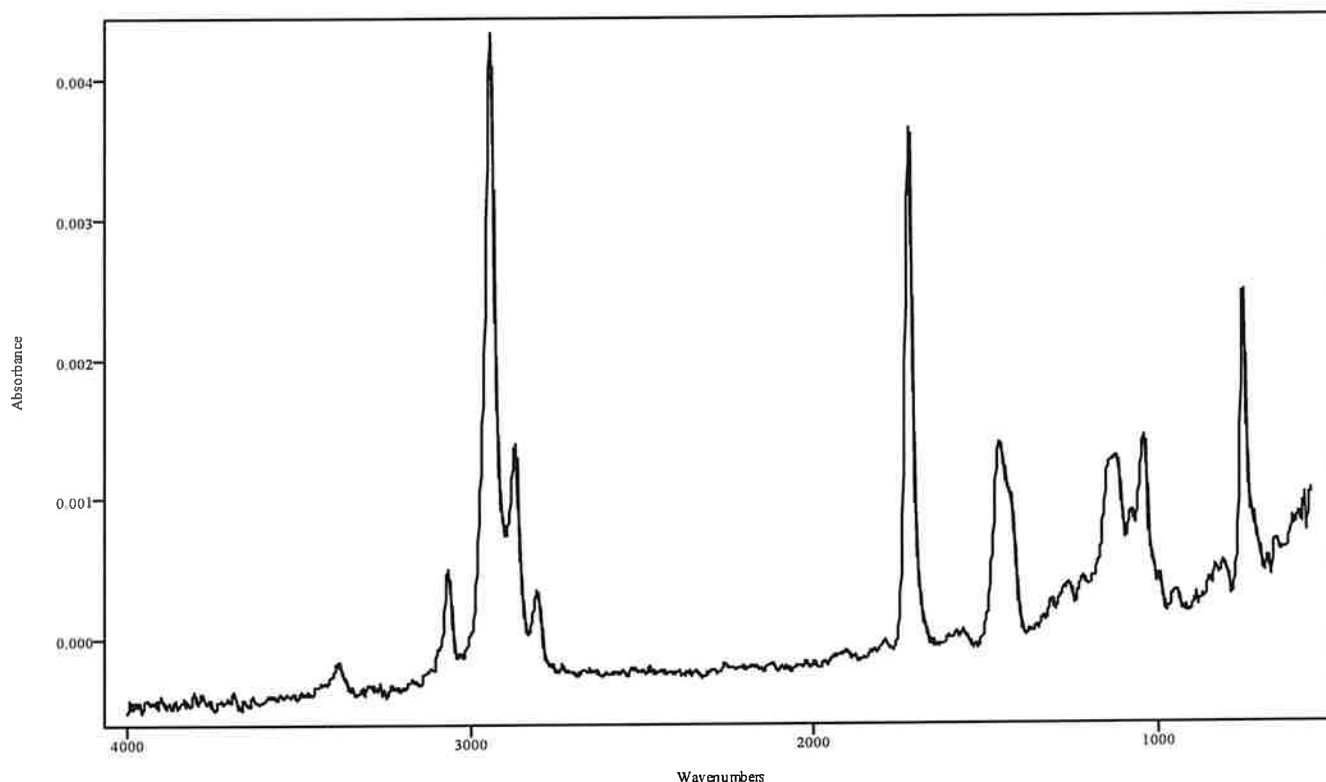


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 1.958      | 2.023    | 0.066      | 1.615           | 1.880         |

~~DATA~~ <sup>UH</sup> Decided to rerun @ lower temperature method.  
Data was still used to verify methods.

11/319-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | KETAMINE EXT 2021_March_17_215035                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(15MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | KETAMINE EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:08:04 2021                                |
| Date Processed | Fri Mar 19 21:12:42 2021                                |



IRDATA.SPC: 1.99 minutes: AVE (1.96: 2.02) Ref. (1.61: 1.88) of KETAMINE EXT  
2021\_March\_17\_215035.cgm

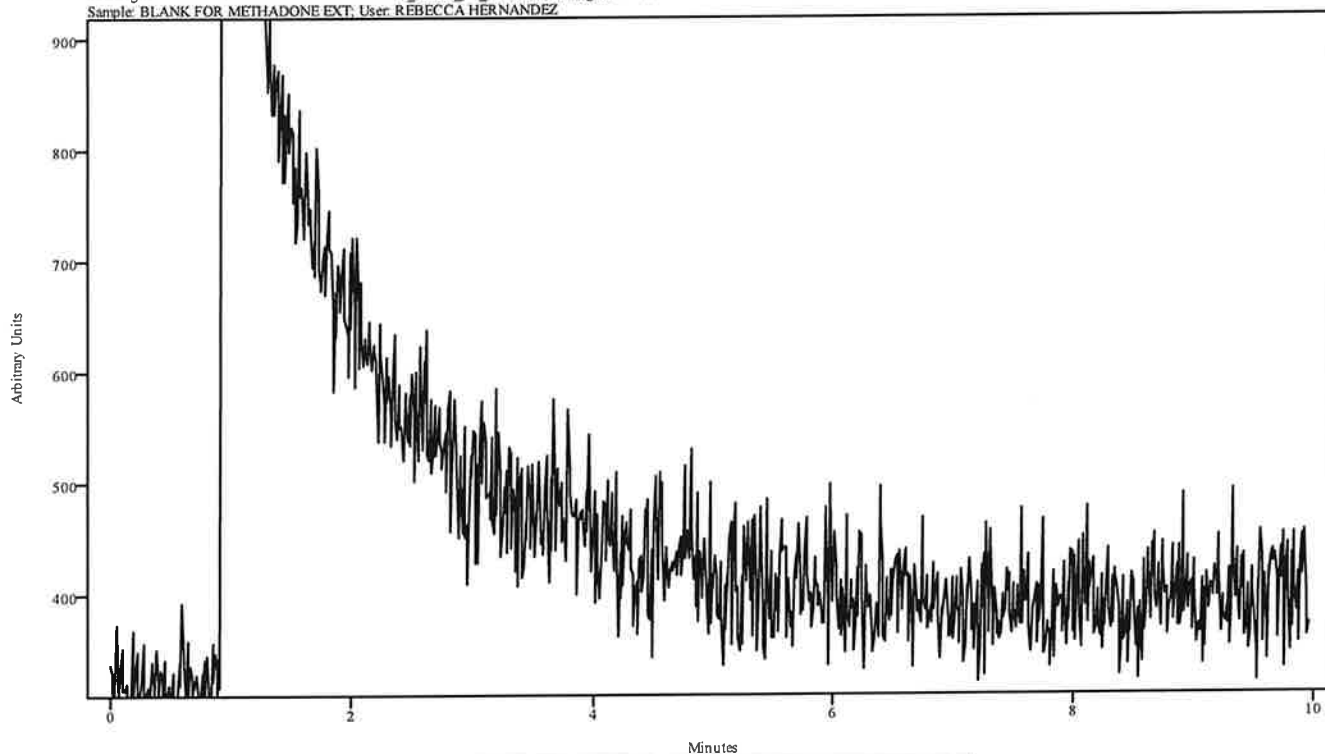
~~DATA~~ - Decided to run @  
lower temperature  
method.  
Data was still used  
to verify methods.

# IRD Data Analysis Report

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR METHADONE EXT 2021_March_17_220804            |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR METHADONE EXT                                 |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:22:29 2021                                |
| Date Processed | Fri Mar 19 21:15:14 2021                                |

indata.cgm: BLANK FOR METHADONE EXT 2021\_March\_17\_220804; Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR METHADONE EXT; User: REBECCA HERNANDEZ



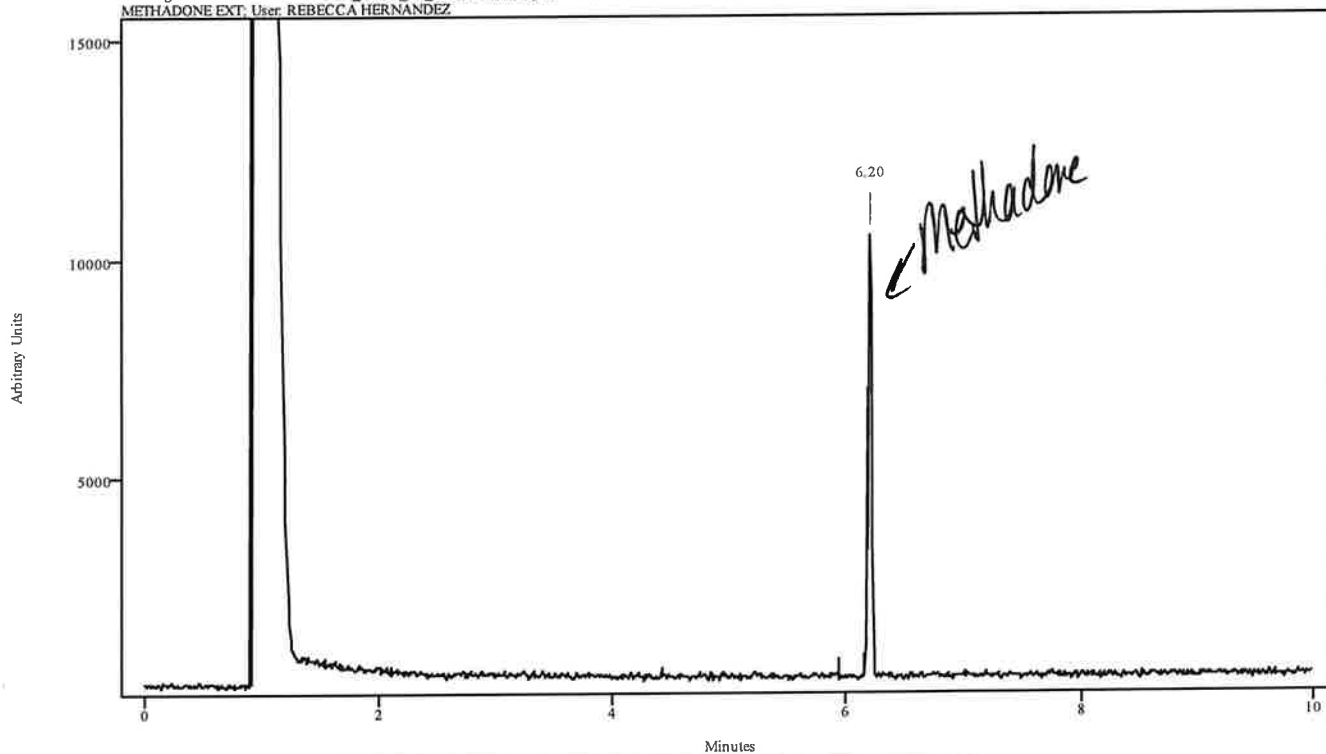
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

MT31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | METHADONE EXT 2021_March_17_222229                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 105                                                     |
| Sample Name    | METHADONE EXT                                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:36:22 2021                                |
| Date Processed | Fri Mar 19 21:15:44 2021                                |

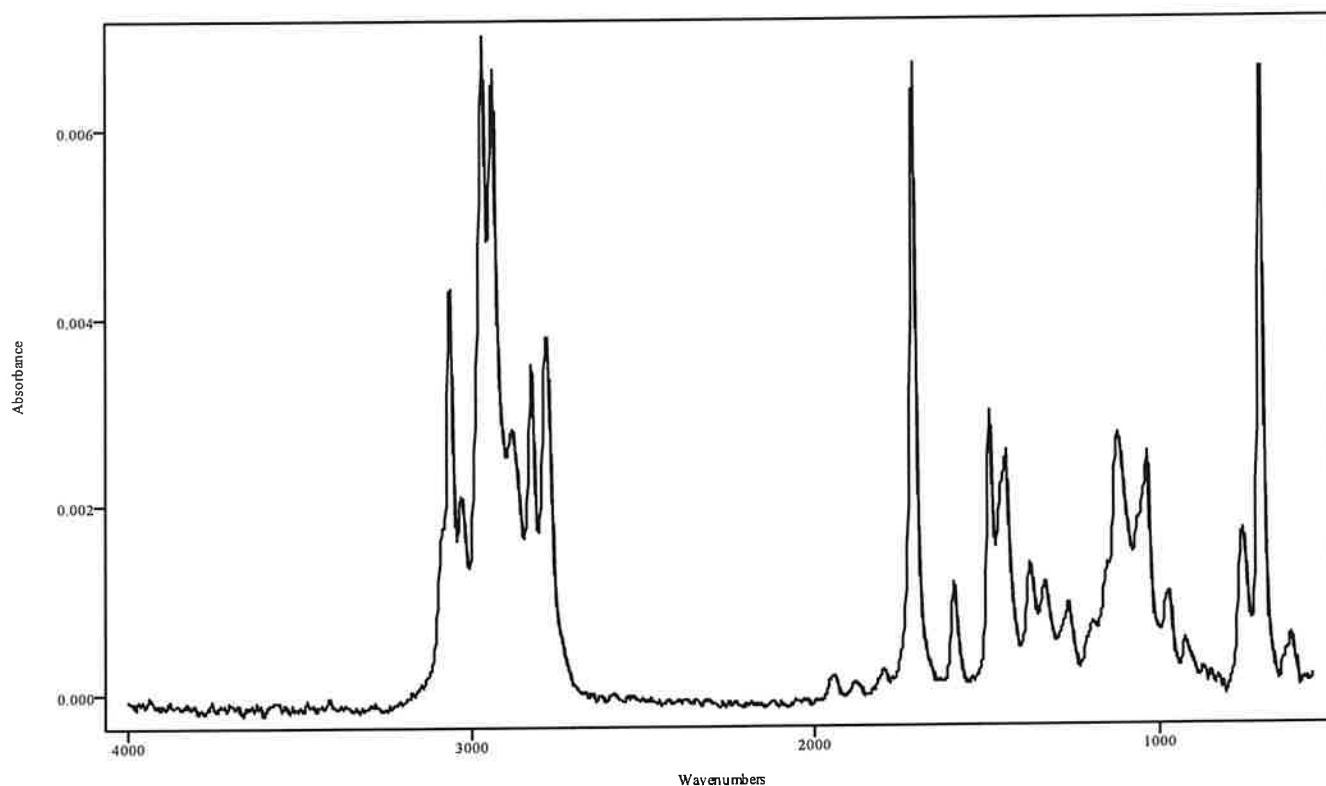
irdata.cgm: METHADONE EXT 2021\_March\_17\_222229\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: METHADONE EXT; User: REBECCA HERNANDEZ



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.183      | 6.227    | 0.044      | 5.928           | 6.150         |

UH 3-19-21

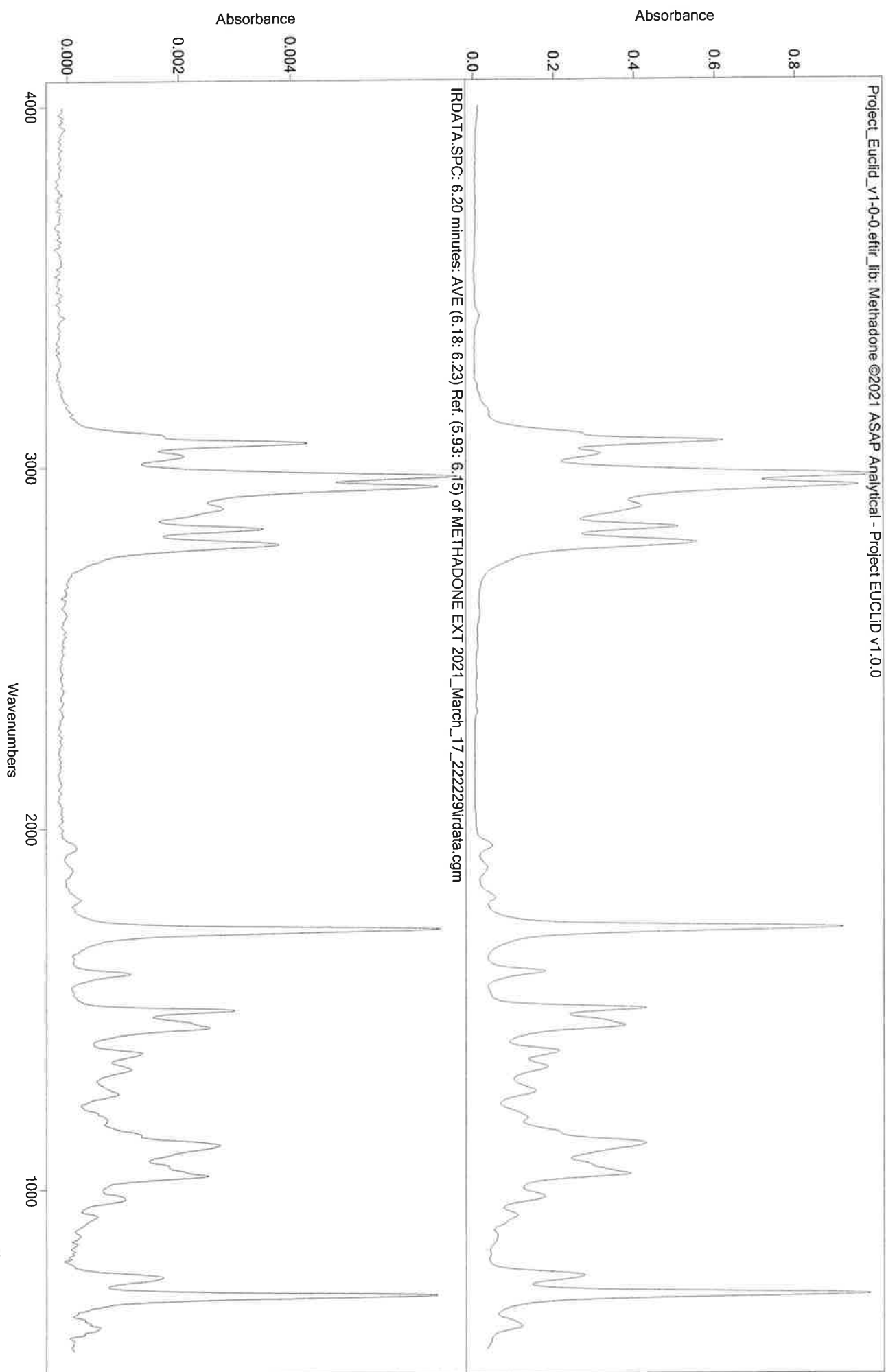
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | METHADONE EXT 2021_March_17_222229                      |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270                                                |
| GC Vial        | 105                                                     |
| Sample Name    | METHADONE EXT                                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:36:22 2021                                |
| Date Processed | Fri Mar 19 21:15:44 2021                                |



IRDATA.SPC: 6.20 minutes: AVE (6.18: 6.23) Ref. (5.93: 6.15) of METHADONE EXT  
2021\_March\_17\_222229.cgm

*Methadone*

4/4-20-21

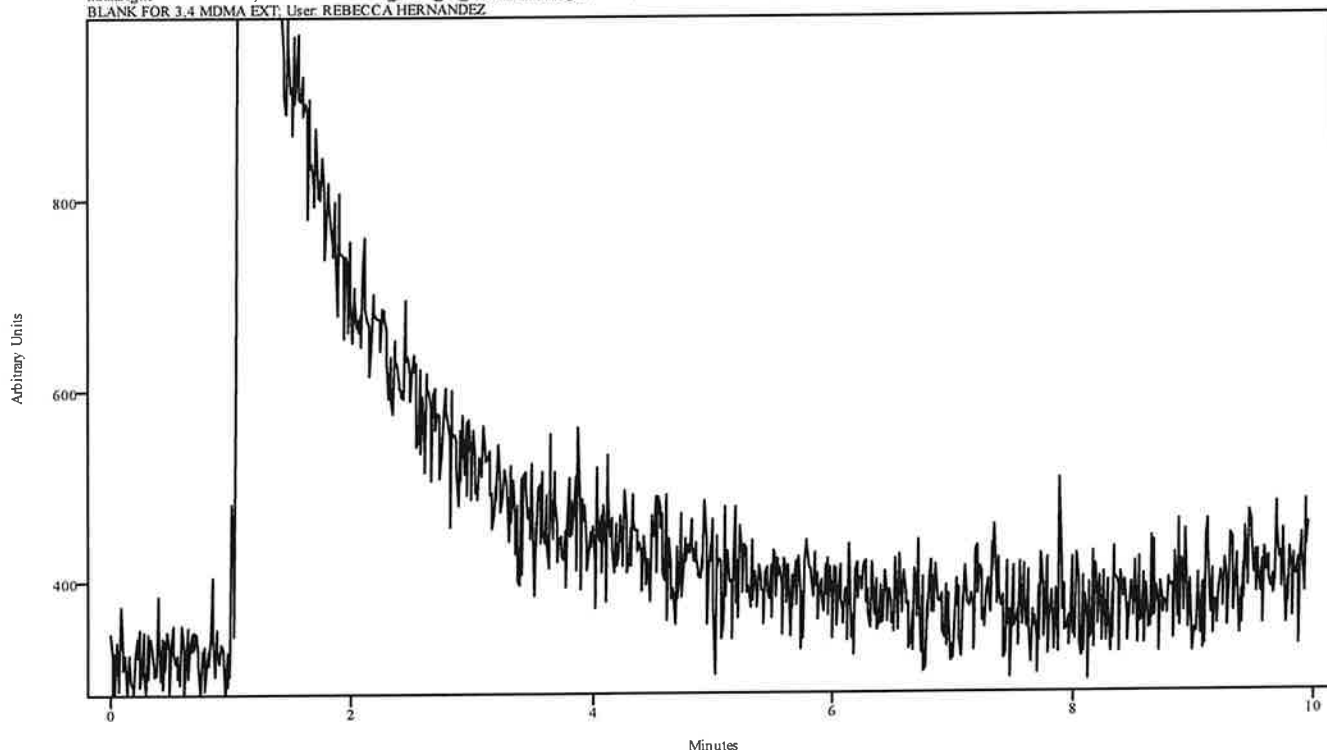


PH 3-19-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR 3,4 MDMA EXT 2021_March_17_223622             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR 3,4 MDMA EXT                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 22:51:53 2021                                |
| Date Processed | Fri Mar 19 20:14:14 2021                                |

indata.cgm: BLANK FOR 3,4 MDMA EXT 2021\_March\_17\_223622\indata.cgm: Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR 3,4 MDMA EXT; User: REBECCA HERNANDEZ



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

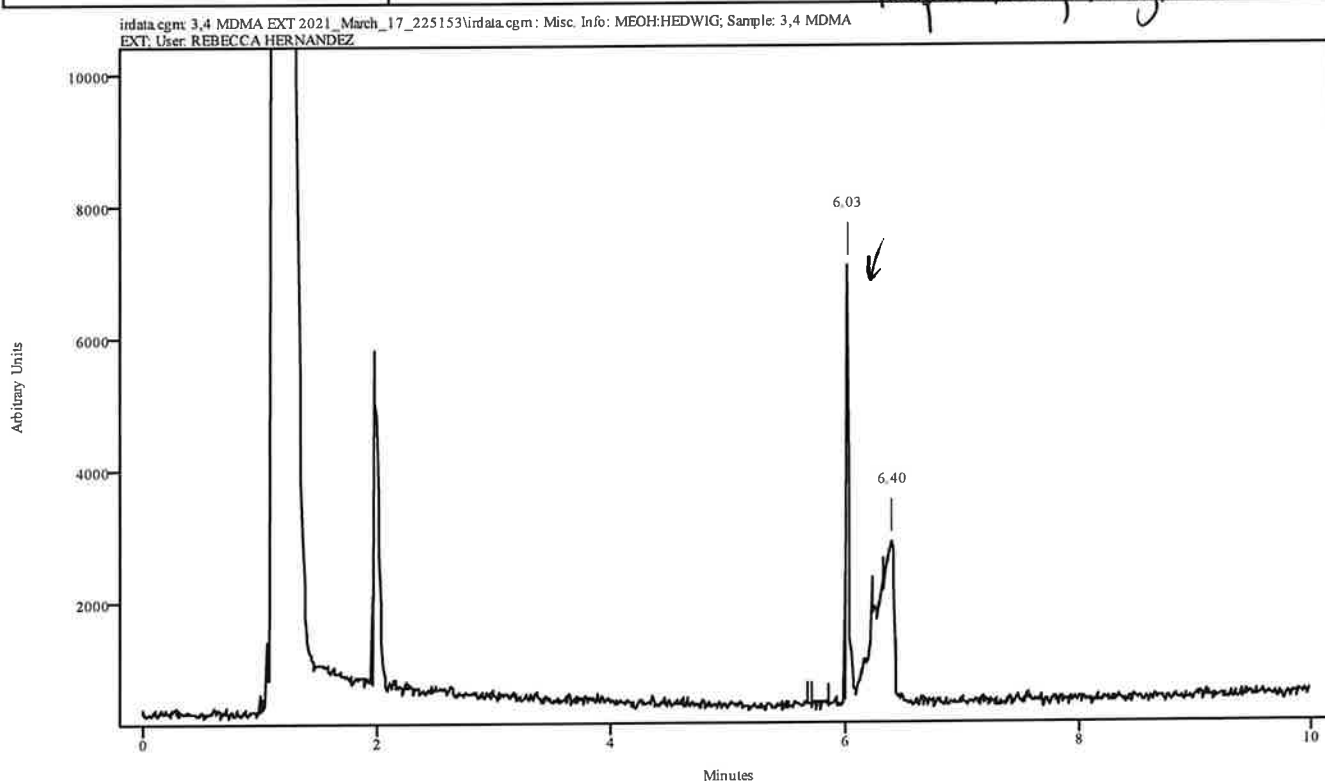
& DNU - See standard run.

MA 5-3-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | 3,4 MDMA EXT 2021_March_17_225153                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 106                                                     |
| Sample Name    | 3,4 MDMA EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 23:06:58 2021                                |
| Date Processed | Mon May 03 12:32:05 2021                                |

Reprinted, original 3-19-21



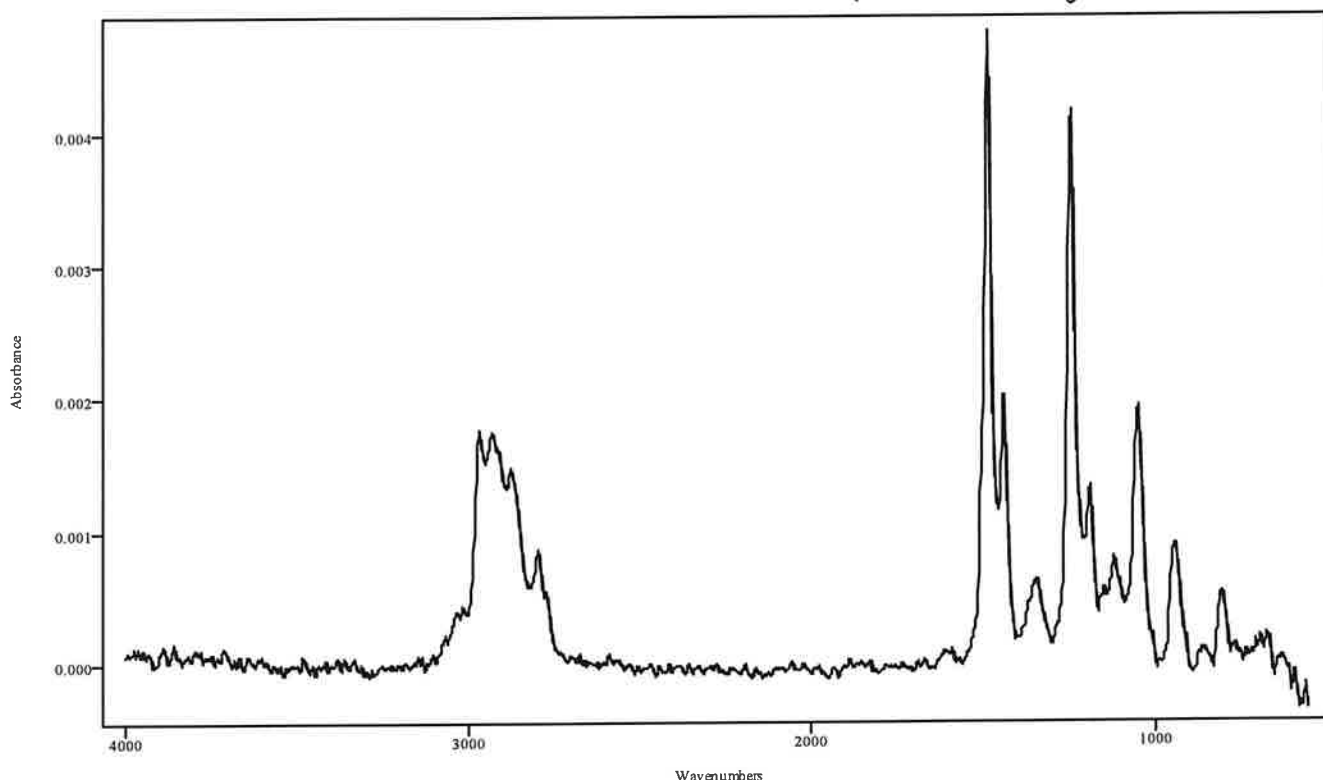
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.012      | 6.050    | 0.033      | 5.729           | 5.994         |
| 6.337      | 6.437    | 0.100      | 5.685           | 5.864         |

MDNU- Made new 3,4 MDMA standard using 0.5N NaOH → CHCl<sub>3</sub> i Peran

MT 5-3-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | 3,4 MDMA EXT 2021_March_17_225153                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 60TO270                                                 |
| GC Vial        | 106                                                     |
| Sample Name    | 3,4 MDMA EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 23:06:58 2021                                |
| Date Processed | Mon May 03 12:32:05 2021                                |

Reprinted, original 3-19-21

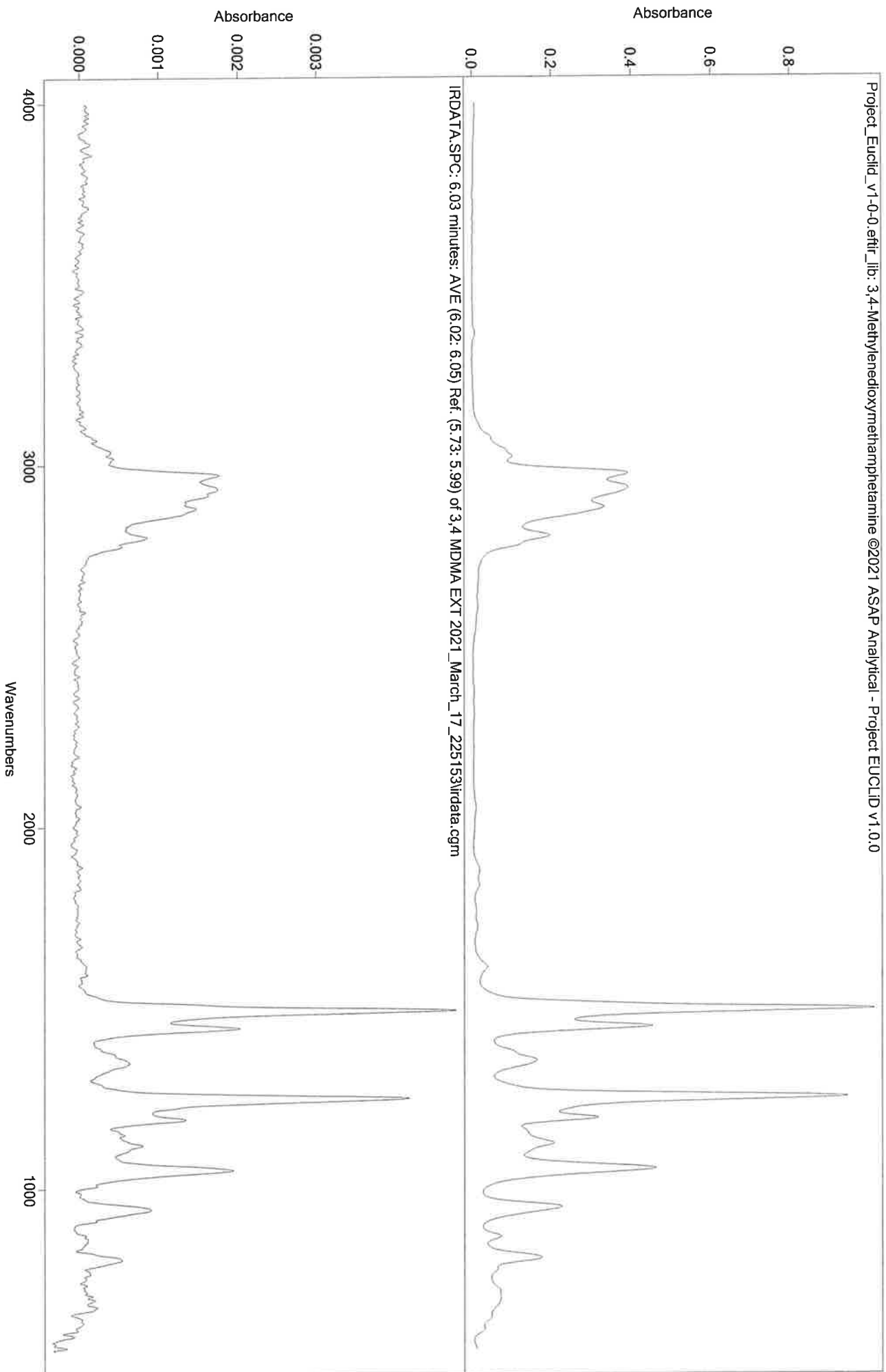


IRDATA.SPC: 6.03 minutes: AVE (6.02: 6.05) Ref. (5.73: 5.99) of 3,4 MDMA EXT  
2021\_March\_17\_225153.cgm

3,4 MDMA standard

\*ONU - Made new 3,4 MDMA standard  
using 0.5N NaOH → CHCl<sub>3</sub>;  
Keran

Alt 5-3-21

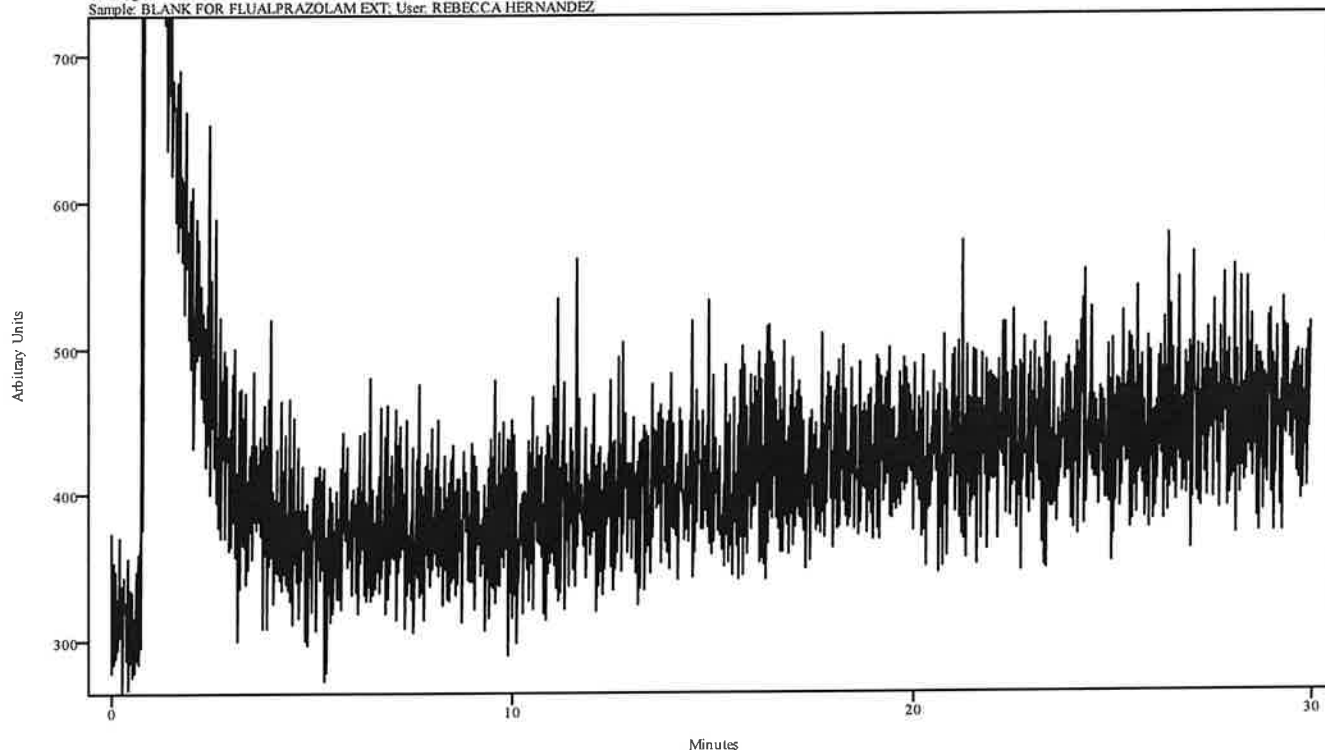


# IRD Data Analysis Report

UH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR FLUALPRAZOLAM EXT 2021_March_17_230658        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR FLUALPRAZOLAM EXT                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Wed Mar 17 23:42:14 2021                                |
| Date Processed | Fri Mar 19 20:44:31 2021                                |

irdata.cgm: BLANK FOR FLUALPRAZOLAM EXT 2021\_March\_17\_230658 irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR FLUALPRAZOLAM EXT; User: REBECCA HERNANDEZ



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

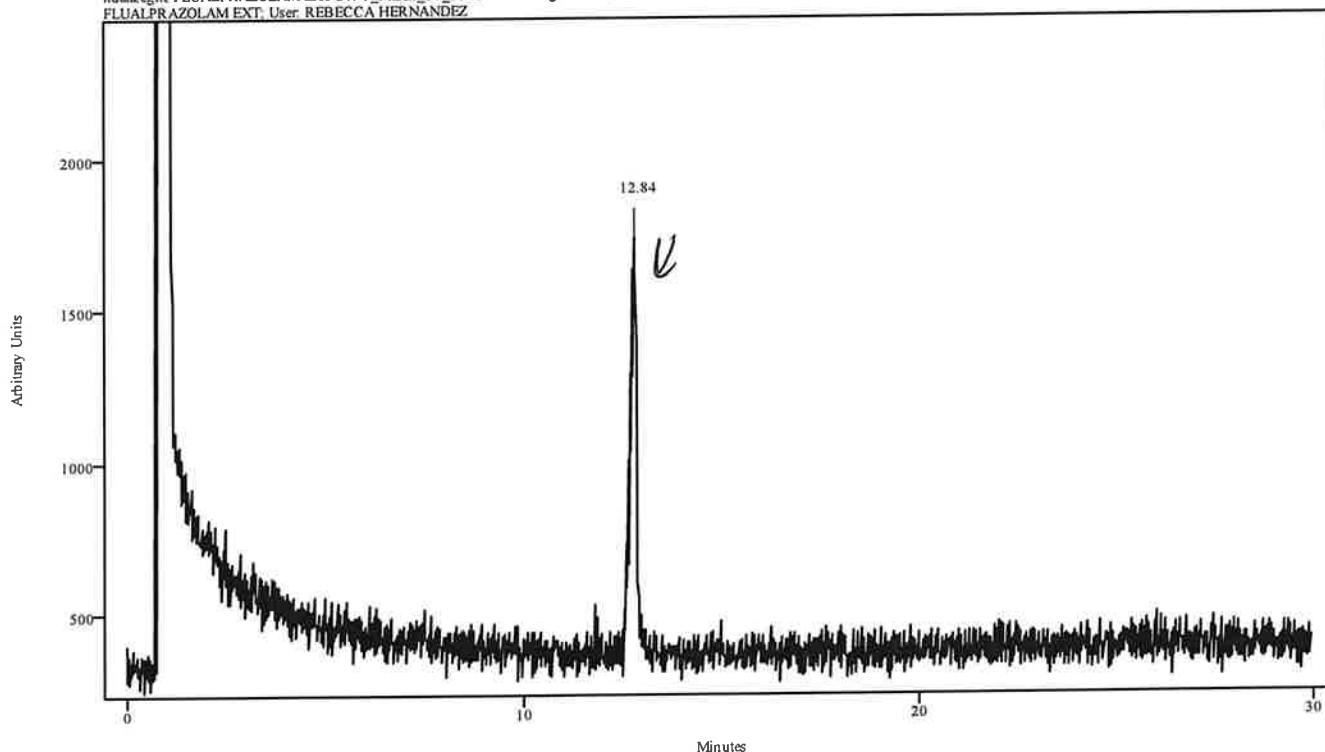
UH  
BDNU - See standard run.  
Data was still used  
to verify methods.

# IRD Data Analysis Report

UH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUALPRAZOLAM EXT 2021_March_17_234214                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 107                                                     |
| Sample Name    | FLUALPRAZOLAM EXT                                       |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 00:14:45 2021                                |
| Date Processed | Fri Mar 19 20:45:25 2021                                |

irdata.cgm: FLUALPRAZOLAM EXT 2021\_March\_17\_234214\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: FLUALPRAZOLAM EXT; User: REBECCA HERNANDEZ

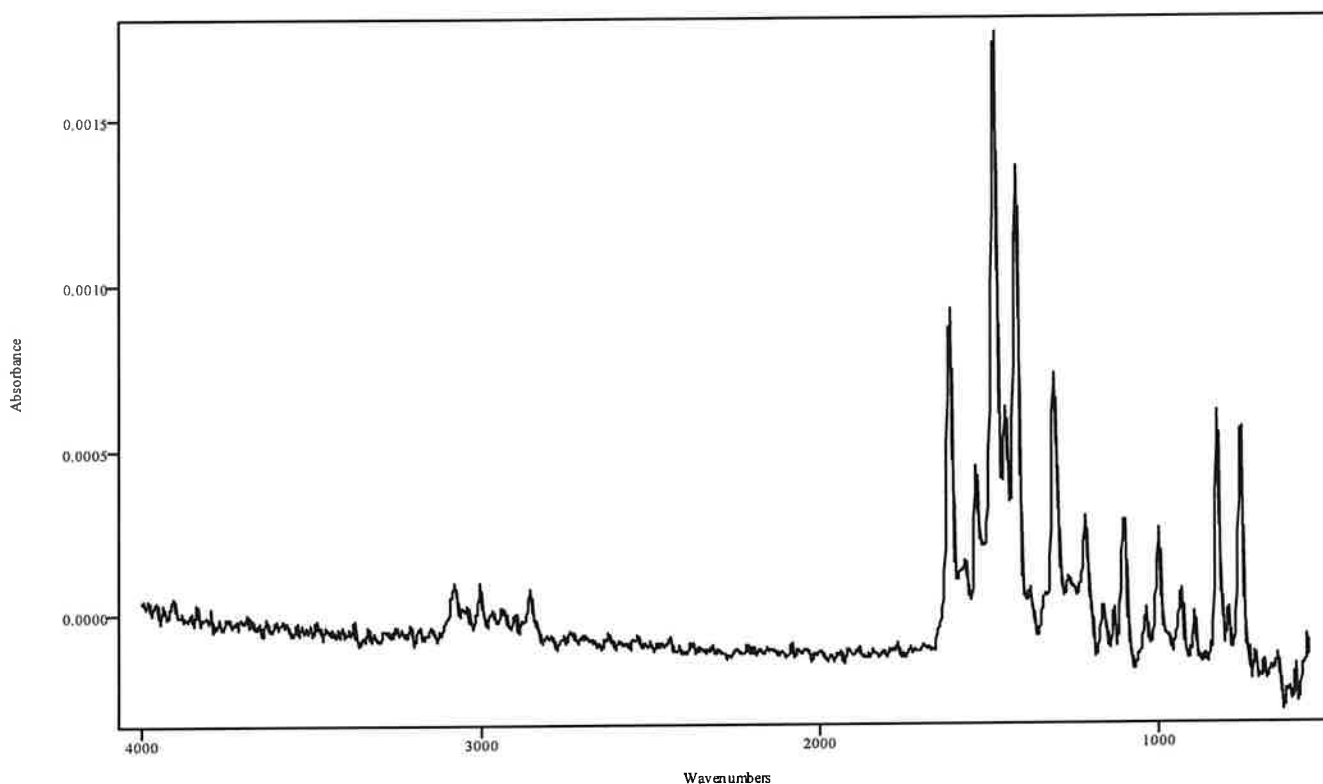


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 12.719     | 12.896   | 0.177      | 11.879          | 12.434        |

~~DATA~~ Decided to concentrate & rerun. (Make new std.)  
Data was still used to verify methods.

MH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUALPRAZOLAM EXT 2021_March_17_234214                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 107                                                     |
| Sample Name    | FLUALPRAZOLAM EXT                                       |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 00:14:45 2021                                |
| Date Processed | Fri Mar 19 20:45:25 2021                                |



IRDATA.SPC: 12.84 minutes: AVE (12.72: 12.90) Ref. (11.88: 12.43) of FLUALPRAZOLAM EXT  
2021\_March\_17\_234214.cgm

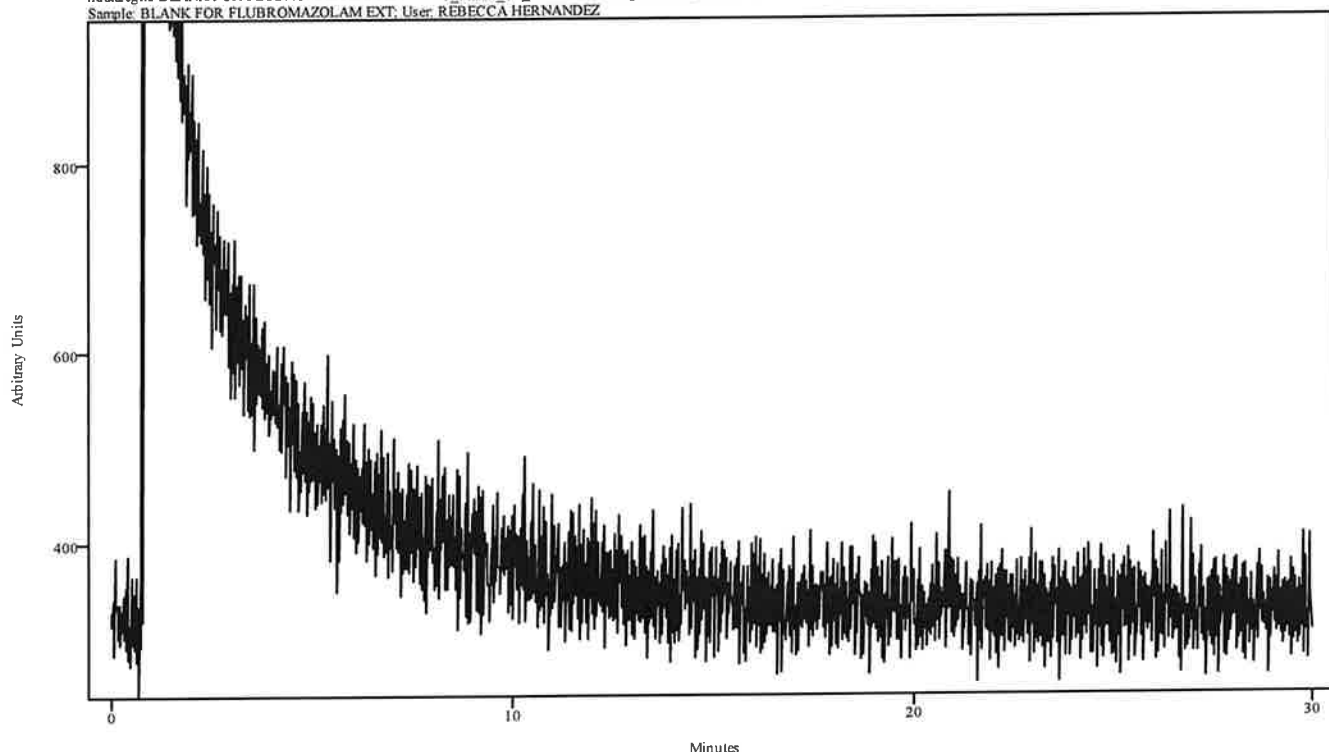
~~RDNU~~ <sup>MH</sup> - Decided to concentrate  
§ rerun. (Make new  
std)  
Data was still used  
to verify methods.

# IRD Data Analysis Report

UH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR FLUBROMAZOLAM EXT 2021_March_18_001446        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR FLUBROMAZOLAM EXT                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 00:47:15 2021                                |
| Date Processed | Fri Mar 19 20:49:13 2021                                |

irdata.cgm: BLANK FOR FLUBROMAZOLAM EXT 2021\_March\_18\_001446\irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR FLUBROMAZOLAM EXT; User: REBECCA HERNANDEZ



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

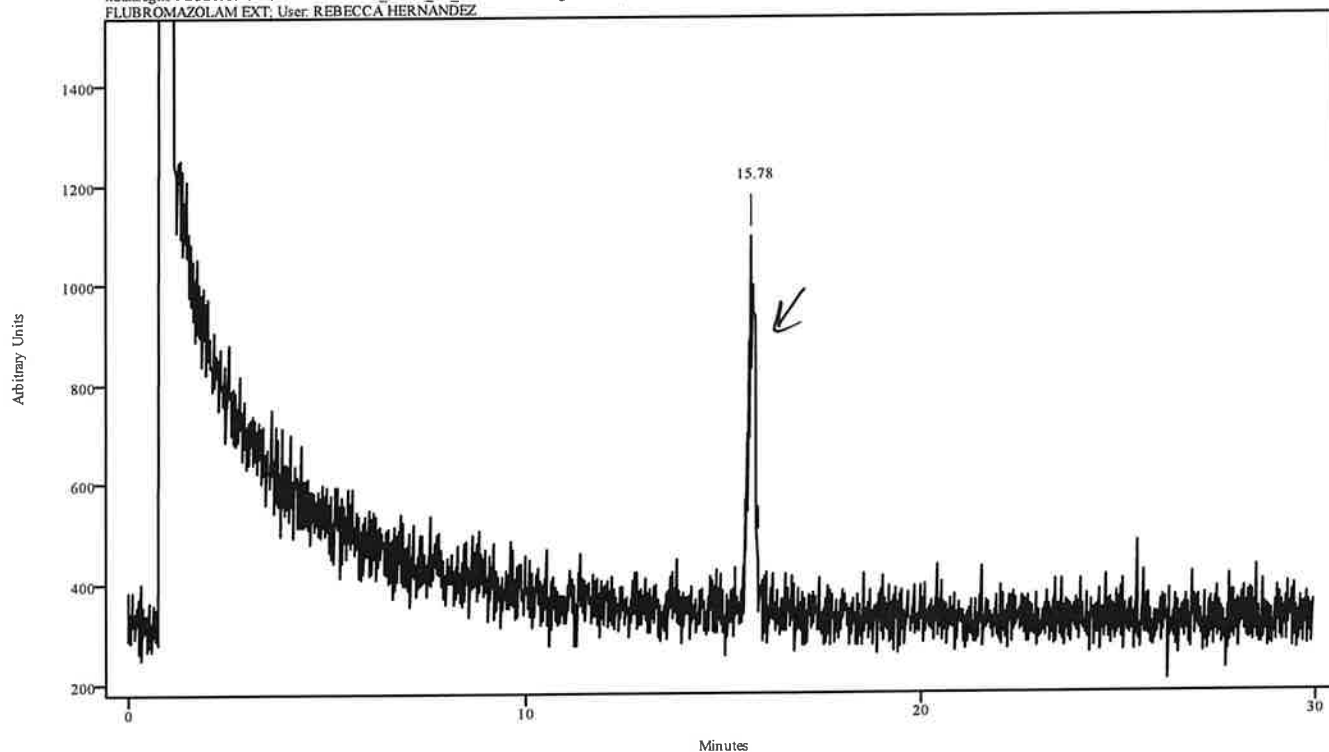
UH  
~~DATA~~ - see standard run.  
 Data was still used  
 to verify methods.

3/19/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUBROMAZOLAM EXT 2021_March_18_004716                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | FLUBROMAZOLAM EXT                                       |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 01:19:50 2021                                |
| Date Processed | Fri Mar 19 20:51:08 2021                                |

irdata.cgm: FLUBROMAZOLAM EXT 2021\_March\_18\_004716 irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: FLUBROMAZOLAM EXT; User: REBECCA HERNANDEZ

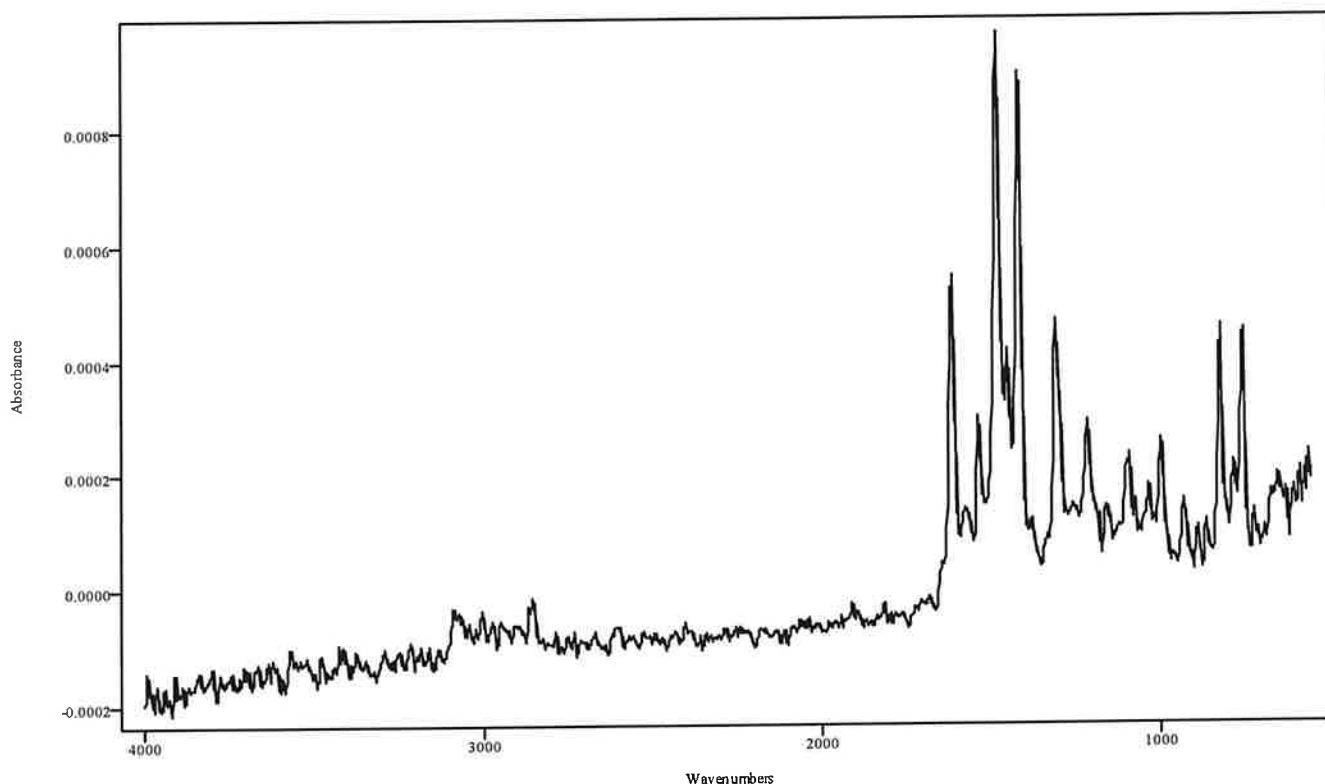


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 15.615     | 15.898   | 0.277      | 14.873          | 15.358        |

~~DATA~~ <sup>CH</sup> Decided to concentrate  
 & make <sup>new</sup> rerun.  
 (Make new  
 std)  
 Data was still used  
 to verify methods.

11/3/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUBROMAZOLAM EXT 2021_March_18_004716                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | FLUBROMAZOLAM EXT                                       |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 01:19:50 2021                                |
| Date Processed | Fri Mar 19 20:51:08 2021                                |



IRDATA.SPC: 15.78 minutes: AVE (15.62: 15.89) Ref. (14.88: 15.36) of FLUBROMAZOLAM EXT 2021\_March\_18\_004716.cgm

~~DATA~~ <sup>11/3</sup> Decided to concentrate  
in rerun (Make new  
std.)

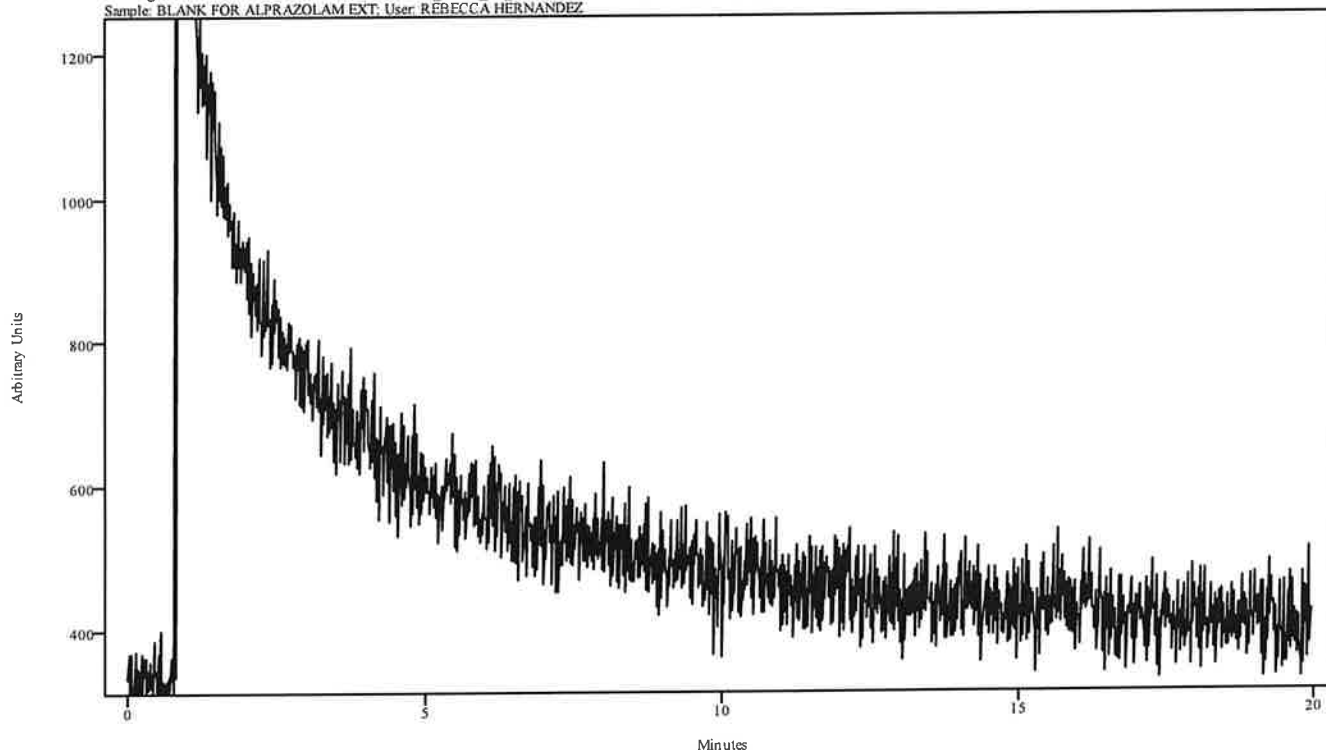
Data was used to verify  
methods.

4/13/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR ALPRAZOLAM EXT 2021_March_18_011950           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR ALPRAZOLAM EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 01:43:41 2021                                |
| Date Processed | Fri Mar 19 20:12:37 2021                                |

irdata.cgm: BLANK FOR ALPRAZOLAM EXT 2021\_March\_18\_011950\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR ALPRAZOLAM EXT; User: REBECCA HERNANDEZ



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

4/13/21 - see standard run

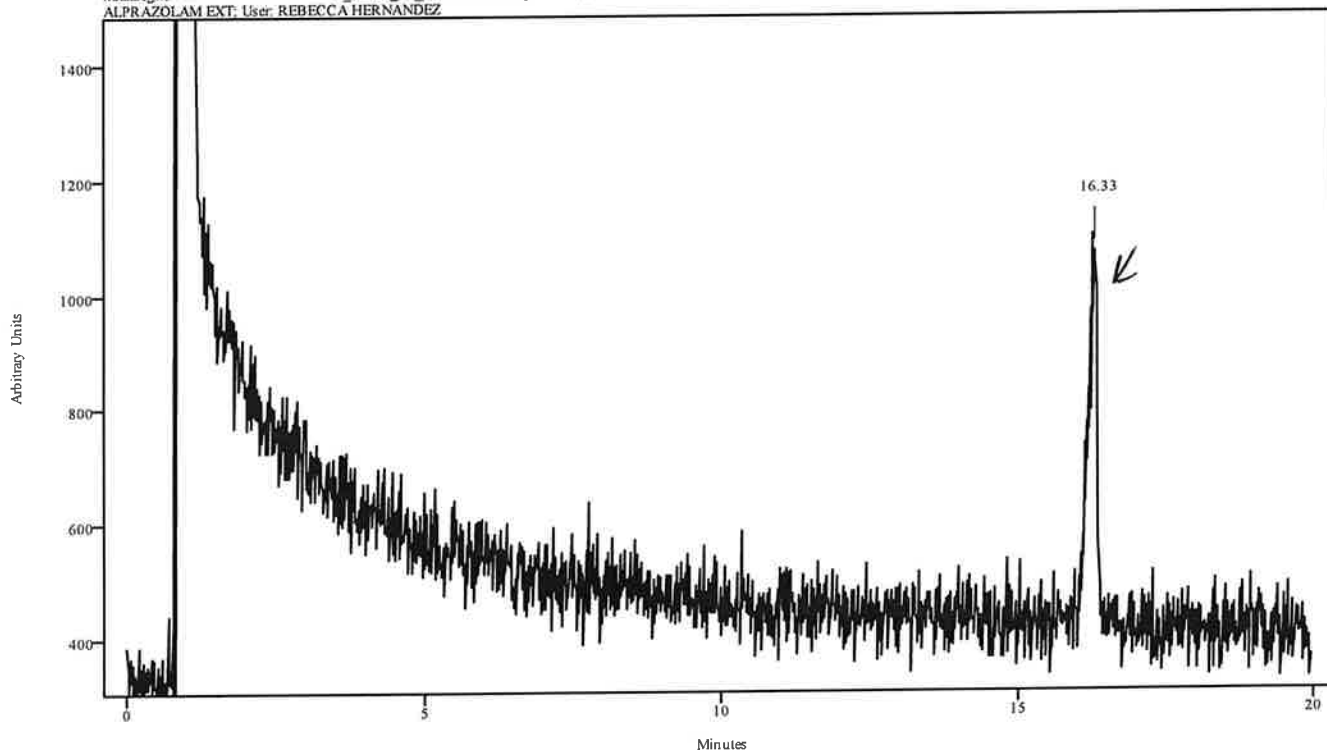
Data was still used to verify methods.

3-19-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ALPRAZOLAM EXT 2021_March_18_014341                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 109                                                     |
| Sample Name    | ALPRAZOLAM EXT                                          |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 02:07:04 2021                                |
| Date Processed | Fri Mar 19 20:12:07 2021                                |

irdata.cgm: ALPRAZOLAM EXT 2021\_March\_18\_014341\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: ALPRAZOLAM EXT; User: REBECCA HERNANDEZ

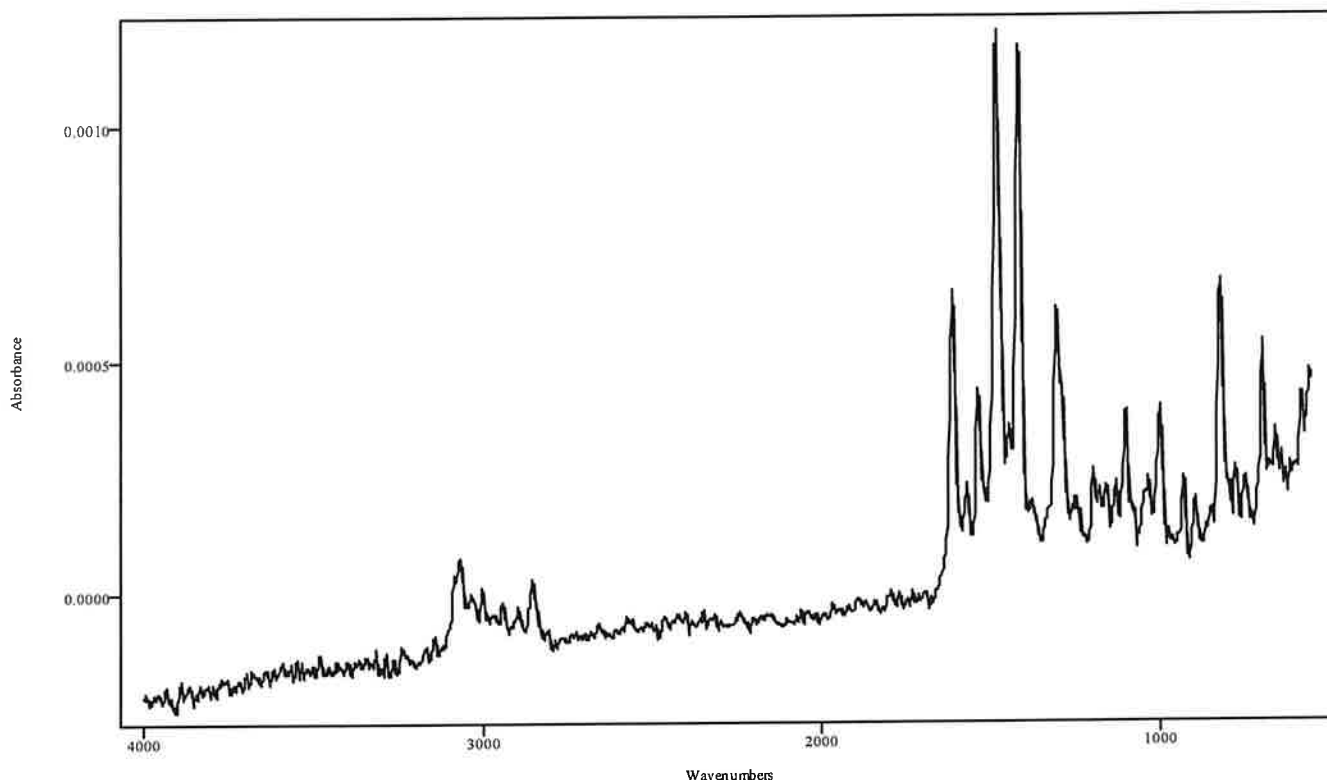


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 16.157     | 16.370   | 0.210      | 15.352          | 15.830        |

*CH*  
 \* DNU - Make more concentrated & rerun.  
 Data was still used to verify methods.

11/3/19/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ALPRAZOLAM EXT 2021_March_18_014341                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 109                                                     |
| Sample Name    | ALPRAZOLAM EXT                                          |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 02:07:04 2021                                |
| Date Processed | Fri Mar 19 20:12:07 2021                                |



IRDATA.SPC: 16.33 minutes: AVE (16.16: 16.37) Ref. (15.35: 15.83) of ALPRAZOLAM EXT 2021\_March\_18\_014341.cgm

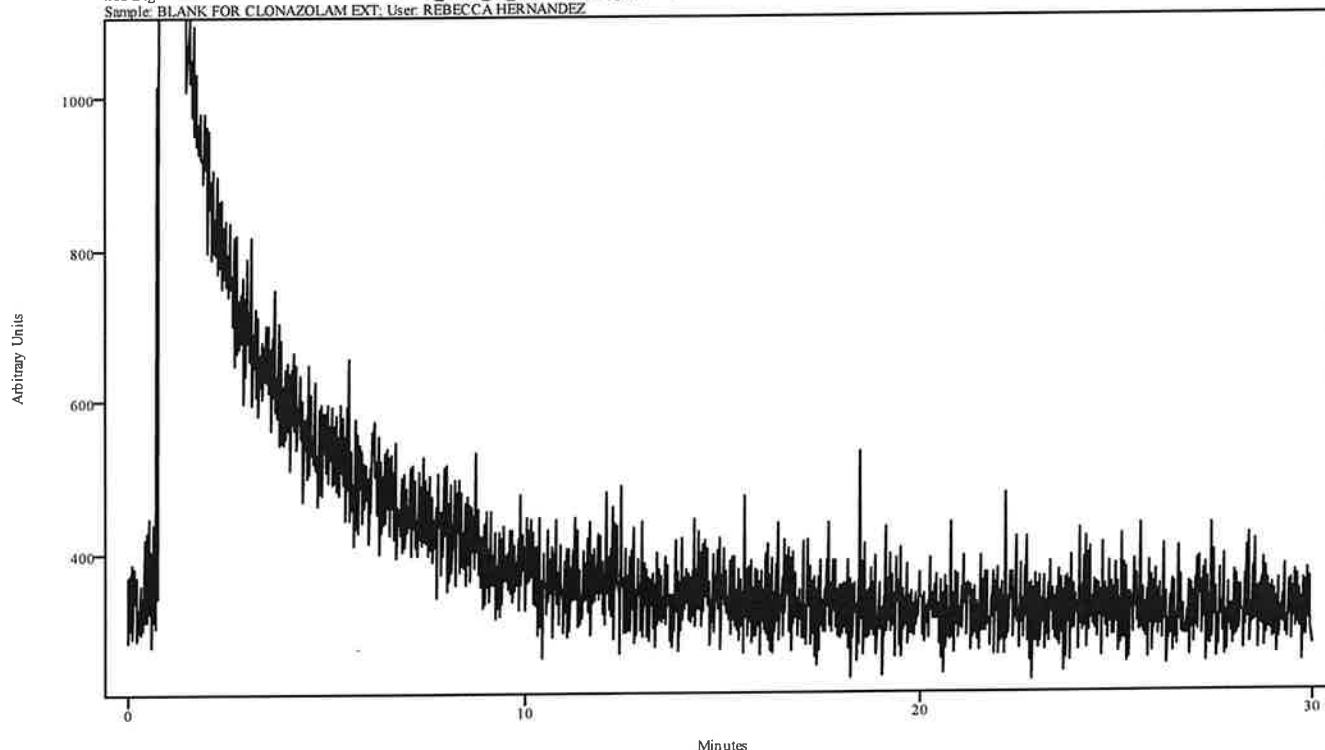
~~DATA~~ - Make more concentrated & rerun.  
Data was still used to verify methods.

# IRD Data Analysis Report

CH 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR CLONAZOLAM EXT 2021_March_18_020704           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR CLONAZOLAM EXT                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 02:41:28 2021                                |
| Date Processed | Fri Mar 19 20:27:08 2021                                |

indata.cgm: BLANK FOR CLONAZOLAM EXT 2021\_March\_18\_020704indata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR CLONAZOLAM EXT; User: REBECCA HERNANDEZ



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

~~DATA~~ CH

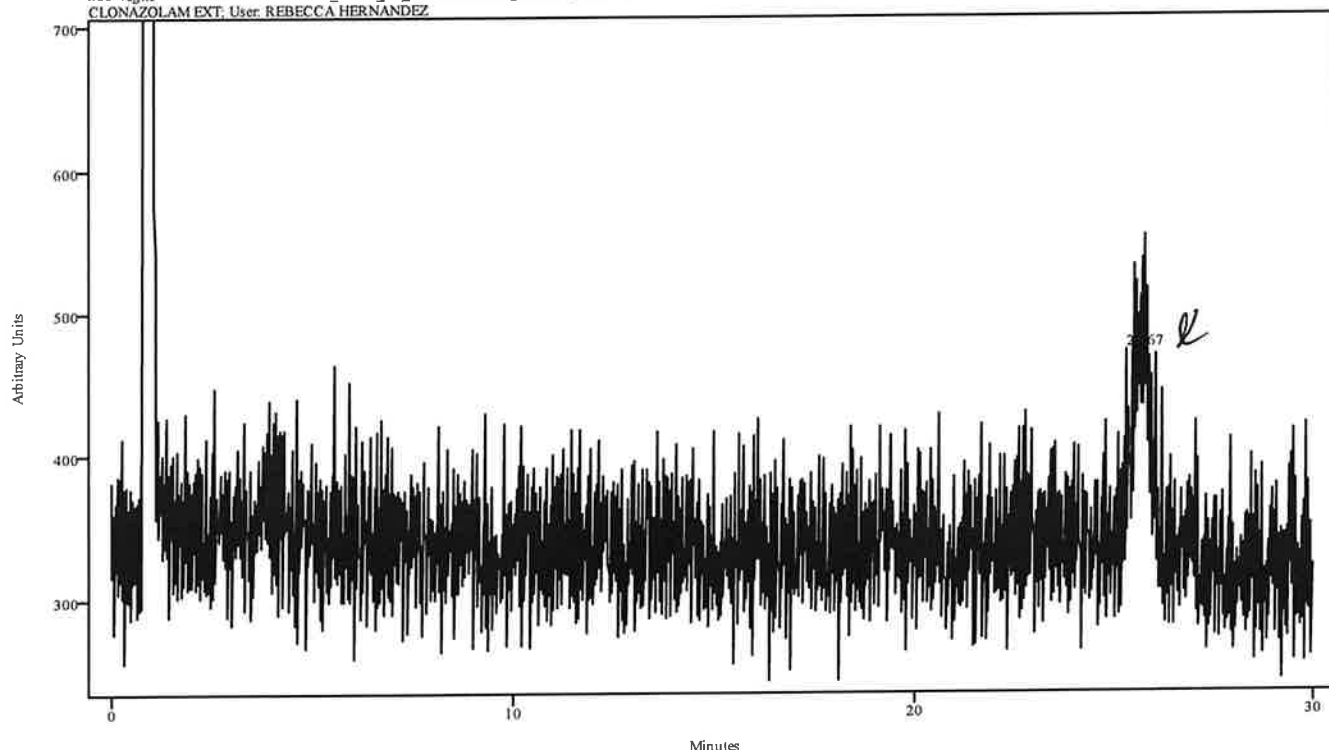
See standard run.  
Data was still used  
to verify methods.

# IRD Data Analysis Report

CH 31921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CLONAZOLAM EXT 2021_March_18_024128                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 110                                                     |
| Sample Name    | CLONAZOLAM EXT                                          |
| Misc. Info     | ACETONITRILE:HEDWIG                                     |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 03:13:58 2021                                |
| Date Processed | Fri Mar 19 20:28:28 2021                                |

irdata.cgm: CLONAZOLAM EXT 2021\_March\_18\_024128 irdata.cgm: Misc. Info: ACETONITRILE:HEDWIG; Sample: CLONAZOLAM EXT; User: REBECCA HERNANDEZ

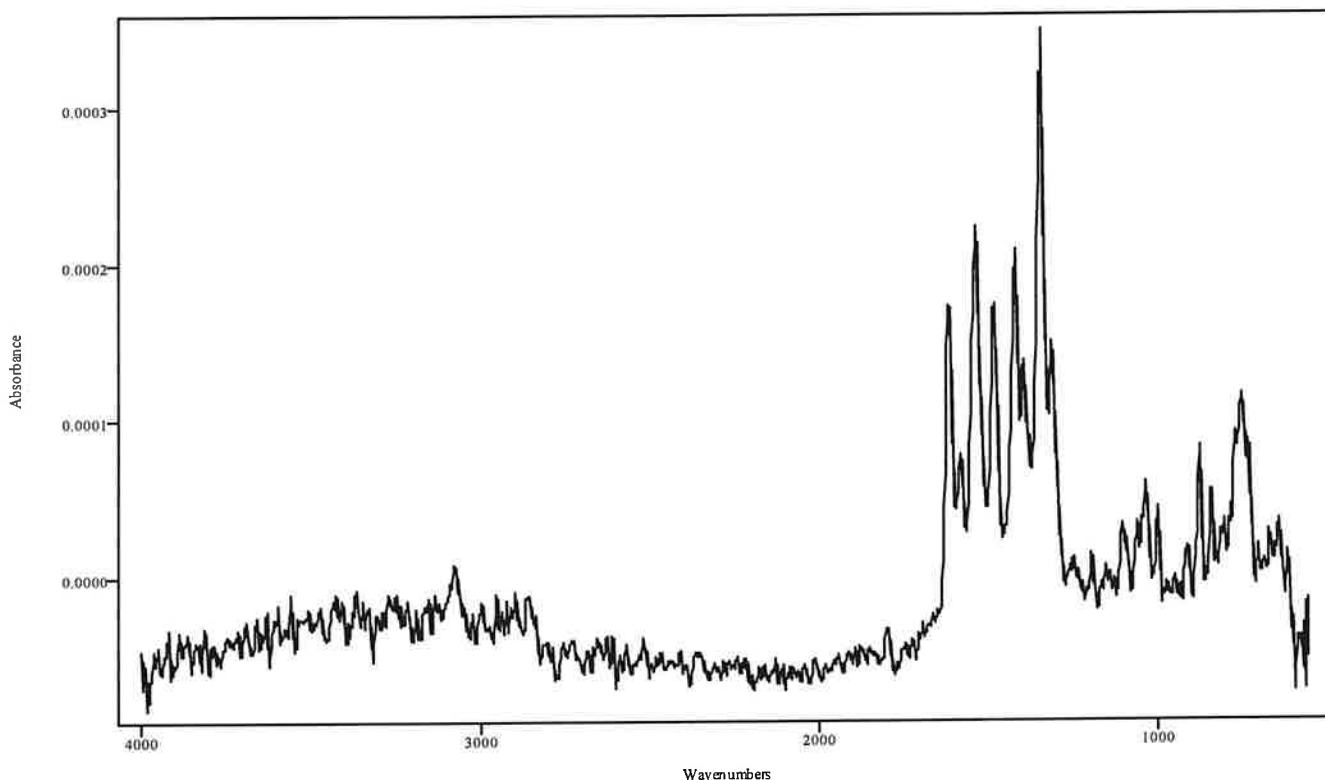


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 25.291     | 26.046   | 0.754      | 23.594          | 24.615        |

CH  
~~DNV~~ - make more concentrated  
 & rerun.  
 Data was still used to  
 verify methods.

mt 3-19-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CLONAZOLAM EXT 2021_March_18_024128                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 110                                                     |
| Sample Name    | CLONAZOLAM EXT                                          |
| Misc. Info     | ACETONITRILE:HEDWIG                                     |
| User ID        | REBECCA HERNANDEZ                                       |
| Injection Time | Thu Mar 18 03:13:58 2021                                |
| Date Processed | Fri Mar 19 20:28:28 2021                                |



IRDATA.SPC: 25.67 minutes: AVE (25.29: 26.05) Ref. (23.59: 24.61) of CLONAZOLAM EXT  
2021\_March\_18\_024128.cgm

~~DATA~~ <sup>GA</sup> - make more concentrated  
\$ rerun.  
Data was still used to  
verify methods.

Sequence Name: IRD3 EXT METHOD STANDARDS (3-29-21)

UH

Sample Path: C:\ASAP DATA\HEDWIG 2021\IRD3 EXTENDED METHOD STANDARDS

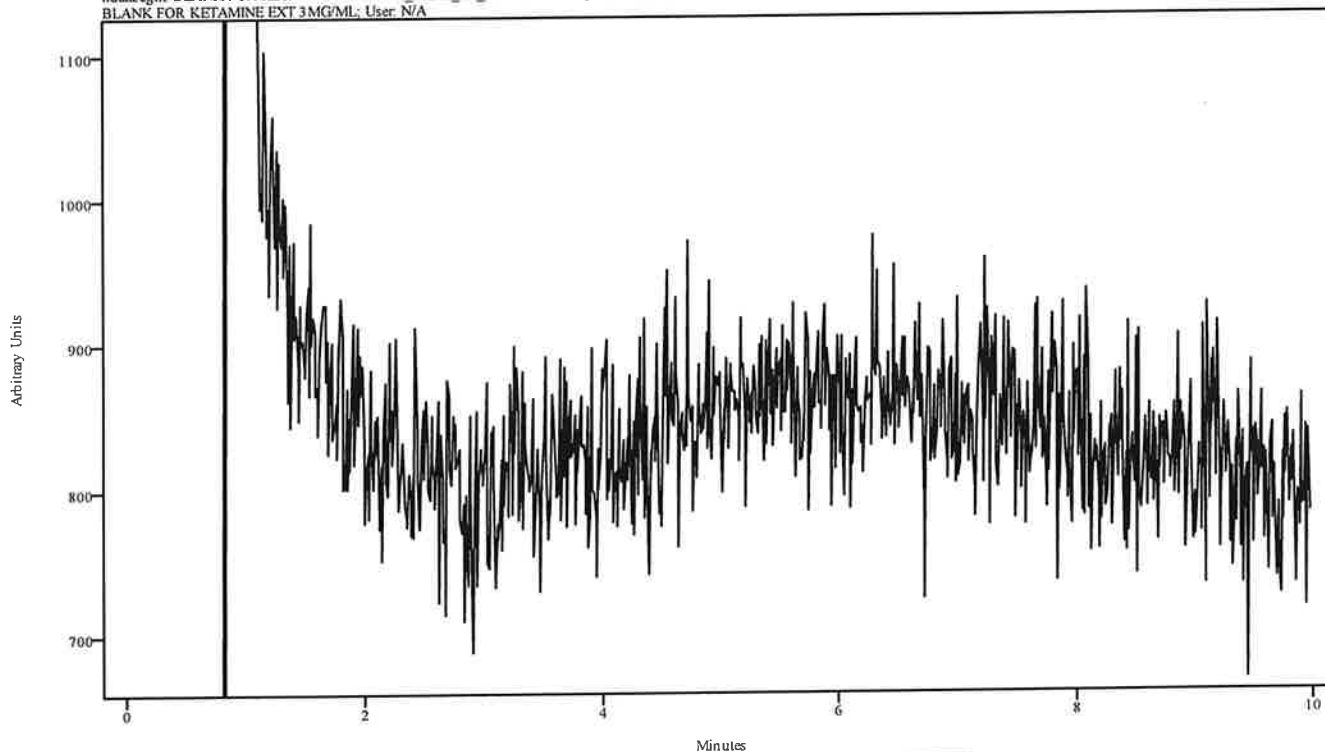
|    | Type | IRD Method | GC Method  | Vial | Sample ID  | Data File  | Solvent/Extract | Instrument ID |
|----|------|------------|------------|------|------------|------------|-----------------|---------------|
| 1  |      | IRD3 EXT   | 200TO270   | 104  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 2  |      | IRD3 EXT   | 200TO270   | 105  | KETAMINE E | KETAMINE E | MEOH            | HEDWIG        |
| 3  |      | IRD3 EXT   | ISO270(20M | 104  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 4  |      | IRD3 EXT   | ISO270(20M | 106  | HYDROMORPH | HYDROMORPH | MEOH            | HEDWIG        |
| 5  |      | IRD3 EXT   | 200TO270(2 | 104  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 6  |      | IRD3 EXT   | 200TO270(2 | 107  | ALPRAZOLAM | ALPRAZOLAM | MEOH            | HEDWIG        |
| 7  |      | IRD3 EXT   | ISO270(20M | 104  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 8  |      | IRD3 EXT   | ISO270(20M | 108  | OXYMORPHON | OXYMORPHON | MEOH            | HEDWIG        |
| 9  |      | IRD3 EXT   | 120TO270(2 | 104  | BLANK FOR  | BLANK FOR  | MEOH            | HEDWIG        |
| 10 |      | IRD3 EXT   | 120TO270(2 | 109  | FENTANYL E | FENTANYL E | MEOH            | HEDWIG        |

UH 3-29-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR KETAMINE EXT 2021_March_29_085434             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 104                                                     |
| Sample Name    | BLANK FOR KETAMINE EXT 3MG/ML                           |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 09:09:10 2021                                |
| Date Processed | Mon Mar 29 10:29:12 2021                                |

irdata.cgm: BLANK FOR KETAMINE EXT 2021\_March\_29\_085434\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR KETAMINE EXT 3MG/ML; User: N/A

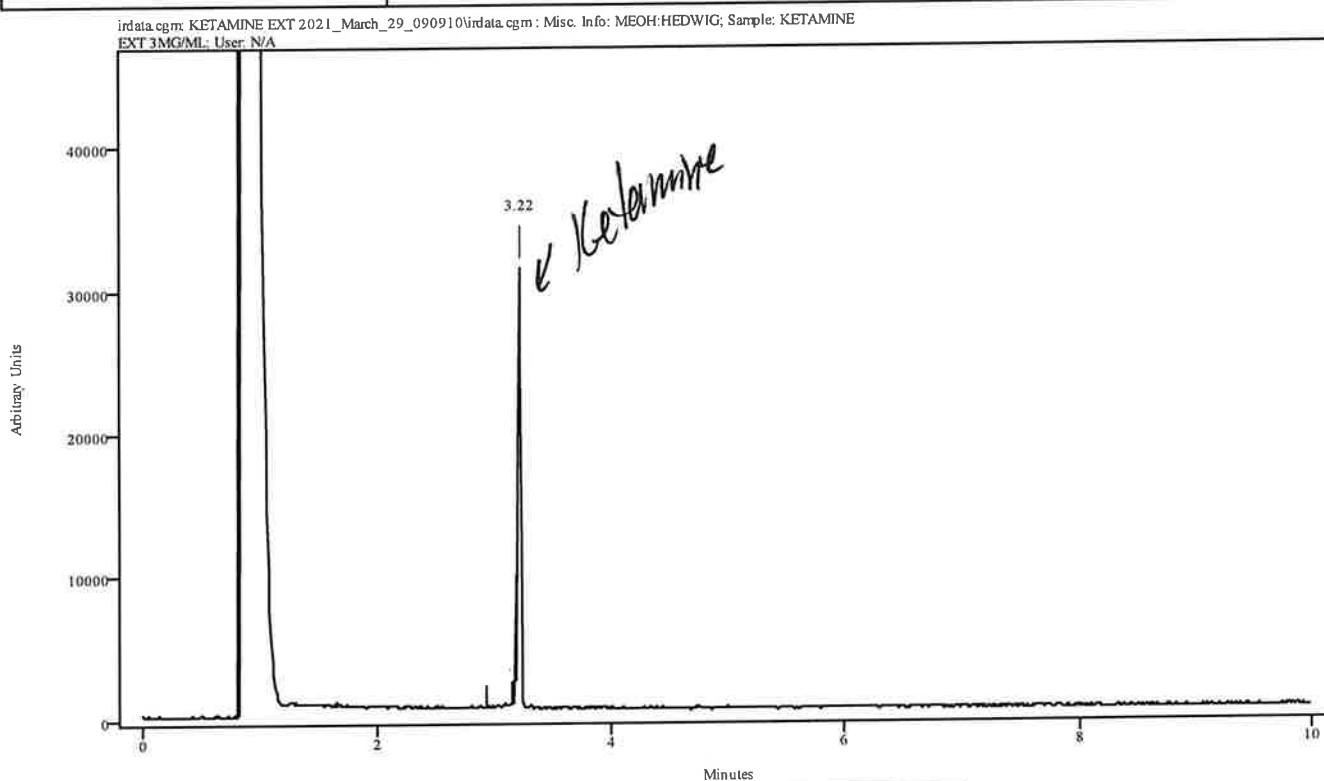


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UH 4-3-29-21

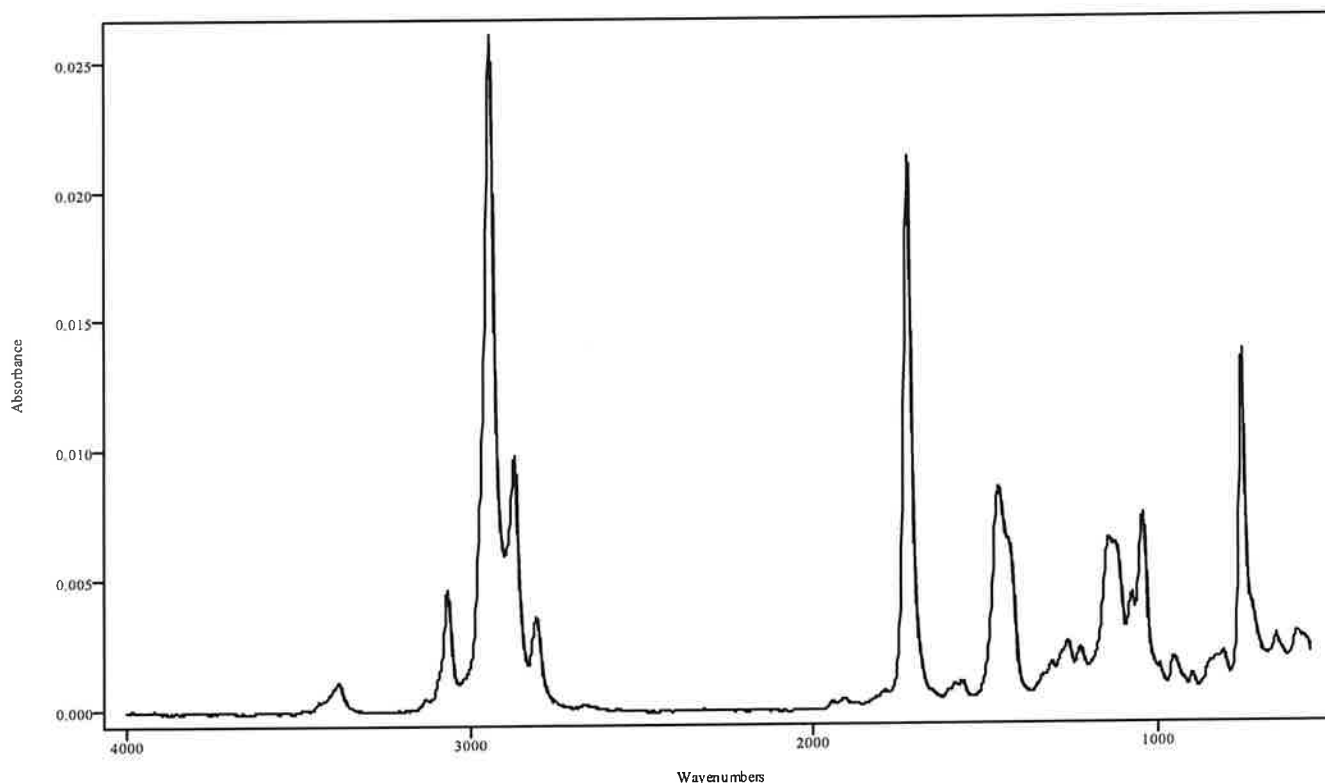
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | KETAMINE EXT 2021_March_29_090910                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 105                                                     |
| Sample Name    | KETAMINE EXT 3MG/ML                                     |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 09:22:30 2021                                |
| Date Processed | Mon Mar 29 10:29:48 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 3.194      | 3.238    | 0.044      | 2.940           | 3.161         |

CH 3-29-21

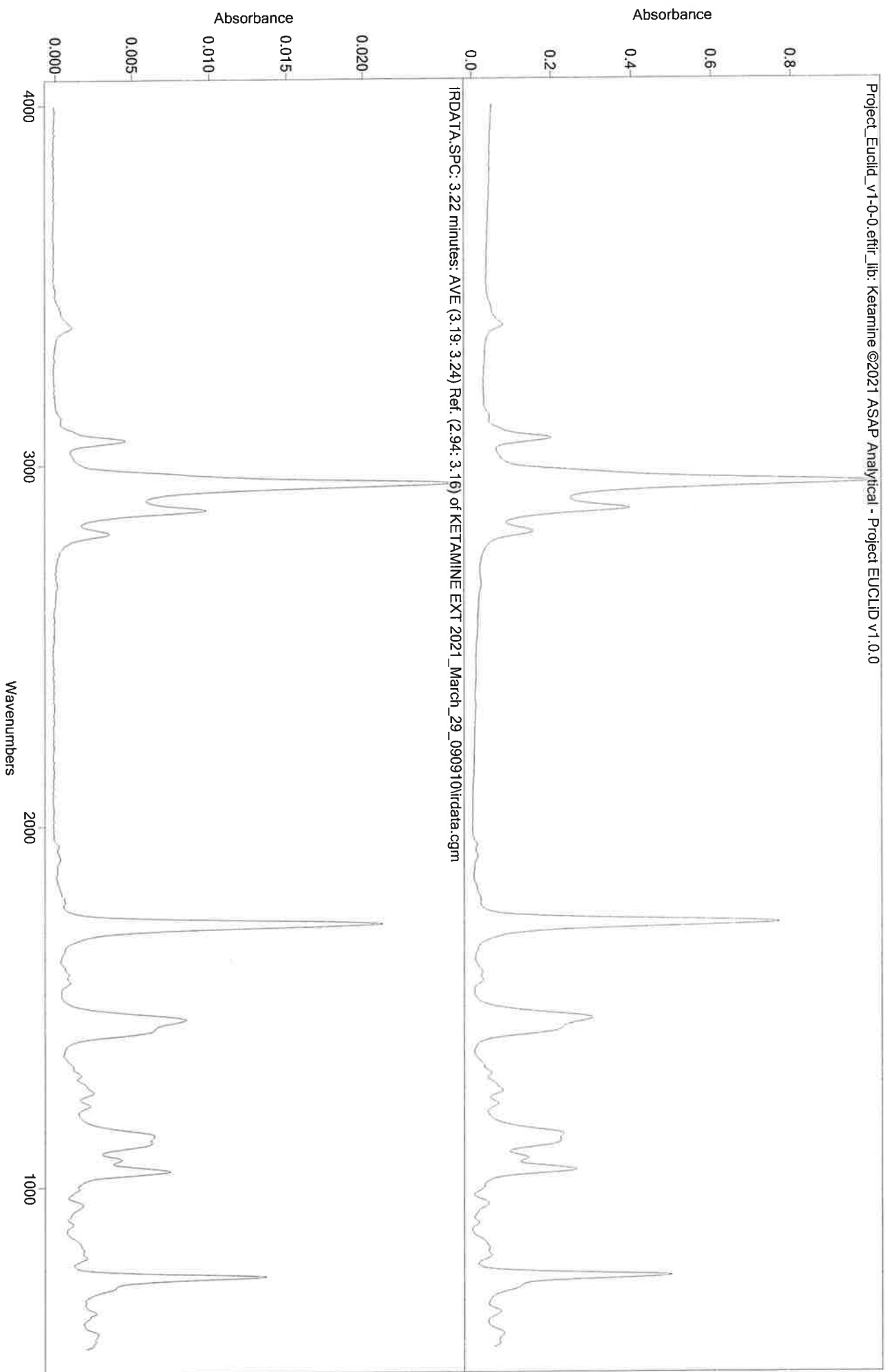
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | KETAMINE EXT 2021_March_29_090910                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270                                                |
| GC Vial        | 105                                                     |
| Sample Name    | KETAMINE EXT 3MG/ML                                     |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 09:22:30 2021                                |
| Date Processed | Mon Mar 29 10:29:48 2021                                |



IRDATA.SPC: 3.22 minutes: AVE (3.19: 3.24) Ref. (2.94: 3.16) of KETAMINE EXT  
2021\_March\_29\_090910.cgm

*Ketamine*

44 42021

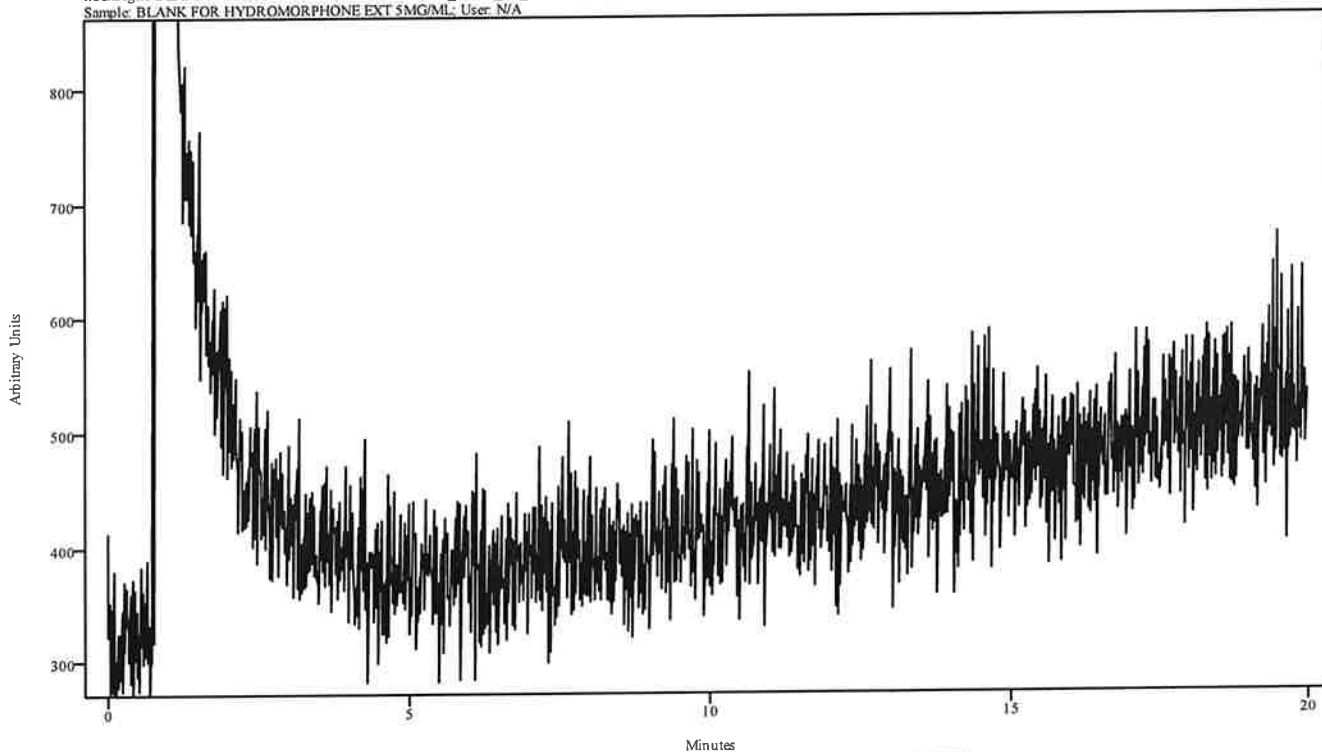


# IRD Data Analysis Report

32921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR HYDROMORPHONE EXT 2021_March_29_092230        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | BLANK FOR HYDROMORPHONE EXT 5MG/ML                      |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 09:46:57 2021                                |
| Date Processed | Mon Mar 29 10:30:17 2021                                |

irdata.cgm: BLANK FOR HYDROMORPHONE EXT 2021\_March\_29\_092230  
 Sample: BLANK FOR HYDROMORPHONE EXT 5MG/ML; User: N/A

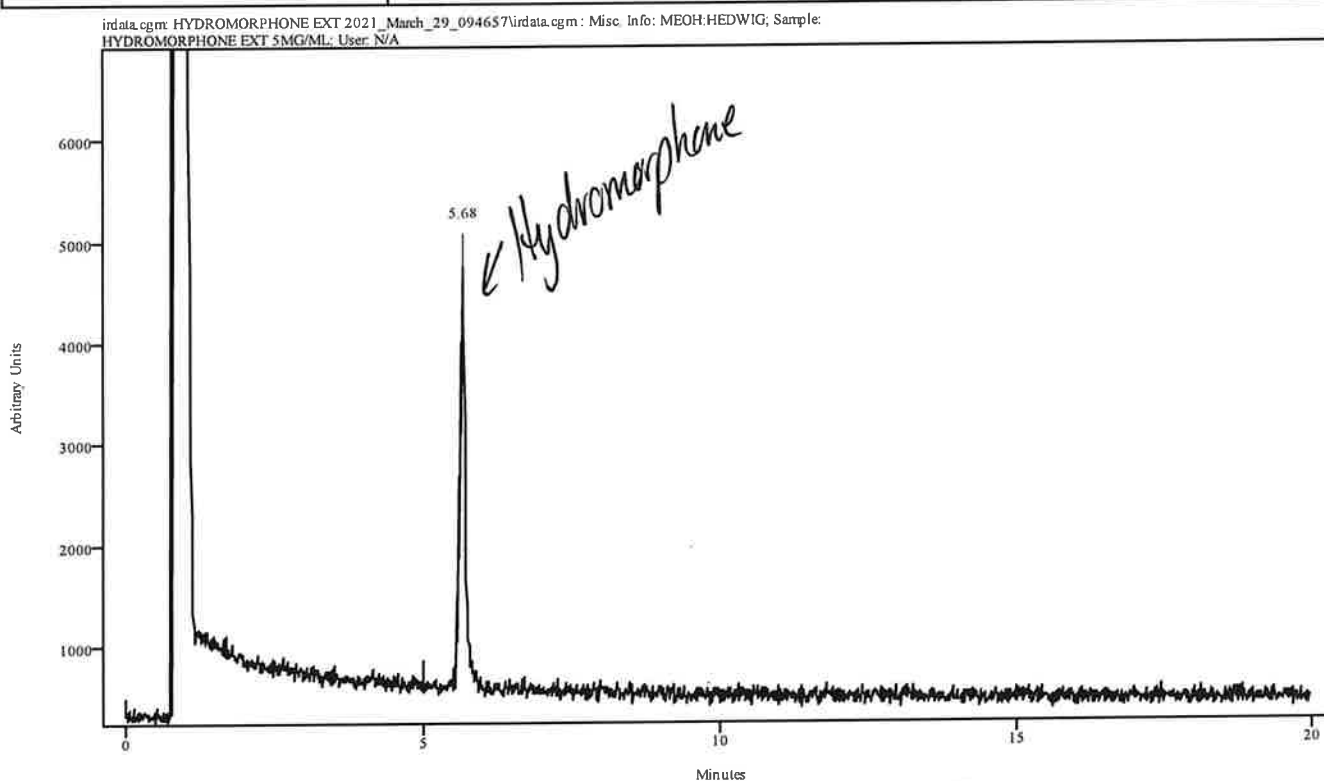


|            |          |            |                 |               |
|------------|----------|------------|-----------------|---------------|
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|

UH 3-29-21

# IRD Data Analysis Report

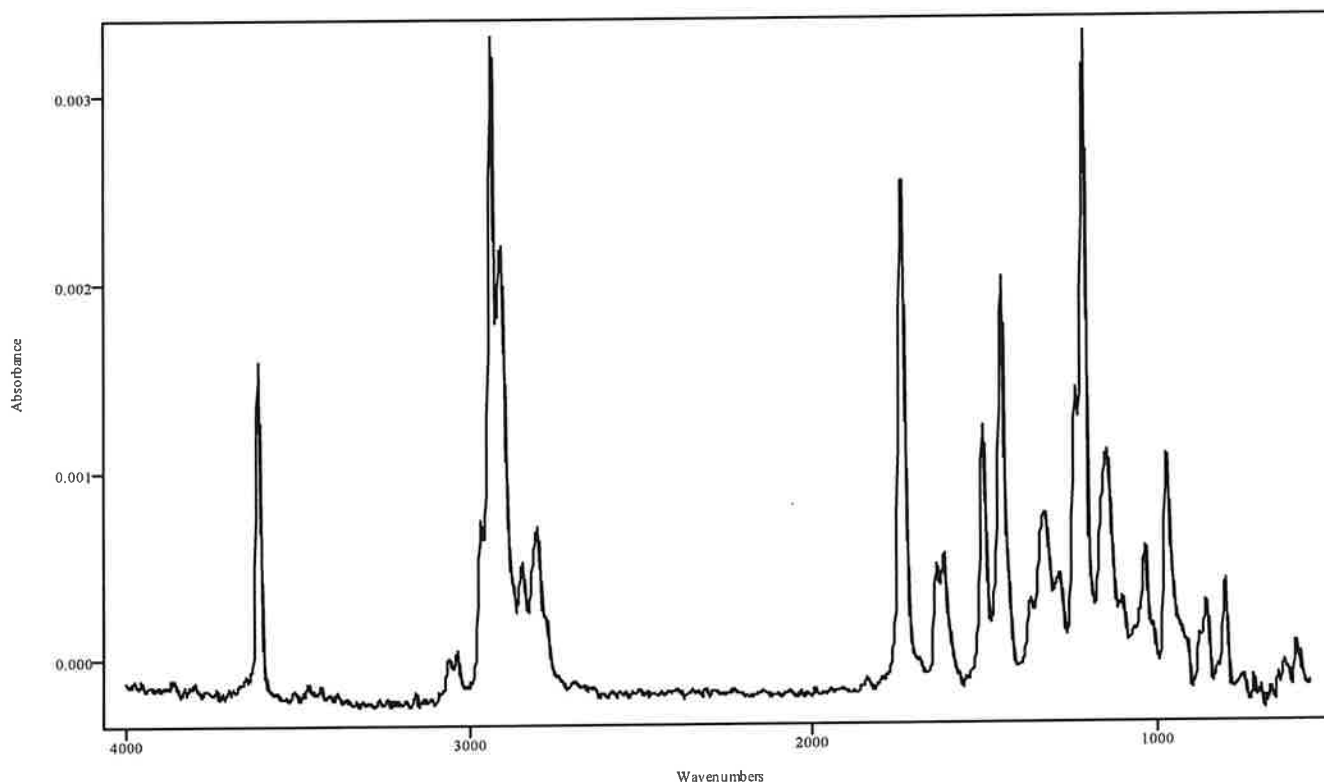
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | HYDROMORPHONE EXT 2021_March_29_094657                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 106                                                     |
| Sample Name    | HYDROMORPHONE EXT 5MG/ML                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 10:09:25 2021                                |
| Date Processed | Mon Mar 29 10:30:42 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 5.613      | 5.724    | 0.110      | 5.028           | 5.514         |

UH 3-29-21

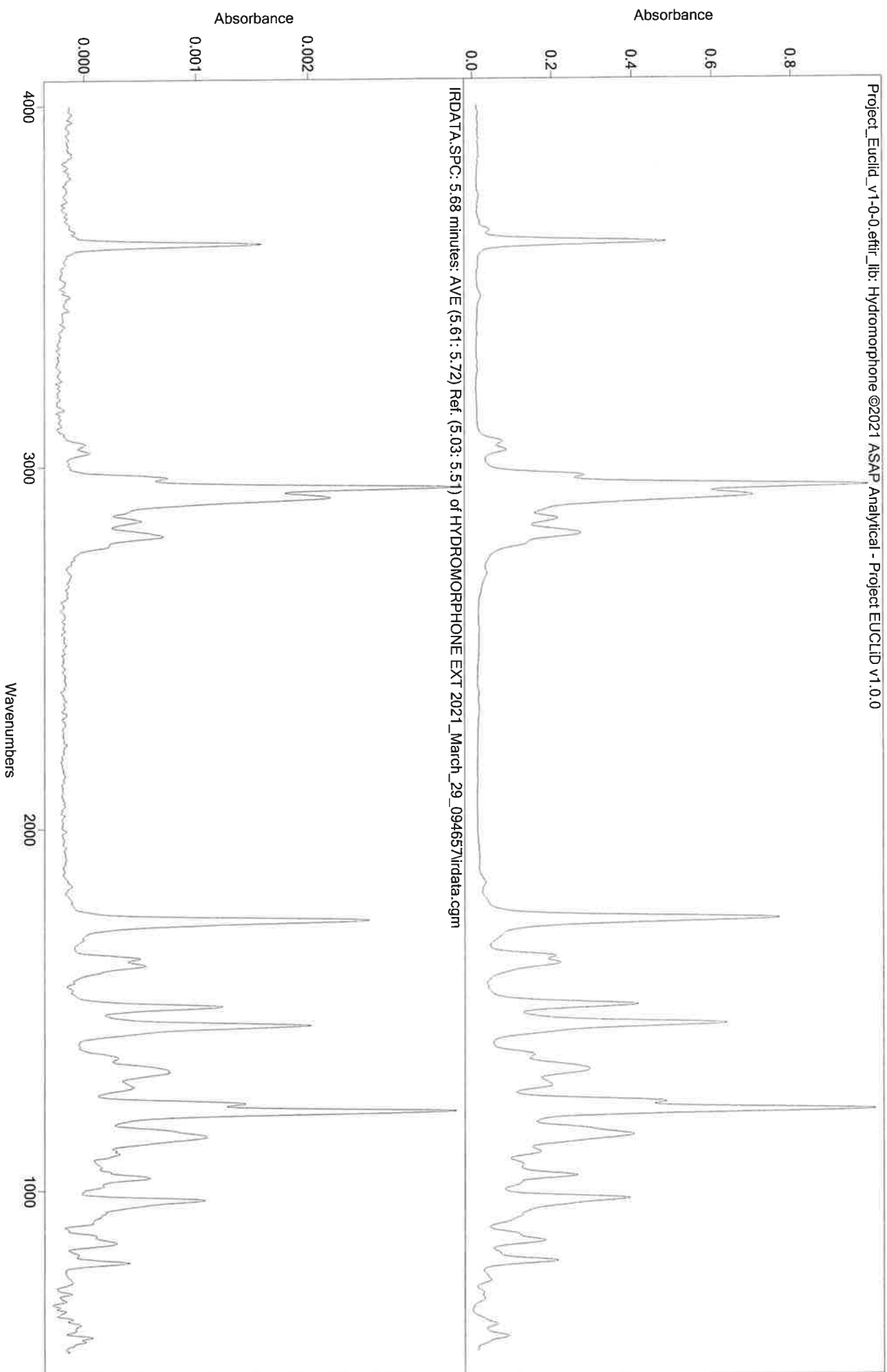
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | HYDROMORPHONE EXT 2021_March_29_094657                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 106                                                     |
| Sample Name    | HYDROMORPHONE EXT 5MG/ML                                |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 10:09:25 2021                                |
| Date Processed | Mon Mar 29 10:30:42 2021                                |



IRDATA.SPC: 5.68 minutes: AVE (5.61: 5.72) Ref. (5.03: 5.51) of HYDROMORPHONE EXT  
2021\_March\_29\_094657.cgm

*Hydromorphone*

4/4-20-21

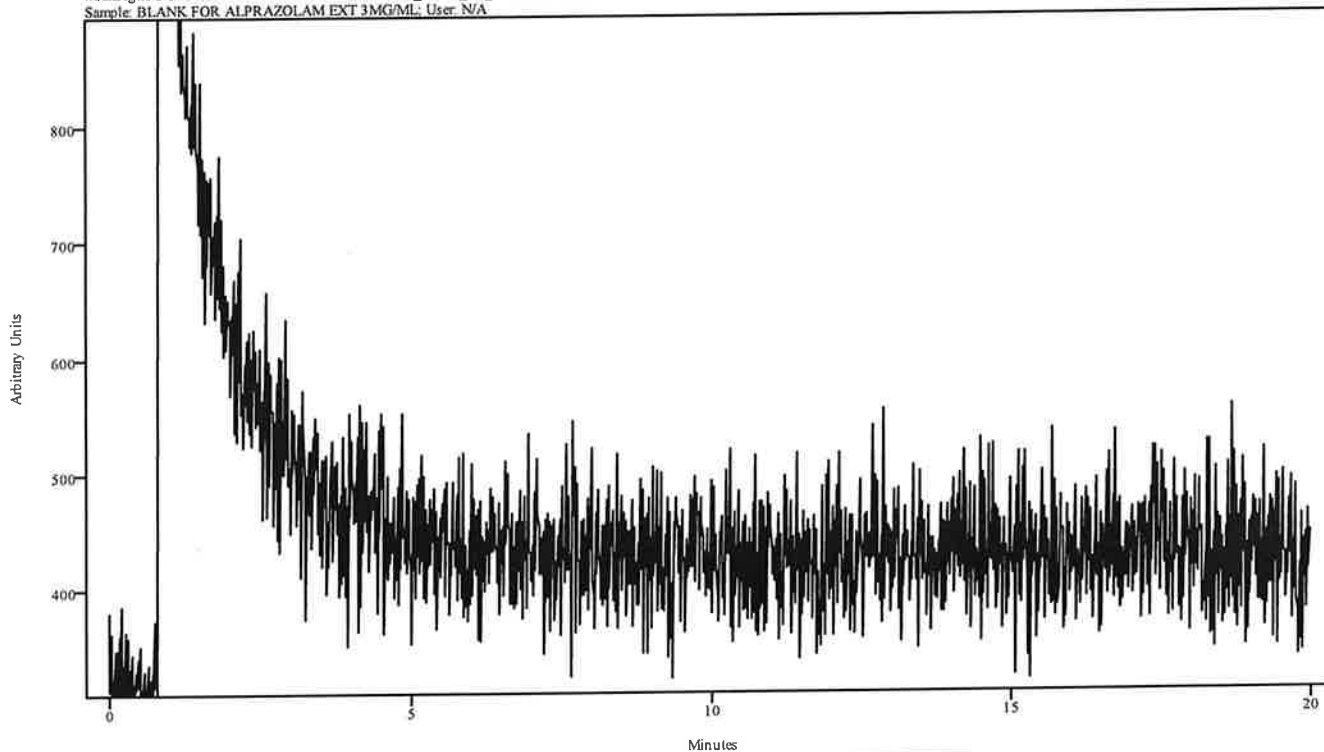


# IRD Data Analysis Report

Handwritten signature and date: 3/29/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR ALPRAZOLAM EXT 2021_March_29_100925           |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 104                                                     |
| Sample Name    | BLANK FOR ALPRAZOLAM EXT 3MG/ML                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 10:33:19 2021                                |
| Date Processed | Mon Mar 29 12:23:17 2021                                |

irdala.cgm: BLANK FOR ALPRAZOLAM EXT 2021\_March\_29\_100925  
 Sample: BLANK FOR ALPRAZOLAM EXT 3MG/ML; User: N/A

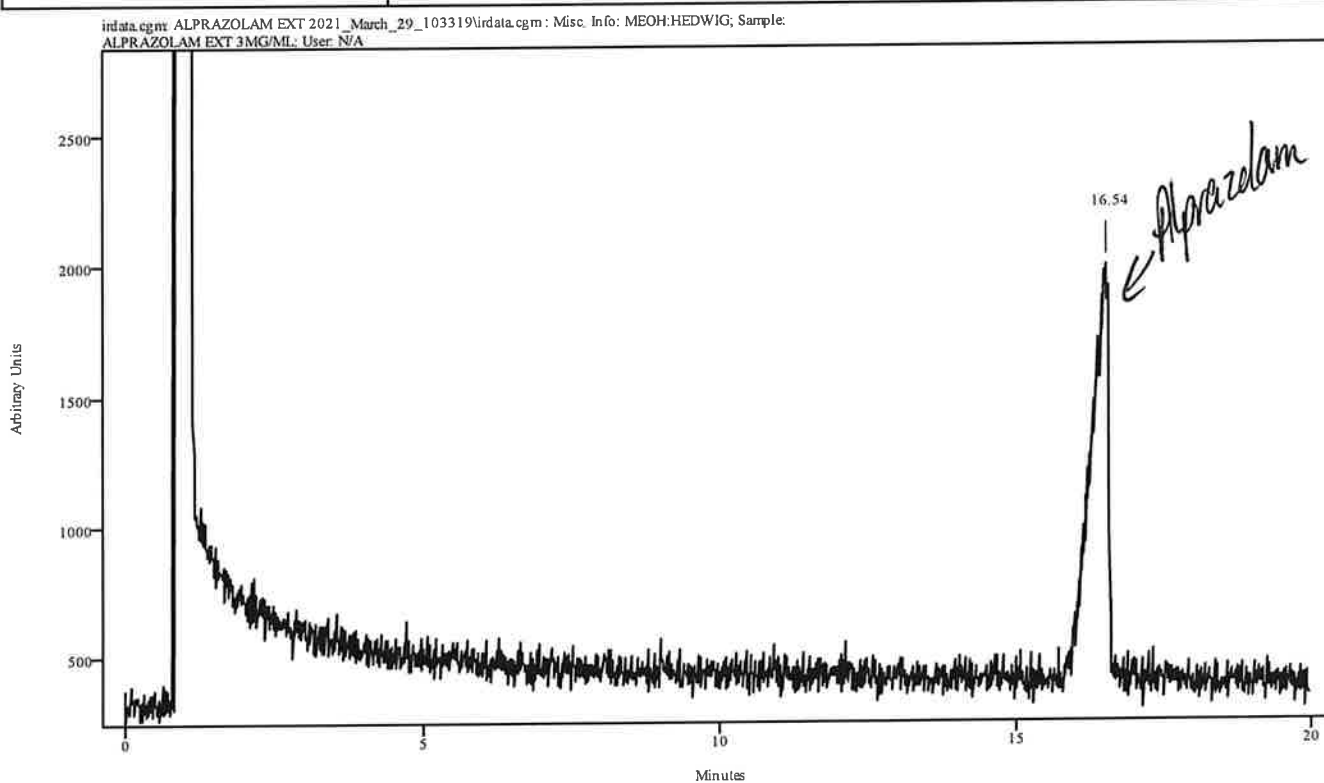


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

11/3/24/21

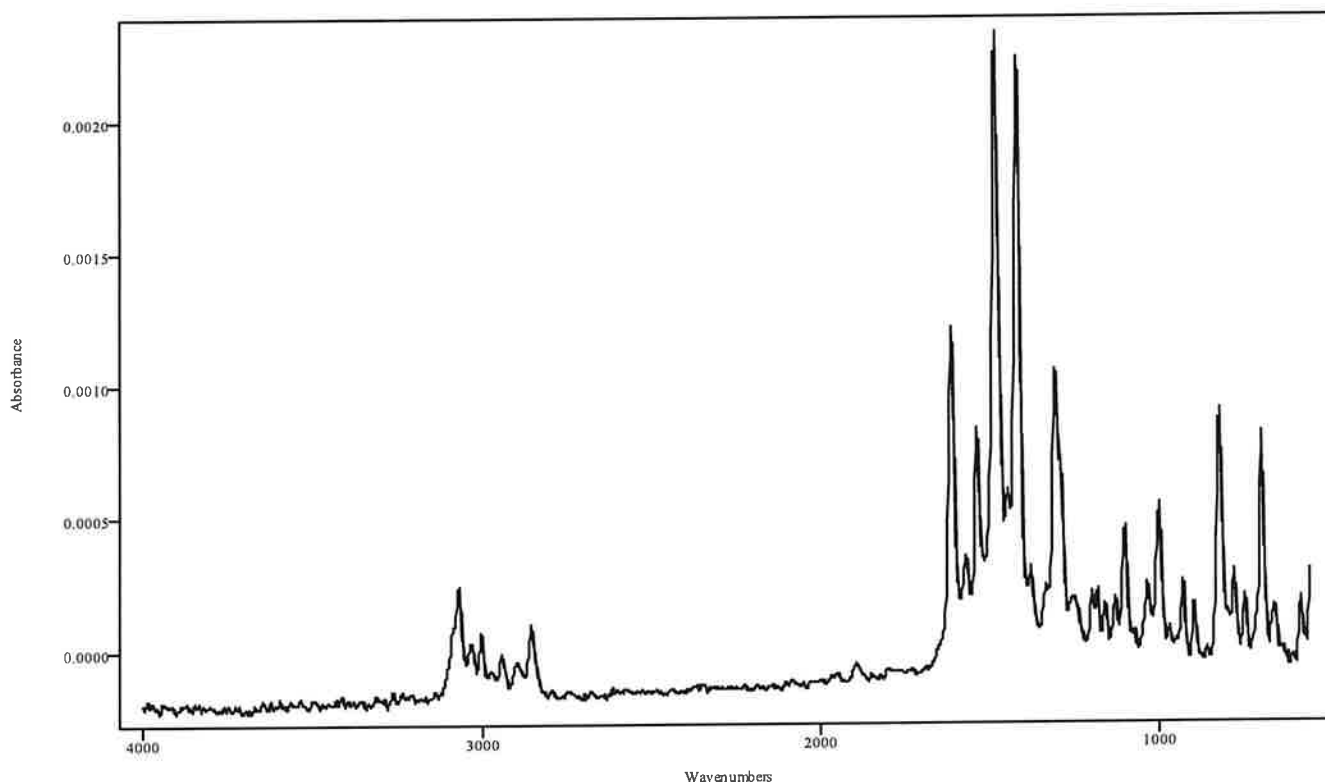
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ALPRAZOLAM EXT 2021_March_29_103319                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 107                                                     |
| Sample Name    | ALPRAZOLAM EXT 3MG/ML                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 10:56:35 2021                                |
| Date Processed | Mon Mar 29 12:23:55 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 16.188     | 16.592   | 0.398      | 15.098          | 15.719        |

4/11 3-29-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ALPRAZOLAM EXT 2021_March_29_103319                     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 107                                                     |
| Sample Name    | ALPRAZOLAM EXT 3MG/ML                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 10:56:35 2021                                |
| Date Processed | Mon Mar 29 12:23:55 2021                                |

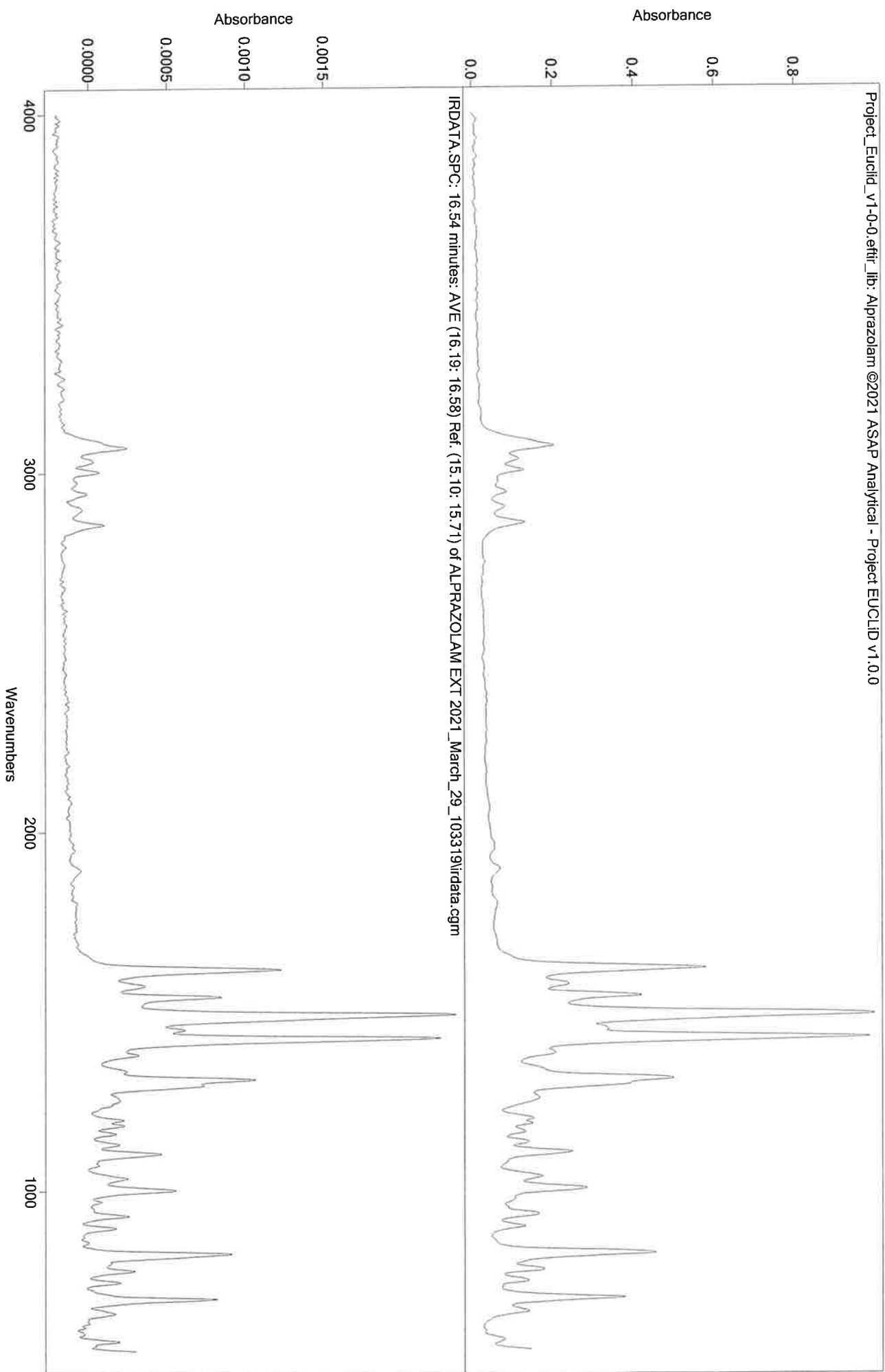


IRDATA.SPC: 16.54 minutes: AVE (16.19: 16.59) Ref. (15.10: 15.71) of ALPRAZOLAM EXT 2021\_March\_29\_103319.cgm

*Alprazolam*

IRDATA.SPC: 16.54 minutes: AVE (16.19: 16.58) Ref. (15.10: 15.71) of ALPRAZOLAM EXT 2021\_March\_29\_103319\irdata.cgm

Alt 5-3-21

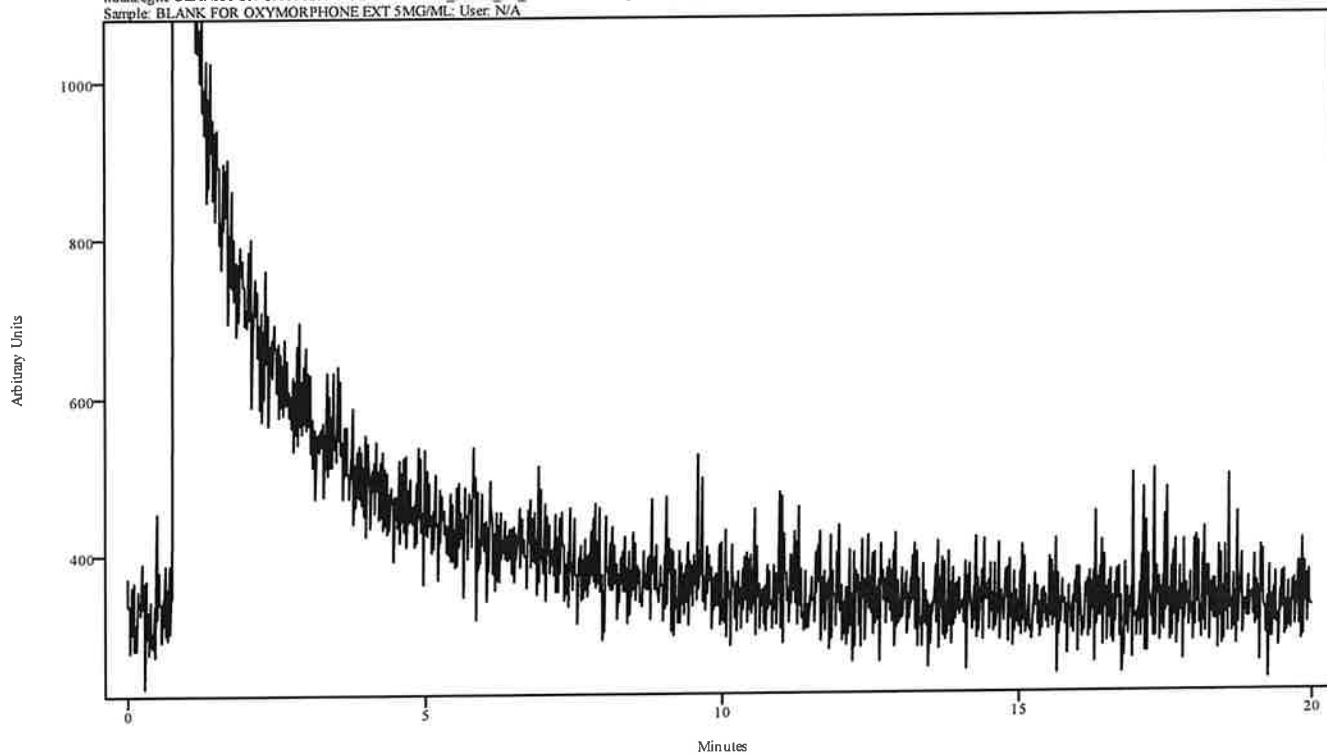


# IRD Data Analysis Report

JH 32921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR OXYMORPHONE EXT 2021_March_29_105635          |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | BLANK FOR OXYMORPHONE EXT 5MG/ML                        |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 11:20:57 2021                                |
| Date Processed | Mon Mar 29 12:24:40 2021                                |

irdata.cgm: BLANK FOR OXYMORPHONE EXT 2021\_March\_29\_105635  
 Sample: BLANK FOR OXYMORPHONE EXT 5MG/ML; User: N/A



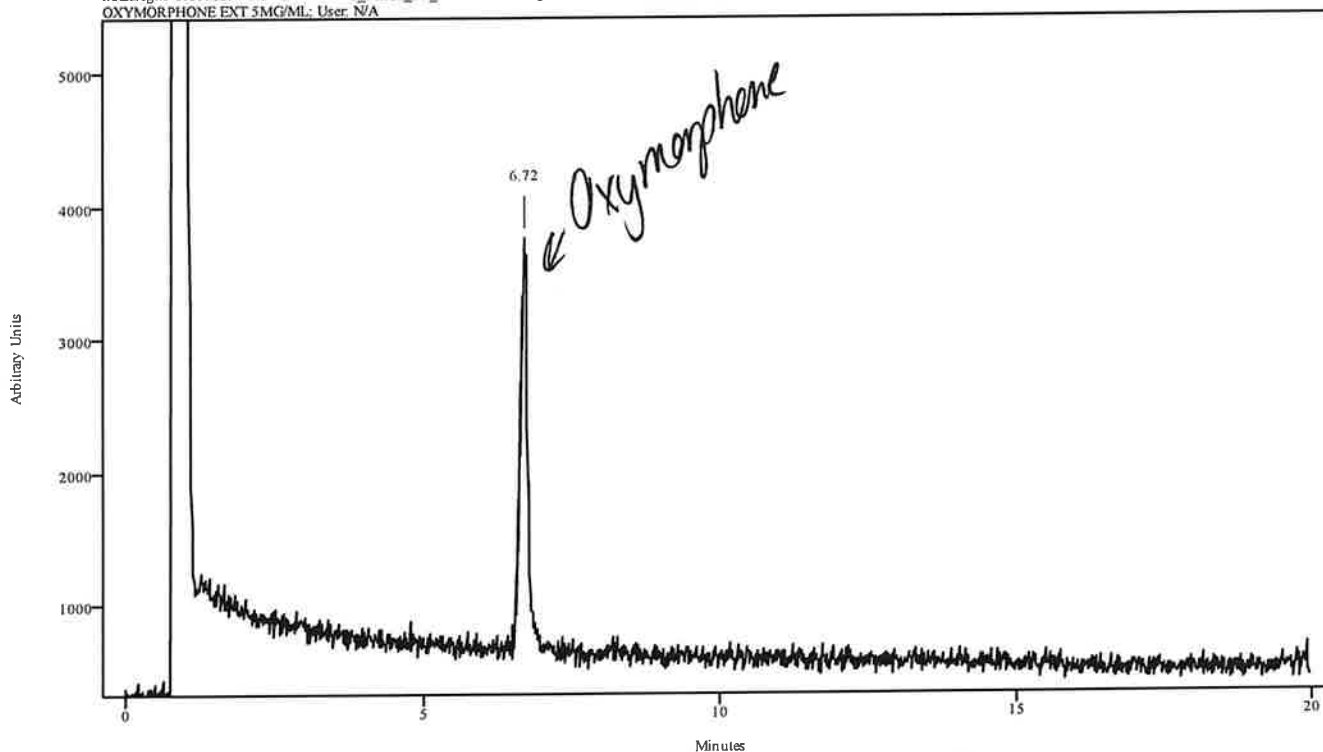
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UH 32921

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | OXYMORPHONE EXT 2021_March_29_112057                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | OXYMORPHONE EXT 5MG/ML                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 11:43:30 2021                                |
| Date Processed | Mon Mar 29 12:25:10 2021                                |

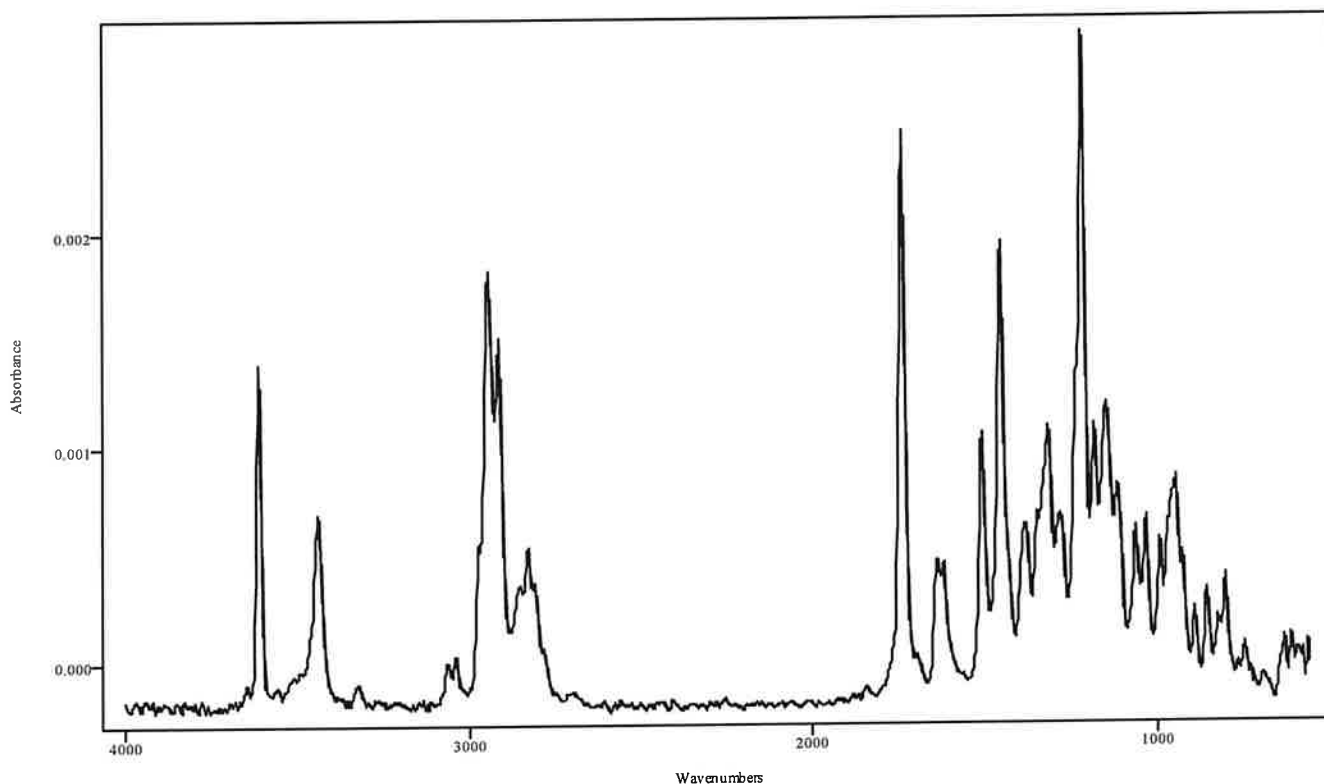
irdata.cgm: OXYMORPHONE EXT 2021\_March\_29\_112057\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: OXYMORPHONE EXT 5MG/ML; User: N/A



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.624      | 6.767    | 0.144      | 5.894           | 6.513         |

PH 32921

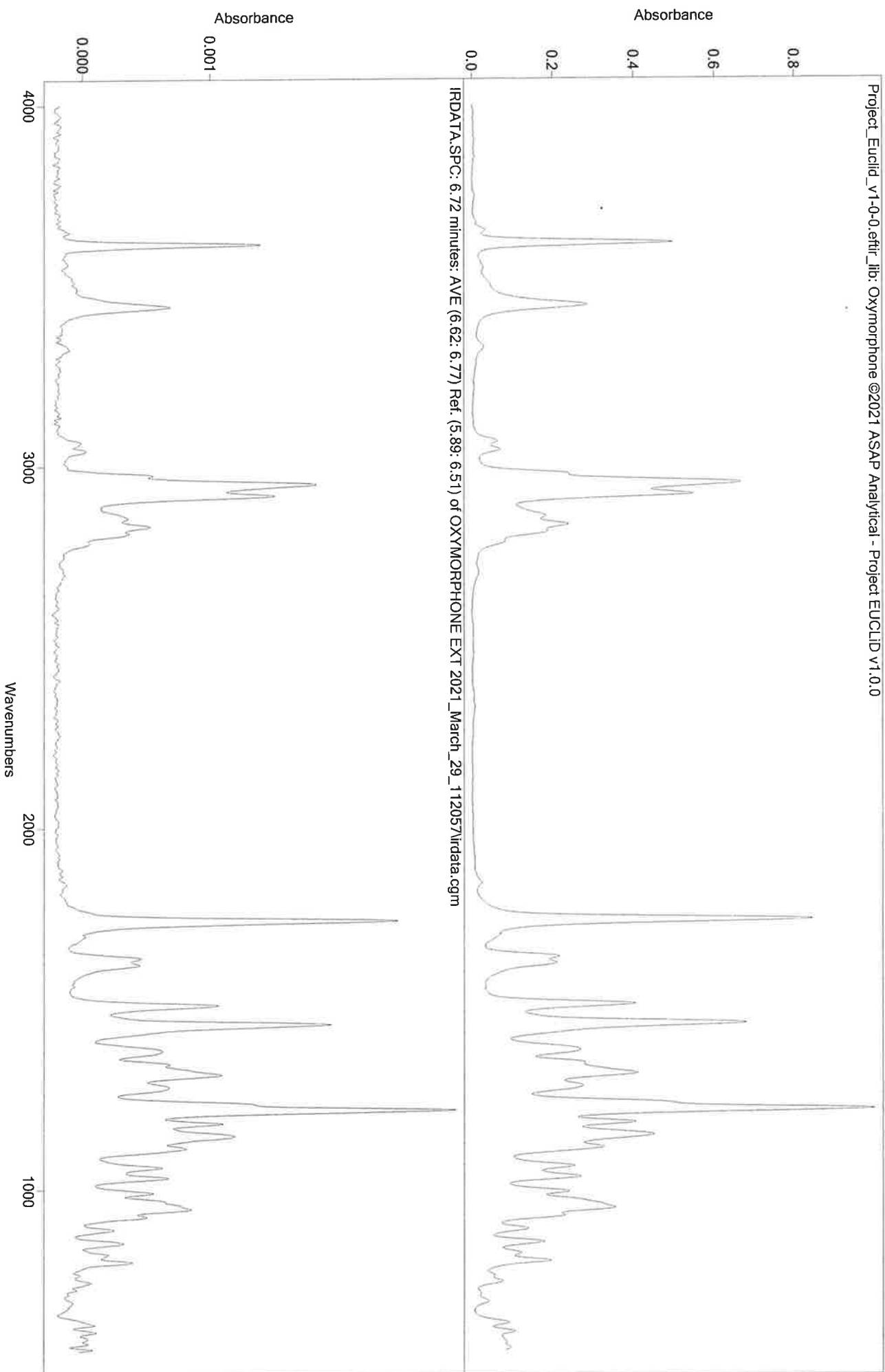
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | OXYMORPHONE EXT 2021_March_29_112057                    |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | OXYMORPHONE EXT 5MG/ML                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 11:43:30 2021                                |
| Date Processed | Mon Mar 29 12:25:10 2021                                |



IRDATA.SPC: 6.72 minutes: AVE (6.62: 6.77) Ref. (5.89: 6.51) of OXYMORPHONE EXT 2021\_March\_29\_112057.cgm

*Oxymorphone*

4/4 4-20-21

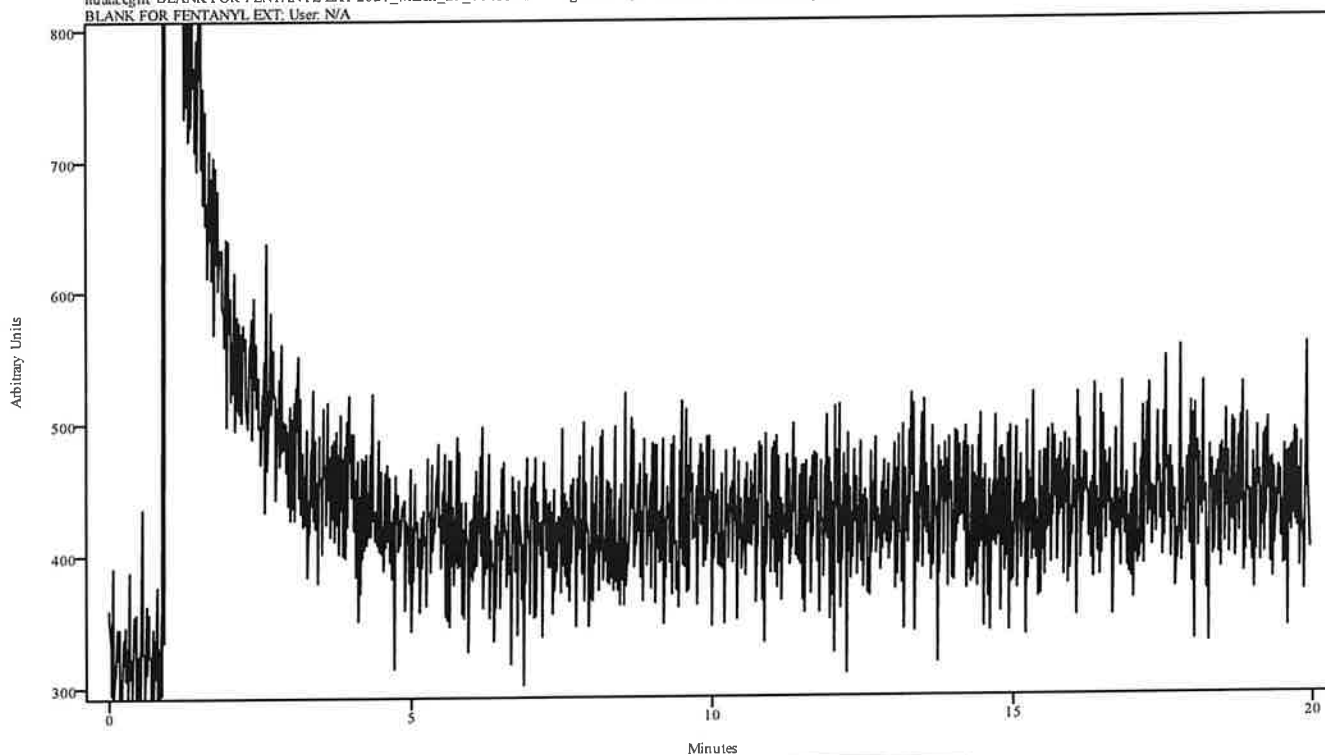


# IRD Data Analysis Report

CH 3/29/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR FENTANYL EXT 2021_March_29_114330             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 104                                                     |
| Sample Name    | BLANK FOR FENTANYL EXT                                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 12:07:58 2021                                |
| Date Processed | Mon Mar 29 12:25:54 2021                                |

irdata.cgm: BLANK FOR FENTANYL EXT 2021\_March\_29\_114330 irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR FENTANYL EXT; User: N/A

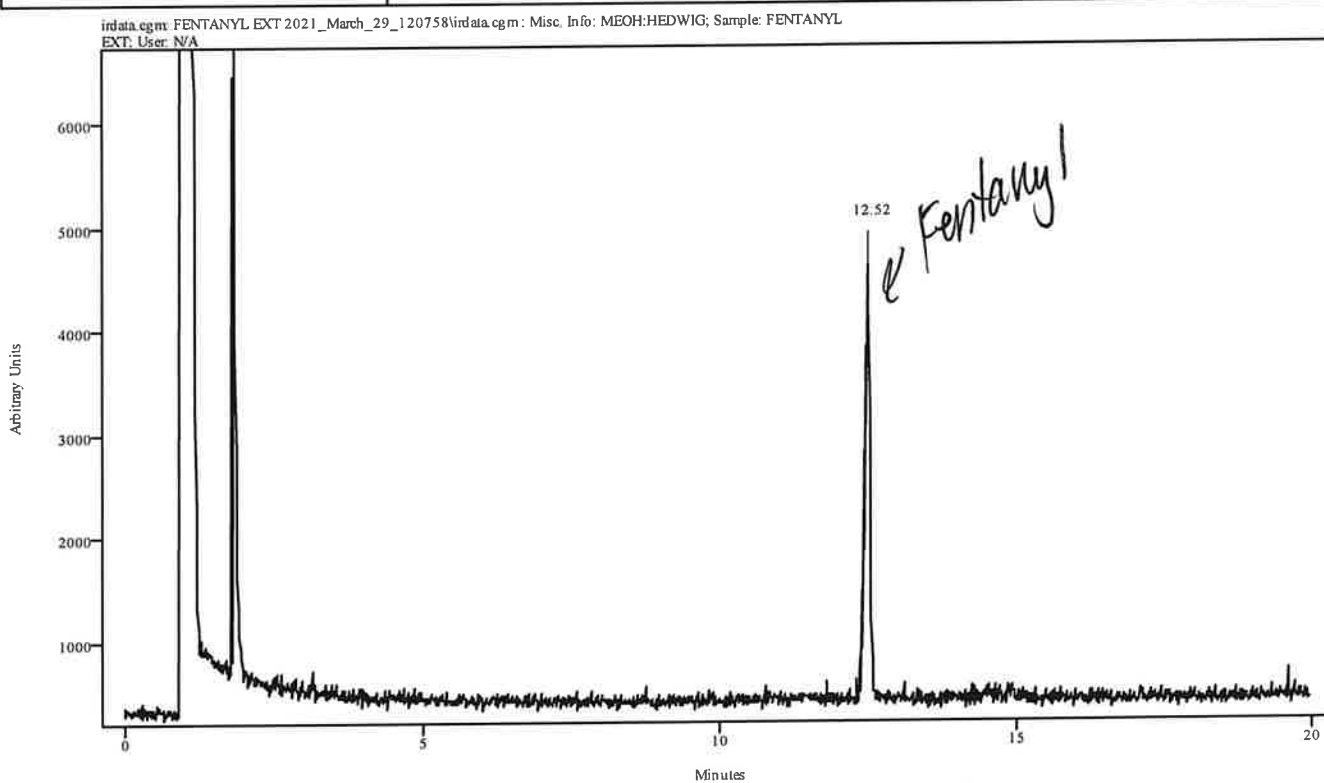


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

UH 3-29-21

# IRD Data Analysis Report

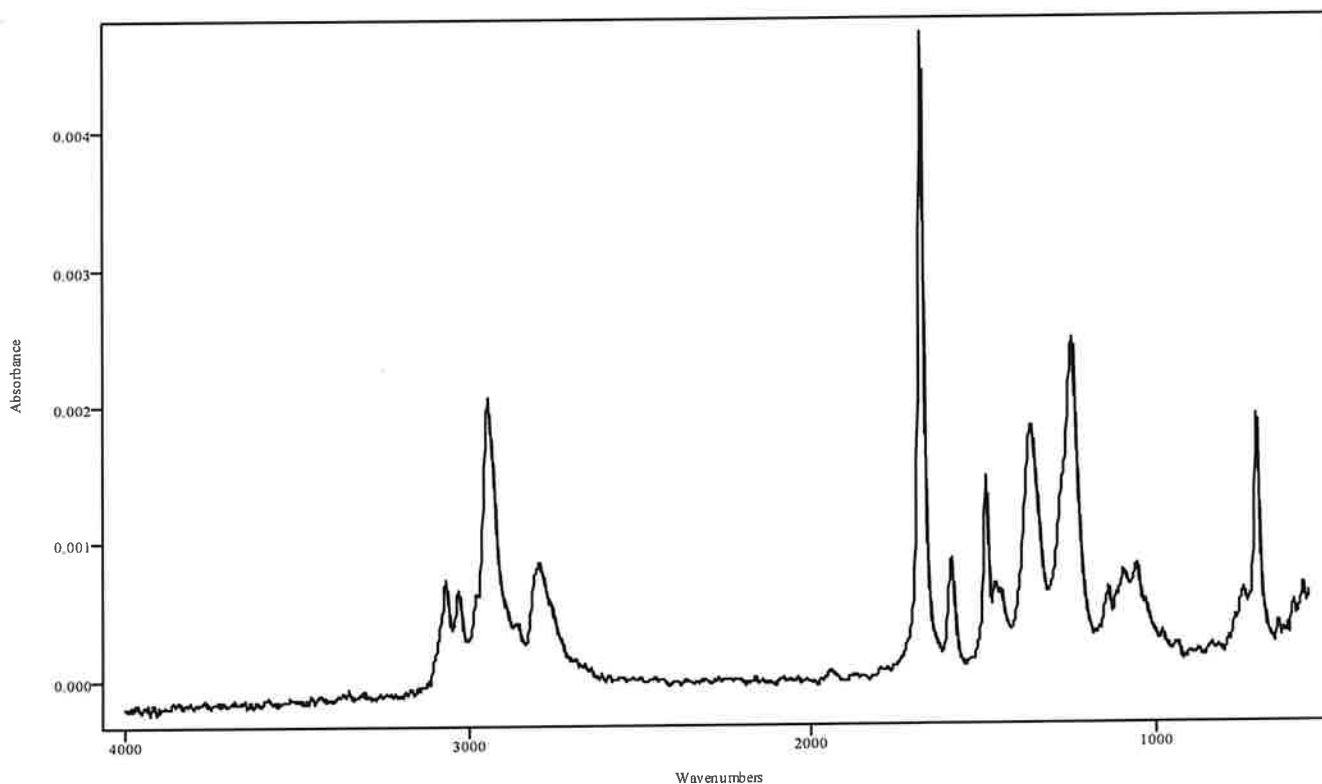
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FENTANYL EXT 2021_March_29_120758                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 109                                                     |
| Sample Name    | FENTANYL EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 12:31:52 2021                                |
| Date Processed | Mon Mar 29 12:48:58 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 12.465     | 12.566   | 0.099      | 11.826          | 12.312        |

CH 3-29-21

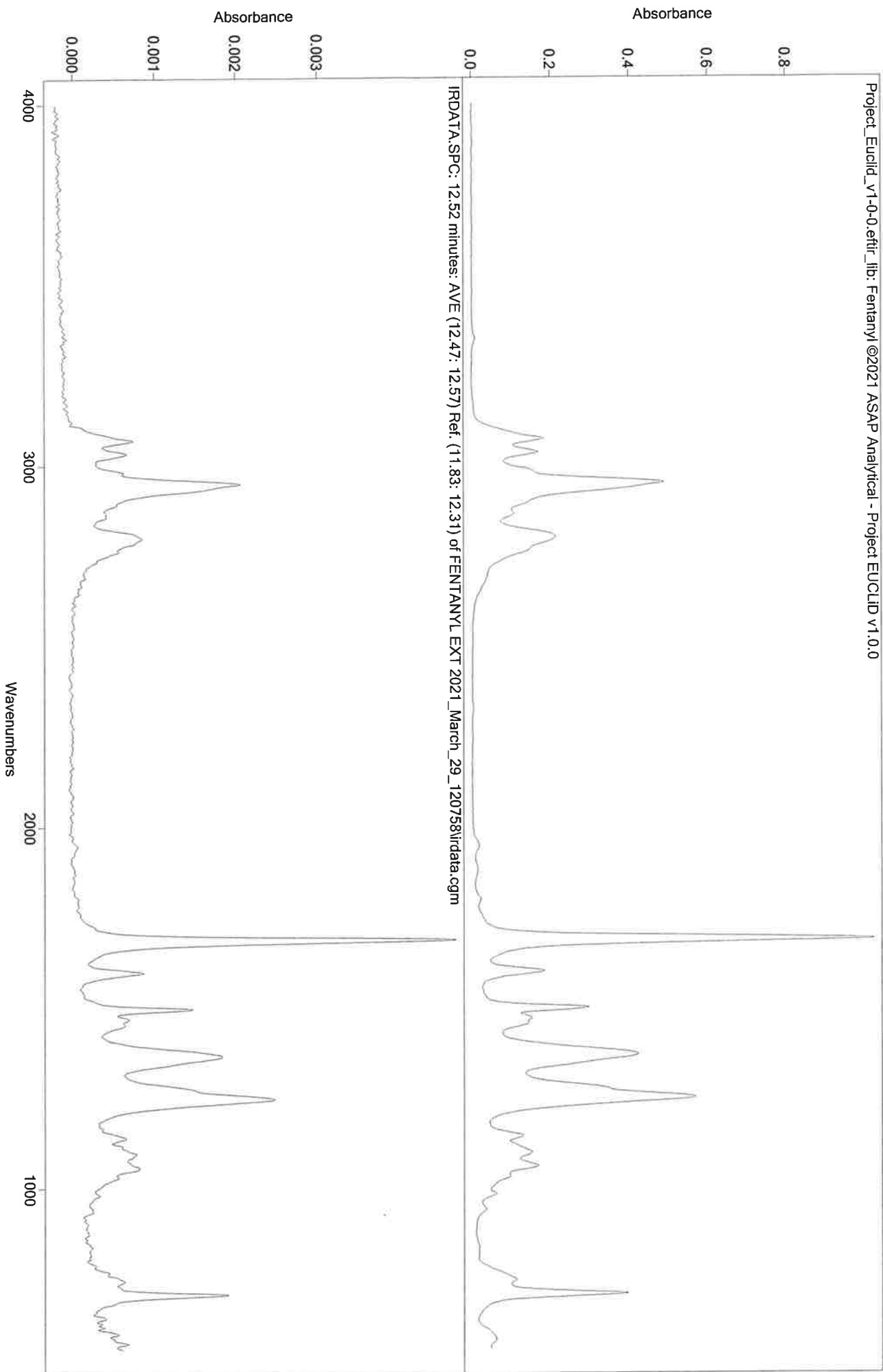
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FENTANYL EXT 2021_March_29_120758                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 109                                                     |
| Sample Name    | FENTANYL EXT                                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | N/A                                                     |
| Injection Time | Mon Mar 29 12:31:52 2021                                |
| Date Processed | Mon Mar 29 12:48:58 2021                                |



IRDATA.SPC: 12.52 minutes: AVE (12.47: 12.57) Ref. (11.83: 12.31) of FENTANYL EXT  
2021\_March\_29\_120758.cgm

*Fentanyl*

CH5-3-21



Sequence Name: IRD3 EXT METHOD STANDARDS (4-19-21)

uph

Sample Path: C:\ASAP DATA\HEDWIG 2021\IRD3 EXTENDED METHOD STANDARDS

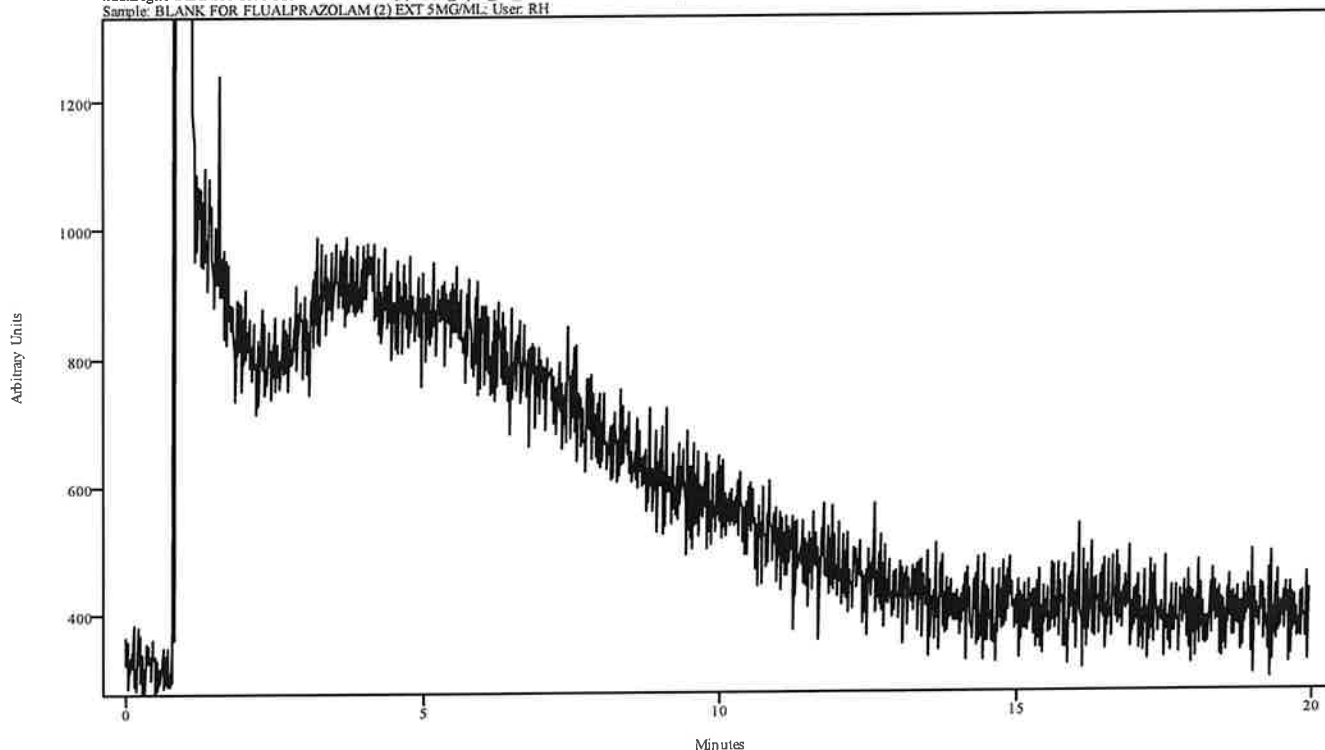
|    | Type | IRD Method | GC Method  | Vial | Sample ID  | Data File   | Solvent/Extract | Instrument ID |
|----|------|------------|------------|------|------------|-------------|-----------------|---------------|
| 1  |      | IRD3 EXT   | 200TO270(2 | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 2  |      | IRD3 EXT   | 200TO270(2 | 102  | FLUALPRAZO | FLUALPRAZO  | MEOH            | HEDWIG        |
| 3  |      | IRD3 EXT   | 200TO270(2 | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 4  |      | IRD3 EXT   | 200TO270(2 | 103  | FLUBROMAZO | FLUBROMAZO  | MEOH            | HEDWIG        |
| 5  |      | IRD3 EXT   | ISO270(20M | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 6  |      | IRD3 EXT   | ISO270(20M | 104  | ETIZOLAM ( | ETIZOLAM (  | MEOH            | HEDWIG        |
| 7  |      | IRD3 EXT   | 120TO270(2 | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 8  |      | IRD3 EXT   | 120TO270(2 | 105  | P-FLUOROFE | P-FLUOROFE  | MEOH            | HEDWIG        |
| 9  |      | IRD3 EXT   | 120TO270(2 | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 10 |      | IRD3 EXT   | 120TO270(2 | 106  | M-FLUOROFE | M-FLUOROFE  | MEOH            | HEDWIG        |
| 11 |      | IRD3 EXT   | 120TO270(2 | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 12 |      | IRD3 EXT   | 120TO270(2 | 107  | O-FLUOROFE | O-FLUOROFE  | MEOH            | HEDWIG        |
| 13 |      | IRD3 EXT   | ISO270(30M | 101  | BLANK FOR  | BLANK FOR   | MEOH            | HEDWIG        |
| 14 |      | IRD3 EXT   | ISO270(30M | 108  | CLONAZOLAM | CLONAZOLAM  | MEOH            | HEDWIG        |
| 15 |      | IRD3 EXT   | ISO270(30M | 101  | WASH       | WASH \$(DAT | MEOH            | HEDWIG        |

# IRD Data Analysis Report

CH 4-20-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR FLUALPRAZOLAM (2) 2021_April_19_204441        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR FLUALPRAZOLAM (2) EXT 5MG/ML                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 21:09:23 2021                                |
| Date Processed | Tue Apr 20 08:30:02 2021                                |

irdata.cgm: BLANK FOR FLUALPRAZOLAM (2) 2021\_April\_19\_204441\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR FLUALPRAZOLAM (2) EXT 5MG/ML; User: RH

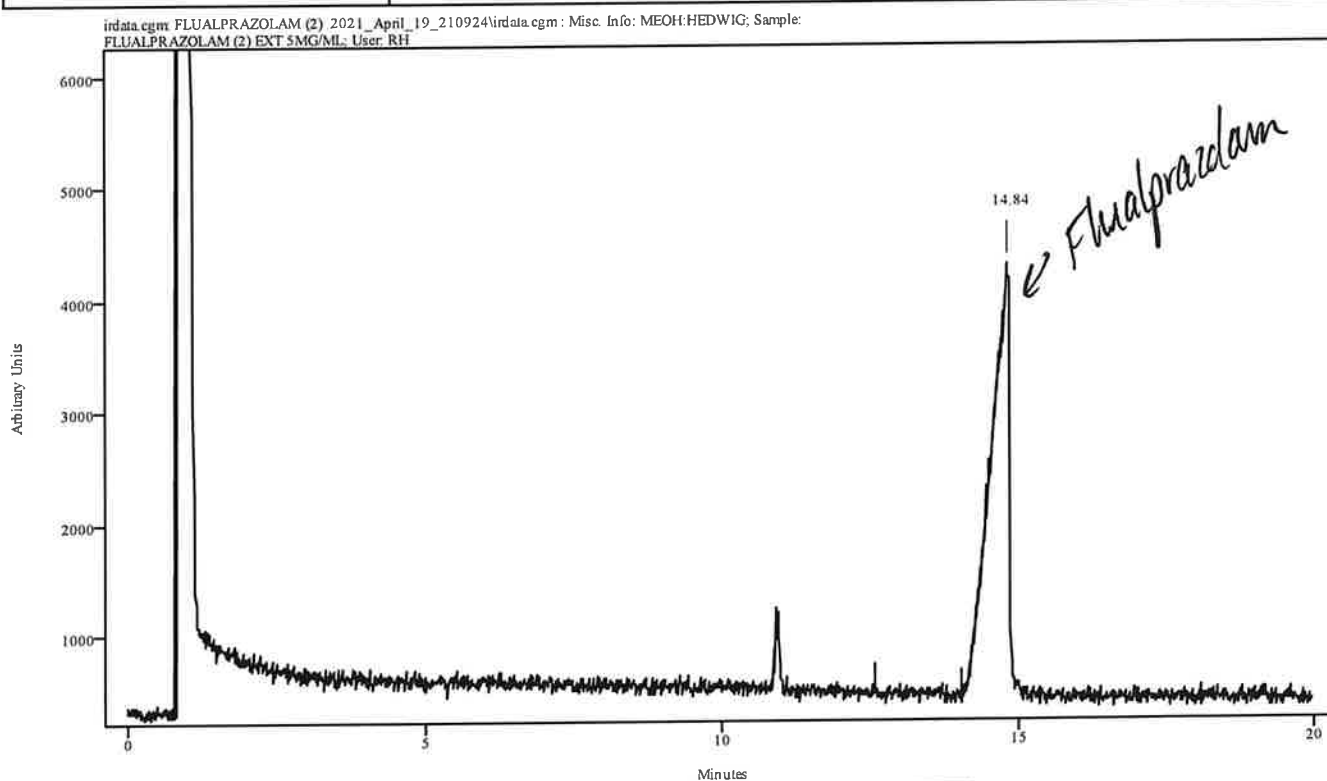


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

JA 4/20/21

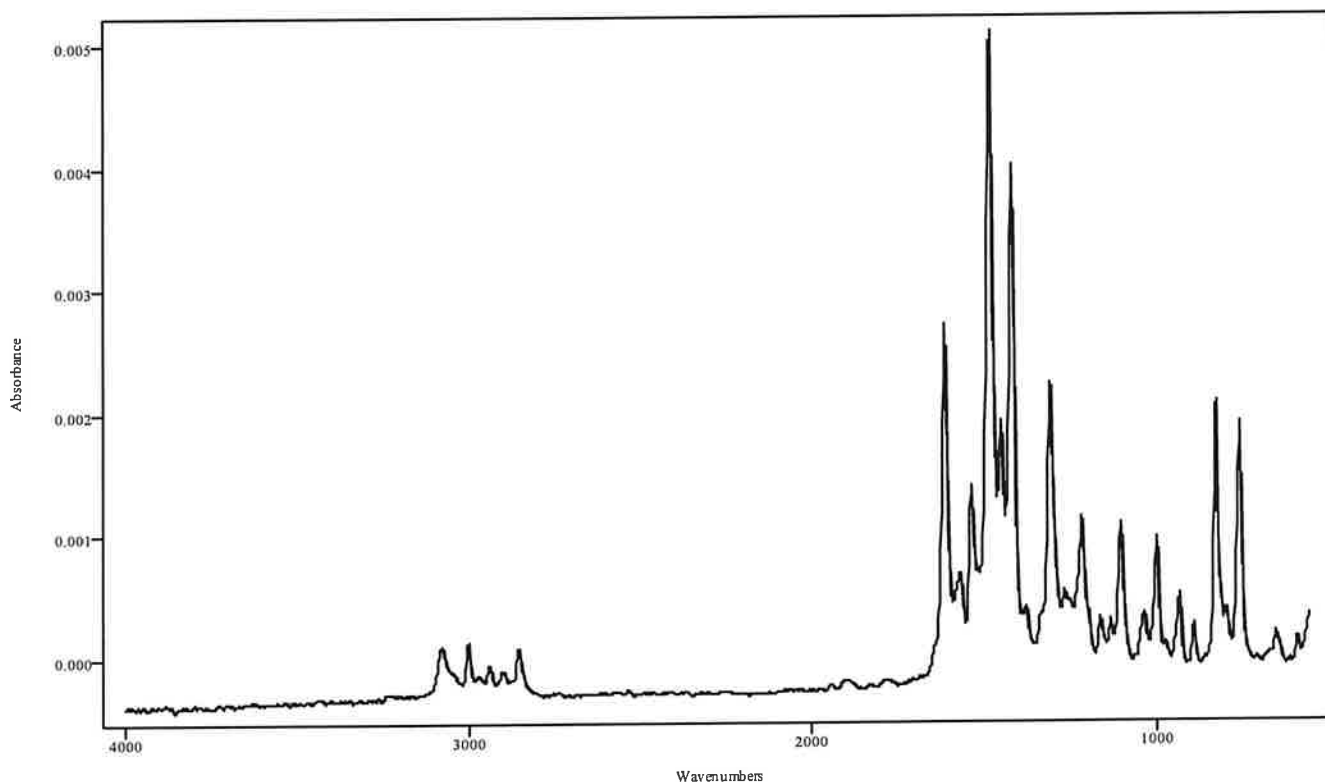
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUALPRAZOLAM (2) 2021_April_19_210924                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 102                                                     |
| Sample Name    | FLUALPRAZOLAM (2) EXT 5MG/ML                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 21:32:45 2021                                |
| Date Processed | Tue Apr 20 08:31:44 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 14.522     | 14.876   | 0.354      | 12.598          | 14.058        |

MA 4-20-21

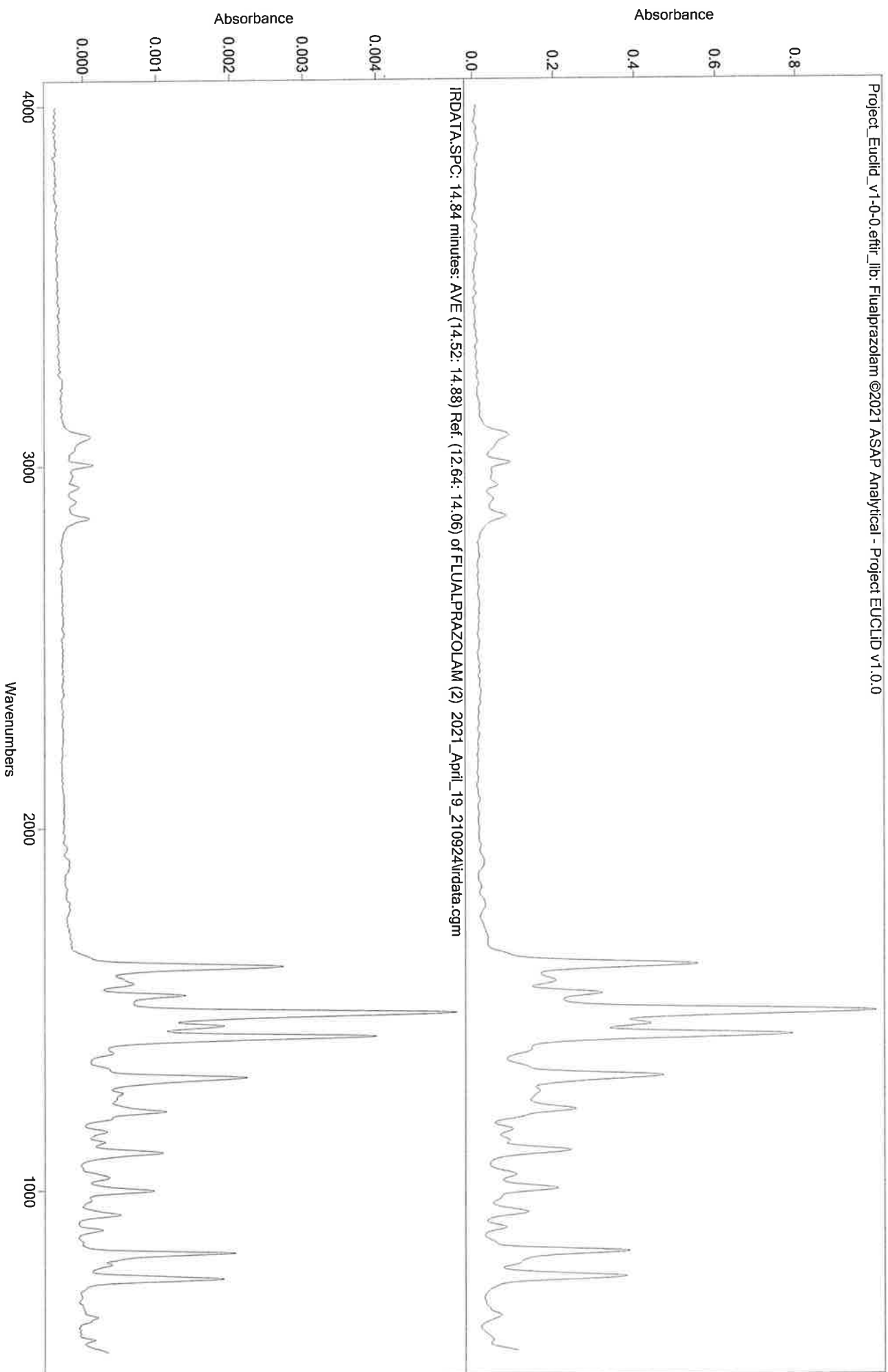
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUALPRAZOLAM (2) 2021_April_19_210924                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 102                                                     |
| Sample Name    | FLUALPRAZOLAM (2) EXT 5MG/ML                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 21:32:45 2021                                |
| Date Processed | Tue Apr 20 08:31:44 2021                                |



IRDATA.SPC: 14.84 minutes: AVE (14.52: 14.88) Ref. (12.60: 14.06) of FLUALPRAZOLAM (2)  
2021\_April\_19\_210924.cgm

*Flualprazolam*

4/14/2021

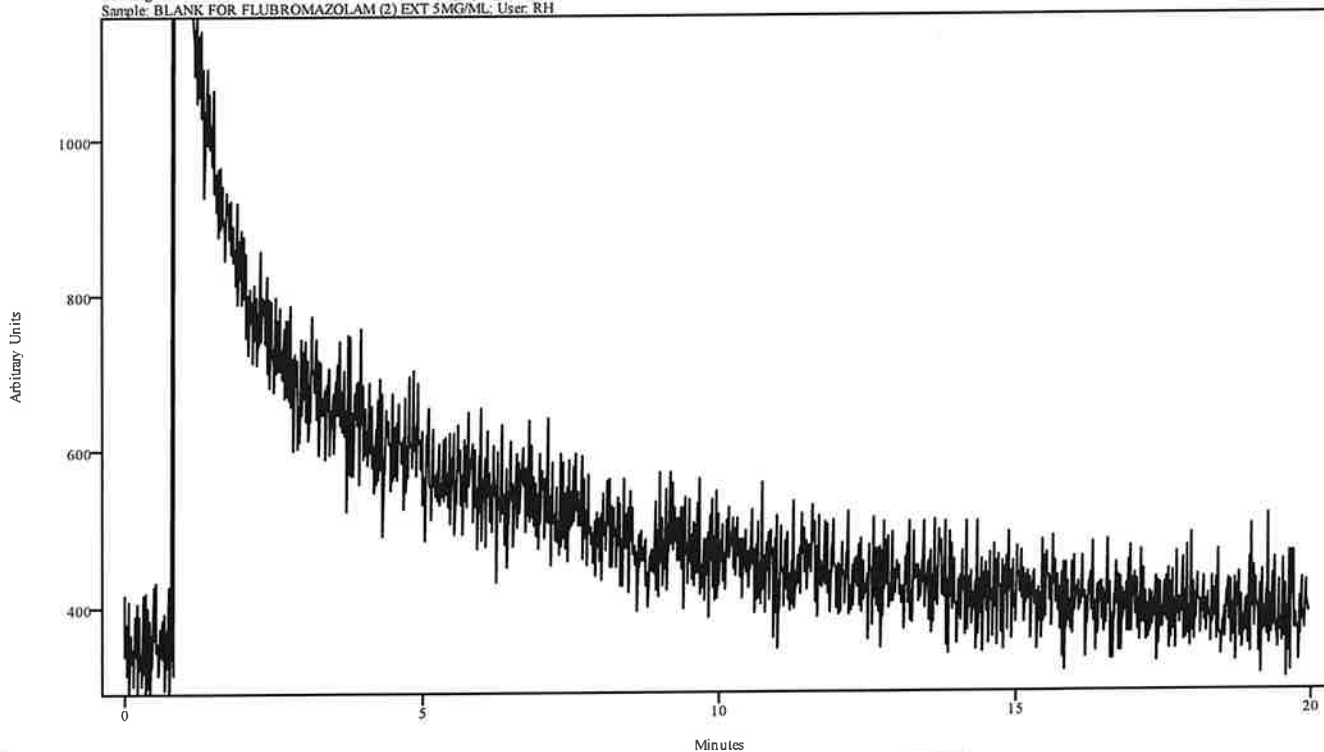


# IRD Data Analysis Report

4-20-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR FLUBROMAZOLAM (2) 2021_April_19_213245        |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR FLUBROMAZOLAM (2) EXT 5MG/ML                  |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 21:56:04 2021                                |
| Date Processed | Tue Apr 20 08:32:34 2021                                |

irdata.cgm: BLANK FOR FLUBROMAZOLAM (2) 2021\_April\_19\_213245  
Sample: BLANK FOR FLUBROMAZOLAM (2) EXT 5MG/ML; User: RH



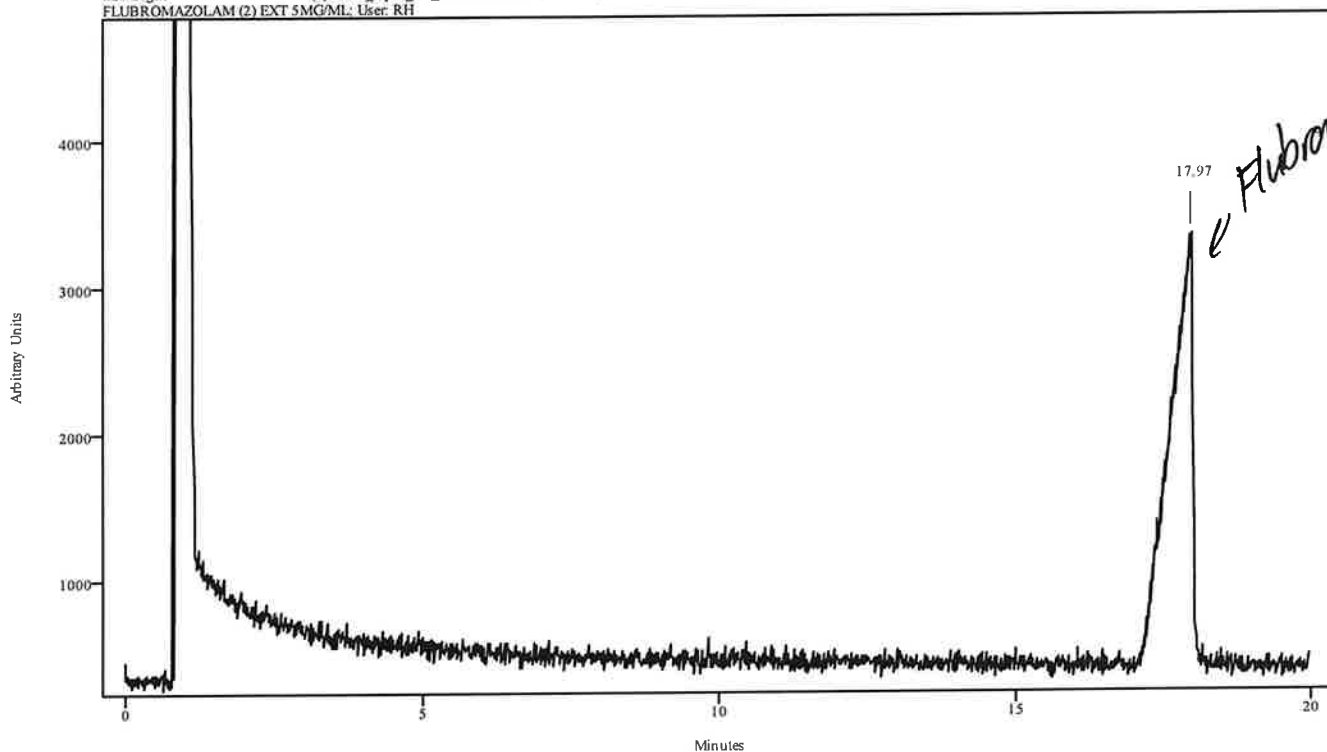
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

YH 4-20-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUBROMAZOLAM (2) 2021_April_19_215604                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 103                                                     |
| Sample Name    | FLUBROMAZOLAM (2) EXT 5MG/ML                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 22:19:35 2021                                |
| Date Processed | Tue Apr 20 08:33:15 2021                                |

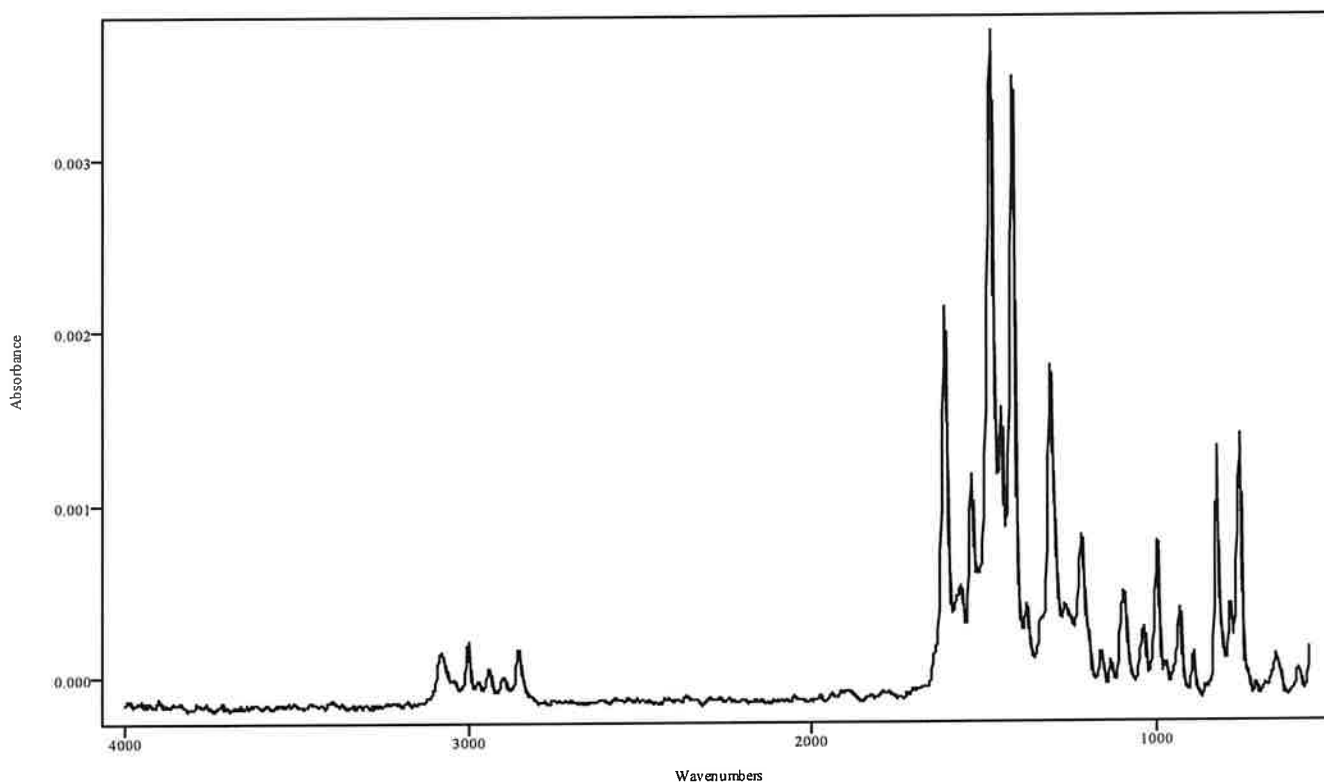
irdata.cgm: FLUBROMAZOLAM (2) 2021\_April\_19\_215604\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: FLUBROMAZOLAM (2) EXT 5MG/ML; User: RH



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 17.693     | 18.014   | 0.321      | 16.045          | 17.372        |

NA 4-20-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | FLUBROMAZOLAM (2) 2021_April_19_215604                  |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 200TO270(20MIN)                                         |
| GC Vial        | 103                                                     |
| Sample Name    | FLUBROMAZOLAM (2) EXT 5MG/ML                            |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon, Apr 19 22:19:35 2021                               |
| Date Processed | Tue Apr 20 08:33:15 2021                                |



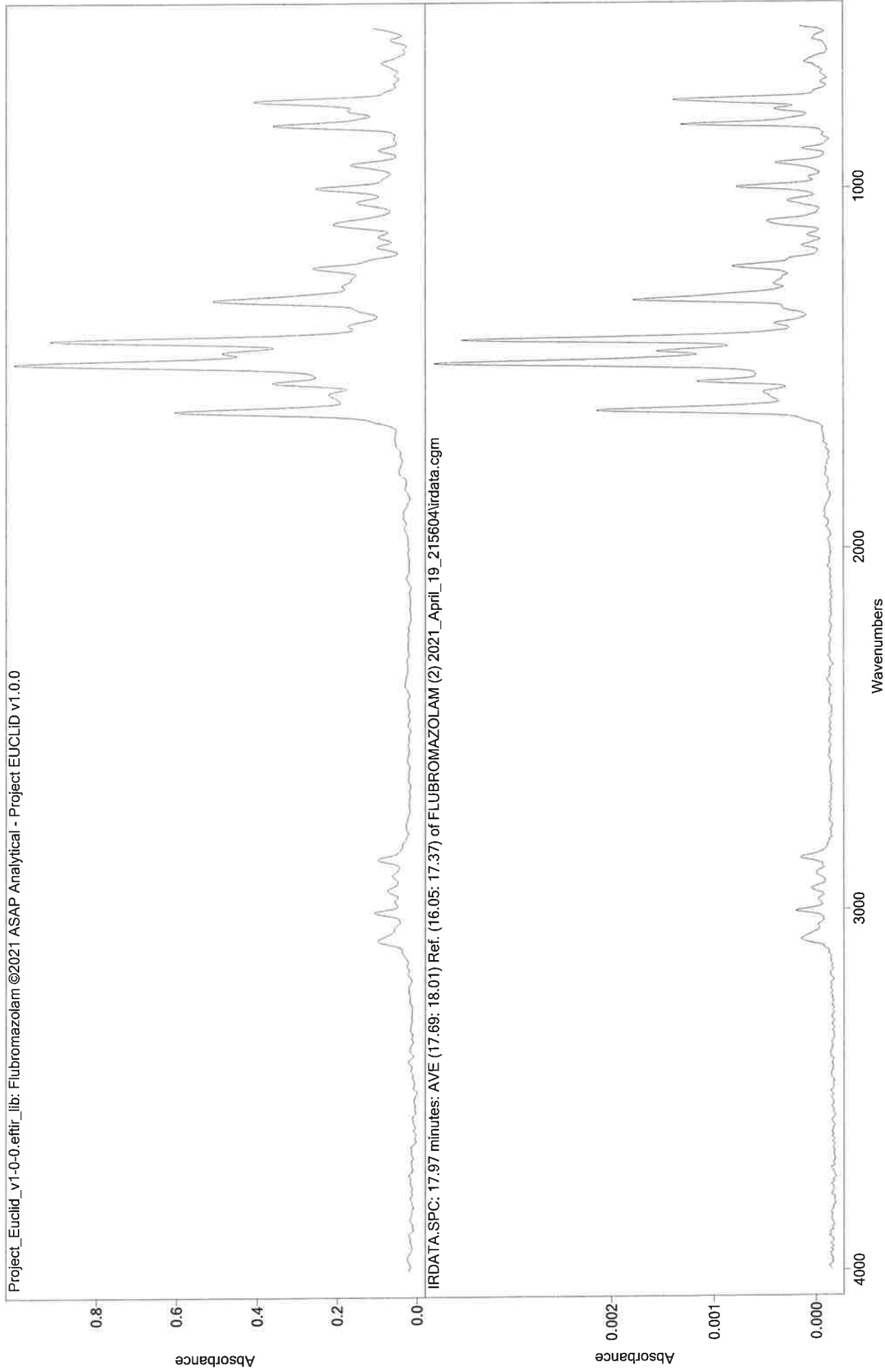
IRDATA.SPC: 17.97 minutes: AVE (17.69: 18.01) Ref. (16.05: 17.37) of FLUBROMAZOLAM (2)  
2021\_April\_19\_215604.cgm

*Flubromazepam*

144-20-21

IRDATA.SPC: 17.97 minutes: AVE (17.69: 18.01) Ref. (16.05: 17.37) of FLUBROMAZOLAM (2) 2021\_April\_19\_215604\irdata.cgm

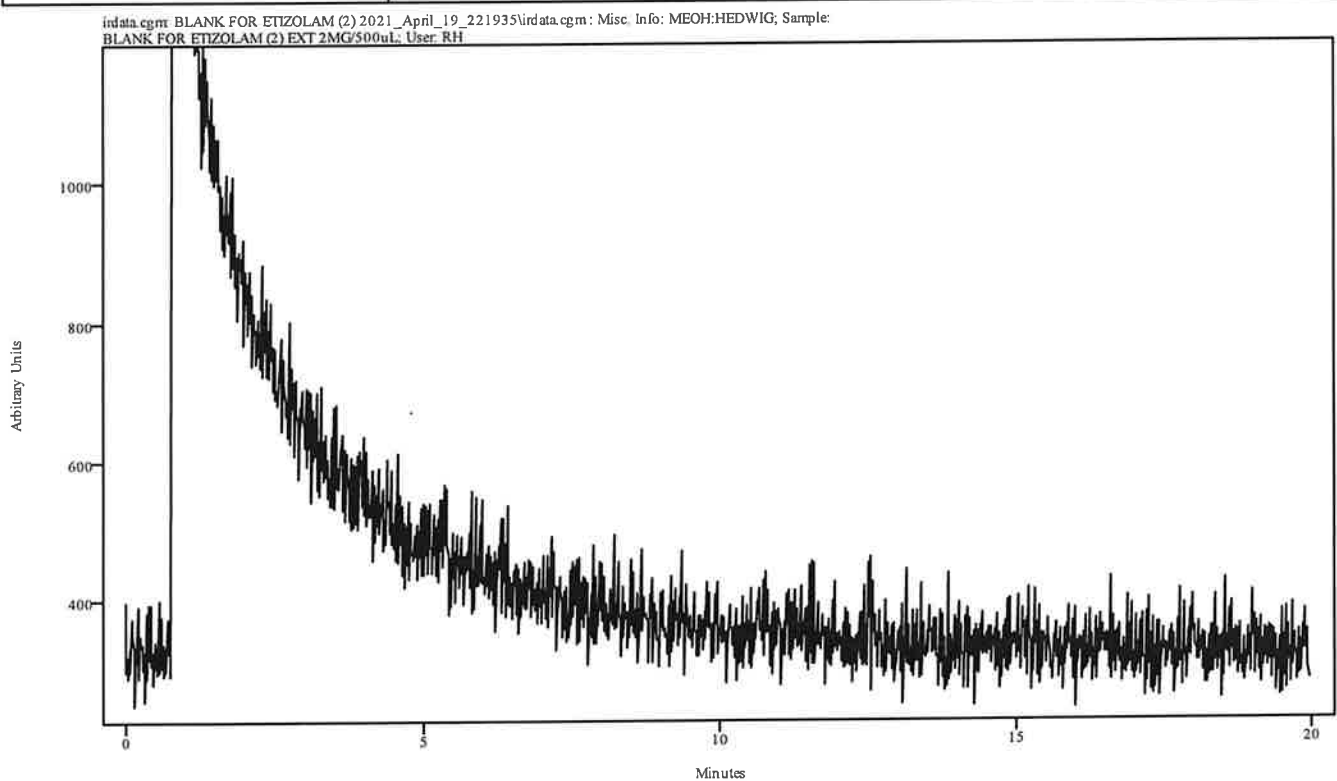
Project\_Euclid\_v1-0-0.eftir\_lib: Flubromazolam ©2021 ASAP Analytical - Project EUCLID v1.0.0



MT 4-20-21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR ETIZOLAM (2) 2021_April_19_221935             |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR ETIZOLAM (2) EXT 2MG/500uL                    |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 22:43:53 2021                                |
| Date Processed | Tue Apr 20 08:33:40 2021                                |

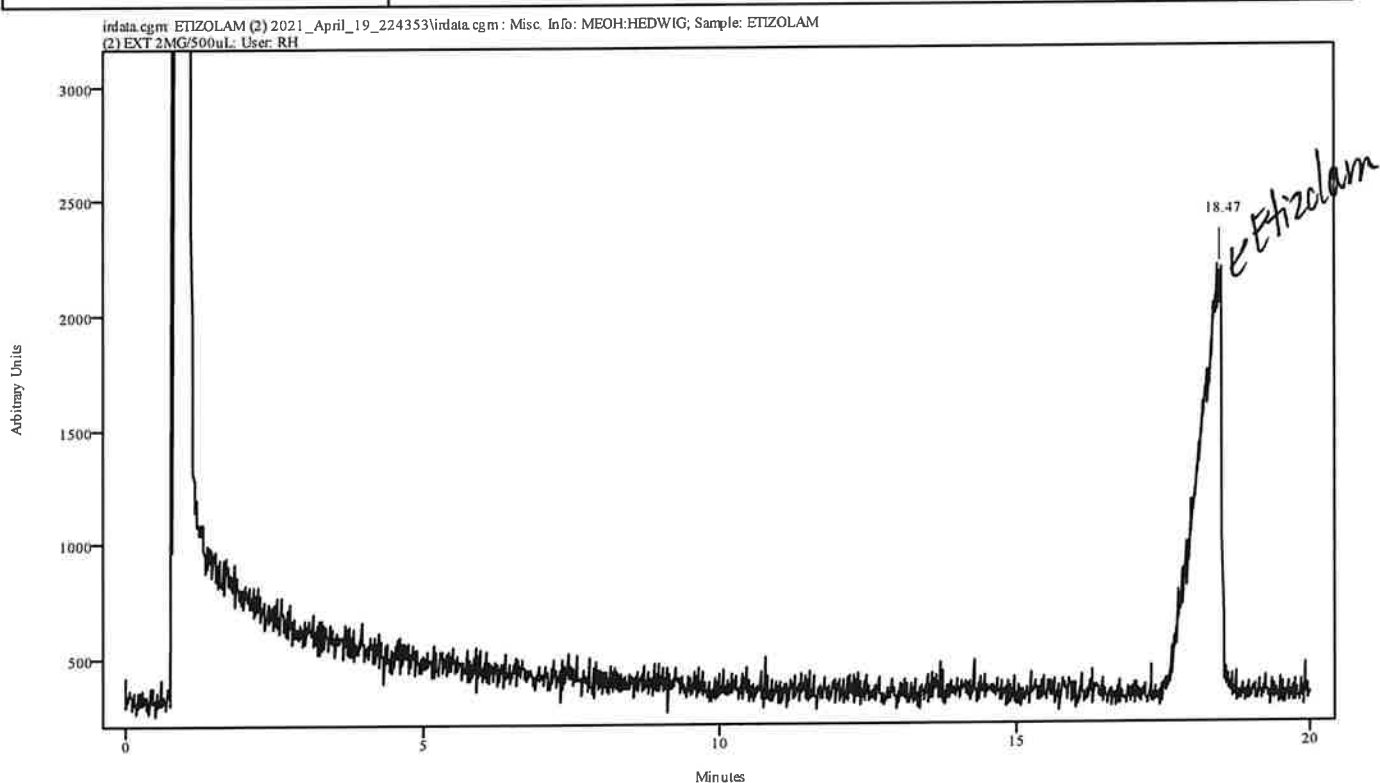


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

My 2021

# IRD Data Analysis Report

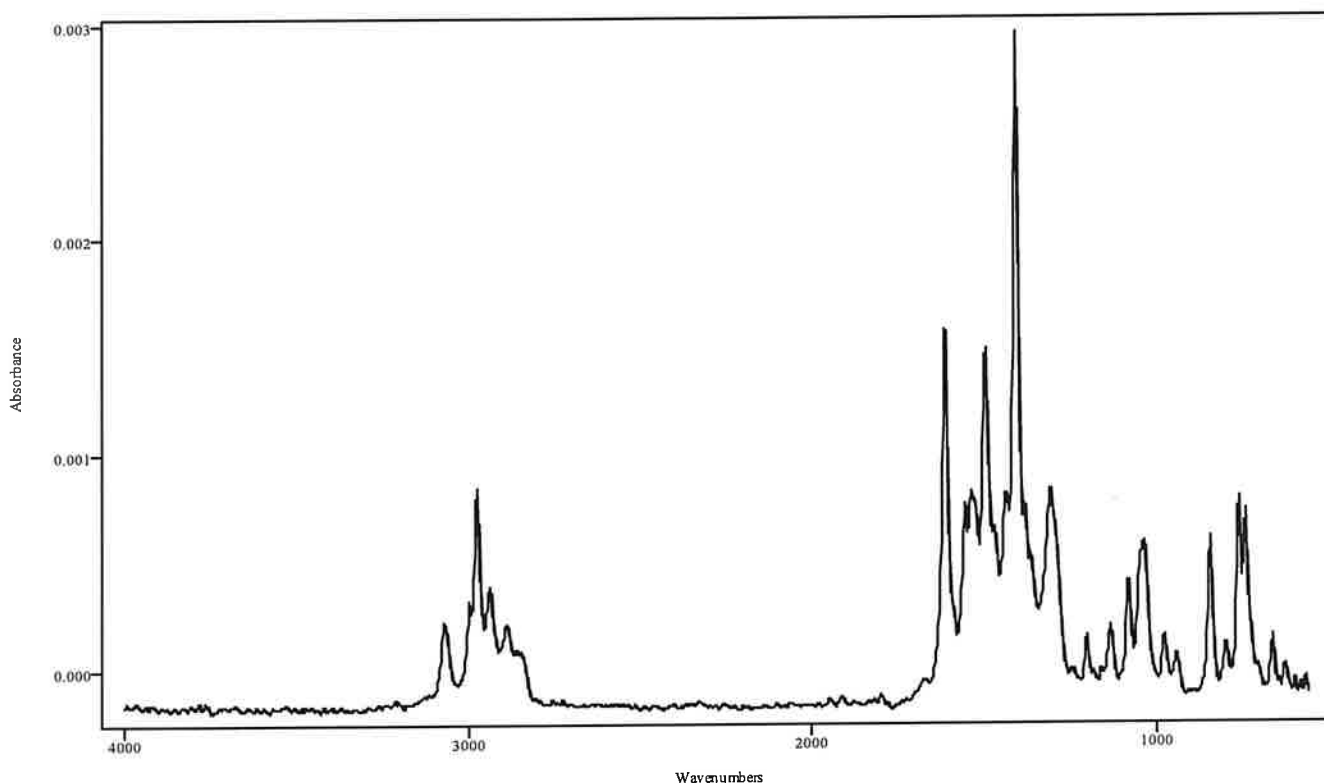
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ETIZOLAM (2) 2021_April_19_224353                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | ETIZOLAM (2) EXT 2MG/500uL                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 23:06:23 2021                                |
| Date Processed | Tue Apr 20 09:28:49 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 17.944     | 18.542   | 0.597      | 17.271          | 16.281        |

20210420

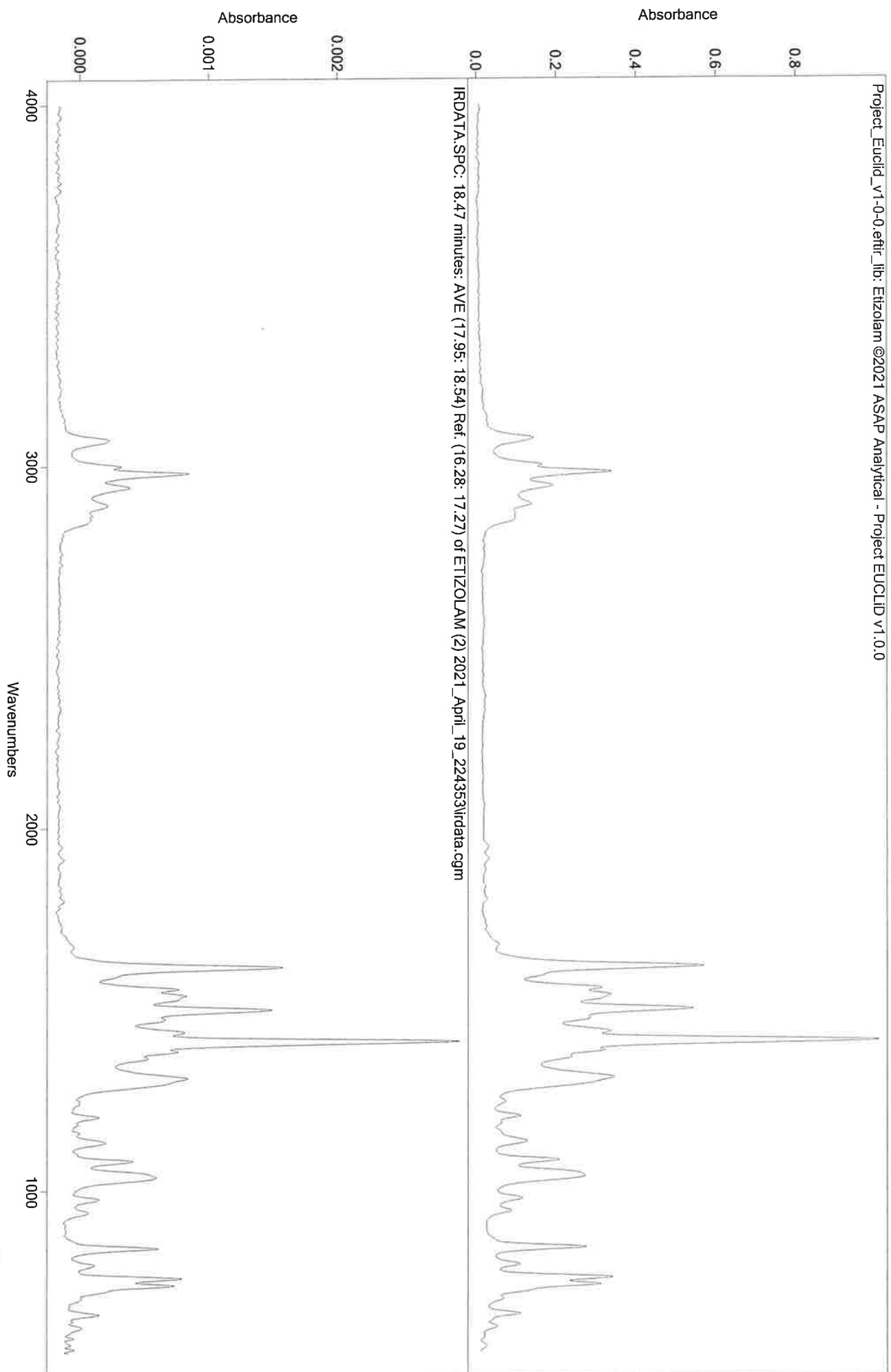
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | ETIZOLAM (2) 2021_April_19_224353                       |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(20MIN)                                           |
| GC Vial        | 104                                                     |
| Sample Name    | ETIZOLAM (2) EXT 2MG/500uL                              |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 23:06:23 2021                                |
| Date Processed | Tue Apr 20 09:28:49 2021                                |



IRDATA.SPC: 18.47 minutes: AVE (17.95: 18.54) Ref. (16.28: 17.27) of ETIZOLAM (2)  
2021\_April\_19\_224353.cgm

*Etizolam*

UH 4-20-21

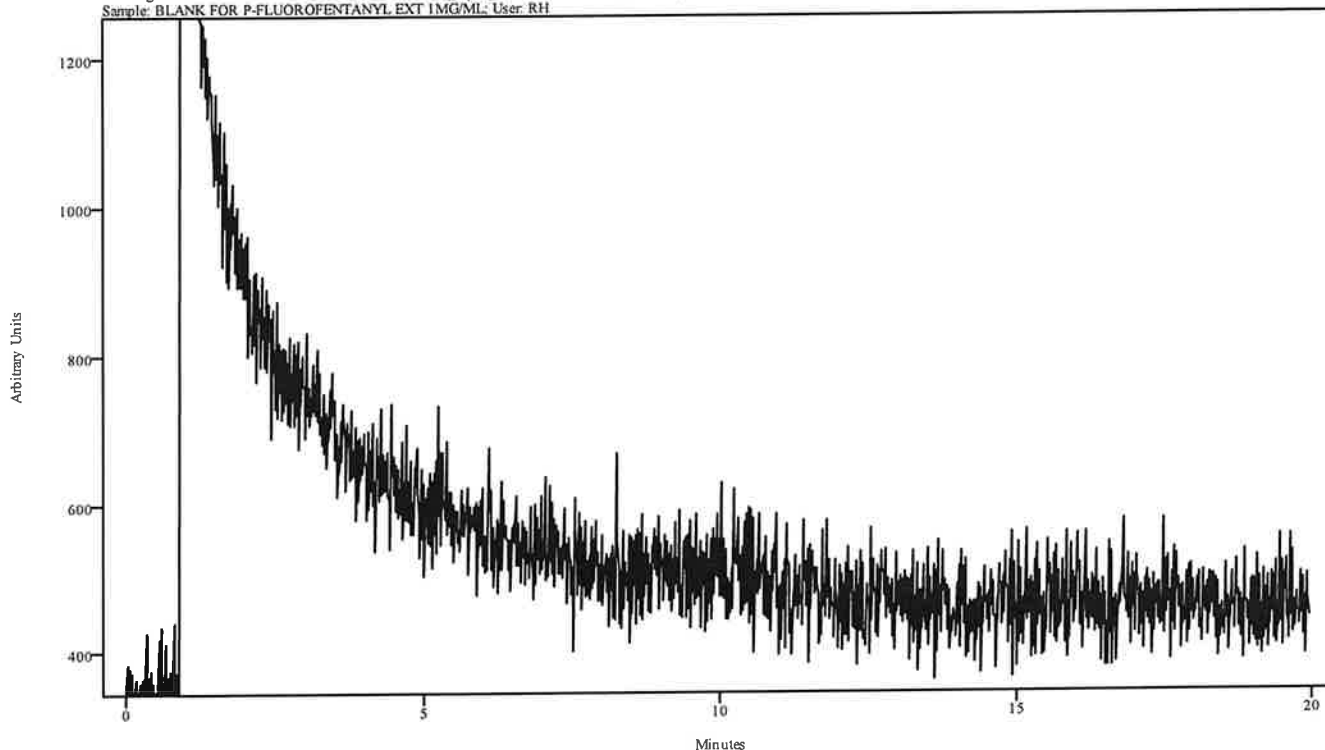


UAT 4/20/21

# IRD Data Analysis Report

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR P-FLUOROFENTANYL 2021_April_19_230623         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR P-FLUOROFENTANYL EXT 1MG/ML                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 23:30:49 2021                                |
| Date Processed | Tue Apr 20 08:35:15 2021                                |

irdata.cgm: BLANK FOR P-FLUOROFENTANYL 2021\_April\_19\_230623\irdata.cgm: Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR P-FLUOROFENTANYL EXT 1MG/ML; User: RH



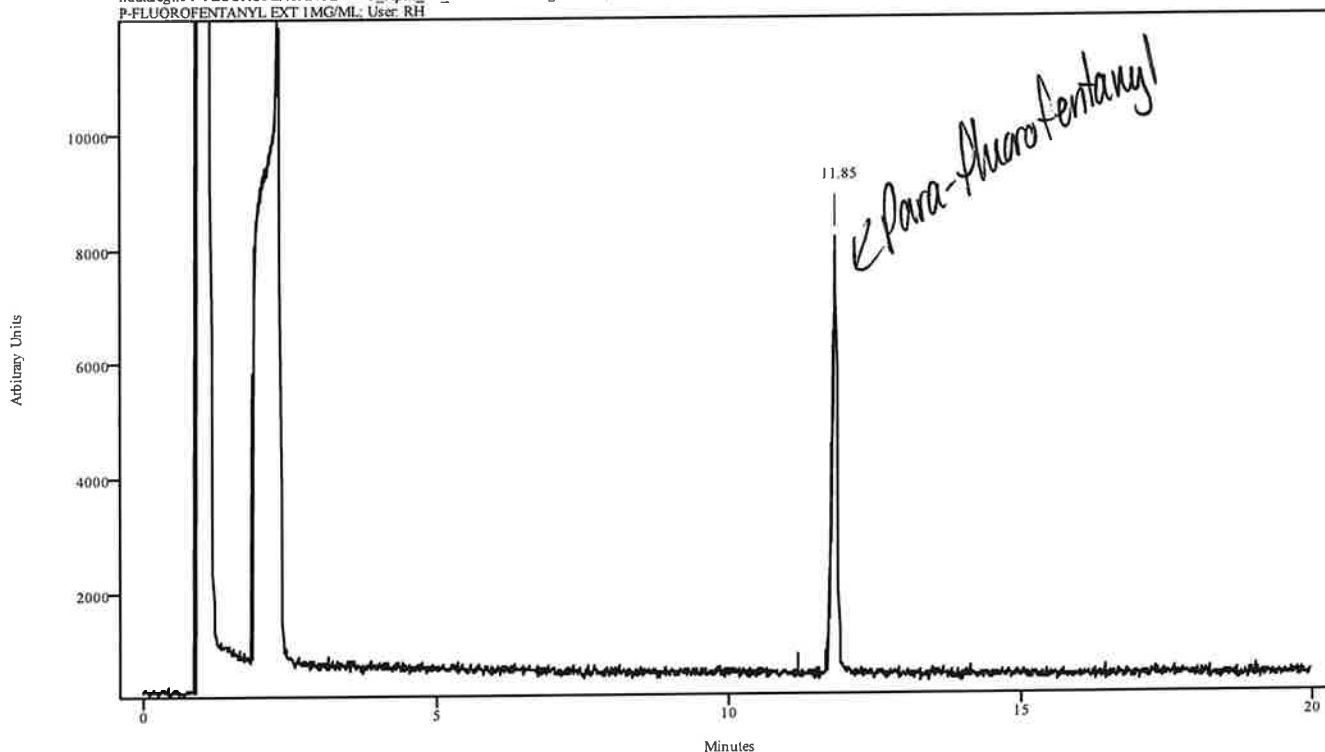
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

Alt 4/2021

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | P-FLUOROFENTANYL 2021_April_19_233049                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 105                                                     |
| Sample Name    | P-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 23:54:45 2021                                |
| Date Processed | Tue Apr 20 08:36:15 2021                                |

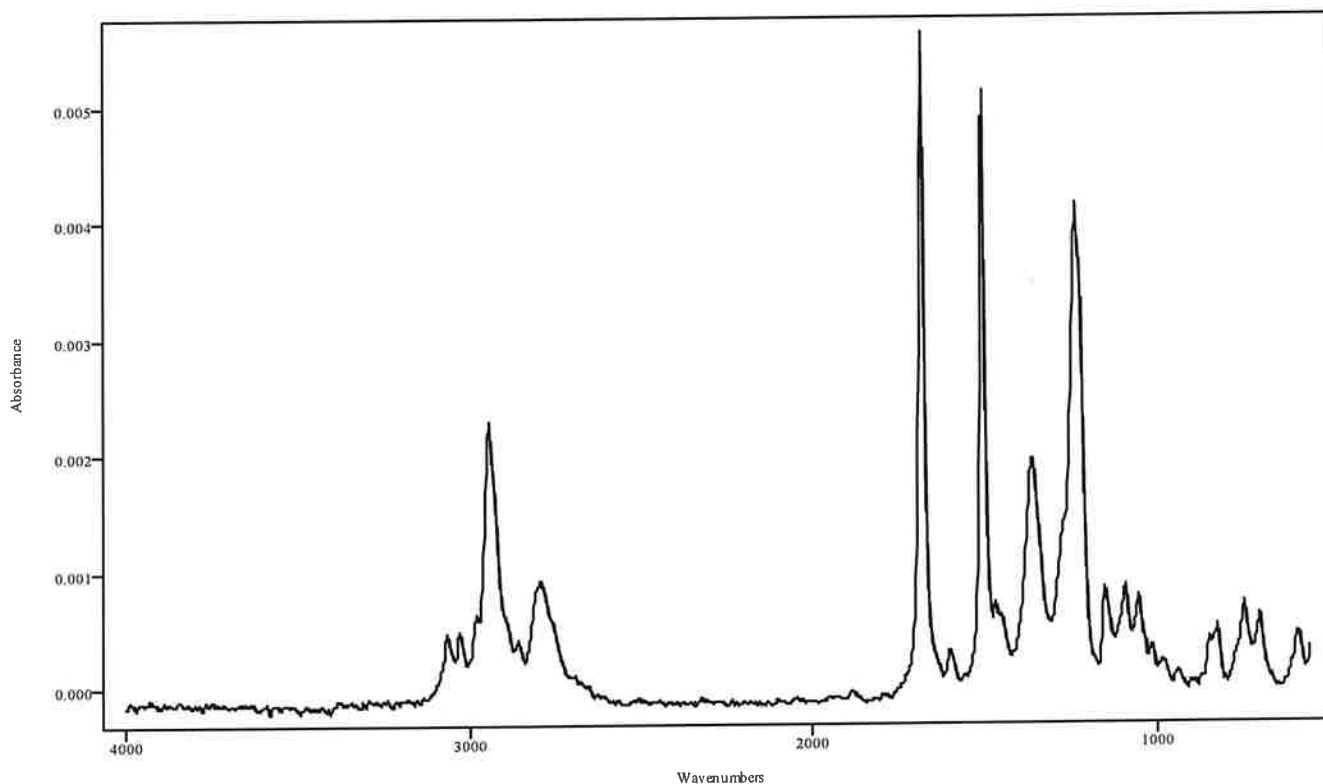
irdata.cgm: P-FLUOROFENTANYL 2021\_April\_19\_233049\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: P-FLUOROFENTANYL EXT 1MG/ML; User: RH



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 11.786     | 11.886   | 0.100      | 11.211          | 11.654        |

UAT 4/20/21

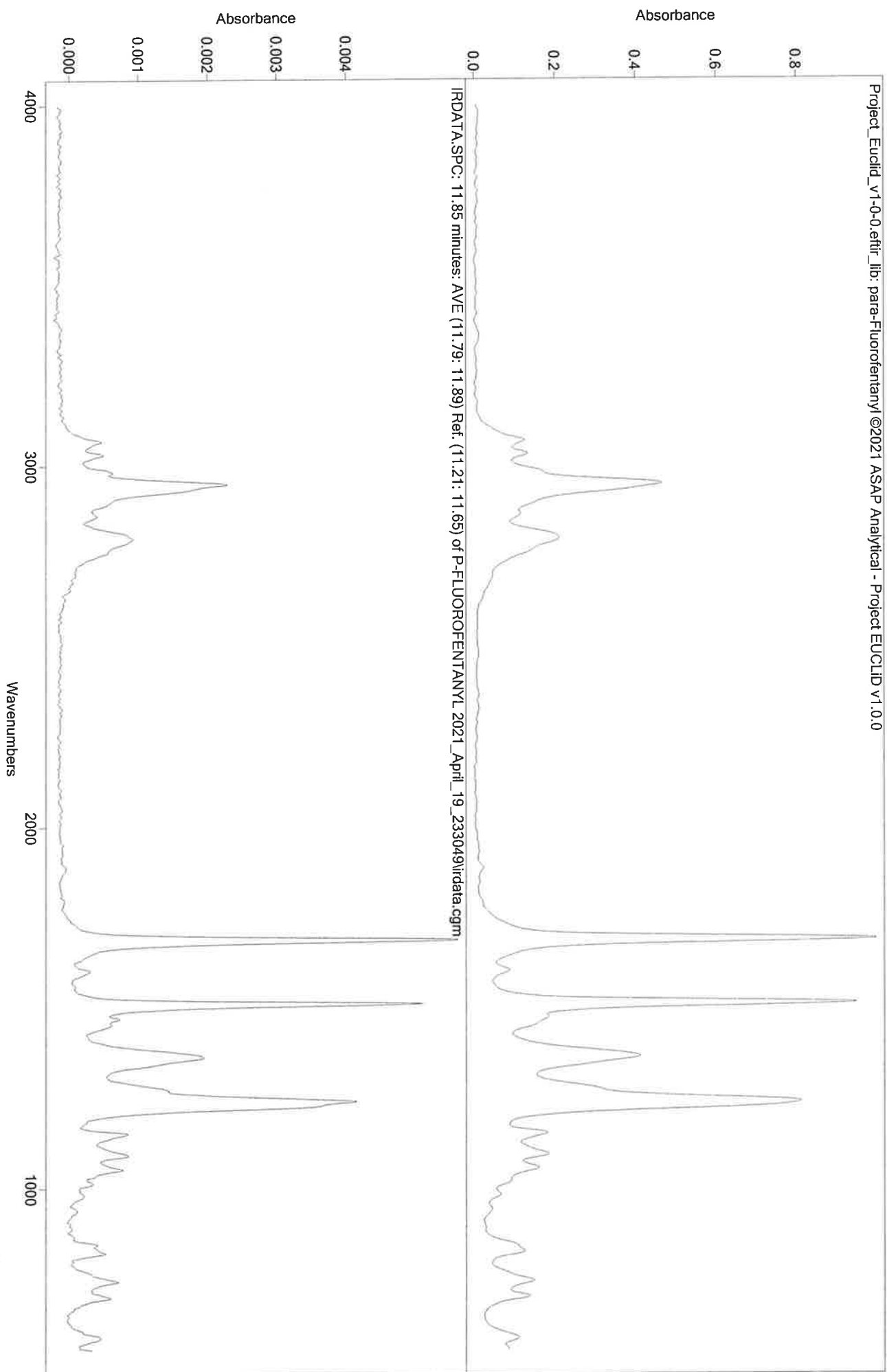
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | P-FLUOROFENTANYL 2021_April_19_233049                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 105                                                     |
| Sample Name    | P-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Mon Apr 19 23:54:45 2021                                |
| Date Processed | Tue Apr 20 08:36:15 2021                                |



IRDATA.SPC: 11.85 minutes: AVE (11.79: 11.89) Ref. (11.21: 11.65) of P-FLUOROFENTANYL  
2021\_April\_19\_233049.cgm

*Para - Fluoro fentanyl*

44 4-20-21

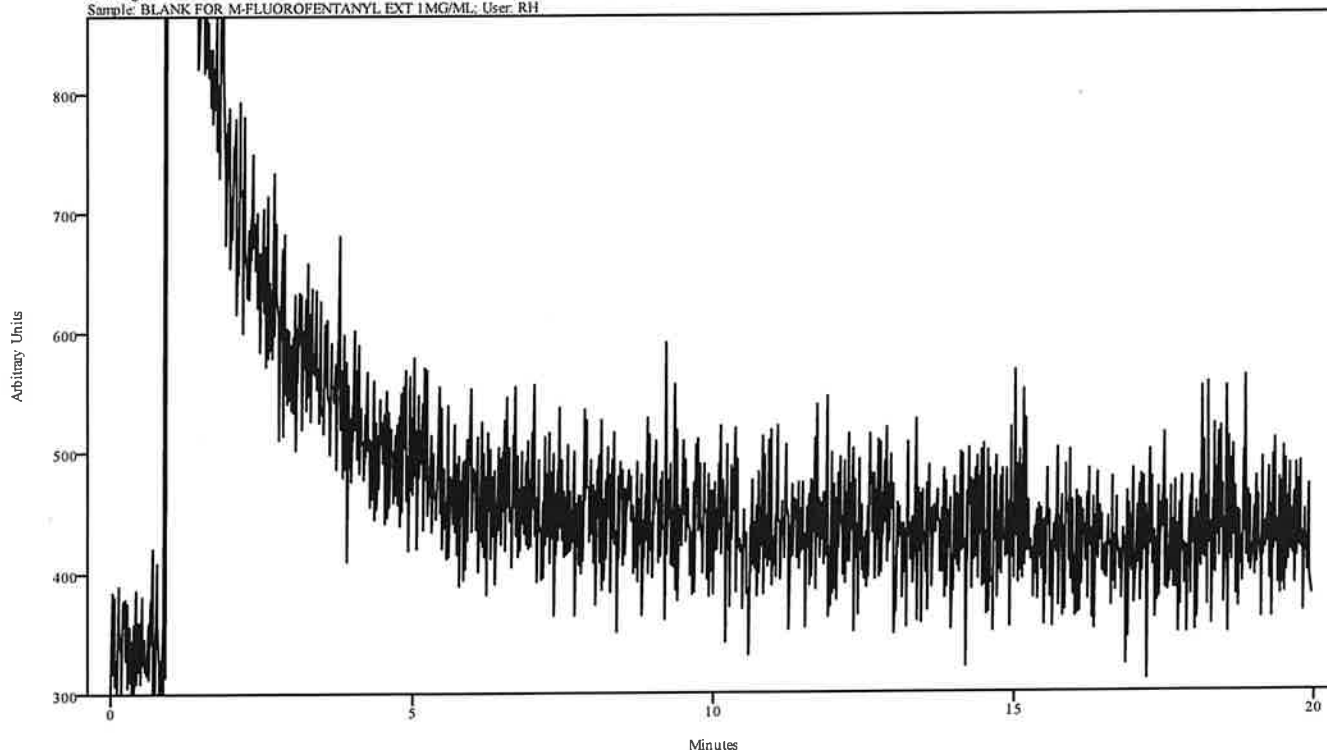


# IRD Data Analysis Report

UH 4-20-21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR M-FLUOROFENTANYL 2021_April_19_235445         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR M-FLUOROFENTANYL EXT 1MG/ML                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 00:18:37 2021                                |
| Date Processed | Tue Apr 20 08:36:44 2021                                |

indata.cgm: BLANK FOR M-FLUOROFENTANYL 2021\_April\_19\_235445\\indata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR M-FLUOROFENTANYL EXT 1MG/ML; User: RH

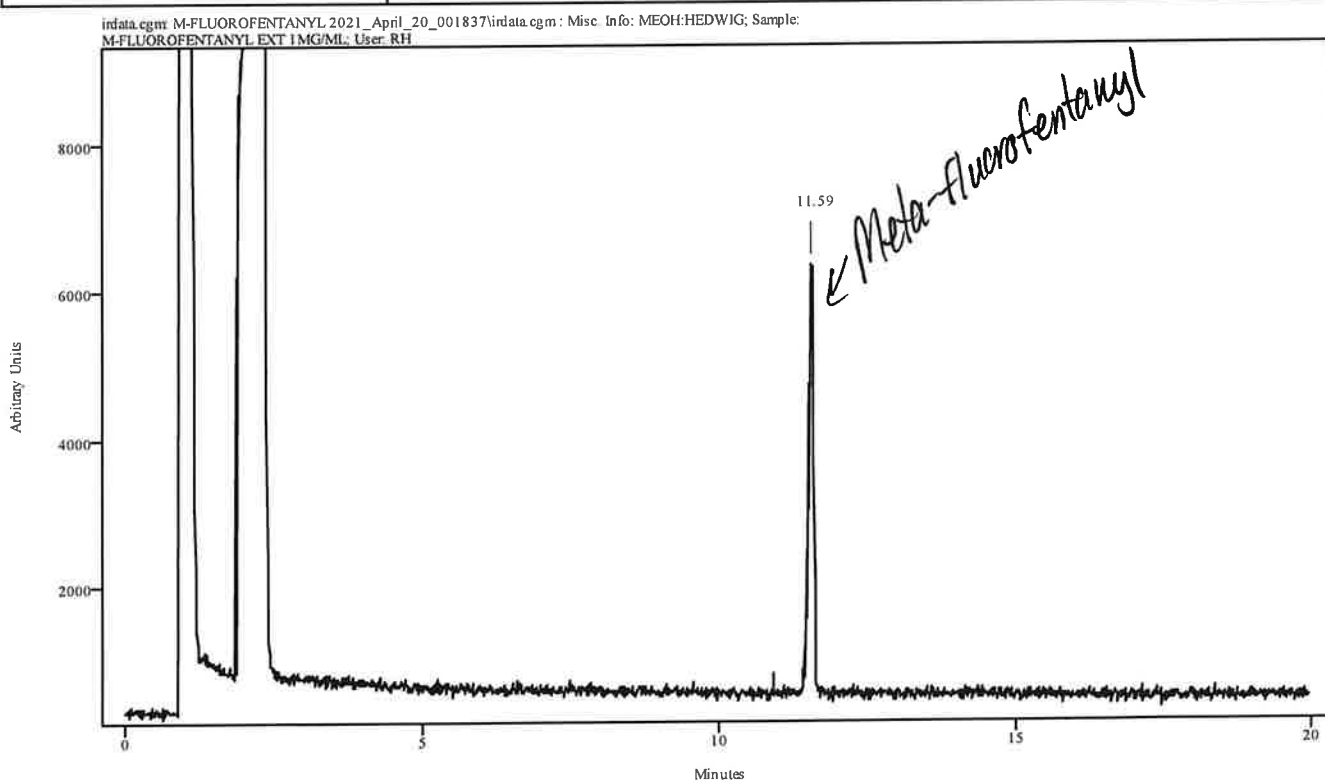


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

UHy 2021

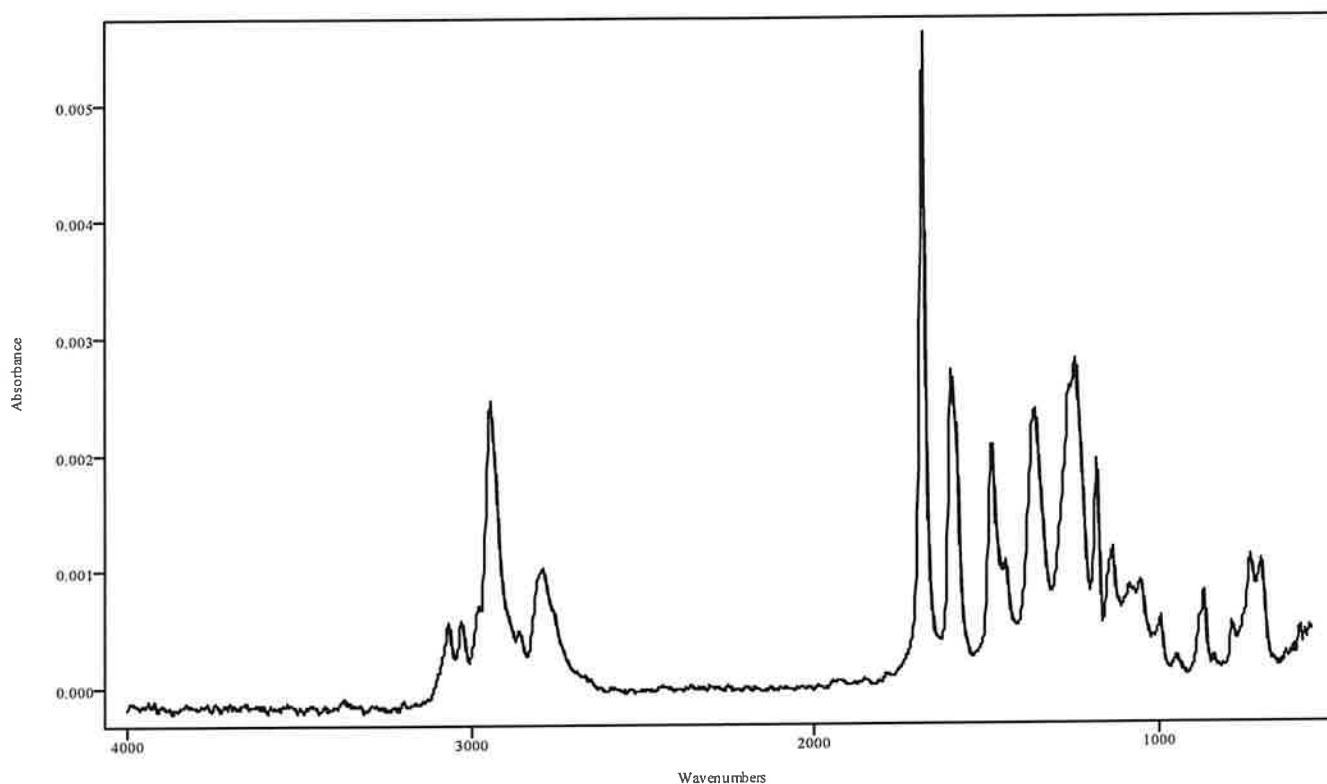
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | M-FLUOROFENTANYL 2021_April_20_001837                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 106                                                     |
| Sample Name    | M-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 00:42:38 2021                                |
| Date Processed | Tue Apr 20 08:37:23 2021                                |



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 11.519     | 11.629   | 0.111      | 10.933          | 11.419        |

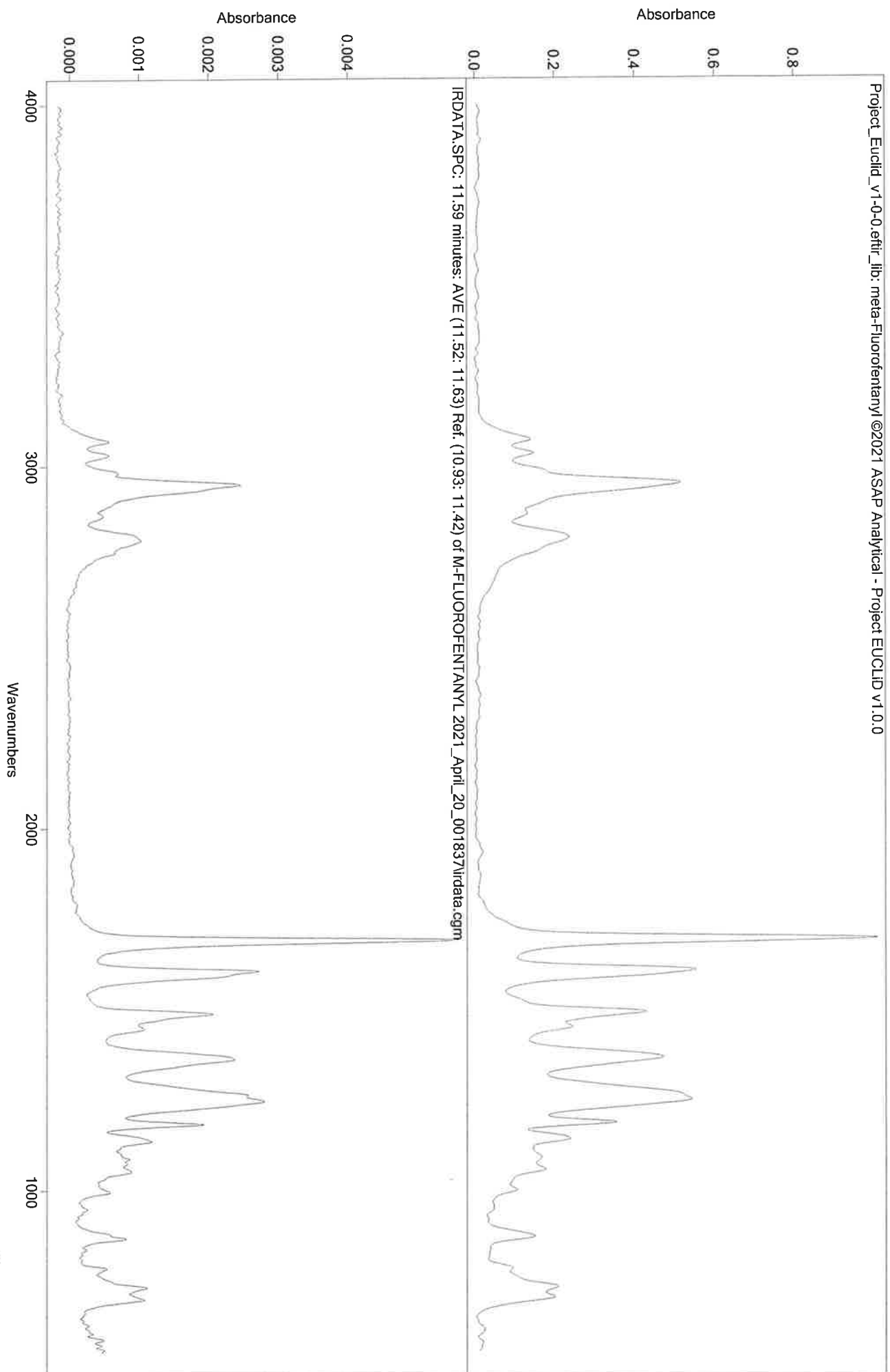
4/20/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | M-FLUOROFENTANYL 2021_April_20_001837                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 106                                                     |
| Sample Name    | M-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 00:42:38 2021                                |
| Date Processed | Tue Apr 20 08:37:23 2021                                |



IRDATA.SPC: 11.59 minutes: AVE (11.52: 11.63) Ref. (10.93: 11.42) of M-FLUOROFENTANYL 2021\_April\_20\_001837.cgm

Meta-Fluorofentanyl

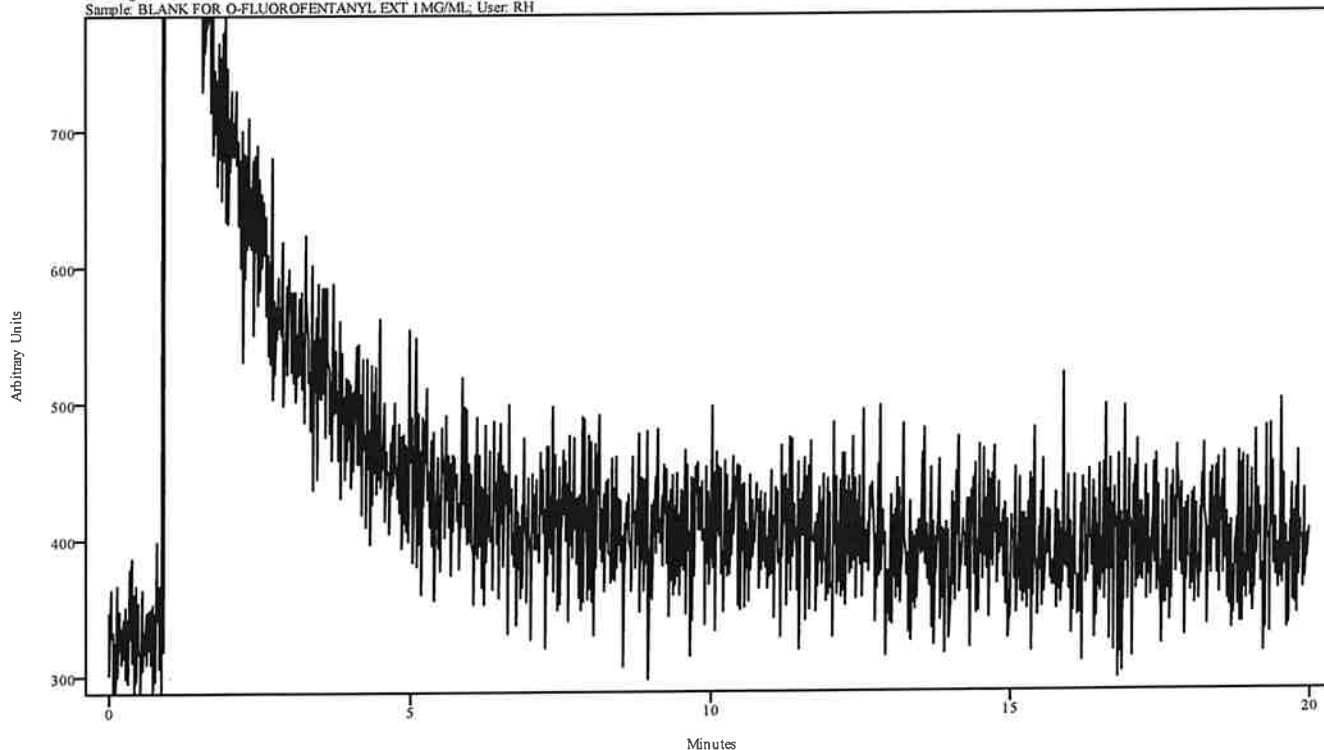


# IRD Data Analysis Report

4/20/21

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR O-FLUOROFENTANYL 2021_April_20_004238         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR O-FLUOROFENTANYL EXT 1MG/ML                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 01:06:34 2021                                |
| Date Processed | Tue Apr 20 08:37:57 2021                                |

irdata.cgm: BLANK FOR O-FLUOROFENTANYL 2021\_April\_20\_004238\irdata.cgm : Misc. Info: MEOH:HEDWIG;  
Sample: BLANK FOR O-FLUOROFENTANYL EXT 1MG/ML; User: RH



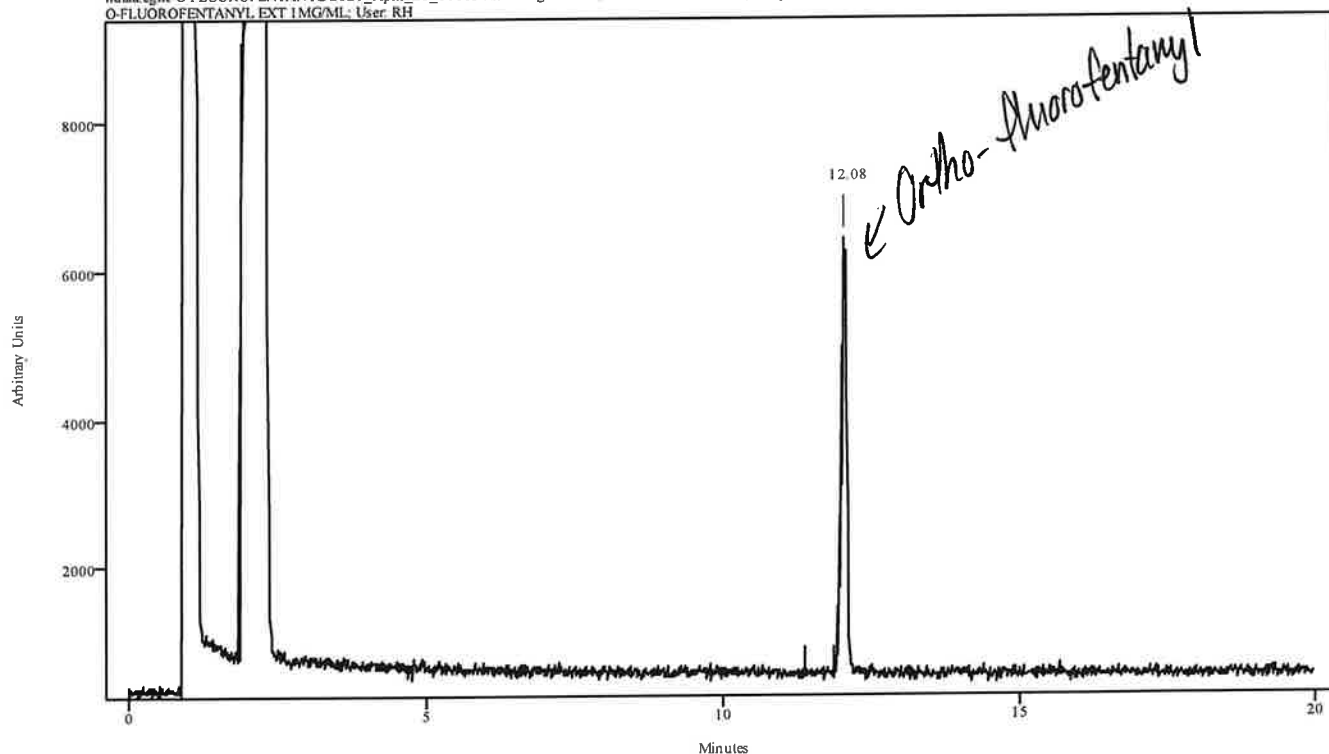
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

# IRD Data Analysis Report

4/24/2021

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | O-FLUOROFENTANYL 2021_April_20_010634                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 107                                                     |
| Sample Name    | O-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 01:30:32 2021                                |
| Date Processed | Tue Apr 20 08:38:21 2021                                |

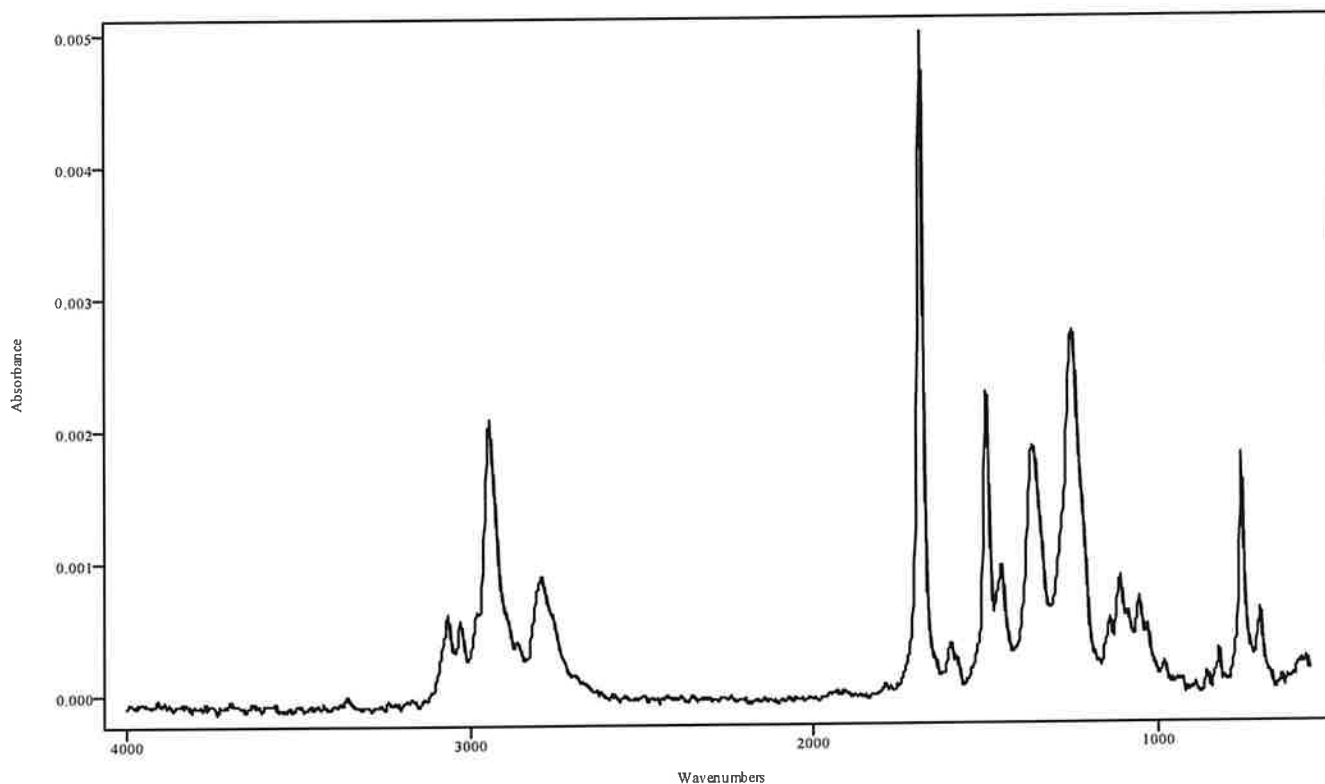
irdata.cgm: O-FLUOROFENTANYL 2021\_April\_20\_010634\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: O-FLUOROFENTANYL EXT 1MG/ML; User: RH



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 12.016     | 12.127   | 0.111      | 11.407          | 11.894        |

4/24/21

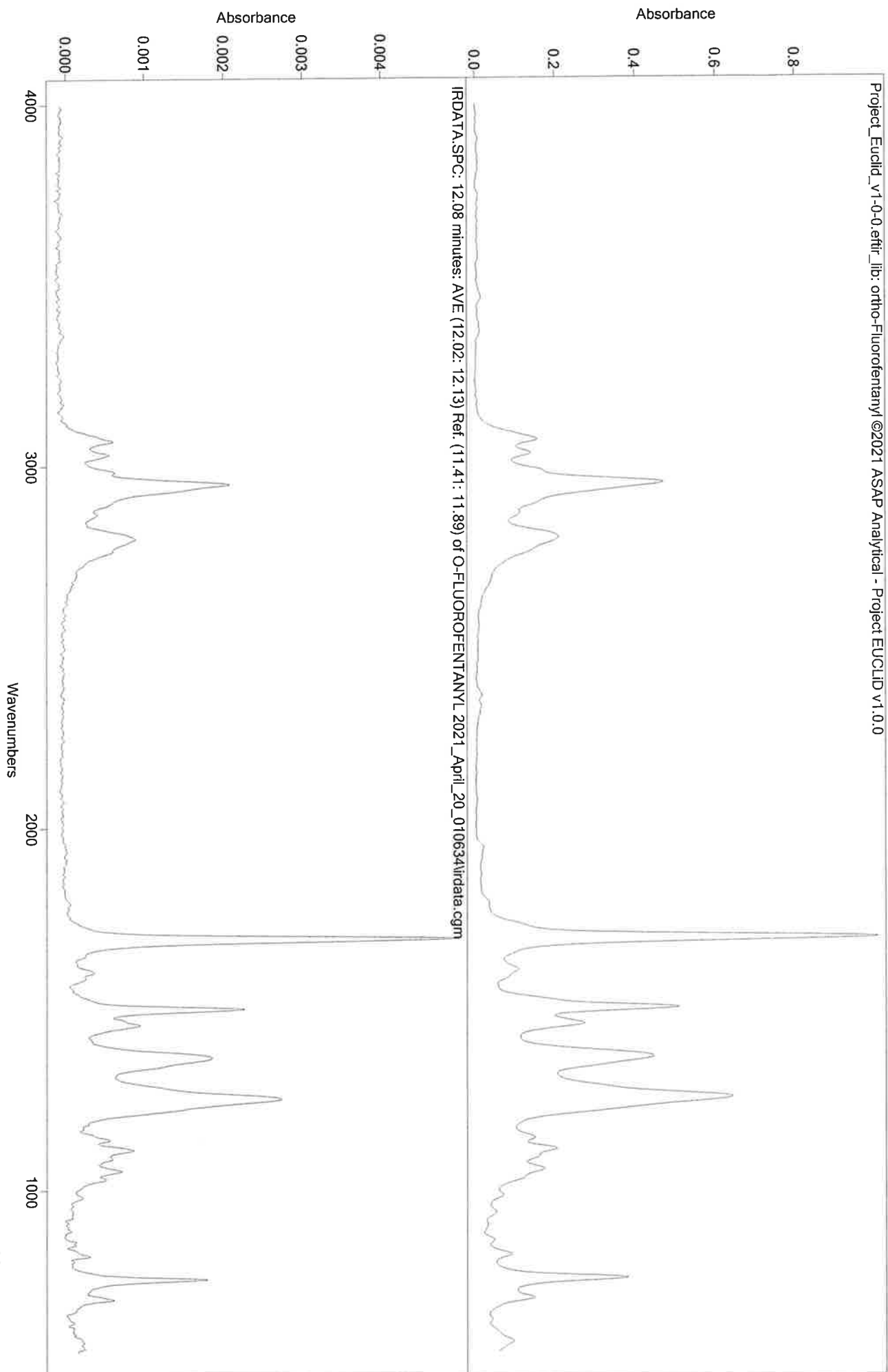
|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | O-FLUOROFENTANYL 2021_April_20_010634                   |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | 120TO270(20MIN)                                         |
| GC Vial        | 107                                                     |
| Sample Name    | O-FLUOROFENTANYL EXT 1MG/ML                             |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 01:30:32 2021                                |
| Date Processed | Tue Apr 20 08:38:21 2021                                |



IRDATA.SPC: 12.08 minutes: AVE (12.02: 12.13) Ref. (11.41: 11.89) of O-FLUOROFENTANYL  
2021\_April\_20\_010634.cgm

*Ortho Fluorofentanyl*

44 4-20-21

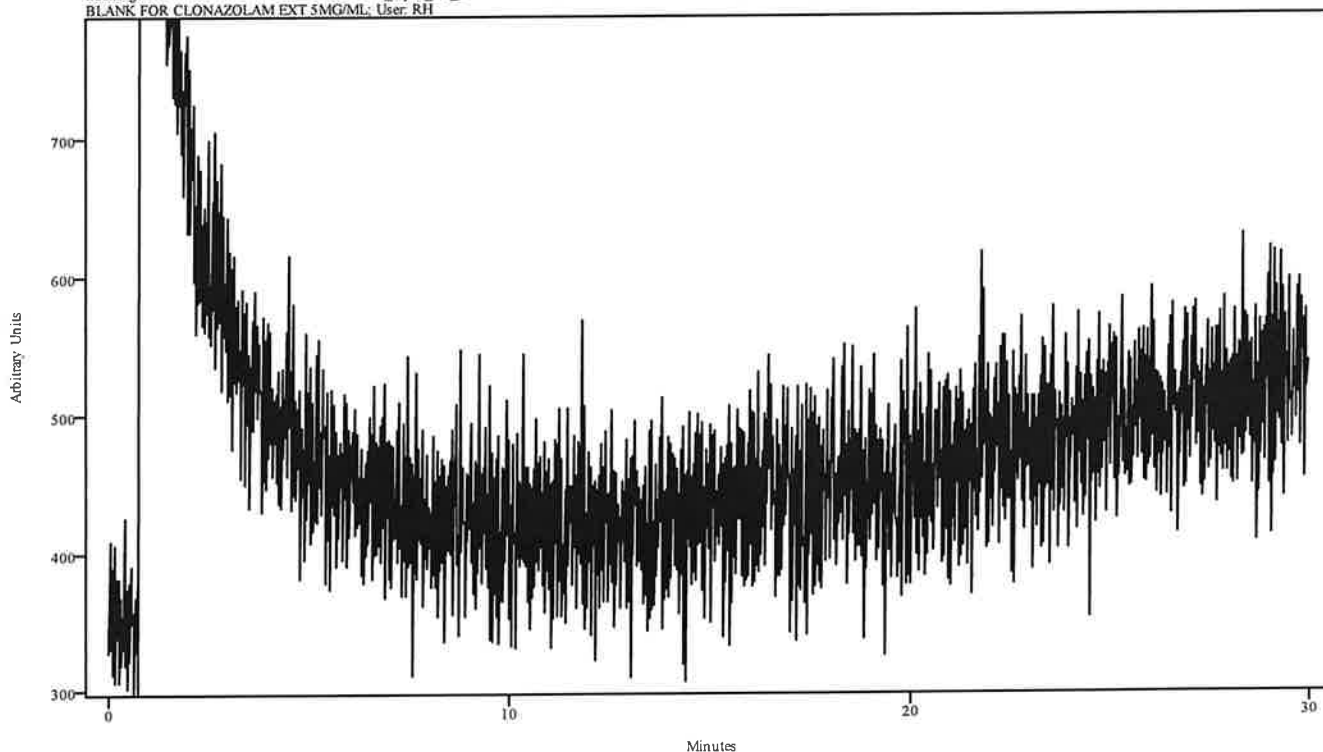


# IRD Data Analysis Report

MA 4-2021

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | BLANK FOR CLONAZOLAM 2021_April_20_013032               |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 101                                                     |
| Sample Name    | BLANK FOR CLONAZOLAM EXT 5MG/ML                         |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 02:05:36 2021                                |
| Date Processed | Tue Apr 20 08:38:43 2021                                |

irdata.cgm: BLANK FOR CLONAZOLAM 2021\_April\_20\_013032\irdata.cgm : Misc. Info: MEOH:HEDWIG; Sample: BLANK FOR CLONAZOLAM EXT 5MG/ML; User: RH



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

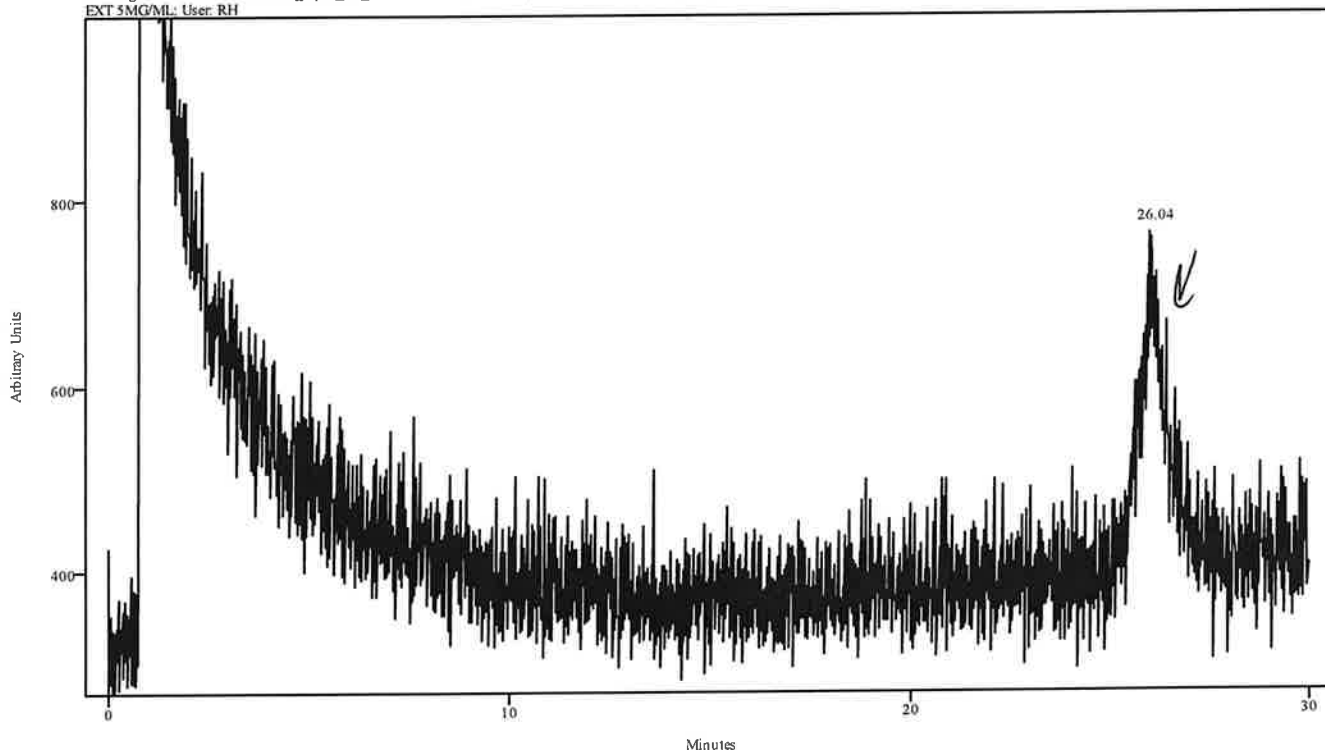
MA  
~~PAU~~ - See standard run.  
 Data was still used to  
 verify methods.

# IRD Data Analysis Report

4/20/2021

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CLONAZOLAM 2021_April_20_020536                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | CLONAZOLAM EXT 5MG/ML                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 02:38:08 2021                                |
| Date Processed | Tue Apr 20 08:39:34 2021                                |

irdata.cgm: CLONAZOLAM 2021\_April\_20\_020536\irdata.cgm: Misc. Info: MEOH:HEDWIG; Sample: CLONAZOLAM EXT 5MG/ML; User: RH

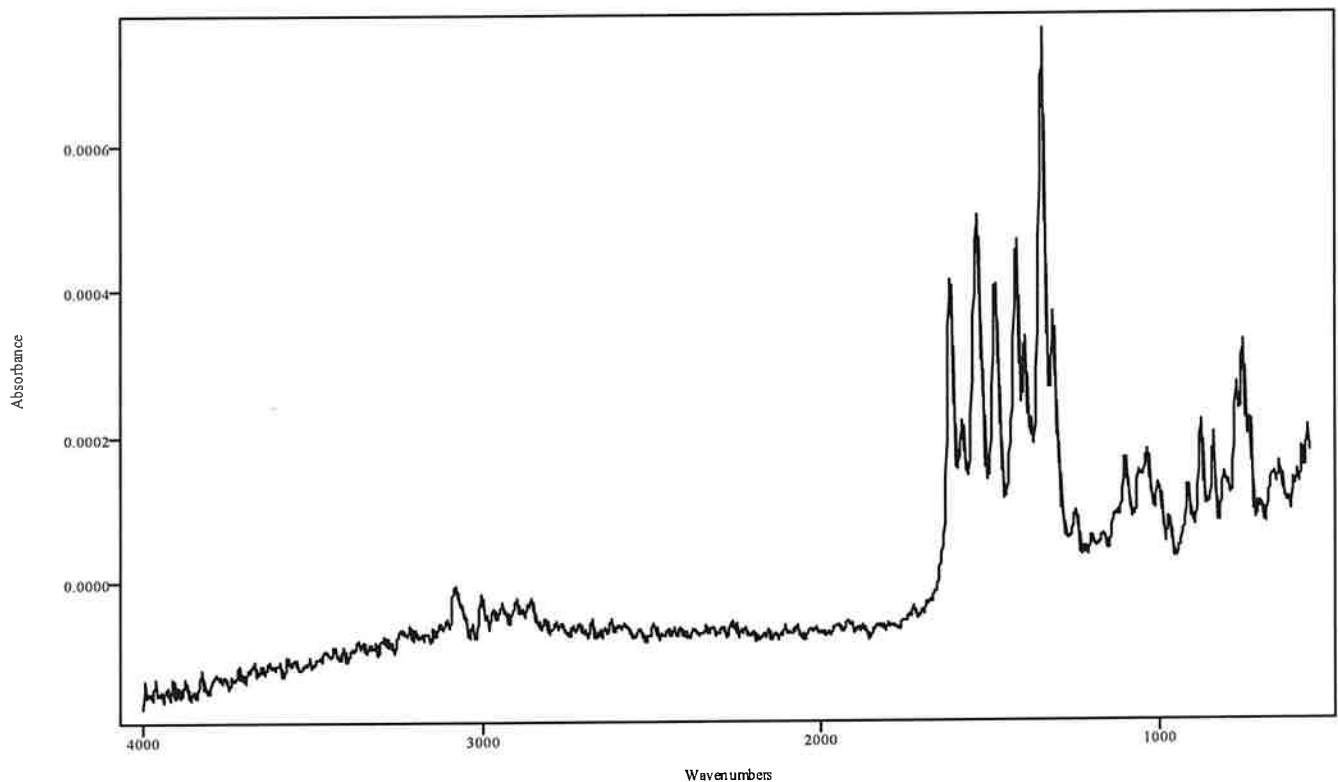


| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 25.680     | 26.405   | 0.729      | 23.201          | 24.848        |

Not recommended for use/identification on Hedwig. ~~DATA~~ Data was still used to verify methods.

4/24/2021

|                |                                                         |
|----------------|---------------------------------------------------------|
| Data Filename  | CLONAZOLAM 2021_April_20_020536                         |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/IRD3 EXTENDED METHOD STANDARDS |
| IRD Method     | IRD3 EXT                                                |
| GC Method      | ISO270(30MIN)                                           |
| GC Vial        | 108                                                     |
| Sample Name    | CLONAZOLAM EXT 5MG/ML                                   |
| Misc. Info     | MEOH:HEDWIG                                             |
| User ID        | RH                                                      |
| Injection Time | Tue Apr 20 02:38:08 2021                                |
| Date Processed | Tue Apr 20 08:39:34 2021                                |



IRDATA.SPC: 26.04 minutes: AVE (25.68: 26.41) Ref. (23.20: 24.85) of CLONAZOLAM  
2021\_April\_20\_020536.cgm

\* Not recommended for use /  
identification on Hedwig. ~~DATA~~  
Data was still used to verify  
methods. ~~HA~~

Sequence Name: EMC050321

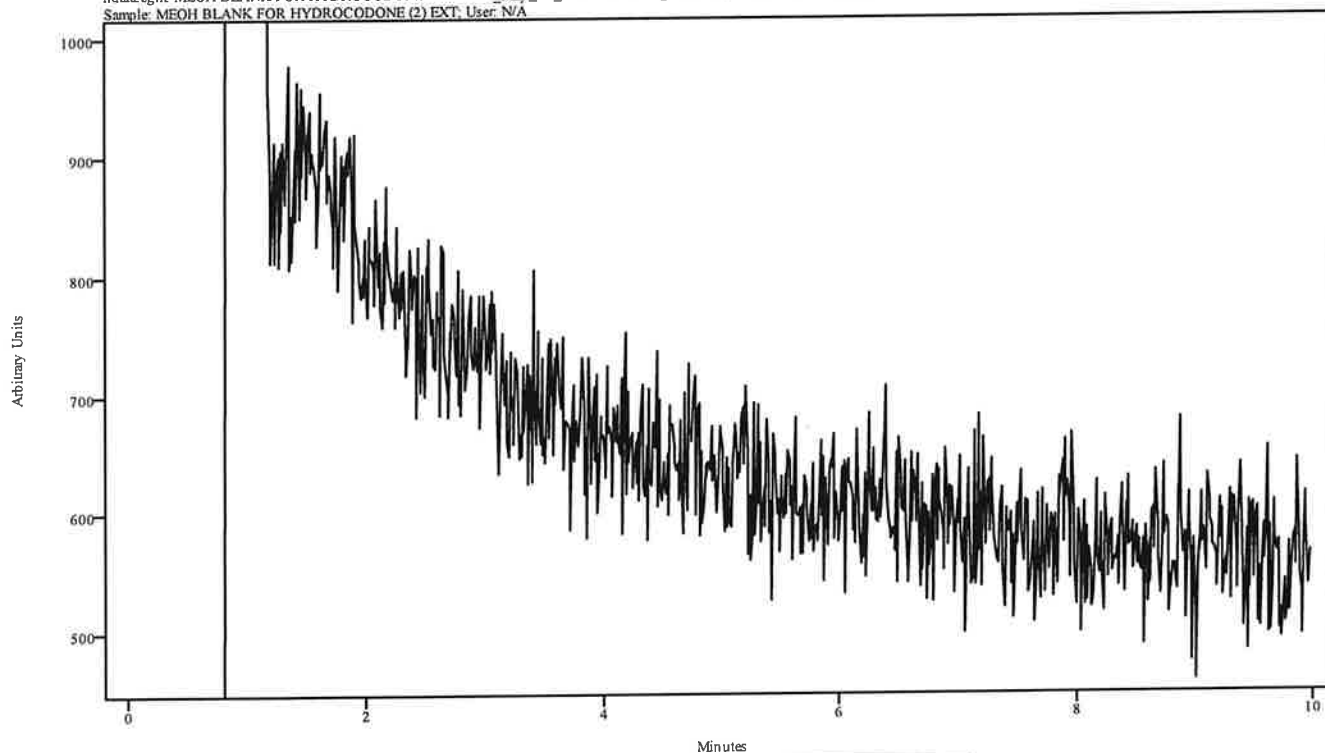
|    | Type   | IRD Method | GC Method  | Vial | Sample ID  | Data File   | Solvent/Extract | Instrument | ID |
|----|--------|------------|------------|------|------------|-------------|-----------------|------------|----|
| 1  |        | IRD3       | 120TO270.M | 121  | W1         | W1 \$(DATE) | MEOH            | HEDWIG     |    |
| 2  |        | IRD3       | 120TO270(2 | 120  | EMC CTS 21 | EMC CTS 21  | BICARB/CHCL3    | HEDWIG     |    |
| 3  |        | IRD3       | 120TO270(2 | 122  | EMC CTS 21 | EMC CTS 21  | BICARB/CHCL3    | HEDWIG     |    |
| 4  |        | IRD3       | 120TO270(2 | 121  | W2         | W2 \$(DATE) | MEOH            | HEDWIG     |    |
| 5  |        | IRD3       | 120TO270(2 | 120  | EMC CTS 21 | EMC CTS 21  | BICARB/CHCL3    | HEDWIG     |    |
| 6  |        | IRD3       | 120TO270(2 | 123  | EMC CTS 21 | EMC CTS 21  | BICARB/CHCL3    | HEDWIG     |    |
| 7  |        | IRD3       | 120TO270(2 | 121  | W3         | W3 \$(DATE) | MEOH            | HEDWIG     |    |
| 8  |        | IRD3       | 200TO270   | 104  | FCHERNANDE | RH CTS 21-  | BICARB-->CHCL3  | HEDWIG     |    |
| 9  |        | IRD3       | 200TO270   | 105  | FCHERNANDE | RH CTS 21-  | BICARB-->CHCL3  | HEDWIG     |    |
| 10 |        | IRD3       | 200TO270   | 106  | WASH4      | WASH4       | CHCL3           | HEDWIG     |    |
| 11 | BLANK  | IRD3       | 120TO270.M | 136  | 211-004571 | JLS04571-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 12 | SAMPLE | IRD3       | 120TO270.M | 137  | 211-004571 | JLS04571-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 13 | BLANK  | IRD3       | 120TO270(2 | 136  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 14 | SAMPLE | IRD3       | 120TO270(2 | 138  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 15 | BLANK  | IRD3       | 120TO270(2 | 136  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 16 | SAMPLE | IRD3       | 120TO270(2 | 139  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 17 | BLANK  | IRD3       | 120TO270(2 | 136  | WASH       | JLSWASH     | 0.5N NAOH->CHC  | HEDWIG     |    |
| 18 | BLANK  | IRD3       | 120TO270(2 | 136  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 19 | SAMPLE | IRD3       | 120TO270(2 | 140  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 20 | BLANK  | IRD3       | 120TO270.M | 136  | 211-004554 | JLS04554-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 21 | SAMPLE | IRD3       | 120TO270.M | 141  | 211-004554 | JLS04554-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 22 | BLANK  | IRD3       | 120TO270.M | 136  | 211-004888 | JLS04888-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 23 | SAMPLE | IRD3       | 120TO270.M | 142  | 211-004888 | JLS04888-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 24 | BLANK  | IRD3       | 120TO270.M | 136  | 211-004837 | JLS04837-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 25 | SAMPLE | IRD3       | 120TO270.M | 143  | 211-004837 | JLS04837-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 26 |        | IRD3 EXT   | 200TO270   | 104  | MEOH BLANK | MEOH BLANK  | MEOH            | HEDWIG     | ]  |
| 27 |        | IRD3 EXT   | 200TO270   | 105  | HYDROCODON | HYDROCODON  | MEOH EXP. SEP   | HEDWIG     |    |
| 28 |        | IRD3       | 200TO270   | 104  | WASH20     | WASH20 \$(D | MEOH            | HEDWIG     |    |
| 29 | BLANK  | IRD3       | 120TO270(2 | 136  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 30 | SAMPLE | IRD3       | 120TO270(2 | 139  | 211-004833 | JLS04833-0  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 31 | BLANK  | IRD3       | 120TO270(2 | 136  | WASH       | JLSWASH1    | 0.5N NAOH->CHC  | HEDWIG     |    |
| 32 |        | IRD3 EXT   | 120TO270.M | 106  | BLANK FOR  | BLANK FOR   | 0.5N NAOH->CHC  | HEDWIG     | ]  |
| 33 |        | IRD3 EXT   | 120TO270.M | 107  | 3,4 MDMA ( | 3,4 MDMA E  | 0.5N NAOH->CHC  | HEDWIG     |    |
| 34 |        | IRD3       | 120TO270.M | 108  | WASH10     | WASH10 \$(D | CHCL3           | HEDWIG     |    |

MA

## IRD Data Analysis Report

|                |                                                   |
|----------------|---------------------------------------------------|
| Data Filename  | MEOH BLANK FOR HYDROCODONE EXT 2021_May_03_161047 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21                 |
| IRD Method     | IRD3 EXT                                          |
| GC Method      | 200TO270                                          |
| GC Vial        | 104                                               |
| Sample Name    | MEOH BLANK FOR HYDROCODONE (2) EXT                |
| Misc. Info     | MEOH:HEDWIG                                       |
| User ID        | N/A                                               |
| Injection Time | Mon May 03 16:24:46 2021                          |
| Date Processed | Tue May 04 13:59:14 2021                          |

irdata.cgm: MEOH BLANK FOR HYDROCODONE EXT 2021\_May\_03\_161047  
 Sample: MEOH BLANK FOR HYDROCODONE (2) EXT, User: N/A  
 Misc. Info: MEOH:HEDWIG;



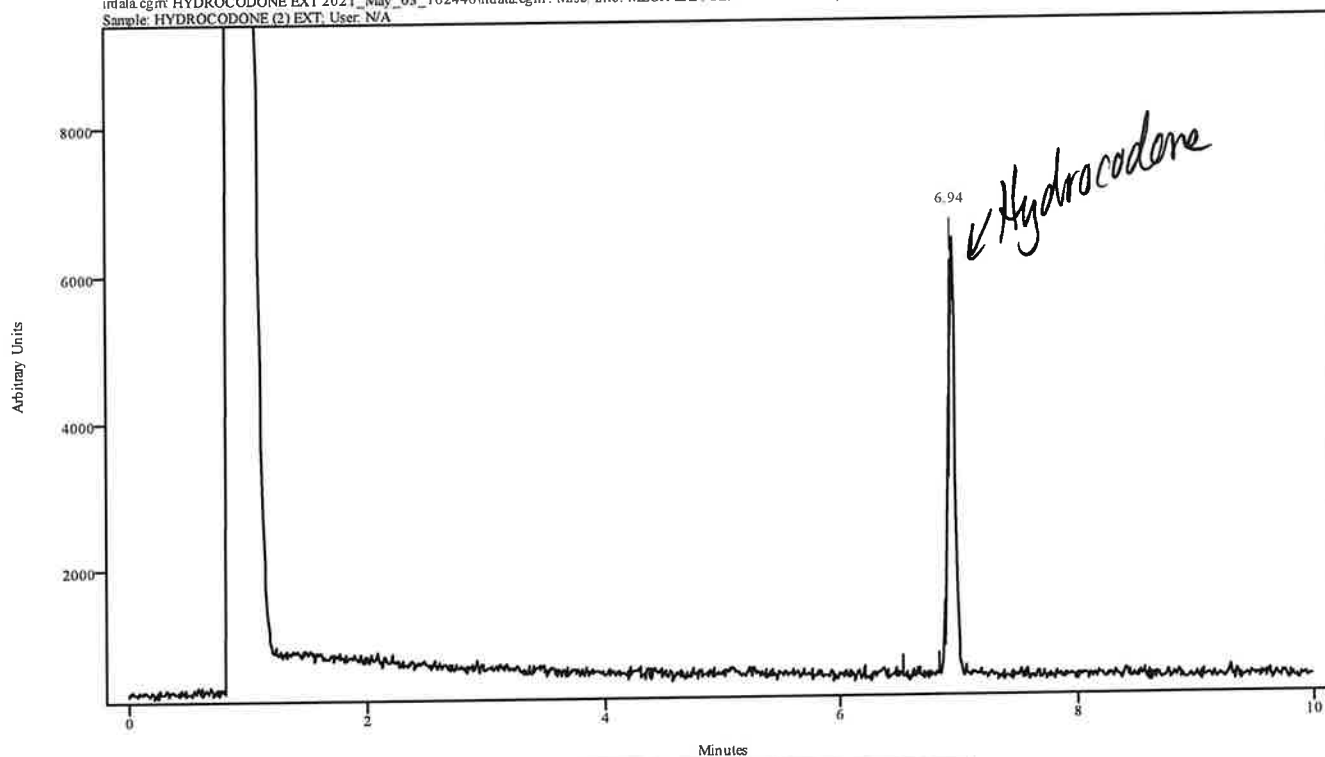
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

YH 5-4-21

# IRD Data Analysis Report

|                |                                    |
|----------------|------------------------------------|
| Data Filename  | HYDROCODONE EXT 2021_May_03_162446 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21  |
| IRD Method     | IRD3 EXT                           |
| GC Method      | 200TO270                           |
| GC Vial        | 105                                |
| Sample Name    | HYDROCODONE (2) EXT                |
| Misc. Info     | MEOH EXP. SEP 2024:HEDWIG          |
| User ID        | N/A                                |
| Injection Time | Mon May 03 16:38:09 2021           |
| Date Processed | Tue May 04 13:59:59 2021           |

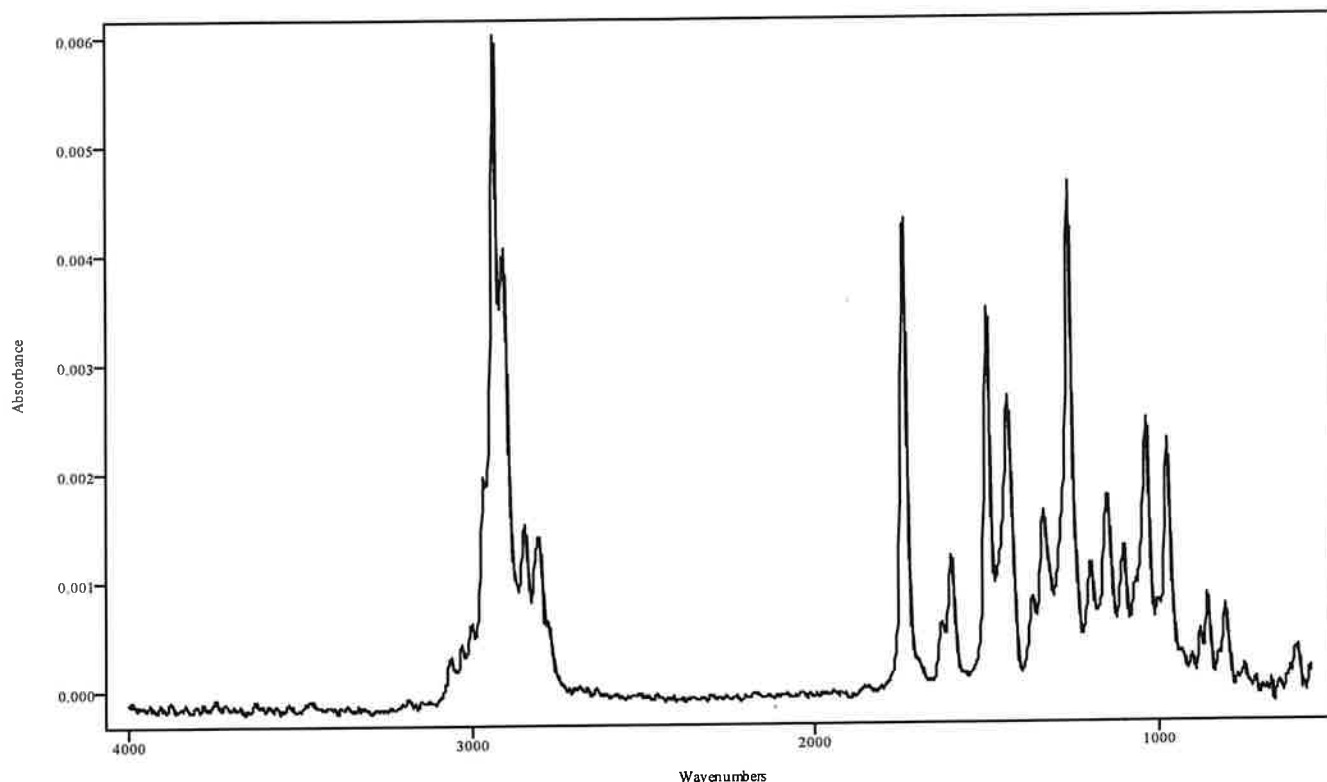
irdata.cgm: HYDROCODONE EXT 2021\_May\_03\_162446\irdata.cgm : Misc. Info: MEOH EXP. SEP 2024:HEDWIG;  
Sample: HYDROCODONE (2) EXT. User: N/A



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 6.907      | 6.974    | 0.066      | 6.520           | 6.830         |

✓ 5/4/21

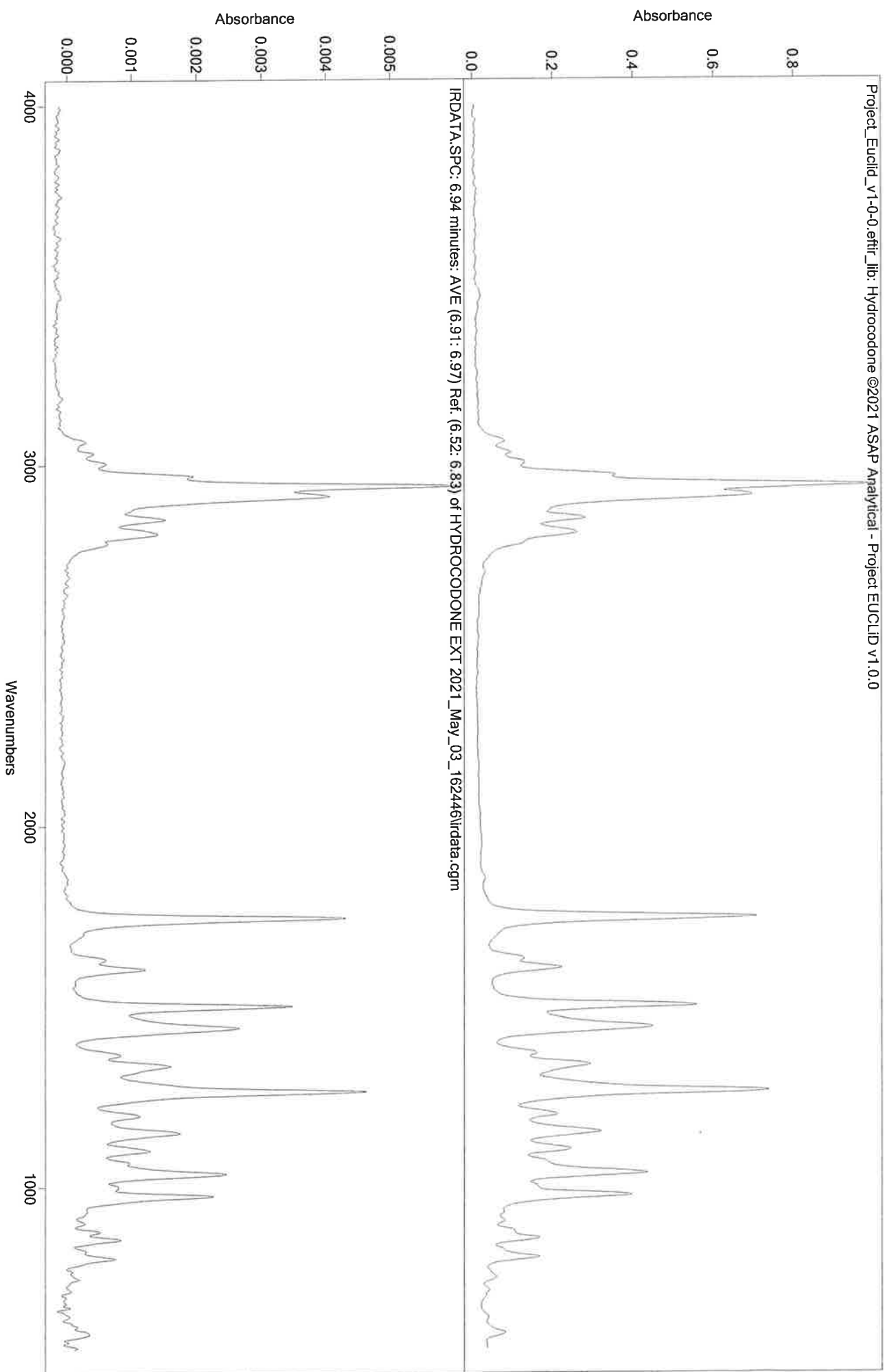
|                |                                    |
|----------------|------------------------------------|
| Data Filename  | HYDROCODONE EXT 2021_May_03_162446 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21  |
| IRD Method     | IRD3 EXT                           |
| GC Method      | 200TO270                           |
| GC Vial        | 105                                |
| Sample Name    | HYDROCODONE (2) EXT                |
| Misc. Info     | MEOH EXP. SEP 2024:HEDWIG          |
| User ID        | N/A                                |
| Injection Time | Mon May 03 16:38:09 2021           |
| Date Processed | Tue May 04 13:59:59 2021           |



IRDATA.SPC: 6.94 minutes: AVE (6.91: 6.97) Ref. (6.52: 6.83) of HYDROCODONE EXT  
2021\_May\_03\_162446.cgm

*Hydrocodone*

4/11  
54-21

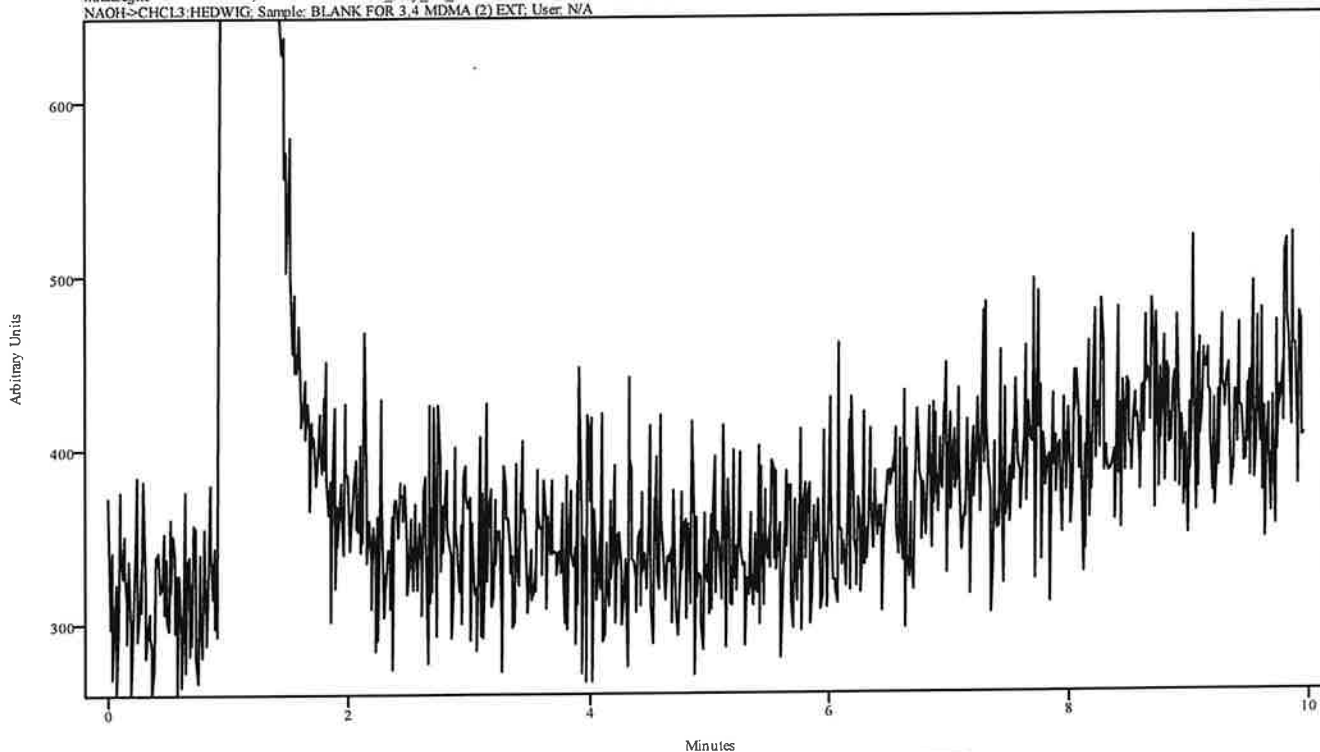


YH

## IRD Data Analysis Report

|                |                                           |
|----------------|-------------------------------------------|
| Data Filename  | BLANK FOR 3,4 MDMA EXT 2021_May_03_180355 |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21         |
| IRD Method     | IRD3 EXT                                  |
| GC Method      | 120TO270.M                                |
| GC Vial        | 106                                       |
| Sample Name    | BLANK FOR 3,4 MDMA (2) EXT                |
| Misc. Info     | 0.5N NAOH->CHCL3:HEDWIG                   |
| User ID        | N/A                                       |
| Injection Time | Mon May 03 18:17:53 2021                  |
| Date Processed | Tue May 04 13:57:54 2021                  |

irdata.cgm: BLANK FOR 3,4 MDMA EXT 2021\_May\_03\_180355 irdata.cgm: Misc. Info: 0.5N  
NAOH->CHCL3:HEDWIG: Sample: BLANK FOR 3,4 MDMA (2) EXT: User: N/A



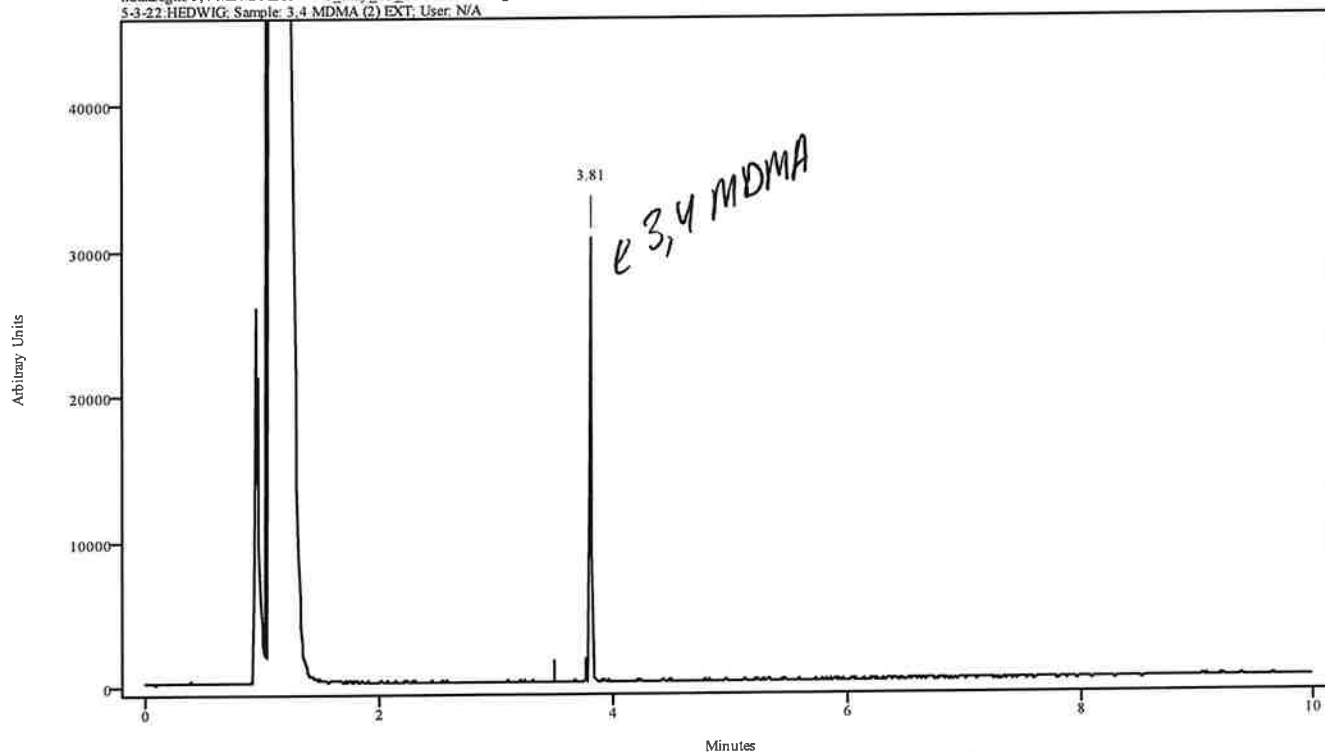
| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
|------------|----------|------------|-----------------|---------------|

MA 5-4-21

# IRD Data Analysis Report

|                |                                     |
|----------------|-------------------------------------|
| Data Filename  | 3,4 MDMA EXT 2021_May_03_181753     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21   |
| IRD Method     | IRD3 EXT                            |
| GC Method      | 120TO270.M                          |
| GC Vial        | 107                                 |
| Sample Name    | 3,4 MDMA (2) EXT                    |
| Misc. Info     | 0.5N NAOH->CHCL3 EXP. 5-3-22:HEDWIG |
| User ID        | N/A                                 |
| Injection Time | Mon May 03 18:32:01 2021            |
| Date Processed | Tue May 04 13:58:39 2021            |

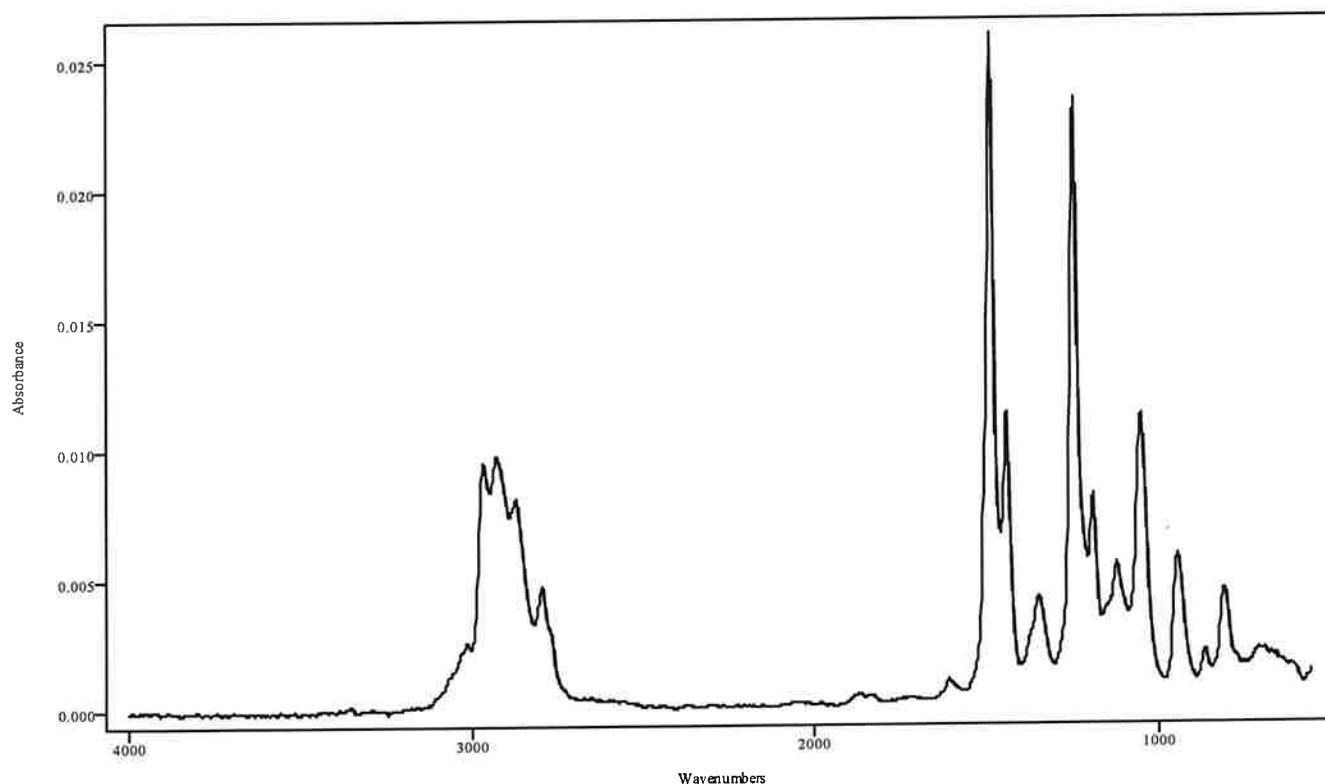
irdata.cgm: 3,4 MDMA EXT 2021\_May\_03\_181753\irdata.cgm: Misc. Info: 0.5N NAOH->CHCL3 EXP.  
5-3-22:HEDWIG; Sample: 3,4 MDMA (2) EXT; User: N/A



| Peak Start | Peak End | Peak Width | Reference Start | Reference End |
|------------|----------|------------|-----------------|---------------|
| 3.794      | 3.820    | 0.022      | 3.499           | 3.765         |

MA 5-4-21

|                |                                     |
|----------------|-------------------------------------|
| Data Filename  | 3,4 MDMA EXT 2021_May_03_181753     |
| Data Path      | C:/ASAP DATA/HEDWIG 2021/05-03-21   |
| IRD Method     | IRD3 EXT                            |
| GC Method      | 120TO270.M                          |
| GC Vial        | 107                                 |
| Sample Name    | 3,4 MDMA (2) EXT                    |
| Misc. Info     | 0.5N NAOH->CHCL3 EXP. 5-3-22:HEDWIG |
| User ID        | N/A                                 |
| Injection Time | Mon May 03 18:32:01 2021            |
| Date Processed | Tue May 04 13:58:39 2021            |



IRDATA.SPC: 3.81 minutes: AVE (3.80: 3.82) Ref. (3.50: 3.76) of 3,4 MDMA EXT  
 2021\_May\_03\_181753.cgm 3,4 MDMA

MS  
5-4-21

