

IN THE CIRCUIT COURT OF HARDIN COUNTY, TENNESSEE
AT SAVANNAH

ZACHARY RYE ADAMS,

PETITIONER,

v.

STATE OF TENNESSEE,

RESPONDENT.

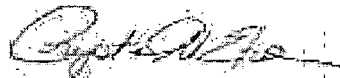
Case No. 17-CR-10-PC

FILED 8 DAY OF May, 2015 AT AM PM
BY T. Wright Deputy TAMMIE WOLFE, CLERK CLERK

NOTICE OF FILING AFFIDAVIT OF JONATHAN REEVES IN SUPPORT OF
PETITIONER'S MOTION FOR LEAVE TO ADD AMENDMENT TO POST
CONVICTION RELIEF PETITION

Comes now the Petitioner, ZACHARY RYE ADAMS, by and through counsel, and gives
Notice to this Honorable Court and all parties involved of filing of the Affidavit of Jonathan Reeves
in support of *Petitioner's Motion for Leave to Add Amendment to Post Conviction Relief Petition*.
Said Affidavit is attached hereto as Exhibit A.

Respectfully Submitted,



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CO-COUNSEL FOR ZACHARY RYE ADAMS
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/s/ Douglas T. Bates (w/permission by C. Etue)
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ATTORNEY FOR ZACHARY RYE ADAMS
BATES & BATES LAW OFFICE
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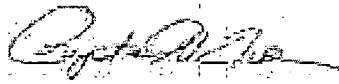
CERTIFICATE OF SERVICE

The undersigned certifies that he has on the 8th day of May 2025, sent a true and correct copy of the following to the person(s) listed below in compliance with the Tennessee Rules of Civil Procedure, Rules 5 and/or 5A, by the following indicated method(s):

ADA Amy Weirich – apweirich@tndagc.org

ADA Christopher Boiano – cyboiano@tndagc.org

Via Email Only



Crystal M. Etue

EXHIBIT A

JDR TELECOM SOLUTIONS, LLC

1500 N HANCOCK STREET
ARLINGTON, VA 22201

May 6, 2025

Via E-Mail and UPS

Douglas T. Bates IV & Ms. Crystal Etu
Bates & Bates Law Office
PO Box 1
Centerville, TN 37033

Expert Witness Affidavit of Jonathan D. Reeves

Case Name: ZACHARY RYE ADAMS, VS STATE OF TENNESSEE

Court: CIRCUIT COURT OF HARDIN COUNTY AT SAVANNAH, TENNESSEE

Case Number: 17-CR-10-PC

I. Introduction

- My name is Jonathan D. Reeves.
- I am the president of JDR Telecom Solutions, LLC
- I am a telecommunications expert with 29 years of experience as detailed in my curriculum vitae, which is attached hereto as Exhibit A.
- I provide technical consulting services to wireless carriers throughout the United States. This includes design, configuration, operation, and troubleshooting of their wireless communication systems.
- I provide expert witness testimony related to wireless technologies, and cell site coverage and location information for civil and criminal legal proceedings.

II. Qualifications and Expertise

- I was previously accepted as an expert witness in the original trial of Mr. Adams and testified regarding various cell phone records and cell tower location and coverage data during the trial.

III. Matter at Issue

- Mr. Douglas Bates and Ms. Crystal Etue contacted me on April 4, 2025, to discuss my previous testimony and report presented at the original trial.
- I have reviewed my original report and testimony as it relates to the timelines presented.
- My review of these records focused on the date and time and possible location of the cellular equipment devices in use by Mr. Adams and Mr. Autry on the morning of April 13, 2011.
- I have analyzed the usage records (call and text) between 9:50 AM and 10:35 AM on April 13, 2011.

IV. Documents and Information Reviewed

- I have reviewed my original report provided to the court as part of my testimony during the trial.
- I have reviewed the original raw cell site data received from AT&T for the network at the time of the abduction. ("ATT_TN_Sites.xlsb")
- I have reviewed the original AT&T call and text data records for Mr. Adams and Mr. Autry provided in discovery.

V. Methodology and Analysis

- Based on the AT&T Tennessee site locations and tower information available I have modeled an approximation of the predicted coverage for the GSM sites that were in operation at that time.
- This above modeling and my knowledge of typical GSM wireless communications network operation allows me to provide approximations of the limit where each sector of each tower location could be used for service.
- The call records for Mr. Adams and Mr. Autry identify the cell (site and sector) that was used for the completion of a call or text message.
- The "birdsong" tower (AT&T site number 084458) has three sectors, oriented approximately east, south, and west.
- The east sector of the "birdsong" site was used by Mr. Autry's and Mr. Adam's phones for several calls and text messages between 9:42 AM and 10:32 AM on April 11, 2025.
- The west sector of the "birdsong" site was used by Mr. Autry's and Mr. Adam's phones for several calls and text messages between 10:35 AM and 10:37 AM on April 11, 2025.
- Therefore, at least as late as 10:32 AM, Mr. Adam's device had to be located within the service area of the east sector of the "birdsong" site, since it had not transitioned out of the coverage area of that sector/cell.
- By analyzing the predicted coverage, the known sector azimuths at that time, and applying typical network operational settings, I can provide an approximate maximum area location where these calls would have necessarily been completed within, especially between the unique sectors at the "birdsong" tower.
- The attached maps in Exhibit B and Exhibit C shows different colors for each respective sector of the "birdsong" tower and the surrounding sites. The line shown on the map shows the "dividing line" where the text message sent by Mr. Adams at 10:32 AM would have most likely required to have been northeast of.
- This "dividing line" is slightly outside the predicted best server for this northeast sector of birdsong (identified as cell 39077 in the call records), to account for the network operation which allows some overlap between sectors before reselecting a new serving sector/cell.
- Note that the south sector of "birdsong" (cell 39078) was never used by either Mr. Autry or Mr. Adams's devices on the morning of April 13, 2011, even though there was only approximately a three-minute gap after the last record that used the east sector, until the first record that used the west sector. This would likely

require the devices to have transitioned the coverage area for the south sector within the approximate three-minute gap in call records.

- Therefore, the original data, as well as my original report, and subsequent predicted model approximation of the coverage area all support Mr. Autry's and Mr. Adam's devices being north of the "dividing line" depicted on the attached Exhibits B and C before 10:35 AM on April 13, 2011.

VI. Expert Opinion

- Based on my analysis, it is my expert opinion, within a reasonable degree of telecommunications analysis certainty that between 9:50 AM and 10:32 AM on April 13, 2011, Mr. Adams's device was located northeast of the "dividing line" shown on Exhibits B and C attached hereto.
- Had Mr. Adams's device been within the coverage area of the "birdsong" area on a different sector/cell, these calls would have been initiated on a different sector/cell.
- It is possible that Mr. Adams's device could have been located anywhere within the actual coverage area of this east sector of "birdsong" during this time, but it would not have been possible for it to be located outside of the coverage south or west of the provided "dividing line".

VII. Basis of Opinion

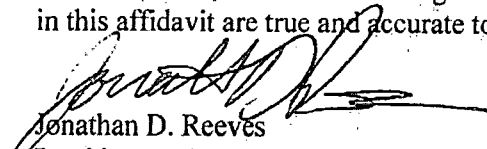
- Because the "birdsong" tower location has multiple sectors at known orientations or azimuth's it's possible to determine an approximate "dividing line" between these sectors and where devices will utilize the coverage from each sector.
- Factoring in the typical network selection parameters allows for some overlap when devices travel between sectors.
- The "dividing line" shown on Exhibits B and C accounts for this network selection allowance.

VIII. Conclusion

- Based on my analysis of the call records and AT&T tower and sector information, it is my conclusion that Mr. Adams's device was most likely located northeast of the "dividing line" shown on the attached Exhibits B and C between 9:50 AM and 10:32 AM April 13, 2011.

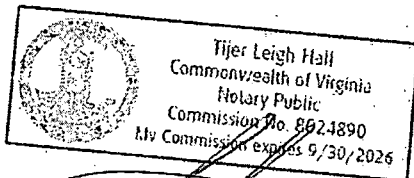
IX. Oath and Verification

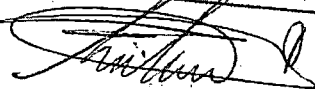
I, Jonathan D. Reeves, hereby swear and affirm under threat of perjury that the information submitted above being duly sworn, depose and state that the facts contained in this affidavit are true and accurate to the best of my knowledge and belief.


Jonathan D. Reeves

President, JDR Telecom Solutions, LLC

May 6th, 2025





The UPS Store #0657
2200 Wilson Blvd Ste 102
Arlington, VA 22201
Tel: 703.358.9500

County/City of Arlington
Commonwealth/State of Virginia
The foregoing instrument was acknowledged
before me this 10th day of May
2025 by Jonathan David Reeves
(name of person seeking acknowledgement)
Notary Public
My Commission Expires: 09/30/2026

Exhibit A

- Jonathan D. Reeves' curriculum vitae (CV).

In 1996, Jonathan Reeves earned his Bachelor of Science in Electrical Engineering degree from Grove City College, where he concentrated in Communications and Computer System Design. During the subsequent nine years, Mr. Reeves served as a consultant for Kurtis & Associates, PC, and continued on with Bennet & Bennet, PLLC, after their acquisition of the Kurtis & Associates technical consulting practice. While with these firms, Mr. Reeves consulted for a variety of cellular and PCS carriers. This allowed Mr. Reeves the unique opportunity to cultivate an intimate knowledge of a broad range of wireless vendor platforms, including Nortel, Lucent, Ericsson, Siemens, and AirNet. Mr. Reeves has been able to use his expertise in RF design, network design, and implementation, optimizing and troubleshooting to ensure that rural networks throughout the US are implemented properly and provide the subscriber the highest quality and best user experience possible.

After departing Bennet & Bennet early in 2005, Mr. Reeves founded JDR Telecom Solutions, LLC in order to continue to provide high quality and an exceptional value of services that he had always strived to provide wireless carriers. The implementation of JDR Telecom Solutions provides a unique resource to wireless carriers who might not know where to turn for support for their wireless networks.

JDR Telecom Solutions, LLC provides the following services for its clients:

- RF design for a variety of technologies including 5G, 4G LTE, WiMax, EVDO, UMTS, GSM, CDMA, AMPS, & TDMA
- RF frequency planning and coordination
- Network design including point to point microwave back-haul design for licensed and unlicensed microwave
- Network implementation including identifying radio node and switching parameters for 5G, 4G LTE, EVDO, UMTS, CDMA, GSM, AMPS, and TDMA
- Network optimization including RF, handoff, call-setup and system capacity optimization
- Continued network maintenance including troubleshooting of interference cases, dropped call, call quality, wireless data speeds, and system capacity planning
- User equipment configuration, including WAP, SMS, MMS, PRI and PRL, as well as LTE specific settings related to MMSS and PLMN
- PRL (Preferred Roaming List) analysis and complete builds

These listed items include the bulk of the services performed, but there are additional services that are also performed on an as requested basis. These services include but are not limited to providing expert testimony regarding wireless design and implementation matters, and system monitoring, just to name a few.

Exhibit B

"Birdsong" sectors
with predicted coverage areas and dividing line

JDR Telecom Solutions, LLC
May 5, 2025

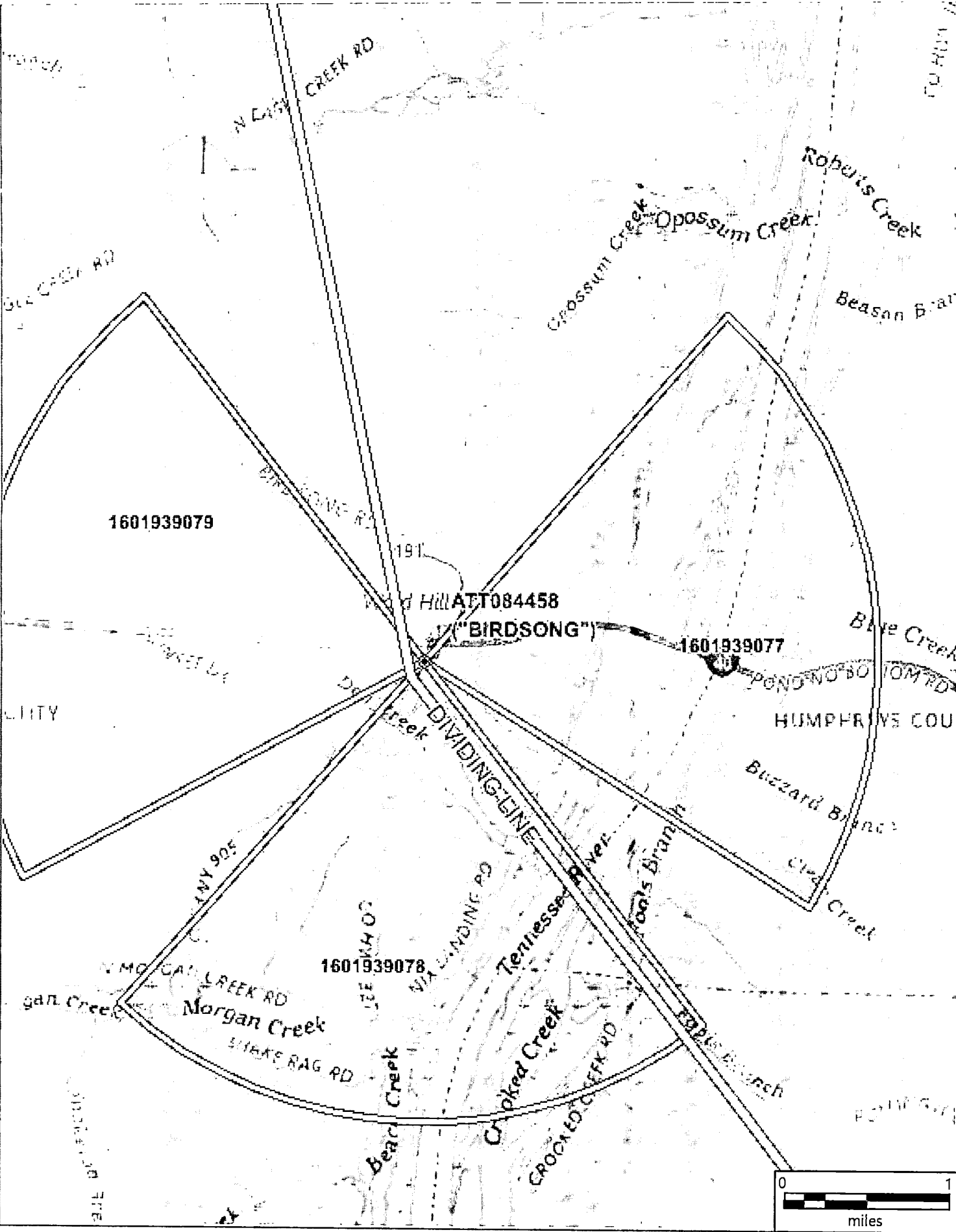


Exhibit C

Larger Area View : "Birdsong" sectors
with predicted coverage areas and dividing line

JDR Telecom Solutions, LLC
May 5, 2025

