STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY

STATE OF WISCONSIN,

Plaintiff,

v.

Case No.:2005 CF 381

STEVEN A. AVERY,

Defendant,

MOTION FOR POST-CONVICTION SCIENTIFIC TESTING

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STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY

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MOTION FOR POST-CONVICTION SCIENTIFIC TESTING

Pursuant to Wisconsin Statutes § 971.23(5) and § 974.07 and *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999), Steven Avery ("Mr. Avery") through his attorneys Kathleen T. Zellner and Associates, P.C., and Tricia Bushnell, local Wisconsin counsel, moves for an order for post-conviction testing of physical evidence collected in connection with Mr. Avery's conviction of first degree murder. Mr. Avery asserts he is innocent and that additional scientific testing can, once again, prove he did not commit the crime for which he has been convicted. Mr. Avery will bear the cost of any testing performed.

INTRODUCTION

Mr. Avery is requesting, and is willing to pay for, the most comprehensive, thorough, and advanced forensic testing ever requested by a criminal defendant in the State of Wisconsin. By doing this additional and totally comprehensive testing, a guilty defendant would risk conclusively establishing his guilt. In contrast, Mr. Avery is requesting the comprehensive, thorough, and most advanced forensic

testing currently known for one simple reason: he is completely and totally innocent of the murder of Teresa Halbach ("Ms. Halbach"). Mr. Avery has already completed a series of tests that will conclusively establish his innocence in conjunction with the additional forensic tests he is seeking in this motion. All of this evidence will be presented in Mr. Avery's post-conviction petition which will be filed after the new test results are obtained from the tests requested in the instant motion.

Background

1. Mr. Avery was charged on November 15, 2005, with first-degree intentional homicide and mutilation of a corpse. The complaint was later amended to include possession of a firearm by a felon. The case proceeded to trial on February 5, 2007, before the Honorable Patrick L. Willis. A jury convicted Mr. Avery of first degree intentional homicide and felon in possession of a firearm. Trial Tr. Day 27, 3/18, 2007.[1] The jury acquitted Mr. Avery of mutilating a corpse. *Id.*

2. The convictions related to the October 31, 2005 death of Ms. Halbach, a twenty-five-year-old photographer. Ms. Halbach's clients included Auto Trader magazine; Ms. Halbach had an appointment to take photos of vehicles at the Avery salvage yard for the magazine on October 31, 2005. Ms. Halbach disappeared after she completed her assignment and left the Avery salvage yard. Her last call forwarded message at 2:41 p.m., occurred when her cellphone was still powered on and registered. That call pinged off

[1] All future references to the Trial Transcript will be abbreviated as follows: TT: Date: Page.

the Whitelaw Tower, which was approximately 13.1 miles from the Avery Salvage Yard. (TT:2/27:218; Trial Exhibit 361).

3. Ms. Halbach's voicemail box had a twenty-message capacity and a review of her records and other witness records indicates that five of Ms. Halbach's voicemails were deleted on October 31, 2005, and another eleven voicemails were deleted before 7:12 a.m. on November 2, 2005. Cingular Wireless Voicemail Plan Detail, attached and incorporated herein as **Exhibit A**. Ryan Hillegas ("Mr. Hillegas") called Ms. Halbach at 6:42 p.m. on November 1, 2005 and her voice mailbox was full. Ryan Hillegas Phone Records, attached and incorporated herein as **Exhibit B**; STATE 6893. The State's expert testified that a password was required to access Ms. Halbach's voicemails from a different phone line (TT:3/7:163). Ms. Halbach's Motorola Razr featured one-touch dialing for voicemail, which would allow anyone in possession of her cell phone to access her voicemail.

4. Five voicemail deletions occurred on October 31, 2005 and eleven additional deletions were made prior to 7:12 a.m. on November 2, 2005, Ms. Halbach's disappearance was not reported until November 3, 2005. (TT:2/12:79).

5. On November 3, 2005, Officer Colborn discovered the victim's vehicle and called dispatch, on a personal line, to confirm the victim's license plate number. (TT:2/20:180-182). On November 3, 2005, according to the Manitowoc County Sheriff's Department reports, Ms. Halbach's vehicle was

seized. Manitowoc County Sheriff's Department Summary Report, attached and incorporated herein as **Exhibit C**; STATE 78.

6. On November 5, 2005, Ms. Halbach's vehicle was discovered in the southeast corner of the Avery salvage yard. (TT:2/13:209-215). Ms. Halbach's vehicle was moved to the southeast corner of the Avery property on the evening of November 4, 2005 after Calumet County Sheriff Jerry Pagel and Investigator Wendy Baldwin conducted a flyover of the Avery Salvage Yard. (TT:2/13:107, 110-111; Motion Hearing Tr., 65-66, June 5, 2006[2]). Ms. Halbach's vehicle was moved from the Fred Radandt Sons, Inc. quarry to the Avery property using the conveyor road that led onto the Avery property from the quarry. (TT:2/15:75); Calumet County Sheriff's Department Report, November 7, 2005, attached and incorporated herein as **Exhibit D.**

7. After Ms. Halbach's vehicle was discovered on November 5, 2005, law enforcement officers secured the 40-acre property, preventing the Avery's from entering their property from November 5 to November 12, 2005. (TT:2/16:127). Significantly, the Manitowoc County Coroner, Debra Kakatsch ("Ms. Kakatsch") was not informed of the murder by law enforcement personnel; instead, she learned of it by watching television. (TT:3/8:204-205). There is no record of Ms. Kakatsch being allowed on the Avery property during the evidence collection.

[2] All future references to Motion Hearing Transcripts will be abbreviated as follows: MHT: Date: Page.

8. Mr. Avery contends that the blood evidence was planted in Ms. Halbach's car, by law enforcement, prior to the discovery of the vehicle on the Avery property on November 5, 2005. (TT:2/20:227; TT:2/20:191-192, 227). Either Officer Lenk and/or Officer Colborn were connected to the discovery of each item of planted evidence. Office Colborn seized the victim's car on November 3, two days prior to it being planted on the Avery's property (*Id* at paragraph 5). They entered the Avery property twice on November 7, 2005, prior to the charred bones and key being discovered on November 8. Officers Lenk and Colborn testified they discovered the key in Mr. Avery's bedroom on November 8, 2005. (TT:2/21:7-13). Officer Lenk was conducting a search of the garage when the bullets fragments were discovered. (Trial Exhibits 125, 146, and 147).

9. Non-law enforcement individuals were also allowed to enter the property after the property was closed to the general public. Two of those individuals were untruthful in their police interviews. Mr. Avery will present his third party theory in his post-conviction petition that he will file once he obtains the new test results. Individual A accessed the property from the quarry four times, for some unknown reason, after it had been closed to the public. Specifically, Individual A accessed the property within minutes of Officers Colborn and Lenk on November 5, and twice on November 7. Crime Scene Logs, attached and incorporated herein as **Exhibit E**. Prior to anyone realizing that Ms. Halbach's body had been burned, Individual A gave a

statement in which he described seeing a fire in a burn barrel behind Mr. Avery's garage on October 31, 2005. Written statement of Individual A, attached and incorporated herein as **Exhibit F**. Subsequent investigation has determined that Individual A's statement is contrary to the facts; Mr. Avery's burn barrel was never behind his trailer or garage, and it was impossible for Individual A to observe Mr. Avery's backyard as he described because of the elevation of the quarry from where he was allegedly making his observations.

10. Individual B accessed the property using a false name. Civilian Search Map, attached and incorporated herein as **Exhibit G**. Individual B misrepresented that the victim's blinker light was broken months before and that she had made an insurance claim for it. Wisconsin DOJ DCI Report, December 14, 2005, attached and incorporated herein as **Exhibit H**, STATE 1144. On November 3, 2005, Individual B placed three calls to the Cingular Customer Service account and password assistance line. Individual B received approximately 22 calls from law enforcement on November 4, 2005, prior to the victim's vehicle being moved onto the property. Individual B accessed the Avery property twice on November 7, 2005 and once on November 8, 2005 after the property was closed to the public. Crime Scene Logs, attached and incorporated herein as **Exhibit I**. Mr. Avery contends that the victim's key and bones were planted on November 7, 2005 and were discovered on November 8, 2005.

11. Most of Ms. Halbach's bones and 29 of her teeth were not found in Mr. Avery's burn pit. State expert Leslie Eisenberg testified that the volume of bones discovered in the burn pit was "two- to three-fifths of what might be expected." (TT:2/28:225). Dr. Eisenberg also admitted that the bones had been moved prior to their location in Mr. Avery's burn pit. Dr. Eisenberg testified that she suspected that the bones found in the Radandt quarry, which included a pelvis, were human. (TT:3/1:10-11, 28).

12. Between Saturday, November 5, when the original search warrant was issued, and Wednesday, November 9, when the police obtained a new warrant, law enforcement and crime lab personnel entered Mr. Avery's trailer on seven occasions. First, after the warrant was issued on November 5 at 3:30 p.m., law enforcement conducted a ten-minute sweep of Mr. Avery's trailer and an eight-minute search of his garage, looking for any evidence related to Ms. Halbach's whereabouts. Then, at 7:30 p.m. that same day, law enforcement entered Mr. Avery's trailer for a second time. This time the officers stayed just over two and one-half hours and seized approximately fifty pieces of evidence. The third and fourth entries occurred on Sunday, November 6, and a fifth entry occurred on November 7, 2005.

13. Despite the exhaustively comprehensive search of Mr. Avery's trailer and extensive testing, not one drop of the victim's blood or bodily fluids was ever discovered in Mr. Avery's trailer or garage or on the evidence seized from the trailer or garage. TT:2/26:108-109.

14. On November 7, 2005, small drops of blood were discovered in the front of Ms. Halbach's vehicle on the driver and passenger seats, driver's floor, and the rear passenger door jam. These blood drops produced a complete DNA profile of Mr. Avery. Suspiciously, there were no bloody fingerprints of Mr. Avery in or on the vehicle despite the fact that he could not have been wearing gloves when he allegedly deposited blood in the vehicle. (TT:2/26:90-91). None of the 8 latent fingerprints found in and on the victim's vehicle belonged to Mr. Avery. Ms. Halbach's blood was found in the cargo area. (TT:2/26:74-75, 91-92). One of the most compelling scientific facts pointing to planted blood evidence is that there was no mixture of Ms. Halbach and Mr. Avery's blood despite the State's claim that the bleeding Mr. Avery threw Ms. Halbach in the rear cargo area of her vehicle. (TT:3/14:61).

15. On November 8, 2005, the sixth entry and search of Avery's trailer occurred. Officers Lenk, Colborn and Kucharski searched the trailer for three and one-half hours. (MHT:8/9/06:208-209; MHT:8/10/06:48-49). Among other things the officers swabbed Mr. Avery's blood stains found in the bathroom. (MHT:8/9/:210; TT:2/20:95-96, 122-26).

16. Officer Colborn conducted an hour-long search of Avery's small bookcase, approximately 32 x 16 x 31 inches. (TT:2/20:123, 125). Officer Colborn testified that he tipped and twisted the bookcase, pulling it away from the wall. Officer Colborn repeatedly pushed the photo binder into the back of

the bookshelf until he knocked the back loose. (TT:2/20:127). Supposedly, Officer Colborn's actions forced the key to fall from the back of the shelf and migrate to a place on the carpet on the side of the bookcase by Mr. Avery's slippers. The key was not present in the initial photographs of the bookcase and Mr. Avery's slippers. (MHT:8/9:210; TT:2/20:130). During Officer Colborn's frenetic interaction with the bookcase, Officer Lenk left the bedroom. (TT:2/20:129-130). When Officer Lenk returned, he noticed a Toyota key had suddenly appeared. Rather than being where one would expect the key to have fallen, based on Officer Colborn's actions, the key was actually lying next to the bookcase on the carpet. Allegedly, this key had Mr. Avery's complete DNA profile but not Ms. Halbach's. Although no presumptive blood testing was done by the State which would suggest whether the DNA came from blood, their expert nonetheless testified that Mr. Avery's blood from his cut finger had masked Ms. Halbach's DNA profile. (TT:2/19:133).

17. There are conflicting dates (November 5 and 7) about law enforcement's discovery of the remnants of Ms. Halbach's Motorola Razr cell phone, Palm Pilot, and camera in a burn barrel in Mr. Avery's yard. No mention was made at trial about the second Motorola cell phone taken from Ms. Halbach's home on November 3, 2005. The contradictory evidence about the cell phone is as follows:

A. Officer Mark Wiegert's affidavit states that on November 5, "officers located a burn barrel containing burnt clothing and a partially burnt shovel" and does not mention a cell phone. (STATE0388).

B. State Crime Lab Field Response Scene Notes state that at 6:15 p.m. "a fifth barrel, reportedly containing remnants of a Motorola cellular phone, had also been transported to the SO on Chilton." (STATE_1_1842).

C. Sheriff Pagel's affidavit says that on November 5, "officers located a burn barrel near the residence of Steven Avery" in which "officers located burned clothing, a partially burned shovel, and fragments of a Motorola cellular telephone." (STATE1525).

D. The criminal complaint says that on November 5, "officers located a burn barrel near the residence of Steven Avery" and in it "located burned clothing and a partially burned shovel" (STATE1484). A cell phone is never mentioned anywhere in the criminal complaint.

E. Officer Dedering's affidavit contains the exact same statement as Sheriff Pagel's, placing the cell phone in a barrel found on November 5, with clothing and a shovel (STATE2824-2825) and does not mention a camera, despite the camera having been confirmed as Canon Powershot A310 on 12/01. (STATE2759).

18. Mr. Avery's garage was searched six times before the final searches were conducted on March 2nd and 3rd, 2006, during which police recovered a

nearly intact .22 LR bullet and bullet fragments that the State subsequently claimed contained Ms. Halbach's DNA. (TT:3/1:116). No presumptive blood testing was performed on the bullet or fragment nor was any scientific testing done to determine the organ (i.e., heart, liver, brain) from which Ms. Halbach's cells, from the bullet fragment, originated. No ballistic expert testified to the fact that it is highly improbable that any .22 LR, much less two, could have exited Ms. Halbach's skull.

19. On March 1, 2006, Mr. Avery's nephew Brendan Dassey ("Dassey") allegedly confessed to assisting Mr. Avery in the commission of the Halbach crimes.

20. On April 3, 2006, based upon Dassey's coerced confession, a swab was taken from the hood latch of the victim's car. The hood latch swab allegedly had "sweat DNA" from Mr. Avery's hand. (TT:2/12:87). It is undisputed that there is no such thing as "sweat DNA." Again, no presumptive blood test was performed on the swab. Again, no bloody fingerprint of Mr. Avery was discovered on the latch. No DNA or fingerprint testing was done on the interior hood release, the prop bar for the hood, or the disconnected battery cable under the hood. Although it would have been impossible for Mr. Avery not to have touched the interior hood release and the prop bar of the hood if he had opened the vehicle's hood, these two items were never tested for the presence of DNA. Additionally, according to the State, Mr. Avery disconnected the battery cable. Yet, the cable was never tested for DNA.

21. On March 17, 2007, Dassey was convicted of crimes in relation to the death of Ms. Halbach. On August 12, 2016, Dassey's conviction was vacated. *Dassey v. Dittmann,* WL 4257386, Case No. 14-CV-1310 (E.D. Wis. Aug. 12, 2016). The Court found that the investigators had used "deceptive interrogation techniques" to obtain the confession from Dassey. Specifically, the Court found:

> Finally, only after Fassbender's highly leading questions did Dassey acknowledge that Avery went under the hood of Halbach's RAV4. When Fassbender asked Dassey what else he and Avery did to the RAV4, he could not muster the answer Fassbender was looking for until Fassbender asked, "[D]id he go and look at the engine, did he raise the hood at all or anything like that?" (ECF No. 19-25 at 79.) Dassey responded affirmatively, but when pressed for additional details he could offer none. (ECF No. 19-25 at 79.) Instead, all he could say was, "I don't know what he did, but I know he went under." (ECF No. 19-25 at 79.)

22. Mr. Avery's case proceeded to trial in February of 2007. The defense's theory was that the Manitowoc County Sheriff's Department framed Mr. Avery for a crime he did not commit by planting Mr. Avery's DNA on the following evidence: the victim's vehicle and the victim's key. The defense contended that the victim's bones were planted in Mr. Avery's burn pit and

her DNA was planted on a bullet fragment found in Mr. Avery's garage that was linked to his rifle.

23. The defense claimed the motive for the frame-up was retaliation because Mr. Avery had sued the Manitowoc Police Department for a previous wrongful conviction and wrongful imprisonment. Officers Lenk and Colborn, a month prior to Ms. Halbach's disappearance, had been deposed as witnesses in Mr. Avery's civil rights lawsuit. (TT:2/20:138-140, 231-232).

24. The State, in order to refute the defense's allegations about planted blood evidence in the victim's vehicle, presented an FBI expert on the issue of whether EDTA, which was present in the 1996 blood vial, was also present in Mr. Avery's blood discovered in the victim's vehicle. The State's expert's opinion was based on unsubstantiated and unreliable data, but no other forensic testing was widely available or known by either side to determine the age of Mr. Avery's blood found in the victim's vehicle. (TT:3/9:20-30).

ARGUMENT

It is undisputed that Mr. Avery was convicted solely based on forensic evidence found at the crime scene that allegedly connected him to the crime. Additional scientific testing could once again definitively prove Mr. Avery's innocence and exonerate him for a crime he did not commit. Mr. Avery requests the following additional testing: body fluid source testing that could identify the source of the bodily fluids found on the victim's vehicle key and hood latch; Radiocarbon (14c) testing which could definitively establish the age of Mr. Avery's blood found in

the victim's vehicle and determine, based on the age, if the blood was planted; new DNA testing on evidence not previously tested (the prop, the battery cable, the interior hood release of the victim's vehicle, the blinker light, the lug wrench, and the purple thong underwear); new and improved DNA testing of previously-tested items (the license plates and swabs taken from the victim's car) trace testing for the presence of chemicals, solvents, or fibers to determine whether the chemicals or fibers (rubbing) had been used to remove DNA from the victim's key or hood latch.

All of this evidence was collected in connection with the crime, and all of it was material to Mr. Avery's conviction. New testing could conclusively prove Mr. Avery's innocence, and thus he is entitled to it under *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999) ("a defendant has a right to post-conviction discovery when the sought-after evidence is relevant to an issue of consequence.")

New Testing for Sources of DNA

25. Since Mr. Avery's 2007 trial, considerable progress has been made in forensic DNA methods, procedures and tests, including the development of tests for the specific detection of blood, saliva, semen and urine.

26. There are four forensic body fluids: blood, semen, saliva, and urine. It is of course understood that humans make a variety of other body fluids. However, there are no tests for these other biological fluids and biological products. There is no way to identify other body fluids other than the four listed.

27. As for all body fluid identification, detection is based on a biological marker that is associated with the body fluid. Common examples (but not an exhaustive list) might include using hemoglobin for the identification of blood, α-amylase for the identification of saliva, acid phosphatase or PSA/p30 or semenogelin for the identification of seminal fluid, and urea or Tamm-Horsfall for the identification of urine.

28. The further distinction between presumptive/screening tests versus confirmatory tests is also important. Presumptive tests do not have the specificity to allow definitive identification of the body fluid. Confirmatory tests, on the other hand, provide the scientific foundation for making a much more definitive statement as to the presence of the tested body fluid.

29. In Mr. Avery's case, the Wisconsin Department of Justice State Crime Laboratory used presumptive tests, not confirmatory tests, for the identification of blood on some, but not all, items of evidence.

30. There are many reasons to critically examine and re-test certain items of evidence in this case in light of new, more specific and more sensitive body fluid testing regimens.

31. The laboratory which will complete the testing, Independent Forensics, has developed the most specific forensic tests available for blood, saliva, semen, and urine. These tests have been commercialized as the RSID series (Rapid Stain Identification) of lateral flow tests. These tests have been developed exclusively for forensic body fluid identification, are fully validated, and

have been used by hundreds of accredited forensic DNA laboratories world-wide.

32. In order to perform body fluid identification/source attribution testing, the original items of evidence or the original swabs used to sample the evidence are required. Mr. Avery is requesting the following items of evidence for new testing for sources of DNA utilizing RSID-Saliva testing and the RSID-Blood testing:

- **Item ID**: Mr. Avery is requesting to perform RSID-Saliva testing and the RSID-Blood testing on Item ID, the hood latch on the victim's RAV-4. Significantly, the Wisconsin Department of Justice State Crime Laboratory did not do chemical analysis of the hood latch for the presence of blood despite the fact that the State's theory at trial was that Mr. Avery had deposited significant amounts of blood in the victim's car from a cut on the middle finger of his right hand. (TT:2/12:85). Clearly, if Mr. Avery were bleeding in the victim's car, he would have also deposited blood, from his bleeding finger, on the victim's hood latch; however, no presumptive blood test was done on the hood latch by the Wisconsin Department of Justice State Crime Laboratory. Wisconsin State Crime Lab Report, May 8, 2006, attached and incorporated herein as **Exhibit J**; (TT:2/23:173). Culhane testified that she discovered a full DNA profile of Mr. Avery on the hood latch. (TT:2/23:174). Culhane testified that the hood latch swab appeared

discolored but it was not reddish-brown or consistent with blood; Culhane admitted that she could not rule out blood as being the source of the DNA profile on the hood latch. (TT:2/26:92-94). No mixture of the victim's DNA with anyone else's DNA was present on the hood latch. Culhane testified that she did not receive the hood latch swab for testing until April 2006. (TT:2/26:92-93). Culhane compared the hood latch profile with Mr. Avery's buccal swab taken on November 9, 2005. (Trial Exhibit 324). At Mr. Avery's trial, the State contended that the source of the hood latch DNA profile was "sweat" from Mr. Avery's hands. (TT:2/12:87). Source testing will definitively identify the body fluid on the hood latch. Mr. Avery is therefore requesting to test the remaining 17 nanograms from the hood latch swabs to definitively determine whether the DNA profile is from blood, epithelial cells, or saliva. If the DNA profile is from saliva or blood, this would refute the State's theory that when Mr. Avery opened the hood latch he transferred DNA from sweat to the hood latch. Skin cells are anucleated and keratinized and buccal cells are nucleated and lack keratin.

- **Item C:** Mr. Avery is requesting to perform source testing on the victim's RAV-4 key. The key is sealed in box bearing Calumet County inventory no. 8114 and item no. AO. The new source testing developed after 2007 will determine if there is blood or saliva on the key. If there

is only saliva and no blood, this will refute one of the State's theories that blood from Mr. Avery's cut finger "mask[ed]" the victim's DNA. (TT:2/19:133). Culhane testified that she did not perform any presumptive blood testing. (TT:2/26:96). Culhane testified there was no indication of staining and the DNA was from "touching." (TT:2/23:180-181). If the DNA is from saliva, it will contradict the State's theory that it was blood that masked the victim's DNA on the key. It will also contradict Culhane's testimony that the DNA was from touching because there was " no visible indication of a biological fluid." (TT:2/26:97).

All of the requested testing is consequential to Mr. Avery's conviction and he is entitled to the testing at his own expense pursuant to *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999).

New DNA Testing

33. Since 2007, more sensitive forensic DNA techniques have been developed that can recover sufficient DNA for profiling from enhanced latent ridge impressions (*i.e.,* fingerprints). The new technique is more efficient for these kinds of samples. While not every fingerprint has sufficient biological material for DNA profiling, these kinds of samples can provide DNA profiles.

34. In order to perform new and improved DNA testing, the original items of evidence or the original swabs used to sample the evidence are required.

Mr. Avery is requesting the following items of evidence for new and improved DNA testing:

- **Items IE and IF:** The apparent identification of Mr. Avery's DNA on the hood latch of the victim's car (Calumet County inventory no. 9188) and its link to the removal of the car's battery cable, requires further testing to identify the potential DNA on the battery cable clamps and cables pulled off the battery posts prior to their removal. Because of the effort required to remove the clamps and cables, it is extremely likely that the individual who performed these tasks would leave his DNA on them. Therefore, Mr. Avery is requesting new and improved DNA testing on items IE and IF (Calumet County inventory nos. 9189 and 9190).
- **Item AJ and AK:** Mr. Avery is requesting swabs that were previously done of Items AJ and AK, (Calumet County inventory nos. 8313 and 8305) and the license plates themselves, so that new and improved DNA testing can be done. The license plates were removed from the victim's RAV-4 and put in another vehicle at the time the victim's vehicle was deposited on the Avery property. TT:2/16: 227-228. At the time of the initial testing of the front license plate (Item AK), an insufficient quantity of DNA was obtained. Wisconsin State Crime Lab Report, March 31, 2006 (attached and incorporated herein as **Exhibit K**), STATE 5248. The rear license plate (Item AJ) has no discernible

DNA. However, with new and improved DNA testing methods, Mr. Avery may be able to obtain a full DNA profile from the license plates.

- **Item A15**: Mr. Avery is requesting DNA and trace evidence testing on the blinker light found in the victim's car. The victim's blinker light was displaced sometime during the sequence of events of either the crime or the transport of the victim's car onto Mr. Avery's property. The blinker light was picked up and placed in the rear cargo area of the victim's car by the perpetrator or the individual who moved the car onto the Avery property. It is a reasonable assumption that this individual handled the blinker light and quite probably left his DNA on the light. Mr. Avery is requesting that Item A15 be subjected to new and improved DNA testing. (TT:3/7:100).
- **Item A16**: Mr. Avery is requesting to perform new and improved DNA testing on the lug wrench recovered from the victim's car. Mr. Avery is requesting new and improved DNA testing of the lug wrench because it appears to have been moved from its original place in the rear cargo area, and therefore may have been touched by the perpetrator. (Calumet County Sheriff's Department Report, November 11, 2005, attached and incorporated herein as **Exhibit L**, STATE 1352; TT:3/7:100).
- **Swabs IB, IC, IE, IF, IG, and IH**: Mr. Avery is requesting testing of the following swabs: IB - swab of the exterior door handle (Calumet

County inventory no. 9186); IC - swab containing possible DNA evidence from interior passenger door handle (Calumet County inventory no. 9187); IE - swab containing possible DNA evidence on left battery cable (Calumet County inventory no. 9189); IF - swab containing possible DNA evidence on right battery cable (Calumet County inventory no. 9190); IG - swab containing possible DNA evidence from interior door handle (Calumet County inventory no. 7860); IH - swab containing possible DNA evidence from exterior door handle (Calumet County inventory no. 7861).

- **Item CV** (Calumet County inventory no. 8324), a pair of women's purple thong panties recovered from the white trailer near the Mercury station wagon where the victim's license plates were found. Similar thong panties were recovered from the victim's residence (Items CM, CN, and CO). Mr. Avery is requesting to perform new and improved DNA testing on these panties to determine if they belonged to the victim and if they contain a male DNA profile.
- **Item A:** Mr. Avery is requesting DNA testing, for the first time, of the victim's RAV-4 on specific items that were not previously DNA-tested. According to the State's theory, Mr. Avery was not wearing gloves and bled from his cut finger inside the RAV-4. TT:2/12:85. If this is true, the following untested items would likely yield the perpetrator's DNA: A) the bar that moves the seat in the RAV-4 forward; B) the prop bar

which holds up the hood; and C) the interior hood release. These previously-untested items should disclose the perpetrator's DNA because the ungloved perpetrator, of necessity, would have touched all of these items in order to operate the car, open the hood, and remove the battery cable. The defense forensic team will swab the RAV-4 at the Calumet County Sheriff's Department.

- **Calumet County property no. 8675:** Mr. Avery is requesting DNA testing on the alleged human pelvic bones recovered from the quarry property southwest of the Avery Salvage Yard in order to conduct more advanced DNA testing to determine the origin of these bones.
- **Calumet County property nos. 7958 and 7963:** Mr. Avery is requesting DNA testing on the burnt material found at the Radandt deer hunting camp west of the Avery Salvage Yard to determine whether there are any items of evidentiary value at the deer camp.

35. The source testing and the new DNA testing will be performed by Dr. Karl Reich ("Dr. Reich") at Independent Forensics. CV of Dr. Reich (attached and incorporated herein as **Exhibit M**). Mr. Avery is requesting that all of the evidence described above be shipped to Independent Forensics, 500 Waters Edge, Suite 210, Lombard, IL 60148.

36. **Mr. Avery is entitled to mandatory DNA testing of all blood stains found in or the victim's vehicle pursuant to the prior trial court order entered on**

April 4, 2007. The April 4, 2007 trial court order (attached and incorporated as **Exhibit N**) states as follows:

> 1. That the State shall preserve indefinitely, until further order of this Court, all bloodstains that the State believes contain Steven Avery"s DNA and that were found in or on Teresa Halbach's vehicle, in a condition suitable for further scientific testing;
>
> 2. That the State shall preserve indefinitely, until further order of this Court, all swabs or other collected samples of bloodstains that the State contends contain Steven Avery's DNA and that were collected from areas in or on Teresa Halbach's vehicle, in a condition suitable for further scientific testing;
>
> 3. That the State shall preserve indefinitely, until further order of this Court, portions of all the items submitted by the State to the FBI Laboratory in Quantico, Virginia, for the purpose of testing related to the presence or absence of EDTA. Such portions of these items shall be adequate in size and quality, if possible, to permit independent scientific testing by the defense and shall be maintained by the State in a condition suitable for further scientific testing;
>
> 4. That the defendant, Steven A. Avery, or any lawyer representing him, may at any time submit the bloodstains, swabs, and items described in paragraphs 1 through 3 above to any laboratory or person the defense may choose for independent scientific testing pursuant to WIS. STAT. § 971.23(5), without further order of this Court. For purposes of illustration, not limitation, this paragraph expressly contemplates independent defense testing before verdict, after verdict, before sentencing, after sentencing, during state or federal post-conviction proceedings (if any), or after any such post-conviction proceedings; and
>
> 5. For purposes of facilitating the relief allowed in paragraph 4 above and without further order of a judge or court, the State shall transfer without delay to a laboratory or scientist designated by the defense any or all of the materials described in paragraphs 1 through 3 above as necessary to permit the defense to undertake independent scientific testing. Upon completion of such testing, the defendant or his counsel shall return promptly to the State any remaining materials not consumed in testing, for further safekeeping pursuant to this order. The defendant and his counsel also shall cooperate with the State's

reasonable requests in documenting chain of custody of any items released and transferred for independent scientific testing.

37. To the extent that Mr. Avery requests DNA testing of previously-collected swabs and blood stains alleged to contain Mr. Avery's DNA, testing is warranted under the prior order.

38. Additionally, Mr. Avery is requesting that he be allowed to test previously-untested evidence for DNA and to collect additional blood samples from the RAV-4 for radiocarbon testing and for new DNA testing pursuant to Wis. Stat. § 974.07. § 974.07 provides for testing where a movant can show that the evidence is relevant to the investigation or prosecution, the evidence is in the possession of the government agency, and that the evidence has not previously been subjected to DNA testing, or if previously tested, may now be tested using a newer technique. *Id.* Here, Mr. Avery satisfies all of these requirements and is entitled to testing at his own expense:

1. **The evidence is relevant to the prosecution or investigation.** All of the requested evidence was collected in connection with the investigation of the death of Ms. Halbach and is thus relevant to the investigation.
2. **The evidence is in the State's possession.** Mr. Avery's counsel has confirmed on August 24, 2016, that all of the forensic evidence in Mr. Avery's case was transferred to the Calumet County Sheriff's Department and is being held there.
3. **The evidence requested for DNA testing has not been previously DNA tested.** Mr. Avery's trial transcripts reveal that certain relevant evidence

collected in his case was never subjected to prior DNA testing. If these items (such as the blinker light, hood prop, and battery cable) are tested, they could conclusively demonstrate Mr. Avery's innocence by identifying the real perpetrator's DNA.

Radiocarbon (14C) Testing to Determine Age of Blood in RAV-4

39. Since the 2007 conviction of Mr. Avery, there have been substantial developments in the application of established scientific testing to forensic cases. Forensic testing using radiocarbon (14C) could conclusively prove whether or not the blood evidence in the RAV-4 was from the 1996 blood vial taken from Mr. Avery and was therefore planted in the the RAV-4.

40. Blood is comprised of many fast renewing molecules and cell types and, as such, carbon dating the whole cell (or even DNA extracted from the cells) will yield a date when the blood sample was taken (the date at which it exited the body and stopped exchanging 14C). For example, if blood was freshly left in the car in 2005, then the blood sample will have a 14C/C profile that matches 2005. If the blood was planted from an older sample, the 14C/C profile of the blood sample will show an age older than 2005. Additionally, the test could detect petroleum-derive products such as EDTA.

41. The carbon dating method was developed by Dr. Kirsty L. Spalding ("Dr. Spalding"), an Assistant Professor at the Karolinska Institute, Stockholm, Sweden. She currently heads a research group in the Departments of Cell and Molecular Biology (CMB) and the Integrated Cardio Metabolic

Centre(ICMC). The CV of Dr.Spalding (attached and incorporated herein as **Exhibit O**).

42. Dr. Spalding started and has continued to develop and refine a novel method to use radioactive levels of 14C in the atmosphere to determine the age of biological structures. This technology has been extensively tested and validated. The technology has been used to answer many important biological questions, such as: a) do human beings make new nerve cells in the brain? b) do human beings make new heart muscle cells? and c) do human beings make new fat cells as adults? As well as biological applications, the method has also been developed to radiocarbon-date tooth enamel in order to establish a person's date of birth. Dr. Spalding has been working on the latter with police and forensic authorities to help determine the date of birth of homicide and missing person victims.

43. The rationale of ^{14}C carbon dating is as follows: ^{14}C levels in the atmosphere have remained relatively stable (with respect to all carbon) for the last several thousand years. However, atmospheric detonations of nuclear weapons during the period of the cold war (1955-1963) doubled the concentration of $^{14}C/C$ in the atmosphere. After the nuclear test ban treaty in 1963, ^{14}C levels have dropped exponentially. Atmospheric ^{14}C reacts with oxygen to form CO_2, which is incorporated into plants by photosynthesis. By eating plants, and animals that live off plants, the ^{14}C concentration in the human body closely parallels that in the atmosphere at any given point

in time. As such, ^{14}C levels in a rapidly-evolving tissue sample, such as blood, can be used to retrospectively determine the age of the sample. Establishing the concentration of ^{14}C is done using high precision accelerator mass spectrometry (AMS).

44. Fibers from the seat or carpet where the blood was taken are also needed to identify the age of any potential contaminants. If possible, it would be preferable to scrape new samples directly from the RAV-4, and thus avoid any issues of carbon contamination as a result of the way the sample has been stored since its 2005 collection date. The sample will be microscopically analyzed to determine whether there are any contaminating fibers in the sample and, if so, the fibers will be removed.

45. Radiocarbon dating of blood samples taken from the RAV-4 will be able to determine whether the blood found in the car and identified as Mr. Avery's was actually left from a fresh wound in 2005, or whether the blood is old, indicating that it was planted from a previously taken blood sample. The precision of AMS varies depending where on the bomb-spike a sample falls. However, resolving the difference between samples 9 years apart gives a solid margin for AMS. As such, radiocarbon (14C) testing will be able to determine whether the blood sample found in the RAV-4 was planted using the 1996 blood of Mr. Avery.

46. Using radiocarbon to date the blood in the RAV-4 would not have been readily available or even known to Mr. Avery's attorneys at the time of his

trial in 2007. Advances in the technology and methodology make it a viable test to do in 2016 to determine the age of the blood in the RAV-4.

47. Dr. Spalding will be assisted by Dr. Peter Steier ("Dr. Steier"), a physicist at the Isotope Research and Nuclear Physics VERA Laboratory, in performing the radiocarbon dating in the instant case. Dr. Steier will split the samples into three parts and perform three determinations to rule out contaminations by fibers and particles. He will then be able to perform a measurement with sufficient precision with at least 20 μgC per aliquot. Together with quality controls from dried blood, and two blood samples from the vial, there will be nine measurements in total. Dr. Streier will perform 14C radiocarbon dating of the forensic blood samples using Accelerator Mass Spectrometry (AMS).

48. Mr. Avery is requesting to examine the victim's RAV-4 (Item A) to obtain additional scrapings of dried blood. In addition to attempting to obtain more blood scrapings from the RAV-4, Mr. Avery is also requesting to test the blood scrapings already collected by the Wisconsin Department of Justice State Crime Lab. These blood scraping samples will be sent to Dr. Reich at Independent Forensics, to determine the quantity remaining for radiocarbon testing. Dr. Reich will ship them to Dr. Spalding at the Karolinska Institute for testing.

49. Upon receipt and before any examinations are performed by Dr. Reich and Dr. Spalding, the items will be thoroughly imaged to document their

condition and that of their packaging upon receipt. Seals, initials, labels, etc. will be carefully documented at appropriate magnifications so that they accurately represent their appearance and condition as received. All chain of custody protocols, agreed upon by the parties, will be strictly adhered to by Dr. Reich and Dr. Spalding.

Forensic Samples Required for Radiocarbon Analysis

50. **Item SA from LabCorp file no. 95-624:** Mr. Avery is requesting the blood tube containing Mr. Avery's 1996 blood sample.

51. **Item A6:** The stain determined to be Mr. Avery's blood cut from the fabric of the driver's seat of the victim's car. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

52. **Item A7:** Mr. Avery is requesting the blood scrapings of his blood from the victim's car that were identified as Mr. Avery's DNA. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

53. **Item A8:** The stain determined to be Mr. Avery's blood recovered, *i.e.*, swabbed, from an area to the right of the ignition of the victim's car. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient

sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

54. **Item A9:** The stain on fabric determined to be Mr. Avery's blood cut from the fabric of the passenger's seat of the victim's car. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

55. **Item A10:** The stain determined to be Mr. Avery's blood recovered from the black compact disc case in the victim's car. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

56. **Item A12:** The stain determined to be Mr. Avery's blood recovered from the metal panel around the rear passenger door entrance. Whole blood is about 14% carbon so a very small drop (1 uL) would be a sufficient sample for one 14C/C AMS measurement (140ug carbon). Multiple 14C/C measurements are preferable and help attest as to the reproducibility of the measurements.

57. **Item G:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 651).

58. **Item I1:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 653).

59. **Item J:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 654).

60. **Item K:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 655).

61. **Item O:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 639).

62. **Item P:** A stain recovered from the garage floor at 12332 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 659).

63. **Item Y:** A stain recovered from the bathroom floor at 12932 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 7116).

64. **Item AA:** A stain recovered from the molding around a door at 12932 Avery Road that was determined to be Mr. Avery's blood (Calumet County inventory no. 7104).

65. **Item CF:** Two pieces of fabric cut from the front of a couch at 12932 Avery Road that was determined to be Mr. Avery's blood.

66. **Item CG:** One piece of fabric cut from a zippered couch cushion at 12932 Avery Road that was determined to be Mr. Avery's blood.

67. **Item CQ:** A stain recovered from the inside of the living room door at 12932 Avery Road that was determined to be Mr. Avery's blood.

68. **Item CR4:** A stain recovered from the sink at 12932 Avery Road that was determined to be Mr. Avery's blood.

All of the requested testing is consequential to Mr. Avery's conviction and he is entitled to the testing at his own expense pursuant to *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999).

Alternative DNA Methylation Testing to Age Mr. Avery's Blood in Victim's Car

69. In the event that the samples for the radiocarbon testing are too contaminated for the test to produce accurate data, Mr. Avery is requesting that an epigenetic evaluation be performed on certain items. This testing will not be necessary if the radiocarbon testing produces reliable test results as to the age of Mr. Avery's blood. However, for reasons of judicial economy, Mr. Avery requests that the court order include DNA methylation testing

only if the radiocarbon testing fails because of contamination of the evidence samples.

70. The DNA methylation will be performed by Dr. Steven Horvath ("Dr. Horvath"), a Professor in Human Genetics and Biostatistics at UCLA. His methodological research area lies at the intersection of biostatistics, bioinformatics, computational biology, cancer research, genetics, epidemiology, machine learning, and systems biology. UCLA Bio of Dr. Steven Horvath, attached and incorporated herein as **Exhibit P**.

71. Applying these methods, Dr. Horvath studies a broad spectrum of disease, e.g., aging research, cancer, cardiovascular disease, HIV, Huntington's disease, and neurodegenerative diseases, in addition to other research applications. His group develops and applies methods for analyzing and integrating gene expression, DNA methylation, microRNA, genetic marker, and complex phenotype data. In particular, he developed weighted correlation network analysis (also known as weighted gene co-expression network analysis WGCNA), which is a systems biologic data analysis method for analyzing high dimensional "-omics" data.

72. These methods also lend themselves to comparing different species at the genomic level. Dr. Horvath's group works on all aspects of biomarker development: data collection, novel data analysis methods, and biomarker validation studies. For example, he worked on genomic biomarkers of aging and age-related diseases including cancer. He compared standard meta--

analysis methods with network based meta-analysis methods. He worked both on supervised and unsupervised machine-learning methods. Dr. Horvath developed the random generalized linear model (randomGLM) predictor, random forest clustering, and the cluster and propensity-based approximation of a network. He has a long-standing interest in developing and applying allelic association tests, e.g., Dr. Horvath has worked on the family-based association test (FBAT). More recently, he has focused on enhancing GWAS studies and exome-sequencing methods.

73. Epigenomics is the methods and applications surrounding epigenetic data (in particular DNA methylation data) to study human diseases, e.g., age-related diseases. Epigenetics is defined as the study of changes in gene expression or cellular phenotype, caused by mechanisms other than changes in the underlying DNA sequence. Dr. Horvath's epigenetic clock emerged from the study of chemical and structural modifications made to the genome that do not alter the DNA sequence but that are passed along as cells divide and can influence how genes are expressed. As cells age, the pattern of epigenetic alterations shifts, and some of the changes seem to mark time. To determine a person's age, Dr. Horvath explores data for hundreds of far- flung positions on DNA from a sample of cells and notes how often those positions are methylated, i.e., have a methyl group attached.

74. Dr. Horvath has discovered an algorithm, based on the methylation status of a set of these genomic positions, that provides a remarkably accurate age estimate - not of the cells, but of the person the cells inhabit. White blood cells, for example, which may be just a few days or weeks old, will carry the signature of the 50-year-old donor they came from, plus or minus a few years. The same is true for DNA extracted from a buccal swab, the brain, the colon, and numerous other organs. This sets the method apart from tests that rely on biomarkers of age that work in only one or two tissues, including the gold-standard dating procedure, aspartic acid racemization, which analyzes proteins that are locked away for a lifetime in tooth or bone. In human DNA, methyl groups most often attach at 'CpG sites', which are places where a cytosine precedes a guanine in the DNA.

75. A typical human genome contains more than 28 million such sites. But the microarray technology used to detect methylation samples finds only a fraction of them: older machines pin down just 27,000 sites and newer ones around 485,000. Dr. Horvath has identified methylation patterns that hewed even more closely to age in very different cell types, such as brain and blood. This identification constituted an important step toward finding a biomarker for the age of almost every part of the body. He pulled together myriad data sets that included both peoples' ages and their DNA methylation information. Methylation profiles are used for many kinds of medical research, usually in areas other than aging. Dr. Horvath devised a

way to normalize methylation profile. His algorithm, by early 2012, was using 16 CpG sites in the genome, and was returning correlations with chronological age of 96% in nine tissue types. The accuracy of median correlations were within three years for blood samples and just 18 months for buccal swabs. By December 2012, Dr. Horvath's methylation database spanned 51 types of non-cancerous tissues and cells, plus 20 kinds of cancer. The age estimator had grown to include 353 CpG sites. Dr. Horvath's paper featuring his results was featured in the October 2013 publication of *Genome Biology.*

76. Others began downloading Dr. Horvath's epigenetic-clock program to test it on their own data. Marco Boks at the University Medical Centre Utrecht in the Netherlands applied it to blood samples collected from 96 Dutch veterans of the war in Afghanistan aged between 18 and 53. The correlation between predicted and actual ages was 99.7%, with a median error measured in months. At Zymo Research, a biotechnology company in Irvine, California, Wei Guo and Kevin Bryant utilized the program on a set of urine samples Zymo had collected from 11 men and women aged between 28 and 72. The correlation was 98%, with a standard error of just 2.7 years.

77. In Dr. Horvath's opinion, an epigenetic evaluation can be used forensically in Mr. Avery's case to determine, to a reasonable degree of scientific certainty, if the blood in the RAV-4 was in fact deposited from Mr. Avery's

1996 EDTA-preserved blood vial. Natural aging alone, over a 9-year period, would have produced variable methylation patterns. The likelihood that Mr. Avery's DNA methylation profile would have remained exactly the same over a 9-year period is extremely unlikely, as it is physically and physiologically impossible to inhibit the natural process of cellular aging, which is dominated by epigenetic DNA methylation. Therefore, if the blood from EDTA-preserved vial and the blood from the RAV-4 yielded the same DNA methylation profiles, given the fact that Mr. Avery had aged 9 years, then Dr. Horvath would be able to determine with over 95% certainty that the EDTA-preserved blood collected in 1996 was indeed planted in the RAV-4 in 2005.

78. In Dr. Horvath's opinion, the following items would need to be submitted for DNA methylation testing to Dr. Devin Absher ("Dr. Absher") of HudsonAlpha Institute (601 Genome Way, Huntsville, AL 35896). Bio of Dr. Devin Absher, attached and incorporated herein as **Exhibit Q**.

A - 1999 "Toyota RAV-4" V.I.N #JT3HP10VSX7113044:

A6 - cutting of stain from RAV-4 driver seat (Exhibit #333)
A7 - swab from reddish/brown crusts recovered from the floor between center console and driver's seat (Exhibit #335)
A8 - swab of bloodstain from RAV-4 ignition (Exhibit #336)
A9 - cutting of stain from RAV-4 passenger seat (Exhibit #331)
A10 - swab of bloodstain on black CD case (Exhibit #332)
A12 - swab of bloodstain from metal panel around rear passenger door entrance (Exhibit #334)

B - 1993 blue Pontiac Grand Am V.I.N 1G2NW14N9PC726145:

B1 - swab of bloodstain from passenger side of front console

B2 - swab of bloodstain from top of center console
B3 - swab of bloodstain from center console near the rear window button
B4 - swab of bloodstain from gear shaft
B5 - cutting of stain from back seat driver's side

Trace Testing

79. Mr. Avery is requesting that trace testing be performed at Microtrace Laboratories (790 Fletcher Drive Suite 106, Elgin, IL 60123) by microchemist Skip Palenik. CV of Skip Palenik (attached and incorporated herein as **Exhibit R**). Mr. Palenik has been teaching analytical microscopy to forensic scientists for more than thirty years and has published numerous scientific articles and book chapters on the applications of chemical and forensic microscopy. He established Microtrace LLC in 1992 to provide a resource for organizations and individuals in need of scientific services involving the analysis of microscopic trace evidence. His special research interests are the identification of single small particles, small amounts of complete unknowns, and tracing dust and soil back to their origins. Mr. Palenik has worked on many high-profile cases including: the Atlanta child murders, the Air India Bombing, the JonBenet Ramsey case, the 1985 Narita International Airport bombing (Tokyo), the Hillside Strangler (LA), the Oklahoma City bombing, Ivan the Terrible (Jerusalem), the assassination of Dr. Martin Luther King (reinvestigation by U.S. House Select Committee on Assassinations), the Unabomber case, the

disappearance of Helen Brach, the "Kiki" Camarena Murder Case, and the Green River serial murders.

80. Upon receipt and before any examinations are performed by Mr. Palenik, the items will be thoroughly imaged to document their condition and that of their packaging upon receipt. Seals, initials, labels, etc. will be carefully documented at appropriate magnifications so that they accurately represent their appearance and condition as received. All chain of custody protocols will be strictly adhered to by Mr. Palenik.

81. After each item is removed from its packaging and photographed, it will be subjected to examination by various light sources such as near infrared, infrared, and ultraviolet light in order to detect any unusual or unexpected regions, particles or stains that may not be visible under ordinary illumination.

82. Microscopical and micro-analytical examinations will be performed on both the victim's key found in Mr. Avery's bedroom and swabs used to obtain his buccal cells. The initial examinations will all be non-destructive and may include any or all of the following techniques: stereo-microscopy, bright-field and phase contrast microscopy, polarized light microscopy, fluorescence microscopy, scanning electron microscopy (SEM), energy dispersive x-ray (EDS) spectroscopy, Raman spectroscopy, and micro x-ray fluorescence (XRF) spectroscopy.

83. Mr. Palenik is requesting the following items for testing:

A. **Item C** - the victim's key to the RAV-4. Culhane testified that she developed a complete genetic profile by swabbing the key. Culhane testified that the genetic profile matched Mr. Avery and there was no trace of the victim's DNA on her own car key. Mr. Avery wants to re-test the key for any evidence of solvents or fibers that may have been used to remove the victim's DNA from the key. Mr. Avery also wants the key examined at Independent Forensic Laboratories in Lombard, IL in order to identify the source of the DNA because the State's expert testified that Mr. Avery's blood masked the DNA of the victim. Mr. Avery wants to use the Independent Forensic Laboratory DNA source testing described in paragraph 31 to determine if any of Mr. Avery's blood is on the key.

B. Mr. Avery requests possession of the buccal swabs taken from him in 2005 (Item BU; Calumet County inventory no. 8490; Trial Ex. 324) and 2003 (Item W from the 1985 case, Lab Report No. M85-1051; Trial Ex. 348). Mr. Avery is requesting to perform microtrace testing of the buccal swabs to determine if there are any other materials or chemicals (such as dirt) on the swabs. If any material is present on the buccal swab, other than the DNA from Mr. Avery's cheek, Mr. Avery can prove that the buccal swab was used by police officers to deposit Mr. Avery's DNA on the hood latch. (Item BU; Calumet County

inventory no. 8490; Trial Ex. 324) (Item W from the 1985 case, Lab Report No. M85-1051; Trial Ex. 348).

Ballistics Testing

Mr. Avery is requesting Neutron Activation Analysis ("NAA") to compare the elements contained within Item FL, the bullet fragment recovered from his garage, and the unspent .22 LR shells taken from his bedroom. Mr. Avery would conduct testing at the University of Massachusetts, Lowell, by Dr. G. Nelson Eby ("Dr. Eby"). CV of Dr. Eby, attached and incorporated herein as **Exhibit S.** If different elements are detected, then it would refute the State's theory that Item FL was shot by Mr. Avery, with the Marlin Glenfield Model 60 .22 rifle through the skull of Ms. Halbach. TT:2/22:38-39; TT:2/36:76-77. Mr. Avery requests the following items for ballistic testing:

A. Item FL: the bullet fragment recovered from Mr. Avery's garage.

B. Unspent .22 LR shells from Steven Avery's bedroom (contained within Calumet County inventory no. 8436).

Upon receipt and before any examinations are performed by Dr. Eby the items will be thoroughly imaged to document their condition and that of their packaging upon receipt. Seals, initials, labels, etc. will be carefully documented at appropriate magnifications so that they accurately represent their appearance and condition as received. All chain of custody protocols, agreed upon by the parties, will be strictly adhered to by Dr. Eby.

All of the requested testing is consequential to Mr. Avery's conviction and he is entitled to the testing at his own expense pursuant to *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999).

Compelling Fingerprint Comparison

84. Mr. Avery is requesting the previously-obtained fingerprints of Officers Colborn and Lenk for comparison to the unidentified prints discovered on the victim's vehicle (Item A25). Mr. Avery is requesting that a comparison be performed of the fingerprint standards of Officers Colborn and Lenk to any unidentified fingerprints standards from the victim's vehicle. If the unidentified fingerprints on the victim's vehicle match either Officer Colbor or Officer Lenk, it would be significant evidence of their involvement in moving the victim's vehicle onto the Avery property.

85. **Items BM**: Mr. Avery is requesting to examine items BM, described as a Motorola Razr phone and box from the victim's dining room (Calumet County inventory no. D7802). Wisconsin State Crime Lab Receipt of Physical Evidence, November 11, 2005 (attached and incorporated herein as **Exhibit T**), STATE 834. The victim's Motorola Razr phone was allegedly discovered in Mr. Avery's burn barrel. The inability of the State to produce the Motorola phone located in the victim's residence (Item BM) would demonstrate that it was the phone placed in the burn barrel by law enforcement (contents of the burn barrel are Item AL).

86. For the first time, all of the above-referenced testing has the potential to provide a comprehensive analysis of the forensic evidence used to convict Mr. Avery, and to determine the viability, validity, and veracity of the forensic evidence presented 9 years ago at Mr. Avery's trial. All of the requested testing is consequential to Mr. Avery's conviction and he is entitled to the testing at his own expense pursuant to *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999).

CONCLUSION

Mr. Avery's request satisfies *State v. O'Brien,* 233 Wis.2d 202, 323, 588 N.W.2d 8 (1999) and all the elements of § 974.07. Because the requested testing is consequential to Mr. Avery's conviction and because he has met all the requirements of § 974.07, this Court should order all of the testing encompassed in the 2007 trial court order and all of the new testing described above.

Because a DNA Order has already been entered, Mr. Avery requests an evidentiary hearing, if necessary, on the radiocarbon (14C) testing, DNA methylation testing (if radiocarbon testing cannot be done because of contamination), the body fluid source testing, and any microtrace testing.

WHEREFORE, Mr. Avery respectfully requests that this Court issue an order directing the following:

(1) The State shall release to the above-described laboratories the previously-identified items of evidence.

(2) Should the laboratory need to consume all of a sample, the parties shall be contacted to obtain their agreement.

(3) All of the results will be communicated to both Mr. Avery and the State by the respective laboratories.

(4) The parties will confer and determine an acceptable date and time for Mr. Avery's forensic scientists to perform additional collection of forensic samples from the victim's vehicle, currently in the possession of the Calumet County Sheriff's Department.

Dated this 26th day of August, 2016

Respectfully submitted,

Kathleen Zellner*
Douglas Johnson*
Zellner Law Office
[redacted]
Admitted pro hac vice
Lead Counsel

Tricia J. Bushnell #1080889
Midwest Innocence Project
[redacted]
Local Counsel

ATTORNEYS FOR PETITIONER-APPELLANT

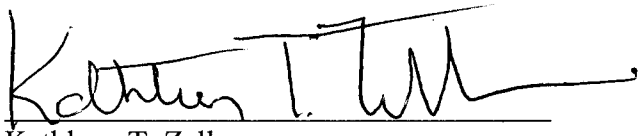
cc: Gregory M. Weber, Thomas J. Fallon, Assistant Attorney Generals
Lynn Zigmunt, Clerk of Manitowoc County.

CERTIFICATE OF SERVICE

I certify that on August 26th, 2016, a true and correct copy of the foregoing was furnished by first-class U.S. Mail, postage prepaid to:

Manitowoc County District Attorney's Office
[redacted]

Mr. Thomas J. Fallon
Assistant Attorney General
[redacted]



Kathleen T. Zellner

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Tones & Graphics
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Text Messaging
Multimedia Messaging
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MEdia Net
Cingular Video
Cingular World
Cool Tools
Compatible Phones
More ...

Sometimes you can't—and sometimes you choose not to—but you don't always answer your calls. That's when your voicemail becomes your personal assistant. Get the most from your voicemail by knowing its features and benefits, and the keys that make it happen.

Key Benefits

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Learn how to set up your voicemail, access your message and navigate your menu options.

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Feature	Basic Voice Mail Included with All Plans	Enhanced Voice Mail $1.99/Month
Message Capacity	20	40
Message Length	3 minutes	3 minutes
Storage Time	14 days	21 days
Auto Play New Messages	Yes	Yes
Message Waiting Indicator	Yes	Yes
Cut-through Paging	Yes	Yes
Notification via Page	No	Yes
Send Message to Group	No	Yes
Number of Lists	n/a	10
Numbers of Members	n/a	25

EXHIBIT
A

Using Your Voicemail
Once your phone is activated, you'll be able to receive voicemail. To get started, follow the steps below to learn how to set up and retrieve your voicemail. If you forget your passcode, [illegible] to reset your passcode, or dial 611 from your wireless phone and follow the prompts.

Setting Up Your Voicemail box

1. Press and hold the 1 key.
2. Follow the voice prompts.

Checking Your Voicemail Messages From Your Wireless Phone

1. Press and hold the 1 key.
2. Follow the voice prompts.

Checking Your Voicemail Messages From Other Phones

1. Dial your 10-digit wireless number.
2. Press the * key when you hear your personal greeting.
3. Enter your personal passcode.
4. Follow the voice prompts.

To require a password for all calls from the Main Menu

1. Press 4 for Personal Options.
2. Press 2 for Administrative Options.
3. Press 1 for Password and follow instructions to turn on your password.

Voicemail Tutorial
Learn how to set up your voicemail, access your messages and navigate your menu options.

Printable quick guide
Take this pocket guide with you for quick reference.
English Version | En Español

#BWNGZPD
[redacted]#
RYAN J HILLEGAS
[redacted]

BILL DATE	November 04, 2005
ACCOUNT NUMBER	[redacted]
PAYMENT DUE	November 24, 2005
TOTAL AMOUNT DUE	$ 63.13

Your Account Summary

Previous Balance	$52.03
Payments Received through November 4, 2005	$52.03 CR
Balance Forward	**$.00**
Total Current Charges	**$63.13**
TOTAL AMOUNT DUE - November 24, 2005	**$63.13**

Manage your account at alltel.com

- View and pay your bill
- Check your minutes of use
- View rate plan information
- Reset wireless voice mail password
- View phone and user guide
- Change billing address

Payment options

- By Mail: P.O. Box 94255 Palatine, IL 60094-4255
- Automatic debit: Go to alltel.com and register under My Account
- Dial #PAY (#729) from your wireless phone
- Call 1 (800) 672-2051

Billing questions? Call for assistance

Hours of Operation:
Mon.-Fri. 7am-10pm, Sat. 8am-6pm

- 1 (800) 255-8351
- *611 from your wireless phone

See reverse side for correspondence address

Please detach here and return with remittance

alltel

RYAN J HILLEGAS
[redacted]

BILL DATE	November 04, 2005
ACCOUNT NUMBER	[redacted]
PAYMENT DUE	November 24, 2005
TOTAL AMOUNT DUE	$ 63.13
AMOUNT ENCLOSED	

☐ Check here for address change or comments. Please write on reverse side.

ALLTEL
P.O. BOX 94255
PALATINE, IL 60094-4255

60001600000001700442161005110400000000631398

EXHIBIT
tabbies
B

STATE6885

alltel

CORRESPONDENCE ADDRESS
PLEASE DO NOT SEND PAYMENTS
Building 4, Fifth Floor
One Allied Drive
Little Rock, AR 72202-2099

General Information

Terms: This bill reflects the charges incurred by you during your most recent billing period for the services provided to you by Alltel. These services are subject to Alltel's terms and conditions, which are found on the back of your customer service agreement and at www.alltel.com. By paying this bill, you acknowledge that you are bound by these terms and conditions. Billing is in advance or arrears based on selected services. The minimum service period is 30 days. A past due amount is due upon receipt of your bill. Late payment fees may be applied to the total amount carried forward as of your next billing date.

Payments: When you send us a check as payment, you authorize us to clear your check electronically. This electronic transaction will appear on your bank statement although your check will not be presented to your financial institution or returned to you. Any resubmission due to insufficient funds may also occur electronically. Please be aware that all checking transactions will remain secure and payment by check constitutes acceptance of these terms.

eCheck Authorization: 54129 By entering this 5-digit code when paying by phone, I hereby authorize Alltel and the financial institution designated by me to charge the account I have specified for payment of my Alltel services. I understand that a fee will be charged to my Alltel account for each request returned unpaid. If two requests are returned unpaid, I will be excluded from this option. In addition, I understand that Alltel and the financial institution reserve the right to terminate this payment option. This authorization can be revoked by notifying Alltel at the customer service number listed on my bill prior to 4:00 P.M. CST on my specified payment date.

Important Messages

Additional important information may be included on the last page of your bill.

Please detach here and return with remittance

A216004B 457006 N

Address Change or Comments?

Change of Address Effective Date: __ __ / __ __ / __ __

Name: _____

Attention: _____

New Address: _____ Apt/Suite: _____

City: _____ State: _____ Zip: _____

Home Phone: _____ Business Phone: _____

If you would like a Caller ID name programmed for your phone, please write the name you would like to use on the line below:

_____

Comments: _____

_____

STATE6886

BILL DATE November 04, 2005

ACCOUNT NUMBER [redacted]

Account Summary

Previous Charges		
Previous Balance as of 11/04/05		$52.03
Payments and Adjustments		
Thank you for your payment - 10/27/05	$52.03CR	
Total Payments and Adjustments		$52.03 CR
Balance Forward		$.00
Current Charges for all Subscribers		
Monthly Service Charges	$55.98	
Other Charges and Credits	$2.64	
Taxes	$4.51	
Total Charges for all Subscribers		$63.13
TOTAL BALANCE DUE		$63.13

WIRELESS Nov 05- Dec 04

Ryan J Hillegas

[redacted]

Current Charges for [redacted] $63.13

Monthly Service Charges

		Charges
Greater Freedom 1000	11/05/05 - 12/04/05	$49.99
Your Features:		
Nationwide Toll Free		$.00
(Includes unlimited toll at $0 per minute)		
Greater Freedom Unlimited M2M		$.00
Greater Freedom Unlimited OP		$.00
(Includes unlimited off-peak minutes of local airtime)		
Basic Voicemail Incl		$.00
Axcess Msgs Pack 300 Incl		$5.99
BASIC CALLING FEAT		$.00
Call Forwarding Free		
Caller ID Free		
Call Waiting Free		
Detailed Billing Free		
3 Way Call Free		
TOTAL MONTHLY SERVICE CHARGES		$55.98

Other Charges and Credits

	Charges
Regulatory Cost Recovery Fee	$.56
Telecom Connectivity Fee	$.59
Federal USF	$1.49
TOTAL OTHER CHARGES AND CREDITS	$2.64

Taxes

	Charges
Federal Tax	$1.58
State Tax	$2.93
TOTAL TAXES	$4.51

Current Usage Summary

	Included	Used	Overage	Rate	Charge
Greater Freedom 1000 includes 1000 minutes of local airtime.					
Anytime	1000	869.20	--	--	$.00
Night/Weekend	UNLIMITED	286.80	--	--	$.00
Mobile-To-Mobile	UNLIMITED	211.00	--	--	$.00
Free Calls	--	77	--	--	$.00
Axcess Text Messaging					
Incoming Text Msg	300	12	--	--	$.00
Outgoing Text Msg	SHARED	13	--	--	$.00
TOTAL USAGE CHARGES					$.00

Total Minutes Not Charged For Dropped Calls 2

alltel

BILL DATE November 04, 2005

ACCOUNT NUMBER [redacted]

Explanation of Taxes, Surcharges and Fees

Regulatory Cost Recovery Fee: This fee is charged to all customers to recover Alltel's costs incurred to comply with government required programs including wireless number portability, number pooling, and CALEA (Communications Assistance for Law Enforcement Act). This fee is not a government mandated tax or surcharge.

E911: This fee is charged to recover the costs incurred by Alltel associated with construction, maintenance and upgrades of 911 services and related facilities. This fee also recovers the costs of local government providing 911 services in states that have enacted a 911 surcharge. In which case the amount of the fee is set in accordance with state law

Telecom Connectivity Fee: This fee is charged to wireless customers to recover a portion of the costs incurred by Alltel for completing wireless calls to and from other carriers' networks. This is not a government mandated tax or surcharge.

Access Charge per FCC Order / CLEC Network Access: Local telephone companies recover a portion of the costs incurred to provide interstate telecommunications service to customers through a monthly charge on the local telephone bill. This charge, the Federal Subscriber Line Charge or "SLC", is regulated by the FCC.

Federal USF Fee: The Federal Universal Service Fund (USF) was established by the FCC to ensure that telecommunications services are affordable for customers with low incomes and customers living in rural areas where the cost of providing service is high. The fund also provides discounted telecommunication services to schools, libraries and rural healthcare providers. Through this fee, Alltel recovers the cost of its mandated contribution to the FUSF as permitted by the FCC..

State USF Fee: Some states have implemented a State Universal Service Fund (SUSF) similar to the federal USF. In those states, telecommunications companies must contribute a percentage of billed revenue to the SUSF. The states, in turn, allow telecommunications companies to recover their mandatory contribution to SUSF from their customers.

Relay Service Surcharge: The Americans with Disabilities Act requires all companies offering voice service to provide access to a Telecommunications Relay Service (TRS) and to contribute to a shared fund to support this service. This service enables an individual who is hearing or speech impaired to communicate with others through access to a Teletypewriter (TTY) and/or Telecommunications Device for the Deaf (TDD)

Intrastate Toll Tax: A usage-based tax levied by some individual states on long distance calls made in the state

Surcharge/Taxes on Roaming: All the applicable sales and excise taxes levied on roaming charges -- charges incurred while using your wireless service outside of Alltel coverage areas. This is a usage-based tax applied only if roaming occurred. This charge applies only to wireless usage only.

Federal Tax: A federal excise tax is levied by the Federal Government from all wireless and wireline companies. This is listed under the "Taxes" heading on your bill.

State Tax: A state tax is levied on wireless and wireline customers. The tax may take the form of a sales tax, a telecommunications tax, a utility tax, or an excise tax. The application of this tax will vary by state. This is listed under the "Taxes" heading on your bill

County, City and Local Taxes: This is a county or city tax levied on wireless and wireline customers. The tax may be a sales tax, a franchise fee, a utility tax, a communications services tax, an occupation fee, or a license tax. The application and rate of this tax will vary by state and may vary by locality. This is listed under the "Taxes" heading on your bill

[redacted]

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
001	10/05	12:01PM	INCOMING	[redacted]	P	D	2.0	INCL	0.00	0.00
002	10/05	7:23PM	VOICERETVL		P		1.0	INCL	0.00	0.00
003	10/05	7:24PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
004	10/05	8:09PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
005	10/05	8:11PM	INCOMING		P		2.0	INCL	0.00	0.00
006	10/05	9:47PM	VOICERETVL		OP	CTR	1.0	INCL	0.00	0.00
007	10/06	1:19PM	KAUKAUNA, WI		P		3.0	INCL	0.00	0.00
008	10/06	1:43PM	ANOKA, MN		P		2.0	INCL	0.00	0.00
009	10/06	3:03PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
010	10/06	4:37PM	INCOMING		P		2.0	INCL	0.00	0.00
011	10/06	5:18PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
012	10/06	5:20PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
013	10/06	5:56PM	INCOMING		P	MM	25.0	INCL	0.00	0.00
014	10/06	7:40PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
015	10/07	8:38AM	APPLETON, WI		P		2.0	INCL	0.00	0.00
016	10/07	8:43AM	VOICERETVL		P		1.0	INCL	0.00	0.00
017	10/07	10:41AM	HILBERT, WI		P		1.0	INCL	0.00	0.00
018	10/07	10:43AM	APPLETON, WI		P		3.0	INCL	0.00	0.00
019	10/07	10:48AM	APPLETON, WI		P		9.0	INCL	0.00	0.00
020	10/07	11:00AM	NEENAH, WI		P		2.0	INCL	0.00	0.00
021	10/07	12:31PM	OSHKOSH, WI		P		5.0	INCL	0.00	0.00
022	10/07	1:43PM	ANOKA, MN		P		1.0	INCL	0.00	0.00
023	10/07	3:29PM	STEVENS PT, WI		P	CTR/MM	1.0	INCL	0.00	0.00
024	10/07	5:07PM	OSHKOSH, WI		P	CTR	2.0	INCL	0.00	0.00
025	10/07	5:15PM	ST PAUL, MN		P	CTR	2.0	INCL	0.00	0.00
026	10/07	6:00PM	HILBERT, WI		P		2.0	INCL	0.00	0.00
027	10/07	6:01PM	INCOMING		P	W	2.0	INCL	0.00	0.00
028	10/07	6:03PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
029	10/07	6:13PM	INCOMING		P		2.0	INCL	0.00	0.00
030	10/07	6:23PM	INCOMING		P	MM	3.0	INCL	0.00	0.00
031	10/07	6:35PM	VOICERETVL		P		1.0	INCL	0.00	0.00
032	10/07	6:37PM	INCOMING		P		1.0	INCL	0.00	0.00
033	10/07	7:00PM	INCOMING		P		4.0	INCL	0.00	0.00
034	10/07	8:40PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
035	10/07	8:43PM	ANOKA, MN		P		2.0	INCL	0.00	0.00
036	10/08	10:36AM	VOICERETVL		OP	CTR	1.0	INCL	0.00	0.00
037	10/08	10:49AM	VOICERETVL		OP		2.0	INCL	0.00	0.00
038	10/08	3:42PM	INCOMING		OP		1.0	INCL	0.00	0.00
039	10/08	6:26PM	INCOMING		OP		2.0	INCL	0.00	0.00
040	10/08	6:27PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
041	10/08	6:27PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
042	10/08	6:27PM	INCOMING		OP		5.0	INCL	0.00	0.00
043	10/09	4:40PM	OCONTO, WI		OP		1.0	INCL	0.00	0.00
044	10/09	4:45PM	INCOMING		OP	MM	1.0	INCL	0.00	0.00
045	10/09	8:20PM	GREEN BAY, WI		OP		14.0	INCL	0.00	0.00
046	10/09	8:36PM	ANOKA, MN		OP		2.0	INCL	0.00	0.00
047	10/09	8:38PM	RACINE, WI		OP		2.0	INCL	0.00	0.00
048	10/10	8:13AM	VOICERETVL		P		1.0	INCL	0.00	0.00
049	10/10	3:53PM	INCOMING		P		9.0	INCL	0.00	0.00
050	10/10	5:45PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
051	10/10	6:20PM	INCOMING		P		17.0	INCL	0.00	0.00
052	10/10	6:46PM	HILBERT, WI		P		5.0	INCL	0.00	0.00
053	10/11	6:40AM	HILBERT, WI		P		1.0	INCL	0.00	0.00
054	10/11	7:56AM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
055	10/11	11:31AM	HILBERT, WI		P		4.0	INCL	0.00	0.00
056	10/11	11:43AM	GREEN BAY, WI		P		2.0	INCL	0.00	0.00
057	10/11	4:35PM	VOICERETVL		P		2.0	INCL	0.00	0.00
058	10/11	4:43PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
059	10/11	4:52PM	RACINE, WI		P		12.0	INCL	0.00	0.00
060	10/11	5:20PM	MOBILE		P	MM	1.0	INCL	0.00	0.00
061	10/11	5:38PM	OSHKOSH, WI		P		5.0	INCL	0.00	0.00
062	10/11	7:55PM	OSHKOSH, WI		P		1.0	INCL	0.00	0.00
063	10/12	11:44AM	VOICERETVL		P		1.0	INCL	0.00	0.00
064	10/12	12:20PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
065	10/12	6:12PM	INCOMING		P		1.0	INCL	0.00	0.00
066	10/12	7:41PM	VOICERETVL		P		1.0	INCL	0.00	0.00
067	10/13	2:12PM	MOBILE		P	MM	1.0	INCL	0.00	0.00
068	10/13	2:26PM	APPLETON, WI		P		3.0	INCL	0.00	0.00
069	10/13	3:02PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00

Account: [redacted]

Billing Date: 11-4-2005

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
070	10/13	3:21PM	MOBILE	[redacted]	P	MM	1.0	INCL	0.00	0.00
071	10/13	3:39PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
072	10/13	8:15PM	ABRAMS, WI		P		1.0	INCL	0.00	0.00
073	10/13	8:16PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
074	10/13	8:22PM	OSHKOSH, WI		P		3.0	INCL	0.00	0.00
075	10/13	8:28PM	GREEN BAY, WI		P		2.0	INCL	0.00	0.00
076	10/13	8:29PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
077	10/13	8:30PM	INCOMING		P	W	1.0	INCL	0.00	0.00
078	10/13	8:33PM	INCOMING		P		1.0	INCL	0.00	0.00
079	10/13	8:52PM	VOICERETVL		P		1.0	INCL	0.00	0.00
080	10/13	9:37PM	APPLETON, WI		OP		4.0	INCL	0.00	0.00
081	10/13	10:35PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
082	10/13	10:43PM	STEVENS PT, WI		OP	MM	3.0	INCL	0.00	0.00
083	10/13	10:53PM	OSHKOSH, WI		OP	CTH	2.0	INCL	0.00	0.00
084	10/14	9:19AM	HILBERT, WI		P		1.0	INCL	0.00	0.00
085	10/14	10:06AM	INCOMING		P		1.0	INCL	0.00	0.00
086	10/14	10:08AM	STEVENS PT, WI		P		2.0	INCL	0.00	0.00
087	10/14	1:02PM	MOBILE		P	MM	1.0	INCL	0.00	0.00
088	10/14	1:08PM	INCOMING		P	MM	13.0	INCL	0.00	0.00
089	10/14	3:49PM	OSHKOSH, WI		P		3.0	INCL	0.00	0.00
090	10/14	4:45PM	INCOMING		P		3.0	INCL	0.00	0.00
091	10/15	1:56PM	INCOMING		OP		3.0	INCL	0.00	0.00
092	10/15	2:06PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
093	10/15	2:25PM	INCOMING		OP		6.0	INCL	0.00	0.00
094	10/15	7:05PM	INCOMING		OP		4.0	INCL	0.00	0.00
095	10/15	7:12PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
096	10/15	7:13PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
097	10/15	7:32PM	INCOMING		OP	MM	1.0	INCL	0.00	0.00
098	10/15	7:33PM	APPLETON, WI		OP		3.0	INCL	0.00	0.00
099	10/15	8:23PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
100	10/15	10:03PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
101	10/15	10:04PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
102	10/15	10:05PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
103	10/15	10:53PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
104	10/16	12:22AM	INCOMING		OP	MM	1.0	INCL	0.00	0.00
105	10/16	1:19AM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
106	10/16	12:20PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
107	10/16	12:21PM	MOBILE		OP	MM	3.0	INCL	0.00	0.00
108	10/16	12:24PM	OSHKOSH, WI		OP		8.0	INCL	0.00	0.00
109	10/16	12:43PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
110	10/16	1:01PM	APPLETON, WI		OP		13.0	INCL	0.00	0.00
111	10/16	1:51PM	INCOMING		OP	MM	6.0	INCL	0.00	0.00
112	10/16	3:51PM	GREEN BAY, WI		OP		1.0	INCL	0.00	0.00
113	10/16	5:17PM	STEVENS PT, WI		OP	MM	5.0	INCL	0.00	0.00
114	10/16	6:47PM	INCOMING		OP		18.0	INCL	0.00	0.00
115	10/16	7:07PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
116	10/16	7:31PM	INCOMING		OP		5.0	INCL	0.00	0.00
117	10/17	3:50PM	APPLETON, WI		P		13.0	INCL	0.00	0.00
118	10/17	4:53PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
119	10/17	5:21PM	APPLETON, WI		P		4.0	INCL	0.00	0.00
120	10/17	5:28PM	INCOMING		P		4.0	INCL	0.00	0.00
121	10/17	7:12PM	OSHKOSH, WI		P		15.0	INCL	0.00	0.00
122	10/17	7:28PM	MOBILE		P	MM	5.0	INCL	0.00	0.00
123	10/17	7:32PM	GREEN BAY, WI		P		1.0	INCL	0.00	0.00
124	10/17	7:34PM	GREEN BAY, WI		P		2.0	INCL	0.00	0.00
125	10/17	7:56PM	APPLETON, WI		P		11.0	INCL	0.00	0.00
126	10/17	8:15PM	MINNEAPOLS, MN		P		31.0	INCL	0.00	0.00
127	10/17	8:46PM	INCOMING		P	W	2.0	INCL	0.00	0.00
128	10/18	2:33PM	HILBERT, WI		P		1.0	INCL	0.00	0.00
129	10/18	3:51PM	HILBERT, WI		P		0.0D	INCL	0.00	0.00
130	10/18	3:54PM	HILBERT, WI		P		2.0	INCL	0.00	0.00
131	10/18	7:59PM	INCOMING		P	D	2.0	INCL	0.00	0.00
132	10/18	10:52PM	VOICERETVL		OP		2.0	INCL	0.00	0.00
133	10/18	10:53PM	GREEN BAY, WI		OP		16.0D	INCL	0.00	0.00
134	10/19	1:40PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
135	10/19	3:14PM	APPLETON, WI		P		34.0	INCL	0.00	0.00
136	10/19	5:18PM	OSHKOSH, WI		P		1.0	INCL	0.00	0.00
137	10/19	5:19PM	INCOMING		P		5.0	INCL	0.00	0.00
138	10/19	5:23PM	MOBILE		P	MM	2.0	INCL	0.00	0.00

Account: [redacted]

Billing Date: 11-4-2005

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
139	10/19	5:39PM	INCOMING	[redacted]	P		4.0	INCL	0.00	0.00
140	10/19	5:48PM	INCOMING		P		2.0	INCL	0.00	0.00
141	10/19	6:07PM	INCOMING		P		1.0	INCL	0.00	0.00
142	10/19	6:22PM	FOND DULAC, WI		P		1.0	INCL	0.00	0.00
143	10/19	7:46PM	ANOKA, MN		P		2.0	INCL	0.00	0.00
144	10/20	9:46AM	ANOKA, MN		P		1.0	INCL	0.00	0.00
145	10/20	10:15AM	VOICERETVL		P		1.0	INCL	0.00	0.00
146	10/20	10:17AM	ANOKA, MN		P		1.0	INCL	0.00	0.00
147	10/20	11:14AM	ANOKA, MN		P		6.0	INCL	0.00	0.00
148	10/20	3:18PM	INCOMING		P	MM	7.0	INCL	0.00	0.00
149	10/20	4:35PM	INCOMING		P	D	8.0	INCL	0.00	0.00
150	10/20	5:42PM	VOICERETVL		P		1.0	INCL	0.00	0.00
151	10/20	6:52PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
152	10/20	6:54PM	APPLETON, WI		P		3.0	INCL	0.00	0.00
153	10/20	7:03PM	INCOMING		P		1.0	INCL	0.00	0.00
154	10/20	7:34PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
155	10/20	7:47PM	INCOMING		P		2.0	INCL	0.00	0.00
156	10/20	10:44PM	INCOMING		OP		5.0	INCL	0.00	0.00
157	10/21	9:21AM	INCOMING		P		1.0	INCL	0.00	0.00
158	10/21	1:32PM	MOBILE		P	MM	1.0	INCL	0.00	0.00
159	10/21	2:04PM	INCOMING		P	MM	6.0	INCL	0.00	0.00
160	10/21	5:34PM	INCOMING		P		17.0	INCL	0.00	0.00
161	10/21	7:50PM	INCOMING		P		3.0	INCL	0.00	0.00
162	10/21	7:53PM	OSHKOSH, WI		P		9.0	INCL	0.00	0.00
163	10/21	8:04PM	INCOMING		P		3.0	INCL	0.00	0.00
164	10/21	8:41PM	ANOKA, MN		P		1.0	INCL	0.00	0.00
165	10/21	8:49PM	INCOMING		P		1.0	INCL	0.00	0.00
166	10/21	9:23PM	ANOKA, MN		OP		2.0	INCL	0.00	0.00
167	10/21	10:36PM	OSHKOSH, WI		OP		2.0	INCL	0.00	0.00
168	10/22	2:07PM	INCOMING		OP	MM	3.0	INCL	0.00	0.00
169	10/22	2:10PM	ANOKA, MN		OP		1.0	INCL	0.00	0.00
170	10/22	2:11PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
171	10/22	2:11PM	HILBERT, WI		OP		1.0	INCL	0.00	0.00
172	10/22	2:13PM	ANOKA, MN		OP		2.0	INCL	0.00	0.00
173	10/22	2:21PM	INCOMING		OP		3.0	INCL	0.00	0.00
174	10/22	2:49PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
175	10/22	4:49PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
176	10/22	5:55PM	INCOMING		OP		3.0	INCL	0.00	0.00
177	10/22	8:02PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
178	10/22	8:08PM	GREEN BAY, WI		OP		2.0	INCL	0.00	0.00
179	10/22	8:18PM	INCOMING		OP		1.0	INCL	0.00	0.00
180	10/22	8:24PM	OSHKOSH, WI		OP		3.0	INCL	0.00	0.00
181	10/22	8:31PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
182	10/22	8:58PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
183	10/22	8:59PM	INCOMING		OP		2.0	INCL	0.00	0.00
184	10/22	9:53PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
185	10/22	10:29PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
186	10/22	10:30PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
187	10/22	11:06PM	INCOMING		OP		1.0	INCL	0.00	0.00
188	10/22	11:07PM	MOBILE		OP	MM	2.0	INCL	0.00	0.00
189	10/22	11:08PM	INCOMING		OP	MM	1.0	INCL	0.00	0.00
190	10/22	11:44PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
191	10/23	1:54PM	OSHKOSH, WI		OP		3.0	INCL	0.00	0.00
192	10/23	2:39PM	MOBILE		OP	MM	1.0	INCL	0.00	0.00
193	10/23	2:53PM	INCOMING		OP	MM	2.0	INCL	0.00	0.00
194	10/23	3:27PM	INCOMING		OP	MM	2.0	INCL	0.00	0.00
195	10/23	4:32PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
196	10/23	5:14PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
197	10/23	6:47PM	APPLETON, WI		OP		2.0	INCL	0.00	0.00
198	10/23	7:46PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
199	10/24	9:21AM	ANOKA, MN		P		2.0	INCL	0.00	0.00
200	10/24	9:30AM	INCOMING		P		3.0	INCL	0.00	0.00
201	10/24	2:48PM	INCOMING		P		7.0	INCL	0.00	0.00
202	10/25	4:24PM	VOICERETVL		P		2.0	INCL	0.00	0.00
203	10/25	4:34PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
204	10/25	6:21PM	INCOMING		P		6.0	INCL	0.00	0.00
205	10/25	7:27PM	HILBERT, WI		P		5.0	INCL	0.00	0.00
206	10/25	8:52PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
207	10/25	8:53PM	INCOMING		MP		10.0	INCL	0.00	0.00

Account: [redacted]

Billing Date: 11-4-2005

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
208	10/25	9:13PM	OSHKOSH, WI	[redacted]	OP		3.0	INCL	0.00	0.00
209	10/25	9:31PM	GREEN BAY, WI		OP		1.0	INCL	0.00	0.00
210	10/25	9:59PM	INCOMING		OP		13.0	INCL	0.00	0.00
211	10/26	6:15PM	OCONTO, WI		P		2.0	INCL	0.00	0.00
212	10/26	6:35PM	INCOMING		P		4.0	INCL	0.00	0.00
213	10/27	1:30PM	OSHKOSH, WI		P		4.0	INCL	0.00	0.00
214	10/27	4:43PM	OSHKOSH, WI		P		7.0	INCL	0.00	0.00
215	10/27	4:55PM	APPLETON, WI		P		10.0	INCL	0.00	0.00
216	10/27	5:05PM	OSHKOSH, WI		P		1.0	INCL	0.00	0.00
217	10/28	9:47AM	INCOMING		P		7.0	INCL	0.00	0.00
218	10/28	3:08PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
219	10/28	3:24PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
220	10/28	3:26PM	INCOMING		P	MM	17.0	INCL	0.00	0.00
221	10/28	3:42PM	INCOMING		P	W	4.0	INCL	0.00	0.00
222	10/28	4:33PM	INCOMING		P		1.0	INCL	0.00	0.00
223	10/28	4:37PM	INCOMING		P		3.0	INCL	0.00	0.00
224	10/28	5:42PM	INCOMING		P		5.0	INCL	0.00	0.00
225	10/28	6:01PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
226	10/28	6:02PM	APPLETON, WI		P		3.0	INCL	0.00	0.00
227	10/28	7:42PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
228	10/28	8:04PM	INCOMING		P		4.0	INCL	0.00	0.00
229	10/28	8:24PM	HILBERT, WI		P		3.0	INCL	0.00	0.00
230	10/28	8:53PM	OSHKOSH, WI		P		3.0	INCL	0.00	0.00
231	10/28	9:31PM	INCOMING		OP		2.0	INCL	0.00	0.00
232	10/28	9:45PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
233	10/28	10:28PM	INCOMING		OP		2.0	INCL	0.00	0.00
234	10/28	11:00PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
235	10/29	1:53AM	APPLETON, WI		OP		2.0	INCL	0.00	0.00
236	10/29	3:18AM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
237	10/29	3:21AM	FOND DULAC, WI		OP		1.0	INCL	0.00	0.00
238	10/29	11:38AM	OSHKOSH, WI		OP		2.0	INCL	0.00	0.00
239	10/29	11:42AM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
240	10/29	11:47AM	INCOMING		OP		2.0	INCL	0.00	0.00
241	10/29	12:07PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
242	10/29	12:08PM	STEVENS PT, WI		OP	MM	12.0	INCL	0.00	0.00
243	10/29	1:32PM	APPLETON, WI		OP		5.0	INCL	0.00	0.00
244	10/29	1:37PM	APPLETON, WI		OP		5.0	INCL	0.00	0.00
245	10/29	2:39PM	INCOMING		OP		2.0	INCL	0.00	0.00
246	10/29	2:54PM	INCOMING		OP	MM	5.0	INCL	0.00	0.00
247	10/29	4:54PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
248	10/29	4:55PM	OSHKOSH, WI		OP		1.0	INCL	0.00	0.00
249	10/29	4:56PM	INCOMING		OP	W	1.0	INCL	0.00	0.00
250	10/29	5:12PM	INCOMING		OP		3.0	INCL	0.00	0.00
251	10/29	6:44PM	APPLETON, WI		OP		2.0	INCL	0.00	0.00
252	10/29	8:10PM	APPLETON, WI		OP		3.0	INCL	0.00	0.00
253	10/29	8:24PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
254	10/29	8:25PM	INCOMING		OP		2.0	INCL	0.00	0.00
255	10/29	11:48PM	APPLETON, WI		OP		2.0	INCL	0.00	0.00
256	10/30	1:26PM	APPLETON, WI		OP		1.0	INCL	0.00	0.00
257	10/30	1:35PM	INCOMING		OP		2.0	INCL	0.00	0.00
258	10/30	3:30PM	KAUKAUNA, WI		OP		1.0	INCL	0.00	0.00
259	10/31	9:10AM	INCOMING		P		8.0	INCL	0.00	0.00
260	10/31	9:41AM	INCOMING		P		2.0	INCL	0.00	0.00
261	10/31	3:48PM	VOICERETVL		P		1.0	INCL	0.00	0.00
262	10/31	3:50PM	GREEN BAY, WI		P		21.0	INCL	0.00	0.00
263	10/31	6:01PM	INCOMING		P	MM	2.0	INCL	0.00	0.00
264	10/31	6:02PM	INCOMING		P	W	23.0	INCL	0.00	0.00
265	10/31	6:25PM	MOBILE		P	MM	3.0	INCL	0.00	0.00
266	10/31	7:19PM	INCOMING		P	MM	3.0	INCL	0.00	0.00
267	10/31	7:36PM	MOBILE		P	MM	2.0	INCL	0.00	0.00
268	10/31	7:37PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
269	10/31	7:47PM	INCOMING		P		5.0	INCL	0.00	0.00
270	11/01	1:31PM	MADISON, WI		P		1.0	INCL	0.00	0.00
271	11/01	1:32PM	MADISON, WI		P		1.0	INCL	0.00	0.00
272	11/01	1:34PM	MADISON, WI		P		1.0	INCL	0.00	0.00
273	11/01	1:39PM	MADISON, WI		P		1.0	INCL	0.00	0.00
274	11/01	1:41PM	MADISON, WI		P		3.0	INCL	0.00	0.00
275	11/01	1:43PM	MADISON, WI		P		9.0	INCL	0.00	0.00
276	11/01	4:02PM	HILBERT, WI		P		1.0	INCL	0.00	0.00

Account: [redacted]

Billing Date: 11-4-2005

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
277	11/01	6:33PM	APPLETON, WI	[redacted]	P		1.0	INCL	0.00	0.00
278	11/01	6:42PM	GREEN BAY, WI		P		1.0	INCL	0.00	0.00
279	11/02	10:06AM	OSHKOSH, WI		P		13.0	INCL	0.00	0.00
280	11/02	4:12PM	APPLETON, WI		P		33.0	INCL	0.00	0.00
281	11/02	5:11PM	APPLETON, WI		P		7.0	INCL	0.00	0.00
282	11/02	5:25PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
283	11/02	5:30PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
284	11/02	5:31PM	INCOMING		P	W	2.0	INCL	0.00	0.00
285	11/02	5:41PM	ANOKA, MN		P		1.0	INCL	0.00	0.00
286	11/02	5:41PM	ANOKA, MN		P		15.0	INCL	0.00	0.00
287	11/02	8:23PM	VOICERETVL		P		1.0	INCL	0.00	0.00
288	11/03	12:58PM	OSHKOSH, WI		P		7.0	INCL	0.00	0.00
289	11/03	1:27PM	OSHKOSH, WI		P		3.0	INCL	0.00	0.00
290	11/03	2:15PM	INCOMING		P		2.0	INCL	0.00	0.00
291	11/03	2:18PM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
292	11/03	2:19PM	APPLETON, WI		P		4.0	INCL	0.00	0.00
293	11/03	2:30PM	FOND DULAC, WI		P		2.0	INCL	0.00	0.00
294	11/03	2:46PM	NEENAH, WI		P		2.0	INCL	0.00	0.00
295	11/03	2:49PM	APPLETON, WI		P		23.0	INCL	0.00	0.00
296	11/03	3:15PM	CALEDONIA, WI		P		10.0	INCL	0.00	0.00
297	11/03	4:06PM	INCOMING		P		2.0	INCL	0.00	0.00
298	11/03	4:09PM	GREEN BAY, WI		P		1.0	INCL	0.00	0.00
299	11/03	4:10PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
300	11/03	4:12PM	MINNEAPOLS, MN		P		1.0	INCL	0.00	0.00
301	11/03	4:13PM	INCOMING		P		5.0	INCL	0.00	0.00
302	11/03	4:41PM	MINNEAPOLS, MN		P		1.0	INCL	0.00	0.00
303	11/03	4:44PM	INCOMING		P		2.0	INCL	0.00	0.00
304	11/03	4:49PM	KANSASCITY, KS		P		2.0	INCL	0.00	0.00
305	11/03	4:51PM	VOICERETVL		P		1.0	INCL	0.00	0.00
306	11/03	4:55PM	INCOMING		P	MM	2.0	INCL	0.00	0.00
307	11/03	5:03PM	INCOMING		P		2.0	INCL	0.00	0.00
308	11/03	5:15PM	800 SERV		P		3.0	INCL	0.00	0.00
309	11/03	5:16PM	INCOMING		P	W	2.0	INCL	0.00	0.00
310	11/03	5:17PM	800 SERV		P		1.0	INCL	0.00	0.00
311	11/03	5:18PM	800 SERV		P		10.0	INCL	0.00	0.00
312	11/03	5:27PM	INCOMING		P	W	2.0	INCL	0.00	0.00
313	11/03	5:34PM	INCOMING		P		5.0	INCL	0.00	0.00
314	11/03	5:43PM	GREEN BAY, WI		P		3.0	INCL	0.00	0.00
315	11/03	5:46PM	GREEN BAY, WI		P		1.0	INCL	0.00	0.00
316	11/03	5:47PM	GREEN BAY, WI		P		1.0	INCL	0.00	0.00
317	11/03	5:50PM	HILBERT, WI		P		2.0	INCL	0.00	0.00
318	11/03	6:08PM	INCOMING		P		3.0	INCL	0.00	0.00
319	11/03	6:18PM	INCOMING		P		1.0	INCL	0.00	0.00
320	11/03	6:24PM	MILWAUKEE, WI		P		1.0	INCL	0.00	0.00
321	11/03	6:30PM	INCOMING		P	MM	4.0	INCL	0.00	0.00
322	11/03	6:38PM	SHERWOOD, WI		P		1.0	INCL	0.00	0.00
323	11/03	6:45PM	INCOMING		P		3.0	INCL	0.00	0.00
324	11/03	6:48PM	INCOMING		P		1.0	INCL	0.00	0.00
325	11/03	6:59PM	INCOMING		P	MM	1.0	INCL	0.00	0.00
326	11/03	7:00PM	INCOMING		P	W	3.0	INCL	0.00	0.00
327	11/03	7:18PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
328	11/03	7:26PM	HILBERT, WI		P		1.0	INCL	0.00	0.00
329	11/03	7:26PM	HILBERT, WI		P		1.0	INCL	0.00	0.00
330	11/03	7:31PM	INCOMING		P	MM	2.0	INCL	0.00	0.00
331	11/03	8:10PM	INCOMING		P		7.0	INCL	0.00	0.00
332	11/03	8:23PM	MINNEAPOLS, MN		P		7.0	INCL	0.00	0.00
333	11/03	8:32PM	INCOMING		P	MM	1.0	INCL	0.00	0.00
334	11/03	9:05PM	HILBERT, WI		OP		8.0	INCL	0.00	0.00
335	11/03	9:15PM	INCOMING		OP	MM	9.0	INCL	0.00	0.00
336	11/03	9:34PM	WAYSIDE, WI		OP		1.0	INCL	0.00	0.00
337	11/03	10:36PM	VOICERETVL		OP		1.0	INCL	0.00	0.00
338	11/03	10:37PM	NEENAH, WI		OP		7.0	INCL	0.00	0.00
339	11/03	10:44PM	NEENAH, WI		OP		9.0	INCL	0.00	0.00
340	11/04	7:52AM	INCOMING		P		4.0	INCL	0.00	0.00
341	11/04	7:55AM	INCOMING		P		10.0	INCL	0.00	0.00
342	11/04	8:44AM	OSHKOSH, WI		P		2.0	INCL	0.00	0.00
343	11/04	8:46AM	INCOMING		P	W	4.0	INCL	0.00	0.00
344	11/04	9:00AM	VOICERETVL		P		1.0	INCL	0.00	0.00
345	11/04	9:12AM	GREEN BAY, WI		P		4.0	INCL	0.00	0.00

Account: [redacted]

Billing Date: 11-4-2005

Line	Date	Time	City, St	Nbr Called	Per	Call Type	Minutes	Air	Toll	Total
346	11/04	9:22AM	APPLETON, WI	[redacted]	P		3.0	INCL	0.00	0.00
347	11/04	9:44AM	INCOMING		P		6.0	INCL	0.00	0.00
348	11/04	9:52AM	INCOMING		P	MM	9.0	INCL	0.00	0.00
349	11/04	10:01AM	INCOMING		P		3.0	INCL	0.00	0.00
350	11/04	10:21AM	INCOMING		P		7.0	INCL	0.00	0.00
351	11/04	11:28AM	INCOMING		P		3.0	INCL	0.00	0.00
352	11/04	11:33AM	APPLETON, WI		P		3.0	INCL	0.00	0.00
353	11/04	12:17PM	INCOMING		P		2.0	INCL	0.00	0.00
354	11/04	12:19PM	INCOMING		P	W	11.0	INCL	0.00	0.00
355	11/04	12:30PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
356	11/04	12:48PM	GREEN BAY, WI		P		2.0	INCL	0.00	0.00
357	11/04	12:55PM	APPLETON, WI		P		2.0	INCL	0.00	0.00
358	11/04	1:11PM	INCOMING		P		2.0	INCL	0.00	0.00
359	11/04	1:16PM	INCOMING		P		1.0	INCL	0.00	0.00
360	11/04	1:19PM	INCOMING		P		3.0	INCL	0.00	0.00
361	11/04	1:32PM	INCOMING		P		2.0	INCL	0.00	0.00
362	11/04	1:35PM	GREEN BAY, WI		P		5.0	INCL	0.00	0.00
363	11/04	1:44PM	INCOMING		P		1.0	INCL	0.00	0.00
364	11/04	1:45PM	INCOMING		P	W	1.0	INCL	0.00	0.00
365	11/04	1:47PM	INCOMING		P	MM	5.0	INCL	0.00	0.00
366	11/04	1:52PM	INCOMING		P		3.0	INCL	0.00	0.00
367	11/04	1:57PM	INCOMING		P		1.0	INCL	0.00	0.00
368	11/04	1:59PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
369	11/04	2:00PM	INCOMING		P		1.0	INCL	0.00	0.00
370	11/04	2:04PM	INCOMING		P		1.0	INCL	0.00	0.00
371	11/04	2:33PM	APPLETON, WI		P		1.0	INCL	0.00	0.00
372	11/04	2:34PM	INCOMING		P		2.0	INCL	0.00	0.00
373	11/04	2:51PM	INCOMING		P		2.0	INCL	0.00	0.00
374	11/04	3:11PM	INCOMING	NO CALL ID	P		4.0	INCL	0.00	0.00
375	11/04	3:18PM	INCOMING		P		5.0	INCL	0.00	0.00
376	11/04	3:24PM	INCOMING	[redacted]	P	MM	3.0	INCL	0.00	0.00
377	11/04	3:41PM	INCOMING		P		1.0	INCL	0.00	0.00
378	11/04	4:13PM	INCOMING		P	MM	1.0	INCL	0.00	0.00
379	11/04	4:15PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
380	11/04	4:45PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
381	11/04	4:54PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
382	11/04	4:59PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
383	11/04	5:03PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
384	11/04	5:14PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
385	11/04	5:17PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
386	11/04	5:24PM	INCOMING	NO CALL ID	P	D	1.0	0.00	0.00	0.00
387	11/04	5:29PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
388	11/04	5:33PM	INCOMING	NO CALL ID	P	D	4.0	0.00	0.00	0.00
389	11/04	5:39PM	INCOMING	NO CALL ID	P	D	4.0	0.00	0.00	0.00
390	11/04	5:46PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
391	11/04	5:51PM	INCOMING	NO CALL ID	P	D	2.0	0.00	0.00	0.00
392	11/04	6:01PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
393	11/04	6:07PM	INCOMING	NO CALL ID	P	D	4.0	0.00	0.00	0.00
394	11/04	6:11PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
395	11/04	6:34PM	INCOMING	NO CALL ID	P	D	7.0	0.00	0.00	0.00
396	11/04	6:41PM	INCOMING	NO CALL ID	P	D	5.0	0.00	0.00	0.00
397	11/04	7:01PM	INCOMING	NO CALL ID	P	D	4.0	0.00	0.00	0.00
398	11/04	7:11PM	INCOMING	NO CALL ID	P	D	3.0	0.00	0.00	0.00
399	11/04	7:25PM	INCOMING	NO CALL ID	P	D	5.0	0.00	0.00	0.00
400	11/04	7:50PM	INCOMING	[redacted]	P		2.0	INCL	0.00	0.00
401	11/04	7:51PM	ATLANTA, GA		P		1.0	INCL	0.00	0.00
402	11/04	7:56PM	APPLETON, WI		P		4.0	INCL	0.00	0.00
403	11/04	8:16PM	MOBILE		P	MM	1.0	INCL	0.00	0.00
404	11/04	8:21PM	INCOMING		P	MM	2.0	INCL	0.00	0.00
405	11/04	8:35PM	INCOMING		P		1.0	INCL	0.00	0.00
406	11/04	8:36PM	INCOMING		P		2.0	INCL	0.00	0.00
407	11/04	8:48PM	INCOMING		P		2.0	INCL	0.00	0.00
408	11/04	8:50PM	INCOMING		P	W	2.0	INCL	0.00	0.00
409	11/04	9:12PM	INCOMING		OP		3.0	INCL	0.00	0.00
410	11/04	9:25PM	INCOMING		OP		3.0	INCL	0.00	0.00
411	11/04	9:29PM	INCOMING		OP		7.0	INCL	0.00	0.00
412	11/04	9:54PM	INCOMING		OP		3.0	INCL	0.00	0.00
413	11/04	10:18PM	VOICEMAIL		OP		2.0	INCL	0.00	0.00

MANITOWOC CO SHERIFF DEPT
Summary

Print Date/Time: 12/13/2005 14:23
Login ID: S509
Case Number: 2005-00008844

MANITOWOC COUNTY SHERIFF
ORI Number: WI0360000

Case Details

Case Number: 2005-00008844
Location: 12930 AVERY RD
TWO RIVERS, WISCONSIN, 54241
Reporting Officer ID: S278 - REMIKER

Incident Type: HOMICIDE - NEGLIGENT
Occurred From: 10/31/2005 14:00
Occurred Thru: 10/31/2005 14:00
Disposition: CLEARED BY ARREST
Disposition Date: 11/15/2005

Offenses

No.	Group/ORI	Crime Code	Statute	Description	Counts
1	State	09A	940.01(1)(a)	1ST DEGREE INTENTIONAL HOMICIDE	1
2	State	90Z	940.11(1)	MUTILATING A CORPSE	1

Subjects

Type	No.	Name	Address	Phone	Race	Sex	DOB
OTHER	2	BARBARA ELLEN JANDA	[redacted]		WHITE	FEMALE	11/07/1964
OTHER	4	GREGORY A PHILLIPS			WHITE	MALE	08/01/1969
OTHER	5	LESLIE WALTER DUENING JR			WHITE	MALE	03/05/1966
OTHER	6	KENNETH DOUGLAS KNAPP			WHITE	MALE	04/01/1964
OTHER	7	GERALD J WENZEL			WHITE	MALE	12/24/1958
OTHER	8	BRETT A WENZEL			WHITE	MALE	06/19/1983
OTHER	9	KYLE G MAERTZ			WHITE	MALE	07/21/1985
OTHER	10	DARRYL E MAERTZ			WHITE	MALE	02/05/1945
OTHER	11	JESUS NMI SOTO			WHITE	MALE	05/24/1966
OTHER	12	LAMEC NMI CRUZ			WHITE	MALE	10/01/1967
OTHER	13	JESUS M PENA			WHITE	MALE	09/25/1962
OTHER	14	MICHAEL J KORTAS			WHITE	MALE	11/19/1954
OTHER	15	KEITH W PAPLHAM			WHITE	MALE	05/06/1975
OTHER	16	AVERY AUTO SALVAGE					
OTHER	18	MARIE L LITERSKY			WHITE	FEMALE	10/27/1986
OTHER	19	PAUL E RABAS			WHITE	MALE	02/05/1961
OTHER	20	PAUL L NOVAK			WHITE	MALE	06/29/1962
OTHER	21	ROLAND A JOHNSON			WHITE	MALE	05/11/1938
OTHER	22	CHARLES EARL AVERY			WHITE	MALE	07/13/1954
OTHER	23	ALLAN K AVERY			WHITE	MALE	05/03/1937
OTHER	24	KRISTY A HAZAERT			WHITE	FEMALE	02/12/1978
OTHER	25	JOLENE M BAIN			WHITE	FEMALE	11/17/1974
OTHER	26	SHERRY A LEMEROND			WHITE	FEMALE	01/04/1975
OTHER	27	AUBREY H WYGRALAK			WHITE	FEMALE	12/02/1982
OTHER	28	TRINITY L ROSENOW			WHITE	FEMALE	05/15/1981
OTHER	29	[redacted]			[redacted]		

MANITOWOC COUNTY SHERIFF'S DEPARTMENT REPORT

2005 - 8844

EXHIBIT
tabbies C

MANITOWOC CO SHERIFF DEPT

Summary

Print Date/Time: 12/13/2005 14:23
Login ID: S509
Case Number: 2005-00008844

MANITOWOC COUNTY SHERIFF
ORI Number: WI0360000

OTHER	30	EARL K AVERY	[redacted]	WHITE	MALE	06/10/1971
OTHER	31	JODI M STACHOWSKI		WHITE	FEMALE	09/11/1969
SUSPECT	1	STEVEN ALLAN AVERY SR		WHITE	MALE	07/09/1962
VICTIM	1	TERESA MARIE HALBACH		WHITE	FEMALE	03/22/1980
WITNESS	1	PAMELA A STURM		WHITE	FEMALE	01/05/1954
WITNESS	2	NIKOLE E STURM		WHITE	FEMALE	04/13/1977
WITNESS	3	GEORGE BERNARD ZIPPERER		WHITE	MALE	05/16/1940
WITNESS	4	JOSHUA R RADANDT		WHITE	MALE	11/10/1974

Arrests

Arrest No.	Name	Address	Date/Time	Type
516 A	STEVEN ALLAN AVERY SR	[redacted]	11/15/2005 13:00	S-SUMMONED/CITED
552 A	STEVEN ALLAN AVERY SR		11/15/2005 13:00	S-SUMMONED/CITED

Property

Date	Code	Type	Make	Model	Description	Tag No.	Item No.
11/3/2005	6 - EVIDENCE/SEIZED	03-AUTOMOBILES	TOYOTA	RAV4 (sport utility)	TOYOTA RAV4 DARK GREEN		

Suspect Vehicles

No.	Vehicle Type	Year	Make	Model	Color	License Plate	State

MISSING PERSON/TERESA HALBACH

11/03/05: I, Det. Remiker, was called in to assist with an investigation reference a missing adult. Lt. Lenk, Det. Jacobs, and I met with CASO Inv. John Dedering at the MTSO. Inv. Dedering stated they received a missing adult report reference TERESA HALBACH who has been missing since 10/31/05. Inv. Dedering stated they received the missing adult report from family members on 11/03/05. Inv. Dedering stated, during his follow-up, he found that TERESA made at least 2 stops in Manitowoc Co. reference her employment. TERESA is currently employed by a company called AUTO TRADER from the Fox Cities area. Inv. Dedering stated, based on his investigation, he has found that TERESA made stops at a residence on Avery Rd and on CORD B. These locations have been identified as the residences of GEORGE ZIPPERER (CORD B) and possibly STEVEN AVERY (Avery Rd). Information we received was that TERESA, during her employment, goes to various locations and takes photos of vehicles which are attempting to be sold. TERESA has not returned home, and there are indications that this is very unusual. There are concerns about TERESA'S well-being. Inv. Dedering requested our assistance in making contact at some residences in Manitowoc Co. in an attempt to obtain further information.

I, Det. Remiker, received information previously that Sgt. A. Colborn made contact at the AVERY property on Avery Rd. Sgt. Colborn made contact with STEVEN AVERY and obtained information about his observations involving TERESA HALBACH. Information we received was that TERESA was at the AVERY property to take a photo of a vehicle which was possibly owned by BARBARA JANDA. Sgt. Colborn indicated that he received information that TERESA was at the AVERY property on 10/31/05 during the afternoon hours.

CALUMET COUNTY SHERIFF'S DEPARTMENT

Complaint No.
05-0157-955

File Number

TYPE OF ACTIVITY: **Supplemental Report**

DATE OF ACTIVITY: **11/07/05**

REPORTING OFFICER: **Deputy Rick Riemer**

On Monday, 11/07/05, I (Deputy RICK RIEMER, Unit #832 of the CALUMET COUNTY SHERIFF'S DEPARTMENT) was requested to return back to the scene.

I assisted SARAH FAUSKE, a patrol officer from the KAUKAUNA POLICE DEPARTMENT and her bloodhound, LOOF, with tracking. FAUSKE and I walked the RADANDT QUARRY and field area on different tracks. We covered approximately five to ten miles of tracking. One of the more significant tracks that LOOF and FAUSKE tracked was from the south entry door of the red house trailer near the concrete stoop. This track did continue in a westerly direction toward a cul-de-sac at the end of Kuss Road. It was indicated by FAUSKE that LOOF was very intense on this track.

Deputy Rick Riemer
Calumet Co. Sheriff's Dept.
RR/jk

EXHIBIT
D

LOG STARTED ON 11-05-05 @ 2:25pm PER 412

11/05/05

2:25pm DCI AGENTS HUNSADER AND FASSBENDER — /N - KTH
2:32pm MTSO #209 / CASO 817 — /N — KTH
2:35pm CASO #236 / CASO #824 — /N — KTH
2:46pm MTSO #451 / MTSO #499 — /N — KTH
2:59pm MTSO #308 / MTSO #166 — /N — KTH
3:02pm MTSO #492 / /N - KTH
3:13p MTSO 443 out - TB
3:13p Eagle 3 arrived IN / TB 492
3:16p Haastreiter out / 492
3:17p " " IN / 492
3:18p Eagle 3 out / 492
3:19p Haastreiter out / 492
3:21p K. Sippel (calumet) IN / 492
3:22p 405 (MTSO) IN / 492
3:24p MTSO 443 IN / 492
3:26p Remiker / DA Kratz / Weigert (calumet) IN / 492
3:30p 496/499 (MTSO) out / 492
3:32p ADA Greisbach / DA Rohrer (on scene) IN / 492
3:36p EAGLE 3 / B+M arrived IN / 443
3:40pm EAGLE 3 Out / 443
3:43pm DEP OCONNER Out / 443
3:50p Bob Cramer / Julie Cramer Great Lakes Search/Rescue In / 492
3:50p Sgt. Jones (WSP) Dp T. Austin J. Schwartz 492
(going into scene)
3:51p Ba Waste leaving out / 492
4:03p 452 (orth) out / 492
4:03p Jeff Froehlich (calumet Co) IN / 492

EXHIBIT
E

STATE6102

CASO # 819

CASO # 823 / 839

CASO # 801 / 816

WSP SGT. JONES

MFD w/ PECK → COMMAND CENTER

4:06p	Jeff Rusboldt Mtwc Fire Dept	In / 492
4:07p	Lesboldt (WSP)	IN / 492
4:07p	Both District Attorneys out	out / 492
4:09p	John Ertl → Dept. of Justice	
	Guang Zhang → Wisconsin Crime Lab	IN / 492
4:16p	Dan Kucharski (Calumet sheriff)	IN / 492
4:17p	Both D.A's returned	IN / 492
4:19p	Les Boldt (WSP) leaving	out / 492
4:28p	Manitowoc Fire (Rusboldt, K. Pech) leaving	out / 492
4:33p	Lou Judge (WSP) on scene	IN / 492
	Steve Lavigne (WSP)	IN / 492
4:44p	C. Leduina (MTSO)	IN / 492
4:46p	Sarah Moe, Elaine McClaren (Great Lakes Search + Rescue) Lynn OLENIK, Leanne Scharnott Grace Salm	IN / 492
4:47p	Steve Lavigne (WSP) leaving	out / 492
4:50p	Lou Judge (WSP) Leaving	out / 492
4:59p	Sgt. Tim McGrath (WSP) on scene	IN / 492
5:00p	T. Cummings	out / 492
5:00p	Calumet 816 / B Nack	out / 492
5:11p	Lt. Seim (MTSO) on scene	IN / 492
5:12p	Sgt. Colborn (MTSO) " "	IN / 492
5:25	816 CASO/412/455/GRE	In / KTH
5:25pm	[redacted] / TRAVIS GROELLE	IN / KTH

5:35 p	[redacted] / T. Goodle Leaving	out / 492
5:50 p	D. Jacobs leaving	out / 492
5:53 p	Lt Seim leaving	out / 492
5:56 p	B. Nack, Cummings, Calumet 816	out / 492
6:01 p	Nick Mirsberger (Pethan Auto) (For towing of	IN / 492
6:03 p	Dan Novak (Norbs Auto) (to open Crusher)	IN / 492
6:05 p	Lt. Seim (MTSO) on scene	IN / 492
6:17 p	" " Leaving	out / 492
6:18 p	D. Jacobs (MTSO)	IN / 492
6:24 p	B Nack (MTSO) on scene	IN / 492
6:28 p	Colborn, Garceau (MTSO) on scene	IN / 492
6:30 p	Maribel Fire (Paul Rabas)	IN / 492
6:31 p	T. Cummings (MTSO)	IN / 492
6:36 p	Maribel Fire leaving	out / 492
6:37 p	T Cummings (MTSO) leaving	out / 492
6:49 p	Great Lakes Search Rescue	out / 492
6:56 p	Dan Novak	out / 492
7:03 p	D. Jacobs	IN / 492
7:08 p	Rabas Wrecker Service on Scene	IN / 492
7:15 p	Calumet 817, 209 (Jacobs) Hunsader	out / 492
7:16 p	Kratz	IN / 492
7:30 p	Fatzo's Sub shop	IN / 492
7:32 p	"	out / 492
7:47 p	184 MTSO	IN / 744
7:58 p	443 MTSO	OUT / 744
8:04 p	SIPPEL & NACK	OUT / 744
8:08 p	375 STATE PATROL	IN / 744

11-08-05

1708	[redacted]	11-16-74 [redacted]	IN	453
1726	GARY STIRE 816	CAL. CO. SHERIFF	OUT	453
1728	[redacted]		OUT	453
1730	RIEMER 832	CAL CO SHERICK	OUT	453
1737	BALDWIN	CAL CO	IN	453
	SCHULTZ	CAL CO.	IN	453
	WENDLING	CAL CO.	IN	453
1737	METZNER	K-9 RESPONSE TEAMS	IN	453
	HARRINGTON		IN	
	SCHULTZ		IN	
1739	STIRE 816	CAL CO. SHERIFF	IN	453
1742	SENGLAUB 403	MTSO	IN	453
1751	HAESE 443	MTSO	IN	453
1752	SCHULT	K-9 RESPONSE	OUT	453
	HARRINGTON	" "	OUT	453
1800	SENGLAUB 403	MTSO	OUT	453
1801	SIPLE 829	CAL CO.	OUT	453
1801	STIRE 816	CAL CO.	OUT	453
1803	BRUNS	K-9 RESPONSE TEAMS	OUT	453
	METZNER			
	ZAHNG			
1804	POPKE	K-9 RESPONSE TEAMS	OUT	453
1804	LEDER	"		
1804	KISLEWSKI	K-9 RESPONSE TEAMS	OUT	453
1805	SIPLE 829 + STIRE 816	CAL. CO. SHERIFF	IN	453

STATE6119

2335	577	887	MPD	OUT	453
2341	707	720	CAL. CO.	IN	453

11-07-2005

0024	492	MTSO	IN	453
0037	453 (MTSO)		out / 492	
0054	Wendorf / Lemieux (Calumet)		out / 492	
0119	Sgt. McGrath (WSP) 304		IN / 492	
0308	Ron shimek (MTSO)		IN / 492	
0318	Rick Riemer (calumet Co)		IN / 492	
0343	Ron Shimek (MTSO)		out / 492	
0353	Rick Riemer (calumet Co.)		out / 492	
0354	Sgt. McGrath (WSP-304)		out / 492	
0507	Sgt Seymour (WSP)		IN / 492	
0630	WSP (350)		IN / 492	
0632	Wiegert (Calumet Co.)		IN / 492	
0645	Calumet Co. 720		IN / 492	
0650	Tim Austin (WSP)		IN / 492	
0653	D.I. Gregg Schetter		IN / 492	
0654	Calumet Co. 220		out / 492	
0659	[redacted]		IN / 492	
0701	John Deedering CASO 887		IN / 193	
0709	Tom Fassbender		IN / 492	
0710	Josh Radandt		out / 492	
0715	Jim Lenk (MTSO)		IN / 492	
0716	Sgt. Colborn (MTSO)		IN / 492	
0716	Detective Jacobs (MTSO)		IN / 492	
0717	sheriff Page			
	Wendy Baldwin			

TIME	NAME	CITY	BY
1018	KRITY + TERRY KONEN	HILBERT	417 / IN
↓	ABBY HUIZENGA	WAUPAN	"
	MIKE PETERG	SHERWOOD	"
	TIM DE GROOT	SHERWOOD	"
	CHARLIE DE GROOT	SHERWOOD	"
	CHAR BARRIBEAU	SHERWOOD	"
	BILL BARRIBEAU	SHERWOOD	"
	CARL THOMSON	SHERWOOD	"
↓	KAREN FRIES	SHERWOOD	"
1025	TOM + SHELLY JOST	HILLBERT	↓ "
1150	JOSH WYGRALAK	GREEN BAY	" "
	AUBREY WYGRALAK	GREEN BAY	" "
1151	[redacted] PER 193	TWO RIVERS	" "
1220	MISHICOT RESCUE - MIKE KOEPPEL, BOB FERRY TONY HEYROTH		OUT / 417
1222	DAN NEUSER MANTY CO HIWAY		OUT / 417
1229	[redacted]		OUT / 417
1300	Tony Heyroth	Mishicot FD	out 402
1302	Shane Kurk Mike Koeppel	Mishicot FD	In 402
1322	Mike Koeppel	"	out 402
1337	Riemer & Fauske	Kauk / Cal Co	out 402
1347	Tenor	Cal Co	out 402
1349	Yanda	Mtwc Co Highway	IN 402
1359	"	"	out 402
1448	Jeff Benzow	K-9 Emerg	Out 402
1449	James L. Guex	Tresassing	out 402
1449	John T. Finnel	Trespassing	out 402

15.

STATE6093

EXHIBIT
tabbies
F

STATEMENT

STATEMENT OF:

INCIDENT#

NAME: [redacted]

PAGE OF

BIRTH DATE: [redacted] AGE: [redacted]

DATE:

ADDRESS: [redacted]

TIME:

CITY: [redacted] STATE: [redacted] ZIP: [redacted]

PHONE: [redacted]

IF JUVENILE:

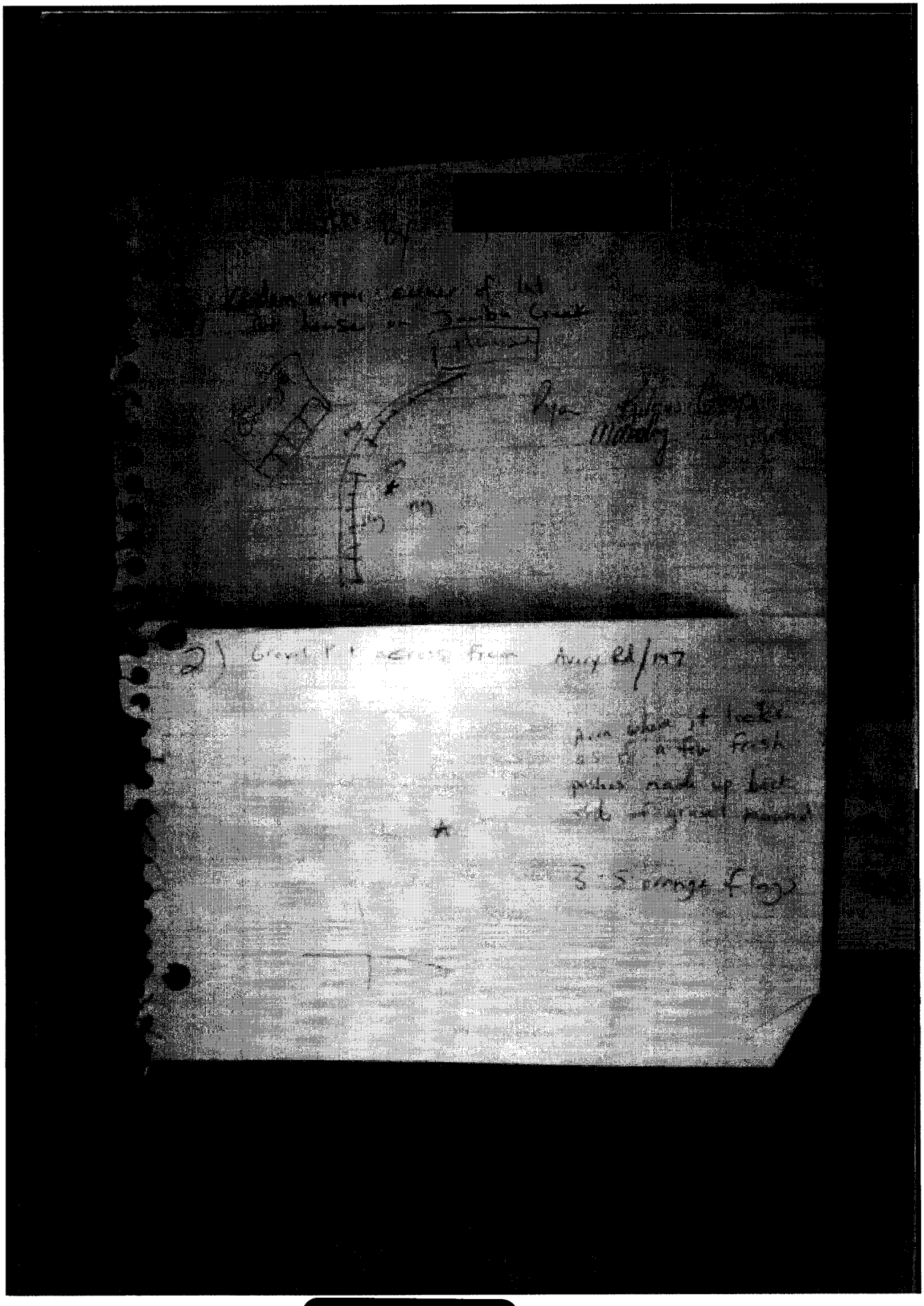
FATHER: MOTHER:

On Oct. 31st at approximately 4:30 PM I drove up to my "Deer Camp" off of Huss road trough my gravel pit and observed a fire going in the proximity of Steve Avery's home or on Avery property. The fire appeared to be contained to a 55 gal. drum.

WITNESS: SIGNATURE: [redacted]

WITNESS: TIME: 11-5-05 5:30 PM

Revised 03/01/00



EXHIBIT
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STATE_1_3783

Wisconsin DOJ Division of Criminal Investigation

ACISS Investigative Report

Report Number: 05-1776/170 Report Date: 12/14/2005

Primary Information	
Report Number:	05-1776/170
Report Date:	12/14/2005
Type Of Report:	Investigative
Description:	TERESA MARIE HALBACH: Contact with WI State Crime Lab re: Halbach Vehicle
Occurence From:	11/07/2005 00:00
Occurence To:	11/07/2005 00:00
Dissemination Code:	Agency
Reporting LEO:	Fassbender, Thomas J (Appleton Special Assignments / Wisconsin DOJ Division of Criminal Investigation)
Approval Status:	Approved
Approved Date:	12/22/2005
Approved By:	Kelly, Carolyn S (Madison Arson / Wisconsin DOJ Division of Criminal Investigation)

Related Subjects

Name	Type	Sex	Race	DOB	Relationship
Avery's Auto Salvage	Business	—	—	—	Subject of Interest
Hillegas, Ryan J	Person	Male	White	3/18/1980	Mentioned
Halbach, Teresa Marie	Person	Female	White	3/22/1980	Victim

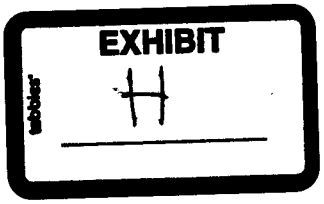
Related Vehicles

Make	Model	Color	Tag #	Tag Year	Relationship
Toyota	Rav 4 truck	Dark Green	SWH582	1999	Victim's Vehicle

Record Status Information	
Record Origination Operator:	Knutson, Andrea L (Criminal Investigation / Wisconsin DOJ Division of Criminal Investigation)
Record Origination Date:	12/15/2005 10:38
Last Update Operator:	Kelly, Carolyn S (Madison Arson / Wisconsin DOJ Division of Criminal Investigation)
Last Update Date:	12/22/2005 15:49

Reporting LEO	Date	Supervisor	Date
Fassbender, Thomas J (Appleton Special Assignments / Wisconsin DOJ Division of Criminal Investigation)		Kelly, Carolyn S (Madison Arson / Wisconsin DOJ Division of Criminal Investigation)	1/6/2006

Narrative begins on the following page.



On Monday, November 7, 2005, S/A Thomas J. Fassbender, while at the Avery salvage yard, had telephone contact with personnel from the Wisconsin State Crime Laboratory. S/A Fassbender was informed that the following individuals were processing Teresa Halbach's Toyota Rav4 vehicle:

Mike Riddle: prints and latent identification
Sherry Culhane: DNA
Ron Groffy: photographs
Nick Stahlke: patterns

S/A Fassbender was informed that, as a result of a search of the vehicle, they had not located any receipt books, telephone, camera, nor any keys. They did, however, locate a blue athletic type bag at which time the contents were unknown, and a broken light. S/A Fassbender was advised that the light was apparently from Halbach's vehicle and was from the parking lamp area at the front of the vehicle.

S/A Fassbender also spoke with Analyst Ron Groffy, who advised that the odometer reading on the Rav4 was 95,753. He also advised that it was learned that the battery in the Rav4 was disconnected.

Responding to a previous request from S/A Fassbender, Analyst Groffy also provided information about the condition of the front driver's seat. Analyst Groffy advised that there was some forward movement and quite a bit of backward movement to the seat. Analyst Groffy provided the following measurements:

Center of the brake pedal to the front curvature apex on the seat: 18"
Seat height from the floor to the same point on the seat: 12½"
Center of the steering wheel to front surface of upright seat back at 90° angle: 23¼ "

Analyst Groffy also advised that Analyst Nick Stahlke, who is 5'7" tall, sat in the seat and advised it was a bit too close for him in that his knee hit the console when he tried to brake. Analyst Groffy advised that he is 5'11" tall and when he sat in the seat it was way too tight.

S/A Fassbender ultimately spoke with Ryan Hillegas, a friend of Teresa Halbach's. Hillegas did some checking with family and friends and reported back to S/A Fassbender that Halbach had, in fact, damaged the parking light area of her car and actually made an insurance claim. Hillegas advised that Halbach took a cash payout for the damage and had not repaired it.

S/A Fassbender was also advised by the Wisconsin State Crime Laboratory that a compact flash memory card had also been found in the cargo area of the Rav4. That item was ultimately turned over to S/A Brad Montgomery for analysis. S/A Montgomery ultimately analyzed that item and prepared reports under case 05-1785 detailing the results of his analysis. Of interest is that S/A

Montgomery was able to locate photographs of vehicles on the memory card, one of which was a photograph of a boat trailer which had been taken at the Avery property.

2335	577	887	MPD	OUT	453
2341	707	720	CAL. CO.	IN	453

11-07-2005

0024	492		MTSO	IN 453

0037	453 (MTSO)	out / 492
0054	Wendorf / Lemieux (Calumet)	out / 492
0119	Sgt. McGrath (WSP) 304	IN / 492
0308	Ron Shimek (MTSO)	IN / 492
0318	Rick Riemer (calumet Co)	IN / 492
0343	Ron Shimek (MTSO)	out / 492
0353	Rick Riemer (calumet Co.)	out / 492
0354	Sgt. McGrath (WSP 304)	out / 492
0507	Sgt Seymour (WSP)	IN / 492
0630	WSP (350)	IN / 492
0632	Wiegert (Calumet Co.)	IN / 492
0645	Calumet Co. 720	IN / 492
0650	Tim Austin (WSP)	IN / 492
0653	D.I. Gregg Schetter	IN / 492
0654	Calumet Co. 220	out / 492
0659	Josh Radandt	IN / 492
0701	John Deedering CASO 897	IN / 193
0709	Tom Fasshender	IN / 492
0710	Josh Radandt	out / 492
0715	Jim Lenk (MTSO)	IN / 492
0716	Sgt. Colborn (MTSO)	IN / 492
0716	Detective Jacobs (MTSO)	IN / 492
0717	sheriff Pagel	
	Wendy Baldwin	

EXHIBIT
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0717	Gary Steier, Kelly Sippel, Bill Tyson Calumet County	IN / 492
0730	Vogel (674, Trainor 895) MTPD	IN / 496
0738	Todd Hermann, Mike Bushman (MTSO)	IN / 492
0743	Lisa Wilson (DCI)	IN / 492
0745	Jason Jost, Dave Siders	IN / 490
0746	Nick Sablich (Calumet Co)	IN / 492
0746	Schultz (823) (Calumet Co)	IN / 492
0749	Jeff Benzow (K-9 emerg. Response)	IN / 492
0750	Mixa, Lauren, Engleman (TRPD)	IN / 490
0751	R. Barbier (MTPD)	IN /
0752	Garber, James (MTPD)	IN /
0754	Howard Kislewski (K-9 search dogs)	IN
0754	Scott Senglaub (MTSO)	IN
0757	Koenig, Willterdink (MTPD)	IN
0800	Kevin Heimerl (DCI)	IN
0801	Tech, Dick (MTPD)	|
0802	James Sielehr (DCI)	|
0802	Seidl (577) Golden 363 (MTPD)	|
0810	Hiosky 607, Matuszak 539, Schneider 712 → Calumet Co Meyers 713, Mason 76	IN
	Swetlik (MTPD)	IN
0812	Retlich 608, Osterhouse, Stephany (Calumet Co) Krupp	IN
0813	Ladwig, Pusel (MTPD)	out / 492
	Deb Strauss (DCI)	IN

0819	Kislewski, Jost (MTSO)	out / [redacted]
0820	Nguyen, Catherina	IN / [redacted]
0820	Fernandez, Lourdes	IN / [redacted]
0822	J. Reese (WSP)	IN
0824	Dan Van Oss Scott Schwarz Damian Hoerth	IN
0824	Kurt Kohler (Calumet)	IN
0824	Moore (703) Lisowe (715) (Calumet)	IN
0825	Winnebago County Dive	IN / [redacted]
0826	Sielehr, Heimerl (DCI)	out / [redacted]
0827	Ron Shimek (160)	IN
0830	Stone (MTPD)	IN
0832	P. Thielen (DCI)	IN
0834	Luis Ojeda (DCI)	IN
0840	Dickering, Sablich (Calumet Co)	out
0841	[redacted] Winnebago Dive Team	out
0841	G. Steier (Calumet)	out
0845	Dickering Sablich (Calumet Co)	IN
0903	[redacted], Scott Bloedorn	IN
0906	Ron Shimek (MTSO)	out
0909	Mishicot Ambulance (Wilsmann, Funk)	IN
0922	Sgt. Seymour (WSP)	out
0934	Lt. Hermann (MTSO)	out
0937	Shawn & Michelle Metzner (K-9 Response)	IN
0940	Mike Sasse (DCI)	IN
0944	Sielehr, Heimerl (DCI)	IN
0945	Sgt. Seymour (WSP)	IN
0950	Mike Carcean (MTSO)	IN

0951	Al Hunsader (DCI)	IN / out
0953	[redacted], Scott Bloedorn (civilian)	out / [illegible]
0955	Sgt. Seymour (WSP)	out / [illegible]
0956	Deb Strauss Lisa Wilson (D.C.I.)	out / [illegible]
0957	Mike Garceau (MTSO)	out / [illegible]
1001	Sgt. Seymour (WSP)	IN / [illegible]
1003	Lt. Hermann (MTSO)	IN / [illegible]
1007	Kapitany, Joe (DCI)	IN / [illegible]
1007	Ron Shimek (MTSO)	IN / [illegible]
1008	Heimerl, Sielehr (DCI)	out / [illegible]
1015	JULIE KRAMER GREAT LAKES	IN - 417
1015	ROBERT CRAMER CANINE	" "
1019	RYAN GILBERT, MISHICOT PD	IN - 417
1023	Joe Hintsman / Jenny Wilcox (Salvation Army)	IN / [illegible]
1025	Howard Kislewski (K-9 Search) / Jost (MTSO)	IN / [illegible]
1025	Jeff Benzow (K-9 Search)	IN / [illegible]
1026	Calumet 707	IN / [illegible]
1027	Sheriff Pagel	out / [illegible]
1040	Dedering, Jacobs (MTSO)	out / [illegible]
1046	Calumet 707	out / [illegible]
1048	Fauske (Calumet Co)	IN / [illegible]
1052	Trevor McClintock, Rochelle (Salvation Army)	IN / [illegible]
1052	Riemer (Calumet Co)	IN
1053	Lt. Hermann (MTSO)	out
1101	Lt. Hermann	IN
1102	Noel Hansel (Calumet Co. Corrections)	IN
1103	Sheriff Pagels	

1106	Colborn, Lenk Bill Tyson #836	out/49
1111	Tammy Behnke Charles Reinke SAW Army	IN/49
1115	M. Garceau (MTSO)	IN/49
1120	Al Hunsader (DCI) K-9 Team	out/492
1122	Mike Garceau (MTSO)	out/492
1123	Riemer/Fauske (Calumet)	out/492
1128	GILBERT (MISHICOT PD)	OUT/417
1132	HOWARD KISLENSKI (K9) & JOST (MTSO)	OUT/417
1133	SHAWN & MICHELLE METZNER (K9)	OUT/417
1134	JEFF BENZOW (K9 SEARCH)	OUT/417
1147	FOSBENDER & CAL SHERIFF	OUT/417
1148	496 -	OUT/417
1151	RIEMER/FAUSKE (CALUMET)	IN/417
1156	HUNSADER, AL (DCI) & K9 TEAM	IN/417
1159	LISA BUTHNER FOR (DCI)	IN/417
1202	HEIMERL & SIEGER (DCI)	IN/417
1205	SCHMITZ (CALUMET COSO	IN/417
1208	MIKE FLENTJE MATT PAYETTE MTCO-	IN/417
1210	SCHMITZ (CAL CO SHER)	OUT/417
1214	HUNSADER, AL & K9 (DCI)	OUT/417
1216	LEMEIXH (CAL CO.) #830	IN/417
1219	SCHULTZ (#823 CAL CO.)	OUT/417
1220	MISHICOT RESCUE - CIN LOG	
1221	SCHULTZ (#823 CAL)	IN/417
1223	LISA BUTHNER FOR (DCI)	OUT/417
1224	#402 MTSO	IN/417
1225	FLENTJE & PAYETTE	OUT/417

1230	LAURIN ENGLEMAN (TRPD)	OUT/417
1231	SENGLAB MTSO (BOO-BOO)	OUT/417
1231	SIDERS MTSO	OUT/417
1245	T. MCLINTOCK (SALV ARMY)	OUT/417
1246	432, 204, 836 CAL CO	IN/417
1250	SIDERS/BUSHMAN	IN/417
1255	JACOBO/DETERING MTSO/CAL	IN/417
1255	PAGEL SHERIFF (CALCO), FOSBENDER (DCI)	IN/417
1300	ROB HERMAN (MTSO)	IN/417
1305	HUNSATER + K9 (DCI)	IN/417
1310	#839 CAL COUNTY	OUT/417
1320	496	IN/417
1321	SCHULTZ (CAL CO)	IN/417
1323	#336 (STATE)	IN/417
1324	NOOYEN C. (DCI)	OUT/417
1326	PAGEL (CAL CO)	OUT/417
1329	#336 (STATE)	OUT/417
1335	MCLINTOCK, T. (SALVATION ARMY)	OUT/417
1342	HEIMARL + SIEGEHR (DCI)	OUT/417
1344	REESE J. #327 (STATE)	IN/417
1350	PAGELS (CAL CO)	IN/417
1351	[redacted] + REIMER (CAC COD KAUK.)	IN/417
1357	HASLER (CAL CO)	OUT/417
1358	MEYERS (CAL CO)	OUT/417
1400	HITSMAN, MCLINTOCK SALV ARMY	OUT/417
1402	HERMANN MTSO (186)	OUT/417
1414	JOST - HOWARD KISLENSKI	IN/417
1415	BENZO W/ KORT K9 ERT	IN/417

1419	WIEGERT + PAGELS (CAL CO) SHERIFF	OUT/417
1423	JACOBS (MTSO) DETERING (CAL CO)	OUT/417
1428	GREAT LAKES SEARCH & RES BOB + JULIE KRAMER	OUT/41
1435	HUNSATER, OJEDA (DCI)	OUT/417
1436	ROHR - MTSO DA	IN/417
1440 ~~1444~~	(W DOJ · CRIMELAB ERTL + CATES GUANGZHANG)	IN/417
1444	ROHR - DA. MANTY	OUT/417
1445	KISLEWSKI, H. K9 RESPONSE TEAM	OUT/417
1446	HERMANN 186 (MTSO)	IN/417
1447	SCHULTZ (CAL CO)	OUT/417
1450	HERMANN 186 (MTSO)	OUT/417
1451	CRIMELAB ERTL, CATES GUANGZHANG (FASSBENDER DCI) CRIMELAB	OUT/417
1454	STATE 350 WSP	OUT/417
1455	LISA WILSON D. STRAUSS (DCI)	IN/417
1501	JOST MTSO	OUT/417
1517	496 MTSO	OUT/417
1525	839 (CALCO) MATUSZAK	IN/417
1527	COLBURN LENK (MTSO)	OUT/417
1531	SCHWARZ CAL COUNTY VANOS, FOSBENDER DCI	IN/417
1537	KRATZ CAL CO. DA	IN/417
1538	TECH + DICK MTPD	OUT/417
1539	JOST MTSO	IN/417
1539	SCHULTZ (CAL CO)	IN/417
1540	VANOS (CAL CO)	OUT/417
1541	SCHWARTZ (CAL CO) KRATZ CAL DA	OUT/417
1545	SGT SEYMOUR (CAL CO)	OUT/417

3:55pm	Jason Jost	(MTSO)	Out / 422
3:56pm	Sgt Steymour	State Patrol	/ 422
3:56pm	Pete Thelen	DCI	Out / 422
3:56 pm	Tom Fassbender		Out / 422
3:56pm	Wendy Baldwin	Calumet Co	Out / 422
3:56pm	Rob Hermann	MTSO	In / 422
3:58pm	Eugene Rabas	Rabas Towing	Out / 422
4:00pm	Dan Mengas	B+M	In / 422
4:00pm	Bob Ferry	Mishicot Fire	Out / 422
4:00pm	Charlie Wilsmann	Mishicot Fire	Out / 422
4:02pm	Paul Huizenga	Alto	In / 422
4:02pm	Ross Shaver	Alto	In / 422
4:02pm	Lourdes Fernandez	DCI	In / 422
4:02pm	Steven Burk	TCFD	In / 422
4:02pm	Shawn Englemann	TRPD	In / 422
4:02pm	Jeffrey Burk	TCFD	In / 422
4:09pm	Shawn Englemann	TRPD	Out / 422
4:10pm	Rick Steffel	Alto	In / 422
4:10pm	Marty Huizenga	Alto	In / 422
4:14pm	Jacobs / Hermann	MTSO	In /
4:14pm	[signature]	MTSO	In /
4:15pm	Jason Jost	MTSO	In /
4:15pm	Jim Broeren	Harrison 1	Out /
4:15pm	Jon Ovaska [signature]	Harrison 1	/
4:15pm	D. Jacobs	MTSO	/
4:15pm	L. Grassl [signature]	Harrison 1	/
4:15pm	Leon Probst	Harrison #1	/
4:15pm	Paul Dedering	Harrison #1	/ 422

STATE6129

4:20p	Eugene Rabda	M.F.D.	OUT 422
	Marie Hackmann	M.F.D.	
	Nathan Wegner	Marild Fire	
	Allen Johnson	TCFD	
	Mark Johnck	TCFD	
	MATUSZAK 839	CASO	
	Blair Kress	HARRISON	
	Mark VanDyken	Harrison 1	
	Bill Perplot	Harrison #1	
	Dale Mars	" "	
	Tim Mader	"	
4:22	Martin Huizenga	Alto Fire	OUT
	Rick Stelsel	"	OUT
	Ross Shaver	"	OUT
	Paul Huizenga	"	OUT
4:23p	SHAWN ENGLEMAN	TRPD	IN 42
4:23pm	Shane Tuck	Mishicot Fire	IN 42.
424pm	Lourdo Fernung	DCI	out /422
4:24p	DON MANGES	B+M	OUT out/422
4:28	[redacted]	Hilbert - civilian volunteers	out/42.
4:28	Scott Blodorn	" "	out/42.
4:28p	MIKE BRANTMEIER	HARRISON #1	OUT 422
4:28p	Don Depretz	Harrison #1	OUT
4:30pm	Dennis Remiker	Mish FD	
4:30p	Bob Ferry	Mish FD	
4:30p	Pat Brownhart	Mish FD	
4:30p	[illegible]	Mish FD	
4:30p	Ryan Wiegert	MISH FD	
4:30p	Charlie Wilson	Mish FD	OUT

[redacted] FIRE

402

1430	Steven Reuter	Menasha	out	
1400	Steve Mathes	Hilbert	out	
1336	Theresa Reuter	"	out	
1400	Colenn Cummings	"	out	402
1415	Tim DeGroot	Sherwood	out	
1415	Charlie DeGroot	"	out	
1415	Char Barribeau	"	out	
1415	Bill Barribeau	"	out	
1415	Carl Thomson	"	out	
1415	Karen Fries	"	out	402

11-08-05

[redacted]

0735	KEN FROELICH	Kaukauna	IN 423
0750	Mike Nett	Harrison	IN 452
0750	Mark Forbes	Hilbert	IN 452
7:50	Phillip Nett	Hilbert	IN 452
750	Mike Bolwerk	"	IN 452
750	Jeremy Heyerdahl	"	IN 452
7:50	Hector Garcia	"	IN 452
750	HMyLynn Daniels Jenka	Hilbert	IN 452
750	Jason Pagsen	Hilbert	IN 452
7:50	Tim Cummings	Hilbert	IN 452
7:50	Chris Zigmund	Francis Creek	IN 452
7.50	Wayne Schreis	Francis Creek	IN 452
750	John Bielby	Francis Creek	IN 452
7.50	AARON KATZKA	FRANCIS CREEK	IN 452
7.50	Matt Cracraft	Francis Creek	IN 452
7.50	Mike Garceau	Francis Creek	IN 452

STATE6096

0750	Kevin Hassemer	Francis Creek	IN 452
7:50	DOUG BIECK	FRANCIS CREEK F.D.	IN 452
8:00	Dave Frohlich	Rockwood Fire Dept	IN 452
8:00	TODD WELLMEN	ROCKWOOD F.D.	IN 452
8:00	BRUCE REECKBUSCH	TOWN OF TWO RIVERS F.D	IN 452
8:00	BRUCE STEINHAUER	TOWN OF TWO RIVERS FD	IN 452
8:00	Scott Sieck	Town of Two Rivers FD	IN 452
8:00	Bill Brandes Jr	City of Brillion Fire Dept.	IN 452
8:00	Todd Kockenbocker	Brillion Fire Dept	IN 452
8:00	WESLEY KEMPFER	BRILLION FIRE DEPT	IN 452
8:00	Shawn Kelhesch	Brillion Fire Dept	IN 452
8:00	Dan Solberg	Brillion Fire Dept	IN 452
8:00	Eric Burich	Brillion Fire Dept	IN 452
8:05	Doug Schoen	Potter Fire Dept	IN 452
8:05	Jay Schoen	Potter Fire Dept	IN 452
8:05	Joe Halbach	Potter Fire Dept	IN 452
8:15	Kenneth J. Reedy	Rockwood	IN 452
9:41	PAUL DELLEMANN	CITY HIGHWAY DEPARTMENT	IN 423
941	Dale Schroeder	City Highway Dept	IN 423
10:00	David Sturm	Rockwood Fire Dept.	IN 452
10:18	Jeff Menges	B+M Water Service Co.	IN 423
10:32	Doug Schoen	Potter Fire Dept	OUT
10:32	Joe Halbach	Potter Fire Dept	OUT
10:32	Jay Schoen	Potter Fire Dept	OUT
11:00	Dave Schroeder	Hwy Shop	OUT
11:30	Mike Garceau	FRANCK CREEK	OUT
11:32	Dale Schroeder	Hwy Shop	IN 423

12:14	TODD WELLNER	ROCKWOOD F.D.	OUT	4/23
12:25	Bill Brandes	Brillion FD	OUT	4/23
12:25	Todd Kuchenbecker	Brillion FD	OUT	4/23
12:39	Aaron Katzke	Francis Creek FD	OUT	4/23
12:46	B&M Waste Service Inc	Jeff Menges	OUT	4/23
1:04 pm	Jeremy Hegewald	Hilbert FD	OUT	4/23
1:59 pm	Jeff Menges	B&M Waste Service Inc	IN	4/23
2:02 Pm	Paul Rabas	Rabas Garage	In	4/23
2:05 PM	Lisa Olson	Sherwood - SJSH School	[illegible]	4/23
207 Pm	BOB Sitman	Whitelaw - Fire Dept	IN	4/23
207 Pm	Dale Schroeder	Hwy	out	4/23
208 Pm	PAUL Delleman	CTY HIGHWAY DEPT.	OUT	4/23
1412	Lisa Olson	Sherwood SJSH School	OUT	4/23
1412	BOB Sitman	Whitelaw Fire Dept	OUT	4/23
2:55	Shawn Kellesch	Brillion Fire Dept		
2:56 out	Eric Burch	Brillion Fire		
2:56 out	[illegible]	BRILLION FIRE		
2:56 out	Dan Solberg	Brillion Fire		
2:56 out	Phil Nett	Hilbert Fire		
256 OUT	BRUCE STEINHAUER	TOWN OF TR FIRE		
1500	Kevin Hassemer	Francis Creek		
1500	Amy Lynn Samuels Saha	Hilbert Fire		
15:00	BRUCE KIECKBUSCH	TOWN OF TWO RIVERS		
15:00	Scott Steel	Town of Two Rivers		
1500	Hector Garcia	Hilbert Fire Dept.		
15	Mike Bolwerk	"		
15:01	Mark Fochs	Hilbert Fire		
15:01	Jason Propson	Hilbert Fire		
15:02	Mike Nett	Harrison out	OUT	4/23

STATE6098

15:12	TIM CUMMINGS	Hilbert FD	OUT		423
3:17	Pete Menges	B & M Wash Service Store	OUT		423
3:27	Jim Frolich	Rockwood Fire Dept.	OUT		423
3:27	David [redacted]	Rockwood fire Dept.	OUT		423
3:27	Dave Sturm	Rockwood Fire Dept.	OUT		423
15:36	Kenneth J. Ready	Rockwood Fire Dept	OUT		423
1546	Chris Zigmunt	Francis Creek	out	3:46	423
1546	Doug Bell	Frances Creek F.D.	OUT	3:46	423
1559 (IN)	Jay Schram	Potter Fire Dept	out	440	423
1840	Paul Rabas	Rabas Dairy	out		423
1821	BRIAN TURKIEWICZ	SURVATION	IN		622
1824	"	"	"	out	622
1840	[redacted]	Scratch Team	IN		
1840	Rick Doerfler	"	IN		
1841	[redacted]		IN		
18:41	Wanda Schroeder	"	IN		
1841	[redacted]	"	IN		
18:41	Scott Bordwin	W3637 Hilbert	IN		
18:41	[redacted]	Hilbert	IN		622
1806	Rick Doerfler	HILBERT	OUT		
19:04	Wanda Schroeder	Hilbert	"		
19:06	[redacted]	Hilbert	out		
19:07	[redacted]	Hilbert	out		
19:07	[redacted]	Hilbert	out		
1901	[redacted]		out		
19[illegible]	[redacted]	"	Out		622
11/09/05	Gary J. Yanda	HWY Dept.	IN		7:42 423
11/9-05	Steve Kleckner	TOWN OF TWO RIVERS	IN/OUT		7:41 423
11/9/05	Ray A Chase	" " "	IN/OUT		1 423
11/9/05	KLEIN KLEIN	TOWN of TWO RIVERS	IN/OUT		7:42 423
11-9-05	RV with III Travis	Town of Two Rivers	IN/OUT		7:42 423

CONFIDENTIAL REPORT OF LABORATORY FINDINGS
DJ-LE-103 (4/92)

COPY

Wisconsin Department of Justice
Division of Law Enforcement Services
State Crime Laboratory - Madison
4626 University Avenue
Madison, Wisconsin 53705-2156
608/266-2031
FAX 608/267-1303

Submitting Agency:

Sheriff Jerry A. Pagel
Attn: Mark Weigert
Calumet County Sheriff's Office
206 Court St.
Chilton, WI 53014

Date: May 8, 2006

Case No: M05-2467

Agency No.: 05-0157-955

Laboratory Analyst:

Sherry L. Culhane
(DNA Analysis)

Case Name: Halbach, Teresa M. (V) -
Town of Gibson, Manitowoc
County, Wisconsin

I do hereby certify this document, consisting of 5 page(s), to be a true and correct report of the findings of the State Crime Laboratory on the items examined as shown by this report.

Peggy A. Lautenschlager
ATTORNEY GENERAL

Designee:
SIGNATURE

The following items of evidence were examined in the DNA Unit of this Laboratory:

Item EM - buccal cell standard reportedly collected from Brendan Dassey
Item EN - yellow work gloves
Item EZ - one "Chicago Cutlery" paring knife
Item FB - one round tin containing questioned material
Item FK - one apparent bullet fragment
Item FL - one apparent bullet fragment
Item FU - one butcher knife
Item FV - one butcher knife
Item FW - one butcher knife
Item FX - one serrated blade butcher knife
Item FY - one filet knife
Item FZ - one butcher knife
Item GA - one butcher knife
Item GG - one creeper
Item GH - one creeper
Item GI - one wooden full-size headboard
Item GJ - questioned stain reportedly collected from "left leg" of headboard
Item GL - questioned stain reportedly collected from "left leg" of headboard
Item GN - questioned stain reportedly collected from "left leg" of headboard
Item GP - questioned stain reportedly collected from "light switch"

EXHIBIT
J

Item GR - questioned stain reportedly collected from "side of light switch plate"
Item GT - questioned stain reportedly collected from "0" on telephone
Item GV - questioned stain reportedly collected from "charging cord"
Item GX - questioned stain reportedly collected from "bottom portion of speaker"
Item GZ - questioned stain reportedly collected from "bottom of radio"
Item HB - questioned stain reportedly collected from "outlet plate"
Item HD - questioned stain reportedly collected from "grooved area of outlet plate"
Item HF - questioned stain reportedly collected from "outlet cover"
Item HH - questioned stain reportedly collected from "outlet cover"
Item HJ - questioned stain reportedly collected from "side of outlet plate"
Item HL - questioned stain reportedly collected from "partial yardstick"
Item HN - questioned stain reportedly collected from "top of heat vent"
Item HP - questioned stain reportedly collected from "under damper of heat vent"
Item HR - questioned stain reportedly collected from "flower #2 on hula skirt"
Item HT - questioned stain reportedly collected from "3rd flower on hula skirt"
Item HV - swabbing of necklace
Item HW - swabbing of necklace
Item HX - questioned stain reportedly collected from "top of nightstand"
Item HZ - questioned stain reportedly collected from "top of nightstand"
Item IB - swabbing of "Toyota SWH-582 exterior passenger door handle"
Item IC - swabbing of "Toyota SWH-582 interior passenger door handle"
Item ID - swabbing of "Toyota SWH-582 hood latch"
Item IE - swabbing of "Toyota SWH-582 left battery cable"
Item IF - swabbing of "Toyota SWH-582 right battery cable"
Item IG - swabbing of "Toyota SWH-582 interior drivers door"
Item IH - swabbing of "RAV 4 exterior drivers door handle"
Item IJ - one jacket
Item IK - blue jeans.

RESULTS

Chemical analysis of questioned staining from items EZ, FB, FU, FV, FW, FX, FY, FZ, GA, GG, GH, GI, GJ, GL, GN, GR, GT, GV, GX, GZ, HB, HD, HF, HH, HJ, HL, HN, HP, HR, HT, HX, HZ, IJ and IK did not indicate the presence of blood. No further examinations were conducted on these items.

Chemical analysis of several areas of brown staining on the right work glove (item EN1) tested inconclusive for the presence of blood.

Chemical analysis of the reddish/brown stain from the light switch (item GP) indicated the presence of blood.

Items EM, EN1, FK, FL, GP, HV, HW, IB, IC, ID, IE, IF, IG and IH were extracted for the possible presence of DNA. The amount of human deoxyribonucleic acid (DNA) isolated from items EN1, FK, IB and IC was insufficient for further examination. No human DNA was present on items HV, HW, IE, IF or IH. Human DNA was isolated and subsequent STR typing was attempted on questioned stains from items FL, GP, ID and IG.

Using the Promega PowerPlex® 16 amplification kit, samples from items EM, FL, GP, ID and IG were amplified by the polymerase chain reaction (PCR) method and typed for fifteen short tandem repeat (STR) genetic markers and the gender marker amelogenin. The profiles developed from these samples are listed in the following table:

Genetic Marker	Item EM (Brendan Dassey)	Item FL	Item GP	Item ID	Item IG
D3S1358	16,17	16,18	16	16,18	16,18
TH01	7,9.3	6,9.3	6,8	9.3	6,9.3
D21S11	30,32.2	28,34.2	29,30	28,30	28,34.2
D18S51	13,14	14,16	11,15	14,20	14,16*
Penta E	5,11	5,7	12,14	5,10	5,7*
D5S818	11	12,13	9,11	11,12	12,13
D13S317	11,13	12,13	8,10	8,12	12,13
D7S820	10,11	11	8,10	7,10	11
D16S539	11,13,14**	12,*	9,11	11,14	12,13
CSF1PO	8,12	10	11,12	12	10
Penta D	10,13	11,13	9,12	10,11	11,13
vWA	17,18	16	16,17	15,19	16
D8S1179	14,15	11,15	13,14	10,15	11,15
TPOX	8,9	*,11	8	9,11	10,11
FGA	19,20	21,22	22,23	20,26	21,22
Amelogenin	X,Y	X	X	X,Y	X

X – female X,Y – male * - loci not used for stats ** - triallelic pattern

The profiles developed from the bullet fragment (item FL) and the interior driver's door handle (item IG) are **consistent** with the profile developed from the pap smear (item EF) reportedly collected from Teresa Halbach. (See Laboratory Reports No. M05-2467 issued November 14, 2005, December 5, 2005 and March 31, 2006 by this analyst.) The manipulation control extracted with the bullet fragment (item FL) contains DNA that is consistent with this analyst.

The profile developed from the questioned stain on the light switch (item GP) is consistent with originating from a female individual. This profile is **not consistent** with the profile from the pap smear (item EF) of Teresa Halbach. (See Laboratory Reports No. M05-2467 issued November 14, 2005, December 5, 2005 and March 31, 2006 by this analyst.)

The profile developed from the swabbings of the hood latch (item ID) is **consistent** with the profile developed from the buccal cell standard of Steven Avery (item BU). (See Laboratory Reports No. M05-2467 issued November 14, 2005, December 5, 2005 and March 31, 2006 by this analyst.)

The buccal cell standard (item EM) reportedly collected from Brendan Dassey was compared to previously developed mixture profiles from the handcuffs (item CJ1) and the leg irons (item CJ2) (See Laboratory Report No. M05-2467 issued March 31, 2006 by this analyst.) Based on the profile developed from the buccal cell standard of Brendan Dassey (item EM) he cannot be considered a possible contributor to the mixtures profiles from items CJ1 and CJ2.

CONCLUSIONS

It is the opinion of this analyst, to a reasonable degree of scientific certainty, that Teresa Halbach is the source of the DNA present on the bullet fragment (item FL) and the interior driver's door handle (item IG).

Teresa Halbach is **eliminated** as a potential source of the DNA present from the reddish/brown stain on the light switch (item GP).

It is the opinion of this analyst, to a reasonable degree of scientific certainty, that Steven Avery is the source of the DNA present from the swabbings of the hood latch (item ID).

Brendan Dassey is **eliminated** as a potential contributor to the DNA mixtures of items CJ1 And CJ2.

These conclusions are based on statistics derived from a database of unrelated Caucasian, African American, Southeastern Hispanic and Southwestern Hispanic individuals obtained from the Federal Bureau of Investigation (FBI).

Evidence Disposition: Upon completion of all Laboratory analyses, all items will be returned to the submitting agency.

CONFIDENTIAL REPORT OF LABORATORY F. NGS
DJ-LE-103 (4/92)

Wisconsin Department of Justice
Division of Law Enforcement Services
State Crime Laboratory - Madison
4626 University Avenue
Madison, Wisconsin 53705-2156
608/266-2031
FAX 608/267-1303

Submitting Agency:

Sheriff Jerry A. Pagel
Attn: Matthew Joy
Calumet County Sheriff's Office
206 Court St.
Chilton, WI 53014

Date: March 31, 2006

Case No: M05-2467

Agency No.: 05-0157-955

Laboratory Analyst:

Sherry L. Culhane
(DNA Analysis)

Case Name: Halback, Teresa M. (V) -
Town of Gibson, Manitowoc
County, Wisconsin

I do hereby certify this document, consisting of 7 page(s), to be a true and correct report of the findings of the State Crime Laboratory on the items examined as shown by this report.

Peggy A. Lautenschlager
ATTORNEY GENERAL

Designee:
SIGNATURE

The following items of evidence were examined in the DNA Unit of this Laboratory:

Item G - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 651)
Item H - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 652)
Item I1 - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 653)
Item J - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 654)
Item K - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 655)
Item L - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 656)
Item M - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 657)
Item N - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 658)
Item O - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 639)
Item P - questioned stain reportedly recovered from "garage floor" at 12332 Avery Rd (tag# 659)
Item Q - one piece of red/cream colored piece of fabric (tag# 8411)

EXHIBIT
K

Item S - questioned stain reportedly recovered from "Avery property red shed garage floor" (tag# 7120)
Item T - questioned stain reportedly recovered from "Avery property red shed garage floor" (tag# 7121)
Item U - questioned stain reportedly recovered from "Avery property red shed garage floor" (tag# 7122)
Item W - questioned stain reportedly recovered from "12932 Avery Rd interior door across from bathroom" (tag# 7119)
Item Y - questioned stain reportedly recovered from "12932 Avery Rd bathroom floor" (tag# 7116)
Item AA - questioned stain reportedly recovered from "12932 Avery Rd molding on door" (tag# 7104)
Item AC - questioned stain reportedly recovered from "12932 Avery Rd living room/ext. entrance door interior by handle" (tag# 8115)
Item AJ - one "Wisconsin" license plate "SWH-582"
Item AK - one "Wisconsin" license plate "SWH-582)
Item CE - one piece of fabric reportedly cut from the "back (upper area) of a couch at 12932 Avery Rd"
Item CF - two pieces of fabric reportedly cut from the "front of a couch at 12932 Avery Rd"
Item CG - one piece of fabric reportedly cut from a "zippered couch cushion from 12932 Avery Rd"
Item CH - one piece of fabric reportedly cut from "couch cushion, top left by zipper from trailer of Chuck Avery"
Item CI - one piece of fabric reportedly cut from "couch cushions top right - front from trailer of Chuck Avery"
Item CJ1- one pair of handcuffs
Item CJ2- one pair of leg irons
Item CQ - questioned stain reportedly recovered from "red trailer 12932 Avery Rd inside of door living room" (tag# 7627)
Item CR1- questioned stain reportedly recovered from "vanity top"
Item CR2- questioned stain reportedly recovered from "toilet seat"
Item CR3- questioned stain reportedly recovered from "vanity, left side"
Item CR4- questioned stain reportedly recovered from "sink"
Item CR5- questioned stain reportedly recovered from "vanity back"
Item CR6- questioned stain reportedly recovered from "washing machine"
Item CS - piece of "wadded" up paper toweling

Item CX - questioned stain reportedly recovered from "quarry south of Avery Rd" (tag# 8008)
Item DD - one .22 caliber rifle (agency tag# 647)
Item DD1- swabbings from the trigger and trigger guard of item DD
Item DD2- swabbings from the end of the barrel of item DD
Item EG - one "Clubcar" golf cart.

RESULTS

Chemical analysis of the reddish/brown questioned stains of items G, I1, J, K, L, M, N, O, P, S, T, U, Y, AA, CE, CF, CG, CH, CQ, CR1, CR4 and CX indicated the presence of blood.

Chemical analysis of the reddish/brown questioned stains/crusts of items A2, A3, A4, A7, A10, A11, A23 and B2 previously indicated the presence of blood. (See Laboratory Report No. M05-2467 issued November 14, 2005 by this analyst.)

Blood was **not detected** from items H, Q, W, AC, AJ, AK, CI, CJ1, CJ2, CR2, CR3, CR5, CR6, CS, DD or EG.

Human deoxyribonucleic acid (DNA) was isolated and subsequently typed from the following questioned samples; items A2, A3, A4, A7, A10, B2, G, I1, J, K, O, P, Y, AA, CE, CF, CG, CH, CJ1, CJ2, CQ, CR4 and CX. The profiles developed from these samples are listed in the following tables:

Genetic marker	Items A10, G,I1,J,K,O,P,Y,AA CF,CG,CQ & CR4	Items A2,A3,A4	Item CX	Item CJ1	Item CJ2	Item CH
D3S1358	16,18	16,18	16,17	15,16,17,18	15,16,17,18	16
TH01	9.3	6,9.3	6,9.3	6,7,9.3	7,9.3	9.3
D21S11	28,30	28,34.2	29,30	28,30,32.2	28,30	28,30
D18S51	14,20	14,16	12,17	13,14,20	14,15,17,20	14,20
Penta E	5,10	5,7	7,13	5,10	5,10	5,10
D5S818	11,12	12,13	11,12	11,12	11,12	12
D13S317	8,12	12,13	11,13	8,12	8,12	11,12
D7S820	7,10	11	8,12	7,8,10,11	7,10	7,10
D16S539	11,14	12,13	12	11,12,13,14	11,14	11,14
CSF1PO	12	10	11	11,12,13	11,12	12
Penta D	10,11	11,13	9,13	9,10,11	10,11,12	10,11
vWA	15,19	16	15,16	15,16,19	15,16,19	15,19
D8S1179	10,15	11,15	14	10,12,15	10,11,15	11,14
TPOX	9,11	10,11	8	8,9,11	8,9,11	9,11
FGA	20,26	21,22	19,22	20,21,22,26	20,26	19,22
Amelogenin	X,Y	X	X,Y	X,Y	X,Y	X,Y

Genetic marker	Item A7	Item B2 Major component	Item CE
D3S1358	16,18	16,(17),18	**15,16,18
TH01	9.3	9.3	9.3
D21S11	28,30	28,(29),30	28,30
D18S51	14,20	14,20	14,20
Penta E	5,10	5,10	5,10
D5S818	11,*	11,12	11,12
D13S317	8,12	8,12	8,12
D7S820	7,10	7,10	7,10
D16S539	11,14	11,14	11,14
CSF1PO	12	12	12
Penta D	10,11	10,11	10,11
vWA	15,19	15,19	15,19
D8S1179	10,15	10,15	10,15
TPOX	9,11	9,11	9,11
FGA	20,26	20,26	20,26
Amelogenin	X,Y	X,Y	X,Y

X – female X,Y – male * - allele below inclusionary threshold (not used for stats)
** - not used for stats ( ) – minor component

The profiles previously developed from items utilized as standard comparison samples are listed in the following table (See Laboratory Report No. M05-2467 dated December 5, 2005, issued by this analyst):

Genetic marker	Item BU (buccal swab) Steven Avery	Item BS (buccal swab) Bryan Dassey	Item AY (buccal swab) Allan Avery	Item EF (pap smear) Theresa Halbach
D3S1358	16,18	16	15,16	16,18
TH01	9.3	6,9.3	9.3	6,9.3
D21S11	28,30	30,32.2	28,30	28,34.2
D18S51	14,20	14,15	14,20	14,16
Penta E	5,10	10,11	5,7	5,7
D5S818	11,12	9	11,12	12,13
D13S317	8,12	11,13	8,12	12,13
D7S820	7,10	10,12	10	11
D16S539	11,14	11,12	13,14	12,13
CSF1PO	12	10,11	12	10
Penta D	10,11	10,13	10	11,13
vWA	15,19	17,18	17,19	16
D8S1179	10,15	14,15	11,15	11,15
TPOX	9,11	8,9	8,11	10,11
FGA	20,26	20	20,22	21,22
Amelogenin	X,Y	X,Y	X,Y	X

X – female X,Y – male

The profile developed from items A7, A10, B2 (major), G, I1, J, K, O, P, Y, AA, CE, CF, CG, CQ and CR4 is **consistent** with the buccal cell standard reportedly collected from Steven Avery (item BU) (See Laboratory Report No. M05-2467 dated December 5, 2005 issued by this analyst). One additional allele was detected at D3S1358 from the stain of item CE. This allele is not consistent with the standard from Steven Avery (item BU).

The profile developed from items A2, A3 and A4 is **consistent** with the profile developed from the pap smear slide (item EF) reportedly collected from Theresa Halbach.

The profile developed from item CX is **not consistent** with the buccal cell standards of Allan Avery (item AY), Bryan Dassey (item BS) or Steven Avery (item BU). This profile is consistent with a male individual.

The profile developed from item CH is **not consistent** with the buccal cell standards of Allan Avery (item AY), Bryan Dassey (item BS) or Steven Avery (item BU). This profile is consistent with a different male individual than item CX.

Both CJ1 and CJ2 are mixtures of DNA from more than one individual. Steven Avery can be included as a possible contributor to these mixtures. Based on the profile developed from the pap smear (item EF) reportedly collected from Theresa Halbach, she is **excluded** as a possible contributor to the mixture of DNA from items CJ1 and CJ2.

In addition, human DNA isolation was also performed on items A11 A23, AJ, AK, L, M, N, T, S, U, CR1, DD1 and DD2.

Partial DNA profiles were obtained from items A23 and DD1. Due to the limited genetic information these profiles are insufficient for interpretation.

No profiles were developed from the questioned stains of items M T, and CR1.

A trace level of human DNA was detected from items L, N and DD2. No human DNA was detected from items A11, S and U. No further analyses were performed on these items.

The levels of male DNA detected from items AJ and AK were insufficient for autosomal DNA/STR typing.

Halbach excluded from handcuffs & leg irons

The profile previously developed from the apparent charred material (item BZ) is listed in the following table (See Laboratory Report No. M05-2467 issued December 5, 2005 by this analyst):

Genetic marker	Item BZ Charred material
D3S1358	16,18
TH01	6,9.3
D21S11	28,34.2
D18S51	INC
Penta E	INC
D5S818	12,13
D13S317	12,13
D7S820	11
D16S539	INC
CSF1PO	INC
Penta D	INC
vWA	16
D8S1179	INC
TPOX	INC
FGA	INC
Amelogenin	X

X – female X,Y – male INC – missing alleles

The partial profile, at seven loci, developed from the charred material of item BZ is consistent with the profile developed from the pap smear reportedly collected from Theresa Halbach (item EF) (See Laboratory Report No. M05-2467 issued December 5, 2005 issued by this analyst).

CONCLUSIONS

It is the opinion of this analyst, to a reasonable degree of scientific certainty, that Steven Avery is the source of the DNA from the reddish/brown stains of items A7, A10, B2 (major), G, I1, J, K, O, P, Y, AA, CE, CF, CG, CQ and CR4.

Based on the profile developed from the pap smear (item EF) reportedly collected from Theresa Halbach, it is the opinion of this analyst, to a reasonable degree of scientific certainty, that Halbach is the source of the DNA from the reddish/brown stains of items A2, A3 and A4.

Allan Avery, Bryan Dassey and Steven Avery are eliminated as possible sources of the DNA from the reddish/brown stains of items CH and CX.

Steven Avery is included as a possible contributor to the DNA mixture profile developed from the handcuffs (item CJ1). Theresa Halbach is eliminated as a possible contributor to this mixture. The probability of randomly selecting an unrelated individual that could have contributed to the mixture is 1 person in 1 million in the Caucasian population, 1 person in 10 million in the African American population, 1 person in 5 million in the Southeastern Hispanic population and 1 person in 1 million in the Southwestern Hispanic population.

Steven Avery is included as a possible contributor to the DNA mixture profile developed from the leg irons (item CJ2). Theresa Halbach is eliminated as a possible contributor to this mixture. The probability of randomly selecting an unrelated individual that could have contributed to this mixture is 1 person in 1 billion in the Caucasian and Southwestern Hispanic populations and 1 person in 2 billion in the African American and Southeastern Hispanic populations.

These conclusions are based on population statistics derived from a database of unrelated Caucasian, African American, Southeastern Hispanic and Southwestern Hispanic populations obtained from the Federal Bureau of Investigation (FBI).

Evidence Disposition: Upon completion of all Laboratory analysis the evidence will be returned to the submitting agency.

CALUMET COUNTY SHERIFF'S DEPARTMENT

Complaint No.
05-0157-955

File Number

TYPE OF ACTIVITY: **Assist in Missing Person Case**

DATE OF ACTIVITY: **Tuesday, 11/08/05**
Start of Service at 0630 hours
End of Service at 1915 hours

REPORTING OFFICER: **Deputy Dan Kucharski**

On 11/08/05 at 0630 hours, I (Deputy DAN KUCHARSKI) responded to the scene at STH 147 and Avery Rd. Upon arrival, I was given the assignment by Lt. BOWE to recover two weapons out of a yellow vehicle that was parked by the shop office at the new shop.

At 0738 hours, Lt. LENK, Sgt. COLBORN and I searched a yellow vehicle with the plate of 343JVF and collected two shotguns and a belt full of ammunition from the trunk of the vehicle. We ended the search of the vehicle at 0748 hours.

Back at the command post, we were given the assignment by Lt. BOWE to go to the residence at 12932 Avery Rd. and conduct a thorough search of the residence. We were instructed to take into evidence any pornographic material, the computer in the living room, any computer related storage devices, and to take sample swabs of suspected blood spots in the bathroom of the residence. We were also instructed to thoroughly search the residence for any other types of evidence.

At 0825 hours, Lt. LENK, Sgt. COLBORN and I responded to 12932 Avery Rd. and began the search.

I photographed and collected the Hewlett Packard computer that was in the living room of the residence. Also collected was miscellaneous computer equipment and storage devices from the area around the computer. At 0850 hours, DAN VAN OSS, Badge #702, entered the residence, took possession of the computer and collected storage devices. At 0855 hours, he left the residence transporting the computer to be processed for evidence collection.

We then began a search of the residence. All three of us went to the back bedroom in the residence and searched for evidence. It was a relatively small bedroom and we were in visual and verbal contact with each other at all times while searching this bedroom. There were no areas in the bedroom where any of us would have been out of contact with each other at any time being that it was so small. I photographed and collected pornographic material found in the bedroom. I also photographed and collected miscellaneous ammunition found in the bedroom, a cloth rope and a pillow with a red stain on it.

We were nearing completion of the search of the bedroom. I was at the northeast corner of the bed, Sgt. COLBORN was approximately two to three feet away from me finishing up the search

EXHIBIT
tabbies
L

of a desk area, and Lt. LENK was approximately one foot from me finishing up the search of a cabinet located next to the desk. Lt. LENK had gone through the cabinet and then he and Sgt. COLBORN moved the cabinet around looking for pictures stuck in the back of the cabinet. I was in visual contact when they were doing this as they were only a couple of feet away from me. Sgt. COLBORN began to put the books that were taken out of the cabinet back into it. He was having some resistance against the books, they were caught on something, and he pushed on the books banging them into the back and top of the cabinet. Lt. LENK left the room to call the command post for some boxes for the pornographic materials that we had found. Sgt. COLBORN went back to searching through the magazines under the desk area. I was completing the search of the nightstand. After approximately two minutes, Lt. LENK came back to the room. He entered the doorway of the room approximately one foot away from me, pointed to the floor and said, "There's a key here." He pointed to the floor next to the cabinet by a pair of men's slippers. All three of us looked at the key that was lying on the floor. The emblem on the key appeared to be a Toyota manufacturer's emblem. The key was connected to a blue canvas key fob with a black buckle on the end of it approximately two to four inches in length. Immediately we stopped searching.

I photographed the location of the key. I collected the key and placed it into an evidence bag. The bag was a brand new evidence bag out of the stack of bags that I brought into the residence from my evidence kit. I was wearing rubber gloves when I collected the key. When I went to pick up the key, I used a fresh pair of gloves that were new directly out of the package. At the time the key was first found, I had already taken off my rubber gloves from the previous searching because we were almost finished searching the room. At no time did I handle any other pieces of evidence or any other items inside the bedroom or inside the trailer with this pair of gloves. At no time did Lt. LENK or Sgt. COLBORN touch or have physical control of the key. From this point forward, I had the key in my physical control.

I called the command post and informed them that we had found this key. Special Agent TOM FASSBENDER and CALUMET CO. SHERIFF'S DEPT. Inv. MARK WIEGERT came to the residence to look at the key. With my gloved hand, I took the key out of the evidence bag and retaining physical control of it, I showed it to them. They left the residence saying they would be sending a special agent back to take possession of the key to immediately take it to the crime lab in Madison for processing. I secured the key back into the evidence bag and sealed the bag with red evidence tape putting my initials on the tape. Special Agent TOM FASSBENDER and Special Agent MATTHEW JOY, Badge #N516, came back to the residence at short time later.

Special Agent JOY took physical control of the evidence bag containing the key. I filled out the Evidence/Property Custody sheet and had Special Agent JOY sign that he had taken possession of this piece of evidence. Special Agent JOY left the residence and we continued with the search and collection of evidence.

We concluded our search and collection efforts inside the residence and walked around the perimeter of the outside of the residence. I observed, photographed and collected a piece of duct tape located underneath the front deck of the residence on the east side of the residence. The assignment was concluded at 1218 hours.

At 1219 hours, Lt. LENK, Sgt. COLBORN and I went to the garage next to 12932 Avery Rd. We were sent to look for evidence of a matching tool set of a wrench-type tool found in the victim's vehicle. We searched through the garage finding no additional evidence to collect or photograph. We finished this assignment at 1245 hours.

We returned to the command post and Lt. BOWE gave us the assignment of collecting weapons and ammunition from the residence at 12928 Avery Rd. Lt. BOWE also stated to conduct a thorough search of the residence for any other possible evidence.

Lt. LENK, Sgt. COLBORN and I began the search at 1326 hours of the residence at 12928 Avery Rd.

Inv. STEIER gave us the combination to a safe inside the residence. We entered the residence. I opened the safe, photographed and collected five rifles, two shotguns and miscellaneous ammunition from the safe. I also photographed and collected the bed sheets from the bedroom nearest the entry door. The bed sheets had red stains on them. I also photographed and collected a pillowcase with red stains located in the living room.

After we concluded the search of the inside of the residence, we walked around the perimeter of the residence. I photographed and collected duct tape from the bed of a pickup truck that was parked next to the residence. The plate number on the truck was AC6271. I also photographed and collected a coin purse that was in the glove box of this same vehicle. Inside the coin purse were four single dollar bills, one five dollar bill, two ten dollar bills, 28 quarters, one nickel and seven dimes. The search of the residence was concluded at 1619 hours.

All evidence that I collected was kept in my physical control. I transported this evidence to the CALUMET COUNTY SHERIFF'S DEPARTMENT and entered it into evidence storage. The only evidence that I did not enter into storage were the two items, Hewlett Packard computer and miscellaneous storage devices, taken by VAN OSS from the crime scene and the key that was taken by Special Agent JOY from the crime scene.

End of supplemental report for Incident No. LCA051103009213.

Deputy Dan Kucharski, #834
Calumet Co. Sheriff's Dept.
DK/sk/bdg

Karl A. Reich, Ph. D.

INDEPENDENT FORENSICS, [redacted]

FORENSIC DNA / MOLECULAR BIOLOGY / MICROBIOLOGY / PROTEIN BIOCHEMISTRY MICROBIAL AND HUMAN FUNCTIONAL GENOMICS / PROTEIN PURIFICATION

Scientist with eight years post-graduate and fifteen years progressive experience in the pharmaceutical and biotechnology industry. Proven track record of initiating, managing and leading product oriented research in forensic DNA, genomics, infectious diseases, pharmaceutical target identification functional genomics, biotherapeutics, molecular biology, microbiology and strain development for industrial fermentation.

- Court Qualified DNA Expert Witness for Forensic DNA, Forensic Biology and Statistics – Testimony and depositions in more than eighty cases in State, Federal and International courts in both criminal and civil litigation.
- R & D project development and management from conception to market launch for forensic laboratory products.
- Developed, championed and implemented market-driven strategies for functional genomics biotech startup.
- R & D management experience in market-driven pharmaceutical, biotech and forensic DNA companies.
- R & D project development experience, including market analysis, target identification and validation, HTS, lead evaluation and animal efficacy trials.
- Led, built and managed research teams to implement strategic alliances, contract research and 'in-house' R & D in molecular biology, anti-infectives and strain development.

PROFESSIONAL EXPERIENCE

INDEPENDENT FORENSICS, Lombard IL **8/2002 – Present**

Chief Scientific Officer for DNA Forensics, Paternity, and Molecular Biology laboratory.

- Responsibility for development, validation, commercialization, production and manufacturing of new forensic-based tests.
- Supervisory responsibility for all laboratory operations, including validation, documentation, Q/A, Q/C, DNA testing, DNA analysis for forensics and paternity.
- Responsibility for lab design, lab set-up, IT, molecular biology, software and system design and implementation.
- PI on R & D contracts from federal law enforcement agency, PI on CDC SBIR grant, PI on DHS SBIR award.

ORCHID BIOSCIENCES, Long Island NY **4/2001 – 6/2002**

Pharmaceutical Development for 'virtual' pharmaceutical company.

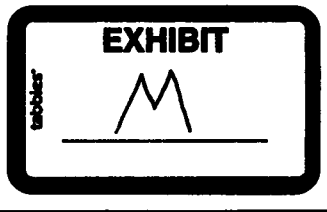
- Responsibility for outsourcing of GMP synthesis of small molecule therapeutic compound.
- Initiated, negotiated and supervised CRO managed ongoing Phase II clinical trial.
- Supervised and outsourced FDA and EMEA fillings for Orphan Drug Status in Europe and U.S.A.
- Project fully acquired (and terminated) by strategic partner, 6/2002.

INTEGRATED GENOMICS, Chicago, IL **4/2001 – 2/2002**

Director of Pharmaceutical Development – Executive Management Team

Integrated Genomics is a startup functional genomics company focusing on a bioinformatic approach to solving industrial biotechnology problems.

- Responsibility for developing and implementing small molecule-based R & D for 'niche' anti-infectives markets.
- Developed research programs for strategic partners in anti-infective biology, industrial strain improvement, flavors and fragrance industries and genomic databases.
- Experience in, and responsible for, presenting research programs to pharmaceutical partners, venture capital funds and institutional investors.



DNA & IMMUNOGENETICS INSTITUTE, Chicago IL **6/2001 – 8/2002**

Co-Director, Laboratory Services

DNA & Immunogentics Institute was the first independent DNA testing laboratory in Illinois and performed testing for paternity determination, transplant matching and blood banks.

- Paternity & Forensic DNA Testing
- Blood Antigen Testing

ABBOTT LABORATORIES, Abbott Park IL **10/1996 – 4/2001**

Abbott Laboratories is a mid-tier pharmaceutical company with a strong focus on small molecule therapeutics.

- Directed, managed and led research group charged with cloning, expressing and purifying protein targets for pharmaceutical discovery and biotherapeutics using bacterial, insect and mammalian expression systems.
- Led effort to identify alternative expression systems/hosts for 'difficult' protein classes.
- Co-developed semi-automated cloning and expression system for HTS of protein targets.

Group Leader, Genomics and Molecular Biology.

- Devised, championed and directed all phases of genomics-based research program for the identification of novel anti-bacterial targets, including microbiology, mol bio, HTS cloning and expression, and database management.
- Identified and validated dozens of novel anti-bacterial targets.
- Conceived and managed small molecule discovery projects; including HTS assay development, hit characterization, animal efficacy models, SAR determination and toxicity profiles.
- Initiated proteomics program in *Haemophilus influenzae*.
- Developed and fabricated *H. influenzae* micro-array for inhibitor mode of action studies.
- Initiated and directed numerous external scientific collaborations.
- Developed broad knowledge base of genomic techniques, applications and technologies including SNPs, pharmacogenomics, proteomics, HTS sequencing, public and proprietary genomic databases.

STANFORD UNIVERSITY SCHOOL OF MEDICINE, Stanford CA **10/1990 - 10/1996**

Howard Hughes Research Fellow, Laboratory of Dr. Gary Schoolnik

- Developed research program on luminescent bacterial symbiont, *Vibrio. fischeri*.
- Discovered novel ADP-ribosyltransferase in culture supernatants of *V. fischeri*.
- Purified and cloned (using reverse genetics) novel ADP-ribosyltransferase from *V. fischeri*.
- Developed genetic system for *V. fischeri*, - targeted knock-outs for gene function identification.
- Initiated collaborative research with USC marine biology laboratory on symbiont/host interactions.

Post-doctoral fellow, Laboratory of Dr. Gary Schoolnik

- Developed research program on structure/function relationship of trans-membrane transcriptional activator, ToxR, in *V. cholerae*.
- Analyzed distribution of ToxR genes in environmental *Vibrio* isolates.
- Cloned, sequenced and characterized ToxR gene from luminescent marine bacterium, *V. fischeri*.

INSTITUT PASTEUR, Paris, France **10/1988 – 10/1990**

Fogarty Post-Doctoral Research Fellow

- Developed mono-clonal antibodies against membrane active toxin of *Listeria monocytogenes*.
- Developed novel, large scale purification protocol for listeriolysin.
- Participated in *in vivo* tests of single amino acid substituted *L. monocytogenes* isogenic strains.

PRIOR RELATED EMPLOYMENT

UCLA, Los Angeles CA
Dept of Biological Chemistry, Laboratory of Dr. D. Sigman 1979-1982
Research Assistant

- Analysis of non-enzymatic cleavage of DNA by 1,10-orthophenanthroline Copper.
- Synthesized chemical derivatives of 1,10-orthophenanthroline.
- Recombinant over-expression and purification of *E. coli* DNA Polymerase.

HARVARD MEDICAL SCHOOL, Boston MA
Dept. of Neurobiology, Laboratory of Dr. T. Wiesel 1977-1979
Research Assistant

- Developed micro-bore HPLC for amino acid analysis of retinal homogenates.
- General laboratory duties, including ordering, organization and solution preparation for histology and EM.

CORNELL UNIVERSITY, Ithaca, NY summer 1976
Laboratory of Dr. E. Ellson
Summer intern Low angle light scattering analysis of liposome preparations.

ROCKEFELLER UNIVERSITY, New York NY summer 1975
Laboratory of Dr. N. Zinder
Summer intern Production, purification and use of mini-cells as 'cell free' protein translation system.

EDUCATION

UCLA / HARVARD MEDICAL SCHOOL 1982-1988
Ph.D. Molecular Biology

- ***Thesis: Enzymic Studies on Diphtheria Toxin Fragment A***

CORNELL UNIVERSITY 1973-1977
B.A. Chemistry

LANGUAGES

- ENGLISH, FRENCH

PUBLICATIONS:

1. D.R. Graham, L.E. Marshall, **K.A. Reich** and D.S. Sigman, "Cleavage of DNA by Coordination Complexes. Superoxide Formation in the Oxidation of 1,10- Phenanthroline-Cuprous Complexes by Oxygen. Relevance to DNA-Cleavage Reaction," *J. Amer. Chem. Soc.*, **102**, 5419 (1980).

2. L.E. Marshall, D.R. Graham, **K.A. Reich** and D.S. Sigman, "Cleavage of DNA by the 1,10-Phenanthroline-Cuprous Complex. Hydrogen Peroxide Requirement and Primary and Secondary Structure Specificity," *Biochemistry*, **20**, 244 (1981).

3. **K.A. Reich**, L.E. Marshall, D.R. Graham and D.S. Sigman, "Cleavage of DNA by the1,10-Phenanthroline-Cuprous Complex. Superoxide Mediates the Reaction Dependent on NADH and Hydrogen Peroxide," *J. Amer. Chem. Soc.*, **103**, 3582 (1982).

4. L.M. Pope, **K.A. Reich**, D.R. Graham and D.S. Sigman, "Products of DNA Cleavage by the 1,10-Phenanthroline-Cuprous Complex. Product Analysis," *J. Biol. Chem.*, **257**, (20) 12121 (1982).

5. J.D.L. Harpe, **K.A. Reich**, E. Reich and E.B. Dowdle, "Diamphotoxin: The Arrow Poison of the !Kung Bushmen," *J. Biol. Chem.*, **258**, (19) 11924 (1983).

6. B.L. Kagan, **K.A. Reich** and R.J. Collier, "Orientation of the Diphtheria Toxin Channel in Lipid Bilayers," *Biophys. J.*, **45**, 102 (1984).

7. P. Berche, **K.A. Reich**, M. Bonnichon, J.L. Beretti, C. Geoffroy, J. Raveneau, P.Cossart, J.L. Gaillard, P. Geslin, H. Kreis and M. Veron, "Detection of Anti-Listeriolysin O for Serodiagnosis of Human Listeriosis," *Lancet,* **335**, 624-627 (1990).

8. B.A. Wilson, **K.A. Reich**, B.R. Weinstein and R.J. Collier, "Active-Site Mutations of Diphtheria Toxin: Effects of Replacing Glutamic Acid-148 with Aspartic Acid, Glutamine or Serine," *Biochemistry*, **29**, 8643-8651 (1990).

9. E. Michel, **K.A. Reich**, R. Favier, P. Berche and P. Cossart, "Attenuated Mutants of the Intracellular Bacterium *Listeria monocytogenes* obtained by Single Amino-Acid Substitutions in Listeriolysin O," *Molecular Microbiology*, **4** (12), 2167-2178 (1990).

10. F. Nato, **K.A. Reich**, S.Hopital, S. Rouyre, C. Geoffroy, J.C. Mazie and P. Cossart, "Production and Characterization of Monoclonal Antibodies against Listeriolysin O (LLO), the Thiol Activated Hemolysin of *Listeria monocytogenes*: Neutralizing Antibodies are Specific for LLO," *Infection and Immunity*, **59**(12), 4641-4646 (1991).

11. **K.A. Reich** and G. K. Schoolnik, "The Light Organ Symbiont *Vibrio fischeri* Possesses a Homologue of the *Vibrio cholerae* Transmembrane Transcriptional Activator ToxR", *J. Bacteriology*, **176**(10), 3085-3088 (1994).

12. B. Wilson, S.R. Blanke, **K.A. Reich** and R. John Collier, "Active-Site Mutations of Diphtheria Toxin. Tryptophan 50 is a Major Determinant of NAD Affinity. *J. Biol. Chem.*, **269**(37), 23296-23301, (1994)

13. **K.A. Reich** and G.K. Schoolnik, "Halovibrin, Secreted from the Light Organ Symbiont, *Vibrio fischeri*, Is a Member of a New Class of ADP-ribosyltransferases," *J. Bacteriology*, **178** (1), 209-215 (1996).

14. **K.A. Reich**, T. Biegel and G.K. Schoolnik, "The Light Organ Symbiont *Vibrio fischeri* Possesses Two Distinct Secreted ADP-ribosyltransferases," *J. Bacteriology*, **179**(5), 1591-1597 (1997).

15. E. P. Rock, **K. A. Reich**, D. M. Lyu, M. Hovi, J. Hardy, G. K. Schoonik, B. A. D. Stocker and V. Stevens. "Immunogenicity of LTB-hCG Fusion Protein," *Vaccine*, **14**(16), 1560-1568 (1996).

16. L. Katz, D. T. Chu and **K.A. Reich**. "Bacterial Genomics and the Search for Novel Antibiotics," *Annual Reports Med. Chem.*, **32**, 121-130, (1997).

17. P. Zhong, Z. Cao, R. Hammond, Y. Chen, J. Beyer V.D. Shortridge, L. Phan, S. Pratt, J. Capobianco, **K. A. Reich**, B. Flamm, Y. S. Or and L. Katz. "Induction Ribosome Methylation in MLS-resistant *Streptococcus pneumoniae* by macrolides and ketolides", *Microb Drug Resist*; 5(3), 183-188, (1999).

18. **K. A. Reich**, P. Hessler, L. Chovan, "Genome Scanning in *Haemophilus influenzae*: *in vitro* transposition and PCR analysis for the identification of 'essential genes', *J. Bacteriology*, **181**(16), 4961-4968, (1999).

19. **K. A. Reich**, "The search for essential genes", *Res Microbiol* **151**(5), 319-324, (2000)

20. Stabb E. V., **K. A. Reich**, E. G. Ruby, "*Vibrio fischeri* genes hvnA and hvnB encode secreted NAD(+)-glycohydrolases", *J. Bacteriol.*, **183**(1), 309-317(2001).

21. Tack, L. C., M. Thomas, **K.A. Reich,** Automated Forensic DNA Purification Optimized for FTA Card Punches and Identifiler STR-based PCR Analysis, Clin Lab Medicine, 27(1), 183-9, 2007.

22. Johan H. Melendez, Julie A. Giles, Jeffrey D. Yuenger, Tukisa D. Smith, Khalil G. Ghanem, **Karl Reich** and Jonathan Zenilman. Detection and Quantification of Y Chromosomal Sequences by Real-Time PCR Using the LightCycler System, *Sexually Transmitted Diseases,* March 2007, Vol. 34, No. 3, 2007.

23. Brett Schweers, Jennifer Old, P.W. Boonlayangoor and **Karl Reich**, Developmental Validation of a Novel Lateral Flow Strip Test for Rapid Identification of Human Blood (Rapid Stain Identification™-Blood), Forensic Science International, 2, 243-247, 2008.

24. Jennifer Old, Brett Schweers, Jennifer Old, P.W. Boonlayangoor and **Karl Reich,** Developmental Validation of RSID™-Saliva; A Lateral Flow Immunochromatographic Strip Test for the Forensic Detection of Saliva, J Forensic Sci.,54 (4), 866-873, 2009.

25. Kevin W.P. Miller, Ph.D., Jennifer Old, Ph.D., Brian R. Fischer, B.S., Brett Schweers, Ph.D., Simona Stipinaite, B.S., and **Karl Reich**, Ph.D. Developmental validation of the SPERM HY-LITER™ kit for the identification of human spermatozoa in forensic samples. J. Forensic Sci., 56 (4); 853-865, 2011.

26. Jennifer Old, Ph.D., Brett A. Schweers, Ph.D., P.W. Boonlayangoor, Ph.D.[1], Brian Fischer, B.S., Kevin W.P. Miller, Ph.D., and **Karl Reich**, Ph.D. Developmental Validation of RSID™ -Semen: A Lateral Flow Immunochromatographic Strip Test for the Forensic Detection of Human Semen. J. Forensic Sci., 57(2); 489-499, 2012.

27. Alexander Sinelnikov, Anna Kalinina, Jennifer B. Old, Pravatchai W. Boonlayangoor and **Karl A. Reich** Evaluation of Rapid Stain IDentification (RSID™) Reader System for Analysis and Documentation of RSID™ Tests, *Appl. Sci.* **2013**, *3*(3), 624; Published online: 5 August 2013

28. Alexander Sinelnikov, **K.A. Reich,** Amplicon Rx™, Post-PCR Clean-up and Concentration Specifically for Forensic DNA Multiplex STR PCR Reactions, , *Eur J Forensic Sci* Vol 3 Issue 1: 15-21, 2016

ABSTRACTS

New Approach to Statistical Reporting for Forensic DNA Analysis: Boonlayangoor, A. W., Reich, K.A., and Boonlayangoor, P.W. Published at the 14th International Symposium on Human Identification, Promega Corporation, Phoenix Arizona. September 29-October 2, 2003.

Utilizing Proficiency Testing Survey Results in Forensic DNA Laboratories.
Karl A. Reich, Liz A. Graffy and P.W. Boonlayangoor. Published at the 15th International Symposium on Human Identification, Promega Corporation, Phoenix Arizona. October 4-7, 2004.

A Novel Lateral Flow Strip Test for Rapid Identification of Human Semen (**R**apid **S**tain **Id**entification-Semen), 17th International Symposium on Human Identification, Jennifer Old, Brett A. Schweers, P.W. Boonlayangoor & Karl Reich, Nashville Tennessee October 8-12, 2006.

A Novel Lateral Flow Strip Test for Rapid Identification of Human Saliva (**R**apid **S**tain **Id**entification-Saliva), 17th International Symposium on Human Identification, Jennifer Old, Brett A. Schweers, P.W. Boonlayangoor & Karl Reich, Nashville Tennessee October 8-12, 2006.

A Novel Lateral Flow Strip Test for Rapid Identification of Human Blood (**R**apid **S**tain **Id**entification-Blood), 17th International Symposium on Human Identification, Jennifer Old, Brett A. Schweers, P.W. Boonlayangoor & Karl Reich, Nashville Tennessee October 8-12, 2006.

Developmental Validation of SPERM HY-LITER™: A Specific, Sensitive, and Confirmatory Screening Method for Human Sperm from Sexual Assault Evidence Jennifer Old, Brett A. Schweers, P.W. Boonlayangoor & Karl A. Reich 19th International Symposium on Forensic Sciences, ANZFSS Melbourne meeting – October 2008

Developmental Validation of SPERM HY-LITER™: A Specific, Sensitive and Confirmatory Screening Method for Human Sperm Detection from Sexual Assault Evidence. 19th International Symposium on Human Identification. Jennifer Old*, Brett A. Schweers*, P.W. Boonlayangoor & Karl Reich - Promega HID meeting - October 2008

Case Study: Analysis of an anorectal swab alleged to contain canine sperm using a fluorescently labeled human sperm head specific antibody. 19th International Symposium on Human Identification. Marisa Farhner, Brett A. Schweers & Karl Reich – Promega HID meeting - October 2008

Summary Results of a Blinded Study on the Effectiveness and Efficiency of using SPERM HY-LITER™ to Screen Sexual Assault Evidence for Sperm. 20th International Symposium on Human Identification. Jennifer Old Ph.D., Marisa Fahrner MS, Jie Wu Ph.D., Christian G. Westring Ph.D., P.W. Boonlayangoor Ph.D. and Karl Reich Ph.D.

Mapping Duct Tape for the Presence of Saliva Using Phadebas® Press Sheets, 23rd International Symposium on Human Identification, Lynette Johns B.S., Pravat Boonlayangoor Ph.D. and Karl A. Reich Ph.D.

Substrate Controls – A Simple Story 24rd International Symposium on Human Identification, Lynette Johns B.S., P.W. Boonlayangoor Ph.D. & Karl A. Reich Ph.D.

Solution For Partial Profiles: *Amplicon Rx*™ Post-PCR Clean-up Kit, 24rd International Symposium on Human Identification Alex Sinelnikov and Karl A. Reich

A bridge between two previously separate forensic disciplines: latent examination and DNA profiling. Development of new materials, methods and procedures for the collection of enhanced latent friction ridge impressions (fingerprints) *and* DNA profiling from the same evidence. 101St International Association of Identification, Alex Sinelnikov, Ph.D., Dyer Bennet, Karl Reich, Ph.D.

An Efficient and Effective Protocol for Identifying Sperm from Anal Swabs Using SPERM HY-LITER EXPRESS, 27th International Symposium on Human Identification, Jennifer B Old; Anna K Trobe, Karl A. Reich and P.W. Boonlayangoor

A New Tool to Assist Criminal Investigators: DNA-STR Profiles from "Skin and Oil" Fingerprints, 27th International Symposium on Human Identification, Alexander Sinelnikov, P.W. Boonlayangoor and Karl A. Reich

TRAINING CLASSES

Illinois Institute for Continuing Legal Education (IICLE) – Chicago IL September 2006
Faculty for IICLE DNA Evidence Course. Introduction to DNA and DNA Evidence for legal Professionals. Evidence, DNA Matching, Statistics, Defense and Prosecution Strategies, Case Review

Illinois Institute for Continuing Legal Education (IICLE) – Bloomington IL September 2006
Faculty for IICLE DNA Evidence Course. Introduction to DNA and DNA Evidence for legal Professionals. Evidence, DNA Matching, Statistics, Defense and Prosecution Strategies, Case Review

Illinois Institute for Continuing Legal Education (IICLE) – Chicago IL March 2007
Faculty for IICLE Defending Illinois Death Penalty Case – Cold Hits and Cold Cases: DNA Databases and New Technologies in Forensic DNA.

Illinois Institute for Continuing Legal Education (IICLE) – Fairview Heights IL November 2007
Faculty for IICLE Defending Illinois Death Penalty Case – Cold Hits and Cold Cases: DNA Databases and New Technologies in Forensic DNA.

Southwest Association of Forensic Sciences (SWAFS) – Austin TX October 10, 2007. Training workshop: Next Generation Sperm and Body Fluid Identification Tests: SPERM HY-LITER™ and RSID™-Saliva, Blood and Semen. Instructors: Karl Reich and Nadine Mattes.
Louisiana Association of Forensic Sciences (LAFS) – Baton Rouge LA, October 24, 2007. Training Workshop: Fluorescent Detection of Sperm from Sexual Assault Evidence. Instructors: Karl Reich and Nadine Mattes.

Northwestern Association of Forensic Scientists (NWAFS) – Salt Lake City UT –November 5, 2007. Training Workshop: Sensitive and Specific Fluorescent Detection of Human Sperm. Instructor: Karl Reich

McCrone College of Microscopy, COM700: Body Fluid Identification and Microscopic Methods of Sperm Detection for Forensic DNA/Serology/Biology. Instructor for Training class on human body fluid identification. December 11-13, 2007.

McCrone College of Microscopy, COM700: Body Fluid Identification and Microscopic Methods of Sperm Detection for Forensic DNA/Serology/Biology. Instructor for Training class on human body fluid identification. April 22-24th, 2008.

Mid-Atlantic Association of Forensic Scientists (MAAFS) – Huntington WV – April 30th, 2008. Training Workshop: Body Fluid Identification from Sexual Assault Evidence. Instructor for Training class on human body fluid identification.

McCrone College of Microscopy, COM700: Body Fluid Identification and Microscopic Methods of Sperm Detection for Forensic DNA/Serology/Biology. Instructor for Training class on human body fluid identification. August 19-21th, 2008.

Southwest Association of Forensic Sciences (SWAFS) – Little Rock AK September 25th, 2008 Training workshop: Next Generation Sperm and Body Fluid Identification Tests: SPERM HY-LITER™ and RSID™-Saliva, Blood and Semen. Instructors: Karl Reich and Ruben Nieblas.

Midwest Association of Forensic Scientists (MAFS) – Des Moines IA – September 30th, 2008. Training Workshop: Body Fluid Identification from Sexual Assault Evidence. Instructors for Training class on human body fluid identification Ruben Nieblas and Karl Reich.

McCrone College of Microscopy, COM700: Body Fluid Identification and Microscopic Methods of Sperm Detection for Forensic DNA/Serology/Biology. Instructor for Training class on human body fluid identification. December 2-4th, 2008.

SAFS/SWAFS/MAFS Combined Meeting Workshop: Current Topics and Development in Body Fluid Identification and Source Attribution. Instructor for Training Class on human body fluid identification for forensic DNA analysts. October 20th, 2009

SWAFS Workshop on Identification and Isolation of sperm from sexual assault evidence. Instructor for hands-on training class, LCM and SPERM HY-LITER™. September 23, 2010.

NEAFS/NEDIAI Combined Meeting Workshop: Forensic Body Fluid Identification Techniques – Hands-on Short Course for Saliva, Blood, Urine, Semen and Sperm. November 8th 2010.

CAC Workshop on Body Fluid Identification: Blood, Saliva Semen, Urine and Sperm. Hands-on training class, Instructors Karl Reich and Dina Mattes, Bakersfield CA, May 8th, 2012.

Primer Seminario Taller Iberoamericano de Nuevas Technologia en Analisis de Fluidos Biologicos Y Nueva Generacion de Secuenciacon, Instructors Karl Reich and Helga Langthon, Panama October 19th, 2015

SWAFS Workshop on Body Fluid Identification and New Technologies and Trends in Forensic DNA, Instructors Karl Reich and Dina Mattes, Oklahoma City, October 21, 2015.

COURT & DEPOSITION EXPERIENCE:

Dr. Reich has been court qualified as an Expert in Forensic DNA, Forensic Biology and the interpretation of Forensic DNA Statistics in the following jurisdictions (in alphabetical order):

California
Dublin (Ireland)
Florida
Illinois
Indiana
Iowa
Maryland
Minnesota
Missouri
New Mexico
New York
Ohio
South Dakota
Washington D.C.
Wisconsin

This includes cases in State and Federal courts on both criminal and civil matters. Additional details are available upon request.

Note:
Forensic DNA is defined as the methods, procedures, protocols, regulations, standards, and underlying science used to process samples, both evidentiary and reference, for obtaining genetic identity information. The collection, storage, processing, analysis of forensic evidence and the interpretation of such data are included in this definition.

Forensic Biology is defined as the methods, procedures, protocols, regulations, standards, and underlying science used to identify body fluids (blood, saliva, semen, and urine) and to identify spermatozoa from forensic evidence. The collection, storage, processing, analysis of forensic evidence and interpretation of such data are included in this definition.

CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board
5300 W. Cypress Street, Suite 180, Tampa, FL 33607, 813-443-0517

This is to certify that

Independent Forensics
500 Waters Edge, Suite 210
Lombard, IL 60148

has been assessed by ANAB
and meets the requirements of international standard

ISO/IEC 17025:2005 and FBI QAS

while demonstrating technical competence in the field(s) of

FORENSIC TESTING

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1639
Certificate Number

ANAB Approval

Certificate Valid to: 01/28/2018
Version No. 001 Issued: 03/23/2015

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated January 2009*).

STATE OF WISCONSIN CIRCUIT COURT MANITOWOC COUNTY

STATE OF WISCONSIN,

Plaintiff,

MANITOWOC COUNTY
STATE OF WISCONSIN
FILED
APR · 4 2007
CLERK OF CIRCUIT COURT

v. Case No. 2005-CF-381

STEVEN A. AVERY,

Defendant.

ORDER ON PRESERVATION OF BLOOD EVIDENCE AND INDEPENDENT DEFENSE TESTING

On motion of the defendant, Steven A. Avery, the Court having heard the arguments of defense counsel and considered the statement of special prosecutor Norm Gahn that the State does not oppose the defendant's motion,

IT IS HEREBY ORDERED

1. That the State shall preserve indefinitely, until further order of this Court, all bloodstains that the State believes contain Steven Avery's DNA and that were found in or on Teresa Halbach's vehicle, in a condition suitable for further scientific testing;

2. That the State shall preserve indefinitely, until further order of this Court, all swabs or other collected samples of bloodstains that the State contends

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EXHIBIT
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contain Steven Avery's DNA and that were collected from areas in or on Teresa Halbach's vehicle, in a condition suitable for further scientific testing;

3. That the State shall preserve indefinitely, until further order of this Court, portions of all items submitted by the State to the FBI Laboratory in Quantico, Virginia, for the purpose of testing related to the presence or absence of EDTA. Such portions of these items shall be adequate in size and quality, if possible, to permit independent scientific testing by the defense and shall be maintained by the State in a condition suitable for further scientific testing;

4. That the defendant, Steven A. Avery, or any lawyer representing him, may at any time submit the bloodstains, swabs, and items described in paragraphs 1 through 3 above to any laboratory or person the defense may choose for independent scientific testing pursuant to WIS. STAT. § 971.23(5), without further order of this Court. For purposes of illustration, not limitation, this paragraph expressly contemplates independent defense testing before verdict, after verdict, before sentencing, after sentencing, during state or federal post-conviction proceedings (if any), or after any such post-conviction proceedings; and

5. For purposes of facilitating the relief allowed in paragraph 4 above and without further order of a judge or court, the State shall transfer without delay to a laboratory or scientist designated by the defense any or all of the materials described

in paragraphs 1 through 3 above as necessary to permit the defense to undertake independent scientific testing. Upon completion of such testing, the defendant or his counsel shall return promptly to the State any remaining materials not consumed in testing, for further safekeeping pursuant to this order. The defendant and his counsel also shall cooperate with the State's reasonable requests in documenting chain of custody of any items released and transferred for independent scientific testing.

SO ORDERED.

Dated at ~~Chilton~~ Manitowoc, Wisconsin, April 4th 2007.

BY THE COURT:

Hon. Patrick L. Willis
Judge,
Manitowoc County Circuit Court

Curriculum Vitae

Kirsty L. Spalding, PhD

Dept. Cell and Molecular Biology
Karolinska Institute
Berzelius väg 35, SE-171 77
Stockholm, Sweden

Integrated Cardio Metabolic Centre
Karolinska Institute
Novum, Blickagången 6, SE-141-57
Stockholm, Sweden

Phone: [redacted]
Email: [redacted]

Higher education

1992-1995	BSc in Psychology and Physiology Department of Anatomy and Human Biology The University of Western Australia, Perth, Australia
1996-1997	First Class Honours in Neurophysiology Department of Anatomy and Human Biology The University of Western Australia, Perth, Australia

Doctoral degree

1997-2003	Doctorate of Philosophy, Major in Neurophysiology The University of Western Australia, Perth, Australia

Postdoctoral training

2001-2002	Rotary Ambassadorial Academic Scholar, Stockholm, Sweden
2002-2005	Postdoctoral Fellow (PI: Professor Jonas Frisén) Department of Cell and Molecular Biology Karolinska Institute, Stockholm, Sweden

Current position

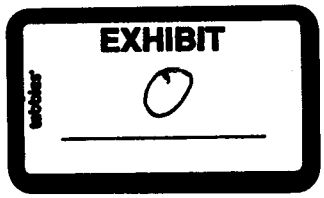
Assistant Professor
Department of Cell and Molecular Biology and Integrated Cardio Metabolic Center
Karolinska Institute, Sweden

Supervisor of PhD students as main supervisor

06/2012-present	Qian Li (MD)
10/2013-present	Keng-Yeh Fu (BSc, Masters)

Supervisor of postdoctoral fellows as main supervisor

01/2010-12/2012	Pauline Ocaya (PhD)
03/2012-02/2013	María Azorín Ortuño (PhD)
08/2012-08/2014	Mervi Hyvönen (PhD)
02/2013-present	Firoozeh Salehzadeh (PhD)
09/2013-present	Carolina Hagberg (PhD)
06/2014-present	Viviana Kozina (PhD)
07/2014-present	Christina Jones (PhD)
04/2016-present	Banafsheh Kadkhodaei (PhD)
06/2016-present	Beatriz Rosón (PhD)



Other current lab members

05/2012-present	Lena Appelsved (BSc) Lab Manager
05/2012-present	Endre Kiss (PhD) FACS Engineer
10/2015-present	Debajit Bhowmick (PhD) Flow cytometrist
10/2015-present	Olga Shilkova (PhD) Senior science technician
01/2016-present	Maria Kutschke (BSc) lab technician

Distinctions

2014	Swedish Research Council Distinguished Young Researcher Award
2013	Bert L. and N. Kuggie Vallee Foundation Young Investigator Award
2012	Fernströms Prize for Medicine, Karolinska Institute, Stockholm, Sweden
2012	Novo Nordic Excellence Award (Young Investigator)
2011-14	Karolinska Institute SRP in Diabetes 'Rising Star' Award
2010	ERC Starting Grant recipient
2009	Vinnmer - Marie Curie Outgoing Sabbatical Fellowship to UCSF, USA
2009	Sven and Ebba-Christina Hagberg prize for medicine
2008	Deputy Director Linné Center of Excellence THRM
2008	Karolinska Institute Senior Researcher award
2007	Swedish Strategic Research Council Future Research Leader Award
2007	Paxinos Watson prize for most significant contribution to the field of neuroscience (Australia)
2007	NARSAD Young Investigator Award
2006	Eppendorf Young Investigator Award finalist

Professional Membership

2016-2019	Karolinska Institute Strategic Research Program steering committee member, StratRegen
2008-2018	Linné Center of Excellence, Deputy Director, The Human Regenerative Map (www.thrm.ki.se)
2011-2017	Linné Center of Excellence, Associate Member, Developmental Biology and Regenerative Medicine (www.dbrm.se)
2010-present	Karolinska Institute Strategic Research Program in Diabetes

Service to Professional Publications

Reviewer for following scientific journals: Nature, International Journal of Forensic Medicine, International Journal of Obesity, Molecular Cellular Proteomics, Cell Metabolism, Brain structure and Function, Molecular Biology Reports.

Peer reviewed articles

Lehmann-Werman R, Neiman D, Zemmour H, Moss J, Magenheim J, Vaknin-Dembinsky A, Rubertsson S, Nellgård B, Blennow K, Zetterberg H, **Spalding K**, Haller MJ, Wasserfall CH, Schatz DA, Greenbaum CJ, Dorrell C, Grompe M, Zick A, Hubert A, Maoz M, Fendrich V, Bartsch DK, Golan T, Ben Sasson SA, Zamir G, Razin A, Cedar H, Shapiro AM, Glaser B, Shemer R, Dor Y. (2016). Identification of tissue-specific cell death using methylation patterns of circulating DNA. Proc Natl Acad Sci U S A. 113(13):E1826-1834.

Ryden M, Uzunel M, Hård JL, Borgström E, Mold JE, Arner E, Mejhert N, Andersson DP, Widlund Y, Hassan M, Jones CV, **Spalding KL**, Svahn BM, Ahmadian A, Frisen J, Bernard S, Mattsson J, Arner P (2015) Transplanted bone marrow-derived cells contribute to human adipogenesis. Cell Metab. 22(3):408-417.

Abreu-Vieira G, Hagberg CE, **Spalding KL**, Cannon B, Nedergaard J (2015) Adrenergically stimulated blood flow in brown adipose tissue is not dependent on thermogenesis. Am J Physiol Endocrinol Metab 308(9):E822-E829.

Ryden M, Andersson DP, Bernard S, Holmlund G, Senn DR, **Spalding KL**, Arner P (2013) Adipocyte triglyceride turnover and lipolysis in lean and overweight subjects. J Lipid Research 54(10):2909-2913.

Hyvönen MT, **Spalding KL** (2014) Maintenance of white adipose tissue in man. Int J Biochem Cell Biol. 56:123-132.

Alkass K, Saitoh H, Buchholz B, Bernard S, Holmlund G, Senn DR, **Spalding KL**, Druid H (2013) Analysis of radiocarbon, stable isotopes and DNA in teeth to facilitate identification of unknown decedents. PLoS One 8(7):e69597. PMID:23922751

Spalding KL, Bergmann O, Alkass K, Bernard S, Salehpour M, Huttner HB, Boström E, Westerlund I, Vial C, Buchholz BA, Possnert G, Mash DC, Druid H, Frisén J (2013) Dynamics of Hippocampal Neurogenesis in Adult Humans. Cell 153(6):1219-1227.

Bergmann B, Liebl J, Bernard S, Alkass K, Yeung, MSY, Steier P, Kutschera W, Jonsson L, Landén M, Druid H, **Spalding KL**, Frisén J (2012). The age of olfactory bulb neurons in humans. Neuron 74(4):634-639.

Arner P, Bernard S, Salehpour M, Possnert G, Leibl J, Steier P, Buchholz BA, Eriksson M, Arner E, Hauner H, Skurk T, Ryden M, Frayn KN, **Spalding KL** (2011) Dynamics of human adipose lipid turnover in health and metabolic disease. Nature, 478(7367):110-113.

Frayn K, Bernard S, **Spalding KL**, Arner P. (2012) Adipocyte triglyceride turnover is independently associated with atherogenic dyslipidemia. J Am Heart Assoc. 1(6):e003467, PMID: 23316323.

Speller CF, **Spalding KL**, Buchholz BA, Hildebrand D, Moore J, Mathewes R, Skinner MF, Yang DY (2011) Personal identification of cold case remains through combined contribution from anthropological, mtDNA and bomb–pulse dating analyses. J Forensic Sci. 57(5):1354-60.

Alkass K, Buchholz B, Druid H, **Spalding KL** (2011) Analysis of 14C and 13C in human teeth provides precise birth dating and clues to geographical location. Forensic Sci Int. 209:34-41.

Alkass K, Buchholz BA, Ohtani S, Yamamoto T, Druid H, **Spalding KL** (2010) Age estimation in forensic sciences: application of combined aspartic acid racemization and radiocarbon analysis. Mol Cell Proteomics 9(5):1022-1030.

Arner P, **Spalding KL** (2010) Fat cell turnover in humans. Biochem Biophys Res Commun 396(1):101-104.

Arner E, Westermark PO, **Spalding KL**, Britton T, Rydén M, Frisén J, Bernard S, Arner P (2010) Adipocyte turnover: Relevance to human adipose morphology. Diabetes 59(1):105-109.

Buchholz BA, **Spalding KL** (2010) Year of birth determination using radiocarbon dating of dental enamel. Surface and Interface Analysis 42(5):398-401.

Bernard S, Frisén J, **Spalding KL** (2010) A mathematical model for the interpretation of nuclear bomb test derived 14C incorporation in biological systems. Nuc Inst and Methods in Physics Res B 268(7-8):1295-1298.

Spalding KL, Arner E, Westermark PO, Bernard S, Buchholz BA, Bergmann O, Blomqvist L, Hoffstedt J, Näslund E, Britton T, Concha H, Hassan M, Ryden M, Frisén J, Arner P (2008) Dynamics of fat cell turnover in humans. Nature 453:783-787.

Bhardwaj RD, Curtis MA, **Spalding KL**, Buchholz BA, Fink D, Björk-Eriksson T, Nordborg C, Gage FH, Druid H, Eriksson PS, Frisén J (2006) Neocortical neurogenesis in humans is restricted to development. PNAS 103(33):12564-12568.

Spalding KL, Buchholz BA, Bergyman L-A, Druid H, Frisén J (2005) Forensic medicine: Age written in teeth by nuclear bomb tests. Nature 437:333-334.

Spalding KL, Bhardwaj RD, Buchholz BA, Druid H, Frisén J (2005) Retroactive birth dating of cells. Cell 122:133-143.

Holmberg J, Armulik A, Senti K-A, Edoff K, **Spalding KL**, Momma S, Cassidy R, Flanagan JG, Frisén J (2005) Ephrin-A2 reverse signaling negatively regulates neural progenitor proliferation and neurogenesis. Genes and Dev 19:462-471.

Spalding KL, Cui Q, Harvey AR (2005) Retinal ganglion cell neurotrophin receptor levels and trophic requirements following target ablation in the neonatal rat. Neurosci 131:387-395.

Spalding KL, Dharmarajan A, Harvey AR (2005) Caspase-independent retinal ganglion cell death after target ablation in the neonatal rat retina. EJN 21:33-45.

Mellough CB, Cui Q, **Spalding KL**, Symons NA, Pollett MA, Snyder EY, Macklis JD, Harvey AR (2004) Fate of multipotent neural precursor cells transplanted into mouse retina selectively deplete of retinal ganglion cells. Experimental Neurology 186(1):6-19.

Spalding KL, Rush RA, Harvey AR (2004) Target-derived and locally derived neurotrophins support retinal ganglion cell survival in the neonatal rat retina. Journal of Neurobiology 60(3):319-327.

Spalding KL, Tan MML, Hendry IA, Harvey AR (2002) Anterograde transport and trophic actions of BDNF and NT-4/5 in the developing rat visual system. Molecular and Cellular Neuroscience 19(4):485-500.

Spalding KL, Cui Q, Harvey AR (1998) The effects of central administration of neurotrophins or transplants of fetal tectal tissue on retinal ganglion cell survival following removal of the superior colliculus in neonatal rats. Developmental Brain Research 107(1):133-142.

Book chapters, reviews

Kuhn HG, Eisch AJ, **Spalding K**, Peterson DA (2016). Detection and Phenotypic Characterization of Adult Neurogenesis. Cold Spring Harb Perspect Biol. 7(7):a018994.

Bergmann O, **Spalding KL**, Frisén J (2015) Adult neurogenesis in humans. Cold Spring Harb Perspect Biol. 7(7):a018994.

Arner P, **Spalding KL** (2010) Fat cell turnover in humans. Biochem Biophys Res Comm 396:101-104.

Spalding KL, Cui Q, Dharmarajan A, Harvey AR (2006) Injury-induced retinal ganglion cell loss in the neonatal rat retina. Book chapter in Retinal Degenerative Diseases, edited by Hollyfield, J.G., Anderson, R.E., and LaVail, M.M. Springer, New York, NY.

Department of Biostatistics UCLA

Steve Horvath

Professor of Human Genetics & Biostatistics

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Department of Biostatistics
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Department of Human Genetics
UCLA David Geffen School of Medicine
Los Angeles, CA 90095-7088

Email:
[redacted]

Education:

B.S. Mathematics and Physics (1989) Technical University of Berlin
Ph.D. Mathematics (1995) University of North Carolina, Chapel Hill
Sc.D. Biostatistics (2000) Harvard University

Research Interests:

I am a Professor in Human Genetics and Biostatistics at UCLA. My methodological research area lies at the intersection of biostatistics, bioinformatics, computational biology, cancer research, genetics, epidemiology, machine learning, and systems biology. My group applies these methods to study a broad spectrum of diseases, e.g. aging research, cancer, cardiovascular disease, HIV, Huntington's disease, neurodegenerative diseases.

Systems biology and systems genetics: My group develops and applies methods for analyzing and integrating gene expression-, DNA methylation-, microRNA, genetic marker-, and complex phenotype data. In particular, we developed weighted correlation network analysis (also known as weighted gene co-expression network analysis WGCNA), which is a systems biologic data analysis method for analyzing high dimensional "-omics" data. These methods also lend themselves for comparing different species at the genomic level. A lot of material including articles, R software tutorials, and youtube lectures can be found here http://labs.genetics.ucla.edu/horvath/htdocs/CoexpressionNetwork/.

Biomarker development: My group works on all aspects of biomarker development: data collection, novel data analysis methods, and biomarker validation studies. For example, we worked on genomic biomarkers of aging and age related diseases including cancer. We compared standard meta analysis methods with network based meta analysis methods:http://labs.genetics.ucla.edu/horvath/CoexpressionNetwork/MetaAnalysis/.

Machine learning methods: We work both on supervised and unsupervised machine learning methods. For example, we developed the random generalized linear model (randomGLM) predictor, seehttp://labs.genetics.ucla.edu/horvath/htdocs/RGLM/ random forest clustering (http://labs.genetics.ucla.edu/horvath/RFclustering/RFclustering.htm), and the cluster and propensity based approximation of a network (CPBA): http://labs.genetics.ucla.edu/horvath/htdocs/PropClust/.

Genome wide association studies: I have long standing interest in developing and applying allelic association tests, e.g. I have worked on the family based association test (FBAT), see http://www.biostat.harvard.edu/fbat/fbat.htm. More recently my group is interested in enhancing GWAS studies and exome sequencing methods.

Epigenomics: Methods and applications surrounding epigenetic data (in particular DNA methylation data) to study human diseases (e.g. age related diseases). Epigenetics is the study of changes in gene expression or cellular phenotype, caused by mechanisms other than changes in the underlying DNA sequence.

Courses:

Chemistry 260 Statistical Methods for Microarray Data Analysis
Human Genetics 236 Advanced Human Genetics: Statistical Genetics and Human Disease Genes
Biostat 250B Linear Statistical Models
Biostat M278 Statistical Analysis of DNA Microarray Data
Biostat 402B Biostatistical Consulting

Links:

Statistical Genetics at UCLA

Biosketch

EXHIBIT
P

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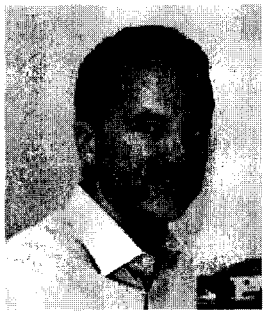
Devin Absher, Ph.D.



Faculty Investigator

Devin Absher, Ph.D., did his graduate work in genetics at Emory University and completed his post-doctoral training at Stanford University. Following his post-doctoral work he was a senior scientist at the Stanford Human Genome Center and moved to HudsonAlpha to establish his own lab in 2008.

Absher's lab has been involved in multiple genome-wide association studies and other studies of global genetic variation in the human population including the Human Genome Diversity Project. He has used the data to identify genetic contributors to human traits such as pigmentation, craniofacial features, height and BMI. Absher and his team have also been involved in large-scale studies such as The Cancer Genome Atlas. Most recently, Absher's focus has been on developing sequence-based and microarray-based technologies for measuring DNA methylation levels in the human genome.

Current research areas in the Absher Lab include:

- Using next-generation sequencing to identify genetic and epigenetic factors contributing to systemic lupus erythematosus (SLE).
- Characterizing DNA methylation signatures correlated to aging. Using micro-array based met hylation assays, Dr. Absher's lab identified a group of methylated sites in the genome that change with age. They are working to determine the functional effects of altered methylation due to aging.
- Conducting genome-wide association studies to identify genetic factors associated with rheumatoid arthritis in African Americans.

Selected recent publications

Julià, A. et al. (2012). Risk variants for psoriasis vulgaris in a large case-control collection and association with clinical subphenotypes. Hum. Mol. Genet. doi:10.1093/hmg/dds295.

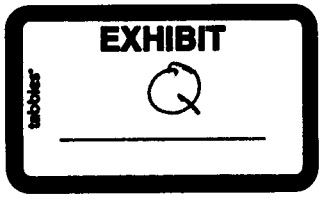
Kobayashi, Y. et al. (2011). DNA methylation profiling reveals novel biomarkers and important roles for DNA methyltransferases in prostate cancer. Genome Res. 21: 1017–1027.

Murabito, J. M. et al. (2012). Association between chromosome 9p21 variants and the ankle-brachial index identified by a meta-analysis of 21 genome-wide association studies. Circ. Cardiovasc Genet. 5: 100–112.

Julià, A. et al. (2012). A genome-wide association study on a southern European population identifies a new Crohn's disease susceptibility locus at RBX1-EP300. Gut. doi:10.1136/gutjnl-2012-302865.

Pemberton, T. J. et al. (2012). Genomic patterns of homozygosity in worldwide human populations. Am. J. Hum. Genet. 91: 275–292.

SHARE



Curriculum Vitae

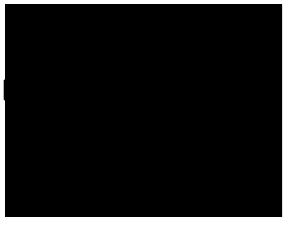
of

Skip Palenik

(spalenik@microtracellc.com)

Current as of 1/7/2016

Microtrace



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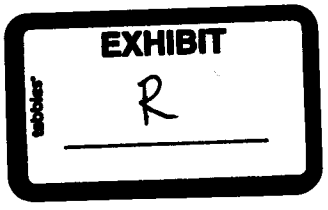

Table of Contents

Educational History

- University of Illinois at Chicago, Bachelor of Science – Chemistry (ACS) with emphasis on analytical methods.
- McCrone Research Institute, Chicago. Courses in photomicrography, applied polarized light microscopy, identification of small particles, advanced crystallography and scanning electron microscopy.
- Courses in hair microscopy, species identification of paper fibers, paper fiber analysis, pollen identification, microscopy of soil minerals, cement microscopy, pharmacognosy, micro-techniques, wood identification, thin layer chromatography and vegetable fiber identification.

Employment

- Founder, President and Senior Research Microscopist, Microtrace (1992 – present)
- Senior Research Associate, McCrone Associates (1987 – 1992)
- Senior Research Microscopist, McCrone Associates (1979 – 1992)
  - Supervise light microscopy section. Application of polarized light microscopy and microchemical methods to the identification of single particles. Research in new methods to aid in the identification of microscopic particles of minerals, industrial dusts, combustion products, botanical fragments, hairs, fibers and crystals; application of these methods to forensic science, contamination control and airborne particulate studies. Court qualified expert (State, Federal and Foreign courts) in forensic microscopy and chemistry.
- Research Microscopist, McCrone Associates (1974 – 1979)
- Research Assistant, Department of Criminal Justice, University of Illinois at Chicago (1972 – 1974)
  - Analytical chemistry and microscopy applied to criminalistics.
- Research Assistant, Department of Chemistry, University of Illinois at Chicago (1970 – 1972)
  - Coordination compound chemistry and crystallography.
- Intelligence Analyst, United States Army Intelligence, Stuttgart, Federal Republic of Germany (1966 – 1969)

Professional Affiliations

- McCrone Research Institute, Chicago, Board of Directors
- American Chemical Society, Member
- American Academy of Forensic Sciences, Fellow
- Scientific Working Group for the analysis of Geological Materials (SWGGEO), founding member
- American Society of Trace Evidence Examiners (ASTEE), Charter Member

- American Association of Feed Microscopists, Member
- American Association of Textile Chemists and Colorists, Member
  - Appointed to the American Association of Textile Chemists and Colorists (AATCC) Research Committees on Fiber Analysis Methods and Spectroscopic Technologies (2014)
- American Association of Stratigraphic Palynologists, Member
- American Association of Feed Microscopists, sub-division of American Oil Chemists Society, Member.
- California Association of Criminalistics, Member
- Canadian Society of Forensic Science, Member
- Chicago Society for Coatings Technology, Member
- International Association of Wood Anatomists, Member
- Midwestern Association of Forensic Scientists, Member
- State Microscopical Society of Illinois, Member, past President, past Curator
- Queckett Microscopical Club, United Kingdom, Member
- Royal Microscopical Society, United Kingdom, Fellow

Honors and Appointments

- Chemistry/Instrumental Analysis Scientific Area Committee's (SAC's) Materials (Trace) Subcommittee within the Organization of Scientific Area Committees (OSAC), appointed by Mark Stolorow of the National Institute of Standards (NIST) (2014-present)
- 2013 Recipient of the "Edmond Locard Award for Excellence in Trace Evidence" presented by the American Society of Trace Evidence Examiners
- 2012 Recipient of the "Ernst Abbe Memorial Award" presented by the New York Microscopical Society
- 2010 Recipient of the "Chamot" Award presented by the State Microscopical Society of Illinois
- 2009 Recipient of the "Paul L. Kirk" Award the highest honor bestowed by the Criminalistics Section of the American Academy of Forensic Sciences
- 2004 Distinguished Scientist Award, Midwestern Academy of Forensic Sciences
- Listed in American Men and Women in Science

Expert Testimony and Deposition

- List can be provided upon request.

Teaching Experience

- Instructor, McCrone Research Institute, Chicago (1975 – present). One to three week short courses in chemical microscopy, applied polarized light microscopy, microchemical analysis, crystallography, hairs, fibers, polymers, food contaminants, botanical fragments and pollens.
- Adjunct Lecturer, University of Illinois at Chicago, School of Pharmacy, Department of Pharmacokinetics (1989 – 1992)
- Adjunct Lecturer, University of Illinois at Chicago, Department of Criminal Justice (1986 – 1989). Quarter courses in Chemical Microscopy and Applied Analytical Chemistry.
- Instructor, Illinois Institute of Technology, Chicago (1975 – 1979). Semester courses in Chemical Microscopy.

Research Grants

Advanced research in Microspectrophotometry of Fibers: Analysis and Interpretation (National Institute of Justice, 2012-DN-BX-K040) – Role: Principal Investigator

Development of a Turnkey Analytical System for the Forensic Comparison and Identification of Fiber Dyes on Casework-sized Fibers (National Institute of Justice, 2012-DN-BX-K42) – Role: Co-Principal Investigator

Raman spectroscopy of automotive and architectural pigments: in situ identification and evidentiary Significance (National Institute of Justice, 2011-DN-BX-K557) – Role: Co-Principal Investigator

Fundamentals of Forensic Pigment Identification by Raman microspectroscopy: A practical identification guide and spectral library (National Institute of Justice, 2010-DN-BX-K236) – Role: Co-Principal Investigator

Publications and Teaching

Courses and Workshops Taught

- US Army Criminal Investigation Laboratory
  - Forensic Soil Examination
- Washington State Police
  - Advanced Topics in Trace Evidence Analysis (2 weeks)
- Royal Canadian Mounted Police (Canada)
  - Forensic Microscopy
- Pitcon Conference
  - Microscopy & Microanalysis
- Texas Department of Public Safety
  - Forensic Microscopy
  - Forensic Examination of Fibers
- State of North Carolina Crime Laboratory

  - Forensic Microscopy

- New York City Crime Laboratory
  - Special Techniques of Forensic Microscopy

- State of Louisiana Crime Laboratory
  - Forensic Fiber Microscopy

- State of Illinois Crime Laboratory
  - Vegetable Fibers

- California Criminalistics Institute
  - Identification of Animal Hair
  - Forensic Soil Microscopy

- Forensic Science Service (United Kingdom)
  - Human Hair Comparison

- Linear Health Care
  - Introduction to Pharmacognosy

- State Microscopical Society of Illinois
  - General Microscopy, Forensic Paper Identification

- Forensic Science Foundation
  - Basic Forensic Microscopy
  - Forensic Microscopy of Soils
  - Forensic Microscopy of Botanical Materials
  - Forensic Analysis of Fibers

- United States Customs
  - Analytical Microscopy
  - Identification of Dog and Cat Hairs to Enforce New U.S. Regulations

- Royal Canadian Mounted Police
  - Forensic Fiber Microscopy

- Louisiana State Crime Laboratories
  - Forensic Hair Microscopy

- 3M Research Laboratories
  - Microchemical Analysis

- Campbell Center for Historic Conservation (Museum Conservators)
  - Identification of Plant Fibers of Ethno-botanical Interest
  - Microchemistry for Objects Conservators

Publications (Select)

Ballou, S., Houck, M., Siegel, J.A., Crouse, C.A., Lentini, J.J., and Palenik, S. (2013) "Criminalistics: the bedrock of forensic science" in Forensic Science: Current Issues, Future Directions, Ubelaker, D.H. (ed.) Wiley-Blackwell.

Palenik, S.J. (2007) Heavy Minerals in Forensic Science, in Heavy Minerals in Use, ed. M. Mange: Elsevier.

Palenik, C.S. and Palenik, S.J. (2004) Forensic Science and Academic Science: Comment on Forensic Science: Oxymoron?. Science, 303, 1136.

Bartick, E.G. and Palenik, S.J. (2004) Forensic Analysis, in Encyclopedia of Polymer Science and Technology, John Wiley and Sons, DOI: 10.1002/0471440264.pst140

Palenik, C.S. and Palenik, S.J. (2004) Forensic Microscopy, in Encyclopedia of Analytical Sciences, 2nd Ed., eds. Worsfold, P., Townshend, A and Poole, C. Elsevier, NY.

Palenik, SJ, Dust. Encyclopedia of Forensic Science, Academic Press (2000).

Palenik, SJ, Microchemistry. Encyclopedia of Forensic Science, Academic Press (In Press).

Palenik, SJ, Microscopy. Encyclopedia of Forensic Science, Academic Press (2000).

Palenik, SJ, Wood Identification. Encyclopedia of Forensic Science, Academic Press (2000).

Palenik, SJ, Fiber Microscopy. In: Forensic Examination of Fibers,2nd Ed., Grieve, M, Ed. John Wiley & Sons, 1999.

Palenik, SJ, Isolation and Identification of Paint Pigments by Sublimation. *Crime Laboratory Digest*, Vol. 23, 1, 1996.

Palenik, SJ and Fitzsimons, CA, Fiber Cross-Sections, Part I. *The Microscope*, Vol. 38, 187-195, 1990.

Palenik, SJ and Fitzsimons, CA, Fiber Cross-Sections, A New Method for Preparing Sections, Part II. *The Microscope*, Vol. 38, 313-320, 1990.

Palenik, SJ, Microscopy and Microchemistry of Physical Evidence. In: Forensic Science Handbook, Vol. 2, Richard Saferstein, Ed., Prentice Hall, 1988.

Palenik, SJ, Forensic Aspects of Polymer Analysis. Encyclopedia of Polymer Science and Engineering, 2nd ed., Vol. 7, John Wiley & Sons, 279-289, 1987.

Palenik, SJ, Light Microscopy of Medullary Micro-structures in Hair Identification, *The Microscope*, Vol. 30, 129-138, 1982.

Palenik, SJ, Microscopic Trace Evidence – The Overlooked Clue, Part I, Albert Schneider Looks at Some String. *The Microscope*, Vol. 30, 93-100 1982.

Palenik, SJ, Microscopic Trace Evidence – The Overlooked Clue, Part II, Max Frei – Sherlock Holmes with a Microscope. *The Microscope*, Vol. 30, 163-170, 1982.

Palenik, SJ, Microscopic Trace Evidence – The Overlooked Clue, Part III, E.O. Heinrich – "The Wizard of Berkeley". Traps a Left-Handed Lumberjack. *The Microscope*, Vol. 30, 281-290, 1982.

Palenik, SJ, Microscopic Trace Evidence – The Overlooked Clue, Part IV, Arthur Koehler – Wood Detective. *The Microscope*, Vol. 31, 1-14, 1983.

Palenik, SJ and McCrone WC, The Solids We Breathe. *Industrial Research*, April 1977.

Palenik, SJ, Microscopy and the Law. *Industrial Research and Development*, March 1979.

Palenik, SJ, Microchemical Tests in Particle Identification. The Particle Atlas, Vol. 5, Ann Arbor Publishers, 1979.

Palenik, SJ, Microscopical Examination of Air Pollutants. The Particle Atlas, Vol. 5, Ann Arbor Publishers, 1979.

Palenik, SJ, The determination of Geographical Origin of Dust Samples. The Particle Atlas, Vol. 5, Ann Arbor Publishers, 1979.

Palenik, SJ and Delly, JG, Is it Jade? The Microscope in Art and Archaeology. *Industrial Research*, May 1976.

Abstracts and Talks (Selected)

Over 200 papers presented at professional meetings and seminars.

Palenik, C.S. and Palenik, S.J. (2015) Microtrace to Nanotrace: Extracting information at increasingly smaller length scales. American Academy of Forensic Sciences Annual Meeting, Orlando, FL.

Applications of Forensic Microanalytical Methods to the Identification and Sourcing of Particulate Matter in Pharmaceutical Products. Invited presentation at Microscopy & Microanalysis 2013 sponsored by the Microscopy Society of America, Indianapolis, IN.

Forensic Microscopy. Invited presentation at Cambridge University, England, June 2008.

Trace Evidence and the Law. Presentation during "Short Course for Prosecutors and Defense Attorneys" at Northwestern University, August, 2005.

Forensic Microscopy. Lawrence Livermore National Laboratory, April 14, 2004.

Microscopic Trace Evidence: The Overlooked Clue, Wesleyan University, Middleton, CT, February 25, 2004

Practical aspects of electron microscopy in the trace evidence laboratory, Forensic Microscopy- Spreading best practice, Royal Microscopical Society, Oxfordshire, England. June 20, 2003

Casework examples illustrating the integration of polarized light microscopy and scanning electron microscopy in the study of microscopic trace evidence, Scanning 2003, May 3, 2003

Forensic Soil Examination, Forensic Geoscience: Principles, Techniques and Applications, The Geological Society, Burlington House, London. March 3-4, 2003

Just say it ain't so, Joe: Analysis of Joe DiMaggio signed jerseys, Inter/Micro-02, Chicago, IL. June 24-29, 2002

Microscopy in the Pharmaceutical Industry, The Procter and Gamble Co., September, 2002.

Microscopy and Terrorism, State Microscopical Society of Illinois, May 11, 2002

Light and electron microscopy in soil investigation, Inter/Micro-01, Chicago, IL. June 25-28, 2001

Accessories and components for the microscopist, Inter/Micro-00, Chicago, IL. June 26-29, 2000

Contribution of chemical microscopy to trace evidence analysis, 219th Annual American Chemical Society Meeting - Division of Analytical Chemistry. March 26-30, 2000

Fundamental of forensic microscopy, Federation of Analytical Chemistry and Spectroscopy Societies, 2000

Splitting hairs: for fun and (intellectual) profit, Inter/Micro-99, Chicago, IL. June 28-July 1, 1999

Putting chemistry back into chemical microscopy, Inter/Micro-98, Chicago, IL. August 10-12, 1998

Let's take a dip - Lecture/demonstration on immersion microscopy, Inter/Micro-97, Chicago, IL. July 21-23, 1997

Compensators for all seasons - Lecture/demonstration on compensators, Inter/Micro-95, Chicago, IL. July 11-13, 1995

The forensic examination of particles recovered from surfaces, Microbeam Analysis Society, June 1-4, 1993

Methods for the Identification of Vegetable Fibers, Forensic Microscopy Session: Skip Palenik, Chairman. Inter/Micro-93, Chicago, IL, 1993.

Micro-FTIR Spectroscopy of Acrylic Fibers, American Academy of Forensic Sciences, 42nd Annual meeting, Cincinnati, OH, 1990.

Forensic Microscopy as an Investigative Tool, Crime Scene Investigation Seminar, California Association of Criminalists, Santa Ana, CA, 1988.

The Microscope – The Most Versatile Diagnostic and Analytical Tool in the Materials Sciences. Carl Zeiss Annual Dealer Symposium, Phoenix, AZ, 1988.

Evidential Value of Cotton Fibers. Trace Evidence Analysis: Skip Palenik, Chairman. Eastern Analytical Symposium, Silver Jubilee, New York City, NY, 1986.

Light Microscopy: Chemistry at the Picogram Level. Pharmaceutical Applications of Microscopy, American Pharmaceutical Association Meeting, Minneapolis, MN, 1985.

FTIR Spectroscopy Coupled with Microscopy – A New Tool for the Forensic Scientist. American Chemical Society Meeting, Miami, FL, 1985.

Advances in Solution of Crimes. Press Conference, American Chemical Society Meeting, Miami, FL, 1985.

Microscopical Techniques for the Examination of Soil in Criminal Cases. International Association of Forensic Sciences, Oxford, 1984.

Parmacognosy as a Tool for the Analytical Microscopist. Inter/Micro-84, Chicago, IL 1984.

RESUME
G. NELSON EBY

DATE: July 11, 2016

EDUCATION:

Ph.D., Geology, Boston University, 1971
M.S., Geology, Lehigh University, 1967
B.A., Geology, Lehigh University, 1965

PROFESSIONAL AND RESEARCH EXPERIENCE:

University of Massachusetts Lowell
Professor, 1986-present
Associate Professor, 1975-1986
Assistant Professor, 1972-1975
Instructor, 1970-1972

Chair, Department of Environmental, Earth & Atmospheric Sciences, 2011-present

Affiliated Faculty Member, University of Massachusetts Marine Sciences Graduate Program, 2003-present

Faculty Associate, Center for Complex Environmental Systems (CCES), University of Massachusetts Lowell, 2001-present

Faculty Associate, Center for Environmental Engineering, Science and Technology (CEEST), University of Massachusetts Lowell, 1992-2001

Principal Researcher, Russian Academy of Sciences, 1999

Visiting Associate Professor, Boston University, 1985

Visiting Academic
Department of Geology, University of Canterbury, New Zealand, 1998, 1990
Department of Geology and Mineralogy, University of Queensland, Australia, 1997-1998, 1989
Department of Earth Sciences, University of Oxford, 1987, 1982

Guest of the Institute, MIT, 1969-1971

Industrial
Exxon Minerals, 1972, 1968, 1967
North American Exploration, 1966
Cleveland Cliffs Iron, 1965

EXHIBIT
S

COURSES TAUGHT:

General Education:

Forensic Geology (Honor's course)
General Geology I & II
Introduction to Environmental Science
Introduction to Environmental Science (Honor's course)
Introduction to the Oceans
The Earth and Its Environment I & II

Undergraduate Science Majors:

Introduction to Computers in the Geosciences (freshman-junior)
Principles of Earth and Environmental Systems I & II (sophomore)
Oceanography (sophomore-junior)
Earth Materials I & II (sophomore-senior)
Environmental Geochemistry (junior)
Geology for Engineers (junior-senior)
Igneous & Metamorphic Petrology (junior-senior)
Mineralogy & Crystallography (junior-senior)
Sedimentation & Stratigraphy (junior-senior)
Structural Geology (junior-senior)
Honors Research in Geology (senior honor's projects)

Advanced Undergraduate - Graduate:

Advanced Geochemistry
Applied Geophysics
Economic Geology
Environmental and Engineering Geology
Marine Geology

UNDERGRADUATE RESEARCH PROJECTS SUPERVISOR:

Chemistry and Petrogenesis of Coastal New England Mafic Dikes – Ryan Farrell, Allison O'Connor and Tom Tannozonni (2014)

Chemistry and Petrogenesis of Post-Orogenic Granites, Western Argentina - Andrew Beane (2010)

Trace Element Geochemistry and Sources of Cameroon Volcanic Line Oceanic Basalts - Kathy Milidakis (2001)

Trace Element Geochemistry and Sources of Cameroon Volcanic Line Continental Basalts - Jaime Hussey (2001)

Instrumental Neutron Activation Analysis of Lyttelton lavas and a petrogenetic model for the Lyttelton volcano, New Zealand - Lori Weeden (2000)

K-Ar and U-Pb Geochronology of the North Nyasa Alkaline Province, Malawi - Craig Carpenter (1997)

Geochemistry of the Granite Mountain and Bath Quarry Syenite Complexes, Arkansas Alkaline Province - Louis Burkhardt (1995)

Geochemistry of the Magnet Cove and Potash Sulfur Springs Carbonatite Complexes, Arkansas Alkaline Province - Gino Tiella (1995)

Petrology and Geochemistry of the Beemerville Complex, New Jersey - Laurene Poland (1993)

Nepheline Syenite and Mafic Dike Rocks of the Beemerville Carbonatite-Alkalic Rock Complex, New Jersey - Scott Maher (1993)

Partial Analysis of the Foliated Diorite Unit of the Mount Pawtuckaway Ring-dike Complex - Mark Kick (1990)

Geochronology and Petrochemistry of Chaone and Chinduzi Plutons of the Chilwa Alkaline Province, Malawi - Elizabeth Herling (1989)

Trace Element Geochemistry and Apatite Fission-track Geochronology for Zomba and Malosa Mountains, Malawi - Wade Ewing (1989)

Major Element Geochemistry and Petrology of Little Rattlesnake Hill, Fremont, New Hampshire - William Stefanov (1987)

Petrology of the Foliated Diorite Unit of the Mount Pawtuckaway Plutonic Complex - John Dadoly (1985)

Geochemistry of the Merrymeeting Lake Complex, White Mountain Petrographic Province - Robert Peterson (1981)

Geochemistry of the Mount Pawtuckaway Ring-dike complex, White Mountain Petrographic Province - Mark Lambert and James Plunkett (1981)

Physical and Biological Aspects of Spruce Swamp - Thomas Dufresne, William Smith, and Thomas Valorose (1974)

MASTERS RESEARCH PROJECTS:

Master's Thesis Advisor:

Major and Rare-earth Geochemistry of Mount Rougemont, Quebec - Carolyn Jacobson, Department of Geology, Boston University (1980-1981)

M.S. Thesis Committee:

Modal and Acoustic Evaluation for the Petrographic Properties of Florida Coarse Aggregate - Peter Tavilla, Department of Mechanical Engineering, University of Massachusetts, Lowell (2007)

A Case Study of the Princeton, Massachusetts "Father's Day" Tornado of June 17, 2001 - Richard Hamel, Department of Environmental, Earth, and Atmospheric Sciences, University of Massachusetts, Lowell (2004)

MSc. External Examiner:

The Geology of Lyttelton 1 Volcano - Robert Neumayr, Department of Geological Sciences, University of Canterbury, New Zealand (1998)

PH. D. RESEARCH PROJECTS:

Ph.D. Thesis Committee:

Mapping, petrologic and geochemical explorations of the Massabesic Gneiss Complex in New Hampshire - Charles Kerwin, Department of Earth Sciences, University of New Hampshire (2002-2007)

Atmospheric Deposition of Metals and Organics onto Massachusetts and Cape Cod Bays: A Comparison of Measurement Techniques and Source Apportionment - Jeffrey Underhill, Department of Civil Engineering, University of Massachusetts, Lowell (1993-1995)

Ph.D. External Examiner:

Archaean Crustal Evolution in Eastern Finland: New Geochronological and Geochemical Constraints from the Kuhmo Terrain and the Nurmes Belt - Aski Käpyaho, Department of Geology, University of Helsinki, Finland (2007). ***Official Opponent***

Magmatic Processes Associated with the Development of Large Silicic Calderas - Ben Kennedy, Department of Earth and Planetary Sciences, McGill University, Canada (2006)

Geochronology, Geochemistry and Petrography of Late Archaean to Early Cretaceous Magmatic Rocks in Northeast China: Implication for Development of the Central Asian Orogenic Belt - Matthew Grant, Department of Geology, Curtin University of Technology, Australia (2005)

Petrogenesis of the Late Archean Quetico Alkaline Suite Intrusions, Western Superior Province, Canada - Birgitte Lassen, Department of Earth Sciences, University of Ottawa, Canada (2004)

The Petrology of the Hohonu Batholith, North Westland, New Zealand -Tod Waight, Department of Geology, University of Canterbury, New Zealand (1995)

Ph.D. External Advisor:

Mineralogy, petrology and geochemistry of Foid-Syenites of East Azarbaijan, NW Iran - Nasser Ashrafi, Department of Geology, Faculty of Natural Sciences, Tabriz University, Iran (2007 - 2010)

Mineralogy and Trace Elements of the Cretaceous Greymouth Coals and their Combustion Products - Li Zhongsheng, Department of Geological Sciences, University of Canterbury, New Zealand (1998-2002)

Provenance Study of the Torlesse Terranes - Implications for the Origin of the Continental Crust of Eastern New Zealand - Anekant Wandress, Department of Geological Sciences, University of Canterbury, New Zealand (1998-2002)

Eruptional and Post-Eruptional Processes in Rhyolite Domes - Jens Richnow, Department of Geological Sciences, University of Canterbury, New Zealand (1998-1999)

The Petrology and Geochemistry of Tongariro Volcano, New Zealand - Barbara Hobden, Department of Geology, University of Canterbury, New Zealand (1990-1993)

UNIVERSITY SERVICE ACTIVITIES:

Faculty Advisor:
- Outing Club, 1996
- Sigma Gamma Epsilon (Earth Science Honor Society), 1990-2009
- Society of Environmental Scientists, 1990-2005
- Rugby Club, 1993-1994

University Honors' Program:
- Chair, Honors Council Steering Committee, 2004-2010
- Department Coordinator, 1996-present
- Member of Honors' Council, 1996-present

University Speaker's Bureau, 1990-1996
- Topical presentations at local high schools
- Career planning presentations

Bourgeois Residential College Adopt-A-Faculty Program, 1992-1994

Faculty Senate
- Senator, 1992-1996
- Member, Research and Development Committee, 1992-1996
- Chair, Research and Development Committee, 1995-1996
- Member of Executive Committee, 1995-1996
- Member, Graduate Policy and Affairs Committee, 1996-1997

Graduate Committee, College of Sciences
- Member 1992-2011
- Chair, 1996-2011

University Radiation Safety Committee
Member, 1977-present

University General Education Committee
Member 2006-2010

HONORS:

Elected Fellow, Mineralogical Society of America, 2014
Elected Fellow, Geological Society of London, 2012
Visiting Senior Fellow, Linacre College, University of Oxford, 1982-present
Erskine Fellow, University of Canterbury, New Zealand, 1998
Elected Fellow, Geological Society of America, 1986
Listed in Who's Who in America Science and Engineering, 1999-present
Listed in Who's Who Among America's Teachers, 1996-present
Listed in American Men & Women of Science, 1989-present
Elected Full Member, Sigma Xi, The Scientific Research Society, 1971

GRANTS AND CONTRACTS:

NATO Collaborative Research Grants Programme - Petrogenesis of ultrapotassic lavas, carbonatites and mantle xenoliths, southwest Uganda, 1996-1998 ($6,000)

National Research Council Collaboration in Basic Science and Engineering Grants Program - Geology, Geochemistry, Geochronology, Isotope Geology and Petrogenesis of Early Proterozoic A-type Granitoids, Kola Peninsula, Russia, 1996 ($2,200)

Massachusetts Department of Public Health - Neutron Activation Analysis of Arsenic in Hair, 1994 ($1,000)

Polaroid Corporation - Neutron Activation and Analysis to Determine Cr Concentration in Paper Samples, 1992 ($338)

Massachusetts Bays Program - Atmospheric Deposition of Contaminants onto Massachusetts and Cape Cod Bays (co-PI), 1991-1993 ($149,998)

Geological Survey of Canada - Geochemical Study of Magmatic Rocks of the Saint John District, New Brunswick, 1988-1989 ($7,000)

NATO Collaborative Research Grants Programme - Mineralogy and Geochemistry of Pre-Chilwa Province Alkaline Rocks, Malawi, 1988-1989 ($5,500)

Geological Survey of Canada - Geochemistry of Basaltic Rocks of the Saint John Area, New Brunswick, 1987-1988 ($6,000)

Geological Survey of Canada - Petrography and Geochemistry of Volcanic Rocks from the St. John District of New Brunswick, 1986-1987 ($5,000)

U. S. Geological Survey - Fission-track Geochronology of the Arkansas Alkaline Province, 1986 ($3,000)

National Science Foundation - Petrography, Geochemistry, Geochronology, and Isotope Geology of Selected White Mountain Plutons (EAR-8600058), 1986-1988 ($40,000)

National Science Foundation - Acquisition of Gamma-Ray Spectroscopy Equipment for Research in the Earth and Environmental Sciences (EAR-8507042), 1985-1986 ($40,000 matching fund)

National Science Foundation - Acquisition of Research Microscope and Accessories for Research in Geology (PRM-8112191), 1982-1983 ($24,700)

Geological Society of America Penrose Grant, 1969-1970 ($1,500)

PROFESSIONAL MEMBERSHIPS:

American Geophysical Union
Association of Engineering Geologists, New England Section
Geochemical Society
Geological Society of America
Geological Society of London
Geological Society of New Hampshire
Health and Geology Division, Geological Society of America
Massachusetts Geological Society
Mineralogical Association of Canada
Mineralogical Society of America

OTHER PROFESSIONAL ACTIVITIES:

Editorial:

Lithos - Editor-in-Chief, 2007-present

The Canadian Mineralogist - Associate Editor, 1995-1998

Journal of African Earth Sciences - Regional Editor, 1994-1997

Co-editor of a special issue of ***The Canadian Mineralogist***, "Alkaline Rocks: Petrology and Mineralogy", 1996, v. 34, pt. 2.

National:

National Science Foundation, Division of Undergraduate Education, CCD/UFE panel member, 1996, 1997, 1999

Geological Society of America Campus Representative, 1985-present

Meetings:

Co-organizer of a special session on Mesozoic Igneous Features on Northeastern North America: Magmatic Origins and Links to Tectonic Events. Northeast section meeting of the Geological Society of America, Bretton Woods, New Hampshire (2013)

Co-organizer of a special session on Geology and Health. Northeast Section meeting of the Geological Society of America, Durham, New Hampshire (2007)

Member of the organizing committee, Association of Engineering Geologists National Meeting, Boston, 2006

Co-organizer of a special symposium on the alkaline rocks, GAC/MAC meeting, spring 1994

Geological Society of America Northeast Section Meeting, Boston, 1976. Member of organizing committee, treasurer and in charge of registration

Leadership:

Vice-President, New Hampshire Geological Society, 1994-1996

President, University of Massachusetts-Lowell Sigma Xi Club, 1984-1989, 1976-1982. University delegate to a number of National Sigma Xi meetings

Member and Chairperson of Burlington Conservation Commission, 1976-1982. Responsible for the enforcement of the Massachusetts Wetlands Protection Act and acquisition and development of conservation land.

Standards Programs:

Participant, PRIS Inter-laboratory Analytical Program for certification of sediments S-1 and S-2, 1996-1997.

Participant, U.S.G.S. round robin analysis program for new U.S.G.S. standard rock AGV-2, 1996

Participant, Canadian Certified Reference Materials Project, calibration of standard rock SY-4, 1994

Participant, international collaborative study of the chemistry of the new rock standard AC-E. Data reported in Govindaraju, K. (1987) 1987 compilation report on Ailsa Craig Granite AC-E with the participation of 128 GIT-IWG laboratories. Geostandards Newsletter 11, 203-255.

Short Courses and Workshops:

NSF "Geology and Human Health", Montana, May 2004

NSF "Teaching Petrology Workshop", Montana, July 2003

Chautauqua "Volcanic Hazards", Washington, July 2002

Chautauqua "Environmental Geochemistry", Illinois, June 1992

Invited participant, Carbonatite Field Workshop, Homa Bay, Kenya, 1987

Presenter - Teacher Workshops

Forensic Geology - An Inquiry Driven Approach to Learning Earth Science, Geological Association of New Jersey 2007 Annual Meeting, East Stroudsburg, PA, October 12, 2007.

Forensic Geology - An Inquiry Driven Approach to Learning Earth Science and Boston Basin Field Trip, Association of Engineering Geologists 2006 Annual Meeting, Boston, MA, November 4, 2006.

Theme Speaker, Geochemistry, New England Association of Chemistry Teachers Fifty-First Summer Conference, Roger Williams College, Bristol, RI, August 14-18, 1989.

Invited Lectures:

Bates College, Boston University, Bridgewater State University, Central Florida Community College, Geological Society of New Hampshire, Association of Engineering Geologists, Lehigh University, North Shore Rock & Mineral Club, Rensselaer Polytechnic Institute, Salem State University, United States Geological Survey (Menlo Park), University of Arkansas, University of Florida, University of Hartford, University of New Hampshire, University of Pennsylvania, Wesleyan University, Weston Observatory (Boston College)

Acadia University (CA), Carleton University (CA), Dalhousie University (CA), Geological Survey of Canada Logan Lecture (CA), St. Marys University (CA), Xavier University (CA)

University of Helsinki (FIN), University of Cordoba (AR), Kings College (UK), Queen's University (UK), University of Oxford (UK), University of Edinburgh (UK), Kola Geoscience Centre (RU), Stellenbosch University (SA), University of Cape Town (SA), Rhodes University (SA), University of Auckland (NZ), University of Canterbury (NZ), Victoria University of Wellington (NZ), Panjab University (IN), Wadia Institute of Himalayan Geology (IN), Nanjing University (CHI), Peking University (CHI), University of Queensland (AUS), University of New South Wales (AUS), Macquarie University (AUS), Curtin University (AUS), National Taiwan University (TW), National Taiwan Normal University (TW)

Other:

Contributed Instrumental Neutron Activation Analysis (INAA) page to the Cutting Edge Geochemical Instrumentation and Analysis web site.

Chair, Commonwealth College Honors Program Review Committee, Amherst, MA, 2006.

Keynote Speaker, "The Cortlandt-Beemerville Magmatic Belt and the Cameroon Volcanic Line: A Tale of Two Alkaline Provinces". Geological Association of New Jersey Twenty-First Annual Meeting, 2004.

Speaker, Massachusetts Council for International Education (MaCIE), "Killer Lakes of Cameroon", 2004-2006.

Speaker, Lowell Rotary Club, 2004.

CURRENT RESEARCH:

Chemistry and petrology of Trinitite.

Chemistry of Mayan ceramics. Collaborative project with Guido Pezzarossi (Ph.D. student), Stanford University.

Bromine in volcanic rocks from Oldoinyo Lengai, Tanzania, and granitoids from Bavaria. Collaborative project with Michael Marks, Universität Tübingen, Germany.

Chemistry of Polynesian obsidian artifacts. Collaborative project with Foss Leach, Chief Archaeologist for New Zealand.

Application of Instrumental Neutron Activation Analysis (INAA) to forensics.

Carboniferous A-type granitoids of west-central Argentina. Joint project with P. Alasino and J. Dalhquist, CONICET.

Fluorine and chlorine in alkaline magmas as monitored by the chemistry of micas, amphiboles and apatites. Joint project with N. Charnley, University of Oxford.

Petrogenesis of ultrapotassic lavas, carbonatites and mantle xenoliths, southwest Uganda. Joint project with A. R. Woolley, British Museum (now the Natural History Museum), F. Lloyd, University of Reading, and F. Stoppa, University of G. d'Annunzio, Italy.

Geology, Geochemistry, Geochronology, Isotope Geology and Petrogenesis of Early Proterozoic A-type Granitoids, Kola Peninsula, Russia. Joint project with D. Zozulya, F. Mitrofanov, T. Bayanova and Y. Balashov, Russian Academy of Sciences, Kola Science Centre.

Geochemistry of the Chilwa alkaline province, Malawi. Joint research program with A. R. Woolley, Natural History Museum, UK.

Geochemistry and geochronology of the North Nyasa Alkaline Province, Malawi. Joint research program with A. R. Woolley, Natural History Museum, UK and G. Platt, Lakehead University, Canada.

Geology, geochemistry and geochronology of the Monteregian Hills, Quebec, and White Mountains, New England, petrographic provinces.

PUBLICATIONS

INVITED PAPERS:

Eby, G. N. (2014) Classification and origin of granites. International Workshop on Convergent Margins. Karadeniz Technical University, Trabzon, Turkey.

Eby, G. N. (2014) A-type granites: characteristics and petrogenesis. International Workshop on Convergent Margins. Karadeniz Technical University, Trabzon, Turkey.

Eby, G. N. (2013) Post CAMP magmatism: The White Mountain and Monteregian Hills Igneous Provinces, North America. Geological Society of America Abstracts with Programs 45, 1, p. 127.

Eby, G. N. (2011) A-type granites: magma sources and their contribution to the growth of the continental crust. Seventh Hutton Symposium on Granites and Related Rocks, p. 50-51.

Eby, G. N. and Charnley, N. **(2009)** Using apatite and biotite as monitors for the fluorine and chlorine concentrations of alkaline felsic magmas. Geological Association of Canada – Mineralogical Association of Canada, Joint Annual Meeting, Ottawa 2009, Program with Abstracts 34, p.28.

Eby, G. N. (2008) Instrumental neutron activation analysis (INAA) - practice and application. National Organization of Test, Research, and Training Reactors 2008 Annual Meeting Program with Abstracts, p. 21.

Eby, G. N. (2007) Forensic Geology as a Vehicle for Inquiry-Driven Learning: The Case of the Sandy Body. Geological Society of America Abstracts with Programs 39, 6, p. 458.

Eby, N. (2006) Distinctions between A-type granites and petrogenetic pathways. In Dall'Agnol, R. et al. (eds.) 2006. Symposium on Magmatism, Crustal Evolution, and Metallogenesis of the Amazonian Craton, Abstracts Volume and Field Trips Guide. Belém, PRONEX-UFPA/SBG-NO, p. 48.

Eby, G. N. (2006) Carbonatites to alkali granites - Petrogenetic insights from the Chilwa and Monteregian Hills-White Mountain igneous provinces. Geological Association of Canada - Mineralogical Association of Canada, Joint Annual Meeting, Montreal 2006, Program with Abstracts 31, p. 45.

Eby, G. N., Lloyd, F. E., Woolley, A. R., and Stoppa, F. (**2002**). Geochemistry and mantle source(s) of carbonatitic and potassic lavas from SW Uganda. In Ulrych, J., Cajz, V., Adamovi , J. and Bosák, P. (eds.) HIBSCH 2002 Symposium, Excursion Guide Abstracts. Czech Geological Survey, Prague, Czech Republic, p. 73.

Eby, G. N. (2000) Geochronology, geochemistry and petrogenesis of the Arkansas Alkaline Province. Geological Society of America Abstracts with Programs 32, 3, p. A9.

Woolley, A. R., **Eby, G. N.**, and Platt, R. G. (**1994**). The North Nyasa alkaline province, Malawi. Geological Association of Canada-Mineralogical Association of Canada Program with Abstracts 19, A121.

Eby, G. N., Maher, S. G., and Poland, L. J. (**1994**) Petrology and geochemistry of the Beemerville nepheline syenite complex, northern New Jersey. Geological Association of Canada-Mineralogical Association of Canada Program with Abstracts 19, A32.

Eby, G. N. (1993) The Monteregian Hills-White Mountain igneous province. An extended period of Mesozoic intraplate magmatism, eastern North America. Ancient Volcanism & Modern Analogues, IAVCEI 1993 General Assembly, p. 29.

Eby, G. N. (1992) A-type granitoids - myth or reality. EOS, 1992 Spring Meeting Abstracts Volume, p. 346.

Eby, G. N. (1992) Characterization and petrogenetic subdivision of A-type granites. In Brown, P. E. and Chappell, B. W. (eds.) Second Hutton Symposium on Granites and Related Rocks, Transactions of the Royal Society of Edinburgh 83, p. 489.

Eby, G. N. (1989) Trace element systematics of felsic alkaline rocks: petrogenetic and tectonic implications. 28th International Geological Congress Abstracts, v. 1, p. 432-433.

Morris, E. M. and **Eby, G. N. (1986)** Petrologic and age relations in Granite Mountain syenites. Geological Society of America Abstracts with Programs 18, p. 134.

Mariano, A. N. and **Eby, G. N. (1986)** Geology and geochronology of carbonatites peripheral to the Parana Basin, Brazil-Paraguay. Geological Association of Canada, Mineralogical Association of Canada, Canadian Geophysical Union Joint Annual Meeting Program with Abstracts 11, p. 66.

Eby, G. N. (1985) Mafic alkaline rocks of the Monteregian Hills, Quebec. Geological Association of Canada-Mineralogical Association of Canada Program and Abstracts 10, p. A15.

Eby, G. N. (1984) The Monteregian Hills and White Mountain alkaline igneous provinces, Eastern North America. Alkaline Igneous Rocks, Geological Society Volcanic Studies Group, Edinburgh, p. 10.

Eby, G. N. (1983) Geology, geochemistry, and petrogenesis of the Monteregian Hills alkaline province, Quebec. Geological Society of America Abstracts with Programs 15, p. 565.

Creasy, J. W. and **Eby, G. N. (1983)** The White Mountain batholith as a model of Mesozoic felsic magmatism in New England. Geological Society of America Abstracts with Programs 15, p. 549.

CONTRIBUTED PAPERS:

Eby, G. N. (2016) Tree-ring record of smelter operations at Palmerton, PA. Annual Meeting Northeastern Section of the Geological Society of America, T21 Trace Metals in the Environment, Paper # 41-6.

Eby, G. N. (2015) Tracing F and Cl concentrations in alkaline felsic magmas. Book of Abstracts, The 8th Hutton Symposium on Granites and Related Rocks, Florianópolis, Brazil, September 2015. PT.095.

Eby, G. N., Pirrie, D., Hermes, R., and Charnley, N. **(2014)** Nuclear forensics – identification of post-detonation debris. In: Morgan, R., Dawson, L. (2014) (ed.). *Forensic Geoscience: Future Horizons*. The Geological Society Forensic Geoscience Group. FGG conference, booklet of abstracts, 3 December 2014, Geological Society of London, p. 43-47.

Eby, G. N. (2010) A tree ring record of environmental contamination - Emissions from the Palmerton, PA, USA, New Jersey zinc smelter. In: Pirrie, D., Ruffell, A. 2010 (ed.). *Environmental and Criminal Forensics*. The Geological Society Forensic Geoscience Group. FGG conference, booklet of abstracts, 16 December 2010, Geological Society of London, p. 20.

Eby, G. N. and Charnley, N. **(2010)** Fluorine and chlorine in alkaline rocks and A-type granites. In Ramo, O. T., Lukkari, S. R., and Heinonen, A.P. (eds.) 2010. International Conference on A-type Granites and Related Rocks through Time (IGCP-510). Helsinki, Finland, August 18-20, 2010. Abstract Volume 26-28.

Zozulya, D. and **Eby, G. N. (2010)** Rare-metal ore occurrences, related to the Late Archean A-type granites from the Keivy zone (NE Fennoscandian shield). In Ramo, O. T., Lukkari, S. R., and

Heinonen, A.P. (eds.) 2010. International Conference on A-type Granites and Related Rocks through Time (IGCP-510). Helsinki, Finland, August 18-20, 2010. Abstract Volume 113-115.

Eby, G. N., Charnley, N., and Smoliga, J. **(2010)** Trinitite - The atomic rock. Geological Society of America Abstracts with Programs 42, 1, 77.

Eby, G. N. (2009) Instrumental neutron activation analysis (INAA) and its application to forensic investigations. Geological Society of America Abstracts with Programs 41, 7, p. 309

Eby, N. and Eby, S. **(2008)** Instrumental Neutron Activation Analysis (INAA): practice and potential forensic applications. In: Donnelly, L. J. 2008 (ed). Geoscientific Equipment & Techniques at Crime Scenes. The Geological Society Forensic Geoscience Group. FGG 2008 conference, booklet of abstracts, 17 December 2008, Geological Society of London, pp. 28-30.

Duke, G. I., Carlson, R. W., and **Eby, G. N. (2008)** Two distinct sets of magma sources in Cretaceous rocks from Magnet Cove, Prairie Creek, and other igneous centers of the Arkansas Alkaline Province, USA. Eos Transactions AGU, 89(53), Fall Meeting Supplement, Abstract V31C-2169.

Zozulya, D., Bayanova, T., **Eby, N.,** Kullerud, K., and Ravna, E. **(2008)** Geochemistry and mantle sources for Archean alkaline rocks from Greenland, the Baltic and Northern Norway. 33rd International Geological Congress Oslo 2008: CD-ROM Abstracts.

Zozulya, D.R. and **Eby, G.N. (2008)** The anorthosite - A-type peralkaline granite connection: a case study from the Keivy Terrane, Baltic Shield. Geological Association of Canada - Mineralogical Association of Canada, Joint Annual Meeting, Quebec City 2008, Abstracts 33, 190-191.

Zozulya, D. and **Eby, N. (2006)** Discrimination between Archean A-type granitoids and sanukitoid suites using tectonic setting, geochemistry and fertility type. In Dall'Agnol, R. et al. (eds.) 2006. Symposium on Magmatism, Crustal Evolution, and Metallogenesis of the Amazonian Craton, Abstracts Volume and Field Trips Guide. Belém, PRONEX-UFPA/SBG-NO, p. 79.

Gméling, K., Németh, K., Martin, U., and **Eby, N. (2004)** Boron concentration in different maar-diatreme volcanic environments. Second International Maar Conference, Budapest: Abstract Volume, p. 59.

Eby, G. N., Woolley, A., and Collerson, K. **(2004)** The Chilwa Alkaline Province, Malawi - geochemistry, isotope geology, and petrogenesis. 32nd International Geological Congress Florence 2004 - Scientific Sessions: abstracts (part 1), p. 703.

Zozulya, D. and **Eby, N. (2004)** Late Archean felsic alkaline magmatism: geology, geochemistry, and tectonic setting. 32nd International Geological Congress Florence 2004 - Scientific Sessions: abstracts (part 2), p. 904.

Li, Z., Clemens, A. H., Moore, T. A., Gong, D., Weaver, S.D., and **Eby, G. N. (2003)** Where do the maidens fly? Trace elements and what controls their fate: examples from the Greymouth coalfield, New Zealand. Programs and Abstracts for the Twentieth Annual Meeting of The Society for Organic Petrology, 20, 65-67.

Eby, G. N. (2002) Geochemistry and petrogenesis of the Ossipee ring complex: a model for magmatism in the younger White Mountain Igneous Province. Geological Society of America Abstracts with Programs 34, 1, A-70.

Zozulya, D. R., **Eby, G. N.**, and Bayanova, T. B. (**2001**) Keivy alkaline magmatism in the NE Baltic Shield: evidence for the presence of an enriched reservoir in Late Archaean mantle. In: Cassidy, K.F. et al. (eds), 2001. 4th International Archaean Symposium 2001, Extended Abstracts. AGSO - Geoscience Australia, Record 2001/37, pp. 540-542.

Zozulya, D. and **Eby, N.** (**1999**). Trace-element study of Kola A-granite complex: evidence for OIB-type magmatism in Early Precambrian. Proceedings of the International Conference *Precambrian Rift Formation, Magmatism, Metallogeny. Correlation of Geological Complexes in Fennoscandia*, Petrozavodsk, pp. 51-53 (in Russian and English).

Golomb, D., Ryan, D., Underhill, J., **Eby, G. N.**, Wade, T., and Zemba, S. (**1994**) Atmospheric deposition of toxic metals and polyaromatic hydrocarbons onto Massachusetts Bay. Annual Meeting Air & Waste Management Association, RA110.03, 10 p.

Underhill, J. T., Golomb, D. G., Ryan, D. K., **Eby, G. N.**, Zemba, S. G., and Wade, T. L. (**1994**) Pollutant deposition to the Massachusetts Bays. EOS, 1994 Spring Meeting Abstracts Volume, p. 79.

Eby, G. N. and Sclar, C. B. (**1993**) Geochemistry of magmatic titanite from the Beemerville nepheline syenite, Sussex County, New Jersey. Geological Society of America Abstracts with Programs 25, 6, A-381.

Zemba, S. G., Golomb, D., S., Ryan, D. K., **Eby, G. N.**, Underhill, J. T., and Wade, T. L. (**1993**) Annual deposition of pollutants to the Massachusetts Bays. EOS, 1993 Spring Meeting Abstracts Volume, p. 39.

Eby, G. N. (**1993**) Mount Johnson: An analog for Monteregian Hills magmatism. Geological Society of America Abstracts with Programs 25, p. 13.

Eby, G. N., Sclar, C. B., and Myers, P. B. (**1992**) A fission-track date on magmatic titanite from the Beemerville nepheline syenite, Sussex County, N. J. Geological Society of America Abstracts with Programs 24, p. 18.

Eby, G. N. (**1992**) Petrology, geochronology, geochemistry and petrogenesis of the Cuttingsville complex, Vermont. Geological Society of America Abstracts with Programs 24, p. 18.

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Receipt of Physical Evidence

WISCONSIN DEPARTMENT OF JUSTICE
DIVISION OF LAW ENFORCEMENT SERVICES
STATE CRIME LABORATORY - MADISON

4626 University Avenue
Madison, WI 53705-2156
(608) 266-2031
FAX (608) 267-1303

CASE NO: **M05-2467** DATE: 11/11/2005 TIME: 11:42AM

SUB AGENCY NO: 05-0157-955 REC'D VIA: In Person
(Calumet County Sheriff's Office Case No.)

SUBMITTED BY: Jim Holmes AGENCY: DCI - Madison Special Assignments Bureau

Name Type	Last Name	First Name	Middle Name	Sex	Race	Date Of Birth
Victim	Halbach	Teresa	M	F	W	03/22/1980
Suspect	Avery	Steven		M	W	07/09/1962
Elimination	Avery	Allan	K.	M	W	
Elimination	Dassey	Bryan	J.	M	W	07/15/1985

Submission Comments

Item	Description / Source
BB	One sealed paper bag containing item(s) described as a shovel found near red trailer/garage (agency inv. # D7929)
BC	One sealed paper bag containing item(s) described as a rake found near red trailer/garage (agency inv. # D7930)
BD	One sealed paper bag containing item(s) described as a trowel found near red trailer/garage (agency inv. # D7931)
BE	One sealed paper bag containing item(s) described as a screwdriver found near red trailer/garage (agency inv. # D7932)
BF	One sealed paper bag containing item(s) described as a hammer found near red trailer/garage (agency inv. # D7933)
BG	One sealed paper bag containing item(s) described as duct tape from east end of red house trailer/garage (agency inv. # D7934)
BH	One sealed paper bag containing item(s) described as a clear light lens from east end of garage (agency inv. # D7935)
BI	One sealed paper bag containing item(s) described as duct tape from north of garage (agency inv. # D7938)
BJ	One sealed metal quart can containing fire debris from south of garage (agency inv. # D7939)
BK	One sealed metal quart can containing fire debris from south of garage (agency inv. # D7940)
BL	One sealed metal quart can containing fire debris from south of garage (agency inv. # D7941)
BM	One sealed paper bag containing item(s) for latent print processing described as a Motorola phone and box from victim's dining room (agency inv. # D7802)
BN	One sealed paper bag containing item(s) for latent print processing described as a saline solution bottle from victim's bathroom (agency inv. # D7810)
BO	One sealed paper bag containing item(s) for latent print processing described as makeup from victim's bathroom (agency inv. # D7811)
BP	One sealed paper bag containing item(s) for latent print processing described as toothpaste from victim's bathroom (agency inv. # D7812)
BQ	One sealed paper bag containing item(s) for latent print processing described as prescription eye drops from victim's bathroom (agency inv. # D7813)

All item descriptions are as provided by the submitter and are subject to verification.

Received By (Signature of Recipient)	Date:	Print Name
Delores Larson	11/11/05	Delores Larson

EXHIBIT
number T