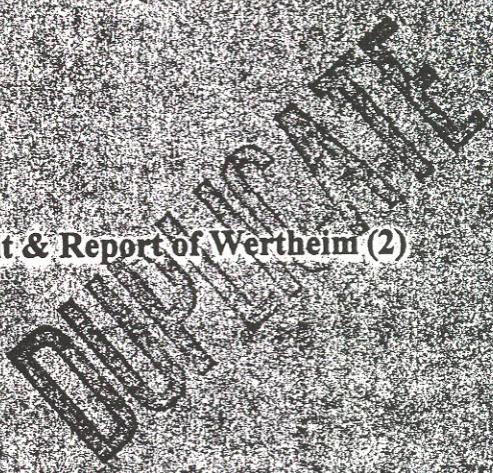


**Exhibit 2: Affidavit & Report of Wertheim (2)**



## AFFIDAVIT OF FACT

STATE OF ARIZONA

§  
§  
§

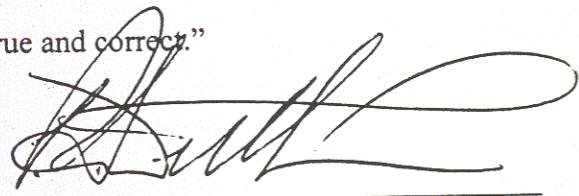
BEFORE ME, the undersigned authority, on this day personally appeared PAT A. WERTHEIM, who, being by me duly sworn on his oath, stated the following:

"My name is Pat A. Wertheim and I am fully competent and qualified to make this affidavit.

"I am a Criminalist IV with the South Region Crime Laboratory, Arizona Department of Public Safety, in Tucson, Arizona. My job assignment is 'Latent Print Examiner.' In this capacity, I undertook an examination of the following State's Exhibits 85I and 85J from the case styled 'The State of Texas v. Darlie Lynn Routier,' and the known fingerprints of Rodney James McGaffey, Simon Nicholas Johnson, Darin Eugene Routier, Darlie Lynn Routier, Thomas Dean Ward, Katherine Long, Charles Alan Linch, David W. Waddell, Larry Wayne Byford, Todd Sullivan Higgins, Rick D. Coleman, Michael Steven Youngblood, Dennis Ray Vrana, Brian Leland Koschak, Jack Lloyd Kolbye, Eric Jon Zimmerman, Duane Thomas Beddingfield, Charles David Hamilton, Bobby Ray Clark, Lamar D. Evans, Chris W. Frosch, J. Patterson, David R. Mayne, Charles Hamilton, David Waddell, David Nabors, James Matthew Walling, and Dana Stahl.

"My report of this examination is attached to this affidavit and incorporated herein.

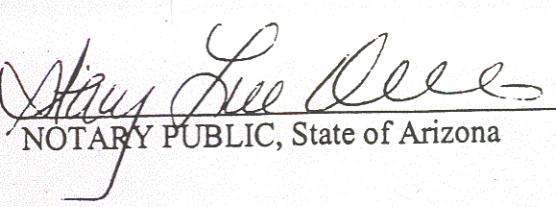
"The statements in this affidavit are true and correct."



Pat A. Wertheim

SUBSCRIBED AND SWORN to before me on this 16<sup>th</sup> day of

January, 2003.



Shirley Lee Lee  
NOTARY PUBLIC, State of Arizona

DANIEL  
NOTARY PUBLIC - ARIZONA  
EXPIRED 2003

## Scientific Analysis Report

**Report prepared by:** Pat A. Wertheim, CLPE, Criminalist IV  
Arizona Department of Public Safety Crime Laboratory  
6401 South Tucson Blvd.  
Tucson, AZ 85706

**Date:** January 6, 2003

**Subject of report:** Comparison of latent print (exhibit 85 J in State of Texas vs. Darlie Lynn Routier) to known prints of people with access to the scene of crime and other persons of interest.

### Items considered in conducting this examination:

1. Three photographs of State's Exhibit 85 I (2 front, one back, of lift card).
2. Three photographs of State's Exhibit 85 J (2 front, one back, of lift card).
3. 35mm color negatives of 85 I and 85 J
4. Known fingerprints of Rodney James McGaffey, Simon Nicholas Johnson, Darin Eugene Routier, Darlie Lynn Routier, Thomas Dean Ward, Katherine Long, Charles Arlan Linch, David W. Waddell, Larry Wayne Byford, Todd Sullivan Higgins, Rick D. Coleman, Michael Steven Youngblood, Dennis Ray Vrana, Brian Leland Koschak, Jack Lloyd Kolbye, Eric Jon Zimmerman, Duane Thomas Beddingfield, Charles David Hamilton, Bobby Ray Clark, Lamar D. Evans, Chris W. Frosch, J. Patterson, David R. Mayne, Charles Hamilton, David Waddell, David Nabors, James Matthew Walling, and Dana Stahl.

### Results of examination and additional points to consider:

1. Fingerprint examination is a three-phase process consisting of analysis, comparison, and evaluation. The first phase, analysis, focuses on the latent print. The latent print is analyzed for all of the various factors of distortion that were present in its deposition, such as matrix (composition of the residue left behind), substrate (surface the latent is on), direction of touch, pressure, slippage, etc. Also part of analysis is a determination of the features present that might be used for comparison. The second phase is comparison. During this phase, features in the latent print are compared to features in the known print, usually in a side by side, back and forth manner. Evaluation, the third phase, is the determination whether features in the two prints are in agreement and whether there is sufficient detail to reach a conclusion of identification or exclusion.
2. Early fingerprint examiners used statistical modeling based only on "points of similarity" (ridge endings, bifurcations, and dots) to reach a statistical threshold of probability that surpassed the population of earth. If that probability was reached, they said they had made an identification. Current methodology focuses not just on "points," but on three levels of comparison, which might loosely be referred to as "pattern, points, and shapes." These levels are also referred to as Level 1, Level 2, and Level 3; or First

Level Detail, Second Level Detail, and Third Level Detail. First Level Detail is the overall pattern or ridge flow in a print. First Level Detail out of agreement between two prints is sufficient for exclusion but not for identification. For example, if a latent print is classified as a whorl pattern and a suspect has all loop patterns with no whorls, that alone is sufficient to exclude that suspect as the source of the latent print. If the two prints match at the First Level, then an examiner proceeds to the Second Level Detail, i.e., the ridge endings, bifurcations, dots, and individual ridge path deviations. While comparing Level Two Detail, an examiner should also consider and give weight to Level Three Detail, which includes relative shapes and sizes of sweat pores, bulges or breaks in ridges, incipient ridges, etc. An exclusion occurs when any detail – Level 1, Level 2, or Level 3, – is out of agreement, or out of tolerance as determined by all of the factors of distortion present in the print. An identification occurs when the overall quantity and quality of detail is in agreement and that quantity and quality of detail is sufficient for the examiner to determine both prints must have been made by the same area of friction skin.

3. The latent print is exhibits 85 I and 85 J was analyzed and compared to the known fingerprints of Rodney James McGaffey, Simon Nicholas Johnson, Darin Eugene Routier, Darlie Lynn Routier, Thomas Dean Ward, Katherine Long, Charles Arlan Linch, David W. Waddell, Larry Wayne Byford, Todd Sullivan Higgins, Rick D. Coleman, Michael Steven Youngblood, Dennis Ray Vrana, Brian Leland Koschak, Jack Lloyd Kolbye, Eric Jon Zimmerman, Duane Thomas Beddingfield, Charles David Hamilton, Bobby Ray Clark, Lamar D. Evans, Chris W. Frosch, J. Patterson, David R. Mayne, Charles Hamilton, David Waddell, David Nabors, James Matthew Walling, and Dana Stahl. All of the fingers of the above named people were excluded as the source of the latent print except the right ring finger of Darlie Lynn Routier. The latent could be neither excluded nor identified to that finger and the comparison was deemed inconclusive.

4. In summary, all of the people whose fingerprints were compared were excluded as the source of 85 J except Darlie Lynn Routier. She could be neither excluded nor identified.