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July 7, 2010

Rachel Troutman
Asst. State Public Defender
Death Penalty Division
250 E. Broad Street, Suite 1400
Columbus, Ohio 43215

RE: Ohio v Kevin Keith
Tire Impression Examination

Dear Ms. Troutman,

Pursuant to your request, I have reviewed additional exhibits and reports in the captioned case involving tire impression evidence. These additional items and the prior items submitted to me are described below.

Items previously submitted:

- G1 Copy of Firestone Master Care store sales receipt for TR 2000 tires, size P185 80 R13 sold and placed on 1982 Oldsmobile Omega, license plate MVR 043, on 8/12/93 by owner (State exhibit 19)
- G2 Copy of Mileage Warranty and Road Hazard Certification and Rotation and Inspection Record for same tires (State exhibit 18)
- G3 Company photo of Triumph 2000 tire put on car described above in G1, and believed to be on that vehicle at time of crime (State exhibit 17)

Copy of three-page Bureau of Criminal Identification and Investigation (BCI & I) Laboratory Report of G. MICHELLE YEZZO dated 3/17/94. (State exhibit 1)

Copy of mailing envelope addressed to BCI & I, ATTN: Michelle Yezzo (State exhibit 5)

Deposition, consisting of 31 pages, of G. MICHELLE YEZZO, taken on May 12, 1994 at the Crawford County Courthouse, Bucyrus, Ohio, Case No. 94-CR-042, State of Ohio v KEVIN A. KEITH

Items received on June 30, 2010:

Documents released pertaining to Public Records Request, including BCI Evidence Submission sheets and BCI Laboratory reports and related notes.

162 Color 35 mm negatives, not labeled as to roll or origin.
A CD labeled Kevin Keith Photos containing 155 images

Remarks

L. D. Harden, in a report dated February 18, 1994, stated that at the scene of 1712 Marion Road, Bucyrus, Ohio, a left front tire impression and the impressions of the left front of a vehicle were noted in a snow bank along the south side of the main driveway. No photographs, measurements or other documentation was received or referenced in the submitted material that would confirm or otherwise offer proof that the two impressions were related to one vehicle, as opposed to two vehicles at different times, one leaving numeral impressions in the snow bank of a license plate and the second following that occurrence and leaving a tire impressions without disturbing the preceding license plate impression.

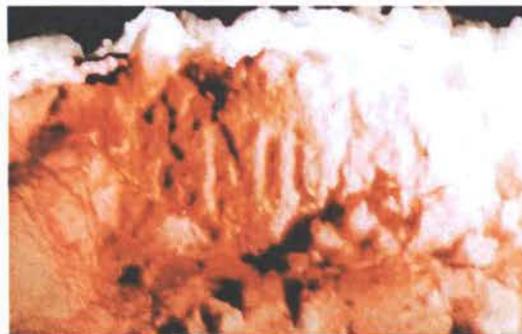
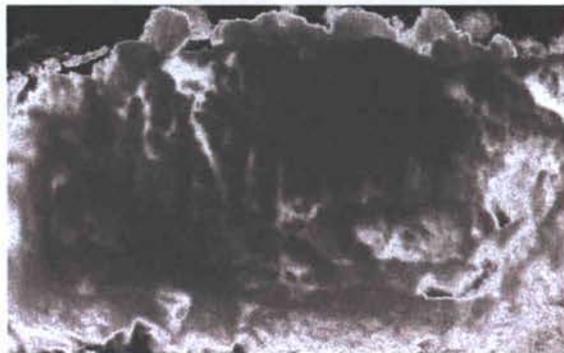
David Barnes, in a report dated February 28, 1994, stated he arrived at the above address where Larry Harden was processing the scene. Barnes described a snow bank that had an area of snow apparently pushed back by a bumper, above a tire track. He states that the impressions in the snow bank were three reversed numbers that looked to be "043." He provided some measurements but the poor copy of this report as provided in discovery was illegible in that area. He then stated he photographed the impressions and made a cast with snow wax and dental stone. In addition, he mentioned in the report that to the west of the Bucyrus Estates complex was another complex called Heritage Village condominiums and in front of unit 488 were shoe impressions in the snow. These impressions proceeded westbound across a field to the rear of Bucyrus Estates. The poor report copy is not legible, but it appears to state he photographed the most detailed impression.

Results and Evaluation

Several photographs of the area referred to as the bumper impression in the snow bank, some taken prior to the application of snow wax and others taken after, as well as ones taken from varied angles and distances were represented on the CD and also in some of the color negatives. One of those is provided below. Those photographs are not consistent with the profile of the front of the 1982 Oldsmobile in that, on that vehicle, the license tag is mounted fairly flush with the bumper, thus contact with the license tag to the degree that it pushed snow enough to produce an impression, would also have produced impressions of the remainder of the bumper. No evidence of the other areas of the bumper appears in these photographs. Instead, the snow appears to be undisturbed in those areas. A photograph of the lower front area of the 1982 Oldsmobile, reversed to appear as it would with regards to the snow bank impression, is also provided below to illustrate the license tag and bumper areas.



Scans of some original negatives were made and attempts to enhance the impression area in the snow bank were made. The results are provided in the following three photographs and only reveal portions of reversed numerals "4" and "0."



In her March 17, 1994 report G. Michelle Yezzo concluded that a partial license plate depicted in Item #2 "bears the numbers "043" and is set toward the driver's side of the car with spacing and orientation similar to the license plate "MVR043" on the vehicle submitted as item #E1." No evidence could be found by this examiner of any numeral "3" as reported by Yezzo. Further, based on the photographs, there is insufficient evidence to determine from what portion of the license tag the numerals "4" and "0" would be from, since no other numerals or reference areas appear in these photographs depicted above. Thus based on the limited detail, a distinction could not be made between a license plate that reads "MVR043" versus others that have the numerals "04" somewhere on the plate. Item #42, described as a plaster cast of a license plate in the above BCI reports, was not provided through discovery. Nor were any photographs of this cast provided through discovery and in the laboratory notes, there is no mention of photographing this cast. In addition, there is no mention of any seizure of the front

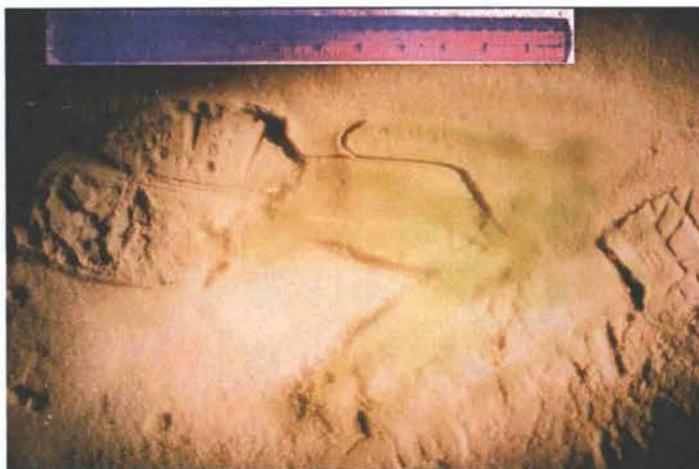
license tag from the 1982 Oldsmobile as an item of evidence. It is noted that standard laboratory procedure is to document photographically any and all items that are examined but to always use the original evidence when available. In this case, the most direct and detailed examination between a license tag and a cast and photographs of an alleged impression of that tag would be to physically compare the actual license tag directly to the cast and/or scaled photographs taken of that impression. Since none of the photographs taken at this scene of the license impression area were taken with a scale properly positioned in the photograph that would later enable enlargement of that photograph to a natural size for a direct physical comparison, that examination could not have taken place. With regard to the cast, the success of casting in snow the vertical surface containing the numerals while still having the casting material capture the detail in the numeral area is virtually impossible. Casting material is a liquid, is exothermic and does not set immediately. It is also noted that casting snow impressions is rarely successful due to the general lack of experience of police and crime scene persons and the further complications of this vertical surface reduce the likelihood that this cast contained any usable detail. This would logically explain why it was not photographed and why it was not simply compared directly with the actual license tag. It is noted that the list of exhibits in the deposition of examiner Yezzo, she did not include any photographs of the casts. Further, since the photographs were not taken with a scale, only a successful cast would have provided the opportunity and incentive to make any comparison with the actual license tag.

The photographs of the tire impression at that same location were also examined. Those photographs were obtained by scanning two of the provided negatives. The photographs revealed similar design features to the Firestone Triumph 2000 tire, as depicted in G3, described above. Although item #43 was described as a plaster cast of that tire impression, no photographs of that cast or the cast itself were provided to this examiner through discovery. There is no indication in the notes or report that this cast was a successful cast that captured the detail of that tire impression, not is there any mention of photographing the cast. Tires are approximately 6-7 feet in circumference and their tread element sizes change continually around that circumference. In order to be able to make any relevant examination with regard to the tread dimension of this impression, i.e. was this actually a P185 80 R13 tire or another size, a successful detailed cast of that impression would be needed and would need to be compared to full circumference tire impressions from a Firestone tire of that size. The photographs that were taken did include a ruler as a scale but the nature of that impression and the improper position of the scale would not permit any dimensional analysis to be made with those photographs. One of these photographs is provided below.



It should be noted that examiner Yezzo did not make any attempt to obtain a new Triumph 2000 size P185 80 R13 tire, the same size and design as used on the Oldsmobile Omega, with which she could have then made test impressions and made the proper physical comparison with the crime scene evidence. The only way to opine that a crime scene tire impression is the same tread design and dimension as a tire or tires on the Oldsmobile Omega would be to make full circumference known test impressions of a tire of that same design and tread dimension and to compare it directly to a cast of a crime scene impression. Instead examiner Yezzo chose to simply make a visual evaluation and opine the design was similar. The forensic use of the word "similar" has no further meaning than it would for a layman in that it can only attest to a visual likeness of sorts and does not include the tread dimension. It is noted that the Firestone Triumph 2000 tire design was made in many sizes both in the passenger and light truck market. Although 162 negatives were discovered, and on the CD provided to this examiner there were 155 photographic images, none of these provided a view that simultaneously depicted both the impressed license tag area and the tire impression. Rather the relationship of these impressions appears to rest solely on the interpretation of the responding officer and although a relationship of a partial license tag and tire design would seem of potential investigative value to that officer, no attempt to properly photographically document these events was made. Based on the materials made available to this examiner, and the lack of bumper marks in the snow bank, it is not possible to conclude whether the license tag impression and tire impression represent one simultaneous event or two unrelated and independent events. This is stated with the fact in mind that different vehicles pulling into the same parking space will follow the approximate same paths. Simply making a visual evaluation that the license impression was, in fact, made by the same vehicle that left the tire impression, without any further documentation, prohibits any objective evaluation, either then or now. It could therefore not be determined if the numerals in the snow bank have any relationship to the recovered tire impression.

Several images included photographs of two different footwear designs. Attempts were made to enhance one photograph, included below. The impression pictured along side of the ruler is a 1993 Nike Air Jordan design. The brand of the other impression was not determined.



It general, it is noted that the quality of the photographs reviewed in this matter, including those depicting the general scene images, but in particular, those depicting the impression evidence, were taken improperly. The lack of a scale along side the license plate impression area, the improperly positioned scale along side the tire impression, the lack of proper exposure and lighting and the lack of using a tripod, resulted in photographs that were largely out of focus, poorly exposed and otherwise not useful for a meaningful forensic examination. The significance of not properly recovering impression evidence not only results in the inability to make positive associations with footwear of suspected persons or tires from their vehicles, but equally prevents revealing possible differences in those impressions.

Should you have any questions regarding this report, please feel free to contact me.

Respectfully submitted,

William J. Bodziak