# Imprint/Impression Evidence Test No. 14-533/534 Summary Report 

This test was sent to 333 participants. Each sample pack contained either digitally produced photographs (14-533) or a DVD with digital images (14-534) of seven questioned imprints and photographs of the suspect shoe soles and test imprints made with those shoes. Participants were requested to compare the imprints from the crime scene with the suspect shoes and report their findings. Data were returned by 281 participants, 243 for 14-533 and 38 for 14-534 ( $84 \%$ response rate) and are compiled into the following tables:
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[^0]Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

## Manufacturer's Information

Each sample pack consisted of nine photographs. One photograph (Kla) shows the soles of the two suspect shoes lit from above. Two photographs (K1b and K1c) show the suspect soles lit with oblique lighting on the heels and toes, respectively. Four photographs (Kld, Kle, Klf and Klg) show known imprints made with the suspect shoes. Two photographs contain images of the seven questioned imprints, Q1-Q3 in the first photograph and Q4-Q7 in the second photograph. Participants were asked to compare the suspect shoe soles and their known imprints with the questioned imprints to determine if any identifications could be established.

SAMPLE PREPARATION -
The shoes used in this test had been worn frequently over the course of approximately three months. Once the shoes were no longer worn, the soles were cleaned of any debris. The owners wore their own shoes when creating the questioned imprints. Additionally, the owner of the suspect shoes produced the known imprints on Klf and Klg.

KNOWN IMPRINTS (K1d-K1g): Known imprints were created by coating the sole of each suspect shoe with fingerprint ink and producing individual imprints on office copy paper. The imprints on K1d and Kle were created by rolling each shoe onto paper attached to a fingerprinting palm roller. The toe and heel areas of each shoe were rolled separately, and the heels were placed above their respective toes to distinguish the imprints from those on Klf and Klg . The imprints on Klf and Klg were produced by stepping onto paper.

QUESTIONED IMPRINTS (Q1-Q7): Questioned imprint Q1 was created by coating the sole of the shoe with human whole blood and having the owner of the shoe walk across a vinyl tile. Questioned imprints Q2-Q7 were created by coating the sole of each shoe with fingerprint ink and having the owner of each pair of shoes walk across the vinyl tiles.

SAMPLE PACK ASSEMBLY -
Once verification was complete and sample preparation was done, each photo set was placed into a pre-labeled sample pack envelope, sealed with evidence tape, and initialed with "CTS." Each DVD was checked to ensure all images were accessible.

## VERIFICATION -

Laboratories that conducted the pre-distribution examination of the images identified imprints Q1, Q4, and Q5 to the suspect's left shoe and identified imprint Q7 to the suspect's right shoe. They eliminated imprints Q2, Q3, and Q6.

| Imprints | Shoe Type | Manufacturer | Left/Right | Size (U.S.) |
| :--- | :---: | :---: | :---: | :---: |
| Q1, Q4, Q5 | Athletic shoe (Suspect shoe K1) | Nike | Left | 9 |
| Q7 | Athletic shoe (Suspect shoe K1) | Nike | Right | 9 |
| Q2 | Athletic shoe (images not provided) | Nike | Left | 8 |
| Q3, Q6 | Athletic shoe (images not provided) | Nike | Right | 8 |

## Summary Comments

This test was designed to allow participants to assess their proficiency with footwear imprint examination. Test material consisted of two photographs containing seven questioned footwear imprints (Q1-Q7), a photograph of the two suspect shoe soles (Kla), two photographs of oblique lighted images of the same soles ( $\mathrm{Klb}-\mathrm{Klc}$ ), and four photographs of inked exemplar imprints made with the shoes ( $\mathrm{Kld}-\mathrm{Klg}$ ). Participants were requested to determine if any of the questioned imprints were made by the suspect shoes. One of these imprints (Q7) was made by the suspect right shoe; three of these imprints (Q1, Q4, Q5) were made by the suspect left shoe. The remaining three imprints were made by two other shoes. (See Manufacturer's Information)

Of the 281 responding participants, 271 (96\%) reported all of the expected identifications (Q1, Q4, Q5, and Q7) and eliminations (Q2, Q3, and Q6). Of the remaining ten individuals, eight participants reported "Inconclusive" for one or more of the questioned impressions, and two participants eliminated an impression for which a known exemplar was provided.

## Examination Results

Indicate the results of your comparisons of the suspect shoes with the questioned imprints

> TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| 26HVZQ-533 | Left Shoe Identification | Elimination | Elimination |
| 28VTU7-533 | Left Shoe Identification | Elimination | Elimination |
| 29ZHZV-533 | Left Shoe Identification | Elimination | Elimination |
| 2BJ8WM-533 | Left Shoe Identification | Elimination | Elimination |
| 2CF4HG-533 | Left Shoe Identification | Elimination | Elimination |
| 2DXXDP-533 | Left Shoe Identification | Elimination | Elimination |
| 2EBLXP-533 | Left Shoe Identification | Elimination | Elimination |
| 2F4J2P-533 | Left Shoe Identification | Elimination | Elimination |
| 2HNDXQ-533 | Left Shoe Identification | Elimination | Elimination |
| 2MML9R-533 | Left Shoe Identification | Elimination | Elimination |
| 2WBHAT-533 | Left Shoe Identification | Elimination | Elimination |
| 39AJRG-534 | Left Shoe Identification | Elimination | Elimination |
| 3DUV2Q-533 | Left Shoe Identification | Inconclusive | Inconclusive |
| 3L2N2K-533 | Left Shoe Identification | Elimination | Elimination |
| 3L9NM8-533 | Left Shoe Identification | Elimination | Elimination |
| 3LRGF6-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| 3WMGZV-533 | Left Shoe Identification | Elimination | Elimination |
| 46GYZQ-533 | Left Shoe Identification | Elimination | Elimination |
| 48X2CH-533 | Left Shoe Identification | Elimination | Elimination |
| 4HF8DX-533 | Left Shoe Identification | Elimination | Elimination |
| 4NBTPU-533 | Left Shoe Identification | Elimination | Elimination |
| 4NF4UD-533 | Left Shoe Identification | Elimination | Elimination |
| 4P4W9U-533 | Left Shoe Identification | Elimination | Elimination |
| 4QWN68-533 | Left Shoe Identification | Elimination | Elimination |
| 4R8JRZ-533 | Left Shoe Identification | Elimination | Elimination |
| 4RJGPP-533 | Left Shoe Identification | Elimination | Elimination |
| 4TWYW2-533 | Left Shoe Identification | Elimination | Elimination |
| 4VT8MX-533 | Left Shoe Identification | Elimination | Elimination |
| 4Y4LRQ-534 | Left Shoe Identification | Elimination | Elimination |
| 4YLCYP-533 | Left Shoe Identification | Elimination | Elimination |
| 4Z8MEB-533 | Left Shoe Identification | Elimination | Elimination |
| 4ZHR92-533 | Left Shoe Identification | Elimination | Elimination |
| 67VUBN-533 | Left Shoe Identification | Elimination | Elimination |
| 6A9NX9-534 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| 6EY648-533 | Left Shoe Identification | Elimination | Elimination |
| 76XRBC-533 | Left Shoe Identification | Elimination | Elimination |
| 7ADP3E-533 | Left Shoe Identification | Elimination | Elimination |
| 7GN78F-533 | Left Shoe Identification | Elimination | Elimination |
| 7K46BG-533 | Left Shoe Identification | Elimination | Elimination |
| 7LE8XF-533 | Left Shoe Identification | Elimination | Elimination |
| 7V874T-533 | Left Shoe Identification | Elimination | Elimination |
| 7ZAK3B-533 | Left Shoe Identification | Elimination | Elimination |
| $88 \mathrm{Y} 92 \mathrm{E}-533$ | Left Shoe Identification | Elimination | Elimination |
| 89DUD3-533 | Left Shoe Identification | Elimination | Elimination |
| 8B9M2D-533 | Left Shoe Identification | Elimination | Elimination |
| 8KQDBH-533 | Left Shoe Identification | Elimination | Elimination |
| 8NLKJM-533 | Left Shoe Identification | Elimination | Elimination |
| 8PRC8U-533 | Left Shoe Identification | Elimination | Elimination |
| 8R4YTF-533 | Left Shoe Identification | Elimination | Elimination |
| 8RFRCW-534 | Left Shoe Identification | Elimination | Elimination |
| 8RZE88-533 | Left Shoe Identification | Elimination | Elimination |
| 8UHTCT-534 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| 9DWHCC-533 | Left Shoe Identification | Elimination | Elimination |
| 9HA77G-533 | Left Shoe Identification | Elimination | Elimination |
| 9HU2DB-533 | Left Shoe Identification | Elimination | Elimination |
| 9J2BCA-533 | Left Shoe Identification | Elimination | Elimination |
| 9PD6YK-533 | Left Shoe Identification | Elimination | Elimination |
| 9TUKYB-533 | Left Shoe Identification | Elimination | Elimination |
| 9XLYF7-534 | Left Shoe Identification | Elimination | Elimination |
| A2F7HE-533 | Left Shoe Identification | Elimination | Elimination |
| A77J4B-533 | Left Shoe Identification | Elimination | Elimination |
| AEK83J-533 | Left Shoe Identification | Elimination | Elimination |
| AJ4CXK-534 | Left Shoe Identification | Elimination | Elimination |
| ANX83E-533 | Left Shoe Identification | Elimination | Elimination |
| APAV98-533 | Left Shoe Identification | Elimination | Elimination |
| APVTWB-533 | Left Shoe Identification | Elimination | Elimination |
| AVYJXB-533 | Left Shoe Identification | Elimination | Elimination |
| B2T2GR-533 | Left Shoe Identification | Elimination | Elimination |
| B3XJCN-533 | Left Shoe Identification | Elimination | Elimination |
| B9CCKU-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| B9QP2C-533 | Left Shoe Identification | Elimination | Elimination |
| B9Y7H6-534 | Left Shoe Identification | Elimination | Elimination |
| BBF6HZ-533 | Left Shoe Identification | Elimination | Elimination |
| BC92R2-533 | Left Shoe Identification | Elimination | Elimination |
| BGLVVD-533 | Left Shoe Identification | Inconclusive | Inconclusive |
| BGNJCG-533 | Left Shoe Identification | Elimination | Elimination |
| BMB9TK-533 | Left Shoe Identification | Elimination | Elimination |
| BMERYW-533 | Left Shoe Identification | Elimination | Elimination |
| BMUVCB-533 | Left Shoe Identification | Elimination | Elimination |
| C2PTVL-534 | Left Shoe Identification | Elimination | Elimination |
| C4V9B4-533 | Left Shoe Identification | Elimination | Elimination |
| C8Y399-533 | Left Shoe Identification | Elimination | Elimination |
| C94ZXH-534 | Left Shoe Identification | Elimination | Elimination |
| C98C6C-533 | Left Shoe Identification | Elimination | Elimination |
| CEFHWC-533 | Left Shoe Identification | Elimination | Elimination |
| CFPP3Q-533 | Left Shoe Identification | Elimination | Elimination |
| CMQ2XM-533 | Left Shoe Identification | Elimination | Elimination |
| CNLBEJ-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| CQDDE7-534 | Left Shoe Identification | Elimination | Elimination |
| CQYFE9-533 | Left Shoe Identification | Elimination | Elimination |
| CRJ7P7-534 | Left Shoe Identification | Elimination | Elimination |
| CYTWX7-533 | Left Shoe Identification | Elimination | Elimination |
| D3ZW3H-533 | Left Shoe Identification | Elimination | Elimination |
| D87TKW-533 | Left Shoe Identification | Elimination | Elimination |
| D8QKJ9-533 | Left Shoe Identification | Elimination | Elimination |
| DEYM8N-534 | Left Shoe Identification | Elimination | Elimination |
| DFNZLZ-534 | Left Shoe Identification | Elimination | Elimination |
| DKUYFC-533 | Left Shoe Identification | Elimination | Elimination |
| DM7JV2-533 | Left Shoe Identification | Elimination | Elimination |
| DPW6J4-533 | Left Shoe Identification | Elimination | Elimination |
| DRGPEE-533 | Left Shoe Identification | Elimination | Elimination |
| DW9RAD-533 | Left Shoe Identification | Elimination | Elimination |
| DWUJ3Y-533 | Left Shoe Identification | Elimination | Elimination |
| DZZQ2J-533 | Left Shoe Identification | Elimination | Elimination |
| E2GJP6-533 | Left Shoe Identification | Elimination | Elimination |
| EB89GQ-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| ECG6XP-533 | Left Shoe Identification | Elimination | Elimination |
| EERWF7-534 | Left Shoe Identification | Elimination | Elimination |
| EGTD3Z-533 | Left Shoe Identification | Elimination | Elimination |
| EK4QPA-533 | Left Shoe Identification | Elimination | Elimination |
| EKAGCQ-533 | Left Shoe Identification | Elimination | Elimination |
| EKHELU-534 | Left Shoe Identification | Elimination | Elimination |
| EXK49U-534 | Left Shoe Identification | Elimination | Elimination |
| EY4MVE-534 | Left Shoe Identification | Elimination | Elimination |
| F3VDAP-533 | Left Shoe Identification | Elimination | Elimination |
| F62NEF-533 | Left Shoe Identification | Elimination | Elimination |
| F9P2HH-533 | Left Shoe Identification | Elimination | Elimination |
| FG9UV8-533 | Left Shoe Identification | Elimination | Elimination |
| FHE7MG-533 | Left Shoe Identification | Elimination | Elimination |
| FHQM84-533 | Left Shoe Identification | Elimination | Elimination |
| FN4RMG-533 | Left Shoe Identification | Elimination | Elimination |
| FNUV84-533 | Left Shoe Identification | Elimination | Elimination |
| FWL4ZH-533 | Left Shoe Identification | Elimination | Elimination |
| FX3N86-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| FYNYL7-533 | Left Shoe Identification | Elimination | Elimination |
| FZBF8T-533 | Left Shoe Identification | Elimination | Elimination |
| G3HHN3-533 | Left Shoe Identification | Elimination | Elimination |
| G7WPX3-533 | Left Shoe Identification | Elimination | Elimination |
| GCD8BK-533 | Left Shoe Identification | Elimination | Elimination |
| GFHT2V-533 | Left Shoe Identification | Elimination | Elimination |
| GJT4HD-533 | Left Shoe Identification | Elimination | Elimination |
| GNL2DW-533 | Left Shoe Identification | Elimination | Elimination |
| GW2DCZ-533 | Left Shoe Identification | Elimination | Elimination |
| GZZ4PL-533 | Left Shoe Identification | Elimination | Elimination |
| H2T86E-533 | Left Shoe Identification | Elimination | Elimination |
| H64L98-533 | Left Shoe Identification | Elimination | Elimination |
| H6BG4E-533 | Left Shoe Identification | Elimination | Elimination |
| H8P9Q9-533 | Left Shoe Identification | Elimination | Elimination |
| H97CJT-534 | Left Shoe Identification | Elimination | Elimination |
| HCEGMG-533 | Left Shoe Identification | Elimination | Elimination |
| HCGYTT-533 | Left Shoe Identification | Elimination | Elimination |
| HG6XU2-533 | Inconclusive | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| HHZ2G2-533 | Left Shoe Identification | Elimination | Elimination |
| HKKHKM-533 | Left Shoe Identification | Elimination | Elimination |
| HMV86Y-533 | Left Shoe Identification | Elimination | Elimination |
| HY4WW9-533 | Left Shoe Identification | Elimination | Elimination |
| J3JTBB-533 | Left Shoe Identification | Elimination | Elimination |
| J4XAFC-533 | Left Shoe Identification | Elimination | Elimination |
| JFH3CX-533 | Left Shoe Identification | Elimination | Elimination |
| JKDMM9-533 | Left Shoe Identification | Elimination | Elimination |
| JLA88M-533 | Left Shoe Identification | Elimination | Elimination |
| JUXYG9-533 | Left Shoe Identification | Elimination | Elimination |
| JY8EQW-534 | Left Shoe Identification | Elimination | Elimination |
| JYGXAV-533 | Left Shoe Identification | Elimination | Elimination |
| K2KYZJ-533 | Left Shoe Identification | Elimination | Elimination |
| KB92VZ-533 | Left Shoe Identification | Elimination | Elimination |
| KC3RCZ-533 | Left Shoe Identification | Elimination | Elimination |
| KEMMRD-533 | Left Shoe Identification | Elimination | Elimination |
| KKFHXR-533 | Left Shoe Identification | Elimination | Elimination |
| KM484Q-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| KMGTBT-533 | Left Shoe Identification | Elimination | Elimination |
| KRZNQT-533 | Left Shoe Identification | Elimination | Elimination |
| L8EXZ7-533 | Left Shoe Identification | Elimination | Elimination |
| LCYKED-533 | Left Shoe Identification | Elimination | Elimination |
| LF7NU9-533 | Left Shoe Identification | Elimination | Elimination |
| LGY6YV-533 | Left Shoe Identification | Elimination | Elimination |
| LJM38G-533 | Left Shoe Identification | Elimination | Elimination |
| LLNCV4-533 | Left Shoe Identification | Elimination | Elimination |
| LUMJA6-533 | Left Shoe Identification | Elimination | Elimination |
| LX4ZBW-533 | Left Shoe Identification | Elimination | Elimination |
| LXZG4K-533 | Left Shoe Identification | Elimination | Elimination |
| LZ64QX-533 | Left Shoe Identification | Elimination | Elimination |
| LZPTYJ-533 | Left Shoe Identification | Elimination | Elimination |
| M8PH7F-533 | Left Shoe Identification | Elimination | Elimination |
| MD88BH-533 | Left Shoe Identification | Elimination | Elimination |
| MHFD3H-533 | Left Shoe Identification | Elimination | Elimination |
| MMCXB8-533 | Left Shoe Identification | Elimination | Elimination |
| MNK846-534 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| MNYWP4-533 | Left Shoe Identification | Elimination | Elimination |
| MWY997-533 | Left Shoe Identification | Elimination | Elimination |
| MX8DRW-533 | Left Shoe Identification | Elimination | Elimination |
| MXF8L4-533 | Left Shoe Identification | Elimination | Elimination |
| N3NT7U-533 | Left Shoe Identification | Elimination | Elimination |
| N4QDEG-533 | Left Shoe Identification | Elimination | Elimination |
| N69VYL-533 | Left Shoe Identification | Elimination | Elimination |
| NE2YBV-533 | Left Shoe Identification | Elimination | Elimination |
| NGEYYV-533 | Left Shoe Identification | Elimination | Elimination |
| NM7ZHN-533 | Left Shoe Identification | Elimination | Elimination |
| NMP4VF-533 | Left Shoe Identification | Elimination | Elimination |
| NNLFVP-533 | Left Shoe Identification | Elimination | Elimination |
| P2D3ZP-533 | Left Shoe Identification | Elimination | Elimination |
| P2GEPC-533 | Left Shoe Identification | Elimination | Elimination |
| PJAUEV-533 | Left Shoe Identification | Elimination | Elimination |
| PLF97V-533 | Left Shoe Identification | Elimination | Elimination |
| PTU33Y-533 | Left Shoe Identification | Elimination | Elimination |
| PWT2AN-534 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| Q3J47F-533 | Left Shoe Identification | Elimination | Elimination |
| Q66YHM-533 | Left Shoe Identification | Elimination | Elimination |
| QBNANB-533 | Left Shoe Identification | Elimination | Elimination |
| QD2ZRD-533 | Left Shoe Identification | Elimination | Elimination |
| QGFG7J-533 | Left Shoe Identification | Elimination | Elimination |
| QJZEMM-534 | Left Shoe Identification | Elimination | Elimination |
| QPDBDH-533 | Left Shoe Identification | Elimination | Elimination |
| QTKT46-533 | Left Shoe Identification | Elimination | Elimination |
| QTUFAR-533 | Left Shoe Identification | Elimination | Elimination |
| QWA3PH-534 | Left Shoe Identification | Elimination | Elimination |
| RGWW9R-533 | Left Shoe Identification | Elimination | Elimination |
| RJ3EBT-533 | Left Shoe Identification | Elimination | Elimination |
| RJYUGY-533 | Left Shoe Identification | Elimination | Elimination |
| RL4PXG-533 | Left Shoe Identification | Elimination | Elimination |
| RRG7QJ-533 | Left Shoe Identification | Elimination | Elimination |
| RWNXH4-533 | Left Shoe Identification | Elimination | Elimination |
| TDQX7X-534 | Left Shoe Identification | Elimination | Elimination |
| TEEKAK-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| TFTPA4-533 | Left Shoe Identification | Elimination | Elimination |
| TG8338-533 | Left Shoe Identification | Elimination | Elimination |
| TKTAFU-533 | Left Shoe Identification | Elimination | Elimination |
| TMRCXX-533 | Left Shoe Identification | Elimination | Elimination |
| TRL9NA-533 | Left Shoe Identification | Elimination | Elimination |
| TTE7WF-534 | Left Shoe Identification | Elimination | Elimination |
| TYDBC8-534 | Left Shoe Identification | Elimination | Elimination |
| U2TD6W-533 | Left Shoe Identification | Elimination | Elimination |
| UA6EHK-533 | Left Shoe Identification | Elimination | Elimination |
| UE3ZLU-533 | Left Shoe Identification | Elimination | Elimination |
| UM4LAV-533 | Left Shoe Identification | Elimination | Elimination |
| UN6933-533 | Left Shoe Identification | Elimination | Elimination |
| UNR8GY-533 | Left Shoe Identification | Elimination | Elimination |
| URDTK8-533 | Left Shoe Identification | Elimination | Elimination |
| V4J6HU-533 | Left Shoe Identification | Elimination | Elimination |
| V7GEQ4-533 | Left Shoe Identification | Elimination | Elimination |
| V8FGRT-533 | Left Shoe Identification | Elimination | Elimination |
| V8T9LV-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| V8WKGE-533 | Left Shoe Identification | Elimination | Elimination |
| VLCR8K-533 | Left Shoe Identification | Elimination | Elimination |
| VLNTPC-533 | Left Shoe Identification | Elimination | Elimination |
| VM8DTN-533 | Left Shoe Identification | Elimination | Elimination |
| VPTA93-533 | Left Shoe Identification | Elimination | Elimination |
| VXZVBB-533 | Left Shoe Identification | Elimination | Elimination |
| W3M99Q-533 | Left Shoe Identification | Elimination | Elimination |
| W6M8Y4-534 | Left Shoe Identification | Elimination | Elimination |
| W7UEC6-533 | Left Shoe Identification | Elimination | Elimination |
| WELWNR-533 | Left Shoe Identification | Elimination | Elimination |
| WGB7V8-533 | Left Shoe Identification | Elimination | Elimination |
| WHQ9WE-534 | Left Shoe Identification | Elimination | Elimination |
| WJBVMA-533 | Left Shoe Identification | Elimination | Elimination |
| WRWDMA-533 | Left Shoe Identification | Elimination | Elimination |
| WVCQAQ-533 | Left Shoe Identification | Elimination | Elimination |
| X6Y7P7-533 | Left Shoe Identification | Elimination | Elimination |
| XBCA9Z-534 | Left Shoe Identification | Elimination | Elimination |
| XGC9B4-533 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| XP4L9J-534 | Left Shoe Identification | Elimination | Elimination |
| XQPP8P-533 | Left Shoe Identification | Elimination | Elimination |
| XRDXNY-533 | Left Shoe Identification | Elimination | Elimination |
| XRKA8V-533 | Left Shoe Identification | Elimination | Elimination |
| XWQJVK-533 | Left Shoe Identification | Elimination | Elimination |
| XXV9TM-534 | Left Shoe Identification | Elimination | Elimination |
| Y2HY6D-534 | Left Shoe Identification | Elimination | Elimination |
| Y6NXYP-533 | Left Shoe Identification | Elimination | Elimination |
| Y7VPJK-533 | Left Shoe Identification | Elimination | Elimination |
| Y86VPU-534 | Left Shoe Identification | Elimination | Elimination |
| YFX2M2-533 | Left Shoe Identification | Elimination | Elimination |
| YKQ6CZ-533 | Left Shoe Identification | Elimination | Elimination |
| YMVTRP-533 | Left Shoe Identification | Elimination | Elimination |
| YUJMXM-533 | Left Shoe Identification | Elimination | Elimination |
| YVTGV9-534 | Left Shoe Identification | Elimination | Elimination |
| YZ22FY-534 | Left Shoe Identification | Elimination | Elimination |
| Z2T9JW-533 | Left Shoe Identification | Elimination | Elimination |
| Z3AYRL-534 | Left Shoe Identification | Elimination | Elimination |

## TABLE la (Kitchen Imprints)

| Questioned Imprints |  |  |  |
| :---: | :---: | :---: | :---: |
| WebCode-Test | Q1 | Q2 | Q3 |
| Z4CDW8-533 | Left Shoe Identification | Elimination | Elimination |
| Z8AWUZ-533 | Left Shoe Identification | Elimination | Elimination |
| Z8DGKN-533 | Left Shoe Identification | Elimination | Elimination |
| ZCPF4U-533 | Left Shoe Identification | Elimination | Elimination |
| ZDGKAM-533 | Left Shoe Identification | Elimination | Elimination |
| ZEXM99-533 | Left Shoe Identification | Elimination | Elimination |
| ZLDHYA-533 | Left Shoe Identification | Elimination | Elimination |
| ZMA8MH-533 | Left Shoe Identification | Elimination | Elimination |
| ZMH2QQ-533 | Left Shoe Identification | Elimination | Elimination |
| ZNAG7N-533 | Left Shoe Identification | Elimination | Elimination |
| ZQ6MUZ-533 | Left Shoe Identification | Elimination | Elimination |
| ZQMJF8-533 | Left Shoe Identification | Elimination | Elimination |
| ZVNG9D-534 | Left Shoe Identification | Elimination | Elimination |


| Response Summary |  |  |  | Participants: 281 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Q1 | Q2 | Q3 |
|  | Right Shoe Identification | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) |
| ¢ | Left Shoe Identification | 280 (99.6\%) | 0 (0.0\%) | 0 (0.0\%) |
| ¢ | Elimination | 0 (0.0\%) | 279 (99.3\%) | 279 (99.3\%) |
|  | Inconclusive | 1 (0.4\%) | 2 (0.7\%) | 2 (0.7\%) |

## Examination Results

Indicate the results of your comparisons of the suspect shoes with the questioned imprints

| TABLE 1 l (Living Room Imprints) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Questioned Imprints |  |  |  |  |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| 26HVZQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 28VTU7-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 29ZHZV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2BJ8WM-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2CF4HG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2DXXDP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2EBLXP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2F4J2P-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2HNDXQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2MML9R-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 2WBHAT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 39AJRG-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Inconclusive |
| 3DUV2Q-533 | Left Shoe Identification | Left Shoe Identification | Inconclusive | Right Shoe Identification |
| 3L2N2K-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 3L9NM8-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 3LRGF6-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| 3WMGZV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 46GYZQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 48X2CH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4HF8DX-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4NBTPU-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4NF4UD-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4P4W9U-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4QWN68-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4R8JRZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4RJGPP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4TWYW2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4VT8MX-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4Y4LRQ-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4YLCYP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4Z8MEB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 4ZHR92-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 67VUBN-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 6A9NX9-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| 6EY648-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 76XRBC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7ADP3E-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7GN78F-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7K46BG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7LE8XF-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7V874T-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 7ZAK3B-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 88Y92E-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Inconclusive |
| 89DUD3-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8B9M2D-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8KQDBH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8NLKJM-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8PRC8U-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8R4YTF-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8RFRCW-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8RZE88-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 8UHTCT-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| 9DWHCC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9HA77G-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9HU2DB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9J2BCA-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9PD6YK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9TUKYB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| 9XLYF7-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| A2F7HE-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| A77J4B-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| AEK83J-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| AJ4CXK-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Elimination |
| ANX83E-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| APAV98-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| APVTWB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| AVYJXB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| B2T2GR-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| B3XJCN-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| B9CCKU-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| B9QP2C-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| B9Y7H6-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| BBF6HZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| BC92R2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| BGLVVD-533 | Left Shoe Identification | Left Shoe Identification | Inconclusive | Right Shoe Identification |
| BGNJCG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| BMB9TK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| BMERYW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Inconclusive |
| BMUVCB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| C2PTVL-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| C4V9B4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| C8Y399-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| C94ZXH-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| C98C6C-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CEFHWC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CFPP3Q-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CMQ2XM-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CNLBEJ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| CQDDE7-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CQYFE9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CRJ7P7-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| CYTWX7-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| D3ZW3H-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| D87TKW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| D8QKJ9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DEYM8N-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DFNZLZ-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DKUYFC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DM7JV2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DPW6J4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DRGPEE-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DW9RAD-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DWUJ3Y-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| DZZQ2J-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| E2GJP6-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EB89GQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| ECG6XP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EERWF7-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EGTD3Z-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EK4QPA-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EKAGCQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EKHELU-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EXK49U-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| EY4MVE-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| F3VDAP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| F62NEF-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| F9P2HH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FG9UV8-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FHE7MG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FHQM84-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FN4RMG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FNUV84-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FWL4ZH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FX3N86-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| FYNYL7-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| FZBF8T-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| G3HHN3-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| G7WPX3-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Inconclusive |
| GCD8BK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| GFHT2V-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Elimination |
| GJT4HD-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| GNL2DW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| GW2DCZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| GZZ4PL-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| H2T86E-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| H64L98-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| H6BG4E-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| H8P9Q9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Inconclusive |
| H97CJT-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| HCEGMG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| HCGYTT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| HG6XU2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| HHZ2G2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| НККНКМ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| HMV86Y-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| HY4WW9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| J3JTBB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| J4XAFC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JFH3CX-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JKDMM9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JLA88M-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JUXYG9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JY8EQW-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| JYGXAV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| K2KYZJ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KB92VZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KC3RCZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KEMMRD-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KKFHXR-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KM484Q-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| KMGTBT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| KRZNQT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| L8EXZ7-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LCYKED-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LF7NU9-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LGY6YV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LJM38G-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LLNCV4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LUMJA6-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LX4ZBW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LXZG4K-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LZ64QX-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| LZPTYJ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| M8PH7F-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MD88BH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MHFD3H-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MMCXB8-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MNK846-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| MNYWP4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MWY997-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MX8DRW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| MXF8L4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| N3NT7U-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| N4QDEG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| N69VYL-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| NE2YBV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| NGEYYV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| NM7ZHN-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| NMP4VF-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| NNLFVP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| P2D3ZP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| P2GEPC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| PJAUEV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| PLF97V-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| PTU33Y-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| PWT2AN-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| Q3J47F-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Q66YHM-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QBNANB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QD2ZRD-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QGFG7J-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QJZEMM-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QPDBDH-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QTKT46-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QTUFAR-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| QWA3PH-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RGWW9R-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RJ3EBT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RJYUGY-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RL4PXG-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RRG7QJ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| RWNXH4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TDQX7X-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TEEKAK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| TFTPA4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TG8338-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TKTAFU-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TMRCXX-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TRL9NA-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TTE7WF-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| TYDBC8-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| U2TD6W-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| UA6EHK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| UE3ZLU-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| UM4LAV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| UN6933-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| UNR8GY-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| URDTK8-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| V4J6HU-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| V7GEQ4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| V8FGRT-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| V8T9LV-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| V8WKGE-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| VLCR8K-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| VLNTPC-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| VM8DTN-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| VPTA93-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| VXZVBB-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| W3M99Q-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| W6M8Y4-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| W7UEC6-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WELWNR-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WGB7V8-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WHQ9WE-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WJBVMA-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WRWDMA-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| WVCQAQ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| X6Y7P7-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XBCA9Z-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XGC9B4-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| XP4L9J-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XQPP8P-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XRDXNY-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XRKA8V-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XWQJVK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| XXV9TM-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Y2HY6D-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Y6NXYP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Y7VPJK-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Y86VPU-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YFX2M2-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YKQ6CZ-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YMVTRP-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YUJMXM-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YVTGV9-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| YZ22FY-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Z2T9JW-533 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Z3AYRL-534 | Left Shoe Identification | Left Shoe Identification | Elimination | Right Shoe Identification |

## TABLE 1b (Living Room Imprints)

| Questioned Imprints |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| WebCode-Test | Q4 | Q5 | Q6 | Q7 |
| Z4CDW8-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Z8AWUZ-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Z8DGKN-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZCPF4U-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZDGKAM-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZEXM99-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZLDHYA-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZMA8MH-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZMH2QQ-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZNAG7N-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZQ6MUZ-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZQMJF8-533 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| ZVNG9D-534 Id | Left Shoe dentification | Left Shoe Identification | Elimination | Right Shoe Identification |
| Response Summary |  |  |  | Participants: 281 |
| - Right Shoe Identification <br> Left Shoe Identification Elimination <br> Inconclusive | Q4 | Q5 | Q6 | Q7 |
|  | n $\quad 0$ (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 274 (97.5\%) |
|  | 281 (100.0\%) | 281 (100.0\%) | 0 (0.0\%) | 0 (0.0\%) |
|  | 0 (0.0\%) | 0 (0.0\%) | 279 (99.3\%) | 2 (0.7\%) |
|  | 0 (0.0\%) | 0 (0.0\%) | 2 (0.7\%) | 5 (1.8\%) |

# Examination Results 

## TABLE 1c - Complete Results

| Response Summary |  |  |  | Participants: 281 |
| :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 |  |
| ¢ Right Shoe Identification | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) |  |
| ${ }_{\text {ck }}^{0}$ Left Shoe Identification | 280 (99.6\%) | 0 (0.0\%) | 0 (0.0\%) |  |
|  | 0 (0.0\%) | 279 (99.3\%) | 279 (99.3\%) |  |
| Inconclusive | 1 (0.4\%) | 2 (0.7\%) | 2 (0.7\%) |  |
|  | Q4 | Q5 | Q6 | Q7 |
| ${ }_{n}$ Right Shoe Identification | 0 (0.0\%) | 0 (0.0\%) | 0 (0.0\%) | 274 (97.5\%) |
| 号Left Shoe Identification | 281 (100.0\%) | 281 (100.0\%) | 0 (0.0\%) | 0 (0.0\%) |
| 迨 Elimination | 0 (0.0\%) | 0 (0.0\%) | 279 (99.3\%) | 2 (0.7\%) |
| Inconclusive | 0 (0.0\%) | 0 (0.0\%) | 2 (0.7\%) | 5 (1.8\%) |

## Conclusions

## TABLE 2

## Conclusions

26HVZQ-533

28VTU7-533

29ZHZV-533
All questioned imprints show a similar pattern. Imprints Q1, Q4 and Q5 have the same size and class characteristics and the same degree of wear as the suspect's left shoe. Also each of them shows a number of additional marks which correspond to those in the known imprints (Kld-Klg) made with the suspect's left shoe. Imprint Q7 has the same size and class characteristics and the same degree of wear as the suspect's right shoe. There are also some additional marks which correspond to those in the known imprints (Kld-Klg) made with the suspect's right shoe. As we only have photographs of the shoe sole of the suspect's shoes we are not able to distinguish exactly between marks resulting from the manufacturing process (class characteristics) and marks caused by subsequent wear and/or other identifying characteristics. Nevertheless, most of these marks are not typical of a manufacturing process. So our conclusions regarding imprints Q1, Q4, Q5 and Q7 are drawn with a high degree of probability but to be absolutely sure we would have to ask you to send us the original shoes. The imprints Q2, Q3 and Q6 can be eliminated. The class characteristics show the same pattern but significant differences exist in size, in the degree of wear and the individual characteristics.

2BJ8WM-533
Impression Q1 was made by Item K1 Left Shoe. Impression Q2 was not made by Item K1 Right or Left shoe. Impression Q3 was not made by Item K1 Right or Left shoe. Impression Q4 was made by Item K1 Left Shoe. Impression Q5 was made by Item K1 Left Shoe. Impression Q6 was not made by Item K1 Right or Left shoe. Impression Q7 was made by Item Kl Right Shoe.

2CF4HG-533 Seven scene prints (Q1 to Q7) were examined and compared with the suspect's shoes with a view to establishing whether or not they could have made the questioned prints. Although all seven of the scene prints had the same tread elements, the following three were excluded as being made by the suspect's shoes based on differences observed in size, degree of wear and damage present on the soles: Q2 Left heel, kitchen floor; Q3 Right heel, kitchen floor; Q6 Right impression, living room floor. Q1, Q4 and Q5 which were all made by a left shoe, corresponded in sole pattern and size with the suspect's left shoe. Furthermore the scene prints displayed the same wear pattern and several areas of damage were observed that corresponded with that on the suspect's left shoe. The nature of the correspondences is such that I formed the opinion that the scene prints Q1, Q4 and Q5 have been made by the suspect's left shoe and no other shoe. Q7 which was made by a right shoe, corresponded in sole pattern and size with the suspect's right shoe. Furthermore the scene print displayed the same wear pattern and areas of damage were observed that corresponded with that on the suspect's right shoe. The nature of the correspondences is such that I formed the opinion that the scene print Q7 has been made by the suspect's right shoe and no other shoe.

2DXXDP-533 Q1, Q4, Q5 \& Q7 I found it to be corresponding with that of the suspect shoes and test print made from the suspect shoes, both have similar wear and tear which is not much on the shoes as it looks fairly new. The irregularities of crime scene prints correspond with
those of the test print made from the suspect shoes as well as the shoes themselves. This brings me to the conclusion that this was made by the person who was wearing the suspect shoes on the crime scene (Identification). Q2, Q3 \& Q6 I could not find similar irregularities on the print as well as similar wear and tear that matches any of the crime scene shoes. This clearly means that there is another pair of shoes missing that was at the crime scene that can be identified at a later stage. Q3 is a heel area which also matches the heel of Q6 so therefore Q3 and Q3[sic] form one Shoe which is possibly a right shoe which is missing from the crime scene.
2EBLXP-533 Q1, Q4, Q5 and Q7 were made by K1. The design, size and unique wear were suffient[sic] agreement for identification. Q2, Q3 and Q6 were not made by K1. Unique wear and/or size were not in agreement and these were eliminated as having been made by K1.

2F4J2P-533 Q1 Match with left shoe, with regards to pattern, size and unique characteristics. Q2 No match, although pattern is the same. Q3 No match, although pattern is the same. Q4 Match with left shoe with regard to pattern, size and unique characteristics. Q5 Match with left shoe with regard to pattern, size and unique characteristics. Q6 No match, although pattern is the same. Q7 Match with right shoe, with regards to pattern, size and unique characteristics.
2HNDXQ-533 The questioned footwear impressions displayed on the vinyl tile floor (Q1-Q7) were visually compared to images of the Nike shoes and the test impressions from the Nike shoes. Three questioned footwear impressions (Q1, Q4, and Q5) exhibited size, tread design, wear pattern, and randomly acquired characteristics in agreement with the left Nike shoe. Q1, Q4, and Q5 were produced by the left Nike shoe (Level 1: Identification). One questioned footwear impression (Q7) exhibited size, tread design, wear pattern, and randomly acquired characteristics in agreement with the right Nike shoe. Q7 was produced by the right Nike shoe (Level 1: Identification). Three questioned footwear impressions (Q2, Q3, and Q6) were not produced by the Nike shoes based on differences in randomly acquired characteristics and wear pattern. (Elimination)
2MML9R-533 In a first step all the questioned items were checked for class association. All scene of crime prints show the same class characteristics. In the next step the prints were given a closer look, with the result, that the following items could be excluded (as possible printmakers): Q2, Q3, Q6 same pattern, different shoe size and wear, therefore, Exclusion. Conclusion: Q1, Q4, Q5, Q7 = There is evidence beyond doubt that the afore mentioned Q-Prints were made/caused by one of the soles of the suspect shoes K1 (class association and enough individualizing characteristics or wear).
2WBHAT-533 Q1. The class and unique characteristics of the sole of the left shoe as displayed in the photographs exhibits $K l a$ to $K l g$ are consistent with the shoe imprint marked " $Q 1$ " as displayed in photograph "Items Q1 - Q3". Therefore the imprint marked "Q1 displayed in photograph "Items Q1 - Q3" have been made by the left shoe of the suspect. Q2. The unique characteristics of the soles of the left and right shoes as displayed in the photographs exhibits Kla to Klg are inconsistent with the shoe imprint marked "Q2"as displayed in photograph "Items Q1 - Q3". Therefore the imprint marked "Q2 displayed in photograph "Items Q1 - Q3" have not been made by the shoes of the suspect. Q3. The unique characteristics of the soles of the left and right shoes as displayed in the photographs exhibits Kla to Klg are inconsistent with the shoe imprint marked "Q3"as displayed in photograph "Items Q1 - Q3". Therefore the imprint marked "Q3 displayed in photograph "Items Q1 - Q3" have not been made by the shoes of the suspect. Q4. The class and unique characteristics of the sole of the left shoe as displayed in the
photographs exhibits Kla to Klg are consistent with the shoe imprint marked "Q4" as displayed in photograph "Items Q4 - Q7". Therefore the imprint marked "Q4 displayed in photograph "Items Q4 - Q7" have been made by the left shoe of the suspect. Q5. The class and unique characteristics of the sole of the left shoe as displayed in the photographs exhibits Kla to Klg are consistent with the shoe imprint marked "Q5" as displayed in photograph "Items Q4 - Q7". Therefore the imprint marked "Q5 displayed in photograph "Items Q4 - Q7" have been made by the left shoe of the suspect. Q6. The unique characteristics of the soles of the left and right shoes as displayed in the photographs exhibits Kla to Klg are inconsistent with the shoe imprint marked "Q6"as displayed in photograph "Items Q4 - Q7". Therefore the imprint marked "Q6 displayed in photograph "Items Q4 - Q7" have not been made by the shoes of the suspect. Q7. The class and unique characteristics of the sole of the right shoe as displayed in the photographs exhibits Kla to Klg are consistent with the shoe imprint marked "Q7" as displayed in photograph "Items Q4 - Q7". Therefore the imprint marked "Q7 displayed in photograph "Items Q4 - Q7" have been made by the right shoe of the suspect. [sic]

39AJRG-534 Q1 was made by the left known shoe. Q2 was determined to have not been made by the known shoes. Q3 was determined to have not been made by the known shoes. Q4 was made by the left known shoe. Q5 was made by the left known shoe. Q6 was determined to not have been made by the known shoes. Q7 could have been made by the known shows[sic] based on similar class characteristics, but not enough detail is present to make a comparison. See below for detailed explanations: Q1 was determined to be the Left known shoe. Q1 and the Left known shoe have similar class characteristics and also have enough individual characteristics that are consistent to make a determination that Q1 was made by the known left shoe. Q2 was eliminated and was determined to not have been made by either of the known shoes. Although the questioned impression shares similar class characteristics with the known shoe, there are distinct individual characteristics in the known shoe that are not present in the question impression labeled Q2. Q3 was eliminated and was determined to not have been made by either of the known shoes. Although the questioned impression shares similar class characteristics with the known shoe, there are distinct individual characteristics in the known shoe that are not present in the question impression labeled Q3. Q4 was determined to be the Left known shoe. This determination was based on the fact that the known shoe and the questioned impression share similar class characteristics and also contain distinct individual characteristics that are consistent between the known shoe and Q4. Q5 was determined to be the Left known shoe. This determination was based on the fact that the known shoe and the questioned impression share similar class characteristics and also contain distinct individual characteristics that are consistent between the known shoe and Q5. Q6 was eliminated and was determined to not have been made by either of the known shoes. Although the questioned impression shares similar class characteristics with the known shoe, there are distinct individual characteristics in the known shoe that are not present in the question impression labeled Q6. Q7 was inconclusive. The questioned impression shared similar class characteristics with the known shoes, but there was not enough detail to determine if the impression was made by the known shoes.

3DUV2Q-533 Q2 - is inconclusive although the pattern is the same, size of unknown impression marked Q2 is not the same with impression made with suspect shoe, wear and tear are also not the same. Q3 - is inconclusive although the pattern is the same, size of unknown impression marked Q3 is not the same with impression made with suspect shoe, wear and tear are not the same. Q6 - wear and tear of the impression marked Q6 are not corresponding with impression made with suspect shoe.

3L2N2K-533 The results of the examination extremely strongly support that the imprints Q1, Q4 and Q5 were made with the left shoe K1. The results of the examination strongly support that the imprint Q7 was made with the right shoe K1. The results of the examination extremely strongly support that the imprints Q2, Q3 and Q6 were not made with the shoes K1.
3L9NM8-533 [No Conclusions Reported.]
3LRGF6-533 A left shoe impression recovered from the kitchen floor (Q1), a left shoe impression recovered from the living room floor (Q5), and a partial shoe impression recovered from the living room floor (Q4) are similar in class characteristics (size and tread design) as well as randomly acquired characteristics as the known left shoe from the suspect. It is our opinion that these impressions recovered from the flooring were made by the suspect's left shoe. (Category 1) A partial right shoe impression recovered from the living room floor (Q7) is similar in class characteristics (size and tread design) as well as randomly acquired characteristics as the known right shoe from the suspect. It is our opinion that this impression recovered from the living room floor was made by the suspect's right shoe. (Category 1) Two partial shoe impressions recovered from the kitchen floor (Q2 and Q3) are different in class characteristics to the suspect's known shoes. It is our opinion that these impressions recovered from the kitchen floor were not made by the supsect's[sic] shoes. (Category 5) A right shoe impression recovered from the living room floor (Q6) is different in class characteristics to the suspect's known right shoe. It is our opinion that this impression was not made by the suspect's right shoe. (Category 5)

3WMGZV-533 Examination of the submitted material disclosed the presence of seven (7) questioned footwear impressions, designated as Q1 through Q7. Examination and comparison of the submitted material yielded the following results and conclusions: Q2, Q3 and Q6 were not made by the known shoes. Q1, Q4 and Q5 were made by the left, known shoe. Q7 was made by the right, known shoe.
46GYZQ-533 The known left footwear K1 was the source of, and made, the questioned impressions Q1, Q4 and Q5 in exhibit IIEP. Another item of footwear being the source of the impression is considered a practical impossibility. The known right footwear K1 was the source of, and made, the questioned impression Q7 in exhibit IIEP. Another item of footwear being the source of the impression is considered a practical impossibility. The known footwear K1 was not the source of, and did not make, the questioned impressions Q2, Q3 or Q6 present in exhibit IIEP. Images of the unidentified questioned footwear impressions have been retained in our files in the event that future comparisons are requested.
48X2CH-533 Examination of Lab Items \#8-\#14 revealed seven footwear impressions of value for comparison. Comparison of the questioned footwear impressions with photographs of the known footwear and photographs of the test impressions of Lab Items \#1-\#7/K1 revealed the following: Lab Item \#8/Q1: One footwear impression was made by the left shoe of Lab ltems \#1-7/K1 based on corresponding design, physical size, wear, and individual characteristics. Lab ltem \#9/Q2 - One footwear impression was not made by the shoes of Lab Items \# 1-7/K1 based on different size and individual characteristics. Lab Item \#10/Q3: One footwear impression was not made by the shoes of Lab Items \#1-7/K1 based on a different physical size, wear, and individual characteristics. Lab Item \#11/Q4: One footwear impression was made by the left shoe of Lab Items \#1-7/K1 based on corresponding design, physical size, wear, and individual characteristics. Lab Item \# 12/Q5: One footwear impression was made by the left shoe of Lab Items \#1-7/K1 based on corresponding design, physical size, wear and individual
characteristics. Lab Item \#13/Q6: One footwear impression was not made by the shoes of Lab Items \# 1-7/K1 based on different physical size, wear, and individual characteristics. Lab Item \#14/Q7: One footwear impression was made by the right shoe of Lab Items \# 1-7/K1 based on corresponding design, physical size, and individual characteristics.

4HF8DX-533 Results \& Conclusions: Three (3) partial, questioned impressions, marked Q-1, Q-2 and Q-3, each noted as having been photographed "on the kitchen floor," were found on one (1) of the photographs in Submission Q. Four (4) partial, questioned impressions, marked Q-4 through Q-7, each noted as having been photographed "on the living room floor," were found on one (1) of the photographs in Submission Q. The partial, questioned footwear impressions, Q-1 through Q-7, have been compared to the known shoes in Submission K. The Q-1, Q-4 and Q-5 questioned impressions were made by the known left shoe in Submission K. The Q-2, Q-3 and Q-6 questioned impressions were not made by the known shoes in Submission K. The Q-7 questioned impression was made by the known right shoe in Submission K.
4NBTPU-533 A complete evaluation of a questioned impression and a known shoe includes looking at correspondence in tread design, physical size and shape of design present, wear characteristics and any randomly acquired characteristics on the outsole of the shoe that are represented in the questioned impression. There were several unknown impressions on the kitchen floor and living room floor represented by Q1-Q7 which were compared to the known shoes and known impressions. Q1, Q4, and Q5, all corresponded in physical shape, tread design, size of tread and randomly acquired characteristics to the known left shoe. Therefore, the known left shoe is the source of these unknown impressions (Type 1 Association - Identification). Q7 corresponded in physical shape, tread design, size of tread and randomly acquired characteristics to the known right shoe. Therefore, the known right shoe is the source of this unknown impression (Type 1 Association - Identification). Q2, Q3 and Q6 exhibited similar tread patterns to the known shoes, but there were differences in the size of the tread as well as differences in wear. There were also several randomly acquired characteristics which did not correspond between the known and unknown impressions. The known shoes can be eliminated as a possible source of these unknown impressions (Elimination).
4NF4UD-533 Impressions Q1, Q4, and Q5 were made by the submitted left Nike shoe, K1. Impression Q7 was made by the submitted right Nike shoe, K1. Impressions Q3 and Q6 were made by a second right shoe of similar design to the submitted Nike shoes. Impression Q2 was made by a second left shoe of similar design to the submitted Nike shoes.
4P4W9U-533 [No Conclusions Reported.]
4QWN68-533 The patterned impressions designated Q1, Q4 and Q5 were made by the left shoe represented in the photographs designated Kla through Klg. The patterned impression designated Q7 was made by the right shoe represented in the photographs designated K1a through K1g. The patterned impressions designated Q2, Q3 and Q6 could not have been made by the shoes represented in the photographs designated Kla through Klg due to significant differences in outsole pattern size/design.
4R8JRZ-533 There is sufficient correspondance[sic] in pattern, size, wear and accidential[sic] characteristics between the test prints made with the suspect's shoes and the questioned prints Q1, Q4, Q5 and Q7. These prints were made by the shoes K1. The questioned prints Q2, Q3 and Q6 showed differences in size and details. Therefore they could not have been made by the suspect's shoes K1.

4RJGPP-533 Impressions Q1, Q4 and Q5 were made by the left shoe of item K1. Impression Q7 was made by the right shoe of item K1. Impressions Q2, Q3 and Q6 were not made by either the left or right shoes of item K1. The submitted shoes have a similar outsole design pattern, but are larger in size than the shoes that made the impressions Q2, Q3 and Q6.

4TWYW2-533 Impression Q1 was made by the left shoe represented as Item K1. Impression Q2 was not made by the shoes represented as Items Kla-Klg. Impression Q3 was not made by the shoes represented as Items Kla-Klg. Impression Q4 was made by the left shoe represented as Item K1. Impression Q5 was made by the left shoe represented as Item K1. Impression Q6 was not made by the shoes represented as Items Kla-Klg. Impression Q7 was made by the right shoe represented as Items K1.

4VT8MX-533 Examination and comparison of the questioned footwear imprints, specimens Q1 through Q7, to the known shoe outsoles in photographs, specimens Kla through Klg, revealed the following: The questioned imprints, specimens Q1, Q4 and Q5, were made by the known left shoe outsole, specimen K1. The questioned imprint, specimen Q7, was made by the known right shoe outsole, specimen K1. The questioned imprints, specimens Q2, Q3 and Q6, were not made by the known shoe outsoles, specimen K1. However, specimens Q3 and Q6 were made by the same footwear outsole.
4Y4LRQ-534 The questioned shoeprints labelled as Q1, Q4 and Q5 were caused by the sole of the left shoe recovered. The questioned shoeprint labelled as Q7 was caused by the sole of the right shoe recovered. The questioned shoeprint labelled as Q2, Q3 y Q6 were not caused by the soles of the shoes recovered.
4YLCYP-533 The known left shoe is the source of questioned impressions Q1, Q4 and Q5. The known right shoe is the source of questioned impression Q7. The known shoes are excluded as possible sources of impressions Q2, Q3 and Q6.
4Z8MEB-533 The questioned impressions Q1, Q4, and Q5 were identified as having been made by the Item K1 left shoe. The questioned impression Q7 was identified as having been made by the Item K1 right shoe. The questioned impressions Q2, Q3, and Q6 were excluded as having been made by either the Item K1 left or right shoes due to non-corresponding class and/or randomly acquired characteristics.

4ZHR92-533 Q1, Q4 and Q5 and the known left shoe correspond in size, outsole design, wear and randomly acquired characteristics. Q1, Q4 and Q5 were identified as having been made by the known left shoe. Q2 and Q3 were excluded as having been made by either the known left or right shoe based on the dissimilar randomly acquired characteristics observed in Q2, Q3 and the known left or right shoe. Q6 was excluded as having been made by the known left shoe based on the dissimilar class characteristic, outsole design. Q6 was excluded as having been made by the known right shoe based on the dissimilar randomly acquired characteristics observed in Q6 and the known right shoe. Q7 and the known right shoe correspond in size, outsole design, wear and randomly acquired characteristics. Q7 was identified as having been made by the know right shoe.

67VUBN-533 [No Conclusions Reported.]
6A9NX9-534 It was requested that I compare the unknown footwear impressions (Q1-Q7) to K1 and K2. The following are the results of that comparison. In the opinion of the examiner, the K2 left shoe was the source of, and made, the Q1 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. In the opinion of the examiner, the known footwear (K1, K2) were not the source of, and did
not make, the Q2 impression. In the opinion of the examiner, the known footwear (K1, K2) were not the source of, and did not make, the Q3 impression. In the opinion of the examiner, the K2 left shoe was the source of, and made, the Q4 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. In the opinion of the examiner, the K2 left shoe was the source of, and made, the Q5 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. In the opinion of the examiner, the known footwear (K1, K2) were not the source of, and did not make, the Q6 impression. In the opinion of the examiner, the K1 right shoe was the source of, and made, the Q7 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. Item 001 is being returned to your agency.

6EY648-533 The unknown impressions \#Q1 \#Q4 and \#Q5 were made by the left known shoe (K1). The unknown impression \#Q7 was made by the right known shoe (K1). The unknown impressions \#Q2, \#Q3, and \#Q6 were not made by the known shoes (K1).
76XRBC-533
Seven questioned impressions, submitted as items \#4 and \#5, were compared to the photographs and test impressions of known Nike brand shoes, submitted as items \#1-3, using visual and overlay techniques. Four questioned impressions (Q1, Q4, Q5, and Q7) were found to be the same as the known shoes with respect to tread size, tread design, and individual characteristics. Q1, Q4, and Q5 were made by the left known shoe. Q7 was made by the right known shoe. These findings confirm these four questioned impressions were made exclusively by the known shoes. Three questioned impressions (Q2, Q3, and Q6) exhibited distinct differences [sic] tread size from the known shoes. This finding confirms that these three questioned impressions were not made by the known shoes.

7ADP3E-533 Examination of the photographs revealed the presence of seven questioned footwear impressions (labeled Q1-Q7) registered on vinyl tile flooring. Comparison of these impressions with the known pair of Nike brand athletic shoes depicted in the photographs (labeled Kla-K1g) utilizing visual and overlay techniques revealed the following: Two (2) impressions (Q1 and Q5) were found to be the same as the known left shoe with respect to tread design, tread size, wear characteristics, and individual characteristics. One (1) partial impression (Q4) was found to be the same as the heel of the known left shoe with respect to tread design, tread size, wear characteristics, and individual characteristics. One (1) partial impression (Q7) was found to be the same as portions of the toe and arch areas of the known right shoe with respect to tread design, tread size, wear characteristics, and individual characteristics. The above findings confirm that these questioned impressions (Q1, Q4, Q5, and Q7) were made exclusively by the known shoes. Differences in tread size, wear characteristics, and individual characteristics were noted between the remaining questioned impressions (Q2, Q3, and Q6) and the known shoes. Based on these findings, these impressions were not made by the known shoes.

7GN78F-533 The suspect's shoes (ltem K1) are the source of a shoe sole print on the kitchen floor (Impression Q1) and three shoe sole prints on the living room floor (Impressions Q4, Q5, and Q7). The left shoe is the source of three of the prints (Impressions Q1, Q4, and Q5) while the right shoe is the source of one of the prints (Impression Q7). Two of the shoe sole prints on the kitchen floor (Impressions Q2 and Q3) and one shoe sole print on the living room floor (Impression Q6) were not made by the suspect's shoes (Item K1). Two of these prints (Impressions Q3 and Q6) were made by the same right shoe from a different pair of shoes. This right shoe is not the source of the third print (Impression Q2), which was most likely from a left shoe.

Q1, Q4, and Q5 were made by the submitted left Nike shoe. Q7 was made by the submitted right Nike shoe. Q3 and Q6 were made by a second right shoe with a similar outsole design as the submitted right Nike shoe. Q2 was not made by the submitted left Nike shoe, the submitted right Nike shoe, nor by the shoe which made Q3 and Q6. Q2 was made by a right or left shoe with a similar outsole design as the submitted Nike shoes.

7LE8XF-533 Comparison examinations were conducted and the findings of this examiner are as follows: Impressions Q1, Q4, and Q5 were made by the submitted left Nike shoe (K1). Impression Q7 was made by the submitted Right Nike shoe (K1). Impressions Q3 and Q6 were made by a third shoe with similar outsole design as the submitted K1 shoe. Impression Q2 was made by a fourth shoe with similar outsole design as the submitted K1 shoe.

7V874T-533 [No Conclusions Reported.]
7ZAK3B-533 The impressions labeled Q1, Q4, and Q5 correspond in physical size and design and collectively share six individual characteristics with the K1 left shoe. Therefore, the K1 left shoe is identified as the source of these impressions. The impression labeled Q7 corresponds in physical size and design and shares three individual characteristics with the K1 right shoe. Therefore, the K1 right shoe is identified as the source of this impression. The impressions labeled Q2, Q3, and Q6 are the same design as the K1 shoes. However, differences were observed between the size and spacing of design lugs in the aforementioned impressions and corresponding design lugs on the K1 shoes. Therefore, the K1 shoes are eliminated as the source of these impressions.
88Y92E-533 Questioned shoeprints Q1, Q4 and Q5 were positively identified as having been made by the left submitted known shoe. Questioned shoeprint Q7 was most likely made by the known right submitted shoe. Individual/Accidental characteristics found were not sufficient to state a positive association. Questioned shoeprints Q2, Q3 and Q6 were eliminated as having been made [sic] the known submitted shoes.
89DUD3-533 1) In my opinion, the findings show conclusively that the footwear impression in blood, located on the kitchen floor, was made by the left training shoe of item K1. 2)In my opinion, the findings show conclusively that three of the footwear impressions recorded on the living room floor, were made by the training shoes of item K1 (two were made by the left and one was made by the right) 3)In my opinion, the findings show conclusively that the remaining footwear impressions recorded on both the living room and kitchen floors (despite being of a similar pattern) could not have been made by either of the training shoes of item K1.
8B9M2D-533 The Nike sneakers, K1 were compared to impressions Q1-Q7 using side by side and overlay comparisons. The impressions Q1, Q4, Q5 and Q7 correspond in design, physical size and shape, and general condition to the suspect shoes K1. In addition, individual characteristics corresponding to damage on the suspect shoes were observed on these impressions. In the opinion of this examiner, these impressions were made by the Nike sneakers, Item K1. The impressions Q2, Q3 and Q6 are larger in physical size and are different in wear and individual characteristics from the suspect shoes K 1 and, therefore, in the opinion of this examiner, could not have been made by those shoes.
8KQDBH-533 The left Nike shoe (Item K1a) was identified as having made the Q1, Q4, and Q5 imprints. The right Nike shoe (Item Kla) was identified as having made the Q7 imprint. The Nike shoes (Item K1a) were excluded as having made the Q2, Q3, and Q6 imprints.

A smaller right shoe with a tread pattern similar to the Item K1 a Nike shoes made the Q3 and Q6 imprints.

8NLKJM-533 [No Conclusions Reported.]
8PRC8U-533 1. Examination of Exhibits 4 and 5 (printed out images of Q1 through Q7) revealed three latent footwear impressions on Exhibit 4 and four latent footwear impressions on Exhibit 5 suitable for comparison. Latent footwear impressions suitable for comparison are not always suitable for identification, but may be suitable for exclusionary purposes. 2. The suspect's right shoe of Exhibits 1 through 3 (printed out known images and impressions of Kla through Klg) made one of the four latent footwear impressions (Q7) on Exhibit 5. The suspect's left shoe of Exhibits 1 through 3 made one of the three latent footwear impressions (Q1) on Exhibit 4 and two of the four latent footwear impressions (Q4 and Q5) on Exhibit 5. 3. The suspect's right shoe and left shoe of Exhibits 1 through 3 did not make the two remaining latent footwear impressions on Exhibit 4 (Q2 and Q3) and the remaining latent footwear impression on Exhibit 5 (Q6). 4. Images of the latent footwear impressions in this case will remain on file at this laboratory.

8R4YTF-533 [No Conclusions Reported.]
8RFRCW-534 I analyzed questioned crime scene impression photographs Q1 through Q7 and compared all impressions to the photographs of the K1 Right and K1 Left outsoles with the following results: Q1 - The K1 Left outsole was Identified as the source of the Q1 impression. Q2 - The K1 Right and Left outsoles were Eliminated as the source of the Q2 impression. Q3 - The K1 Right and Left outsoles were Eliminated as the source of the Q3 impression. Q4 - The K1 Left outsole was Identified as the source of the Q4 impression. Q5 - The K1 Left outsole was Identified as the source of the Q5 impression. Q6 - The K1 Right and Left outsoles were Eliminated as the source of the Q6 impression. Q7 - The K1 Right outsole was Identified as the source of the Q7 impression.
8RZE88-533 Item \#1: Photograph of the soles of the suspect's shoes, lighted from above. (Your item K1a); Item \#2: Two oblique lighted images of the soles of the suspect's shoes, light direction indicated by arrows. (Your item K1b-K1c); Item \#3: Known imprints made with the suspect's shoes. (Your item K1d-K1g); Item \#3-3: One (1) set of clear ovelays[sic] from Item 3; Item \#4: Questioned imprints found on the kitchen floor. (vinyl tile) (Your item Q1-Q3); Item \#5: Questioned imprints found on the living room floor (vinyl tile) (Your item Q4-Q7). Results of Examination: Three (3) questioned footwear impressions were noted on Item 4. Four (4) questioned footwear impressions were noted on Item 5. The seven (7) questioned footwear impressions were compared to the known pair of shoes submitted as Items 1, 2, and 3 (3-3), with the following results. One (1) of the questioned footwear impressions noted on Item 4 corresponds in outsole design, physical size, and general wear with the known left shoe submitted as Items 1, 2, and 3 (3-3). The questioned footwear impression also corresponds in unique identifying characteristics with the known left shoe; therefore, it was made by the known left shoe. Two (2) of the questioned footwear impressions noted on ltem 4 correspond in outsole design, however, they do not correspond in physical size or general wear with the known pair of shoes; therefore, they were not made by either of those shoes. Two (2) of the questioned footwear impressions noted on Item 5 corresponds in outsole design, physical size, and general wear with the known left shoe submitted as Items 1, 2, and 3 (3-3). The questioned footwear impressions also correspond in unique identifying characteristics with the known left shoe; therefore, they were made by the known left shoe. One (1) of the questioned footwear impressions noted on Item 5 corresponds in outsole design, physical
size, and general wear with the known right shoe submitted as Items 1, 2, and 3 (3-3). The questioned footwear impression also corresponds in unique identifying characteristics with the known right shoe; therefore, it was made by the known right shoe. The one (1) remaining questioned footwear impression noted on Item 5 corresponds in outsole design, however, it does not correspond in physical size or general wear with the known pair of shoes; therefore, it was not made by either of those shoes.
8UHTCT-534 Results of Laboratory Examination: A complete evaluation of a questioned impression and a known shoe (tire) includes looking at correspondence in tread design, physical size and shape of design present, wear characteristics, and any distinctive characteristics randomly acquired on the outsole of the shoe (tire) that are represented in the questioned impression. The shoe impressions in Item 1 labeled Q1 through Q7 were examined and compared to the images of the known shoes and known shoe impressions, also on Item 1 . The Item 1 Q1 impression seems to have been made in apparent blood. The remaining impressions were made in an unknown material. The Q1, Q4, and Q5 left impressions and the Q7 right impression corresponded to the known shoes in tread design, size of the tread, wear and individual characteristics. Therefore, the Item 1 known shoes were the source of these four impressions (Type 1 Association). The Q2 left impression and Q3 and Q6 right impressions corresponded to the known shoes in known shoes[sic] in general tread pattern; however, they differed in size. Therefore, the Item 1 known shoes can be eliminated as a source of these three impressions (Elimination). Interpretation: The following descriptions are meant to provide context to the opinions reached in this report. Every type of conclusion may not be applicable in every case or for every material type. Type 1 Association: Identification; An association in which items share individual characteristics and/or physically fit together that demonstrate the items were once from the same source. Type 2 Association: Highly likely; An association in which items correspond in all measured physical properties, chemical composition and/or microscopic characteristics and share distinctive characteristic(s) that would not be expected to be found in the population of this evidence type. The distinctive characteristics were not sufficient for a Type 1 Association. Type 3 Association: Could have; An association in which items correspond in all measured physical properties, chemical composition and/or microscopic characteristics and could have originated from the same source. Because it is possible for another sample to be indistinguishable from the submitted evidence, an individual source cannot be determined. Type 4 Association: Cannot eliminate; An association in which items correspond in some but possibly not all measured physical properties, chemical composition and/or microscopic characteristics and cannot be eliminated as coming from the same source. This type of evidence may be commonly encountered in the environment, may have limited comparative value and/or there may be factor(s) limiting the comparison. Inconclusive - No conclusion could be reached regarding an association between the items. Elimination: Items exhibit dissimilarities in one or more of the following: physical properties, chemical composition or microscopic characteristics and, therefore, conclusively did not originate from the same source. Non-Association: Items exhibit dissimilarities but certain details or features are not sufficient for an Elimination.

9DWHCC-533 Comparison examinations were conducted between standards made of the suspect's Nike shoes and the submitted unknown footwear impressions Q1 through Q7. The findings of this examiner are as follows: Impressions Q1, Q4, and Q5 were made by the suspect left shoe, K1 left. Impression Q7 was made by the suspect right shoe, K1 right. Impressions Q3 and Q6 were made by a second right shoe of similar outsole design. Impression Q2 was not made by the suspect shoes, K1 left or K1 right, or the shoe that made Q3 and Q6. Impression Q2 was possibly made by a second left shoe of similar outsole design.

9HA77G-533 Imprint and Impression Examination: In comparing the questioned imprints (Items \#Q1, \#Q4, and \#Q5) to the known suspect shoes and impressions (ltems \#K1A - \#K1G), it was found that they have the same tread design, tread size, general wear and unique wear characteristics as the known left shoe. Therefore, in the opinion of this examiner, Items \#Q1, \#Q4 and \#Q5 were made by the known left shoe. In comparing the questioned imprint (Item \#Q7) to the known suspect shoes and impressions (Items \#K1A - \#K1G), it was found that it has the same tread design, tread size, general wear and unique wear characteristics as the known right shoe. Therefore, in the opinion of this examiner, Item \#Q7, was made by the known right shoe. In comparing the questioned Imprints (ltems \#Q2, \#Q3 and \#Q6) to the known suspect shoes and impressions (Items \#K1A - \#K1G), it was found that they have a different tread size and/or wear patterns than the knowns. Therefore, in the opinion of this examiner, Items \#Q2, \#Q3 and \#Q6 were not made by the known suspect shoes.
9HU2DB-533

9J2BCA-533
Impressions Q1, Q4 and Q5 were made by the submitted left shoe. Impression Q7 was made by the submitted right shoe. Impressions Q3 and Q6 were made by a second right shoe. Impression Q2 was made by a fourth shoe.

The Q1 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 5 individual characteristics. Therefore, the K1 left shoe was identified as the source of this footwear impression. The Q2 footwear impression corresponds to the K1 left shoe in outsole design; however, the physical size of this footwear impression is different than the K1 left shoe. Therefore, the K1 left shoe was eliminated as the source of this footwear impression. The Q3 footwear impression corresponds to the K1 right shoe in outsole design; however, the physical size of this footwear impression is different than the K1 right shoe. Therefore, the K1 rightt[sic] shoe shoe[sic] was eliminated as the source of this footwear impression. The Q4 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 3 individual characteristics. Therefore, the K1 left shoe was identified as the source of this footwear impression. The Q5 footwear impression corresponds to the K1 left shoe in outsole design, physical size, wear and 6 individual characteristics. Therefore, the K1 left shoe was identified as the source of this footwear impression. The Q6 footwear impression corresponds to the K1 right shoe in outsole design; however, the physical size of this footwear impression is different than the K1 right shoe. Therefore, the K1 right shoe was eliminated as the source of this footwear impression. The Q7 footwear impression corresponds to the K1 right shoe in outsole design, physical size, wear and 3 individual characteristics. Therefore, the K1 right shoe was identified as the source of this footwear impression.
9PD6YK-533 The questioned footwear impressions, Items Q1 through Q7, were compared to the known impressions, Kl a through Kl g. All questioned impressions exhibited a similar tread design when compared with the known impressions. However, Items Q2, Q3 and Q6 contained individual characteristics dissimilar with those found in the known impressions K1 a through K1g. Therefore Items Q2, Q3 and Q6 could not have been made by the shoes that made the known impressions (Kla though[sic] K1g). Items Q1, Q4, Q5 and Q7 were compared to the know[sic] impressions Kla through Klg. Based on these comparisons it was determined that Q1, Q4 and Q5 exhibited a similar tread design and individual characteristics consistent with the known left shoe in Items Kla through Klg . Based on these characteristics it is highly unlikely that a shoe other than the left shoe of Item 1 could have produced the impression seen in Items Q1, Q4 and Q5. Item Q7 also exhibited a similar tread design and individual characteristics that were consistent with the known right shoe of Item 1. Based on these characteristics it is highly
unlikely that a shoe other than the right shoe of Item 1 could have produced the impression seen in Item Q7.

9TUKYB-533 [No Conclusions Reported.]
9XLYF7-534 1. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q1 corresponds in physical size, physical shape, outsole design, wear characteristics, and individual characteristics with the Known left shoe in K1. The footwear impression was made by the Known left shoe. 2. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q2 is of a different physical size than the Known shoes in K1. The footwear impression was not made by the Known shoes. 3. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q3 is of a different physical size than the Known shoes in K1. The footwear impression was not made by the Known shoes. 4. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q4 corresponds in physical size, physical shape, outsole design, wear characteristics, and individual characteristics with the Known left shoe in K1. The footwear impression was made by the Known left shoe. 5. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q5 corresponds in physical size, physical shape, outsole design, wear characteristics, and individual characteristics with the Known left shoe in K1. The footwear impression was made by the Known left shoe. 6. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q6 is of a different physical size than the Known shoes in K1. The footwear impression was not made by the Known shoes. 7. It is the opinion of the undersigned examiner that the Questioned footwear impression in Q7 corresponds in physical size, physical shape, outsole design, wear characteristics, and individual characteristics with the Known right shoe in K1. The footwear impression was made by the Known right shoe.

A2F7HE-533 It was determined that the Q1, Q4, and Q5 prints were made by the K1 left shoe. It was determined that the Q7 print was made by the K1 right shoe. It was determined that the Q2, Q3, and Q6 prints were not made by the K1 shoes.

A77J4B-533 1. The questioned imprints marked "Q1", "Q4" and "Q5" were made by the suspect's left shoe which is depicted in the photographs marked "Kla" to "Klc". 2. The questioned imprint marked "Q7" was made by the suspect's right shoe which is depicted in the photographs marked "K1a" to "K1c". 3. The questioned imprints marked "Q2", "Q3" and "Q6" were not made by the suspect's shoes.

AEK83J-533 [No Conclusions Reported.]
AJ4CXK-534 Questioned Footwear Impressions \#1, \#4 and \#5 were identified to the suspects left shoe. These impressions and the known footwear share agreement of class and randomly acquired characteristics of sufficient quality and quantity. Questioned Footwear Impressions \#2, \#3, \#6 and \#7 were eliminated. Although there was agreement as to class characteristics, there was disagreement in randomly acquired characteristics.

ANX83E-533 The findings provide conclusive support for the view that the shoes have made the impressions Q1, Q4, Q5 and Q7 recovered from the scene. The shoes did not make the impressions Q2, Q3, and Q6 relatingto[sic] the scene.

APAV98-533
Imprints Q1, Q4, Q5 and Q7 were identified as having been made with the suspect's shoes as shown in Items 1, 4, 5 and 7. Imprints Q2, Q3 and Q6 were eliminated as having been made with the suspect's shoes as shown in Items 2,3 and 6 .

Q1, Q4 and Q5 originated from K1 (suspect's left shoe). Q7 originated from K1 (suspect's right shoe). Q2, Q3, and Q6 did not originate from K1 (suspect's shoes).

AVYJXB-533 In my opinion, my findings show conclusively that the submitted left training shoe made the impressions marked as Q1, Q4 and Q5. In my opinion, my findings show conclusively that the submitted right training shoe made the impressions marked as Q7. In my opinion, the submitted footwear could not have made the impressions marked as Q2, Q3 and Q6.

B2T2GR-533 [No Conclusions Reported.]
B3XJCN-533 The submitted known shoes were not the source of, and did not make, the $Q 2,3$, and 6 questioned impressions from the crime scene. The submitted known shoes were the source of, and made, the Q 1, 4, 5, and 7 questioned crime scene impressions. Other footwear being the source of the impressions would be considered a practical impossibility.
B9CCKU-533 The questioned impressions from the kitchen floor (Q1) and living room floor (Q5) are left shoe impressions. An additional questioned impression from the living room floor (Q4) is a partial left shoe impression. These shoe impressions and partial impression are similar in class characteristics (tread design, size, and wear) and also share randomly acquired characteristics (accidentals) with the suspect's left shoe (Kla-g). It is our opinion that these shoe impressions and partial impression were made by the suspect's left shoe. The questioned impression from the living room floor (Q7) is a partial right shoe impression that is similar in class characteristics (tread design, size, and wear) and also shares randomly acquired characteristics (accidentals) with the suspect's right shoe ( $\mathrm{K} 1 \mathrm{a}-\mathrm{g}$ ). It is our opinion that this shoe impression was made by the suspect's right shoe. The questioned impressions from the kitchen floor (Q2, Q3) and the living room floor (Q6) are dissimilar in class characteristics (size) to the suspect's shoes. It is our opinion that these question impressions were not made by the suspect's shoes.

B9QP2C-533 Q1, Q4 and Q5 were made by the left shoe K1 and no other Q7 was made by the right shoe K1 and no other Q3 and Q6 come from the same unknown right shoe (not from the K1) Q2 comes from an unknown left shoe (not from the K1)

B9Y7H6-534 It is the opinion of the examiner that the shoe tracks Q1, Q4, and Q5 (Laboratory Item \# $001 . A .08 . a, 001 . A .09 . a, 001 . A .09 . b)$ were made by the left suspect shoe of Kla (Laboratory Item \# 001.A.01). It is the opinion of the examiner that the shoe track Q7 (Laboratory ltem \# 001 .A.09.d) was made by the right suspect shoe of Kla (Laboratory Item \# 001.A.01). It is the opinion of the examiner that the shoe tracks Q2, Q3, and Q6 (Laboratory Item \# 001.A.08.b, 001.A.08.c, 001.A.09.c) were not made by the suspect shoes Kla Laboratory Item \# 001 .A. 01 .

BBF6HZ-533 1. Examination of Exhibit 4 (Q1 through Q3) and Exhibit 5 (Q4 through Q7) revealed a total of seven latent footwear impressions suitable for comparison. 2. The latent footwear impressions on Exhibit 4(Q1) and Exhibit 5 (Q4 and Q5) were made by the footwear (Left Shoe) depicted in Exhibit 1 (Kla through Klg). 3. The latent footwear impression on Exhibit 5 (Q7) was made by the footwear (Right Shoe) depicted in Exhibit 1 (Kla through K 1 g ). 4. The latent footwear impressions on Exhibit 4 (Q2 and Q3) and Exhibit 5 (Q6) were not made by the footwear depicted in Exhibit 1 (Kla through Klg). 5. Images of the latent footwear impressions in this case will remain on file at this laboratory.

BC92R2-533 8.1 One shoe impression labeled "Q1, from the kitchen floor". Examined visually and
with 1 to 1 photographic overlays. Comparison of item 8.1 , the shoe impression labeled "Q1, found on the kitchen floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. 8.2 One partial shoe impression labeled "Q2, from the kitchen floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 8.2, the partial shoe impression labeled "Q2, found on the kitchen floor", to the suspect's right shoe and the suspect's left shoe did not reveal corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 8.2. 8.3 One partial shoe impression labeled "Q3, from the kitchen floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 8.3, the partial shoe impression labeled "Q3, found on the kitchen floor", to the suspect's right shoe and the suspect's left shoe did not reveal corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 8.3. 9.1 One partial shoe impression labeled "Q4, from the living room floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.1, the partial shoe impression labeled "Q4, found on the living room floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. 9.2 One shoe impression labeled "Q5, from the living room floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.2, the shoe impression labeled "Q5, found on the living room floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. 9.3 One shoe impression labeled "Q6, from the living room floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.3, the shoe impression labeled "Q6, found on the living room floor", to the suspect's right shoe and the suspect's left shoe did not reveal corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 9.3. 9.4 One partial shoe impression labeled "Q7, from the living room floor". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.4, the partial shoe impression labeled "Q7, found on the living room floor", to the suspect's right shoe revealed similar class characteristics and corresponding individualizing characteristics.

BGLVVD-533 Q2 Inconclusive as there are no characteristics damage found between the shoe prints from the crime scene and the control samples. Q3 Inconclusive as there are no characteristics damage found between the shoe prints from the crime scene and the control samples. Q6 Inconclusive as there are no corresponding characteristics damage found between the shoe prints from the crime scene and the control samples. NB. Shoe impressions from the suspect's shoes (control samples) are unlikely to be the ones on Q2, Q3 and Q6.

Impressions Q1, Q4 and Q5 were made by the suspect's left shoe. Impression Q7 was made by the suspect's right shoe. Impressions Q2, Q3 and Q6 were not made by the suspect's shoes.
BMB9TK-533 [No Conclusions Reported.]
BMERYW-533 Q1, Q4, Q5 are Left shoe. Q2, Q3 Q6 are Eliminated. Q7 was Inconclusive.
BMUVCB-533 The submitted questioned impressions were compared to the known impressions of the suspect's Nike shoes. Questioned impression Q1 appears to have been made with apparent blood. The remaining questioned impressions Q2-Q7 appear to have been developed with black powder. Questioned impressions Q1, Q4 and Q5 correspond in tread design, size of tread, wear and randomly acquired characteristics to the known left

Nike shoe and are identified as having been made by that shoe (level 1 association - see association scale below [Table 3 - Additional Comments]). Questioned impression Q7 corresponds in tread design, size of tread, wear and randomly acquired characteristics to the known right Nike shoe and is identified as having been made by that shoe (level 1 association). Questioned impressions Q2, Q3, and Q6 have a tread design similar to the known Nike shoes, however are dissimilar in size of tread and apparent wear. These impressions are eliminated as having been made by the known Nike shoes (elimination). Please submit further shoes for comparison to these questioned impressions if desired.
C2PTVL-534 The impressions in the digital photograph from the kitchen floor (Items Q1-Q3) and the impressions in the digital photograph from the living room floor (Items Q4-Q7) were physically compared to the digital photographs of the tread pattern of the women's size 9 Nike shoe depicted in the digital photographs (Items Kla-K1c) and to the reference impressions in the digital photographs provided from those shoes (ltems K1d - K1g). The impression in suspected blood (Item Q1), the two impressions (Items Q4 \& Q5), and the tread pattern of the women's size 9 Nike left shoe depicted in the digital photographs (Items Kla -K1c) and the reference impressions provided from those shoes (Items K1d Klg ) are similar in their design, shape, size, wear, as well as individual detail sufficient for an identification. The three impressions (ltems Q1, Q4, \& Q5) were determined to have been made by the left Nike shoe depicted in the digital photographs (Items Kla-K1c). The two impressions (Items Q2 \& Q3) are the heel portions of shoes which are similar in their design and shape to the reference patterns from the shoes ( $\mathrm{Kla}-\mathrm{Klc}$ ); however, the size of the impressions (Q2 \& Q3) appears shorter than the reference impressions from the Nike shoes (ltems K1d-K1g) and bear different individual detail from each other and from the reference left and right Nike shoes depicted in the digital photographs (KlaK1c). The two impressions (Q2 \& Q3) can be eliminated as having been made by the left and right Nike shoes depicted in the digital photographs (K1a-K1c). The heel impression (Item Q3) was physically compared to the impression (Item Q6) and they are similar in their design, shape, size, wear, as well as individual detail sufficient for an identification to each other. These two impressions were determined to have been made by the same unrecovered right shoe, which is likely a Nike brand shoe smaller than the women's size 9 Nike shoe in the digital photographs (Kla-Klc). The impression (Item Q6) is from a right shoe of similar design and shape as the reference patterns from the shoes (Kla-K1c); however, the size of the impression (Q6) appears shorter than the reference impressions from the Nike shoes (ltems K1d-K1g) and bears different individual detail from the reference right Nike shoe depicted in the digital photographs (Kla-K1c). The impression (Q6) can be eliminated as having been made by the right Nike shoe depicted in the digital photographs (Kla-K1c). The impression (Item Q7) and the tread pattern of the women's size 9 Nike right shoe depicted in the digital photographs (ltems Kla-K1c) and the reference impressions provided from those shoes (Items Kld - Klg) are similar in their design, shape, size, wear, as well as individual detail sufficient for an identification. The impression (Item Q7) was determined to have been made by the right Nike shoe depicted in the digital photographs (Items Kla-K1c).
C4V9B4-533 The left shoe outsole is identified as the source of Questioned Impressions Q1, Q4, and Q5. The right shoe outsole is not the source of these impressions. The right shoe outsole is identified as the source of Questioned Impression Q7. The left shoe outsole is not the source of this impression. Both the left and right outsoles are not the source of Questioned Impressions Q2, Q3, and Q6.
C8Y399-533 Results of Examination: The Questioned shoe imprints marked as Q2, Q3 and Q6 when compared to the Suspect shoe soles marked as $\mathrm{Kla-Klg}$ revealed similar class
characteristics, however different size, wear pattern, or individual characteristics. Therefore, the Suspect shoe soles marked as $\mathrm{Kla-Klg}$ are eliminated from having made the Questioned shoe imprints marked as Q2, Q3 and Q6. The Questioned right shoe imprint marked as Q7 when compared to the Right Suspect shoe soles marked as $\mathrm{Kla}-\mathrm{Klg}$ revealed similar class characteristics and individual characteristics. Therefore, the Questioned shoe sole marked as Q7 was made by the Right Suspect shoe sole marked as Kla-Klg. The Questioned left shoe imprints marked as Q1, Q4 and Q5 when compared to the Left Suspect shoe soles marked as Kla-K1g revealed similar class characteristics and individual characteristics. Therefore, the Questioned left shoe imprints marked as Q1, Q4 and Q5 were made by the Left Suspect shoe soles marked as Kla-Klg. Note: The existence of footwear of Identical brand and manufacturer to the known footwear is noted by the examiner in this case. Footwear of the same brand and manufacturer will display the same class characteristics as those observed in this known footwear. Individualization, or Identification, of the suspect footwear to the known footwear is based upon the correspondence of individual/accidental characteristics as well as the correspondence of class characteristics.
C94ZXH-534 The questioned impressions labeled Q1, Q4, and Q5 are all from a left shoe and are similar in pattern, size, and wear patterns to the known left shoe K1. Additionally, these impressions have accidental defects that uniquely associate Q1, Q4, and Q5 to the known Left shoe K1. The impressions Q1, Q4, and Q5 were made by the known left shoe K1. The questioned impression labeled Q7 is from a right shoe and is similar in pattern, size, and wear patterns to the known right shoe K1. Additionally, this impression has accidental defects patterns that uniquely associate Q7 to the known right shoe K1. The impression Q7 was made by the known right shoe K1. The questioned impressions labeled Q2 (left shoe), Q3 (right shoe), and Q6 (right shoe) are impressions that are similar in pattern to the known shoes K1, but, are of a different size, wear pattern, and have different accidental defects than the known shoes and can be eliminated as having made the impressions Q2, Q3, and Q6. The questioned impressions labeled Q2, Q3, and Q6 were not made by the known shoes K1.
C98C6C-533 Comparison examinations were conducted of the submitted footwear impressions to the known standards of the suspect's shoes. The findings of this examiner are the following: 1. Q1 (Exhibit 2) is a left shoe impression made in possible blood. 2. Q2 (Exhibit 3), Q3 (Exhibit 4), Q4 (Exhibit 5), and Q7 (Exhibit 8) are partial shoe impressions. 3. Q5 (Exhibit 6) is a left shoe impression. 4. Q6 (Exhibit 7) is a right shoe impression. 5. Q1 (Exhibit 2), Q4 (Exhibit 5), and Q5 (Exhibit 6) were made by the suspect's left shoe, K1 (Exhibit 1). 6. Q7 (Exhibit 8) was made by the suspect's right shoe, K1 (Exhibit 1). 7. Q3 (Exhibit 4) and Q6 (Exhibit 7) were not made by the suspect's shoe, K1 (Exhibit 1), based on differences in size. Q3 (Exhibit 4) and Q6 (Exhibit 7) were made by the same right shoe of the same design as the submitted shoes. 8. Q2 (Exhibit 3) was not made by the suspect's shoes, K1 (Exhibit 1), based on differences in size. Q2 (Exhibit 3) could be from either a left or right shoe of the same design as the submitted shoes, K1 (Exhibit 1).
CEFHWC-533 The impressions Q1, Q4 and Q5 all matched the left shoe in pattern, size, degree of wear and other acquired features. The impression Q7 matched the right shoe in pattern, size, degree of wear and other acquired features. The impressions Q3 and Q6 had features indicating they were made by the same shoe, but neither they nor impression Q2 were made by the shoes submitted, and would appear to have been made by smaller shoes (which may be form[sic] a pair). These findings provide extremely strong support for the view that some of the impressions at the scene were made by the shoes of the suspect, rather than by another pair of shoes. I have chosen the above phrase from the
following scale: weak support, moderate support, moderately strong support, strong support, very strong support, extremely strong support

CFPP3Q-533 Physical examination of the questioned imprints found on the kitchen and living room floors revealed the presence of seven partial shoe impressions labeled Q1 though[sic] Q7. Physical comparison of the Q1, Q4, and Q5 partial impressions with the known left shoe from the suspect revealed them to be consistent with respect to size, shape, tread design, and individual characteristics. Therefore, the Q1, Q4, and Q5 partial impressions were made by the left shoe from the suspect. Physical comparison of the Q7 partial shoe impression with the known right shoe from the suspect revealed them to be consistent with respect to size, shape, tread design, and individual characteristics. Therefore, the Q7 partial impression was made by the right shoe from the suspect. Physical comparison of the Q2, Q3, and Q6 partial impressions with the known left and right shoes from the suspect revealed them to be inconsistent with respect to size. Therefore, the Q2, Q3, and Q6 partial impressions were not made by the shoes from the suspect.

CMQ2XM-533 The Q1 impression was made by the K1 left shoe. The Q2 impression was not made by the K1 left/right shoes. The Q3 impression was not made by the K1 left/right shoes. The Q4 impression was made by the K1 left shoe. The Q5 impression was made by the K1 left shoe. The Q6 impression was not made by the K1 left/right shoes. The Q7 impression was made by the K1 right shoe.
CNLBEJ-533 [No Conclusions Reported.]
CQDDE7-534 It is my conclusion indicate that the pieces of evidence identified Q2, Q3 and Q6 were not produced by the piece of evidence identified K-1. However, the pieces of evidence identified Q1, Q4 and Q5 were produced by the piece of evidence identified K1, left side. While the piece of evidence identified Q7 was produced by K1 piece of evidence, right side. Footwear impression identified Q-1, correspond in pattern, design, individual characteristics and size with K1 (left side). The footwear impressions identified Q2 and Q3 corresponds in pattern and design with K1 (Left and Right side). The footwear impression identified Q4 correspond in pattern, design, individual characteristics and size with K1 (Right). The footwear impression identified Q5 correspond in pattern, design, individual characteristics and size with K1 (Left). The footwear impression identified Q6 is right side impression, correspond in pattern, design but not in size with K1 (Left, and Right). The footwear identified Q7 correspond in pattern, design individual characteristics and size with K1 (Right). [sic]
CQYFE9-533 The impressions Q1, Q4 and Q5 are positively identified as been caused by the presented left Nike shoe. The impression Q7 is positively identified as been caused by the presented right Nike shoe. Impressions Q2, Q3 and Q6 have class characteristics similar to the presented Nike shoes. The presented shoes are excluded from making the impressions based on size and lack of individual characteristics.
CRJ7P7-534 The questioned impressions (Q1, Q4 \& Q5) were made by the Left Nike, size 9. The questioned impression (Q7) was made by the Right Nike, size 9. Questioned impressions (Q2, Q3 \& Q6) can be eliminated as having been made by either the Right or Left Nike, size 9.

CYTWX7-533
Prints: Q1, Q4, Q5 were identified on basis of more than two individual characteristics and wear features with left comparative shoe and Q7 was identified on basis of more than two individual characteristics and wear features with right comparative shoe. Prints:

Q2, Q3 \& Q6 has different individual and class characteristics features than comparative shoes.

D3ZW3H-533 Marks Q1, Q4 and Q5 were examined when they were found to show agreement in pattern, size, fine detail and wear with the sole of the left shoe. In our opinion, the left shoe was responsible for these marks. Mark Q7 was examined when it was found to show agreement in pattern, size, fine detail and wear with the sole of the right shoe. In our opinion, the right shoe was responsible for this mark. Neither shoe was responsible for marks Q2, Q3 or Q6.
D87TKW-533 Examination of the questioned impressions revealed seven impressions suitable for comparison. Four of these impressions were made by the shoes depicted in the photographs K1. The three remaining footwear impressions were not made by the shoes depicted in K1. While these impressions have pattern design elements consistent with the shoes, the size of the shoes that made these impressions is inconsistent with the shoes depicted in K1.

D8QKJ9-533 Transparent overlays of test impressions made using K1L left shoe and K1R right shoe were visually examined and compared with the questioned impressions Q1, Q2, Q3, Q4, Q5, Q6 and Q7. The questioned impressions Q1, Q4 and Q5 were made by the K1L left shoe. The questioned impression Q7 was made by the K1R right shoe. The questioned impressions Q2, Q3 and Q6 were not made by the K1L left shoe or the K1R right shoe.

DEYM8N-534 The questioned marks Q1, Q4, Q5 and Q7 were made by shoes that correspond in pattern design, configuration and physical size with the known imprints made with the suspect's shoes. The degree and position of wear also corresponds. Furthermore, features visible in the marks correspond in position, size, shape and orientation with damage features present on the outsoles of the shoes. I consider the overall level of level of correspondence observed to be so specific that I have ruled out the possibility of the correspondence being due to chance and therefore in my opinion a conclusive association can be made between the questioned marks and the suspect's shoes. The questioned marks Q2, Q3 and Q6 were made by shoes of a similar pattern design to those of the known imprints. However, there are sufficient differences in terms of size, wear and damage for me to state that in my opinion, the suspect's shoes can be excluded from having made the questioned marks.
DFNZLZ-534 Q1, Q4, and Q5 were identified as having been made by the left shoe in K1. Q7 was identified as having been made by the right shoe in K1. Q2, Q3, and Q6 were excluded as having been made by the shoes in Kl .
DKUYFC-533 Footwear impressions Q1, Q4, and Q5 exhibited tread design, physical size, wear pattern, and randomly acquired characteristics in agreement with the submitted left Nike shoe Item K1. These footwear impressions were produced by the left Nike shoe Item K-1 (Level 1: Identification). Footwear impression Q7 exhibited tread design, physical size, wear pattern, and randomly acquired characteristics in agreement with the submitted right Nike shoe Item K1. This footwear impression was produced by the right Nike shoe Item K-1 (Level 1: Identification). Footwear impressions Q2, Q3, and Q6 exhibited a similar tread design but a different physical size than the Nike shoes K1. The submitted Nike shoes K1 did not produce these questioned impressions (Elimination). Association Scale for Footwear and Tire Impressions: The following descriptions are meant to provide context to the levels of opinions reached in footwear and tire impression examinations. Each level of association may not include every variable in every case. Level 1:
(Identification) - The highest degree of association expressed in footwear and tire impression examinations. The questioned impression and the known shoe or tire share a combination of class characteristics (such as tread design, physical size, general wear) and individual random characteristics that demonstrate the questioned impression was made by the known footwear/tire. Note for Levels 2-5: Because other shoes or tires have been manufactured that would also be indistinguishable from the submitted evidence, an individual source cannot be determined. (Not listed due to inadequate space). Elimination/Exclusion: (Non-association) - The highest degree of non-association expressed in footwear and tired impression examinations. The known shoe or tire was eliminated as being the source of the questioned impression.

DM7JV2-533

DPW6J4-533

DRGPEE-533
DW9RAD-533
Sufficient agreements of class and individual characteristics confirmed the Q1, Q4, and Q5 impressions were made by the suspect's left shoe. Sufficient agreements of class and individual characteristics confirmed the Q7 impression was made by the suspect's right shoe. Disagreements of class characteristics confirmed the Q2, Q3, and Q6 impressions were not made by the suspect's right or left shoe.
DWUJ3Y-533 Items: K1a: Photograph of the suspect's shoes, lighted from above. K1b-K1c: Two Photographs of the outsoles of the suspect's shoes, oblique lighting. K1d-Klg: Four photographs of inked test impressions of the questioned shoes. Q1-Q3: Photograph bearing three questioned footwear impressions. Q4-Q7: Photograph bearing four questioned footwear impressions. Analysis Result: Sufficient agreements of class and individual characteristics confirmed the Q1, Q4, and Q5 impressions were made by the

K1 left shoe. Sufficient agreements of class and individual characteristics confirmed the Q7 impression was made by the K1 right shoe. Disagreements of class and individual characteristics confirmed the Q2, Q3, and Q6 impressions were not made by either of the K1 shoes.

DZZQ2J-533 [No Conclusions Reported.]
E2GJP6-533 In the opinion of the examiner, the known left shoe was the source of, and made, the impressions depicted in photographs labeled Q1, Q4, and Q5. Another item of footwear being the same source of the impressions is considered a practical impossibility. Furthermore, in the opinion of the examiner the known right shoe was the source of, and made, the questioned impression depicted in the photograph labeled Q7. Another item of footwear being the same source of the impression is considered a practical impossibility. In the opinion of the examiner the particular known footwear was not the source of, and did not make the impressions depicted in photographs labeled Q2, Q3, and Q6.

EB89GQ-533 The photographs depicting partial footwear impressions (Q1-Q7) were compared to Items (Kla-Klg). Items Q1, Q4 and Q5 share agreement of class and randomly acquired characteristics of sufficient quality and quantity with the left side shoe of Item K1, therefore, identified as having been made by the left side shoe of Item K1. Item Q7 shares agreement of class and randomly acquired characteristics of sufficient quality and quantity with the right side shoe of Item K1, therefore, identified as having been made by the right side shoe of Item K1. Items Q2, Q3 and Q6 were excluded with Item K1.

ECG6XP-533 As a result of the comparative examination the questioned imprints Q1, Q4 and Q5 exhibit sufficient unique characteristics as concerning quality and clarity for an identification to have been caused by the suspect's left shoe (L). The questioned imprint Q7 has been identified to have been caused by the suspects right shoe (R). The questioned imprints Q2, Q3 and Q6 have been found different in size and unique characteristics from the suspect's shoes and have been eliminated to have been caused by these shoes.[sic]

EERWF7-534

EGTD3Z-533
Q1, Q4, and Q5 were made by the left shoe from Item K. Q2, Q3, and Q6 were eliminated as having been made by Item K. Q7 was made by the right shoe from Item K.

EXAMINATIONS: Determine whether any footwear marks present in Exhibits Q1 thru Q7 can be associated with the known pair of shoes. FINDINGS: The questioned footwear marks Q1, Q4 and Q5 were made by the known left shoe. This opinion is the highest degree of association expressed by a footwear examiner. The questioned mark and the known footwear must share sufficient agreement of observable class and individual characteristics. In the opinion of the examiner the known footwear was the source of and made the questioned mark. The questioned footwear mark, Q7 was made by the known right shoe. This opinion is the highest degree of association expressed by a footwear examiner. The questioned mark and the known footwear must share sufficient agreement of observable class and individual characteristics. In the opinion of the examiner the known footwear was the source of and made the questioned mark. Questioned footwear marks Q2, Q3 and Q6 were not made by the known pair of shoes. This opinion means that there are observable differences in class and/or identifying characteristics between the questioned mark and the known shoe.

EK4QPA-533 [No Conclusions Reported.]

EKAGCQ-533 The impressions Q1, Q4, and Q5 were made by the suspect's Left shoe. The impression Q7 was made by the suspect's Right shoe. Impressions Q2, Q3, and Q6 were not made by either of the suspect's shoes.
EKHELU-534 Three footwear impressions (Q1, Q4, and Q5) were identified as having been made by the left shoe from K1. One footwear impression (Q7) was identified as having been made by the right shoe from K1. Three footwear impressions (Q2, Q3, and Q6) were excluded as having been made by the shoes from K1.
EXK49U-534 The questioned footwear impression "Q1" from Item 4 was made by the left shoe of the known footwear K1. The questioned footwear impression "Q2" from Item 4 was not made by the known footwear K1. The questioned footwear impression "Q3" from Item 4 was not made by the known footwear K1. The questioned footwear impression "Q4" from Item 5 was made by the left shoe of the known footwear K1. The questioned footwear impression "Q5" from Item 5 was made by the left shoe of the known footwear K1. The questioned footwear impression "Q6" from Item 5 was not made by the known footwear K1. The questioned footwear impression "Q7" from Item 5 was made by the right shoe of the known footwear K1. There are three (3) impressions of value for comparison that remain unidentified.

EY4MVE-534 In the opinion of the examiner, the left shoe in K1 was the source of, and made, the left footwear imprint Q1. Another item of footwear being the source of the impression is considered a practical impossibility. The partial footwear imprint in Q2 was similar in design to the shoes in K1, but was not similar in wear characteristics; therefore the imprint was not made by the shoes in K1. The partial footwear imprint in Q3 was similar in design to the shoes in K1, but was not similar in size and wear characteristics; therefore the imprint was not made by the shoes in K1. In the opinion of the examiner, the left shoe in K1 was the source of, and made, the left partial footwear imprint Q4. Another item of footwear being the source of the impression is considered a practical impossibility. In the opinion of the examiner, the left shoe in K1 was the source of, and made, the left footwear imprint Q5. Another item of footwear being the source of the impression is considered a practical impossibility. The partial right footwear imprint in Q6 was similar in design to the shoes in K1, but was not similar in size; therefore the imprint was not made by the right shoe in K1. In the opinion of the examiner, the right shoe in K1 was the source of, and made, the right partial footwear imprint Q7. Another item of footwear being the source of the impression is considered a practical impossibility.
F3VDAP-533 Due to correspondance in general and individual caracteristic that were found on questioned imprints Q1, Q4, Q5 and Q7, on known imprints and the soles of the suspect shoes we can confirm with certanty that all previous questioned imprints were caused by suspects shoes (Q1, Q4, Q5 with left shoe and Q7 with right shoe) [sic]
F62NEF-533 1. Examination of Exhibits 4 and 5 revealed three latent footwear impressions Q1 through Q3 on Exhibit 4 and four latent footwear impressions Q4 through Q7 on Exhibit 5, which are suitable for comparison. 2. Exhibits 1 (Kla) through 3(Klg)(Right Shoe) made latent footwear impression Q7 on Exhibit 5. 3. Exhibits $1(\mathrm{Kla})$ through 3(Klg)(Left Shoe) made latent footwear impressions Q1 on Exhibit 4 and Q4 and Q5 on Exhibit 5. 4. Exhibits $1(\mathrm{~K} 1 \mathrm{a})$ through $3(\mathrm{~K} 1 \mathrm{~g})$ (Right and Left Shoes) did not make the latent footwear impressions Q2 and Q3 on Exhibit 4 and Q6 on Exhibit 5. 5. Images of the footwear impressions remain on file.
F9P2HH-533 It was determined that the impression represented by Q1, Q4 \& Q5 was made by the K1 left shoe. It was determined that the impression represented by Q7 was made by the K1
right shoe. It was determined that the impression represented by Q2, Q3 \& Q6 was not made by the right or left Kl shoe.

FG9UV8-533 Two photos of seven impressions (Q-1 through Q-7) were submitted for comparison with known test impressions and images of a pair of Nike athletic shoes. Questioned impressions Q1, Q4 and Q5 depicted left shoe impressions. Based on tread size, tread design, general wear and individual characteristics, Items Q1, Q4, and Q5 were made by the submitted suspect's left shoe (Identification). Questioned impression Q7 depicted a right shoe impression. Based on tread size, tread design, general wear and individual characteristics, Item Q7 was made by the submitted suspect's right shoe (Identification). Due to differences in tread size, wear patterns and/or in individual markings, questioned impressions Q2, Q3 and Q6 were eliminated from having been made by the submitted suspect's shoes (Elimination).
FHE7MG-533 The suspect's left shoe positively made the imprints Q1, Q4, and Q5. The suspect's right shoe positively made the imprint Q7. The suspect's shoes did not make the imprints Q2, Q3, and Q6.

FHQM84-533 Impressions Q1, Q4 and Q5 were made by the submitted left Nike shoe. Impression Q7 was made by the submitted right Nike shoe. Impressions Q3 and Q6 were not made by either of the submitted Nike shoes. They were made by a second type of right Nike shoe. Impression Q2 was not made by either of the submitted Nike shoes or the same shoe that made impressions Q3 and Q6. They were possibly made by the left shoe from the same pair as Impressions Q3 and Q6.

FN4RMG-533 The partial footwear impressions that have been identified as Exhibits Q1, Q4, and Q5 are consistent in tread design, size of tread, and degree of wear with the K1 left shoe. These impressions also possess sufficient accidental characteristics to conclude that they were made by the K1 left shoe, and no other. The partial footwear impression that has been identified as Exhibit Q7 is consistent in tread design, size of tread, and degree of wear with the K1 right shoe. This impression also possesses sufficient accidental characteristics to conclude that it was made by the K1 right shoe, and no other. The partial footwear impressions identified as Exhibits Q2, Q3, and Q6 each have a similar tread design to the K1 shoes; however they exhibit differences in size of tread and/or in accidental characteristics. Accordingly, these impressions were not made by the K1 shoes.

FNUV84-533 Impressions Q1, Q4, and Q5 were made by the suspect left shoe (K1) based on the individual characteristics found to occupy corresponding positions in the known footwear (K1) and questioned impressions (Q1, Q4, Q5), as well as the correspondence of tread design characteristics and relative size. Impression Q7 was made by the suspect Right shoe (K1) based on the individual characteristics found to occupy corresponding positions in the known footwear and the questioned impressions, as well as the correspondence of tread design characteristics and relative size. Q2, Q3 and Q6 were not made by the suspect shoes based on differences in relative size and the lack of corresponding individual characteristics in the questioned impressions and known footwear. The existence of footwear of identical brand and manufacturer to the known footwear is noted by the examiner in this case. Footwear of the same brand and manufacturer will display the same class characteristics as those observed in this known footwear. Individualization, or Identification, of the suspect footwear to the known footwear is based upon the correspondence of Individual/accidental characteristics as well as the correspondence of class characteristics.

FWL4ZH-533 The photographs of the questioned imprints labeled Q1 through Q7 were compared with
the photographs of the known shoes and known imprints labeled Kla through Klg with the following results: Q1 - was made by the Exhibit K1 left shoe. Q2 - was not made by the known shoes in Exhibit K1. Q3 - was not made by the known shoes in Exhibit K1. Q4 - was made by the Exhibit K1 left shoe. Q5 - was made by the Exhibit K1 left shoe. Q6 was not made by the known shoes in Exhibit K1. Q7 - was made by the Exhibit K1 right shoe.

FX3N86-533 It was concluded that the following impressions were positively made by the nominated suspect shoe: Q1 - Left shoe, Q4 - Left shoe, Q5 - Left shoe, Q7 - Right Shoe. The remaining questioned impressions, Q2, Q3 and Q6 were not made by either of the suspect shoes.

FYNYL7-533 [No Conclusions Reported.]
FZBF8T-533 In my opinion my findings provide: Conclusive support for the proposition that mark Q1 was made by the sole of the left training shoe. Conclusive support for the proposition that mark Q2 was not made by either of the submitted training shoes. Conclusive support for the proposition that mark Q3 was not made by either of the submitted training shoes. Conclusive support for the proposition that mark Q4 was made by the sole of the left training shoe. Conclusive support for the proposition that mark Q5 was made by the sole of the left training shoe. Conclusive support for the proposition that mark Q6 was not made by either of the submitted training shoes. Conclusive support for the proposition that mark Q7 was made by the sole of the right training shoe. The strength of the evidence is assessed on a verbal scale of: No support for either proposition (previously referred to as inconclusive), no evaluation possible, limited, moderate, moderately strong, strong, very strong and conclusive.

G3HHN3-533 Q1, Q4 \& Q5 are positively identified as the left known Nike shoe. Q7 is positively identified as the right known Nike shoe. Q2, Q3 and Q6 whilst have some common class characteristics in common with the known shoes are excluded on the basis of size and lack of individual characteristics corresponding with those of the known shoes. See attached glossary. [Glossary was not included with the report.]

Impressions Q1, Q4 \& Q5 as depicted in photographs, have all been identified as having been made by K1 left shoe. Impressions Q2, Q3, \& Q6, as depicted in photographs, have all been identified as having been made by K 1 right shoe. Comparison of impression Q7 to K1 left \& right shoes is inconclusive. This impression lacks sufficient detail for an identification or exclusion.

1. Analysis of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (questioned imprints found on the kitchen floor) and four latent footwear impressions on Exhibit 5 (questioned imprints found on the living room floor) suitable for comparison. 2. One of the latent footwear impressions on Exhibit 4 (Q1) and three of the latent footwear impressions on Exhibit 5 (Q4, Q5, and Q7) were made by the shoes depicted in Exhibits 1 through 3. 3. The remaining latent footwear impressions on Exhibits 4 (Q2, Q3) and 5 (Q6) were not made by the shoes depicted in Exhibits 1 through 3. 4. Images of the latent footwear impressions in this case will remain on file at this laboratory.
GFHT2V-533 It was determined that the footwear impressions Q1, Q4 and Q5 were made by the suspect's left size 9, Nike shoe, K1. It was determined that the footwear impressions Q2, Q3, Q6 and Q7 were not made by the suspect's left or right, size 9, Nike shoes, K1.
GJT4HD-533 K1 (left) is the source of Q1, Q4 and Q5 based on similarities in design, spacing, wear and individualizing characteristics. $\mathrm{K1}$ (right) is the source of Q7 based on similarities in
design, spacing, wear and individualizing characteristics. K1 (left and right) are excluded as possible sources of Q2, Q3 and Q6 based on differences in design, spacing, wear and/or individualizing characteristics.
GNL2DW-533 The outsole impressions labeled Q1 and Q5, and the partial outsole impression labeled Q4 were identified as having been made by the outsole of the left shoe in Item K1. The outsole impression labeled Q7 was identified as having been made by the outsole of the right shoe in Item K1. The partial outsole impressions labeled Q2 and Q3, and the outsole impression labeled Q6 were excluded from having been made by the outsole of either shoe in Item K1 based on class characteristic differences (size).

GW2DCZ-533 I compared the test impressions in K1 with the Unknown Impressions in Q1 through Q7 with the following conclusions: Q2, Q3, and Q6 - Based on differences in the size and spatial relationship of the tread patterns between the three Unknowns and the Known impressions I determined that the three Unknown impressions were not made by the same shoes that made the impressions in K1. Q1, Q4, and Q5 - Based on consistent class characteristics and sufficient agreement of the individual characteristics, I determined that the three Unknown impressions had been made by the same Known left shoe that made the impressions in K1. Q7 - Based on consistent class characteristics and sufficient agreement of the individual characteristics, I determined that the Unknown impression was made by the same Known right shoe that made the impressions in K1.
GZZ4PL-533 1. Examination of Exhibits 4 and 5 (Q1 through Q7) revealed three latent footwear impressions (Q1 through Q3) on Exhibit 4 (questioned imprints) and four latent footwear impressions (Q4 through Q7) on Exhibit 5 (questioned imprints) suitable for identification. 2. The Suspect's Left Shoe (K1) made one latent footwear impression each on Exhibit 4 (Q1) and two latent footwear impressions on Exhibit 5 (Q4 and Q5). 3. The Suspect's Right Shoe (K1) made one latent footwear impression each on Exhibit 5 (Q7). 4. The Suspect's Right and Left Shoes (K1) did not make the remaining latent footwear impressions on Exhibits 4 and 5 (Q2, Q3, and Q6). 5. Images of the latent footwear impressions in this case will remain on file at this laboratory.
H2T86E-533 [No Conclusions Reported.]
H64L98-533 The outsole impression depicted in the photograph with marker Q7 taken at the scene corresponds in class and randomly acquired characteristics to the known right shoe, K1. The known right shoe was determined to be the source of the impression depicted in marker Q7. The outsole impressions depicted in the photographs with markers Q1, Q4, and Q5 taken at the scene correspond in class and randomly acquired characteristics to the known left shoe, K1. The known left shoe was determined to be the source of the impressions depicted in markers Q1, Q4, and Q5. The outsole impressions depicted in the photographs with markers Q2, Q3, and Q6 taken at the scene were excluded as having been made by either the right or left shoe, K1. The known right shoe and the known left shoe were determined to not be the source of the impressions depicted in markers Q2, Q3 and Q6.
H6BG4E-533 The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 Nike Women's size 9 shoes. The Item Q1 questioned shoe impression corresponds in tread design, physical size, specific wear and four (4) accidental characteristics with the Item K1 left shoe. The Item Q4 questioned shoe impression corresponds in tread design, physical size, specific wear and three (3) accidental characteristics with the Item K1 left shoe. The Item Q5 questioned shoe impression corresponds in tread design, physical size, specific wear and eight (8)
accidental characteristics with the Item K1 left shoe. The Item Q7 questioned shoe impression corresponds in tread design, physical size, specific wear and one (1) accidental characteristic with the Item K1 right shoe. The Items Q2, Q3 and Q6 share a similar tread design; however, the questioned shoe impressions do not correspond in physical size with the Item K1 shoes. Based upon the above factors, it is the opinion of this examiner that: The Item Q1, Q4 and Q5 questioned shoe impressions were made by the Item K1 left shoe. The Item Q7 questioned shoe impression was made by the Item K1 right shoe. The Item Q2, Q3 and Q6 questioned shoe impressions were not made by the Item K1 shoes.

H8P9Q9-533 The suspects shoes are manufactured by Nike and are a women's size 9. Photographs and inked impressions made of the shoes labelled Kla-Klg were compared to shoe impressions left on a vinyl floor at the scene. These impressions were labelled Q1-Q7. Impressions Q1, Q4 and Q5 were made by the suspect's left shoe. Impressions Q2, Q3 and Q6 were not made by the suspect's left or right shoe. Impression Q7 lacked clarity and detail. It is a partial right toe impression and the suspect's right shoe cannot be excluded from having made this impression.

H97CJT-534 The questioned footwear impression "Q1" from Item 4, questioned imprints found on the kitchen floor (vinyl tile), was identified to the left shoe of known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q2" from Item 4, questioned imprints found on the kitchen floor (vinyl tile), was not made by the known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q3" from Item 4, questioned imprints found on the kitchen floor (vinyl tile), was not made by the known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q4" from Item 5, questioned imprints found on the living room floor (vinyl tile), was identified to the left shoe of known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q5" from Item 5, questioned imprints found on the living room floor (vinyl tile), was identified to the left shoe of known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q6" from Item 5, questioned imprints found on the living room floor (vinyl tile) was not made by the known Item 3, K1 - Suspect shoes, Nike women's size 9. The questioned footwear impression "Q7" from Item 5, questioned imprints found on the living room floor (vinyl tile), was identified to the right shoe of known Item 3, K1 - Suspect shoes, Nike women's size 9.

HCEGMG-533 [No Conclusions Reported.]
HCGYTT-533 One questioned shoe prints Q7 are identified to the right suspect shoe, and three questioned shoe prints Q1, Q4, Q5 are identified to the left suspect shoe. In those recpected comparisons we found the same class and individual characteristics. Three questioned shoe prints Q2, Q3, Q6 have the same design with one of the suspect shoes but there are not same to individual characteristics. So these shoe prints to eliminate. [sic]

HG6XU2-533 The left shoe of Kla-Klg produced the two crime scene footwear impressions listed as Q4 and Q5. These identifications are based on agreement in outsole pattern, shape, wear pattern, and individual characteristics. The right shoe of $\mathrm{Kla-Klg}$ produced the crime scene footwear impression listed as Q7. This identification is based on agreement in outsole pattern, shape, wear pattern, and individual characteristics. The submitted shoes listed as Kla-Klg are eliminated as possible sources of crime scene footwear impressions Q2, Q3, and Q6. These eliminations are based on outsole size differences between the crime scene footwear impressions and the known shoe outsoles. Q2, Q3,
and Q6 were produced by a smaller shoe outsole. A determination as to whether or not the left shoe of Kla-Klg produced the crime scene footwear impression listed as Q1 could not be made. This inconclusive result is due to the presence of both similarities and dissimilarities in Q1.
HHZ2G2-533 The bloody print in the kitchen (Q1) and three prints from the living room (Q4, Q5, \& Q7) were made by the Nike shoes (K1). The other prints (Q2, Q3, and Q6) were not made by the Nike shoes (K1).

HKKHKM-533 See attached [Report was not included]
HMV86Y-533 Questioned impressions Q1, Q4 and Q5 were identified as having been made by the known left shoe of K1. Questioned impression Q7 was identified as having been made by the known right shoe of K1. Questioned impressions Q2, Q3 and Q6 can be eliminated as having been made by the known shoes of K1.

HY4WW9-533 The shoeprints represented by the photos submitted Items Q1-Q7 were examined and compared to the shoeprint tests submitted Items $\mathrm{Kld}-\mathrm{K} 1 \mathrm{~g}$. The shoeprints submitted Items Q1, Q4 \& Q5 were made by the left shoe submitted Item K1. The shoeprint submitted Item Q7 was made by the right shoe submitted Item K1. The shoeprints submitted Items Q2, Q3 and Q6 were not made by either of the shoes submitted ltem K1. The shoeprints submitted Items Q3 and Q6 were made by the same right shoe.
J3JTBB-533 Conclusion Impression Q1 is consistent in design, size, and wear with the known left shoe. Additionally, as a result of individual characteristics, it is the opinion of this examiner that the submitted left shoe was the source, and made, impression Q1. Another item of footwear being the source of the impression is considered a practical impossibility. It is the opinion of this examiner that known submitted footwear was not the source of, and did not make, impression Q2. It is the opinion of this examiner that known submitted footwear was not the source of, and did not make, impression Q3. Impression Q4 is consistent in design and size with the known left shoe. Additionally, as a result of individual characteristics, it is the opinion of this examiner that the submitted left shoe was the source, and made, impression Q1 [sic]. Another item of footwear being the source of the impression is considered a practical impossibility. Impression Q5 is consistent in design, size, and wear with the known left shoe. Additionally, as a result of individual characteristics, it is the opinion of this examiner that the submitted left shoe was the source, and made, impression Q1 [sic]. Another item of footwear being the source of the impression is considered a practical impossibility. It is the opinion of this examiner that known submitted footwear was not the source of, and did not make, impression Q6. Impression Q7 is consistent in design and size with the known right shoe. Additionally, as a result of individual characteristics, it is the opinion of this examiner that the submitted right shoe was the source, and made, impression Q7. Another item of footwear being the source of the impression is considered a practical impossibility.
J4XAFC-533 The Item Q1 through Q7 questioned footwear impressions were analyzed, compared and evaluated with the Item K1 known shoes. The Item Q1 questioned footwear impression corresponds in tread design, physical size, specific wear and four (4) accidental characteristics with the Item K1 left shoe. The Item Q2 and Q3 questioned footwear impressions share similar tread design features with the Item K1 known shoes but do not correspond in physical size. The Item Q4 questioned footwear impression corresponds in tread design, physical size, specific wear and four (4) accidental characteristics with the Item K1 left shoe. The Item Q5 questioned footwear impression corresponds in tread design, physical size, specific wear and ten (10) accidental characteristics with the Item

K1 left shoe. The Item Q6 questioned footwear impression shares similar tread design features with the Item K1 known shoes but does not correspond in physical size. The Item Q7 questioned footwear impression corresponds in tread design, physical size, specific wear and one (1) accidental characteristic with the Item K1 right shoe. Based upon the above factors it is the opinion of this examiner that: The Item K1 left shoe made the Item Q1, Q4 and Q5 questioned footwear impressions. The Item K1 right shoe made the Item Q7 questioned footwear impression. The Item Q2, Q3 and Q6 questioned footwear impressions were not made by the Item K1 shoes.
JFH3CX-533 Q7 was positively identified as being made by the right shoe of K1. Q1, Q4 and Q5 were positively identified as being made by the left shoe of K1. Q2, Q3 and Q6 were grossly dissimilar in size, wear pattern and individual characteristics to both the right and left shoe of K1, and can be eliminated as being made by K1.
JKDMM9-533 The Item K1A left shoe was not the source of, and did not make, the Items Q3, Q6, and Q7 right shoe impressions. The Item K1A right shoe was not the source of, and did not make, the Items Q1, Q2, Q4, and Q5 left shoe impressions. Side by side and overlay comparison of the Item Q1, Q4, and Q5 impressions to the Item K1A left shoe revealed an agreement of class characteristics (tread pattern, physical size, and general condition of wear). Several areas of individual characteristic agreement were also noted between the Item K1A left shoe and the Item Q1, Q4, and Q5 impressions. It was concluded that the Item K1A left shoe was the source of, and made, the Item Q1, Q4, and Q5 impressions. Another shoe being the source of the impressions is considered a practical impossibility. Side by side and overlay comparison of the Item Q7 impression to the Item K1A right shoe revealed an agreement of class characteristics (tread pattern, physical size, and general condition of wear). Several areas of individual characteristic agreement were also noted between the Item K1A right shoe and the Item Q7 impression. It was concluded that the Item K1A right shoe was the source of, and made, the Item Q7 impression. Another shoe being the source of the impressions is considered a practical impossibility. Side by side and overlay comparison of the Item Q2 impression to the Item K1A left shoe revealed sufficient differences in class and individual characteristics. It was concluded that the Item K1A left shoe was not the source of, and did not make, the Item Q2 impression. Side by side and overlay comparison of the Item Q3 and Q6 impressions to the Item K1A right shoe revealed sufficient differences in class and individual characteristics. It was concluded that the Item K1A right shoe was not the source of, and did not make, the Item Q3 and Q6 impressions.

JLA88M-533 Q1, Q4, Q5 identified as suspects left shoe. Q7 identified as suspects right shoe. Suspects shoes eliminated as the source of Q2, Q3, Q6.
JUXYG9-533 Based on corresponding class and individual characteristics the shoes K1 are identified as having produced imprints Q1, Q4, Q5 and Q7. (Q1, Q4 and Q5 to the left shoe of K1 and Q7 to the right). The extent of correspondence is such that others shoes are excluded. Based on different class characteristics the shoes K1 are excluded from producing imprints Q2, Q3 and Q6.
JY8EQW-534
In the opinion of the examiner, the left Nike shoe, was the source of and made impression Q1. The likelihood of another item being the source of the impression is considered negligible. In the opinion of the examiner, neither the left or right Nike shoe was the source of and did not make impression Q2. In the opinion of the examiner, neither the left or right Nike shoe was the source of and did not make impression Q3. In the In the [sic] opinion of the examiner, the left Nike shoe, was the source of and made impression Q4. The likelihood of another item being the source of the impression is
considered negligible. In the opinion of the examiner, the left Nike shoe, was the source of and made impression Q5. The likelihood of another item being the source of the impression is considered negligible. In the opinion of the examiner, neither the left or right Nike shoe was the source of and did not make impression Q6. In the opinion of the examiner, the right Nike shoe, was the source of and made impression Q7. The likelihood of another item being the source of the impression is considered negligible.

JYGXAV-533

K2KYZJ-533

KB92VZ-533

KC3RCZ-533

KEMMRD-533

KKFHXR-533
KM484Q-533

KMGTBT-533 Questioned footwear impressions $Q 1$ through $Q 5[$ sic] were visually examined and compared to overlay transparencies of the test impressions as well as the photos
depicting the soles of the suspect's shoes. The following was found: Q1 questioned footwear impression and the known left shoe are consistent with respect to class characteristics: size, shape and tread design. In addition, seven individual characteristics were observed in Q1 impression and they are corresponding in size, shape, orientation and location with the ones present in the known left shoe. Therefore, it is the opinion of the undersigned that Q1 impression was made by the known left shoe. Q2 and Q3 questioned footwear impressions are different than the known shoes with respect to size, tread design and individual characteristics. Therefore, it is the opinion of the undersigned that Q2 and Q3 impressions could not have been made by the known shoes. Q4 questioned footwear impression and the heel of the known left shoe are consistent with respect to class characteristics: size, shape and tread design. In addition, four individual characteristics were observed in Q4 impression and they are corresponding in size, shape, orientation and location with the ones present in the known left shoe. Therefore, it is the opinion of the undersigned that Q4 impression was made by the known left shoe. Q5 questioned footwear impression and the known left shoe are consistent with respect to class characteristics: size, shape and tread design. In addition, nine individual characteristics were observed in Q5 impression and they are corresponding in size, shape, orientation and location with the ones present in the known left shoe. Therefore, it is the opinion of the undersigned that Q5 impression was made by the known left shoe. Q6 questioned footwear impression is different than the known right shoe with respect to size and individual characteristics. Therefore, it is the opinion of the undersigned that Q6 impression could not have been made by the known right shoe. Q7 questioned footwear impression and the known right shoe are consistent with respect to class characteristics: size, shape and tread design. In addition, two individual characteristics were observed in Q7 impression and they are corresponding in size, shape, orientation and location with the ones present in the known right shoe. Therefore, it is the opinion of the undersigned that Q7 impression was made by the known right shoe.

KRZNQT-533 1. Examination of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (images Q1 through Q3) and four latent footwear impressions on Exhibit 5 (images Q4 through Q7) suitable for comparison. Footwear impressions suitable for comparison are not always suitable for identification but may be suitable for exclusionary purposes. 2. The suspect left shoe made the latent footwear impressions Q1 on Exhibit 4 and Q4 and Q5 on Exhibit 5. The suspect right shoe made the latent footwear impression Q7 on Exhibit 5. The remaining footwear impressions (Q2, Q3, and Q6) were not made by the suspect shoes. 3. Images of the latent footwear impressions remain on file.

L8EXZ7-533 By comparing the outsoles of shoes or reference shoeprints to a questioned shoeprint, it may be possible to determine whether or not a particular shoe made a shoeprint. Factors that are considered include the size and pattern of the outsole, the degree of wear of the outsole and any random damage present. I have carried out such comparisons where appropriate and the results are my opinions based on my training and experience. I have compared the questioned shoeprints numbered Q1 to Q7 with the photographs of the shoe soles and test prints supplied to me. There is good correspondence, including wear and damage, between the test prints from the left shoe and prints Q1, Q4 and Q5. In my opinion, the left shoe made these prints. No other shoe could have made these prints. There is good correspondence, including wear and damage, between the test prints from the right shoe and print Q7. In my opinion, the right shoe made this print. No other shoe could have made this print. There is good correspondence of pattern between the test prints from the right shoe and prints Q3 and Q6. However there are also differences in the dimensions, and in wear and damage. In my opinion the right shoe could not have made these prints, but a right shoe with a similar sole pattern did. The left shoe or a left
shoe with a similar sole pattern could not have made this print. Prints Q3 and Q6 are likely to have been made by the same shoe. There is good correspondence of pattern between the test prints from the left shoe and print Q2. However there are also differences in the dimensions, and in wear and damage. In my opinion the left shoe could not have made this print, but a left shoe with a similar sole pattern did. The right shoe or a right shoe with a similar sole pattern could not have made this print.
LCYKED-533 The Q1 throught Q7 questionned impression photographs were examined and compare to suspect's shoes (Kla to Klg). Based on these comparisons, the following conclusions were reached: The Q1, Q4 and Q5 questionned impressions were made by the left suspect's shoe. The Q7 questionned impression were made by the right suspect's shoe. The Q2, Q3 and Q6 questionned impressions were not made by the suspect's shoe but the Q3 and Q6 questionned impressions were made by the same right shoe. [sic]
LF7NU9-533 The evidence impressions (Q1, Q4, and Q5) were identified as having been made by the known left shoe (K1). The evidence impression (Q7) was identified as having been made by the known right shoe (K1). The evidence impressions (Q2, Q3, and Q6) exhibit different individual characteristics as those produced by the known shoes (K1) and could not have been made by the known shoes (K1).

LGY6YV-533

LJM38G-533

LLNCV4-533
[No Conclusions Reported.]
LUMJA6-533
Impression Q-1 was made by item K-1, left shoe. Impression Q-2 was not made by item K-1, left or right shoe. Impression Q-3 was not made by item K-1, left or right shoe. Impression Q-4 was made by item K-1, left shoe. Impression Q-5 was made by item K-1, left shoe. Impression Q-6 was not made by item K-1, left or right shoe. Impression Q-7 was made by item K-1, right shoe.

LX4ZBW-533 The photographs of the suspect's shoes and questioned impressions were visually examined and processed by superimposed comparison. We copied the photographs of known imprints of suspect's shoes Klf and Klg on transparent films and superimposed them over the photographs of questioned impressions Q1 to Q7. Questioned impressions labelled Q1, Q4 and Q5 were found to be consistent in shape, physical size and individual characteristics with the suspect's left shoe. Questioned impressions labelled Q7 was found to be consistent in shape, physical size and individual characteristics with the suspect's right shoe. Questioned impressions labelled Q2, Q3 and Q6 were found to have similar shape with the suspect's shoes, however they were dissimilar in physical size and characteristics from the suspect's shoes. Therefore, questioned impressions labelled Q2, Q3 and Q6 can be eliminated.

LXZG4K-533 [No Conclusions Reported.]
LZ64QX-533 Item \#1: One (1) photograph of a pair of known shoes (outsoles). (Your item Kla); Item \#2: Two (2) photographs of a pair of known shoes (outsoles). (Your item K1b-K1c); Item \#3: Four (4) photographs of known inked standards from a pair of shoes. (Your item K1d-K1 g); Item \#3-1: One (1) set of clear overlays generated from Item 3.; Item \#4: One (1) photograph containing three (3) questioned footwear impressions. (Your item Q1-Q3); Item \#5: One (1) photograph containing four (4) questioned footwear impressions. (Your item Q4-Q7). Results of Examination: Three (3) questioned footwear impressions were noted in Item 4. Four (4) questioned footwear impressions were noted in Item 5. The seven (7) questioned footwear impressions were compared to the known pair of shoes submitted as Items 1, 2, and 3 (Item 3-1) with the following results: One (1) of the questioned footwear impressions noted on Item 4 corresponds in outsole design and physical size with the known left shoe submitted as Items 1, 2, and 3 (Item 3-1). Additionally, the questioned footwear impression contains sufficient unique identifying characteristics that are also present in the known left shoe; therefore, it was determined that the questioned footwear impression was made by the known left shoe submitted in Items 1, 2, and 3 (Item 3-1). The two (2) remaining questioned footwear impressions noted on Item 4 are similar in outsole design as the known pair of shoes submitted as Items 1, 2, and 3 (Item 3-1), however, the questioned footwear impressions contained unique identifying characteristics and a general state of wear that were not present in the known pair of shoes. Therefore, it was determined that the two (2) questioned footwear impressions were not made by the known pair of shoes submitted in Items 1, 2, and 3 (Item 3-1). Two (2) of the questioned footwear impressions noted on Item 5 correspond in outsole design and physical size with the known left shoe submitted as Items 1, 2, and 3 (Item 3-1). Additionally, the questioned footwear impressions contains sufficient unique identifying characteristics that are also present in the known left shoe; therefore, it was determined that the two (2) questioned footwear impressions was made by the known left shoe submitted in Items 1, 2, and 3 (Item 3-1). One (1) of the questioned footwear impressions noted on Item 5 corresponds in outsole design and physical size with the known right shoe submitted as Items 1, 2, and 3 (Item 3-1). Additionally, the questioned footwear impression contains sufficient unique identifying characteristics that are also present in the known right shoe; therefore, it was determined that the questioned footwear impression was made by the known right shoe submitted in Items 1, 2, and 3 (Item 3-1). The one (1) remaining questioned footwear impressions noted on Item 5 is similar in outsole design as the known right shoe submitted as Items 1, 2, and 3 (Item 3-1), however, the questioned footwear impression is of a different physical size and contains unique identifying characteristics and a general state of wear that are not present in the known right shoe. Therefore, it was determined that the questioned footwear impression
was not made by the known right shoe submitted in Items 1, 2, and 3 (Item 3-1). The questioned footwear impression is of a right shoe; therefore, it could not have been made by the left shoe submitted as Item 1, 2, and 3 (Item 3-1).
LZPTYJ-533 [No Conclusions Reported.]
M8PH7F-533 [No Conclusions Reported.]
MD88BH-533 The Item Q1, Item Q4 and Item Q5 impressions were made by the known left shoe. The Item Q7 impression was made by the known right shoe. The Item Q2, Item Q3 and Item Q6 impressions are of a different size than either of the known shoes, therefore, were not made by either of the known shoes.
MHFD3H-533 The outsoles of the suspect shoes (K1) were compared with the questioned impressions from the kitchen floor (Q1, Q2, and Q3) and the questioned impressions from the living room floor (Q4, Q5, Q6, and Q7). It was found that the left suspect shoe made the impressions Q1, Q4, and Q5 and that the right suspect shoe made the impression Q7. Neither of the suspect shoes made the impressions Q2, Q3, or Q6.
MMCXB8-533 The questioned impressions Q1, Q4 and Q5 were made by the left shoe of $K 1$, the suspect shoe. The questioned impression Q7 was made by the right shoe of K1, the suspect shoe. Q2, Q3 and Q6 were not made by either the left or right suspect shoe, K1. These identifications are established by finding agreement of physical size, design, degree of wear and correspondance[sic] of sufficient accidental/unique characteristics with respect to the areas present on the questioned impressions. Q2, Q3 and Q6 were eliminated based on sufficient differences to conclude they were made by different shoes.
MNK846-534 Q1, Q4 and Q5 were made by the K1 left shoe. Q7 was made by the K1 right shoe. Q2, Q3 and Q6 were not made by either of the K1 shoes. Identification is established when corresponding accidental characteristics agree to an extent that another shoe being the source of the impression is considered a practical impossibility. Exclusion is established when sufficient differences are noted between the unknown impression and the known shoe.
MNYWP4-533 Footwear impressions Q1, Q4 and Q5 were made by the submitted left Nike shoe. Footwear impression Q7 was made by the submitted right Nike shoe. Identifications are based on corresponding individual characteristics that are visible in both the questioned and known items. Footwear impressions Q2, Q3, and Q6 could not have been made by the submitted Nike shoes due to class character differences of size and general wear.

MWY997-533 [No Conclusions Reported.]
MX8DRW-533 It was determined that the impressions Q-1, Q-4 and Q-5 were made by the left shoe of the submitted pair, K-1. It was determined that the impression $\mathrm{Q}-7$ was made by the right shoe of the submitted pair, K-1. It was determined that the impressions Q-2, Q-3 and Q-6 were not made by the submitted pair of shoes, $\mathrm{K}-1$.

MXF8L4-533 The Impressions in Submissions Q-1, Q-4, and Q-5 were compared to the shoes in Submission K1 and correspond to the left shoe with respect to tread design, physical size, wear, and randomly acquired characteristics confirming they were made by the left shoe of Submission K1. The impression in submission Q-7 was compared to the shoes in Submission K1 and corresponds to the right shoe with respect to tread design, physical size, wear, and randomly acquired characteristics confirming it was made by the right shoe of Submission K1. Comparison of the impressions in submissions Q-2, Q-3, and

Q6 with the shoes in Submission K1 revealed they were different with respect to physical size. Therefore, these impressions were not made by the K1 shoes. The evidence is available for pickup.

N3NT7U-533 Examination of the questioned impressions Q1, Q4 and Q5; and comparison against the known left shoe exemplar, identified as made from the suspects shoe (K1f), reveals sufficient similarities in tread design, wear pattern, and corresponding accidental characteristics such that it can be concluded that the suspect's left shoe made these questioned impressions. Examination of the questioned impressions Q2, Q3, and Q6; and comparison against the known right and left shoe exemplars, identified as made from the suspects shoes ( K 1 f ), reveals similarities in tread design; however, there is sufficient dissimilarities in size and wear pattern to conclude that the right and left shoes can be eliminated as having made these questioned impressions. Examination of the questioned impression Q7 and comparison against the known right shoe exemplar, identified as made from the suspects shoe (K1f), reveals sufficient similarities in tread design, wear pattern, and corresponding accidental characteristics such that it can be concluded that the suspect's right shoe made this questioned impression.
N4QDEG-533 The left exemplar footwear depicted in items 1-7 is the source of the unknown footwear impressions depicted in items 8,11 and 12. The right exemplar footwear depicted in items $1-7$ is the source of the unknown footwear impression depicted in item 14. The right and left exemplar footwear depicted in items 1-7 are excluded as possible sources of the unknown footwear impressions depicted in items 9,10 and 13 .
N69VYL-533
[No Conclusions Reported.]
NE2YBV-533 [No Conclusions Reported.]
NGEYYV-533 Q1, Q4 and Q5 originated from K1 (suspect's left shoe). Q7 originated from K1 (suspect's right shoe). Q2, Q3 and Q6 did not originate from K1 (suspect's shoe).
NM7ZHN-533 The footwear imprints labeled Q1, Q4 \& Q5, correspond in design/pattern shape, physical size, and wear, and share several individual random characteristics or defects, with the left known shoe from the pair labeled K1. Therefore, these footwear imprints were determined to have been made by the left shoe from the pair labeled K1. The footwear imprint labeled Q7, corresponds in design/pattern shape, physical size, and wear, and shares several individual random characteristics or defects, with the right known shoe from the pair labeled K1. Therefore, this footwear imprint was determined to have been made by the right shoe from the pair labeled K1. The footwear imprints labeled Q2, Q3 \& Q6 are of different physical size, wear pattern, and individual random characteristics, than the known shoes labeled K1. Therefore, these imprints were not made by these shoes.

NMP4VF-533 [No Conclusions Reported.]
NNLFVP-533 Nike brand US women's size 9 shoes (item K1 a) were used to make known imprints (items Kld to Klg ). Known imprints were used to make overlays using transparency film and a photocopier. The overlays were used to compare the size, shape and spacing of elements that comprise the sole pattern. The questioned imprints (items Q1 to Q7) were examined using the unaided eye and a magnifier for marks that are a result of normal wear and tear on the shoe soles, and can be used to associate a particular shoe with a specific imprint. Examination led to the following conclusions: Q1, Q4 and Q5 were made by the left shoe of item K1a. Q7 was made by the right shoe of item K1a. Q2, Q3, and Q6
were not made by Kla.
P2D3ZP-533 The questioned imprints Q1 found on the kitchen floor and Q4 and Q5 found on the living room floor may have originated from the left side of the suspect's shoes. The questioned imprints Q7 found on the living room floor may have originated from the right side of the suspect's shoes. The questioned imprints Q2, Q3 and Q6 did not originate from the suspect's shoes.

P2GEPC-533 On the items Q1, Q4, Q5 and Q7 there are shoe prints which correspond in pattern and individual characteristics with the shoes of the item K1. The shoe prints of the items Q1, Q5 and Q7 correspond in size with the shoes of the item K1. The shoe prints of the items Q1, Q4, Q5 and Q7 are left by the shoes of the item K1. On the items Q2, Q3 and Q6 there are shoe prints which doesn't correspond in individual characteristics with the shoes of the item K1. The shoe prints of the items Q2, Q3 and Q6 are not left by the shoes of the item K1.

PJAUEV-533 Three (3) of the questioned imprints (Q1, Q4, and Q5) in items 1D and 1E were determined to have been made by the suspect's left shoe ( $K 1 a-K 1 g$ ) in items $1 A, 1 B$, and 1C. One of the questioned imprints (Q7) in item 1E was determined to have been made by the suspect's right shoe ( $\mathrm{K} 1 \mathrm{a}-\mathrm{Klg}$ ) in items 1A, 1B, and 1C. Three (3) of the questioned imprints (Q2, Q3, and Q6) in items 1D and 1E were determined not to have been made by the suspect's shoes ( $\mathrm{Kla-Klg}$ ) in items 1A, 1B, and 1 C .
PLF97V-533 Examination of Contributor Items \#Q1-Q7 revealed one questioned footwear impression on Contributor Item \#Q1, one questioned footwear impression on Contributor Item \#Q2, one questioned footwear impression on Contributor Item \#Q3, one questioned footwear impression on Contributor Item \#Q4, one questioned footwear impression on Contributor Item \#Q5, one questioned footwear impression on Contributor Item \#Q6, and one questioned footwear impression on Contributor Item \#Q7 that are of value for comparison. Comparison of the seven questioned footwear impressions with photographs of the footwear and test impressions of $\mathrm{Kl}(\mathrm{a}-\mathrm{g})$ revealed that: Contributor Item \#Q1 - the questioned footwear impression was made by the left shoe of K1 based on design, physical size, wear and individual characteristics. Contributor Item \#Q2 - the questioned footwear impression was not made by K1 based on different design, physical size, and individual characteristics. Contributor Item \#Q3 the questioned footwear impression was not made by K 1 based on different design, physical size, wear and individual characteristics. Contributor Item \#Q4 - the questioned footwear impression was made by the left shoe of K1 based on design, physical size, wear and individual characteristics. Contributor Item \#Q5 - the questioned footwear impression was made by the left shoe of K1 based on design, physical size, wear and individual characteristics. Contributor Item \#Q6 - the questioned footwear impression was not made by K1 based on different design, physical size, wear and individual characteristics. Contributor Item \#Q7 - the questioned footwear impression was made by the right shoe of K1 based on design, physical size, wear and individual characteristics.
PTU33Y-533
In comparing the questioned footwear imprints (Items Q1, Q4, and Q5) to the controls ( $\mathrm{Kla}-\mathrm{Klg}$ ), it was found that they have the same tread design, tread size, and several unique wear characteristics as the known left shoe. In the opinion of this examiner, the imprints Q1, Q4, and Q5 were made by the known left shoe. In comparing the questioned footwear imprint (Item Q7) to the controls (Kla-Klg), it was found that they have the same tread design, tread size, and several unique wear characteristics as the known right shoe. In the opinion of this examiner, the Q7 imprint was made by the known right shoe. In comparing the questioned footwear imprints (Q2, Q3, and Q6) to the
controls (Kla-Klg), it was found that they have the same tread design and tread size, but different wear patterns. Therefore, in the opinion of this examiner, the Q2, Q3, and Q6 imprints were not made by the known shoes.

PWT2AN-534
Impression Q1 - The bloody footwear impression associated with Q1 is a nearly complete left shoe impression on vinyl tile on the kitchen floor. The suspect's left shoe was identified as having made this impression based on correspondence of design, size, and randomly acquired individualizing marks. Impression Q2 - The footwear impression associated with Q2 is a partial impression, located on vinyl tile on the kitchen floor, and consists of the heel area of a shoe. The general pattern of the impression appears similar to the suspect's shoes; however, the suspect's shoes are eliminated as having made this impression based on differences in class characteristics, wear, and a lack of individualizing marks on the suspect's shoes that are present in the crime scene impression. Impression Q3 - The footwear impression associated with Q3 is a partial impression, located on vinyl tile on the kitchen floor, and consists of the heel area of a shoe. The general pattern of the impression appears similar to the suspect's shoes; however, the suspect's shoes are eliminated as having made this impression based on differences in class characteristics and a lack of individualizing marks on the suspect's shoes that are present in the crime scene impression. Impression Q4 - The footwear impression associated with Q4 is a partial impression, located on vinyl tile on the living room floor, and consisting of the heel area of a shoe. This impression partially overlaps with impression Q5. The suspect's left shoe was identified as having made this impression based on correspondence of design, size, wear, and randomly acquired individualizing marks. Impression Q5 - The footwear impression associated with Q5 is a nearly complete impression on vinyl tile on the living room floor. The toe area of this impression partially overlaps with impression Q4 and the heel area of impression Q5 partially overlaps with impression Q7. The suspect's left shoe was identified as having made this impression based on correspondence of design, size, wear, and randomly acquired individualizing marks. Impression Q6 - The footwear impression associated with Q6 is a nearly complete impression on vinyl tile on the living room floor. The toe area of this impression partially overlaps with impression Q7. The general pattern of this impression appears similar to the suspect's shoes; however the suspect's shoes were eliminated as having made this impression based on differences in class characteristics and a lack of individualizing marks on the suspect's shoes that are present in the crime scene impression. The suspect's shoes appear to be a larger size than the shoe that left the Q6 impression. It also appears impression Q3 and impression Q6 were made by the same shoe based on what looks to be randomly acquired individualizing marks. Please submit any shoes with similar outsole pattern/design to the laboratory for comparison. Impression Q7 - The footwear impression associated with Q7 is a partial impression on vinyl tile on the living room floor. The heel area of this impression partially overlaps with impression Q6. The suspect's right shoe was identified as having made this impression based on correspondence of design, size, and randomly acquired individualizing marks.

Q3J47F-533 Examination and comparison of the questioned footwear imprints, Q1 through Q7, to the outsoles of the submitted shoes, specimen K1, revealed the following: The questioned imprints, Q1, Q4, and Q5, were produced by the left shoe in specimen K1. The questioned imprint, Q7, was produced by the right shoe in specimen K1. The questioned imprints, Q2, Q3, and Q6 were not made by either shoe in specimen K1. Further examination revealed that specimens Q3 and Q6 were produced by the same footwear outsole.

Q66YHM-533 Processing and Examination: Q1 through Q7 were visually examined. Seven footwear
impressions are present. Analysis: The seven footwear impressions were determined to be of value for comparison and designated Q1FW1 through Q7FW1. Comparisons Results: Individualizations: The Item K1 left shoe has been individualized as being the source of the Q1FW1, Q4FW1 and Q5FW1 impressions. The Item K1 right shoe has been individualized as being the source of the Q7FW1 impression. Exclusions: Impressions Q2FW1, Q3FW1, and Q6FW1 were not made by the Item K1 shoes.
QBNANB-533 Results: The shoeprints depicted in the photographs labeled Q1 and Q5 corresponded in size, general design, and individual characteristics to the known left Nike shoe depicted in K1a through K1f. The partial shoeprints depicted in photographs labeled Q2, Q3, and Q6 corresponded in general design, but not individual characteristics to the known Nike shoes depicted in Kla through Klf. The partial shoeprint depicted in the photograph labeled Q4 corresponded in general design, and individual characteristics to the known left Nike shoe depicted in Kla through Klf. The partial shoeprint depicted in the photograph labeled Q7 corresponded in general design, and individual characteristics to the known right Nike shoe depicted in Kla through K1f. Opinion: The shoeprints depicted in the photographs labeled Q1 and Q5 were made by the left Nike shoe depicted in Kla through Klf. This is a Type I Association. See Association Key below [Table 3: Additional Comments]. The partial shoeprints depicted in the photographs labeled Q2, Q3 and Q6 were not made by the Nike shoes depicted in K1 a through K1f. This is an Elimination. See Association Key below [Table 3: Additional Comments]. The partial shoeprints in Q3 and Q6 were made by the same shoe. The partial shoeprint depicted in the photograph labeled Q4 was made by the left Nike shoe depicted in Kla through KIf. This is a Type I Association. See Association Key below [Table 3: Additional Comments]. The partial shoeprint depicted in the photograph labeled Q7 was made by the right Nike shoe depicted in Kla through Klf. This is a Type I Association. See Association Key below [Table 3: Additional Comments].

QD2ZRD-533
[No Conclusions Reported.]
QGFG7J-533 Comparison of the specimen footwear mark provided, with the questioned footwear marks Q1 to Q7 provides conclusive support for the proposition that the questioned footwear marks Q1, Q4 \& Q5 had been made by the left suspect shoe and that the questioned footwear mark Q7 had been made by the right suspect shoe. The questioned footwear marks Q2, Q3 \& Q6 have not been made by the suspect shoes.

The Q1, Q4, and Q5 questioned imprints correspond in physical size and design, general condition of wear, and a number of randomly acquired features with the respective portions of the K1 left shoe sole. Therefore, the K1 left shoe made Q1, Q4, and Q5 questioned imprints. The Q7 questioned imprint corresponds in physical size and design, general condition of wear, and a number of randomly acquired features with the respective portions of the K1 right shoe sole. Therefore, the K1 right shoe made the Q7 questioned imprint. The Q2, Q3, and Q6 questioned imprints are similar in design to the K1 shoe soles, however, the K1 shoe soles differ in physical size with the Q2, Q3, and Q6 questioned imprints. Therefore, the Q2, Q3, and Q6 questioned imprints were not made by the K1 shoes.
QPDBDH-533 Examination of the digital image prints displaying the questioned imprints revealed seven suitable patterned impressions marked Q1 through Q7. Comparisons revealed that the suitable patterned impressions marked Q1, Q4, and Q5 were identified as having been made by the left shoe depicted in the digital image prints marked Kla through Klg . Comparisons revealed that the suitable patterned impression marked Q7 was identified
as having been made by the right shoe depicted in the digital image prints marked K1a through K1g. Comparisons revealed that the suitable patterned impressions marked Q2, Q3, and Q6 could not have been made by the shoes depicted in the digital image prints marked Kla through Klg due to class characteristic size and/or observable differences in the general wear and individual characteristics. Comparisons revealed that the suitable patterned impressions marked Q3 and Q6 displayed potential identifying characteristics; however, an identification cannot be made without submission of the shoes.

QTKT46-533 Questioned imprints Q1, Q4, and Q5 correspond in design, size, and wear; and share accidental characteristics with the known left shoe. The left shoe made these impressions to the exclusion of all others. Questioned imprint Q7 corresponds in design, size, and wear; and shares accidental characteristics with the known right shoe. The right shoe made this impression to the exclusion of all others. The known shoes are eliminated as the source of shoe imprints Q2, Q3, and Q6 because they are a different size.
QTUFAR-533 Imprints Q1, Q4 and Q5 were identified as having been made by the left shoe seen in Item 1. Imprint Q7 was identified as having been made by the right shoe seen in Item 1. Imprints Q2, Q3 and Q6 were not made by the shoes contained in Item 1. Imprints Q3 and Q6 were made by the same shoe.
QWA3PH-534 One questioned shoe prints Q7 are identified to the right suspect shoe, and three questioned shoe prints Q1, Q4, Q5 are identified to the left suspect shoe. In those respected comparisons we found the same class and individual characteristics. Three questioned shoe prints, Q2, Q3, Q6 have the same design with one of the suspect shoes but there are not same to individual characteristics. So these shoe prints eliminate. [sic]
RGWW9R-533 The questioned imprints Q1 (depicted on Item 4), Q4, Q5, and Q7 (depicted on Item 5) were identified as having been produced using the suspect's shoes (depicted on Items 1 3). The questioned imprints Q2, Q3 (depicted on Item 4), and Q6 (depicted on Item 5) were not produced using the suspect's shoes (depicted on Items 1-3).
RJ3EBT-533 [No Conclusions Reported.]
RJYUGY-533 See Report [Report was not included]
RL4PXG-533 [No Conclusions Reported.]
RRG7QJ-533 Based on my examination, I found that: (i) The questioned imprints found on the kitchen floor Q1 are similar to that known imprints made with the suspect's shoes. ii) The questioned imprints found on the living room floor Q4, Q5 and Q7 were similar to that known imprints made with the suspect's shoes. (iii) The questioned imprints Q2, Q3 and Q6 were dissimilar to that known imprints made with the suspect's shoes.
RWNXH4-533 [No Conclusions Reported.]
TDQX7X-534 Visual analysis of items 1A and 1B reveals footwear impressions suitable for comparison. Visual examination and comparison reveals the following: The questioned Impressions depicted in the photographs (Items 1A.01, 1B.01, and 1B.02) were made by the known left shoe depicted in the photographs (ltem 1C). They have corresponding outsole design, physical shape/size, general condition of wear, specific wear and randomly acquired characteristics. The right shoe has been eliminated. The questioned impression depicted in the photograph (ltem 1B.04) was made by the known right shoe depicted in the photographs (Item 1C). They have corresponding outsole design, physical shape/size,
general condition of wear, specific wear and randomly acquired characteristics. The left shoe has been eliminated. The questioned impressions depicted in the photographs (Items 1A.02, 1A. 03 and 1B.03) were not made by the known shoes depicted in the photographs (item 1C). There were significant dissimilar characteristics such as physical shape/size, unexplainable condition of wear or dissimilar randomly acquired characteristics.
TEEKAK-533 The outsole impressions visible in Exhibits \#Q1 and \#Q5 and the partial outsole impression visible in Exhibit \#Q4 were identified as having been made by the left outsole of the shoe in Exhibit \#K1. The partial outsole impressions visible in Exhibits \#Q2 and \#Q3 and the outsole impression visible in Exhibit \#Q6 were excluded from having been made by the left or right outsole of the shoes in Exhibit \#K1 based on obvious class characteristic differences (size). The partial outsole impression visible in Exhibit \#Q7 was identified as having been made by the right outsole of the shoe in Exhibit \#K1.
TFTPA4-533 The comparisons of the enclosed footwear impressions (Q1-Q7 and Kla-K1g) concerned the physical size and shape of the outsole, the outsole design, and random individual identifying characteristics. From the performed comparative analysis we observed that on the surface of the outsoles of shoes, being the comparative material, there were present some individual identifying characteristics. Similar individual characteristics were also found in the evidence materials marked Q7 on the right outsole and Q1, Q4 and Q5 on the left outsole. This[sic] we concluded that Items Q2, Q3 and Q6 are different from the comparative materials.
TG8338-533 [No Conclusions Reported.]
TKTAFU-533 The suspect's left shoe made Imprints Q1, Q4, and Q5. The suspect's right shoe made Imprint Q7. The suspect's shoes did not make Imprints Q2, Q3, and Q6.
TMRCXX-533 It would state that the pattern and size is consistent and the wear and tear also corresponds with regards to Q1-left shoe, Q4 left shoe, Q5 left shoe and Q7 right shoe. All unique characteristics would have been marked out and explained with regard to value (evidential). That Q2 and Q3 was similar in pattern but did not reveal any unique characteristics and the wear and tear is different that makes it not a match.
TRL9NA-533 It was determined utilizing visual and overlay techniques of comparison that the item 001 questioned impressions Q1, Q4 and Q5 were positively made by the known left shoe. It was determined utilizing visual and overlay techniques of comparison that the item 001 questioned impressions Q7 was positively made by the known right shoe. It was determined utilizing visual and overlay techniques of comparison that the item 001 questioned impressions Q2, Q3, and Q6 were not made by the known shoes.
TTE7WF-534 Imprint Q1 is an imprint of a sole of a left shoe and it corresponds in shape, design, size and in some wear and individual characteristics with the left shoe ( K 1 L ). The left shoe ( K 1 L) left this imprint. Imprint Q2 is a partial imprint of the sole of a right or a left shoe and it corresponds in shape and design, but differs in size and wear pattern from the right and left shoes (K1). Both shoes (K1) did not leave this imprint. Imprint Q3 is a partial imprint of the sole of a right shoe that corresponds in shape and design, but differs in size and wear pattern from the right shoe ( $K 1 R$ ). The right shoe ( $K 1 R$ ) did not leave this imprint. Imprint Q4 is a partial imprint of the sole of a left shoe and it corresponds in shape, design, size and in some wear and minor individual characteristics with the left shoe (K1 L). The left shoe (K1 L) left this imprint. Imprint Q5 is an imprint of the sole of a left shoe and it corresponds in shape, design, size and in some wear and individual characteristics
with the left shoe (K1 L). The left shoe (K1 L) left this imprint. Imprint Q6 is an imprint of the sole of a right shoe that corresponds in shape and design, but differs in size from the right shoe (K1 R). The right shoe ( $K 1 R$ ) did not leave this imprint. Imprint Q7 is a partial imprint of the sole of a right shoe and it corresponds in shape, design, size and in some wear and individual characteristics with the right shoe ( $K 1 R$ ). The right shoe ( $K 1 R$ ) left this imprint.
TYDBC8-534 The findings provide conclusive evidence that the footwear impression deposited in apparent blood on the kitchen floor (Q1), was made by the submitted left shoe. The findings also provide conclusive evidence that certain of the impressions on the living room floor were made by the submitted pair of shoes. The remaining impressions, although of the same pattern type as the submitted shoes, featured different alignment and therefore could not have been made by the shoes.
U2TD6W-533 Visual examination and comparison of the questioned impressions depicted in the digital Images (Q1, Q4 and Q5) with the left shoe item Kla reveals they have corresponding tread design, physical dimension, general condition of wear, specific wear and random characteristics. Therefore, it is concluded that the shoe made the questioned impression. Visual examination and comparison of the questioned impression depicted in the digital image (Q7) with the right shoe item Kla reveals they have corresponding tread design, physical dimension, general condition of wear, specific wear and random accidental characteristics. Therefore, it is concluded that the shoe made the questioned impression. Visual examination and comparison of the questioned impressions depicted in the digital images (Q2, Q3 and Q6) with the shoes Item 1A[sic] reveals they are dissimilar with respect to physical dimension, unexplainable condition of wear or accidental characteristics. Therefore, it is concluded that the shoes did not make the questioned impressions.

UA6EHK-533 Questioned impressions Q1, Q4, and Q5 have design patterns and dimensions that are similar to those of the item K left outsole as depicted by the submitted photographs (K1a, $\mathrm{Klb}, \mathrm{Klc}, \mathrm{Kld}, \mathrm{Kle}, \mathrm{Klf}$, and K1g). In addition, Q1, Q4, and Q5 contain individualizing marks that correspond in shape, dimension, and position to those found on the Item K left outsole. The Item K left shoe is the source of questioned impressions Q1, Q4, and Q5. The Item $K$ right shoe is excluded as the source of Q1, Q4, and Q5. Similarly, questioned impression Q7 has a design pattern, dimensions, and individualizing marks that are similar and correspond to those of the ltem K right outsole. The Item $K$ right shoe is the source of impression Q7. The Item $K$ left shoe is excluded as the source of Q7. Questioned impression Q2 originated from a left outsole(s) with a similar design but with smaller dimensions than those of the Item K left outsole. Questioned partial impressions Q3 and Q6 originated from a right outsole with a similar design but with smaller dimensions than those of the Item K right outsole. Both shoes in Item $K$ are excluded as the source of questioned partial impressions Q2, Q3, and Q6.

UE3ZLU-533
[No Conclusions Reported.]
UM4LAV-533
Q-1, Q-4 and Q-5 have been identified as being made by the left out sole of the submitted shoe out sole photographs. Q-2, Q-3 and Q-6 are eliminated due to dimensional differences. Q-7 has been identified as being made by the right out sole of the submitted shoe out sole photographs.
UN6933-533
Impressions Q1, Q4 and Q5 were made by the submitted left shoe in K1. Impression Q7 was made by the submitted right shoe in K1. Impressions Q2, Q3 and Q6 were not made by the submitted shoes in K1.

UNR8GY-533 In my opinion there was a correspondence of sole pattern, approximate dimensions, areas of wear and areas of random damage between the sole of the submitted left shoe and Impressions Q1, Q4 and Q5. Therefore, in my opinion there is conclusive evidence to support the proposition that the submitted left shoe, and no other, made impressions Q1, Q4 and Q5. In my opinion there was a correspondence of sole pattern, approximate dimensions, areas of wear and areas of random damage between the sole of the submitted right shoe and impression Q7. Therefore, in my opinion there is conclusive evidence to support the proposition that the submitted right shoe, and no other made impression Q7. In my opinion, the submitted shoes can be excluded from having made impressions Q2, Q3 or Q6.
URDTK8-533 The submitted images and known impressions of the suspect's shoes ( $\mathrm{K} 1 \mathrm{a}-\mathrm{K} 1 \mathrm{~g}$ ) were examined and compared to the questioned impressions visible in Q1-Q7. Q1, Q4 and Q5 corresponds to the known left shoe in tread pattern, tread size, tread wear and individual characteristics including scratches, nicks and gouges in the tread surface. Thus, the known left shoe is the source of Q1, Q4 and Q5. Q7 corresponds to the known right shoe in tread pattern, tread size, tread wear and individual characteristics including scratches, nicks and gouges in the tread surface. Thus, the known right shoe is the source of Q7. Q2, Q3, and Q6 and the known shoes are dissimilar in tread size and tread wear. Thus, the known shoes are not the source of Q2, Q3 or Q6.
V4J6HU-533 As a result of my examination I conclude: Impression 1 was made by the known left shoe. Impression 2 was not made by the known shoes. Impression 3 was not made by the known shoes. Impression 4 was made by the known left shoe. Impression 5 was made by the known left shoe. Impression 6 was not made by the known shoes. Impression 7 was made by the known right shoe.
V7GEQ4-533 Comparison of the shoe impression labeled "Q1, found on the kitchen floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. Comparison of the partial shoe impressions labeled "Q2 and Q3, found on the kitchen floor", to the suspect's right shoe and the suspect's left shoe did not reveal similar class characteristics or corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for Q2 partial shoe impression and Q3 partial shoe impression. Comparison of the partial shoe impressions labeled "Q4 and Q5, found on the living room floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. Comparison of the shoe impression labeled "Q6, found on the living room floor", to the suspect's right shoe and the suspect's left shoe did not reveal similar class characteristics or corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for Q6 shoe impression. Comparison of the partial shoe impression labeled "Q7, found on the living room floor", to the suspect's right shoe revealed similar class characteristics and corresponding individualizing characteristics.
V8FGRT-533 [No Conclusions Reported.]
V8T9LV-533 There are damage features visible in marks Q1, Q4, Q5 and Q7 which correspond with damage features present on the soles of the suspect's footwear. Therefore these marks have been made by the suspect's footwear. Marks Q2, Q3 and Q6 could not have been made by the suspect's footwear. Mark Q2 is made by a less worn shoe. Marks Q3 and Q6 have damage features that are not present in the soles of the suspect's footwear.

V8WKGE-533 1. Examination of Exhibits 4 and 5 revealed three footwear impressions on Exhibits 4
(Photograph of question imprints found on the kitchen floor: Q1 through Q3) and four footwear impressions on Exhibit 5 (Photograph of question imprints found on the living room floor: Q5[sic] through Q7). 2. One of the question footwear impressions on Exhibit 4 (Q1) and two of the question footwear impressions on Exhibit 5 (Q4 and Q5) were made by the left known shoe (Exhibits 1 through 3) and one of the question footwear impressions on Exhibit 5 (Q7) was made by the right known shoe (Exhibits 1 through 3). 3. The remaining footwear impressions (Q2, Q3, and Q6) were not made by the known shoes (Exhibits 1 through 3).

VLCR8K-533 Item \# 1: Photograph of the soles of the suspect's shoes, lighted from above. (Your item K1a); Item \#2: Two oblique lighted images of the soles of the suspect's shoes, light direction indicated by arrows. (Your item K1b-K1c); Item \#3: Known imprints made with the suspect's shoes. (Your item K1d-K1g); Item \#3-1: One (1) set of clear overlays generated from Item 3.; Item \#4: Questioned imprints found on the kitchen floor. (vinyl tile) (Your item Q1-Q3); Item \#5: Questioned imprints found on the living room floor. (vinyl tile) (Your item Q4-Q7). Results of Examination: Three (3) questioned footwear impressions were noted on Item 4. The three (3) questioned footwear impressions were compared to the known shoes submitted in Items 1, 2, and 3 (Item 3-1). One (1) of the three (3) questioned footwear impressions noted was determined to have been made by the known left shoe submitted in Items 1, 2, and 3 based on the corresponding outsole design, physical size, general wear, and unique accidental characteristics. The two (2) remaining questioned footwear impressions noted on Item 4 were of the same outsole design but had a different physical size; therefore, they were not made by the known pair of shoes submitted in Items 1, 2, and 3. Four (4) questioned footwear impressions were noted on Item 5. The four (4) questioned footwear impressions were compared to the known shoes submitted in Items 1, 2, and 3 (3-1). Two (2) of the four (4) questioned footwear impressions noted were determined to have been made by the known left shoe submitted in ltems 1, 2, and 3 based on the corresponding outsole design, physical size, general wear, and unique accidental characteristics. One (1) questioned footwear impression noted was of the same outsole design but had a different physical size; therefore, it was not made by the known pair of shoes submitted in Items 1, 2, and 3. The one (1) remaining questioned footwear impression noted on ltem 5 was determined to have been made by the known right shoe submitted in Items 1, 2, and 3 based on the corresponding outsole design, physical size, general wear, and unique accidental characteristics.

VLNTPC-533 Upon examination, I found: i) Characteristic marks on the questioned imprints Q1, Q4 and Q5 and the characteristic marks on the suspect's left shoe to be similar. ii) Characteristic marks on the questioned imprints Q7 and the characteristic marks on the suspect's right shoe to be similar. iii) Characteristic marks on the questioned imprints Q2, Q3 and Q6 and the characteristic marks on the suspect's shoes are dissimilar. Therefore, the questioned imprints Q1, Q4, Q5 and Q7 were made by the suspect's shoes but the questioned imprints Q2, Q3 and Q6 were not made by the suspect's shoes.

VM8DTN-533 The Q1, Q4, and Q5 imprints (depicted in the Item 4 and 5 photographs) were identified as having been produced by the LEFT suspect shoe (depicted in the Item 1 through 3 photographs). The Q2, Q3, and Q6 imprints (depicted in the Item 4 and 5 photographs) were not produced by the suspect shoes (depicted in the Item 1 through 3 photographs). The Q7 imprint (depicted in the Item 4 and 5 photographs) were identified as having been produced by the RIGHT suspect shoe (depicted in the Item 1 through 3 photographs).

The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 Nike shoes. The Item Q1 questioned shoe impression corresponds in tread design, physical size, general wear and five (5) accidental characteristics with the Item K1 left shoe. The Item Q2 and Q3 questioned shoe impressions share a similar tread design with the Item K1 shoes, however the Item Q2 and Q3 questioned shoe impressions do not correspond in physical size with the Item K1 shoes. The Item Q4 questioned shoe impression corresponds in tread design, physical size, specific wear and four (4) accidental characteristics with the Item K1 left shoe. The Item Q5 questioned shoe impression corresponds in tread design, physical size, specific wear and ten (10) accidental characteristics with the Item K1 left shoe. The Item Q6 questioned shoe impression shares a similar tread design with the Item K1 shoes, however the Item Q6 questioned shoe impression does not correspond in physical size with the Item K1 shoes. The Item Q7 questioned shoe impression corresponds in tread design, physical size, specific wear and one (1) accidental characteristics with the Item K1 right shoe. Based upon the above factors, it is the opinion of this examiner that: The Item Q1, Q4 and Q5 questioned shoe impressions were made by the Item K1 left shoe. The Item Q7 questioned shoe impression was made by the Item K1 right shoe. The Item Q2, Q3 and Q6 questioned shoe impressions were not made by the Item K1 shoes.
VXZVBB-533 Q1 is an imprint of a complete left shoe. The imprint exhibits similar tread pattern, design, size, general wear, and individual wear characteristics as those present in the left suspect shoe in K1. It is the opinion of this examiner that the imprint in Q1 can be identified as having been made by the left shoe in K1. Q2 is an imprint of the heel of a left shoe. The imprint exhibits similar tread pattern and design as those present in the left suspect shoe in K1; however, size, general wear, and individual wear characteristics are different than those present in the left suspect shoe K1. It is the opinion of this examiner that the imprint Q2 was not made by the left shoe in K1. Q3 is an imprint of a heel of a right shoe. The imprint exhibits similar tread pattern and design as those present in the right shoe in $\mathrm{K1}$; however, size, general wear, and individual wear characteristics are different [sic] that of the right shoe in K1. It is the opinion of this examiner that the imprint in Q3 was not made by the right shoe in K1. Q4 is a partial imprint of a heel of a left shoe. The imprint exhibits similar tread pattern, design, size, general wear, and individual wear characteristics as those present in the left suspect shoe in K1. It is the opinion of this examiner that the imprint in Q4 can be identified as having been made by the left shoe in K1. Q5 is an imprint of a complete left shoe. The imprint exhibits similar tread pattern, design, size, general wear and individual wear characteristics as those present in the left suspect shoe in K1. It is the opinion of this examiner that the imprint in Q5 can be identified as having been made by the left shoe in K1. Q6 is an imprint of a complete right shoe. The imprint exhibits similar tread pattern and design as those present in the right suspect shoe in K1 ; however, size, general wear, and individual wear characteristics are different than those present in the right suspect shoe in K1. It is the opinion of this examiner that the imprint in Q6 was not made by the right shoe in K1. The question imprint in Q6 exhibits similar tread pattern, design, size, general wear and individual wear characteristics as those present in the question imprint in Q3. It is the opinion of this examiner that the question imprints in Q6 and Q3 may have been made by the same unknown shoes. Any possible sources should be submitted to the laboratory for comparison. Q7 is a partial imprint of a right shoe. The imprint exhibits similar tread pattern, design, size, general wear, and individual wear characteristics as those present in the right suspect shoe in K1. It is the opinion of this examiner that the imprint in Q7 can be identified as having been made by the right shoe in K1.

W3M99Q-533 The questioned impressions Q1, Q4 and Q5 were made by the left suspect shoe. The questioned impression Q7 was made by the right suspect shoe. Questioned impressions Q2, Q3 and Q6 were eliminated as being made by either the left or right suspect shoes.
W6M8Y4-534 Items Q1 through Q7 consisted of a number of questioned footwear impressions (Q1 has the appearance of a bloody impression). The questioned impressions were compared to the known impressions and photographs submitted under Items Kla through K1g that are indicated to be from a single pair of Nike size 9 woman's shoes. The questioned impressions from Items Q1, Q4 and Q5 were consistent in tread design, size of tread design and contained sufficient individual characteristics to show that the impressions were created by the Left Nike shoe depicted in K1a through K1g. The questioned impressions from Items Q7 was consistent in tread design, size of tread design and contained sufficient individual characteristics to show that the impression was created by the Right Nike shoe depicted in K1 a through K1g. Items Q2, Q3 and Q6 were of the same tread design but different in wear and/or size with the known shoes depicted in Kla through K1g. These impressions were created by shoes of similar tread design but not the shoes depicted in Kla through Klg.
W7UEC6-533 The Item 4.1 impression was made by the Item 1 left shoe. The item was examined utilizing the ACE-V methodology. The Item 4.2 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. The Item 4.3 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. The Item 5.1 impression was made by the Item 1 left shoe. The item was examined utilizing the ACE-V methodology. The Item 5.2 impression was made by the Item 1 left shoe. The item was examined utilizing the ACE-V methodology. The Item 5.3 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. The Item 5.4 impression was made by the Item 1 right shoe. The item was examined utilizing the ACE-V methodology.
WELWNR-533 See report. [Report was not included]
WGB7V8-533 Specimens Q1-7 were compared visually with Specimens Kla-g with the following results: Q1, Q4 and Q5 are an Identification with the left shoe of Kla-g. Q7 is an Identification with the right shoe of K1 a-g. Q2, Q3 and Q6 are an Elimination with both shoes of K1a-g. Additionally, Specimens Q2, Q3 and Q6 were compared visually with each other with the following results: Q3 and Q6 could have been made by the same right shoe. Q2 was not made by the same right shoe as Q3 and/or Q6.
WHQ9WE-534 Two photographs were examined for footwear impressions. Seven footwear impressions (Impressions Q1-Q7) suitable for comparison were observed on the two photographs. The seven footwear impressions, labeled Q1-Q7, from the three photographs were compared to the suspect's shoes (ltem Kla-Klg). Three footwear impressions, labeled Q2, Q3, and Q6, were similar in shape and tread design to the suspect's shoes (Item $\mathrm{Kla}-\mathrm{Klg}$ ); however, there was sufficient quality and quantity of individualizing characteristics in disagreement; therefore, Impressions Q2, Q3, and Q6 were eliminated as having been made by the suspect's shoes (Item Kla-K1g). Three footwear impressions, labeled Q1, Q4, and Q5, were similar in size, shape and tread design to the suspect's left shoe (Item Kla-Klg). There was sufficient quality and quantity of individualizing characteristics in agreement between Impressions Q1, Q4, and Q5 and the suspect's left shoe (Kla-Klg); therefore, Impressions Q1, Q4, and Q5 are identified as having been made by the suspect's left shoe in Item Kla-K1g. One footwear impression, labeled Q7, was similar in size, shape and tread design to the suspect's right shoe (ltem K1a-K1g).

There was sufficient quality and quantity of individualizing characteristics in agreement between Impression Q7 and the suspect's right shoe (Kla-K1g); therefore, Impression Q7 is identified as having been made by the suspect's right shoe in Item Kla-Klg.

WJBVMA-533 The impressions listed as Q1, Q4 and Q5 were identified with the left shoe in Item \# K. The impression listed as Q7 was identified with the right shoe in Item \# K. The impressions listed as Q2, Q3, and Q6 were not made by the shoes in Item \# K.

WRWDMA-533 All seven unknown outsole impressions have a similar outsole pattern (class characteristics). Impressions Q1, Q4, and Q5 were identified as having been made by the suspect's left shoe (Nike, size 9). Impression Q7 was identified as having been made by the suspect's right shoe (Nike, size 9). Q2, Q3, and Q6 were not made by either the left or right shoe (Nike, size 9) of the suspect due to spatial differences and pattern positioning.
WVCQAQ-533 Visual examination was conducted between the suspect's Nike brand shoes represented by Kla through Klg and the question impressions Q1 through Q7. The suspect's left Nike shoe corresponded in tread design, physical size, wear characteristics and randomly acquired characteristics with impressions Q1, Q4 and Q5. Impressions Q1, Q4 and Q5 were identified as having been made by the suspect's left Nike shoe (Identification). The suspect's right Nike shoe corresponded in tread design, physical size, wear characteristics and randomly acquired characteristics with impression Q7. Impression Q7 was identified as having been made by the suspect's right Nike shoe (Identification). The suspect's shoes corresponded in tread design with impressions Q2, Q3 and Q6; however, they did not correspond in physical size. Impressions Q2, Q3 and Q6 were eliminated as having been made by the the[sic] suspect's shoes based on difference in physical size (elimination).
X6Y7P7-533 [No Conclusions Reported.]
XBCA9Z-534 Three (3) left footwear impressions noted in Exhibits Q1, Q4 and Q5 were made by the left shoe outsole in Exhibits Kla through K1g based on design, physical size, shape, wear and individual characteristics. One (1) right footwear impression noted in Exhibit Q7 was made by the right shoe outsole in Exhibits Kla through Klg based on design physical size, shape, wear, and individual characteristics. The remaining footwear impressions noted in Exhibits Q2, Q3 and Q6 were not made by the shoe outsoles in Exhibits Kla-Klg based on differences in physical size.
XGC9B4-533 See report [Report was not included]
XP4L9J-534 The Questioned imprint, Q1, corresponds in outsole design, physical size, physical shape, wear characteristics and individual characteristics with the Known left shoe. It is the opinion of the undersigned examiners that the Questioned imprint, Q1, was made by the Known left shoe. The Questioned partial imprint, Q2, does not correspond in physical size with the Known shoes. It is the opinion of the undersigned examiners that the Questioned partial imprint, Q2, was not made by the Known shoes. The Questioned partial imprint, Q3, does not correspond in physical size with the Known shoes. It is the opinion of the undersigned examiners that the Questioned partial imprint, Q3, was not made by the Known shoes. The Questioned partial imprint, Q4, corresponds in outsole design, physical size, physical shape, wear characteristics and individual characteristics with the Known left shoe. It is the opinion of the undersigned examiners that the Questioned partial imprint, Q4, was made by the Known left shoe. The Questioned imprint, Q5, corresponds in outsole design, physical size, physical shape, wear
characteristics and individual characteristics with the Known left shoe. It is the opinion of the undersigned examiners that the Questioned imprint, Q5, was made by the Known left shoe. The Questioned imprint, Q6, does not correspond in physical size with the Known right shoe. It is the opinion of the undersigned examiners that the Questioned imprint, Q6, was not made by the Known right shoe. The Questioned partial imprint, Q7, corresponds in outsole design, physical size, physical shape, wear characteristics and individual characteristics with the Known right shoe. It is the opinion of the undersigned examiners that the Questioned partial imprint, Q7, was made by the Known right shoe.

XQPP8P-533

XRDXNY-533
XRKA8V-533 K1d (right)is the source of questioned impression Q7, based on similar class and individualizing characteristics. K1d (left) is the source of questioned impressions Q1, Q4, and Q5, based on similar class and individualizing characteristics. K1d (right and left) are excluded as possible sources of questioned impressions Q2, Q3, and Q6, based on differences in class characteristics.

XWQJVK-533 Q1, Q4 and Q5 were made by the left known shoe. Q7 was made by the right known shoe. Q2, Q3 and Q6 were not made by the known shoes.
XXV9TM-534 The left Nike shoe has been identified as the source of the questioned impression on the kitchen floor, Q1, and the questioned impressions on the living room floor, Q4 and Q5, based on outsole pattern design and size, as well as consistent individualizing characteristics and wear present. The right Nike shoe has been identified as the source of the questioned impression on the living room floor, Q7, based on outsole pattern design and size, as well as consistent individualizing characteristics and wear present. The left and right Nike shoes have been excluded as the source of the questioned impressions on the kitchen floor, Q2 and Q3, and the questioned impression on the living room floor, Q6, based on inconsistent individualizing characteristics and wear present.
Y2HY6D-534
Seven footwear impressions were found in Item $Q$. The seven footwear impressions from Item $Q$ were compared to Item K. One impression in Item $Q$ was excluded as having been made by the right shoe in Item K. The impression was similar in shape to the right shoe in Item K; however, the tread design was opposite. The impression was excluded as having been made by the left shoe in Item K. The impression was similar in shape and tread design as the left shoe in Item K; however, the individualizing characteristics were not in agreement. Two impressions in Item $Q$ were excluded as having been made by the left shoe in Item K. The impressions were similar in shape to the left shoe in Item K; however, the tread design was opposite. The impressions were excluded as having been made by the right shoe in Item K. The impressions were similar in shape and tread design
as the right shoe in Item K; however, the individualizing characteristics were not in agreement. Three impressions in Item K[sic] were excluded as having been made by the right shoe in Item K. The impressions were similar in size, shape, and tread design as the right shoe in Item K; however, the tread design was opposite. The impressions were identified as having been made by the left shoe in Item K. The impressions were similar in size, shape, tread design, and individualizing characteristics as the left shoe in Item K. One impression in Item K[sic] was excluded as having been made by the left shoe in Item K. The impressions were similar in size, shape, and tread design as the left shoe in Item K; however, the tread design was opposite. The impression was identified as having been made by the right shoe in Item K. The impression was similar in size, shape, tread design, and individualizing characteristics as the right shoe in Item K.
Y6NXYP-533 Comparison of the submitted known shoes to questioned footwear impressions Q1, Q4 and Q5 showed the known left shoe to be similar in tread design, size of tread design, wear pattern and shape and location of randomly acquired characteristics to impressions Q1, Q4 and Q5. Questioned footwear impressions Q1, Q4 and Q5 were made by the submitted known left shoe (Level 1, Identification). Comparison of the submitted known shoes to questioned footwear impression Q7 showed the known right shoe to be similar in tread design, size of tread design, wear pattern and shape and location of randomly acquired characteristics to impression Q7. Questioned footwear impression Q7 was made by the submitted known right shoe (Level 1, Identification). Comparison of the submitted known shoes to questioned footwear impressions Q2, Q3 and Q6 showed the known shoes to be similar in tread design, but larger in size of tread design than Q2, Q3 and Q6. The known shoes can be eliminated from having made these impressions (Elimination). Please see attached Association Scale for Footwear and Tire Impressions. [Association scale was not included with the report]

Y7VPJK-533 Three (3) of the questioned imprints (CTS \# Q1, Q4 and Q5) were determined to have been made by the suspect's left shoe (CTS \# Kla through Klg). One of the questioned imprints (CTS \# Q7) was determined to have been made by the suspect's right shoe (CTS \#K1 a through K1g). Three (3) of the questioned imprints (CTS \# Q2, Q3, and Q6) were determined not to have been made by the suspect's shoes (CTS \#Kla through K1g).
Y86VPU-534
Visual analysis of the CD (item 1) revealed two digital images (items 1 A and 1B) with multiple footwear impressions suitable for comparison. The remaining images (items 1C and 1D) are images of the known shoes. Visual examination and comparison reveals the following: Four of the questioned impressions from the digital images (items 1A/Q1 and 1B/Q4/Q5/Q7) were made by the known shoes as depicted in the digital image (item 1D). The known right shoe revealed sufficient similarities in both class, and randomly acquired characteristics to determine that the questioned impression (1B/Q7) was made by the known right shoe and the questioned impressions (items $1 A / Q 1$, and $1 B / Q 4 / Q 5$ ) were made by the known left shoe. Three of the questioned impressions from the digital images (items 1A/Q2/Q3 and 1B/Q6) were not made by the known shoes as depicted in the digital images (item 1D). The shoes revealed a significant difference in size to determine that these questioned impressions were not made by the known shoes.

YFX2M2-533 [No Conclusions Reported.]
YKQ6CZ-533 1.Examination of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (photograph of Q1-Q3) and four latent footwear impressions on Exhibit 5 (photograph of Q4-Q7) suitable for comparison/identification. 2. One of the latent footwear impressions on Exhibit 4 (Q1) and two of the latent footwear impressions on Exhibit 5 (Q4 and Q5)
were made by the left shoe of the footwear depicted on Exhibits 1-3(Kla-K1g). 3.One of the latent footwear impressions on Exhibit 5 (Q7) was made by the right shoe of the footwear depicted on Exhibits 1-3(Kla-Klg). 4.The remaining latent footwear impressions on Exhibits 4 (Q2 and Q3) and 5 (Q6) were not made by the footwear depicted on Exhibits 1-3 (Kla-Klg). 5.Images of the latent footwear impressions will remain on file at this laboratory.
YMVTRP-533 Findings: Examinations were conducted and the findings of this examiner are as follows: 1. Exhibit 4 (Q1) is a full impression of a left shoe in blood. 2. Exhibits 5 (Q2), 6 (Q3), and 7 (Q4) are partial impressions of the lower sole of a shoe. 3. Exhibit 8 (Q5) is a full impression of a left shoe. 4. Exhibit 9 (Q6) is a full impression of a right shoe. 5. Exhibit 10 (Q7) is a partial impression of a right shoe. 6. Exhibits 4 (Q1), 7 (Q4) and 8(Q5) were positively identified as having been made by the suspect's left shoe. 7. Exhibit 10 (Q7) was positively identified as having been made by the suspect's right shoe. 8. Exhibits 5(Q2), 6(Q3), and 9(Q6) are impressions which have a similar design to the suspect's shoes, but differ in physical size. 9. Exhibits 6(Q3) and 9(Q6) were made by the same right shoe. 10. Exhibit 5 was made by a different shoe from exhibits 6 and 9 .

YUJMXM-533 The evidence was examined and compared. Impression Q1 consists of a nearly full footwear impression deposited in a substance visually consistent with blood. Q1 matches the known left shoe of K1. Impression Q2 consists [sic] a partial footwear impression apparently created by the heel area of a shoe. Q2 does not match the known shoes of K1, and is thereby eliminated as having been made by K1. Impression Q3 consists of a partial footwear impression apparently created by the heel area of a shoe. Q3 does not match the known shoes of K 1 and is thereby eliminated as having been made by K1. Impression Q4 consists of a partial overlapped footwear impression. Q4 matches the known left shoe of K1. Impression Q5 consists of a nearly full overlapped footwear impression. Q5 matches the known left shoe of K1. Impression Q6 consists of a nearly full overlapped footwear impression. Q6 does not match the known shoes of K1, and is thereby eliminated as having been made by K1. Additionally, impressions Q6 and Q3 exhibit similar characteristics in the heel area and appear to have been deposited by the same shoe. Impression Q7 consists of a partial overlapped footwear impression. Q7 matches the known right shoe of K 1 .
YVTGV9-534 Seven footwear impressions of value for comparison were noted on Exhibits Q1-Q7. Three footwear impression noted on Exhibits Q1, Q4 and Q5 were identified as having been made by the left shoe in Exhibit K1 based on tread design, physical size, wear and individual characteristics. One footwear impression noted on Exhibit Q7 was identified as having been made by the right shoe in Ex K1. Three footwear impression noted on Exhibits Q2, Q3 and Q6 could not have been made by the right or left shoe in Exhibit K1 based on differences in the physical size and wear.

YZ22FY-534 In my opinion the results of the examination provide concusive[sic] associations between the marks Q1, Q4 and Q5 and the submitted left shoe, and the mark Q7 with the submitted right shoe. Further to this that the marks Q2, Q3 and Q6 were not made by either of the submitted shoes.
Z2T9JW-533 The questioned imprint, identify as Q1 with blood located in the kitchen correspond to the left footwear of the suspect. The questioned imprints, identify as Q2 and Q3 located in the kitchen do not correspond to any of the footwear of the suspect. The questioned imprints, identify as Q4 and Q5 located in the living room floor correspond to the left footwear of the suspect. The questioned imprint, identify as Q6 located in the living room floor do not correspond to the footwear of the suspect. The questioned imprint, identify as

Q7 located in the living room floor correspond to the right footwear of the suspect.
Z3AYRL-534 The questioned imprints Q1, Q4 and Q5 were made by the suspect's left shoe shown in photos in Items Kla-K1c. The questioned imprint Q7 was made by the suspect's right shoe shown in photos in items K1a-K1c. The questioned imprints Q2, Q3 and Q6 were not made by the suspect's shoes shown in photos in items Kla-Klc.

Z4CDW8-533 After analysis, the footwear impressions Q1 to Q7 are considered to be exploitable for purposes of identification. We compared them with the photographs and the imprints of the suspect shoes soles. Agreements on the level as of characteristics of manufacturing (size and drawings) and of the individual characteristics, present of significant number and relevant, as well as the absence of discordances lead us to identify the imprints Q1, Q4 and Q5 with the sole of the left shoe. The imprint Q7 is identified with the sole of the right shoe. The observation of discordances not explained between the imprints Q2, Q3, Q6 and the suspect shoes soles lead us to formally exclude the assumption according to which they could be at the origin of these shoeprints. [sic]

Z8AWUZ-533
Comparison of the item 8 shoe impression labeled "Q1, found on the kitchen floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. Comparison of the item 8 shoe impression labeled "Q2, found on the kitchen floor", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 8 impression Q2. Comparison of the item 8 shoe impression labeled "Q3, found on the kitchen floor", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 8 impression Q3. Comparison of the item 9 shoe impression labeled "Q4, found on the living room floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. Comparison of the item 9 shoe impression labeled "Q5, found on the living room floor", to the suspect's left shoe revealed similar class characteristics and corresponding individualizing characteristics. Comparison of the item 9 shoe impression labeled "Q6, found on the living room floor", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. The suspect's right shoe and the suspect's left shoe are eliminated as the source for item 9 impression Q6. Comparison of the item 9 shoe impression labeled "Q7, found on the living room floor", to the suspect's right shoe revealed similar class characteristics and corresponding individualizing characteristics. A conclusion of "similar class characteristics" indicates that the imprint/impression could have been created by the submitted source. However, there is insufficient detail expressed within the imprint/impression to indicate a specific item as the source. Other similarly manufactured items may produce an imprint/impression that is indistinguishable from the examined imprint/impression. A conclusion of "corresponding individualizing characteristics" indicates that the imprint/impression was created by the submitted source. There is sufficient detail expressed within the imprint/impression, in the form of individualizing characteristics, to conclude that a specific item is the source of the imprint/impression. Individualizing characteristics are created by wear over time and/or by the interaction between the source and its environment and are observed as random, non-manufactured change of the item's surface. Because of this, over time, even similarly manufactured items will not display the same individualizing characteristics. A conclusion of "eliminated" indicates that the imprint/impression was not created by the submitted source.

Q1 corresponds with left shoe (heel area made with blood in kitchen) pattern and size. Q2 does not correspond to test print or both shoes. Q3 does not correspond to test prints or both shoes. Q4 corresponds with left shoe heel part with pattern and unique irregularities. Q5 corresponds to left shoe $\mathrm{Kl}(\mathrm{g})$ pattern and irregularities. Q6 no match. Q7 Corresponds with right shoe K1 (e) pattern, irregularity and size. Front area of shoe.

ZCPF4U-533 The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 known shoes. The Item Q1 questioned shoe impression corresponds in tread design, physical size, general wear and 3 accidental characteristics with the Item K1 left shoe. The Item Q2 and Q3 questioned shoe impressions share similiar[sic] tread design features with the K1 shoes but do not correspond in physical size with the Item K1 left and right shoes. The Item Q4 questioned shoe impression corresponds in tread design, physical size, specific wear and 3 accidental characteristics with the Item K1 left shoe. The Item Q5 questioned shoe impression corresponds in tread design, physical size, specific wear and 5 accidental characteristics with the Item K1 left shoe. The Item Q6 questioned shoe impression shares similiar[sic] tread design features with the K1 shoes but does not correspond in physical size with the Item K1 left and right shoes. The Item Q7 questioned shoe impression corresponds in tread design, physical size, specific wear and 1 accidental characteristics with the Item K1 right shoe. Based upon the above factors it is the opinion of this examiner that: The Item Q1, Q4 and Q5 questioned shoe impressions were made by the Item K1 left shoe. The Item Q7 questioned shoe impression was made by the Item K1 right shoe. The Item Q2, Q3 and Q6 questioned shoe impressions were not made by the Item K1 left or right shoes.

ZDGKAM-533

ZEXM99-533
ZLDHYA-533 The submitted photographs exhibit seven (7) questioned impressions; these impressions were labeled Q1 through Q7. The seven (7) questioned impressions were compared to the K1 submitted known left and right outsoles. The following conclusions were reached: The Q1 questioned impression corresponds with the K1 left outsole in physical shape, design, physical size, degree of wear and randomly acquired characteristics. In the opinion of this examiner, the K1 left outsole was the source of, and made, the Q1 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. The K1 right outsole was not the source of, and did not make, the Q1 questioned impression. The Q2 questioned impression is similar in general design to the K1 left and right outsoles. However, differences were observed in the design features of the Q2 questioned impression and the K1 left outsole. The Q2 questioned impression differs with the K1 right outsole in the orientation of the design elements. Furthermore, the Q2 questioned impression differs in physical size, the degree and position of wear as well as randomly acquired characteristics with the K1 left and right outsoles. In the opinion of this examiner, the K1 left and right outsoles were not the source of, and did not make, the Q2 questioned impression. The Q3 questioned impression is similar in general design to the K1 left and right outsoles. The Q3 questioned impression differs with the K1 left outsole in the orientation of the design elements. The Q3 questioned impression differs in physical size, the degree and position
of wear as well as randomly acquired characteristics with the K1 left and right outsoles. In the opinion of this examiner, the K1 left and right outsoles were not the source of, and did not make, the Q3 questioned impression. The Q4 questioned impression corresponds with the K1 left outsole in physical shape, design, physical size, degree of wear and randomly acquired characteristics. In the opinion of this examiner, the K1 left outsole was the source of, and made, the Q4 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. The K1 right outsole was not the source of, and did not make, the Q4 questioned impression. The Q5 questioned impression corresponds with the K1 left outsole in physical shape, design, physical size, degree of wear and randomly acquired characteristics. In the opinion of this examiner, the K1 left outsole was the source of, and made, the Q5 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. The K1 right outsole was not the source of, and did not make, the Q5 questioned impression. The Q6 questioned impression is similar in general design to the K1 left and right outsoles. The Q6 questioned impression differs with the K1 left outsole in the orientation of the design elements. The Q6 questioned impression differs in physical size, the degree and position of wear as well as randomly acquired characteristics with the K1 left and right outsoles. In the opinion of this examiner, the K1 left and right outsoles were not the source of, and did not make, the Q6 questioned impression. The Q7 questioned impression corresponds with the K1 right outsole in physical shape, design, physical size, degree of wear and randomly acquired characteristics. In the opinion of this examiner, the K1 right outsole was the source of, and made, the Q7 questioned impression. Another item of footwear being the source of the impression is considered a practical impossibility. The K1 left outsole was not the source of, and did not make, the Q7 questioned impression. The evidence was returned to the Quality and Technical Services Manager.
ZMA8MH-533 I compared 1 to 1 photographic enlargements of seven questioned footwear impressions labeled Q1 thru Q7 to the left and right Nike brand shoes, depicted 1 to 1 photographic enlargements, Items Kla thru K1g. During the comparisons with Items Q1, Q4 and Q5, I observed agreement of sole design, size and dimensions, wear pattern and sufficient individualistic defects to conclude that the left Nike brand shoe produced these three footwear impressions. During the comparisons with Item Q7, I observed agreement of sole design, size and dimensions, wear pattern and sufficient individualistic defects to conclude that the right Nike brand shoe produced this footwear impression. During the comparison with Items Q2, Q3 and Q6 I observed agreement of general sole design but significant differences in dimensions and individualistic defects. I conclude that these shoe prints were not produced by the submitted Nike brand shoes.

ZMH2QQ-533 The Known left shoe represented by ltems \#Kla through \#K1g was identified as having made the shoe imprints \#Q1, \#Q4, and \#Q5. The Known right shoe represented by Items \#Kla through \#Klg was identified as having made the shoe imprint \#Q7. Due to having dissimilar physical size, wear characteristics, and/or individual characteristics, the Known shoes represented by items \#Kla through \#K1g were excluded from having made the imprints \#Q2, \#Q3, and \#Q6.

ZNAG7N-533 Q1 Impression - The item Q1 impression was made by the item K1 left shoe. Q2 Impression - The item Q2 impression was not made by the item K1 left or right shoe. Q3 Impression - The item Q2[sic] impression was not made by the item K1 left or right shoe. Q4 Impression - The item Q4 impression was made by the K1 left shoe. Q5 Impression The item Q5 impression was made by the item K1 left shoe. Q6 Impression - The item Q6 impression was not made by the K1 left or right shoe. Q7 Impression - The item Q7
was made by the item K1 right shoe.
Items Q1 through Q7 were compared against the outsole impressions labeled K1d through K1g. Q1 is identified as the left outsole of the K1 shoes. Q2 can be eliminated as having been created by the K1 shoes. Q3 can be eliminated as having been created by the K1 shoes. Q4 is identified as the left outsole of the K1 shoes. Q5 is identified as the left outsole of the K1 shoes. Q6 can be eliminated as having been created by the K1 shoes. Q7 is identified as the right outsole of the K 1 shoes.

ZQMJF8-533 Photographs of seven footwear impressions (Q1-Q7) were compared to photographs of the outsoles of a pair of Nike brand women's shoes size 9. Questioned impression Q1 is a left footwear impression in apparent blood on pale gray flooring. It corresponds in the class characteristics of outsole design, size, and wear and at least two individual characteristics of damage to the left shoe. Impression Q1 was made by the suspect's left shoe. Questioned impression Q2 is a black partial footwear impression of the heel area of a shoe on a pale gray flooring. It has a similar outsole design but the design elements do not correspond in size. It was not made by the suspect's shoes. Questioned impression Q3 is a black partial footwear impression of the heel area of a shoe on a pale gray flooring. It has a similar outsole design but the design elements do not correspond in size and the impression has an individual characteristic of damage not present in the suspect's shoes. It was not made by the suspect's shoes. Questioned impression Q4 is a black partial footwear impression of the heel area of a shoe on multi-colored flooring. It corresponds in the class characteristics of outsole design, size, and wear and at least two individual characteristics of damage to the left shoe. Impression Q4 was made by the suspect's left shoe. Questioned impression Q5 is a black footwear impression of a left shoe. It corresponds in the class characteristics of outsole design, size, and wear and at least two individual characteristics of damage to the left shoe. Impression Q5 was made by the suspect's left shoe. Questioned impression Q6 is a black footwear impression of a right shoe. It has a similar outsole design but the design elements do not correspond in size and the impression has an individual characteristic of damage not present in the suspect's shoes. It was not made by the suspect's shoes. Questioned impression Q7 is a partial black footwear impression of a shoe. It corresponds in the class characteristics of outsole design, size, and wear and at least two individual characteristics of damage to the right shoe. Impression Q7 was made by the suspect's right shoe.

ZVNG9D-534 The footwear impressions marked Q1, Q4 and Q5 are positively identified as being made by the submitted left shoe. The footwear impression marked Q7 is positively identified as being made by the submitted right shoe. The footwear impressions marked Q2, Q3 and Q6 are not made by the suspect shoes K1. Q3 and Q6 have been made by the same shoe.

# Additional Comments 

TABLE 3
WebCode-Test

## Additional Comments

28VTU7-533 See Report [Report was not included]
39AJRG-534 A full report would be on file with the photographs of the known and the questioned impressions marked to show the exact location of the individual characteristics that were used to make a positive identification of Q1, Q4, and Q5.

7LE8XF-533
9XLYF7-534
A77J4B-533 The questioned imprints marked "Q2" was a left imprint while "Q3" and "Q6" were right shoe imprints. These three imprints were similar in design to the suspect's pair of shoes, but appeared to be smaller in size. The wear and randomly acquired characteristics observed in "Q3" exhibit a high degree of association with those of "Q6", suggesting that they are very likely to be made by the same right shoe. The shoe is required to confirm this finding.
B3XJCN-533 Identifications are contingent on examining the actual footwear to confirm randomly aquired[sic] characteristics.
BGLVVD-533 Shoe impressions from the suspect's shoes (control samples) are unlikely to be the ones on Q2, Q3 and Q6 they are only identical in terms of the pattern from manufacturing but do not correspond in terms of characteristics damage and that its very important in making a shoe impression identification (positive).[sic]
BMUVCB-533 An association scale would normally be included in the report. Not included for this test.
C8Y399-533 It should be noted that when performing this examination I observed that the photographs were not 1:1. I used multiple "Lightning Powder" $L$ scales of the same style and found that the images started out in scale at the corner of the L scale. However, by the time you reached either end of the $L$ scale the scale was then 1-2 mm off scale. Since the comparisons were being made by making overlay copies of the known shoe imprints with the same scaled photographs I continued with the comparison.
CFPP3Q-533 In casework, the shoes would be submitted for comparison.
CMQ2XM-533 In actual casework, this department requires the submission of known shoes in order to conduct a complete and thorough examination. Photographs of both known shoe outsoles and test impressions are not considered items of evidence by this department.

DEYM8N-534 The comparison of the questioned marks has been carried out only with photographic images of the outsoles and test impressions from the suspect's shoes and not the actual items of footwear. Normally, the comparison and any correspondence or difference observed would always be referred, and confirmed, back to the actual item of footwear. Footwear mark Q1 has been positively attributed to the suspect's left shoe. The mark was deposited in blood and therefore consideration may be given to the swabbing of the left shoe outsole for traces of blood to be submitted for DNA analysis.
EK4QPA-533 Would like to have a digital copy of the images included with future tests to avoid duplication of scanning in printed images for case file documentation.
FG9UV8-533 An association scale is included in the report. [Association scale was not included with the report]
FNUV84-533 Photographs were determined to be not to scale (1:1) and comparisons were made against the relative sizes of the known and questioned impressions. The size incongruity

## TABLE 3

(to $1: 1$ scale) appears to be uniform throughout all of the photos.
FX3N86-533 Q3 and Q6 were made by the same shoe.
FZBF8T-533 In my view, item Q6 was made by a smaller shoe than that submitted. In my opinion, it is highly likely that Q3 and Q6 were made by the same training shoe. The photographs K1 a-c show potential faint red/brown staining. I would recommend them for a body fluid examination.

G3HHN3-533 Q3 and Q6 likely to have been made by the same (possibly) right shoe. Q2 not made by the shoe making Q3 \& Q6.

HY4WW9-533 The Item Q2, Q3 \& Q6 shoeprints appear to have been made with a shoe of a smaller size than Item K1.

JKDMM9-533 The Item Q3 right shoe impression and the Item Q6 right shoe impression were intercompared and found to exhibit an agreement of class (tread pattern, physical size, and general condition of wear) and individual characteristics. It was concluded that the Item Q3 and Q6 impressions were made by the same shoe (shoe not submitted).
JYGXAV-533 Impressions Q3 and Q6 were made by the same unknown right shoe.
KEMMRD-533 1. In actual casework, this department requires the submittal of known shoes in order to conduct a complete and thorough examination. 2. Photographs of both known shoe outsoles and test impressions are not considered items of evidence by this department.

LGY6YV-533 Shoe marks designated Q3 and Q6, displayed corresponding individual characteristics to be identified as being made from the same shoe, but to the exclusion of the "Nike" women's size 9 shoe, recorded as $\mathrm{Kla-Klg}$.

LX4ZBW-533 Questioned impressions labelled Q3 was found to be consistent in shape, physical size and individual characteristics with the questioned impressions labelled Q6.

MHFD3H-533 The shoe that made the impression Q2 appeared to have the same outsole pattern as the suspect shoes but was larger in size. It appeared that the same shoe made impressions Q3 and Q6. The shoe appeared to have the same outsole pattern as the suspect shoes but was smaller in size. The shoe that made the impression Q2 appeared to have the same outsole pattern as the suspect shoes but was larger in size.[sic]
QBNANB-533 Type I Association: A positive identification; an association in which items share individual characteristics that show that the items were once from the same source. Elimination: The items were dissimilar in physical properties and/or chemical composition and did not originate from the same source.

TMRCXX-533 I am of the opinion that more than one shoe caused the marks on the scene.
TTE7WF-534 Imprints Q3 and Q6 originate from the same shoe. This test was performed by 2 qualified experts, each one - indipendently[sic], reaching similar conclusions.

UA6EHK-533 Investigative Information: Questioned impression Q2 may have originated from a left shoe of the same Nike model but in a smaller size than that of the Item K left shoe. Similarly, questioned impressions Q3 and Q6 may have originated from a smaller size Nike right shoe. The person(s) that wore these shoes may have been involved in the incident.

UNR8GY-533 Q2 is similar sole pattern, possibly a left heel, from a smaller shoe. Q3 is similar sole pattern, possibly a right heel, from a smaller shoe. Q6 is similar sole pattern to right shoe but from a smaller size of shoe.

## TABLE 3

 have been created by the submitted source. However, there is insufficient detail expressed within the imprint/impression to indicate a specific item as the source. Other similarly manufactured items may produce an imprint/impression that is indistinguishable from the examined imprint/impression. A conclusion of "corresponding individualizing characteristics" indicates that the imprint/impression was created by the submitted source. There is sufficient detail expressed within the imprint/impression, in the form of individualizing characteristics, to conclude that a specific item is the source of the imprint/impression. Individualizing characteristics are created by wear over time and/or by the interaction between the source and its environment and are observed as random, non-manufactured change of the item's surface. Because of this, over time, even similarly manufactured items will not display the same individualizing characteristics. A conclusion of "eliminated" indicates that the imprint/impression was not created by the submitted source.W7UEC6-533 In actual case work, we require submission of the shoes in order to confirm characteristics used to affect an identification. We normally do not assign item numbers to test impressions or photographs of the shoes.

WVCQAQ-533 I would also include our Association Scale in the report.
XP4L9J-534 It would be very helpful in the examination process to receive the actual known pair of shoes in addition to the photographs of the shoes and test impressions.
Y6NXYP-533 Impressions Q3 and Q6 were both made by a right shoe of similar tread design and size of tread design. Additionally, these two impressions appear to share some of the same possible randomly acquired characteristics. Please submit other known shoes of similar tread design for comparison with questioned footwear impressions Q2, Q3 and Q6, if desired.

YVTGV9-534 The footwear impression noted in Exhibits Q3 and Q6 were made by the same shoe.
Z2T9JW-533 The questioned imprints, identify as Q3 and Q6 do not correspond to the footwear of the suspect, however they do correspond between each other, being originated by the same footwear.

## Appendix: Data Sheet

Collaborative Testing Services ~Forensic Testing Program

# Test No. 14-533: Imprint Impression Evidence 

DATA MUST BE RECEIVED BY May 19, 2014 TO BE INCLUDED IN THE REPORT Participant Code: WebCode:

## Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB and ANSI-ASQ NAB/FQS. Please select one of the following statements to ensure your data is handled appropriately.

$\square$This participant's data is intended for submission to ASCLD/LAB and/or ANSI-ASQ NAB/FQS. (Accreditation Release section on the last page must be completed and submitted.)

$\square$This participant's data is NOT intended for submission to ASCLD/LAB or ANSI-ASQ NAB/FQS.

## Online Data Entry

Visit www.cts-portal.com to enter your proficiency test results online. If you have any questions please do not hesitate to contact CTS.

## Scenario:

Police are investigating a murder at a private residence. Footwear impressions were recovered at the scene in the kitchen and living room. There appears to have been a struggle, and one of the imprints was deposited in blood. The day after the incident, a pair of shoes was recovered from an individual that witnesses claim to have seen leaving the scene. The shoes appear to have been washed. Investigators are asking you to compare the imprints recovered at the scene with photographs of the shoe soles and known imprints made with the shoes. The suspect shoes are manufactured by Nike and are women's size 9.
Shoes and known imprints have been labeled with "L" and "R" to indicate "Left" and "Right" shoes.

## Items Submitted (Sample Pack IIEP):

K1a: Photograph of the soles of the suspect's shoes, lighted from above.
K1b-K1c: Two oblique lighted images of the soles of the suspect's shoes, light direction indicated by arrows.
K1d-K1g: Known imprints made with the suspect's shoes.
Q1-Q3: Questioned imprints found on the kitchen floor. (vinyl tile)
Q4-Q7: Questioned imprints found on the living room floor. (vinyl tile)

## 1.) Indicate the results of your comparisons of the suspect's shoes with the questioned imprints by placing a mark in the appropriate box.

If an identification is made, indicate whether the imprint is identified to the right or left suspect shoe.
*Should an impression(s) be marked "Inconclusive", please document the reason in the Conclusions section of this data sheet.


Please return all pages of this data sheet.
2.) What would be the wording of the Conclusions in your report?

## 3.) Additional Comments

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by May 19, 2014 to be included in the report.

## QUESTIONS?

TEL: $\quad+1-571-434-1925$ ( $8 \mathrm{am}-4: 30 \mathrm{pm}$ EST)
EMAIL: forensics@cts-interlab.com www.ctsforensics.com

Participant Code:
ONLINE DATA ENTRY: www.cts-portal.com
FAX: +1-571-434-1937 or Toll-Free: 1-866-FAX-2CTS (329-2287)
MAIL: Collaborative Testing Services, Inc. P.O. Box 650820

Sterling, VA 20165-0820 USA

# Collaborative Testing Services ~Forensic Testing Program <br> <br> RELEASE OF DATA TO ACCREDITATION BODIES 

 <br> <br> RELEASE OF DATA TO ACCREDITATION BODIES}

The following Accreditation Releases will apply only to:
Participant Code:
WebCode:
for Test No. 14-533: Imprint Impression Evidence

This release page must be completed and received by May 19, 2014 to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

| ASCLD/LAB RELEASE |
| :--- |
| If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external |
| proficiency test requirements, have the laboratory's designated individual complete the following. |
| The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB. |
| ASCLD/LAB Legacy Certificate No. $\quad$ ASCLD/LAB International Cerificate No. |
| Signature |
| Laboratory Name _-_ Date |
| Location (City/State) |

## ANSI-ASQ NAB/FQS RELEASE

If your laboratory maintains its accreditation through ANSI-ASQ NAB/FQS, please complete the following form in its entirety to have your results forwarded.

ANSI-ASQ NAB/FQS Certificate No. $\qquad$
Signature and Title: $\qquad$ Date $\qquad$
Laboratory Name
Location (City/State) $\qquad$

## Return Instructions

Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet

Questions? Contact us 8 am-4:30 pm EST
Telephone: +1-571-434-1925 Return Instructions on the previous page. email: forensics@cts-interlab.com


[^0]:    This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession

