



## Imprint/Impression Evidence Test No. 15-533/534 Summary Report

---

This test was sent to 304 participants. Each sample pack contained either digitally produced photographs (15-533) or a DVD with digital images (15-534) 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 261 participants, 222 for 15-533 and 39 for 15-534 (86% response rate) and are compiled into the following tables:

	<u>Page</u>
<u><a href="#">Manufacturer's Information</a></u>	<u><a href="#">2</a></u>
<u><a href="#">Summary Comments</a></u>	<u><a href="#">3</a></u>
<u><a href="#">Table 1: Examination Results</a></u>	<u><a href="#">4</a></u>
<u><a href="#">Table 2: Conclusions</a></u>	<u><a href="#">35</a></u>
<u><a href="#">Table 3: Additional Comments</a></u>	<u><a href="#">67</a></u>
<u><a href="#">Appendix: Data Sheet</a></u>	<u><a href="#">70</a></u>

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.

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 consists of nine photographs. One photograph (K1a) 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 (K1d, K1e, K1f and K1g) 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 from three months to over one year. Once the shoes were no longer worn, the soles were cleaned of any debris with water and paper towels. The owner of the suspect shoes wore them to produce the known imprints on K1f and K1g.

**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 K1e 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 K1f and K1g. The imprints on K1f and K1g were produced by walking across paper targets.

**QUESTIONED IMPRINTS (Q1-Q7):** Questioned imprints Q1-Q7 were created by coating the sole of each shoe (see table below) with fingerprint ink and having the wearer of each pair of shoes walk across the ceramic 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 predistribution examination of the images eliminated the suspect shoes as the source of the seven questioned imprints (Q1-Q7).

\*\*REVISED: 10 June 2015

Imprints	Shoe Type	Manufacturer	Left/Right	Size (U.S.)
Q2, Q7	Athletic shoe (images not provided)	New Balance	Right	8.5
Q3, Q4	Athletic shoe (images not provided)	New Balance	Left	8.5
Q1, Q5	Athletic shoe (images not provided)	New Balance	Right	9
Q6	Athletic shoe (images not provided)	New Balance	Left	9

## **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 (K1a), two photographs of oblique lighted images of the same soles (K1b-K1c), and four photographs of inked exemplar imprints made with the shoes (K1d-K1g). Participants were requested to determine if any of the questioned imprints were made by the suspect shoes. None of these seven imprints were made by the suspect shoes. The imprints were made by two pairs of shoes for which exemplars were not provided. (See Manufacturer's Information)

Of the 261 responding participants, 251 (96%) reported all of the expected eliminations. Of the remaining ten individuals, four participants reported "Inconclusive" for one or more of the questioned imprints, four participants identified at least one questioned imprint to a suspect shoe, and two participants reported both identification and inconclusive findings.

# Examination Results

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

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
262QJT-533	Elimination	Elimination	Elimination
29688N-533	Elimination	Elimination	Elimination
2AA9HK-533	Elimination	Elimination	Elimination
2EMZXE-533	Elimination	Elimination	Elimination
2EQCUW-533	Left Shoe Identification	Right Shoe Identification	Left Shoe Identification
2GCBQR-533	Elimination	Elimination	Elimination
2XFRTK-533	Elimination	Elimination	Elimination
2ZL9BN-533	Elimination	Elimination	Elimination
338E4J-534	Elimination	Elimination	Elimination
34367R-533	Elimination	Elimination	Elimination
3842YT-533	Elimination	Elimination	Elimination
39ENRF-533	Elimination	Elimination	Elimination
3FGQZL-533	Elimination	Elimination	Elimination
3L2VNF-533	Elimination	Elimination	Elimination
3P7JAX-533	Elimination	Elimination	Elimination
42CXMF-533	Elimination	Elimination	Elimination
42RFKU-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
42UXVC-533	Elimination	Elimination	Elimination
44JANQ-533	Elimination	Elimination	Elimination
4CNN2C-533	Elimination	Elimination	Elimination
4CQBHP-533	Elimination	Elimination	Elimination
4L2D7C-534	Elimination	Elimination	Elimination
4PUNTV-534	Elimination	Elimination	Elimination
4TY3QL-533	Elimination	Elimination	Elimination
667CMB-533	Elimination	Elimination	Elimination
66MN7F-533	Elimination	Elimination	Elimination
67FLF9-534	Elimination	Elimination	Elimination
69KAWJ-533	Elimination	Elimination	Elimination
6BAGFU-533	Elimination	Elimination	Elimination
6HVCGY-534	Elimination	Elimination	Elimination
6HXYXC-533	Elimination	Elimination	Elimination
6M6KPF-533	Elimination	Elimination	Elimination
6NEJUW-533	Elimination	Elimination	Elimination
6PBVXC-533	Elimination	Elimination	Elimination
6TUWP8-534	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
6VHGQF-533	Elimination	Elimination	Elimination
6WBC9H-533	Elimination	Elimination	Elimination
6WQT7W-533	Elimination	Elimination	Elimination
6XLEW3-533	Elimination	Elimination	Elimination
78BHKV-533	Elimination	Elimination	Elimination
7BTLCY-533	Elimination	Elimination	Elimination
7CHTVB-533	Elimination	Elimination	Elimination
7DWF9J-533	Elimination	Elimination	Elimination
7F4RR7-533	Elimination	Elimination	Elimination
7KWWJP-533	Elimination	Elimination	Elimination
7QLCAG-533	Elimination	Elimination	Elimination
7XMGAD-533	Elimination	Elimination	Elimination
7Z8H3E-533	Elimination	Elimination	Elimination
84Z2J4-533	Elimination	Elimination	Elimination
89FCX8-533	Elimination	Elimination	Elimination
8BNERJ-533	Elimination	Elimination	Elimination
8CH7ZH-533	Elimination	Elimination	Elimination
8DQMP2-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
8EK9G8-533	Elimination	Elimination	Elimination
8L69Y6-533	Elimination	Elimination	Elimination
96DTCK-533	Elimination	Elimination	Elimination
96GBEP-533	Elimination	Elimination	Elimination
9B7NFD-533	Elimination	Elimination	Elimination
9CV2YV-533	Elimination	Elimination	Elimination
9NQC6G-533	Elimination	Elimination	Elimination
9WZYY4-533	Elimination	Elimination	Elimination
9Y9WNE-533	Elimination	Elimination	Elimination
A37TTY-534	Elimination	Elimination	Elimination
A4CKEK-534	Elimination	Elimination	Elimination
A9A2UZ-533	Elimination	Elimination	Elimination
AAN4Z9-533	Elimination	Elimination	Elimination
AEXE2F-533	Elimination	Elimination	Elimination
AFTZTK-533	Elimination	Elimination	Elimination
ANLHYG-533	Elimination	Elimination	Elimination
APZWCH-533	Elimination	Elimination	Elimination
AXQHFF-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
AZ3UKR-533	Elimination	Elimination	Elimination
B8EF3U-534	Elimination	Elimination	Inconclusive
B9QBMZ-533	Elimination	Elimination	Elimination
BFM6MK-533	Elimination	Elimination	Elimination
BHD7N2-533	Elimination	Elimination	Elimination
BM9ZJH-533	Elimination	Elimination	Elimination
BREW3H-533	Elimination	Elimination	Elimination
BZ9Y9Z-533	Elimination	Elimination	Elimination
C9KFGZ-533	Elimination	Elimination	Elimination
CA9ZYP-533	Elimination	Elimination	Elimination
CCKNPG-533	Elimination	Elimination	Elimination
CDEC6Q-533	Elimination	Elimination	Elimination
CGDVYC-533	Elimination	Elimination	Elimination
CGY2P4-533	Elimination	Elimination	Elimination
CJ2ZZW-533	Elimination	Elimination	Elimination
CM6X94-533	Elimination	Elimination	Elimination
CM6XBP-533	Elimination	Elimination	Elimination
CML87B-534	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
CQJHCJ-533	Elimination	Elimination	Elimination
CT9WLE-533	Elimination	Elimination	Elimination
CX4T9K-533	Elimination	Elimination	Elimination
CXP8XX-534	Elimination	Elimination	Elimination
CZ7JNL-533	Elimination	Elimination	Elimination
D6JWR7-533	Elimination	Elimination	Elimination
DATULK-533	Elimination	Elimination	Elimination
DCYE6E-533	Elimination	Elimination	Elimination
DH77CQ-533	Elimination	Elimination	Elimination
DJ2GDL-533	Elimination	Elimination	Elimination
DP4HNM-533	Elimination	Elimination	Elimination
DPML3F-534	Elimination	Elimination	Elimination
DZ7QF7-534	Elimination	Elimination	Elimination
DZ7XFD-533	Elimination	Inconclusive	Elimination
EBNRDR-533	Elimination	Elimination	Elimination
ECBFKL-533	Elimination	Elimination	Elimination
EE6BEA-533	Elimination	Elimination	Elimination
EFFYTE-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
EK92YZ-533	Elimination	Elimination	Elimination
ENA32H-533	Elimination	Elimination	Elimination
EQCZCB-533	Elimination	Elimination	Elimination
ER8L4G-533	Elimination	Elimination	Elimination
F4W242-533	Elimination	Elimination	Elimination
F7KL6Y-533	Elimination	Elimination	Elimination
FE2UVG-533	Elimination	Elimination	Elimination
FFQF6J-533	Elimination	Elimination	Elimination
FG4Z7G-533	Elimination	Elimination	Elimination
FK44X3-533	Elimination	Elimination	Elimination
FK6WXW-533	Elimination	Elimination	Elimination
FTEFYW-534	Elimination	Elimination	Elimination
FTVLCC-533	Elimination	Elimination	Elimination
FZXTVK-533	Right Shoe Identification	Elimination	Left Shoe Identification
G687GQ-534	Elimination	Elimination	Elimination
GLXAXU-533	Elimination	Elimination	Elimination
GU8MRH-534	Elimination	Elimination	Elimination
GZRTEH-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
H49KWX-534	Elimination	Elimination	Elimination
H4BB8M-533	Elimination	Elimination	Elimination
H8NXY7-533	Elimination	Elimination	Elimination
H9NQYY-533	Elimination	Elimination	Elimination
HACEZV-533	Elimination	Elimination	Elimination
HDVN3C-533	Elimination	Elimination	Elimination
HKH8QL-533	Elimination	Elimination	Elimination
HU4F73-533	Elimination	Elimination	Elimination
HU67GQ-533	Elimination	Elimination	Elimination
HW7CUC-533	Elimination	Elimination	Elimination
J2JEEL-533	Elimination	Elimination	Elimination
J3CF7V-533	Elimination	Elimination	Elimination
JB4UYF-534	Elimination	Elimination	Elimination
JE7LBM-533	Elimination	Elimination	Elimination
JE99T2-533	Elimination	Elimination	Elimination
JKTF4E-534	Elimination	Elimination	Elimination
JRUMRU-533	Elimination	Elimination	Elimination
JX2837-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
JYUZW4-533	Elimination	Elimination	Elimination
K46HMJ-533	Elimination	Elimination	Elimination
K6GC7Q-534	Elimination	Elimination	Elimination
K7PLW3-533	Elimination	Elimination	Elimination
KCV4RH-533	Elimination	Elimination	Elimination
KKBYE4-533	Elimination	Elimination	Elimination
KMEUX7-534	Elimination	Elimination	Elimination
KMU6LD-533	Elimination	Elimination	Elimination
KT2KEA-533	Elimination	Elimination	Elimination
L2AJLQ-533	Elimination	Elimination	Elimination
L9VACR-533	Elimination	Elimination	Elimination
LD7MR6-534	Elimination	Elimination	Left Shoe Identification
LMV223-533	Elimination	Elimination	Elimination
M6NBD6-533	Elimination	Elimination	Elimination
M8DHWF-533	Elimination	Elimination	Elimination
MBTAQF-533	Elimination	Elimination	Elimination
MBXPZA-533	Elimination	Elimination	Elimination
MGJMNW-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
MKH3UY-533	Elimination	Elimination	Elimination
MLEDU9-534	Elimination	Elimination	Elimination
MNKU87-533	Elimination	Elimination	Elimination
MZ9ZZZ-533	Elimination	Elimination	Elimination
N2MUCU-533	Elimination	Elimination	Elimination
N49CWZ-533	Elimination	Elimination	Elimination
N8QQ3L-533	Elimination	Elimination	Elimination
NACDUA-533	Elimination	Elimination	Elimination
NF4HRJ-533	Elimination	Elimination	Elimination
NFJ2AW-533	Elimination	Elimination	Elimination
NFNE2Y-534	Elimination	Elimination	Elimination
NKFQVA-533	Elimination	Elimination	Elimination
NVGV6B-534	Elimination	Elimination	Elimination
NWUNZD-533	Elimination	Elimination	Elimination
NZPGT9-533	Elimination	Inconclusive	Elimination
P2GY7T-533	Elimination	Elimination	Elimination
P8PZRX-533	Elimination	Elimination	Elimination
PELZXD-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
PFHG7T-534	Elimination	Elimination	Elimination
PRUTFG-534	Elimination	Elimination	Elimination
Q4MJUU-533	Elimination	Elimination	Elimination
Q6XG36-533	Elimination	Elimination	Elimination
Q9RFDU-533	Elimination	Elimination	Elimination
QDAQGP-533	Elimination	Inconclusive	Elimination
QJCRQR-533	Elimination	Elimination	Elimination
QKQ3UQ-534	Elimination	Elimination	Elimination
QPK932-534	Elimination	Elimination	Elimination
QVAL4P-534	Elimination	Elimination	Elimination
QYN774-533	Elimination	Elimination	Elimination
QYUF6V-534	Elimination	Elimination	Elimination
R3QE3R-533	Elimination	Elimination	Elimination
R8WC2X-533	Elimination	Elimination	Elimination
R9Q8KZ-533	Elimination	Elimination	Elimination
RA6CHX-533	Elimination	Elimination	Elimination
RD8978-533	Elimination	Elimination	Elimination
REJXHW-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
RN7WBN-533	Elimination	Elimination	Elimination
RNPUB3-533	Elimination	Elimination	Elimination
RQ7AKU-534	Elimination	Elimination	Elimination
RXR8AG-533	Elimination	Elimination	Elimination
RXUUQV-533	Elimination	Elimination	Elimination
RYMTZM-533	Elimination	Elimination	Elimination
TF8W6U-533	Elimination	Elimination	Elimination
TMLPAX-533	Elimination	Elimination	Elimination
TRVZ4D-533	Elimination	Elimination	Elimination
TTERFJ-533	Elimination	Elimination	Elimination
TWCAFW-533	Elimination	Elimination	Elimination
U4WLCX-534	Elimination	Elimination	Elimination
U8NW23-533	Elimination	Elimination	Elimination
U9GRK6-534	Elimination	Elimination	Elimination
UB7CBU-533	Elimination	Elimination	Elimination
UDDKNL-533	Elimination	Elimination	Inconclusive
UX9T8P-533	Elimination	Elimination	Elimination
UX9WWU-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
V4QQ7W-533	Elimination	Elimination	Elimination
V7RWL3-533	Elimination	Elimination	Elimination
VAAXLG-533	Elimination	Elimination	Elimination
VB9EMK-533	Elimination	Elimination	Elimination
VGAFWM-534	Elimination	Elimination	Elimination
VHL8VV-533	Elimination	Elimination	Elimination
VHN2BU-534	Elimination	Elimination	Elimination
VJ2CQM-533	Elimination	Elimination	Elimination
VQJUX3-534	Elimination	Elimination	Elimination
VRB277-533	Elimination	Elimination	Elimination
VREGKR-534	Elimination	Elimination	Elimination
VRUNJV-533	Elimination	Elimination	Elimination
VV9J4Y-533	Elimination	Elimination	Elimination
VVVTEN-533	Elimination	Elimination	Elimination
VW7N6L-533	Elimination	Elimination	Elimination
W77HTJ-533	Elimination	Elimination	Elimination
WA8LMR-533	Elimination	Elimination	Elimination
WD9PA8-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
WEKQUK-533	Elimination	Elimination	Elimination
WFVB3V-533	Elimination	Elimination	Elimination
WGTGJP-533	Elimination	Elimination	Elimination
WL238L-533	Elimination	Elimination	Elimination
WLYEQ9-533	Elimination	Elimination	Elimination
WPXV2G-533	Elimination	Elimination	Elimination
WQAK9Z-533	Elimination	Elimination	Elimination
WVRPZ4-533	Elimination	Elimination	Elimination
X4E76X-533	Elimination	Elimination	Elimination
X6VZ8T-533	Elimination	Elimination	Elimination
XA6DTX-533	Elimination	Elimination	Elimination
XCA7LB-533	Elimination	Elimination	Elimination
XDJV6M-533	Elimination	Elimination	Elimination
XJTCFW-533	Elimination	Elimination	Elimination
XQQ228-533	Elimination	Elimination	Elimination
Y6QZQP-533	Elimination	Elimination	Elimination
YDHFD9-533	Elimination	Elimination	Elimination
YFNZ29-533	Elimination	Elimination	Elimination

TABLE 1a (Store Imprints - Front)

WebCode-Test	Questioned Imprints		
	Q1	Q2	Q3
YNY698-533	Elimination	Elimination	Elimination
YRD62R-533	Elimination	Elimination	Elimination
YVJHQ7-533	Elimination	Elimination	Elimination
Z48KPT-533	Elimination	Elimination	Elimination
ZGG9MX-533	Elimination	Elimination	Elimination
ZKYDEZ-533	Elimination	Elimination	Elimination
ZNYJXD-533	Elimination	Elimination	Elimination
ZVY2B4-533	Elimination	Elimination	Elimination
ZXJTKL-534	Elimination	Elimination	Elimination
ZZTZME-533	Elimination	Elimination	Elimination

Response Summary		Participants: 261		
		Q1	Q2	Q3
Response s	Right Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>0</b> (0.0%)
	Left Shoe Identification	<b>1</b> (0.4%)	<b>0</b> (0.0%)	<b>3</b> (1.1%)
	Elimination	<b>259</b> (99.2%)	<b>257</b> (98.5%)	<b>256</b> (98.1%)
	Inconclusive	<b>0</b> (0.0%)	<b>3</b> (1.1%)	<b>2</b> (0.8%)

# Examination Results

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

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
262QJT-533	Elimination	Elimination	Elimination	Elimination
29688N-533	Elimination	Elimination	Elimination	Elimination
2AA9HK-533	Elimination	Elimination	Elimination	Elimination
2EMZXE-533	Elimination	Elimination	Elimination	Elimination
2EQCUW-533	Elimination	Left Shoe Identification	Elimination	Right Shoe Identification
2GCBQR-533	Elimination	Elimination	Elimination	Elimination
2XFRTK-533	Elimination	Elimination	Elimination	Elimination
2ZL9BN-533	Elimination	Elimination	Elimination	Elimination
338E4J-534	Elimination	Elimination	Elimination	Elimination
34367R-533	Elimination	Elimination	Elimination	Elimination
3842YT-533	Elimination	Elimination	Elimination	Elimination
39ENRF-533	Elimination	Elimination	Elimination	Elimination
3FGQZL-533	Elimination	Elimination	Elimination	Elimination
3L2VNF-533	Elimination	Elimination	Elimination	Elimination
3P7JAX-533	Elimination	Elimination	Elimination	Elimination
42CXMF-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
42RFKU-533	Elimination	Elimination	Elimination	Elimination
42UXVC-533	Elimination	Elimination	Elimination	Elimination
44JANQ-533	Elimination	Elimination	Elimination	Elimination
4CNN2C-533	Elimination	Elimination	Elimination	Inconclusive
4CQBHP-533	Elimination	Elimination	Elimination	Elimination
4L2D7C-534	Elimination	Elimination	Elimination	Elimination
4PUNTV-534	Elimination	Elimination	Elimination	Elimination
4TY3QL-533	Elimination	Elimination	Elimination	Elimination
667CMB-533	Elimination	Elimination	Elimination	Elimination
66MN7F-533	Elimination	Elimination	Elimination	Elimination
67FLF9-534	Elimination	Elimination	Elimination	Elimination
69KAWJ-533	Elimination	Elimination	Elimination	Elimination
6BAGFU-533	Elimination	Elimination	Elimination	Elimination
6HVCGY-534	Elimination	Elimination	Elimination	Elimination
6HXYXC-533	Elimination	Elimination	Elimination	Elimination
6M6KPF-533	Elimination	Elimination	Elimination	Elimination
6NEJUW-533	Elimination	Elimination	Elimination	Elimination
6PBVXC-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
6TUWP8-534	Elimination	Elimination	Elimination	Elimination
6VHGQF-533	Elimination	Elimination	Elimination	Elimination
6WBC9H-533	Elimination	Elimination	Elimination	Elimination
6WQT7W-533	Elimination	Elimination	Elimination	Elimination
6XLEW3-533	Elimination	Elimination	Elimination	Elimination
78BHKV-533	Elimination	Elimination	Elimination	Elimination
7BTLCY-533	Elimination	Elimination	Elimination	Elimination
7CHTVB-533	Elimination	Elimination	Elimination	Elimination
7DWF9J-533	Elimination	Elimination	Elimination	Elimination
7F4RR7-533	Elimination	Elimination	Elimination	Elimination
7KWWJP-533	Elimination	Elimination	Elimination	Elimination
7QLCAG-533	Elimination	Elimination	Elimination	Elimination
7XMGAD-533	Elimination	Elimination	Elimination	Elimination
7Z8H3E-533	Elimination	Elimination	Elimination	Elimination
84Z2J4-533	Elimination	Elimination	Elimination	Elimination
89FCX8-533	Elimination	Elimination	Elimination	Elimination
8BNERJ-533	Elimination	Elimination	Elimination	Elimination
8CH7ZH-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
8DQMP2-533	Elimination	Elimination	Elimination	Elimination
8EK9G8-533	Elimination	Elimination	Elimination	Elimination
8L69Y6-533	Elimination	Elimination	Elimination	Elimination
96DTCK-533	Elimination	Elimination	Elimination	Elimination
96GBEP-533	Elimination	Elimination	Elimination	Elimination
9B7NFD-533	Elimination	Elimination	Elimination	Elimination
9CV2YV-533	Elimination	Elimination	Elimination	Elimination
9NQC6G-533	Elimination	Elimination	Elimination	Elimination
9WZYY4-533	Elimination	Elimination	Elimination	Elimination
9Y9WNE-533	Elimination	Elimination	Elimination	Elimination
A37TTY-534	Elimination	Elimination	Elimination	Elimination
A4CKEK-534	Elimination	Elimination	Elimination	Elimination
A9A2UZ-533	Elimination	Elimination	Elimination	Elimination
AAN4Z9-533	Elimination	Elimination	Elimination	Elimination
AEXE2F-533	Elimination	Elimination	Elimination	Elimination
AFTZTK-533	Elimination	Elimination	Elimination	Elimination
ANLHYG-533	Elimination	Elimination	Elimination	Elimination
APZWCH-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
AXQHFF-533	Elimination	Elimination	Elimination	Elimination
AZ3UKR-533	Elimination	Elimination	Elimination	Elimination
B8EF3U-534	Inconclusive	Elimination	Elimination	Inconclusive
B9QBMZ-533	Elimination	Elimination	Elimination	Elimination
BFM6MK-533	Elimination	Elimination	Elimination	Elimination
BHD7N2-533	Elimination	Elimination	Elimination	Elimination
BM9ZJH-533	Elimination	Elimination	Elimination	Elimination
BREW3H-533	Elimination	Elimination	Elimination	Elimination
BZ9Y9Z-533	Elimination	Elimination	Elimination	Elimination
C9KFGZ-533	Elimination	Elimination	Elimination	Elimination
CA9ZYP-533	Elimination	Elimination	Elimination	Elimination
CCKNPG-533	Elimination	Elimination	Elimination	Elimination
CDEC6Q-533	Elimination	Elimination	Elimination	Elimination
CGDVYC-533	Elimination	Elimination	Elimination	Elimination
CGY2P4-533	Elimination	Elimination	Elimination	Elimination
CJZZZW-533	Elimination	Elimination	Elimination	Elimination
CM6X94-533	Elimination	Elimination	Elimination	Elimination
CM6XBP-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
CML87B-534	Elimination	Elimination	Elimination	Elimination
CQJHCJ-533	Elimination	Elimination	Elimination	Elimination
CT9WLE-533	Elimination	Elimination	Elimination	Elimination
CX4T9K-533	Elimination	Elimination	Elimination	Elimination
CXP8XX-534	Elimination	Elimination	Elimination	Elimination
CZ7JNL-533	Elimination	Elimination	Elimination	Elimination
D6JWR7-533	Elimination	Elimination	Elimination	Elimination
DATULK-533	Elimination	Elimination	Elimination	Elimination
DCYE6E-533	Elimination	Elimination	Elimination	Elimination
DH77CQ-533	Elimination	Elimination	Elimination	Elimination
DJ2GDL-533	Elimination	Elimination	Elimination	Elimination
DP4HNM-533	Elimination	Elimination	Elimination	Elimination
DPML3F-534	Elimination	Elimination	Elimination	Elimination
DZ7QF7-534	Elimination	Elimination	Elimination	Elimination
DZ7XFD-533	Elimination	Elimination	Elimination	Elimination
EBNRDR-533	Elimination	Elimination	Elimination	Elimination
ECBFKL-533	Elimination	Elimination	Elimination	Elimination
EE6BEA-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
EFFYTE-533	Elimination	Elimination	Elimination	Elimination
EK92YZ-533	Elimination	Elimination	Elimination	Elimination
ENA32H-533	Elimination	Elimination	Elimination	Elimination
EQCZCB-533	Elimination	Elimination	Elimination	Elimination
ER8L4G-533	Elimination	Elimination	Elimination	Elimination
F4W242-533	Elimination	Elimination	Elimination	Elimination
F7KL6Y-533	Elimination	Elimination	Elimination	Elimination
FE2UVG-533	Elimination	Elimination	Elimination	Elimination
FFQF6J-533	Elimination	Elimination	Elimination	Elimination
FG4Z7G-533	Elimination	Elimination	Elimination	Elimination
FK44X3-533	Elimination	Elimination	Elimination	Elimination
FK6WXW-533	Elimination	Elimination	Elimination	Elimination
FTEFYW-534	Elimination	Elimination	Elimination	Elimination
FTVLCC-533	Elimination	Elimination	Elimination	Elimination
FZXTVK-533	Left Shoe Identification	Right Shoe Identification	Right Shoe Identification	Right Shoe Identification
G687GQ-534	Elimination	Elimination	Elimination	Elimination
GLXAXU-533	Elimination	Elimination	Elimination	Elimination
GU8MRH-534	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
GZRTEH-533	Elimination	Elimination	Elimination	Elimination
H49KWX-534	Elimination	Elimination	Elimination	Elimination
H4BB8M-533	Elimination	Elimination	Elimination	Elimination
H8NXY7-533	Elimination	Elimination	Elimination	Elimination
H9NQYY-533	Elimination	Elimination	Elimination	Elimination
HACEZV-533	Elimination	Elimination	Elimination	Elimination
HDVN3C-533	Elimination	Elimination	Elimination	Elimination
HKH8QL-533	Elimination	Elimination	Elimination	Elimination
HU4F73-533	Elimination	Elimination	Elimination	Elimination
HU67GQ-533	Elimination	Elimination	Elimination	Elimination
HW7CUC-533	Elimination	Elimination	Elimination	Elimination
J2JEEL-533	Elimination	Elimination	Elimination	Elimination
J3CF7V-533	Elimination	Elimination	Elimination	Elimination
JB4UYF-534	Elimination	Elimination	Elimination	Elimination
JE7LBM-533	Elimination	Elimination	Elimination	Elimination
JE99T2-533	Elimination	Elimination	Elimination	Elimination
JKTF4E-534	Elimination	Elimination	Elimination	Elimination
JRUMRU-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
JX2837-533	Elimination	Elimination	Elimination	Elimination
JYUZW4-533	Elimination	Elimination	Elimination	Elimination
K46HMJ-533	Elimination	Elimination	Elimination	Elimination
K6GC7Q-534	Elimination	Elimination	Elimination	Elimination
K7PLW3-533	Elimination	Elimination	Elimination	Elimination
KCV4RH-533	Elimination	Elimination	Elimination	Elimination
KKBYE4-533	Elimination	Elimination	Elimination	Elimination
KMEUX7-534	Elimination	Elimination	Elimination	Elimination
KMU6LD-533	Elimination	Elimination	Elimination	Elimination
KT2KEA-533	Elimination	Elimination	Elimination	Elimination
L2AJLQ-533	Elimination	Elimination	Elimination	Elimination
L9VACR-533	Elimination	Elimination	Elimination	Elimination
LD7MR6-534	Right Shoe Identification	Elimination	Elimination	Right Shoe Identification
LMV223-533	Elimination	Elimination	Elimination	Elimination
M6NBD6-533	Elimination	Elimination	Elimination	Elimination
M8DHWF-533	Elimination	Elimination	Elimination	Elimination
MBTAQF-533	Elimination	Elimination	Elimination	Elimination
MBXPZA-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
MGJMNW-533	Elimination	Elimination	Elimination	Elimination
MKH3UY-533	Elimination	Elimination	Elimination	Elimination
MLEDU9-534	Elimination	Elimination	Elimination	Elimination
MNKU87-533	Elimination	Elimination	Elimination	Elimination
MZ9ZZZ-533	Elimination	Elimination	Elimination	Elimination
N2MUCU-533	Elimination	Elimination	Elimination	Elimination
N49CWZ-533	Elimination	Elimination	Elimination	Elimination
N8QQ3L-533	Elimination	Elimination	Elimination	Elimination
NACDUA-533	Elimination	Elimination	Elimination	Elimination
NF4HRJ-533	Elimination	Elimination	Elimination	Elimination
NFJ2AW-533	Elimination	Elimination	Elimination	Elimination
NFNE2Y-534	Elimination	Elimination	Elimination	Elimination
NKFQVA-533	Elimination	Elimination	Elimination	Elimination
NVGV6B-534	Elimination	Elimination	Elimination	Elimination
NWUNZD-533	Elimination	Elimination	Elimination	Elimination
NZPGT9-533	Elimination	Elimination	Elimination	Right Shoe Identification
P2GY7T-533	Elimination	Elimination	Elimination	Elimination
P8PZRX-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
PELZXD-533	Elimination	Elimination	Elimination	Elimination
PFHG7T-534	Elimination	Elimination	Elimination	Elimination
PRUTFG-534	Elimination	Elimination	Elimination	Elimination
Q4MJUU-533	Elimination	Elimination	Elimination	Elimination
Q6XG36-533	Elimination	Elimination	Elimination	Elimination
Q9RFDU-533	Elimination	Elimination	Elimination	Elimination
QDAQGP-533	Elimination	Elimination	Elimination	Elimination
QJCRQR-533	Elimination	Elimination	Elimination	Elimination
QKQ3UQ-534	Elimination	Elimination	Elimination	Elimination
QPK932-534	Elimination	Elimination	Elimination	Elimination
QVAL4P-534	Elimination	Elimination	Elimination	Elimination
QYN774-533	Elimination	Elimination	Elimination	Elimination
QYUF6V-534	Elimination	Elimination	Elimination	Elimination
R3QE3R-533	Elimination	Elimination	Elimination	Elimination
R8WC2X-533	Elimination	Elimination	Elimination	Elimination
R9Q8KZ-533	Elimination	Elimination	Elimination	Elimination
RA6CHX-533	Elimination	Elimination	Elimination	Elimination
RD8978-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
REJXHW-533	Elimination	Elimination	Elimination	Elimination
RN7WBN-533	Elimination	Elimination	Elimination	Elimination
RNPUB3-533	Elimination	Elimination	Elimination	Elimination
RQ7AKU-534	Elimination	Elimination	Elimination	Elimination
RXR8AG-533	Elimination	Elimination	Elimination	Elimination
RXUUQV-533	Elimination	Elimination	Elimination	Elimination
RYMTZM-533	Elimination	Elimination	Elimination	Elimination
TF8W6U-533	Elimination	Elimination	Elimination	Elimination
TMLPAX-533	Elimination	Elimination	Elimination	Elimination
TRVZ4D-533	Elimination	Elimination	Elimination	Elimination
TTERFJ-533	Elimination	Elimination	Elimination	Elimination
TWCAFW-533	Elimination	Elimination	Elimination	Elimination
U4WLCX-534	Elimination	Elimination	Elimination	Elimination
U8NW23-533	Elimination	Elimination	Elimination	Elimination
U9GRK6-534	Elimination	Elimination	Elimination	Elimination
UB7CBU-533	Elimination	Elimination	Elimination	Elimination
UDDKNL-533	Inconclusive	Elimination	Elimination	Right Shoe Identification
UX9T8P-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
UX9WWU-533	Elimination	Elimination	Elimination	Elimination
V4QQ7W-533	Elimination	Elimination	Elimination	Elimination
V7RWL3-533	Elimination	Elimination	Elimination	Elimination
VAAXLG-533	Elimination	Elimination	Elimination	Elimination
VB9EMK-533	Elimination	Elimination	Elimination	Elimination
VGAFWM-534	Elimination	Elimination	Elimination	Elimination
VHL8VV-533	Elimination	Elimination	Elimination	Elimination
VHN2BU-534	Elimination	Elimination	Elimination	Elimination
VJ2CQM-533	Elimination	Elimination	Elimination	Elimination
VQJUX3-534	Elimination	Elimination	Elimination	Elimination
VRB277-533	Elimination	Elimination	Elimination	Elimination
VREGKR-534	Elimination	Elimination	Elimination	Elimination
VRUNJV-533	Elimination	Elimination	Elimination	Elimination
VV9J4Y-533	Elimination	Elimination	Elimination	Elimination
VVVTEN-533	Elimination	Elimination	Elimination	Elimination
VW7N6L-533	Elimination	Elimination	Elimination	Elimination
W77HTJ-533	Elimination	Elimination	Elimination	Elimination
WA8LMR-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
WD9PA8-533	Elimination	Elimination	Elimination	Elimination
WEKQUK-533	Elimination	Elimination	Elimination	Elimination
WFVB3V-533	Elimination	Elimination	Elimination	Elimination
WGTGJP-533	Elimination	Elimination	Elimination	Elimination
WL238L-533	Elimination	Elimination	Elimination	Elimination
WLYEQ9-533	Elimination	Elimination	Elimination	Elimination
WPXV2G-533	Elimination	Elimination	Elimination	Elimination
WQAK9Z-533	Elimination	Elimination	Elimination	Elimination
WVRPZ4-533	Elimination	Elimination	Elimination	Elimination
X4E76X-533	Elimination	Elimination	Elimination	Elimination
X6VZ8T-533	Elimination	Elimination	Elimination	Elimination
XA6DTX-533	Elimination	Elimination	Elimination	Elimination
XCA7LB-533	Elimination	Elimination	Elimination	Elimination
XDJV6M-533	Elimination	Elimination	Elimination	Elimination
XJTCFW-533	Elimination	Elimination	Elimination	Elimination
XQQ228-533	Elimination	Elimination	Elimination	Elimination
Y6QZQP-533	Elimination	Elimination	Elimination	Elimination
YDHFD9-533	Elimination	Elimination	Elimination	Elimination

TABLE 1b (Store Imprints - Back)

WebCode-Test	Questioned Imprints			
	Q4	Q5	Q6	Q7
YFNZ29-533	Elimination	Elimination	Elimination	Elimination
YNY698-533	Elimination	Elimination	Elimination	Right Shoe Identification
YRD62R-533	Elimination	Elimination	Elimination	Elimination
YVJHQ7-533	Elimination	Elimination	Elimination	Elimination
Z48KPT-533	Elimination	Elimination	Elimination	Elimination
ZGG9MX-533	Elimination	Elimination	Elimination	Elimination
ZKYDEZ-533	Elimination	Elimination	Elimination	Elimination
ZNYJXD-533	Elimination	Elimination	Elimination	Elimination
ZVY2B4-533	Elimination	Elimination	Elimination	Elimination
ZXJTKL-534	Elimination	Elimination	Elimination	Elimination
ZZTZME-533	Elimination	Elimination	Elimination	Elimination

Response Summary				Participants: 261	
	Q4	Q5	Q6	Q7	
Responses	Right Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>6</b> (2.3%)
	Left Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>0</b> (0.0%)	<b>0</b> (0.0%)
	Elimination	<b>257</b> (98.5%)	<b>259</b> (99.2%)	<b>260</b> (99.6%)	<b>253</b> (96.9%)
	Inconclusive	<b>2</b> (0.8%)	<b>0</b> (0.0%)	<b>0</b> (0.0%)	<b>2</b> (0.8%)

# Examination Results

TABLE 1c - Complete Results

Response Summary			Participants: <b>261</b>			
		<u>Q1</u>	<u>Q2</u>	<u>Q3</u>		
<b>Response s</b>	Right Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>0</b> (0.0%)		
	Left Shoe Identification	<b>1</b> (0.4%)	<b>0</b> (0.0%)	<b>3</b> (1.1%)		
	Elimination	<b>259</b> (99.2%)	<b>257</b> (98.5%)	<b>256</b> (98.1%)		
	Inconclusive	<b>0</b> (0.0%)	<b>3</b> (1.1%)	<b>2</b> (0.8%)		
		<u>Q4</u>	<u>Q5</u>	<u>Q6</u>	<u>Q7</u>	
<b>Response s</b>	Right Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>6</b> (2.3%)	
	Left Shoe Identification	<b>1</b> (0.4%)	<b>1</b> (0.4%)	<b>0</b> (0.0%)	<b>0</b> (0.0%)	
	Elimination	<b>257</b> (98.5%)	<b>259</b> (99.2%)	<b>260</b> (99.6%)	<b>253</b> (96.9%)	
	Inconclusive	<b>2</b> (0.8%)	<b>0</b> (0.0%)	<b>0</b> (0.0%)	<b>2</b> (0.8%)	

# Conclusions

TABLE 2

WebCode-Test	Conclusions
262QJT-533	The known footwear submitted as items 1-3 are not the source of, and did not make the questions[sic] impressions Q1 through Q7.
29688N-533	The impressions Q1, Q5 and Q6 were different in pattern to the outsoles of the recovered shoes K1. The impressions Q2, Q3, Q4 and Q7 were different in size to K1. I concluded that the shoes K1 could not have made the impressions Q1 to Q7.
2AA9HK-533	The results of this examination provide no support for the proposition that the questioned marks, Q1-7 were made by the submitted footwear, K1.
2EMZXE-533	It is in my opinion that the shoes worn by the suspect did not make any of the impressions at the scene. This opinion is based on the fact that a close examination of the questioned or scene impressions are different in both wear and individual characteristics. Taking into account the suspects shoes were collected a day after the alleged offence the difference in wear and individual characteristics would not have greatly changed. [sic]
2EQCUW-533	[No Conclusions Reported.]
2GCBQR-533	The questioned footwear impressions Items Q1 through Q7 were not made by either the Item K1.1 left shoe or the Item K1.2 right shoe.
2XFRTK-533	In the opinion of the examiner, the particular known footwear (K-1, left and right) were not the source of, and did not make the impressions identified as Q1-Q7.
2ZL9BN-533	Questioned footwear impressions Q1 through Q7 were compared to the known shoes (Items K1a through K1g). Questioned footwear impressions Q2, Q3, Q4 and Q7 were each similar in tread design to the known shoes. Questioned footwear impressions Q3 and Q7 were dissimilar in size of tread design to the known shoes. Questioned footwear impressions Q2 and Q4 were dissimilar in wear characteristics to the known shoes. Questioned footwear impressions Q1, Q5 and Q6 were different in tread design to the known shoes. The known shoes as represented by items K1a through K1g were eliminated from having made questioned footwear impressions Q1 through Q7.
338E4J-534	The test impressions and the questioned impressions were compared visually and using Adobe Photoshop. Assuming normal wear between the time of the crime and the collection of the known shoes, all of the questioned shoeprints (Q1 - Q7) were dissimilar in physical properties to the known shoe test impressions (K1d - K1g). The known shoes are eliminated from having made the questioned impressions Q1 - Q7.
34367R-533	Impressions Q1 through Q7 shared similar tread patterns as the Item K1 shoes. The wear on impressions Q1 through Q7 was different than the wear on the outsoles of the Item K1 shoes. In addition, visible individual characteristics that are visible in the test impressions and on the item K1 shoes were not present in impressions Q1 through Q7. Impressions Q1 through Q7 are eliminated as having been created by the outsoles of the item K1 shoes.
3842YT-533	The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 known shoes. The Item Q1 impression shares similar tread design features with the K1 right shoe, however, does not correspond with specific wear/ stippling. The Item Q2 impression shares similar tread design features with the K1 right shoe, however, does not correspond with specific wear. The Item Q3 impression shares similar tread design features with the K1 left shoe, however, does not correspond in physical size. The Item Q4 impression shares similar tread design features with the K1 left shoe, however, does not correspond in physical size. The Item Q5 impression shares similar tread design features with the K1 right shoe, however, does not correspond with specific wear/ stippling. The Item Q6 impression shares similar tread design features with the K1 left shoe, however, does not correspond with specific wear/ stippling. The Item Q7 impression shares similar tread design features with the K1 right shoe, however,

## TABLE 2

WebCode-Test	Conclusions
39ENRF-533	does not correspond in physical size. Based upon the above factors it is the opinion of this examiner that the Q1 through Q7 questioned impressions were not made by the K1 known shoes.
3FGQZL-533	None of the questioned impressions were made by the submitted known shoes. The questioned impressions in the submitted photographs were labeled Q1 through Q7, and consisted of two tread designs. Impressions Q1 through Q7 were compared to the recovered shoes as documented in K1a through K1g. Impressions Q1, Q5, and Q6 differed in tread design from corresponding areas of the recovered shoes. Impressions Q2, Q3, Q4, and Q7 were similar in tread design to corresponding areas of the recovered shoes, but differed in size of tread and wear characteristics. Thus, the shoes documented in K1a through K1g were eliminated as possible sources for impressions Q1 through Q7.
3L2VNF-533	Upon visual examination of questioned footwear impressions Q1 through Q7 and comparison to the soles of the recovered right and left shoes K1a-K1c, as well as test impressions made by the recovered shoes K1d-K1g, the following was observed: A. Q1 and K1R shoe are different in design, wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q1 could not have been made by the known right shoe K1R. B. Q2 and K1R shoe are different in wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q2 could not have been made by the known right shoe K1R. C. Q3 and K1L shoe are different in wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q3 could not have been made by the known right[sic] shoe K1L. D. Q4 and K1L shoe are different in wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q4 could not have been made by the known right[sic] shoe K1L. E. Q5 and K1R shoe are different in wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q5 could not have been made by the known right shoe K1R. F. Q6 and K1L shoe are different in design, wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q6 could not have been made by the known right[sic] shoe K1L. G. Q7 and K1R shoe are different in wear and size. Therefore, it is the opinion of the undersigned that questioned footwear impression Q7 could not have been made by the known right shoe K1R.
3P7JAX-533	The questioned impressions (Q1 to Q7) are dissimilar in size and/or wear to the known test impressions of the suspect shoes. It is my opinion that these questioned impressions were not made by the suspect shoes.
42CXMF-533	A) Q1 and K1R are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q1 could not have been made by the known right shoe, K1R. B) Q2 and K1R/L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q2 could not have been made by the known right/left shoes, K1R/L. C) Q3 and K1L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q3 could not have been made by the known left shoe, K1L. D) Q4 and K1R/L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q4 could not have been made by the known right/left shoes, K1R/L. E) Q5 and K1R/L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q5 could not have been made by the known right/left shoes, K1R/L. F) Q6 and K1L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q6 could not have been made by the known left shoe, K1L. E) Q7 and K1R/L are different in size and tread design. It is in the opinion of the undersigned that questioned footwear impression Q7 could not have been made by the known right/left shoes, K1R/L.
42RFKU-533	Based upon the observation in this examination, the following can be said: Shoe imprints Q1-Q7 could be eliminated as certain class characteristics differ although certain patterns are similar. Size differ slightly. Wear pattern differs quite considerably which is not consistent to wear which could occur in such a short time frame as facts mentioned in the scenario.

TABLE 2

WebCode-Test	Conclusions
42UXVC-533	The Known shoes labelled K1 can be excluded as having made questioned impressions 1 - 7.
44JANQ-533	All of the impressions, Q1 - Q7, had a pattern matching the pattern of the shoes from the suspect, K1. However, differences in wear, size and acquired features were noted between the impressions and the shoes and NONE of the impressions Q1 - Q7 were made by the suspect's shoes.
4CNN2C-533	Questioned impressions (Q1 through Q7) contained in the photographs were examined and compared to the known shoes from Item 1. It was determined that the right shoe of Item 1 exhibited similar tread design, physical size and wear characteristics to the photographed impression labeled Q7. Therefore, the right shoe of Item 1 could have produced this impression captured in the photograph. A lack of detail and observable individual identifying characteristics retained in the impression precluded a closer association from being reached. The left shoe of Item 1 was eliminated as a possible source of this impression. The photographed impressions labeled Q1 through Q6 were determined to not have been made by either shoe of Item 1.
4CQBHP-533	The seven impressions at the scene (Q1 thru Q7) correspond in general outsole design to the known shoes (K1). However, the outsole wear recorded in the scene impressions does not correspond to the known shoes. Accordingly, the seven impressions at the scene were not made by the submitted known shoes. It appears that two pairs of shoes, each with a general outsole design like the submitted known shoes, made the scene impressions.
4L2D7C-534	Two CD's (item 001 and 002) were examined for the presence of footwear impressions. Three impressions (Q1 - Q3) were observed in the images from Item 001, and four impressions (impressions Q4 - Q7) were observed in the images from Item 002. The seven impressions were preserved through digital imaging. Impressions Q1 - Q7 (items 001 and 002) were compared to the images of the shoes and test impressions contained in item 003. Impressions Q1 - Q7 (items 001 and 002) were excluded as having been made by the shoes as portrayed in the images from Item 003 due to insufficient agreement of individualizing characteristics. Please submit shoes of persons of interest if further comparison is requested.
4PUNTV-534	Marks Q1-Q3 found in the front of the store, although of the same pattern type as the submitted shoes K1, featured different alignment (together with significant wear differences). Marks Q4-Q7 found in the back of the store, although of the same pattern type as the submitted shoes K1, featured different alignment (together with significant wear differences). Therefore, none of the marks could have been made by the submitted shoes K1.
4TY3QL-533	Visual examinations of the questioned footwear impressions labeled items Q1, Q2, Q3, Q4, Q5, Q6, and Q7 showed them to differ to the known "New Balance" brand shoes submitted. These questioned footwear impressions Q1 through Q7 are eliminated as having been made by the known "New Balance" brand shoes submitted. Elimination. Association scale for Footwear and Tiretrack exams: Association Levels ID (1) through 5 descriptions here. Unsuitable[ sic] description here. Elimination/Exclusion: (Non-Association) - The highest degree of non-association expressed in footwear and tire track impression examinations. The known shoes were eliminated as being the source of the questioned impressions. Inconclusive Non-association description here.
667CMB-533	The evidence impressions (Q1-Q7) exhibit different class/individual characteristics as those produced by the suspect shoes (K1a - K1g) and could not have been made by the suspect shoes.
66MN7F-533	I compared test impressions from the suspected shoes with the photographs of the footwear impressions from the scene. I determined that the suspected shoes in (K1) did not make any of the impressions (Q1 through Q7) depicted in the photographs from the scene based on differences in spatial relationship and size.
67FLF9-534	The right athletic shoe imprints in Q1 and Q5 were similar in design and size to the right shoe in K1, but were not similar in wear characteristics; therefore the imprints were not made by the right shoe in K1. The right athletic shoe imprints in Q2 and Q7 were similar in design to the right shoe in K1, but were not similar in size and wear characteristics; therefore the imprints were not made

TABLE 2

WebCode-Test	Conclusions
	by the right shoe in K1. The left athletic shoe imprints in Q3, Q4, and Q6 were similar in design to the left shoe in K1, but were not similar in size and wear characteristics; therefore the imprints were not made by the left shoe in K1.
69KAWJ-533	The suspect shoes were eliminated as having produced the questioned impressions located in the front (Q1 - Q3) and back (Q4 - Q7) of the pet store.
6BAGFU-533	[No Conclusions Reported.]
6HVCGY-534	I concluded that footwear impressions identified Q1 to Q7 were not produced by the pair of shoes identified K1. The identified impression Q1 was produced by a right shoe with similar pattern and different design. The identified impression Q2 was produced by a right shoe, with pattern and similar design. The identified impression Q3 was produced by a shoe left side, same pattern and design.[sic] The identified impression Q4 was produced by a right shoe, with pattern and similar design. The identified impression Q5 was produced by a right shoe, similar pattern and different design. The identified impression Q6 footwear was produced by left side, with similar pattern and different design (difference in stippling).[sic] The identified impression Q7 was produced by right shoe, with similar pattern and design (different stippling).
6HXYXC-533	(1) Questioned impressions Q1, Q2, Q5 and Q7 were not made by the submitted right New Balance shoe, size 10.5 (K1), based on differences in class characteristics. (2) Questioned impressions Q3, Q4 and Q6 were not made by the submitted left New Balance shoe, size 10.5 (K1), based on differences in class characteristics. (3) Q1 and Q5 were made by a second right shoe with similar outsole design as the submitted New Balance shoes, K1. (4) Q2 and Q7 were made by third right shoe with similar outsole design as the submitted New Balance shoes, K1. (5) Q3 and Q4 were made by a second left shoe with similar outsole design as the submitted New Balance shoes, K1. (6) Q6 was made by a third left shoe with similar outsole design as the submitted New Balance shoes, K1. (7) Suspect shoes for Q1 through Q7 include New Balance shoes; however, any suspect shoes should be submitted to the laboratory for analysis.
6M6KPF-533	Examination of the submitted photographs revealed seven footwear impressions suitable for comparison, Q1 through Q7. These impressions were not made by the shoes depicted in K1.
6NEJUW-533	Q1, Q2, Q5 Class characteristic and wear are different. 3, Q4 Class characteristic and size are different. Q6 Class characteristics and wear differs. Q7 Size and wear differs.
6PBVXC-533	All questioned imprints show the same sole pattern as the imprints made with the recovered shoes. Imprints Q1, Q2, Q5 and Q7 were made by a right shoe, imprints Q3, Q4 and Q6 were made by a left shoe. The reasons for Elimination are: 1: Difference in size. 2: The recovered shoes show a higher or a lower degree of wear than can be seen in the questioned imprints which could not be explained by normal wear considering there is only a day between the break-in and the recovery of the shoes. 3: Different accidental marks on the questioned and the known imprints. However, there might be explanations for these, e.g. the surface structure of the floor, dirt or damages on the outsoles after the break-in.
6TUWP8-534	Questioned latent shoe impression Q1 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in outsole design. Questioned latent shoe impression Q2 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in general wear. Questioned latent shoe impression Q3 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in size or general wear. Questioned latent shoe impression Q4 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in size or general wear. Questioned latent shoe impression Q5 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in outsole design. Questioned latent shoe impression Q6 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in outsole design. Questioned latent shoe impression Q7 was excluded as the Right and Left Shoes of New Balance Size 10.5. The shoe impression does not correspond in size or general wear.

TABLE 2

WebCode-Test	Conclusions
6VHGQF-533	[No Conclusions Reported.]
6WBC9H-533	Upon examination, I found the characteristics[sic] marks on the questioned imprints Q1, Q2, Q3, Q4, Q5, Q6 and Q7 and the characteristics[sic] marks on the recovered shoes to be dissimilar. Therefore, the questioned imprints Q1, Q2, Q3, Q4, Q5, Q6 and Q7 were not made by the recovered shoes.
6WQT7W-533	The Questioned Imprints, Q1-Q7 were not made by the recovered shoes K1.
6XLEW3-533	All seven marks were similar in pattern to the soles of either shoe, however, differences were noted in either size or degree of wear. As such, the submitted shoes are not responsible for any of the marks.
78BHKV-533	Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.
7BTLCY-533	No class or unique characteristics could be identified in the prints marked "Q1" to "Q7" indicating that they were made by the suspect shoes in this case.
7CHTVB-533	The submitted impressions (Q1, Q2, Q3, Q4, Q5, Q6 and Q7) in this case were not made by the right or left shoe of K1.
7DWF9J-533	1) None of the submitted questioned impressions, Q1 through Q7, were made by the submitted New Balance shoes, size women's 10.5, based on differences in class characteristics. 2) Impressions Q3 and Q4 were made by a second left shoe. Suspect footwear include New Balance athletic shoes; however, any suspect footwear should be submitted for examination. 3) Impression Q6 was made by a third left shoe, possibly from the same pair of New Balance shoes as impressions Q1 and Q5 based on design characteristics. 4) Impressions Q1 and Q5 were made by a second right shoe. Suspect footwear include New Balance athletic shoes; however, any suspect footwear should be submitted for examination. 5) Impressions Q2 and Q7 could have been made by a third right shoe based on class and some individual characteristics; however, insufficient detail precludes a more conclusive determination. Impressions Q2 and Q7 were possibly from the same pair of New Balance shoes as impressions Q3 and Q4 based on design characteristics.
7F4RR7-533	[No Conclusions Reported.]
7KWWJP-533	[No Conclusions Reported.]
7QLCAG-533	The seven questioned imprints, Items 001-Q1 through 001-Q7, were not produced by the recovered shoes represented in Items 001-K1a through 001-K1g.
7XMGAD-533	Q1, Q2, Q3, Q4, Q5, Q6, Q7 question impressions were not made by the left or right shoe of K1 due to differences in size, wear pattern, and/or accidental characteristics.
7Z8H3E-533	Findings. Laboratory examination of the photographs in Items 1-3 revealed the outsoles of a pair of known New Balance athletic shoes. Examination of the photographs in Items 4-5 revealed questioned footwear impressions Q1-Q7. These impressions were compared to the known New Balance shoes depicted in Items 1-3 using visual and overlay techniques. Four of the questioned impressions (Q1, Q2, Q5 and Q7) originated from right shoes. The three remaining questioned impressions (Q3, Q4 and Q6) originated from left shoes. All of these questioned impressions exhibited differences in wear and many also exhibited different identifying characteristics from the known New Balance shoes depicted in Items 1-3. Based on these findings, these questioned impressions in Q1-Q7 were not made by the known shoes depicted in Items 1-3.
84Z2J4-533	In my opinion, the training shoes, represented by images K1a-e, could not have made any of the seven footwear impressions, represented by the images Q1-7.

TABLE 2

WebCode-Test	Conclusions
89FCX8-533	Impression Q1 was not made by the Right or Left shoe of K1. Impression Q2 was not made by the Right or Left shoe of K1. Impression Q3 was not made by the Right or Left shoe of K1. Impression Q4 was not made by the Right or Left shoe of K1. Impression Q5 was not made by the Right or Left shoe of K1. Impression Q6 was not made by the Right or Left shoe of K1. Impression Q7 was not made by the Right or Left shoe of K1.
8BNERJ-533	Both submitted shoes, K1, are excluded as the source of the questioned impressions, Q1 through Q7.
8CH7ZH-533	The questioned impressions from the scene (Items Q1 - Q7) were visually compared to the known impressions and images of the New Balance shoes (Items K1a - K1g). Each questioned impression was similar in general tread design to the known footwear. However, each questioned impression differed from the known footwear in tread size, tread design characteristics, and/or apparent randomly acquired characteristics. The known footwear represented by Items K1a-K1g did not produce any of the questioned impressions (Elimination).
8DQMP2-533	Questioned imprints of Q1~Q7 were compared with known imprints made with the suspect's shoes in shape, physical size, and individual characteristics. We found that questioned imprints of Q1~Q7 were eliminated as having been made by the suspect's shoes.
8EK9G8-533	Examination of Lab Items #4 - #10 revealed seven footwear impressions of value for comparison. Comparison of the footwear impressions of Lab Items #4 - #10 (Q1 - Q7) with the photographs of the known footwear and test impressions of Lab items #1 - #3 (K1) revealed the following: Q1: One footwear impression was not made by the right shoe of K1 based on different design and wear characteristics. The footwear impression was not made by the left shoe of K1 based on different shape and design characteristics. Q2: One footwear impression was not made by the right shoe of K1 based on different design, wear and individual characteristics. The footwear impression was not made by the left shoe of K1 based on different design characteristics. Q3: One footwear impression was not made by the left shoe of K1 based on differences in physical size, wear and individual characteristics. The footwear impression was not made by the right shoe of K1 based on different shape and design characteristics. Q4: One footwear impression was not made by the left shoe of K1 based on differences in physical size, wear and individual characteristics. The footwear impression was not made by the right shoe of K1 based on different design characteristics. Q5: One footwear impression was not made by the right shoe of K1 based on different wear characteristics. The footwear impression was not made by the left shoe of K1 based on different design characteristics. Q6: One footwear impression was not made by the left shoe of K1 based on different design and wear characteristics. The footwear impression was not made by the right shoe of K1 based on different design and shape characteristics. Q7: One footwear impression was not made by the right shoe of K1 based on differences in physical size and wear characteristics. The footwear impression was not made by the left shoe based on different design characteristics.
8L69Y6-533	Examination of the questioned imprints found in the front of the store (Item #4), revealed the presence of one photograph, depicting three (3) questioned footwear impressions labeled Q1-Q3. Examination of the questioned imprints found in the back of the store (Item #5), revealed the presence of one photograph, depicting four (4) questioned footwear impressions labeled Q4-Q7. Questioned impressions Q1-Q7 (Items #4 & #5) were compared with the suspect's known left and right shoes K1 (Items #1-#3) utilizing visual and overlay techniques. Impressions Q3 and Q4 were found to be the same as the known left shoe with respect to tread design but distinctly different from the known left shoe with respect to tread size and wear characteristics. This finding confirms that impressions Q3 and Q4 were not made by the known shoes K1. Impressions Q2 and Q7 were found to be the same as the known right shoe with respect to tread design but distinctly different from the known right shoe with respect to tread size and wear characteristics. This finding confirms that impressions Q2 and Q7 were not made by the known shoes K1. Impressions Q1 and Q5 were found to have been made by a right shoe of similar, but distinctly different, tread design than the known right shoe K1. This finding confirms that impressions Q1 and Q5 were not made by the known shoes K1. Impression Q6 was found to

TABLE 2

WebCode-Test	Conclusions
	have been made by a left shoe of similar, but distinctly different, tread design than the known left shoe K1. This finding confirms that impression Q6 was not made by the known shoes K1.
96DTCK-533	[No Conclusions Reported.]
96GBEP-533	The impressions in items Q2, Q3, Q4 and Q7 were different in tread design and size from the known shoes in K1. The impressions in items Q1, Q5 and Q6 were different in wear pattern from the known shoes in item K1. Therefore, these impressions were not made by the known shoes in K1.
9B7NFD-533	None of the questioned imprints (Q1 - Q7) are caused by the recovered shoes (K1).
9CV2YV-533	3 Staff members have separately examined and compared the shoe prints with the known imprints. The known imprints are the imprints of a sneaker, manufactured by New Balance, TBEAM, women's size 10.5. The pattern consists mainly in circles, knobs and trapeziums. The questioned shoe prints are 2 different pairs of shoes of the same brand (Imprints 1 and Imprints 2). Imprints 1. The imprint Q1 (right shoe) and imprint Q6 (left shoe) match regarding size and wear. They could be a matching pair of shoes. The imprint Q1 (heel) is identical to imprint Q5. They could be left by the same pair of shoes. Imprints 2. Imprint Q3 and Q4 have been left by the same shoe (left shoe, front). Imprint Q7 (right shoe, front) match regarding size and wear with imprints Q3 and Q4. Imprint Q2 is the imprint of a right shoe. It is probable that it has been left by the same shoe as imprint Q7. It is highly probable that they have been left by the same pair of shoes. Comparison between the questioned imprints and the known imprints: The comparison shows similar degree of wear (left edge) between the questioned imprints Q3/Q4 and the left shoe of the known imprints. But there is a significant difference in size. The questioned imprint is smaller. Considering that the imprints Q3/ Q4 have been set with the weight of the bearer and the known imprint has been produced without weight, the traces should be bigger in size. But in our case, the opposite is true. This fact and differences in the individual characteristics lead to exclude a an identification. In our opinion, based on the results of our comparisons, the shoes of the suspect can be excluded as the source of the questioned imprints Q1 - Q7). [sic]
9NQ6G-533	Disagreements of class and/or individual characteristics confirmed the Q1-Q7 impressions were not made by the recovered shoes.
9WZYY4-533	1. Examination of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (photograph; Q1-Q3) and four latent footwear impressions on Exhibit 5 (photograph; Q4-Q7) suitable for comparison. 2. Exhibits 1 through 3 (K1a through K1g; Women's New balance size 10.5) were excluded as the source of the latent footwear impressions on Exhibits 4 and 5.
9Y9WNE-533	The outsole/partial outsole impressions visible on the photographs labeled Q1 through Q7 were excluded from having been made by the outsole of either shoe in Item K1 based on class characteristic differences.
A37TTY-534	The Item 1 CD contained images that depicted 7 questioned impressions (Q1 – Q7) and one pair of known shoes. The images of the known shoes were compared to the questioned impressions. A complete evaluation of a questioned impressions[sic] and a known shoe 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 that are represented in the questioned impression. All seven of the questioned impressions differed from the known shoes in either tread design and/or wear characteristics. Therefore, the known shoes can be eliminated as a possible source of any of these 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. 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.
A4CKEK-534	The digital photographs on the provided disc have seven shoe prints labeled Q1 - Q7 which are

## TABLE 2

WebCode-Test	Conclusions
	of value for comparison. The two digital photographs (Q1 -Q3) and (Q4 - Q7) were printed 1:1 and were visually compared to the reference impressions provided from the recovered shoes K1. The images K1f & K1g were selected to make 1:1 transparencies for visual overlay comparison. The recovered shoes depicted in the digital photographs (Items K1a - K1c) and in the reference impressions (Items K1d - K1g) can be eliminated by a variety of size, wear, and individual detail features, as a possible source of the impressions in the two photographs (Items Q1 - Q3 & Q4 - Q7).
A9A2UZ-533	The exemplar left and right shoes (Items 1-7) are excluded as possible sources of the unknown footwear impressions, Items 8-14, based on class characteristics.
AAN4Z9-533	In a first step all the questioned items were checked for class association. All scene of crime imprints showed the same class characteristics. In the next step the imprints were given a closer look, with the result, that all questioned imprints could be excluded (at possible printmakers). All questioned items (Q1-Q7) showed the same pattern, however differ in shoe size and wear. Therefore all questioned imprints could be Excluded. Conclusion. There is evidence beyond doubt, that none of the questioned imprints (Q1-Q7) were made by one of the soles of the suspect's shoes K1 (All differ in either size or wear).
AEXE2F-533	Q1-Q7 could not have been made by K1-left or K1-right.
AFTZTK-533	Suspect shoes are eliminated as the source of the questioned impressions.
ANLHYG-533	Items Q1 through Q7 are not made by the shoes found in Items K1a through K1g because of significant differences in some class characteristics.
APZWCH-533	Q1 is an almost full, right, out-sole impression. Q2 is a partial, right heel, out-sole impression. Q3 is an almost full, left, out-sole impression. Q4 is a partial, left toe and ball area, out-sole impression. Q5 is a partial, right heel, out-sole impression. Q6 is an almost full, left, out-sole impression. Q7 is a partial, right ball and arch, out-sole impression. The shoes represented by items K1a through K1g are eliminated from making the questioned impressions in Q1 through Q7.
AXQHFF-533	The Q1FWI impression was not made by the K1 shoes. The Q2FWI impression was not made by the K1 shoes. The Q3FWI impression was not made by the K1 shoes. The Q4FWI impression was not made by the K1 shoes. The Q5FWI impression was not made by the K1 shoes. The Q6FWI impression was not made by the K1 shoes. The Q7FWI impression was not made by the K1 shoes.
AZ3UKR-533	Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.
B8EF3U-534	After comparing the photographs of the known shoes and the inked impressions made with the known shoes to the photographs of the 7 questioned impressions recovered at the scene the following conclusions have been made: Question Impression #1: was eliminated due to the amount of inconsistencies in the impressions. The smaller circles inside the larger circles throughout the soles of the known shoes and the known impressions is not present in the questioned impression. There are other characteristics as well that eliminate the shoe including the amount of design in the heel of the question impression that is not present in the known shoe or the impressions made with the known shoes. Question Impression #2: was eliminated due to the fact there are several differences in the characteristics of the known shoes and known impressions when compared to the questioned impressions. Question Impression #3: was Inconclusive. There are several class characteristics that are similar between the known impressions and the questioned impressions. However, in order to come to any conclusive decision, I would need to physical[sic] examine the known shoes and possibly make additional inked impressions. Question Impression #4: was Inconclusive. There are several class characteristics that are similar between the known impressions and the questioned impressions.

## TABLE 2

WebCode-Test	Conclusions
	However, in order to come to any conclusive decision, I would need to physical[sic] examine the known shoes and possibly make additional inked impressions. Question Impression #5: was Eliminated due to the fact there are several differences in the characteristics of the known shoes and known impressions when compared to the questioned impressions. Question Impression #6: was Eliminated due to the fact there are several differences in the characteristics of the known shoes and known impressions when compared to the questioned impressions. Question Impression #7: was Inconclusive the questioned impression has similar class characteristics as the known shoes, but there is not enough information in the question impression to make a definitive statement on the similarities of the known shoes to the questioned impression.
B9QBMZ-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. Exhibit 1 (images of left and right shoes) was excluded as the source of the latent footwear impressions on Exhibits 4 and 5. 3. Images of the latent footwear impressions remain on file.
BFM6MK-533	The partial, questioned footwear impressions, Q1 through Q-7, were not made by the known shoes Submission K.
BHD7N2-533	1. Examination of Exhibits 4 and 5 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), which are suitable for comparison. 2. Exhibits 1(K1a) through 3(K1g)(Right and Left Shoes) did not make the latent footwear impressions Q1 through Q3 on Exhibit 4 and Q4 through Q7 on Exhibit 5. 3. Images of the footwear impressions remain on file.
BM9ZJH-533	[No Conclusions Reported.]
BREW3H-533	[No Conclusions Reported.]
BZ9Y9Z-533	1. Examination of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (images of footwear impressions Q1-Q3) and four latent footwear impressions on Exhibit 5 (images of footwear impressions Q4-Q7) suitable for comparison. 2. Exhibit 1 (suspect's shoes) was excluded as the source of the latent footwear impressions on Exhibit 4 (Q1-Q3) and Exhibit 5 (Q4-Q7). 3. Images of the latent footwear impressions in this case will remain on file at this laboratory.
C9KFGZ-533	[No Conclusions Reported.]
CA9ZYP-533	Comments: Q1: The print is made by a right shoe with a different solepattern. Q2: The print is made by the right heel of a shoe with less degree of wear or a different solepattern. Q3: The print is made by a left shoe of smaller size and with a different solepattern in the front. Q4: The print is made by the front of a left shoe of smaller size and with a different solepattern. Q5: The print is made by the right heel of a shoe with a different solepattern. Q6: The print is made by a left shoe with a different solepattern. Q7: The print is made by the front of a right shoe of smaller size.
CCKNPG-533	The questioned, partial footwear impressions, marked Q1 through Q7, were not made by the shoes represented in Submission K.
CDEC6Q-533	Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.
CGDVYC-533	It was determined that the footwear impressions Q1, Q2, Q3, Q4, Q5, Q6, and Q7, were not made by the left or right women's size 10 1/2 New Balance shoes, K1.
CGY2P4-533	Examination of the digital image prints displaying the questioned imprints revealed seven suitable patterned impressions marked Q1 through Q7. Based on class characteristics and/or general wear characteristics, the patterned impressions marked Q1 through Q7 were eliminated as

TABLE 2

WebCode-Test	Conclusions
	having been made by the shoes depicted in K1a through K1g. Comparisons revealed that the suitable patterned impressions marked Q1 and Q5 displayed potential identifying characteristics; however, an identification can not be made without submission of additional shoes. Comparisons revealed that the suitable patterned impressions marked Q3 and Q4 displayed potential identifying characteristics; however, an identification can not be made without submission of additional shoes.
CJ2ZZW-533	The suspect shoes (item K1) are dissimilar in general tread design to the questioned shoe impressions Q1, Q5, and Q6 and in size and wear to the questioned shoe impressions Q2, Q3, Q4, and Q7. Therefore, the suspect shoes (item K1) are excluded as having been the source of the impressions.
CM6X94-533	Questioned impressions Q1, Q2, Q3, Q4, Q5, Q6 and Q7 can be eliminated as having been made by the known shoes of Item K1.
CM6XBP-533	Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.
CML87B-534	The suspect's left and right shoes (Branded "new balance" were compared with the questioned impressions (1 to 7). After a search both shoes were eliminated from the examination; Questioned Impression 1. made by a right shoe and had a similar pattern and physical size to the known right shoe however the wear patterns did not match there were variations in comparison of the patterns. No similar identifiers were located. Questioned Impression 2. made by a right shoe had a similar pattern. However the physical size was smaller than the known right shoe, there were variations to the pattern and the wear patterns did not match. Questioned Impression 3. made by a left shoe was of the same pattern and physical size to the known left shoe. The wear patterns were inconclusive (within the same areas but pattern were overlapped with another shoe impression). None of the identifiers of the known left shoe matched those of the questioned impression. Questioned Impression 4. was of the same shoe as Questioned Impression 3. Again this was eliminated as none of the individual identifiers of the known shoe matched the questioned impression. Questioned Impression 5. made by a right shoe was of a similar pattern and physical size. The wear patterns did not match the known right shoe, there were variations to the pattern and no identifiers were located. Q1 5 impression was similar in pattern to Q1 1 impression. Questioned Impression 6. made by a left shoe was of a similar pattern and physical size to the known left shoe, however, the wear patterns did not match and there were variations in comparison to the patterns. No similar identifiers were located. Questioned Impression 7. made by a right shoe was of the same pattern and a similar physical size to the known right shoe. The wear patterns while within the same areas were different and no similar identifiers were located.
CQJHCJ-533	Base on items submitted, the questioned[sic] imprints Q1 to Q7 have not been made by the suspect shoes. The questioned[sic] imprints Q3 and Q4 have been made by the same shoe. The questioned[sic] imprints Q1 and Q5 have been made by the same shoe.
CT9WLE-533	One nearly complete right shoe impression, one partial right heel impression, and one nearly complete left shoe impression were detected on the textured ceramic tile. All of these impressions exhibit similarities in tread design to the known shoes from the suspect but are different in wear patterns and relative size to the known shoes from the suspect. It is my opinion the nearly complete right shoe impression and partial right heel impression did not originate from the known right shoe from the suspect (Category 5). It is also my opinion the nearly complete left shoe impression did not originate from the known left shoe from the suspect (Category 5). One partial left toe and arch impression, one partial right heel impression, one nearly complete left shoe impression, and one partial right toe and arch impression were detected on the smooth tile. All of these impressions exhibit similarities in tread design to the known shoes from the suspect but are different in wear patterns and relative size to the known shoes from the suspect. It is my opinion the partial left toe and arch impression and the nearly complete left shoe impression did not originate from the known left shoe from the suspect (Category 5). It is also my opinion the partial

## TABLE 2

WebCode-Test	Conclusions
	right heel impression and partial right toe and arch impression did not originate from the known right shoe from the suspect (Category 5).
CX4T9K-533	Item: 1 K1a: Photograph of the soles of the recovered shoes, lighted from above. Item: 2 K1b-K1c: Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows. Item: 3 K1d-K1g: Known imprints made with the recovered shoes. Item: 4 Q1-Q3: Questioned imprints found in the front of the store (textured ceramic tile). Item: 4.1 Footwear impression represented as Q1 on Item 4. RESULTS: The Item 4.1 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 4.2 Footwear impression represented as Q2 on Item 4. RESULTS: The Item 4.2 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 4.3 Footwear impression represented as Q3 on Item 4. RESULTS: The Item 4.3 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 5 Q4-Q7: Questioned imprints found in the back of the store (smooth ceramic tile). Item: 5.1 Footwear impression represented as Q4 on Item 5. RESULTS: The Item 5.1 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 5.2 Footwear impression represented as Q5 on Item 5. RESULTS: The Item 5.2 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 5.3 Footwear impression represented as Q6 on Item 5. RESULTS: The Item 5.3 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology. Item: 5.4 Footwear impression represented as Q7 on Item 5. RESULTS: The Item 5.4 impression was not made by the Item 1 shoes. The item was examined utilizing the ACE-V methodology.
CXP8XX-534	None of the impressions labeled as Q1-Q7 were made by the submitted left and right K1 shoes. Exclusion is established when there are sufficient features in disagreement to conclude that an unknown impression was not made by the submitted known footwear.
CZ7JNL-533	The crime scene photographs of the questioned footwear imprints, specimens #Q1 & #Q5, were compared to reference imprints of the outsole from the known right shoe, specimens #K1d-K1g, #K1d-1 and #K1g-2. The questioned imprints, specimens #Q1 & #Q5, were not made by the outsole of the known shoe, specimen #K1a, due to differences in the outsole design. Specimens #Q1 & #Q5 appear to share randomly acquired characteristics made by the same unknown right outsole. The crime scene photographs of the questioned footwear imprints, specimens #Q2 & #Q7, were compared to reference imprints of the outsole from the known right shoe, specimens #K1d-#K1g, #K1d-1 and #K1g-2. The questioned imprints, specimens #Q2 & #Q7, were not made by the outsole of the known shoe, specimen #K1a, due to sufficient differences in the comparison of class and/or randomly acquired characteristics. Specimens #Q2 & Q7 appear to share randomly acquired characteristics made by the same unknown right outsole. The crime scene photographs of the questioned footwear imprints, specimens #Q3 & #Q4, were compared to reference imprints of the outsole from the known left shoe, specimens #K1d-K1g, #K1d-1 & #K1g-1. The questioned imprints, specimens #Q3 & #Q4, were not made by the outsole of the known shoe, specimen #K1a, due to sufficient differences in the comparison of class and/or randomly acquired characteristics. Specimens #Q3 & #Q4 appear to share randomly acquired characteristics made by the same unknown left outsole. The crime scene photograph of the questioned footwear imprint, specimen #Q6, was compared to reference imprints of the outsole from the known left shoe, specimens #K1d-#K1g, #K1d-1 & #K1g-1. The questioned imprint, specimen #Q6, was not made by the outsole of the known shoe, specimen #K1a, due to differences in outsole design.
D6JWR7-533	1. Analysis of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 and four latent footwear impressions on Exhibit 5 suitable for comparison. 2. Exhibits 1 and 2 were excluded as the source of the latent footwear impressions on Exhibits 4 and 5.
DATULK-533	The known shoes (K1) are not the source of the questioned shoeprints (Q1-Q7).
DCYE6E-533	The submitted images and known impressions of the suspect shoes (K1a-K1g) were examined and compared to the questioned impressions visible in Q1-Q7. Q1 and Q5 correspond to the known

## TABLE 2

WebCode-Test	Conclusions
	right shoe in tread size and in tread pattern with an unexplainable difference in tread element spacing. Q1 and Q5 and the known right shoe are dissimilar in tread wear and individual characteristics. Thus, the known right shoe is not the source of Q1 or Q5. Q2 corresponds to the known right shoe in tread size and tread pattern. However, they are dissimilar in tread wear and individual characteristics. Thus, the known right shoe is not the source of Q2. Q3 and Q4 correspond to the known left shoe in tread pattern. However, they are dissimilar in size of the tread, tread wear, and individual characteristics. Thus, the known left shoe is not the source of Q3 or Q4. Q6 corresponds to the known left shoe in tread size and in tread pattern with an unexplainable difference in tread element spacing. Q6 and the known left shoe are dissimilar in tread wear and individual characteristics. Thus, the known left shoe is not the source of Q6. Q7 corresponds to the known right shoe in tread pattern. However, they are dissimilar in tread size, tread wear, and individual characteristics. Thus, the known right shoe is not the source of Q7.
DH77CQ-533	In my opinion, none of the marks Q1-Q7 could have been made by the test marks made with the left or right shoes.
DJ2GDL-533	Physical comparison of the partial shoe prints in Q1-Q7, with the shoes represented by K1a-K1g, revealed them to be inconsistent with respect to one or more of the following: tread design, wear or individual characteristics. Therefore, these shoe impressions could not have been made by these shoes.
DP4HNM-533	The three questioned left imprints marked "Q3", "Q4" and "Q6" and the four questioned right imprints marked "Q1", "Q2", "Q5" and "Q7" were not made by the suspect's shoes depicted in the photographs marked "K1a" to "K1c".
DPML3F-534	The comparisons of the enclosed footwear impressions (Q1-Q7 and K1a-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. All questioned imprints were different from the comparative materials.
DZ7QF7-534	Visual analysis of the CD (item 1) revealed two digital images (items 1A 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/Q2 and 1B/Q5/Q7) were not made by the known right shoe as depicted in the digital image (item 1D). The known right shoe revealed significant differences in physical shape/size and wear to determine that these questioned impressions were not made by this known right shoe. These questioned impressions were made by a right shoe; therefore, the left shoe was not compared. Three of the questioned impressions from the digital images (items 1B/Q3 and 1B/Q4/Q6) were not made by the known left shoe as depicted in the digital image (item 1D). The known left shoe revealed a significant difference in physical shape/size and wear to determine that these questioned impressions were not made by this known left shoe. These questioned impressions were made by a left shoe; therefore, the right shoe was not compared.
DZ7XFD-533	The shoes from which the photos/impressions (item #K1) were taken are excluded as having made the questioned impressions Q1, Q5, and Q6 based on differences in tread design. The shoes from which the photos/impressions (item #K1) were taken are excluded as having made the questioned impressions Q3, Q4, and Q7 based on differences in size. The right shoe from which the photos/impressions (item #K1) were taken share a limited association of class characteristics with the questioned impression Q2 based on an agreement of class characteristics only. There is significant additional wear present on the shoe which is inconsistent with the amount of wear generally expected in the stated duration between the incident and the collection of the item. It is unlikely the shoe was the source of the Q2 impression.
EBNRDR-533	The questioned Q1 - Q7 imprints (depicted in the Item 4 and 5 photographs) were eliminated as having been produced by the suspect shoes (depicted in the Item 1 through 3 photographs).

## TABLE 2

WebCode-Test	Conclusions
ECBFL-533	<p>Questioned impression Q1 was produced by a right article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed dissimilarities in wear characteristics. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Questioned impression Q2 was produced by a right article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed dissimilarities in wear characteristics. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Questioned impression Q3 was produced by a left article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed differences in size. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Questioned impression Q4 was produced by a left article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed differences in size. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Questioned impression Q5 was produced by a right article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed differences in size and dissimilarities in wear characteristics. Thus the suspect articles of footwear are eliminated from producing the Questioned impression. Questioned impression Q6 was produced by a left article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed differences in size. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Questioned impression Q7 was produced by a right article of footwear. Comparisons of this impression with the photographs and test impressions provided of the suspect articles of footwear revealed differences in size. Thus the suspect articles of footwear are eliminated from producing this Questioned impression. Special Note: The "Primary" heel element present in Impression Q2 is different in design than the "Primary" heel element present in Impressions Q1, Q3, Q5 and Q-6.</p>
EE6BEA-533	The suspect shoes did not make any of the questioned impressions, Q1 to Q7.
EFFYTE-533	[No Conclusions Reported.]
EK92YZ-533	<p>Items as described by submitting agency: Lab # 1, Agency # K1a, Description - Photograph of the soles of the recovered shoes, lighted from above; Lab #2, Agency # K1b - K1c, Description, Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows; Lab # 3, Agency #K1d -K1g, Description, Known imprints made with the recovered shoes; Lab #4, Agency # Q1 - Q3, Description, Questioned imprints found in the front of the store (textured ceramic tile); Lab # 5, Agency # Q4 - Q7, Description, Questioned imprints found in the back of store (smooth ceramic tile). Results of impression examinations: There are three (3) footwear impressions, 4.1 - 4.3, depicted in item 4 and four (4) footwear impressions, 5-1 - 5-4, depicted in item 5. None of the footwear impressions depicted in items 4 and 5 were made by the footwear outsoles depicted in items 1, 2, and 3.</p>
ENA32H-533	<p>Comparison of the impressions of Q2, Q3, Q4 and Q7 with the known shoes (K1a-K1g) revealed they were consistent with respect to tread design but different with respect to wear and physical size. Therefore, these impressions were not made by the shoes in Submission 1. Comparison of the impressions of Q1, Q5 and Q6 with the known shoes (K1a-K1g) revealed differences with respect to tread design. Therefore, these impressions were not made by the shoes in Submission 1. The impressions of Q1, Q5 and Q6 appeared to be of the same tread design. A search of the Laboratory's footwear database revealed a corresponding tread design on known New Balance shoes. Copies are attached for your reference. Do not limit your search for known footwear to only an exact match of these shoes. A copy of the questioned tread has been stored in the footwear database and will be compared to impressions and footwear submitted in the future. If additional known footwear are submitted for comparison, please resubmit Submission 1. The evidence is available for pickup.</p>
EQCZCB-533	Questioned impressions Q1 - Q7 were visually compared to the test impressions and

TABLE 2

WebCode-Test	Conclusions
	<p>photographs of the known New Balance athletic shoes, size 10.5. The known New Balance shoes are eliminated from having produced questioned impressions Q1, Q5 and Q6 based on differences observed on tread design. The known New Balance shoes are eliminated from having produced questioned impressions Q3, Q4 and Q7 based on differences observed in size of tread. The known New Balance shoes are eliminated from having produced impression Q2 based on differences observed in wear.</p>
ER8L4G-533	<p>The partial, questioned footwear impressions, Q-1 through Q-7, were not made by the shoes in Submission K.</p>
F4W242-533	<p>Q1 through Q7 were not made by the submitted K1 shoes. Impressions Q1 and Q5 were made by a second right shoe with a similar outsole design as the submitted design as the submitted K1 shoe.[sic] Impressions Q3 and Q4 were made by a second left shoe with a similar outsole design as the submitted K1 shoe. Impressions Q2 and Q7 could have been made by a third right shoe with similar outsole design as the submitted K1 shoe based on class and some individual characteristics; however, insufficient detail precludes a more conclusive determination. Impression Q6 was made by a third left shoe with similar outsole design as the submitted K1 shoe.</p>
F7KL6Y-533	<p>Examination of Contributor Items #Q1 - Q7 revealed seven footwear impressions of value for comparison. Comparison of the footwear impressions with the photographs of shoes and test impressions of Contributor Items #K1 (a-g) revealed: Q1 - one footwear impression was not made by the right shoe of K1 based on different design and wear characteristics. The footwear impression was not made by the left shoe of K1 based on different designs and shape. Q2 - one footwear impression was not made by the right shoe of K1 based on different wear characteristics. The footwear impression was not made by the left shoe of K1 based on a different shape. Q3 - one footwear impression was not made by the left shoe of K1 based on different physical size and wear characteristics. The footwear impression was not made by the right shoe of K1 based on different shape. Q4 - one footwear impression was not made by the left shoe of K1 based on different physical size, wear and individual characteristics. The footwear impression was not made by the right shoe of K1 based on a different shape. Q5 - one footwear impression was not made by the right shoe of K1 based on different wear characteristics. The footwear impression was not made by the left shoe of K1 based on a different shape. Q6 - one footwear impression was not made by the left shoe of K1 based on different design and wear characteristics. The footwear impression was not made by the right shoe of K1 based on different designs and shape. Q7 - one footwear impression was not made by the right shoe of K1 based on different physical size and wear characteristics. The footwear impression was not made by the left shoe of K1 based on a different shape.</p>
FE2UVG-533	<p>Scene of crime footwear transfer marks Q1 to Q7 was analyzed and compared with photographs of New Balance shoes of a suspect. Similarities were identified between the scene of crime transfer and the suspect shoes with regards to class characteristics such as make, sole pattern and size. These were found to be various clear irregularities on both the crime scene prints and suspect shoes. The irregularities range from wear patterns to damages such as tears. The wear patterns and other irregularities does not correspond and therefore my conclusion is that scene of crime prints Q1 to Q7 was not caused by the suspect shoes.</p>
FFQF6J-533	<p>The question shoe prints depicted in the photographs (Q1 - Q7) are dissimilar in class characteristics to the suspect's shoe soles. It is our opinion that the question shoe prints recovered from the scene (Q1 - Q7) were not created by the suspect's shoes.</p>
FG4Z7G-533	<p>The right shoe of K1 has areas of similarity in tread pattern as that of Q1; however, the overall tread design, the wear pattern, and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q1. The right heel of K1 is similar in tread pattern as that of Q2; however, the wear pattern and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q2. The left shoe of K1 is similar in tread pattern as that of Q3; however, the wear pattern, and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q3. The</p>

## TABLE 2

WebCode-Test	Conclusions
	left toe of K1 is similar in tread pattern as that of Q4; however, wear pattern and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q4. The overall tread design, wear pattern, and individual characteristics of the right heel of K1 are not the same as that of Q5. The right and left shoes of K1 have been excluded as having made Q5. The left shoe of K1 has areas of similarity in tread pattern as that of Q6; however, the overall tread design, wear pattern, and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q6. The right toe of K1 is similar in tread pattern as that of Q7; however, the wear pattern and individual characteristics are not the same. The right and left shoes of K1 have been excluded as having made Q7.
FK44X3-533	Comparison of the item 8 shoe impression labeled "Q1, found in the front of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 8 shoe impression labeled "Q2, found in the front of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 8 shoe impression labeled "Q3, found in the front of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 9 shoe impression labeled "Q4, found in the back of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 9 shoe impression labeled "Q5, found in the back of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 9 shoe impression labeled "Q6, found in the back of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of the item 9 shoe impression labeled "Q7, found in the back of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination.
FK6WXW-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. Latent footwear impressions suitable for comparison are not always suitable for identification but may be suitable for exclusionary purposes. 2.Exhibits 1-3 (K1a-K1g) were excluded as the source of the latent footwear impressions on Exhibits 4 (Q1- Q3) and 5 (Q4-Q7).
FTEFYW-534	The questioned footwear impressions submitted as Q1-Q7 were analyzed and compared against the known footwear impressions submitted as Q8 and Q9. The known footwear impressions, Q8 and Q9, were excluded as the source of the questioned footwear impressions, Q1-Q7.
FTVLCC-533	As a result of the comparative examination the questioned imprints Q1 to Q7 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.
FZXTVK-533	Q1, Q5, Q6, Q7 are from shoes impressions recovered at scene belong to Right shoe suspect. Q2 doesn't belong to the impressions recovered at scene. [sic]
G687GQ-534	The impressions in Q1 - Q7 were excluded as having been made by the shoes in K1.
GLXAXU-533	Items Q1-Q7 were visually compared with each other and Items K1a-g with the following results: Items Q1-Q7 are "Exclusions" from Items K1a-g due to differing physical characteristics. This means that Items Q1-Q7 were not made by the suspect shoes. Items Q3 and Q4 are "Identifications" with each other due to a sufficient quantity and quality of agreement between their individual characteristics. This means that the same shoe made the Q3 and Q4 impressions. Items Q1 and Q5 have a "High Degree of Association" with each other due to the quantity and quality of corresponding characteristics, but it could not be confirmed that they were made by the same shoe.

## TABLE 2

WebCode-Test	Conclusions
GU8MRH-534	In the opinion of this examiner Q1 could not have been made by K1. In the opinion of this examiner Q2 could not have been made by K1. In the opinion of this examiner Q3 could not have been made by K1. In the opinion of this examiner Q4 could not have been made by K1. In the opinion of this examiner Q5 could not have been made by K1. In the opinion of this examiner Q6 could not have been made by K1. In the opinion of this examiner Q7 could not have been made by K1.
GZRTEH-533	Item: 1 K1a: Photograph of the soles of the recovered shoes, lighted from above. Item: 2 K1b-K1c: Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows. Item: 3 K1d-K1g: Known imprints made with the recovered shoes. Item: 3.1 Transparencies created from the Item 3 photographs. Item: 4 Q1-Q3: Questioned imprints found in the front of the store (textured ceramic tile). Item: 4.1 Footwear impression represented as Q1 on Item 4. RESULTS: The Item 4.1 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 4.2 Footwear impression represented as Q2 on Item 4. RESULTS: The Item 4.2 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 4.3 Footwear impression represented as Q3 on Item 4. RESULTS: The Item 4.3 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 5 Q4-Q7: Questioned imprints found in the back of the store (smooth ceramic tile). Item: 5.1 Footwear impression represented as Q4 on Item 5. RESULTS: The Item 5.1 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 5.2 Footwear impression represented as Q5 on Item 5. RESULTS: The Item 5.2 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 5.3 Footwear impression represented as Q6 on Item 5. RESULTS: The Item 5.3 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology. Item: 5.4 Footwear impression represented as Q7 on Item 5. RESULTS: The Item 5.4 impression was not made by the Item 1 shoe(s). The item was examined utilizing the ACE-V methodology.
H49KWX-534	We could classify the shoes made the impression at the scene, and suspect shoes in the same class. But there were several different features from abrasion between the two pair of shoes. Therefore, we concluded that the suspect shoes are not identical to the shoes of thief.
H4BB8M-533	Impression Examination: In comparing the Questioned imprints (items #Q1 - Q7) to the Known recovered shoes and impressions (Items #K1A - #K1G), it was found that they all have, although similar, different tread design, tread size and/or general wear patterns. Therefore, in the opinion of this examiner, Items #Q1 - #Q7 could not have been made by the Knowns (Items #K1A - #K1G).
H8NXY7-533	The outsole and partial outsole impressions visible in Exhibits #Q1 through #Q7 were excluded from having been made by the outsole of either shoe in Exhibit #K1 based on class characteristic differences.
H9NQYY-533	None of the questioned impressions were made by the submitted New Balance shoes. Impressions Q1 and Q5 were made by a second right shoe with a similar outsole design as the submitted New Balance shoes. Impressions Q2 and Q7 were made by a third right shoe with a similar outsole design as the submitted New Balance shoes. Impressions Q3 and Q4 were made by a second left shoe with a similar outsole design as the submitted New Balance shoes. Impression Q6 was made by a third left shoe with a similar outsole design as the submitted New Balance shoes.
HACEZV-533	[No Conclusions Reported.]
HDVN3C-533	It was determined utilizing side by side and overlay techniques of comparison that the questioned footwear impressions, Q1, Q2, Q3, Q4, Q5, Q6, and Q7 were not made by the known shoes.
HKH8QL-533	Questioned impressions Q1 through Q7 were not made by the known foot wear based on a lack of corresponding size and lack of corresponding individual/accidental characteristics.

## TABLE 2

WebCode-Test	Conclusions
HU4F73-533	<p>Visual examination of questioned footwear impression Q1 through Q7 and comparison to the photos of the known shoes K1, submitted as lab item(s) # 1 and 2; as well as test impressions made of K1, submitted as lab item(s) # 3, disclosed the following: Q1 and K1 are grossly different in tread design. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q1 could not have been made by the known right of shoe K1. Q2 and K1 are different in size/shape/tread design/wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q2 could not have been made by the known right of shoe K1. Q3 and K1 are different in size/shape/tread design/wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q3 could not have been made by the known left of shoe K1. Q4 and K1 are different in shape/size/tread design/wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q4 could not have been made by the known left of shoe K1. Q5 and K1 are grossly different in tread design. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q5 could not have been made by the known right of shoe K1. Q6 and K1 are grossly different in tread design. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q6 could not have been made by the known left of shoe K1. Q7 and K1 are different in shape/size/tread design/wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q7 could not have been made by the known right of shoe K1.</p>
HU67GQ-533	<p>None of the questioned impressions were made by the submitted shoes (K1, left or right). Although the designs were similar, the known shoes (K1, left and right) were eliminated based on sufficient differences that were found either in physical size, wear and/or accidental characteristics.</p>
HW7CUC-533	<p>In the opinion of this examiner, the submitted known shoes were not the source of, and did not make, any of the submitted crime scene impressions.</p>
J2JEEL-533	<p>As a result of my examination I determined the following: Q1 The shoe print was made by a right shoe. The class characteristics of the suspect's right shoes are different from the class characteristics of the shoe print Q1. The shoe print could therefore not have been made by the suspect's shoe. Q2 The shoe print was made by a right shoe. The class characteristics of the suspect's right shoes are different from the class characteristics of the shoe print Q2. The shoe print could therefore not have been made by the suspect's shoe. Q3 The shoe print was made by a left shoe. The class characteristics of the suspect's left shoes are different from the class characteristics of the shoe print Q3. The shoe print could therefore not have been made by the suspect's shoe. Q4 The shoe print was made by a left shoe. The class characteristics of the suspect's left shoes are different from the class characteristics of the shoe print Q4. The shoe print could therefore not have been made by the suspect's shoe. Q5 The shoe print was made by a right shoe. The class characteristics of the suspect's right shoes are different from the class characteristics of the shoe print Q5. The shoe print could therefore not have been made by the suspect's shoe. Q6 The shoe print was made by a left shoe. The class characteristics of the suspect's left shoes are different from the class characteristics of the shoe print Q6. The shoe print could therefore not have been made by the suspect's shoe. Q7 The shoe print was made by a right shoe. The class characteristics of the suspect's right shoes are different from the class characteristics of the shoe print Q7. The shoe print could therefore not have been made by the suspect's shoe.</p>
J3CF7V-533	<p>Both the left and right suspect shoes were excluded from producing any of the scene marks based on differing class characteristics, wear and the non correspondence of randomly acquired characteristics.</p>
JB4UYF-534	<p>[No Conclusions Reported.]</p>
JE7LBM-533	<p>In my opinion the submitted shoes could not have made any of the impressions recovered from inside the pet store.</p>
JE99T2-533	<p>1) Footwear impressions Q1 and Q5 were made by the same right shoe, possibly manufactured</p>

TABLE 2

WebCode-Test	Conclusions
	<p>by New Balance. 2) Footwear impressions Q6 was made by a left shoe, possibly from the same pair of shoes which produced Q1 and Q5. 3) Footwear impressions Q2 and Q7 were made by a second right shoe, possibly manufactured by New Balance. 4) Footwear impressions Q3 and Q4 were made by a second left shoe, possibly manufactured by New Balance. 5) Footwear impressions Q1 and Q5 were not made by the submitted right shoe K1 based on differences in class characteristics. 6) Footwear impression Q6 was not made by the submitted left shoe K1 based on differences in class characteristics. 7) Footwear impressions Q2 and Q7 were not made by the submitted right shoe K1 based on differences in individual and wear characteristics. 8) Footwear impressions Q3 and Q4 were not made by the submitted left shoe K1 based on differences in individual and wear characteristics.</p>
JKTF4E-534	Challenge of shoes modeling, means as Q1-Q7, do not date from soles of footwear, which prints supply as comparative materials for reaserch. [sic]
JRUMRU-533	In the opinion of this examiner, the Known shoes in this case, K1, were not the source of impressions Q1 through Q7.
JX2837-533	[No Conclusions Reported.]
JYUZW4-533	None of the questioned impressions, Q1 - Q7, were made by the known shoes submitted as K1.
K46HMJ-533	Prints: Q1-Q7 were eliminated on basis wear features and differences in pattern (Q1, Q5, Q6) and additional differences in size (Q2, Q3, Q4, Q7) - comparative pair of shoes are little bit bigger (1 size) than evidence prints.
K6GC7Q-534	I analyzed the photographs of the questioned crime scene impressions Q1 - Q7 and compared the impressions to the known imprints and photographs of the submitted shoe outsoles. Results are as follows: Q1) the K1 right and left outsoles were eliminated as the source. Q2) the K1 right and left outsoles were eliminated as the source. Q3) the K1 right and left outsoles were eliminated as the source. Q4) the K1 right and left outsoles were eliminated as the source. Q5) the K1 right and left outsoles were eliminated as the source. Q6) the K1 right and left outsoles were eliminated as the source. Q7) the K1 right and left outsoles were eliminated as the source.
K7PLW3-533	The footwear impressions, Q1 through Q7, depicted in the submitted photographs were not produced by either of the shoes depicted in the submitted photographs (K1a through K1c).
KCV4RH-533	Questioned imprints Q1, Q2 and Q3 found at the front of the store did not originate from the soles of the recovered shoes. Questioned imprints Q4, Q5, Q6 and Q7 found at the back of the store did not originate from the soles of the recovered shoes.
KKBYE4-533	EXAMINATIONS: Determine whether any footwear marks present in Items Q1 through Q7 can be associated with the known pair of outsoles. FINDINGS AND OPINIONS: Questioned footwear marks Q1 through Q7 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 shoes. The following equipment was employed in the examination of the footwear marks: magnifying glass, caliper and transparencies.
KMEUX7-534	The right and left suspect shoes (K1a-K1g) have been excluded as having made the questioned impressions Q1-Q7 based on oustole[sic] pattern design, individual characteristics, and/or wear.
KMU6LD-533	The questioned footwear imprints, specimens #Q1 and #Q5, were compared to the reference imprint of the outsole from the known right shoe, #K1g. Due to differences in outsole design, the questioned imprints were not made by the known shoes, specimen #K1. Further examination revealed that #Q1 and #Q5 were produced by the same right outsole. The questioned footwear imprints, specimens #Q3 and #Q4, were compared to the reference imprint of the outsole from the known left shoe, #K1g. Due to differences in accidental characteristics, the questioned imprints were not made by the known left shoe, specimen #K1. Further examination revealed that #Q3 and #Q4 were produced by the same left outsole. The questioned footwear imprints, specimens #Q2 and #Q7, were compared to the reference imprint of the outsole from the

TABLE 2

WebCode-Test	Conclusions
	<p>known right shoe, #K1g. Due to differences in accidental characteristics, the questioned imprints were not made by the known right shoe, specimen #K1. Further examination revealed that #Q2 and #Q7 were produced by the same right outsole. The questioned footwear imprint, specimen #Q6, was compared to the reference imprint of the outsole from the known left shoes, #K1g. Due to differences in outsole design, the questioned imprint was not made by the known left shoe, specimen #K1.</p>
KT2KEA-533	<p>Q1, Q2, Q3, Q4, Q5, Q6 and Q7 do not come from shoes K1; Q1 and Q5 come from the same unknown right shoe; Q2 comes from unknown right shoe, other than Q1 and Q5; Q3 and Q4 come from the same unknown left shoe; Q6 comes from unknown left shoe, other than Q3 and Q4; Q7 comes from unknown right shoe, other than Q1 and Q5</p>
L2AJLQ-533	<p>The evidence in items 1D and 1E (CTS # Q1 through Q7) was visually examined for impression evidence. Seven (7) questioned imprints of value were determined to be present in items 1D and 1E (CTS # Q1 through Q7). All seven (7) of the questioned imprints in items 1D and 1E (CTS # Q1 through Q7) were visually examined and compared against the recovered shoes in items 1A, 1B, and 1C (CTS # K1a through K1g). All seven (7) of the questioned imprints in items 1D and 1E (CTS # Q1 through Q7) were determined not to have been made by the recovered shoes in items 1A, 1B, and 1C (CTS # K1a through K1g).</p>
L9VACR-533	<p>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 Shoes (K1) did not make the latent footwear impressions on Exhibits 4 and 5. 3. Images of the latent footwear impressions in this case will remain on file at this laboratory.</p>
LD7MR6-534	<p>After matching the images (K1a, k1b, and K1c) of the recovered shoes and the known imprints (K1d-k1g), it was found that the footwear impression match with the left shoe. After examining the questioned imprints (Q1, Q2, Q5, and Q6) it was found that there is no clear match with the recovered shoes. Hence it is eliminated (there are some differences between imprints and suspected shoes). Q3 matches with the left shoe, while the rest of the questioned imprints Q4 and Q7 match with the right shoe.</p>
LMV223-533	<p>[No Conclusions Reported.]</p>
M6NBD6-533	<p>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 K1f and K1g on transparent films and superimposed them over the photographs of questioned impressions Q1 to Q7. All of the questioned impressions labelled Q1 to Q7 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, all of the questioned impressions labelled Q1 to Q7 can be eliminated.</p>
M8DHWF-533	<p>All the seven questioned imprints (Q1 to Q7) were visual examined and compared with the imprint impression of suspect shoes. Based on the comparison of class, individual and wear characteristics of the questioned imprints and the imprint impression of suspect's shoes, all of the seven questioned imprints (Q1 to Q7) were eliminated as being made by the suspect's shoes.</p>
MBTAQF-533	<p>Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.</p>
MBXPZA-533	<p>The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 New Balance Women's size 10.5 shoes. The Item Q1 right questioned shoe impression shares a similar tread design; however, does not correspond in specific wear with the Item K1 right shoe. The Item Q2 right questioned shoe impression shares a similar tread design; however, does not correspond in specific wear with the Item K1 right shoe. The Item Q3 left questioned shoe impression shares a similar tread design; however, does not correspond in</p>

## TABLE 2

WebCode-Test	Conclusions
	<p>physical size with the Item K1 left shoe. The Item Q4 left questioned shoe impression shares a similar tread design; however, does not correspond in physical size with the Item K1 left shoe. The Item Q5 right questioned shoe impression shares a similar tread design; however, does not correspond in specific wear with the Item K1 right shoe. The Item Q6 left questioned shoe impression shares a similar tread design; however, does not correspond in specific wear with the Item K1 left shoe. The Item Q7 right questioned shoe impression shares a similar tread design; however, does not correspond in physical size with the Item K1 right shoe. Based upon the above factors, it is the opinion of this examiner that the Item Q1 through Q7 questioned shoe impressions were not made by the Item K1 shoes.</p>
MGJMNW-533	<p>Laboratory examinations were conducted and the findings of this examiner were as follows: 1. Exhibit 8 (Q1) is a full impression of a right shoe. 2. Exhibit 9 (Q2), Exhibit 12 (Q5), and exhibit 14 (Q7) are partial impressions of a right shoe. 3. Exhibit 10 (Q3) and exhibit 13 (Q6) are full impressions of a left shoe. 4. Exhibit 11 (Q4) is a partial impression of the upper sole of a left shoe. 5. None of the questioned impressions, Exhibits 8 through 14 (Q1 through Q7), were made by the submitted shoes. 6. Exhibits 8 (Q1) and 13 (Q6) were not made by the submitted shoes, due to differences in physical size and some of the design elements. 7. Exhibit 10 (Q3) is similar in design to the submitted left shoe, but differs in physical size. 8. Exhibit 9 (Q2), Exhibit 11 (Q4), and Exhibit 14 (Q7) are similar in design to the submitted shoes, but were not made by the submitted shoes due to differences in individual characteristics. 9. Exhibit 12 (Q5) has some design elements which are different from the submitted shoes. 10. Exhibit 8 (Q1) was made by the same right shoe as Exhibit 12 (Q5). 11. Exhibit 9 (Q2) was made by the same right shoe as Exhibit 14 (Q7), a different shoe from Exhibit 8 (Q1) and Exhibit 12 (Q5). 12 Exhibit 10 (Q3) was made by the same left shoe as exhibit 11 (Q4), a different shoe from Exhibit 13 (Q6).</p>
MKH3UY-533	<p>Q1 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on orientation. The submitted right "New Balance" outsole is excluded based on spacing, size, texture, and wear differences. Q2 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on orientation. The submitted right "New Balance" outsole is excluded based on spacing, size, and wear differences. Q3 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on spacing, size, and wear differences. The submitted right "New Balance" outsole is excluded based on orientation. Q4 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on spacing, size, and wear differences. The submitted right "New Balance" outsole is excluded based on orientation. Q5 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on orientation. The submitted right "New Balance" outsole is excluded based on spacing, size, texture, and wear differences. Q6 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on spacing, size, texture, and wear differences. The submitted right "New Balance" outsole is excluded based on orientation. Q7 is excluded as being made by either of the submitted "New Balance" outsoles. The submitted left "New Balance" outsole is excluded based on orientation. The submitted right "New Balance" outsole is excluded based on spacing, size, and wear differences.</p>
MLEDU9-534	<p>The footwear marks found at the scene corresponded in pattern to the pair of training shoes recovered from the suspect but showed differences in pattern arrangement and wear to the shoes. In my opinion, the pair of training shoes recovered from the suspect can be excluded from having made the footwear marks found at the scene.</p>
MNKU87-533	<p>In the items Q1-Q3, Q4-Q7 existing footwear marks don't correspond with wear characteristic/size/pattern [sic] the recovered shoes/known imprints of the items K1a, K1b-K1c, K1d-K1g. The footwear marks in the items Q1-Q7 haven't been left by the shoes in the items K1a, K1b-K1c.</p>
MZ9ZZZ-533	<p>The questioned and known impressions were compared visually and with the aid of</p>

TABLE 2

WebCode-Test	Conclusions
	<p>transparencies. Significant differences in wear and size were observed between the known shoes and the questioned impressions. The shoes represented in the submitted images are, therefore, eliminated as a possible source of any of the questioned impressions.</p>
N2MUCU-533	<p>Item 8. 8.1 One shoe impression labeled "Q1, from the front of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 8.1, the shoe impression labeled "Q1, from the front of the store", to the suspect's right 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 item 8.1. 8.2 One partial shoe impression labeled "Q2, from the front of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 8.2, the partial shoe impression labeled "Q2, from the front of the store", to the suspect's right 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 item 8.2. 8.3 One shoe impression labeled "Q3, from the front of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 8.3, the shoe impression labeled "Q3, from the front of the store", to 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 item 8.3. Item 9. 9.1 One partial shoe impression labeled "Q4, from the back of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.1, the partial shoe impression labeled "Q4, from the back of the store", to 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 item 9.1. 9.2 One partial shoe impression labeled "Q5, from the back of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.2, the partial shoe impression labeled "Q5, from the back of the store", to the suspect's right 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 item 9.2. 9.3 One shoe impression labeled "Q6, from the back of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.3, the shoe impression labeled "Q6, from the back of the store", to 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 item 9.3. 9.4 One partial shoe impression labeled "Q7, from the back of the store". Examined visually and with 1 to 1 photographic overlays. Comparison of item 9.4, the partial shoe impression labeled "Q7, from the back of the store", to the suspect's right 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 item 9.4.</p>
N49CWZ-533	<p>The impression Q1 was not made by the subject's right or left outsole, K1a - K1c. The impression Q2 was not made by the subject's right or left outsole, K1a - K1c. The impression Q3 was not made by the subject's right or left outsole, K1a - K1c. The impression Q4 was not made by the subject's right or left outsole K1a - K1c. The impression Q5 was not made by the subjects right or left outsole K1a - K1c. The impression Q6 was not made by the subjects right or left outsole, K1a - K1c. The impression Q7 was not made by the subjects right or left outsole, K1a - K1c.</p>
N8QQ3L-533	<p>The photographs depicting partial footwear impressions Q1-Q7 were compared to Items K1a - K1g. Items K1a - K1g were excluded to Items Q1 - Q7 due to sufficient differences, noted in the comparison, of randomly acquired characteristics between the questions[sic] impressions (Q1 - Q7) and the known footwear impressions (k1a - K1g).</p>
NACDUA-533	<p>While the pattern of the submitted shoes corresponded to the marks, in all cases, the pattern arrangement, level of wear and/or damage features differed between the marks and shoes and vice versa. In my opinion the shoes submitted can be eliminated from having made the marks at the time of the offence. In my opinion Q3 and Q4 were made by the same shoe due to correspondance[sic] of wear and damage features within the marks.</p>
NF4HRJ-533	<p>The partial footwear impressions identified as Exhibits Q1 through Q7 each have a similar tread design to the K1 shoes; however they exhibit differences in wear, accidental characteristics and/or</p>

TABLE 2

WebCode-Test	Conclusions
	alignment of the tread elements. Accordingly, none of the submitted impressions were made by the K1 shoes.
NFJ2AW-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 and left shoe of Exhibits 1 through 3 were excluded as the source of any of the latent footwear impressions on Exhibits 4 and 5. 3. Images of the latent footwear impressions in this case will remain on file at this laboratory.
NFNE2Y-534	Q1 - Eliminated. Different pattern design, (shapes and circles in the heel area of the outsole). Q2 - Eliminated. Different pattern design, (inscription in stud (Noniouce ??) not replicated in stud of known shoe). Q3 - Eliminated. Different pattern design in toe sole (elongated quadrilateral[sic] stud not replicated in known shoe). Q4 - Eliminated. Different pattern design in toe sole (elongated quadrilateral[sic] stud not replicated in known shoe). Q5 - Eliminated. Different pattern design in the heel region to the known shoe. Q6 - Eliminated. Different pattern design in mid sole region to known shoe. Q7 - Eliminated. RAC (Randomly Aquired[sic] Characteristic) on scene mark not replicated on known shoe and different sizing. Conclusion: Sufficient differences were noted in the comparison between characteristics in the questioned impressions (shoe marks Q1 to Q7), to the known footwear. It is the opinion of the examiner, that the known foot wear was not the source of and did not make the scene impressions.
NKFQVA-533	In the opinion of the examiner, the known footwear (K1) was not the source of, and did not make, the impressions. (Q1-Q7)
NNGV6B-534	See attached. [No attachment received.]
NWUNZD-533	The known impressions of the K1 shoes were compared to the Q1 - Q7 questioned impressions. Differences of class, wear and individual characteristics confirmed the Q1 - Q7 impressions had not been made by the K1 shoes.
NZPGT9-533	Q1 - The circle impressions on the scene differs from the ones on the scene.[sic] Q2 - Inconclusive - There are many characteristics on the heel in question two, however the word New Balance appears on the scene print and is not visible on the shoe print. Q3 - Wear and tear nearly the same - difference in circles. Q4 - Wear and tear not the same. Q5 - Heel not the same. Q6 - Heel not the same.
P2GY7T-533	Comparison of Q1, Q2, and Q3, the shoe impressions labeled "found in the front of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination. Comparison of Q4, Q5, Q6, and Q7, the shoe impressions labeled "found in the back of the store", to the suspect's right shoe and the suspect's left shoe did not reveal similar wear patterns or corresponding individualizing characteristics. Elimination.
P8PZRX-533	Upon visual examination of questioned footwear impressions Q1 through Q7 and comparison to the known right and left shoes K1, as well as test impressions made by K1, the following was observed: A) Q1 and K1 (right) are different with respect to tread design, wear, and location of individual characteristics. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q1 could not have been made by the known right shoe K1. B) Q2 and K1 (right) are different with respect to wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q2 could not have been made by the known right shoe K1. C) Q3 and K1 (left) are different with respect to wear and location of individual characteristics. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q3 could not have been made by the known left shoe K1. D) Q4 and K1 (left) are different with respect to wear and location of individual characteristics. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q4 could not have been made by the known left shoe K1. E) Q5 and K1 (right) are different with respect to tread design and wear. Therefore, it is the opinion

## TABLE 2

WebCode-Test	Conclusions
PELZXD-533	<p>of the undersigned that the questioned footwear impression Q5 could not have been made by the known right shoe K1. F) Q6 and K1 (left) are different with respect to tread design, wear, and location of individual characteristics. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q6 could not have been made by the known left shoe K1. G) Q7 and K1 (right) are different with respect to size, wear, and location of individual characteristics. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q7 could not have been made by the known right shoe K1.</p> <p>The suspects' shoes have a different wear than observed in all the imprints found on the crime scene. There is also several specific damages in the sole of the suspects shoes that can't be observed in any of the imprints from the crime scene. However since there is no information on the time-line between the crime and the recovery of the shoes one cannot be absolutely certain that some of the crime scene imprints haven't been made by the suspects shoes, but it is highly unlikely.</p>
PFHG7T-534	<p>Four (4) right footwear impressions noted in Exhibits Q1, Q2, Q5 and Q7 were not made by the shoes in Exhibit K1a based on differences in wear. Three (3) left footwear impressions noted in Exhibits Q3, Q4 and Q6 were not made by the shoes in Exhibit K1a based on differences in wear and size (Q3 only).</p>
PRUTFG-534	<p>Seven footwear impressions were found in item Q (Q1, Q2, Q3, Q4, Q5, Q6, and Q7). The seven footwear impressions from item Q (Q1, Q2, Q3, Q4, Q5, Q6, and Q7) were compared to item K. Three footwear impressions from item Q (Q3, Q4, and Q6) were excluded from Item K. The three footwear impressions were opposite in tread design as the right shoe in item K. The three footwear impressions from item Q (Q3, Q4, and Q6) were excluded from having been made by the left shoe in Item K. The footwear impressions were similar in shape and tread design as the left shoe in Item K; however, the impressions did not have replicated individual characteristics in agreement. Four footwear impressions from item Q (Q1, Q2, Q5 and Q7) were excluded from item K. The four footwear impressions were opposite in tread design as the left shoe in item K. The four footwear impressions from Item Q (Q1, Q2, Q5, and Q7) were excluded from having been made by the right shoe in Item K. The footwear impressions were similar in shape as the left[sic] shoe in Item K; however, the impressions did not have replicated individual characteristics in agreement and/or different in tread design.</p>
Q4MJUU-533	<p>Visual examination of lab items 1 through 5 disclosed the following: Lab item 1: One photograph of the left and right known shoes, designated K1A. Lab item 2: Two photographs of the left and right known shoes, designated K1B and K1C. Lab item 3: Four photographs of test impressions made from the left and right known shoes, designated K1D through K1G. Lab item 4: One photograph depicting three questioned impressions, designated Q1 through Q3. Lab item 5: One photograph depicting four questioned footwear impressions, designated Q4 through Q7. The recovered left and right known shoes were designated K1L and K1R. Upon visual examination of questioned footwear impressions Q1 through Q7 and comparison to photographs and test impressions (K1A through K1G) of the known left and right shoes (K1L/R), the following was observed: A) Q1 and K1R are different in size and tread design. It is the opinion of the undersigned that questioned footwear impression Q1 could not have been made by the known footwear submitted. B) Q2 and K1R are different in size and wear. It is the opinion of the undersigned that footwear impression Q2 could not have been made by the known footwear submitted. C) Q3 and K1L are different in size and wear. It is the opinion of the undersigned that footwear impression Q3 could not have been made by the known footwear submitted. D) Q4 and K1L are different in size and wear. It is the opinion of the undersigned that footwear impression Q4 could not have been made by the known footwear submitted. E) Q5 and K1R are different in size, wear and tread design. It is the opinion of the undersigned that footwear impression Q5 could not have been made by the known footwear submitted. F) Q6 and K1L are different in size, wear and tread design. It is the opinion of the undersigned that footwear impression Q6 could not have been made by the known footwear submitted. G) Q7 and K1R are different in size and wear. It is the opinion of the undersigned that footwear impression Q7 could not have been made by the known footwear submitted.</p>

## TABLE 2

WebCode-Test	Conclusions
Q6XG36-533	[No Conclusions Reported.]
Q9RFDU-533	Visual examination of questioned footwear impressions Q1 through Q7 and comparison to the known right and left athletic shoes (K1-R and K1-L, respectively), (as well as test impressions made by the known left and right athletic shoes) revealed the following: (Q1) Questioned footwear impression, Q1 and the known right athletic shoe, K1R, are different in tread design, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q1 could not have been made by the known right or left athletic shoes. (Q2) Questioned footwear impression, Q2 and the known right athletic shoe, K1R, are different in tread design. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q2 could not have been made by the known right or left athletic shoes. (Q3) Questioned footwear impression, Q3 and the known left athletic shoe, K1L, are different in size, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q3 could not have been made by the known right or left athletic shoes. (Q4) Questioned footwear impression, Q4 and the known left athletic shoe, K1L, are different in size, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q4 could not have been made by the known left or right athletic shoes. (Q5) Questioned footwear impression, Q5 and the known right athletic shoe, K1R, are different in tread design, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q5 could not have been made by the known right or left athletic shoes. (Q6) Questioned footwear impression, Q6 and the known left athletic shoe, K1L, are different in size, tread design, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q6 could not have been made by the known left or right athletic shoes. (Q7) Questioned footwear impression, Q7 and the known right athletic shoe, K1R, are different in size, and wear pattern. Therefore, it is the opinion of the undersigned that the questioned footwear impression Q7 could not have been made by the known right or left athletic shoes.
QDAQGP-533	The results of the examination extremely strongly support that the imprints Q1, Q5 and Q6 were not made with the shoes K1 (Level -4). The results of the examination strongly support that the imprints Q3, Q4 and Q7 were not made with the shoes K1 (Level -3). The results of the examination support that the imprint Q2 was not made with the shoes K1 (Level -2).
QJCRQR-533	[No Conclusions Reported.]
QKQ3UQ-534	None of the questioned imprints items Q1-Q7 were made by either of the shoes photographed in items K1a-K1c.
QPK932-534	[No Conclusions Reported.]
QVAL4P-534	Impressions Q1 through Q7 were excluded as having been made by the shoes in Item K1.
QYN774-533	The questioned prints Q1, Q2, Q3, Q4, Q5, Q6 and Q7 showed differences in details, wear and size. Therefore they could not have been made by the suspect's shoes K1.
QYUF6V-534	It is the opinion of the examiner that the tracks depicted in Laboratory Item 001.B questioned imprints Q1, Q2, Q3 and Laboratory item 001.C questioned imprints Q4, Q5, Q6, Q7 were not made by Laboratory Item 001.A recovered left and right New Balance brand shoes.
R3QE3R-533	The submitted known shoes were not the source of, and did not make, any of the 7 questioned impressions. All of the questioned impressions displayed similar design characteristics with the known shoes; however all displayed a significant difference in wear characteristics when compared to the wear characteristics on the known shoes. In addition, there were slight size differences between the shoes and several of the questioned impressions (most notably with the Q3 questioned impression).
R8WC2X-533	None of the prints at the crime scene were made by the recovered shoes. If shoes with sole patterns similar to the known shoes or the questioned prints are recovered, they should be

TABLE 2

WebCode-Test	Conclusions
	submitted to this laboratory for examination.
R9Q8KZ-533	Q1 - Q7 could not have been made by the known shoes (K1a-K1g).
RA6CHX-533	Footwear impressions Q1, Q5 and Q6 are different than the outsole design on the K1 shoes. Therefore, the K1 shoes were eliminated as the source of these footwear impressions. Footwear impressions Q1, Q5 and Q6 most closely correspond to laboratory reference materials for a New Balance 680 v2 shoe. Refer to Figure 1 for an image of the outsole of this shoe. For a comprehensive list of New Balance footwear models that contain this outsole design or for other marketing information (e.g., places sold, distribution, number produced/sold, styles, etc.), please contact New Balance. Footwear impressions Q2, Q3, Q4 and Q7 correspond to the K1 shoes in outsole design. However, differences were observed between these footwear impressions and the K1 shoes, including: physical size and wear. Therefore, the K1 shoes were eliminated as the source of these footwear impressions.
RD8978-533	[No Conclusions Reported.]
REJXHW-533	The soles of the recovered shoes do not correspond to the questioned impressions Q1 - Q7.
RN7WBN-533	Q1 - Q7 could not have been made by K1.
RNPUB3-533	[No Conclusions Reported.]
RQ7AKU-534	In the opinion of the examiner, the shoe tracks depicted in Laboratory Item 001.B, questioned imprints Q1, Q2, Q3, were not made by Laboratory Item 001.A recovered pair of New Balance women's size 10.5 athletic shoes, K1a. There were differences in the discernible class and/or individual characteristics. In the opinion of the examiner, the shoe tracks depicted in Laboratory Item 001.C, questioned imprints Q4, Q5, Q6, Q7, were not made by Laboratory Item 001.A recovered pair of New Balance women's size 10.5 athletic shoes, K1a. There were differences in the discernible class and/or individual characteristics.
RXR8AG-533	ALL IMPRESSIONS WERE COMPARED WITH THE EXEMPLARS AND PHOTOGRAPHS PROVIDED. THERE WERE INDICATIONS OF NON-ASSOCIATION FOUND IN ALL IMPRESSIONS. CLEAR INDIVIDUALIZING DETAILS IN THE IMPRESSIONS AND SHOES DID NOT CORRESPOND. THE SHOES WERE EXCLUDED AS THE SOURCE OF ALL IMPRESSIONS. (Q1-Q7)
RXUUQV-533	None of the impressions from the scene (Items Q1 - Q7) were made by the suspect's shoes (Item K1a). The four right shoe impressions (Items Q1, Q2, Q5 and Q7) were made by a minimum of three shoes. Impressions Q1 and Q5 could not be identified or eliminated as being made by the same shoe. Impressions Q2 and Q7 were made by two different shoes. The three left shoe impressions (Items Q3, Q4, and Q6) were made by two different shoes. Impressions Q3 and Q4 were made by the same shoe.
RYMTZM-533	Q-1 was not made by K-1 (right or left) shoe. Q-2 was not made by K-1 (right or left) shoe. Q-3 was not made by K-1 (right or left) shoe. Q-4 was not made by K-1 (right or left) shoe. Q-5 was not made by K-1 (right or left) shoe. Q-6 was not made by K-1 (right or left) shoe. Q-7 was not made by K-1 (right or left) shoe.
TF8W6U-533	Examination revealed the presence of seven suitable patterned impressions depicted in two photographs (impressions designated Q1 through Q7). Comparison revealed that none of the suitable patterned impressions Q1 through Q7 could have been made by the shoes depicted in the photographs K1a through K1g due to significant differences in class characteristics and/or general wear characteristics.
TMLPAX-533	[No Conclusions Reported.]
TRVZ4D-533	It was determined that the impressions depicted in the Q-1, Q-2, Q-3, Q-4, Q-5, Q-6 & Q-7 imprints were not made by either the left or the right K-1 shoe.

## TABLE 2

WebCode-Test	Conclusions
TTERFJ-533	The evidence in items 1D and 1E was visually examined for impression evidence. Seven (7) partial footwear impressions of value were determined to be present in Items 1D (Q1, Q2, and Q3) and 1E (Q4, Q5, Q6, and Q7). All the partial footwear impressions (Q1 - Q7) in items 1D and 1E were visually examined and compared to the recovered shoes (K1a - K1g) in items 1A, 1B, and 1C. The seven (7) partial footwear impressions (Q1 - Q7) present in items 1D and 1E were determined not to have been made by the recovered shoes (K1a - K1g) in items 1A, 1B, and 1C.
TWCAFW-533	It was determined that the impressions Q-1 - Q-7 were not made by the submitted shoes, K-1.
U4WLCX-534	Q-IMP1(Q1) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP2(Q2) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP3(Q3) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP4(Q4) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP5(Q5) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP6(Q6) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. Q-IMP7(Q7) - Items K1-Right and K1-Left are excluded as the source of the impression based on differences in outsole patter design. [sic]
U8NW23-533	Outsole impressions made from the recovered 'New Balance' shoes (K1) were compared with the impressions Q1 to Q7 found at the pet store. I found that the recovered shoes were excluded from having made the impressions Q1 to Q7.
U9GRK6-534	The recovered shoes shown in photographs K1a - K1c have been eliminated from making the questioned imprints Q1 - Q7. The tread pattern of the questioned imprints Q1 - Q7 corresponds with the recovered shoes; however the following discrepancies have been noted: Q1, Q5 and Q6 cannot be eliminated on size difference alone; however there seems to be a discrepancy in the pattern alignment. The questioned imprints appear to show less wear. In addition to this, there seems to be features on the recovered shoes that have not been replicated in the questioned imprints and vice versa. Q2 cannot be eliminated on size difference alone; however there seems to be a discrepancy in the pattern alignment. Q3, Q4 and Q7 appear to have been made by smaller sized footwear. The degree and distribution of wear shown in Q2, Q3, Q4 and Q7 seems to be different. Furthermore, there appears to be features on the recovered shoes that have not been replicated in the questioned imprints Q2, Q3, Q4 and Q7 and vice versa.
UB7CBU-533	Impressions Q1, Q2, Q3, Q4, Q5, Q6, and Q7 were eliminated as having been made by the suspect's shoes.
UDDKNL-533	Seven shoe impressions located at scene, Q1 to Q3 on textured ceramic tiles at the front of the store and Q4 to Q7 on smooth tiles at the rear. Scene impressions Q1, Q2, Q5 & Q6 were not made by the suspects shoes although Q1 and Q6 appear to have been made by another type of same shoe. Scene impressions Q3 and Q4 appear to have been made by the same shoe and have not been eliminated from having been made by the suspect shoe - it is possible something was stuck to the toe of the shoe prior to it being washed (this being the main difference between the scene impression and impression made by the suspect shoe.) Q7 was made by the suspect right shoe.
UX9T8P-533	Neither the left suspect shoe, nor the right suspect shoe made any on[sic] the imprints Q1 through Q7.
UX9WWU-533	The partial shoe marks labelled (Q1), (Q5) and (Q6) displayed different sole pattern designs to the sole pattern of the New Balance brand shoes submitted as Item X. As such, the shoes were eliminated as having produced these marks. (Exclusion). The characteristics observed in the partial shoe marks labelled (Q2) and (Q7) corresponded with the test marks provided of the right New Balance brand shoe submitted as Item X, however, sufficient differences were noted in the comparison between the test marks and the questioned marks, including wear and randomly acquired characteristics. As such, the shoes were eliminated as having produced the marks.

## TABLE 2

WebCode-Test	Conclusions
	(Exclusion). The characteristics observed in the partial shoe marks labelled (Q3) and (Q4) corresponded with the test marks provided of the left New Balance brand shoe submitted as Item X, however, sufficient differences were noted in the comparison between the test marks and the questioned marks, including wear and randomly acquired characteristics. As such, the shoes were eliminated as having produced the marks. (Exclusion).
V4QQ7W-533	Seven questioned partial outsole impressions (Q1-Q7) were observed on a textured ceramic tile. All of these impressions can be eliminated as originating from the known New Balance women's size 10.5 shoes as observed in images(K1a-K1g).
V7RWL3-533	The Item Q1, Q2, Q3, Q4, Q5, Q6, and Q7 footwear impression(s) are of a different tread design or size than the Item K1 footwear. Therefore, these questioned impression(s) were not made by the Item K1 footwear. Item Q1 and Q5 were made by right shoes and differed from the K1 footwear in tread pattern/design. The Item Q2 impression was made by a right shoe and differed from the K1 footwear in design and placement of "New Balance" logo. The Item Q3, Q4, and Q6 impressions were left shoes and differed from the K1 footwear in tread design. The Item Q6 also differed from the Item K1 footwear in size. The Item Q7 impression was made by a right shoe and differed from the Item K1 footwear in size. The Item Q1 footwear impression was made by the same right shoe as the Item Q5 impression. The Item Q3 footwear impression was made by the same left shoe as the Item Q4 impression.
VAAXLG-533	The evidence was examined and compared. Impression Q1 consists of a nearly full footwear impression. Q1 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q1. Impression Q2 consists of a partial footwear impression apparently created by the heel area of a shoe. Q1[sic] does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q2. Impression Q3 consists of a nearly full footwear impression. Q3 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q3. Impression Q4 consists of a partial footwear impression created by the ball and toe area of a shoe. Q4 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q4. Impression Q5 consists of a partial footwear impression created primarily by the heel area of a shoe. Q5 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q5. Impression Q6 consists of a nearly full footwear impression. Q6 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q6. Impression Q7 consists of partial footwear impression created by the ball area of the shoe. Q7 does not match the known shoes depicted in images K1a through K1g, therefore these shoes are eliminated as the source of the impression on item Q7.
VB9EMK-533	There are sufficient differences in outsole design (#Q2), physical size (#Q3, #Q4, and #Q7) and degree of wear (#Q1, #Q5 and #Q6) between the questioned impressions and the known footwear to state that in my opinion, the known footwear (#K1) was not the source, and did not make, any of the questioned impressions (#Q1 - #Q7). The known footwear (#K1) is therefore excluded as a possible source of the questioned impressions (#Q1 - #Q7).
VGAFWM-534	THE QUESTIONED IMPRINTS Q1, Q3, Q5 Y Q6 HAVE DIFFERENT SOLE DESIGN. THE QUESTIONED IMPRINT Q2 HAS MORE WEAR THAN KNOWN IMPRINT. Q4 DOES NOT HAVE THE SAME CHARACTERISTIC SIGNALS THAN KNOWN IMPRINT. Q7 BESIDES HAVING DIFFERENT SIZES, IT DOES NOT HAVE SAME CHARACTERISTIC SIGNALS THAN KNOWN IMPRINT. [sic]
VHL8VV-533	The footwear imprints labeled Q1 – Q7 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.

## TABLE 2

WebCode-Test	Conclusions
VHN2BU-534	Q1- It is the opinion of the undersigned examiners that Q1 is of a different outsole design than the Known right shoe. Q1 was not made by the Known right shoe. Q2- It is the opinion of the undersigned examiners that Q2 does not correspond in physical size and wear characteristics with the Known right shoe. Q2 was not made by the Known right shoe. Q3- It is the opinion of the undersigned examiners that Q3 does not correspond in physical size and wear characteristics with the Known left shoe. Q3 was not made by the Known left shoe. Q4- It is the opinion of the undersigned examiners that Q4 does not correspond in physical size and wear characteristics with the Known left shoe. Q4 was not made by the Known left shoe. Q5- It is the opinion of the undersigned examiners that Q5 is of a different outsole design, physical size and wear characteristics than the Known right shoe. Q5 was not made by the Known right shoe. Q6- It is the opinion of the undersigned examiners that Q6 is of a different outsole design than the Known left shoe. Q6 was not made by the Known left shoe. Q7- It is the opinion of the undersigned examiners that Q7 does not correspond in physical size and wear characteristics than[sic] the Known right shoe. Q7 was not made by the Known right shoe.
VJ2CQM-533	Q1, Q2, Q5, and Q7 were not made by the submitted right New Balance shoe based on differences in class characteristics. Q1 and Q5 were made by a second right shoe with a similar outsole design as the submitted right New Balance shoe. Q2 and Q7 were made by a third right shoe with a similar outsole design as the submitted right New Balance shoe. Q3, Q4, and Q6 were not made by the submitted left New Balance shoe based on differences in class characteristics. Q3 and Q4 were made by a second left shoe with a similar outsole design as the submitted left New Balance shoe. Q6 was made by a third left shoe with a similar outsole design as the submitted left New Balance shoe.
VQJUX3-534	The known footwear (recovered shoes - manufactured by New Balance, women's size 10.5 were not the source of, and did not make questioned impressions Q1-Q7.
VRB277-533	Seven (7) questioned footwear impressions were noted on Items Q1 through Q7. The questioned footwear impressions were compared to the known pair of shoes submitted as K1 and were eliminated as having been made by those shoes.
VREGKR-534	Neither suspect shoe (depicted in the images K1a, K1b & K1c) made any of the impressions Q1 to Q7.
VRUNJV-533	The impressions labeled Q1, Q5, and Q6 are a different design than the K1 shoes. Therefore, the K1 shoes are eliminated as the source of these impressions. The aforementioned impressions most closely correspond with laboratory reference materials for a New Balance "680" shoe. Descriptive information relevant to this shoe is enclosed herewith. For a comprehensive list of New Balance shoe models that have this outsole design or for other marketing information (e.g. where sold, how many made, etc.) contact New Balance. The impressions labeled Q2, Q3, Q4, and Q7 are similar in design to the K1 shoes. However, differences were observed between the size, spacing, and wear 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.
VV9J4Y-533	Q1: Right FWM eliminated on size, config and wear. Q2: Right FWM eliminated on wear. Q3: Left FWM eliminated on size, config and wear. Q4: Left FWM eliminated on size, config and wear. Q5: Right FWM eliminated on size, config and wear. Q6: Left FWM eliminated on size, config and wear. Q7: Right FWM eliminated on size, config and wear.
VVTEN-533	Visual examination and comparison of three of the questioned impressions (Q1, Q5 and Q6) with the shoes (item K1) reveals they are dissimilar with respect to tread design (stippling texture). Therefore, it is concluded that the shoes did not make the questioned impressions. Visual examination and comparison of one of the questioned impressions (Q2) with the shoes (item K1) reveals they are dissimilar with respect to an unexplainable condition of wear. Therefore, it is concluded that the shoes did not make the questioned impressions. Visual examination and comparison of three of the questioned impressions (Q3, Q4 and Q7) with the shoes (item K1)

TABLE 2

WebCode-Test	Conclusions
	reveals they are dissimilar with respect to physical dimension. Therefore, it is concluded that the shoes did not make the questioned impressions.
VW7N6L-533	Q1 - Q7 could not have been made by K1.
W77HTJ-533	The questioned impressions Q1 through Q7 were not made by the shoes in K1.
WA8LMR-533	A visual comparison was conducted between the photographs of the suspect shoes (Items K1a, K1b and K1c), test impressions of the suspect shoes (Items K1d, K1e, K1f and K1g) and the questioned partial footwear impressions Q1 through Q7 (Items Q1-Q3 and Q4-Q7). The suspect shoes were eliminated based upon tread design and wear as having made impressions Q1, Q5 and Q6 (Elimination/Exclusion non-association). The right suspect shoe was eliminated based upon wear as having made impression Q2 (Elimination/Exclusion non-association). The left suspect shoe was eliminated based upon physical size and wear as having made impressions Q3 and Q4 (Elimination/Exclusion non-association). The right suspect shoe was eliminated based upon physical size as having made impression Q7 (Elimination/Exclusion non-association). A shoeprint image capture and retrieval (SICAR) computer search was conducted on the questioned impressions Q1 and Q6 and the suspect shoes. The SICAR results for impressions Q1 and Q6 included the New Balance W680 and M680 shoes. The SICAR results for the suspect shoes were the New Balance M860 shoes. Other shoes with a similar tread design may exist, please do not limit your search to only those provided above.
WD9PA8-533	The known footwear depicted in images marked K1a through K1c in exhibit IIEP was not the source of, and did not make, the questioned impressions Q1, Q2, Q3, Q4, Q5, Q6 and Q7 depicted in images present in exhibit IIEP. Images of the unidentified questioned impressions depicted in images in exhibit IIEP have been retained in our files in the event that future comparisons are requested.
WEKQUK-533	1. Impressions Q1 through Q7 were not made by the submitted pair of New Balance shoes, size 10 1/2 based on differences in class characteristics. 2. Impressions Q3 and Q4 were made by a second left shoe, possibly a New Balance athletic shoe. 3. Q6 was made by a third left shoe, possibly a New Balance athletic shoe. 4. Impressions Q1 and Q5 could have been made by a second right shoe based on similarities in class and individual characteristics; however a lack of detail precludes a more conclusive determination. 5. Impressions Q2 and Q7 could have been made by a third right shoe based on similarities in class and individual characteristics; however a lack of detail precludes a more conclusive determination.
WFVB3V-533	[No Conclusions Reported.]
WGTGJP-533	[No Conclusions Reported.]
WL238L-533	Impressions Q1 through Q7 were not made by the submitted New Balance shoes. Impressions Q1 and Q5 were made by a second right shoe. Impressions Q2 and Q7 were made by a third right shoe. Impressions Q3 and Q4 were made by a second left shoe of similar size and design as the right shoe that made Impressions Q2 and Q7. Impression Q6 was made by a third left shoe of similar size and design as the right shoe that made impressions Q1 and Q5. Suspect shoes for impressions Q1 through Q7 include New Balance athletic shoes; however, any suspect shoes should be submitted for analysis.
WLYEQ9-533	The shoes recovered, manufactured by New Balance (Size 10.5) were not used to make the imprints identified as Q1, Q2, Q3, Q4, Q5, Q6 and Q7.
WPXV2G-533	[No Conclusions Reported.]
WQAK9Z-533	The Item Q1 through Q7 questioned shoe impressions were analyzed, compared and evaluated with the Item K1 New Balance, women's size 10.5, shoes. The Item Q1 questioned shoe impression shares a similar tread design with the Item K1 right shoe. However, the Item Q1 questioned shoe impression does not correspond in specific wear and stippling with the Item K1

TABLE 2

WebCode-Test	Conclusions
	<p>right shoe. The Item Q2 questioned shoe impression shares a similar tread design with the Item K1 right shoe. However, the Item Q2 questioned shoe impression does not correspond in specific wear with the Item K1 right shoe. The Item Q3 questioned shoe impression shares a similar tread design with the Item K1 left shoe. However, the Item Q3 questioned shoe impression does not correspond in physical size with the Item K1 left shoe. The Item Q4 questioned shoe impression shares a similar tread design with the Item K1 left shoe. However, the Item Q4 questioned shoe impression does not correspond in physical size with the Item K1 left shoe. The Item Q5 questioned shoe impression shares a similar tread design with the Item K1 right shoe. However, the Item Q5 questioned shoe impression does not correspond in specific wear and stippling with the Item K1 right shoe. The Item Q6 questioned shoe impression shares a similar tread design with the Item K1 left shoe. However, the Item Q6 questioned shoe impression does not correspond in specific wear and stippling with the Item K1 left shoe. The Item Q7 questioned shoe impression shares a similar tread design with the Item K1 right shoe. However, the Item Q7 questioned shoe impression does not correspond in physical size with the Item K1 right shoe. Based upon the above factors, it is the opinion of this examiner that: The Items Q1 through Q7 were not made by the Item K1 left or right shoes.</p>
WVRPZ4-533	<p>An examination and comparison of questioned impressions Q1-Q7 indicates the known footwear are not the source for impressions Q1-Q7. The known footwear do correspond to the scene impressions in outsole pattern and in physical size. They also correspond in the noticeable wear patterns on the left and right toe areas. But specific accidental characteristics present in the Questioned impression and specific general wear are not consistent with the known footwear. Also the general wear shown in the known impressions is not what would be expected with the same shoes causing both the scene impressions and the known exemplars with the footwear being seized so close in time following the deposition of the scene questioned impressions.</p>
X4E76X-533	<p>The shoes impression of the employee of the neighboring store was eliminated from the shoes impression found or collected at the crime scene as they did not match in terms of characteristics as the crime scene shoe impressions has more detailed characteristics than than the shoe impression from the employee of the neighboring store. NB the shoes from the employee was collected the next day after the crime was committed, therefore so much difference in characteristics details was not expected. [sic]</p>
X6VZ8T-533	<p>None of the questioned impressions were made by the submitted pair of womens New Balance shoes, size 10.5. Impressions Q1 and Q5 were made by a second right shoe of similar design to the submitted New Balance shoes. Impressions Q3 and Q4 were made by a second left shoe of similar design to the submitted New Balance shoes. Impressions Q2 and Q7 were made by third right shoe of similar design to the submitted New Balance shoes. Impression Q6 is from a third left shoe of similar design to the submitted New Balance shoes.</p>
XA6DTX-533	<p>Examination and comparison of the known pair of shoes represented by the Exhibit 1 photographs (K1a-K1g) to the Exhibit 2-3 questioned impressions (Q1-Q7) revealed the following: Q1, Q2, Q5 and Q7 (right shoes), and Q3, Q4, and Q6 (left shoes) were made by shoes of a similar outsole design as the known pair of shoes in Exhibit 1. However, these impressions were different in physical size and general wear to the known shoes. Both shoes in Exhibit 1 were eliminated as a possible source of these impressions.</p>
XCA7LB-533	<p>Q1 through Q7 were not made by K1. There were differences in size, wear and/or some tread designs[sic] elements to eliminate the questioned impressions.</p>
XDJV6M-533	<p>Examination of the submitted photographs in Items #4 and #5 revealed the presence of seven questioned footwear impressions (labeled Q1-Q7) registered on tile floor. These impressions consisted of two different tread designs. Comparison of the questioned impressions with the known "New Balance" brand shoes depicted in the photographs in Items #1-#3 (K1a-K1g) using visual and overlay techniques revealed the following: Three impressions (Q1, Q5, and Q6) exhibited distinct differences in tread design, tread size, and wear characteristics from the known shoes. Four impressions (Q2, Q3, Q4, and Q7) exhibited distinct differences in tread size, wear</p>

TABLE 2

WebCode-Test	Conclusions
	characteristics, and individual characteristics from the known shoes. Based on the above findings, the questioned impressions in Items #4 and #5 (Q1-Q7) were not made by the known shoes depicted in Items #1-#3 (K1a-K1g).
XJTFCW-533	Examination and comparison of the photographs containing the questioned footwear imprints, Q1-Q7, to the submitted shoes specimen K1, revealed that the questioned imprints were not made by the submitted shoes, specimen K1, due to differences in outsole design and/or accidental characteristics. Further examination revealed the following: Footwear imprints Q1 and Q5 were produced by the same right outsole. Footwear imprints Q3 and Q4 were produced by the same left outsole. Footwear imprints Q2 and Q7 were produced by the same right outsole.
XQQ228-533	The Questioned shoe imprints marked as Exhibits Q1 - Q7 when compared to the Known Suspect outsoles marked as Exhibits K1a - K1g revealed similar class characteristics; however different size, wear pattern or individual characteristics were observed. Therefore, in the opinion of this examiner, the Suspect Known outsoles marked as Exhibits K1a - K1g are excluded from having made the questioned imprints marked as Exhibits Q1 - Q7.
Y6QZQP-533	The suspect shoes (K1) were not the source of Q1-Q7, and can be eliminated from consideration as being the source of any of the questioned impressions.
YDHFD9-533	The test impressions of the one (1) pair of New Balance athletic shoes size 10.5 are excluded as the source of the shoe prints labeled as Q1 through Q7.
YFNZ29-533	The photographs of the questioned imprints labeled Q1 through Q7 were compared with the photographs of the known shoes and the imprints made from the known shoes. Imprints Q1 through Q7 were dissimilar in wear and/or accidental characteristics from the known shoes in Exhibit K1 and therefore were not made by the shoes in Exhibit K1.
YNY698-533	Q1-6 Shoe imprints (unknown impression) excluded based on differences noted in class and randomly acquired characteristics of recovered shoes. Q7 Store Imprint (unknown impression) identified as being made by right shoe (known recovered shoes) based on sufficient quantity, quality class and randomly acquired characteristics to the exclusion of all other shoes.
YRD62R-533	Examination of the submitted items disclosed the presence of (7) seven questioned footwear impressions, designated as Q1 through Q7. Examination & comparison of Q1 through Q7 included the following results and conclusions: Q1, Q5 & the right known shoe are dissimilar w/ respect to tread design. Therefore, Q1 & Q5 could not have been made by the known right shoe. Q2 & the right known shoe are dissimilar w/ respect to wear. Therefore, Q2 could not have been made by the known right shoe. Q7 & the right known shoe are dissimilar w/ respect to size. Therefore, Q7 could not have been made by the known right shoe. Q3, Q4 & the known left shoe are dissimilar w/ respect to size & wear. Therefore, Q3 & Q4 could not have been made by the known left shoe. Q6 & the known left shoe are dissimilar w/ respect to tread design. Therefore, Q6 could not have been made by the known left shoe.
YVJHQ7-533	The shoes displayed in Items 1, 2, and 3 were eliminated as having made the questioned imprints labeled Q1 through Q7 displayed in Items 8 and 9. The test imprints displayed in Items 4, 5, 6, and 7 were used during the comparison to imprints Q1 through Q7.
Z48KPT-533	Items Q1 through Q7 could not have been made by item K1a (suspects shoes).
ZGG9MX-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 shares similar tread design features with the Item K1 right shoe, however, The Q1 questioned footwear impression does not correspond in wear characteristics/stippling. The Item Q2 questioned footwear impression shares similar tread design features with the Item K1 right shoe, however, the Q1 [sic] questioned footwear impression does not correspond in wear characteristics. The Item Q3 questioned footwear impression shares similar tread design features with the Item K1 left shoe, however the Q3 questioned footwear impression does not correspond in physical size with the K1 left shoe. The Item Q3 questioned footwear impression is smaller than the Item K1 left shoe. The

TABLE 2

WebCode-Test	Conclusions
	<p>Item Q4 questioned footwear impression shares similar tread design features with the Item K1 left shoe, however the Q4 questioned footwear impression does not correspond in physical size with the K1 left shoe. The Item Q4 questioned footwear impression is smaller than the Item K1 left shoe. The Item Q5 questioned footwear impression shares similar tread design features with the Item K1 right shoe, however, The Q5 questioned footwear impression does not correspond in wear characteristics/stippling. The Item Q6 questioned footwear impression shares similar tread design features with the Item K1 left shoe, however, The Q6 questioned footwear impression does not correspond in wear characteristics/stippling. The Item Q7 questioned footwear impression shares similar tread design features with the Item K1 right shoe, however the Q7 questioned footwear impression does not correspond in physical size with the K1 right shoe. The Item Q7 questioned footwear impression is smaller than the Item K1 right shoe. Base upon the above factors it is the opinion of this examiner that the Item Q1 through Q7 questioned footwear impression[sic] were not made by the Item K1 shoes.</p>
ZKYDEZ-533	<p>K1a, K1b, K1c, K1d, K1e, K1f and K1g were not the source of, and did not make the impressions.</p>
ZNYJXD-533	<p>1. Examination of Exhibits 4 and 5 revealed three latent footwear impressions on Exhibit 4 (Photograph of impressions) and four latent footwear impressions on Exhibit 5 (Photograph of impressions) suitable for comparison. 2. Exhibit 1 (Left and Right shoe) was excluded as the source of the latent footwear impressions on Exhibit 4 (Q1 - Q3) and the latent footwear impressions on Exhibit 5 (Q4 - Q7). 3. Images of the latent impressions in this case will remain on file at this laboratory.</p>
ZVY2B4-533	<p>The shoe prints submitted Items Q1 - Q7 were examined and visually compared. Items Q1, Q2, Q5 &amp; Q7 were made by a right shoe. Items Q3, Q4 &amp; Q6 were made by a left shoe. Items Q1 and Q5 were made by the same right shoe. Items Q3 and Q4 were made by the same left shoe. The Q1 - Q7 prints were visually compared to the test prints produced with the known shoes (K1). In each print there were significant differences in wear, size and/or prominent individual characteristics from the known test prints. Therefore, the shoes submitted item K1 did not make any of the submitted questioned prints (Q1 - Q7).</p>
ZXJTKL-534	<p>Visual analysis of the DVD (item 1) reveals images of questioned footwear impressions suitable for comparison. In addition, images of known footwear and test impressions are also included and are suitable for comparison. Visual examination and comparison reveals the following: The questioned impressions depicted in the digital images (item 1a (Q1, Q2) and item 1b (Q5 and Q7)) were not made by the known right shoe depicted in the digital images (item 1c (K1a - K1g)). There was a significant difference in class characteristics of outsole physical shape/size and wear characteristics to conclude that the known shoe did not make the questioned impressions. These impressions were made by a right shoe; therefore, the left shoe depicted in the digital images (item 1c (K1a - K1g)) was not compared. The questioned impressions depicted in the digital images (items 1a (Q3) and item 1b (Q4 and Q6)) were not made by the known left shoe depicted in the digital images (item 1c (K1a - K1g)). There was a significant difference in class characteristics of outsole physical shape/size and wear characteristics to conclude that the known shoe did not make the questioned impressions. These impressions were made by a left shoe; therefore, the right shoe depicted in the digital images (item 1c (K1a - K1g)) was not compared.</p>
ZZTZME-533	<p>1. Q1-Q7 were not made by the shoes whose test impressions were represented in K1a-K1g.</p>

# Additional Comments

TABLE 3

WebCode-Test	Additional Comments
29688N-533	Q1 and Q5 are right shoe impressions and Q6 is a left shoe impression. Q3 and Q4 are left shoe impressions made by the same shoe. Q2 and Q7 are right shoe impressions made by the same shoe.
2ZL9BN-533	A search of a tread design database showed that questioned footwear impressions Q1, Q5 and Q6 were similar in tread design to a New Balance 680 V2 shoe outsole.
3FGQZL-533	An internet search was performed in an attempt to determine possible makes/models of footwear with a tread design similar to that observed in Impressions Q1, Q5, and Q6. The most similar make/model located was the New Balance W680v2 shoe. Please do not limit your search for known footwear to these shoes only, as other makes/models with the same tread design may exist. If additional shoes are located, they may be submitted for comparison to the questioned impressions.
42RFKU-533	Prints Q1 - Q7 is not caused by the shoes recovered and described in the scenario (Test 15-533)
42UXVC-533	Q1-Q5 & Q6 - The known shoes display more wear than the questioned impressions and that wear is too excessive for a 24 hr period. Q2 & Q7 display a size difference. Q3 & Q4 - the known shoes display less wear than the questioned impressions.
44JANQ-533	As an aid to the investigation team it would appear that the impressions were made by at least two pairs of shoes: Q1 & Q5 - same right shoe. Q2 - right shoe (different from Q1,Q5). Q3 & Q4 - same left shoe. Q6 - left shoe (different from Q3,Q4). Q7 - right shoe (different Q1,Q5).
4PUNTV-534	Marks appeared to have been made by at least two pairs of shoes (which featured different degrees of wear).
6NEJUW-533	We estimate that the seized shoes cannot be worn in such a high level during a day. Therefore, our conclusion is that the impressions cannot have been left by the footwear in question.
6TUWP8-534	This test was very difficult in the fact that several details were failed to be mentioned: 1. What was the shoes washed with? Machine? Hand? Acid? If it was a deep acid scrubbing- this could account for the wear. 2. How were the standards taken?- Same size foot with each? stepped onto what? what does light/dark stepped mean? If the standards weren't taken appropriately- this could account for the size difference. I think if you are going to submit a case this complex with differing amounts of wear- shoes are definitely needed.. physical shoes. Also- I can go back through every single proficiency test and there was NEVER a test that excluded all shoes. You need to address this and make people aware that this IS an option. It had me questioning everything.. like if the standards were taken appropriately.
6WBC9H-533	However, I found characteristics[sic] marks on the questioned imprints Q1 and Q5 to be similar to each other and Q3 and Q4 to be similar to each other. Therefore, the questioned imprints Q1 and Q5 were made by the same shoe and Q3 and Q4 were made by the same shoe.
A4CKEK-534	Q1 & Q6 are right and left shoes impressions, respectively, which are of the same design with similar wear, and could be from the same "pair" of shoes, and are from a different source than the Q3 & Q7 impressions. Q1 & Q5 are right shoe impressions which were visually compared and determined to have possibly been made by the same unknown right shoe. Q3 & Q4 are left shoes which were visually compared and determined to have been made by the same unknown left shoe. Q2 is a right heel that is of similar size and shape, but has significantly less wear on the heel than observed on the recovered right shoe (Item K1). Q2 is most consistent with being from a different shoe than recovered right shoe (Item K1). Q2 right heel was also visually compared to, and can be eliminated as being made by the same unknown right shoe as, the Q1 & Q5 impressions. Q3 and Q7 are left and right shoe impressions, respectively, which are of the same design with similar wear, and could be from the same "pair" of shoes, and are from different source than the Q1 & Q6 impressions.
AEXE2F-533	Additional test impressions would have been created to better represent the knowns.

TABLE 3

WebCode-Test	Additional Comments
B8EF3U-534	Questioned Impressions 3 and 4 have a distinct marking in the toe area that doesn't appear in the inked impressions of the known shoes, however I would perform additional inked impressions on a different surface to make certain that the markings aren't the result of slippage or other explainable circumstances before eliminating them.
BFM6MK-533	The partial, questioned footwear impressions, Q1 through Q7, share the same outsole design as the known shoes in Submission K, however; there is more wear on the outsole of the known shoes in Submission K than there is on the partial, questioned footwear impressions, Q1 through Q-7.
CJ2ZZW-533	Impressions Q1, Q5, and Q6 represent a New Balance shoe with a different tread design from the suspect New Balance shoes (item K1). Impressions Q1 and Q5 were both made by a right New Balance shoe with similar size, general tread design, apparent wear, and appear to share at least one possible randomly acquired characteristic. These questioned impressions could have been made by the same New Balance shoe, but confirmation of the association is pending submission of possible shoes. Q6 has a general tread design similar to Q1 and Q5, but was made by a left New Balance shoe. Q2, Q3, Q4, and Q7 are similar in general tread design to the suspect New Balance shoes (item K1), but are smaller in size and exhibit less wear. Impressions Q2 and Q7 were both made by a right New Balance shoe with similar size, general tread design, apparent wear, and appear to share at least one possible randomly acquired characteristic. Impressions Q3 and Q4 were both made by a New Balance shoe with similar size, general tread design, apparent wear, and appear to share multiple possible randomly acquired characteristics. These questioned impressions could have been made by the same New Balance shoes (respectively), but confirmation of the association is pending submission of possible shoes.
CML87B-534	This comparison was made from printed A4 paper copies of the supplied images – This report may be subject to change should further information come to hand.
CZ7JNL-533	When working footwear cases, we usually are able to identify the manufacturer and the series of the known shoes by the labeling and markings on the topside/tongue of the shoes (New Balance 860v3 Series). Perhaps this information can be provided in future tests.
DH77CQ-533	There appeared to be 2 different types of mark present in Q1-Q7. One type of mark was different from the submitted shoes in terms of wear, whilst the other was different from the submitted shoes in terms of overall size.
DJ2GDL-533	Shoes would need to be submitted before a comparison would be done.
DP4HNM-533	1.The four questioned right imprints marked "Q1", "Q2", "Q5" and "Q7" were similar in design. The characteristics observed in "Q1" exhibit a high degree of association with those of "Q5", suggesting that they are very likely to be made by the same right shoe. The shoe is required to confirm this finding. The characteristics observed in "Q2" exhibit a high degree of association with those of "Q7", suggesting that they are very likely to be made by the same right shoe, which is different from the right shoe that made the imprints marked "Q1" and "Q5". The shoe is required to confirm this finding. 2. The three questioned left imprints marked "Q3", "Q4" and "Q6" were similar in design. The characteristics observed in "Q3" exhibit a high degree of association with those of "Q4", suggesting that they are very likely to be made by the same left shoe. The shoe is required to confirm this finding.
DZ7XFD-533	It would be helpful to have all of the information regarding the known shoes (i.e. make/model/tag information) as this information is available during the course of normal casework.
ER8L4G-533	Reproductions of the unidentified partial, questioned footwear impressions have been retained in this laboratory should future examinations be requested.
FE2UVG-533	The substrate at the scene crime scene are a smooth surface and the transfer seems to have been made with a black contaminant. The transfer are properly photographed showing clear patterns and irregularities. The shoes are well photographed and the impression are clear. [sic]
FTEFYW-534	The photography of the known shoes was lacking in the toe area, so areas of feathering could not be well distinguished.
JE7LBM-533	This opinion is based on observed differences in one or more of the following factors between the

TABLE 3

WebCode-Test	Additional Comments
	suspect shoe and the scene impression in question: wear characteristics, pattern element spacing, factors within the marks.
JRUMRU-533	Although the footwear in K1 are similar in outsole design to the footwear exhibited in Q1 through Q7, Q1 through Q7 all exhibited dissimilar wear to that of K1. The shoes in K1 have significantly more wear than impressions Q1 through Q7.
KMU6LD-533	The conclusions are based on the exemplar imprints provided. The analyst reserves the right to revise these conclusions if the exemplars provided do not accurately reflect the imprints made by the known shoes.
NACDUA-533	An assumption has been made that the marks recovered were deposited at the time of the offence and only 1 day delay existed between deposit and seizure of the shoes
NKFQVA-533	I would like to have a photo of the tongue tag of the shoe. The size indicated is not consistent with a women's size 10½.
R3QE3R-533	Conclusions are contingent upon examination of the actual shoes to confirm characteristics.
RNPUB3-533	lab case #15-033E
U8NW23-533	All the questioned impressions had the same sole design as 'New Balance' shoes. It appears that the shoe that made impression Q3 also made in[sic] impression Q4. That the shoe that made impression Q1 possibly made impression Q5 and the shoe that made Q2 possibly made impression Q7.
U9GRK6-534	Working practices in our Unit would require us to carry out a comparison using the actual footwear and we would not normally work from photographs alone.
UDDKNL-533	I would like to know where the point of entry and exit were, where the dogs were in the store, if there is any CCTV footage of the offender/s when floor was washed and if any item was located in store or suspects home that may have been stuck to the left shoe which left impressions 3 and 4 at the scene. Further tests required re impressions 3 and 4.
VB9EMK-533	There are two or more shoes represented in the questioned impressions (#Q1 - #Q7). The shoe(s) that made impressions #Q3, #Q4 and #Q7 are of same or similar outsole design as #K1 but is of a smaller size. The shoe(s) that made impression #Q1, #Q5 and #Q6 are of the same or similar outsole design as #K1 but were in a significantly less worn state at the time that the impressions were made.
WA8LMR-533	A footwear association scale would typically be attached to the report.
WLYEQ9-533	Probably, two pairs of shoes were used to make the imprints: Q1 +Q5 (R), Q6 (L) and Q2+Q7 (R), Q3+Q4 (L), both pairs manufactured by New Balance.
X4E76X-533	The shoes impression left at the crime scene does not match the shoes impression of the shoes collected from the employee of the neighboring store. Shoes from the employee of the neighboring store is more worn or old than the shoes impression left at the crime scene.
XJTCFW-533	The undersigned based these conclusions upon the accurate representation of the exemplar impressions provided and reserves the right to alter these findings if the exemplars provided do not accurately reflect impressions that would have been made by the suspect shoes.
Y6QZQP-533	Q1 and Q5 appear to be the same right shoe and Q6 has similar tread pattern design as a left shoe. Q3 and Q4 appear to be the same left shoe and Q2 and Q7 appear to have similar tread pattern design as a right shoe.
ZVY2B4-533	There were at least two pairs of shoes that made Q1 - Q7.

# Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

\*\*\*\*\*

## Test No. 15-533: Imprint Impression Evidence

DATA MUST BE RECEIVED BY May 18, 2015 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

### Accreditation Release Statement

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

- This participant's data is intended for submission to ASCLD/LAB and/or ANAB. (Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is **NOT** intended for submission to ASCLD/LAB or ANAB.

### Online Data Entry

Visit [www.cts-portal.com](http://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 the break-in and theft of several purebred dogs from a local pet store. Footwear impressions were recovered at the scene in two areas of the store. The day after the incident, a pair of shoes was recovered from an employee of a neighboring store, whom a witness claims to have seen in the shopping center after hours. 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 recovered shoes are manufactured by New Balance and are women's size 10.5.

*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 recovered shoes, lighted from above.
- K1b-K1c: Two oblique lighted images of the soles of the recovered shoes, light direction indicated by arrows.
- K1d-K1g: Known imprints made with the recovered shoes.
- Q1-Q3: Questioned imprints found in the front of the store. (textured ceramic tile)
- Q4-Q7: Questioned imprints found in the back of the store. (smooth ceramic tile)

**1.) Indicate the results of your comparisons of the recovered 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.

<i>Store Imprints (Front)</i>					<i>Store Imprints (Back)</i>				
	Ident		Elim	Inc*		Ident		Elim	Inc*
	L	R				L	R		
<b>Q1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Q4</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Q5</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Q3</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Q6</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<b>Q7</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Please return all pages of this data sheet.**

Page 1 of 3

Participant Code:

WebCode:

**2.) What would be the wording of the Conclusions in your report?**

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

**3.) Additional Comments**

---



---



---



---



---



---



---



---



---



---

**4.) Test Delivery Format Question**

Starting in 2016, CTS may offer these images in a downloadable format in place of the DVD option. Would this new format interest your lab? (Circle One) **Yes or No** If Yes, what is your preferred file format? \_\_\_\_\_

<p><b>Return Instructions:</b> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>May 18, 2015</i> to be included in the report.</p> <p>QUESTIONS?</p> <p>TEL: +1-571-434-1925 (8 am - 4:30 pm EST)</p> <p>EMAIL: <a href="mailto:forensics@cts-interlab.com">forensics@cts-interlab.com</a> <a href="http://www.ctsforensics.com">www.ctsforensics.com</a></p>	Participant Code:
	ONLINE DATA ENTRY: <a href="http://www.cts-portal.com">www.cts-portal.com</a>
	FAX: +1-571-434-1937
	MAIL: Collaborative Testing Services, Inc. P.O. Box 650820 Sterling, VA 20165-0820 USA

**Please return all pages of this data sheet.**

Collaborative Testing Services ~ Forensic Testing Program

**RELEASE OF DATA TO ACCREDITATION BODIES**

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **15-533: Imprint Impression Evidence**

This release page must be completed and received by **May 18, 2015** 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. \_\_\_\_\_ ASCLD/LAB International Certificate No. \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**ANAB RELEASE**

If your laboratory maintains its accreditation through ANAB, please complete the following form in its entirety to have your results forwarded.

ANAB Certificate No. \_\_\_\_\_

Signature and Title \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**Accreditation Release**

**Return Instructions**

*Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.*

*Questions? Contact us 8 am-4:30 pm EST  
Telephone: +1-571-434-1925  
email: forensics@cts-interlab.com*

**Please return all pages of this data sheet.**

Page 3 of 3