



## **DNA-Blood Test No. 20-5803**

### **Summary Report**

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Each participant received a sample pack consisting of two known bloodstains and two questioned stains which they were requested to analyze using their existing protocols. Data were returned from 90 participants and are compiled into the following tables:

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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 consisted of two known bloodstains on FTA Micro cards (Items 1 & 2), and two questioned stains; one on clean pink fabric (Item 3) and one on clean, off-white fabric (Item 4). Participants were requested to analyze these items using their existing protocols.

**SAMPLE PREPARATION:** The stains in Items 1, 2, 3, and 4 were prepared using human whole blood which was either drawn into citric acid preservative bags or EDTA tubes. Items 1 (75  $\mu$ l) and 3 (50  $\mu$ l) were created using blood from the same female donor. Item 2 (75  $\mu$ l) was created using blood collected from a male donor. Item 4 (50  $\mu$ l) was created using blood from a female donor whose known standard was not provided. Stains from different sources were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on April 22, 2020 following receipt of predistribution results.

**SAMPLE SET ASSEMBLY:** For each sample set, all four Items (1-4) were packed into separate envelopes and then placed together in a pre-labeled sample pack envelope. The sealed sample pack envelopes were then packaged in pre-labeled heat seal envelopes and sealed. This process was repeated until all of the sample sets were prepared.

**VERIFICATION:** All predistribution laboratories confirmed the manufacturer's expected associations. Consistent allelic results were reported for all STR and YSTR loci.

## Manufacturer's Information, continued

### Amelogenin and STR Results

*Results compiled from predistribution laboratories and a consensus of at least 10 participants.*

| Item  | D1S1656 | D2S1338 | D2S441    | D3S1358  | D5S818     | D6S1043 |
|---|---------|---------|-----------|----------|------------|---------|
|   | D7S820  | D8S1179 | D10S1248  | D12S391  | D13S317    | D16S539 |
|   | D18S51  | D19S433 | D21S11    | D22S1045 | Amelogenin | CSF1PO  |
|   | FGA     | Penta D | Penta E   | SE33     | TH01       | TPOX    |
|   | vWA     | DYS391  | DYS570    | DYS576   | Y Indel    |         |
| <hr style="border-top: 1px dashed black;"/> |         |         |           |          |            |         |
| 1   | 11,17.3 | 24,24   | 11,15     | 16,17    | 7,11       | *       |
|   | 8,9     | 13,14   | 14,15     | 18,19    | 11,12      | 11,14   |
|   | 13,15   | 14,14.2 | 28,31.2   | 16,17    | X,X        | 11,13   |
|   | 21,29   | 9,13    | 17,17     | 18,19    | 8,9.3      | 7,8     |
|   | 15,17   | NM      | NM        | NM       | NM         |         |
| <hr style="border-top: 1px dashed black;"/> |         |         |           |          |            |         |
| 2   | 15,16   | 17,19   | 11,12     | 16,17    | 12,13      | *       |
|   | 9,10    | 14,15   | 13,13     | 20,21    | 12,13      | 9,10    |
|   | 18,20   | 14,14   | 31.2,32.2 | 11,17    | X,Y        | 12,13   |
|   | 24,26   | 10,12   | 8,12      | 17,20    | 7,9.3      | 9,10    |
|   | 16,16   | 10      | 17        | 17       | 2          |         |
| <hr style="border-top: 1px dashed black;"/> |         |         |           |          |            |         |
| 3   | 11,17.3 | 24,24   | 11,15     | 16,17    | 7,11       | *       |
|   | 8,9     | 13,14   | 14,15     | 18,19    | 11,12      | 11,14   |
|   | 13,15   | 14,14.2 | 28,31.2   | 16,17    | X,X        | 11,13   |
|   | 21,29   | 9,13    | 17,17     | 18,19    | 8,9.3      | 7,8     |
|   | 15,17   | NM      | NM        | NM       | NM         |         |
| <hr style="border-top: 1px dashed black;"/> |         |         |           |          |            |         |
| 4   | 13,17   | 25,25   | 12,14     | 16,17    | 10,11      | *       |
|   | 8,10    | 11,14   | 15,15     | 17,18    | 12,13      | 9,12    |
|   | 12,20   | 14.2,15 | 32,33.2   | 11,14    | X,X        | 8,13    |
|   | 19,25   | 3.2,7   | 5,13      | 12,25.2  | 7,8        | 6,8     |
|   | 16,18   | NM      | NM        | NM       | NM         |         |

### YSTR Results

*Results compiled from predistribution laboratories and a consensus of at least 10 participants.*

| Item  | DYF387S1 | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|---|----------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|   | DYS437   | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|   | DYS518   | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |
|   |          |        |        |          |           |        |        |        |           |
| <hr style="border-top: 1px dashed black;"/> |          |        |        |          |           |        |        |        |           |
| 2   | 38,38    | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |
|   | 14       | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |
|   | 41       | 12     | *      | 17       | 17        | 19     | 21     | *      | 11        |

\* Results were not received by a minimum of 10 participants for the loci indicated.

NM - Non-Male profile, YSTR results not expected.

## **Summary Comments**

The 20-5803 DNA-Blood test is part of the DNA Sample Specific Series, where participants are advised of the body fluid(s) that made up the questioned stains. The test is designed to allow participants to assess their proficiency in the analysis of dried stains. Participants were supplied with two "known" bloodstains (Items 1 and 2) and two "questioned" stains (Items 3 and 4). Items 1 and 3 were created using blood from the same female donor. Item 2 was created using blood collected from a male donor. Item 4 was created using blood from a female donor whose known standard was not provided. (See Manufacturer's Information for preparation details)

Of the 90 participants that returned results, 79 reported DNA interpretations. Eleven participants stated that the samples were only analyzed for database purposes.

For the Item 3 stain, all of the responding participants included the victim (Item 1) as a possible contributor and excluded the suspect (Item 2).

For the Item 4 stain, all participants that reported interpretations excluded the victim (Item 1) and suspect (Item 2) as possible contributors.

A total of 20 participants reported the use of Probabilistic Genotyping (PG) software on either solely the questioned items or all four items. No inconsistent results were reported by these participants.

One participant reported an allelic response that differed from the consensus/predistribution results for Item 4. This participant was missing an allele (19) at the FGA locus. Based on the interpretations above, this inconsistency did not appear to affect this participant's conclusions.

# STR Amplification Kit(s) & Results

## TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

### Item 1 - STR Results

|        |                      |         |           |         |           |       |
|--------|----------------------|---------|-----------|---------|-----------|-------|
| 3PAX3U | GlobalFiler™         |         |           |         |           |       |
|        |                      | 11,17.3 | 24        | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X     |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   |           |         |           | 7,8   |
| <hr/>  |                      |         |           |         |           |       |
| 3QJAHB | GlobalFiler™ Express |         |           |         |           |       |
|        |                      | 11,17.3 | 24        | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X,X   |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   | NM        |         |           | 7,8   |
|        |                      |         |           |         | NM        |       |
| <hr/>  |                      |         |           |         |           |       |
| 4EQ6RP | GlobalFiler™         |         |           |         |           |       |
|        |                      | 11,17.3 | 24        | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X     |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   | No Result |         |           | 7,8   |
|        |                      |         |           |         | No Result |       |
| <hr/>  |                      |         |           |         |           |       |
| 4W4PL9 | GlobalFiler™ Express |         |           |         |           |       |
|        |                      | 11,17.3 | 24,24     | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X,X   |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   |           |         |           | 7,8   |
| <hr/>  |                      |         |           |         |           |       |
| 4Z3ZH9 | GlobalFiler™ Express |         |           |         |           |       |
|        |                      | 11,17.3 | 24,24     | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X,X   |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   |           |         |           | 7,8   |
| <hr/>  |                      |         |           |         |           |       |
| 639L8T | GlobalFiler™         |         |           |         |           |       |
|        |                      | 11,17.3 | 24        | 11,15   | 16,17     | 7,11  |
| 1      |                      | 8,9     | 13,14     | 14,15   | 18,19     | 11,12 |
|        |                      | 13,15   | 14,14.2   | 28,31.2 | 16,17     | X     |
|        |                      | 21,29   |           | 18,19   | 8,9.3     | 11,13 |
|        |                      | 15,17   |           |         |           | 7,8   |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                       |         |         |         |       |       |
|--------|-----------------------|---------|---------|---------|-------|-------|
| 6E32UA | NGM SElect            |         |         |         |       |       |
|        |                       | 11,17.3 | 24,24   | 11,15   | 16,17 |       |
| 1      |                       |         | 13,14   | 14,15   | 18,19 | 11,14 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X,X   |
|        |                       | 21,29   |         | 18,19   | 8,9.3 |       |
|        |                       | 15,17   |         |         |       |       |
| 6WMRU9 | Identifiler® Direct   |         |         |         |       |       |
|        |                       |         | 24      |         | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   |         |       | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 |       | X,X   |
|        |                       | 21,29   |         |         |       | 8,9.3 |
|        |                       | 15,17   |         |         |       | 7,8   |
| 72CPV6 | GlobalFiler™          |         |         |         |       |       |
|        |                       | 11,17.3 | 24,24   | 11,15   | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   | 14,15   | 18,19 | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X,X   |
|        |                       | 21,29   |         | 18,19   | 8,9.3 | 7,8   |
|        |                       | 15,17   |         |         |       |       |
| 738BPV | PowerPlex® Fusion 6C  |         |         |         |       |       |
|        |                       | 11,17.3 | 24      | 11,15   | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   | 14,15   | 18,19 | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X     |
|        |                       | 21,29   | 9,13    | 17      | 18,19 | 8,9.3 |
|        |                       | 15,17   |         |         |       | 7,8   |
| 7LXDP  | GlobalFiler™          |         |         |         |       |       |
|        |                       | 11,17.3 | 24      | 11,15   | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   | 14,15   | 18,19 | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X     |
|        |                       | 21,29   |         | 18,19   | 8,9.3 | 7,8   |
|        |                       | 15,17   |         |         |       |       |
| 7RPTWP | GlobalFiler™          |         |         |         |       |       |
|        |                       | 11,17.3 | 24,24   | 11,15   | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   | 14,15   | 18,19 | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X,X   |
|        |                       | 21,29   |         | 18,19   | 8,9.3 | 7,8   |
|        |                       | 15,17   |         |         |       |       |
| 7V9K9R | GlobalFiler™ (STRmix) |         |         |         |       |       |
|        |                       | 11,17.3 | 24      | 11,15   | 16,17 | 7,11  |
| 1      |                       | 8,9     | 13,14   | 14,15   | 18,19 | 11,12 |
|        |                       | 13,15   | 14,14.2 | 28,31.2 | 16,17 | X     |
|        |                       | 21,29   |         | 18,19   | 8,9.3 | 7,8   |
|        |                       | 15,17   |         |         |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| 88TM4N | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | NR      | NR      | NR    |       |       |
| 8NGXQQ | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| 8TW7EQ | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| 9PRZCP | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| 9QLQH4 | Identifiler®         |         |         |       |       |       |
|        |                      | 24,24   |         | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| 9YX43L | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | NR      | NR      | NR    |       |       |
| A4KDM4 | GlobalFiler™ Express |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | NM      |         |       | NM    |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| AF2X8Z | PowerPlex® Fusion    |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                | NR      |         |       |       |       |
| APM3GK | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | NR      | NR      | NR    |       |       |
| B7UHZR | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| BMGWEJ | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| C7K2GJ | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| CE48EQ | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| CJAZ9L | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                        |         |         |       |       |       |
|--------|------------------------|---------|---------|-------|-------|-------|
| CTZLCY | PowerPlex® Fusion      |         |         |       |       |       |
|        | 11,17.3                | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                  | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                  |         |         |       |       |       |
| CTZLEJ | PowerPlex® Fusion 6C   |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                  | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                  | NR      | NR      | NR    |       |       |
| DA4FJY | PowerPlex® 16 ESI Fast |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 |       |       |
| 1      |                        | 13,14   | 14,15   | 18,19 |       | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    |       |
|        | 21,29                  |         |         |       | 8,9.3 |       |
|        | 15,17                  |         |         |       |       |       |
| DCAZ9J | GlobalFiler™           |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                  |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                  |         |         |       |       |       |
| DF6RGG | PowerPlex® Fusion 6C   |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                  | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                  | NR      | NR      | NR    |       |       |
| DPRQ62 | VeriFiler™ Express     |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 | 7,11  | 11,12 |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                  | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                  |         |         |       |       |       |
| E9P9WG | PowerPlex® Fusion 6C   |         |         |       |       |       |
|        | 11,17.3                | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                    | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                  | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                  | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                  | NR      | NR      | NR    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |            |         |       |            |       |
|--------|----------------------|------------|---------|-------|------------|-------|
| ECPJTG | PowerPlex® Fusion 6C |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                | 9,13       | 17      | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |
| EQ3RRZ | GlobalFiler™ Express |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | XX         | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | NM         |         |       | NM         |       |
| EU6TUH | PowerPlex® Fusion 6C |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | XX         | 11,13 |
|        | 21,29                | 9,13       | 17,17   | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | NR         | NR      | NR    |            |       |
| EZ9WGV | PowerPlex® Fusion    |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                | 9,13       | 17      |       | 8,9.3      | 7,8   |
|        | 15,17                | N/R        |         |       |            |       |
| F4PJTE | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |
| FFHZHF | PowerPlex® Fusion 6C |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | XX         | 11,13 |
|        | 21,29                | 9,13       | 17,17   | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | NR         | NR      | NR    |            |       |
| FLABTE | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | No Results |         |       | No Results |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| FRXVU  | PowerPlex® Fusion    |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                | NR      |         |       |       |       |
| FYVKDY | Identifiler® Direct  |         |         |       |       |       |
|        |                      | 24      |         | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| GFC7CF | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| GNTPUT | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| H9VUWT | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | --      |         |       | --    |       |
| JHFKWQ | PowerPlex® Fusion 5C |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| JPPAE  | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| JTDK9U | Verifiler Express    |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  | 11,12 |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| JVFLAR | PowerPlex®           |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| KDZC9Q | PowerPlex® Fusion    |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| KGEADT | GlobalFiler™ Express |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | NM      |         |       | NM    |       |
| LGUTXQ | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| LMK38N | PowerPlex® Fusion 5C |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                | NR      |         |       |       |       |
| M794EB | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| M7UH6A | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |
| MGNXRP | Identifiler® Plus     |         |         |       |       |       |
|        |                       | 24,24   |         | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| NFBLPD | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      |         |       | NR    |       |
| P747H7 | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| Q4VD2C | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| QUKBFB | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| RBKH9H | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 | NR      |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| RQF3P7 | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| RTPQMK | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| T86BKJ | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| TH6Z47 | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| TTJX9A | PowerPlex® 21        |         |         |       |       |       |
|        | 11,17.3              | 24,24   |         | 16,17 | 7,11  | 11,12 |
| 1      | 8,9                  | 13,14   |         | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| TWHA4A | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| UHKM3  | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |            |         |       |            |       |
|--------|----------------------|------------|---------|-------|------------|-------|
| UWF2D2 | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X,X        | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |
| V3MRF8 | PowerPlex® Fusion 6C |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                | 9,13       | 17      | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |
| V66CZ2 | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X,X        | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |
| V7K9R2 | PowerPlex® Fusion 6C |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X,X        | 11,13 |
|        | 21,29                | 9,13       | 17,17   | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | NR         | NR      | NR    |            |       |
| VPF2DY | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                | No results |         |       | No results |       |
| W7DLQD | PowerPlex® Fusion    |            |         |       |            |       |
|        | 11,17.3              | 24         | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X          | 11,13 |
|        | 21,29                | 9,13       | 17      |       | 8,9.3      | 7,8   |
|        | 15,17                | NR         |         |       |            |       |
| WF3ALF | GlobalFiler™         |            |         |       |            |       |
|        | 11,17.3              | 24,24      | 11,15   | 16,17 | 7,11       |       |
| 1      | 8,9                  | 13,14      | 14,15   | 18,19 | 11,12      | 11,14 |
|        | 13,15                | 14,14.2    | 28,31.2 | 16,17 | X,X        | 11,13 |
|        | 21,29                |            |         | 18,19 | 8,9.3      | 7,8   |
|        | 15,17                |            |         |       |            |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |              |         |         |       |       |       |
|--------|--------------|---------|---------|-------|-------|-------|
| WP8G32 | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| WWUAEZ | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| X6HHCW | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| XRQV4F | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| XVTW7Y | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| XYR83X | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |
| YDR9FY | GlobalFiler™ |         |         |       |       |       |
|        | 11,17.3      | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9          | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15        | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29        |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17        |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 1 - STR Results

|        |                      |         |         |       |       |       |
|--------|----------------------|---------|---------|-------|-------|-------|
| YJFTHF | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| YUCZEY | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| Z4WQDW | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| ZMCYEW | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| ZTYMA3 | PowerPlex® Fusion 6C |         |         |       |       |       |
|        | 11,17.3              | 24      | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |
| ZXRURB | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                | --      |         |       | --    |       |
| ZY2WV  | GlobalFiler™         |         |         |       |       |       |
|        | 11,17.3              | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 1      | 8,9                  | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| 3PAX3U | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 3QJAHB | GlobalFiler™ Express |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 4EQ6RP | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 4W4PL9 | GlobalFiler™ Express |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| 4Z3ZH9 | GlobalFiler™ Express |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| 639L8T | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 6E32UA | NGM SElect           |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 |       |       |
| 2      |                      | 14,15 | 13,13     | 20,21 |       | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   |       |
|        | 24,26                |       |           | 17,20 | 7,9.3 |       |
|        | 16,16                |       |           |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                       |       |           |       |       |       |
|--------|-----------------------|-------|-----------|-------|-------|-------|
| 6WMRU9 | Identifiler® Direct   |       |           |       |       |       |
|        |                       | 17,19 |           | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 |           |       | 12,13 | 9,10  |
|        | 18,20                 | 14    | 31.2,32.2 |       | X,Y   | 12,13 |
|        | 24,26                 |       |           |       | 7,9.3 | 9,10  |
|        | 16                    |       |           |       |       |       |
| 72CPV6 | GlobalFiler™          |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                 | 10    |           |       | 2     |       |
| 738BPV | PowerPlex® Fusion 6C  |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16                    | 10    | 17        | 17    |       |       |
| 7LXDP  | GlobalFiler™          |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                    | 10    |           |       | 2     |       |
| 7RPTWP | GlobalFiler™          |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                 | 10    |           |       | 2     |       |
| 7V9K9R | GlobalFiler™ (STRmix) |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                    | 10    |           |       | 2     |       |
| 88TM4N | PowerPlex® Fusion 6c  |       |           |       |       |       |
|        | 15,16                 | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                 | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                 | 10    | 17        | 17    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| 8NGXQQ | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 8TW7EQ | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 9PRZCP | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| 9QLQH4 | Identifiler®         |       |           |       |       |       |
|        |                      | 17,19 |           | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 |           |       | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 |       | X,Y   | 12,13 |
|        | 24,26                |       |           |       | 7,9.3 | 9,10  |
|        | 16,16                |       |           |       |       |       |
| 9YX43L | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |
| A4KDM4 | GlobalFiler™ Express |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| AF2X8Z | PowerPlex® Fusion    |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| APM3GK | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |
| B7UHZR | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    | 17        | 17    |       |       |
| BMGWEJ | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| C7K2GJ | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| CE48EQ | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    | 17        | 17    |       |       |
| CJAZ9L | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| CTZLCY | PowerPlex® Fusion    |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                        |       |           |       |       |       |
|--------|------------------------|-------|-----------|-------|-------|-------|
| CTZLEJ | PowerPlex® Fusion 6C   |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                   | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                  | 10    | 17        | 17    |       |       |
| DA4FJY | PowerPlex® 16 ESI Fast |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 |       |       |
| 2      |                        | 14,15 | 13,13     | 20,21 |       | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   |       |
|        | 24,26                  |       |           |       | 7,9,3 |       |
|        | 16,16                  |       |           |       |       |       |
| DCAZ9J | GlobalFiler™           |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                   | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                  | 10    |           |       | 2     |       |
| DF6RGG | PowerPlex® Fusion 6C   |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                   | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                  | 10    | 17        | 17    |       |       |
| DPRQ62 | VeriFiler™ Express     |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 | 12,17 |
| 2      | 9,10                   | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  | 10,12 | 8,12      |       | 7,9,3 | 9,10  |
|        | 16,16                  |       |           |       | 2     |       |
| E9P9WG | PowerPlex® Fusion 6C   |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                   | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                  | 10    | 17        | 17    |       |       |
| ECPJTG | PowerPlex® Fusion 6C   |       |           |       |       |       |
|        | 15,16                  | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                   | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                  | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                  | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16                     | 10    | 17        | 17    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |       |           |       |       |       |
|--------|----------------------|-------|-------|-----------|-------|-------|-------|
| EQ3RRZ | GlobalFiler™ Express |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        |                      | 16    | 10    |           |       | 2     |       |
| EU6TUH | PowerPlex® Fusion 6C |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        |                      | 16,16 | 10    | 17        | 17    |       |       |
| EZ9WGV | PowerPlex® Fusion    |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        |                      | 16    | 10    |           |       |       |       |
| F4PJTE | GlobalFiler™         |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        |                      | 16    | 10    |           |       | 2     |       |
| FFHZHF | PowerPlex® Fusion 6C |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        |                      | 16,16 | 10    | 17        | 17    |       |       |
| FLABTE | GlobalFiler™         |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        |                      | 16    | 10    |           |       | 2     |       |
| FRXVU  | PowerPlex® Fusion    |       |       |           |       |       |       |
|        |                      | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2                    | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |                      | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |                      | 24,26 | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        |                      | 16    | 10    |           |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| FYVKDY | Identifiler® Direct  |       |           |       |       |       |
|        |                      | 17,19 |           | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 |           |       | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 |       | X,Y   | 12,13 |
|        | 24,26                |       |           |       | 7,9.3 | 9,10  |
|        | 16                   |       |           |       |       |       |
| GFC7CF | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| GNTPUT | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| H9VUWT | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| JHFKWQ | PowerPlex® Fusion 5C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |
| JPPAE  | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| JTDK9U | Verifiler Express    |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 | 12,17 |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16,16                |       |           |       | 2     |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| JVFLAR | PowerPlex®           |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9,3 | 9,10  |
|        | 16,16                | 10    |           |       |       |       |
| KDZC9Q | PowerPlex® Fusion    |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |
| KGEADT | GlobalFiler™ Express |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| LGUTXQ | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |
| LMK38N | PowerPlex® Fusion 5C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |
| M794EB | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9,3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| M7UH6A | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31,2,32,2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9,3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                   |       |           |       |       |       |
|--------|-------------------|-------|-----------|-------|-------|-------|
| MGNXRP | Identifiler® Plus |       |           |       |       |       |
|        |                   | 17,19 |           | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 |           |       | 12,13 | 9,10  |
|        | 18,20             | 14,14 | 31.2,32.2 |       | X,Y   | 12,13 |
|        | 24,26             |       |           |       | 7,9.3 | 9,10  |
|        | 16,16             |       |           |       |       |       |
| NFBLPD | GlobalFiler™      |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16             | 10    |           |       | 2     |       |
| P747H7 | GlobalFiler™      |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                | 10    |           |       | 2     |       |
| Q4VD2C | GlobalFiler™      |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16             | 10    |           |       | 2     |       |
| QUKBFB | GlobalFiler™      |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16             | 10    |           |       | 2     |       |
| RBKH9H | PowerPlex® Fusion |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16                | 10    |           |       |       |       |
| RQF3P7 | GlobalFiler™      |       |           |       |       |       |
|        | 15,16             | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10              | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20             | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26             |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                | 10    |           |       | 2     |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| RTPQMK | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| T86BKJ | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |
| TH6Z47 | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| TTJX9A | PowerPlex® 21        |       |           |       |       |       |
|        | 15,16                | 17,19 |           | 16,17 | 12,13 | 12,17 |
| 2      | 9,10                 | 14,15 |           | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 |       | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16,16                |       |           |       |       |       |
| TWHA4A | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| UHKKM3 | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| UWF2D2 | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| V3MRF8 | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    | 17        | 17    |       |       |
| V66CZ2 | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| V7K9R2 | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    | 17        | 17    |       |       |
| VPF2DY | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| W7DLQD | PowerPlex® Fusion    |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      |       | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       |       |       |
| WF3ALF | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| WP8G32 | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |              |       |       |           |       |       |       |
|--------|--------------|-------|-------|-----------|-------|-------|-------|
| WWUAEZ | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16        | 10    |       |           | 2     |       |       |
| X6HHCW | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16           | 10    |       |           | 2     |       |       |
| XRQV4F | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16        | 10    |       |           | 2     |       |       |
| XVTW7Y | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16           | 10    |       |           | 2     |       |       |
| XYR83X | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16           | 10    |       |           | 2     |       |       |
| YDR9FY | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16           | 10    |       |           | 2     |       |       |
| YJFTHF | GlobalFiler™ |       |       |           |       |       |       |
|        |              | 15,16 | 17,19 | 11,12     | 16,17 | 12,13 |       |
|        | 2            | 9,10  | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        |              | 18,20 | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        |              | 24,26 |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16        | 10    |       |           | 2     |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 2 - STR Results

|        |                      |       |           |       |       |       |
|--------|----------------------|-------|-----------|-------|-------|-------|
| YUCZEY | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| Z4WQDW | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| ZMCYEW | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    |           |       | 2     |       |
| ZTYMA3 | PowerPlex® Fusion 6C |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13        | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14    | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                | 10,12 | 8,12      | 17,20 | 7,9.3 | 9,10  |
|        | 16                   | 10    | 17        | 17    |       |       |
| ZXRURB | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |
| ZY2WFV | GlobalFiler™         |       |           |       |       |       |
|        | 15,16                | 17,19 | 11,12     | 16,17 | 12,13 |       |
| 2      | 9,10                 | 14,15 | 13,13     | 20,21 | 12,13 | 9,10  |
|        | 18,20                | 14,14 | 31.2,32.2 | 11,17 | X,Y   | 12,13 |
|        | 24,26                |       |           | 17,20 | 7,9.3 | 9,10  |
|        | 16,16                | 10    |           |       | 2     |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| 3PAX3U | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 3QJAHB | Identifiler® Plus     |         |         |       |       |       |
|        |                       | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | XX    | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 4W4PL9 | GlobalFiler™ Express  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 4Z3ZH9 | GlobalFiler™ Express  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 639L8T | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 6E32UA | NGM SElect            |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 |       |       |
| 3      |                       | 13,14   | 14,15   | 18,19 |       | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    |       |
|        | 21,29                 |         |         | 18,19 | 8,9.3 |       |
|        | 15,17                 |         |         |       |       |       |
| 6WMRU9 | Identifiler® Plus     |         |         |       |       |       |
|        |                       | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | XX    | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| 72CPV6 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| 738BPV | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| 7LJXDP | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| 7RPTWP | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| 7V9K9R | GlobalFiler™ (STRmix)         |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| 88TM4N | PowerPlex® Fusion 6C          |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      | NR      | NR    |       |       |
| 8NGXQQ | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| 8TW7EQ | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 9PRZCP | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 9QLQH4 | Identifiler®          |         |         |       |       |       |
|        |                       | 24,24   |         | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| 9YX43L | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |
| A4KDM4 | Identifiler® Plus     |         |         |       |       |       |
|        |                       | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| AF2X8Z | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 | NR      |         |       |       |       |
| APM3GK | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| B7UHZR | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| BMGWEJ | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         | 18,19   | 8,9.3 | 7,8   |       |
|        | 15,17                         |         |         |       |       |       |
| C7K2GJ | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         | 18,19   | 8,9.3 | 7,8   |       |
|        | 15,17                         |         |         |       |       |       |
| CE48EQ | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| CJAZ9L | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         | 18,19   | 8,9.3 | 7,8   |       |
|        | 15,17                         |         |         |       |       |       |
| CTZLCY | PowerPlex® Fusion             |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| CTZLEJ | PowerPlex® Fusion 6C          |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      | NR      | NR    |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| DA4FJY | PowerPlex® 16 ESI Fast        |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 |       |       |
| 3      |                               | 13,14   | 14,15   | 18,19 |       | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   |       |
|        | 21,29                         |         |         |       | 8,9.3 |       |
|        | 15,17                         |         |         |       |       |       |
| DCAZ9J | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         | 18,19   | 8,9.3 |       | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| DF6RGG | PowerPlex® Fusion 6C          |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      | NR      | NR    |       |       |
| DPRQ62 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         | 18,19   | 8,9.3 |       | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| E9P9WG | PowerPlex® Fusion 6C          |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      | NR      | NR    |       |       |
| ECPJTG | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| EQ3RRZ | Identifiler® Plus             |         |         |       |       |       |
|        |                               | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                         |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| EU6TUH | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |
| EZ9WGV | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 | N/R     |         |       |       |       |
| F4PJTE | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| FFHZHF | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |
| FRXVVU | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 | NR      |         |       |       |       |
| FYVKDY | Identifiler® Plus     |         |         |       |       |       |
|        |                       | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                 |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| GFC7CF | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| GNTPUT | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| H9VUWT | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | --      |         |       | --    |       |
| JHFKWQ | PowerPlex® Fusion 5C  |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| JPPAE  | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| JTDK9U | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| JVFLAR | PowerPlex®            |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| KDZC9Q | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| KGEADT | Identifiler® Plus             |         |         |       |       |       |
|        |                               | 24      |         | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                         |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| LGUTXQ | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| LMK38N | PowerPlex® Fusion 5C          |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                         | NR      |         |       |       |       |
| M794EB | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| M7UH6A | PowerPlex® Fusion 6C          |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      | NR      | NR    |       |       |
| MGNXRP | Identifiler® Plus             |         |         |       |       |       |
|        |                               | 24,24   |         | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   |         |       | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                         |         |         |       | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| NFBLPD | GlobalFiler™ (STRmix)         |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | NR      |         |       | NR    |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| P747H7 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| Q4VD2C | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| QUKBFB | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| RBKH9H | PowerPlex® Fusion             |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      |       | 8,9.3 | 7,8   |
|        | 15,17                         | NR      |         |       |       |       |
| RQF3P7 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| RTPQMK | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| T86BKJ | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                         | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| TH6Z47 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| TTJX9A | PowerPlex® 21 (STRmix v2.7.0) |         |         |       |       |       |
|        | 11,17.3                       | 24,24   |         | 16,17 | 7,11  | 11,12 |
| 3      | 8,9                           | 13,14   |         | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 |       | X,X   | 11,13 |
|        | 21,29                         | 9,13    | 17,17   |       | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| TWHA4A | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| UHKKM3 | GlobalFiler™ (STRmix)         |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| UWF2D2 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| V3MRF8 | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| V66CZ2 | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| V7K9R2 | PowerPlex® Fusion 6C  |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 | 9,13    | 17,17   | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      | NR      | NR    |       |       |
| W7DLQD | PowerPlex® Fusion     |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 | NR      |         |       |       |       |
| WF3ALF | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| WP8G32 | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| WWUAEZ | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| X6HHCW | GlobalFiler™ (STRMIX) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| XRQV4F | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X,X   | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                       |         |         |       |       |       |
|--------|-----------------------|---------|---------|-------|-------|-------|
| XVTW7Y | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| XYR83X | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| YDR9FY | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| YJFTHF | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| YUCZEY | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| Z4WQDW | GlobalFiler™ (STRmix) |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |
| ZMCYEW | GlobalFiler™          |         |         |       |       |       |
|        | 11,17.3               | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                   | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                 | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                 |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                 |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 3 - STR Results

|        |                               |         |         |       |       |       |
|--------|-------------------------------|---------|---------|-------|-------|-------|
| ZTYMA3 | PowerPlex® Fusion 6C (STRmix) |         |         |       |       |       |
|        | 11,17.3                       | 24      | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | X     | 11,13 |
|        | 21,29                         | 9,13    | 17      | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |
| ZXRURB | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         | --      |         |       | --    |       |
| ZY2WFV | GlobalFiler™                  |         |         |       |       |       |
|        | 11,17.3                       | 24,24   | 11,15   | 16,17 | 7,11  |       |
| 3      | 8,9                           | 13,14   | 14,15   | 18,19 | 11,12 | 11,14 |
|        | 13,15                         | 14,14.2 | 28,31.2 | 16,17 | XX    | 11,13 |
|        | 21,29                         |         |         | 18,19 | 8,9.3 | 7,8   |
|        | 15,17                         |         |         |       |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                       |         |         |         |       |      |
|--------|-----------------------|---------|---------|---------|-------|------|
| 3PAX3U | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 3QJAHB | Identifiler® Plus     |         |         |         |       |      |
|        |                       | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                 |         |         |         | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 4W4PL9 | GlobalFiler™ Express  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 4Z3ZH9 | GlobalFiler™ Express  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 639L8T | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 6E32UA | NGM SElect            |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   |       |      |
| 4      |                       | 11,14   | 15,15   | 17,18   |       | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   |      |
|        | 19,25                 |         |         | 12,25.2 | 7,8   |      |
|        | 16,18                 |         |         |         |       |      |
| 6WMRU9 | Identifiler® Plus     |         |         |         |       |      |
|        |                       | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                 |         |         |         | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                               |         |         |         |       |      |
|--------|-------------------------------|---------|---------|---------|-------|------|
| 72CPV6 | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| 738BPV | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| 7LJXDP | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| 7RPTWP | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| 7V9K9R | GlobalFiler™ (STRmix)         |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| 88TM4N | PowerPlex® Fusion 6C          |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         | NR      | NR      | NR      |       |      |
| 8NGXQQ | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                       |         |         |         |       |      |
|--------|-----------------------|---------|---------|---------|-------|------|
| 8TW7EQ | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 9PRZCP | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 9QLQH4 | Identifiler®          |         |         |         |       |      |
|        |                       | 25,25   |         | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                 |         |         |         | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| 9YX43L | PowerPlex® Fusion 6C  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 | NR      | NR      | NR      |       |      |
| A4KDM4 | Identifiler® Plus     |         |         |         |       |      |
|        |                       | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                 |         |         |         | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| AF2X8Z | PowerPlex® Fusion     |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                 | NR      |         |         |       |      |
| APM3GK | PowerPlex® Fusion 6C  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 | NR      | NR      | NR      |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                               |         |         |         |       |      |
|--------|-------------------------------|---------|---------|---------|-------|------|
| B7UHZR | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| BMGWEJ | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| C7K2GJ | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| CE48EQ | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| CJAZ9L | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| CTZLCY | PowerPlex® Fusion             |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| CTZLEJ | PowerPlex® Fusion 6C          |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         | NR      | NR      | NR      |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                               |         |         |         |       |      |
|--------|-------------------------------|---------|---------|---------|-------|------|
| DA4FJY | PowerPlex® 16 ESI Fast        |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   |       |      |
| 4      |                               | 11,14   | 15,15   | 17,18   |       | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   |      |
|        | 19,25                         |         |         |         | 7,8   |      |
|        | 16,18                         |         |         |         |       |      |
| DCAZ9J | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| DF6RGG | PowerPlex® Fusion 6C          |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         | NR      | NR      | NR      |       |      |
| DPRQ62 | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| E9P9WG | PowerPlex® Fusion 6C          |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         | NR      | NR      | NR      |       |      |
| ECPJTG | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| EQ3RRZ | Identifiler® Plus             |         |         |         |       |      |
|        |                               | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                         |         |         |         | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                       |         |         |         |       |      |
|--------|-----------------------|---------|---------|---------|-------|------|
| EU6TUH | PowerPlex® Fusion 6C  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 | NR      | NR      | NR      |       |      |
| EZ9WGV | PowerPlex® Fusion     |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                 | N/R     |         |         |       |      |
| F4PJTE | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| FFHZHF | PowerPlex® Fusion 6C  |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 | NR      | NR      | NR      |       |      |
| FRXVVU | PowerPlex® Fusion     |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                 | NR      |         |         |       |      |
| FYVKDY | Identifiler® Plus     |         |         |         |       |      |
|        |                       | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 25                    |         |         |         | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| GFC7CF | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                      |         |         |         |       |      |
|--------|----------------------|---------|---------|---------|-------|------|
| GNTPUT | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| H9VUWT | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                | --      |         |         | --    |      |
| JHFKWQ | PowerPlex® Fusion 5C |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| JPPAE  | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| JTDK9U | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| JVFLAR | PowerPlex®           |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| KDZC9Q | PowerPlex® Fusion    |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                      |         |         |         |       |      |
|--------|----------------------|---------|---------|---------|-------|------|
| KGEADT | Identifiler® Plus    |         |         |         |       |      |
|        |                      | 25      |         | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                |         |         |         | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| LGUTXQ | PowerPlex® Fusion 6C |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| LMK38N | PowerPlex® Fusion 5C |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                | NR      |         |         |       |      |
| M794EB | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| M7UH6A | PowerPlex® Fusion 6C |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                | NR      | NR      | NR      |       |      |
| MGNXRP | Identifiler® Plus    |         |         |         |       |      |
|        |                      | 25,25   |         | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   |         |         | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 |         | X,X   | 8,13 |
|        | 19,25                |         |         |         | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| NFBLPD | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                | NR      |         |         | NR    |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                      |         |         |         |       |      |
|--------|----------------------|---------|---------|---------|-------|------|
| P747H7 | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| Q4VD2C | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| QUKBFB | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| RBKH9H | PowerPlex® Fusion    |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                | NR      |         |         |       |      |
| RQF3P7 | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| RTPQMK | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| T86BKJ | PowerPlex® Fusion 6C |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                               |         |         |         |       |       |
|--------|-------------------------------|---------|---------|---------|-------|-------|
| TH6Z47 | GlobalFiler™                  |         |         |         |       |       |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13  |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| TTJX9A | PowerPlex® 21 (STRmix v2.7.0) |         |         |         |       |       |
|        | 13,17                         | 25,25   |         | 16,17   | 10,11 | 10,11 |
| 4      | 8,10                          | 11,14   |         | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 |         | X,X   | 8,13  |
|        | 19,25                         | 3.2,7   | 5,13    |         | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| TWHA4A | GlobalFiler™                  |         |         |         |       |       |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13  |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| UHKM3  | GlobalFiler™                  |         |         |         |       |       |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13  |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| UWF2D2 | GlobalFiler™                  |         |         |         |       |       |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13  |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| V3MRF8 | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |       |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13  |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |
| V66CZ2 | GlobalFiler™                  |         |         |         |       |       |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |       |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12  |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13  |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8   |
|        | 16,18                         |         |         |         |       |       |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                      |         |         |         |       |      |
|--------|----------------------|---------|---------|---------|-------|------|
| V7K9R2 | PowerPlex® Fusion 6C |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                | NR      | NR      | NR      |       |      |
| W7DLQD | PowerPlex® Fusion    |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                | 3.2,7   | 5,13    |         | 7,8   | 6,8  |
|        | 16,18                | NR      |         |         |       |      |
| WF3ALF | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| WP8G32 | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| WWUAEZ | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| X6HHCW | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |
| XRQV4F | GlobalFiler™         |         |         |         |       |      |
|        | 13,17                | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                 | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                       |         |         |         |       |      |
|--------|-----------------------|---------|---------|---------|-------|------|
| XVTW7Y | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| XYR83X | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| YDR9FY | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| YJFTHF | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| YUCZEY | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| Z4WQDW | GlobalFiler™ (STRmix) |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |
| ZMCYEW | GlobalFiler™          |         |         |         |       |      |
|        | 13,17                 | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                  | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                 | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                 |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                 |         |         |         |       |      |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping Software) |         |          |          |            |         |
|---------|--|---------|----------|----------|------------|---------|
| Item    | D1S1656  | D2S1338 | D2S441   | D3S1358  | D5S818     | D6S1043 |
|         | D7S820   | D8S1179 | D10S1248 | D12S391  | D13S317    | D16S539 |
|         | D18S51   | D19S433 | D21S11   | D22S1045 | Amelogenin | CSF1PO  |
|         | FGA  | Penta D | Penta E  | SE33     | TH01       | TPOX    |
|         | vWA  | DYS391  | DYS570   | DYS576   | Y Indel    |         |

## Item 4 - STR Results

|        |                               |         |         |         |       |      |
|--------|-------------------------------|---------|---------|---------|-------|------|
| ZTYMA3 | PowerPlex® Fusion 6C (STRmix) |         |         |         |       |      |
|        | 13,17                         | 25      | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15      | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X     | 8,13 |
|        | 19,25                         | 3.2,7   | 5,13    | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |
| ZXRURB | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         | --      |         |         | --    |      |
| ZY2WFV | GlobalFiler™                  |         |         |         |       |      |
|        | 13,17                         | 25,25   | 12,14   | 16,17   | 10,11 |      |
| 4      | 8,10                          | 11,14   | 15,15   | 17,18   | 12,13 | 9,12 |
|        | 12,20                         | 14.2,15 | 32,33.2 | 11,14   | X,X   | 8,13 |
|        | 19,25                         |         |         | 12,25.2 | 7,8   | 6,8  |
|        | 16,18                         |         |         |         |       |      |

# YSTR Amplification Kit(s) & Results

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
| Item    | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 1 - YSTR Results

|        |         |  |  |  |  |  |  |  |  |
|--------|---------|--|--|--|--|--|--|--|--|
| 3QJAHB | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| 7RPTWP | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| A4KDM4 | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| C7K2GJ | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| EQ3RRZ | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| KGEADT | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |
| <hr/>  |         |  |  |  |  |  |  |  |  |
| ZY2WFV | Yfiler™ |  |  |  |  |  |  |  |  |
| 1      |         |  |  |  |  |  |  |  |  |

TABLE 2

| WebCode                      | Amplification Kit |        |        |          |           |        |        |        |           |    |
|------------------------------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|----|
|                              | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |    |
| Item                         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |    |
|                              | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |    |
| <b>Item 2 - YSTR Results</b> |                   |        |        |          |           |        |        |        |           |    |
| 3QJAHB                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| 639L8T                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| 6E32UA                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           | 25 |
|                              |                   | 12     | 11     | 17       | 17        |        | 21     | 11     |           | 11 |
| 6WMRU9                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| 738BPV                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           | 25 |
|                              |                   | 12     | 11     | 17       | 17        |        | 21     | 11     |           | 11 |
| 7LJXDP                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| 7RPTWP                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| 88TM4N                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| 8NGXQQ                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| 8TW7EQ                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           | 25 |
|                              |                   | 12     | 11,13  | 17       | 17        |        | 21     | 11     |           | 11 |
| 9PRZCP                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| 9QLQH4                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |

TABLE 2

| WebCode                      | Amplification Kit |        |        |          |           |        |        |        |           |    |
|------------------------------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|----|
|                              | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |    |
| Item                         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |    |
|                              | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |    |
| <b>Item 2 - YSTR Results</b> |                   |        |        |          |           |        |        |        |           |    |
| 9YX43L                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| A4KDM4                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| AF2X8Z                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| APM3GK                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| B7UHZR                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           | 25 |
|                              |                   | 12     | 11     | 17       | 17        |        | 21     | 11     |           | 11 |
| BMGWEJ                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| C7K2GJ                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| CE48EQ                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           | 25 |
|                              |                   | 12     | 11     | 17       | 17        |        | 21     | 11     |           | 11 |
| CJAZ9L                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| CTZLEJ                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| DF6RGG                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| E9P9WG                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |

TABLE 2

| WebCode                      | Amplification Kit |        |        |          |           |        |        |        |           |    |
|------------------------------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|----|
|                              | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |    |
| Item                         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |    |
|                              | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |    |
| <b>Item 2 - YSTR Results</b> |                   |        |        |          |           |        |        |        |           |    |
| EQ3RRZ                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| EU6TUH                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| EZ9WGV                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| FFHZHF                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| FRXVU                        | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| FYVKDY                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| JHFKWQ                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| KGEADT                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |
| LGUTXQ                       | PowerPlex® Y 23   |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        | 25        |    |
|                              |                   | 12     | 11     | 17       | 17        |        | 21     | 11     |           | 11 |
| LMK38N                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| M794EB                       | Yfiler™ Plus      |        |        |          |           |        |        |        |           |    |
|                              | 38                | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       | 31        | 15     | 16     | 11     | 25        |    |
|                              | 41                | 12     |        | 17       | 17        | 19     | 21     |        |           | 11 |
| M7UH6A                       | Yfiler™           |        |        |          |           |        |        |        |           |    |
|                              |                   | 17     | 15,17  | 13       | 30        | 21     | 10     | 11     | 14        |    |
| 2                            | 14                | 11     | 13     | 21       |           | 15     | 16     |        |           |    |
|                              |                   |        |        |          |           |        | 21     |        |           | 11 |

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|         | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item    | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

## Item 2 - YSTR Results

|        |                 |    |       |       |    |    |    |    |    |
|--------|-----------------|----|-------|-------|----|----|----|----|----|
| NFBLPD | Yfiler™         |    |       |       |    |    |    |    |    |
|        |                 | 17 | 15,17 | 13    | 30 | 21 | 10 | 11 | 14 |
| 2      |                 | 14 | 11    | 13    | 21 | 15 | 16 |    |    |
|        |                 |    |       |       |    |    | 21 |    | 11 |
| P747H7 | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| RBKH9H | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| RQF3P7 | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| RTPQMK | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| T86BKJ | PowerPlex® Y 23 |    |       |       |    |    |    |    |    |
|        |                 | 17 | 15,17 | 13    | 30 | 21 | 10 | 11 | 14 |
| 2      |                 | 14 | 11    | 13    | 21 | 15 | 16 |    | 25 |
|        |                 | 12 | 11    | 17    | 17 |    | 21 | 11 | 11 |
| TH6Z47 | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| UHKKM3 | PowerPlex® Y 23 |    |       |       |    |    |    |    |    |
|        |                 | 17 | 15,17 | 13    | 30 | 21 | 10 | 11 | 14 |
| 2      |                 | 14 | 11    | 13    | 21 | 15 | 16 |    | 25 |
|        |                 | 12 | 11    | 17    | 17 |    | 21 | 11 | 11 |
| V3MRF8 | PowerPlex® Y 23 |    |       |       |    |    |    |    |    |
|        |                 | 17 | 15,17 | 13    | 30 | 21 | 10 | 11 | 14 |
| 2      |                 | 14 | 11    | 13    | 21 | 15 | 16 |    | 25 |
|        |                 | 12 | 11    | 17    | 17 |    | 21 | 11 | 11 |
| V7K9R2 | Yfiler™         |    |       |       |    |    |    |    |    |
|        |                 | 17 | 15,17 | 13    | 30 | 21 | 10 | 11 | 14 |
| 2      |                 | 14 | 11    | 13    | 21 | 15 | 16 |    |    |
|        |                 |    |       |       |    |    | 21 |    | 11 |
| W7DLQD | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |
| WP8G32 | Yfiler™ Plus    |    |       |       |    |    |    |    |    |
|        |                 | 38 | 17    | 15,17 | 13 | 30 | 21 | 10 | 11 |
| 2      |                 | 14 | 11    | 13    | 21 | 31 | 15 | 16 | 11 |
|        |                 | 41 | 12    |       | 17 | 17 | 19 | 21 | 11 |

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
| Item    | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 2 - YSTR Results

|        |              |    |       |    |    |    |    |    |    |
|--------|--------------|----|-------|----|----|----|----|----|----|
| YDR9FY | Yfiler™ Plus |    |       |    |    |    |    |    |    |
|        | 38           | 17 | 15,17 | 13 | 30 | 21 | 10 | 11 | 14 |
| 2      | 14           | 11 | 13    | 21 | 31 | 15 | 16 | 11 | 25 |
|        | 41           | 12 |       | 17 | 17 | 19 | 21 |    | 11 |
| YUCZEY | Yfiler™ Plus |    |       |    |    |    |    |    |    |
|        | 38           | 17 | 15,17 | 13 | 30 | 21 | 10 | 11 | 14 |
| 2      | 14           | 11 | 13    | 21 | 31 | 15 | 16 | 11 | 25 |
|        | 41           | 12 |       | 17 | 17 | 19 | 21 |    | 11 |
| ZY2WFV | Yfiler™      |    |       |    |    |    |    |    |    |
|        |              | 17 | 15,17 | 13 | 30 | 21 | 10 | 11 | 14 |
| 2      | 14           | 11 | 13    | 21 |    | 15 | 16 |    |    |
|        |              |    |       |    |    |    | 21 |    | 11 |

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|         | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item    | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 3 - YSTR Results

|        |              |     |     |     |     |     |     |     |     |
|--------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 3QJAHB | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| 7RPTWP | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| A4KDM4 | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| AF2X8Z | Yfiler™ Plus | NR  |
| 3      |              | NR  |
|        |              | NR  |
| C7K2GJ | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| EQ3RRZ | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| EZ9WGV | Yfiler™ Plus | N/R |
| 3      |              | N/R |
|        |              | N/R |
| FRXVU  | Yfiler™ Plus | NR  |
| 3      |              | NR  |
|        |              | NR  |
| KGEADT | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 3      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| LMK38N | Yfiler™ Plus | NR  |
| 3      |              | NR  |
|        |              | NR  |
| RBKH9H | Yfiler™ Plus | NR  |
| 3      |              | NR  |
|        |              | NR  |
| W7DLQD | Yfiler™ Plus | NR  |
| 3      |              | NR  |
|        |              | NR  |

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
| Item    | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 3 - YSTR Results

ZY2WFV Yfiler™

3



TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
|         | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
| Item    | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 4 - YSTR Results

|        |              |     |     |     |     |     |     |     |     |
|--------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|
| 3QJAHB | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| 6WMRU9 | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| 7RPTWP | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| A4KDM4 | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| AF2X8Z | Yfiler™ Plus | NR  |
| 4      |              | NR  |
|        |              | NR  |
| C7K2GJ | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| EQ3RRZ | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| EZ9WGV | Yfiler™ Plus | N/R |
| 4      |              | N/R |
|        |              | N/R |
| FRXVU  | Yfiler™ Plus | NR  |
| 4      |              | NR  |
|        |              | NR  |
| KGEADT | Yfiler™      | -   | -   | -   | -   | -   | -   | -   | -   |
| 4      |              | -   | -   | -   | -   | -   | -   | -   | -   |
| LMK38N | Yfiler™ Plus | NR  |
| 4      |              | NR  |
|        |              | NR  |
| RBKH9H | Yfiler™ Plus | NR  |
| 4      |              | NR  |
|        |              | NR  |

TABLE 2

| WebCode | Amplification Kit |        |        |          |           |        |        |        |           |
|---------|-------------------|--------|--------|----------|-----------|--------|--------|--------|-----------|
| Item    | DYF387S1          | DYS19  | DYS385 | DYS389-I | DYS389-II | DYS390 | DYS391 | DYS392 | DYS393    |
|         | DYS437            | DYS438 | DYS439 | DYS448   | DYS449    | DYS456 | DYS458 | DYS460 | DYS481    |
|         | DYS518            | DYS533 | DYS549 | DYS570   | DYS576    | DYS627 | DYS635 | DYS643 | Y GATA H4 |

Item 4 - YSTR Results

|        |              |    |    |    |    |    |    |    |    |
|--------|--------------|----|----|----|----|----|----|----|----|
| W7DLQD | Yfiler™ Plus |    |    |    |    |    |    |    |    |
|        | NR           | NR | NR | NR | NR | NR | NR | NR | NR |
| 4      | NR           | NR | NR | NR | NR | NR | NR | NR | NR |
|        | NR           | NR |    | NR | NR | NR | NR |    | NR |
| ZY2WFV | Yfiler™      |    |    |    |    |    |    |    |    |
| 4      |              |    |    |    |    |    |    |    |    |

# Additional DNA Results

TABLE 3

| Locus | WebCode | Item 1 | Item 2 | Item 3 | Item 4 |
|-------|---------|--------|--------|--------|--------|
|-------|---------|--------|--------|--------|--------|

No additional DNA results were reported.

# DNA Interpretations

Based on results obtained from DNA analysis, could the Victim (Item 1) and/or the Suspect (Item 2) be a contributor to the questioned stains (Items 3 & 4)?

TABLE 4

| WebCode | Victim (Item 1)   |        | Suspect (Item 2) |        | WebCode | Victim (Item 1)   |        | Suspect (Item 2) |        |
|---------|---|--------|------------------|--------|---------|---|--------|------------------|--------|
|         | Item 3  | Item 4 | Item 3           | Item 4 |         | Item 3  | Item 4 | Item 3           | Item 4 |
| 3PAX3U  | Yes   | No     | No               | No     | AF2X8Z  | Yes   | No     | No               | No     |
| 3QJAHB  | Yes   | No     | No               | No     | APM3GK  | Yes   | No     | No               | No     |
| 4EQ6RP  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                  |        | B7UHZR  | Yes   | No     | No               | No     |
| 4W4PL9  | Yes   | No     | No               | No     | BMGWEJ  | Yes   | No     | No               | No     |
| 4Z3ZH9  | Yes   | No     | No               | No     | C7K2GJ  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                  |        |
| 639L8T  | Yes   | No     | No               | No     | CE48EQ  | Yes   | No     | No               | No     |
| 6E32UA  | Yes   | No     | No               | No     | CJAZ9L  | Yes   | No     | No               | No     |
| 6WMRU9  | Yes   | No     | No               | No     | CTZLCY  | Yes   | No     | No               | No     |
| 72CPV6  | Yes   | No     | No               | No     | CTZLEJ  | Yes   | No     | No               | No     |
| 738BPV  | Yes   | No     | No               | No     | DA4FJY  | Yes   | No     | No               | No     |
| 7LJXDP  | Yes   | No     | No               | No     | DCAZ9J  | Yes   | No     | No               | No     |
| 7RPTWP  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                  |        | DF6RGG  | Yes   | No     | No               | No     |
| 7V9K9R  | Yes   | No     | No               | No     | DPRQ62  | Yes   | No     | No               | No     |
| 88TM4N  | Yes   | No     | No               | No     | E9P9WG  | Yes   | No     | No               | No     |
| 8NGXQQ  | Yes   | No     | No               | No     | ECPJTG  | Yes   | No     | No               | No     |
| 8TW7EQ  | Yes   | No     | No               | No     | EQ3RRZ  | Yes   | No     | No               | No     |
| 9PRZCP  | Yes   | No     | No               | No     | EU6TUH  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                  |        |
| 9QLQH4  | Yes   | No     | No               | No     | EZ9WGV  | Yes   | No     | No               | No     |
| 9YX43L  | Yes   | No     | No               | No     | F4PJTE  | Yes   | No     | No               | No     |
| A4KDM4  | Yes   | No     | No               | No     | FFHZHF  | Yes   | No     | No               | No     |

TABLE 4

| WebCode | <u>Victim (Item 1)</u>  |        | <u>Suspect (Item 2)</u> |        | WebCode | <u>Victim (Item 1)</u>  |        | <u>Suspect (Item 2)</u> |        |
|---------|---|--------|-------------------------|--------|---------|---|--------|-------------------------|--------|
|         | Item 3  | Item 4 | Item 3                  | Item 4 |         | Item 3  | Item 4 | Item 3                  | Item 4 |
| FLABTE  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        | RBKH9H  | Yes   | No     | No                      | No     |
| FRXWU   | Yes   | No     | No                      | No     | RQF3P7  | Yes   | No     | No                      | No     |
| FYVKDY  | Yes   | No     | No                      | No     | RTPQMK  | Yes   | No     | No                      | No     |
| GFC7CF  | Yes   | No     | No                      | No     | T86BKJ  | Yes   | No     | No                      | No     |
| GNTPUT  | Yes   | No     | No                      | No     | TH6Z47  | Yes   | No     | No                      | No     |
| H9VUWT  | Yes   | No     | No                      | No     | TTJX9A  | Yes   | No     | No                      | No     |
| JHFKWQ  | Yes   | No     | No                      | No     | TWHA4A  | Yes   | No     | No                      | No     |
| JJPPAE  | Yes   | No     | No                      | No     | UHKKM3  | Yes   | No     | No                      | No     |
| JTDK9U  | Yes   | No     | No                      | No     | UWF2D2  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        |
| JVFLAR  | Yes   | No     | No                      | No     | V3MRF8  | Yes   | No     | No                      | No     |
| KDZC9Q  | Yes   | No     | No                      | No     | V66CZ2  | Yes   | No     | No                      | No     |
| KGEADT  | Yes   | No     | No                      | No     | V7K9R2  | Yes   | No     | No                      | No     |
| LGUTXQ  | Yes   | No     | No                      | No     | VPF2DY  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        |
| LMK38N  | Yes   | No     | No                      | No     | W7DLQD  | Yes   | No     | No                      | No     |
| M794EB  | Yes   | No     | No                      | No     | WF3ALF  | Yes   | No     | No                      | No     |
| M7UH6A  | Yes   | No     | No                      | No     | WP8G32  | Yes   | No     | No                      | No     |
| MGNXRP  | Yes   | No     | No                      | No     | WWUAEZ  | Yes   | No     | No                      | No     |
| NFBLPD  | Yes   | No     | No                      | No     | X6HHCW  | Yes   | No     | No                      | No     |
| P747H7  | Yes   | No     | No                      | No     | XRQV4F  | Yes   | No     | No                      | No     |
| Q4VD2C  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        | XVTW7Y  | Yes   | No     | No                      | No     |
| QUKBFB  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        | XYR83X  | Yes   | No     | No                      | No     |

TABLE 4

| WebCode | <u>Victim (Item 1)</u>  |        | <u>Suspect (Item 2)</u> |        | WebCode | <u>Victim (Item 1)</u> |        | <u>Suspect (Item 2)</u> |        |
|---------|---|--------|-------------------------|--------|---------|------------------------|--------|-------------------------|--------|
|         | Item 3  | Item 4 | Item 3                  | Item 4 |         | Item 3                 | Item 4 | Item 3                  | Item 4 |
| YDR9FY  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| YJFTHF  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| YUCZEY  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| Z4WQDW  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| ZMCYEW  | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        |         |                        |        |                         |        |
| ZTYMA3  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| ZXRURB  | Yes   | No     | No                      | No     |         |                        |        |                         |        |
| ZY2WV   | No Interpretations Reported, DNA Analyzed for Database purposes only. |        |                         |        |         |                        |        |                         |        |

| <b>DNA Interpretation</b>  |   |                 |               |                  |               |
|--|---|-----------------|---------------|------------------|---------------|
| <b>Response Summary</b>  | <b>Participants reporting DNA results: 90</b> |                 |               |                  |               |
| <i>Based on results obtained from DNA analysis, could the Victim (Item 1) and/or the Suspect (Item 2) be a contributor to the questioned stains (Items 3 &amp; 4)?</i> |   |                 |               |                  |               |
|  |   | Victim (Item 1) |               | Suspect (Item 2) |               |
|  |   | <u>Item 3</u>   | <u>Item 4</u> | <u>Item 3</u>    | <u>Item 4</u> |
| Yes  |   | <b>79</b>       | <b>0</b>      | <b>0</b>         | <b>0</b>      |
| No   |   | <b>0</b>        | <b>79</b>     | <b>79</b>        | <b>79</b>     |
| Inc  |   | <b>0</b>        | <b>0</b>      | <b>0</b>         | <b>0</b>      |
| No Interpretation  |   | <b>0</b>        | <b>0</b>      | <b>0</b>         | <b>0</b>      |
| No Response  |   | <b>0</b>        | <b>0</b>      | <b>0</b>         | <b>0</b>      |

Participants analyzing DNA for database purposes only: 11

# Additional Comments

## TABLE 5

| WebCode | Additional Comments  |
|---------|--|
| 3QJAHB  | Extraction: Item 1 and Item 2 were extracted using in-situ method. Item 3 and Item 4 were extracted using Promega DNA-IQ Purification Kit via TECAN Freedom EVO® HID EVOLution™ Platform. Quantification: Item 3 and Item 4 were quantified using ABI Quantifiler Human DNA Quantification Kit on ABI QuantStudio 5 Real-Time PCR System. Amplification: Item 1 and Item 2 were amplified using Globalfiler Express (GFE) Kit on ABI Proflex PCR System. Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Plus PCR Amplification Kit (in the midst of validating the GlobalFiler Casework Amplification Kit) on ABI GeneAmp PCR System 9700. Item 1, Item 2, Item 3 and Item 4 were amplified using AmpFLSTR Yfiler PCR Amplification Kit on ABI GeneAmp PCR System 9700. Electrophoresis: Electrophoresis were carried out on ABI 3500xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4. Electrophoresis were carried out on ABI 3130xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4 (Y-Filer Kit). Quality Control: Reagent Blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. NM: Non-male allele |
| 6E32UA  | Y-STR analysis not undertaken on samples which gave female NGMSElect results.  |
| 6WMRU9  | Extraction: Item 1 and Item 2 were extracted using in-situ method while Item 3 and Item 4 were extracted using Chelex extraction method. Quantification: DNA quantitation for Item 3 and Item 4 were carried out using the Quantifiler Human DNA Quantification kit with Applied Biosystem Real Time Polymerase Chain Reaction (PCR) 7500 system. Amplification: Item 1 and Item 2 were amplified using AmFISTR Identifiler Direct Kit while Item 3 and Item 4 were amplified using AmFISTR Identifiler Plus kit on 9700 GeneAmp PCR System. Y-STR (Y-Short Tandem Repeat) amplification were carried out on Item 2 and Item 4 using AmFISTR Y-Filer kit on 9700 GeneAmp PCR System. Electrophoresis: Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 1 and Item 2 (Identifiler Direct), Item 3 and Item 4 (Identifiler Plus). Electrophoresis for Y-Filer were carried out on Genetic Analyzer 3500xl for Item 2 and Item 4. Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results.   |
| 72CPV6  | Items 3 and 4 were extracted via differential separation, per laboratory protocol. No human DNA was detected in the sperm fractions, so the report will reflect the non-sperm fraction (epi-fraction) only.  |
| 88TM4N  | NR = No Results  |
| 8TW7EQ  | The Y-STR amplification result of item 2 resulted in a full profile with one drop-in peak at DYS549 (13, 139 RFU). The height of this peak is within our laboratory parameters for drop-in and would be designated as such in casework.  |
| 9YX43L  | NR=No Result ([Name] 6/10/2020)  |
| A4KDM4  | Extraction: Item 1 and Item 2 were extracted using in-situ method. Item 3 and Item 4 were extracted using Promega DNA-IQ Purification Kit via TECAN Freedom EVO® HID EVOLution™ Platform. Quantification: Item 3 and Item 4 were quantified using ABI Quantifiler Human DNA Quantification Kit on ABI QuantStudio 5 Real-Time PCR System. Amplification: Item 1 and Item 2 were amplified using Globalfiler Express (GFE) Kit on ABI Proflex PCR System. Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Plus PCR Amplification Kit (in the midst of validating the GlobalFiler Casework Amplification Kit) on ABI GeneAmp PCR System 9700. Item 1, Item 2, Item 3 and Item 4 were amplified using AmpFLSTR Yfiler PCR Amplification Kit on ABI GeneAmp PCR System 9700. Electrophoresis: Electrophoresis were carried out on ABI 3500xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4. Electrophoresis were carried out on ABI 3130xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4 (Y-Filer Kit). Quality Control: Reagent Blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. NM: Non-male allele |
| AF2X8Z  | NR = No Results  |
| APM3GK  | NR = No Result ([Name] 5/23/2020)  |
| CTZLEJ  | NR = No Result(s)  |
| DF6RGG  | NR=No result   |
| E9P9WG  | KEY: NR = No Result  |

TABLE 5

| WebCode | Additional Comments  |
|---------|--|
| EQ3RRZ  | <p>Extraction: Item 1 and Item 2 were extracted using in-situ method. Item 3 and Item 4 were extracted using Chelex extraction method. Quantification: Item 3 and Item 4 were quantified using ABI Quantifiler Human DNA Quantification Kit on ABI QuantStudio 5 Real-Time PCR System. Amplification: Item 1 and Item 2 were amplified using Globalfiler Express (GFE) Kit on ABI Proflex PCR System. Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Plus PCR Amplification Kit (in the midst of validating the GlobalFiler Casework Amplification Kit) on ABI GeneAmp PCR System 9700. Item 1, Item 2, Item 3 and Item 4 were amplified using AmpFLSTR Yfiler PCR Amplification Kit on ABI GeneAmp PCR System 9700.</p> <p>Electrophoresis: Electrophoresis were carried out on ABI 3500xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4. Electrophoresis were carried out on ABI 3130xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4 (Y-Filer Kit). Quality Control: Reagent Blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. NM: Non-male allele</p> |
| EU6TUH  | NR = No Result   |
| EZ9WGV  | N/R = No Results   |
| FFHZHF  | NR=No Results  |
| FRXVU   | NR=No Results  |
| FYVKDY  | <p>1. Item 1 and Item 2 were extracted using in-situ method while Item 3 and Item 4 were extracted using Chelex extraction method. 2. Item 3 and Item 4 were quantified using Quantifiler Human DNA Quantification Kit on the Applied Biosystem Real Time Polymerase Chain Reaction (PCR) 7500 System. 3. Item 1 and Item 2 were amplified using AmpFLSTR Identifiler Direct PCR Amplification Kit while Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Plus Amplification Kit on 9700 GeneAmp PCR System. Y-STR (Y-Short Tandem Repeat) amplification was carried out on Item 2 using AmpFLSTR Y-filer PCR Amplification Kit on the 9700 GeneAmp PCR System. 4. Electrophoresis was carried out on the Applied Biosystems 3500xl Genetic Anayzer with GeneMapper ID-X Software for Item 1, Item 2, Item 3 and Item 4. 5. Reagent blank, positive control and negative control were analysed throughout the analysis and all gave the intended results.</p>   |
| KGEADT  | <p>Extraction: Item 1 and Item 2 were extracted using in-situ method. Item 3 and Item 4 were extracted using Chelex extraction method. Quantification: Item 3 and Item 4 were quantified using ABI Quantifiler Human DNA Quantification Kit on ABI QuantStudio 5 Real-Time PCR System. Amplification: Item 1 and Item 2 were amplified using Globalfiler Express (GFE) Kit on ABI Proflex PCR System. Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Plus PCR Amplification Kit (in the midst of validating the GlobalFiler Casework Amplification Kit) on ABI GeneAmp PCR System 9700. Item 1, Item 2, Item 3 and Item 4 were amplified using AmpFLSTR Yfiler PCR Amplification Kit on ABI GeneAmp PCR System 9700.</p> <p>Electrophoresis: Electrophoresis were carried out on ABI 3500xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4. Electrophoresis were carried out on ABI 3130xL Genetic Analyzer for Item 1, Item 2, Item 3 and Item 4 (Y-Filer Kit). Quality Control: Reagent Blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. NM: Non-male allele</p> |
| LMK38N  | NR=no results  |
| M7UH6A  | NR = No Results  |
| RBKH9H  | NR = No Result   |
| V3MRF8  | The only sample suitable for Y-STR testing was the reference sample collected from the male suspect.   |
| V7K9R2  | NR = No Result   |
| W7DLQD  | NR= No Results   |
| ZMCYEW  | Test participant functions as Y-screen technician and does not perform interpretations.  |
| ZXRURB  | Items 3 and 4 were run as differentials. Only reported on epi fractions as the samples are bloodstains and the sperm fractions would only have carryover and not be different than the epi.  |

-End of Report-  
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

**Test No. 20-5803: DNA-Blood**

DATA MUST BE SUBMITTED BY **July 6, 2020, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234D

WebCode: 7HZ3AW

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

**Scenario:**

Police are investigating the assault and kidnapping of a female victim. The victim's claim is that while she was running in a park, a man approached her with a knife and forced her into a nearby van. He then drove her to an ATM and forced her to withdraw cash to give to him. When he tried to force the victim back into the van, she was able to fight him off but was cut on the hand in the process. She then started running away and the suspect immediately drove off. Police identified a van matching the victim's description in the area and arrested a suspect. Investigators are submitting a stain from the shirt (Item 3) the suspect was wearing and a stain from the shirt (Item 4) the victim was wearing. Screening has been performed on both samples with the following results: Item 3 (suspect's shirt) and Item 4 (victim's shirt) are both positive for blood.

**Items Submitted (Sample Pack S3):**

Item 1: Known blood from the female victim

Item 2: Known blood from the male suspect

Item 3: Questioned blood stain from suspect's shirt (pink)

Item 4: Questioned blood stain from victim's shirt (off-white)









### Part I (continued): DNA Analysis - Additional DNA

- Use this section to report results for loci not currently listed in other sections of the data sheet.
- Report alleles in numerical order, separated by a comma.
- If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].
- Click "Add Row" to show another row of boxes for entry.

| Locus | Item 1 | Item 2 | Item 3 | Item 4 |
|-------|--------|--------|--------|--------|
|       |        |        |        |        |
|       |        |        |        |        |
|       |        |        |        |        |
|       |        |        |        |        |

### Part II: DNA INTERPRETATION

Based on results obtained from DNA analysis, could the Victim (Item 1) and/or the Suspect (Item 2) be a contributor to the questioned stains (Items 3 & 4)?

|                   |                       | <u>Victim (Item 1).</u> |                       | <u>Suspect (Item 2).</u> |                       |                       |
|-------------------|-----------------------|-------------------------|-----------------------|--------------------------|-----------------------|-----------------------|
|                   |                       | Item 3                  | Item 4                | Item 3                   | Item 4                |                       |
| Yes               | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | Yes                      | <input type="radio"/> | <input type="radio"/> |
| No                | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | No                       | <input type="radio"/> | <input type="radio"/> |
| Inconclusive      | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | Inconclusive             | <input type="radio"/> | <input type="radio"/> |
| No Interpretation | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | No Interpretation        | <input type="radio"/> | <input type="radio"/> |

DNA interpretations not reported; samples analyzed for database purposes only:

### Part III: ADDITIONAL COMMENTS

- Use this section to report comments regarding any part of this test.
- Written conclusions (including statistical information) for DNA analysis are not required.
- Any interpretations based on the results obtained should be indicated in the section above.
- Note: Laboratories submitting their results for accreditation are asked to report any additional information that will assist in the review of their results. This includes an explanation of any deviations from a full completion of the test and/or unique findings such as elevated stutter.

**Please note:** Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

## RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. 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, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps only if your laboratory is accredited in this testing/calibration discipline by one or more of the following Accreditation Bodies.

**Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.**

ANAB Certificate No.   
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

**Step 2: Complete the Laboratory Identifying Information in its entirety.**

Authorized Contact Person and Title

Laboratory Name

Location (City/State)