



DNA Parentage Test No. 19-5870 Summary Report

Each participant received a sample pack consisting of the standard paternity trio, collected from a mother, a son, and a potential father. Participants were requested to analyze the samples using their existing protocols. Data were returned from 48 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 set was a collection of known blood samples, provided on FTA Micro cards, from three individuals (Items 1-3); a mother, a son, and a potential father. Participants were requested to analyze these items using their existing protocols. Also included with this test was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a half sibling relationship claim was supported following the review of these profiles.

SAMPLE PREPARATION: All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 (75 μ l) was blood from a female (mother) donor, Item 2 (75 μ l) was blood from a male (son) donor, and Item 3 (75 μ l) was blood from a male donor who was not the biological father of the Item 2 male. The different items were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on February 18, 2019.

SAMPLE SET ASSEMBLY: For each sample set, all three Items (1-3) in their separate envelopes were placed in a pre-labeled sample pack envelope and sealed. The 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.

KINSHIP EXERCISE: This exercise included allelic results representing a half sibling relationship.

VERIFICATION: Laboratories that conducted predistribution analysis of the samples reported consistent results and associations.

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 | |
| 1 | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | * |
| | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | NM | NM | NM | NM | |
| 2 | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | * |
| | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | 19 | 16 | 2 | |
| 3 | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | * |
| | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | 17.3,24.2 | 8,9.3 | 8,11 |
| | 18,18 | 10 | 18 | 19 | 2 | |

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 |
| 2 | * | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | * | 16 | 17 | * | 22 |
| | * | 12 | * | 19 | 16 | * | 25 | * | 11 |
| 3 | * | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | * | 15 | 16 | * | 24 |
| | * | 9 | * | 18 | 19 | * | 21 | * | 13 |

Paternity Indices

Median Paternity Index results compiled from predistribution laboratories and a consensus of at least 10 participants.

| Item - Database | 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 | |
| 3PI | * | 0 | * | 0 | 2.809 | * |
| | 0 | 2.9958 | * | * | 1.8608 | 1.5903 |
| NIST-STRBase | 0 | 2.3143 | 0 | * | N/A | 0 |
| | 0 | * | * | * | 1.4497 | 1.9833 |
| | 0 | | | | | |

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

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

Summary Comments

The 19-5870 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of a standard paternity trio of blood samples. Item 1 was blood collected from a female donor (mother), Item 2 was blood collected from a male donor (son of the Item 1 female), and Item 3 was blood collected from a male donor who is not the biological father of the Item 2 male. Participants were requested to analyze the samples and provide allelic and statistical results as well as relationship conclusions. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and report the kinship index and relationship conclusions (Refer to the Manufacturer's Information for preparation details).

DNA Analysis:

All 48 participants who returned data reported STR results for all three items. For Item 1, one participant reported a discordant allele at the D1S1656 locus.

Twenty six participants reported full YSTR results for Item 2 and Item 3. Of these participants, the reported individual profiles for both Item 2 and Item 3 were consistent.

Paternity DNA Statistics:

Fourty seven participants reported that the source of Item 3 was excluded as the biological father of Item 2 and one participant did not report a conclusion but reported a conclusion in their additional comments. Most participants either reported a value of zero or did not respond for the combined paternity index or the probability of paternity. Many participants stated that they do not calculate combined paternity index or probability of paternity when the alleged father is excluded as being the biological father. One participant reported a probability of paternity of 99.96% but concluded that Item 3 was excluded as the biological father of Item 2. The most frequently reported population databases were NIST-STRBASE with 19 participants and FBI PopStats with seven participants.

Kinship DNA Statistics

There were 21 participants who responded for the paper kinship exercise. One participant reported inconsistent likelihood ratio (LR) values at 17 different loci. Three other participants reported an inconsistent LR value, each for a different locus. Approximately 76% of participants reported a combined Kinship Index (KI) between 40,500 and 40,540. Three participants reported KI values that differed from the consensus but falling within a range of 41,000 to 46,000. One participant reported a KI value above the range at 75,573. Another participant reported a low KI value at 4,102. All 21 participants reported that the claim of a half sibling relationship was supported.

STR Amplification Kit(s) & Results

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|---------|-------|---------|---------|-------|
| 272JU3 | PowerPlex® Fusion | | | | | |
| | | 12,17.3 | 19,24 | 10 | 15 | 11,13 |
| 1 | | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 |
| | | 15,20 | 12,14 | 31,32.2 | 11,15 | X |
| | | 20,22 | 10,11 | 11,18 | | 7,9 |
| | | 17,19 | | | | 8,11 |
| <hr/> | | | | | | |
| 4B8RE6 | PowerPlex® Fusion 5C | | | | | |
| | | 12,17.3 | 19,24 | 10 | 15 | 11,13 |
| 1 | | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 |
| | | 15,20 | 12,14 | 31,32.2 | 11,15 | X |
| | | 20,22 | 10,11 | 11,18 | | 7,9 |
| | | 17,19 | -- | | | 8,11 |
| <hr/> | | | | | | |
| 4C3GHX | Identifiler® Plus | | | | | |
| | | | 19,24 | | 15,15 | 11,13 |
| 1 | | 12,13 | 12,14 | | | 10,13 |
| | | 15,20 | 12,14 | 31,32.2 | | X,X |
| | | 20,22 | | | | 7,9 |
| | | 17,19 | | | | 8,11 |
| <hr/> | | | | | | |
| 6G9P3Y | PowerPlex® | | | | | |
| | | 12,17.3 | 19,24 | 10 | 15 | 11,13 |
| 1 | | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 |
| | | 15,20 | 12,14 | 31,32.2 | 11,15 | X |
| | | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 |
| | | 17,19 | | | | 8,11 |
| <hr/> | | | | | | |
| 6L2R3T | GlobalFiler™ | | | | | |
| | | 12,17.3 | 19,24 | 10 | 15 | 11,13 |
| 1 | | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 |
| | | 15,20 | 12,14 | 31,32.2 | 11,15 | X |
| | | 20,22 | | | 16,28.2 | 7,9 |
| | | 17,19 | | | | 8,11 |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| 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

| | | | | | | |
|--------|----------------------|-------|---------|---------|-------|-------|
| 7LDQW2 | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| 97EN9T | ESI | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | |
| | 20,22 | | | 16,28.2 | 7,9 | |
| | 17,19 | | | | | |
| 9HRN6M | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| A47R2V | PowerPlex® PP21 | | | | | |
| | 12,17.3 | 19,24 | | 15 | 11,13 | 13 |
| 1 | 12,13 | 12,14 | | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| AKFEUX | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | NR | | | | |
| AMYTX | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | NR | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| 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

| | | | | | | |
|--------|--|-------|---------|---------|-------|-------|
| AVAVJY | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| B2THPN | PowerPlex® 21 | | | | | |
| | 12,17.3 | 19,24 | | 15,15 | 11,13 | 13,13 |
| 1 | 12,13 | 12,14 | | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| BMDDHV | PowerPlex® | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| BV9HBW | Identifiler®, HDplex, CS7, SureID 23comp | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| C3JZ4U | PowerPlex® FUSION | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | - | | | | |
| CPXNRK | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|------------------------------|-------|---------|---------|-------|-------|
| D4U3PT | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| D63F8V | Identifiler® Plus, Minifiler | | | | | |
| | | 19,24 | | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X | 12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| D8TGDJ | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | - | | | - | |
| DF36QG | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| EWWTYV | Identifiler® Plus | | | | | |
| | | 19,24 | | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X | 12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| FB3DVP | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|-------|---------|---------|-------|-------|
| G998PJ | Identifiler® Direct | | | | | |
| | - | 19,24 | - | 15 | 11,13 | - |
| 1 | 12,13 | 12,14 | - | - | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | - | X,X | 12 |
| | 20,22 | - | - | - | 7,9 | 8,11 |
| | 17,19 | - | - | - | - | - |
| GBZ74H | PowerPlex® 21 | | | | | |
| | 12,17.3 | 19,24 | | 15,15 | 11,13 | 13,13 |
| 1 | 12,13 | 12,14 | | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| GGQFEF | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| H2Q2QR | Identifiler® Direct | | | | | |
| | | 19,24 | | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| HMBXBN | GlobalFiler™ Express | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| HV69FR | Identifiler® Direct | | | | | |
| | - | 19,24 | - | 15 | 11,13 | - |
| 1 | 12,13 | 12,14 | - | - | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | - | X,X | 12 |
| | 20,22 | - | - | - | 7,9 | 8,11 |
| | 17,19 | - | - | - | - | - |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------------------|-------|---------|---------|-------|-------|
| JTVHPN | Identifiler® Direct | | | | | |
| | | 19,24 | | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| K7EKKK | PowerPlex® Fusion 6C (Familias3) | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| K87JYJ | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| LEMEFD | PowerPlex® 21 | | | | | |
| | 12,17.3 | 19,24 | | 15,15 | 11,13 | 13,13 |
| 1 | 12,13 | 12,14 | | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| MR8FBB | GlobalFiler™ Express | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| N6RB4F | Identifiler® Direct | | | | | |
| | | 19,24 | | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12,12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| 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

| | | | | | | |
|--------|---------------------------------------|-------|---------|---------|-------|-------|
| RPMVRB | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| T3N97D | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | NR | | | | |
| TB23GA | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| TGRCQ8 | PowerPlex® Fusion 6C, PPX 16 ESI Fast | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| W3YT2 | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| WNHWKY | PowerPlex® Fusion 6C | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | 10,11 | 11,18 | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|--|--------------|---------|---------|--------------|-------|
| X46VP4 | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | Not Detected | | | Not Detected | |
| XENBR7 | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | 10,11 | 11,18 | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| XVBQV3 | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| YFDYQR | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10,10 | 15,15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X,X | 12,12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |
| YLG639 | Identifiler® Direct (DNA View Version 37.41) | | | | | |
| | | 19,24 | | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | | | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | | X,X | 12 |
| | 20,22 | | | | 7,9 | 8,11 |
| | 17,19 | | | | | |
| YLZNA2 | GlobalFiler™ | | | | | |
| | 12,17.3 | 19,24 | 10 | 15 | 11,13 | |
| 1 | 12,13 | 12,14 | 13,16 | 15,17.3 | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | 11,15 | X | 12 |
| | 20,22 | | | 16,28.2 | 7,9 | 8,11 |
| | 17,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|----------------|--|----------------|-----------------|-----------------|-------------------|----------------|
| 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

| YUBAWA | Identifiler® Direct | | | | | |
|--------|---------------------|-------|---------|----|-------|-------|
| | - | 19,24 | - | 15 | 11,13 | - |
| 1 | 12,13 | 12,14 | - | - | 10,13 | 10,11 |
| | 15,20 | 12,14 | 31,32.2 | - | X,X | 12 |
| | 20,22 | - | - | - | 7,9 | 8,11 |
| | 17,19 | - | - | - | - | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|-------|---------|---------|-------|-------|
| 272JU3 | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| 4B8RE6 | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| 4C3GHX | Identifiler® Plus | | | | | |
| | | 16,24 | | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| 6G9P3Y | PowerPlex® | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | 19 | 16 | | |
| 6L2R3T | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | | | 2 | |
| 7LDQW2 | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|---------|-------|---------|---------|-------|
| 97EN9T | ESI | | | | | |
| | | 12,17.3 | 16,24 | 10,14 | 15,15 | |
| 2 | | | 12,14 | 14,16 | 17.3,22 | 11,12 |
| | | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y |
| | | 22,26 | | | 16,32.2 | 9,9.3 |
| | | 14,19 | | | | |
| <hr/> | | | | | | |
| 9HRN6M | PowerPlex® Fusion 5C | | | | | |
| | | 12,17.3 | 16,24 | 10,14 | 15 | 11 |
| 2 | | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 |
| | | 15,22 | 12,14 | 31,32.2 | 15 | X,Y |
| | | 22,26 | 11,13 | 14,18 | | 9,9.3 |
| | | 14,19 | 11 | | | |
| <hr/> | | | | | | |
| A47R2V | PowerPlex® PP21 | | | | | |
| | | 12,17.3 | 16,24 | | 15 | 11 |
| 2 | | 10,13 | 12,14 | | 17.3,22 | 12,13 |
| | | 15,22 | 12,14 | 31,32.2 | | X,Y |
| | | 22,26 | 11,13 | 14,18 | | 9,9.3 |
| | | 14,19 | | | | 11,13 |
| <hr/> | | | | | | |
| AKFEUX | PowerPlex® Fusion | | | | | |
| | | 12,17.3 | 16,24 | 10,14 | 15 | 11 |
| 2 | | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 |
| | | 15,22 | 12,14 | 31,32.2 | 15 | X,Y |
| | | 22,26 | 11,13 | 14,18 | | 9,9.3 |
| | | 14,19 | 11 | | | 11,12 |
| <hr/> | | | | | | |
| AMYTXX | PowerPlex® Fusion | | | | | |
| | | 12,17.3 | 16,24 | 10,14 | 15 | 11 |
| 2 | | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 |
| | | 15,22 | 12,14 | 31,32.2 | 15 | X,Y |
| | | 22,26 | 11,13 | 14,18 | | 9,9.3 |
| | | 14,19 | 11 | | | 11,12 |
| <hr/> | | | | | | |
| AVAVJY | PowerPlex® Fusion | | | | | |
| | | 12,17.3 | 16,24 | 10,14 | 15 | 11 |
| 2 | | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 |
| | | 15,22 | 12,14 | 31,32.2 | 15 | X,Y |
| | | 22,26 | 11,13 | 14,18 | | 9,9.3 |
| | | 14,19 | 11 | | | 11,12 |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|--|-------|---------|---------|-------|-------|
| B2THPN | PowerPlex® 21 | | | | | |
| | 12,17.3 | 16,24 | | 15,15 | 11,11 | 11,13 |
| 2 | 10,13 | 12,14 | | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| BMDDHV | PowerPlex® | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | 19 | 16 | | |
| BV9HBW | Identifiler®, HDplex, CS7, SureID 23comp | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| C3JZ4U | PowerPlex® FUSION | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | 11,11 | | | | |
| CPXNRK | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| D4U3PT | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|------------------------------|-------|---------|---------|-------|-------|
| D63F8V | Identifiler® Plus, Minifiler | | | | | |
| | | 16,24 | | 15 | 11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11 |
| | 14,19 | | | | | |
| D8TGDJ | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| DF36QG | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| EWWTYV | Identifiler® Plus | | | | | |
| | | 16,24 | | 15 | 11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11 |
| | 14,19 | | | | | |
| FB3DVP | PowerPlex® Fusion 5C | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | | |
| G998PJ | Identifiler® Direct | | | | | |
| | - | 16,24 | - | 15 | 11 | - |
| 2 | 10,13 | 12,14 | - | - | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | - | X,Y | 10,12 |
| | 22,26 | - | - | - | 9,9.3 | 11 |
| | 14,19 | - | - | - | - | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|-------|---------|---------|-------|-------|
| GBZ74H | PowerPlex® 21 | | | | | |
| | 12,17.3 | 16,24 | | 15,15 | 11,11 | 11,13 |
| 2 | 10,13 | 12,14 | | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| GGQFEF | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| H2Q2QR | Identifiler® Direct | | | | | |
| | | 16,24 | | 15 | 11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11 |
| | 14,19 | | | | | |
| HMBXBN | GlobalFiler™ Express | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| HV69FR | Identifiler® Direct | | | | | |
| | - | 16,24 | - | 15 | 11 | - |
| 2 | 10,13 | 12,14 | - | - | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | - | X,Y | 10,12 |
| | 22,26 | - | - | - | 9,9.3 | 11 |
| | 14,19 | - | - | - | - | |
| JTVHPN | Identifiler® Direct | | | | | |
| | | 16,24 | | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------------------|-------|---------|---------|-------|-------|
| K7EKKK | PowerPlex® Fusion 6C (Familias3) | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | 19 | 16 | | |
| K87JYJ | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| LEMEFD | PowerPlex® 21 | | | | | |
| | 12,17.3 | 16,24 | | 15,15 | 11,11 | 11,13 |
| 2 | 10,13 | 12,14 | | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| MR8FBB | GlobalFiler™ Express | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | | | 2 | |
| N6RB4F | Identifiler® Direct | | | | | |
| | | 16,24 | | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11,11 |
| | 14,19 | | | | | |
| RPMVRB | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|---------|---------------------------------------|-------|---------|------------|-------|-------|
| T3N97D | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| TB23GA | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| TGRCQ8 | PowerPlex® Fusion 6C, PPX 16 ESI Fast | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | OL,17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11,11 | 19,19 | 16,16 | | |
| WV3YT2 | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| WNIHWKY | PowerPlex® Fusion 6C | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | 19 | 16 | | |
| X46VP4 | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|--|-------|---------|---------|-------|-------|
| XENBR7 | PowerPlex® Fusion | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | 11,13 | 14,18 | | 9,9.3 | 11 |
| | 14,19 | 11 | | | | |
| XVBQV3 | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | | | 2 | |
| YFDYQR | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15,15 | 11,11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15,15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11,11 |
| | 14,19 | 11 | | | 2 | |
| YLG639 | Identifiler® Direct (DNA View Version 37.41) | | | | | |
| | | 16,24 | | 15 | 11 | |
| 2 | 10,13 | 12,14 | | | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | | X,Y | 10,12 |
| | 22,26 | | | | 9,9.3 | 11 |
| | 14,19 | | | | | |
| YLZNA2 | GlobalFiler™ | | | | | |
| | 12,17.3 | 16,24 | 10,14 | 15 | 11 | |
| 2 | 10,13 | 12,14 | 14,16 | 17.3,22 | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | 15 | X,Y | 10,12 |
| | 22,26 | | | 16,32.2 | 9,9.3 | 11 |
| | 14,19 | 11 | | | 2 | |
| YUBAWA | Identifiler® Direct | | | | | |
| | - | 16,24 | - | 15 | 11 | - |
| 2 | 10,13 | 12,14 | - | - | 12,13 | 11,12 |
| | 15,22 | 12,14 | 31,32.2 | - | X,Y | 10,12 |
| | 22,26 | - | - | - | 9,9.3 | 11 |
| | 14,19 | - | - | - | - | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|-------|-------|-----------|-------|-------|
| 272JU3 | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| 4B8RE6 | PowerPlex® Fusion 5C | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| 4C3GHX | Identifiler® Plus | | | | | |
| | | 17,17 | | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18,18 | | | | | |
| 6G9P3Y | PowerPlex® | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | 17,3,24,2 | 8,9,3 | 8,11 |
| | 18 | 10 | 18 | 19 | | |
| 6L2R3T | GlobalFiler™ | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | | | 17,3,24,2 | 8,9,3 | 8,11 |
| | 18 | 10 | | | 2 | |
| 7LDQW2 | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

97EN9T

| | | | | | | |
|---|-------|-------|-------|-----------|-------|-------|
| | 12,16 | 17,17 | 11,11 | 17,18 | | |
| 3 | | 12,14 | 14,16 | 18,20 | | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | |
| | 20,23 | | | 17,3,24.2 | 8,9.3 | |
| | 18,18 | | | | | |

9HRN6M

PowerPlex® Fusion 5C

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |

A47R2V

PowerPlex® PP21

| | | | | | | |
|---|-------|-------|----|-------|-------|-------|
| | 12,16 | 17 | | 17,18 | 11 | 11,20 |
| 3 | 9,11 | 12,14 | | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | | | | | |

AKFEUX

PowerPlex® Fusion

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |

AMYTXX

PowerPlex® Fusion

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |

AVAVJY

PowerPlex® Fusion

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|--|-------|-------|-----------|-------|-------|
| B2THPN | PowerPlex® 21 | | | | | |
| | 12,16 | 17,17 | | 17,18 | 11,11 | 11,20 |
| 3 | 9,11 | 12,14 | | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9.3 | 8,11 |
| | 18,18 | | | | | |
| BMDDHV | PowerPlex® | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | 17.3,24.2 | 8,9.3 | 8,11 |
| | 18 | 10 | 18 | 19 | | |
| BV9HBW | Identifiler®, HDplex, CS7, SureID 23comp | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | 17.3,24.2 | 8,9.3 | 8,11 |
| | 18,18 | | | | | |
| C3JZ4U | PowerPlex® FUSION | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9.3 | 8,11 |
| | 18,18 | 10,10 | | | | |
| CPXNRK | GlobalFiler™ | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17.3,24.2 | 8,9.3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| D4U3PT | PowerPlex® Fusion | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9.3 | 8,11 |
| | 18,18 | 10 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|------------------------------|-------|-------|-----------|-------|-------|
| D63F8V | Identifiler® Plus, Minifiler | | | | | |
| | | 17 | | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | | X,Y | 12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18 | | | | | |
| D8TGDJ | GlobalFiler™ | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| DF36QG | PowerPlex® Fusion 5C | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| EWWTYV | Identifiler® Plus | | | | | |
| | | 17 | | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | | X,Y | 12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18 | | | | | |
| FB3DVP | PowerPlex® Fusion 5C | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | | |
| G998PJ | Identifiler® Direct | | | | | |
| | - | 17 | - | 17,18 | 11 | - |
| 3 | 9,11 | 12,14 | - | - | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | - | X,Y | 12 |
| | 20,23 | - | - | - | 8,9,3 | 8,11 |
| | 18 | - | - | - | - | - |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------|-------|-------|-----------|-------|-------|
| GBZ74H | PowerPlex® 21 | | | | | |
| | 12,16 | 17,17 | | 17,18 | 11,11 | 11,20 |
| 3 | 9,11 | 12,14 | | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9,3 | 8,11 |
| | 18,18 | | | | | |
| GGQFEF | GlobalFiler™ | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24,2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| H2Q2QR | Identifiler® Direct | | | | | |
| | | 17 | | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | | X,Y | 12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18 | | | | | |
| HMBXBN | GlobalFiler™ Express | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24,2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| HV69FR | Identifiler® Direct | | | | | |
| | - | 17 | - | 17,18 | 11 | - |
| 3 | 9,11 | 12,14 | - | - | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | - | X,Y | 12 |
| | 20,23 | - | - | - | 8,9,3 | 8,11 |
| | 18 | - | - | - | - | |
| JTVHPN | Identifiler® Direct | | | | | |
| | | 17,17 | | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18,18 | | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|----------------------------------|-------|-------|-----------|-------|-------|
| K7EKKK | PowerPlex® Fusion 6C (Familias3) | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | 17,3,24.2 | 8,9.3 | 8,11 |
| | 18,18 | 10 | 18 | 19 | | |
| K87JYJ | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |
| LEMEFD | PowerPlex® 21 | | | | | |
| | 12,16 | 17,17 | | 17,18 | 11,11 | 11,20 |
| 3 | 9,11 | 12,14 | | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | | 8,9.3 | 8,11 |
| | 18,18 | | | | | |
| MR8FBB | GlobalFiler™ Express | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | | | 17,3,24.2 | 8,9.3 | 8,11 |
| | 18 | 10 | | | 2 | |
| N6RB4F | Identifiler® Direct | | | | | |
| | | 17,17 | | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | | X,Y | 12,12 |
| | 20,23 | | | | 8,9.3 | 8,11 |
| | 18,18 | | | | | |
| RPMVRB | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9.3 | 8,11 |
| | 18 | 10 | | | | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| 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

| | | | | | | |
|---------|---------------------------------------|-------|-------|-----------|-------|-------|
| T3N97D | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| TB23GA | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| TGRCQ8 | PowerPlex® Fusion 6C, PPX 16 ESI Fast | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10,10 | 18,18 | 19,19 | | |
| WV3YT2 | GlobalFiler™ | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| WNIHWKY | PowerPlex® Fusion 6C | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | 13,14 | 12,12 | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | 18 | 19 | | |
| X46VP4 | GlobalFiler™ | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |

TABLE 1

| WebCode | Amplification Kits (Probabilistic Genotyping) | | | | | |
|---------|---|---------|----------|----------|------------|---------|
| | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| Item | 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

| | | | | | | |
|--------|--|-------|-------|-----------|-------|-------|
| XENBR7 | PowerPlex® Fusion | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | 13,14 | 12 | | 8,9,3 | 8,11 |
| | 18 | 10 | | | | |
| XVBQV3 | GlobalFiler™ | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18 | 10 | | | 2 | |
| YFDYQR | | | | | | |
| | 12,16 | 17,17 | 11,11 | 17,18 | 11,11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14,14 | 29,29 | 15,15 | X,Y | 12,12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18,18 | 10 | | | 2 | |
| YLG639 | Identifiler® Direct (DNA View Version 37.41) | | | | | |
| | | 17 | | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | | | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | | X,Y | 12 |
| | 20,23 | | | | 8,9,3 | 8,11 |
| | 18 | | | | | |
| YLZNA2 | GlobalFiler™ | | | | | |
| | 12,16 | 17 | 11 | 17,18 | 11 | |
| 3 | 9,11 | 12,14 | 14,16 | 18,20 | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | 15 | X,Y | 12 |
| | 20,23 | | | 17,3,24.2 | 8,9,3 | 8,11 |
| | 18 | 10 | | | 2 | |
| YUBAWA | Identifiler® Direct | | | | | |
| | - | 17 | - | 17,18 | 11 | - |
| 3 | 9,11 | 12,14 | - | - | 8,12 | 12,13 |
| | 12,16 | 14 | 29 | - | X,Y | 12 |
| | 20,23 | - | - | - | 8,9,3 | 8,11 |
| | 18 | - | - | - | - | |

Item 3 Paternity Index Results

TABLE 2

| WebCode | Population Database(s) | | | | | |
|---------|------------------------|---------|----------|----------|------------|---------|
| 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 | | | | | |

Item 3PI - Paternity Index Results

| 4B8RE6 | NIST-STRBASE | | | | | |
|--------|--------------|------|------|------|------|------|
| | 2.01 | 0 | 0 | 0 | 2.81 | |
| 3PI | 0 | 3.00 | 1.68 | 0 | 1.86 | 1.59 |
| | 0 | 2.31 | 0 | 3.11 | 1 | 0 |
| | 0 | 2.54 | 0 | | 1.45 | 1.98 |
| | 0 | | | | | |

| 4C3GHX | NIST-STRBASE | | | | | |
|--------|--------------|------|------|------|------|------|
| | | 0.00 | | 0.00 | 2.81 | |
| 3PI | 0.00 | 3.00 | | | 1.86 | 1.59 |
| | 0.00 | 2.31 | 0.00 | | | 0.00 |
| | 0.00 | | | | 1.45 | 1.98 |
| | 0.00 | | | | | |

| 6L2R3T | FBI PopStats | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 1.8532 | | | | 2.4486 | |
| 3PI | | 2.8860 | 1.8195 | | 1.6160 | 1.4637 |
| | | 2.2447 | | 2.7480 | | |
| | | | | | 1.6420 | 1.9608 |

| 7LDQW2 | FBI PopStats | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 0.0316 | 0.0392 | 0.1202 | 0.688 | 0.1708 | |
| 3PI | 0.0593 | 0.0586 | 0.0792 | 0.0380 | 0.0609 | 0.1111 |
| | 0.0273 | 0.1148 | 0.0343 | 0.1054 | 0 | 0.1089 |
| | 0.0460 | 0.0277 | 0.0328 | | 0.0769 | 0.2790 |
| | 0.0510 | | | | | |

| A47R2V | Promega | | | | | |
|--------|---------|--------|---|---|--------|--------|
| | 2.0056 | 0 | | 0 | 2.8090 | 1.6869 |
| 3PI | 0 | 2.9958 | | 0 | 1.8608 | 1.5903 |
| | 0 | 2.3143 | 0 | | | 0 |
| | 0 | 2.5419 | 0 | | 1.4497 | 1.9833 |
| | 0 | | | | | |

| AVAVJY | NIST-STRBASE | | | | | |
|--------|--------------|-------|------|------|------|------|
| | 2.01 | 0 | 0 | 0 | 2.81 | |
| 3PI | 0 | 3.0 | 1.68 | 0 | 1.86 | 1.59 |
| | 0 | 2.31 | 0 | 3.11 | | 0 |
| | 0 | 14.44 | 0 | | 1.45 | 1.98 |
| | 0 | | | | | |

TABLE 2

| WebCode | Population Database(s) | | | | | |
|---------|------------------------|---------|----------|----------|------------|---------|
| 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 | | | | | |

Item 3PI - Paternity Index Results

| B2THPN | NIST-STRBASE | | | | | |
|--------|--------------|--------|---|---|--------|--------|
| | 2.0056 | 0 | | 0 | 2.8090 | 1.6869 |
| 3PI | 0 | 2.9958 | | 0 | 1.8608 | 1.5903 |
| | 0 | 2.3143 | 0 | | | 0 |
| | 0 | 2.5419 | 0 | | 1.4497 | 1.9833 |
| | 0 | | | | | |

| C3JZ4U | NIST-STRBASE | | | | | |
|--------|--------------|-------|-------|-------|-------|-------|
| | 2.006 | 0 | 0 | 0 | 2.812 | |
| 3PI | 0 | 2.997 | 1.680 | 0 | 1.862 | 1.591 |
| | 0 | 2.316 | 0 | 3.114 | N/A | 0 |
| | 0 | 2.544 | 0 | | 1.451 | 1.984 |
| | 0 | | | | | |

| CPXNRK | [Country] caucasian [Country-specific Advisory Group] | | | | | |
|--------|---|------|------|------|------|------|
| | 2.17 | ex | ex | ex | 2.79 | |
| 3PI | ex | 3.13 | 1.51 | ex | 1.82 | 1.75 |
| | ex | 2.37 | ex | 2.50 | | ex |
| | ex | | | ex | 1.53 | 2.03 |
| | ex | | | | | |

| D63F8V | NIST-STRBASE | | | | | |
|--------|--------------|--------|---|---|--------|--------|
| | | 0 | | 0 | 2.8093 | |
| 3PI | 0 | 2.9959 | | | 1.8608 | 1.5903 |
| | 0 | 2.3141 | 0 | | | 0 |
| | 0 | | | | 1.4498 | 1.9835 |
| | 0 | | | | | |

| D8TGDJ | FBI PopStats | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 1.8532 | - | - | - | 2.4486 | |
| 3PI | - | 2.8860 | 1.8195 | - | 1.6160 | 1.4637 |
| | - | 2.2447 | - | 2.7480 | - | - |
| | - | | | - | 1.6420 | 1.9608 |
| | - | | | | | |

| G998PJ | NIST-STRBASE | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | - | 0.0010 | - | 0.0020 | 2.8090 | - |
| 3PI | 0.0020 | 2.9958 | - | - | 1.8608 | 1.5903 |
| | 0.0030 | 2.3143 | 0.0010 | - | - | 0.0030 |
| | 0.0041 | - | - | - | 1.4497 | 1.9833 |
| | 0.0030 | | | | | |

TABLE 2

| WebCode | Population Database(s) | | | | | |
|---------|------------------------|---------|----------|----------|------------|---------|
| 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 | | | | | |

Item 3PI - Paternity Index Results

| | | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| GGQFEF | FBI PopStats | | | | | |
| | 1.8532 | | | | 2.4486 | |
| 3PI | | 2.8860 | 1.8195 | | 1.6160 | 1.4637 |
| | | 2.2447 | | 2.7480 | | |
| | | | | | 1.6420 | 1.9608 |

| | | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| H2Q2QR | NIST-STRBASE | | | | | |
| | | 0.0010 | | 0.0020 | 2.8090 | |
| 3PI | 0.0020 | 2.9958 | | | 1.8608 | 1.5903 |
| | 0.0030 | 2.3143 | 0.0010 | | | 0.0030 |
| | 0.0041 | | | | 1.4497 | 1.9833 |
| | 0.0030 | | | | | |

| | | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| HV69FR | NIST-STRBASE | | | | | |
| | - | 0.0010 | - | 0.0020 | 2.8090 | - |
| 3PI | 0.0020 | 2.9958 | - | - | 1.8608 | 1.5903 |
| | 0.0030 | 2.3143 | 0.0010 | - | - | 0.0030 |
| | 0.0041 | - | - | - | 1.4497 | 1.9833 |
| | 0.0030 | | | | | |

| | | | | | | |
|--------|--------------|--------|---|---|---------|---------|
| JTVHPN | NIST-STRBASE | | | | | |
| | | 0 | | 0 | 2.77008 | |
| 3PI | 0 | 2.849 | | | 2.01613 | 1.53374 |
| | 0 | 2.2222 | 0 | | | 0 |
| | 0 | | | | 1.3587 | 2.05761 |
| | 0 | | | | | |

| | | | | | | |
|--------|--------------|----------|----------|----------|------|----------|
| K7EKKK | NIST-STRBASE | | | | | |
| | 2.01 | 7.14E-03 | 5.49E-09 | 6.79E-05 | 2.81 | |
| 3PI | 1.21E-03 | 2.99 | 1.68 | 1.43E-05 | 1.86 | 1.59 |
| | 1.39E-05 | 2.31 | 1.76E-06 | 3.11 | | 3.01E-04 |
| | 1.22E-06 | 6.39E-06 | 3.24E-04 | 3.71E-11 | 1.45 | 1.98 |
| | 4.60E-06 | | | | | |

| | | | | | | |
|--------|--------------|--------|---|---|--------|--------|
| LEMEFD | NIST-STRBASE | | | | | |
| | 2.0056 | 0 | | 0 | 2.8090 | 1.6869 |
| 3PI | 0 | 2.9958 | | 0 | 1.8608 | 1.5903 |
| | 0 | 2.3143 | 0 | | | 0 |
| | 0 | 2.5419 | 0 | | 1.4497 | 1.9833 |
| | 0 | | | | | |

TABLE 2

| WebCode | Population Database(s) | | | | | |
|---------|------------------------|---------|----------|----------|------------|---------|
| 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 | | | | | |

Item 3PI - Paternity Index Results

| MR8FBB | FBI PopStats | | | | | |
|--------|--------------|------|------|------|------|------|
| | 1.85 | 0 | 0 | 0 | 2.44 | |
| 3PI | 0 | 2.88 | 1.81 | 0 | 1.61 | 1.46 |
| | 0 | 2.24 | 0 | 2.74 | | 0 |
| | 0 | | | 0 | 1.64 | 1.96 |
| | 0 | | | | | |

| N6RB4F | NIST-STRBASE | | | | | |
|--------|--------------|---------|---|---|---------|----------|
| | | 0 | | 0 | 3.16825 | |
| 3PI | 0 | 2.83173 | | | 0.81959 | 0.973501 |
| | 0 | 1.64452 | 0 | | | 1.45081 |
| | 0 | | | | 1.21595 | 2.04583 |
| | 0 | | | | | |

| TGRCQ8 | NIST-STRBASE | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 2.0056 | 0 | 0 | 0 | 2.8090 | |
| 3PI | 0 | 2.9958 | 1.6790 | 0 | 1.8608 | 1.5903 |
| | 0 | 2.3143 | 0 | 3.1124 | | 0 |
| | 0 | 2.5419 | 0 | 0 | 1.4497 | 1.9833 |
| | 0 | | | | | |

| WV3YT2 | FBI PopStats | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 1.8532 | | | | 2.4486 | |
| 3PI | | 2.8860 | 1.8195 | | 1.6160 | 1.4637 |
| | | 2.2447 | | 2.7480 | | |
| | | | | | 1.6420 | 1.9608 |

| WNHWKY | FBI PopStats | | | | | |
|--------|--------------|--------|--------|--------|--------|--------|
| | 1.8532 | | | | 2.4486 | |
| 3PI | | 2.8860 | 1.8195 | | 1.6160 | 1.4637 |
| | | 2.2447 | | 2.7480 | | |
| | | 2.4050 | | | 1.6420 | 1.9608 |

| X46VP4 | NIST-STRBASE | | | | | |
|--------|--------------|---|---|---|---|---|
| | - | - | - | - | - | - |
| 3PI | - | - | - | - | - | - |
| | - | - | - | - | - | - |
| | - | - | - | - | - | - |
| | - | - | - | - | - | - |

TABLE 2

| WebCode | Population Database(s) | | | | | |
|---------|------------------------|---------|----------|----------|------------|---------|
| 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 | | | | | |

Item 3PI - Paternity Index Results

YFDYQR

| | | | | | | |
|-----|---|---|---|---|--|---|
| | | 0 | 0 | 0 | | |
| 3PI | 0 | | | 0 | | |
| | 0 | | 0 | | | 0 |
| | 0 | | | 0 | | |
| | 0 | | | | | |

YLG639

NIST-STRBASE

| | | | | | | |
|-----|--------|--------|--------|--------|--------|--------|
| | | 0.0033 | | 0.0020 | 2.8090 | |
| 3PI | 0.0020 | 2.9958 | | | 1.8608 | 1.5903 |
| | 0.0030 | 2.3143 | 0.0010 | | | 0.0030 |
| | 0.0041 | | | | 1.4497 | 1.9833 |
| | 0.0030 | | | | | |

YLZNA2

NIST-STRBASE

| | | | | | | |
|-----|------|------|------|------|------|------|
| | 2.00 | 0 | 0 | 0 | 2.80 | |
| 3PI | 0 | 2.99 | 1.67 | 0 | 1.86 | 1.59 |
| | 0 | 2.31 | 0 | 3.11 | | 0 |
| | 0 | | | 0 | 1.44 | 1.98 |
| | 0 | | | | | |

YUBAWA

NIST-STRBASE

| | | | | | | |
|-----|--------|--------|--------|--------|--------|--------|
| | - | 0.0010 | - | 0.0020 | 2.8090 | - |
| 3PI | 0.0020 | 2.9958 | - | - | 1.8608 | 1.5903 |
| | 0.0030 | 2.3143 | 0.0010 | - | - | 0.0030 |
| | 0.0041 | - | - | - | 1.4497 | 1.9833 |
| | 0.0030 | | | | | |

YSTR Amplification Kit(s) & Results

TABLE 3

| 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

| | | | | | | | | | |
|--------|-------------------|----|-------|----|----|----|----|----|----|
| 272JU3 | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| 4B8RE6 | PowerPlex® Y 23 | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 |
| 6L2R3T | Yfiler® Plus | | | | | | | | |
| 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 |
| 7LDQW2 | PowerPlex® Y 23 | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 |
| A47R2V | PowerPlex® Y Y-23 | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 |
| AKFEUX | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| AMYTX | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| BV9HBW | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| D8TGDJ | Yfiler® Plus | | | | | | | | |
| 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 |
| DF36QG | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |

TABLE 3

| 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

| | | | | | | | | | | |
|--------|-----------------|-------|----|-------|----|----|----|----|----|----|
| EWWTYV | Yfiler® | | | | | | | | | |
| | 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 | |
| G998PJ | Yfiler® | | | | | | | | | |
| | 2 | - | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | - | 16 | 17 | - | - |
| | - | - | - | - | - | - | 25 | - | 11 | |
| GGQFEF | Yfiler® Plus | | | | | | | | | |
| | 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 | |
| H2Q2QR | Yfiler® | | | | | | | | | |
| | 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 | |
| HMBXBN | PowerPlex® Y 23 | | | | | | | | | |
| | 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 | |
| HV69FR | Yfiler® | | | | | | | | | |
| | 2 | - | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | - | 16 | 17 | - | - |
| | - | - | - | - | - | - | 25 | - | 11 | |
| JTVHPN | PowerPlex® Y 23 | | | | | | | | | |
| | 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 | |
| K7EKKK | PowerPlex® Y 23 | | | | | | | | | |
| | 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | | 16 | 17 | | 22 |
| | | 12 | 13 | 19 | 16 | | 25 | 10 | 11 | |
| MR8FBB | Yfiler® Plus | | | | | | | | | |
| | 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 | |
| N6RB4F | Yfiler® Plus | | | | | | | | | |
| | 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 | |

TABLE 3

| 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

| | | | | | | | | | |
|--------|--------------|----|-------|----|----|----|----|----|----|
| T3N97D | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| W3YT2 | Yfiler® Plus | | | | | | | | |
| 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 |
| XVBQV3 | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| YFDYQR | Yfiler® | | | | | | | | |
| 2 | 35,36 | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | 29 | 16 | 17 | 10 | 22 |
| | 37 | 12 | | 19 | 16 | 23 | 25 | | 11 |
| YLG639 | Yfiler® | | | | | | | | |
| 2 | | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | | 16 | 17 | | |
| | | | | | | | 25 | | 11 |
| YUBAWA | Yfiler® | | | | | | | | |
| 2 | - | 14 | 11,14 | 14 | 30 | 24 | 11 | 14 | 13 |
| | 14 | 12 | 12 | 18 | - | 16 | 17 | - | - |
| | - | - | - | - | - | - | 25 | - | 11 |

TABLE 3

| 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

| | | | | | | | | | |
|--------|-------------------|----|-------|----|----|----|----|----|----|
| 272JU3 | Yfiler® | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| 4B8RE6 | PowerPlex® Y 23 | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 |
| 6L2R3T | Yfiler® Plus | | | | | | | | |
| 3 | 36,39 | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | 13 |
| 7LDQW2 | PowerPlex® Y 23 | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 |
| A47R2V | PowerPlex® Y Y-23 | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 |
| AKFEUX | Yfiler® | | | | | | | | |
| 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| AMYTX | Yfiler® | | | | | | | | |
| 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| BV9HBW | Yfiler® | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| D8TGDJ | Yfiler® Plus | | | | | | | | |
| 3 | 36,39 | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | 13 |
| DF36QG | Yfiler® | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |

TABLE 3

| 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

| | | | | | | | | | | |
|--------|-----------------|-------|----|-------|----|----|----|----|----|----|
| EWWTYV | Yfiler® | | | | | | | | | |
| | 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 | |
| G998PJ | Yfiler® | | | | | | | | | |
| | 3 | - | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | - | 15 | 16 | - | - |
| | - | - | - | - | - | - | 21 | - | 13 | |
| GGQFEF | Yfiler® Plus | | | | | | | | | |
| | 3 | 36,39 | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | | 13 |
| H2Q2QR | Yfiler® | | | | | | | | | |
| | 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 | |
| HMBXBN | PowerPlex® Y 23 | | | | | | | | | |
| | 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 | |
| HV69FR | Yfiler® | | | | | | | | | |
| | 3 | - | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | - | 15 | 16 | - | - |
| | - | - | - | -- | - | - | 21 | - | 13 | |
| JTVHPN | PowerPlex® Y 23 | | | | | | | | | |
| | 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 | |
| K7EKKK | PowerPlex® Y 23 | | | | | | | | | |
| | 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | | 15 | 16 | | 24 |
| | | 9 | 13 | 18 | 19 | | 21 | 11 | 13 | |
| MR8FBB | Yfiler® Plus | | | | | | | | | |
| | 3 | 36,39 | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | | 13 |
| N6RB4F | Yfiler® Plus | | | | | | | | | |
| | 3 | 36,39 | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | | 13 |

TABLE 3

| 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

| | | | | | | | | | |
|--------|--------------|----|-------|----|----|----|----|----|----|
| T3N97D | Yfiler® | | | | | | | | |
| 3 | | 17 | 14,14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| W3YT2 | Yfiler® Plus | | | | | | | | |
| 3 | 36,39 | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | 13 |
| XVBQV3 | Yfiler® | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| YFDYQR | Yfiler® | | | | | | | | |
| 3 | 36,39 | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | 28 | 15 | 16 | 10 | 24 |
| | 36 | 9 | | 18 | 19 | 21 | 21 | | 13 |
| YLG639 | Yfiler® | | | | | | | | |
| 3 | | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | | 15 | 16 | | |
| | | | | | | | 21 | | 13 |
| YUBAWA | Yfiler® | | | | | | | | |
| 3 | - | 17 | 14 | 12 | 28 | 22 | 10 | 11 | 13 |
| | 16 | 10 | 11 | 21 | - | 15 | 16 | - | - |
| | - | - | - | - | - | - | 21 | - | 13 |

Additional DNA & PI Results

TABLE 4

| Locus | WebCode | Item 1 | Item 2 | Item 3 | Item 3 Paternity Index |
|----------------|----------------|---------------|---------------|---------------|-----------------------------------|
| D10S2325 | BV9HBW | 9,11 | 7,11 | 11,11 | |
| D11S2368 | BV9HBW | 19,20 | 20,21 | 18,23 | |
| D13S325 | BV9HBW | 18,21 | 18,19 | 19,20 | |
| D14S1434 | BV9HBW | 13,14 | 13,14 | 13,14 | |
| D15S659 | BV9HBW | 12,17 | 12,12 | 11,15 | |
| D17S1301 | BV9HBW | 11,13 | 11,11 | 11,13 | |
| D18S1364 | BV9HBW | 12,13 | 12,16 | 14,16 | |
| D19S253 | BV9HBW | 7,12 | 7,14 | 13,14 | |
| D20S482 | BV9HBW | 14,16 | 14,16 | 12,14 | |
| D21S2055 | BV9HBW | 31,34 | 26,34 | 33,33 | |
| D22-GATA198B05 | BV9HBW | 16,22 | 16,22 | 17,19 | |
| D2S1360 | BV9HBW | 21,22 | 22,23 | 21,22 | |
| D3S1744 | BV9HBW | 17,17 | 15,17 | 17,20 | |
| D4S2366 | BV9HBW | 10,13 | 13,14 | 13,13 | |
| D5S2500 | BV9HBW | 11,13 | 11,13 | 11,11 | |
| D5S2800 | BV9HBW | 18,18 | 18,18 | 17,18 | |
| D6S474 | BV9HBW | 13,13 | 15,15 | 13,16 | |
| D7S1517 | BV9HBW | 21,23 | 21,23 | 25,26 | |
| D7S3048 | BV9HBW | 21,23 | 21,24 | 20,22 | |
| D8S1132 | BV9HBW | 20,23 | 17,23 | 18,18 | |
| D9S1122 | BV9HBW | 11,12 | 12,13 | 12,13 | |
| F13A01 | A47R2V | 7,12 | 7 | 6 | 0 |
| | BV9HBW | 7,12 | 7,7 | 6,6 | |
| F13B | A47R2V | 8,10 | 8,10 | 8,10 | 1.5694 |
| | BV9HBW | 8,10 | 8,10 | 8,10 | |
| FESFPS | A47R2V | 11,12 | 10,12 | 10,12 | 1.7781 |
| | BV9HBW | 11,12 | 10,12 | 10,12 | |
| LPL | A47R2V | 7,12 | 12 | 10 | 0 |
| | BV9HBW | 7,12 | 12,12 | 10,10 | |
| PENTA C | A47R2V | 11,13 | 11,13 | 11 | 1.8560 |
| PENTA_C | BV9HBW | 11,13 | 11,13 | 11,11 | |

Paternity DNA Statistics

TABLE 5

| WebCode | Combined Paternity Index | Probability of Paternity | Population Database Used |
|---------|-------------------------------------|-------------------------------------|--|
| 272JU3 | 0.0 | 0.0 | NIST-STRBASE |
| 4B8RE6 | 0 | 0% | NIST-STRBASE |
| 4C3GHX | 0.00 | 0.00 | NIST-STRBASE |
| 6L2R3T | | | FBI PopStats |
| 7LDQW2 | 0.0000 | 0.0000% | FBI PopStats |
| A47R2V | 0 | 0 | Promega |
| AVAVJY | 0 | 0 | NIST-STRBASE |
| B2THPN | 0 | 0 | NIST-STRBASE |
| C3JZ4U | 0 | 0 | NIST-STRBASE |
| CPXNRK | Exclusion | Exclusion | [Country] caucasian [Country-specific Advisory Group] |
| D4U3PT | n/a | 99.96% | In-house |
| D63F8V | 0 | 0 | NIST-STRBASE |
| D8TGDJ | N/A | N/A | FBI PopStats |
| FB3DVP | 0 | 0% | [local database] |
| G998PJ | 0.0000 | 0.0000% | NIST-STRBASE |
| GBZ74H | Exclusion - No statistic calculated | Exclusion - No statistic calculated | Exclusion - No statistic calculated |
| GGQFEF | N/A | N/A | FBI PopStats |
| H2Q2QR | 0.0000 | 0.0000% | NIST-STRBASE |
| HMBXBN | n/a | n/a | |
| HV69FR | 0.0000 | 0.0000% | NIST-STRBASE |
| JTVHPN | 0 | 0 | NIST-STRBASE |
| K7EKKK | 2.57E-64 | 2.57E-64 | NIST-STRBASE |
| LEMEFD | 0 | 0 | NIST-STRBASE |
| MR8FBB | | | FBI PopStats |
| N6RB4F | 0 | 0 | NIST-STRBASE |
| TGRCQ8 | 0 | 0 | NIST-STRBASE |

TABLE 5

| WebCode | Combined Paternity Index | Probability of Paternity | Population Database Used |
|----------------|---------------------------------|---------------------------------|---------------------------------|
| W3YT2 | N/A | N/A | FBI PopStats |
| WNHWKY | N/A | N/A | FBI PopStats |
| X46VP4 | - | - | NIST-STRBASE |
| YFDYQR | 0 | 0 | |
| YLG639 | 0.0000 | 0.0000% | NIST-STRBASE |
| YLZNA2 | 0 | 0% | NIST-STRBASE |
| YUBAWA | 0.0000 | 0.0000% | NIST-STRBASE |

Paternity Conclusions

TABLE 6

| WebCode | Conclusion | WebCode | Conclusion |
|----------------|-------------------|----------------|-------------------|
| 272JU3 | Excluded | G998PJ | Excluded |
| 4B8RE6 | Excluded | GBZ74H | Excluded |
| 4C3GHX | Excluded | GGQFEF | Excluded |
| 6G9P3Y | Excluded | H2Q2QR | Excluded |
| 6L2R3T | Excluded | HMBXBN | Excluded |
| 7LDQW2 | Excluded | HV69FR | Excluded |
| 97EN9T | Excluded | JTVHPN | Excluded |
| 9HRN6M | Excluded | K7EKKK | Excluded |
| A47R2V | Excluded | K87JYJ | Excluded |
| AKFEUX | Excluded | LEMEFD | Excluded |
| AMYTXX | Excluded | MR8FBB | Excluded |
| AVAVJY | Excluded | N6RB4F | Excluded |
| B2THPN | Excluded | RPMVRB | Excluded |
| BMDDHV | Excluded | T3N97D | Excluded |
| BV9HBW | Excluded | TB23GA | Excluded |
| C3JZ4U | Excluded | TGRCQ8 | Excluded |
| CPXNRK | Excluded | VV3YT2 | Excluded |
| D4U3PT | Excluded | WNHWKY | Excluded |
| D63F8V | Excluded | X46VP4 | Excluded |
| D8TGDJ | Excluded | XENBR7 | Excluded |
| DF36QG | Excluded | XVBQV3 | Excluded |
| EVWTYV | Excluded | YFDYQR | Excluded |
| FB3DVP | Excluded | YLG639 | Excluded |

TABLE 6

| WebCode | Conclusion | WebCode | Conclusion |
|----------------|-------------------|----------------|-------------------|
| YLZNA2 | Excluded | | |
| YUBAWA | Excluded | | |

| Response Summary | | Total: 48 |
|-------------------------|--------------|------------------|
| Responses | Not Excluded | 0 |
| | Excluded | 47 |
| | Inconclusive | 0 |

Kinship Likelihood Ratio Results

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|---------------|--------------------|------------------|
| D1S1656 | 4B8RE6 | $(1+4q)/8q$ | Q=16.3 | 2.961 |
| | 4C3GHX | $(1+4r)/8r$ | r=16.3 | 2.961 |
| | 7LDQW2 | $(1+4q)/8q$ | q=16.3 | 2.9606 |
| | A47R2V | $1+4q/8q$ | q=16.3 | 2.9606 |
| | BV9HBW | $(1+4p)/8p$ | p=16.3 | 2.9606 |
| | C3JZ4U | $1+4a/8a$ | a=16.3 | 2.9606 |
| | D8TGDJ | $(0.25+C)/2C$ | 13=A, 16=B, 16.3=C | 2.9606 |
| | FB3DVP | $(1+4p)/8p$ | p = 16.3 | 2.9602 |
| | G998PJ | $(1+4p)/8p$ | p=16.3 | 2.9606 |
| | GBZ74H | $(1+4p)/8p$ | p=16.3 | 2.961 |
| | GGQFEF | $(0.25+c)/2c$ | c=0.0508 | 2.9606 |
| | H2Q2QR | $(1+4p)/8p$ | p=16.3 | 2.9606 |
| | HMBXBN | $(1+4p)/8p$ | p = 16.3 | 2.961 |
| | HV69FR | $(1+4p)/8p$ | p=16.3 | 2.9606 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 16.3 | 5.5201 |
| | K7EKKK | $(1+4p)/8p$ | p = 16.3 | 2.96 |
| | N6RB4F | | | 2.6143 |
| | TGRCQ8 | $(1+4p)/8p$ | p=16.3 | 2.961 |
| | VV3YT2 | $(0.25+c)/2c$ | a=13, b=16, c=16.3 | 2.9606 |
| | YLG639 | $(1+4p)/8p$ | p=16.3 | 2.9606 |
| YUBAWA | $(1+4p)/8p$ | p=16.3 | 2.9606 | |

Statistical Analysis Summary of D1S1656

Likelihood Ratio (Grand Mean): **2.961**

Standard Deviation: **0.0003**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|---------------|------------------|------------------|
| D2S1338 | 4B8RE6 | $(1+4p)/8p$ | P=17 | 1.237 |
| | 4C3GHX | $(1+4p)/8p$ | p=17 | 1.237 |
| | 7LDQW2 | $(1+4p)/8p$ | p=17 | 1.2375 |
| | A47R2V | $1+4p/8p$ | p=17 | 1.2375 |
| | BV9HBW | $(1+4p)/8p$ | p=17 | 1.2375 |
| | C3JZ4U | $1+4a/8a$ | a=17 | 1.2375 |
| | D8TGDJ | $(0.25+A)/2A$ | 17=A, 22=B, 21=C | 1.2375 |
| | FB3DVP | $(1+4p)/8p$ | p = 17 | 1.2375 |
| | G998PJ | $(1+4p)/8p$ | p=17 | 1.2375 |
| | GBZ74H | $(1+4p)/8p$ | p=17 | 1.237 |
| | GGQFEF | $(0.25+a)/2a$ | a=0.1695 | 1.2375 |
| | H2Q2QR | $(1+4p)/8p$ | p=17 | 1.2375 |
| | HMBXBN | $(1+4p)/8p$ | p = 17 | 1.237 |
| | HV69FR | $(1+4p)/8p$ | p=17 | 1.2375 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 17 | 1.2375 |
| | K7EKKK | $(1+4p)/8p$ | p = 17 | 1.24 |
| | N6RB4F | | | 1.2170 |
| | TGRCQ8 | $(1+4p)/8p$ | p=17 | 1.237 |
| | VW3YT2 | $(0.25+a)/2a$ | a=17, b=21, c=22 | 1.2375 |
| | YLG639 | $(1+4p)/8p$ | p=17 | 1.2375 |
| YUBAWA | $(1+4p)/8p$ | p=17 | 1.2375 | |

Statistical Analysis Summary of D2S1338
Likelihood Ratio (Grand Mean): **1.238**Standard Deviation: **0.0006**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|------------------|---------------|------------------|
| D2S441 | 4B8RE6 | $(1+2p)/4p$ | P=11 | 1.337 |
| | 4C3GHX | $(1+2p)/4p$ | p=11 | 1.337 |
| | 7LDQW2 | $(1+2p)/4p$ | p=11 | 1.3370 |
| | A47R2V | $1+2p/4p$ | p=11 | 1.3370 |
| | BV9HBW | $(1+2p)/4p$ | p=11 | 1.3370 |
| | C3JZ4U | $2a+1/4a$ | a=11 | 1.3369 |
| | D8TGDJ | $(0.5+A)/2A$ | 11=A, 14=B | 1.3370 |
| | FB3DVP | $(1+2p)/4p$ | p = 11 | 1.3370 |
| | G998PJ | $(1+2p)/4p$ | p=11 | 1.3370 |
| | GBZ74H | $(1+2p)/4p$ | p=11 | 1.337 |
| | GGQFEF | $(0.25+(b/2))/b$ | b=0.2987 | 1.3370 |
| | H2Q2QR | $(1+2p)/4p$ | p=11 | 1.3370 |
| | HMBXBN | $(1+2p)/4p$ | p = 11 | 1.337 |
| | HV69FR | $(1+2p)/4p$ | p=11 | 1.3370 |
| | JTVHPN | $(1+2Pa)/4Pa$ | Pa = 11 | 1.3370 |
| | K7EKKK | $(1+2p)/4p$ | p = 11 | 1.34 |
| | N6RB4F | | | 1.3076 |
| | TGRCQ8 | $(1+2p)/4p$ | p=11 | 1.337 |
| | VV3YT2 | $(0.5+a)/2a$ | a=11, b=14 | 1.3370 |
| | YLG639 | $(1+2p)/4p$ | p=11 | 1.3370 |
| YUBAWA | $(1+2p)/4p$ | p=11 | 1.3370 | |

Statistical Analysis Summary of D2S441
Likelihood Ratio (Grand Mean): **1.337**Standard Deviation: **0.0007**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|---------------|--------------------|------------------|
| D3S1358 | 4B8RE6 | $(1+4p)/8p$ | $P=15$ | 0.888 |
| | 4C3GHX | $(1+4q)/8q$ | $q=15$ | 0.888 |
| | 7LDQW2 | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| | A47R2V | $1+4p/8p$ | $p=15$ | 0.882 |
| | BV9HBW | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| | C3JZ4U | $1+4a/8a$ | $a=15$ | 0.8881 |
| | D8TGDJ | $(0.25+A)/2A$ | $15=A, 16=B, 14=C$ | 0.8882 |
| | FB3DVP | $(1+4p)/8p$ | $p = 15$ | 0.8882 |
| | G998PJ | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| | GBZ74H | $(1+4p)/8p$ | $p=15$ | 0.888 |
| | GGQFEF | $(0.25+a)/2a$ | $a=0.3220$ | 0.88820 |
| | H2Q2QR | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| | HMBXBN | $(1+4p)/8p$ | $p = 15$ | 0.888 |
| | HV69FR | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| | JTVHPN | $(1+4Pa)/8Pa$ | $Pa = 15$ | 0.8882 |
| | K7EKKK | $(1+4p)/8p$ | $p = 15$ | 0.89 |
| | N6RB4F | | | 0.8877 |
| | TGRCQ8 | $(1+4p)/8p$ | $p=15$ | 0.888 |
| | VV3YT2 | $(0.25+b)/2b$ | $a=14, b=15, c=16$ | 0.8882 |
| | YLG639 | $(1+4p)/8p$ | $p=15$ | 0.8882 |
| YUBAWA | $(1+4p)/8p$ | $p=15$ | 0.8882 | |

Statistical Analysis Summary of D3S1358

Likelihood Ratio (Grand Mean): **0.888**Standard Deviation: **0.0014**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|------------------|---------------|------------------|
| D5S818 | 4B8RE6 | $(1+2p)/4p$ | $P=11$ | 1.141 |
| | 4C3GHX | $(1+2p)/4p$ | $p=11$ | 1.141 |
| | 7LDQW2 | $(1+2p)/4p$ | $p=11$ | 1.1414 |
| | A47R2V | $1+2p/4p$ | $p=11$ | 1.1414 |
| | BV9HBW | $(1+2p)/4p$ | $p=11$ | 1.1414 |
| | C3JZ4U | $2a+1/4a$ | $a=11$ | 1.1413 |
| | D8TGDJ | $(0.5+A)/2A$ | $11=A, 8=B$ | 1.1414 |
| | FB3DVP | $(1+2p)/4p$ | $p = 11$ | 1.1414 |
| | G998PJ | $(1+2s)/4s$ | $s=11$ | 1.1414 |
| | GBZ74H | $(1+2p)/4p$ | $p=11$ | 1.141 |
| | GGQFEF | $(0.25+(b/2))/b$ | $b=0.3898$ | 1.1414 |
| | H2Q2QR | $(1+2p)/4p$ | $p=11$ | 1.1414 |
| | HMBXBN | $(1+2p)/4p$ | $p = 11$ | 1.141 |
| | HV69FR | $(1+2p)/4p$ | $p=11$ | 1.1414 |
| | JTVHPN | $(1+2Pa)/4Pa$ | $Pa = 11$ | 1.1414 |
| | K7EKKK | $(1+2p)/4p$ | $p = 11$ | 1.14 |
| | N6RB4F | | | 1.1282 |
| | TGRCQ8 | $(1+2p)/4p$ | $p=11$ | 1.141 |
| | VW3YT2 | $(0.5+b)/2b$ | $a=8, b=11$ | 1.1414 |
| | YLG639 | $(1+2p)/4p$ | $p=11$ | 1.1414 |
| YUBAWA | $(1+2p)/4p$ | $p=11$ | 1.1414 | |

Statistical Analysis Summary of D5S818
Likelihood Ratio (Grand Mean): **1.141**Standard Deviation: **0.0003**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|---------------|-----------------|------------------|
| D7S820 | 4B8RE6 | $(1+4q)/8q$ | Q=12 | 1.500 |
| | 4C3GHX | $(1+4q)/8q$ | q=12 | 1.308 |
| | 7LDQW2 | $(1+4q)/8q$ | q=12 | 1.3080 |
| | A47R2V | $1+4q/8q$ | q=12 | 1.3080 |
| | BV9HBW | $(1+4p)/8p$ | p=12 | 1.3080 |
| | C3JZ4U | $1+4a/8a$ | a=12 | 1.3080 |
| | D8TGDJ | $(0.25+A)/2A$ | 12=A, 11=B, 8=C | 1.3080 |
| | FB3DVP | $(1+4p)/8p$ | p = 12 | 1.3080 |
| | G998PJ | $(1+4t)/8t$ | t=12 | 1.3080 |
| | GBZ74H | $(1+4p)/8p$ | p=12 | 1.308 |
| | GGQFEF | $(0.25+a)/2a$ | a=0.1547 | 1.3080 |
| | H2Q2QR | $(1+4p)/8p$ | p=12 | 1.3080 |
| | HMBXBN | $(1+4p)/8p$ | p = 12 | 1.308 |
| | HV69FR | $(1+4p)/8p$ | p=12 | 1.3080 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 12 | 1.3080 |
| | K7EKKK | $(1+4p)/8p$ | p = 12 | 1.31 |
| | N6RB4F | | | 1.2814 |
| | TGRCQ8 | $(1+4p)/8p$ | p=12 | 1.308 |
| | VW3YT2 | $(0.25+c)/2c$ | a=8, b=11, c=12 | 1.3080 |
| | YLG639 | $(1+4p)/8p$ | p=12 | 1.3080 |
| YUBAWA | $(1+4p)/8p$ | p=12 | 1.3080 | |

Statistical Analysis Summary of D7S820

Likelihood Ratio (Grand Mean): **1.308**Standard Deviation: **0.0005**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|------------|--------------------|---------------|------------------|
| D8S1179 | 4B8RE6 | $(1+p)/2p$ | $P=13$ | 2.329 |
| | 4C3GHX | $(2+2p)/4p$ | $p=13$ | 2.329 |
| | 7LDQW2 | $(1+p)/2p$ | $p=13$ | 2.3295 |
| | A47R2V | $1+p/2p$ | $p=13$ | 2.3295 |
| | BV9HBW | $(1+p)/2p$ | $p=13$ | 2.3295 |
| | C3JZ4U | $1+a/2a$ | $a=13$ | 2.3294 |
| | D8TGDJ | $(0.5+(A/2))/A$ | $13=A$ | 2.3295 |
| | FB3DVP | $2p(1+p)/(2p)(2p)$ | $p = 13$ | 2.3295 |
| | G998PJ | $(1+p)/2p$ | $p=13$ | 2.3295 |
| | GBZ74H | $2p(1+p)/(2p)^2$ | $p=13$ | 2.239 |
| | GGQFEF | $(0.5+(a/2))/a$ | $a=0.2733$ | 2.3295 |
| | H2Q2QR | $(1+p)/2p$ | $p=13$ | 2.3295 |
| | HMBXBN | $(1+p)/2p$ | $p = 13$ | 2.329 |
| | HV69FR | $(1+p)/2p$ | $p=13$ | 2.3295 |
| | JTVHPN | $(1+Pa)/2Pa$ | $Pa = 13$ | 2.3295 |
| | K7EKKK | $2p(1+p)/2p^2$ | $p = 13$ | 2.33 |
| | N6RB4F | | | 2.1966 |
| | TGRCQ8 | $(1+p)/2p$ | $p=13$ | 2.329 |
| | VW3YT2 | $(0.5+(a/2))/a$ | $a=13$ | 2.3295 |
| | YLG639 | $(1+p)/2p$ | $p=13$ | 2.3295 |
| YUBAWA | $(1+p)/2p$ | $p=13$ | 2.3295 | |

Statistical Analysis Summary of D8S1179
Likelihood Ratio (Grand Mean): **2.329**Standard Deviation: **0.0003**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|----------|-------------|---------------|------------------|------------------|
| D10S1248 | 4B8RE6 | $(1+4q)/8q$ | Q=15 | 1.090 |
| | 4C3GHX | $(1+4q)/8q$ | q=15 | 1.090 |
| | 7LDQW2 | $(1+4q)/8q$ | q=15 | 1.0899 |
| | A47R2V | $1+4q/8q$ | q=15 | 1.0899 |
| | BV9HBW | $(1+4p)/8p$ | p=15 | 1.0899 |
| | C3JZ4U | $1+4a/8a$ | a=15 | 1.0899 |
| | D8TGDJ | $(0.25+A)/2A$ | 15=A, 14=B, 16=C | 1.0899 |
| | FB3DVP | $(1+4p)/8p$ | p = 15 | 1.0899 |
| | G998PJ | $(1+4p)/8p$ | p=15 | 1.0899 |
| | GBZ74H | $(1+4p)/8p$ | p=15 | 1.09 |
| | GGQFEF | $(0.25+a)/2a$ | a=0.2119 | 1.0899 |
| | H2Q2QR | $(1+4p)/8p$ | p=15 | 1.0899 |
| | HMBXBN | $(1+4p)/8p$ | p = 15 | 1.090 |
| | HV69FR | $(1+4p)/8p$ | p=15 | 1.0899 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 15 | 1.0899 |
| | K7EKKK | $(1+4p)/8p$ | p = 15 | 1.09 |
| | N6RB4F | | | 1.0801 |
| | TGRCQ8 | $(1+4p)/8p$ | p=15 | 1.090 |
| | VW3YT2 | $(0.25+b)/2b$ | a=14, b=15, c=16 | 1.0899 |
| | YLG639 | $(1+4p)/8p$ | p=15 | 1.0899 |
| YUBAWA | $(1+4p)/8p$ | p=15 | 1.0899 | |

Statistical Analysis Summary of D10S1248

Likelihood Ratio (Grand Mean): **1.090**Standard Deviation: **0.0000**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|---------|------------|--------------------|------------------|
| D12S391 | 4B8RE6 | 0.5 | N/A | 0.5 |
| | 4C3GHX | 1/2 | N/A | 0.500 |
| | 7LDQW2 | 1/2 | n/a | 0.5000 |
| | A47R2V | 1/2 | | 0.5000 |
| | BV9HBW | 1/2 | | 0.5000 |
| | C3JZ4U | N/A | | 0.5 |
| | D8TGDJ | CD/2CD | 16=C, 19-D | 0.5 |
| | FB3DVP | 2/4 | | 0.5 |
| | G998PJ | 1/2 | | 0.5 |
| | GBZ74H | 1/2 | | 0.5 |
| | GGQFEF | cd/2cd=0.5 | c=0.0424, d=0.1886 | 0.500 |
| | H2Q2QR | 1/2 | | 0.5 |
| | HMBXBN | 1/2 | | 0.5 |
| | HV69FR | 1/2 | - | 0.5000 |
| | JTVHPN | 0.5 | | 0.5 |
| | K7EKKK | 2/4 | | 0.50 |
| | N6RB4F | | | 0.5 |
| | TGRCQ8 | 0.5 | | 0.500 |
| | VW3YT2 | N/A | | 0.5 |
| | YLG639 | 1/2 | | 0.5000 |
| | YUBAWA | 1/2 | - | 0.5000 |

Statistical Analysis Summary of D12S391
Likelihood Ratio (Grand Mean): **0.500**Standard Deviation: **0.0000**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|---------------|------------------|------------------|
| D13S317 | 4B8RE6 | $(1+4q)/8q$ | Q=15 | 30.262 |
| | 4C3GHX | $(1+4r)/8r$ | r=15 | 30.262 |
| | 7LDQW2 | $(1+4q)/8q$ | q=15 | 30.2619 |
| | A47R2V | $1+4q/8q$ | q=15 | 30.2619 |
| | BV9HBW | $(1+4p)/8p$ | p=15 | 30.2619 |
| | C3JZ4U | $1+4a/8a$ | a=0.0042 | 30.2619 |
| | D8TGDJ | $(0.25+A)/2A$ | 15=A, 11=B, 12=C | 30.2619 |
| | FB3DVP | $(1+4p)/8p$ | p = 15 | 30.2619 |
| | G998PJ | $(1+4t)/8t$ | t=15 | 30.2619 |
| | GBZ74H | $(1+4p)/8p$ | p=15 | 30.262 |
| | GGQFEF | $(0.25+c)/2c$ | c=0.0042 | 30.262 |
| | H2Q2QR | $(1+4p)/8p$ | p=15 | 30.2619 |
| | HMBXBN | $(1+4p)/8p$ | p = 15 | 30.262 |
| | HV69FR | $(1+4p)/8p$ | p=15 | 30.2619 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 15 | 30.2619 |
| | K7EKKK | $(1+4p)/8p$ | p = 15 | 30.26 |
| | N6RB4F | | | 9.5055 |
| | TGRCQ8 | $(1+4p)/8p$ | p=15 | 30.262 |
| | VW3YT2 | $(0.25+c)/2c$ | a=11, b=12, c=15 | 30.2619 |
| | YLG639 | $(1+4p)/8p$ | p=15 | 30.2619 |
| YUBAWA | $(1+4p)/8p$ | p=15 | 30.2619 | |

Statistical Analysis Summary of D13S317

Likelihood Ratio (Grand Mean): **30.262**Standard Deviation: **0.0004**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|---------------|------------------|------------------|
| D16S539 | 4B8RE6 | $(1+4p)/8p$ | P=11 | 0.972 |
| | 4C3GHX | $(1+4q)/8q$ | q=11 | 0.972 |
| | 7LDQW2 | $(1+4p)/8p$ | p=11 | 0.9721 |
| | A47R2V | $1+4p/8p$ | p=11 | 0.9721 |
| | BV9HBW | $(1+4p)/8p$ | p=11 | 0.9721 |
| | C3JZ4U | $1+4a/8a$ | $a=0.2648$ | 0.9720 |
| | D8TGDJ | $(0.25+A)/2A$ | 11=A, 12=B, 10=C | 0.9721 |
| | FB3DVP | $(1+4p)/8p$ | p = 11 | 0.9721 |
| | G998PJ | $(1+4q)/8q$ | q=11 | 0.9721 |
| | GBZ74H | $(1+4p)/8p$ | p=11 | 0.972 |
| | GGQFEF | $(0.25+a)/2a$ | $a=0.2648$ | 0.97205 |
| | H2Q2QR | $(1+4p)/8p$ | p=11 | 0.9721 |
| | HMBXBN | $(1+4p)/8p$ | p = 11 | 0.972 |
| | HV69FR | $(1+4p)/8p$ | p=11 | 0.9721 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 11 | 0.9721 |
| | K7EKKK | $(1+4p)/8p$ | p = 11 | 0.97 |
| | N6RB4F | | | 0.9684 |
| | TGRCQ8 | $(1+4p)/8p$ | p=11 | 0.972 |
| | VW3YT2 | $(0.25+b)/2b$ | a=10, b=11, c=12 | 0.9721 |
| | YLG639 | $(1+4p)/8p$ | p=11 | 0.9721 |
| YUBAWA | $(1+4p)/8p$ | p=11 | 0.9721 | |

Statistical Analysis Summary of D16S539

Likelihood Ratio (Grand Mean): **0.972**Standard Deviation: **0.0009**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|---------------|--------------------|------------------|
| D18S51 | 4B8RE6 | $(1+4p)/8p$ | $P=14$ | 1.276 |
| | 4C3GHX | $(1+4p)/8p$ | $p=14$ | 1.276 |
| | 7LDQW2 | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| | A47R2V | $1+4p/8p$ | $p=14$ | 1.2764 |
| | BV9HBW | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| | C3JZ4U | $1+4a/8a$ | $a=0.1610$ | 1.2764 |
| | D8TGDJ | $(0.25+A)/2A$ | $14=A, 16=B, 18=C$ | 1.2764 |
| | FB3DVP | $(1+4p)/8p$ | $p = 14$ | 1.2764 |
| | G998PJ | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| | GBZ74H | $(1+4p)/8p$ | $p=14$ | 1.276 |
| | GGQFEF | $(0.25+a)/2a$ | $a=0.1610$ | 1.2764 |
| | H2Q2QR | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| | HMBXBN | $(1+4p)/8p$ | $p = 14$ | 1.276 |
| | HV69FR | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| | JTVHPN | $(1+4Pa)/8Pa$ | $Pa = 14$ | 1.2764 |
| | K7EKKK | $(1+4p)/8p$ | $p = 14$ | 1.28 |
| | N6RB4F | | | 1.2526 |
| | TGRCQ8 | $(1+4p)/8p$ | $p=14$ | 1.276 |
| | VW3YT2 | $(0.25+a)/2a$ | $a=14, b=16, c=18$ | 1.2764 |
| | YLG639 | $(1+4p)/8p$ | $p=14$ | 1.2764 |
| YUBAWA | $(1+4p)/8p$ | $p=14$ | 1.2764 | |

Statistical Analysis Summary of D18S51

Likelihood Ratio (Grand Mean): **1.276**Standard Deviation: **0.0008**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|---------|-------------|------------------|---------------|------------------|
| D19S433 | 4B8RE6 | $(1+2p)/4p$ | $P=13$ | 1.624 |
| | 4C3GHX | $(1+2p)/4p$ | $p=13$ | 1.624 |
| | 7LDQW2 | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| | A47R2V | $1+2p/4p$ | $p=13$ | 1.6236 |
| | BV9HBW | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| | C3JZ4U | $2a+1/4a$ | $a=13$ | 1.6235 |
| | D8TGDJ | $(0.5+A)/2A$ | $13=A, 16=B$ | 1.6236 |
| | FB3DVP | $(1+2p)/4p$ | $p = 13$ | 1.6236 |
| | G998PJ | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| | GBZ74H | $(1+2p)/4p$ | $p=13$ | 1.624 |
| | GGQFEF | $(0.25+(b/2))/b$ | $b=0.2225$ | 1.6236 |
| | H2Q2QR | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| | HMBXBN | $(1+2p)/4p$ | $p = 13$ | 1.624 |
| | HV69FR | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| | JTVHPN | $(1+2Pa)/4Pa$ | $Pa = 13$ | 1.6236 |
| | K7EKKK | $(1+2p)/4p$ | $p = 13$ | 1.62 |
| | N6RB4F | | | 1.5611 |
| | TGRCQ8 | $(1+2p)/4p$ | $p=13$ | 1.624 |
| | VW3YT2 | $(0.5+a)/2a$ | $a=13, b=16$ | 1.6236 |
| | YLG639 | $(1+2p)/4p$ | $p=13$ | 1.6236 |
| YUBAWA | $(1+2p)/4p$ | $p=13$ | 1.6236 | |

Statistical Analysis Summary of D19S433
Likelihood Ratio (Grand Mean): **1.624**Standard Deviation: **0.0008**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|---------------|----------------------|------------------|
| D21S11 | 4B8RE6 | $(1+4p)/8p$ | $P=28$ | 1.755 |
| | 4C3GHX | $(1+4p)/8p$ | $p=28$ | 1.755 |
| | 7LDQW2 | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| | A47R2V | $1+4p/8p$ | $p=28$ | 1.7550 |
| | BV9HBW | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| | C3JZ4U | $1+4a/8a$ | $a=28$ | 1.7550 |
| | D8TGDJ | $(0.25+A)/2A$ | $28=A, 31.2=B, 29=C$ | 1.7550 |
| | FB3DVP | $(1+4p)/8p$ | $p = 28$ | 1.7550 |
| | G998PJ | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| | GBZ74H | $(1+4p)/8p$ | $p=28$ | 1.755 |
| | GGQFEF | $(0.25+a)/2a$ | $a=0.0996$ | 1.7550 |
| | H2Q2QR | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| | HMBXBN | $(1+4p)/8p$ | $p = 28$ | 1.755 |
| | HV69FR | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| | JTVHPN | $(1+4Pa)/8Pa$ | $Pa = 28$ | 1.7550 |
| | K7EKKK | $(1+4p)/8p$ | $p = 28$ | 1.76 |
| | N6RB4F | | | 1.6737 |
| | TGRCQ8 | $(1+4p)/8p$ | $p=28$ | 1.755 |
| | VV3YT2 | $(0.25+a)/2a$ | $a=28, b=29, c=31.2$ | 1.7550 |
| | YLG639 | $(1+4p)/8p$ | $p=28$ | 1.7550 |
| YUBAWA | $(1+4p)/8p$ | $p=28$ | 1.7550 | |

Statistical Analysis Summary of D21S11

Likelihood Ratio (Grand Mean): **1.755**Standard Deviation: **0.0011**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|----------|------------|--------------------|---------------|------------------|
| D22S1045 | 4B8RE6 | $(1+p)/2p$ | $P=16$ | 1.930 |
| | 4C3GHX | $(2+2p)/4p$ | $p=16$ | 1.930 |
| | 7LDQW2 | $(1+p)/2p$ | $p=16$ | 1.9302 |
| | A47R2V | $1+p/2p$ | $p=16$ | 1.9302 |
| | BV9HBW | $(1+p)/2p$ | $p=16$ | 1.9302 |
| | C3JZ4U | $1+a/2a$ | $a=16$ | 1.9302 |
| | D8TGDJ | $(0.5+(A/2))/A$ | $16=A$ | 1.9302 |
| | FB3DVP | $2p(1+p)/(2p)(2p)$ | $p = 16$ | 1.9302 |
| | G998PJ | $(1+p)/2p$ | $p=16$ | 1.9302 |
| | GBZ74H | $2p(1+p)/(2p)^2$ | $p=16$ | 1.93 |
| | GGQFEF | $(0.5+(a/2))/a$ | $a=0.3496$ | 1.9302 |
| | H2Q2QR | $(1+p)/2p$ | $p=16$ | 1.9302 |
| | HMBXBN | $(1+p)/2p$ | $p = 16$ | 1.930 |
| | HV69FR | $(1+p)/2p$ | $p=16$ | 1.9302 |
| | JTVHPN | $(1+Pa)/2Pa$ | $Pa = 16$ | 1.9302 |
| | K7EKKK | $2p(1+p)/2p^2$ | $p = 16$ | 1.93 |
| | N6RB4F | | | 1.8560 |
| | TGRCQ8 | $(1+p)/2p$ | $p=16$ | 1.930 |
| | VV3YT2 | $(0.5+(a/2))/a$ | $a=16$ | 1.9302 |
| | YLG639 | $(1+p)/2p$ | $p=16$ | 1.9302 |
| YUBAWA | $(1+p)/2p$ | $p=16$ | 1.9302 | |

Statistical Analysis Summary of D22S1045
Likelihood Ratio (Grand Mean): **1.930**Standard Deviation: **0.0001**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|---------------|-----------------|------------------|
| CSF1PO | 4B8RE6 | $(1+4q)/8q$ | Q=13 | 2.608 |
| | 4C3GHX | $(1+4q)/8q$ | q=13 | 2.608 |
| | 7LDQW2 | $(1+4q)/8q$ | q=13 | 2.6079 |
| | A47R2V | $1+4q/8q$ | q=13 | 2.6079 |
| | BV9HBW | $(1+4p)/8p$ | p=13 | 2.6079 |
| | C3JZ4U | $1+4a/8a$ | a=13 | 2.6079 |
| | D8TGDJ | $(0.25+A)/2A$ | 13=A, 11=B, 7=C | 2.6079 |
| | FB3DVP | $(1+4p)/8p$ | p = 13 | 2.6079 |
| | G998PJ | $(1+4v)/8v$ | v=13 | 2.6079 |
| | GBZ74H | $(1+4p)/8p$ | p=13 | 2.608 |
| | GGQFEF | $(0.25+a)/2a$ | a=0.0593 | 2.6079 |
| | H2Q2QR | $(1+4p)/8p$ | p=13 | 2.6079 |
| | HMBXBN | $(1+4p)/8p$ | p = 13 | 2.608 |
| | HV69FR | $(1+4p)/8p$ | p=13 | 2.6079 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 13 | 2.6079 |
| | K7EKKK | $(1+4p)/8p$ | p = 13 | 2.61 |
| | N6RB4F | | | 2.3557 |
| | TGRCQ8 | $(1+4p)/8p$ | p=13 | 2.608 |
| | VW3YT2 | $(0.25+c)/2c$ | a=7, b=11, c=13 | 2.6079 |
| | YLG639 | $(1+4p)/8p$ | p=13 | 2.6079 |
| YUBAWA | $(1+4p)/8p$ | p=13 | 2.6079 | |

Statistical Analysis Summary of CSF1PO

Likelihood Ratio (Grand Mean): **2.608**Standard Deviation: **0.0005**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-------------|------------------|---------------|------------------|
| FGA | 4B8RE6 | $(1+2q)/4q$ | Q=24 | 2.262 |
| | 4C3GHX | $(1+2q)/4q$ | q=24 | 2.262 |
| | 7LDQW2 | $(1+2q)/4q$ | q=24 | 2.2618 |
| | A47R2V | $1+2q/4q$ | q=24 | 2.2618 |
| | BV9HBW | $(1+2p)/4p$ | p=24 | 2.2618 |
| | C3JZ4U | $2a+1/4a$ | a=24 | 2.2618 |
| | D8TGDJ | $(0.25+(B/2))/B$ | 22=A, 24=B | 2.2618 |
| | FB3DVP | $(1+2p)/4p$ | p = 24 | 2.2618 |
| | G998PJ | $(1+2r)/4r$ | r=24 | 2.2618 |
| | GBZ74H | $(1+2p)/4p$ | p=24 | 2.262 |
| | GGQFEF | $(0.25+(b/2))/b$ | b=0.1419 | 2.2618 |
| | H2Q2QR | $(1+2p)/4p$ | p=24 | 2.2618 |
| | HMBXBN | $(1+2p)/4p$ | p = 24 | 2.262 |
| | HV69FR | $(1+2p)/4p$ | p=24 | 2.2618 |
| | JTVHPN | $(1+2Pa)/4Pa$ | Pa = 24 | 2.2618 |
| | K7EKKK | $(1+2p)/4p$ | p = 24 | 2.26 |
| | N6RB4F | | | 2.0885 |
| | TGRCQ8 | $(1+2p)/4p$ | p=24 | 2.262 |
| | VV3YT2 | $(0.5+b)/2b$ | a=22, b=24 | 2.2618 |
| | YLG639 | $(1+2p)/4p$ | p=24 | 2.2618 |
| YUBAWA | $(1+2p)/4p$ | p=24 | 2.2618 | |

Statistical Analysis Summary of FGA

Likelihood Ratio (Grand Mean): **2.262**Standard Deviation: **0.0004**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|---------|---------|---------------|------------------|
| PentaD | 4B8RE6 | 0.5 | N/A | 0.5 |
| | 4C3GHX | 1/2 | N/A | 0.500 |
| | 7LDQW2 | 1/2 | n/a | 0.5000 |
| | A47R2V | 1/2 | | 0.5000 |
| | BV9HBW | 1/2 | | 0.5000 |
| | C3JZ4U | N/A | N/A | 0.5 |
| | D8TGDJ | CD/2CD | 9=C, 12=D | 0.5 |
| | FB3DVP | 2/4 | | 0.5 |
| | G998PJ | 1/2 | | 0.5 |
| | GBZ74H | 1/2 | | 0.5 |
| | H2Q2QR | 1/2 | | 0.5 |
| | HMBXBN | 1/2 | | 0.5 |
| | HV69FR | 1/2 | - | 0.5000 |
| | JTVHPN | 0.5 | | 0.5 |
| | K7EKKK | 2/4 | | 0.50 |
| | N6RB4F | | | 0.5 |
| | TGRCQ8 | 0.5 | | 0.500 |
| | VV3YT2 | N/A | | 0.5 |
| | YLG639 | 1/2 | | 0.5000 |
| | YUBAWA | 1/2 | - | 0.5000 |

Statistical Analysis Summary of PentaD
Likelihood Ratio (Grand Mean): **0.500**Standard Deviation: **0.0000**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|---------|---------------|------------------|------------------|
| PentaE | 4B8RE6 | $(1+4q)/8q$ | Q=15 | 1.812 |
| | 4C3GHX | $(1+4r)/8r$ | r=15 | 1.812 |
| | 7LDQW2 | $(1+4q)/8q$ | q=15 | 1.8116 |
| | A47R2V | $1+4q/8q$ | q=15 | 1.8116 |
| | BV9HBW | $(1+4p)/8p$ | p=15 | 1.8116 |
| | C3JZ4U | $1+4a/8a$ | a=15 | 1.8116 |
| | D8TGDJ | $(0.25+A)/2A$ | 15=A, 10=B, 12=C | 1.8116 |
| | FB3DVP | $(1+4p)/8p$ | p = 15 | 1.8116 |
| | G998PJ | $(1+4p)/8p$ | p=15 | 1.8116 |
| | GBZ74H | $(1+4p)/8p$ | p=15 | 1.812 |
| | H2Q2QR | $(1+4p)/8p$ | p=15 | 1.8116 |
| | HMBXBN | $(1+4p)/8p$ | p = 15 | 1.812 |
| | HV69FR | $(1+4p)/8p$ | p=15 | 1.8116 |
| | JTVHPN | $(1+4Pa)/8Pa$ | Pa = 15 | 1.8116 |
| | K7EKKK | $(1+4p)/8p$ | p = 15 | 1.81 |
| | N6RB4F | | | 1.7216 |
| | TGRCQ8 | $(1+4p)/8p$ | p=15 | 1.812 |
| | VV3YT2 | $(0.25+c)/2c$ | a=10, b=12, c=15 | 1.8116 |
| | YLG639 | $(1+4p)/8p$ | p=15 | 1.8116 |
| | YUBAWA | $(1+4p)/8p$ | p=15 | 1.8116 |

Statistical Analysis Summary of PentaE

Likelihood Ratio (Grand Mean): **1.812**Standard Deviation: **0.0004**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|--------|-----------------|---------------------------|--------------------|------------------|
| SE33 | 4B8RE6 | $(p+q+4pq)/8pq$ | P=19, Q=31.2 | 11.747 |
| | 4C3GHX | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.747 |
| | 7LDQW2 | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| | A47R2V | $p+q+4pq/8pq$ | p=19, q=31.2 | 11.7470 |
| | BV9HBW | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| | C3JZ4U | $a+b+4ab/8ab$ | a= 19, b=31.2 | 11.7470 |
| | D8TGDJ | $(0.25A+0.25B+AB)/2AB$ | 19=A, 31.2=B | 11.7470 |
| | FB3DVP | $(p+q+4pq)/8pq$ | p = 19, q = 31.2 | 11.7470 |
| | G998PJ | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| | GBZ74H | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.747 |
| | GGQFEF | $(0.25a+0.25b+ab)/2ab$ | a=0.0890, b=0.0127 | 11.747 |
| | H2Q2QR | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| | HMBXBN | $(p+q+4pq)/8pq$ | p = 19, q = 31.2 | 11.747 |
| | HV69FR | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| | JTVHPN | $[Pa+Pb+4(PaPb)]/(8PaPb)$ | Pa = 19, Pb = 31.2 | 11.7470 |
| | K7EKKK | $(p+q+4pq)/8pq$ | p = 19, q = 31.2 | 11.75 |
| | N6RB4F | | | 7.4466 |
| | TGRCQ8 | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.747 |
| | VW3YT2 | $(0.25a+0.25b+ab)/2ab$ | a=19, b=31.2 | 11.7470 |
| | YLG639 | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 |
| YUBAWA | $(p+q+4pq)/8pq$ | p=19, q=31.2 | 11.7470 | |

Statistical Analysis Summary of SE33

Likelihood Ratio (Grand Mean): **11.747**Standard Deviation: **0.0007**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|-------|---------|------------|----------------------|------------------|
| TH01 | 4B8RE6 | 0.5 | N/A | 0.5 |
| | 4C3GHX | 1/2 | N/A | 0.500 |
| | 7LDQW2 | 1/2 | n/a | 0.5000 |
| | A47R2V | 1/2 | | 0.5000 |
| | BV9HBW | 1/2 | | 0.5000 |
| | C3JZ4U | N/A | N/A | 0.5 |
| | D8TGDJ | CD/2CD | 6=A, 8=B, 7=C, 9.3=D | 0.5 |
| | FB3DVP | 2/4 | | 0.5 |
| | G998PJ | 1/2 | | 0.5 |
| | GBZ74H | 1/2 | | 0.5 |
| | GGQFEF | cd/2cd=0.5 | c=0.2966, d=0.2182 | 0.500 |
| | H2Q2QR | 1/2 | | 0.5 |
| | HMBXBN | 1/2 | | 0.5 |
| | HV69FR | 1/2 | - | 0.5000 |
| | JTVHPN | 0.5 | | 0.5 |
| | K7EKKK | 2/4 | | 0.50 |
| | N6RB4F | | | 0.5 |
| | TGRCQ8 | 0.5 | | 0.500 |
| | VW3YT2 | N/A | | 0.5 |
| | YLG639 | 1/2 | | 0.5000 |
| | YUBAWA | 1/2 | - | 0.5000 |

Statistical Analysis Summary of TH01

Likelihood Ratio (Grand Mean): **0.500**Standard Deviation: **0.0000**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|-------|---------|------------|---------------|------------------|
| TPOX | 4B8RE6 | 0.5 | N/A | 0.5 |
| | 4C3GHX | 1/2 | N/A | 0.500 |
| | 7LDQW2 | 1/2 | n/a | 0.5000 |
| | A47R2V | 1/2 | | 0.5000 |
| | BV9HBW | 1/2 | | 0.5000 |
| | C3JZ4U | N/A | N/A | 0.5 |
| | D8TGDJ | CD/2CD | 8=C, 11=D | 0.5 |
| | FB3DVP | 2/4 | | 0.5 |
| | G998PJ | 1/2 | | 0.5 |
| | GBZ74H | 1/2 | | 0.5 |
| | GGQFEF | cd/2cd=0.5 | c/d=0.0487 | 0.500 |
| | H2Q2QR | 1/2 | | 0.5 |
| | HMBXBN | 1/2 | | 0.5 |
| | HV69FR | 1/2 | - | 0.5000 |
| | JTVHPN | 0.5 | | 0.5 |
| | K7EKKK | 2/4 | | 0.50 |
| | N6RB4F | | | 0.5 |
| | TGRCQ8 | 0.5 | | 0.500 |
| | VW3YT2 | N/A | | 0.5 |
| | YLG639 | 1/2 | | 0.5000 |
| | YUBAWA | 1/2 | - | 0.5000 |

Statistical Analysis Summary of TPOX

Likelihood Ratio (Grand Mean): **0.500**Standard Deviation: **0.0000**

TABLE 7

| Locus | WebCode | Formula | Allele Legend | Likelihood Ratio |
|-------|---------|---------------|---------------|------------------|
| vWA | 4B8RE6 | $(1+2p)/4p$ | $P=17$ | 1.517 |
| | 4C3GHX | $(1+2q)/4q$ | $q=17$ | 1.517 |
| | 7LDQW2 | $(1+2p)/4p$ | $p=17$ | 1.5171 |
| | A47R2V | $1+2p/4p$ | $p=17$ | 1.5171 |
| | BV9HBW | $(1+2p)/4p$ | $p=17$ | 1.5171 |
| | C3JZ4U | $2a+1/4a$ | $a=17$ | 1.5170 |
| | D8TGDJ | $(0.5+A)/2A$ | $17=A, 15=B$ | 1.5171 |
| | FB3DVP | $(1+2p)/4p$ | $p = 17$ | 1.5171 |
| | G998PJ | $(1+2r)/4r$ | $r=17$ | 1.5171 |
| | GBZ74H | $(1+2p)/4p$ | $p=17$ | 1.517 |
| | GGQFEF | $(0.5+a)/2a$ | $a=0.2458$ | 1.5171 |
| | H2Q2QR | $(1+2p)/4p$ | $p=17$ | 1.5171 |
| | HMBXBN | $(1+2p)/4p$ | $p = 17$ | 1.517 |
| | HV69FR | $(1+2p)/4p$ | $p=17$ | 1.5171 |
| | JTVHPN | $(1+2Pa)/4Pa$ | $Pa = 17$ | 1.5171 |
| | K7EKKK | $(1+2p)/4p$ | $p = 17$ | 1.52 |
| | N6RB4F | | | 1.4683 |
| | TGRCQ8 | $(1+2p)/4p$ | $p=17$ | 1.517 |
| | VW3YT2 | $(0.5+b)/2b$ | $a=15, b=17$ | 1.5171 |
| | YLG639 | $(1+2p)/4p$ | $p=17$ | 1.5171 |
| | YUBAWA | $(1+2p)/4p$ | $p=17$ | 1.5171 |

Statistical Analysis Summary of vWALikelihood Ratio (Grand Mean): **1.517**Standard Deviation: **0.0007**

Kinship DNA Statistics

Is the claim of the following relationship supported by the genetic evidence: **Half Siblings?**

TABLE 8

| WebCode | Kinship Index | Claim Supported? |
|----------------|----------------------|--|
| 4B8RE6 | 46,481.831 | Yes |
| 4C3GHX | 40.5 thousand | There is strong support for the proposed relationship. |
| 7LDQW2 | 40532.6377 | yes |
| A47R2V | 40,532.6377 | Yes |
| BV9HBW | 40532.64 | Yes |
| C3JZ4U | 40,513 | Yes |
| D8TGDJ | 40,500 | Yes |
| FB3DVP | 40530.7335 | YES |
| G998PJ | 40536.2102 | Yes |
| GBZ74H | 40000:1 | Yes |
| GGQFEF | 44,749 | Yes |
| H2Q2QR | 40536.2102 | Yes |
| HMBXBN | 4.05E04 | Yes |
| HV69FR | 40536.2102 | YES |
| JTVHPN | 75572.9091 | Yes |
| K7EKKK | 4.1E+04 | Yes |
| N6RB4F | 4102.24 | YES |
| TGRCQ8 | 40532.638 | Yes |
| VW3YT2 | 40,500 | Yes |
| YLG639 | 40532.6377 | YES |
| YUBAWA | 40536.2102 | yes |

Additional Kinship Statistical Results

TABLE 9

| WebCode | Additional Statistical Results |
|---------|---|
| 4B8RE6 | The probability of kinship is 99.998% (prior probability 0.5). |
| 4C3GHX | Population substructure (theta) not considered. |
| D8TGDJ | AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile B is the half sibling of Profile A using the reference populations listed. The genotype observed for Profile B is "X" times more likely to occur in a half sibling of Profile A than in someone unrelated to Profile A from the reference populations listed where "X" equals: African American – 97 THOUSAND, Caucasian – 10 THOUSAND, Hispanic – 16 THOUSAND |
| GBZ74H | It is approximately 40000 times more likely to obtain the profiles of the two individuals if they are half-siblings rather than if they are unrelated to each other. This provides very strong support for the relationship claim. |
| GGQFEF | AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile B is the half sibling of Profile A using the reference populations listed. The genotype observed for Profile B is 44,749 times more likely to occur in a half sibling of Profile A than in someone unrelated to Profile A in the Hispanic population. |
| JTVHPN | Person A and Person B are possible to be half-sibling with probability 99.9987% |
| K7EKKK | Strong Evidence of Half Siblingship |
| K87JYJ | Kinship statistics are not calculated for half-sibling relationships. |
| N6RB4F | Using Familias, strong evidence for half siblings |
| TB23GA | Half-sibling statistics not calculated at this laboratory |
| VW3YT2 | The kinship index supports the hypothesis that Profile B is the Half Sibling of Profile A using the reference populations listed. The genotype observed for Profile B is "X" times more likely to occur in a Half Sibling of Profile A than in someone unrelated to Profile A from the reference populations listed where "X" equals: African American – 210 THOUSAND, Caucasian – 7.6 THOUSAND, Hispanic – 7.2 THOUSAND |
| XENBR7 | Our laboratory does not perform half sibling statistics. |
| YLG639 | There is a strong evidence to indicate that the subjects A and B to be related as half-siblings. The probability of kinship is 99.9975% as calculated based on the NIST STRBASE Hispanic Population Database. |

Additional Comments

TABLE 10

| WebCode | Additional Comments |
|---------|--|
| 272JU3 | No paternity indices were calculated for individual loci for the autosomal STRs since per lab policy, if there are three or more locus inconsistencies, then it is an elimination and no statistics will be issued. No Y-STR haplotype and paternity indices were calculated since per lab policy, if there are three or more locus inconsistencies it is an elimination and no statistics will be issued. |
| 6G9P3Y | Lab outsources paternity tests to an outside lab at this time. Lab is in process of performing paternity tests in house and implementing a statistical database for PI calculations. |
| 6L2R3T | Part I (continued): DNA Analysis for Item 3 [Table 3 - Paternity Index Results]: The PI box was left blank when the alleged father did not possess the obligate paternal allele at the locus. Part II: PATERNITY DNA STATISTICS: The Combined Paternity Index Value and Probability of Paternity boxes were left blank because the alleged father is excluded as a possible biological father of the child. |
| 97EN9T | The alleged father (Item 3) was excluded as the biological father of the son (Item 2). |
| 9HRN6M | Once three or more loci between the child and the alleged parent are a mismatch, the alleged parent is excluded. Our laboratory does not calculate any PI when the individual of interest is excluded. Our wording to report an exclusion for standard trio scenarios is: Assuming (mother's name) is the biological mother of (child's name), (alleged father's name) is excluded as his/her biological father. |
| AKFEUX | Item 2 is concordant in PowerPlex Fusion and Yfiler at locus DYS391. Item 3 is concordant in PowerPlex Fusion and Yfiler at locus DYS391. NR = No Results |
| AMYTXX | PowerPlex Fusion and YFiler were performed on Item 2. The PowerPlex Fusion and YFiler data are concordant at DYS391. PowerPlex Fusion and YFiler were performed on Item 3. The PowerPlex Fusion and YFiler data are concordant at DYS391. NR = No result |
| BMDDHV | Lab outsources paternity tests to an outside lab at this time. Lab is in process of performing paternity tests in house and implementing a statistical database for PI calculations. |
| BV9HBW | Re; Part 1 (continued): DNA Analysis - Additional DNA [Table 4]. A mismatch was noted at D6S474 between Mother and Son, this was confirmed by Re-PCR. This could be due to a null allele or alternatively a maternal mutation. |
| D4U3PT | Our laboratory does not calculate/report PI/CPI values where there are more than 2 mismatching loci. |
| D8TGDJ | The NIST database was used for reporting the statistics for the Kinship analysis for (#3 on page 7) [Table 9 - Additional Kinship Statistical Results] as requested by the test. The FBI database was used to calculate the statistics for the Kinship on the laboratory report as this is the typical database used. Statistics using both NIST and FBI database data will be saved in the case packet. D13S317 was calculated using the given allele frequency and not the minimum allele frequency for question #1 on page 7 of 8 [Table 8 - Kinship DNA Statistics]. The minimum allele frequency was used to calculate the statistics for question #3 on page 7 of 8 [Table 9 - Additional Kinship Statistical Results] as that is the typical laboratory protocol. |
| DF36QG | Due to the elimination of the Alleged Father (Item 3) as a possible Biological Parent (Father) of the Child (Item 2) no Combined Paternity Index statistics were calculated, in accordance with current laboratory procedure. |
| G998PJ | 1. On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 3" is not the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). 2. Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. 3. Amplification: Item 1, Item 2 and Item 3 were amplified using AMPFLSTR Identifiler Direct Kit. Item 2 and Item 3 were amplified using AMPFLSTR Y-Filer Kit. 4. Electrophoresis: Electrophoresis was carried out using Applied Biosystem 3500xl Genetic Analyzer for Item 1, Item 2 and Item 3 (Identifiler Direct). Electrophoresis was carried out using Applied Biosystem 3130xl Genetic Analyzer for Item 2 and Item 3 (Yfiler). 5. Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 5. The statistical formula were derived from DNA View Statistical Software and calculated using Microsoft Excel. |

TABLE 10

| WebCode | Additional Comments |
|---------|--|
| H2Q2QR | 1. On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 3" is not the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). 2. Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. 3. Amplification: Item 1, Item 2 and Item 3 were amplified using AmpFISTR Direct Kit. Item 2 and Item 3 were further amplified using AmpFISTR Y-Filer PCR Amplification kit. All the amplification process were carried out on ABI GeneAmp PCR System 9700. 4. Electrophoresis: Electrophoresis was carried out using Applied Biosystem 3500xL Genetic Analyzer for Item 1, Item 2 and Item 3. (Identifiler Direct). Y-STR analysis was carried out on Item 2 and Item 3. Electrophoresis was carried out using Applied Biosystem 3130xL Genetic Analyzer. 5. Quality Control: Reagent blank, positive control and negative control were incorporated into the overall analysis and gave designated results. 6. The statistical formula was derived from DNView Statistical Software and calculated using Microsoft Excel. |
| HMBXBN | No PI calculations performed for exclusions. |
| HV69FR | 1. On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 3" is not the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). 2. Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. 3. Amplification: Item 1, Item 2 and Item 3 were amplified using AmpFISTR Direct Kit. Item 2 and Item 3 were further amplified using AmpFISTR Y-Filer PCR Amplification kit. All the amplification process were carried out on ABI GeneAmp PCR System 9700. 4. Electrophoresis: Electrophoresis was carried out using Applied Biosystem 3500xL Genetic Analyzer for Item 1, Item 2 and Item 3. (Identifiler Direct). Y-STR analysis was carried out on Item 2 and Item 3. Electrophoresis was carried out using Applied Biosystem 3130xL Genetic Analyzer. 4. Quality Control: Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 5. The statistical formula were derived from DNView Statistical Software and calculated using Microsoft Excel. |
| K87JYJ | Parentage statistics are not calculated when alleged parent is eliminated. |
| T3N97D | NR = no results. Item 2 and Item 3 were tested in PowerPlex Fusion and Yfiler. Results were concordant for locus DYS391 for each sample. |
| WV3YT2 | For the Paternity portion of the test, PI values were reported for certain loci for the purpose of the Proficiency test only. These would typically not be reported in regular casework when the alleged father is excluded as the potential biological father. For the Kinship portion of this test, the FBI population data was used for reporting the statistics on the report of examination. The NIST database was used for the calculations that were reported to CTS. Both calculations are included in the case file. KI value rounded to the nearest hundred. KI at D13S317 calculated without using a minimum allele frequency. This caused a slight difference between the value calculated using Popstats and the value reported to CTS. |
| X46VP4 | Based on our laboratory SOP, when there are three or more genetic inconsistencies, we will exclude the alleged parent as a possible biological parent of the child. We do not calculate PI for individual locus if alleged father is excluded. In addition, our laboratory does not perform half-sibling relationship testing. |
| YFDYQR | Our laboratory will not calculate PI values at any loci when there are exclusions at numerous loci and where there is non-concordance in Y-STR haplotypes between the alleged father and a male child. |

TABLE 10

| WebCode | Additional Comments |
|---------|--|
| YLG639 | <p>Amplification: Item 1, Item 2 and Item 3 were amplified using AmpFLSTR Identifiler Direct PCR Amplification Kit on Applied Biosystems GeneAmp PCR System 9700. With in-situ method, Item 2 and Item 3 were also amplified using AmpFLSTR Yfiler PCR Amplification Kit on Applied Biosystems GeneAmp PCR System 9700. Electrophoresis: Electrophoresis was carried out on Applied Biosystems 3500xL Genetic Analyzer and the data were analysed with GeneMapper ID-X v1.5 software. Quality control: Reagent Blank, Positive Control and Negative Control were included throughout the analysis and all gave intended results. Statistical evaluation: The statistical formulas were derived from DNAView Statistical Software and the paternity / kinship index was calculated using Microsoft Office Excel. On comparison to the DNA profiles obtained, I found that the donor of bloodstained specimen "Item 3" is excluded from being the biological father to the donor of bloodstained specimen "Item 2". (Given that the biological mother is represented by the donor of bloodstained specimen "Item 1")</p> |
| YUBAWA | <p>On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 3" is not the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). Extraction: Item 1, Item 2 and Item 3 were extracted using in-situ method. Amplification: Item 1, Item 2 and Item 3 were amplified using AmFISTR Identifiler Direct PCR Amplification Kit. Item 2 and Item 3 were further amplified using AmFISTR Y-Filer PCR Amplification Kit. All the amplification processes were carried out on ABI GeneAmp PCR System 9700. Electrophoresis: Electrophoresis was carried out on Genetic Analyzer 3500xL for Item 1, Item 2 and Item 3 (Identifiler Direct). Electrophoresis was also carried out on Genetic Analyzer 3130xl for Item 2 and Item 3 (Y-Filer). Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. The statistical formula were derived from DNAView Statistical Software and calculated using Microsoft Excel.</p> |

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 19-5870: DNA Parentage

DATA MUST BE SUBMITTED BY **April 22, 2019, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: J8UJ6A

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:

A standard paternity trio case has been presented to your laboratory. Blood standards have been collected from the mother, son, and alleged father. Your laboratory is tasked with examining the blood standards and comparing the DNA profiles.

Items Submitted (Sample Pack DNP1):

Item 1: Blood Sample from Known Parent (Hispanic Mother)

Item 2: Blood Sample from Known Child (Son)

Item 3: Blood Sample from Alleged Father (Caucasian)

DNA REPORTING INSTRUCTIONS

Use the instructions below to complete the following DNA Analysis sections of this data sheet

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. "14,14", "14,-", "14") and null responses
- PI = Paternity Index
- If your laboratory does not produce PI calculations, record your explanation within the Part IV: Additional comments section.

| Example | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 |
|---------|---------|---------|--------|---------|--------|
| STR | 15,18 | 12,17 | 10 | 14 | 5,13 |
| PI | 1.65 | 3.01 | 3.16 | 4.12 | 5.65 |

Part I: DNA Analysis for Item 1

STR Amplification Kit(s) Used:

Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. 16, Plus, Direct, HS, Fusion, etc.).

Identifiler®
 GlobalFiler™
 Investigator® 24plex

PowerPlex®
 Other

Report the Probabilistic Genotyping Software Used (if applicable):

Alleles below are sorted in **Default** order.

| | | | | | | |
|------|---------|---------|----------|----------|------------|---------|
| ITEM | D1S1656 | D2S1338 | D2S441 | D3S1358 | D5S818 | D6S1043 |
| 1 | | | | | | |
| ITEM | D7S820 | D8S1179 | D10S1248 | D12S391 | D13S317 | D16S539 |
| 1 | | | | | | |
| ITEM | D18S51 | D19S433 | D21S11 | D22S1045 | Amelogenin | CSF1PO |
| 1 | | | | | | |
| ITEM | FGA | Penta D | Penta E | SE33 | TH01 | TPOX |
| 1 | | | | | | |
| ITEM | vWA | DYS391 | DYS570 | DYS576 | Y Indel | |
| 1 | | | | | | |

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.
- Click "Add Row" to show another row of boxes for entry.

| Locus | Item 1 | Item 2 | Item 3 Alleles | Item 3 PI |
|-------|--------|--------|----------------|-----------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Part II: PATERNITY DNA STATISTICS

For the purposes of consistency among reported statistical values, use the ethnicity listed for the alleged parent and choose one of the following population databases for all statistical calculations in this test:

1. **FBI Popstats:** If FBI Popstats is already available in your laboratory then you may select that option, otherwise use the population database below.
2. **NIST-STRBASE** is a publicly available U.S. population dataset at STRBASE on the following NIST web site: <http://www.cstl.nist.gov/strbase/NISTpop.htm#Autosomal>
 - a. On the NIST web site, access the population database by selecting the hyperlink labeled "Allele frequencies from autosomal STRs as Excel file" under the title "NIST 1036 U.S. Population Dataset".
3. If you are unable to use one of the suggested population databases, report the population database used in the blank provided next to the 'Other Pop. Database' option. Due to the tendency for allele frequencies to vary amongst different databases, no consensus value will be determined for this option. When reporting a population database name, please refrain from using terms that would allude to a laboratory specific name or location; general terms such as 'local/state database' or 'laboratory specific database' are preferred.

1. Choose a Population Database:

FBI Popstats Pop. Database:

NIST STRBASE Pop. Database:

Other Pop. Database:

2. Record the Combined Paternity Index value:

3. Record the Probability of Paternity:

Based on DNA results, select your response from the following options. If the wording differs from the normal wording in your reports, adapt these conclusions as best as you can and use your preferred wording in your additional comments.

4. The Alleged parent (Item 3) could not be excluded as the biological parent of child (Item 2).
- The Alleged parent (Item 3) is excluded as a possible biological parent of child (Item 2).
- Inconclusive as to whether the Alleged parent (Item 3) could be the biological parent of child (Item 2). (Please document the reason in the Additional Comments section of this data sheet.)

Part III: KINSHIP DNA STATISTICS

Complete the following Kinship DNA Statistics section, if applicable to your laboratory, using the instructions below.

- Use the provided scenario for context.
- Use the supplied allele frequencies for calculations (adopted from the NIST STRBASE database).
- Only test the relationship in question (eg. half siblings versus unrelated).
- Complete the entire table including the formula used in the calculation and the allele legend.

Example: Questioned Half Sibling Relationship

| Locus | Profile A | Profile B | Allele Frequencies | | Formula Used | Allele Legend | Likelihood Ratio |
|-------|-----------|-----------|--------------------|------------|-------------------|------------------|------------------|
| FGA | 18, 26 | 18, 26 | 18: 0.0249 | 26: 0.0263 | $(p+q+4pq) / 8pq$ | p = 18 q = 26 | 10.272 |
| | | | | | | | |
| vWA | 14, 15 | 14, 17 | 14: 0.0928 | 15: 0.1053 | $(1+4p)/8p$ | p = 14 | 1.847 |
| | | | 17: 0.1053 | | | | |

Scenario:

The two DNA profiles below are presented as a potential Hispanic half sibling relationship. Using the allele frequencies shown for the tested loci, calculate the likelihood ratio for support of the proposed relationship versus being unrelated.

| Locus | A | B | Allele Frequencies | | Formula Used | Allele Legend | Likelihood Ratio |
|---------|---------|---------|--------------------|------------|----------------------|----------------------|----------------------|
| D1S1656 | 13,16.3 | 16,16.3 | 13: 0.1144 | 16: 0.1758 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 16.3: 0.0508 | | | | |
| D2S1338 | 17,22 | 17,21 | 17: 0.1695 | 21: 0.0318 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 22: 0.0572 | | | | |
| D2S441 | 11,14 | 11,11 | 11: 0.2987 | 14: 0.2055 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |
| D3S1358 | 15,16 | 14,15 | 14: 0.0784 | 15: 0.3220 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 16: 0.2797 | | | | |
| D5S818 | 11,11 | 8,11 | 8: 0.0085 | 11: 0.3898 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |

| Locus | A | B | Allele Frequencies | | Formula Used | Allele Legend | Likelihood Ratio |
|----------|---------|-------|--------------------|------------|----------------------|----------------------|----------------------|
| D7S820 | 11,12 | 8,12 | 8: 0.1208 | 11: 0.2775 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 12: 0.1547 | | | | |
| D8S1179 | 13,13 | 13,13 | 13: 0.2733 | | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |
| D10S1248 | 14,15 | 15,16 | 14: 0.3390 | 15: 0.2119 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 16: 0.0996 | | | | |
| D12S391 | 18,18 | 16,19 | 16: 0.0424 | 18: 0.1780 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 19: 0.1886 | | | | |
| D13S317 | 11,15 | 12,15 | 11: 0.2182 | 12: 0.2352 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 15: 0.0042 | | | | |
| D16S539 | 11,12 | 10,11 | 10: 0.1504 | 11: 0.2648 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 12: 0.2775 | | | | |
| D18S51 | 14,16 | 14,18 | 14: 0.1610 | 16: 0.1250 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 18: 0.0784 | | | | |
| D19S433 | 13,16 | 13,13 | 13: 0.2225 | 16: 0.0254 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |
| D21S11 | 28,31.2 | 28,29 | 28: 0.0996 | 29: 0.2076 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 31.2: 0.0996 | | | | |
| D22S1045 | 16,16 | 16,16 | 16: 0.3496 | | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |

| Locus | A | B | Allele Frequencies | | Formula Used | Allele Legend | Likelihood Ratio |
|--------|---------|---------|--------------------|--------------|----------------------|----------------------|----------------------|
| CSF1PO | 11,13 | 7,13 | 7: 0.0127 | 11: 0.2797 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 13: 0.0593 | | | | |
| FGA | 22,24 | 24,24 | 22: 0.1653 | 24: 0.1419 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |
| PentaD | 11,15 | 9,12 | 9: 0.2426 | 11: 0.1553 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 12: 0.1574 | 15: 0.0106 | | | |
| PentaE | 10,15 | 12,15 | 10: 0.0847 | 12: 0.1695 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 15: 0.0953 | | | | |
| SE33 | 19,31.2 | 19,31.2 | 19: 0.0890 | 31.2: 0.0127 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |
| TH01 | 6,8 | 7,9.3 | 6: 0.2394 | 7: 0.2966 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 8: 0.0911 | 9.3: 0.2182 | | | |
| TPOX | 8,11 | 10,10 | 8: 0.4852 | 10: 0.0487 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | 11: 0.2542 | | | | |
| vWA | 17,17 | 15,17 | 15: 0.1441 | 17: 0.2458 | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| | | | | | | | |

1. Evaluate the profiles above and record the kinship index.

2. Is the relationship of Half Siblings supported by the genetic evidence?

3. Use the space provided to document any additional statistical results and relationship conclusions.

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.

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Test.

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)