Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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Probabilistic Genotyping Test No. 23-5904/5
Summary Report

Each participant received a sample set consisting of two known bloodstains and two questioned stains which they were requested to analyze using their existing protocols. Data were returned from 72 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 consisted of two known bloodstains provided on either white fabric or FTA™ Micro Cards (Items 1 and 2), and two questioned stains on colored fabric (Items 3 and 4). Participants were requested to analyze these items using their existing protocols.

SAMPLE PREPARATION: The substrates for Items 1, 2, and 3 were prepared using human whole blood which was either drawn into citric acid preservative bags or EDTA tubes. The substrates for Item 4 were prepared using a mixture of human whole blood and semen. The white fabric known bloodstains were spotted with 50 µL of sample and the FTA™ Micro Card known bloodstains were spotted with 75 µL of sample. Item 1 was created using blood from a female donor. Item 2 was created using blood from a male donor. Item 3 was created by combining one part blood from the Item 1 female donor and one part blood from another female whose known standard was not provided. Item 4 was created by combining three parts blood from the Item 1 female donor and two parts semen from the Item 2 male donor. The 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 August 14, 2023.

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

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

Key to Test Substrates

5904 - Cloth Swatches

5905 - FTA™ Micro Cards

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Manufacturer's Information, continued

Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
	D18S51	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
1	11,15.3	17,22	10,14	17,18	11,12	11,12
	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17	NM	NM	NM	NM	
2	13,15	17,20	10,11	17,17	11,12	11,19
	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7,7	8,8
	14,18	10	*	*	2	
3	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	11,12,13,24
	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17	NM	NM	NM	NM	
4-Blood	11,15.3	17,22	10,14	17,18	11,12	11,12
	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17	NM	NM	NM	NM	
4-Semen	13,15	17,20	10,11	17,17	11,12	11,19
	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7,7	8,8
	14,18	10	*	*	2	

YSTR Results

Results compiled from 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**	**YGATAH4**
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12	12	18	17	23	23	11	12
4-Semen	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12	12	18	17	23	23	11	12

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

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

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Summary Comments

The Probabilistic Genotyping test was designed to allow participants to assess their proficiency in the identification and comparison of dried stains by means of body fluid screening and/or DNA profiling utilizing PG software. Participants were supplied with two "known" bloodstains (Items 1 and 2) and two "questioned" stains (Items 3 and 4). Item 1 was created using blood from a female donor. Item 2 was created using blood from a male donor. Item 3 was created by combining one part blood from the Item 1 female donor and one part blood from another female whose known standard was not provided. Item 4 was created by combining three parts blood from the Item 1 female donor and two parts semen from the Item 2 male donor. (See Manufacturer's Information for preparation details)

Data were returned by 72 participants.

Screening Test Results
At total of 63 participants reported screening results for at least one body fluid (blood, semen, saliva). However, not all of these participants returned screening results for all fluids for both questioned items.

For Item 3, all participants reported "Positive" for the presence of blood. For the presence of semen, all participants reported "Negative." For the presence of saliva, all but one participant reported "Negative." The remaining participant reported "Positive." Additionally, all participants reported "Positive" for Human Origin. For Y-Screening, all but one participant reported "Negative." The remaining participant reported "Positive."

For Item 4, all participants reported "Positive" for the presence of blood and semen. For the presence of saliva, all participants reported "Negative." Additionally, all participants reported "Positive" for Human Origin and Y-Screening.

DNA Analysis Results
All participants reported DNA results. Only allelic results not containing the minimum expected alleles are highlighted as inconsistent.

For Item 3, all participants included the victim (Item 1) and excluded the suspect (Item 2) as possible contributors. All but one participant identified the presence of two contributors in this stain. The remaining participant identified three contributors to the stain.

For Item 4, all participants included the victim (Item 1) and the suspect (Item 2) as possible contributors to the stain. All but three participants identified the presence of two contributors in this stain. Of the remaining participants, two reported three contributors to the stain and the other participant reported one contributor to the stain.

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Key for Screening Tests Used

Participants were asked to use, where possible, the following chart of abbreviated screening test names. This was not an all inclusive list and was not designed to determine what tests should be performed. Participants were advised that tests not on this list may be used for screening.

Test	Abbreviation
Acid Phosphatase	AP
Kastle Meyer	KM
Leucomalachite Green	LMG
Microscopic	Micro
Ortho-tolidine	O-tol
Phenolphthalein-Tetramethyl benzidine	PTMB
Prostate Specific Antigen	PSA
Quantiblot	QB
Quantifiler	QF
Tetramethyl benzidine	TMB

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1a

	Blood Screening Results	
WebCode - Test	**Item 3**	**Item 4**
2PM2BN - 5904	**Pos** KM	**Pos** KM
2Z6NFH - 5904	**Pos** Hemochromogen	**Pos** Hemochromogen
34F2TB - 5904	**Pos** KM	**Pos** KM
37BFNF - 5904	**Pos** TMB, Hematrace	**Pos** TMB, Hematrace
38MCUK - 5904	**Pos** KM	**Pos** KM
3NPYGD - 5904	**Pos** O-tol, Hematrace	**Pos** O-tol, Hematrace
3UF9M6 - 5905	**Pos** PTMB	**Pos** PTMB
3XH6EK - 5905	**Pos** KM	**Pos** KM
3YA6CW - 5905	**Pos** TMB, HemaTrace	**Pos** TMB, HemaTrace
4KNADB - 5904	**Pos** O-tol, Hematrace	**Pos** O-tol, Hematrace
4THF7C - 5904	**Pos** KM	**Pos** KM
64EZR2 - 5905	**Pos** KM, HemaTrace	**Pos** KM, HemaTrace
6M9JZG - 5904	**Pos** Hemochromogen	**Pos** Hemochromogen
6MQMEA - 5905	**Pos** TMB, hematrace	**Pos** TMB
6NGX63 - 5904	**Pos** KM	**Pos** KM
6PXPHT - 5904	**Pos** Hemastix, Hematrace	**Pos** Hemastix, Hematrace
6V2RPE - 5904	**Pos** TMB, Hematrace	**Pos** TMB, Hematrace
7669R6 - 5904	**Pos** KM, HEXAGON OBTI	**Pos** KM, HEXAGON OBTI
8KWN9A - 5905	**Pos** hemophan, FOB Ultra Test	**Pos** hemophan, FOB Ultra Test
984GV7 - 5904	**Pos** O-tol	**Pos** O-tol
9FDPER - 5905	**Pos** Hemochromogen	**Pos** Hemochromogen
9ME3CA - 5904	**Pos** KM, HemDirect	**Pos** KM, HemDirect
9UUNG8 - 5904	**Pos** IR, pth, ABAcard hematrace	**Pos** pth
A62BEE - 5904	**Pos** Hexagon OBTI	**Pos** Hexagon OBTI
B6LDTP - 5904	**Pos** KM	**Pos** KM
BAG638 - 5904	**Pos** Hemochromogen	**Pos** Hemochromogen
DP7WYT - 5905	**Pos** PTMB	**Pos** PTMB
DW9WHV - 5904	**Pos** Hemastix	**Pos** Hemastix
EFDYPY - 5904	**Pos** O-tol, Hematrace	**Pos** O-tol, Hematrace
EXU6WN - 5905	**Pos** PTMB	**Pos** PTMB
FYLKQW - 5904	**Pos** Tetrabase, Hexagon Opti	**Pos** Tetrabase, Hexagon Opti
GHT9V2 - 5904	**Pos** Hemastix, Hematrace	**Pos** Hemastix
HGV4VY - 5904	**Pos** PTH, HemaTrace, IR	**Pos** PTH, HemaTrace, IR
HQ4N32 - 5904	**Pos** H'stix, Hematrace	**Pos** H'stix, Hematrace
JQHD28 - 5905	**Pos** KM	**Pos** KM
JRRPBW - 5904	**Pos** PTH, Hematrace	**Pos** PTH, IR
LAL4PD - 5905	**Pos** Hemochromogen	**Pos** Hemochromogen
LK4N8P - 5904	**Pos** KM, HemaTrace	**Pos** KM, HemaTrace
M3K38Y - 5905	**Pos** TMB, HemaTrace	**Pos** TMB, HemaTrace
MGJ7CP - 5904	**Pos** TMB	**Pos** TMB

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TABLE 1a

Blood Screening Results		
WebCode - Test	**Item 3**	**Item 4**
MTFYZF - 5905	**Pos** PTMB	**Pos** PTMB
MX7EPM - 5905	**Pos** LMG	**Pos** LMG
NAXHBT - 5904	**Pos** o-tol, hematrace	**Pos** o-tol, hematrace
NNVP4N - 5904	**Pos** KM	**Pos** KM
NZLZFU - 5905	**Pos** LMG	**Pos** LMG
P847TY - 5905	**Pos** KM	**Pos** KM
PAQQUW - 5904	**Pos** Tetrabase, Hexagon Obti	**Pos** Tetrabase, Hexagon Obti
PNAD4U - 5905	**Pos** RSID Blood	**Pos** RSID Blood
QA94VE - 5905	**Pos** PTMB	**Pos** PTMB
QP6EMQ - 5905	**Pos** KM, ABAcard	**Pos** KM
R8YCLX - 5904	**Pos** KM	**Pos** KM
RVACVV - 5904	**Pos** KM	**Pos** KM
T9TEQR - 5904	**Pos** Hemastix, HemaTrace	**Pos** Hemastix, HemaTrace
TBJGXB - 5904	**Pos** KM	**Pos** KM
TXY2UB - 5905	**Pos** FOB	**Pos** FOB
VKR849 - 5905	**Pos** PTMB	**Pos** PTMB
VLQ8CL - 5904	**Pos** O-tol	**Pos** O-tol
VM2AYK - 5905	**Pos** H/S, H/T	**Pos** H/S
VMFH4E - 5905	**Pos** LMG	**Pos** LMG
WJN2WU - 5904	**Pos** KM	**Pos** KM
WKY4HR - 5905	**Pos** Hematrace	**Pos** Hematrace
WMBL89 - 5905	**Pos** PTMB	**Pos** PTMB
WXUXJL - 5904	**Pos** pth, IR, hematrace	**Pos** pth

Table 1a: Serology Screening Response Summary - Blood

Participants: **63**

This table excludes participants who did not report or reported "Not Tested" for both Item 3 and Item 4.

	Item 3	Item 4
Positive	**63**	**63**
Negative	**0**	**0**
Inconclusive	**0**	**0**
Not Tested (NT)	**0**	**0**
Not Reported	**0**	**0**

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1b

	Semen Screening Results	
WebCode - Test	Item 3	Item 4
2PM2BN - 5904	NT	Pos AP, PSA
2Z6NFH - 5904	Neg AP	Pos AP, Micro
34F2TB - 5904	Neg Acid Phosphatase (AP)	Pos AP, Sperm Elution
37BFNF - 5904	Neg AP, PSA	Pos AP, PSA, Micro
38MCUK - 5904	NT	Pos AP, PSA
3NPYGD - 5904	Neg AP, p30, micro	Pos AP, p30, micro
3UF9M6 - 5905	NT	Pos Micro, AP
3XH6EK - 5905	Neg AP	Pos AP, PSA
3YA6CW - 5905	Neg AP	Pos AP, Micro
4KNADB - 5904	Neg AP, P30, Micro	Pos AP, P30, Micro
4THF7C - 5904	Neg AP	Pos AP, Micro
64EZR2 - 5905	Neg ALS, AP	Pos ALS, AP, Micro, RSID
6M9JZG - 5904	Neg AP	Pos AP, Micro
6MQMEA - 5905	Neg AP, PSA	Pos AP, PSA, Micro
6NGX63 - 5904	Neg AP, Micro	Pos AP, Micro
6PXPHT - 5904	Neg AP	Pos AP, Micro
6V2RPE - 5904	Neg AP, p30, Micro	Pos AP, p30, Micro
7669R6 - 5904	NT case scenario lab policy	Pos AP, PSA
8KWN9A - 5905	Neg RSID Semen	Pos RSID SEmen
984GV7 - 5904	NT	Pos AP
9FDPER - 5905	NT	Pos AP, Micro
9ME3CA - 5904	Neg ALS, AP, PSA, Micro	Pos ALS, AP, PSA, Micro
9UUNG8 - 5904	Neg AP, Micro	Pos ALS, AP, Micro, PSA
A62BEE - 5904	Neg RSID	Pos RSID
B6LDTP - 5904	Neg AP	Pos AP, PSA, Diff Extraction
BAG638 - 5904	Neg AP	Pos AP, Micro
DP7WYT - 5905	Neg AP	Pos AP, Micro
DW9WHV - 5904	Neg AP	Pos AP, Micro
EFDYPY - 5904	Neg AP, Micro, PSA	Pos AP, Micro, PSA
EXU6WN - 5905	Neg AP	Pos AP, micro
FYLKQW - 5904	Neg PSA	Pos PSA
GHT9V2 - 5904	Neg AP	Pos AP, PSA, Micro
HGV4VY - 5904	Neg AP, PSA, micro, ALS	Pos AP, PSA, micro, ALS
HQ4N32 - 5904	Neg AP, P30	Pos AP, P30, H&E (micro)
JQHD28 - 5905	NT	Pos AP/PSA
JRRPBW - 5904	Neg ALS, AP	Pos ALS, AP, Micro, PSA
LAL4PD - 5905	NT	Pos AP, Micro
LK4N8P - 5904	Neg AP, P30	Pos AP, P30, Micro
M3K38Y - 5905	Neg AP	Pos AP, PSA (P30), Micro
MGJ7CP - 5904		Pos Microscopy; AP

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TABLE 1b

WebCode - Test	Semen Screening Results	
	Item 3	Item 4
MTFYZF - 5905	Neg AP	Pos Micro, AP
MX7EPM - 5905	NT	Pos PSA
NAXHBT - 5904	Neg AP, PSA, micro, ALS	Pos AP, PSA, micro, ALS
NNVP4N - 5904	Neg AP, p30	Pos AP, p30
NZLZFU - 5905	Neg Micro, AP	Pos Micro, AP
P847TY - 5905	NT	Pos AP/p30
PAQQUW - 5904	Neg PSA, Micro -Christmas Tree	Pos PSA, Micro - Christmas Tree
PNAD4U - 5905	Neg RSID Semen	Pos RSID Semen
QA94VE - 5905	Neg AP	Pos AP, Micro
QP6EMQ - 5905	NT	Pos AP, PSA
R8YCLX - 5904	NT	Pos AP, PSA
RVACVV - 5904	NT	Pos AP, PSA
T9TEQR - 5904	Neg AP, P30	Pos AP,P30,Micro
TBJGXB - 5904	Neg AP	Pos AP
TXY2UB - 5905	Neg RSID-SEMEN	Pos RSID-SEMEN
VKR849 - 5905	Neg AP	Pos AP, Micro
VLQ8CL - 5904	NT	Pos AP, micro
VM2AYK - 5905	Neg AP	Pos AP, P30, microscopy (H&E)
VMFH4E - 5905	Neg PSA	Pos PSA
WJN2WU - 5904	NT	Pos Microscope and AP
WKY4HR - 5905	NT	Pos PSA, RSID, AP
WMBL89 - 5905	NT	Pos AP, Micro
WXUXJL - 5904	Neg AP	Pos ALS, AP, micro, PSA

Table 1b: Serology Screening Response Summary - Semen Participants: **63**

This table excludes participants who did not report or reported "Not Tested" for both Item 3 and Item 4.

	Item 3	Item 4
Positive	**0**	**63**
Negative	**45**	**0**
Inconclusive	**0**	**0**
Not Tested (NT)	**17**	**0**
Not Reported	**1**	**0**

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1c

	Saliva Screening Results	
WebCode - Test	Item 3	Item 4
2PM2BN - 5904	NT	Neg Phadebas
34F2TB - 5904	Neg Phadebas	Neg Phadebas
38MCUK - 5904	NT	Neg Phadebas
3NPYGD - 5904	Neg RSID, micro	Neg RSID, micro
3XH6EK - 5905	Neg Phadebas	Neg Phadebas
3YA6CW - 5905	Neg RSID Saliva	Neg RSID Saliva
4KNADB - 5904	Neg RSID saliva, Micro	Neg RSID saliva, Micro
6MQMEA - 5905	Pos RSID	NT
6NGX63 - 5904	Neg Phadebas	Neg Phadebas
6V2RPE - 5904	Neg RSID	Neg RSID
8KWN9A - 5905	Neg RSID Saliva	Neg RSID Saliva
9ME3CA - 5904	Neg Amylase Test	Neg Amylase Test
9UUNG8 - 5904	NT	Neg SALIgAE
A62BEE - 5904	Neg RSID	Neg RSID
B6LDTP - 5904	Neg Phadebas Press	Neg Phadebas Press
EFDYPY - 5904	Neg RSID-saliva, Micro	Neg RSID-saliva, Micro
GHT9V2 - 5904	Neg RSID saliva	Neg RSID saliva
HGV4VY - 5904	Neg SaligAE	Neg SaligAE
HQ4N32 - 5904	Neg RSID Saliva	Neg RSID Saliva
JQHD28 - 5905	NT	Neg Phadebas
JRRPBW - 5904	Neg Saligae	NT
LK4N8P - 5904	Neg RSID	Neg RSID
NAXHBT - 5904	Neg RSID, micro	Neg RSID, micro
NNVP4N - 5904	Neg SALIgAE	Neg SALIgAE
P847TY - 5905	NT	Neg phadebas
PNAD4U - 5905	Neg RSID Saliva	Neg RSID Saliva
QP6EMQ - 5905	NT	Neg Phadebas press test
R8YCLX - 5904	NT	Neg Phadebas press
RVACVV - 5904	NT	Neg Phadebas
T9TEQR - 5904	Neg RSID	Neg RSID
TXY2UB - 5905	Neg RSID-SALIVA	Neg RSID-SALIVA
VM2AYK - 5905	NT	Neg RSID

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TABLE 1c

Saliva Screening Results		
WebCode - Test	**Item 3**	**Item 4**
VMFH4E - 5905	Neg RSID	Neg RSID
WJN2WU - 5904	Neg Alfa amylase	Neg Alfa amylase
WXUXJL - 5904	Neg SALIgAE	NT

Table 1c: Serology Screening Response Summary - Saliva

Participants: **35**

This table excludes participants who did not report or reported "Not Tested" for both Item 3 and Item 4.

	Item 3	Item 4
Positive	**1**	**0**
Negative	**25**	**32**
Inconclusive	**0**	**0**
Not Tested (NT)	**9**	**3**
Not Reported	**0**	**0**

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1d

	Human Origin Screening Results	
WebCode - Test	**Item 3**	**Item 4**
2PM2BN - 5904	**Pos** ABA Card	**NT**
37BFNF - 5904	**Pos** Quant trio, Powerplex 21	**Pos** Quant Trio, Powerplex 21
38MCUK - 5904	**Pos** ABAcardHemaTrace	**NT**
3XH6EK - 5905	**Pos** ABAcard	**NT**
3YA6CW - 5905	**Pos** Quant	**Pos** Quant
6MQMEA - 5905	**Pos** PP21, QuantifilerTrio	**Pos** PP21, QuantifilerTrio
6NGX63 - 5904	**Pos** DNA	**Pos** DNA
6PXPHT - 5904	**Pos** Quant	**Pos** Quant
6V2RPE - 5904	**Pos** Quant trio	**Pos** Quant trio
8KWN9A - 5905	**Pos** Quatifiler TRio AB	**Pos** Quatifiler TRio AB
9ME3CA - 5904	**Pos** Ouchterlony Double Immunodiffusion Test	**Pos** Ouchterlony Double Immunodiffusion Test
B6LDTP - 5904	**Pos** ABAcard Hematrace	**Pos** ABAcard Hematrace
FYLKQW - 5904	**Pos** Hexagon Opti	**Pos** Hexagon Opti
GHT9V2 - 5904	**Pos** Quant trio, PP21	**Pos** Quant trio, PP21
HQ4N32 - 5904	**Pos** PP21, Quant Trio	**Pos** PP21, Quant Trio
JQHD28 - 5905	**Pos** ABAcard	**Pos** ABAcard
M3K38Y - 5905	**Pos** Quant Trio, PP21	**Pos** Quant Trio, PP21
NNVP4N - 5904	**Pos** ABA Hema card	**Pos** ABA Hema card
P847TY - 5905	**Pos** ABAcard	
PAQQUW - 5904	**Pos** Hexagon Obti	**Pos** Hexagon Obti
PNAD4U - 5905	**Pos** RSID	**Pos** RSID
QP6EMQ - 5905	**Pos** ABAcard	**NT**
R8YCLX - 5904	**Pos** ABAcard® HemaTrace®	**NT**
RVACVV - 5904	**Pos** ABAcard	**Pos** ABAcard
T9TEQR - 5904	**Pos** PP21, Quant Trio	**Pos** PP21, Quant Trio
VLQ8CL - 5904	**Pos** Hematrace	**Pos** Hematrace
VM2AYK - 5905	**Pos** PP21	**Pos** PP21
WJN2WU - 5904	**Pos** qPCR	**Pos** qPCR

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Table 1d: Serology Screening Response Summary - Human Origin

Participants: **28**

This table excludes participants who did not report or reported "Not Tested" for both Item 3 and Item 4.

	Item 3	Item 4
Positive	**28**	**22**
Negative	**0**	**0**
Inconclusive	**0**	**0**
Not Tested (NT)	**0**	**5**
Not Reported	**0**	**1**

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1e

	Y Screening Results			
WebCode - Test	Item 3		Item 4	
2PM2BN - 5904	Neg	PlexorHY	Pos	PlexorHY
37BFNF - 5904	Neg	Quant trio	Pos	YFP, Quant trio
38MCUK - 5904	Neg	PlexorHY	Pos	PlexorHY
3XH6EK - 5905	Neg	Plexor HY	Pos	Plexor HY
3YA6CW - 5905	Neg	Quant	Pos	Quant
6MQMEA - 5905	Neg	PP21, QuantifilerTrio	Pos	PP21, QuantifilerTrio
6PXPHT - 5904	Neg	Quant	Pos	Quant
6V2RPE - 5904	Neg	Quant trio	Pos	Quant trio
8KWN9A - 5905	Neg	Quatifiler TRio AB	Pos	Quatifiler TRio AB
B6LDTP - 5904	Neg	Plexor HY	Pos	Plexor HY
FYLKQW - 5904	Neg	Quantifiler Trio	Pos	Quantifiler Trio
GHT9V2 - 5904	Neg	Quant trio	Pos	Quant trio, YFP
HQ4N32 - 5904	Neg	PP21, Quant Trio	Pos	PP21, YFP, Quant Trio
JQHD28 - 5905	Neg	PlexorHY	Pos	PlexorHY
M3K38Y - 5905	Neg	Quant Trio, PP21	Pos	Quant Trio, PP21
MX7EPM - 5905	NT		Pos	
NNVP4N - 5904	NT		Pos	Y-filer Plus
P847TY - 5905	Neg	PlexorHY	Pos	PlexorHY
PAQQUW - 5904	Neg	Quantifiler Trio	Pos	Quantifiler Trio
QP6EMQ - 5905	Neg	Plexor HY	Pos	Plexor HY
R8YCLX - 5904	Neg	Plexor HY	Pos	Plexor HY
RVACVV - 5904	Neg	PlexorHY	Pos	PlexorHY, Differential
T9TEQR - 5904	Neg	Quant Trio	Pos	YFP, Quant Trio
TBJGXB - 5904	Neg	Promega Casework Direct Kit	Pos	Promega Casework Direct Kit
VM2AYK - 5905	Neg	Quant Trio, PP21	Pos	Quant Trio, PP21
WJN2WU - 5904	Pos	qPCR	Pos	qPCR

Table 1e: Serology Screening Response Summary - Y Screening Participants: **26**

This table excludes participants who did not report or reported "Not Tested" for both Item 3 and Item 4.

	Item 3	Item 4
Positive	**1**	**26**
Negative	**23**	**0**
Inconclusive	**0**	**0**
Not Tested (NT)	**2**	**0**
Not Reported	**0**	**0**

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Serology Screening Results

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

TABLE 1f

WebCode - Test	Other Screening Results	
	Item 3	Item 4
2Z6NFH - 5904	Hair Neg visual exam	Hair Neg visual exam
BAG638 - 5904	hair Neg visual exam	hair Neg visual exam
WKY4HR - 5905		Sperm Cells Pos Sperm HyLiter

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DNA Interpretations

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

TABLE 2

WebCode-Test	Victim (Item 1)		Suspect (Item 2)	
	Item 3	Item 4	Item 3	Item 4
2PM2BN - 5904	Yes	Yes	No	Yes
2Z6NFH - 5904	Yes	Yes	No	Yes
34F2TB - 5904	Yes	Yes	No	Yes
37BFNF - 5904	Yes	Yes	No	Yes
38MCUK - 5904	Yes	Yes	No	Yes
3NPYGD - 5904	Yes	Yes	No	Yes
3UF9M6 - 5905	Yes	Yes	No	Yes
3XH6EK - 5905	Yes	Yes	No	Yes
3YA6CW - 5905	Yes	Yes	No	Yes
4KNADB - 5904	Yes	Yes	No	Yes
4THF7C - 5904	Yes	Yes	No	Yes
64EZR2 - 5905	Yes	Yes	No	Yes
6M9JZG - 5904	Yes	Yes	No	Yes
6MQMEA - 5905	Yes	Yes	No	Yes
6NGX63 - 5904	Yes	Yes	No	Yes
6PXPHT - 5904	Yes	Yes	No	Yes
6V2RPE - 5904	Yes	Yes	No	Yes
7669R6 - 5904	Yes	Yes	No	Yes
8KWN9A - 5905	Yes	Yes	No	Yes
97RNXH - 5904	Yes	Yes	No	Yes
984GV7 - 5904	Yes	Yes	No	Yes
9FDPER - 5905	Yes	Yes	No	Yes
9ME3CA - 5904	Yes	Yes	No	Yes
9UUNG8 - 5904	Yes	Yes	No	Yes
A62BEE - 5904	Yes	Yes	No	Yes
AWC7HB - 5904	Yes	Yes	No	Yes
B6LDTP - 5904	Yes	Yes	No	Yes
BAG638 - 5904	Yes	Yes	No	Yes
DP7WYT - 5905	Yes	Yes	No	Yes
DW9WHV - 5904	Yes	Yes	No	Yes
EFDYPY - 5904	Yes	Yes	No	Yes
EXU6WN - 5905	Yes	Yes	No	Yes
F3GTW8 - 5905	Yes	Yes	No	Yes
FBB2HX - 5904	Yes	Yes	No	Yes
FYLKQW - 5904	Yes	Yes	No	Yes
GHT9V2 - 5904	Yes	Yes	No	Yes

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TABLE 2

WebCode-Test	Victim (Item 1)		Suspect (Item 2)	
	Item 3	Item 4	Item 3	Item 4
HGV4VY - 5904	Yes	Yes	No	Yes
HQ4N32 - 5904	Yes	Yes	No	Yes
JQHD28 - 5905	Yes	Yes	No	Yes
JRRPBW - 5904	Yes	Yes	No	Yes
KL2R8R - 5905	Yes	Yes	No	Yes
LAL4PD - 5905	Yes	Yes	No	Yes
LK4N8P - 5904	Yes	Yes	No	Yes
M3EEQZ - 5904	Yes	Yes	No	Yes
M3K38Y - 5905	Yes	Yes	No	Yes
MGJ7CP - 5904	Yes	Yes	No	Yes
MTFYZF - 5905	Yes	Yes	No	Yes
MX7EPM - 5905	Yes	Yes	No	Yes
NAXHBT - 5904	Yes	Yes	No	Yes
NERWYW - 5905	Yes	Yes	No	Yes
NNVP4N - 5904	Yes	Yes	No	Yes
NZLZFU - 5905	Yes	Yes	No	Yes
P847TY - 5905	Yes	Yes	No	Yes
PAQQUW - 5904	Yes	Yes	No	Yes
PNAD4U - 5905	Yes	Yes	No	Yes
QA94VE - 5905	Yes	Yes	No	Yes
QP6EMQ - 5905	Yes	Yes	No	Yes
R8YCLX - 5904	Yes	Yes	No	Yes
RVACVV - 5904	Yes	Yes	No	Yes
T9TEQR - 5904	Yes	Yes	No	Yes
TBJGXB - 5904	Yes	Yes	No	Yes
TXY2UB - 5905	Yes	Yes	No	Yes
VKR849 - 5905	Yes	Yes	No	Yes
VLQ8CL - 5904	Yes	Yes	No	Yes
VM2AYK - 5905	Yes	Yes	No	Yes
VMFH4E - 5905	Yes	Yes	No	Yes
WJN2WU - 5904	Yes	Yes	No	Yes
WKY4HR - 5905	Yes	Yes	No	Yes
WMBL89 - 5905	Yes	Yes	No	Yes
WXUXJL - 5904	Yes	Yes	No	Yes
XU9A6L - 5905	Yes	Yes	No	Yes
YF73QG - 5905	Yes	Yes	No	Yes

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DNA Interpretation

Response Summary

Participants reporting DNA results: 72

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

	Victim (Item 1)		Suspect (Item 2)	
	Item 3	Item 4	Item 3	Item 4
Yes	**72**	**72**	**0**	**72**
No	**0**	**0**	**72**	**0**
Inc	**0**	**0**	**0**	**0**
No Interpretation	**0**	**0**	**0**	**0**
No Response	**0**	**0**	**0**	**0**

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STR Amplification Kit(s) & Results

TABLE 3

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

Item 1 - STR Results

2PM2BN - 5904		Identifiler® Plus				
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
2Z6NFH - 5904		Identifiler® plus- STRMix™ v. 2.7				
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
34F2TB - 5904		NGM SElect				
	11,15.3	17,22	10,14	17,18		
1		12,13	13,15	19,21		11,12
	13,14	13.2,14	30,31.2	11,16	X,X	
	21,22			16,29.2	7,9	
	16,17					
37BFNF - 5904		PowerPlex® 21- STRMix™				
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
38MCUK - 5904		Identifiler® Plus				
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
3NPYGD - 5904		PowerPlex® Fusion 6C- STRMix™ 2.6.3				
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					

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TABLE 3

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

Item 1 - STR Results

3UF9M6 - 5905	PowerPlex® Fusion					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					
3XH6EK - 5905	Identifiler® Plus- STRMix™ 2.7					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
3YA6CW - 5905	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					
4KNADB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					
4THF7C - 5904	GlobalFiler™- STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
64EZR2 - 5905	PowerPlex® 21					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	NR
	21,22	9,10	11,15		7,9	11,11
	16,17					
6M9JZG - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

6MQMEA - 5905	PowerPlex® 21- STRMix™ 2.8.0					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
6NGX63 - 5904	ESI 17- STRMix™ V2.7.0					
	11,15.3	17,22	10,14	17,18		
1		12,13	13,15	19,21		11,12
	13,14	13.2,14	30,31.2	11,16	X,X	
	21,22			16,29.2	7,9	
	16,17					
6PXPHT - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					
6V2RPE - 5904	PowerPlex® 21					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
7669R6 - 5904	Investigator® 24plex QS - EuroForMix					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
8KWN9A - 5905	GlobalFiler™ - LRmix Studio					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					
97RNXH - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

984GV7 - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
9FDPER - 5905	Identifiler® plus- STRMix™ v. 2.7					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
9ME3CA - 5904	Identifiler® Plus - EuroForMix					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
9UUNG8 - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
A62BEE - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
AWC7HB - 5904	GlobalFiler™- STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17	-			-	
B6LDTP - 5904	Identifiler® Plus					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

BAG638 - 5904	Identifiler® plus- STRMix™ v. 2,7					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
DP7WYT - 5905	PowerPlex® Fusion					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					
DW9WHV - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
EFDYPY - 5904	PowerPlex® Fusion 6C					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					
EXU6WN - 5905	PowerPlex® Fusion- STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					
F3GTW8 - 5905	GlobalFiler™- STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	-
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	-	-	16,29.2	7,9	11,11
	16,17	-	-	-	-	
FBB2HX - 5904	GlobalFiler™- STRMix™ version 10					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

FYLKQW - 5904	PowerPlex® ESI17 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep - EuroForMix					
	11,15.3	17,22	10,14	17,18	11,12	11,12
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17					
GHT9V2 - 5904	PowerPlex® 21- STRMix™ v2.8					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
HGV4VY - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
HQ4N32 - 5904	PowerPlex® 21					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
JQHD28 - 5905	Identifiler® Plus- STRMix™ 2.7.0					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
JRRPBW - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
KL2R8R - 5905	PowerPlex® 21- STRMix™ V2.8.0					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

LAL4PD - 5905		Identifiler® plus- STRMix™ v. 2.7				
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
LK4N8P - 5904		PowerPlex® Fusion 6C				
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					
M3EEQZ - 5904		GlobalFiler™- STRMix™ v 2.10				
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
M3K38Y - 5905		PowerPlex® 21				
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
MGJ7CP - 5904		PowerPlex® 21				
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
MTFYZF - 5905		PowerPlex® Fusion- STRMix™				
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					
MX7EPM - 5905		Investigator® 24plex				
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17	N/A				

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TABLE 3

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

Item 1 - STR Results

NAXHBT - 5904	PowerPlex® Fusion 6C					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					
NERWYW - 5905	GlobalFiler™ - STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
NNVP4N - 5904	GlobalFiler™ IQC - LRMix Studio					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
NZLZFU - 5905	PowerPlex® Fusion6C - DNAxs					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17					
P847TY - 5905	Identifiler® plus					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
PAQQUW - 5904	NGM Detect, VeriFiler - codis					
	11,15.3	17,22	10,14	17,18	11,12	11,12
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					
PNAD4U - 5905	PowerPlex® Fusion 6C					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17					

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TABLE 3

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

Item 1 - STR Results

QA94VE - 5905	PowerPlex® Fusion- STRMix™ 2.6.3					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					
QP6EMQ - 5905	Identifiler® Plus					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
R8YCLX - 5904	Identifiler® Plus					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
RVACVV - 5904	Identifiler® Plus					
		17,22		17,18	11,12	
1	10,10	12,13			9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22				7,9	11,11
	16,17					
T9TEQR - 5904	PowerPlex® 21- STRMix™ 2.8.0					
	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					
TBJGXB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.2					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17	NID	NID	NID		
TXY2UB - 5905	PowerPlex® Fusion 6C - LRmix Studio					
	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11
	21,22	9,10	11,15	16,29.2	7,9	11
	16,17					

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TABLE 3

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

Item 1 - STR Results

VKR849 - 5905 PowerPlex® Fusion

	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					

VLQ8CL - 5904 PowerPlex® 21

	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					

VM2AYK - 5905 PowerPlex® 21- STRMix™ 2.8

	11,15.3	17,22		17,18	11,12	11,12
1	10,10	12,13		19,21	9,10	11,12
	13,14	13.2,14	30,31.2		X,X	11,11
	21,22	9,10	11,15		7,9	11,11
	16,17					

VMFH4E - 5905 Investigator® 24plex- STRMix™ 2.5.11

	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					

WJN2WU - 5904 GlobalFiler™

	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					

WKY4HR - 5905 GlobalFiler™ Express

	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					

WMBL89 - 5905 PowerPlex® Fusion- STRMix™

	11,15.3	17,22	10,14	17,18	11,12	
1	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22	9,10	11,15		7,9	11
	16,17					

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TABLE 3

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

Item 1 - STR Results

WXUXJL - 5904	GlobalFiler™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
XU9A6L - 5905	GlobalFiler™ - STRMix™					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					
YF73QG - 5905	GlobalFiler™ - STRMix™ v 2.10					
	11,15.3	17,22	10,14	17,18	11,12	
1	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22			16,29.2	7,9	11,11
	16,17					

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TABLE 3

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

Item 2 - STR Results

2PM2BN - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
2Z6NFH - 5904		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
34F2TB - 5904		NGM SElect				
	13,15	17,20	10,11	17,17		
2		12,15	13,14	23,23		11,14
	12,14	13,15	31,31	15,15	X,Y	
	20,22			15,24.2	7,7	
	14,18					
37BFNF - 5904		PowerPlex® 21- STRMix™				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
38MCUK - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
3NPYGD - 5904		PowerPlex® Fusion 6C- STRMix™ 2.6.3				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
3UF9M6 - 5905		PowerPlex® Fusion				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				

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TABLE 3

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

Item 2 - STR Results

3XH6EK - 5905		Identifiler® Plus- STRMix™ 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
3YA6CW - 5905		GlobalFiler™				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
4KNADB - 5904		PowerPlex® Fusion 6C- STRMix™ 2.6.3				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
4THF7C - 5904		GlobalFiler™- STRMix™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
64EZR2 - 5905		PowerPlex® 21				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
6M9JZG - 5904		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
6MQMEA - 5905		PowerPlex® 21- STRMix™ 2.8.0				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					

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TABLE 3

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

Item 2 - STR Results

6NGX63 - 5904		ESI 17- STRMix™ V2.7.0				
	13,15	17,20	10,11	17,17		
2		12,15	13,14	23,23		11,14
	12,14	13,15	31,31	15,15	X,Y	
	20,22			15,24.2	7,7	
	14,18					
6PXPHT - 5904		GlobalFiler™				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
6V2RPE - 5904		PowerPlex® 21				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
7669R6 - 5904		Investigator® 24plex QS - EuroForMix				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10				
8KWN9A - 5905		GlobalFiler™ - LRmixStudio				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
97RNXH - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
984GV7 - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	

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TABLE 3

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

Item 2 - STR Results

9FDPER - 5905		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
9ME3CA - 5904		Identifiler® Plus - EuroForMix				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
9UUNG8 - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
A62BEE - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
AWC7HB - 5904		GlobalFiler™- STRMix™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
B6LDTP - 5904		Identifiler® PLus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
BAG638 - 5904		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					

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TABLE 3

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

Item 2 - STR Results

DP7WYT - 5905		PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12		
2	10,11	12,15	13,14	23	11,12	11,14	
	12,14	13,15	31	15	X,Y	10,12	
	20,22	9,13	7,12		7	8	
	14,18	10					
DW9WHV - 5904		GlobalFiler™					
	13,15	17,20	10,11	17,17	11,12		
2	10,11	12,15	13,14	23,23	11,12	11,14	
	12,14	13,15	31,31	15,15	X,Y	10,12	
	20,22			15,24.2	7,7	8,8	
	14,18	10			2		
EFDYPY - 5904		PowerPlex® Fusion 6C					
	13,15	17,20	10,11	17	11,12		
2	10,11	12,15	13,14	23	11,12	11,14	
	12,14	13,15	31	15	X,Y	10,12	
	20,22	9,13	7,12	15,24.2	7	8	
	14,18	10	18	17			
EXU6WN - 5905		PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12		
2	10,11	12,15	13,14	23	11,12	11,14	
	12,14	13,15	31	15	X,Y	10,12	
	20,22	9,13	7,12		7	8	
	14,18	10					
F3GTW8 - 5905		GlobalFiler™ - STRMix™					
	13,15	17,20	10,11	17,17	11,12	-	
2	10,11	12,15	13,14	23,23	11,12	11,14	
	12,14	13,15	31,31	15,15	X,Y	10,12	
	20,22	-	-	15,24.2	7,7	8,8	
	14,18	10	-	-	2		
FBB2HX - 5904		GlobalFiler™ - STRMix™ version 10					
	13,15	17,20	10,11	17,17	11,12		
2	10,11	12,15	13,14	23,23	11,12	11,14	
	12,14	13,15	31,31	15,15	X,Y	10,12	
	20,22			15,24.2	7,7	8,8	
	14,18	10			2		
FYLKQW - 5904		PowerPlex® ESI17 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep - EuroForMix					
	13,15	17,20	10,11	17,17	11,12	11,19	
2	10,11	12,15	13,14	23,23	11,12	11,14	
	12,14	13,15	31,31	15,15	X,Y	10,12	
	20,22	9,13	7,12	15,24.2	7,7	8,8	
	14,18	10			2		

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TABLE 3

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

Item 2 - STR Results

GHT9V2 - 5904		PowerPlex® 21- STRMix™ v2.8				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
HGV4VY - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
HQ4N32 - 5904		PowerPlex® 21				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
JQHD28 - 5905		Identifiler® Plus- STRMix™ 2.7.0				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
JRRPBW - 5904		GlobalFiler™				
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
KL2R8R - 5905		PowerPlex® 21- STRMix™ V2.8.0				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
LAL4PD - 5905		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					

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TABLE 3

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

Item 2 - STR Results

LK4N8P - 5904	PowerPlex® Fusion 6C					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
M3EEQZ - 5904	GlobalFiler™ - STRMix™ v 2.10					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
M3K38Y - 5905	PowerPlex® 21					
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
MGJ7CP - 5904	PowerPlex® 21					
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
MTFYZF - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
MX7EPM - 5905	Investigator® 24plex					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10				
NAXHBT - 5904	PowerPlex® Fusion 6C					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		

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TABLE 3

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

Item 2 - STR Results

NERWYW - 5905	PowerPlex® Y23, GlobalFiler™					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
NNVP4N - 5904	GlobalFiler™ IQC - LRMix Studio					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
NZLZFU - 5905	PowerPlex® Fusion6C - DNAxs					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7,7	8,8
	14,18					
P847TY - 5905	Identifiler® plus, PowerPlex® Y23					
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
PAQQUW - 5904	NGM Detect, VeriFiler - codis					
	13,15	17,20	10,11	17	11,12	11,19
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17	2	
PNAD4U - 5905	PowerPlex® Fusion6C					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7,7	8,8
	14,18	10	18	17		
QA94VE - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				

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TABLE 3

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

Item 2 - STR Results

QP6EMQ - 5905		Identifiler® Plus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
R8YCLX - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
RVACVV - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
2	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
T9TEQR - 5904		PowerPlex® 21- STRMix™ 2.8.0				
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
TBJGXB - 5904		PowerPlex® Fusion 6C- STRMix™ 2.6.2				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
TXY2UB - 5905		PowerPlex® Fusion 6C - LRmix Studio				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
VKR849 - 5905		PowerPlex® Fusion				
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				

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TABLE 3

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

Item 2 - STR Results

VLQ8CL - 5904	PowerPlex® 21					
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
VM2AYK - 5905	PowerPlex® 21- STRMix™ 2.8					
	13,15	17,20		17,17	11,12	11,19
2	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
VMFH4E - 5905	Investigator® 24plex- STRMix™ 2.5.11					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10				
WJN2WU - 5904	GlobalFiler™					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
WKY4HR - 5905	GlobalFiler™ Express					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
WMBL89 - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
2	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
WXUXJL - 5904	GlobalFiler™					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	

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TABLE 3

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

Item 2 - STR Results

XU9A6L - 5905	GlobalFiler™ - STRMix™					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
YF73QG - 5905	GlobalFiler™ - STRMix™ v 2.10					
	13,15	17,20	10,11	17,17	11,12	
2	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	

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TABLE 3

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

Item 3 - STR Results

2PM2BN - 5904	Identifiler® Plus- STRMix™					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
2Z6NFH - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
34F2TB - 5904	NGM SElect- STRMix™					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18		
3		11,12,13	11,12,13,15	18,19,21,22		11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	
	20,21,22,23			16,18,26.2,29.2	7,8,9	
	15,16,17					
37BFNF - 5904	PowerPlex® 21- STRMix™ V2.8					
	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					
38MCUK - 5904	Identifiler® Plus- STRMix™ 2.7					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
3NPYGD - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
3UF9M6 - 5905	PowerPlex® Fusion- STRMix™					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

3XH6EK - 5905 Identifiler® Plus- STRMix™ 2.7

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

3YA6CW - 5905 GlobalFiler™- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

4KNADB - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.3

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

4THF7C - 5904 GlobalFiler™- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

64EZR2 - 5905 PowerPlex® 21- STRMix™ 2.7

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

6M9JZG - 5904 Identifiler® plus- STRMix™ v. 2.7

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

6MQMEA - 5905 PowerPlex® 21- STRMix™ 2.8.0

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

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TABLE 3

Item 3 - STR Results

WebCode - Test	Amplification Kits - Probablistic Genotyping Software					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
6NGX63 - 5904	ESI 17- STRMix™ v2.7.0					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18		
3		11,12,13	11,12,13,15	18,19,21,22		11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	
	20,21,22,23			16,18,26.2,29.2	7,8,9	
	15,16,17					
6PXPHT - 5904	GlobalFiler™- STRMix™					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
6V2RPE - 5904	PowerPlex® 21- STRMix™ v2.8					
	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					
7669R6 - 5904	Investigator® 24plex QS - EuroForMix					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
8KWN9A - 5905	GlobalFiler™ - LRmixStdio					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
97RNXH - 5904	GlobalFiler™- STRMix™ 2.10					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
984GV7 - 5904	GlobalFiler™- STRMix™ v2.6.3					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

9FDPER - 5905	Identifiler® plus- STRMix™ v. 2.7					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
9ME3CA - 5904	Identifiler® Plus - EuroForMix					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
9UUNG8 - 5904	GlobalFiler™- STRMix™					
	11,12,13,14.3,15.3,16.3	17,21,22,23,24	9,10,11,14	15,16,17,18	8,11,12	
3	9,10,11	10,11,12,13	11,12,13,14,15	18,19,20,21,22	9,10,11,12	10,11,12
	13,14,15,16,17,18	12.2,13,13.2,14,15	28,29,30,31.2	11,15,16,17	X	10,11
	19,20,21,22,23			15,16,17,18,25.2,26.2,28.2,29.2	7,8,9	6,9,11
	15,16,17					
A62BEE - 5904	GlobalFiler™					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					
AWC7HB - 5904	GlobalFiler™- STRMix™					
	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17	-			-	
B6LDTP - 5904	Identifiler® Plus- STRMix™ 2.7					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					
BAG638 - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

DP7WYT - 5905 PowerPlex® Fusion- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

DW9WHV - 5904 GlobalFiler™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

EFDYPY - 5904 PowerPlex® Fusion 6C- STRMix™ v.2.6.3

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

EXU6WN - 5905 PowerPlex® Fusion- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

F3GTW8 - 5905 GlobalFiler™- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	-
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,12
	20,21,22,23	-	-	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17	-	-	-	-	

FBB2HX - 5904 GlobalFiler™- STRMix™ version 10

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

FYLKQW - 5904 PowerPlex® ESI17 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep - EuroForMix

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

GHT9V2 - 5904 PowerPlex® 21- STRMix™ v2.8

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	17,20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

HGV4VY - 5904 GlobalFiler™- STRMix™

	11,12,13,15.3,16.3	16,17,21,22,23,24	9,10,11,13,14	15,16,17,18	8,11,12	
3	9,10,11	10,11,12,13	11,12,13,14,15	18,19,21,22	9,10,11,12	10,11,12
	13,14,15,16,17,18	12,12.2,13,13.2,14,15	28,29,30,31.2	11,15,16,17	X	9,10,11
	19,20,21,22,23			15,16,17,18,25.2,26.2,28.2,29.2	6,7,8,9	6,9,11
	15,16,17					

HQ4N32 - 5904 PowerPlex® 21- STRMix™ STRmix v2.8

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

JQHD28 - 5905 Identifiler® Plus- STRMix™ 2.7.0

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

JRRPBW - 5904 GlobalFiler™- STRMix™

	11,12,13,14.3,15.3,16.3	16,17,21,22,23,24	9,10,11,14	15,16,17,18	8,10,11,12	
3	9,10,11	10,11,12,13	10,11,12,13,14,15	18,19,20,21,22	9,10,11,12	10,11,12
	12,13,14,15,16,17,18	13,13.2,14,15	28,29,30,31.2	10,11,15,16,17	X	9,10,11
	19,20,21,22,23			15,16,17,18,25.2,26.2,28.2,29.2	7,8,9	6,9,11
	15,16,17					

KL2R8R - 5905 PowerPlex® 21- STRMix™ V2.8.0

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

LAL4PD - 5905 Identifiler® plus- STRMix™ v. 2.7

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

LK4N8P - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.1

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

M3EEQZ - 5904 GlobalFiler™- STRMix™ v2.10

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17	-			-	

M3K38Y - 5905 PowerPlex® 21- STRMix™ v2.8

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

MGJ7CP - 5904 PowerPlex® 21- STRMix™ v2.8

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

MTFYZF - 5905 PowerPlex® Fusion- STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

MX7EPM - 5905 Investigator® 24plex- STRMix™ 2.5.11

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17	N/A				

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TABLE 3

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

Item 3 - STR Results

NAXHBT - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.3

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

NERWYW - 5905 GlobalFiler™ - STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

NNVP4N - 5904 GlobalFiler™ IQC - LRMix Studio

	11,13,15.3,16.3	[17],22,[24]	10,11,[14]	16,[17,18]	8,11,12	
3	10,[11]	11,12,[13]	11,12,13,15	18,19,21,22	9,10,11,12	11,[12]
	13,14,16,18	13,13.2,14,15	29,30,[31.2]	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,[9]	6,9,11
	15,16,[17]					

NZLZFU - 5905 PowerPlex® ESX16FAST - DNAxs

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18		
3		11,12,13	11,12,13,15	18,19,21,22		11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	
	20,21,22,23				7,8,9	
	15,16,17					

P847TY - 5905 Identifiler® plus- STRMix™

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

PAQQUW - 5904 PowerPlex® Fusion 6C, NGM Detect, VeriFiler - EuroforMix

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

PNAD4U - 5905 PowerPlex® Fusion6C - LRMixStudio, LabRetriever, DNAView, EuroForMix

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

QA94VE - 5905 PowerPlex® Fusion- STRMix™ 2.6.3

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

QP6EMQ - 5905 Identifiler® Plus- STRMix™ 2.7.0

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

R8YCLX - 5904 Identifiler® Plus- STRMix™

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

RVACVV - 5904 Identifiler® Plus- STRMix™ V 2.7

		17,22,24		16,17,18	8,11,12	
3	10,11	11,12,13			9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X	10,11
	20,21,22,23				7,8,9	6,9,11
	15,16,17					

T9TEQR - 5904 PowerPlex® 21- STRMix™ 2.8.0

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

TBJGXB - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.2

	11,13,15.3,16.3	[17],22,[24]	10,11,[14]	16,[17],[18]	8,[11],12	
3	10,[11]	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,[12]
	13,14,16,18	13,13.2,14,15	29,30,[31.2]	11,16	X	10,11
	20,21,22,23	9,10,11	[11],12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,[17]	NID	NID	NID		

TXY2UB - 5905 PowerPlex® Fusion 6C - LRmix Studio

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23	9,10,11	11,12,15	16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

VKR849 - 5905 PowerPlex® Fusion- STRMix™ 2.6.3

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

VLQ8CL - 5904 PowerPlex® 21- STRMix™

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

VM2AYK - 5905 PowerPlex® 21- STRMix™ 2.8

	11,13,15.3,16.3	17,22,24		16,17,18	8,11,12	11,12,13,24
3	10,11	11,12,13		18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2		X,X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

VMFH4E - 5905 Investigator® 24plex- STRMix™ 2.5.11

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

WJN2WU - 5904 PowerPlex® ESIfast

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18		
3		11,12,13	11,12,13,15	18,19,21,22		11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	
	20,21,22,23			16,18,26.2,29.2	7,8,9	
	15,16,17					

WKY4HR - 5905 GlobalFiler™- STRMix™ v2.511

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

WMBL89 - 5905 PowerPlex® Fusion

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X	10,11
	20,21,22,23	9,10,11	11,12,15		7,8,9	6,9,11
	15,16,17					

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TABLE 3

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

Item 3 - STR Results

WXUXJL - 5904 GlobalFiler™ - STRMix™

	11,12,13,14.3,15.3, 16.3	16,17,21,22,23,24	9,10,11,13,14	15,16,17,18	8,10,11,12	
3	9,10,11	10,11,12,13	11,12,13,14,15	18,19,21,22	9,10,11,12	10,11,12
	13,14,15,16,17,18	12,12.2,13,13.2,14 ,15	28,29,30,31.2	10,11,15,16,17	X	9,10,11
	19,20,21,22,23			16,18,25.2,26.2,28 .2,29.2	7,8,9	6,9,11
	15,16,17					

XU9A6L - 5905 GlobalFiler™ - STRMix™

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,12,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

YF73QG - 5905 GlobalFiler™ - STRMix™ V 2.10

	11,13,15.3,16.3	17,22,24	10,11,14	16,17,18	8,11,12	
3	10,11	11,12,13	11,12,13,15	18,19,21,22	9,10,11,12	11,12
	13,14,16,18	13,13.2,14,15	29,30,31.2	11,16	X,X	10,11
	20,21,22,23			16,18,26.2,29.2	7,8,9	6,9,11
	15,16,17					

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TABLE 3

Item 4 - STR Results

WebCode - Test	Amplification Kits - Probablistic Genotyping Software					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
97RNXH - 5904	GlobalFiler™ - STRMix™ 2.10					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
A62BEE - 5904	GlobalFiler™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
AWC7HB - 5904	GlobalFiler™ - STRMix™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
F3GTW8 - 5905	GlobalFiler™ - STRMix™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	-
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	-	-	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	-	-	2	
FBB2HX - 5904	GlobalFiler™ - STRMix™ version 10					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
FYLKQW - 5904	PowerPlex® ESI17 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep - EuroForMix					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	11,12,19
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
M3EEQZ - 5904	GlobalFiler™ - STRMix™ v 2.10					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12,13	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	

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TABLE 3

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

Item 4 - STR Results

NERWYW - 5905	PowerPlex® Y23, GlobalFiler™ - STRMix™					
	13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
PAQQUW - 5904	PowerPlex® Fusion 6C, NGM Detect, VeriFiler - EuroforMix					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	11,12,19
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		
XU9A6L - 5905	GlobalFiler™ - STRMix™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12,13	
4	10,11	12,13,15	13,14,15	19,21,22,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
YF73QG - 5905	GlobalFiler™ - STRMix™ v 2.10					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14,15
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	

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TABLE 3

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

Item 4e - STR Results

2PM2BN - 5904	Identifiler® Plus					
		17,20,22		17,18	11,12	
4e	10	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	20,21,22				7,9	8,11
	14,16,17,18					
2Z6NFH - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
34F2TB - 5904	NGM SElect- STRMix™ 4 e (only)					
	11,[13],[15],15.3	17,[20],22	10,[11],[12],14	17,18		
4e		12,13,15	13,15	19,21,[22],23		11,12,[14]
	[12],13,14	13,13.2,14,[15]	[29],30,[31],31.2	11,15,16	X,[Y]	
	[20],21,22			15,16,[24.2],29.2	7,9	
	[14],16,17,[18]					
37BFNF - 5904	PowerPlex® 21- STRMix™ v2.8					
	11,13,15,15.3	17,22		17,18	11,12	11,12,19
4e	10	12,13,15		19,21,23	9,10	11,12,14
	13,14	13.2,14,15	30,31,31.2		X,Y	11
	21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18					
38MCUK - 5904	Identifiler® Plus					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	20,21,22				7,9	8,11
	14,16,17,18					
3NPYGD - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		
3UF9M6 - 5905	PowerPlex® Fusion					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18	10				

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TABLE 3

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

Item 4e - STR Results

3XH6EK - 5905	Identifiler® Plus- STRMix™ 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
3YA6CW - 5905	GlobalFiler™- STRMix™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
4KNADB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		
4THF7C - 5904	GlobalFiler™- STRMix™					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
64EZR2 - 5905	PowerPlex® 21- STRMix™ 2.7					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10,11	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14	30,31,31.2		X,Y	11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18					
6M9JZG - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
6MQMEA - 5905	PowerPlex® 21- STRMix™ 2.8.0					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10,11	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22	9,10,13	7,11,15		7,9	8,11
	14,16,17,18					

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TABLE 3

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

Item 4e - STR Results

6NGX63 - 5904	ESI 17- STRMix™ v2.7.0					
	11,13,15,15.3	17,20,22	10,11,14	17,18		
4e		12,13,15	13,14,15	19,21,23		11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	
	20,21,22			15,16,24.2,29.2	7,9	
	14,16,17,18					
6PXPHT - 5904	GlobalFiler™- STRMix™					
	11,15.3	17,20,22	10,14	17,18	11,12	
4e	10	12,13	13,15	19,21	9,10,11,12	11,12,14
	13,14	13,13.2,14,15	30,31,31.2	11,15,16	X	11
	21,22			16,24.2,29.2	7,9	8,11
	14,16,17				2	
6V2RPE - 5904	PowerPlex® 21- STRMix™ v2.8					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10,11	12,13,15		19,21,23,24	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18					
7669R6 - 5904	Investigator® 24plex QS - EuroForMix					
	11,(13,15),15.3	17,(20),22	10,(11,14)	17,18	11,12	
4e	10,10	12,13,(15)	13,(14),15	19,21,(23)	9,10,(11,12)	11,12,(14)
	(12),13,14	(13),13.2,14,(15)	30,(31),31.2	11,15,16	X,X,(Y)	11,11,(10,12)
	(20),21,22			(15),16,(24.2),29.2	7,9	(8),11,11
	(14),16,17,(18)	(10)				
8KWN9A - 5905	GlobalFiler™ - LRmixStdio					
	11,15.3	17,22	10,14	17,18	11,12	
4e	10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X	11
	21,22			16,29.2	7,9	11
	16,17					
984GV7 - 5904	GlobalFiler™- STRMix™ 2.6.3					
	11,15.3	17,22	10,14	17,18	11,12	
4e	10,10	12,13	13,15		9,10,11	11,12
	12,13,14		30,31,31.2	11,15,16	X,X	11,11
	21,22			16,29.2	7,9	8,11
	16,17				2	
9FDPER - 5905	Identifiler® plus- STRMix™ v. 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					

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TABLE 3

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

Item 4e - STR Results

9ME3CA - 5904	Identifiler® Plus - EuroForMix					
		17,[20],22		17,18	11,12	
4e	10,[11]	12,13,[15]			9,10,[11,12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,[31],31.2		X,[Y]	[10],11,[12]
	[20],21,22				7,9	[8],11
	[14],16,17,[18]					
9UUNG8 - 5904	GlobalFiler™ - STRMix™					
	10,11,13,14.3,15,15.3	16,17,20,21,22	9,10,11,13,14	16,17,18	10,11,12	
4e	9,10,11	11,12,13,14,15	12,13,14,15	18,19,20,21,22,23	8,9,10,11,12	10,11,12,14
	12,13,14	12.2,13,13.2,14,15	29,30,30.2,31,31.2	10,11,14,15,16,17	X,Y	10,11,12
	20,21,22			15,15.2,16,24.2,28.2,29,29.2	6,7,8,9	8,10,11
	14,15,16,17,18	10			2	
B6LDTP - 5904	Identifiler® Plus					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	20,21,22				7,9	8,11
	14,16,17,18					
BAG638 - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
DP7WYT - 5905	PowerPlex® Fusion					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10	7,11,12,15		7,9	8,11
	14,16,17,18	10				
DW9WHV - 5904	GlobalFiler™ - STRMix™					
	11,13,15,15.3	17,20,22	10,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,32.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
EFDYPY - 5904	PowerPlex® Fusion 6C- STRMix™ v.2.6.3					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		

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TABLE 3

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

Item 4e - STR Results

EXU6WN - 5905	PowerPlex® Fusion - RMP, YHRD					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18	10				
GHT9V2 - 5904	PowerPlex® 21- STRMix™ v2.8					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14	30,31,31.2		X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17					
HGV4VY - 5904	GlobalFiler™- STRMix™					
	10,11,13,15,15.3	16,17,20,21,22	9,10,11,13,14	16,17,18	10,11,12	
4e	9,10,11	11,12,13,15	12,13,14,15	18,19,20,21,23	9,10,11,12	10,11,12,14
	12,13,14	12.2,13,13.2,14,15	29,30,30.2,31,31.2	10,11,14,15,16,17	X,Y	10,11,12
	20,21,22			15,15.2,16,24.2,28 .2,29.2	7,9	8,10,11
	14,15,16,17,18	10			2	
HQ4N32 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
	11,[13,15],15.3	17,22		17,18	11,12	11,12
4e	10,10	12,13		19,21,[23]	9,10	11,12,[14]
	13,14	[13],13.2,14	30,[31],31.2		X,X,[Y]	11,11,[12]
	21,22	9,10,[13]	[7],11,[12],15		7,9	[8],11,11
	[14],16,17					
JQHD28 - 5905	Identifiler® Plus- STRMix™ 2.7.0					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
JRRPBW - 5904	GlobalFiler™- STRMix™					
	10,11,13,15,15.3	16,17,20,21,22	10,11,13,14	16,17,18	10,11,12	
4e	9,10,11	11,12,13,15	12,13,14,15	18,19,20,21,23	9,10,11,12	10,11,12,14
	12,13,14	12.2,13,13.2,14,15	29,30,30.2,31,31.2	11,14,15,16,17	X,Y	10,11,12
	20,21,22			15,15.2,16,24.2,28 .2,29.2	6,7,9	8,10,11
	14,15,16,17,18	10			2	
KL2R8R - 5905	PowerPlex® 21- STRMix™ V2.8.0					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13.2,14	30,31,31.2		X,Y	11,11
	21,22	9,10	11,15		7,9	8,11
	14,16,17					

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TABLE 3

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

Item 4e - STR Results

LAL4PD - 5905 Identifiler® plus- STRMix™ v. 2.7

		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					

LK4N8P - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.1

	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		

M3K38Y - 5905 PowerPlex® 21- STRMix™ v2.8

	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10,11	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13.2,14	30,31,31.2		X,Y	11,11
	20,21,22	9,10	7,11,15		7,9	8,11
	14,16,17					

MGJ7CP - 5904 PowerPlex® 21- STRMix™ v2.8

	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10,11	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18					

MTFYZF - 5905 PowerPlex® Fusion

	11,15,15.3	17,20,22	10,14	17,18	11,12	
4e	10	12,13,15	13,15	19,21,23	9,10	11,12,14
	12,13,14	13.2,14	30,31,31.2	11,15,16	X,Y	10,11
	20,21,22	9,10	11,15		7,9	8,11
	14,16,17,18					

MX7EPM - 5905 Investigator® 24plex- STRMix™ 2.5.11

	11,[13],[15],15.3	17,[20],22	10,[11],14	17,18	11,12	
4e	10,[11]	12,13,[15]	13,[14],15	19,21,[23]	9,10,[11],[12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,[31],31.2	11,[15],16	X,[Y]	[10],11
	[20],21,22			[15],16,[24.2],29.2	7,9	[8],11
	[14],16,17,[18]	[10]				

NAXHBT - 5904 PowerPlex® Fusion 6C- STRMix™ 2.6.3

	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		

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TABLE 3

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

Item 4e - STR Results

NNVP4N - 5904	GlobalFiler™ IQC - LRMix Studio					
	11,[13,15],15.3	17,[20],22	10,[11],14	17,18	11,12	
4e	10,[11]	12,13,[15]	13,[14],15	19,21,[23]	9,10,[11,12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,[31],31.2	11,[15],16	X,(Y)	[10],11,[12]
	[20],21,22			[15],16,[24.2],29.2	7,9	[8],11
	[14],16,17,[18]	10			2	
NZLZFU - 5905	PowerPlex® ESX16FAST - DNAxs					
	11,13,15,15.3	17,20,22	10,11,14	17,18		
4e		12,13,15	13,14,15	19,21,23		11,12,13,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	
	20,21,22				7,9	
	14,16,17,18					
P847TY - 5905	Identifiler® plus, PowerPlex® Y23- STRMix™ sp fraction only					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
PNAD4U - 5905	PowerPlex® Fusion6C - LRMixStudio, LabRetriever, DNAView, EuroForMix					
	11,15.3	17,22	10,14	17,18	11,12	
4e	10,10	12,13	13,15	19,21	9,10	11,12
	13,14	13.2,14	30,31.2	11,16	X,X	11,11
	21,22	9,10	11,15	16,29.2	7,9	11,11
	16,17					
QA94VE - 5905	PowerPlex® Fusion					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18	10				
QP6EMQ - 5905	Identifiler® Plus					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	20,21,22				7,9	8,11
	14,16,17,18					
R8YCLX - 5904	Identifiler® Plus					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	11,12
	20,21,22				7,9	8,11
	14,16,17,18					

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TABLE 3

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

Item 4e - STR Results

RVACVV - 5904	Identifiler® Plus- STRMix™ V 2.7					
		17,20,22		17,18	11,12	
4e	10,11	12,13,15			9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2		X,Y	10,11,12
	20,21,22				7,9	8,11
	14,16,17,18					
T9TEQR - 5904	PowerPlex® 21- STRMix™ 2.8.0					
	11,[13],[15],15.3	17,[20],22		17,18	11,12	11,12,[19]
4e	10,10	12,13		19,21,[23]	9,10,[11]	11,12,[14]
	[12],13,14	13.2,14	30,[31],31.2		X,[Y]	[10],11
	[20],21,22	9,10,[13]	[7],11,[12],15		7,9	[8],11
	[14],16,17,[18]					
TBJGXB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.2					
	11,[13],[15],15.3	17,[20],22	10,[11],14	17,[18]	11,12	
4e	10,[11]	12,13,[15]	13,[14],[15]	19,21,23	9,10,[11],[12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,31,31.2	11,15,16	X,[Y]	[10],11,[12]
	[20],21,22	9,10,[13]	[7],11,[12],15	15,16,[24.2],29.2	7,9	[8],11
	[14],16,17,[18]	10	18	17		
TXY2UB - 5905	PowerPlex® Fusion 6C - LRmix Studio					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15	15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10	18	17		
VKR849 - 5905	PowerPlex® Fusion					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18	10				
VLQ8CL - 5904	PowerPlex® 21- STRMix™					
	11,[13,15],15.3	17,[20],22		17,18	11,12	11,12,[19]
4e	10,[11]	12,13,[15]		19,21,[23]	9,10,[11,12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,[31],31.2		X,X,[Y]	11,11,[12]
	[20],21,22	9,10,[13]	[7],11,[12],15		7,9	[8],11
	[14],16,17,[18]					
VM2AYK - 5905	PowerPlex® 21- STRMix™ 2.8					
	11,13,15,15.3	17,20,22		17,18	11,12	11,12,19
4e	10	12,13,15		19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14	30,31,31.2		X,Y	10,11,12
	21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18					

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TABLE 3

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

Item 4e - STR Results

VMFH4E - 5905	Investigator® 24plex- STRMix™ 2.5.11					
	11,[13,15],15.3	17,[20],22	10,[11],14	17,18	11,12	
4e	10,[11]	12,13,[15]	13,[14],15	19,21,[23]	9,10,[11,12]	11,12,[14]
	[12],13,14	[13],13.2,14,[15]	30,[31],31.2	11,[15],16	X,[Y]	[10],11
	[20],21,22			[15],16,[24.2],29.2	7,9	[8],11
	[14],16,17,[18]	[10]				
WJN2WU - 5904	PowerPlex® ESIfast					
	11,15.3	17,22	10,14	17,18		
4e		12,13	13,15	19,21		11,12
	13,14	13.2,14	30,31.2	11,16	X	
	21,22			16,29.2	7,9	
	16,17					
WKY4HR - 5905	GlobalFiler™- STRMix™ v2.5.11					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22			15,16,24.2,29.2	7,9	8,11
	14,16,17,18	10			2	
WMBL89 - 5905	PowerPlex® Fusion					
	11,13,15,15.3	17,20,22	10,11,14	17,18	11,12	
4e	10,11	12,13,15	13,14,15	19,21,23	9,10,11,12	11,12,14
	12,13,14	13,13.2,14,15	30,31,31.2	11,15,16	X,Y	10,11,12
	20,21,22	9,10,13	7,11,12,15		7,9	8,11
	14,16,17,18	10				
WXUXJL - 5904	GlobalFiler™- STRMix™					
	10,11,13,14.3,15,15.3	16,17,20,21,22	9,10,11,13,14	16,17,18	10,11,12	
4e	9,10,11	11,12,13,14,15	12,13,14,15	18,19,20,21,22,23	8,9,10,11,12	10,11,12,14
	11,12,13,14	12.2,13,13.2,14,15	29,30,30.2,31,31.2	11,14,15,16,17	X,Y	10,11,12
	20,21,22,23			15,15.2,16,24.2,28.2,29,29.2	7,8,9	8,10,11
	14,15,16,17,18	10			2	

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TABLE 3

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

Item 4sp - STR Results

2PM2BN - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
2Z6NFH - 5904		Identifiler® plus- STRMix™ v. 2.7				
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
34F2TB - 5904		NGM SElect- STRMix™ 4 e (only)				
	13,15	17,20	10,11	17,17		
4sp		12,15	13,14	23,23		11,14
	12,14	13,15	31,31	15,15	X,Y	
	20,22			15,24.2,[25.2]	7,7	
	14,18					
37BFNF - 5904		PowerPlex® 21- STRMix™ v2.8				
	13,15	17,20		17	11,12	11,19
4sp	10,11	12,15		23	11,12	11,14
	12,14	13,15	31		X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18					
38MCUK - 5904		Identifiler® Plus				
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
3NPYGD - 5904		PowerPlex® Fusion 6C- STRMix™ 2.6.3				
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
3UF9M6 - 5905		PowerPlex® Fusion				
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				

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TABLE 3

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

Item 4sp - STR Results

3XH6EK - 5905	Identifiler® Plus- STRMix™ 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
3YA6CW - 5905	GlobalFiler™- STRMix™					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
4KNADB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
4THF7C - 5904	GlobalFiler™- STRMix™					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
64EZR2 - 5905	PowerPlex® 21- STRMix™ 2.7					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
6M9JZG - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
6MQMEA - 5905	PowerPlex® 21- STRMix™ 2.8.0					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		22,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,11
	14,18					

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TABLE 3

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

Item 4sp - STR Results

6NGX63 - 5904	ESI 17- STRMix™ v2.7.0					
	13,15	17,20	10,11	17,17,[18]		
4sp		12,15	13,14	23,23		11,[13],14
	12,14	13,15	31,31,[32]	15,15	X,Y	
	20,22			15,24.2	7,7	
	14,18					
6PXPHT - 5904	GlobalFiler™- STRMix™					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
6V2RPE - 5904	PowerPlex® 21- STRMix™ v2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
7669R6 - 5904	Investigator® 24plex QS - EuroForMix					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10				
8KWN9A - 5905	GlobalFiler™ - LRmixStdio					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10			2	
984GV7 - 5904	GlobalFiler™- STRMix™ 2.6.3					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
9FDPER - 5905	Identifiler® plus- STRMix™ v. 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					

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TABLE 3

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

Item 4sp - STR Results

9ME3CA - 5904	Identifiler® Plus - EuroForMix					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
9UUNG8 - 5904	GlobalFiler™ - STRMix™					
	12,13,14,15	16,17,19,20	9,10,11	16,17	10,11,12	
4sp	9,10,11	11,12,14,15	12,13,14	22,23	10,11,12	10,11,13,14
	11,12,13,14	12,13,14,15	30,31	14,15,16	X,Y	9,10,11,12
	19,20,21,22			14,14.2,15,23.2,24 ,24.2	6,7	8
	13,14,17,18	9,10			2	
B6LDTP - 5904	Identifiler® Plus					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
BAG638 - 5904	Identifiler® plus- STRMix™ v. 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
DP7WYT - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
DW9WHV - 5904	GlobalFiler™ - STRMix™					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
EFDYPY - 5904	PowerPlex® Fusion 6C- STRMix™ v.2.6.3					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		

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TABLE 3

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

Item 4sp - STR Results

EXU6WN - 5905	PowerPlex® Fusion - RMP, YHRD					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
GHT9V2 - 5904	PowerPlex® 21- STRMix™ v2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
HGV4VY - 5904	GlobalFiler™- STRMix™					
	12,13,14,15	16,17,19,20	9,10,11	16,17	10,11,12	
4sp	9,10,11	11,12,14,15	12,13,14	22,23	10,11,12	11,13,14
	11,12,13,14	12,13,14,15	30,31	14,15,16	X,Y	10,11,12
	19,20,21,22			14,15,23.2,24,24.2	6,7	8,8
	14,17,18	9,10			2	
HQ4N32 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
JQHD28 - 5905	Identifiler® Plus- STRMix™ 2.7.0					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
JRRPBW - 5904	GlobalFiler™- STRMix™					
	12,13,14,15	16,17,20	9,10,11	16,17	10,11,12	
4sp	9,10,11	11,12,14,15	12,13,14	22,23	10,11,12	11,13,14
	11,12,13,14	12,13,14,15	30,31	14,15,16	X,Y	10,11,12
	19,20,21,22			14,14.2,15,23.2,24.2	6,7	8
	14,17,18	9,10			2	
KL2R8R - 5905	PowerPlex® 21- STRMix™ V2.8.0					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					

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TABLE 3

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

Item 4sp - STR Results

LAL4PD - 5905	Identifiler® plus- STRMix™ v. 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
LK4N8P - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.1					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
M3K38Y - 5905	PowerPlex® 21- STRMix™ v2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		19,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
MGJ7CP - 5904	PowerPlex® 21- STRMix™ v2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
MTFYZF - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
MX7EPM - 5905	Investigator® 24plex- STRMix™ 2.5.11					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10				
NAXHBT - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.3					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		

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TABLE 3

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

Item 4sp - STR Results

NNVP4N - 5904	GlobalFiler™ IQC - LRMix Studio					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22			15,24.2	7,7	8,8
	14,18	10			2	
NZLZFU - 5905	PowerPlex® ESX16FAST - DNAxs					
	13,15	17,20	10,11	17,17		
4sp		12,15	13,14	23,23		11,14
	12,14	13,15	31,31	15,15	X,Y	
	20,22				7,7	
	14,18					
P847TY - 5905	Identifiler® plus, PowerPlex® Y23- STRMix™ sp fraction only					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
PNAD4U - 5905	PowerPlex® Fusion6C - LRMixStudio, LabRetriever, DNAView, EuroForMix					
	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7,7	8,8
	14,18	10	18	17		
QA94VE - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
QP6EMQ - 5905	Identifiler® Plus					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
R8YCLX - 5904	Identifiler® Plus					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					

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TABLE 3

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

Item 4sp - STR Results

RVACVV - 5904	Identifiler® Plus- STRMix™ V 2.7					
		17,20		17,17	11,12	
4sp	10,11	12,15			11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22				7,7	8,8
	14,18					
T9TEQR - 5904	PowerPlex® 21- STRMix™ 2.8.0					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
TBJGXB - 5904	PowerPlex® Fusion 6C- STRMix™ 2.6.2					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
TXY2UB - 5905	PowerPlex® Fusion 6C - LRmix Studio					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12	15,24.2	7	8
	14,18	10	18	17		
VKR849 - 5905	PowerPlex® Fusion					
	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				
VLQ8CL - 5904	PowerPlex® 21- STRMix™					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					
VM2AYK - 5905	PowerPlex® 21- STRMix™ 2.8					
	13,15	17,20		17,17	11,12	11,19
4sp	10,11	12,15		23,23	11,12	11,14
	12,14	13,15	31,31		X,Y	10,12
	20,22	9,13	7,12		7,7	8,8
	14,18					

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TABLE 3

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

Item 4sp - STR Results

VMFH4E - 5905 Investigator® 24plex- STRMix™ 2.5.11

	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22			15,24.2	7	8
	14,18	10				

WJN2WU - 5904 PowerPlex® ESIfast

	13,15	17,20	10,11	17		
4sp		12,15	13,14	23		11,14
	12,14	13,15	31	15	X,Y	
	20,22			15,24.2	7	
	14,18					

WKY4HR - 5905 GlobalFiler™- STRMix™ v2.5.11

	13,15	17,20	10,11	17,17	11,12	
4sp	10,11	12,15	13,14	23,23	11,12	11,14
	12,14	13,15	31,31	15,15	X,Y	10,12
	20,25			15,24.2	7,7	8,8
	14,18	10			2	

WMBL89 - 5905 PowerPlex® Fusion

	13,15	17,20	10,11	17	11,12	
4sp	10,11	12,15	13,14	23	11,12	11,14
	12,14	13,15	31	15	X,Y	10,12
	20,22	9,13	7,12		7	8
	14,18	10				

WXUXJL - 5904 GlobalFiler™- STRMix™

	12,13,14,15	16,17,19,20	9,10,11	16,17	10,11,12	
4sp	10,11	11,12,14,15	12,13,14	22,23	10,11,12	10,11,13,14
	11,12,13,14	12,13,14,15	30,31	14,15,16	X,Y	10,11,12
	19,20,21,22			14,15,23.2,24.2	7	8
	14,17,18	9,10			2	

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YSTR Amplification Kit(s) & Results

TABLE 4

WebCode - Test	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	YGATAH4
Item 2 - YSTR Results									
2PM2BN - 5904		PowerPlex® Y							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
37BFNF - 5904		Yfiler® PLUS							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
38MCUK - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
3XH6EK - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
64EZR2 - 5905		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
6V2RPE - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
8KWN9A - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
97RNXH - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
9ME3CA - 5904		Yfiler®							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
A62BEE - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
AWC7HB - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12

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TABLE 4

WebCode - Test	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	YGATAH4
Item 2 - YSTR Results									
B6LDTP - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
EXU6WN - 5905		Yfiler®							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
F3GTW8 - 5905		PowerPlex® Y 23							
2	-	13	16,18	13	30	23	10	11	13
	14	10	12	20	-	17	15	-	22
	-	12	12	18	17	-	23	11	12
FBB2HX - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
FYLKQW - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12	12	18	17	23	23	11	12
GHT9V2 - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
HQ4N32 - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
JQHD28 - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
LK4N8P - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
M3EEQZ - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
NERWYW - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
NNVP4N - 5904		Yfiler® PLUS							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12

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TABLE 4

WebCode - Test		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	YGATAH4
Item 2 - YSTR Results									
P847TY - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
PAQQUW - 5904									
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
PNAD4U - 5905		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
QP6EMQ - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
R8YCLX - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
RVACVV - 5904		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
T9TEQR - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
TXY2UB - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
VLQ8CL - 5904		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
VMFH4E - 5905		Yfiler® Plus							
2	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
WJN2WU - 5904									
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
XU9A6L - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12

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TABLE 4

WebCode - Test	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	YGATAH4
Item 2 - YSTR Results									
YF73QG - 5905		PowerPlex® Y 23							
2		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12

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TABLE 4

WebCode - Test Item	Amplification Kit								
	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	YGATAH4
Item 3 - YSTR Results									
9ME3CA - 5904 3	Yfiler®								
FBB2HX - 5904 3	PowerPlex® Y 23								

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TABLE 4

Item 4 - YSTR Results

WebCode - Test	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	YGATAH4
97RNXH - 5904		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
A62BEE - 5904		Yfiler® Plus							
4	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
AWC7HB - 5904		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
F3GTW8 - 5905		PowerPlex® Y 23							
4	-	13	16,18	13	30	23	10	11	13
	14	10	12	20	-	17	15	-	22
	-	12	12	18	17	-	23	11	12
FBB2HX - 5904		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
FYLKQW - 5904		Yfiler® Plus							
4	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12	12	18	17	23	23	11	12
M3EEQZ - 5904		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
NERWYW - 5905		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
PAQQUW - 5904		Yfiler® Plus							
4	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
XU9A6L - 5905		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
YF73QG - 5905		PowerPlex® Y 23							
4		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12

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TABLE 4

WebCode - Test		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	YGATAH4
Item 4e - YSTR Results									
2PM2BN - 5904		PowerPlex® Y 23							
4e									
37BFNF - 5904		Yfiler® plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
38MCUK - 5904		PowerPlex® Y 23							
4e									
3XH6EK - 5905		PowerPlex® Y 23							
4e									
64EZR2 - 5905		Yfiler® Plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
6V2RPE - 5904		Yfiler® Plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
8KWN9A - 5905		PowerPlex® Y 23							
4e									
9ME3CA - 5904		Yfiler®							
4e		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
B6LDTP - 5904		PowerPlex® Y 23							
4e									
EXU6WN - 5905		Yfiler®							
4e		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
GHT9V2 - 5904		Yfiler® Plus							
4e									
HQ4N32 - 5904		Yfiler® Plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12

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TABLE 4

Item 4e - YSTR Results

WebCode - Test	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	YGATAH4
JQHD28 - 5905		PowerPlex® Y 23							
4e									
LK4N8P - 5904		PowerPlex® Y 23							
4e		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
NNVP4N - 5904		Yfiler® plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
P847TY - 5905		PowerPlex® Y 23							
4e									
PNAD4U - 5905		Yfiler® Plus							
4e									
QP6EMQ - 5905		PowerPlex® Y 23							
4e									
R8YCLX - 5904		PowerPlex® Y 23							
4e									
RVACVV - 5904		PowerPlex® Y 23							
4e									
T9TEQR - 5904		Yfiler® Plus							
4e									
TXY2UB - 5905		PowerPlex® Y 23							
4e		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
VLQ8CL - 5904		Yfiler® Plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
VMFH4E - 5905		Yfiler® Plus							
4e	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12

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TABLE 4

WebCode - Test		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	YGATAH4
Item 4sp - YSTR Results									
2PM2BN - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
37BFNF - 5904		Yfiler® plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
38MCUK - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
3XH6EK - 5905		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
64EZR2 - 5905		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
6V2RPE - 5904		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
8KWN9A - 5905		PowerPlex® Y 23							
4sp	12	13	15	13	30	23	10	11	13
	14	10	12	20		16,18	13		22
		12	12	18	17		23	11	17
9ME3CA - 5904		Yfiler®							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
B6LDTP - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
EXU6WN - 5905		Yfiler®							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		
							23		12
GHT9V2 - 5904		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
HQ4N32 - 5904		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10 [9]	12	20	32	17	15	9	22
	39	12		18	17	23 [22]	23		12

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TABLE 4

WebCode - Test		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	YGATAH4
Item 4sp - YSTR Results									
JQHD28 - 5905		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
LK4N8P - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
NNVP4N - 5904		Yfiler® plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
P847TY - 5905		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
PNAD4U - 5905		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
QP6EMQ - 5905		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
R8YCLX - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
RVACVV - 5904		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
T9TEQR - 5904		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
TXY2UB - 5905		PowerPlex® Y 23							
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12
VLQ8CL - 5904		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12
VMFH4E - 5905		Yfiler® Plus							
4sp	36,38	13	16,18	13	30	23	10	11	13
	14	10	12	20	32	17	15	9	22
	39	12		18	17	23	23		12

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TABLE 4

WebCode - Test	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	YGATAH4
Item 4sp - YSTR Results									
WJN2WU - 5904									
4sp		13	16,18	13	30	23	10	11	13
	14	10	12	20		17	15		22
		12	12	18	17		23	11	12

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Additional DNA Results

TABLE 5

Additional DNA results found to be concordant at a pre-existing locus are retained solely within the applicable tables. Non-concordant results and results for loci not found elsewhere will remain in this table.

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3e	Item 3sp	Item 4	Item 4e	Item 4sp
D17S1301	FYLKQW - 5904	11,13	11,12	11,12,13			11,12,13		
D20S482	FYLKQW - 5904	13,14	13,14	11,13,14,15			13,14		
D4S2408	FYLKQW - 5904	9,9	9,11	9,10,12			9,11		
D9S1122	FYLKQW - 5904	12,13	12,13	12,13,14			12,13		
DYS505	FYLKQW - 5904		12				12		
DYS522	FYLKQW - 5904		12				12		
DYS612	FYLKQW - 5904		31				31		

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DNA Mixture Concentrations and Proportions

TABLE 6

WebCode-Test	Item 3 Results: DNA Concentration (ng/uL)	Item 3 Results: DNA Proportion (%)
Contributor: A		
2Z6NFH - 5904		53.08
37BFNF - 5904	0.2884	56.00
3YA6CW - 5905	3.4900	53.78
4THF7C - 5904	0.9682	53.28
64EZR2 - 5905	8.1900	55.20
6M9JZG - 5904		48.04
6MQMEA - 5905	0.8030	52.00
6PXPHT - 5904	2.3200	57.75
6V2RPE - 5904	0.6040	56.00
7669R6 - 5904	0.9000	44.00
8KWN9A - 5905	2.0000	50.00
984GV7 - 5904	1.0460	54.00
9FDPER - 5905		45.56
9ME3CA - 5904	9.3700	54.00
A62BEE - 5904	1,365.0	50.00
AWC7HB - 5904		54.42
BAG638 - 5904		65.11
FBB2HX - 5904	6.1500	45.59
FYLKQW - 5904	125.0	50.00
GHT9V2 - 5904	1.1300	55.00
HQ4N32 - 5904	0.5700	56.00
KL2R8R - 5905	0.4165	52.00
LAL4PD - 5905		56.31
M3EEQZ - 5904		53.49
M3K38Y - 5905	1.2200	53.00
MGJ7CP - 5904	1.3070	56.64
MX7EPM - 5905	0.4483	53.00

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TABLE 6

WebCode-Test	Item 3 Results DNA Concentration (ng/uL)	DNA Proportion (%)
NNVP4N - 5904	4.9800	100.00
NZLZFU - 5905		458.00
PAQQUW - 5904	7,772.0	551.00
T9TEQR - 5904	0.3300	57.00
TBJGXB - 5904		53.00
TXY2UB - 5905	765.0	50.00
VLQ8CL - 5904	3.1106	52.00
VM2AYK - 5905	1.0070	53.00
VMFH4E - 5905	0.4500	59.00
WKY4HR - 5905		54.00
YF73QG - 5905		54.09
Contributor: B		
2Z6NFH - 5904		46.92
37BFNF - 5904	0.2266	44.00
3YA6CW - 5905	3.0000	46.22
4THF7C - 5904	0.8489	46.72
64EZR2 - 5905		44.80
6M9JZG - 5904		51.96
6MQMEA - 5905	0.7410	48.00
6PXPHT - 5904	1.7000	42.25
6V2RPE - 5904	0.4740	44.00
8KWN9A - 5905	2.0000	50.00
984GV7 - 5904	1.0460	46.00
9FDPER - 5905		54.44
9ME3CA - 5904	7.9900	46.00
A62BEE - 5904	1,365.0	50.00
AWC7HB - 5904		45.58
BAG638 - 5904		34.89
FBB2HX - 5904	7.3400	54.41
FYLKQW - 5904	125.0	50.00

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TABLE 6

WebCode-Test	Item 3 Results DNA Concentration (ng/uL)	DNA Proportion (%)
HQ4N32 - 5904	0.4400	44.00
KL2R8R - 5905	0.3845	48.00
LAL4PD - 5905		43.69
M3EEQZ - 5904		46.51
M3K38Y - 5905	1.0800	47.00
MGJ7CP - 5904	1.0010	43.36
MX7EPM - 5905	0.3975	47.00
PAQQUW - 5904	6,333.0	449.00
T9TEQR - 5904	0.2500	43.00
TBJGXB - 5904		47.00
TXY2UB - 5905	765.0	50.00
VLQ8CL - 5904	2.8710	48.00
VM2AYK - 5905	0.8930	47.00
VMFH4E - 5905	0.3130	41.00
WKY4HR - 5905		46.00
YF73QG - 5905		45.91
Contributor: C		
7669R6 - 5904	0.1100	56.00
NZLZFU - 5905		542.00

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TABLE 6

WebCode-Test	Item 4 Results: DNA Concentration (ng/uL)	Item 4 Results: DNA Proportion (%)
Contributor: A		
A62BEE - 5904	4,616.0	80.00
FBB2HX - 5904	20.45	84.49
FYLKQW - 5904	30.00	75.00
GHT9V2 - 5904	1.5379	89.00
M3EEQZ - 5904		81.39
PAQQUW - 5904	5,718.0	783.00
YF73QG - 5905		82.19
Contributor: B		
A62BEE - 5904	1,154.0	20.00
AWC7HB - 5904		21.26
FBB2HX - 5904	3.7500	15.51
FYLKQW - 5904	10.00	25.00
M3EEQZ - 5904		18.61
PAQQUW - 5904	1,585.0	217.00
YF73QG - 5905		17.81
Contributor: C		
AWC7HB - 5904		78.74

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TABLE 6

WebCode-Test	Item 4e Results	
	DNA Concentration (ng/uL)	DNA Proportion (%)
Contributor: A		
37BFNF - 5904	0.6129	93.00
3YA6CW - 5905	2.1000	70.95
4THF7C - 5904	0.3309	84.10
64EZR2 - 5905	5.0700	86.32
6MQMEA - 5905	0.7970	90.00
6PXPHT - 5904	17.07	97.09
6V2RPE - 5904	0.1320	100.00
7669R6 - 5904	0.3000	0.81
8KWN9A - 5905	2.0000	75.00
984GV7 - 5904	0.0040	81.00
9FDPER - 5905		75.00
9ME3CA - 5904	11.63	80.80
BAG638 - 5904		86.29
GHT9V2 - 5904	1.5380	89.00
HQ4N32 - 5904	0.5100	94.00
KL2R8R - 5905	0.8863	93.00
LAL4PD - 5905		73.55
M3K38Y - 5905	0.3200	94.00
MGJ7CP - 5904	0.6530	72.41
MX7EPM - 5905	0.7257	83.00
NNVP4N - 5904	1.7600	86.00
NZLZFU - 5905		764.00
T9TEQR - 5904	0.5300	92.00
TBJGXB - 5904		72.00
TXY2UB - 5905	403.0	50.00
VLQ8CL - 5904	0.3585	15.50
VM2AYK - 5905	2.2389	85.00
VMFH4E - 5905	0.5930	79.00
WKY4HR - 5905		61.00

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TABLE 6

WebCode-Test	Item 4e Results: DNA Concentration (ng/uL)	Item 4e Results: DNA Proportion (%)
Contributor: B		
37BFNF - 5904	0.0461	7.00
3YA6CW - 5905	0.8600	29.05
4THF7C - 5904	0.0626	15.90
64EZR2 - 5905		13.68
6MQMEA - 5905	0.0886	10.00
6PXPHT - 5904	0.5100	2.91
7669R6 - 5904	0.0600	0.19
984GV7 - 5904	0.0040	19.00
9ME3CA - 5904	2.7600	19.20
HQ4N32 - 5904	0.0300	6.00
KL2R8R - 5905	0.0667	7.00
M3K38Y - 5905	0.0200	6.00
MGJ7CP - 5904	0.2490	27.59
MX7EPM - 5905	0.1486	17.00
NNVP4N - 5904	0.2900	14.00
NZLZFU - 5905		236.00
T9TEQR - 5904	0.0500	8.00
TBJGXB - 5904		28.00
TXY2UB - 5905	217.0	50.00
VLQ8CL - 5904	1.9542	84.50
VM2AYK - 5905	0.3951	15.00
VMFH4E - 5905	0.1580	21.00
WKY4HR - 5905		39.00
Contributor: C		
9FDPER - 5905		25.00
BAG638 - 5904		13.71
LAL4PD - 5905		26.45

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TABLE 6

WebCode-Test	Item 4sp Results DNA Concentration (ng/uL)	DNA Proportion (%)
Contributor: A		
37BFNF - 5904	0.1290	100.00
3YA6CW - 5905	2.1200	100.00
4THF7C - 5904	0.2320	100.00
64EZR2 - 5905	11.98	100.00
6MQMEA - 5905	0.2480	99.00
6PXPHT - 5904	22.91	100.00
6V2RPE - 5904	1.2140	88.00
984GV7 - 5904	0.3760	100.00
9ME3CA - 5904	42.51	100.00
GHT9V2 - 5904	0.8080	100.00
HQ4N32 - 5904	0.0200	100.00
KL2R8R - 5905	0.0950	100.00
M3K38Y - 5905	0.0100	98.00
MGJ7CP - 5904	0.8600	100.00
MX7EPM - 5905	0.6599	100.00
NNVP4N - 5904	3.6100	100.00
T9TEQR - 5904	0.2000	100.00
TBJGXB - 5904		100.00
TXY2UB - 5905	716.0	100.00
VLQ8CL - 5904	0.8907	100.00
VM2AYK - 5905	1.5720	100.00
VMFH4E - 5905	0.8460	100.00
Contributor: B		
6MQMEA - 5905	0.0025	1.00
6V2RPE - 5904	0.1520	11.00
7669R6 - 5904	0.7500	100.00
M3K38Y - 5905	0.0002	2.00
NZLZFU - 5905		100.00
WKY4HR - 5905		100.00

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TABLE 6

WebCode-Test	Item 4sp Results: DNA Concentration (ng/uL)	Item 4sp Results: DNA Proportion (%)
Contributor: C		
2Z6NFH - 5904		100.00
6M9JZG - 5904		100.00
6V2RPE - 5904	0.0280	2.00
8KWN9A - 5905	5.0000	25.00
9FDPER - 5905		100.00
BAG638 - 5904		100.00
LAL4PD - 5905		100.00

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Statistical Analysis for Item 3

TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
2PM2BN - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The VICTIM (item 1-1) cannot be excluded as a contributor to Mixture 1 from the bloodstain on the suspect's shirt (item 3-1). The STR DNA results are estimated to be 190 million times more likely they originate from the VICTIM and one unknown person than if they originate from two unknown people, unrelated to her. The SUSPECT (item 2-1) is excluded as a contributor to Mixture 1. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
2Z6NFH - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 18 billion. H1: Item 1 (Deceased) + unknown; H2: two unknown **Database(s) Used:** Caucasian
34F2TB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** STRmix - Contributor 1, Mx - 56% = VICTIM / Contributor 2, Mx - 44% = UNKNOWN. Most conservative LR - ~31,000,000,000 Hp/Hd (NDU1). The result of the statistical evaluation is the the findings are in excess of one billion (one thousand million) times more likely if the DNA has originated from the victim and one unknown individual rather than if the DNA originated from two unknown individuals. ** It is assumed that the two individuals are unrelated to each other. **Database(s) Used:** NDU1, NDU2, NDU3, NDU4, NDU6 and NDU7.
37BFNF - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 1 - Not excluded (LR = 100 billion). Item 2 - Excluded. **Database(s) Used:** [Location Identifying Database]
38MCUK - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** VICTIM (Q1-1) cannot be excluded as a contributor to Mixture 1 (see Testing Summary) from the bloodstain (Q03-1) from SUSPECT's shirt. The STR DNA results are estimated to be 410 million times more likely if they originate from VICTIM and one unknown person than if they originate from two unknown people unrelated to VICTIM. **Database(s) Used:** NIST Asian, NIST African American, NIST Caucasian, Srivastava et al. (2019) South Asian, [Location Identifying Database]
3NPYGD - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The mixture is at least 1.2 quadrillion (10^15) times more likely if it originated from the victim and an unknown, unrelated individual than if it originated from two unknown, unrelated individuals. This analysis provides very strong support for the proposition that the victim is a contributor to the mixture. **Database(s) Used:** NIST_1036 population database

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
3UF9M6 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Based on these results, the victim (Item 1) cannot be eliminated as a contributor to this DNA mixture profile. A match between the stain on the suspect's shirt (Item 3) and the victim is: 5.9 quadrillion times more probable than a coincidental match to an unrelated Caucasian person, 7.0 quintillion times more probable than a coincidental match to an unrelated African American person, and 910 trillion times more probable than a coincidental match to an unrelated Hispanic person. **Database(s) Used:** NIST STRBASE Population Database
3XH6EK - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** VICTIM (item 1-1) cannot be excluded as a contributor to Mixture 1 (see Testing Summary) from the cut-out from the SUSPECT's shirt (item 3-1). The STR DNA results are estimated to be 870 million times more likely if they originate from VICTIM and one unknown person than if they originate from two unknown people unrelated to VICTIM. SUSPECT (item 2-1) is excluded as a contributor to Mixture 1 (see Testing Summary). **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
3YA6CW - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** VICTIM LR (2 contributors): African American: 1.4664E17; Hispanic: 1.0903E13; Caucasian: 6.5245E13. Reported as >1 billion. SUSPECT LR=0 **Database(s) Used:** NIST 1036 database using African American, Hispanic, and Caucasian populations and 99% 1-sided lower HPD interval.
4KNADB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The mixture is at least 240 trillion (10^12) times more likely if it originated from the victim and an unknown, unrelated individual than if it originated from two unknown, unrelated individuals. This analysis provides very strong support for the proposition that the victim is a contributor to the mixture. **Database(s) Used:** NIST1036
4THF7C - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** [Participant did not return statistical analysis.] **Database(s) Used:** FBI-CAUC
64EZR2 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 1 victim: The DNA evidence is 60 million times more likely if the victim is a contributor to the mixed DNA profile. Item 2 suspect: The suspect is excluded as a contributor to the mixed DNA profile. **Database(s) Used:** [Location Identifying Database]
6M9JZG - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 1.7 billion. H1: Item 1 (Deceased) + unknown; H2: two unknown **Database(s) Used:** Caucasian
6MQMEA - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR for Victim (Item 3) = 100 Billion; LR for Suspect (Item 4) = excluded **Database(s) Used:** [Location Identifying Database]

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
6NGX63 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** I have assessed the profile obtained from the blood sample from item 3 as being a mixture of DNA from two individuals. All of the IP's DNA components were represented within the mixture and she could not be eliminated as a potential contributor. In order to help the court evaluate this finding, I have considered two propositions: 1. That the DNA in the mixture came from the IP and an unknown individual. 2. That the DNA in the mixture came from two unknown individuals unrelated to the IP. A calculation with reference to the local survey data shows that this finding is at least five hundred and seventy million, (570,000,000), times more likely to arise under the first proposition. **Database(s) Used:** Local DNA database
6PXPHT - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Victim LR: African American=6.8465E21, Hispanic=4.1605E17, Caucasian=2.9233E18 - reported as >1 billion. ----- SUSPECT LR=0. **Database(s) Used:** NIST 1036 database using African American, Hispanic, and Caucasian populations and 99% 1-sided lower HPD interval.
6V2RPE - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** PP21: The DNA evidence is 100 billion times more likely if the complainant is a contributor. The suspect is excluded. **Database(s) Used:** [Location Identifying Database]
7669R6 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The victim (Item 1) is compatible as a possible donor to the mixture on item 3. We evaluated this result by computing a Likelihood Ratio between the following propositions: Proposition 1- the mixture is composed of the Victim and an unknown unrelated individual. Proposition 2- the mixture is composed of two unknown unrelated individuals. The LR computed by EuroForMix for these two propositions is 8.67*10^16. The LR expresses by how much it is more likely to observe the Mixture on item 3 if proposition 1 is true versus if proposition 2 is true. In other words, how much support there is for proposition 1 over proposition 2. **Database(s) Used:** [Location Identifying Database]
8KWN9A - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Hp=1+NN/Hd=2 x NN LR= 2,4 x 10^13 **Database(s) Used:** [Participant did not return a database used.]
97RNXH - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from the suspect's shirt (23-5904 Item 3) is consistent with a mixture from at least two (2) contributors: a) The mixture is approximately 5.19 x10^18 times more likely to occur (very strong support for inclusion) if the female victim and an unknown, unrelated individual are contributors, rather than if two (2) unknown, unrelated individuals are contributors. b) The male suspect has been excluded as being a contributor to this mixture. **Database(s) Used:** African American 2015 Expanded FBI STR Loci Allele Frequencies T.R. Moretti, et al, Forensic Sci. Int. Genet. 25 (2016) 175-181.
984GV7 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Prosecution hypothesis approximately 119880000 **Database(s) Used:** Local population databases.

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
9FDPER - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 110 billion. H1: Item 1 (Deceased) + unknown; H2: two unknown **Database(s) Used:** Caucasian
9ME3CA - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA profile obtained from item No. 3 is a mixture of at least two individuals. The following sets of hypotheses were evaluated: (A) Hp: Item No. 1 + 1 Unknown, Hd: 2 Unknown, LR (MLE) = 9.04E+8, (B) Hp: Item No. 2 + 1 Unknown, Hd: 2 Unknown, LR (MLE) = 2.18E-32 **Database(s) Used:** NIST Caucasian Database (2017) with theta co-ancestry coefficient 0.03
9UUNG8 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_SE_HISP: 2.7263 X 10^13 **Database(s) Used:** FBI extended
A62BEE - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** In the mixture Item 3, the presence of not more than 4 alleles allows the assumption of 2 contributors. Specifically 2 female contributors.The Victim Item 1 can be considered as possible contributor to the mixture. The suspect Item 2 can be excluded as a possible contributor. The value of LR=6,8815E13 derives from the following hypotheses: Hp: Item 3 originates from the victim Item 1 + 1 Unknown, Hd: Item 3 originates from 2 Unknowns. **Database(s) Used:** [Location Identifying Database]
AWC7HB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from the shirt (23-5904 Item 3) taken from the suspect is consistent with a mixture from at least two (2) contributors. The mixture is approximately 1.25 x 10E18 times more likely to occur (very strong support for inclusion) if the victim and an unknown, unrelated individual are contributors, rather than if two (2) unknown, unrelated individuals are contributors. The suspect has been excluded as being a contributor to this mixture. **Database(s) Used:** The African American 2015 Expanded FBI STR Loci Allele Frequencies T. R. Moretti, L. I. Morenoa , J. B. Smericka , M. L. Pignonea , R. Hizona , J.S. Buckletonb , J.-A Bright, A. J. Onoratoa, Population data on the expanded CODIS core STR loci for eleven populations of significance for forensic DNA analyses in the United States, Forensic Sci. Int. Genet. 25 (2016) 175– 181
B6LDTP - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The victim (item Q1-1) cannot be excluded as a contributor to Mixture 1 from the human bloodstain (item Q03-1) from the suspect's shirt. The STR DNA results are estimated to be 2.9 billion more times likely if they originate from the victim and one unknown unrelated person than if they originate from two unknown people, unrelated to them. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
BAG638 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 340 quadrillion. H1: Item 1 (Deceased) + unknown; H2: two unknown **Database(s) Used:** Caucasian

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
DP7WYT - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 2.8 quadrillion (2.8E15) - Caucasian, 2.3 quintillion (2.3E18) - African American, 520 trillion (5.2E14) - Hispanic. Proposition Hp: Item 1 and one unrelated, unknown contributor; Proposition Hd: Two unrelated, unknown contributors **Database(s) Used:** NIST STRBASE
DW9WHV - 5904	2	**Method(s)**: Not calculated **Stats Analysis:** Female victim could not be excluded as the contributor. Since only victim DNA was observed. No LR was calculated at this time. **Database(s) Used:** [Participant did not return a database used.]
EFDYPY - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The mixture is at least 740 trillion (10^12) times more likely if it originated from the victim and an unknown, unrelated individual than if it originated from two unknown, unrelated individuals. **Database(s) Used:** NIST1036
EXU6WN - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 250 trillion times more likely to be observed if it originated from the victim and one unrelated unknown individual in the Caucasian population than if it originated from two unrelated unknown individuals in the Caucasian population; 320 quadrillion times more likely to be observed if it originated from the victim and one unrelated unknown individual in the African American population than if it originated from two unrelated unknown individuals in the African American population; 35 trillion times more likely to be observed if it originated from the victim and one unrelated unknown individual in the Hispanic population than if it originated from two unrelated unknown individuals in the Hispanic population **Database(s) Used:** NIST STRBASE Population Database
F3GTW8 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from questioned stain (Item 3) from suspect's shirt is consistent with a mixture from at least two (2) contributors. The mixture is approximately 5.3120E17 times more likely to occur (very strong support for inclusion) if the complainant (Item 1) and an unknown, unrelated individual are contributors, rather than if two (2) unknown, unrelated individuals are contributors. The suspect (Item 2) has been excluded as being a contributor to this mixture. **Database(s) Used:** [Participant did not return a database used.]
FBB2HX - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR calculated for the victim is 2,180,000,000,000,000,000. LR calculated for the suspect is 0. **Database(s) Used:** [Location Identifying Database]
FYLKQW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA profile of the stain found from the suspect's shirt (Item 3) has been compared with the profile of the victim (Item 1). The results of the comparison were assessed given the propositions that (a) The DNA originates from the victim and one unknown person; (b) The DNA originates from two unknown persons. The DNA results are in the order of 1E+10 times more probable if the first proposition (a) is true than if the alternative (b) is true. **Database(s) Used:** [Location Identifying Database]

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
GHT9V2 - 5904	3	**Method(s)**: Likelihood Ratio **Stats Analysis:** STR amplification- Item 1 LR is 100 billion. Item 2- LR <1, supports exclusion. **Database(s) Used:** [Location Identifying Database]
HGV4VY - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_SE_HISP: 2.0362E22 **Database(s) Used:** FBI extended
HQ4N32 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** PP21: The victim is not excluded as a contributor. The DNA evidence is 100 billion times more likely if the victim contributed to the DNA rather than if she did not contribute to the DNA. The Suspect is excluded as a contributor. **Database(s) Used:** [Location Identifying Database]
JQHD28 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 1. The VICTIM (item 1-1) cannot be excluded as a contributor to Mixture 1 (see Testing Summary) from the bloodstain (item 3-1) on the SUSPECT's shirt. The STR DNA results are estimated to be 240 million times more likely if they originate from the VICTIM and one unknown person than if they originate from two unknown people unrelated to the VICTIM. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
JRRPBW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_SE_HISP: 2.3436E14 **Database(s) Used:** FBI Extended
KL2R8R - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Victim: Not excluded (LR = 100 Billion). Suspect: Excluded. **Database(s) Used:** [Location Identifying Database]
LAL4PD - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 2.6 quadrillion. H1: Item 1 (Deceased) + unknown; H2: two unknown **Database(s) Used:** Caucasian
LK4N8P - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** [Participant did not return statistical analysis.] **Database(s) Used:** [Participant did not return a database used.]
M3EEQZ - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Proposition: Suspect+ One (1) unknown, unrelated individual vs Two (2) unknown, unrelated individuals. LR= 0. Proposition: Victim + One (1) unknown, unrelated individual vs Two (2) unknown, unrelated individuals. LR= 1.52E17 **Database(s) Used:** FBI African American Expanded 2015 STR Allele Frequency Database.
M3K38Y - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Victim - LR: 100 billion. Suspect - LR: Excluded **Database(s) Used:** [Location Identifying Database]

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
MGJ7CP - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 1 - greater than 100 billion favouring contribution (Victim). Item 2 - excluded from contributing DNA to this mixture (Suspect) **Database(s) Used:** [Location Identifying Database]
MTFYZF - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 1 unknown and Item 1/ 2 unknowns. Caucasian: 1.1 quadrillion; African American: 1.1 quintillion; Hispanic: 150 trillion. **Database(s) Used:** NIST STRBASE Population Database
MX7EPM - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Victim (Item 1) + 1 Unknown Individual VS. 2 Unknown Individuals: The mixture of DNA obtained from Item #1.3 is at least 9 x 10^11 times more likely if it originated from the victim and one unknown individual than if it originated from two unknown individuals. Suspect (Item 2) + 1 Unknown Individual vs. 2 Unknown Individuals: LR = 0. Suspect is excluded. **Database(s) Used:** FBI extended
NAXHBT - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The mixture is at least 480 trillion (10^12) times more likely if it originated from the victim and one unknown, unrelated individual than if it originated from two unknown, unrelated individuals. This analysis provides very strong support for the proposition that the victim is a contributor to the mixture. **Database(s) Used:** NIST_1036
NERWYW - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** (Victim + Unknown) vs (2 unknowns) LR = 3.5264E17 (Suspect + Unknown) vs (2 unknowns): LR = 0 **Database(s) Used:** [Location Identifying Database]
NNVP4N - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR with the victim is 1.9585E13 **Database(s) Used:** [Location Identifying Database]
NZLZFU - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 1: 3.276e+10; Item 2: 1.182e-221 **Database(s) Used:** [Location Identifying Database]
P847TY - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The Victim (item 1-1) cannot be excluded as a contributor to Mixture 1 from the cut-out on the shirt (item 3-1) from the suspect. The STR DNA results are estimated to be 68 million times more likely if they originate from the victim and one unknown person than if they originate from two unknown people unrelated to her. **Database(s) Used:** NIST Asian, NIST African American, NIST Caucasian, Srivastava et al. (2019) South Asian, [Location Identifying Database]

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
PAQQUW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The profile obtained from the suspect's shirt contained a mixture of at least two females. The victim's DNA profile can be linked to the DNA profile obtained from the shirt. The results of the comparison were assessed given the propositions that (1) The DNA originates from the victim and one unknown person; (2) The DNA originates from two unknown persons. The DNA results are in the order of 1E+10 times more probable if the first proposition (1) is true than if the alternative (2) is true. **Database(s) Used:** [Location Identifying Database]
PNAD4U - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR: Item A + 1 unkn vs 2 unkn: LRMixStudio: 2.5E+15; LabRetriever: 9.3E+15 (AA), 8.9E+12 (C), 1.4E+12 (H); DNAView: 4.0E+18; EuroFormix: 4,7E+16. **Database(s) Used:** LRMixStudio and EuroForMix: Nist combined population; LabRetriever: AA, C, H default; DNAView: c, b, h default.
QA94VE - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Proposition: 1V+U / 2U. Caucasian: 630 trillion; African American: 580 quadrillion; Hispanic: 95 trillion. **Database(s) Used:** NIST STRBASE Population Database
QP6EMQ - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Victim (item Q1-1) cannot be excluded as a contributor to Mixture 1 (see Testing Summary) from blood on the questioned stain from Suspect's shirt (item Q03-1). The STR DNA results are estimated to be 60 million times more likely if they originate from Victim and one unknown person than if they originate from two unknown people unrelated to Victim. Suspect (item Q2-1) is excluded as a contributor to Mixture 1 (see Testing Summary). **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
R8YCLX - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The STR DNA results are estimated to be 3.9 billion times more likely if they originate from the VICTIM and one unknown person than if they originate from two unknown people unrelated to the VICTIM. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
RVACVV - 5904	Two	**Method(s)**: Likelihood Ratio **Stats Analysis:** The female victim (item Q1-1) cannot be excluded as a contributor to Mixture 1 from the portion of the questioned stain (item Q03-1) from the Suspect's shirt. The STR DNA results are estimated to be 140 million times more likely if they originate from the female victim and one unknown person that if they originate from two unknown people unrelated to the victim. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
T9TEQR - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** PP21: Victim (item 1, sample 1A-1): Not excluded (LR = 100 billion). Suspect (item 2, sample Y1B-1): Excluded (LR = 0). **Database(s) Used:** [Location Identifying Database]

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TABLE 7

WebCode-Test	No. of Contributors	Item 3 Methods & Results
TBJGXB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Explanation 1: The DNA profile obtained originated from the donor of Item 1 and an unknown, unrelated individual. Explanation 2: The DNA profile obtained originated from two unknown, unrelated individuals. The DNA profile obtained is approximately 1E17 times more likely (very strong support) if it originated from the donor of Item 1 and an unknown, unrelated individual than if the DNA profile obtained originated from two unknown, unrelated individuals. **Database(s) Used:** NIST1036 (revised 2017)_Caucasian, NIST1036 (revised 2017)_African American, NIST1036 (revised 2017)_Hispanic
TXY2UB - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The item 3 contained a mixture of DNA from two persons (two females). The DNA profile of the item 3 has been compared with the profiles of the victim and the suspect. The item 3 contained DNA alleles from the victim. No DNA from the suspect was found in the item 3. The results of the copmarision were assessed given the proposition (a) that the DNA originates from the victim and unknown person that the DNA originates from two unknown persons. The DNA results are in the order of 11 500 000 000 000 000 times more probable (LR = 1,15 x 10^16) if the first proposition (a) is true than if the alternative (b) is true. Results provide extremely strong support for the proposition (a) rather then proposition (b). **Database(s) Used:** STRidER
VKR849 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Caucasian LR = 93 quintillion; African American LR = 120 sextillion; Hispanic LR = 13 quintillion. LR propositions = H1/H2 = Victim + Unknown/Unknown + Unknown **Database(s) Used:** NIST STRBASE Population Database
VLQ8CL - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** >100 bill LR VICTIM + uk vs 2uk **Database(s) Used:** National Database
VM2AYK - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Known blood from victim (Item 1): Not excluded (LR = 100 billion), Known blood from suspect (Item 2): Excluded **Database(s) Used:** [Location Identifying Database]
VMFH4E - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The mixture of DNA obtained from Item 3 is at least 5x10E13 times more likely if it originated from Victim and one unknown individual than if it originated from two unknown individuals. S1Uv2U LR = 0, Exclusion **Database(s) Used:** FBI_EXTENDED_AFAM; FBI_EXTENDED_CAUC; FBI_EXTENDED_SE_HISP; FBI_EXTENDED_SW_HISP
WJN2WU - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 5,45467E011 **Database(s) Used:** [Location Identifying Database]
WKY4HR - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR comparison to 01: 2.04184E12 - Unified LR reported **Database(s) Used:** ABI Caucasian GlobalFiler STR database

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WebCode-Test	No. of Contributors	Item 3 Methods & Results
WMBL89 - 5905	2	**Method(s)**: Likelihood Ratio, STRmix **Stats Analysis:** The female victim (Item 1) cannot be eliminated as a contributor to the DNA mixture profile developed from the stain from the suspect's shirt (Item 3). A match between the stain from the suspect's shirt and the female victim is: 40 trillion times more probable than a coincidental match to an unrelated Caucasian person, 32 quadrillion times more probable than a coincidental match to an unrelated African American person, and 6.2 trillion times more probable than a coincidental match to an unrelated Hispanic person. **Database(s) Used:** NIST STRBASE Population Database
WXUXJL - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_SE_HISP: 1.5072E13 **Database(s) Used:** FBI extended
XU9A6L - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The unrelated LR for Item 3 using the reference samples from Items 1 and 2 are 1.35x10^17 and 0 respectively. Therefore, the victim cannot be excluded as being a contributor to the mixture seen in Item 3. **Database(s) Used:** STRMix was used to deconvolute the mixture and produce a likelihood ratio.
YF73QG - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from Item 3 is consistent with a mixture from at least two (2) contributors. The mixture is approximately 5.84 x 10e17 times more likely to occur (very strong support for inclusion) if the victim and an unknown, unrelated individual are contributors, rather than if two (2) unknown, unrelated individuals are contributors. The suspect has been excluded as being a contributor to this mixture. **Database(s) Used:** [Location Identifying Database]

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Statistical Analysis for Item 4

TABLE 8

WebCode-Test	No. of Contributors	Item 4 Methods & Results
2PM2BN - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The VICTIM (item 1-1) cannot be excluded as the source of the female DNA profile (STR Profile 1) from blood on her underwear (item 4-1). The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 1 originates from the VICTIM than if it originates from an unknown person, unrelated to her. The SUSPECT (item 2-1) cannot be excluded as the source of the male DNA profile (STR Profile 2 and Y-STR Profile A) from semen on the underwear (item 4-1) from the victim. The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 2 originates from the SUSPECT than if it originates from an unknown person, unrelated to him. Note: A supplementary statistic has been calculated for the male-specific Y-STR profile that adds further weight to the association reported. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
2Z6NFH - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 330 quadrillion. H1: Item 2 (Suspect); H2: one unknown **Database(s) Used:** Caucasian
34F2TB - 5904	3	**Method(s)**: Likelihood Ratio **Stats Analysis:** In relation to 4 e: STRmix - Contributor 1, Mx - 83% = VICTIM (conditioned)/ Contributor 2, Mx - 17% = SUSPECT / Contributor 3, Mx - 0% = UNKNOWN. Most conservative LR - ~32,000,000,000,000 Hp/Hd (NDU1). The result of the statistical evaluation is the the findings are in excess of one billion (one thousand million) times more likely if the DNA has originated from the victim, suspect and one unknown individual, rather than if the DNA originated from the victim and two unknown individuals. * *It is assumed that the two individual are unrelated to each other. In relation to 4 sp: Routine single source statistical evaluation (no STRmix carried out). It has been estimated that the findings are in the order of one billion times more likely if the semen originated from the suspect, rather than if the semen originated from someone other than and unrelated to him. **Database(s) Used:** 4e - NDU1, NDU2, NDU3, NDU4, NDU6 and NDU7.
37BFNF - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Sperm fraction (SP) PP21 Item 1 - Excluded PP21 Item 2 - Not excluded (LR = 100 billion), YFP LR - Item 2 - Not excluded (LR = 13,000) Non-sperm fraction (E): PP21 Item 1 - Not excluded (LR = 100 billion); PP21 Item 2 - Not excluded (LR = 100 billion). YFP LR - Item 2 - Not excluded (LR = 13,000). **Database(s) Used:** [Location Identifying Database]. YFP - Caucasian.
38MCUK - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** SUSPECT (Q2-1) cannot be excluded as the source of STR Profile 1 (see Testing Summary) from semen on VICTIM's underwear (Q04-1). The STR DNA results are estimated to be greater than 1 trillion times more likely if they originate from SUSPECT than if they originate from an unknown person, unrelated to the SUSPECT. **Database(s) Used:** NIST Asian, NIST African American, NIST Caucasian, Srivastava et al. (2019) South Asian, [Location Identifying Database]

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
3NPYGD - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 4e: The DNA result was interpreted as a mixture of two individuals. The profile is a combination of the victim and the DNA contributor determined from the corresponding E2 fraction. 4sp: The profile is at least 13 octillion (10^27) times more likely if it originated from the suspect than if it originated from an unknown, unrelated individual. This analysis provides very strong support for the proposition that the suspect is the contributor of the profile. **Database(s) Used:** NIST_1036 population database
3UF9M6 - 5905	1(sp)/ 2(e)	**Method(s)**: RMP (sp) **Stats Analysis:** The probability of randomly selecting an unrelated individual with a DNA profile matching that developed from the sperm fraction from the underpants sample at the PowerPlex® Fusion loci is 1 in greater than 7.2 billion (which is approximately the world population) in the Caucasian, African American, and Hispanic populations. **Database(s) Used:** NIST STRBASE Population Database
3XH6EK - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** SUSPECT (item 2-1) cannot be excluded as the source of a male DNA profile (STR Profile 1; see Testing Summary) from semen on the VICTIM's underwear (item 4-1). The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 1 originates from SUSPECT than if it originates from an unknown person, unrelated to SUSPECT. Note: An additional statistic applies to Y-STR Profile A from this sample and is available upon request. Based on item type, an LR was not done with respect to the association with the VICTIM **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
3YA6CW - 5905	4e: 2; 4sp: 1	**Method(s)**: Likelihood Ratio **Stats Analysis:** VICTIM LR (epithelial fraction 2 contributors-assumed sperm fraction profile): African American: 3.9202E29; Hispanic: 3.1118E25; Caucasian: 2.3344E26. Reported as >1 billion. SUSPECT LR (sperm fraction- 1 contributor): African American: 1.2223E28; Hispanic: 1.0535E26; Caucasian: 9.0498E25. Reported as >1 billion. **Database(s) Used:** NIST 1036 database using African American, Hispanic, and Caucasian populations and 99% 1-sided lower HPD interval.
4KNADB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Only reported 4sp since 4e consists of the victim and the suspect. The profile is at least 13 octillion (10^27) times more likely if it originated from the suspect than if it originated from an unknown, unrelated individual. This analysis provides very strong support for the proposition that the suspect is the contributor of the profile. **Database(s) Used:** NIST1036
4THF7C - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** [Participant did not return statistical analysis.] **Database(s) Used:** FBI-CAUC

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
64EZR2 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Epithelial fraction (mixed DNA profile from 2 individuals) - Item 1 victim: A contributor identified within this mixed DNA profile matched Item 1 victim. The DNA evidence is greater than 100 billion times more likely if the victim is a contributor. Epithelial fraction (mixed DNA profile from 2 individuals) - Item 2 suspect: The DNA evidence is 5.4 billion times more likely if the suspect is a contributor. Sperm fraction (single source DNA profile) - Item 2 suspect: The single source DNA profile recovered from the sperm fraction of Item 4 matched Item 2 suspect. The DNA evidence is greater than 100 billion times more likely if the suspect is the donor. **Database(s) Used:** [Location Identifying Database]
6M9JZG - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 330 quadrillion. H1: Item 2 (Suspect). H2: one unknown **Database(s) Used:** Caucasian
6MQMEA - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Epithelial fraction- victim profile (Item 3) assumed contributor. LR for Suspect (Item 4) = 100 Billion. Sperm fraction- LR for victim (Item 3) = Neutral. LR for Suspect (Item 4) = 100 Billion. **Database(s) Used:** [Location Identifying Database]
6NGX63 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The clear full major DNA profile obtained from the semen fraction from item 4 was found to match that from the suspect, item 2. In order to help the court evaluate this finding I have considered two propositions: 1. That the major DNA profile came from the suspect, item 2. 2. That the DNA in the major DNA profile came from an unrelated man. A calculation made with reference to the local survey data shows that this finding is at least one billion, 1000,000,000 times more likely to arise under the first proposition. **Database(s) Used:** Local DNA database
6PXPHT - 5904	e=2, sp=1	**Method(s)**: Likelihood Ratio **Stats Analysis:** VICTIM LR in e fraction (LR calculated assuming F2 profile is a contributor): African American=4.3230E29, Hispanic=2.9269E25, Caucasian=2.3123E26 - reported as >1 billion. ------ SUSPECT LR in sp fraction: African American=1.0792E28, Hispanic=1.0343E26, Caucasian=9.0280E25 - reported as >1 billion. **Database(s) Used:** NIST 1036 database using African American, Hispanic, and Caucasian populations and 99% 1-sided lower HPD interval.
6V2RPE - 5904	3	**Method(s)**: Likelihood Ratio **Stats Analysis:** Sperm fraction PP21:The DNA evidence is 100 billion times more likely if the suspect is a contributor. The complainant is excluded. YFP: The DNA evidence is 12,600 times more likely if the suspect is the source. Epithelial fraction PP21:I have assumed the complainant is a contributor. The DNA evidence is 100 billion times more likely if the suspect is a contributor. YFP: The DNA evidence is 12,600 times more likely if the suspect is the source. **Database(s) Used:** [Location Identifying Database]

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
7669R6 - 5904	2 in Epithelial 1 in Sperm	**Method(s)**: Likelihood Ratio **Stats Analysis:** The suspect (Item 2) matches the profile found in the sperm fraction from item 4. We evaluated this result by computing a Likelihood Ratio between the following propositions: Proposition 1- the DNA in the sperm fraction is from the suspect. Proposition 2- the DNA in the sperm fraction is from an unknown unrelated individual. The LR computed by EuroForMix for these two propositions is 1.19*10^25. The LR expresses by how much it is more likely to observe the profile in the sperm fraction from item 4 if proposition 1 is true versus if proposition 2 is true. In other words, how much support there is for proposition 1 over proposition 2. **Database(s) Used:** [Location Identifying Database]
8KWN9A - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Hp=Item1+NN/Hd=2 x NN LR= 1,1 x 10^27. Hp=Item2+NN/Hd=2 x NN LR= 6,2 x 10^26. **Database(s) Used:** [Participant did not return database used.]
97RNXH - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from the victim's underwear (23-5904 Item 4) is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 3.31 x 10^28 times more likely to occur (very strong support for inclusion) if the female victim and the male suspect are contributors, rather than if the female victim and one (1) unknown, unrelated individual are contributors. **Database(s) Used:** African American 2015 Expanded FBI STR Loci Allele Frequencies T.R. Moretti, et al, Forensic Sci. Int. Genet. 25 (2016) 175-181.
984GV7 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 04e not calculated. Item 04sp Prosecution hypothesis >100 billion. **Database(s) Used:** Local population databases.
9FDPER - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 330 quadrillion. H1: Item 2 (Suspect); H2: one unknown **Database(s) Used:** Caucasian
9ME3CA - 5904	2	**Method(s)**: Likelihood Ratio, RMP for single source profile **Stats Analysis:** The DNA profile obtained from the sperm fraction of item No. 4 matches with the DNA profile of Male Suspect (item No. 2). RMP = 5.278E-19 which corresponds to 1 in 1.89E+18. The DNA profile obtained from the epithelial fraction of item No. 4 is a mixture of at least two individuals. The following sets of hypotheses were evaluated: (A) Hp: Item No. 1 + 1 Unknown, Hd: 2 Unknown, LR (MLE) = 9.73E+16, (B), Hp: Item No. 2 + 1 Unknown, Hd: 2 Unknown, LR (MLE) = 5.17E+14, (C) Hp: Item No. 1 + Item No. 2, Hd: Item No. 1 + 1 Unknown, LR (MLE) = 5.17E+14 **Database(s) Used:** NIST Caucasian Database (2017) with theta co-ancestry coefficient 0.03
9UUNG8 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_CAUC: 3.2319 X 10^25 **Database(s) Used:** FBI extended

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
A62BEE - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** In the mixture Item 4, the presence of not more than 4 alleles allows the assumption of 2 contributors. Specifically 1 male and 1 female contributors. The Victim Item 1 and the Suspect Item 2 can be considered as possible contributors to the mixture. Since Item 4 is a stain from the victim's underwear, the better hypotheses that explain the mixture is the following: Hp: Item 4 originates from the Victim Item 1 + Suspect Item 2, Hd: Item 4 originates from Victim Item 1+ 1 Unknown. The value of LR is 1,7533E20. **Database(s) Used:** [Location Identifying Database]
AWC7HB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from the underwear (23-5904 Item 4) taken from the victim is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 3.55 x 10E28 times more likely to occur (very strong support for inclusion) if the victim and the suspect are contributors, rather than if the victim and an unknown, unrelated individual are contributors. **Database(s) Used:** The African American 2015 Expanded FBI STR Loci Allele Frequencies T. R. Moretti, L. I. Morenoa , J. B. Smericka , M. L. Pignonea , R. Hizona , J.S. Buckletonb , J.-A Bright, A. J. Onoratoa, Population data on the expanded CODIS core STR loci for eleven populations of significance for forensic DNA analyses in the United States, Forensic Sci. Int. Genet. 25 (2016) 175– 181
B6LDTP - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The Suspect (item Q2-1) cannot be excluded as the source of a male DNA profile, STR Profile 1, and male-specific Y-STR Profile A from the semen from the human blood/ semen stain (item Q04-1) from the victim's underwear. The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 1 originates from the SUSPECT than if it originates from an unknown person, unrelated to them. The Y-STR DNA results are estimated to be a further 2000 times more likely if they originate from the SUSPECT than if they originate from an unknown male, unrelated to them. **Database(s) Used:** Autosomal STR stats = i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]. Y STATS = http://yhrd.org U.S. National Database (with Subpopulations)
BAG638 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 330 quadrillion. H1: Item 2 (Suspect). H2: one unknown **Database(s) Used:** Caucasian
DP7WYT - 5905	2	**Method(s)**: RMP **Stats Analysis:** Greater than 7.2 billion for all three population groups (Caucasian, African American, Hispanic) for single source sp fraction **Database(s) Used:** NIST STRBASE

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TABLE 8

WebCode-Test	No. of Contributors	Item 4 Methods & Results
DW9WHV - 5904	SP: 1 E: 2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Semen Fraction: LR = 1.6709E24 times more likely that male suspect (item 2) is the source of the DNA profile obtained than if the profile originated from an unknown individual unrelated to male suspect (item 2). Epithelial Fraction: LR = 9.2358E20 times more likely that female victim (item 1) and male suspect (item 2) are the two contributors to the mixed DNA profile obtained than if the profile originated from female victim (item 1) and an unknown individual unrelated to male suspect (item 2). **Database(s) Used:** [Participant did not return database used.]
EFDYPY - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 4e: The profile is a combination of the victim and the DNA contributor determined from the corresponding sp fraction. 4sp: The profile is at least 12 octillion (10^27) times more likely if it originated from the suspect than if it originated from an unknown, unrelated individual. **Database(s) Used:** NIST1036
EXU6WN - 5905	1	**Method(s)**: RMP, YHRD **Stats Analysis:** Autosomal - 1 in greater than 7.2 billion (which is approximately the world population) in the Caucasian, African American, and Hispanic populations; YSTRs - 1 in 2300 (African American), 1 in 2800 (Caucasian), 1 in 2000 (Hispanic) **Database(s) Used:** NIST STRBASE Population Database (autosomal), YHRD (YSTRs)
F3GTW8 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from questioned stain (Item 4) from victim's underwear is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 3.5447E28 times more likely to occur (very strong support for inclusion) if the complainant (Item 1) and the suspect (Item 2) are contributors, rather than if the complainant (Item 1) and one (1) unknown, unrelated individual are contributors. **Database(s) Used:** [Participant did not return database used.]
FBB2HX - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR calculated for the victim is 3,910,000,000,000,000,000,000,000. LR calculated for the suspect is 20,900,000,000,000,000,000,000,000,000. **Database(s) Used:** [Location Identifying Database]
FYLKQW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA profile of the stain found from victim's underwear (Item 4) has been compared with the profile of the victim (Item 1) and the suspect (Item2). The results of the comparison were assessed given the propositions that (a) The DNA originates from the victim and the suspect; (b) The DNA originates from the victim and one unknown person. The DNA results are in the order of 1E+20 times more probable if the first proposition (a) is true than if the alternative (b) is true. **Database(s) Used:** [Location Identifying Database]

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
GHT9V2 - 5904	e fraction- 2. sp fraction- 1	**Method(s)**: Likelihood Ratio **Stats Analysis:** STR amplification- e fraction, Item 2 LR is 100 billion. Item 1 assumed contributor. sp fraction- Item 2 LR is 100 billion. YSTR amplification- sp fraction, Item 2 LR is 13000. **Database(s) Used:** STR results- [Location Identifying Database]. YSTR results- Caucasian database
HGV4VY - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_CAUC: 2.6594E25 **Database(s) Used:** FBI extended
HQ4N32 - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** PP21: The suspect is not excluded as the source or a contributor to both the sperm and non-sperm fractions. The DNA evidence is 100 billion times more likely if the suspect is the source of the sperm fraction (or contributor to the non-sperm fraction) of the DNA rather than some other person in the [Country] Caucasian population. The victim is not excluded as a contributor to the non-sperm fraction. The DNA evidence is 100 billion times more likely if the victim is a contributor rather than if she is not a contributor. Yfiler Plus: The suspect is not excluded as the source of the DNA. The Yfiler Plus DNA evidence is 13,000 times more likely if the suspect is the source rather than some other person in the Caucasian population. Not observed in 58,031 males. **Database(s) Used:** [Location Identifying Database]
JQHD28 - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 3. The SUSPECT (item 2-1) cannot be excluded as the source of STR Profile 1 (see Testing Summary) from the semen (item 4-1) from the VICTIM's underwear. The STR DNA results are estimated to be greater than one trillion times more likely if they originate from the SUSPECT than if they originate from an unknown person unrelated to SUSPECT. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
JRRPBW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_CAUC: 3.1656E25 **Database(s) Used:** FBI Extended
KL2R8R - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** E - Victim: Not excluded (LR = 100 Billion). E - Suspect: Not excluded (LR = 100 Billion). Sp - Victim: Excluded. Sp - Suspect: Not excluded (LR = 100 Billion). **Database(s) Used:** [Location Identifying Database]
LAL4PD - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR = 330 quadrillion. H1: Item 2 (Suspect); H2: one unknown **Database(s) Used:** Caucasian
LK4N8P - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** [Participant did not return statistical analysis.] **Database(s) Used:** [Participant did not return database used.]

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
M3EEQZ - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Proposition: Suspect+ One (1) unknown, unrelated individual vs Two (2) unknown, unrelated individuals. LR= 1.69E28. Proposition: Victim + One (1) unknown, unrelated individual vs Two (2) unknown, unrelated individuals. LR= 2.53E28 **Database(s) Used:** FBI African American Expanded 2015 STR Allele Frequency Database.
M3K38Y - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** e - Victim - LR: 100 billion. Suspect - LR: 100 billion. sp - Victim - LR: Supports Hd. Suspect - LR: 100 billion **Database(s) Used:** [Location Identifying Database]
MGJ7CP - 5904	2 (EFRAC); 1 (SFRAC)	**Method(s)**: Likelihood Ratio **Stats Analysis:** Item 4 - SFRAC - Single source DNA profile; comparison of Suspect = greater than 100 billion favouring contribution. Item 4 - EFRAC - 2 contributor mixture; conditioned on Victim = Suspect greater than 100 billion favouring contribution **Database(s) Used:** [Location Identifying Database]
MTFYZF - 5905	2	**Method(s)**: RMP **Stats Analysis:** Caucasian: greater than 7.2 billion; African American: greater than 7.2 billion; Hispanic: greater than 7.2 billion. **Database(s) Used:** NIST STRBASE Population Database
MX7EPM - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** 4e, conditioned on victim: Assuming the victim is a contributor to this mixture, a partial male DNA profile was obtained from the 17% contributor and matches the DNA profile of the suspect at 8 of 21 loci. The The mixture of DNA obtained from Item #1.4F1 is at least 2 x 10^14 times more likely if it originated from the victim and the suspect than if it originated from the victim and one unknown individual. 4sp, single source male: The male DNA profile obtained from Item #1.4F2 matches the DNA profile of the suspect and is at least at least 4 x 10^14 times more likely if it originated from the suspect than if it originated from one unknown individual. **Database(s) Used:** FBI extended
NAXHBT - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Non-sperm fraction: The DNA result was interpreted as a mixture of two individuals. The profile is a combination of the victim and the male DNA contributor determined from the corresponding E2 fraction. Sperm fraction: The profile is at least 13 octillion (10^27) times more likely if it originated from the suspect than if it originated from an unknown, unrelated individual. This analysis provides very strong support for the proposition that the suspect is the contributor of the profile. **Database(s) Used:** NIST_1036
NERWYW - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** (Victim + Suspect) vs (Victim + Unknown): LR = 3.6728E28 **Database(s) Used:** [Location Identifying Database]

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WebCode-Test	No. of Contributors	Item 4 Methods & Results
NNVP4N - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR with the suspect is 7.6725E13 **Database(s) Used:** [Location Identifying Database]
NZLZFU - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Sp: Item 2: 5.651e+19; Ep: Item 1: major 1.670e+18; Item 2: minor 3.917e+19 **Database(s) Used:** [Location Identifying Database]
P847TY - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The Suspect (item 2-1) cannot be excluded as the source of a male DNA profile (Mixture 2) and the Y-STR DNA Profile A from semen (item 4-1) on the underwear from the victim. The STR DNA results are estimated to be greater than one trillion times more likely if Mixture 2 originates from SUSPECT than if it originates from an unknown person, unrelated to them. The Y-STR DNA results are estimated to be a further 2000 times more likely if they originate from the Suspect than if they originate from an unknown male, unrelated to him. **Database(s) Used:** Autosomal: NIST Asian, NIST African American, NIST Caucasian, Srivastava et al. (2019) South Asian, [Location Identifying Database]. Y-STR: 2014 SWGDAM-compliant PowerPlex Y23 database on YHRD
PAQQUW - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA profile is obtained from a sample taken from the victim's underwear. The victim's and suspect's DNA profile can be linked to the DNA profile obtained from the victim's underwear. The results of the comparison were assessed given the propositions that (1) The DNA originates from the victim and the suspect; (2) The DNA originates from the victim and one unknown person. The DNA results are in the order of 1E+22 times more probable if the first proposition (1) is true than if the alternative (2) is true. **Database(s) Used:** [Location Identifying Database]
PNAD4U - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** LR Item 4 epitelial: Item A vs 1 unkn: LRMixStudio: 3.8E+29; LabRetriever: 2.6E+29 (AA), 1.1E+26 (C), 1.9E+25 (H); DNAView: 3.0E+27; EuroFormix: 1.0E+29. LR Item 4 spermatic: Item B vs + 1 unkn: LRMixStudio: 6.6E+27; LabRetriever: 7.7E+26 (AA), 6.7E+24 (C), 1.1E+25 (H); DNAView: 7.0E+29; EuroFormix: 2.7E+29. **Database(s) Used:** LRMixStudio and EuroForMix: Nist combined population; LabRetriever: AA, C, H default; DNAView: c, b, h default.
QA94VE - 5905	2	**Method(s)**: RMP **Stats Analysis:** 4-SP: 1 in greater than 7.2 billion in the Caucasian, African American, and Hispanic populations **Database(s) Used:** NIST STRBASE Population Database

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TABLE 8

WebCode-Test	No. of Contributors	Item 4 Methods & Results
QP6EMQ - 5905	1 (s fraction), 2 (e fraction)	**Method(s)**: Likelihood Ratio **Stats Analysis:** Suspect (item Q2-1) cannot be excluded as the source of a male DNA profile (STR Profile 1 & Y-STR Profile A; see Testing Summary) from semen on the questioned stain from Victim's underwear (item Q04-1). The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 1 originates from Suspect than if it originates from an unknown person, unrelated to them. Note: A supplementary statistic has been calculated for the male-specific Y-STR profile that adds further weight to the association reported. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
R8YCLX - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The STR DNA results (Profile 2) are estimated to be greater than one trillion times more likely if they originate from the SUSPECT than if they originate from an unknown individual unrelated to the SUSPECT. The STR DNA results (Profile 1) are estimated to be greater than one trillion times more likely if they originate from the VICTIM than if they originate from an unknown individual unrelated to the VICTIM. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]
RVACVV - 5904	Two	**Method(s)**: Likelihood Ratio **Stats Analysis:** The female victim (item Q1-1) cannot be excluded as a contributor to Mixture 2 from the portion of the questioned stain (item Q04-1) from the Victim's underwear. The STR DNA results are estimated to be greater than one trillion times more likely if they originate from the female victim and one unknown person that if they originate from two unknown people unrelated to the victim. The male suspect (item Q2-1) cannot be excluded as the source of the male DNA profile, STR Profile 1 and Y-STR Profile A from the portion of the questioned stain (item Q04-1) from the Victim's underwear. The STR DNA results are estimated to be greater than one trillion times more likely if STR Profile 1 originates from the male suspect than if it originates from an unknown person, unrelated to them. The Y-STR DNA results are estimated to be a further 2000 times more likely if they originate from the male suspect than if they originate from an unknown male, unrelated to them. **Database(s) Used:** i. NIST Asian, ii. NIST African American, iii. NIST Caucasian, iv. Srivastava et al. (2019) South Asian, v. [Location Identifying Database]. Y-STR analysis based on https://yhrd.org/search
T9TEQR - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** PP21: SPERM FRACTION: Victim (item 1, sample 1A-1): Excluded (LR = 0) Suspect (item 2, sample Y1B-1): Not excluded (LR = 100 billion). NON-SPERM FRACTION: Victim: Not excluded - Maj. Comp. (LR = 100 billion) Suspect: Not excluded - Min. Comp. (LR = 100 billion). YFP: SPERM FRACTION: Suspect: Not excluded (LR = 13,000, Profile not observed in 58,031 males). **Database(s) Used:** [Location Identifying Database]

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TABLE 8

WebCode-Test	No. of Contributors	Item 4 Methods & Results
TBJGXB - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Fraction 1 of differential: Explanation 1: The DNA profile obtained originated from the donor of Item 1 and the donor of Item 2. Explanation 2: The DNA profile obtained originated from the donor of Item 1 and an unknown, unrelated individual. The DNA profile obtained is approximately 1E28 times more likely (very strong support) if it originated from the donor of Item 1 and the donor of Item 2 than if the DNA profile obtained originated from the donor of Item 1 and an unknown, unrelated individual. Fraction 2 of differential: Explanation 1: The DNA profile obtained originated from the donor of Item 2. Explanation 2: The DNA profile obtained originated from an unknown, unrelated individual. The DNA profile obtained is approximately 1E28 times more likely (very strong support) if it originated from the donor of Item 2 than if the DNA profile obtained originated from an unknown, unrelated individual. **Database(s) Used:** NIST1036 (revised 2017)_Caucasian, NIST1036 (revised 2017)_African American, NIST1036 (revised 2017)_Hispanic
TXY2UB - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The item 4 contained a mixture of DNA from two persons (one female, one male). The DNA profile of the item 4 has been compared with the profiles of the victim and the suspect. The item 4 contained DNA alleles originating from the victim and the suspect. The results of the copmarision were assessed given the proposition (a) that the DNA originates from the victim and the suspect that the DNA originates from the victim and unknown person. The DNA results are in the order of 1 360 000 000 000 000 000 000 000 times more probable (LR 1,36 x 10^21) if the first proposition (a) is true than if the alternative (b) is true. Results provide extremely strong support for the proposition (a) rather then proposition (b). **Database(s) Used:** STRidER
VKR849 - 5905	2	**Method(s)**: RMP **Stats Analysis:** Sperm fraction: Caucasian RMP = 1 in greater than 7.2 billion; African American RMP = 1 in greater than 7.2 billion; Hispanic RMP = 1 in greater than 7.2 billion. **Database(s) Used:** NIST STRBASE Population Database
VLQ8CL - 5904	sp:1, ep:2	**Method(s)**: Likelihood Ratio **Stats Analysis:** SF (sp): >100 bill LR SUSPECT v uk. NSF (ep): >100 bill LR VICTIM + uk vs 2uk, >100 bill LR SUSPECT + uk vs 2uk, >100 bill LR VICTIM + SUSPECT vs 2uk **Database(s) Used:** National Database
VM2AYK - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** e: 2x contributors: Known blood from victim (Item 1): Assumed contributor. Known blood from suspect (Item 2): Not excluded (LR = 100 billion). Sp: 1x contributor. Known blood from victim (Item 1): Excluded. Known blood from suspect (Item 2): Not excluded (LR = 100 billion) **Database(s) Used:** [Location Identifying Database]

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TABLE 8

WebCode-Test	No. of Contributors	Item 4 Methods & Results
VMFH4E - 5905	4e-2,4sp-1	**Method(s)**: Likelihood Ratio **Stats Analysis:** 4sp - The male DNA profile obtained from Item 4F2 matches the DNA profile of Suspect and is at least 4x10E14 times more likely if it originated from Suspect than if it originated from an unknown individual. 4e - The mixture of DNA obtained from Item 4F1 is at least 1x10E14 times more likely if it originated from Victim and Suspect than if it originated from Victim and one unknown individual. **Database(s) Used:** FBI_EXTENDED_AFAM; FBI_EXTENDED_CAUC; FBI_EXTENDED_SE_HISP; FBI_EXTENDED_SW_HISP
WJN2WU - 5904	2	**Method(s)**: RMP **Stats Analysis:** smaller than 1 in 1 billion **Database(s) Used:** [Location Identifying Database]
WKY4HR - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** Epithelial Fraction: LR comparison to 01: 6.55362E14 - Unified LR reported. LR comparison to 02: 6.14147E14 - Unified LR reported. **Database(s) Used:** ABI Caucasian GlobalFiler STR database
WMBL89 - 5905	2 (e) / 1 (sp)	**Method(s)**: none (e) / RMP (sp) **Stats Analysis:** The male suspect (Item 2) cannot be eliminated as a contributor of the DNA profile developed from the sperm fraction of the stain from the victim's underwear (Item 4). The probability of randomly selecting an unrelated individual with a DNA profile matching that developed from the sperm fraction of the stain from the victim's underwear at the PowerPlex® Fusion loci is 1 in greater than 7.2 billion (which is approximately the world population) in the Caucasian, African American, and Hispanic populations. **Database(s) Used:** NIST STRBASE Population Database
WXUXJL - 5904	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** FBI_EXTENDED_CAUC: 3.3369E25 **Database(s) Used:** FBI extended
XU9A6L - 5905	2	**Method(s)**: Likelihood Ratio, YHRD **Stats Analysis:** The unrelated LR for Item 4 using the reference samples from Items 1 and 2 are 2.22x10^27 and 9.12X10^26 respectively. Therefore, the victim and the accused cannot be excluded as being contributors to the mixture seen in Item 4. **Database(s) Used:** STRMix was used to deconvolute the mixture and produce a likelihood ratio for both the victim and accused. The YHRD database was used to determine the statistics of the Y-STR profile seen in Item 2 and 4 and the profile was observed 0 times in 289,405 haplotypes.
YF73QG - 5905	2	**Method(s)**: Likelihood Ratio **Stats Analysis:** The DNA result obtained from Item 4 is consistent with a mixture from at least two (2) contributors, including at least one (1) male. The mixture is approximately 3.63 x 10e28 times more likely to occur (very strong support for inclusion) if the victim and the suspect are contributors, rather than if the victim and one (1) unknown, unrelated individual are contributors. **Database(s) Used:** [Location Identifying Database]

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Additional Comments

TABLE 9

WebCode-Test	Additional Comments
38MCUK - 5904	VICTIM can account for one of the contributors of DNA detected on her own underwear and, as such, no LR was calculated to address that association.
3UF9M6 - 5905	D12S391 is not included in the statistical calculations, per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion", per Department policy. No statistics were calculated for the non-sperm fraction of Item 4, per Department policy since Item 1 was used as an assumed known contributor.
64EZR2 - 5905	NR = not reportable
6MQMEA - 5905	The results obtained and presented in this report were generated following lab procedures, however of the results presented here I am not authorised to report the following in casework: semen testing and reporting, saliva testing and reporting.
6NGX63 - 5904	No statistical evaluation has been carried out on the epithelial fraction results from item 4.
6V2RPE - 5904	The results obtained and presented in this report were generated following laboratory procedures, however of the results presented here I am not authorised to report the following in casework: Saliva
984GV7 - 5904	Part IV: Submitted DNA Concentration (ng/uL) amounts is the total DNA Concentration for the Item. i.e. Item 3 total DNA Concentration (ng/uL) is 1.046. Not contributor A is 1.046 ng/uL and contributor B is 1.046 ng/uL.
9ME3CA - 5904	DNA Mixture Concentration and Proportions DNA mixture proportions are reported as computed by probabilistic genotyping software. DNA concentrations (ng/uL) for each contributor is reported as concentration of item obtained by real time PCR analysis multiplied by mixture proportion of that contributor, divided by 100.
9UUNG8 - 5904	Reported/listed alleles for evidence samples include stutter peaks. Our laboratory does not report DNA concentration or proportion.
B6LDTP - 5904	4-1e can be fully accounted for by the donors of 4-1s and Q1-1 - not fully interpreted 4-1e - 10 @ CSF1P0 not called - 8 % = below lab stutter threshold
DP7WYT - 5905	D12S391 is not included in the statistical calculations, per Department policy RMPs are truncated to and reported as "greater than 7.2 billion", per Department policy. No statistics were calculated for the e fraction for Item 4, per Department policy
DW9WHV - 5904	Stutter peaks was removed for all epg entries.
EXU6WN - 5905	D12S391 is not included in the statistical analysis per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion" per Department policy. No statistics were calculated on the Item 4 non-sperm fraction per Department policy.
FYLKQW - 5904	DNA statistical analysis were performed with 16 locuses present in STR amplification kit NGM Detect, because this is our standard laboratory policy.
GHT9V2 - 5904	DNA mixture concentration- Item 3- contributor B is 0.9 ng/ul, with a DNA mixture proportion of 44%. Item 3- contributor C is 0.02 ng/ul, with a DNA mixture proportion of 1%. Item 4 e fraction- contributor B is 0.19 ng/ul with DNA mixture proportion of 11%. Item 3- The indication of the third contributor is limited to one allele. A 17 allele at FGA. Although this DNA type could have originated from a third contributor, it could alternatively be explained as an artefact, such as drop-in.
HGV4VY - 5904	Reported/listed alleles for evidence samples include stutter peaks. Our laboratory does not report DNA concentration or proportions.
HQ4N32 - 5904	Our reports contain details in relation to the propositions for the interpretation and an explanation of what the DNA profiling systems used are.

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TABLE 9

WebCode-Test	Additional Comments
JRRPBW - 5904	Reported/listed alleles for evidence samples include stutter peaks. Our laboratory does not report DNA concentration or proportion.
KL2R8R - 5905	Serology component is being reported seperately.
MTFYZF - 5905	D12S391 is not included in the statistical calculations, per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion", per Department policy. Item 1 was used as an assumed known contributor for statistical analysis on Item 4
MX7EPM - 5905	For Item #4e @CSF1P0, 12 allele is observed on the electropherogram; however, it is not included in the interpreted profile generated from STRmix.
NNVP4N - 5904	Item 3 : VICTIM and UNKNOWN FEMALE
P847TY - 5905	4-1e was not interpreted using STRmix. It was interpreted as a mixture of the victim (item 1) and the donor of Mixture 2 (4-1s).
PAQQUW - 5904	Likelihood Ratio is given by loci of NGM Detect
QA94VE - 5905	D12S391 is not included in statistical calculations, per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion," per Department policy. No statistics calculated for Item 4 non-sperm fraction per Department policy
TBJGXB - 5904	This proficiency is for evaluation purposes only. DNA concentration for contributor positions is not reported. Reported 99% 1-sided Lower HPD for statistical analysis. Reported lowest HPD of the three databases used. Reported verbal scale endorsed by the Scientific Working Group on DNA Analysis Methods. Y-screen Item 4 for evaluation purposes only. The Y-screen results had same number of contributors and alleles as fraction 1 of the differential. Only reported differential results for Item 4. NID= No interpretable data
TXY2UB - 5905	Item 3 - DNA mixture of two persons (two females), total DNA concentration measured in the sample = 7,65 ng/uL, male DNA concentration 0,00 ng/uL. Item 4e - DNA mixture of two persons (female and male), total DNA concentration measured in the sample = 4,03 ng/uL, male DNA concentration = 2,17 ng/uL. Item 4sp - male DNA, total DNA concentration measured in the sample = 7,16 ng/uL, male DNA concentration = 7,90 ng/uL. Item 4e and 4sp - Y-STR DNA profile was not found in YHRD database.
VKR849 - 5905	D12S391 is not included in the statistical calculations, per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion" per Department policy.
VM2AYK - 5905	The results obtained and presented in this report were generated following lab procedures, however of the results presented here I am not authorised to report the following in casework: seminal testing (AP, P30 and H&E) and RSID Saliva.
WMBL89 - 5905	D12S391 is not included in the statistical calculations, per Department policy. RMPs are truncated to and reported as "greater than 7.2 billion", per Department policy. No statistics were calculated for Item 3e, per Department policy.
WXUXJL - 5904	Reported/listed alleles for evidence samples include stutter peaks. Our laboratory does not report DNA concentration or proportion.
XU9A6L - 5905	For the mixture seen in Item 3 it is possible that there was another female's profile (victim/assailant) present.

-End of Report-
(Appendix may follow)

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Collaborative Testing Services ~ Forensic Testing Program

Test No. 23-5904: Probabilistic Genotyping

DATA MUST BE SUBMITTED BY **Oct. 16, 2023, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: Q87YKE

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

Scenario:
Police are investigating a homicide case involving a female victim and male suspect. The victim was found unresponsive in her bed with severe wounds on her face. The victim found was wearing a shirt and pair of underwear. Her shirt was pushed above her breasts and underwear was positioned below her knees. Investigators believe the victim was sexually assaulted and have identified the victim's boyfriend as the only suspect. The suspect has been apprehended by police. Police are submitting to your laboratory a stain from the shirt the suspect was wearing at the time of arrest (Item 3) and a stain from the victim's underwear (Item 4). Also collected were known standards from the female victim (Item 1) and male suspect (Item 2).

Items Submitted (Sample Pack G4 - Cloth Swatches):
Item 1: Known blood from the female victim
Item 2: Known blood from the male suspect
Item 3: Questioned stain from suspect's shirt (yellow)
Item 4: Questioned stain from victim's underwear (blue)

Part I: SCREENING TESTS

Note: Laboratories submitting their results for ASCLD/LAB or NATA accreditation MUST identify any screening tests performed and report the test results.

Indicate the results of any screening tests performed on the questioned stains (Items 3 & 4).

Please use the abbreviations listed in this response key to fill in the Screening Test tables on this tab. This is not an all inclusive list of tests, and should not be used to determine what tests should be performed.

TESTS NOT ON THIS LIST MAY BE USED FOR SCREENING.

Test	Abbreviation	Test	Abbreviation
Acid Phosphatase	AP	Alternate Light Source	ALS
Kastle Meyer	KM	Leucomalachite Green	LMG
Microscopic	Micro	Ortho-tolidine	O-tol
Phenolphthalein-Tetramethyl benzidine	PTMB	Prostate Specific Antigen	PSA
Rapid Stain Identification	RSID	Tetramethyl benzidine	TMB

Example:	Positive	Negative	Inconclusive	Not Tested	Test(s) Performed
Blood	◉	○	○	○	KM, O-tol, PTMB
Semen	○	◉	○	○	PSA
Saliva	○	○	○	◉	
Human Origin	○	○	○	◉	
Y-Screening (male DNA)	○	○	○	◉	
Other Specified Body Fluid	○	○	○	○	

Please indicate the Test(s) Performed on the corresponding line for each type of screening.

Screening data not reported. ☐

Item 3:

	Positive	Negative	Inconclusive	Not Tested	Test(s) Performed
Blood	○	○	○	○	
Semen	○	○	○	○	
Saliva	○	○	○	○	
Human Origin	○	○	○	○	
Y-Screening (male DNA)	○	○	○	○	
Other:	○	○	○	○	

Item 4:

	Positive	Negative	Inconclusive	Not Tested	Test(s) Performed
Blood	○	○	○	○	
Semen	○	○	○	○	
Saliva	○	○	○	○	
Human Origin	○	○	○	○	
Y-Screening (male DNA)	○	○	○	○	
Other:	○	○	○	○	

Part II: DNA INTERPRETATION

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

	Victim (Item 1)			Suspect (Item 2)	
	Item 3	Item 4		Item 3	Item 4
Yes	○	○	Yes	○	○
No	○	○	No	○	○
Inconclusive	○	○	Inconclusive	○	○
No Interpretation	○	○	No Interpretation	○	○

Part III: DNA Results for Known Item 1

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. X,X or X) and null responses.
- If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].

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:

☐ STRmix ☐ TrueAllele Other

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 III (continued): DNA Results for Known Item 2

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. X,X or X) and null responses.
- If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].

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:

☐ STRmix ☐ TrueAllele Other

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

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
2						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
2						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
2						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
2						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
2						

YSTR 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. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

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

ITEM	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
2									
ITEM	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
2									
ITEM	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
2									

Part III (continued): DNA Results for Questioned Item 3

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. X,X or X) and null responses.
- If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].

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:

☐ STRmix ☐ TrueAllele Other

Did you perform a differential extraction of Item 3? YES ○ NO ○

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

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
3						
3 e						
3 sp						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
3						
3 e						
3 sp						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
3						
3 e						
3 sp						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
3						
3 e						
3 sp						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
3						
3 e						
3 sp						

YSTR 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. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

Did you perform a differential extraction of Item 3? YES ○ NO ○

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

ITEM	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
3									
3 e									
3 sp									
ITEM	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
3									
3 e									
3 sp									
ITEM	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
3									
3 e									
3 sp									

Part III (continued): DNA Results for Questioned Item 4

- Report alleles in numerical order, separated by a comma.
- Follow your laboratory procedures for reporting homozygotes (i.e. X,X or X) and null responses.
- If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].

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:

☐ STRmix ☐ TrueAllele Other

Did you perform a differential extraction of Item 4? YES ○ NO ○

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

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
4						
4 e						
4 sp						
ITEM	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
4						
4 e						
4 sp						
ITEM	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
4						
4 e						
4 sp						
ITEM	FGA	Penta D	Penta E	SE33	TH01	TPOX
4						
4 e						
4 sp						
ITEM	vWA	DYS391	DYS570	DYS576	Y Indel	
4						
4 e						
4 sp						

YSTR 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. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

Did you perform a differential extraction of Item 4? YES ○ NO ○

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

ITEM	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
4									
4 e									
4 sp									
ITEM	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
4									
4 e									
4 sp									
ITEM	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
4									
4 e									
4 sp									

Part III (continued): DNA Analysis - Additional DNA

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

Did you perform a differential extraction of Item 3? Yes ○ No ○

Did you perform a differential extraction of Item 4? Yes ○ No ○

Locus	Item 1	Item 2	Item 3	Item 3e	Item 3sp	Item 4	Item 4e	Item 4sp

Part IV: DNA Mixture Concentration and Proportions

Using the dropdown menu, identify the contributors using letters (starting with "A", then "B", etc.). Report the contributor determined to have the highest concentration of DNA first, and report any remaining contributors in descending order. Enter "DNA Concentration" in ng/uL and "DNA Proportion" in percentage.

Did you perform a differential extraction of Item 3? Yes ○ No ○

Did you perform a differential extraction of Item 4? Yes ○ No ○

Concentration and proportion data not reported. ☐

Item 3:

Contributor	DNA Concentration (ng/uL)	DNA Proportion (%)

Item 4:

Contributor	DNA Concentration (ng/uL)	DNA Proportion (%)

Part V: DNA Statistical Analysis

Item 3:

1) Record the estimated number of contributors found in Item 3:

2) **Statistical Analysis of Item 3 DNA Typing Results:**
Select the statistical method(s) used by marking the associated box and report these results in the space below:

☐ Likelihood Ratio (LR)

Other

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.*

3) Please list any databases used in the statistical analysis of Item 3 below.

Item 4:

1) Record the estimated number of contributors found in Item 4:

2) **Statistical Analysis of Item 4 DNA Typing Results:**
Select the statistical method(s) used by marking the associated box and report these results in the space below:

☐ Likelihood Ratio (LR)

Other

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.*

3) Please list any databases used in the statistical analysis of Item 4 below.

Part VI: ADDITIONAL COMMENTS

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

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

Participant Code: U1234A
WebCode: Q87YKE

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)