



Probabilistic Genotyping Test No. 24-5904/5

Summary Report

Each participant received a sample set consisting of two known bloodstains and two questioned stains which they were asked to analyze using their existing protocols. Data were returned from 53 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 asked 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. Substrates consisting of fabric were spotted with 50 uL of sample and FTA Micro Cards were spotted with 75 uL 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, two parts blood from the Item 2 male donor, and one part blood from another male donor whose known standard was not provided. Item 4 was created by combining one part blood from the Item 1 female donor, two parts blood from the Item 2 male donor, and one part semen from another male donor, different than the donor used in Item 3, whose known standard was not provided. 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 06, 2024.

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: Predistribution results were consistent with each other and the manufacturer's preparation information. Consistent allelic results were reported for all STR and YSTR loci.

Key to Test Substrates

5904 - Cloth Swatches

5905 - FTA™ Micro Cards

Manufacturer's Information, continued

Amelogenin and STR Results						
<i>Results compiled from predistribution laboratories and a consensus of at least 10 participants.</i>						
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	16,16.3	17,24	11,15	16,18	12,12	15,19
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	X,X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16	NM	NM	NM	NM	
2	16.3,18.3	16,25	10,11	15,16	9,12	12,18
	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24	12,12	7,12	17,31.2	6,6	8,8
	16,18	11	*	*	2	
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	*	*	2	
4-Blood	16,16.3,18.3	16,17,24,25	10,11,15	15,16,18	9,12	12,15,18,19
	8,9,10,11	11,13,14	12,13,14,15	17,18,21	11,12	9,12,13
	14,15,17	13,14,15	29,30,31.2	11,15,16	X,Y	10,12
	18,19,24,25	9,12,13	7,12	16,17,29.2,31.2	6,7,9	8,11
	15,16,18	11	*	*	2	
4-Semen	17.3,17.3	17,20	10,14	15,18	10,11	16,18
	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22	9,13	12,16	15,16	6,9.3	8,8
	17,17	11	*	*	2	

YSTR Results									
<i>Results compiled from a consensus of at least 10 participants.</i>									
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	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11	*	17	20	22	23	*	12
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12	*	15,17	20	20,22	23,24	*	12
4-Blood	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11	*	17	20	22	23	*	12
4-Semen	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13	*	17	18	22	23	*	12

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

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

Summary Comments

This 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, two parts blood from the Item 2 male donor, and one part blood from another male donor whose known standard was not provided. Item 4 was created by combining one part blood from the Item 1 female donor, two parts blood from the Item 2 male donor, and one part semen from another male donor, different than the donor used in Item 3, whose known standard was not provided. Refer to the Manufacturer's Information for preparation details.

Data were returned by 53 participants.

Screening Test Results

A total of 47 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 participants reported "Negative." For Human Origin and Y-Screening, all participants 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." For Human Origin and Y-Screening, all participants reported "Positive."

DNA Analysis

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

For STR results, all but seventeen participants reported consistent results. A majority of participants were missing alleles for Item 4-Blood (4e).

For YSTR results, all but three participants reported consistent results.

DNA Interpretations

For Item 3, of the participants that provided interpretations, all but one participant included the victim (Item 1) as a possible contributor to the stain. The remaining participant excluded the victim as a contributor to the stain. All participants included the suspect (Item 2) as a possible contributor to the stain. All but two participants identified the presence of three contributors. Of the remaining participants, one reported four contributors and one reported one contributor.

For Item 4, all but three participants included the victim (Item 1) as a possible contributor to the stain. Of the remaining participants, one excluded the victim and two reported "Inconclusive." All but one participant included the suspect (Item 2) as a possible contributor to the stain. The remaining participant excluded the suspect as a possible contributor. All but two participants identified the presence of three contributors in the epithelial fraction. Of the remaining participants, one reported four contributors and one reported one contributor. For the sperm fraction, all but two participants identified the presence of one contributor. The two remaining participants reported two contributors. An additional ten participants did not perform a differential extraction on this item, but all reported the presence of three contributors.

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

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
2HWQQY - 5904	Pos O-tol	Pos O-tol
2NL4TM - 5904	Pos KM	Pos KM
2PFWN7 - 5904	Pos TMB,Hematrace	Pos TMB,Hematrace
2ZCZRZ - 5904	Pos TMB	Pos TMB
39P9T2 - 5904	Pos Hemastix (TMB), HemaTrace	Pos Hemastix (TMB), HemaTrace
3WBEFN - 5905	Pos RSID Blood	Pos RSID Blood
7QTCKU - 5904	Pos Hemastix	Pos Hemastix
7XNQH4 - 5904	Pos KM, Hexagon	Pos KM, Hexagon
83HLVE - 5904	Pos KM	Pos KM
9LRQ7W - 5904	Pos Hemastix	Pos Hemastix
ALAB6D - 5904	Pos KM	Pos KM
B8LGER - 5905	Pos KM/RSID (Hematrace)	Pos KM/RSID (Hematrace)
CHY2CU - 5905	Pos Hemastix (TMB), Hematrace	Pos Hemastix (TMB), Hematrace
CMN7HX - 5905	Pos FOB Rapid test	Pos FOB Rapid test
E8URKL - 5905	Pos TMB, Hematrace	Pos TMB, Hematrace
EXHTQB - 5904	Pos KM, HemDirect	Pos KM, HemDirect
FNWNGQ - 5905	Pos Hemochromogen	Pos Hemochromogen
FU3K3C - 5904	Pos O-tol, Hematrace	Pos o-tol, Hematrace
GABV7P - 5904	Pos KM	Pos KM
GKRHGB - 5904	Pos O-tol, Hematrace	Pos O-tol, Hematrace
HAQEQL - 5904	Pos TMB (Hemastix), Hematrace	Pos TMB (Hemastix), Hematrace
JCQ6A7 - 5904	Pos Hemochromogen	Pos Hemochromogen
JX6P78 - 5905	Pos FOB JusCheck	Pos FOB JusCheck
KG2HPK - 5905	Pos TMB, HEMATRACE	Pos TMB, HEMATRACE
KJJWV7 - 5905	Pos LMG	Pos LMG
KQNEQK - 5904	Pos TMB (Hemastix), Hematrace	Pos TMB (Hemastix), Hematrace
LTAHYH - 5904	Pos TMB, HemaTrace	Pos TMB, HemaTrace
MFEQT6 - 5904	Pos KM	Pos KM
NU764H - 5904	Pos TMB (Hemastix), Hematrace	Pos TMB (Hemastix), Hematrace
P2QF7Y - 5904	Pos KM, Hematrace	Pos KM, Hematrace
PMDXPW - 5904	Pos KM	Pos KM
PTTVQC - 5905	Pos Hemastix & ABA Card Hematrace	Pos Hemastix & ABA Card Hematrace

TABLE 1a

Blood Screening Results		
WebCode - Test	Item 3	Item 4
R229LC - 5905	Pos TMB, HEMATTRACE	Pos TMB, HEMATTRACE
RX2XQC - 5904	Pos O-tol	Pos O-tol
T6E7TY - 5904	Pos Tetrabase	Pos Tetrabase
TATV7U - 5904	Pos KM	Pos KM
V6PRF7 - 5905	Pos TMB (H/S), H/T	Pos TMB (H/S), H/T
VFPHYT - 5904	Pos KM	Pos KM
VPYTTQ - 5904	Pos KM	Pos KM
VU83VT - 5904	Pos Hematrace, KM	Pos Hematrace, KM
VXA9YR - 5905	Pos LMG	Pos LMG
VXRZ8C - 5904	Pos TMB (Hemastix), HemaTrace	Pos TMB (Hemastix), HemaTrace
WZN4C4 - 5904	Pos TMB	Pos TMB
XC2MA6 - 5904	Pos TMB, Hematrace	Pos TMB, Hematrace
XZ8ACU - 5904	Pos KM	Pos KM
Y8Z2WT - 5904	Pos Tetrabase, Hexagon Opti	Pos Tetrabase, Hexagon Opti
YGQMZ7 - 5904	Pos H'stix, Hematrace, TMB	Pos H'stix, Hematrace, TMB

Table 1a: Serology Screening Response Summary - Blood		Participants: 47	
This summary table excludes the count of participants who did not report or reported "Not Tested" for Item 3 and/or Item 4. Therefore, participant total may not align with totals shown below.			
	Item 3	Item 4	
Positive	47	47	
Negative	0	0	
Inconclusive	0	0	

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
2HWQQY - 5904	Neg AP	Pos AP, micro
2NL4TM - 5904	Neg AP	Pos AP + Microscopy
2PFWN7 - 5904	Neg AP, PSA	Pos AP, PSA, Micro
2ZCZRZ - 5904	Neg Micro, P30	Pos Micro
39P9T2 - 5904	Neg AP	Pos AP, P30, H&E Micro
3WBEFN - 5905	Neg RSID Semen	Pos RSID Semen
7QTCKU - 5904	Neg ALS	Pos ALS
7XNQH4 - 5904	Neg PSA	Pos PSA
83HLVE - 5904	Neg ALS, AP	Pos ALS, AP
9LRQ7W - 5904	Neg ALS, AP, Micro	Pos ALS, AP, Micro
ALAB6D - 5904	Neg ALS, AP	Pos ALS, AP
B8LGER - 5905	Neg ALS/AP	Pos ALS/AP/RSID/Micro
CHY2CU - 5905	Neg AP	Pos AP, P30, Micro
CMN7HX - 5905	Neg PSA SEMIQUANT, RSID-SEMEN	Pos PSA SEMIQUANT, RSID-SEMEN
EXHTQB - 5904	Neg ALS, AP, PSA, Micro	Pos ALS, AP, PSA, Micro
FNWNGQ - 5905	Neg AP	Pos AP, Micro
FU3K3C - 5904	Neg AP, PSA, micro	Pos AP, PSA, micro
GABV7P - 5904	Neg AP, Micro	Pos AP, Micro
GKRHGB - 5904	Neg AP, P30, Micro	Pos AP, P30, Micro
HAQEQL - 5904	Neg AP	Pos AP, PSA (Abacard P30), Micro
JCQ6A7 - 5904	Neg AP	Pos AP
JX6P78 - 5905	Neg Phosphatesmo, RSID Semen, PSA Seratec	Pos Phosphatesmo, RSID Semen, PSA Seratec
KG2HPK - 5905	Neg AP	Pos AP, P30, MICRO
KJJWV7 - 5905	Neg AP, micro	Pos AP, micro
KQNEQK - 5904	Neg AP	Pos AP, P30, Micro
LTAHYH - 5904	Neg AP, PSA	Pos AP, PSA, micro
MFEQT6 - 5904	Neg ALS, AP, PSA (P30)	Pos ALS, AP, PSA (P30), MICRO
NU764H - 5904	Neg AP	Pos AP, P30, Micro
P2QF7Y - 5904	Neg AP	Pos AP, PSA, Micro
PMDXPW - 5904	Neg AP, Micro	Pos AP, Micro

TABLE 1b

Semen Screening Results		
WebCode - Test	Item 3	Item 4
PTTVQC - 5905	Neg AP	Pos AP, ABA Card p30, micro
R229LC - 5905	Neg AP	Pos AP, PSA
RX2XQC - 5904	Neg AP	Pos AP, Micro
T6E7TY - 5904	Neg PSA, Micro -Christmas Tree	Pos PSA, Micro -Christmas Tree
TATV7U - 5904	Neg AP, ALS	Pos AP, ALS
VFPHYT - 5904	Neg AP	Pos AP + Micro
VPYTTQ - 5904	Neg AP, micro	Pos AP, micro
VU83VT - 5904	Neg ALS, AP	Pos ALS, AP, PSA, MICRO
VXA9YR - 5905	NT	Pos Micro
VXRZ8C - 5904	Neg AP	Pos AP, P30, Micro
WZN4C4 - 5904	Neg Microscopy, p30	Pos Microscopy
XC2MA6 - 5904	Neg AP, PSA	Pos AP, PSA, Micro
XZ8ACU - 5904	Neg AP	Pos AP
Y8Z2WT - 5904	Neg PSA	Pos PSA
YGQMZ7 - 5904	Neg AP	Pos AP, P30, Micro

Table 1b: Serology Screening Response Summary - Semen			Participants: 45
This summary table excludes the count of participants who did not report or reported "Not Tested" for Item 3 and/or Item 4. Therefore, participant total may not align with totals shown below.			
	Item 3	Item 4	
Positive	0	45	
Negative	44	0	
Inconclusive	0	0	

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
2PFWN7 - 5904	Neg RSID-saliva	Neg RSID-saliva
39P9T2 - 5904	Neg RSID	Neg RSID
3WBFEFN - 5905	Neg RSID Saliva	Neg RSID Saliva
7QTCKU - 5904	Neg RSID-Blood	Neg RSID-Blood
7XNQH4 - 5904	Neg Phadebas	Neg Phadebas
9LRQ7W - 5904	Neg RSID	Neg RSID
CHY2CU - 5905	Neg RSID saliva	Neg RSID saliva
CMN7HX - 5905	Neg RSID-SALIVA	Neg RSID-SALIVA
E8URKL - 5905	Neg RSID	Neg RSID
FU3K3C - 5904	Neg RSID, micro	Neg RSID, micro
GKRHGB - 5904	Neg RSID	Neg RSID
HAQEQL - 5904	Neg RSID	Neg RSID
JX6P78 - 5905	Neg RSID Saliva	Neg RSID Saliva
KG2HPK - 5905	Neg RSID	Neg RSID
KQNEQK - 5904	Neg RSID-Saliva	Neg RSID-Saliva
LTAHYH - 5904	Neg RSID	Neg RSID
R229LC - 5905	Neg RSID	Neg RSID
RX2XQC - 5904	Neg RSID	Neg Phadebas
VFPHYT - 5904	Neg Phadebas	Neg Phadebas
VXRZ8C - 5904	Neg RSID	Neg RSID
YGQMZ7 - 5904	Neg RSID Saliva	Neg RSID Saliva

Table 1c: Serology Screening Response Summary - Saliva		Participants: 21	
This summary table excludes the count of participants who did not report or reported "Not Tested" for Item 3 and/or Item 4. Therefore, participant total may not align with totals shown below.			
	Item 3	Item 4	
Positive	0	0	
Negative	21	21	
Inconclusive	0	0	

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
2PFWN7 - 5904	Pos Quant trio, PP21, YFP	Pos Quant trio, PP21, YFP
39P9T2 - 5904	Pos PP21, Quant Trio	Pos PP21, Quant Trio
3WBFEFN - 5905	Pos	Pos
7QTCKU - 5904	Pos RSID-Semen	Pos RSID-Semen
7XNQH4 - 5904	Pos	Pos
B8LGER - 5905	Pos PP21	Pos PP21
CHY2CU - 5905	Pos Quant trio, PP21, YFP	Pos Quant trio, PP21, YFP
E8URKL - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
EXHTQB - 5904	Pos Ouchterlony Double Immuno Diffusion	Pos Ouchterlony Double Immuno Diffusion
GABV7P - 5904	Pos PowerQuant	Pos PowerQuant
HAQEQL - 5904	Pos Quant Trio, PP21	Pos Quant Trio, PP21
KG2HPK - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
KQNEQK - 5904	Pos PP21, Quant Trio	Pos PP21, Quant Trio
LTAHYH - 5904	Pos QuantTrio, PP21	Pos QuantTrio, PP21
MFEQT6 - 5904	Pos ABA CARD	Pos ABA CARD
NU764H - 5904	Pos PP21, quant trio	Pos PP21, quant trio
PTTVQC - 5905	Pos PP21 profiling & quant trio	Pos Y-screening & Human origin pos. PP21 & quant trio.
R229LC - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
RX2XQC - 5904	Pos Quant Trio, GF	Pos Quant Trio, GF
T6E7TY - 5904	Pos Hexagon Obti	Pos Hexagon Obti
V6PRF7 - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
VU83VT - 5904	Pos Hematrace	Pos Hematrace
VXRZ8C - 5904	Pos PP21, QuantTrio	Pos PP21, QuantTrio
XC2MA6 - 5904	Pos Quant Trio, Powerplex 21	Pos Quant Trio, Powerplex 21
Y8Z2WT - 5904	Pos Hexagon Opti	Pos Hexagon Opti
YGQMZ7 - 5904	Pos PP21, Quant Trio	Pos PP21, Quant Trio

Table 1d: Serology Screening Response Summary - Human Origin		Participants: 26	
This summary table excludes the count of participants who did not report or reported "Not Tested" for Item 3 and/or Item 4. Therefore, participant total may not align with totals shown below.			
	Item 3	Item 4	
Positive	26	26	
Negative	0	0	
Inconclusive	0	0	

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
2KJKGL - 5904	Pos Quantifiler Trio	Pos Quantifiler Trio
2MVZBM - 5904	Pos Quant Trio	Pos Quant Trio
2PFWN7 - 5904	Pos YFP	Pos YFP
39P9T2 - 5904	Pos YFP, Quant Trio	Pos YFP, Quant Trio
3WBEFN - 5905	NT	Pos
7G772H - 5904		Pos Quantifiler Trio
7QTCKU - 5904	NT RSID-Saliva	NT RSID-Saliva
7XNQH4 - 5904	Pos	Pos
83HLVE - 5904	Pos Quant Trio	Pos Quant Trio
ALAB6D - 5904	Pos Quant Trio	Pos Quant Trio
B8LGER - 5905	Pos Y-filer Plus	Pos Y-filer Plus
CHY2CU - 5905	Pos Quant trio, YFP	Pos Quant trio, YFP
E8URKL - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
GABV7P - 5904	Pos Casework Direct, PowerQuant	Pos Casework Direct, PowerQuant
HAQEQL - 5904	Pos Quant Trio, YFP	Pos Quant Trio, YFP
KG2HPK - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
LTAHYH - 5904	Pos QuantTrio, YFP	Pos QuantTrio, YFP
MFEQT6 - 5904	Pos Investigator Quantiplex PRO	Pos Investigator Quantiplex PRO
NU764H - 5904	Pos Quant trio, amel	Pos quant trio, amel
PTTVQC - 5905	Pos Y-screening & Human origin pos. PP21 & quant trio.	Pos Y-screening & Human origin pos. PP21 & quant trio
RX2XQC - 5904	Pos Quant Trio, YFP	Pos Quant Trio, YFP
T6E7TY - 5904	Pos Quantifiler Trio	Pos Quantifiler Trio
TATV7U - 5904	Pos Quantifiler Trio	Pos Quantifiler Trio
V6PRF7 - 5905	Pos PP21, Quant Trio	Pos PP21, Quant Trio
VEXEHR - 5904	Pos Quant Trio	Pos Quant Trio
VFPHYT - 5904	Pos Quantiplex PRO	Pos Quantiplex PRO
VU83VT - 5904	NT	Pos QuantTrio
VXRZ8C - 5904	Pos PP21, QuantTrio	Pos PP21, QuantTrio
XC2MA6 - 5904	Pos quant trio, YFP	Pos Quant trio, YFP
Y8Z2WT - 5904	Pos Quantifiler Trio	Pos Quantifiler Trio
YGQMZ7 - 5904	Pos YFP, Quant Trio	Pos YFP, Quant Trio

Table 1e: Serology Screening Response Summary - Y Screening

Participants: **31**

This summary table excludes the count of participants who did not report or reported "Not Tested" for Item 3 and/or Item 4. Therefore, participant total may not align with totals shown below.

	Item 3	Item 4
Positive	27	30
Negative	0	0
Inconclusive	0	0

Serology Screening Results

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

TABLE 1f

Other Screening Results		
WebCode - Test	Item 3	Item 4
7QTCKU - 5904	Acid Phosphatase, Microscopy	Acid Phosphatase, Microscopy
FNWNGQ - 5905	hair Neg visual	hair Neg visual
JCQ6A7 - 5904	hair Neg visual	hair Pos visual

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)		WebCode-Test	Victim (Item 1)		Suspect (Item 2)	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
2HWQQY - 5904	Yes	No	Yes	No	E8URKL - 5905	Yes	Yes	Yes	Yes
2KJKGL - 5904	Yes	Yes	Yes	Yes	EXHTQB - 5904	Yes	Yes	Yes	Yes
2MVZBM - 5904	Yes	Yes	Yes	Yes	FNWNGQ - 5905	Yes	Yes	Yes	Yes
2NL4TM - 5904	Yes	Yes	Yes	Yes	FU3K3C - 5904	Yes	Yes	Yes	Yes
2PFWN7 - 5904	Yes	Yes	Yes	Yes	GABV7P - 5904	Yes	Yes	Yes	Yes
2ZCZRZ - 5904	Yes	Yes	Yes	Yes	GKRHGB - 5904	Yes	Yes	Yes	Yes
39P9T2 - 5904	Yes	Yes	Yes	Yes	HAQEQL - 5904	Yes	Yes	Yes	Yes
3WBEFN - 5905	Yes	Yes	Yes	Yes	JCQ6A7 - 5904	Yes	Yes	Yes	Yes
7G772H - 5904	Yes	Yes	Yes	Yes	JX6P78 - 5905	Yes	Yes	Yes	Yes
7QTCKU - 5904	No	Yes	Yes	Yes	KG2HPK - 5905	Yes	Yes	Yes	Yes
7XNQH4 - 5904	Yes	Yes	Yes	Yes	KJJWV7 - 5905	Yes	Yes	Yes	Yes
83HLVE - 5904	Yes	Yes	Yes	Yes	KQNEQK - 5904	Yes	Yes	Yes	Yes
8XUR8G - 5905	Yes	Yes	Yes	Yes	LTAHYH - 5904	Yes	Yes	Yes	Yes
9LRQ7W - 5904	Yes	Yes	Yes	Yes	MFEQT6 - 5904	Yes	Yes	Yes	Yes
ALAB6D - 5904	Yes	Yes	Yes	Yes	NU764H - 5904	Yes	Yes	Yes	Yes
B8LGER - 5905	Yes	Inc	Yes	Yes	P2QF7Y - 5904	Yes	Yes	Yes	Yes
BZFZJC - 5905	Yes	Yes	Yes	Yes	PMDXPW - 5904	Yes	Yes	Yes	Yes
CHY2CU - 5905	Yes	Yes	Yes	Yes	PTTVQC - 5905	Yes	Yes	Yes	Yes
CMN7HX - 5905	Yes	Yes	Yes	Yes	R229LC - 5905	Yes	Yes	Yes	Yes
					RX2XQC - 5904	Yes	Yes	Yes	Yes

TABLE 2

WebCode-Test	Victim (Item 1)		Suspect (Item 2)		WebCode-Test	Victim (Item 1)		Suspect (Item 2)	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
T6E7TY - 5904	Yes	Yes	Yes	Yes					
TATV7U - 5904	Yes	Yes	Yes	Yes					
V6PRF7 - 5905	Yes	Yes	Yes	Yes					
VEXEHR - 5904	Yes	Yes	Yes	Yes					
VFPHYT - 5904	Yes	Yes	Yes	Yes					
VPYTTQ - 5904	Yes	Yes	Yes	Yes					
VU83VT - 5904	Yes	Yes	Yes	Yes					
VXA9YR - 5905	Yes	Yes	Yes	Yes					
VXRZ8C - 5904	Yes	Yes	Yes	Yes					
WZN4C4 - 5904	Yes	Yes	Yes	Yes					
XC2MA6 - 5904	Yes	Yes	Yes	Yes					
XZ8ACU - 5904	Yes	Yes	Yes	Yes					
Y8Z2WT - 5904	Yes	Inc	Yes	Yes					
YGQMZ7 - 5904	Yes	Yes	Yes	Yes					

DNA Interpretation					
Response Summary			Participants reporting DNA results: 53		
<i>Based on results obtained from DNA analysis, could the Victim (Item 1) and/or the Suspect (Item 2) be a contributor to the questioned stains (Items 3 & 4)?</i>					
		Victim (Item 1)		Suspect (Item 2)	
		Item 3	Item 4	Item 3	Item 4
Yes		52	50	53	52
No		1	1	0	1
Inc		0	2	0	0
No Interpretation		0	0	0	0
No Response		0	0	0	0

STR Amplification Kit(s) & Results

TABLE 3

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

Item 1 - STR Results

2HWQQY - 5904		PowerPlex® 21					
1	16,16.3	17,24		16,18	12,12	15,19	
	8,10	11,14		17,21	11,11	9,13	
	14,17	13,14	29,31.2		XX	10,12	
	18,25	9,13	7,12		7,9	8,11	
	15,16						
2KJKGL - 5904		GlobalFiler™					
1	16,16.3	17,24	11,15	16,18	12		
	8,10	11,14	12,15	17,21	11	9,13	
	14,17	13,14	29,31.2	11,16	XX	10,12	
	18,25			16,29.2	7,9	8,11	
	15,16	NR			NR		
2MVZBM - 5904		GlobalFiler™					
1	16,16.3	17,24	11,15	16,18	12		
	8,10	11,14	12,15	17,21	11	9,13	
	14,17	13,14	29,31.2	11,16	X	10,12	
	18,25			16,29.2	7,9	8,11	
	15,16	NR			NR		
2NL4TM - 5904		ESI 17 Pro					
1	16,16.3	17,24	11,15	16,18			
		11,14	12,15	17,21		9,13	
	14,17	13,14	29,31.2	11,16	XX		
	18,25			16,29.2	7,9		
	15,16						
2PFWN7 - 5904		PowerPlex® 21					
1	16,16.3	17,24		16,18	12,12	15,19	
	8,10	11,14		17,21	11,11	9,13	
	14,17	13,14	29,31.2		XX	10,12	
	18,25	9,13	7,12		7,9	8,11	
	15,16						
2ZCZRZ - 5904		PowerPlex® 21					
1	16,16.3	17,24		16,18	12,12	15,19	
	8,10	11,14		17,21	11,11	9,13	
	14,17	13,14	29,31.2		XX	10,12	
	18,25	9,13	7,12		7,9	8,11	
	15,16						

TABLE 3

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

Item 1 - STR Results

39P9T2 - 5904	PowerPlex® 21- STRMix™ V2.8.0					
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
3WBEFN - 5905	PowerPlex® Fusion6C - Casesolver, LRMixStudio, LabRetriever, DNANView, EFM					
1	16,16.3	17,24	11,15	16,18	12,12	
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
7G772H - 5904	GlobalFiler™					
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
7QTCKU - 5904	GlobalFiler™ - STRMix™ v 2.7					
1	16,16.3	17,24	11,15	16,18	12,12	
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
7XNQH4 - 5904	PowerPlex® ES116 Fast - Euroformix					
1	16,16.3	17,24	11,15	16,18		
		11,14	12,15	17,21		9,13
	14,17	13,14	29,31.2	11,16	XX	
	18,25				7,9	
	15,16					
83HLVE - 5904	GlobalFiler™					
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NR			NR	
8XUR8G - 5905	GlobalFiler™					
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	No results			No results	

TABLE 3

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

Item 1 - STR Results

9LRQ7W - 5904		GlobalFiler™ - STRMix™				
1	16,16.3	17,24	11,15	16,18	12,12	
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
ALAB6D - 5904		GlobalFiler™				
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NR			NR	
B8LGER - 5905		PowerPlex® 21				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
BZFZJC - 5905		GlobalFiler™				
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
CHY2CU - 5905		PowerPlex® 21				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
CMN7HX - 5905		PowerPlex® Fusion 6C - LRmix Studio				
1	16,16.3	17,24	11,15	16,18	12,12	
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
E8URKL - 5905		PowerPlex® 21- STRMix™ 2.8				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					

TABLE 3

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

Item 1 - STR Results

EXHTQB - 5904	Identifiler® Plus - EuroForMix					
		17,24		16,18	12,12	
1	8,10	11,14			11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25				7,9	8,11
	15,16					
FNWNGQ - 5905	Identifiler® plus- STRMix™ v 2.7					
		17,24		16,18	12,12	
1	8,10	11,14			11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25				7,9	8,11
	15,16					
FU3K3C - 5904	PowerPlex® Fusion 6C- STRMix™ 2.9.0					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
GABV7P - 5904	Identifiler® Plus, PowerPlex® Fusion 6C, MiniFiler					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
GKRHGB - 5904	PowerPlex® Fusion 6C, GlobalFiler™ Express- STRMix™ v2.9					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
HAQEQL - 5904	PowerPlex® 21					
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
JCQ6A7 - 5904	Identifiler® plus- STRMix™ v 2.7					
		17,24		16,18	12,12	
1	8,10	11,14			11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25				7,9	8,11
	15,16					

TABLE 3

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

Item 1 - STR Results

JX6P78 - 5905		GlobalFiler™ - LRmixStudio v.2.1.5				
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X,X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
KG2HPK - 5905		PowerPlex® 21- STRMix™ v2.8				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
KJJWV7 - 5905		PowerPlex® Fusion 6C - DNAs				
1	16,16.3	17,24	11,15	16,18	12	
	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
KQNEQK - 5904		PowerPlex® 21- STRMix™				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
LTAHYH - 5904		PowerPlex® 21- STRMix™ 2.8				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
MFEQT6 - 5904		GlobalFiler™ GlobalFiler IQC - LRmix Studio				
1	16,16.3	17,24	11,15	16,18	12,12	
	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	X,X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
NU764H - 5904		PowerPlex® 21- STRMix™ v2.8				
1	16,16.3	17,24		16,18	12,12	15,19
	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					

TABLE 3

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

Item 1 - STR Results

P2QF7Y - 5904	GlobalFiler™ - STRMix™					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
PMDXPW - 5904	GlobalFiler™					
	16,16.3	17,24	11,15	16,18	12,12	
1	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NA			NA	
PTTVQC - 5905	PowerPlex® 21- STRMix™ v2.8					
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
R229LC - 5905	PowerPlex® 21- STRMix™ V2.8					
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
RX2XQC - 5904	GlobalFiler™ - STRMix™					
	16,16.3	17,24	11,15	16,18	12,12	
1	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
T6E7TY - 5904	PowerPlex® Fusion 6C, NGM Detect, VeriFiler - Codis					
	16,16.3	17,24	11,15	16,18	12	15,19
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
TATV7U - 5904	GlobalFiler™ - STRMix™					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NR			NR	

TABLE 3

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

Item 1 - STR Results

V6PRF7 - 5905	PowerPlex® 21- STRMix™ V2.8					
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
VEXEHR - 5904	GlobalFiler™ - STRMix™					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X,X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NR			NR	
VFPHYT - 5904	NGM SElect					
	16,16.3	17,24	11,15	16,18		
1		11,14	12,15	17,21		9,13
	14,17	13,14	29,31.2	11,16	X,X	
	18,25			16,29.2	7,9	
	15,16					
VPYTTQ - 5904	GlobalFiler™					
	16,16.3	17,24	11,15	16,18	12,12	
1	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	X,X	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
VU83VT - 5904	GlobalFiler™					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	NR			NR	
VXA9YR - 5905	Investigator® 24plex					
	16,16.3	17,24	11,15	16,18	12	
1	8,10	11,14	12,15	17,21	11	9,13
	14,17	13,14	29,31.2	11,16	X	10,12
	18,25			16,29.2	7,9	8,11
	15,16	n/a				
VXRZ8C - 5904	PowerPlex® 21- STRMix™					
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		X,X	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					

TABLE 3

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

Item 1 - STR Results

WZN4C4 - 5904		PowerPlex® 21				
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
XC2MA6 - 5904		PowerPlex® 21- STRMix™ V2.8				
	16,16.3	17,24		16,18	12	15,19
1	8,10	11,14		17,21	11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					
XZ8ACU - 5904		GlobalFiler™ - STRMix™				
	16,16.3	17,24	11,15	16,18	12,12	
1	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25			16,29.2	7,9	8,11
	15,16					
Y8Z2WT - 5904		PowerPlex® ES117 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep				
	16,16.3	17,24	11,15	16,18	12,12	15,19
1	8,10	11,14	12,15	17,21	11,11	9,13
	14,17	13,14	29,31.2	11,16	XX	10,12
	18,25	9,13	7,12	16,29.2	7,9	8,11
	15,16					
YGQMZ7 - 5904		PowerPlex® 21- STRMix™ STRmix v2.8				
	16,16.3	17,24		16,18	12,12	15,19
1	8,10	11,14		17,21	11,11	9,13
	14,17	13,14	29,31.2		XX	10,12
	18,25	9,13	7,12		7,9	8,11
	15,16					

TABLE 3

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

Item 2 - STR Results

2HWQQY - 5904		PowerPlex® 21				
2	16,3,18.3	16,25		15,16	9,12	12,18
	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
2KJKGL - 5904		GlobalFiler™				
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
2MVZBM - 5904		GlobalFiler™				
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
2NLT4M - 5904		ESI 17 Pro				
2	16,3,18.3	16,25	10,11	15,16		
		13,13	13,14	18,18		12,13
	14,15	14,15	29,30	15,15	X,Y	
	19,24			17,31.2	6,6	
	16,18					
2PFWN7 - 5904		PowerPlex® 21				
2	16,3,18.3	16,25		15,16	9,12	12,18
	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
2ZCZRZ - 5904		PowerPlex® 21				
2	16,3,18.3	16,25		15,16	9,12	12,18
	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
39P9T2 - 5904		PowerPlex® 21- STRMix™ v2.8.0				
2	16,3,18.3	16,25		15,16	9,12	12,18
	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					

TABLE 3

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

Item 2 - STR Results

3WBEFN - 5905	PowerPlex® Fusion 6C - Casesolver, LRMixStudio, LabRetriever, DNAView, EFM					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24	12,12	7,12	17,31.2	6,6	8,8
	16,18	11	17	20		
7G772H - 5904	GlobalFiler™					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
7QTCKU - 5904	GlobalFiler™ - STRMix™ v 2.7					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11,11			2	
7XNQH4 - 5904	PowerPlex® ES16 Fast - Euroformix					
2	16,3,18.3	16,25	10,11	15,16		
		13,13	13,14	18,18		12,13
	14,15	14,15	29,30	15,15	X,Y	
	19,24				6,6	
	16,18					
83HLVE - 5904	GlobalFiler™					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
8XUR8G - 5905	GlobalFiler™					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
9LRQ7W - 5904	GlobalFiler™ - STRMix™					
2	16,3,18.3	16,25	10,11	15,16	9,12	
	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	

TABLE 3

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

Item 2 - STR Results

ALAB6D - 5904	GlobalFiler™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
B8LGER - 5905	PowerPlex® 21					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
BZFZJC - 5905	GlobalFiler™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
CHY2CU - 5905	PowerPlex® 21					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
CMN7HX - 5905	PowerPlex® Fusion 6C - LRmix Studio					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24	12,12	7,12	17,31.2	6,6	8,8
	16,18	11	17	20		
E8URKL - 5905	PowerPlex® 21- STRMix™ 2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
EXHTQB - 5904	Identifiler® Plus - EuroForMix					
		16,25		15,16	9,12	
2	9,11	13,13			11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24				6,6	8,8
	16,18					

TABLE 3

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

Item 2 - STR Results

FNWNGQ - 5905	Identifiler® plus- STRMix™ v 2.7					
		16,25		15,16	9,12	
2	9,11	13,13			11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24				6,6	8,8
	16,18					
FU3K3C - 5904	PowerPlex® Fusion 6C- STRMix™ 2.9.0					
	16.3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24	12	7,12	17,31.2	6	8
	16,18	11	17	20		
GABV7P - 5904	Identifiler® Plus, PowerPlex® Fusion 6C, MiniFiler					
	16.3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24	12	7,12	17,31.2	6	8
	16,18	11	17	20		
GKRHGB - 5904	PowerPlex® Fusion 6C- STRMix™ v2.9					
	16.3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24	12	7,12	17,31.2	6	8
	16,18	11	17	20		
HAQEQL - 5904	PowerPlex® 21					
	16.3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
JCQ6A7 - 5904	Identifiler® plus- STRMix™ v 2.7					
		16,25		15,16	9,12	
2	9,11	13,13			11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24				6,6	8,8
	16,18					
JX6P78 - 5905	GlobalFiler™ - LRmixStudio v.2.1.5					
	16.3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	

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

KG2HPK - 5905	PowerPlex® 21- STRMix™ v2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
KJJWV7 - 5905	PowerPlex® Fusion 6C - DNAs					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24	12	7,12	17,31.2	6	8
	16,18	11	17	20		
KQNEQK - 5904	PowerPlex® 21- STRMix™					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
LTAHYH - 5904	PowerPlex® 21- STRMix™ 2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
MFEQT6 - 5904	GlobalFiler™ GlobalFiler IQC - LRmix Studio					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	
NU764H - 5904	PowerPlex® 21- STRMix™ V2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
P2QF7Y - 5904	GlobalFiler™ - STRMix™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	

TABLE 3

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

Item 2 - STR Results

PMDXPW - 5904		GlobalFiler™				
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	
PTTVQC - 5905		PowerPlex® 21- STRMix™ v2.8				
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
R229LC - 5905		PowerPlex® 21- STRMix™ V2.8				
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
RX2XQC - 5904		GlobalFiler™ - STRMix™				
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	
T6E7TY - 5904		PowerPlex® Fusin 6C, NGM Detect, VeriFiler - Codis				
	16,3,18.3	16,25	10,11	15,16	9,12	12,18
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24	12	7,12	17,31.2	6	8
	16,18	11	17	20		
TATV7U - 5904		GlobalFiler™ - STRMix™				
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
V6PRF7 - 5905		PowerPlex® 21- STRMix™ V2.8				
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					

TABLE 3

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

Item 2 - STR Results

VEXEHR - 5904	GlobalFiler™ - STRMix™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
VFPHYT - 5904	NGM SElect					
	16,3,18.3	16,25	10,11	15,16		
2	9,11	13,13	13,14	18,18		12,13
	14,15	14,15	29,30	15,15	X,Y	
	19,24			17,31.2	6,6	
	16,18					
VPYTTQ - 5904	GlobalFiler™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	
VU83VT - 5904	GlobalFiler™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11			2	
VXA9YR - 5905	Investigator® 24plex					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13	13,14	18	11,12	12,13
	14,15	14,15	29,30	15	X,Y	10
	19,24			17,31.2	6	8
	16,18	11				
VXRZ8C - 5904	PowerPlex® 21- STRMix™					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
WZN4C4 - 5904	PowerPlex® 21					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					

TABLE 3

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

Item 2 - STR Results

XC2MA6 - 5904	PowerPlex® 21- STRMix™ v2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					
XZ8ACU - 5904	GlobalFiler™ - STRMix™					
	16,3,18.3	16,25	10,11	15,16	9,12	
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24			17,31.2	6,6	8,8
	16,18	11			2	
Y8Z2WT - 5904	PowerPlex® ES117 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep					
	16,3,18.3	16,25	10,11	15,16	9,12	12,18
2	9,11	13,13	13,14	18,18	11,12	12,13
	14,15	14,15	29,30	15,15	X,Y	10,10
	19,24	12,12	7,12	17,31.2	6,6	8,8
	16,18	11	17	20		
YGQMZ7 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
	16,3,18.3	16,25		15,16	9,12	12,18
2	9,11	13,13		18,18	11,12	12,13
	14,15	14,15	29,30		X,Y	10,10
	19,24	12,12	7,12		6,6	8,8
	16,18					

TABLE 3

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

Item 3 - STR Results

2HWQQY - 5904		PowerPlex® 21- STRMix™ v2.8.0				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
2KJKGL - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,17,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
2MVZBM - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
2NL4TM - 5904		ESI 17 Pro- STRMix™ v 2.7				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18		
		11,13,14,15	12,13,14,15,16	17,18,19,21,22		9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	
	14,15,16,18					
2PFWN7 - 5904		PowerPlex® 21- STRMix™ v2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
2ZCZRZ - 5904		PowerPlex® 21- STRMix™ 2.8.0				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
39P9T2 - 5904		PowerPlex® 21- STRMix™ V2.8.0				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					

TABLE 3

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

Item 3 - STR Results

3WBEFN - 5905	PowerPlex® Fusion6C - Casesolver, LRMixStudio, LabRetriever, DNAMView, EFM, YHRD					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
3	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
7G772H - 5904	GlobalFiler™ - STRMix™					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
3	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
7QTCKU - 5904	GlobalFiler™ - STRMix™ v 2.7					
	16					
3						13
	14				15	10
						8
	16,18					2
7XNQH4 - 5904	PowerPlex® ES116 Fast - Euroformix					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18		
3		11,13,14,15	12,13,14,15,16	17,18,19,21,22		9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	
	18,19,21,22,24,25				6,7,8,9	
	14,15,16,18					
83HLVE - 5904	GlobalFiler™ - STRMix™					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
3	8,9,10,11,12	10**,11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
8XUR8G - 5905	GlobalFiler™ - STRMix™ 2.8					
	15,15.3,16,16.3,17.3,18.3	16,17,19,20,23,24,25	9,10,11,14,15	14,15,16,17,18	9,10,11,12	
3	8,9,10,11,12	11,12,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	13,14,15,16,17,20,21	12,13,14,15,16	28,29,30,31.2	11,14,15,16,17	X,Y	9,10,12
	17,18,19,20,21,22,23,24,25			#	5,6,7,8,9	7,8,11
	14,15,16,17,18	10,11			2	

TABLE 3

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

Item 3 - STR Results

9LRQ7W - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
ALAB6D - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,20,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
B8LGER - 5905		PowerPlex® 21- STRMix™ v2.10				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
BZFZJC - 5905		GlobalFiler™ - STRMix™ 2.8				
3	14,15,15.3,16,16.3,17.3,18.3	15,16,17,19,20,23,24,25	9,10,11,12,14,15	14,15,16,17,18	8,9,10,11,12,13	
	8,9,10,11,12	10,11,12,13,14,15	11,12,13,14,15,16	16,17,18,19,20,21,22	8,9,10,11,12	8,9,10,11,12,13
	13,14,15,16,17,20,21	12,13,14,15,16	27,28,29,30,30.2,31.2	10,11,14,15,16,17	X,Y	9,10,11,12
	17,18,19,20,21,22,23,24,25			#	5,6,7,8,9	7,8,11
	13,14,15,16,17,18	10,11			2	
CHY2CU - 5905		PowerPlex® 21- STRMix™ 2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
CMN7HX - 5905		PowerPlex® Fusion 6C - LRmix Studio				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		

TABLE 3

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

Item 3 - STR Results

E8URKL - 5905		PowerPlex® 21- STRMix™ 2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
EXHTQB - 5904		Identifiler® Plus - EuroForMix				
3		16,17,20,24,25		15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15			9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25				6,7,8,9	8,11
	14,15,16,18					
FNWNGQ - 5905		Identifiler® plus- STRMix™ v 2.7				
3		15*,16,17,19*,20,2 3*,24,25		14*,15,16,18	9,11,12	
	8,9,10,11,12	11,12*,13,14,15			9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	9*,10,12
	18,19,22,24,25				5*,6,7,8,9	7*,8,11
	14,15,16,18					
FU3K3C - 5904		PowerPlex® Fusion 6C- STRMix™ 2.9.0				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	19,20		
GABV7P - 5904		Identifiler® Plus, PowerPlex® Fusion 6C- STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
GKRHGB - 5904		PowerPlex® Fusion 6C- STRMix™ v2.9				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
HAQEQL - 5904		PowerPlex® 21- STRMix™ v2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					

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

JCQ6A7 - 5904	Identifiler® plus- STRMix™ 2.7					
		16,17,20,24,25		15,16,18	9,11,12	
3	8,9,10,11,12	11,12*,13,14,15			9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	9*,10,12
	18,19,21,22,24,25				6,7,8,9	8,11
	14,15,16,18					
JX6P78 - 5905	GlobalFiler™					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
3	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
KG2HPK - 5905	PowerPlex® 21- STRMix™ v2.8					
	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
3	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	7,10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
KJJWV7 - 5905	PowerPlex® Fusion 6C - DNAs					
	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
3	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
KQNEQK - 5904	PowerPlex® 21- STRMix™ v 2.8					
	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
3	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
LTAHYH - 5904	PowerPlex® 21- STRMix™ 2.8					
	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
3	9,10,11,12	11,13,14,15		18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,16,18					
MFEQT6 - 5904	GlobalFiler™ GlobalFiler IQC - LRmix Studio					
	15,16,16.3,18.3	16,[17],20,[24],25	[10],11,[15]	[15],16,[18]	[9,11],12	
3	8,9,10,11,12	[11],13,[14],15	12,13,14,15,16	[17],18,[19,21,22]	[9,10],11,[12]	9,11,12,13
	14,15,17,[21]	13,14,15,[16]	[28],29,30,[31.2]	[11],15,[16]	X,Y	10,[12]
	18,19,21,22,24,25			15,16,17,[29.2,30.2],31.2	6,[7,8],9	8,[11]
	[14,15],16,[18]	11			2	

TABLE 3

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

Item 3 - STR Results

NU764H - 5904		PowerPlex® 21- STRMix™ V2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
P2QF7Y - 5904		GlobalFiler™ - STRMix™				
3	15,15.3,16,16.3,17.3,18.3	15,16,17,19,20,23,24,25	9,10,11,15	14,15,16,17,18	9,11,12	
	8,9,10,11,12	10,11,12,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	13,14,15,16,17,20,21,22	12,13,14,15,16	28,29,30,31.2	11,14,15,16	X,Y	9,10,12
	18,19,20,21,22,23,24,25			14,15,16,17,29.2,30.2,31.2	6,7,8,9	7,8,11
	14,15,16,17,18	11			2	
PMDXPW - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
PTTVQC - 5905		PowerPlex® 21- STRMix™ v2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
R229LC - 5905		PowerPlex® 21- STRMix™ V2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
RX2XQC - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,10
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	

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

T6E7TY - 5904		PowerPlex® Fusion 6C, NGM Detect, Verifiler - EuroforMix				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
TATV7U - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
V6PRF7 - 5905		PowerPlex® 21- STRMix™ V2.8				
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
VEXEHR - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,17**,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,20**,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
VFPHYT - 5904		NGM SElect- STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18		
		11,13,14,15	12,13,14,15,16	17,18,19,21,22		9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	
	14,15,16,17,18					
VPYTTQ - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
VU83VT - 5904		GlobalFiler™ - STRMix™				
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,17,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	

TABLE 3

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

Item 3 - STR Results

VXA9YR - 5905	Investigator® 24plex- STRMix™ V2.5.11					
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11				
VXRZ8C - 5904	PowerPlex® 21- STRMix™ v 2.8					
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
WZN4C4 - 5904	PowerPlex® 21- STRMix™					
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
XC2MA6 - 5904	PowerPlex® 21- STRMix™ V 2.8					
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					
XZ8ACU - 5904	GlobalFiler™ - STRMix™					
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25			15,16,16.2,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11			2	
Y8Z2WT - 5904	PowerPlex® ESI17 Fast, GlobalFiler™, NGM Detect, Forenseq Signature Prep - EuroForMix					
3	15,16,16.3,18.3	16,17,20,24,25	10,11,15	15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15	12,13,14,15,16	17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2	11,15,16	X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12	15,16,17,29.2,31.2	6,7,8,9	8,11
	14,15,16,18	11	15,17	20		
YGQMZ7 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
3	15,16,16.3,18.3	16,17,20,24,25		15,16,18	9,11,12	11,12,15,18,19
	8,9,10,11,12	11,13,14,15		17,18,19,21,22	9,10,11,12	9,11,12,13
	14,15,17,21	13,14,15,16	28,29,30,31.2		X,Y	10,12
	18,19,21,22,24,25	9,12,13	7,8,12		6,7,8,9	8,11
	14,15,16,18					

TABLE 3

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

Item 4 - STR Results

3WBEFN - 5905	PowerPlex® Fusion6C - Casesolver, LRMixStudio, LabRetriever, DNAView, EFM, YHRD					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4	7,8,9,10,11	11,12,13	12,13,14,15	17,18,19,20	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11	17	18,20		
7QTCKU - 5904	GlobalFiler™ - STRMix™ v 2.7					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11,11			2	
7XNQH4 - 5904	PowerPlex® ES116 Fast - Euroformix					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18		
4		11,12,13,14	12,13,14,15	17,18,19,20,21		9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16		
	18,19,20,22,24,25				6,7,9,9.3	
	15,16,17,18					
8XUR8G - 5905	GlobalFiler™, Investigator® 24plex- STRMix™ 2.8					
	16.3,17.3,18.3	16,17,19,20,24,25	9,10,11,13,14,15	14,15,16,17,18	9,10,11,12	
4	7,8,9,10,11	11,12,13,14	12,13	17,18,19,20	8,9,10,11,12	8,9,12,13
	13,14,15,16	12,12.2,13,13.2,14,15	29,30,30.2,31.2,32.2	11,14,15,16	X,Y	10,11,12
	18,19,20,21,22,24,25			14,14.2,15,15.2,16,17,29.2,31.2	5,6,7,8.3,9,9.3	8,11
	15,16,17,18	10,11			2	
BZFZJC - 5905	GlobalFiler™ - STRMix™ 2.8					
	16,16.3,17.1,17.3,18.3	16,17,19,20,24,25	9,10,11,13,14,15	14,15,16,17,18	9,10,11,12	
4	6,7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	8,9,10,11,12	8,9,12,13
	12,13,14,15,16,17	12,12.2,13,13.2,14,15	29,30,30.2,31.2,32.2	10,11,14,15,16	X,Y	10,11,12
	18,19,20,21,22,24,25			14,14.2,15,15.2,16,17,29.2,31.2	5,6,7,9,9.3	7,8
	15,16,17,18	10,11			2	
E8URKL - 5905	PowerPlex® 21- STRMix™ 2.8					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

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

JX6P78 - 5905	GlobalFiler™					
	[16],[16.3],17.3,[18.3]	[16],17,20,[24],[25]	10,[11],14,[15]	15,[16],18	[9],10,11,[12]	
4	7,[8],[9],[10],11	[11],12,13,[14]	[12],13,[14],[15]	[17],[18],19,20,[21]	9,[11],[12]	9,[12],[13]
	13,[14],[15],16,[17]	13,13.2,[14],[15]	[29],[30],31.2,32.2	11,15,[16]	X,Y	[10],12
	[18],[19],20,22,[24],[25]			15,16,[17],[29.2],[31.2]	6,[7],[9],9.3	8,[11]
	[15],[16],17,[18]	11			2	
T6E7TY - 5904	PowerPlex® Fusion 6C, NGM Detect, VeriFiler - EuroforMix					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	12,15,16,18,19
4	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11	17	18,20		
V6PRF7 - 5905	PowerPlex® 21- STRMix™ V2.8					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
Y8Z2WT - 5904	PowerPlex® ES117 Fast, GlobalFiler™, NGM Detect, ForenSeq Signature Prep - EuroForMix					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	12,15,16,18,19
4	7,8,9,10,11	11,12,13,14	13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11	17	18,20		

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

2HWQQY - 5904 PowerPlex® 21

4e	

2KJKGL - 5904 GlobalFiler™ - STRMix™

	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	

2MVZBM - 5904 GlobalFiler™ - STRMix™

	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	

2NL4TM - 5904 ESI 17 Pro- STRMix™ v 2.7

	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18		
4e		11,12,13,14	12,13,14,15	17,18,19,20,21		9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15 (16o/s)	X,Y	
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	
	15,16,17,18					

2PFWN7 - 5904 PowerPlex® 21- STRMix™ v2.8

	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

2ZCZRZ - 5904 PowerPlex® 21- STRMix™ 2.8.0

	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

39P9T2 - 5904 PowerPlex® 21- STRMix™ V2.8.0

	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

TABLE 3

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

Item 4e - STR Results

7G772H - 5904	GlobalFiler™ - STRMix™					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
83HLVE - 5904	GlobalFiler™ - STRMix™					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
9LRQ7W - 5904	GlobalFiler™ - STRMix™					
	[16],16.3,17.3,18.3	16,17,20,[24],25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,[25]			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
ALAB6D - 5904	GlobalFiler™ - STRMix™					
	16,16.3,17.3,18.3	16,17,20,23,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
B8LGER - 5905	Identifiler® PP21 - STRMix™ v2.10					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,9,9.3	8,11
	15,16,17,18					
CHY2CU - 5905	PowerPlex® 21 - STRMix™ 2.8					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
CMN7HX - 5905	PowerPlex® Fusion 6C - LRmix Studio					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11	17	18,20		

TABLE 3

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

Item 4e - STR Results

EXHTQB - 5904	Identifiler® Plus - EuroForMix					
	16,17,20,24,25		15,16,18		9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		9,11,12		9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25				6,7,9,9.3	8,11
	15,16,17,18					
FNWNGQ - 5905	Identifiler® plus- STRMix™ v 2.7					
	16,17,19*,20,24,25		14*,15,16,17*,18		9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		8*,9,11,12		8*,9,12,13
	13,14,15,16,17	12.2*,13,13.2,14,15	29,30,30.2*,31.2,32.2		X,Y	10,11,12
	18,19,20,22,24,25				6,7,9,9.3	8,11
	15,16,17,18					
FU3K3C - 5904	PowerPlex® Fusion 6C- STRMix™ 2.9.0					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		12,13,14,15		17,18,19,20,21
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		11,15,16	X,Y
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2		6,7,9,9.3
	15,16,17,18		11	17	18,20	
GABV7P - 5904	Identifiler® Plus, PowerPlex® Fusion 6C- STRMix™					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		12,13,14,15		17,18,19,20,21
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		11,15,16	X,Y
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2		6,7,9,9.3
	15,16,17,18		11	17	18,20	
GKRHGB - 5904	PowerPlex® Fusion 6C- STRMix™ v2.9					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		12,13,14,15		17,18,19,20,21
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		11,15,16	X,Y
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2		6,7,9,9.3
	15,16,17,18		11	17	18,20	
HAQEQL - 5904	PowerPlex® 21- STRMix™ v2.8					
	16,16.3,17.3,18.3	16,17,20,24,25	15,16,18		9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21		9,11,12
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	6,7,9,9.3		8,11
	15,16,17,18					
JCQ6A7 - 5904	Identifiler® plus- STRMix™ v 2.7					
	16,17,19*,20,24,25		14*,15,16,17*,18		9,10,11,12	
4e	7,8,9,10,11	11,12,13,14		8*,9,11,12		8*,9,12,13
	13,14,15,16,17	12*,13,13.2,14,15	29,30,30.2*,31.2,32.2		X,Y	10,11*,12
	18,19,20,22,24,25				6,7,9,9.3	8,11
	15,16,17,18					

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

KG2HPK - 5905	PowerPlex® 21- STRMix™ v2.8					
4e	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
KJJWV7 - 5905	PowerPlex® Fusion 6C - DNAXs					
4e	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16	15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11	17	18,20		
KQNEQK - 5904	PowerPlex® 21- STRMix™ v 2.8					
4e	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
LTAHYH - 5904	PowerPlex® 21- STRMix™ 2.8					
4e	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
MFEQT6 - 5904	GlobalFiler™ GlobalFiler IQC - LRmix Studio					
4e	[16],16.3,17.3,[18.3]	16,17,20,[24],25	10,11,[14,15]	15,16,18	9,[10,11],12	
	[7,8],9,[10],11	[11,12],13,[14]	[12],13,[14,15]	[17],18,[19,20,21]	[9],11,12	9,12,13
	[13],14,15,[16,17]	13,[13.2],14,15	29,30,[31.2,32.2]	[11],15,[16]	X,[Y]	10,12
	18,19,[20],22,24,[25]			[15],16,17,[29.2],31.2	6,[7,9,9.3]	8,[11]
	[15],16,17,18	11			2	
NU764H - 5904	PowerPlex® 21- STRMix™ v2.8					
4e	16,16.3,17.3,18	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
P2QF7Y - 5904	GlobalFiler™ - STRMix™					
4e	16,16.3,17.3,18.3	16,17,19,20,24,25	9,10,11,13,14,15	14,15,16,17,18	9,10,11,12	
	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	8,9,10,11,12	8,9,12,13
	12,13,14,15,16,17	12,13,13.2,14,15	29,30,31.2,32.2	11,14,15,16	X,Y	9,10,11,12
	18,19,20,21,22,23,24,25			14,15,16,17,29.2,30.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	

TABLE 3

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

Item 4e - STR Results

PMDXPW - 5904		GlobalFiler™ - STRMix™				
4e	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
PTTVQC - 5905		PowerPlex® 21- STRMix™ v2.8				
4e	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
R229LC - 5905		PowerPlex® 21- STRMix™ V2.8				
4e	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
RX2XQC - 5904		GlobalFiler™ - STRMix™				
4e	16.3,17.3	16,17,20,24	10,11,14	15,18	9,10,11,12	
	7,11	11,12,13	13,14	18,19,20	9,11	9,9
	13,16	13,13.2	29,30,31.2,32.2	11,15	X,Y	10,12
	20,22			15,16	6,9.3	8,8
	16,17	11			2	
TATV7U - 5904		GlobalFiler™ - STRMix™				
4e	15,16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
	3					
	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
15,16,17,18	11			2		
VEXEHR - 5904		GlobalFiler™ - STRMix™				
4e	16,16.3,17.3,18.3	16,17,20,23**,24.2	10,11,14,15	15,16,18	9,10,11,12	
	5					
	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,31.2	6,7,9,9.3	8,11
15,16,17,18	11			2		

TABLE 3

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

Item 4e - STR Results

VFPHYT - 5904	NGM SElect- STRMix™					
	15,16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18		
4e	11,12,13,14	12,13,14,15	17,18,19,20,21	9,12,13		
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16,17	X,Y	
	18,19,20,22,24,25		15,16,17,29.2,31.2	6,7,9,9.3		
	15,16,17,18					
VPYTTQ - 5904	GlobalFiler™ - STRMix™					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25		15,16,17,29.2,31.2	6,7,9,9.3		8,11
	15,16,17,18	11		2		
VU83VT - 5904	GlobalFiler™ - STRMix™					
	16.3,17.3,18.3	16,17,20,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,11	11,12,13,14	13,14,15	18,19,20,21	9,11,12	9,12,13
	13,14,16	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25		15,16,29.2,31.2	6,7,9,9.3		8
	15,16,17,18	11		2		
VXA9YR - 5905	Investigator® 24plex- STRMix™ V2.5.11					
	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25		15,16,17,29.2,31.2	6,7,9,9.3		8,11
	15,16,17,18	11				
VXRZ8C - 5904	PowerPlex® 21- STRMix™ v 2.8					
	16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
WZN4C4 - 5904	PowerPlex® 21- STRMix™					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					
XC2MA6 - 5904	PowerPlex® 21- STRMix™ v2.8					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,30.2,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

TABLE 3

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

Item 4e - STR Results

	GlobalFiler™ - STRMix™					
XZ8ACU - 5904	16,16.3,17.3,18.3	16,17,20,24,25	10,11,14,15	15,16,18	9,10,11,12	
4e	7,8,9,10,11	11,12,13,14	12,13,14,15	17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2	11,15,16	X,Y	10,12
	18,19,20,22,24,25			15,16,17,29.2,30.2,31.2	6,7,9,9.3	8,11
	15,16,17,18	11			2	
YGQMZ7 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
	16,16.3,17.3,18.3	16,17,20,24,25		15,16,18	9,10,11,12	12,15,16,18,19
4e	7,8,9,10,11	11,12,13,14		17,18,19,20,21	9,11,12	9,12,13
	13,14,15,16,17	13,13.2,14,15	29,30,31.2,32.2		X,Y	10,12
	18,19,20,22,24,25	9,12,13	7,12,16		6,7,9,9.3	8,11
	15,16,17,18					

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

2HWQQY - 5904		PowerPlex® 21				
4sp	17,3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
2KJKGL - 5904		GlobalFiler™ - STRMix™				
4sp	17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
2MVZBM - 5904		GlobalFiler™ - STRMix™				
4sp	17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
2NL4TM - 5904		ESI 17 Pro- STRMix™ v 2.7				
4sp	17.3,17.3	17,20	10,14	15,18		
		12,13	13,13	19,20		9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	
	20,22			15,16	6,9.3	
	17,17					
2PFWN7 - 5904		PowerPlex® 21- STRMix™ v2.8				
4sp	17.3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
2ZCZRZ - 5904		PowerPlex® 21- STRMix™ 2.8.0				
4sp	17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9	9
	13,16	13,13.2	31.2,32.2		X,Y	12
	20,22	9,13	12,16		6,9.3	8
	17					
39P9T2 - 5904		PowerPlex® 21- STRMix™ V2.8.0				
4sp	17.3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					

TABLE 3

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

Item 4sp - STR Results

7G772H - 5904		GlobalFiler™ - STRMix™				
4sp	17,3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
83HLVE - 5904		GlobalFiler™ - STRMix™				
4sp	17,3	17,19**,20	10	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13.2	31.2,32.2	11,15	X,Y	12
	20			15,16	9.3	NR
	17	11			2	
9LRQ7W - 5904		GlobalFiler™ - STRMix™				
4sp	17.3,17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	
ALAB6D - 5904		GlobalFiler™ - STRMix™				
4sp	17,3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2,33.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
B8LGER - 5905		Identifiler® PP21- STRMix™ v2.10				
4sp	17.3,18.3	17,20,25		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,12
	13,16	13,13.2,14	31.2,32.2		X,Y	12,12
	20,22	9,12,13	12,16		6,9.3	8,8
	17,17					
CHY2CU - 5905		PowerPlex® 21- STRMix™ 2.8				
4sp	17.3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
CMN7HX - 5905		PowerPlex® Fusion 6C - LRmix Studio				
4sp	17.3,17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22	9,13	12,16	15,16	6,9.3	8,8
	17,17	11	17	18		

TABLE 3

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

Item 4sp - STR Results

EXHTQB - 5904	Identifiler® Plus - EuroForMix					
		17,20		15,18	10,11	
4sp	7,11	12,13			9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22				6,9.3	8,8
	17,17					
FNWNGQ - 5905	Identifiler® plus- STRMix™ v 2.7					
		16*,17,19*,20		14*,15,17*,18	10,11	
4sp	7,10*,11	11*,12,13			8*,9	8*,9
	12*,13,15*,16	12*,12.2*,13,13.2	30.2*,31.2,32.2		X,Y	11*,12
	19*,20,21*,22				6,9.3	8
	16*,17					
FU3K3C - 5904	PowerPlex® Fusion 6C- STRMix™ 2.9.0					
	17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	[10],12
	20,22	9,13	12,16	15,16	6,9.3	8
	17	11	17	18		
GABV7P - 5904	Identifiler® Plus, PowerPlex® Fusion 6C- STRMix™					
	17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22	9,13	12,16	15,16	6,9.3	8
	17	11	17	18		
GKRHGB - 5904	PowerPlex® Fusion 6C- STRMix™ v2.9					
	17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22	9,13	12,16	15,16	6,9.3	8
	17	11	17	18		
HAQEQL - 5904	PowerPlex® 21- STRMix™ v2.8					
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
JCQ6A7 - 5904	Identifiler® plus- STRMix™ v 2.7					
		16*,17,19*,20		14*,15,17*,18	10,11	
4sp	7,11	11*,12,13			8*,9	8*,9
	13,15*,16	12*,12.2*,13,13.2	30.2*,31.2,32.2		X,Y	11*,12
	20,22				6,9.3	8
	16*,17					

TABLE 3

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

Item 4sp - STR Results

KG2HPK - 5905	PowerPlex® 21- STRMix™ v2.8					
	17,3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
KJJWV7 - 5905	PowerPlex® Fusion 6C - DNAs					
	17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22	9,13	12,16	15,16	6,9.3	8
	17	11	17	18		
KQNEQK - 5904	PowerPlex® 21- STRMix™ v 2.8					
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
LTAHYH - 5904	PowerPlex® 21- STRMix™ 2.8					
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
MFEQT6 - 5904	GlobalFiler™ GlobalFiler IQC - LRmix Studio					
	17.3,17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	
NU764H - 5904	PowerPlex® 21- STRMix™ v2.8					
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
P2QF7Y - 5904	GlobalFiler™ - STRMix™					
	16.3,17.3	17,19,20	9,10,13,14	14,15,17,18	10,11	
4sp	7,11	11,12,13	13	19,20	8,9	8,9
	13,16	12,12.2,13,13.2	31.2,32.2	11,14,15	X,Y	11,12
	19,20,21,22			14,15,16	6,9.3	8
	16,17	11			2	

TABLE 3

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

Item 4sp - STR Results

PMDXPW - 5904		GlobalFiler™ - STRMix™				
	17,3,17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	
PTTVQC - 5905		PowerPlex® 21- STRMix™ v2.8				
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
R229LC - 5905		PowerPlex® 21- STRMix™ V2.8				
	17.3,17.3	17,20		15,18	10,11	16,18
4sp	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
RX2XQC - 5904		GlobalFiler™ - STRMix™				
	17.3,17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	
TATV7U - 5904		GlobalFiler™ - STRMix™				
	17.3	17,20	10,14	15,16,18	10,11	
4sp	7,11	12,13	13	19,20,21	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
VEXEHR - 5904		GlobalFiler™ - STRMix™				
	17.3	17,20	10,14	15,18	10,11	
4sp	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
VFPHYT - 5904		NGM SElect- STRMix™				
	17.3,17.3	17,20	10,14	15,18		
4sp		12,13	13,13	19,20		9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	
	20,22			15,16	6,9.3	
	17,17					

TABLE 3

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

Item 4sp - STR Results

VPYTTQ - 5904		GlobalFiler™ - STRMix™				
4sp	17,3,17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	
VU83VT - 5904		GlobalFiler™ - STRMix™				
4sp	17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11			2	
VXA9YR - 5905		Investigator® 24plex- STRMix™ V2.5.11				
4sp	17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13	19,20	9	9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12
	20,22			15,16	6,9.3	8
	17	11				
VXRZ8C - 5904		PowerPlex® 21- STRMix™ v 2.8				
4sp	17.3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9 [13]
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
WZN4C4 - 5904		PowerPlex® 21- STRMix™				
4sp	17.3,17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2		X,Y	12,12
	20,22	9,13	12,16		6,9.3	8,8
	17,17					
XC2MA6 - 5904		PowerPlex® 21- STRMix™ v2.8				
4sp	17.3	17,20		15,18	10,11	16,18
	7,11	12,13		19,20	9	9
	13,16	13,13.2	31.2,32.2		X,Y	12
	20,22	9,13	12,16		6,9.3	8
	17					
XZ8ACU - 5904		GlobalFiler™ - STRMix™				
4sp	17.3,17.3	17,20	10,14	15,18	10,11	
	7,11	12,13	13,13	19,20	9,9	9,9
	13,16	13,13.2	31.2,32.2	11,15	X,Y	12,12
	20,22			15,16	6,9.3	8,8
	17,17	11			2	

TABLE 3

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

Item 4sp - STR Results

YGQMZ7 - 5904	PowerPlex® 21- STRMix™ STRmix v2.8					
4sp	17,3	17,20		15,16,18	10,11	15,16,18
	7,11	12,13		18,19,20	9	9,12
	13,16	13,13.2	31.2,32.2		X,Y	12
	20,22	9,13	12,16		6,9.3	8
	17					

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									
2PFWN7 - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
39P9T2 - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
3WBEFN - 5905		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
7XNQH4 - 5904		Yfiler® plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
9LRQ7W - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
B8LGER - 5905		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
CHY2CU - 5905		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
CMN7HX - 5905		PowerPlex® Y 23							
2		14	11,14	13	30	24	11	12	13
		15	12	12	19	16	17		23
		11	12	17	20		23	12	12
EXHTQB - 5904		Yfiler®							
2		14	11,14	13	30	24	11	12	13
		15	12	12	19	16	17		
							23		12
GABV7P - 5904		Yfiler®							
2		14	11,14	13	30	24	11	12	13
		15	12	12	19	16	17		
							23		12
HAQEQL - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12

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

JX6P78 - 5905		PowerPlex® Y 23							
2		14	11,14	13	30	24	11	12	13
	15	12	12	19		16	17		23
		11	12	17	20		23	12	12
LTAHYH - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
MFEQT6 - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
RX2XQC - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
T6E7TY - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
VFPHYT - 5904		PowerPlex® Y 23							
2		14	11,14	13	30	24	11	12	13
	15	12	12	19		16	17		23
		11	12	17	20		23	12	12
XC2MA6 - 5904		Yfiler® plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12
Y8Z2WT - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11	12	17	20	22	23	12	12
YGQMZ7 - 5904		Yfiler® Plus							
2	35,37	14	11,14	13	30	24	11	12	13
	15	12	12	19	29	16	17	10	23
	37	11		17	20	22	23		12

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 3 - YSTR Results

2PFWN7 - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
39P9T2 - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
3WBEFN - 5905		Yfiler® Plus							
3	35,37,38	13,2,14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
7XNQH4 - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
9LRQ7W - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
B8LGER - 5905		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
CHY2CU - 5905		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
CMN7HX - 5905		PowerPlex® Y 23							
3		14	11,12,13,14	13	29,30	23,24	11	12,13	13
		15	11,12	12	18,19	15,16	15,17		23,27
			11,12	12	15,17	20	23,24	10,12	12
EXHTQB - 5904		Yfiler®							
3		14	11,12,13,14	13	29,30	23,24	11	12,13	13
		15	11,12	12	18,19	15,16	15,17		
							23,24		12
GABV7P - 5904		Yfiler®							
3		14	11,12,13,14	13	29,30	23,24	11	12,13	13
		15	11,12	12	18,19	15,16	15,17		
							23,24		12

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 3 - YSTR Results

HAQEQL - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
JX6P78 - 5905		Yfiler® Plus							
3		14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19		15,16	15,17		23,27
		11,12	12	15,17	20		23,24	10,12	12
LTAHYH - 5904		Yfiler® Plus							
3	35,37,[38]	14	11,[12],[13],14	13	[29],30	[23],24	11	12,[13]	13
	15	[11],12	12	[18],19	[28],29	[15],16	[15],17	10,[11]	23,[27]
	37,[41]	11,[12]		[15],17	20	[20],22	23,[24]		12
MFEQT6 - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
RX2XQC - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
T6E7TY - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
VFPHYT - 5904		PowerPlex® Y 23							
3		14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19		15,16	15,17		23,27
		11,12	12	15,17	20		23,24	10,12	12
XC2MA6 - 5904		Yfiler® plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12
Y8Z2WT - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12	12	15,17	20	20,22	23,24	10,12	12
YGQMZ7 - 5904		Yfiler® Plus							
3	35,37,38	14	11,12,13,14	13	29,30	23,24	11	12,13	13
	15	11,12	12	18,19	28,29	15,16	15,17	10,11	23,27
	37,41	11,12		15,17	20	20,22	23,24		12

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 4 - YSTR Results

3WBEFN - 5905									
4	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
7XNQH4 - 5904 Yfiler® Plus									
4	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
JX6P78 - 5905 PowerPlex® Y 23									
4		[14],15	11,14	13	29,[30]	23,[24]	11	[12],13	13
	15	12	12	18,[19]		16	17		22,[23]
		[11],13	12	17	18,[20]		23	10,[12]	12
T6E7TY - 5904 Yfiler® Plus									
4	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
Y8Z2WT - 5904 Yfiler® Plus									
4	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13	12	17	18,20	22	23	10,12	12

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

2PFWN7 - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
39P9T2 - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
9LRQ7W - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
B8LGER - 5905		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
CHY2CU - 5905		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
CMN7HX - 5905		PowerPlex® Y 23							
4e		14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19		16	17		22,23
		11,13	12	17	18,20		23	10,12	12
EXHTQB - 5904		Yfiler®							
4e		14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19		16	17		
							23		12
GABV7P - 5904		Yfiler®							
4e		14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19		16	17		
							23		12
HAQEQL - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
LTAHYH - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
MFEQT6 - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
RX2XQC - 5904		Yfiler® Plus							
4e	35,36	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12

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

VFPHYT - 5904		PowerPlex® Y 23							
4e		14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19		16	17		22,23
		11,13	12	17	18,20		23	10,12	12
XC2MA6 - 5904		Yfiler® plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12
YGQMZ7 - 5904		Yfiler® Plus							
4e	35,36,37	14,15	11,14	13	29,30	23,24	11	12,13	13
	15	12	12	18,19	29	16	17	10,12	22,23
	37	11,13		17	18,20	22	23		12

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

2PFWN7 - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
39P9T2 - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
9LRQ7W - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
B8LGER - 5905		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
CHY2CU - 5905		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
CMN7HX - 5905		PowerPlex® Y 23							
4sp		15	11,14	13	29	23	11	13	13
		15	12	12	18		16	17	22
		13	12	17	18		23	10	12
EXHTQB - 5904		Yfiler®							
4sp		15	11,14	13	29	23	11	13	13
		15	12	12	18		16	17	
							23		12
GABV7P - 5904		Yfiler®							
4sp		15	11,14	13	29	23	11	13	13
		15	12	12	18		16	17	
							23		12
HAQEQL - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
LTAHYH - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
MFEQT6 - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
RX2XQC - 5904		Yfiler® Plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12

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

VFPHYT - 5904		PowerPlex® Y 23							
4sp		15	11,14	13	29	23	11	13	13
	15	12	12	18		16	17		22
		13	12	17	18		23	10	12
XC2MA6 - 5904		Yfiler® plus							
4sp	35,36	15	11,14	13	29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12
YGQMZ7 - 5904		Yfiler® Plus							
4sp	35	(14),15	11,(14)		29	23	11	13	13
	15	12	12	18	29	16	17	12	22
	37	13		17	18	22	23		12

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
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No additional DNA results were reported.

DNA Mixture Concentrations and Proportions

TABLE 6

Item 3 Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
2HWQQY - 5904	3	Suspect	6.30	48.99
		Unknown	3.84	29.84
		Victim	2.72	21.18
2KJKGL - 5904	3	Suspect		47.00
		Unknown		30.00
		Victim		23.00
2MVZBM - 5904	3	Suspect		47.00
		Unknown		30.00
		Victim		22.00
2NL4TM - 5904	3			
2PFWN7 - 5904	3	Suspect	0.03672	51.00
		Unknown	0.02088	29.00
		Victim	0.01440	20.00
2ZCZRZ - 5904	3	Suspect	0.5500	47.50
		Unknown	0.3400	29.34
		Victim	0.2700	23.16
39P9T2 - 5904	3	Suspect	0.01300	45.00
		Unknown	0.01000	36.00
		Victim	0.00520	18.00
7G772H - 5904	3	Suspect		48.00
		Unknown		27.00
		Victim		26.00
7QTCKU - 5904	1	Suspect		
7XNQH4 - 5904	3	Suspect		46.00
		Unknown		32.00
		Victim		22.00
83HLVE - 5904	3	Suspect		48.00
		Unknown		25.00
		Victim		27.00
8XUR8G - 5905	3	Suspect		51.27
		Unknown		25.93
		Victim		22.81
9LRQ7W - 5904	3	Suspect	0.6500	47.79
		Unknown	0.4000	29.62
		Victim	0.3100	22.59

TABLE 6

Item 3 Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
ALAB6D - 5904	3	Suspect Unknown Victim		47.00 26.00 26.00
BZFZJC - 5905	3	Suspect Unknown Victim		50.00 27.00 23.00
CHY2CU - 5905	3	Suspect Unknown Victim	0.01650 0.00990 0.00660	50.00 30.00 20.00
CMN7HX - 5905	3	Suspect Unknown Victim		333.00 333.00 333.00
E8URKL - 5905	3	Suspect Unknown Victim	0.03900 0.02400 0.02100	46.00 29.00 25.00
EXHTQB - 5904	3	Suspect Unknown Victim	5.08 2.83 2.63	48.25 26.81 24.92
FNWNGQ - 5905	3	Suspect Unknown Victim		46.57 26.73 26.70
HAQEQL - 5904	3	Suspect Unknown Victim	0.02640 0.02040 0.01320	44.00 34.00 22.00
JCQ6A7 - 5904	3	Suspect Unknown Victim		45.01 29.93 25.07
JX6P78 - 5905	3	Suspect Unknown Victim	16.0 16.0 8.00	40.00 40.00 20.00
KG2HPK - 5905	4	Suspect Unknown Unknown Victim	0.02300 0.01400 0.00100 0.01200	47.00 29.00 1.00 24.00
KJJWV7 - 5905	3	Suspect Unknown Victim		40.30 21.60
KQNEQK - 5904	3	Suspect Unknown Victim	0.02688 0.02304 0.01408	42.00 36.00 22.00
LTAHYH - 5904	3	Suspect Unknown Victim	0.07600 0.01900 0.01000	73.00 18.00 10.00

TABLE 6

Item 3 Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
MFEQT6 - 5904	3	Suspect	0.1800	49.40
		Unknown	0.1800	29.50
		Victim	0.1800	21.10
NU764H - 5904	3	Suspect	0.01872	48.00
		Unknown	0.01053	27.00
		Victim	0.00975	25.00
P2QF7Y - 5904	3	Suspect		46.00
		Unknown		28.00
		Victim		26.00
PMDXPW - 5904	3	Suspect		50.00
		Unknown		27.00
		Victim		24.00
PTTVQC - 5905	3	Suspect	0.03200	43.00
		Unknown	0.02600	35.00
		Victim	0.01600	22.00
R229LC - 5905	3	Suspect	0.1350	50.00
		Unknown	0.07830	29.00
		Victim	0.05670	21.00
RX2XQC - 5904	3	Suspect	0.7584	48.00
		Unknown	0.4740	30.00
		Victim	0.3318	21.00
T6E7TY - 5904	3	Unknown	0.1759	23.20
		Unknown	0.2402	31.70
		Unknown	0.3426	45.20
TATV7U - 5904	3	Suspect		49.00
		Unknown		29.00
		Victim		22.00
V6PRF7 - 5905	3	Suspect	0.00432	36.00
		Unknown	0.00516	43.00
		Victim	0.00252	21.00
VEXEHR - 5904	3	Suspect		47.00
		Unknown		30.00
		Victim		24.00
VFPHYT - 5904	3	Suspect		41.00
		Unknown		31.00
		Victim		28.00
VPYTTQ - 5904	3	Suspect		45.00
		Unknown		31.00
		Victim		23.00
VU83VT - 5904	3	Suspect		52.00
		Unknown		28.00
		Victim		20.00

TABLE 6

Item 3 Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
VXA9YR - 5905	3	Suspect	0.06880	52.00
		Unknown	0.03440	26.00
		Victim	0.02780	21.00
VXRZ8C - 5904	3	Suspect	0.1050	44.00
		Unknown	0.07100	30.00
		Victim	0.06200	26.00
WZN4C4 - 5904	3	Suspect	1.85	49.58
		Unknown	1.05	28.03
		Victim	0.8400	22.39
XC2MA6 - 5904	3	Suspect	0.06450	50.00
		Unknown	0.03612	28.00
		Victim	0.02967	23.00
XZ8ACU - 5904	3	Suspect	0.05540	46.60
		Unknown	0.03620	30.47
		Victim	0.02720	22.93
Y8Z2WT - 5904	3	Suspect	322	46.00
		Unknown	21.0	30.00
		Victim	168	24.00
YGQMZ7 - 5904	3	Suspect	0.04575	61.00
		Unknown	0.01725	23.00
		Victim	0.01275	17.00

Response Summary	
Estimated Number of Contributors	Percent Reported
3	46 (96%)
4	1 (2%)
1	1 (2%)

TABLE 6

Item 4 Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
2NL4TM - 5904	3			
7QTCKU - 5904	3	Suspect Unknown Victim		13.70 70.40 15.90
7XNQH4 - 5904	3	Suspect Unknown Victim		34.00 41.00 25.00
8XUR8G - 5905	3	Suspect Unknown Victim		9.13 87.12 3.75
BZFZJC - 5905	3	Suspect Unknown Victim		9.00 87.00 4.00
E8URKL - 5905	3	Suspect Unknown Victim	0.05700 0.07400 0.04600	32.00 42.00 26.00
JX6P78 - 5905	3	Suspect Unknown Victim	3.00 105 15.0	20.00 70.00 10.00
T6E7TY - 5904	3	Suspect Unknown Victim	0.1650 0.3990 0.07600	26.00 63.00 12.00
V6PRF7 - 5905	3	Suspect Unknown Victim	0.00280 0.00480 0.00240	28.00 48.00 24.00
Y8Z2WT - 5904	3	Suspect Unknown Unknown	299 1,863 138	13.00 81.00 6.00

Response Summary	
<u>Estimated Number of Contributors</u>	<u>Percent Reported</u>
3	10 (100%)

TABLE 6

Item 4e Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
2HWQQY - 5904	1	Unknown		
2KJKGL - 5904	3	Suspect Unknown Victim		30.00 52.00 18.00
2MVZBM - 5904	3	Suspect Unknown Victim		17.00 72.00 10.00
2PFWN7 - 5904	3	Suspect Unknown Victim	0.4823 0.7028 0.1929	35.00 51.00 14.00
2ZCZRZ - 5904	3	Suspect Unknown Victim	0.2800 0.5600 0.1400	28.23 57.39 14.39
39P9T2 - 5904	3	Suspect Unknown Victim	0.3810 0.3210 0.1730	44.00 37.00 20.00
7G772H - 5904	3	Suspect Unknown Victim		24.00 65.00 10.00
83HLVE - 5904	3	Suspect Unknown Victim		24.00 56.00 21.00
9LRQ7W - 5904	3	Suspect Unknown Victim	1.57 4.46 0.5400	23.85 67.91 8.25
ALAB6D - 5904	3	Suspect Unknown Victim		25.00 62.00 14.00
CHY2CU - 5905	3	Suspect Unknown Victim	0.3442 0.1864 0.1864	48.00 26.00 26.00
CMN7HX - 5905	3	Suspect Unknown Victim		333.00 333.00 333.00
EXHTQB - 5904	3	Suspect Unknown Victim	3.16 3.14 1.91	38.49 38.23 23.27
FNWNGQ - 5905	3	Suspect Unknown Victim		12.28 80.78 6.94

TABLE 6

Item 4e Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
HAQEQL - 5904	3	Suspect	0.7387	54.00
		Unknown	0.2736	20.00
		Victim	0.3557	26.00
JCQ6A7 - 5904	3	Suspect		14.22
		Unknown		79.68
		Victim		6.10
KG2HPK - 5905	3	Suspect	1.64	49.00
		Unknown	1.04	31.00
		Victim	0.6690	20.00
KJJWV7 - 5905	3	Suspect		24.90
		Unknown		62.20
		Victim		13.40
KQNEQK - 5904	3	Suspect	0.6056	42.00
		Unknown	0.5335	37.00
		Victim	0.3028	21.00
LTAHYH - 5904	3	Suspect	1.02	48.00
		Unknown	0.6980	33.00
		Victim	0.4020	19.00
MFEQT6 - 5904	3	Suspect	1.19	48.80
		Unknown	1.19	27.00
		Victim	1.19	24.20
NU764H - 5904	3	Suspect	0.7069	47.00
		Unknown	0.4362	29.00
		Victim	0.3459	23.00
P2QF7Y - 5904	3	Suspect		28.00
		Unknown		57.00
		Victim		15.00
PMDXPW - 5904	3	Suspect		48.00
		Unknown		28.00
		Victim		24.00
PTTVQC - 5905	3	Suspect	0.8470	50.00
		Unknown	0.4570	27.00
		Victim	0.3900	23.00
R229LC - 5905	3	Suspect	0.6910	54.00
		Unknown	0.1920	15.00
		Victim	0.4090	32.00
RX2XQC - 5904	3	Suspect	0.00564	12.00
		Unknown	0.03760	80.00
		Victim	0.00376	8.00
TATV7U - 5904	3	Suspect		36.00
		Unknown		44.00
		Victim		20.00

TABLE 6

Item 4e Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
VEXEHR - 5904	3	Suspect Unknown Victim		31.00 46.00 23.00
VFPHYT - 5904	4	Suspect Unknown Unknown Victim		29.00 57.00 0.00 14.00
VPYTTQ - 5904	3	Suspect Unknown Victim		27.00 57.00 16.00
VU83VT - 5904	3	Suspect Unknown Victim		25.00 68.00 7.00
VXA9YR - 5905	3	Suspect Unknown Victim	0.2094 0.4831 0.01130	26.00 60.00 14.00
VXRZ8C - 5904	3	Suspect Unknown Victim	0.8210 0.9540 0.4660	37.00 43.00 21.00
WZN4C4 - 5904	3	Suspect Unknown Victim	1.35 1.95 0.4300	36.20 52.31 11.48
XC2MA6 - 5904	3	Suspect Unknown Victim	0.4107 0.5328 0.1665	37.00 48.00 15.00
XZ8ACU - 5904	3	Suspect Unknown Victim	0.01800 0.02380 0.00950	35.09 46.41 18.50
YGQMZ7 - 5904	3	Suspect Unknown Victim	0.04004 0.07150 0.03146	28.00 50.00 22.00

Response Summary	
Estimated Number of Contributors	Percent Reported
3	36 (95%)
4	1 (3%)
1	1 (3%)

TABLE 6

Item 4sp Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
2HWQQY - 5904	1	Unknown	0.00450	100.00
2KJKGL - 5904	1	Unknown		100.00
2MVZBM - 5904	1	Unknown		100.00
2PFWN7 - 5904	1	Unknown	0.5900	100.00
2ZCZRZ - 5904	1	Unknown	0.5520	100.00
39P9T2 - 5904	1	Unknown	0.1580	100.00
7G772H - 5904	1	Unknown		100.00
83HLVE - 5904	1	Unknown		100.00
9LRQ7W - 5904	1	Unknown	1.46	100.00
ALAB6D - 5904	1	Unknown		100.00
CHY2CU - 5905	1	Unknown	0.08600	100.00
CMN7HX - 5905	1	Unknown		100.00
EXHTQB - 5904	1	Unknown	0.2860	100.00
FNWNGQ - 5905	1	Unknown		100.00
HAQEQL - 5904	1	Unknown	0.1610	100.00
JCQ6A7 - 5904	1	Unknown		100.00
KG2HPK - 5905	1	Unknown	0.6900	100.00
KJJWV7 - 5905	1	Unknown		100.00
KQNEQK - 5904	1	Unknown	0.5970	100.00
LTAHYH - 5904	1	Unknown	0.6290	100.00
MFEQT6 - 5904	1	Unknown	0.4400	100.00
NU764H - 5904	1	Unknown	0.1860	100.00
P2QF7Y - 5904	1	Unknown		100.00
PMDXPW - 5904	1	Unknown		100.00

TABLE 6

Item 4sp Results				
WebCode-Test	Number of Contributors	Contributor(s)	DNA Concentration (ng/uL)	DNA Proportion (%)
PTTVQC - 5905	1	Unknown	0.4140	100.00
R229LC - 5905	1	Unknown	0.1180	100.00
RX2XQC - 5904	1	Unknown	0.5790	100.00
TATV7U - 5904	1	Unknown		100.00
VEXEHR - 5904	1	Unknown		100.00
VFPHYT - 5904	1	Unknown	10.7	100.00
VPYTTQ - 5904	1	Unknown		100.00
VU83VT - 5904	1	Unknown		100.00
VXA9YR - 5905	1	Unknown	0.2220	100.00
VXRZ8C - 5904	2	Unknown Unknown	0.00400 0.4100	1.00 99.00
WZN4C4 - 5904	1	Victim	1.03	100.00
XC2MA6 - 5904	1	Unknown	0.4160	100.00
XZ8ACU - 5904	1	Unknown	0.00410	100.00
YGQMZ7 - 5904	2	Unknown Unknown	0.00096 0.00504	16.00 84.00

Response Summary	
Estimated Number of Contributors	Percent Reported
1	36 (95%)
2	2 (5%)

Statistical Analysis for Item 3

TABLE 7

WebCode- Test	Item 3 Methods & Results
2HWQQY - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Likelihood ratio= victim + suspect + unknown vs victim + 2 unknowns >100 billion</p> <p>Database(s) Used: National Population</p>
2KJKGL - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with FEMALE VICTIM as an assumed contributor. The DNA results are approximately 14.6 septillion times more likely if they originated from FEMALE VICTIM, MALE SUSPECT, and an unknown, unrelated individual than if they originated from FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that MALE SUSPECT is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
2MVZBM - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with the FEMALE VICTIM as an assumed contributor. The DNA results are approximately 11.0 septillion times more likely if they originated from the FEMALE VICTIM, the APPREHENDED MALE SUSPECT, and an unknown, unrelated individual than if they originated from the FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the APPREHENDED MALE SUSPECT is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
2NL4TM - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: A mixed profile, containing DNA from three people was obtained from the sample from the victim's shirt. The female victim and the apprehended suspect could not be excluded as being possible contributors to this mixed profile. In order to help the Court evaluate this finding I have considered the following sets of propositions: 1. The DNA mixture came from the female victim and two unknown individuals. 2. The DNA in the mixture came from three unknown individuals who are not related to the female victim. A calculation made with reference to [Country] population survey data shows that this finding is at least four hundred and seventy million (470,000,000) times more likely to arise under the first proposition. 3. The DNA in the mixture came from apprehended suspect and two unknown individuals. 4. The DNA in the mixture came from three unknown individuals who are not related to the apprehended suspect. A calculation made with reference to [Country] population survey data shows that this finding is at least sixty eight million (68,000,000) times more likely to arise under the third proposition.</p> <p>Database(s) Used: [Participant did not return a database used.]</p>
2PFWN7 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21 Suspect: LR=100 billion. Victim: assumed.</p> <p>Database(s) Used: [Location Identifying Database]</p>
2ZCZRZ - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 (victim) - Assumed contributor. Item 2 (known suspect) - >100 billion in favour of H1.</p> <p>Database(s) Used: Caucasian, Aboriginal, Asian</p>

TABLE 7

WebCode-Test	Item 3 Methods & Results
39P9T2 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21: Victim (item 1): Assumed contributor. Suspect (item 2): Not excluded (LR = 100 billion). YFP: Not calculated - unable to resolve 2 person mixture.</p> <p>Database(s) Used: [Location Identifying Database]</p>
3WBEFN - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Autosomal Log10LR: Item 1 + 2 unkn vs 3 unkn; Casesolver = 1,2E+01; Item 2 + 2 unkn vs 3 unkn; Casesolver = 9,6E+00; Item 1 + Item 2 + 1 unkn vs 3 unkn; LRMixStudio = 2,0E+01 (d.o. = 0,17); LabRetriever = 2,0E+01 (afr.am), 1,7E+01 (cauc.), 1,7E+01 (hisp.); DNAMView = 3,0E+01; EFM = 3,0E+01; Y-STR Log10LR: Item 2 + 1 unkn vs 2 unkn; YHRD = 4,4E+00</p> <p>Database(s) Used: Nist all Pop for autosomal All pop for YHRD</p>
7G772H - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of 3 individuals, with at least one male contributor and with Female Victim as an assumed contributor. The DNA results are approximately 39.7 sextillion times more likely if they originated from Male Suspect, Female Victim, and an unknown, unrelated individual than if they originated from Female Victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that Male Suspect is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
7QTCKU - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR = 8.9413 x 10³ reported as 8,900.</p> <p>Database(s) Used: [Location Identifying Database]</p>
7XNQH4 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Victim (Item 1): LR(MLE)=3.299x10⁹; log10LR(MLE)=9.52. Suspect (Item 2): LR(MLE)=114152547; log10LR(MLE)=8.06.</p> <p>Database(s) Used: STRider</p>
83HLVE - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with FEMALE VICTIM as an assumed contributor. The DNA results are approximately 14.5 sextillion times more likely if they originated from FEMALE VICTIM, MALE SUSPECT, and an unknown, unrelated individual than if they originated from FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that MALE SUSPECT is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 JULY 2017</p>
8XUR8G - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Assuming three contributors, the evidence profile is 110 trillion times more likely to be observed if Victim and two unknowns are the contributors than if three unknowns are the contributors. Assuming three contributors, the evidence profile is 1.3 septillion times more likely to be observed if Victim, Suspect, and one unknown are the contributors than if Victim and two unknowns are the contributors.</p> <p>Database(s) Used: NIST Databases- Forensic Sci. Int.:Genetics 31 (2017) e36-e40</p>
9LRQ7W - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Comparison of item 1 was calculated as 49 billion in favour of inclusion (H1) rather than exclusion (H2). Comparison of item 2 was calculated as > 100 billion in favour of inclusion (H1) rather than exclusion (H2).</p> <p>Database(s) Used: [Location Identifying Database]</p>

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WebCode-Test	Item 3 Methods & Results
ALAB6D - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with The Female Victim as an assumed contributor. The DNA results are approximately 611 quintillion times more likely if they originated from The Female Victim, The Male Suspect, and an unknown, unrelated individual than if they originated from The Female Victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that The Male Suspect is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 (July 2017)</p>
B8LGER - 5905	<p>Method(s): Likelihood Ratio, STRmix v2.10</p> <p>Stats Analysis: Item 1 - 1.5 billion in favour of inclusion. Item 2 - 850 million in favour of inclusion.</p> <p>Database(s) Used: [Location Identifying Database]</p>
BZFZJC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 3, Stain from Victim's shirt: Assuming three contributors, the evidence profile is 2.2 septillion (2.2E24) times more likely to be observed if Victim, Suspect, and one unknown person are the contributors than if Victim and two unknown people are the contributors.</p> <p>Database(s) Used: NIST Databases - Forensic Sci. Int.: Genetics 31 (2017) e36-e40</p>
CHY2CU - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 complainant - Assumed contributor. Item 2 suspect - The DNA evidence is 100 billion times more likely if the complainant, suspect and an unknown and unrelated person chosen at random from the [Location Identifying Population] are contributors rather than if the complainant and two unknown and unrelated persons chosen at random from the [Location Identifying Population] are contributors.</p> <p>Database(s) Used: [Location Identifying Database]</p>
CMN7HX - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Blood was found in the Item 3. The Item 3 contained a mixture of DNA from three persons (one female and two males). 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, the suspect and unknown man. The results of the comparison were assessed given the proposition (a) that the DNA originates from the victim, the suspect and unknown person to proposition (b) that the DNA originates from three unknown persons. The DNA results are in the order of 936 866 000 000 000 000 000 times more probable (LR = $9,37 \times 10^{17}$) if the first proposition (a) is true than if the alternative (b) is true. Results provide extremely strong support for the proposition (a) rather than proposition (b).</p> <p>Database(s) Used: STRidER</p>
E8URKL - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 (V): Assumed contributor, Item 2 (S): LR = 100 billion</p> <p>Database(s) Used: [Location Identifying Database]</p>
EXHTQB - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile obtained from item No. 3 is a mixture of at least 3 individuals. The following sets of hypotheses were evaluated. (A) Hp; item NO.1 + 2 unknown, Hd; 3 unknown, LR (MLE) = 639552. (B) Hp: item No. 1 + item No.2 + 1 unknown, Hd: item No. 1 + 2 unknown, LR (MLE) = 2.07e+12.</p> <p>Database(s) Used: NIST Caucasian Database 2017 with theta Co-ancestry coefficient 0.03.</p>

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WebCode-Test	Item 3 Methods & Results
FNWNGQ - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: ITEM 1 assumed as a contributor: $LR = H1/H2 = (ITEM\ 1 + ITEM\ 2 + Unknown) / (ITEM\ 1 + 2\ Unknowns) = 370\ billion$</p> <p>Database(s) Used: [Location Identifying Database]</p>
FU3K3C - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA result was interpreted as a mixture of three individuals, with the Victim as an assumed contributor. The remaining portion of the mixture was determined to be suitable for comparison. The mixture is at least 1.0 septillion (10^{24}) times more likely if it originated from the Victim, the Suspect, and one unknown, unrelated individual than if it originated from the Victim and two unknown, unrelated individuals. This analysis provides very strong support for the proposition that Suspect is a contributor to the mixture. The male DNA sperm donor profile from item 1-4A2 is excluded as a contributor to the mixture.</p> <p>Database(s) Used: NIST</p>
GABV7P - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The LR value for the possible involvement of the victim to this mixture was calculated to be $1.07e23$ to 1, which means it is about $1.07e23$ times more likely that the observed DNA profile being a mixture originating from the victim and two unknown individuals than if it originating from three unrelated individuals selected at random from the local [Location Identifying Population]. The LR value for the possible involvement of the suspect was calculated to be $6.34e20$ to 1, which means it is about $6.34e20$ times more likely that the observed DNA profile being a mixture originating from the suspect and two unknown individuals than if it originating from three unrelated individuals selected at random from the local [Location Identifying Population].</p> <p>Database(s) Used: [Location Identifying Database]</p>
GKRHGB - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixture is at least 11 sextillion (10^{21}) times more likely if it originated from the Female Victim, the Apprehended Male Suspect and an unknown, unrelated individual than if it originated from the Female Victim and two unknown, unrelated individuals. This analysis provides very strong support for the proposition that the Apprehended Male Suspect is a contributor to the mixture.</p> <p>Database(s) Used: NIST African American, Asian, Caucasian and Hispanic</p>
HAQEQL - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21: Victim: not excluded, assumed to be a contributor. Suspect: LR: 96 billion. YFP: no statistical analysis due to unresolved mixture</p> <p>Database(s) Used: [Location Identifying Database]</p>
JCQ6A7 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA typing profile obtained from exhibit ITEM 3 (stain from shirt: area AA) is of mixed origin, consistent with having originated from three individuals, at least one of whom is male. The donor of the known sample, exhibit ITEM 1 (COMPLAINANT), is assumed to be a contributor to this mixed profile. This profile is suitable for comparison to reference samples. (see Remark 2 - Individual 1). The donor of the known sample, exhibit ITEM 2 (SUSPECT), is a possible contributor to this mixed profile. The DNA evidence is 2.5 trillion times more likely (very strong support for inclusion*) to be observed if it originated from COMPLAINANT, SUSPECT and an unknown, unrelated individual rather than if it originated from COMPLAINANT and two unknown, unrelated individuals selected at random from the [Location Identifying Population]. The donor of the profile designated as Male 1 is not a contributor to this mixed profile.</p> <p>Database(s) Used: [Location Identifying Database]</p>

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WebCode-Test	Item 3 Methods & Results
JX6P78 - 5905	<p>Method(s): Likelihood Ratio Stats Analysis: $H1 = V + S + U_n$ $H0 = V + U_n + U_n$ $LR = 1,1 \times 10^9$, drop out = 0,19 Database(s) Used: [Participant did not return a database used.]</p>
KG2HPK - 5905	<p>Method(s): Likelihood Ratio Stats Analysis: Item 1 (v): Assumed Contributor. Item 2 (S): LR = 100 Billion. Database(s) Used: [Location Identifying Database]</p>
KJJWV7 - 5905	<p>Method(s): Likelihood Ratio Stats Analysis: Item 1: $1.793e+13$, Item 2: $1.580e+8$. Unknown male from Item 4: no statistical calculation performed due to number of mismatches Database(s) Used: [Location Identifying Database]</p>
KQNEQK - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: Item 1: Assumed contributor; no LR calculation performed. Item 2: LR: 95 Billion. The DNA evidence is 95 Billion times more likely to occur if the DNA has originated from the victim and the suspect plus one unknown unrelated individual from the [Location Identifying Population], rather than if the DNA has originated from the victim and two unknown unrelated individuals from the [Location Identifying Population]. Database(s) Used: [Location Identifying Database]</p>
LTAHYH - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: STRMIX: Assumed complainant. Suspect 100 billion. Unknown male from Item 4s not compared but can be if required. Y-Filer: Major component: suspect 13,000 - not observed in 58,031 individuals. Minor component: Unknown male from Item 4s excluded. Database(s) Used: [Location Identifying Database]</p>
MFEQT6 - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: LR OF ITEM 2 (MALE SUSPECT) IN ITEM 3 IS 1.27787E7 Database(s) Used: [Location Identifying Database]</p>
NU764H - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: Mixed DNA profile originating from at least 3 people. Item 1 = assumed contributor Item 2 = The DNA evidence is 100 billion times more likely if the DNA originated from the donors of item 1 and item 2 and an unknown person from the [Location Identifying Population], than if the DNA originated from the donor of item 1 and two unknown people from the [Location Identifying Population]. Database(s) Used: [Location Identifying Database]</p>
P2QF7Y - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: Assuming Female Victim (K1), the evidence profile is approximately 1 quadrillion times more likely if it originated from Female Victim (K1), Male Suspect (K2), and an unknown individual than if it originated from Female Victim (K1) and two unknown individuals. Database(s) Used: 2015 FBI Expanded Population Database</p>

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WebCode-Test	Item 3 Methods & Results
PMDXPW - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The mixture of DNA is approximately 150 billion (1.5E+11) times more likely if it originated from item 001 - (Known blood- Victim) and 2 unknown, unrelated contributors than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 001 - (Known blood- Victim) is a contributor to the DNA results obtained from item 003. The mixture of DNA is approximately 5.4 quintillion (5.4E+18) times more likely if it originated from item 002 - (Known blood - Suspect) and 2 unknown, unrelated contributors than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 002 - (Known blood - Suspect) is a contributor to the DNA results obtained from item 003. The mixture of DNA is approximately 100 decillion (1.0E+35) times more likely if it originated from item 001 - (Known blood- Victim) and item 002 - (Known blood - Suspect) and an unknown, unrelated contributor than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 001 - (Known blood- Victim) and item 002 - (Known blood - Suspect) are contributors to the DNA results obtained from item 003.</p> <p>Database(s) Used: NIST (African American, Caucasian, Hispanic) according to laboratory policy, the lowest LR of the three calculated populations was reported.</p>
PTTVQC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 (complainant) = assumed contributor. Item 2 (suspect) comparison, LR = 50 billion.</p> <p>Database(s) Used: [Location Identifying Database]</p>
R229LC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 (V) : Assumed Contributor. Item 2 (S): LR = 100 Billion.</p> <p>Database(s) Used: [Location Identifying Database]</p>
RX2XQC - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Victim assumed, Suspect LR= At least 100 billion in favour of H1</p> <p>Database(s) Used: Local population databases</p>
T6E7TY - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile is obtained from a sample taken from the victim's shirt. 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 the suspect and unknown person; (2) The DNA originates from the victim and two unknown persons. The DNA results are in the order of 1E+11 times more probable if the first proposition (1) is true than if the alternative (2) is true.</p> <p>Database(s) Used: [Location Identifying Database]</p>
TATV7U - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor, and with the female victim as an assumed contributor. The DNA results are approximately 20.9 quintillion times more likely if they originated from the female victim, the apprehended male suspect, and an unknown, unrelated individual than if they originated from the female victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the apprehended male suspect is a contributor to the DNA from this item</p> <p>Database(s) Used: NIST 1036 July 2017</p>

TABLE 7

WebCode-Test	Item 3 Methods & Results
V6PRF7 - 5905	<p>Method(s): Likelihood Ratio Stats Analysis: Item 1 (Victim) Assumed Contributor. Item 2 (Suspect) LR = 100 billion. Database(s) Used: [Location Identifying Database]</p>
VEXEHR - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with VICTIM as an assumed contributor. The DNA results are approximately 136 sextillion times more likely if they originated from VICTIM, SUSPECT, and an unknown, unrelated individual than if they originated from VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that SUSPECT is a contributor to the DNA from this item. Database(s) Used: NIST 1036 July 2017</p>
VFPHYT - 5904	<p>Method(s): Likelihood Ratio, STRmix Stats Analysis: Most conservative LR for Suspect (from item 2), conditioning on the Complainant = 155,589,000,000 support for Hp. Capped at At Least 1 billion (1,000,000,000) support for Hp. Database(s) Used: NDU1, NDU2, NDU3, NDU4, NDU6, NDU7</p>
VPYTTQ - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: The mixture of DNA is approximately 31 sextillion (3.1E+22) times more likely if it originated from item 001 - (Known blood - Victim) and item 002 - (Known blood - Suspect) and an unknown, unrelated contributor than if it originated from item 001 - (Known blood - Victim) and 2 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. Database(s) Used: NIST (African American, Caucasian, Hispanic) according to laboratory policy, the lowest LR of the three calculated populations was reported.</p>
VU83VT - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with the female victim as an assumed contributor. The DNA results are approximately 2.50 septillion times more likely if they originated from the apprehended male suspect, the female victim and an unknown, unrelated individual than if they originated from the female victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the apprehended male suspect is a contributor to the DNA from this item. Database(s) Used: NIST 1036 July 2017</p>
VXA9YR - 5905	<p>Method(s): Likelihood Ratio Stats Analysis: Assuming the victim is a contributor to this mixture; a partial male DNA profile was obtained from the 52% contributor and matches the DNA profile from the suspect at 17 of 21 loci. The mixture of DNA obtained from this item is at least 5×10^{13} times more likely if it originated from the victim, the suspect and one unknown individual than if it originated from the victim and two unknown individuals. Database(s) Used: FBI_extended AFAM; FBI_extended CAUC; FBI_extended HISP; FBI_extended SW HISP</p>
VXRZ8C - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: Victim (Item 1): Assumed contributor. Suspect (Item 2): LR 100 Billion. Database(s) Used: [Location Identifying Database]</p>
WZN4C4 - 5904	<p>Method(s): Likelihood Ratio Stats Analysis: Conditioned on Item 1. Item 2 >100 billion (1.1551E19) Database(s) Used: [Location Identifying Database]</p>

TABLE 7

WebCode- Test	Item 3 Methods & Results
XC2MA6 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1: Assumed contributor. Item 2: The DNA evidence is 100 billion times more likely if Item 2 is a contributor to the mixed DNA profile</p> <p>Database(s) Used: [Location Identifying Database]</p>
XZ8ACU - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not return statistical analysis.]</p> <p>Database(s) Used: FBI_EXTENDED_CAUC; NIST1036_CAUC</p>
Y8Z2WT - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: DNA profile of the stain found from the victim's shirt (Item 3) has been compared with the profile of the victim (Item 1) and with the profile of the suspect (Item 2). The results of the comparison were assessed given the propositions that (a) The DNA originates from the victim, suspect and one unknown person; (b) The DNA originates from victim and two unknown persons. The DNA results are in order of 1E+15 times more probable if the first proposition (a) is true than if the alternative (b) is true.</p> <p>Database(s) Used: [Location Identifying Database]</p>
YGQMZ7 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21: The victim is not excluded as a contributor to the stain. The evidence is 100 billion times more likely if the victim contributed to the DNA rather than some other person in the population. The suspect is not excluded as a contributor to the stain. The evidence is 100 billion times more likely if the suspect contributed to the DNA rather than some other person in the population. YFP: A mixed DNA profile was obtained. The contributors are unresolvable. For investigative purposes only - the suspect is not excluded as a contributor. The result is not suitable for a statistical evaluation.</p> <p>Database(s) Used: [Location Identifying Database]</p>

Statistical Analysis for Item 4

TABLE 8

WebCode-Test	Item 4 Methods & Results
2KJKGL - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The male DNA profile from this item was interpreted as a single-source profile. FEMALE VICTIM and MALE SUSPECT are excluded as possible contributors to this DNA profile. The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with FEMALE VICTIM as an assumed contributor. The DNA results are approximately 373 quadrillion times more likely if they originated from FEMALE VICTIM, MALE SUSPECT, and an unknown, unrelated individual than if they originated from FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that MALE SUSPECT is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
2MVZBM - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 4.1 (Portion of "Questioned stain from victim's skirt" - Fraction 2) The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with the FEMALE VICTIM as an assumed contributor. The DNA results are approximately 11.2 septillion times more likely if they originated from the FEMALE VICTIM, the APPREHENDED MALE SUSPECT, and an unknown, unrelated individual than if they originated from the FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the APPREHENDED MALE SUSPECT is a contributor to the DNA from this item. Item 4.1 (Portion of "Questioned stain from victim's skirt" - Fraction 1): The male DNA profile from this item was interpreted as a single-source profile. The FEMALE VICTIM and the APPREHENDED MALE SUSPECT are excluded as possible contributors to this DNA profile.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
2NL4TM - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: A mixed profile, containing DNA from three people was obtained from the sample from the victim's skirt. The female victim and the apprehended suspect could not be excluded as being possible contributors to this mixed profile. In order to help the Court evaluate this finding I have considered the following sets of propositions: 1. The DNA mixture came from the female victim and two unknown individuals. 2. The DNA in the mixture came from three unknown individuals who are not related to the female victim. A calculation made with reference to [Country] population survey data shows that this finding is at least one billion (1,000,000,000) times more likely to arise under the first proposition. 3. The DNA in the mixture came from apprehended suspect and two unknown individuals. 4. The DNA in the mixture came from three unknown individuals who are not related to the apprehended suspect. A calculation made with reference to [Country] population survey data shows that this finding is at least thirty six million (36,000,000) times more likely to arise under the third proposition.</p> <p>Database(s) Used: [Participant did not return database used.]</p>
2PFWN7 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21 : Suspect & Victim: Excluded (sperm fraction). Suspect: LR=100 billion (epithelial fraction), victim assumed. YFP Suspect: Not excluded (epithelial fraction) LR=13,000.</p> <p>Database(s) Used: [Location Identifying Database]</p>
2ZCZRZ - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: S#: Unknown Male - Nil statistic. E#: Item 1 (victim) - Assumed contributor, Item 2 (known suspect) - >100 billion in favour of H1.</p> <p>Database(s) Used: Caucasian, Aboriginal, Asian</p>

TABLE 8

WebCode-Test	Item 4 Methods & Results
39P9T2 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: NON-SPERM FRACTION: PP21: Victim (item 1): Assumed contributor, Suspect (item 2): Not excluded (LR = 63 billion). YFP: Suspect (item 2): Not excluded (LR = 13 thousand, Profile not observed in 58,031 males). - Note: assumed unknown male from item 4s fraction used to determine profile matching suspect. SPERM FRACTION: PP21: Victim (item 1): Excluded, Suspect (item 2): Excluded. YFP: Suspect (item 2): Excluded.</p> <p>Database(s) Used: [Location Identifying Database]</p>
3WBEFN - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Autosomal Log10LR: Item 1 + 2 unkn vs 3 unkn; Casesolver = 9,2E+00; Item 2 + 2 unkn vs 3 unkn; Casesolver = 1,0E+01; Item 1 + Item 2 + 1 unkn vs 3 unkn; LRMixStudio = 1,8E+01 (d.o. = 0,21); LabRetriever = 1,9E+01 (afr.am), 1,5E+01 (cauc.), 1,5E+01 (hisp.); DNAView = 2,5E+01; EFM = 3,0E+01; Y-STR Log10LR: Item 2 + 1 unkn vs 2 unkn; YHRD = 3,9E+00</p> <p>Database(s) Used: Nist all Pop for autosomal All pop for YHRD</p>
7G772H - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 4.1 (Portion of "Questioned stain from victim's skirt" - Fraction 2): The DNA profile from this item was interpreted as a mixture of 3 individuals, with at least one male contributor and with Female Victim as an assumed contributor. The DNA results are approximately 939 sextillion times more likely if they originated from Male Suspect, Female Victim, and an unknown, unrelated individual than if they originated from Female Victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that Male Suspect is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
7QTCKU - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR = 2.2716 x 10¹² reported as 100 billion.</p> <p>Database(s) Used: [Location Identifying Database]</p>
7XNQH4 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Victim (Item 1): LR(MLE)=1.194x10⁹; log10LR(MLE)=9.08. Suspect (Item 2): LR(MLE)=21013; log10LR(MLE)=4.32.</p> <p>Database(s) Used: STRider</p>
83HLVE - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: •4.1-SF: The male DNA profile from this item was interpreted as a single-source profile. FEMALE VICTIM and MALE SUSPECT are excluded as possible contributors to the profile. •4.1-EF: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with FEMALE VICTIM as an assumed contributor. The DNA results are approximately 290 quintillion times more likely if they originated from FEMALE VICTIM, MALE SUSPECT, and an unknown, unrelated individual than if they originated from FEMALE VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that MALE SUSPECT is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 JULY 2017</p>

TABLE 8

WebCode- Test	Item 4 Methods & Results
8XUR8G - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Assuming three contributors, the evidence profile is 4.2 billion times more likely to be observed if Victim and two unknowns are the contributors than if three unknowns are the contributors. Assuming three contributors, the evidence profile is 6.2 sextillion times more likely to be observed if Victim, Suspect, and one unknown are the contributors than if Victim and two unknowns are the contributors.</p> <p>Database(s) Used: NIST Databases- Forensic Sci. Int.:Genetics 31 (2017) e36-e40</p>
9LRQ7W - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 and item 2 were excluded from Item 4 sperm fraction. Comparison of item 1 to Item 4 epi fraction was calculated as 930 million in favour of inclusion (H1) rather than exclusion (H2). Comparison of item 2 to item 4 epi fraction was calculated as 510 million in favour of inclusion (H1) rather than exclusion (H2).</p> <p>Database(s) Used: [Location Identifying Database]</p>
ALAB6D - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 4.1-F1: The male DNA profile from this item was interpreted as a single-source profile. The Female Victim and The Male Suspect are excluded as possible contributors to this DNA profile. 4.1-F2: The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with The Female Victim as an assumed contributor. The DNA results are approximately 839 sextillion times more likely if they originated from The Female Victim, The Male Suspect, and an unknown, unrelated individual than if they originated from The Female Victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that The Male Suspect is a contributor to the DNA from this item.</p> <p>Database(s) Used: NIST 1036 (July 2017)</p>
B8LGER - 5905	<p>Method(s): Likelihood Ratio, STRmix v2.10</p> <p>Stats Analysis: Epithelial Fraction mixture was deemed unsuitable for analysis due to inconsistent proportions. Sperm fraction: Item 1 - Excluded (LR = 0) Item 2 - 250 in favour of inclusion. (The evaluated statistical weighting is in a range that may be due to true contribution or coincidental contribution. As the statistic trends towards two, it cannot be determined whether the reported statistic is due to coincidence or true contribution).</p> <p>Database(s) Used: [Location Identifying Database]</p>
BZFZJC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 4, Stain from Victim's skirt: Assuming three contributors, the evidence profile is 1.6 septillion (1.6E24) times more likely to be observed if Victim, Suspect, and one unknown person are the contributors than if Victim and two unknown people are the contributors.</p> <p>Database(s) Used: NIST Databases - Forensic Sci. Int.: Genetics 31 (2017) e36-e40</p>
CHY2CU - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Sp - Item 1 complainant excluded. Item 2 suspect - excluded. E PP21 - Item 1 complainant - Assumed contributor. Item 2 suspect - The DNA evidence is 100 billion times more likely if the complainant, suspect and an unknown and unrelated person chosen at random from the [Location Identifying Population] are contributors rather than if the complainant and two unknown and unrelated persons chosen at random from the [Location Identifying Population] are contributors. E YFP - Item 2 suspect - The YFP DNA evidence is estimated to be 13000 times more likely if the DNA originated from the suspect than if it originated from an unknown and unrelated male chosen at random from the [Location Identifying Population].</p> <p>Database(s) Used: [Location Identifying Database]</p>

TABLE 8

WebCode-Test **Item 4 Methods & Results**

<p>CMN7HX - 5905</p>	<p>Method(s): Likelihood Ratio Stats Analysis: Blood and semen were found in the Item 4. The Item 4 contained a mixture of DNA from three persons (one female and two males). 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, the suspect and unknown man whose full DNA profile was obtained from sperm fraction. The results of the comparison were assessed given the proposition (a) that the DNA originates from the victim, the suspect and unknown person to proposition (b) that the DNA originates from three unknown persons. The DNA results are in the order of 65 240 800 000 000 000 times more probable (LR 6,52 x 10¹⁶) if the first proposition (a) is true than if the alternative (b) is true. Results provide extremely strong support for the proposition (a) rather than proposition (b). The DNA profile of the sperm fraction does not match with the suspect’s DNA profile. Database(s) Used: STRidER</p>
<p>E8URKL - 5905</p>	<p>Method(s): Likelihood Ratio Stats Analysis: Item 1 (V): Assumed contributor, Item 2 (S): LR = 100 billion Database(s) Used: [Location Identifying Database]</p>
<p>EXHTQB - 5904</p>	<p>Method(s): Likelihood Ratio Stats Analysis: The DNA profile obtained from epithelial fraction of item No. 4 is a mixture of at least 3 individuals. The following sets of hypotheses were evaluated. (A) Hp; item No.1 + 2 unknown, Hd; 3 unknown, LR (MLE) = 252e+6; (B) Hp: item No. 1+item No.2+ 1 unknown, Hd: item No. 1+2 unknown, LR (MLE)= 17.3e+6. Database(s) Used: NIST Caucasian Database 2017 with theta Co-ancestry coefficient 0.03.</p>
<p>FNWNGQ - 5905</p>	<p>Method(s): Likelihood Ratio Stats Analysis: Epi Fraction: ITEM 1 assumed as a contributor: LR = H1/H2 = (ITEM 1 + ITEM 2 + Unknown) / (ITEM 1 + 2 Unknowns) = 2.5 quadrillion. Sp fraction: LR = H1/H2 = ITEM 1 / Unknown = 0 (Exclusion); LR = H1/H2 = ITEM 2 / Unknown = 0 (Exclusion). Database(s) Used: [Location Identifying Database]</p>
<p>FU3K3C - 5904</p>	<p>Method(s): Likelihood Ratio Stats Analysis: E1 fraction: The DNA result was interpreted as a mixture of three individuals, with the Victim as an assumed contributor. The remaining portion of the mixture was determined to be suitable for comparison. The mixture is at least 16 septillion (10²⁴) times more likely if it originated from the Victim, the Suspect, and one unknown, unrelated individual than if it originated from the Victim and two unknown, unrelated individuals. This analysis provides very strong support for the proposition that Suspect is a contributor to the mixture. There is strong support for the male DNA sperm donor profile from the corresponding E2 fraction is a contributor to the mixture. E2 fraction The DNA profile was interpreted as a single-source male profile and determined to be suitable for comparison. The suspect is excluded as the contributor of the profile. Database(s) Used: NIST</p>

TABLE 8

WebCode-Test	Item 4 Methods & Results
GABV7P - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The LR value for the possible involvement of the victim to this mixture was calculated to be 6.39e22 to 1, which means it is about 6.39e22 times more likely that the observed DNA profile being a mixture originating from the victim and two unknown individuals than if it originating from three unrelated individuals selected at random from the local [Location Identifying Population]. The LR value for the possible involvement of the suspect was calculated to be 3.00e26 to 1, which means it is about 3.00e26 times more likely that the observed DNA profile being a mixture originating from the suspect and two unknown individuals than if it originating from three unrelated individuals selected at random from the local [Location Identifying Population].</p> <p>Database(s) Used: [Location Identifying Database]</p>
GKRHGB - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 4e (1-4B1): The mixture is at least 2.8 octillion (10^{27}) times more likely if it originated from the Female Victim, the corresponding E2 fraction and the Apprehended Male Suspect than if it originated from the Female Victim, the corresponding E2 fraction and an unknown, unrelated individual. This analysis provides very strong support for the proposition that the Apprehended Male Suspect is a contributor to the mixture. 4sp (1-4B2): The Female Victim and Apprehended Male Suspect are both excluded as the contributor of the profile.</p> <p>Database(s) Used: NIST African American, Asian, Caucasian and Hispanic</p>
HAQEQL - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Sperm fraction PP21 and YFP: no statistical analysis, suspect excluded. Epithelial fraction PP21: Victim: Not excluded, assumed to be a contributor. Suspect: LR: 100 billion Epithelial fraction YFP: Assuming the male source of the sperm fraction DNA, the other contributor's YFP profile was determined. Suspect: LR: 13 thousand, YFP profile not observed in a database of 58,031 caucasian males</p> <p>Database(s) Used: [Location Identifying Database]</p>
JCQ6A7 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA typing results obtained from exhibit ITEM 4 (stain from skirt: area AA) are of mixed origin, consistent with having originated from three individuals, at least one of whom is male. The donor of the known sample, exhibit ITEM 1 (COMPLAINANT), is assumed to be a contributor to fraction one of these results. These results are suitable for comparison to reference samples. (see Remark 1 - Male 1) The donor of the known sample, exhibit ITEM 2 (SUSPECT), is a possible contributor to fraction one of these results. The DNA evidence from fraction one of these results is 50 quadrillion times more likely (very strong support for inclusion*) to be observed if it originated from COMPLAINANT, SUSPECT and an unknown, unrelated individual rather than if it originated from COMPLAINANT and two unknown, unrelated individuals selected at random from the [Location Identifying Population].</p> <p>Database(s) Used: [Location Identifying Database]</p>
JX6P78 - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: $H1 = V + S + Un$ $H0 = V + Un = Un$ $LR = 8 \times 10^8$, drop out=0,18</p> <p>Database(s) Used: [Participant did not return database used.]</p>
KG2HPK - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 4e: Item 1 (v): Assumed Contributor, Item 2 (S): LR = 100 Billion. Item 4sp: Item 1 (V): Excluded, Item 2 (S): Excluded.</p> <p>Database(s) Used: [Location Identifying Database]</p>

TABLE 8

WebCode-Test	Item 4 Methods & Results
KJJWV7 - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Sp: Unknown male. Ep: Item 1: 9.076e+21. Item 2: 6.672e+20. Unknown male from spermfraction. Item 4: 8.354e+26</p> <p>Database(s) Used: [Location Identifying Database]</p>
KQNEQK - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 4e Item 1: A Assumed contributor; no LR calculation performed. Item 2: LR: 100 Billion. The DNA evidence is 100 Billion times more likely to occur if the DNA has originated from the victim and the suspect plus one unknown unrelated individual from the [Location Identifying Population], rather than if the DNA has originated from the victim and two unknown unrelated individuals form the [Location Identifying Population]. 4sp: Item 1: LR: 0. Excluded Item 2: LR: 0. Excluded</p> <p>Database(s) Used: [Location Identifying Database]</p>
LTAHYH - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: STRmix s: Unknown male default LR 100 billion Y-Filer s: Suspect excluded. Unknown male - YHRD not conducted but can be if required. STRmix e: Assumed complainant. Suspect 100 billion. Unknown male from Item 4s not compared but can be if required. Y-Filer e: Assumed unknown male from Item 4s fraction. Other contributor: Suspect 13000, not observed in 58,031 individuals.</p> <p>Database(s) Used: [Location Identifying Database]</p>
MFEQT6 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: LR OF ITEM 2 (MALE SUSPECT) IN ITEM 4 IS 1.7573E7</p> <p>Database(s) Used: [Location Identifying Database]</p>
NU764H - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Sperm fraction: Single source profile. Item 1 and item 2: Excluded. Non-sperm fraction: Mixed DNA profile originating from at least 3 people. Item 1 = assumed contributor. Item 2 = The DNA evidence is 100 billion times more likely if the DNA originated from the donors of item 1 and item 2 and an unknown person from the [Location Identifying Population], than if the DNA originated from the donor of item 1 and two unknown people from the [Location Identifying Population].</p> <p>Database(s) Used: [Location Identifying Database]</p>
P2QF7Y - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: For 4e: Assuming Female Victim (K1), the evidence profile is approximately 275 trillion times more likely if it originated from Female Victim (K1), Male Suspect (K2), and an unknown individual than if it originated from Female Victim (K1) and two unknown individuals. For 4sp: Suspect (K2) is excluded based on the LR of zero.</p> <p>Database(s) Used: 2015 FBI Expanded Population Database</p>

TABLE 8

WebCode- Test	Item 4 Methods & Results
PMDXPW - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The source of item 001 - (Known blood- Victim) is excluded as a possible contributor to the DNA profile developed from the sperm cell fraction of item 004. The source of item 002 - (Known blood - Suspect) is excluded as a possible contributor to the DNA profile developed from the sperm cell fraction of item 004. The mixture of DNA is approximately 560 billion (5.6E+11) times more likely if it originated from item 001 - (Known blood- Victim) and 2 unknown, unrelated contributors than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 001 - (Known blood- Victim) is a contributor to the DNA results obtained from the non-sperm cell fraction of item 004. The mixture of DNA is approximately 91 quadrillion (9.1E+16) times more likely if it originated from item 002 - (Known blood - Suspect) and 2 unknown, unrelated contributors than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 002 - (Known blood - Suspect) is a contributor to the DNA results obtained from the non-sperm cell fraction of item 004. The mixture of DNA is approximately 53 nonillion (5.3E+31) times more likely if it originated from item 001 - (Known blood- Victim) and item 002 - (Known blood - Suspect) and an unknown, unrelated contributor than if it originated from 3 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci. The statistical result provides very strong support for the proposition that item 001 - (Known blood- Victim) and item 002 - (Known blood - Suspect) are contributors to the DNA results obtained from the non-sperm cell fraction of item 004.</p> <p>Database(s) Used: NIST (African American, Caucasian, Hispanic) according to laboratory policy, the lowest LR of the three calculated populations was reported.</p>
PTTVQC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Item 1 (complainant) = assumed contributor. Item 2 (suspect) comparison, LR = 100 billion</p> <p>Database(s) Used: [Location Identifying Database]</p>
R229LC - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: 4E Item 1 (V) : Assumed Contributor, Item 2 (S): LR = 100 Billion. 4S Item 1 (V) : Excluded, Item 2 (S): Excluded.</p> <p>Database(s) Used: [Location Identifying Database]</p>
RX2XQC - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Fraction 1: Victim assumed, Suspect LR= Approx 14 million in favour of H1. Fraction 2: No LR calculated.</p> <p>Database(s) Used: Local population databases</p>
T6E7TY - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: The DNA profile is obtained from a sample taken from the victim's skirt. The victim's and suspect's DNA profile can be linked to the DNA profile obtained from the victim's skirt. The results of the comparison were assessed given the propositions that (1) The DNA originates from the victim and the suspect and unknown person; (2) The DNA originates from the victim and two unknown persons. The DNA results are in the order of 1E+17 times more probable if the first proposition (1) is true than if the alternative (2) is true.</p> <p>Database(s) Used: [Location Identifying Database]</p>

TABLE 8

WebCode-Test **Item 4 Methods & Results**

TATV7U - 5904 **Method(s):** Likelihood Ratio
Stats Analysis: Item 4.1 Fraction 1 (SF): The male DNA profile from this item was interpreted as a single-source profile. The female victim and the apprehended male suspect are excluded as possible contributors to this DNA profile. Item 4.1 Fraction 2 (EF): The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor, and with the female victim as an assumed contributor. The DNA results are approximately 4.92 trillion times more likely if they originated from the female victim, the apprehended male suspect, and an unknown, unrelated individual than if they originated from the female victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the apprehended male suspect is a contributor to the DNA from this item.
Database(s) Used: NIST 1036 July 2017

V6PRF7 - 5905 **Method(s):** Likelihood Ratio
Stats Analysis: Item 1 (Victim) Assumed Contributor. Item 2 (Suspect) LR = 100 billion.
Database(s) Used: [Location Identifying Database]

VEXEHR - 5904 **Method(s):** Likelihood Ratio
Stats Analysis: Sperm Fraction (Fraction 1): The male DNA profile from this item was interpreted as a single-source profile. VICTIM and SUSPECT are excluded as possible contributors to the profile. Epithelial Fraction (Fraction 2): The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with VICTIM as an assumed contributor. The DNA results are approximately 236 trillion times more likely if they originated from VICTIM, SUSPECT, and an unknown, unrelated individual than if they originated from VICTIM and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that SUSPECT is a contributor to the DNA from this item.
Database(s) Used: NIST 1036 July 2017

VFPHYT - 5904 **Method(s):** Likelihood Ratio, STRmix
Stats Analysis: Most conservative LR for Suspect (from item 2), conditioning on the Complainant = 476,448,000,000 support for Hp. Capped at At Least 1 billion (1,000,000,000) support for Hp.
Database(s) Used: NDU1, NDU2, NDU3, NDU4, NDU6, NDU7

VPYTTQ - 5904 **Method(s):** Likelihood Ratio
Stats Analysis: E: The source of item 001 - (Known blood - Victim) is excluded as a possible contributor to the DNA profile developed from the sperm cell fraction of item 004. The source of item 002 - (Known blood - Suspect) is excluded as a possible contributor to the DNA profile developed from the sperm cell fraction of item 004. S: The mixture of DNA is approximately 11 sextillion (1.1E+22) times more likely if it originated from item 001 - (Known blood - Victim) and item 002 - (Known blood - Suspect) and an unknown, unrelated contributor than if it originated from item 001 - (Known blood - Victim) and 2 unknown, unrelated contributors. Statistical calculations are based on 21 of 21 STR loci.
Database(s) Used: NIST (African American, Caucasian, Hispanic) according to laboratory policy, the lowest LR of the three calculated populations was reported.

TABLE 8

WebCode-Test	Item 4 Methods & Results
VU83VT - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: FRACTION 2-The DNA profile from this item was interpreted as a mixture of three individuals, with at least one male contributor and with the female victim as an assumed contributor. The DNA results are approximately 33.0 quintillion times more likely if they originated from the apprehended male suspect, the female victim and an unknown, unrelated individual than if they originated from the female victim and two unknown, unrelated individuals. Based on the likelihood ratio, this provides very strong support that the apprehended male suspect is a contributor to the DNA from this item. FRACTION 1-The male DNA profile from this item was interpreted as a single-source profile. The apprehended male suspect and the female victim are excluded as possible contributors to this DNA profile.</p> <p>Database(s) Used: NIST 1036 July 2017</p>
VXA9YR - 5905	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Assuming the victim is a contributor to this mixture; a partial DNA profile was obtained from the 26% contributor and matches the DNA profile from the suspect at 9 of 21 loci. The mixture of DNA obtained from this item is at least 2×10^{14} times more likely if it originated from the victim, the suspect and one unknown individual than if it originated from the victim and two unknown individuals.</p> <p>Database(s) Used: FBI_extended AFAM; FBI_extended CAUC; FBI_extended HISP; FBI_extended SW HISP</p>
VXRZ8C - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Epithelial fraction: Victim (Item 1): Assumed contributor, Suspect (Item 2): LR 100 Billion. Sperm fraction: Major component Victim (Item 1) and suspect (Item 2) are excluded. Minor component: No analysis was performed on the minor component to this DNA profile due to the limited amount of alleles detected.</p> <p>Database(s) Used: [Location Identifying Database]</p>
WZN4C4 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: Epithelial Fraction: Conditioned on Item 1. Item 2 >100 billion (1.1270E15) Sperm Fraction: Item 1 and Item 2 excluded</p> <p>Database(s) Used: [Location Identifying Database]</p>
XC2MA6 - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: PP21: Sperm fraction (SP): Item 1: Excluded, Item 2: Excluded. PP21: Non-sperm fraction (E): Item 1: Assumed contributor, Item 2: The DNA evidence is 100 billion times more likely if Item 2 is a contributor to the mixed DNA profile. YFP: Unknown SS Male YFP profile (Sperm fraction) used as an assumed in Non-sperm fraction (E) to derive 2nd contributor. Item 2: The DNA evidence is 13,000 times more likely if Item 2 is a contributor to the mixed YFP DNA profile.</p> <p>Database(s) Used: [Location Identifying Database]</p>
XZ8ACU - 5904	<p>Method(s): Likelihood Ratio</p> <p>Stats Analysis: [Participant did not return statistical analysis.]</p> <p>Database(s) Used: FBI_EXTENDED_CAUC; NIST1036_CAUC</p>

TABLE 8

WebCode-Test **Item 4 Methods & Results**

Y8Z2WT - 5904 **Method(s):** Likelihood Ratio
Stats Analysis: DNA profile of the stain found from the victim's skirt (Item 4) has been compared with the profile of the victim (Item 1) and with the profile of the suspect (Item 2). As there were many alleles from victims profile missing, we decided not to include victim in our calculations. The results of the comparison were assessed given the propositions that (a) The DNA originates from the suspect and two unknown persons; (b) The DNA originates from three unknown persons. The DNA results are in order of 1E+12 times more probable if the first proposition (a) is true than if the alternative (b) is true.
Database(s) Used: [Location Identifying Database]

YGQMZ7 - 5904 **Method(s):** Likelihood Ratio
Stats Analysis: A sperm and non-sperm fraction were separated for this sample. FOR THE NON-SPERM FRACTION - PP21: The victim is not excluded as a contributor to the non-sperm fraction of the stain. The evidence is 100 billion times more likely if the victim contributed to the DNA rather than some other person in the population. The suspect is not excluded as a contributor to the non-sperm fraction of the stain. The evidence is 290 thousand times more likely if the suspect contributed to the DNA rather than some other person in the population. YFP: A mixed DNA profile was obtained. The contributors are unresolvable. For investigative purposes only - the suspect is not excluded as a contributor. The result is not suitable for a statistical evaluation. FOR THE SPERM FRACTION - PP21: The evidence is more likely if the victim is not a contributor. The evidence is more likely if the suspect is not a contributor. YFP: A mixed DNA profile was obtained. The contributors are resolvable. The suspect is excluded as the major contributor. The minor is too partial for comparison.
Database(s) Used: [Location Identifying Database]

Additional Comments

TABLE 9

WebCode-Test	Additional Comments
2KJKGL - 5904	NR = NO RESULT
2MVZBM - 5904	NR = No Result
2NL4TM - 5904	The suspect (item 2) was present in the epithelial fraction of item 4. The suspect (item 2) was not present in the sperm fraction. An unknown male profile was obtained. The STRMix software was used for the epithelial fraction of item 4 and for item 3. A single profile from the sperm fraction of item 4 did not require STRMix. Items 3 and 4 were not tested for amylase as there was no indication in the case information that saliva was involved.
7QTCKU - 5904	Item 3: Did not result in a full DNA profile, it was a partial possibly inhibited but the quant results did not indicate this. Item 4: Presumptive testing: Acid Phosphatase was a slow colour change. Confirmatory Testing: RSID semen had a positive result although the line was weak; microscope slide had no spermatozoa. Profile resulted in a 3 person mixture. Victim + suspect + unknown not excluded.
83HLVE - 5904	** - POSSIBLE STUTTER. NR= NO RESULTS.
8XUR8G - 5905	For items 3 and 4, the results include all detected alleles along with the associated stutter peaks. This reflects the data that is imported into STRmix in order to perform probabilistic genotyping. [From Table 3: STR Amplification Kit(s) & Results, Item 3, Locus SE33: "14, 30.2, 31, 31.2, 14.2, 15, 15.2, 16, 16.2, 17, 28.2, 29.2"]
ALAB6D - 5904	NR = No results
B8LGER - 5905	Note - Mixture Sample Analysis section not completed. This type of analysis does not form part of our routine processes. Furthermore, as Item 3 Epithelial Fraction was deemed as a mixture not suitable for interpretation, it would not be scientifically sound to add the required information to that subsection.
BZFZJC - 5905	For items 3 and 4, the results include all detected alleles along with the associated stutter peaks. This reflects the data that is imported into STRmix in order to perform probabilistic genotyping. [From Table 3: STR Amplification Kit(s) & Results, Item 3, Locus SE33: "14, 29.2, 30.2, 31, 31.2, 14.2, 15, 15.2, 16, 16.2, 17, 28.2, 29"]
EXHTQB - 5904	DNA Mixture concentration and proportions DNA mixture proportions are reported as computed by probabilistic genotyping software (EuroForMix). DNA concentrations (ng/μl) 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.
FNWNGQ - 5905	STRmix includes stutter peaks in the interpretation. For entry of alleles for items 3 and 4, an asterisk was used to indicate alleles that are consistent with stutter.
FU3K3C - 5904	Item 4 sp fraction at CSF, allele 10 likely due from carryover from e fraction.
JCQ6A7 - 5904	STRmix includes stutter peaks in the interpretation. For entry of alleles for items 3 and 4, an asterisk was used to indicate alleles that are consistent with stutter.
KG2HPK - 5905	Item 3 CSF 7 peak possibly an artefact (drop in)
MFEQT6 - 5904	- The source of item number (3) is from (item no. 1) and (item no. 2) and unknown male (unknown no. 1). - The source of item number (4) is from (item no. 1) and (item no. 2) and unknown male (unknown no.2). The unknown no.2 is different from unknown no. 1, also the sperm source is from unknown no. 2.

TABLE 9

WebCode-Test	Additional Comments
P2QF7Y - 5904	DNA Concentrations and mixture proportions not reported. Mixture proportions obtained from STRmix deconvolutions of the results. Included stutter alleles in the DNA typing results for items 3 and 4.
PMDXPW - 5904	In the "Mixture Sample Analysis" tab, only completed the DNA proportion % based on lab policies. Lab policies do not include reporting DNA concentration.
TATV7U - 5904	NR= No Result
VEXEHR - 5904	**=possible elevated stutter. NR=no results.
VFPHYT - 5904	Additional Unknown Male detected in the results from Item 3, both in autosomal and Y-STR analysis.
VPYTTQ - 5904	Only completed the DNA percentage (%) based on laboratory policies. Laboratory policies do not include reporting DNA concentration.
VU83VT - 5904	NR= No results
VXRZ8C - 5904	The minor component of the sperm fraction for item 4 was not interpreted due to the limited amount of information detected, as per laboratory procedure. I am not authorised to report on the results from Saliva analysis. These results have been checked and confirmed by an authorised scientist.
XC2MA6 - 5904	YFP Profile for Item 3 was interpreted as a partial 2-person mixture, unresolvable. Alleles present have still been added to table. Cannot perform statistical evaluation given it is unresolvable.
Y8Z2WT - 5904	DNA statistical analysis were performed with 16 locuses present in STR amplification kit NGM detect, because this is our standard laboratory policy.

-End of Report-
(Appendix may follow)

Test No. 24-5904: Probabilistic Genotyping

DATA MUST BE SUBMITTED BY **Oct. 07, 2024, 11:59 p.m. EDT** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: MUDWJU

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 sexual assault involving a female victim and two male suspects. The victim told police she was walking home when two men attacked her. One of the men forced the victim to have vaginal sex. Based on a description provided by the victim, police have apprehended one of the men who attacked her. The other man has not yet been identified. Police are submitting a stain from the shirt (Item 3) and a stain from the skirt (Item 4) the victim was wearing during the assault. Also provided are known standards from the female victim (Item 1) and the apprehended 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 apprehended male suspect
- Item 3: Questioned stain from victim's shirt (tan)
- Item 4: Questioned stain from victim's skirt (gray)

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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	KM, O-tol, PTMB
Semen	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	PSA
Saliva	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Human Origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Y-Screening (male DNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Other Specified Body Fluid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Semen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Saliva	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Human Origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Y-Screening (male DNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Other: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

Item 4:

	Positive	Negative	Inconclusive	Not Tested	Test(s) Performed
Blood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Semen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Saliva	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Human Origin	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Y-Screening (male DNA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>
Other: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="text"/>

Part II: DNA INTERPRETATION

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

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

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 IV: Mixture Sample Analysis

NOTE: To allow functionality of this page please select an answer to differential extraction questions on previous tabs for Item 3 and Item 4.

For each item, select the Estimated Number of Contributors and Contributor Identification (Victim, Suspect, or Unknown Individual). Calculate the DNA Concentration and DNA Proportion for each contributor using your laboratory's protocols. For Unknown Individual(s), report the contributor determined to have the highest concentration of DNA first and remaining in descending order. Enter "DNA Concentration" in ng/uL and "DNA Proportion" in percentage.

Concentration and proportion data not reported.

Item 3:

Estimated number of contributors:

		DNA Concentration (ng/uL)	DNA Proportion (%)
Contributor 1	<input type="text"/>	<input type="text"/>	<input type="text"/>

Item 4:

Estimated number of contributors:

		DNA Concentration (ng/uL)	DNA Proportion (%)
Contributor 1	<input type="text"/>	<input type="text"/>	<input type="text"/>

Part V: DNA Statistical Analysis

Item 3:

1) 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.

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

Item 4:

1) 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.

2) 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.

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 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 ANAB and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is **not** intended for submission to 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.

A2LA Certificate No.

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

Authorized Contact Person and Title

Laboratory Name

Location (City/State)