Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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DNA Parentage
Test No. 21-5870/5 Summary Report

Each participant received a sample pack consisting of four blood samples representing a paternity case. Samples were collected from a mother, a son, and two potential fathers. Participants were requested to analyze the samples using their existing protocols. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and determine if a half sibling relationship was supported. Data were returned from 72 participants and are compiled into the following tables:

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample set was a collection of known blood samples, provided on either FTA Microcards or swabs, from four individuals (Items 1-4); a mother, a son, and two potential fathers. Participants were requested to analyze these items using their existing protocols. Also included with this test was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a half sibling relationship claim was supported following the review of these profiles.

SAMPLE PREPARATION: All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 was blood from a female (mother) donor, Item 2 was blood from a male (son) donor, Item 3 was blood from a male donor who was the biological father of the Item 2 male, and Item 4 was blood from a male donor who was not the biological father of the Item 2 male. Each FTA card was spotted with 75ul of blood, while each swab (two swabs per item) was spotted with 100uL of blood. The different items were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on February 17th, 2021.

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

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

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

Key to Test Substrates

5870 - FTA Microcards

5875 - Swabs

Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
1	14,17.3	19,23	11,13	17,18	11,12	*
	10,11	13,13	13,13	19.3,22	8,11	12,12
	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16	NM	NM	NM	NM	
2	14,18.3	17,19	13,14	17,17	11,12	*
	11,11	13,13	13,14	17,19.3	8,12	12,12
	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16	2	
3	12,18.3	17,20	10,14	15,18‡	12,12	*
	10,11	11,13	14,15	17,17	12,13	12,12
	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16	2	
4	16,16	19,20	10,14	17,18	12,13	*
	9,9	11,13	12,14	21,25	9,11	11,11
	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20	2	

YSTR Results

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

Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
2	35,36	14	11,14	13	29	24	11	13	13
	14	12	12	19	30	17	17	11	22
	37	12	15	17	16	21	23	10	12
3	35,36	14	11,14	13	29	24	11	13	13
	14	12	12	19	30	17	17	11	22
	37	12	15	17	16	21	23	10	12
4	*	14	11,14	13	28	25	10	13	13
	15	12	13	20	*	15	19	*	23
	*	12	13	19	20	*	23	10	11

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

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

‡ Approximately 25% of participants reported "18" or "18,18" at D3S1358 for Item 3.

Paternity Indices

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

Item - Database

	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
	D18S51	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA					
3PI - Grand Mean ±3STD Range**						
	4.781-14.75	1.989-3.379	1.505-2.597	0-0.005	1.226-1.476	*
	1.936-2.827	1.293-1.743	1.450-1.914	3.611-13.11	1.474-2.150	2.441-3.874
	2.735-4.471	2.484-4.024	0-130.85	1.259-1.590	-	3.283-5.332
	1.233-2.063	2.556-5.036	4.157-7.014	4.863-8.717	2.223-5.480	1.678-2.106
	3.925-5.327					
4PI - Grand Mean ±3STD Range**						
	0-0.003	0-0.001	1.765-2.288	1.452-3.186	0.617-0.722	*
	0-0.002	1.301-1.724	1.493-1.909	0-0.003	0-0.003	0-0.005
	0-0.004	2.587-4.000	0-0.007	1.305-1.560	-	0-0.004
	0-0.007	0-0.003	4.437-6.790	0-0.022	2.250-5.400	1.707-2.055
	0-0.005					
3PI - FBI Popstats						
	10.02	2.694	2.074	0.002	1.344	*
	2.439	1.517	1.679	*	1.616	2.927
	3.610	3.194	72.46	1.421	-	4.541
	1.655	3.968	5.820	*	4.198	1.828
	4.748					
3PI - NIST STRBASE						
	10.02	2.694	2.074	0.002	1.344	*
	2.439	1.517	1.678	7.849	1.860	3.180
	3.610	3.194	72.46	1.421	-	4.541
	1.655	3.968	5.820	6.944	4.198	1.905
	4.748					
4PI - NIST STRBASE						
	0	0	2.07	2.375	0.672	*
	0	1.516	1.678	0	0	0
	0	3.194	0	1.421	-	0
	0	0	5.820	0	4.198	1.905
	0					

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

**These ranges are provided to allow participants that utilized databases other than FBI PopStats and NIST STRBASE to review their results. Following AABB guidelines, ranges were determined by taking the grand mean of all data submitted for the associated locus and calculating 3 standard deviations above and below that value.

Summary Comments

The 21-5870/5 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of four known blood samples. Item 1 was blood collected from a female donor (mother), Item 2 was blood collected from a male donor (son of the Item 1 female), Item 3 was blood collected from a male donor who is the biological father of the Item 2 male, and Item 4 was blood collected from a male donor who is not the biological father of the Item 2 male. Participants were requested to analyze the samples and provide allelic and statistical results as well as relationship conclusions. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and report the kinship index and relationship conclusions (Refer to the Manufacturer's Information for preparation details).

DNA Analysis:
All 72 participants who returned data reported STR results for all four items. For Item 1, all participants reported consistent data. For Item 2, all participants reported consistent data except for one, who reported "10,11" at Penta D whereas the consensus was "11,11". For Item 3, 18 (25%) participants reported "18" or "18,18" at D3S1358 whereas the consensus was "15,18". It should be noted that many additional comments indicated that there was a possible mutation between the Item 2 (child) and Item 3 (biological father) at D3S1358, as the Item 2 consensus at this locus was "17,17" and the Item 3 consensus at this locus was "15,18". Multiple participants indicated a peak height imbalance between the 15 allele and the 18 allele for Item 3 at D3S1358. For Item 4, all participants reported consistent data except for one, who reported "20,21" at D18S51 whereas the consensus was "20,20".

For YSTR results, the individual profiles for all items were consistent among all but three reporting participants. One participant reported results inconsistent with the consensus at DYS385 and DYS456 for all three items. One participant reported alleles for Item 3 that were inconsistent with consensus but consistent with the consensus for Item 4. One participant reported "15.1" at DYS437 whereas the consensus was "15".

Paternity DNA Statistics:
All 72 participants reported that the source of Item 3 could not be excluded as the biological father of Item 2. Of the participants that reported probability of paternity values, all reported 99.99% or higher. The most frequently reported population database was NIST STRBASE.

Kinship DNA Statistics
There were 31 participants who responded for the paper kinship exercise. For the loci likelihood ratio (LR) data, four participants consistently reported values that did not match consensus, however these four participants reported using Kin CALc software which utilized different allele frequencies than the ones that were provided. Of the 31 participants, 23 (74%) reported a combined Kinship Index (KI) between 30 and 37. Seven participants reported KI values below 20 and the remaining participant reported a percentage of ~97%. Of the 31 participants, 24 reported that the claim of a half sibling relationship was supported. Five participants reported that the relationship was inconclusive, with all five of these participants having combined KI values between 30 and 37. All five of these participants included in their Additional Statistical Results that their lab protocols require more information, such as additional relatives for testing, to make a final conclusion. Two participants reported that the relationship was not supported, one of which stated they would require additional testing before issuing a conclusion.

STR Amplification Kit(s) & Results

TABLE 1

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

Item 1 - STR Results

24KPGQ-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16	No Results			No Results	
292W6P-5870	PowerPlex® Fusion 6C (Familias)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
2MZXHQ-5870	PowerPlex® F6C					
	14,17.3	19,23	11,13	17,18	11,12	-
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16	-	-	-	-	
2PNAGW-5870	PowerPlex® 21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13,13		19.3,22	8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
2W4TZW-5870	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
3CUFJT-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16					

TABLE 1

Item 1 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
3FTRFT-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16					
3Y9ZGU-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	-
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	-	-	20,24.2	9.3,9.3	8,8
	16,16	-	-	-	-	
4D6FGN-5870	PowerPlex® Fusion 6C (PI by Familias3)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16					
4U9CDR-5870	PowerPlex® 21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13,13		19.3,22	8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
4VKNGN-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	no result			no result	
68DRYM-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3	8
	16	NM			NM	

TABLE 1

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

Item 1 - STR Results

6HV9QU-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	Not detected			Not detected	
6JM86T-5870	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16					
8VUWWT-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
9CXQ3T-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
9L32AH-5875	PowerPlex® PP21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13		19.3,22	8,11	12
1	15,16	13,14.2	29,30		X	10,12
	20,21	10,11	11,12		9.3	8
	16					
9UW73J-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3	8
	16	NM			NM	

TABLE 1

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

Item 1 - STR Results

AVJ6UM-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	-			-	
BAXPRL-5870	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
BHDBZP-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
BNEK8H-5870	GlobalFiler™ (Familias v. 3.2.9)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
C8ADRF-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	No results			No results	
C9KFEE-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					

TABLE 1

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

Item 1 - STR Results

CP74LN-5875	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
CT7EHN-5875	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
EELBBJ-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
EXAWTL-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
F3KABK-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
FJ8NPC-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3	8
	16	NM			NM	

TABLE 1

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

Item 1 - STR Results

FZWYCE-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16	NR				
G33GBB-5875	PowerPlex® FUSION 6C, Investigator® 24plex QS, Investigator ARGUS X-12QS (CODIS Versión 7.0.709.219)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16					
GPEERH-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
GUA9PJ-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
H8RF2B-5875	PowerPlex® Fusion (Genoproof V.3.0.7)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16	-				
HCY76G-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3	8
	16	NM			NM	

TABLE 1

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

Item 1 - STR Results

HNFQND-5870	GlobalFiler™ (DNA VIEW VER 37.11)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16					
J2K9ZD-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
JE6N3C-5870	GlobalFiler™ 24 (DNAVIEW V37.11)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
JXWWZ8-5870	NGM Select					
	14,17.3	19,23	11,13	17,18		
		13,13	13,13	19.3,22		12,12
1	15,16	13,14.2	29,30	15,16	X,X	
	20,21			20,24.2	9.3,9.3	
	16,16					
KMUWZ9-5870	Identifiler®					
		19,23		17,18	11,12	
	10,11	13,13			8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21				9.3,9.3	8,8
	16,16					
LGMPYB-5870	PowerPlex® 21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13,13		19.3,22	8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					

TABLE 1

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

Item 1 - STR Results

M3KHJ7-5875	PowerPlex® 5C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
MM9639-5870	PowerPlex® Fusion 6C System (DNAVIEW ver 29.52)					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16					
MPWG2D-5870	PowerPlex® Fusion 5C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
N9LCQ7-5870	PowerPlex® 5C					
	14,17.3	19,23	11,13	17,18	11,12	--
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	--	9.3	8
	16	--	--	--	--	
NADB66-5870	PowerPlex® Fusion 5C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
P47438-5870	PowerPlex® 21					
	14,17.3	19,23	-	17,18	11,12	13,15
	10,11	13,13	-	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	-	X,X	10,12
	20,21	10,11	11,12	-	9.3,9.3	8,8
	16,16	-	-	-	-	

TABLE 1

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

Item 1 - STR Results

PRCME7-5870	VeriFiler Express					
	14,17.3	19,23	11,13	17,18	11,12	13,15
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
QXUF3B-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
R4VB22-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16					
UZA98Z-5870	GlobalFiler™ Express					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
V9XG6W-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16	NR			NR	
VAQCR6-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					

TABLE 1

Item 1 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
VG9HQX-5870	Identifiler® Direct					
		19,23		17,18	11,12	
	10,11	13			8,11	12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21				9.3	8
	16					
VHJKCW-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16	NR				
VLJV9V-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16	NR				
VP8882-5870	PowerPlex® Fusion 6C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
VXXTDZ-5875	PowerPlex® ESX17, PPHS16, CS7					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12	20,24.2	9.3	8
	16					
VZL6C6-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					

TABLE 1

Item 1 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
W8GM32-5870	PowerPlex® 21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13,13		19.3,22	8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
WCWUQ2-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	-			-	
WN6WP4-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					
WTL6D4-5870	Investigator® 24plex QS					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
X6TB3V-5870	PowerPlex® FUSION 6C, GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12	20,24.2	9.3,9.3	8,8
	16,16					
XAPYJ3-5870	PowerPlex® Fusion 5C					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21	10,11	11,12		9.3	8
	16					

TABLE 1

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

Item 1 - STR Results

XZXG6U-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	no results			no results	
YNEL3Z-5870	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X	10,12
	20,21			20,24.2	9.3	8
	16					
YWXR2R-5875	GlobalFiler™					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13	19.3,22	8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16	no result			no result	
ZBP94V-5870	PowerPlex® 21					
	14,17.3	19,23		17,18	11,12	13,15
	10,11	13,13		19.3,22	8,11	12,12
1	15,16	13,14.2	29,30		X,X	10,12
	20,21	10,11	11,12		9.3,9.3	8,8
	16,16					
ZULEXV-5875	Identifiler®, NGMSElect					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13,13	13,13		8,11	12,12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21			20,24.2	9.3,9.3	8,8
	16,16					
ZYG76T-5870	PowerPlex® Fusion					
	14,17.3	19,23	11,13	17,18	11,12	
	10,11	13	13	19.3,22	8,11	12
1	15,16	13,14.2	29,30	15,16	X,X	10,12
	20,21	10,11	11,12		9.3	8
	16	Inconclusive				

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
24KPGQ-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	
292W6P-5870	PowerPlex® Fusion 6C (Familias)					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
2MZXHQ-5870	PowerPlex® F6C					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16		
2PNAGW-5870	PowerPlex® 21					
	14,18.3	17,19		17,17	11,12	12,13
	11,11	13,13		17,19.3	8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16					
2W4TZW-5870	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
3CUFJT-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
3FTRFT-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	
3Y9ZGU-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	-
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	-	-	19,20	9,9.3	8,8
	15,16	11	-	-	2	
4D6FGN-5870	PowerPlex® Fusion 6C (PI by Familias3)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16		
4U9CDR-5870	PowerPlex® 21					
	14,18.3	17,19		17,17	11,12	12,13
	11,11	13,13		17,19.3	8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16					
4VKNGN-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
68DRYM-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
6HV9QU-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
6JM86T-5870	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16		
8VUWWT-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
9CXQ3T-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
9L32AH-5875	PowerPlex® PP21					
	14,18.3	17,19		17	11,12	12,13
	11	13		17,19.3	8,12	12
2	15,17	13,15	29,32		X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16					
9UW73J-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
AVJ6UM-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
BAXPRL-5870	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
BHDBZP-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
BNEK8H-5870	GlobalFiler™ (Familias v. 3.2.9)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
C8ADRF-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
C9KFEE-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	

TABLE 1

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

Item 2 - STR Results

CP74LN-5875	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
CT7EHN-5875	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
EELBBJ-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16					
EXAWTL-5870	PowerPlex® Fision					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
F3KABK-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
FJ8NPC-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	

TABLE 1

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

Item 2 - STR Results

FZWYCE-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
G33GBB-5875	PowerPlex® FUSION 6C, Investigator® 24plex QS, Investigator Argus X-12QS (CODIS Versión 7.0.709.219)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16		
GPEERH-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16	11				
GUA9PJ-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
H8RF2B-5875	PowerPlex® Fusion (Genoproof V.3.0.7)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16	11				
HCY76G-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	

TABLE 1

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

Item 2 - STR Results

HNFQND-5870	GlobalFiler™, NGM TM (DNA VIEW VER. 37.11)					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11	17	16	2	
J2K9ZD-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			Z	
JE6N3C-5870	GlobalFiler™ 24 (DNAVIEW V37.11)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
JXWWZ8-5870	NGM Select					
	14,18.3	17,19	13,14	17,17		
		13,13	13,14	17,19.3		12,12
2	15,17	13,15	29,32	15,16	X,Y	
	20,21			19,20	9,9.3	
	15,16					
KMUWZ9-5870	Identifiler®					
		17,19		17,17	11,12	
	11,11	13,13			8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21				9,9.3	8,8
	15,16					
LGMPYB-5870	PowerPlex® 21					
	14,18.3	17,19		17,17	11,12	12,13
	11,11	13,13		17,19.3	8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16					

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
M3KHJ7-5875	PowerPlex® 5C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
MM9639-5870	PowerPlex® Fusion 6C System (DNAVIEW v. 29.52)					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16		
MPWG2D-5870	PowerPlex® Fusion 5C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
N9LCQ7-5870	PowerPlex® 5C					
	14,18.3	17,19	13,14	17	11,12	--
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	--	9,9.3	8
	15,16	11	--	--	--	
NADB66-5870	PowerPlex® Fusion 5C					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16	11				
P47438-5870	PowerPlex® 21					
	14,18.3	17,19	-	17,17	11,12	12,13
	11,11	13,13	-	17,19.3	8,12	12,12
2	15,17	13,15	29,32	-	X,Y	10,10
	20,21	11,11	12,13	-	9,9.3	8,8
	15,16	-	-	-	-	

TABLE 1

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

Item 2 - STR Results

PRCME7-5870	VeriFiler Express					
	14,18.3	17,19	13,14	17,17	11,12	12,13
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	10,11	12,13		9,9.3	8,8
	15,16				2	
QXUF3B-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
R4VB22-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	
UZA98Z-5870	GlobalFiler™ Express					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
V9XG6W-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	
VAQCR6-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
VG9HQX-5870	Identifiler® Direct					
		17,19		17	11,12	
	11	13			8,12	12
2	15,17	13,15	29,32		X,Y	10
	20,21				9,9.3	8
	15,16					
VHJKCW-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
VLJV9V-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
VP8882-5870	PowerPlex® Fusion 6C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16	11	17	16		
VXXTDZ-5875	PowerPlex® ESX17, PPHS16, CS7					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13	19,20	9,9.3	8
	15,16					
VZL6C6-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				

TABLE 1

Item 2 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
W8GM32-5870	PowerPlex® 21					
	14,18.3	17,19		17,17	11,12	12,13
	11,11	13,13		17,19.3	8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16					
WCWUQ2-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
WN6WP4-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				
WTL6D4-5870	Investigator® 24plex QS					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11				
X6TB3V-5870	PowerPlex® FUSION 6C, GlobalFiler™, 16HS					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21	11,11	12,13	19,20	9,9.3	8,8
	15,16	11	17	16	2	
XAPYJ3-5870	PowerPlex® Fusion 5C					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	11				

TABLE 1

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

Item 2 - STR Results

XZXG6U-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
YNEL3Z-5870	GlobalFiler™					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21			19,20	9,9.3	8
	15,16	11			2	
YWXR2R-5875	GlobalFiler™					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14	17,19.3	8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16	11			2	
ZBP94V-5870	PowerPlex® 21					
	14,18.3	17,19		17,17	11,12	12,13
	11,11	13,13		17,19.3	8,12	12,12
2	15,17	13,15	29,32		X,Y	10,10
	20,21	11,11	12,13		9,9.3	8,8
	15,16					
ZULEXV-5875	Identifiler®, NGMSElect					
	14,18.3	17,19	13,14	17,17	11,12	
	11,11	13,13	13,14		8,12	12,12
2	15,17	13,15	29,32	15,16	X,Y	10,10
	20,21			19,20	9,9.3	8,8
	15,16					
ZYG76T-5870	PowerPlex® Fusion					
	14,18.3	17,19	13,14	17	11,12	
	11	13	13,14	17,19.3	8,12	12
2	15,17	13,15	29,32	15,16	X,Y	10
	20,21	11	12,13		9,9.3	8
	15,16	Inconclusive				

TABLE 1

Item 3 - STR Results

WebCode-Test / Item	Amplification Kits (Probabilistic Genotyping)					
	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**	
24KPGQ-5875	GlobalFiler™					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
292W6P-5870	PowerPlex® Fusion 6C (Familias)					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
2MZXHQ-5870	PowerPlex® F6C					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16		
2PNAGW-5870	PowerPlex® 21					
	12,18.3	17,20		15,18	12,12	11,12
	10,11	11,13		17,17	12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17					
2W4TZW-5870	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
3CUFJT-5870	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
3FTRFT-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
3Y9ZGU-5870	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	-
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	-	-	15,19	7,9	8,8
	15,17	11	-	-	2	
4D6FGN-5870	PowerPlex® Fusion 6C (PI by Familias 3)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16		
4U9CDR-5870	PowerPlex® 21 (Kinship (Caucasian))					
	12,18.3	17,20		15,18	12,12	11,12
	10,11	11,13		17,17	12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17					
4VKNGN-5875	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
68DRYM-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
6HV9QU-5870	PowerPlex® Fusion 6C, GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
6JM86T-5870	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16		
8VUWWT-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
9CXQ3T-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
9L32AH-5875	PowerPlex® PP21					
	12,18.3	17,20		15,18	12	11,12
	10,11	11,13		17	12,13	12
3	16,17	14,15	32,32.2		X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17					
9UW73J-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
AVJ6UM-5870	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
BAXPRL-5870	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
BHDBZP-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
BNEK8H-5870	GlobalFiler™ (Familias v. 3.2.9)					
	12,18.3	17,20	10,14	18,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
C8ADRF-5875	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
C9KFEE-5870	GlobalFiler™					
	12,18.3	17,20	10,14	18,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	

TABLE 1

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

Item 3 - STR Results

CP74LN-5875	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
CT7EHN-5875	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
EELBBJ-5870	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17					
EXAWTL-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
F3KABK-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
FJ8NPC-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
FZWYCE-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
G33GBB-5875	PowerPlex® FUSION 6C, Investigator® 24plex QS, Investigator Argus X-12QS (CODIS Versión 7.0.709.219)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16		
GPEERH-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17	11				
GUA9PJ-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
H8RF2B-5875	PowerPlex® Fusion (Genoproof V.3.0.7)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17	11				
HCY76G-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	

TABLE 1

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

Item 3 - STR Results

HNFQND-5870	GlobalFiler™, NGM TM (DNA VIEW VER 37.11)					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
J2K9ZD-5870	GlobalFiler™					
	12,18.3	17,20	10,14		12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			Z	
JE6N3C-5870	GlobalFiler™ 24 (DNAVIEW V37.11)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
JXWWZ8-5870	NGM Select					
	12,18.3	17,20	10,14	18,18		
		11,13	14,15	17,17		12,12
3	16,17	14,15	32,32.2	16,16	X,Y	
	20,25			15,19	7,9	
	15,17					
KMUWZ9-5870	Identifiler®					
		17,20		18,18	12,12	
	10,11	11,13			12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25				7,9	8,8
	15,17					
LGMPYB-5870	PowerPlex® 21					
	12,18.3	17,20		15,18	12,12	11,12
	10,11	11,13		17,17	12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17					

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
M3KHJ7-5875	PowerPlex® 5C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
MM9639-5870	PowerPlex® Fusion 6C System (DNAVIEW v. 29.52, YHRD Website Kinship Analysis)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16		
MPWG2D-5870	PowerPlex® Fusion 5C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
N9LCQ7-5870	PowerPlex® 5C					
	12,18.3	17,20	10,14	15,18	12	--
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	--	7,9	8
	15,17	11	--	--	--	
NADB66-5870	PowerPlex® Fusion 5C					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17	11				
P47438-5870	PowerPlex® 21 (Kinship (in house))					
	12,18.3	17,20	-	15,18	12,12	11,12
	10,11	11,13	-	17,17	12,13	12,12
3	16,17	14,15	32,32.2	-	X,Y	10,10
	20,25	11,13	13,15	-	7,9	8,8
	15,17	-	-	-	-	

TABLE 1

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

Item 3 - STR Results

PRCME7-5870	VeriFiler Express					
	12,18.3	17,20	10,14	18,18	12,12	11,12
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17				2	
QXUF3B-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
R4VB22-5875	GlobalFiler™					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
UZA98Z-5870	GlobalFiler™ Express					
	12,18.3	17,20	10,14	18,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
V9XG6W-5875	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
VAQCR6-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
VG9HQX-5870	Identifiler® Direct					
		17,20		18	12	
	10,11	11,13			12,13	12
3	16,17	14,15	32,32.2		X,Y	10
	20,25				7,9	8
	15,17					
VHJKCW-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
VLJV9V-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
VP8882-5870	PowerPlex® Fusion 6C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17	11	17	16		
VXXTDZ-5875	PowerPlex® ESX17, PPHS16, CS7					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15	15,19	7,9	8
	15,17					
VZL6C6-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				

TABLE 1

Item 3 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
W8GM32-5870	PowerPlex® 21					
	12,18.3	17,20		15,18	12,12	11,12
	10,11	11,13		17,17	12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17					
WCWUQ2-5870	GlobalFiler™					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
WN6WP4-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				
WTL6D4-5870	Investigator® 24plex QS					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11				
X6TB3V-5870	PowerPlex® FUSION 6C, GlobalFiler™, 16HS					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25	11,13	13,15	15,19	7,9	8,8
	15,17	11	17	16	2	
XAPYJ3-5870	PowerPlex® Fusion 5C					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	11				

TABLE 1

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

Item 3 - STR Results

XZXG6U-5875	GlobalFiler™					
	12,18.3	17,20	10,14	18,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
YNEL3Z-5870	GlobalFiler™					
	12,18.3	17,20	10,14	18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25			15,19	7,9	8
	15,17	11			2	
YWXR2R-5875	GlobalFiler™ (KinCalc)					
	12,18.3	17,20	10,14	15,18	12,12	
	10,11	11,13	14,15	17,17	12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17	11			2	
ZBP94V-5870	PowerPlex® 21 (Kinship (Paternity Trio Module))					
	12,18.3	17,20		15,18	12,12	11,12
	10,11	11,13		17,17	12,13	12,12
3	16,17	14,15	32,32.2		X,Y	10,10
	20,25	11,13	13,15		7,9	8,8
	15,17					
ZULEXV-5875	Identifiler®, NGMSElect					
	12,18.3	17,20	10,14	18,18	12,12	
	10,11	11,13	14,15		12,13	12,12
3	16,17	14,15	32,32.2	16,16	X,Y	10,10
	20,25			15,19	7,9	8,8
	15,17					
ZYG76T-5870	PowerPlex® Fusion					
	12,18.3	17,20	10,14	15,18	12	
	10,11	11,13	14,15	17	12,13	12
3	16,17	14,15	32,32.2	16	X,Y	10
	20,25	11,13	13,15		7,9	8
	15,17	Inconclusive				

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
24KPGQ-5875	GlobalFiler™					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	
292W6P-5870	PowerPlex® Fusion 6C (Familias)					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
2MZXHQ-5870	PowerPlex® F6C					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20		
2PNAGW-5870	PowerPlex® 21					
	16,16	19,20		17,18	12,13	11,12
	9,9	11,13		21,25	9,11	11,11
4	20,20	12,15	30,33.2		X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19					
2W4TZW-5870	PowerPlex® Fusion 6C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
3CUFJT-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	

TABLE 1

Item 4 - STR Results

WebCode-Test / Item	Amplification Kits (Probabilistic Genotyping)					
	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**	
3FTRFT-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	
3Y9ZGU-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	-
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	-	-	18,21	9,9.3	8,8
	14,19	10	-	-	2	
4D6FGN-5870	PowerPlex® Fusion6C (PI by Familias3)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20		
4U9CDR-5870	PowerPlex® 21					
	16,16	19,20		17,18	12,13	11,12
	9,9	11,13		21,25	9,11	11,11
4	20,20	12,15	30,33.2		X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19					
4VKNGN-5875	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
68DRYM-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	

TABLE 1

Item 4 - STR Results

WebCode-Test / Item	Amplification Kits (Probabilistic Genotyping)					
	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**	
6HV9QU-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
6JM86T-5870	PowerPlex® Fusion 6C					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20		
8VUWWT-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
9CXQ3T-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
9L32AH-5875	PowerPlex® PP21					
	16	19,20		17,18	12,13	11,12
	9	11,13		21,25	9,11	11
4	20	12,15	30,33.2		X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19					
9UW73J-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
AVJ6UM-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
BAXPRL-5870	PowerPlex® Fusion 6C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
BHDBZP-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
BNEK8H-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
C8ADRF-5875	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
C9KFEE-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	

TABLE 1

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

Item 4 - STR Results

CP74LN-5875	PowerPlex® Fusion 6C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
CT7EHN-5875	PowerPlex® Fusion 6C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
EELBBJ-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19					
EXAWTL-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
F3KABK-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
FJ8NPC-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
FZWYCE-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
G33GBB-5875	PowerPlex® FUSION 6C, Investigator® 24plex QS, Investigator Argus X-12QS (CODIS Versión 7.0.709.219)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20		
GPEERH-5870	PowerPlex® Fusion					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19	10				
GUA9PJ-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
H8RF2B-5875	PowerPlex® fusion (Genoproof V.3.0.7)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19	10				
HCY76G-5870	GlobalFiler™ Express					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	

TABLE 1

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

Item 4 - STR Results

HNFQND-5870	GlobalFiler™ (DNA VIEW VER 37.11)					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10	19		2	
J2K9ZD-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
JE6N3C-5870	GlobalFiler™ 24 (DNAVIEW V37.11)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
JXWWZ8-5870	NGM Select					
	16,16	19,20	10,14	17,18		
		11,13	12,14	21,25		11,11
4	20,20	12,15	30,33.2	15,16	X,Y	
	22,22.2			18,21	9,9.3	
	14,19					
KMUWZ9-5870	Identifiler®					
		19,20		17,18	12,13	
	9,9	11,13			9,11	11,11
4	20,21	12,15	30,33.2		X,Y	12,12
	22,22.2				9,9.3	8,8
	14,19					
LGMPYB-5870	PowerPlex® 21					
	16,16	19,20		17,18	12,13	11,12
	9,9	11,13		21,25	9,11	11,11
4	20,20	12,15	30,33.2		X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19					

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
M3KHJ7-5875	PowerPlex® 5C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
MM9639-5870	PowerPlex® Fusion 6c System (DNAVIEW v.29.52, YHRD Website Kinship Analysis)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14	18,21	9,9.3	8,8
	14,19	10	19	20		
MPWG2D-5870	PowerPlex® Fusion 5C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
N9LCQ7-5870	PowerPlex® 5C					
	16	19,20	10,14	17,18	12,13	--
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	--	9,9.3	8
	14,19	10	--	--	--	
NADB66-5870	PowerPlex® Fusion 5C					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19	10				
P47438-5870	PowerPlex® 21 (Kinship (in house))					
	16,16	19,20	-	17,18	12,13	11,12
	9,9	11,13	-	21,25	9,11	11,11
4	20,20	12,15	30,33.2	-	X,Y	12,12
	22,22.2	10,13	13,14	-	9,9.3	8,8
	14,19	-	-	-	-	

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
PRCME7-5870	VeriFiler Express					
	16,16	19,20	10,14	17,18	12,13	11,12
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19				2	
QXUF3B-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
R4VB22-5875	GlobalFiler™					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	
UZA98Z-5870	GlobalFiler™ Express					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
V9XG6W-5875	GlobalFiler™					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	
VAQCR6-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
VG9HQX-5870	Identifiler® Direct					
		19,20		17,18	12,13	
	9	11,13			9,11	11
4	20	12,15	30,33.2		X,Y	12
	22,22.2				9,9.3	8
	14,19					
VHJKCW-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
VLJV9V-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
VP8882-5870	PowerPlex® Fusion 6C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19	10	19	20		
VXXTDZ-5875	PowerPlex® ESX17, PPHS16, CS7					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14	18,21	9,9.3	8
	14,19					
VZL6C6-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				

TABLE 1

Item 4 - STR Results

WebCode-Test	Amplification Kits (Probabilistic Genotyping)					
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
Item	**D18S51**	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA	**DYS391**	**DYS570**	**DYS576**	**Y Indel**	
W8GM32-5870	PowerPlex® 21					
	16,16	19,20		17,18	12,13	11,12
	9,9	11,13		21,25	9,11	11,11
4	20,20	12,15	30,33.2		X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19					
WCWUQ2-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
WN6WP4-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				
WTL6D4-5870	Investigator® 24plex QS					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10				
X6TB3V-5870	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
XAPYJ3-5870	PowerPlex® Fusion 5C					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	10				

TABLE 1

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

Item 4 - STR Results

XZXG6U-5875	GlobalFiler™					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
YNEL3Z-5870	GlobalFiler™					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2			18,21	9,9.3	8
	14,19	10			2	
YWXR2R-5875	GlobalFiler™ (KinCalc)					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14	21,25	9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19	10			2	
ZBP94V-5870	PowerPlex® 21 (Kinship (Paternity Trio Module))					
	16,16	19,20		17,18	12,13	11,12
	9,9	11,13		21,25	9,11	11,11
4	20,20	12,15	30,33.2		X,Y	12,12
	22,22.2	10,13	13,14		9,9.3	8,8
	14,19					
ZULEXV-5875	Identifiler®, NGMSElect					
	16,16	19,20	10,14	17,18	12,13	
	9,9	11,13	12,14		9,11	11,11
4	20,20	12,15	30,33.2	15,16	X,Y	12,12
	22,22.2			18,21	9,9.3	8,8
	14,19					
ZYG76T-5870	PowerPlex® Fusion					
	16	19,20	10,14	17,18	12,13	
	9	11,13	12,14	21,25	9,11	11
4	20	12,15	30,33.2	15,16	X,Y	12
	22,22.2	10,13	13,14		9,9.3	8
	14,19	Inconclusive				

Paternity Index Results

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

24KPGQ-5875	NIST-STRBASE					
	10	2.69	2.07	.002891	1.34	
	2.44	1.52	1.68	7.85	1.86	3.18
3PI	3.61	3.19	72.2	1.42		4.54
	1.66			6.94	4.20	1.91
	4.75					
292W6P-5870	NIST STRBASE Pop. Caucasians					
	10.0161	2.6912	2.0727	5.9374e-004	1.3433	
	2.4370	1.5154	1.6773	7.8399	1.8589	3.1774
3PI	3.6060	3.1909	89.7286	1.4200		4.5363
	1.6546	3.9633	5.8155	6.9352	4.1923	1.9031
	4.7447					
2MZXHQ-5870	NIST-STRBASE					
	10.02004	2.69397	2.07469	0.00171	1.34445	
	2.43902	1.51699	1.67898	7.84929	1.86081	3.18066
3PI	3.61011	3.19489	90.90909	1.42126		4.54133
	1.65563	3.96825	5.82072	6.94444	4.19815	1.90512
	4.74834					
2PNAGW-5870	Local Caucasian					
	9.7484	2.4348		0.002	1.4041	1.9341
	2.3984	1.5397		8.9291	1.7446	3.3497
3PI	3.9422	2.979	36.2765			3.7555
	1.562	3.5281	4.4563		3.3523	1.8594
	4.211					
2W4TZW-5870	FBI PopStats					
	10.020	2.6940	2.0747	0.0028757	1.3444	
	2.4390	1.5170	1.6790	7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207	6.9444	4.1982	1.9051
	4.7483					
3CUFJT-5870	FBI PopStats					
	6.9638	2.5893	1.9055	0.0020385	1.3160	
	2.4631	1.4961	1.8195		1.6160	2.9274
3PI	3.2573	3.4819	33.557	1.4691		3.9604
	1.5659			7.4850	3.0157	1.8282
	4.3898					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

3FTRFT-5870	FBI PopStats					
	6.9638	2.5893	1.9055	0.0020385	1.3160	
	2.4631	1.4961	1.8195	9.6154	1.6160	2.9274
3PI	3.2573	3.4819	33.557	1.4691		3.9604
	1.5659			7.4850	3.0157	1.8282
3Y9ZGU-5870	FBI PopStats					
	6.96	2.58	1.90	0.002	1.31	-
	2.46	1.49	1.81	9.61	1.61	2.92
3PI	3.25	3.48	33.5	1.46		3.96
	1.56	-	-	7.48	3.01	1.82
	4.38					
4D6FGN-5870	NIST-STRBASE					
	8.84	2.71	2.03	0.001	1.34	
	2.35	1.43	1.67	7.19	1.90	2.99
3PI	3.56	2.99	33.22	1.39		4.23
	1.60	3.64	4.99	6.45	3.81	1.81
	4.58					
4U9CDR-5870	NIST-STRBASE					
	10.0200	2.6940		0.0019	1.3444	2.1115
	2.4390	1.5170		7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.2000			4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
4VKNGN-5875	NIST-STRBASE					
	8.65	2.66	2.07	0.00198	1.33	
	2.31	1.45	1.69	NA	1.87	2.93
3PI	3.50	3.12	33.1	1.40		4.15
	1.57			6.32	4.03	1.84
	4.49					
68DRYM-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0020	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	90.9090	1.4212		4.5413
	1.6556			6.9444	4.1981	1.9051
	4.7483					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

6HV9QU-5870	NIST-STRBASE					
	10.0200	2.6940	2.0747	0.0021	1.3444	
	2.4390	1.5170	1.6790	-	1.8608	3.1807
3PI	3.6101	3.1949	50.0000	1.4213		4.5413
	1.6556			6.9444	4.1982	1.9051
	4.7483					
6JM86T-5870	FBI PopStats					
	6.9638	2.5893	1.9055	0.0020385	1.3160	
	2.4631	1.4961	1.8195	9.6154	1.6160	2.9274
3PI	3.2573	3.4819	33.557	1.4691		3.9604
	1.5659	3.7397	4.5914	7.4850	3.0157	1.8282
	4.3898					
8VUWWT-5870	NIST-STRBASE					
	10.020	2.6940	2.0747	0.0039	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
9CXQ3T-5870	FBI PopStats					
	10.020	2.6940	2.0747	0.0020666	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
9L32AH-5875	Promega					
	10.0200	2.6940		0.0021	1.3444	2.1115
	2.4390	1.5170		7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.4638			4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
9UW73J-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0020	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	90.9090	1.4212		4.5413
	1.6556			6.9444	4.1981	1.9051
	4.7483					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

AVJ6UM-5870	FBI PopStats					
	6.9638	2.5893	1.9055	0.0020385	1.3160	
	2.4631	1.4961	1.8195	9.6154	1.6160	2.9274
3PI	3.2573	3.4819	33.557	1.4691		3.9604
	1.5659			7.4850	3.0157	1.8282
	4.3898					
BAXPRL-5870	FBI PopStats					
	10.020	2.6940	2.0747	.0028757	1.3444	
	2.4390	1.5170	1.6790	7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207	6.9444	4.1982	1.9051
	4.7483					
BHDBZP-5870	NIST-STRBASE					
	10.0	2.69	2.07	0.00398	1.34	
	2.44	1.52	1.68		1.86	3.18
3PI	3.61	3.19	72.5	1.42		4.54
	1.66	3.97	5.82		4.20	1.91
	4.75					
BNEK8H-5870	[Country-specific ethnicity] caucasian database (published)					
	11.5	2	1.6	1.18e-003	1.5	
	2.1	1.4	1.5	10.7	1.7	3.6
3PI	4.8	2.6	23.9	1.3		3.6
	1.5			4.9	2.6	1.8
	4.3					
C8ADRF-5875	NIST-STRBASE					
	8.65	2.66	2.07	0.00198	1.33	
	2.31	1.45	1.69	N/A	1.87	2.93
3PI	3.50	3.12	33.1	1.40		4.15
	1.57			6.32	4.03	1.84
	4.49					
C9KFEE-5870	local database					
	13,93339836	2,017654459	1,645666298	0,0012	1,433285509	
	2,01004016	1,503596603	1,525546833	12,66673845	1,570754717	3,980955111
3PI	4,986146222	2,752284066	41,79896758	1,384106034		3,90625
	1,5954221			5,09754705	2,679485324	1,881355932
	4,446811634					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

EELBBJ-5870	NIST-STRBASE					
	8.6699	2.6581	2.0717	0.0018	1.3267	
	2.3099	1.4454	1.6895	7.0487	1.8659	2.9323
3PI	3.5007	3.1224	33.3441	1.3984		4.1533
	1.5654			6.3361	4.0263	1.8404
	4.5078					
EXAWTL-5870	FBI PopStats					
	10.020	2.6940	2.0747	0.0020666	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
F3KABK-5870	NIST-STRBASE					
	10.020	2.694	2.075	0.0039	1.344	
	2.439	1.517	1.679		1.861	3.181
3PI	3.610	3.195	72.464	1.421		4.541
	1.656	3.968	5.821		4.198	1.905
	4.748					
FJ8NPC-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0020	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	90.9090	1.4212		4.5413
	1.6556			6.9444	4.1981	1.9051
	4.7483					
FZWYCE-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0028	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	72.2000	1.4212		4.5413
	1.6556	3.9682	5.8207		4.1981	1.9051
	4.7483					
G33GBB-5875	FBI PopStats					
		2.5760		0.0020365	1.3086	
	2.4752	1.4736			1.6197	2.9490
3PI	3.2134	3.7064	32.680			3.9417
	1.5679				3.0303	1.8372
	4.4563					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

GPEERH-5870	NIST-STRBASE					
	10.0	2.69	2.07	0.0016	1.34	
	2.44	1.52	1.68	7.85	1.86	3.18
3PI	3.61	3.19	70.9	1.42		4.54
	1.66	3.97	5.82		4.20	1.91
	4.73					
GUA9PJ-5870	NIST-STRBASE					
	10.020	2.6940	2.0747	0.0039	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
H8RF2B-5875	NIST-STRBASE, Based on Hill et al 2013					
	10.0200	2.6939	2.0746	0.0015	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	90.9090	1.4212		4.5413
	1.6556	3.9682	5.8207		4.1981	1.9051
	4.7483					
HCY76G-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0020	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	90.9090	1.4212		4.5413
	1.6556			6.9444	4.1981	1.9051
	4.7483					
HNFQND-5870	NIST-STRBASE					
	13.82	3.513559	2.200637	.002566804	1.493516	
	2.128337	1.860862	1.688111	8.003861	1.637441	3.882022
3PI	3.741877	4.230612	34.55	1.615744		4.30083
	2.115306			5.342784	2.952991	2.143892
	3.701786					
J2K9ZD-5870	National database					
	9.39	2.60	1.80		1.41	
	2.26	1.66	1.51	9.26	1.82	3.50
3PI	4.16	3.07	33.00	1.40		3.72
	1.59			7.44	4.19	1.87
	4.47					

TABLE 2

WebCode-Test	Population Database(s)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

JE6N3C-5870 "Population data for 21 autosomal STR loci (GlobalFiler kit) in [Location-identifying]"

	16.0102	2.894834	3.100791	0.003282427	1.403399	
	1.658562	1.679872	1.373905	15.38235	2.108871	3.418301
3PI	3.502232	3.631944	60.34615	1.196796		3.883663
	2.377273			5.943182	4.240541	1.791096
	5.300676					

JXWWZ8-5870 Combined via Familias v 3.1.9.5

[No paternity index values were reported by this participant for this item.]

LGMPYB-5870 local Caucasian database

	7.54	2.40		0.00222	1.36	1.94
	2.17	1.40		7.08	1.76	2.85
3PI	3.67	2.87	15.82			3.30
	1.42	2.96	4.08		3.19	1.75
	3.89					

M3KHJ7-5875 FBI PopStats

[No paternity index values were reported by this participant for this item.]

MM9639-5870 NIST-STRBASE

	9.77	2.68	2.07	0.00236	1.34	
	2.43	1.51	1.67	7.77	1.85	3.17
3PI	3.58	3.17	72.3	1.42		4.52
	1.64	3.93	5.74	6.82	4.16	1.9
	4.69					

MPWG2D-5870 NIST-STRBASE

	10.020	2.6940	2.0747	0.003981	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					

N9LCQ7-5870 FBI PopStats, Promega/NIST

	9.59	2.54	1.98	0.0022	1.3	--
	2.44	1.47	1.62	7.94	1.62	2.93
3PI	3.17	3.63	28.1	1.41		3.95
	1.55	3.32	4.6	--	2.99	1.83
	4.37					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

NADB66-5870	laboratory specific database					
	6.96	2.58	1.9	0.002	1.31	
	2.46	1.49	1.81	9.61	1.61	2.92
3PI	3.25	3.48	33.55	1.46		3.96
	1.56	3.73	4.59		3.01	7.82
	4.38					
P47438-5870	NIST-STRBASE					
	10.02	2.69	-	0.00190067	1.34	2.11
	2.44	1.52	-	7.85	1.86	3.18
3PI	3.61	3.19	72.2	-		4.54
	1.66	3.97	5.82	-	4.20	1.91
	4.75					
PRCME7-5870	NIST-STRBASE					
	0,0499	0,1856	0,2410		0,3878	0,2355
	0,2050	0,3296	0,2978	0,1274	0,2687	0,3144
3PI	0,1385	0,1565	0,0055	0,3823		0,2202
	0,1233	0,1260	0,0859		0,1191	0,5249
	0,1053					
QXUF3B-5870	FBI PopStats					
	10.02	2.69	2.07	0.00212	1.34	
	2.44	1.52	1.68		1.86	3.18
3PI	3.61	3.19	72.46	1.42		4.54
	1.65	3.97	5.82		4.20	1.90
	4.75					
R4VB22-5875	NIST-STRBASE					
	10.0281	2.694	2.0747	0.0021	1.3445	
	2.4391	1.5168	1.6791	7.8481	1.8608	3.1807
3PI	3.6101	3.1947	90.2527	1.4213		4.5409
	1.656			6.9425	4.1978	1.9050
	4.7501					
UZA98Z-5870	NIST-STRBASE					
	9.993	2.694	2.074	0.004	1.345	
	2.439	1.517	1.678	7.848	1.860	3.181
3PI	3.607	3.193	71.773	1.421		4.540
	1.656			6.916	4.197	1.905
	4.732					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

V9XG6W-5875	Laboratory Specific Database					
	6.964	2.589	1.905	0.003	1.316	
	2.463	1.496	1.820	9.615	1.616	2.927
3PI	3.257	3.482	33.557	1.469		3.960
	1.566			7.485	3.016	1.828
	4.390					
VAQCR6-5870	FBI PopStats					
	10.020	2.6940	2.0747	0.0020666	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
VG9HQX-5870	NIST-STRBASE					
		2.6939		0.0020	1.3444	
	2.4390	1.5169			1.8608	3.1806
3PI	3.6101	3.1948	90.9090			4.5413
	1.6556				4.1981	1.9051
	4.7483					
VHJKCW-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0028	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	72.2000	1.4212		4.5413
	1.6556	3.9682	5.8207		4.1981	1.9051
	4.7483					
VLJV9V-5870	NIST-STRBASE					
	10.0200	2.6939	2.0746	0.0028	1.3444	
	2.4390	1.5169	1.6789	7.8492	1.8608	3.1806
3PI	3.6101	3.1948	72.2000	1.4212		4.5413
	1.6556	3.9682	5.8207		4.1981	1.9051
	4.7483					
VP8882-5870	Corrigendum to 'U.S. Population Data for 29 Autosomal STR Loci					
	10.020	2.6940	2.0747	0.0028757	1.3444	
	2.4390	1.5170	1.6790	7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207	6.9444	4.1982	1.9051
	4.7483					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

VXXTDZ-5875	NIST-STRBASE					
	10.02	2.69	2.07	0.001021	1.34	
	2.44	1.52	1.68	7.85	1.86	3.18
3PI	3.61	3.19	5.56	1.42		4.54
	1.66	3.97	5.82	6.94	4.20	1.91
	4.75					
VZL6C6-5870	NIST-STRBASE					
	10.020	2.6940	2.0747	0.0039	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
W8GM32-5870	[Country-specific reference]					
	7.8461538	3.5562752		0.0018540	1.4530243	2.2914803
	1.8804161	1.4460381		4.7644883	2.0822563	2.4076137
3PI	3.7734788	3.2773508	8.8924600			3.1427260
	1.4541929	1.8626992	4.8599551		2.7453785	2.1898428
	4.6806327					
WCWUQ2-5870	FBI PopStats					
	6.9638	2.5893	1.9055	0.0020	1.3160	
	2.4631	1.4961	1.8195	9.6154	1.6160	2.9274
3PI	3.2573	3.4819	33.557	1.4691		3.9604
	1.5659			7.4850	3.0157	1.8282
	4.3898					
WN6WP4-5870	FBI PopStats					
	10.020	2.6940	2.0747	0.0022071	1.3444	
	2.4390	1.5170	1.6790		1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
WTL6D4-5870	NIST-STRBASE					
	10.020	2.6940	2.0747	.0020666	1.3444	
	2.4390	1.5170	1.6790	7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556			6.9444	4.1982	1.9051
	4.7483					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

X6TB3V-5870	NIST-STRBASE					
	10.020	2.6940	2.0747	0.0020666	1.3444	
	2.4390	1.5170	1.6790	7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.464	1.4213		4.5413
	1.6556	3.9683	5.8207	6.9444	4.1982	1.9051
	4.7483					
XAPYJ3-5870	FBI PopStats					
	14.006	3.5236	2.2046	0.0022273	1.4950	
	2.1313	1.8636	1.6903	8.0321	1.6393	3.8941
3PI	3.7538	4.2445	35.714	1.6176		4.3085
	2.1231	3.2134	5.5371		2.9603	2.1450
XZXG6U-5875	NIST-STRBASE					
	8.65	2.66	2.07	0.00377	1.33	
	2.31	1.45	1.69	7.05	1.87	2.93
3PI	3.50	3.12	33.1	1.40		4.15
	1.57			6.32	4.03	1.84
	4.49					
YWXR2R-5875	NIST-STRBASE					
	8.65347302	2.66006237	2.07312103	0.00197886	1.3279776	
	2.31106755	1.44656509	1.68979028	7.05184968	1.86601585	2.93425985
3PI	3.50054148	3.12257625	33.0503756	1.39956304		4.1543865
	1.56676972			6.31571583	4.02538694	1.84213505
	4.49372086					
ZBP94V-5870	NIST-STRBASE					
	10.02	2.6940		0.0019	1.3444	2.1115
	2.4390	1.5170		7.8493	1.8608	3.1807
3PI	3.6101	3.1949	72.20			4.5413
	1.6556	3.9683	5.8207		4.1982	1.9051
	4.7483					
ZULEXV-5875	NIST-STRBASE					
	10.204	2.702	2.083	0.006650	1.344	
	2.439	1.519	1.683		1.865	3.184
3PI	3.610	3.205	90.90	1.421		4.541
	1.661			6.944	4.198	1.908
	4.761					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 3PI - Paternity Index Results

ZYG76T-5870 FBI PopStats, laboratory specific database

		2.54		0.00200	1.30	
	2.45	1.47			1.61	2.93
3PI	3.17	3.63	28.1			3.91
	1.55	3.32	5.07		2.99	1.83
	4.37					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

292W6P-5870 NIST STRBASE Pop. Caucasians

	1.432e-003	9.7953e-004	2.0727	2.3729	0.6718	
	6.0979e-004	1.5154	1.6773	5.2325e-004	5.317e-004	5.301e-004
4PI	5.156e-004	3.1909	1.197e-002	1.4200		7.5681e-004
	5.0952e-004	6.6117e-004	5.8155	3.7526e-004	4.1929	1.9031
	1.0554e-003					

2MZXHQ-5870 NIST-STRBASE

	0	0	2.07469	2.3753	0.67222	
	0	1.51699	1.67898	0	0	0
4PI	0	3.19489	0	1.42126		0
	0	0	5.82072	0	4.19815	1.90512
	0					

3CUFJT-5870 FBI PopStats

			1.9055	2.3764	0.65798	
		1.4961	1.8195			
4PI		3.4819		1.4691		
					3.0157	1.8282

3FTRFT-5870 FBI PopStats

			1.9055	2.3764	0.65798	
		1.4961	1.8195			
4PI		3.4819		1.4691		
					3.0157	1.8282

3Y9ZGU-5870 FBI PopStats

	-	-	1.90	2.37	0.657	-
	-	1.49	1.81	-	-	-
4PI	-	3.48	-	1.46		-
	-	-	-	-	3.01	1.82
	-					

4D6FGN-5870 NIST-STRBASE

	4.22E-08	2.32E-04	2.03	6.68E-01		
	1.60E-04	1.43	1.66	8.50E-11	5.57E-04	7.99E-04
4PI	2.83E-04	2.99	7.49E-04	1.39		1.44E-04
	2.21E-04	1.53E-03	4.99	6.90E-03	3.81	1.81
	4.26E-03					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

4U9CDR-5870	NIST-STRBASE					
	0	0		2.3753	0.6722	2.1115
	0	1.5170		0	0	0
4PI	0	3.1949	0			0
	0	0	5.8207		4.1982	1.9051
	0					
4VKNGN-5875	NIST-STRBASE					
	0.00	0.00	2.07	2.26	0.673	
	0.00	1.45	1.69	NA	0.00	0.00
4PI	0.00	3.12	0.00	1.40		0.00
	0.00			0.00	4.03	1.84
	0.00					
68DRYM-5870	NIST-STRBASE					
	0.0028	0.0010	2.0746	2.3752	0.6722	
	0.0020	1.5169	1.6789	0.0028	0.0020	0.0040
4PI	0.0030	3.1948	0.0010	1.4212		0.0030
	0.0041			0.0064	4.1981	1.9051
	0.0030					
9L32AH-5875	Promega					
	0	0		2.3753	0.6722	2.1115
	0	1.5170		0	0	0
4PI	0	3.1949	0			0
	0	0	5,8207		4.1982	1.9051
	0					
9UW73J-5870	NIST-STRBASE					
	0.0028	0.0010	2.0746	2.3752	0.6722	
	0.0020	1.5169	1.6789	0.0028	0.0020	0.0040
4PI	0.0030	3.1948	0.0010	1.4212		0.0030
	0.0041			0.0064	4.1981	1.9051
	0.0030					
AVJ6UM-5870	FBI PopStats					
			1.9055	2.3764	0.65798	
		1.4961	1.8195			
4PI		3.4819		1.4691		
					3.0157	1.8282

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

C8ADRF-5875	NIST-STRBASE					
	0	0	2.07	2.26	0.673	
	0	1.45	1.69	0	0	0
4PI	0	3.12	0	1.40		0
	0			0	4.03	1.84
	0					
EELBBJ-5870	NIST-STRBASE					
	0			0	0	0
4PI	0		0			0
	0			0		
	0					
FJ8NPC-5870	NIST-STRBASE					
	0.0028	0.0010	2.0746	2.3752	0.6722	
	0.0020	1.5169	1.6789	0.0028	0.0020	0.0040
4PI	0.0030	3.1948	0.0010	1.4212		0.0030
	0.0041			0.0064	4.1981	1.9051
	0.0030					
FZWYCE-5870	NIST-STRBASE					
			2.0746	2.3752	0.6722	
		1.5169	1.6789			
4PI		3.1948		1.4212		
			5.8207		4.1981	1.9051
G33GBB-5875	FBI PopStats					
				2.3607	0.65428	
		1.4736				
4PI		3.7064				
					3.0303	1.8372
GPEERH-5870	NIST-STRBASE					
	0.00	0.00	2.07	2.38	0.672	
	0.00	1.52	1.68	0.00	0.00	0.00
4PI	0.00	3.19	0.00	1.42		0.00
	0.00	0.00	5.82		4.20	1.91
	0.00					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

H8RF2B-5875 NIST-STRBASE, Based on Hill et al 2013

			2.0746	2.3752	0.6722	
		1.5169	1.6789			
4PI		3.1948		1.4212		
			5.8207		4.1981	1.9051

HCY76G-5870 NIST-STRBASE

	0.0028	0.0010	2.0746	2.3752	0.6722	
	0.0020	1.5169	1.6789	0.0028	0.0020	0.0040
4PI	0.0030	3.1948	0.0010	1.4212		0.0030
	0.0041			0.0064	4.1981	1.9051
	0.0030					

HNFQND-5870 NIST-STRBASE

	0	0	2.200637	2.444575	0.7467576	
	0	1.860862	1.688111	0	0	0
4PI	0	4.230612	0	1.615744		0
	0			0	2.952991	2.143892
	0					

J2K9ZD-5870 National database

	0.00	0.00	1.80	2.61	0.71	
	0.00	1.66	1.51	0.00	0.00	0.00
4PI	0.00	3.07	0.00	1.40		0.00
	0.00			0.00	4.19	1.87
	0.00					

MM9639-5870 NIST-STRBASE

	0.0	0.0	2.07	2.36	0.671	
	0.0	1.51	1.67	0.0	0.0	0.0
4PI	0.0	3.17	0.0	1.42		0.0
	0.0	0.0	5.74	0.0	4.16	1.9
	0.0					

N9LCQ7-5870 FBI PopStats, Promega/NIST

	0	0	1.98	2.35	0.652	--
	0	1.47	1.62	0	0	0
4PI	0	3.63	0	1.41		0
	0	0	4.6	--	2.99	1.83
	0					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

P47438-5870	NIST-STRBASE					
	0	0	-	2.38	0.67	2.11
	0	1.52	-	0	0	0
4PI	0	3.19	0	-		0
	0	0	5.82	-	4.20	1.91
	0					
R4VB22-5875	NIST-STRBASE					
	0	0	2.0747	2.375	0.6723	
	0	1.5168	1.6791	0	0	0
4PI	0	3.1947	0	1.4213		0
	0			0	4.1978	1.905
	0					
V9XG6W-5875	Laboratory Specific Database					
	0.000	0.000	1.905	2.376	0.658	
	0.000	1.496	1.820	0.000	0.000	0.000
4PI	0.000	3.482	0.000	1.469		0.000
	0.000			0.000	3.016	1.828
	0.000					
VG9HQX-5870	NIST-STRBASE					
		0.0010		2.3752	0.6722	
	0.0020	1.5169			0.0020	0.0040
4PI	0.0030	3.1948	0.0010			0.0030
	0.0041				4.1981	1.9051
	0.0030					
VXXTDZ-5875	NIST-STRBASE					
	0.00005	0,00011	2.07	2.38	0.67	
	0.000146	1.52	1.68	0.00000	0.000996	0.000676
4PI	0.00002	3.19	0.003917	1.42		0.000115
	0.003758	0.002877	5.82	0.027083	4.20	1.91
	0.004012					
WCWUQ2-5870	FBI PopStats					
	-	-	1.9055	2.3764	0.65798	
	-	1.4961	1.8195	-	-	-
4PI	-	3.4819	-	1.4691		-
	-			-	3.0157	1.8282
	-					

TABLE 2

WebCode-Test	Population Database(s)					
	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
Item	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA					

Item 4PI - Paternity Index Results

WTL6D4-5870	NIST-STRBASE					
			2.0747	2.3753	0.67222	
		1.5170	1.6790			
4PI		3.1949		1.4213		
					4.1982	1.9051
XZXG6U-5875	NIST-STRBASE					
	0	0	2.07	2.26	0.673	
	0	1.45	1.69	0	0	0
4PI	0	3.12	0	1.40		0
	0			0	4.03	1.84
	0					
YWXR2R-5875	NIST-STRBASE					
	0	0	2.07342132	2.25595274	0.67266142	
	0	1.44651119	1.69101685	0	0	0
4PI	0	3.12459091	0	1.39956304		0
	0			0	4.02562335	1.84213505
	0					
ZBP94V-5870	NIST-STRBASE					
	0	0		2.3753	0.6722	2.1115
	0	1.5170		0	0	0
4PI	0	3.1949	0			0
	0	0	5.8207		4.1982	1.9051
	0					
ZULEXV-5875	NIST-STRBASE					
	0	0	2.083	2.375	0.637	
	0	1.519	1.683		0	0
4PI	0	3.205	0	1.422		0
	0			0	4.201	1.908
	0					
ZYG76T-5870	FBI PopStats, laboratory specific database					
		0.00100		2.34	0.652	
	0.00200	1.47			0.00200	0.00400
4PI	0.00300	3.63	0.00100			0.00300
	0.00600	0.00100	5.07		2.99	1.83
	0.00300					

YSTR Amplification Kit(s) & Results

TABLE 3

WebCode-Test Item	Amplification Kit								
	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
Item 2 - YSTR Results									
292W6P-5870	PowerPlex® Y 23								
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		22
		12	15	17	16		23	10	12
2MZXHQ-5870	PowerPlex® Y Y23								
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		22
		12	15	17	16		23	10	12
2W4TZW-5870	Yfiler® Plus								
	35,36	14	11,14	13	29	24	11	13	13
2	14	12	12	19	30	17	17	11	22
	37	12		17	16	21	23		12
3CUFJT-5870	Yfiler® Plus								
	35,36	14	11,14	13	29	24	11	13	13
2	14	12	12	19	30	17	17	11	22
	37	12		17	16	21	23		12
4D6FGN-5870	PowerPlex® Y 23								
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		22
		12	15	17	16		23	10	12
68DRYM-5870	Yfiler®								
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		
							23		12
9L32AH-5875									
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		22
		12	15	17	16		23	10	12
9UW73J-5870	Yfiler®								
		14	11,14	13	29	24	11	13	13
2	14	12	12	19		17	17		
							23		12
BAXPRL-5870	Yfiler® Plus								
	35,36	14	11,14	13	29	24	11	13	13
2	14	12	12	19	30	17	17	11	22
	37	12		17	16	21	23		12

TABLE 3

Item 2 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
BHDBZP-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
C9KFEE-5870	Yfiler®									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
EELBBJ-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
F3KABK-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
FJ8NPC-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
FZWYCE-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
G33GBB-5875	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
HCY76G-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
HNFQND-5870	Yfiler® PLUS									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12

TABLE 3

Item 2 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
JE6N3C-5870	Yfiler® 25									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
JXWWZ8-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
LGMPYB-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
M3KHJ7-5875	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
MM9639-5870	PowerPlex® Y 23 System									
			14	10,13	13	29	24	11	13	13
2		14	12	12	19		16	17		22
			12	15	17	16		23	10	12
MPWG2D-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
N9LCQ7-5870	PowerPlex® Y 23									
		--	14	11,14	13	29	24	11	13	13
2		14	12	12	19	--	17	17	--	22
		--	12	15	17	16	--	23	10	12
QXUF3B-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
R4VB22-5875	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		22
			12	15	17	16		23	10	12

TABLE 3

Item 2 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
UZA98Z-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
VG9HQX-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
VHJKCW-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
VLJV9V-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
VXXTDZ-5875	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
W8GM32-5870	Yfiler® Plus									
		35/36	14	11,14	13	29	24	11	13	13
2		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
YNEL3Z-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12
ZULEXV-5875	Yfiler®									
			14	11,14	13	29	24	11	13	13
2		14	12	12	19		17	17		
								23		12

TABLE 3

Item 3 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
292W6P-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
2MZXHQ-5870	PowerPlex® Y Y23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
2W4TZW-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
3CUFJT-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
4D6FGN-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
68DRYM-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
9L32AH-5875	PowerPlex® Y Y23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
9UW73J-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
BAXPRL-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12

TABLE 3

Item 3 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
BHDBZP-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
C9KFEE-5870	Yfiler®									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
EELBBJ-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
F3KABK-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
FJ8NPC-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
FZWYCE-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
G33GBB-5875	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
HCY76G-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
HNFQND-5870	Yfiler® PLUS									
		35,37	14	11,14	13	28	25	10	13	13
3		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11

TABLE 3

Item 3 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
JE6N3C-5870	Yfiler® 25									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
JXWWZ8-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
LGMPYB-5870	Yfiler® Plus									
		35,36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
M3KHJ7-5875	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
MM9639-5870	PowerPlex® Y 23 System									
			14	10,13	13	29	24	11	13	13
3		14	12	12	19		16	17		22
			12	15	17	16		23	10	12
MPWG2D-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
N9LCQ7-5870	PowerPlex® Y 23									
		--	14	11,14	13	29	24	11	13	13
3		14	12	12	19	--	17	17	--	22
		--	12	15	17	16	--	23	10	12
QXUF3B-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12
UZA98Z-5870	PowerPlex® Y 23									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		22
			12	15	17	16		23	10	12

TABLE 3

Item 3 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
VG9HQX-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
VHJKCW-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
VLJV9V-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
VXXTDZ-5875	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
W8GM32-5870	Yfiler® Plus									
		35/36	14	11,14	13	29	24	11	13	13
3		14	12	12	19	30	17	17	11	22
		37	12		17	16	21	23		12
YNEL3Z-5870	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12
ZULEXV-5875	Yfiler®									
			14	11,14	13	29	24	11	13	13
3		14	12	12	19		17	17		
								23		12

TABLE 3

Item 4 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
292W6P-5870	PowerPlex® Y 23									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
2MZXHQ-5870	PowerPlex® Y Y23									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
2W4TZW-5870	Yfiler® Plus									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
3CUFJT-5870	Yfiler® Plus									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
4D6FGN-5870	PowerPlex® Y 23									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
68DRYM-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
9L32AH-5875	PowerPlex® Y Y23									
			14	11,14	13	28	25	10	13	13
4		15.1	12	13	20		15	19		23
			12	13	19	20		23	10	11
9UW73J-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
BHDBZP-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11

TABLE 3

Item 4 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
EELBBJ-5870	Yfiler® Plus									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
F3KABK-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
FJ8NPC-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
FZWYCE-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
G33GBB-5875	PowerPlex® Y 23									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
HCY76G-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
HNFQND-5870	Yfiler® PLUS									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
JE6N3C-5870	Yfiler® 25									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
JXWWZ8-5870	Yfiler® Plus									
		35,37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11

TABLE 3

Item 4 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
M3KHJ7-5875	PowerPlex® Y 23		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
MM9639-5870	PowerPlex® Y 23 System		14	10,13	13	28	25	10	13	13
4		15	12	13	20		14	19		23
			12	13	19	20		23	10	11
MPWG2D-5870	Yfiler®		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
N9LCQ7-5870	PowerPlex® Y 23	--	14	11,14	13	28	25	10	13	13
4		15	12	13	20	--	15	19	--	23
		--	12	13	19	20	--	23	10	11
QXUF3B-5870	PowerPlex® Y 23		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
R4VB22-5875	PowerPlex® Y 23		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
UZA98Z-5870	PowerPlex® Y 23		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		23
			12	13	19	20		23	10	11
VG9HQX-5870	Yfiler®		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
VHJKCW-5870	Yfiler®		14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11

TABLE 3

Item 4 - YSTR Results

WebCode-Test Item	Amplification Kit	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
VLJV9V-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
VXXTDZ-5875	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
W8GM32-5870	Yfiler® Plus									
		35/37	14	11,14	13	28	25	10	13	13
4		15	12	13	20	30	15	19	12	23
		39	12		19	20	20	23		11
YNEL3Z-5870	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11
ZULEXV-5875	Yfiler®									
			14	11,14	13	28	25	10	13	13
4		15	12	13	20		15	19		
								23		11

Additional DNA & PI Results

TABLE 4

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
F13A01	9L32AH-5875	5,7	6,7	6,7	1.4269	5,6	1.4269
	VXXTDZ-5875	5,7	6,7	6,7	1.43	5,6	1.43
F13B	9L32AH-5875	10	8,10	8	4.0783	9	0
	VXXTDZ-5875	10	8,10	8	4.06	9	0.00000
FESFPS	9L32AH-5875	10,12	10,12	10	1.9305	10,11	0.9653
	VXXTDZ-5875	10,12	10,12	10	1.93	10,11	0.97
LPL	9L32AH-5875	11,12	10,11	10	2.3518	10,11	1.1759
	VXXTDZ-5875	11,12	10,11	10	2.37	10,11	1.18
PENTA C	9L32AH-5875	11,13	11	11,13	1.2623	11	2.5246
	VXXTDZ-5875	11,13	11	11,13	1.27	11	2.53

Paternity DNA Statistics & Conclusions

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
24KPGQ-5875	Item 3 - Alleged Father A	140 million	>99.9999%	NIST-STRBASE
292W6P-5870	Item 3 - Alleged Father A	851480729	0.9999999988	NIST STRBASE Pop. Caucasians
2MZXHQ-5870	Item 3 - Alleged Father A	2536550672.42791	99.999999960576%	NIST-STRBASE
2PNAGW-5870	Item 3 - Alleged Father A	Approximately 26 million	Greater than 99.9999%	Local Caucasian
2W4TZW-5870	Item 3 - Alleged Father A	3.40 billion	99.999	FBI PopStats
3CUFJT-5870	Item 3 - Alleged Father A	1836000	99.99994553	FBI PopStats
3FTRFT-5870	Item 3 - Alleged Father A	4,023,000	99.99997514%	FBI PopStats
3Y9ZGU-5870	Item 3 - Alleged Father A	17,660,000	99.999994337%	FBI PopStats
4D6FGN-5870	Item 3 - Alleged Father A	1.05E+58	>99.999999%	NIST-STRBASE
4U9CDR-5870	Item 3 - Alleged Father A	1.3749E+08	N/A	NIST-STRBASE
4VKNGN-5875	Item 3 - Alleged Father A	2,700,000	NA	NIST-STRBASE
68DRYM-5870	Item 3 - Alleged Father A	1.2842e8	99.9999%	NIST-STRBASE
6HV9QU-5870	Item 3 - Alleged Father A	9,448,617	99.9999%	NIST-STRBASE
6JM86T-5870	Item 3 - Alleged Father A	303,200,000	99.9999996702	FBI PopStats
8VUWWT-5870	Item 3 - Alleged Father A	81 million	99.9999%	NIST-STRBASE
9CXQ3T-5870	Item 3 - Alleged Father A	44,820,000	99.999997769%	FBI PopStats
9L32AH-5875	Item 3 - Alleged Father A	4,967,502,159.0275	99.9999	Promega
9UW73J-5870	Item 3 - Alleged Father A	1.2842e8	99.9999%	NIST-STRBASE
AVJ6UM-5870	Item 3 - Alleged Father A	17,660,000	99.999994337	FBI PopStats
BAXPRL-5870	Item 3 - Alleged Father A	3.40 billion	99.99%	FBI PopStats
BHDBZP-5870	Item 3 - Alleged Father A	81,000,000	99.9999%	NIST-STRBASE

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
BNEK8H-5870	Item 3 - Alleged Father A	4.4e+6	0.9999	[Country-specific ethnicity] caucasian database (published)
C8ADRF-5875	Item 3 - Alleged Father A	2,700,000	N/A	NIST-STRBASE
C9KFEE-5870	Item 3 - Alleged Father A	1.6430197932*10^7	0.999999939	local database
EELBBJ-5870	Item 3 - Alleged Father A	4.3487 x 10^6		NIST-STRBASE
EXAWTL-5870	Item 3 - Alleged Father A	44,820,000	99.999997769%	FBI PopStats
F3KABK-5870	Item 3 - Alleged Father A	81 million	99.9999%	NIST-STRBASE
FJ8NPC-5870	Item 3 - Alleged Father A	1.2842e8	99.9999%	NIST-STRBASE
FZWYCE-5870	Item 3 - Alleged Father A	490 million	99.9%	NIST-STRBASE
G33GBB-5875	Item 3 - Alleged Father A	7,138	99.98599%	FBI PopStats
GPEERH-5870	Item 3 - Alleged Father A	2.57 x 10^8	99.99%	NIST-STRBASE
GUA9PJ-5870	Item 3 - Alleged Father A	81 million	99.9999%	NIST-STRBASE
H8RF2B-5875	Item 3 - Alleged Father A	324,000,000	99.999	NIST-STRBASE, Based on Hill et al 2013
HCY76G-5870	Item 3 - Alleged Father A	1.2842e8	99.9999%	NIST-STRBASE
HNFQND-5870	Item 3 - Alleged Father A	140271000	99.9999991	NIST-STRBASE
J2K9ZD-5870	Item 3 - Alleged Father A	18,654,015,551	greater than 99.99%	National database
JE6N3C-5870	Item 3 - Alleged Father A	570,271,600	99.9999998%	"Population data for 21 autosomal STR loci (GlobalFiler kit) in [Location-identifying]"
JXWWZ8-5870	Item 3 - Alleged Father A		0.9999998395	Combined via Familias v 3.1.9.5
LGMPYB-5870	Item 3 - Alleged Father A	2.4 million	N/A	local Caucasian database
M3KHJ7-5875	Item 3 - Alleged Father A	47309388.4398	99.9999	FBI PopStats
MM9639-5870	Item 3 - Alleged Father A	2.37e9	(50% prior probability) 99.999999%	NIST-STRBASE

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
MPWG2D-5870	Item 3 - Alleged Father A	81 million	99.9999%	NIST-STRBASE
N9LCQ7-5870	Item 3 - Alleged Father A	30600000	99.999997%	FBI PopStats, Promega/NIST
NADB66-5870	Item 3 - Alleged Father A	4.04E+7	99.999998	laboratory specific database
P47438-5870	Item 3 - Alleged Father A	1.37E+008		NIST-STRBASE
PRCME7-5870	Item 3 - Alleged Father A	70560214174.1265	99.9999999985828	NIST-STRBASE
QXUF3B-5870	Item 3 - Alleged Father A	45,940,000	99.999997823%	FBI PopStats
R4VB22-5875	Item 3 - Alleged Father A	130,855,690.5284	>99.9999%	NIST-STRBASE
UZA98Z-5870	Item 3 - Alleged Father A	2.0E+08	N/A	NIST-STRBASE
V9XG6W-5875	Item 3 - Alleged Father A	28 million	99.99%	Laboratory Specific Database
VAQCR6-5870	Item 3 - Alleged Father A	44.82 million	99.999997769%	FBI PopStats
VG9HQX-5870	Item 3 - Alleged Father A	4.7493E+04	99.9978%	NIST-STRBASE
VHJKCW-5870	Item 3 - Alleged Father A	473 million	99.9%	NIST-STRBASE
VLJV9V-5870	Item 3 - Alleged Father A	4.73E+08	99.9	NIST-STRBASE
VP8882-5870	Item 3 - Alleged Father A	3,400,000,000	99.99999997059	Corrigendum to 'U.S. Population Data for 29 Autosomal STR Loci
VXXTDZ-5875	Item 3 - Alleged Father A	3115132646.56142044	0.99999999967898634	NIST-STRBASE
VZL6C6-5870	Item 3 - Alleged Father A	81 million	99.9999%	NIST-STRBASE
W8GM32-5870	Item 3 - Alleged Father A	1.4 million		[Country-specific reference]
WCWUQ2-5870	Item 3 - Alleged Father A	17,660,000	99.999994337	FBI PopStats
WN6WP4-5870	Item 3 - Alleged Father A	47,870,000	99.999997911	FBI PopStats
WTL6D4-5870	Item 3 - Alleged Father A	105,800,000	99.9999990548	NIST-STRBASE
X6TB3V-5870	Item 3 - Alleged Father A	2,443,000,000	99.999999 %	NIST-STRBASE

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
XAPYJ3-5870	Item 3 - Alleged Father A	118,600,000		FBI PopStats
XZXG6U-5875	Item 3 - Alleged Father A	5,100,000	N/A	NIST-STRBASE
YWXR2R-5875	Item 3 - Alleged Father A	2.7 million	N/A	NIST-STRBASE
ZBP94V-5870	Item 3 - Alleged Father A	1.37E+08	N/A	NIST-STRBASE
ZULEXV-5875	Item 3 - Alleged Father A	56730236	99.9999%	NIST-STRBASE
ZYG76T-5870	Item 3 - Alleged Father A	88,800	99.999%	FBI PopStats, laboratory specific database

Response Summary **Participants: 72**

Which of the alleged fathers cannot be excluded as the biological parent of Item 2?

Responses

Item 3 - Alleged Father A	72
Item 4 - Alleged Father B	0
Inconclusive	0

Kinship Likelihood Ratio Results

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	24KPGQ-5875	1/2	NA	0.5
	292W6P-5870			0.5
	2PNAGW-5870	1/2	N/A	0.5
	3Y9ZGU-5870	cd/2cd	c=14, d=17	0.5000
	4D6FGN-5870	2/4		0.50
	4VKNGN-5875	NA	NA	0.5000
	68DRYM-5870	1/2		0.5000
	9L32AH-5875	1/2		0.5
	9UW73J-5870	1/2	-	0.5000
	AVJ6UM-5870	cd/2cd=0.5	c=14, d=17	0.50000
	BNEK8H-5870	2/4		0.5
	C8ADRF-5875	N/A	N/A	0.5
	FJ8NPC-5870	1/2		0.5000
	G33GBB-5875	K0	None	1
	GPEERH-5870	1/2	p=11, q=14, r=15, s=17	0.500
	HCY76G-5870	1/2		0.5000
	HNFQND-5870	1/2	-	0.5
	JE6N3C-5870	1/2	P=11, Q=15, R=14, S=17	0.5
	M3KHJ7-5875	1/2		0.5000
	MM9639-5870	1/2		0.5
	N9LCQ7-5870	1/2	--	0.5
	R4VB22-5875	1/2		0.5
	UZA98Z-5870	1/2		0.5
	VG9HQX-5870	1/2		0.5000
	VXXTDZ-5875			0.5
	W8GM32-5870	Z0		0.5

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	WCWUQ2-5870	CD/2CD	A-11, B-15, C-14, D-17,	0.5000
	X6TB3V-5870	0+[0*1/2]+[2cd*1/2]/2cd	A=11, B=15, C=14, D=17	0.5000
	XZXG6U-5875	*	*	0.5000
	YWXR2R-5875	*	*	0.5
	ZULEXV-5875	1/2		0.5

Statistical Analysis Summary of D1S1656 **Likelihood Ratio Mode: 0.5**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	24KPGQ-5875	(1+2r)/4r	r=19	2.575
	292W6P-5870	(1+2p)/4p	p=19	2.58
	2PNAGW-5870	(1+2p)/4p	p= 19	2.5746
	3Y9ZGU-5870	(0.25+(b/2))/b	b=19	2.575
	4D6FGN-5870	1+2p/4p	p=19, q=17	2.57
	4VKNGN-5875	NA	NA	2.331
	68DRYM-5870	(1+2p)/4p	p=19	2.5746
	9L32AH-5875	1+2p/4p	p=19	2.5747
	9UW73J-5870	(1+2p)/4p	p=19	2.5746
	AVJ6UM-5870	(0.25+(b/2))/b	b=19	2.5747
	BNEK8H-5870	(1+2p)/4p	p=19	2.57
	C8ADRF-5875	N/A	N/A	2.331
	FJ8NPC-5870	(1+2p)/4p	p=19	2.5746
	G33GBB-5875	(1+2p)/4p	p=19	1.2873
	GPEERH-5870	(1+2q)/4q	p=17, q=19	2.575
	HCY76G-5870	(1+2r)/4r	r=19	2.5746
	HNFQND-5870	(1+2r)/4r	r=19	2.5746
	JE6N3C-5870	(1+2R)/4R	R=19	2.5747
	M3KHJ7-5875	(1+2q)/4q	q=19	2.5747
	MM9639-5870	(1+2r)/4r	r=19	2.55
	N9LCQ7-5870	(1+2r)/4r	19: 0.1205	2.575
	R4VB22-5875	(1+2q)/4q	q=19	2.5747
	UZA98Z-5870	1+2p/4p	p=19	2.575
	VG9HQX-5870	(1+2p)/4p	p=19	2.5746
	VXXTDZ-5875	(1+4p)/8p	p=0.1205	1.5373
	W8GM32-5870	(Z1*(1+2*0.02)/(2*(2*0.02+(1-0.02)*a)))+Z0	a=19	2.144632804
	WCWUQ2-5870	(0.25+(B/2))/B	A-17, B-19	2.5746

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	X6TB3V-5870	0+[b/2*1/2]+[b^2*1/2]/b^2	A=17, B=19	2.5747
	XZXG6U-5875	*	*	2.331
	YWXR2R-5875	*	*	2.33133428
	ZULEXV-5875	(1+2p)/4p	p=19	2.574

Statistical Analysis Summary of D2S1338	Likelihood Ratio Mode: 2.5746

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	24KPGQ-5875	(1+4p)/8p	p=10	1.094
	292W6P-5870	(1+4p)/8p	p=10	1.09
	2PNAGW-5870	(1+4p)/8p	p=10	1.0938
	3Y9ZGU-5870	(0.25+a)/2a	a=10	1.094
	4D6FGN-5870	1+4p/8p	p=10, q=12, r=11	1.09
	4VKNGN-5875	NA	NA	1.084
	68DRYM-5870	(1+4p)/8p	p=10	1.0938
	9L32AH-5875	1+4p/8p	p=10	1.0938
	9UW73J-5870	(1+4p)/8p	p=10	1.0938
	AVJ6UM-5870	(0.25+a)/2a	a=10	1.0938
	BNEK8H-5870	(1+4p)/8p	p=10	1.09
	C8ADRF-5875	N/A	N/A	1.084
	FJ8NPC-5870	(1+4p)/8p	p=10	1.0938
	G33GBB-5875	(1+4p)/4p	p=10	1.0938
	GPEERH-5870	(1+4p)/8p	p=10, q=11, r=12	1.094
	HCY76G-5870	(1+4p)/8p	p=10	1.0938
	HNFQND-5870	(1+4p)/8p	p=10	1.0938
	JE6N3C-5870	(1+4P)/8P	P=10	1.0938
	M3KHJ7-5875	(1+4p)/8p	p=10	1.0938
	MM9639-5870	(1+4p)/8p	p=10	1.09
	N9LCQ7-5870	(1+4p)/8p	10: 0.2105	1.094
	R4VB22-5875	(1+4p)/8p	p=10	1.0937
	UZA98Z-5870	1+4p/8p	p=10	1.094
	VG9HQX-5870	(1+4p)/8p	p=10	1.0938
	VXXTDZ-5875	(1+4p)/8p	p=0.2105	1.0938
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=10	1.074484069
	WCWUQ2-5870	(0.25+A)/2A	A-10, B-12, C-11	1.0938

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=10, B=12, C=11	1.0938
	XZXG6U-5875	*	*	1.084
	YWXR2R-5875	*	*	1.084173
	ZULEXV-5875	(1+4p)/8p	p=10	1.093

Statistical Analysis Summary of D2S441 **Likelihood Ratio Mode: 1.0938**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	24KPGQ-5875	1/2	NA	0.5
	292W6P-5870			0.5
	2PNAGW-5870	1/2	N/A	0.5
	3Y9ZGU-5870	cd/2cd	c=15, d=16	0.5000
	4D6FGN-5870	2/4		0.50
	4VKNGN-5875	NA	NA	0.5000
	68DRYM-5870	1/2		0.5000
	9L32AH-5875	1/2		0.5
	9UW73J-5870	1/2	-	0.5000
	AVJ6UM-5870	cd/2cd=0.5	c=15, d=16	0.50000
	BNEK8H-5870	2/4		0.5
	C8ADRF-5875	N/A	N/A	0.5
	FJ8NPC-5870	1/2		0.5000
	G33GBB-5875	k0	None	1
	GPEERH-5870	1/2	p=14, q=15, r=16, s=18	0.500
	HCY76G-5870	1/2		0.5000
	HNFQND-5870	1/2	-	0.5
	JE6N3C-5870	1/2	P=14, Q=18, R=15, S=16	0.5
	M3KHJ7-5875	1/2		.5000
	MM9639-5870	1/2		0.5
	N9LCQ7-5870	1/2	--	0.500
	R4VB22-5875	1/2		0.5
	UZA98Z-5870	1/2		0.5
	VG9HQX-5870	1/2		0.5000
	VXXTDZ-5875			0.5
	W8GM32-5870	Z0		0.5
	WCWUQ2-5870	CD/2CD	A-14, B-18, C-15, D-16	0.5000

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	X6TB3V-5870	0+[0*1/2]+[2cd*1/2]/2cd	A=14, B=18, C=15, D=16	0.5000
	XZXG6U-5875	*	*	0.5000
	YWXR2R-5875	*	*	0.5
	ZULEXV-5875	1/2		0.5

Statistical Analysis Summary of D3S1358 **Likelihood Ratio Mode: 0.5**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	24KPGQ-5875	(1+2p)/4p	p=11	1.202
	292W6P-5870	(1+2p)/4p	p=11	1.20
	2PNAGW-5870	(1+2p)/4p	p=11	1.2022
	3Y9ZGU-5870	(0.5+a)/2a	a=11	1.202
	4D6FGN-5870	1+2p/4p	p=11, 1=13	1.20
	4VKNGN-5875	NA	NA	1.185
	68DRYM-5870	(1+2p)/4p	p=11	1.2022
	9L32AH-5875	1+2p/4p	p=11	1.2201
	9UW73J-5870	(1+2p)/4p	p=11	1.2022
	AVJ6UM-5870	(0.5+a)/2a	a=11	1.2022
	BNEK8H-5870	(1+2p)/4p	p=11	1.20
	C8ADRF-5875	N/A	N/A	1.185
	FJ8NPC-5870	(1+2p)/4p	p=11	1.2022
	G33GBB-5875	(1+2p)/4p	p=11	0.6011
	GPEERH-5870	(1+2p)/4p	p=11, q=13	1.202
	HCY76G-5870	(1+2p)/4p	p=11	1.2022
	HNFQND-5870	(1+2p)/4p	p=11	1.2022
	JE6N3C-5870	(1+2P)/4P	P=11	1.2022
	M3KHJ7-5875	(1+2p)/4p	p=11	1.2022
	MM9639-5870	(1+2p)/4p	p=11	1.2
	N9LCQ7-5870	(1+2p)/4p	11: 0.3560	1.202
	R4VB22-5875	(1+2p)/4p	p=11	1.2023
	UZA98Z-5870	1+2p/4p	p=11	1.202
	VG9HQX-5870	(1+2p)/4p	p=11	1.2022
	VXXTDZ-5875	(1+4p)/8p	p=0.3560	0.8511
	W8GM32-5870	Z1*((1+2*0.02)/(2*(2*0.02+(1-0.02)*a)))+Z0	a=11	1.168586711
	WCWUQ2-5870	(0.5+A)/2A	A-11, B-13	1.2022

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	X6TB3V-5870	0+[b*1/2]+[2ab*1/2]/2ab	A=11, B=13	1.2022
	XZXG6U-5875	*	*	1.185
	YWXR2R-5875	*	*	1.18537175
	ZULEXV-5875	(1+2p)/4p	p=11	1.202

Statistical Analysis Summary of D5S818 **Likelihood Ratio Mode: 1.2022**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	24KPGQ-5875	(1+4p)/8p	p=8	1.368
	292W6P-5870	(1+4p)/8p	p=8	1.37
	2PNAGW-5870	(1+4p)/8p	p=8	1.3680
	3Y9ZGU-5870	(0.25+a)/2a	a=8	1.368
	4D6FGN-5870	1+4p/8p	p=8, q=11, r=10	1.37
	4VKNGN-5875	NA	NA	1.336
	68DRYM-5870	(1+4p)/8p	p=8	1.3680
	9L32AH-5875	1+4p/8p	p=8	1.3681
	9UW73J-5870	(1+4p)/8p	p=8	1.3680
	AVJ6UM-5870	(0.25+a)/2a	a=8	1.3681
	BNEK8H-5870	(1+4p)/8p	p=8	1.37
	C8ADRF-5875	N/A	N/A	1.336
	FJ8NPC-5870	(1+4p)/8p	p=8	1.3680
	G33GBB-5875	(1+4p)/4p	p=8	1.3681
	GPEERH-5870	(1+4r)/8r	p=10, q=11, r=8	1.368
	HCY76G-5870	(1+4p)/8p	p=8	1.3680
	HNFQND-5870	(1+4p)/8p	p=8	1.3680
	JE6N3C-5870	(1+4P)/8P	P=8	1.3681
	M3KHJ7-5875	(1+4p)/8p	p=8	1.3681
	MM9639-5870	(1+4p)/8p	p=8	1.36
	N9LCQ7-5870	(1+4p)/8p	8: 0.1440	1.368
	R4VB22-5875	(1+4p)/8p	p=8	1.3678
	UZA98Z-5870	1+4p/8p	p=8	1.368
	VG9HQX-5870	(1+4p)/8p	p=8	1.3680
	VXXTDZ-5875	(1+4p)/8p	p=0.1440	1.3681
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=8	1.306852036
	WCWUQ2-5870	(0.25+A)/2A	A-8, B-11, C-10	1.3680

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=8, B=11, C=10	1.3681
	XZXG6U-5875	*	*	1.336
	YWXR2R-5875	*	*	1.33574343
	ZULEXV-5875	(1+4p)/8p	p=8	1.368

Statistical Analysis Summary of D7S820 **Likelihood Ratio Mode: 1.3680**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	24KPGQ-5875	(1+4s)/8s	s=13	0.879
	292W6P-5870	(1+4p)/8p	p=13	0.88
	2PNAGW-5870	(1+4p)/8p	p=13	0.8792
	3Y9ZGU-5870	(0.25+a)/2a	a=13	0.8792
	4D6FGN-5870	1+4p/8p	p=13, q=10, r=16	0.88
	4VKNGN-5875	NA	NA	0.8794
	68DRYM-5870	(1+4p)/8p	p=13	0.8792
	9L32AH-5875	1+4p/8p	p=13	0.8792
	9UW73J-5870	(1+4p)/8p	p=13	0.8792
	AVJ6UM-5870	(0.25+a)/2a	a=13	0.87925
	BNEK8H-5870	(1+4p)/8p	p=13	0.88
	C8ADRF-5875	N/A	N/A	0.8794
	FJ8NPC-5870	(1+4p)/8p	p=13	0.8792
	G33GBB-5875	(1+4p)/4p	p=13	0.8792
	GPEERH-5870	(1+4r)/8r	p=10, q=12, r=13	0.879
	HCY76G-5870	(1+4s)/8s	s=13	0.8792
	HNFQND-5870	(1+4s)/8s	s=13	0.8792
	JE6N3C-5870	(1+4S)/8S	S=13	0.8792
	M3KHJ7-5875	(1+4q)/8q	q=13	0.8792
	MM9639-5870	(1+4s)/8s	s=13	0.878
	N9LCQ7-5870	(1+4s)/8s	13: 0.3296	0.879
	R4VB22-5875	(1+4q)/8q	q=13	0.8792
	UZA98Z-5870	1+4p/8p	p=13	0.879
	VG9HQX-5870	(1+4p)/8p	p=13	0.8792
	VXXTDZ-5875	(1+4p)/8p	p=0.3296	0.8792
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=13	0.878999907
	WCWUQ2-5870	(0.25+A)/2A	A-13, B-10, C-12	0.8792

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	X6TB3V-5870	0+[c/2*1/2]+[2bc*1/2]/2bc	A=10, B=13, C=12	0.8792
	XZXG6U-5875	*	*	0.8794
	YWXR2R-5875	*	*	0.87943149
	ZULEXV-5875	(1+4p)/8p	p=13	0.8792

Statistical Analysis Summary of D8S1179 **Likelihood Ratio Mode: 0.8792**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	24KPGQ-5875	(1+4p)/8p	p=13	.907
	292W6P-5870	(1+4p)/8p	p=13	0.91
	2PNAGW-5870	(1+4p)/8p	p=13	0.9065
	3Y9ZGU-5870	(0.25+a)/2a	a=13	0.9065
	4D6FGN-5870	1+4p/8p	p=17, q=20	0.91
	4VKNGN-5875	NA	NA	0.9059
	68DRYM-5870	(1+4p)/8p	p=13	0.9065
	9L32AH-5875	1+4p/8p	p=13	0.9065
	9UW73J-5870	(1+4p)/8p	p=13	0.9065
	AVJ6UM-5870	(0.25+a)/2a	a=13	0.90650
	BNEK8H-5870	(1+4p)/8p	p=13	0.91
	C8ADRF-5875	N/A	N/A	0.9059
	FJ8NPC-5870	(1+4p)/8p	p=13	0.9065
	G33GBB-5875	(1+4p)/4p	p=13	0.9065
	GPEERH-5870	(1+4p)/8p	p=13, q=14, r=16	0.907
	HCY76G-5870	(1+4p)/8p	p=13	0.9065
	HNFQND-5870	(1+4p)/8p	p=13	0.9065
	JE6N3C-5870	(1+4P)/8P	P=13	0.9065
	M3KHJ7-5875	(1+4p)/8p	p=13	0.9065
	MM9639-5870	(1+4p)/8p	p=13	0.905
	N9LCQ7-5870	(1+4p)/8p	13: 0.3075	0.907
	R4VB22-5875	(1+4p)/8p	p=13	0.9065
	UZA98Z-5870	1+4p/8p	p=13	0.907
	VG9HQX-5870	(1+4p)/8p	p=13	0.9065
	VXXTDZ-5875	(1+4p)/8p	p=0.3075	0.9065
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=13	0.904543333
	WCWUQ2-5870	(0.25+A)/2A	A-13, B-14, C-16	0.9065

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=13, B=14, C=16	0.9065
	XZXG6U-5875	*	*	0.9059
	YWXR2R-5875	*	*	0.90587575
	ZULEXV-5875	(1+4p)/8p	p=18	0.906

Statistical Analysis Summary of D10S1248 **Likelihood Ratio Mode: 0.9065**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	24KPGQ-5875	(1+2p)/4p	p=17	2.462
	292W6P-5870	(1+2p)/4p	p=17	2.46
	2PNAGW-5870	(1+2p)/4p	p=17	2.4623
	3Y9ZGU-5870	(0.5+a)/2a	a=17	2.462
	4D6FGN-5870	1+2p/4p	p=17, q=20	2.46
	4VKNGN-5875	NA	NA	
	68DRYM-5870	(1+2p)/4p	p=17	2.4623
	9L32AH-5875	1+2p/4p	p=17	2.4623
	9UW73J-5870	(1+2p)/4p	p=17	2.4623
	AVJ6UM-5870	(0.25+(b/2))/b	b=17	2.4623
	BNEK8H-5870	(1+2p)/4p	p=17	2.46
	C8ADRF-5875	N/A	N/A	
	FJ8NPC-5870	(1+2p)/4p	p=17	2.4623
	G33GBB-5875	(1/2p)/4p	p=17	1.2312
	GPEERH-5870	(1+2p)/4p	p=17, q=20	2.462
	HCY76G-5870	(1+2p)/4p	p=17	2.4623
	HNFQND-5870	(1+2p)/4p	p=17	2.4623
	JE6N3C-5870	(1+2P)/4P	P=17	2.4623
	M3KHJ7-5875	(1+2p)/4p	p=17	2.4623
	MM9639-5870	(1+2p)/4p	p=17	2.44
	N9LCQ7-5870	(1+2p)/4p	17: 0.1274	2.462
	R4VB22-5875	(1+2p)/4p	p=17	2.4620
	UZA98Z-5870	1+2p/4p	p=17	2.462
	VG9HQX-5870	(1+2p)/4p	p=17	2.4623
	VXXTDZ-5875	(1+4p)/8p	p=0.1274	1.4812
	W8GM32-5870	(Z1*(1+2*0.02)/(2*(2*0.02+(1-0.02)*a)))+Z0	a=17	2.077172251
	WCWUQ2-5870	(0.25+(B/2))/B	A-20, B-17	2.4623

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	X6TB3V-5870	0+[a/2*1/2]+[a^2*1/2]/a^2	A=17, B=20	2.4623
	XZXG6U-5875	*	*	2.246
	YWXR2R-5875	*	*	2.24584968
	ZULEXV-5875	(1+2p)/4p	p=17	2.462

Statistical Analysis Summary of D12S391	Likelihood Ratio Mode: 2.4623

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	24KPGQ-5875	(1+4r)/8r	r=12	0.965
	292W6P-5870	(1+4p)/8p	p=12	0.97
	2PNAGW-5870	(1+4p)/8p	p=12	0.9652
	3Y9ZGU-5870	(0.25+a)/2a	a=12	0.9652
	4D6FGN-5870	1+4p/8p	p=12, q=10, r=13	0.97
	4VKNGN-5875	NA	NA	0.9623
	68DRYM-5870	(1+4p)/8p	p=12	0.9652
	9L32AH-5875	1+4p/8p	p=12	0.9652
	9UW73J-5870	(1+4p)/8p	p=12	0.9652
	AVJ6UM-5870	(0.25+a)/2a	a=12	0.96520
	BNEK8H-5870	(1+4p)/8p	p=12	0.96
	C8ADRF-5875	N/A	N/A	0.9623
	FJ8NPC-5870	(1+4p)/8p	p=12	0.9652
	G33GBB-5875	(1+4p)/4p	p=12	0.9652
	GPEERH-5870	(1+4q)/8q	p=10, q=12, r=13	0.965
	HCY76G-5870	(1+4r)/8r	r=12	0.9652
	HNFQND-5870	(1+4r)/8r	r=12	0.9652
	JE6N3C-5870	(1+4R)/8R	R=12	0.9652
	M3KHJ7-5875	(1+4q)/8q	q=12	0.9652
	MM9639-5870	(1+4r)/8r	r=12	0.963
	N9LCQ7-5870	(1+4r)/8r	12: 0.2687	0.965
	R4VB22-5875	(1+4q)/8q	q=12	0.9652
	UZA98Z-5870	1+4p/8p	p=12	0.965
	VG9HQX-5870	(1+4p)/8p	p=12	0.9652
	VXXTDZ-5875	(1+4p)/8p	p=0.2687	0.9652
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=12	0.958835405
	WCWUQ2-5870	(0.25+A)/2A	A-12, B-10, C-13	0.9652

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	X6TB3V-5870	0+[c/2*1/2]+[2bc*1/2]/2bc	A=10, B=12, C=13	0.9652
	XZXG6U-5875	*	*	0.9623
	YWXR2R-5875	*	*	0.96226752
	ZULEXV-5875	(1+4p)/8p	p=12	0.9652

Statistical Analysis Summary of D13S317 **Likelihood Ratio Mode: 0.9652**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	24KPGQ-5875	(1+p)/2p	p=12	2.09
	292W6P-5870	2p(1+p)/2p^2	p=12	2.09
	2PNAGW-5870	(1+p)/2p	p=12	2.0903
	3Y9ZGU-5870	(0.5+(a/2))/a	a=12	2.090
	4D6FGN-5870	2p(1+p)/(2p)^2	p=12	2.09
	4VKNGN-5875	NA	NA	1.995
	68DRYM-5870	(1+p)/2p	p=12	2.0903
	9L32AH-5875	1+p/2p	p=12	2.0903
	9UW73J-5870	(1+p)/2p	p=12	2.0903
	AVJ6UM-5870	(0.5+(a/2))/a	a=12	2.0903
	BNEK8H-5870	2p(1+p)/(2p)2	p=12	2.09
	C8ADRF-5875	N/A	N/A	1.995
	FJ8NPC-5870	(1+p)/2p	p=12	2.0903
	G33GBB-5875	2p(1+p)/(2p)2	p=12	2.0903
	GPEERH-5870	(2+2p)/4p	p=12	2.090
	HCY76G-5870	(1+p)/2p	p=12	2.0903
	HNFQND-5870	(1+p)/2p	p=12	2.0903
	JE6N3C-5870	(1+P)/2P	P=12	2.0903
	M3KHJ7-5875	(1+p)/2p	p=12	2.0903
	MM9639-5870	(1+p)/2p	p=12	2.09
	N9LCQ7-5870	(1+p)/2p	12: 0.3144	2.090
	R4VB22-5875	(1+p)/2p	p=12	2.0903
	UZA98Z-5870	1+p/2p	p=12	2.090
	VG9HQX-5870	(1+p)/2p	p=12	2.0903
	VXXTDZ-5875	(p+q+4pq)/8pq= (2p+4p2)/8p2	p=0.3144	1.2951
	W8GM32-5870	((Z2*(1+0.02)(1+2*0.02))/ ((2*0.02+(1-0.02)*a) (3*0.02+(1-0.02)*a)))+(Z1* (1+2*0.02)/ (3*0.02+(1-0.02)*a))+Z0	a=12	1.912613552

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	WCWUQ2-5870	(0.5+(A/2))/A	A-12	2.0903
	X6TB3V-5870	(1*0)+[a*1/2]+[a^2*1/2]/a^2	A=12	2.0903
	XZXG6U-5875	*	*	1.995
	YWXR2R-5875	*	*	1.99548939
	ZULEXV-5875	1/2*(1+p)/p	p=12	2.090

Statistical Analysis Summary of D16S539 **Likelihood Ratio Mode: 2.0903**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	24KPGQ-5875	(1+4r)/8r	p=15	1.234
	292W6P-5870	(1+4p)/8p	p=15	1.23
	2PNAGW-5870	(1+4p)/8p	p=15	1.2335
	3Y9ZGU-5870	(0.25+a)/2a	a=15	1.234
	4D6FGN-5870	1+4p/8p	p=15, q=14, r=13	1.23
	4VKNGN-5875	NA	NA	1.214
	68DRYM-5870	(1+4p)/8p	p=15	1.2335
	9L32AH-5875	1+4p/8p	p=15	1.2336
	9UW73J-5870	(1+4p)/8p	p=15	1.2335
	AVJ6UM-5870	(0.25+a)/2a	a=15	1.2336
	BNEK8H-5870	(1+4p)/8p		1.23
	C8ADRF-5875	N/A	N/A	1.214
	FJ8NPC-5870	(1+4p)/8p	p=15	1.2335
	G33GBB-5875	(1+4p)/4p	p=15	1.2336
	GPEERH-5870	(1+4r)/8r	p=13, p=14, q=15	1.234
	HCY76G-5870	(1+4r)/8r	r=15	1.2335
	HNFQND-5870	(1+4r)/8r	r=15	1.2335
	JE6N3C-5870	(1+4R)/8R	R=15	1.2336
	M3KHJ7-5875	(1+4q)/8q	q=15	1.2336
	MM9639-5870	(1+4r)/8r	r=15	1.23
	N9LCQ7-5870	(1+4r)/8r	15: 0.1704	1.234
	R4VB22-5875	(1+4q)/8q	q=15	1.2337
	UZA98Z-5870	1+4p/8p	p=15	1.234
	VG9HQX-5870	(1+4p)/8p	p=15	1.2335
	VXXTDZ-5875	(1+4p)/8p	p=0.1704	1.2336
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=15	1.195216908
	WCWUQ2-5870	(0.25+A)/2A	A-15, B-14, C-13	1.2335

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	X6TB3V-5870	0+[c/2*1/2]+[2bc*1/2]/2bc	A=14, B=15, C=13	1.2336
	XZXG6U-5875	*	*	1.214
	YWXR2R-5875	*	*	1.2142276
	ZULEXV-5875	(1+4p)/8p	p=15	1.233

Statistical Analysis Summary of D18S51 **Likelihood Ratio Mode: 1.2335**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	24KPGQ-5875	(p+q+4pq)/8pq	p=13, q=14	1.336
	292W6P-5870	(p+q+4pq)/8p	p=13, q=14	1.34
	2PNAGW-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	3Y9ZGU-5870	(0.25a+0.25b+ab)/2ab	a=13, b=14	1.336
	4D6FGN-5870	p+q+4pq/8pq	p=13, q=14	1.35
	4VKNGN-5875	NA	NA	1.334
	68DRYM-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	9L32AH-5875	p+q+4pq/8pq	p=13, q=14	1.3364
	9UW73J-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	AVJ6UM-5870	(0.25a+0.25b+ab)/2ab	a=13, b=14	1.3364
	BNEK8H-5870	(p+q+4pq)/8pq	p=13, q=14	1.34
	C8ADRF-5875	N/A	N/A	1.334
	FJ8NPC-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	G33GBB-5875	(p+q+4pq)/8pq	p=13, q=14	1.3364
	GPEERH-5870	(p+q+4pq)/8pq	p=13, q=14	1.336
	HCY76G-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	HNFQND-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	JE6N3C-5870	(P+Q+4PQ)/8PQ	P=13, Q=14	1.3363
	M3KHJ7-5875	(p+q+pq)8pq	p=13, q=14	1.3364
	MM9639-5870	(p+q+4pq)/8pq	p=13, q=14	1.33
	N9LCQ7-5870	(p+q+4pq)/8pq	13: 0.2548, 14: 0.3615	1.336
	R4VB22-5875	(p+q+4pq)/8pq	p=13, q=14	1.3363
	UZA98Z-5870	p+q+4pq/8pq	p=13, q=14	1.336
	VG9HQX-5870	(p+q+4pq)/8pq	p=13, q=14	1.3363
	VXXTDZ-5875	(p+q+4pq)/8pq	p=0.2548, q=0.3615	1.3363
	W8GM32-5870	(((2*Z2(1+0.02))+(Z1(2*0.02 +(1-0.02))(a+b))) (1+2*0.02)/(4* (0.02+(1-0.02)a) (0.02+(1-0.02)b)))+Z0	a=13, b=14	1.329352735

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	WCWUQ2-5870	(0.25A+0.25B+AB)/2AB	A-13, B-14	1.3363
	X6TB3V-5870	(1*0)+[((a+b)/2) *1/2]+[2ab*1/2]/2ab	A=13, B=14	1.3364
	XZXG6U-5875	*	*	1.334
	YWXR2R-5875	*	*	1.33352448
	ZULEXV-5875	(p+q+4pq)/8pq	p=13, q=14	1.336

Statistical Analysis Summary of D19S433 **Likelihood Ratio Mode: 1.3363**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	24KPGQ-5875	(1+4p)/8p	p=30	0.942
	292W6P-5870	(1+4p)/8p	p=30	0.94
	2PNAGW-5870	(1+4p)/8p	p=30	0.9424
	3Y9ZGU-5870	(0.25+a)/2a	a=30	0.9425
	4D6FGN-5870	1+4p/8p	p=30, q=32.2, r=31.2	0.94
	4VKNGN-5875	NA	NA	0.9405
	68DRYM-5870	(1+4p)/8p	p=30	0.9424
	9L32AH-5875	1+4p/8p	p=30	0.9425
	9UW73J-5870	(1+4p)/8p	p=30	0.9424
	AVJ6UM-5870	(0.25+a)/2a	a=30	0.94248
	BNEK8H-5870	(1+4p)/8p	p=30	0.94
	C8ADRF-5875	N/A	N/A	0.9405
	FJ8NPC-5870	(1+4p)/8p	p=30	0.9424
	G33GBB-5875	(1+4p)/4p	p=30	0.9425
	GPEERH-5870	(1+4p)/8p	p=30, q=31.2, r=32.2	0.942
	HCY76G-5870	(1+4p)/8p	p=30	0.9424
	HNFQND-5870	(1+4p)/8p	p=30	0.9424
	JE6N3C-5870	(1+4P)/8P	P=30	0.9425
	M3KHJ7-5875	(1+4p)/8p	p=30	0.9425
	MM9639-5870	(1+4p)/8p	p=30	0.941
	N9LCQ7-5870	(1+4p)/8p	30: 0.2825	0.942
	R4VB22-5875	(1+4p)/8p	p=30	0.9424
	UZA98Z-5870	1+4p/8p	p=30	0.942
	VG9HQX-5870	(1+4p)/8p	p=30	0.9424
	VXXTDZ-5875	(1+4p)/8p	p=0.2825	0.9415
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=30	0.937931615
	WCWUQ2-5870	(0.25+A)/2A	A-30, B-32.2, C-31.2	0.9424

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=30, B=32.2, C=31.2	0.9425
	XZXG6U-5875	*	*	0.9405
	YWXR2R-5875	*	*	0.94053369
	ZULEXV-5875	(1+4p)/8p	p=30	0.9424

Statistical Analysis Summary of D21S11 **Likelihood Ratio Mode: 0.9424**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	24KPGQ-5875	(1+4p)/8p	p=15	0.889
	292W6P-5870	(1+4p)/8p	p=15	0.89
	2PNAGW-5870	(1+4p)/8p	p=15	0.8890
	3Y9ZGU-5870	(0.25+a)/2a	a=15	0.8890
	4D6FGN-5870	1+4p/8p	p=15, 1=16, r=17	0.89
	4VKNGN-5875	NA	NA	0.8889
	68DRYM-5870	(1+4p)/8p	p=15	0.8890
	9L32AH-5875	1+4p/8p	p=15	0.8890
	9UW73J-5870	(1+4p)/8p	p=15	0.8890
	AVJ6UM-5870	(0.25+a)/2a	a=15	0.88904
	BNEK8H-5870	(1+4p)/8p	p=15	0.89
	C8ADRF-5875	N/A	N/A	0.8889
	FJ8NPC-5870	(1+4p)/8p	p=15	0.8890
	G33GBB-5875	(1+4p)/4p	p=15	0.8890
	GPEERH-5870	(1+4p)/8p	p=15, q=16, r=17	0.889
	HCY76G-5870	(1+4p)/8p	p=15	0.8890
	HNFQND-5870	(1+4p)/8p	p=15	0.8890
	JE6N3C-5870	(1+4P)/8P	P=15	0.8890
	M3KHJ7-5875	(1+4p)/8p	p=15	0.8890
	MM9639-5870	(1+4p)/8p	p=15	0.888
	N9LCQ7-5870	(1+4p)/8p	15: 0.3213	0.889
	R4VB22-5875	(1+4p)/8p	p=15	0.8890
	UZA98Z-5870	1+4p/8p	p=15	0.889
	VG9HQX-5870	(1+4p)/8p	p=15	0.8890
	VXXTDZ-5875	(1+4p)/8p	p=0.3213	0.8890
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=15	0.888205713
	WCWUQ2-5870	(0.25+A)/2A	A-15, B-16, C-17	0.8890

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=15, B=16, C=17	0.8890
	XZXG6U-5875	*	*	0.8889
	YWXR2R-5875	*	*	0.88890031
	ZULEXV-5875	(1+4p)/8p	p=15	0.8890

Statistical Analysis Summary of D22S1045 **Likelihood Ratio Mode: 0.8890**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	24KPGQ-5875	(1+2p)/4p	p=10	1.635
	292W6P-5870	(1+2p)/4p	p=10	1.64
	2PNAGW-5870	(1+2p)/4p	p=10	1.6353
	3Y9ZGU-5870	(0.5+a)/2a	a=10	1.635
	4D6FGN-5870	1+2p/4p	p=10, q=11	1.64
	4VKNGN-5875	NA	NA	1.572
	68DRYM-5870	(1+2p)/4p	p=10	1.6353
	9L32AH-5875	1+2p/4p	p=10	1.6353
	9UW73J-5870	(1+2p)/4p	p=10	1.6353
	AVJ6UM-5870	(0.25+(b/2))/b	b=10	1.6353
	BNEK8H-5870	(1+2p)/4p	p=10	1.63
	C8ADRF-5875	N/A	N/A	1.572
	FJ8NPC-5870	(1+2p)/4p	p=10	1.6353
	G33GBB-5875	(1+2p)/4p	p=10	0.8177
	GPEERH-5870	(1+2p)/4p	p=10, q=11	1.635
	HCY76G-5870	(1+2p)/4p	p=10	1.6353
	HNFQND-5870	(1+2p)/4p	p=10	1.6353
	JE6N3C-5870	(1+2P)/4P	P=10	1.6353
	M3KHJ7-5875	(1+2p)/4p	p=10	1.6353
	MM9639-5870	(1+2p)/4p	p=10	1.63
	N9LCQ7-5870	(1+2p)/4p	10: 0.2202	1.635
	R4VB22-5875	(1+2p)/4p	p=10	1.6352
	UZA98Z-5870	1+2p/4p	p=10	1.635
	VG9HQX-5870	(1+2p)/4p	p=10	1.6353
	VXXTDZ-5875	(1+4p)/8p	p=0.2202	1.0677
	W8GM32-5870	(Z1*(1+2*0.02)/(2*(2*0.02+(1-0.02)*a)))+Z0	a=10	1.516434972
	WCWUQ2-5870	(0.25+(B/2))/B	A-11, B-10	1.6353

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	X6TB3V-5870	0+[a/2*1/2]+[a^2*1/2]/a^2	A=10, B=11	1.6353
	XZXG6U-5875	*	*	1.572
	YWXR2R-5875	*	*	1.57181832
	ZULEXV-5875	(1+2p)/4p	p=10	1.635

Statistical Analysis Summary of CSF1PO	Likelihood Ratio Mode: 1.6353

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	24KPGQ-5875	(p+q+4pq)/8pq	p=20, q=21	2.213
	292W6P-5870	(p+q+4pq)/8p	p=20, q=21	2.21
	2PNAGW-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	3Y9ZGU-5870	(0.25a+0.25b+ab)/2ab	a=20, b=21	2.213
	4D6FGN-5870	p+q+4pq/8pq	p=9, q=13	1.70
	4VKNGN-5875	NA	NA	2.149
	68DRYM-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	9L32AH-5875	p+q+4pq/8pq	p=20, q=21	2.2133
	9UW73J-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	AVJ6UM-5870	(0.25a+0.25b+ab)/2ab	a=20, b=21	2.2133
	BNEK8H-5870	(p+q+4pq)/8pq	p=20, q=21	2.21
	C8ADRF-5875	N/A	N/A	2.149
	FJ8NPC-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	G33GBB-5875	(p+q+4pq)/8pq	p=20, q=21	2.2133
	GPEERH-5870	(p+q+4pq)/8pq	p=20, q=21	2.213
	HCY76G-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	HNFQND-5870	(p+q+4p)/8pq	p=20, q=21	2.2132
	JE6N3C-5870	(P+Q+4PQ)/8PQ	P=20, Q=21	2.2127
	M3KHJ7-5875	(p+q+4pq)/8pq	p=20, q=21	2.2133
	MM9639-5870	(p+q+4pq)/8pq	p=20, q=21	2.2
	N9LCQ7-5870	(p+q+4pq)/8pq	20: 0.1233, 21: 0.1787	2.213
	R4VB22-5875	(p+q+4pq)/8pq	p=20, q=21	2.2136
	UZA98Z-5870	p+q+4pq/8pq	p=20, q=21	2.214
	VG9HQX-5870	(p+q+4pq)/8pq	p=20, q=21	2.2132
	VXXTDZ-5875	(p+q+4pq)/8pq	p=0.1233, q=0.1787	2.2127
	W8GM32-5870	(((2*Z2(1+0.02))+(Z1(2*0.02 +(1-0.02))(a+b))) (1+2*0.02)/(4* (0.02+(1-0.02)a) (0.02+(1-0.02)b)))+Z0	a=20, b=21	2.089308729

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	WCWUQ2-5870	(0.25A+0.25B+AB)/2AB	A-20, B-21	2.2132
	X6TB3V-5870	(1*0)+[((a+b)/2) *1/2]+[2ab*1/2]/2ab	A=20, B=21	2.2133
	XZXG6U-5875	*	*	2.149
	YWXR2R-5875	*	*	2.14894422
	ZULEXV-5875	(p+q+4pq)/8pq	p=20, q=21	2.213

Statistical Analysis Summary of FGA **Likelihood Ratio Mode: 2.2132**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	24KPGQ-5875	(p+q+4pq)/8pq	p=9, q=13	1.700
	292W6P-5870	(p+q+4pq)/8p	p=9, q=13	1.70
	2PNAGW-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	3Y9ZGU-5870	(0.25a+0.25b+ab)/2ab	a=9, b=13	1.700
	4D6FGN-5870	2/4		0.50
	4VKNGN-5875	NA	NA	
	68DRYM-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	9L32AH-5875	p+q+4pq/8pq	p=9, q=13	1.6996
	9UW73J-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	AVJ6UM-5870	(0.25a+0.25b+ab)/2ab	a=9, b=13	1.6996
	BNEK8H-5870	(p+q+4pq)/8pq	p=9, q=13	1.70
	C8ADRF-5875	N/A	N/A	
	FJ8NPC-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	G33GBB-5875	(p+q+4pq)/8pq	p=9, q=13	1.6996
	GPEERH-5870	(p+q+4pq)/8pq	p=13, q=9	1.700
	HCY76G-5870	(p+t+4pt)/8pt	p=9, t=13	1.6995
	HNFQND-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	JE6N3C-5870	(P+Q+4PQ)/8PQ	P=9, Q=13	1.6995
	M3KHJ7-5875	(p+q+4pq)/8pq	p=9, q=13	1.6996
	MM9639-5870	(p+t+4pt)/8pt	p=9, t=13	1.69
	N9LCQ7-5870	(p+t+4pt)/8pt	9: 0.2216, 13: 0.1967	1.700
	R4VB22-5875	(p+q+4pq)/8pq	p=9, q=13	1.6996
	UZA98Z-5870	p+q+4pq/8pq	p=9, q=13	1.7
	VG9HQX-5870	(p+q+4pq)/8pq	p=9, q=13	1.6995
	VXXTDZ-5875	(p+q+4pq)/8pq	p=0.2216, q=0.1967	1.6997
	W8GM32-5870	(((2*Z2(1+0.02))+(Z1(2*0.02 +(1-0.02))(a+b))) (1+2*0.02)/(4* (0.02+(1-0.02)a) (0.02+(1-0.02)b)))+Z0	a=9, b=13	1.659134533

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	WCWUQ2-5870	(0.25A+0.25B+AB)/2AB	A-9, B-13	1.6995
	X6TB3V-5870	(1*0)+[((a+b)/2) *1/2]+[2ab*1/2]/2ab	A=9, B=13	1.6996
	XZXG6U-5875	^	^	
	YWXR2R-5875	*	*	
	ZULEXV-5875	(p+q+4pq)/8pq	p=9, q=13	1.699

Statistical Analysis Summary of PentaD **Likelihood Ratio Mode: 1.6995**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	24KPGQ-5875	1/2	NA	0.5
	292W6P-5870			0.5
	2PNAGW-5870	1/2	N/A	0.5
	3Y9ZGU-5870	cd/2cd	c=10, d=12	0.5000
	4D6FGN-5870	1+4p/8p	p=17, q=21.2, r=27.2	2.51
	4VKNGN-5875	NA	NA	
	68DRYM-5870	1/2		0.5000
	9L32AH-5875	1/2		0.5
	9UW73J-5870	1/2	-	0.5000
	AVJ6UM-5870	cd/2cd=0.5	c=10, d=12	0.50000
	BNEK8H-5870	2/4		0.5
	C8ADRF-5875	N/A	N/A	
	FJ8NPC-5870	1/2		0.5000
	G33GBB-5875	K0	None	1
	GPEERH-5870	1/2	p=10, q=12, r=16, s=7	0.500
	HCY76G-5870	1/2		0.5000
	HNFQND-5870	1/2	-	0.5
	JE6N3C-5870	1/2	P=7, Q=16, R=10, S=12	0.5
	M3KHJ7-5875	1/2		0.5000
	MM9639-5870	1/2		0.5
	N9LCQ7-5870	1/2	--	0.500
	R4VB22-5875	1/2		0.5
	UZA98Z-5870	1/2		0.5
	VG9HQX-5870	1/2		0.5000
	VXXTDZ-5875			0.5
	W8GM32-5870	Z0		0.5
	WCWUQ2-5870	CD/2CD	A-7, B-16, C-10, D-12	0.5000

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	X6TB3V-5870	0+[0*1/2]+[2cd*1/2]/2cd	A=7, B=16, C=10, D=12	0.5000
	XZXG6U-5875	^	^	
	YWXR2R-5875	*	*	
	ZULEXV-5875	1/2		0.5

Statistical Analysis Summary of PentaE **Likelihood Ratio Mode: 0.5**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	24KPGQ-5875	(1+4p)/8p	p=17	2.506
	292W6P-5870	(1+4p)/8p	p=17	2.51
	2PNAGW-5870	(1+4p)/8p	p=17	2.5064
	3Y9ZGU-5870	(0.25+a)/2a	a=17	2.506
	4D6FGN-5870	2/4		0.50
	4VKNGN-5875	NA	NA	2.279
	68DRYM-5870	(1+4p)/8p	p=17	2.5064
	9L32AH-5875	1+4p/8p	p=17	2.5064
	9UW73J-5870	(1+4p)/8p	p=17	2.5064
	AVJ6UM-5870	(0.25+a)/2a	a=17	2.5064
	BNEK8H-5870	(1+4p)/8p	p=17	2.51
	C8ADRF-5875	N/A	N/A	2.279
	FJ8NPC-5870	(1+4p)/8p	p=17	2.5064
	G33GBB-5875	(1+4p)/4p	p=17	2.5064
	GPEERH-5870	(1+4p)/8p	p=17, q=21.2, r=27.2	2.506
	HCY76G-5870	(1+4p)/8p	p=17	2.5064
	HNFQND-5870	(1+4p)/8p	p=17	2.5064
	JE6N3C-5870	(1+4P)/8P	P=17	2.5064
	M3KHJ7-5875	(1+4p)/8p	p=17	2.5064
	MM9639-5870	(1+4p)/8p	p=17	2.51
	N9LCQ7-5870	(1+4p)/8p	17: 0.0623	2.506
	R4VB22-5875	(1+4p)/8p	p=17	2.5055
	UZA98Z-5870	1+4p/8p	p=17	2.506
	VG9HQX-5870	(1+4p)/8p	p=17	2.5064
	VXXTDZ-5875	(1+4p)/8p	p=0.0623	2.5064
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=17	2.103869026
	WCWUQ2-5870	(0.25+A)/2A	A-17, B-21.2, C-27.2	2.5064

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=17, B=21.2, C=27.2	2.5064
	XZXG6U-5875	*	*	2.279
	YWXR2R-5875	*	*	2.27939997
	ZULEXV-5875	(1+4p)/8p	p=17	2.506

Statistical Analysis Summary of SE33 **Likelihood Ratio Mode: 2.5064**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	24KPGQ-5875	1/2	NA	0.5
	292W6P-5870			0.5
	2PNAGW-5870	1/2	N/A	0.5
	3Y9ZGU-5870	cd/2cd	c=7, d=8	0.5000
	4D6FGN-5870	1+4p/8p	p=8, q=11, r=10	0.74
	4VKNGN-5875	NA	NA	0.5000
	68DRYM-5870	1/2		0.5000
	9L32AH-5875	1/2		0.5
	9UW73J-5870	1/2	-	0.5000
	AVJ6UM-5870	cd/2cd=0.5	c=7, d=8	0.50000
	BNEK8H-5870	2/4		0.5
	C8ADRF-5875	N/A	N/A	0.5
	FJ8NPC-5870	1/2		0.5000
	G33GBB-5875	k0	None	1
	GPEERH-5870	1/2	p=6, q=7, r=8, s=9.3	0.500
	HCY76G-5870	1/2		0.5000
	HNFQND-5870	1/2	-	0.5
	JE6N3C-5870	1/2	P=6, Q=9.3, R=7, S=8	0.5
	M3KHJ7-5875	1/2		0.5000
	MM9639-5870	1/2		0.5
	N9LCQ7-5870	1/2	--	0.500
	R4VB22-5875	1/2		0.5
	UZA98Z-5870	1/2		0.5
	VG9HQX-5870	1/2		0.5000
	VXXTDZ-5875			0.5
	W8GM32-5870	Z0		0.5
	WCWUQ2-5870	CD/2CD	A-6, B-9.3, C-7, D-8	0.5000

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	X6TB3V-5870	0+[0*1/2]+[2cd*1/2]/2cd	A=6, B=9.3, C=7, D=8	0.5000
	XZXG6U-5875	*	*	0.5000
	YWXR2R-5875	*	*	0.5
	ZULEXV-5875	1/2		0.5

Statistical Analysis Summary of TH01 **Likelihood Ratio Mode: 0.5**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	24KPGQ-5875	(1+4p)/8p	p=8	0.738
	292W6P-5870	(1+4p)/8p	p=8	0.74
	2PNAGW-5870	(1+4p)/8p	p=8	0.7381
	3Y9ZGU-5870	(0.25+a)/2a	a=8	0.7381
	4D6FGN-5870	1+4p/8p	p=14, q=17, r=16	1.85
	4VKNGN-5875	NA	NA	0.7410
	68DRYM-5870	(1+4p)/8p	p=8	0.7381
	9L32AH-5875	1+4p/8p	p=8	0.7381
	9UW73J-5870	(1+4p)/8p	p=8	0.7381
	AVJ6UM-5870	(0.25+a)/2a	a=8	0.73814
	BNEK8H-5870	(1+4p)/8p	p=8	0.74
	C8ADRF-5875	N/A	N/A	0.7410
	FJ8NPC-5870	(1+4p)/8p	p=8	0.7381
	G33GBB-5875	(1+4p)/4p	p=8	0.7381
	GPEERH-5870	(1+4r)/8r	p=10, q=11, r=8	0.738
	HCY76G-5870	(1+4p)/8p	p=8	0.7381
	HNFQND-5870	(1+4p)/8p	p=8	0.7381
	JE6N3C-5870	(1+4P)/8P	P=8	0.7381
	M3KHJ7-5875	(1+4p)/8p	p=8	0.7381
	MM9639-5870	(1+4p)/8p	p=8	0.738
	N9LCQ7-5870	(1+4p)/8p	8: 0.5249	0.738
	R4VB22-5875	(1+4p)/8p	p=8	0.7381
	UZA98Z-5870	1+4p/8p	p=8	0.738
	VG9HQX-5870	(1+4p)/8p	p=8	0.7381
	VXXTDZ-5875	(1+4p)/8p	p=0.5249	0.7381
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=8	0.743262563
	WCWUQ2-5870	(0.25+A)/2A	A-8, B-11, C-10	0.7381

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=8, B=11, C=10	0.7381
	XZXG6U-5875	*	*	0.7410
	YWXR2R-5875	*	*	0.74095984
	ZULEXV-5875	(1+4p)/8p	p=8	0.7381

Statistical Analysis Summary of TPOX **Likelihood Ratio Mode: 0.7381**

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	24KPGQ-5875	(1+4p)/8p	p=14	1.847
	292W6P-5870	(1+4p)/8p	p=14	1.85
	2PNAGW-5870	(1+4p)/8p	p=14	1.8469
	3Y9ZGU-5870	(0.25+a)/2a	a=14	1.847
	4VKNGN-5875	NA	NA	0.1751
	68DRYM-5870	(1+4p)/8p	p=14	1.8469
	9L32AH-5875	1+4p/8p	p=14	1.8470
	9UW73J-5870	(1+4p)/8p	p=14	1.8469
	AVJ6UM-5870	(0.25+a)/2a	a=14	1.8470
	BNEK8H-5870	(1+4p)/8p	p=14	1.85
	C8ADRF-5875	N/A	N/A	1.751
	FJ8NPC-5870	(1+4p)/8p	p=14	1.8469
	G33GBB-5875	(1+4p)/4p	p=14	1.8470
	GPEERH-5870	(1+4p)/8p	p=14, q=16, r=17	1.847
	HCY76G-5870	(1+4p)/8p	p=14	1.8469
	HNFQND-5870	(1+4p)/8p	p=14	1.8469
	JE6N3C-5870	(1+4P)/8P	P=14	1.8470
	M3KHJ7-5875	(1+4p)/8p	p=14	1.8470
	MM9639-5870	(1+4p)/8p	p=14	1.83
	N9LCQ7-5870	(1+4p)/8p	14: 0.0928	1.847
	R4VB22-5875	(1+4p)/8p	p=14	1.8470
	UZA98Z-5870	1+4p/8p	p=14	1.847
	VG9HQX-5870	(1+4p)/8p	p=14	1.8469
	VXXTDZ-5875	(1+4p)/8p	p=0.0928	1.8470
	W8GM32-5870	(Z1*(1+2*0.02)/(4*(0.02+(1-0.02)*a)))+Z0	a=14	1.671762331
	WCWUQ2-5870	(0.25+A)/2A	A-14, B-17, C-16	1.8469
	X6TB3V-5870	0+[c/2*1/2]+[2ac*1/2]/2ac	A=14, B=17, C=16	1.8470

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	XZXG6U-5875	*	*	1.751
	YWXR2R-5875	*	*	1.7514764
	ZULEXV-5875	(1+4p)/8p	p=14	1.846

Statistical Analysis Summary of vWA **Likelihood Ratio Mode: 1.8469**

Kinship DNA Statistics

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

TABLE 7

WebCode-Test	Kinship Index	Claim Supported?
24KPGQ-5875	33.25	Yes
292W6P-5870	33.164	Yes
2PNAGW-5870	Combined LR = Approximately 33.2614	Yes
3Y9ZGU-5870	33.28	Yes
4D6FGN-5870	3.36E+01	Yes
4VKNGN-5875	10.	Yes
68DRYM-5870	33.2834	Yes
9L32AH-5875	33.2834	Yes
9UW73J-5870	33.2834	Yes
AVJ6UM-5870	33.28	Yes
BNEK8H-5870	33.01	Yes
C8ADRF-5875	10	Yes
FJ8NPC-5870	33.2834	Yes
G33GBB-5875	33.2834	Inconclusive
GPEERH-5870	33.3	Yes
HCY76G-5870	33.2834	Yes
HNFQND-5870	33.26637	Inconclusive
JE6N3C-5870	33.2657	Inconclusive
M3KHJ7-5875	18.0204	Yes
MM9639-5870	31.2	Inconclusive
N9LCQ7-5870	33.283	Yes
R4VB22-5875	33.2611	Yes

TABLE 7

WebCode-Test	Kinship Index	Claim Supported?
UZA98Z-5870	33	Yes
VG9HQX-5870	33.2834	Yes
VXXTDZ-5875	3.4185	No
W8GM32-5870	12	Yes
WCWUQ2-5870	33.28	Yes
X6TB3V-5870	97.083139 %	No
XZXG6U-5875	10	Yes
YWXR2R-5875	10	Yes
ZULEXV-5875	36.55	Inconclusive

Response Summary	Participants: 31
Is the relationship claim of Half Siblings supported?	
Yes	24
No	2
Inconclusive	5

Additional Kinship Statistical Results

TABLE 8

WebCode-Test	Additional Statistical Results
24KPGQ-5875	NA indicates that there are no alleles in common between the two alleged half siblings.
4D6FGN-5870	There is a moderate support to the hypothesis of half sibling relationship versus unrelated' hypothesis. PI calculated by Familias3 = 1.92E+01 (Probability of Paternity 95.05%).
4VKNGN-5875	As noted in the Comments Section [Table 9], the reported values are Kinship Index (KI) values calculated using KIn CALc 5.0.12 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. Although the software reports the KI at each locus at up to nine significant figures, the final combined KI is reported as two significant figures. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of those loci (vWA) were used in the KI calculation. Per our laboratory practice, only the GlobalFiler loci are used for the KI calculations, hence no KI's were reported for Penta D and Penta E loci.
9L32AH-5875	Based on AABB standards, these results would be accompanied by the narrative: The genetic evidence supports the relationship of Sib 1 and Sib 2 as second degree relatives such as half siblings. Pu and Linacre have shown at a likelihood ratio >33 that STR test results correctly confirm second degree relationships >99% of the time.(Increasing the confidence in half-sibship determination based upon 15 STR loci. Pu and Linacre. Journal of Forensic and Legal Medicine 15 (2008) 373–377.)
BHDBZP-5870	This kinship statistic not calculated at this laboratory.
BNEK8H-5870	The forensic findings (persons C and D DNA profiles) provide moderate support for the half-siblingship rather than the being unrelated.
C8ADRF-5875	The likelihood ratios shown above were calculated using the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined KI (Caucasian) shown above does not include D12. D12 was removed due to genetic linkage with vWA. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory. The combined KI (Caucasian) is only calculated to 2 significant figures by the Kin CALc software.
G33GBB-5875	This method of manual calculation of half-sibs is outside the scope of the Laboratory, however it was carried out. For this laboratory, at least two family members are necessary in order to establish a probable more reliable kinship relationship.
GPEERH-5870	There is limited support of a relationship of half siblings supported by the genetic evidence.
HNFQND-5870	When we perform the statistical calculation of half siblings relationship between profile A and profile B, a likelihood ratio of 33.26637 was obtained, that is to say that it is 33 times likely that profile A and profile B are half siblings than they are not. Given the above it is suggested that to provide greater certainty to support the DNA analysis, it is necesary to evaluate more relatives or aditional identification like Y cromosome.
JE6N3C-5870	For the previous case: When performing the statistical calculation it was observed that it is 33.2657 times people are more likely to be half-siblings than other randomly selected people, given the genetic profiles analyzed. However, based on the policies of this laboratory, in a case such as this we would request more information on this. However, based on the policies of this laboratory, in a case like this we would request more information on the matter, for example more direct relatives in case they exist or in case they are males we would use another method of amplification such as Y amplification method such as Y FILER PLUS; in order to be able to increase the LR or IP in this case. That the LR or IP is increased because the value obtained for this case is low and very questionable by another Expert.

TABLE 8

WebCode-Test	Additional Statistical Results
M3KHJ7-5875	vWA excluded from calculations due to possible linkage with D12S391
MM9639-5870	Although the the likelihood ratio values moderately support the relationship of half-sibs, our laboratory suggests a conservative position until incorporating more relatives, as well as the use of other identification systems. For the statistical results we used the Probabilistic Genotyping Software DNAVIEW v. 29.52, also we used the Caucasian population NIST STRBASE Database allele frecuencies.
N9LCQ7-5870	It is probable that Sibling C is a half sibling of Sibling D.* Combined half sibship index = 33.283. Probability of half sibship = 97.08% (50% prior probability). **AABB RT Standard 5.3.8.2 states that likelihood ratios greater than 10 shall be considered genetic evidence supporting the tested relationship. 100% of the ratios above this value have been found to be associated with a true second-degree relationship between the tested parties.
UZA98Z-5870	The DNA evidence is approximately 33 times more likely to be observed under the scenario that the profile C is from a biological half sibling of Profile D, rather than from an unrelated individual. Likelihood ratio of 33 provides limited support for the relationship.
W8GM32-5870	The probabilities applied for alleles identical by descent for half siblings are values Z0=0.5, Z1=0.5, Z2=0. Theta value used = 0.02 (included in formula above).
WCWUQ2-5870	AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the half sibling of Profile C using the reference populations listed. The genotype observed for Profile D is "X" times more likely to occur in a half sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where "X" equals: African American – 460. Caucasian – 21. Hispanic – 55.
X6TB3V-5870	According to the international guidelines suggested by John M. Butler, the kindship index obteined, indicates a moderately strong support fot the half-sibling relationship. However, according to the parameters established by our laboratory, in this case, no statement would be issued and additional samples for a complementary comparison (mother and/or father) will be required.
XZXG6U-5875	The likelihood ratios were calculated with the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of just x/N. Combined kinship index omits the locus D12S391 due to linkage disequilibrium. ^Only GlobalFiler loci used in calculation per TL, additional loci (PentaD, PentaE) not tested at our laboratory.
YWXR2R-5875	* The likelihood ratios were calculated with the KinCALc software that uses standard formulae for simple PI's ans 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k instead of just x/N. The KinCALc software uses the NIST STRBase Population Database. Although the likelihood ratios for all loci are shown only one of the vWA/D12S391 loci were used to calculate the combined KI, due to linkage between these two loci. For this example D12S391 was omitted. The scenario did not state if these were paternal or maternal half-sibling so I calculated base on maternal half-sibling. Also we do not test PentaD and PentaE in our laboratory so those loci were not evaluated.
ZULEXV-5875	Additional testing is recommended.

Additional Comments

TABLE 9

WebCode-Test	Additional Comments
2W4TZW-5870	No PI statistics were calculated for exclusionary conclusions (item 1.4).
3CUFJT-5870	For item 3 Alleged Father A, there is an indication of a possible binding site mutation in the D3S1358 locus. There was severe heterozygote allele imbalance, where the observed 15 allele is significantly smaller than the observed 18 allele (8% to 10% ratio between the two peaks). The sample from the Alleged Father A was sampled multiple times, extracted using the phenol/CHCl3 extraction and Prepfiler extraction methods, and typed using both the direct GlobalFiler Express and GlobalFiler amplification systems. The small 15 allele in the D3S1358 locus was observed in three samples amplified using the GlobalFiler system. The 15 allele was not observed in the one sample amplified using the GlobalFiler Express direct amplification system. The GlobalFiler Express direct system is used to amplify only DNA reference samples and has a higher analytical threshold. CPI was calculated using vWA, but not D12S391, to account for the possibility that these loci could be in linkage disequilibrium for paternity samples.
3FTRFT-5870	CPI was calculated using D12S391, but not vWA, to account for the possibility that these loci could be in linkage disequilibrium for paternity samples.
3Y9ZGU-5870	Item 001.A.01.a.01: Biological stain cutting of FTA card described as coming from Victim, Victim; DNA Number D7514. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.02.a.01: Biological stain cutting of FTA card described as coming from Victim, Child; DNA Number D7515. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.03.a.01: Biological stain cutting of FTA card described as coming from Subject, Subject 1; DNA Number D7516. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject 1 Subject, cannot be excluded as the potential biological father of the child, Child Victim using Autosomal STRs. These profiles are “X” times more likely to occur if Child Victim is the child of Victim Victim and Subject 1 Subject than if Child Victim is the child of Victim Victim and a random person from the reference populations listed where “X” equals: African American – 1.0 Billion. Caucasian – 17 Million. Hispanic – 320 Million. Item 001.A.04.a.01: Biological stain cutting of FTA card described as coming from Subject, Subject 2; DNA Number D7517. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject 2 Subject, is excluded as the potential biological father of the child, Child Victim using Autosomal STRs. Item 001.B: Profile C, AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the half sibling of Profile C using the reference populations listed. The genotype observed for Profile D is “X” times more likely to occur in a half sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where “X” equals: African American – 320. Caucasian – 25. Hispanic – 64. Item 001.C: Profile D, AUTOSOMAL STRs: The DNA profile is single source.
4VKNGN-5875	For Item 3, a reproducible peak height imbalance of ~10% was observed between the 15-allele and 18-allele peaks at the D3S1358 locus. The 15-allele is possibly a partial null allele due to a mutation at a primer binding site. For Part I PI values [Table 2], Part II Combined PI value [Table 5], and Part III Kinship DNA Statistics [Tables 6-8], the reported values are Kinship Index (KI) values calculated using KIn CALc 5.0.12 BFS software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. Although the software reports the KI at each locus at up to nine significant figures, the final combined KI is reported as two significant figures. Due to possible genetic linkage between the vWA and D12S391 loci, the genotypes from only one of those loci were used in the KI calculation. For Item 3, a mutation was allowed for the calculation of the KI at the D3S1358 locus. For Part II [Table 5], no value was listed for the Probability of Paternity since our laboratory does not report Probabilities of Paternity. For Part III: Kinship DNA Statistics [Tables 6-8]; since the reported Likelihood Ratios are KI values calculated using the KIn CALc 5.0.12 BFS software as mentioned above, the "Formula Used" and "Allele Legend" for each locus were not available to report. The CTS-provided Allele Frequencies for each locus were not used by the KIn CALc software. Per our laboratory practice, only the GlobalFiler loci are used for the KI calculations, hence no KI's were reported for Penta D and Penta E loci. The genotypes at the D12S391 locus were not used, due to possible genetic linkage with the vWA locus.

TABLE 9

WebCode-Test	Additional Comments
68DRYM-5870	1) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 3" is the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 2) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 4" is not the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 3) Extraction: Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express (GFE) on PROFLEX PCR System. Item 2, Item 3 and Item 4 were further amplified using AmpFlSTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5) Electrophoresis: Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). Electrophoresis were carried out on Genetic Analyzer 3500xl for Item 2, Item 3 and Item 4 (Yfiler). 6) Quality Control: Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7) The statistical formula were derived from DNAView Statistical Software and calculated using Microsoft Excel.
6HV9QU-5870	For part I [Tables 1, 2, & 4], Item 3: Results are entered only for GlobalFiler loci as casework reporting is on GlobalFiler loci. PowerPlex Fusion 6C is used only for allele verification. Average mutation paternity index calculated for locus D3S1358. The locus D12S391 is not used for paternity index calculations in our laboratory. For part I [Tables 1, 2, & 4], Item 4: Based on laboratory SOP, when there are three or more genetic inconsistencies, we will exclude the alleged parent as a possible biological parent of the child. We do not calculate paternity index for individual locus if alleged father is excluded. For part III [Tables 6-8: Kinship Exercise]: Our laboratory does not perform half-sibling relationship testing.
8VUWWT-5870	D12S391 is omitted from all final calculations, as per laboratory policy. The overall CPI without the mutation locus, the PI for the mutation locus, and the final CPI are each truncated to 2 significant figures, as per laboratory policy.
9CXQ3T-5870	* Per agency policy, D12S391 not used for PI calculations due to linkage with vWA. * Per case information and agency policy, Caucasian PI values are reported here.
9UW73J-5870	1. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 3" is the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 2. On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen "Item 4" is NOT the biological father to the source of bloodstain specimen "Item 2" (given that the biological mother is represented by the source of bloodstain specimen "Item 1"). 3. Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4. Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using Globalfiler Express (GFE)on PROFLEX PCR System. Item 2, Item 3 and Item 4 were further amplified using AmpFlSTR Y-Filer PCR Amplification kit on 9700 GeneAmp PCR System. 5. Electrophoresis: Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). Electrophoresis was carried out on Genetic Analyzer 3500xl for Item 2, Item 3 and Item 4 (Yfiler). 6. Quality Control: Reagent blank, positive control and negative control were incorporated in the overall analysis and gave designated results. 7. The statistical formula was derived from DNAView Statistical Software and calculated using Microsoft Excel.

TABLE 9

WebCode-Test	Additional Comments
AVJ6UM-5870	Item 001.A.01.a: Biological stain cutting of FTA card labeled as Test No. 21-5870, Item 1, Victim, Victim; DNA Number D7551. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.02.a: Biological stain cutting of FTA card labeled as Test No. 21-5870, Item 2, Victim, Child; DNA Number D7552. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.03.a: Biological stain cutting of FTA card labeled as Test No. 21-5870, Item 3, Subject, Subject A; DNA Number D7553. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject A Subject, cannot be excluded as the potential biological father of the child, Child Victim using Autosomal STRs. These profiles are "X" times more likely to occur if Child Victim is the child of Victim Victim and Subject A Subject than if Child Victim is the child of Victim Victim and a random person from the reference populations listed where "X" equals: African American – 1.0 Billion. Caucasian – 17 Million. Hispanic – 320 Million. Item 001.A.04.a: Biological stain cutting of FTA card labeled as Test No. 21-5870, Item 4, Subject, Subject B; DNA Number D7554. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject B Subject, is excluded as the potential biological father of the child, Child Victim using Autosomal STRs. Item 002: Profile C. AUTOSOMAL STRs: The DNA profile is single source. Item 003: Profile D. AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the half sibling of Profile C using the reference populations listed. The genotype observed for Profile D is "X" times more likely to occur in a half sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where "X" equals: African American – 460. Caucasian – 21. Hispanic – 55.
BHDBZP-5870	Per laboratory policy, D12S391 genetic locus not used for statistical analysis and CPI value truncated to 2 significant figures.
BNEK8H-5870	PI calculation was not performed when ITEM 4- AFB was compared to the ITEM 2 - Son, since 13 loci (12 autosomal + DYS391) resulted inconsistent with the paternity proposition; these inconsistencies categorically excluded the paternity of ITEM 4 - AFB on ITEM 2 – Son without any need of PI calculation. The paternity of ITEM3 - AFA on ITEM 2 - Son was proved with a PI=4.4e+6; a likely mutation at locus D3S1358 is conceivable.
C8ADRF-5875	For the paternity statistics, the likelihood ratios entered were calculated using the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k prior instead of x/N. The combined PI (Caucasian) shown does not include D12. D12 was removed due to genetic linkage with vWA. This laboratory does not report probability of paternity and so this value was not calculated.
CP74LN-5875	Based on the reference profiles obtained, no conclusion can be made by this laboratory regarding the likelihood of Alleged Father A being the biological father of the Child. The submitter is advised to consult an accredited parentage testing laboratory for further analysis.
CT7EHN-5875	Due to a possible mutation at D3S1358, I would report as follows: Based on the reference profiles obtained, no conclusion can be made by this laboratory regarding the likelihood of (Alleged Father A) being the biological father of (Known Child). The submitter is advised to consult an accredited parentage testing laboratory for further analysis.
EELBBJ-5870	PI calculations for Alleged Father B were not calculated as per [Laboratory] policy to exclude on the basis of a mismatch of alleles at 3 or more loci. Probability of Paternity is not calculated by [Laboratory]. For Globalfiler analysis the Combined Paternity Index value has been divided by 4 to take into account the linkage of D12S391 and vWA loci. Theta value used = 0.01. Alleged Father A exhibits a possible primer binding site mutation at D3 resulting in an extreme imbalance between alleles 15 and 18. The DNA profile of the child at D3 indicates a true homozygous 17,17 when compared to other loci in the child's profile. We consider it unlikely enough that Alleged Father A's allele 15 (D3) has mutated to restore peak balance AND also mutated from a 15 to a 17, that only a possible mutation of Alleged Father A's 18 to 17 at D3 was considered in CPI calculations. Calculation of the PI at D3 incorporated the following as per [Laboratory] policy and referenced by the American Association of Blood Banks (AABB) Annual Report Summary for testing in 2008. Apparent mutation rate of D3 in males (0.001691). Apparent mutation rate of D3 in males by change in repeat length (-1 change = 0.4464).

TABLE 9

WebCode-Test	Additional Comments
EXAWTL-5870	Item #3 D12S391 not used for stats. Caucasian PI based on information given and laboratory policy.
F3KABK-5870	Combined Paternity Index value truncated to 2 significant figures per lab protocol. D12S391, DYS391, and Amelogenin loci are not used for statistical purposes per lab protocol. Kinship DNA Statistics section is not applicable.
FJ8NPC-5870	1) On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 3" is the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). 2) On comparison to the DNA profiles obtained, I found that the source of stained-blood specimen "Item 4" is not the biological father to the source of stained-blood specimen "Item 2" (given that the biological mother is represented by the source of stained-blood specimen "Item 1"). 3) Extraction: Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: Item 1, Item 2, Item 3 and Item 4 amplified using GlobalFiler Express PCR Amplification Kit on ABI ProFlex PCR System. Item 2, Item 3 and Item 4 were further using AmpFlSTR Y-Filer PCR Amplification Kit on ABI GeneAmp PCR System 9700. 5) Electrophoresis: Electrophoresis was carried out on Genetic Analyzer 3500xL for Item 1, Item 2, Item 3 and Item 4 (GlobalFiler Express). Electrophoresis was also carried out on Genetic Analyzer 3500xl for Item 2, Item 3 and Item 4(Y-Filer). 6) Quality Control: Reagent blank, Positive Control and Negative Control were carried out through analysis and all gave intended results. 7) The statistical formula were derived from DNAView Statistical Software and calculated using Microsoft Excel.
FZWYCE-5870	NR = No Results. A possible mutation exists between Known Child (Item 2) and Alleged Father A (Item 3) at locus D3. This laboratory does not exclude parent/offspring kinship based on a single inconsistency. Y-STR analysis confirms biological relationship between Known Child (Item 2) and Alleged Father A (Item 3).
G33GBB-5875	A difference was observed in marker D3S1358. The mother has alleles 17,18 and the supposed father A, presents alleles 15,18, while the son shows only a peak of 17 repetitions in size in that marker. Possible causes of the above can be a mutation due to a deletion, a mutation in the primer binding site in the paternal allele that would cause a null allele, or a uniparental disomy, among others. Determining what type of mutation is beyond the capabilities of this laboratory. In any case, CODIS performed the paternity calculation considering a possible mutation.
GUA9PJ-5870	This laboratory does not report half-sibling relationship statistics as asked in Part III [Tables 6-8: Kinship Exercise]. Laboratory policies for rounding/truncating for manual calculation to incorporate mutation at D3S1358 were followed.
HCY76G-5870	1) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen “Item 3” is the biological father to the source of bloodstain specimen “Item 2” (given that the biological mother is represented by the source of bloodstain specimen “Item 1”). 2) On comparison to the DNA profiles obtained, I found that the source of bloodstain specimen “Item 4” is not the biological father to the source of bloodstain specimen “Item 2” (given that the biological mother is represented by the source of bloodstain specimen “Item 1”). 3) Extraction: Item 1, Item 2, Item 3 and Item 4 were extracted using in-situ method. 4) Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using GlobalFiler Express PCR Amplification Kit on ABI Proflex PCR System. Item 2, Item 3 and Item 4 were further amplified using AmpFLSTR Y-Filer PCR Amplification Kit on ABI GeneAmp PCR System 9700. 5) Electrophoresis: Electrophoresis was carried out using Genetic Analyzer 3500xL for Item 1, Item 2, Item 3 and Item 4 (Globalfiler Express). Electrophoresis was carried out using Genetic Analyzer 3500xL for Item 2, Item 3 and Item 4 (Yfiler). 6) Quality Control: Reagent Blank, Positive Control and Negative Control were incorporated in the overall analysis and gave designated results. 7) The statistical formula were derived from DNAView Statistical Software and calculated using Microsoft Excel.
JXWWZ8-5870	Locus d3s1358 analysis revealed a potential mutation as Item2 and Item3 do not match, i.e. Item 2 Alleles =17,1 vs Item 3 Alleles: 18.18, even when typed with different kits (data not reported in data sheet boxes). Thus a 0,1 mutation rate was included into the Familias statistic calculation.

TABLE 9

WebCode-Test	Additional Comments
LGMPYB-5870	Paternity probability is not calculated at my laboratory. I am not authorised in Kinship analysis. Allele frequencies for local Caucasian database used with a theta value of 0.02.
M3KHJ7-5875	The possibility of a mutation for Item 2 at D3S1358 was included in the calculations.
MM9639-5870	Regarding the calculations of Paternity Index on item 3, locus D21S11; the Probabilistic Genotyping Software DNAVIEW v. 29.52 didn't use the frecuency for the allele 32 reported on the NIST DataBase. Instead of that, DNAVIEW software calculates the Minor Allele Frequency (5/2N); this happens when the number of observations are below to 5. For the Paternity Index calculation in locus D3S1358, we detected a one step mutation, so a mutation rate obtained from AABB DATA website from NIST STR BASE SRD-130 was included. In addition to the autosomal calculations, we used the YHRD Website Kinship Calculation tool and we obtained an LR of 8.2725e+04.
MPWG2D-5870	D12S391 is omitted from the CPI calculation, per laboratory policy. A paternal mutation is assumed at D3S1358. One population database was chosen for all statistical calculations in this test, per CTS instructions. Y-STR statistics were not reported. Our laboratory does not calculate a likelihood ratio for half-sibling relationships or for exclusions.
N9LCQ7-5870	A single inconsistency was noted at D3S1358 in Alleged Father A's parentage analysis. Brenner's method was used to calculate the Mutation Index. The mutation rate for this locus was extracted from the AABB 2008 Annual Report Summary. The reported mutation index is: 0.0022. For comparison, the mutation index using the u/PPE formulae is: 0.0032 and 0.0031 using i)the AABB 2008 mutation rate and FBI/NIST PPE and ii)Ge et (2012) mutation rate and average PPE, respectively. All three methods are valid for use in Relationship Testing and produced mutation indexes in the same order of magnitude and same outcome (i.e. paternal inclusion, high probability of paternity).
PRCME7-5870	In the child's genotype (object Test No. 21-5870, point 2) D3S1358 there is no allele number 18, which are inherent in the genotype of the alleged father (object Test No. 21-5870, point 3). Such a difference from the paternal genotype at one locus is not a basis that categorically excludes the possibility of biological paternity. This is due to a mutational change in the inheritance of paternal alleles. The manufacturer of the test kits also identified mutational changes in the inheritance of paternal alleles.
QXUF3B-5870	Paternity indices, combined paternity index and probability of paternity were reported using the Caucasian population values based on ethnicity information provided in the test scenario. Genetic locus D12S391 was not used for paternity index calculations per laboratory's standard operating procedures. Paternity index calculations were not performed using item 4 due to exclusion as biological father. Item 4: elevated n-4 stutter @15.85% was observed at Fusion locus D12S391 (up to 15.8% n-4 stutter allowed at D12S391 per laboratory's standard operating procedures).
V9XG6W-5875	PHR noted for Item 3 - Severe imbalance ~12.5%. Locus will be reported as 15,18. Mutation rates were applied to paternity statistic at D3 to account for possible mutation.
VAQCR6-5870	Caucasian PI based on information given and laboratory policy.

TABLE 9

WebCode-Test	Additional Comments
VG9HQX-5870	Amplification: Item 1, Item 2, Item 3 and Item 4 were amplified using AmpFLSTR Identifiler Direct PCR Amplification Kit on Applied Biosystems GeneAmp PCR System 9700. With in- situ method, Item 2, Item 3 and Item 4 were also amplified using AmpFLSTR Yfiler PCR Amplification Kit on Applied Biosystems GeneAmp PCR System 9700. Electrophoresis: Electrophoresis was carried out on Applied Biosystems 3500XL Genetic Analyzer and the data were analyzed with GeneMapper ID-X v1.5 software. Quality control: Reagent Blank, Positive Control and Negative Control were included throughout the analysis and all gave intended results. Statistical Evaluation: The statistical formulas were derived from DNAView Statistical Software and the paternity/ kinship index was calculated using Microsoft Office Excel. On comparison of the DNA profiles obtained, I found the following: a) The donor of bloodstained specimen "Item 3" to be the biological father to the donor of bloodstained specimen "Item 2". b) The donor of bloodstained specimen "Item 4" is excluded from being the biological father to the donor of bloodstained specimen "Item 2". (Given that the biological mother is represented by the donor of bloodstained specimen "Item 1").
VHJKCW-5870	PowerPlex Fusion and YFiler was performed on Item 2, Item 3, and Item 4. Results at the DYS391 locus were concordant between these kits for each sample. "NR" = "No Results". A possible mutation was observed for the child (Item 2) at locus D3S1358 in the PowerPlex Fusion kit, as the child did not share an allele with the alleged father (Item 3). The paternity index calculation for this locus incorporated a documented paternal mutation rate to account for this possible mutation.
VLJV9V-5870	NR = No Result. Item 2 was processed in PowerPlex Fusion and YFiler. The data are consistent at DYS391. Item 3 was processed in PowerPlex Fusion and YFiler. The data are consistent at DYS391. Item 4 was processed in PowerPlex Fusion and YFiler. The data are consistent at DYS391. A possible mutational event occurred at D3S1358 in Item 2. The paternity index at this locus was hand-calculated by incorporating the mutation rate and mean power of exclusion. The combined paternity index value and probability of paternity were hand-calculated to incorporate the value calculated for D3S1358.
VZL6C6-5870	D12S391 is omitted from calculations, as per laboratory policy. The CPI is truncated to 2 significant figures, as per laboratory policy. Mutation rate frequencies are carried out to the number of digits in the actual mutation rate, as per laboratory policy. PI values reported as provided from calculations using the NIST 1036 U.S. Population Dataset.
W8GM32-5870	As per laboratory protocol, CPI calculated for three population groups [Nationality] Caucasian, [Nationality] Aboriginal and [Nationality] Asian with theta values of 0.02, 0.05 and 0.03 applied respectively. The most conservative PI values and resulting CPI reported to two significant figures.
WN6WP4-5870	Caucasian population group utilized. Paternal mutation rate of 0.0013 from the STRbase website and mean power of exclusion of 0.589 from Budowle paper used for D3 calculation (as per SOPs). Locus D12S391 not used for calculations due to possible linkage with vWA (as per SOPs).
WTL6D4-5870	For Alleged Father A, there was a possible mutation at D3S1358 (17 to 18). The PI was calculated by the mutation rate divided by the mean power of exclusion, using a mutation rate value of 0.0012 and a mean power of exclusion value of 0.53877.
X6TB3V-5870	During the genetic analysis carried out in the blood sample of the supposed father A (item 3) in the marker D3S1358, the presence of a null allele was observed, which was confirmed through complementary amplification with the Fusion 6C and 16 HS kits. Additional genetic markers were analyzed because a mutation was found in the genetic marker D3S1358, between CHILD and ASSUMED FATHER A, which was taken into account for the statistical calculation.
XAPYJ3-5870	Due to possible linkage issues with D12 and vWA, vWA was left out of the combined PI calculation. Our lab does not calculate probability of paternity.
XZXG6U-5875	Part II [Table 5: Paternity DNA Statistics & Conclusions] - Combined paternity index calculations considers possible mutations and omits the locus D12S391 due to linkage disequilibrium. Our laboratory does not calculate probability of paternity.

TABLE 9

WebCode-Test	Additional Comments
YNEL3Z-5870	A possible mutation was observed at locus D3S1358 in the child's known DNA sample (Item 2). The [Laboratory] procedure is to outsource the paternity statistical calculations to a private laboratory when a possible mutation is present and the alleged father cannot be excluded at the remaining loci from being the biological father of the child. Therefore, the laboratory is not reporting the statistical calculations for this paternity test.
YWXR2R-5875	Part II - Paternity DNA Statistics [Tables 2 & 5]: The paternity indexes were calculated with the KinCALc software that uses standard formulae for simple PI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k instead of just x/N. The KinCALc software uses the NIST STRBase Population Database. Although the paternity index for all loci are shown only one of vWA/D12S391 loci were used to calculate the combined PI, due to linkage between these two loci. For this example D12S391 was omitted. Additionally, a mutation was required at D3S1358. We also report for 3 ethnic groups; African Americans, Caucasians, and Hispanics. For this case only the values for Caucasians were reported since the individuals were reported to be Caucasian. Our laboratory does not report the Probability of Paternity.
ZYG76T-5870	Any labeled peaks seen in samples that are likely due to PCR/STR artifacts were not reported and will not be used for conclusions or comparisons. DYS391 is reported as INC for the PowerPlex® Fusion System as per laboratory policy.

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 21-5870: DNA Parentage

DATA MUST BE SUBMITTED BY **April 19, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: P6ZU8Z

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

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

Items Submitted (Sample Pack DPF1 - FTA Microcards):
Item 1: Blood Sample from Known Parent (Caucasian Mother)
Item 2: Blood Sample from Known Child (Son)
Item 3: Blood Sample from Alleged Father A (Caucasian)
Item 4: Blood Sample from Alleged Father B (Caucasian)

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

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

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

Part I: DNA Analysis for Item 1

STR Amplification Kit(s) Used:

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

☐ Identifiler® ☐ GlobalFiler™ ☐ Investigator® 24plex

☐ PowerPlex® Other

Report the Probabilistic Genotyping Software Used (if applicable):

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

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

Part I (continued): DNA Analysis for Item 2

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

☐ Identifiler® ☐ GlobalFiler™ ☐ Investigator® 24plex

☐ PowerPlex® Other

Report the Probabilistic Genotyping Software Used (if applicable):

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

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

YSTR results are for proficiency concordance only.

YSTR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

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

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

Part I (continued): DNA Analysis for Item 3

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Database(s) to use to determine PI values. Report a minimum of three significant figures in your PI values.

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

☐ Identifiler® ☐ GlobalFiler™ ☐ Investigator® 24plex

☐ PowerPlex® Other

Report the Probabilistic Genotyping Software Used (if applicable):

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

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

YSTR results are for proficiency concordance only.

YSTR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

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

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

Part I (continued): DNA Analysis for Item 4

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Database(s) to use to determine PI values. Report a minimum of three significant figures in your PI values.

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

☐ Identifiler® ☐ GlobalFiler™ ☐ Investigator® 24plex

☐ PowerPlex® Other

Report the Probabilistic Genotyping Software Used (if applicable):

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

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

YSTR results are for proficiency concordance only.

YSTR Amplification Kit(s) Used: Please check all the brands that apply for this item and record only additional kit specific information in the blank provided (i.e. Plus, 23, etc.).

☐ YFiler™ ☐ PowerPlex® Y Other

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

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

Part I (continued): DNA Analysis - Additional DNA

- Use this section to report results for loci not currently listed in other sections of the data sheet.
- Report alleles in numerical order, separated by a comma.
- Click "Add Row" to show another row of boxes for entry.

Locus	Item 1	Item 2	Item 3 Alleles	Item 3 PI	Item 4 Alleles	Item 4 PI

Part II: PATERNITY DNA STATISTICS

Select which of the alleged fathers below cannot be excluded as the biological parent of the child (Item 2) and answer the remaining questions based on your selection.

○ Item 3 - Alleged Father A ○ Item 4 - Alleged Father B

For the selected alleged parent, please utilize your own lab protocols regarding ethnicity and choose one of the following population databases for all statistical calculations in this test:
1. **FBI Popstats**: If FBI Popstats is already available in your laboratory then you may select that option, otherwise use the population database below.
2. **NIST-STRBASE** is a publicly available U.S. population dataset at STRBASE on the following NIST web site: http://www.cstl.nist.gov/strbase/NISTpop.htm#Autosomal
   a. On the NIST web site, access the population database by selecting the hyperlink labeled "Allele frequencies from autosomal STRs as Excel file" under the title "NIST 1036 U.S. Population Dataset".
3. If you are unable to use one of the suggested population databases, report the population database used in the blank provided next to the 'Other Pop. Database' option. Due to the tendency for allele frequencies to vary amongst different databases, no consensus value will be determined for this option. When reporting a population database name, please refrain from using terms that would allude to a laboratory specific name or location; general terms such as 'local/state database' or 'laboratory specific database' are preferred.
4. If you did not calculate paternity statistics, please provide an explanation in your additional comments.

1. Choose a Population Database:

   ☐ **FBI Popstats Pop. Database:** ☐ **NIST STRBASE Pop. Database:**

   Other Pop. Database:

2. Record the Combined Paternity Index value:

3. Record the Probability of Paternity:

Part III: KINSHIP DNA STATISTICS

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

- Use the provided scenario for context.
- Use the supplied allele frequencies for calculations (adopted from the NIST STRBASE database).
- Only test the relationship in question (eg. half siblings versus unrelated).
- Complete the entire table including the formula used in the calculation and the allele legend.
- Report a minimum of four significant figures in your likelihood ratio values.

Example: Questioned Half Sibling Relationship

Locus	Profile A	Profile B	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
FGA	18, 26	18, 26	18: 0.0249	26: 0.0263	(p+q+4pq) / 8pq	p = 18 q = 26	10.27
vWA	14, 15	14, 17	14: 0.0928 17: 0.1053	15: 0.1053	(1+4p)/8p	p = 14	1.847

Scenario:

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

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D1S1656	11,15	14,17	11: 0.0776 15: 0.1496	14: 0.0789 17: 0.0471			
D2S1338	17,19	19,19	17: 0.1856	19: 0.1205			
D2S441	10,12	10,11	10: 0.2105 12: 0.0471	11: 0.3435			
D3S1358	14,18	15,16	14: 0.1066 16: 0.2382	15: 0.2729 18: 0.1510			
D5S818	11,11	11,13	11: 0.3560	13: 0.1427			

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D7S820	8,11	8,10	8: 0.1440	10: 0.2562			
			11: 0.2050				
D8S1179	10,13	12,13	10: 0.1025	12: 0.1676			
			13: 0.3296				
D10S1248	13,14	13,16	13: 0.3075	14: 0.2978			
			16: 0.1330				
D12S391	17,20	17,17	17: 0.1274	20: 0.1108			
D13S317	10,12	12,13	10: 0.0471	12: 0.2687			
			13: 0.1163				
D16S539	12,12	12,12	12: 0.3144				
D18S51	14,15	13,15	13: 0.1233	14: 0.1343			
			15: 0.1704				
D19S433	13,14	13,14	13: 0.2548	14: 0.3615			
D21S11	30,32.2	30,31.2	30: 0.2825	31.2: 0.0983			
			32.2: 0.0900				
D22S1045	15,16	15,17	15: 0.3213	16: 0.3823			
			17: 0.0748				

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
CSF1PO	10,11	10,10	10: 0.2202	11: 0.3089			
FGA	20,21	20,21	20: 0.1233	21: 0.1787			
PentaD	9,13	9,13	9: 0.2216	13: 0.1967			
PentaE	7,16	10,12	7: 0.1690	10: 0.0859			
			12: 0.1994	16: 0.0512			
SE33	17,21.2	17,27.2	17: 0.0623	21.2: 0.0235			
			27.2: 0.0942				
TH01	6,9.3	7,8	6: 0.2355	7: 0.1939			
			8: 0.0956	9.3: 0.3449			
TPOX	8,11	8,10	8: 0.5249	10: 0.0499			
			11: 0.2521				
vWA	14,17	14,16	14: 0.0928	16: 0.2008			
			17: 0.2839				

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

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

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

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

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Test.

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

RELEASE OF DATA TO ACCREDITATION BODIES

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

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

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

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

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

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

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety

Authorized Contact Person and Title

Laboratory Name

Location (City/State)