Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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DNA Parentage
Test No. 20-5871 Summary Report

Each participant received a sample pack consisting of four blood samples representing a paternity case. Samples were collected from a mother, a daughter, and two potential fathers. Participants were requested to analyze the samples using their existing protocols. Data were returned from 69 participants and are compiled into the following tables:

	Page
Manufacturer's Information	2
Summary Comments	5
Table 1: STR Amplification Kit(s) & Results	6
Table 2: Paternity Index Results	54
Table 3: YSTR Amplification Kit(s) & Results	69
Table 4: Additional DNA & PI Results	75
Table 5: Paternity DNA Statistics & Conclusions	77
Table 6: Kinship Likelihood Ratio Results	81
Table 7: Kinship DNA Statistics	104
Table 8: Additional Kinship Statistical Results	106
Table 9: Additional Comments	108
Appendix: Data Sheet	

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

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

Manufacturer's Information

Each sample set was a collection of known blood samples, provided on FTA Micro cards, from four individuals (Items 1-4); a mother, a daughter, 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 (75 µl) was blood from a female (mother) donor, Item 2 (75 µl) was blood from a female (daughter) donor, Item 3 (75 µl) was blood from a male donor who was not the biological father of the Item 2 female, and Item 4 (75 µl) was blood from a male donor who was the biological father of the Item 2 female. 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 May 28th, 2020.

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.

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Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
1	12,16.3	17,24	12,14	15,16	10,13	*
	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18	NM	NM	NM	NM	
2	16.3,18.3	20,24	11,14	16,18	10,11	*
	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18	NM	NM	NM	NM	
3	15,17	21,23	9,12	14,17	12,13	*
	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14	2	
4	11,18.3	20,25	10,11	17,18	11,13	*
	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17	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
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11	*	19	14	22	21	*	12
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12	*	17	17	19	23	*	12

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

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

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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	DYS391	DYS570	DYS576	Y Indel	
4PI - Grand Mean ±3STD Range**	2.9597-15.4945	2.8246-3.7240	1.2833-1.7423	1.4669-5.1104	1.0723-1.6315	0.6330-3.0381
	3.4721-5.2366	4.0032-5.6407	1.2101-1.9794	4.0009-6.0035	2.6274-3.6370	1.3134-2.0235
	3.0754-5.1208	3.0003-9.9833	3.5250-6.9692	2.9413-4.0955	-	4.9298-7.9671
	2.1142-2.9628	3.0686-6.9895	7.5893-14.8628	8.0632-16.5843	1.8162-3.5759	1.7837-2.1575
	2.1609-2.7807					
4PI - FBI Popstats	6.9638	3.367	1.616	3.06	1.2243	*
	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819	-	6.96
	2.6582	4.81	11.6	11.876	2.8852	1.9608
	2.43 & 2.49‡					
4PI - NIST STRBASE	10.02	3.19	1.4556	3.31	1.4	*
	4.2973	4.878	1.626	5.2301	3.07	1.5903
	4.06	7.08	5.5556	3.574	-	6.12
	2.439	5.0838	11.655	12.44828	2.5786	1.9833
	2.49					

* 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.

‡ Two values were reported equally among participants resulting in two consensus mode values.

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Summary Comments

The 20-5871 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 female donor (daughter of the Item 1 female), Item 3 was blood collected from a male donor who is not the biological father of the Item 2 female, and Item 4 was blood collected from a male donor who is the biological father of the Item 2 female. 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 69 participants who returned data reported STR results for all four items. For Items 1 and 2, all participants reported data consistent with the consensus. For Item 3, all but three participants reported results consistent with the consensus. All three participants reported a single inconsistent allele at one locus. For Item 4, all participants reported results consistent with the consensus except for one who reported "30.2,32.3" at D21S11 whereas the consensus was "30.2,32.2".

Twenty one participants reported YSTR results for Item 3 and Item 4. Of these participants, the reported individual profiles for both Item 3 and Item 4 were consistent.

Paternity DNA Statistics:
All 69 participants reported that the source of Item 4 could not be excluded as the biological father of Item 2. Most participants reported a value of 99.99 or higher for the probability of paternity. The most frequently reported population database was FBI PopStats.

Kinship DNA Statistics
There were 28 participants who responded for the paper kinship exercise. One participant reported inconsistent likelihood ratio (LR) values at 7 loci. In addition, one participant reported an inconsistent LR value at FGA and another participant reported an inconsistent LR value at TPOX. Approximately 82% of participants reported a combined Kinship Index (KI) between 124 and 128. Three participants reported KI values below this range and two participants reported a KI value above this range. Twenty-one participants reported that the claim of a half sibling relationship was supported. Seven participants reported that the relationship was inconclusive, even though four of these participants reported a combined KI value similar to the consensus.

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STR Amplification Kit(s) & Results

TABLE 1

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

Item 1 - STR Results

27JN6Y	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
2ALKWF	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10	27.2,30.2	9.3	8
	18					
3DE2ME	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18	-			-	
3HUABD	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
3NJUC9	PowerPlex® Fusion					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18	NR				
3WQVAE	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	NEG			NEG	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

447TFD	PowerPlex® ESI 16 FAST SYSTEM					
	12,16.3	17,24	12,14	15,16		
1		11,12	13	17,20		11,14
	15,20	13,15	29,31.2	15,16	X	
	23,24				9.3	
	18					
4MFTND	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	NEG			NEG	
66E2MC	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
6DNQZB	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
76DTPC	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	No Results			No Results	
778Y8B	PowerPlex® 21					
	12,16.3	17,24		15,16	10,13	12,19
1	7,11	11,12		17,20	9,12	11,14
	15,20	13,15	29,31.2		X,X	10,10
	23,24	9,9	5,10		9.3,9.3	8,8
	18,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

7JR2NV	PowerPlex® Fusion 5C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18					
8DXJPA	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
8QP8KA	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
8YFQ23	PowerPlex® Fusion					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18	NR				
9AHB2A	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
9FM3A8	Investigator® 24plex					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18	-				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

ADVBX2	PowerPlex® Fusion 5C					
	12,16.3	17,24	12,14	15,16	10,13	--
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10	--	9.3	8
	18	--	--	--	--	
AJ32Z8	PowerPlex® 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
B4KN37	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
BJW8U7	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	NR			NR	
BNCEH7	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
C4X339	PowerPlex® Fusion System, GlobalFiler™ PCR Amplification Kit (Familias)					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10
	23,24	9	5,10	27.2,30.2	9.3	8
	18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

CFEMM6	PowerPlex® 21					
	12,16.3	17,24		15,16	10,13	12,19
1	7,11	11,12		17,20	9,12	11,14
	15,20	13,15	29,31.2		X,X	10,10
	23,24	9,9	5,10		9.3,9.3	8,8
	18,18					
CK89G6	PowerPlex® Fusion System, Qiagen HDPlex, (GeneMapper ID v. 3.2.1)					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18	-				
DLU6H6	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	-
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10
	23,24	9	5,10	27.2,30.2	9.3	8
	18	-	-	-	-	
E2KR22	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
EC42U2	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
EH9XD2	Investigator® 24plex					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

EM9E94	GlobalFiler™						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24			27.2,30.2	9.3,9.3	8,8	
	18,18						
FNRMD2	PowerPlex® Fusion 6C						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8	
	18,18						
FVC9F2	GlobalFiler™						
	12,16.3	17,24	12,14	15,16	10,13	NT	
1	7,11	11,12	13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X	10	
	23,24	NT	NT	27.2,30.2	9.3	8	
	18	NR	NT	NT	NR		
GANL9Y	Identifiler®						
		17,24		15,16	10,13		
1	7,11	11,12			9,12	11,14	
	15,20	13,15	29,31.2		X,X	10,10	
	23,24				9.3,9.3	8,8	
	18,18						
GFGKR2	GlobalFiler™						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X	10	
	23,24			27.2,30.2	9.3	8	
	18						
GL68HZ	PowerPlex® Fusion						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X	10	
	23,24	9	5,10		9.3	8	
	18	NR					

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TABLE 1

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

Item 1 - STR Results

GQGG86	GlobalFiler™						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X	10	
	23,24			27.2,30.2	9.3	8	
	18	NR			NR		
J4FWNW	PowerPlex® Fusion 6C						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X	10	
	23,24	9	5,10	27.2,30.2	9.3	8	
	18						
JN7DAY	Verifiler Express						
	12,16.3	17,24	12,14	15,16	10,13	12,19	
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24	9,9	5,10		9.3,9.3	8,8	
	18,18						
JV3TXX	PowerPlex® fusion						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24	9,9	5,10		9.3,9.3	8,8	
	18,18						
K3VKJW	GlobalFiler™						
	12,16.3	17,24	12,14	15,16	10,13	-	
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24	-	-	27.2,30.2	9.3,9.3	8,8	
	18,18	-	-	-	-		
KAWUUV	Investigator® 24plex						
	12,16.3	17,24	12,14	15,16	10,13		
1	7,11	11,12	13,13	17,20	9,12	11,14	
	15,20	13,15	29,31.2	15,16	X,X	10,10	
	23,24			27.2,30.2	9.3,9.3	8,8	
	18,18						

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

L3CVWV	Identifiler® plus					
		17,24		15,16	10,13	
1	7,11	11,12			9,12	11,14
	15,20	13,15	29,31.2			10,10
	23,24				9.3,9.3	8,8
	18,18					
MB4T4V	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
MGRYTX	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	12,16.3	17,24	12,14	15,16	10,13	12,19
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					
N39B3R	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
N6D2NU	PowerPlex® 21 (Kinship and stratification calculator)					
	12,16.3	17,24		15,16	10,13	12,19
1	7,11	11,12		17,20	9,12	11,14
	15,20	13,15	29,31.2		X,X	10,10
	23,24	9,9	5,10		9.3,9.3	8,8
	18,18					
N8YPMR	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

NKNJ3T	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
NMXRNT	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18					
NU9TKU	PowerPlex® Fusion, Verifiler Plus (SoftGenetics GeneMarker HID 2.9.5)					
	12,16.3	17,24	12,14	15,16	10,13	12,19
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10		9.3,9.3	8,8
	18,18					
P4CAUC	PowerPlex® Fusion 5C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18					
QLDAJQ	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
QNYB3J	PowerPlex® Fusion					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18	NR				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

R9X2WP	PowerPlex® PP21					
	12,16.3	17,24		15,16	10,13	12,19
1	7,11	11,12		17,20	9,12	11,14
	15,20	13,15	29,31.2		X	10
	23,24	9	5,10		9.3	8
	18					
RU3FWP	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
TT4UEH	Identifiler®					
		17,24		15,16	10,13	
1	7,11	11,12			9,12	11,14
	15,20	13,15	29,31.2		X,X	10,10
	23,24				9.3,9.3	8,8
	18,18					
TUWKQN	PowerPlex® Fusion					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10		9.3	8
	18					
TZK7VP	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18	-			-	
U9B6MM	PowerPlex® F6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10	27.2,30.2	9.3	8
	18					

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TABLE 1

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

Item 1 - STR Results

UCY8NN	PowerPlex® 21					
	12,16.3	17,24		15,16	10,13	12,19
1	7,11	11,12		17,20	9,12	11,14
	15,20	13,15	29,31.2		X,X	10,10
	23,24	9,9	5,10		9.3,9.3	8,8
	18,18					
UTK6WM	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
W8RNDK	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	No Result			No Result	
WM4KZL	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18					
XF4JZJ	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	-			-	
XVWCLK	GlobalFiler™					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24			27.2,30.2	9.3	8
	18	NR			NR	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 1 - STR Results

Y2ZF8C	GlobalFiler™ Express					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24			27.2,30.2	9.3,9.3	8,8
	18,18					
Z4XDYG	PowerPlex® F6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X	10
	23,24	9	5,10	27.2,30.2	9.3	8
	18					
ZPHK6H	PowerPlex® Fusion 6C					
	12,16.3	17,24	12,14	15,16	10,13	
1	7,11	11,12	13,13	17,20	9,12	11,14
	15,20	13,15	29,31.2	15,16	X,X	10,10
	23,24	9,9	5,10	27.2,30.2	9.3,9.3	8,8
	18,18					

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TABLE 1

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

Item 2 - STR Results

27JN6Y	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
2ALKWF	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
3DE2ME	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
3HUABD	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
3NJUC9	PowerPlex® Fusion					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18	NR				
3WQVAE	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	NEG			NEG	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 2 - STR Results

447TFD	PowerPlex® ESI 16 FAST SYSTEM					
	16.3,18.3	20,24	11,14	16,18		
2		10,12	13	20,22		11
	13,15	12,15	29,32.2	11,16	X	
	22,24				7,9.3	
	16,18					
4MFTND	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	NEG			NEG	
66E2MC	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
6DNQZB	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
76DTPC	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	No Results			No Results	
778Y8B	PowerPlex® 21					
	16.3,18.3	20,24		16,18	10,11	12,12
2	7,11	10,12		20,22	11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					

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TABLE 1

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

Item 2 - STR Results

7JR2NV	PowerPlex® Fusion 5C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
8DXJPA	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
8QP8KA	PowerPlex® Fusion6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
8YFQ23	PowerPlex® Fusion					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18	NR				
9AHB2A	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
9FM3A8	Investigator® 24plex					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 2 - STR Results

ADVBX2	PowerPlex® Fusion 5C					
	16.3,18.3	20,24	11,14	16,18	10,11	--
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15	--	7,9.3	8,11
	16,18	--	--	--	--	
AJ32Z8	PowerPlex® 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
B4KN37	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
BJW8U7	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	NR			NR	
BNCEH7	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
C4X339	PowerPlex® Fusion System, GlobalFiler™ PCR Amplification Kit (Familias)					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 2 - STR Results

CFEMM6	PowerPlex® 21					
	16.3,18.3	20,24		16,18	10,11	12,12
2	7,11	10,12		20,22	11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
CK89G6	PowerPlex® Fusion System, Qiagen HDPlex (GeneMapper ID v. 3.2.1)					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18	-				
DLU6H6	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	-
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18	-	-	-	-	
E2KR22	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
EC42U2	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
EH9XD2	Investigator® 24plex					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 2 - STR Results

EM9E94	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
FNRMD2	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
FVC9F2	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	NT
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	NT	NT	16,30.2	7,9.3	8,11
	16,18	NR	NT	NT	NR	
GANL9Y	Identifiler®					
		20,24		16,18	10,11	
2	7,11	10,12			11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24				7,9.3	8,11
	16,18					
GFGKR2	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
GL68HZ	PowerPlex® Fusion					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18	NR				

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TABLE 1

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

Item 2 - STR Results

GQGG86	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	NR			NR	
J4FWNW	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
JN7DAY	Verifiler Express					
	16.3,18.3	20,24	11,14	16,18	10,11	12,12
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
JV3TXX	PowerPlex® FUSION					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
K3VKJW	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	-
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	-	-	16,30.2	7,9.3	8,11
	16,18	-	-	-	-	
KAWUUV	Investigator® 24plex					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					

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TABLE 1

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

Item 2 - STR Results

L3CVWV	Identifiler® plus					
		20,24		16,18	10,11	
2	7,11	10,12			11,12	11,11
	13,15	12,15	29,32.2			10,13
	22,24				7,9.3	8,11
	16,18					
MB4T4V	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
MGRYTX	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	16.3,18.3	20,24	11,14	16,18	10,11	12,12
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
N39B3R	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
N6D2NU	PowerPlex® 21 (Kinship and stratification calculator)					
	16.3,18.3	20,24		16,18	10,11	12,12
2	7,11	10,12		20,22	11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
N8YPMR	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					

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TABLE 1

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

Item 2 - STR Results

NKNJ3T	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
NMXRNT	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
NU9TKU	PowerPlex® Fusion, Verifiler Plus (SoftGenetics GeneMarker HID 2.9.5)					
	16.3,18.3	20,24	11,14	16,18	10,11	12,12
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
P4CAUC	PowerPlex® Fusion 5C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
QLDAJQ	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
QNYB3J	PowerPlex® Fusion					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18	NR				

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TABLE 1

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

Item 2 - STR Results

R9X2WP	PowerPlex® PP21					
	16.3,18.3	20,24		16,18	10,11	12
2	7,11	10,12		20,22	11,12	11
	13,15	12,15	29,32.2		X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
RU3FWP	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
TT4UEH	Identifiler®					
		20,24		16,18	10,11	
2	7,11	10,12			11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24				7,9.3	8,11
	16,18					
TUWKQN	PowerPlex® Fusion					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
TZK7VP	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
U9B6MM	PowerPlex® F6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					

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TABLE 1

Item 2 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
UCY8NN	PowerPlex® 21					
	16.3,18.3	20,24		16,18	10,11	12,12
2	7,11	10,12		20,22	11,12	11,11
	13,15	12,15	29,32.2		X,X	10,13
	22,24	9,13	10,15		7,9.3	8,11
	16,18					
UTK6WM	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
W8RNDK	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	No Result			No Result	
WM4KZL	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
XF4JZJ	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	-			-	
XVWCLK	GlobalFiler™					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18	NR			NR	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 2 - STR Results

Y2ZF8C	GlobalFiler™ Express					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24			16,30.2	7,9.3	8,11
	16,18					
Z4XDYG	PowerPlex® F6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13	20,22	11,12	11
	13,15	12,15	29,32.2	11,16	X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					
ZPHK6H	PowerPlex® Fusion 6C					
	16.3,18.3	20,24	11,14	16,18	10,11	
2	7,11	10,12	13,13	20,22	11,12	11,11
	13,15	12,15	29,32.2	11,16	X,X	10,13
	22,24	9,13	10,15	16,30.2	7,9.3	8,11
	16,18					

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TABLE 1

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

Item 3 - STR Results

27JN6Y	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
2ALKWF	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
3DE2ME	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
3HUABD	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
3NJUC9	PowerPlex® Fusion					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				
3WQVAE	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 3 - STR Results

447TFD	PowerPlex® ESI 16 FAST SYSTEM					
	15,17	21,23	9,12	14,17		
3		14,16	15,16	17,19		9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	
	24,25				7,9.3	
	14,18					
4MFTND	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
66E2MC	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
6DNQZB	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
76DTPC	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
778Y8B	PowerPlex® 21 (Kinship (Caucasian))					
	15,17	21,23		14,17	12,13	13,19
3	9,11	14,16		17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
7JR2NV	PowerPlex® Fusion 5C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				
8DXJPA	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
8QP8KA	PowerPlex® Fusion6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
		10	19	14		
8YFQ23	PowerPlex® Fusion					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,15	2.2,11	11,13		7,9.3	8,9
	14,18	10				
9AHB2A	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
9FM3A8	Investigator® 24plex					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,X	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10				

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
ADVBX2	PowerPlex® Fusion 5C					
	15,17	21,23	9,12	14,17	12,13	--
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	--	7,9.3	8,9
	14,18	10	--	--	--	
AJ32Z8	PowerPlex® 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
B4KN37	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
BJW8U7	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
BNCEH7	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
C4X339	PowerPlex® Fusion System, GlobalFiler™ PCR Amplification Kit (Familias)					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10			2	

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
CFEMM6	PowerPlex® 21					
	15,17	21,23		14,17	12,13	13,19
3	9,11	14,16		17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18					
CK89G6	PowerPlex® Fusion System, PowerPlex® Y23, QiagenHDPlex (GeneMapper ID v. 3.2.1)					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
DLU6H6	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	-
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14	-	
E2KR22	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
EC42U2	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
EH9XD2	Investigator® 24plex					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10				

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TABLE 1

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

Item 3 - STR Results

EM9E94	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
FNRMD2	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
FVC9F2	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	NT
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	NT	NT	18,22	7,9.3	8,9
	14,18	10	NT	NT	2	
GANL9Y	Identifiler®					
		21,23		14,17	12,13	
3	9,11	14,16			12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25				7,9.3	8,9
	14,18					
GFGKR2	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
GL68HZ	PowerPlex® Fusion					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				

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TABLE 1

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

Item 3 - STR Results

GQGG86	GlobalFiler™						
	15,17	21,23	9,12	14,17	12,13		
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25			18,22	7,9.3	8,9	
	14,18	10			2		
J4FWNW	PowerPlex® Fusion 6C						
	15,17	21,23	9,12	14,17	12,13		
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25	2.2,11	11,13	18,22	7,9.3	8,9	
	14,18	10	19	14			
JN7DAY	Verifiler Express						
	15,17	21,23	9,12	14,17	12,13	13,19	
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25	2.2,11	11,13		7,9.3	8,9	
	14,18				2		
JV3TXX	PowerPlex® FUSION						
	15,17	21,23	9,12	14,17	12,13		
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25	2.2,11	11,13		7,9.3	8,9	
	14,18	10,10					
K3VKJW	GlobalFiler™						
	15,17	21,23	9,12	14,17	12,13	-	
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25	-	-	18,22	7,9.3	8,9	
	14,18	10	-	-	2		
KAWUUV	Investigator® 24plex						
	15,17	21,23	9,12	14,17	12,13		
3	9,11	14,16	15,16	17,19	12,14	9,12	
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12	
	24,25			18,22	7,9.3	8,9	
	14,18	10					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 3 - STR Results

L3CVWV	Identifiler® plus					
		21,23		14,17	12,13	
3	9,11	14,16			12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25				7,9.3	8,9
	14,18					
MB4T4V	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
MGRYTX	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	15,17	21,23	9,12	14,17	12,13	13,19
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18				2	
N39B3R	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
N6D2NU	PowerPlex® 21 (Kinship and stratification calculator)					
	15,17	21,23		14,17	12,13	13,19
3	9,11	14,16		17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18					
N8YPMR	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 3 - STR Results

NKNJ3T	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
NMXRNT	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
NU9TKU	PowerPlex® Fusion, Verifiler Plus (SoftGenetics GeneMarker HID 2.9.5)					
	15,17	21,23	9,12	14,17	12,13	13,19
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10			2	
P4CAUC	PowerPlex® Fusion 5C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				
QLDAJQ	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
QNYB3J	PowerPlex® Fusion					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
R9X2WP	PowerPlex® PP21					
	15,17	21,23		14,17	12,13	13,19
3	9,11	14,16		17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18					
RU3FWP	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
TT4UEH	Identifiler®					
		21,23		14,17	12,13	
3	9,11	14,16			12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25				7,9.3	8,9
	14,18					
TUWKQN	PowerPlex® Fusion					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18	10				
TZK7VP	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
U9B6MM	PowerPlex® F6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
UCY8NN	PowerPlex® 21					
	15,17	21,23		14,17	12,13	13,19
3	9,11	14,16		17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2		X,Y	10,12
	24,25	2.2,11	11,13		7,9.3	8,9
	14,18					
UTK6WM	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
W8RNDK	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
WM4KZL	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
XF4JZJ	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
XVWCLK	GlobalFiler™					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

Item 3 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
Y2ZF8C	GlobalFiler™ Express					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25			18,22	7,9.3	8,9
	14,18	10			2	
Z4XDYG	PowerPlex® F6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		
ZPHK6H	PowerPlex® Fusion 6C					
	15,17	21,23	9,12	14,17	12,13	
3	9,11	14,16	15,16	17,19	12,14	9,12
	18,19	14.2,17.2	28,31.2	11,14	X,Y	10,12
	24,25	2.2,11	11,13	18,22	7,9.3	8,9
	14,18	10	19	14		

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TABLE 1

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

Item 4 - STR Results

27JN6Y	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
2ALKWF	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
3DE2ME	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
3HUABD	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
3NJUC9	PowerPlex® Fusion					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				
3WQVAE	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	

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TABLE 1

Item 4 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
447TFD	PowerPlex® ESI 16 FAST SYSTEM					
	11,18.3	20,25	10,11	17,18		
4		10,13	13,14	21,22		11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	
	19,22				6,7	
	16,18					
4MFTND	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
66E2MC	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
6DNQZB	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
76DTPC	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
778Y8B	PowerPlex® 21 (Kinship (Caucasian))					
	11,18.3	20,25		17,18	11,13	12,17
4	11,11	10,13		21,22	11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18					

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TABLE 1

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

Item 4 - STR Results

7JR2NV	PowerPlex® Fusion 5C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				
8DXJPA	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
8QP8KA	PowerPlex® Fusion6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
8YFQ23	PowerPlex® Fusion					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				
9AHB2A	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
9FM3A8	Investigator® 24plex					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11				

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TABLE 1

Item 4 - STR Results

WebCode / 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**	
ADVBX2	PowerPlex® Fusion 5C					
	11,18.3	20,25	10,11	17,18	11,13	--
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	--	6,7	9,11
	16,18	11	--	--	--	
AJ32Z8	PowerPlex® 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
B4KN37	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
BJW8U7	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
BNCEH7	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
C4X339	PowerPlex® Fusion System, GlobalFiler™ PCR Amplification Kit (Familias)					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	16,17	6,7	9,11
	16,18	11			2	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 4 - STR Results

CFEMM6	PowerPlex® 21					
	11,18.3	20,25		17,18	11,13	12,17
4	11,11	10,13		21,22	11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18					
CK89G6	PowerPlex® Fusion System, PowerPlex® Y23, QiagenHDPlex (GeneMapper ID v. 3.2.1)					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
DLU6H6	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	-
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17	-	
E2KR22	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
EC42U2	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
EH9XD2	Investigator® 24plex					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 4 - STR Results

EM9E94	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
FNRMD2	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
FVC9F2	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	NT
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	NT	NT	16,17	6,7	9,11
	16,18	11	NT	NT	2	
GANL9Y	Identifiler®					
		20,25		17,18	11,13	
4	11,11	10,13			11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22				6,7	9,11
	16,18					
GFGKR2	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
GL68HZ	PowerPlex® Fusion					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

Item 4 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
GQGG86	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
J4FWNW	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
JN7DAY	Verifiler Express					
	11,18.3	20,25	10,11	17,18	11,13	12,17
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18				2	
JV3TXX	PowerPlex® FUSION					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18	11,11				
K3VKJW	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	-
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	-	-	16,17	6,7	9,11
	16,18	11	-	-	2	
KAWUUV	Investigator® 24plex					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11				

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 4 - STR Results

L3CVWV	Identifiler® plus (Qualitype GenoProof 3 Software)					
		20,25		17,18	11,13	
4	11,11	10,13			11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22				6,7	9,11
	16,18					
MB4T4V	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
MGRYTX	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	11,18.3	20,25	10,11	17,18	11,13	12,17
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18				2	
N39B3R	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
N6D2NU	PowerPlex® 21 (Kinship and stratification calculator)					
	11,18.3	20,25		17,18	11,13	12,17
4	11,11	10,13		21,22	11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18					
N8YPMR	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 1

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

Item 4 - STR Results

NKNJ3T	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
NMXRNT	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
NU9TKU	PowerPlex® Fusion, Verifiler Plus (SoftGenetics GeneMarker HID 2.9.5)					
	11,18.3	20,25	10,11	17,18	11,13	12,17
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18	11			2	
P4CAUC	PowerPlex® Fusion 5C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				
QLDAJQ	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
QNYB3J	PowerPlex® Fusion					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				

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TABLE 1

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

Item 4 - STR Results

R9X2WP	PowerPlex® PP21					
	11,18.3	20,25		17,18	11,13	12,17
4	11	10,13		21,22	11	11,12
	13,14	12,15	30.2,32.3		X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18					
RU3FWP	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
TT4UEH	Identifiler®					
		20,25		17,18	11,13	
4	11,11	10,13			11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22				6,7	9,11
	16,18					
TUWKQN	PowerPlex® Fusion					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18		6,7	9,11
	16,18	11				
TZK7VP	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
U9B6MM	PowerPlex® F6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	16,17	6,7	9,11
	16,18	11	17	17		

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TABLE 1

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

Item 4 - STR Results

UCY8NN	PowerPlex® 21					
	11,18.3	20,25		17,18	11,13	12,17
4	11,11	10,13		21,22	11,11	11,12
	13,14	12,15	30.2,32.2		X,Y	10,13
	19,22	13,13	15,18		6,7	9,11
	16,18					
UTK6WM	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
W8RNDK	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
WM4KZL	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
XF4JZJ	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
XVWCLK	GlobalFiler™					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	

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TABLE 1

Item 4 - STR Results

WebCode	Amplification Kits (Probabilistic Genotyping)					
Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
Y2ZF8C	GlobalFiler™ Express					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22			16,17	6,7	9,11
	16,18	11			2	
Z4XDYG	PowerPlex® F6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11	10,13	13,14	21,22	11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13	15,18	16,17	6,7	9,11
	16,18	11	17	17		
ZPHK6H	PowerPlex® Fusion 6C					
	11,18.3	20,25	10,11	17,18	11,13	
4	11,11	10,13	13,14	21,22	11,11	11,12
	13,14	12,15	30.2,32.2	11,13	X,Y	10,13
	19,22	13,13	15,18	16,17	6,7	9,11
	16,18	11	17	17		

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Paternity Index Results

TABLE 2

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

Item 3PI - Paternity Index Results

27JN6Y	Life Technologies Database					
	0	0	0	0	0	
3PI	2.59	0	0	0	0	0
	0	0	0	0		0
	0			0	2.30	0
	0					
3DE2ME	FBI PopStats					
3PI	2.2696					
				3.4819		
					2.8852	
76DTPC	NIST-STRBASE					
	0	0	0	0	0	
3PI	2.15	0	0	0	0	0
	0	0	0	3.57		0
	0			0	2.58	0
	0					
778Y8B	NIST-STRBASE					
	0	0		0	0	0
3PI	2.1487	0		0	0	0
	0	0	0			0
	0	0	0		2.5786	0
	0					
8DXJPA	NIST-STRBASE, NIST 1036 Revised U.S. Population Dataset (July 2017)					
	0	0	0	0	0	
3PI	2.1488	0	0	0	0	0
	0	0	0	3.5742		0
	0			0	2.5785	0
	0					
8QP8KA	[Country]					
	0	0	0	0	0	
3PI	2.427184	0	0	0	0	0
	0	0	0	3.067485		0
	0	0	0		4.464286	0

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 3PI - Paternity Index Results

ADVBX2 FBI PopStats, Promega/NIST

	0	0	0	0	0	--
3PI	2.23	0	0	0	0	0
	0	0	0	3.6		0
	0	0	0	--	2.87	0
	0					

AJ32Z8 NIST-STRBASE

	0	0	0	0	0	
3PI	1.2249	0	0	0	0	0
	0	0	0	3.4554		0
	0	0	0	0	2.5786	0
	0					

BJW8U7 Laboratory Specific Database

	0	0	0	0	0	
3PI	2.270	0	0	0	0	0
	0	0	0	3.482		0
	0			0	2.885	0
	0					

C4X339 NIST-STRBASE

	0	0	0	0	0	
3PI	2.14881	0	0	0	0	0
	0	0	0	3.57426		0
	0	0	0	0	2.57857	0
	0					

CK89G6 laboratory specific database: [Country]/ Caucasian

	0	0	0	0	0	
3PI	54.7079	0	0	0	0	0
	0	0	0	3.5714		0
	0	0	0	0	3.1308	0
	0					

DLU6H6 NIST-STRBASE

	0	0	0	0	0	-
3PI	2.15	0	0	0	0	0
	0	0	0	3.57		0
	0	0	0	0	2.58	0
	0					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 3PI - Paternity Index Results

EH9XD2 NIST-STRBASE

3PI	2.1487					
				3.5740		
					2.5786	

EM9E94 [Country] Caucasian

	exc	exc	exc	exc	exc	
3PI	2.09	exc	exc	exc	exc	exc
	exc	exc	exc	3.80		exc
	exc			exc	2.78	exc
	exc					

FVC9F2 FBI PopStats

3PI	2.1487					
				3.5740		
					2.5786	

GQGG86 FBI PopStats

3PI	2.1487					
				3.5740		
					2.5786	

JN7DAY [Country] Caucasian

	0	0	0	0	0	0
3PI	2.21997448382	0	0	0	0	0
	0	0	0	3.79855510484		0
	0	0	0		2.6812078402	0
	0					

K3VKJW NIST-STRBASE

	-	-	-	-	-	-
3PI	2.14881	-	-	-	-	-
	-	-	-	3.57426		-
	-	-	-	-	2.57857	-
	-					

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TABLE 2

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

Item 3PI - Paternity Index Results

QLDAJQ [Country-specific] Pop. Database

	0.0020363	0.0041393	0.0016541	0.0079319	0.0017118	
3PI	1.429	0.0000042906	0.00014577	0.000058382	0.002137	0.0021293
	0.00000029908	0.00012297	0.00039041	2.2321		0.013362
	0.0012206			0.002137	1.8136	0.0003711
	0.0013266					

R9X2WP Promega

	0	0		0	0	0
3PI	2.1487	0		0	0	0
	0	0	0			0
	0	0	0		2.5786	0
	0					

TT4UEH NIST-STRBASE

		0		0	0	
3PI	2.148	0			0	0
	0	0	0			0
	0				2.578	0
	0					

TZK7VP FBI PopStats

3PI	2.2696					
				3.4819		
					2.8852	

UCY8NN [Country] population database

	0	0		0	0	0
3PI	3.36	0		0	0	0
	0	0	0			0
	0	0	0		2.49	0
	0					

WM4KZL FBI PopStats

3PI	2.2696					
				3.4819		
					2.8852	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

27JN6Y	Life Technologies Database					
		3.42		3.03	1.27	
4PI	5.17	5.13			3.36	1.56
	4.11	6.46	6.98			6.84
	2.96				2.30	1.93
	2.14					
2ALKWF	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582	4.8100	11.876	11.876	2.8852	1.9608
3DE2ME	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
	2.4343					
3HUABD	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
3NJUC9	NIST-STRBASE					
	10.0200	3.1948	1.4556	3.3112	1.4044	
4PI	4.2973	4.8780	1.6260	5.2301	3.0721	1.5903
	4.0551	7.0821	5.5555	3.5739		6.1199
	2.4390	5.0838	11.6550		2.5786	1.9833
	2.4900					
3WQVAE	FBI PopStats					
	6.96	3.36	1.61	3.06	1.22	
4PI	4.53	4.59	1.48	4.80	3.20	1.83
	4.20	5.18	4.59	3.48		6.96
	2.65			11.87	2.88	1.96
	2.43					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

447TFD	NIST-STRBASE					
	10.028	3.195	1.456	3.312		
4PI		4.878	1.626	5.232		1.590
	4.056	7.078	5.554	3.574		
	2.439				2.579	
	2.490					
4MFTND	FBI PopStats					
	6.96	3.36	1.61	3.06	1.22	
4PI	4.53	4.59	1.48	4.80	3.20	1.83
	4.20	5.18	4.59	3.48		6.96
	2.65			11.87	2.88	1.96
	2.43					
66E2MC	FBI PopStats					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260		3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					
6DNQZB	FBI PopStats					
	10.02	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	-	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.43	2.57	1.98
	2.49					
76DTPC	NIST-STRBASE					
	10	3.19	1.46	3.31	1.4	
4PI	4.3	4.88	1.63	5.23	3.07	1.59
	4.06	7.08	5.55	3.57		6.12
	2.44			12.4	2.58	1.98
	2.49					
778Y8B	NIST-STRBASE					
	10.0200	3.1949		3.3113	1.4045	2.1115
4PI	4.2974	4.8780		5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556			6.1200
	2.4390	5.0839	11.6550		2.5786	1.9833
	2.4900					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

7JR2NV	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582	4.8100	11.876		2.8852	1.9608
	2.4343					
8DXJPA	NIST-STRBASE, NIST 1036 Revised U.S. Population Dataset (July 2017)					
	10.0281	3.1947	1.4556	3.3119	1.4047	
4PI	4.2976	4.8785	1.6261	5.2318	3.0724	1.5903
	4.0561	7.0781	5.5537	3.5742		6.1185
	2.4391			12.4471	2.5785	1.9835
	2.4897					
8QP8KA	[Country]					
	96.153846	3.067485	1.524390	3.164557	1.577287	
4PI	4.854369	5.813953	1.915709	4.132231	2.873563	1.677852
	6.024096	5.952381	5.000000	3.067485		6.944444
	2.293578	3.906250	7.575758		4.464286	2.252252
	2.717391					
8YFQ23	NIST-STRBASE					
	10.0200	3.1948	1.4556	3.3112	1.4044	
4PI	4.2973	4.8780	1.6260	5.2301	3.0721	1.5903
	4.0551	7.0821	5.5555	3.5739		6.1199
	2.4390	5.0838	11.6550		2.5786	1.9833
	2.4900					
9AHB2A	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	5.23	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43	5.08	11.6	12.4	2.57	1.98
9FM3A8	NIST-STRBASE					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

ADVBX2	FBI PopStats, Promega/NIST					
	9.59375	3.17708	1.49513	3.02239	1.21429	--
4PI	4.45055	4.79268	1.7119	4.95161	3.09449	1.80804
	4.0102	4.48529	4.46591	3.59766		6.78333
	2.62	4.72603	11.75	--	2.8662	1.9381
	2.45625					
AJ32Z8	NIST-STRBASE					
	10.0278	3.1947	1.4556	3.3119	1.4047	
4PI	4.2947	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390	5.0845	11.6452	12.4348	2.5786	1.9833
	2.4900					
B4KN37	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
BJW8U7	Laboratory Specific Database					
	6.964	3.367	1.616	3.060	1.224	
4PI	4.539	4.591	1.485	4.808	3.206	1.836
	4.209	5.181	4.591	3.482		6.964
	2.658			11.876	2.885	1.961
	2.434					
BNCEH7	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	5.23	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43	5.08	11.6	12.4	2.57	1.98
C4X339	NIST-STRBASE					
	10.02778	3.19469	1.45565	3.31193	1.40467	
4PI	4.29762	4.87838	1.62613	5.23188	3.07234	1.59031
	4.05618	7.07843	5.55385	3.57426		6.11864
	2.43919	5.08451	11.64516	12.44828	2.57857	1.98352
	2.48966					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

CFEMM6	[Country] Caucasian Population					
	9.75	3.78		3.54	1.37	1.94
4PI	4.56	5.37	4.45	3.40	1.73	4.19
	6.75	5.33				7.17
	2.83	5.07	11.23		2.69	2.04
	2.32					
CK89G6	laboratory specific database: [Country]/ Caucasian					
	14.0097	3.3467	1.6949	3.2981	1.5290	
4PI	109.4158	5.8139	2.2935	45.4545	2.6737	1.5019
	4.9261	4.9407	63.6942	3.5714		7.8125
	2.8011	8.1967	8.3333	10.6382	3.1308	1.7857
	2.6581					
DLU6H6	NIST-STRBASE					
	10.02	3.19	1.46	3.31	1.40	-
4PI	4.30	4.88	1.63	5.23	3.07	1.59
	4.06	7.08	5.56	3.57		6.12
	2.44	5.08	11.66	12.44	2.58	1.98
	2.49					
E2KR22	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	5.23	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43	5.08	11.6	12.4	2.57	1.98
EC42U2	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
EH9XD2	NIST-STRBASE					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

EM9E94	[Country] Caucasian					
	9.30	3.41	1.49	3.52	1.39	
4PI	4.17	4.44	1.71	4.19	3.25	1.60
	3.50	7.14	6.29	3.80		6.58
	2.58			11.48	2.78	2.03
	2.31					
FNRMD2	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582	4.8100	11.876	11.876	2.8852	1.9608
	2.4343					
FVC9F2	FBI PopStats					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					
GANL9Y	[Country]		[No paternity index values were reported by this participant for this item.]			
GFGKR2	FBI PopStats					
	6.96	3.37	1.62	3.06	1.22	
4PI	4.54	4.59	1.49	4.81	3.21	1.84
	4.21	5.18	4.59	3.48		6.96
	2.66			11.88	2.89	1.96
GL68HZ	NIST-STRBASE					
	10.0200	3.1948	1.4556	3.3112	1.4044	
4PI	4.2973	4.8780	1.6260	5.2301	3.0721	1.5903
	4.0551	7.0821	5.5555	3.5739		6.1199
	2.4390	5.0838	11.6550		2.5786	1.9833
	2.4900					
GQGG86	FBI PopStats					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					

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TABLE 2

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

Item 4PI - Paternity Index Results

J4FWNW	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582	4.8100	11.876	11.876	2.8852	1.9608

JN7DAY	[Country] Caucasian					
	9.74856499938	3.76829643008	1.49152642847	3.54045266804	1.36028849011	1.93416768843
4PI	4.43994896764	5.36006068663	1.71428396073	4.45287579282	3.38484810149	1.72396492224
	4.19410438587	6.73517848926	5.32812950162	3.79855510484		7.10083875137
	2.81840846324	5.02522382467	11.0822493845		2.68612078402	2.0041917791
	2.31725029764					

JV3TXX	FBI PopStats					
	6.96	3.37	1.62	3.06	1.22	
4PI	4.54	4.59	1.49	4.81	3.21	1.84
	4.21	5.18	4.59	3.48		6.96
	2.66	4.81	11.88		2.88	1.96
	2.43					

K3VKJW	NIST-STRBASE					
	10.02778	3.19469	1.45565	3.31193	1.40467	-
4PI	4.29762	4.87838	1.62613	5.23188	3.07234	1.59031
	4.05618	7.07843	5.55385	3.57426		6.11864
	2.43919	-	-	12.44828	2.57857	1.98352
	2.48966					

KAWUUV	NIST-STRBASE					
	10.0	3.19	1.46	3.31	1.4	
4PI	4.3	4.87	1.63	5.23	3.07	1.59
	4.06	7.08	5.56	3.57		6.12
	2.44			12.4	2.58	1.98
	2.49					

L3CVWV	NIST-STRBASE					
		3.1948		3.2615	1.3853	
4PI	4.4412	5.0556			2.9463	1.5974
	4.0000	7.1839	5.1706			5.2067
	2.5138				2.6288	2.0544
	2.4473					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

MB4T4V	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
MGRYTX	NIST-STRBASE, Internal database used for loci not in NIST					
	10.0278	3.1947	1.4556	3.3119	1.4047	2.1235
4PI	4.2976	4.8784	1.6261	5.2319	3.0723	1.5903
	4.0562	7.0784	5.5538	3.5743		6.1186
	2.4392	5.0845	11.6452	12.4483	2.5786	1.9835
	2.4897					
N39B3R	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	-	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.4	2.57	1.98
	2.49					
N6D2NU	[Country] pop database	[No paternity index values were reported by this participant for this item.]				
N8YPMR	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	5.23	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43	5.08	11.6	12.4	2.57	1.98
NKNJ3T	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62		3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.4	2.57	1.98
	2.49					
NMXRNT	NIST-STRBASE					
	8.6699	3.1224	1.4712	2.3581	1.4209	
4PI	3.8096	4.6199	1.5399	4.9214	3.0095	1.5547
	3.8995	6.4460	5.1968	3.4680		5.6666
	2.4184			10.3418	2.55	1.9840
	2.4666					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

NU9TKU	In house [Country] database					
	9.308035714	3.299050633	1.457023061	3.23757764	1.420299728	0.992924528
4PI	4.722536806	5.619946092	1.581942337	4.929078014	3.373786408	1.554809843
	3.626086957	7.47311828	6.81372549	3.558020478		7.808988764
	2.903899721	4.711864407	9.928571429		2.765251989	1.935933148
	2.427240978					
P4CAUC	FBI PopStats	[No paternity index values were reported by this participant for this item.]				
QLDAJQ	[Country-specific] Pop. Database					
	20.161	4.0984	1.5038	7.9239	1.5562	
4PI	2.858	4.2481	1.3252	5.7803	4.1528	1.9357
	2.7189	12.285	3.9002	2.2321		6.5963
	2.8769			21.368	1.8136	1.6442
	2.90190					
QNYB3J	NIST-STRBASE					
	10.0200	3.1948	1.4556	3.3112	1.4044	
4PI	4.2973	4.8780	1.6260	5.2301	3.0721	1.5903
	4.0551	7.0821	5.5555	3.5739		6.1199
	2.4390	5.0838	11.6550		2.5786	1.9833
	2.4900					
R9X2WP	Promega					
	10.0200	3.1949		3.3113	1.4045	2.1115
4PI	4.2974	4.8780		5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556			6.1200
	2.4390	5.0839	11.6550		2.5786	1.9833
	2.4900					
RU3FWP	FBI PopStats					
	10.02	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62		3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.43	2.57	1.98
	2.49					
TT4UEH	NIST-STRBASE					
		3.19		3.31	1.40	
4PI	4.29	4.87			3.07	1.59
	4.05	7.08	5.55			6.11
	2.43				2.57	1.98
	2.49					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

TUWKQN	NIST-STRBASE					
	10.03	3.19	1.46	3.31	1.40	
4PI	4.28	4.88	1.62	5.23	3.06	1.59
	4.06	7.08	5.55	3.57		6.12
	2.44	5.06	11.65		2.58	1.98
	2.49					
TZK7VP	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
	2.4343					
U9B6MM	FBI PopStats					
	6.9638	3.367	1.616	3.06	1.2243	
4PI	4.5393	4.5914	1.4854	4.8077	3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582	4.81	11.876	11.876	2.8852	1.9608
	2.4343					
UCY8NN	[Country] population database					
	6.94	3.32		3.16	1.35	1.74
4PI	3.36	4.44		3.82	3.10	1.57
	3.64	5.30	4.42			5.52
	2.59	4.31	7.58		2.49	1.92
	2.18					
UTK6WM	FBI PopStats					
	10.02	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	-	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.43	2.57	1.98
	2.49					
W8RNDK	FBI PopStats					
	10.020	3.1949	1.4556	3.3113	1.4045	
4PI	4.2974	4.8780	1.6260	5.2301	3.0722	1.5903
	4.0552	7.0822	5.5556	3.5740		6.1200
	2.4390			12.438	2.5786	1.9833
	2.4900					

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 2

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

Item 4PI - Paternity Index Results

WM4KZL	FBI PopStats					
	6.9638	3.3670	1.6160	3.0600	1.2243	
4PI	4.5393	4.5914	1.4854		3.2062	1.8362
	4.2088	5.1813	4.5914	3.4819		6.9638
	2.6582			11.876	2.8852	1.9608
	2.4343					
XF4JZJ	FBI PopStats					
	10.02	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	-	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43			12.43	2.57	1.98
	2.49					
XVWCLK	FBI PopStats	[No paternity index values were reported by this participant for this item.]				
Y2ZF8C	NIST-STRBASE					
	10.028	3.195	1.456	3.312	1.405	
4PI	4.298	4.878	1.626	5.232	3.072	1.590
	4.056	7.078	5.554	3.574		6.119
	2.439			12.448	2.579	1.984
	2.490					
Z4XDYG	FBI PopStats					
	6.96	3.36	1.61	3.06	1.22	
4PI	4.53	4.59	1.48	4.80	3.20	1.83
	4.20	5.18	4.59	3.48		6.96
	2.65	4.81	11.87	11.87	2.88	1.96
	2.43					
ZPHK6H	FBI PopStats					
	10.0	3.19	1.45	3.31	1.40	
4PI	4.29	4.87	1.62	5.23	3.07	1.59
	4.05	7.08	5.55	3.57		6.12
	2.43	5.08	11.6	12.4	2.57	1.98

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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YSTR Amplification Kit(s) & Results

TABLE 3

WebCode 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 3 - YSTR Results									
3DE2ME	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
3HUABD	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
7JR2NV	Yfiler®								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		
							21		12
8QP8KA	PowerPlex® Y								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
AJ32Z8	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
B4KN37	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
CK89G6	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
DLU6H6	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
EC42U2	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12

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TABLE 3

Item 3 - YSTR Results

WebCode Item	Amplification Kit	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
GFGKR2	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
JV3TXX	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
L3CVWV	Yfiler®								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		
							21		12
MB4T4V	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
MGRYTX	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
NMXRNT	Yfiler® PLUS								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
P4CAUC	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
QLDAJQ	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
R9X2WP	PowerPlex® Y Y23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12
TZK7VP	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12

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TABLE 3

Item 3 - YSTR Results

WebCode 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**
WM4KZL	Yfiler® Plus								
3	36,39	14	15,18	13	31	21	10	11	13
	14	11	13	21	27	15	17	10	27
	38	11		19	14	22	21		12
Y2ZF8C	PowerPlex® Y 23								
3		14	15,18	13	31	21	10	11	13
	14	11	13	21		15	17		27
		11	11	19	14		21	14	12

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TABLE 3

Item 4 - YSTR Results

WebCode Item	Amplification Kit	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYF387S1	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
		DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
3DE2ME	Yfiler® Plus									
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12		17	17	19	23		12
3HUABD	Yfiler® Plus									
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12		17	17	19	23		12
7JR2NV	Yfiler®									
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		
							23		12
8QP8KA	PowerPlex® Y									
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		23
		12	12	17	17		23	10	12
AJ32Z8	PowerPlex® Y 23									
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		23
		12	12	17	17		23	10	12
B4KN37	Yfiler® Plus									
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12		17	17	19	23		12
CK89G6	PowerPlex® Y 23									
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		23
		12	12	17	17		23	10	12
DLU6H6	PowerPlex® Y 23									
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		23
		12	12	17	17		23	10	12
EC42U2	Yfiler® Plus									
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12		17	17	19	23		12
GFGKR2	Yfiler® Plus									
4	35,36	15	11,14	13	29	24	11	14	13
	14	12	10	20	29	16	17	11	23
	37	12		17	17	19	23		12

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TABLE 3

Item 4 - YSTR Results

WebCode 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
JV3TXX	PowerPlex® Y 23									
4			15	11,14	13	29	24	11	14	13
		14	12	10	20		16	17		23
			12	12	17	17		23	10	12
L3CVWV	Yfiler®									
4			15	11,14	13	29	24	11	14	13
		14	12	10	20		16	17		
								23		12
MB4T4V	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12
MGRYTX	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12
NMXRNT	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12
P4CAUC	PowerPlex® Y 23									
4			15	11,14	13	29	24	11	14	13
		14	12	10	20		16	17		23
			12	12	17	17		23	10	12
QLDAJQ	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12
R9X2WP	PowerPlex® Y Y23									
4			15	11,14	13	29	24	11	14	13
		14	12	10	20		16	17		23
			12	12	17	17		23	10	12
TZK7VP	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12
WM4KZL	Yfiler® Plus									
4		35,36	15	11,14	13	29	24	11	14	13
		14	12	10	20	29	16	17	11	23
		37	12		17	17	19	23		12

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TABLE 3

Item 4 - YSTR Results

WebCode 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**
Y2ZF8C	PowerPlex® Y 23								
4		15	11,14	13	29	24	11	14	13
	14	12	10	20		16	17		23
		12	12	17	17		23	10	12

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Additional DNA & PI Results

TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
D10S2325	CK89G6	7,7	7,14	10,12	0	12,14	7.6923
	MGRYTX	7,7	7,14	10,12		12,14	9.2593
D11S2368	MGRYTX	18,19	18,21	16,18		19,21	2.3778
D13S325	MGRYTX	21,21	21,21	20,21		21,22	2.7436
D14S1434	MGRYTX	13,14	14,14	10,10		14,14	2.6750
D15S659	MGRYTX	10,17	10,15	16,16		13,15	3.1782
D17S1301	MGRYTX	10,12	10,14	11,12		13,14	17.8317
D18S1364	MGRYTX	15,15	13,15	12,14		13,15	2.4884
D19S253	MGRYTX	13,13	7,13	7,14		7,13	1.8663
D20S482	MGRYTX	13,14	14,16	13,13		13,16	7.6429
D21S2055	CK89G6	25,33	33,33	25,35	0	19.1,33	7.4626
	MGRYTX	25,33	33,33	25,35		19.1,33	8.6760
D22-GATA198B05	MGRYTX	18,20	20,23	17,20		20,23	64.2000
D2S1360	CK89G6	22,24	23,24	23,25	3.5211	23,25	3.5211
	MGRYTX	22,24	23,24	23,25		23,25	2.9586
D3S1744	CK89G6	15,17	15,17	17,17	2.6881	14,17	1.3440
	MGRYTX	15,17	15,17	17,17		14,17	1.3156
D4S2366	CK89G6	10,13	12,13	10,11.2	0	12,13	3.4013
	MGRYTX	10,13	12,13	10,12		12,13	3.1782
D5S2500	CK89G6	13,16	11,16	13,14	0	11,11	3.1948
	MGRYTX	13,16	11,16	13,14		11,11	3.6900
D5S2800	MGRYTX	17,23	18,23	20,20		17,18	2.0316
D6S474	CK89G6	13,13	13,13	13,16	2.0325	13,16	2.0325
	MGRYTX	14,14	14,14	14,17		14,17	2.1543
D7S1517	CK89G6	20,21	19,21	23,23	0	19,25	4.1666
	MGRYTX	20,21	19,21	23,23		19,25	3.6496
D7S3048	MGRYTX	20,24	21,24	24,24		20,21	3.2755
D8S1132	CK89G6	18,18	18,18	17,22	0	18,19	2.2624
	MGRYTX	18,18	18,18	17,22		18,19	2.5476
D9S1122	MGRYTX	11,14	11,13	10,12		13,14	1.5141
DXS10074	8QP8KA	8 ,19	8 ,17	18		17	
DXS10079	8QP8KA	16 ,19	16 ,20	20		20	
DXS10101	8QP8KA	29.2 ,31	31 ,33	31		33	
DXS10103	8QP8KA	15 ,20	15 ,19	18		19	
DXS10134	8QP8KA	36 ,39.3	36 ,36	36		36	
DXS10135	8QP8KA	23 ,29	23 ,29	12.1		23	
DXS10146	8QP8KA	27 ,39.2	23 ,27	40.2		23	
DXS10148	8QP8KA	18 ,26.1	13.3 ,18	13.3		13.3	

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
DXS7132	8QP8KA	13 ,14	13 ,13	15		13	
DXS7423	8QP8KA	14 ,15	14 ,15	14		15	
DXS8378	8QP8KA	11 ,12	11 ,12	10		11	
F13A	R9X2WP	6,7	5,7	3.2,14	0	5,7	2.5974
F13A01	MGRYTX	6,7	5,7	3.2,14		5,7	2.5786
F13B	MGRYTX	9,10	8,10	8,9		8,8	4.0562
	R9X2WP	9,10	8,10	8,9	2.0392	8	4.0783
FES/FPS	MGRYTX	10,10	10,11	10,12		10,11	1.2155
FESFPS	R9X2WP	10	10,11	10,12	0	10,11	1.2154
HPRTB	8QP8KA	12 ,14	14 ,14	9		14	
LPL	MGRYTX	11,12	11,12	10,12		10,11	1.0056
	R9X2WP	11,12	11,12	10,12	1.0111	10,11	1.0111
PENTA C	R9X2WP	11	11	11,13	1.2623	11	2.5246
PENTA_C	MGRYTX	11,11	11,11	11,13		11,11	2.5333

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Paternity DNA Statistics & Conclusions

TABLE 5

WebCode	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
27JN6Y	Item 4 - Alleged Father B	65,439,550	99.99%	Life Technologies Database
2ALKWF	Item 4 - Alleged Father B	3.0810E+12		FBI PopStats
3DE2ME	Item 4 - Alleged Father B	131,300,000,000	99.9999999992384	FBI PopStats
3HUABD	Item 4 - Alleged Father B	53.93 billion	>99.99%	FBI PopStats
3NJUC9	Item 4 - Alleged Father B	1.21 trillion	99.9%	NIST-STRBASE
3WQVAE	Item 4 - Alleged Father B	131,300,000,000	99.99%	FBI PopStats
447TFD	Item 4 - Alleged Father B	90978044.33	99.9999989%	NIST-STRBASE
4MFTND	Item 4 - Alleged Father B	131,300,000,000	99.99%	FBI PopStats
66E2MC	Item 4 - Alleged Father B	48,000,000,000	99.99	FBI PopStats
6DNQZB	Item 4 - Alleged Father B	48,000,000,000	99.99	FBI PopStats
76DTPC	Item 4 - Alleged Father B	255 billion	> 99.9999	NIST-STRBASE
778Y8B	Item 4 - Alleged Father B	3.026E+011	N/A	NIST-STRBASE
7JR2NV	Item 4 - Alleged Father B	631,500,000,000	99.999999999841	FBI PopStats
8DXJPA	Item 4 - Alleged Father B	254866757066.818	>99.9999%	NIST-STRBASE, NIST 1036 Revised U.S. Population Dataset (July 2017)
8QP8KA	Item 4 - Alleged Father B	208805213446482,6	0.999999999999995	[Country]
8YFQ23	Item 4 - Alleged Father B	1.21 trillion	99.9%	NIST-STRBASE
9AHB2A	Item 4 - Alleged Father B	6.05E12	>99.99%	FBI PopStats
9FM3A8	Item 4 - Alleged Father B	254,500,000,000	99.99%	NIST-STRBASE
ADVBX2	Item 4 - Alleged Father B	658000000000	99.99999999%	FBI PopStats, Promega/NIST

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 5

WebCode	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
AJ32Z8	Item 4 - Alleged Father B	15069791582641.4	99.9999999999934	NIST-STRBASE
B4KN37	Item 4 - Alleged Father B	53,930,000,000	>99.99%	FBI PopStats
BJW8U7	Item 4 - Alleged Father B	130 billion	>99.99%	Laboratory Specific Database
BNCEH7	Item 4 - Alleged Father B	6.05E+12	>99.99%	FBI PopStats
C4X339	Item 4 - Alleged Father B	15093935719950	99,99999999999	NIST-STRBASE
CFEMM6	Item 4 - Alleged Father B	1 x 10^11*	0.99999999	[Country] Caucasian Population
CK89G6	Item 4 - Alleged Father B	7.9E+21	99.9999%	laboratory specific database: [Country]/ Caucasian
DLU6H6	Item 4 - Alleged Father B	15078867798871.6	0.99999999999993	NIST-STRBASE
E2KR22	Item 4 - Alleged Father B	6.05E+12	>99.99%	FBI PopStats
EC42U2	Item 4 - Alleged Father B	53,930,000,000	>99.99%	FBI PopStats
EH9XD2	Item 4 - Alleged Father B	254,500,000,000	>99.999	NIST-STRBASE
EM9E94	Item 4 - Alleged Father B	244,154,297,719	100, reported as greater than 99.99%	[Country] Caucasian
FNRMD2	Item 4 - Alleged Father B	7.4990E+12	>99.9999999999	FBI PopStats
FVC9F2	Item 4 - Alleged Father B	254.5E+9	99.9999	FBI PopStats
GANL9Y	Item 4 - Alleged Father B			[Country]
GFGKR2	Item 4 - Alleged Father B	53,930,000,000	99.999999998146	FBI PopStats
GL68HZ	Item 4 - Alleged Father B	1.21 x 10^12	99.9	NIST-STRBASE
GQGG86	Item 4 - Alleged Father B	254,500,000,000	99.999999999607	FBI PopStats
J4FWNW	Item 4 - Alleged Father B	3.0810E+12		FBI PopStats
JN7DAY	Item 4 - Alleged Father B	4.3 trillion	>99.9999999999	[Country] Caucasian

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 5

WebCode	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
JV3TXX	Item 4 - Alleged Father B	6325125715 93.2208	99.99 %	FBI PopStats
K3VKJW	Item 4 - Alleged Father B	2.54922*10^11	99.9999999996	NIST-STRBASE
KAWUUV	Item 4 - Alleged Father B	254,500,000,000	99.999999999607	NIST-STRBASE
L3CVWV	Item 4 - Alleged Father B	39,213,505	99.9999974498	NIST-STRBASE
MB4T4V	Item 4 - Alleged Father B	53,930,000,000	>99.99%	FBI PopStats
MGRYTX	Item 4 - Alleged Father B	173146356646467000000000000.00	99.9999999999999990	NIST-STRBASE, Internal database used for loci not in NIST
N39B3R	Item 4 - Alleged Father B	48 billion (4.8E10)	99.99%	FBI PopStats
N6D2NU	Item 4 - Alleged Father B			[Country] pop database
N8YPMR	Item 4 - Alleged Father B	6.05E+12	>99.99%	FBI PopStats
NKNJ3T	Item 4 - Alleged Father B	48,000,000,000	99.99%	FBI PopStats
NMXRNT	Item 4 - Alleged Father B	1.66E10		NIST-STRBASE
NU9TKU	Item 4 - Alleged Father B	2008240234559.85	99.99999	In house [Country] database
P4CAUC	Item 4 - Alleged Father B	915,684,165,573.9110	99.9999%	FBI PopStats
QLDAJQ	Item 4 - Alleged Father B	1168700000000	0.99999999889034	[Country-specific] Pop. Database
QNYB3J	Item 4 - Alleged Father B	1.21 trillion	99.9%	NIST-STRBASE
R9X2WP	Item 4 - Alleged Father B	9,945,257,661,035.73	99.9999	Promega
RU3FWP	Item 4 - Alleged Father B	48 billion (4.8E10)	99.99%	FBI PopStats
TT4UEH	Item 4 - Alleged Father B	45,133,069	99.999%	NIST-STRBASE
TUWKQN	Item 4 - Alleged Father B	1.2 trillion		NIST-STRBASE
TZK7VP	Item 4 - Alleged Father B	131,300,000,000	99.999999999238	FBI PopStats

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 5

WebCode	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
U9B6MM	Item 4 - Alleged Father B	1.5600E+12		FBI PopStats
UCY8NN	Item 4 - Alleged Father B	19 billion	100%	[Country] population database
UTK6WM	Item 4 - Alleged Father B	4.8E10	99.99	FBI PopStats
W8RNDK	Item 4 - Alleged Father B	254,500,000,000	99.999999999607	FBI PopStats
WM4KZL	Item 4 - Alleged Father B	27,310,000,000	99.999999996338%	FBI PopStats
XF4JZJ	Item 4 - Alleged Father B	48 billion	99.99%	FBI PopStats
XVWCLK	Item 4 - Alleged Father B	N/A	See Comments	FBI PopStats
Y2ZF8C	Item 4 - Alleged Father B	2.5E+11	N/A	NIST-STRBASE
Z4XDYG	Item 4 - Alleged Father B	3.08 trillion		FBI PopStats
ZPHK6H	Item 4 - Alleged Father B	6.05E+12	>99.99%	FBI PopStats

Response Summary **Participants: 69**

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

Responses

Item 3 - Alleged Father A	0
Item 4 - Alleged Father B	69
Inconclusive	0

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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Kinship Likelihood Ratio Results

TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D1S1656	3DE2ME	(0.25+a)/2a	a=13, b=18, c=15	1.5927
	3HUABD	(1+4p)/8p	p=13	1.5927
	76DTPC	(1+4p)/8p	p=13	1.593
	8DXJPA	(1+4p)/8p	p = 13	1.5927
	8QP8KA	(1+4p)/8p	p = 13	1.593
	ADVBX2	(1+4p)/8p	p=13	1.593
	AJ32Z8	(1+4p)/8p	p = 13	1.5927
	B4KN37	(1+4p)/8p	p = 13	1.5927
	C4X339	c(k1)+2ac(k0)/2ac	a=13	1.592657343
	CK89G6	(1+4p)/8p	p=13	1.592657343
	DLU6H6	(4p+1)/8p	p = 13	1.5927
	EC42U2	(1+4p)/8p	p=13	1.593
	FVC9F2	(1+4p)/8p	p=13	1.592
	GFGKR2	(1+4p)/8p	p=13	1.5927
	GQGG86	(1+4p)/8p	p=13	1.5927
	JV3TXX	1+4a/8a	a=13	1.59
	L3CVWV	(1+4p)/8P	p=13	1.5927
	MB4T4V	(1+4p)/8p	p=13	1.5927
	MGRYTX	(1+4p)/8p	p=13	1.5927
	NU9TKU	(1+4p)/8p	p=13	1.592657343
	P4CAUC	(1+4p)/8p	p=13	1.5927
	QLDAJQ	(1+4p)/8p	p=13	1.592657343
	R9X2WP	1+4p/8p	p=13	1.593
	TT4UEH	(1+4p)/8p	p=13	1.592
	TZK7VP	(0.25+a)/2a	a = 13	1.5927
	UCY8NN	(1+4p)/8p	p=13	1.5926
	W8RNDK	(1+4p)/8p	p=13	1.5927
	Y2ZF8C	1+4P/8P	p=13	1.593

Statistical Analysis Summary of D1S1656 **Likelihood Ratio Mode: 1.5927**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S1338	3DE2ME	(0.25+a)/2a	a=19, b=20, c=18	1.1483
	3HUABD	(1+4p)/8p	p=19	1.1483
	76DTPC	(1+4p)/8p	p=19	1.148
	8DXJPA	(1+4p)/8p	p = 19	1.1483
	8QP8KA	(1+4p)/8p	p = 19	1.148
	ADVBX2	(1+4q)/8q	q=19	1.148
	AJ32Z8	(1+4p)/8p	p = 19	1.1483
	B4KN37	(1+4p)/8p	p = 19	1.1483
	C4X339	c(k1)+2ac(k0)/2ac	a=19	1.148340249
	CK89G6	(1+4p)/8p	p=19	1.148340249
	DLU6H6	(4p+1)/8p	p = 19	1.1483
	EC42U2	(1+4p)/8p	p=19	1.148
	FVC9F2	(1+4p)/8p	p=19	1.148
	GFGKR2	(1+4p)/8p	p=19	1.1483
	GQGG86	(1+4p)/8p	p=19	1.1483
	JV3TXX	1+4a/8a	a=19	1.15
	L3CVWV	(1+4p)/8P	p=19	1.1483
	MB4T4V	(1+4p)/8p	p=19	1.1483
	MGRYTX	(1+4p)/8p	p=19	1.1483
	NU9TKU	(1+4p)/8p	p=19	1.148340249
	P4CAUC	(1+4p)/8p	p=19	1.1483
	QLDAJQ	(1+4p)/8p	p=19	1.148340249
	R9X2WP	1+4p/8p	p=19	1.148
	TT4UEH	(1+4p)/8p	p=19	1.148
	TZK7VP	(0.25+a)/2a	a = 19	1.1483
	UCY8NN	(1+4p)/8p	p=19	1.1483
	W8RNDK	(1+4p)/8p	p=19	1.1483
	Y2ZF8C	1+4P/8P	p=19	1.148

Statistical Analysis Summary of D2S1338 **Likelihood Ratio Mode: 1.1483**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D2S441	3DE2ME	(0.25+a)/2a	a=10, b=13, c=11	0.8710
	3HUABD	(1+4p)/8p	p=10	0.87103
	76DTPC	(1+4p)/8p	p=10	0.871
	8DXJPA	(1+4p)/8p	p = 10	0.8710
	8QP8KA	(1+4p)/8p	p = 10	0.871
	ADVBX2	(1+4p)/8p	p=10	0.871
	AJ32Z8	(1+4p)/8p	p = 10	0.8710
	B4KN37	(1+4p)/8p	p = 10	0.87103
	C4X339	c(k1)+2ac(k0)/2ac	a=10	0.871029979
	CK89G6	(1+4p)/8p	p=10	0.871029979
	DLU6H6	(4p+1)/8p	p = 10	0.8710
	EC42U2	(1+4p)/8p	p=10	0.8710
	FVC9F2	(1+4p)/8p	p=10	0.8710
	GFGKR2	(1+4p)/8p	p=10	0.87103
	GQGG86	(1+4p)/8p	p=10	0.87103
	JV3TXX	1+4a/8a	a=10	0.87
	L3CVWV	(1+4p)/8P	p=10	0.8710
	MB4T4V	(1+4p)/8p	p=10	0.87103
	MGRYTX	(1+4p)/8p	p=10	0.8710
	NU9TKU	(1+4p)/8p	p=10	0.871029979
	P4CAUC	(1+4p)/8p	p=10	0.8710
	QLDAJQ	(1+4p)/8p	p=10	0.871029979
	R9X2WP	1+4p/8p	p=10	0.87
	TT4UEH	(1+4p)/8p	p=10	0.871
	TZK7VP	(0.25+a)/2a	a = 10	0.8710
	UCY8NN	(1+4p)/8p	p=10	0.8710
	W8RNDK	(1+4p)/8p	p=10	0.87103
	Y2ZF8C	1+4P/8P	p=10	0.871

Statistical Analysis Summary of D2S441 **Likelihood Ratio Mode: 0.8710**

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D3S1358	3DE2ME	(0.25a+0.25b+ab)/2ab	a=16, b=17	1.6251
	3HUABD	(p+q+4pq)/8pq	p=16, q=17	1.6251
	76DTPC	(p+q+4pq)/8pq	p=16, q=17	1.626
	8DXJPA	(p+q+4pq)/8pq	p = 16, q = 17	1.6251
	8QP8KA	(p+q+4pq)/8pq	p = 16, q = 17	1.625
	ADVBX2	(p+q+4pq)/8pq	p=16 q=17	1.625
	AJ32Z8	(p+q+4pq)/8pq	p = 16, q = 17	1.6251
	B4KN37	(p+q+4pq)/8pq	p = 16, q = 17	1.6251
	C4X339	a(k1)+b(k1)+2ab(k0)/2ab	a=16, b=17	1.625149398
	CK89G6	(p+q+4pq)/8pq	p=16, q=17	1.625149398
	DLU6H6	(4pq+p+q)/8p	p = 16, q = 17	1.6251
	EC42U2	(p+q+4pq)/8pq	p=16, q=17	1.625
	FVC9F2	(p+q+4pq)/8pq	p=16, q=17	1.625
	GFGKR2	(p+q+4pq)/8pq	p=16, q=17	1.6251
	GQGG86	(p+q+4pq)/8pq	p=16, q=17	1.6251
	JV3TXX	a+b+4ab/8ab	a=16, b=17	1.63
	L3CVWV	(p+q+4pq)/8pq	p=16, q=17	1.6251
	MB4T4V	(p+q+4pq)/8pq	p=16, q=17	1.6251
	MGRYTX	(p+q+4pq)/8pq	p=16, q=17	1.6251
	NU9TKU	(p+q+4pq)/8pq	p=16, q=17	1.625149398
	P4CAUC	(p+q+4pq)/8pq	p=16, q=17	1.6251
	QLDAJQ	(p+q+4pq)/8pq	p=16, q=17	1.625149398
	R9X2WP	p+q+4pq/8pq	p=16, q=17	1.625
	TT4UEH	(p+q+4pq)/8pq	p=16, q=17	1.625
	TZK7VP	(0.25a+0.25b+ab)/2ab	a = 16, b = 17	1.6251
	UCY8NN	(p+q+4pq)/8pq	p=16, q=17	1.6251
	W8RNDK	(p+q+4pq)/8pq	p=16, q=17	1.6251
	Y2ZF8C	p+q+4pq/8pq	p=16 q=17	1.625

Statistical Analysis Summary of D3S1358 **Likelihood Ratio Mode: 1.6251**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D5S818	3DE2ME	(0.5+(a/2))/a	a=11	1.7827
	3HUABD	(2p(1+p))/(2p)^2	p=11	1.7827
	76DTPC	(1+p)/2p	p=11	1.782
	8DXJPA	(1+p)/2p	p = 11	1.7827
	8QP8KA	2p(1+p)/(2p)(2p)	p = 11	1.783
	ADVBX2	(1+p)/2p	p=11	1.783
	AJ32Z8	(1+p)/2p	p = 11	1.7827
	B4KN37	(2p(1+p))/(2p)^2	p = 11	1.7827
	C4X339	a(k1)+a(k1)+aa(k0)/aa	a=11	1.782709082
	CK89G6	2p(1+p)/(2p)^2	p=11	1.782709082
	DLU6H6	(1+p)/2p	p = 11	1.7827
	EC42U2	(2p(1+p))/(2p)^2	p=11	1.783
	FVC9F2	(1+p)/2p	p=11	1.782
	GFGKR2	2p(1+p)/(2p)^2	p=11	1.7827
	GQGG86	(1+p)/2p	p=11	1.7827
	JV3TXX	1+a/2a	a=11	1.78
	L3CVWV	(1+p)/(2p)	p=11	1.7827
	MB4T4V	(2p(1+p))/(2p)^2	p=11	1.7827
	MGRYTX	(1+p)/2p	p=11	1.7827
	NU9TKU	2p(1+p)/(2p)^2	p=11	1.782709082
	P4CAUC	(1+p)/2p	p=11	1.7827
	QLDAJQ	(p+1)/2p	p=11	1.7827091
	R9X2WP	2+2p/4p	p=11	1.783
	TT4UEH	1/2[(1+p)/p]	p=11	1.782
	TZK7VP	(0.5+(a/2))/a	a = 11	1.7827
	UCY8NN	2p(1+p)/(2p)2	p=11	1.7827
	W8RNDK	(1+p)/2p	p=11	1.7827
	Y2ZF8C	1+p/2p	p=11	1.783

Statistical Analysis Summary of D5S818 **Likelihood Ratio Mode: 1.7827**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D7S820	3DE2ME	(0.25+a)/2a	a=11, b=10, c=8	0.9505
	3HUABD	(1+4p)/8p	p=11	0.95045
	76DTPC	(1+4q)/8q	q=11	0.950
	8DXJPA	(1+4q)/8q	q = 11	0.9505
	8QP8KA	(1+4p)/8p	p = 11	0.950
	ADVBX2	(1+4s)/8s	s=11	0.95
	AJ32Z8	(1+4p)/8p	p = 11	0.9505
	B4KN37	(1+4p)/8p	p = 11	0.95045
	C4X339	c(k1)+2ac(k0)/2ac	a=11	0.95045045
	CK89G6	(1+4p)/8p	p=11	0.95045045
	DLU6H6	(4p+1)/8p	p = 11	0.9505
	EC42U2	(1+4p)/8p	p=11	0.9505
	FVC9F2	(1+4p)/8p	p=11	.9504
	GFGKR2	(1+4p)/8p	p=11	0.95045
	GQGG86	(1+4p)/8p	p=11	0.95045
	JV3TXX	1+4a/8a	a=11	0.95
	L3CVWV	(1+4p)/8P	p=11	0.9505
	MB4T4V	(1+4p)/8p	p=11	0.95045
	MGRYTX	(1+4p)/8p	p=11	0.9505
	NU9TKU	(1+4p)/8p	p=11	0.95045045
	P4CAUC	(1+4q)/8q	q=11	0.9505
	QLDAJQ	(1+4p)/8p	p=11	0.95045045
	R9X2WP	1+4p/8p	p=11	0.95
	TT4UEH	(1+4p)/8p	p=11	0.95
	TZK7VP	(0.25+a)/2a	a = 11	0.9505
	UCY8NN	(1+4p)/8p	p=11	0.9505
	W8RNDK	(1+4p)/8p	p=11	0.95045
	Y2ZF8C	1+4P/8P	p=11	0.950

Statistical Analysis Summary of D7S820 **Likelihood Ratio Mode: 0.9505**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D8S1179	3DE2ME	(0.25a+0.25b+ab)/2ab	a=12, b=15	2.4350
	3HUABD	(p+q+4pq)/8pq	p=12, q=15	2.4350
	76DTPC	(p+q+4pq)/8pq	p=12, q=15	2.438
	8DXJPA	(p+q+4pq)/8pq	p = 12, q = 15	2.4350
	8QP8KA	(p+q+4pq)/8pq	p = 12, q = 15	2.435
	ADVBX2	(p+s+4ps)/8ps	p=12 s=15	2.435
	AJ32Z8	(p+q+4pq)/8pq	p = 12, q = 15	2.4350
	B4KN37	(p+q+4pq)/8pq	p = 12, q = 15	2.4350
	C4X339	a(k1)+b(k1)+2ab(k0)/2ab	a=12, b=15	2.43498452
	CK89G6	(p+q+4pq)/8pq	p=12, q=15	2.43498452
	DLU6H6	(4pq+p+q)/8p	p = 12, q = 15	2.4350
	EC42U2	(p+q+4pq)/8pq	p=12, q=15	2.435
	FVC9F2	(p+q+4pq)/8pq	p=12, q=15	2.435
	GFGKR2	(p+q+4pq)/8pq	p=12, q=15	2.4350
	GQGG86	(p+q+4pq)/8pq	p=12, q=15	2.4350
	JV3TXX	a+b+4ab/8ab	a=12, b=15	2.43
	L3CVWV	(p+q+4pq)/8pq	p=12, q=15	2.4350
	MB4T4V	(p+q+4pq)/8pq	p=12, q=15	2.4350
	MGRYTX	(p+q+4pq)/8pq	p=12, q=15	2.4350
	NU9TKU	(p+q+4pq)/8pq	p=12, q=15	2.43498452
	P4CAUC	(p+q+4pq)/8pq	p=12, q=15	2.4350
	QLDAJQ	(p+q+4pq)/8pq	p=12, q=15	2.43498452
	R9X2WP	p+q+4pq/8pq	p=12, q=15	2.44
	TT4UEH	(p+q+4pq)/8pq	p=12, q=15	2.434
	TZK7VP	(0.25a+0.25b+ab)/2ab	a = 12, b = 15	2.4350
	UCY8NN	(p+q+4pq)/8pq	p=12, q=15	2.4350
	W8RNDK	(p+q+4pq)/8pq	p=12, q=15	2.4350
	Y2ZF8C	p+q+4pq/8pq	p=12 q=15	2.435

Statistical Analysis Summary of D8S1179 **Likelihood Ratio Mode: 2.4350**

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D10S1248	3DE2ME	N/A	a=14, b=16, c=13, d=15	0.5000
	3HUABD	1/2	N/A	0.5
	76DTPC	1/2		0.5
	8DXJPA	1/2		0.5000
	8QP8KA	2/4		0.5
	ADVBX2	1/2		0.5
	AJ32Z8	1/2		0.5
	B4KN37	2/4		0.50000
	C4X339	2cd(k0)/2cd	c=13, d=15	0.5
	CK89G6	2/4		0.50
	DLU6H6	1/2	-	0.5000
	EC42U2	2/4	N/A	0.500
	FVC9F2	1/2		.5
	GFGKR2	2/4	N/A	0.50000
	GQGG86	1/2		0.50000
	JV3TXX	0.5		0.5
	L3CVWV	-		1
	MB4T4V	2/4	p=14, q=16, r=13, s=15	0.50000
	MGRYTX	1/2		0.5000
	NU9TKU	2/4	not applicable	0.5
	P4CAUC	1/2		0.5000
	QLDAJQ	0.5		0.5
	R9X2WP			0.5
	TT4UEH	1/2		0.5
	TZK7VP	cd/2cd	c = 13, d = 15	0.5000
	UCY8NN	2/4		0.5
	W8RNDK	1/2	NA	0.50000
	Y2ZF8C	1/2		0.5

Statistical Analysis Summary of D10S1248 **Likelihood Ratio Mode: 0.5**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D12S391	3DE2ME	(0.25a+0.25b+ab)/2ab	a=19, b=22	3.0064
	3HUABD	(p+q+4pq)/8pq	p=19, q=22	3.0064
	76DTPC	(p+q+4pq)/8pq	p=19, q=22	3.005
	8DXJPA	(p+q+4pq)/8pq	p = 19, q = 22	3.0064
	8QP8KA	(p+q+4pq)/8pq	p = 19, q = 22	3.006
	ADVBX2	(p+s+4ps)/8ps	p=19 s=22	3.006
	AJ32Z8	(p+q+4pq)/8pq	p = 19, q = 22	3.0061
	B4KN37	(p+q+4pq)/8pq	p = 19, q = 22	3.0064
	C4X339	a(k1)+b(k1)+2ab(k0)/2ab	a=19, b=22	3.006436184
	CK89G6	(p+q+4pq)/8pq	p=19, q=22	3.006436184
	DLU6H6	(4pq+p+q)/8p	p = 19, q = 22	3.0064
	EC42U2	(p+q+4pq)/8pq	p=19, q=22	3.006
	FVC9F2	(p+q+4pq)/8pq	p=19, q=22	3.006
	GFGKR2	(p+q+4pq)/8pq	p=19, q=22	3.0064
	GQGG86	(p+q+4pq)/8pq	p=19, q=22	3.0064
	JV3TXX	a+b+4ab/8ab	a=19, b=22	3.01
	L3CVWV	(p+q+4pq)/8pq	p=19, q=22	3.0064
	MB4T4V	(p+q+4pq)/8pq	p=19, q=22	3.0064
	MGRYTX	(p+q+4pq)/8pq	p=19, q=22	3.0064
	NU9TKU	(p+q+4pq)/8pq	p=19, q=22	3.006436184
	P4CAUC	(p+q+4pq)/8pq	p=19, q=22	3.0064
	QLDAJQ	(p+q+4pq)/8pq	p=19, q=22	3.006436184
	R9X2WP	p+q+4pq/8pq	p=19, q=22	3.01
	TT4UEH	(p+q+4pq)/8pq	p=19, q=22	3.006
	TZK7VP	(0.25a+0.25b+ab)/2ab	a = 19, b = 22	3.0064
	UCY8NN	(p+q+4pq)/8pq	p=19, q=22	3.0064
	W8RNDK	(p+q+4pq)/8pq	p=19, q=22	3.0064
	Y2ZF8C	p+q+4pq/8pq	p=19 q=22	3.006

Statistical Analysis Summary of D12S391 **Likelihood Ratio Mode: 3.0064**

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D13S317	3DE2ME	N/A	a=8, b=12, c=11, d=11	0.5000
	3HUABD	1/2	N/A	0.5
	76DTPC	1/2		0.5
	8DXJPA	1/2		0.5000
	8QP8KA	2/4		0.5
	ADVBX2	1/2		0.5
	AJ32Z8	1/2		0.5
	B4KN37	2/4		0.50000
	C4X339	cc(k0)/cc	c=11	0.5
	CK89G6	2/4		0.50
	DLU6H6	1/2	-	0.5000
	EC42U2	2/4	N/A	0.500
	FVC9F2	1/2		.5
	GFGKR2	2/4	N/A	0.50000
	GQGG86	1/2		0.50000
	JV3TXX	0.5		0.5
	L3CVWV	-		1
	MB4T4V	2/4	p=8, q=12, r=11, s=11	0.50000
	MGRYTX	1/2		0.5000
	NU9TKU	2/4	not applicable	0.5
	P4CAUC	1/2		0.5000
	QLDAJQ	0.5		0.5
	R9X2WP			0.5
	TT4UEH	1/2		0.5
	TZK7VP	cd/2cd	c = 8, d = 12	0.5000
	UCY8NN	2/4		0.5
	W8RNDK	1/2	NA	0.50000
	Y2ZF8C	1/2		0.5

Statistical Analysis Summary of D13S317 **Likelihood Ratio Mode: 0.5**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D16S539	3DE2ME	N/A	a=11, b=11, c=10, d=12	0.5000
	3HUABD	1/2	N/A	0.5
	76DTPC	1/2		0.5
	8DXJPA	1/2		0.5000
	8QP8KA	2/4		0.5
	ADVBX2	1/2		0.5
	AJ32Z8	1/2		0.5
	B4KN37	2/4		0.50000
	C4X339	cc(k0)/cc	c=11	0.5
	CK89G6	2/4		0.50
	DLU6H6	1/2	-	0.5000
	EC42U2	2/4	N/A	0.500
	FVC9F2	1/2		.5
	GFGKR2	2/4	N/A	0.50000
	GQGG86	1/2		0.50000
	JV3TXX	0.5		0.5
	L3CVWV	-		1
	MB4T4V	2/4	p=11, q=11, r=10, s=12	0.50000
	MGRYTX	1/2		0.5000
	NU9TKU	2/4	not applicable	0.5
	P4CAUC	1/2		0.5000
	QLDAJQ	0.5		0.5
	R9X2WP			0.5
	TT4UEH	1/2		0.5
	TZK7VP	cd/2cd	c = 10, d = 12	0.5000
	UCY8NN	2/4		0.5
	W8RNDK	1/2	NA	0.50000
	Y2ZF8C	1/2		0.5

Statistical Analysis Summary of D16S539 **Likelihood Ratio Mode: 0.5**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D18S51	3DE2ME	(0.25+a)/2a	a=14, b=13, c=17	1.2764
	3HUABD	(1+4p)/8p	p=14	1.2764
	76DTPC	(1+4q)/8q	q=.161	1.276
	8DXJPA	(1+4q)/8q	q = 14	1.2764
	8QP8KA	(1+4p)/8p	p = 14	1.276
	ADVBX2	(1+4q)/8q	q=14	1.276
	AJ32Z8	(1+4p)/8p	p = 14	1.2764
	B4KN37	(1+4p)/8p	p = 14	1.2764
	C4X339	c(k1)+2ac(k0)/2ac	a=14	1.276397516
	CK89G6	(1+4p)/8p	p=14	1.276397516
	DLU6H6	(4p+1)/8p	p = 14	1.2764
	EC42U2	(1+4p)/8p	p=14	1.276
	FVC9F2	(1+4p)/8p	p=14	1.276
	GFGKR2	(1+4p)/8p	p=14	1.2764
	GQGG86	(1+4p)/8p	p=14	1.2764
	JV3TXX	1+4a/8a	a=14	1.28
	L3CVWV	(1+4p)/8P	p=14	1.2764
	MB4T4V	(1+4p)/8p	p=14	1.2764
	MGRYTX	(1+4p)/8p	p=14	1.2764
	NU9TKU	(1+4p)/8p	p=14	1.276397516
	P4CAUC	(1+4q)/8q	q=14	1.2764
	QLDAJQ	(1+4p)/8p	p=14	1.276397516
	R9X2WP	1+4p/8p	p=14	1.28
	TT4UEH	(1+4p)/8p	p=14	1.276
	TZK7VP	(0.25+a)/2a	a = 14	1.2764
	UCY8NN	(1+4p)/8p	p=14	1.2764
	W8RNDK	(1+4p)/8p	p=14	1.2764
	Y2ZF8C	1+4P/8P	p=14	1.276

Statistical Analysis Summary of D18S51 **Likelihood Ratio Mode: 1.2764**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D19S433	3DE2ME	(0.25a+0.25b+ab)/2ab	a=13, b=14	1.4151
	3HUABD	(p+q+4pq)/8pq	p=13, q=14	1.4151
	76DTPC	(p+q+4pq)/8pq	p=13, q=14	1.416
	8DXJPA	(p+q+4pq)/8pq	p = 13, q = 14	1.4151
	8QP8KA	(p+q+4pq)/8pq	p = 13, q = 14	1.415
	ADVBX2	(p+q+4pq)/8pq	p=13 q=14	1.415
	AJ32Z8	(p+q+4pq)/8pq	p = 13, q = 14	1.4151
	B4KN37	(p+q+4pq)/8pq	p = 13, q = 14	1.4151
	C4X339	a(k1)+b(k1)+2ab(k0)/2ab	a=13, b=14	1.415104706
	CK89G6	(p+q+4pq)/8pq	p=13, q=14	1.415104706
	DLU6H6	(4pq+p+q)/8pq	p = 13, q = 14	1.4151
	EC42U2	(p+q+4pq)/8pq	p=13, q=14	1.415
	FVC9F2	(p+q+4pq)/8pq	p=13, q=14	1.415
	GFGKR2	(p+q+4pq)/8pq	p=13, q=14	1.4151
	GQGG86	(p+q+4pq)/8pq	p=13, q=14	1.4151
	JV3TXX	a+b+4ab/8ab	a=13, b=14	1.42
	L3CVWV	(p+q+4pq)/8pq	p=13, q=14	1.4151
	MB4T4V	(p+q+4pq)/8pq	p=13, q=14	1.4151
	MGRYTX	(p+q+4pq)/8pq	p=13, q=14	1.4151
	NU9TKU	(p+q+4pq)/8pq	p=13, q=14	1.415104706
	P4CAUC	(p+q+4pq)/8pq	p=13, q=14	1.4151
	QLDAJQ	(p+q+4pq)/8pq	p=13, q=14	1.415104706
	R9X2WP	p+q+4pq/8pq	p=13, q=14	1.42
	TT4UEH	(p+q+4pq)/8pq	p=13, q=14	1.415
	TZK7VP	(0.25a+0.25b+ab)/2ab	a = 13, b = 14	1.4151
	UCY8NN	(p+q+4pq)/8pq	p=13, q=14	1.4151
	W8RNDK	(p+q+4pq)/8pq	p=13, q=14	1.4151
	Y2ZF8C	p+q+4pq/8pq	p=13 q=14	1.415

Statistical Analysis Summary of D19S433 **Likelihood Ratio Mode: 1.4151**

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D21S11	3DE2ME	(0.25+a)/2a	a=31, b=30, c=32.2	2.1383
	3HUABD	(1+4p)/8p	p=31	2.1383
	76DTPC	(1+4q)/8q	q=31	2.138
	8DXJPA	(1+4q)/8q	q = 31	2.1383
	8QP8KA	(1+4p)/8p	p = 31	2.138
	ADVBX2	(1+4q)/8q	q=31	2.138
	AJ32Z8	(1+4p)/8p	p = 31	2.1383
	B4KN37	(1+4p)/8p	p = 31	2.1383
	C4X339	c(k1)+2ac(k0)/2ac	a=31	2.138269987
	CK89G6	(1+4p)/8p	p=31	2.138269987
	DLU6H6	(4p+1)/8p	p = 31	2.1383
	EC42U2	(1+4p)/8p	p=31	2.138
	FVC9F2	(1+4p)/8p	p=31	2.138
	GFGKR2	(1+4p)/8p	p=31	2.1383
	GQGG86	(1+4p)/8p	p=31	2.1383
	JV3TXX	1+4a/8a	a=31	2.14
	L3CVWV	(1+4p)/8P	p=31	2.1383
	MB4T4V	(1+4p)/8p	p=31	2.1383
	MGRYTX	(1+4p)/8p	p=31	2.1383
	NU9TKU	(1+4p)/8p	p=31	2.138269987
	P4CAUC	(1+4q)/8q	q=31	2.1383
	QLDAJQ	(1+4p)/8p	p=31	2.138269987
	R9X2WP	1+4p/8p	p=31	2.138
	TT4UEH	(1+4p)/8p	p=31	2.138
	TZK7VP	(0.25+a)/2a	a = 31	2.1383
	UCY8NN	(1+4p)/8p	p=31	2.1383
	W8RNDK	(1+4p)/8p	p=31	2.1383
	Y2ZF8C	1+4P/8P	p=31	2.138

Statistical Analysis Summary of D21S11 **Likelihood Ratio Mode: 2.1383**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
D22S1045	3DE2ME	N/A	a=11, b=15, c=16, d=17	0.5000
	3HUABD	1/2	N/A	0.5
	76DTPC	1/2		0.5
	8DXJPA	1/2		0.5000
	8QP8KA	2/4		0.5
	ADVBX2	1/2		0.5
	AJ32Z8	1/2		0.5
	B4KN37	2/4		0.50000
	C4X339	2cd(k0)/2cd	c=16, d=17	0.5
	CK89G6	2/4		0.50
	DLU6H6	1/2	-	0.5000
	EC42U2	2/4	N/A	0.500
	FVC9F2	1/2		.5
	GFGKR2	2/4	N/A	0.50000
	GQGG86	1/2		0.50000
	JV3TXX	0.5		0.5
	L3CVWV	-		1
	MB4T4V	2/4	p=11, q=15, r=16, s=17	0.50000
	MGRYTX	1/2		0.5000
	NU9TKU	2/4	not applicable	0.5
	P4CAUC	1/2		0.5000
	QLDAJQ	0.5		0.5
	R9X2WP			0.5
	TT4UEH	1/2		0.5
	TZK7VP	cd/2cd	c = 11, d = 15	0.5000
	UCY8NN	2/4		0.5
	W8RNDK	1/2	NA	0.50000
	Y2ZF8C	1/2		0.5

Statistical Analysis Summary of D22S1045 **Likelihood Ratio Mode: 0.5**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
CSF1PO	3DE2ME	(0.5+a)/2a	a=10, b=11	1.5535
	3HUABD	(1+2p)/4p	p=10	1.5535
	76DTPC	(1+2p)/4p	p=10	1.555
	8DXJPA	(1+2p)/4p	p = 10	1.5535
	8QP8KA	(1+2p)/4p	p = 10	1.554
	ADVBX2	(1+2p)/4p	p=10	1.554
	AJ32Z8	(1+4p)/8p	p = 10	1.5535
	B4KN37	(1+2p)/4p	p = 10	1.5535
	C4X339	a(k1)+aa(k0)/aa	a=10	1.553518753
	CK89G6	(1+2p)/4p	p=10	1.553518753
	DLU6H6	(2p+1)/4p	p = 10	1.5535
	EC42U2	(1+2p)/4p	p=10	1.554
	FVC9F2	(1+2p)/4p	p=10	1.553
	GFGKR2	(1+2p)/4p	p=10	1.5535
	GQGG86	(1+2p)/4p	p=10	1.5535
	JV3TXX	1+2a/4a	a=10	1.55
	L3CVWV	(1+4p)/8P	p=10	1.0268
	MB4T4V	(1+2p)/4p	p=10	1.5535
	MGRYTX	(1+2p)/4p	p=10	1.5535
	NU9TKU	(1+2p)/4p	p=10	1.553518753
	P4CAUC	(1+2p)/4p	p=10	1.5535
	QLDAJQ	(1+2p)/4p	p=10	1.553519
	R9X2WP	1+2p/4p	p=10	1.554
	TT4UEH	(1+2p)/4p	p=10	1.553
	TZK7VP	(0.5+a)/2a	a = 10	1.5535
	UCY8NN	(1+2p)/4p	p=10	1.5535
	W8RNDK	(1+2p)/4p	p=10	1.5535
	Y2ZF8C	1+2p/4p	p=10	1.554

Statistical Analysis Summary of CSF1PO **Likelihood Ratio Mode: 1.5535**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
FGA	3DE2ME	(0.25+a)/2a	a=25, b=22, c=21	1.5540
	3HUABD	(1+4p)/8p	p=25	1.5540
	76DTPC	(1+4q)/8q	q=25	1.550
	8DXJPA	(1+4q)/8q	q = 25	1.5540
	8QP8KA	(1+4p)/8p	p = 25	1.554
	ADVBX2	(1+4t)/8t	t=25	1.554
	AJ32Z8	(1+4p)/8p	p = 25	1.5540
	B4KN37	(1+4p)/8p	p = 25	1.5540
	C4X339	c(k1)+2ac(k0)/2ac	a=25	1.553962901
	CK89G6	(1+4p)/8p	p=25	1.553962901
	DLU6H6	(4p+1)/8p	p = 25	1.5540
	EC42U2	(1+4p)/8p	p=25	1.554
	FVC9F2	(1+4p)/8p	p=25	1.554
	GFGKR2	(1+4p)/8p	p=25	1.5540
	GQGG86	(1+4p)/8p	p=25	1.5540
	JV3TXX	1+4a/8a	a=25	1.55
	L3CVWV	(1+4p)/8P	p=25	1.5540
	MB4T4V	(1+4p)/8p	p=25	1.5540
	MGRYTX	(1+4p)/8p	p=25	1.5540
	NU9TKU	(1+4p)/8p	p=25	1.553962901
	P4CAUC	(1+4q)/8q	q=25	1.5540
	QLDAJQ	(1+4p)/8p	p=25	1.553962901
	R9X2WP	1+4p/8p	p=25	2.561
	TT4UEH	(1+4p)/8p	p=25	1.553
	TZK7VP	(0.25+a)/2a	a = 25	1.5540
	UCY8NN	(1+4p)/8p	p=25	1.5540
	W8RNDK	(1+4p)/8p	p=25	1.5540
	Y2ZF8C	1+4P/8P	p=25	1.554

Statistical Analysis Summary of FGA **Likelihood Ratio Mode: 1.5540**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaD	3DE2ME	(0.5+(a/2))/a	a=9	2.5610
	3HUABD	(2p(1+p))/(2p)^2	p=9	2.5610
	76DTPC	(1+p)/2p	p=9	2.558
	8DXJPA	(1+p)/2p	p = 9	2.5610
	8QP8KA	2p(1+p)/(2p)(2p)	p = 9	2.561
	ADVBX2	(1+p)/2p	p=9	2.561
	AJ32Z8	(1+p)/2p	p = 9	2.5610
	B4KN37	(2p(1+p))/(2p)^2	p = 9	2.5610
	C4X339	a(k1)+a(k1)+aa(k0)/aa	a=9	2.561005771
	CK89G6	2p(1+p)/(2p)^2	p=9	2.561005771
	DLU6H6	(1+p)/2p	p = 9	2.5610
	EC42U2	(2p(1+p))/(2p)^2	p=9	2.561
	FVC9F2	(1+p)/2p	p=9	2.561
	GFGKR2	2p(1+p)/(2p)^2	p=9	2.5610
	GQGG86	(1+p)/2p	p=9	2.5610
	JV3TXX	1+a/2a	a=9	2.56
	L3CVWV	(1+p)/(2p)	p=9	2.5610
	MB4T4V	(2p(1+p))/(2p)^2	p=9	2.5610
	MGRYTX	(1+p)/2p	p=9	2.5610
	NU9TKU	2p(1+p)/(2p)^2	p=9	2.561005771
	P4CAUC	(1+p)/2p	p=9	2.5610
	QLDAJQ	(p+1)/2p	p=9	2.5610058
	R9X2WP	2+2p/4p	p=9	2.561
	TT4UEH	1/2[(1+p)/p]	p=9	2.561
	TZK7VP	(0.5+(a/2))/a	a = 9	2.5610
	UCY8NN	2p(1+p)/(2p)2	p=9	2.5610
	W8RNDK	(1+p)/2p	p=9	2.5610
	Y2ZF8C	1+p/2p	p=9	2.561

Statistical Analysis Summary of PentaD **Likelihood Ratio Mode: 2.5610**

Revised: October 06, 2020. In the Manufacturer's Information, the FBI Popstats mode values for CSF1PO and vWA were corrected and a caveat for the PI ranges was added.

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
PentaE	3DE2ME	(0.25+a)/2a	a=14, b=7, c=12	2.2361
	3HUABD	(1+4p)/8p	p=14	2.2361
	76DTPC	(1+4q)/8q	q=14	2.236
	8DXJPA	(1+4q)/8q	q = 14	2.2361
	8QP8KA	(1+4p)/8p	p = 14	2.236
	ADVBX2	(1+4w)/8w	w=14	2.236
	AJ32Z8	(1+4p)/8p	p = 14	2.2361
	B4KN37	(1+4p)/8p	p = 14	2.2361
	C4X339	c(k1)+2ac(k0)/2ac	a=14	2.236111111
	CK89G6	(1+4p)/8p	p=14	2.236111111
	DLU6H6	(4p+1)/8p	p = 14	2.2361
	EC42U2	(1+4p)/8p	p=14	2.236
	FVC9F2	(1+4p)/8p	p=14	2.236
	GFGKR2	(1+4p)/8p	p=14	2.2361
	GQGG86	(1+4p)/8p	p=14	2.2361
	JV3TXX	1+4a/8a	a=14	2.24
	L3CVWV	(1+4p)/8P	p=14	2.2361
	MB4T4V	(1+4p)/8p	p=14	2.2361
	MGRYTX	(1+4p)/8p	p=14	2.2361
	NU9TKU	(1+4p)/8p	p=14	2.236111111
	P4CAUC	(1+4q)/8q	q=14	2.2361
	QLDAJQ	(1+4p)/8p	p=14	2.236111111
	R9X2WP	1+2p/4p	p=14	2.24
	TT4UEH	(1+4p)/8p	p=14	2.236
	TZK7VP	(0.25+a)/2a	a = 14	2.2361
	UCY8NN	(1+4p)/8p	p=14	2.2361
	W8RNDK	(1+4p)/8p	p=14	2.2361
	Y2ZF8C	1+4P/8P	p=14	2.236

Statistical Analysis Summary of PentaE **Likelihood Ratio Mode: 2.2361**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
SE33	3DE2ME	N/A	a=15, b=20, c=19, d=28.2	0.5000
	3HUABD	1/2	N/A	0.5
	76DTPC	1/2		0.5
	8DXJPA	1/2		0.5000
	8QP8KA	2/4		0.5
	ADVBX2	1/2		0.5
	AJ32Z8	1/2		0.5
	B4KN37	2/4		0.50000
	C4X339	2cd(k0)/2cd	c=19, d=28.2	0.5
	CK89G6	2/4		0.50
	DLU6H6	1/2	-	0.5000
	EC42U2	2/4	N/A	0.500
	FVC9F2	1/2		.5
	GFGKR2	2/4	N/A	0.50000
	GQGG86	1/2		0.50000
	JV3TXX	0.5		0.5
	L3CVWV	-		1
	MB4T4V	2/4	p=15, q=20, r=19, s=28.2	0.50000
	MGRYTX	1/2		0.5000
	NU9TKU	2/4	not applicable	0.5
	P4CAUC	1/2		0.5000
	QLDAJQ	0.5		0.5
	R9X2WP			0.5
	TT4UEH	1/2		0.5
	TZK7VP	cd/2cd	c = 15, d = 20	0.5000
	UCY8NN	2/4		0.5
	W8RNDK	1/2	NA	0.50000
	Y2ZF8C	1/2		0.5

Statistical Analysis Summary of SE33 **Likelihood Ratio Mode: 0.5**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TH01	3DE2ME	(0.25a+0.25b+ab)/2ab	a=9, b=9.3	1.9279
	3HUABD	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	76DTPC	(q+p+4qp)/8qp	q=9, p=9.3	1.930
	8DXJPA	(p+q+4pq)/8pq	p = 9, q = 9.3	1.9279
	8QP8KA	(p+q+4pq)/8pq	p = 9, q = 9.3	1.928
	ADVBX2	(a+p+4ap)/8ap	a=9.3 p=9	1.928
	AJ32Z8	(p+q+4pq)/8pq	p = 9, q = 9.3	1.9279
	B4KN37	(p+q+4pq)/8pq	p = 9, q = 9.3	1.9279
	C4X339	a(k1)+b(k1)+2ab(k0)/2ab	a=9, b=9.3	1.927862088
	CK89G6	(p+q+4pq)/8pq	p=9, q=9.3	1.927862088
	DLU6H6	(4pq+p+q)/8pq	p = 9, q = 9.3	1.9279
	EC42U2	(p+q+4pq)/8pq	p=9, q=9.3	1.928
	FVC9F2	(p+q+4pq)/8pq	p=9, q=9.3	1.927
	GFGKR2	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	GQGG86	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	JV3TXX	a+b+4ab/8ab	a=9, b=9.3	1.93
	L3CVWV	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	MB4T4V	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	MGRYTX	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	NU9TKU	(p+q+4pq)/8pq	p=9, q=9.3	1.927862088
	P4CAUC	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	QLDAJQ	(p+q+4pq)/8pq	p=9, q=9.3	1.927862088
	R9X2WP	p+q+4pq/8pq	p=9, q=9.3	1.928
	TT4UEH	(p+q+4pq)/8pq	p=9, q=9.3	1.927
	TZK7VP	(0.25a+0.25b+ab)/2ab	a = 9, b = 9.3	1.9279
	UCY8NN	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	W8RNDK	(p+q+4pq)/8pq	p=9, q=9.3	1.9279
	Y2ZF8C	p+q+4pq/8pq	p=9 q=9.3	1.928

Statistical Analysis Summary of TH01 **Likelihood Ratio Mode: 1.9279**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
TPOX	3DE2ME	(0.5+a)/2a	a=8, b=11	1.0153
	3HUABD	(1+2p)/4p	p=8	1.0153
	76DTPC	(1+2p)/4p	p=8	1.015
	8DXJPA	(1+2p)/4p	p = 8	1.0153
	8QP8KA	(1+2p)/4p	p = 8	1.015
	ADVBX2	(1+2p)/4p	p=8	1.015
	AJ32Z8	(1+2p)/4p	p = 8	1.0153
	B4KN37	(1+2p)/4p	p = 8	1.0153
	C4X339	a(k1)+aa(k0)/aa	a=8	1.015251443
	CK89G6	(1+2p)/4p	p=8	1.015251443
	DLU6H6	(2p+1)/4p	p = 8	1.0153
	EC42U2	(1+2p)/4p	p=8	1.015
	FVC9F2	(1+2p)/4p	p=8	1.015
	GFGKR2	(1+2p)/4p	p=8	1.0153
	GQGG86	(1+2p)/4p	p=8	1.0153
	JV3TXX	1+2a/4a	a=8	1.01
	L3CVWV	(1+4p)/8P	p=8	0.7576
	MB4T4V	(1+2p)/4p	p=8	1.0153
	MGRYTX	(1+2p)/4p	p=8	1.0153
	NU9TKU	(1+2p)/4p	p=8	1.015251443
	P4CAUC	(1+2p)/4p	p=8	1.0153
	QLDAJQ	(1+2p)/4p	p=8	1.1052514427
	R9X2WP	1+2p/4p	p=8	1.02
	TT4UEH	(1+2p)/4p	p=8	1.015
	TZK7VP	(0.5+a)/2a	a = 8	1.0153
	UCY8NN	(1+2p)/4p	p=8	1.0153
	W8RNDK	(1+2p)/4p	p=8	1.0153
	Y2ZF8C	1+2p/4p	p=8	1.015

Statistical Analysis Summary of TPOX **Likelihood Ratio Mode: 1.0153**

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TABLE 6

Locus	WebCode	Formula	Allele Legend	Likelihood Ratio
vWA	3DE2ME	(0.25+a)/2a	a=18, b=16, c=17	1.1941
	3HUABD	(1+4p)/8p	p=18	1.1941
	76DTPC	(1+4q)/8q	q=18	1.194
	8DXJPA	(1+4q)/8q	q = 18	1.1941
	8QP8KA	(1+4p)/8p	p = 18	1.194
	ADVBX2	(1+4r)/8r	r=18	1.194
	AJ32Z8	(1+4p)/8p	p = 18	1.1941
	B4KN37	(1+4p)/8p	p = 18	1.1941
	C4X339	c(k1)+2ac(k0)/2ac	a=18	1.194058856
	CK89G6	(1+4p)/8p	p=18	1.194058856
	DLU6H6	(4p+1)/8p	p = 18	1.1941
	EC42U2	(1+4p)/8p	p=18	1.194
	FVC9F2	(1+4p)/8p	p=18	1.194
	GFGKR2	(1+4p)/8p	p=18	1.1941
	GQGG86	(1+4p)/8p	p=18	1.1941
	JV3TXX	1+4a/8a	a=18	1.19
	L3CVWV	(1+4p)/8P	p=18	1.1941
	MB4T4V	(1+4p)/8p	p=18	1.1941
	MGRYTX	(1+4p)/8p	p=18	1.1941
	NU9TKU	(1+4p)/8p	p=18	1.194058856
	P4CAUC	(1+4q)/8q	q=18	1.1941
	QLDAJQ	(1+4p)/8p	p=18	1.194058856
	R9X2WP	1+4p/8p	p=18	1.194
	TT4UEH	(1+4p)/8p	p=18	1.194
	TZK7VP	(0.25+a)/2a	a = 18	1.1941
	UCY8NN	(1+4p)/8p	p=18	1.1941
	W8RNDK	(1+4p)/8p	p=18	1.1941
	Y2ZF8C	1+4P/8P	p=18	1.194

Statistical Analysis Summary of vWA **Likelihood Ratio Mode: 1.1941**

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Kinship DNA Statistics

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

TABLE 7

WebCode	Kinship Index	Claim Supported?
3DE2ME	125	Yes
3HUABD	125.2	Yes
76DTPC	125	Yes
8DXJPA	125.2279	Yes
8QP8KA	125.089	Inconclusive
ADVBX2	125.2279	Yes
AJ32Z8	125.2388	Yes
B4KN37	125.2	Yes
C4X339	125.2278613	Inconclusive
CK89G6	LR= 125.2278613 ; probability = 99.20778187%	Yes
DLU6H6	125.2279	Yes
EC42U2	125.2	Yes
FVC9F2	9.239E-27	Inconclusive
GFGKR2	125.2	Yes
GQGG86	125.2	Inconclusive
JV3TXX	124.5825	Yes
L3CVWV	1976.5559341	Yes
MB4T4V	125.2	Yes
MGRYTX	125.23	Yes
NU9TKU	125.2278613	Inconclusive
P4CAUC	104.8758	Yes

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TABLE 7

WebCode	Kinship Index	Claim Supported?
QLDAJQ	136.3291	Inconclusive
R9X2WP	127.04	Yes
TT4UEH	124.663	Yes
TZK7VP	125.2	Yes
UCY8NN	125.23	Yes
W8RNDK	9.239E-27	Inconclusive
Y2ZF8C	125	Yes

Response Summary	Participants: 28
Is the relationship claim of Half Siblings supported?	
Yes	21
No	0
Inconclusive	7

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Additional Kinship Statistical Results

TABLE 8

WebCode	Additional Statistical Results
3DE2ME	Item 001.C: 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 - 370, Caucasian - 70, Hispanic - 24.
3HUABD	The two individual's profiles are 125.2 times more likely to be observed if they were half-siblings rather than if they were unrelated.
ADVBX2	It is very probable that Sibling-A is a half sibling of Sibling-B. AABB RT Standard 5.3.8.2 states that likelihood ratios greater than 10 shall be considered genetic evidence supporting the tested relationship. Probability of half sibship: 99.21% (50% prior probability).
B4KN37	C's and D's profiles are 125.2 times more likely to be observed if they were half-siblings rather than if they were unrelated.
C4X339	is need to use more analysis with uniparental markers maybe or X Chromosome markers
CK89G6	Hypothesis 1 : Person C and D are Hispanic half siblings. Hypothesis 2: Person C and D are unrelated people. It is 125,2278613 times more probable to obtain that Person C and D are Hispanic half siblings than they are unrelated people. Probability of kindship equals 99.20778187 %. There is a very strong evidence of half siblingship.
DLU6H6	The two DNA profiles cannot be excluded as a potential Hispanic half sibling relationship.
EC42U2	Alleged Sibling C's and Alleged Sibling D's profiles are 125.2 times more likely to be observed if they were half-siblings rather than if they were unrelated.
GFGKR2	C and D's profiles are 125.2 times more likely to be observed if they were half-siblings rather than if they were unrelated.
JV3TXX	THE PROBABILITY OF THE HALF SIBLING IS 99.2 %
L3CVWV	CLR = 1976.5559341, PosteriorProbability = 0.9994943253019, %Probability = 99.94943253019
MB4T4V	C and D's profiles are 125.2 times more likely to be observed if they were half-siblings rather than if they were unrelated.
P4CAUC	The likelihood ratio for vWa was not included in the second degree relationship (half sibling) kinship index calculation due to possible genetic linkage with D12S391.
QLDAJQ	Full Siblings Index = 358.2880834. To get a more reliable conclusion, the number of alleles tested should be increased.
R9X2WP	AABB reporting standards would require the addition of the following statement: Pu and Linacre have shown at a likelihood ratio >33 that STR test results correctly confirm half-sibship among known half-sibling pairs >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.)

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TABLE 8

WebCode	Additional Statistical Results
TZK7VP	* Below is what would be reported based on current laboratory procedures, excluding Penta D and Penta E and using the Expanded FBI STR 2015 population database. * AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile B is the half sibling of Profile A using the reference populations listed. The genotype observed for Profile B is "X" times more likely to occur in a half sibling of Profile A than in someone unrelated to Profile A from the reference populations listed where "X" equals: African American – 370, Caucasian – 70, Hispanic – 24
Y2ZF8C	The DNA evidence is approximately 125 times more likely to be observed under the scenario that Profile C is from a biological half sibling of Profile D rather than from an unrelated individual. Likelihood ratio of 125 provides moderate support for the relationship.

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Additional Comments

TABLE 9

WebCode	Additional Comments
3DE2ME	For the Kinship portion of this test, the NIST database was used for the calculations that were reported to CTS. The FBI population data was used for reporting the statistics on the laboratory's Report of Examination as well as listed in the 'Additional Statistical Results and Relationship Conclusions' reported to CTS.
3HUABD	Assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is greater than 99.99%. The following locus was not used in the statistical calculation: vWA.
3NJUC9	NR = No Results
4MFTND	NEG = No result detected
66E2MC	PI values not listed for item 3 due to Alleged Father A being excluded as a biological parent of Known Child. D12S391 not included in statistical calculation per laboratory policy. Combined PI value truncated to two significant figures per laboratory policy.
8YFQ23	NR=no results
9AHB2A	These additional instructions are from the Office of Forensic Sciences DNA manual. Results from vWA and D12S391 may not both be used in relationship testing statistics. If results suitable for statistical evaluation are obtained from both loci, D12S391 will be used for statistical evaluation and vWA will not. Along with the appropriate conclusion (“Paternity Trio” or “Reverse Parentage”), report the smallest statistic of the African-American, Caucasian, and Hispanic populations from the Popstats report
9FM3A8	PI values were not provided for Alleged Father A. Per laboratory policy, PI values are only calculated for an individual cannot be excluded as the biological father. Alleged Father A was excluded as being the possible biological father of the child.
ADVBX2	Kinship Analysis: Reporting the probability of relationship is important as all the kinship tests by an AABB Accredited Lab has to report that value as part of the analysis. Please include the probability of relationship field on future Kinship studies.
B4KN37	For Part II [Table 5 - Paternity DNA Statistics & Conclusions]: Paternity DNA Statistics, assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is >99.99%. Per laboratory policy, the vWA locus was not used in the statistical calculation.
BNCEH7	As per our protocol manual: "report the smallest statistic of the African-American, Caucasian, and Hispanic populations from the Popstats report." "Results from vWA and D12S391 may not both be used in relationship testing statistics. If results suitable for statistical evaluation are obtained from both loci, D12S391 will be used for statistical evaluation and vWA will not."
CFEMM6	Part III [Tables 6-8: Kinship Exercise] of this was not completed as this laboratory does not perform these calculations.
E2KR22	As per [Laboratory] DNA Casework Manual(2020): Report smallest likelihood ratio of the African-American, Caucasian, and Hispanic populations from the Popstats report. Results from vWA and D12S391 may not both be used in relationship testing statistics. If results suitable for statistical evaluation are obtained from both loci, D12S391 will be used for statistical evaluation and vWA will not.
EC42U2	For Part I [Tables 1-3 - STR, Paternity Index, and YSTR Results], per laboratory policy, the vWA locus will not be used for statistical evaluations when complete profiles are used for kinship comparisons. Assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is greater than 99.99%.
EH9XD2	Caucasian population group used for statistical purposes.

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TABLE 9

WebCode	Additional Comments
FVC9F2	Our lab typically reports paternity index for each population group in our area (Caucasian, African American, and Hispanic). Because there was not space to put all three, only Caucasian was reported due to the given scenario.
GANL9Y	Blood stain labeled with Item 4 is the biological father of the donor of Blood stain labeled with Item 2.
GFGKR2	Assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is greater than 99.99%. The following locus was not used in the statistical calculation: vWA.
GL68HZ	NR = No Result
GQGG86	Our laboratory reports the three main ethnic groups for the area we serve (Caucasian, African American, Hispanic); therefore, the PI in the evidence tab and the CPI in the paternity tab were calculated for the Caucasian population per the scenario given.
J4FWNW	The STR DNA profile detected from (Known Child) is consistent with being the STR DNA profile of a biological child of (Known Parent) and (Alleged Father B). (Alleged Father B) is included as a possible biological father of (Known Child). Given that (Known Parent) is the biological mother of (Known Child), it is at least three trillion times more likely to observe the profile from (Known Child) if (Alleged Father B) is her biological father than if a random, unrelated male is the father.
JV3TXX	ALLEGED PARENT OF ITEM (3) IS EXCLUDED AS A POSSIBLE BIOLOGICAL FATHER WHILE ALLEGED FATHER OF ITEM (4) CAN NOT BE EXCLUDED AS A BIOLOGICAL FATHER
KAWUUV	Per lab policy, PI provided with DNA profile included as a possible genetic father only. Per lab policy, statistic was not provided to excluded DNA profile
MB4T4V	Assuming prior probabilities of 10%, 50%, and 90%, the probability of paternity in this case is greater than 99.99%. The following locus was not used in the statistical calculation: vWA.
N6D2NU	The results from the parentage testing indicate that the donor of Item 3 is EXCLUDED as being the father of the child from whom the sample labelled Item 2 was taken. The DNA profile from Item 2 is 57 billion times more likely to have occurred if the donor of Item 2 was the offspring of the donors of Items 1 and 4 rather than if the donor of Item 2 was the offspring of the donor of Item 1 and a random unrelated man. NB. Our laboratory reports paternity inclusions using a stratified Likelihood Ratio.
N8YPMR	Statistic reported according to our protocol manual: "report the smallest statistic of the African-American, Caucasian, and Hispanic populations from the Popstats report". Also per protocol manual, "Results from vWA and D12S391 may not both be used in relationship testing statistics. If results suitable for statistical evaluation are obtained from both loci, D12S391 will be used for statistical evaluation and vWA will not." Therefore vWA was not calculated, and Caucasian statistic was reported as it was lowest.
NMXRNT	Part I [Table 1 - STR Amplification Kit(s) & Results], Item 3: PI not calculated for any loci as per laboratory protocol. Part II [Table 5 - Paternity DNA Statistics & Conclusions]: Probability of paternity not reported at participating laboratory. Part III [Tables 6-8 - Kinship Exercise]: Not applicable
NU9TKU	Allele frequency data of the database used in the paternity challenge have been published in A.A. Westen et al. Forensic Science International: Genetics 10 (2014) 55–63.
QLDAJQ	In kinship DNA test, the Full Siblings Index is 358.2880834. To get a more reliable conclusion, the number of alleles tested should be increased.
QNYB3J	NR = No Results
TUWKQN	No PI's were provided for Alleged Father A (Item 3) since he is excluded as a potential father.

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TABLE 9

WebCode	Additional Comments
TZK7VP	Report wording based on current laboratory procedures: Item 001.A.03.a: Biological stain cutting of FTA card labeled Item 3 described as coming from Alleged Father A (Caucasian); Subject, Subject A; DNA Number D5730. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject A Subject, is excluded as the potential biological father of the child, Child Victim using Autosomal STRs. Y-STRs: The DNA profile is single source. Item 001.A.04.a: Biological stain cutting of FTA card labeled Item 4 described as coming from Alleged Father B (Caucasian); Subject, Subject B; DNA Number D5731. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject B 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 B 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 – 66 trillion, Caucasian – 130 billion, Hispanic – 830 billion. Y-STRs: The DNA profile is single source.
U9B6MM	Combined Paternity Index value excludes D12S391 due to linkage with vWA (both loci listed with per-locus PI) and uses Expanded FBI STR 2015 - Caucasian database. Laboratory does not report Probability of Paternity.
W8RNDK	Our lab typically reports the Parentage Index for the three main populations for the area we serve: Caucasian, African American and Hispanic. For this scenario, the Caucasian population was used per the case information because there was not enough room to report all three.
WM4KZL	CPI was calculated using vWA, but not D12S391, to account for the possibility that these loci could be in linkage disequilibrium for paternity samples.
XF4JZJ	Alleged Father A (item 3) was visually excluded as the biological father of Known Child(Daughter)prior to running statistics. Based on our laboratory's protocol, D12S391 was not included in the parentage statistical calculations for Alleged Father B (item 4).
XVWCLK	NR = No Results. My laboratory does not produce PI calculations. For Criminal paternity cases, my laboratory calculates the "Random Man Not Excluded" statistical calculation (RMNE). This formula is: p^2 + 2p(1-p)=2p - p^2, when one obligatory allele is present (where p is the frequency of the obligatory allele), and =(2p1 - p1^2) + (2p2 - p2^2) - (2p1p2) if two obligatory alleles are present. The statistic is calculated for the African American, Caucasian, and SE Hispanic populations. The most common population statistic of the three populations is reported. In this scenario, the Caucasian population was the most common of the three and the one which would be reported. That statistic is as follows: Combined Match Probability (CMP) = 3.84711E-12, 1/CMP = 2.59936E+11
Z4XDYG	Our laboratory does not report probability of paternity. vWA omitted from statistical calculation due to linkage with D12. PIs for both are provided. PI not provided for alleged father A as he is excluded.
ZPHK6H	Statistics were calculated and reported as per the [Laboratory] DNA Casework manual: "Results from vWA and D12S391 may not both be used in relationship testing statistics. If results suitable for statistical evaluation are obtained from both loci, D12S391 will be used for statistical evaluation and vWA will not."; "...report the smallest statistic of the African-American, Caucasian, and Hispanic populations from the Popstats report"

-End of Report-
(Appendix may follow)

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Collaborative Testing Services ~ Forensic Testing Program

Test No. 20-5871: DNA Parentage

DATA MUST BE SUBMITTED BY **July 27, 2020, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: 6FFPEA

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, daughter, and two alleged fathers. Your laboratory is tasked with examining the blood standards and comparing the DNA profiles.

Items Submitted (Sample Pack DNP2):
Item 1: Blood Sample from Known Parent (Caucasian Mother)
Item 2: Blood Sample from Known Child (Daughter)
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						

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	10.272
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 Hispanic half sibling relationship. Using the allele frequencies shown for the tested loci, calculate the likelihood ratio for support of the proposed relationship versus being unrelated.

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D1S1656	13,18	13,15	13: 0.1144 18: 0.0064	15: 0.1377			
D2S1338	19,20	18,19	18: 0.0805 20: 0.1271	19: 0.1928			
D2S441	10,13	10,11	10: 0.3369 13: 0.0233	11: 0.2987			
D3S1358	16,17	16,17	16: 0.2797	17: 0.1843			
D5S818	11,11	11,11	11: 0.3898				

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D7S820	10,11	8,11	8: 0.1208	10: 0.3072			
			11: 0.2775				
D8S1179	12,15	12,15	12: 0.1292	15: 0.1292			
D10S1248	14,16	13,15	13: 0.2733	14: 0.3390			
			15: 0.2119	16: 0.0996			
D12S391	19,22	19,22	19: 0.1886	22: 0.0678			
D13S317	8,12	11,11	8: 0.1102	11: 0.2182			
			12: 0.2352				
D16S539	11,11	10,12	10: 0.1504	11: 0.2648			
			12: 0.2775				
D18S51	13,14	14,17	13: 0.1229	14: 0.1610			
			17: 0.1250				
D19S433	13,14	13,14	13: 0.2225	14: 0.3538			
D21S11	30,31	31,32.2	30: 0.2733	31: 0.0763			
			32.2: 0.1271				
D22S1045	11,15	16,17	11: 0.0636	15: 0.4258			
			16: 0.3496	17: 0.0911			

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
CSF1PO	10,10	10,11	10: 0.2373	11: 0.2797			
FGA	22,25	21,25	21: 0.1525	22: 0.1653			
			25: 0.1186				
PentaD	9,9	9,9	9: 0.2426				
PentaE	7,14	12,14	7: 0.1165	12: 0.1695			
			14: 0.0720				
SE33	15,20	19,28.2	15: 0.0360	19: 0.0890			
			20: 0.0487	28.2: 0.0678			
TH01	9,9.3	9,9.3	9: 0.1462	9.3: 0.2182			
TPOX	8,8	8,11	8: 0.4852	11: 0.2542			
vWA	16,18	17,18	16: 0.2839	17: 0.2458			
			18: 0.1801				

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)