Collaborative Testing Services, Inc
FORENSIC TESTING PROGRAM

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DNA Parentage
Test No. 21-5871/6 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. The test also included a paper kinship exercise where participants were requested to evaluate the provided DNA profiles and determine if a full sibling relationship was supported. Data were returned from 63 participants and are compiled into the following tables:

Manufacturer's Information

Each sample set was a collection of known blood samples, provided on either FTA Microcards or swabs, from four individuals (Items 1-4); a mother, a 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 full sibling relationship claim was supported following the review of these profiles.

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

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

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

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

Key to Test Substrates

5871 - FTA Microcards

5876 - Swabs

Amelogenin and STR Results

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

Item	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D6S1043
	D7S820	D8S1179	D10S1248	D12S391	D13S317	D16S539
	D18S51	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO
	FGA	Penta D	Penta E	SE33	TH01	TPOX
	vWA	DYS391	DYS570	DYS576	Y Indel	
1	16.1,16.3	23,25	14,14	18,18	11,12	18,19
	10,11	11,14	12,14	17.3,18	8,11	10,11
	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18	NM	NM	NM	NM	
2	12,16.1	17,23	11,14	15,18	11,11	17,19
	10,12	14,14	14,14	18,20	11,13	11,12
	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18	NM	NM	NM	NM	
3	12,12	17,17	11,14	15,16	11,11	12,17
	11,12	13,14	13,14	17.3,20	13,13	11,12
	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18	2	
4	10,15	16,24	11,12	18,18	10,11	11,15
	8,8	14,15	15,15	15,22	11,12	11,14
	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16	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	36,37	14	11,14	13	29	24	10	13	13
	14	12	12	18	29	15	17	10	22
	40	12	*	16	18	24	23	*	12
4	38,39	15	16,18	13	31	21	11	11	13
	14	11	10	21	28	15	16	10	29
	40	11	*	18	16	21	21	*	12

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

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

Paternity Indices

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

Item - Database						
	D1S1656	**D2S1338**	**D2S441**	**D3S1358**	**D5S818**	**D6S1043**
	D7S820	**D8S1179**	**D10S1248**	**D12S391**	**D13S317**	**D16S539**
	D18S51	**D19S433**	**D21S11**	**D22S1045**	**Amelogenin**	**CSF1PO**
	FGA	**Penta D**	**Penta E**	**SE33**	**TH01**	**TPOX**
	vWA					
3PI - Grand Mean ±3STD Range**						
	5.259-11.438	3.941-6.449	1.278-1.749	1.157-2.526	1.587-3.871	6.357-10.426
	1.823-4.641	1.456-3.864	1.247-2.080	2.638-6.075	5.343-11.905	1.053-2.159
	0.0-9.605	1.380-1.880	0.948-1.853	1.107-1.823	-	1.567-1.862
	2.101-5.595	3.012-5.815	2.264-11.358	4.129-105.813	1.976-4.244	2.129-5.760
	0.729-1.730					
3PI - NIST STRBASE						
	8.598	5.387	1.455	1.832	2.809	*
	3.138	3.008	1.679	4.512	8.598	1.59
	4.401	1.622	1.383	1.556	-	1.723
	4.055	4.512	6.561	72.2	2.899	3.924
	1.241					
3PI - FBI Popstats						
	8.417	5.178	1.616	2.02	2.448	*
	3.543	2.434	1.819	4.807	8.976	1.463
	3.885	1.59	1.432	1.374	-	1.726
	3.481	*	*	40.323	3.284	4.038
	1.181					
4PI - Grand Mean ±3STD Range**						
	0	0	1.051-1.804	0	0.211-3.134	*
	0	0.579-3.477	*	0	0	0
	0	1.257-2.575	0	*	-	1.522-1.986
	0	3.062-7.247	0	*	0.0-0.024	0
	2.062-2.802					

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

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

Summary Comments

The 21-5871/6 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 the biological father of the Item 2 female, and Item 4 was blood collected from a male donor who is not 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 63 participants who returned data reported STR results for all four items. For Item 1, all participants reported allelic results consistent with the consensus except for six participants who reported "OL,16.3", "184.53bp,16.3", "16<N<16.3", or "-,16.3" at D1S1656 and one who reported “18,18” at D12S391 where the consensus was “18,20”. The six participants reporting inconsistencies at D1S1656 indicated that an off ladder (OL) or microvariant was present. For Item 2, all participants reported consistent data except for the same six participants from Item 1 and these participants reported the presence of an OL/ microvariant at D1S1656 and/or SE33. For Item 3, all participants reported data consistent with the consensus except for five of the six participants previously discussed who also reported an OL/ microvariant at locus SE33 and one other participant who reported “7” at D2S1338 where the consensus was “17”. For Item 4, all participants reported consistent data except for one, who reported "11" at DYS570 whereas the consensus was "18".

For YSTR results, the individual profiles for Item 3 and Item 4 were consistent among all reporting participants.

Paternity DNA Statistics:
Of 63 reporting participants, 61 reported that the source of Item 3 could not be excluded as the biological father of Item 2. Two participants did not provide a response as to whether Item 3 or Item 4 could not be excluded. Of the participants that reported probability of paternity values, all reported 99.99% or higher. The population database most often reported by participants for statistical calculations was NIST STRBASE.

Kinship DNA Statistics:
There were 32 participants who responded for the paper kinship exercise. Of the 32 participants, 26 (81%) reported a combined Kinship Index (KI) between 330 billion and 345 billion. Four participants reported KI values below 330 billion and two participants reported KI values above 345 billion. Of the 32 participants, 30 reported that the claim of a full sibling relationship was supported. Two participants reported that the relationship was inconclusive, with one of these participants stating that they needed more genetic evidence to evaluate the relationship.

STR Amplification Kit(s) & Results

TABLE 1

WebCode-Test	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

2PWLZT-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

2T3BHP-5876 PowerPlex® Fusion 6C, GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					

2TWWVT-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

3PZUKL-5871 PowerPlex® Fusion 6C

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	18,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					

47ZYAM-5871 Verifiler

	16.1,16.3	23,25	14,14	18,18	11,12	18,19
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

4GFN9R-5871 PowerPlex® Fusion

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

4M4YBH-5871 PowerPlex® 16, Fusion 6C, GlobalFiler™, HDplex, Investigator Argus X-12 QS

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					

63BHME-5876 PowerPlex® PP21

	16.1,16.3	23,25		18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

693JQE-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

6TMLLD-5871 Identifiler® Direct

		23,25		18,18	11,12	
	10,11	11,14			8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24				6,9.3	8,11
	16,18					

6WLZ7H-5871 GlobalFiler™ Express

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

73NZQP-5871 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

79G9PK-5871 PowerPlex® Fusion

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18	NR				

7A84XR-5871 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

7KPNHN-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

7UGQED-5871 GlobalFiler™

	OL,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

7ZHDDK-5871 GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

9J9BTH-5871 PowerPlex® 21

	16.1,16.3	23,25		18,18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

BL64TD-5871 GlobalFiler™ Express

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

CK8B9E-5876 GlobalFiler™, Minifiler

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	no results			no results	

CUVLMV-5871 PowerPlex® FUSION 5C, powerplex esx17, verifiler plus

	16.1,16.3	23,25	14,14	18,18	11,12	18,19
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					

D36TXA-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	No Results			No Results	

DKKJ2U-5876 PowerPlex® Fusion

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

F7GHC4-5871 GlobalFiler™

	OL,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

FTRKB6-5871	PowerPlex® Fusion 6C					
	16.1,16.3	23,25	14,14	18,18	11,12	-
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18	-	-	-	-	
G7DP3E-5871	GlobalFiler™					
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					
GBTMM4-5876	PowerPlex® Fusion 6C, GlobalFiler™					
	16<N<16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18	-	-	-		
GFHWHE-5876	PowerPlex® F6C					
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					
GRURQ7-5876	GlobalFiler™					
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	No Results			No Results	
H2Y2UB-5871	PowerPlex® Fusion					
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18	NR				

TABLE 1

WebCode-Test	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

H6GVHF-5871 PowerPlex® Fusion 6C

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					

HGD6G6-5871 PowerPlex® Fusion 5c, Verifiler plus

	16.1,16.3	23,25	14	18	11,12	18,19
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

HPLAD9-5871 PowerPlex® 21

	16.1,16.3	23,25		18,18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

HVAL74-5871 Identifiler® Direct

		23,25		18	11,12	
	10,11	11,14			8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24				6,9.3	8,11
	16,18					

LGCEKB-5871 GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

LKJYNX-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	NT
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	NT	NT	23.2,30.2	6,9.3	8,11
	16,18	NR	NT	NT	NR	

TABLE 1

WebCode-Test	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

LRYAMC-5871 GlobalFiler™						
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	NR			NR	
LWRCQC-5871 PowerPlex® 21						
	16.1,16.3	23,25		18,18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					
M3B3PC-5871 PowerPlex® Fusion 6C						
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					
MNXYJ4-5871 GlobalFiler™ IQC (GenoProof 3 Solfware)						
	-,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	-			-	
MTRTG6-5876 PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp						
	16.1,16.3	23,25	14,14	18,18	11,12	18,19
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18					
MW64G8-5876 GlobalFiler™						
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

N9GKGW-5871 Identifiler®

		23,25		18,18	11,12	
	10,11	11,14			8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24				6,9.3	8,11
	16,18					

NH7JEA-5871 PowerPlex® 21

	16.1,16.3	23,25		18,18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

NPHZLA-5871 GlobalFiler™ Express

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

P2CBW3-5871 GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

PCUHMX-5871 PowerPlex® Fusion

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

PG8X2A-5871 GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18	-			-	

TABLE 1

WebCode-Test	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

PY7JVV-5871	GlobalFiler™					
	16.1,16.3	23,25	14,14	18,18	11,12	-
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	-	-	23.2,30.2	6,9.3	8,11
	16,18	ND	-	-	ND	
R2PEAZ-5876	PowerPlex® Fusion 5C					
	16.1,16.3	23,25	14	18	11,12	--
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14	--	6,9.3	8,11
	16,18	--	--	--	--	
RECZKF-5871	PowerPlex® FUSION					
	184.53bp,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					
RPVXLY-5876	PowerPlex® Fusion System, Qiagen HDPlex (GeneMapper ID v. 3.2.1)					
	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24	10,12	7,14	23.2,30.2	6,9.3	8,11
	16,18	-				
T2JJ4Y-5871	PowerPlex® Fusion					
	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18	NR				
TFZFJV-5876	Investigator® 24plex					
	OL,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

U3RR8R-5871 PowerPlex® Fusion 5C (eDNA)

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

U8G223-5871 PowerPlex® 21

	16.1,16.3	23,25		18,18	11,12	18,19
	10,11	11,14		17.3,18	8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18					

VCU7C4-5871 GlobalFiler™

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

WCN9GX-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

WTDM9R-5876 Identifiler®

	16.1,16.3	23,25	14,14	18,18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X,X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

XLCUFN-5876 GlobalFiler™

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24			23.2,30.2	6,9.3	8,11
	16,18					

TABLE 1

WebCode-Test	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

YZPMJK-5871 PowerPlex® ESI 16 Fast System

	16.1,16.3	23,25	14	18		
		11,14	12,14	17.3,18		10,11
1	17,18	13,14	28,29	15,16	X	
	20,24				6,9.3	
	16,18					

ZLQZRJ-5871 Identifiler® Plus (GeneMapper ID-X Software v1.6)

		23,25		18,18	11,12	
	10,11	11,14			8,11	10,11
1	17,18	13,14	28,29		X,X	10,12
	20,24				6,9.3	8,11
	16,18					

ZQU2QR-5871 PowerPlex® Fusion

	16.1,16.3	23,25	14	18	11,12	
	10,11	11,14	12,14	17.3,18	8,11	10,11
1	17,18	13,14	28,29	15,16	X	10,12
	20,24	10,12	7,14		6,9.3	8,11
	16,18	NR				

TABLE 1

WebCode-Test	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

2PWLZT-5876 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					
2T3BHP-5876 PowerPlex® Fusion 6C, GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18					
2TWWVT-5876 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					
3PZUKL-5871 PowerPlex® Fusion6 C						
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18					
47ZYAM-5871 Verifiler						
	12,16.1	17,23	11,14	15,18	11,11	17,19
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					
4GFN9R-5871 PowerPlex® Fusion						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

4M4YBH-5871 PowerPlex® 16, Fusion 6C, GlobalFiler™, HDplex, Investigator Argus X-12 QS

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14	16.1,30.2	9.3	9,11
	16,18					

63BHME-5876 PowerPlex® PP21

	12,16.1	17,23		15,18	11	17,19
	10,12	14		18,20	11,13	11,12
2	12,17	13,14	28,29		X	10,12
	20	9,12	5,14		9.3	9,11
	16,18					

693JQE-5876 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

6TMLLD-5871 Identifiler® Direct

		17,23		15,18	11,11	
	10,12	14,14			11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20				9.3,9.3	9,11
	16,18					

6WLZ7H-5871 GlobalFiler™ Express

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					

73NZQP-5871 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

79G9PK-5871 PowerPlex® Fusion						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18	NR				
7A84XR-5871 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					
7KPNHN-5876 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					
7UGQED-5871 GlobalFiler™						
	12,OL	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			OL,30.2	9.3,9.3	9,11
	16,18					
7ZHDDK-5871 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					
9J9BTH-5871 PowerPlex® 21						
	12,16.1	17,23		15,18	11,11	17,19
	10,12	14,14		18,20	11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

BL64TD-5871	GlobalFiler™ Express					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					
CK8B9E-5876	GlobalFiler™, Minifiler					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18	no results			no results	
CUVLMV-5871	PowerPlex® fusion 5C, powerplex esx17, verifiler plus					
	12,16.1	17,23	11,14	15,18	11,11	17,19
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18					
D36TXA-5876	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18	No Results			No Results	
DKKJ2U-5876	PowerPlex® Fusion					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					
F7GHC4-5871	GlobalFiler™					
	12,OL	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			OL,30.2	9.3,9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

FTRKB6-5871	PowerPlex® Fusion 6C					
	12,16.1	17,23	11,14	15,18	11,11	-
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18	-	-	-	-	
G7DP3E-5871	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					
GBTMM4-5876	PowerPlex® Fusion 6C, GlobalFiler™					
	12,16<N<16.3	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16<N<16.2,30.2	9.3,9.3	9,11
	16,18	-	-	-		
GFHWHE-5876	PowerPlex® F6C					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14	16.1,30.2	9.3	9,11
	16,18					
GRURQ7-5876	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18	No Results			No Results	
H2Y2UB-5871	PowerPlex® Fusion					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18	NR				

TABLE 1

WebCode-Test	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

H6GVHF-5871	PowerPlex® Fusion 6C					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18					
HGD6G6-5871	PowerPlex® Fusion 5c, Verifiler plus					
	12,16.1	17,23	11,14	15,18	11	17,19
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18					
HPLAD9-5871	PowerPlex® 21					
	12,16.1	17,23		15,18	11,11	17,19
	10,12	14,14		18,20	11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					
HVAL74-5871	Identifiler® Direct					
		17,23		15,18	11	
	10,12	14			11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20				9.3	9,11
	16,18					
LGCEKB-5871	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					
LKJYNX-5876	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11	NT
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	NT	NT	16.1,30.2	9.3	9,11
	16,18	NR	NT	NT	NR	

TABLE 1

WebCode-Test	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

LRYAMC-5871 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18	NR			NR	
LWRCQC-5871 PowerPlex® 21						
	12,16.1	17,23		15,18	11,11	17,19
	10,12	14,14		18,20	11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					
M3B3PC-5871 PowerPlex® Fusion 6C						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14	16.1,30.2	9.3	9,11
	16,18					
MNXYJ4-5871 GlobalFiler™ IQC (GenoProof 3 Solfware)						
	12,-	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			-,30.2	9.3,9.3	9,11
	16,18	-			-	
MTRTG6-5876 PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp						
	12,16.1	17,23	11,14	15,18	11,11	17,19
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18					
MW64G8-5876 GlobalFiler™						
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

N9GKGW-5871

		17,23		15,18	11,11	
	10,12	14,14			11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20				9.3,9.3	9,11
	16,18					

NH7JEA-5871 PowerPlex® 21

	12,16.1	17,23		15,18	11,11	17,19
	10,12	14,14		18,20	11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					

NPHZLA-5871 GlobalFiler™ Express

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

P2CBW3-5871 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					

PCUHMX-5871 PowerPlex® Fusion

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					

PG8X2A-5871 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18	-			-	

TABLE 1

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

Item 2 - STR Results

PY7JVV-5871	GlobalFiler™					
	12,16.1	17,23	11,14	15,18	11,11	-
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	-	-	16.1,30.2	9.3,9.3	9,11
	16,18	ND	-	-	ND	
R2PEAZ-5876	PowerPlex® Fusion 5C					
	12,16.1	17,23	11,14	15,18	11	--
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14	--	9.3	9,11
	16,18	--	--	--	--	
RECZKF-5871	PowerPlex® FUSION					
	184.53bp,12	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					
RPVXLY-5876	PowerPlex® Fusion System, Qiagen HDPlex (GeneMapper ID v. 3.2.1)					
	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20	9,12	5,14	16.1,30.2	9.3,9.3	9,11
	16,18	-				
T2JJ4Y-5871	PowerPlex® Fusion					
	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18	NR				
TFZFJV-5876	Investigator® 24plex					
	12,OL	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			OL,30.2	9.3,9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

U3RR8R-5871 PowerPlex® Fusion 5C (eDNA)

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18					

U8G223-5871 PowerPlex® 21

	12,16.1	17,23		15,18	11,11	17,19
	10,12	14,14		18,20	11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20	9,12	5,14		9.3,9.3	9,11
	16,18					

VCU7C4-5871 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					

WCN9GX-5876 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

WTDM9R-5876 Identifiler®, NGMSElect

	12,16.1	17,23	11,14	15,18	11,11	
	10,12	14,14	14,14	18,20	11,13	11,12
2	12,17	13,14	28,29	15,15	X,X	10,12
	20,20			16.1,30.2	9.3,9.3	9,11
	16,18					

XLCUFN-5876 GlobalFiler™

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20			16.1,30.2	9.3	9,11
	16,18					

TABLE 1

WebCode-Test	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

YZPMJK-5871 PowerPlex® ESI 16 Fast System

	12,16.1	17,23	11,14	15,18		
		14	14	18,20		11,12
2	12,17	13,14	28,29	15	X	
	20				9.3	
	16,18					

ZLQZRJ-5871 Identifiler® Plus (GeneMapper ID-X Software v1.6)

		17,23		15,18	11,11	
	10,12	14,14			11,13	11,12
2	12,17	13,14	28,29		X,X	10,12
	20,20				9.3,9.3	9,11
	16,18					

ZQU2QR-5871 PowerPlex® Fusion

	12,16.1	17,23	11,14	15,18	11	
	10,12	14	14	18,20	11,13	11,12
2	12,17	13,14	28,29	15	X	10,12
	20	9,12	5,14		9.3	9,11
	16,18	NR				

TABLE 1

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

Item 3 - STR Results

2PWLZT-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
2T3BHP-5876	PowerPlex® Fusion 6C, GlobalFiler™ (bs-SEAL)					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18	2	
2TWWVT-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
3PZUKL-5871	PowerPlex® Fusion 6C (Familias 3.2.9)					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18		
47ZYAM-5871	Verifiler					
	12,12	17,17	11,14	15,16	11,11	12,17
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18				2	
4GFN9R-5871	PowerPlex® Fusion					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				

TABLE 1

WebCode-Test	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

4M4YBH-5871	PowerPlex® 16, Fusion 6C, GlobalFiler™, HDplex, Investigator Argus X-12 QS					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10	16.1,27.2	9.3	8,9
	14,18	10	16	18	2	
63BHME-5876	PowerPlex®					
	12	17		15,16	11	12,17
	11,12	13,14		17.3,20	13	11,12
3	12,13	13	28,32.2		X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18					
693JQE-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
6TMLLD-5871	Identifiler® Direct					
		17,17		15,16	11,11	
	11,12	13,14			13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24				9.3,9.3	8,9
	14,18					
6WLZ7H-5871	GlobalFiler™ Express					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
73NZQP-5871	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	

TABLE 1

WebCode-Test	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

79G9PK-5871	PowerPlex® Fusion					
	12	7	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				
7A84XR-5871	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
7KPNHN-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
7UGQED-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			OL,27.2	9.3,9.3	8,9
	14,18	10			2	
7ZHDDK-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
9J9BTH-5871	PowerPlex® 21					
	12,12	17,17		15,16	11,11	12,17
	11,12	13,14		17.3,20	13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18					

TABLE 1

WebCode-Test	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

BL64TD-5871	GlobalFiler™ Express					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
CK8B9E-5876	GlobalFiler™, Minifiler					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
CUVLMV-5871	PowerPlex® FUSION 5C, powerplex esx17, verifiler plus					
	12,12	17,17	11,14	15,16	11,11	12,17
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
D36TXA-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
DKKJ2U-5876	PowerPlex® Fusion					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18	10				
F7GHC4-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			OL,27.2	9.3,9.3	8,9
	14,18	10			2	

TABLE 1

WebCode-Test	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

FTRKB6-5871	PowerPlex® Fusion 6C					
	12,12	17,17	11,14	15,16	11,11	-
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18	-	
G7DP3E-5871	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
GBTMM4-5876	PowerPlex® Fusion 6C, GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16<N<16.2,27.2	9.3,9.3	8,9
	14,18	10	16	18		
GFHWHE-5876	PowerPlex® F6C					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10	16.1,27.2	9.3	8,9
	14,18	10	16	18		
GRURQ7-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
H2Y2UB-5871	PowerPlex® Fusion					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				

TABLE 1

WebCode-Test	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

H6GVHF-5871	PowerPlex® Fusion 6C					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18		
HGD6G6-5871	PowerPlex® Fusion 5c, Verifiler plus					
	12	17	11,14	15,16	11	12,17
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10			2	
HPLAD9-5871	PowerPlex® 21					
	12,12	17,17		15,16	11,11	12,17
	11,12	13,14		17.3,20	13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18					
HVAL74-5871	Identifiler® Direct					
		17		15,16	11	
	11,12	13,14			13	11,12
3	12,13	13	28,32.2		X,Y	10
	20,24				9.3	8,9
	14,18					
LGCEKB-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
LKJYNX-5876	GlobalFiler™					
	12	17	11,14	15,16	11	NT
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	NT	NT	16.1,27.2	9.3	8,9
	14,18	10	NT	NT	2	

TABLE 1

WebCode-Test	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

LRYAMC-5871	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
LWRCQC-5871	PowerPlex® 21					
	12,12	17,17		15,16	11,11	12,17
	11,12	13,14		17.3,20	13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18					
M3B3PC-5871	PowerPlex® Fusion 6C					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10	16.1,27.2	9.3	8,9
	14,18	10	16	18		
MNXYJ4-5871	GlobalFiler™ IQC (GenoProof 3 Solfware)					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			-,27.2	9.3,9.3	8,9
	14,18	10			2	
MTRTG6-5876	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	12,12	17,17	11,14	15,16	11,11	12,17
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18				2	
MW64G8-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	

TABLE 1

WebCode-Test	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

N9GKGW-5871 Identifiler®

		17,17		15,16	11,11	
	11,12	13,14			13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24				9.3,9.3	8,9
	14,18					

NH7JEA-5871 PowerPlex® 21

	12,12	17,17		15,16	11,11	12,17
	11,12	13,14		17.3,20	13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18					

NPHZLA-5871 GlobalFiler™ Express

	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	

P2CBW3-5871 GlobalFiler™

	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	

PCUHMX-5871 PowerPlex® Fusion

	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18	10				

PG8X2A-5871 GlobalFiler™

	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	

TABLE 1

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

Item 3 - STR Results

PY7JVV-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	-
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	-	-	16.1,27.2	9.3,9.3	8,9
	14,18	10	-	-	2	
R2PEAZ-5876	PowerPlex® Fusion 5C					
	12	17	11,14	15,16	11	--
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10	--	9.3	8,9
	14,18	10	--	--	--	
RECZKF-5871	PowerPlex® FUSION					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18	10				
RPVXLY-5876	PowerPlex® Fusion System, PowerPlex Y23, Qiagen HDPlex (GeneMapper ID v. 3.2.1)					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24	9,9	5,10	16.1,27.2	9.3,9.3	8,9
	14,18	10	16	18		
T2JJ4Y-5871	PowerPlex® Fusion					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				
TFZFJV-5876	Investigator® 24plex					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			OL,27.2	9.3,9.3	8,9
	14,18	10				

TABLE 1

WebCode-Test	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

U3RR8R-5871	PowerPlex® Fusion 5C (eDNA)					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				
U8G223-5871	PowerPlex® 21					
	12,12	17,17		15,16	11,11	12,17
	11,12	13,14		17.3,20	13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24	9,9	5,10		9.3,9.3	8,9
	14,18					
VCU7C4-5871	GlobalFiler™					
	12,12	17,17	11,14	15,16	11,11	
	11,12	13,14	13,14	17.3,20	13,13	11,12
3	12,13	13,13	28,32.2	15,16	X,Y	10,10
	20,24			16.1,27.2	9.3,9.3	8,9
	14,18	10			2	
WCN9GX-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	
WTDM9R-5876	Identifiler®					
		17,17		15,16	11,11	
	11,12	13,14			13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24				9.3,9.3	8,9
	14,18					
XLCUFN-5876	GlobalFiler™					
	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24			16.1,27.2	9.3	8,9
	14,18	10			2	

TABLE 1

WebCode-Test	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

YZPMJK-5871 PowerPlex® ESI 16 Fast System

	12	17	11,14	15,16		
		13,14	13,14	17.3,20		11,12
3	12,13	13	28,32.2	15,16	X,Y	
	20,24				9.3	
	14,18					

ZLQZRJ-5871 Identifiler® Plus (GeneMapper ID-X Software v1.6)

		17,17		15,16	11,11	
	11,12	13,14			13,13	11,12
3	12,13	13,13	28,32.2		X,Y	10,10
	20,24				9.3,9.3	8,9
	14,18					

ZQU2QR-5871 PowerPlex® Fusion

	12	17	11,14	15,16	11	
	11,12	13,14	13,14	17.3,20	13	11,12
3	12,13	13	28,32.2	15,16	X,Y	10
	20,24	9	5,10		9.3	8,9
	14,18	10				

TABLE 1

WebCode-Test	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

2PWLZT-5876 GlobalFiler™						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
2T3BHP-5876 PowerPlex® Fusion 6C, GlobalFiler™						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16	2	
2TWWVT-5876 GlobalFiler™						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
3PZUKL-5871 PowerPlex® Fusion 6C (Familias 3.2.9)						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16		
47ZYAM-5871 Verifiler						
	10,15	16,24	11,12	18,18	10,11	11,15
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16				2	
4GFN9R-5871 PowerPlex® Fusion						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				

TABLE 1

WebCode-Test	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

4M4YBH-5871	PowerPlex® 16, Fusion 6C, GlobalFiler™, HDplex, Investigator Argus X-12 QS					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15	21,29.2	7	11
	16	11	18	16	2	
63BHME-5876	PowerPlex® PP21					
	10,15	16,24		18	10,11	11,15
	8	14,15		15,22	11,12	11,14
4	15,18	13	31		X,Y	10
	19,22	9	11,15		7	11
	16					
693JQE-5876	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
6TMLLD-5871	Identifiler® Direct					
		16,24		18,18	10,11	
	8,8	14,15			11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22				7,7	11,11
	16,16					
6WLZ7H-5871	GlobalFiler™ Express					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
73NZQP-5871	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	

TABLE 1

WebCode-Test	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

79G9PK-5871 PowerPlex® Fusion						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				
7A84XR-5871 GlobalFiler™						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
7KPNHN-5876 GlobalFiler™						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
7UGQED-5871						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
7ZHDDK-5871 GlobalFiler™						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
9J9BTH-5871 PowerPlex® 21						
	10,15	16,24		18,18	10,11	11,15
	8,8	14,15		15,22	11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16					

TABLE 1

WebCode-Test	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

BL64TD-5871	GlobalFiler™ Express					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
CK8B9E-5876	GlobalFiler™, Minifiler					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
CUVLMV-5871	PowerPlex® FUSION 5C, powerplex esx17, verifiler plus					
	10,15	16,24	11,12	18,18	10,11	11,15
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11			2	
D36TXA-5876	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
DKKJ2U-5876	PowerPlex® Fusion					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16	11				
F7GHC4-5871	GlobalFiler™					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	

TABLE 1

WebCode-Test	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

FTRKB6-5871	PowerPlex® Fusion 6C					
	10,15	16,24	11,12	18,18	10,11	-
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16	-	
G7DP3E-5871	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
GBTMM4-5876	PowerPlex® Fusion 6C, GlobalFiler™					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16		
GFHWHE-5876	PowerPlex® F6C					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15	21,29.2	7	11
	16	11	18	16		
GRURQ7-5876	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
H2Y2UB-5871	PowerPlex® Fusion					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				

TABLE 1

WebCode-Test	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

H6GVHF-5871	PowerPlex® Fusion 6C					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16		
HGD6G6-5871	PowerPlex® Fusion 5c, Verifiler plus					
	10,15	16,24	11,12	18	10,11	11,15
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11			2	
HPLAD9-5871	PowerPlex® 21					
	10,15	16,24		18,18	10,11	11,15
	8,8	14,15		15,22	11,12	14,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16					
HVAL74-5871	Identifiler® Direct					
		16,24		18	10,11	
	8	14,15			11,12	11,14
4	15,18	13	31		X,Y	10
	19,22				7	11
	16					
LGCEKB-5871	GlobalFiler™					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
LKJYNX-5876	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	NT
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	NT	NT	21,29.2	7	11
	16	11	NT	NT	2	

TABLE 1

WebCode-Test	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

LRYAMC-5871	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
LWRCQC-5871	PowerPlex® 21					
	10,15	16,24		18,18	10,11	11,15
	8,8	14,15		15,22	11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16					
M3B3PC-5871	PowerPlex® Fusion 6C					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15	21,29.2	7	11
	16	11	11	16		
MNXYJ4-5871	GlobalFiler™ IQC (GenoProof 3 Solfware)					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
MTRTG6-5876	PowerPlex® CS7, Verifiler Express, HDplex, SureID 23comp					
	10,15	16,24	11,12	18,18	10,11	11,15
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16				2	
MW64G8-5876	GlobalFiler™					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	

TABLE 1

WebCode-Test	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

N9GKGW-5871 Identifiler®						
		16,24		18,18	10,11	
	8,8	14,15			11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22				7,7	11,11
	16,16					
NH7JEA-5871 PowerPlex® 21						
	10,15	16,24		18,18	10,11	11,15
	8,8	14,15		15,22	11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16					
NPHZLA-5871 GlobalFiler™ Express						
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	
P2CBW3-5871 GlobalFiler™						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	
PCUHMX-5871 PowerPlex® Fusion						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16	11				
PG8X2A-5871 GlobalFiler™						
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	

TABLE 1

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

Item 4 - STR Results

PY7JVV-5871	GlobalFiler™					
	10,15	16,24	11,12	18,18	10,11	-
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	-	-	21,29.2	7,7	11,11
	16,16	11	-	-	2	
R2PEAZ-5876	PowerPlex® Fusion 5C					
	10,15	16,24	11,12	18	10,11	--
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15	--	7	11
	16	11	--	--	--	
RECZKF-5871	PowerPlex® FUSION					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16	11				
RPVXLY-5876	PowerPlex® Fusion System, PowerPlex Y23, Qiagen HDPlex (GeneMapper ID v. 3.2.1)					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22	9,9	11,15	21,29.2	7,7	11,11
	16,16	11	18	16		
T2JJ4Y-5871	PowerPlex® Fusion					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				
TFZFJV-5876	Investigator® 24plex					
	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11				

TABLE 1

WebCode-Test	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

U3RR8R-5871 PowerPlex® Fusion 5C (eDNA)

	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				

U8G223-5871 PowerPlex® 21

	10,15	16,24		18,18	10,11	11,15
	8,8	14,15		15,22	11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22	9,9	11,15		7,7	11,11
	16,16					

VCU7C4-5871 GlobalFiler™

	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16	11			2	

WCN9GX-5876 GlobalFiler™

	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	

WTDM9R-5876 Identifiler®, NGMSElect

	10,15	16,24	11,12	18,18	10,11	
	8,8	14,15	15,15	15,22	11,12	11,14
4	15,18	13,13	31,31	14,17	X,Y	10,10
	19,22			21,29.2	7,7	11,11
	16,16					

XLCUFN-5876 GlobalFiler™

	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22			21,29.2	7	11
	16	11			2	

TABLE 1

WebCode-Test	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

YZPMJK-5871	PowerPlex® ESI 16 Fast System					
	10,15	16,24	11,12	18		
		14,15	15	15,22		11,14
4	15,18	13	31	14,17	X,Y	
	19,22				7	
	16					
ZLQZRJ-5871	Identifiler® Plus (GeneMapper ID-X Software v1.6)					
		16,24		18,18	10,11	
	8,8	14,15			11,12	11,14
4	15,18	13,13	31,31		X,Y	10,10
	19,22				7,7	11,11
	16,16					
ZQU2QR-5871	PowerPlex® Fusion					
	10,15	16,24	11,12	18	10,11	
	8	14,15	15	15,22	11,12	11,14
4	15,18	13	31	14,17	X,Y	10
	19,22	9	11,15		7	11
	16	11				

Paternity Index Results

TABLE 2

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

Item 3PI - Paternity Index Results

2PWLZT-5876	FBI PopStats					
	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
2T3BHP-5876	[Location-identifying database]					
	7.73	4.42	1.49	1.95	2.98	
	3.54	2.31	1.60	4.21	10.5	1.65
3PI	3.74	1.71	1.36	1.38		1.72
	3.63	4.80	5.96	71.4	3.27	4.62
	1.18					
2TWWVT-5876	FBI PopStats					
	8.42	5.18	1.62	2.02	2.45	
	3.54	2.43	1.82	4.81	8.98	1.46
3PI	3.89	1.59	1.43	1.37		1.73
	3.48			40.32	3.28	4.04
3PZUKL-5871	NIST-STRBASE					
	8.61	5.39	1.46	1.83	2.81	
	3.14	3.01	1.68	4.51	8.60	1.59
3PI	4.40	1.62	1.38	1.56		1.72
	4.06	4.51	6.56	250.5	2.90	3.92
	1.24					
47ZYAM-5871	NIST-STRBASE					
	8.65	5.38	1.45	1.83	2.80	8.21
	3.13	3.00	1.67	4.51	8.59	1.59
3PI	4.40	1.62	1.38	1.55		1.72
	4.05	4.51	6.56		2.89	3.92
	1.24					
4GFN9R-5871	NIST-STRBASE					
	8.52	5.36	1.46	1.83	2.80	
	3.14	2.99	1.67	4.51	8.52	1.59
3PI	4.40	1.62	1.38	1.55		1.72
	4.02	4.49	6.56		2.89	3.92
	1.24					

TABLE 2

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

Item 3PI - Paternity Index Results

4M4YBH-5871 NIST-STRBASE

	8.598	5.388	1.456	1.832	2.809	
	3.139	3.008	1.679	4.513	8.598	1.590
3PI	4.401	1.623	1.383	1.556		1.723
	4.055	4.513	6.562	72.464	2.899	3.925
	1.241					

63BHME-5876 Promega

	8.5985	5.3879		1.8322	2.8090	8.2102
	3.1387	3.0084		4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831			1.7232
	4.0552	4.5126	6.5617		2.8994	3.9246
	1.2407					

693JQE-5876 FBI PopStats

	8.5985	5.3879	1.4556	1.8322	2.8090	
	3.1387	3.0084	1.6790	4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552			72.464	2.8994	3.9246
	1.2407					

6WLZ7H-5871 laboratory caucasian database

	10.75	4.52	1.54	1.89	2.58	
	3.57	2.35	1.65	3.85	9.09	1.60
3PI	3.23	1.80	1.46	1.50		1.68
	3.65			10.64	3.28	4.63
	1.14					

73NZQP-5871 NIST-STRBASE

	8.5985	5.3879	1.4556	1.8322	2.8090	
	3.1387	3.0084	1.6790		8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552			72.464	2.8994	3.9246

79G9PK-5871 NIST-STRBASE

	8.5984	5.3879	1.4556	1.8321	2.8089	
	3.1387	3.0084	1.6789	4.5126	8.5984	1.5903
3PI	4.4014	1.6225	1.3831	1.5561		1.7232
	4.0551	4.5126	6.5616		2.8993	3.9246
	1.2406					

TABLE 2

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

Item 3PI - Paternity Index Results

7A84XR-5871	NIST-STRBASE					
	8.5985	5.3879	1.4556	1.8322	2.8090	
	3.1387	3.0084	1.6790	4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552			72.464	2.8994	3.9246
	1.2407					
7KPNHN-5876	FBI PopStats					
	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
7UGQED-5871	NIST-STRBASE					
	8.684	5.388	1.456	1.832	2.809	
	3.139	3.008	1.679	4.514	8.598	1.590
3PI	4.402	1.622	1.383	1.556		1.723
	4.056			50.5	2.8997	3.925
	1.241					
7ZHDDK-5871	NIST-STRBASE					
	7.62	5.06	1.47	1.84	2.69	
	3.07	2.79	1.64	4.30	7.62	1.60
3PI	4.21	1.58	1.33	1.52		1.68
	3.63			51.32	2.77	3.78
	1.20					
9J9BTH-5871	state database					
	7.10	4.61		1.76	2.62	8.73
	3.22	2.46		4.24	9.50	1.61
3PI	3.19	1.59	1.30			1.64
	3.36	4.43	5.63		2.98	4.17
	2.24					
BL64TD-5871	NIST-STRBASE					
	8.595	5.388	1.456	1.832	2.809	
	3.139	3.008	1.679	4.513	8.595	1.590
3PI	4.402	1.622	1.383	1.556		1.723
	4.056			72.2	2.900	3.924
	1.241					

TABLE 2

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

Item 3PI - Paternity Index Results

CK8B9E-5876 NIST-STRBASE

	7.62	5.06	1.47	1.84	2.70	
	3.07	2.79	1.64	4.30	7.62	1.60
3PI	4.21	1.59	1.33	1.52		1.68
	3.63			51.32	2.78	3.78
	1.20					

CUVLMV-5871 NIST-STRBASE

	11.236	5.8997	1.6739	1.5528	2.5654	10.267
	3.2321	1.9033	1.4749	3.2321	9.4429	1.8018
3PI	4.3706	1.7352	1.6276	1.1743		1.6332
	5.9032	4.1220	13.889	47.170	4.5830	5.3648
	1.0776					

D36TXA-5876 FBI PopStats

	8.5985	5.3879	1.4556	1.8322	2.8090	
	3.1387	3.0084	1.6790	4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552			72.464	2.8994	3.9246
	1.2407					

DKKJ2U-5876 Laboratory specific database

	5.208	2.874		0.607	2.247	
	1.337	2.058		1.429	4.237	1.808
3PI	2.049	2.475	2.315			1.845
	6.757	3.472	8.621		4.785	3.906
	1.497					

F7GHC4-5871 NIST-STRBASE

	-	5.49	-	1.91	2.77	
	3.02	3.02	-	-	8.05	1.53
3PI	3.92	1.61	1.41	-		1.73
	3.92			-	2.72	4.19
	1.25					

FTRKB6-5871 NIST-STRBASE

	8.59845	5.38793	1.4556	1.83217	2.80899	-
	3.13873	3.00842	1.67898	4.51264	8.59845	1.59033
3PI	4.40141	1.62259	1.38313	1.55618		1.72325
	4.05515	4.51264	6.56168	72.20000	2.89939	3.92465
	1.24069					

TABLE 2

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

Item 3PI - Paternity Index Results

G7DP3E-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
	1.1815					

GBTMM4-5876 [Nationality]

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

GFHWHE-5876 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819	4.2535	6.3131	40.323	3.2841	4.0388
	1.1815					

GRURQ7-5876 NIST-STRBASE

	8.6	5.39	1.46	1.83	2.81	
	3.14	3.01	1.68	4.51	8.6	1.59
3PI	4.4	1.62	1.38	1.56		1.72
	4.06			72.2	2.9	3.92
	1.24					

H2Y2UB-5871 NIST-STRBASE

	8.5984	5.3879	1.4556	1.8321	2.8089	
	3.1387	3.0084	1.6789	4.5126	8.5984	1.5903
3PI	4.4014	1.6225	1.3831	1.5561		1.7232
	4.0551	4.5126	6.5616		2.8993	3.9246
	1.2406					

H6GVHF-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819	4.2535	6.3131	40.323	3.2841	4.0388
	1.1815					

HGD6G6-5871 in house database

	8.065764023	5.154511743	1.457023061	2.028210117	2.840599455	8.096153846
	3.911819887	2.564575646	1.62763466	4.145129225	8.91025641	1.892014519
3PI	3.183206107	1.725279272	1.349514563	1.537610619		1.700652529
	3.729874776	4.793103448	6.996644295		2.885813149	5.278481013
	1.232269504					

TABLE 2

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

Item 3PI - Paternity Index Results

HPLAD9-5871 Local Database ([Nationality] Aboriginal; Theta 0.05)

	5.9748954	5.4325740		1.6145306	2.5995468	7.5666974
	3.0772369	1.9418055		3.8731132	6.8804039	1.7549140
3PI	4.2147987	1.3457873	1.2210987			1.5089050
	2.7137717	3.6270018	5.8399892		3.9365517	1.5299444
	0.9969343					

HVAL74-5871 NIST-STRBASE

		5.3879		1.8322	2.8090	
	3.1387	3.0084			8.5985	1.5903
3PI	4.4014	1.6226	1.3831			1.7232
	4.0552				2.8994	3.9246
	1.2407					

LGCEKB-5871 Caucasian database

	8.99	5.20	1.49	1.90	2.79	
	3.32	2.69	1.51	4.03	9.96	1.75
3PI	3.05	1.66	1.36	1.25		1.71
	3.61			22725.5	3.07	4.28
	1.22					

LKJYNX-5876 FBI PopStats

	8.5985	5.3879	1.4556	1.8322	2.8090	NT
	3.1387	3.0084	1.6790	4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552	NT	NT	72.464	2.8994	3.9246
	1.2407					

LRYAMC-5871 FBI PopStats

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

LWRCQC-5871 NIST-STRBASE

	8.60	5.39		1.83	2.81	8.21
	3.14	3.01		4.51	8.60	1.59
3PI	4.40	1.62	1.38			1.72
	4.06	4.51	6.56		2.90	3.92
	1.24					

M3B3PC-5871 NIST-STRBASE

	8.5985	5.3879	1.4556	1.8322	2.8090	
	3.1387	3.0084	1.6790	4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831	1.5562		1.7232
	4.0552	4.5126	6.5617	72.464	2.8994	3.9246
	1.2407					

TABLE 2

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

Item 3PI - Paternity Index Results

MNXYJ4-5871 [Location-identifying database]

	7.7261	4.4234	1.4855	1.9490	2.9772	
	3.5410	2.3078	1.5994	4.2101	10.5152	1.6452
3PI	3.7447	1.7112	1.3560	1.3798		1.7207
	3.6326			n.m.	3.2743	4.6180
	1.1848					

MTRTG6-5876 NIST-STRBASE, Internal database for loci not found in NIST

	8.5952	5.3881	1.4556	1.8325	2.8093	8.2045
	3.1391	3.0083	1.6791	4.5125	8.5952	1.5903
3PI	4.4024	1.6225	1.3831	1.5560		1.7232
	4.0562	4.5125	6.5636	72.2000	2.8996	3.9239
	1.2405					

MW64G8-5876 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388

N9GKGW-5871 [Country]

		14.7		1.49	5.17	
	4.88	1.46			6.35	2.49
3PI	13.4	1.98	1.37			1.90
	8.69				26.4	1.82
	1.21					

NH7JEA-5871 NIST-STRBASE

	8.5985	5.3879		1.8322	2.8090	8.2102
	3.1387	3.0084		4.5126	8.5985	1.5903
3PI	4.4014	1.6226	1.3831			1.7232
	4.0552	4.5126	6.5617		2.8994	3.9246
	1.2407					

NPHZLA-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195		8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
	1.1815					

TABLE 2

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

Item 3PI - Paternity Index Results

P2CBW3-5871 Caucasian

	7.1152	4.6419	1.5208	1.9062	2.5746	
	3.1625	2.3886	1.4530	3.7425	7.6594	1.7650
3PI	2.9359	1.5794	1.2588	1.2280		1.6213
	3.0194			N/A	2.7947	3.9445
	1.1499					

PCUHMX-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.18195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819	4.2535	6.3131		3.2841	4.0388
	1.1815					

PG8X2A-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
	1.1815					

PY7JVV-5871 NIST-STRBASE

	8.59524	5.38806	1.45565	1.83249	2.80934	-
	3.13913	3.00833	1.67907	4.51250	8.59524	1.59031
3PI	4.40244	1.62247	1.38314	1.55603		1.72315
	4.05618	-	-	72.20000	2.89960	3.92391
	1.24055					

R2PEAZ-5876 FBI PopStats, Promega/NIST

	9.03	5.08	1.5	2	2.43	--
	3.49	2.46	1.62	4.47	8.93	1.47
3PI	3.85	1.61	1.42	1.56		1.72
	3.39	5.75	7.55	--	3.26	3.99
	1.17					

RECZKF-5871 Local database

		5	1.3888	1.1363	2.1276	
	1.6666	1.3513	1.2820	2.7777	5	1.2195
3PI	3.125	1.5384	0.8620	1.0869		1.3333
	2.9411	3.0303	50		3.0303	1.7857
	0.7812					

TABLE 2

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

Item 3PI - Paternity Index Results

RPVXLY-5876 Laboratory specific database: [Nationality]/ Caucasian

	9.6154	4.7393	1.6949	2.1413	3.0581	
	22.7273	2.1930	1.3158	3.6765	12.0482	1.6010
3PI	6.2972	1.8288	1.3620	1.5533		1.6234
	3.5336	26.3158	15.1515	5000	3.4566	7.4627
	1.2210					

T2JJ4Y-5871 NIST-STRBASE

	8.5984	5.3879	1.4556	1.8321	2.8089	
	3.1387	3.0084	1.6789	4.5126	8.5984	1.5903
3PI	4.4014	1.6225	1.3831	1.5561		1.7232
	4.0551	4.5126	6.5616		2.8993	3.9246
	1.2406					

TFZFJV-5876 NIST-STRBASE

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

U3RR8R-5871 FBI PopStats

	8.5985	5.1520	1.4556	2.0202	2.4372	
	3.5436	2.4814	1.6790	4.5126	9.1158	1.4780
3PI	3.9185	1.6173	1.4413	1.5562		1.7265
	3.4388	4.7170	7.0423		3.2841	4.0388
	1.1809					

U8G223-5871 NIST-STRBASE, NIST STRBASE Caucasian

	8.599	5.388		1.832	2.809	8.210
	3.139	3.008		4.513	8.599	1.590
3PI	4.401	1.623	1.383			1.723
	4.055	4.513	6.562		2.899	3.925
	1.241					

VCU7C4-5871 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388
	1.1815					

WCN9GX-5876 FBI PopStats

	8.4175	5.1787	1.6160	2.0202	2.4486	
	3.5436	2.4343	1.8195	4.8077	8.9767	1.4637
3PI	3.8850	1.5906	1.4327	1.3740		1.7265
	3.4819			40.323	3.2841	4.0388

TABLE 2

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

Item 3PI - Paternity Index Results

WTDM9R-5876 NIST-STRBASE

		5.387		1.832	2.808	
	3.138	3.008			8.598	1.5903
3PI	4.401	1.622	1.383			1.723
	4.055				2.899	3.924
	1.2406					

XLCUFN-5876 Life Technologies Database

		5.77		1.97	2.55	
	3.39	2.34			8.95	1.65
3PI	3.60	1.59	1.34			1.75
	3.60				3.44	4.31
	1.09					

YZPMJK-5871 NIST-STRBASE

	4,298	5,388	1,456	1,832		
		3,008	1,679	4,513		1,590
3PI	4,402	1,622	1,383	1,556		
	4,056				2,900	
	1,241					

ZLQZRJ-5871 James Chun-I Lee, PH.D. et al.,Gene frequency analysis of STR and YSTR in Taiwan Han., Forensic Science Symposium Proceedings 2006, 27-38.

		16.949		1.441	3.163	
	2.076	2.672			29.674	2.345
3PI	12.953	1.869	1.632			1.638
	9.346				35.587	4.337
	1.427					

ZQU2QR-5871 NIST-STRBASE

	8.5984	5.3879	1.4556	1.8321	2.8089	
	3.1387	3.0084	1.6789	4.5126	8.5984	1.5903
3PI	4.4014	1.6225	1.3831	1.5561		1.7232
	4.0551	4.5126	6.5616		2.8993	3.9246
	1.2406					

TABLE 2

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

Item 4PI - Paternity Index Results

3PZUKL-5871 NIST-STRBASE

	0	0	1.38	0	2.14	
	0	1.70	0	0	0	0
4PI	0	2.19	0	0		1.83
	0	5.95	0	0	0	0
	2.51					

4GFN9R-5871 NIST-STRBASE

	0	0	1.38	0	2.13	
	0	1.70	0.02	0	0	0
4PI	0	2.18	0	0		1.83
	0	5.91	0		0.03	0
	2.50					

63BHME-5876 Promega

	0	0		0	2.1377	0
	0	1.7013		0	0	0
4PI	0	2.1925	0			1.8339
	0	5.9488	0		0	0
	2.5056					

693JQE-5876 FBI PopStats

			1.4556		1.4045	
		3.0084				
4PI		1.6226				1.7232
	2.4814					

6WLZ7H-5871 laboratory caucasian database

	0	0	1.54	0	1.29	
	0	2.35	0	0	0	0
4PI	0	1.80	0	0		1.68
	0			0	0	0
	2.27					

7UGQED-5871 NIST-STRBASE

	0	0	1.379	0	2.138	
	0	1.701	0	0	0	0
4PI	0	2.192	0	0		1.834
	0			0	0	0
	2.506					

TABLE 2

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

Item 4PI - Paternity Index Results

9J9BTH-5871 state database

	0	0		0	1.31	0
	0	2.46		0	0	0
4PI	0	1.59	0			1.64
	0	4.43	0		0	0
	2.24					

CK8B9E-5876 NIST-STRBASE

	0	0	1.47	0	1.38	
	0	2.79	0	0	0	0
4PI	0	1.59	0	0		1.68
	0			0	0	0
	2.35					

CUVLMV-5871 NIST-STRBASE

			1.6739		1.2827	
		1.9033				
4PI		1.7352				1.6332
		4.1220				
	2.1552					

FTRKB6-5871 NIST-STRBASE

	0	0	1.45560	0	1.40449	-
	0	3.00842	0	0	0	0
4PI	0	1.62259	0	0		1.72325
	0	4.51264	0	0	0	0
	2.48139					

LWRCQC-5871 NIST-STRBASE

	0	0		0	1.59	0
	0	2.14		0	0	0
4PI	0	1.81	0			1.73
	0	4.60	0		0	0
	2.44					

M3B3PC-5871 NIST-STRBASE

			1.3789		2.1377	
		1.7013				
4PI		2.1925				1.8339
		5.9488				
	2.5056					

TABLE 2

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

Item 4PI - Paternity Index Results

MNXYJ4-5871 [Location-identifying database]

	n.m	n.m	n.m	6.4495	n.m	
	n.m	n.m	n.m	n.m	n.m	n.m
4PI	7.0108	1.7112	n.m	n.m		1.7207
	n.m			n.m	n.m	n.m
	2.3696					

N9GKGW-5871 [Country]

		0.00		0.00	0.00	
	0.00	1.46			0.00	0.00
4PI	0.00	1.98	0.00			1.90
	2.59				0.00	0.00
	2.42					

NH7JEA-5871 NIST-STRBASE

	0	0		0	1.5863	0
	0	2.1404		0	0	0
4PI	0	1.8142	0			1.7340
	0	4.6041	0		0	0
	2.4378					

NPHZLA-5871 FBI PopStats

			1.2598		2.0964	
		1.5295				
4PI		2.1209				1.8282
	2.3918					

PG8X2A-5871 FBI PopStats

			1.2598		2.0964	
		1.5295				
4PI		2.1209				1.8282
	2.3918					

R2PEAZ-5876 FBI PopStats, Promega/NIST

	--	--	1.5	--	1.21	--
	--	2.46	--	--	--	--
4PI	--	1.61	--	--		1.72
	--	5.75	--	--	--	--
	2.34					

TABLE 2

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

Item 4PI - Paternity Index Results

RPVXLY-5876 Laboratory specific database: [Nationality]/ Caucasian

	0	0	1.6949	0	1.5291	
	0	2.1930	0	0	0	0
4PI	0	1.8288	0	0		1.6234
	0	26.3158	0	0	0	0
	2.4420					

U3RR8R-5871 FBI PopStats

	0	0	1.3789	0	1.9150	
	0	1.5002	0	0	0	0
4PI	0	2.0367	0	0		1.7501
	0	5.4729	0		0	0
	2.4661					

U8G223-5871 NIST-STRBASE, NIST STRBASE Caucasian

	0	0		0	1.586	0
	0	2.140		0	0	0
4PI	0	1.814	0			1.734
	0	4.604	0		0	0
	2.438					

VCU7C4-5871 FBI PopStats

			1.2598		2.0964	
		1.5295				
4PI		2.1209				1.8282
	2.3918					

WTDM9R-5876 NIST-STRBASE

	0	0	1.378	0	2.137	
	0	1.701	0	0	0	0
4PI	0	2.192	0	0		1.833
	0			0	0	0
	2.505					

XLCUFN-5876 Life Technologies Database

		0		0	1.96	
	0	1.66			0	0
4PI	0	1.97	0			1.75
	0				0	0
	2.41					

TABLE 2

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

Item 4PI - Paternity Index Results

ZLQZRJ-5871 James Chun-I Lee, PH.D. et al.,Gene frequency analysis of STR and YSTR in Taiwan Han., Forensic Science Symposium Proceedings 2006, 27-38.

		-		-	1.581	
	-	2.672			-	-
4PI	-	1.869	-			1.638
	-				-	-
	2.854					

YSTR Amplification Kit(s) & Results

TABLE 3

WebCode-Test	Amplification Kit								
Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
Item 3 - YSTR Results									
2PWLZT-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
2T3BHP-5876	PowerPlex® Y 23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12
2TWWVT-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
4M4YBH-5871	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
63BHME-5876	PowerPlex® Y Y23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12
73NZQP-5871	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
7KPNHN-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
BL64TD-5871	PowerPlex® Y 23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12
DKKJ2U-5876	PowerPlex® Y 23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12

TABLE 3

WebCode-Test	Amplification Kit								
Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
Item 3 - YSTR Results									
F7GHC4-5871	Yfiler® PLUS								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
FTRKB6-5871	PowerPlex® Y 23								
	-	14	11,14	13	29	24	10	13	13
3	14	12	12	18	-	15	17	-	22
	-	12	13	16	18	-	23	10	12
G7DP3E-5871	Yfiler®								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		
							23		12
HVAL74-5871	Yfiler®								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		
							23		12
MNXYJ4-5871	Yfiler®								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		
							23		12
MTRTG6-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
MW64G8-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
PG8X2A-5871	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
RPVXLY-5876	PowerPlex® Y 23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12
U3RR8R-5871	PowerPlex® Y 23								
		14	11,14	13	29	24	10	13	13
3	14	12	12	18		15	17		22
		12	13	16	18		23	10	12

TABLE 3

WebCode-Test	Amplification Kit								
Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
Item 3 - YSTR Results									
VCU7C4-5871	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
WCN9GX-5876	Yfiler® Plus								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12
XLCUFN-5876	Yfiler®								
	36,37	14	11,14	13	29	24	10	13	13
3	14	12	12	18	29	15	17	10	22
	40	12		16	18	24	23		12

TABLE 3

Item 4 - YSTR Results

WebCode-Test	Amplification Kit								
Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
2PWLZT-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
2T3BHP-5876		PowerPlex® Y 23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
2TWWVT-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
4M4YBH-5871		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
63BHME-5876		PowerPlex® Y Y23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
73NZQP-5871		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
7KPNHN-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
BL64TD-5871		PowerPlex® Y 23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
DKKJ2U-5876		PowerPlex® Y 23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
F7GHC4-5871		Yfiler® PLUS							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12

TABLE 3

Item 4 - YSTR Results

Item	WebCode-Test / 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
FTRKB6-5871		PowerPlex® Y 23							
	-	15	16,18	13	31	21	11	11	13
4	14	11	10	21	-	15	16	-	29
	-	11	10	18	16	-	21	14	12
G7DP3E-5871		Yfiler®							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		
							21		12
HVAL74-5871		Yfiler®							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		
							21		12
MNXYJ4-5871		Yfiler®							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		
							21		12
MTRTG6-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
MW64G8-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
PG8X2A-5871		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
RPVXLY-5876		PowerPlex® Y 23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
U3RR8R-5871		PowerPlex® Y 23							
		15	16,18	13	31	21	11	11	13
4	14	11	10	21		15	16		29
		11	10	18	16		21	14	12
VCU7C4-5871		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12

TABLE 3

Item 4 - YSTR Results

WebCode-Test	Amplification Kit								
Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	Y GATA H4
WCN9GX-5876		Yfiler® Plus							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12
XLCUFN-5876		Yfiler®							
	38,39	15	16,18	13	31	21	11	11	13
4	14	11	10	21	28	15	16	10	29
	40	11		18	16	21	21		12

Additional DNA & PI Results

TABLE 4

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
AMEL	MNXYJ4-5871	X,X	X,X	X,Y		X,Y	
D10S2325	4M4YBH-5871	7,11	9,11	7,9		7,11	
	MTRTG6-5876	7,11	9,11	7,9	7.4627	7,11	
	RPVXLY-5876	7,11	9,11	7,9	4.1322	7,11	0
D11S2368	MTRTG6-5876	20,20	18,20	18,22	3.3788	16,18	
D13S325	MTRTG6-5876	21,24	23,24	19,23	7.2950	18,20	
D14S1434	MTRTG6-5876	10,14	10,14	10,13	0.8843	12,15	
D15S659	MTRTG6-5876	12,12	10,12	10,12	24.6914	15,16	
D17S1301	MTRTG6-5876	11,12	11,12	11,12	1.3102	12,12	
D18S1364	MTRTG6-5876	14,15	14,15	13,15	0.9145	12,14	
D19S253	MTRTG6-5876	12,13	7,12	7,11	1.8663	9,12	
D20S482	MTRTG6-5876	13,14	14,15	15,15	4.7911	14,14	
D21S11	MNXYJ4-5871	28,29	28,29	28,32.2		31,31	
D21S2055	4M4YBH-5871	17.1,31	24,31	19.1,24		31,32	
	MTRTG6-5876	17.1,31	24,31	19.1,24	31.4000	31,32	
	RPVXLY-5876	17.1,31	24,31	19.1,24	250	31,32	0
D22-GATA198B05	MTRTG6-5876	18,19	19,20	20,21	3.4892	17,17	
D2S1360	4M4YBH-5871	22,27	23,27	20,23		23,24	
	MTRTG6-5876	22,27	23,27	20,23	2.9586	23,24	
	RPVXLY-5876	22,27	23,27	20,23	3.5211	23,24	3.5211
D3S1744	4M4YBH-5871	15,18	14,18			15,16	
	MTRTG6-5876	15,18	14,18	14,17	5.6180	15,16	
	RPVXLY-5876	15,18	14,18	14,17	4.8077	15,16	0
D4S2366	4M4YBH-5871	9,13	9	9,11		10,11	
	MTRTG6-5876	9,13	9,9	9,11	1.7422	10,11	
	RPVXLY-5876	9,13	9,9	9,11	1.4409	10,11	0
D5S2500	4M4YBH-5871	12,15	11,12	11		14	
	MTRTG6-5876	12,15	11,12	11,11	3.6900	14,14	
	RPVXLY-5876	12,15	11,12	11,11	3.1949	14,14	0
D5S2800	MTRTG6-5876	14,18	18,18	18,18	4.0632	18,20	
D6S474	4M4YBH-5871	15,16	15,17	15,17		15,16	
	MTRTG6-5876	15,16	15,17	15,17	5.8140	15,16	
	RPVXLY-5876	15,16	15,17	15,17	5.1546	15,16	0
D7S1517	4M4YBH-5871	19,20	20,25	25,26		22	
	MTRTG6-5876	19,20	20,25	25,26	2.3810	22,22	
	RPVXLY-5876	19,20	20,25	25,26	2.1739	22,22	0
D7S3048	MTRTG6-5876	20,21	20,22	22,22	8.3375	24,24	

TABLE 4

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
D8S1132	4M4YBH-5871	17,19	17	17		17	
	MTRTG6-5876	17,19	17,17	17,17	10.4167	17,17	
	RPVXLY-5876	17,19	17,17	17,17	10.5263	17,17	10.5263
D9S1122	MTRTG6-5876	12,12	12,13	13,13	3.0283	13,13	
DXS10074	4M4YBH-5871	17	15,17	15		12	
	GBTMM4-5876	17,17	15,17	15		12	
	MNXYJ4-5871	17,17	15,17	15		12	
DXS10079	4M4YBH-5871	21,26	21,22	22		24	
	GBTMM4-5876	21,25<N<27	21,22	22		24	
	MNXYJ4-5871	21,-	21,22	22		24	
DXS10101	4M4YBH-5871	30.2,34	31.2,34	31.2		24.2	
	GBTMM4-5876	30.2,34	31.2,34	31.2		24.2	
	MNXYJ4-5871	30.2,34	31.2,34	31.2		24.2	
DXS10103	4M4YBH-5871	16,19	16,19	19		19	
	GBTMM4-5876	16,19	16,19	19		19	
	MNXYJ4-5871	16,19	16,19	19		19	
DXS10134	4M4YBH-5871	34,36	36,41.3	41.3		31	
	GBTMM4-5876	34,36	36,41.3	41.3		31	
	MNXYJ4-5871	34,36	36,41.3	41.3		31	
DXS10135	4M4YBH-5871	21,27	20,27	20		19.1	
	GBTMM4-5876	21,27	20,27	20		19.1	
	MNXYJ4-5871	21,27	20,27	20		19.1	
DXS10146	4M4YBH-5871	26,27	26	26		33	
	GBTMM4-5876	26,27	26,26	26		33	
	MNXYJ4-5871	26,27	26,26	26		33	
DXS10148	4M4YBH-5871	24.1	24.1,25.1	25.1		OL	
	GBTMM4-5876	24.1,24.1	24.1,25.1	25.1		N>38.1	
	MNXYJ4-5871	24.1,24.1	24.1,25.1	25.1		-	
DXS7132	4M4YBH-5871	13,14	13,14	13		15	
	GBTMM4-5876	13,14	13,14	13		15	
	MNXYJ4-5871	13,14	13,14	13		15	
DXS7423	4M4YBH-5871	13,16	13,15	15		14	
	GBTMM4-5876	13,16	13,15	15		14	
	MNXYJ4-5871	13,16	13,15	15		14	
DXS8378	4M4YBH-5871	11,12	11	11		11	
	GBTMM4-5876	11,12	11,11	11		11	
	MNXYJ4-5871	11,12	11,11	11		11	
F13A01	63BHME-5876	7,15	6,7	4,6	1.4269	3.2,4	0
	MTRTG6-5876	7,15	6,7	4,6	2.1834	3.2,4	

TABLE 4

Locus	WebCode-Test	Item 1	Item 2	Item 3	Item 3 PI	Item 4	Item 4 PI
F13B	63BHME-5876	8,10	10	10	2.5510	6	0
	MTRTG6-5876	8,10	10,10	10,10	2.1786	6,6	
FESFPS	63BHME-5876	11	11,12	10,12	2.1115	10,11	0
	MTRTG6-5876	11,11	11,12	10,12	1.8450	10,11	
HPRTB	4M4YBH-5871	11,12	11,12	11		12	
	GBTMM4-5876	11,12	11,12	11		12	
	MNXYJ4-5871	11,12	11,12	11		12	
LPL	63BHME-5876	10,13	10	10,11	1.1759	10,13	1.4368
	MTRTG6-5876	10,13	10,10	10,11	1.5528	10,13	
PENTA C	63BHME-5876	11	9,11	9,11	3.3738	10,11	0
	MTRTG6-5876	11,11	9,11	9,11	3.3113	10,11	

Paternity DNA Statistics & Conclusions

TABLE 5

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
2PWLZT-5876	Item 3 - Alleged Father A	13,510,000,000	>99.99%	FBI PopStats
2T3BHP-5876	Item 3 - Alleged Father A	7.70E+11	99,99999%	[Location-identifying database]
2TWWVT-5876	Item 3 - Alleged Father A	13,510,000,000	99.999999992598	FBI PopStats
3PZUKL-5871	Item 3 - Alleged Father A	3826985887000	0,9999999999	NIST-STRBASE
47ZYAM-5871	Item 3 - Alleged Father A	120 billion	>99.99999999	NIST-STRBASE
4GFN9R-5871	Item 3 - Alleged Father A	14 Billion		NIST-STRBASE
4M4YBH-5871	Item 3 - Alleged Father A	1.105E+12	not performed	NIST-STRBASE
63BHME-5876		1,003,650,679,326.0800	99.9999	Promega
693JQE-5876	Item 3 - Alleged Father A	492,100,000,000	99.999%	FBI PopStats
6TMLLD-5871	Item 3 - Alleged Father A			
6WLZ7H-5871	Item 3 - Alleged Father A	4,01E9	0,9999999997	laboratory caucasian database
73NZQP-5871	Item 3 - Alleged Father A	6.66 billion	99.99999998499	NIST-STRBASE
79G9PK-5871	Item 3 - Alleged Father A	1.52 x 10^10	99.9%	NIST-STRBASE
7A84XR-5871	Item 3 - Alleged Father A	37,310,000,000	99.999999997320	NIST-STRBASE
7KPNHN-5876	Item 3 - Alleged Father A	13,510,000,000	>99.99%	FBI PopStats
7UGQED-5871	Item 3 - Alleged Father A	26283663330	99.99999999%	NIST-STRBASE
7ZHDDK-5871	Item 3 - Alleged Father A	2.74E+09	99.99%	NIST-STRBASE
9J9BTH-5871	Item 3 - Alleged Father A	16,992,205,751	100	state database

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
BL64TD-5871	Item 3 - Alleged Father A	3.7E+10		NIST-STRBASE
CK8B9E-5876	Item 3 - Alleged Father A	9.2 Billion	N/A	NIST-STRBASE
CUVLMV-5871	Item 3 - Alleged Father A	2.2640E+13	>99.9999999999	NIST-STRBASE
D36TXA-5876	Item 3 - Alleged Father A	492,100,000,000	99.999999999796	FBI PopStats
DKKJ2U-5876	Item 3 - Alleged Father A	75313720.513	99.99999%	Laboratory specific database
F7GHC4-5871	Item 3 - Alleged Father A	2805064.45	99.99%	NIST-STRBASE
FTRKB6-5871	Item 3 - Alleged Father A	1100799506312.78	0.9999999999990	NIST-STRBASE
G7DP3E-5871	Item 3 - Alleged Father A	15,960,000,000	99.999999993734	FBI PopStats
GBTMM4-5876	Item 3 - Alleged Father A	203470795274	99.9999999995085%	[Nationality]
GFHWHE-5876	Item 3 - Alleged Father A	362,000,000,000		FBI PopStats
GRURQ7-5876	Item 3 - Alleged Father A	37 billion	>99.9999%	NIST-STRBASE
H2Y2UB-5871	Item 3 - Alleged Father A	15.2 billion	99.9%	NIST-STRBASE
H6GVHF-5871	Item 3 - Alleged Father A	4.2870E+11	99.9999999997667	FBI PopStats
HGD6G6-5871	Item 3 - Alleged Father A	146707602895.97	99.999999999318400	in house database
HPLAD9-5871	Item 3 - Alleged Father A	1.0 billion		Local Database ([Nationality] Aboriginal; Theta 0.05)
HVAL74-5871	Item 3 - Alleged Father A	3.49e6	99.9999%	NIST-STRBASE
LGCEKB-5871	Item 3 - Alleged Father A	6,780,773,452,068	greater than 99.99%	Caucasian database
LKJYNX-5876	Item 3 - Alleged Father A	492.1E+9	99.9999	FBI PopStats

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
LRYAMC-5871	Item 3 - Alleged Father A			FBI PopStats
LWRCQC-5871	Item 3 - Alleged Father A	3.291E+10		NIST-STRBASE
M3B3PC-5871	Item 3 - Alleged Father A	15,530,000,000,000	>99.9999999999%	NIST-STRBASE
MNXYJ4-5871	Item 3 - Alleged Father A	376,660,610	99.9999997345%	[Location-identifying database]
MTRTG6-5876	Item 3 - Alleged Father A	3037229979261680000000000000.00	99.9999999999999990	NIST-STRBASE, Internal database for loci not found in NIST
MW64G8-5876	Item 3 - Alleged Father A	13.51 billion	>99.99%	FBI PopStats
N9GKGW-5871	Item 3 - Alleged Father A	5.26e8	99.9999998	[Country]
NH7JEA-5871	Item 3 - Alleged Father A	3.291E+10	N/A	NIST-STRBASE
NPHZLA-5871	Item 3 - Alleged Father A	3,321,000,000	99.99999996989%	FBI PopStats
P2CBW3-5871	Item 3 - Alleged Father A	16 million	N/A	Caucasian
PCUHMX-5871	Item 3 - Alleged Father A	10,630,000,000	99.999999990593%	FBI PopStats
PG8X2A-5871	Item 3 - Alleged Father A	15,960,000,000	99.999999993734	FBI PopStats
PY7JVV-5871	Item 3 - Alleged Father A	3.72 x 10^10	99.9999999997309400%	NIST-STRBASE
R2PEAZ-5876	Item 3 - Alleged Father A	14300000000	99.99999999%	FBI PopStats, Promega/NIST
RECZKF-5871	Item 3 - Alleged Father A	9,286815.87	99.9999%	Local database
RPVXLY-5876	Item 3 - Alleged Father A	2.0E+23	99,9999%	Laboratory specific database: [Nationality]/ Caucasian
T2JJ4Y-5871	Item 3 - Alleged Father A	15.2 billion	99.9	NIST-STRBASE
TFZFJV-5876	Item 3 - Alleged Father A	1.473076349	99%	NIST-STRBASE

TABLE 5 - Paternity DNA Statistics & Conclusions

WebCode-Test	Chosen Biological Father	Combined Paternity Index	Probability of Paternity	Population Database Used
U3RR8R-5871	Item 3 - Alleged Father A	12,513,687,191.3476	99.9999%	FBI PopStats
U8G223-5871	Item 3 - Alleged Father A	3.291E+010	99.999%	NIST-STRBASE, NIST STRBASE Caucasian
VCU7C4-5871	Item 3 - Alleged Father A	15,960,000,000	99.999999993734	FBI PopStats
WCN9GX-5876	Item 3 - Alleged Father A	13,510,000,000	>99.99%	FBI PopStats
WTDM9R-5876	Item 3 - Alleged Father A	3,481,659.893	99.9999%	NIST-STRBASE
XLCUFN-5876	Item 3 - Alleged Father A	2,657,723	99.99%	Life Technologies Database
YZPMJK-5871		502198,9215	0,999998009	NIST-STRBASE
ZLQZRJ-5871	Item 3 - Alleged Father A	3970415705	99.9999999%	James Chun-I Lee, PH.D. et al.,Gene frequency analysis of STR and YSTR in Taiwan Han., Forensic Science Symposium Proceedings 2006, 27-38.
ZQU2QR-5871	Item 3 - Alleged Father A	15.2 billion	99.9%	NIST-STRBASE

Response Summary	Participants: 63
Which of the alleged fathers cannot be excluded as the biological parent of Item 2?	
Responses Item 3 - Alleged Father A	61
Item 4 - Alleged Father B	0
Inconclusive	0
No Response	2

Kinship Likelihood Ratio Results

TABLE 6

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	2PWLZT-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.679
	2TWWVT-5876	1+p+q+2pq/8pq	p=16, q=17	20.679
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=16, b=17	20.6788
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=16, q=17	20.679
	63BHME-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=16, q=17	20.6788
	73NZQP-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.679
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.68
	7UGQED-5871	(1+p+q+2pq)/8pq	16,17	20.679
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=16, q = 17	20.679
	BL64TD-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.679
	CK8B9E-5876	*	*	16.86
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=16, b=17	20.679
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=16, b= 17, k1=0.25, k2=0.25, ko=0.25	20.691
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=16, q = 17	20.6788
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	GRURQ7-5876	(1+p+q+2pq/8pq	p=16, q=17	20.7
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.67884818
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=16, b=17	20.6788
	HVAL74-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=16, q=17	20.67884818
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.6788

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D1S1656	MW64G8-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.679
	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-16, b-17	20.679
	R2PEAZ-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.67885
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.6788
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=16, b=17	20.679
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=16, q=17	20.679
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=16, q=17	20.678
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=16, q=17	20.6788

Statistical Analysis Summary of D1S1656 **Likelihood Ratio Mode: 20.6788**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	2PWLZT-5876	(1+2p)/8p	p=21	4.1808
	2TWWVT-5876	1+2p/8p	p=21	4.1808
	47ZYAM-5871	k1+2k0a/2a	a=21	4.1808
	4M4YBH-5871	(2p+1)/8p	p=21	4.181
	63BHME-5876	(1+2q)/8q	q=21	4.1808
	6WLZ7H-5871	(0.25+0.5p)/2p	p=21	4.1808
	73NZQP-5871	(1+2p)/8p	p=21	4.1808
	7KPNHN-5876	(1+2p)/8p	p=21	4.181
	7UGQED-5871	(1+2p)/8p	21	4.181
	9J9BTH-5871	(1+2p)/8p	p=21	4.1808
	BL64TD-5871	(1+2p)/8p	p=21	4.181
	CK8B9E-5876	*	*	3.316
	CUVLMV-5871	(2a+1)/8a	a=21	4.1808
	F7GHC4-5871	R=c(k1)+2ac(k0),U=2ac, LR=R/U	a=21, k1=0.25, ko=0.25, C= 24	4.143
	FTRKB6-5871	(1+2p)/8p	p=21	4.1808
	GBTMM4-5876	(1+2p)/8p	p=21	4.1808
	GRURQ7-5876	(1+2p)/8p	p=21	4.18
	HGD6G6-5871	(1+2p)/8p	p=21	4.18081761
	HPLAD9-5871	z_1/4p_a+Z_0	a=21	4.1808
	HVAL74-5871	(1+2r)/8r	r=21	4.1808
	LRYAMC-5871	(1+2p)/(8p)	p=21	4.18081761
	MNXYJ4-5871	(1+2p)/8p	p=21	4.1808
	MTRTG6-5876	(1+2p)/8p	p=21	4.1808
	MW64G8-5876	(1+2p)/8p	p=21	4.1808

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S1338	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-21, b-19	4.1808
	R2PEAZ-5876	(1+2r)/8r	r=21	4.1808
	RPVXLY-5876	(1+2p)/8p	p=21	4.18082
	U3RR8R-5871	(1+2q)/8q	q=21	4.1808
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=21,b=19,c=24	4.1808
	WCN9GX-5876	(1+2p)/8p	p=21	4.1808
	WTDM9R-5876	(1+2p)/(8p)	p=21	4.180
	ZLQZRJ-5871	(1+2q)/8q	q=21	4.1808

Statistical Analysis Summary of D2S1338 **Likelihood Ratio Mode: 4.1808**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	2PWLZT-5876	(1+p)/4p	p=10	0.99206
	2TWWVT-5876	1+p/4p	p=10	0.99206
	47ZYAM-5871	k1+k0a/a	a=10	0.9920
	4M4YBH-5871	(p+1)/4p	p=10	0.9921
	63BHME-5876	(1+p)/4p	p=10	0.9921
	6WLZ7H-5871	0.25+(0.25/p)	p=10	0.9921
	73NZQP-5871	(1+p)/4p	p=10	0.99206
	7KPNHN-5876	(1+p)/4p	p=10	0.9921
	7UGQED-5871	(1+p)/4p	10	0.992
	9J9BTH-5871	(1+p)/4p	p=10	0.9921
	BL64TD-5871	(1+p)/4p	p=10	0.992
	CK8B9E-5876	*	*	0.9724
	CUVLMV-5871	(1+a)/4a	a=10	0.99206
	F7GHC4-5871	R=a(k1)+a*a(ko),U=a*a, LR=R/U	a=10, b= 11, k1=0.25, ko=0.25	0.992
	FTRKB6-5871	(1+p)/4p	p=10	0.9921
	GBTMM4-5876	(1+p)/4p	p=10	0.9921
	GRURQ7-5876	(1+p)/4p	p=10	0.992
	HGD6G6-5871	(1+p)/4p	p=10	0.992059958
	HPLAD9-5871	z_1/2p_a+Z_0	a=10	0.9921
	HVAL74-5871	(1+p)/4p	p=10	0.9921
	LRYAMC-5871	(1+p)/(4p)	p=10	0.992059958
	MNXYJ4-5871	(1+p)/4p	p=10	0.9921
	MTRTG6-5876	(1+p)/4p	p=10	0.9921
	MW64G8-5876	(1+p)/4p	p=10	0.99206

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D2S441	PG8X2A-5871	(0.25a+0.25a^2)/a^2	a-10	0.99206
	R2PEAZ-5876	(1+p)/4p	p=10	0.9921
	RPVXLY-5876	(1+p)/4p	p=10	0.99206
	U3RR8R-5871	(1+p)/4p	p=10	0.9921
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=10, b=11	0.99206
	WCN9GX-5876	(1+p)/4p	p=10	0.99206
	WTDM9R-5876	(1+p)/(4p)	p=10	0.9920
	ZLQZRJ-5871	(1+p)/4p	p=10	0.9921

Statistical Analysis Summary of D2S441 **Likelihood Ratio Mode: 0.9921**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	2PWLZT-5876	(1+p)/4p	p=15	1.0264
	2TWWVT-5876	1+p/4p	p=15	1.0264
	47ZYAM-5871	k1+k0a/a	a=15	1.0264
	4M4YBH-5871	(p+1)/4p	p=15	1.026
	63BHME-5876	(1+p)/4p	p=15	1.0264
	6WLZ7H-5871	0.25+(0.25/p)	p=15	1.0264
	73NZQP-5871	(1+p)/4p	p=15	1.0264
	7KPNHN-5876	(1+p)/4p	p=15	1.026
	7UGQED-5871	(1+p)/4p	15	1.026
	9J9BTH-5871	(1+p)/4p	p=15	1.0264
	BL64TD-5871	(1+p)/4p	p=15	1.026
	CK8B9E-5876	*	*	1.004
	CUVLMV-5871	(1+a)/4a	a=15	1.0264
	F7GHC4-5871	R=b(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=15, b= 18, k1=0.25, ko=0.25	1.027
	FTRKB6-5871	(1+p)/4p	p=15	1.0264
	GBTMM4-5876	(1+p)/4p	p=15	1.0264
	GRURQ7-5876	(1+p)/4p	p=15	1.03
	HGD6G6-5871	(1+p)/4p	p=15	1.026397516
	HPLAD9-5871	z_1/2p_a+Z_0	a=15	1.0264
	HVAL74-5871	(1+p)/4p	p=15	1.0264
	LRYAMC-5871	(1+p)/(4p)	p=15	1.026397516
	MNXYJ4-5871	(1+p)/4p	p=15	1.0264
	MTRTG6-5876	(1+p)/4p	p=15	1.0264
	MW64G8-5876	(1+p)/4p	p=15	1.0264

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D3S1358	PG8X2A-5871	(0.25a+0.25a^2)/a^2	a-15	1.0264
	R2PEAZ-5876	(1+p)/4p	p=15	1.0264
	RPVXLY-5876	(1+p)/4p	p=15	1.02640
	U3RR8R-5871	(1+p)/4p	p=15	1.0264
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=15, b=18	1.0264
	WCN9GX-5876	(1+p)/4p	p=15	1.0264
	WTDM9R-5876	(1+p)/(4p)	p=15	1.026
	ZLQZRJ-5871	(1+p)/4p	p=15	1.0264

Statistical Analysis Summary of D3S1358 **Likelihood Ratio Mode: 1.0264**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	2PWLZT-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	2TWWVT-5876	1+p+q+2pq/8pq	p=11, q=12	1.8854
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=11, b=12	1.8854
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=11, q=12	1.885
	63BHME-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=11, q=12	1.8854
	73NZQP-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.885
	7UGQED-5871	(1+p+q+2pq)/8pq	11,12	1.885
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8853
	BL64TD-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.885
	CK8B9E-5876	*	*	1.886
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=11, b=12	1.8854
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=11, b= 12, k1=0.25, ko=0.25, k2=0.25	1.886
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.89
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.885359484
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=11, b=12	1.8854
	HVAL74-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=11, q=12	1.885359484
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	MW64G8-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D5S818	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-11, b-12	1.8854
	R2PEAZ-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.88536
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=11, b=12	1.8854
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=11, q=12	1.8854
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=11, q=12	1.885
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=11, q=12	1.8854

Statistical Analysis Summary of D5S818 **Likelihood Ratio Mode: 1.8854**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	2PWLZT-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	2TWWVT-5876	1+p+q+2pq/8pq	p=10, q=11	2.5737
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=10, b=11	2.5736
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=10, q=11	2.574
	63BHME-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=10, q=11	2.5737
	73NZQP-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.574
	7UGQED-5871	(1+p+q+2pq)/8pq	10,11	2.574
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	BL64TD-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.574
	CK8B9E-5876	*	*	2.548
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=10, b=11	2.5737
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=10, b= 11, k1=0.25, ko=0.25, k2=0.25	2.574
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.57
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.573661552
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=10, b=11	2.5737
	HVAL74-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=10, q=11	2.573661552
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	MW64G8-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D7S820	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-10, b-11	2.5737
	R2PEAZ-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.57366
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=10, b=11	2.5737
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=10, q=11	2.5737
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=10, q=11	2.573
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=10, q=11	2.5737

Statistical Analysis Summary of D7S820 **Likelihood Ratio Mode: 2.5737**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	2PWLZT-5876	(1+p)/4p	p=14	1.2017
	2TWWVT-5876	1+p/4p	p=14	1.2017
	47ZYAM-5871	k1+k0a/a	a=14	1.2016
	4M4YBH-5871	(p+1)/4p	p=14	1.202
	63BHME-5876	(1+q)/4q	q=14	1.2017
	6WLZ7H-5871	0.25+(0.25/p)	p=14	1.2017
	73NZQP-5871	(1+p)/4p	p=14	1.2017
	7KPNHN-5876	(1+p)/4p	p=14	1.202
	7UGQED-5871	(1+p)/4p	14	1.202
	9J9BTH-5871	(1+p)/4p	p=14	1.2017
	BL64TD-5871	(1+p)/4p	p=14	1.202
	CK8B9E-5876	*	*	1.162
	CUVLMV-5871	(1+a)/4a	a=14	1.2017
	F7GHC4-5871	R=a(k1)+a*a(k0), U=a*a, LR=R/U	a=14, b= 12, ko=0.25, k1=0.25	1.203
	FTRKB6-5871	(1+p)/4p	p=14	1.2017
	GBTMM4-5876	(1+p)/4p	p=14	1.2017
	GRURQ7-5876	(1+p)/4p	p=14	1.2
	HGD6G6-5871	(1+p)/4p	p=14	1.201655881
	HPLAD9-5871	z_1/2p_a+Z_0	a=14	1.2017
	HVAL74-5871	(1+r)/4r	r=14	1.2017
	LRYAMC-5871	(1+p)/(4p)	p=14	1.201655881
	MNXYJ4-5871	(1+p)/4p	p=14	1.2017
	MTRTG6-5876	(1+p)/4p	p=14	1.2017
	MW64G8-5876	(1+p)/4p	p=14	1.2017

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D8S1179	PG8X2A-5871	(0.5a+0.5ab)/2ab	a-12, b-14	1.2017
	R2PEAZ-5876	(1+r)/4r	r=14	1.2017
	RPVXLY-5876	(1+p)/4p	p=14	1.20166
	U3RR8R-5871	(1+q)/4q	q=14	1.2017
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=14, b=12	1.2017
	WCN9GX-5876	(1+p)/4p	p=14	1.2017
	WTDM9R-5876	(1+p)/(4p)	p=14	1.201
	ZLQZRJ-5871	(1+q)/4q	q=14	1.2017

Statistical Analysis Summary of D8S1179 **Likelihood Ratio Mode: 1.2017**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	2PWLZT-5876	(1+2p)/8p	p=12	3.1981
	2TWWVT-5876	1+2p/8p	p=12	3.1981
	47ZYAM-5871	k1+2k0a/2a	a=12	3.1981
	4M4YBH-5871	(2p+1)/8p	p=12	3.198
	63BHME-5876	(1+2p)/8p	p=12	3.1981
	6WLZ7H-5871	(0.25+0.5p)/2p	p=12	3.1981
	73NZQP-5871	(1+2p)/8p	p=12	3.1981
	7KPNHN-5876	(1+2p)/8p	p=12	3.198
	7UGQED-5871	(1+2p)/8p	12	3.198
	9J9BTH-5871	(1+2p)/8p	p=12	3.1981
	BL64TD-5871	(1+2p)/8p	p=12	3.198
	CK8B9E-5876	*	*	2.698
	CUVLMV-5871	(2a+1)/8a	a=12	3.1981
	F7GHC4-5871	R=c(k1)+2ac(k0), U=2ac, LR=R/U	a=12, k1=0.25, ko=0.25, C=15	3.194
	FTRKB6-5871	(1+2p)/8p	p=12	3.1981
	GBTMM4-5876	(1+2p)/8p	p=12	3.1981
	GRURQ7-5876	(1+2p)/8p	p=12	3.2
	HGD6G6-5871	(1+2p)/8p	p=12	3.198113208
	HPLAD9-5871	z_1/4p_a+Z_0	a=12	3.1981
	HVAL74-5871	(1+2p)/8p	p=12	3.1981
	LRYAMC-5871	(1+2p)/(8p)	p=12	3.198113208
	MNXYJ4-5871	(1+2p)/8p	p=12	3.1981
	MTRTG6-5876	(1+2p)/8p	p=12	3.1981
	MW64G8-5876	(1+2p)/8p	p=12	3.1981

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D10S1248	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-12, b-13	3.1981
	R2PEAZ-5876	(1+2p)/8p	p=12	3.1981
	RPVXLY-5876	(1+2p)/8p	p=12	3.19811
	U3RR8R-5871	(1+2p)/8p	p=12	3.1981
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=12,b=13,c=15	3.1981
	WCN9GX-5876	(1+2p)/8p	p=12	3.1981
	WTDM9R-5876	(1+2p)/(8p)	p=12	3.198
	ZLQZRJ-5871	(1+2p)/8p	p=12	3.1981

Statistical Analysis Summary of D10S1248 **Likelihood Ratio Mode: 3.1981**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	2PWLZT-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	2TWWVT-5876	1+p+q+2pq/8pq	p=18, q=21	8.3184
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=18, b=21	8.3186
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=18, q=21	8.319
	63BHME-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=18, q=21	8.3187
	73NZQP-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.319
	7UGQED-5871	(1+p+q+2pq)/8pq	18,21	8.319
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	BL64TD-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.319
	CK8B9E-5876	*	*	7.711
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=18, b=21	8.3187
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=18, b= 21, k2=0.25, k1=0.25, ko=0.25	8.315
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.32
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.318651385
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=18, b=21	8.3186
	HVAL74-5871	(1+p+s+2ps)/8ps	p=18, s=21	8.3187
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=18, q=21	8.318651385
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	MW64G8-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D12S391	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-18, b-21	8.3187
	R2PEAZ-5876	(1+p+s+2ps)/8ps	p=18, s=21	8.3187
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.31865
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=18, b=21	8.3187
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=18, q=21	8.3187
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=18, q=21	8.3187

Statistical Analysis Summary of D12S391 **Likelihood Ratio Mode: 8.3187**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	2PWLZT-5876	(1+p)^2/(2p)^2	p=9	12.424
	2TWWVT-5876	$(1+p)^2/(2p)^2$	p=9	12.424
	47ZYAM-5871	k2+2k1a+k0a2/a2	a=9	12.2367
	4M4YBH-5871	(p+1)^2/4p^2	p=9	12.424
	63BHME-5876	(1+2p+pp)/4pp	p=9	12.4242
	6WLZ7H-5871	(0.25(1+2p+pp))/pp	p=9	12.4242
	73NZQP-5871	(1+p)^2/(2p)^2	p=9	12.424
	7KPNHN-5876	(1+p)^2/(2p)^2	p=9	12.42
	7UGQED-5871	(1+p)^2/(2p)^2	9	12.424
	9J9BTH-5871	(1+p)(1+p)/(2p)(2p)	p=9	12.424
	BL64TD-5871	(1+p)^2/4p^2	p=9	12.424
	CK8B9E-5876	*	*	10.14
	CUVLMV-5871	(a+1)^2/4a^2	a=9	12.424
	F7GHC4-5871	R=1(k2)+a(k1)+a(k1)+a*a(k0), U=a*a, LR=R/U	a=9, k2=0.25, k1=0.25, ko=0.25	12.432
	FTRKB6-5871	(1+P)^2/4(p^2)	p=9	12.4242
	GBTMM4-5876	((1+p)(1+p))/((2p)(2p)))	p=9	12.4242
	GRURQ7-5876	(1+2p+pp)/4pp	p=9	12.4
	HGD6G6-5871	(1+p)^2/(2p)^2	p=9	12.42423892
	HPLAD9-5871	z_2/(p_a^2)+Z_1/p_a+Z_0	a=9	12.4242
	HVAL74-5871	(1+2p+pp)/4pp	p=9	12.4242
	LRYAMC-5871	(1+p)^2/(4p^2)	p=9	12.42423892
	MNXYJ4-5871	(1+p)^2/(2p)^2	p=9	12.4242
	MTRTG6-5876	[(1+p)*(1+P)]/[2p*2p]	p=9	12.4242
	MW64G8-5876	(1+p)^2/(2p)^2	p=9	12.424

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D13S317	PG8X2A-5871	(0.25+0.5a+0.25a ^ 2)/a ^ 2	a-9	12.424
	R2PEAZ-5876	(1+2p+pp)/4pp	p=9	12.4242
	RPVXLY-5876	(1+p) ^ 2/(2p) ^ 2	p=9	12.42424
	U3RR8R-5871	(1+2p+pp)/4pp	p=9	12.4242
	VCU7C4-5871	(0.25+0.5a+0.25a ^ 2)/a ^ 2	a=9	12.424
	WCN9GX-5876	(1+p) ^ 2/(2p) ^ 2	p=9	12.424
	WTDM9R-5876	1/4*[(1+p) ^ 2/p ^ 2]	p=9	12.424
	ZLQZRJ-5871	[(1+p)/2p] ^ 2	p=9	12.4242

Statistical Analysis Summary of D13S317 **Likelihood Ratio Mode: 12.424**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	2PWLZT-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	2TWWVT-5876	1+p+q+2pq/8pq	p=10, q=12	4.5266
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=10, b=12	4.5265
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=10, q=12	4.527
	63BHME-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=10, q=12	4.5266
	73NZQP-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.527
	7UGQED-5871	(1+p+q+2pq)/8pq	10,12	4.526
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	BL64TD-5871	(1+p+q+2pq)/8pq	p=10, q = 12	4.527
	CK8B9E-5876	*	*	4.350
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=10, b=12	4.5266
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=10, b= 12, k2=0.25, k1=0.25, ko=0.25	4.526
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.53
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.526583765
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=10, b=12	4.5266
	HVAL74-5871	(1+p+r+2pr)/8pr	p=10, r=12	4.5266
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=10, q=12	4.526583765
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=10, q = 12	4.5266
	MW64G8-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.5266

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D16S539	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-10, b-12	4.5266
	R2PEAZ-5876	(1+p+r+2pr)/8pr	p=10, r=12	4.5266
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.52658
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=10, b=12	4.5266
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=10, q=12	4.5266
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=10, q=12	4.526
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=10, q=12	4.5266

Statistical Analysis Summary of D16S539 **Likelihood Ratio Mode: 4.5266**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	2PWLZT-5876	(1+2p)/8p	p=15	1.0367
	2TWWVT-5876	1+2p/8p	p=15	1.0367
	47ZYAM-5871	k1+2k0a/2a	a=15	1.0366
	4M4YBH-5871	(2p+1)/8p	p=15	1.037
	63BHME-5876	(1+2q)/8q	q=15	1.0367
	6WLZ7H-5871	(0.25+0.5p)/2p	p=15	1.0367
	73NZQP-5871	(1+2p)/8p	p=15	1.0367
	7KPNHN-5876	(1+2p)/8p	p=15	1.037
	7UGQED-5871	(1+2p)/8p	15	1.037
	9J9BTH-5871	(1+2p)/8p	p=15	1.0367
	BL64TD-5871	(1+2p)/8p	p=15	1.037
	CK8B9E-5876	*	*	1.013
	CUVLMV-5871	(2a+1)/8a	a=15	1.0367
	F7GHC4-5871	R=c(k1)+2ac(k0), U=2ac, LR=R/U	a=15, C= 16, k1=0.25, ko=0.25	1.038
	FTRKB6-5871	(1+2p)/8p	p=15	1.0367
	GBTMM4-5876	(1+2p)/8p	p=15	1.0367
	GRURQ7-5876	(1+2p)/8p	p=15	1.04
	HGD6G6-5871	(1+2p)/8p	p=15	1.036658276
	HPLAD9-5871	z_1/4p_a+Z_0	a=15	1.0366
	HVAL74-5871	(1+2r)/8r	r=15	1.0367
	LRYAMC-5871	(1+2p)/(8p)	p=15	1.036658276
	MNXYJ4-5871	(1+2p)/8p	p=15	1.0367
	MTRTG6-5876	(1+2p)/8p	p=15	1.0367
	MW64G8-5876	(1+2p)/8p	p=15	1.0367

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D18S51	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-15, b-13	1.0367
	R2PEAZ-5876	(1+2r)/8r	r=15	0.9117
	RPVXLY-5876	(1+2p)/8p	p=15	1.03666
	U3RR8R-5871	(1+2q)/8q	q=15	1.0367
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=15,b=13,c=16	1.0367
	WCN9GX-5876	(1+2p)/8p	p=15	1.0367
	WTDM9R-5876	(1+2p)/(8p)	p=15	1.036
	ZLQZRJ-5871	(1+2q)/8q	q=15	1.0367

Statistical Analysis Summary of D18S51 **Likelihood Ratio Mode: 1.0367**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	2PWLZT-5876	(1+p)/4p	p=13	1.3736
	2TWWVT-5876	1+p/4p	p=13	1.3736
	47ZYAM-5871	k1+k0a/a	a=13	1.3736
	4M4YBH-5871	(p+1)/4p	p=13	1.374
	63BHME-5876	(1+p)/4p	p=13	1.3736
	6WLZ7H-5871	0.25+(0.25/p)	p=13	1.3736
	73NZQP-5871	(1+p)/4p	p=13	1.3736
	7KPNHN-5876	(1+p)/4p	p=13	1.374
	7UGQED-5871	(1+p)/4p	13	1.374
	9J9BTH-5871	(1+p)/4p	p=13	1.3736
	BL64TD-5871	(1+p)/4p	p=13	1.374
	CK8B9E-5876	*	*	1.313
	CUVLMV-5871	(1+a)/4a	a=13	1.3736
	F7GHC4-5871	R=b(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=13, b= 15, k1=0.25, ko=0.25	1.375
	FTRKB6-5871	(1+p)/4p	p=13	1.3736
	GBTMM4-5876	(1+p)/4p	p=13	1.3736
	GRURQ7-5876	(1+p)/4p	p=13	1.37
	HGD6G6-5871	(1+p)/4p	p=13	1.373595506
	HPLAD9-5871	z_1/2p_a+Z_0	a=13	1.3736
	HVAL74-5871	(1+p)/4p	p=13	1.3736
	LRYAMC-5871	(1+p)/(4p)	p=13	1.373595506
	MNXYJ4-5871	(1+p)/4p	p=13	1.3736
	MTRTG6-5876	(1+p)/4p	p=13	1.3736
	MW64G8-5876	(1+p)/4p	p=13	1.3736

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D19S433	PG8X2A-5871	(0.25a+0.25a^2)/a^2	a-13	1.3736
	R2PEAZ-5876	(1+p)/4p	p=13	1.3736
	RPVXLY-5876	(1+p)/4p	p=13	1.37360
	U3RR8R-5871	(1+p)/4p	p=13	1.3736
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=13, b=15	1.3736
	WCN9GX-5876	(1+p)/4p	p=13	1.3736
	WTDM9R-5876	(1+p)/(4p)	p=13	1.373
	ZLQZRJ-5871	(1+p)/4p	p=13	1.3736

Statistical Analysis Summary of D19S433 **Likelihood Ratio Mode: 1.3736**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	2PWLZT-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	2TWWVT-5876	1+p+q+2pq/8pq	p=29, q=31.2	8.1523
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=29, b= 31.2	8.1525
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=29, q=31.2	8.153
	63BHME-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=29, q=31.2	8.1525
	73NZQP-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.153
	7UGQED-5871	(1+p+q+2pq)/8pq	29,31.2	8.152
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	BL64TD-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.153
	CK8B9E-5876	*	*	7.531
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=29, b=31.2	8.1525
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=29, b= 31.2, k2=0.25, k1=0.25, ko=0.25	8.143
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.15
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.15251565
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=29, b=31.2	8.1525
	HVAL74-5871	(1+a+p+2ap)/8ap	a=29, p=31.2	8.1525
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=29, q=31.2	8.15251565
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=29, q = 31.2	8.1525
	MW64G8-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D21S11	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-29, b-31.2	8.1525
	R2PEAZ-5876	(1+a+p+2ap)/8ap	p=29, a=31.2	8.1525
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.15252
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=29, b=31.2	8.1525
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=29, q=31.2	8.152
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=29, q=31.2	8.1525

Statistical Analysis Summary of D21S11 **Likelihood Ratio Mode: 8.1525**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	2PWLZT-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	2TWWVT-5876	1+p+q+2pq/8pq	p=15, q=16	1.7408
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=15, b=16	1.7408
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=15, q=16	1.741
	63BHME-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=15, q=16	1.7408
	73NZQP-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.741
	7UGQED-5871	(1+p+q+2pq)/8pq	15,16	1.741
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	BL64TD-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.741
	CK8B9E-5876	*	*	1.745
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=15, b=16	1.7408
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=15, b= 16, k2=0.25, k1=0.25, ko=0.25	1.741
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.74
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.740833515
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=15, b=16	1.7408
	HVAL74-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=15, q=16	1.740833515
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	MW64G8-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
D22S1045	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-15, b-16	1.7408
	R2PEAZ-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.74083
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=15, b=16	1.7408
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=15, q=16	1.7408
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=15, q=16	1.740
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=15, q=16	1.7408

Statistical Analysis Summary of D22S1045 **Likelihood Ratio Mode: 1.7408**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	2PWLZT-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.242
	2TWWVT-5876	1+p+q+2pq/8pq	p=9, q=11	25.240
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=9, b=11	25.2422
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=9, q=11	25.242
	63BHME-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=9, q=11	25.2423
	73NZQP-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.242
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.24
	7UGQED-5871	(1+p+q+2pq)/8pq	9,11	25.242
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.242
	BL64TD-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.242
	CK8B9E-5876	*	*	18.04
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=9, b=11	25.242
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=9, b= 11, k2=0.25, k1=0.25, ko=0.25	25.308
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.2
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.24228941
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=9, b=11	25.2423
	HVAL74-5871	(1+p+r+2pr)/8pr	p=9, r=11	25.2423
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=9, q=11	25.24228941
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	MW64G8-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.242

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
CSF1PO	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-9, b-11	25.242
	R2PEAZ-5876	(1+p+r+2pr)/8pr	p=9, r=11	25.2423
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.24229
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.2423
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=9, b=11	25.242
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=9, q=11	25.242
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=9, q=11	25.242
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=9, q=11	25.2423

Statistical Analysis Summary of CSF1PO **Likelihood Ratio Mode: 25.242**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	2PWLZT-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	2TWWVT-5876	1+p+q+2pq/8pq	p=23, q=24	9.4580
	47ZYAM-5871	k2+k1a+k1b+k02ab/2ab	a=23, b=24	9.4579
	4M4YBH-5871	(2pq+p+q+1)/8pq	p=23, q=24	9.458
	63BHME-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	6WLZ7H-5871	(0.25+0.25(p+q)+0.5(pq))/2pq	p=23, q=24	9.4579
	73NZQP-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	7KPNHN-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.458
	7UGQED-5871	(1+p+q+2pq)/8pq	23,24	9.458
	9J9BTH-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	BL64TD-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.458
	CK8B9E-5876	*	*	8.700
	CUVLMV-5871	(1+a+b+2ab)/8ab	a=23, b=24	9.4579
	F7GHC4-5871	R=1(k2)+a(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=23, b=24, k2=0.25, k1=0.25, ko=0.25	9.455
	FTRKB6-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	GBTMM4-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	GRURQ7-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.46
	HGD6G6-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.457905717
	HPLAD9-5871	(2z_2+Z_1(p_a+p_b))/ (4p_ap_b)+Z_0	a=23, b=24	9.4579
	HVAL74-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	LRYAMC-5871	(1+p+q+2pq)/(8pq)	p=23, q=24	9.457905717
	MNXYJ4-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	MTRTG6-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	MW64G8-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
FGA	PG8X2A-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a-23, b-24	9.4579
	R2PEAZ-5876	(1+p+q+2pq)/8pq	p=12, q=24	9.4579
	RPVXLY-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.45791
	U3RR8R-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	VCU7C4-5871	(0.25+0.25a+0.25b+0.5ab)/2ab	a=23, b=24	9.4579
	WCN9GX-5876	(1+p+q+2pq)/8pq	p=23, q=24	9.4579
	WTDM9R-5876	(1+p+q+2pq)/(8pq)	p=23, q=24	9.457
	ZLQZRJ-5871	(1+p+q+2pq)/8pq	p=23, q=24	9.4579

Statistical Analysis Summary of FGA **Likelihood Ratio Mode: 9.4579**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	2PWLZT-5876	(1+p)^2/(2p)^2	p=11	13.835
	2TWWVT-5876	$(1+p)^2/(2p)^2$	p=11	13.835
	47ZYAM-5871	k2+2k1a+k0a2/a2	a=11	13.8352
	4M4YBH-5871	(p+1)^2/4p^2	p=11	13.835
	63BHME-5876	(1+2p+pp)/4pp	p=11	13.8352
	6WLZ7H-5871	(0.25(1+2p+pp))/pp	p=11	13.8352
	73NZQP-5871	(1+p)^2/(2p)^2	p=11	13.835
	7KPNHN-5876	(1+p)^2/(2p)^2	p=11	13.84
	7UGQED-5871	(1+p)^2/(2p)^2	11	13.835
	9J9BTH-5871	(1+p)(1+p)/(2p)(2p)	p=11	13.835
	BL64TD-5871	(1+p)^2/4p^2	p=11	13.835
	CK8B9E-5876	*	*	
	CUVLMV-5871	(a+1)^2/4a^2	a=11	13.835
	F7GHC4-5871	R=1(k2)+a(k1)+a(k1)+a*a(k0), U=a*a, LR=R/U	a=11, k2=0.25, k1=0.25, ko=0.25	13.842
	FTRKB6-5871	(1+P)^2/4(p^2)	p=11	13.8352
	GBTMM4-5876	((1+p)(1+p))/((2p)(2p)))	p=11	13.8352
	GRURQ7-5876	(1+2p+pp)/4pp	p=11	13.8
	HGD6G6-5871	(1+p)^2/(2p)^2	p=11	13.8352383
	HPLAD9-5871	z_2/(p_a^2)+Z_1/p_a+Z_0	a=11	13.8352
	HVAL74-5871	(1+2p+pp)/4pp	p=11	13.8352
	LRYAMC-5871	(1+p)^2/(4p^2)	p=11	13.8352383
	MNXYJ4-5871	(1+p)^2/(2p)^2	p=11	13.8352
	MTRTG6-5876	[(1+p)*(1+P)]/[2p*2p]	p=11	13.8352
	MW64G8-5876	(1+p)^2/(2p)^2	p=11	13.835

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaD	PG8X2A-5871	(0.25+0.5a+0.25a^2)/a^2	a-11	13.835
	R2PEAZ-5876	(1+2p+pp)/4pp	p=11	13.8352
	RPVXLY-5876	(1+p)^2/(2p)^2	p=11	13.83524
	U3RR8R-5871	(1+2p+pp)/4pp	p=11	13.8352
	VCU7C4-5871	(0.25+0.5a+0.25a^2)/a^2	a=11	13.835
	WCN9GX-5876	(1+p)^2/(2p)^2	p=11	13.835
	WTDM9R-5876	1/4*[(1+p)^2/p^2]	p=11	13.835
	ZLQZRJ-5871	[(1+p)/2p]^2	p=11	13.8352

Statistical Analysis Summary of PentaD **Likelihood Ratio Mode: 13.835**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	2PWLZT-5876	(1+2p)/8p	p=5	3.7222
	2TWWVT-5876	1+2p/8p	p=5	3.7222
	47ZYAM-5871	k1+2k0a/2a	a=5	3.7222
	4M4YBH-5871	(2p+1)/8p	p=5	3.722
	63BHME-5876	(1+2p)/8p	p=5	3.7222
	6WLZ7H-5871	(0.25+0.5p)/2p	p=5	3.7222
	73NZQP-5871	(1+2p)/8p	p=5	3.7222
	7KPNHN-5876	(1+2p)/8p	p=5	3.722
	7UGQED-5871	(1+2p)/8p	5	3.722
	9J9BTH-5871	(1+2p)/8p	p=5	3.7222
	BL64TD-5871	(1+2p)/8p	p=5	3.722
	CK8B9E-5876	*	*	
	CUVLMV-5871	(2a+1)/8a	a=5	3.7222
	F7GHC4-5871	R=c(k1)+2ac(k0), U=2ac, LR=R/U	a=5, k1=0.25, ko=0.25, C= 14	3.712
	FTRKB6-5871	(1+2p)/8p	p=5	3.7222
	GBTMM4-5876	(1+2p)/8p	p=5	3.7222
	GRURQ7-5876	(1+2p)/8p	p=5	3.72
	HGD6G6-5871	(1+2p)/8p	p=5	3.722222222
	HPLAD9-5871	z_1/4p_a+Z_0	a=5	3.7222
	HVAL74-5871	(1+2p)/8p	p=5	3.7222
	LRYAMC-5871	(1+2p)/(8p)	p=5	3.722222222
	MNXYJ4-5871	(1+2p)/8p	p=5	3.7222
	MTRTG6-5876	(1+2p)/8p	p=5	3.7222
	MW64G8-5876	(1+2p)/8p	p=5	3.7222

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
PentaE	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-5, b-16	3.722
	R2PEAZ-5876	(1+2p)/8p	p=5	3.7222
	RPVXLY-5876	(1+2p)/8p	p=5	3.72222
	U3RR8R-5871	(1+2p)/8p	p=5	3.7222
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=5,b=16,c=14	3.7222
	WCN9GX-5876	(1+2p)/8p	p=5	3.7222
	WTDM9R-5876	(1+2p)/(8p)	p=5	3.722
	ZLQZRJ-5871	(1+2p)/8p	p=5	3.7222

Statistical Analysis Summary of PentaE **Likelihood Ratio Mode: 3.7222**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	2PWLZT-5876	(1+2p)/8p	p=19	1.6545
	2TWWVT-5876	1+2p/8p	p=19	1.6545
	47ZYAM-5871	k1+2k0a/2a	a=19	1.6545
	4M4YBH-5871	(2p+1)/8p	p=19	1.654
	63BHME-5876	(1+2p)/8p	p=19	1.6545
	6WLZ7H-5871	(0.25+0.5p)/2p	p=19	1.6545
	73NZQP-5871	(1+2p)/8p	p=19	1.6545
	7KPNHN-5876	(1+2p)/8p	p=19	1.654
	7UGQED-5871	(1+2p)/8p	19	1.654
	9J9BTH-5871	(1+2p)/8p	p=19	1.6545
	BL64TD-5871	(1+2p)/8p	p=19	1.654
	CK8B9E-5876	*	*	1.551
	CUVLMV-5871	(2a+1)/8a	a=19	1.6545
	F7GHC4-5871	R=c(k1)+2ac(k0), U=2ac, LR=R/U	a=19, C= 15, k1=0.25, ko=0.25	1.656
	FTRKB6-5871	(1+2p)/8p	p=19	1.6545
	GBTMM4-5876	(1+2p)/8p	p=19	1.6545
	GRURQ7-5876	(1+2p)/8p	p=19	1.65
	HGD6G6-5871	(1+2p)/8p	p=19	1.654494382
	HPLAD9-5871	z_1/4p_a+Z_0	a=19	1.6545
	HVAL74-5871	(1+2t)/8t	t=19	1.6545
	LRYAMC-5871	(1+2p)/(8p)	p=19	1.654494382
	MNXYJ4-5871	(1+2p)/8p	p=19	1.6545
	MTRTG6-5876	(1+2p)/8p	p=19	1.6545
	MW64G8-5876	(1+2p)/8p	p=19	1.6545

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
SE33	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-19, b-26.2	1.6545
	R2PEAZ-5876	(1+2t)/8t	t=19	1.6545
	RPVXLY-5876	(1+2p)/8p	p=19	1.65449
	U3RR8R-5871	(1+2p)/8p	p=19	1.6545
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=19,b=26.2,c=15	1.6545
	WCN9GX-5876	(1+2p)/8p	p=19	1.6545
	WTDM9R-5876	(1+2p)/(8p)	p=19	1.654
	ZLQZRJ-5871	(1+2p)/8p	p=19	1.6545

Statistical Analysis Summary of SE33 **Likelihood Ratio Mode: 1.6545**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	2PWLZT-5876	(1+2p)/8p	p=6	0.77214
	2TWWVT-5876	1+2p/8p	p=6	0.77214
	47ZYAM-5871	k1+2k0a/2a	a=6	0.7721
	4M4YBH-5871	(2p+1)/8p	p=6	0.7721
	63BHME-5876	(1+2p)/8p	p=6	0.7721
	6WLZ7H-5871	(0.25+0.5p)/2p	p=6	0.7721
	73NZQP-5871	(1+2p)/8p	p=6	0.77214
	7KPNHN-5876	(1+2p)/8p	p=6	0.7721
	7UGQED-5871	(1+2p)/8p	6	0.772
	9J9BTH-5871	(1+2p)/8p	p=6	0.77214
	BL64TD-5871	(1+2p)/8p	p=6	0.772
	CK8B9E-5876	*	*	0.7665
	CUVLMV-5871	(2a+1)/8a	a=6	0.77214
	F7GHC4-5871	R=c(k1)+2ac(k0), U=2ac, LR=R/U	a=6, k1=0.25, ko=0.25, C= 7	0.773
	FTRKB6-5871	(1+2p)/8p	p=6	0.7221
	GBTMM4-5876	(1+2p)/8p	p=6	0.7721
	GRURQ7-5876	(1+2p)/8p	p=6	0.772
	HGD6G6-5871	(1+2p)/8p	p=6	0.77213868
	HPLAD9-5871	z_1/4p_a+Z_0	a=6	0.7721
	HVAL74-5871	(1+2p)/8p	p=6	0.7721
	LRYAMC-5871	(1+2p)/(8p)	p=6	0.77213868
	MNXYJ4-5871	(1+2p)/8p	p=6	0.7721
	MTRTG6-5876	(1+2p)/8p	p=6	0.7721
	MW64G8-5876	(1+2p)/8p	p=6	0.77214

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TH01	PG8X2A-5871	(0.25b+0.5ab)/2ab	a-6, b-9.3	0.77214
	R2PEAZ-5876	(1+2p)/8p	p=6	0.7721
	RPVXLY-5876	(1+2p)/8p	p=6	0.77214
	U3RR8R-5871	(1+2p)/8p	p=6	0.7721
	VCU7C4-5871	(0.25b+0.5ab)/2ab	a=6,b=9.3,c=7	0.77214
	WCN9GX-5876	(1+2p)/8p	p=6	0.77214
	WTDM9R-5876	(1+2p)/(8p)	p=6	0.7720
	ZLQZRJ-5871	(1+2p)/8p	p=6	0.7721

Statistical Analysis Summary of TH01 **Likelihood Ratio Mode: 0.7721**

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	2PWLZT-5876	(1+p)/4p	p=11	1.2335
	2TWWVT-5876	1+p/4p	p=11	1.2335
	47ZYAM-5871	k1+k0a/a	a=11	1.2334
	4M4YBH-5871	(p+1)/4p	p=11	1.233
	63BHME-5876	(1+q)/4q	q=11	1.2335
	6WLZ7H-5871	0.25+(0.25/p)	p=11	1.2335
	73NZQP-5871	(1+p)/4p	p=11	1.2335
	7KPNHN-5876	(1+p)/4p	p=11	1.233
	7UGQED-5871	(1+p)/4p	11	1.233
	9J9BTH-5871	(1+p)/4p	p=11	1.2335
	BL64TD-5871	(1+p)/4p	p=11	1.233
	CK8B9E-5876	*	*	1.189
	CUVLMV-5871	(1+a)/4a	a=11	1.2335
	F7GHC4-5871	R=a(k1)+a*a(k0), U=a*a, LR=R/U	a=11, b= 8, k1=0.25, ko=0.25	1.235
	FTRKB6-5871	(1+p)/4p	p=11	1.2335
	GBTMM4-5876	(1+p)/4p	p=11	1.2335
	GRURQ7-5876	(1+p)/4p	p=11	1.23
	HGD6G6-5871	(1+p)/4p	p=11	1.233477577
	HPLAD9-5871	z_1/2p_a+Z_0	a=11	1.2335
	HVAL74-5871	(1+s)/4s	s=11	1.2335
	LRYAMC-5871	(1+p)/(4p)	p=11	1.233477577
	MNXYJ4-5871	(1+p)/4p	p=11	1.2335
	MTRTG6-5876	(1+p)/4p	p=11	1.2335
	MW64G8-5876	(1+p)/4p	p=11	1.2335

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
TPOX	PG8X2A-5871	(0.5a+0.5ab)/2ab	a-8, b-11	1.2335
	R2PEAZ-5876	(1+s)/4s	s=11	1.2335
	RPVXLY-5876	(1+p)/4p	p=11	1.23348
	U3RR8R-5871	(1+q)/4q	q=11	1.2335
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=11, b=8	1.2335
	WCN9GX-5876	(1+p)/4p	p=11	1.2335
	WTDM9R-5876	(1+p)/(4p)	p=11	1.233
	ZLQZRJ-5871	(1+q)/4q	q=11	1.2335

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

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	2PWLZT-5876	(1+p)/4p	p=16	1.1306
	2TWWVT-5876	1+p/4p	p=16	1.1306
	47ZYAM-5871	k1+k0a/a	a=16	1.1306
	4M4YBH-5871	(p+1)/4p	p=16	1.131
	63BHME-5876	(1+p)/4p	p=16	1.1306
	6WLZ7H-5871	0.25+(0.25/p)	p=16	1.1306
	73NZQP-5871	(1+p)/4p	p=16	1.1306
	7KPNHN-5876	(1+p)/4p	p=16	1.131
	7UGQED-5871	(1+p)/4p	16	1.130
	9J9BTH-5871	(1+p)/4p	p=16	1.1306
	BL64TD-5871	(1+p)/4p	p=16	1.131
	CK8B9E-5876	*	*	1.098
	CUVLMV-5871	(1+a)/4a	a=16	1.1306
	F7GHC4-5871	R=b(k1)+b(k1)+2ab(k0), U=2ab, LR=R/U	a=16, b= 18, k1=0.25, ko=0.25	1.130
	FTRKB6-5871	(1+p)/4p	p=16	1.1306
	GBTMM4-5876	(1+p)/4p	p=16	1.1306
	GRURQ7-5876	(1+p)/4p	p=16	1.13
	HGD6G6-5871	(1+p)/4p	p=16	1.130591758
	HPLAD9-5871	z_1/2p_a+Z_0	a=16	1.1306
	HVAL74-5871	(1+p)/4p	p=16	1.1306
	LRYAMC-5871	(1+p)/(4p)	p=16	1.130591758
	MNXYJ4-5871	(1+p)/4p	p=16	1.1306
	MTRTG6-5876	(1+p)/4p	p=16	1.1306
	MW64G8-5876	(1+p)/4p	p=16	1.1306

TABLE 6 - Kinship Likelihood Ratio Results

Locus	WebCode-Test	Formula	Allele Legend	Likelihood Ratio
vWA	PG8X2A-5871	(0.25a+0.25a^2)/a^2	a-16	1.1306
	R2PEAZ-5876	(1+p)/4p	p=16	1.1306
	RPVXLY-5876	(1+p)/4p	p=16	1.13059
	U3RR8R-5871	(1+p)/4p	p=16	1.1306
	VCU7C4-5871	(0.25a+0.25a^2)/a^2	a=16, b=18	1.1306
	WCN9GX-5876	(1+p)/4p	p=16	1.1306
	WTDM9R-5876	(1+p)/(4p)	p=16	1.130
	ZLQZRJ-5871	(1+p)/4p	p=16	1.1306

Statistical Analysis Summary of vWA **Likelihood Ratio Mode: 1.1306**

Kinship DNA Statistics

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

TABLE 7

WebCode-Test	Kinship Index	Claim Supported?
2PWLZT-5876	340 billion	Yes
2TWWVT-5876	3.3993 x 10^11	Yes
47ZYAM-5871	330 billion	Yes
4M4YBH-5871	3.399E+11	Inconclusive
63BHME-5876	339,944,185,582.0970	Yes
6WLZ7H-5871	3,39E11	Yes
73NZQP-5871	340 billion	Yes
7KPNHN-5876	340.1 billion	Yes
7UGQED-5871	339944185582	Yes
9J9BTH-5871	339,944,185,582	Yes
BL64TD-5871	3.399E+11	Yes
CK8B9E-5876	150 Million	Yes
CUVLMV-5871	340,000,000,000	Yes
F7GHC4-5871	338720717757.015	Yes
FTRKB6-5871	339979454563.2060	Yes
GBTMM4-5876	3.45E+11	Yes
GRURQ7-5876	340 billion 3.4 ee11	Yes
HGD6G6-5871	3.39944E+11	Yes
HPLAD9-5871	340 billion	Yes
HVAL74-5871	3.40e11	Yes
LRYAMC-5871	3.39944E+11	Yes
MNXYJ4-5871	339,979,454,563.21	Yes
MTRTG6-5876	339944185582.10	Yes
MW64G8-5876	340.0 billion	Yes
PG8X2A-5871	1,100,000,000,000	Yes
R2PEAZ-5876	298953799265	Yes
RPVXLY-5876	LR=3.4E+11; Probability=99,99999%	Yes
U3RR8R-5871	300,678,103,549.3640	Yes
VCU7C4-5871	1,100,000,000,000	Yes

TABLE 7 - Kinship DNA Statistics

WebCode-Test	Kinship Index	Claim Supported?
WCN9GX-5876	340,000,000,000	Yes
WTDM9R-5876	40,659,606,089	Yes
ZLQZRJ-5871	3.3994E+11	Inconclusive

Response Summary	Participants: 32
Is the relationship claim of Full Siblings supported?	
Yes	30
No	0
Inconclusive	2

Additional Kinship Statistical Results

TABLE 8

WebCode-Test	Additional Statistical Results
2PWLZT-5876	C and D's profiles are 340 billion times more likely to be observed if they were full siblings rather than if they were unrelated.
2TWWVT-5876	Sibling C's and Sibling D's profiles are 3.3993 x 10^11 times more likely to be observed if they were full siblings rather than if they were unrelated.
4M4YBH-5871	We need more genetic evidence (e.g. Y-STR or X-STR results) to evaluate the relationship of Full Siblings according to our laboratory policies.
63BHME-5876	Per AABB standards, this statement would be added to the report: The genetic evidence supports the relationship of "sibling 1" and "sibling 2" as first degree relatives such as full siblings. Pu and Linacre have shown at a likelihood ratio >10 that STR test results correctly confirm sibship among known sibling pairs >99% of the time. (Systematic evaluation of sensitivity and specificity of sibship determination by using 15 STR loci. Pu and Linacre. Journal of Forensic and Legal Medicine 15 (2008) 329–334.)
6WLZ7H-5871	It is more than 1 billion times more likely to observe these results if C and D are full sibling rather they are unrelated.
7KPNHN-5876	Alleged Sibling C's and Alleged Sibling D's profiles are 340.1 billion times more likely to be observed if they were full siblings rather than if they were unrelated.
CK8B9E-5876	* The likelihood ratios shown above were calculated using the Kin CALc software that uses standard formulae for simple PI's and 2-person KI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/k instead of x/N. The combined KI (Hispanic) shown above does not include D12. D12 was removed due to genetic linkage with vWA. The Penta D and Penta E loci were not calculated as these loci are not tested in this laboratory.
CUVLMV-5871	The calculations are carried out with the full representation of numerical digits. Rounding is done at the end for displaying purposes. Conclusion: When comparing genetic profiles C and D, it was obtained that it is 3,40E+11 times more likely it is that genetic profiles C and D are from full siblings than a randomly-selected unrelated individuals.
FTRKB6-5871	Two DNA profiles from a potential Hispanic full sibling relationship were compared by using the allele frequencies assigned for the test loci. There are likely to be full sibling relationship because probability of kinship index is greater than 99.9999999997%
GRURQ7-5876	3.4ee11=340 billion or 3.4 X10(11)
HPLAD9-5871	In our laboratory we would report this as >100 billion
MNXYJ4-5871	Kinship index (CLR) = 339,979,454,563.21; Posterior Probability = 0.999999999997 = 99.9999999997 %. The probability of kinship equals 99.9999999997 %, There is very strong evidence od full siblingship.
MW64G8-5876	The two individual's profiles are 340.0 billion times more likely to be observed if they were full siblings rather than if they were unrelated.
PG8X2A-5871	* Below is what would be reported based on current laboratory procedures, using the Expanded FBI STR 2015 population database. * Item 001.C: Profile D - Alleged full sibling: AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the full sibling of Profile C using the reference populations listed. The genotype observed for Profile D is "X" times more likely to occur in a full sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where "X" equals: African American – 390 trillion, Caucasian – 82 trillion, Hispanic – 2.1 trillion.
R2PEAZ-5876	Combined full sibship index = 298953799265 Probability of full sibship = 99.9999999997% (50% prior probability) AABB RT Standard 5.3.8.2 states that likelihood ratios greater than 10 shall be considered genetic evidence supporting the tested relationship. 100% of the ratios above this value have been found to be associated with a true full sibling relationship between the tested parties.
RECZKF-5871	This section does not apply to our laboratory

TABLE 8

WebCode-Test	Additional Statistical Results
RPVXLY-5876	Hypothesis 1: Person C and D are Hispanic full sibling Hypothesis 2: Person C and D are unrelated It is 3.4E+11 times more likely that person C and person D are full sibling than they are unrelated. Probability of kinship equals 99,99999%. There is an extremely strong evidence of full siblingship
U3RR8R-5871	Excluded vWA due to linkage with D12S391 for kinship index calculation.
VCU7C4-5871	PentaE -This calculation listed above (3.7222) is different from the value calculated in Popstats (12.042) using NIST 2017 database frequencies. Popstats only allowed the input of <6 allele instead of the 5 allele thereby creating the difference in values. This will also affect the overall statistic calculated. The information below is from our laboratory's Report of Examination which follows our laboratory Procedures and Protocols. Popstats provided the statistical calculations using the expanded FBI STR 2015 database allele frequencies that included PentaD and PentaE since the profile provided by CTS included these loci. Item 001.B: Profile C-AUTOSOMAL STRs: The DNA profile is single source. Item 001.C: Profile D-AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the Full Sibling of Profile C using the reference populations listed. The genotype observed for Profile D is "X" times more likely to occur in a Full Sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where "X" equals: African American - 390 TRILLION, Caucasian - 82 TRILLION, Hispanic - 2.1 TRILLION.
WCN9GX-5876	C's and D's profiles are 340.0 billion times more likely to be observed if they were full siblings rather than if they were unrelated.
WTDM9R-5876	D12S391 was not used in calculating the kinship index due to possible linkage with vWA.
ZLQZRJ-5871	According to the SOP of our laboratory, there are no principles for the value of the kinship index that needs to be reached to determine the relationship of Full Siblings. The relationship of Full Siblings We determine is inconclusive.

Additional Comments

TABLE 9

WebCode-Test	Additional Comments
2PWLZT-5876	For Part II [Table 5: Paternity DNA Statistics & Conclusions]: 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.
2T3BHP-5876	Because of 16 genotypes incompatible with paternity between Daughter (item 2) and Alleged Father B (Item 4) we did not not produce PI calculations for this hypothesis. PI calculations are produced only when less than 3 exclusion loci are observed. Probability of Paternity is calculated with equal prior probabilities for both hypothesis (p(H0) = p(H1) = 0.5). H0: Mother (Item 1) and Alleged Father A (Item 3) are the biological parents of Daughter (Item 2). H1: Mother (Item 1) and an unknown man, unrelated to Alleged Father A and taken at random from the population, are the biological parents of Daughter (Item 2).
2TWWVT-5876	For Part II [Table 5: Paternity DNA Statistics & Conclusions], the locus vWA was not used in the statistical calculation. The probability of paternity was calculated assuming prior probabilities of 10%, 50% and 90%.
693JQE-5876	[Laboratory] routinely reports the three most common ethnic populations. However, in this proficiency, the known samples were designated to be from Caucasian individuals; therefore, the PI's reported are for Caucasian population. Per [Laboratory] policy, samples that are determined by autosomal analysis to be from female donors are not amplified using YSTR technology.
73NZQP-5871	The laboratory protocol is not to include the vWA or D12S391 loci for paternity calculations.
79G9PK-5871	NR = No Results
7KPNHN-5876	For Part II [Table 5: Paternity DNA Statistics & Conclusions], 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%.
7ZHDDK-5871	PI calculations were undertaken using the formula in Table 10.6 on page 366: J.S. Buckleton, C.M. Triggs and S.J. Walsh (Ed). Forensic DNA Evidence Interpretation. CRC Press. Boca Raton, 2005. The allele frequencies in the Caucasian dataset (NIST 1036 U.S. Population Database) were used, including a theta value of 0.01. PI calculations relating to Alleged Father A: Allele 16.1 @ SE33 was not observed in the NIST 1036 U.S. Caucasian dataset. A minimum allele frequency was calculated. (1/k /(N+1), where k = number of observed different alleles at SE33 in this database, N = number of alleles in this database at SE33). PI calculations relating to Alleged Father B: These calculations were not reported as Alleged Father B lacks the obligate paternal allele at 15/21 loci examined. This far exceeds our laboratories procedure of excluding a person from parentage who has three or more inconsistencies with a child. Given the large number of inconsistencies, the possibility of a mutation event at each of these loci has not been considered. Alleged Father B is excluded as being the biological father of the daughter. Y-STR DNA analysis was not undertaken for both of the Alleged Fathers as the child in this case is female and in accordance with our laboratory procedures, this testing is considered uninformative in relation to paternity. Part III [Tables 6,7,8] of this proficiency test (DNA Kinship Statistics) was not undertaken as the Scientist assigned to this proficiency test has not been trained to perform these more complex calculations.
BL64TD-5871	Alleged Father B excluded - therefore no PI values provided.

TABLE 9

WebCode-Test	Additional Comments
CK8B9E-5876	The paternity indexes (PI) were calculated with the KinCalc software that uses standard formulae for simple PI's that incorporate a theta value of 0.01 with allele probabilities with no rounding and a 1/KI instead of just X/N. The KinCalc software uses the NIST STRBase population database. The combined KI (Caucasian) is only calculated to 2 significant figures by the Kin CALc software and does not include the vWA locus. The vWA locus was removed due to linkage with the D12S391 locus.
CUVLMV-5871	Paternity DNA statistics was carry out with NIST-STRBASE population group hispanic
D36TXA-5876	[Laboratory] does not routinely report the combined paternity index. [Laboratory] reports the paternity indices for the three major ethnic groups (Caucasian, African American and Hispanic).
GBTMM4-5876	OF LADDER ALLEL IN ITEM 1 AND ITEM 2 IN D1S1656: 16<N<16.3. OF LADDER ALLEL IN ITEM 2 AND ITEM 3 IN SE33: 16<N<16.2. OF LADDER ALLEL IN ITEM 1 IN DXS10079: 25<N<27. OF LADDER ALLEL IN ITEM 4 IN DXS10148: N>38.1.
GFHWHE-5876	Laboratory does not report probability of paternity. Reported stat is most conservative population group (Caucasian), excluding vWA due to linkage.
H2Y2UB-5871	NR=no results
HVAL74-5871	1: Extraction: In-situ extraction method was used to extract DNA from Item 1, Item 2, Item 3 and Item 4. Chelex extraction method was used to extract DNA from Item 4 for confirmation on exclusion. 2: Quantification: DNA quantification was carried out on Item 4 using Quantifiler Human DNA Quantification Kit with Applied Biosystem Real Time Polymerase Chain Reaction 7500 System. 3: Amplification: Amplification of STR (Short Tandem Repeat) Genetic Loci was carried out on Item 1, Item 2, Item 3 and Item 4 using the AmpFLSTR Identifiler Direct PCR Amplification Kit, while on Item 4 using the AmpFLSTR Identifiler Plus PCR Amplification Kit on the 9700 GeneAmp PCR System. Y-STR (Y-Short Tandem Repeat) amplification was carried out on Item 3 and Item 4 using the AmpFLSTR Y-Filer PCR Amplification kit on the 9700 GeneAmp PCR system. 4: Electrophoresis: Electrophoresis was carried out using Applied Biosystem 3500xL Genetic Analyzer with GeneMapper ID-X Software for Item 1, Item 2, Item 3 and Item 4 (Identifiler Direct) and Item 4 (Identifiler Plus). Electrophoresis for Y-Filer was carried out using Applied Biosystem 3500xL Genetic Analyzer with GeneMapper ID-X Software for Item 3 and Item 4. 5: Reagent blank, positive control and negative control were carried out throughout the analysis and all gave the intended results.
LKJYNX-5876	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.
LRYAMC-5871	NR = No Results. Our laboratory does not calculate a Paternity Index. Per our SOP, we identify obligate alleles which are used to calculate a "Random Man Not Excluded" (RMNE) statistic. For this case, the obligate alleles were as follows: D3 (15), vWA (16 or 18), D16 (12), CSF (10 or 12), TPOX (9), D8 (14), D21 (28 or 29), D18 (12), D2S441 (11), D19 (13 or 14), TH01 (9.3), FGA (20), D22 (15), D5 (11), D13 (13), D7 (12), SE33 (16.1), D10 (14), D1 (12), D12 (20), and D2S1338 (17). RMNE report statement: The expected frequency of individuals who could be the father of Known Child is less than 1 in 470 billion in the general male population.
MNXYJ4-5871	For Part 1 [Table 5: Paternity DNA Statistics & Conclusions]: The probability of paternity, in this case, is greater than 99.999 %. The SE33 locus was not used in the statistical calculation. And need to use more analysis with X Chromosome markers. (Below the table part I (continued): DNA Analysis - Additional DNA.) Conclusion: The genetic data of the alleged father (Item 3) and mother (Item 1) can not be excluded as the biological parent of the child (Item 2). And Item 4 was not the biological parent of the child (Item 2).

TABLE 9

WebCode-Test	Additional Comments
MW64G8-5876	For Part II [Table 5: Paternity DNA Statistics & Conclusions], 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.
NPHZLA-5871	CPI was calculated using vWA, but not D12S391, to account for the possibility that these loci could be in linkage disequilibrium for paternity samples.
P2CBW3-5871	PI not calculated for SE33 as nil frequency data is available for allele 16.1 (using our frequency database). Kinship calculations not performed as I have no training in this type of calculation
PG8X2A-5871	*Below is what would be reported based on current laboratory procedures, using the Expanded FBI STR 2015 population database.* Item 001.A.03.a.01: Biological stain cutting of FTA card identified as coming from Item 3; described as coming from Alleged Father A, Subject A Subject; DNA number D8229; AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject A Subject, cannot be excluded as the potential biological father of the child, Victim Child using Autosomal STRs. These profiles are "X" times more likely to occur if Victim Child is the child of Victim Victim and Subject A Subject than if Victim Child is the child of Victim Victim and a random person from the reference populations listed where "X" equals: African American – 3.3 trillion, Caucasian – 15 billion, Hispanic – 48 billion. Y-STRs: The DNA profile is single source. Item 001.A.04.a.01: Biological stain cutting of FTA card identified as coming from Item 4; described as coming from Alleged Father B, Subject B Subject; DNA number D8230 AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject B Subject, is excluded as the potential biological father of the child, Victim Child using Autosomal STRs. Y-STRs: The DNA profile is single source. Item 001.C: Profile D - Alleged full sibling AUTOSOMAL STRs: The DNA profile is single source. The kinship index supports the hypothesis that Profile D is the full sibling of Profile C using the reference populations listed. The genotype observed for Profile D is "X" times more likely to occur in a full sibling of Profile C than in someone unrelated to Profile C from the reference populations listed where "X" equals: African American – 390 trillion, Caucasian – 82 trillion, Hispanic – 2.1 trillion. ***Note - when entering PentaE into PopStats for NIST 2017 and FBI stats, the entry used was <6, 16 for profile C and <6,14 for profile D; the manual calculation reported on page 8 [Table 6 - Kinship Likelihood Ratio Results] for PentaE with the given frequencies was 3.722; the calculated LR using NIST 2017 and Popstats was 12.042; the reported kinship index for CTS report was calculated from NIST 2017 and Popstats not the manual calculations ***
PY7JVV-5871	NIST-STRBASE Pop Data (Caucasian) was used to calculate PI.
RECZKF-5871	A microvariant was found in loci D1S1656 of items 1 and 2, which was reported on a pair basis according to the policies established in this laboratory. The microvariant has a size of 184.53bp. Therefore, to perform the statistical calculations of relationship, loci d1s1656 was not included.
T2JJ4Y-5871	NR = No results

TABLE 9

WebCode-Test	Additional Comments
VCU7C4-5871	The information below is from our laboratory's Report of Examination which follows our laboratory Procedures and Protocols. Popstats provided the statistical calculations using the expanded FBI STR 2015 database allele frequencies. Item 001.A.01.a: Biological stain cutting of FTA card labeled Item 1 described as coming from Known Parent (Caucasian Mother); DNA Number D8311. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.02.a: Biological stain cutting of FTA card labeled Item 2 described as coming from Known Child (Daughter); DNA Number D8312. AUTOSOMAL STRs: The DNA profile is single source. Item 001.A.03.a: Biological stain cutting of FTA card labeled Item 3 described as coming from Alleged Father A (Caucasian); DNA Number D8313. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject Subject A, cannot be excluded as the potential biological father of the child, Victim Child, using Autosomal STRs. These profiles are "X" times more likely to occur if Victim Child is the child of Victim Victim and Subject Subject A than if Victim Child is the child of Victim Victim and a random person from the reference populations listed where "X" equals: African American - 3.3 TRILLION, Caucasian - 15 BILLION, Hispanic - 48 BILLION. 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 (African American); DNA Number D8314. AUTOSOMAL STRs: The DNA profile is single source. The alleged father, Subject Subject B, is excluded as the potential biological father of the child, Victim Child using Autosomal STRs. Y-STRs The DNA profile is single source.
WCN9GX-5876	For Part II [Table 5]: 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.
ZQU2QR-5871	NR = No Results

-End of Report-
(Appendix may follow)

Collaborative Testing Services ~ Forensic Testing Program

Test No. 21-5871: DNA Parentage

DATA MUST BE SUBMITTED BY **Aug. 2, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A WebCode: FX34F7

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 DPF2 - FTA Microcards):
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 (African American)

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	10.27
vWA	14, 15	14, 17	14: 0.0928 17: 0.1053	15: 0.1053	(1+4p)/8p	p = 14	1.847

Scenario:

The two DNA profiles below are presented as a potential Hispanic full 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	16,17	16,17	16: 0.1758	17: 0.0424			
D2S1338	19,21	21,24	19: 0.1928 24: 0.0763	21: 0.0318			
D2S441	10,11	10,10	10: 0.3369	11: 0.2987			
D3S1358	15,15	15,18	15: 0.3220	18: 0.1229			
D5S818	11,12	11,12	11: 0.3898	12: 0.3390			

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
D7S820	10,11	10,11	10: 0.3072	11: 0.2775			
D8S1179	12,14	14,14	12: 0.1292	14: 0.2627			
D10S1248	12,13	12,15	12: 0.0424	13: 0.2733			
			15: 0.2119				
D12S391	18,21	18,21	18: 0.1780	21: 0.1123			
D13S317	9,9	9,9	9: 0.1653				
D16S539	10,12	10,12	10: 0.1504	12: 0.2775			
D18S51	13,15	15,16	13: 0.1229	15: 0.1589			
			16: 0.1250				
D19S433	13,13	13,15	13: 0.2225	15: 0.1356			
D21S11	29,31.2	29,31.2	29: 0.2076	31.2: 0.0996			
D22S1045	15,16	15,16	15: 0.4258	16: 0.3496			

Locus	C	D	Allele Frequencies		Formula Used	Allele Legend	Likelihood Ratio
CSF1PO	9,11	9,11	9: 0.0233	11: 0.2797			
FGA	23,24	23,24	23: 0.1208	24: 0.1419			
PentaD	11,11	11,11	11: 0.1553				
PentaE	5,16	5,14	5: 0.0360	14: 0.0720			
			16: 0.0614				
SE33	19,26.2	15,19	15: 0.0360	19: 0.0890			
			26.2: 0.0742				
TH01	6,9.3	6,7	6: 0.2394	7: 0.2966			
			9.3: 0.2182				
TPOX	8,11	11,11	8: 0.4852	11: 0.2542			
vWA	16,16	16,18	16: 0.2839	18: 0.1801			

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

2. Is the relationship of Full 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)