



## **DNA-Semen Test No. 16-582 Summary Report**

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This proficiency test was sent to 200 participants. Each participant received a sample pack consisting of two known bloodstains and two questioned stains which they were requested to analyze using their existing protocols. Data were returned from 174 participants (87% response rate) and are compiled into the following tables:

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

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

## **Manufacturer's Information**

Each sample pack consisted of two known bloodstains on FTA Micro cards (Items 1 & 2), and two questioned stains one on clean, gray material (Item 3) and one on clean, pink & white chevron material (Item 4). Participants were requested to analyze these items using their existing protocols.

**SAMPLE PREPARATION:** The stains in Items 1, 2 and 3 were prepared from human whole blood which was either drawn into citric acid preservative bloodbank bags or EDTA tubes. Item 4 was a mixture prepared from human whole blood and semen. The semen, procured from a cryobank, was from a single donor, but stored frozen in multiple vials at  $-196^{\circ}\text{C}$  in liquid nitrogen tanks. The semen was thawed and first mixed 1:1 with TAE buffer, then mixed 1:1 with the blood. This mixture was used to spot the Item 4 substrate. Items 1 ( $75\ \mu\text{l}$ ) and 3 ( $50\ \mu\text{l}$ ) were prepared using blood collected from two separate female donors and Item 2 ( $75\ \mu\text{l}$ ) was prepared using blood collected from a single male donor. Item 4 ( $50\ \mu\text{l}$ ) was a mixture containing blood from the Item 1 female donor and semen from the Item 2 male donor. Stains from different sources were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at  $-20^{\circ}\text{C}$  until shipment on March 7, 2016 following receipt of predistribution results.

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

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

### Amelogenin and STR Results

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

<b>Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16	16,23.2	6,7	8,8	14,16
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	16,18	6,8	8,11	17,19
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
	9,13	16,18	*	8,9	12,12	16,17
4-Blood	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16	*	6,7	8,8	14,16
4-Semen	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	*	6,8	8,11	17,19

### YSTR Results

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

<b>Item</b>	<b>DYS19</b>	<b>DYS385</b>	<b>DYS389-I</b>	<b>DYS389-II</b>	<b>DYS390</b>	<b>DYS391</b>	<b>DYS392</b>	<b>DYS393</b>
	<b>DYS437</b>	<b>DYS438</b>	<b>DYS439</b>	<b>DYS448</b>	<b>DYS456</b>	<b>DYS458</b>	<b>DYS481</b>	<b>DYS533</b>
	<b>DYS549</b>	<b>DYS570</b>	<b>DYS576</b>	<b>DYS635</b>	<b>DYS643</b>	<b>Y GATA H4</b>	<b>Y Indel</b>	
2	14	11,14	12	28	24	11	13	13
	15	12	12	19	17	17	21	12
	12	17	19	23	10	12	*	
4-Semen	14	11,14	12	28	24	11	13	13
	15	12	12	19	17	17	21	12
	12	17	19	23	10	12	*	

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

## **Summary Comments**

The DNA-Semen test is part of the DNA Sample Specific Series; where participants are advised of the body fluid(s) that make up the questioned stains. The test is designed to allow participants to assess their proficiency in the analysis of dried stains where screening has already been completed. Participants were supplied with two "known" bloodstains (Items 1 and 2) and two "questioned" stains (Items 3 and 4). Item 1 was blood collected from a female donor, and Item 2 was blood collected from a male donor. Item 3 was blood collected from a female donor whose blood standard was not provided to participants. Item 4 was a mixture containing blood from the Item 1 female donor and semen from the Item 2 male donor. (See Manufacturer's Information for preparation details)

Of the 174 responding, 156 participants reported DNA interpretations. All 156 participants excluded the victim (Item 1) as a possible contributor to the Item 3 sample. There were 155 participants that included the victim (Item 1) as a possible contributor to the Item 4 mixture, while one excluded the victim (Item 1). All 156 participants excluded the suspect (Item 2) as a possible contributor to the Item 3 sample, and included the suspect (Item 2) in the Item 4 mixture.

Twenty-six participants reported allelic results that differed from the consensus/predistribution results. Of these, two participants were missing alleles at one or more loci, while the remaining twenty-four participants reported additional alleles at one or more loci, with four of these participants doing so on two separate items. For nineteen of these twenty-four participants, it was specifically noted in the additional comments that the probabilistic genotyping software STRmix™ was used in the analysis of the samples, resulting in additional reported peaks due to the software analysis settings per laboratory.

**STR Results**

TABLE 1

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

## Item 1 - STR Results

238J3X	<i>Identifiler® Plus</i>						
	1		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16	
282D2K	<i>PowerPlex® Fusion</i>						
	1	14,16	16,17	11	15,16	11,12	9,11
		11,14	13,14	17,19	10,13	9,13	16,18
		15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16	
2E4PXG	<i>Identifiler® Plus, MiniFiler</i>						
	1		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16	
2G8K GK	<i>PowerPlex® Fusion</i>						
	1	14,16	16,17	11	15,16	11,12	9,11
		11,14	13,14	17,19	10,13	9,13	16,18
		15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16	
2MTB4F	<i>Identifiler® Plus</i>						
	1		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16	
2RMC6U	<i>Identifiler® Direct</i>						
	1		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16	
2RN62G	<i>Identifiler® Direct</i>						
	1	-	16,17	-	15,16	11,12	9,11
		11,14	-	-	10,13	9,13	16,18
		15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16	
2TJM8N	<i>Identifiler® Plus</i>						
	1		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16	

TABLE 1

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

## Item 1 - STR Results

2XT2PM	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3276UV	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
336BDB	<i>COfiler® and Profiler Plus®</i>					
1				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
36BTC7	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3EXURF	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
3KM8VP	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3PHY4L	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3TEP8C	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3UVJ9M	<i>Identifiler® Direct, PowerPlex® ESX17</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
			16,23.2	6,7	8,8	14,16

TABLE 1

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

## Item 1 - STR Results

3Y7WQL	<i>PowerPlex® Fusion</i>	1	14,16	16,17	11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15	X	11,13	24,25
			9,12	7,16		6,7	8	14,16
44DMTR	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
472EKN	<i>Identifiler®</i>	1	not tested	16,17	not tested	15,16	11,12	9,11
			11,14	not tested	not tested	10,13	9,13	16,18
			15,15.2	27,30	not tested	X,X	11,13	24,25
			not tested	not tested	not tested	6,7	8,8	14,16
48FL4J	<i>Identifiler® Direct, PowerPlex® ESX17</i>	1	14,16	16,17	11,11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15,15	X,X	11,13	24,25
					16,23.2	6,7	8,8	14,16
49KD VW	<i>Identifiler® Plus, MiniFiler</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
4K4NLC	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
4PD24B	<i>Identifiler®</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
4T9V2C	<i>Identifiler® , MiniFiler</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
648TMQ	<i>Identifiler® Identifiler Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16

TABLE 1

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

Item 1 - STR Results

666X67	<i>COfiler® and Profiler Plus® Profiler® Plus</i>					
1				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
6NV86L	<i>PowerPlex® ESX 16 Fast</i>					
1	14,16	16,17	11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15	X		24,25
				6,7		14,16
6RE7GV	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
6TBPBW	<i>Identifiler® Plus</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16
6TDCYB	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
6XJ6RK	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
7929CP	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
7FZN4H	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
7JGWNB	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8	14,16



TABLE 1

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

Item 1 - STR Results

7XDBM6	<i>Identifiler®</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
8EG8JA	<i>Identifiler® Plus</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
97KRCG	<i>Identifiler® Plus</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
9A4QNQ	<i>Identifiler® Plus</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
9D6RP9	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
9NLCA6	<i>Identifiler®</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
9NN7QP	<i>Identifiler® Plus</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
9PJPTQ	<i>Identifiler® Plus</i>					
1	16,17			15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
9QURGB	<i>Identifiler®</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16

TABLE 1

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

## Item 1 - STR Results

A28BCQ	<i>Identifiler® Plus</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16
AAXWGP	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
AF4PCK	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
AFQVX7	<i>Identifiler® and Identifiler Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
AG2VUZ	<i>COfiler® and Profiler Plus®</i>					
1				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
APERWL	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
AQMY4K	<i>PowerPlex® 21</i>					
1	14,16	16,17		15,16	11,12	9,11
	11,14		17,19	10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
AV46YA	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
AX4D3J	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

AZBV2F	<i>Globalfiler</i>					
1		14,16	16,17	11	15,16	11,12
		11,14	13,14	17,19	10,13	9,13
		15,15.2	27,30	15	X	11,13
				16,23.2	6,7	8
						14,16
B8UFQD	<i>Identifiler®</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16
BFHBLM	<i>Identifiler® Identifiler Plus, MiniFiler</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16
BKD3TJ	<i>Identifiler® Plus, MiniFiler</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16
BNDEPJ	<i>Identifiler® Plus, MiniFiler</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16
BP9WQK	<i>Identifiler® direct</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X	11,13
			27,30			24,25
					6,7	8
						14,16
BPBJ9Y	<i>Identifiler®</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X	11,13
			27,30			24,25
					6,7	8
						14,16
BVCW7G	<i>Identifiler®</i>					
1			16,17		15,16	11,12
					10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16
BYVHQ	<i>Identifiler® Plus</i>					
1			16,17	-	15,16	11,12
				-	10,13	9,13
			15,15.2		X,X	11,13
			27,30			24,25
					6,7	8,8
						14,16

TABLE 1

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

## Item 1 - STR Results

BZ6ZVE	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
C86KVP	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
C88AZL	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
CCFRZZ	<i>PowerPlex® 16, HS, PPF</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
CFF4WZ	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
CP33M6	<i>Identifiler® Direct</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
CQXKN7	<i>NGM SElect</i>					
1	14,16	16,17	11,11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15,15	X,X		24,25
			16,23.2	6,7		14,16
CT37GD	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
CUHDZ9	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

D6YGKD	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
DUDCDE	<i>PowerPlex® 16 HS</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
DVNEYD	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
E72YWE	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
EKLDYD	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
F7V4PD	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
FBQXME	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
FCN47U	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
FHBUVB	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

FLUT7J	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
FQ47NH	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
FR3C8X	<i>Profiler Plus</i>					
1				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
FX4N3U	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
GC2WK9	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8	14,16
GDVHDZ	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
GH7VWY	<i>PowerPlex® 16, Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
GTR3QG	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
GX6HKF	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

H47G9A	<i>Identifiler® direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
HGCB28	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
HMXFE9	<i>Identifiler® ID Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
HNDMX6	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
HQFK9X	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
HW4843	<i>PowerPlex® ESI-Fast</i>					
1	14,16	16,17	11,11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15,15	X,X		24,25
				6,7		14,16
HYXTWU	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
J2WNT2	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
J6XPX6	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16

TABLE 1

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

Item 1 - STR Results

JHHC2B	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
JHJ626	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
JJEM37	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
JMXMEF	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
KC7NZE	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
KR29G3	<i>PowerPlex® ESX17, Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16	16,23.2	6,7	8,8	14,16
LHF4A4	<i>Globalfiler</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
			16,23.2	6,7	8,8	14,16
LQ7PF2	<i>Identifiler® Plus</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16
M4TBY2	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16



TABLE 1

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

## Item 1 - STR Results

M8N6W3	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8	14,16
MAUQLN	<i>GlobalFiler Express</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
			16,23.2	6,7	8,8	14,16
MHAA43	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
MPP6N4	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
MW8LC7	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X,X	11,13	24,25
	9,12	7,16		6,7	8	14,16
NACY7C	<i>Identifiler® Plus, MiniFiler</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
NE444M	<i>PowerPlex® ESI 16</i>					
1	14,16	16,17	11,11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15,15	X,X		24,25
				6,7		14,16
NE7XK8	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
NH6C9X	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

Item 1 - STR Results

NKBU7T	<i>Identifiler® Direct</i>	1	-	16,17	-	15,16	11,12	9,11
			11,14	-	-	10,13	9,13	16,18
			15,15.2	27,30	-	X,X	11,13	24,25
			-	-	-	6,7	8	14,16
NMDRGL	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X	11,13	24,25
						6,7	8	14,16
NT2FCQ	<i>PowerPlex® 16</i>	1				15,16	11,12	9,11
			11,14			10,13	9,13	16,18
				27,30		X,X	11,13	24,25
			9,12	7,16		6,7	8,8	14,16
NUXVM3	<i>PowerPlex® 16</i>	1				15,16	11,12	9,11
			11,14			10,13	9,13	16,18
				27,30		X,X	11,13	24,25
			9,12	7,16		6,7	8,8	14,16
P6D2YW	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
P9DDUW	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
PPJBH3	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
PRM726	<i>Identifiler® Plus</i>	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
QBFDUU	<i>PowerPlex® Fusion</i>	1	14,16	16,17	11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15	X	11,13	24,25
			9,12	7,16		6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

QEHC6M	<i>PowerPlex® 16, Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
QK6YZR	<i>Identifiler® Direct</i>					
1	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
RA4V94	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
REDCHR	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
RKH97X	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
RKHBV3	<i>PowerPlex® 21</i>					
1	14,16	16,17		15,16	11,12	9,11
	11,14		17,19	10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
RYGWHX	<i>GlobalFiler</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
			16,23.2	6,7	8	14,16
T4LD6R	<i>PowerPlex® ESX-17</i>					
1	14,16	16,17	11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15	X		24,25
			16,23.2	6,7		14,16
T6GV7T	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

TB89A2	Global Filer	1	14,16	16,17	11,11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15,15	X,X	11,13	24,25
					16,23.2	6,7	8,8	14,16
TE8GCQ	PowerPlex® Fusion	1	14,16	16,17	11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15	X	11,13	24,25
			9,12	7,16		6,7	8	14,16
TMKBP8	Identifiler® Plus, MiniFiler	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
TMMZU6	Identifiler® Plus, MiniFiler	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16
TQ2X2R	PowerPlex® Fusion	1	14,16	16,17	11	15,16	11,12	9,11
			11,14	13,14	17,19	10,13	9,13	16,18
			15,15.2	27,30	15	X	11,13	24,25
			9,12	7,16		6,7	8	14,16
U78GCN	Identifiler® Direct	1	-	16,17	-	15,16	11,12	9,11
			11,14	-	-	10,13	9,13	16,18
			15,15.2	27,30	-	X,X	11,13	24,25
			-	-	-	6,7	8	14,16
U7URCX	PowerPlex® 16	1				15,16	11,12	9,11
			11,14			10,13	9,13	16,18
				27,30		X,X	11,13	24,25
			9,12	7,16		6,7	8,8	14,16
UB46TW	Identifiler® Plus	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X	11,13	24,25
						6,7	8	14,16
UT6TKV	Identifiler®	1		16,17		15,16	11,12	9,11
			11,14			10,13	9,13	16,18
			15,15.2	27,30		X,X	11,13	24,25
						6,7	8,8	14,16

TABLE 1

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

Item 1 - STR Results

V7B7EZ	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
VDRWKT	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
VG6GPT	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
VG92EG	<i>Identifiler® Plus, PowerPlex® 16</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
VK9C9V	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
VQV3VQ	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
VN6W7	<i>Identifiler® Plus, MiniFiler</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
VQWTR	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
W29PGW	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

## Item 1 - STR Results

W2CA8L	<i>Identifiler® Direct</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8	14,16
W2PVKT	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
W7746M	<i>Identifiler® , PowerPlex® Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
W8DL3H	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
W8EFK3	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
WG489F	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
WM7FDN	<i>PowerPlex® 16 HS, ESX17, FUSION</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
WXQKPT	<i>Globalfiler</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
			16,23.2	6,7	8,8	14,16
XKWMYF	<i>COfiler® and Profiler Plus®</i>					
1				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16

TABLE 1

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

Item 1 - STR Results

XPU6DU	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
XRFTVL	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
XVF6QL	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
YNXTBZ	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
YRX48Z	<i>Identifiler® Plus</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
YZBBPP	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
Z2F4EG	<i>Identifiler® Plus</i>					
1	Not Tested	16,17	Not Tested	15,16	11,12	9,11
	11,14	Not Tested	Not Tested	10,13	9,13	16,18
	15,15.2	27,30	Not Tested	X,X	11,13	24,25
	Not Tested	Not Tested	Not Tested	6,7	8,8	14,16
Z3Q62F	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
Z3RZKL	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16

TABLE 1

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

Item 1 - STR Results

ZB7NKE	<i>Identifiler® Plus, MiniFiler</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
ZC26WC	<i>PowerPlex® Fusion</i>					
1	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16	-	6,7	8,8	14,16
ZC28MG	<i>PowerPlex® 16</i>					
1				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,13	24,25
	9,12	7,16		6,7	8,8	14,16
ZJHZFR	<i>Identifiler®</i>					
1		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16



TABLE 1

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

Item 2 - STR Results

238J3X	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
282D2K	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
2E4PXG	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2G8KGK	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
2MTB4F	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2RMC6U	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2RN62G	<i>Identifiler® Direct</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
2TJM8N	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2XT2PM	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

3276UV	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
336BDB	<i>COfiler® and Profiler Plus®</i>					
2				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
36BTC7	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3EXURF	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3KM8VP	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3PHY4L	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3TEP8C	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3UVJ9M	<i>Identifiler® Direct, PowerPlex® ESX17</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
3Y7WQL	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19

TABLE 1

<b>WebCode Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>

Item 2 - STR Results

44DMTR	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
472EKN	<i>Identifiler®</i>					
2	not tested	17,19	not tested	14,17	11,12	7,9
	12,14	not tested	not tested	9,11	9,10	16,16
	14,15	28,30	not tested	X,Y	10,12	18,23
	not tested	not tested	not tested	6,8	8,11	17,19
48FL4J	<i>Identifiler® Direct, PowerPlex® ESX17</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
49KDWW	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4K4NLC	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4PD24B	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4T9V2C	<i>Identifiler® , MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
648TMQ	<i>Identifiler® Identifiler Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
666X67	<i>COfiler® and Profiler Plus® Profiler® Plus</i>					
2				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19

TABLE 1

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

## Item 2 - STR Results

6NV86L	<i>PowerPlex® ESX 16 Fast</i>					
2	15,17.3	17,19	11	14,17		
	12,14	13	18,23		9,10	16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19
6RE7GV	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
6TBPHW	<i>Identifiler® Plus</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
6TDCYB	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
6XJ6RK	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7929CP	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7FZN4H	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7JGWNB	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7XDBM6	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

8EG8JA	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
97KRCG	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9A4QNQ	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9D6RP9	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
		11,11	7,12	6,8	8,11	17,19
9NLCA6	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9NN7QP	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9PJPTQ	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9QURGB	<i>Identifiler®</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
A28BCQ	<i>Identifiler® Plus</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

AAXWGP	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AF4PCK	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AFQVX7	<i>Identifiler® and Identifiler Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AG2VUZ	<i>COfiler® and Profiler Plus®</i>					
2				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
APERWL	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AQMY4K	<i>PowerPlex® 21</i>					
2	15,17.3	17,19		14,17	11,12	7,9
	12,14		18,23	9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
AV46YA	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
AX4D3J	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
AZBV2F	<i>Globalfiler</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

B8UFQD	<i>Identifiler®</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BFHBLM	<i>Identifiler® Identifiler Plus, MiniFiler</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BKD3TJ	<i>Identifiler® Plus</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BNDEPJ	<i>Identifiler® Plus</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BP9WQK	<i>Identifiler® direct</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BPBJ9Y	<i>Identifiler®</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BVCW7G	<i>Identifiler®</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BYVHQ	<i>Identifiler® Plus</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
BZ6ZVE	<i>Identifiler®</i>					
2	17,19			14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

C86KVP	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
C88AZL	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
CCFRZZ	<i>PowerPlex® 16, HS, PPF</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
CFF4WZ	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
CP33M6	<i>Identifiler® Direct</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
CQXKN7	<i>NGM SElect</i>					
2	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
			16,18	6,8		17,19
CT37GD	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
CUHDZ9	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
D6YGKD	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19



TABLE 1

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

Item 2 - STR Results

DUDCDE	<i>PowerPlex® 16 HS</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
DVNEYD	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
E72YWE	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
EKLDYD	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
F7V4PD	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FBQXME	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FCN47U	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FHBUVB	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FLUT7J	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

FQ47NH	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FR3C8X	<i>Profiler Plus</i>					
2				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
FX4N3U	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
GC2WK9	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
GDVHDZ	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
GH7WY	<i>PowerPlex® 16, Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
GTR3QG	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
GX6HKF	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
H47G9A	<i>Identifiler® direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

HGCB28	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HMXFE9	<i>Identifiler® ID Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HNDMX6	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HQFK9X	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
HW4843	<i>PowerPlex® ESI-Fast + ESX</i>					
2	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19
HYXTWU	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
J2WNT2	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
J6XPX6	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
JHHC2B	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

JHJ626	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
JJEM37	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
JMXMEF	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
KC7NZE	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
KR29G3	<i>PowerPlex® ESX17, Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	16,18	6,8	8,11	17,19
LHF4A4	<i>Globalfiler Express</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
LQ7PF2	<i>Identifiler® Plus</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
M4TBY2	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
M8N6W3	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

MAUQLN	<i>GlobalFiler Express</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
MHAA43	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
MPP6N4	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
MW8LC7	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
NACY7C	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
NE444M	<i>PowerPlex® ESI 16</i>					
2	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19
NE7XK8	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
NH6C9X	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
NKBU7T	<i>Identifiler® Direct</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

NMDRGL	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
NT2FCQ	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
NUXVM3	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
P6D2YW	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
P9DDUW	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
PPJBH3	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
PRM726	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
QBFDUU	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
QEHC6M	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

QK6YZR	<i>Identifiler® Direct</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
RA4V94	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
REDCHR	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
RKH97X	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
RKHBV3	<i>PowerPlex® 21</i>					
2	15,17.3	17,19		14,17	11,12	7,9
	12,14		18,23	9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
RYGWHX	<i>GlobalFiler</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
T4LD6R	<i>PowerPlex® ESX-17</i>					
2	15,17.3	17,19	11	14,17		
	12,14	13	18,23		9,10	16
	14,15	28,30	11,16	X,Y		18,23
			16,18	6,8		17,19
T6GV7T	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
TB89A2	<i>Global Filer</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

TE8GCQ	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
TMKBP8	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
TMMZU6	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
TQ2X2R	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
U78GCN	<i>Identifiler® Direct</i>					
2	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
U7URCX	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
UB46TW	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
UT6TKV	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
V7B7EZ	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19



TABLE 1

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

Item 2 - STR Results

VDRWKT	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
VG6GPT	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
VG92EG	<i>Identifiler® Plus, PowerPlex® 16</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
VK9C9V	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,[12]		6,8	8,11	17,19
VQV3VQ	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
VN6W7	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
VQWTR	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
W29PGW	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
W2CA8L	<i>Identifiler® Direct</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

W2PVKT	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
W7746M	<i>Identifiler® , PowerPlex® Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
W8DL3H	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
W8EFK3	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
WG489F	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
WM7FDN	<i>PowerPlex® 16 HS, ESX17, FUSION</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
WXQKPT	<i>Globalfiler</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
XKWMYF	<i>COfiler® and Profiler Plus®</i>					
2				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
XPU6DU	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 2 - STR Results

XRFTVL	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
XVF6QL	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
YNXTBZ	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
YRX48Z	<i>Identifiler® Plus</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
YZBBPP	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
Z2F4EG	<i>Identifiler® Plus</i>					
2	Not Tested	17,19	Not Tested	14,17	11,12	7,9
	12,14	Not Tested	Not Tested	9,11	9,10	16,16
	14,15	28,30	Not Tested	X,Y	10,12	18,23
	Not Tested	Not Tested	Not Tested	6,8	8,11	17,19
Z3Q62F	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
Z3RZKL	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
ZB7NKE	<i>Identifiler® Plus, MiniFiler</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

Item 2 - STR Results

ZC26WC	<i>PowerPlex® Fusion</i>					
2	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	-	6,8	8,11	17,19
ZC28MG	<i>PowerPlex® 16</i>					
2				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
ZJHZFR	<i>Identifiler®</i>					
2		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 3 - STR Results

238J3X	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
2E4PXG	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
2G8K GK	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
2MTB4F	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
2RN62G	<i>Identifiler® Plus</i>					
3	-	17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12	16,17
2TJM8N	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
2XT2PM	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
3276UV	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
336BDB	<i>COfiler® and Profiler Plus®</i>					
3				15,16	11,12	11,12
	11,15			8,12		13,18
		31.2,31.2		X,X		23,24
						16,17

TABLE 1

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

## Item 3 - STR Results

36BTC7	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
3EXURF	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
3PHY4L	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
3TEP8C	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
3UVJ9M	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
3Y7WQL	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
44DMTR	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
472EKN	<i>Identifiler®</i>					
3	not tested	17,17	not tested	15,16	11,12	11,12
	11,15	not tested	not tested	8,12	12,13	13,18
	13,15	31.2,31.2	not tested	X,X	10,12	23,24
	not tested	not tested	not tested	8,9	12,12	16,17
48FL4J	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17

TABLE 1

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

## Item 3 - STR Results

49KDWW	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
4K4NLC	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
4PD24B	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
4T9V2C	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
648TMQ	<i>Identifiler® Identifiler Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
666X67	<i>COfiler® and Profiler Plus® Profiler® Plus</i>					
3				15,16	11,12	11,12
	11,15			8,12		13,18
		31.2,31.2		X,X		23,24
						16,17
6NV86L	<i>PowerPlex® ESX 16 Fast</i>					
3	17.3	17	11,14	15,16		
	11,15	15,17	15,19.3		12,13	13,18
	13,15	31.2	14,15	X		23,24
				8,9		16,17
6RE7GV	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
6TBPHW	<i>Identifiler® Plus</i>					
3	-	17,17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2,31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12,12	16,17

TABLE 1

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

## Item 3 - STR Results

6TDCYB	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
6XJ6RK	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
7JGWNB	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X,X	10,12	23,24
				8,9	12	16,17
8EG8JA	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
97KRCG	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
9A4QNNQ	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
9D6RP9	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
9NLCA6	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
9NN7QP	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17



TABLE 1

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

Item 3 - STR Results

9PJPTQ	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
9QURGB	<i>Identifiler®</i>					
3	-	17,17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2,31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12,12	16,17
A28BCQ	<i>Identifiler® Plus</i>					
3	-	17,17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2,31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12,12	16,17
AAXWGP	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
AF4PCK	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
AFQVX7	<i>Identifiler® and Identifiler Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
AG2VUZ	<i>COfiler® and Profiler Plus®</i>					
3				15,16	11,12	11,12
	11,15			8,12		13,18
		31.2,31.2		X,X		23,24
						16,17
APERWL	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
AQMY4K	<i>PowerPlex® 21</i>					
3	17.3,17.3	17,17		15,16	11,12	11,12
	11,15		15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17

TABLE 1

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

Item 3 - STR Results

AV46YA	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
AX4D3J	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
AZBV2F	<i>Globalfiler</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
			16,30.2	8,9	12	16,17
B8UFQD	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
BFHBLM	<i>Identifiler® Identifiler Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
BKD3TJ	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
BNDEPJ	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
BPBJ9Y	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
BYVHQ	<i>Identifiler® Plus</i>					
3	-	17,17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2,31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12,12	16,17

TABLE 1

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

## Item 3 - STR Results

BZ6ZVE	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
C86KVP	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
C88AZL	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
CP33M6	<i>Identifiler® Plus</i>					
3	-	17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12	16,17
CQXKN7	<i>NGM SElect</i>					
3	17.3,17.3	17,17	11,14	15,16		
	11,15	15,17	15,19.3		12,13	13,18
	13,15	31.2,31.2	14,15	X,X		23,24
			16,30.2	8,9		16,17
CT37GD	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
CUHDZ9	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
D6YGKD	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
DUDCDE	<i>PowerPlex® 16 HS</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,[9]	12,12	16,17

TABLE 1

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

## Item 3 - STR Results

DVNEYD	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
E72YWE	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
F7V4PD	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
FBQXME	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
FCN47U	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
FHBUVB	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
FLUT7J	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
FQ47NH	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
FR3C8X	<i>Profiler Plus</i>					
3				15,16	11,12	11,12
	11,15			8,12		13,18
		31.2,31.2		X,X		23,24
						16,17

TABLE 1

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

Item 3 - STR Results

FX4N3U	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
GC2WK9	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12	16,17
GDVHDZ	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
GH7VWY	<i>PowerPlex® Fusion</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
GTR3QG	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
HGCB28	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
HMXFE9	<i>Identifiler® ID Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
HNDMX6	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
HQFK9X	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17

TABLE 1

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

## Item 3 - STR Results

HW4843	<i>PowerPlex® ESI-Fast + ESX</i>					
3	17.3,17.3	17,17	11,14	15,16		
	11,15	15,17	15,19.3		12,13	13,18
	13,15	31.2,31.2	14,15	X,X		23,24
				8,9		16,17
HYXTWU	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
J6XPX6	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
JHJ626	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
JJEM37	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
JMXMEF	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
KC7NZE	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
KR29G3	<i>PowerPlex® ESX17, Fusion</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
	9,13	16,18	16,30.2	8,9	12,12	16,17
LHF4A4	<i>Globalfiler</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
			16,30.2	8,9	12,12	16,17

TABLE 1

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

Item 3 - STR Results

LQ7PF2	<i>Identifiler® Plus</i>					
3	-	17,17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2,31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12,12	16,17
M4TBY2	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
M8N6W3	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12	16,17
MAUQLN	<i>GlobalFiler Express</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
			16,30.2	8,9	12,12	16,17
MHAA43	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
MPP6N4	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
MW8LC7	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X,X	10,12	23,24
	9,13	16,18		8,9	12	16,17
NACY7C	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
NE444M	<i>PowerPlex® ESI 16</i>					
3	17.3,17.3	17,17	11,14	15,16		
	11,15	15,17	15,19.3		12,13	13,18
	13,15	31.2,31.2	14,15	X,X		23,24
				8,9		16,17

TABLE 1

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

## Item 3 - STR Results

NH6C9X	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
NKBU7T	<i>Identifiler® Plus</i>					
3	-	17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12	16,17
NMDRGL	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
NT2FCQ	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
NUXVM3	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
P6D2YW	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
P9DDUW	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
PPJBH3	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
PRM726	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17



TABLE 1

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

## Item 3 - STR Results

QBFDUU	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
QK6YZR	<i>Identifiler® Plus</i>					
3	-	17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12	16,17
RA4V94	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
REDCHR	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
RKH97X	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
RKHBV3	<i>PowerPlex® 21</i>					
3	17.3,17.3	17,17		15,16	11,12	11,12
	11,15		15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
RYGWHX	<i>GlobalFiler</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
			16,30.2	8,9	12	16,17
T4LD6R	<i>PowerPlex® ESX-17</i>					
3	17.3	17	11,14	15,16		
	11,15	15,17	15,19.3		12,13	13,18
	13,15	31.2	14,15	X		23,24
			16,30.2	8,9		16,17
T6GV7T	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17

TABLE 1

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

Item 3 - STR Results

TB89A2	<i>Global Filer</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
			16,30.2	8,9	12,12	16,17
TE8GCQ	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
TMKBP8	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
TMMZU6	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
TQ2X2R	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
U78GCN	<i>Identifiler® Plus</i>					
3	-	17	-	15,16	11,12	11,12
	11,15	-	-	8,12	12,13	13,18
	13,15	31.2	-	X,X	10,12	23,24
	-	-	-	8,9	12	16,17
U7URCX	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
UB46TW	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
UT6TKV	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17

TABLE 1

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

Item 3 - STR Results

V7B7EZ	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
VDRWKT	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
VG6GPT	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
VK9C9V	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
VQV3VQ	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
VN6W7	<i>Identifiler® Plus, MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
VQWTR	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
W29PGW	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12	16,17
W2CA8L	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X,X	10,12	23,24
				8,9	12	16,17

TABLE 1

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

## Item 3 - STR Results

W2PVKT	<i>Identifiler®</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
W8DL3H	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
W8EFK3	<i>Identifiler® Plus</i>					
3		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
WM7FDN	<i>PowerPlex® 16 HS, ESX17, FUSION</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
WXQKPT	<i>Globalfiler</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
			16,30.2	8,9	12,12	16,17
XKWMYF	<i>COfiler® and Profiler Plus®</i>					
3				15,16	11,12	11,12
	11,15			8,12		13,18
		31.2,31.2		X,X		23,24
						16,17
XPU6DU	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
XRFTVL	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
XVF6QL	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17

TABLE 1

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

Item 3 - STR Results

YNXTBZ	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
YRX48Z	<i>Identifiler® Plus</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
Z2F4EG	<i>Identifiler®</i>					
3	Not Tested	17,17	Not Tested	15,16	11,12	11,12
	11,15	Not Tested	Not Tested	8,12	12,13	13,18
	13,15	31.2,31.2	Not Tested	X,X	10,12	23,24
	Not Tested	Not Tested	Not Tested	8,9	12,12	16,17
Z3Q62F	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
Z3RZKL	<i>PowerPlex® Fusion</i>					
3	17.3	17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2	14,15	X	10,12	23,24
	9,13	16,18		8,9	12	16,17
ZB7NKE	<i>Identifiler® , MiniFiler</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17
ZC26WC	<i>PowerPlex® Fusion</i>					
3	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
	9,13	16,18	-	8,9	12,12	16,17
ZC28MG	<i>PowerPlex® 16</i>					
3				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
ZJHZFR	<i>Identifiler®</i>					
3		17,17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2,31.2		X,X	10,12	23,24
				8,9	12,12	16,17

TABLE 1

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

Item 3e - STR Results

7XDBM6	<i>Identifiler®</i>					
3e		17		15,16	11,12	11,12
	11,15			8,12	12,13	13,18
	13,15	31.2		X	10,12	23,24
				8,9	12	16,17
W7746M	<i>Identifiler® Plus, PowerPlex® Fusion</i>					
3e	17.3,17.3	17,17	11,14	15,16	11,12	11,12
	11,15	15,17	15,19.3	8,12	12,13	13,18
	13,15	31.2,31.2	14,15	X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17
WG489F	<i>PowerPlex® 16</i>					
3e				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23,24
	9,13	16,18		8,9	12,12	16,17

TABLE 1

<b>WebCode Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>

## Item 3sp - STR Results

WG489F *PowerPlex® 16*

3sp				15,16	11,12	11,12
	11,15			8,12	12,13	13,18
		31.2,31.2		X,X	10,12	23
	9,13	16,18		8,9	12,12	16,17

TABLE 1

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

## Item 4 - STR Results

FCN47U	Identifiler®				
4		17,19	14,17	11,12	7,9
		12,14	9,11	9,10	16,16
		14,15	28,30	X,Y	10,12
			6,8	8,11	17,19



TABLE 1

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

## Item 4e - STR Results

238J3X	<i>Identifiler® Plus</i>					
4e	15,16,17,19		14,15,16,17	10,11,12	7,8,9,10,11	
	10,11,12,13,14		9,10,11,13	8,9,10,12,13	15,16,17,18	
	14,14.2,15,15.2	26,27,28,29,30	X,Y	10,11,12,13	18,23,24,25	
			5,6,7,8	7,8,11	14,16,17,19	
2E4PXG	<i>Identifiler® Plus, MiniFiler</i>					
4e	16,17,19		15,16,17	11,12	7,9,11	
	11,12,14		9,10,11,13	9,10,13	16,18	
	14,15,15.2	27,28,30	X,Y	10,11,12,13	18,23,24,25	
			6,7,8	8,11	14,16,17,19	
2G8K GK	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
2MTB4F	<i>Identifiler®</i>					
4e	16,17,19		15,16,17	11,12	7,9,11	
	11,12,14		9,10,11,13	9,10,13	16,18	
	15,15.2	27,28,30	X,Y	10,11,12,13	18,23,24,25	
			6,7,8	8,11	14,16,17,19	
2RN62G	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
2TJM8N	<i>Identifiler® Plus</i>					
4e	16,17		15,16	11,12	9,11	
	11,14		10,13	9,13	16,18	
	15,15.2	27,30	X	11,13	24,25	
			6,7	8	14,16	
2XT2PM	<i>Identifiler®</i>					
4e	16,17,[19]		[14],15,16,[17]	11,12	[7],9,11	
	11,[12],14		[9],10,[11],13	9,[10],13	16,18	
	[14],15,15.2	27,[28],30	X,[Y]	[10],11,[12],13	[18],[23],24,25	
			6,7,[8]	8,[11]	14,16,[17],[19]	
3276UV	<i>Identifiler® Plus</i>					
4e	16,17		14,15,16,17	11,12	9,11	
	11,12,14		9,10,11,13	9,10,13	16,18	
	14,15,15.2	27,28,30	X	11,12,13	18,23,24,25	
			6,7	8	14,16,17,19	
336BDB	<i>COfiler® and Profiler Plus®</i>					
4e			15,16	11,12	9,11	
	11,14		10,13		16,18	
		27,30	X,X		24,25	
					14,16	

TABLE 1

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

Item 4e - STR Results

36BTC7	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
3EXURF	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
3PHY4L	<i>Identifiler®</i>					
4e		16,17		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X	[10],11,[12],13	[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
3TEP8C	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16	11,12	9,11
	11,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,X	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,19
3UVJ9M	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,[12],14			10,[11],13	9,13	16,18
	15,15.2	27,[28],30		X,X,[Y]	[10],11,13	[18],24,25
				6,7	8,8,[11]	14,16,[19]
3Y7WQL	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15,16	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
44DMTR	<i>Identifiler® Plus</i>					
4e		16,17,19		14,15,16,17	11,12	7,9,11
	11,12,13,14			9,10,11,13	9,10,13	15,16,18
	14,14.2,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
472EKN	<i>Identifiler®</i>					
4e	not tested	16,17,[19]	not tested	[14],15,16,[17]	11,12	[7],9,11
	11,[12],14	not tested	not tested	[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30	not tested	X,[Y]	[10],11,[12],13	[18],[23],24,25
	not tested	not tested	not tested	6,7,[8]	8,[11]	14,16,[17],[19]
48FL4J	<i>Identifiler® Plus</i>					
4e		16,17,[19]		[14],15,16	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,13	16,18
	15,15.2	27,[28],30		X,X,[Y]	11,13	[18],24,25
				6,7	8,8	14,16,[17],[19]

TABLE 1

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

## Item 4e - STR Results

49KDWW	<i>Identifiler® Plus, MiniFiler</i>					
4e		15,16,17,19		14,15,16,17	10,11,12	7,9,11
	10,11,12,13,14			9,10,11,12,13	9,10,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,15,16,19
4K4NLC	<i>Identifiler®</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	11,12,13	18,24,25
				6,7,8	8,11	14,16,17,19
4PD24B	<i>Identifiler®</i>					
4e		16,17		15,16,17	11,12	9,11
	11,12,14			10,11,13	9,13	16,18
	14,15,15.2	27,28,30		X,Y	11,12,13	18,24,25
				6,7	8,11	14,16,17,19
4T9V2C	<i>Identifiler® Plus, MiniFiler</i>					
4e		16,17,19		15,16,17	11,12	9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,30		X,X	11,12,13	23,24,25
				6,7	8,8	14,16
648TMQ	<i>Identifiler® Identifiler Plus</i>					
4e		15,16,17,19		14,15,16,17	11,12	7,9,11
	10,11,12,13,14			9,10,11,13	8,9,10,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X,(Y)	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
666X67	<i>COfiler® and Profiler Plus® Profiler® Plus</i>					
4e				14,15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
6NV86L	<i>PowerPlex® ESX 16 Fast</i>					
4e	14,16	16,17	11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15	X		24,25
				6,7		14,16
6RE7GV	<i>Identifiler® Plus</i>					
4e		16,17,[19]		15,16,[17]	11,12	[7],9,11
	11,[12],14			10,[11],13	9,[10],13	16,18
	15,15.2	27,[28],30		X	10,11,13	[18],24,25
				6,7,[8]	8,[11]	14,16,[19]
6TBPHW	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16

TABLE 1

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

## Item 4e - STR Results

6TDCYB	<i>PowerPlex® 16</i>					
4e				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,12,13	24,25
	9,12	7,16		6,7	8,8	14,16
6XJ6RK	<i>Identifiler®</i>					
4e		16,17		15,16	11,12	9,11
	11,[12],14			10,[11],13	9,13	16,18
	15,15.2	27,[28],30		X	11,[12],13	24,25
				6,7	8	14,16,[17]
7JGWNB	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8	14,16
7XDBM6	<i>Identifiler®</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	24,25
				6,7	8	14,16
8EG8JA	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,13	16,18
	15,15.2	27,28,30		X,Y	11,13	18,24,25
				6,7	8,11	14,16,17,19
97KRCCG	<i>Identifiler® Plus</i>					
4e		16,17,[19]		15,16,[17]	11,12	[7],9,11
	11,[12],14			9,10,11,13	9,[10],13	16,18
	15,15.2	27,[28],30		X,[Y]	11,12,13	24,25
				6,7,8	8,[11]	14,16,[17],[19]
9A4QNNQ	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	10,11,13	18,23,24,25
				6,7,8	8,11	14,16,19
9D6RP9	<i>PowerPlex® 16</i>					
4e				14,15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
		27,28,30		X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,19
9NLCA6	<i>Identifiler®</i>					
4e		16,17,19		15,16	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X,X	10,11,13	23,24,25
				6,7	8,11	14,16,17,19

TABLE 1

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

## Item 4e - STR Results

9NN7QP	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16	10,11,12	7,8,9,10,11
	10,11,12,13,14			9,10,11,12,13	8,9,10,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				5,6,7,8	7,8,11	14,16,17,19
9PJPTQ	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	14,15,15.2	27,30		X	11,12,13	23,24,25
				6,7	8	14,16
9QURGB	<i>Identifiler®</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16
A28BCQ	<i>Identifiler® Plus</i>					
4e	-	16,17,19	-	14,15,16	11,12	9,11
	11,12,13,14	-	-	9,10,11,12,13	9,12,13	15,16,17,18
	14,14.2,15,15.2	27,28,29,30	-	X	10,11,12,13	23,24,25
	-	-	-	6,7,8	8	14,15,16,19
AAXWGP	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X	11,12,13	18,24,25
				6,7,8	8,11	14,16,17
AF4PCK	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16,17	11,12	7,9,11
	11,12,13,14			9,10,11,13	9,10,12,13	15,16,17,18
	14,14.2,15,15.2	27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8	14,15,16
AFQVX7	<i>Identifiler® and Identifiler Plus</i>					
4e		16,17		15,16	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,X	11,12,13	18,24,25
				6,7,8	8,11	14,16,17,19
APERWL	<i>Identifiler® Plus</i>					
4e		16,17,[19]		15,16,[17]	11,12	[7],9,11
	11,[12],14			10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X	11,[12],13	24,25
				6,7,[8]	8	14,16
AQMY4K	<i>PowerPlex® 21</i>					
4e	14,16,17.3	16,17,19		14,15,16,17	11,12	7,9,11
	11,12,14		17,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7	8,11	14,16,19

TABLE 1

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

## Item 4e - STR Results

AV46YA	<i>PowerPlex® 16</i>					
4e				15,16	11,12	9,11
	11,14			10,13	9,13	16,18
		27,30		X,X	11,12,13	24,25
	9,12	7,16		6,7	8,8	14,16
AX4D3J	<i>PowerPlex® Fusion</i>					
4e	14,16	16,17,[19]	11	15,16,[17]	11,12	[7],9,11
	11,[12],14	13,14	17,[18],19,[23]	10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,30	15	X,[Y]	[10],11,13	[18],[23],24,25
	9,12	7,16		6,7,[8]	8	14,16
AZBV2F	<i>Globalfiler</i>					
4e	14,[15],16,[17.3]	16,17	11	[14],15,16,[17]	11,12	[7],9,11
	11,[12],14	13,14	17,19	[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30	[11],15	X,[Y]	[10],11,[12],13	[18],[23],24,25
			16,[18],23.2	6,7	8	14,16,[17],[19]
B8UFQD	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
BFHBLM	<i>Identifiler®</i>					
4e		16,17,19		14,15,16,17	11,12	7,9,11
	11,12,13,14			9,10,11,13	9,10,12,13	16,17,18
	14,15,15.2	27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,19
BKD3TJ	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
BNDEPJ	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16
BPBJ9Y	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
BYVHQ	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8,8	14,16

TABLE 1

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

Item 4e - STR Results

BZ6ZVE	<i>Identifiler®</i>					
4e		16,17,[19]		15,16	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	24,25
				6,7,[8]	8	14,16,[17]
C86KVP	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16,17	10,11,12	7,9,10,11
	10,11,12,13,14			9,10,11,13	8,9,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X	10,11,12,13	18,23,24,25
				6,7	8	14,16
C88AZL	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16,17	10,11,12	8,9,10,11
	10,11,12,13,14			9,10,11,13	8,9,10,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				5,6,7,8	7,8,11	13,14,15,16,17
CP33M6	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
CQXKN7	<i>NGM SElect</i>					
4e	14,15,16,17.3	16,17,19	11,11	14,15,16,17		
	11,12,14	13,14	17,18,19,23		9,10,13	16,18
	14,15,15.2	27,28,30	11,15,16	X,Y		18,23,24,25
			16,18,23.2	6,7,8		14,16,17,19
CT37GD	<i>Identifiler® Plus</i>					
4e		16,17		14,15,16	11,12	9,11
	11,12,14			10,13	9,13	16,18
	15,15.2	27,30		X	11,13	23,24,25
				6,7	8	14,16
CUHDZ9	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
D6YGKD	<i>Identifiler® Plus</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
DUDCDE	<i>PowerPlex® 16 HS</i>					
4e				15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
		27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
	9,[11],12	7,[12],16		6,7,[8]	8,[11]	14,16,[17],[19]

TABLE 1

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

## Item 4e - STR Results

DVNEYD	<i>Identifiler® Plus</i>					
4e		16,17,19		14,15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
E72YWE	<i>PowerPlex® Fusion</i>					
4e	14,16	16,17,[19]	11	15,16	11,12	[7],9,11
	11,[12],14	13,14	17,[18],19,[23]	10,[11],13	9,[10],13	16,18
	15,15.2	27,[28],30	15	X	[10],11,[12],13	[18],[23],24,25
	9,12	7,16		6,7,[8]	8	14,16,[17],[19]
F7V4PD	<i>Identifiler® Plus</i>					
4e		16,17		[14],15,16,[17]	11,12	9,11
	11,[12],14			[9],10,[11],13	9,13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,13	24,25
				6,7,[8]	8,[11]	14,16,[19]
FBQXME	<i>Identifiler® Plus</i>					
4e		16,17,19		14,15,16	11,12	7,9,11
	10,11,12,13,14			9,10,11,13	9,10,12,13	15,16,17,18
	14,15,15.2	27,28,29,30		X	10,11,12,13	18,23,24,25
				6,7,8	8	14,16,17,19
FHBUVB	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	11,12,13	18,23,24,25
				6,7,8	8	14,16,17,19
FLUT7J	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X	11,13	18,24,25
				6,7,8	8,11	14,16,17,19
FQ47NH	<i>Identifiler® Plus</i>					
4e		16,17		14,15,16	11,12	9,11
	11,12,14			9,10,13	9,13	16,18
	14,15,15.2	27,30		X	11,12,13	18,24,25
				6,7	8	14,16
FR3C8X	<i>Profiler Plus</i>					
4e				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
FX4N3U	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	11,[12],13	[18],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]



TABLE 1

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

## Item 4e - STR Results

GC2WK9	<i>PowerPlex® 16</i>					
4e				[14],15,16,[@]	11,12	9,[@],11
	11,[12],14			10,[11],13	9,[@],13	16,18
		27,30,[@]		X,[Y]	11,13	[18],24,25
	9,12	7,16		6,7,[8]	8,[11]	14,16,[@],[19]
GDVHDZ	<i>Identifiler® Plus</i>					
4e		16,17,19		14,15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X,X	11,12,13	18,23,24,25
				6,7,8	8,8	14,16,17,19
GH7WY	<i>PowerPlex® Fusion</i>					
4e	14,15,16	16,17	11,11	15,16	11,12	9,11
	11,12,14	13,14	17,18,19,23	9,10,13	9,13	16,18
	14,15,15.2	27,30	15,15	X,X	11,13	18,23,24,25
	9,12	7,16		6,7,8	8,8	14,16
GTR3QG	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16,17	10,11,12	7,8,9,10,11
	10,11,12,13,14			9,10,11,13	8,9,10,12,13	15,16,17,18
	14,14.2,15,15.2	26,27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	7,8,11	14,16,17,19
HGCB28	<i>Identifiler®</i>					
4e		16,17,(19)		(14),15,16,(17)	11,12	(7),9,11
	11,(12),14			(9),10,(11),13	9,(10),13	16,18
	(14),15,15.2	27,(28),30		X,(Y)	(10),11,(12),13	(18),(23),24,25
				6,7,(8)	8,(11)	14,16,(17),(19)
HMXFE9	<i>Identifiler® ID Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X,Y	11,13	18,24,25
				6,7,8	8,11	14,16,17
HNDMX6	<i>Identifiler® Plus</i>					
4e		16,17,(19)		15,16,(17)	11,12	9,11
	11,(12),14			10,(11),13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16,(17)
HQFK9X	<i>PowerPlex® 16</i>					
4e				15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
		27,28,30		X,X	11,12,13	18,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16
HW4843	<i>PowerPlex® ESI-Fast + ESX</i>					
4e	14,16	16,17	11,11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15,15	X,X		24,25
				6,7		14,16

TABLE 1

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

Item 4e - STR Results

HYXTWU	Identifiler®					
	4e	16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14		[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30	X,[Y]	11,[12],13	[18],[23],24,25
			6,7,[8]	8,[11]	14,16,[17],[19]	
J6XPX6	Identifiler®					
	4e	16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14		[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30	X	11,[12],13	[18],24,25
			6,7	8,[11]	14,16,[17]	
JHJ626	Identifiler®					
	4e	16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14		[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30	X,[Y]	[10],11,[12],13	[18,23],24,25
			6,7,[8]	8,[11]	14,16,[17],[19]	
JJEM37	Identifiler® Plus					
	4e	16,17,19		15,16	11,12	9,11
		11,12,14		10,11,13	9,10,13	16,18
		14,15,15.2	27,28,30	X	10,11,12,13	18,23,24,25
			6,7,8	8	14,16,19	
JMXMEF	Identifiler® Plus					
	4e	16,17,19		14,15,16,17	11,12	7,9,11
		11,12,14		9,10,11,13	9,10,13	16,18
		14,15,15.2	27,28,30	X,Y	10,11,12,13	18,23,24,25
			6,7,8	8,11	14,16,17,19	
KC7NZE	Identifiler® Plus					
	4e	16,17,19		15,16,17	11,12	7,9,11
		11,12,14		10,11,13	9,10,13	16,18
		14,15,15.2	27,28,30	X,Y	10,11,12,13	18,23,24,25
			6,7,8	8	14,16,17,19	
KR29G3	PowerPlex® ESX17, Fusion					
	4e	14,16	16,17	11,11	15,16	11,12
		11,14	13,14		10,13	9,13
		15,15.2	27,30	15,15	X,X	16,18
				6,7	8,8	
LHF4A4	Globalfiler					
	4e	14,[15],16,[17.3]	16,17,[19]	[10],11,11	[14],15,16,[17]	11,12
		11,[12],[13],14	13,14	[16],17,[18],19,[Q]	[9],10,[11],13	9,[10],[12],13,[Q]
		[14],15,15.2,[Q]	27,[28],[29],30,[Q]	[11],[14],15,15	X,X,[Y]	[10],11,[12],13,[Q]
			[15],16,[18],[22.2],23.2,[Q]	6,7,[8],[Q]	8,8,[Q]	
					[13],14,16,[19] [Q]	
LQ7PF2	Identifiler® Plus					
	4e	-	16,17	-	15,16,[17]	11,12
		11,[12],14	-	-	10,[11],13	9,[10],13
		15,15.2	27,[28],30	-	X,X,[Y]	[10],11,13
	-	-	-	6,7,[8]	8,8,[11]	
					14,16,[17],[19]	

TABLE 1

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

## Item 4e - STR Results

M4TBY2	<i>Identifiler®</i>					
4e		16,17		15,16	11,12	9,11
	11,[12],14			10,13	9,13	16,18
	15,15.2	27,[28],30		X,X	11,[12],13	24,25
				6,7,[8]	8,8	14,16,[17]
M8N6W3	<i>PowerPlex® 16</i>					
4e				(14),15,16	11,12	(7),9,11
	11,(12),14			(9),10,(11),13	9,(10),13	16,18
		27,(28),30		X,(Y)	(10),11,(12),13	(18),(23),24,25
	9,(11),12	7,16		6,7,(8)	8,(11)	14,16,(17),(19)
MAUQLN	<i>GlobalFiler</i>					
4e	14,16	16,17	11,11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15,15	X,X	11,13	24,25
			16,23.2	6,7	8,8	14,16
MHAA43	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
MPP6N4	<i>Identifiler® Plus</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,11,[13]	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
MW8LC7	<i>PowerPlex® Fusion</i>					
4e	14,[15],16	16,17,[19]	11	15,16	11,12	[7],9,11
	11,14	13,14	17,[18],19	10,[11],13	9,13	16,18
	[14],15,15.2	27,[28],30	15	X,[Y]	[10],11,13	[18],[23],24,25
	9,12	7,16		6,7	8	14,16
NACY7C	<i>Identifiler® Plus, MiniFiler</i>					
4e		16,17,19		14,15,16,17	10,11,12	7,9,11
	11,12,13,14			9,10,11,13	9,10,12,13	15,16,17,18
	14,14.2,15,15.2	27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,15,16,19
NE444M	<i>PowerPlex® ESI 16</i>					
4e	14,16	16,17	11,11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15,15	X,X		24,25
				6,7		14,16
NH6C9X	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,19

TABLE 1

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

## Item 4e - STR Results

NKBU7T	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
NMDRGL	<i>Identifiler® Plus</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]
NT2FCQ	<i>PowerPlex® 16</i>					
4e				14,15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
		27,28,30		X,X	10,11,12,13	18,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
NUXVM3	<i>PowerPlex® 16</i>					
4e				15,16	11,12	9,11
	11,[12],14			10,13	9,[10],13	16,18
		27,[28],30		X,[Y]	11,[12],13	[18],24,25
	9,[11],12	7,16		6,7,[8]	8,[11]	14,16,[17],[19]
P6D2YW	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,[12],14			10,[11],13	9,13	16,18
	15,15.2	27,30		X,X	11,13	[18],24,25
				6,7	8,8,[11]	14,16,[19]
P9DDUW	<i>Identifiler® Plus</i>					
4e		16,17,(19)		15,16,(17)	11,12	9,11
	11,14			10,(11),13	9,13	16,18
	15,15.2	27,30		X,X,(Y)	11,(12),13	(18),24,25
				6,7	8,8,(11)	14,16,(17)
PPJBH3	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X	11,12,13	18,24,25
				6,7,8	8,11	14,16,17,19
PRM726	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X,Y	11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
QBFDUU	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19

TABLE 1

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

## Item 4e - STR Results

QK6YZR	<i>Identifiler® Plus</i>					
4e	-	16,17	-	15,16	11,12	9,11
	11,14	-	-	10,13	9,13	16,18
	15,15.2	27,30	-	X,X	11,13	24,25
	-	-	-	6,7	8	14,16
RA4V94	<i>Identifiler® Plus</i>					
4e		15,16,17,19		14,15,16,17	10,11,12	7,9,11
	10,11,12,13,14			9,10,11,13	8,9,10,12,13	15,16,17,18
	14,14.2,15,15.2	27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	7,8,11	14,16,17,19
REDCHR	<i>Identifiler® Plus</i>					
4e		16,17,[19]		15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,8	14,16,[17],[19]
RKH97X	<i>Identifiler® Plus</i>					
4e		16,17,19		14,15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,13	16,18
	15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8	14,16,17,19
RKHBV3	<i>PowerPlex® 21</i>					
4e	14,16,[17.3]	16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14		17,19,[23]	10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30		X,X,[Y]	11,13	[18],[23],24,25
	9,12	7,[12],16		6,7,[8]	8,8,[11]	14,16,[19]
RYGWHX	<i>GlobalFiler</i>					
4e	14,[15],16,[17.3]	16,17	11	[14],15,16	11,12	[7],9,11
	11,[12],14	13,14	17,[18],19	[9],10,[11],13	9,13	16,18
	[14],15,15.2	27,28,30	15	X	[10],11,[12],13	[18],24,25
			16,23.2	6,7	8	14,16
T4LD6R	<i>PowerPlex® ESX-17</i>					
4e	14,16	16,17	11	15,16		
	11,14	13,14	17,19		9,13	16,18
	15,15.2	27,30	15	X		24,25
			16,23.2	6,7		14,16
T6GV7T	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15	X,Y	11,12,13	18,24,25
	9,11,12	7,12,16		6,7,8	8	14,16
TB89A2	<i>Global Filer</i>					
4e	14,[15],16,[17.3]	16,17,[19]	11	[14],15,16,[17]	11,12	[7],9,11
	11,[12],14	13,14	17,[18],19,[23]	[9],10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30	[11],15	X,X,[Y]	[10],11,[12],13	[18],[23],24,25
			16,[18],23.2	6,7,[8]	8,[11]	14,16,[17],[19]

TABLE 1

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

## Item 4e - STR Results

TE8GCQ	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15,16	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
TMKBP8	<i>Identifiler® Plus, MiniFiler</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
TMMZU6	<i>Identifiler® Plus</i>					
4e		16,17		14,15,16	11,12	9,11
	11,12,13,14			9,10,11,13	9,13	15,16,18
	14,15,15.2	27,28,29,30		X	10,11,12,13	23,24,25
				6,7,8	8,11	14,16,17
TQ2X2R	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,19
U78GCN	<i>Identifiler® Plus</i>					
4e	-	16,17,19	-	14,15,16,17	11,12	7,9,11
	11,12,14	-	-	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	-	X,Y	10,11,12,13	18,23,24,25
	-	-	-	6,7,8	8,11	14,16,17,19
U7URCX	<i>PowerPlex® 16</i>					
4e				(14),15,16	11,12	(7),9,11
	11,14			10,13	9,(10),13	16,18
		27,(28),30		X,(Y)	11,(12),13	(18),24,25
	9,(11),12	7,(12),(16)		6,7,(8)	8,(11)	14,16,(19)
UB46TW	<i>Identifiler® Plus</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	9,11
	11,[12],14			[9],10,[11],13	9,13	16,18
	[14],15,15.2	27,[28],30		X,[Y]	[10],11,13	[18],[23],24,25
				6,7	8	14,16,[17],[19]
UT6TKV	<i>Identifiler®</i>					
4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
	11,[12],14			[9],10,13	9,13	16,18
	15,15.2	27,[28],30		X,[Y]	[10],11,13	[18],24,25
				6,7,[8]	8,[11]	14,16,[17]
V7B7EZ	<i>Identifiler® Plus</i>					
4e		16,17		15,16	11,12	9,11
	11,14			10,13	9,13	16,18
	15,15.2	27,30		X,X	11,13	24,25
				6,7	8,8	14,16

TABLE 1

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

Item 4e - STR Results

VDRWKT	Identifiler®						
	4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14			[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]	
VG6GPT	Identifiler®						
	4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14			[9],10,[11],13	9,13	16,18
		[14],15,15.2	27,[28],30		X,X,[Y]	11,[12],13	[18],24,25
				6,7,[8]	8,8	14,16,[17],[19]	
VK9C9V	PowerPlex® 16						
	4e				[14],15,16,[17]	11,12	[7],9,11
		11,[12],14			[9],10,[11],13	9,[10],13	16,[18]
			27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
	9,11,12	7,[12],16		6,7,[8]	8,[11]	14,16,[17],[19]	
VQV3VQ	PowerPlex® Fusion						
	4e	14,[15],16	16,17,[19]	11	15,16,[17]	11,12	[7],9,11
		11,[12],14	13,14	17,19,[23]	[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30	[11],15	X,[Y]	11,[12],13	[18],[23],24,25
	9,12	7,[12],16		6,7,[8]	8,[11]	14,16,[17],[19]	
VN6W7	Identifiler® Plus, MiniFiler						
	4e		[15],16,17		[14],15,16	[10],11,12	[7],9,[10],11
		[10],11,[12],[13],14			[9],10,[11],[12],13	9,[10],[12],13	[15],16,[17],18
		[14],[14.2],15,15.2	[26],27,[28],[29],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,[15],16,[19]	
WQWTR	Identifiler® Plus						
	4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14			[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]	
W29PGW	PowerPlex® 16						
	4e				[14],15,16,[@]	11,12	[7],9,11
		11,[@],14			[9],10,[11],13	9,13	16,18
			27,[28],30		X,X,[@]	[10],11,[12],13	[18],[23],24,25
	9,[11],12	7,[@],16		6,7,[8]	8,[@]	14,16,[@]	
W2CA8L	Identifiler® Plus						
	4e		16,17		15,16	11,12	9,11
		11,14			10,13	9,13	16,18
		15,15.2	27,30		X,X	11,13	24,25
				6,7	8	14,16	
W2PVKT	Identifiler®						
	4e		16,17,[19]		[14],15,16,[17]	11,12	[7],9,11
		11,[12],14			[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,28,30		X,[Y]	[10],11,[12],13	[18],[23],24,25
				6,7,[8]	8,[11]	14,16,[17],[19]	

TABLE 1

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

## Item 4e - STR Results

W7746M	<i>Identifiler® Plus, PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11,11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19
W8DL3H	<i>PowerPlex® 16</i>					
4e				15,16,17	11,12	9,11
	11,12,14			10,13	9,13	16,18
		27,30		X,X	11,13	23,24,25
	9,11,12	7,16		6,7	8,11	14,16
W8EFK3	<i>Identifiler® Plus</i>					
4e		16,17,19		15,16,17	11,12	7,9,11
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8	14,16,17,19
WG489F	<i>PowerPlex® 16</i>					
4e				15,16,17	11,12	9,11
	11,12,14			10,11,13	9,13	16,18
		27,28,30		X,Y	10,11,12,13	18,24,25
	9,11,12	7,16		6,7	8,11	14,16
WM7FDN	<i>PowerPlex® 16 HS, ESX17, ES17, FUSION</i>					
4e	14,16	16,17	11	15,16	11,12	9,11
	11,14	13,14	17,19	10,13	9,13	16,18
	15,15.2	27,30	15	X	11,13	24,25
	9,12	7,16		6,7	8	14,16
WXQKPT	<i>Globalfiler</i>					
4e	14,16,[17.3]	16,17,[19]	11,11	[14],15,16,[17]	11,12	[7],9,11
	11,[12],14	13,14	17,19,[23]	10,[11],13	9,[10],13	16,18
	[14],15,15.2	27,[28],30	[11],15,15	X,X,[X],[Y]	11,13	[18],[23],24,25
			16,[18],23.2	6,7,[8]	8,8,[11]	14,16,[17]
XKWMYF	<i>COfiler® and Profiler Plus®</i>					
4e				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		24,25
						14,16
XPU6DU	<i>Identifiler®</i>					
4e		16,17,[19]		14,15,16,17	11,12	[7],9,11
	11,12,14			9,10,11,13	9,[10],13	16,18
	14,15,15.2	27,[28],30		X,X,[Y]	[10],11,[12],13	18,23,24,25
				6,7,[8]	8,8,[11]	14,16,[17],[19]
XRFTVL	<i>PowerPlex® Fusion</i>					
4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
	11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,17,19



TABLE 1

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

## Item 4e - STR Results

XVF6QL	<i>PowerPlex® Fusion</i>						
	4e	14,[15],16,[17.3]	16,17,[19]	11	[14],15,16,[17]	11,12	[7],9,11
		11,[12],14	13,14	17,[18],19,[23]	[9],10,[11],13	9,[10],13	16,18
		[14],15,15.2	27,[28],30	[11],15,[16]	X,[Y]	[10],11,[12],13	[18],[23],24,25
	9,[11],12	7,[12],16		6,7,[8]	8,[11]	14,16,[17],[19]	
YNXTBZ	<i>Identifiler® Plus</i>						
	4e		16,17,19		14,15,16,17	11,12	7,9,11
		11,12,13,14			9,10,11,13	9,10,13	16,17,18
		14,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19	
YRX48Z	<i>Identifiler® Plus</i>						
	4e		16,17,19		14,15,16,17	11,12	7,9,11
		11,12,13,14			9,10,11,13	9,10,13	16,17,18
		14,14.2,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19	
Z2F4EG	<i>PowerPlex® Fusion</i>						
	4e	14,15,16,17.3	16,17,19	11,11	14,15,16,17	11,12	7,9,11
		11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
		15,15.2	27,28,30	11,15,16	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,16	Not Tested	6,7,8	8,11	14,16,17,19	
Z3Q62F	<i>PowerPlex® 16</i>						
	4e			15,16	11,12	7,9,11	
		11,14		10,11,13	9,13	16,18	
			27,30	X,X	11,13	24,25	
	9,11,12	7,16		6,7	8,11	14,16	
Z3RZKL	<i>PowerPlex® Fusion</i>						
	4e	14,15,16,17.3	16,17,19	11	14,15,16,17	11,12	7,9,11
		11,12,14	13,14	17,18,19,23	9,10,11,13	9,10,13	16,18
		14,15,15.2	27,28,30	11,15	X,Y	10,11,12,13	18,23,24,25
	9,11,12	7,12,16		6,7,8	8,11	14,16,19	
ZB7NKE	<i>Identifiler® , MiniFiler</i>						
	4e		16,17,19		14,15,16,17	11,12	7,9,11
		11,12,14			9,10,11,13	9,10,13	16,18
		14,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19	
ZC26WC	<i>PowerPlex® Fusion</i>						
	4e	14,16	16,17	11,11	15,16	11,12	9,11
		11,14	13,14	17,19	10,13	9,13	16,18
		15,15.2	27,30	15,15	X,X	11,13	24,25
	9,12	7,16	-	6,7	8,8	14,16	
ZC28MG	<i>PowerPlex® 16</i>						
	4e			15,16	11,12	9,11	
		11,14		10,13	9,13	16,18	
			27,30	X,Y	10,11,12,13	23,24,25	
	9,12	7,16		6,7	8,8	14,16	

TABLE 1

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

## Item 4e - STR Results

ZJHZFR	Identifiler®				
4e		16,17,[19]	15,16,[17]	11,12	[7],9,11
	11,[12],14		[9],10,13	9,13	16,18
	15,15.2	27,[28],30	X	[10],11,13	[23],24,25
			6,7,[8]	8,[11]	14,16,[17]

TABLE 1

<b>WebCode Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>

## Item 4QA1 - STR Results

AG2VUZ COfiler® and Profiler Plus®

4QA1				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19

TABLE 1

<b>WebCode Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>

## Item 4QA2 - STR Results

AG2VUZ COfiler® and Profiler Plus®

4QA2				15,16	11,12	9,11
	11,14			10,13		16,18
		27,30		X,X		23,24,25
						14,16

TABLE 1

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

Item 4sp - STR Results

238J3X	<i>Identifiler® Plus</i>					
4sp		16,17,19		14,15,16,17	11,12	7,8,9
	11,12,14			9,10,11,13	9,10,13	16,18
	14,15,15.2	27,28,30		X,Y	10,11,12,13	18,23,24,25
				6,7,8	8,11	14,16,17,19
2E4PXG	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2G8K GK	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
2MTB4F	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2RN62G	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
2TJM8N	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
2XT2PM	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3276UV	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
336BDB	<i>COfiler® and Profiler Plus®</i>					
4sp				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19

TABLE 1

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

## Item 4sp - STR Results

36BTC7	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3EXURF	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3PHY4L	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3TEP8C	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3UVJ9M	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
3Y7WQL	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
44DMTR	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
472EKN	<i>Identifiler®</i>					
4sp	not tested	17,19	not tested	14,17	11,12	7,9
	12,14	not tested	not tested	9,11	9,10	16,16
	14,15	28,30	not tested	X,Y	10,12	18,23
	not tested	not tested	not tested	6,8	8,11	17,19
48FL4J	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

Item 4sp - STR Results

49KDWW	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4K4NLC	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4PD24B	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
4T9V2C	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
648TMQ	<i>Identifiler® Identifiler Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
666X67	<i>COfiler® and Profiler Plus® Profiler® Plus</i>					
4sp				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
6NV86L	<i>PowerPlex® ESX 16 Fast</i>					
4sp	15,17.3	17,19	11	14,17		
	12,14	13	18,23		9,10	16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19
6RE7GV	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
6TBPHW	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19

TABLE 1

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

Item 4sp - STR Results

6TDCYB	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
6XJ6RK	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7JGWNB	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
7XDBM6	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
8EG8JA	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
97KRCCG	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9A4QNQ	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
9D6RP9	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
9NLCA6	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19



TABLE 1

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

Item 4sp - STR Results

9NN7QP	<i>Identifiler® Plus</i>					
4sp		16,17,18,19		13,14,16,17	10,11,12	7,8,9
	11,12,13,14			8,9,10,11	8,9,10,13	15,16
	13,14,15	27,28,29,30		X,Y	9,10,11,12,13	17,18,22,23,24
				6,7,8	8,10,11	16,17,18,19
9PJPTQ	<i>Identifiler® Plus</i>					
4sp		17,19		14,16,17	11,12	7,9
	12,14			9,10,11	9,10	16
	14,15	27,28,30		X,Y	10,12	18,23,24
				6,7,8	8,11	16,17,19
9QURGB	<i>Identifiler®</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
A28BCQ	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
AAXWGP	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11,13	9,10	16
	14,15	28,30		X,Y	10,12,13	18,23
				6,7,8	8,11	17,19
AF4PCK	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AFQVX7	<i>Identifiler® and Identifiler Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
APERWL	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
AQMY4K	<i>PowerPlex® 21</i>					
4sp	15,17,3	17,19		14,17	11,12	7,9
	12,14		18,23	9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19

TABLE 1

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

Item 4sp - STR Results

AV46YA	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
AX4D3J	<i>PowerPlex® Fusion</i>					
4sp	15,17,3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
AZBV2F	<i>Globalfiler</i>					
4sp	15,17,3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
B8UFQD	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BFHBLM	<i>Identifiler®</i>					
4sp		16,17,19		14,16,17	11,12	7,9
	11,12,14			9,10,11,13	9,10	15,16
	14,15	27,28,30		X,Y	10,11,12,13	18,23
				6,7,8	8,11	14,16,17,18,19
BKD3TJ	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BNDEPJ	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BPBJ9Y	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
BYVHQ	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16,16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

BZ6ZVE	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
C86KVP	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
C88AZL	<i>Identifiler® Plus</i>					
4sp		16,17,18,19		13,14,15,16,17	10,11,12	7,8,9,11
	11,12,13,14			9,10,11,13	8,9,10,13	15,16,18
	13,14,15,15.2	27,28,29,30		X,Y	10,11,12,13	18,23,24,25
				5,6,7,8	8,10,11	14,16,17,19
CP33M6	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
CQXKN7	<i>NGM SElect</i>					
4sp	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
			16,18	6,8		17,19
CT37GD	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
CUHDZ9	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
D6YGKD	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
DUDCDE	<i>PowerPlex® 16 HS</i>					
4sp				14,[15],17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	[9],11	7,12		6,8	8,11	[14],17,19

TABLE 1

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

## Item 4sp - STR Results

DVNEYD	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
E72YWE	<i>PowerPlex® Fusion</i>					
4sp	15,17,3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
F7V4PD	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FBQXME	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FHBUVB	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FLUT7J	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FQ47NH	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
FR3C8X	<i>Profiler Plus</i>					
4sp				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
FX4N3U	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

GC2WK9	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
GDVHDZ	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
GH7WY	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
GTR3QG	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HGCB28	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HMXFE9	<i>Identifiler® ID Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HNDMX6	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
HQFK9X	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
HW4843	<i>PowerPlex® ESI-Fast + ESX</i>					
4sp	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19

TABLE 1

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

Item 4sp - STR Results

HYXTWU	<i>Identifiler®</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
J6XPX6	<i>Identifiler®</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16,16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
JHJ626	<i>Identifiler®</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
JJEM37	<i>Identifiler® Plus</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
JMXMEF	<i>Identifiler® Plus</i>						
	4sp		17,19		14,15,16,17	11,12	7,9
		12,14			9,11	9,10	16
		14,15,15.2	28,30		X,Y	10,12,13	18,23,24,25
				6,7,8	8,11	17,19	
KC7NZE	<i>Identifiler® Plus</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
KR29G3	<i>PowerPlex® ESX17, Fusion</i>						
	4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
		12,14	13,13	18,23	9,11	9,10	16,16
		14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	16,18	6,8	8,11	17,19	
LHF4A4	<i>Globalfiler</i>						
	4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
		12,14	13,13	18,23	9,11	9,10	16,16
		14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19	
LQ7PF2	<i>Identifiler® Plus</i>						
	4sp	-	17,19	-	14,17	11,12	7,9
		12,14	-	-	9,11	9,10	16,16
		14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19	

TABLE 1

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

Item 4sp - STR Results

M4TBY2	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
M8N6W3	<i>PowerPlex® 16</i>					
4sp				14,17,(@)	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
MAUQLN	<i>GlobalFiler</i>					
4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
MHAA43	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
MPP6N4	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
MW8LC7	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
NACY7C	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
NE444M	<i>PowerPlex® ESI 16</i>					
4sp	15,17.3	17,19	11,11	14,17		
	12,14	13,13	18,23		9,10	16,16
	14,15	28,30	11,16	X,Y		18,23
				6,8		17,19
NH6C9X	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

NKBU7T	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
NMDRGL	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
NT2FCQ	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
NUXVM3	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
P6D2YW	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
P9DDUW	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
PPJBH3	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
PRM726	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
QBFDUU	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19



TABLE 1

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

Item 4sp - STR Results

QK6YZR	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
RA4V94	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
REDCHR	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
RKH97X	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
RKHBV3	<i>PowerPlex® 21</i>					
4sp	15,17.3	17,19		14,17	11,12	7,9
	12,14		18,23	9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
RYGWHX	<i>GlobalFiler</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
T4LD6R	<i>PowerPlex® ESX-17</i>					
4sp	15,17.3	17,19	11	14,17		
	12,14	13	18,23		9,10	16
	14,15	28,30	11,16	X,Y		18,23
			16,18	6,8		17,19
T6GV7T	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
TB89A2	<i>Global Filer</i>					
4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

TE8GCQ	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
TMKBP8	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
TMMZU6	<i>Identifiler® Plus</i>					
4sp		17,19		14,16,17	11,12	7,9
	11,12,14			9,11,13	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
TQ2X2R	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
U78GCN	<i>Identifiler® Plus</i>					
4sp	-	17,19	-	14,17	11,12	7,9
	12,14	-	-	9,11	9,10	16
	14,15	28,30	-	X,Y	10,12	18,23
	-	-	-	6,8	8,11	17,19
U7URCX	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
UB46TW	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
UT6TKV	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
V7B7EZ	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

VDRWKT	<i>Identifiler®</i>					
4sp		17,19,[-]		14,17,[-]	11,12,[-]	7,9,[-]
	[11],12,14,[-]			9,11,[-]	9,10,[-]	16,[-]
	14,15,[-]	28,30,[-]		X,Y	10,12,[-]	18,23,[-]
				6,[7],8,[-]	8,11,[-]	17,19,[-]
VG6GPT	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
VK9C9V	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
VQV3VQ	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
VN6W7	<i>Identifiler® Plus, MiniFiler</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
VQWTR	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
W29PGW	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16
		28,30		X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
W2CA8L	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
W2PVKT	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

W7746M	<i>Identifiler® Plus, PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
W8DL3H	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
W8EFK3	<i>Identifiler® Plus</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
WG489F	<i>PowerPlex® 16</i>					
4sp				14,17	11,12	7,9
	12,14			9,11	9,10	16,16
		28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19
WM7FDN	<i>PowerPlex® 16 HS, ESX17, ES17, FUSION</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19
WXQKPT	<i>Globalfiler</i>					
4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
	12,14	13,13	18,23	9,11	9,10	16,16
	14,15	28,30	11,16	X,Y	10,12	18,23
			16,18	6,8	8,11	17,19
XKWMYF	<i>COfiler® and Profiler Plus®</i>					
4sp				14,17	11,12	7,9
	12,14			9,11		16,16
		28,30		X,Y		18,23
						17,19
XPU6DU	<i>Identifiler®</i>					
4sp		17,19		14,17	11,12	7,9
	12,14			9,11	9,10	16,16
	14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19
XRFTVL	<i>PowerPlex® Fusion</i>					
4sp	15,17.3	17,19	11	14,17	11,12	7,9
	12,14	13	18,23	9,11	9,10	16
	14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19

TABLE 1

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

## Item 4sp - STR Results

XVF6QL	<i>PowerPlex® Fusion</i>						
	4sp	15,17.3	17,19	11	14,17	11,12	7,9
		12,14	13	18,23	9,11	9,10	16
		14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19	
YNXTBZ	<i>Identifiler® Plus</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16,16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
YRX48Z	<i>Identifiler® Plus</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16,16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
Z2F4EG	<i>PowerPlex® Fusion</i>						
	4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
		12,14	13,13	18,23	9,11	9,10	16,16
		14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	Not Tested	6,8	8,11	17,19	
Z3Q62F	<i>PowerPlex® 16</i>						
	4sp				14,17	11,12	7,9
		12,14			9,11	9,10	16,16
			28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19	
Z3RZKL	<i>PowerPlex® Fusion</i>						
	4sp	15,17.3	17,19	11	14,17	11,12	7,9
		12,14	13	18,23	9,11	9,10	16
		14,15	28,30	11,16	X,Y	10,12	18,23
	11	7,12		6,8	8,11	17,19	
ZB7NKE	<i>Identifiler®, MiniFiler</i>						
	4sp		17,19		14,17	11,12	7,9
		12,14			9,11	9,10	16,16
		14,15	28,30		X,Y	10,12	18,23
				6,8	8,11	17,19	
ZC26WC	<i>PowerPlex® Fusion</i>						
	4sp	15,17.3	17,19	11,11	14,17	11,12	7,9
		12,14	13,13	18,23	9,11	9,10	16,16
		14,15	28,30	11,16	X,Y	10,12	18,23
	11,11	7,12	-	6,8	8,11	17,19	
ZC28MG	<i>PowerPlex® 16</i>						
	4sp				14,17	11,12	7,9
		12,14			9,11	9,10	16,16
			28,30		X,Y	10,12	18,23
	11,11	7,12		6,8	8,11	17,19	

TABLE 1

<b>WebCode Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D7S820</b>
	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>	<b>D18S51</b>
	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>	<b>FGA</b>
	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>	<b>vWA</b>

## Item 4sp - STR Results

ZJHZFR	Identifiler®				
4sp		17,19	14,17	11,12	7,9
	12,14		9,11	9,10	16,16
	14,15	28,30	X,Y	10,12	18,23
			6,8	8,11	17,19

# YSTR Results

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel	

Item 2 - YSTR Results

282D2K	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
2G8KGK	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
2RMC6U	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
2RN62G	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
2XT2PM	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
3EXURF	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
3KM8VP	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
3PHY4L	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
44DMTR	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
472EKN	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	not tested	not tested
		not tested	not tested	not tested	23	not tested	12	not tested	

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

Item 2 - YSTR Results

49KD VW	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
4K4NLC	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
4T9V2C	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
648TMQ	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
6XJ6RK	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
7FZN4H	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
7JGWNB	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
8EG8JA	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
9A4QNQ	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
AAXWGP	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		



TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 2 - YSTR Results

AF4PCK	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
AFQVX7	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
AV46YA	2						11		
B8UFQD	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
BVCW7G	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
BZ6ZVE	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
C88AZL	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
CCFRZZ	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
CFF4WZ	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
CP33M6	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

Item 2 - YSTR Results

CQXKN7	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
CUHDZ9	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
D6YGKD	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
DVNEYD	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
EKLDYD	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
F7V4PD	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
FBQXME	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
FLUT7J	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
FQ47NH	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
GC2WK9	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 2 - YSTR Results

GH7WY	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
GX6HKF	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
HMXFE9	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
HW4843	PowerPlex® Y 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
J2WNT2	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
J6XPX6	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
JHHC2B	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
KC7NZE	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
KR29G3	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
LHF4A4	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12	2	

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 2 - YSTR Results

M4TBY2	PowerPlex® Y 23	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
MAUQLN	Yfiler® Plus, PowerPlex® Y 23	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12	2	
MHAA43	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
NE444M	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
NE7XK8	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
NH6C9X	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
NKBU7T	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	
NMDRGL	Yfiler®	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
PPJBH3	PowerPlex® Y 23	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
PRM726	PowerPlex® Y 23	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 2 - YSTR Results

QBFDUJ	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
QEHC6M	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
QK6YZR	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
RA4V94	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
RKH97X	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
RYGWHX	2						11		
								2	
T4LD6R	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
T6GV7T	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
TE8GCG	Yfiler® 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
TMKBP8	PowerPlex® Y 23 2	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 2 - YSTR Results

TQ2X2R	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
U78GCN	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	-	-
			-	-	-	23	-	12	-	-
UB46TW	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
UT6TKV	PowerPlex® Y Y23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
VG6GPT	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
VQV3VQ	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
WN6W7	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
WQWTR	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
W29PGW	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
W2CA8L	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel	

## Item 2 - YSTR Results

WM7FDN	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
XRFTVL	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
XVF6QL	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
Z2F4EG	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12	Not Tested	
Z3RZKL	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
ZB7NKE	PowerPlex® Y 23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
ZC26WC	PowerPlex® Y Y23	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
ZJHZFR	Yfiler®	2	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4 - YSTR Results

FBQXME	Yfiler® Plus	4	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
NE444M	Yfiler®	4	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
WM7FDN	PowerPlex® Y 23	4	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		



TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4e - YSTR Results

2G8KGK	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
2XT2PM	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
3EXURF	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
44DMTR	Yfiler®								
	4e	14		12		24	11		13
		15		12		17	17		
				23			12		
49KDVW	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
4K4NLC	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
648TMQ	Yfiler®								
	4e	14		12	28	24	11		13
		15		12	19	17	17		
				23			12		
6XJ6RK	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
8EG8JA	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
9A4QNQ	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel	

## Item 4e - YSTR Results

AAXWGP	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
AF4PCK	Yfiler®								
	4e		11	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
AFQVX7	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
BZ6ZVE	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
C88AZL	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
CUHDZ9	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
DVNEYD	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
F7V4PD	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
FLUT7J	Yfiler®								
	4e			12			11		13
		15			19		17		
				23					
GC2WK9	PowerPlex® Y 23								
	4e	14	[11],14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YIndel	

## Item 4e - YSTR Results

GH7WY	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
LHF4A4	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12	2	
MHAA43	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
NH6C9X	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
NMDRGL	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
QBFDUU	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
RA4V94	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
T6GV7T	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
TE8GCQ	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
TMKBP8	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4e - YSTR Results

TQ2X2R	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
VQV3VQ	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
VW6W7	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
WQWTR	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
W29PGW	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
XRFTVL	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
XVF6QL	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
Z2F4EG	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12	Not Tested	
Z3RZKL	Yfiler®								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
				23			12		
ZB7NKE	PowerPlex® Y 23								
	4e	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

2G8KGK	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
2RN62G	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
2XT2PM	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
3EXURF	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
3PHY4L	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
44DMTR	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
472EKN	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	not tested	not tested
		not tested	not tested	not tested	23	not tested	12	not tested	
49KDVW	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
4K4NLC	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
648TMQ	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

6XJ6RK	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
7JGWNB	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
8EG8JA	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
9A4QNQ	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
AAXWGP	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
AF4PCK	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
AFQVX7	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
B8UFQD	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
BZ6ZVE	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
C88AZL	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

CP33M6	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	
CQXKN7	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
CUHDZ9	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
D6YGKD	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
DVNEYD	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
F7V4PD	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
FLUT7J	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
FQ47NH	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
GC2WK9	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
GH7WY	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

HMXF9	PowerPlex® Y 23	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
HW4843	PowerPlex® Y 23	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
J6XPX6	Yfiler®	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
KC7NZE	PowerPlex® Y 23	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
KR29G3	PowerPlex® Y 23	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
LHF4A4	Yfiler®	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12	2	
M4TBY2	PowerPlex® Y 23	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
			12	17	19	23	10	12		
MAUQLN	Yfiler® Plus	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17	21	12
				17	19	23		12	2	
MHAA43	Yfiler®	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		
NH6C9X	Yfiler®	4sp	14	11,14	12	28	24	11	13	13
			15	12	12	19	17	17		
						23		12		



TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

NKBU7T	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
NMDRGL	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
PPJBH3	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
PRM726	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
QBFDUU	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
QK6YZR	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
RA4V94	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
RKH97X	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
RYGWHX	4sp						11		
								2	
T4LD6R	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

T6GV7T	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
TE8GCQ	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
TMKBP8	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
TQ2X2R	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
U78GCN	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	-	-
		-	-	-	23	-	12	-	-
UB46TW	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
UT6TKV	PowerPlex® Y Y23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
VG6GPT	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
VQV3VQ	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
WN6W7	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		

TABLE 2

WebCode	Item	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
		DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
		DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	YInDel	

## Item 4sp - YSTR Results

WQWTR	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
W29PGW	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
W2CA8L	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
XRFTVL	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
XVF6QL	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
Z2F4EG	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12	Not Tested	
Z3RZKL	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		
ZB7NKE	PowerPlex® Y 23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12		
ZC26WC	PowerPlex® Y Y23 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17	21	12
		12	17	19	23	10	12	-	
ZJHZFR	Yfiler® 4sp	14	11,14	12	28	24	11	13	13
		15	12	12	19	17	17		
					23		12		

**Additional DNA Results**

TABLE 3

Locus	WebCode	Item 1	Item 2	Item 3	Item 3e	Item 3sp	Item 4	Item 4e	Item 4sp
AMELOGENIN	7XDBM6							X	X,Y
CSF1PO	7XDBM6							11,13	10,12
D13S317	7XDBM6							10,13	9,11
D16S539	7XDBM6							9,13	9,10
D18S51	7XDBM6							16,18	16
D19S433	7XDBM6							15,15.2	14,15
D21S11	7XDBM6							27,30	28,30
D2S1338	7XDBM6							16,17	17,19
D3S1358	7XDBM6							15,16	14,17
D5S818	7XDBM6							11,12	11,12
D6S1043	AQMY4K	11,13	11,17	12,15				11,13,17	11,17
	RKHBV3	11,13	11,17	12,15				11,13,[17]	11,17
D7S820	7XDBM6							9,11	7,9
D8S1179	7XDBM6							11,14	12,14
DYF387S1 A/B	MAUQLN		36,36						36,36
DYS391	282D2K	NR	11						
	2G8KGK		11	NR				11	11
	3Y7WQL		11					11	11
	AX4D3J		11						11
	AZBV2F	-	11	-				[11]	11
	CCFRZZ		11						
	CUHDZ9		11	NR				11	11
	E72YWE		11						11
	J2WNT2	NR	11						
	MW8LC7		11					11	11
	NH6C9X		11	NR				11	11
	QBFDUU		11	NR				11	11
	T6GV7T		11	NR				11	11
	TB89A2		11					[11]	11
	TE8GCQ		11	NR				11	11
	TQ2X2R		11	NR				11	11
	VQV3VQ		11	NR				[11]	11
	W7746M		11					11	11
	WXQKPT		11					[11]	11
	XRFTVL		11	NR				11	11
XVF6QL		11	NR				[11]	11	
Z3RZKL		11	NR				11	11	

TABLE 3

Locus	WebCode	Item 1	Item 2	Item 3	Item 3e	Item 3sp	Item 4	Item 4e	Item 4sp
DYS449	MAUQLN		29						29
DYS460	MAUQLN		11						11
DYS518	MAUQLN		39						39
DYS627	MAUQLN		21						21
FGA	7XDBM6							24,25	18,23
THO1	7XDBM6							6,7	6,8
TPOX	7XDBM6							8	8,11
VWA	7XDBM6							14,16	17,19
Y INDEL	AZBV2F	-	2	-				[2]	2
YINDEL	TB89A2		2					[2]	2
	WXQKPT		2					[2]	2

# DNA Interpretations

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

TABLE 4

WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>		WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
238J3X	No	Yes	No	Yes	4K4NLC	No	Yes	No	Yes
282D2K	No Interpretations Reported, DNA Analyzed for Database purposes only.				4PD24B	No	Yes	No	Yes
2E4PXG	No	Yes	No	Yes	4T9V2C	No	Yes	No	Yes
2G8K GK	No	Yes	No	Yes	648TMQ	No	Yes	No	Yes
2MTB4F	No	Yes	No	Yes	666X67	No	Yes	No	Yes
2RMC6U	No Interpretations Reported, DNA Analyzed for Database purposes only.				6NV86L	No	Yes	No	Yes
2RN62G	No	Yes	No	Yes	6RE7GV	No	Yes	No	Yes
2TJM8N	No	Yes	No	Yes	6TBPHW	No	Yes	No	Yes
2XT2PM	No	Yes	No	Yes	6TDCYB	No	Yes	No	Yes
3276UV	No	Yes	No	Yes	6XJ6RK	No	Yes	No	Yes
336BDB	No	Yes, blood	No	Yes, Semen	7929CP	No Interpretations Reported, DNA Analyzed for Database purposes only.			
36BTC7	No	Yes	No	Yes	7FZN4H	No Interpretations Reported, DNA Analyzed for Database purposes only.			
3EXURF	No	Yes	No	Yes	7JGWNB	No	Yes	No	Yes
3KM8VP	No Interpretations Reported, DNA Analyzed for Database purposes only.				7XDBM6	No	Yes	No	Yes
3PHY4L	No	Yes	No	Yes	8EG8JA	No	Yes	No	Yes
3TEP8C	No	Yes	No	Yes	97KR CG	No	Yes	No	Yes
3UVJ9M	No	Yes	No	Yes	9A4QNNQ	No	Yes	No	Yes
3Y7WQL	No	Yes	No	Yes	9D6RP9	No	Yes	No	Yes
44DMTR	No	Yes	No	Yes	9NLCA6	No	Yes	No	Yes
472EKN	No	Yes	No	Yes	9NN7QP	No	Yes	No	Yes
48FL4J	No	Yes	No	Yes	9PJPTQ	No	Yes	No	Yes
49KDVW	No	Yes	No	Yes	9QURGB	No	Yes	No	Yes

TABLE 4

WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>		WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
A28BCQ	No	Yes	No	Yes	CQXKN7	No	Yes	No	Yes
AAXWGP	No	Yes	No	Yes	CT37GD	No	Yes	No	Yes
AF4PCK	No	Yes	No	Yes	CUHDZ9	No	Yes	No	Yes
AFQVX7	No	Yes	No	Yes	D6YGKD	No	Yes	No	Yes
AG2VUZ	No	Yes	No	Yes	DUDCDE	No	Yes	No	Yes
APERWL	No	Yes	No	Yes	DVNEYD	No	Yes	No	Yes
AQMY4K	No	Yes	No	Yes	E72YWE	No	Yes	No	Yes
AV46YA	No	Yes	No	Yes	EKLDYD	No Interpretations Reported, DNA Analyzed for Database purposes only.			
AX4D3J	No	Yes	No	Yes	F7V4PD	No	Yes	No	Yes
AZBV2F	No	Yes	No	Yes	FBQXME	No	Yes	No	Yes
B8UFQD	No	Yes	No	Yes	FCN47U	No	No	No	Yes
BFHBLM	No	Yes	No	Yes	FHBUVB	No	Yes	No	Yes
BKD3TJ	No	Yes	No	Yes	FLUT7J	No	Yes	No	Yes
BNDEPJ	No	Yes	No	Yes	FQ47NH	No	Yes	No	Yes
BP9WQK	No Interpretations Reported, DNA Analyzed for Database purposes only.				FR3C8X	No	Yes	No	Yes
BPBJ9Y	No	Yes	No	Yes	FX4N3U	No	Yes	No	Yes
BVCW7G	No Interpretations Reported, DNA Analyzed for Database purposes only.				GC2WK9	No	Yes	No	Yes
BYVHQ	No	Yes	No	Yes	GDVHDZ	No	Yes	No	Yes
BZ6ZVE	No	Yes	No	Yes	GH7WY	No	Yes	No	Yes
C86KVP	No	Yes	No	Yes	GTR3QG	No	Yes	No	Yes
C88AZL	No	Yes	No	Yes	GX6HKF	No Interpretations Reported, DNA Analyzed for Database purposes only.			
CCFRZZ	No Interpretations Reported, DNA Analyzed for Database purposes only.				H47G9A	No Interpretations Reported, DNA Analyzed for Database purposes only.			
CFF4WZ	No Interpretations Reported, DNA Analyzed for Database purposes only.				HGCB28	No	Yes	No	Yes
CP33M6	No	Yes	No	Yes	HMXFE9	No	Yes	No	Yes

TABLE 4

WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>		WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
HNDMX6	No	Yes	No	Yes	NKBU7T	No	Yes	No	Yes
HQFK9X	No	Yes	No	Yes	NMDRGL	No	Yes	No	Yes
HW4843	No	Yes	No	Yes	NT2FCQ	No	Yes	No	Yes
HYXTWU	No	Yes	No	Yes	NUXVM3	No	Yes	No	Yes
J2WNT2	No Interpretations Reported, DNA Analyzed for Database purposes only.				P6D2YW	No	Yes	No	Yes
J6XPX6	No	Yes	No	Yes	P9DDUW	No	Yes	No	Yes
JHHC2B	No Interpretations Reported, DNA Analyzed for Database purposes only.				PPJBH3	No	Yes	No	Yes
JHJ626	No	Yes	No	Yes	PRM726	No	Yes	No	Yes
JJEM37	No	Yes	No	Yes	QBFDUU	No	Yes	No	Yes
JMXMEF	No	Yes	No	Yes	QEHC6M	No Interpretations Reported, DNA Analyzed for Database purposes only.			
KC7NZE	No	Yes	No	Yes	QK6YZR	No	Yes	No	Yes
KR29G3	No	Yes	No	Yes	RA4V94	No	Yes	No	Yes
LHF4A4	No	Yes	No	Yes	REDCHR	No	Yes	No	Yes
LQ7PF2	No	Yes	No	Yes	RKH97X	No	Yes	No	Yes
M4TBY2	No	Yes	No	Yes	RKHBV3	No	Yes	No	Yes
M8N6W3	No	Yes	No	Yes	RYGWHX	No	Yes	No	Yes
MAUQLN	No	Yes	No	Yes	T4LD6R	No	Yes	No	Yes
MHAA43	No	Yes	No	Yes	T6GV7T	No	Yes	No	Yes
MPP6N4	No	Yes	No	Yes	TB89A2	No	Yes	No	Yes
MW8LC7	No	Yes	No	Yes	TE8GCQ	No	Yes	No	Yes
NACY7C	No	Yes	No	Yes	TMKBP8	No	Yes	No	Yes
NE444M	No	Yes	No	Yes	TMMZU6	No	Yes	No	Yes
NE7XK8	No Interpretations Reported, DNA Analyzed for Database purposes only.				TQ2X2R	No	Yes	No	Yes
NH6C9X	No	Yes	No	Yes	U78GCN	No	Yes	No	Yes



TABLE 4

WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>		WebCode	<u>Victim (Item 1)</u>		<u>Suspect (Item 2)</u>	
	Item 3	Item 4	Item 3	Item 4		Item 3	Item 4	Item 3	Item 4
U7URCX	No	Yes	No	Yes	YNXTBZ	No	Yes	No	Yes
UB46TW	No	Yes	No	Yes	YRX48Z	No	Yes	No	Yes
UT6TKV	No	Yes	No	Yes	YZBBPP	No Interpretations Reported, DNA Analyzed for Database purposes only.			
V7B7EZ	No	Yes	No	Yes	Z2F4EG	No	Yes	No	Yes
VDRWKT	No	Yes	No	Yes	Z3Q62F	No	Yes	No	Yes
VG6GPT	No	Yes	No	Yes	Z3RZKL	No	Yes	No	Yes
VG92EG	No Interpretations Reported, DNA Analyzed for Database purposes only.				ZB7NKE	No	Yes	No	Yes
VK9C9V	No	Yes	No	Yes	ZC26WC	No	Yes	No	Yes
VQV3VQ	No	Yes	No	Yes	ZC28MG	No	Yes	No	Yes
VN6W7	No	Yes	No	Yes	ZJHZFR	No	Yes	No	Yes
WQWTR	No	Yes	No	Yes					
W29PGW	No	Yes	No	Yes					
W2CA8L	No	Yes	No	Yes					
W2PVKT	No	Yes	No	Yes					
W7746M	No	Yes	No	Yes					
W8DL3H	No	Yes	No	Yes					
W8EFK3	No	Yes	No	Yes					
WG489F	No	Yes	No	Yes					
WM7FDN	No	Yes	No	Yes					
WXQKPT	No	Yes	No	Yes					
XKWMYF	No	Yes	No	Yes					
XPU6DU	No	Yes	No	Yes					
XRFTVL	No	Yes	No	Yes					
XVF6QL	No	Yes	No	Yes					

**Response Summary****Participants reporting DNA results: 174**

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

<b>Responses</b>	Victim (Item 1)		Suspect (Item 2)	
	<u>Item 3</u>	<u>Item 4</u>	<u>Item 3</u>	<u>Item 4</u>
Yes	<b>0</b>	<b>155</b>	<b>0</b>	<b>156</b>
No	<b>156</b>	<b>1</b>	<b>156</b>	<b>0</b>
Inc	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**Participants not reporting Interpretation results: 18**

# Additional Comments

TABLE 5

WebCode	Additional Comments
238J3X	PG/STRMix was used for interpretation
282D2K	NR = No Results. Data for locus DYS391 on "DNA Analysis - Additional DNA" page are results from the Fusion kit.
2G8K GK	NR=no result. Results for DYS391 in the additional DNA section were developed using PowerPlex Fusion.
2RN62G	1) Item 1 and Item 2 were extracted using in-situ method and amplified using Identifiler Direct in the 9700 thermal cycler. 2) Item 3 and Item 4 were extracted using chelex extraction[sic] method and quantified using Quantifiler Human DNA quantitation kit and carried out by 7500 Real Time PCR. Amplification was done using AmpFISTR Identifiler Plus Kit. 3) Item 1, Item 2, Item 3 and Item 4 were amplified using Yfiler Kit in the 9700 thermal cycler. 4) All electrophoresis process were carried out by Genetic Analyzer 3130xl. 5) Reagent blank, positive control and negative control were carried out along with the analysis and all gave the intended results.
44DMTR	The probabilistic genotyping software STRmix was used on this proficiency. We reported out all possible alleles generated in the genotype probability distribution output files. Sample 4e was amplified 2 times with different amounts in order to try to obtain a full Y-STR profile. Only a partial YSTR profile was obtained. Since the partial single source profile from 4E was consistent with the full, single source YSTR profile from 4S, no further work was attempted on 4E. This reflects the actions we would take for a non probative sample in casework.
49KDWW	STRMix mixture interpretation software was utilized for items 3 and 4 ec/sc. Allele calls are based on the genotype probability distribution list so additional alleles may be present as any allele given a weight as a possible true allele was documented. Profiles (items 3 and 4 ec/sc) were analyzed using both Identifiler Plus and Minifiler kits. Allele calls from both kits were used so additional alleles may be present.
4T9V2C	YSTR testing for Item 2 was for database purposes only, no interpretations or comparisons were made.
648TMQ	Note: The probabilistic genotyping software STRmix was used on this proficiency. We reported out all possible alleles generated in the genotype probability distribution output files. Note: A full YSTR profile was not developed in the epithelial fraction of item 4. A full YSTR profile was developed in the sperm fraction and it was consistent with the partial seen in the epithelial function; therefore, I considered developing a full profile in the Epithelial fraction non-probative.
6TBPHW	Evidence profiles were interpreted using a probabilistic genotyping approach, aided by STRmix software.
6XJ6RK	YSTR not performed on Item 1 or Item 3 because no male DNA detected on quantification.
7FZN4H	No interpretation reported. Samples analyzed for database purposes only.
7JGWNB	1) In-situ extraction method was used to extract DNA from Item 1 and Item 2. 2) Chelex extraction method was used to extract DNA from Item 3 and 4. 3) DNA quantitation was carried out using the Quantifiler Human DNA Quantification Kit with Applied Biosystems Real Time Polymerase Chain Reaction (PCR) 7500 System. 4) Amplification of STR (Short Tandem Repeat) Genetic Loci was carried out using the AmpFISTR Identifiler Plus and Direct PCR Amplification Kit. 5) Amplification of Y-STR (Short Tandem Repeat) Genetic Loci was carried out using the AmpFISTR Y-Filer PCR Amplification Kit. 6) Capillary electrophoresis was carried out using the Applied Biosystems 3130xl Genetic Analyzers with GeneMapper ID Software. 7) Reagent blank, positive control and negative control were carried out throughout the analysis.
9A4QNG	STRmix was used to perform probabilistic genotyping analysis on this test.
9NN7QP	PG/STRMix was used for interpretation
9PJPTQ	STRMix used for profile interpretation.
A28BCQ	Evidence profiles were interpreted using a probabilistic genotyping approach, aided by STRmix software.

TABLE 5

WebCode	Additional Comments
AF4PCK	The probabilistic genotyping software STRmix® was used on this proficiency. We reported out all possible alleles generated in the Genotype Probability Distribution output files (STR analysis). A partial profile was obtained for the Y-STR analysis of sample 4 epi. The results reported are based on the maximum amplification amount allowed.
BFHBLM	STRmix genotyping probability software was used to determine genotype combinations. No stutter filters are used when using this software and it is recognized that some stutter peaks can be recognized as true peaks.
BKD3TJ	These profiles were evaluated using STRmix. STRmix probabilistic genotyping software was used to determine genotype combinations. No stutter filters are used when using this software and it is recognized that some stutter peaks can be recognized as true peaks.
BYVHQ	Evidence profiles were interpreted using a probabilistic genotyping approach, aided by STRmix software.
BZ6ZVE	Y-STR analysis was not performed on samples 1 and 3 because no male DNA was detected using Quantifiler Duo.
C86KVP	STRMix mixture interpretation software was utilized for items 3 and 4 (epithelial and sperm cell fractions). Allele calls are based on the genotype probability distribution list so additional alleles may be present as any allele given a weight as a possible true allele was documented.
C88AZL	Probabilistic Genotyping Software/STRmix used for autosomal interpretation.
CP33M6	Item 1 and Item 2 were amplified using Identifiler Direct, Y-Filer and Minifiler in 9700 Thermal Cycler. Item 3 and 4 were extracted using Chelex extraction method. Item 3 and 4 were quantified using Quantifiler Human DNA Quantification Kit from Applied Biosystem and carried out by 7500 Real Time PCR System then, amplified using AmpF1STR Identifiler Plus, Minifiler and Y filer PCR Kit. The electrophoresis for Item 1,2,3 and 4 were carried out on Genetic Analyzer 3130xl. Reagent Blank, Positive control and Negative control carried out along with the analysis and all gave the intended result.
CQXKN7	Items 3&4 both KM+ve. Item 4 - sperm elution method carried out - semen detected. Seminal pellet submitted for DNA analysis using Fast Differential extraction, both epithelial and seminal fractions analysed. (Only seminal fraction used for Y-STR analysis).
CUHDZ9	NR = No Results. Data for locus DYS391 on "Additional DNA" page produced using the PowerPlex Fusion kit.
FBQXME	The probabilistic genotyping software STRmix® was used on this proficiency. We reported out all possible alleles generated in the Genotype Probability Distribution output files.
FLUT7J	Probabilistic genotyping (STRMix) was used to aid in interpretation and statistics.
FQ47NH	probabilistic genotyping was used to aid in interpretation and statistics
FX4N3U	[ ] = Minor contributor alleles
GC2WK9	@'s in E-Cell fraction indicate additional results identified below the 200 RFU reporting threshold. All results are consistent with carryover from the sperm fraction.
GTR3QG	PG/STRMix was used for interpretation.
J2WNT2	Data for locus DYS391 on Additional DNA page produced using the PowerPlex Fusion kit. NR=No Results
JMXMEF	Probabilistic genotyping was used to aid in mixture interpretation.
KR29G3	In cell fraction Item 4c, no reproducible results were obtained, to the next systems: D7S820, D12S391, CSF1P0, FGA, PD, PE and SE33.
LHF4A4	NSD = no sizing data. Probabilistic genotyping (STRmix) used for data analysis with stutter peaks

TABLE 5

WebCode	Additional Comments
	unfiltered. Alleles comprising genotype combinations with total weightings of 99% or greater reported. Q = possible dropout allele.
M8N6W3	@ = result above interpretation but below reportable levels. Results identified from Item 3 are consistent with a single source female. Items 1 and 2 can be excluded from the DNA identified on Item 3. Results identified from Item 4 (sperm and e-cell fractions combined) are consistent with a mixture of DNA from two individuals. All results identified from Item 4 are consistent with Items 1 and 2.
MAUQLN	Participant's note concerning boxes: -Empty box indicates that no experiment was performed on that marker. Participant's note concerning the multi-use of the same individual's DNA: This is to confirm that the item 2 in the present proficiency test was sent successively by your laboratory in CTS 13-581 and CTS 15-581. In fact, the 16-582 item 2 is the same as item 2, and present in item 3 mixture, and is the same as item 4 of the CTS 13-581. Moreover, the 16-582 item 2 is the same as item 2 and present in item 3 mixture of the CTS 15-581. We highly recommend to avoid such profiles repetitions for the benefits of bench work, as well as software comparisons.
MHAA43	NR = No results
NACY7C	STRMix mixture interpretation software was utilized for items 3, 4 ec, and 4 sc. Allele calls are based on the genotype probability distribution list so additional alleles may be present as any allele given a weight as a possible true allele was documented. Profiles (items 1, 2, 3, 4 ec, and 4 sc) were analyzed using both Identifiler Plus and Minifiler kits. Allele calls from both kits were used so additional alleles may be present.
NE444M	The results for Item 3 show a DNA profile of an unknown female.
NH6C9X	NR indicates No Results. DYS391 results in the DNA Analysis - Additional DNA section were developed using PowerPlex Fusion.
NKBU7T	1. Item 1 and Item 2 were directly amplified using AMPFISTR Identifiler Direct Kit. 2. Item 3 and Item 4 were extracted by in-house Chelex extraction method and quantified using Quantifiler Human Kit. 3. AMPFISTR Identifiler Plus Kit was used to amplify Item 3 and Item 4. 4. AMPFISTR Y Filer Kit was used to amplify Y-STR on Item 1, Item 2, Item 3 and Item 4. 6. Electrophoresis was carried out using Genetic Analyzer 3130xl. 7. Reagent blank, Positive Control and Negative Control were carried out along the analysis and all gave intended results.
QBFDUU	NR= No Results. Data for locus DYS391 on Additional DNA Results page produced using PowerPlex Fusion.
QEHC6M	Items 3 & 4 not processed.
QK6YZR	1. Item 1 and 2 were extracted using the in-situ extraction method. 2. Item 3 were extracted using the Promega DNA IQ on Tecan Freedom EVO 150. 3. Item 4 were extracted using the Chelex extraction method. 4. Item 3 and 4 were quantitated using Quantifiler Human DNA Quantitation Kit carried out by 7500 Real Time PCR. 5. Amplification was done using the AmpFISTR Identifiler Direct kit for Item 1 and 2, AmpFISTR Identifiler Plus kit for Item 3 and 4, and AmpFISTR Y-Filer kit on Item 1 to 4. 6. Electrophoresis was carried out by Genetic Analyzer 3130XL. 7. Reagent Blank, Positive Control and Negative Control were carried out along with the analysis and all gave the intended results.
RA4V94	The probabilistic genotyping software STRmix was used on this proficiency. We reported out all possible alleles generated in the genotype probability distribution output files.
T4LD6R	1. It is noted that the genetic profile recovered from the blood in the victim's T-shirt (Item 3) is not consistent with either the suspect's (Item 2) or victim's (Item 1) profile. Therefore the suspect (Item 2) and the victim (Item 1) are excluded as the source of the blood sample detected in the victim's T-shirt (item 3). 2. An unknown individual female is not excluded as the source of the blood sample detected in the victim's T-shirt (item 3). 3. The suspect (Item 2) is not excluded as the source of the spermatic cells detected in the spermatic fraction of the blood and semen mixture stain in the victim's underwear (Item 4). 4. The victim is not excluded as the source of the cells in the epithelial[sic] fraction of the blood and semen mixture stain in the victim's underwear (Item 4).

TABLE 5

WebCode	Additional Comments
T6GV7T	NR- no results. Data for DYS391 in the Additional DNA section was developed using PowerPlex Fusion
TE8GCQ	NR = No Results. Data for locus DYS391 on Additional DNA page produced using the PowerPlex Fusion kit.
TMMZU6	STRmix genotyping probability software was used to determine possible genotype combinations. No stutter filters are used when using this software and it is recognized that some stutter peaks can be recognized as true peaks.
TQ2X2R	Additional DNA results for genetic locus DYS391 generated using PowerPlex Fusion. NR = No Results
U7URCX	Lighter intensity allele ( ) = [ ]. SF=sperm fraction. EF = E-cell fraction.
VDRWKT	Item 4 (sperm fraction) - Possible additional genetic information may be present. No additional peaks were detected; detected data is below stochastic threshold.
VQV3VQ	Data for locus DYS391 on Additional DNA page produced using the PowerPlex Fusion kit. NR= No Results
VW6W7	STRMix mixture interpretation software was utilized for items 3 and 4. Allele calls are based on the genotype probability distribution list so additional alleles may be present as any allele given a weight as a possible true allele was documented. Profiles (Items 1, 2, 3, and 4) were analyzed using both Identifiler Plus and Minifiler kits. Allele calls from both kits were used so additional alleles may be present.
W29PGW	@ = alleles below reportable threshold.
XRFTVL	DYS391 Under the "Additional DNA" section lists results in this locus from PowerPlex Fusion testing. NR = No results
XVF6QL	NR indicates no results. DYS391 in the additional DNA section was developed from PowerPlex Fusion.
YNXTBZ	PG/STRMix was used for interpretation.
YRX48Z	PG/STRmix was used for interpretation.
Z2F4EG	No Y-STR results were obtained from Item 3. Item 3 is not suitable for comparisons using Y-STRs.
Z3RZKL	NR: No Results. Data for locus DYS391 on Additional DNA page produced using the PowerPlex Fusion kit.
ZC26WC	1. Item #3 and #4 were extracted using QIAamp DNA Investigator kit as indicated by the manufacturer. Differential extraction was performed only on item#4, followed by QIAamp DNA Investigator kit. 2. All the extracted DNA was quantified using Quantifiler® Human DNA Quantification kit through 7500 Real Time PCR (Applied Biosystems). 3. Item#1 and #2 were directly amplified using PowerPlex® Fusion System (Promega). The extracted DNA was also amplified using PowerPlex® Fusion System (Promega). 4. Y-STR analysis was performed on item#2, and #4-sp using PowerPlex® Y23 System (Promega). 5. Capillary electrophoresis was carried out through AB 3130 xl Genetic Analyzer (Applied Biosystems). 6. Genotype analysis was performed using GeneMapper ID version 3.2.1 software (Applied Biosystems). 7. All procedures was performed according to the laboratory Standard Operating Procedure (SOP).

# Appendix: Data Sheet

DNA-Semen

Test 16-582

Collaborative Testing Services ~ Forensic Testing Program

## **Test No. 16-582: DNA-Semen**

DATA MUST BE RECEIVED BY May 9, 2016 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

### **Accreditation Release Statement**

CTS submits external proficiency test data directly to ASCLD/LAB and ANAB. 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 and/or ANAB.  
(Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is **NOT** intended for submission to ASCLD/LAB or ANAB.

#### Scenario:

Police are investigating a sexual assault involving a female victim who was attacked at the bus station by an unknown number of individuals. A male suspect was apprehended after security footage from the bus terminal identified him fleeing the area of the attack. Screening has been performed on both evidence samples with the following results: Item 3 (victim's T-shirt) is positive for blood only, and the Item 4 (victim's underwear) is positive for a mixture of blood and semen. The screening lab is submitting these samples (Items 3 and 4) along with the known blood samples of the victim and the suspect.

#### Items Submitted (Sample Pack S2):

Item 1: Known blood from the female victim.

Item 2: Known blood from the male suspect.

Item 3: Questioned stain from the victim's T-shirt. (gray material)

Item 4: Questioned stain from the victim's underwear. (pink & white chevron material)

**Please return all pages of this data sheet.**

Page 1 of 8

**Part I: DNA ANALYSIS**

**DNA Analysis 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 policy for reporting homozygotes.
- \* If your laboratory policy is to indicate minor or weaker alleles, please enclose them within brackets [ ].
- \* Stains with more than one contributor: If a differential extraction is performed, split the box with a horizontal line and report the results of the different fractions above and below the line - indicate which is the sperm fraction (sp) and which is the epithelial fraction (e) (Example A); otherwise, list the alleles in numerical order (Example B).

<b>Example</b>		D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
<b>A</b>	e	10,11	15,16	8	12,13	7	8
	sp	12,13	15,17	8,17	11	14,15	11,13
<b>B</b>		[10],[11],12,13	15,[16],17	8,17	[11],12,13	7,14,15	8,11,13

**Additional DNA Results**

Please use the section below to report results only for loci not available on the following pages.

	<b>Item 1</b>	<b>Item 2</b>	<b>Item 3</b>	<b>Item 4</b>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Please return all pages of this data sheet.**



**Part I (continued): DNA Results for Known Item1**

**STR Amplification Kit(s) Used For Item 1:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. 16, Plus, Direct, 16 HS, etc.).

COfiler®/Profiler Plus® \_\_\_\_\_  PowerPlex® \_\_\_\_\_

Identifiler® \_\_\_\_\_ Other \_\_\_\_\_

<b>ITEM</b>	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	Penta D	Penta E	SE33	TH01	TPOX	vWA
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**YSTR Amplification Kit(s) Used For Item 1:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. Plus, 23, etc.).

Yfiler® \_\_\_\_\_  PowerPlex® Y \_\_\_\_\_

Other \_\_\_\_\_

<b>ITEM</b>	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	Y Indel
<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part I (continued): DNA Results for Known Item 2**

**STR Amplification Kit(s) Used For Item 2:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. 16, Plus, Direct, 16 HS, etc.).

COfiler®/Profiler Plus® \_\_\_\_\_  PowerPlex® \_\_\_\_\_

Identifiler® \_\_\_\_\_ Other \_\_\_\_\_

<b>ITEM</b>	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	Penta D	Penta E	SE33	TH01	TPOX	vWA
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**YSTR Amplification Kit(s) Used For Item 2:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. Plus, 23, etc.).

Yfiler® \_\_\_\_\_  PowerPlex® Y \_\_\_\_\_

Other \_\_\_\_\_

<b>ITEM</b>	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>ITEM</b>	DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	Y Indel
<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Please return all pages of this data sheet.**

**Part I (continued): DNA Results for Questioned Item 3**

**STR Amplification Kit(s) Used For Item 3:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. 16, Plus, Direct, 16 HS, etc.).

COfiler®/Profiler Plus® \_\_\_\_\_
  PowerPlex® \_\_\_\_\_  
 Identifiler® \_\_\_\_\_
  Other \_\_\_\_\_

<b>ITEM</b>	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>ITEM</b>	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>ITEM</b>	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>ITEM</b>	Penta D	Penta E	SE33	TH01	TPOX	vWA
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**YSTR Amplification Kit(s) Used For Item 3:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. Plus, 23, etc.).

Yfiler® \_\_\_\_\_
  PowerPlex® Y \_\_\_\_\_  
 Other \_\_\_\_\_

<b>ITEM</b>	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>ITEM</b>	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

<b>ITEM</b>	DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	Y Indel
<b>3</b>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Please return all pages of this data sheet.**

**Part I (continued): DNA Results for Questioned Item 4**

**STR Amplification Kit(s) Used For Item 4:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. 16, Plus, Direct, 16 HS, etc.).

COfiler®/Profiler Plus® \_\_\_\_\_
  PowerPlex® \_\_\_\_\_  
 Identifiler® \_\_\_\_\_
  Other \_\_\_\_\_

ITEM	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
4						

ITEM	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
4						

ITEM	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
4						

ITEM	Penta D	Penta E	SE33	TH01	TPOX	vWA
4						

**YSTR Amplification Kit(s) Used For Item 4:** Please check all the brands that apply for this item and record any kit specific information in the blank provided (i.e. Plus, 23, etc.).

Yfiler® \_\_\_\_\_
  PowerPlex® Y \_\_\_\_\_  
 Other \_\_\_\_\_

ITEM	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
4								

ITEM	DYS437	DYS438	DYS439	DYS448	DYS456	DYS458	DYS481	DYS533
4								

ITEM	DYS549	DYS570	DYS576	DYS635	DYS643	Y GATA H4	Y Indel
4							

**Please return all pages of this data sheet.**

**Part II: DNA INTERPRETATION**

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

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

**DNA interpretations not reported; samples analyzed for database purposes only.**

**Part III: ADDITIONAL COMMENTS**

Comments regarding any part of this Forensic Biology Test.

*Written conclusions (including statistical information) for DNA analysis are not required.*

*Any interpretations based on the results obtained should be indicated above.*

*Note: Laboratories submitting their results for ASCLD/LAB accreditation are asked to report any additional information that will assist in the review of their results. This includes an explanation of any deviations from a full completion of the test and/or unique findings such as elevated stutter.*

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<p><b>Return Instructions:</b> Data must be received via online data entry, fax (please include a cover sheet), or mail by <b>May 09, 2016</b> to be included in the report. Emailed data sheets are not accepted.</p> <p>QUESTIONS?          TEL: +1-571-434-1925 (8 am - 4:30 pm EST)          EMAIL: forensics@cts-interlab.com          www.ctsforensics.com</p>	<p>Participant Code:</p>
	<p>ONLINE DATA ENTRY: <a href="http://www.cts-portal.com">www.cts-portal.com</a>          FAX: +1-571-434-1937          MAIL: Collaborative Testing Services, Inc.          P.O. Box 650820          Sterling, VA 20165-0820 USA</p>

**Please return all pages of this data sheet.**

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Collaborative Testing Services ~ Forensic Testing Program

**RELEASE OF DATA TO ACCREDITATION BODIES**

The following Accreditation Releases will apply only to:

Participant Code: \_\_\_\_\_ WebCode: \_\_\_\_\_  
for Test No. **16-582: DNA-Semen**

This release page must be completed and received by **May 9, 2016** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

**ASCLD/LAB RELEASE**

If your lab has been accredited by ASCLD/LAB and you are submitting this data as part of their external proficiency test requirements, have the laboratory's designated individual complete the following. **The information below must be completed in its entirety for the results to be submitted to ASCLD/LAB.**

ASCLD/LAB Legacy Certificate No. \_\_\_\_\_ ASCLD/LAB International Certificate No. \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**ANAB RELEASE**

If your laboratory maintains its accreditation through ANAB, please complete the following form in its entirety to have your results forwarded.

ANAB Certificate No. \_\_\_\_\_

Signature and Title \_\_\_\_\_ Date \_\_\_\_\_

Laboratory Name \_\_\_\_\_

Location (City/State) \_\_\_\_\_

**Accreditation Release**

**Return Instructions**

*Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.*

*Questions? Contact us 8 am-4:30 pm EST  
Telephone: +1-571-434-1925  
email: forensics@cts-interlab.com*

**Please return all pages of this data sheet.**