DNA Parentage
Test No. 15-5870 Summary Report

This proficiency test was sent to 21 participants. Each participant received a sample pack consisting of the standard paternity trio, collected from a mother, daughter, and alleged father. Participants were requested to analyze the samples using their existing protocols. Data were returned from 19 participants (90% response rate) and are compiled into the following tables:

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Manufacturer's Information

Each sample set was a collection of known blood samples, provided on FTA Micro cards, from three individuals (Items 1-3), a mother, daughter and a potential father. Participants were requested to analyze these items using their existing protocols. Also included in the Data sheet was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine, if a sibling relationship claim was supported following the review of these profiles.

SAMPLE PREPARATION: All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 (75 µl) was created using blood collected from a female (mother) donor, Item 2 (75 µl) was from a female (daughter) donor and Item 3 (75 µl) was created using blood collected from one male (the actual biological father) donor. Each different Item was prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on January 19, 2015.

SAMPLE SET ASSEMBLY: For each sample set, all three Items (1-3) were placed in a pre-labeled sample pack envelope. The sealed sample pack envelopes were then packaged in pre-labeled Heat Seal envelopes and sealed. This process was repeated until all of the sample sets were prepared.

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

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

Amelogenin and STR Results

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

Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
1	*	19,20	*	15,16	12,13	10
	10,16	*	*	11,12	12	14
	14,14.2	30,31.2	*	X	12	20,23
	*	*	*	7,8	11,12	16
2	*	19	*	15,16	11,13	10,11
	10,17	*	*	11,12	10,12	12,14
	14	30,31.2	*	X	11,12	23,24
	*	*	*	7	11	16,17
3	*	19,23	*	15	11	11,13
	14,17	*	*	12	10,11	12,18
	14	30,30.2	*	X,Y	10,11	24,25
	*	*	*	6,7	11	17,18

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

Summary Comments

The 15-5870 DNA Parentage test was designed to allow participants to assess their proficiency in the analysis and interpretation of a standard trio of blood stains on FTA Micro cards. Item 1 was blood collected from a female donor (mother), Item 2 was blood collected from a female donor (daughter) and Item 3 was blood collected from a male donor (father of Item 2). Participants were requested to analyze the samples and provide allelic and statistical results and relationship conclusions regarding the potential father. Sample sets also included a kinship exercise provided on the data sheets where participants were requested to evaluate the provided DNA profiles and report the kinship index and relationship conclusions. [Refer to the Manufacturer's Information for preparation details]

For Paternity DNA Statistics & Conclusions (Tables 5 & 6), a variety of responses were provided for the combined paternity index. However, all 19 responding participants reported that the potential father (Item 3) could not be excluded as the biological parent of the daughter (Item 2).

For Kinship DNA Statistics (Table 7), a variety of responses were provided for the kinship index. However, all 11 responding participants reported that the genetic evidence supported the claim of a full sibling relationship. Statistical responses for both paternity and kinship questions varied due to the use of different population databases. However, consistencies were noted amongst the indices reported from participants using the same database.

Only one participant reported allelic results that differed from the consensus/predistribution results. This participant reported inconsistent autosomal alleles for two loci in Item 3. A consensus of at least ten participants was not obtained for the YSTR allelic loci therefore no inconsistencies were determined.

Amelogenin & STR Results

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 1 - Amelogenin & STR Results						
4TWZUA	*PowerPlex® 21*					
1	16,17.3	19,20		15,16	12,13	10,10
	10,16		19,21	11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
	10,11	5,18		7,8	11,12	16,16
7LCGP2	*Identifiler®*					
1		19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X	12	20,23
				7,8	11,12	16
92EXNX	*Identifiler® plus kit*					
1	--	19,20	--	15,16	12,13	10,10
	10,16	--	--	11,12	12,12	14,14
	14,14.2	30,31.2	--	X,X	12,12	20,23
	--	--	--	7,8	11,12	16,16
97BL66	*PowerPlex® 21*					
1	16,17.3	19,20		15,16	12,13	10,10
	10,16		19,21	11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
	10,11	5,18		7,8	11,12	16,16
A293HX	*Identifiler®*					
1		19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X	12	20,23
				7,8	11,12	16
ARL7GW	*PowerPlex® PowerPlex 16 HS*					
1				15,16	12,13	10
	10,16			11,12	12	14
		30,31.2		X	12	20,23
	10,11	5,18		7,8	11,12	16
BUUGAU	*Identifiler® Plus*					
1		19,20		15,16	12,13	10,10
	10,16			11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
				7,8	11,12	16,16
EWLP7Y	*Identifiler® Plus*					
1		19,20		15,16	12,13	10,10
	10,16			11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
				7,8	11,12	16,16

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 1 - Amelogenin & STR Results						
KA7CHK	*NGM SElect*					
	1 16,17.3	19,20	12,14	15,16		
	10,16	14,15	19,21		12,12	14,14
	14,14.2	30,31.2	15,17	X,X		20,23
			17,24.2	7,8		16,16
NWB3LP	*PowerPlex® 21*					
	1 16,17.3	19,20		15,16	12,13	10,10
	10,16		19,21	11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
	10,11	5,18		7,8	11,12	16,16
NZEZWG	*Identifiler® Plus*					
	1	19,20		15,16	12,13	10,10
	10,16			11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
				7,8	11,12	16,16
UAG7DC	*Identifiler® Plus*					
	1	19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X	12	20,23
				7,8	11,12	16
V89DWH	*Identifiler® Plus*					
	1	19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X,X	12	20,23
				7,8	11,12	16
VH6JPG	*PowerPlex® 21*					
	1 16,17.3	19,20		15,16	12,13	10,10
	10,16		19,21	11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
	10,11	5,18		7,8	11,12	16,16
VNXJ4C	*Identifiler® Plus and Direct, Minifiler*					
	1	19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X	12	20,23
				7,8	11,12	16
VWN6AA	*PowerPlex® PP16HS*					
	1			15,16	12,13	10
	10,16			11,12	12	14
		30,31.2		X	12	20,23
	10,11	5,18		7,8	11,12	16
XR8JD9	*PowerPlex® HS*					
	1			15,16	12,13	10
	10,16			11,12	12	14
		30,31.2		X	12	20,23
	10,11	5,18		7,8	11,12	16

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 1 - Amelogenin & STR Results						
Z6822D	*Identifiler® Plus*					
	1	19,20		15,16	12,13	10,10
	10,16			11,12	12,12	14,14
	14,14.2	30,31.2		X,X	12,12	20,23
				7,8	11,12	16,16
ZVFHN6	*Identifiler®*					
	1	19,20		15,16	12,13	10
	10,16			11,12	12	14
	14,14.2	30,31.2		X	12	20,23
				7,8	11,12	16

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 2 - Amelogenin & STR Results						
4TWZUA	*PowerPlex® 21*					
	2	19,19		15,16	11,13	10,11
	10,17		18,19	11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
	10,13	12,18		7,7	11,11	16,17
7LCGP2	*Identifiler®*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X	11,12	23,24
				7	11	16,17
92EXNX	*Identifiler® plus kit*					
	2 --	19,19	--	15,16	11,13	10,11
	10,17	--	--	11,12	10,12	12,14
	14,14	30,31.2	--	X,X	11,12	23,24
	--	--	--	7,7	11,11	16,17
97BL66	*PowerPlex® 21*					
	2 10,17.3	19,19		15,16	11,13	10,11
	10,17		18,19	11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
	10,13	12,18		7,7	11,11	16,17
A293HX	*Identifiler®*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X	11,12	23,24
				7	11	16,17
ARL7GW	*PowerPlex® PowerPlex 16 HS*					
	2			15,16	11,13	10,11
	10,17			11,12	10,12	12,14
		30,31.2		X	11,12	23,24
	10,13	12,18		7	11	16,17
BUUGAU	*Identifiler® Plus*					
	2	19,19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
				7,7	11,11	16,17
EWLP7Y	*Identifiler® Plus*					
	2	19,19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
				7,7	11,11	16,17
KA7CHK	*NGM SElect*					
	2 10,17.3	19,19	10,12	15,16		
	10,17	13,14	18,19		10,12	12,14
	14,14	30,31.2	15,17	X,X		23,24
			17,19.2	7,7		16,17

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 2 - Amelogenin & STR Results						
NWB3LP	*PowerPlex® 21*					
	2	19,19		15,16	11,13	10,11
	10,17.3		18,19	11,12	10,12	12,14
	10,17	30,31.2		X,X	11,12	23,24
	14,14	12,18		7,7	11,11	16,17
	10,13					
NZEZWG	*Identifiler® Plus*					
	2	19,19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
				7,7	11,11	16,17
UAG7DC	*Identifiler® Plus*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X	11,12	23,24
				7	11	16,17
V89DWH	*Identifiler® Plus*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X,X	11,12	23,24
				7	11	16,17
VH6JPG	*PowerPlex® 21*					
	2	19,19		15,16	11,13	10,11
	10,17.3		18,19	11,12	10,12	12,14
	10,17	30,31.2		X,X	11,12	23,24
	14,14	12,18		7,7	11,11	16,17
	10,13					
VNXJ4C	*Identifiler® Plus and Direct, Minifiler*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X	11,12	23,24
				7	11	16,17
VWN6AA	*PowerPlex® PP16HS*					
	2			15,16	11,13	10,11
	10,17			11,12	10,12	12,14
		30,31.2		X	11,12	23,24
	10,13	12,18		7	11	16,17
XR8JD9	*PowerPlex® HS*					
	2			15,16	11,13	10,11
	10,17			11,12	10,12	12,14
		30,31.2		X	11,12	23,24
	10,13	12,18		7	11	16,17
Z6822D	*Identifiler® Plus*					
	2	19,19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14,14	30,31.2		X,X	11,12	23,24
				7,7	11,11	16,17

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 2 - Amelogenin & STR Results						
ZVFHN6	*Identifiler®*					
	2	19		15,16	11,13	10,11
	10,17			11,12	10,12	12,14
	14	30,31.2		X	11,12	23,24
				7	11	16,17

TABLE 1

WebCode Item		D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Amelogenin & STR Results							
4TWZUA	*PowerPlex® 21*						
	3	10,16	19,23		15,15	11,11	11,13
		14,17		18,21	12,12	10,11	12,18
		14,14	30,30.2		X,Y	10,11	24,25
		12,13	12,12		6,7	11,11	17,18
7LCGP2	*Identifiler®*						
	3		19,23		15	11	11,13
		14,17			12	10,11	12,18
		14	30,30.2		X,Y	10,11	24,25
					6,7	11	17,18
92EXNX	*Identifiler® plus kit*						
	3	--	19,23	--	15,15	11,11	11,13
		14,14	--	--	12,12	10,11	12,18
		14,17	30,30.2	--	X,Y	10,11	24,25
		--	--	--	6,7	11,11	17,18
97BL66	*PowerPlex® 21*						
	3	10,16	19,23		15,15	11,11	11,13
		14,17		18,21	12,12	10,11	12,18
		14,14	30,30.2		X,Y	10,11	24,25
		12,13	12,12		6,7	11,11	17,18
A293HX	*Identifiler®*						
	3		19,23		15	11	11,13
		14,17			12	10,11	12,18
		14	30,30.2		X,Y	10,11	24,25
					6,7	11	17,18
ARL7GW	*PowerPlex® PowerPlex 16 HS*						
	3				15	11	11,13
		14,17			12	10,11	12,18
			30,30.2		X,Y	10,11	24,25
		12,13	12		6,7	11	17,18
BUUGAU	*Identifiler® Plus*						
	3		19,23		15,15	11,11	11,13
		14,17			12,12	10,11	12,18
		14,14	30,30.2		X,Y	10,11	24,25
					6,7	11,11	17,18
EWLP7Y	*Identifiler® Plus*						
	3		19,23		15,15	11,11	11,13
		14,17			12,12	10,11	12,18
		14,14	30,30.2		X,Y	10,11	24,25
					6,7	11,11	17,18
KA7CHK	*NGM SElect*						
	3	10,16	19,23	10,11	15,15		
		14,17	13,16	18,21		10,11	12,18
		14,14	30,30.2	15,16	X,Y		24,25
				19.2,24.2	6,7		17,18

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Amelogenin & STR Results						
NWB3LP	*PowerPlex® 21*					
	3	19,23		15,15	11,11	11,13
	10,16		18,21	12,12	10,11	12,18
	14,17	30,30.2		X,Y	10,11	24,25
	14,14	12,12		6,7	11,11	17,18
	12,13					
NZEZWG	*Identifiler® Plus*					
	3	19,23		15,15	11,11	11,13
	14,17			12,12	10,11	12,18
	14,14	30,30.2		X,Y	10,11	24,25
				6,7	11,11	17,18
UAG7DC	*Identifiler® Plus*					
	3	19,23		15	11	11,13
	14,17			12	10,11	12,18
	14	30,30.2		X,Y	10,11	24,25
				6,7	11	17,18
V89DWH	*Identifiler® Plus*					
	3	19,23		15	11	11,13
	14,17			12	10,11	12,18
	14	30,30.2		X,Y	10,11	24,25
				6,7	11	17,18
VH6JPG	*PowerPlex® 21*					
	3	19,23		15,15	11,11	11,13
	10,16		18,21	12,12	10,11	12,18
	14,17	30,30.2		X,Y	10,11	24,25
	14,14	12,12		6,7	11,11	17,18
	12,13					
VNXJ4C	*Identifiler® Plus and Direct, Minifiler*					
	3	19,23		15	11	11,13
	14,17			12	10,11	12,18
	14	30,30.2		X,Y	10,11	24,25
				6,7	11	17,18
VWN6AA	*PowerPlex® PP16HS*					
	3			15	11	11,13
	14,17			12	10,11	12,18
		30,30.2		X,Y	10,11	24,25
	12,13	12		6,7	11	17,18
XR8JD9	*PowerPlex® HS*					
	3			15	11	11,13
	14,17			12	10,11	12,18
		30,30.2		X,Y	10,11	24,25
	12,13	12		6,7	11	17,18
Z6822D	*Identifiler® Plus*					
	3	19,23		15,15	11,11	11,13
	14,17			12,12	10,11	12,18
	14,14	30,30.2		X,Y	10,11	24,25
				6,7	11,11	17,18

TABLE 1

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Amelogenin & STR Results						
ZVFHN6	*Identifiler®*					
	3	19,23		15	11	11,13
	14,17			12	10,11	12,18
	14	30,30.2		X,Y	10,11	24,25
				6,7	11	17,18

Item 3 Paternity Index Results

TABLE 2

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Paternity Index Results						
4TWZUA	NIST-STRBASE					
3PI	47.2	2.5934		1.6620	2.5654	1.8018
	47.2		2.8090	2.2056	3.3245	4.3706
	2.8265	1.3408		1	1.7876	3.5236
	3.4698	5.7571		1.6858	3.9939	2.0342
7LCGP2	FBI PopStats					
3PI		1.91894		1.44636	2.37428	1.72729
	40.6			2.38823	2.88884	4.72099
	3.1209	1.20117			1.88288	3.98026
				1.48227	3.66663	2.25561
92EXNX	NIST-STRBASE					
3PI	--	2.8	--	1.73	2.86	1.94
	70.03	--	--	2.19	4.24	4.24
	2.67	1.35	--	--	1.71	3.33
	--	--	--	1.79	3.64	2.30
97BL66	NIST-STRBASE					
3PI	15.055	2.206		1.549	2.488	1.822
	16.006		2.689	1.947	3.098	3.867
	2.516	1.207			1.809	3.251
	3.21	4.77		1.567	3.238	2.03
A293HX	FBI PopStats					
3PI		1.92		1.45	2.37	1.73
	40.60			2.39	2.89	4.72
	3.12	1.20			1.88	3.98
				1.48	3.67	2.26
ARL7GW	laboratory specific database					
3PI				1.4992	2.8735	1.9230
	41.6666			2.2779	3.2894	4.6728
		1.3623		N/A	1.6611	2.6315
	2.7932	5.2910		1.7361	4.0816	1.8726
BUUGAU	local database					
3PI		2.73		1.55	3.15	1.36
	32.05			2.71	4.00	12.62
	4.10	1.40		-	2.04	3.13
				1.93	3.73	1.98

TABLE 2

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Paternity Index Results						
EWLP7Y	FBI PopStats					
	3PI	1.9189		1.4463	2.3742	1.7271
	40.650			2.3878	2.8885	4.7214
	3.1209	1.2011			1.8825	3.9809
				1.4824	3.6670	2.2553
KA7CHK	FBI PopStats					
	3PI 47.170	2.5934	1.4841	1.662		
	47.170	1.8295	2.809		3.3245	4.3706
	2.8265	1.3408	0.96731			3.5236
			47.170	1.6858		2.0342
NWB3LP	NIST-STRBASE					
	3PI 15.0519	2.2063		1.5491	2.4880	1.8217
	15.9946		2.6892	1.9471	3.0986	3.8661
	2.5162	1.2065			1.8088	3.2510
	3.2101	4.7705		1.5674	3.2385	2.0304
NZEZWG	FBI PopStats					
	3PI	1.9189		1.4463	2.3742	1.7271
	40.650			2.3878	2.8885	4.7214
	3.1209	1.2011			1.8825	3.9809
				1.4824	3.6670	2.2553
UAG7DC	Laboratory specific database					
	3PI	2.1968		1.5183	2.5549	1.7367
	58.0000			2.2747	3.1867	4.8355
	3.1525	1.3182			1.7680	3.2594
				1.4872	3.6710	2.3201
V89DWH	[Country] Caucasian Pop Database					
	3PI	4.81		1.90	2.75	2.40
	135.14			1.71	8.71	3.47
	2.87	1.44			1.63	3.60
				2.65	3.71	1.87
VH6JPG	NIST-STRBASE					
	3PI 15.052	2.206		1.549	2.488	1.822
	15.995		2.690	1.947	3.099	3.866
	2.516	1.207			1.809	3.251
	3.210	4.771		1.567	3.239	2.030
VNXJ4C	NIST-STRBASE					
	3PI	2.59		1.66	2.57	1.80
	118.00			2.21	3.32	4.37
	2.83	1.34			1.79	3.52
				1.69	3.93	2.03

TABLE 2

WebCode Item	D1S1656 D8S1179 D19S433 Penta D	D2S1338 D10S1248 D21S11 Penta E	D2S441 D12S391 D22S1045 SE33	D3S1358 D13S317 Amelogenin TH01	D5S818 D16S539 CSF1PO TPOX	D7S820 D18S51 FGA vWA
Item 3 - Paternity Index Results						
VWN6AA	Laboratory specific database					
	3PI			1.4992	2.8735	1.9230
	41.6666			2.2779	3.2894	4.6728
		1.3623			1.6611	2.6315
	2.7932	5.2910		1.7361	4.0816	1.8726
XR8JD9	Laboratory Specific Database					
	3PI			1.4992	2.8735	1.9230
	41.6666			2.2779	3.2894	4.6728
		1.3623			1.6611	2.6315
	2.7932	5.2910		1.7361	4.0816	1.8726
Z6822D	FBI PopStats					
	3PI	1.9189		1.4463	2.3742	1.7271
	40.650			2.3878	2.8885	4.7214
	3.1209	1.2011			1.8825	3.9809
				1.4824	3.6670	2.2553
ZVFHN6	FBI PopStats					
	3PI	1.9189		1.4463	2.3742	1.7271
	40.650			2.3878	2.8885	4.7214
	3.1209	1.2011			1.8825	3.9809
				1.4824	3.6670	2.2553

YSTR Results

TABLE 3

WebCode	Item	DYS19 DYS437 DYS549	DYS385 DYS438 DYS570	DYS389-I DYS439 DYS576	DYS389-II DYS448 DYS635	DYS390 DYS456 DYS643	DYS391 DYS458 Y GATA H4	DYS392 DYS481 YIndel	DYS393 DYS533
Item 3 - YSTR Results									
EWLP7Y	*Yfiler®*								
	3	14	11,14	13	29	24	10	13	13
		14	12	13	18	18	18		
					23		11		
NZEZWG	*Yfiler®*								
	3	14	11,14	13	29	24	10	13	13
		14	12	13	18	18	18		
					23		11		
Z6822D	*Yfiler®*								
	3	14	11,14	13	29	24	10	13	13
		14	12	13	18	18	18		
					23		11		

Additional DNA & PI Results

TABLE 4

Locus	WebCode	Item 1	Item 2	Item 3	Item 3 Paternity Index
D6S1043	4TWZUA	14,14	12,14	12,13	2.4331
	97BL66	14,14	12,14	12,13	2.376
	NWB3LP	14,14	12,14	12,13	2.3764
	VH6JPG	14,14	12,14	12,13	2.376

Paternity DNA Statistics

TABLE 5

WebCode	Combined Paternity Index	Probability of Paternity	Population Database
4TWZUA	62 billion	99.999% (Not routinely reported)	NIST-STRBASE
7LCGP2	5200000	99.99998	FBI PopStats
92EXNX	22792890.00	99.99999 %	NIST-STRBASE
97BL66	1.57 x 10^9	NA	NIST-STRBASE
A293HX	5200000	99.99998%	FBI PopStats
ARL7GW	14.1 million	99.9%	laboratory specific database
BUUGAU	42,595,735	99.9999%	local database
EWLP7Y	5.188 MILLION	99.99998072%	FBI PopStats
KA7CHK	2,221,000,000	99.99999995498	FBI PopStats
NWB3LP	1.57 x 10^9	Not performed by the laboratory	NIST-STRBASE
NZEZWG	5,188,000	99.99998072	FBI PopStats
UAG7DC	9.12 million	99.9%	Laboratory specific database
V89DWH	1.88 x 10^8 (188,924,012)	greater than 99.99% (99.99999947%)	[Country] Caucasian Pop Database
VH6JPG	1.57 x 10^9	Not determined	NIST-STRBASE
VNXJ4C	24,246,002	99.9999%	NIST-STRBASE
VWN6AA	14.1 million	99.9%	Laboratory specific database
XR8JD9	14.1 million	99.9%	Laboratory Specific Database
Z6822D	5,188,000	99.99998072	FBI PopStats
ZVFHN6	5,188,000	>99.999%	FBI PopStats

Paternity Conclusions

TABLE 6

ReportCode	Conclusions
4TWZUA	Not Excluded
7LCGP2	Not Excluded
92EXNX	Not Excluded
97BL66	Not Excluded
A293HX	Not Excluded
ARL7GW	Not Excluded
BUUGAU	Not Excluded
EWLP7Y	Not Excluded
KA7CHK	Not Excluded
NWB3LP	Not Excluded
NZEZWG	Not Excluded
UAG7DC	Not Excluded
V89DWH	Not Excluded
VH6JPG	Not Excluded
VNXJ4C	Not Excluded
VWN6AA	Not Excluded
XR8JD9	Not Excluded
Z6822D	Not Excluded
ZVFHN6	Not Excluded

Response Summary		
Responses	Not Excluded	19
	Excluded	0
	Inconclusive	0

Kinship DNA Statistics

Is the claim of a full sibling relationship supported by the genetic evidence?

TABLE 7

WebCode	Population Database	Kinship Index	Claim Supported?
4TWZUA	NIST-STRBASE	25 Thousand	Yes
7LCGP2	FBI PopStats	1700	Yes
97BL66	NIST-STRBASE	75,000	Yes
A293HX	FBI PopStats	1700	Yes
EWLP7Y	FBI PopStats	1,691	Yes
KA7CHK	FBI PopStats	950,300	Yes
NWB3LP	NIST-STRBASE	75,000	Yes
NZEZWG	FBI PopStats	1,691	Yes
VH6JPG	NIST-STRBASE	75,000	Yes
Z6822D	FBI PopStats	1,691	Yes
ZVFHN6	FBI PopStats	1,691	Yes

Additional Kinship Statistical Results

TABLE 8

WebCode	Additional Statistical Results
7LCGP2	Our inhouse kinship worksheet only provides stats on identifiler loci
97BL66	The kinship index was determined through using the caucasian population database with an Fst value of 0.02.
A293HX	Calculated kinship index using only Identifiler loci.
KA7CHK	DNA profiles A and B are approximately nine-hundred and fifty thousand times more likely to be observed if they came from individuals who are full siblings rather than from individuals who are unrelated to each other. It has been assumed that the parents of individuals A and B are unrelated to each other and that a double first cousin relationship between individuals A and B is not a possibility. The next most closely supported possible retaionship[sic] is a Half-Sib, Uncle/Aunt- Nephew/Niece, Grandparent-Grandchild relationship. Nevertheless, the profiles of individuals A and B are approximately one hundred and thirty times more likely to be observed if they came from full siblings rather than from, for example, half siblings.
NWB3LP	A theta value 0.02 was used in this calculation.
VH6JPG	Kinship index has been determined using a theta value of 0.02.
ZVFHN6	The statistical results are based on the STR loci of the Identifiler PCR amplification kit: D8S1179, D21S11, D7S820, CSF1PO, D3S1358, TH01, D13S317, D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, D5S818, and FGA using FBI Caucasian population database.

Additional Comments

TABLE 9

WebCode	Additional Comments
4TWZUA	Our statistical software uses a minimum allele frequency of 5 observations in the data set. Where alleles are rarer than this a frequency equivalent to 5 observations in the data set is used. This has occurred at D1 and D8 Part 1 [Table 2 - Item 3 Paternity Index Result]. Our PIs at these loci may differ from others as a result.
97BL66	The alleged father and mother were assumed to be from the same sub-population (hispanic) and an Fst value of 0.03 used in the calculation of the Paternity Index. The Probability of Paternity is not a calculation performed within this laboratory.
KA7CHK	Additional comments on Part II [Tables 5 & 6; Paternity DNA Statistics & Paternity Conclusions] of the test: The DNA profiles obtained from items 1, 2 and 3 are in excess of one thousand million times more likely to be observed if the alleged father and the mother are the parents of the child rather than if a man unrelated to the alleged father and the mother are the parents.
NWB3LP	For the Paternity Index calculated in Part 2 [Table 2] the following assumptions were made: The mother, child and alleged father were from the same sub-population (Hispanic). A Theta value of 0.03 was used.
V89DWH	Population database used was published in. (2007) Eckhoff, C. et al. "Population data from sub-populations of the [Country] for 15 autosomal short tandem repeats (STR) loci" Forensic Sci. Int 171:237-49
VH6JPG	Paternity Index calculated using a theta value of 0.03, and assuming Mother and Alleged Father are from the same Hispanic subpopulation. Note: Probability of Paternity is not calculated in our laboratory, so this has not been determined for this test.
ZVFHN6	The trio paternity comparison used the FBI Southwestern Hispanic population database. The sibling comparison used only those markers in the Identifiler amplification set (D8S1179, D21S11, D7S820, CSF1PO, D3S1358, TH01, D13S317. D16S539, D2S1338, D19S433, vWA, TPOX, D18S51, D5S818, and FGA) and results are based on FBI Caucasian population database.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program *****

Test No. 15-5870: DNA Parentage

DATA MUST BE RECEIVED BY *March 23, 2015* TO BE INCLUDED IN THE REPORT

Participant Code: WebCode:

Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB and ANSI-ASQ NAB/FQS. 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 ANSI-ASQ NAB/FQS. (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 ANSI-ASQ NAB/FQS.

Scenario:

A standard paternity trio case has been presented to your laboratory. Blood standards have been collected from the mother, daughter and alleged father. Your laboratory is tasked with examining the blood standards and comparing the DNA profiles.

Items Submitted (Sample Pack DNP1):

Item 1: Blood Sample from Known Parent (Mother)

Item 2: Blood Sample from Known Child (Daughter)

Item 3: Blood Sample from Alleged Father (Hispanic)

DNA Reporting Instructions:

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

* Report alleles in numerical order, separated by a comma.
* Follow your laboratory procedures for reporting homozygotes (i.e. "14,14", "14,-", "14")
* PI = Paternity Index; KI - Kinship Index

Example	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
STR	15,18	12,17	10	14	12	5,13
PI	1.65	3.01	3.16	4.12	2.45	5.65

Online Data Entry

Visit www.cts-portal.com to enter and/or upload your proficiency test results online. If you have any questions please do not hesitate to contact CTS.

Please return all pages of this data sheet.

Part I: DNA ANALYSIS FOR ITEM **1**

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

☐ Cofiler®/Profiler Plus® _____ ☐ PowerPlex® _____

☐ Identifiler® _____ ☐ Other _____

ITEM 1

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

ADDITIONAL DNA RESULTS FOR ITEM 1

(If additional space is needed, copy this page or attach your own form following this layout)

ITEM 1	Alleles	**ITEM 1**	Alleles
_____		_____	
_____		_____	

Please return all pages of this data sheet.

Participant Code:
WebCode:

*Part I: DNA ANALYSIS FOR ITEM **2***

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

☐ Cofiler®/Profiler Plus® _____ ☐ PowerPlex® _____

☐ Identifiler® _____ ☐ Other _____

ITEM 2

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

ADDITIONAL DNA RESULTS FOR ITEM 2

(If additional space is needed, copy this page or attach your own form following this layout)

ITEM 2	Alleles	**ITEM 2**	Alleles
_____		_____	
_____		_____	

Please return all pages of this data sheet.

Participant Code:
WebCode:

Part I: DNA ANALYSIS FOR ITEM **3**

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

☐ Cofiler®/Profiler Plus® _____ ☐ PowerPlex® _____

☐ Identifiler® _____ ☐ Other _____

Please refer to the 'Part II: Paternity DNA Statistics' section of this data sheet regarding the suggested Population Databases to use to determine PI values.

ITEM 3

	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
STR						
PI						

	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
STR						
PI						

	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
STR						
PI						

	Penta D	Penta E	SE33	TH01	TPOX	vWA
STR						
PI						

TABLE 1b: YSTR Results (YSTR results are for proficiency concordance only.)

YSTR Amplification Kit Used: 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 3

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	Y Indel

ADDITIONAL DNA RESULTS FOR ITEM 3

(If additional space is needed, copy this page or attach your own form following this layout)

	ITEM 3 Alleles	Paternity Index		**ITEM 3** Alleles	Paternity Index
_____			_____		
_____			_____		

Please return all pages of this data sheet.

Part II: PATERNITY DNA STATISTICS

For the purposes of consistency among reported statistical values, use the ethnicity listed for the alleged parent and choose one of the following population databases for all statistical calculations in this test:
1. FBI Popstats: If FBI Popstats is already available in your laboratory then you may select that option, otherwise use the population database below.
2. NIST-STRBASE is a publicly available U.S. population dataset at STRBASE on the following NIST web site : http://www.cstl.nist.gov/strbase/NISTpop.htm#Autosomal
a. On the NIST web site, select the hyperlink labeled "Allele frequencies from autosomal STRs as Excel file" under the title "NIST 1036 U.S. Population Dataset".
3. If you unable to use one of the suggested population databases, report the population database used in the blank provided next to the "Other Pop. Database" option. Due to the tendency for allele frequencies to vary amongst different databases, no consensus value will be determined for this option. When reporting a population database name, please refrain from using terms that would allude to a laboratory specific name or location; general terms such as "local/state database" or "laboratory specific database" are preferred.

1) Choose a Population Database:

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

Other Pop. Database: _____

2) Record the Combined Paternity Index value: _____

3) Record the Probability of Paternity: _____

4) Based on DNA results, select your response from the following options. If the wording differs from the normal wording in your reports, adapt these conclusions as best as you can and use your preferred wording in your additional comments.

☐ The Alleged parent (Item 3) could not be excluded as the biological parent of the child (Item 2).

☐ The Alleged parent (Item 3) is excluded as a possible biological parent of the child (Item 2).

☐ Inconclusive as to whether the Alleged parent (Item 3) could be the biological parent of the child (Item 2). (Please document the reason in the Additional Comments section of this data sheet.)

Please return all pages of this data sheet.

Part III: KINSHIP DNA STATISTICS (NON-PARENTAGE)

To be completed if applicable to your laboratory.

The two DNA profiles below are presented as potential Caucasian full siblings. Compare these profiles to answer the questions and use the same population database used in previous sections of the data sheet, following the ethnicity listed above for this kinship scenario.

	D1S1656	D2S1338	D2S441	D3S1358	D5S818	D7S820
Profile A	14,15	16,20	10,11.3	15,17	12,13	10,12
Profile B	13,15	16,18	14,14	15,17	12,13	10,11

	D8S1179	D10S1248	D12S391	D13S317	D16S539	D18S51
Profile A	12,13	12,13	17,20	11,13	11,12	12,18
Profile B	12,13	13,14	17,20	11,13	11,12	15,16

	D19S433	D21S11	D22S1045	Amelogenin	CSF1PO	FGA
Profile A	15,16.2	28,29	11,15	X,X	10,11	20,23
Profile B	13,15	29,31	11,11	X,Y	11,13	19,21

	Penta D	Penta E	SE33	TH01	TPOX	vWA
Profile A	9,10	7,7	13,18	6,9	8,8	17,19
Profile B	10,11	7,12	13,18	9,9.3	8,8	17,19

1) Evaluate profiles A and B and record the kinship index. _____

2) Is the claim of a full sibling relationship supported by the genetic evidence?

_____

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

_____

_____

_____

_____

_____

_____

_____

_____

Please return all pages of this data sheet.

Participant Code:
WebCode:

Part IV: ADDITIONAL COMMENTS

Comments regarding any part of this Parentage Test.

Any interpretations based on the results obtained should be reported in the Paternity DNA Statistics designated section.

Return Instructions: Data must be received via online data entry, fax (please include a cover sheet), or mail by *March 23, 2015* to be included in the report.

QUESTIONS?
TEL: +1-571-434-1925 (8 am - 4:30 pm EST)
EMAIL: forensics@cts-interlab.com
www.ctsforensics.com

ONLINE DATA ENTRY: www.cts-portal.com
FAX: +1-571-434-1937
or Toll-Free: 1-866-FAX-2CTS (329-2287)
MAIL: Collaborative Testing Services, Inc.
P.O. Box 650820
Sterling, VA 20165-0820 USA

Please return all pages of this data sheet.

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code: WebCode:

for Test No. **15-5870: DNA Parentage**

This release page must be completed and received by ***March 23, 2015*** 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 _____ ASCLD/LAB International Certificate No. _____

Signature _____ Date _____

Laboratory Name _____

Location (City/State) _____

ANSI-ASQ NAB/FQS RELEASE

If your laboratory maintains its accreditation through ANSI-ASQ NAB/FQS, please complete the following form in its entirety to have your results forwarded.

ANSI-ASQ NAB/FQS Certificate _____

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.

