

**PRELIMINARY REPORT**

Released:8/12/2019

IQAS 2019-Q2 Subscriber:

Thank you for your participation in **IQAS Distribution 2019-Q2**. Participants were asked to test evidentiary and/or reference biological materials associated with a mock crime. Some participants were also asked to compare the provided suspect reference materials to the evidentiary items. This report contains the expected results as determined by a consensus of at least two pre-distribution testing and/or participant laboratories. A description of how the proficiency samples were manufactured can also be found below. A summary report, which will include the results obtained from all participants, will be issued at a later date.

**Manufacturing Summary:**

Sample Number	Material	Substrate	Match	IQAS Pre Test	IQAS 10	IQAS 20	IQAS 30	IQAS 40	IQAS 40WB	IQAS 50	IQAS 60	IQAS 70
19383	Human Blood	Blood Card	19388	x	x	x	x	x		x	x	
19384	Faux Blood	Blood Card	None	x	x		x				x	
19385	Semen & White Blood Cells	Swab	19388,19389	x						x	x	
19386	Faux Semen	Swab	None	x	x		x				x	
19387	Human Semen	Swab	19389	x	x	x	x					
19388	Human Blood	Blood Card	Reference Sample	x		x	x	x		x	x	
19389	Human Blood	Blood Card	Reference Sample	x		x	x	x		x	x	
19390	Human Blood	Blood Card	Reference Sample	x		x	x	x		x	x	
19388	Human Whole Blood	None	Database Sample						x			
19389	Human Whole Blood	None	Database Sample						x			
19390	Human Whole Blood	None	Database Sample						x			
19391	White Blood Cells	Swab	Database Sample									x
19392	White Blood Cells	Swab	Database Sample									x
19393	White Blood Cells	Swab	Database Sample									x

**STR Results: (Identifiler Loci Order)**

Sample Number	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	AMEL	D5S818	FGA
19383	13, 16	29, 36	8.1, 11	10, 11	14, 15	7, 9.3	12, 12	10, 11	17, 25	13, 15	16, 16	8, 8	15, 19	X, X	11, 11	21, 21
19385e	13, 16	29, 36	8.1, 11	10, 11	14, 15	7, 9.3	12, 12	10, 11	17, 25	13, 15	16, 16	8, 8	15, 19	X, X	11, 11	21, 21
19385s	12, 13	29, 31.2	8, 9	11, 13	14, 15	6, 7	9, 11	11, 12	17, 23	14.2, 15	15, 16	8, 11	14, 19	X, Y	11, 11	23, 24
19387e	12, 13	29, 31.2	8, 9	11, 13	14, 15	6, 7	9, 11	11, 12	17, 23	14.2, 15	15, 16	8, 11	14, 19	X, Y	11, 11	23, 24
19387s	12, 13	29, 31.2	8, 9	11, 13	14, 15	6, 7	9, 11	11, 12	17, 23	14.2, 15	15, 16	8, 11	14, 19	X, Y	11, 11	23, 24
19388	13, 16	29, 36	8.1, 11	10, 11	14, 15	7, 9.3	12, 12	10, 11	17, 25	13, 15	16, 16	8, 8	15, 19	X, X	11, 11	21, 21
19389	12, 13	29, 31.2	8, 9	11, 13	14, 15	6, 7	9, 11	11, 12	17, 23	14.2, 15	15, 16	8, 11	14, 19	X, Y	11, 11	23, 24
19390	13, 14	29, 30.2	9, 9	11, 12	15, 17	8, 9	12, 12	10, 11	18, 23	15, 16	16, 18	8, 8	13, 20	X, Y	10, 11	23, 24
19391	13, 16	29, 36	8.1, 11	10, 11	14, 15	7, 9.3	12, 12	10, 11	17, 25	13, 15	16, 16	8, 8	15, 19	X, X	11, 11	21, 21
19392	13, 14	29, 30.2	9, 9	11, 12	15, 17	8, 9	12, 12	10, 11	18, 23	15, 16	16, 18	8, 8	13, 20	X, Y	10, 11	23, 24
19393	12, 13	29, 31.2	8, 9	11, 13	14, 15	6, 7	9, 11	11, 12	17, 23	14.2, 15	15, 16	8, 11	14, 19	X, Y	11, 11	23, 24

**STR Results: (Investigator 24plex Loci Order)**

Sample Number	AMEL	TH01	D3S1358	vWA	D21S11	TPOX	DYS391	D1S1656	D12S391	SE33	D10S1248	D22S1045	D19S433	D8S1179	D2S1338	D2S441	D18S51	FGA
19383	X, X	7, 9.3	14, 15	16, 16	29, 36	8, 8	NR	16, 16.3	17, 17	16, 21	13, 16	12, 17	13, 15	13, 16	17, 25	11, 14	15, 19	21, 21
19385e	X, X	7, 9.3	14, 15	16, 16	29, 36	8, 8	NR	16, 16.3	17, 17	16, 21	13, 16	12, 17	13, 15	13, 16	17, 25	11, 14	15, 19	21, 21
19385s	X, Y	6, 7	14, 15	15, 16	29, 31.2	8, 11	10	12, 17	15, 18	18, 28.2	13, 14	12, 16	14.2, 15	12, 13	17, 23	10, 14	14, 19	23, 24
19387e	X, Y	6, 7	14, 15	15, 16	29, 31.2	8, 11	10	12, 17	15, 18	18, 28.2	13, 14	12, 16	14.2, 15	12, 13	17, 23	10, 14	14, 19	23, 24
19387s	X, Y	6, 7	14, 15	15, 16	29, 31.2	8, 11	10	12, 17	15, 18	18, 28.2	13, 14	12, 16	14.2, 15	12, 13	17, 23	10, 14	14, 19	23, 24
19388	X, X	7, 9.3	14, 15	16, 16	29, 36	8, 8	NR	16, 16.3	17, 17	16, 21	13, 16	12, 17	13, 15	13, 16	17, 25	11, 14	15, 19	21, 21
19389	X, Y	6, 7	14, 15	15, 16	29, 31.2	8, 11	10	12, 17	15, 18	18, 28.2	13, 14	12, 16	14.2, 15	12, 13	17, 23	10, 14	14, 19	23, 24
19390	X, Y	8, 9	15, 17	16, 18	29, 30.2	8, 8	11	13, 15.3	18, 23	19, 27.2	14, 16	14, 15	15, 16	13, 14	18, 23	10, 14	13, 20	23, 24
19391	X, X	7, 9.3	14, 15	16, 16	29, 36	8, 8	NR	16, 16.3	17, 17	16, 21	13, 16	12, 17	13, 15	13, 16	17, 25	11, 14	15, 19	21, 21
19392	X, Y	8, 9	15, 17	16, 18	29, 30.2	8, 8	11	13, 15.3	18, 23	19, 27.2	14, 16	14, 15	15, 16	13, 14	18, 23	10, 14	13, 20	23, 24
19393	X, Y	6, 7	14, 15	15, 16	29, 31.2	8, 11	10	12, 17	15, 18	18, 28.2	13, 14	12, 16	14.2, 15	12, 13	17, 23	10, 14	14, 19	23, 24

Sample Number	D16S539	CSF1PO	D13S317	D5S818	D7S820
19383	10, 11	10, 11	12, 12	11, 11	8.1, 11
19385e	10, 11	10, 11	12, 12	11, 11	8.1, 11
19385s	11, 12	11, 13	9, 11	11, 11	8, 9
19387e	11, 12	11, 13	9, 11	11, 11	8, 9
19387s	11, 12	11, 13	9, 11	11, 11	8, 9
19388	10, 11	10, 11	12, 12	11, 11	8.1, 11
19389	11, 12	11, 13	9, 11	11, 11	8, 9
19390	10, 11	11, 12	12, 12	10, 11	9, 9
19391	10, 11	10, 11	12, 12	11, 11	8.1, 11
19392	10, 11	11, 12	12, 12	10, 11	9, 9
19393	11, 12	11, 13	9, 11	11, 11	8, 9

**STR Results: (GlobalFiler Loci Order)**

Sample Number	D3S1358	vWA	D16S539	CSF1PO	TPOX	Y indel	AMEL	D8S1179	D21S11	D18S51	DYS391	D2S441	D19S433	TH01	FGA	D22S1045	D5S818	D13S317
19383	14, 15	16, 16	10, 11	10, 11	8, 8	NR	X, X	13, 16	29, 36	15, 19	NR	11, 14	13, 15	7, 9.3	21, 21	12, 17	11, 11	12, 12
19385e	14, 15	16, 16	10, 11	10, 11	8, 8	NR	X, X	13, 16	29, 36	15, 19	NR	11, 14	13, 15	7, 9.3	21, 21	12, 17	11, 11	12, 12
19385s	14, 15	15, 16	11, 12	11, 13	8, 11	2	X, Y	12, 13	29, 31.2	14, 19	10	10, 14	14.2, 15	6, 7	23, 24	12, 16	11, 11	9, 11
19387e	14, 15	15, 16	11, 12	11, 13	8, 11	2	X, Y	12, 13	29, 31.2	14, 19	10	10, 14	14.2, 15	6, 7	23, 24	12, 16	11, 11	9, 11
19387s	14, 15	15, 16	11, 12	11, 13	8, 11	2	X, Y	12, 13	29, 31.2	14, 19	10	10, 14	14.2, 15	6, 7	23, 24	12, 16	11, 11	9, 11
19388	14, 15	16, 16	10, 11	10, 11	8, 8	NR	X, X	13, 16	29, 36	15, 19	NR	11, 14	13, 15	7, 9.3	21, 21	12, 17	11, 11	12, 12
19389	14, 15	15, 16	11, 12	11, 13	8, 11	2	X, Y	12, 13	29, 31.2	14, 19	10	10, 14	14.2, 15	6, 7	23, 24	12, 16	11, 11	9, 11
19390	15, 17	16, 18	10, 11	11, 12	8, 8	2	X, Y	13, 14	29, 30.2	13, 20	11	10, 14	15, 16	8, 9	23, 24	14, 15	10, 11	12, 12
19391	14, 15	16, 16	10, 11	10, 11	8, 8	NR	X, X	13, 16	29, 36	15, 19	NR	11, 14	13, 15	7, 9.3	21, 21	12, 17	11, 11	12, 12
19392	15, 17	16, 18	10, 11	11, 12	8, 8	2	X, Y	13, 14	29, 30.2	13, 20	11	10, 14	15, 16	8, 9	23, 24	14, 15	10, 11	12, 12
19393	14, 15	15, 16	11, 12	11, 13	8, 11	2	X, Y	12, 13	29, 31.2	14, 19	10	10, 14	14.2, 15	6, 7	23, 24	12, 16	11, 11	9, 11

Sample Number	D7S820	SE33	D10S1248	D1S1656	D12S391	D2S1338
19383	8.1, 11	16, 21	13, 16	16, 16.3	17, 17	17, 25
19385e	8.1, 11	16, 21	13, 16	16, 16.3	17, 17	17, 25
19385s	8, 9	18, 28.2	13, 14	12, 17	15, 18	17, 23
19387e	8, 9	18, 28.2	13, 14	12, 17	15, 18	17, 23
19387s	8, 9	18, 28.2	13, 14	12, 17	15, 18	17, 23
19388	8.1, 11	16, 21	13, 16	16, 16.3	17, 17	17, 25
19389	8, 9	18, 28.2	13, 14	12, 17	15, 18	17, 23
19390	9, 9	19, 27.2	14, 16	13, 15.3	18, 23	18, 23
19391	8.1, 11	16, 21	13, 16	16, 16.3	17, 17	17, 25
19392	9, 9	19, 27.2	14, 16	13, 15.3	18, 23	18, 23
19393	8, 9	18, 28.2	13, 14	12, 17	15, 18	17, 23

**STR Results: (PowerPlex 16 and 18D Loci Order)**

Sample Number	D3S1358	TH01	D21S11	D18S51	Penta E	D5S818	D13S317	D7S820	D16S539	CSF1PO	Penta D	AMEL	vWA	D8S1179	TPOX	FGA	D19S433	D2S1338
19383	14, 15	7, 9.3	29, 36	15, 19	8, 14	11, 11	12, 12	8.1, 11	10, 11	10, 11	12, 14	X, X	16, 16	13, 16	8, 8	21, 21	13, 15	17, 25
19385e	14, 15	7, 9.3	29, 36	15, 19	8, 14	11, 11	12, 12	8.1, 11	10, 11	10, 11	12, 14	X, X	16, 16	13, 16	8, 8	21, 21	13, 15	17, 25
19385s	14, 15	6, 7	29, 31.2	14, 19	11, 13	11, 11	9, 11	8, 9	11, 12	11, 13	10, 12	X, Y	15, 16	12, 13	8, 11	23, 24	14.2, 15	17, 23
19387e	14, 15	6, 7	29, 31.2	14, 19	11, 13	11, 11	9, 11	8, 9	11, 12	11, 13	10, 12	X, Y	15, 16	12, 13	8, 11	23, 24	14.2, 15	17, 23
19387s	14, 15	6, 7	29, 31.2	14, 19	11, 13	11, 11	9, 11	8, 9	11, 12	11, 13	10, 12	X, Y	15, 16	12, 13	8, 11	23, 24	14.2, 15	17, 23
19388	14, 15	7, 9.3	29, 36	15, 19	8, 14	11, 11	12, 12	8.1, 11	10, 11	10, 11	12, 14	X, X	16, 16	13, 16	8, 8	21, 21	13, 15	17, 25
19389	14, 15	6, 7	29, 31.2	14, 19	11, 13	11, 11	9, 11	8, 9	11, 12	11, 13	10, 12	X, Y	15, 16	12, 13	8, 11	23, 24	14.2, 15	17, 23
19390	15, 17	8, 9	29, 30.2	13, 20	9, 13	10, 11	12, 12	9, 9	10, 11	11, 12	11, 13	X, Y	16, 18	13, 14	8, 8	23, 24	15, 16	18, 23
19391	14, 15	7, 9.3	29, 36	15, 19	8, 14	11, 11	12, 12	8.1, 11	10, 11	10, 11	12, 14	X, X	16, 16	13, 16	8, 8	21, 21	13, 15	17, 25
19392	15, 17	8, 9	29, 30.2	13, 20	9, 13	10, 11	12, 12	9, 9	10, 11	11, 12	11, 13	X, Y	16, 18	13, 14	8, 8	23, 24	15, 16	18, 23
19393	14, 15	6, 7	29, 31.2	14, 19	11, 13	11, 11	9, 11	8, 9	11, 12	11, 13	10, 12	X, Y	15, 16	12, 13	8, 11	23, 24	14.2, 15	17, 23

**STR Results: (PowerPlex Fusion Loci Order)**

Sample Number	AMEL	D3S1358	D1S1656	D2S441	D10S1248	D13S317	Penta E	D16S539	D18S51	D2S1338	CSF1PO	Penta D	TH01	vWA	D21S11	D7S820	D5S818	TPOX
19383	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19385e	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19385s	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19387e	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19387s	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19388	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19389	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19390	X, Y	15, 17	13, 15.3	10, 14	14, 16	12, 12	9, 13	10, 11	13, 20	18, 23	11, 12	11, 13	8, 9	16, 18	29, 30.2	9, 9	10, 11	8, 8
19391	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19392	X, Y	15, 17	13, 15.3	10, 14	14, 16	12, 12	9, 13	10, 11	13, 20	18, 23	11, 12	11, 13	8, 9	16, 18	29, 30.2	9, 9	10, 11	8, 8
19393	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11

Sample Number	DYS391	D8S1179	D12S391	D19S433	FGA	D22S1045
19383	NR	13, 16	17, 17	13, 15	21, 21	12, 17
19385e	NR	13, 16	17, 17	13, 15	21, 21	12, 17
19385s	10	12, 13	15, 18	14.2, 15	23, 24	12, 16
19387e	10	12, 13	15, 18	14.2, 15	23, 24	12, 16
19387s	10	12, 13	15, 18	14.2, 15	23, 24	12, 16
19388	NR	13, 16	17, 17	13, 15	21, 21	12, 17
19389	10	12, 13	15, 18	14.2, 15	23, 24	12, 16
19390	11	13, 14	18, 23	15, 16	23, 24	14, 15
19391	NR	13, 16	17, 17	13, 15	21, 21	12, 17
19392	11	13, 14	18, 23	15, 16	23, 24	14, 15
19393	10	12, 13	15, 18	14.2, 15	23, 24	12, 16

**STR Results: (PowerPlex Fusion 6C Loci Order)**

Sample Number	AMEL	D3S1358	D1S1656	D2S441	D10S1248	D13S317	Penta E	D16S539	D18S51	D2S1338	CSF1PO	Penta D	TH01	vWA	D21S11	D7S820	D5S818	TPOX
19383	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19385e	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19385s	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19387e	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19387s	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19388	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19389	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11
19390	X, Y	15, 17	13, 15.3	10, 14	14, 16	12, 12	9, 13	10, 11	13, 20	18, 23	11, 12	11, 13	8, 9	16, 18	29, 30.2	9, 9	10, 11	8, 8
19391	X, X	14, 15	16, 16.3	11, 14	13, 16	12, 12	8, 14	10, 11	15, 19	17, 25	10, 11	12, 14	7, 9.3	16, 16	29, 36	8.1, 11	11, 11	8, 8
19392	X, Y	15, 17	13, 15.3	10, 14	14, 16	12, 12	9, 13	10, 11	13, 20	18, 23	11, 12	11, 13	8, 9	16, 18	29, 30.2	9, 9	10, 11	8, 8
19393	X, Y	14, 15	12, 17	10, 14	13, 14	9, 11	11, 13	11, 12	14, 19	17, 23	11, 13	10, 12	6, 7	15, 16	29, 31.2	8, 9	11, 11	8, 11

Sample Number	D8S1179	D12S391	D19S433	SE33	D22S1045	DYS391	FGA	DYS576	DYS570
19383	13, 16	17, 17	13, 15	16, 21	12, 17	NR	21, 21	NR	NR
19385e	13, 16	17, 17	13, 15	16, 21	12, 17	NR	21, 21	NR	NR
19385s	12, 13	15, 18	14.2, 15	18, 28.2	12, 16	10	23, 24	18	17
19387e	12, 13	15, 18	14.2, 15	18, 28.2	12, 16	10	23, 24	18	17
19387s	12, 13	15, 18	14.2, 15	18, 28.2	12, 16	10	23, 24	18	17
19388	13, 16	17, 17	13, 15	16, 21	12, 17	NR	21, 21	NR	NR
19389	12, 13	15, 18	14.2, 15	18, 28.2	12, 16	10	23, 24	18	17
19390	13, 14	18, 23	15, 16	19, 27.2	14, 15	11	23, 24	17	18
19391	13, 16	17, 17	13, 15	16, 21	12, 17	NR	21, 21	NR	NR
19392	13, 14	18, 23	15, 16	19, 27.2	14, 15	11	23, 24	17	18
19393	12, 13	15, 18	14.2, 15	18, 28.2	12, 16	10	23, 24	18	17

**Y-STR Results: (Yfiler Loci Order)**

Sample Number	DYS456	DYS389I	DYS390	DYS389II	DYS458	DYS19	DYS385ab	DYS393	DYS391	DYS439	DYS635	DYS392	Y GATA H4	DYS437	DYS438	DYS448
19385e	17	13	25	28	17	14	11,13	13	10	12	23	14	12	15	12	18
19385s	17	13	25	28	17	14	11,13	13	10	12	23	14	12	15	12	18
19387e	17	13	25	28	17	14	11,13	13	10	12	23	14	12	15	12	18
19387s	17	13	25	28	17	14	11,13	13	10	12	23	14	12	15	12	18
19389	17	13	25	28	17	14	11,13	13	10	12	23	14	12	15	12	18
19390	16	13	23	29	20	14	11,14	13	11	11	24	13	13	15	12	19



**Y-STR Results: (Yfiler Plus Loci Order)**

Sample Number	DYS576	DYS389I	DYS635	DYS389II	DYS627	DYS460	DYS458	DYS19	Y_GATA_H4	DYS448	DYS391	DYS456	DYS390	DYS438	DYS392	DYS518	DYS570
19385e		13	23	28			17	14	12	18	10	17	25	12	14		
19385s	18	13	23	28			17	14	12	18	10	17	25	12	14		17
19387e	18	13	23	28			17	14	12	18	10	17	25	12	14		17
19387s	18	13	23	28	23	11	17	14	12	18	10	17	25	12	14	38	17
19389	18	13	23	28	23	11	17	14	12	18	10	17	25	12	14	38	17
19390	17	13	24	29	22	10	20	14	13	19	11	16	23	12	13	38	18

Sample Number	DYS437	DYS385ab	DYS449	DYS393	DYS439	DYS481	DYF387S1	DYS533
19385e	15	11,13		13	12			
19385s	15	11,13		13	12	25		13
19387e	15	11,13		13	12	25		13
19387s	15	11,13	30	13	12	25	36,38	13
19389	15	11,13	30	13	12	25	36,38	13
19390	15	11,14	30	13	11	23	35,37	12

**Y-STR Results: (PowerPlex Y23 Loci Order)**

Sample Number	DYS576	DYS389I	DYS448	DYS389II	DYS19	DYS391	DYS481	DYS549	DYS533	DYS438	DYS437	DYS570	DYS635	DYS390	DYS439	DYS392	DYS643
19385e		13	18	28	14	10				12	15		23	25	12	14	
19385s	18	13	18	28	14	10	25	12	13	12	15	17	23	25	12	14	10
19387e	18	13	18	28	14	10	25	12	13	12	15	17	23	25	12	14	10
19387s	18	13	18	28	14	10	25	12	13	12	15	17	23	25	12	14	10
19389	18	13	18	28	14	10	25	12	13	12	15	17	23	25	12	14	10
19390	17	13	19	29	14	11	23	14	12	12	15	18	24	23	11	13	11

Sample Number	DYS393	DYS458	DYS385ab	DYS456	Y GATA H4
19385e	13	17	11,13	17	12
19385s	13	17	11,13	17	12
19387e	13	17	11,13	17	12
19387s	13	17	11,13	17	12
19389	13	17	11,13	17	12
19390	13	20	11,14	16	13

**Mitochondrial Results:**

HVI-Location and Deviation from rCRS

Sample Number (Range)	16182	16183	16189	16217	16247	16261	16304	16327	16519
19383 (16024-16569) Target	C	C	C	C	G	T			C
19388 (16024-16569) Target	C	C	C	C	G	T			C
19389 (16024-16569) Target							C	T	
19390 (16024-16569) Target						T	C		C

HVII-Location and Deviation from rCRS

Sample Number (Range)	73	93	146	263	309.1	309.2	315.1	373	456	523	524
19383 (1-535) Target	G		C	G	C Ins	C Ins	C Ins				
19388 (1-535) Target	G		C	G	C Ins	C Ins	C Ins				
19389 (1-535) Target				G			C Ins	G	T		
19390 (1-535) Target		G		G			C Ins			A Del	C Del