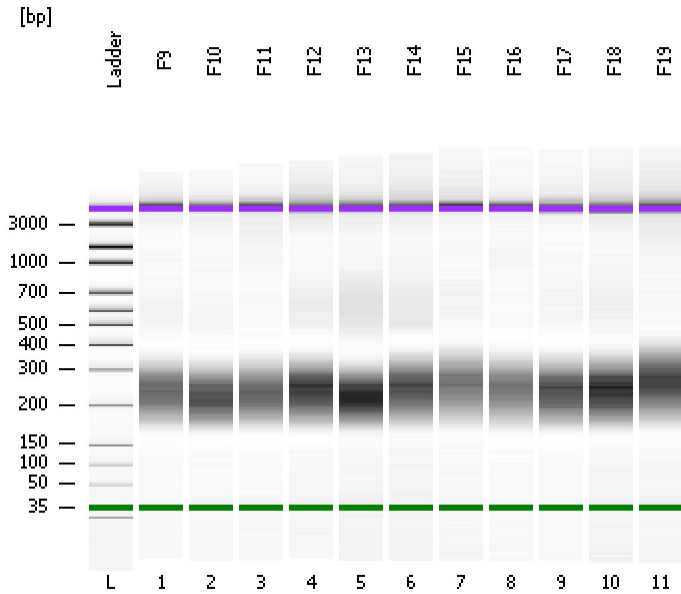


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
Modified: 4/22/2015 5:10:39 PM

Electrophoresis File Run Summary



Instrument Information:

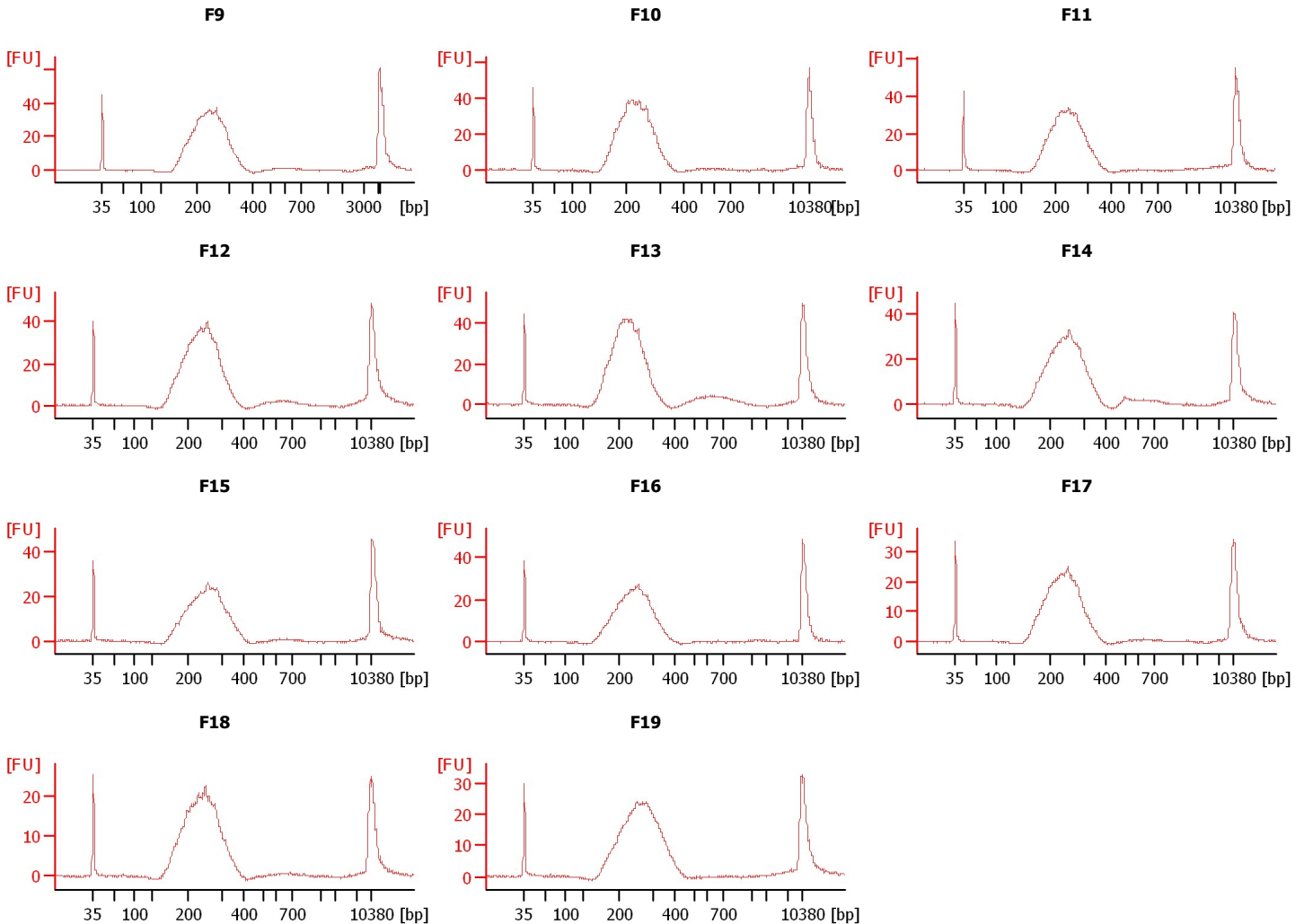
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

Assay Information:

Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy
Assay Class: High Sensitivity DNA Assay
Version: 1.03
Assay Comments: Copyright © 2003-2010 Agilent Technologies

Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
Modified: 4/22/2015 5:10:39 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
F9		<input type="checkbox"/>	✓			
F10		<input type="checkbox"/>	✓			
F11		<input type="checkbox"/>	✓			
F12		<input type="checkbox"/>	✓			
F13		<input type="checkbox"/>	✓			
F14		<input type="checkbox"/>	✓			
F15		<input type="checkbox"/>	✓			
F16		<input type="checkbox"/>	✓			
F17		<input type="checkbox"/>	✓			
F18		<input type="checkbox"/>	✓			
F19		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
Modified: 4/22/2015 5:10:39 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 12
Minimum Visible Range [s] : 32
Maximum Visible Range [s] : 138
Start Analysis Time Range [s] : 33
End Analysis Time Range [s] : 137.5
Ladder Concentration [pg/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 75
Used Upper Marker for Quantitation
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 33.05
Integration End Time [s] : 137
Slope Threshold : 0.8
Height Threshold [FU] : 5
Area Threshold : 0.1
Width Threshold [s] : 0.6
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

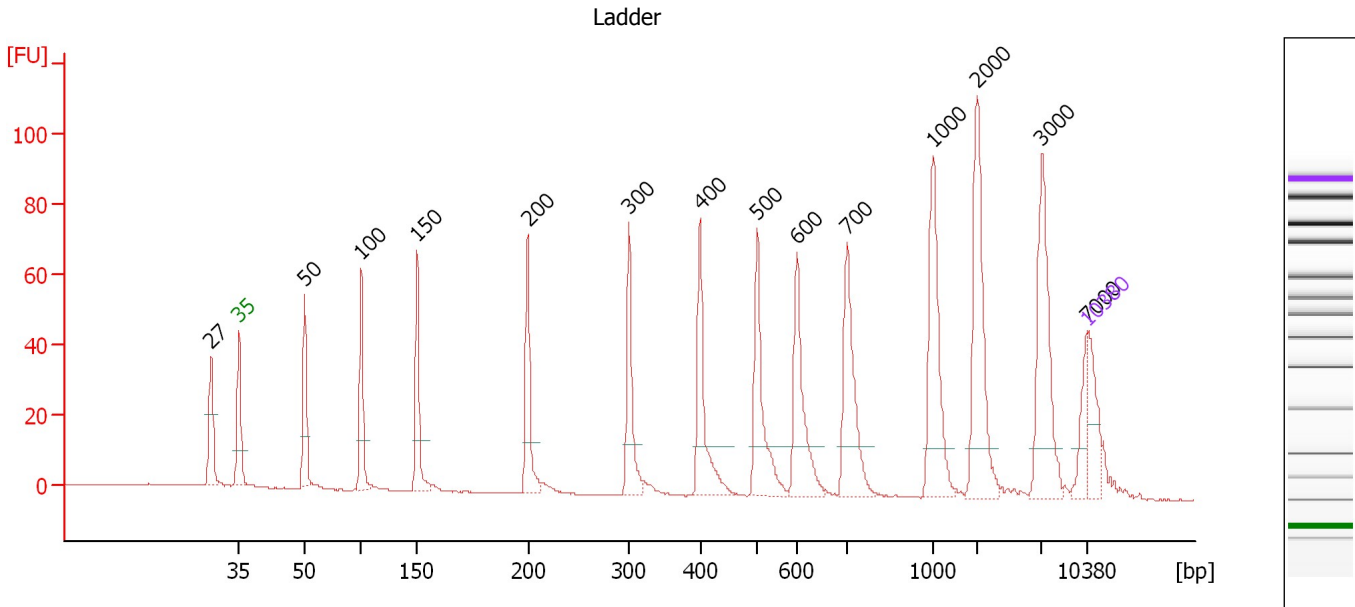
Ladder

Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

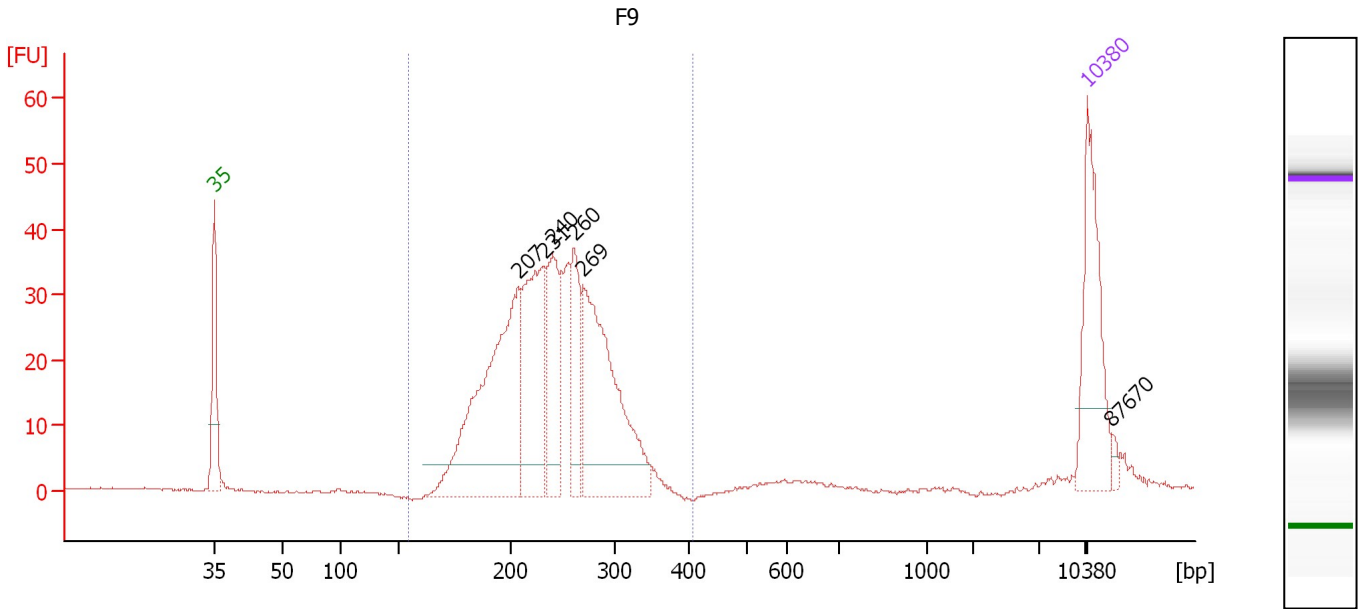
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	27	0.00	0.0		40.72
2	35	125.00	5,411.3	Lower Marker	43.00
3	50	150.00	4,545.5	Ladder Peak	48.45
4	100	150.00	2,272.7	Ladder Peak	53.11
5	150	150.00	1,515.2	Ladder Peak	57.72
6	200	150.00	1,136.4	Ladder Peak	66.82
7	300	150.00	757.6	Ladder Peak	75.17
8	400	150.00	568.2	Ladder Peak	81.01
9	500	150.00	454.5	Ladder Peak	85.71
10	600	150.00	378.8	Ladder Peak	89.01
11	700	150.00	324.7	Ladder Peak	93.14
12	1,000	150.00	227.3	Ladder Peak	100.21
13	2,000	150.00	113.6	Ladder Peak	103.82
14	3,000	150.00	75.8	Ladder Peak	109.18
15	7,000	150.00	32.5	Ladder Peak	112.91
16	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : F9

Number of peaks found: 6 Corr. Area 1: 540.3
 Noise: 0.2

Peak table for sample 1 : F9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	207	290.97	2,133.1		67.37
3	231	160.19	1,049.5		69.43
4	240	92.47	583.9		70.15
5	260	69.64	405.1		71.86
6	269	224.03	1,263.5		72.55
7	10,380	75.00	10.9	Upper Marker	113.00
8	87,670	0.00	0.0		115.01

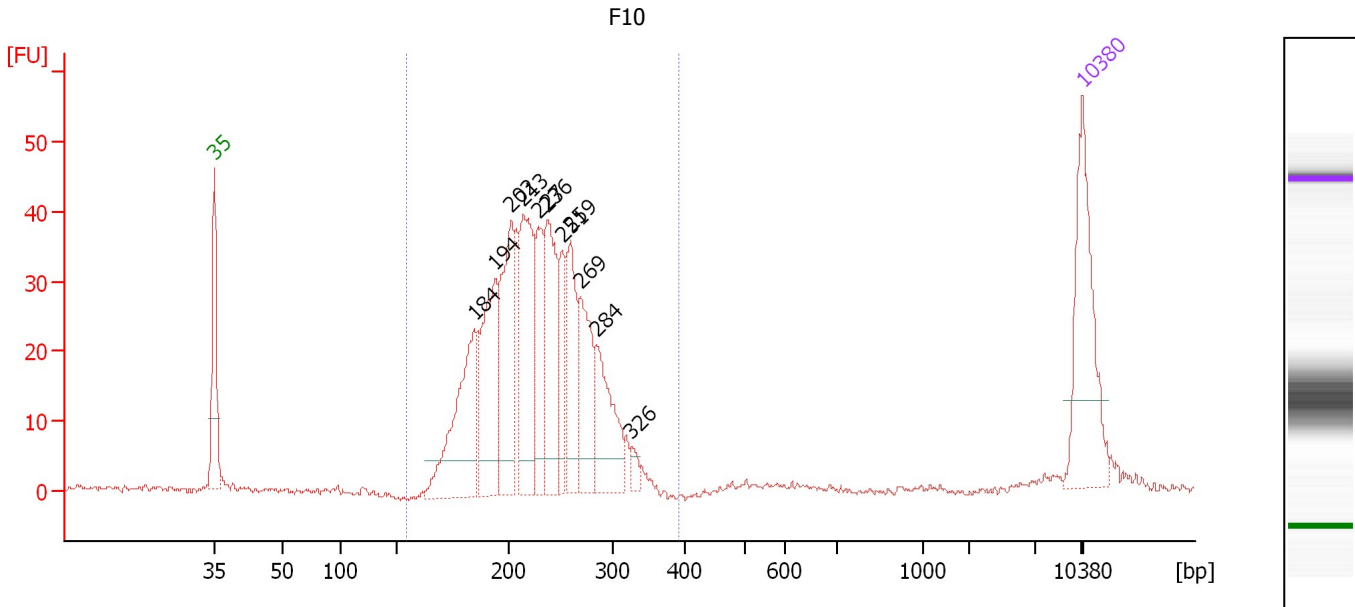
Region table for sample 1 : F9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
155	240	407	540.3	5,675.8	97	17.0	872.79	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : F10

Number of peaks found: 11 Corr. Area 1: 595.1
 Noise: 0.5

Peak table for sample 2 : F10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	184	128.84	1,058.5		63.98
3	194	116.03	907.9		65.66
4	202	117.27	881.4		66.95
5	213	123.42	878.3		67.90
6	227	67.90	452.5		69.10
7	236	103.13	661.9		69.83
8	251	44.58	269.6		71.03
9	259	73.65	431.3		71.72
10	269	74.99	422.3		72.58
11	284	73.77	393.6		73.83
12	326	8.15	37.9		76.67
13	10,380	75.00	10.9	Upper Marker	113.00

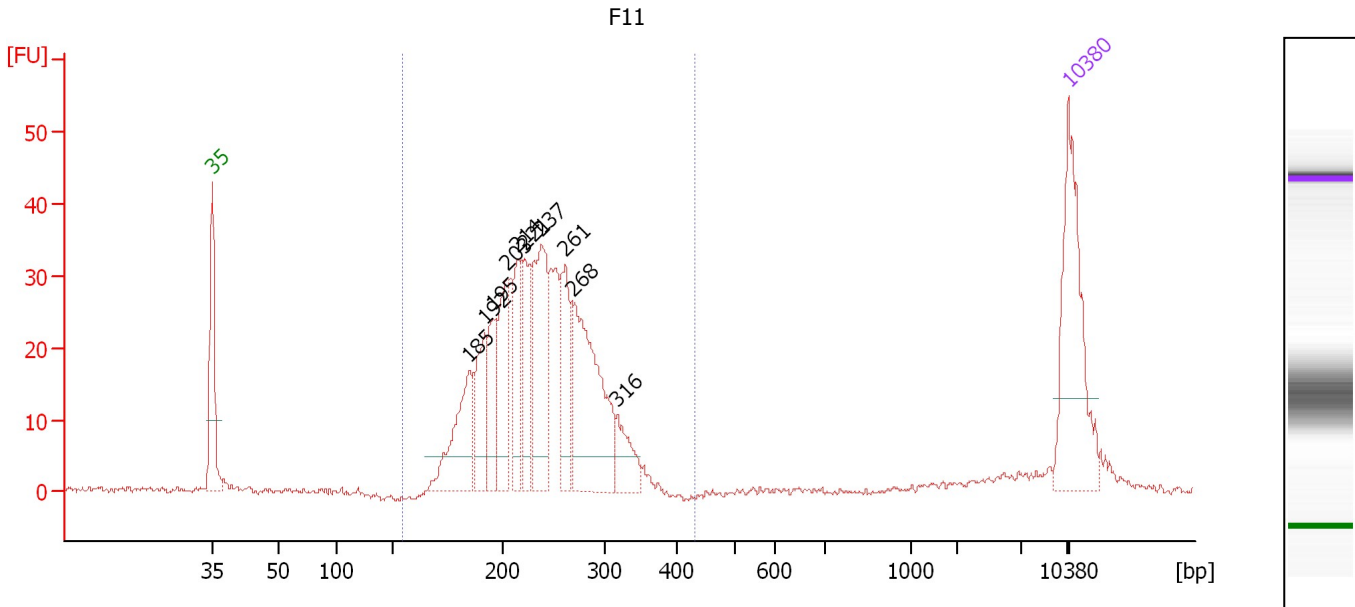
Region table for sample 2 : F10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
154	230	392	595.1	6,550.2	97	16.8	964.90	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : F11

Number of peaks found: 10 Corr. Area 1: 510.2
 Noise: 0.4

Peak table for sample 3 : F11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	185	76.36	626.1		64.05
3	192	49.76	393.1		65.32
4	195	43.26	335.5		65.97
5	203	60.23	448.6		67.10
6	214	51.73	366.5		67.98
7	221	51.59	354.2		68.54
8	237	98.22	626.9		69.94
9	261	56.67	329.1		71.90
10	268	135.39	765.0		72.51
11	316	27.91	133.7		76.13
12	10,380	75.00	10.9	Upper Marker	113.00

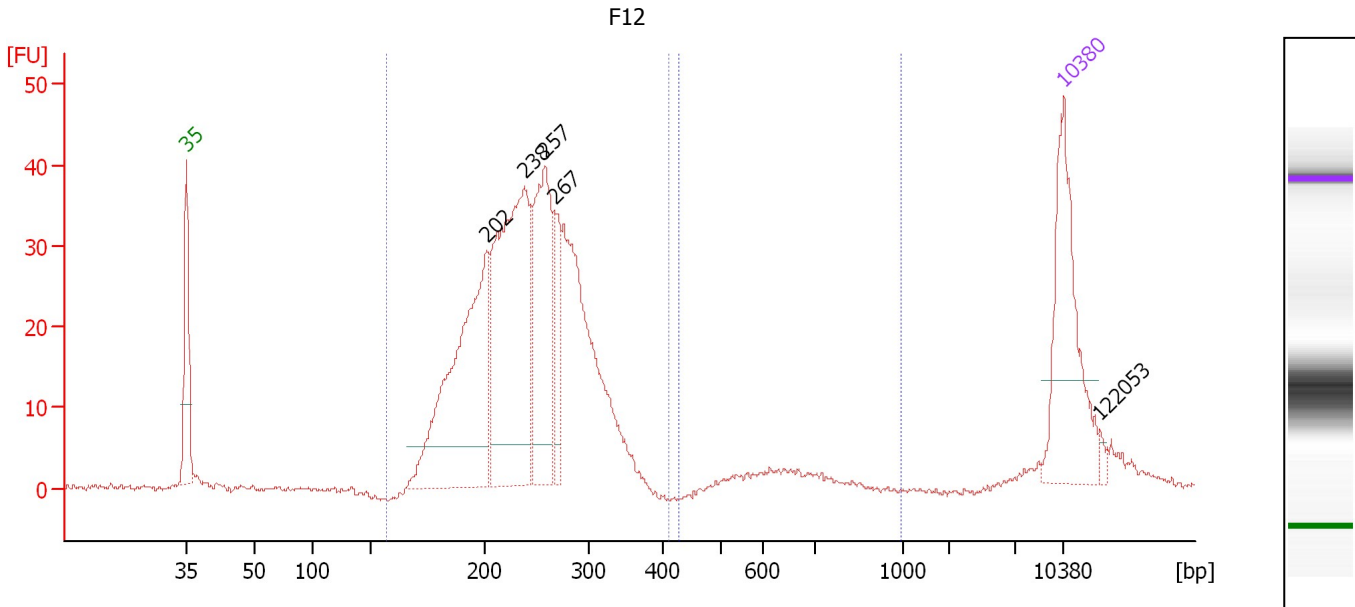
Region table for sample 3 : F11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
155	238	432	510.2	5,045.8	94	17.6	765.75	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : F12

Number of peaks found: 5 Corr. Area 1: 572.0
 Noise: 0.4 Corr. Area 2: 14.3

Peak table for sample 4 : F12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	202	226.91	1,702.5		66.98
3	238	247.03	1,574.1		69.97
4	257	131.35	773.6		71.60
5	267	39.77	225.9		72.39
6	10,380	75.00	10.9	Upper Marker	113.00
7	122,053	0.00	0.0		115.90

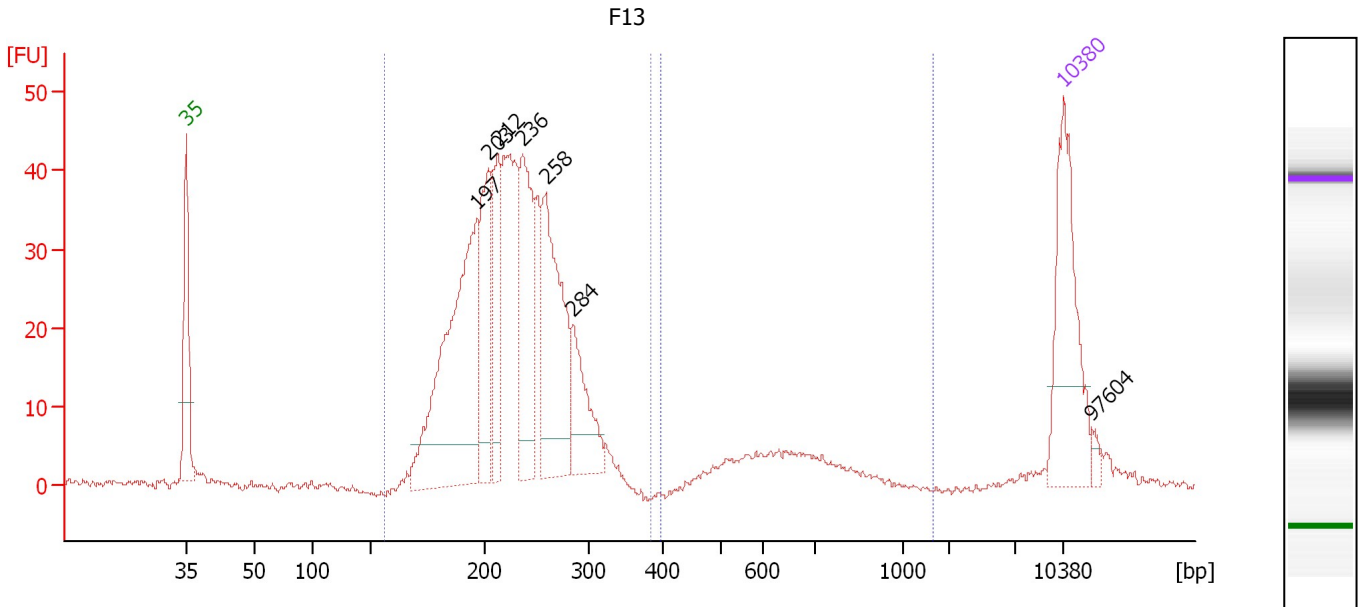
Region table for sample 4 : F12

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
157	243	410	572.0	5,587.4	94	17.5	866.47	Blue
427	633	995	14.3	40.9	2	11.3	16.83	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : F13

Number of peaks found: 7 Corr. Area 1: 598.9
 Noise: 0.5 Corr. Area 2: 49.2

Peak table for sample 5 : F13

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	197	254.06	1,957.0		66.21
3	203	92.06	685.6		67.10
4	212	75.13	535.7		67.86
5	236	112.22	720.7		69.82
6	258	142.62	836.6		71.68
7	284	59.06	314.7		73.86
8	10,380	75.00	10.9	Upper Marker	113.00
9	97,604	0.00	0.0		115.27

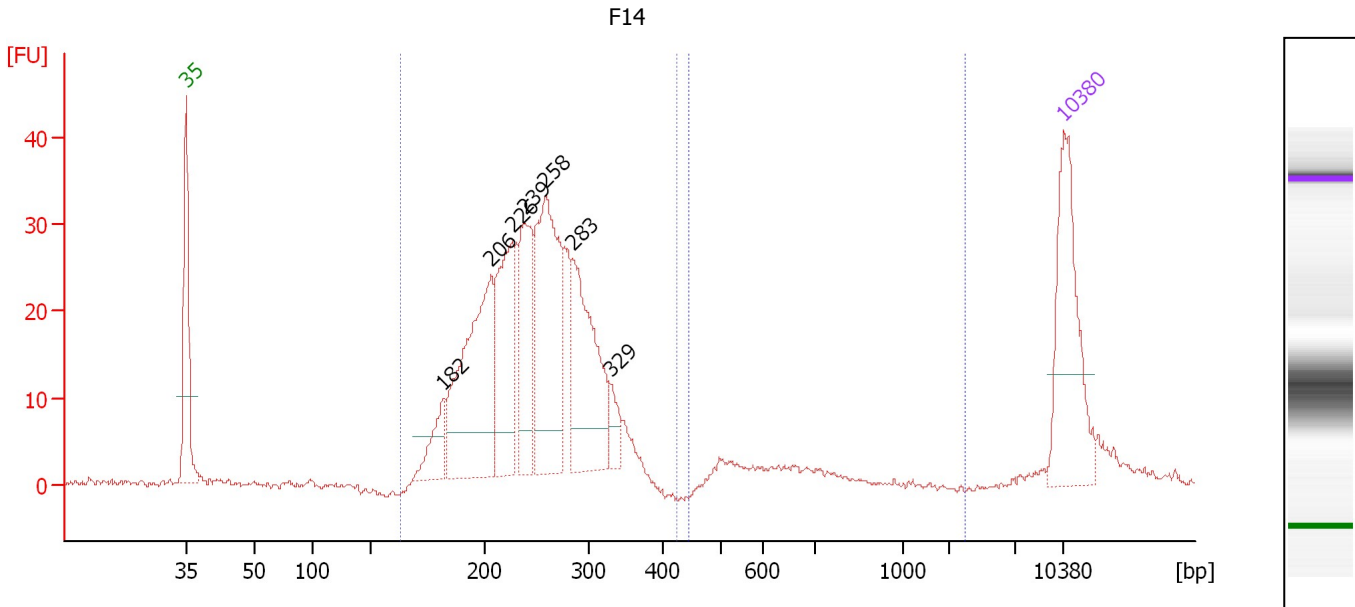
Region table for sample 5 : F13

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
156	229	384	598.9	6,473.2	89	15.9	953.69	Blue
398	648	1,668	49.2	145.3	7	17.4	59.86	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : F14

Number of peaks found: 7 Corr. Area 1: 479.3
 Noise: 0.4 Corr. Area 2: 23.6

Peak table for sample 6 : F14

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	182	36.27	302.3		63.51
3	206	177.33	1,304.1		67.32
4	226	103.22	690.6		69.03
5	239	90.00	571.0		70.06
6	258	172.36	1,013.6		71.63
7	283	123.24	658.8		73.78
8	329	16.15	74.5		76.83
9	10,380	75.00	10.9	Upper Marker	113.00

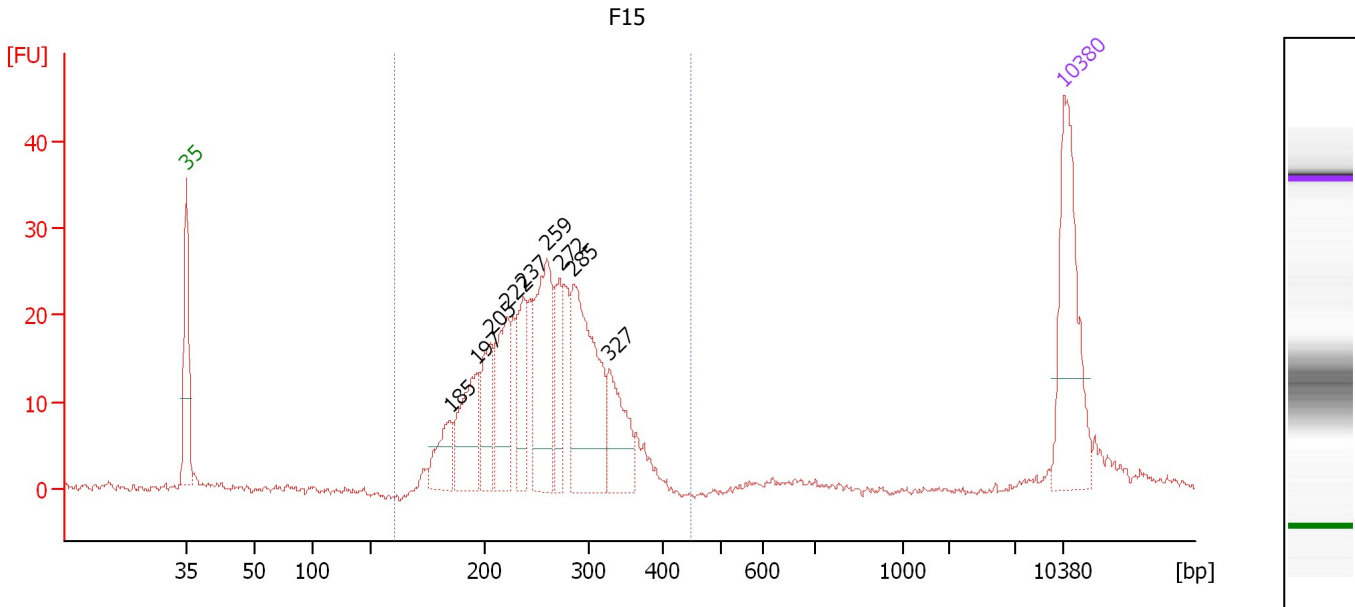
Region table for sample 6 : F14

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
163	249	423	479.3	5,379.2	92	18.1	850.25	Blue
443	631	2,251	23.6	82.1	5	18.9	32.93	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : F15

Number of peaks found: 9 Corr. Area 1: 388.2
 Noise: 0.5

Peak table for sample 7 : F15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	185	35.64	292.4		64.03
3	197	68.33	526.4		66.21
4	205	44.93	331.6		67.26
5	222	62.68	428.5		68.62
6	237	50.74	324.5		69.90
7	259	101.31	592.1		71.76
8	272	44.25	246.7		72.81
9	285	134.22	713.8		73.90
10	327	53.00	245.2		76.77
11	10,380	75.00	10.9	Upper Marker	113.00

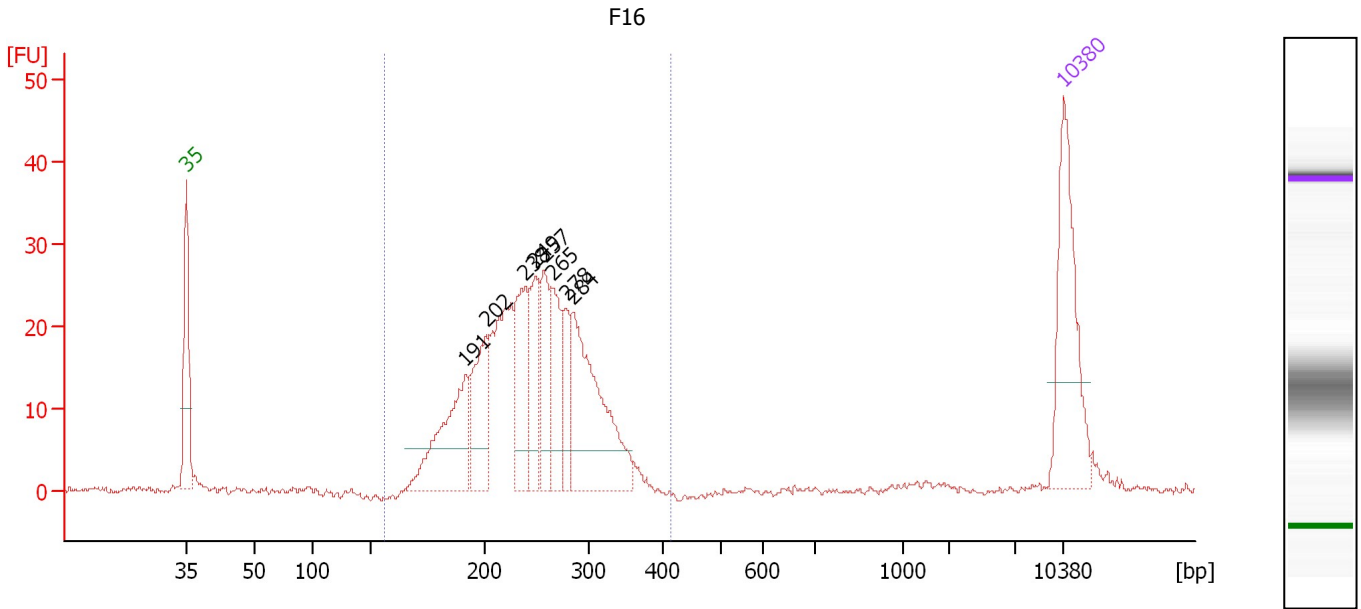
Region table for sample 7 : F15

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
161	259	448	388.2	4,387.4	92	19.3	716.39	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : F16

Number of peaks found: 8 Corr. Area 1: 396.2
 Noise: 0.4

Peak table for sample 8 : F16

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	191	104.99	830.7		65.27
3	202	72.91	547.7		66.96
4	238	78.42	498.6		70.01
5	249	56.09	341.8		70.88
6	257	52.98	312.5		71.57
7	265	53.07	303.3		72.25
8	278	32.81	178.7		73.35
9	284	145.55	775.9		73.85
10	10,380	75.00	10.9	Upper Marker	113.00

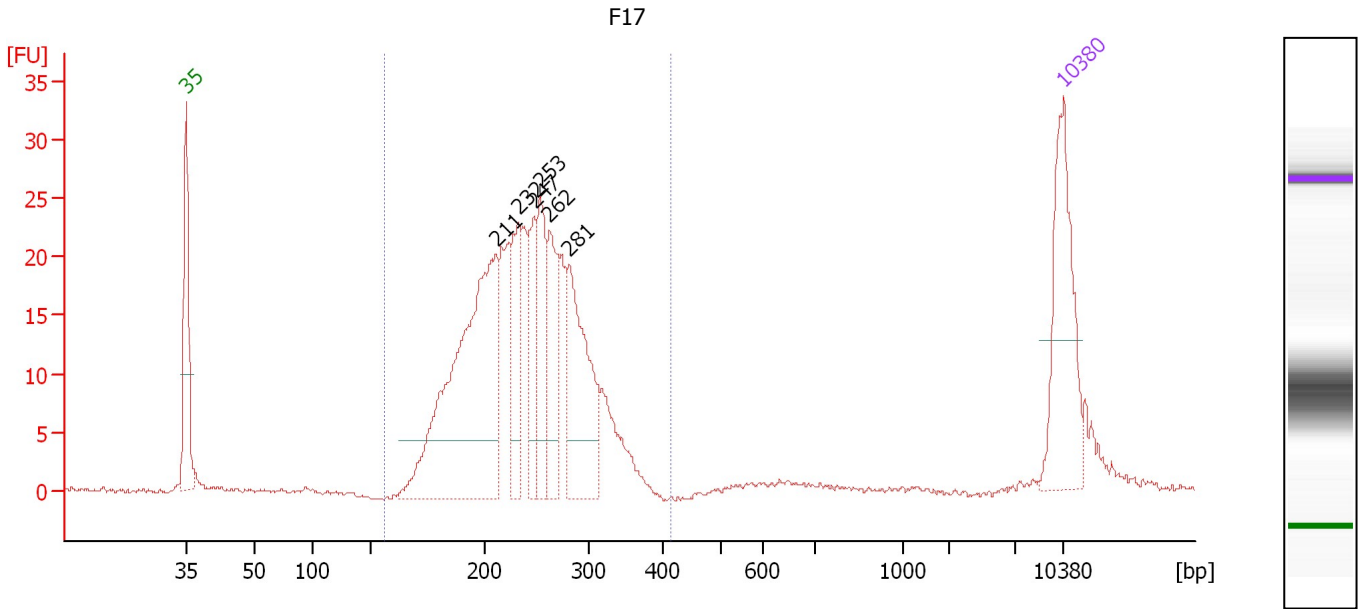
Region table for sample 8 : F16

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
156	248	414	396.2	4,753.4	95	18.3	746.87	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : F17

Number of peaks found: 6 Corr. Area 1: 360.5
 Noise: 0.2

Peak table for sample 9 : F17

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	211	316.89	2,278.6		67.71
3	232	70.60	461.2		69.48
4	247	47.92	293.8		70.75
5	253	67.80	406.7		71.21
6	262	66.42	384.3		71.98
7	281	117.71	634.9		73.57
8	10,380	75.00	10.9	Upper Marker	113.00

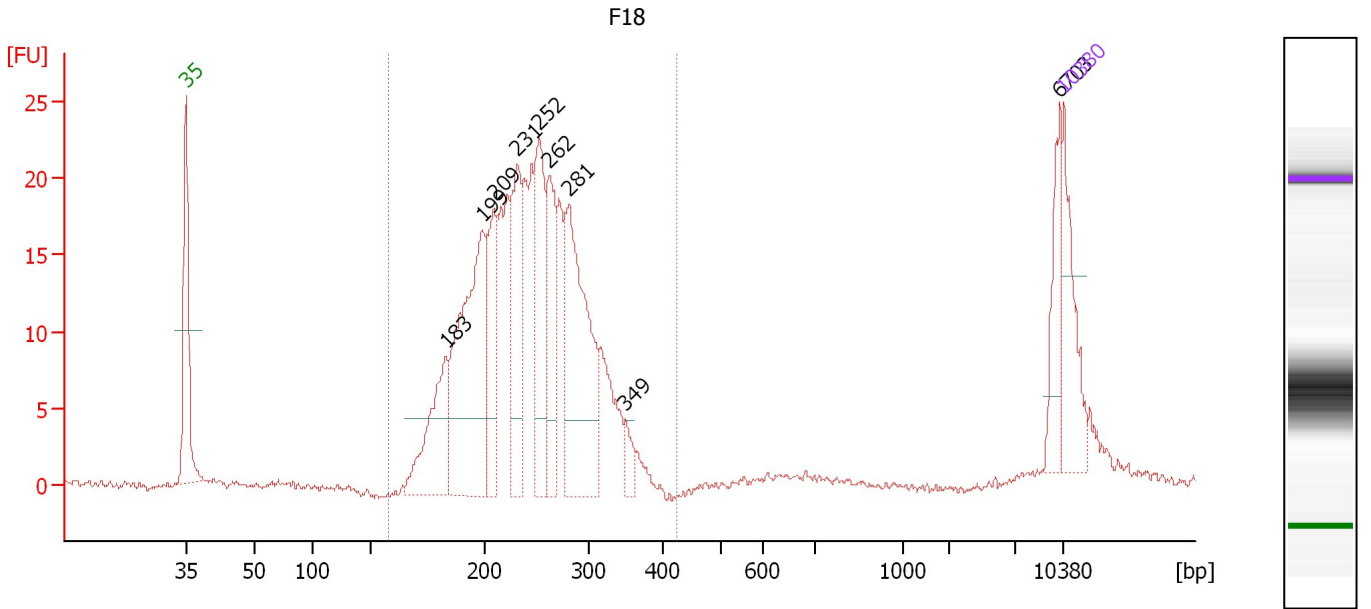
Region table for sample 9 : F17

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
156	242	413	360.5	5,678.6	94	18.0	874.49	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : F18

Number of peaks found: 9 Corr. Area 1: 319.6
 Noise: 0.2

Peak table for sample 10 : F18

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	183	159.22	1,318.6		63.72
3	199	352.82	2,682.7		66.68
4	209	138.56	1,005.6		67.55
5	231	152.27	997.9		69.42
6	252	162.76	978.8		71.16
7	262	130.78	756.9		71.98
8	281	290.94	1,569.1		73.57
9	349	21.85	94.8		78.05
10	6,703	54.74	12.4		112.63
11	10,380	75.00	10.9	Upper Marker	113.00

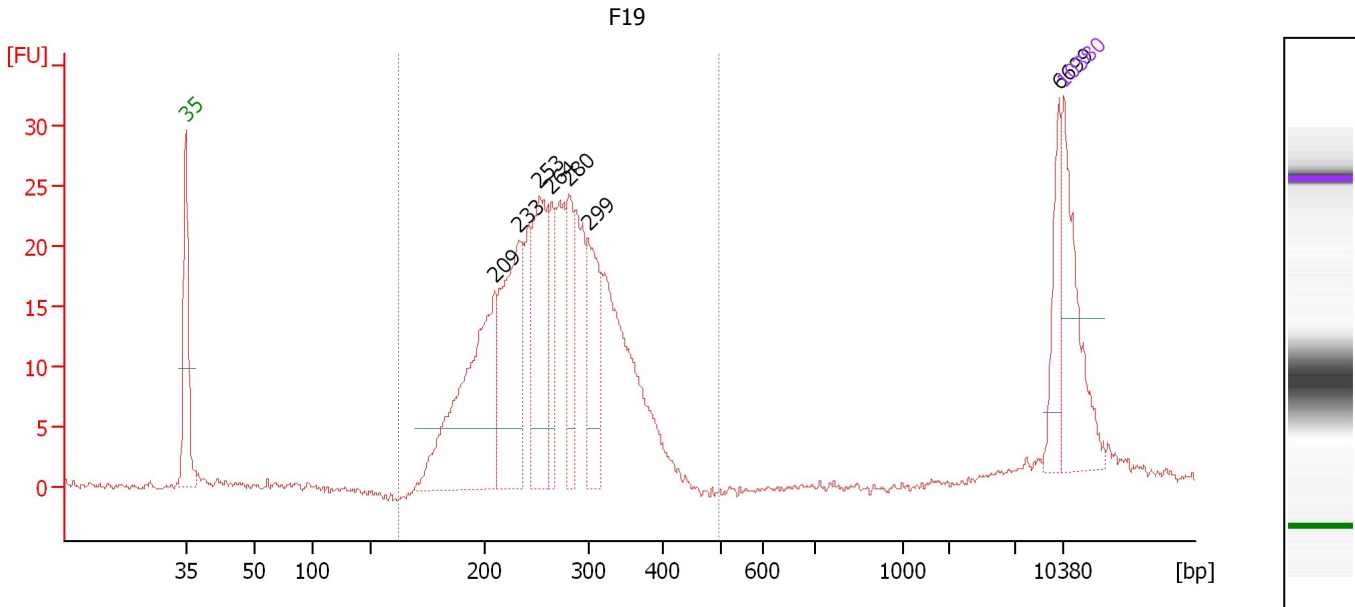
Region table for sample 10 : F18

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
158	244	424	319.6	11,852.4	91	18.2	1,839.61	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : F19

Number of peaks found: 7 Corr. Area 1: 393.5
 Noise: 0.3

Peak table for sample 11 : F19

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	209	256.70	1,856.7		67.61
3	233	180.56	1,173.0		69.59
4	253	136.26	817.5		71.20
5	264	62.07	356.8		72.12
6	280	65.47	354.1		73.51
7	299	91.36	463.1		75.07
8	6,699	41.41	9.4		112.63
9	10,380	75.00	10.9	Upper Marker	113.00

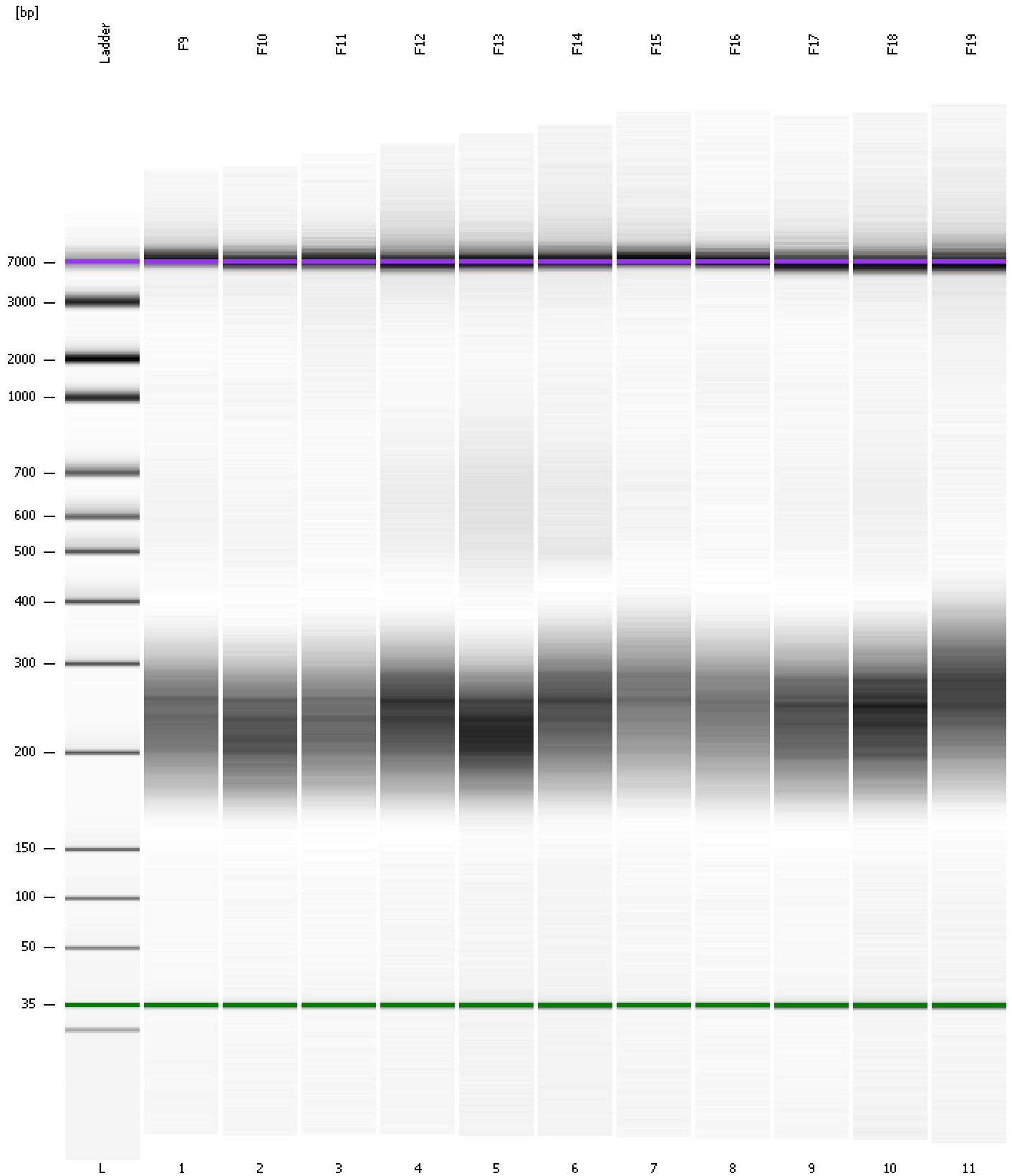
Region table for sample 11 : F19

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
163	269	495	393.5	7,353.8	89	20.5	1,238.65	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
Modified: 4/22/2015 5:10:39 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad

Created: 4/22/2015 4:28:18 PM
 Modified: 4/22/2015 5:10:39 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		4/22/2015 5:09:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-22\2015-04-22_007.xad)		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/22/2015 4:28:24 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1