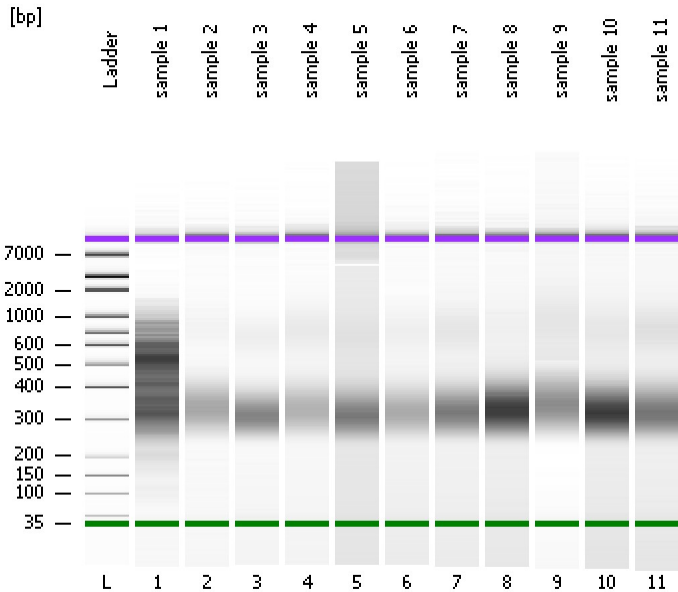


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
Modified: 1/30/2015 11:59:00 AM

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

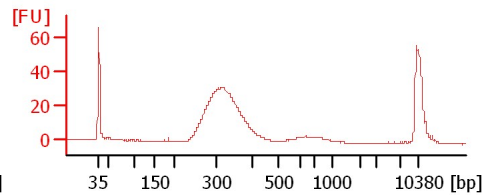
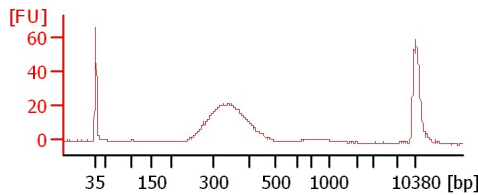
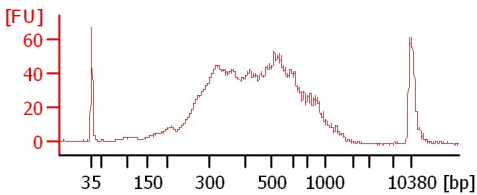
Chip Information:

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

sample 1

sample 2

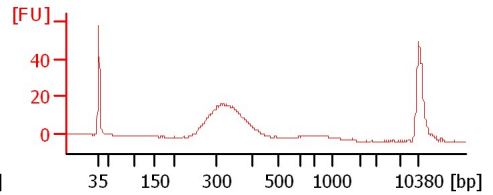
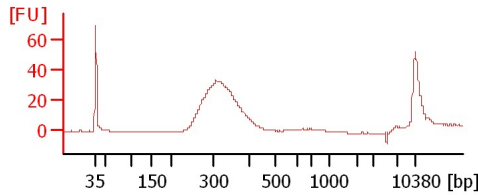
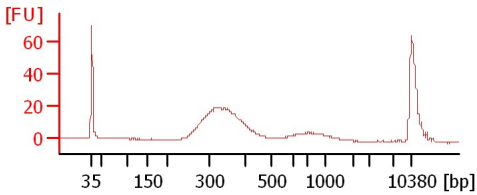
sample 3



sample 4

sample 5

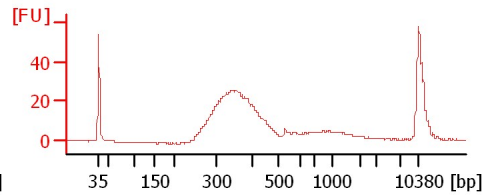
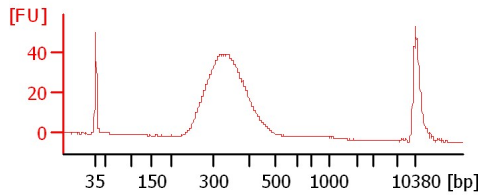
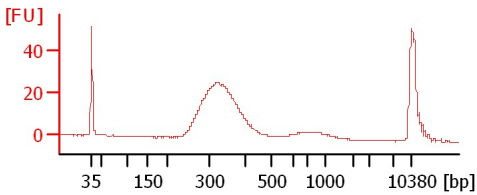
sample 6



sample 7

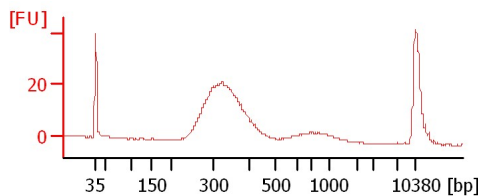
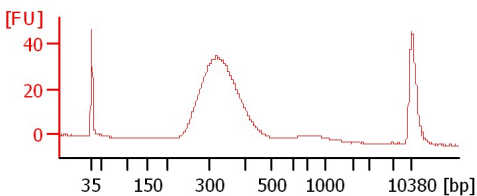
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
Modified: 1/30/2015 11:59:00 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 11		<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\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
Modified: 1/30/2015 11:59:00 AM

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/μl] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/μl] : 125
Upper Marker Concentration [pg/μl] : 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

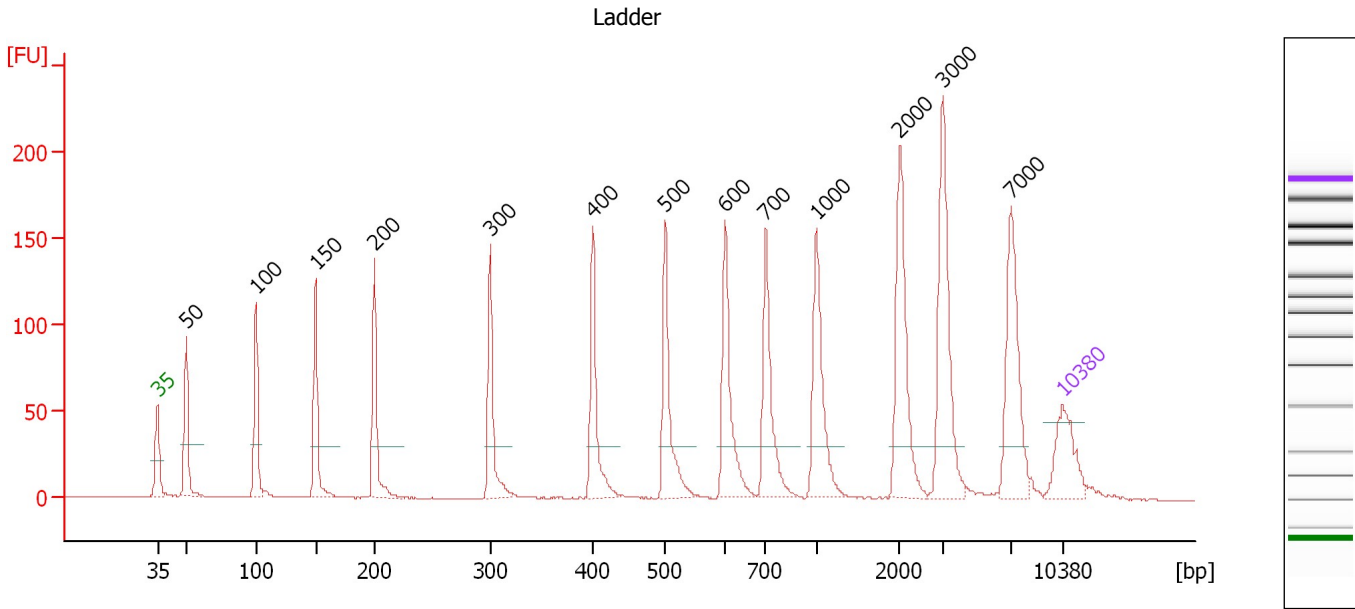
Ladder

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\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

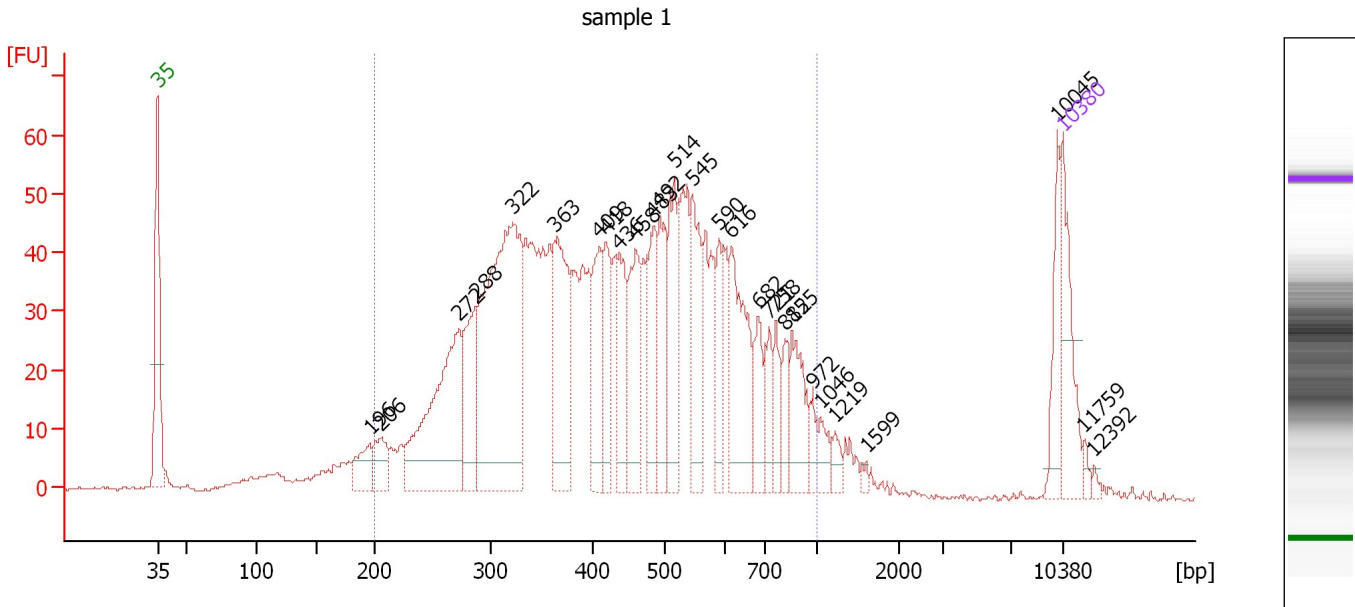
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.20
3	100	150.00	2,272.7	Ladder Peak	50.61
4	150	150.00	1,515.2	Ladder Peak	55.23
5	200	150.00	1,136.4	Ladder Peak	59.76
6	300	150.00	757.6	Ladder Peak	68.74
7	400	150.00	568.2	Ladder Peak	76.66
8	500	150.00	454.5	Ladder Peak	82.29
9	600	150.00	378.8	Ladder Peak	86.91
10	700	150.00	324.7	Ladder Peak	90.03
11	1,000	150.00	227.3	Ladder Peak	93.99
12	2,000	150.00	113.6	Ladder Peak	100.37
13	3,000	150.00	75.8	Ladder Peak	103.76
14	7,000	150.00	32.5	Ladder Peak	109.00
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 28 Corr. Area 1: 1,538.6
 Noise: 0.3

Peak table for sample 1 : sample 1

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	196	45.91	354.5		59.42
3	206	47.00	345.7		60.30
4	272	274.44	1,526.6		66.26
5	288	115.80	610.0		67.63
6	322	470.96	2,218.5		70.45
7	363	166.30	694.3		73.72
8	409	91.29	338.3		77.16
9	418	83.56	302.6		77.69
10	436	77.75	270.4		78.66
11	458	112.43	371.7		79.94
12	483	83.12	260.5		81.35
13	492	81.32	250.4		81.84
14	514	101.36	298.7		82.94
15	545	96.30	267.9		84.36
16	590	56.22	144.5		86.43
17	616	133.65	328.9		87.40
18	682	49.37	109.7		89.48
19	721	36.89	77.5		90.31
20	758	35.23	70.4		90.80
21	812	29.28	54.7		91.51
22	855	68.91	122.1		92.08
23	972	15.64	24.4		93.62
24	1,046	21.87	31.7		94.29
25	1,219	13.26	16.5		95.39

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad


Created: 1/30/2015 11:17:52 AM
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Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,599	4.82	4.6		97.82
27	10,045	48.32	7.3		112.60
28	10,380	75.00	10.9	Upper Marker	113.00
29	11,759	0.00	0.0		114.63
30	12,392	0.00	0.0		115.38

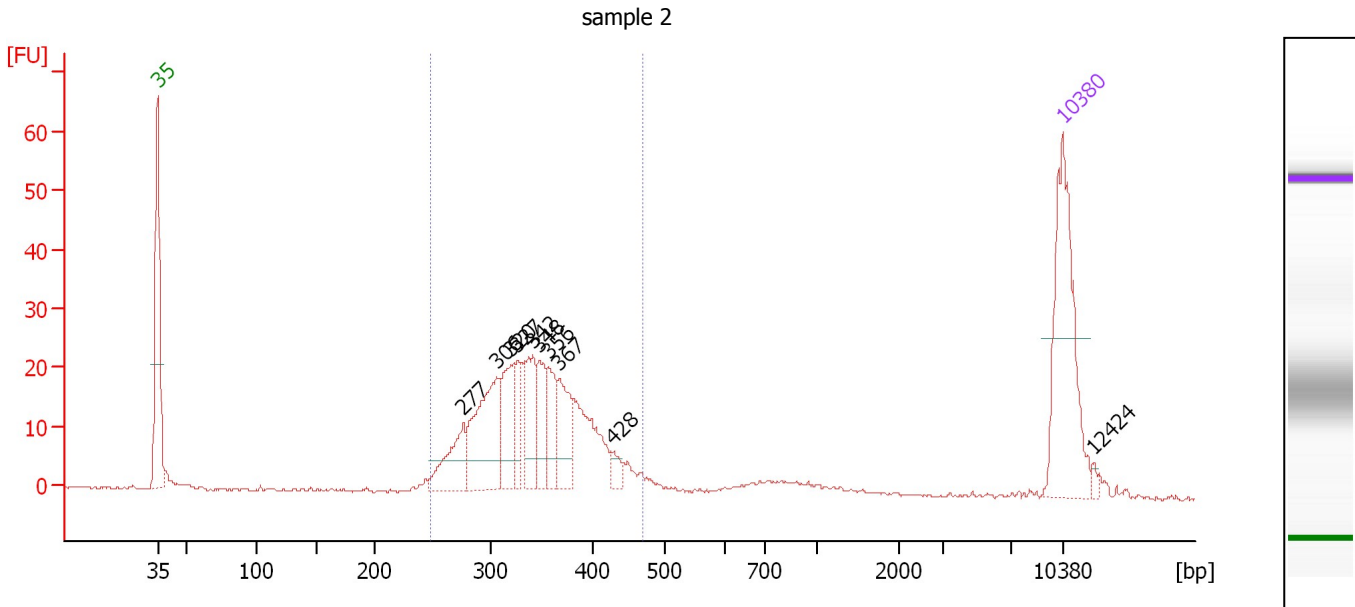
Region table for sample 1 : sample 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	461	1,000	1,538.6	90	35.1	3,131.03	12,165.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 10 Corr. Area 1: 320.5
 Noise: 0.2

Peak table for sample 2 : sample 2

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	277	37.69	206.5		66.63
3	306	75.73	374.7		69.23
4	320	38.82	183.6		70.35
5	327	22.89	106.2		70.85
6	342	32.83	145.5		72.06
7	348	28.07	122.1		72.55
8	356	27.02	115.0		73.18
9	367	34.03	140.6		74.03
10	428	7.92	28.0		78.25
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,424	0.00	0.0		115.42

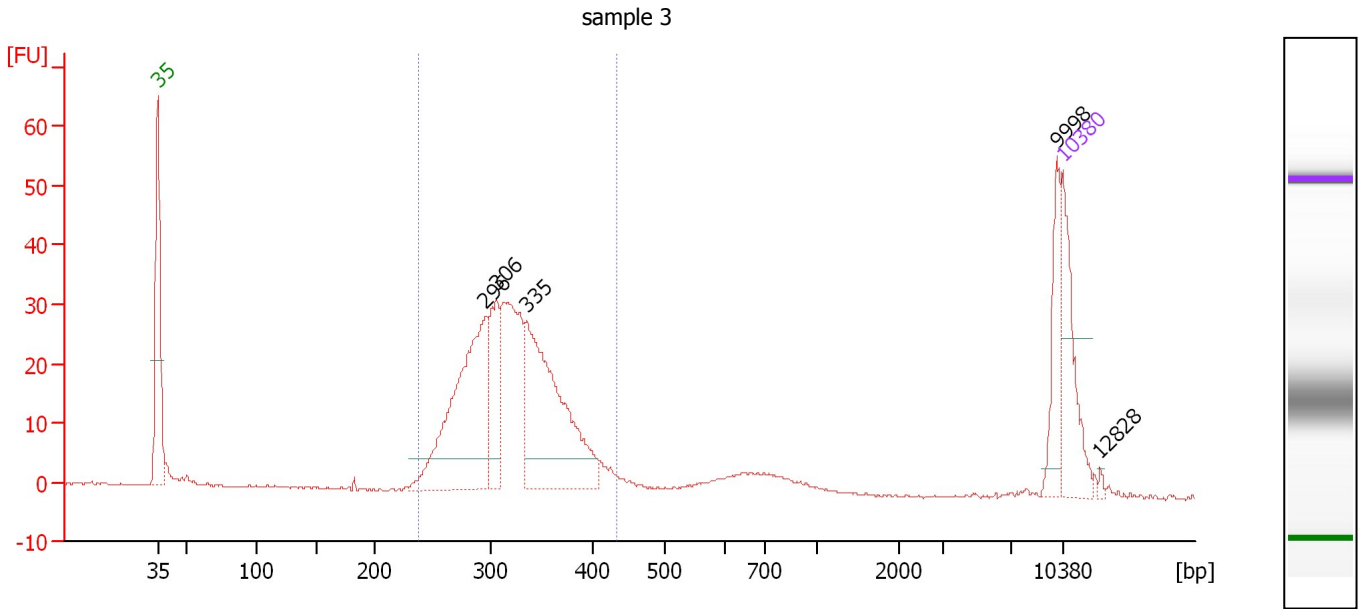
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
248	342	470	320.5	88	13.5	385.36	1,745.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 5 Corr. Area 1: 403.4
 Noise: 0.1

Peak table for sample 3 : sample 3

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	296	305.95	1,566.5		68.37
3	306	95.58	473.8		69.19
4	335	290.85	1,313.8		71.54
5	9,998	51.78	7.8		112.55
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,828	0.00	0.0		115.90

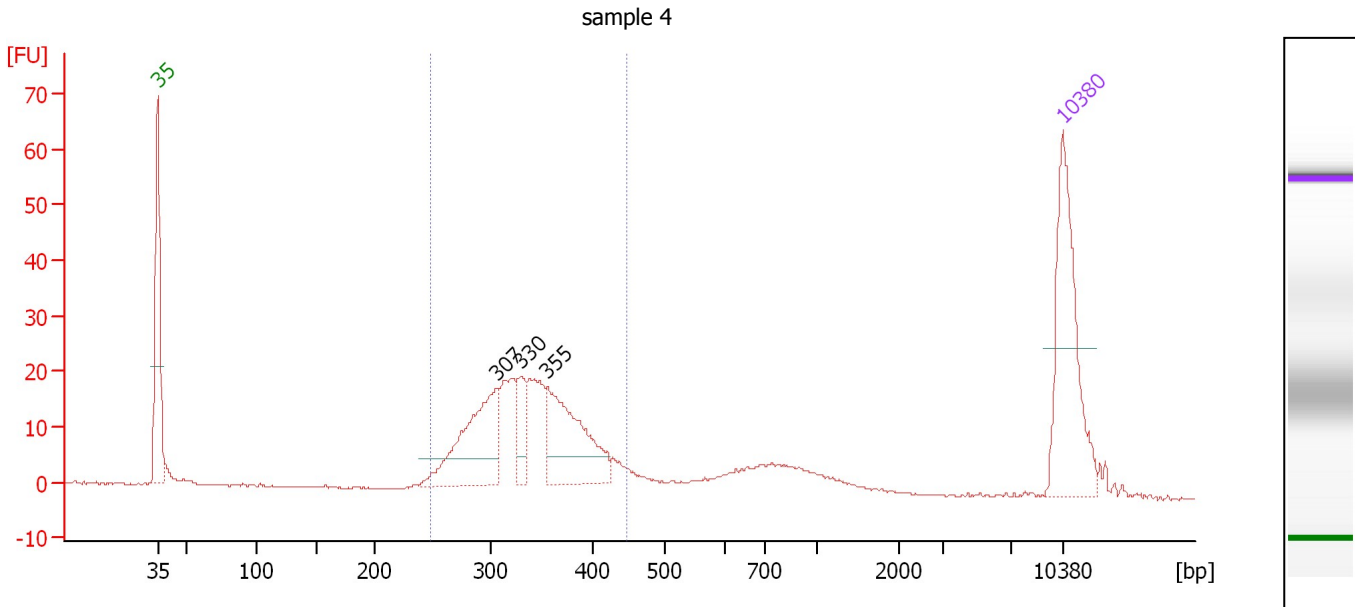
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
238	321	432	403.4	81	12.2	892.95	4,290.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 3 Corr. Area 1: 283.0
 Noise: 0.1

Peak table for sample 4 : sample 4

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	307	93.79	463.2		69.28
3	330	21.78	99.9		71.13
4	355	85.24	363.5		73.12
5	10,380	75.00	10.9	Upper Marker	113.00

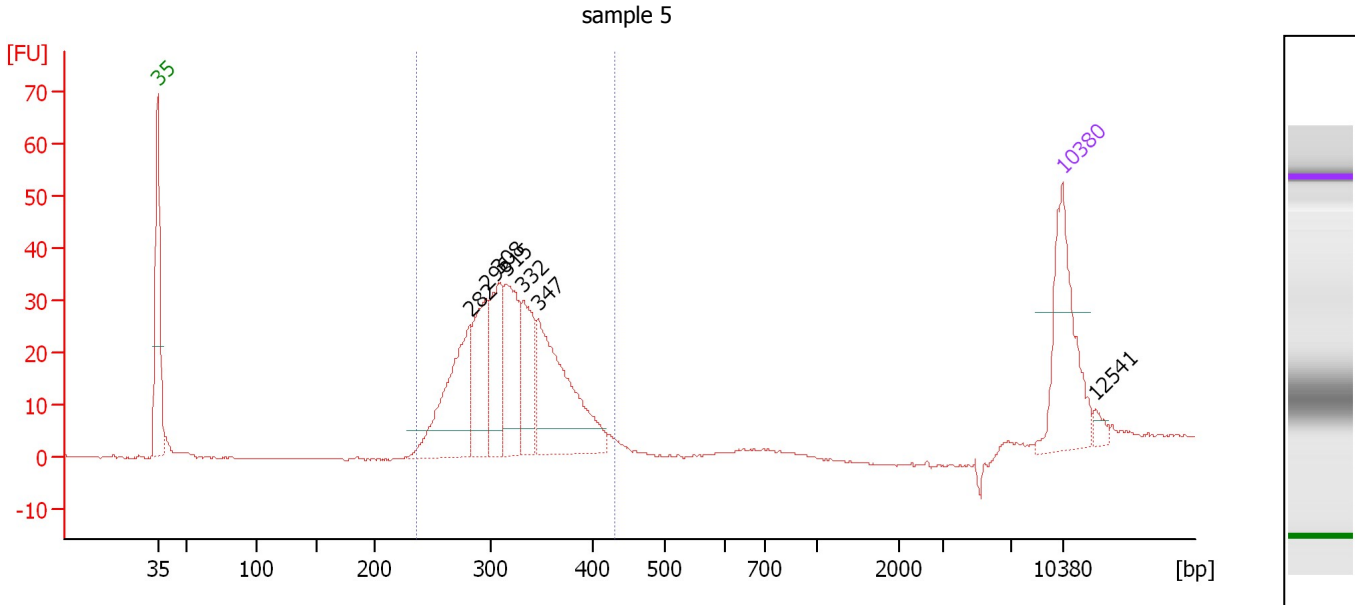
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
249	337	446	283.0	77	12.9	309.34	1,418.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 7 Corr. Area 1: 399.6
 Noise: 0.1

Peak table for sample 5 : sample 5

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	282	123.69	663.7		67.16
3	296	86.11	440.2		68.41
4	308	72.17	354.8		69.39
5	315	86.07	413.7		69.95
6	332	65.68	300.0		71.25
7	347	147.70	644.9		72.46
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,541	0.00	0.0		115.56

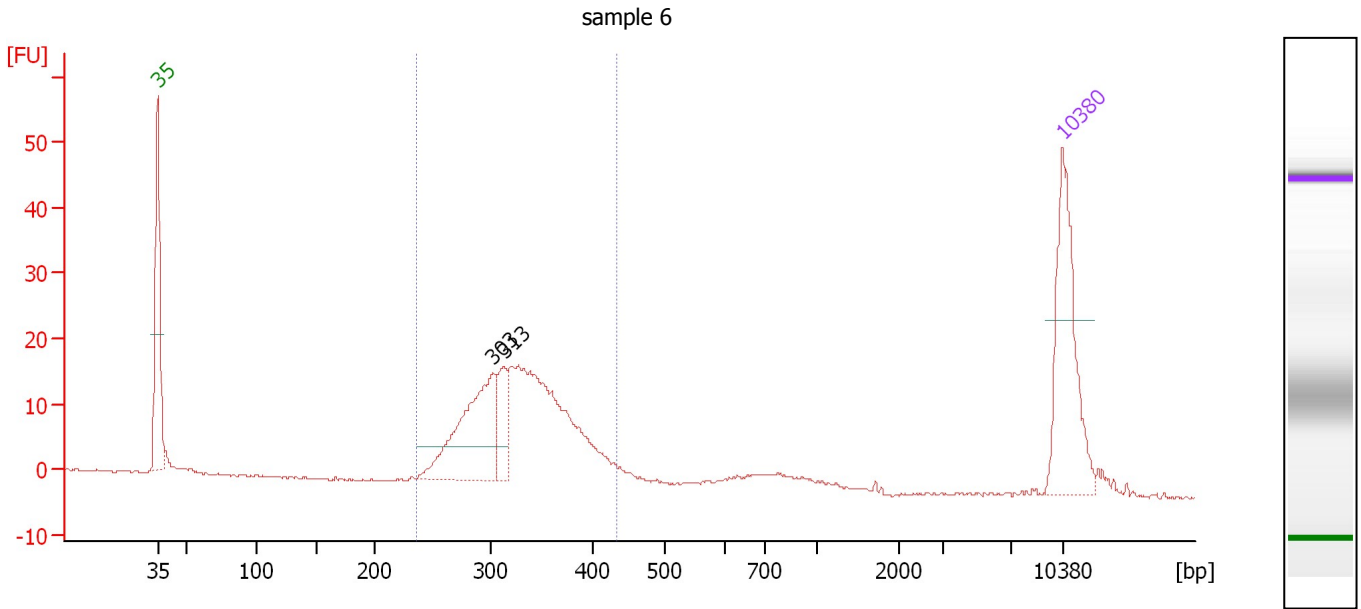
Region table for sample 5 : sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
237	321	430	399.6	94	12.1	552.40	2,656.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 2 Corr. Area 1: 233.0
 Noise: 0.2

Peak table for sample 6 : sample 6

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	303	113.92	569.7		68.97
3	313	31.81	153.9		69.77
4	10,380	75.00	10.9	Upper Marker	113.00

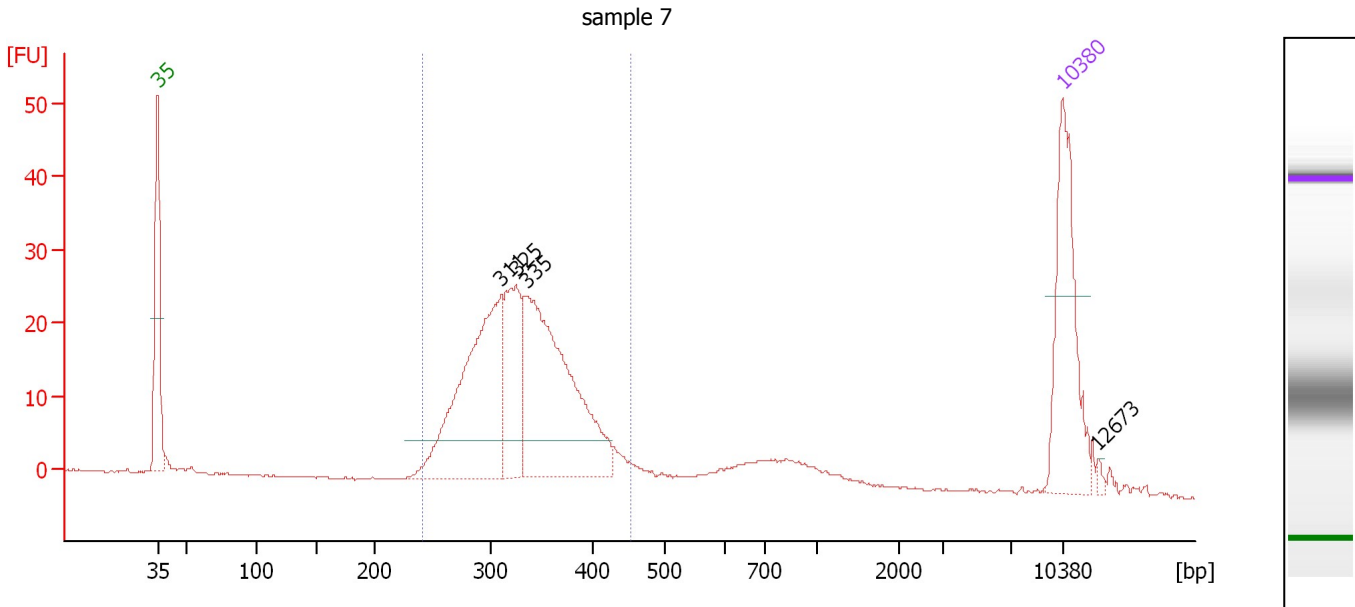
Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
237	329	434	233.0	86	12.4	338.64	1,587.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 4 Corr. Area 1: 346.8
 Noise: 0.2

Peak table for sample 7 : sample 7

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	311	185.86	906.2		69.59
3	325	80.97	377.3		70.73
4	335	207.79	938.6		71.54
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,673	0.00	0.0		115.72

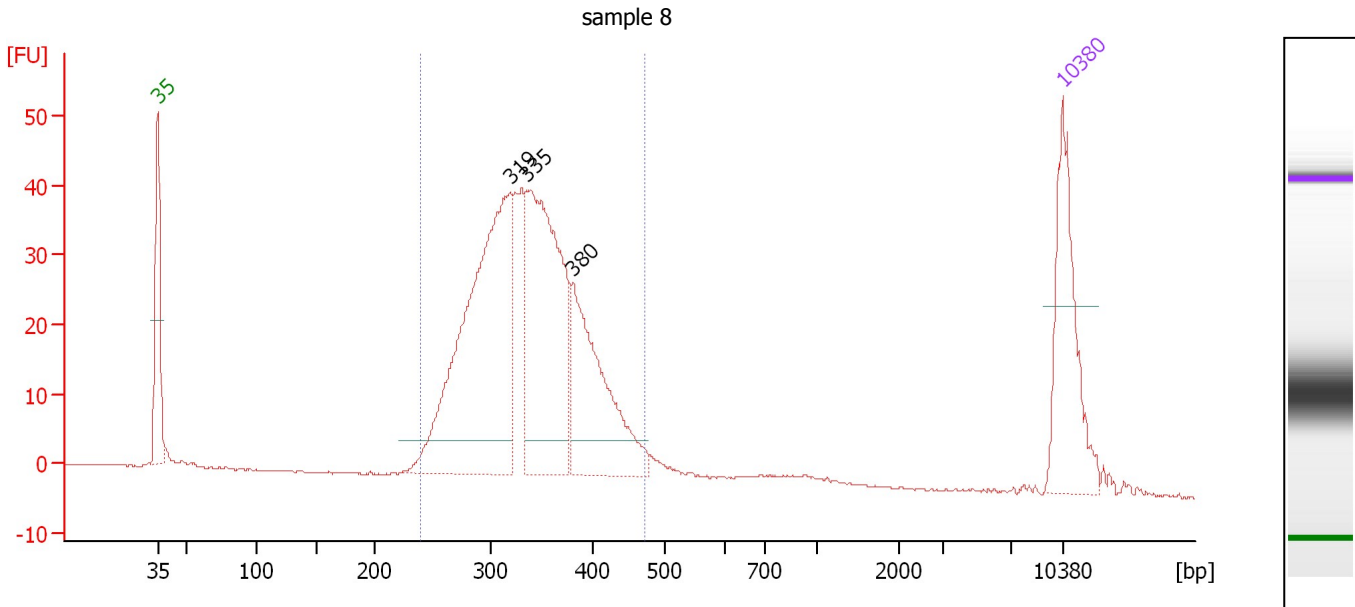
Region table for sample 7 : sample 7

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
241	331	452	346.8	86	13.0	491.17	2,294.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 3 Corr. Area 1: 602.9
 Noise: 0.2

Peak table for sample 8 : sample 8

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	319	332.82	1,580.0		70.26
3	335	237.11	1,071.1		71.54
4	380	142.15	566.9		75.07
5	10,380	75.00	10.9	Upper Marker	113.00

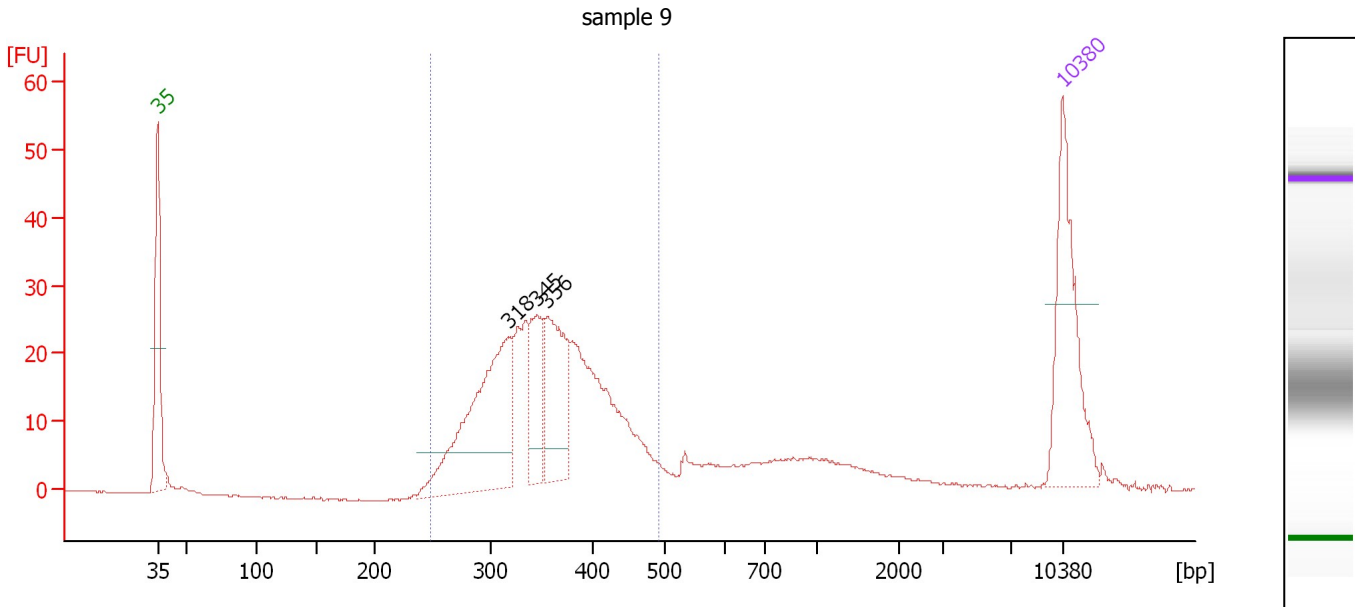
Region table for sample 8 : sample 8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
240	338	473	602.9	94	14.1	801.00	3,682.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 3 Corr. Area 1: 389.4
 Noise: 0.1

Peak table for sample 9 : sample 9

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	318	167.55	799.4		70.13
3	345	51.30	225.1		72.33
4	356	82.60	351.9		73.14
5	10,380	75.00	10.9	Upper Marker	113.00

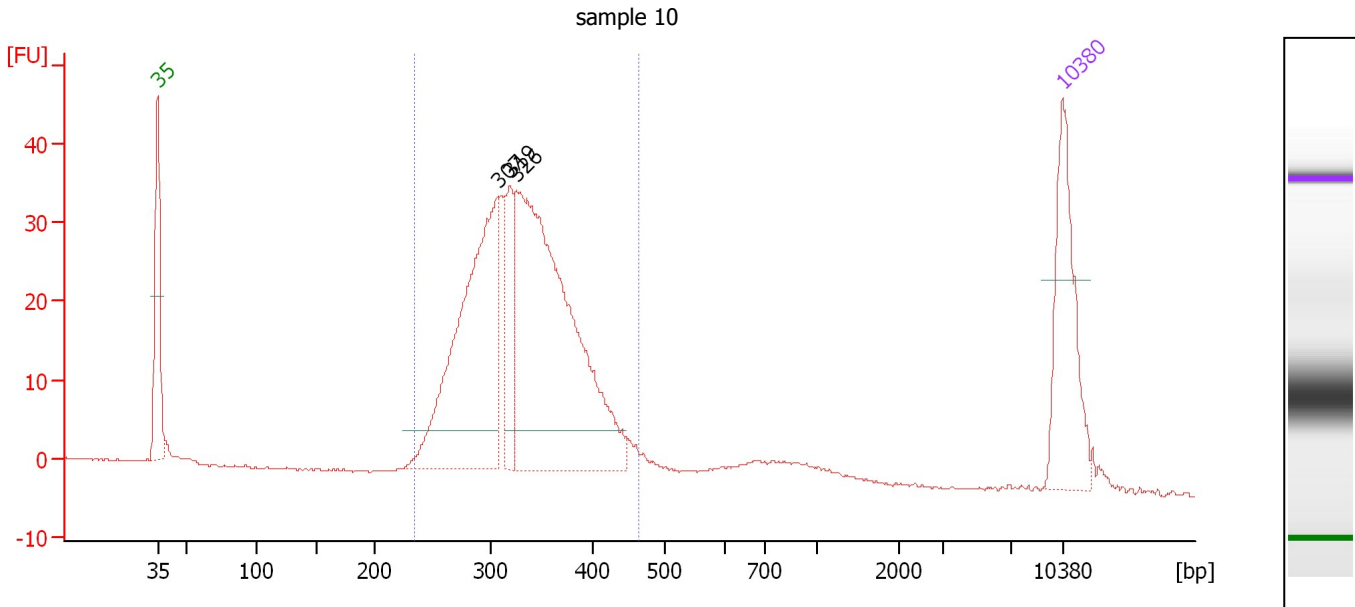
Region table for sample 9 : sample 9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
248	355	492	389.4	79	14.8	526.09	2,307.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 3 Corr. Area 1: 501.3
 Noise: 0.1

Peak table for sample 10 : sample 10

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	307	271.36	1,338.3		69.31
3	319	53.84	255.4		70.28
4	326	385.94	1,793.1		70.81
5	10,380	75.00	10.9	Upper Marker	113.00

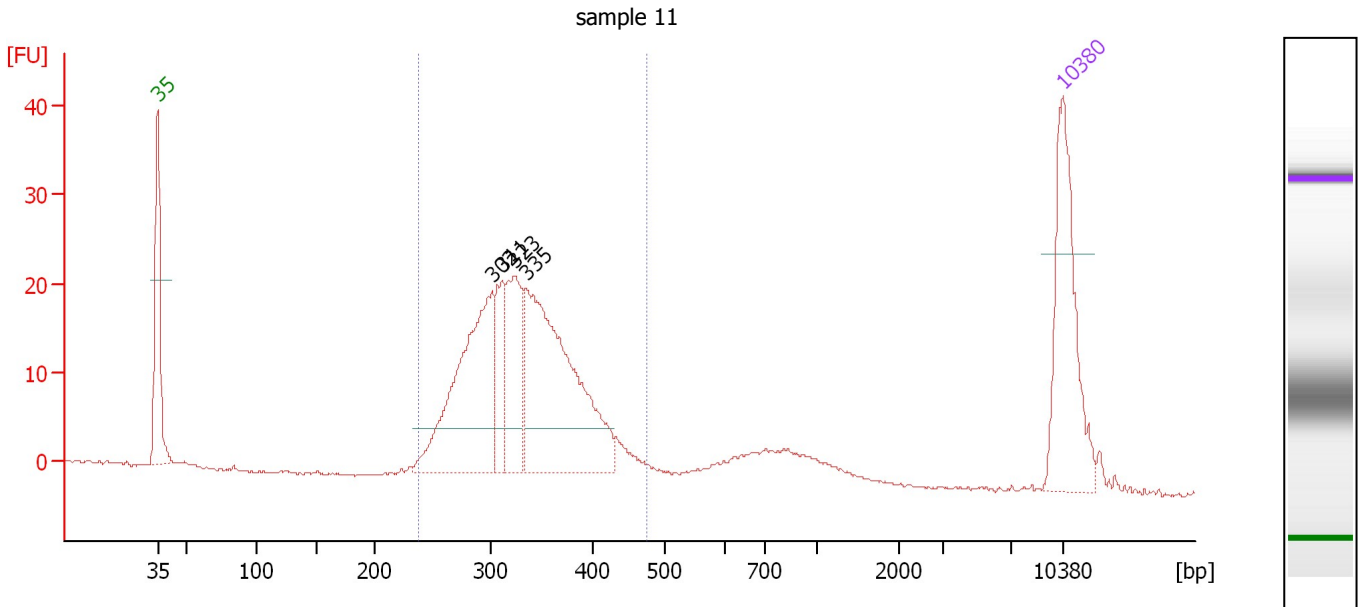
Region table for sample 10 : sample 10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
235	331	463	501.3	90	13.7	765.76	3,585.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 4 Corr. Area 1: 305.1
 Noise: 0.1

Peak table for sample 11 : sample 11

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	302	161.96	812.6		68.90
3	311	39.88	194.1		69.63
4	323	67.17	315.1		70.56
5	335	198.25	897.3		71.49
6	10,380	75.00	10.9	Upper Marker	113.00

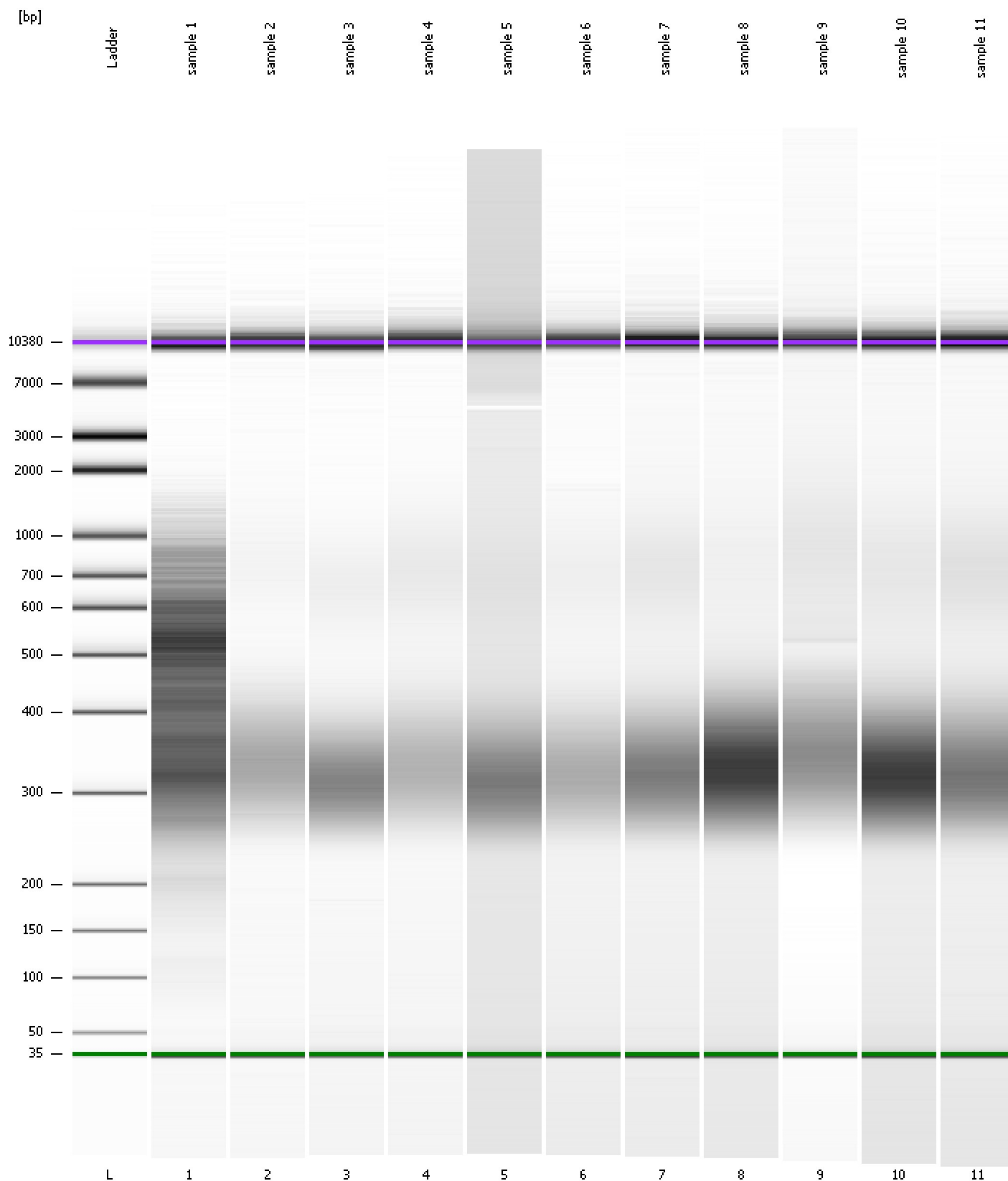
Region table for sample 11 : sample 11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
238	333	475	305.1	85	14.1	496.31	2,316.6	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
Modified: 1/30/2015 11:59:00 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad

Created: 1/30/2015 11:17:52 AM
 Modified: 1/30/2015 11:59:00 AM

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		1/30/2015 11:58:20 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-30\2015-01-30_002.xad)		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/30/2015 11:17:58 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1