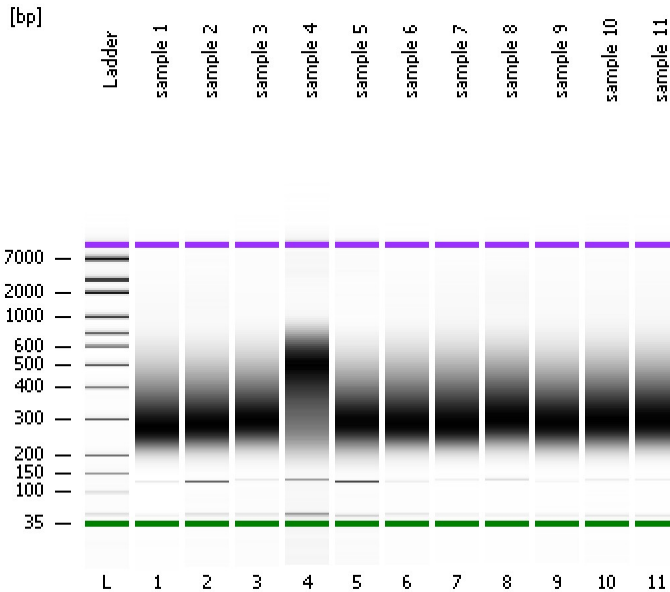


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
Modified: 3/14/2017 11:10:24 AM

Electrophoresis File Run Summary



Instrument Information:

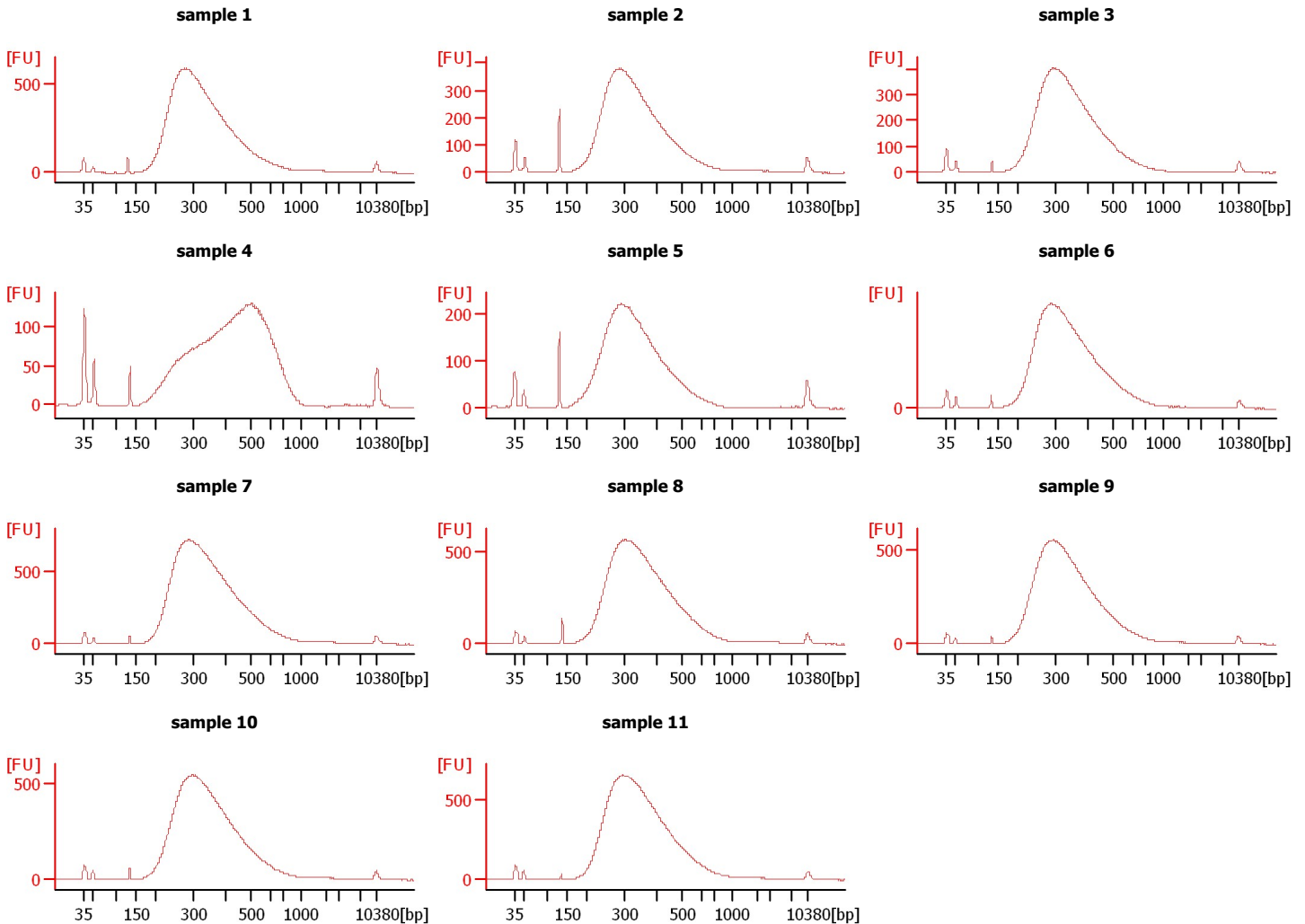
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
Modified: 3/14/2017 11:10:24 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:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
Modified: 3/14/2017 11:10:24 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

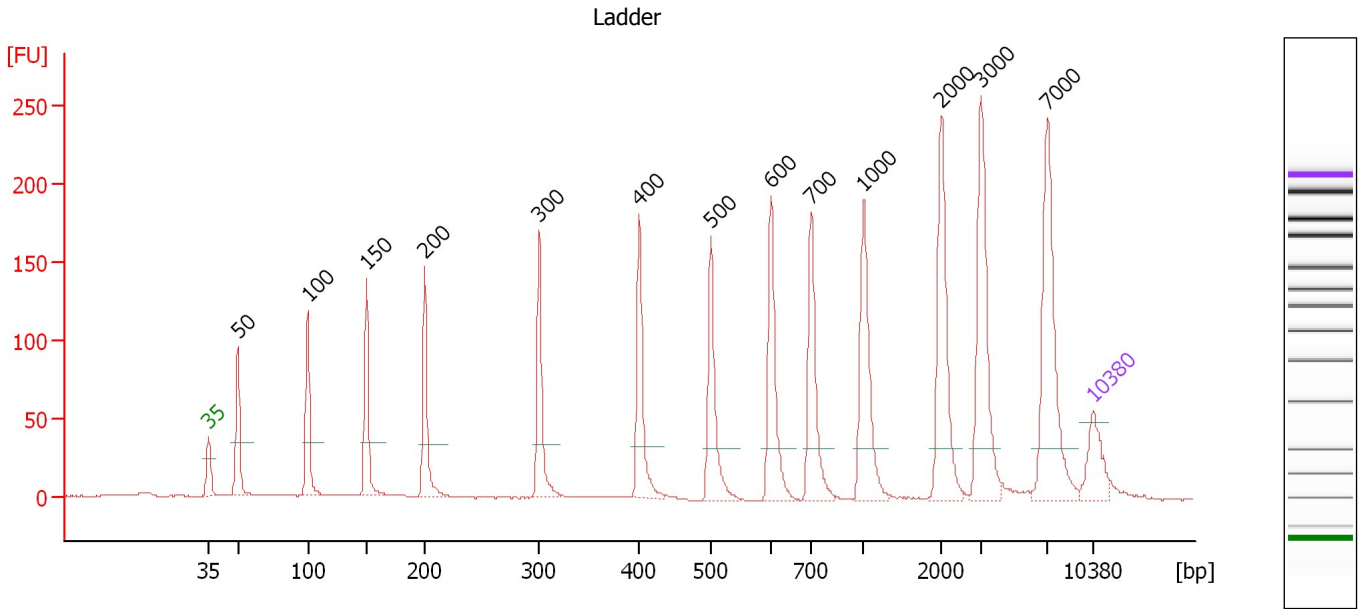
Ladder

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:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

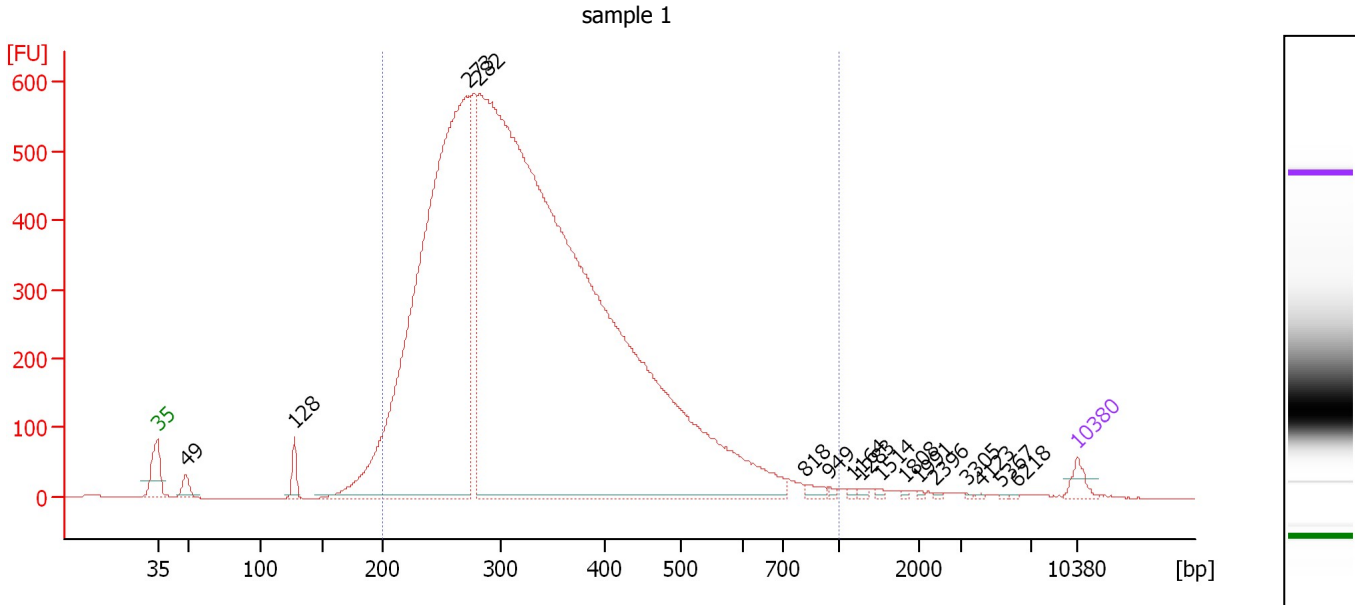
Peak table for Ladder

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	45.28
3	100	150.00	2,272.7	Ladder Peak	50.81
4	150	150.00	1,515.2	Ladder Peak	55.50
5	200	150.00	1,136.4	Ladder Peak	60.10
6	300	150.00	757.6	Ladder Peak	69.13
7	400	150.00	568.2	Ladder Peak	77.07
8	500	150.00	454.5	Ladder Peak	82.77
9	600	150.00	378.8	Ladder Peak	87.50
10	700	150.00	324.7	Ladder Peak	90.67
11	1,000	150.00	227.3	Ladder Peak	94.85
12	2,000	150.00	113.6	Ladder Peak	101.01
13	3,000	150.00	75.8	Ladder Peak	104.13
14	7,000	150.00	32.5	Ladder Peak	109.41
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 16 Corr. Area 1: 13,218.1
 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	49	119.89	3,691.7		45.16
3	128	149.37	1,772.2		53.41
4	273	7,921.77	44,019.4		66.66
5	282	17,751.67	95,462.6		67.48
6	818	49.56	91.8		92.32
7	949	15.22	24.3		94.13
8	1,164	15.36	20.0		95.86
9	1,283	17.59	20.8		96.59
10	1,514	13.38	13.4		98.02
11	1,808	8.43	7.1		99.83
12	1,991	7.28	5.5		100.95
13	2,396	8.76	5.5		102.25
14	3,305	4.90	2.2		104.54
15	4,123	6.69	2.5		105.62
16	5,367	4.57	1.3		107.26
17	6,218	4.26	1.0		108.38
18	10,380	75.00	10.9	Upper Marker	113.00

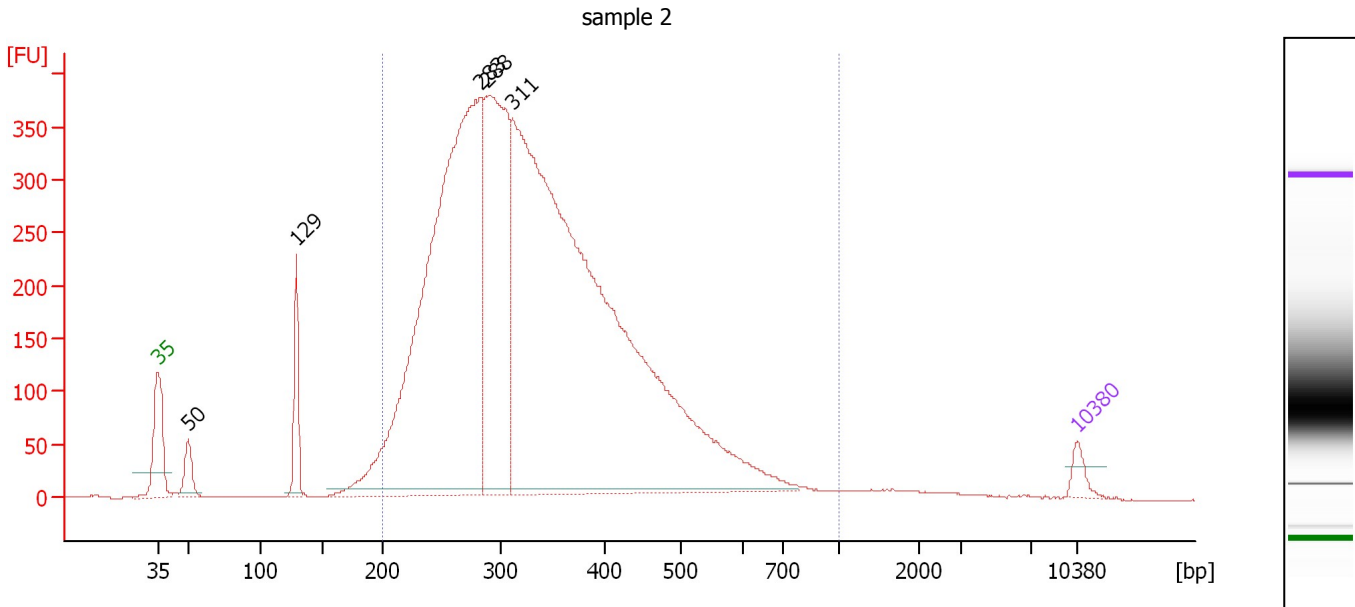
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	339	13,218.1	116,892.2	23,752.54	96	30.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 5 Corr. Area 1: 8,521.1
 Noise: 0.4

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	50	244.71	7,346.5		45.33
3	129	453.09	5,308.2		53.56
4	283	6,270.53	33,518.4		67.64
5	288	2,642.35	13,909.3		68.03
6	311	9,567.30	46,596.5		70.01
7	10,380	75.00	10.9	Upper Marker	113.00

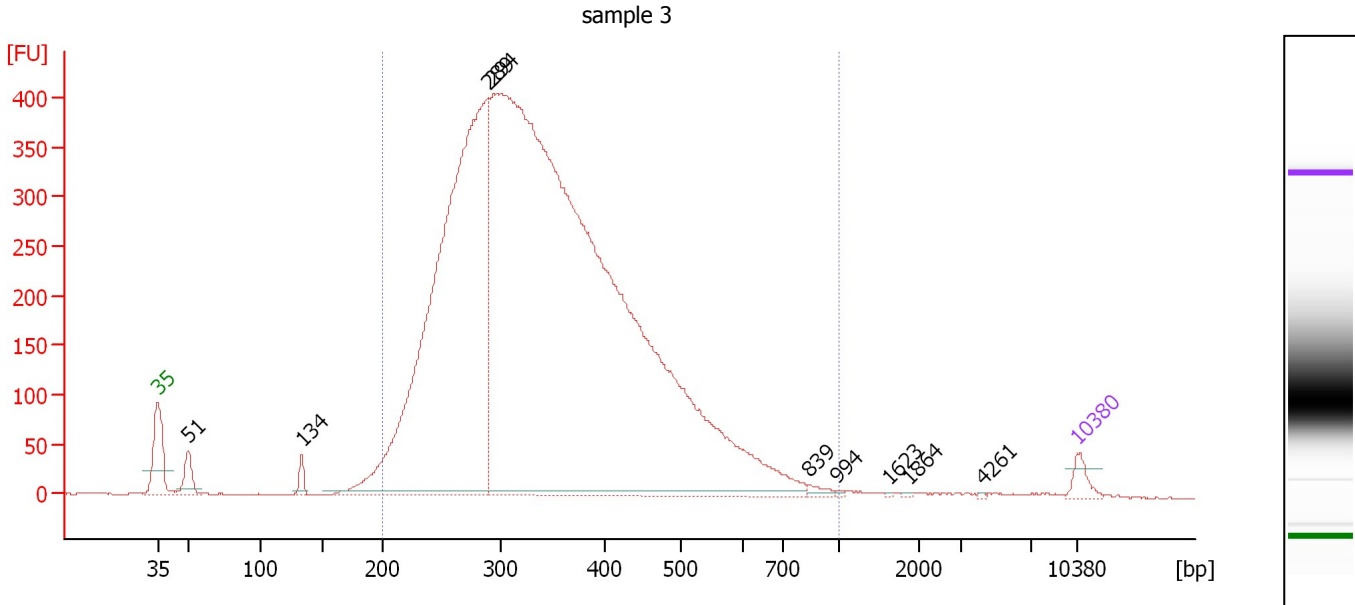
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	343	8,521.1	86,003.5	17,753.51	94	28.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 9 Corr. Area 1: 9,141.1
 Noise: 0.4

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	51	210.36	6,305.2		45.34
3	134	87.50	990.4		53.98
4	289	6,618.50	34,667.3		68.16
5	294	15,420.30	79,537.5		68.57
6	839	40.93	73.9		92.61
7	994	8.88	13.5		94.77
8	1,623	5.12	4.8		98.68
9	1,864	7.53	6.1		100.17
10	4,261	4.79	1.7		105.80
11	10,380	75.00	10.9	Upper Marker	113.00

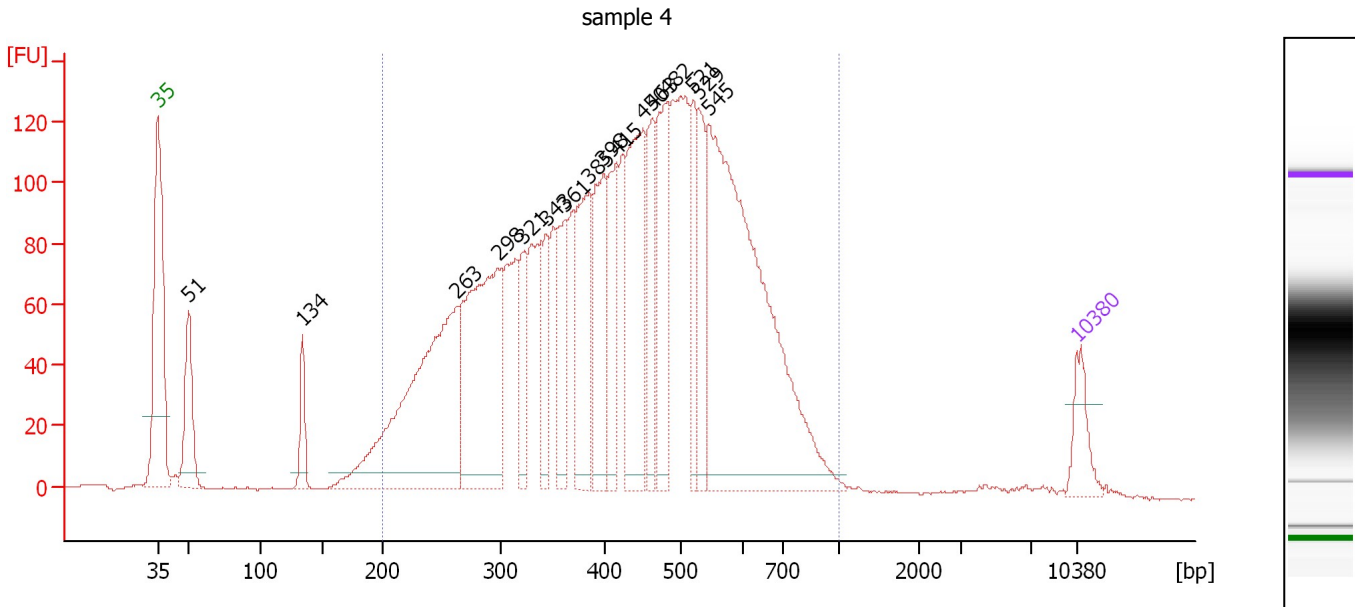
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	353	9,141.1	93,748.6	19,922.55	97	28.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 16 Corr. Area 1: 3,619.7
 Noise: 0.3

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	51	254.67	7,626.7		45.35
3	134	105.44	1,188.4		54.04
4	263	959.14	5,531.4		65.77
5	298	726.18	3,694.1		68.94
6	321	144.63	683.2		70.78
7	343	146.44	646.2		72.57
8	361	171.19	719.1		73.95
9	385	318.01	1,251.3		75.88
10	398	291.97	1,112.1		76.90
11	415	198.65	725.8		77.91
12	450	436.87	1,470.3		79.93
13	463	206.34	675.1		80.67
14	482	309.87	974.8		81.73
15	521	176.15	512.6		83.75
16	529	194.26	555.9		84.16
17	545	1,328.56	3,693.5		84.90
18	10,380	75.00	10.9	Upper Marker	113.00

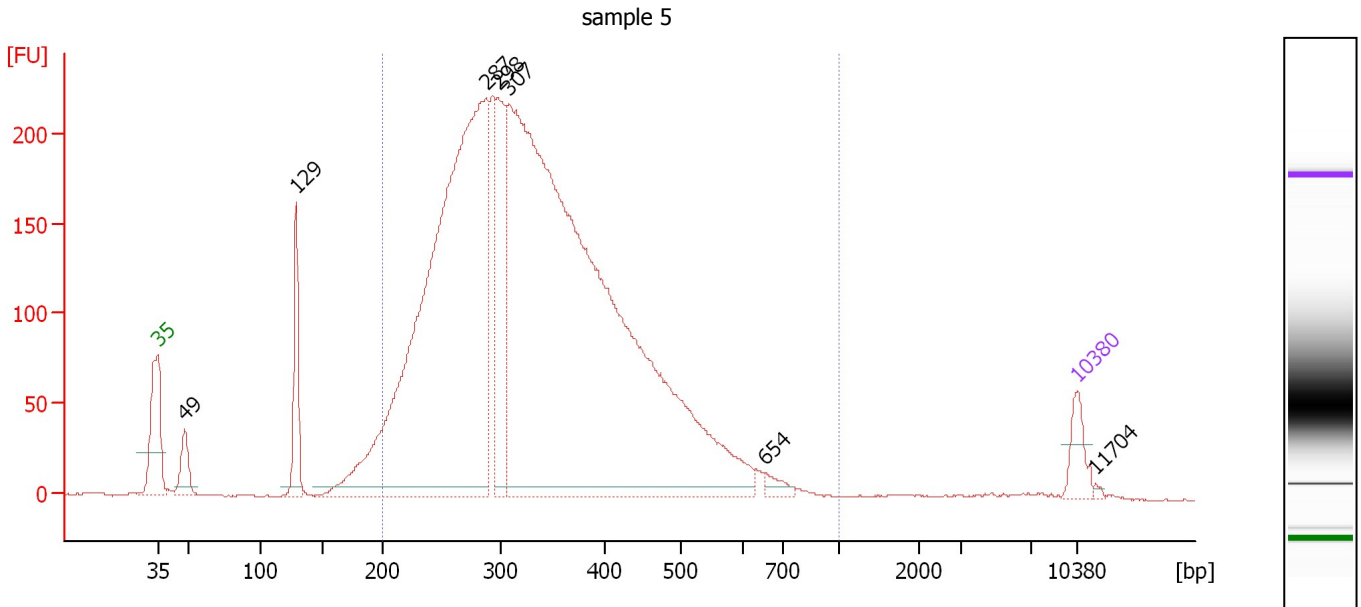
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	441	3,619.7	28,596.3	7,179.40	94	30.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 7 Corr. Area 1: 4,929.7
 Noise: 0.4

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	49	144.13	4,496.9		45.06
3	129	292.62	3,433.1		53.54
4	287	3,432.34	18,110.5		67.97
5	298	487.99	2,485.1		68.91
6	307	5,238.55	25,835.7		69.71
7	654	34.80	80.7		89.20
8	10,380	75.00	10.9	Upper Marker	113.00
9	11,704	0.00	0.0		114.41

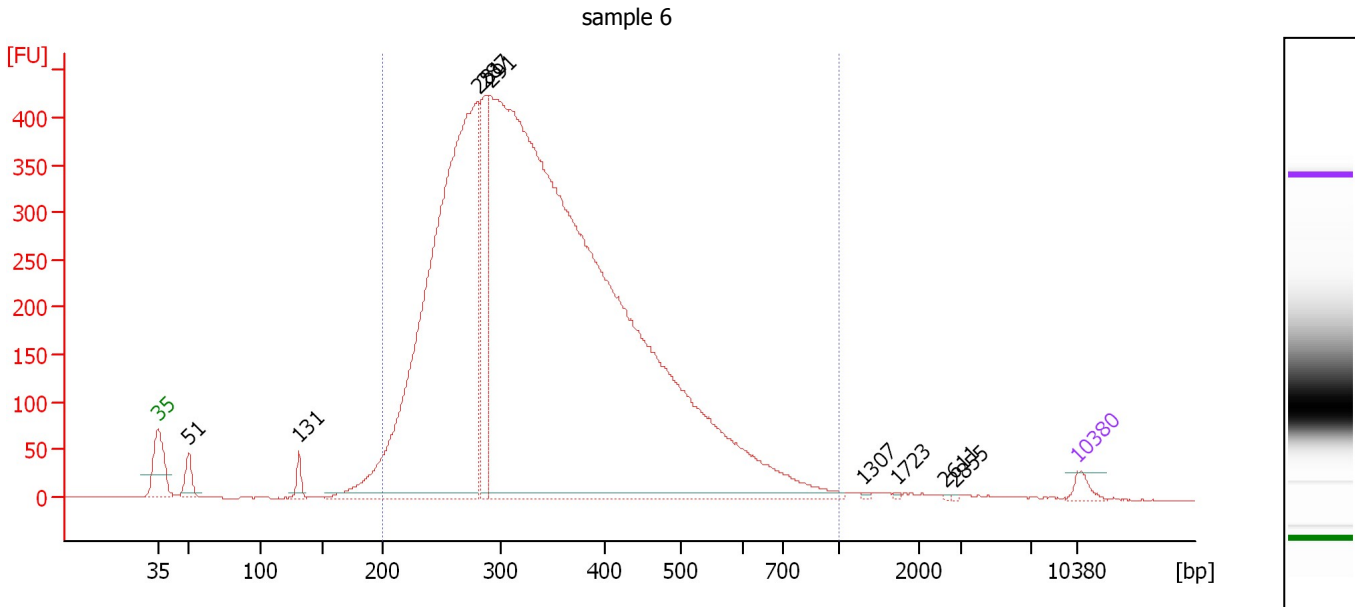
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	341	4,929.7	42,858.8	8,864.77	94	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 9 Corr. Area 1: 9,633.4
 Noise: 0.3

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	51	268.97	8,008.8		45.38
3	131	153.03	1,765.5		53.75
4	281	9,318.17	50,286.8		67.40
5	287	1,289.62	6,806.5		67.97
6	291	22,259.71	115,996.0		68.30
7	1,307	14.14	16.4		96.74
8	1,723	8.80	7.7		99.30
9	2,611	7.14	4.1		102.92
10	2,855	6.77	3.6		103.68
11	10,380	75.00	10.9	Upper Marker	113.00

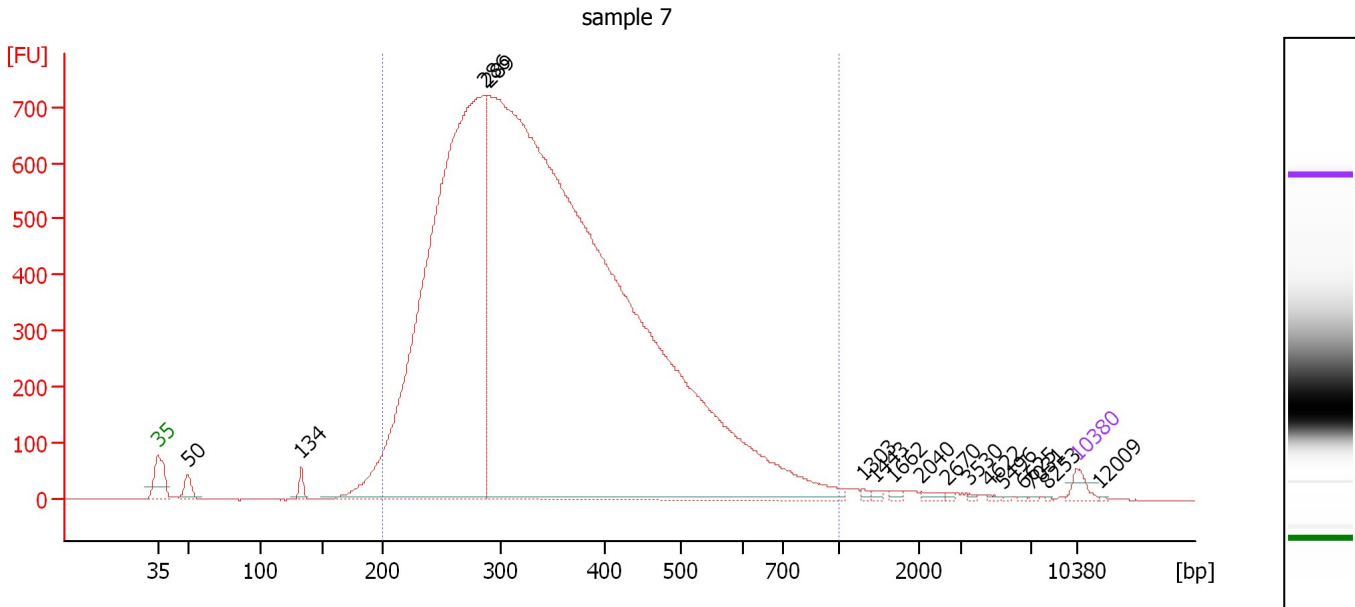
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	351	9,633.4	141,240.6	29,684.53	97	29.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 16 Corr. Area 1: 17,262.3
 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	50	173.94	5,245.9		45.31
3	134	104.71	1,188.0		53.95
4	286	10,944.52	57,941.3		67.89
5	289	24,583.87	128,714.3		68.18
6	1,303	19.88	23.1		96.71
7	1,443	19.65	20.6		97.58
8	1,662	25.21	23.0		98.92
9	2,040	33.02	24.5		101.13
10	2,670	10.77	6.1		103.10
11	3,530	9.43	4.0		104.83
12	4,622	10.14	3.3		106.27
13	5,496	5.55	1.5		107.43
14	6,625	6.17	1.4		108.92
15	7,031	5.04	1.1		109.44
16	8,253	4.11	0.8		110.74
17	10,380	75.00	10.9	Upper Marker	113.00
18	12,009	0.00	0.0		114.73

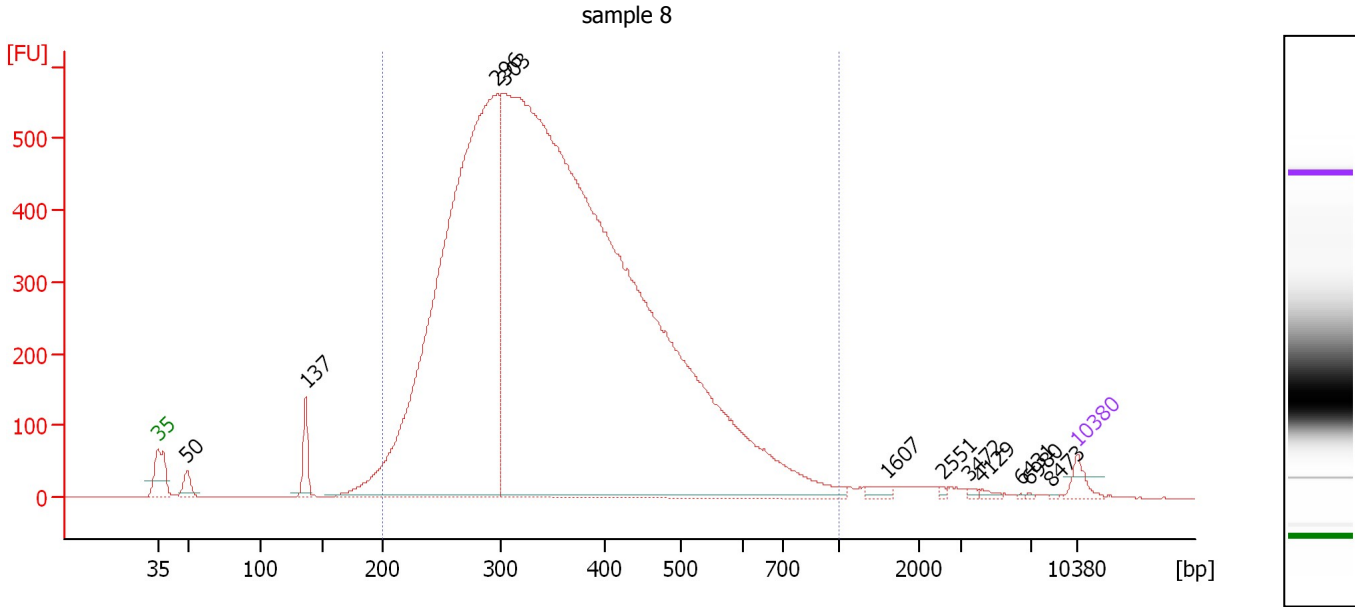
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	355	17,262.2	150,811.9	31,794.63	97	30.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 11 Corr. Area 1: 13,357.2
 Noise: 0.3

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	50	145.32	4,440.1		45.22
3	137	244.78	2,706.6		54.28
4	296	8,431.14	43,125.4		68.79
5	303	17,990.32	89,966.1		69.37
6	1,607	44.24	41.7		98.59
7	2,551	11.34	6.7		102.73
8	3,472	13.73	6.0		104.76
9	4,129	18.17	6.7		105.62
10	6,431	4.34	1.0		108.66
11	6,980	4.87	1.1		109.38
12	8,473	3.74	0.7		110.98
13	10,380	75.00	10.9	Upper Marker	113.00

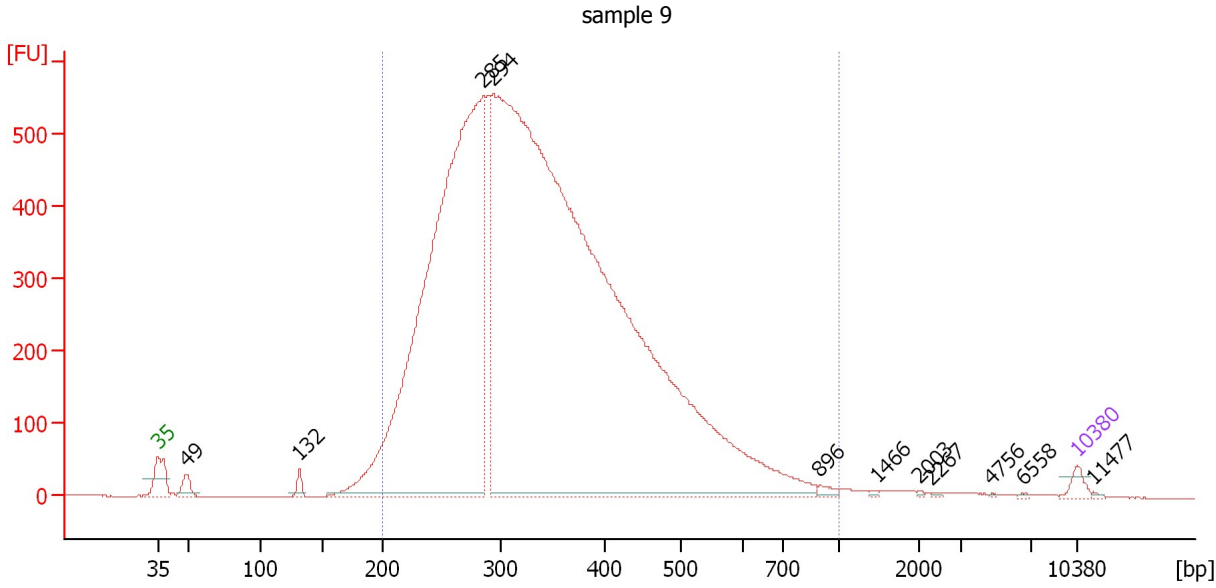
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	365	13,357.2	109,715.2	23,896.35	96	29.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
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Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 11 Corr. Area 1: 12,614.7
 Noise: 0.3

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	49	169.55	5,204.2		45.18
3	132	94.20	1,084.9		53.77
4	285	10,975.93	58,328.9		67.79
5	294	22,862.10	117,941.4		68.56
6	896	50.98	86.2		93.40
7	1,466	14.14	14.6		97.72
8	2,003	8.89	6.7		101.02
9	2,267	12.24	8.2		101.84
10	4,756	5.63	1.8		106.45
11	6,558	8.23	1.9		108.83
12	10,380	75.00	10.9	Upper Marker	113.00
13	11,477	0.00	0.0		114.16

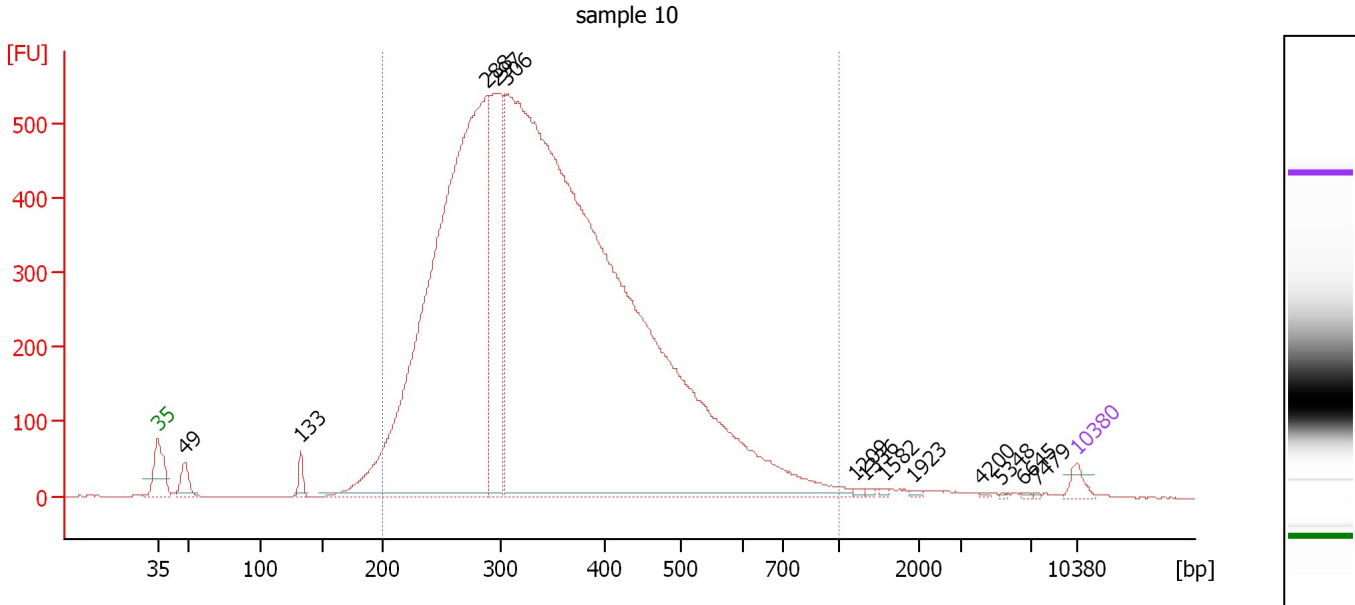
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	348	12,614.7	150,694.2	31,475.99	97	29.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 13 Corr. Area 1: 12,615.1
 Noise: 0.5

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	49	226.79	7,083.9		45.05
3	133	131.18	1,494.8		53.90
4	288	9,725.99	51,210.6		68.03
5	297	1,957.50	9,987.7		68.86
6	306	19,387.77	96,069.0		69.59
7	1,209	16.91	21.2		96.14
8	1,336	15.44	17.5		96.92
9	1,582	15.32	14.7		98.43
10	1,923	16.14	12.7		100.53
11	4,200	8.11	2.9		105.72
12	5,348	5.28	1.5		107.23
13	6,645	8.00	1.8		108.94
14	7,479	6.07	1.2		109.92
15	10,380	75.00	10.9	Upper Marker	113.00

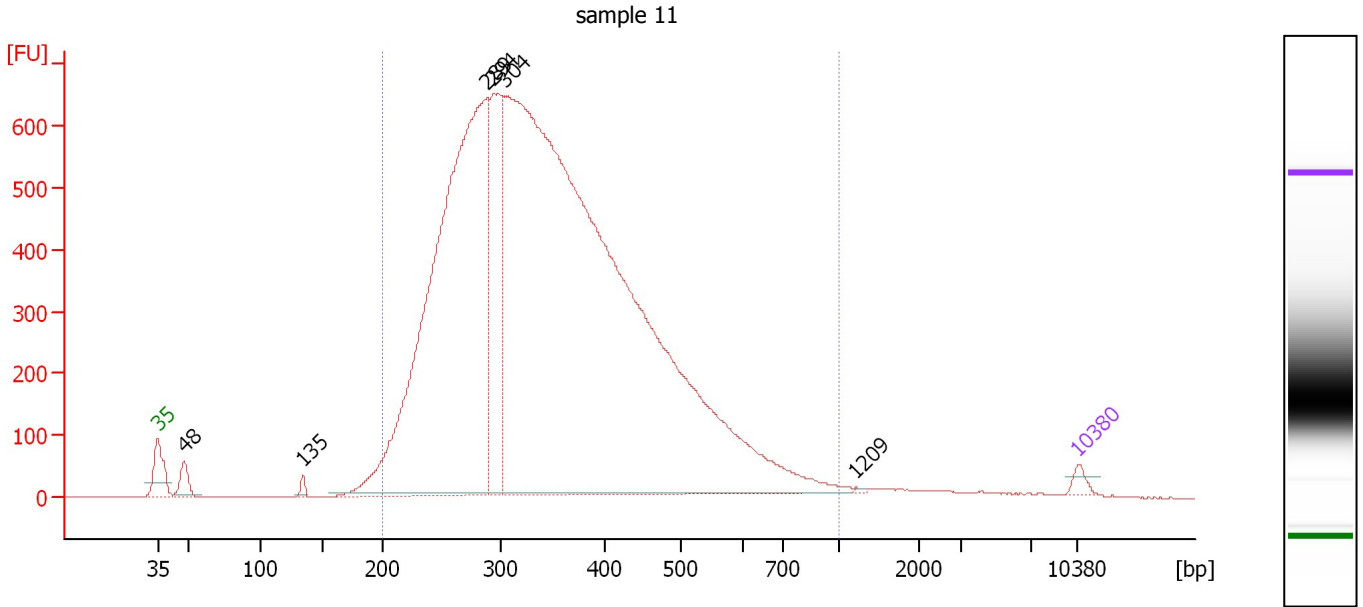
Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	355	12,615.1	134,959.7	28,669.53	97	29.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 6 Corr. Area 1: 15,237.4
 Noise: 0.4

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	48	312.57	9,854.9		44.98
3	135	80.84	909.3		54.06
4	289	11,589.00	60,844.9		68.10
5	294	2,561.74	13,223.3		68.55
6	304	24,258.02	120,948.9		69.44
7	1,209	13.25	16.6		96.13
8	10,380	75.00	10.9	Upper Marker	113.00

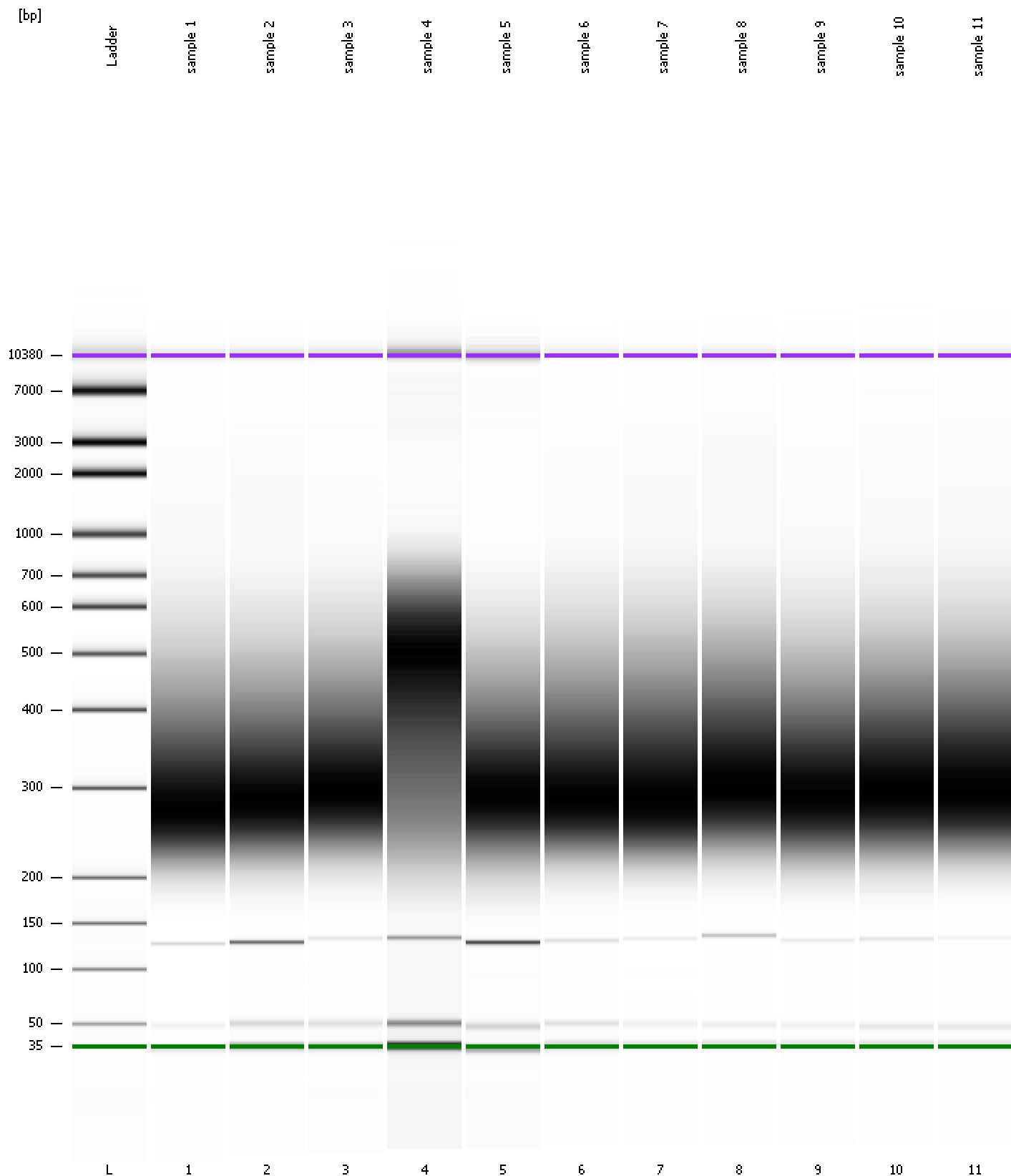
Region table for sample 11 : sample 11

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	358	15,237.4	166,085.4	35,533.45	97	30.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
Modified: 3/14/2017 11:10:24 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad

Created: 3/14/2017 10:29:07 AM
 Modified: 3/14/2017 11:10:24 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		3/14/2017 11:10:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2017-03-14\2017-03-14_001.xad)		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/14/2017 10:29:12 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1