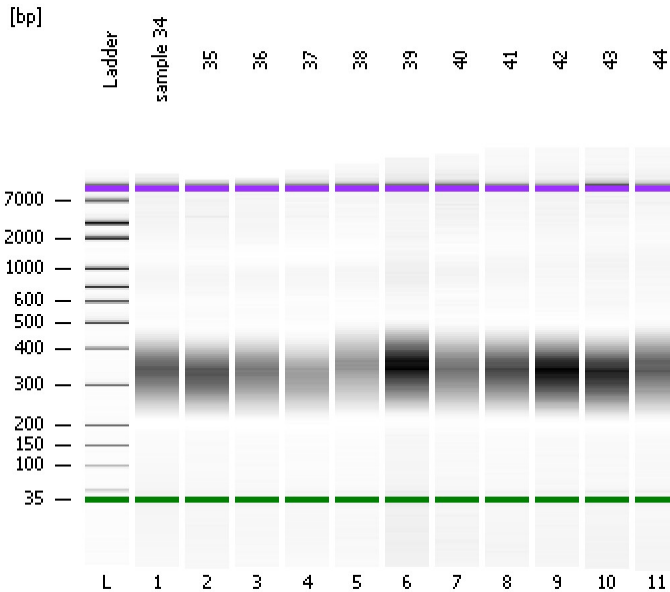


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
Modified: 3/16/2016 10:33:30 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

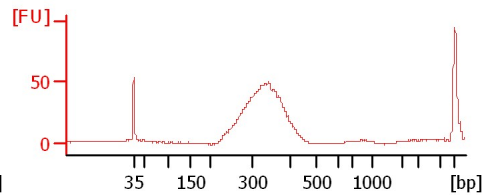
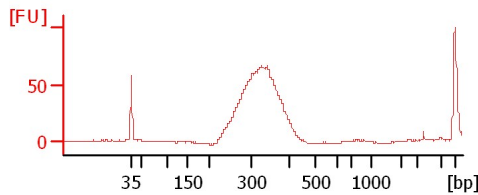
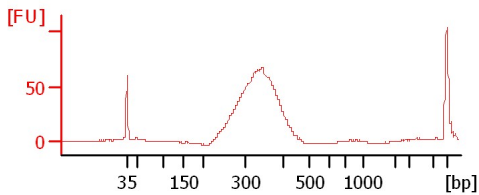
Chip Information:

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

sample 34

35

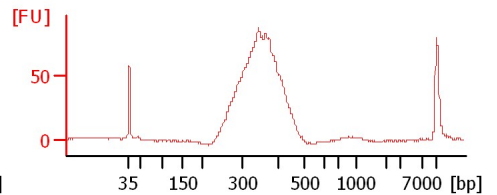
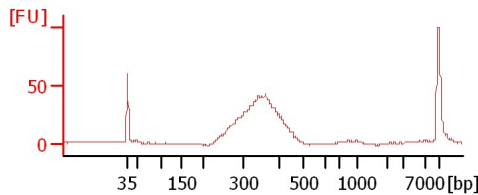
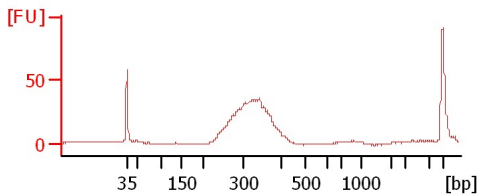
36



37

38

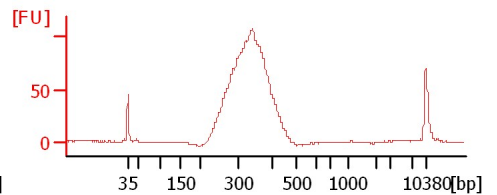
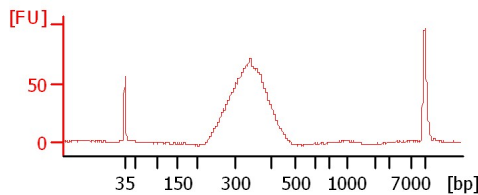
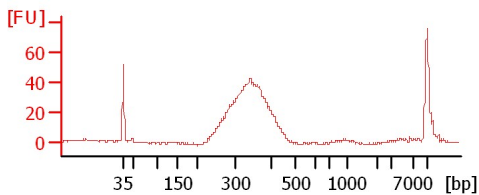
39



40

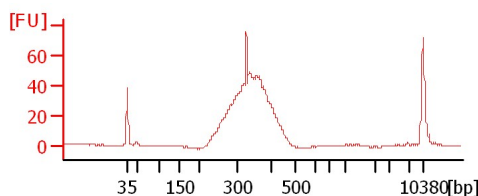
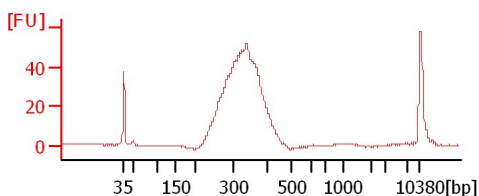
41

42



43

44



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 34		<input type="checkbox"/>	✓			
35		<input type="checkbox"/>	✓			
36		<input type="checkbox"/>	✓			
37		<input type="checkbox"/>	✓			
38		<input type="checkbox"/>	✓			
39		<input type="checkbox"/>	✓			
40		<input type="checkbox"/>	✓			
41		<input type="checkbox"/>	✓			
42		<input type="checkbox"/>	✓			
43		<input type="checkbox"/>	✓			
44		<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\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
Modified: 3/16/2016 10:33:30 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

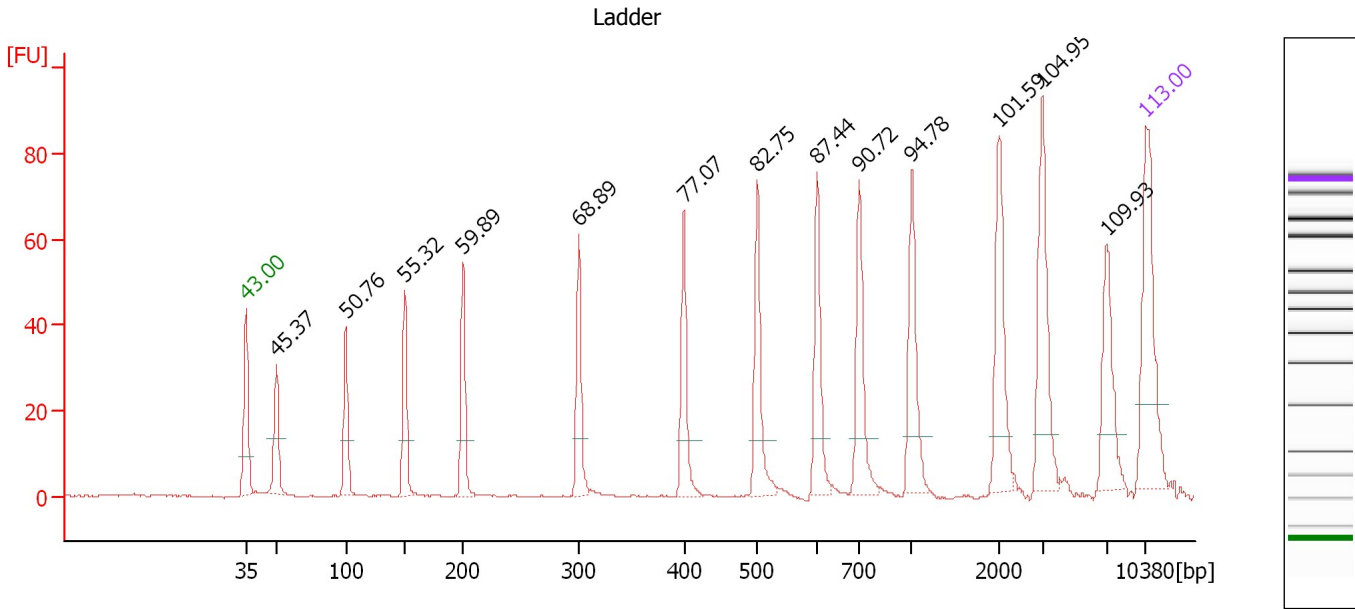
Ladder

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\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

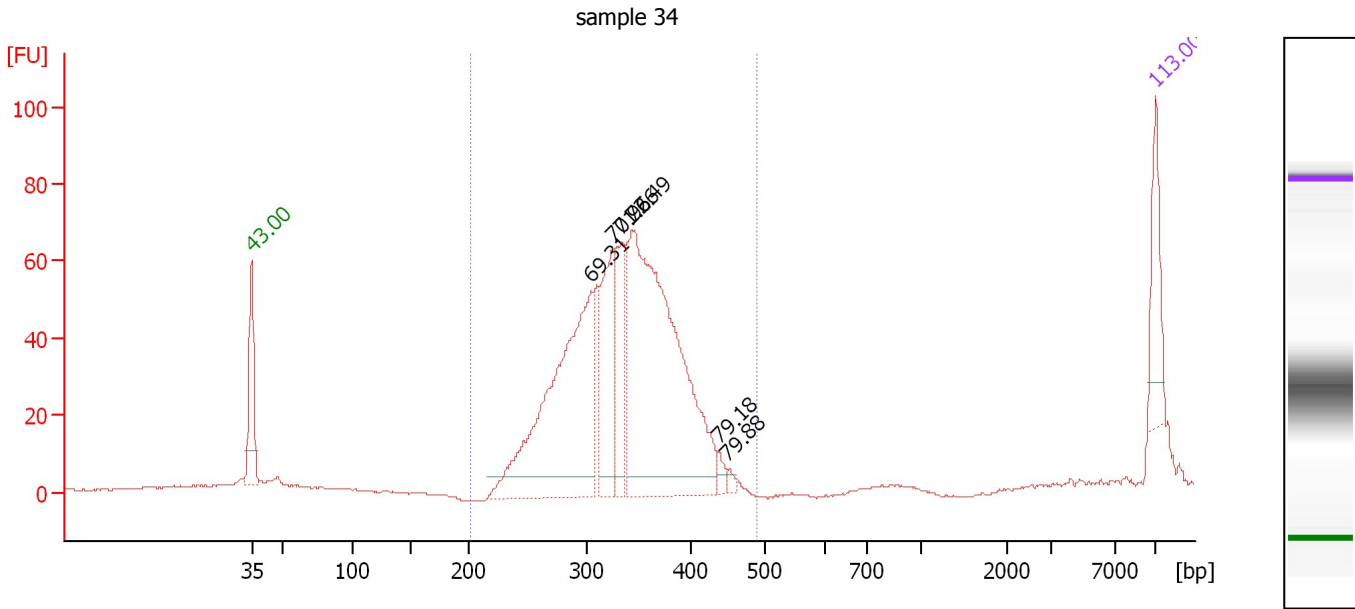
Peak table for Ladder

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	45.37
3	100	150.00	2,272.7	Ladder Peak	50.76
4	150	150.00	1,515.2	Ladder Peak	55.32
5	200	150.00	1,136.4	Ladder Peak	59.89
6	300	150.00	757.6	Ladder Peak	68.89
7	400	150.00	568.2	Ladder Peak	77.07
8	500	150.00	454.5	Ladder Peak	82.75
9	600	150.00	378.8	Ladder Peak	87.44
10	700	150.00	324.7	Ladder Peak	90.72
11	1,000	150.00	227.3	Ladder Peak	94.78
12	2,000	150.00	113.6	Ladder Peak	101.59
13	3,000	150.00	75.8	Ladder Peak	104.95
14	7,000	150.00	32.5	Ladder Peak	109.93
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 34

Number of peaks found: 6 Corr. Area 1: 890.1
 Noise: 0.2

Peak table for sample 1 : sample 34

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	305	627.17	3,114.9		69.31
3	325	203.04	945.8		70.96
4	334	154.63	701.7		71.66
5	344	855.69	3,769.2		72.49
6	437	16.54	57.3		79.18
7	449	9.17	30.9		79.88
8	10,380	75.00	10.9	Upper Marker	113.00

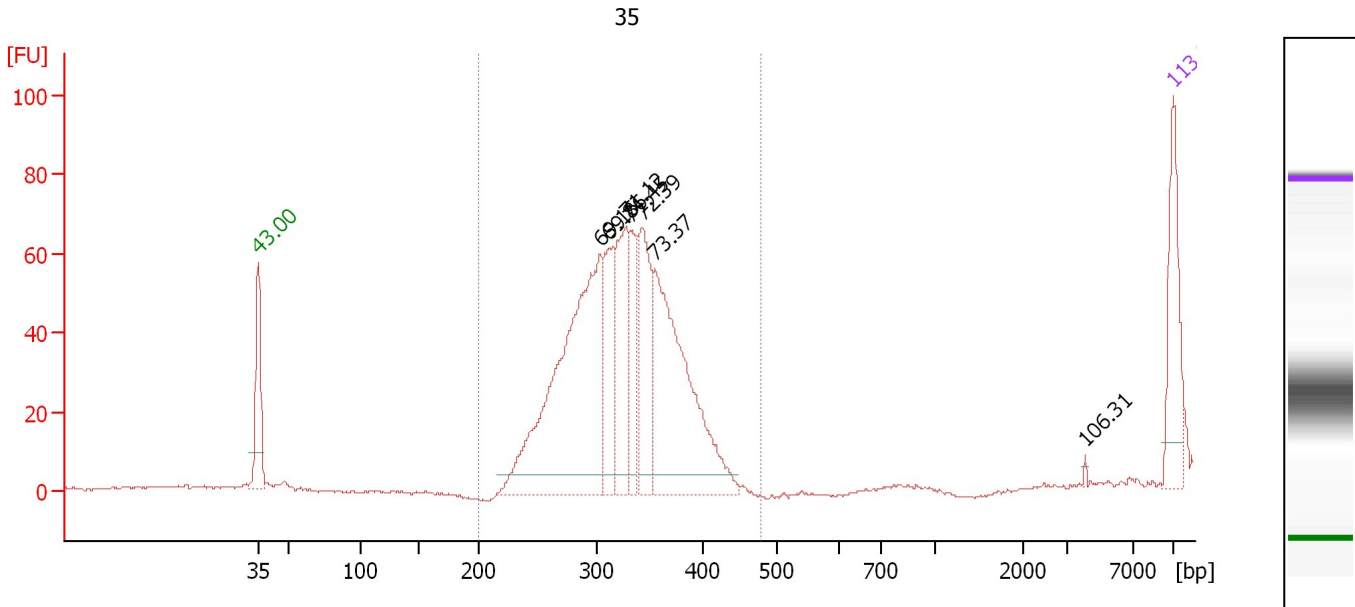
Region table for sample 1 : sample 34

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
201	491	334	890.1	8,319.9	1,793.56	95	13.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 35

Number of peaks found: 7 Corr. Area 1: 944.9
 Noise: 0.3

Peak table for sample 2 : 35

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	521.81	2,606.6		69.16
3	312	110.73	538.1		69.86
4	327	157.98	731.4		71.12
5	331	79.13	361.9		71.45
6	343	141.28	624.5		72.39
7	355	348.30	1,487.6		73.37
8	4,089	1.92	0.7		106.31
9	10,380	75.00	10.9	Upper Marker	113.00

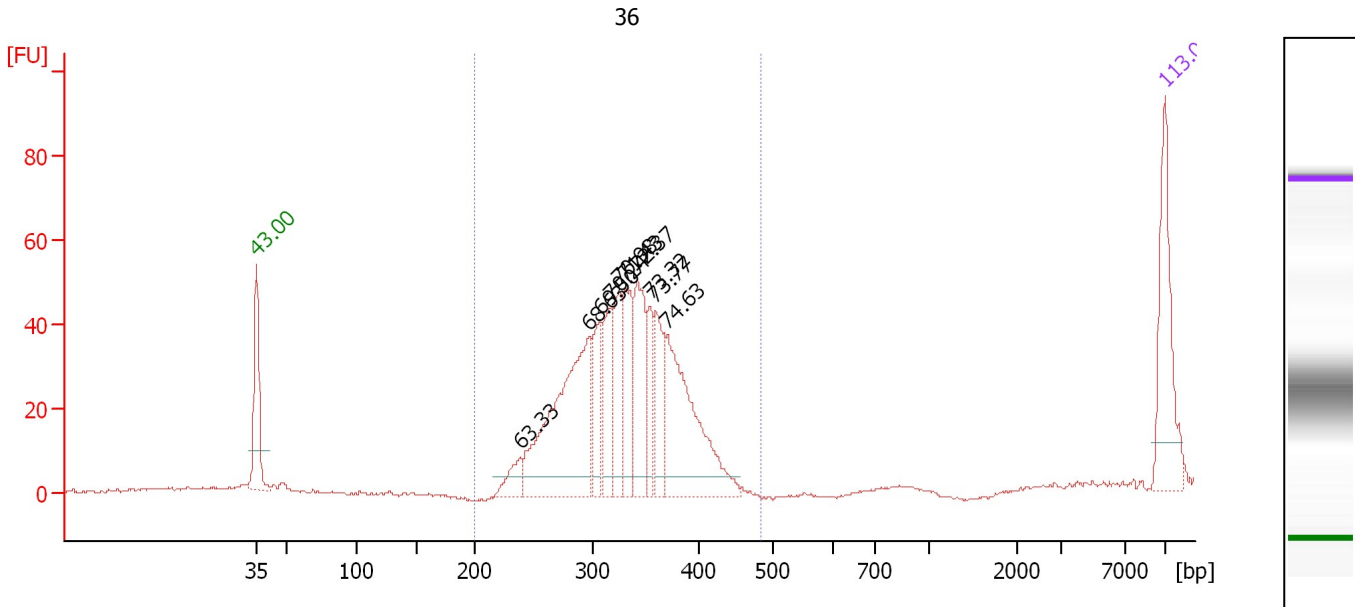
Region table for sample 2 : 35

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	476	325	944.9	6,673.1	1,396.09	100	13.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 36

Number of peaks found: 10 Corr. Area 1: 622.9
 Noise: 0.2

Peak table for sample 3 : 36

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	238	29.79	189.4		63.33
3	297	257.84	1,314.8		68.63
4	307	57.87	285.2		69.50
5	316	68.54	328.2		70.24
6	325	65.36	304.3		70.98
7	331	77.69	355.6		71.43
8	343	94.26	416.9		72.37
9	354	43.59	186.5		73.32
10	360	61.79	260.3		73.77
11	370	182.13	745.4		74.63
12	10,380	75.00	10.9	Upper Marker	113.00

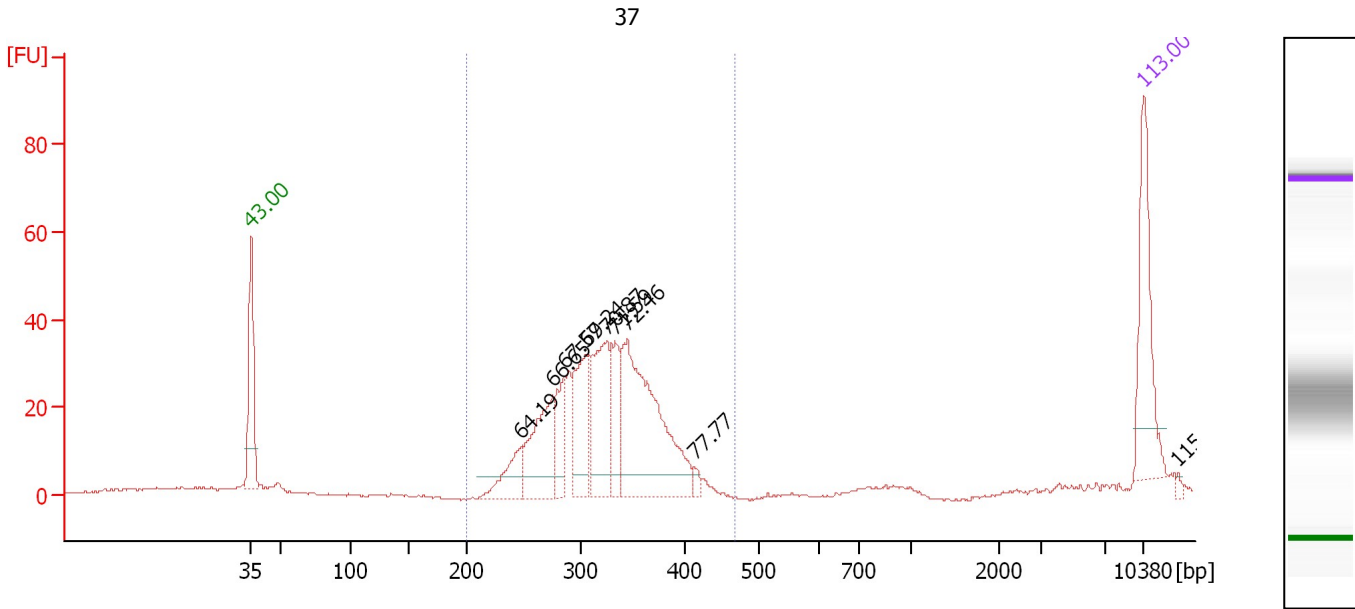
Region table for sample 3 : 36

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	484	329	622.9	4,005.1	851.10	99	13.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 37

Number of peaks found: 9 Corr. Area 1: 462.2
 Noise: 0.3

Peak table for sample 4 : 37

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	248	46.34	283.4		64.19
3	275	98.95	544.9		66.65
4	285	51.38	272.8		67.57
5	304	84.74	421.9		69.24
6	324	109.52	511.8		70.87
7	333	50.52	229.9		71.59
8	344	235.14	1,036.6		72.46
9	412	6.58	24.2		77.77
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,232	0.00	0.0		115.59

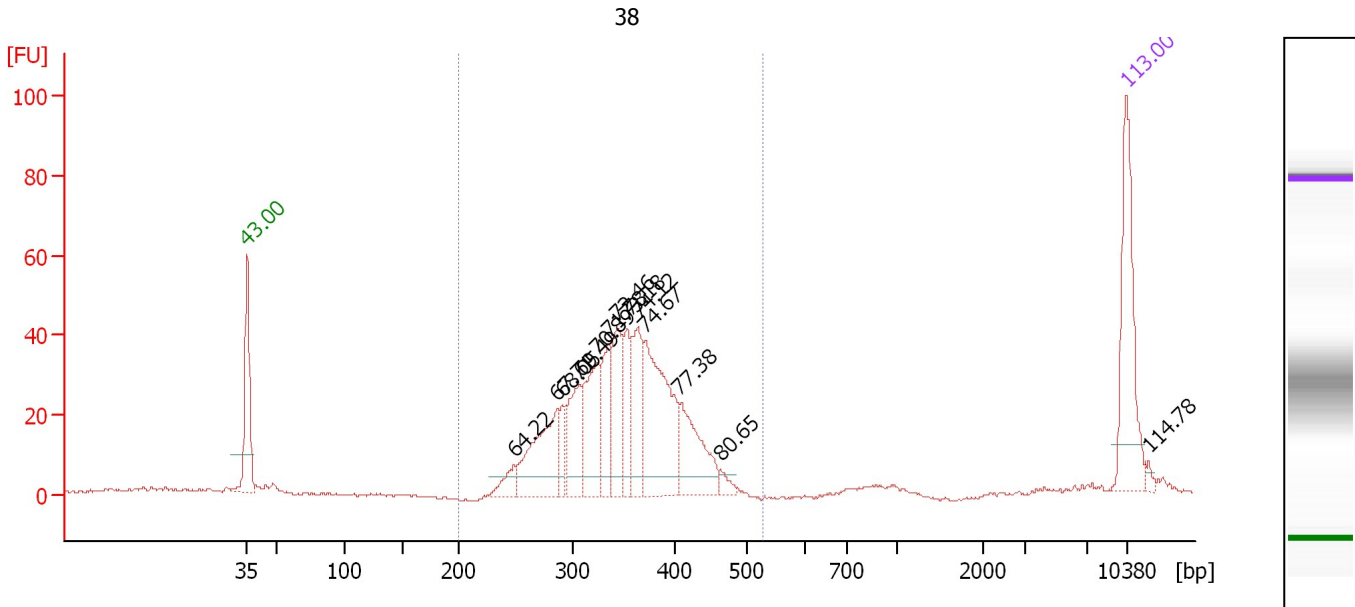
Region table for sample 4 : 37

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	468	320	462.2	3,267.8	675.98	93	13.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 38

Number of peaks found: 13 Corr. Area 1: 564.6
 Noise: 0.4

Peak table for sample 5 : 38

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	248	20.64	126.0		64.22
3	287	94.81	500.8		67.71
4	291	23.66	123.4		68.05
5	307	62.51	308.2		69.49
6	324	73.84	344.8		70.89
7	335	52.09	235.4		71.78
8	344	60.43	266.4		72.46
9	352	45.50	195.6		73.18
10	364	58.08	241.8		74.12
11	371	134.51	549.8		74.67
12	406	70.16	262.1		77.38
13	463	8.29	27.1		80.65
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,343	0.00	0.0		114.78

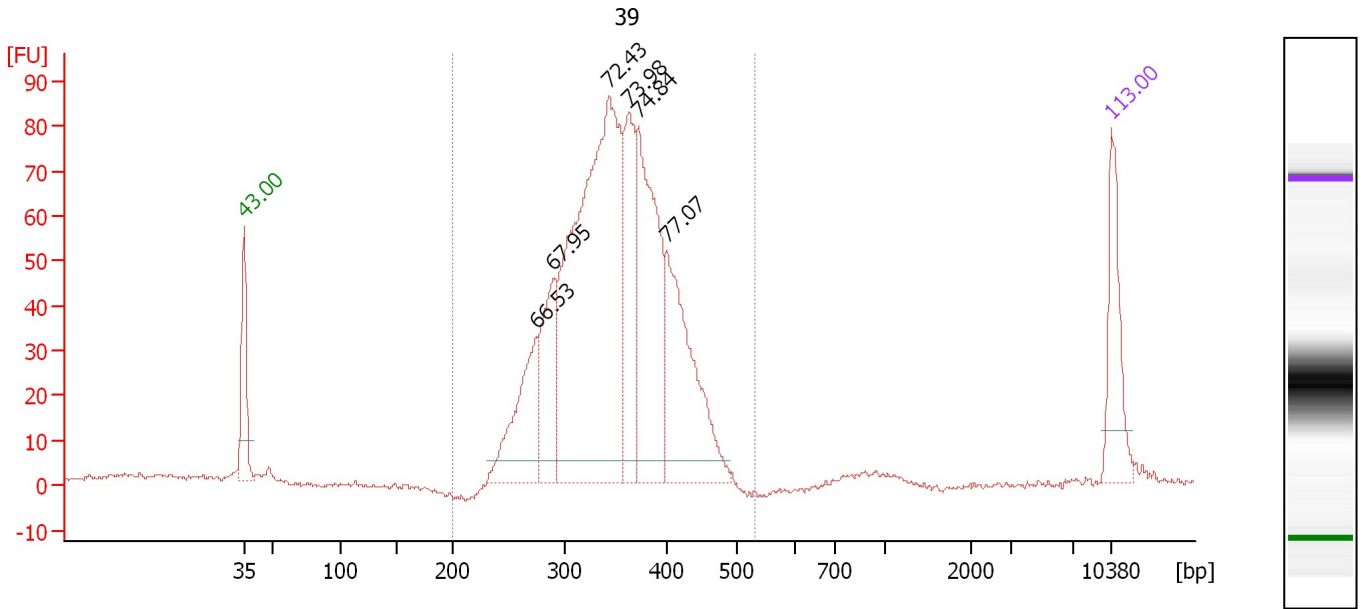
Region table for sample 5 : 38

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	529	347	564.6	3,031.6	676.25	94	14.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 39

Number of peaks found: 6 Corr. Area 1: 1,174.1
 Noise: 0.6

Peak table for sample 6 : 39

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	274	165.47	915.7		66.53
3	290	148.42	776.5		67.95
4	343	764.23	3,373.3		72.43
5	362	176.29	737.4		73.98
6	373	297.08	1,207.6		74.84
7	400	251.08	950.7		77.07
8	10,380	75.00	10.9	Upper Marker	113.00

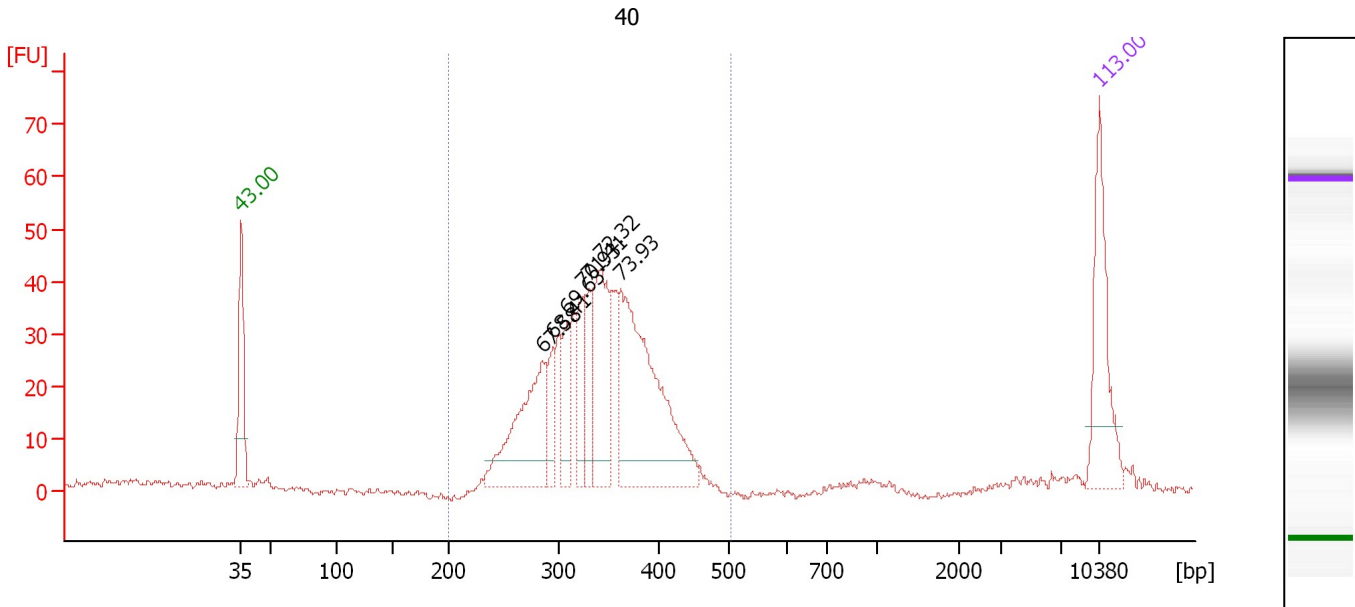
Region table for sample 6 : 39

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	530	349	1,174.1	8,018.8	1,796.71	98	14.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 40

Number of peaks found: 7 Corr. Area 1: 572.0
 Noise: 0.6

Peak table for sample 7 : 40

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	285	154.64	820.9		67.58
3	295	35.48	182.5		68.41
4	309	46.75	229.2		69.63
5	325	55.64	259.4		70.93
6	331	44.41	203.4		71.41
7	342	115.96	513.8		72.32
8	362	261.78	1,096.7		73.93
9	10,380	75.00	10.9	Upper Marker	113.00

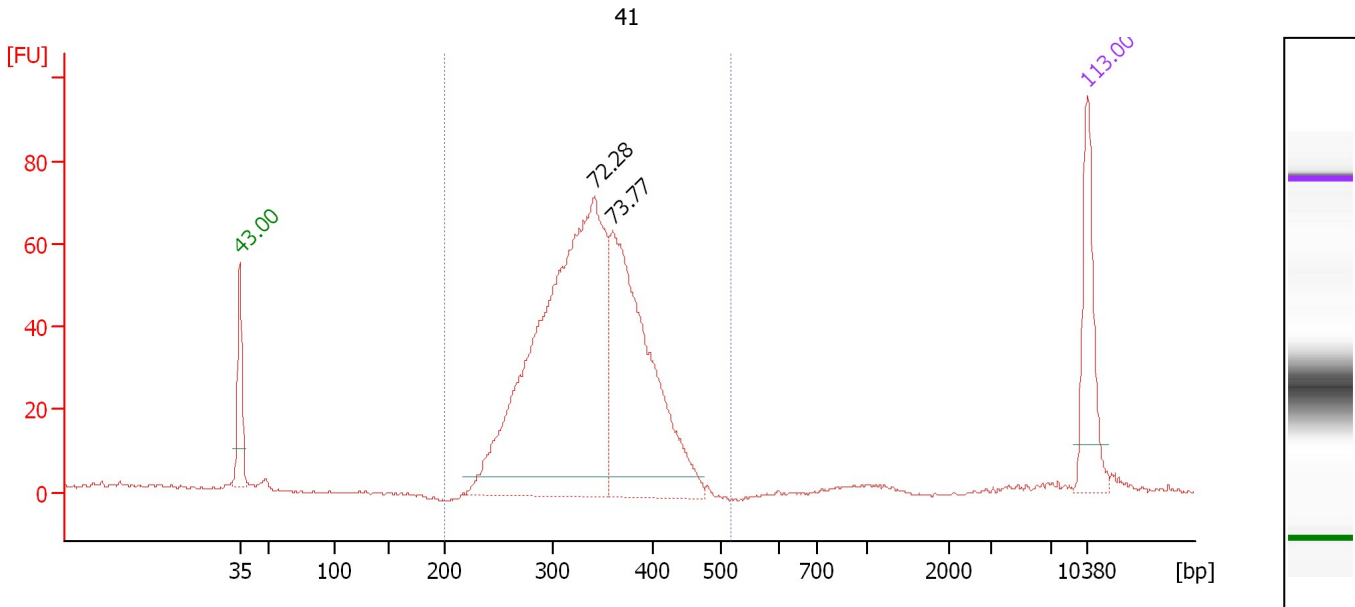
Region table for sample 7 : 40

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	505	339	572.0	3,889.8	847.69	91	14.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 41

Number of peaks found: 2 Corr. Area 1: 931.0
 Noise: 0.3

Peak table for sample 8 : 41

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	341	785.77	3,487.2		72.28
3	360	413.46	1,741.5		73.77
4	10,380	75.00	10.9	Upper Marker	113.00

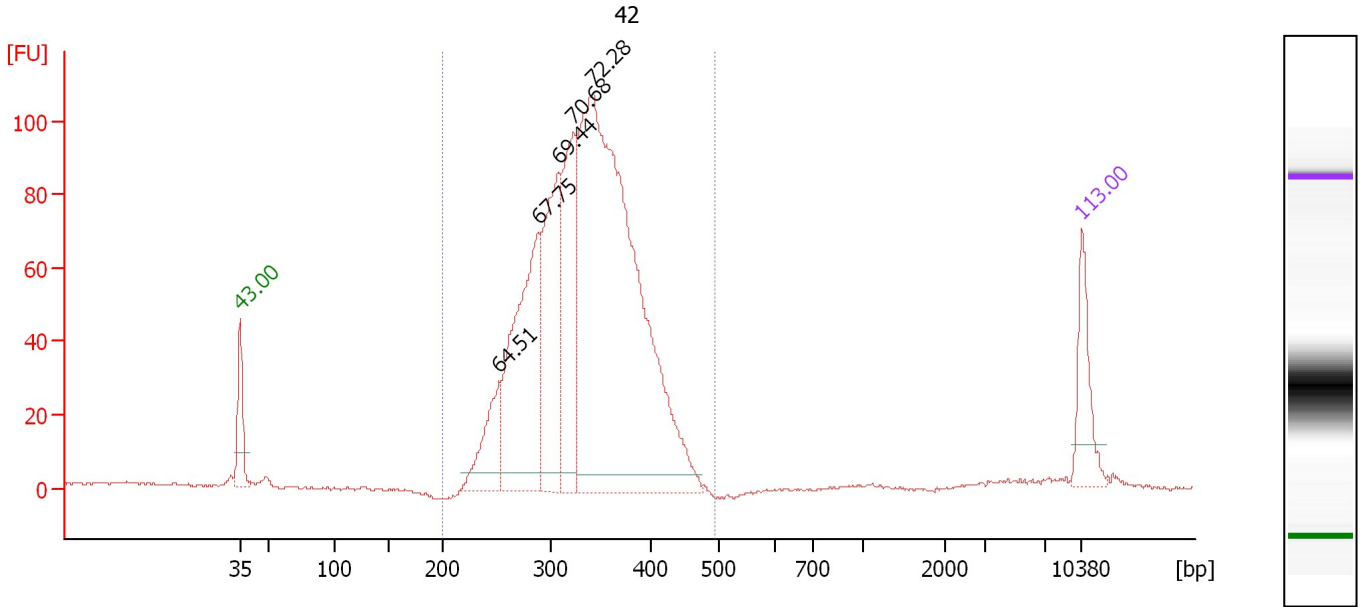
Region table for sample 8 : 41

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	518	337	931.0	5,405.3	1,173.78	97	13.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 42

Number of peaks found: 5 Corr. Area 1: 1,455.3
 Noise: 0.4

Peak table for sample 9 : 42

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	251	136.77	824.4		64.51
3	287	442.70	2,334.3		67.75
4	307	329.09	1,625.8		69.44
5	322	292.11	1,375.0		70.68
6	341	1,380.70	6,127.3		72.28
7	10,380	75.00	10.9	Upper Marker	113.00

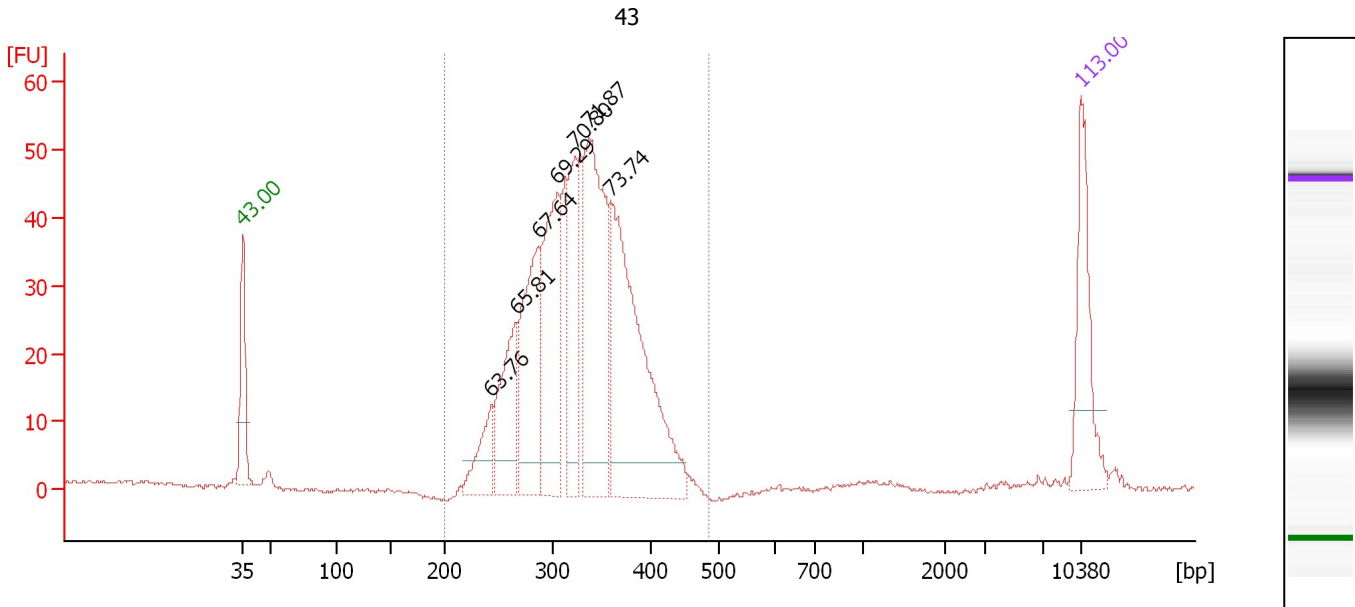
Region table for sample 9 : 42

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	496	333	1,455.3	11,574.6	2,477.83	98	14.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 43

Number of peaks found: 7 Corr. Area 1: 690.5
 Noise: 0.3

Peak table for sample 10 : 43

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	243	55.72	347.3		63.76
3	266	121.83	694.4		65.81
4	286	177.29	938.9		67.64
5	305	187.40	931.4		69.29
6	323	111.71	523.4		70.80
7	336	269.86	1,215.2		71.87
8	359	335.74	1,415.5		73.74
9	10,380	75.00	10.9	Upper Marker	113.00

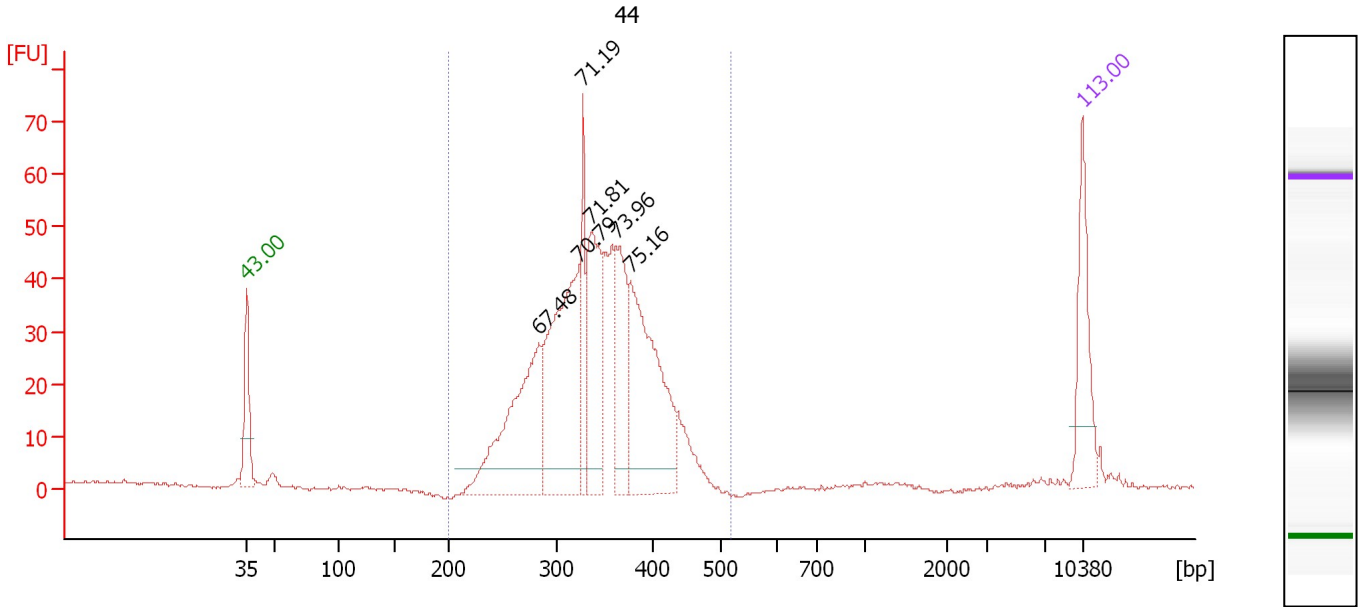
Region table for sample 10 : 43

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	486	327	690.5	6,336.2	1,332.86	98	13.9

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 44

Number of peaks found: 6 Corr. Area 1: 681.3
 Noise: 0.3

Peak table for sample 11 : 44

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	284	275.45	1,467.9		67.48
3	323	307.69	1,442.6		70.79
4	328	84.54	390.4		71.19
5	336	164.52	742.5		71.81
6	362	119.26	499.2		73.96
7	377	271.08	1,090.3		75.16
8	10,380	75.00	10.9	Upper Marker	113.00

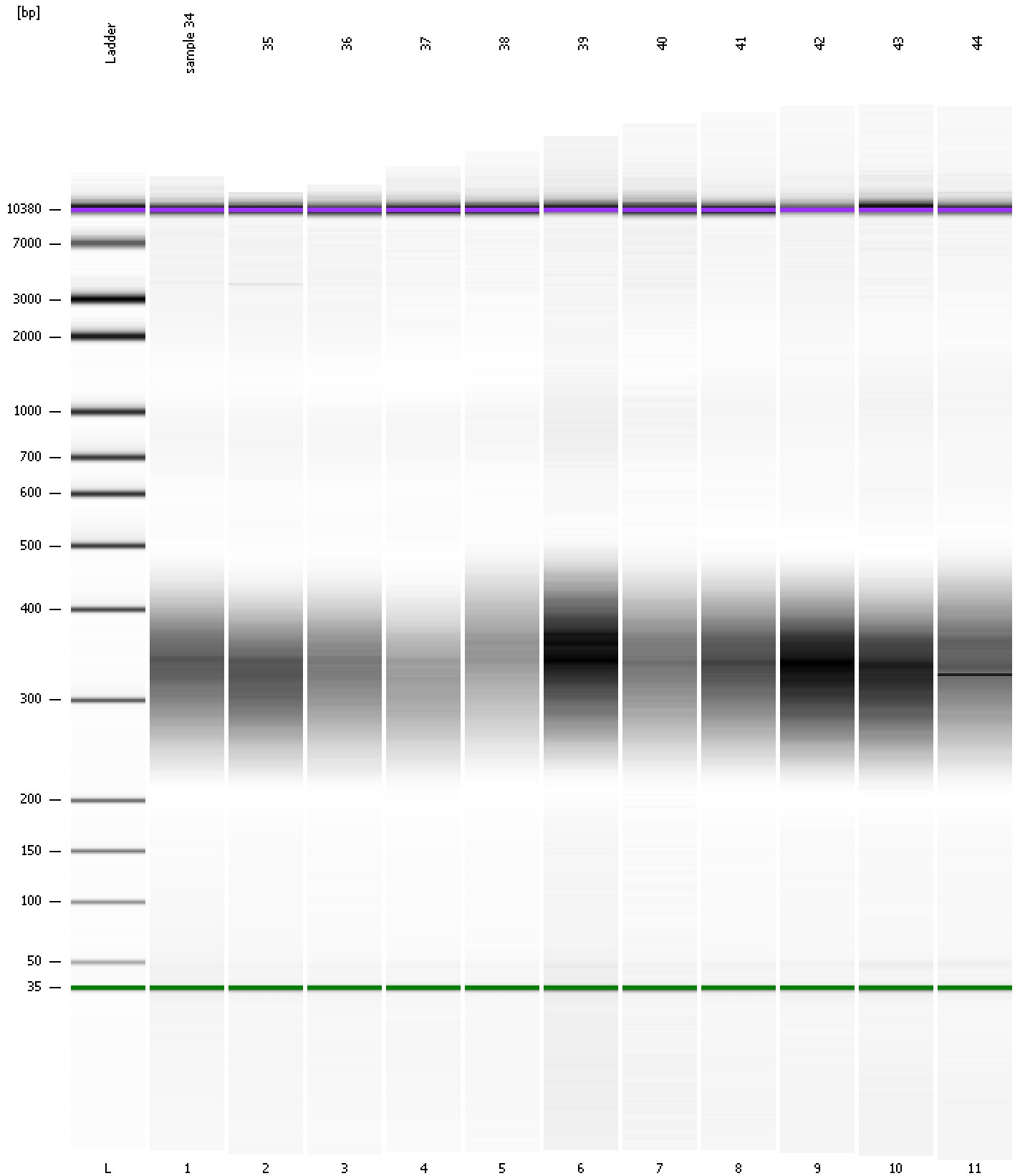
Region table for sample 11 : 44

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	519	341	681.3	5,984.8	1,308.89	98	14.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
Modified: 3/16/2016 10:33:30 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad

Created: 3/15/2016 4:10:04 PM
 Modified: 3/16/2016 10:33:30 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		3/15/2016 4:50:31 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-03-15\2016-03-15_005.xad)		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/15/2016 4:10:10 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1