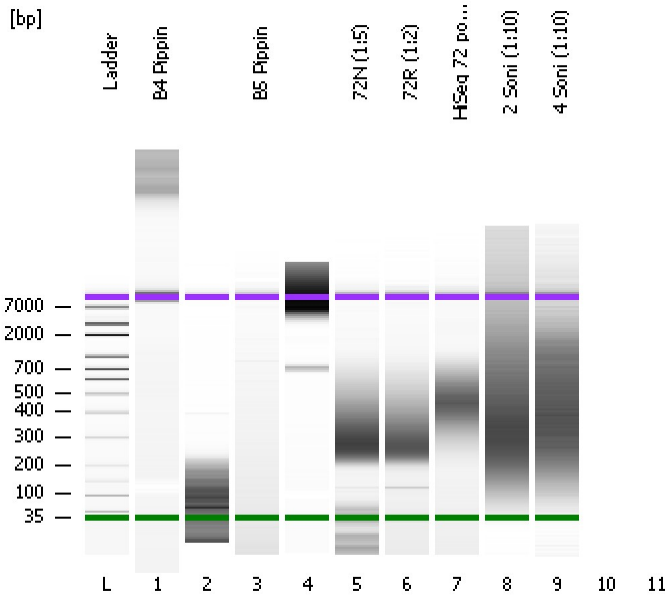


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 PM

Electrophoresis File Run Summary



Instrument Information:

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

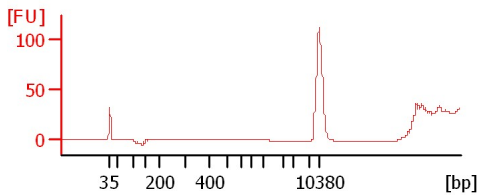
Assay Information:

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

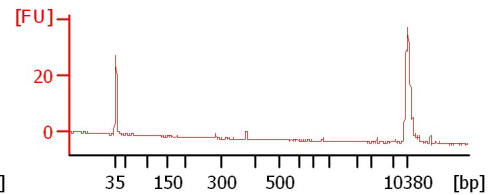
Chip Information:

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

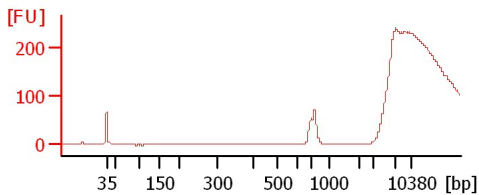
B4 Pippin



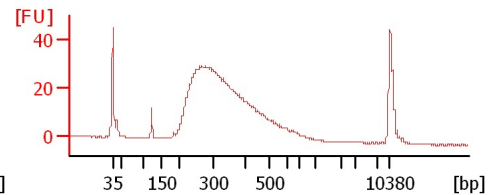
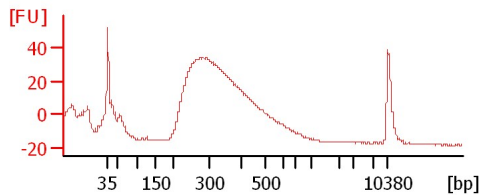
B5 Pippin



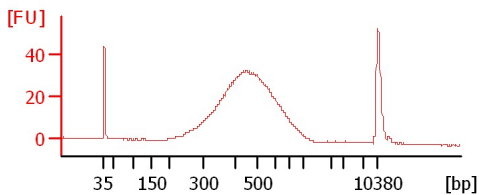
72N (1:5)



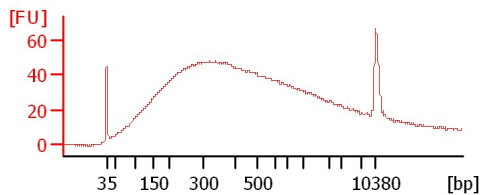
72R (1:2)



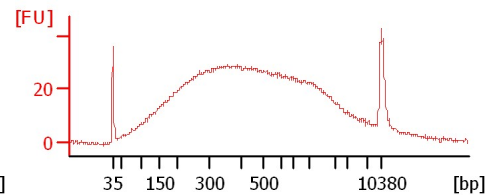
HiSeq 72 pool w/ 0.7x SS



2 Soni (1:10)



4 Soni (1:10)



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
B4 Pippin		<input type="checkbox"/>	✓			
B5 Pippin		<input type="checkbox"/>	✓			
72N (1:5)		<input type="checkbox"/>	✓			
72R (1:2)		<input type="checkbox"/>	✓			
HiSeq 72 pool w/ 0.7x SS		<input type="checkbox"/>	✓			
2 Soni (1:10)		<input type="checkbox"/>	✓			
4 Soni (1:10)		<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\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 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/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

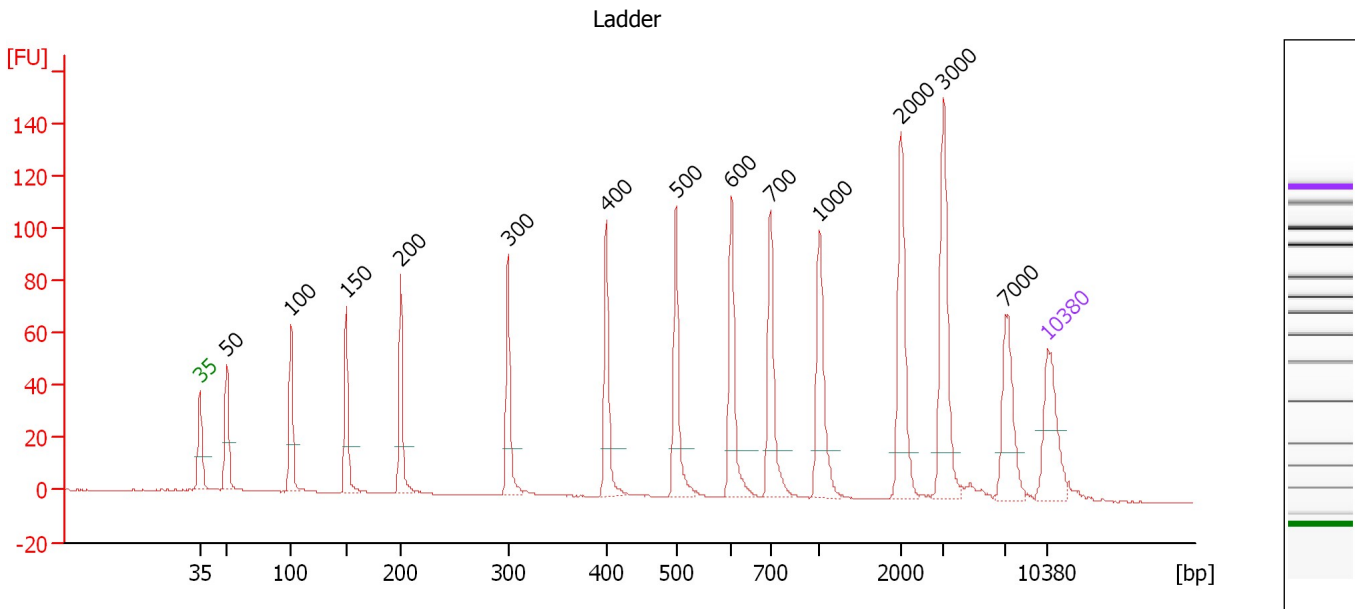
Ladder

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\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

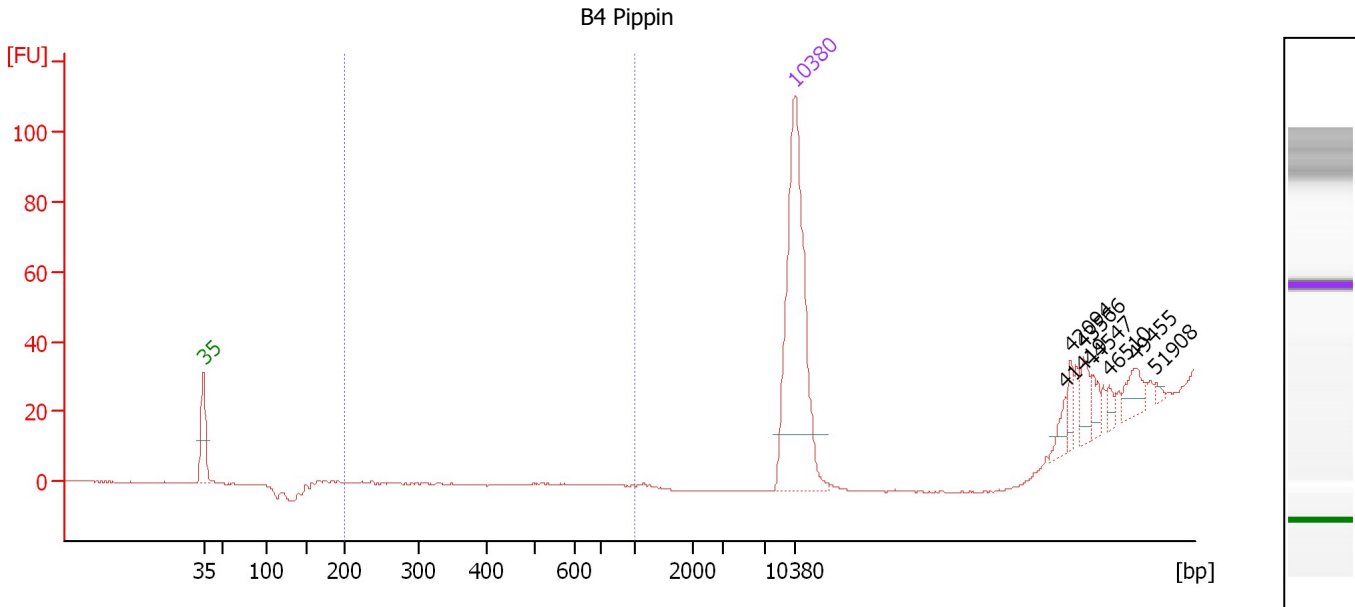
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.25
3	100	150.00	2,272.7	Ladder Peak	50.53
4	150	150.00	1,515.2	Ladder Peak	55.11
5	200	150.00	1,136.4	Ladder Peak	59.60
6	300	150.00	757.6	Ladder Peak	68.45
7	400	150.00	568.2	Ladder Peak	76.55
8	500	150.00	454.5	Ladder Peak	82.31
9	600	150.00	378.8	Ladder Peak	86.89
10	700	150.00	324.7	Ladder Peak	90.11
11	1,000	150.00	227.3	Ladder Peak	94.16
12	2,000	150.00	113.6	Ladder Peak	100.89
13	3,000	150.00	75.8	Ladder Peak	104.37
14	7,000	150.00	32.5	Ladder Peak	109.52
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : B4 Pippin

Number of peaks found: 7 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 1 : B4 Pippin

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	10,380	75.00	10.9	Upper Marker	113.00
3	41,419	0.00	0.0		144.94
4	42,094	0.00	0.0		145.63
5	43,566	0.00	0.0		147.15
6	44,547	0.00	0.0		148.16
7	46,510	0.00	0.0		150.18
8	49,455	0.00	0.0		153.21
9	51,908	0.00	0.0		155.73

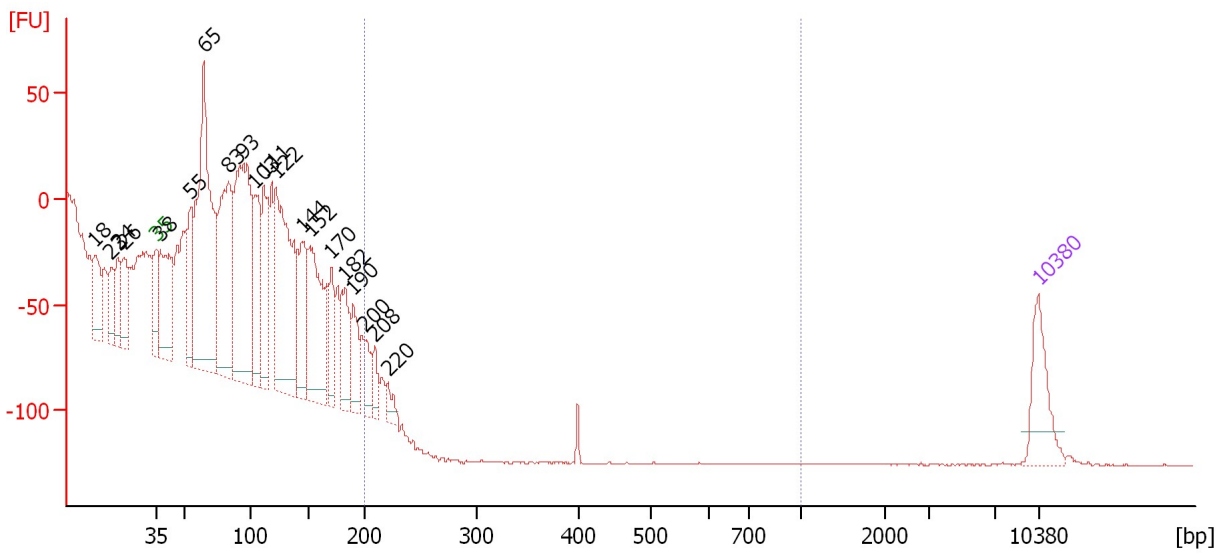
Region table for sample 1 : B4 Pippin

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	0	1,000	0.0	0.0	0	0.0	0.00	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 :

Number of peaks found: 20 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 2 :

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	18	0.00	0.0		38.14
2	23	0.00	0.0		39.45
3	24	0.00	0.0		39.96
4	26	0.00	0.0		40.51
5	35	125.00	5,411.3	Lower Marker	43.00
6	38	253.68	10,239.1		43.38
7	55	153.29	4,213.6		45.79
8	65	685.07	16,040.1		46.80
9	83	400.40	7,301.2		48.74
10	93	556.74	9,062.4		49.80
11	103	194.66	2,874.0		50.77
12	111	180.68	2,457.9		51.57
13	122	475.49	5,905.9		52.54
14	144	166.08	1,746.0		54.57
15	152	293.39	2,933.7		55.24
16	170	89.58	796.9		56.93
17	182	106.52	886.4		57.99
18	190	90.19	720.7		58.66
19	200	45.35	342.8		59.63
20	208	38.96	283.7		60.31
21	220	28.79	197.9		61.41
22	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 PM

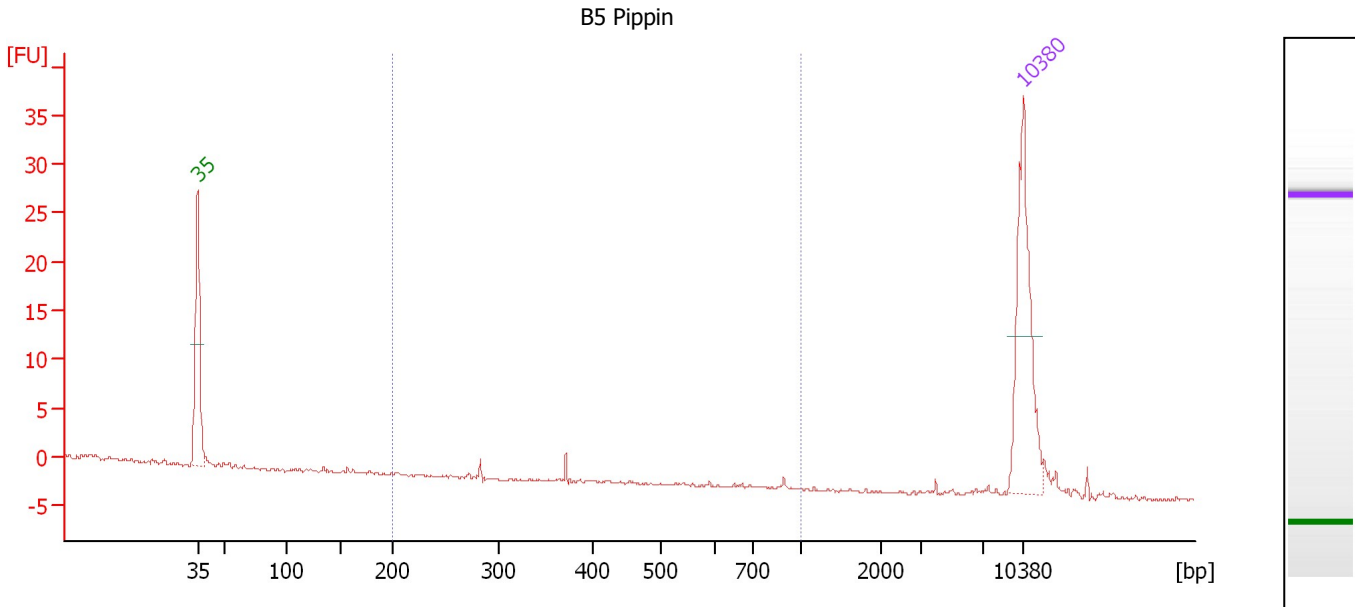
Electropherogram Summary Continued ...**... Region table for sample 2 :**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	0	1,000	0.0	0.0	0	0.0	0.00	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : B5 Pippin

Number of peaks found: 0 Corr. Area 1: 1.0
 Noise: 0.2

Peak table for sample 3 : B5 Pippin

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	10,380	75.00	10.9	Upper Marker	113.00

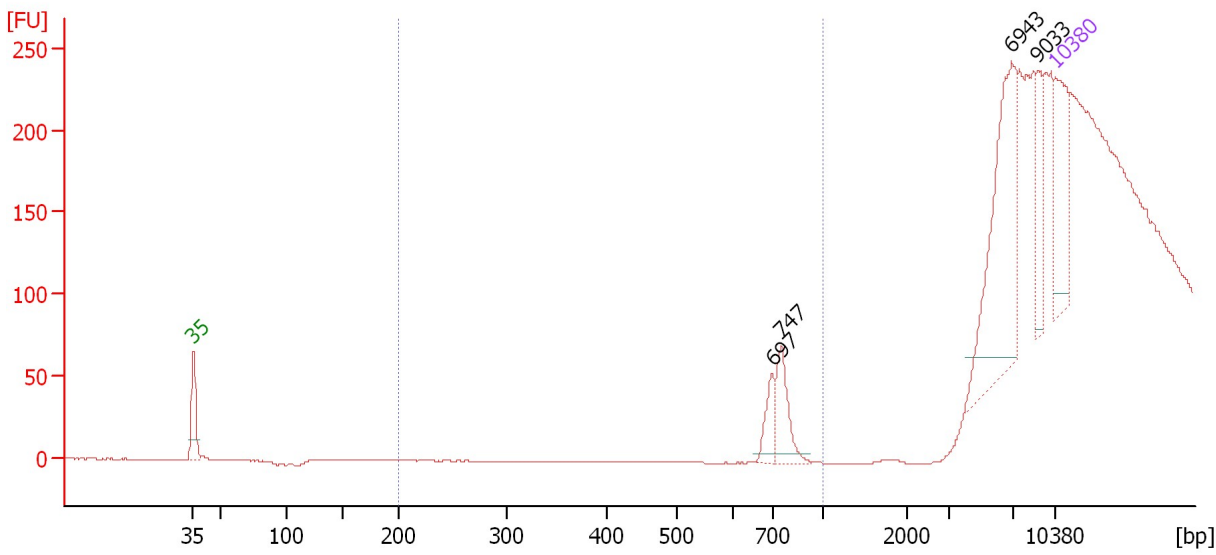
Region table for sample 3 : B5 Pippin

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	442	1,000	1.0	10.0	11	49.2	2.38	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 :

Number of peaks found: 4
 Noise: 0.1
 Corr. Area 1: 0.0

Peak table for 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	697	33.17	72.1		90.00
3	747	54.33	110.3		90.74
4	6,943	207.86	45.4		109.45
5	9,033	40.13	6.7		111.61
6	10,380	75.00	10.9	Upper Marker	113.00

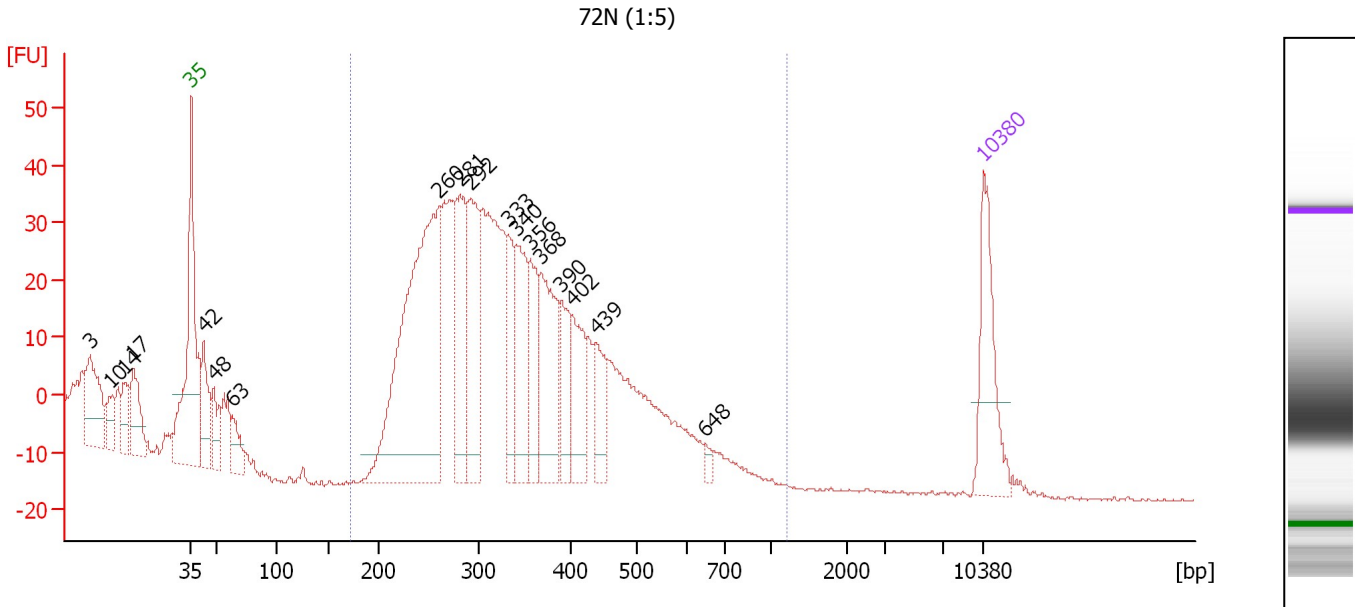
Region table for sample 4 :

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	747	1,000	0.0	0.0	0	0.0	0.00	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 72N (1:5)

Number of peaks found: 18 Corr. Area 1: 885.2
 Noise: 0.3

Peak table for sample 5 : 72N (1:5)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	3	0.00	0.0		34.00
2	10	0.00	0.0		35.79
3	14	0.00	0.0		37.11
4	17	0.00	0.0		37.86
5	35	125.00	5,411.3	Lower Marker	43.00
6	42	80.00	2,869.3		44.08
7	48	45.19	1,419.7		44.98
8	63	40.61	975.1		46.63
9	260	487.05	2,836.8		64.92
10	281	135.16	729.0		66.76
11	292	141.85	737.1		67.70
12	333	60.42	275.2		71.09
13	340	108.65	483.8		71.71
14	356	70.34	299.4		72.98
15	368	130.59	538.3		73.92
16	390	52.76	205.1		75.71
17	402	76.97	290.2		76.66
18	439	52.50	181.0		78.82
19	648	8.50	19.9		88.44
20	10,380	75.00	10.9	Upper Marker	113.00

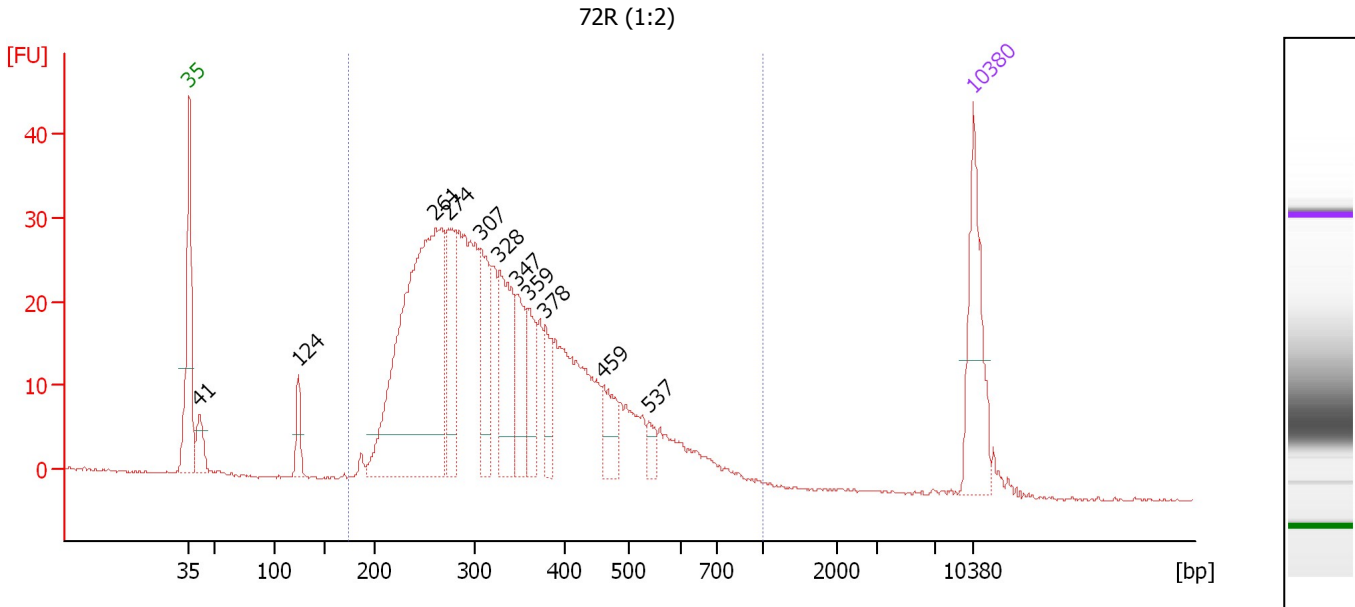
Region table for sample 5 : 72N (1:5)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
172	336	1,222	885.2	7,089.6	96	24.7	1,458.03	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 72R (1:2)

Number of peaks found: 11 Corr. Area 1: 731.5
 Noise: 0.2

Peak table for sample 6 : 72R (1:2)

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	41	35.42	1,307.6		43.90
3	124	27.66	337.1		52.76
4	261	478.21	2,777.3		64.99
5	274	90.49	500.8		66.13
6	307	78.69	388.1		69.03
7	328	111.09	513.5		70.70
8	347	63.09	275.8		72.22
9	359	48.42	204.4		73.22
10	378	36.70	147.2		74.74
11	459	37.64	124.1		79.97
12	537	13.78	38.9		84.02
13	10,380	75.00	10.9	Upper Marker	113.00

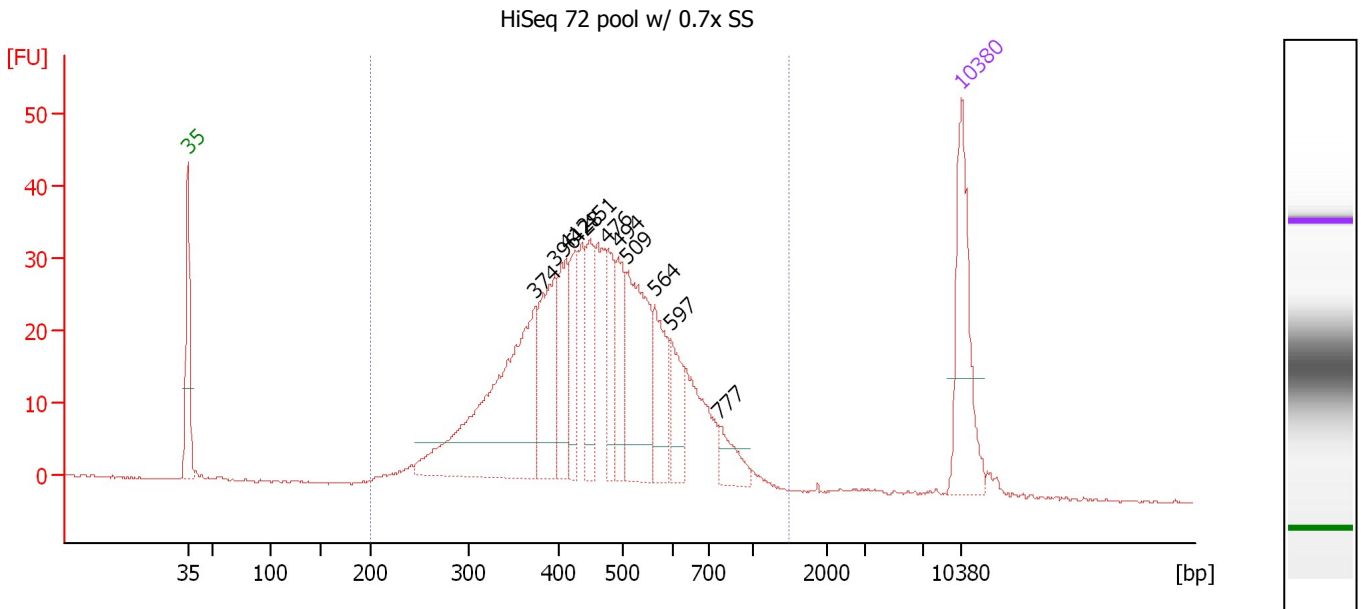
Region table for sample 6 : 72R (1:2)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
173	348	1,000	731.5	7,851.1	96	32.6	1,605.54	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HiSeq 72 pool w/ 0.7x SS

Number of peaks found: 11 Corr. Area 1: 734.4
 Noise: 0.2

Peak table for sample 7 : HiSeq 72 pool w/ 0.7x SS

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	374	252.44	1,022.2		74.45
3	396	95.28	364.9		76.19
4	412	61.76	227.0		77.25
5	428	46.04	162.9		78.17
6	451	57.00	191.6		79.47
7	476	50.63	161.2		80.92
8	494	53.53	164.1		81.98
9	509	124.62	371.3		82.70
10	564	54.12	145.3		85.26
11	597	35.90	91.1		86.76
12	777	23.63	46.1		91.15
13	10,380	75.00	10.9	Upper Marker	113.00

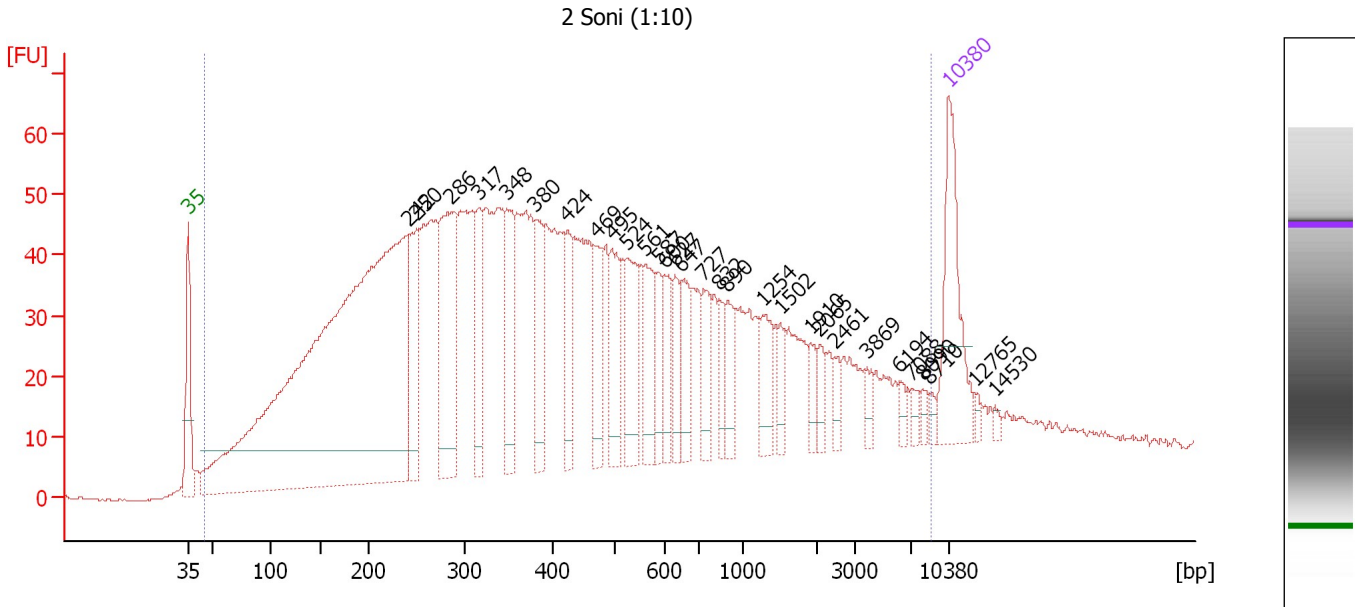
Region table for sample 7 : HiSeq 72 pool w/ 0.7x SS

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	475	1,485	734.4	4,151.1	98	29.9	1,166.28	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 2 Soni (1:10)

Number of peaks found: 30 Corr. Area 1: 2,558.9
 Noise: 0.2

Peak table for sample 8 : 2 Soni (1:10)

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	242	1,034.99	6,492.4		63.27
3	250	87.41	530.1		64.01
4	286	169.27	895.3		67.25
5	317	57.58	275.5		69.80
6	348	72.86	317.0		72.35
7	380	61.04	243.1		74.96
8	424	41.43	147.9		77.95
9	469	51.70	166.8		80.55
10	495	54.09	165.6		82.03
11	524	59.93	173.4		83.40
12	561	54.52	147.2		85.12
13	587	27.56	71.1		86.30
14	600	32.72	82.6		86.88
15	627	30.17	72.9		87.77
16	647	37.41	87.6		88.41
17	727	36.47	76.0		90.47
18	832	20.89	38.0		91.89
19	890	24.42	41.6		92.68
20	1,254	31.38	37.9		95.87
21	1,502	16.17	16.3		97.54
22	1,910	13.30	10.6		100.29
23	2,065	12.74	9.3		101.12
24	2,461	9.14	5.6		102.50
25	3,869	10.44	4.1		105.49

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad


Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...

... Peak table for sample 8 : 2 Soni (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	6,194	8.21	2.0		108.48
27	7,088	6.50	1.4		109.61
28	8,090	4.96	0.9		110.64
29	8,710	4.47	0.8		111.28
30	10,380	75.00	10.9	Upper Marker	113.00
31	12,765	0.00	0.0		115.45
32	14,530	0.00	0.0		117.27

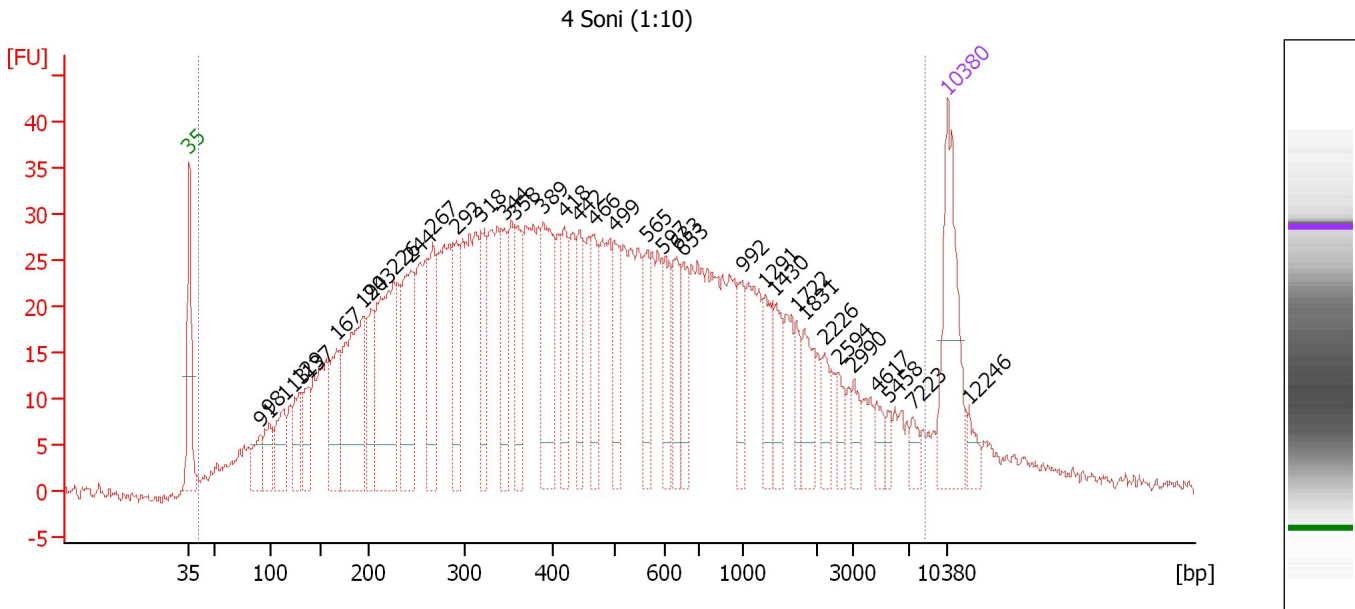
Region table for sample 8 : 2 Soni (1:10)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
45	790	8,869	2,558.9	21,792.9	97	100.0	3,608.01	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 4 Soni (1:10)

Number of peaks found: 36 Corr. Area 1: 1,607.0
 Noise: 0.7

Peak table for sample 9 : 4 Soni (1:10)

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	91	30.35	507.0		49.55
3	98	34.25	528.6		50.33
4	113	48.92	656.3		51.71
5	129	41.77	492.4		53.14
6	137	34.29	378.9		53.93
7	167	63.59	576.8		56.64
8	194	157.34	1,226.1		59.10
9	203	48.49	362.5		59.84
10	226	161.32	1,081.2		61.90
11	244	96.97	602.5		63.48
12	267	75.71	430.2		65.50
13	292	53.75	279.2		67.71
14	318	56.38	268.4		69.93
15	344	49.81	219.1		72.04
16	358	52.32	221.6		73.13
17	389	90.17	351.4		75.64
18	418	46.09	166.9		77.61
19	442	44.95	154.0		78.98
20	466	40.23	130.8		80.36
21	499	44.33	134.5		82.28
22	565	33.53	89.9		85.29
23	597	40.28	102.2		86.76
24	633	35.73	85.6		87.94
25	653	34.83	80.9		88.58

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad


Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Electropherogram Summary Continued ...

... Peak table for sample 9 : 4 Soni (1:10)

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	992	27.30	41.7		94.05
27	1,291	31.28	36.7		96.12
28	1,430	27.31	28.9		97.05
29	1,722	15.92	14.0		99.02
30	1,831	29.74	24.6		99.76
31	2,226	15.75	10.7		101.68
32	2,594	11.43	6.7		102.96
33	2,990	12.32	6.2		104.34
34	4,617	10.63	3.5		106.45
35	5,458	6.79	1.9		107.54
36	7,223	8.63	1.8		109.75
37	10,380	75.00	10.9	Upper Marker	113.00
38	12,246	0.00	0.0		114.92

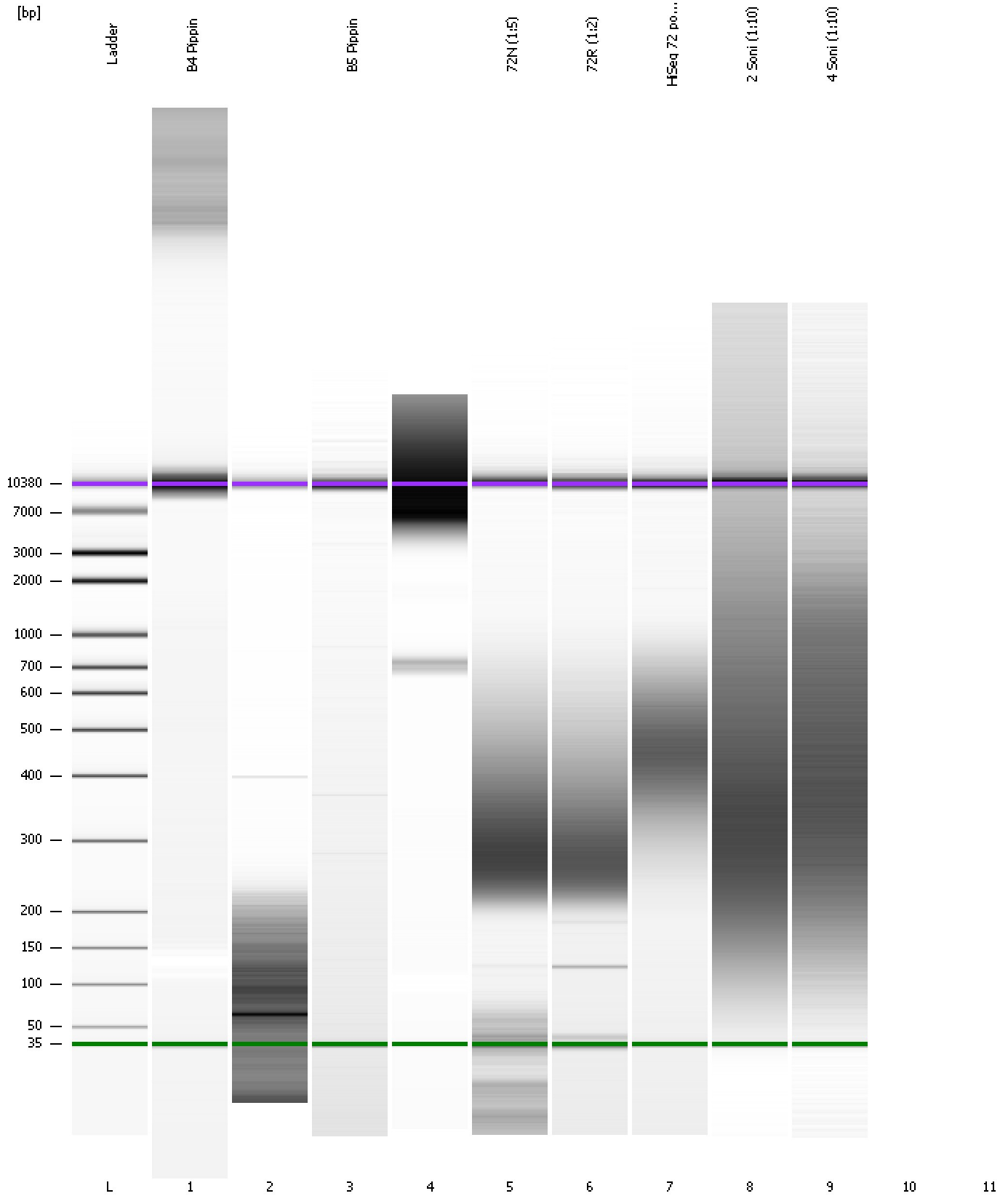
Region table for sample 9 : 4 Soni (1:10)

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
41	795	8,361	1,607.0	17,166.7	98	100.0	3,189.94	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 PM

Gel Image

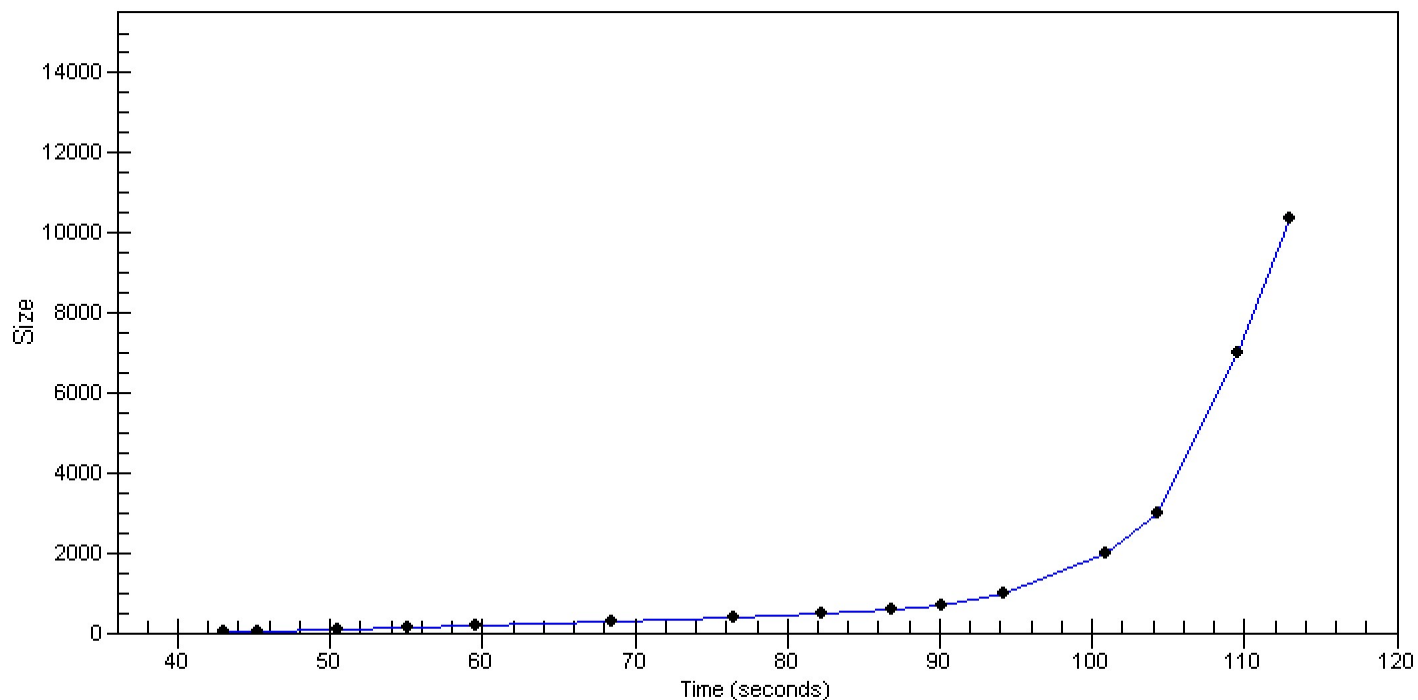


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
Modified: 4/6/2015 2:05:16 PM

Invalid Samples

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad

Created: 4/6/2015 1:19:17 PM
 Modified: 4/6/2015 2:05:16 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 10)		Instrument	Run		4/6/2015 1:54:51 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-06\2015-04-06_001.xad)		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/6/2015 1:19:22 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1