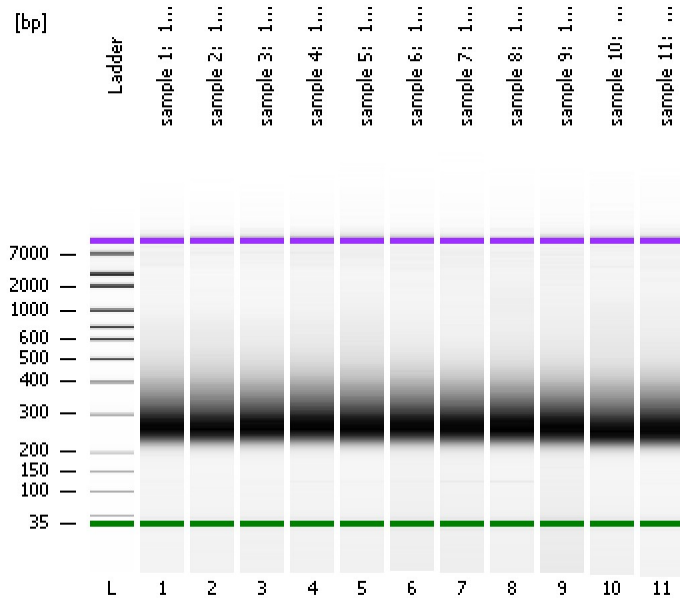


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 PM

**Electrophoresis File Run Summary**



Instrument Information:

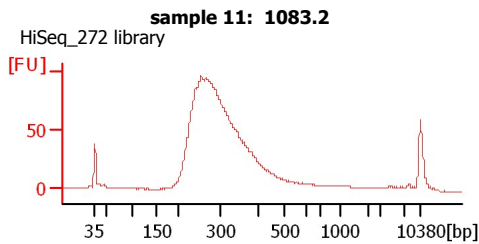
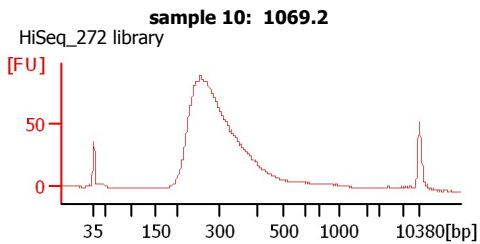
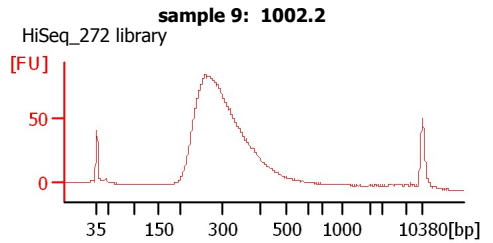
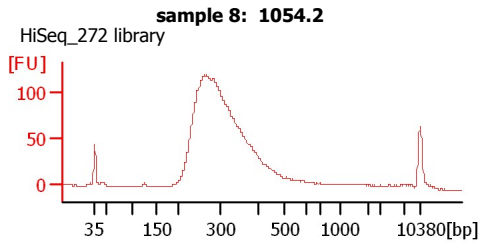
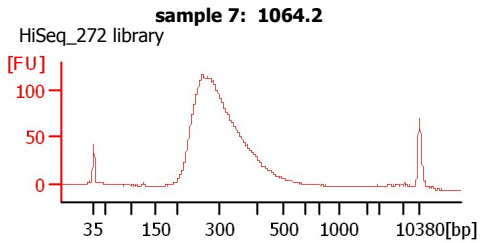
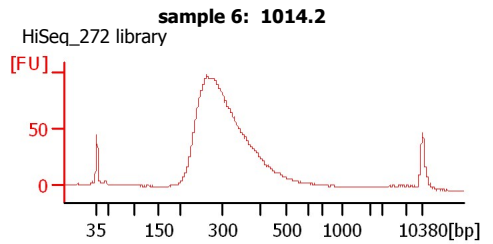
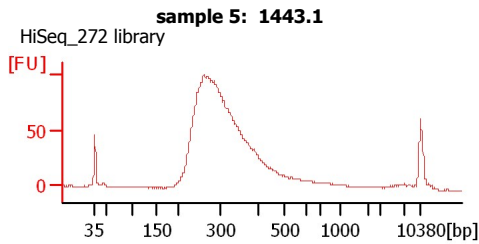
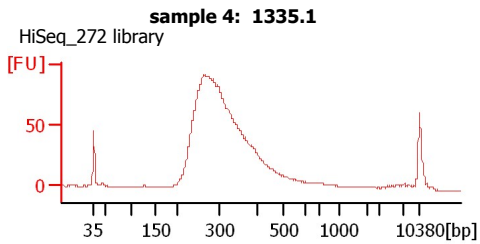
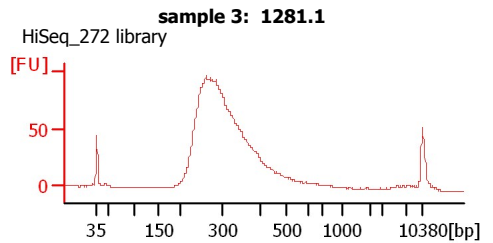
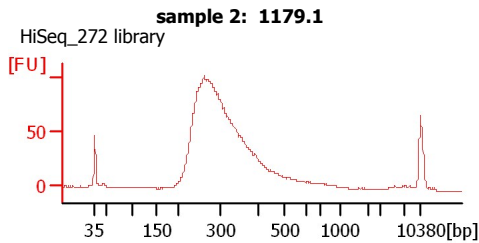
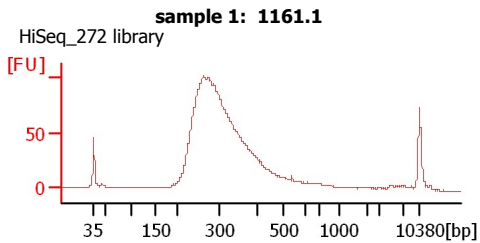
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1: 1161.1	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 2: 1179.1	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 3: 1281.1	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 4: 1335.1	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 5: 1443.1	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 6: 1014.2	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 7: 1064.2	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 8: 1054.2	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 9: 1002.2	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 10: 1069.2	HiSeq_272 library	<input type="checkbox"/>	✓			
sample 11: 1083.2	HiSeq_272 library	<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\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 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

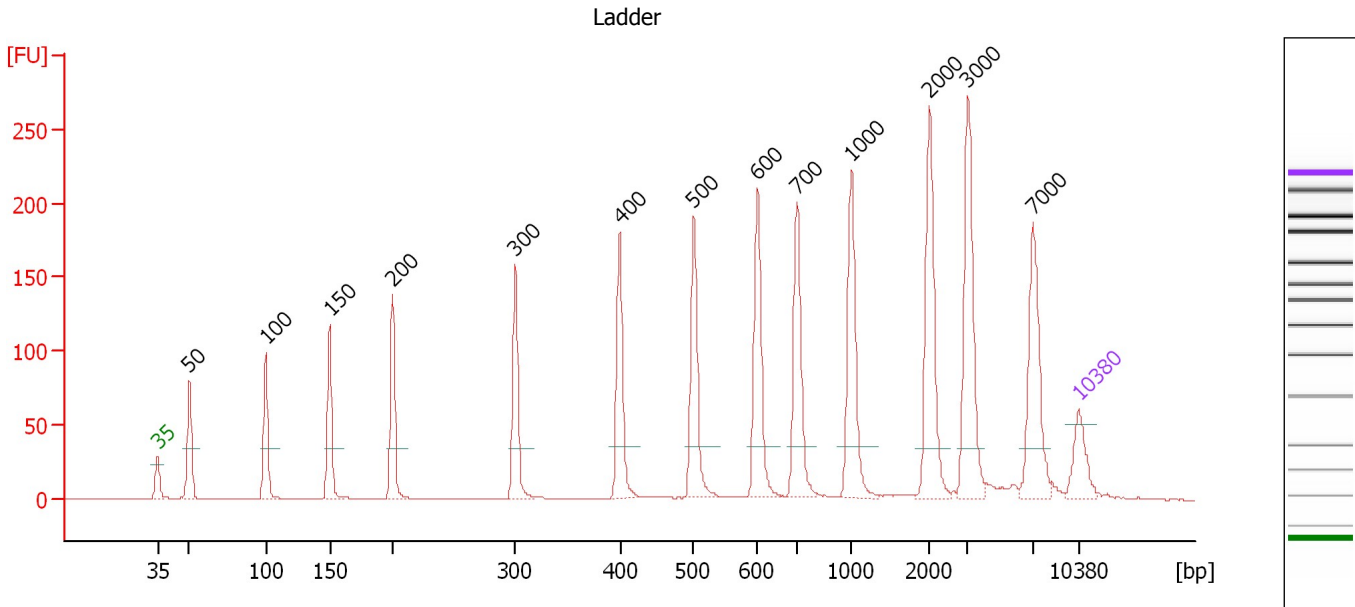
**Ladder**

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\2015-11-05\2015-11-05\_004.xad

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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

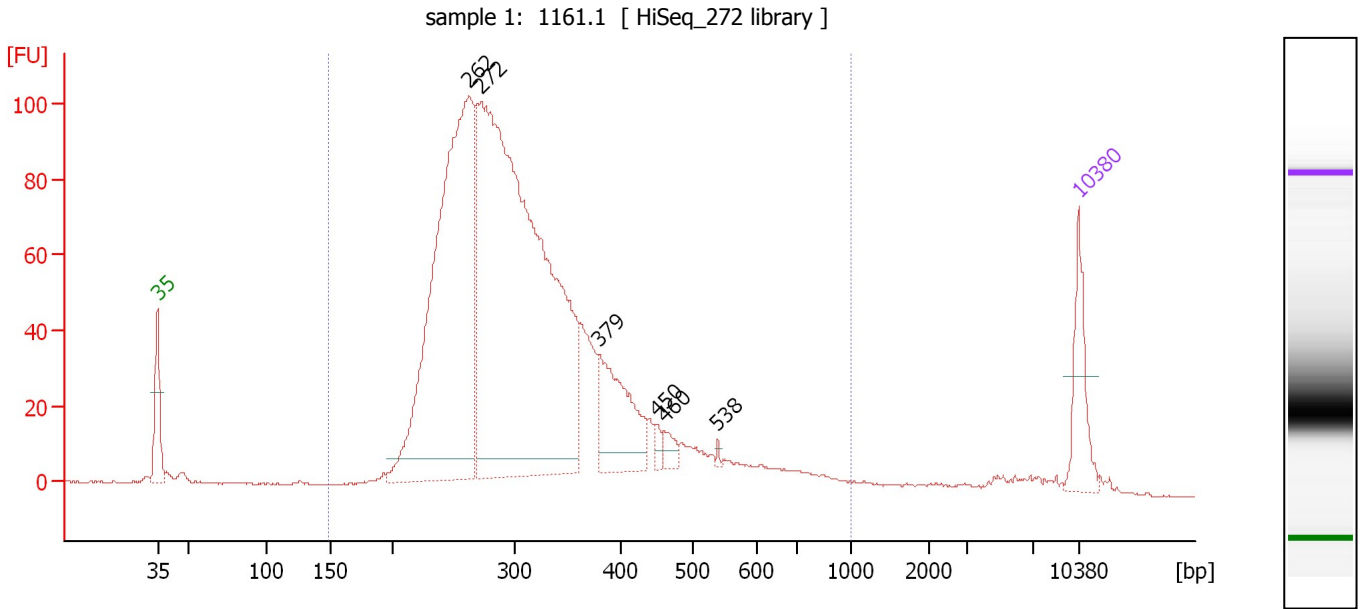
**Peak table for Ladder**

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	45.42
3	100	150.00	2,272.7	Ladder Peak	51.20
4	150	150.00	1,515.2	Ladder Peak	56.08
5	200	150.00	1,136.4	Ladder Peak	60.86
6	300	150.00	757.6	Ladder Peak	70.21
7	400	150.00	568.2	Ladder Peak	78.14
8	500	150.00	454.5	Ladder Peak	83.74
9	600	150.00	378.8	Ladder Peak	88.57
10	700	150.00	324.7	Ladder Peak	91.58
11	1,000	150.00	227.3	Ladder Peak	95.73
12	2,000	150.00	113.6	Ladder Peak	101.65
13	3,000	150.00	75.8	Ladder Peak	104.57
14	7,000	150.00	32.5	Ladder Peak	109.54
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 1: 1161.1**

Number of peaks found: 6                      Corr. Area 1: 1,808.1  
 Noise: 0.2

**Peak table for sample 1 : sample 1: 1161.1**

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	262	1,072.07	6,203.9		66.64
3	272	1,656.98	9,240.6		67.56
4	379	192.95	770.6		76.50
5	450	14.51	48.9		80.93
6	460	21.89	72.2		81.48
7	538	4.18	11.8		85.58
8	10,380	75.00	10.9	Upper Marker	113.00

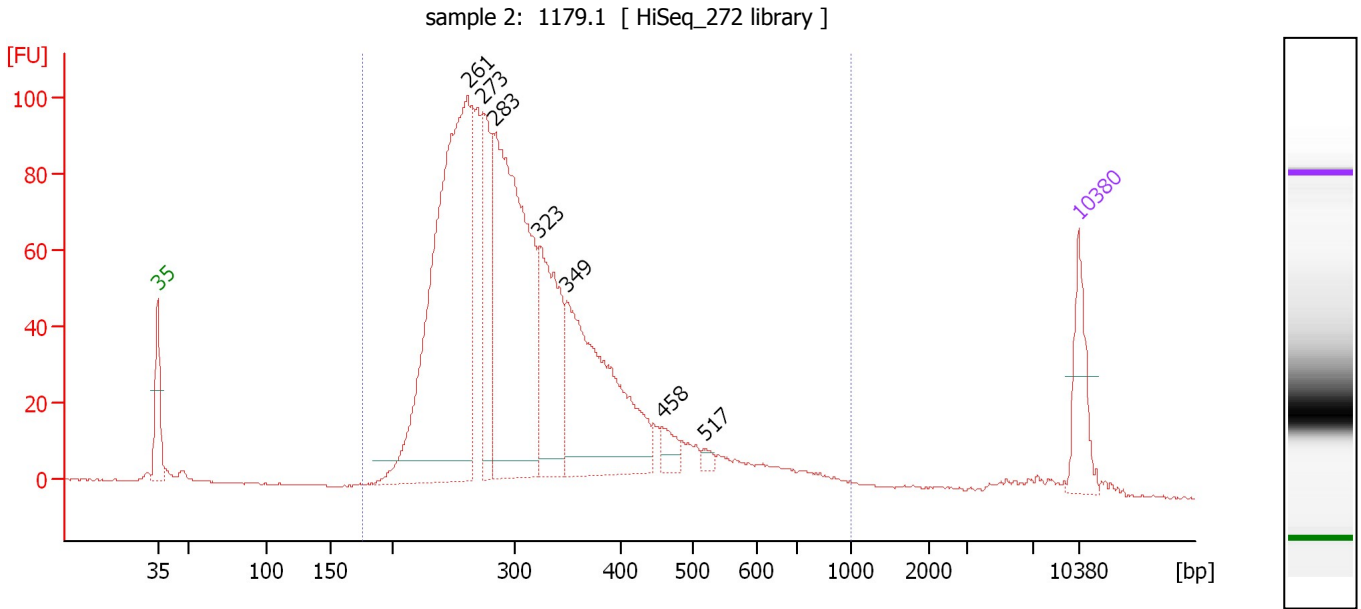
**Region table for sample 1 : sample 1: 1161.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
149	1,000	326	1,808.1	17,518.9	3,432.21	95	32.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2: 1179.1**

Number of peaks found: 7                      Corr. Area 1: 1,767.1  
 Noise: 0.2

**Peak table for sample 2 : sample 2: 1179.1**

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	261	1,027.43	5,960.6		66.58
3	273	238.63	1,322.0		67.73
4	283	732.82	3,918.6		68.65
5	323	280.45	1,316.4		72.01
6	349	451.93	1,962.5		74.09
7	458	30.64	101.5		81.36
8	517	10.30	30.2		84.54
9	10,380	75.00	10.9	Upper Marker	113.00

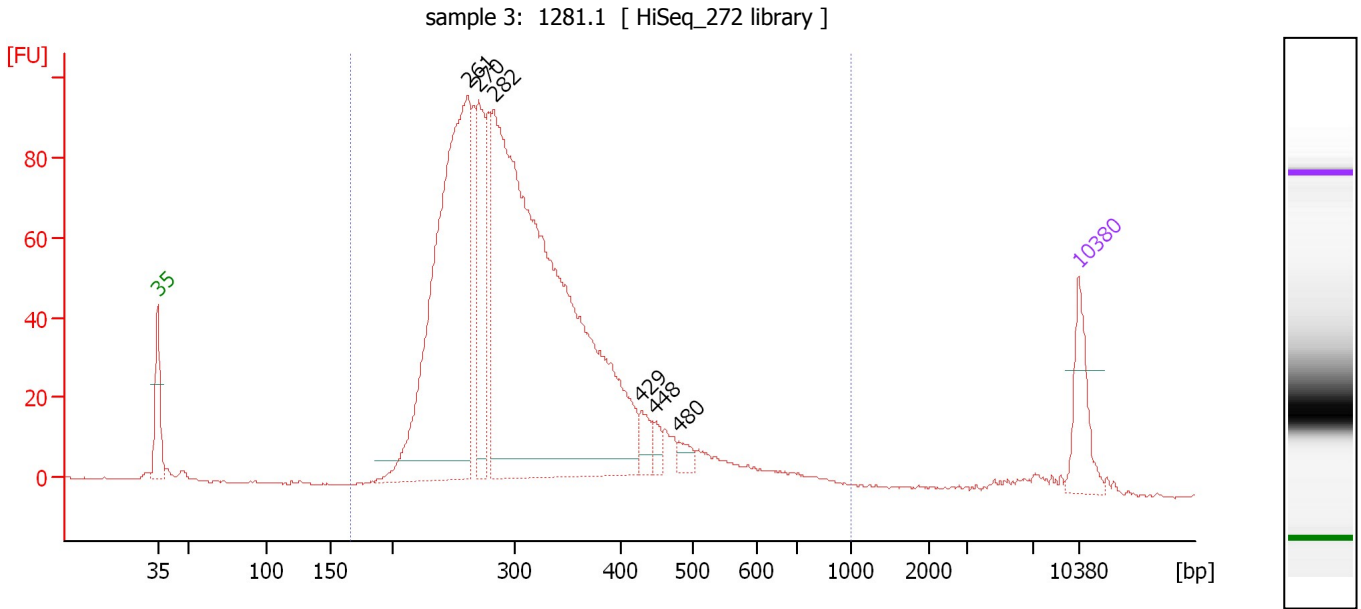
**Region table for sample 2 : sample 2: 1179.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
176	1,000	327	1,767.1	16,645.4	3,267.90	96	32.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3: 1281.1**

Number of peaks found: 6                      Corr. Area 1: 1,678.8  
 Noise: 0.2

**Peak table for sample 3 : sample 3: 1281.1**

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	261	1,040.60	6,036.8		66.58
3	270	245.62	1,377.9		67.41
4	282	1,824.02	9,784.4		68.57
5	429	36.09	127.5		79.76
6	448	20.37	68.9		80.82
7	480	21.09	66.6		82.62
8	10,380	75.00	10.9	Upper Marker	113.00

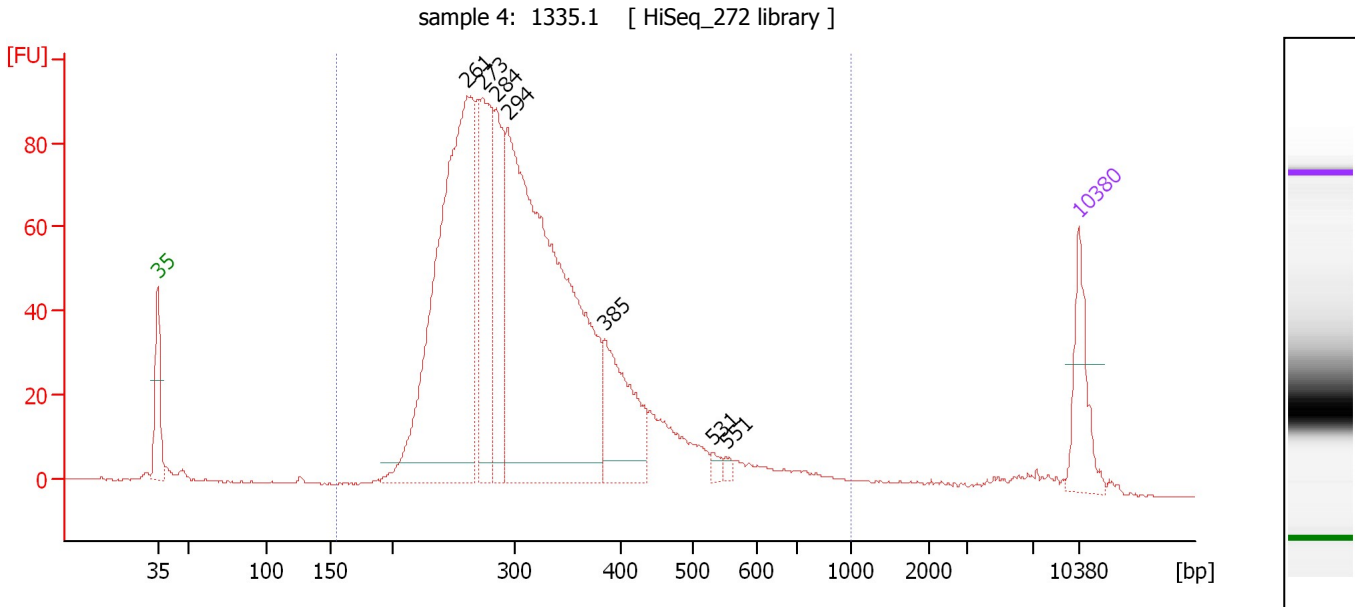
**Region table for sample 3 : sample 3: 1281.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
167	1,000	324	1,678.8	18,163.3	3,567.78	97	30.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4: 1335.1**

Number of peaks found: 7                      Corr. Area 1: 1,658.4  
 Noise: 0.2

**Peak table for sample 4 : sample 4: 1335.1**

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	261	924.46	5,376.1		66.52
3	273	287.37	1,594.4		67.69
4	284	209.19	1,115.6		68.72
5	294	1,175.59	6,065.8		69.61
6	385	193.46	760.8		76.97
7	531	10.23	29.2		85.26
8	551	8.20	22.6		86.20
9	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : sample 4: 1335.1**

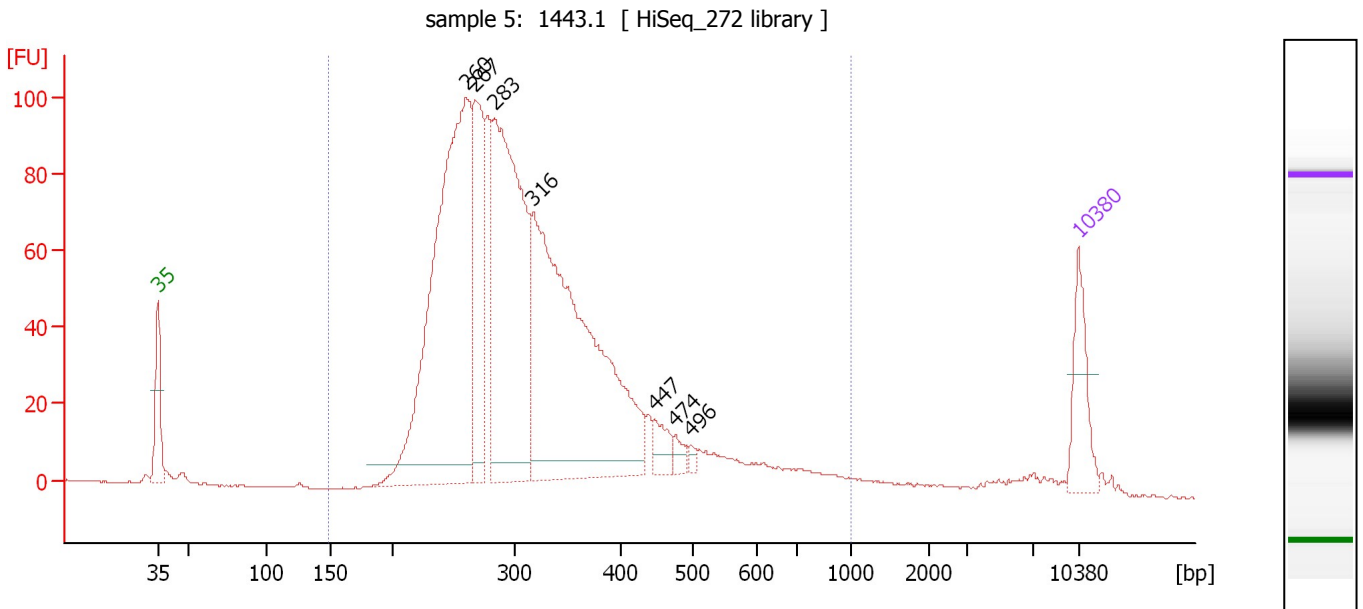
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
155	1,000	329	1,658.4	15,632.8	3,104.78	95	31.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5: 1443.1**

Number of peaks found: 7                      Corr. Area 1: 1,776.8  
 Noise: 0.2

**Peak table for sample 5 : sample 5: 1443.1**

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	260	988.94	5,769.3		66.44
3	267	272.85	1,549.4		67.11
4	283	692.76	3,708.4		68.62
5	316	917.44	4,392.6		71.51
6	447	37.73	127.8		80.79
7	474	18.68	59.6		82.31
8	496	9.67	29.6		83.49
9	10,380	75.00	10.9	Upper Marker	113.00

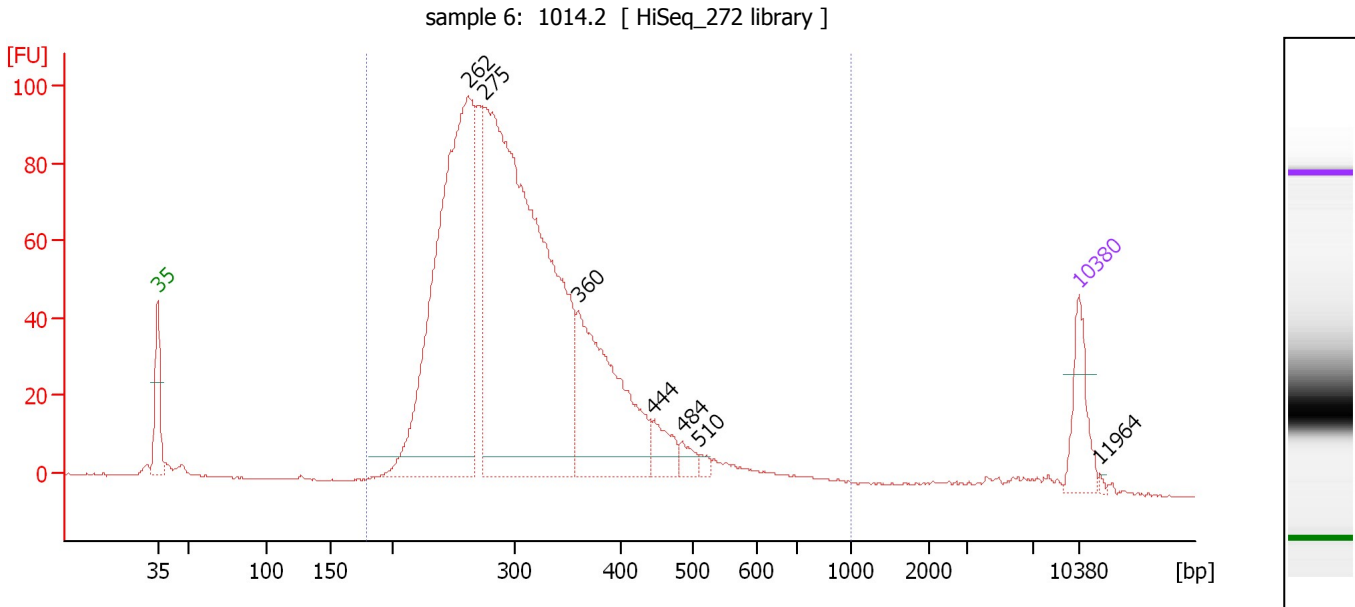
**Region table for sample 5 : sample 5: 1443.1**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
149	1,000	328	1,776.8	16,624.1	3,282.34	96	32.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6: 1014.2**

Number of peaks found: 7                      Corr. Area 1: 1,685.6  
 Noise: 0.2

**Peak table for sample 6 : sample 6: 1014.2**

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	262	1,158.86	6,707.5		66.64
3	275	1,660.75	9,165.1		67.83
4	360	442.60	1,864.1		74.94
5	444	60.52	206.7		80.58
6	484	26.28	82.2		82.87
7	510	11.77	35.0		84.21
8	10,380	75.00	10.9	Upper Marker	113.00
9	11,964	0.00	0.0		114.62

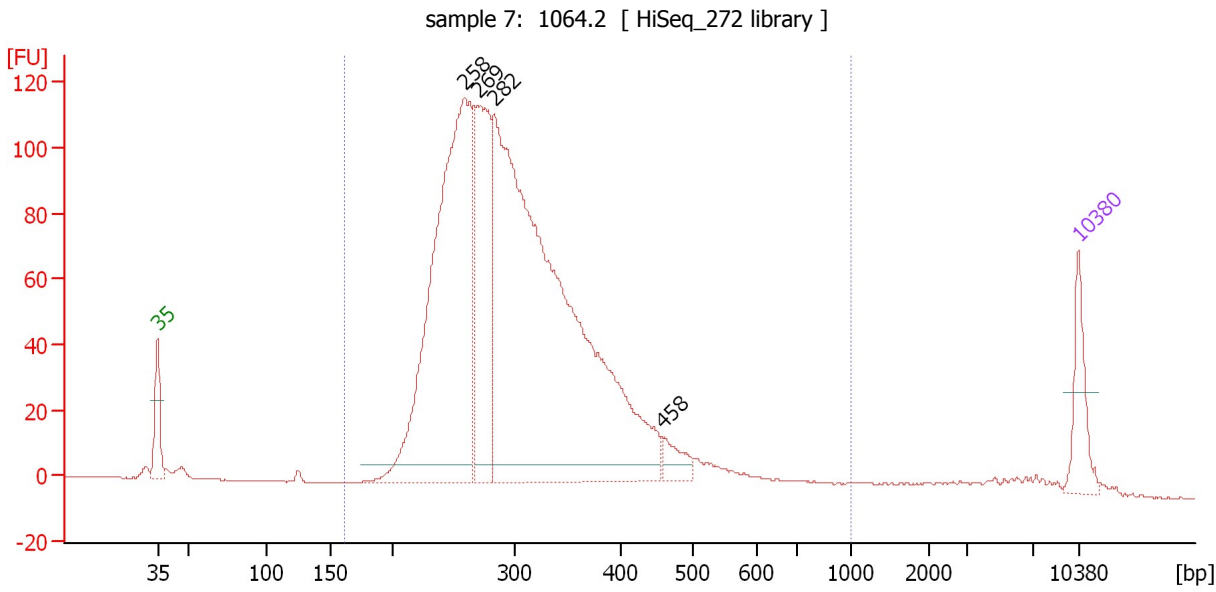
**Region table for sample 6 : sample 6: 1014.2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
180	1,000	321	1,685.6	18,779.8	3,679.25	96	29.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7: 1064.2**

Number of peaks found: 4                      Corr. Area 1: 1,966.6  
 Noise: 0.1

**Peak table for sample 7 : sample 7: 1064.2**

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	258	1,231.26	7,230.2		66.29
3	269	459.21	2,582.7		67.35
4	282	2,024.59	10,865.4		68.56
5	458	47.39	156.7		81.41
6	10,380	75.00	10.9	Upper Marker	113.00

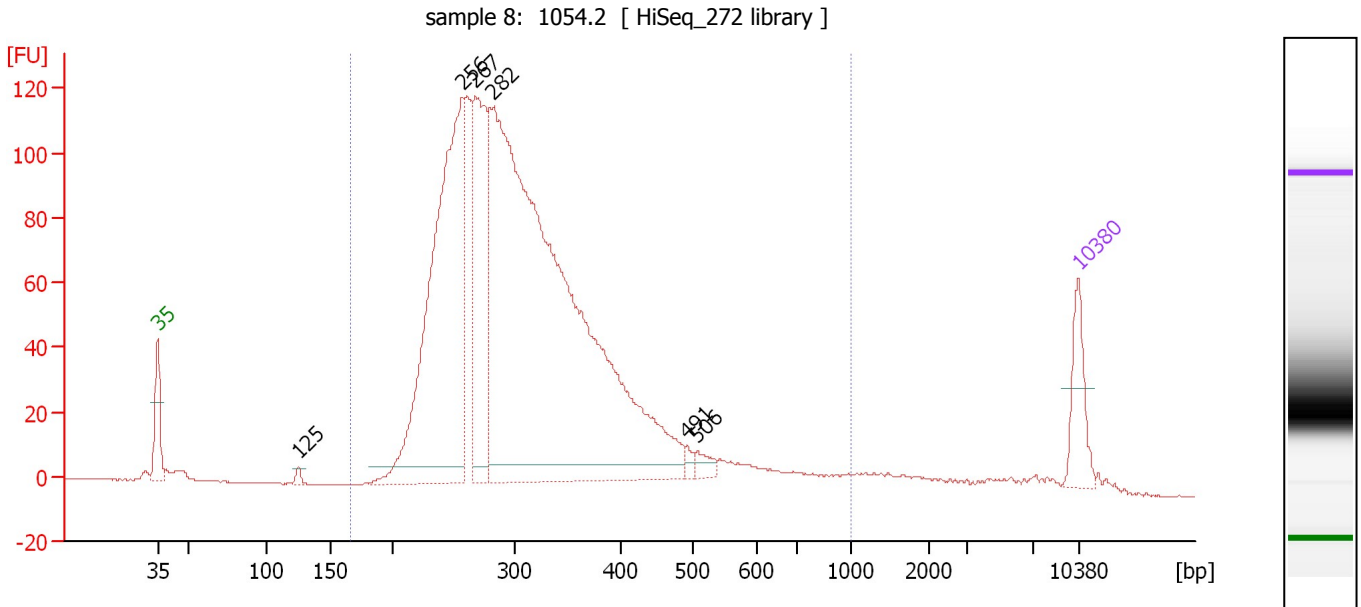
**Region table for sample 7 : sample 7: 1064.2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
162	1,000	316	1,966.6	19,469.0	3,775.64	96	28.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 8: 1054.2**

Number of peaks found: 6                      Corr. Area 1: 2,094.2  
 Noise: 0.1

**Peak table for sample 8 : sample 8: 1054.2**

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	125	11.74	141.8		53.69
3	256	1,015.63	6,004.4		66.12
4	267	441.57	2,503.9		67.14
5	282	2,291.85	12,324.3		68.50
6	491	13.21	40.8		83.22
7	506	22.53	67.4		84.05
8	10,380	75.00	10.9	Upper Marker	113.00

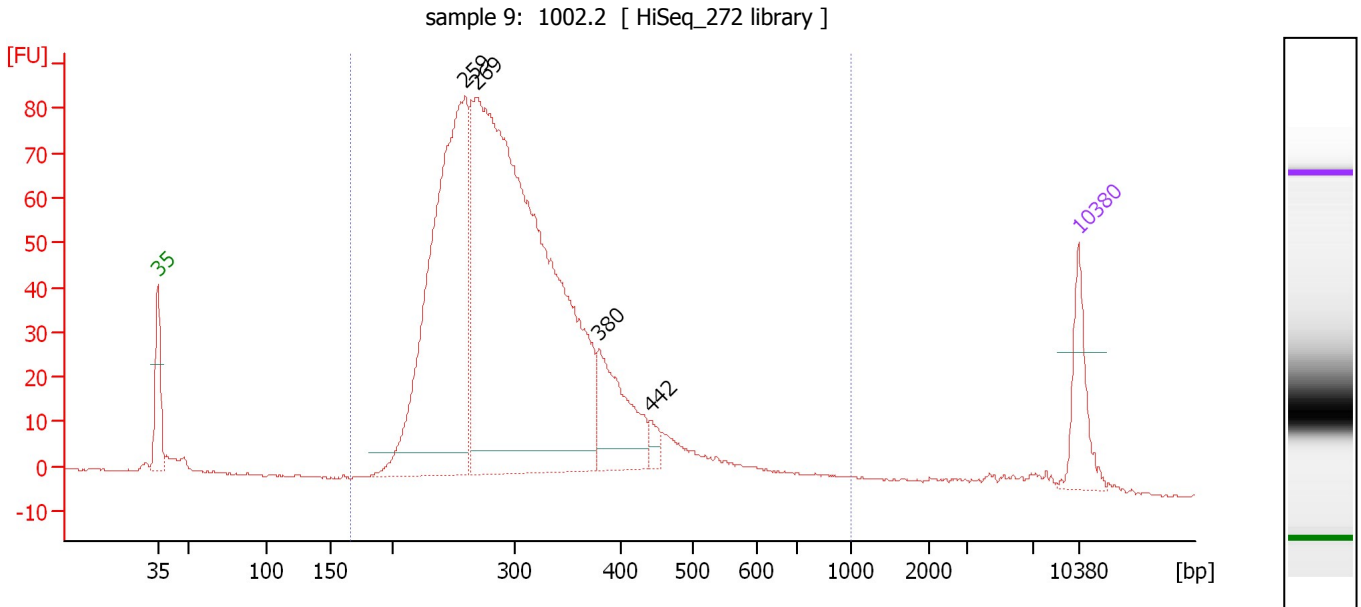
**Region table for sample 8 : sample 8: 1054.2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
166	1,000	324	2,094.2	20,423.9	4,008.02	95	31.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9: 1002.2**

Number of peaks found: 4                      Corr. Area 1: 1,443.7  
 Noise: 0.2

**Peak table for sample 9 : sample 9: 1002.2**

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	259	963.20	5,633.4		66.38
3	269	1,855.63	10,452.4		67.31
4	380	188.05	750.2		76.54
5	442	21.31	73.0		80.49
6	10,380	75.00	10.9	Upper Marker	113.00

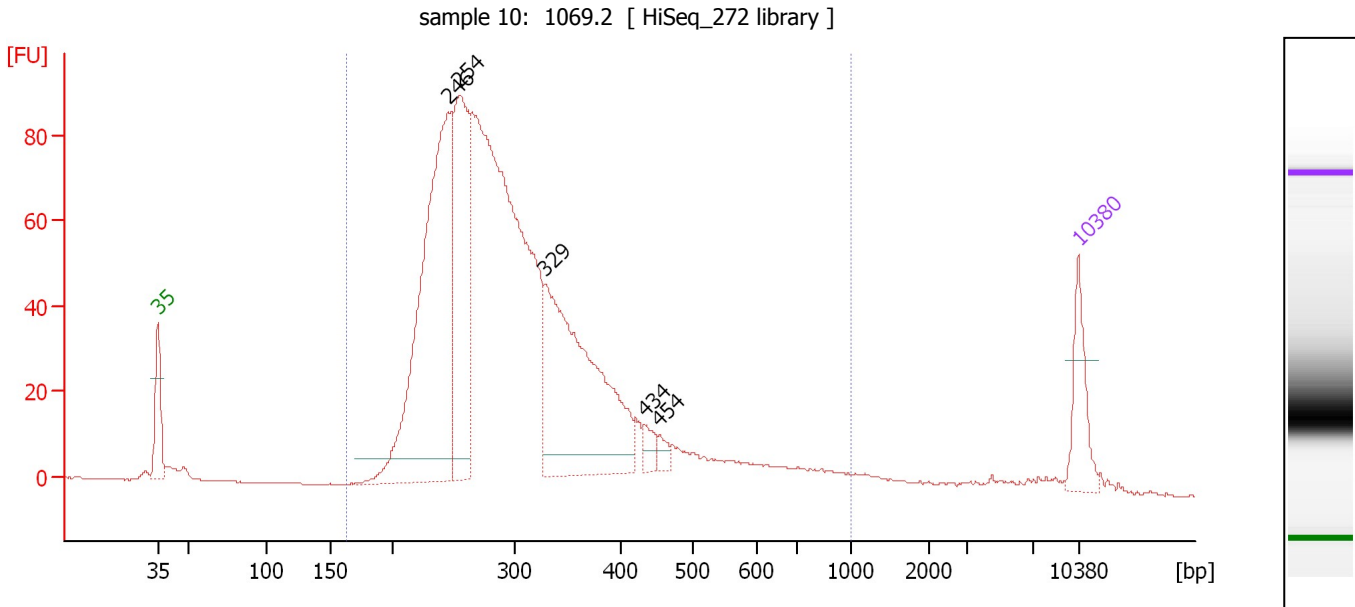
**Region table for sample 9 : sample 9: 1002.2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
166	1,000	317	1,443.7	16,336.7	3,160.64	96	30.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10: 1069.2**

Number of peaks found: 5                      Corr. Area 1: 1,504.0  
 Noise: 0.1

**Peak table for sample 10 : sample 10: 1069.2**

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	246	888.89	5,479.7		65.14
3	254	460.69	2,746.3		65.93
4	329	614.44	2,831.6		72.49
5	434	26.61	92.9		80.03
6	454	17.84	59.5		81.16
7	10,380	75.00	10.9	Upper Marker	113.00

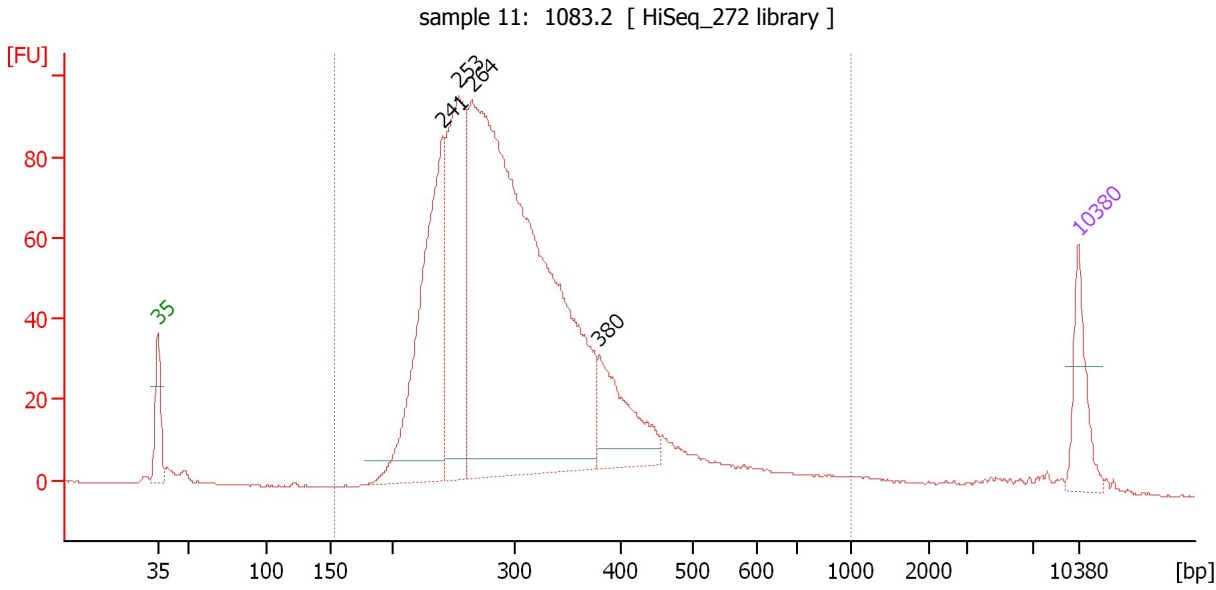
**Region table for sample 10 : sample 10: 1069.2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
164	1,000	318	1,504.0	18,997.1	3,621.18	96	34.4

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11: 1083.2

Number of peaks found: 4                      Corr. Area 1: 1,652.1  
Noise: 0.1

Peak table for sample 11 : sample 11: 1083.2

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	241	616.09	3,875.6		64.68
3	253	482.68	2,885.4		65.86
4	264	1,936.24	11,092.0		66.89
5	380	192.71	768.3		76.55
6	10,380	75.00	10.9	Upper Marker	113.00

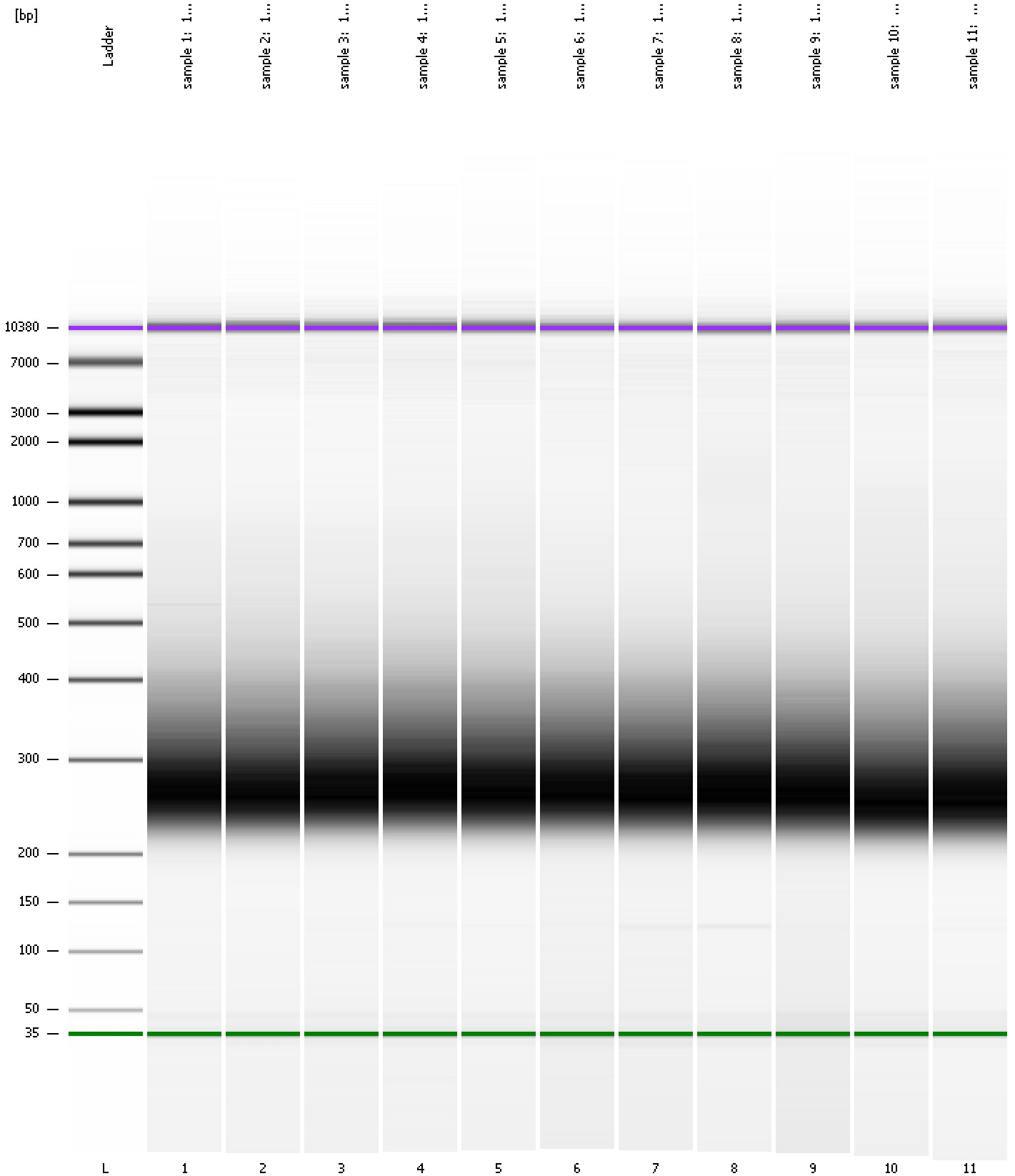
Region table for sample 11 : sample 11: 1083.2

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
154	1,000	318	1,652.1	17,835.5	3,425.57	96	32.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 PM

**Gel Image**



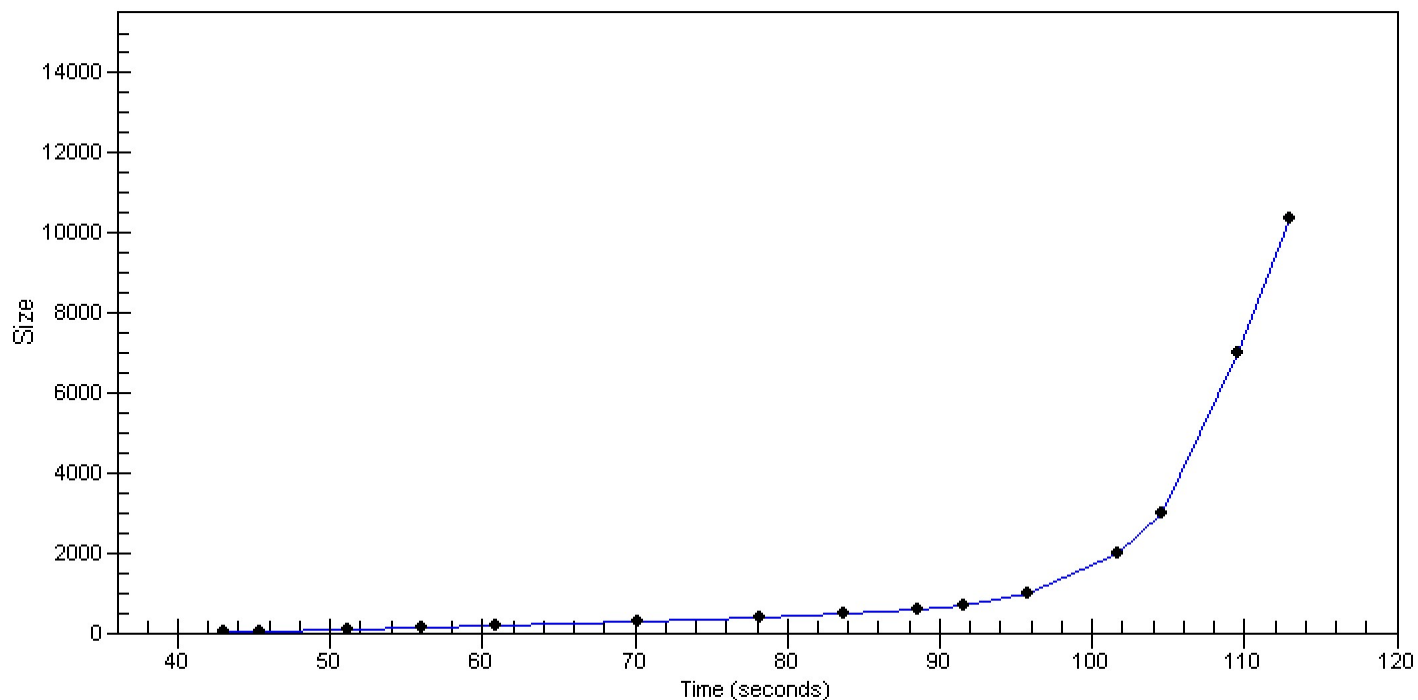


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
Modified: 11/5/2015 3:51:58 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-11-05\2015-11-05\_004.xad

Created: 11/5/2015 3:09:21 PM  
 Modified: 11/5/2015 3:51:58 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		11/5/2015 1:49:48 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-11-05\2015-11-05_004.xad)		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/5/2015 1:09:27 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1