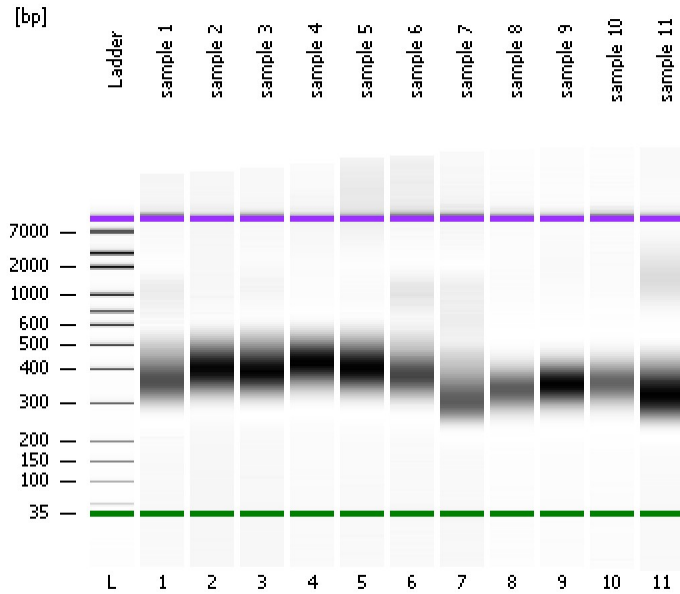


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
Modified: 9/30/2014 3:15:50 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

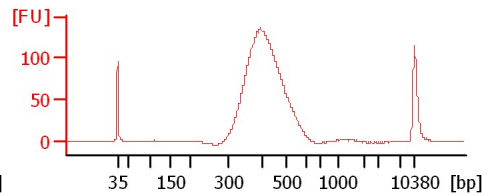
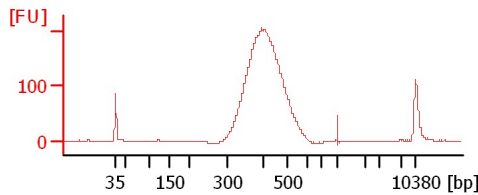
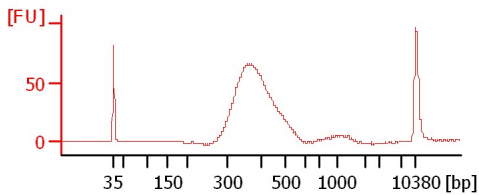
Chip Information:

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

sample 1

sample 2

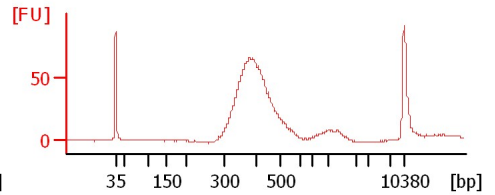
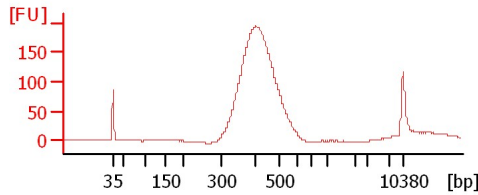
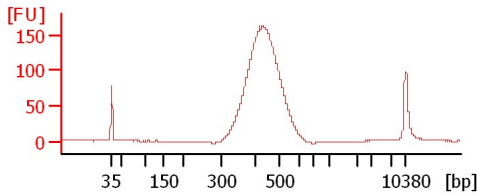
sample 3



sample 4

sample 5

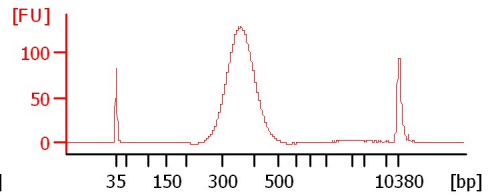
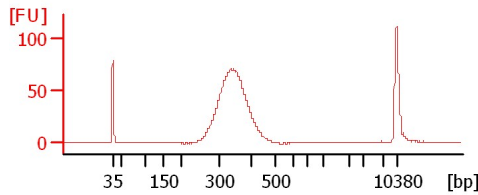
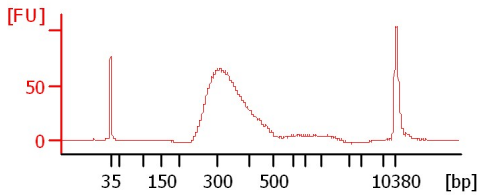
sample 6



sample 7

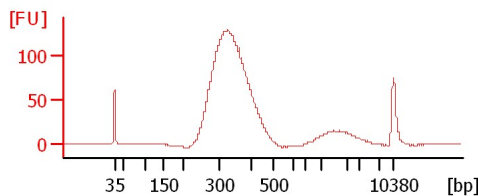
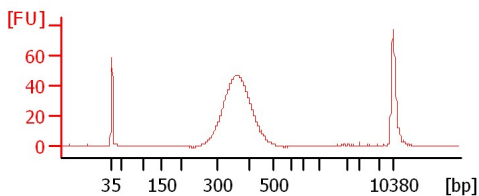
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

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\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
Modified: 9/30/2014 3:15:50 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

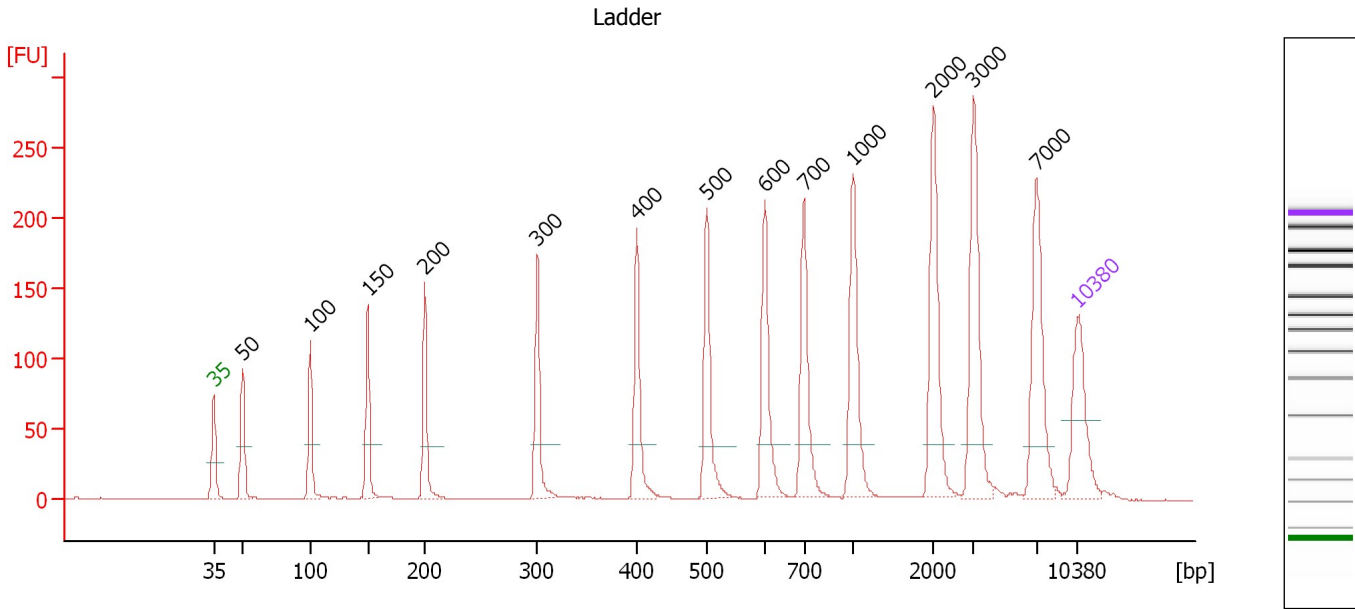
Ladder

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\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

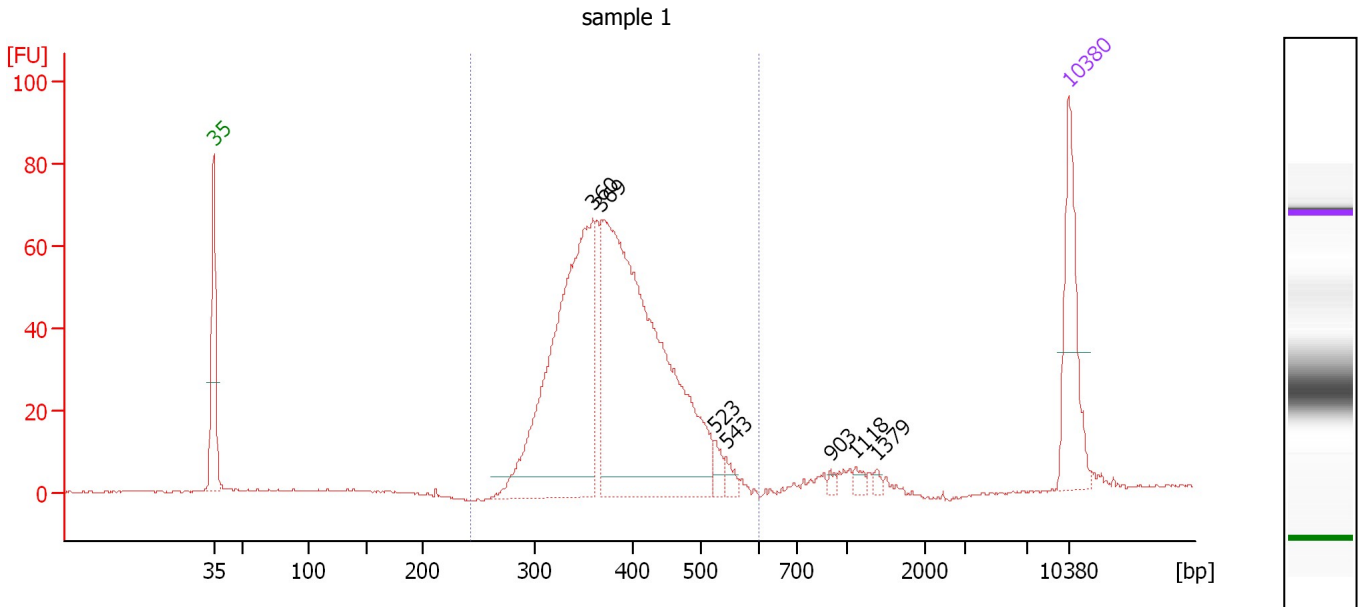
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 7 Corr. Area 1: 891.7
 Noise: 0.2

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	360	407.40	1,714.8	
3	369	579.15	2,380.2	
4	523	13.12	38.0	
5	543	10.20	28.5	
6	903	4.01	6.7	
7	1,118	5.95	8.1	
8	1,379	3.39	3.7	
9	10,380	75.00	10.9	Upper Marker

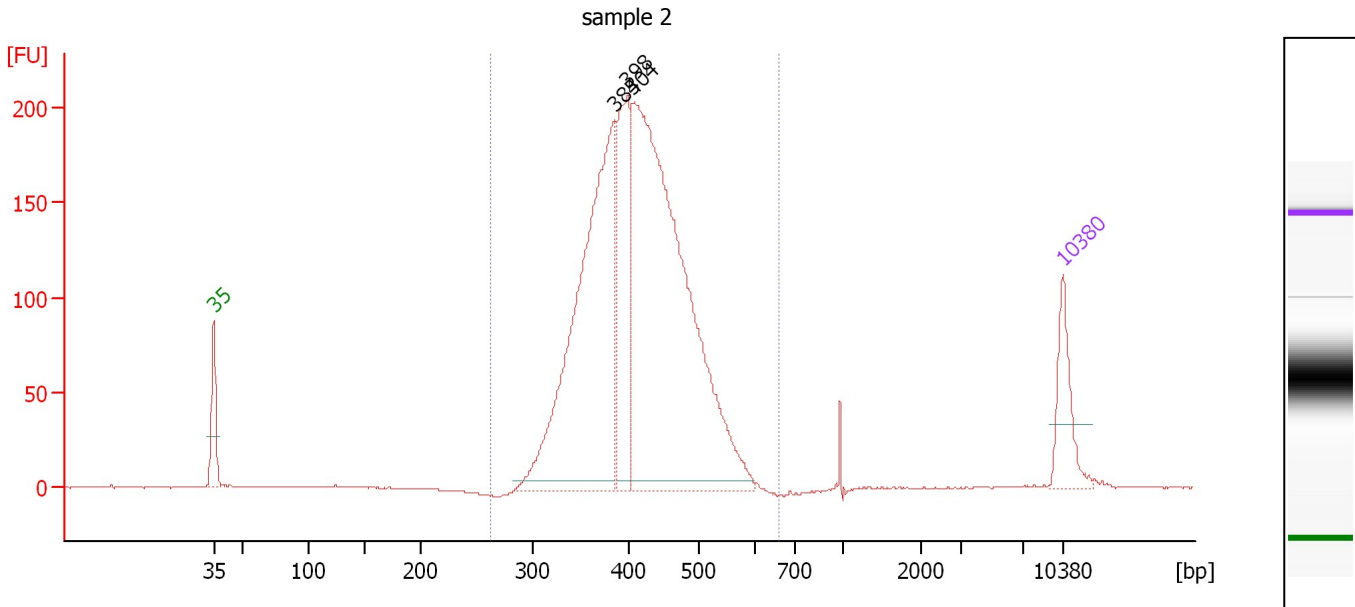
Region table for sample 1 : sample 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
244	387	600	891.7	96	14.7	983.64	3,951.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 3 Corr. Area 1: 2,580.1
 Noise: 0.2

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	385	823.63	3,238.4	
3	398	280.86	1,069.4	
4	404	1,196.55	4,487.3	
5	10,380	75.00	10.9	Upper Marker

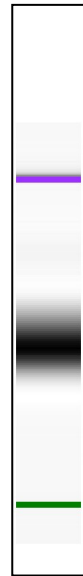
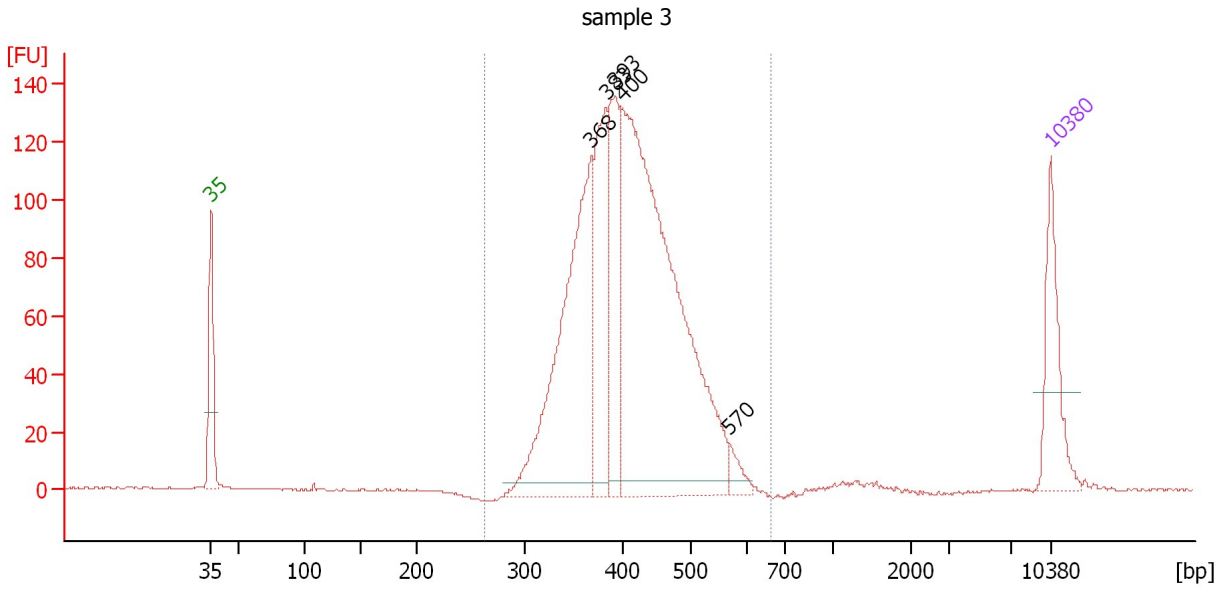
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
262	415	663	2,580.1	99	13.7	2,282.56	8,516.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 5 Corr. Area 1: 1,731.8
 Noise: 0.2

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	368	422.10	1,735.6	
3	383	186.42	736.7	
4	393	152.93	589.9	
5	400	778.31	2,948.0	
6	570	18.78	49.9	
7	10,380	75.00	10.9	Upper Marker

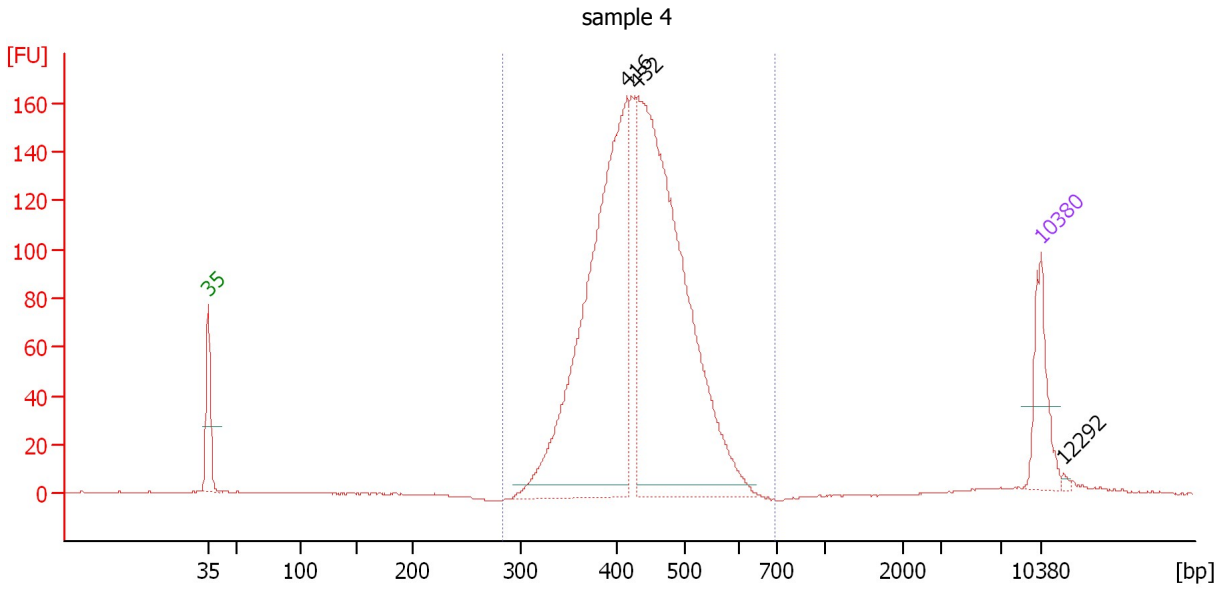
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
262	414	664	1,731.8	99	14.4	1,494.15	5,608.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 3 Corr. Area 1: 1,903.1
 Noise: 0.2

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	416	847.36	3,086.1	
3	432	981.40	3,444.2	
4	10,380	75.00	10.9	Upper Marker
5	12,292	0.00	0.0	

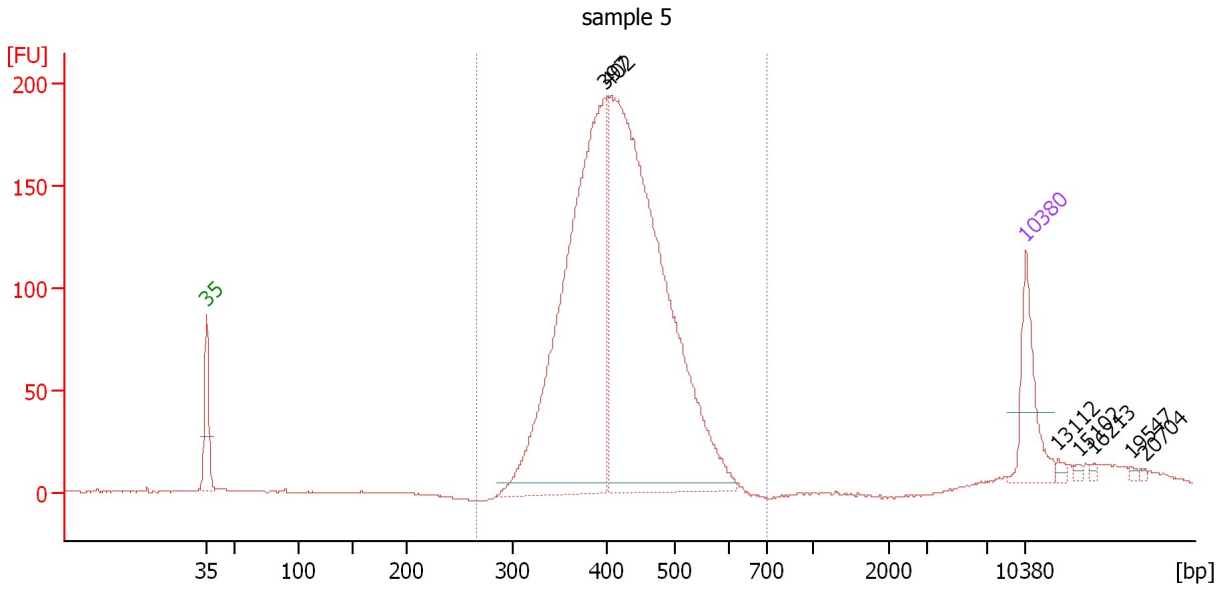
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
283	435	691	1,903.1	99	13.2	1,908.20	6,780.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 7 Corr. Area 1: 2,356.2
 Noise: 0.2

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	397	851.15	3,246.5	
3	402	1,099.23	4,146.2	
4	10,380	75.00	10.9	Upper Marker
5	13,112	0.00	0.0	
6	15,102	0.00	0.0	
7	16,213	0.00	0.0	
8	19,547	0.00	0.0	
9	20,704	0.00	0.0	

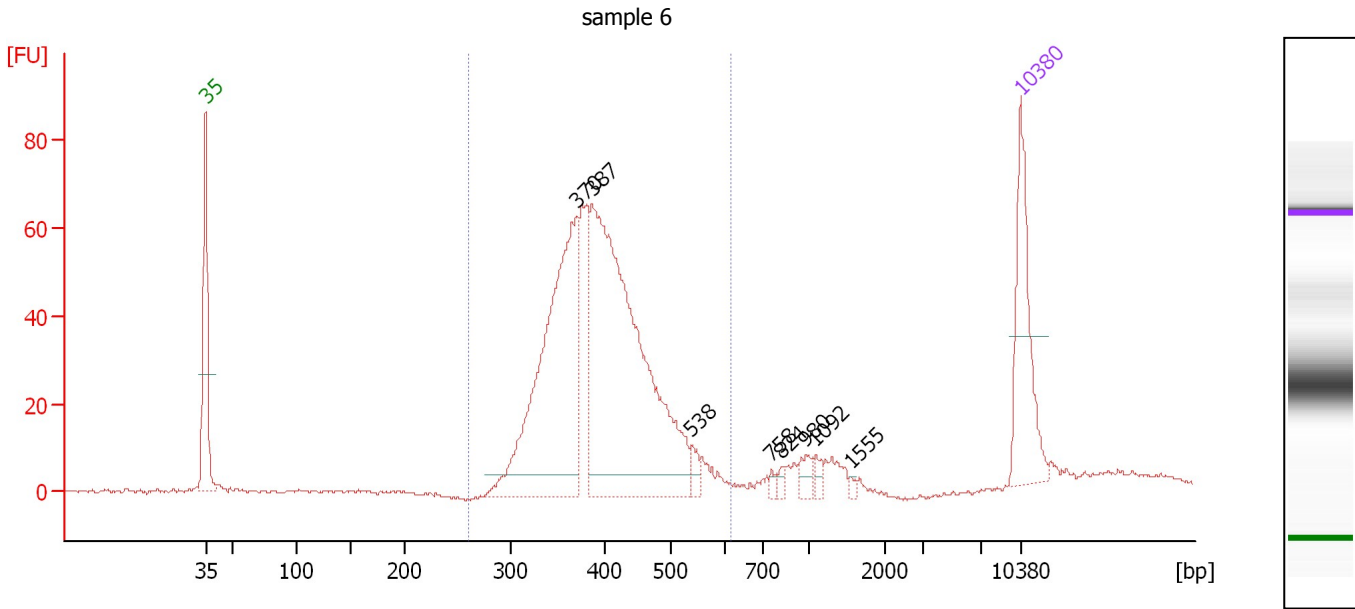
Region table for sample 5 : sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
266	420	709	2,356.2	97	13.8	1,900.14	7,007.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 8 Corr. Area 1: 776.0
 Noise: 0.5

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	370	330.78	1,355.2	
3	387	465.58	1,823.2	
4	538	11.38	32.0	
5	758	4.02	8.0	
6	824	4.52	8.3	
7	980	10.72	16.6	
8	1,092	6.80	9.4	
9	1,555	2.69	2.6	
10	10,380	75.00	10.9	Upper Marker

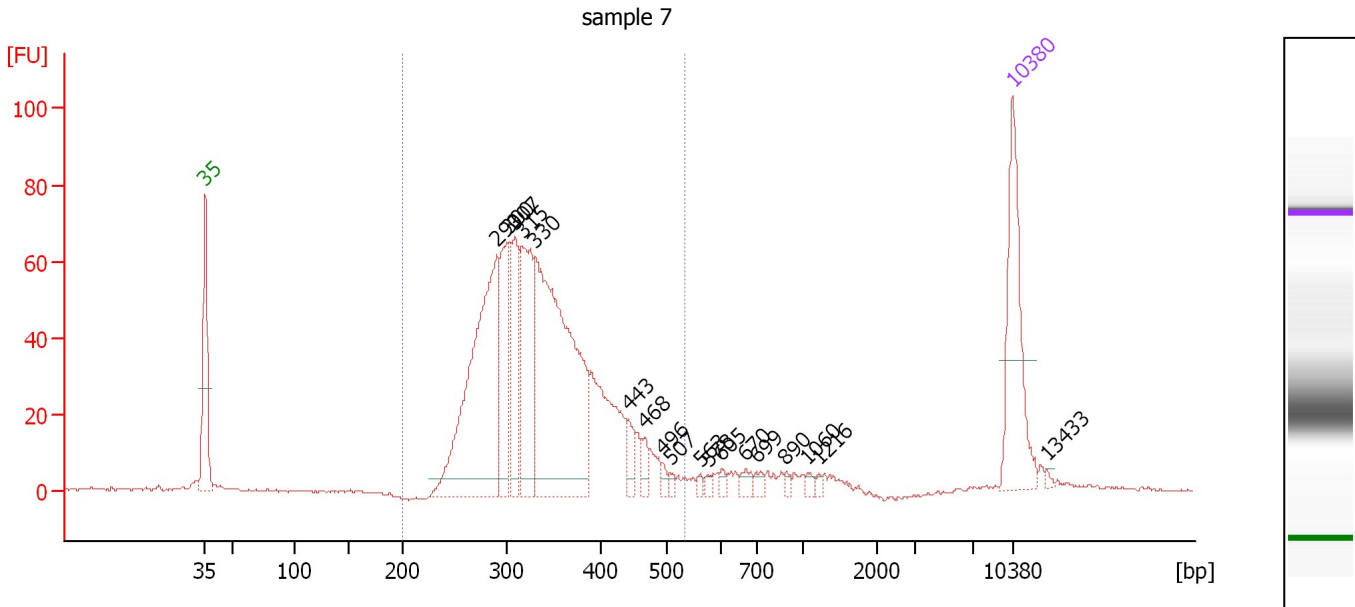
Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
260	400	615	776.0	92	14.1	840.67	3,256.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 18 Corr. Area 1: 981.1
 Noise: 0.3

Peak table for sample 7 : sample 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	290	274.18	1,433.9	
3	300	86.84	438.0	
4	307	68.86	339.5	
5	315	117.41	564.1	
6	330	319.53	1,468.2	
7	443	15.18	51.9	
8	468	10.78	34.9	
9	496	5.22	16.0	
10	507	4.07	12.2	
11	563	3.44	9.3	
12	578	3.94	10.3	
13	605	3.77	9.4	
14	670	7.51	17.0	
15	699	5.47	11.9	
16	890	3.23	5.5	
17	1,060	3.56	5.1	
18	1,216	2.57	3.2	
19	10,380	75.00	10.9	Upper Marker
20	13,433	0.00	0.0	

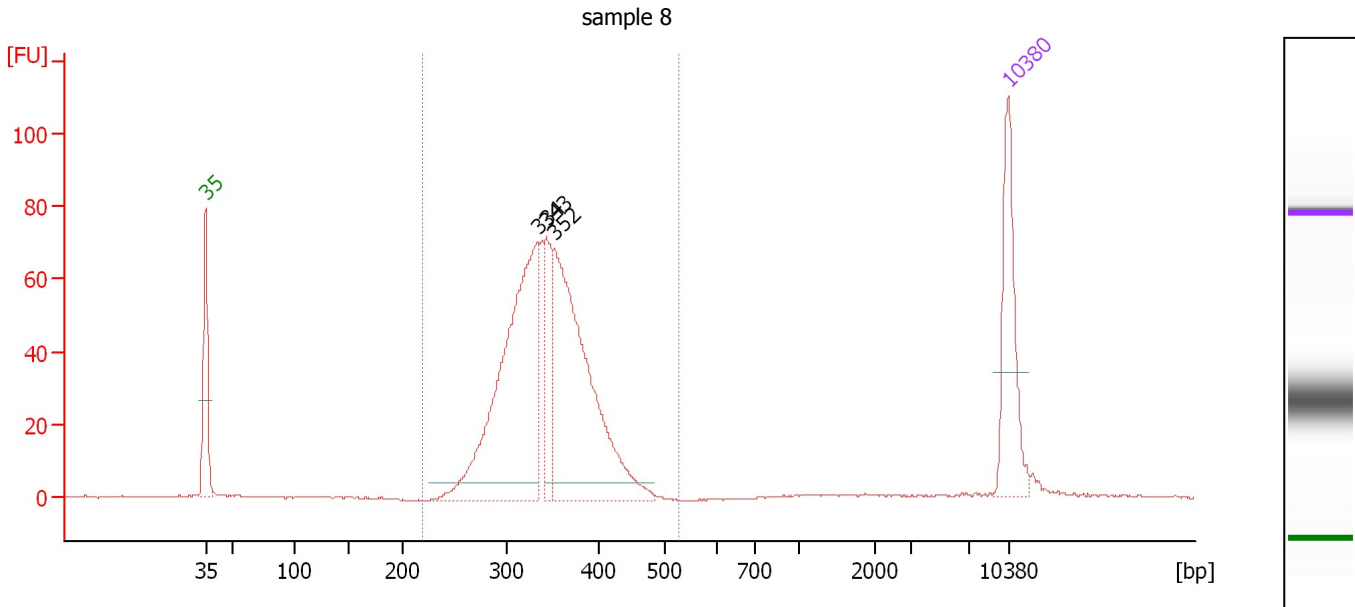
Region table for sample 7 : sample 7

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	337	534	981.1	93	16.8	974.36	4,536.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 3 Corr. Area 1: 796.1
 Noise: 0.2

Peak table for sample 8 : sample 8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	334	357.85	1,622.4	
3	343	75.12	331.4	
4	352	321.74	1,384.4	
5	10,380	75.00	10.9	Upper Marker

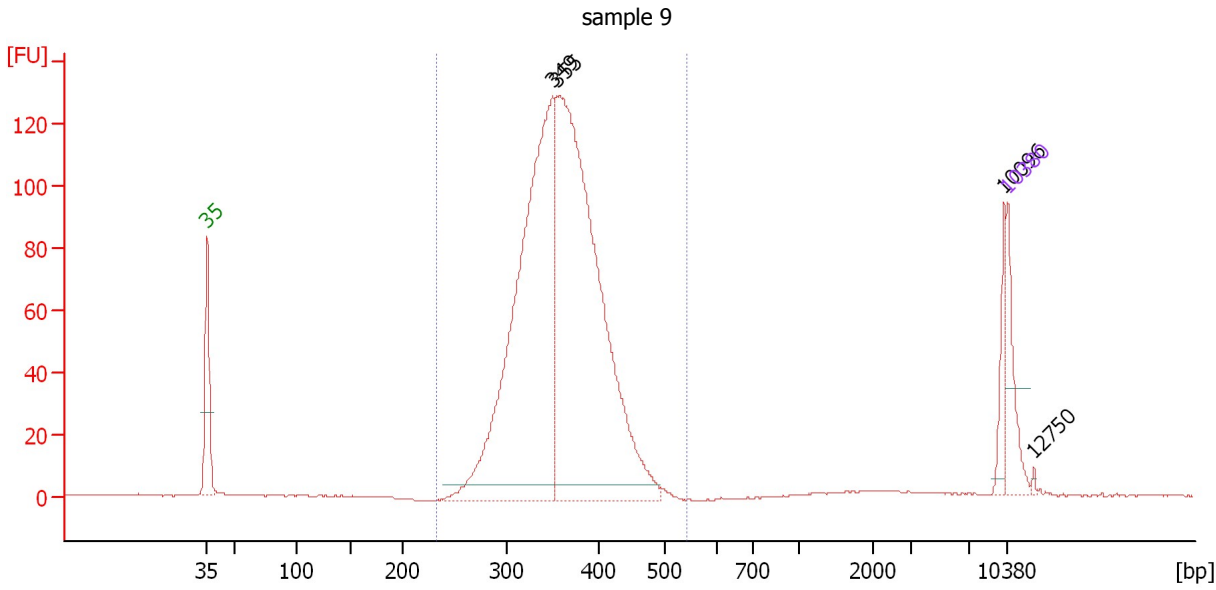
Region table for sample 8 : sample 8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
219	344	527	796.1	97	11.7	772.28	3,457.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 4 Corr. Area 1: 1,413.2
 Noise: 0.2

Peak table for sample 9 : sample 9

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	349	1,230.33	5,336.3	
3	355	1,403.91	5,999.4	
4	10,096	54.13	8.1	
5	10,380	75.00	10.9	Upper Marker
6	12,750	0.00	0.0	

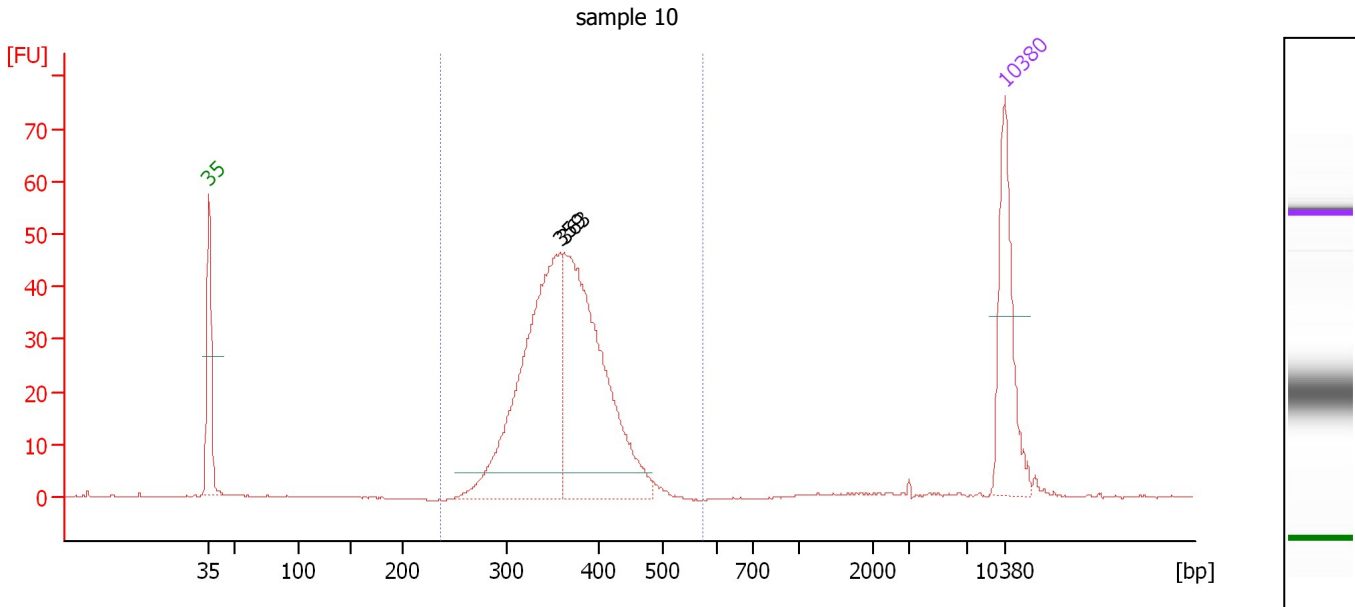
Region table for sample 9 : sample 9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
233	358	542	1,413.2	96	11.5	2,548.15	10,925.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 2 Corr. Area 1: 512.4
 Noise: 0.1

Peak table for sample 10 : sample 10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	359	308.12	1,301.6	
3	363	316.97	1,323.9	
4	10,380	75.00	10.9	Upper Marker

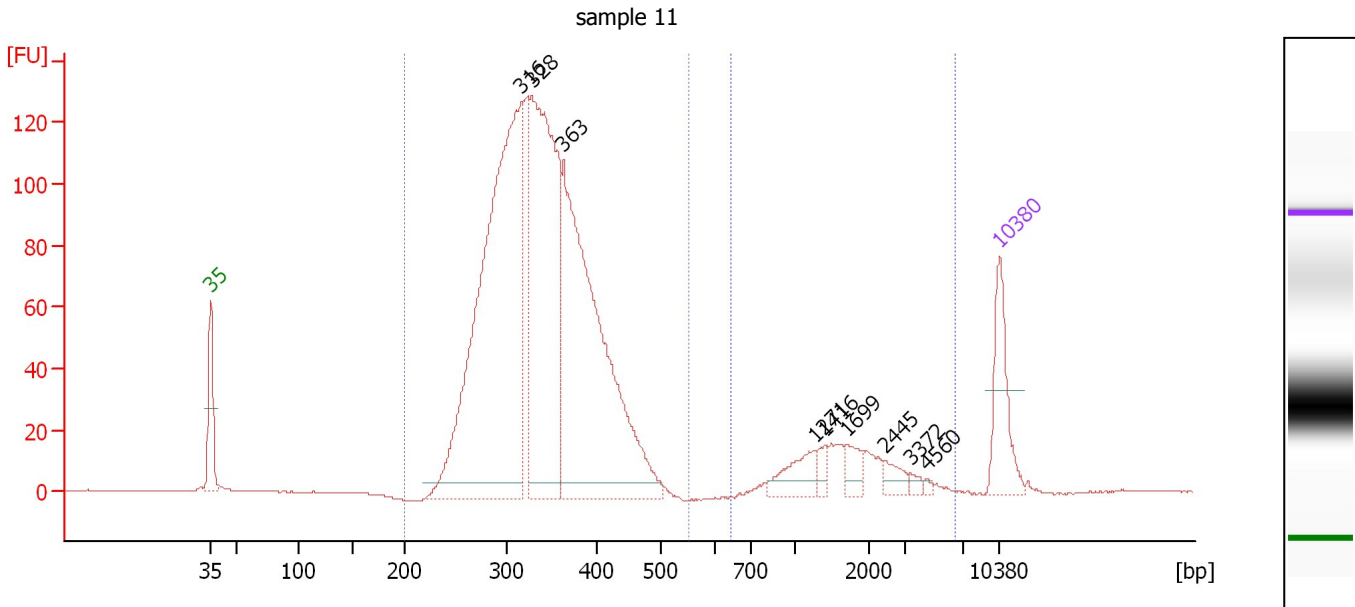
Region table for sample 10 : sample 10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
236	364	573	512.4	97	11.7	625.62	2,644.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 9 Corr. Area 1: 1,834.1
 Noise: 0.2 Corr. Area 2: 153.2

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	316	991.12	4,755.2	
3	328	621.28	2,868.4	
4	363	705.81	2,946.7	
5	1,271	44.86	53.5	
6	1,416	15.28	16.3	
7	1,699	23.04	20.6	
8	2,445	17.27	10.7	
9	3,372	6.60	3.0	
10	4,560	3.26	1.1	
11	10,380	75.00	10.9	Upper Marker

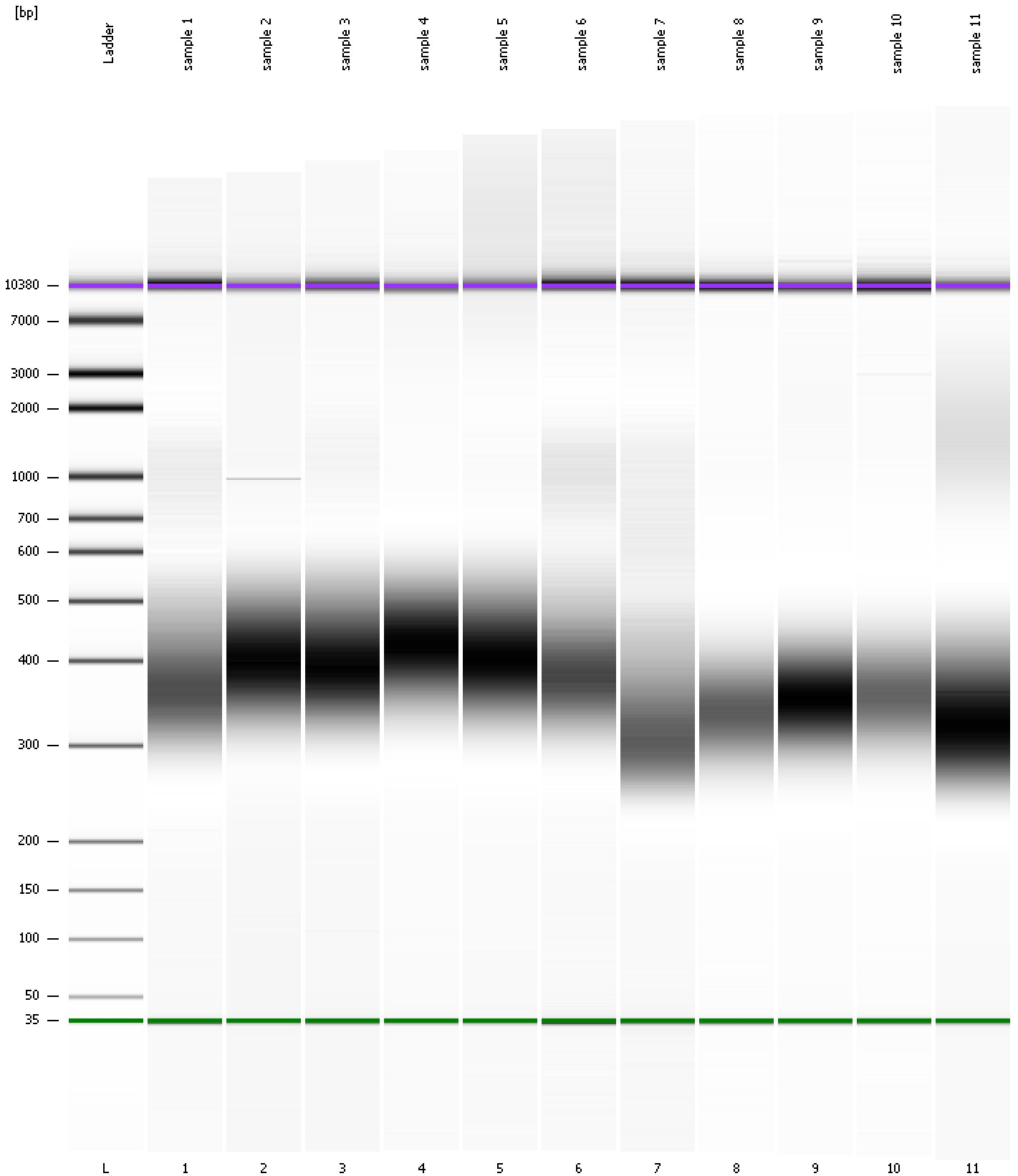
Region table for sample 11 : sample 11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	338	554	1,834.1	92	14.7	2,358.65	10,866.5	Blue
645	1,886	6,457	153.2	8	49.3	141.93	136.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
Modified: 9/30/2014 3:15:50 PM

Gel Image

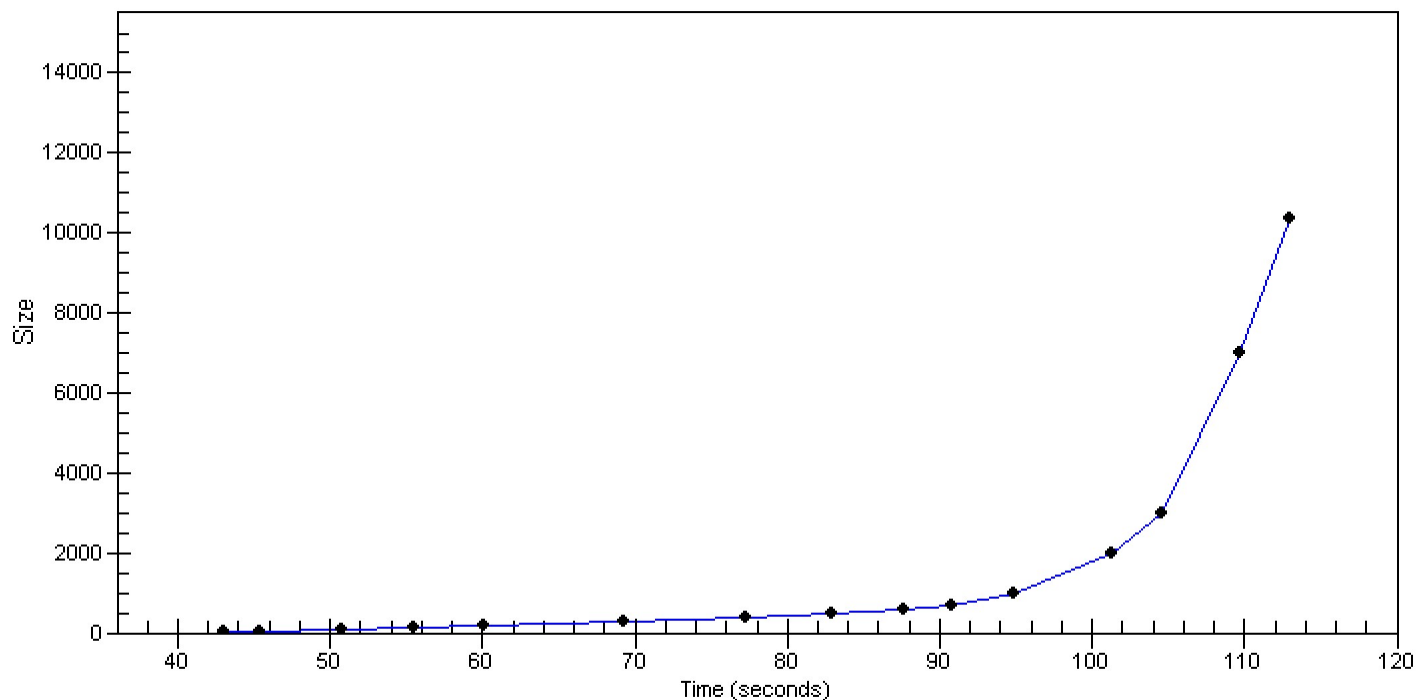


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
Modified: 9/30/2014 3:15:50 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad

Created: 9/30/2014 2:33:14 PM
 Modified: 9/30/2014 3:15:50 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		9/30/2014 3:14:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-30\2014-09-30_001.xad)		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/30/2014 2:33:20 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1