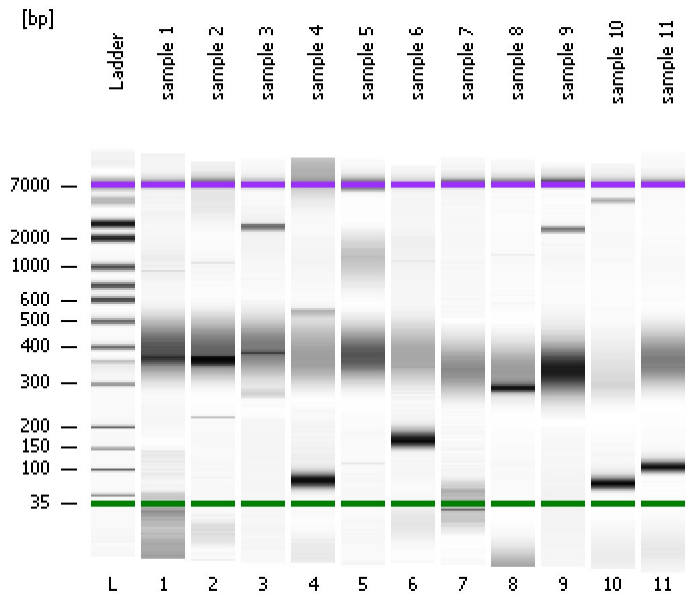


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
Modified: 9/23/2014 4:43:05 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

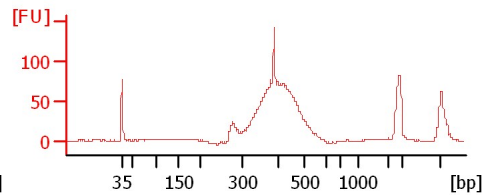
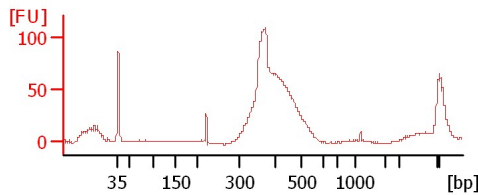
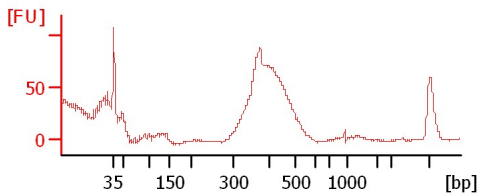
Chip Information:

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

sample 1

sample 2

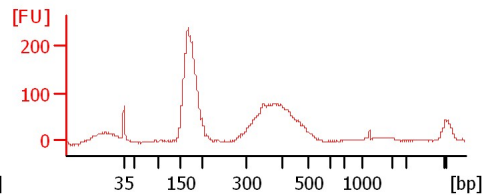
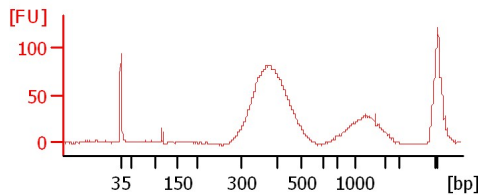
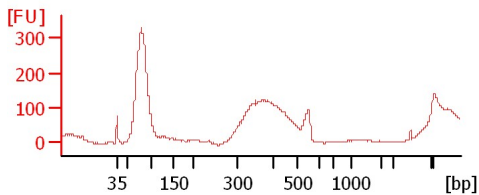
sample 3



sample 4

sample 5

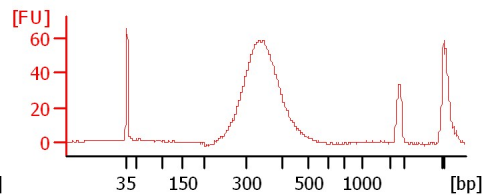
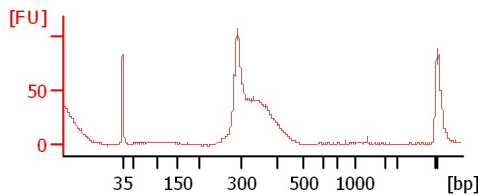
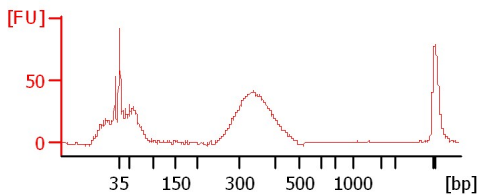
sample 6



sample 7

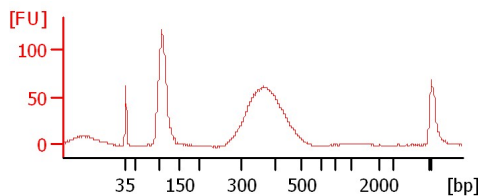
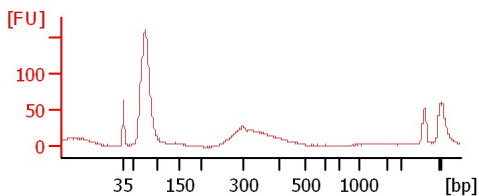
sample 8

sample 9



sample 10

sample 11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 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\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
Modified: 9/23/2014 4:43:05 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

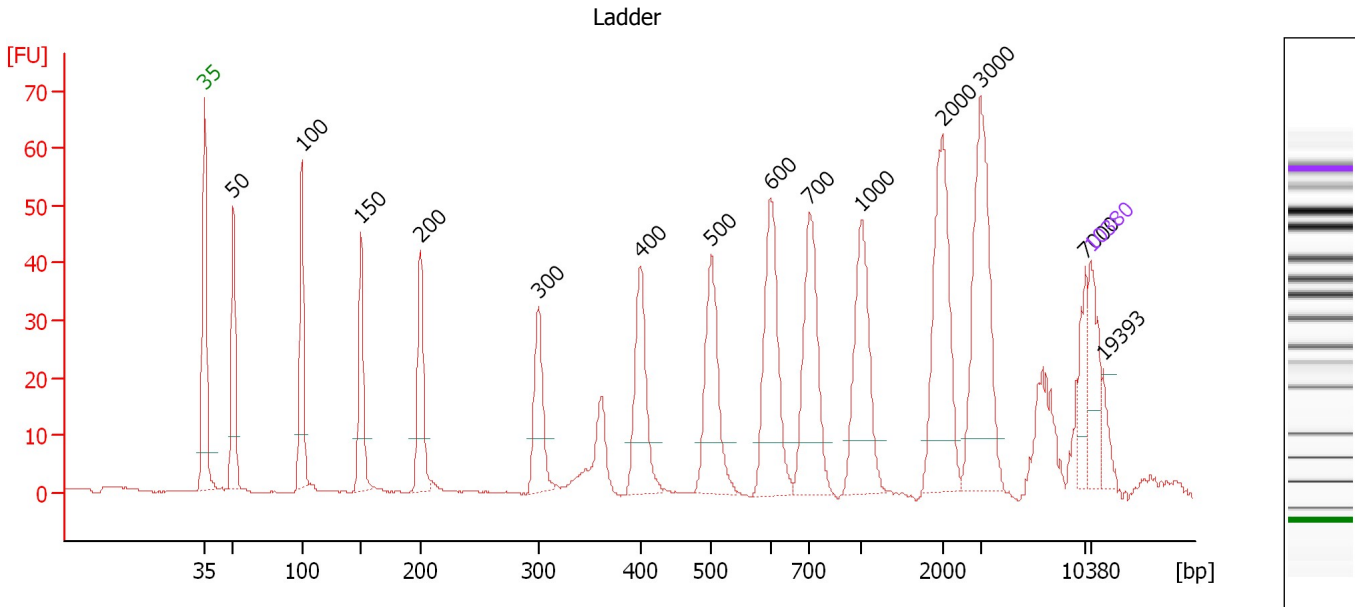
Ladder

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\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

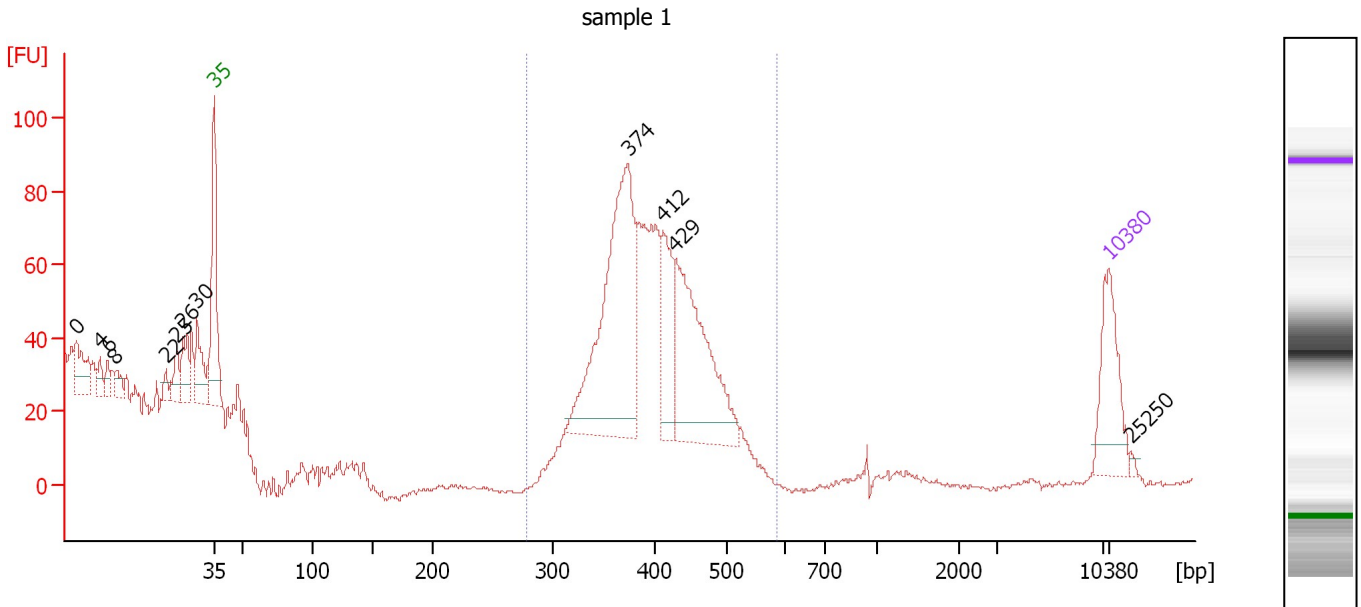
Peak table for Ladder

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
16	19,393	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 12 Corr. Area 1: 591.4
 Noise: 0.7

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	4	0.00	0.0	
3	6	0.00	0.0	
4	8	0.00	0.0	
5	22	0.00	0.0	
6	25	0.00	0.0	
7	26	0.00	0.0	
8	30	0.00	0.0	
9	35	125.00	5,411.3	Lower Marker
10	374	387.02	1,568.3	
11	412	98.94	364.1	
12	429	250.58	885.1	
13	10,380	75.00	10.9	Upper Marker
14	25,250	0.00	0.0	

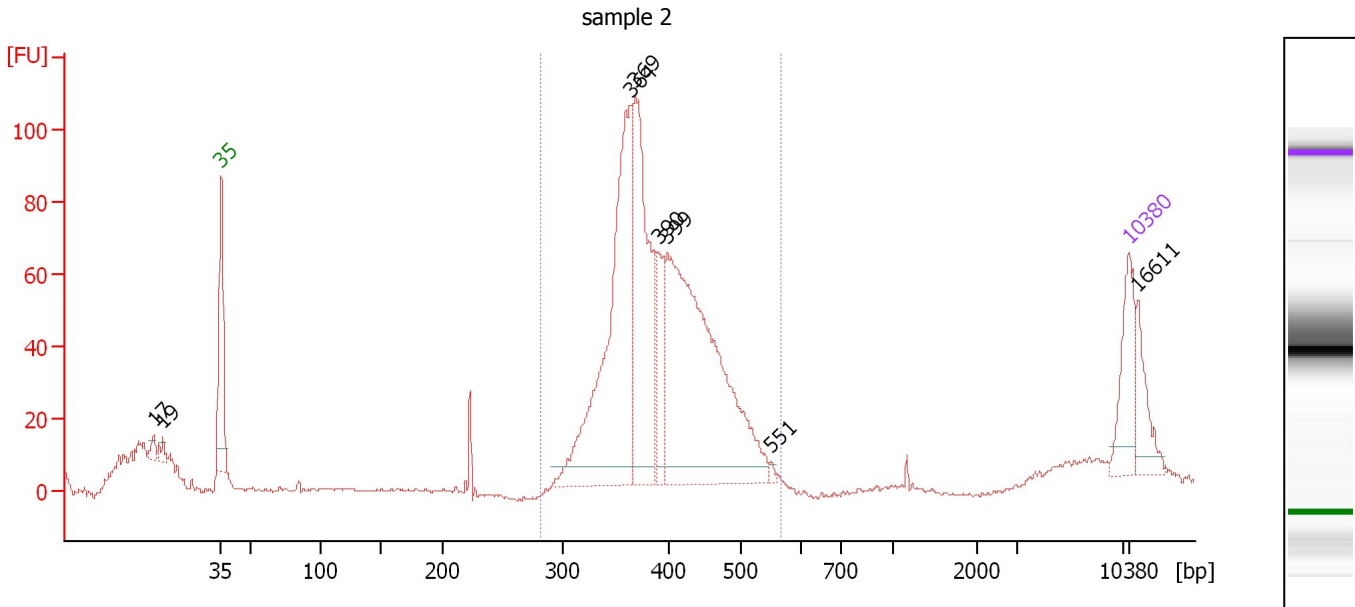
Region table for sample 1 : sample 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
278	401	584	591.4	96	10.1	784.32	2,994.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 8 Corr. Area 1: 995.0
 Noise: 0.4

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	17	0.00	0.0	
2	19	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	364	521.21	2,171.8	
5	369	344.77	1,416.7	
6	390	74.97	291.1	
7	399	625.99	2,374.8	
8	551	4.60	12.7	
9	10,380	75.00	10.9	Upper Marker
10	16,611	0.00	0.0	

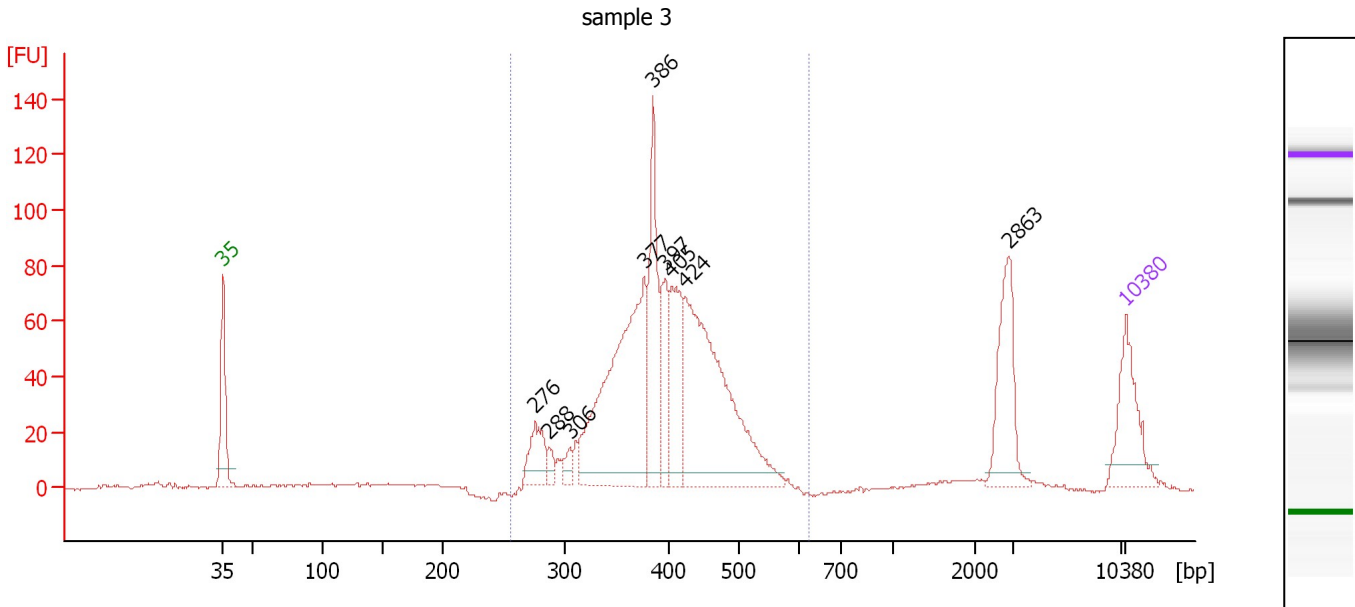
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
281	398	568	995.0	78	13.0	1,600.99	6,217.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 9 Corr. Area 1: 1,115.3
 Noise: 0.4

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	276	62.46	342.8	
3	288	14.32	75.4	
4	306	16.46	81.6	
5	377	400.34	1,608.9	
6	386	157.49	618.6	
7	397	81.82	312.2	
8	405	120.16	449.1	
9	424	402.61	1,438.8	
10	2,863	100.35	53.1	
11	10,380	75.00	10.9	Upper Marker

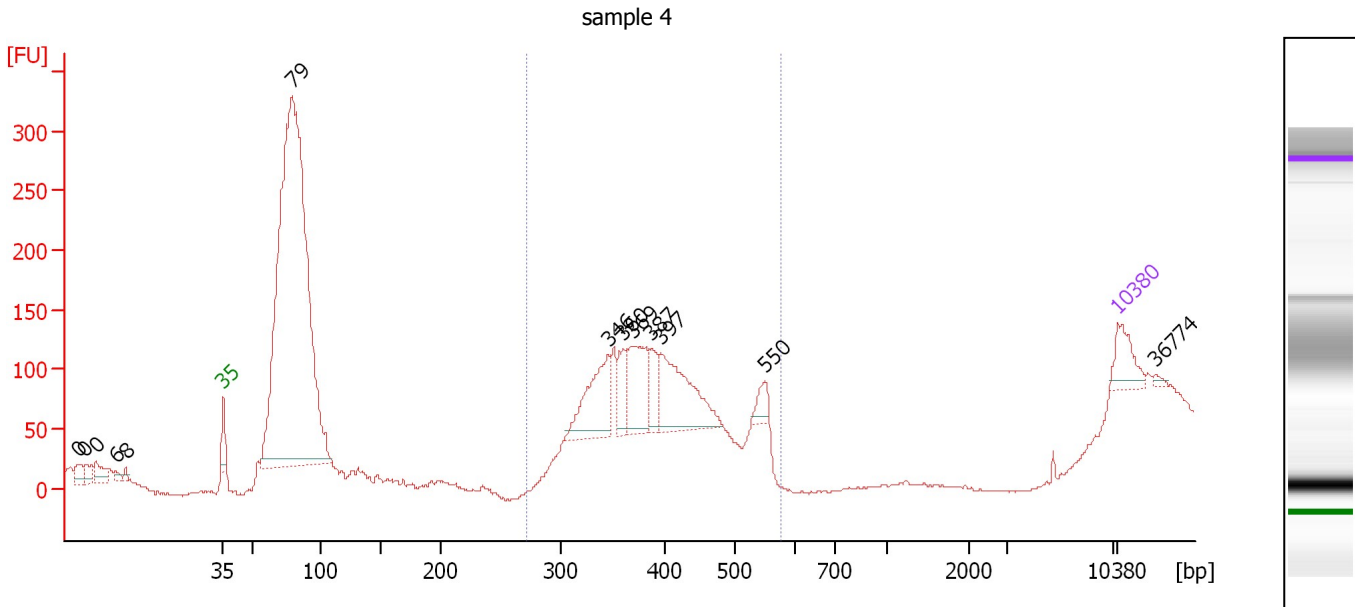
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
256	399	621	1,115.3	82	15.4	1,345.86	5,281.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 13 Corr. Area 1: 898.5
 Noise: 0.7

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	6	0.00	0.0	
5	8	0.00	0.0	
6	35	125.00	5,411.3	Lower Marker
7	79	3,342.71	64,284.0	
8	346	276.39	1,210.6	
9	360	94.24	396.2	
10	369	240.78	988.0	
11	387	90.81	355.2	
12	397	317.49	1,211.0	
13	550	48.29	133.0	
14	10,380	75.00	10.9	Upper Marker
15	36,774	0.00	0.0	

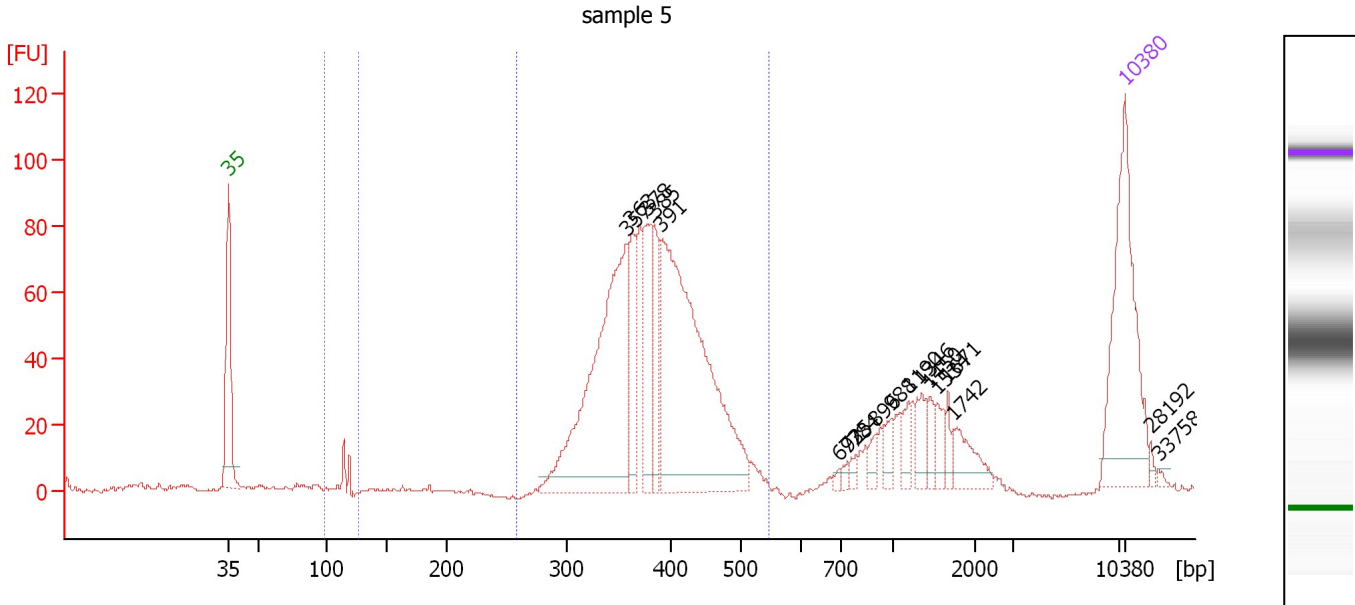
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
270	390	578	898.5	33	13.9	1,170.45	4,637.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 18 Corr. Area 1: 10.2
 Noise: 0.4 Corr. Area 2: 992.5

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	357	190.12	806.6	
3	363	36.72	153.3	
4	378	44.92	179.9	
5	385	33.08	130.3	
6	391	230.13	892.3	
7	692	2.01	4.4	
8	735	2.52	5.2	
9	784	3.62	7.0	
10	896	5.81	9.8	
11	988	7.77	11.9	
12	1,190	7.98	10.2	
13	1,346	11.80	13.3	
14	1,450	6.70	7.0	
15	1,534	8.43	8.3	
16	1,671	5.92	5.4	
17	1,742	16.51	14.4	
18	10,380	75.00	10.9	Upper Marker
19	28,192	0.00	0.0	
20	33,758	0.00	0.0	

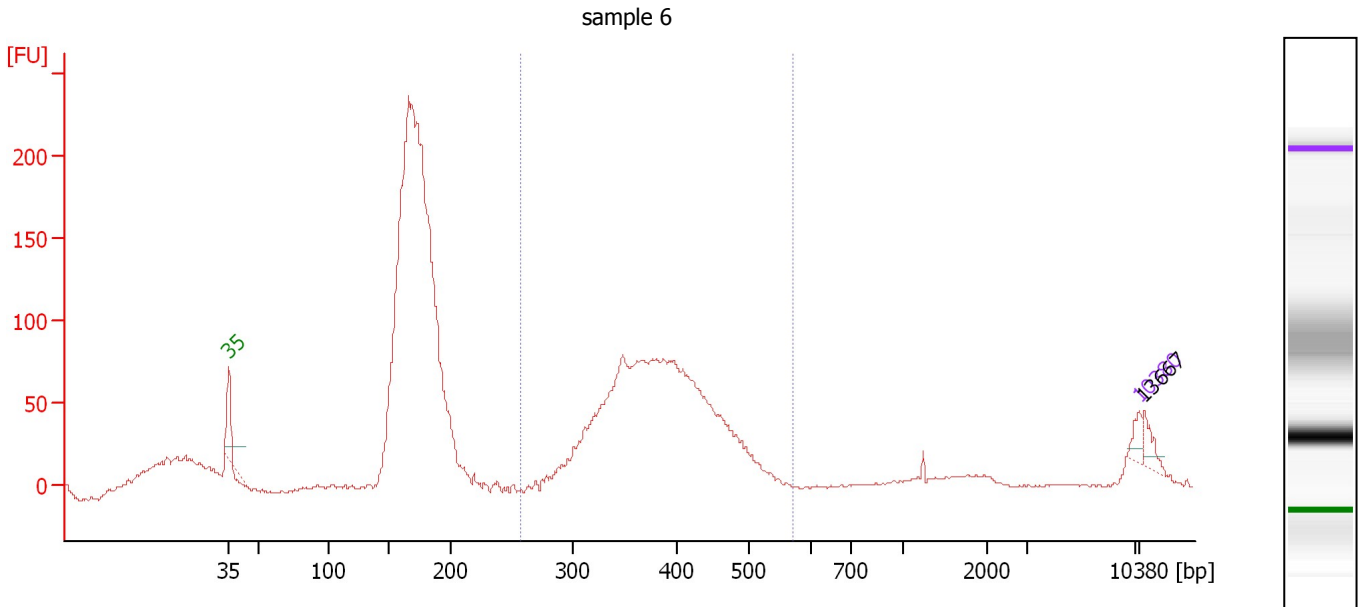
Region table for sample 5 : sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
99	115	126	10.2	1	2.4	8.12	106.7	Blue
258	387	548	992.5	79	12.7	568.92	2,266.8	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 1 Corr. Area 1: 1,146.7
 Noise: 0.9

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	10,380	75.00	10.9	Upper Marker
3	13,667	0.00	0.0	

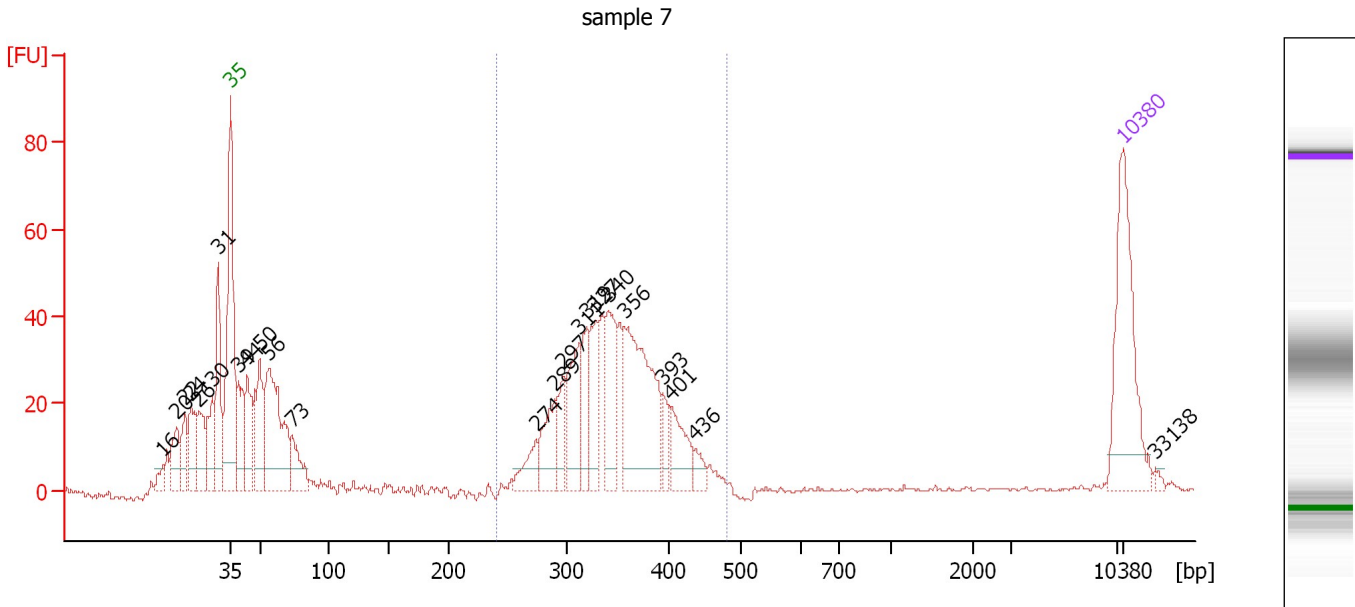
Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
257	387	572	1,146.7	37	14.2	5,633.07	22,619.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 24 Corr. Area 1: 532.6
 Noise: 0.4

Peak table for sample 7 : sample 7


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	16	0.00	0.0	
2	20	0.00	0.0	
3	22	0.00	0.0	
4	24	0.00	0.0	
5	26	0.00	0.0	
6	30	0.00	0.0	
7	31	0.00	0.0	
8	35	125.00	5,411.3	Lower Marker
9	39	49.79	1,927.6	
10	44	50.22	1,747.0	
11	50	55.29	1,678.8	
12	56	135.59	3,638.7	
13	73	34.50	714.7	
14	274	22.62	125.3	
15	289	40.02	209.7	
16	297	27.76	141.7	
17	311	55.86	271.8	
18	319	34.72	164.8	
19	327	40.81	188.8	
20	340	54.04	240.8	
21	356	132.12	563.0	
22	393	14.68	56.6	
23	401	33.54	126.7	
24	436	10.12	35.2	
25	10,380	75.00	10.9	Upper Marker
26	33,138	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...

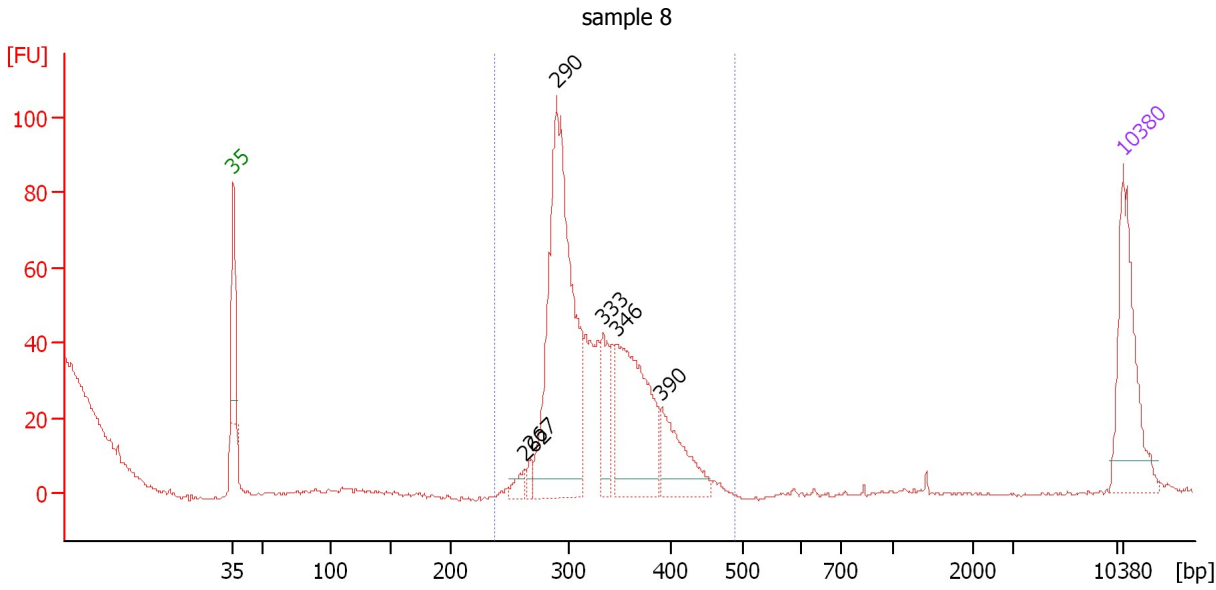
... Region table for sample 7 : sample 7

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
241	346	479	532.6	51	12.9	542.94	2,427.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 6 Corr. Area 1: 399.0
 Noise: 0.4

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	262	12.19	70.4	
3	267	8.74	49.5	
4	290	363.20	1,898.6	
5	333	45.18	205.5	
6	346	166.72	729.9	
7	390	65.87	255.7	
8	10,380	75.00	10.9	Upper Marker

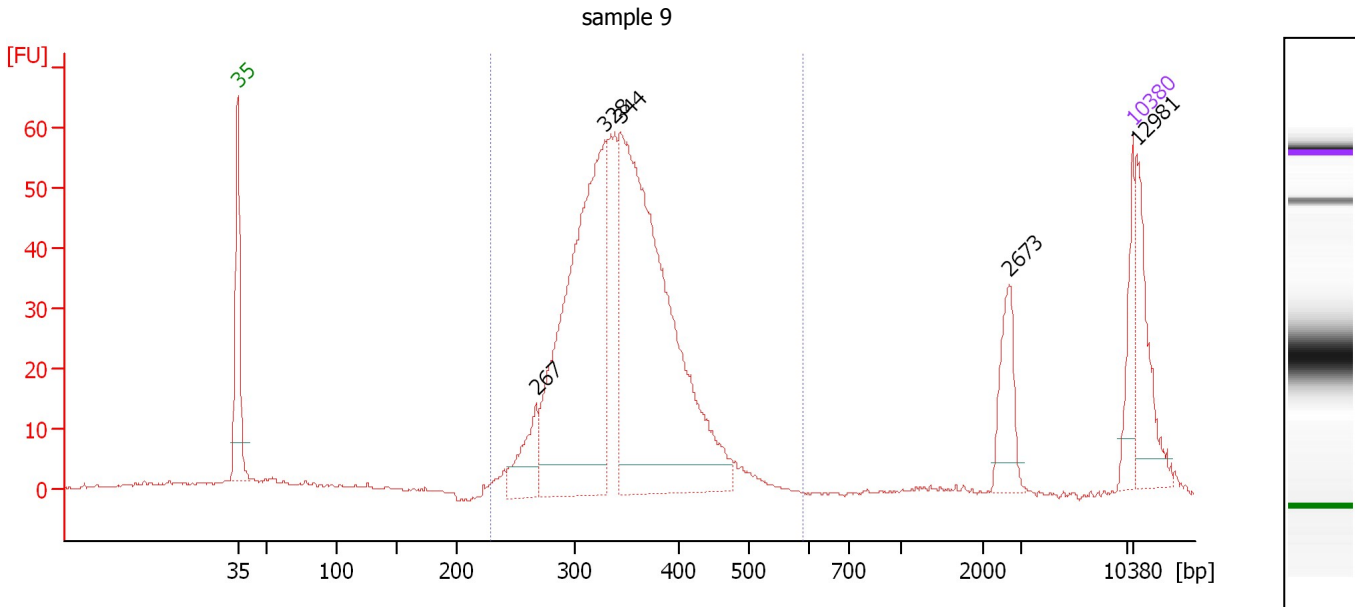
Region table for sample 8 : sample 8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
237	318	489	399.0	100	9.8	404.98	1,950.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 5 Corr. Area 1: 781.5
 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	267	128.61	730.8	
3	328	998.70	4,612.3	
4	344	1,251.60	5,510.6	
5	2,673	98.21	55.7	
6	10,380	75.00	10.9	Upper Marker
7	12,981	0.00	0.0	

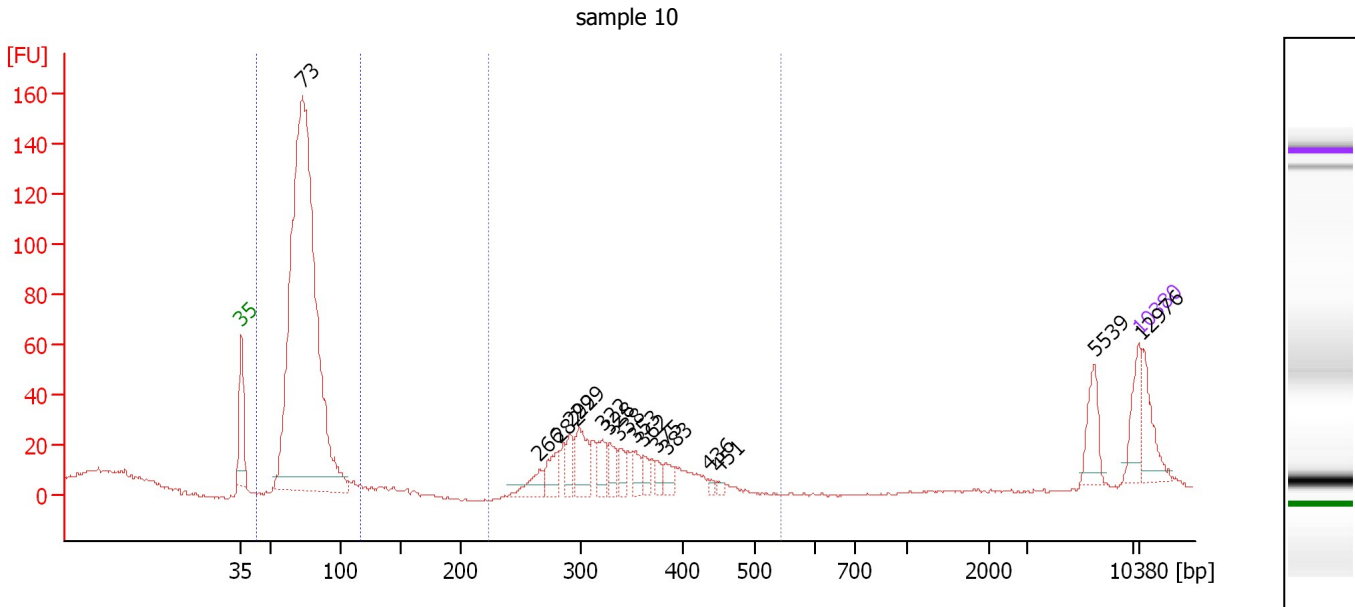
Region table for sample 9 : sample 9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
229	345	588	781.5	84	14.3	2,568.25	11,556.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 16 Corr. Area 1: 203.8
 Noise: 0.5 Corr. Area 2: 723.2

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	73	2,856.15	59,377.2	
3	266	72.58	413.1	
4	282	82.78	445.1	
5	292	62.23	322.9	
6	299	128.35	650.1	
7	322	75.32	354.1	
8	328	55.70	256.9	
9	338	44.48	199.2	
10	353	49.51	212.3	
11	362	32.31	135.4	
12	375	25.34	102.4	
13	383	34.84	137.7	
14	436	10.75	37.4	
15	451	10.66	35.8	
16	5,539	81.34	22.3	
17	10,380	75.00	10.9	Upper Marker
18	12,976	0.00	0.0	

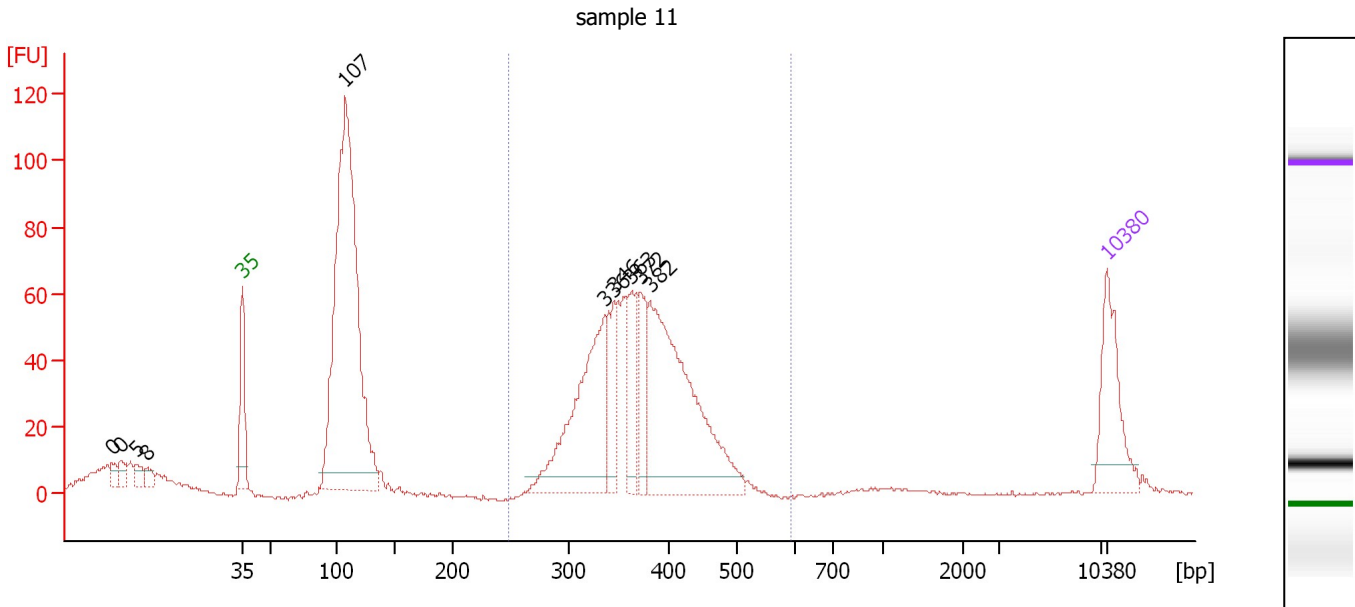
Region table for sample 10 : sample 10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
43	74	117	723.2	69	10.9	2,639.66	53,953.7	Blue
223	328	546	203.8	19	11.8	557.46	2,613.1	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 10 Corr. Area 1: 750.9
 Noise: 0.3

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	5	0.00	0.0	
4	8	0.00	0.0	
5	35	125.00	5,411.3	Lower Marker
6	107	760.73	10,762.1	
7	336	247.70	1,117.0	
8	346	73.87	323.8	
9	363	81.13	338.3	
10	372	66.52	271.0	
11	382	355.52	1,411.6	
12	10,380	75.00	10.9	Upper Marker

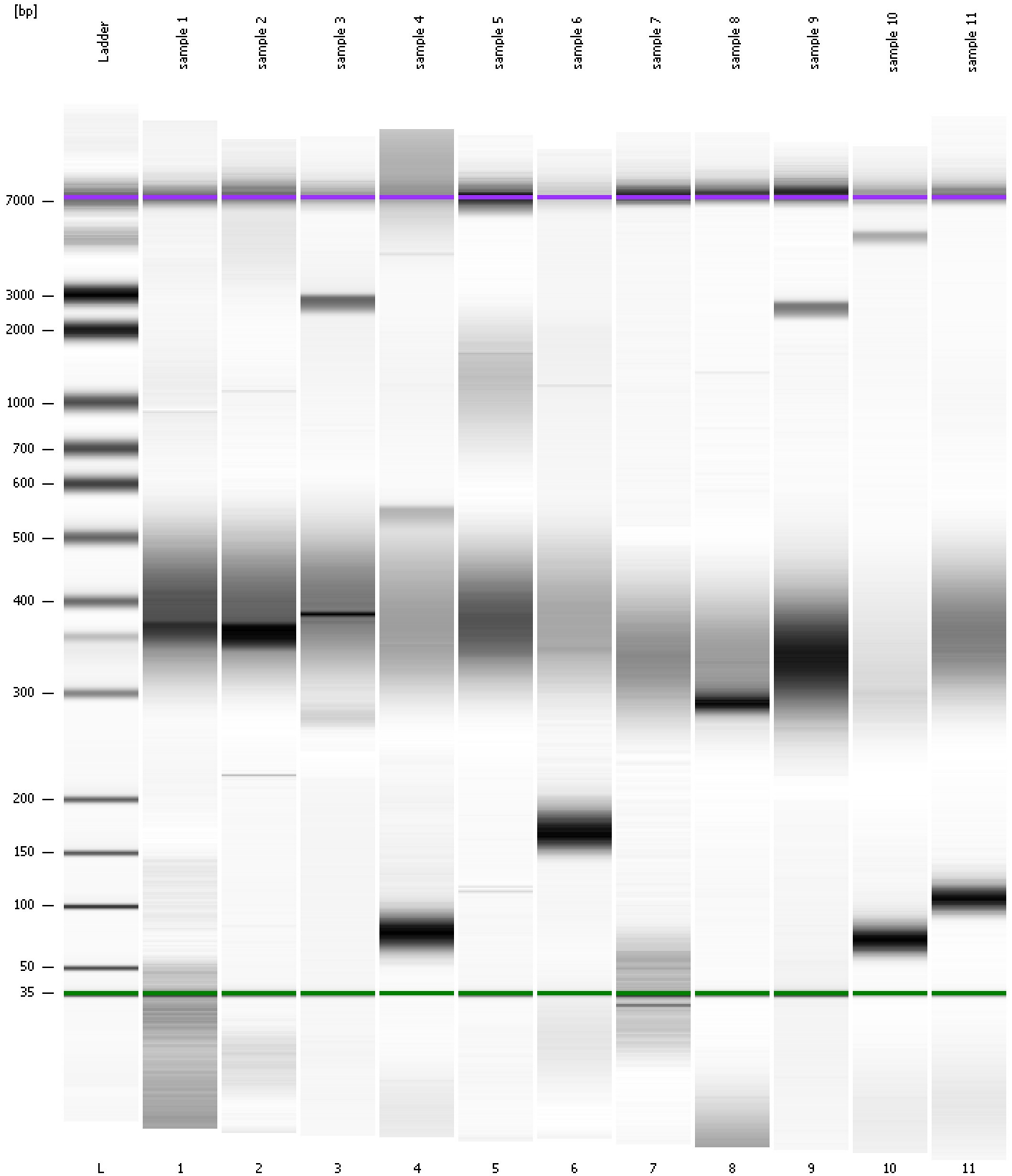
Region table for sample 11 : sample 11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
248	373	593	750.9	57	13.0	867.22	3,593.5	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
Modified: 9/23/2014 4:43:05 PM

Gel Image

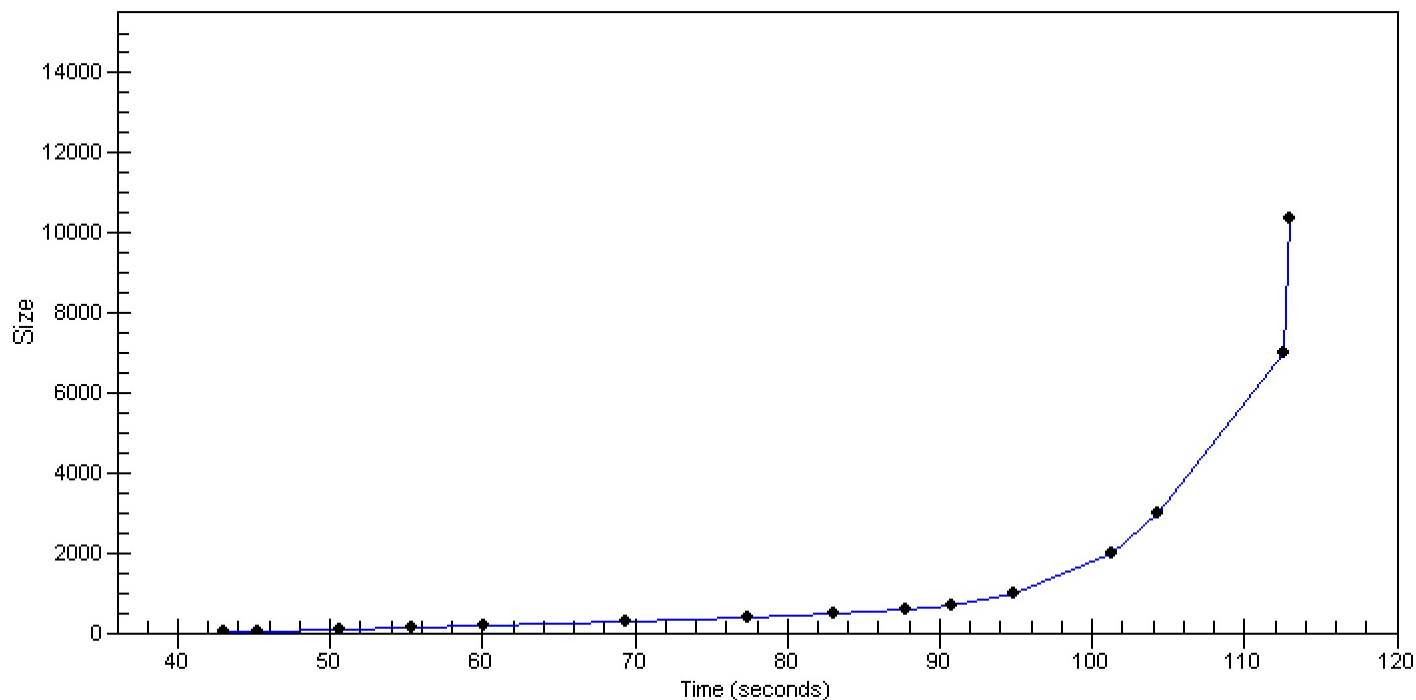


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
Modified: 9/23/2014 4:43:05 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad

Created: 9/23/2014 3:34:50 PM
 Modified: 9/23/2014 4:43:05 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		9/23/2014 4:16:09 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-23\2014-09-23_004.xad)		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/23/2014 3:34:55 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1