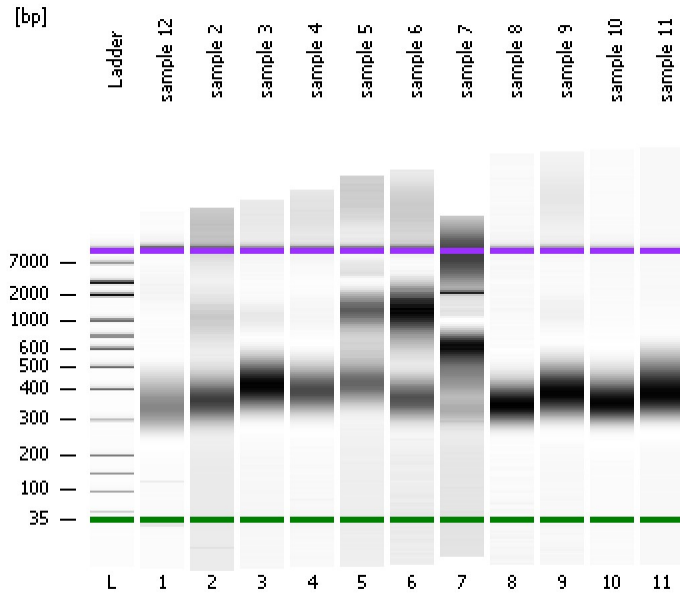


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
Modified: 9/23/2014 5:33:55 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

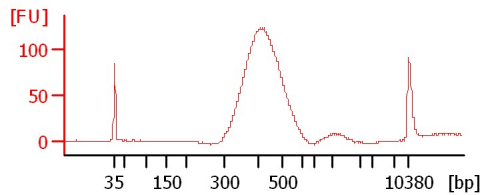
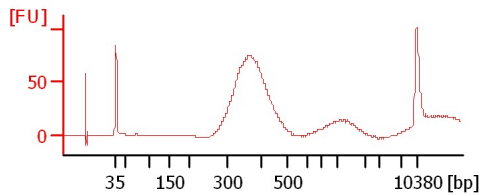
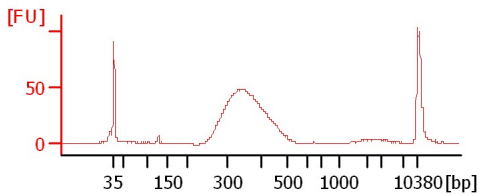
Chip Information:

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

sample 12

sample 2

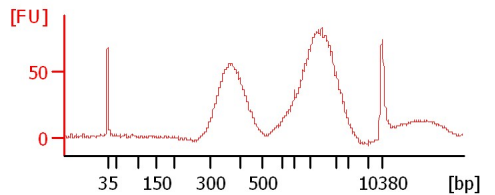
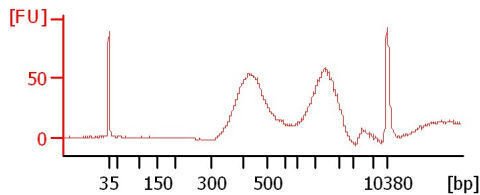
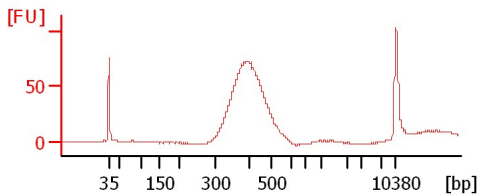
sample 3



sample 4

sample 5

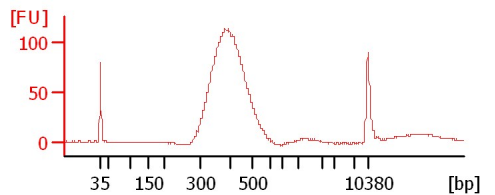
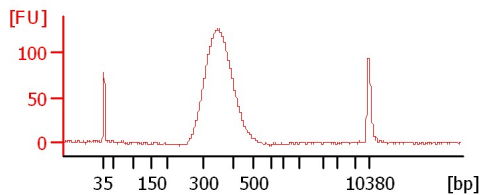
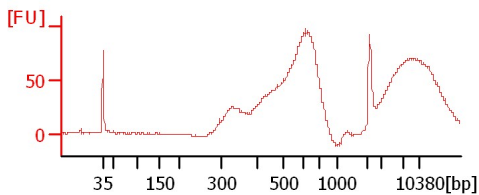
sample 6



sample 7

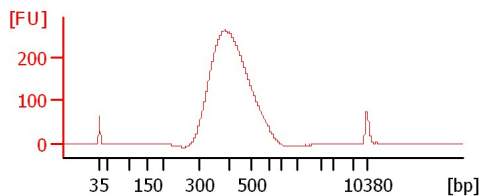
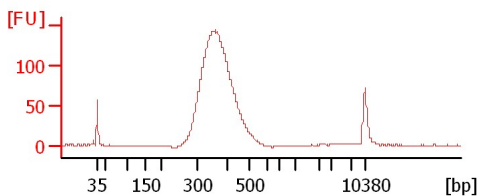
sample 8

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_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 12		<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_005.xad

Created: 9/23/2014 4:43:16 PM
Modified: 9/23/2014 5:33:55 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

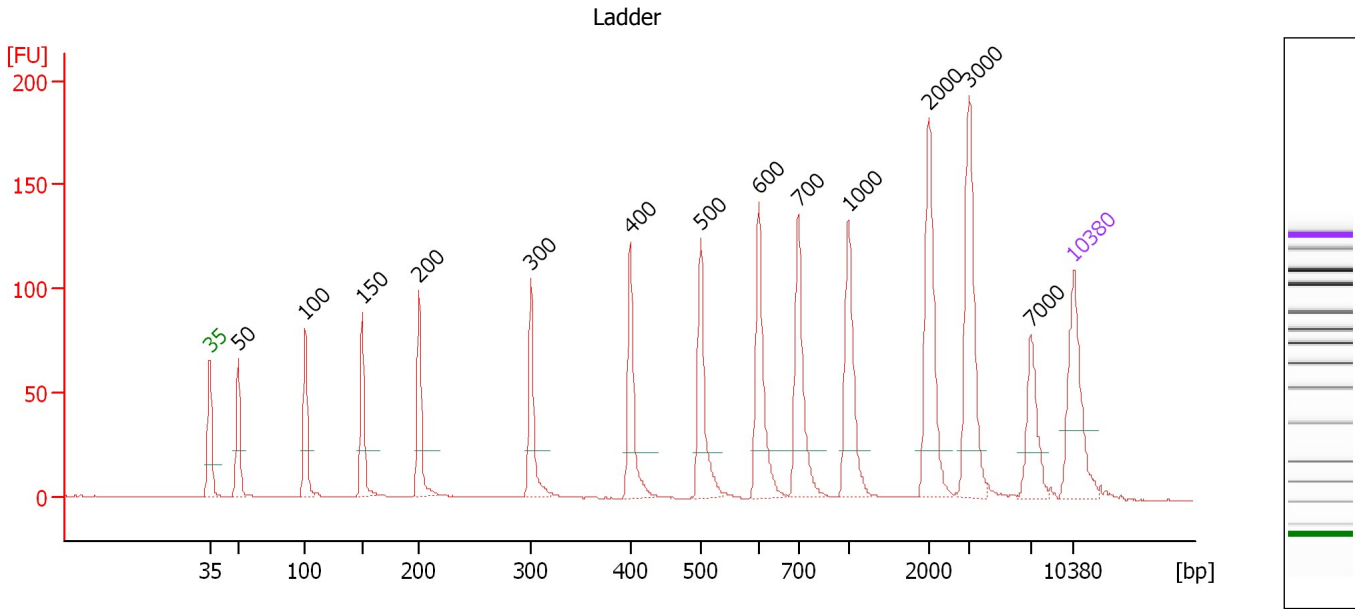
Ladder

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_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

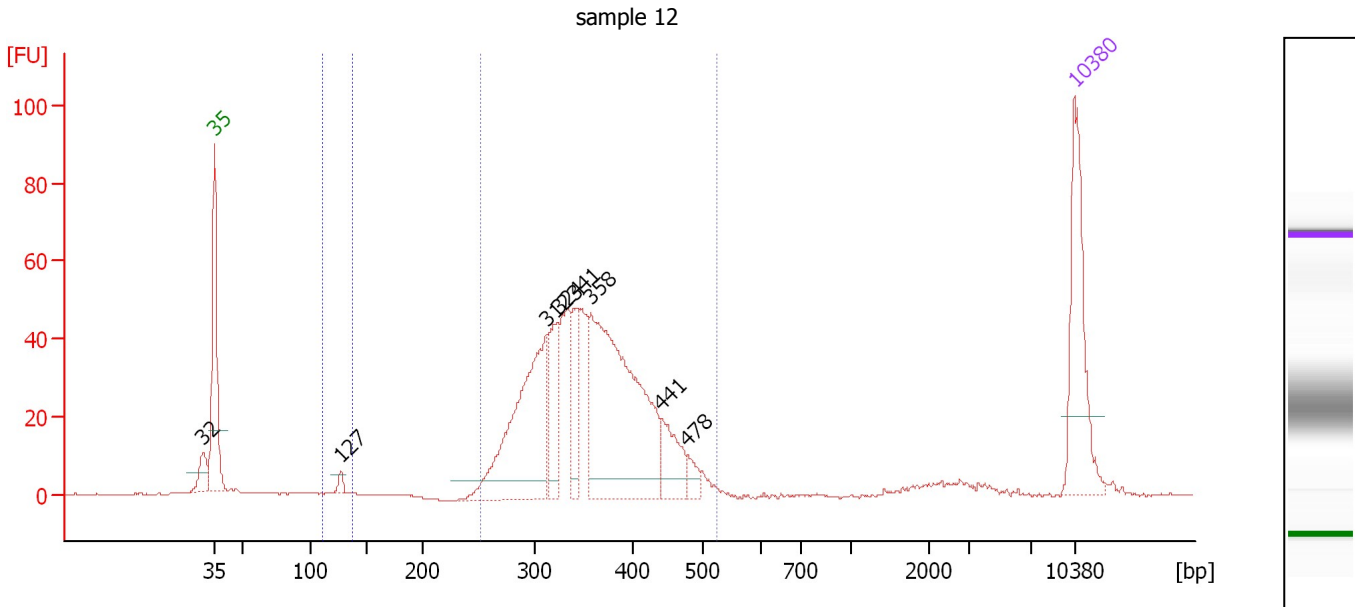
Peak table for Ladder

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\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 12

Number of peaks found: 8 Corr. Area 1: 728.3
 Noise: 0.2 Corr. Area 2: 5.9

Peak table for sample 1 : sample 12

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	127	6.64	79.1	
4	312	194.71	944.3	
5	324	60.44	282.4	
6	341	45.73	203.5	
7	358	278.87	1,180.9	
8	441	41.15	141.4	
9	478	11.11	35.2	
10	10,380	75.00	10.9	Upper Marker

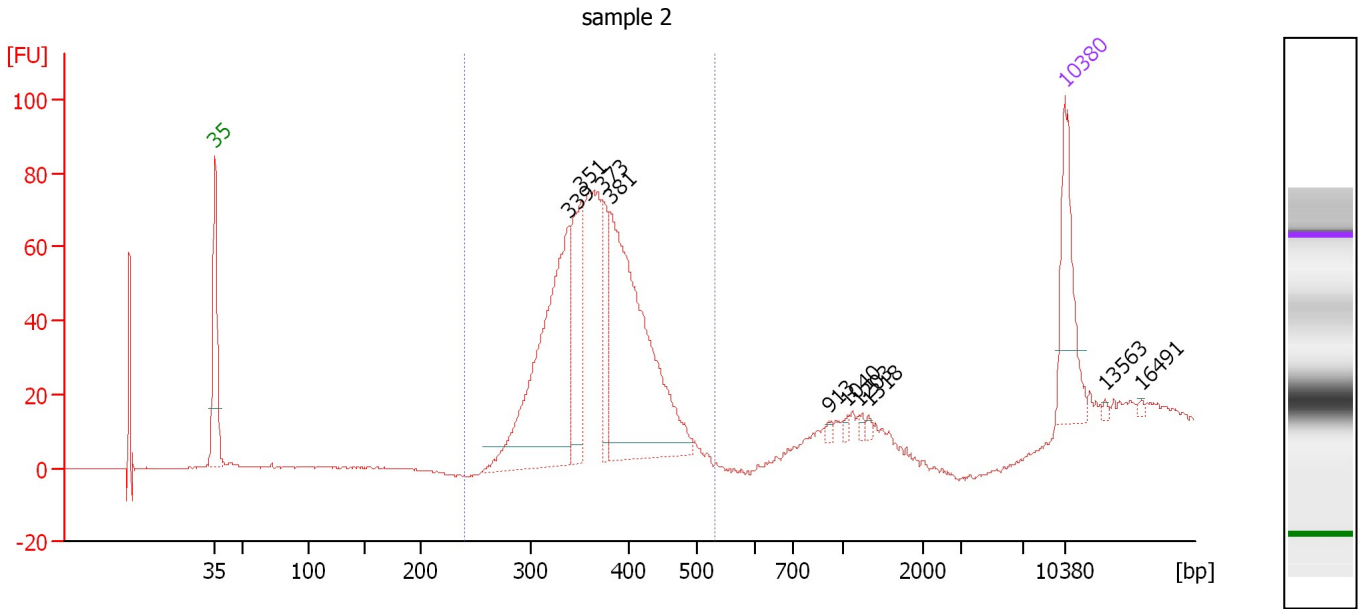
Region table for sample 1 : sample 12

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
111	127	138	5.9	1	2.9	7.75	92.8	Blue
253	357	525	728.3	92	15.0	720.27	3,141.0	Dark Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 10 Corr. Area 1: 778.4
 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	339	330.58	1,475.8	
3	351	125.63	542.5	
4	373	65.44	265.6	
5	381	366.21	1,456.6	
6	913	3.38	5.6	
7	1,040	4.02	5.9	
8	1,203	3.60	4.5	
9	1,318	3.26	3.8	
10	10,380	75.00	10.9	Upper Marker
11	13,563	0.00	0.0	
12	16,491	0.00	0.0	

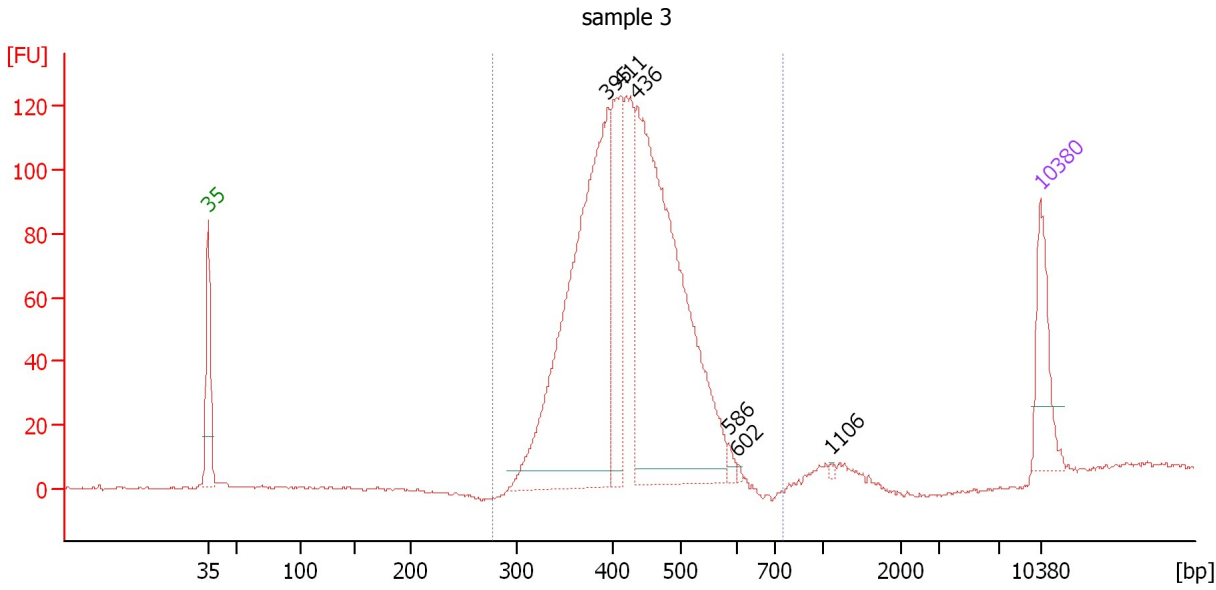
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
239	367	532	778.4	91	11.0	944.29	3,942.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 6 Corr. Area 1: 1,556.7
 Noise: 0.3

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	395	734.77	2,821.9	
3	411	213.45	786.6	
4	436	793.37	2,759.9	
5	586	8.79	22.7	
6	602	2.97	7.5	
7	1,106	2.66	3.6	
8	10,380	75.00	10.9	Upper Marker

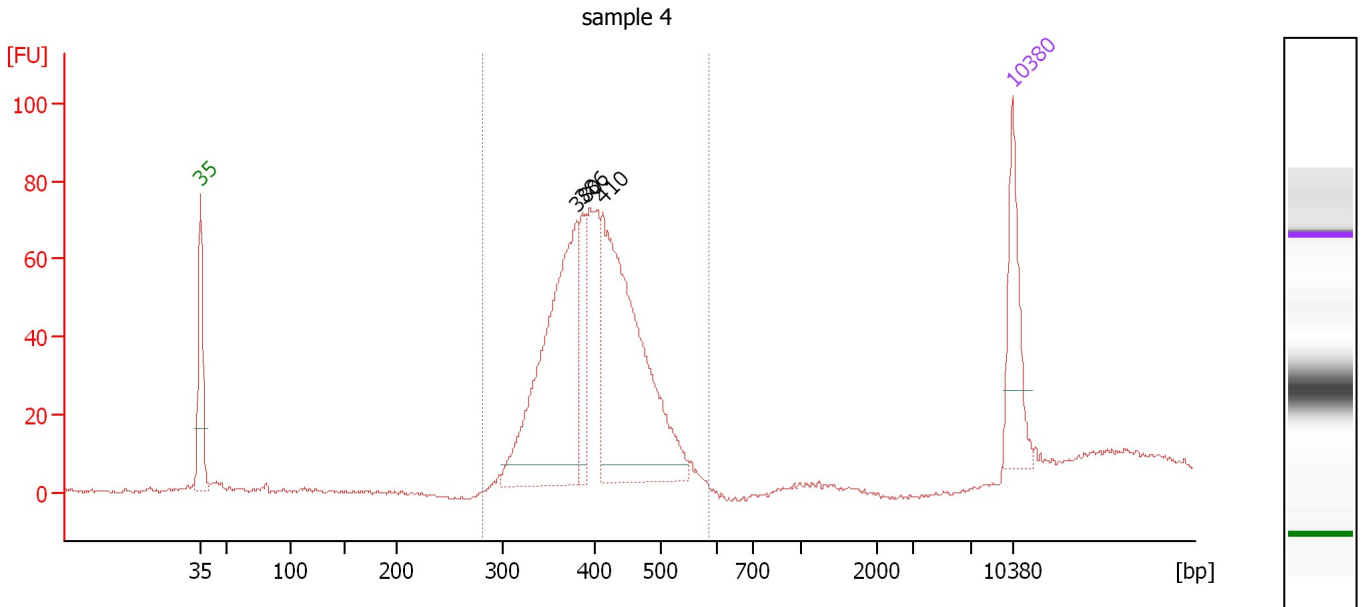
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
278	426	745	1,556.7	99	13.9	1,869.17	6,797.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 3 Corr. Area 1: 812.6
 Noise: 0.5

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	380	375.27	1,497.1	
3	386	65.55	257.2	
4	410	404.32	1,493.4	
5	10,380	75.00	10.9	Upper Marker

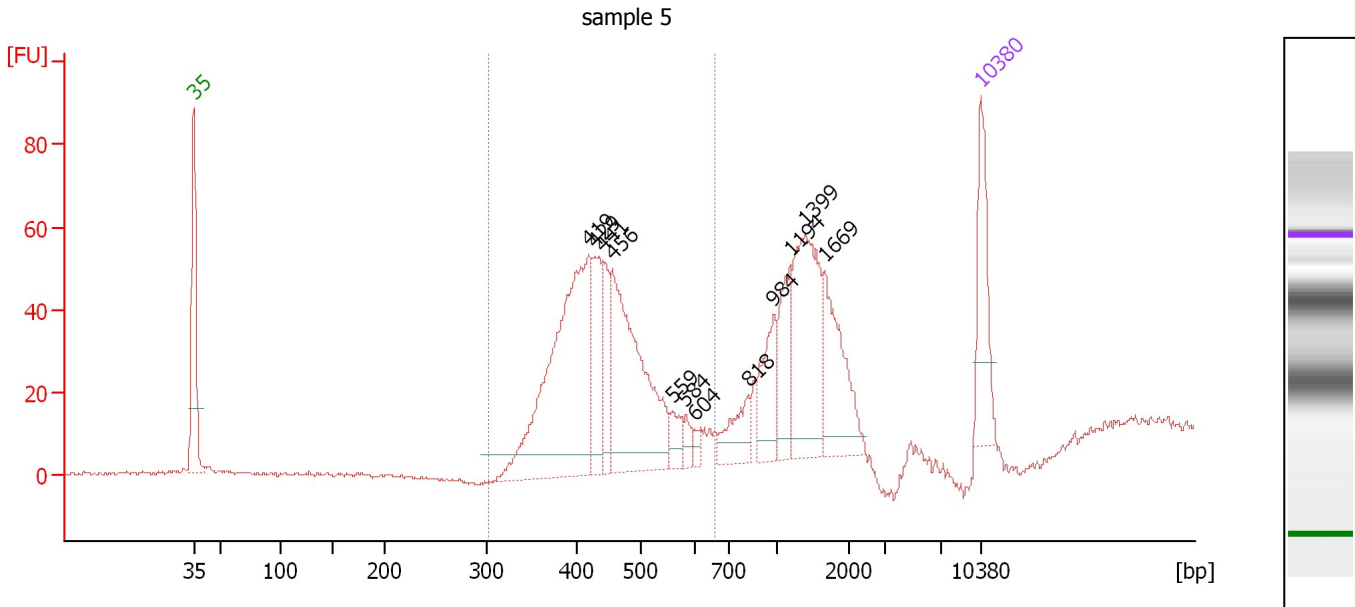
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
280	405	585	812.6	96	12.4	963.32	3,665.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 12 Corr. Area 1: 494.5
 Noise: 0.4

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	419	390.31	1,410.9	
3	429	89.73	316.8	
4	441	59.80	205.6	
5	456	275.45	915.8	
6	559	23.72	64.3	
7	584	12.52	32.5	
8	604	11.40	28.6	
9	818	44.80	83.0	
10	984	64.90	99.9	
11	1,194	66.69	84.6	
12	1,399	157.04	170.1	
13	1,669	100.71	91.4	
14	10,380	75.00	10.9	Upper Marker

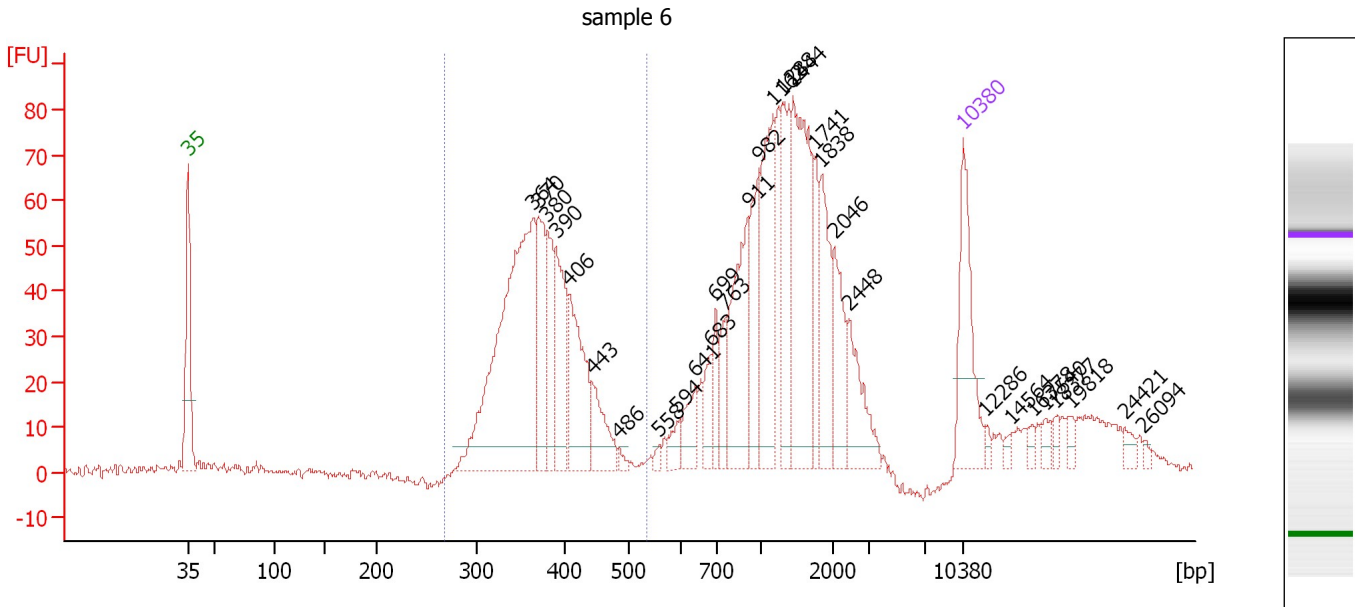
Region table for sample 5 : sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
302	441	659	494.5	60	13.2	693.69	2,430.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 30 Corr. Area 1: 607.8
 Noise: 0.7

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	364	373.44	1,554.9	
3	370	89.95	368.4	
4	380	60.61	241.6	
5	390	88.62	344.6	
6	406	102.58	383.1	
7	443	44.36	151.8	
8	486	4.81	15.0	
9	558	5.04	13.7	
10	594	14.12	36.0	
11	641	31.78	75.1	
12	683	24.36	54.0	
13	699	25.62	55.6	
14	763	25.77	51.1	
15	911	108.14	179.8	
16	982	63.64	98.2	
17	1,162	111.80	145.8	
18	1,288	70.62	83.1	
19	1,444	156.84	164.6	
20	1,741	41.41	36.0	
21	1,838	65.88	54.3	
22	2,046	50.39	37.3	
23	2,448	49.70	30.8	
24	10,380	75.00	10.9	Upper Marker
25	12,286	0.00	0.0	
26	14,564	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad


Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...

... Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	16,378	0.00	0.0	
28	17,540	0.00	0.0	
29	18,377	0.00	0.0	
30	19,818	0.00	0.0	
31	24,421	0.00	0.0	
32	26,094	0.00	0.0	

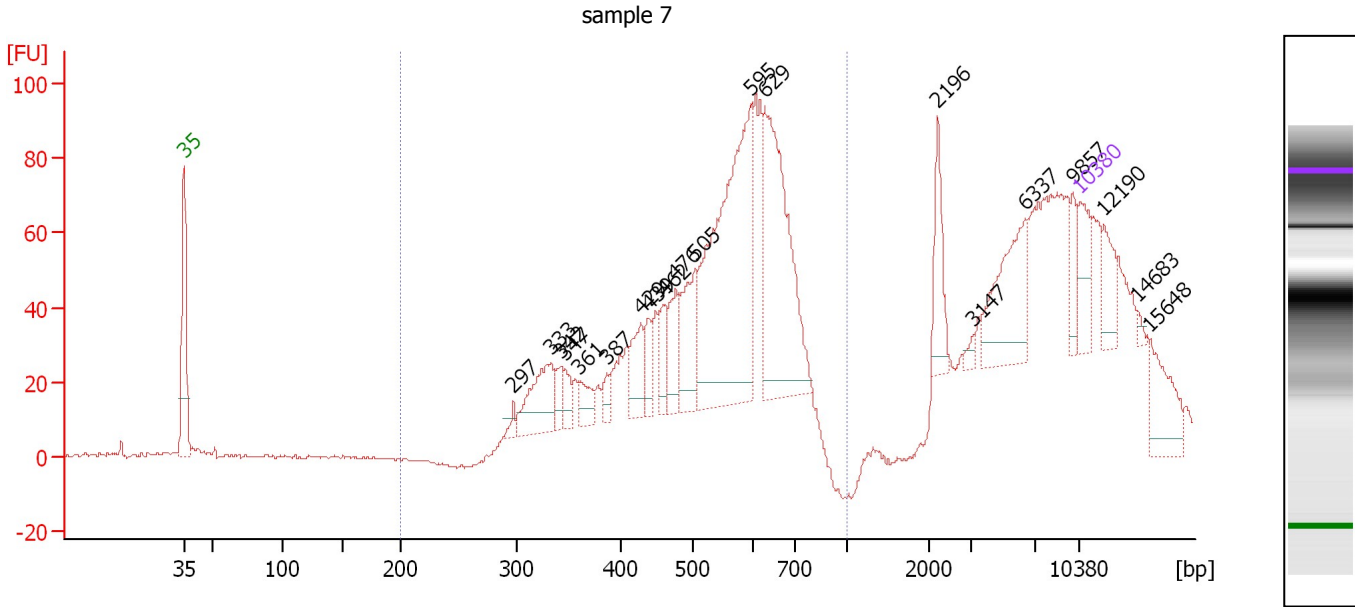
Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
269	375	535	607.8	37	11.4	813.19	3,332.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 20 Corr. Area 1: 1,129.1
 Noise: 0.5

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	297	18.16	92.7	
3	333	163.83	744.7	
4	342	45.46	201.3	
5	347	39.24	171.2	
6	361	53.82	226.0	
7	387	29.95	117.2	
8	429	90.54	320.0	
9	439	52.15	180.0	
10	462	57.48	188.4	
11	476	99.88	317.8	
12	505	164.98	495.3	
13	595	712.62	1,814.9	
14	629	492.87	1,187.3	
15	2,196	95.78	66.1	
16	3,147	11.56	5.6	
17	6,337	189.15	45.2	
18	9,857	39.06	6.0	
19	10,380	75.00	10.9	Upper Marker
20	12,190	0.00	0.0	
21	14,683	0.00	0.0	
22	15,648	0.00	0.0	

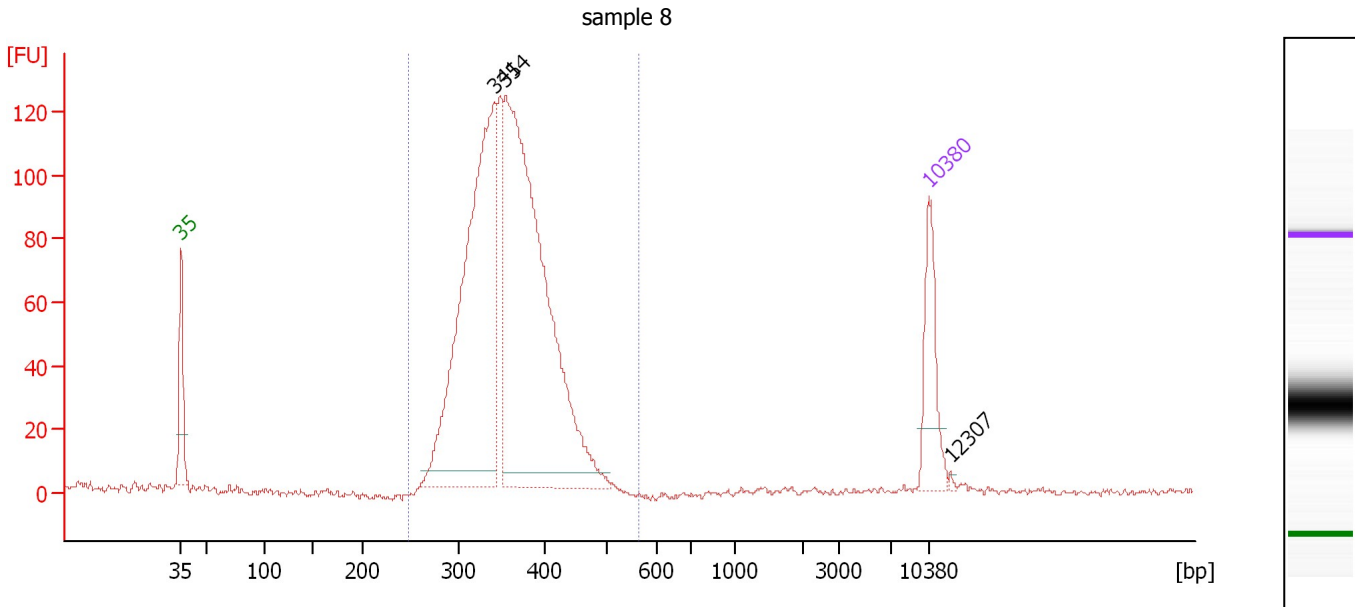
Region table for sample 7 : sample 7

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	539	1,000	1,129.1	63	20.6	2,787.43	8,441.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 3 Corr. Area 1: 1,418.3
 Noise: 1.0

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	341	654.50	2,905.0	
3	354	830.43	3,556.5	
4	10,380	75.00	10.9	Upper Marker
5	12,307	0.00	0.0	

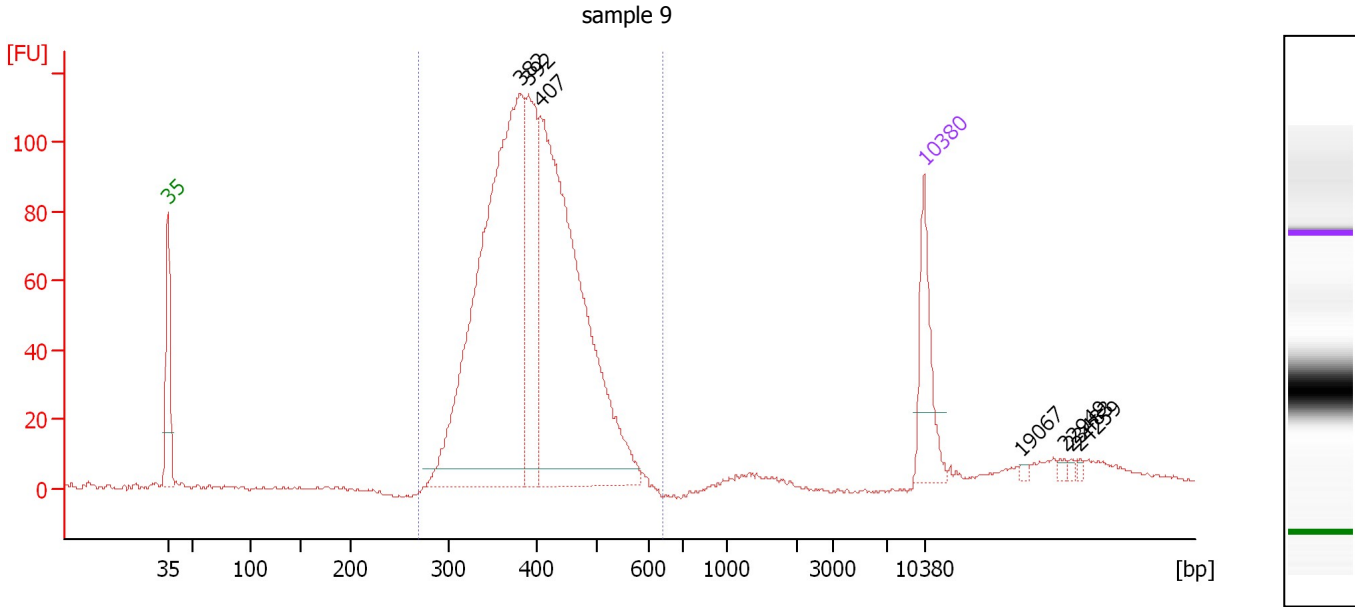
Region table for sample 8 : sample 8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
247	357	565	1,418.3	99	12.0	1,585.78	6,827.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

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 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 7 Corr. Area 1: 1,483.7
 Noise: 0.5

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	382	825.46	3,278.4	
3	392	205.97	797.1	
4	407	722.75	2,687.9	
5	10,380	75.00	10.9	Upper Marker
6	19,067	0.00	0.0	
7	22,949	0.00	0.0	
8	23,483	0.00	0.0	
9	24,259	0.00	0.0	

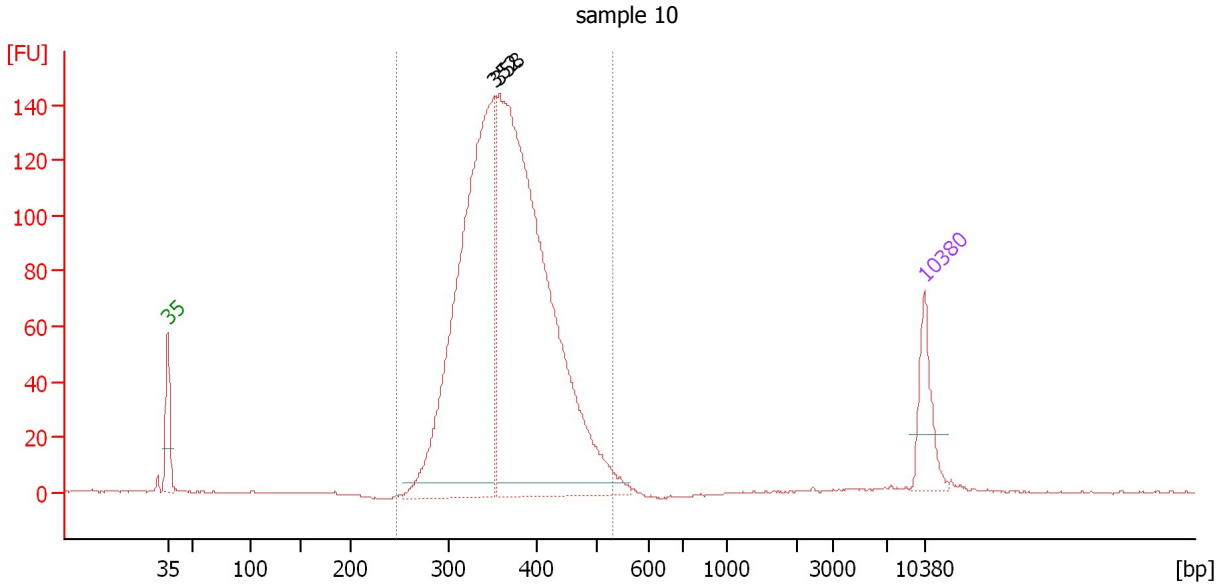
Region table for sample 9 : sample 9

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
268	402	642	1,483.7	95	14.4	1,780.18	6,880.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 2 Corr. Area 1: 1,756.0
 Noise: 0.3

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	352	1,053.24	4,535.4	
3	358	1,465.25	6,198.9	
4	10,380	75.00	10.9	Upper Marker

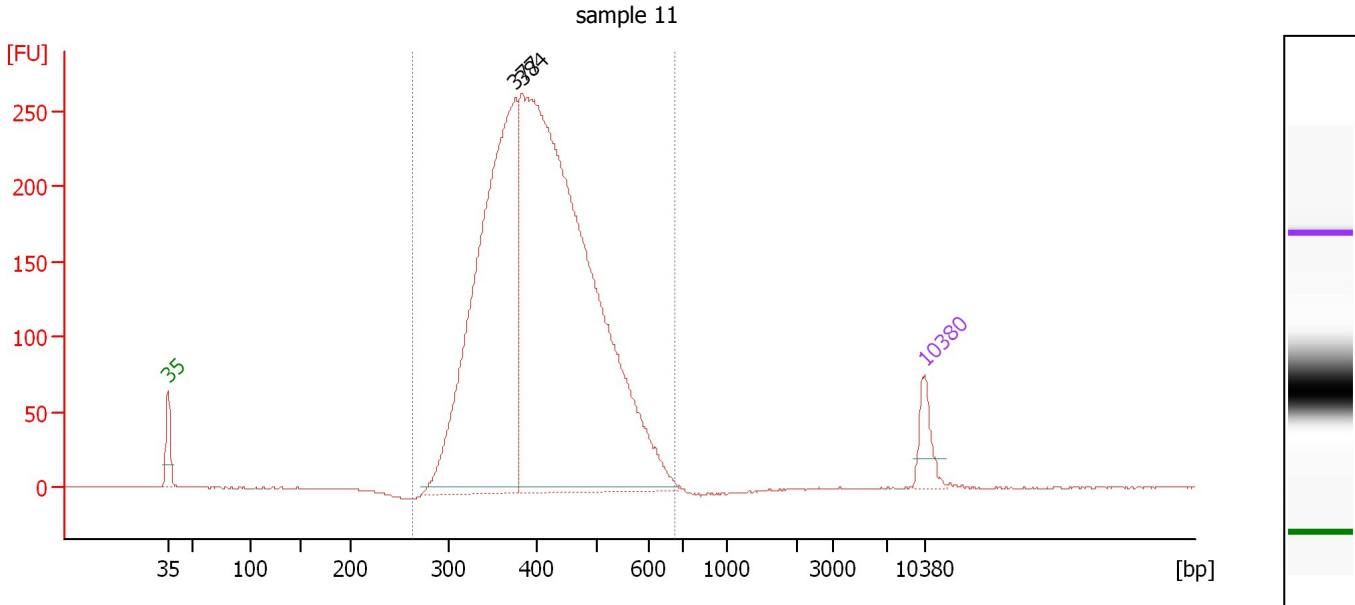
Region table for sample 10 : sample 10

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
247	369	529	1,756.0	99	13.3	2,430.14	10,169.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 2 Corr. Area 1: 3,916.2
 Noise: 0.2

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	377	1,993.65	8,015.4	
3	384	3,429.30	13,536.1	
4	10,380	75.00	10.9	Upper Marker

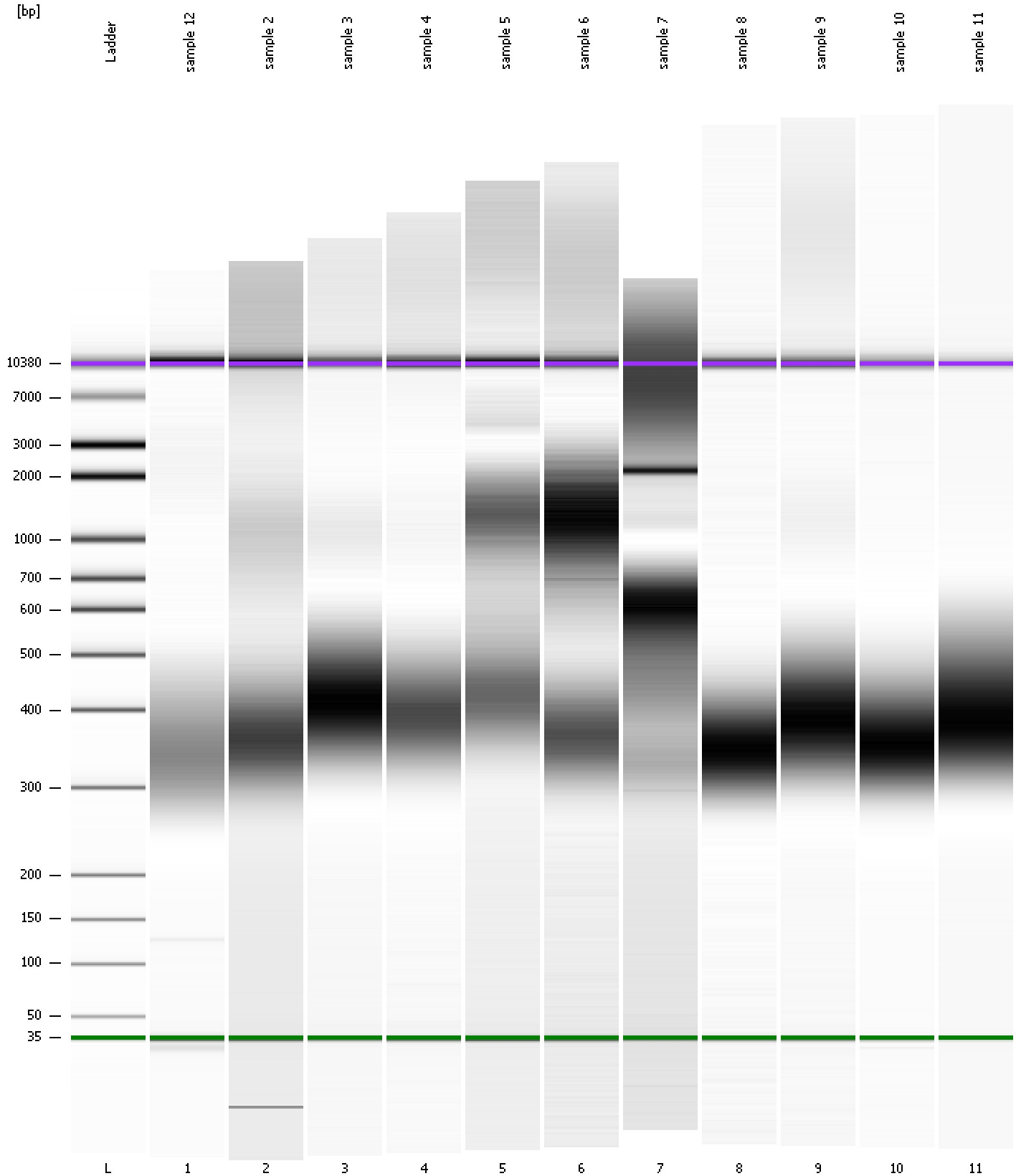
Region table for sample 11 : sample 11

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
264	416	680	3,916.2	100	17.2	5,140.73	19,386.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
Modified: 9/23/2014 5:33:55 PM

Gel Image

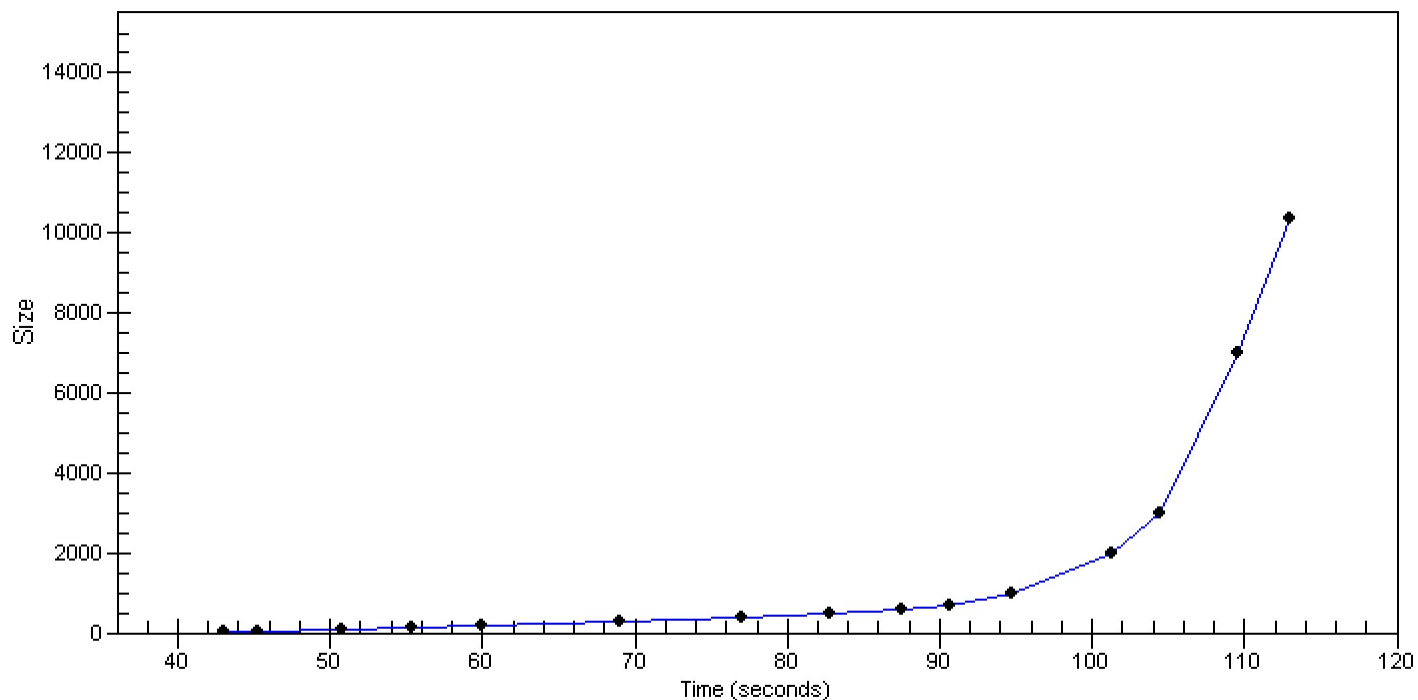


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
Modified: 9/23/2014 5:33:55 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-23\2014-09-23_005.xad

Created: 9/23/2014 4:43:16 PM
 Modified: 9/23/2014 5:33:55 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 5:23:43 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_005.xad)		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/23/2014 4:43:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1