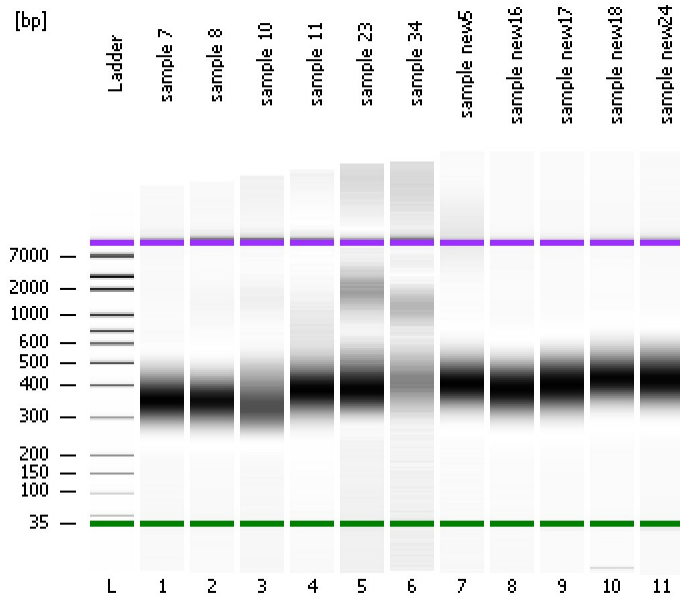


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
Modified: 9/29/2014 4:09:16 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

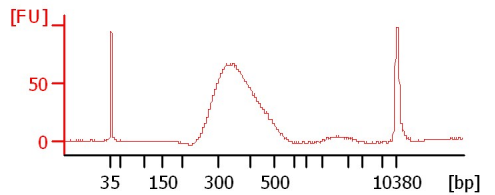
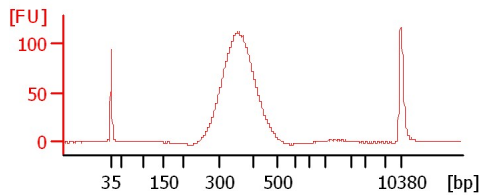
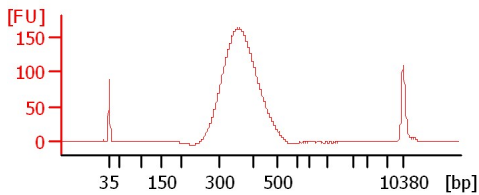
Chip Information:

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

sample 7

sample 8

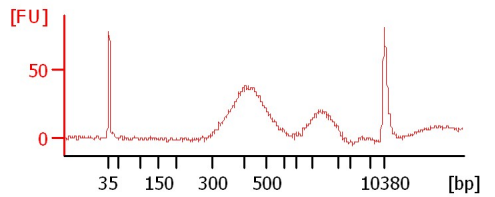
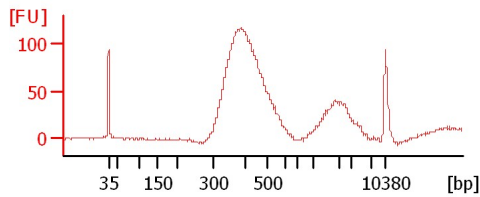
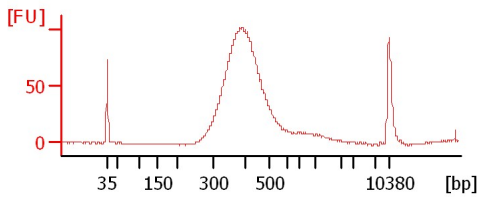
sample 10



sample 11

sample 23

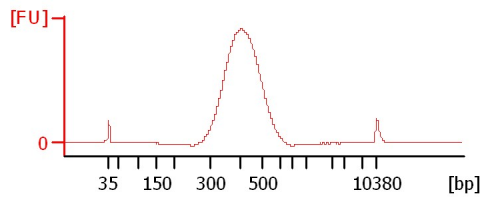
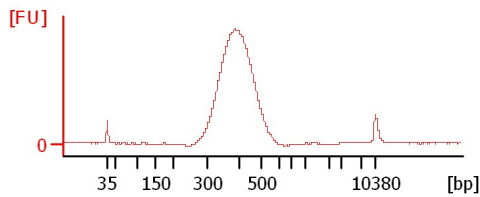
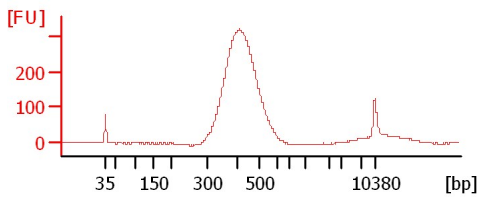
sample 34



sample new5

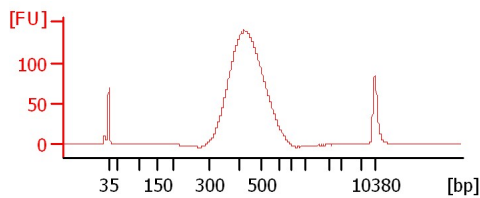
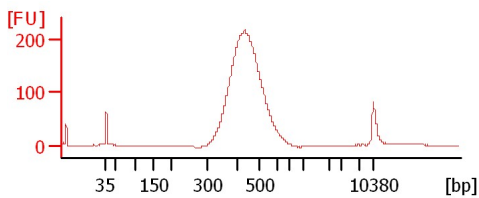
sample new16

sample new17



sample new18

sample new24



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 11		<input type="checkbox"/>	✓			
sample 23		<input type="checkbox"/>	✓			
sample 34		<input type="checkbox"/>	✓			
sample new5		<input type="checkbox"/>	✓			
sample new16		<input type="checkbox"/>	✓			
sample new17		<input type="checkbox"/>	✓			
sample new18		<input type="checkbox"/>	✓			
sample new24		<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\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
Modified: 9/29/2014 4:09:16 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

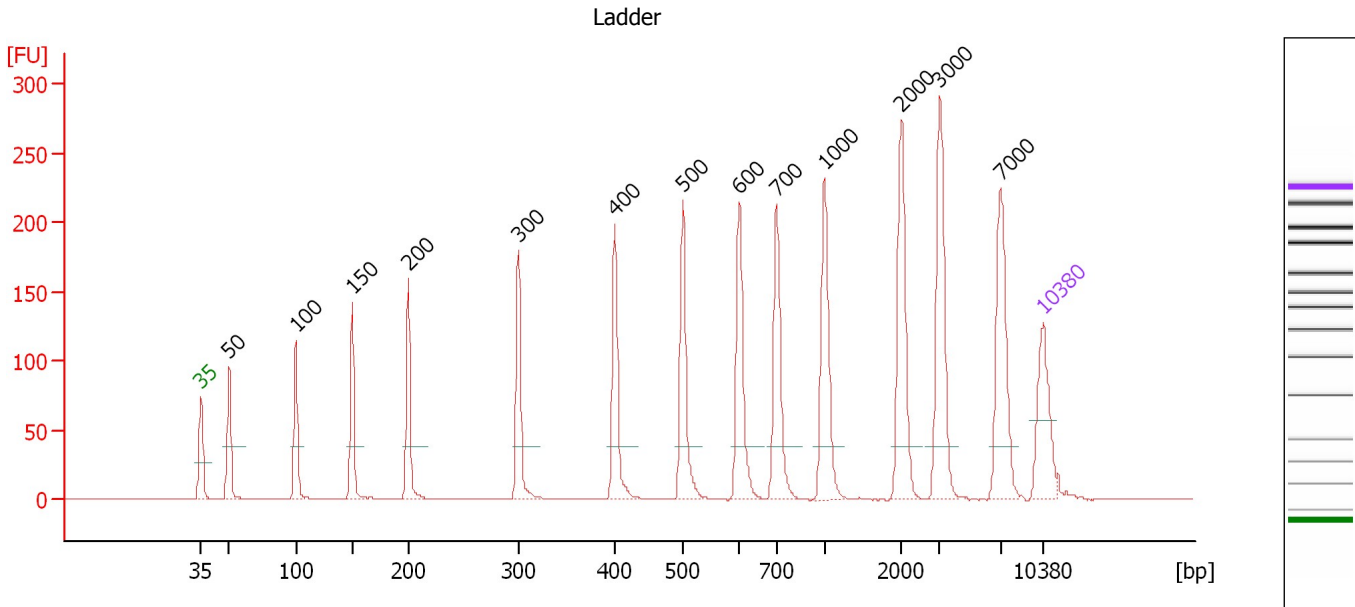
**Ladder**

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\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

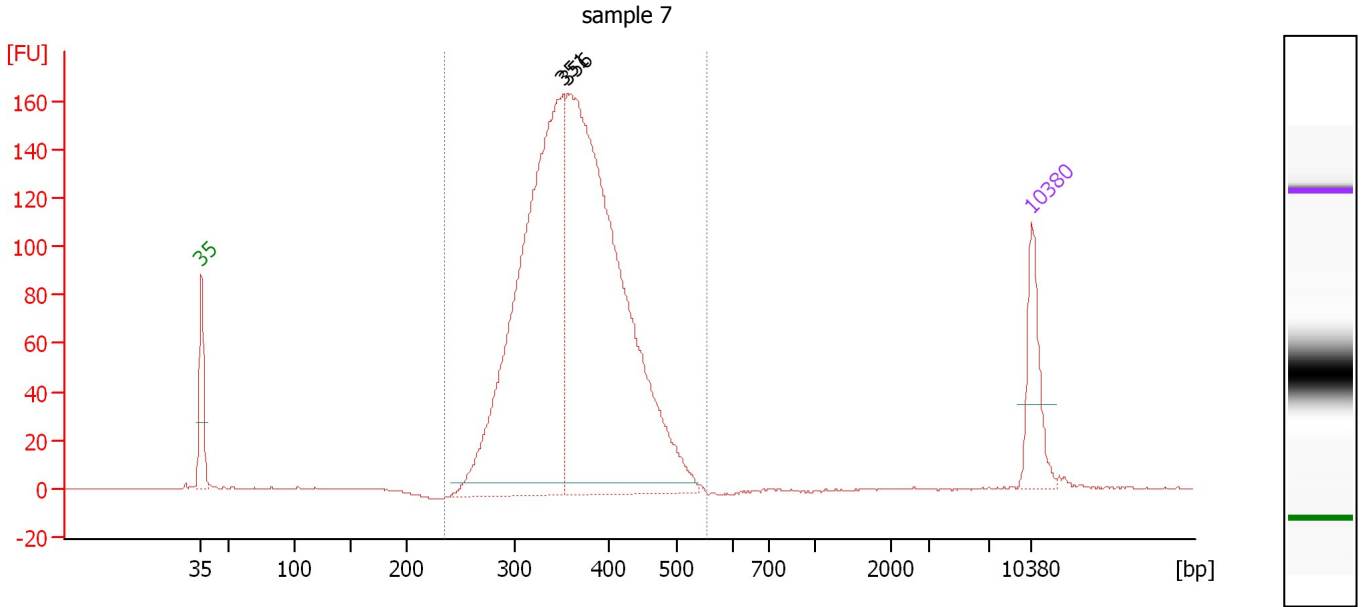
**Peak table for Ladder**

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\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 7**

Number of peaks found: 2                      Corr. Area 1: 2,193.1  
 Noise: 0.2

**Peak table for sample 1 : sample 7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	351	977.98	4,220.2	
3	356	1,180.05	5,019.6	
4	10,380	75.00	10.9	Upper Marker

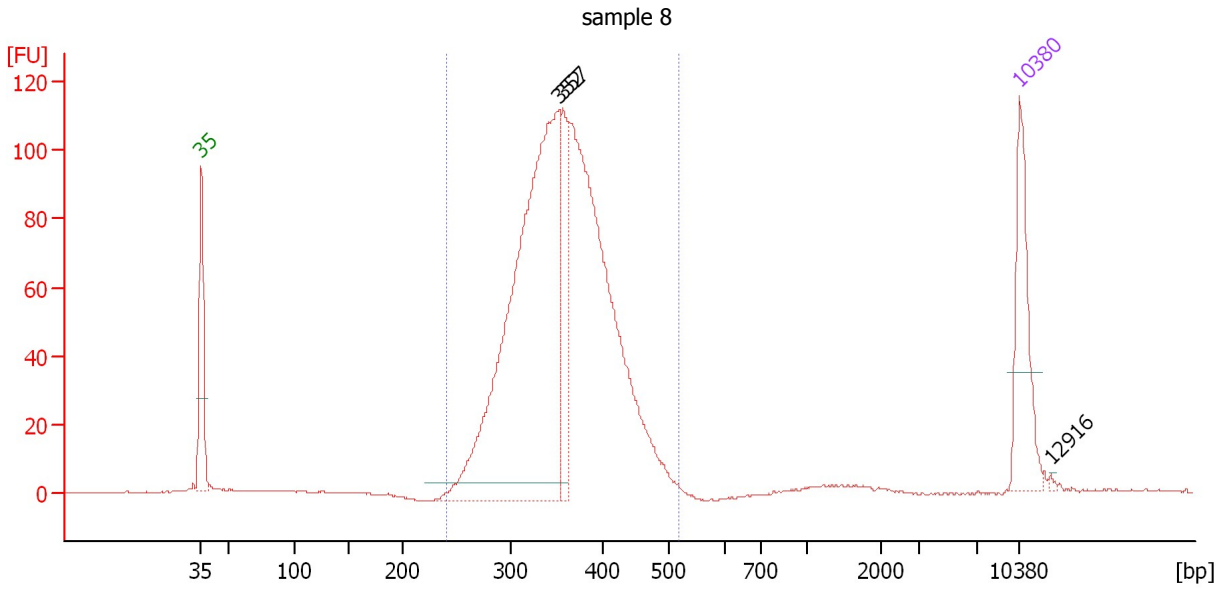
**Region table for sample 1 : sample 7**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
235	365	553	2,193.1	99	14.0	2,093.74	8,905.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 8**

Number of peaks found: 3                      Corr. Area 1: 1,426.9  
 Noise: 0.2

**Peak table for sample 2 : sample 8**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	352	656.61	2,828.7	
3	357	96.03	407.7	
4	10,380	75.00	10.9	Upper Marker
5	12,916	0.00	0.0	

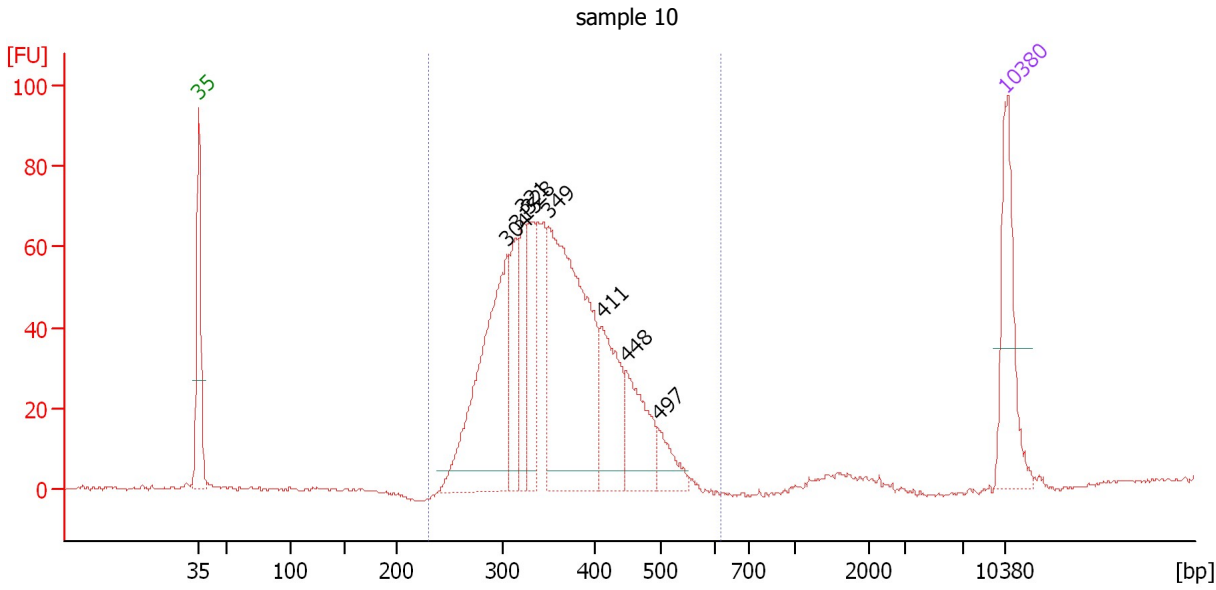
**Region table for sample 2 : sample 8**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
240	358	516	1,426.8	97	13.2	1,294.89	5,597.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 10**

Number of peaks found: 8                      Corr. Area 1: 1,057.0  
 Noise: 0.4

**Peak table for sample 3 : sample 10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	304	270.51	1,346.3	
3	315	75.04	361.1	
4	321	69.56	328.1	
5	328	83.53	385.6	
6	349	349.07	1,514.8	
7	411	97.98	361.3	
8	448	79.23	268.1	
9	497	29.34	89.5	
10	10,380	75.00	10.9	Upper Marker

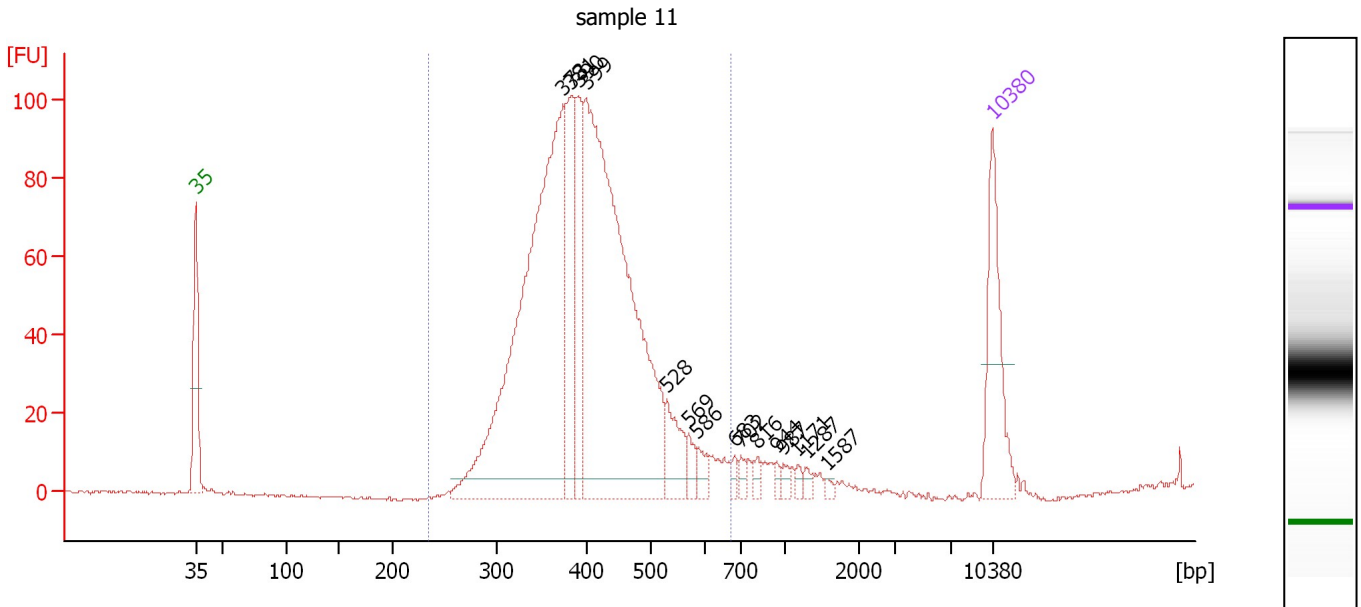
**Region table for sample 3 : sample 10**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
229	360	618	1,057.0	98	16.9	1,092.20	4,770.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 11**

Number of peaks found: 15                      Corr. Area 1: 1,412.0  
 Noise: 0.5

**Peak table for sample 4 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	373	593.15	2,406.9	
3	381	117.81	468.5	
4	390	83.56	324.3	
5	399	591.62	2,248.5	
6	528	42.29	121.4	
7	569	13.33	35.5	
8	586	14.74	38.1	
9	683	6.46	14.3	
10	702	7.87	17.0	
11	816	8.09	15.0	
12	944	4.94	7.9	
13	987	5.83	8.9	
14	1,171	4.99	6.5	
15	1,287	4.97	5.9	
16	1,587	2.98	2.8	
17	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : sample 11**

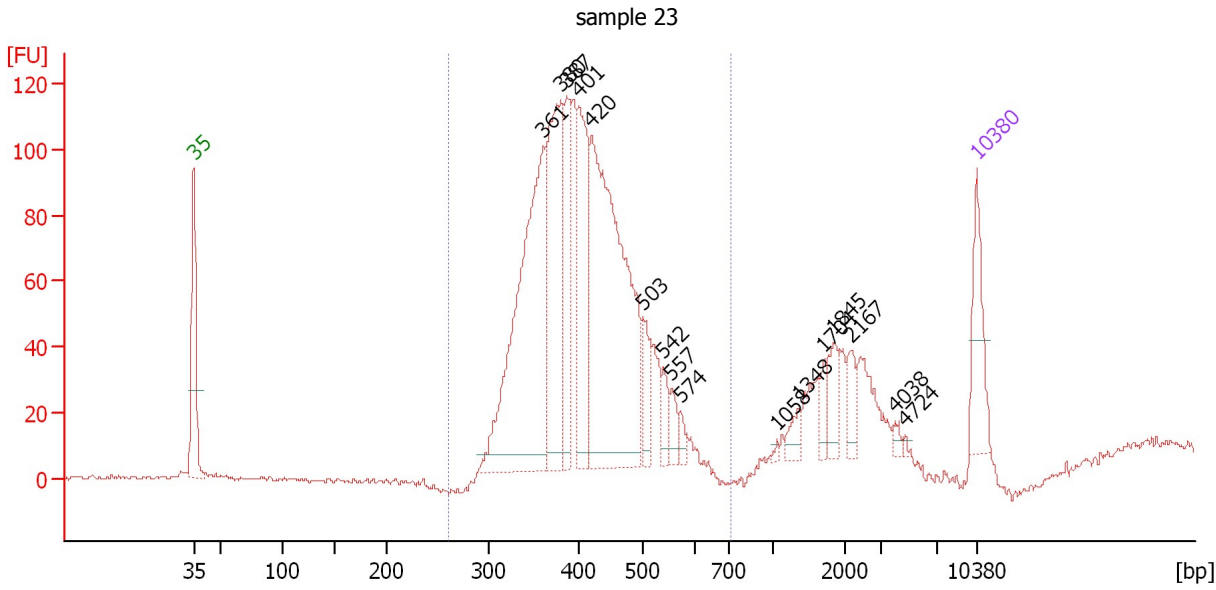
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
234	405	673	1,412.0	96	17.1	1,440.67	5,581.5	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 23**

Number of peaks found: 16      Corr. Area 1: 1,457.9  
 Noise: 0.5

**Peak table for sample 5 : sample 23**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	361	563.23	2,366.9	
3	380	326.22	1,299.8	
4	387	132.19	517.7	
5	401	223.21	843.7	
6	420	625.34	2,254.9	
7	503	61.11	184.0	
8	542	28.62	80.1	
9	557	25.71	69.9	
10	574	16.02	42.3	
11	1,058	3.45	4.9	
12	1,348	19.57	22.0	
13	1,704	19.21	17.1	
14	1,845	40.45	33.2	
15	2,167	29.16	20.4	
16	4,038	7.83	2.9	
17	4,724	3.04	1.0	
18	10,380	75.00	10.9	Upper Marker

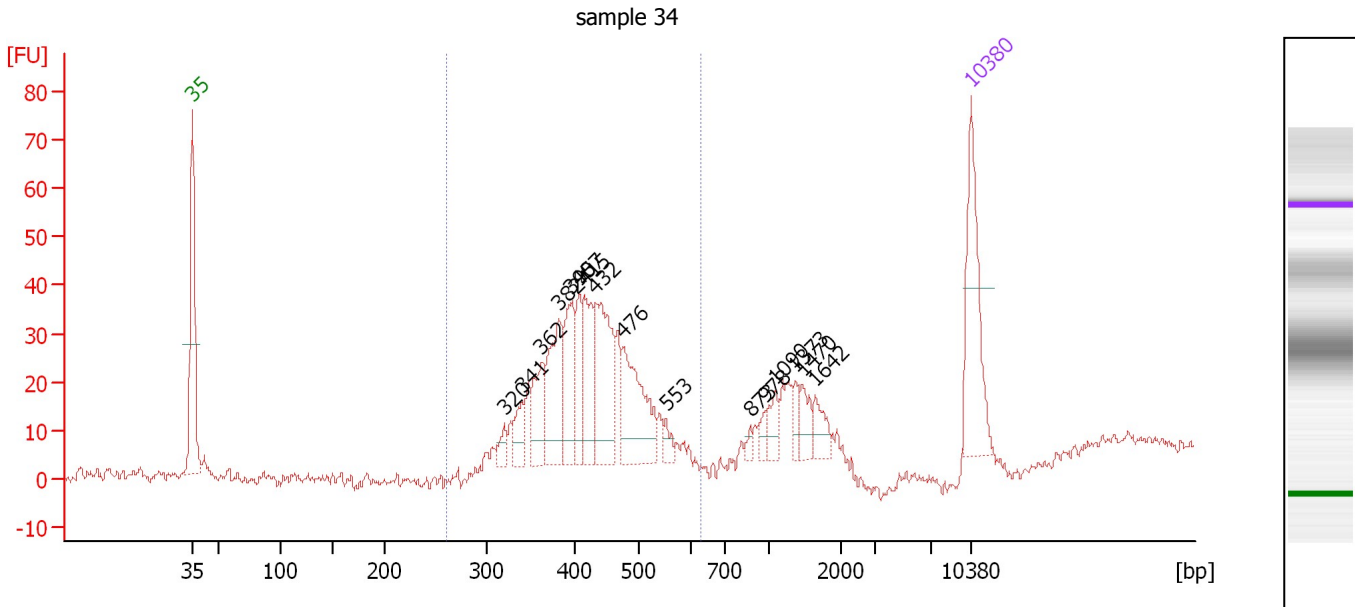
**Region table for sample 5 : sample 23**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
261	411	712	1,457.9	87	14.8	2,100.51	7,945.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 34**

Number of peaks found: 16      Corr. Area 1: 429.3  
 Noise: 1.2

**Peak table for sample 6 : sample 34**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	320	12.77	60.4	
3	341	25.88	115.0	
4	362	45.65	190.8	
5	382	77.79	308.8	
6	395	59.75	228.9	
7	407	36.97	137.6	
8	415	58.47	213.6	
9	432	100.93	353.6	
10	476	88.90	282.7	
11	553	9.34	25.6	
12	873	4.80	8.3	
13	978	7.69	11.9	
14	1,090	16.47	22.9	
15	1,373	10.67	11.8	
16	1,470	16.75	17.3	
17	1,642	17.01	15.7	
18	10,380	75.00	10.9	Upper Marker

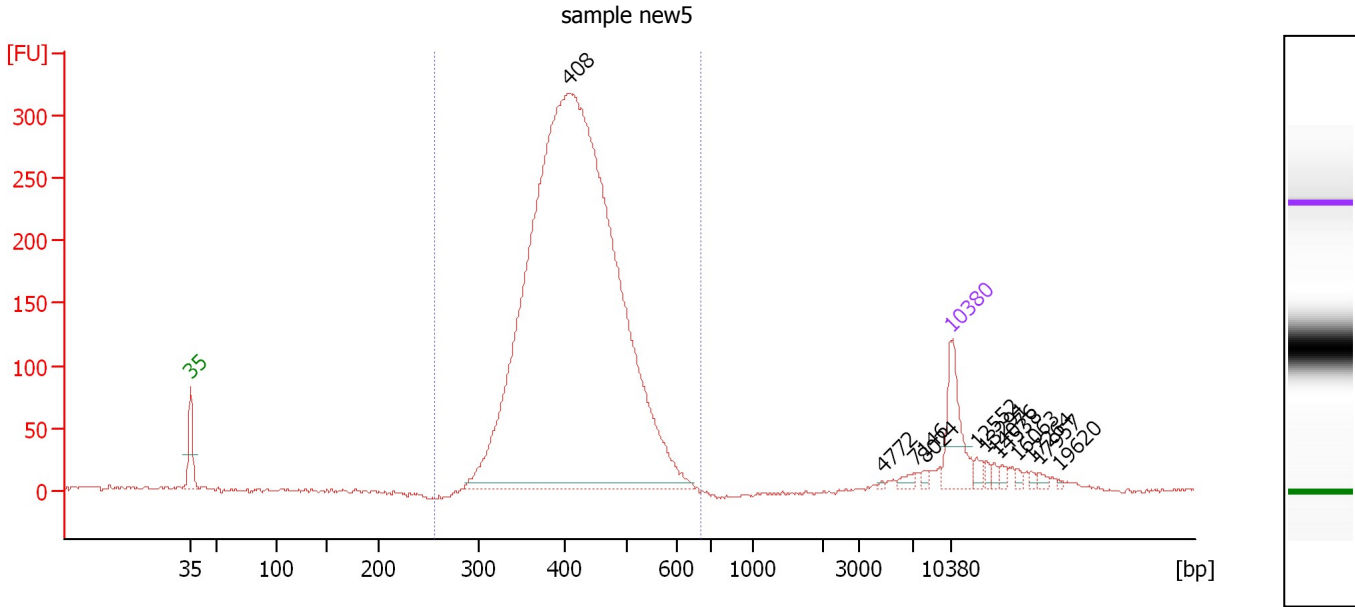
**Region table for sample 6 : sample 34**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
261	423	628	429.3	77	14.3	588.25	2,157.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample new5**

Number of peaks found: 12                      Corr. Area 1: 3,852.5  
 Noise: 1.5

**Peak table for sample 7 : sample new5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	408	2,674.08	9,932.7	
3	4,772	1.81	0.6	
4	7,146	8.76	1.9	
5	8,024	5.17	1.0	
6	10,380	75.00	10.9	Upper Marker
7	12,552	0.00	0.0	
8	13,291	0.00	0.0	
9	14,076	0.00	0.0	
10	14,538	0.00	0.0	
11	16,063	0.00	0.0	
12	17,264	0.00	0.0	
13	17,957	0.00	0.0	
14	19,620	0.00	0.0	

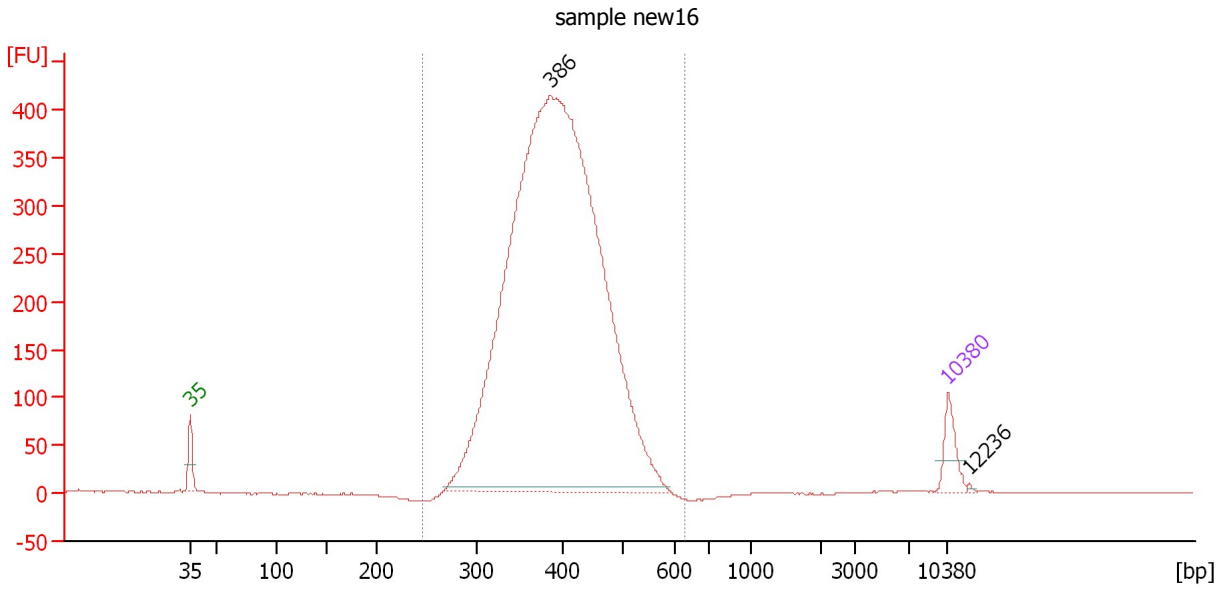
**Region table for sample 7 : sample new5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
256	422	667	3,852.5	96	14.2	2,682.86	9,867.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample new16**

Number of peaks found: 2                      Corr. Area 1: 5,435.0  
 Noise: 0.5

**Peak table for sample 8 : sample new16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	386	5,263.49	20,635.6	
3	10,380	75.00	10.9	Upper Marker
4	12,236	0.00	0.0	

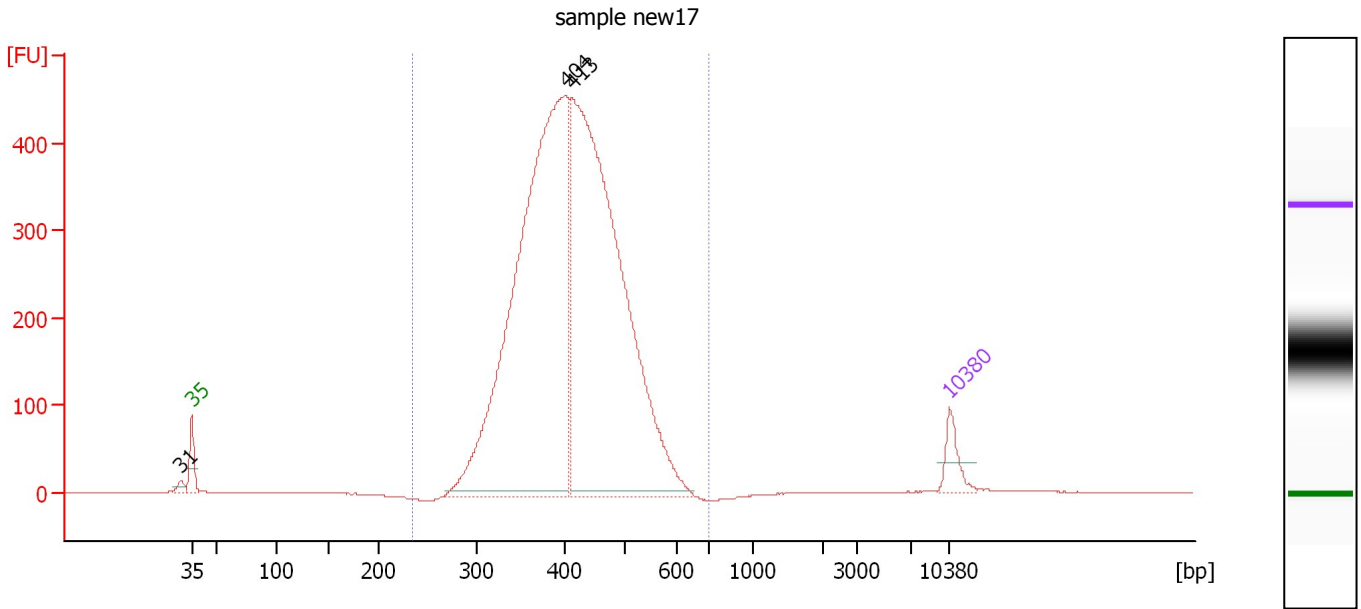
**Region table for sample 8 : sample new16**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
245	399	629	5,435.0	100	14.1	5,295.84	20,617.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample new17**

Number of peaks found: 3                      Corr. Area 1: 6,306.7  
 Noise: 0.2

**Peak table for sample 9 : sample new17**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	31	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	404	3,102.26	11,647.5	
4	413	3,017.67	11,067.8	
5	10,380	75.00	10.9	Upper Marker

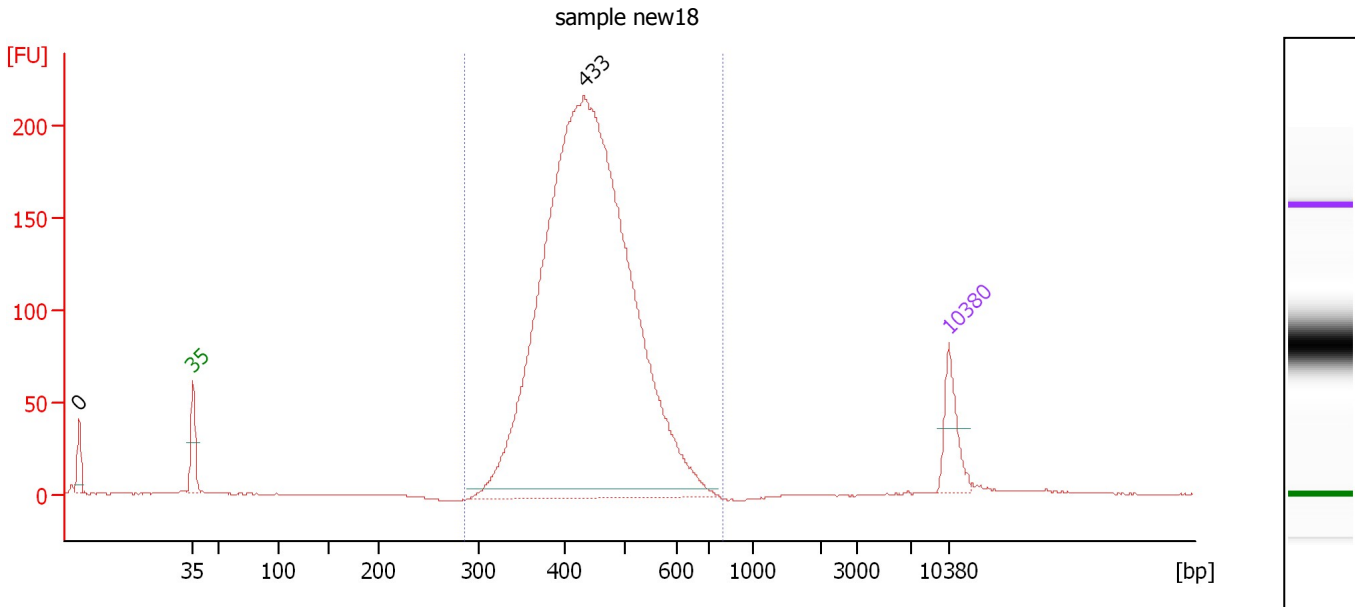
**Region table for sample 9 : sample new17**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
234	417	696	6,306.7	99	15.2	6,149.28	23,003.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample new18**

Number of peaks found: 2                      Corr. Area 1: 2,531.5  
 Noise: 0.2

**Peak table for sample 10 : sample new18**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	433	2,989.37	10,467.6	
4	10,380	75.00	10.9	Upper Marker

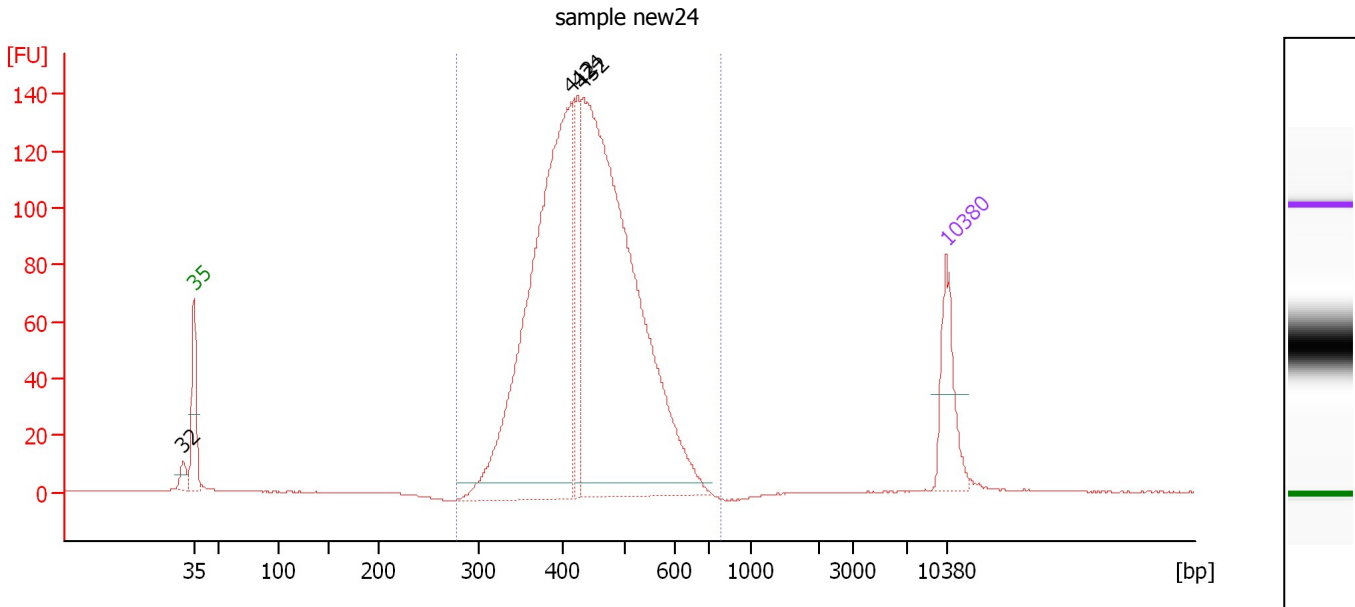
**Region table for sample 10 : sample new18**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
287	445	799	2,531.5	98	14.5	2,891.29	10,106.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample new24**

Number of peaks found: 4                      Corr. Area 1: 1,847.4  
 Noise: 0.1

**Peak table for sample 11 : sample new24**

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	412	847.52	3,114.9	
4	424	119.88	428.8	
5	432	1,048.48	3,674.2	
6	10,380	75.00	10.9	Upper Marker

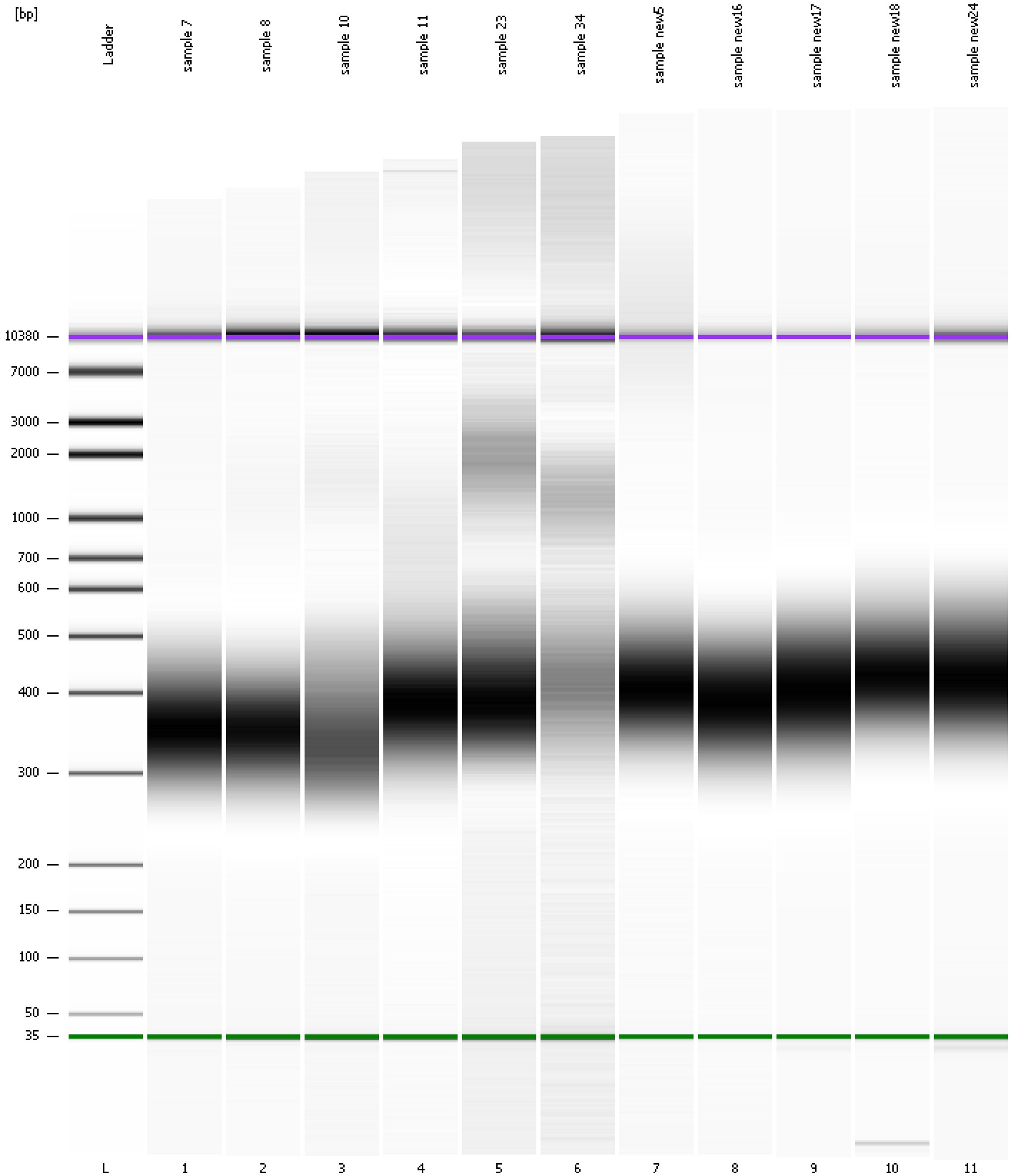
**Region table for sample 11 : sample new24**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
278	442	788	1,847.4	98	15.7	1,956.89	6,912.8	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
Modified: 9/29/2014 4:09:16 PM

**Gel Image**



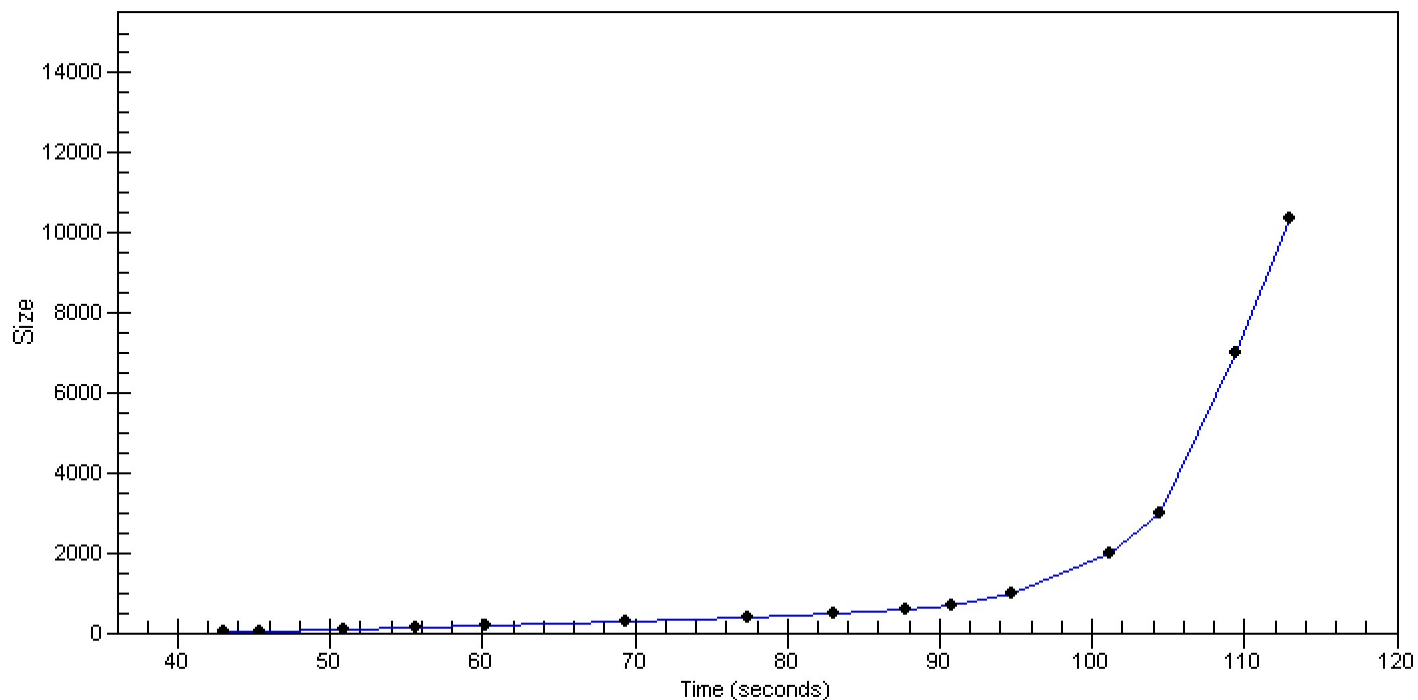


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
Modified: 9/29/2014 4:09:16 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-29\2014-09-29\_003.xad

Created: 9/29/2014 3:26:27 PM  
 Modified: 9/29/2014 4:09:16 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		9/29/2014 4:07:43 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-29\2014-09-29_003.xad)		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/29/2014 3:26:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1