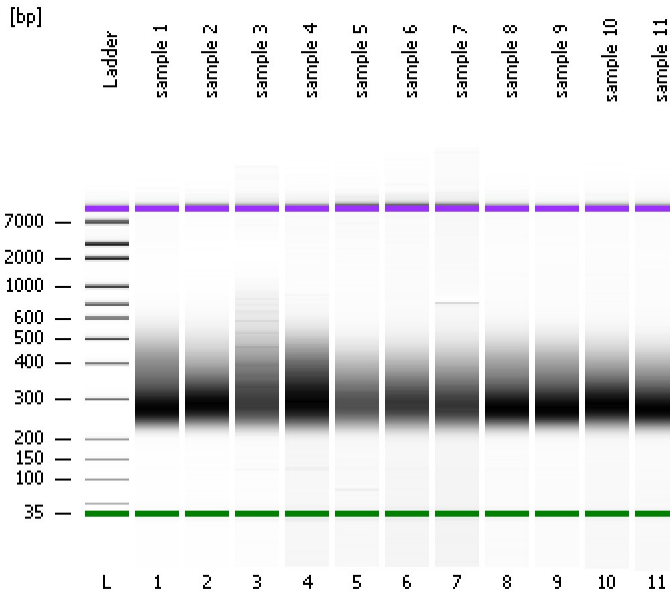


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
Modified: 9/12/2014 5:39:19 PM

**Electrophoresis File Run Summary**



Instrument Information:

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

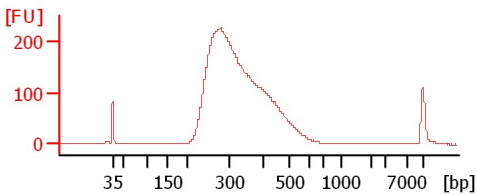
Assay Information:

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

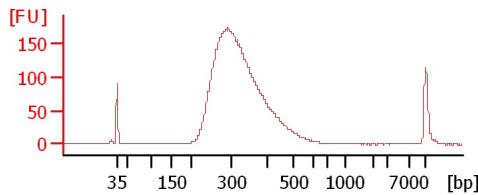
Chip Information:

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

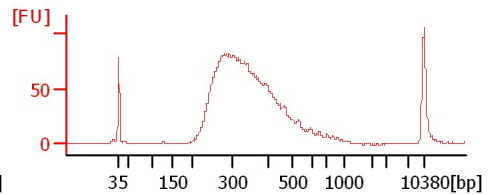
sample 1



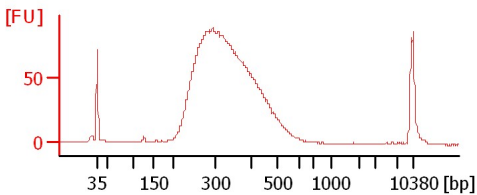
sample 2



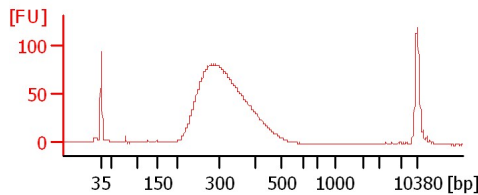
sample 3



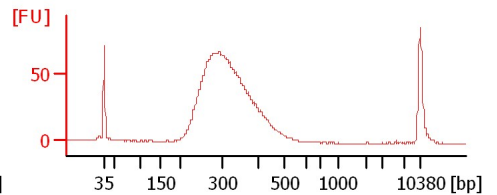
sample 4



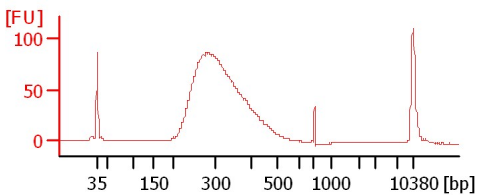
sample 5



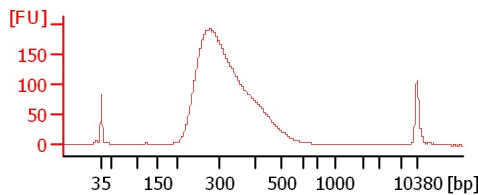
sample 6



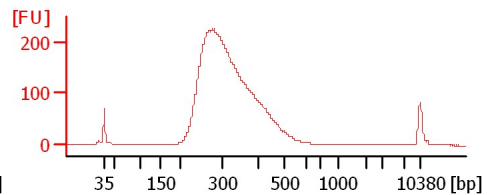
sample 7



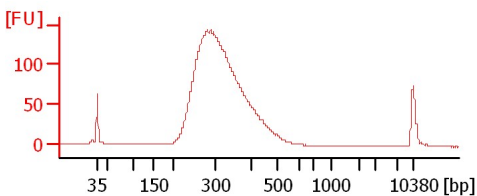
sample 8



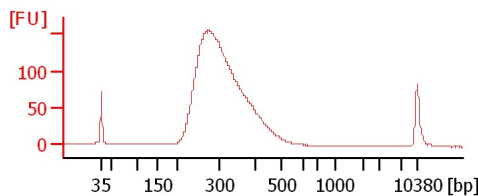
sample 9



sample 10



sample 11



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
Modified: 9/12/2014 5:39:19 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\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
Modified: 9/12/2014 5:39:19 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

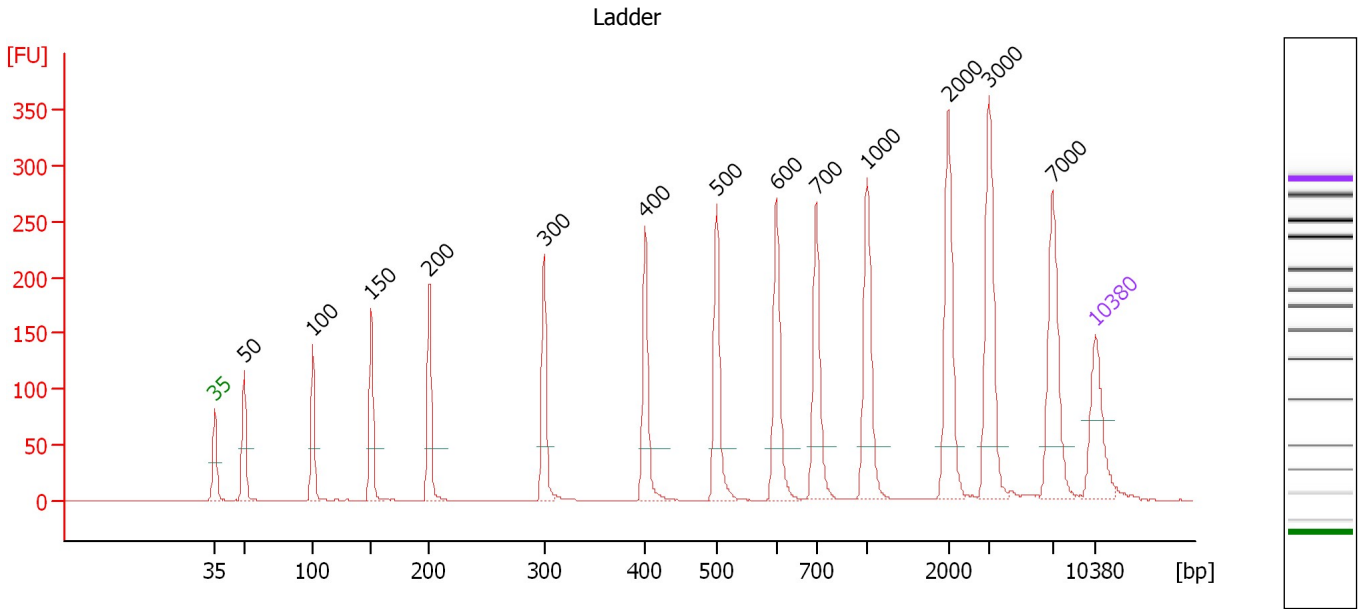
**Ladder**

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\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

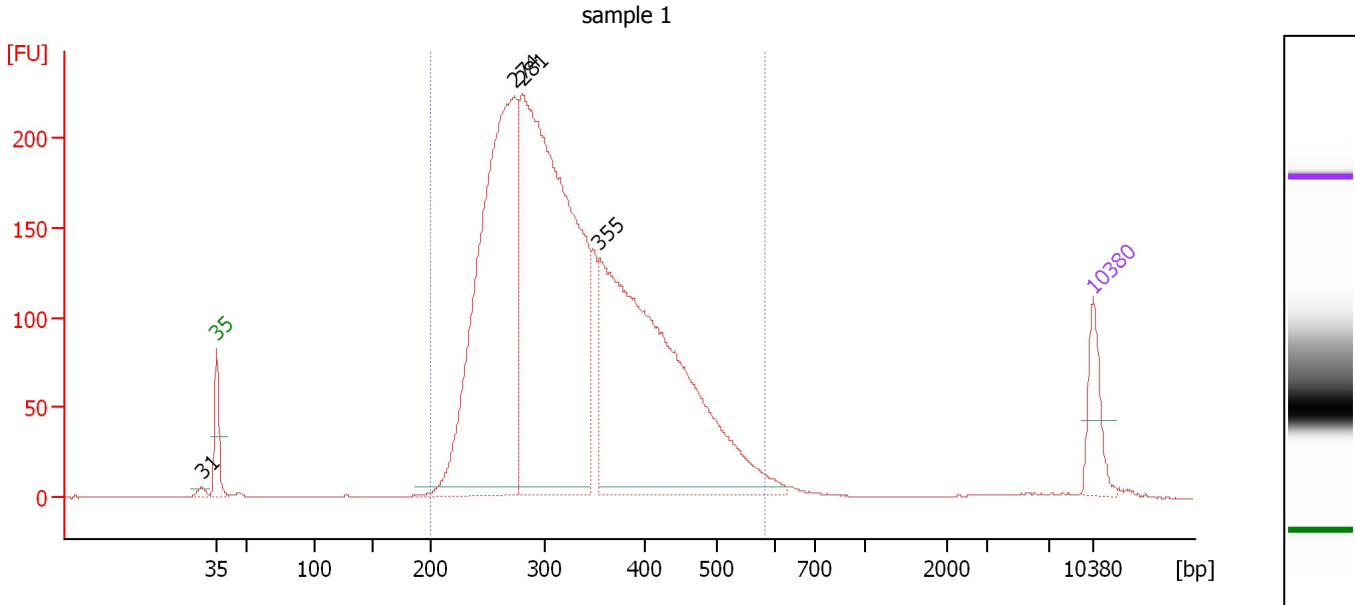
**Peak table for Ladder**

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\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Corr. Area 1: 4,293.8  
 Noise: 0.2

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

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	274	1,401.59	7,751.0	
4	281	1,804.56	9,730.4	
5	355	1,362.21	5,810.2	
6	10,380	75.00	10.9	Upper Marker

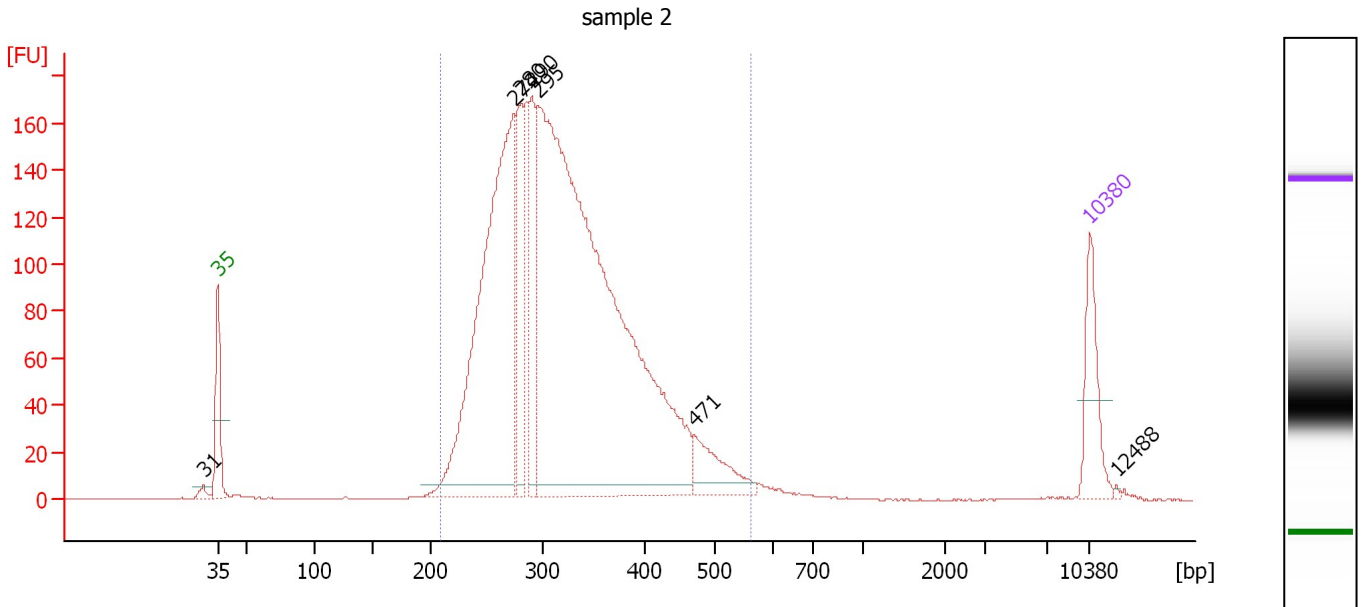
**Region table for sample 1 : sample 1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	332	582	4,293.8	98	22.8	4,515.79	22,001.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 2,995.1  
 Noise: 0.2

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

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	274	845.27	4,676.7	
4	280	176.35	952.8	
5	290	163.36	854.0	
6	295	1,796.82	9,214.1	
7	471	83.58	268.8	
8	10,380	75.00	10.9	Upper Marker
9	12,488	0.00	0.0	

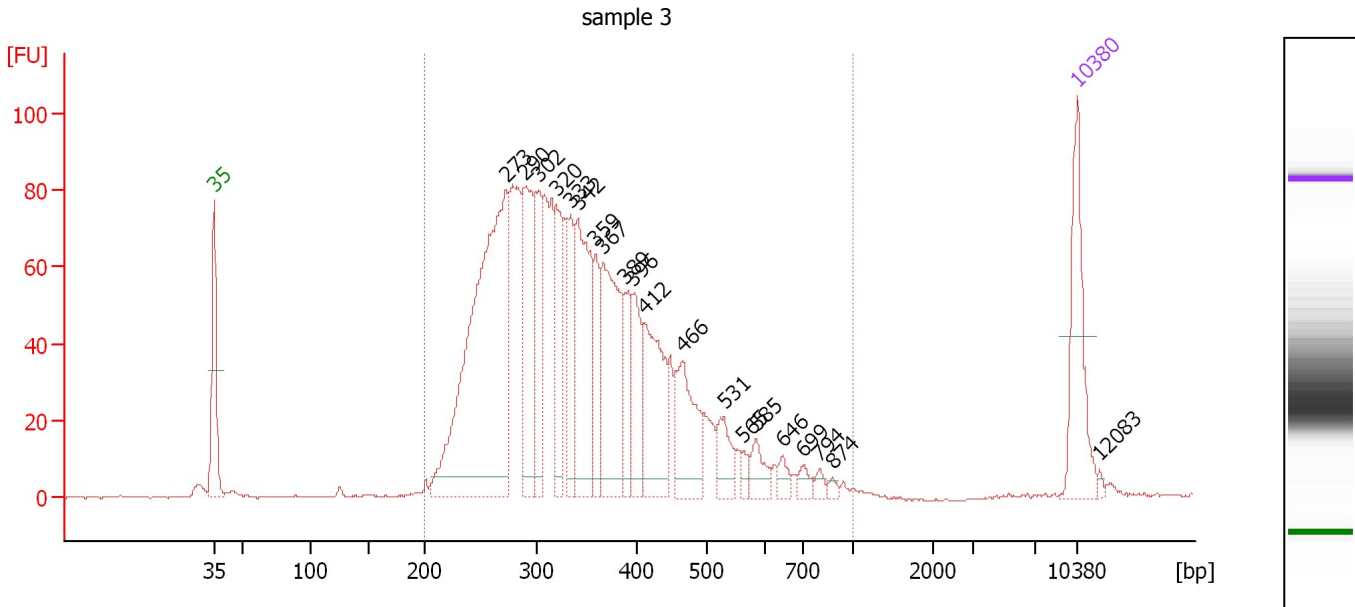
**Region table for sample 2 : sample 2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
210	323	561	2,995.1	97	20.2	3,075.09	15,156.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 20                      Corr. Area 1: 1,864.2  
 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	273	512.04	2,845.7	
3	290	145.95	763.3	
4	302	91.54	458.8	
5	320	87.69	415.9	
6	333	67.06	304.7	
7	342	164.28	728.8	
8	359	58.15	245.6	
9	367	153.78	634.4	
10	389	49.99	194.6	
11	396	64.71	247.4	
12	412	115.74	426.2	
13	466	89.38	290.9	
14	531	32.95	94.1	
15	565	9.64	25.9	
16	585	21.67	56.1	
17	646	10.97	25.7	
18	699	10.61	23.0	
19	794	6.93	13.2	
20	874	4.52	7.8	
21	10,380	75.00	10.9	Upper Marker
22	12,083	0.00	0.0	

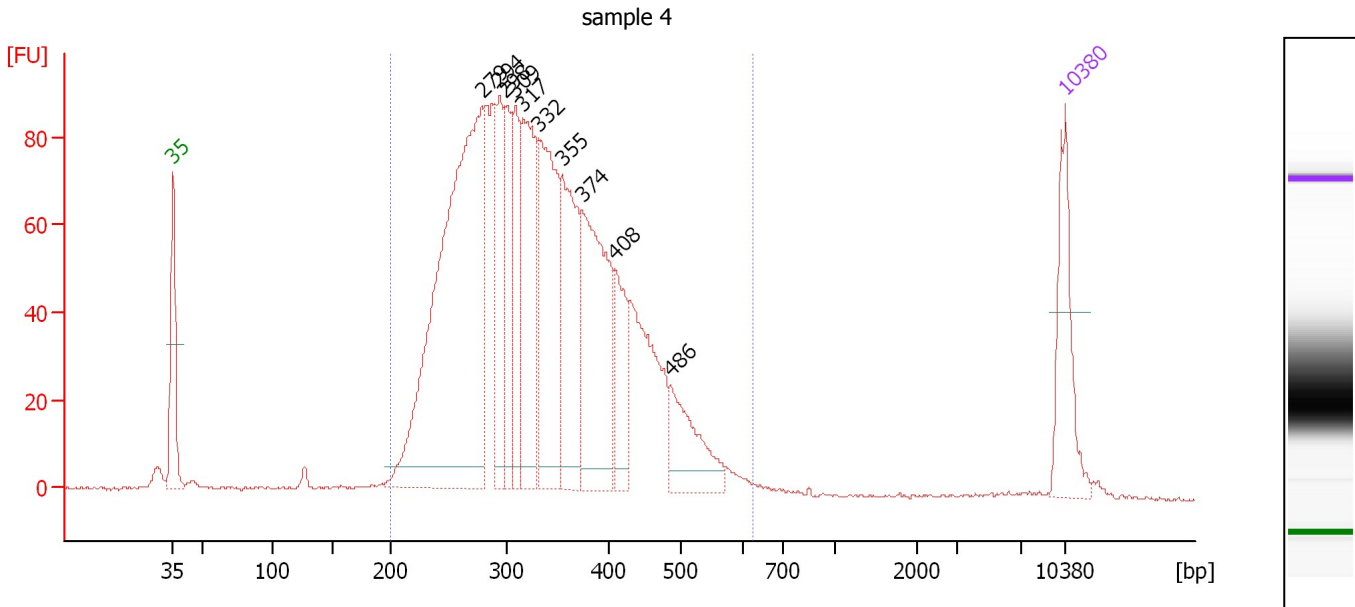
**Region table for sample 3 : sample 3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	356	1,000	1,864.2	98	29.8	2,129.31	9,977.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 10                      Corr. Area 1: 1,965.0  
 Noise: 0.4

**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	279	682.56	3,705.5	
3	294	111.25	573.3	
4	298	108.42	550.7	
5	309	104.15	510.7	
6	317	184.59	883.3	
7	332	215.28	981.2	
8	355	176.60	754.3	
9	374	235.99	956.6	
10	408	79.61	295.4	
11	486	87.77	273.9	
12	10,380	75.00	10.9	Upper Marker

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

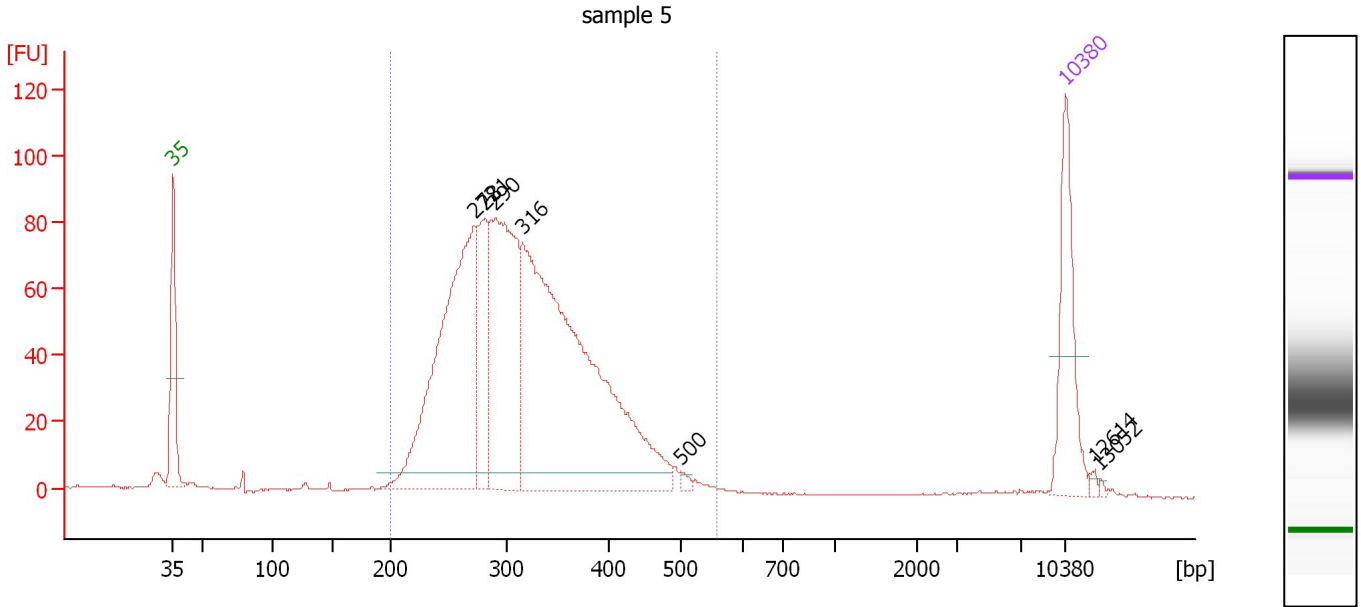
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	338	626	1,965.0	97	22.8	2,397.70	11,490.2	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 1,514.3  
 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	272	393.13	2,188.0	
3	281	105.50	568.8	
4	290	277.11	1,446.3	
5	316	609.00	2,919.2	
6	500	4.17	12.6	
7	10,380	75.00	10.9	Upper Marker
8	12,614	0.00	0.0	
9	13,052	0.00	0.0	

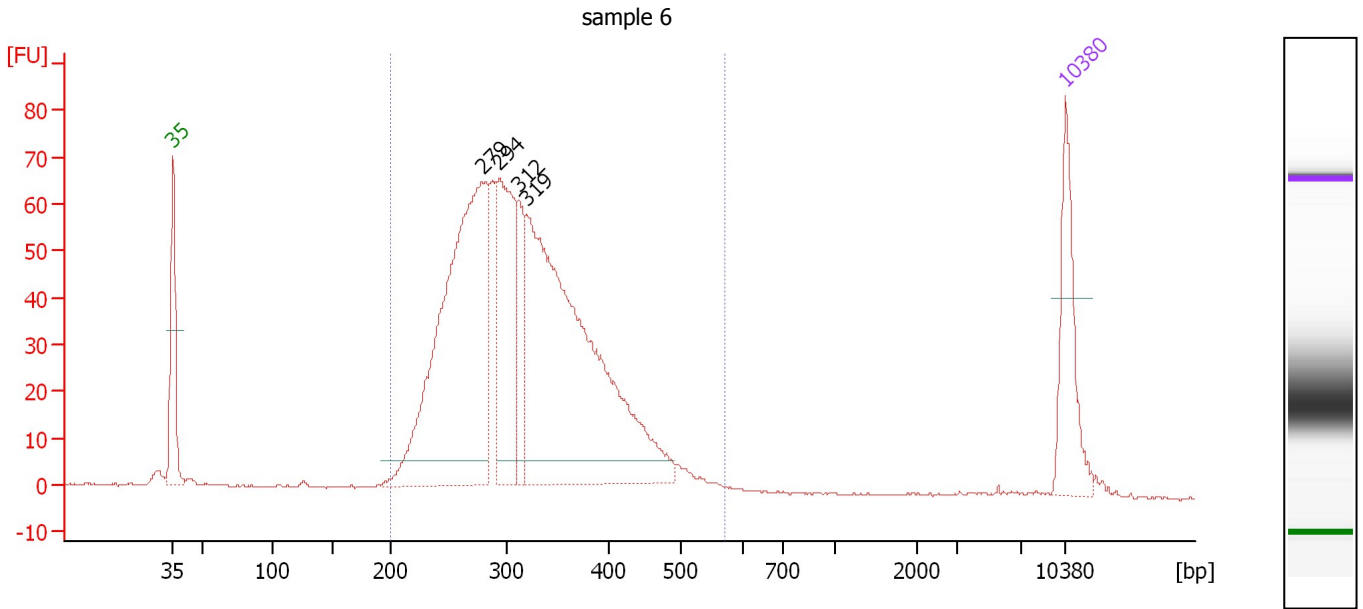
**Region table for sample 5 : sample 5**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	320	559	1,514.3	95	19.6	1,392.42	6,923.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Corr. Area 1: 1,207.0  
 Noise: 0.2

**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	279	561.72	3,047.2	
3	294	200.22	1,033.5	
4	312	71.92	349.1	
5	319	625.56	2,967.7	
6	10,380	75.00	10.9	Upper Marker

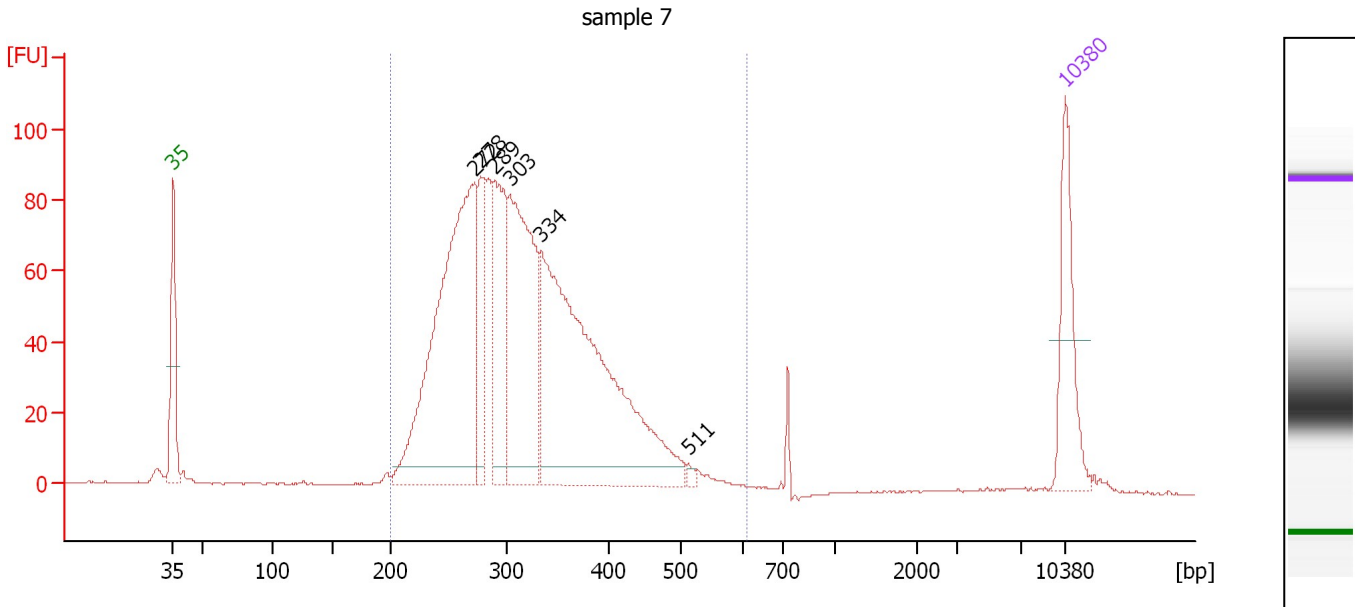
**Region table for sample 6 : sample 6**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	320	572	1,207.0	97	19.8	1,581.50	7,863.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 1,611.4  
 Noise: 0.2

**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	272	494.79	2,754.9	
3	278	96.93	528.1	
4	289	153.05	801.0	
5	303	284.02	1,418.9	
6	334	535.44	2,431.8	
7	511	4.68	13.9	
8	10,380	75.00	10.9	Upper Marker

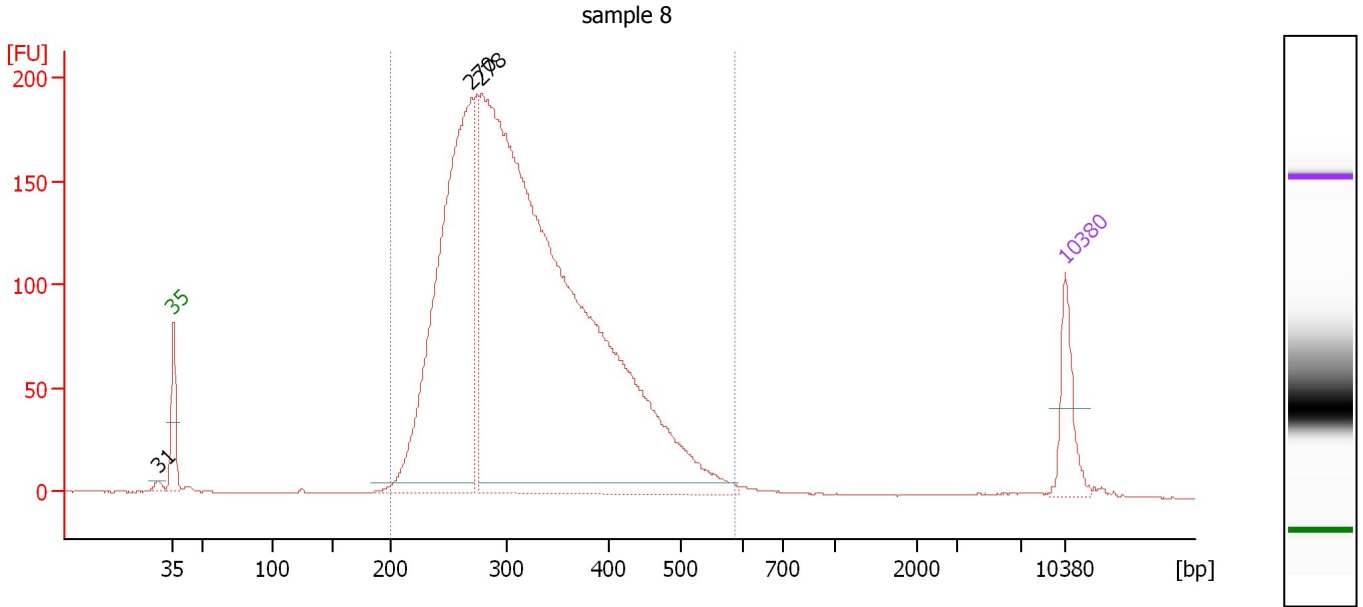
**Region table for sample 7 : sample 7**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	320	612	1,611.4	96	20.9	1,675.68	8,354.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 3                      Corr. Area 1: 3,420.9  
 Noise: 0.2

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

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	270	1,123.08	6,302.9	
4	278	2,881.78	15,680.2	
5	10,380	75.00	10.9	Upper Marker

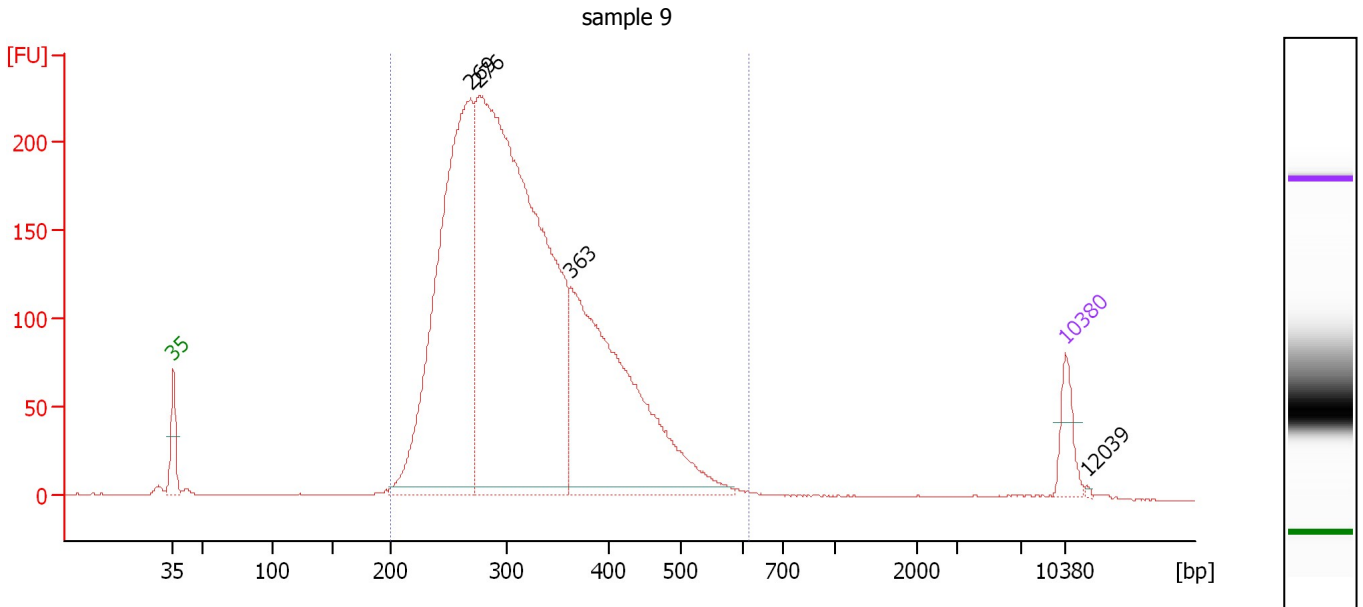
**Region table for sample 8 : sample 8**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	323	587	3,420.9	98	21.8	3,803.48	18,918.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Corr. Area 1: 4,041.7  
 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	269	1,751.72	9,867.3	
3	276	3,061.93	16,779.9	
4	363	1,249.38	5,218.3	
5	10,380	75.00	10.9	Upper Marker
6	12,039	0.00	0.0	

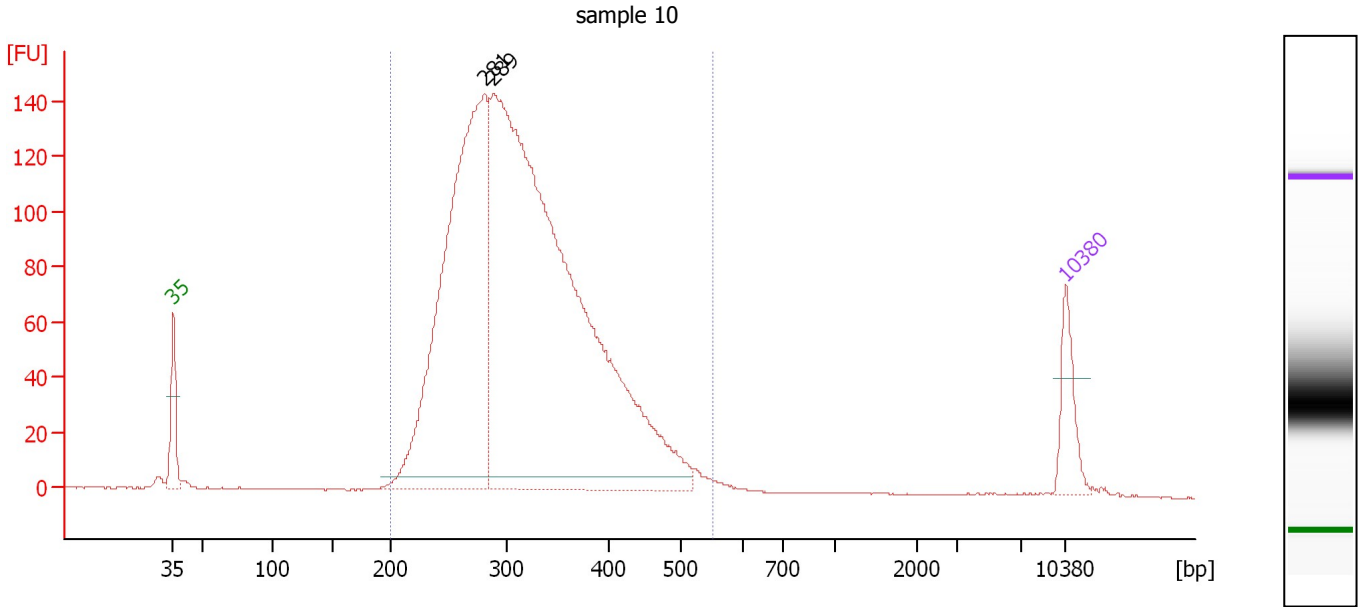
**Region table for sample 9 : sample 9**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	322	616	4,041.7	98	21.7	5,890.14	29,321.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 2                      Corr. Area 1: 2,452.5  
 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	281	1,337.29	7,206.7	
3	289	2,522.35	13,239.7	
4	10,380	75.00	10.9	Upper Marker

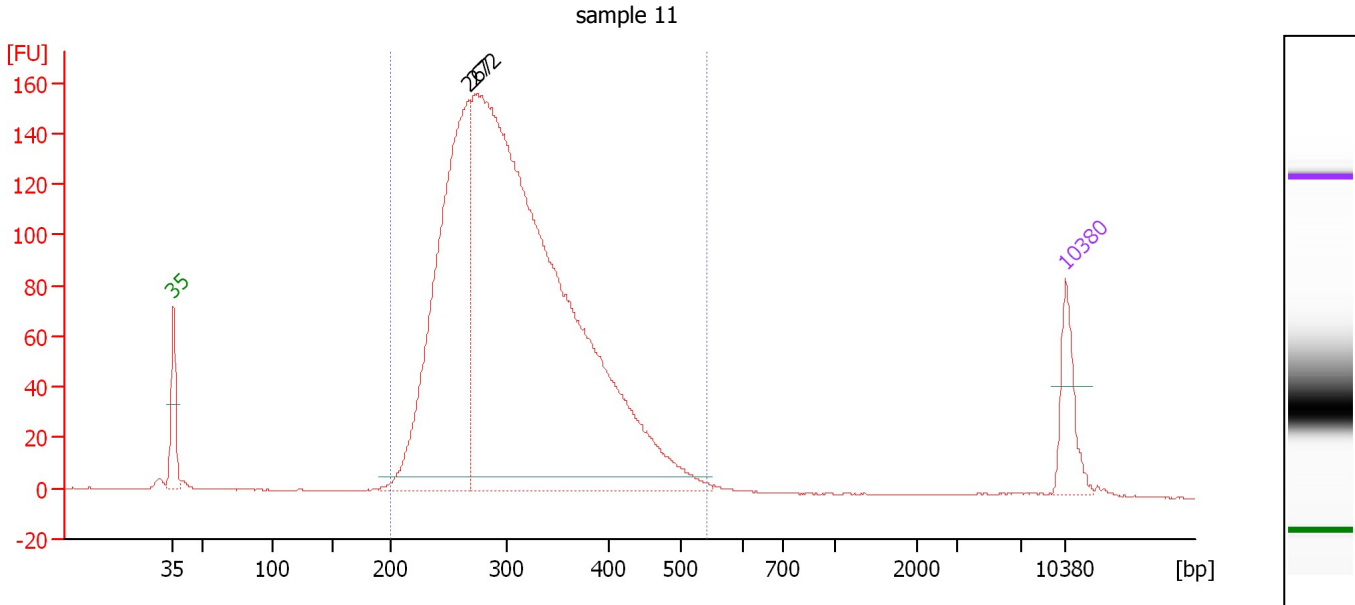
**Region table for sample 10 : sample 10**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	319	553	2,452.5	97	19.7	3,707.99	18,429.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 2                      Corr. Area 1: 2,577.3  
 Noise: 0.1

**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	267	1,032.18	5,850.5	
3	272	2,653.20	14,761.8	
4	10,380	75.00	10.9	Upper Marker

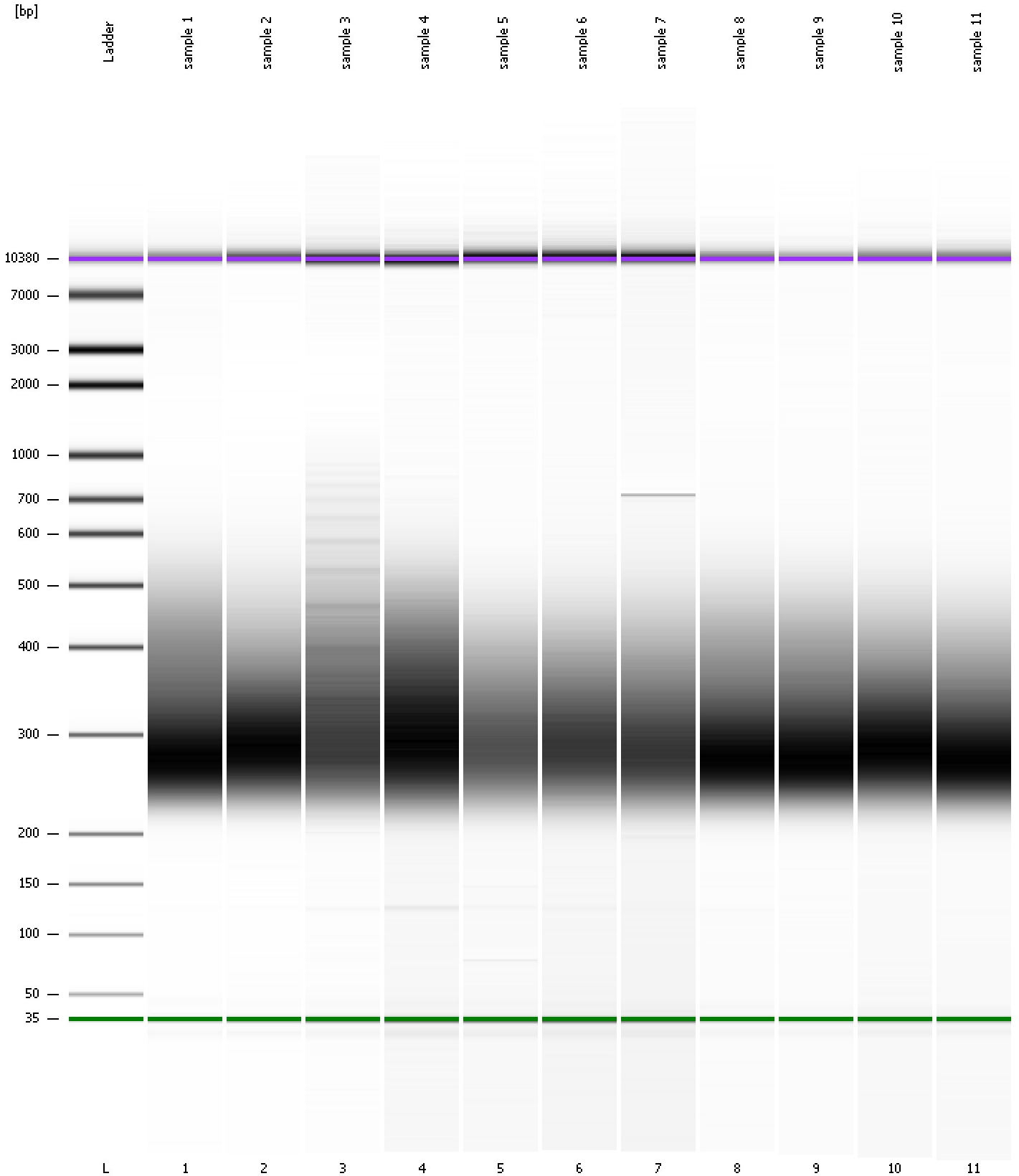
**Region table for sample 11 : sample 11**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	312	541	2,577.3	98	19.6	3,427.31	17,421.2	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
Modified: 9/12/2014 5:39:19 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-12\2014-09-12\_003.xad

Created: 9/12/2014 4:57:44 PM  
 Modified: 9/12/2014 5:39:19 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		9/12/2014 5:39:03 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-12\2014-09-12_003.xad)		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/12/2014 4:57:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1