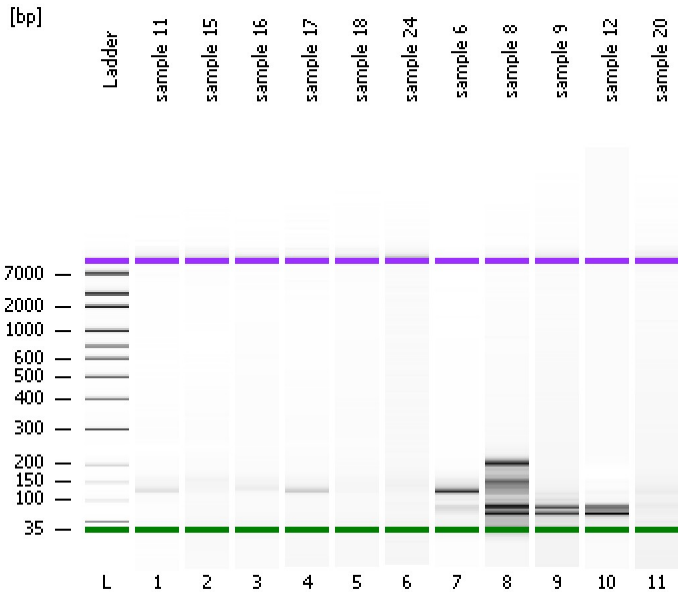


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
Modified: 9/25/2014 11:06:47 AM

**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

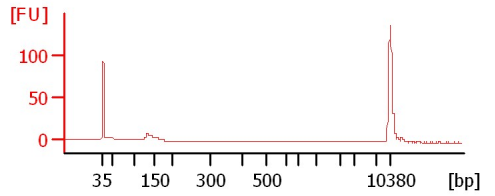
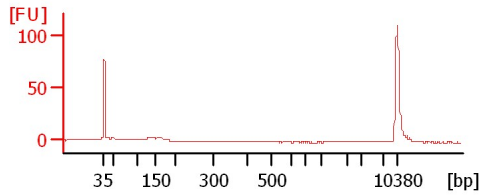
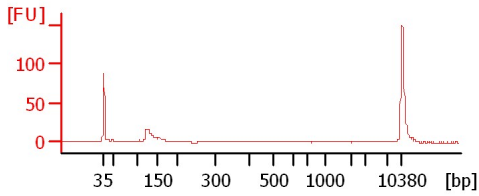
Chip Information:

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

sample 11

sample 15

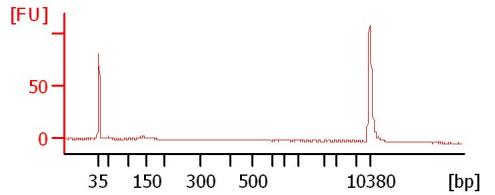
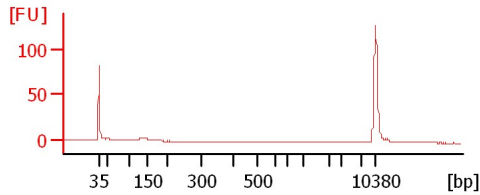
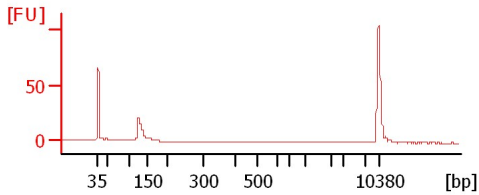
sample 16



sample 17

sample 18

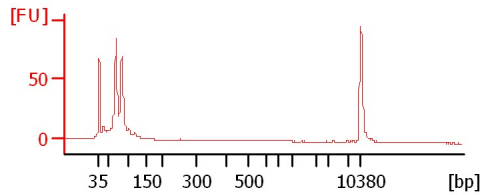
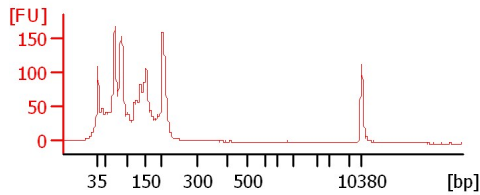
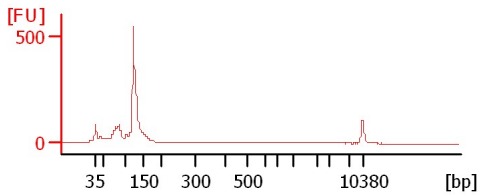
sample 24



sample 6

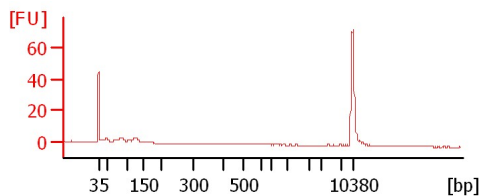
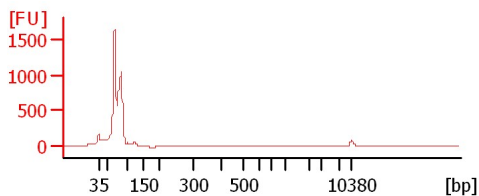
sample 8

sample 9



sample 12

sample 20



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 11		<input type="checkbox"/>	✓			
sample 15		<input type="checkbox"/>	✓			
sample 16		<input type="checkbox"/>	✓			
sample 17		<input type="checkbox"/>	✓			
sample 18		<input type="checkbox"/>	✓			
sample 24		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 12		<input type="checkbox"/>	✓			
sample 20		<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\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
Modified: 9/25/2014 11:06:47 AM

**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

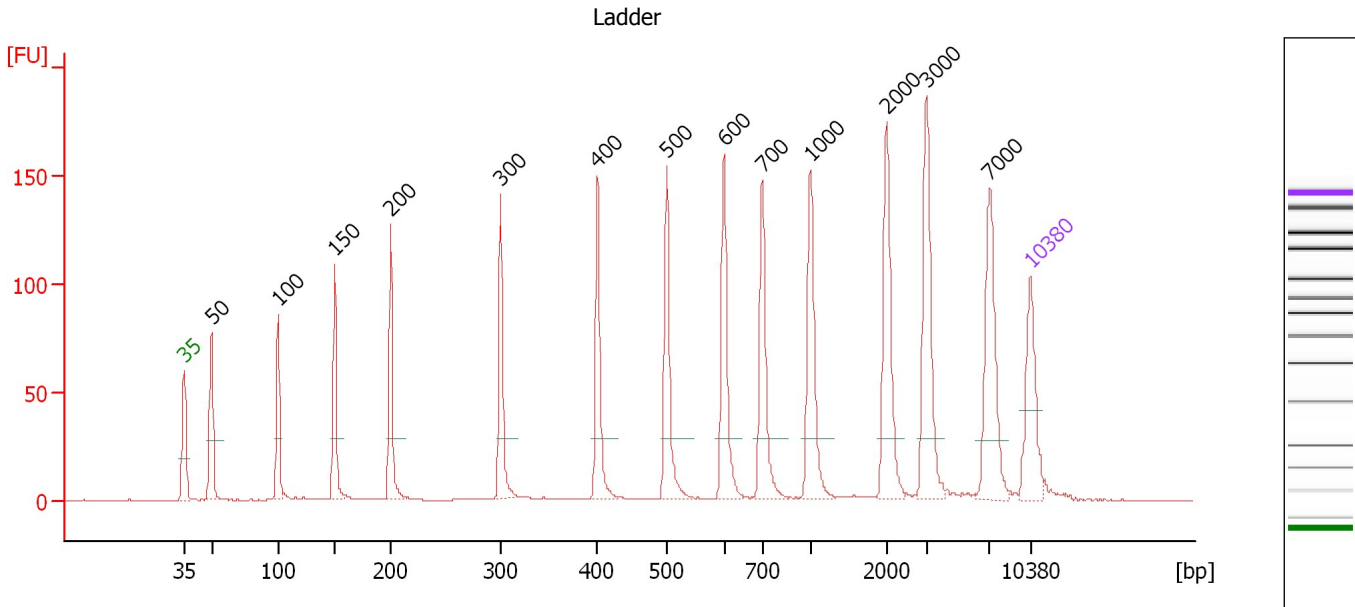
**Ladder**

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\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

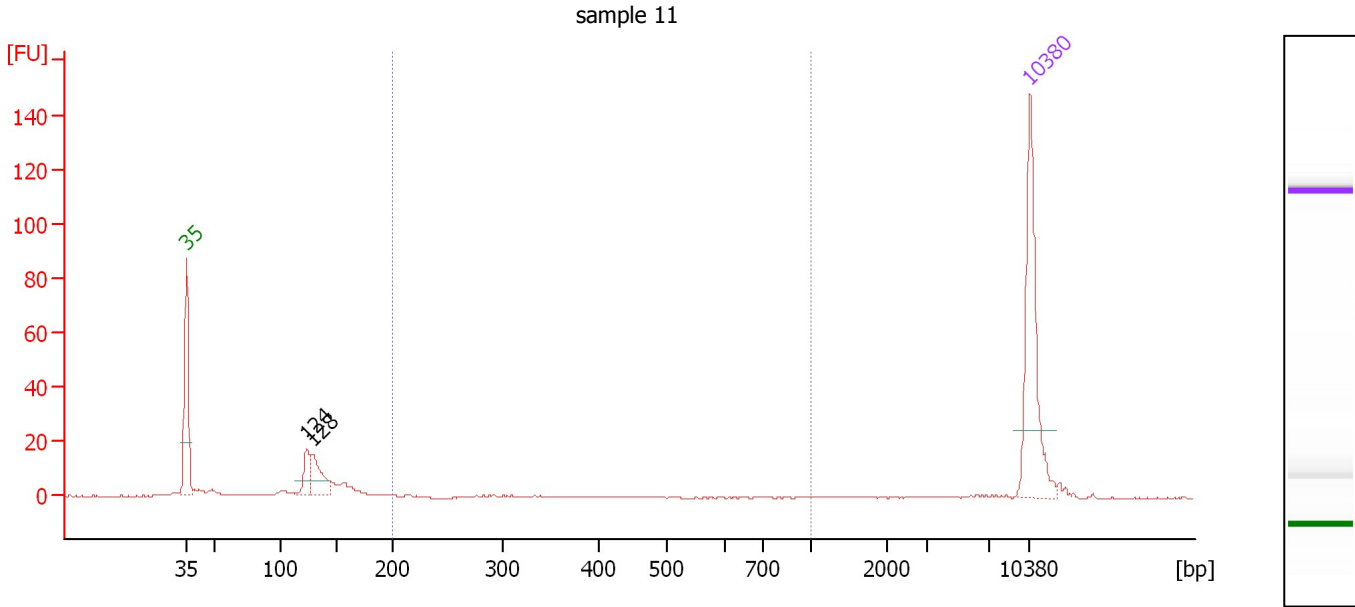
**Peak table for Ladder**

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\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 11**

Number of peaks found: 2                      Corr. Area 1: 10.7  
 Noise: 0.1

**Peak table for sample 1 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	124	23.92	292.5	
3	128	36.99	437.3	
4	10,380	75.00	10.9	Upper Marker

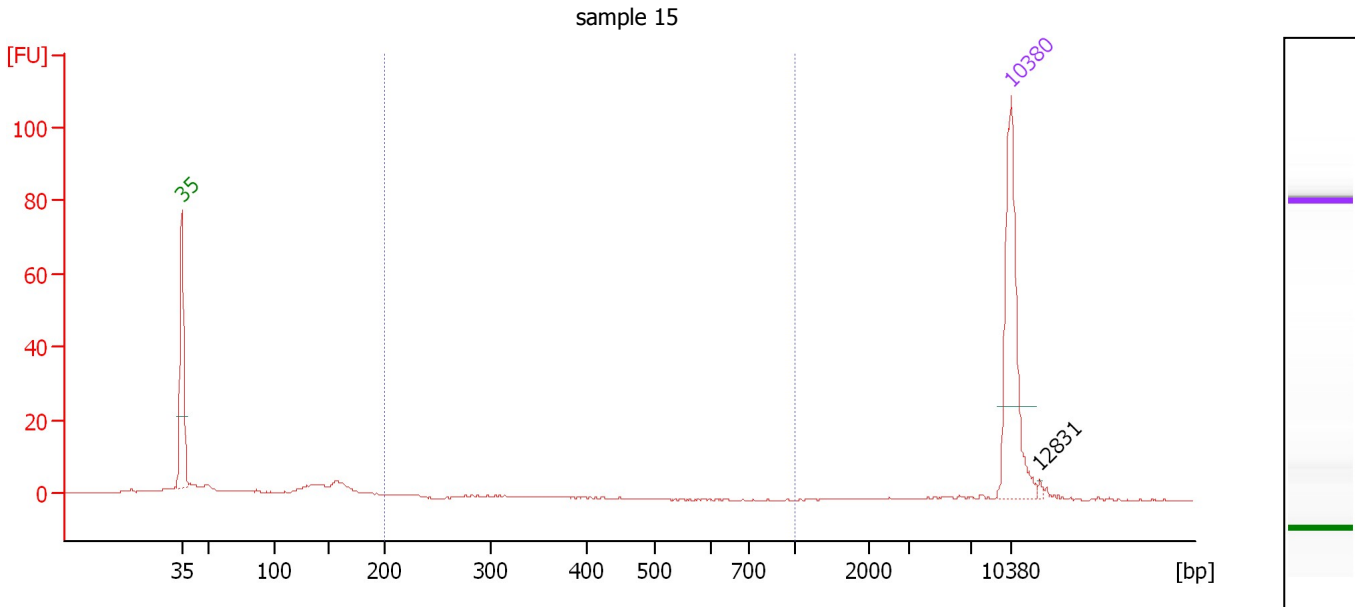
**Region table for sample 1 : sample 11**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	380	1,000	10.7	8	45.1	9.37	44.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 15**

Number of peaks found: 1                      Corr. Area 1: 2.0  
 Noise: 0.1

**Peak table for sample 2 : sample 15**

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	12,831	0.00	0.0	

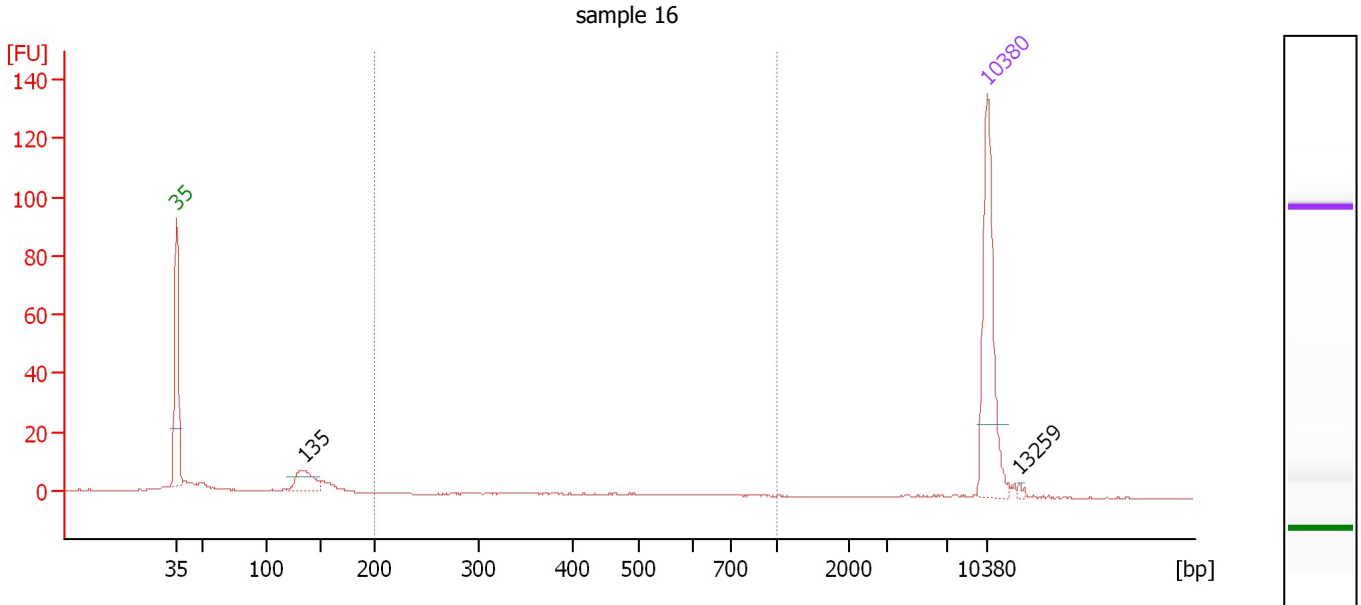
**Region table for sample 2 : sample 15**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	257	1,000	2.0	2	20.3	2.28	14.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 16**

Number of peaks found: 2                      Corr. Area 1: 1.2  
 Noise: 0.1

**Peak table for sample 3 : sample 16**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	135	30.00	337.5	
3	10,380	75.00	10.9	Upper Marker
4	13,259	0.00	0.0	

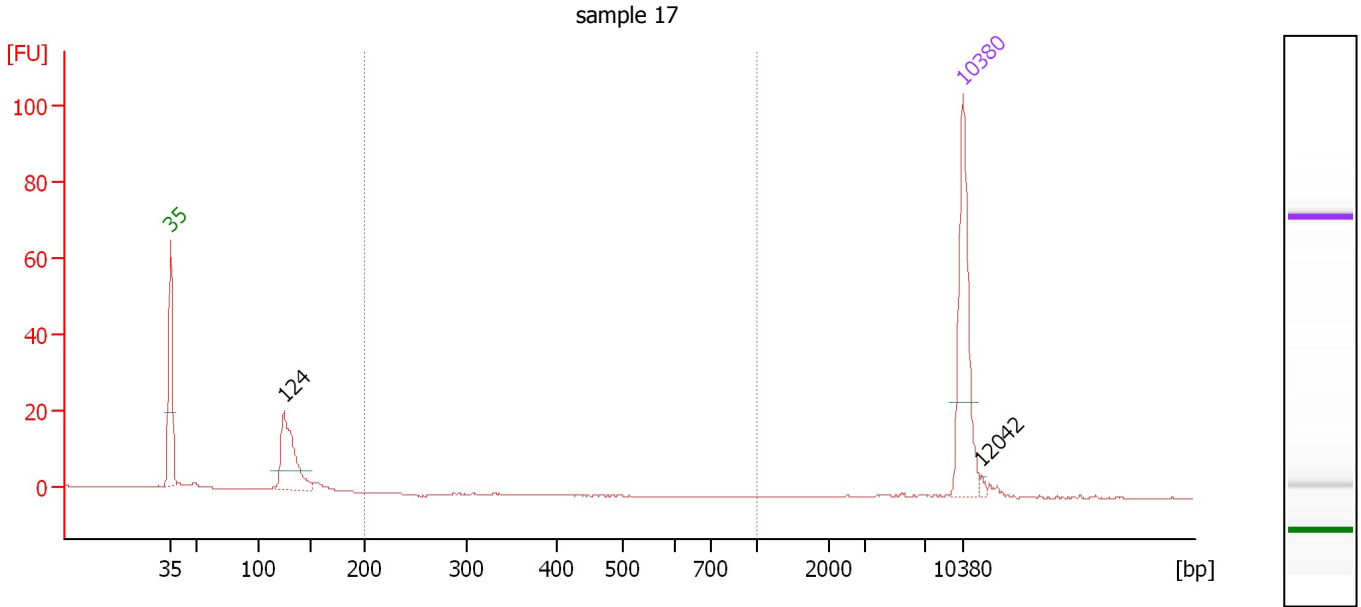
**Region table for sample 3 : sample 16**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	450	1,000	1.2	2	19.5	1.02	3.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 17**

Number of peaks found: 2                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 4 : sample 17**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	124	88.41	1,077.8	
3	10,380	75.00	10.9	Upper Marker
4	12,042	0.00	0.0	

**Region table for sample 4 : sample 17**

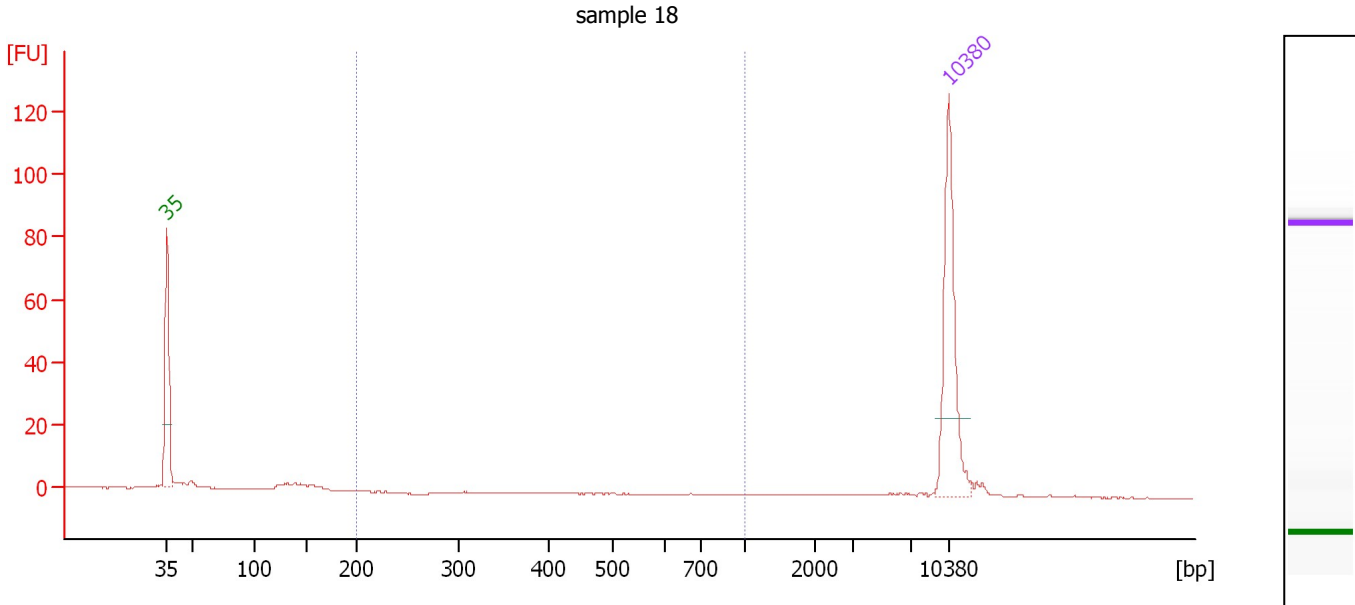
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 18**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 5 : sample 18**

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

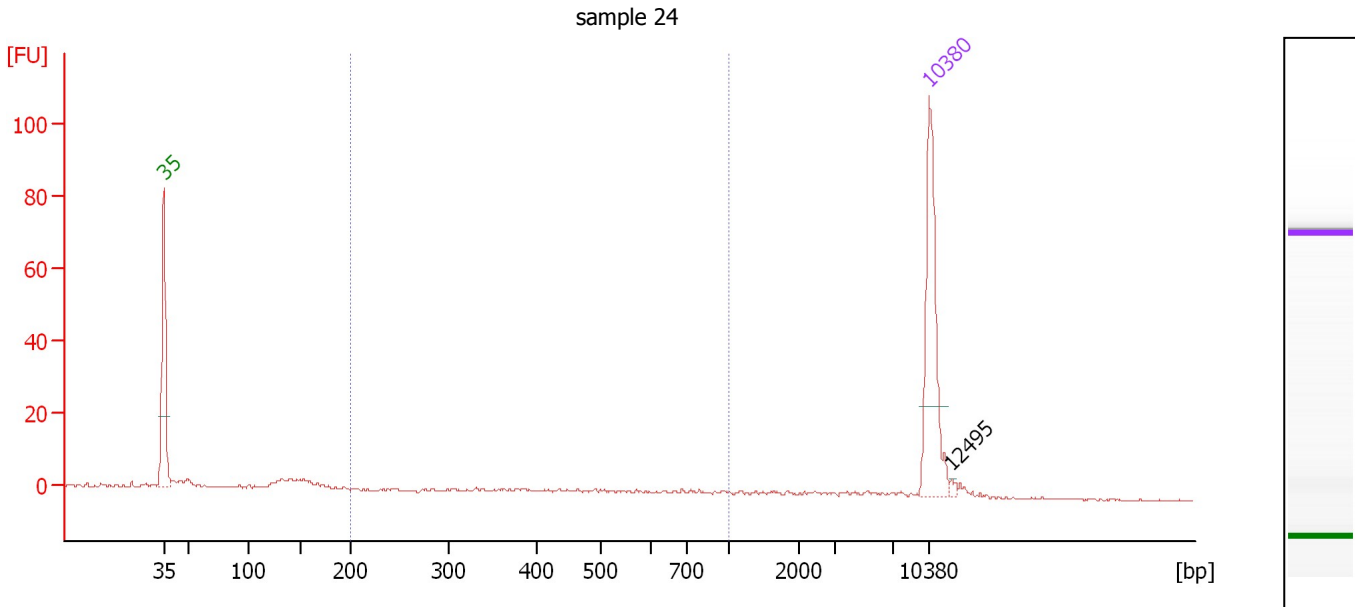
**Region table for sample 5 : sample 18**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	499	1,000	0.0	0	71.8	0.02	0.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 24**

Number of peaks found: 1                      Corr. Area 1: 16.5  
 Noise: 0.2

**Peak table for sample 6 : sample 24**

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	12,495	0.00	0.0	

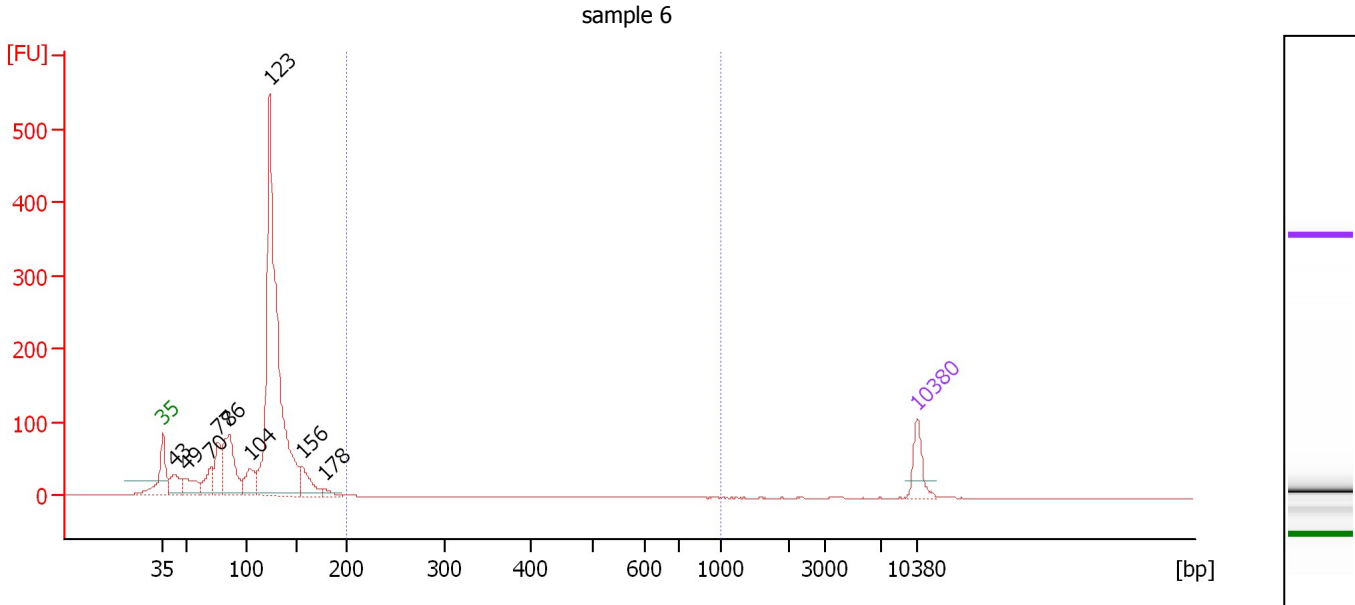
**Region table for sample 6 : sample 24**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	538	1,000	16.5	22	35.1	16.40	55.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 6**

Number of peaks found: 9                      Corr. Area 1: 6.6  
 Noise: 0.1

**Peak table for sample 7 : sample 6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	43	130.46	4,642.0	
3	49	117.79	3,629.4	
4	70	118.20	2,544.0	
5	77	167.01	3,300.4	
6	86	363.44	6,430.2	
7	104	130.33	1,904.6	
8	123	1,931.54	23,746.6	
9	156	134.07	1,306.0	
10	178	22.58	192.3	
11	10,380	75.00	10.9	Upper Marker

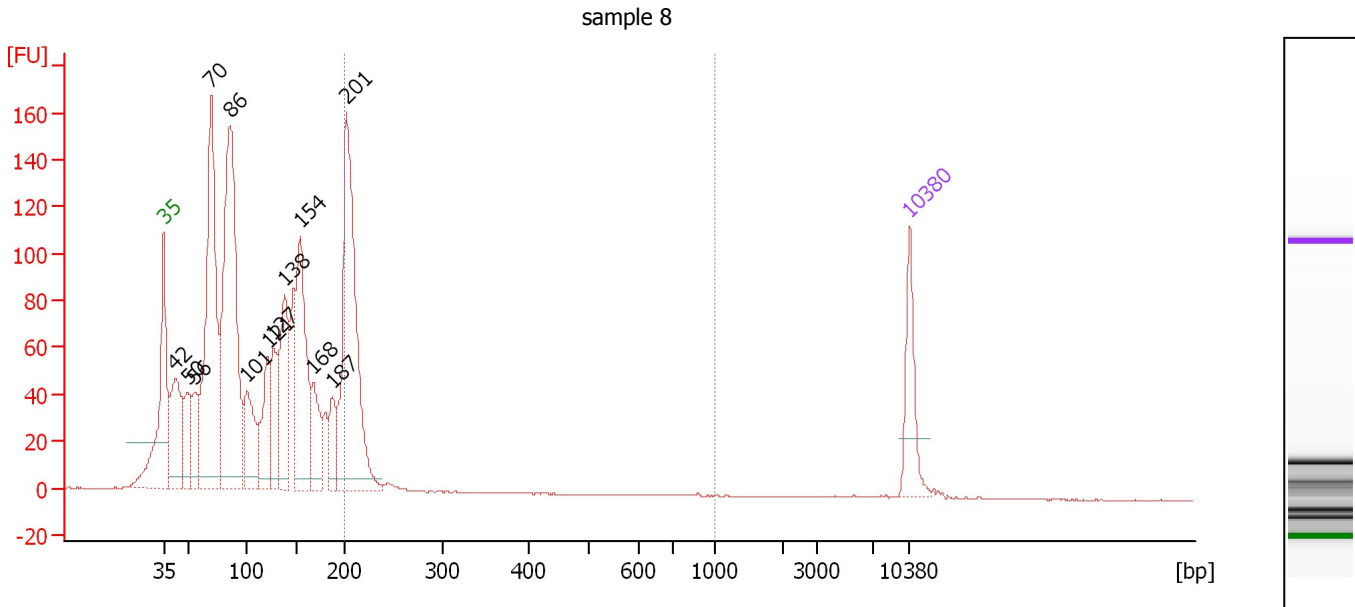
**Region table for sample 7 : sample 6**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	252	1,000	6.6	0	32.9	8.86	57.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 329.9  
 Noise: 0.1

**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	42	230.82	8,260.0	
3	50	104.47	3,164.4	
4	56	103.94	2,793.6	
5	70	650.05	14,073.6	
6	86	763.43	13,471.3	
7	101	159.60	2,394.5	
8	121	150.21	1,875.9	
9	127	125.14	1,490.5	
10	138	235.55	2,587.9	
11	154	331.18	3,258.3	
12	168	110.26	997.4	
13	187	68.92	558.6	
14	201	567.83	4,280.0	
15	10,380	75.00	10.9	Upper Marker

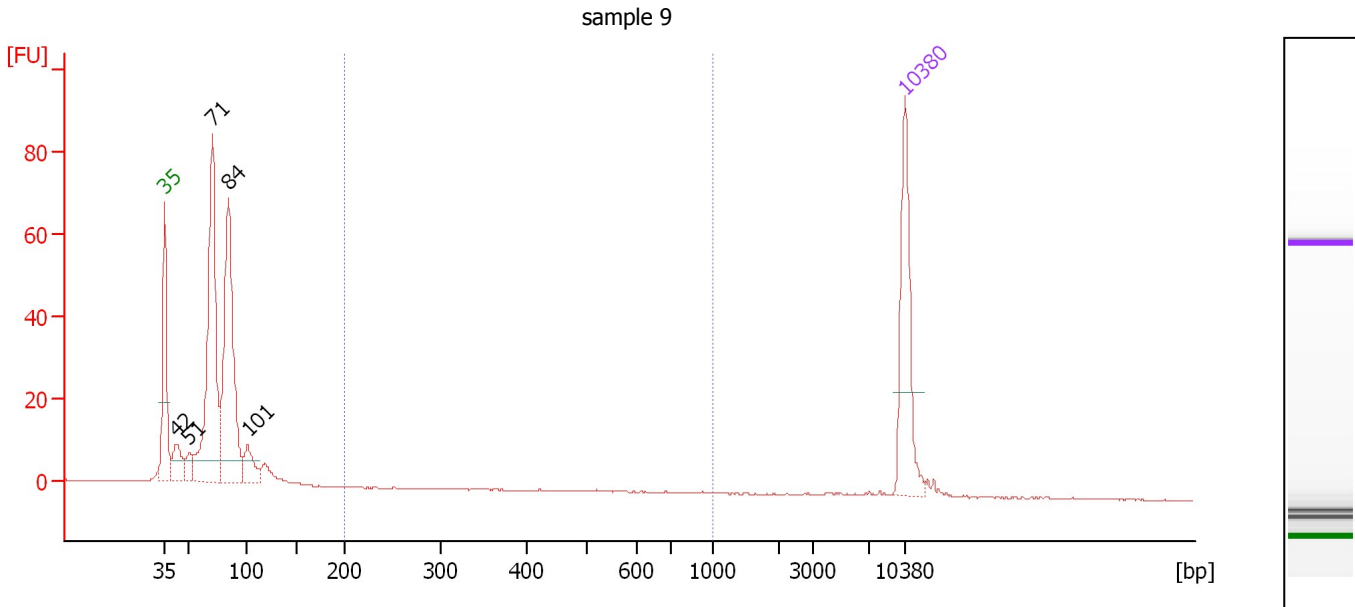
**Region table for sample 8 : sample 8**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	211	1,000	329.9	14	14.0	463.08	3,342.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 5                      Corr. Area 1: 0.1  
 Noise: 0.1

**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	42	38.69	1,382.5	
3	51	18.03	539.4	
4	71	292.31	6,258.9	
5	84	258.00	4,627.1	
6	101	33.06	495.3	
7	10,380	75.00	10.9	Upper Marker

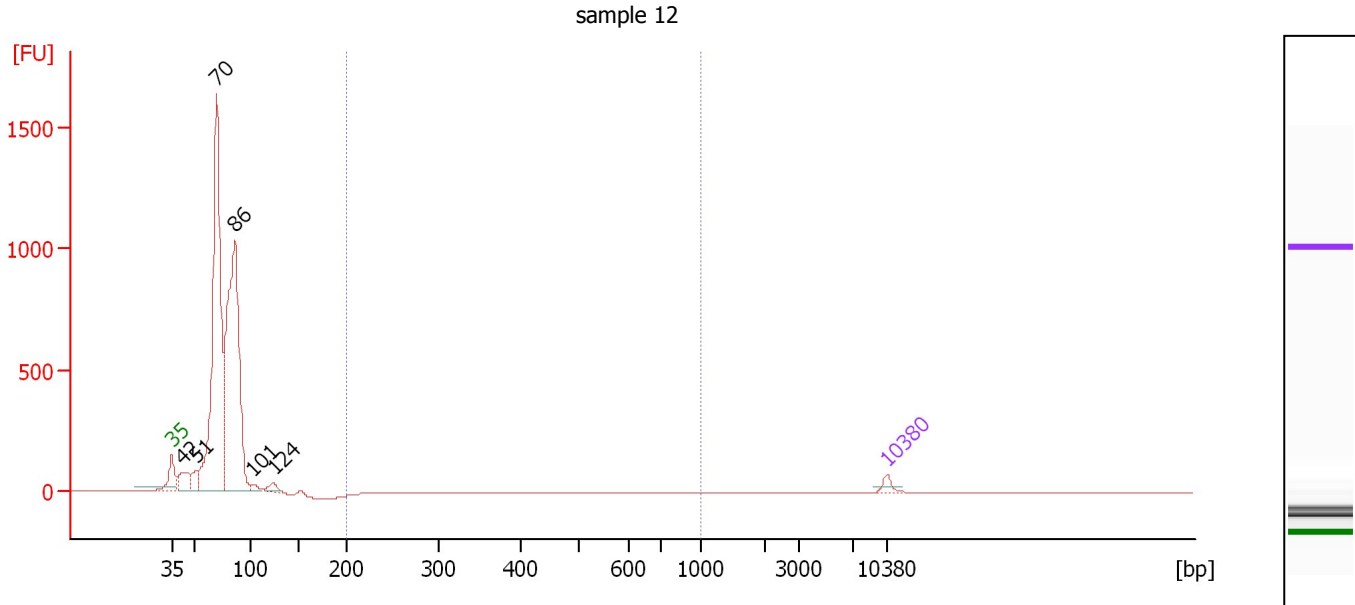
**Region table for sample 9 : sample 9**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	561	1,000	0.1	0	47.6	0.09	0.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 12**

Number of peaks found: 6                      Corr. Area 1: 5.2  
 Noise: 0.1

**Peak table for sample 10 : sample 12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	531.02	19,035.8	
3	51	293.80	8,766.9	
4	70	8,017.69	174,544.0	
5	86	7,368.67	130,431.2	
6	101	141.57	2,116.8	
7	124	165.88	2,034.7	
8	10,380	75.00	10.9	Upper Marker

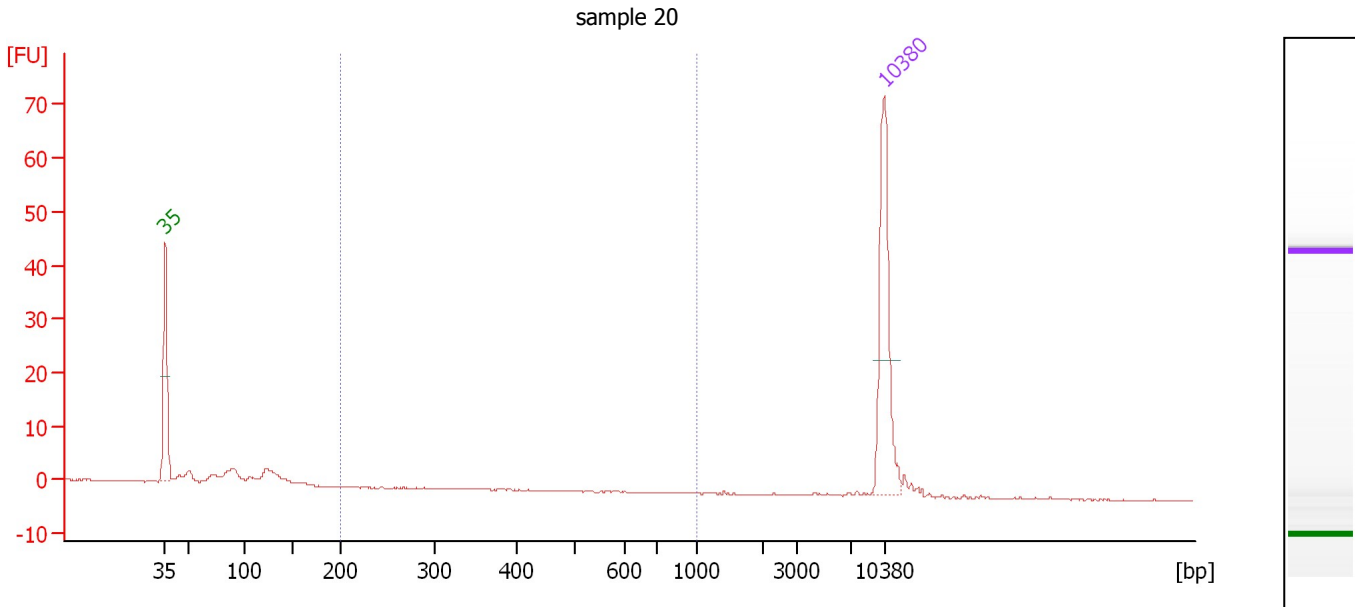
**Region table for sample 10 : sample 12**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	632	1,000	5.2	0	24.7	8.48	21.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 20**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 11 : sample 20**

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

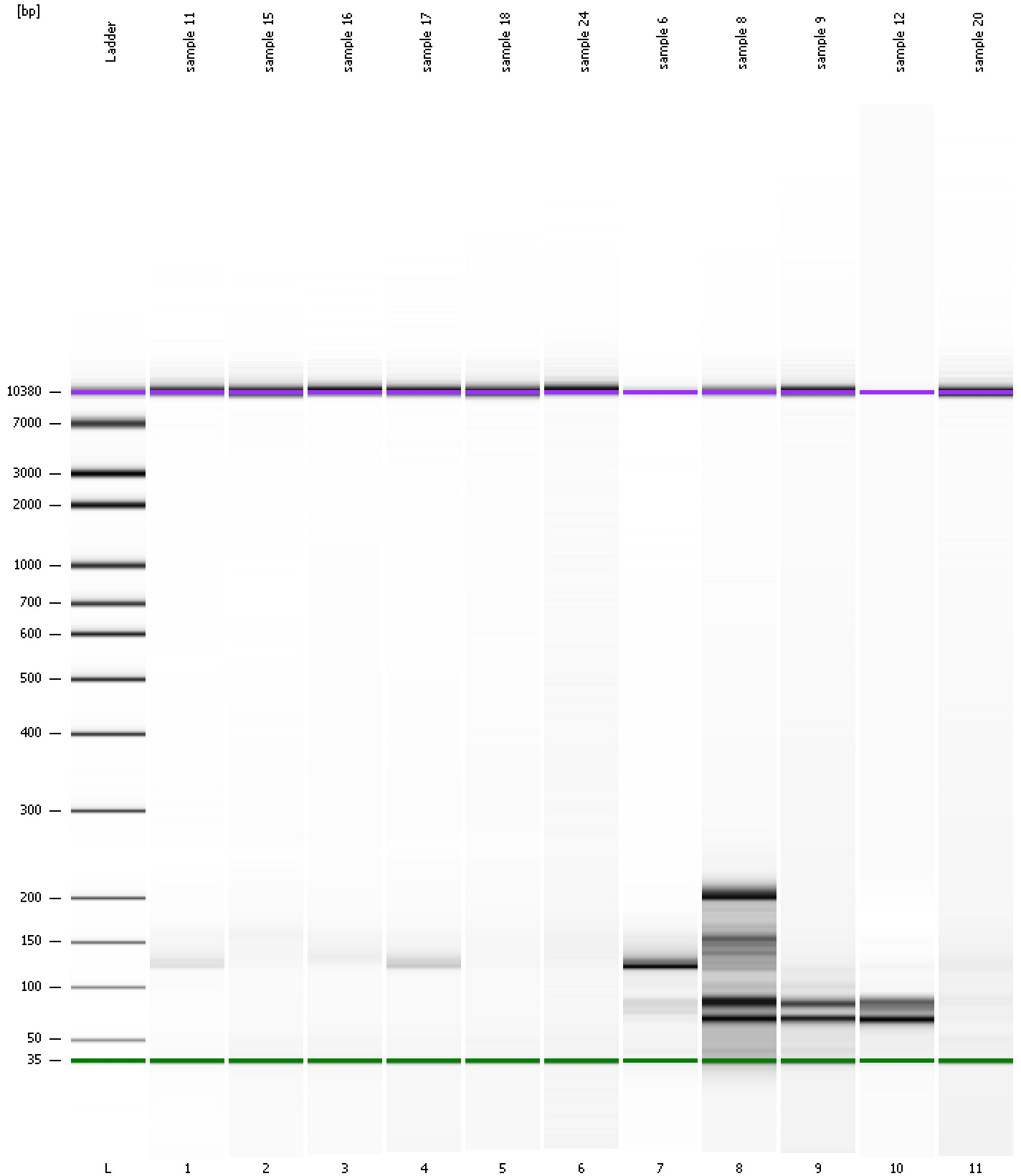
**Region table for sample 11 : sample 20**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
Modified: 9/25/2014 11:06:47 AM

**Gel Image**



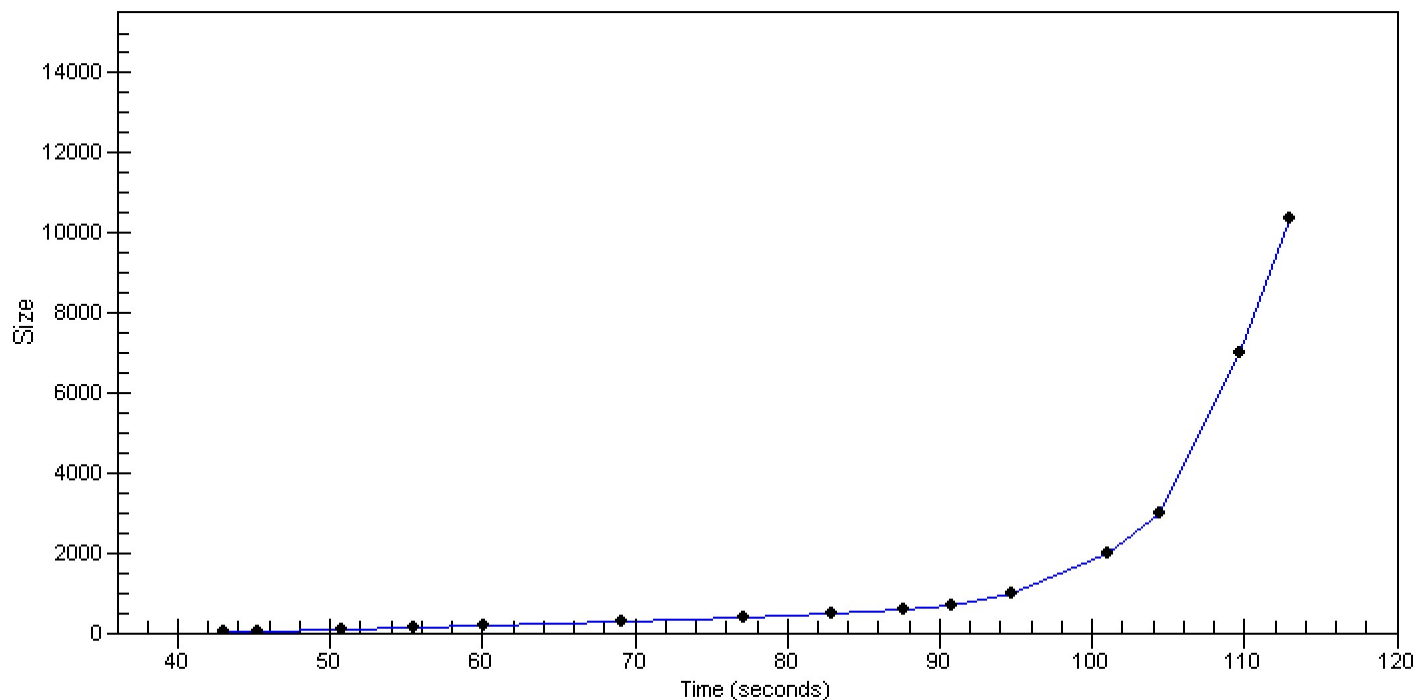


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
Modified: 9/25/2014 11:06:47 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-25\2014-09-25\_003.xad

Created: 9/25/2014 10:26:14 AM  
 Modified: 9/25/2014 11:06:47 AM

**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		9/25/2014 11:06:43 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-25\2014-09-25_003.xad)		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/25/2014 10:26:20 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1