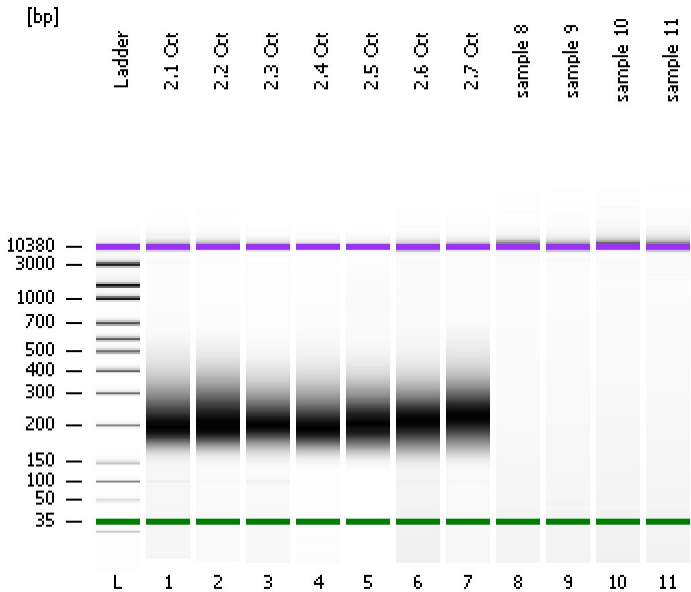


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
Modified: 4/28/2015 1:49:18 PM

**Electrophoresis File Run Summary**



Instrument Information:

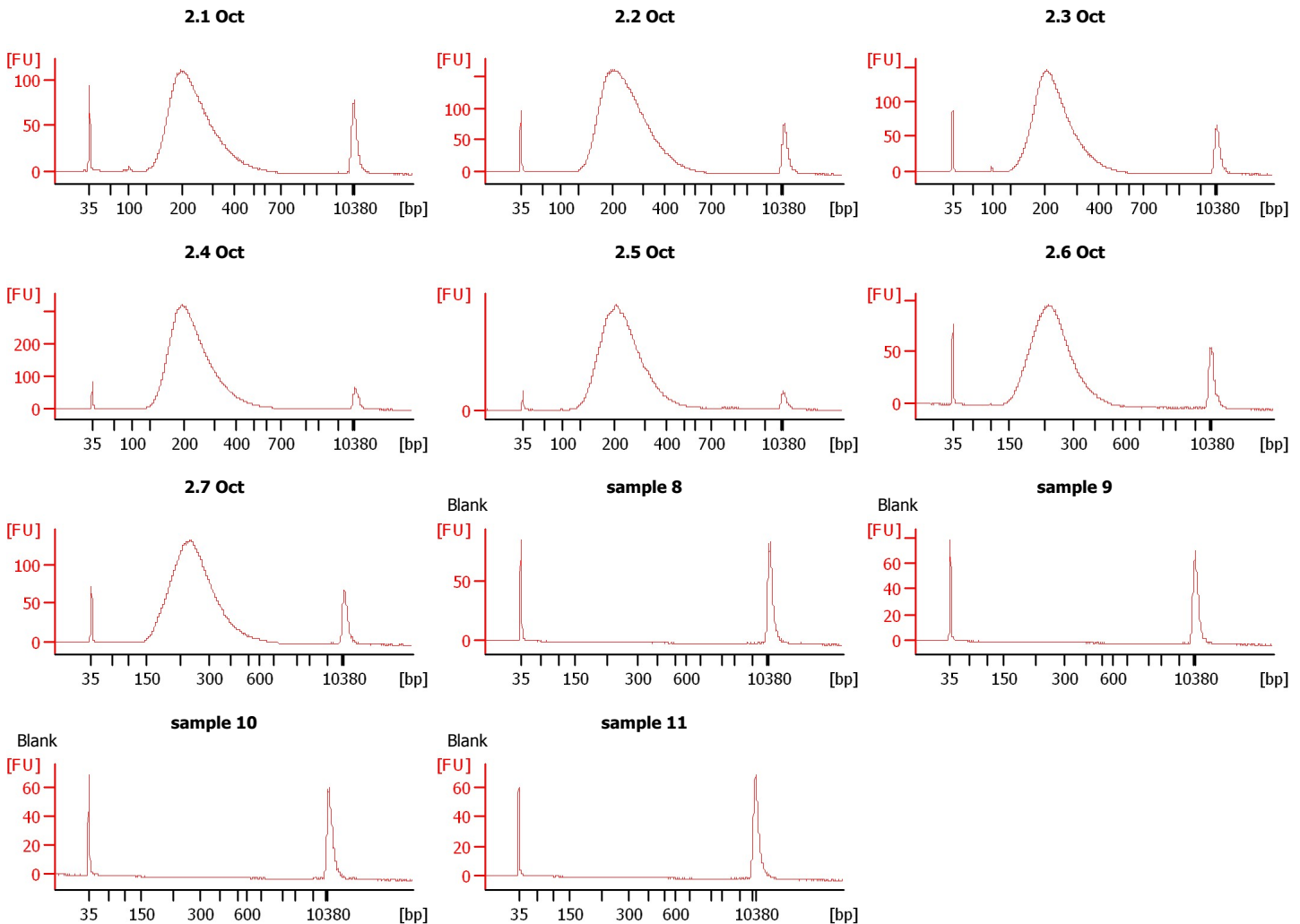
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
Modified: 4/28/2015 1:49:18 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
2.1 Oct		<input type="checkbox"/>	✓			
2.2 Oct		<input type="checkbox"/>	✓			
2.3 Oct		<input type="checkbox"/>	✓			
2.4 Oct		<input type="checkbox"/>	✓			
2.5 Oct		<input type="checkbox"/>	✓			
2.6 Oct		<input type="checkbox"/>	✓			
2.7 Oct		<input type="checkbox"/>	✓			
sample 8	Blank	<input type="checkbox"/>	✓			
sample 9	Blank	<input type="checkbox"/>	✓			
sample 10	Blank	<input type="checkbox"/>	✓			
sample 11	Blank	<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\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
Modified: 4/28/2015 1:49:18 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

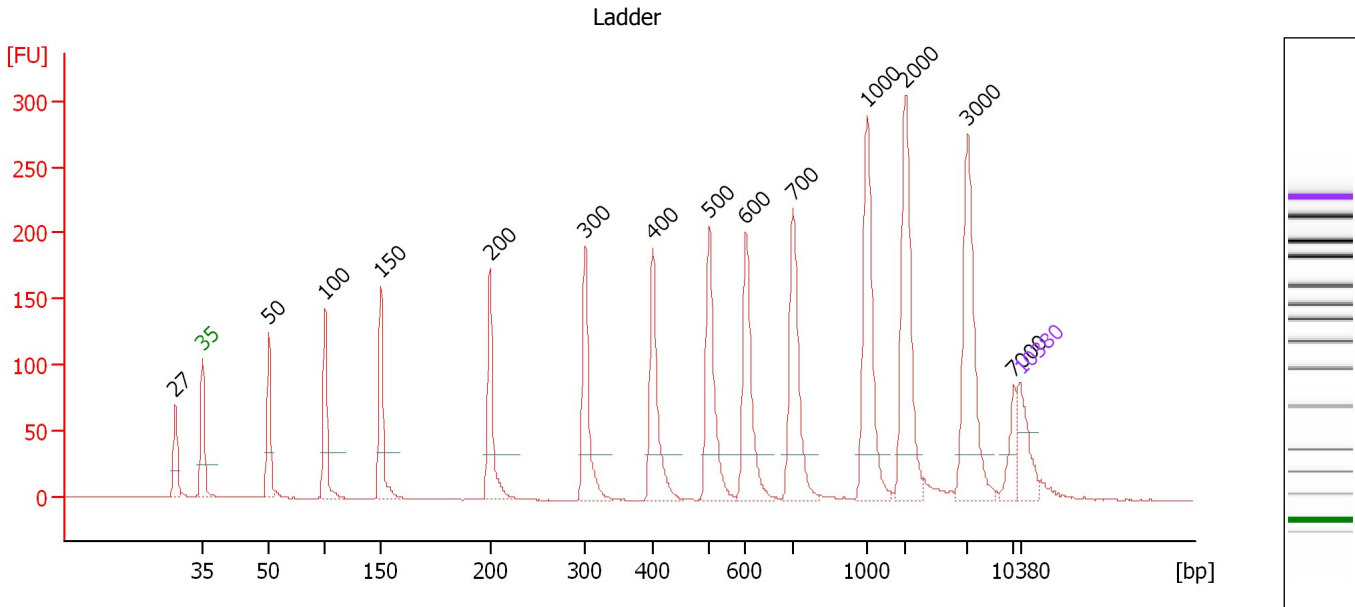
**Ladder**

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\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

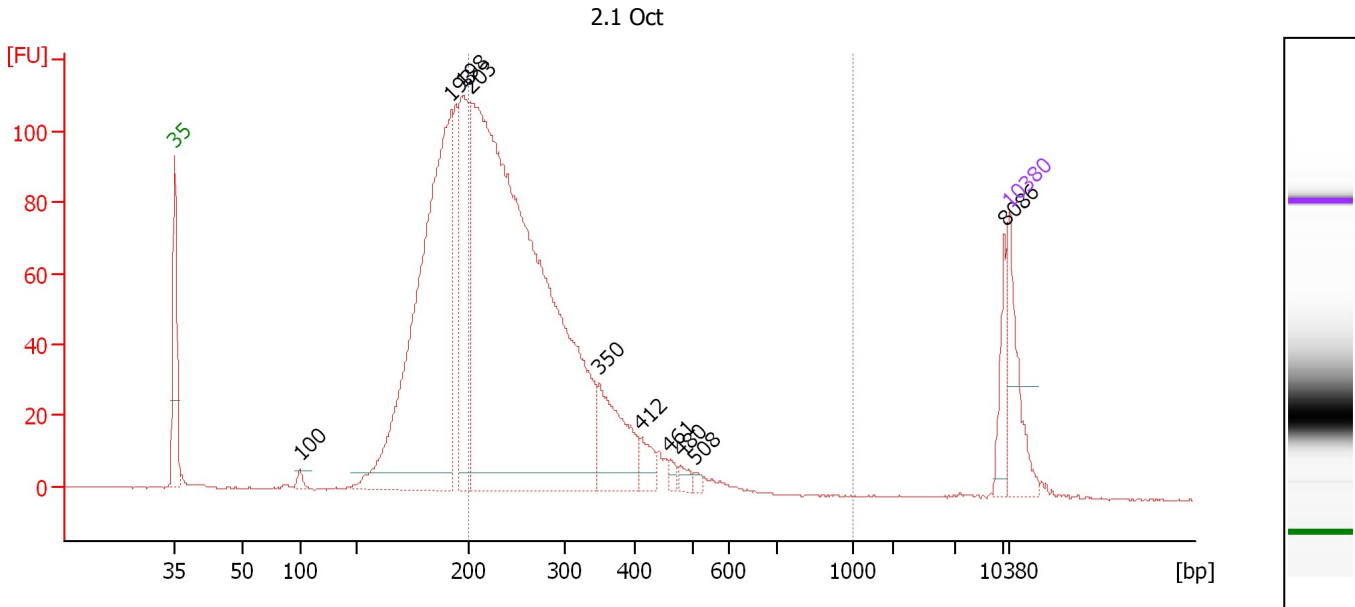
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	27	0.00	0.0		40.67
2	35	125.00	5,411.3	Lower Marker	43.00
3	50	150.00	4,545.5	Ladder Peak	48.66
4	100	150.00	2,272.7	Ladder Peak	53.50
5	150	150.00	1,515.2	Ladder Peak	58.29
6	200	150.00	1,136.4	Ladder Peak	67.60
7	300	150.00	757.6	Ladder Peak	75.76
8	400	150.00	568.2	Ladder Peak	81.56
9	500	150.00	454.5	Ladder Peak	86.40
10	600	150.00	378.8	Ladder Peak	89.50
11	700	150.00	324.7	Ladder Peak	93.56
12	1,000	150.00	227.3	Ladder Peak	99.90
13	2,000	150.00	113.6	Ladder Peak	103.19
14	3,000	150.00	75.8	Ladder Peak	108.48
15	7,000	150.00	32.5	Ladder Peak	112.41
16	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 2.1 Oct**

Number of peaks found: 10                      Corr. Area 1: 1,338.3  
 Noise: 0.2

**Peak table for sample 1 : 2.1 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	100	12.61	190.8		53.51
3	193	967.69	7,613.5		66.21
4	198	289.37	2,215.9		67.20
5	203	1,940.77	14,500.0		67.82
6	350	145.07	628.4		78.65
7	412	31.04	114.1		82.14
8	461	9.67	31.8		84.51
9	480	11.57	36.5		85.45
10	508	6.59	19.6		86.65
11	8,086	40.01	7.5		112.60
12	10,380	75.00	10.9	Upper Marker	113.00

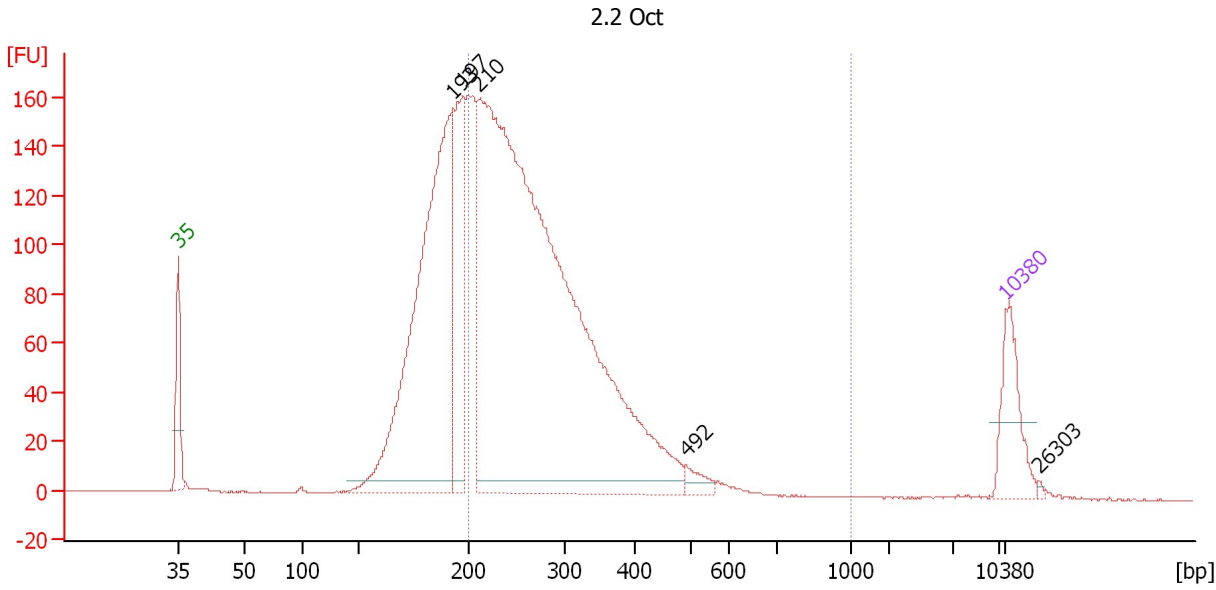
**Region table for sample 1 : 2.1 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	280	1,000	1,338.3	11,835.6	60	28.0	2,049.68	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2.2 Oct**

Number of peaks found: 5                      Corr. Area 1: 2,240.4  
 Noise: 0.2

**Peak table for sample 2 : 2.2 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	193	920.45	7,232.9		66.26
3	197	263.95	2,028.3		67.07
4	210	2,237.77	16,136.9		68.42
5	492	22.11	68.1		86.00
6	10,380	75.00	10.9	Upper Marker	113.00
7	26,303	0.00	0.0		115.79

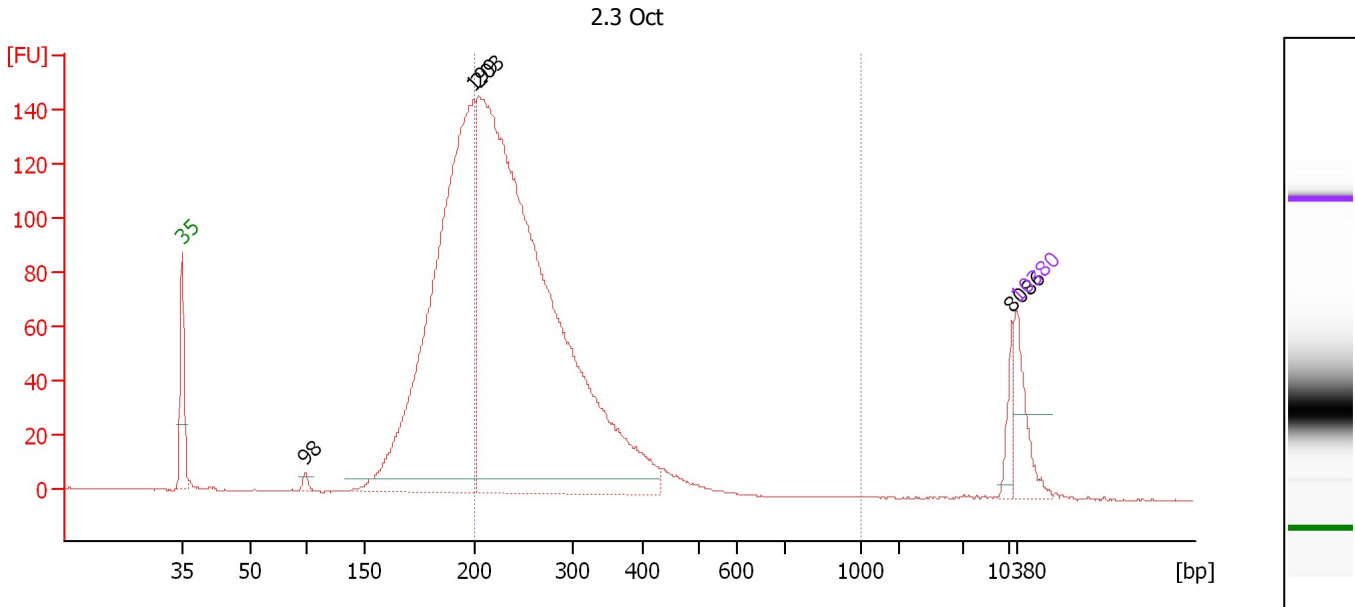
**Region table for sample 2 : 2.2 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	285	1,000	2,240.4	12,176.7	64	27.9	2,142.52	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 2.3 Oct**

Number of peaks found: 4                      Corr. Area 1: 1,572.3  
 Noise: 0.2

**Peak table for sample 3 : 2.3 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	98	15.26	236.4		53.29
3	199	1,680.40	12,790.1		67.42
4	203	2,859.10	21,303.6		67.87
5	8,086	35.60	6.7		112.60
6	10,380	75.00	10.9	Upper Marker	113.00

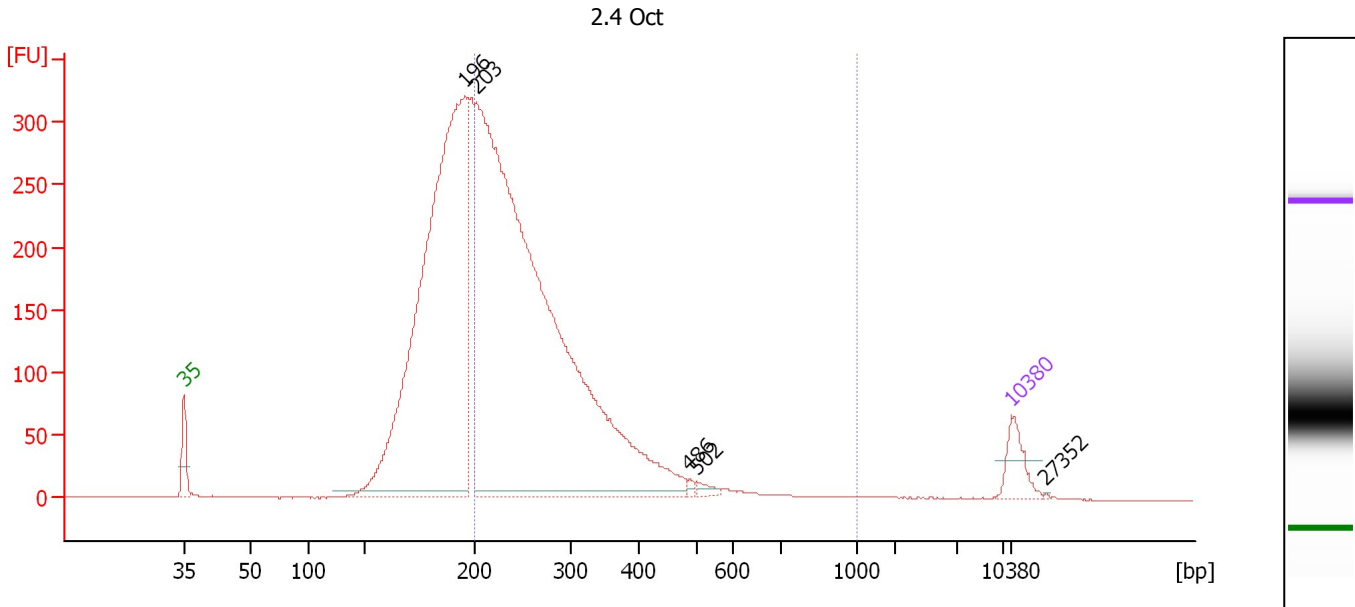
**Region table for sample 3 : 2.3 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	267	1,000	1,572.3	15,447.9	61	23.7	2,602.46	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 2.4 Oct**

Number of peaks found: 5                      Corr. Area 1: 3,410.2  
 Noise: 0.1

**Peak table for sample 4 : 2.4 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	196	2,972.53	23,020.7		66.78
3	203	4,525.08	33,811.3		67.82
4	486	9.20	28.7		85.74
5	502	20.37	61.5		86.46
6	10,380	75.00	10.9	Upper Marker	113.00
7	27,352	0.00	0.0		115.98

**Region table for sample 4 : 2.4 Oct**

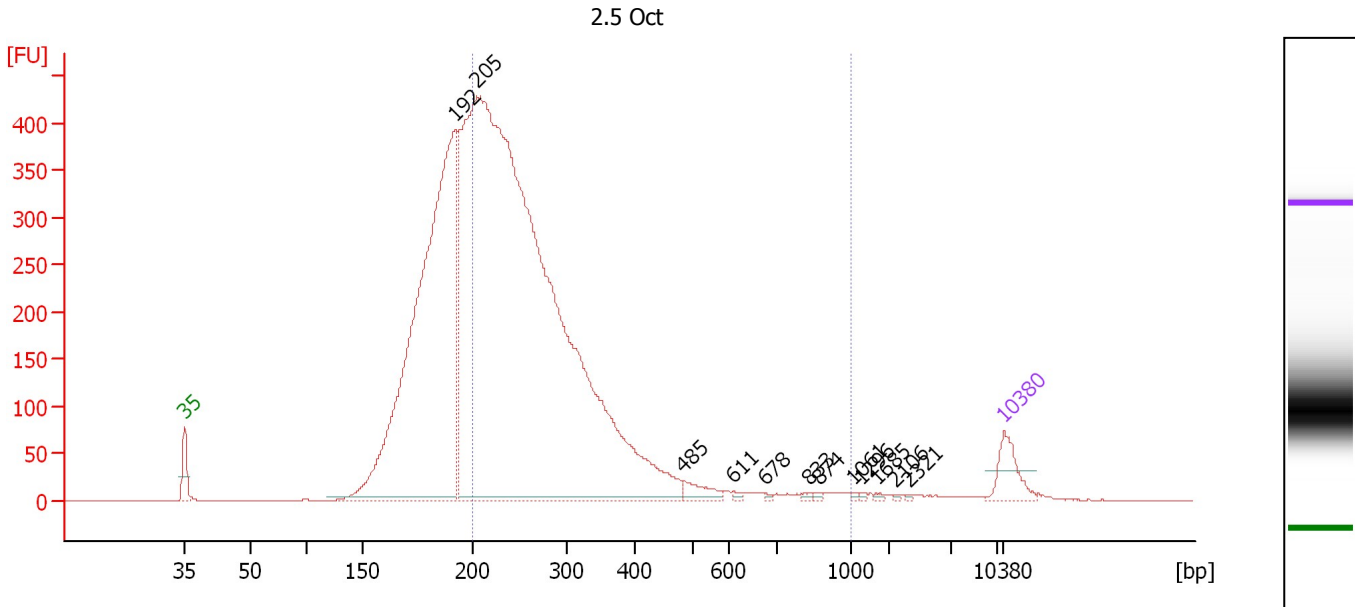
From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	279	1,000	3,410.2	24,097.0	57	32.0	4,124.42	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 2.5 Oct**

Number of peaks found: 12                      Corr. Area 1: 5,077.4  
 Noise: 0.2

**Peak table for sample 5 : 2.5 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	192	2,659.56	20,961.5		66.15
3	205	6,403.17	47,282.5		68.02
4	485	52.93	165.5		85.66
5	611	8.13	20.2		89.94
6	678	4.75	10.6		92.67
7	833	5.40	9.8		96.37
8	874	5.56	9.6		97.23
9	1,061	3.35	4.8		100.10
10	1,296	3.89	4.5		100.88
11	1,685	4.53	4.1		102.15
12	2,106	2.82	2.0		103.75
13	2,321	2.45	1.6		104.89
14	10,380	75.00	10.9	Upper Marker	113.00

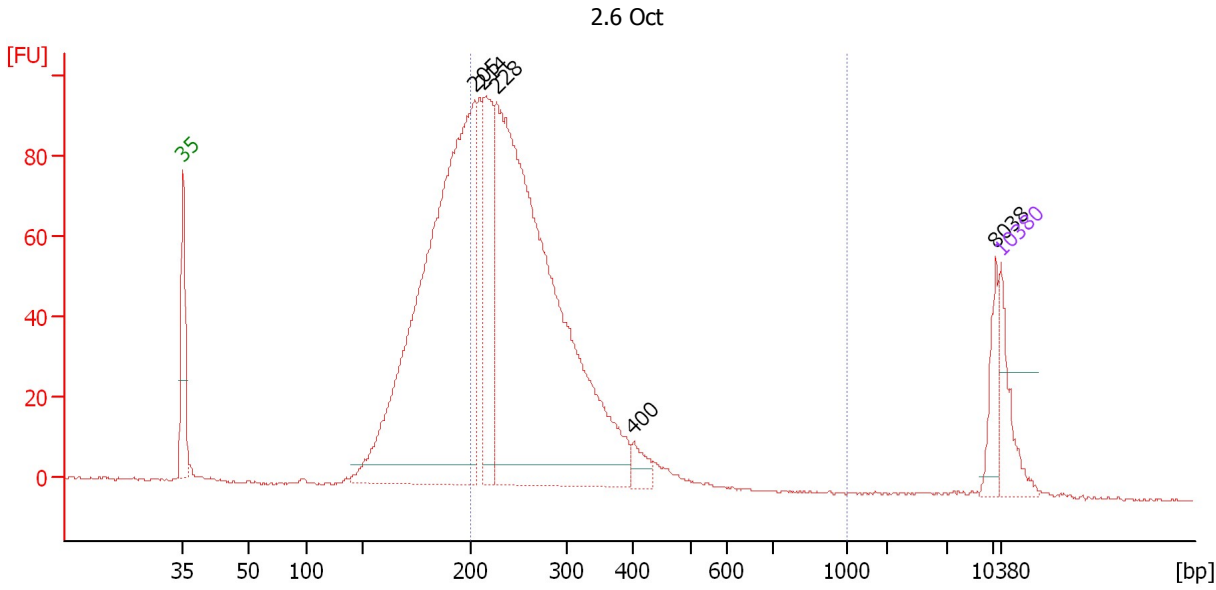
**Region table for sample 5 : 2.5 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	284	1,000	5,077.4	29,315.7	60	35.5	5,051.96	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 2.6 Oct**

Number of peaks found: 5                      Corr. Area 1: 1,157.5  
 Noise: 0.3

**Peak table for sample 6 : 2.6 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	205	1,737.10	12,859.6		67.98
3	214	367.36	2,605.6		68.71
4	228	1,865.36	12,418.5		69.85
5	400	37.88	143.6		81.54
6	8,038	57.42	10.8		112.59
7	10,380	75.00	10.9	Upper Marker	113.00

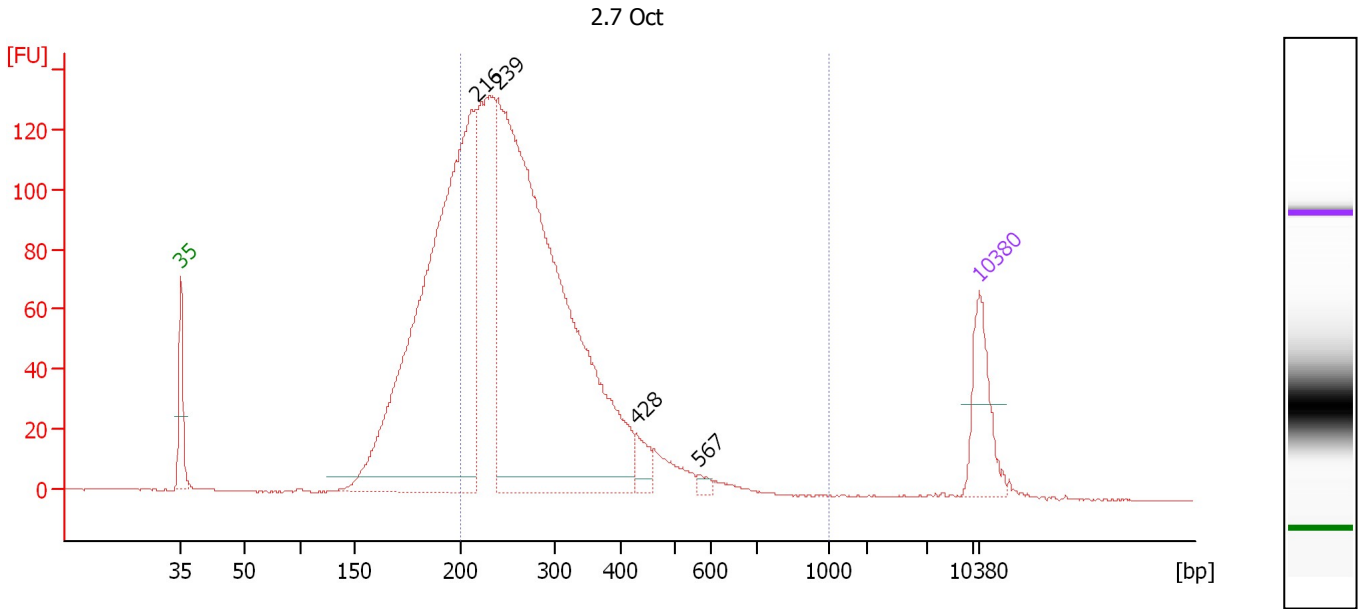
**Region table for sample 6 : 2.6 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	270	1,000	1,157.5	14,652.8	60	24.6	2,489.61	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 2.7 Oct**

Number of peaks found: 4                      Corr. Area 1: 1,901.4  
 Noise: 0.2

**Peak table for sample 7 : 2.7 Oct**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	216	1,252.36	8,792.2		68.89
3	239	1,475.68	9,344.4		70.80
4	428	31.65	112.1		82.91
5	567	8.84	23.6		88.47
6	10,380	75.00	10.9	Upper Marker	113.00

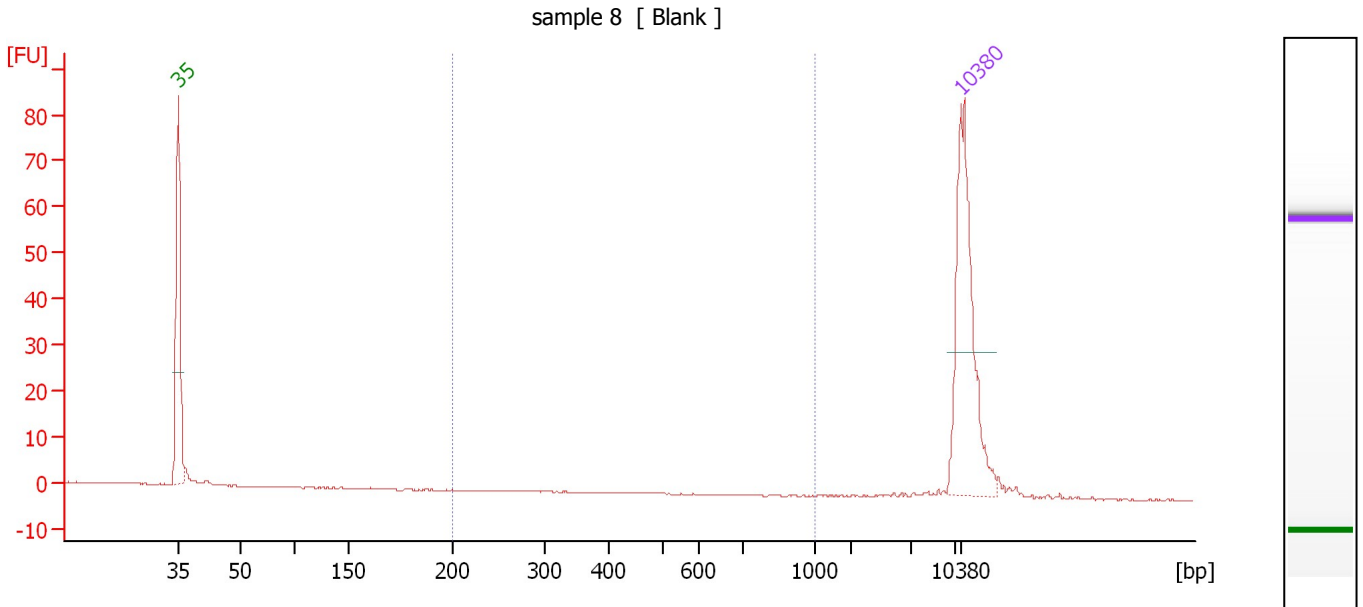
**Region table for sample 7 : 2.7 Oct**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	288	1,000	1,901.4	12,262.1	70	29.4	2,169.70	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



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

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

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

Pea k	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

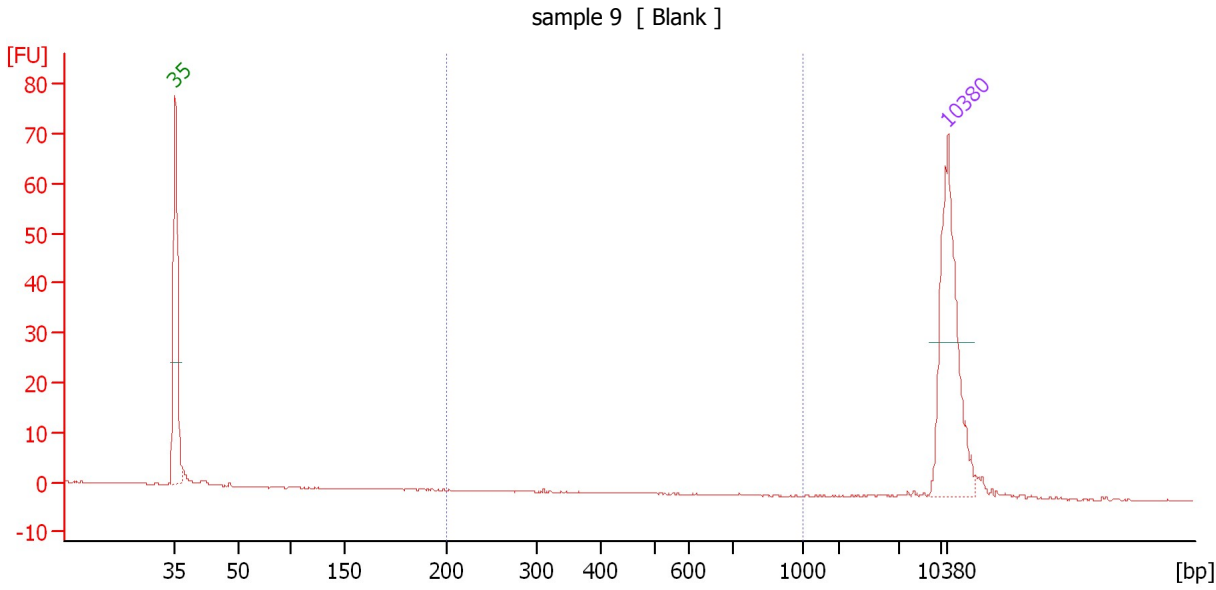
**Region table for sample 8 : sample 8**

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



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

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

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

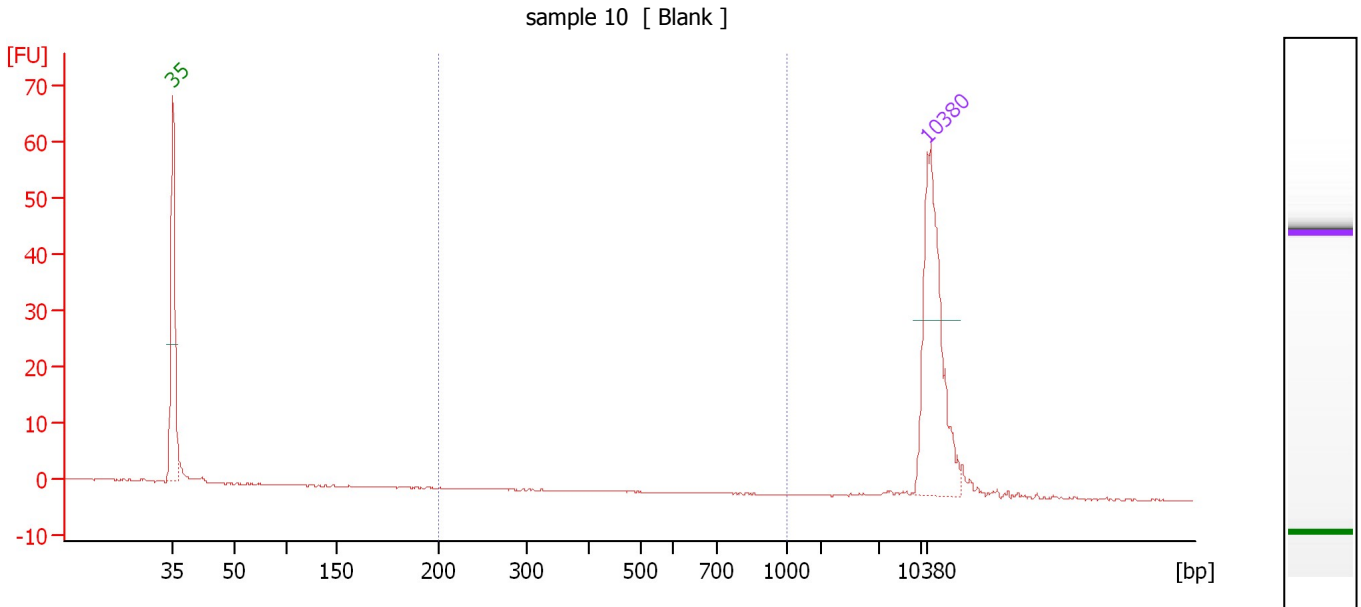
**Region table for sample 9 : sample 9**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Color
200	310	1,000	0.0	0.1	0	0.2	0.02	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



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

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

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

Pea k	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

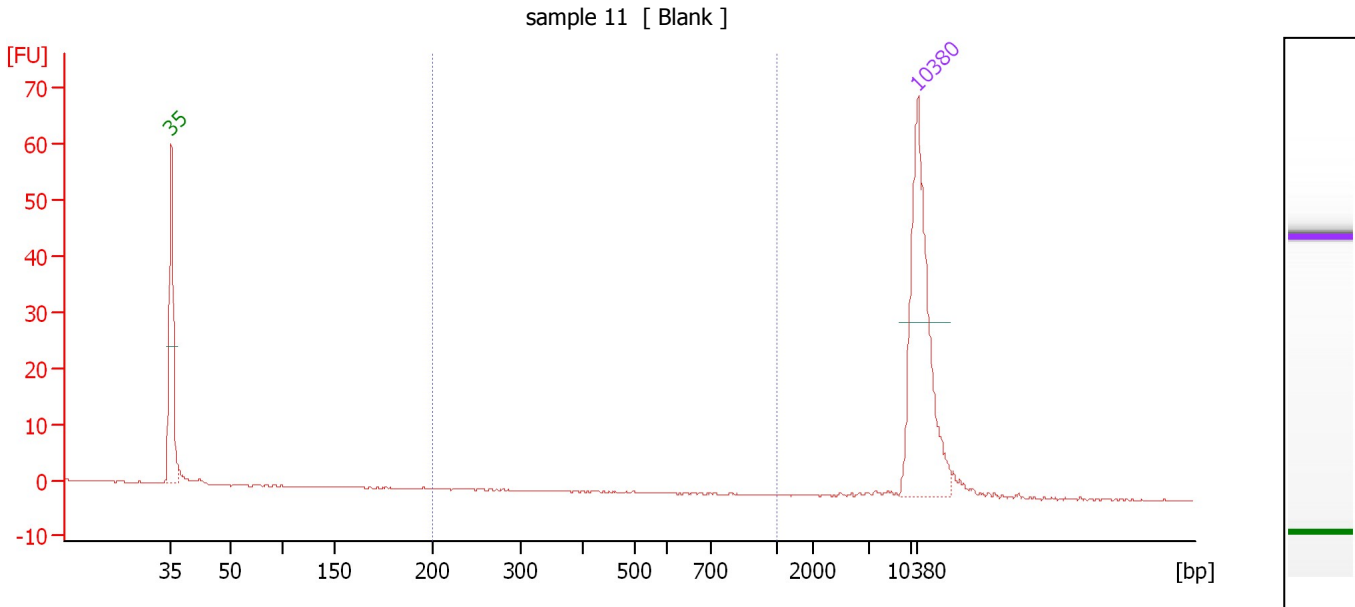
**Region table for sample 10 : sample 10**

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 PM

**Electropherogram Summary Continued ...**



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

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

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

Pea k	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

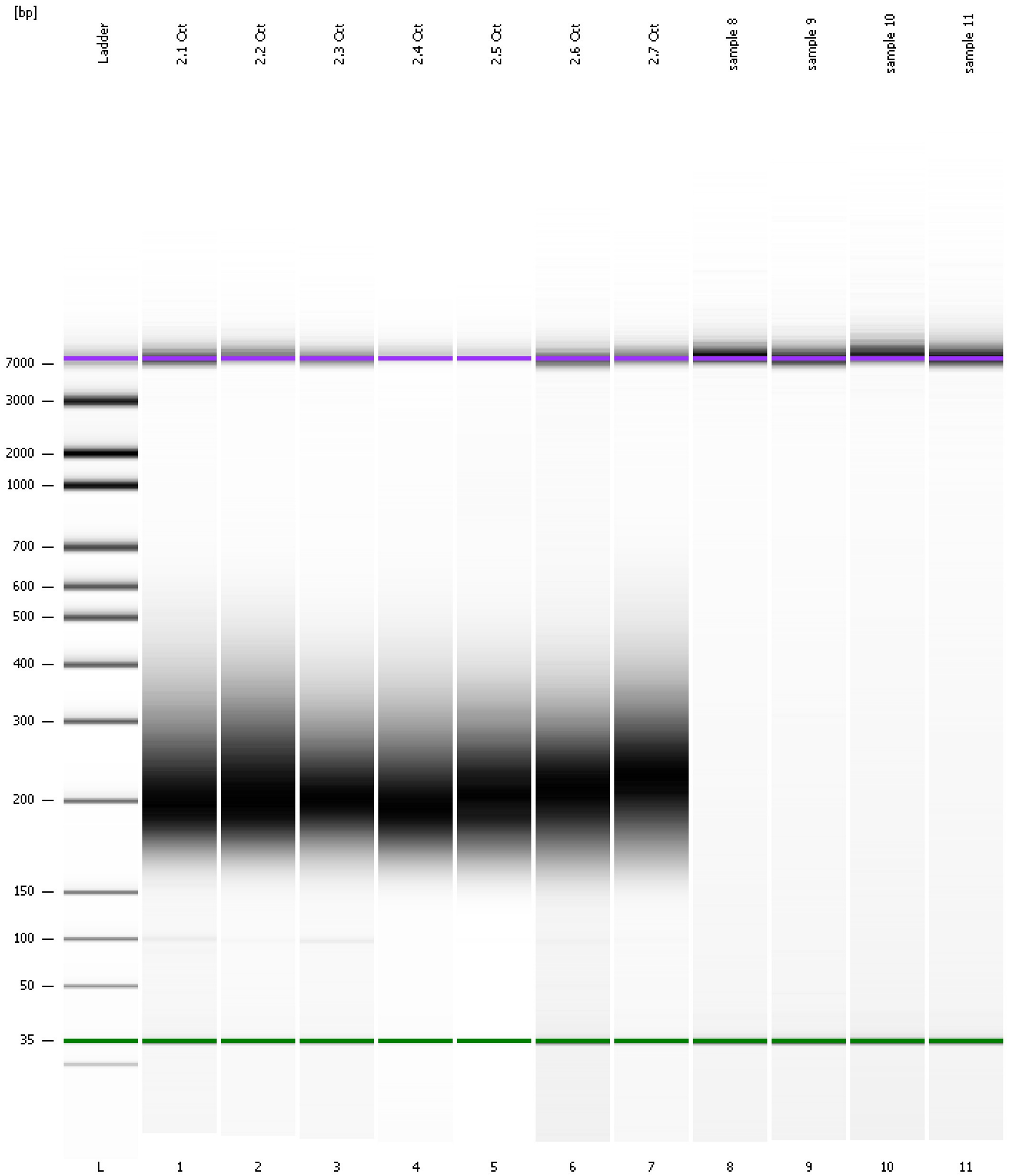
**Region table for sample 11 : sample 11**

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

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
Modified: 4/28/2015 1:49:18 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-04-28\2015-04-28\_005.xad

Created: 4/28/2015 1:03:06 PM  
 Modified: 4/28/2015 1:49:18 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		4/28/2015 1:43:27 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-04-28\2015-04-28_005.xad)		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/28/2015 1:03:07 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1