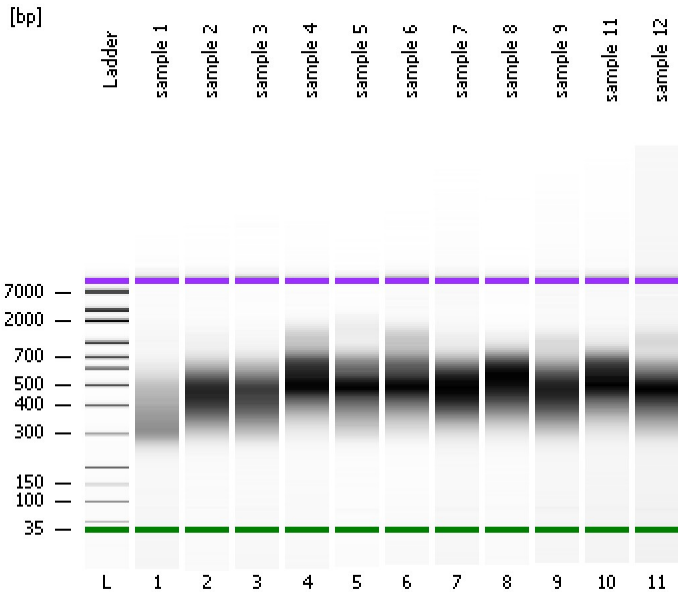


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
Modified: 11/6/2019 11:55:05 AM

### Electrophoresis File Run Summary



#### Instrument Information:

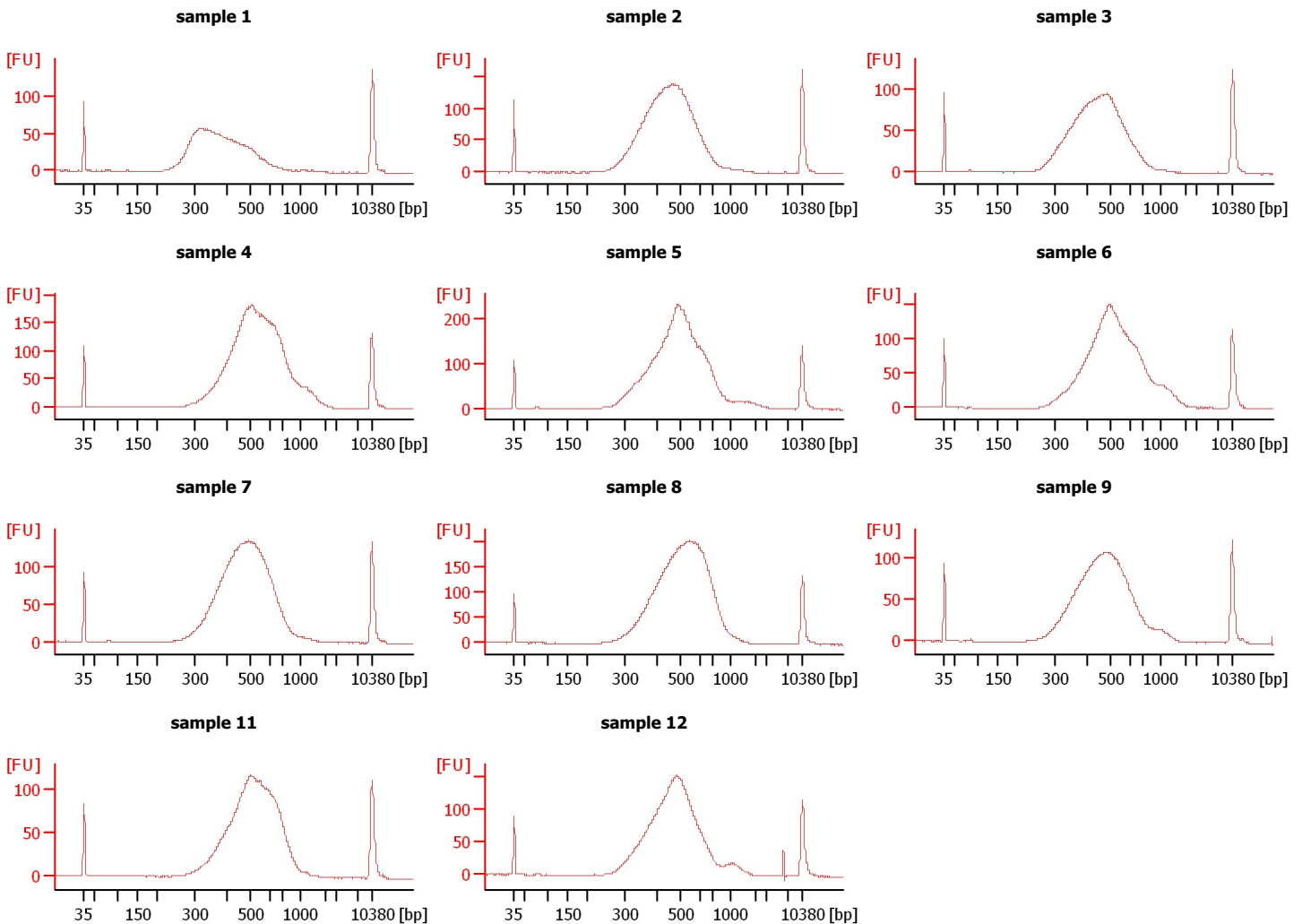
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**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 11		<input type="checkbox"/>	✓			
sample 12		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
Modified: 11/6/2019 11:55:05 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

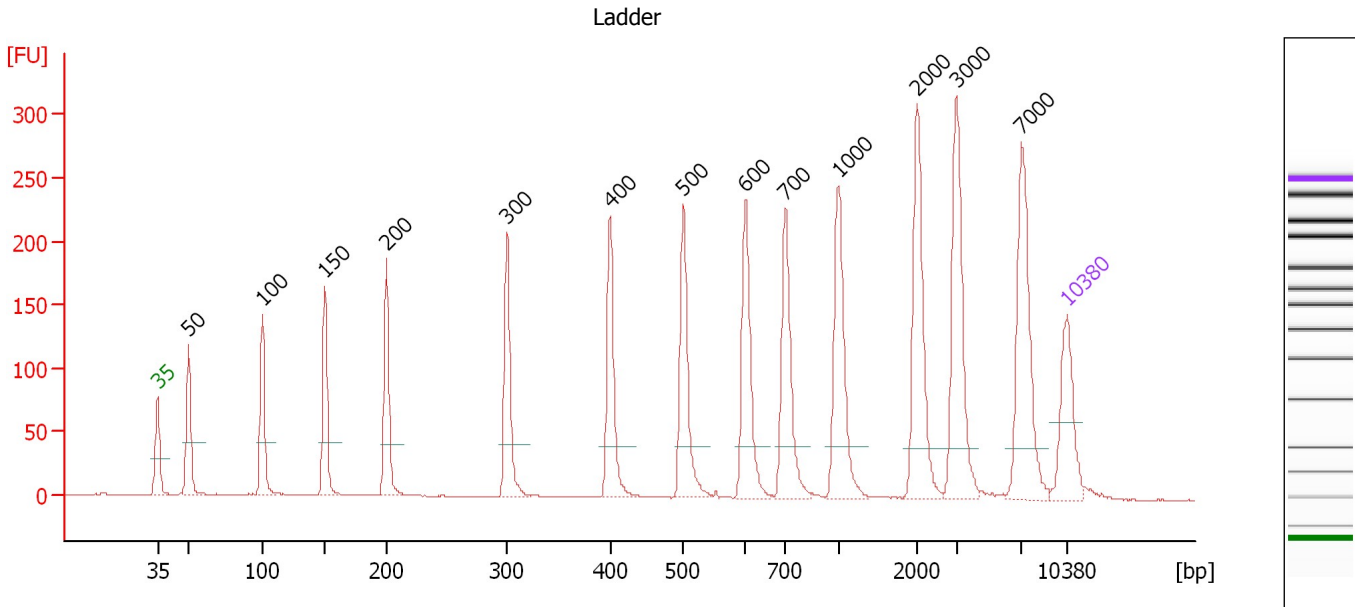
**Ladder**

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:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

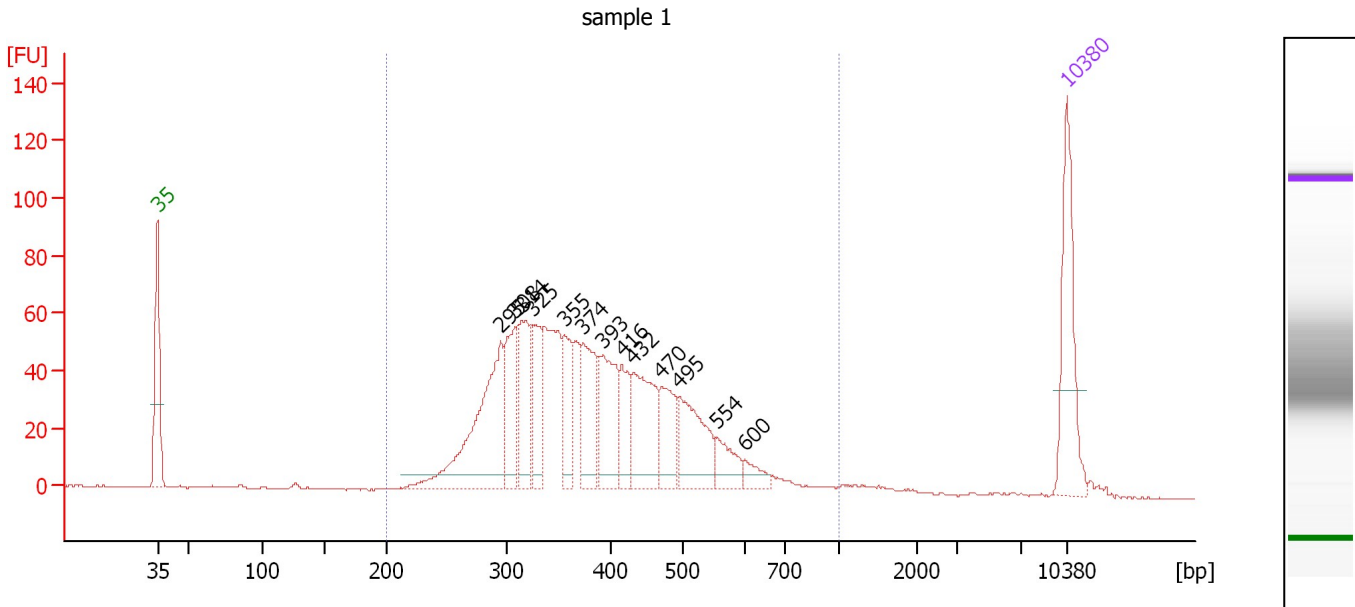
**Peak table for Ladder**

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	50	150.00	4,545.5	Ladder Peak	45.40
3	100	150.00	2,272.7	Ladder Peak	51.06
4	150	150.00	1,515.2	Ladder Peak	55.86
5	200	150.00	1,136.4	Ladder Peak	60.60
6	300	150.00	757.6	Ladder Peak	69.91
7	400	150.00	568.2	Ladder Peak	77.84
8	500	150.00	454.5	Ladder Peak	83.46
9	600	150.00	378.8	Ladder Peak	88.25
10	700	150.00	324.7	Ladder Peak	91.34
11	1,000	150.00	227.3	Ladder Peak	95.40
12	2,000	150.00	113.6	Ladder Peak	101.48
13	3,000	150.00	75.8	Ladder Peak	104.47
14	7,000	150.00	32.5	Ladder Peak	109.50
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 1,265.6  
 Noise: 0.2

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

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	295	179.69	924.4		69.40
3	308	76.75	377.9		70.52
4	314	73.80	355.9		71.04
5	325	52.75	245.6		71.93
6	355	51.53	219.6		74.31
7	374	72.68	294.2		75.80
8	393	80.51	310.2		77.30
9	416	38.37	139.7		78.75
10	432	91.17	319.8		79.64
11	470	51.04	164.5		81.79
12	495	75.17	230.0		83.19
13	554	28.49	78.0		86.04
14	600	14.18	35.8		88.23
15	10,380	75.00	10.9	Upper Marker	113.00

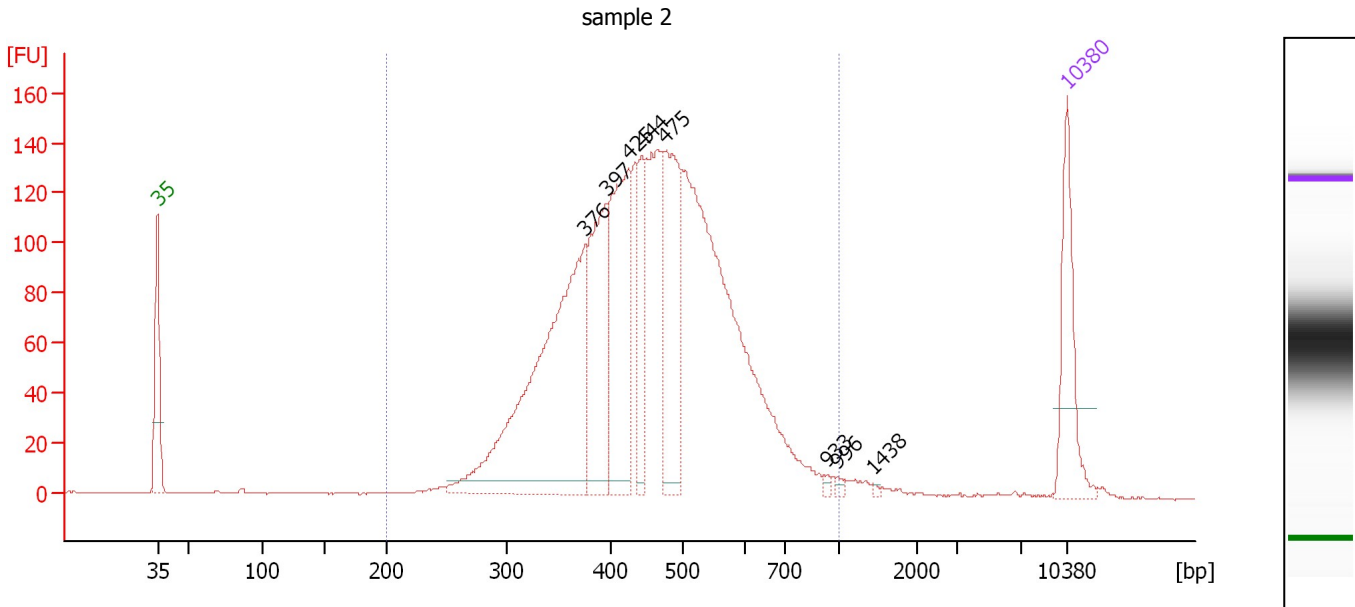
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	397	1,124.76	1,265.6	4,678.0	96	27.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 8                      Corr. Area 1: 2,601.8  
 Noise: 0.2

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

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	376	437.62	1,763.7		75.93
3	397	178.66	681.3		77.62
4	425	204.00	728.0		79.22
5	444	82.22	280.7		80.30
6	475	172.95	552.0		82.04
7	933	3.37	5.5		94.49
8	996	4.02	6.1		95.34
9	1,438	1.63	1.7		98.06
10	10,380	75.00	10.9	Upper Marker	113.00

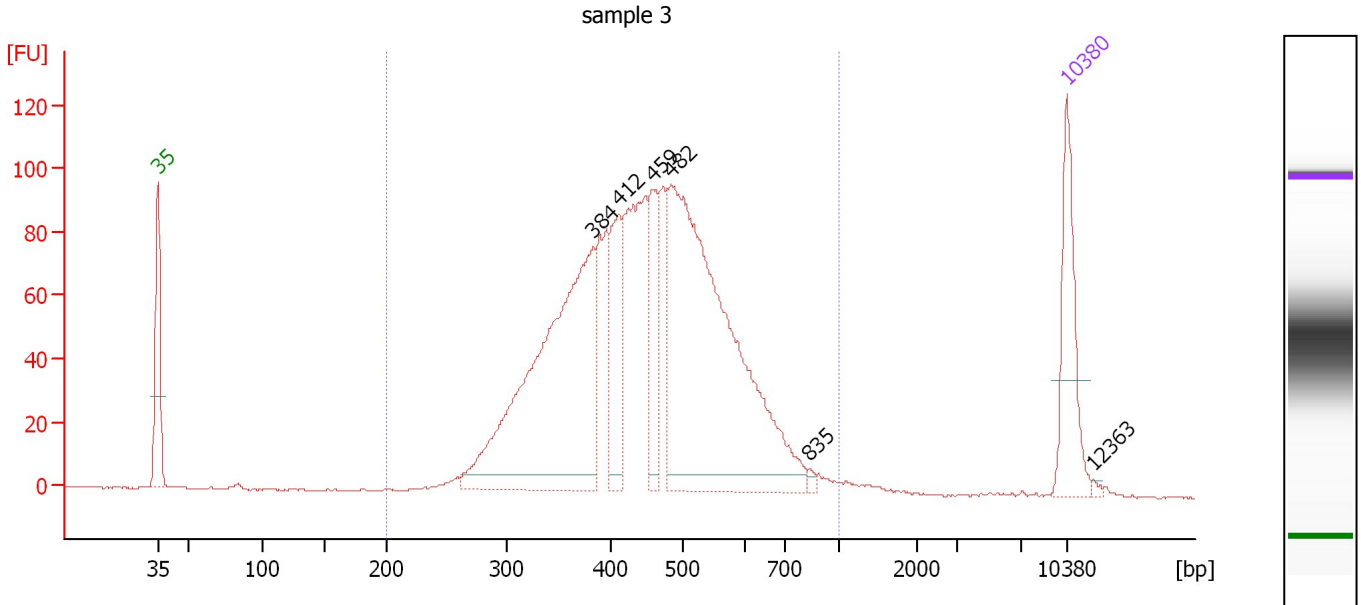
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	461	1,907.42	2,601.8	6,727.4	98	23.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 1,841.4  
 Noise: 0.3

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

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	384	453.32	1,790.3		76.54
3	412	98.12	361.0		78.50
4	459	71.39	235.5		81.18
5	482	561.18	1,762.8		82.47
6	835	3.79	6.9		93.17
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,363	0.00	0.0		115.05

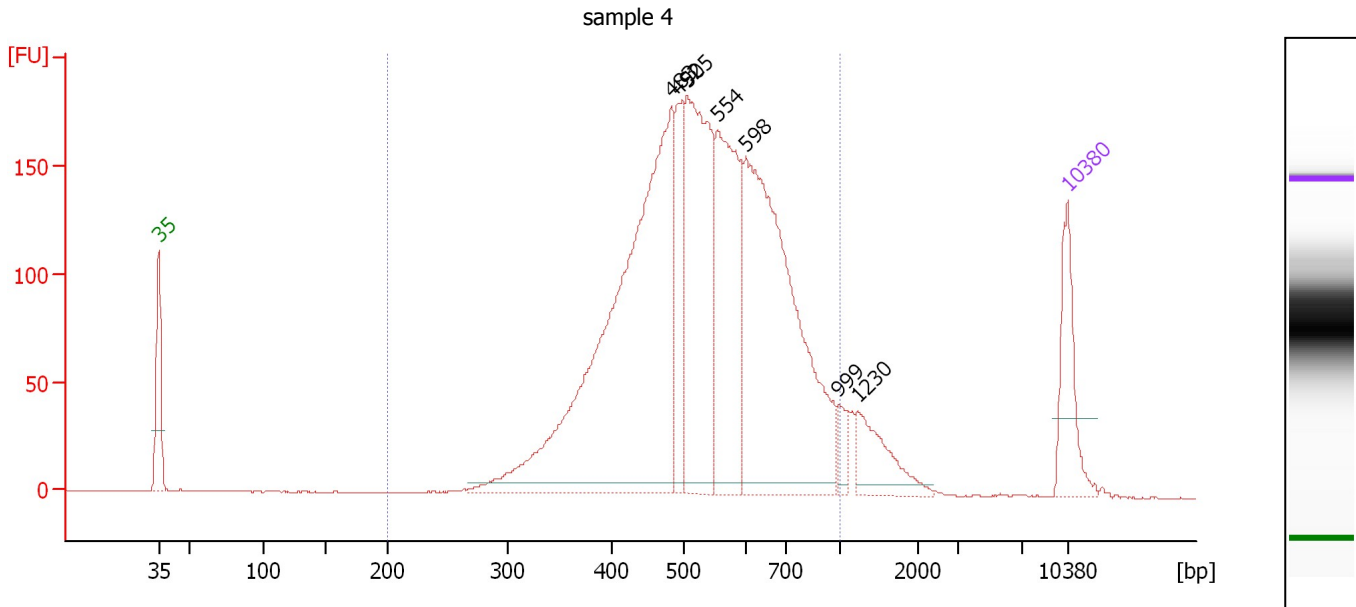
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	457	1,561.06	1,841.4	5,565.0	99	23.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 3,121.8  
 Noise: 0.3

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

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	483	864.08	2,712.0		82.49
3	492	103.17	317.5		83.03
4	505	373.74	1,120.8		83.71
5	554	279.90	765.4		86.05
6	598	562.81	1,426.2		88.15
7	999	20.77	31.5		95.38
8	1,230	70.33	86.6		96.79
9	10,380	75.00	10.9	Upper Marker	113.00

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

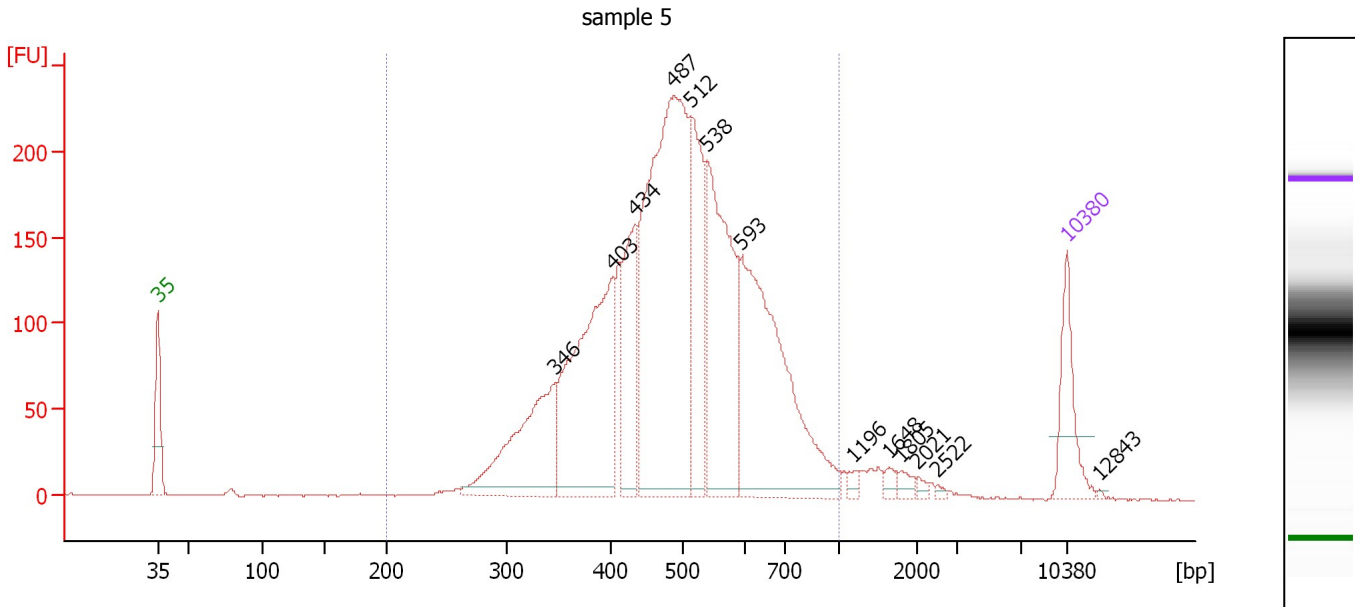
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	542	2,246.21	3,121.8	6,781.5	94	24.4



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 3,724.8  
 Noise: 0.2

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

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	346	254.46	1,113.7		73.57
3	403	417.87	1,569.8		78.03
4	434	168.37	588.4		79.73
5	487	749.30	2,331.4		82.73
6	512	220.76	653.5		84.03
7	538	345.63	973.5		85.28
8	593	447.56	1,143.0		87.93
9	1,196	8.22	10.4		96.59
10	1,648	11.01	10.1		99.34
11	1,805	10.65	8.9		100.29
12	2,021	5.23	3.9		101.54
13	2,522	3.29	2.0		103.04
14	10,380	75.00	10.9	Upper Marker	113.00
15	12,843	0.00	0.0		115.55

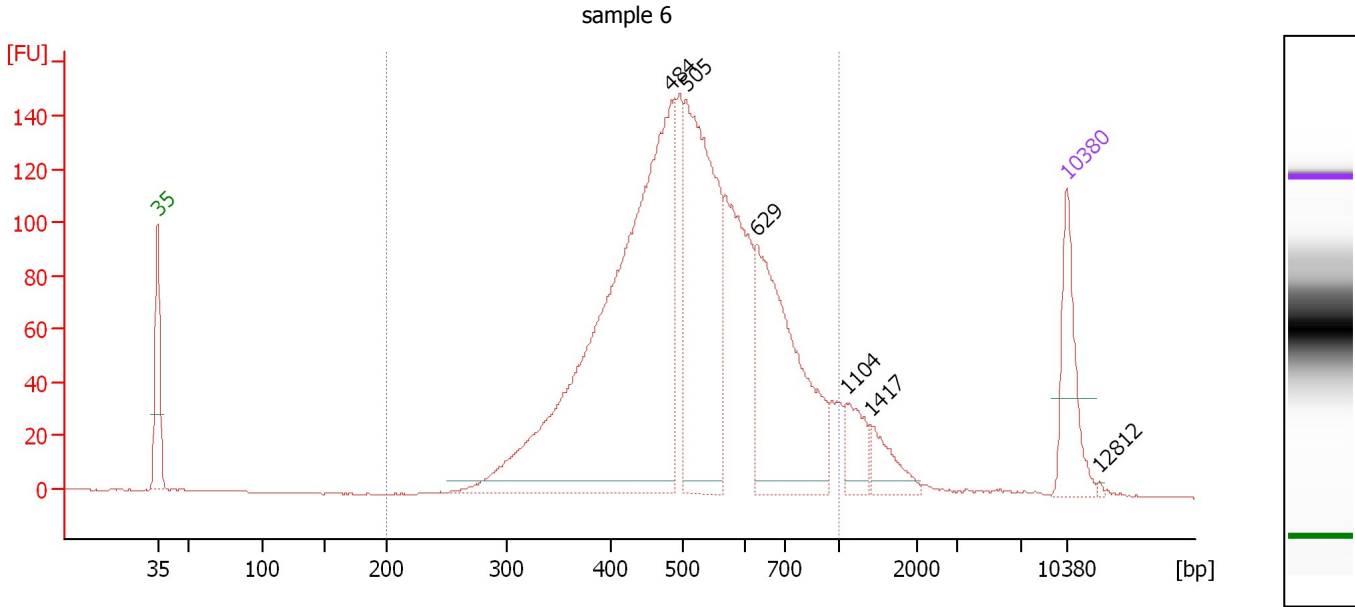
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	500	2,718.47	3,724.8	8,904.9	97	24.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 2,405.8  
 Noise: 0.2

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

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	484	923.62	2,892.4		82.55
3	505	416.08	1,249.3		83.68
4	629	314.63	758.4		89.14
5	1,104	44.11	60.6		96.03
6	1,417	38.46	41.1		97.93
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,812	0.00	0.0		115.52

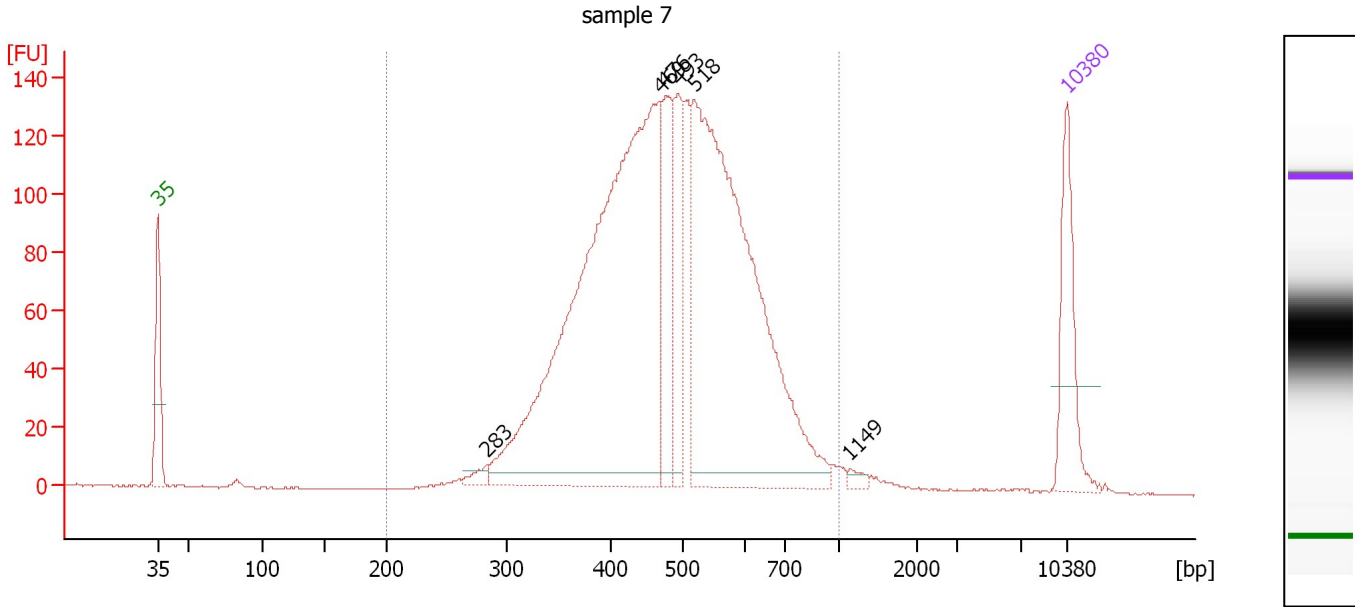
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	526	2,033.17	2,405.8	6,347.3	94	25.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 2,433.3  
 Noise: 0.3

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

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	283	11.65	62.4		68.31
3	469	900.74	2,911.7		81.70
4	476	111.55	354.9		82.12
5	493	96.68	297.1		83.07
6	518	690.75	2,020.1		84.33
7	1,149	6.23	8.2		96.30
8	10,380	75.00	10.9	Upper Marker	113.00

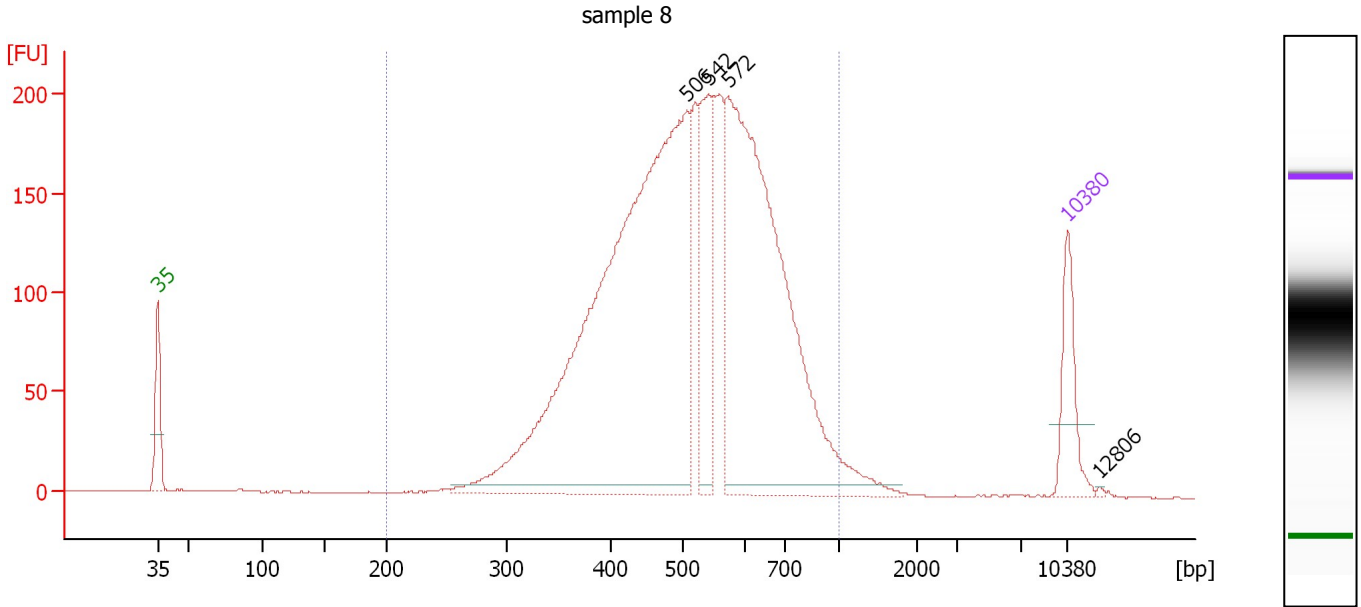
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	489	1,968.47	2,433.3	6,533.6	98	22.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 4                      Corr. Area 1: 3,607.9  
 Noise: 0.2

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

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	506	1,412.68	4,230.0		83.75
3	542	201.59	563.8		85.46
4	572	902.36	2,390.9		86.90
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,806	0.00	0.0		115.51

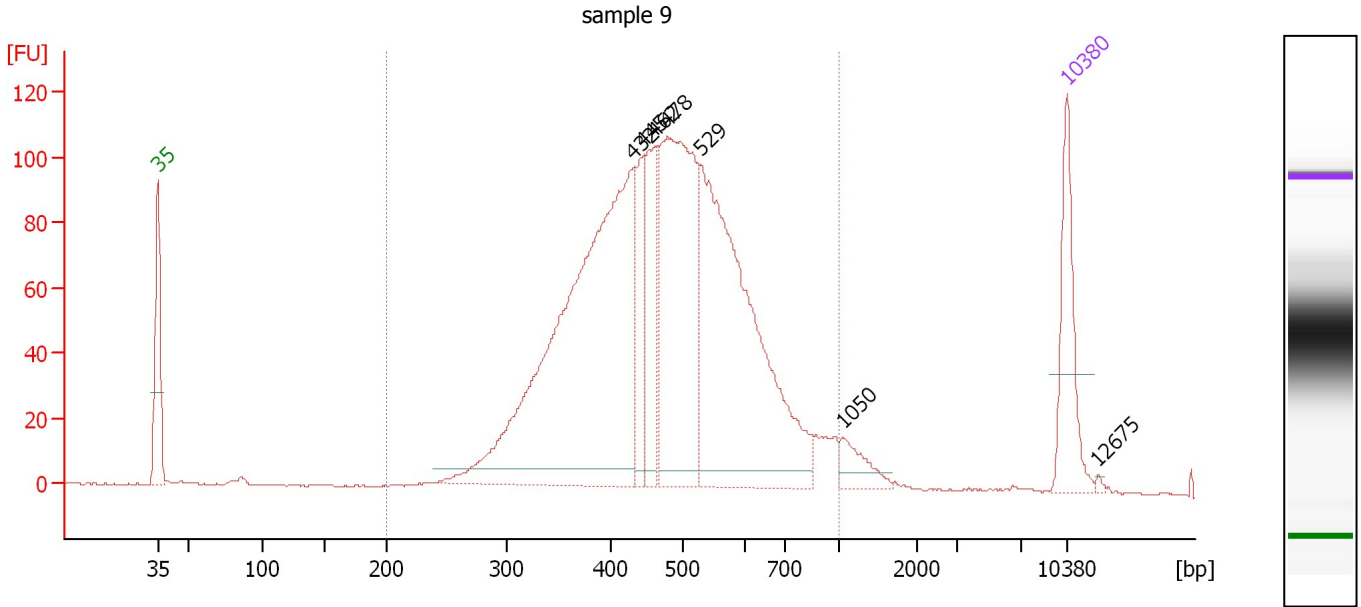
**Region table for sample 8 : sample 8**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	524	2,840.27	3,607.9	8,868.3	99	23.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 7                      Corr. Area 1: 2,020.4  
 Noise: 0.2

**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	432	695.18	2,437.1		79.65
3	445	78.98	269.1		80.35
4	462	117.99	387.0		81.32
5	478	354.12	1,121.7		82.24
6	529	480.90	1,378.1		84.84
7	1,050	28.43	41.0		95.70
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,675	0.00	0.0		115.38

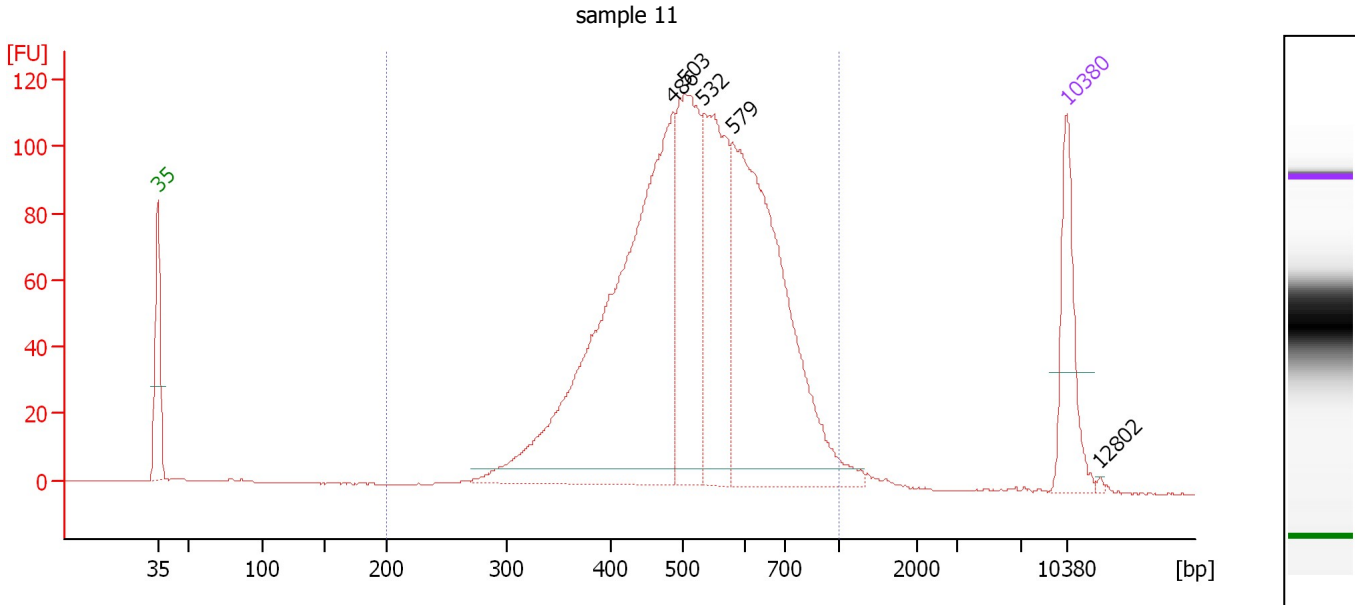
**Region table for sample 9 : sample 9**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	482	1,841.63	2,020.4	6,287.6	96	25.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 11**

Number of peaks found: 5                      Corr. Area 1: 1,908.3  
 Noise: 0.2

**Peak table for sample 10 : sample 11**

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	486	684.15	2,133.6		82.66
3	503	246.12	741.7		83.59
4	532	239.42	681.4		85.01
5	579	473.49	1,239.0		87.25
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,802	0.00	0.0		115.51

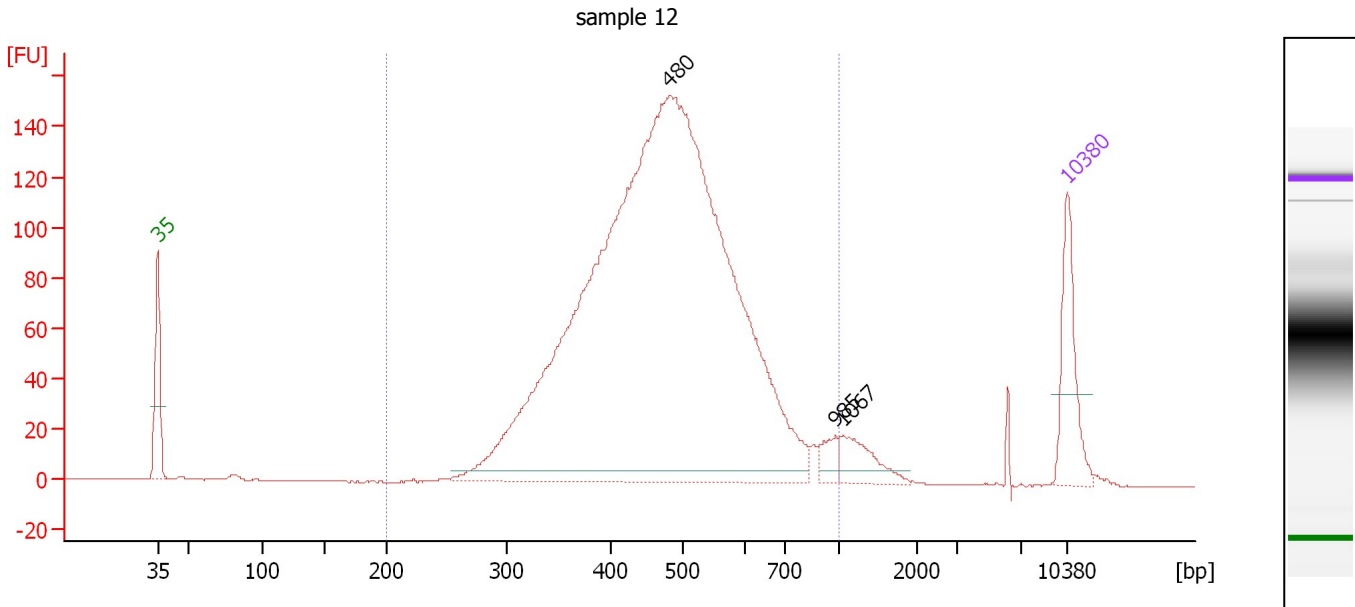
**Region table for sample 10 : sample 11**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	530	1,681.25	1,908.3	5,158.6	98	22.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 12**

Number of peaks found: 3                      Corr. Area 1: 2,371.4  
 Noise: 0.2

**Peak table for sample 11 : sample 12**

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	480	2,037.30	6,426.6		82.35
3	985	21.23	32.6		95.20
4	1,067	43.40	61.6		95.80
5	10,380	75.00	10.9	Upper Marker	113.00

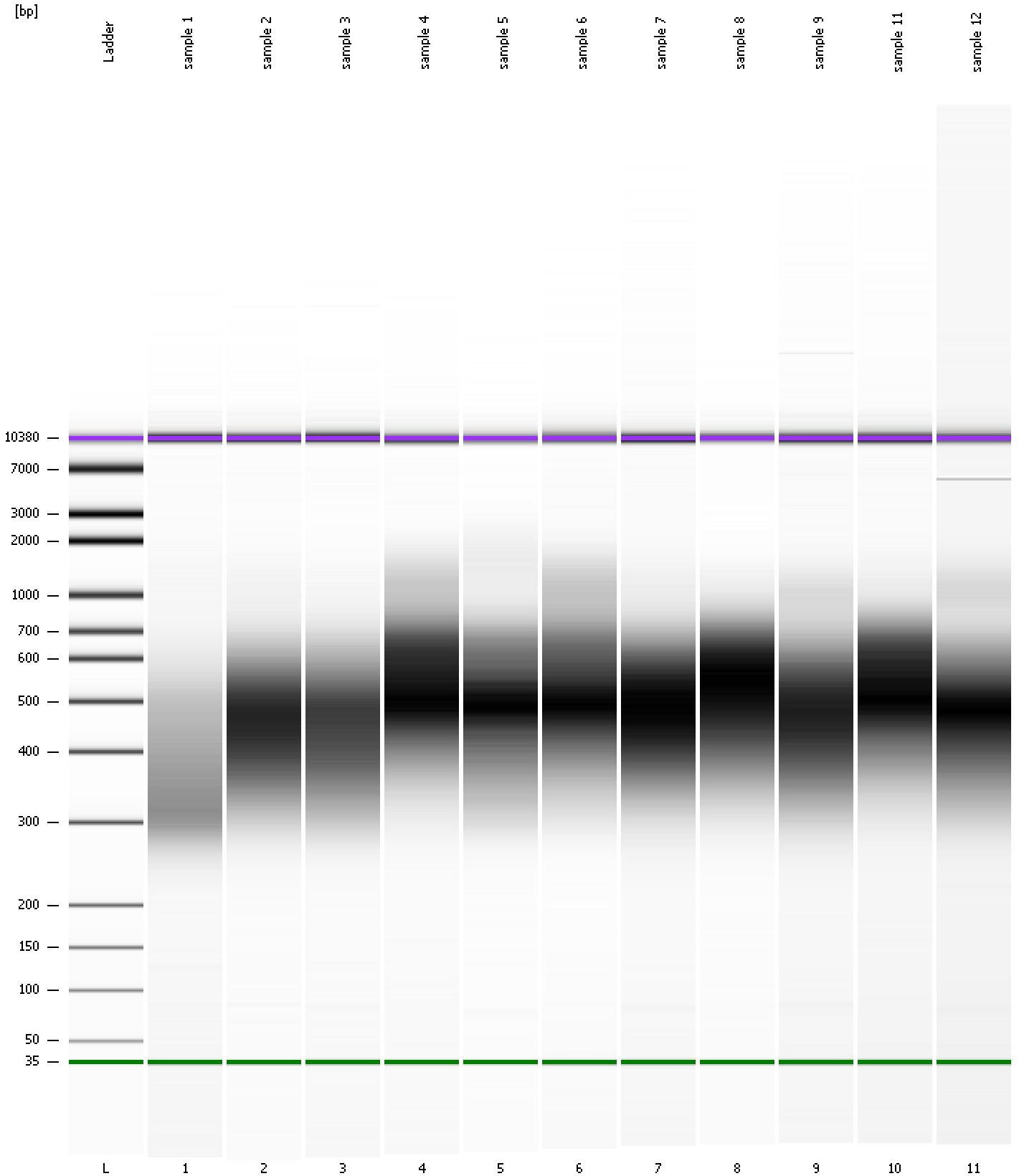
**Region table for sample 11 : sample 12**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	481	2,102.11	2,371.4	7,090.0	97	23.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
Modified: 11/6/2019 11:55:05 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-06\2019-11-06\_001.xad

Created: 11/6/2019 11:13:45 AM  
 Modified: 11/6/2019 11:55:05 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		11/6/2019 11:55:03 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-11-06\2019-11-06_001.xad)		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/6/2019 11:13:51 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1