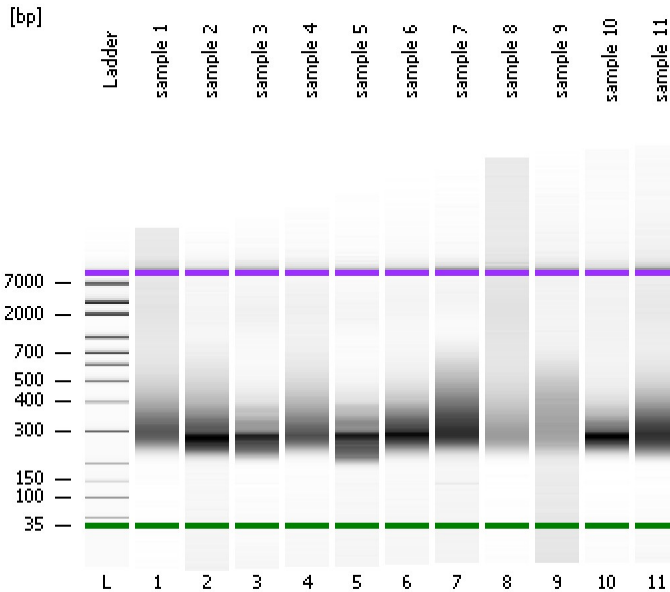


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 PM

### Electrophoresis File Run Summary



#### Instrument Information:

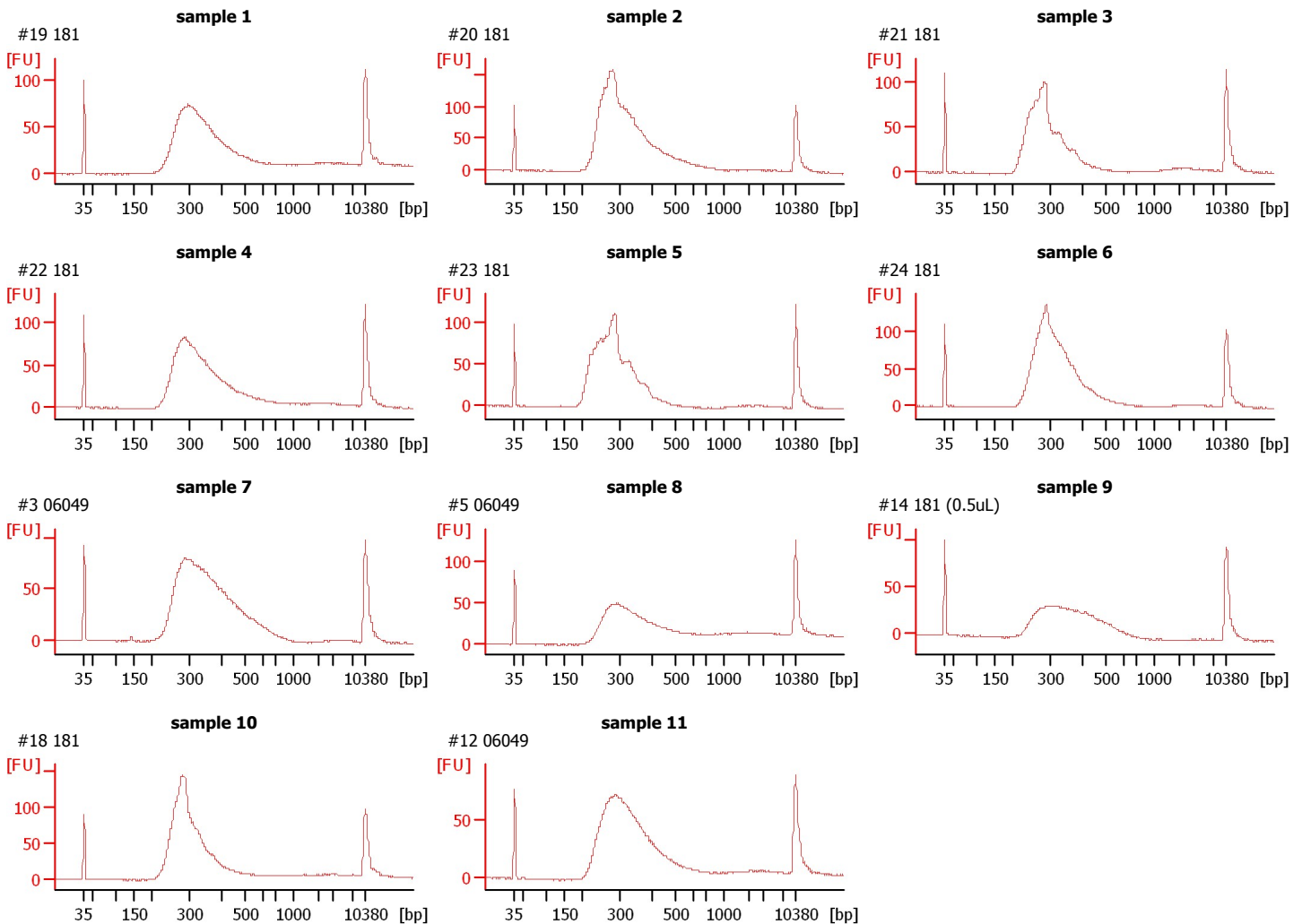
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1	#19 181	<input type="checkbox"/>	✓			
sample 2	#20 181	<input type="checkbox"/>	✓			
sample 3	#21 181	<input type="checkbox"/>	✓			
sample 4	#22 181	<input type="checkbox"/>	✓			
sample 5	#23 181	<input type="checkbox"/>	✓			
sample 6	#24 181	<input type="checkbox"/>	✓			
sample 7	#3 06049	<input type="checkbox"/>	✓			
sample 8	#5 06049	<input type="checkbox"/>	✓			
sample 9	#14 181 (0.5uL)	<input type="checkbox"/>	✓			
sample 10	#18 181	<input type="checkbox"/>	✓			
sample 11	#12 06049	<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\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 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

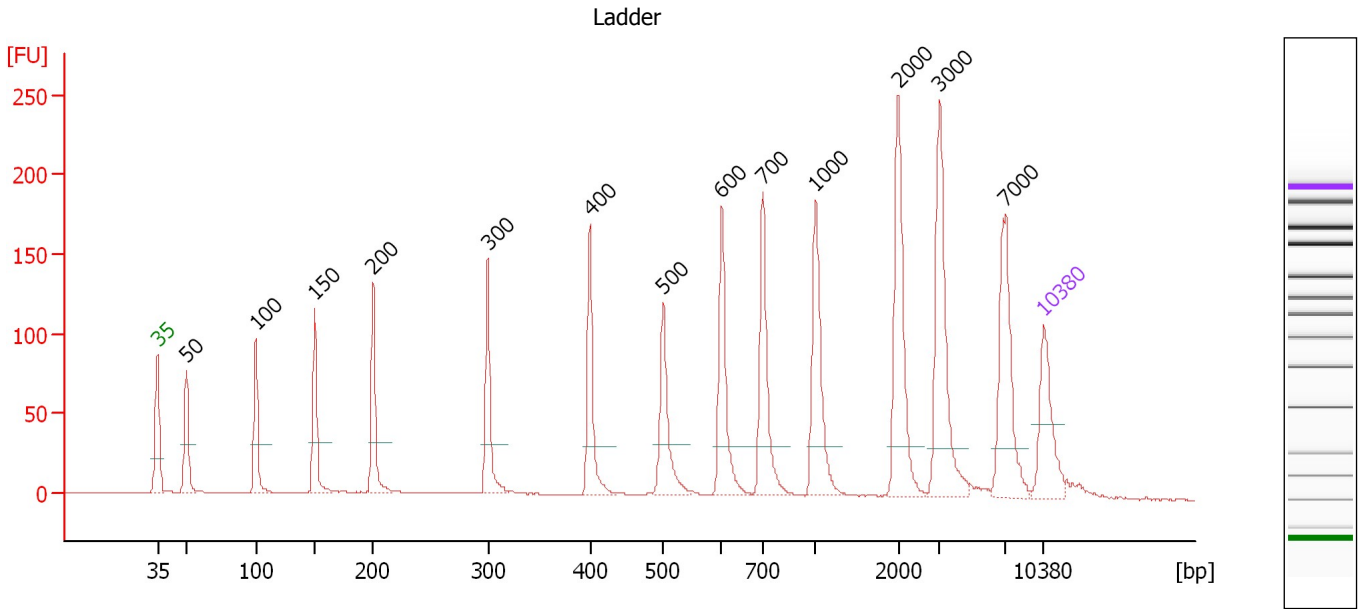
**Ladder**

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:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

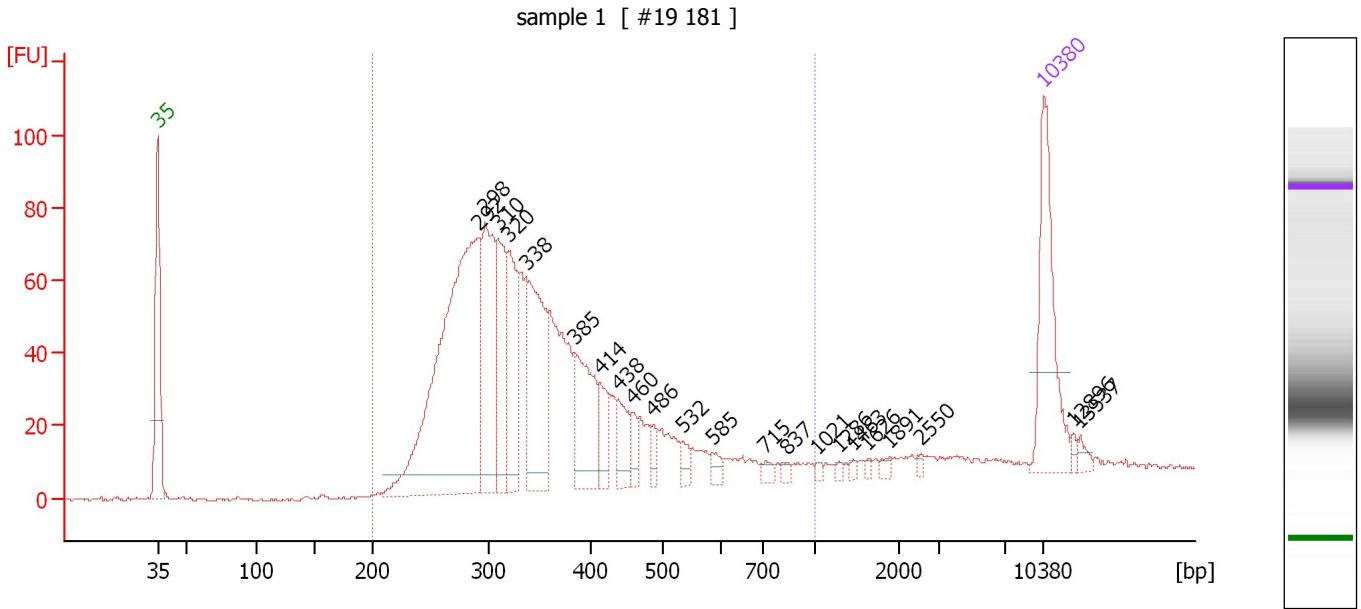
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.28
3	100	150.00	2,272.7	Ladder Peak	50.77
4	150	150.00	1,515.2	Ladder Peak	55.42
5	200	150.00	1,136.4	Ladder Peak	60.02
6	300	150.00	757.6	Ladder Peak	69.09
7	400	150.00	568.2	Ladder Peak	77.13
8	500	150.00	454.5	Ladder Peak	82.94
9	600	150.00	378.8	Ladder Peak	87.54
10	700	150.00	324.7	Ladder Peak	90.80
11	1,000	150.00	227.3	Ladder Peak	94.95
12	2,000	150.00	113.6	Ladder Peak	101.47
13	3,000	150.00	75.8	Ladder Peak	104.78
14	7,000	150.00	32.5	Ladder Peak	109.96
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

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**Electropherogram Summary Continued ...**



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

Number of peaks found: 22                      Corr. Area 1: 1,291.9  
 Noise: 0.5

**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	292	393.35	2,041.4		68.36
3	298	123.38	627.7		68.89
4	310	83.67	409.4		69.87
5	320	80.16	379.4		70.71
6	338	127.46	571.7		72.13
7	385	78.02	306.9		75.94
8	414	27.23	99.7		77.93
9	438	27.26	94.2		79.35
10	460	12.96	42.7		80.59
11	486	10.53	32.8		82.15
12	532	10.04	28.6		84.41
13	585	8.25	21.4		86.84
14	715	5.22	11.1		91.01
15	837	3.62	6.6		92.70
16	1,021	2.54	3.8		95.09
17	1,286	2.09	2.5		96.82
18	1,463	2.30	2.4		97.97
19	1,626	2.22	2.1		99.04
20	1,891	3.72	3.0		100.76
21	2,550	2.42	1.4		103.29
22	10,380	75.00	10.9	Upper Marker	113.00
23	12,896	0.00	0.0		115.26
24	13,537	0.00	0.0		115.84

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**

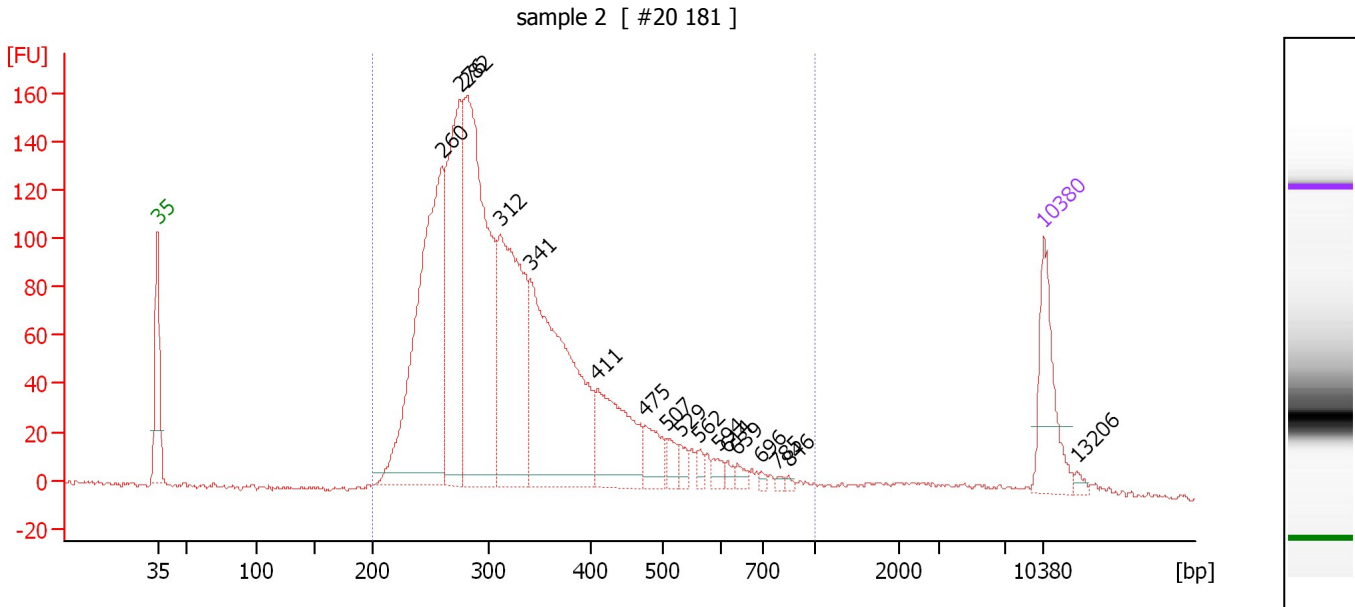
... Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	360	1,226.11	1,291.9	5,635.6	 93	30.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 17                      Corr. Area 1: 2,580.9  
 Noise: 0.9

**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	260	504.63	2,941.2		65.46
3	276	305.10	1,676.8		66.88
4	282	517.30	2,783.5		67.42
5	312	332.96	1,614.5		70.09
6	341	400.62	1,778.6		72.41
7	411	140.45	518.1		77.75
8	475	40.90	130.4		81.50
9	507	18.88	56.5		83.24
10	529	16.08	46.1		84.26
11	562	9.79	26.4		85.78
12	594	11.49	29.3		87.25
13	614	6.66	16.4		88.00
14	639	8.51	20.2		88.81
15	696	3.80	8.3		90.68
16	785	3.61	7.0		91.97
17	846	3.03	5.4		92.82
18	10,380	75.00	10.9	Upper Marker	113.00
19	13,206	0.00	0.0		115.54

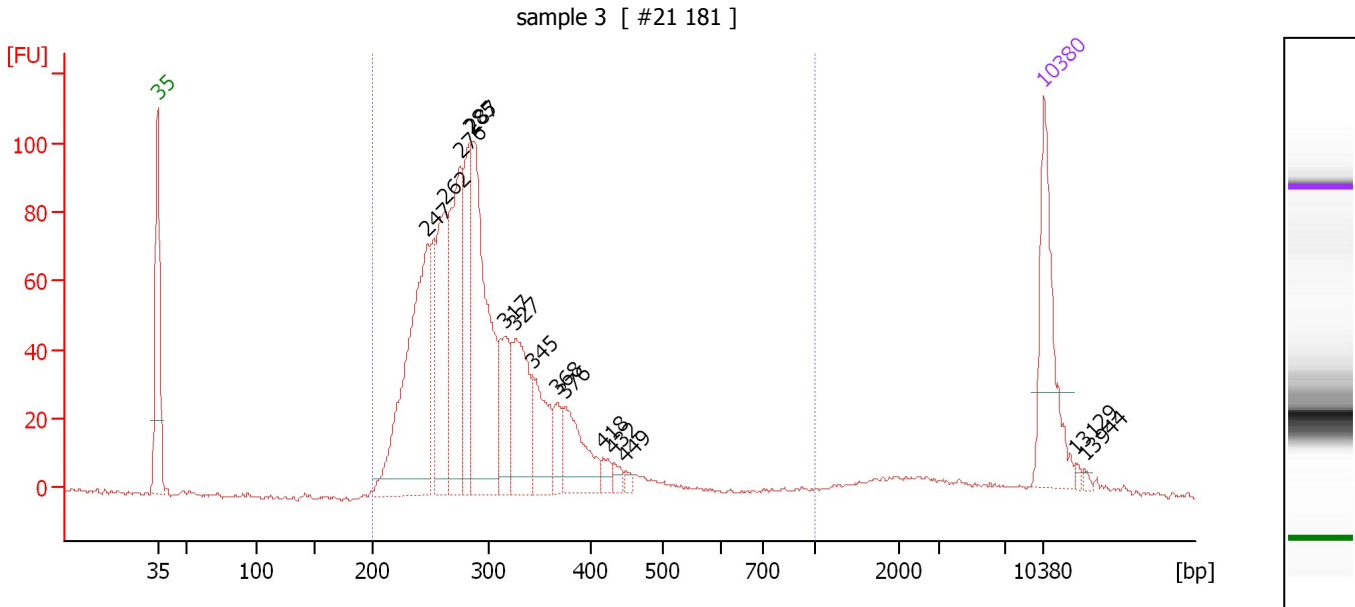
**Region table for sample 2 : sample 2**

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	340	2,397.43	2,580.9	11,749.2	96	31.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

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**Electropherogram Summary Continued ...**



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

Number of peaks found: 15                      Corr. Area 1: 1,255.7  
 Noise: 0.6

**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	247	262.02	1,604.5		64.32
3	262	127.75	738.6		65.65
4	276	162.56	891.8		66.93
5	285	96.55	512.8		67.75
6	287	211.89	1,119.5		67.89
7	317	63.30	302.6		70.45
8	327	90.36	418.4		71.27
9	345	57.93	254.5		72.69
10	368	21.83	89.9		74.57
11	376	61.52	248.2		75.16
12	418	9.46	34.3		78.18
13	432	7.40	25.9		79.01
14	449	3.81	12.8		79.97
15	10,380	75.00	10.9	Upper Marker	113.00
16	13,129	0.00	0.0		115.47
17	13,944	0.00	0.0		116.20

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

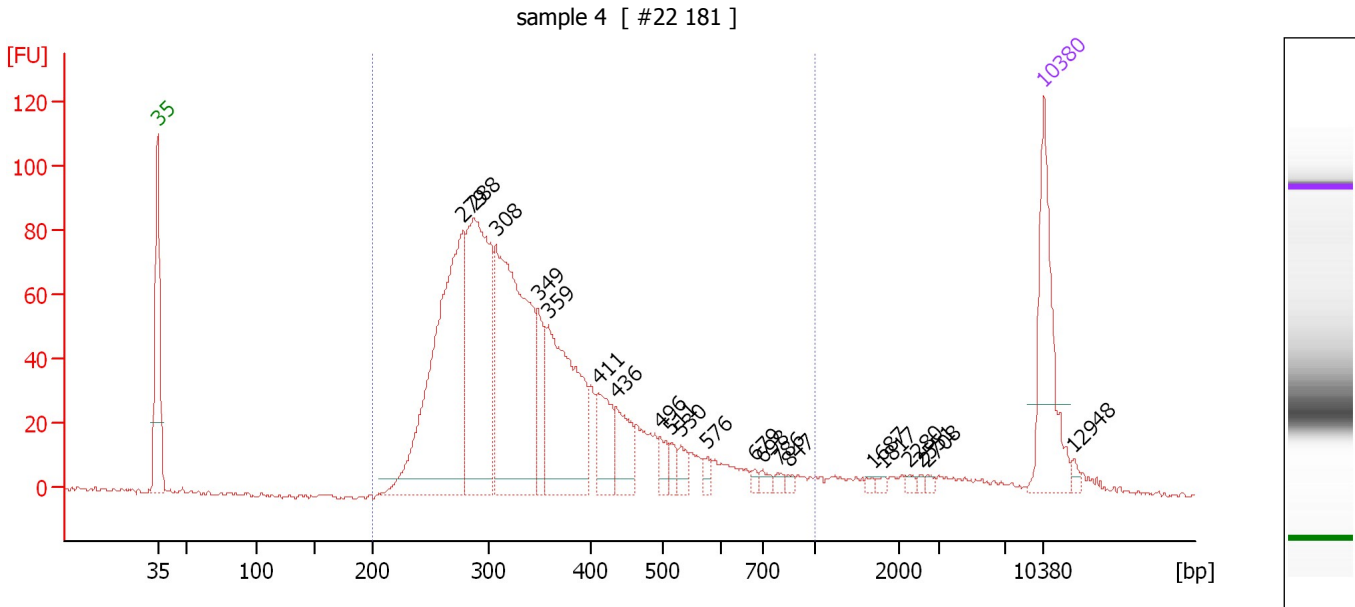
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	301	1,237.03	1,255.7	6,532.7	94	23.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

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 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 21                      Corr. Area 1: 1,495.0  
 Noise: 0.7

**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	279	320.01	1,739.1		67.17
3	288	248.34	1,305.8		68.01
4	308	286.80	1,412.1		69.71
5	349	45.93	199.2		73.05
6	359	168.24	710.7		73.81
7	411	43.73	161.2		77.76
8	436	38.53	133.9		79.22
9	496	13.01	39.7		82.71
10	511	9.51	28.2		83.46
11	530	11.53	33.0		84.31
12	576	6.28	16.5		86.43
13	679	3.74	8.3		90.11
14	698	6.38	13.8		90.72
15	786	4.34	8.4		91.99
16	847	3.30	5.9		92.84
17	1,687	2.25	2.0		99.43
18	1,817	2.54	2.1		100.28
19	2,280	2.73	1.8		102.40
20	2,551	1.99	1.2		103.30
21	2,708	2.49	1.4		103.81
22	10,380	75.00	10.9	Upper Marker	113.00
23	12,948	0.00	0.0		115.31

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**

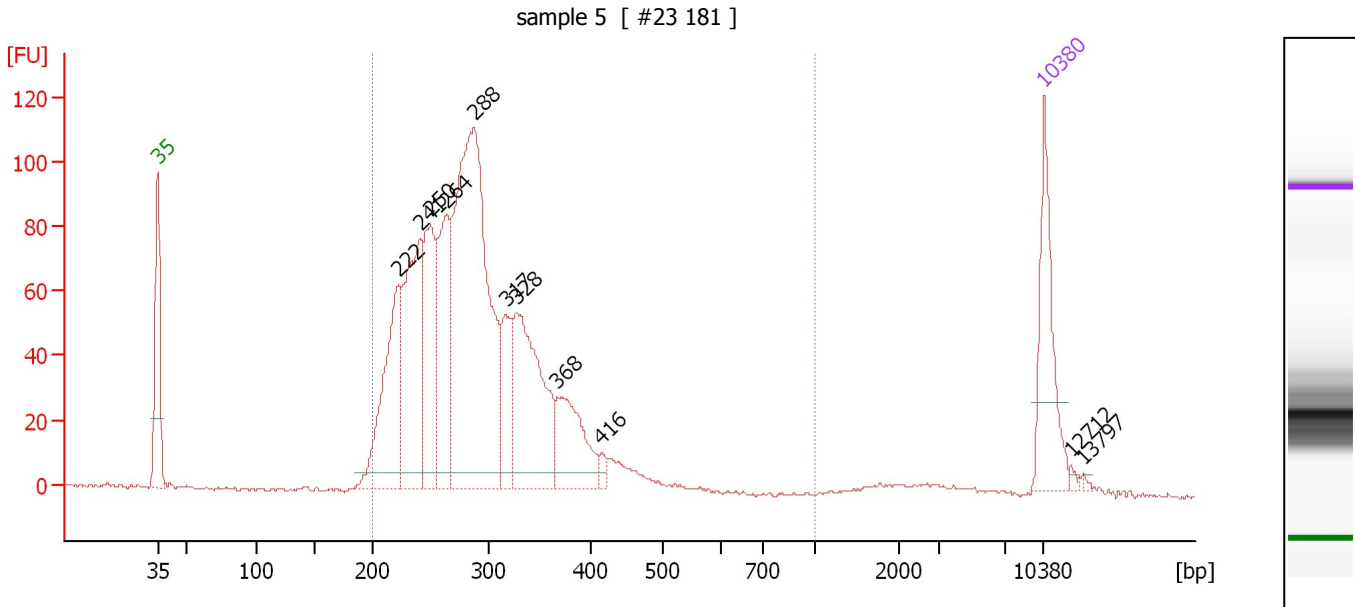
... Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	362	1,302.97	1,495.0	6,039.6	 93	32.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 11                      Corr. Area 1: 1,550.7  
 Noise: 0.6

**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	222	175.29	1,196.6		62.01
3	241	204.20	1,282.1		63.77
4	250	141.69	859.0		64.55
5	264	134.59	772.7		65.81
6	288	511.08	2,688.0		68.01
7	317	65.61	313.1		70.49
8	328	189.39	873.8		71.37
9	368	91.66	377.0		74.59
10	416	7.72	28.1		78.05
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,712	0.00	0.0		115.10
13	13,797	0.00	0.0		116.07

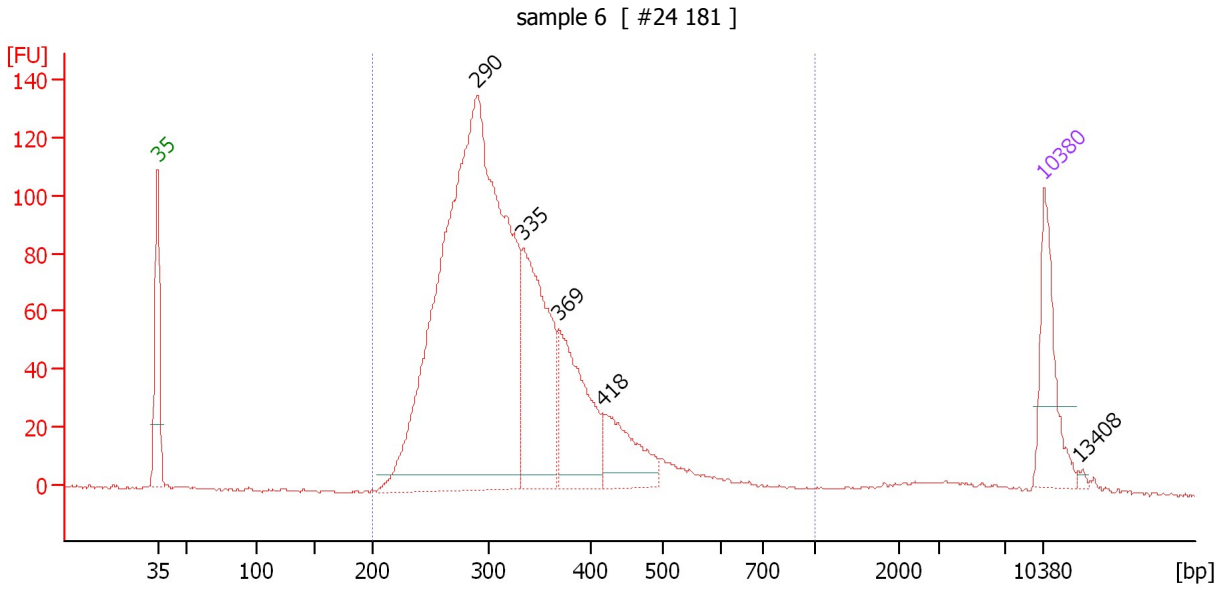
**Region table for sample 5 : sample 5**

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	292	1,577.46	1,550.7	8,529.2	96	20.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 5                      Corr. Area 1: 1,807.8  
 Noise: 0.5

**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	290	1,202.38	6,278.0		68.20
3	335	261.69	1,184.7		71.88
4	369	169.03	693.8		74.65
5	418	89.21	323.4		78.18
6	10,380	75.00	10.9	Upper Marker	113.00
7	13,408	0.00	0.0		115.72

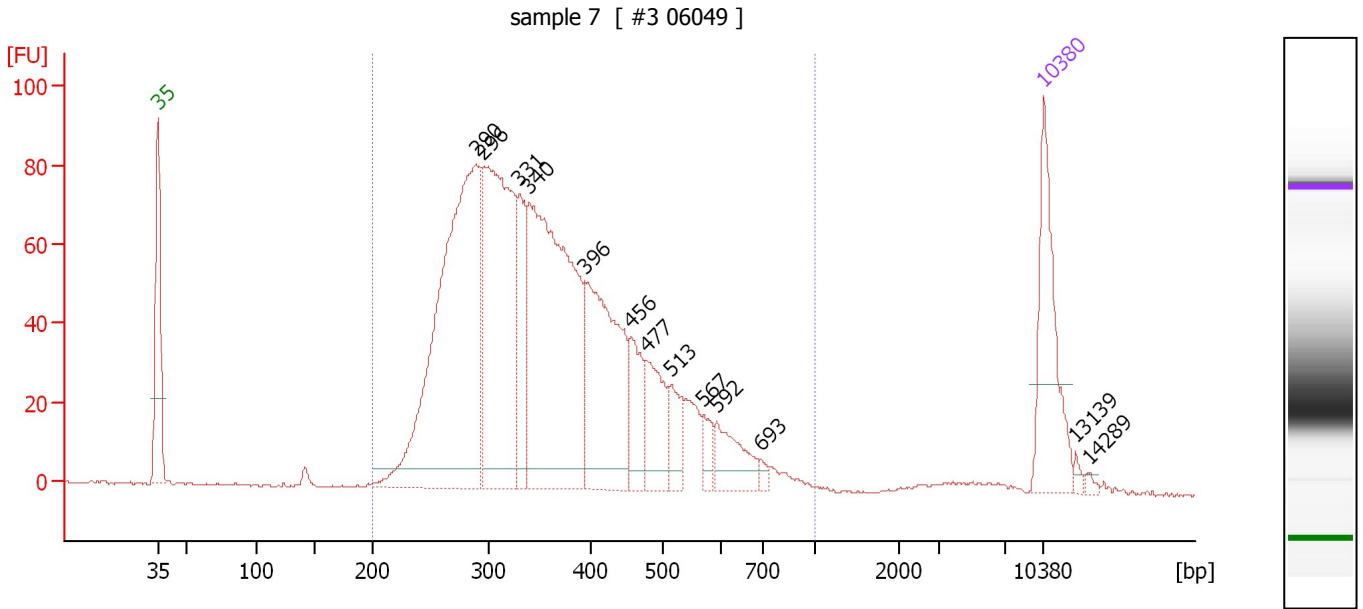
**Region table for sample 6 : sample 6**

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	330	1,771.27	1,807.8	8,628.0	97	24.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 1,720.6  
 Noise: 0.4

**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	290	441.02	2,306.2		68.16
3	296	293.95	1,504.6		68.73
4	331	68.40	313.2		71.57
5	340	365.93	1,631.5		72.29
6	396	173.47	664.2		76.79
7	456	48.89	162.3		80.40
8	477	54.29	172.5		81.59
9	513	31.00	91.5		83.55
10	567	15.59	41.6		86.03
11	592	38.31	98.1		87.17
12	693	4.67	10.2		90.58
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,139	0.00	0.0		115.48
15	14,289	0.00	0.0		116.51

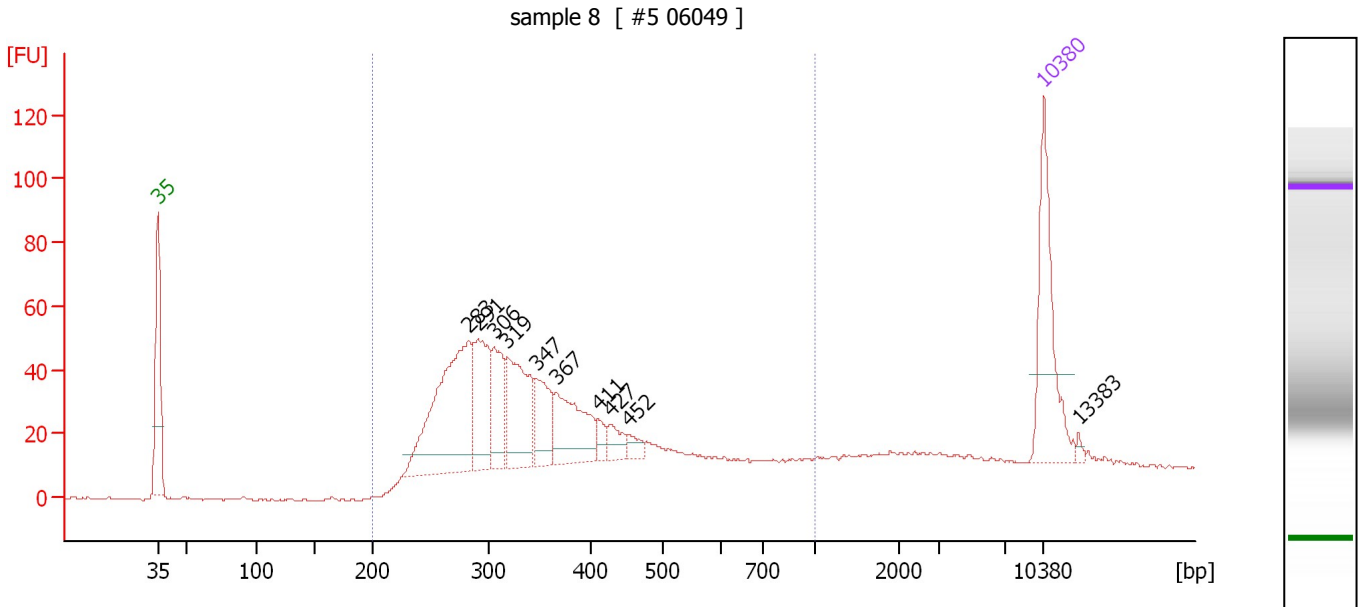
**Region table for sample 7 : sample 7**

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	373	1,580.12	1,720.6	7,055.1	98	28.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 10                      Corr. Area 1: 889.2  
 Noise: 0.5

**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	283	197.29	1,056.1		67.55
3	291	86.48	449.9		68.29
4	306	57.71	285.9		69.56
5	319	93.20	442.6		70.62
6	347	46.49	202.8		72.89
7	367	74.57	307.8		74.48
8	411	9.47	34.9		77.76
9	427	16.46	58.3		78.71
10	452	9.81	32.9		80.14
11	10,380	75.00	10.9	Upper Marker	113.00
12	13,383	0.00	0.0		115.70

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

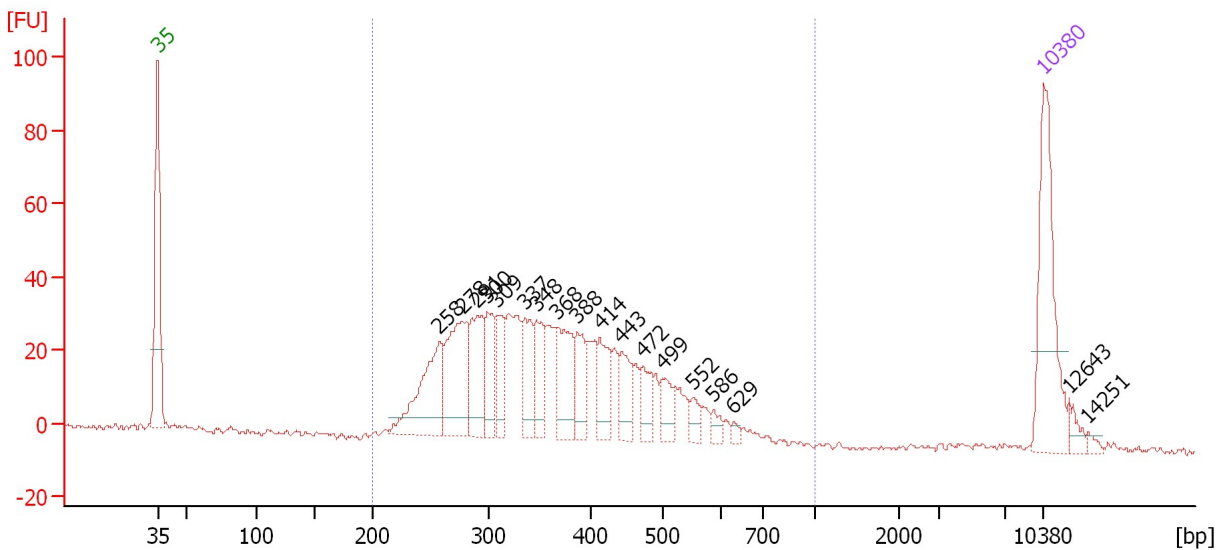
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	378	857.80	889.2	3,898.0	86	36.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**

sample 9 [ #14 181 (0.5uL) ]



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

Number of peaks found: 18      Corr. Area 1: 797.8  
 Noise: 0.8

**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	258	84.96	499.3		65.26
3	278	85.52	466.3		67.08
4	291	61.06	318.0		68.26
5	300	33.59	169.8		69.06
6	309	32.63	160.0		69.81
7	337	38.42	172.8		72.06
8	348	32.63	142.2		72.92
9	368	52.36	215.8		74.52
10	388	31.91	124.7		76.13
11	414	33.20	121.5		77.95
12	443	25.83	88.4		79.61
13	472	20.27	65.1		81.32
14	499	18.65	56.6		82.87
15	552	10.70	29.4		85.33
16	586	7.31	18.9		86.88
17	629	3.85	9.3		88.49
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,643	0.00	0.0		115.03
20	14,251	0.00	0.0		116.48

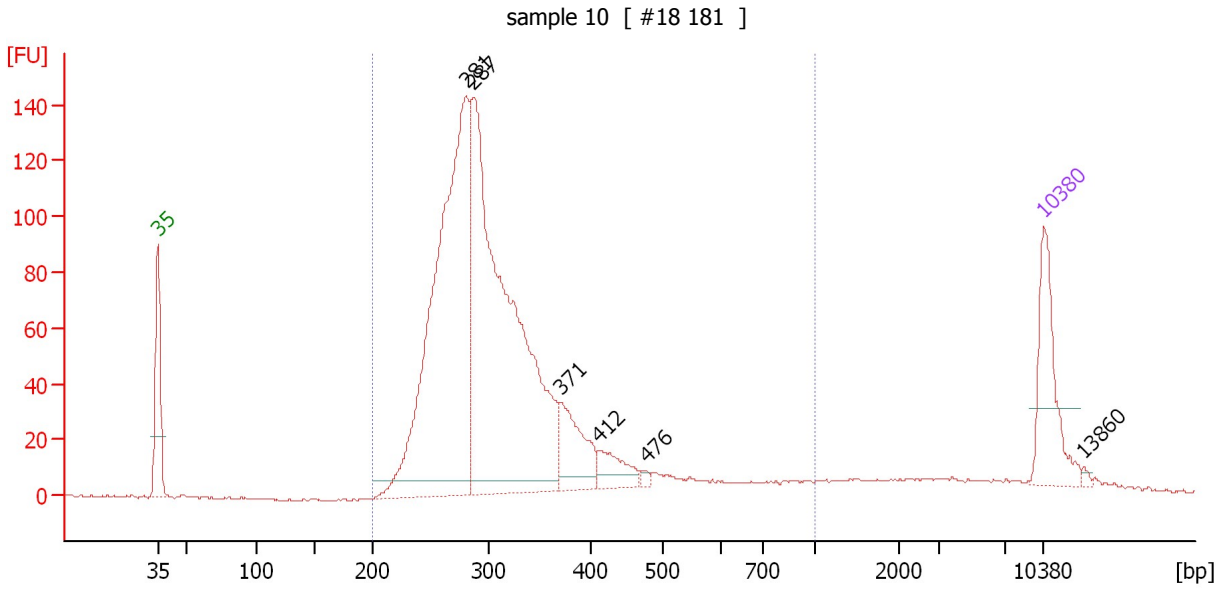
**Region table for sample 9 : sample 9**

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	374	767.80	797.8	3,399.8	95	26.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 6                      Corr. Area 1: 1,550.4  
 Noise: 0.4

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

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	281	664.33	3,580.5		67.38
3	287	727.79	3,841.3		67.92
4	371	87.19	356.5		74.76
5	412	38.49	141.5		77.84
6	476	4.54	14.5		81.56
7	10,380	75.00	10.9	Upper Marker	113.00
8	13,860	0.00	0.0		116.13

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

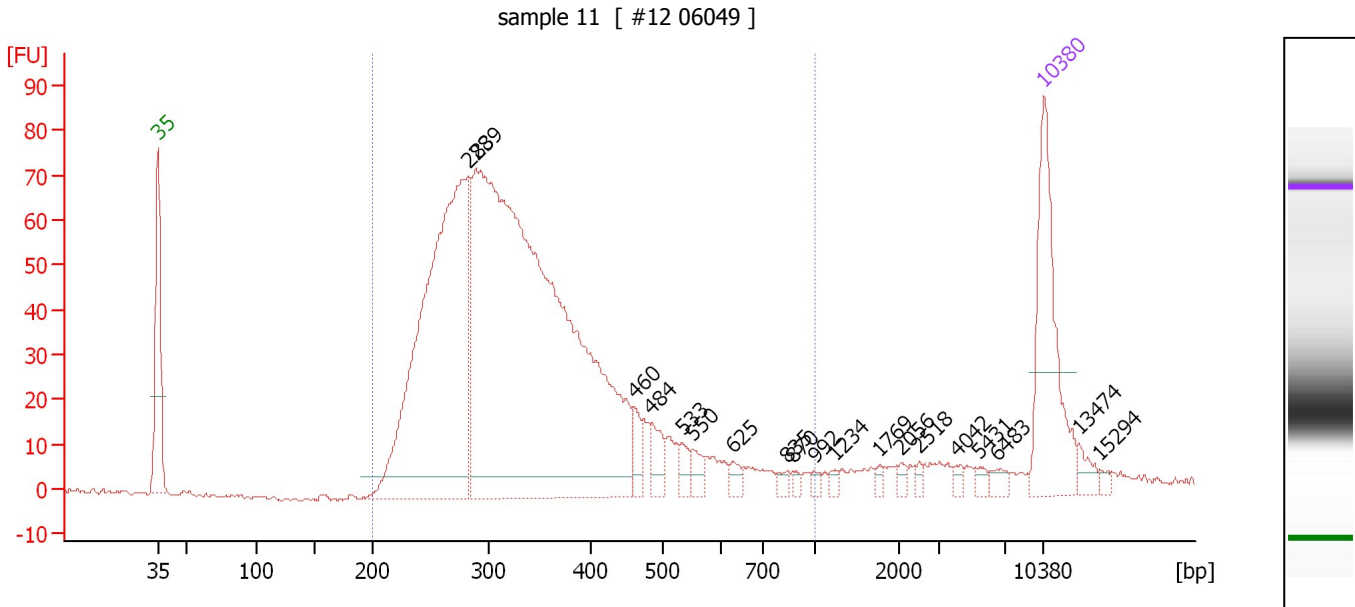
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	323	1,561.44	1,550.4	7,850.5	94	30.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
 Modified: 8/2/2018 3:32:05 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 19      Corr. Area 1: 1,346.5  
 Noise: 0.5

**Peak table for sample 11 : 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	283	416.11	2,229.0		67.53
3	289	822.48	4,305.2		68.13
4	460	14.59	48.0		80.62
5	484	18.85	59.1		81.98
6	533	8.81	25.1		84.43
7	550	9.41	25.9		85.25
8	625	6.83	16.6		88.36
9	835	4.52	8.2		92.67
10	870	3.02	5.3		93.16
11	992	3.27	5.0		94.85
12	1,234	3.09	3.8		96.48
13	1,769	2.95	2.5		99.97
14	2,056	3.28	2.4		101.66
15	2,518	3.02	1.8		103.19
16	4,042	3.39	1.3		106.13
17	5,431	3.46	1.0		107.93
18	6,483	5.01	1.2		109.29
19	10,380	75.00	10.9	Upper Marker	113.00
20	13,474	0.00	0.0		115.78
21	15,294	0.00	0.0		117.42

**Region table for sample 11 : 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	349	1,240.64	1,346.5	5,929.3	91	31.7

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-08-02\2018-08-02\_003.xad

Created: 8/2/2018 2:51:43 PM  
Modified: 8/2/2018 3:32:05 PM

**Gel Image**

