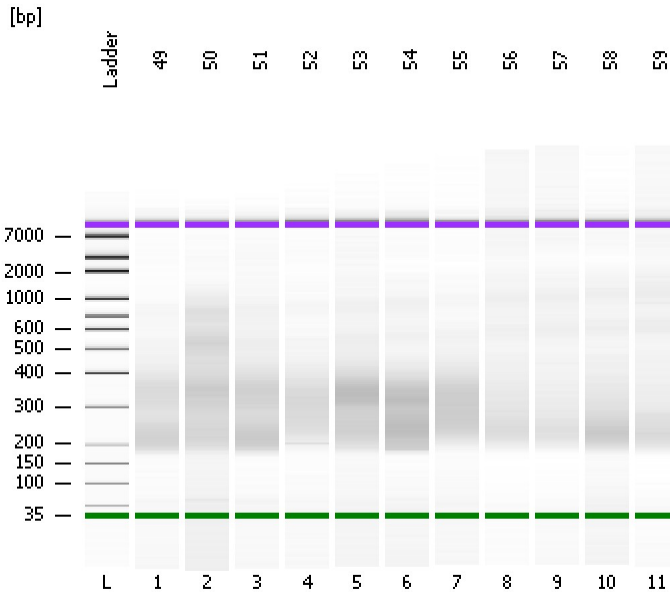


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

Created: 3/5/2019 10:32:35 AM  
Modified: 3/5/2019 11:47:46 AM

### Electrophoresis File Run Summary



#### Instrument Information:

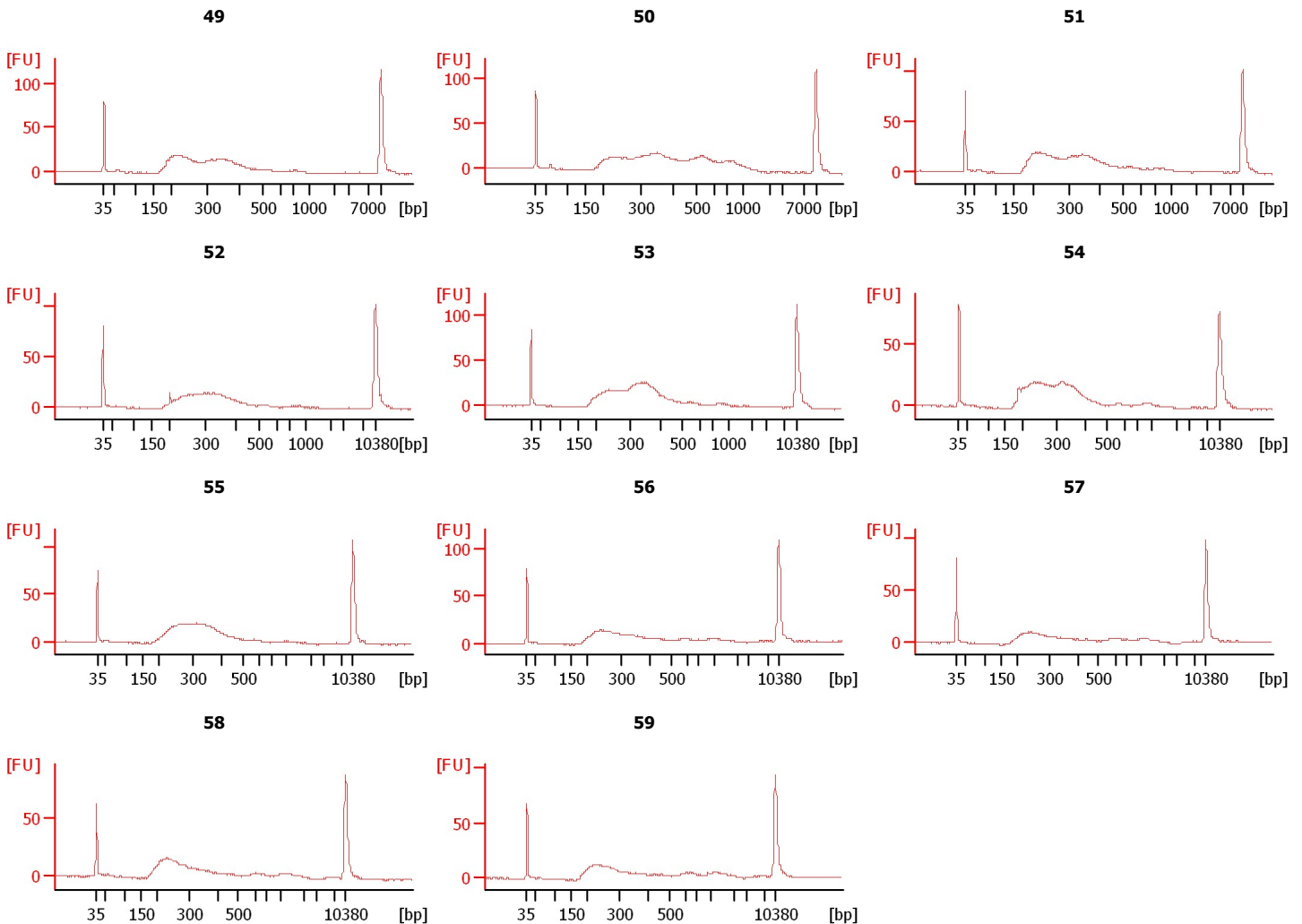
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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\2019-03-05\2019-03-05\_001.xad

Created: 3/5/2019 10:32:35 AM  
Modified: 3/5/2019 11:47:46 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
49		<input type="checkbox"/>	✓			
50		<input type="checkbox"/>	✓			
51		<input type="checkbox"/>	✓			
52		<input type="checkbox"/>	✓			
53		<input type="checkbox"/>	✓			
54		<input type="checkbox"/>	✓			
55		<input type="checkbox"/>	✓			
56		<input type="checkbox"/>	✓			
57		<input type="checkbox"/>	✓			
58		<input type="checkbox"/>	✓			
59		<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\2019-03-05\2019-03-05\_001.xad

Created: 3/5/2019 10:32:35 AM  
Modified: 3/5/2019 11:47:46 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

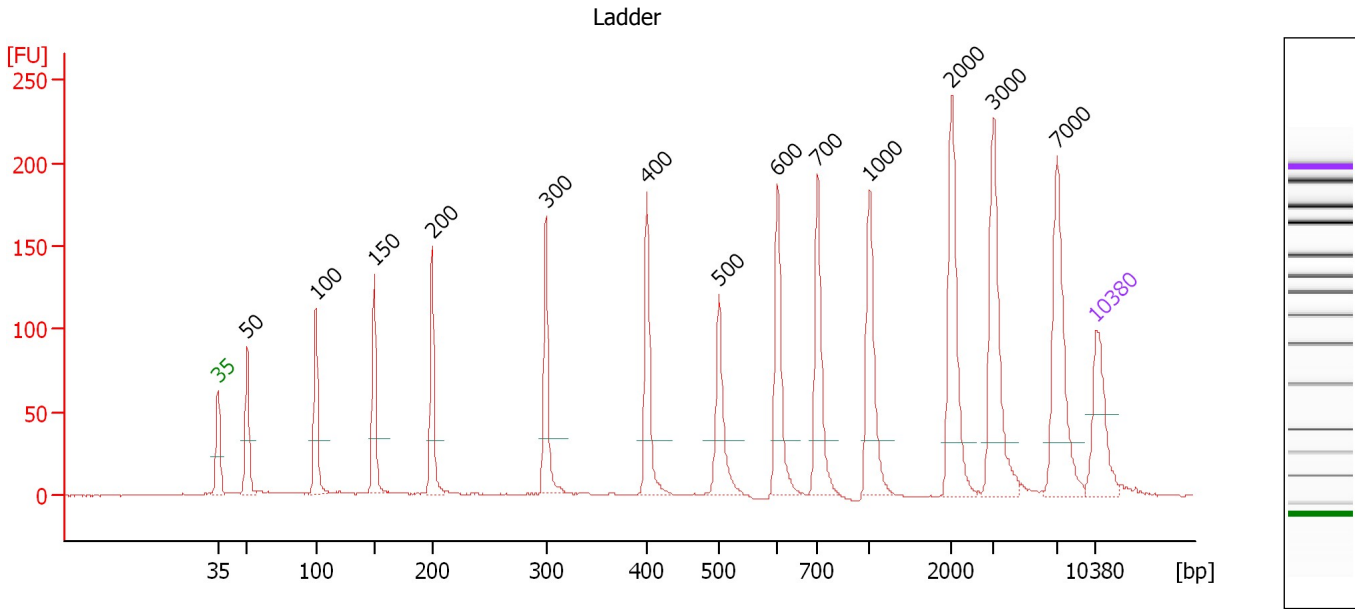
**Ladder**

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\2019-03-05\2019-03-05\_001.xad

Created: 3/5/2019 10:32:35 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.4

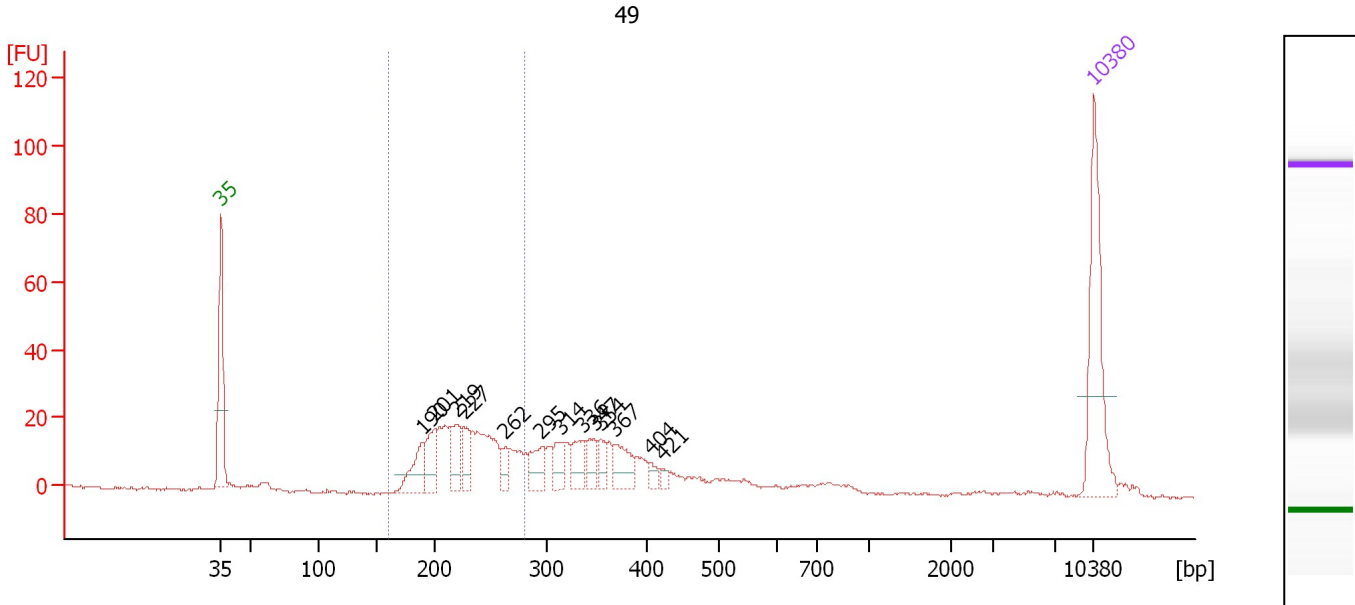
**Peak table for Ladder**

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.82
4	150	150.00	1,515.2	Ladder Peak	55.45
5	200	150.00	1,136.4	Ladder Peak	60.04
6	300	150.00	757.6	Ladder Peak	69.14
7	400	150.00	568.2	Ladder Peak	77.17
8	500	150.00	454.5	Ladder Peak	82.95
9	600	150.00	378.8	Ladder Peak	87.58
10	700	150.00	324.7	Ladder Peak	90.81
11	1,000	150.00	227.3	Ladder Peak	94.94
12	2,000	150.00	113.6	Ladder Peak	101.48
13	3,000	150.00	75.8	Ladder Peak	104.84
14	7,000	150.00	32.5	Ladder Peak	109.85
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 49**

Number of peaks found: 13                      Corr. Area 1: 242.0  
 Noise: 0.4

**Peak table for sample 1 : 49**

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	190	35.12	280.1		59.12
3	201	35.99	271.7		60.10
4	219	35.37	244.1		61.81
5	227	20.78	138.7		62.50
6	262	15.70	90.7		65.71
7	295	27.28	140.0		68.70
8	314	19.72	95.1		70.28
9	336	23.06	104.0		72.03
10	347	20.50	89.6		72.89
11	354	14.36	61.5		73.45
12	367	26.67	110.1		74.51
13	404	6.68	25.0		77.42
14	421	4.78	17.2		78.36
15	10,380	75.00	10.9	Upper Marker	113.00

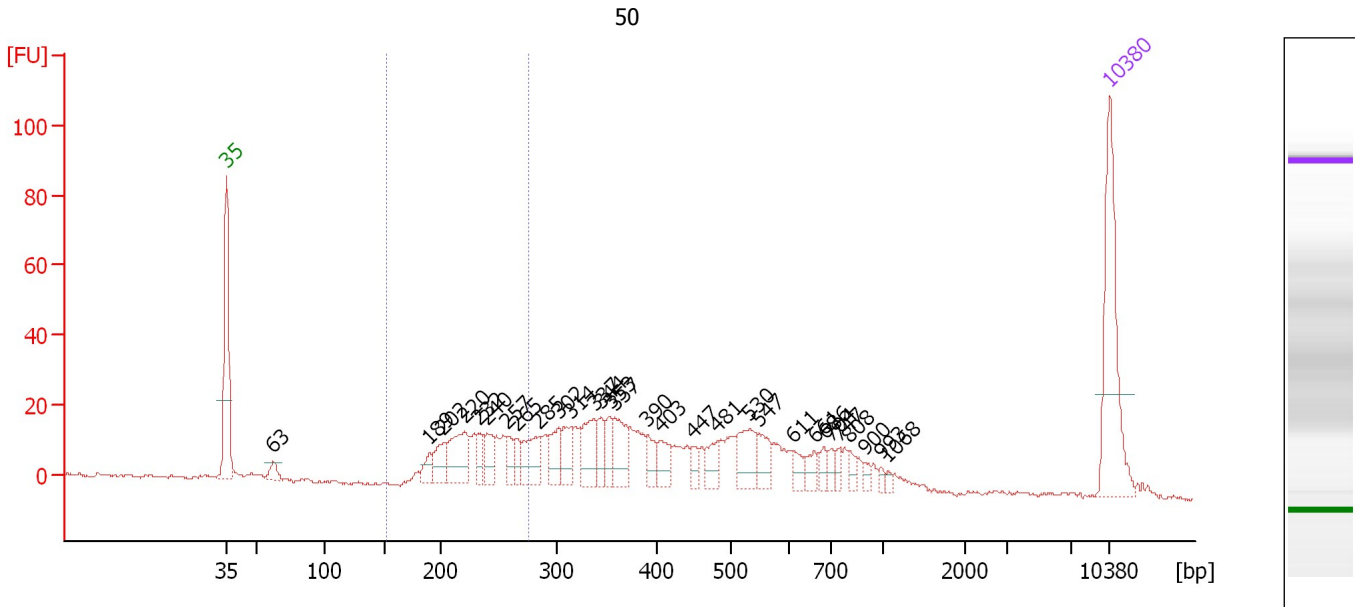
**Region table for sample 1 : 49**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
161	281	228	289.48	242.0	1,948.8	46	12.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 50**

Number of peaks found: 30                      Corr. Area 1: 179.7  
 Noise: 0.5

**Peak table for sample 2 : 50**


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	63	11.42	276.5		46.72
3	189	12.73	101.9		59.05
4	202	24.23	182.1		60.19
5	220	48.10	330.9		61.88
6	232	15.16	99.0		62.94
7	240	20.53	129.7		63.66
8	257	13.41	79.0		65.26
9	265	12.58	72.0		65.94
10	285	35.61	189.2		67.80
11	302	26.37	132.2		69.32
12	314	23.42	112.9		70.29
13	337	33.52	150.7		72.11
14	344	17.94	79.0		72.70
15	353	15.58	66.9		73.37
16	357	32.28	136.8		73.75
17	390	15.47	60.1		76.37
18	403	18.85	70.9		77.35
19	447	9.92	33.6		79.88
20	481	16.86	53.1		81.87
21	530	30.28	86.5		84.36
22	547	19.18	53.2		85.12
23	611	9.05	22.4		87.95
24	661	10.75	24.6		89.55
25	686	8.64	19.1		90.36

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad


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### Electropherogram Summary Continued ...

#### ... Peak table for sample 2 : 50

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	704	6.69	14.4		90.86
27	747	6.67	13.5		91.46
28	808	7.06	13.2		92.30
29	900	4.06	6.8		93.57
30	993	3.36	5.1		94.83
31	1,068	2.62	3.7		95.38
32	 10,380	75.00	10.9	Upper Marker	113.00

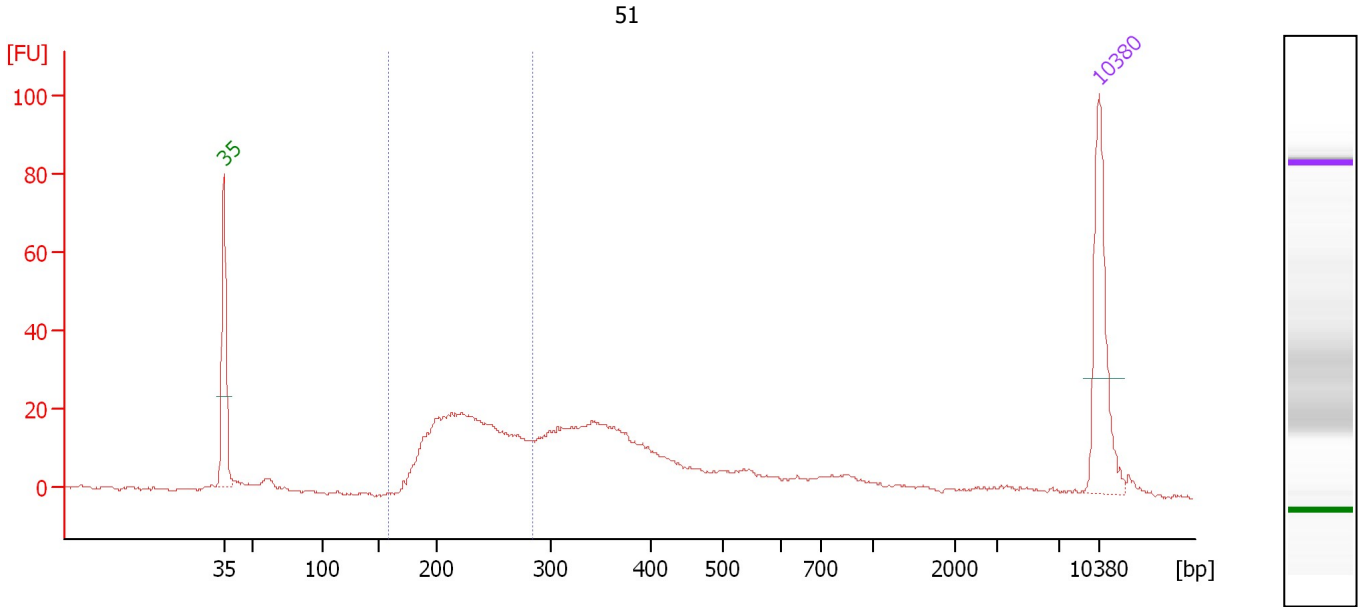
#### Region table for sample 2 : 50

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
153	276	231	209.42	179.7	1,384.6	 24	11.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 51**

Number of peaks found: 0                      Corr. Area 1: 254.7  
 Noise: 0.5

**Peak table for sample 3 : 51**

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 3 : 51**

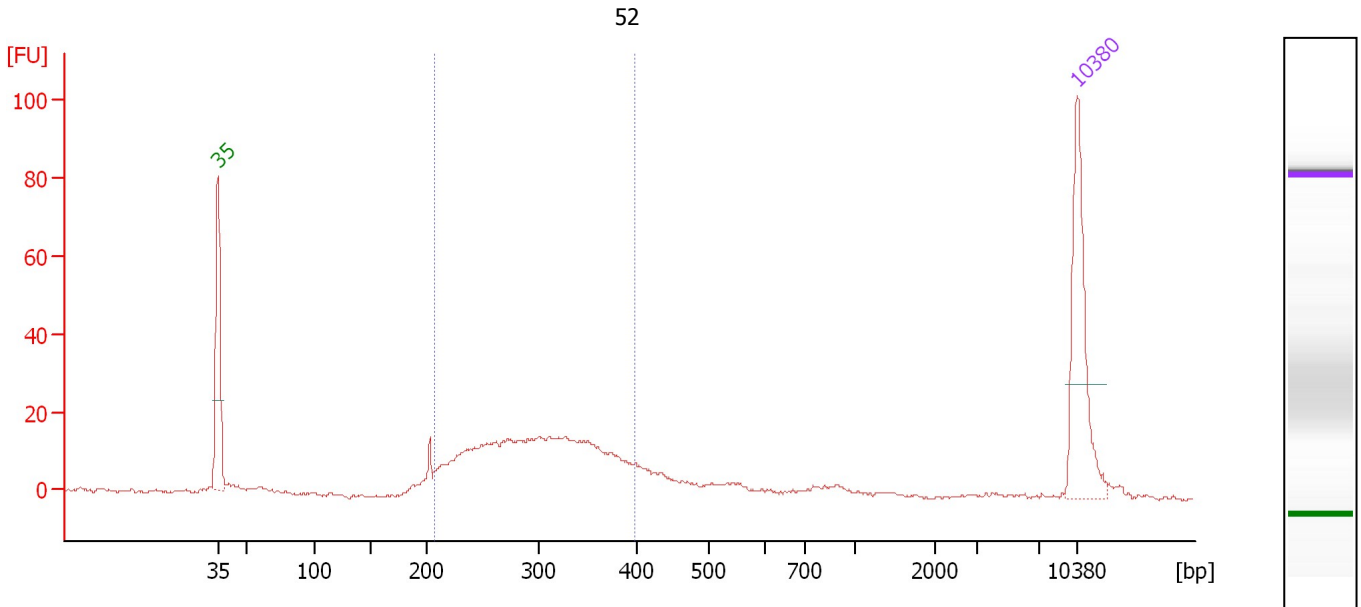
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
158	285	230	325.13	254.7	2,167.7	42	12.5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 52**

Number of peaks found: 0                      Corr. Area 1: 294.4  
 Noise: 0.3

**Peak table for sample 4 : 52**

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

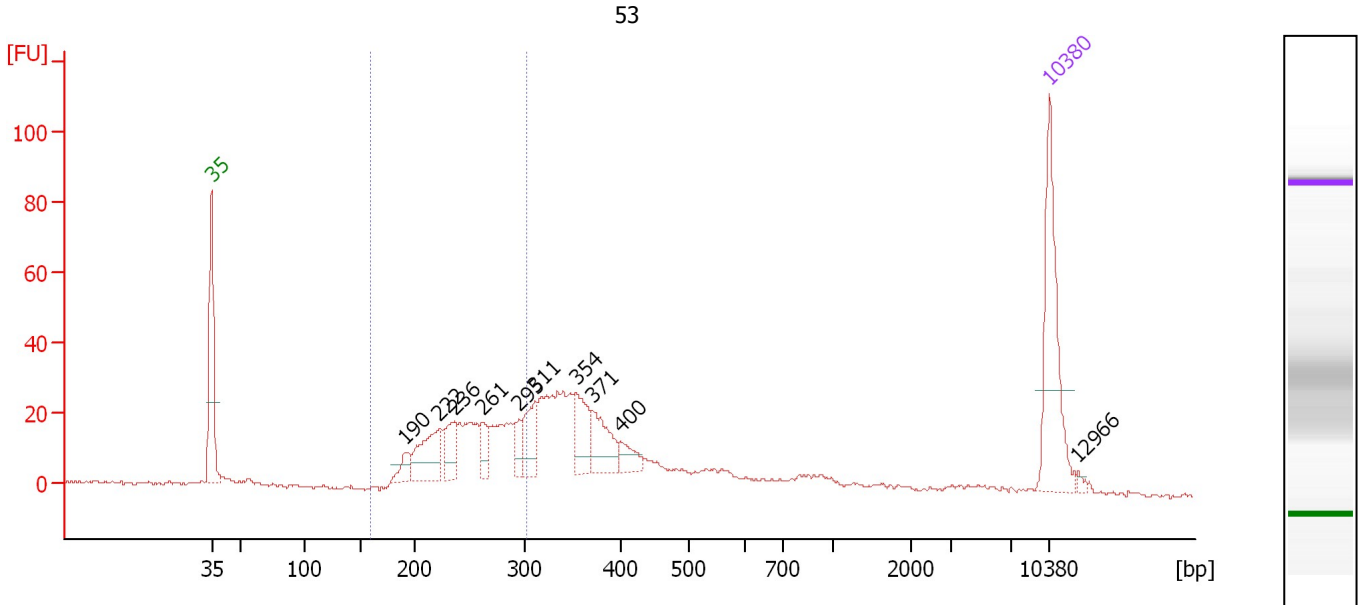
**Region table for sample 4 : 52**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
206	397	300	313.47	294.4	1,637.9	72	16.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 53**

Number of peaks found: 10                      Corr. Area 1: 274.8  
 Noise: 0.5

**Peak table for sample 5 : 53**

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	190	17.42	138.9		59.13
3	222	55.43	378.7		62.03
4	236	31.78	204.4		63.27
5	261	21.00	121.7		65.64
6	295	15.40	79.0		68.71
7	311	37.04	180.6		70.00
8	354	40.13	171.8		73.48
9	371	38.99	159.4		74.81
10	400	16.09	60.9		77.18
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,966	0.00	0.0		115.41

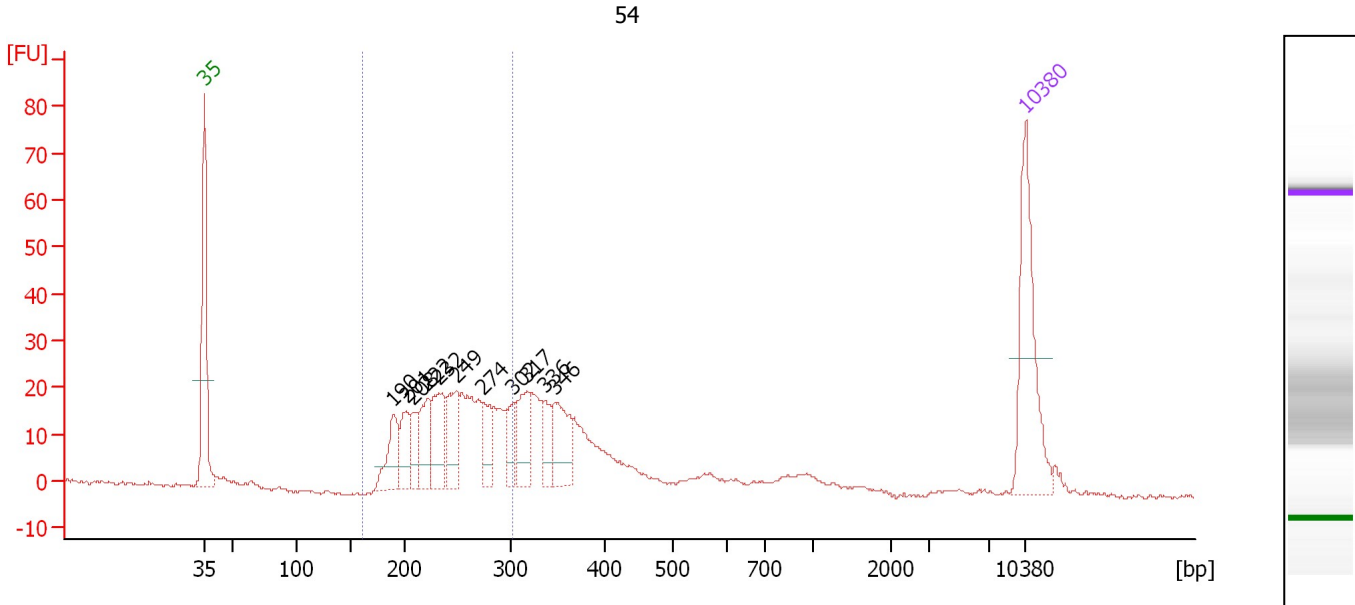
**Region table for sample 5 : 53**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
160	303	249	301.76	274.8	1,856.7	40	13.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 54**

Number of peaks found: 11                      Corr. Area 1: 297.1  
 Noise: 0.4

**Peak table for sample 6 : 54**

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	190	42.33	338.3		59.09
3	201	33.03	249.0		60.14
4	208	23.69	172.5		60.77
5	222	41.74	285.5		62.00
6	232	52.37	342.8		62.91
7	249	47.18	287.1		64.50
8	274	26.24	145.1		66.77
9	302	22.91	115.1		69.27
10	317	39.83	190.4		70.50
11	336	21.48	97.0		72.00
12	346	43.39	190.1		72.82
13	10,380	75.00	10.9	Upper Marker	113.00

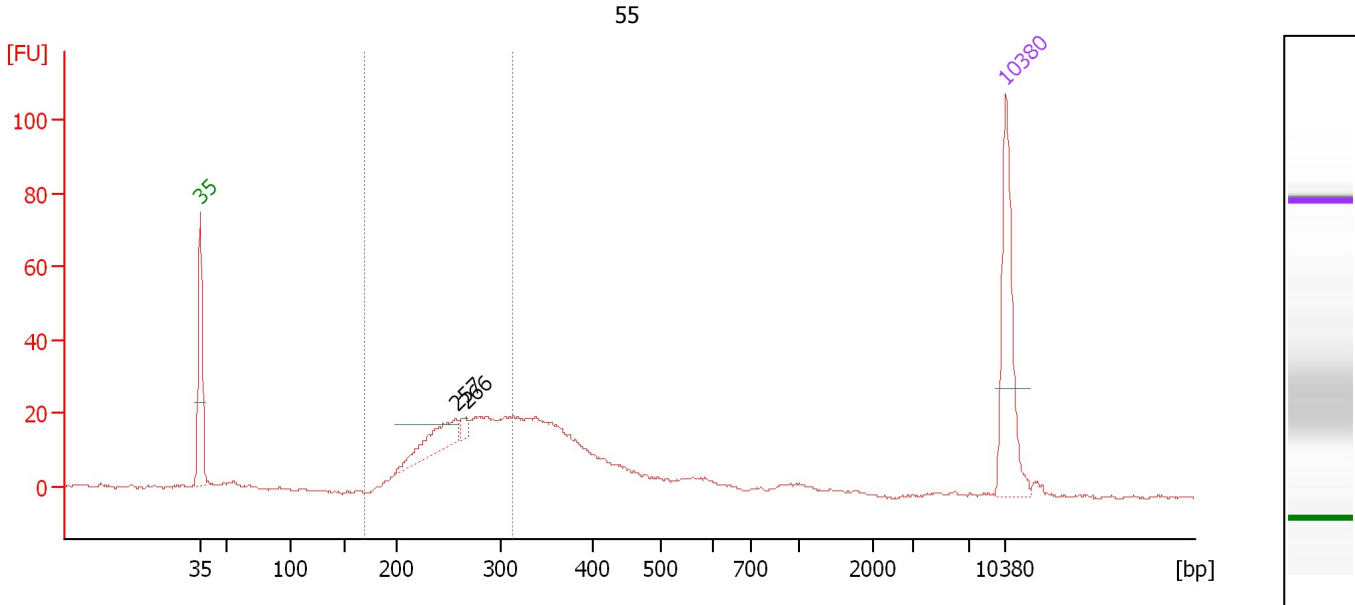
**Region table for sample 6 : 54**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
160	301	243	384.97	297.1	2,429.6	54	13.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 55**

Number of peaks found: 2                      Corr. Area 1: 254.7  
 Noise: 0.4

**Peak table for sample 7 : 55**

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	257	49.34	290.8		65.24
3	266	7.62	43.3		66.07
4	10,380	75.00	10.9	Upper Marker	113.00

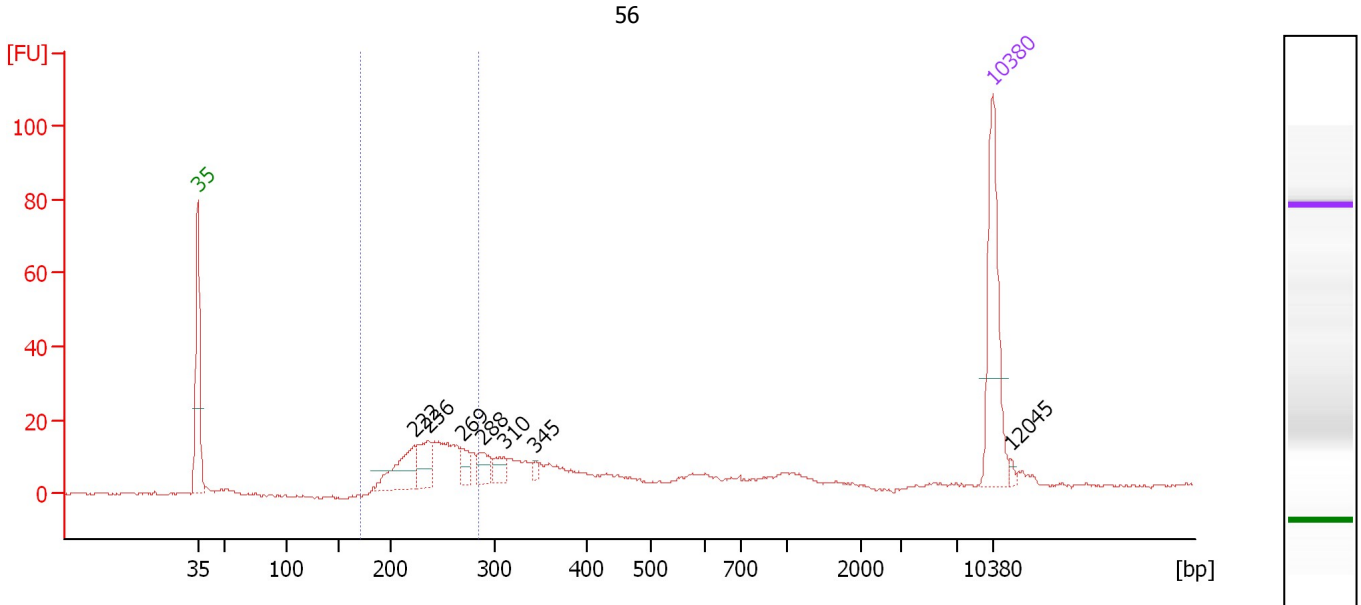
**Region table for sample 7 : 55**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
169	311	261	308.00	254.7	1,800.6	50	11.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 56**

Number of peaks found: 7                      Corr. Area 1: 145.5  
 Noise: 0.4

**Peak table for sample 8 : 56**

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	51.53	352.2		62.01
3	236	33.46	214.7		63.33
4	269	14.86	83.6		66.33
5	288	18.07	95.1		68.02
6	310	13.75	67.2		69.95
7	345	4.54	20.0		72.72
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,045	0.00	0.0		114.55

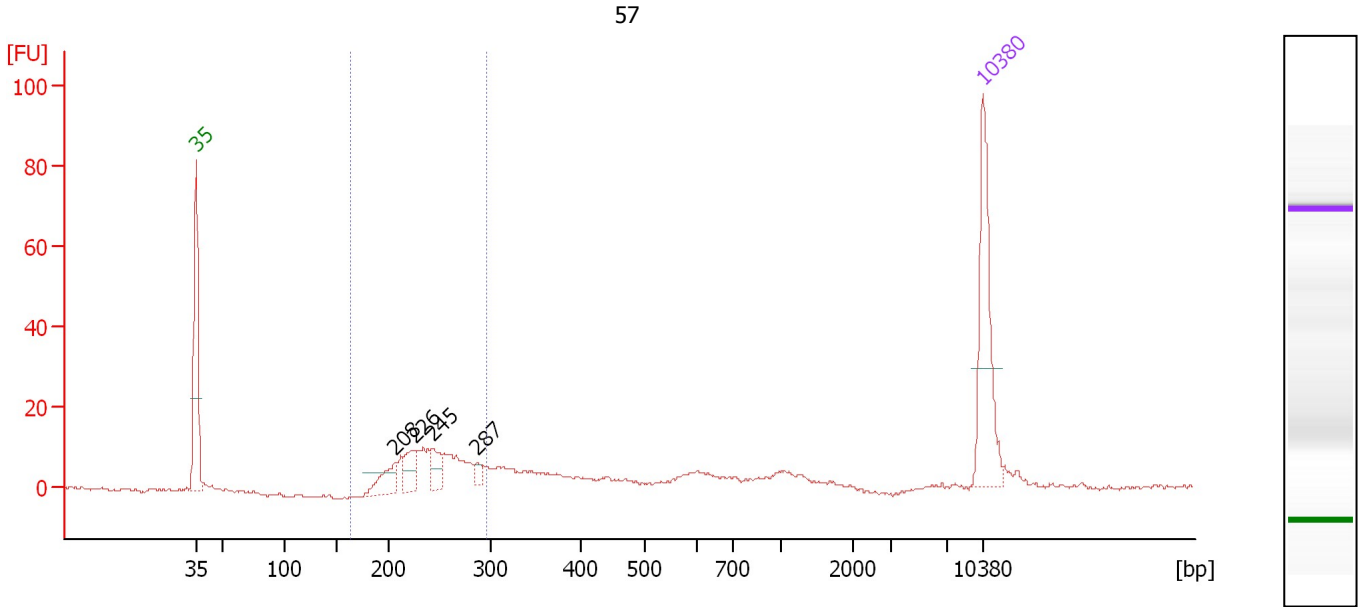
**Region table for sample 8 : 56**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
170	285	241	182.74	145.5	1,156.3	45	10.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 57**

Number of peaks found: 4                      Corr. Area 1: 112.5  
 Noise: 0.4

**Peak table for sample 9 : 57**

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	208	30.48	222.4		60.74
3	226	27.01	181.2		62.40
4	245	20.68	128.1		64.10
5	287	7.44	39.2		67.99
6	10,380	75.00	10.9	Upper Marker	113.00

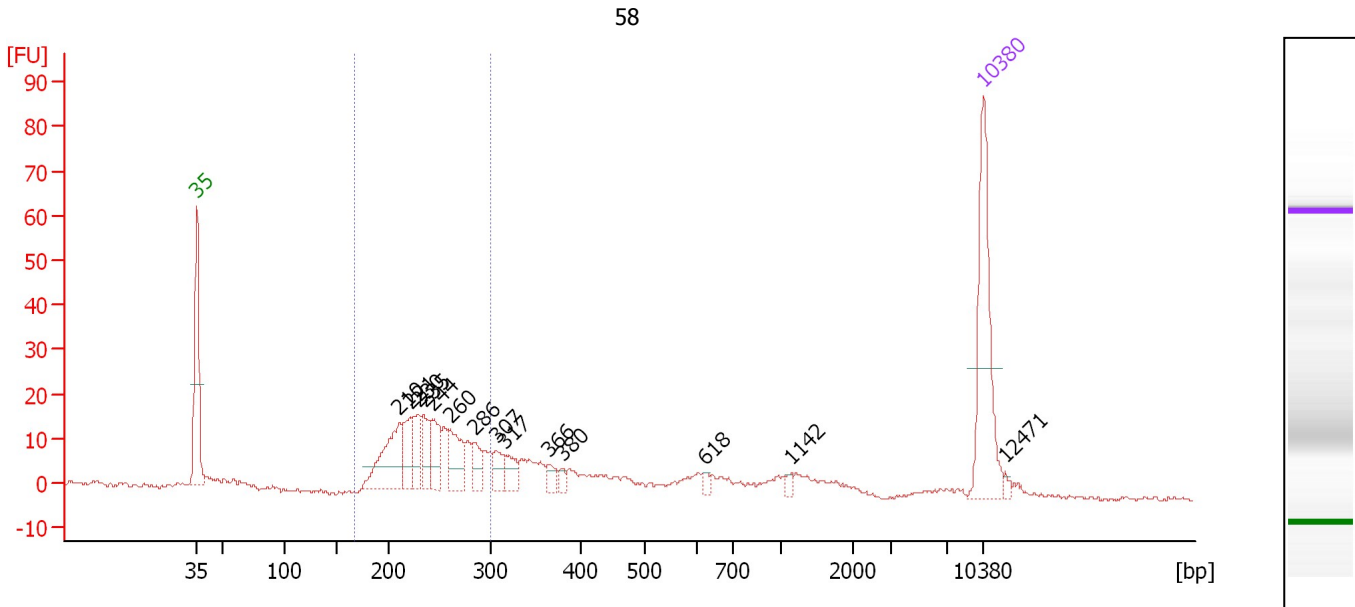
**Region table for sample 9 : 57**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
163	297	244	155.50	112.5	970.1	48	11.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 58**

Number of peaks found: 14                      Corr. Area 1: 203.3  
 Noise: 0.5

**Peak table for sample 10 : 58**

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	210	66.15	476.4		60.99
3	221	31.90	218.4		61.98
4	230	26.21	172.9		62.74
5	235	23.31	150.4		63.22
6	244	29.05	180.5		64.02
7	260	35.53	206.7		65.54
8	286	16.56	87.9		67.82
9	307	14.30	70.7		69.67
10	317	16.72	80.0		70.48
11	366	9.68	40.1		74.42
12	380	5.24	20.9		75.60
13	618	4.40	10.8		88.18
14	1,142	3.54	4.7		95.87
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,471	0.00	0.0		114.95

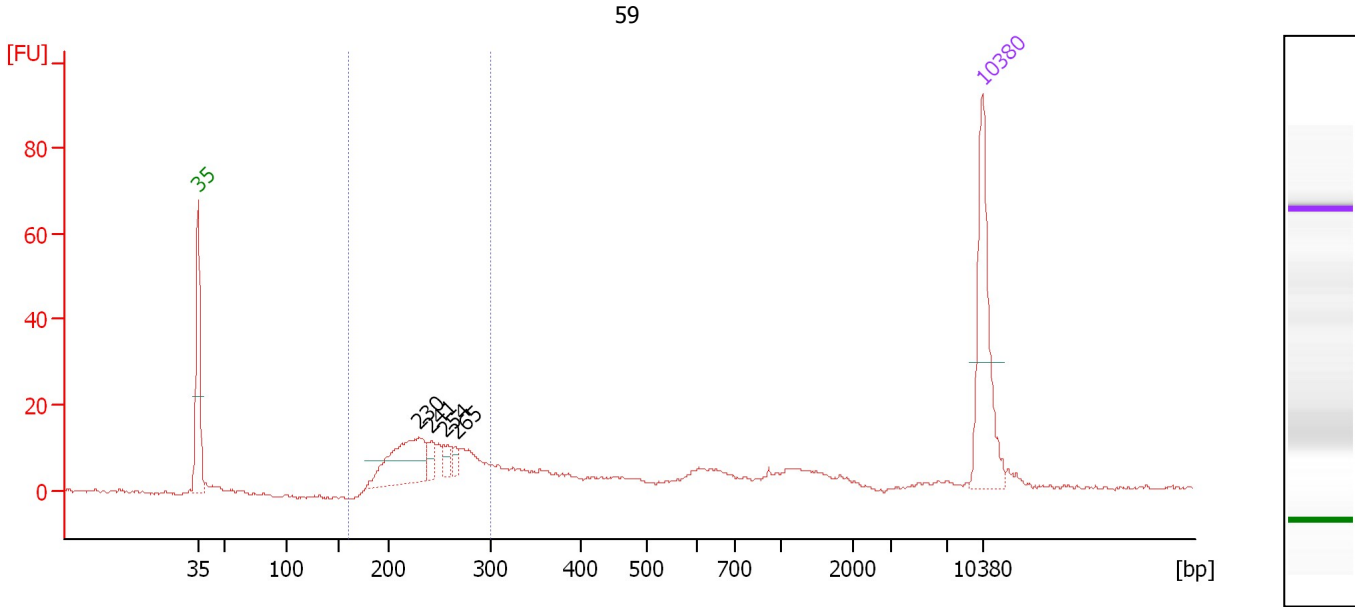
**Region table for sample 10 : 58**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Total	Size distribution in CV [%]
167	300	241	277.47	203.3	1,759.3	55	12.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 59**

Number of peaks found: 4                      Corr. Area 1: 155.6  
 Noise: 0.4

**Peak table for sample 11 : 59**

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	230	85.87	566.3		62.75
3	241	12.32	77.6		63.75
4	254	12.94	77.3		64.94
5	265	8.10	46.2		65.98
6	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 11 : 59**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
160	299	241	209.90	155.6	1,332.2	51	12.6



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-03-05\2019-03-05\_001.xad

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**Gel Image**

