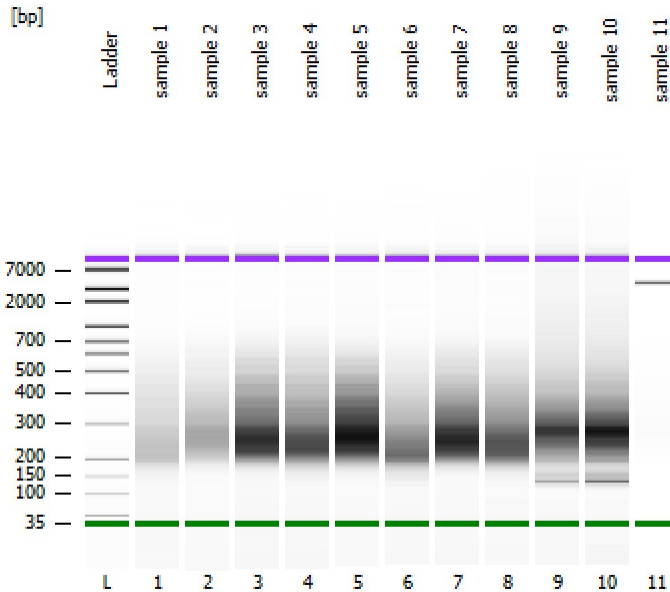


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
Modified: 2/6/2020 12:01:26 PM

**Electrophoresis File Run Summary**



Instrument Information:

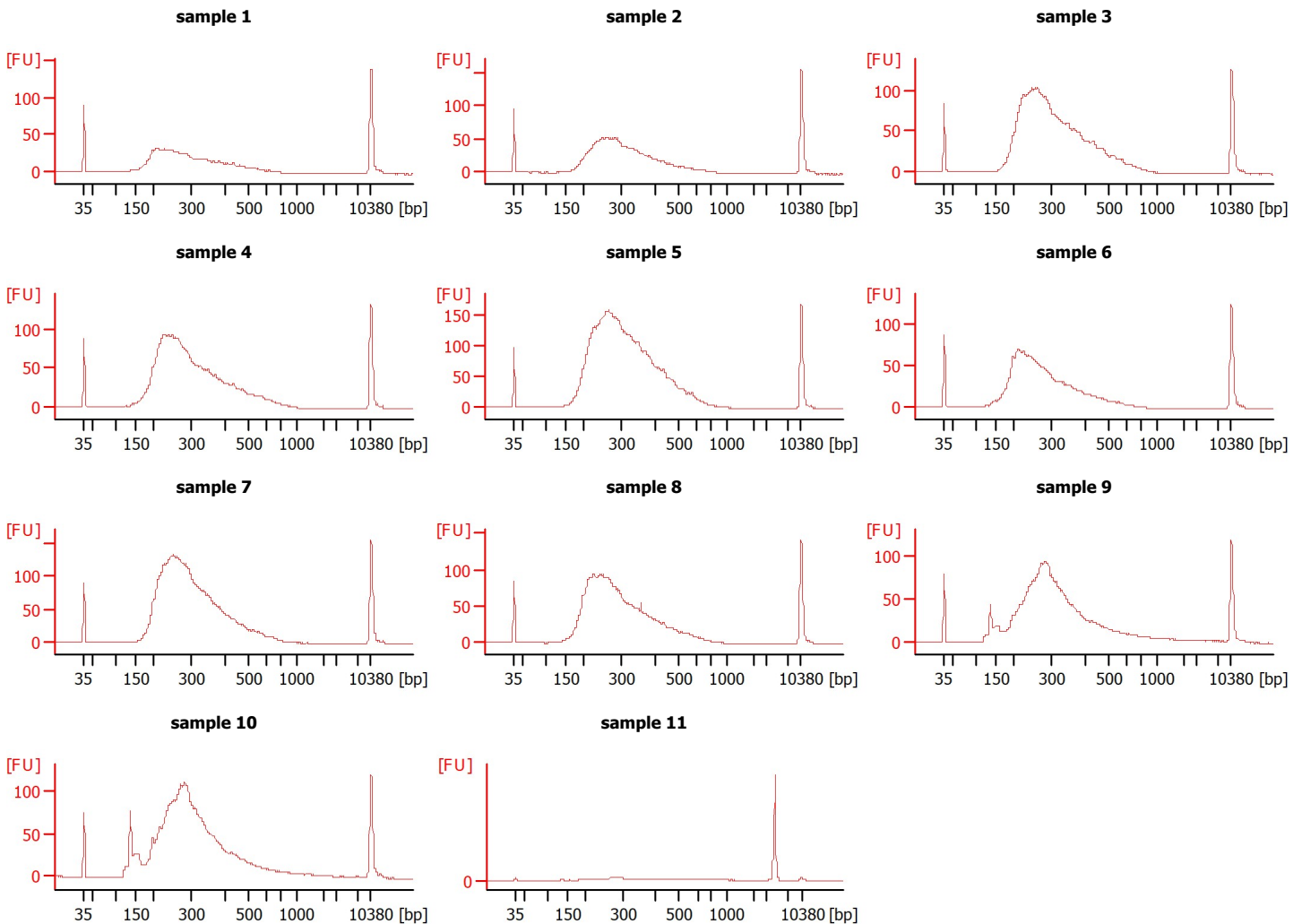
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files (x86)\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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

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

**Chip Lot #**

**Reagent Kit Lot #**

**Chip Comments :**

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 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

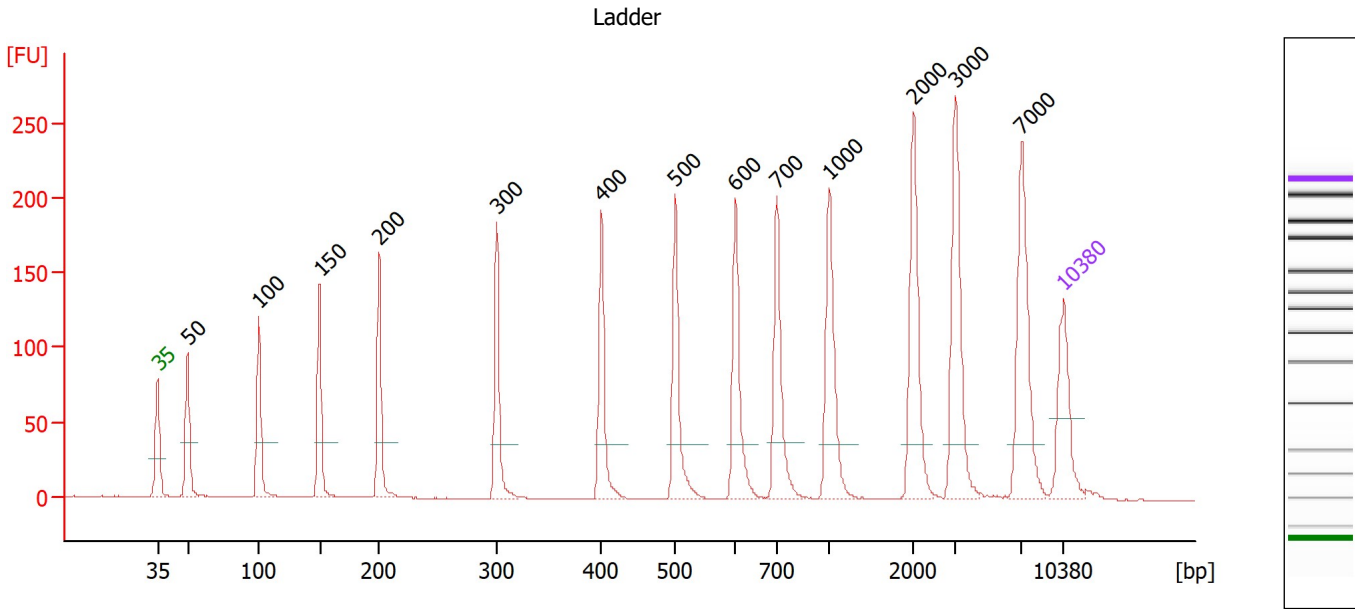
**Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

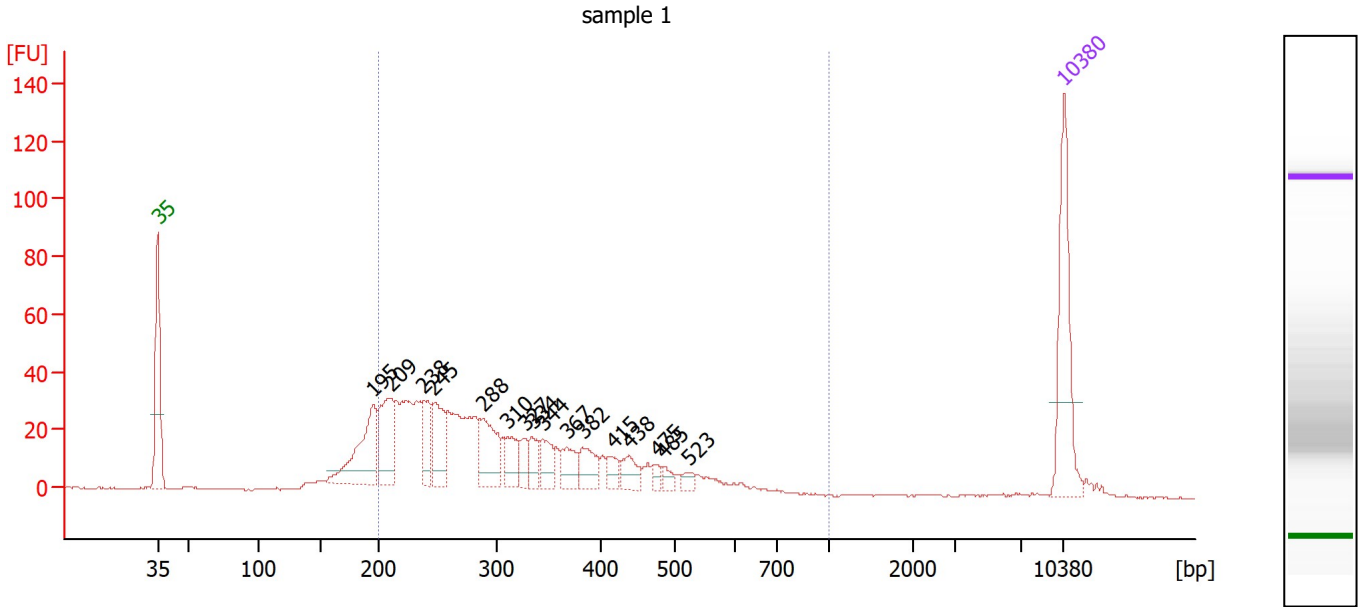
**Peak table for Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

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**Electropherogram Summary Continued ...**



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

Number of peaks found: 16                      Corr. Area 1: 719.0  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	195	93.50	726.8	
3	209	70.89	513.2	
4	238	38.03	242.5	
5	245	53.07	328.1	
6	288	55.58	292.5	
7	310	27.86	136.0	
8	327	16.48	76.3	
9	334	19.63	89.1	
10	344	23.87	105.2	
11	367	23.12	95.5	
12	382	25.95	103.0	
13	415	13.19	48.2	
14	438	18.91	65.5	
15	475	7.33	23.4	
16	485	8.00	25.0	
17	523	6.87	19.9	
18	10,380	75.00	10.9	Upper Marker

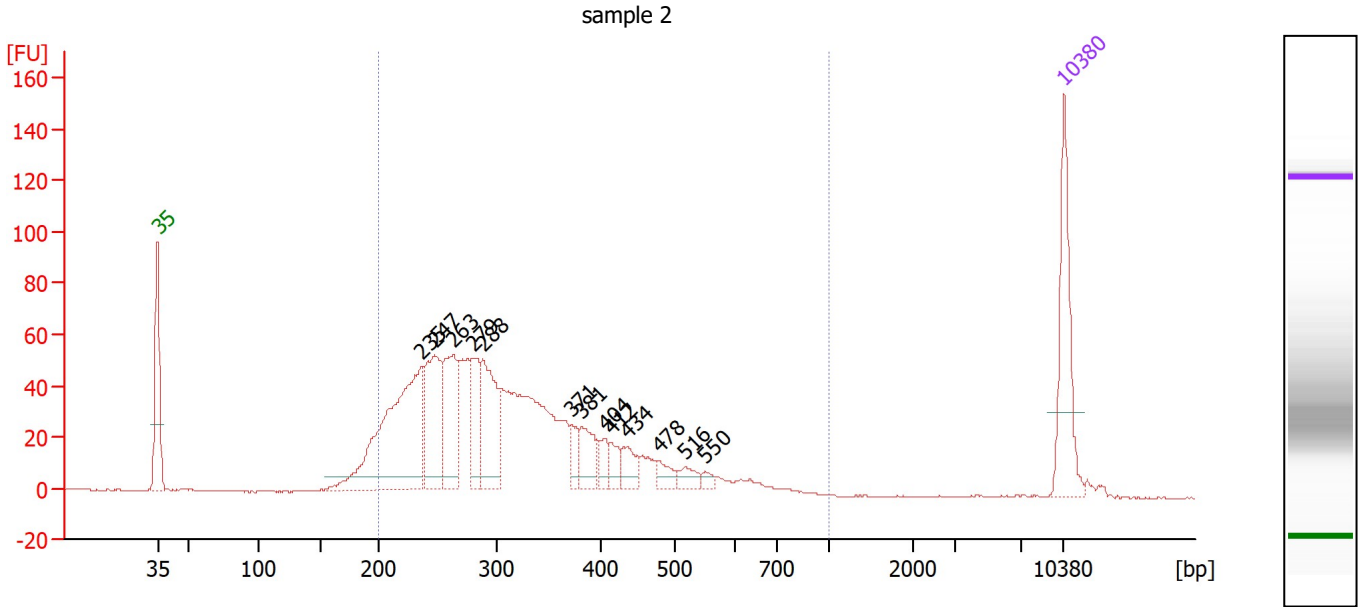
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	719.0	85	321	31.8	744.97	3,937.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 1,195.1  
 Noise: 0.1

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	235	268.87	1,730.8	
3	247	115.74	709.0	
4	263	98.12	565.7	
5	279	58.79	318.9	
6	288	99.49	523.8	
7	371	21.29	86.9	
8	381	35.56	141.5	
9	404	18.30	68.7	
10	412	16.22	59.7	
11	434	21.61	75.4	
12	478	13.82	43.8	
13	516	13.49	39.6	
14	550	6.15	16.9	
15	10,380	75.00	10.9	Upper Marker

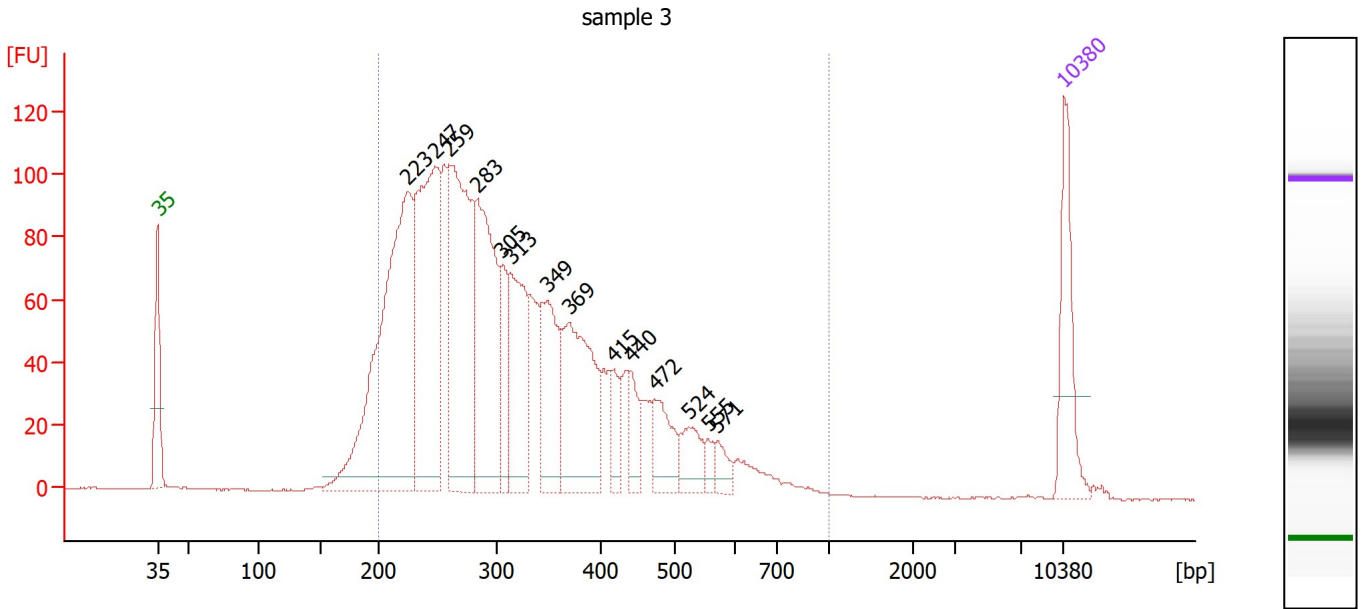
**Region table for sample 2 : sample 2**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,195.1	94	324	30.8	1,141.39	5,894.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 14                      Corr. Area 1: 2,342.2  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	223	535.75	3,637.6	
3	247	373.15	2,288.2	
4	259	335.13	1,958.2	
5	283	271.64	1,455.7	
6	305	65.78	327.2	
7	313	144.32	699.5	
8	349	132.73	576.9	
9	369	193.79	795.4	
10	415	29.95	109.4	
11	440	35.92	123.7	
12	472	58.12	186.4	
13	524	43.32	125.3	
14	555	13.02	35.6	
15	571	18.86	50.1	
16	10,380	75.00	10.9	Upper Marker

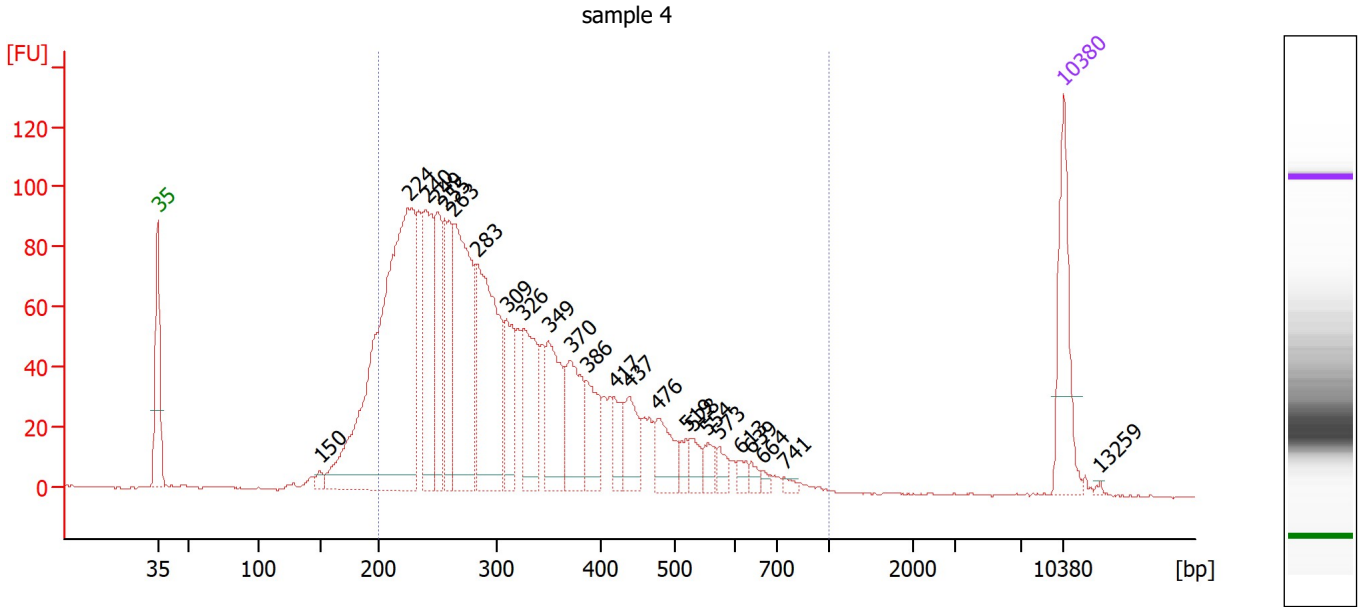
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,342.2	94	326	32.2	2,439.37	12,643.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 24      Corr. Area 1: 2,041.9  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	150	9.60	96.9	
3	224	627.97	4,244.3	
4	240	152.31	962.6	
5	249	108.43	659.6	
6	255	104.56	620.5	
7	263	235.95	1,358.8	
8	283	233.12	1,248.8	
9	309	77.09	378.4	
10	326	105.11	489.2	
11	349	94.42	410.1	
12	370	82.43	337.7	
13	386	56.64	222.6	
14	417	30.23	109.9	
15	437	47.63	165.3	
16	476	47.35	150.8	
17	519	14.62	42.7	
18	528	18.28	52.5	
19	554	15.73	43.0	
20	573	13.43	35.5	
21	613	8.72	21.6	
22	639	7.45	17.6	
23	664	5.08	11.6	
24	741	5.01	10.3	
25	10,380	75.00	10.9	Upper Marker
26	13,259	0.00	0.0	



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**

... Region table for sample 4 :

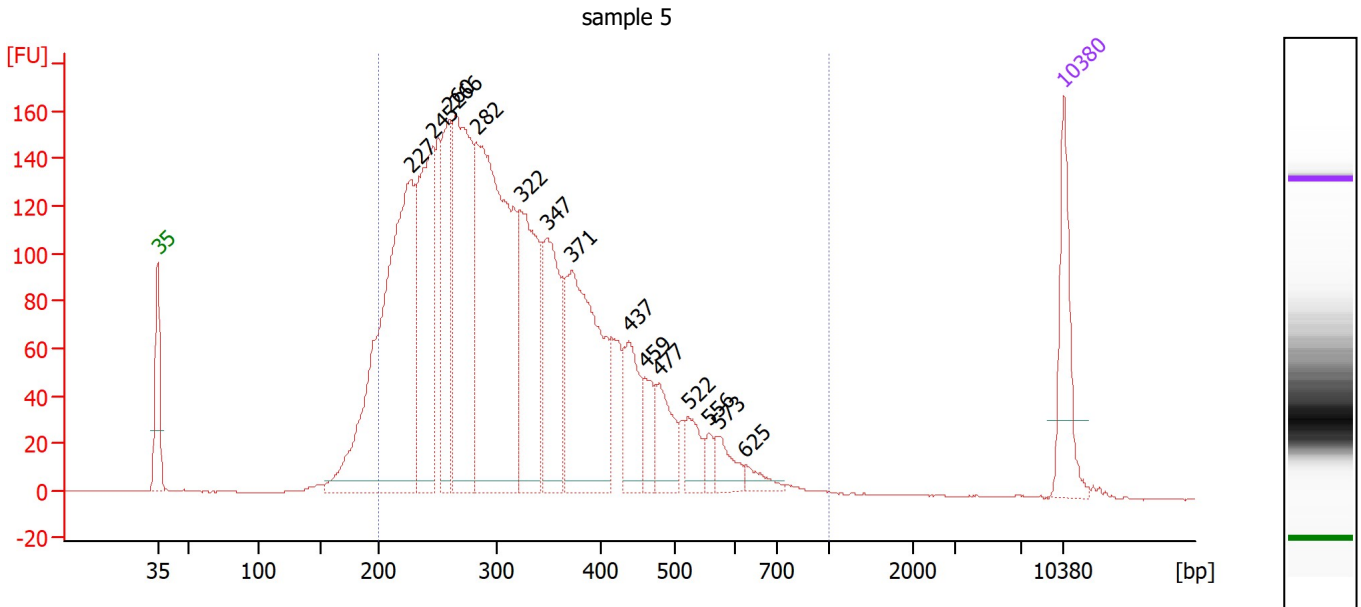
sample 4

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,041.9	91	325	34.5	2,190.23	11,511.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 15                      Corr. Area 1: 3,648.1  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	227	636.96	4,256.9	
3	245	299.98	1,852.4	
4	260	176.64	1,030.3	
5	266	368.11	2,099.7	
6	282	572.65	3,075.1	
7	322	235.23	1,105.4	
8	347	186.92	816.3	
9	371	295.63	1,207.8	
10	437	80.94	280.7	
11	459	41.33	136.4	
12	477	62.53	198.6	
13	522	38.79	112.6	
14	556	15.60	42.5	
15	573	30.64	81.0	
16	625	16.95	41.1	
17	10,380	75.00	10.9	Upper Marker

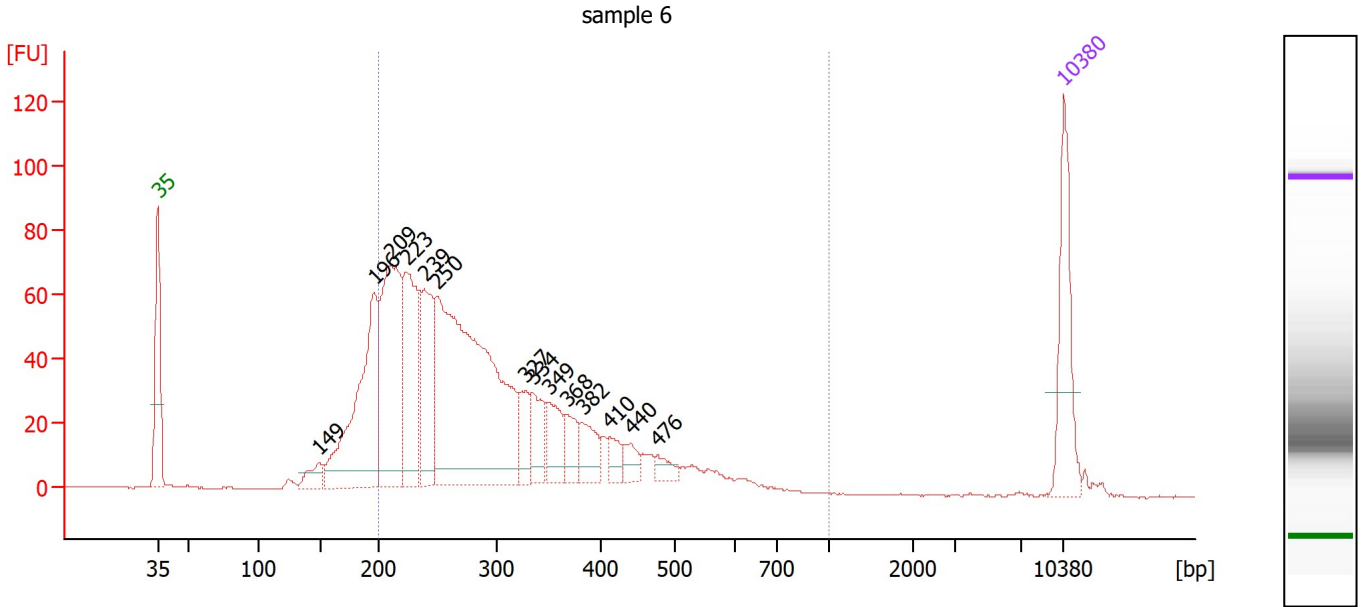
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	3,648.1	94	329	30.7	3,126.98	15,961.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 14                      Corr. Area 1: 1,261.3  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	149	26.27	266.3	
3	196	250.75	1,941.7	
4	209	240.17	1,739.2	
5	223	162.75	1,106.5	
6	239	118.32	751.1	
7	250	516.59	3,136.2	
8	327	38.85	179.9	
9	334	45.75	207.6	
10	349	45.77	198.6	
11	368	29.02	119.6	
12	382	38.09	151.2	
13	410	17.20	63.5	
14	440	18.74	64.5	
15	476	13.24	42.2	
16	10,380	75.00	10.9	Upper Marker

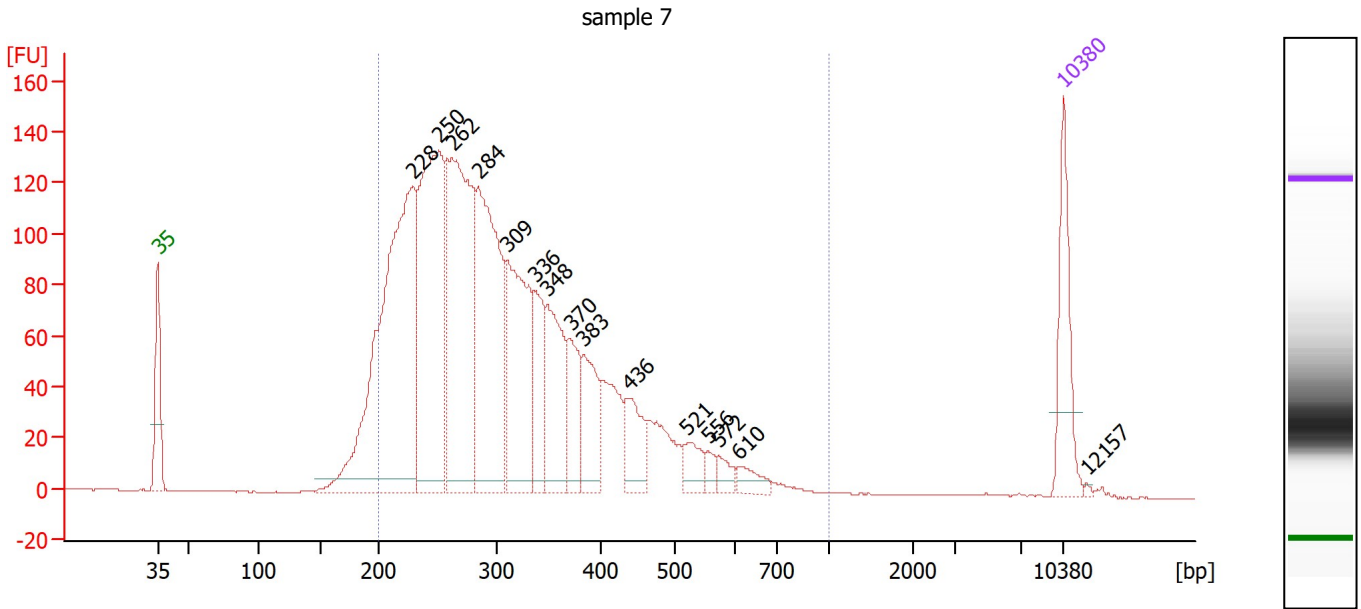
**Region table for sample 6 : sample 6**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,261.3	84	305	31.6	1,427.53	7,828.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 15                      Corr. Area 1: 2,788.4  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	228	637.69	4,233.2	
3	250	446.30	2,699.6	
4	262	426.22	2,468.5	
5	284	352.77	1,883.0	
6	309	238.17	1,166.6	
7	336	89.00	401.9	
8	348	139.99	609.5	
9	370	75.78	310.5	
10	383	83.89	331.9	
11	436	63.33	220.0	
12	521	29.64	86.2	
13	556	12.80	34.9	
14	572	15.70	41.6	
15	610	19.68	48.9	
16	10,380	75.00	10.9	Upper Marker
17	12,157	0.00	0.0	

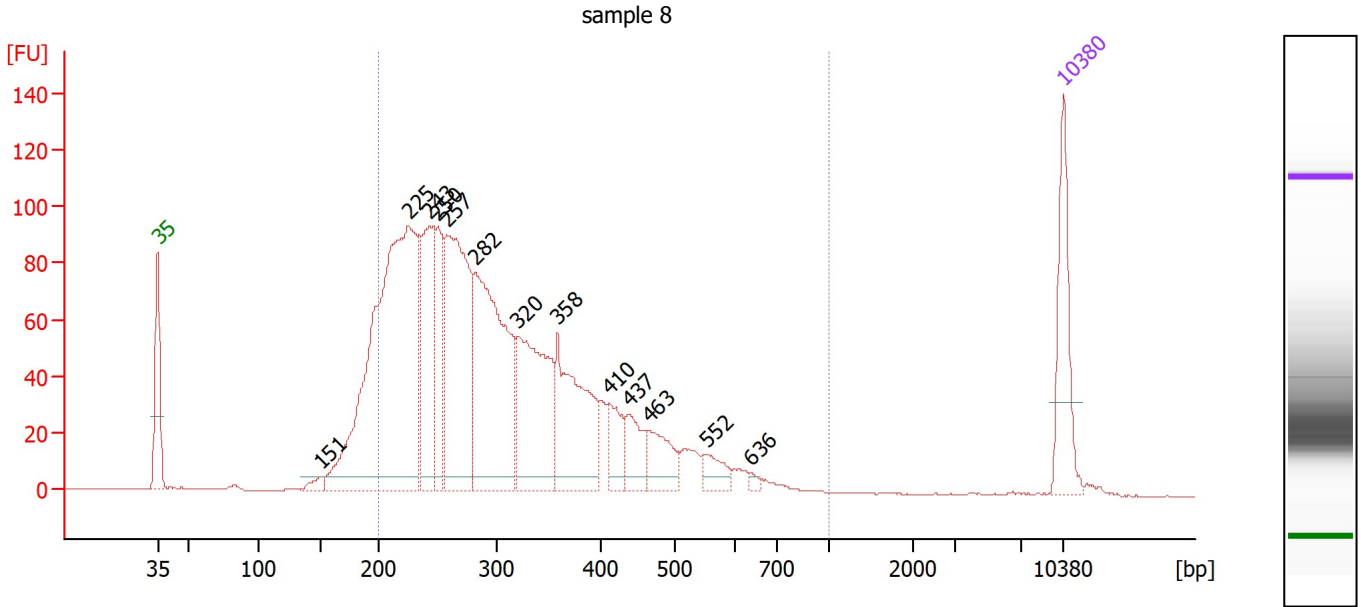
**Region table for sample 7 : sample 7**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,788.4	94	318	31.0	2,677.49	14,083.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 1,989.5  
 Noise: 0.2

**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	151	12.38	123.9	
3	225	677.31	4,564.4	
4	243	169.83	1,059.7	
5	250	102.87	624.6	
6	257	310.68	1,828.6	
7	282	333.99	1,797.1	
8	320	210.17	996.1	
9	358	170.82	722.7	
10	410	44.32	163.6	
11	437	45.23	156.7	
12	463	51.79	169.3	
13	552	24.64	67.7	
14	636	4.57	10.9	
15	10,380	75.00	10.9	Upper Marker

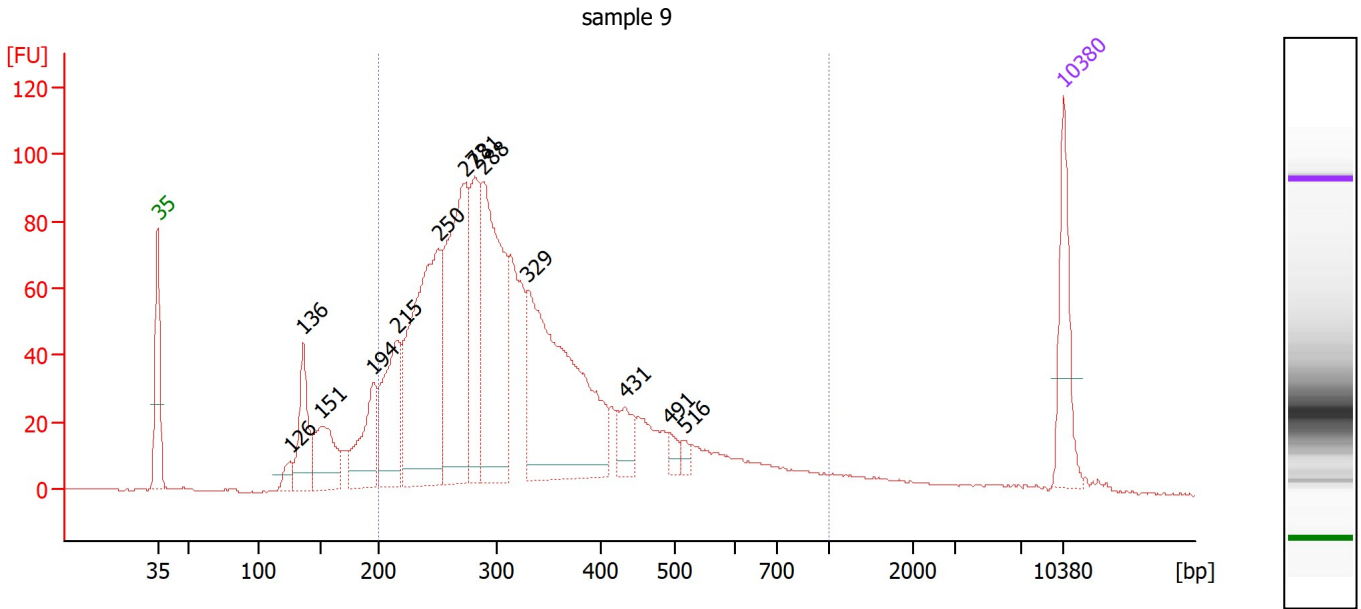
**Region table for sample 8 : sample 8**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,989.5	89	316	32.2	2,058.17	10,952.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
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**Electropherogram Summary Continued ...**



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

Number of peaks found: 13                      Corr. Area 1: 1,798.5  
 Noise: 0.2

**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	126	22.68	272.7	
3	136	105.28	1,168.9	
4	151	100.41	1,009.1	
5	194	108.20	843.0	
6	215	152.31	1,071.3	
7	250	390.24	2,364.2	
8	273	344.70	1,914.3	
9	281	157.10	846.0	
10	288	320.72	1,689.5	
11	329	419.18	1,927.8	
12	431	41.53	145.9	
13	491	14.89	45.9	
14	516	9.50	27.9	
15	10,380	75.00	10.9	Upper Marker

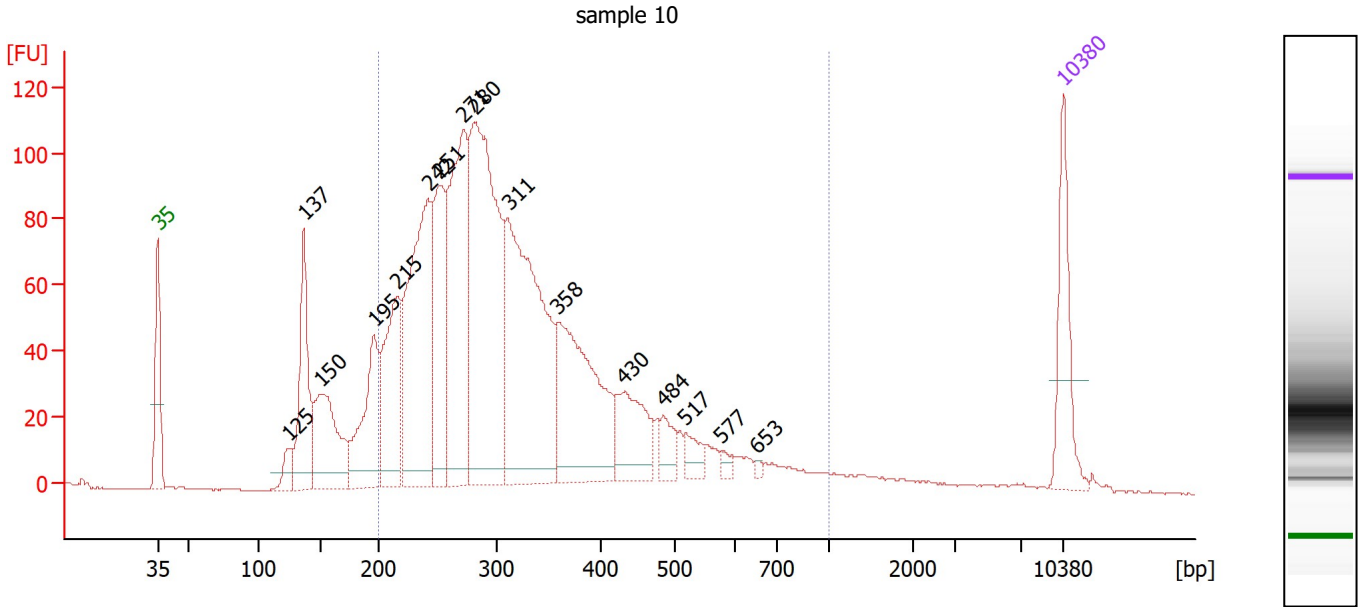
**Region table for sample 9 : sample 9**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,798.5	84	340	36.6	2,346.40	11,803.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 16      Corr. Area 1: 2,084.6  
 Noise: 0.3

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	125	29.01	351.8	
3	137	162.01	1,790.7	
4	150	159.44	1,606.8	
5	195	149.46	1,158.9	
6	215	178.90	1,262.1	
7	242	342.72	2,149.2	
8	251	189.38	1,144.3	
9	271	306.19	1,713.4	
10	280	493.95	2,668.4	
11	311	428.96	2,091.3	
12	358	259.02	1,097.6	
13	430	95.51	336.6	
14	484	30.13	94.4	
15	517	22.50	65.9	
16	577	7.71	20.2	
17	653	3.73	8.7	
18	10,380	75.00	10.9	Upper Marker

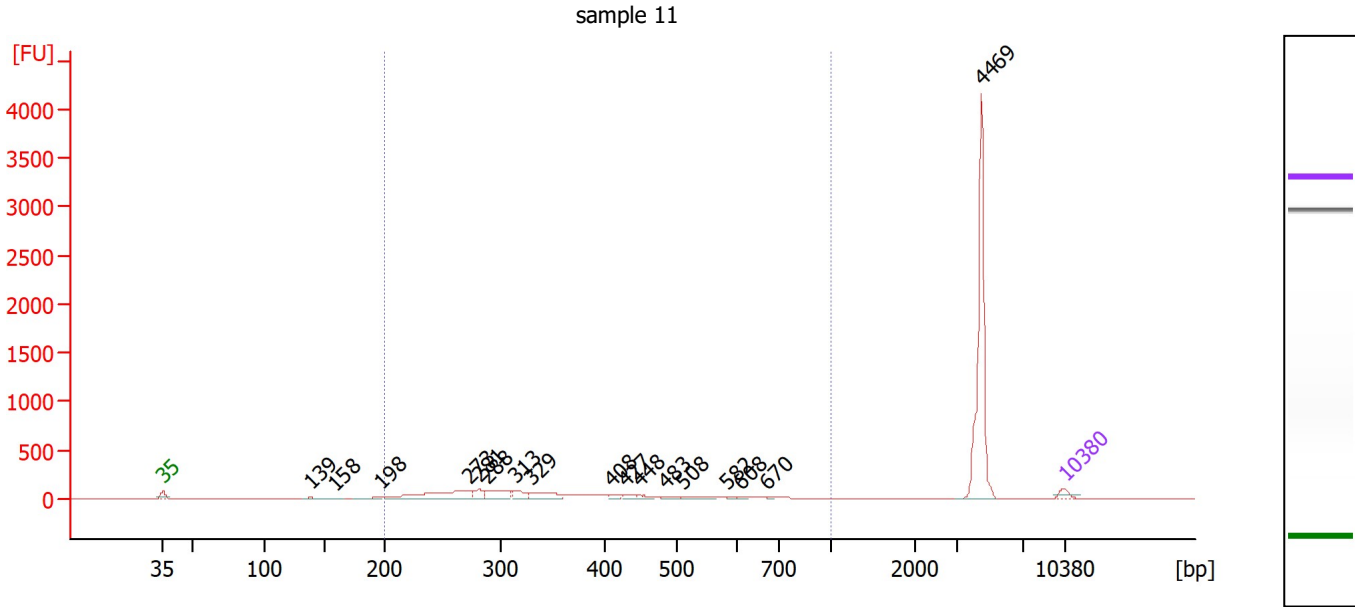
**Region table for sample 10 : sample 10**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	2,084.6	84	332	35.1	2,509.28	12,806.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 PM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 17                      Corr. Area 1: 1,878.7  
 Noise: 0.2

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	139	25.79	281.5	
3	158	24.27	232.2	
4	198	48.18	368.6	
5	273	705.04	3,909.3	
6	281	159.42	860.4	
7	288	311.91	1,643.1	
8	313	162.25	785.0	
9	329	259.74	1,195.2	
10	408	41.20	153.2	
11	427	44.91	159.4	
12	448	48.22	163.1	
13	483	51.06	160.2	
14	508	60.01	178.9	
15	582	11.72	30.5	
16	608	9.62	24.0	
17	670	5.68	12.9	
18	4,469	1,849.18	626.9	
19	10,380	75.00	10.9	Upper Marker

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

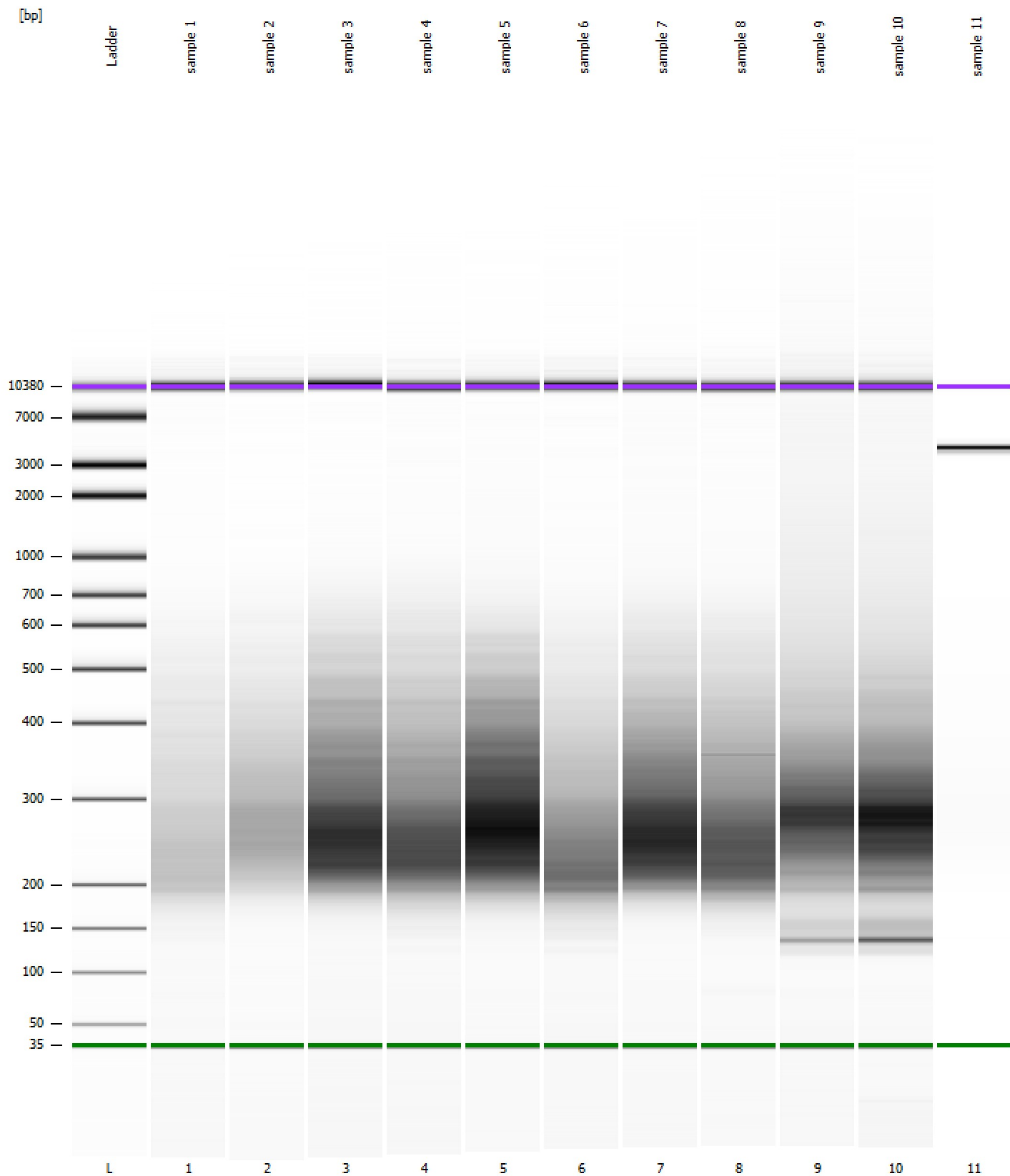
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,878.7	46	362	37.0	2,469.24	11,811.1	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
Modified: 2/6/2020 12:01:26 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2020-02-06\_001.xad

Created: 2/6/2020 11:20:02 AM  
 Modified: 2/6/2020 12:01:26 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		2/6/2020 12:01:23 PM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2020-02-06\Bioanalyze r1_High Sensitivity DNA Assay_2020-02-06_001.xad)		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		2/6/2020 11:20:07 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB