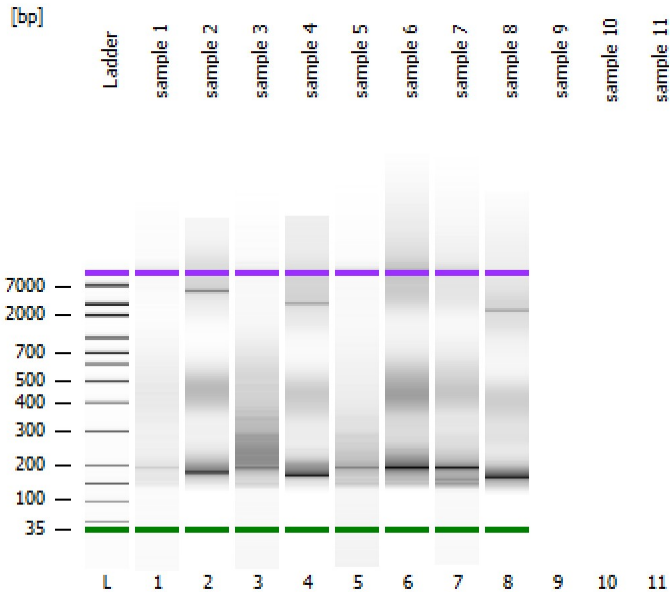


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
Modified: 11/19/2019 11:04:01 AM

**Electrophoresis File Run Summary**



Instrument Information:

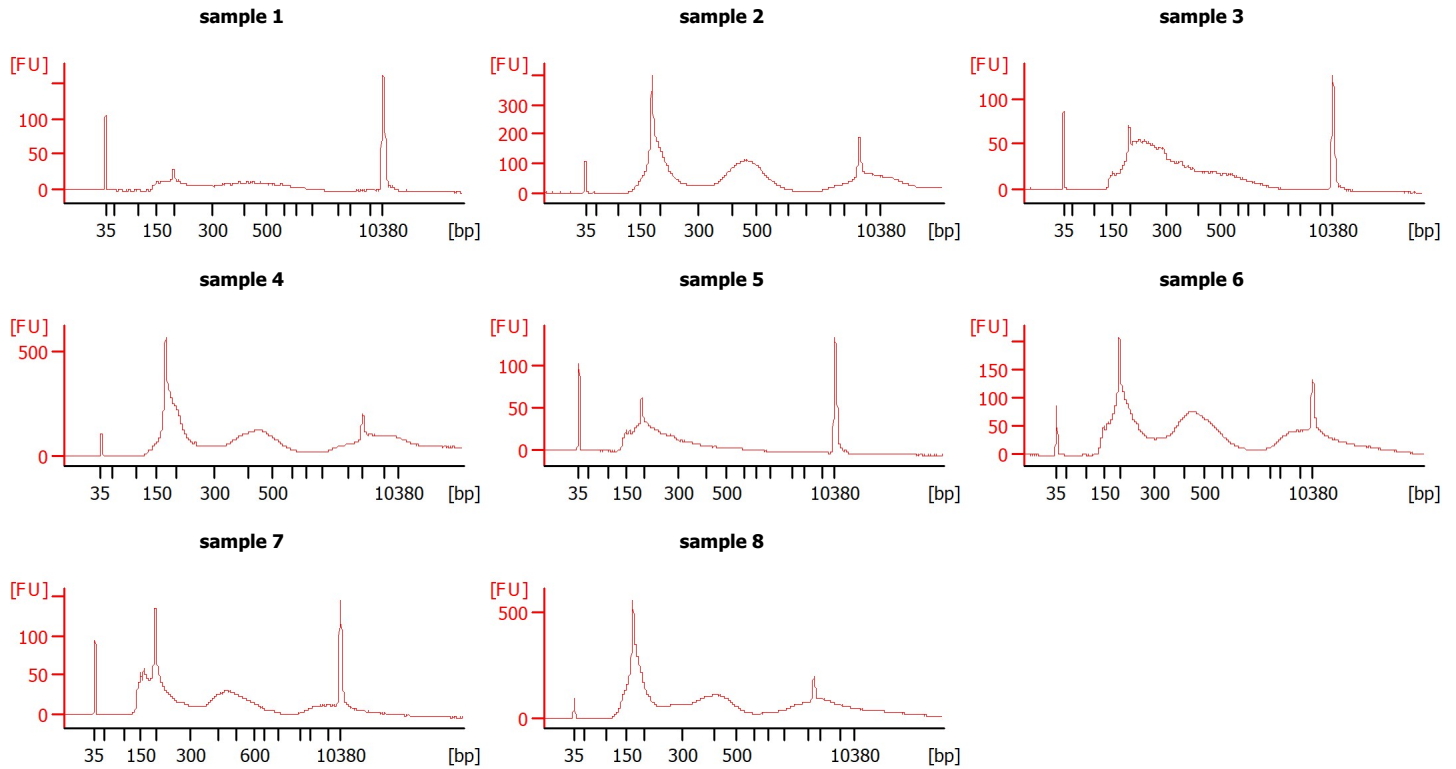
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files (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\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 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 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\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 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

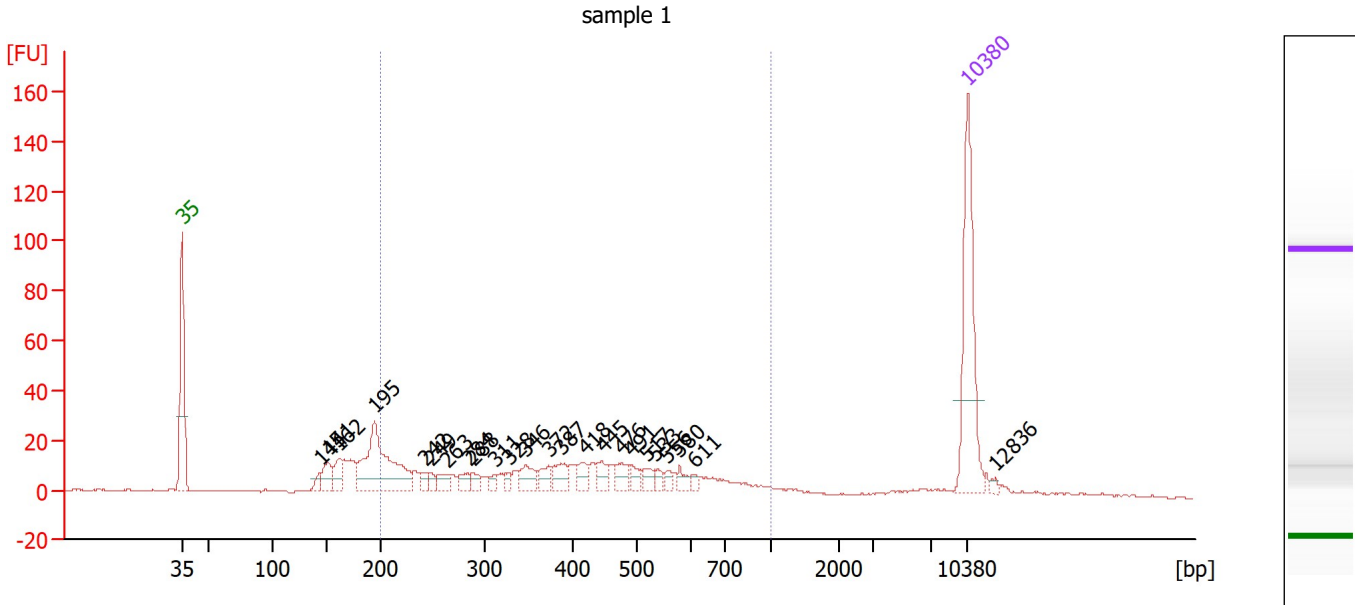
**Ladder**

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: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary**



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

Number of peaks found: 24                      Corr. Area 1: 405.8  
 Noise: 0.2

**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	144	8.28	87.4	
3	151	18.57	186.3	
4	162	18.93	177.6	
5	195	108.87	847.5	
6	242	6.65	41.6	
7	249	5.57	33.9	
8	263	9.88	56.8	
9	284	8.99	47.9	
10	288	7.20	37.9	
11	311	4.60	22.4	
12	328	4.77	22.0	
13	346	14.88	65.1	
14	372	9.59	39.0	
15	387	14.37	56.3	
16	418	10.49	38.0	
17	445	11.95	40.7	
18	476	11.52	36.7	
19	491	7.88	24.3	
20	517	7.95	23.3	
21	533	5.55	15.8	
22	556	4.49	12.2	
23	580	6.16	16.1	
24	611	3.39	8.4	
25	10,380	75.00	10.9	Upper Marker
26	12,836	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**

... Region table for sample 1 :

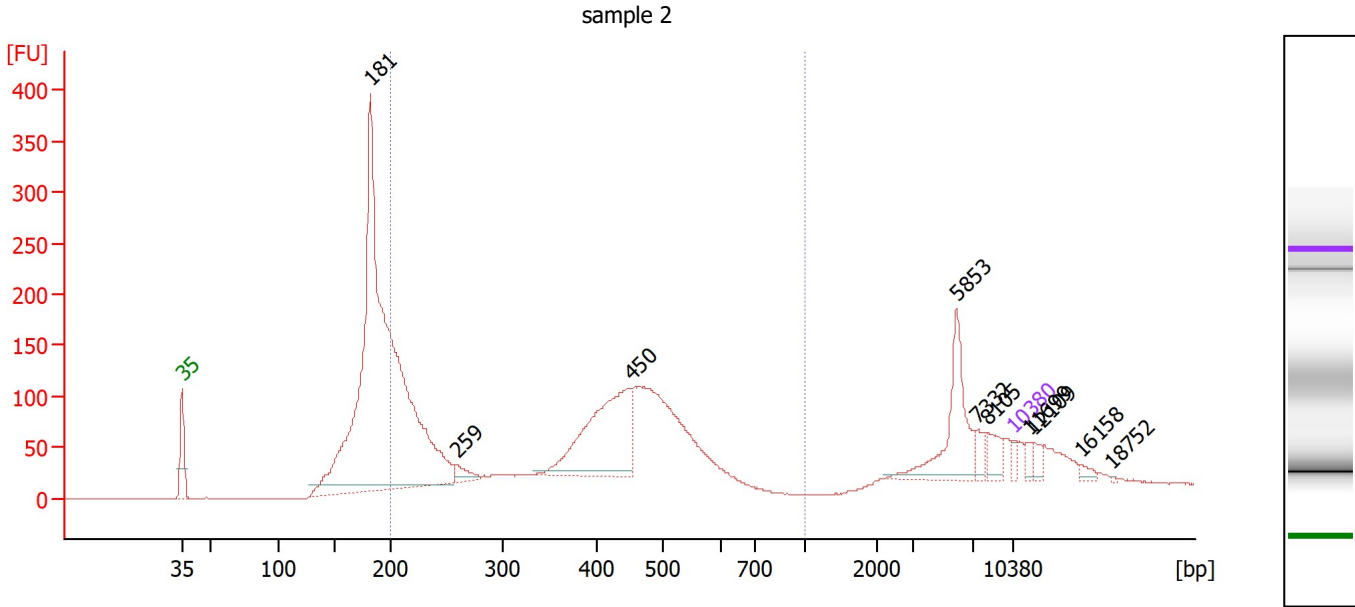
sample 1

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	405.8	68	420	38.6	312.05	1,383.1	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 10                      Corr. Area 1: 2,208.4  
 Noise: 0.3

**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	181	12,627.50	105,486.5	
3	259	203.46	1,189.3	
4	450	2,378.02	8,002.1	
5	5,853	1,010.78	261.7	
6	7,332	147.02	30.4	
7	8,105	223.18	41.7	
8	10,380	75.00	10.9	Upper Marker
9	11,699	0.00	0.0	
10	12,109	0.00	0.0	
11	16,158	0.00	0.0	
12	18,752	0.00	0.0	

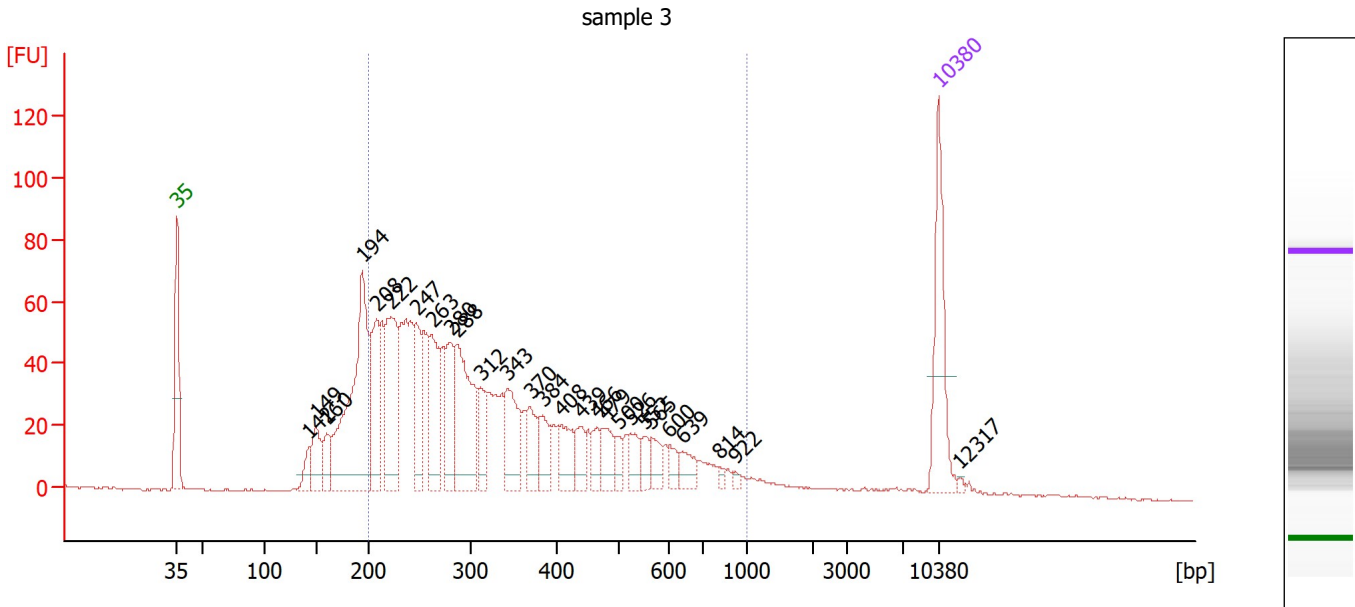
**Region table for sample 2 : sample 2**

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	2,208.4	53	386	31.6	11,993.36	56,966.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 27                      Corr. Area 1: 1,385.0  
 Noise: 0.3

**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	142	23.21	247.7	
3	149	45.66	463.8	
4	160	31.26	296.9	
5	194	279.01	2,177.8	
6	208	97.08	706.4	
7	222	133.79	913.4	
8	247	67.47	413.5	
9	263	92.86	536.0	
10	280	67.03	362.2	
11	288	143.57	755.8	
12	312	42.92	208.7	
13	343	70.74	312.4	
14	370	37.86	155.2	
15	384	34.54	136.1	
16	408	37.90	140.9	
17	439	24.54	84.7	
18	466	19.98	64.9	
19	479	29.69	93.9	
20	500	13.07	39.6	
21	526	21.00	60.5	
22	552	14.67	40.3	
23	565	19.16	51.4	
24	600	12.62	31.9	
25	639	19.22	45.6	
26	814	4.36	8.1	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	922	3.66	6.0	
28	10,380	75.00	10.9	Upper Marker
29	12,317	0.00	0.0	

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

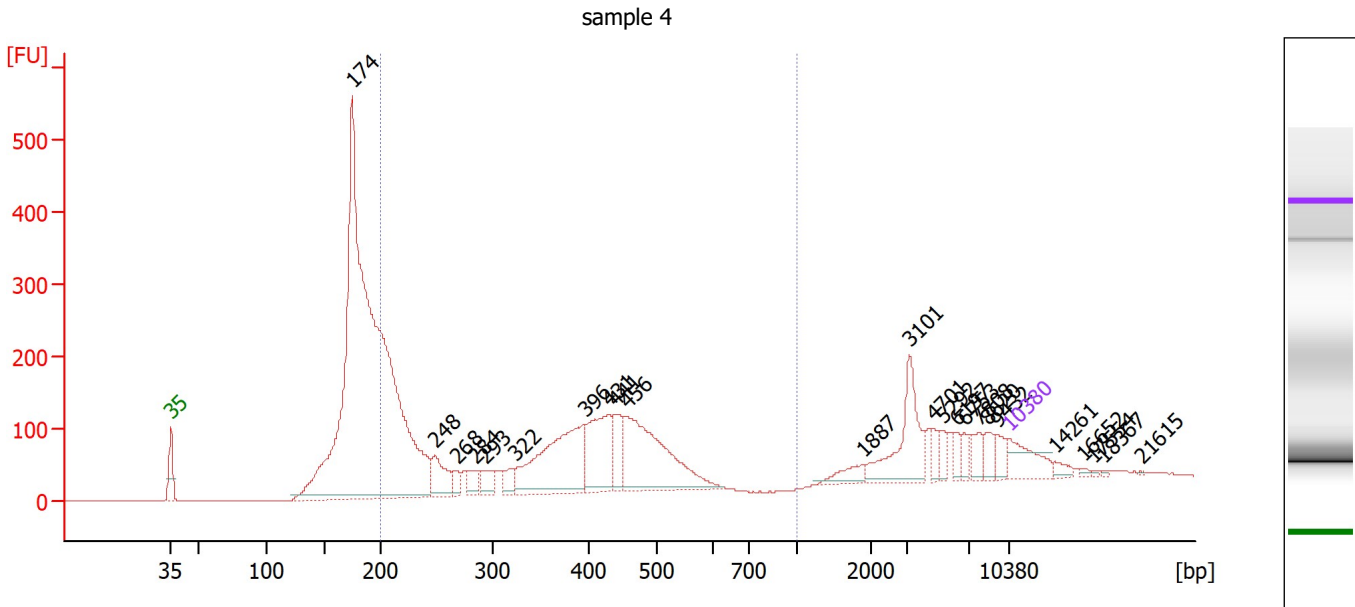
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	1,385.0	80	357	41.8	1,525.08	7,750.0	■



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 24                      Corr. Area 1: 2,602.9  
 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	174	3,124.68	27,152.4	
3	248	114.16	697.3	
4	268	36.22	205.0	
5	284	52.57	280.5	
6	293	48.42	250.8	
7	322	45.72	215.0	
8	396	396.46	1,516.3	
9	431	225.49	793.3	
10	441	93.83	322.5	
11	456	406.76	1,352.3	
12	1,887	40.24	32.3	
13	3,101	176.12	86.0	
14	4,701	28.35	9.1	
15	5,292	25.65	7.3	
16	6,197	24.31	5.9	
17	6,753	23.60	5.3	
18	7,808	35.13	6.8	
19	8,620	32.95	5.8	
20	9,432	29.91	4.8	
21	10,380	75.00	10.9	Upper Marker
22	14,261	0.00	0.0	
23	16,652	0.00	0.0	
24	17,554	0.00	0.0	
25	18,367	0.00	0.0	
26	21,615	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**

... Region table for sample 4 :

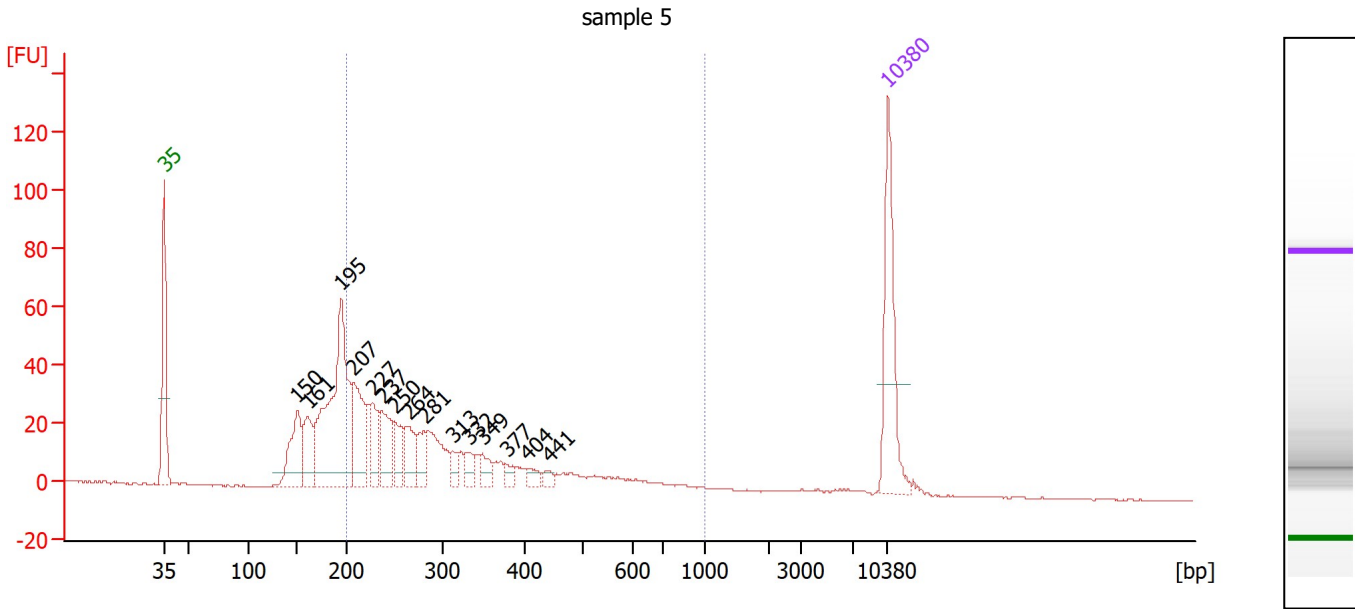
sample 4

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	2,602.9	46	354	30.8	2,141.33	10,784.3	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 15                      Corr. Area 1: 544.6  
 Noise: 0.3

**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	150	70.26	708.5	
3	161	49.81	470.0	
4	195	237.03	1,843.4	
5	207	79.19	578.3	
6	227	39.94	266.1	
7	237	49.01	313.5	
8	250	30.94	187.4	
9	264	35.44	203.4	
10	281	22.43	121.1	
11	313	12.45	60.2	
12	332	12.85	58.7	
13	349	15.81	68.7	
14	377	8.29	33.3	
15	404	9.14	34.3	
16	441	6.17	21.2	
17	10,380	75.00	10.9	Upper Marker

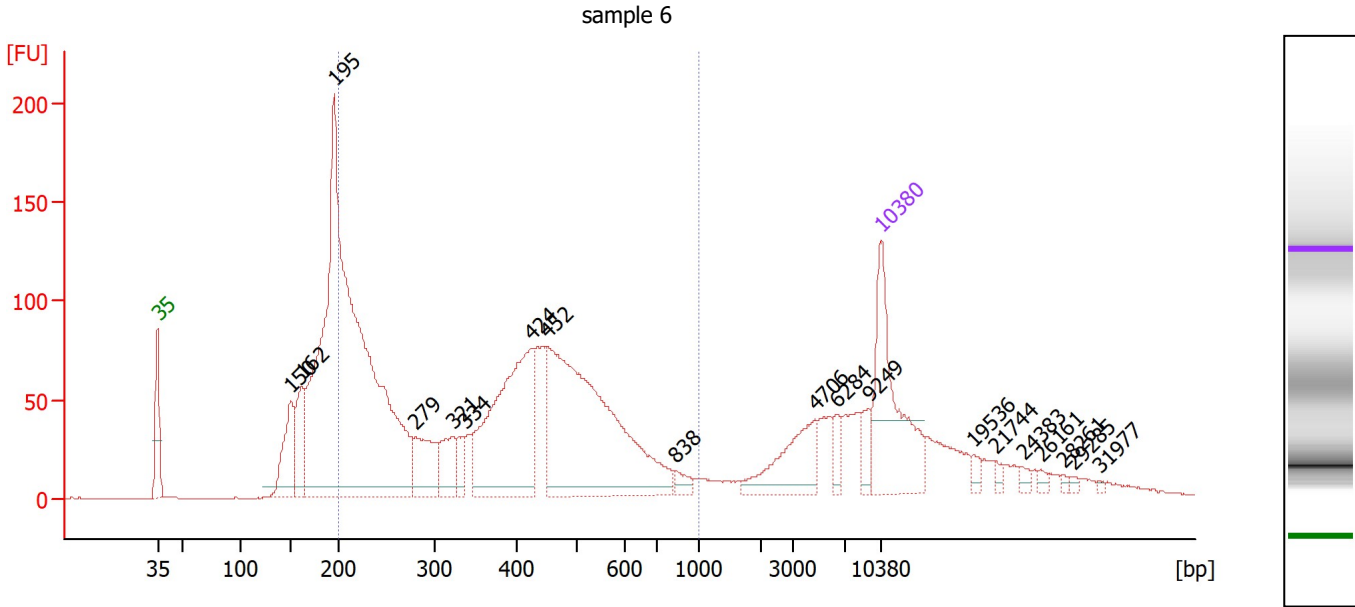
**Region table for sample 5 : sample 5**

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	544.6	64	322	40.9	532.39	2,901.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 19                      Corr. Area 1: 2,214.9  
 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	150	59.45	598.7	
3	162	50.41	472.5	
4	195	687.62	5,351.0	
5	279	46.77	254.4	
6	321	30.44	143.6	
7	334	13.39	60.6	
8	424	165.06	590.5	
9	452	265.45	890.7	
10	838	7.34	13.3	
11	4,706	42.25	13.6	
12	6,284	8.95	2.2	
13	9,249	10.64	1.7	
14	10,380	75.00	10.9	Upper Marker
15	19,536	0.00	0.0	
16	21,744	0.00	0.0	
17	24,383	0.00	0.0	
18	26,161	0.00	0.0	
19	28,261	0.00	0.0	
20	29,285	0.00	0.0	
21	31,977	0.00	0.0	

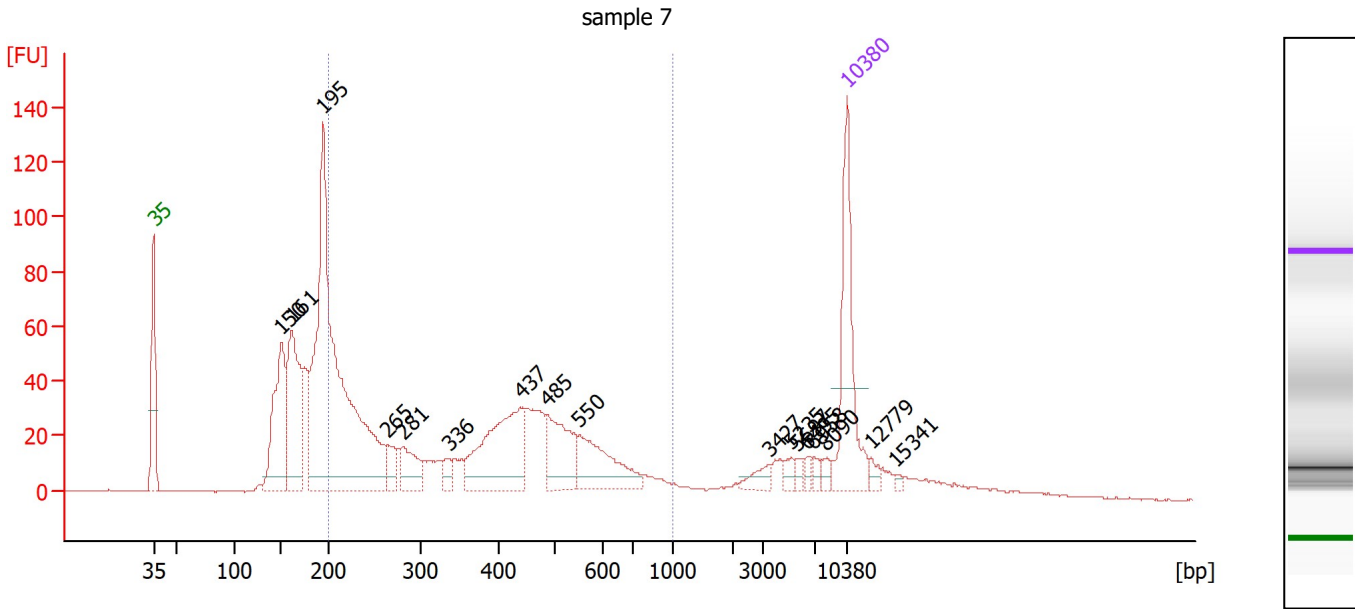
**Region table for sample 6 : sample 6**

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	2,214.9	61	395	38.3	964.88	4,568.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 17                      Corr. Area 1: 940.2  
 Noise: 0.3

**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	150	124.75	1,256.5	
3	161	133.37	1,253.6	
4	195	485.46	3,778.8	
5	265	17.67	101.2	
6	281	35.30	190.1	
7	336	11.77	53.0	
8	437	116.98	405.6	
9	485	60.55	189.0	
10	550	61.80	170.1	
11	3,427	9.68	4.3	
12	5,235	5.89	1.7	
13	5,697	4.81	1.3	
14	6,495	4.05	0.9	
15	6,958	4.22	0.9	
16	8,090	5.16	1.0	
17	10,380	75.00	10.9	Upper Marker
18	12,779	0.00	0.0	
19	15,341	0.00	0.0	

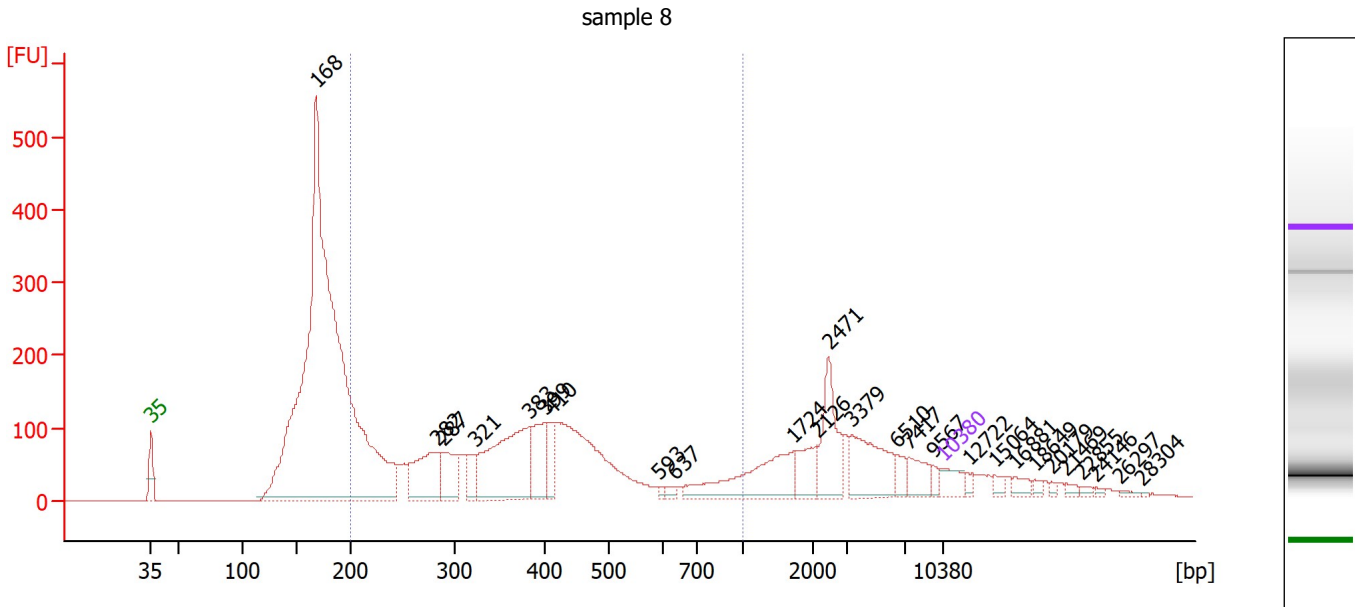
**Region table for sample 7 : sample 7**

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	940.2	55	396	39.9	705.46	3,369.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**



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

Number of peaks found: 26                      Corr. Area 1: 2,961.0  
 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	168	5,971.45	53,713.6	
3	282	403.95	2,167.3	
4	287	265.21	1,397.8	
5	321	129.03	609.1	
6	383	729.45	2,887.5	
7	399	258.07	979.0	
8	410	126.69	468.2	
9	593	14.71	37.6	
10	637	24.81	59.0	
11	1,724	378.05	332.2	
12	2,126	135.27	96.4	
13	2,471	267.52	164.0	
14	3,379	292.82	131.3	
15	6,510	51.92	12.1	
16	7,417	105.11	21.5	
17	9,567	25.00	4.0	
18	10,380	75.00	10.9	Upper Marker
19	12,722	0.00	0.0	
20	15,064	0.00	0.0	
21	16,881	0.00	0.0	
22	18,649	0.00	0.0	
23	20,179	0.00	0.0	
24	21,469	0.00	0.0	
25	22,855	0.00	0.0	
26	24,146	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Electropherogram Summary Continued ...**

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

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	26,297	0.00	0.0	
28	28,304	0.00	0.0	

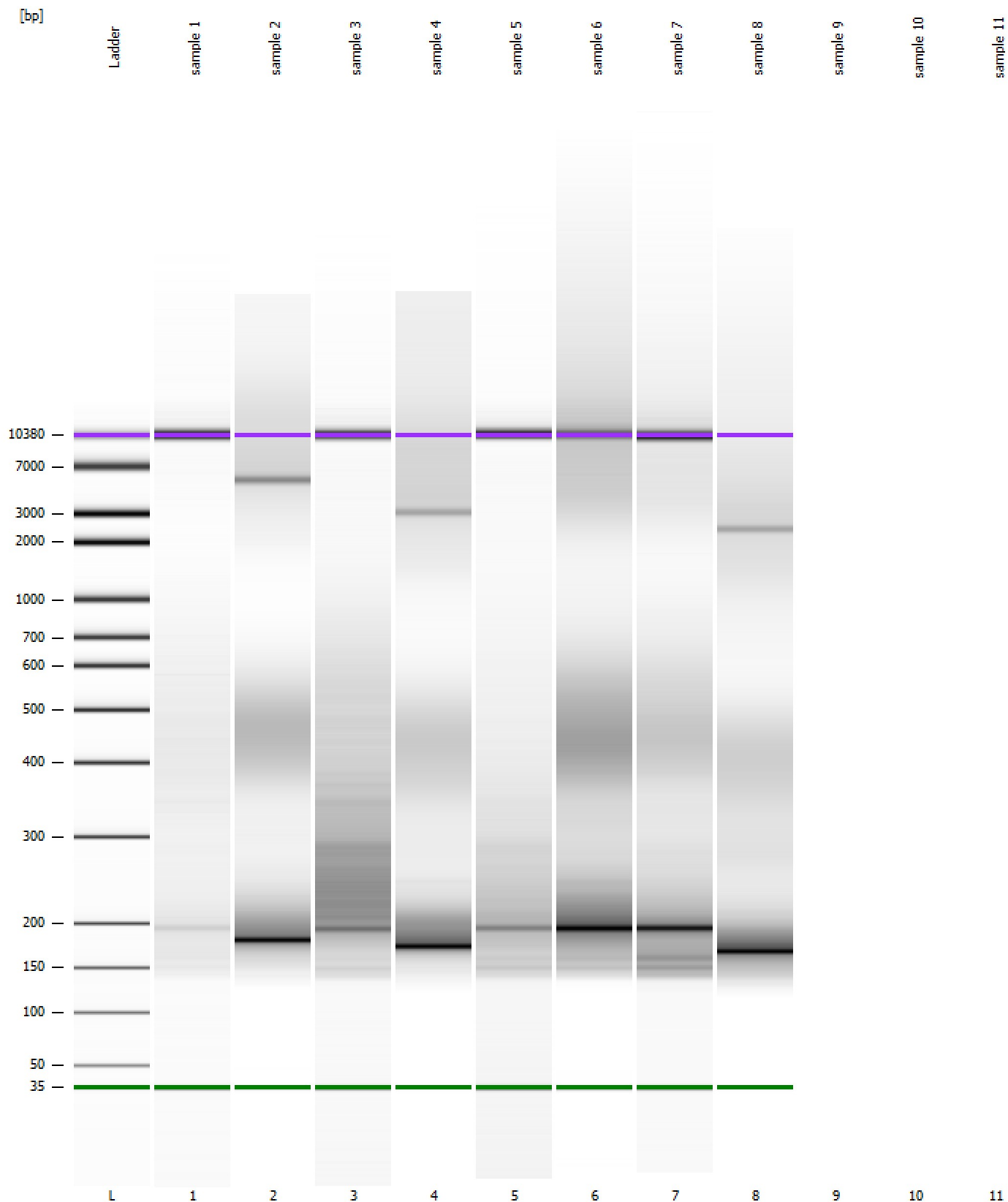
**Region table for sample 8 : sample 8**

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	2,961.0	41	386	39.2	4,244.76	19,884.6	

Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
Modified: 11/19/2019 11:04:01 AM

**Gel Image**



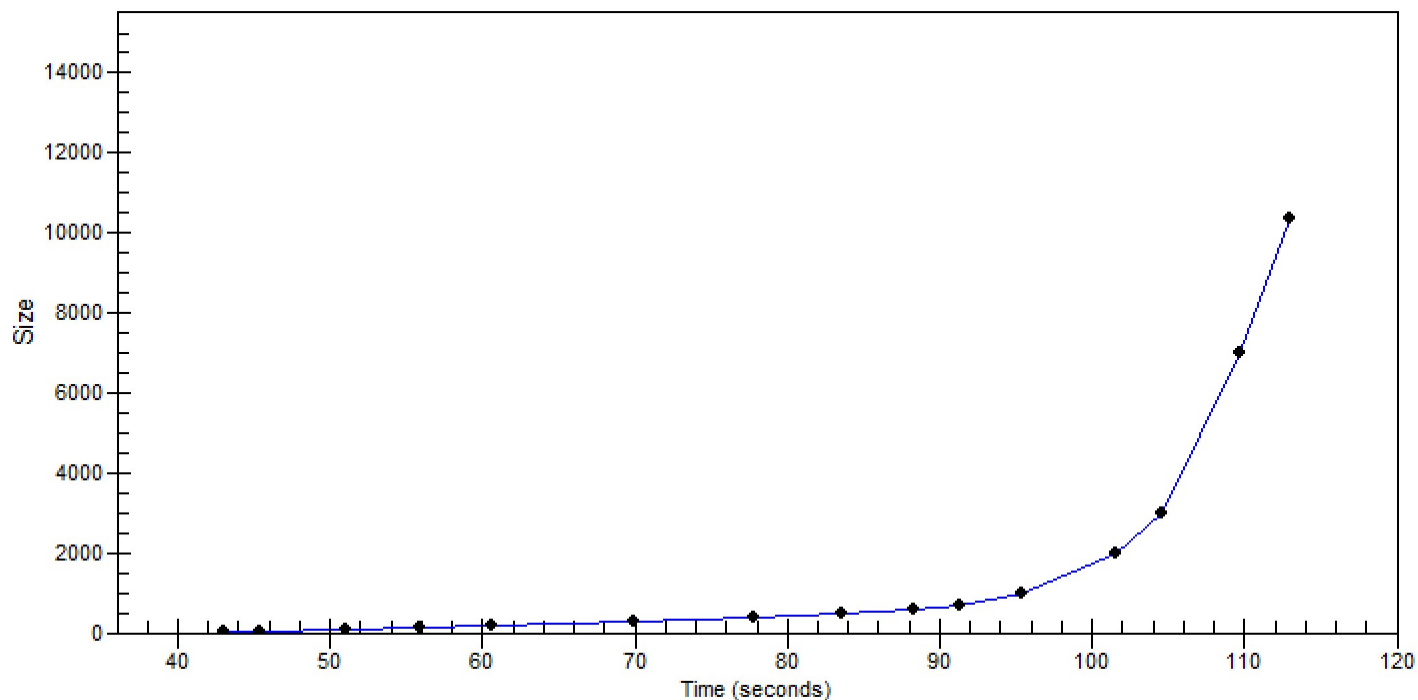


Assay Class: High Sensitivity DNA Assay  
Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
Modified: 11/19/2019 11:04:01 AM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: Z:\...\Bioanalyzer1\_High Sensitivity DNA Assay\_2019-11-19\_001.xad

Created: 11/19/2019 10:31:15 AM  
 Modified: 11/19/2019 11:04:01 AM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		11/19/2019 11:03:59 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Run started on port 1 (File: Z:\XADs\2019-11-19\Bioanalyze r1_High Sensitivity DNA Assay_2019-11-19_001.xad)		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Product Number : G2938C		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Name :		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Vendor : Agilent Technologies		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Serial# : DE34903152		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Firmware : C.01.069		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB
Cartridge : Electrode		Instrument	Run		11/19/2019 10:31:20 AM	(GMT --08:00) Pacific Standard Time	sbsuser	DESKTOP-4UNV VOB