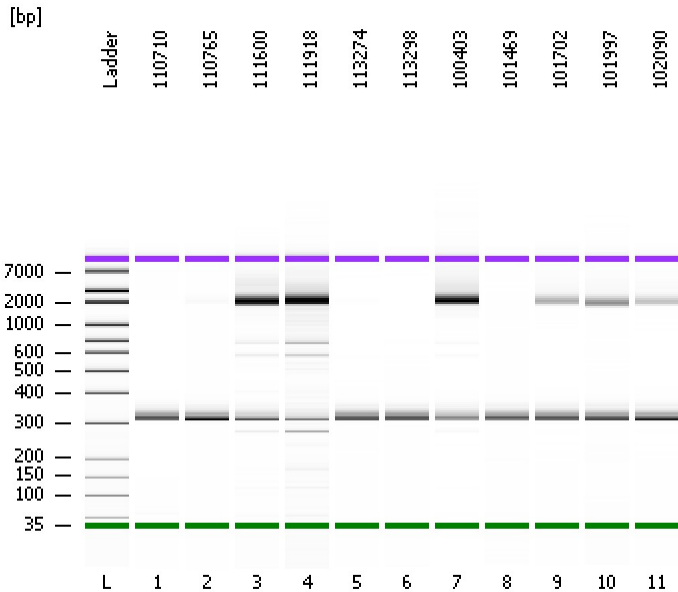


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
Modified: 11/1/2019 11:23:20 AM

Electrophoresis File Run Summary



Instrument Information:

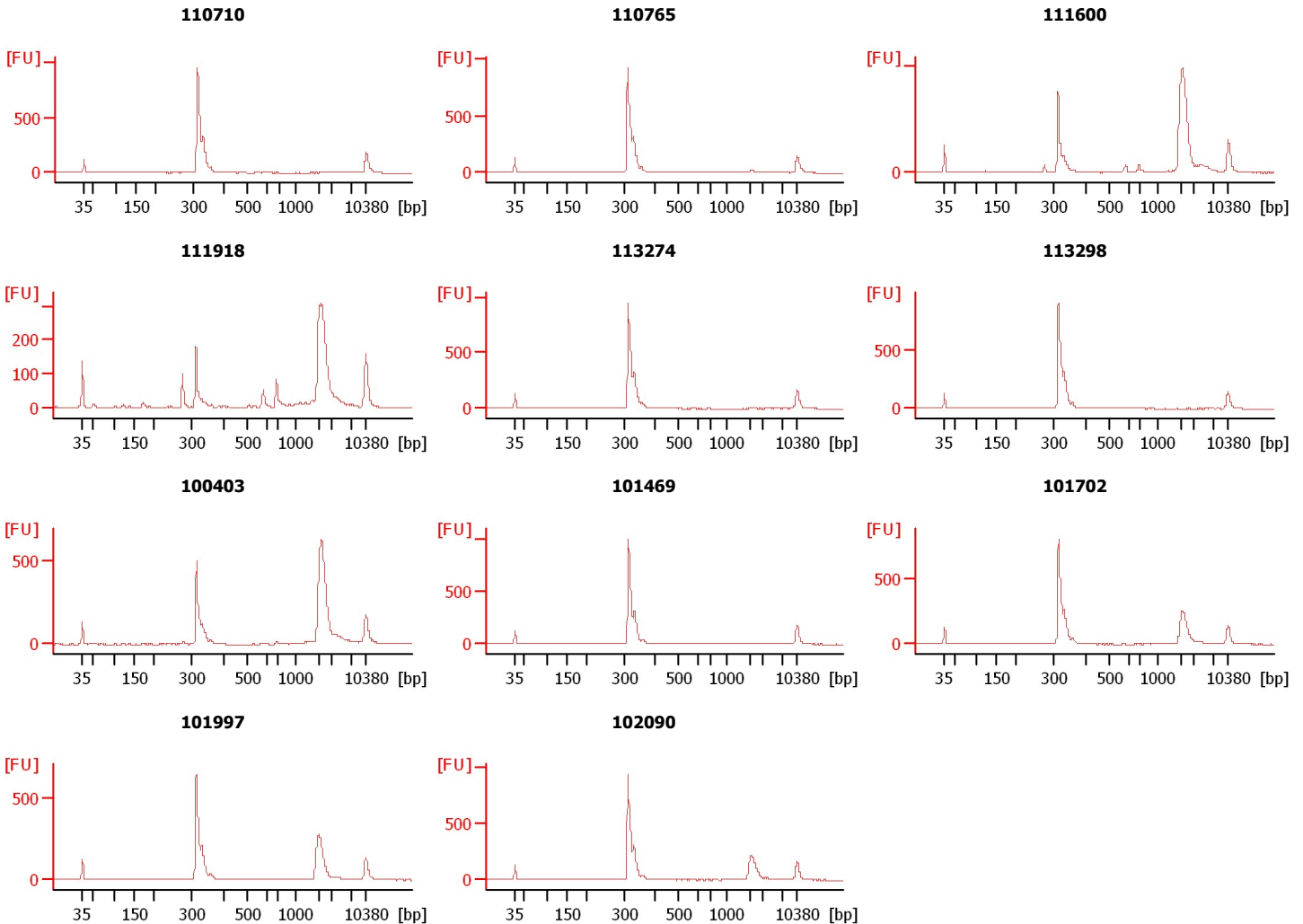
Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

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\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
110710		<input type="checkbox"/>	✓			
110765		<input type="checkbox"/>	✓			
111600		<input type="checkbox"/>	✓			
111918		<input type="checkbox"/>	✓			
113274		<input type="checkbox"/>	✓			
113298		<input type="checkbox"/>	✓			
100403		<input type="checkbox"/>	✓			
101469		<input type="checkbox"/>	✓			
101702		<input type="checkbox"/>	✓			
101997		<input type="checkbox"/>	✓			
102090		<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\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
Modified: 11/1/2019 11:23:20 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

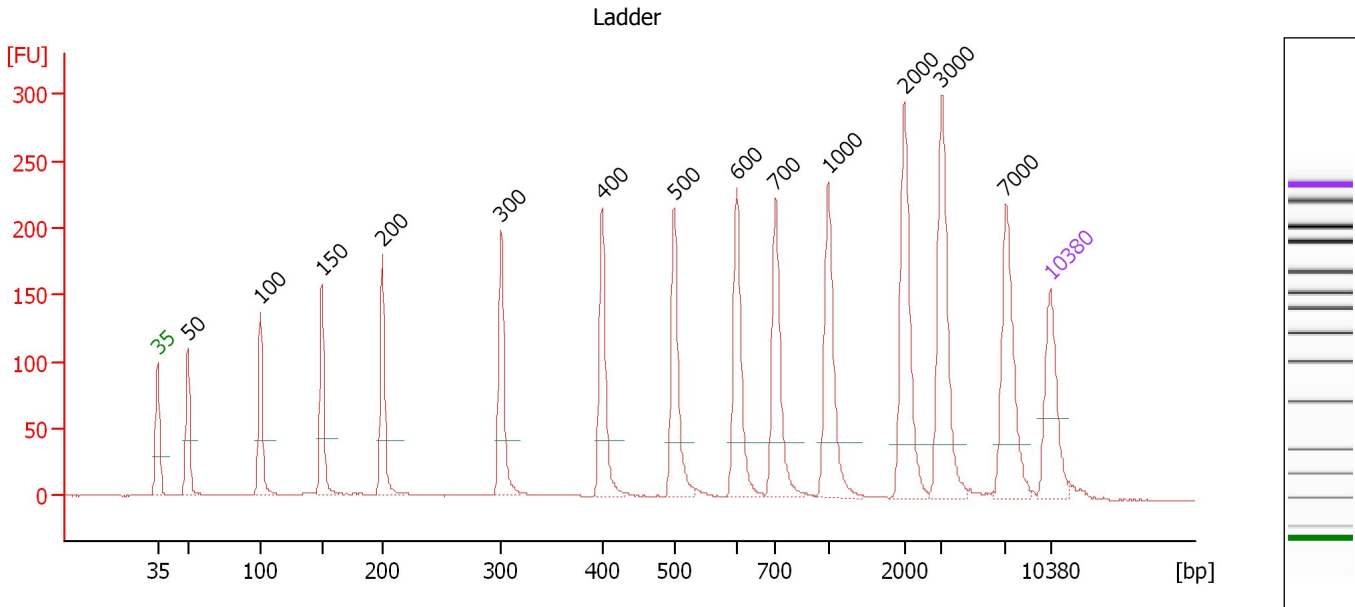
Ladder

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\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.3

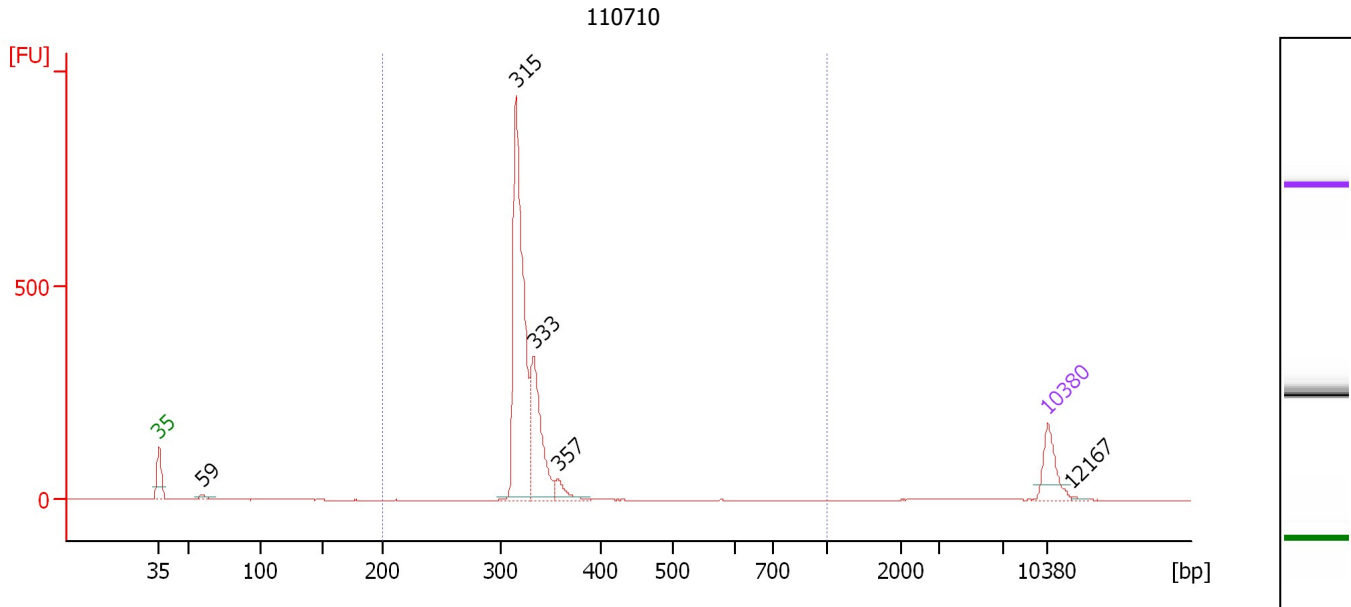
Peak table for Ladder

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.07
4	150	150.00	1,515.2	Ladder Peak	55.89
5	200	150.00	1,136.4	Ladder Peak	60.62
6	300	150.00	757.6	Ladder Peak	69.91
7	400	150.00	568.2	Ladder Peak	77.85
8	500	150.00	454.5	Ladder Peak	83.50
9	600	150.00	378.8	Ladder Peak	88.41
10	700	150.00	324.7	Ladder Peak	91.43
11	1,000	150.00	227.3	Ladder Peak	95.55
12	2,000	150.00	113.6	Ladder Peak	101.52
13	3,000	150.00	75.8	Ladder Peak	104.45
14	7,000	150.00	32.5	Ladder Peak	109.49
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 110710

Number of peaks found: 5 Corr. Area 1: 1,839.3
 Noise: 0.3

Peak table for sample 1 : 110710

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	59	13.86	357.9		46.35
3	315	784.80	3,773.1		71.11
4	333	293.61	1,336.1		72.53
5	357	41.92	178.0		74.42
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,167	0.00	0.0		114.85

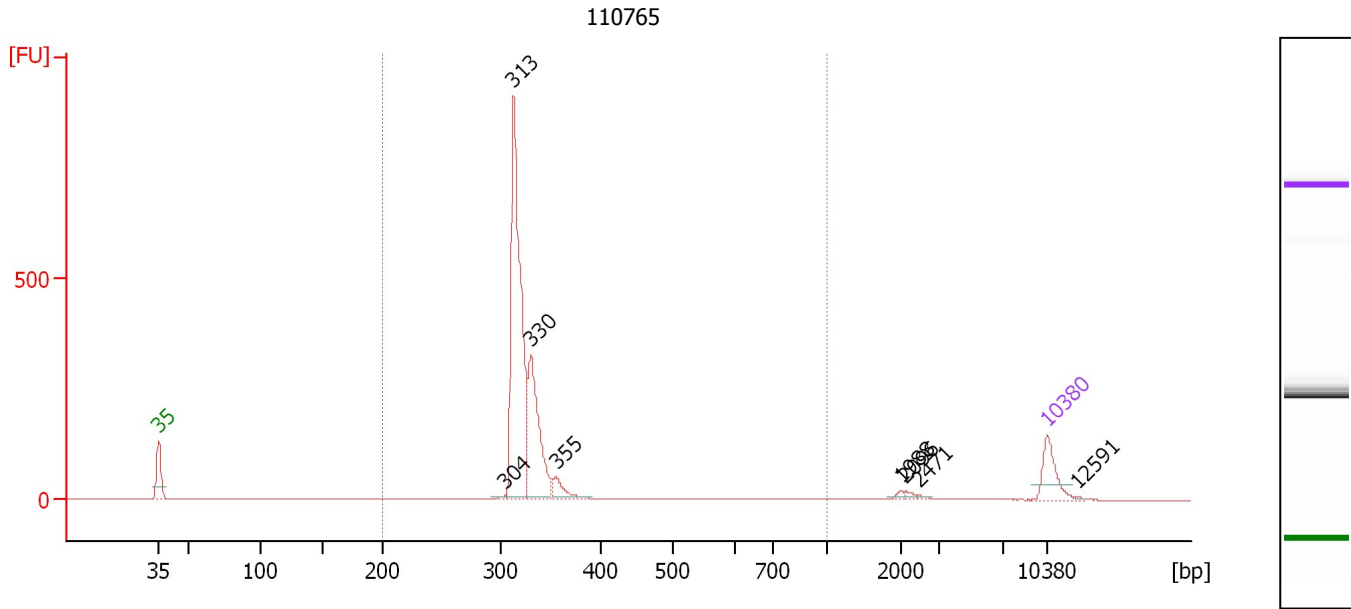
Region table for sample 1 : 110710

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	329	1,131.64	1,839.3	5,248.6	94	11.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 110765

Number of peaks found: 8 Corr. Area 1: 1,806.2
 Noise: 0.3

Peak table for sample 2 : 110765

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	304	4.08	20.3		70.26
3	313	869.43	4,212.7		70.92
4	330	349.22	1,603.7		72.29
5	355	54.86	234.2		74.27
6	1,988	7.23	5.5		101.44
7	2,096	7.15	5.2		101.80
8	2,471	4.07	2.5		102.90
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,591	0.00	0.0		115.29

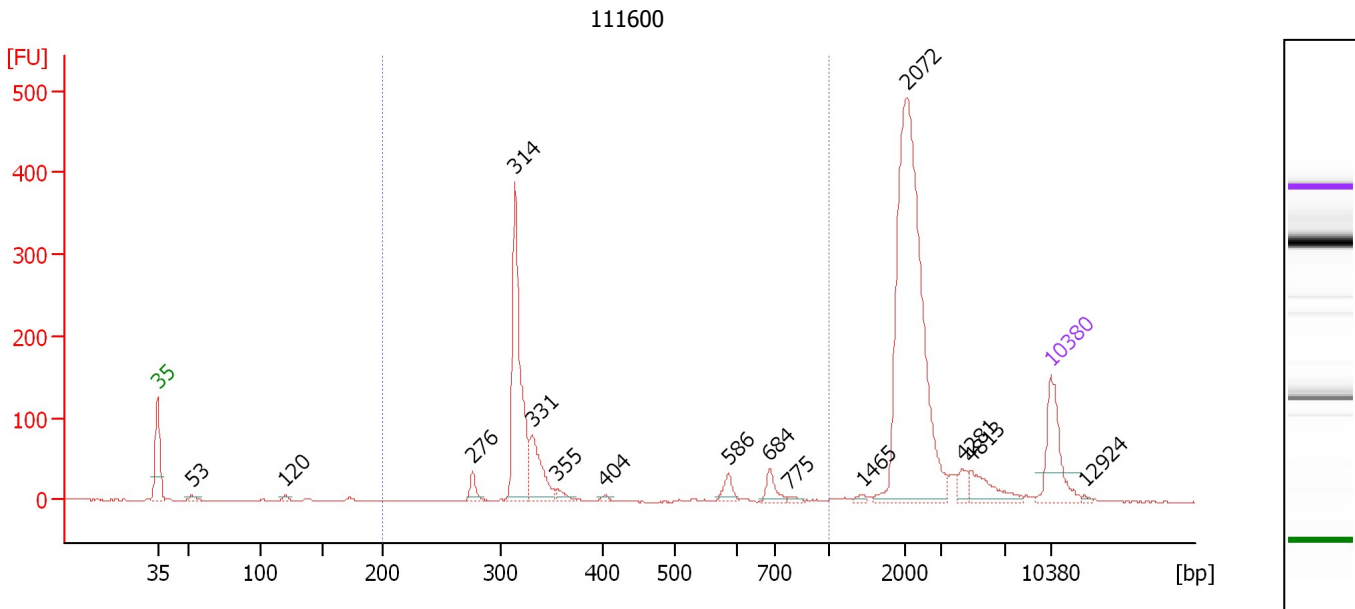
Region table for sample 2 : 110765

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	331	1,330.63	1,806.2	6,199.7	94	16.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 111600

Number of peaks found: 15 Corr. Area 1: 685.1
 Noise: 0.4

Peak table for sample 3 : 111600

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	53	7.14	205.0		45.68
3	120	5.48	69.1		53.02
4	276	21.64	118.8		67.69
5	314	284.44	1,373.8		71.00
6	331	89.80	410.8		72.39
7	355	12.35	52.7		74.31
8	404	4.28	16.1		78.07
9	586	19.23	49.7		87.73
10	684	22.35	49.5		90.95
11	775	4.53	8.9		92.47
12	1,465	4.44	4.6		98.33
13	2,072	515.71	377.1		101.73
14	4,281	14.53	5.1		106.07
15	4,813	38.98	12.3		106.74
16	10,380	75.00	10.9	Upper Marker	113.00
17	12,924	0.00	0.0		115.64

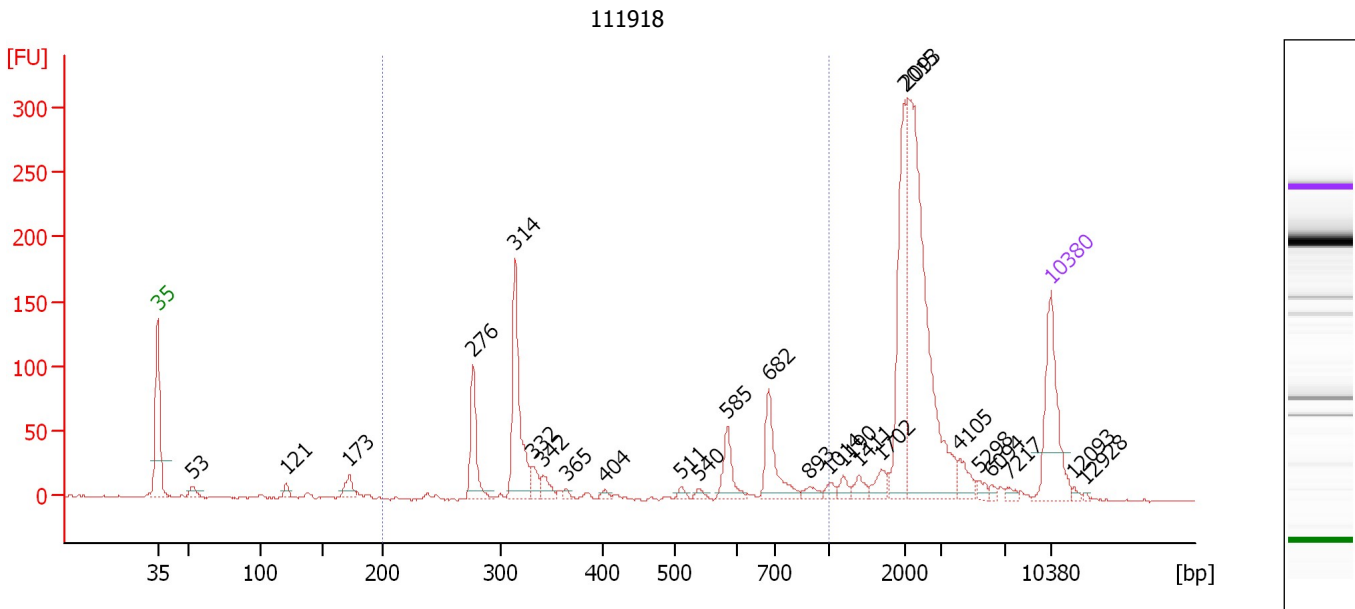
Region table for sample 3 : 111600

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	374	458.62	685.1	2,047.5	34	34.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 111918

Number of peaks found: 26 Corr. Area 1: 525.5
 Noise: 1.0

Peak table for sample 4 : 111918

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	53	11.72	336.3		45.69
3	121	8.24	103.3		53.07
4	173	18.71	164.1		58.04
5	276	63.19	346.7		67.70
6	314	131.94	636.6		71.03
7	332	15.95	72.8		72.44
8	342	14.93	66.2		73.21
9	365	3.86	16.0		75.04
10	404	4.01	15.1		78.05
11	511	4.74	14.0		84.06
12	540	4.37	12.3		85.47
13	585	32.69	84.7		87.66
14	682	55.56	123.4		90.90
15	893	7.73	13.1		94.09
16	1,014	6.97	10.4		95.64
17	1,190	8.39	10.7		96.68
18	1,411	10.10	10.8		98.01
19	1,702	13.43	12.0		99.74
20	2,015	115.36	86.7		101.56
21	2,093	273.07	197.7		101.79
22	4,105	16.02	5.9		105.85
23	5,298	5.57	1.6		107.35
24	6,094	3.54	0.9		108.35
25	7,217	3.88	0.8		109.72

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...**... Peak table for sample 4 : 111918**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00
27	12,093	0.00	0.0		114.78
28	12,928	0.00	0.0		115.64

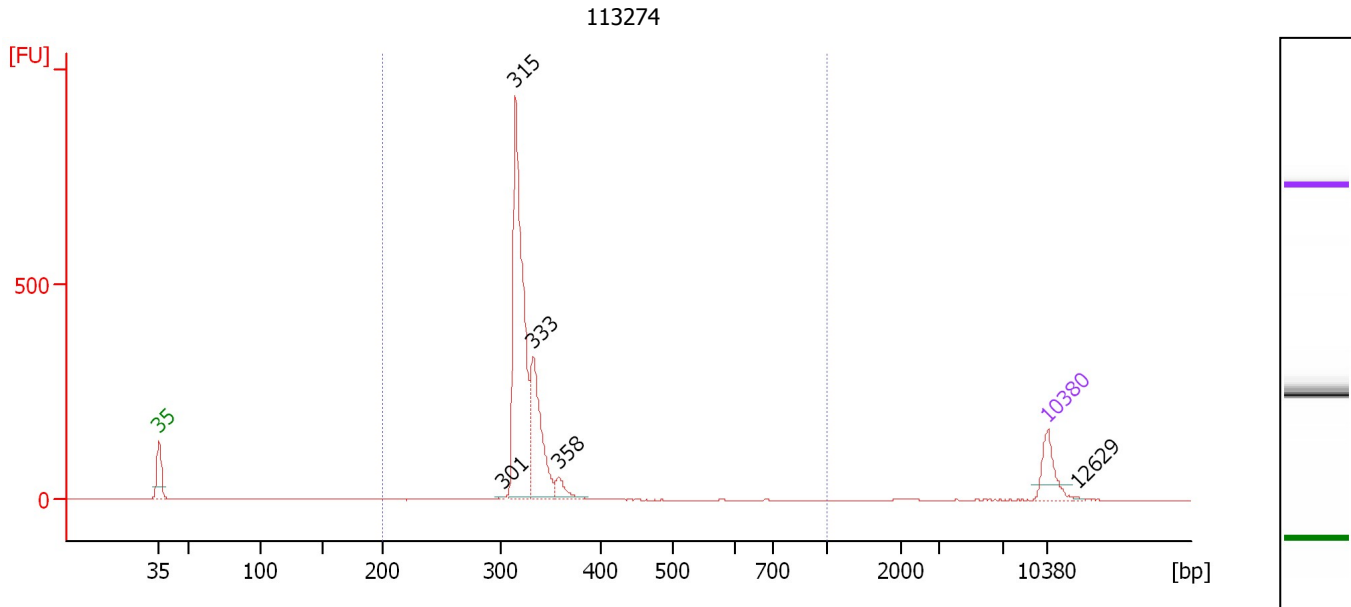
Region table for sample 4 : 111918

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ μ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	464	364.94	525.5	1,483.0	34	41.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 113274

Number of peaks found: 5 Corr. Area 1: 1,763.2
 Noise: 0.6

Peak table for sample 5 : 113274

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	301	2.85	14.4		70.02
3	315	838.60	4,035.2		71.09
4	333	322.80	1,470.8		72.49
5	358	47.40	200.7		74.50
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,629	0.00	0.0		115.33

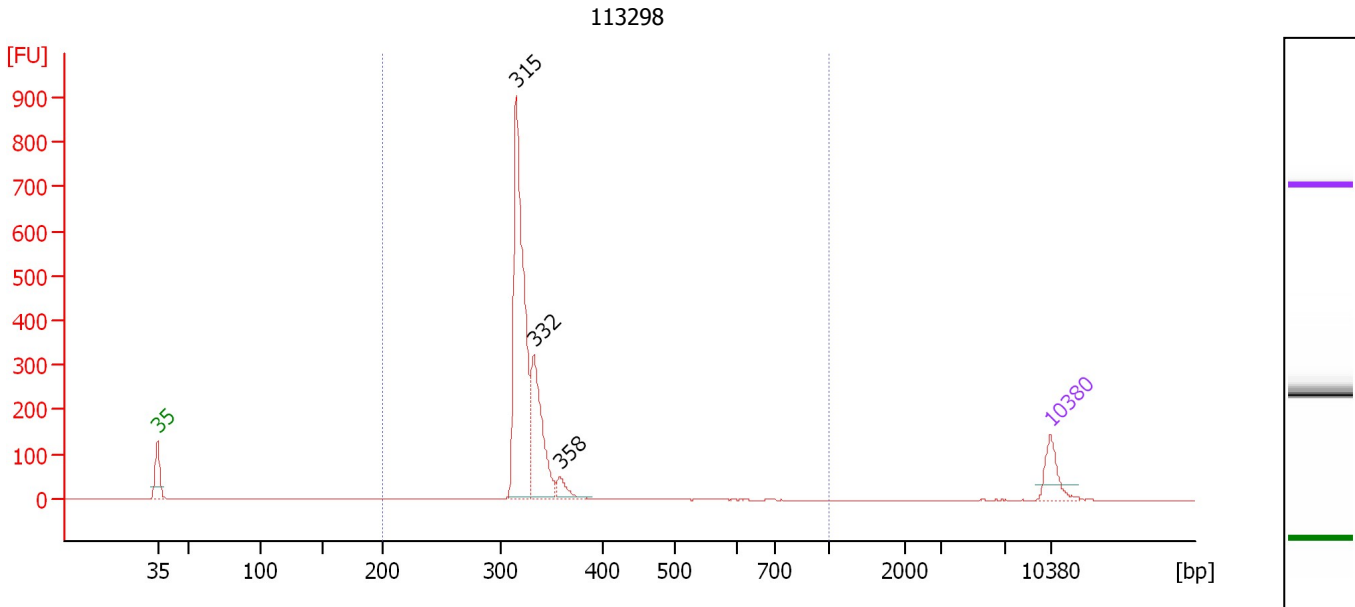
Region table for sample 5 : 113274

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	326	1,216.17	1,763.2	5,660.0	97	5.3

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 113298

Number of peaks found: 3 Corr. Area 1: 1,775.3
 Noise: 0.3

Peak table for sample 6 : 113298

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	315	920.66	4,428.0		71.10
3	332	365.81	1,667.1		72.49
4	358	53.45	226.0		74.54
5	10,380	75.00	10.9	Upper Marker	113.00

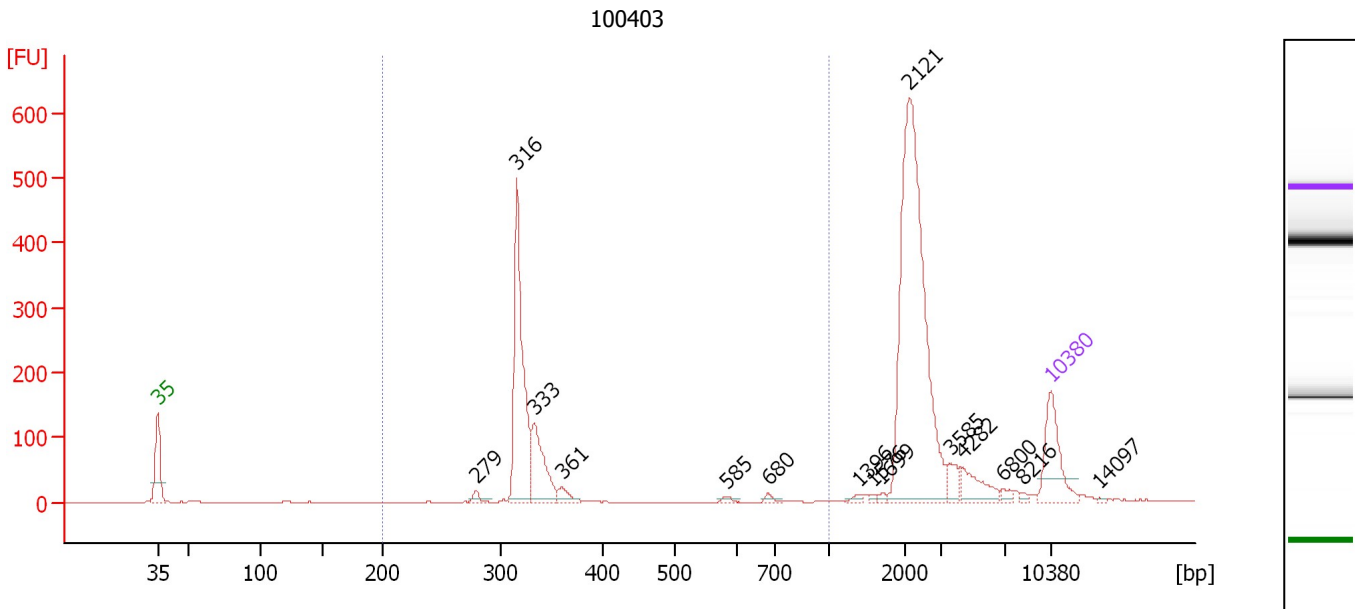
Region table for sample 6 : 113298

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	330	1,367.66	1,775.3	6,335.2	96	11.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 100403

Number of peaks found: 15 Corr. Area 1: 836.9
 Noise: 0.2

Peak table for sample 7 : 100403

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	10.49	57.0		67.94
3	316	321.40	1,542.0		71.17
4	333	110.80	504.1		72.53
5	361	19.15	80.4		74.73
6	585	4.67	12.1		87.67
7	680	5.20	11.6		90.84
8	1,396	4.67	5.1		97.92
9	1,576	3.69	3.5		98.99
10	1,699	3.79	3.4		99.72
11	2,121	510.20	364.5		101.87
12	3,585	22.04	9.3		105.19
13	4,282	38.92	13.8		106.07
14	6,800	7.17	1.6		109.24
15	8,216	3.62	0.7		110.75
16	10,380	75.00	10.9	Upper Marker	113.00
17	14,097	0.00	0.0		116.86

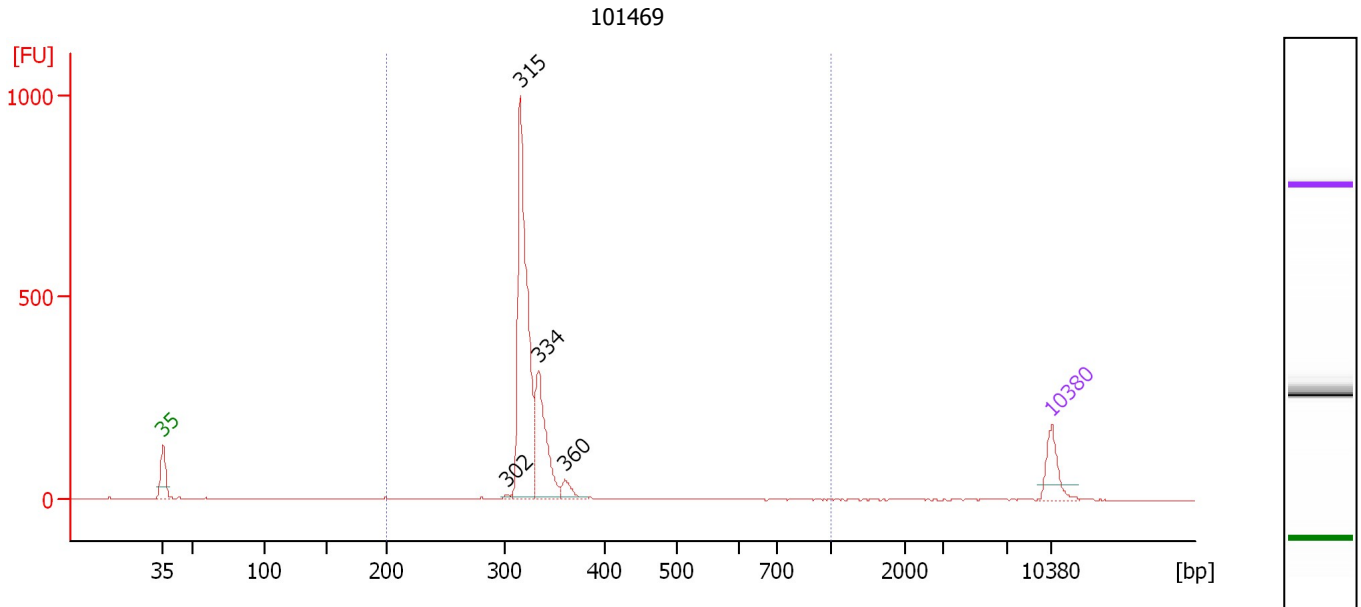
Region table for sample 7 : 100403

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	341	476.98	836.9	2,192.2	34	23.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 101469

Number of peaks found: 4 Corr. Area 1: 1,774.2
 Noise: 0.6

Peak table for sample 8 : 101469

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	302	7.53	37.7		70.10
3	315	829.09	3,982.2		71.14
4	334	289.00	1,312.5		72.58
5	360	41.96	176.6		74.67
6	10,380	75.00	10.9	Upper Marker	113.00

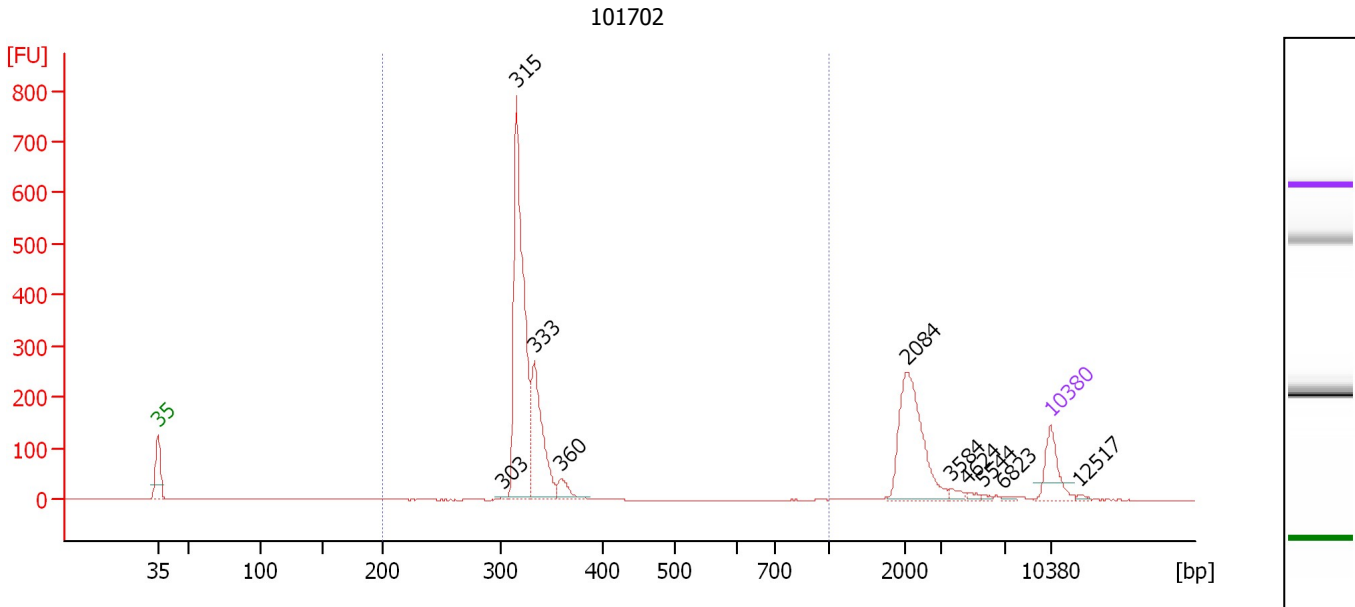
Region table for sample 8 : 101469

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	329	1,189.34	1,774.2	5,523.5	96	11.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 101702

Number of peaks found: 10 Corr. Area 1: 1,454.0
 Noise: 0.3

Peak table for sample 9 : 101702

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	303	4.74	23.8		70.11
3	315	752.05	3,614.8		71.12
4	333	287.51	1,308.1		72.53
5	360	44.30	186.6		74.65
6	2,084	267.25	194.3		101.76
7	3,584	11.48	4.9		105.19
8	4,624	7.60	2.5		106.50
9	5,544	4.30	1.2		107.66
10	6,823	4.97	1.1		109.27
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,517	0.00	0.0		115.22

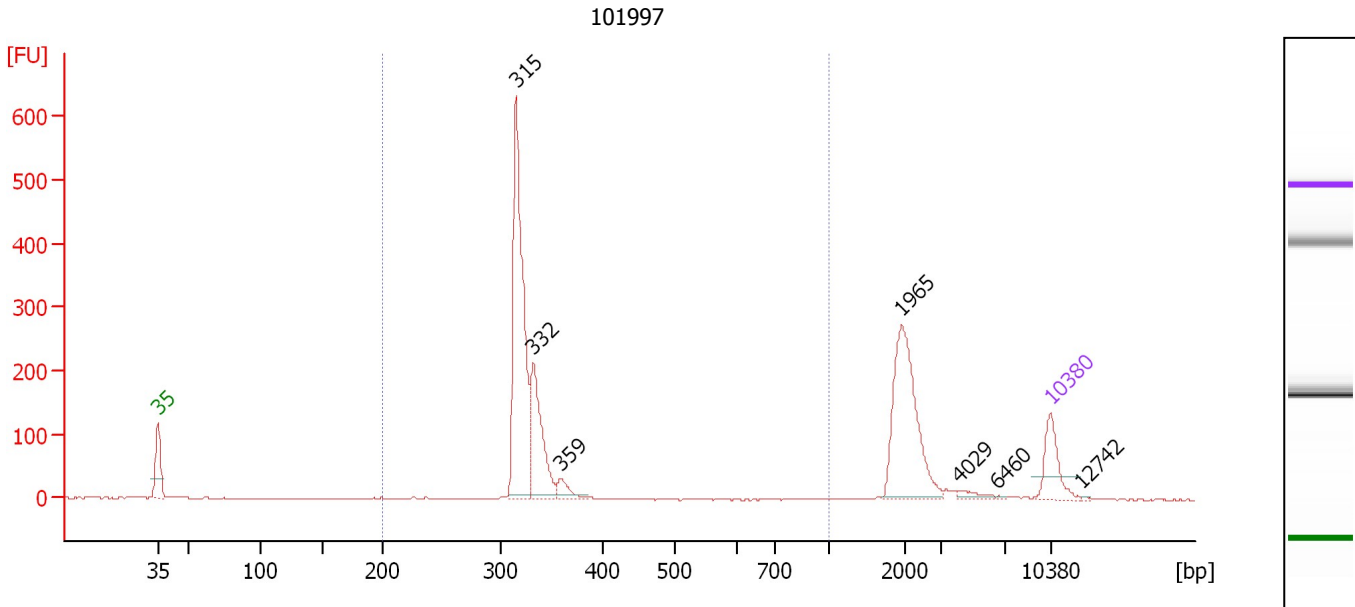
Region table for sample 9 : 101702

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	326	1,076.45	1,454.0	5,004.7	70	7.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 101997

Number of peaks found: 7 Corr. Area 1: 1,138.2
 Noise: 0.6

Peak table for sample 10 : 101997

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	315	616.34	2,967.1		71.08
3	332	228.16	1,040.9		72.46
4	359	34.07	143.7		74.60
5	1,965	294.26	226.9		101.31
6	4,029	14.95	5.6		105.75
7	6,460	2.13	0.5		108.81
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,742	0.00	0.0		115.45

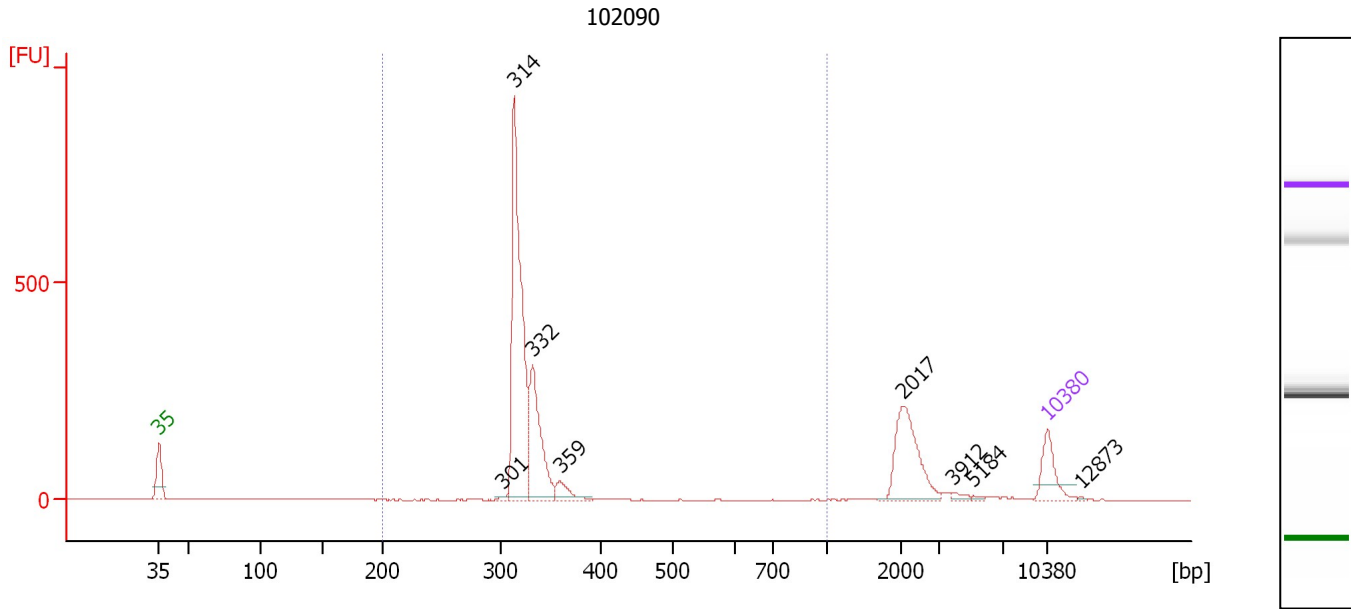
Region table for sample 10 : 101997

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	326	875.97	1,138.2	4,082.4	64	7.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 102090

Number of peaks found: 8 Corr. Area 1: 1,649.4
 Noise: 0.5

Peak table for sample 11 : 102090

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	301	6.10	30.7		70.01
3	314	765.83	3,700.4		70.99
4	332	287.87	1,314.4		72.44
5	359	46.20	194.9		74.61
6	2,017	200.48	150.6		101.57
7	3,912	9.55	3.7		105.60
8	5,184	4.06	1.2		107.21
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,873	0.00	0.0		115.59

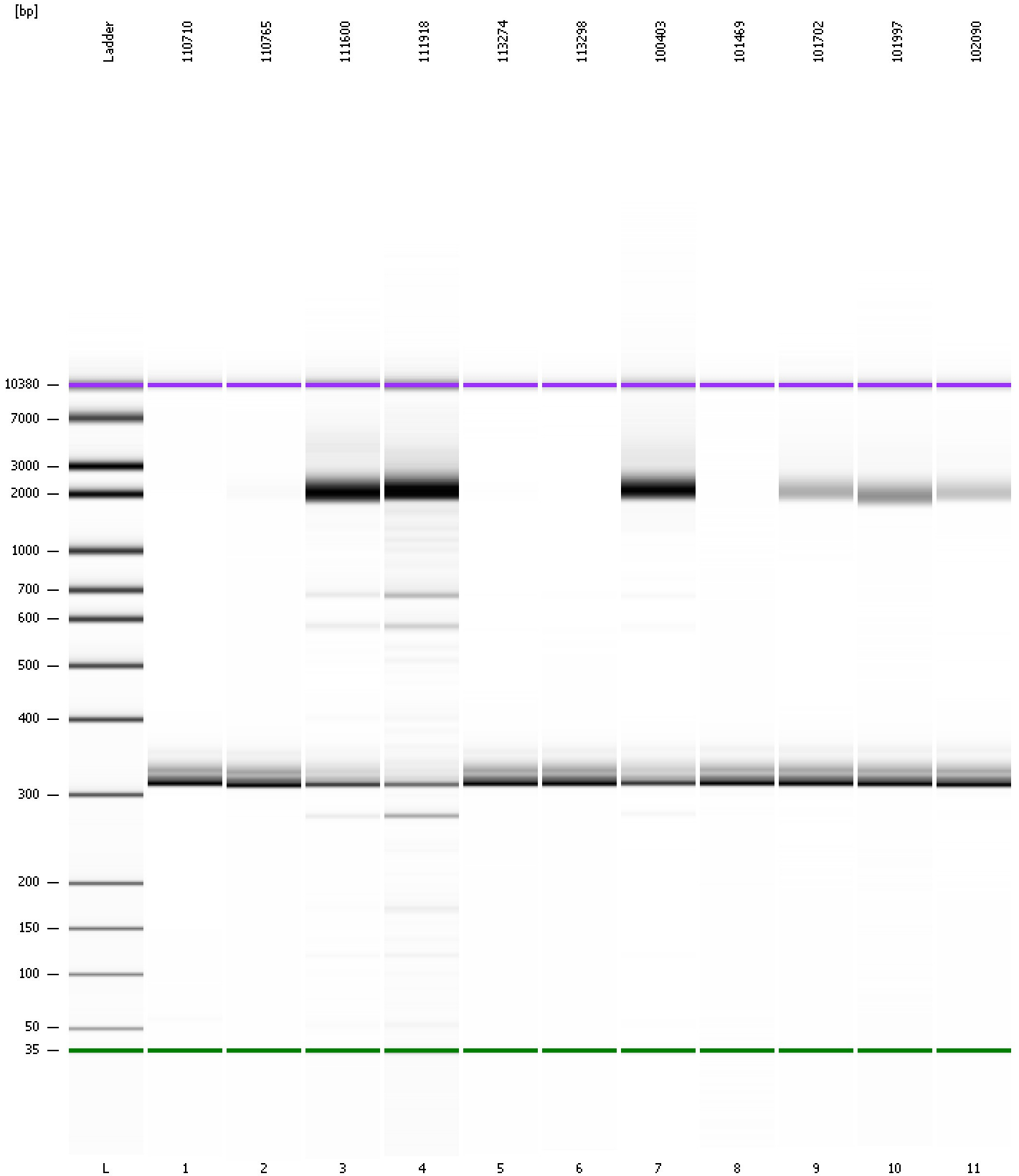
Region table for sample 11 : 102090

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	326	1,098.74	1,649.4	5,123.4	75	9.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
Modified: 11/1/2019 11:23:20 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad

Created: 11/1/2019 10:42:00 AM
 Modified: 11/1/2019 11:23:20 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		11/1/2019 11:23:16 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-11-01\2019-11-01_001.xad)		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/1/2019 10:42:05 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1