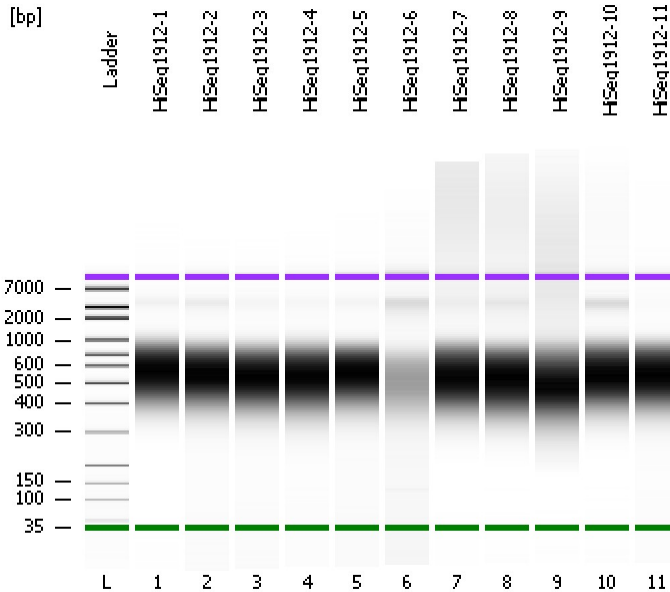


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
Modified: 10/17/2019 11:04:06 AM

Electrophoresis File Run Summary



Instrument Information:

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

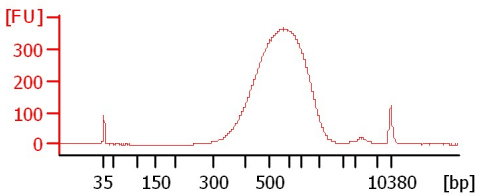
Assay Information:

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

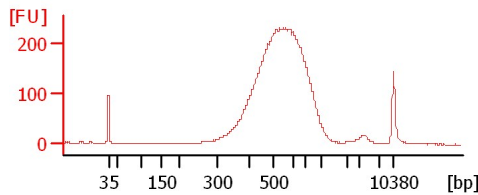
Chip Information:

Chip Lot #:
Reagent Kit Lot #:
Chip Comments:

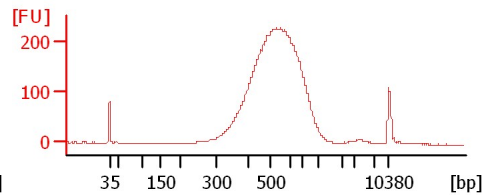
HiSeq1912-1



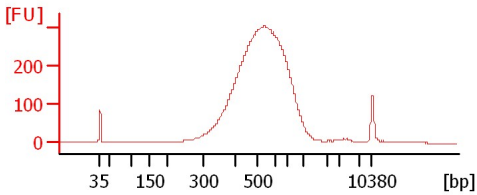
HiSeq1912-2



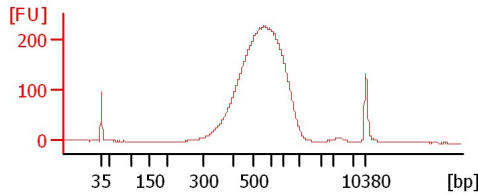
HiSeq1912-3



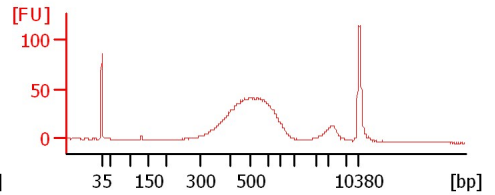
HiSeq1912-4



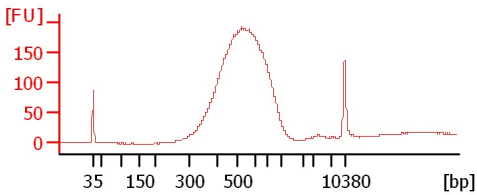
HiSeq1912-5



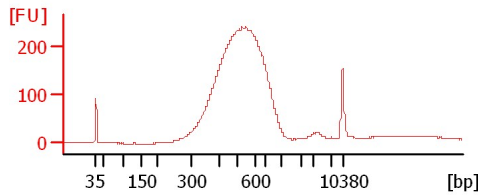
HiSeq1912-6



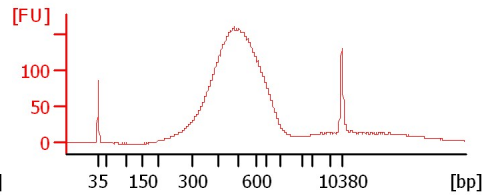
HiSeq1912-7



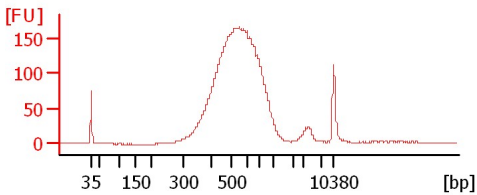
HiSeq1912-8



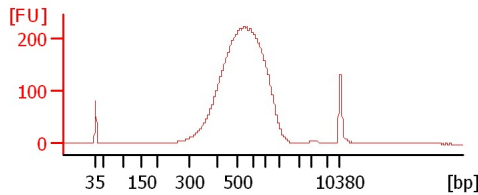
HiSeq1912-9



HiSeq1912-10



HiSeq1912-11



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
HiSeq1912-1		<input type="checkbox"/>	✓			
HiSeq1912-2		<input type="checkbox"/>	✓			
HiSeq1912-3		<input type="checkbox"/>	✓			
HiSeq1912-4		<input type="checkbox"/>	✓			
HiSeq1912-5		<input type="checkbox"/>	✓			
HiSeq1912-6		<input type="checkbox"/>	✓			
HiSeq1912-7		<input type="checkbox"/>	✓			
HiSeq1912-8		<input type="checkbox"/>	✓			
HiSeq1912-9		<input type="checkbox"/>	✓			
HiSeq1912-10		<input type="checkbox"/>	✓			
HiSeq1912-11		<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\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
Modified: 10/17/2019 11:04:06 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

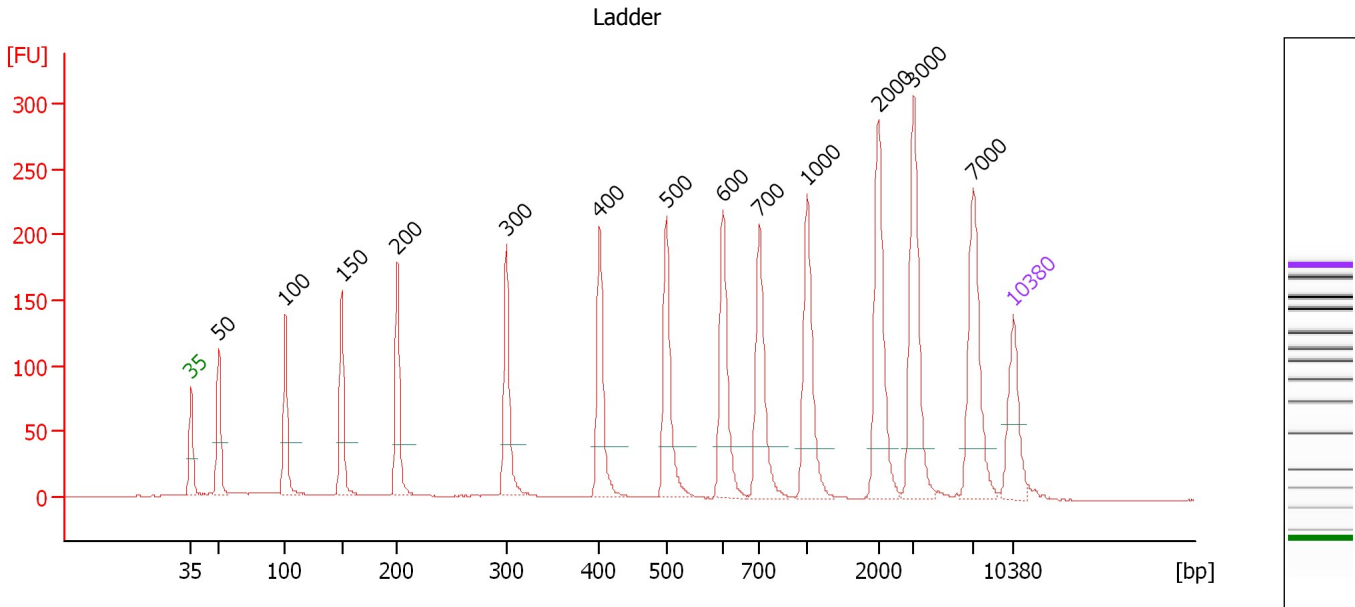
Ladder

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\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

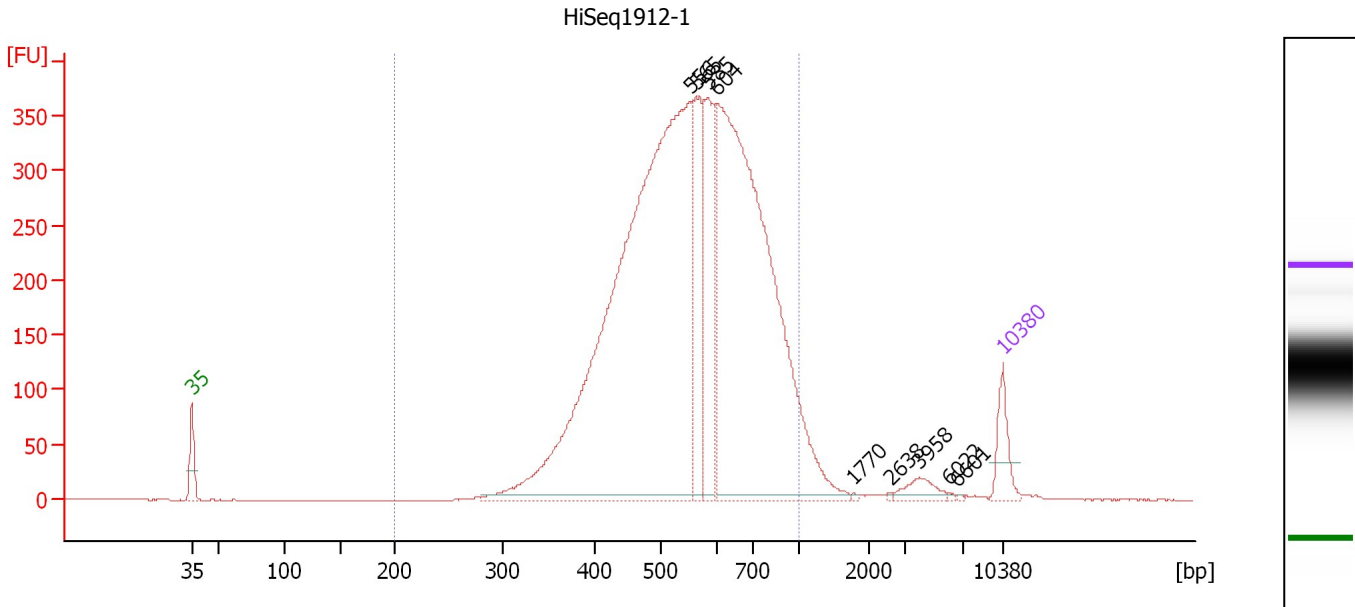
Peak table for Ladder

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	45.36
3	100	150.00	2,272.7	Ladder Peak	50.99
4	150	150.00	1,515.2	Ladder Peak	55.80
5	200	150.00	1,136.4	Ladder Peak	60.52
6	300	150.00	757.6	Ladder Peak	69.83
7	400	150.00	568.2	Ladder Peak	77.77
8	500	150.00	454.5	Ladder Peak	83.45
9	600	150.00	378.8	Ladder Peak	88.26
10	700	150.00	324.7	Ladder Peak	91.39
11	1,000	150.00	227.3	Ladder Peak	95.43
12	2,000	150.00	113.6	Ladder Peak	101.51
13	3,000	150.00	75.8	Ladder Peak	104.51
14	7,000	150.00	32.5	Ladder Peak	109.60
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : HiSeq1912-1

Number of peaks found: 9 Corr. Area 1: 6,346.2
 Noise: 0.2

Peak table for sample 1 : HiSeq1912-1

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	556	2,889.64	7,880.2		86.12
3	565	372.72	999.2		86.58
4	585	394.33	1,020.9		87.55
5	604	1,976.42	4,959.6		88.38
6	1,770	3.09	2.6		100.11
7	2,638	2.73	1.6		103.43
8	3,958	42.64	16.3		105.73
9	6,022	2.99	0.8		108.35
10	6,601	2.36	0.5		109.09
11	10,380	75.00	10.9	Upper Marker	113.00

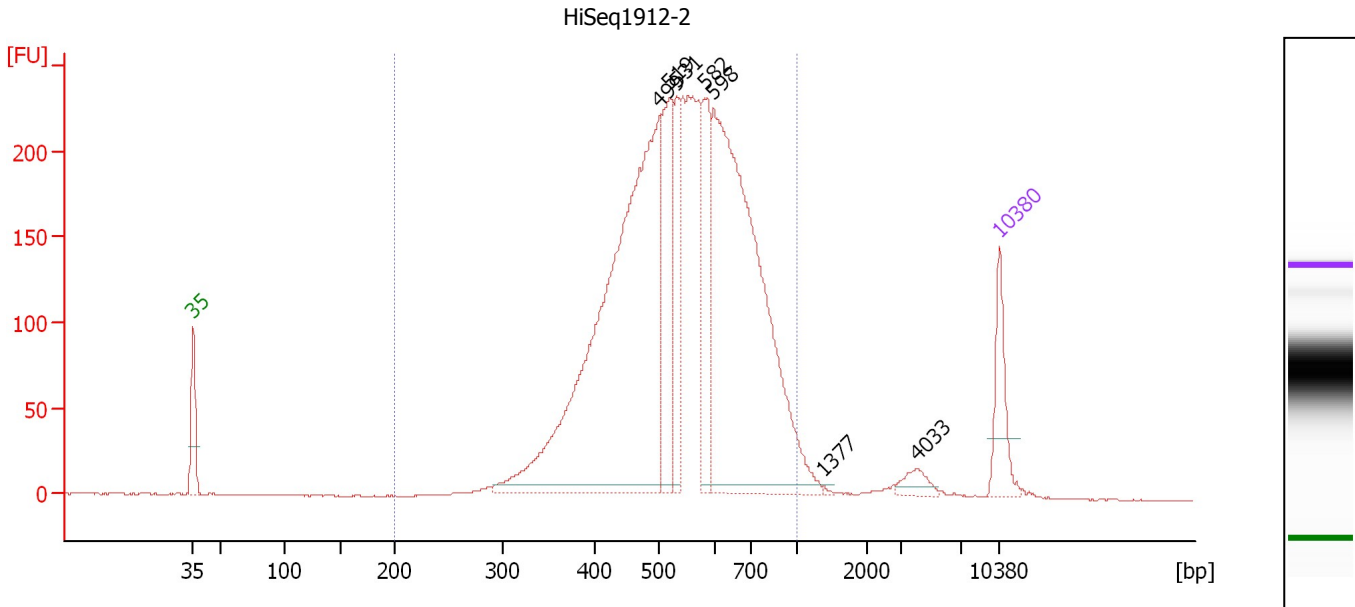
Region table for sample 1 : HiSeq1912-1

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	573	5,757.73	6,346.2	16,381.5	96	23.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : HiSeq1912-2

Number of peaks found: 7 Corr. Area 1: 4,067.0
 Noise: 0.3

Peak table for sample 2 : HiSeq1912-2

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	499	1,262.56	3,830.1		83.42
3	519	239.66	700.2		84.34
4	531	134.86	384.7		84.94
5	582	171.15	445.5		87.40
6	598	957.31	2,423.7		88.19
7	1,377	1.71	1.9		97.72
8	4,033	23.30	8.8		105.82
9	10,380	75.00	10.9	Upper Marker	113.00

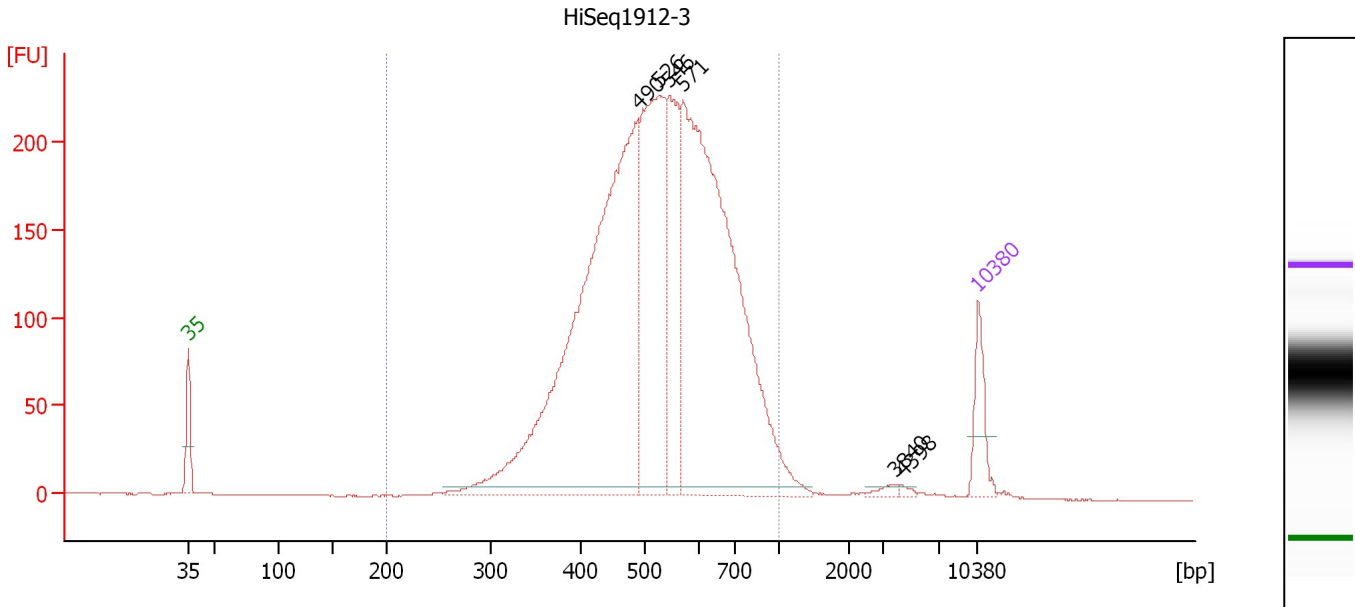
Region table for sample 2 : HiSeq1912-2

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	555	3,272.84	4,067.0	9,612.4	97	23.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HiSeq1912-3

Number of peaks found: 6 Corr. Area 1: 4,044.6
 Noise: 0.2

Peak table for sample 3 : HiSeq1912-3

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	490	1,629.39	5,036.1		82.89
3	526	690.18	1,988.9		84.69
4	546	317.13	879.4		85.68
5	571	1,423.34	3,777.1		86.86
6	3,840	10.14	4.0		105.58
7	4,398	5.13	1.8		106.29
8	10,380	75.00	10.9	Upper Marker	113.00

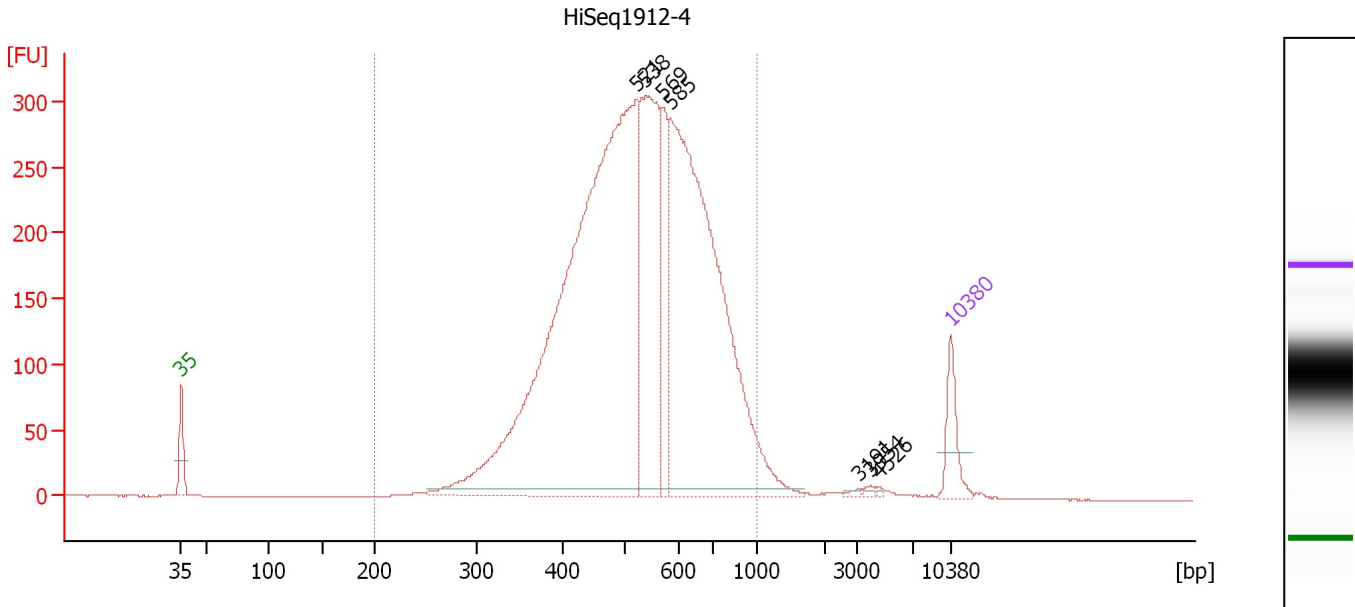
Region table for sample 3 : HiSeq1912-3

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	539	4,138.71	4,044.6	12,518.6	97	23.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : HiSeq1912-4

Number of peaks found: 7 Corr. Area 1: 5,618.9
 Noise: 0.2

Peak table for sample 4 : HiSeq1912-4

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	521	2,496.40	7,254.7		84.48
3	538	618.48	1,743.4		85.25
4	569	200.58	534.3		86.76
5	585	1,511.50	3,915.5		87.53
6	3,191	5.69	2.7		104.75
7	3,954	6.37	2.4		105.72
8	4,526	3.39	1.1		106.45
9	10,380	75.00	10.9	Upper Marker	113.00

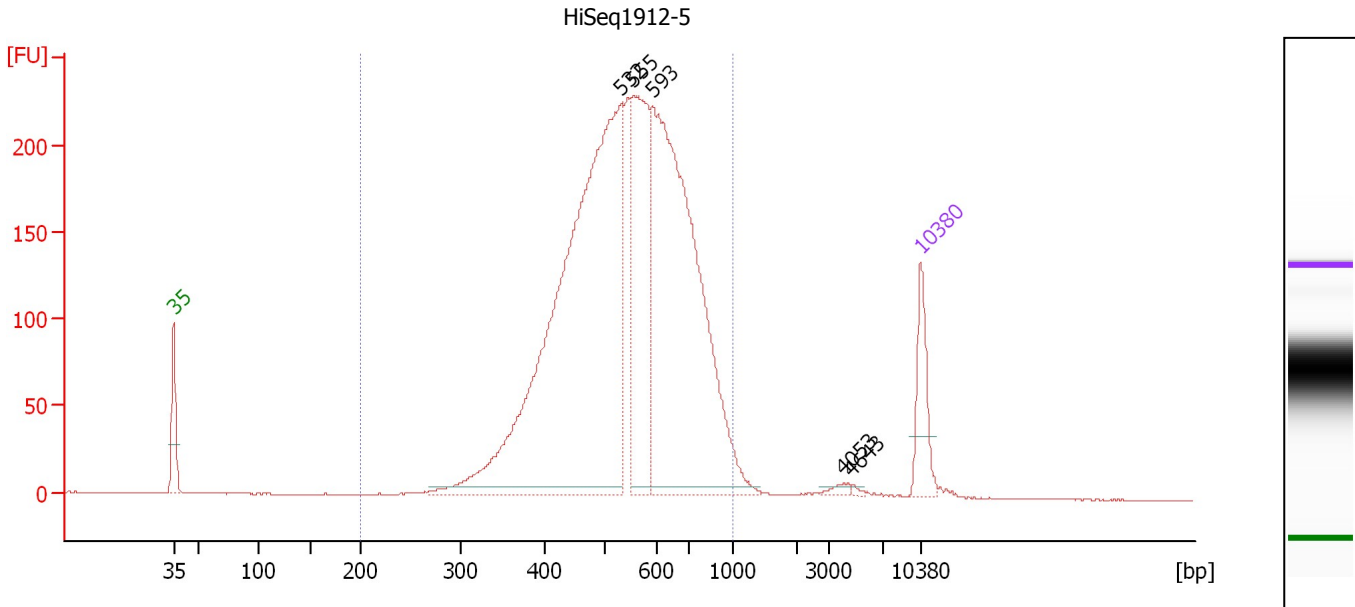
Region table for sample 4 : HiSeq1912-4

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	538	5,052.76	5,618.9	15,448.0	97	24.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : HiSeq1912-5

Number of peaks found: 5 Corr. Area 1: 3,833.8
 Noise: 0.2

Peak table for sample 5 : HiSeq1912-5

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	532	1,430.06	4,070.8		85.00
3	555	385.35	1,051.8		86.10
4	593	966.01	2,470.2		87.90
5	4,053	8.05	3.0		105.85
6	4,643	3.25	1.1		106.60
7	10,380	75.00	10.9	Upper Marker	113.00

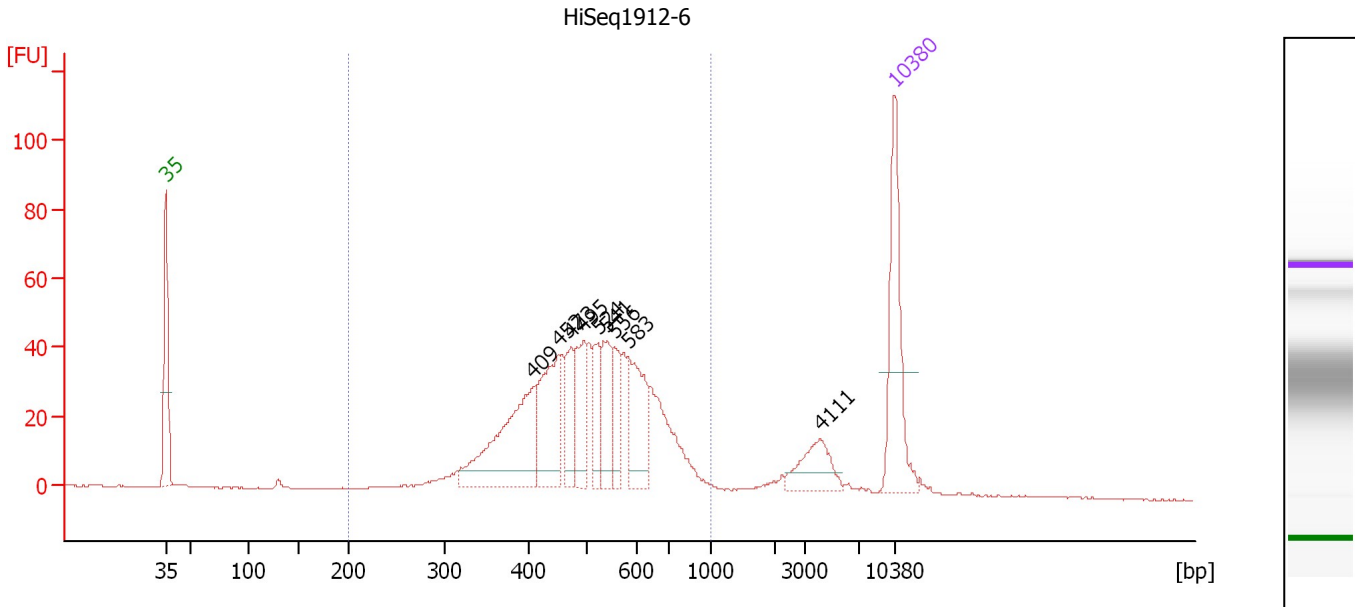
Region table for sample 5 : HiSeq1912-5

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	557	3,065.85	3,833.8	8,952.9	98	23.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : HiSeq1912-6

Number of peaks found: 9 Corr. Area 1: 804.7
 Noise: 0.2

Peak table for sample 6 : HiSeq1912-6

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	409	133.15	493.3		78.28
3	452	85.85	287.6		80.74
4	473	37.35	119.6		81.92
5	495	51.50	157.7		83.15
6	524	34.67	100.3		84.59
7	541	42.64	119.5		85.41
8	556	27.95	76.2		86.13
9	583	62.18	161.5		87.46
10	4,111	31.24	11.5		105.92
11	10,380	75.00	10.9	Upper Marker	113.00

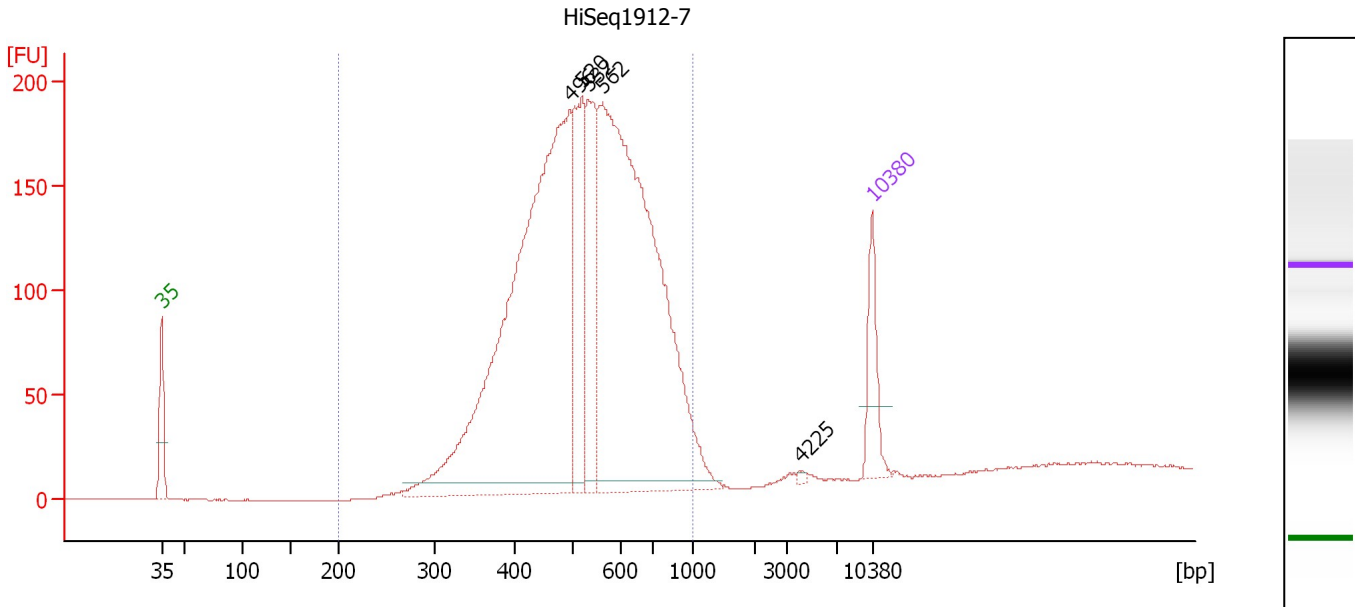
Region table for sample 6 : HiSeq1912-6

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	510	698.45	804.7	2,244.8	89	23.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : HiSeq1912-7

Number of peaks found: 5 Corr. Area 1: 3,313.8
 Noise: 0.2

Peak table for sample 7 : HiSeq1912-7

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	496	1,392.97	4,254.5		83.23
3	520	265.28	772.2		84.43
4	532	229.89	654.1		85.01
5	562	1,256.86	3,388.8		86.43
6	4,225	3.70	1.3		106.07
7	10,380	75.00	10.9	Upper Marker	113.00

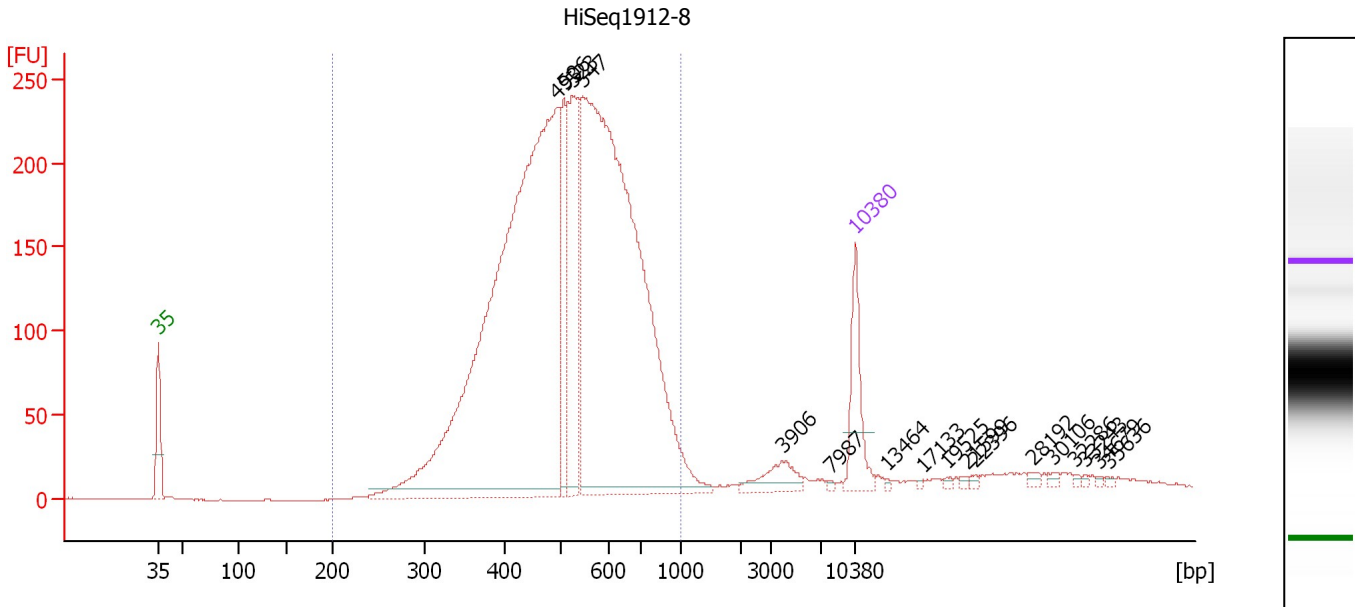
Region table for sample 7 : HiSeq1912-7

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	542	3,032.51	3,313.8	9,122.9	98	24.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : HiSeq1912-8

Number of peaks found: 17 Corr. Area 1: 4,426.6
 Noise: 0.3

Peak table for sample 8 : HiSeq1912-8

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	493	1,569.60	4,822.0		83.06
3	506	155.15	464.2		83.76
4	523	229.54	664.8		84.56
5	547	1,326.62	3,677.9		85.69
6	3,906	38.76	15.0		105.66
7	7,987	2.90	0.5		110.59
8	10,380	75.00	10.9	Upper Marker	113.00
9	13,464	0.00	0.0		116.11
10	17,133	0.00	0.0		119.80
11	19,525	0.00	0.0		122.21
12	21,599	0.00	0.0		124.30
13	22,396	0.00	0.0		125.10
14	28,192	0.00	0.0		130.94
15	30,106	0.00	0.0		132.87
16	32,286	0.00	0.0		135.07
17	33,243	0.00	0.0		136.03
18	34,679	0.00	0.0		137.48
19	35,636	0.00	0.0		138.44

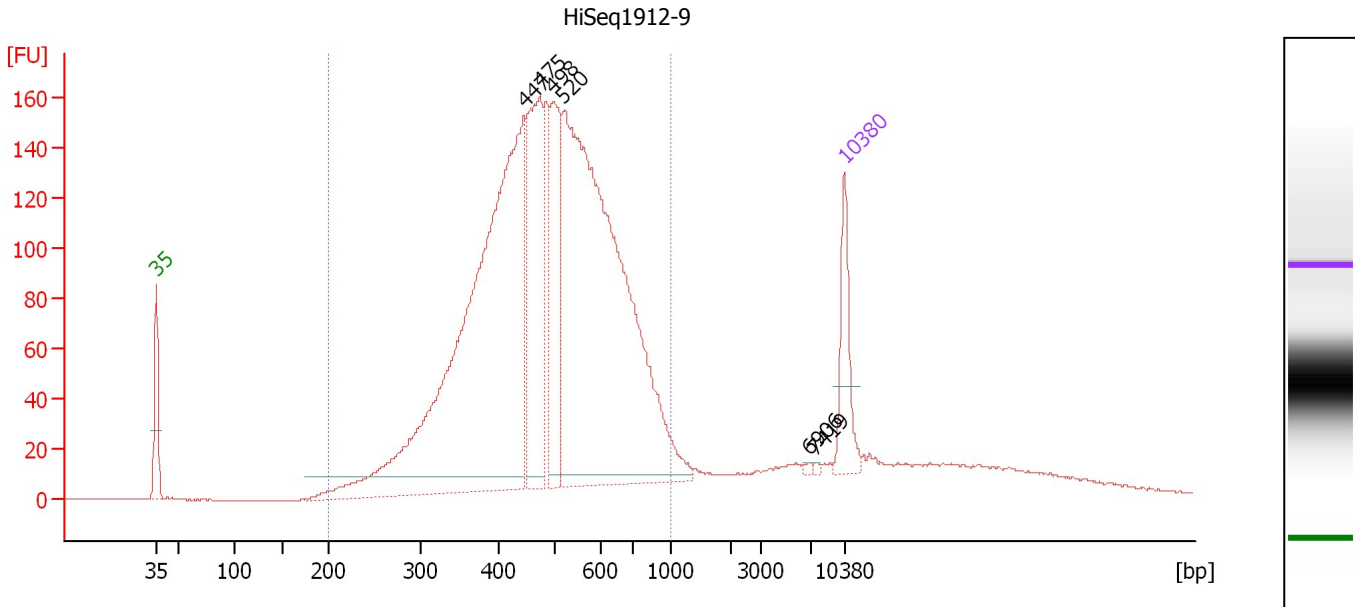
Region table for sample 8 : HiSeq1912-8

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	528	3,260.59	4,426.6	10,127.3	94	24.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : HiSeq1912-9

Number of peaks found: 6 Corr. Area 1: 3,202.2
 Noise: 0.2

Peak table for sample 9 : HiSeq1912-9

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	447	1,197.08	4,062.0		80.41
3	475	318.97	1,017.1		82.04
4	498	208.44	634.0		83.34
5	520	1,150.66	3,350.7		84.43
6	6,906	3.11	0.7		109.48
7	7,419	2.55	0.5		110.02
8	10,380	75.00	10.9	Upper Marker	113.00

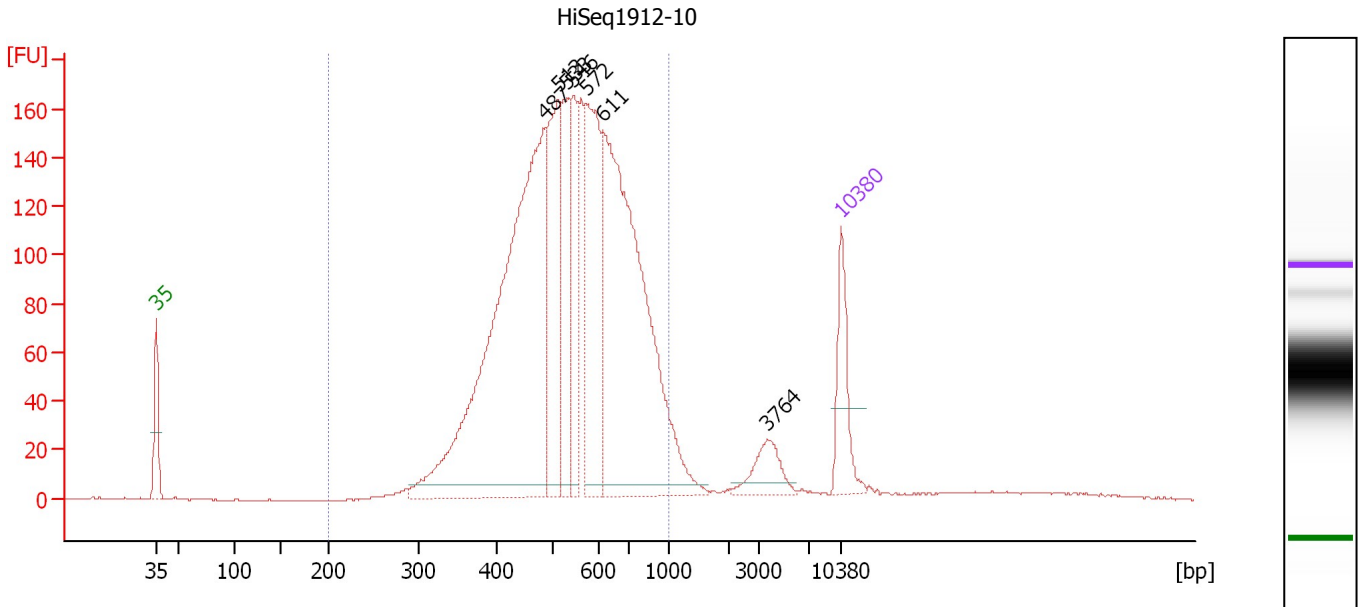
Region table for sample 9 : HiSeq1912-9

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	501	3,090.66	3,202.2	10,368.0	90	27.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : HiSeq1912-10

Number of peaks found: 7 Corr. Area 1: 2,895.8
 Noise: 0.2

Peak table for sample 10 : HiSeq1912-10

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	487	973.96	3,029.9		82.71
3	513	253.67	749.2		84.07
4	533	159.71	453.7		85.05
5	546	129.47	359.4		85.65
6	572	265.33	703.0		86.91
7	611	708.25	1,757.1		88.60
8	3,764	48.21	19.4		105.48
9	10,380	75.00	10.9	Upper Marker	113.00

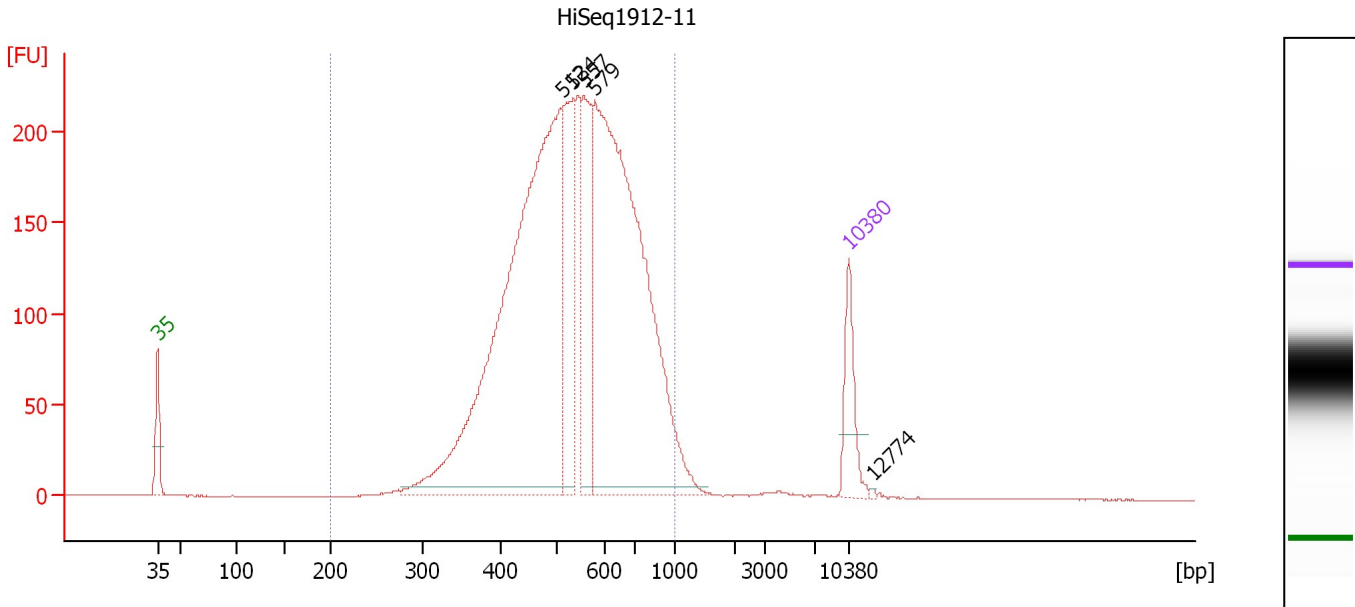
Region table for sample 10 : HiSeq1912-10

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	554	2,647.88	2,895.8	7,824.1	93	24.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : HiSeq1912-11

Number of peaks found: 5 Corr. Area 1: 3,853.1
 Noise: 0.2

Peak table for sample 11 : HiSeq1912-11

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	512	1,344.27	3,981.7		84.00
3	534	242.54	687.8		85.10
4	557	214.17	582.5		86.19
5	579	1,107.51	2,899.5		87.24
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,774	0.00	0.0		115.41

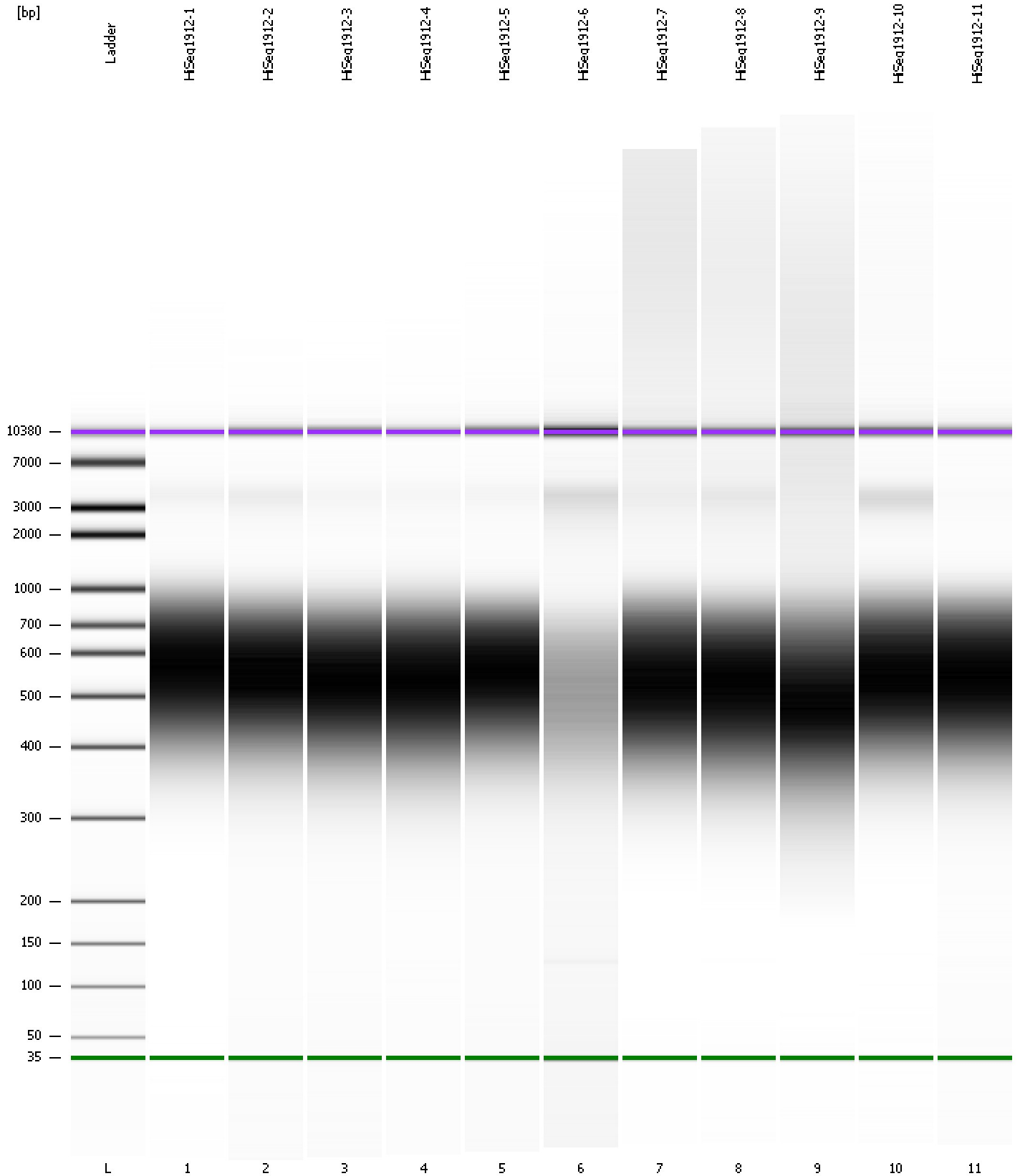
Region table for sample 11 : HiSeq1912-11

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	552	3,112.05	3,853.1	9,223.8	97	24.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
Modified: 10/17/2019 11:04:06 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-10-17\2019-10-17_001.xad

Created: 10/17/2019 10:22:49 AM
 Modified: 10/17/2019 11:04:06 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		10/17/2019 11:04:05 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\2019-10-17\2019-10-17_001.xad)		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/17/2019 10:22:55 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1