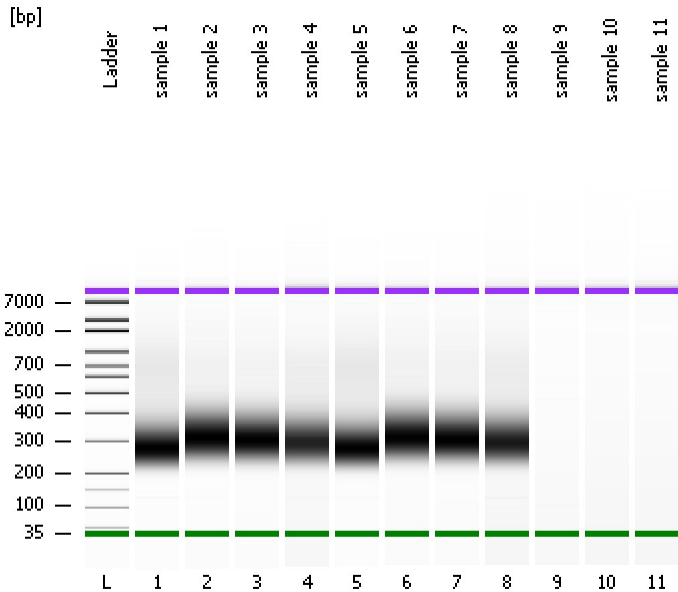


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
Modified: 6/12/2019 4:01:56 PM

Electrophoresis File Run Summary



Instrument Information:

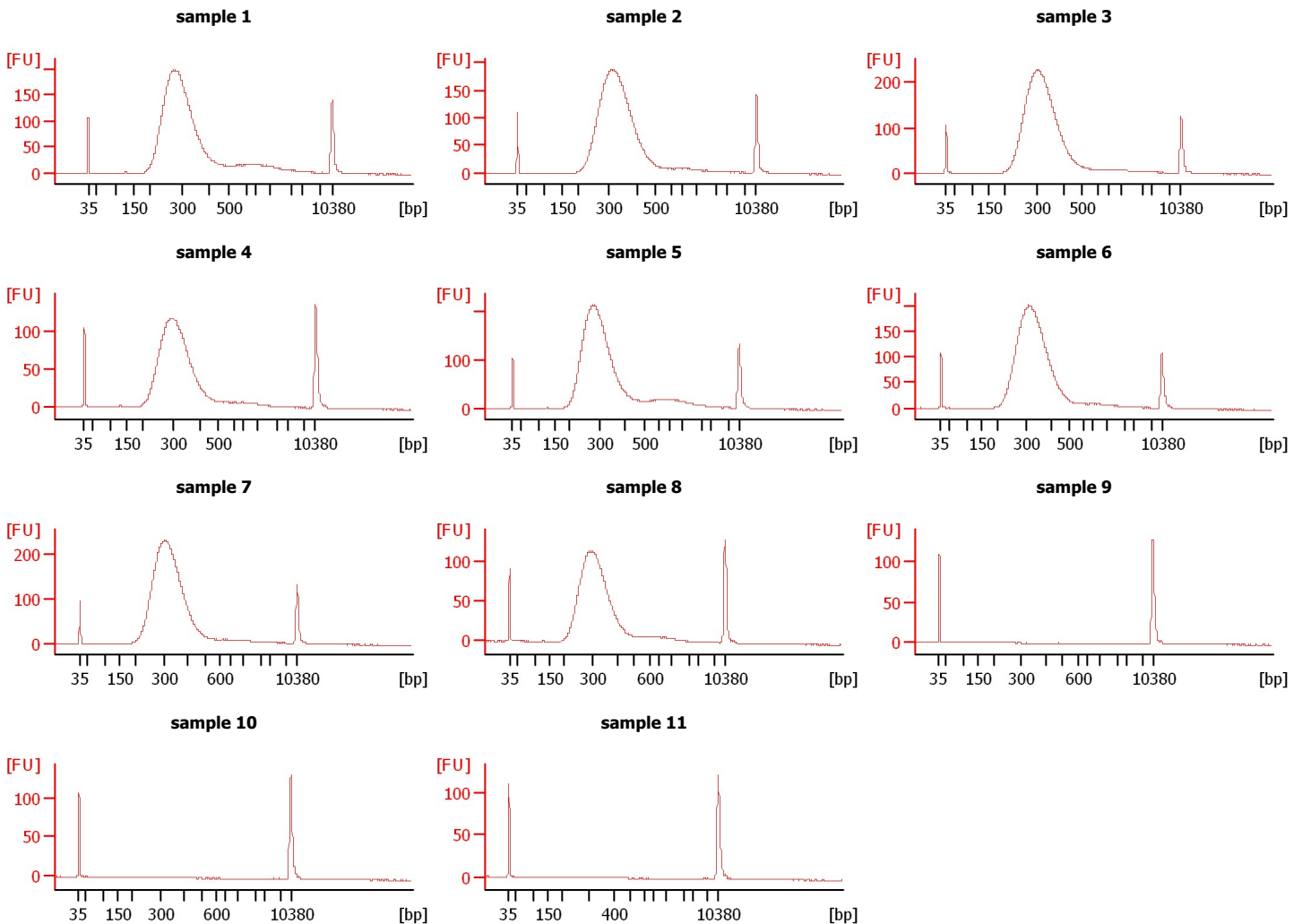
Instrument Name: DE34903152 Firmware: C.01.069
Serial#: DE34903152 Type: G2938C

Assay Information:

Assay Origin Path: C:\Program Files\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\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 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: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
Modified: 6/12/2019 4:01:56 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

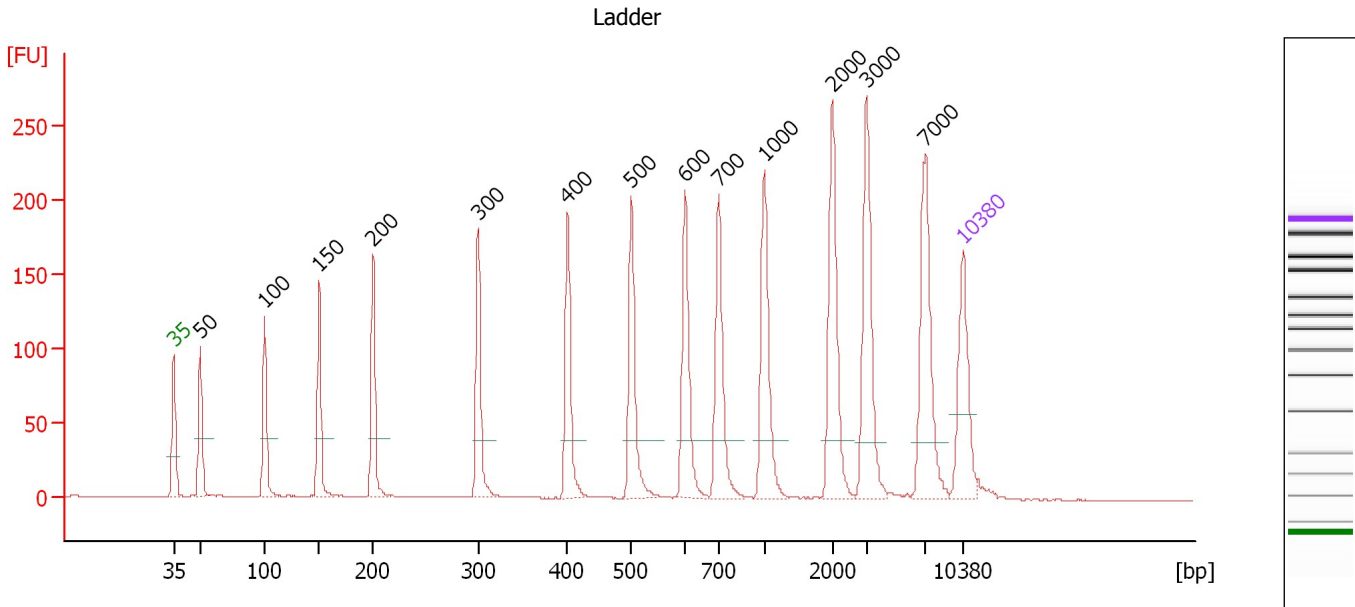
Ladder

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\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

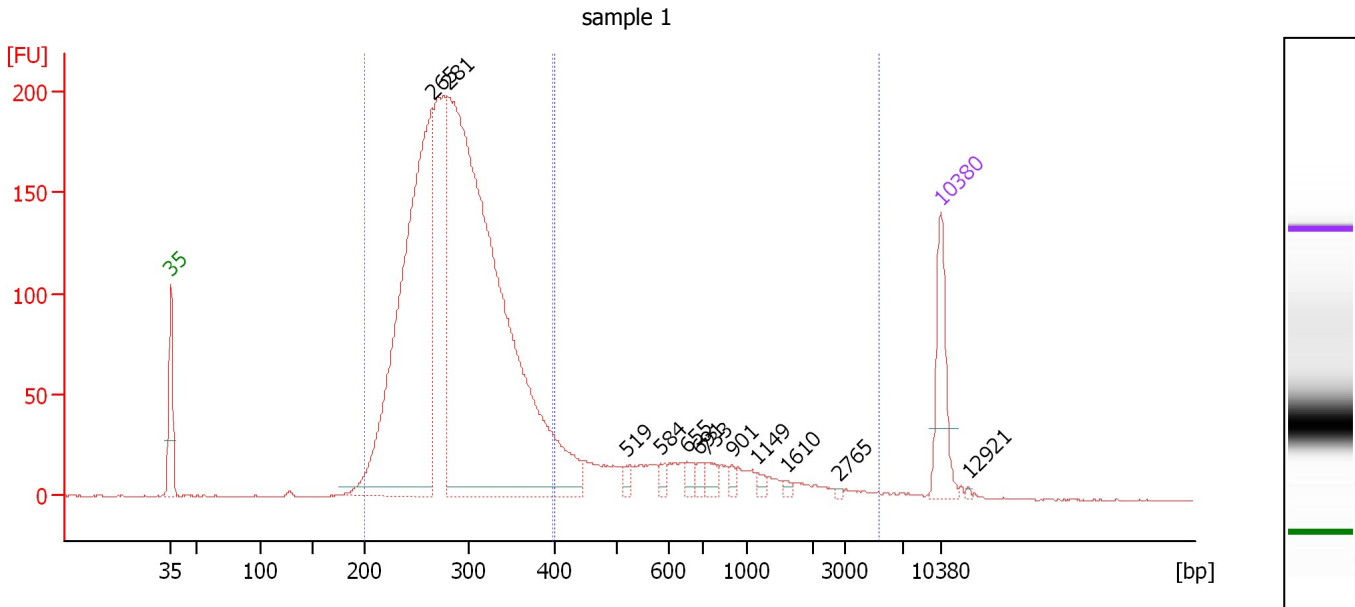
Peak table for Ladder

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	51.08
4	150	150.00	1,515.2	Ladder Peak	55.90
5	200	150.00	1,136.4	Ladder Peak	60.68
6	300	150.00	757.6	Ladder Peak	69.99
7	400	150.00	568.2	Ladder Peak	77.93
8	500	150.00	454.5	Ladder Peak	83.55
9	600	150.00	378.8	Ladder Peak	88.33
10	700	150.00	324.7	Ladder Peak	91.31
11	1,000	150.00	227.3	Ladder Peak	95.37
12	2,000	150.00	113.6	Ladder Peak	101.37
13	3,000	150.00	75.8	Ladder Peak	104.40
14	7,000	150.00	32.5	Ladder Peak	109.64
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 12 Corr. Area 1: 2,902.8
 Noise: 0.3 Corr. Area 2: 454.4

Peak table for sample 1 : sample 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	265	916.56	5,231.9		66.77
3	281	1,557.64	8,412.5		68.18
4	519	9.83	28.7		84.48
5	584	12.18	31.6		87.58
6	655	14.14	32.7		89.96
7	691	12.74	28.0		91.02
8	733	16.25	33.6		91.75
9	901	7.94	13.4		94.03
10	1,149	8.02	10.6		96.26
11	1,610	4.81	4.5		99.03
12	2,765	1.68	0.9		103.69
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,921	0.00	0.0		115.52

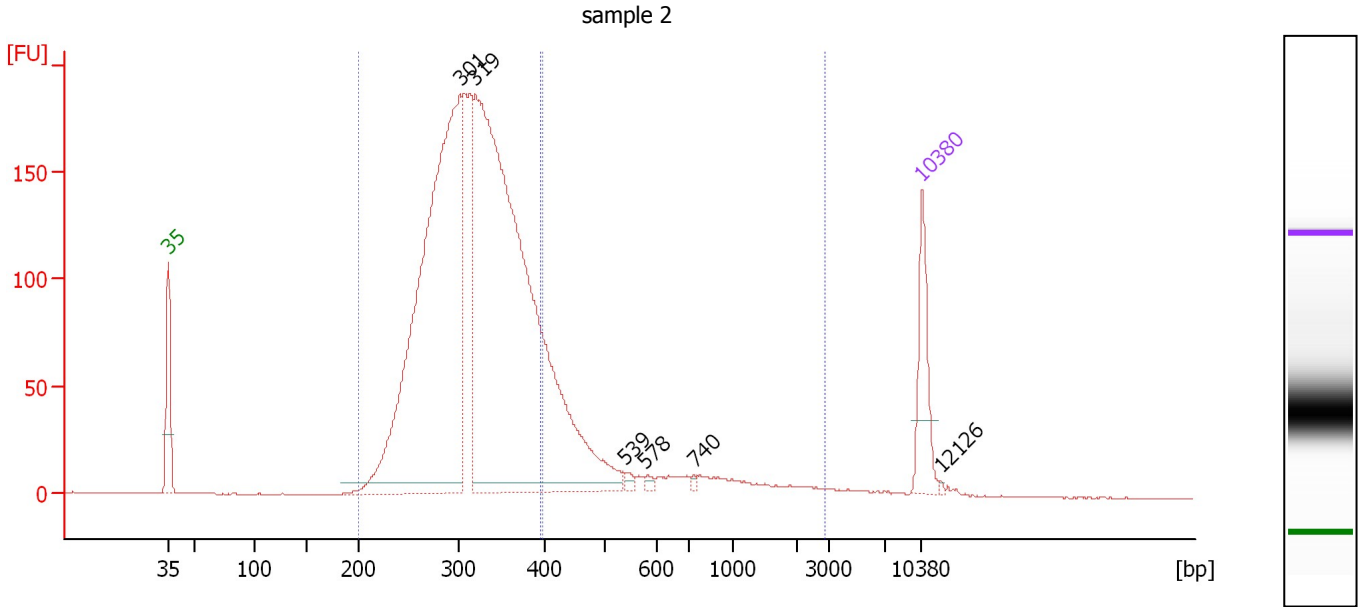
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	397	290	2,660.67	2,902.8	14,242.8	85	14.6
401	5,349	903	334.80	454.4	822.9	13	83.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 6 Corr. Area 1: 2,744.5
 Noise: 0.2 Corr. Area 2: 486.2

Peak table for sample 2 : sample 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	301	1,153.04	5,796.7		70.10
3	319	1,509.23	7,157.7		71.54
4	539	8.06	22.7		85.41
5	578	5.94	15.6		87.29
6	740	3.79	7.8		91.85
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,126	0.00	0.0		114.73

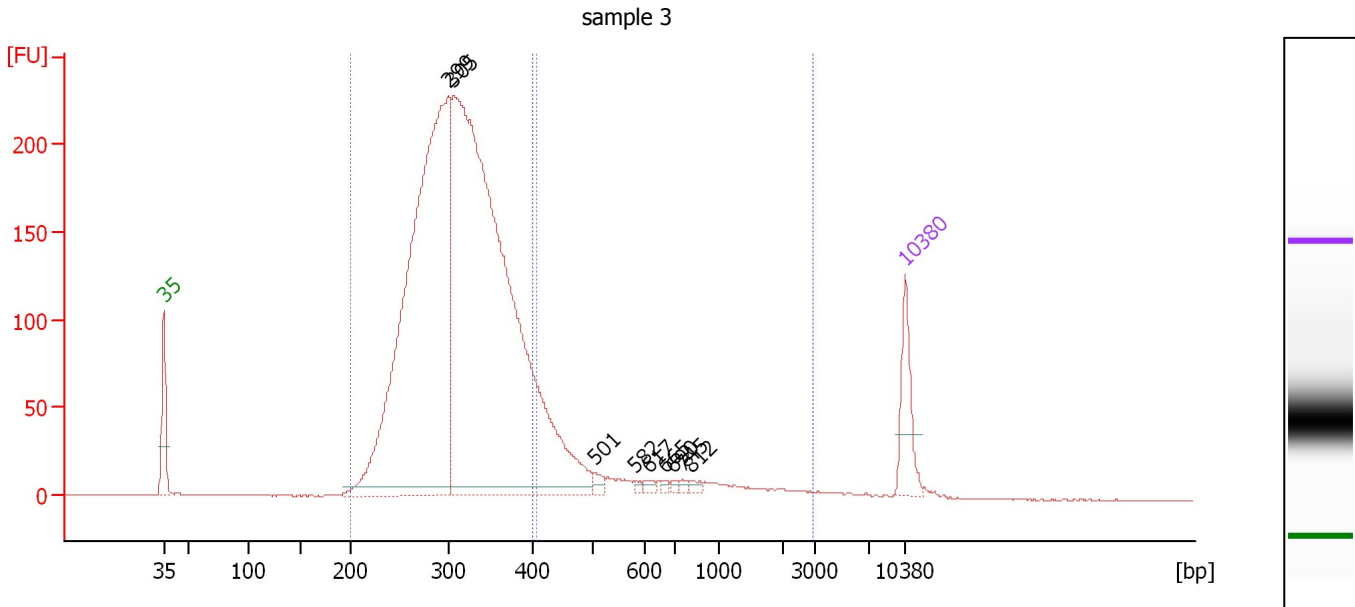
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	398	314	2,629.30	2,744.5	12,962.3	85	13.4
395	2,894	643	402.64	486.2	1,217.7	15	68.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 9 Corr. Area 1: 3,344.2
 Noise: 0.3 Corr. Area 2: 443.1

Peak table for sample 3 : sample 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	299	1,606.70	8,148.4		69.87
3	305	2,125.43	10,562.7		70.38
4	501	14.20	42.9		83.61
5	582	4.86	12.6		87.49
6	617	8.73	21.4		88.84
7	665	5.47	12.5		90.25
8	690	6.09	13.4		91.01
9	745	5.56	11.3		91.91
10	812	8.09	15.1		92.82
11	10,380	75.00	10.9	Upper Marker	113.00

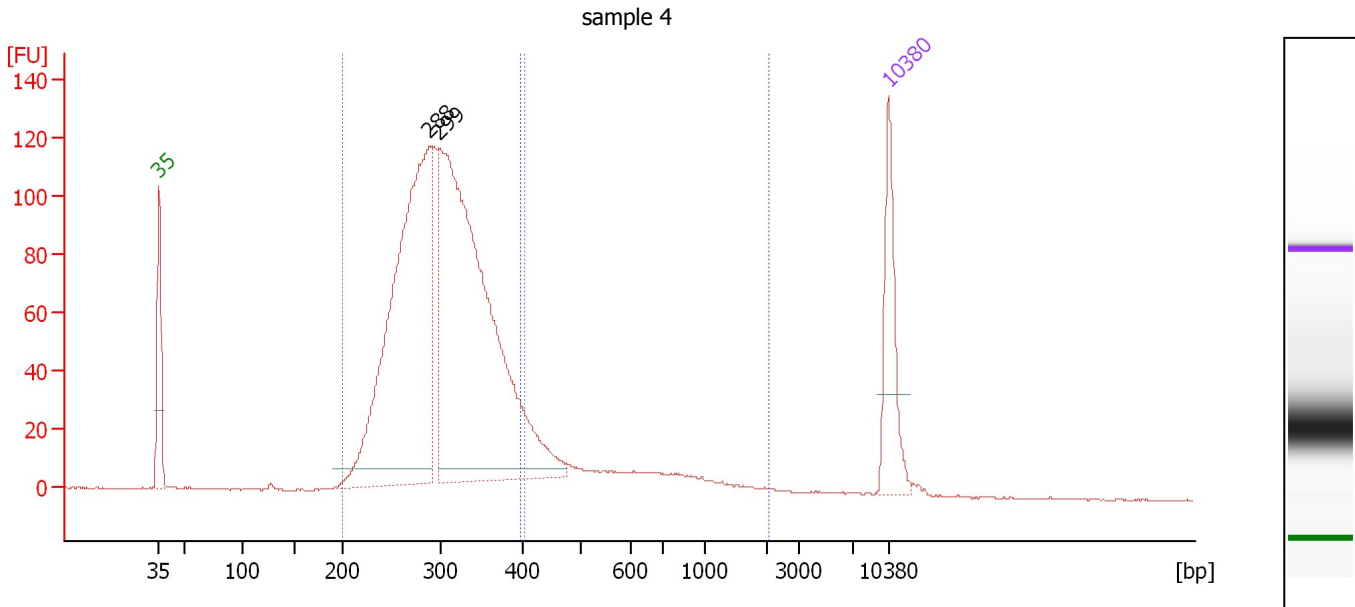
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	405	311	3,455.50	3,344.2	17,258.0	87	13.9
400	2,967	689	390.40	443.1	1,132.1	12	69.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 2 Corr. Area 1: 1,739.4
 Noise: 0.2 Corr. Area 2: 232.0

Peak table for sample 4 : sample 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	288	636.83	3,351.8		68.86
3	299	801.72	4,064.3		69.88
4	10,380	75.00	10.9	Upper Marker	113.00

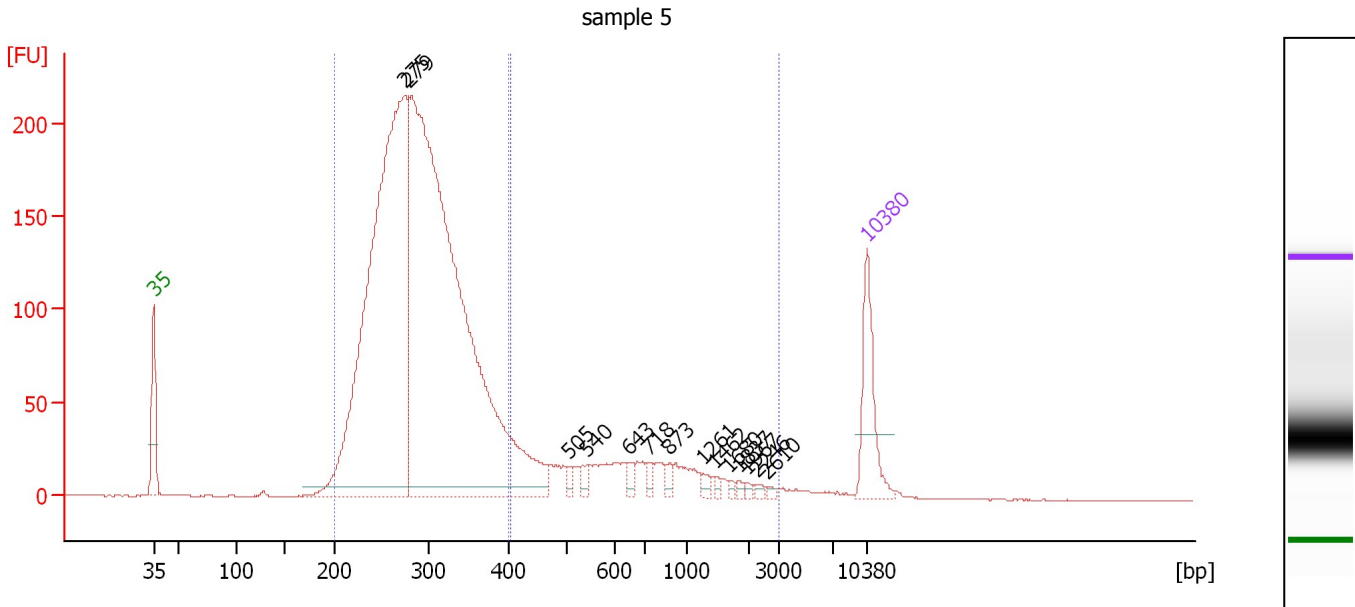
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	402	303	1,501.32	1,739.4	7,676.0	88	14.2
397	2,046	639	169.34	232.0	483.8	12	50.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 14 Corr. Area 1: 3,070.5
 Noise: 0.2 Corr. Area 2: 475.8

Peak table for sample 5 : sample 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	275	1,132.60	6,245.0		67.64
3	279	1,563.53	8,482.3		68.06
4	505	9.61	28.8		83.81
5	540	11.56	32.4		85.48
6	643	10.20	24.0		89.61
7	718	10.20	21.5		91.55
8	873	8.89	15.4		93.64
9	1,261	7.23	8.7		96.94
10	1,462	4.24	4.4		98.14
11	1,680	3.67	3.3		99.45
12	1,837	3.61	3.0		100.39
13	1,967	3.37	2.6		101.18
14	2,246	3.70	2.5		102.12
15	2,610	2.94	1.7		103.22
16	10,380	75.00	10.9	Upper Marker	113.00

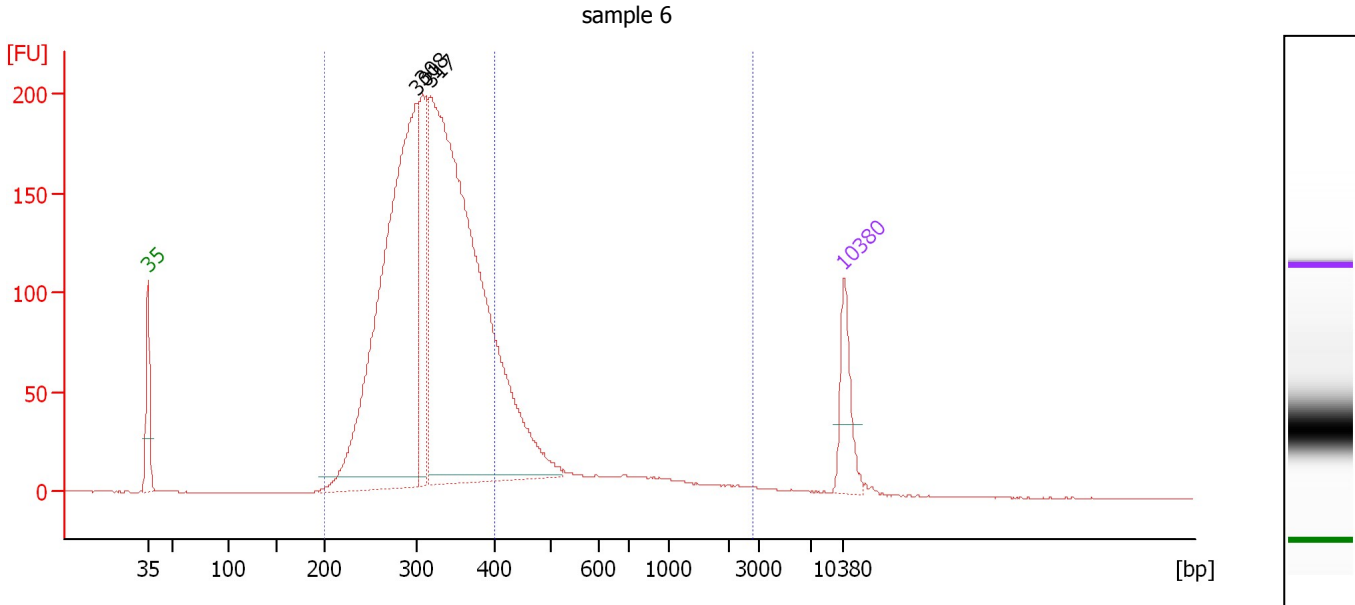
Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	398	290	2,509.30	3,070.5	13,395.9	85	14.6
403	2,964	823	313.34	475.8	773.4	13	62.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 3 Corr. Area 1: 2,853.5
 Noise: 0.2 Corr. Area 2: 475.0

Peak table for sample 6 : sample 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	301	1,186.76	5,968.8		70.09
3	308	212.71	1,046.3		70.62
4	317	1,613.29	7,699.6		71.38
5	10,380	75.00	10.9	Upper Marker	113.00

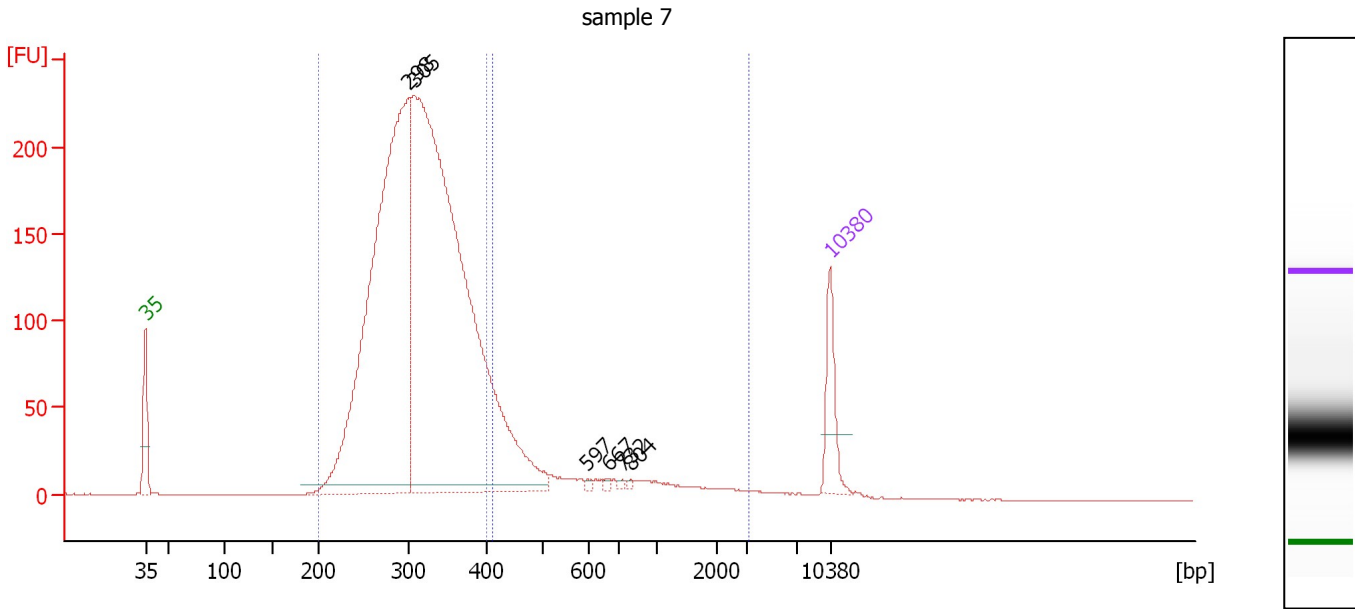
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	400	315	2,893.63	2,853.5	14,217.3	85	13.4
400	2,809	655	415.50	475.0	1,231.7	14	66.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 6 Corr. Area 1: 3,260.6
 Noise: 0.2 Corr. Area 2: 412.4

Peak table for sample 7 : sample 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	298	1,501.84	7,630.4		69.82
3	305	2,118.11	10,506.3		70.42
4	597	4.30	10.9		88.19
5	667	4.67	10.6		90.32
6	732	3.89	8.1		91.74
7	804	3.55	6.7		92.72
8	10,380	75.00	10.9	Upper Marker	113.00

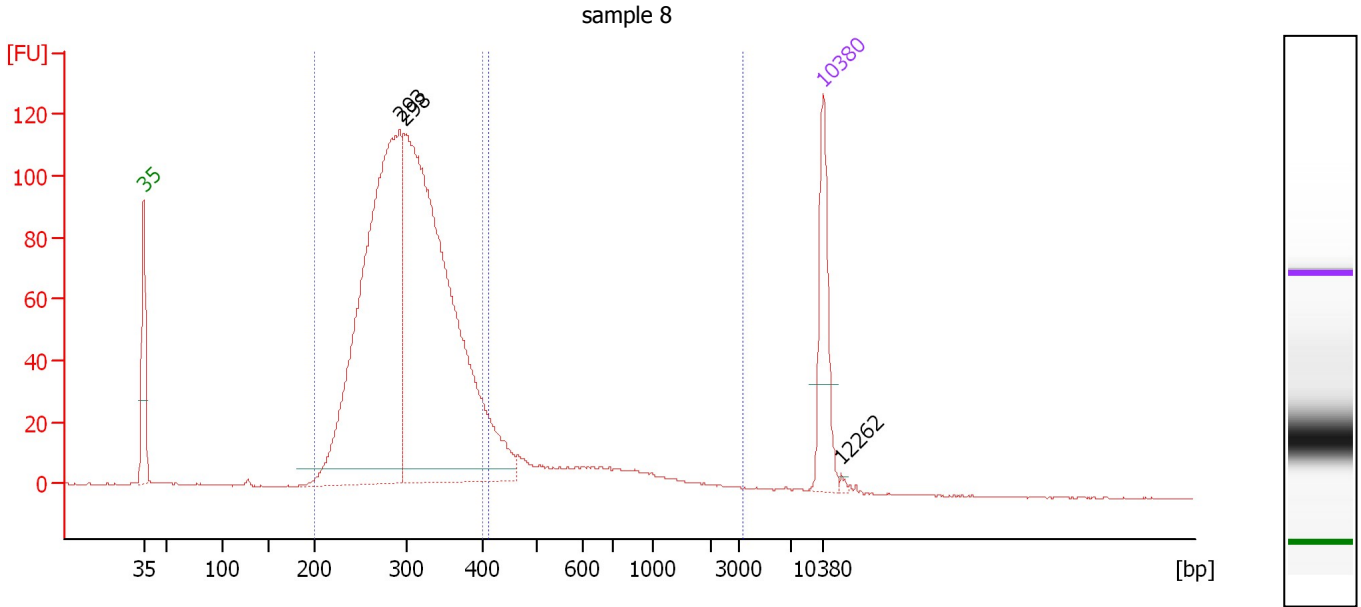
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	398	310	3,321.06	3,260.6	16,572.9	87	13.6
409	3,278	732	355.70	412.4	995.5	11	71.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 3 Corr. Area 1: 1,657.5
 Noise: 0.2 Corr. Area 2: 203.6

Peak table for sample 8 : sample 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	293	762.72	3,938.8		69.37
3	298	895.37	4,550.6		69.81
4	10,380	75.00	10.9	Upper Marker	113.00
5	12,262	0.00	0.0		114.87

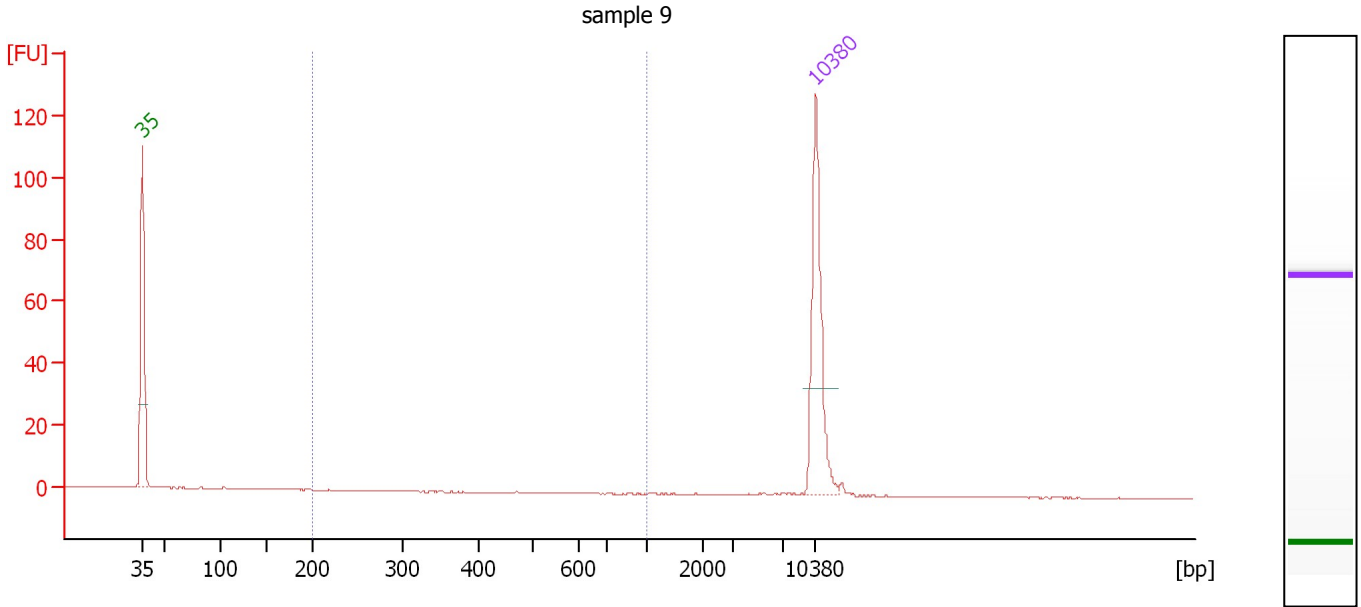
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	400	303	1,596.29	1,657.5	8,158.8	87	14.1
411	3,274	743	163.12	203.6	432.2	11	64.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 0 Corr. Area 1: 0.1
 Noise: 0.2

Peak table for sample 9 : sample 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	10,380	75.00	10.9	Upper Marker	113.00

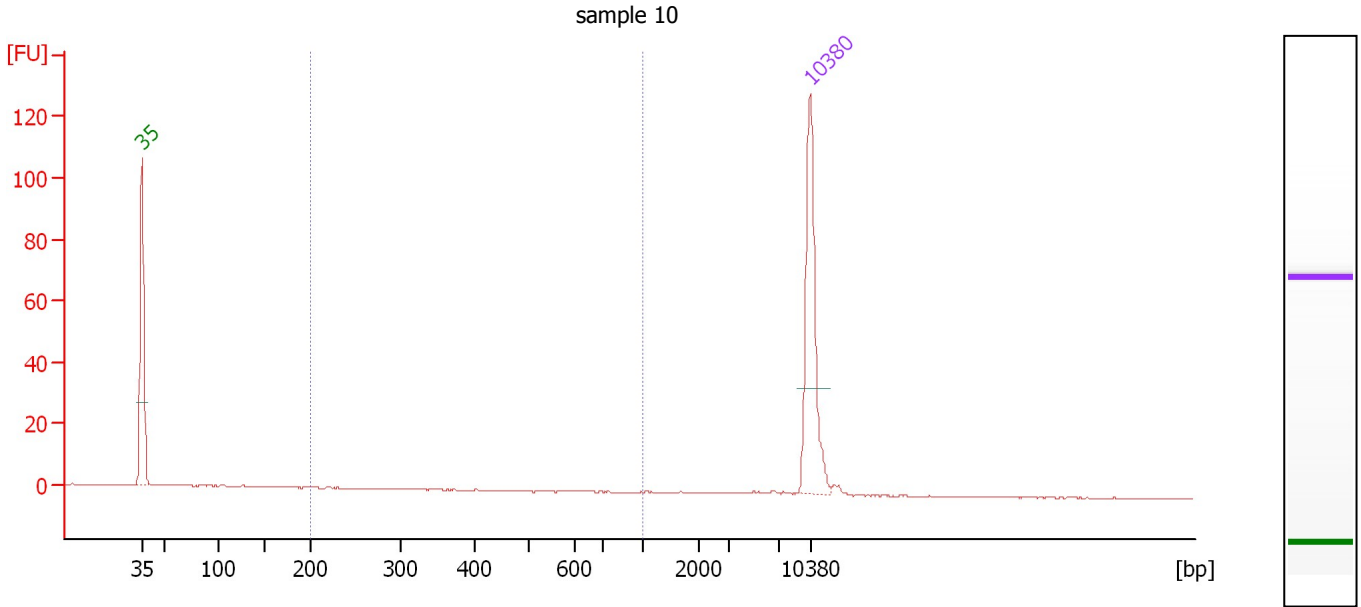
Region table for sample 9 : sample 9

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	471	0.05	0.1	0.1	1	0.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 0 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 10 : sample 10

Pea k	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

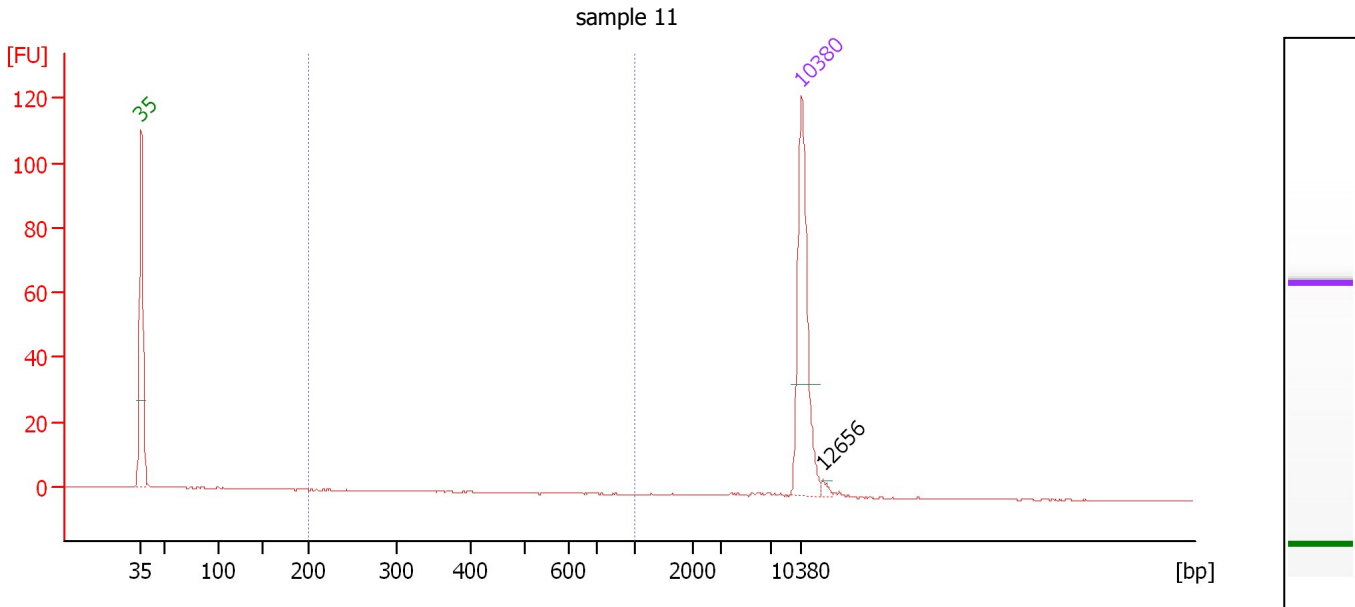
Region table for sample 10 : sample 10

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	247	0.01	0.0	0.1	0	11.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : sample 11

Number of peaks found: 1 Corr. Area 1: 0.1
 Noise: 0.1

Peak table for sample 11 : sample 11

Pea k	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
3	12,656	0.00	0.0		115.26

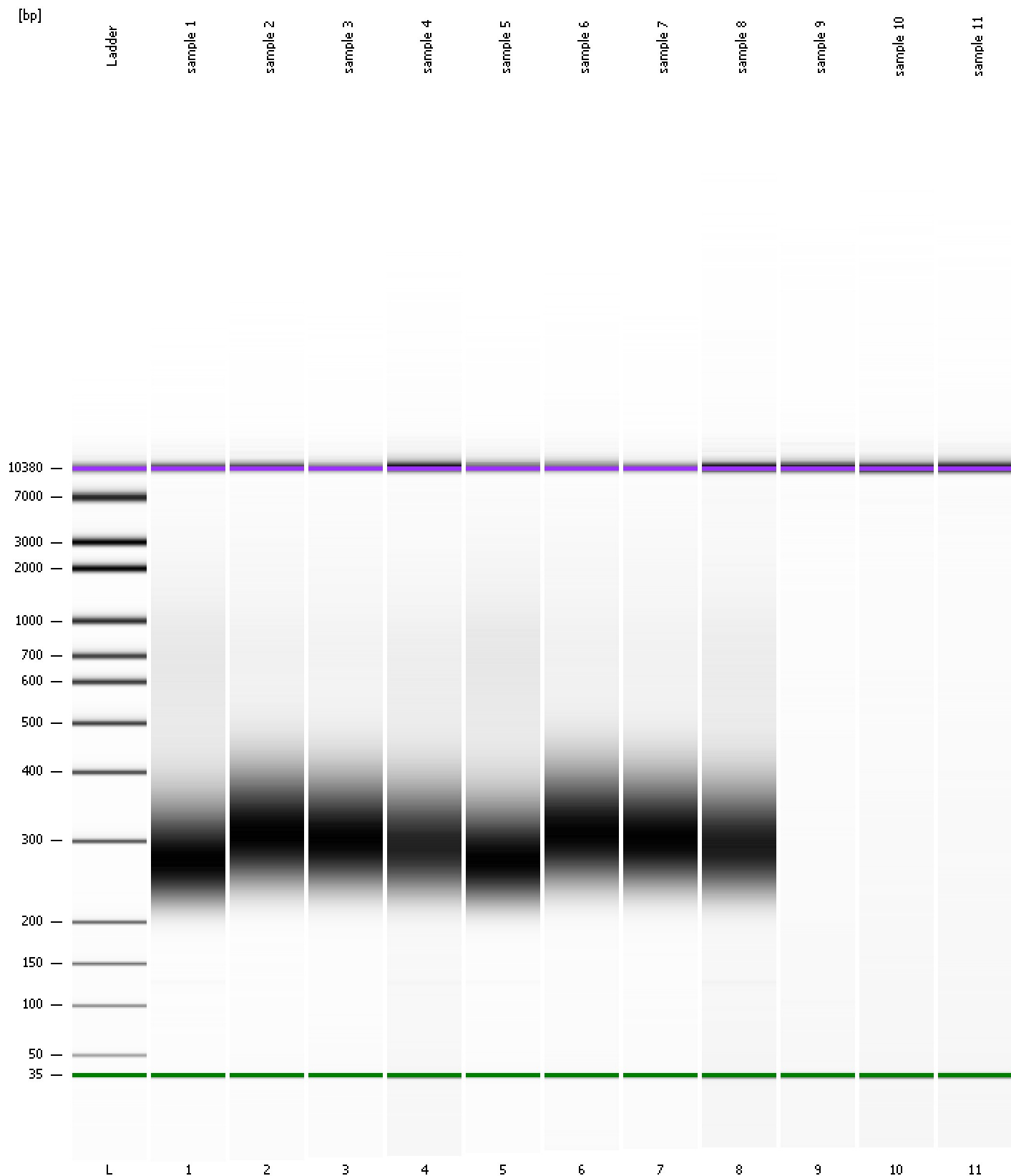
Region table for sample 11 : sample 11

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	414	0.09	0.1	0.4	1	41.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
Modified: 6/12/2019 4:01:56 PM

Gel Image

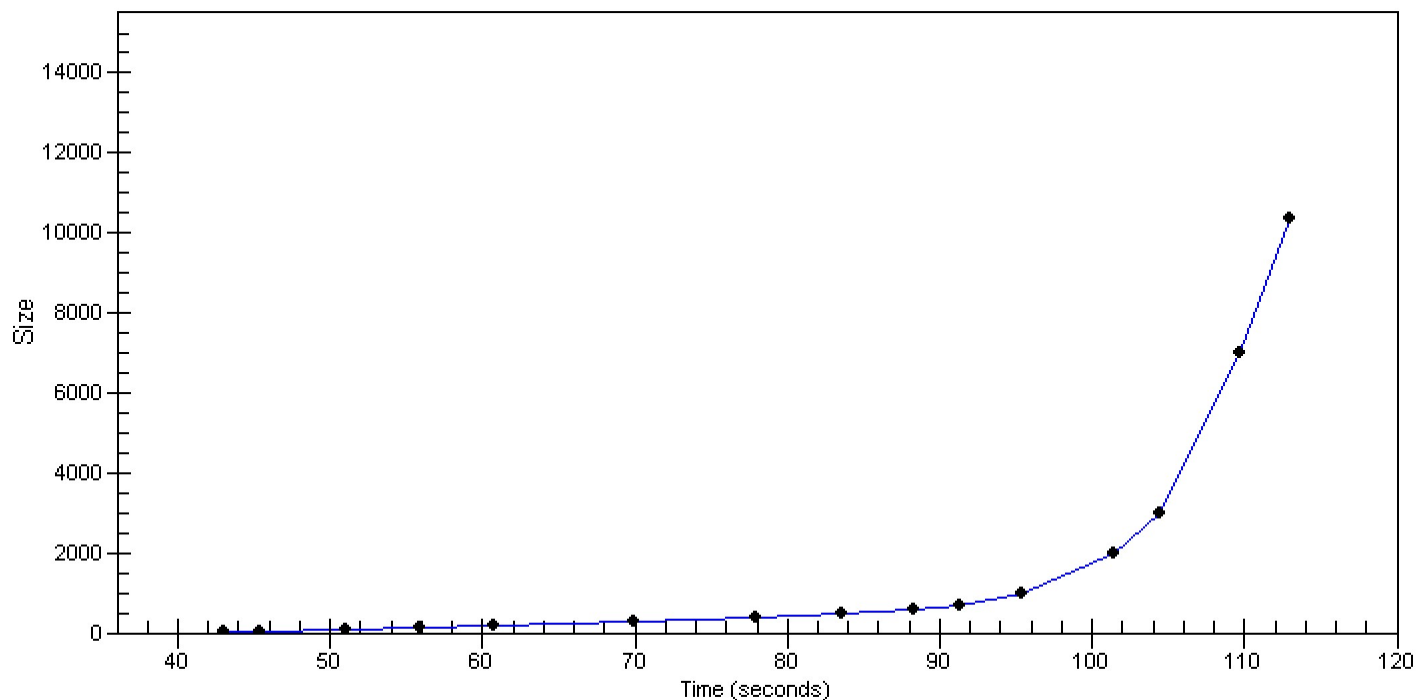


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
Modified: 6/12/2019 4:01:56 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad

Created: 6/12/2019 3:08:59 PM
 Modified: 6/12/2019 4:01:56 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		6/12/2019 3:50:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-06-12\2019-06-12_001.xad)		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/12/2019 3:09:04 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1