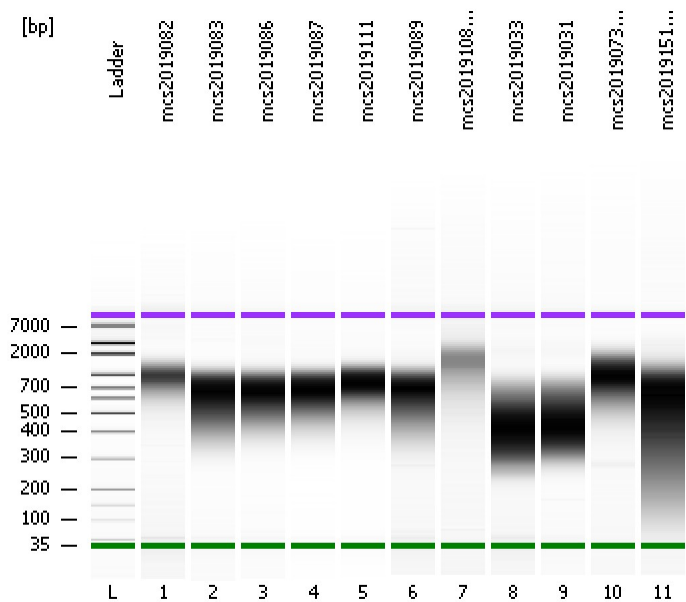


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
Modified: 5/28/2019 4:56:39 PM

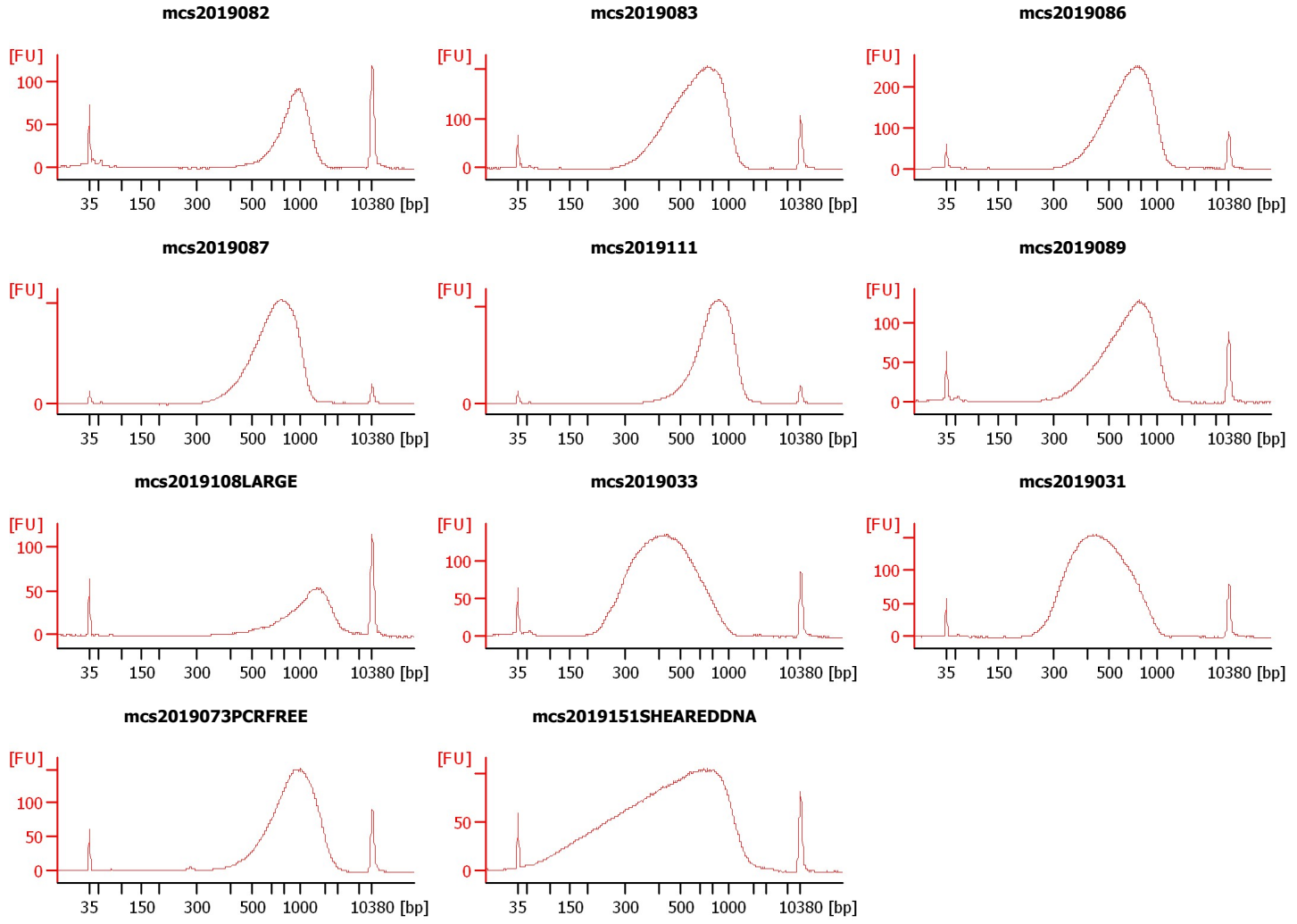
Electrophoresis File Run Summary



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\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
mcs2019082		<input type="checkbox"/>	✓			
mcs2019083		<input type="checkbox"/>	✓			
mcs2019086		<input type="checkbox"/>	✓			
mcs2019087		<input type="checkbox"/>	✓			
mcs2019111		<input type="checkbox"/>	✓			
mcs2019089		<input type="checkbox"/>	✓			
mcs2019108LARGE		<input type="checkbox"/>	✓			
mcs2019033		<input type="checkbox"/>	✓			
mcs2019031		<input type="checkbox"/>	✓			
mcs2019073PCRFREE		<input type="checkbox"/>	✓			
mcs2019151SHEAREDDNA		<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\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
Modified: 5/28/2019 4:56:39 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

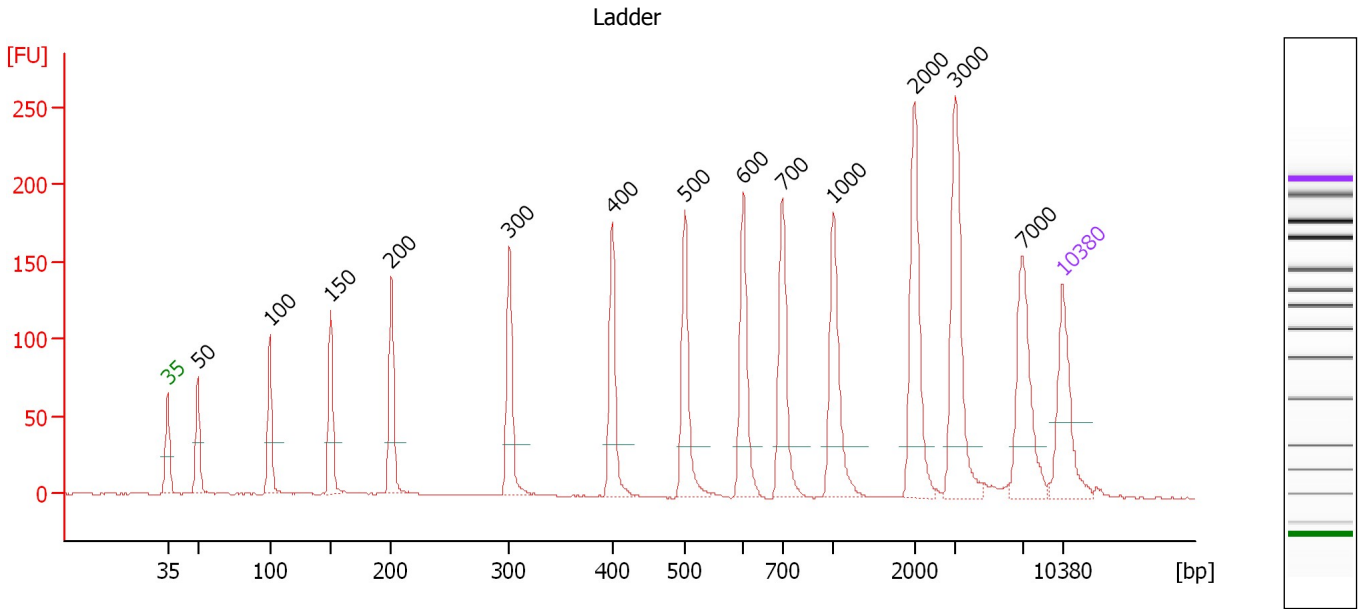
Ladder

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: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.4

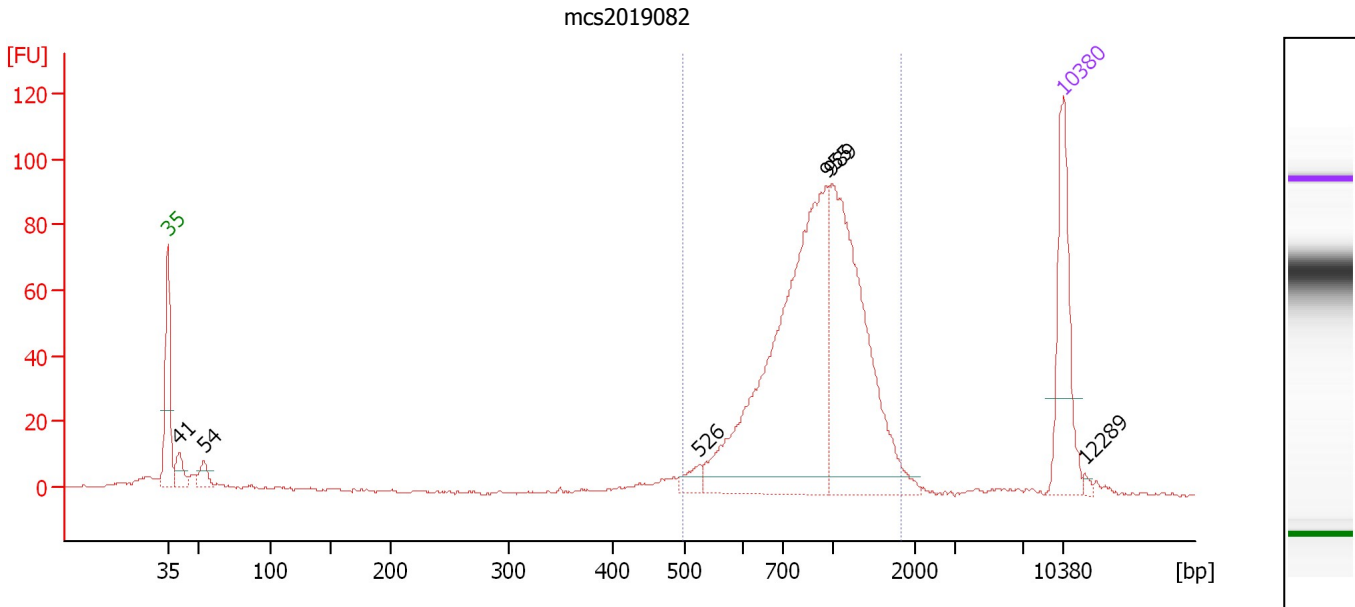
Peak table for Ladder

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	45.34
3	100	150.00	2,272.7	Ladder Peak	50.98
4	150	150.00	1,515.2	Ladder Peak	55.76
5	200	150.00	1,136.4	Ladder Peak	60.50
6	300	150.00	757.6	Ladder Peak	69.72
7	400	150.00	568.2	Ladder Peak	77.75
8	500	150.00	454.5	Ladder Peak	83.43
9	600	150.00	378.8	Ladder Peak	88.02
10	700	150.00	324.7	Ladder Peak	91.06
11	1,000	150.00	227.3	Ladder Peak	95.10
12	2,000	150.00	113.6	Ladder Peak	101.38
13	3,000	150.00	75.8	Ladder Peak	104.57
14	7,000	150.00	32.5	Ladder Peak	109.86
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : mcs2019082

Number of peaks found: 6 Corr. Area 1: 823.2
 Noise: 0.4

Peak table for sample 1 : mcs2019082

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	41	22.57	837.2		43.91
3	54	17.64	491.2		45.84
4	526	12.84	37.0		84.61
5	955	354.77	562.7		94.50
6	989	241.95	370.6		94.96
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,289	0.00	0.0		114.77

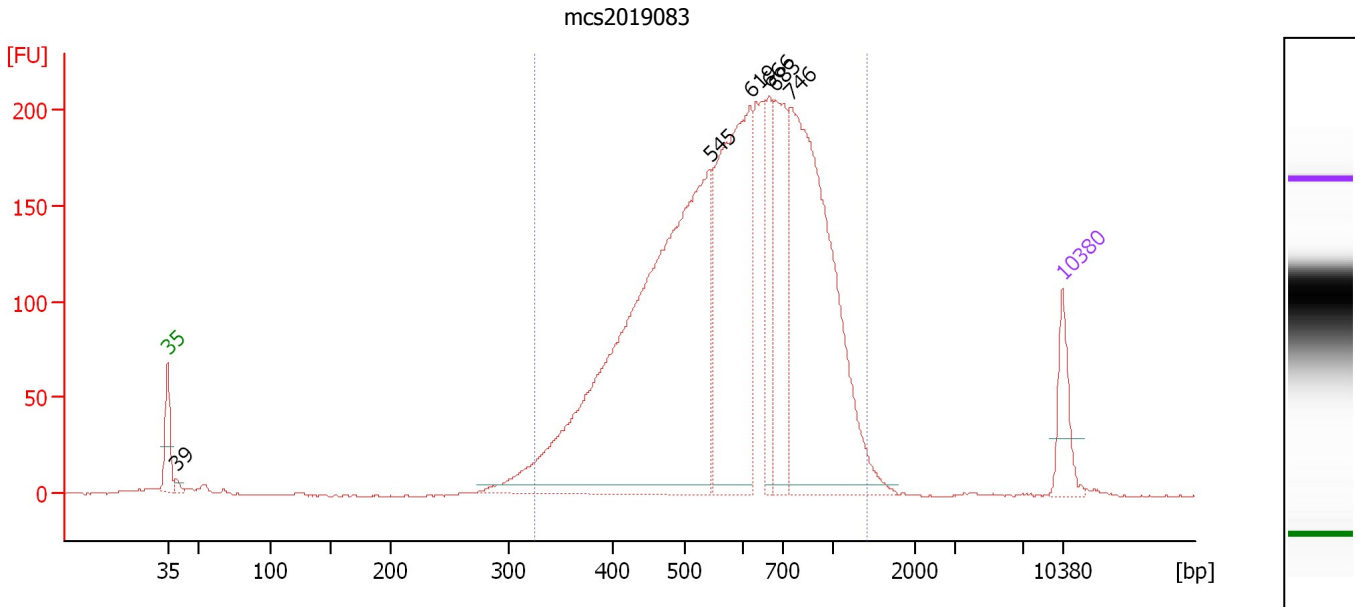
Region table for sample 1 : mcs2019082

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
498	1,845	958	634.63	823.2	1,112.3	87	30.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : mcs2019083

Number of peaks found: 6 Corr. Area 1: 3,733.8
 Noise: 0.5

Peak table for sample 2 : mcs2019083

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	39	16.06	619.6		43.67
3	545	1,628.87	4,529.1		85.49
4	619	714.87	1,751.1		88.58
5	666	165.98	377.6		90.03
6	683	277.99	616.8		90.54
7	746	952.96	1,936.7		91.68
8	10,380	75.00	10.9	Upper Marker	113.00

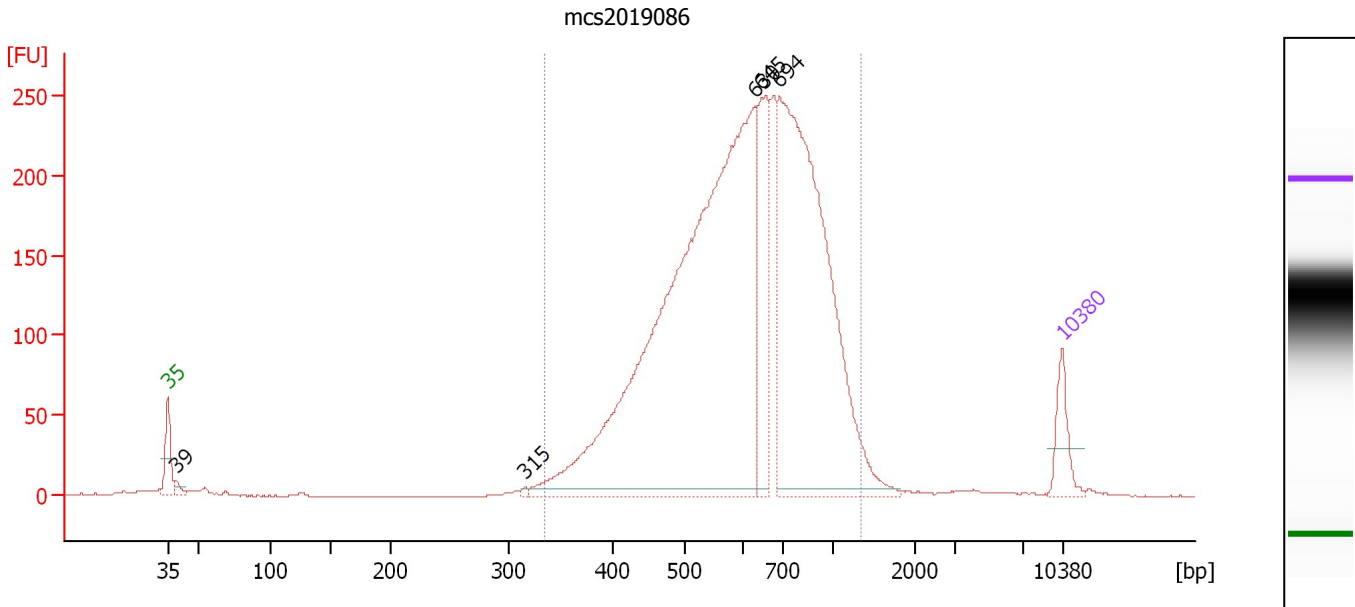
Region table for sample 2 : mcs2019083

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
325	1,414	633	4,075.80	3,733.8	10,978.4	95	31.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : mcs2019086

Number of peaks found: 5 Corr. Area 1: 3,798.0
 Noise: 0.4

Peak table for sample 3 : mcs2019086

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	39	21.99	853.8		43.63
3	315	6.72	32.3		70.95
4	630	2,434.96	5,856.4		88.93
5	645	327.76	769.4		89.40
6	694	1,478.84	3,229.8		90.87
7	10,380	75.00	10.9	Upper Marker	113.00

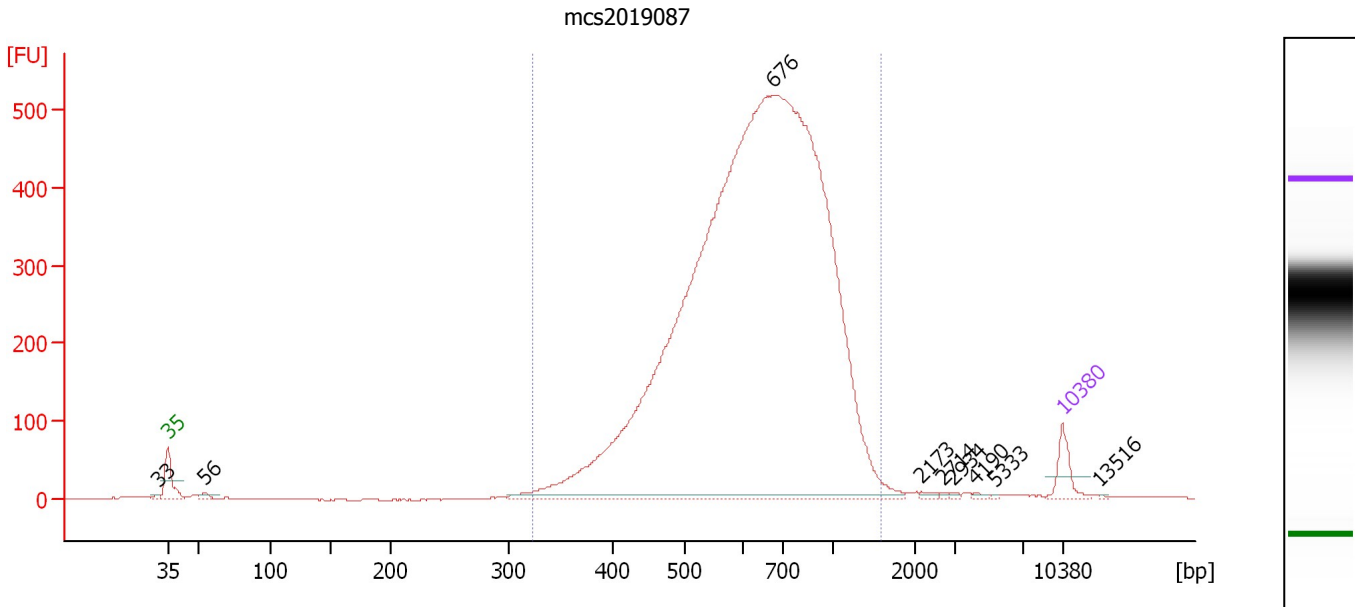
Region table for sample 3 : mcs2019086

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
335	1,328	650	4,556.58	3,798.0	11,694.3	95	28.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : mcs2019087

Number of peaks found: 9 Corr. Area 1: 7,437.9
 Noise: 0.4

Peak table for sample 4 : mcs2019087

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	33	0.00	0.0		42.30
2	35	125.00	5,411.3	Lower Marker	43.00
3	56	28.32	772.4		45.97
4	676	8,164.35	18,299.5		90.33
5	2,173	10.74	7.5		101.94
6	2,714	4.43	2.5		103.66
7	2,934	5.86	3.0		104.36
8	4,190	7.12	2.6		106.15
9	5,333	3.15	0.9		107.66
10	10,380	75.00	10.9	Upper Marker	113.00
11	13,516	0.00	0.0		115.91

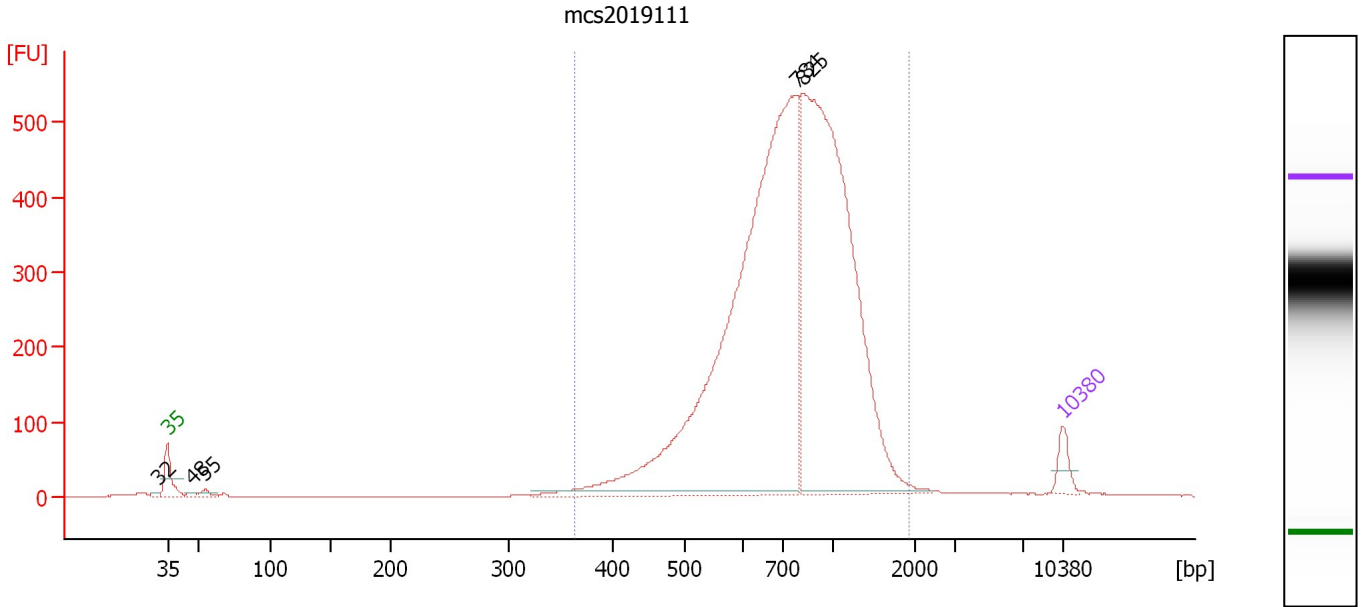
Region table for sample 4 : mcs2019087

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
324	1,592	686	8,245.95	7,437.9	20,257.5	96	30.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : mcs2019111

Number of peaks found: 5 Corr. Area 1: 6,205.7
 Noise: 0.4

Peak table for sample 5 : mcs2019111

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.23
2	35	125.00	5,411.3	Lower Marker	43.00
3	48	19.37	614.6		44.99
4	55	34.17	937.4		45.93
5	784	4,238.44	8,191.0		92.19
6	825	3,246.52	5,961.5		92.75
7	10,380	75.00	10.9	Upper Marker	113.00

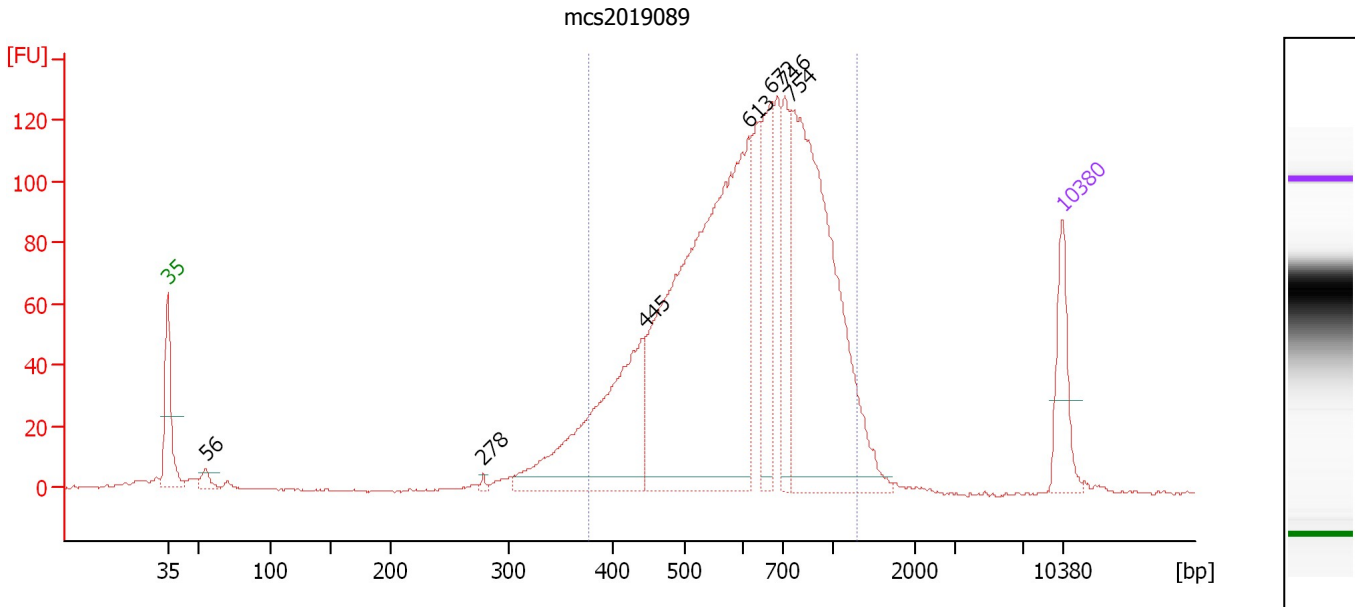
Region table for sample 5 : mcs2019111

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
364	1,947	820	7,669.48	6,205.7	15,967.5	96	33.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : mcs2019089

Number of peaks found: 7 Corr. Area 1: 1,907.9
 Noise: 0.4

Peak table for sample 6 : mcs2019089

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	56	20.54	559.1		45.98
3	278	5.36	29.2		67.70
4	445	397.43	1,353.3		80.31
5	613	955.11	2,361.6		88.41
6	672	174.48	393.4		90.21
7	716	127.61	270.0		91.28
8	754	671.91	1,350.6		91.79
9	10,380	75.00	10.9	Upper Marker	113.00

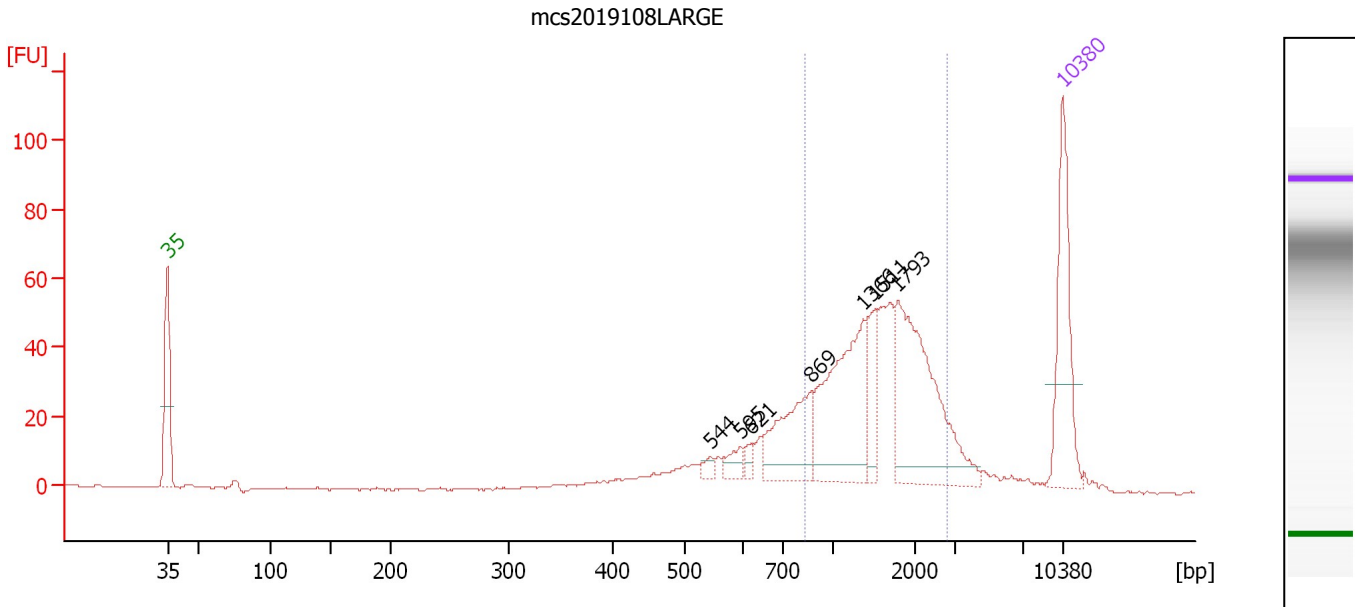
Region table for sample 6 : mcs2019089

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
378	1,285	661	2,420.09	1,907.9	6,119.6	89	28.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : mcs2019108LARGE

Number of peaks found: 7 Corr. Area 1: 465.1
 Noise: 0.3

Peak table for sample 7 : mcs2019108LARGE

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	544	6.84	19.1		85.46
3	595	11.85	30.2		87.80
4	621	7.72	18.8		88.66
5	869	73.71	128.5		93.34
6	1,366	122.47	135.8		97.40
7	1,511	29.17	29.2		98.31
8	1,793	141.00	119.1		100.09
9	10,380	75.00	10.9	Upper Marker	113.00

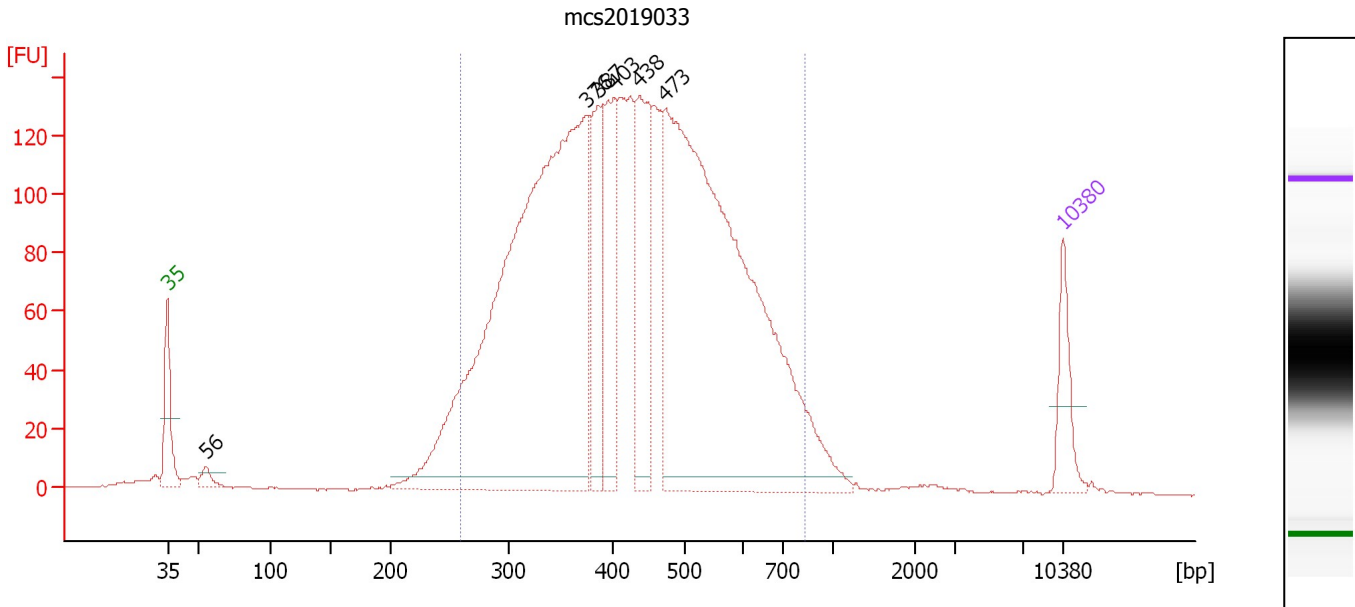
Region table for sample 7 : mcs2019108LARGE

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
830	2,795	1,588	373.75	465.1	392.2	63	31.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : mcs2019033

Number of peaks found: 6 Corr. Area 1: 3,215.5
 Noise: 0.3

Peak table for sample 8 : mcs2019033

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	56	27.23	734.2		46.04
3	376	1,827.07	7,366.7		75.81
4	387	237.75	931.5		76.68
5	403	277.29	1,042.9		77.91
6	438	284.30	983.9		79.90
7	473	1,694.86	5,431.3		81.89
8	10,380	75.00	10.9	Upper Marker	113.00

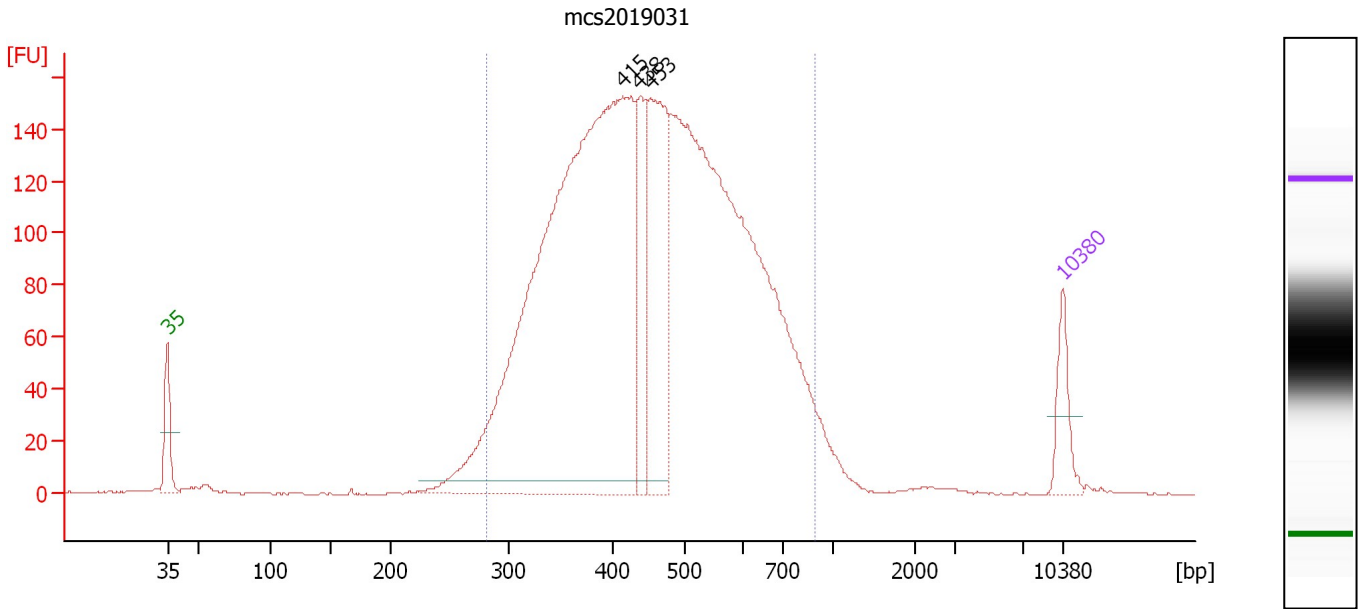
Region table for sample 8 : mcs2019033

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
258	834	442	4,725.41	3,215.5	17,757.3	92	26.2

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : mcs2019031

Number of peaks found: 3 Corr. Area 1: 3,366.0
 Noise: 0.3

Peak table for sample 9 : mcs2019031

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	415	2,445.41	8,922.5		78.62
3	438	233.43	807.4		79.91
4	453	504.44	1,688.9		80.74
5	10,380	75.00	10.9	Upper Marker	113.00

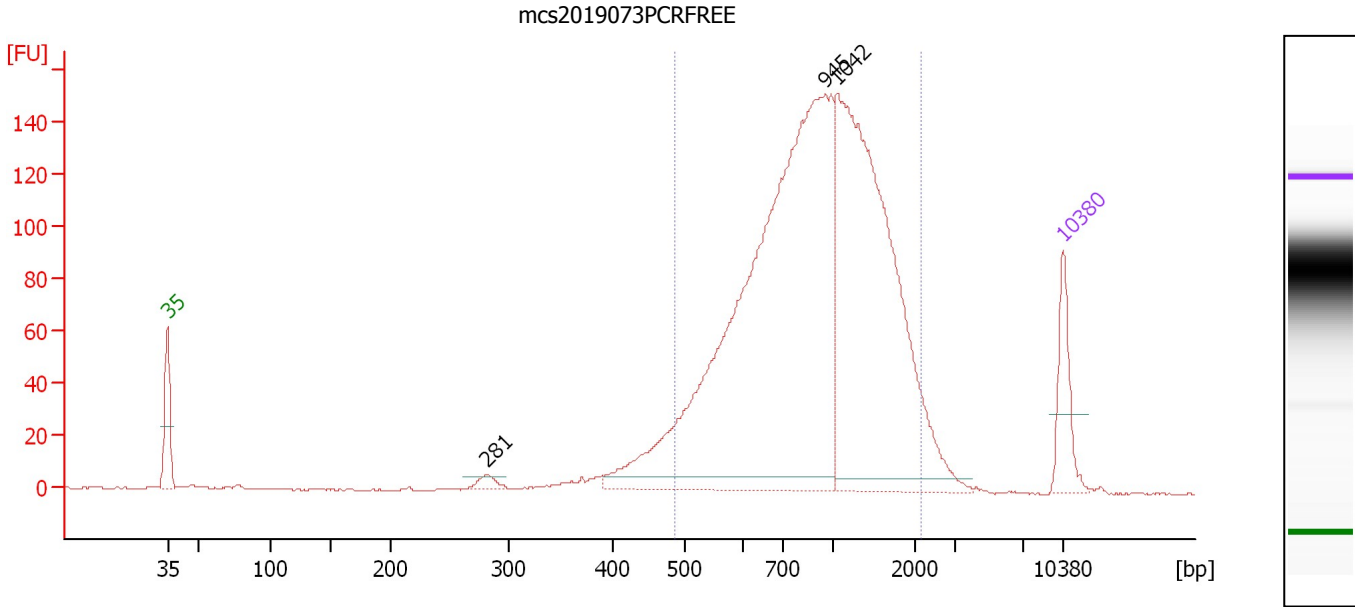
Region table for sample 9 : mcs2019031

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
281	890	471	5,197.94	3,366.0	18,180.4	94	25.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : mcs2019073PCRFREE

Number of peaks found: 3 Corr. Area 1: 1,952.8
 Noise: 0.2

Peak table for sample 10 : mcs2019073PCRFREE

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	281	18.65	100.5		68.00
3	945	1,374.63	2,204.6		94.36
4	1,042	872.20	1,268.0		95.37
5	10,380	75.00	10.9	Upper Marker	113.00

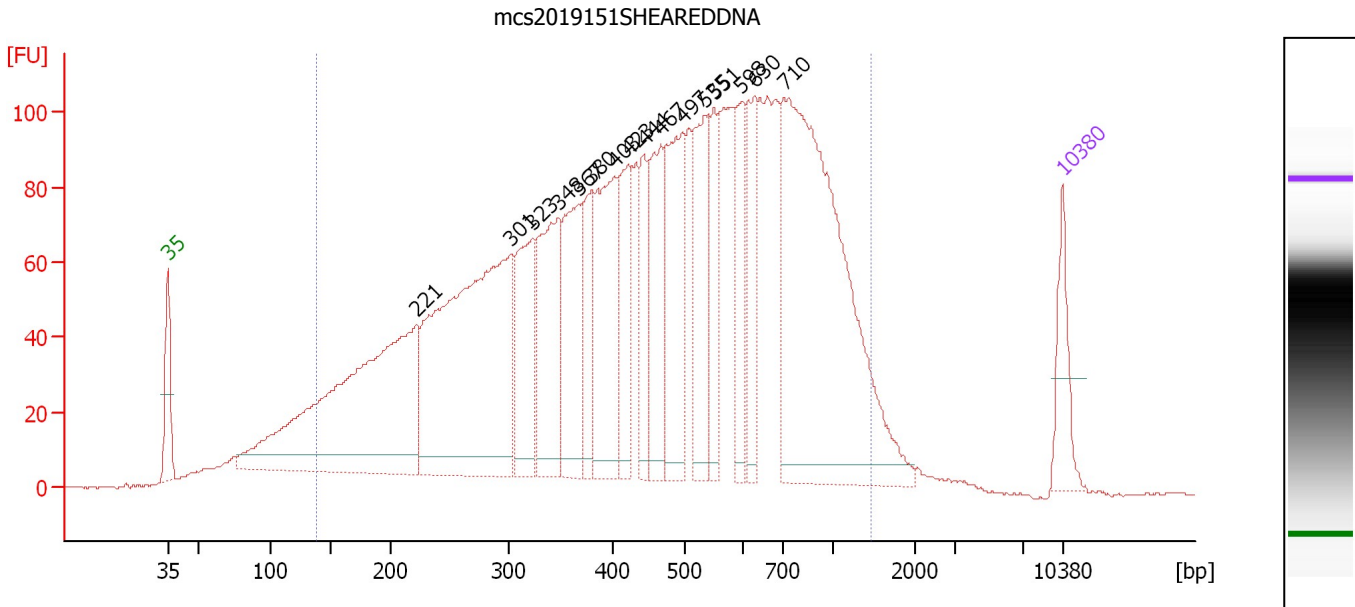
Region table for sample 10 : mcs2019073PCRFREE

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
486	2,188	1,015	2,218.72	1,952.8	3,958.3	89	40.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : mcs2019151SHEAREDDNA

Number of peaks found: 16 Corr. Area 1: 3,754.5
 Noise: 0.2

Peak table for sample 11 : mcs2019151SHEAREDDNA

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	221	902.43	6,179.6		62.46
3	301	899.46	4,523.4		69.83
4	323	226.11	1,060.9		71.56
5	348	283.88	1,237.7		73.54
6	367	245.45	1,013.5		75.10
7	380	130.55	521.1		76.11
8	403	296.68	1,115.9		77.91
9	423	163.96	587.5		79.05
10	444	127.53	435.3		80.25
11	467	207.40	672.8		81.56
12	497	271.65	828.9		83.24
13	535	201.17	569.8		85.04
14	551	131.14	360.9		85.75
15	598	125.66	318.6		87.91
16	630	137.09	329.8		88.93
17	710	950.00	2,026.0		91.20
18	10,380	75.00	10.9	Upper Marker	113.00

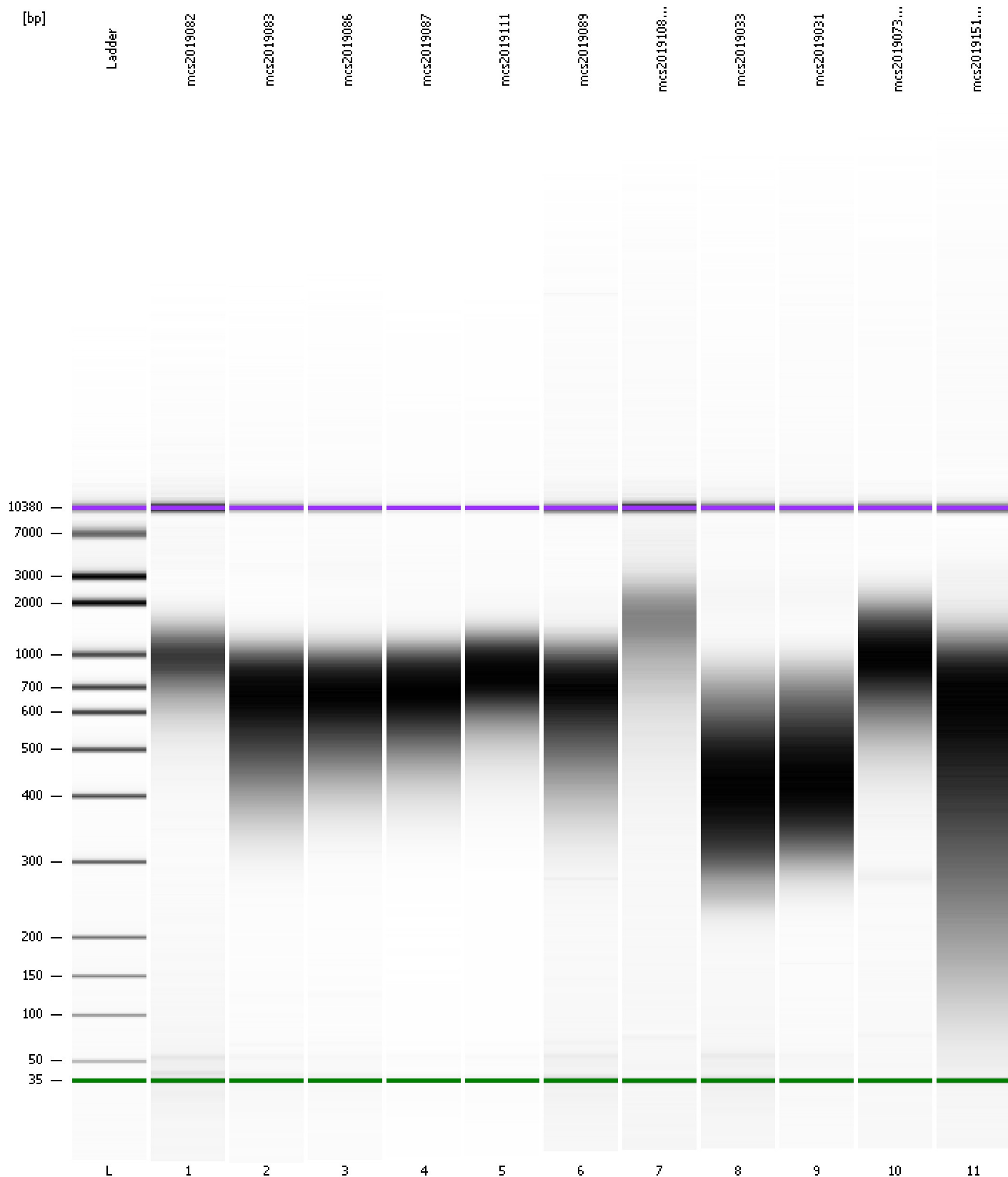
Region table for sample 11 : mcs2019151SHEAREDDNA

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
138	1,463	509	6,276.95	3,754.5	26,885.6	92	50.1

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
Modified: 5/28/2019 4:56:39 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-28\2019-05-28_002.xad

Created: 5/28/2019 4:12:28 PM
 Modified: 5/28/2019 4:56:39 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		5/28/2019 4:52:50 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\2019-05-28\2019-05-28_002.xad)		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/28/2019 4:12:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1