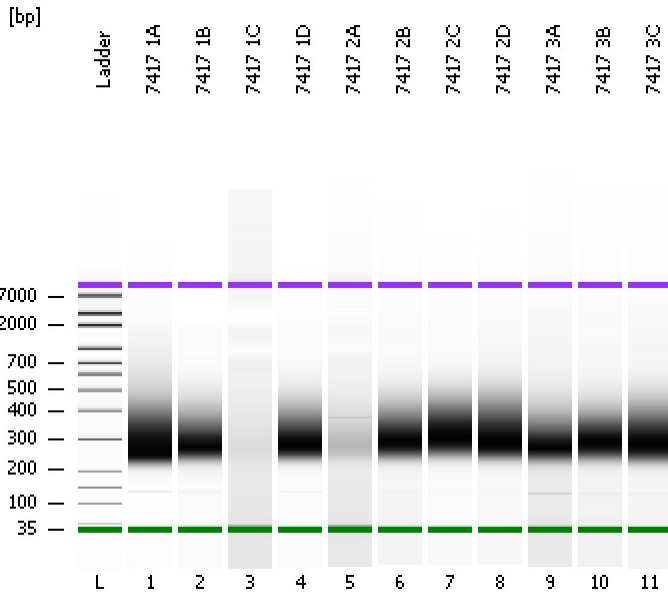


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
Modified: 5/20/2016 11:44:46 AM

Electrophoresis File Run Summary



Instrument Information:

Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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

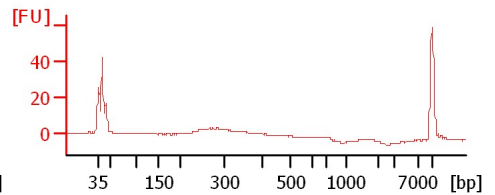
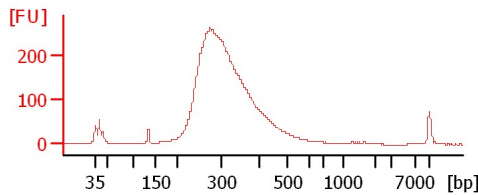
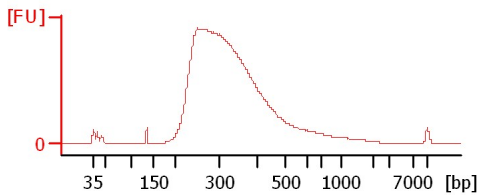
Chip Information:

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

7417 1A

7417 1B

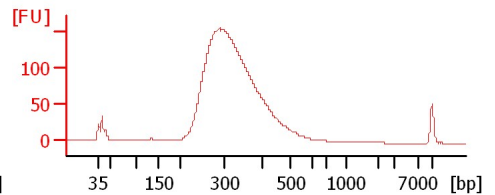
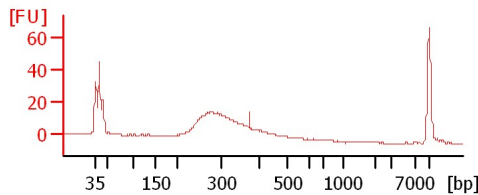
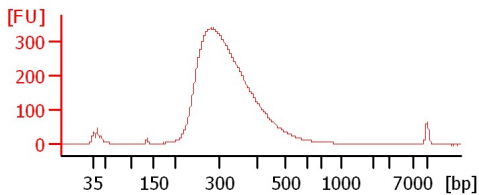
7417 1C



7417 1D

7417 2A

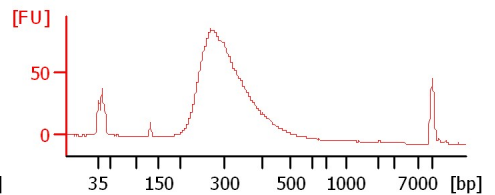
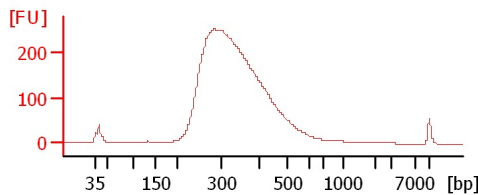
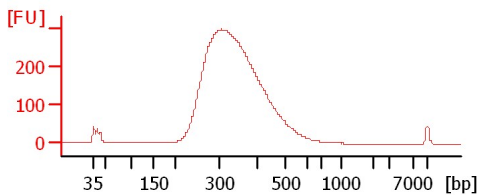
7417 2B



7417 2C

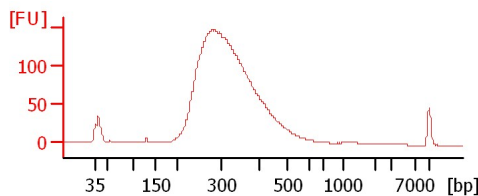
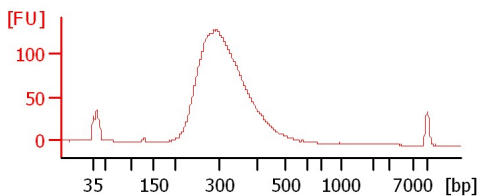
7417 2D

7417 3A



7417 3B

7417 3C



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
7417 1A		<input type="checkbox"/>	✓			
7417 1B		<input type="checkbox"/>	✓			
7417 1C		<input type="checkbox"/>	✓			
7417 1D		<input type="checkbox"/>	✓			
7417 2A		<input type="checkbox"/>	✓			
7417 2B		<input type="checkbox"/>	✓			
7417 2C		<input type="checkbox"/>	✓			
7417 2D		<input type="checkbox"/>	✓			
7417 3A		<input type="checkbox"/>	✓			
7417 3B		<input type="checkbox"/>	✓			
7417 3C		<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\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
Modified: 5/20/2016 11:44:46 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

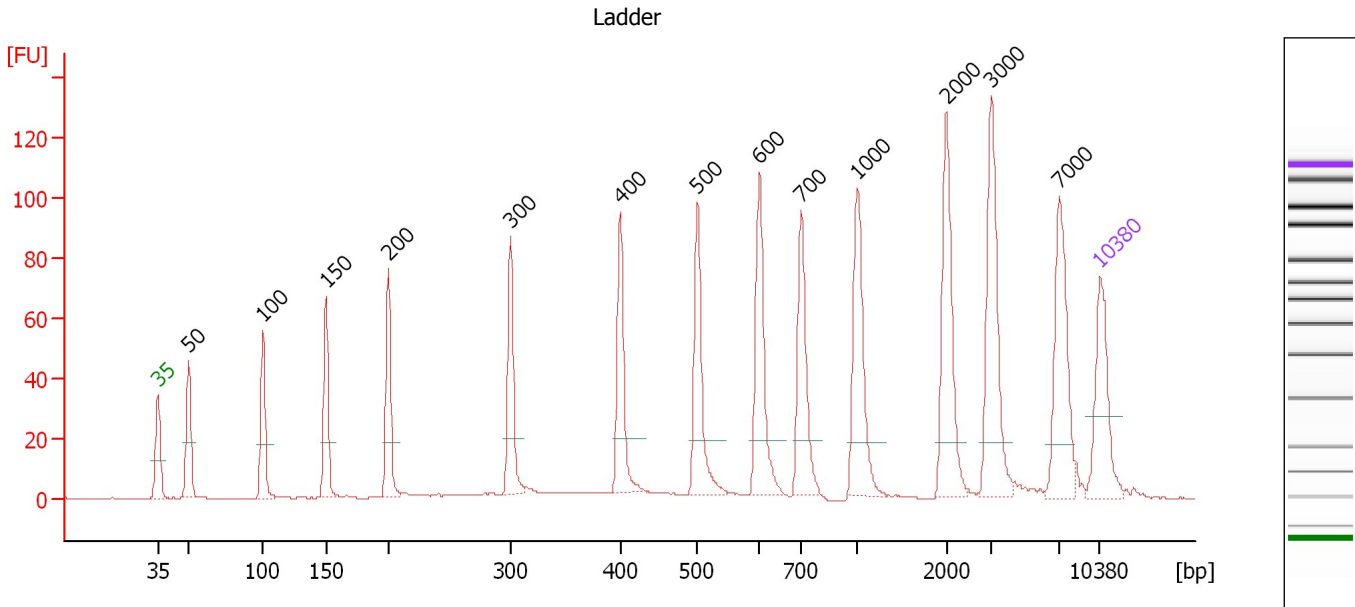
Ladder

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\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

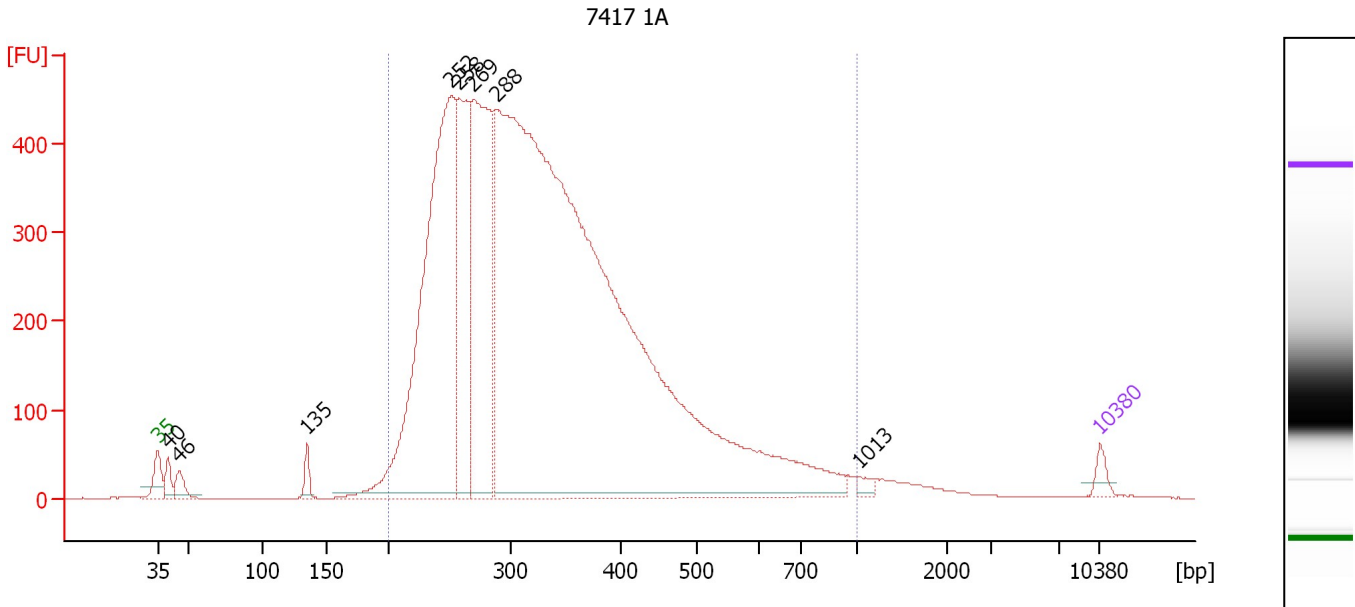
Peak table for Ladder

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	45.31
3	100	150.00	2,272.7	Ladder Peak	50.83
4	150	150.00	1,515.2	Ladder Peak	55.50
5	200	150.00	1,136.4	Ladder Peak	60.17
6	300	150.00	757.6	Ladder Peak	69.21
7	400	150.00	568.2	Ladder Peak	77.35
8	500	150.00	454.5	Ladder Peak	83.12
9	600	150.00	378.8	Ladder Peak	87.69
10	700	150.00	324.7	Ladder Peak	90.80
11	1,000	150.00	227.3	Ladder Peak	95.02
12	2,000	150.00	113.6	Ladder Peak	101.60
13	3,000	150.00	75.8	Ladder Peak	104.92
14	7,000	150.00	32.5	Ladder Peak	109.99
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 1 : 7417 1A

Number of peaks found: 8 Corr. Area 1: 10,163.7
 Noise: 0.2

Peak table for sample 1 : 7417 1A

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	40	170.49	6,470.4		43.76
3	46	171.28	5,703.2		44.62
4	135	137.79	1,544.5		54.12
5	252	5,231.43	31,509.0		64.83
6	258	1,821.51	10,709.2		65.39
7	269	2,970.21	16,701.7		66.45
8	288	17,299.27	90,863.9		68.17
9	1,013	54.90	82.1		95.11
10	10,380	75.00	10.9	Upper Marker	113.00

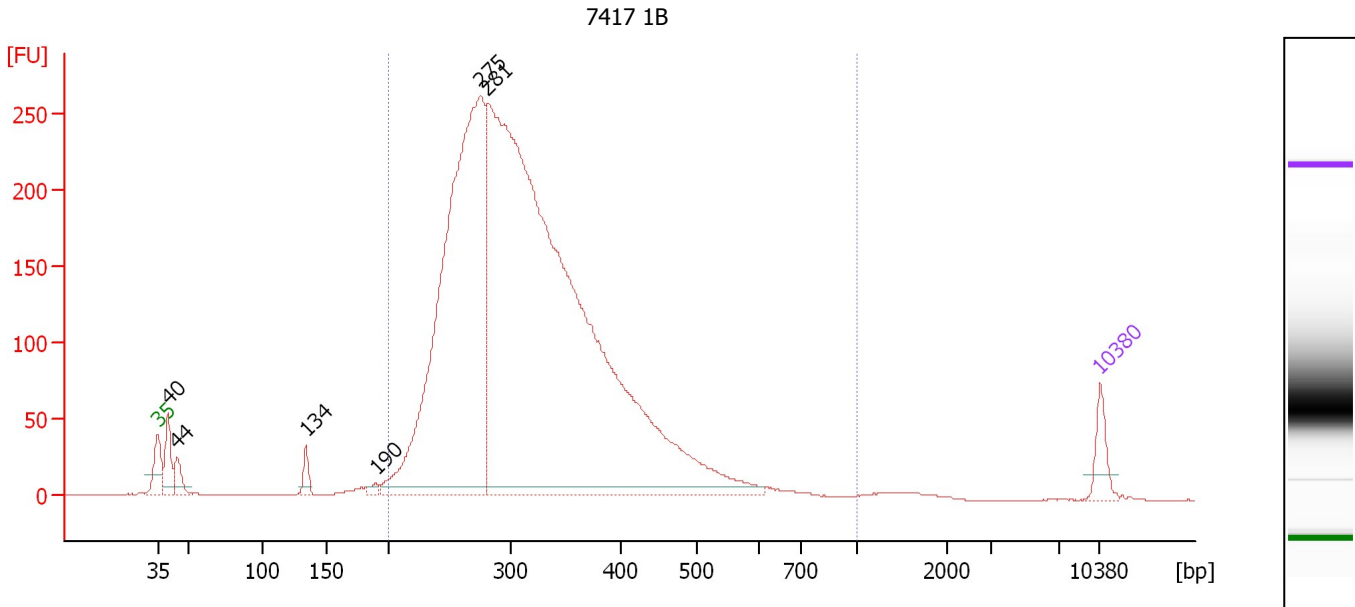
Region table for sample 1 : 7417 1A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	345	10,163.7	121,173.8	24,813.01	96	33.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 7417 1B

Number of peaks found: 6 Corr. Area 1: 4,261.7
 Noise: 0.2

Peak table for sample 2 : 7417 1B

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	40	165.98	6,301.4		43.76
3	44	89.93	3,062.7		44.46
4	134	59.80	674.7		54.04
5	190	21.14	168.7		59.23
6	275	2,970.61	16,343.4		66.99
7	281	6,065.58	32,708.8		67.49
8	10,380	75.00	10.9	Upper Marker	113.00

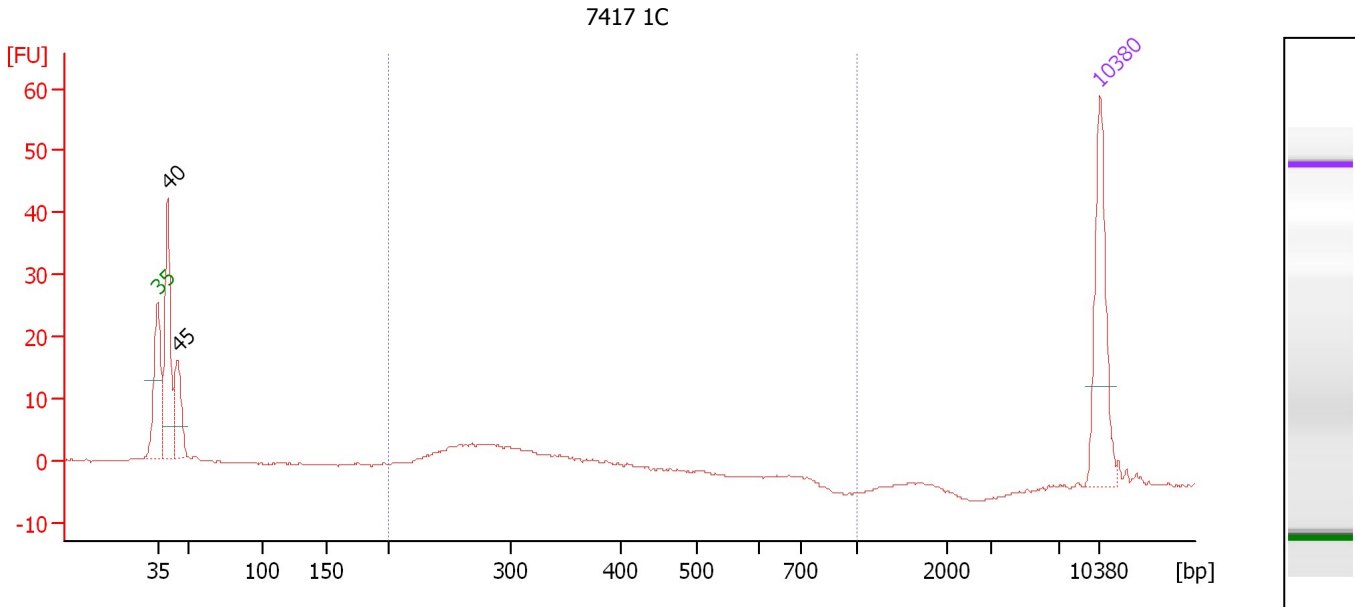
Region table for sample 2 : 7417 1B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	322	4,261.7	42,647.1	8,547.18	96	23.1

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 7417 1C

Number of peaks found: 2 Corr. Area 1: 68.9
 Noise: 0.2

Peak table for sample 3 : 7417 1C

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	40	146.46	5,553.8		43.76
3	45	58.28	1,980.6		44.48
4	10,380	75.00	10.9	Upper Marker	113.00

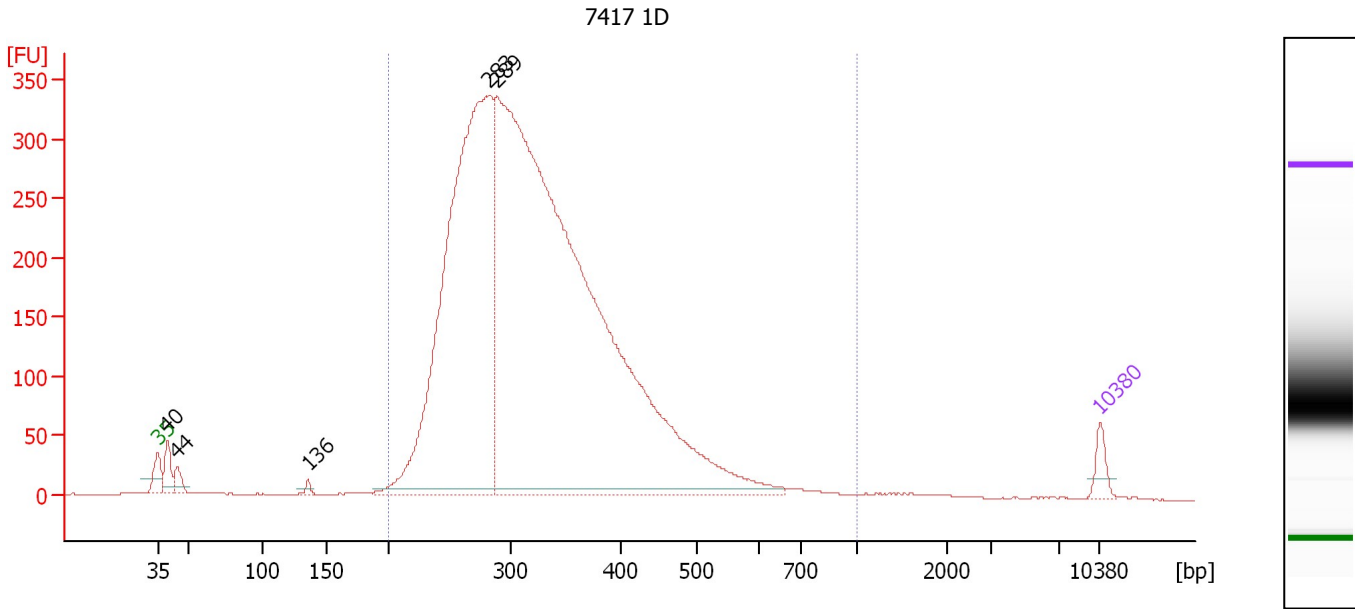
Region table for sample 3 : 7417 1C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	309	68.9	792.2	154.19	43	20.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 7417 1D

Number of peaks found: 5 Corr. Area 1: 5,844.2
 Noise: 0.2

Peak table for sample 4 : 7417 1D

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	40	167.35	6,380.9		43.73
3	44	96.17	3,276.1		44.46
4	136	28.17	314.8		54.15
5	283	4,913.23	26,327.5		67.65
6	289	9,778.08	51,348.6		68.17
7	10,380	75.00	10.9	Upper Marker	113.00

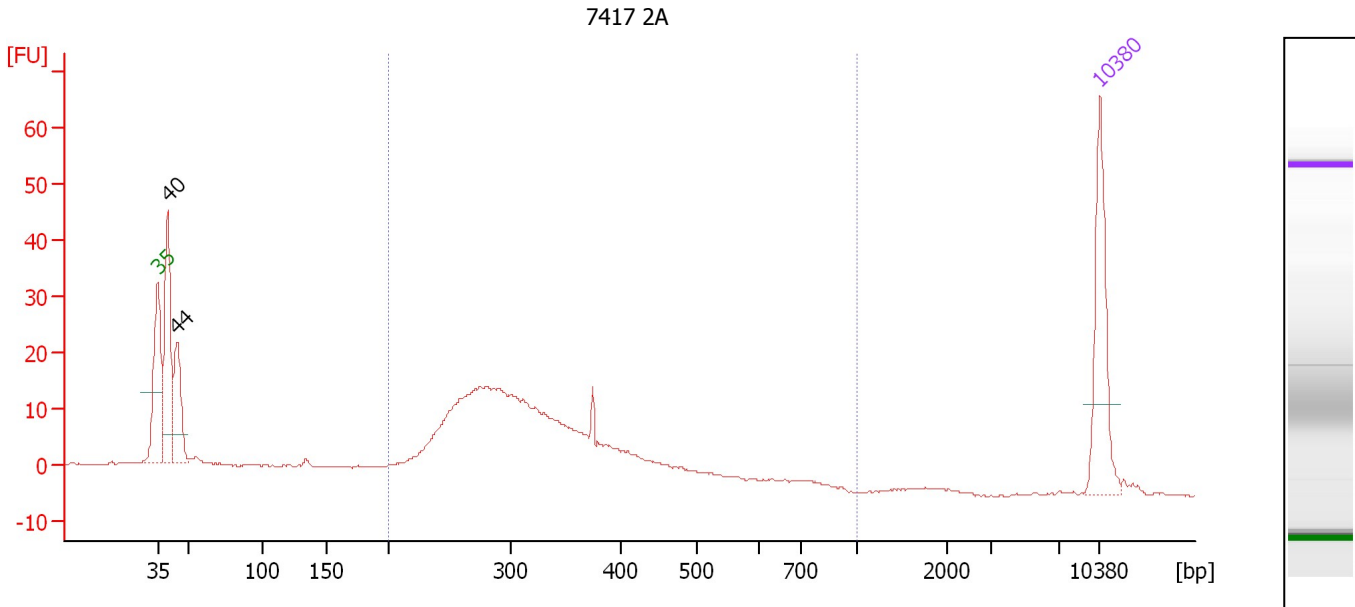
Region table for sample 4 : 7417 1D

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	330	5,844.2	68,039.4	13,925.09	97	24.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 7417 2A

Number of peaks found: 2 Corr. Area 1: 265.4
 Noise: 0.2

Peak table for sample 5 : 7417 2A

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	40	144.87	5,515.1		43.74
3	44	79.41	2,718.5		44.43
4	10,380	75.00	10.9	Upper Marker	113.00

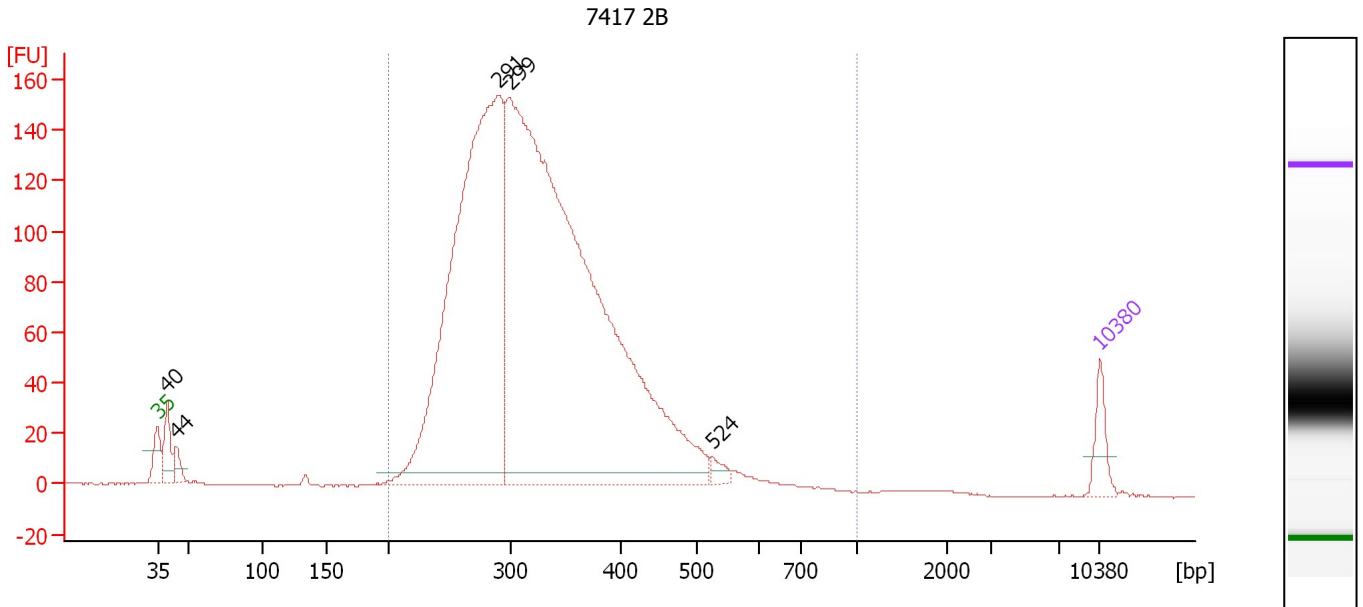
Region table for sample 5 : 7417 2A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	323	265.4	2,721.7	547.12	69	23.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 7417 2B

Number of peaks found: 5 Corr. Area 1: 2,612.3
 Noise: 0.1

Peak table for sample 6 : 7417 2B

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	40	150.95	5,784.9		43.70
3	44	63.86	2,195.4		44.40
4	291	2,733.13	14,253.3		68.36
5	299	4,491.74	22,727.1		69.16
6	524	36.32	105.1		84.20
7	10,380	75.00	10.9	Upper Marker	113.00

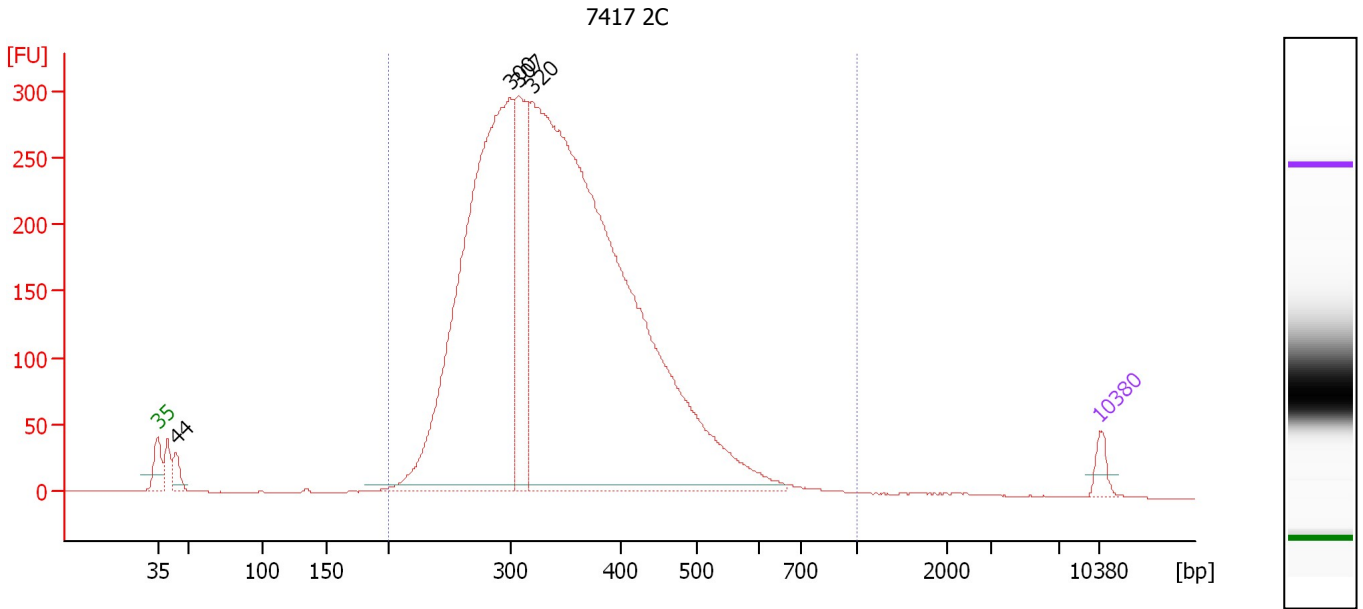
Region table for sample 6 : 7417 2B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	332	2,612.3	34,673.5	7,184.89	97	22.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 7417 2C

Number of peaks found: 4 Corr. Area 1: 5,563.0
 Noise: 0.2

Peak table for sample 7 : 7417 2C

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	44	137.00	4,726.0		44.37
3	300	5,233.74	26,436.5		69.21
4	307	1,279.02	6,304.5		69.81
5	320	9,201.43	43,629.5		70.80
6	10,380	75.00	10.9	Upper Marker	113.00

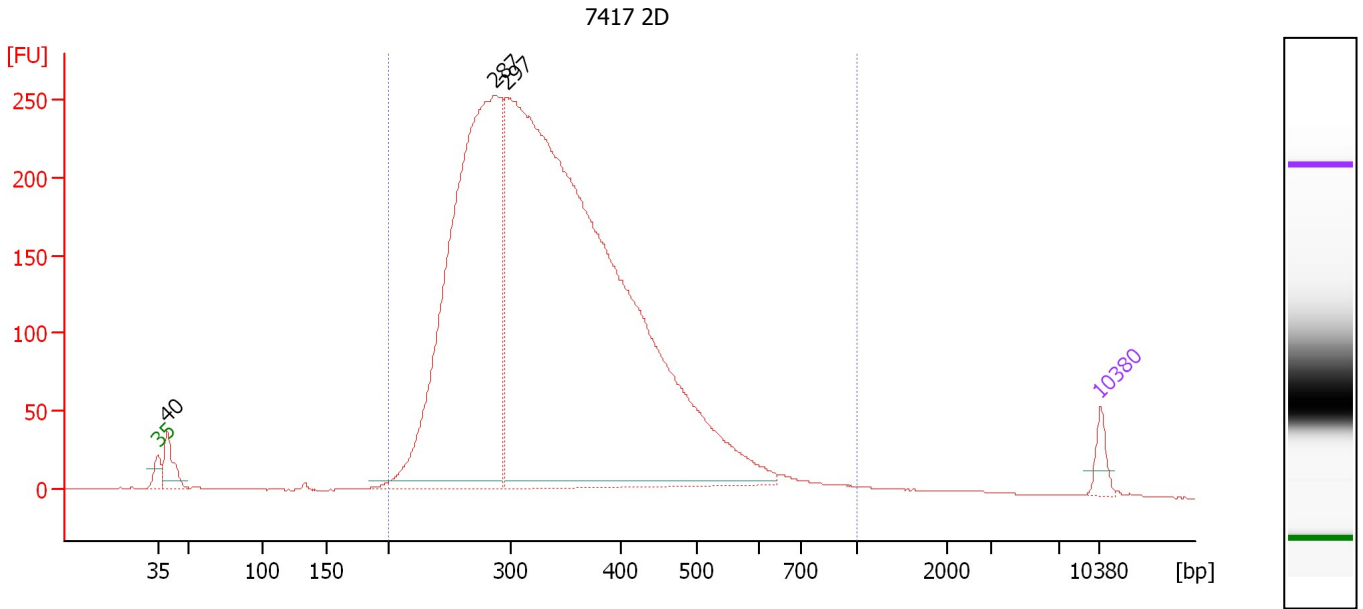
Region table for sample 7 : 7417 2C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	350	5,563.0	70,606.0	15,325.49	97	23.6

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 7417 2D

Number of peaks found: 3 Corr. Area 1: 5,000.6
 Noise: 0.2

Peak table for sample 8 : 7417 2D

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	40	239.40	9,133.7		43.73
3	287	4,555.58	24,077.4		68.01
4	297	9,213.62	46,975.8		68.96
5	10,380	75.00	10.9	Upper Marker	113.00

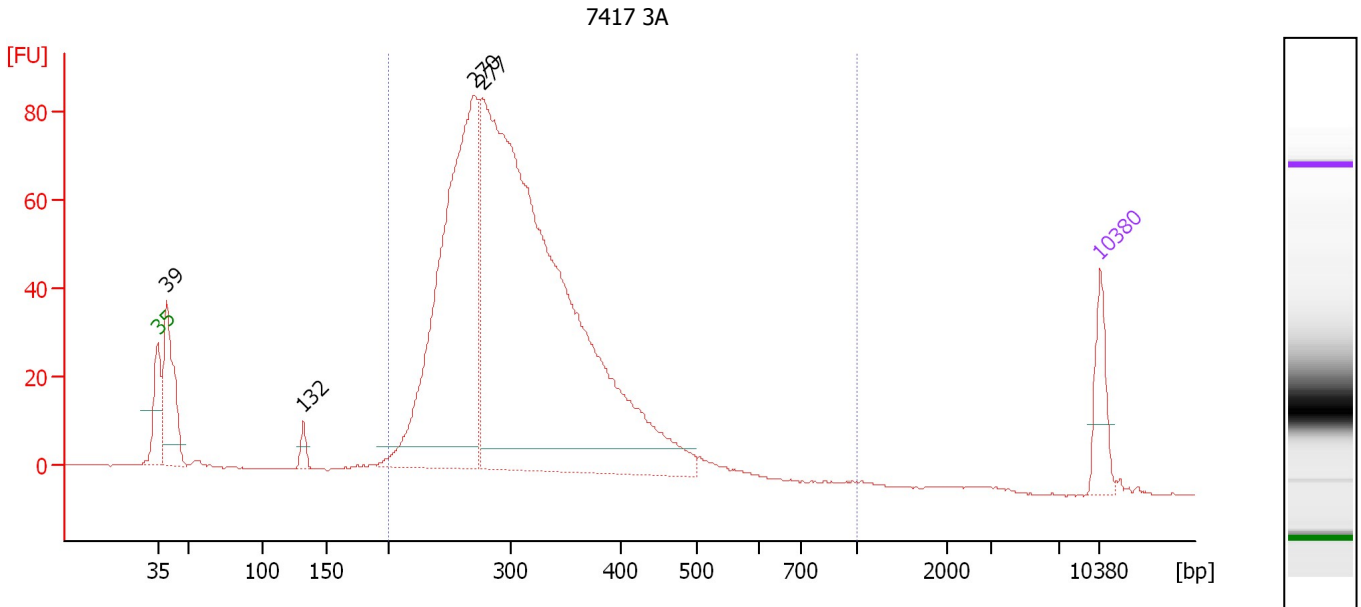
Region table for sample 8 : 7417 2D

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	348	5,000.6	62,145.1	13,207.16	97	26.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 7417 3A

Number of peaks found: 4 Corr. Area 1: 1,258.6
 Noise: 0.2

Peak table for sample 9 : 7417 3A

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	273.76	10,536.2		43.67
3	132	31.05	356.6		53.82
4	270	1,145.25	6,416.7		66.54
5	277	2,482.81	13,599.1		67.10
6	10,380	75.00	10.9	Upper Marker	113.00

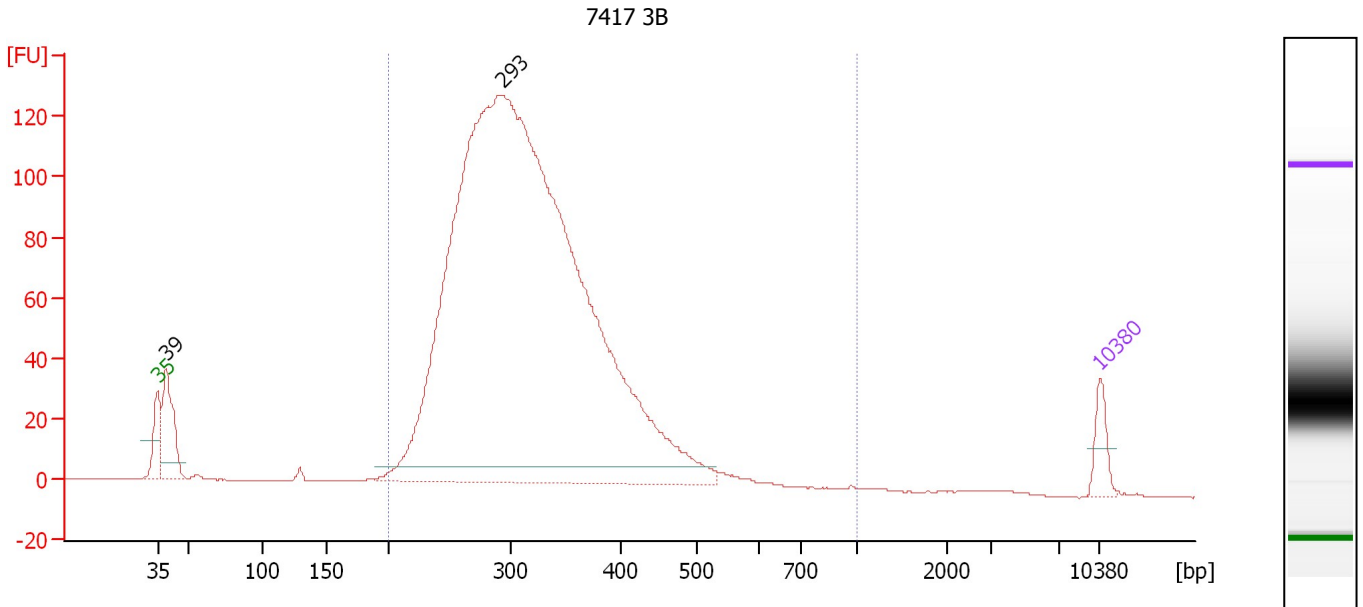
Region table for sample 9 : 7417 3A

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	313	1,258.6	18,152.3	3,569.43	92	21.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 7417 3B

Number of peaks found: 2 Corr. Area 1: 2,012.4
 Noise: 0.2

Peak table for sample 10 : 7417 3B

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	340.92	13,232.8		43.62
3	293	7,157.19	36,992.0		68.59
4	10,380	75.00	10.9	Upper Marker	113.00

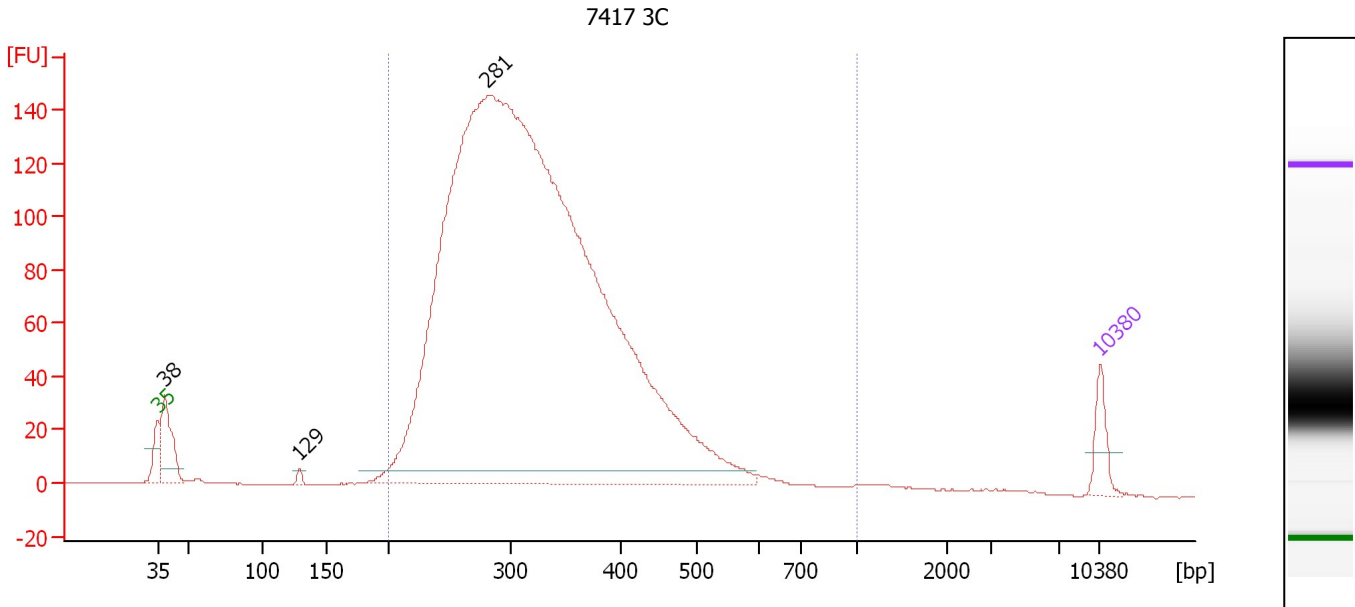
Region table for sample 10 : 7417 3B

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	321	2,012.4	34,772.4	7,021.22	95	21.4

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : 7417 3C

Number of peaks found: 3 Corr. Area 1: 2,630.9
 Noise: 0.1

Peak table for sample 11 : 7417 3C

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	38	254.12	10,045.6		43.51
3	129	16.74	196.7		53.54
4	281	8,107.66	43,722.5		67.49
5	10,380	75.00	10.9	Upper Marker	113.00

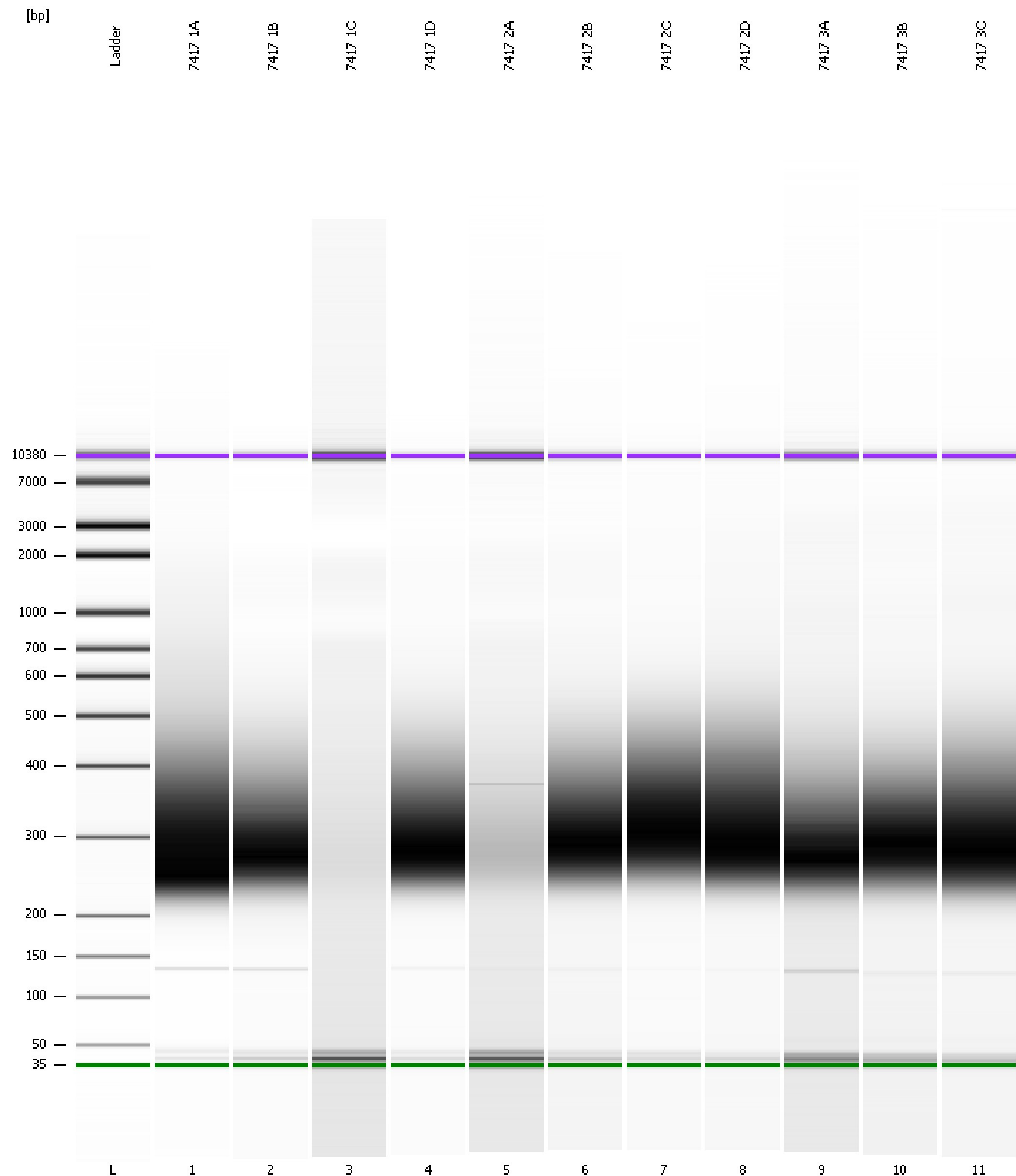
Region table for sample 11 : 7417 3C

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	330	2,630.9	37,718.0	7,685.53	96	24.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
Modified: 5/20/2016 11:44:46 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-05-20\2016-05-20_003.xad

Created: 5/20/2016 11:04:10 AM
 Modified: 5/20/2016 11:44:46 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		5/20/2016 11:44:38 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\2016-05-20\2016-05-20_003.xad)		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/20/2016 11:04:15 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1