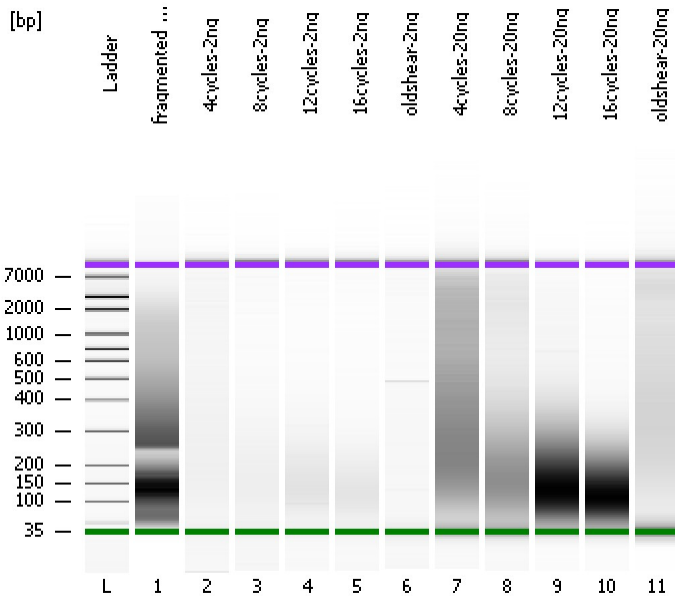


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

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

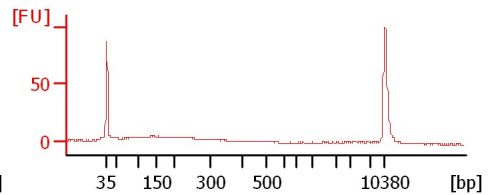
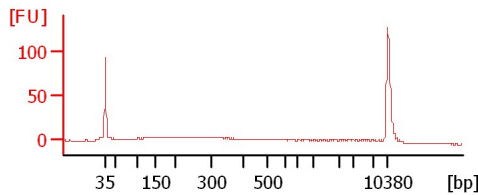
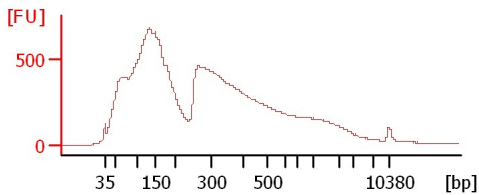
Chip Information:

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

fragmented dscDNA-VS

4cycles-2ng

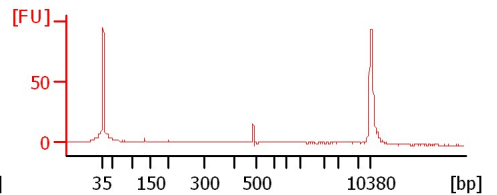
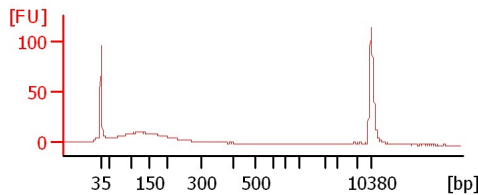
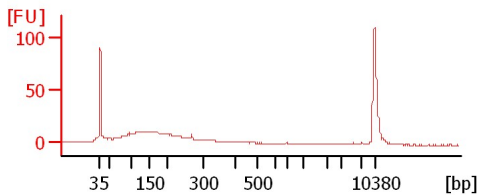
8cycles-2ng



12cycles-2ng

16cycles-2ng

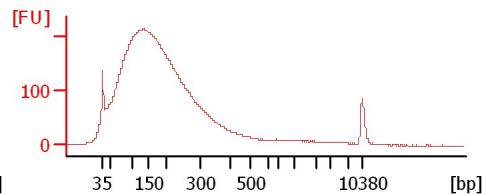
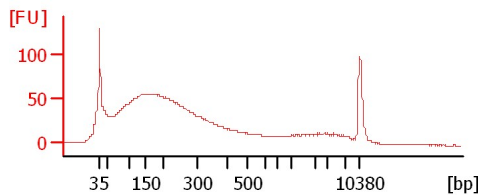
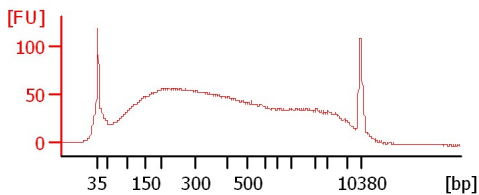
oldshear-2ng



4cycles-20ng

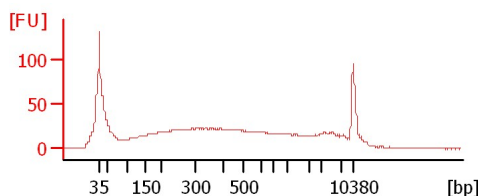
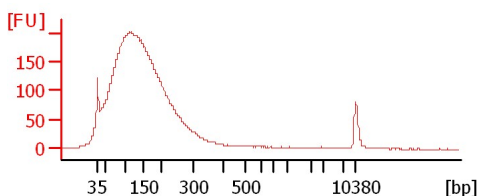
8cycles-20ng

12cycles-20ng



16cycles-20ng

oldshear-20ng



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
fragmented dscDNA-VS		<input type="checkbox"/>	✓			
4cycles-2ng		<input type="checkbox"/>	✓			
8cycles-2ng		<input type="checkbox"/>	✓			
12cycles-2ng		<input type="checkbox"/>	✓			
16cycles-2ng		<input type="checkbox"/>	✓			
oldshear-2ng		<input type="checkbox"/>	✓			
4cycles-20ng		<input type="checkbox"/>	✓			
8cycles-20ng		<input type="checkbox"/>	✓			
12cycles-20ng		<input type="checkbox"/>	✓			
16cycles-20ng		<input type="checkbox"/>	✓			
oldshear-20ng		<input type="checkbox"/>	✓			
Ladder		<input type="checkbox"/>	✓			

Chip Lot #

Reagent Kit Lot #

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 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

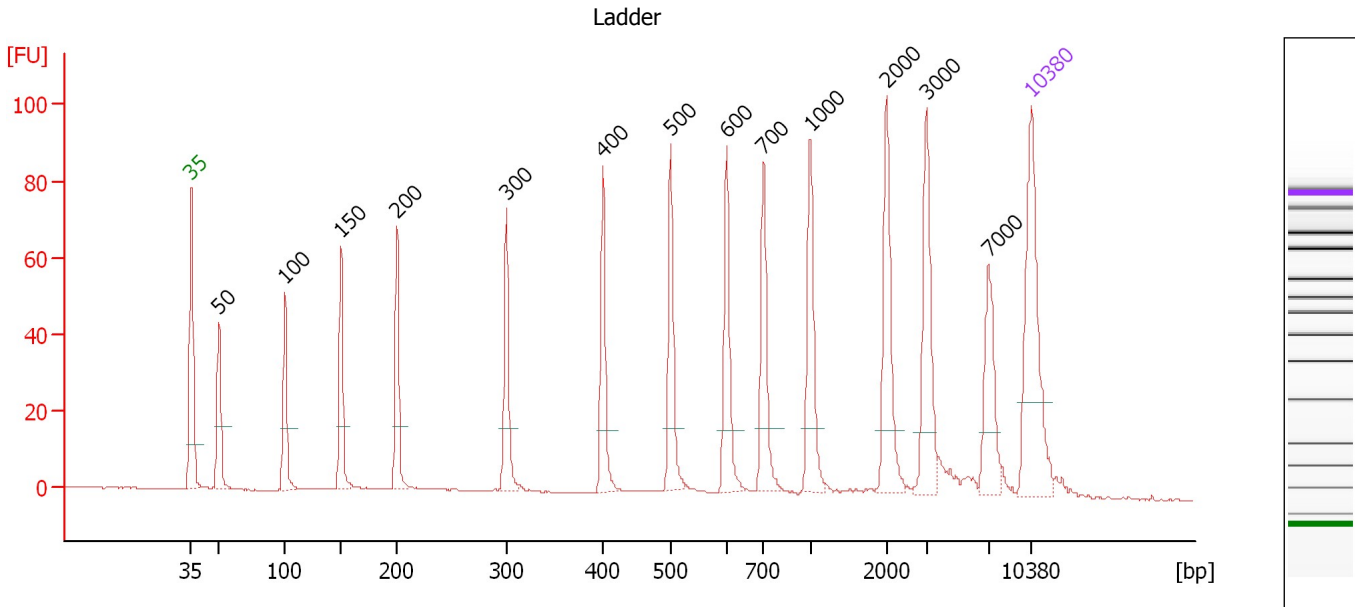
Ladder

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:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

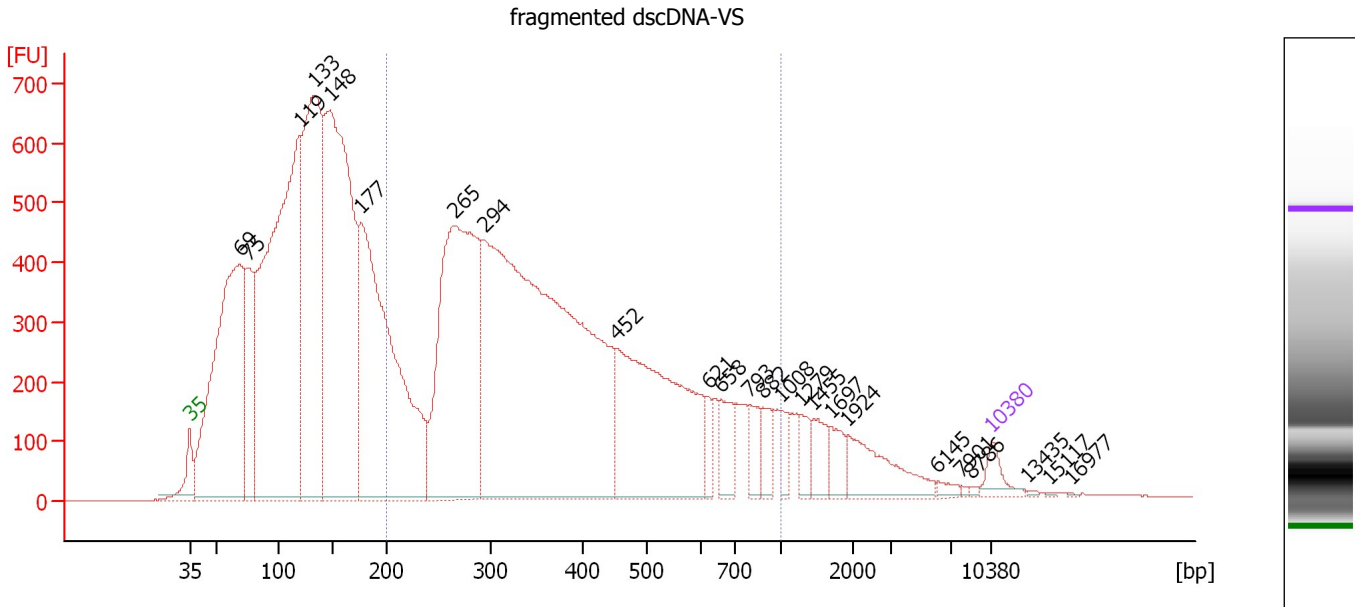
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : fragmented dscDNA-VS

Number of peaks found: 24 Corr. Area 1: 12,771.7
 Noise: 0.2


Peak table for sample 1 : fragmented dscDNA-VS

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	69	2,908.97	64,108.4	
3	75	679.75	13,716.0	
4	119	4,066.02	51,776.5	
5	133	2,574.06	29,223.8	
6	148	3,523.83	36,093.0	
7	177	2,858.47	24,487.1	
8	265	2,455.30	14,025.1	
9	294	5,035.42	25,961.5	
10	452	1,552.83	5,202.7	
11	621	87.50	213.4	
12	658	167.58	386.1	
13	793	119.08	227.5	
14	882	110.43	189.6	
15	1,008	76.86	115.6	
16	1,279	89.18	105.6	
17	1,455	127.71	133.0	
18	1,697	96.56	86.2	
19	1,924	271.73	214.0	
20	6,145	26.05	6.4	
21	7,901	7.89	1.5	
22	8,786	7.61	1.3	
23	10,380	75.00	10.9	Upper Marker
24	13,435	0.00	0.0	
25	15,117	0.00	0.0	
26	16,977	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

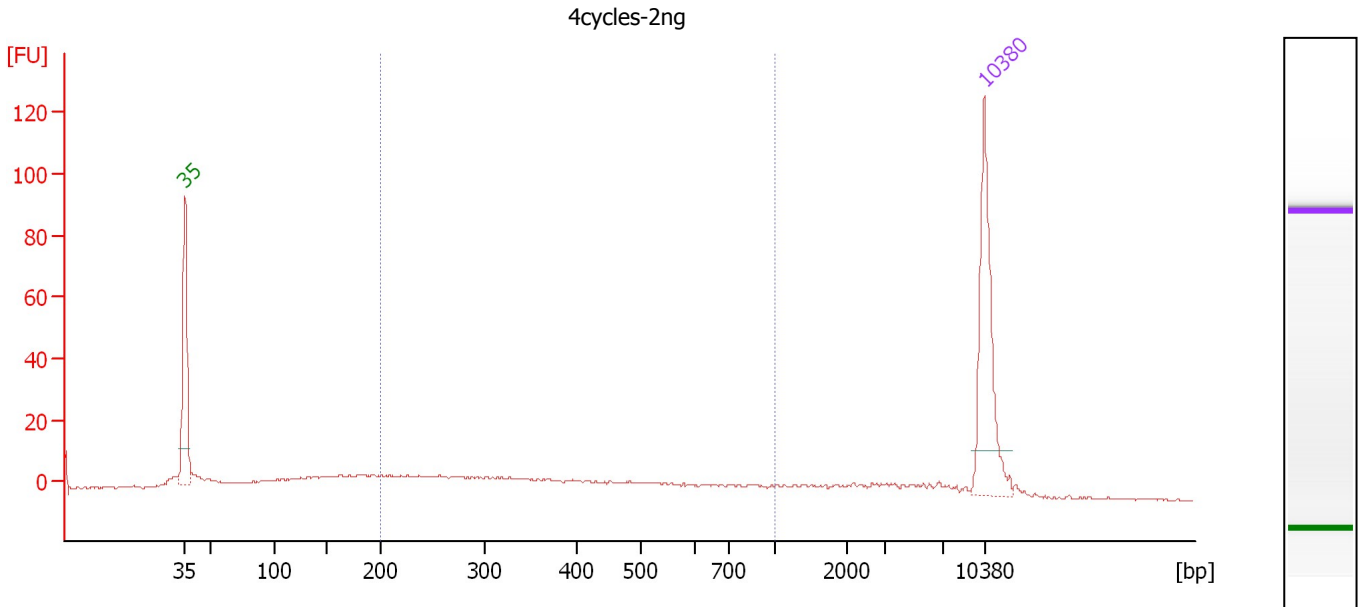
Electropherogram Summary Continued ...**... Region table for sample 1 : fragmented dscDNA-VS**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
200	1,000	404	45,777.0	10,162.09	12,771.7	44	40.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 4cycles-2ng

Number of peaks found: 0 Corr. Area 1: 207.3
 Noise: 0.4

Peak table for sample 2 : 4cycles-2ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

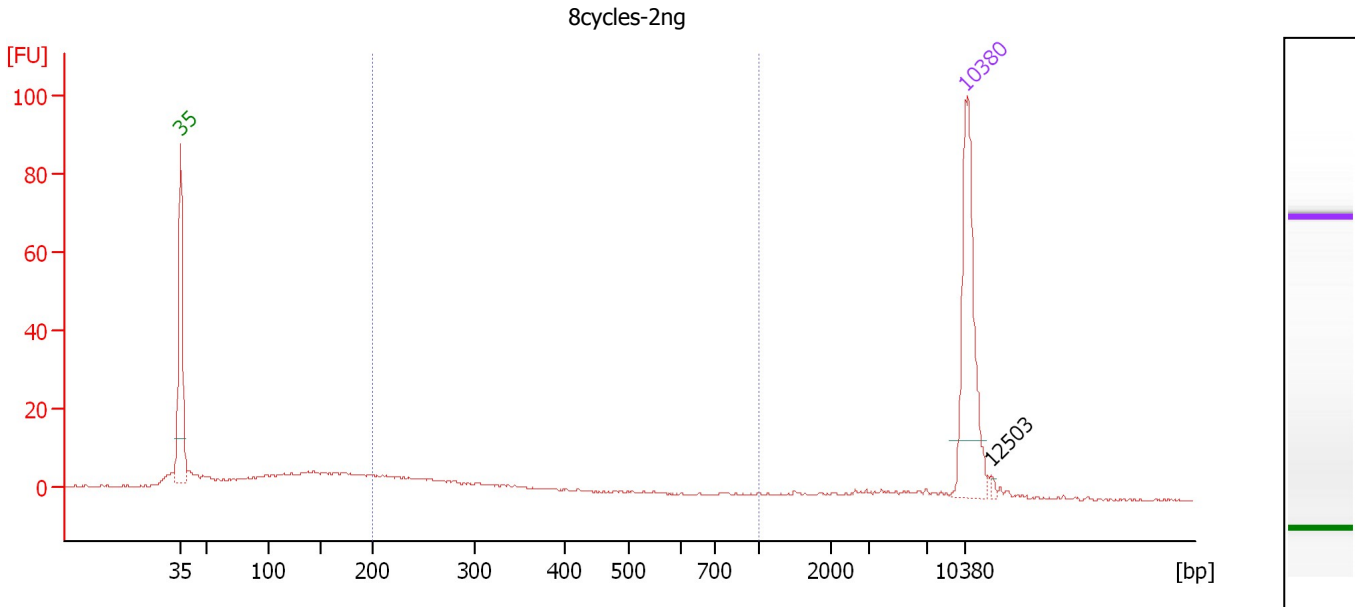
Region table for sample 2 : 4cycles-2ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	421	814.1	179.40	207.3	47	43.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 8cycles-2ng

Number of peaks found: 1 Corr. Area 1: 65.3
 Noise: 0.3

Peak table for sample 3 : 8cycles-2ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,503	0.00	0.0	

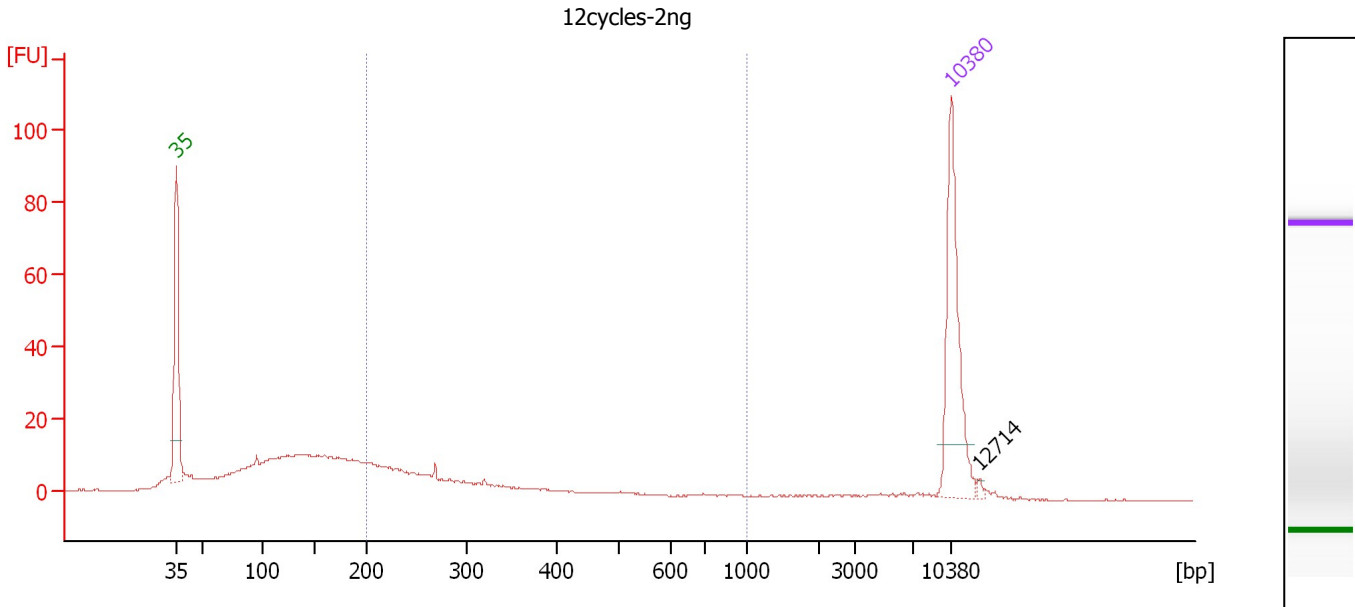
Region table for sample 3 : 8cycles-2ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	308	379.2	68.64	65.3	30	38.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 12cycles-2ng

Number of peaks found: 1 Corr. Area 1: 113.3
 Noise: 0.2

Peak table for sample 4 : 12cycles-2ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,714	0.00	0.0	

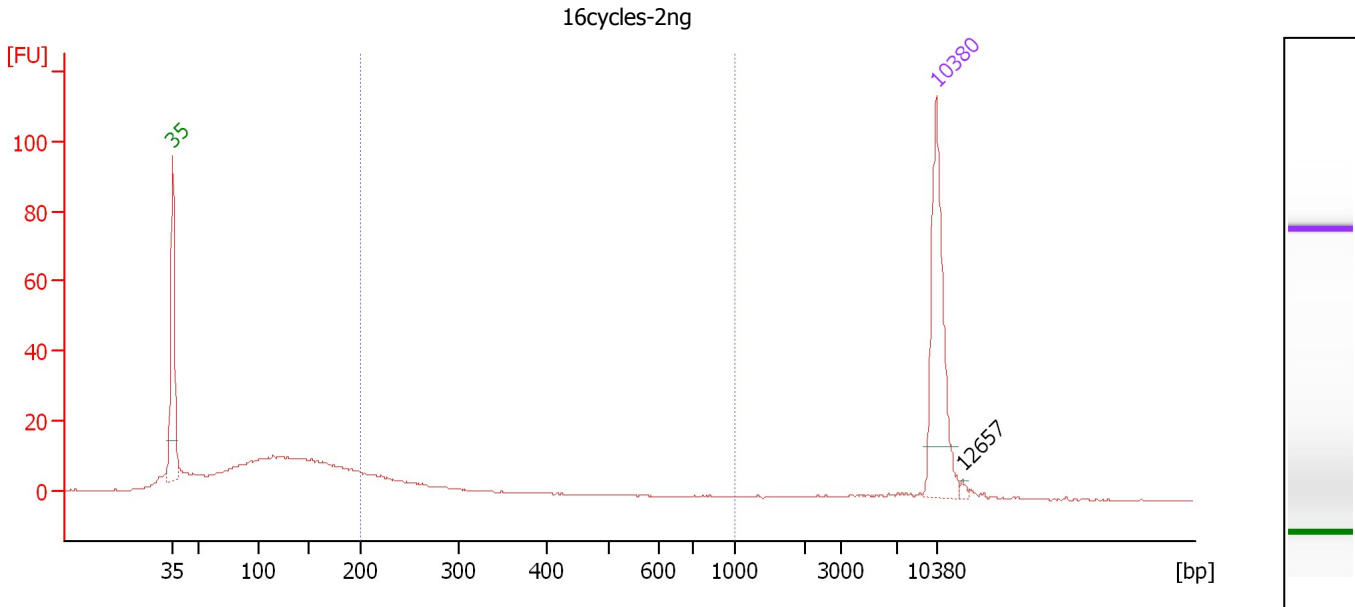
Region table for sample 4 : 12cycles-2ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	287	663.4	115.41	113.3	29	32.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 16cycles-2ng

Number of peaks found: 1 Corr. Area 1: 62.8
 Noise: 0.2

Peak table for sample 5 : 16cycles-2ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker
3	12,657	0.00	0.0	

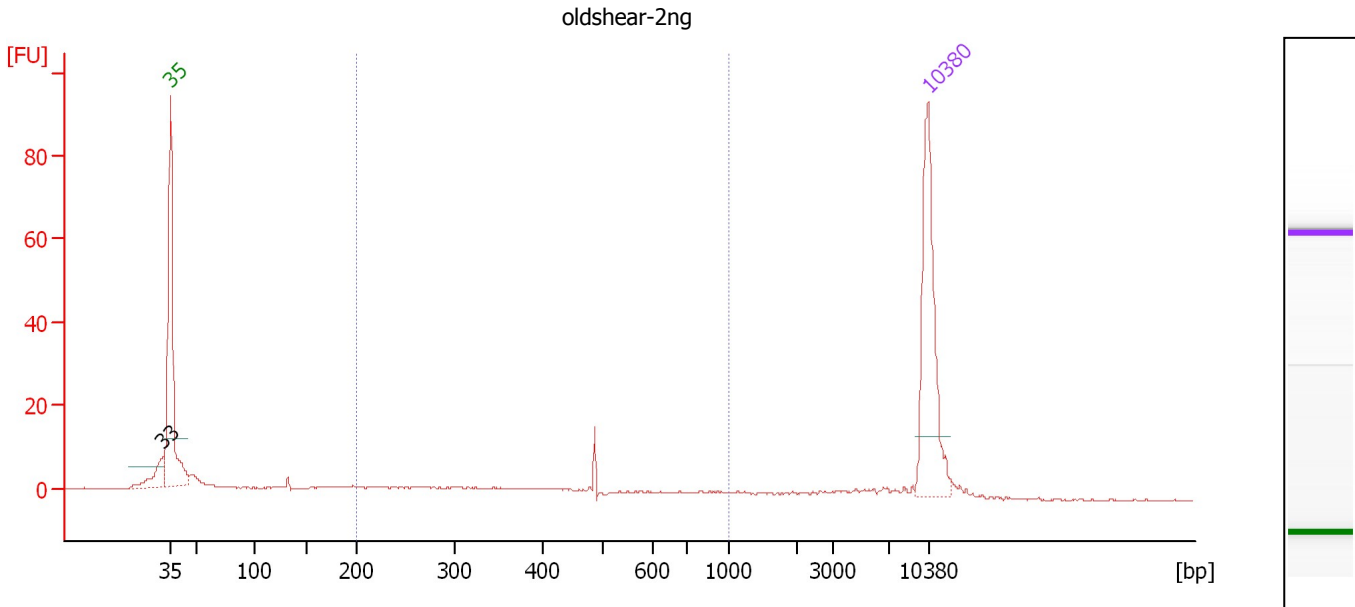
Region table for sample 5 : 16cycles-2ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	277	362.2	60.74	62.8	18	35.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : oldshear-2ng

Number of peaks found: 1 Corr. Area 1: 47.1
 Noise: 0.1

Peak table for sample 6 : oldshear-2ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	10,380	75.00	10.9	Upper Marker

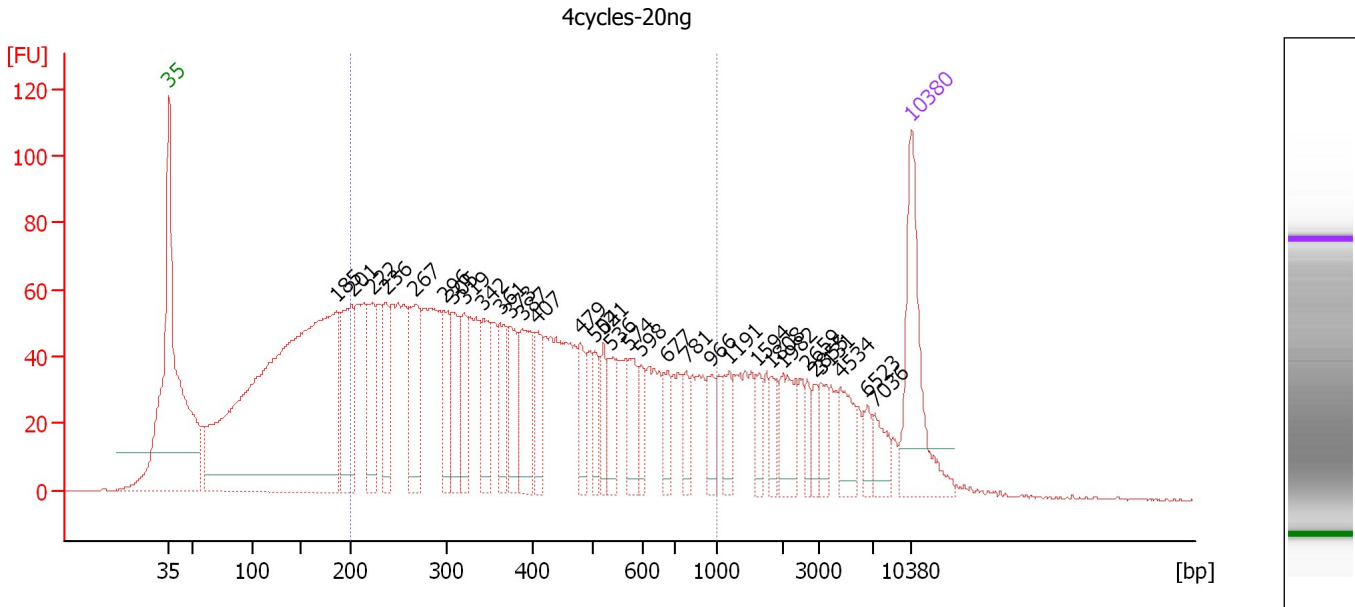
Region table for sample 6 : oldshear-2ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	425	212.6	48.16	47.1	37	42.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 4cycles-20ng

Number of peaks found: 32 Corr. Area 1: 2,209.2
 Noise: 0.2

Peak table for sample 7 : 4cycles-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	185	730.87	5,977.7	
3	201	107.85	813.5	
4	222	65.92	450.2	
5	236	48.65	312.1	
6	267	82.34	468.1	
7	296	46.53	237.9	
8	305	53.97	267.9	
9	319	40.32	191.6	
10	342	52.96	234.6	
11	361	44.44	186.3	
12	373	39.92	162.0	
13	387	56.35	220.6	
14	407	27.93	103.9	
15	479	27.89	88.3	
16	504	22.64	68.0	
17	521	23.86	69.3	
18	536	27.27	77.0	
19	574	29.79	78.6	
20	598	19.25	48.8	
21	677	22.44	50.2	
22	781	18.80	36.5	
23	966	19.94	31.3	
24	1,191	21.16	26.9	
25	1,594	15.70	14.9	
26	1,808	12.95	10.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...

... Peak table for sample 7 : 4cycles-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,982	29.48	22.5	
28	2,659	10.80	6.2	
29	2,855	10.64	5.6	
30	3,131	15.56	7.5	
31	4,534	25.03	8.4	
32	6,523	11.20	2.6	
33	7,036	18.61	4.0	
34	▶ 10,380	75.00	10.9	Upper Marker

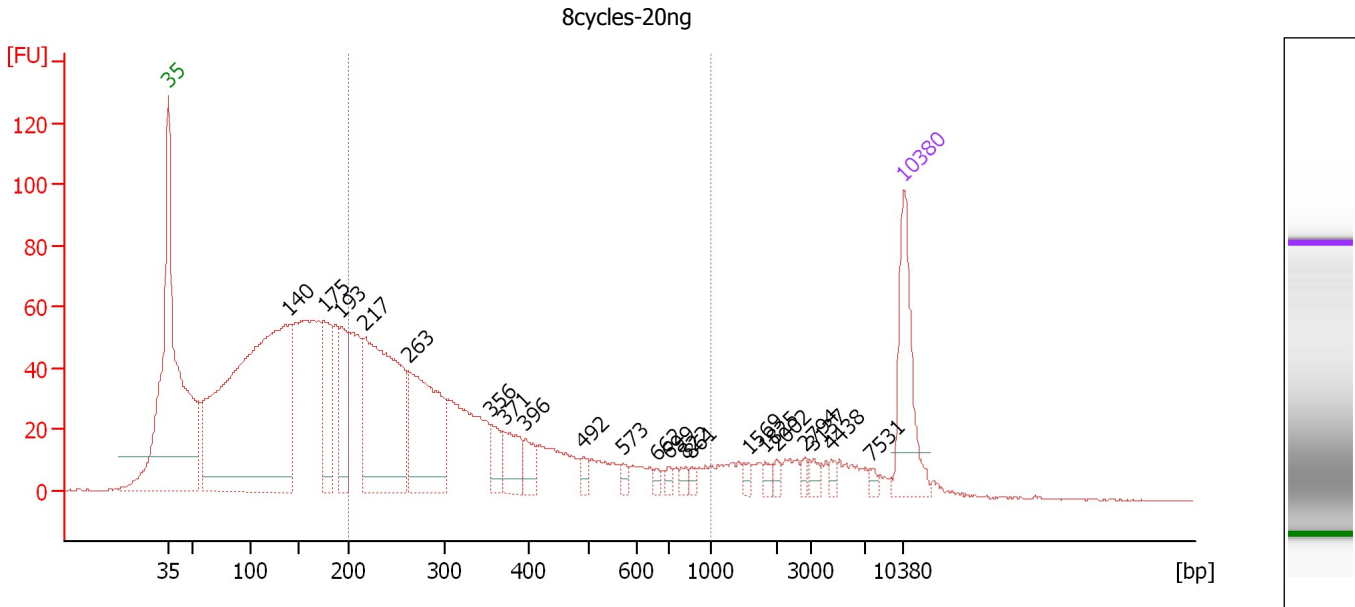
Region table for sample 7 : 4cycles-20ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	420	7,300.5	1,613.70	2,209.2	58	43.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 8cycles-20ng

Number of peaks found: 21 Corr. Area 1: 1,106.3
 Noise: 0.3

Peak table for sample 8 : 8cycles-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	140	799.21	8,665.6	
3	175	112.35	972.1	
4	193	82.59	649.9	
5	217	324.10	2,258.4	
6	263	195.19	1,123.8	
7	356	28.56	121.5	
8	371	41.60	170.0	
9	396	23.30	89.2	
10	492	9.68	29.8	
11	573	7.56	20.0	
12	662	4.79	10.9	
13	699	5.52	12.0	
14	822	6.21	11.5	
15	861	4.68	8.2	
16	1,569	5.93	5.7	
17	1,825	5.36	4.4	
18	2,002	5.86	4.4	
19	2,794	4.65	2.5	
20	3,137	8.13	3.9	
21	4,438	5.49	1.9	
22	7,531	4.20	0.8	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...

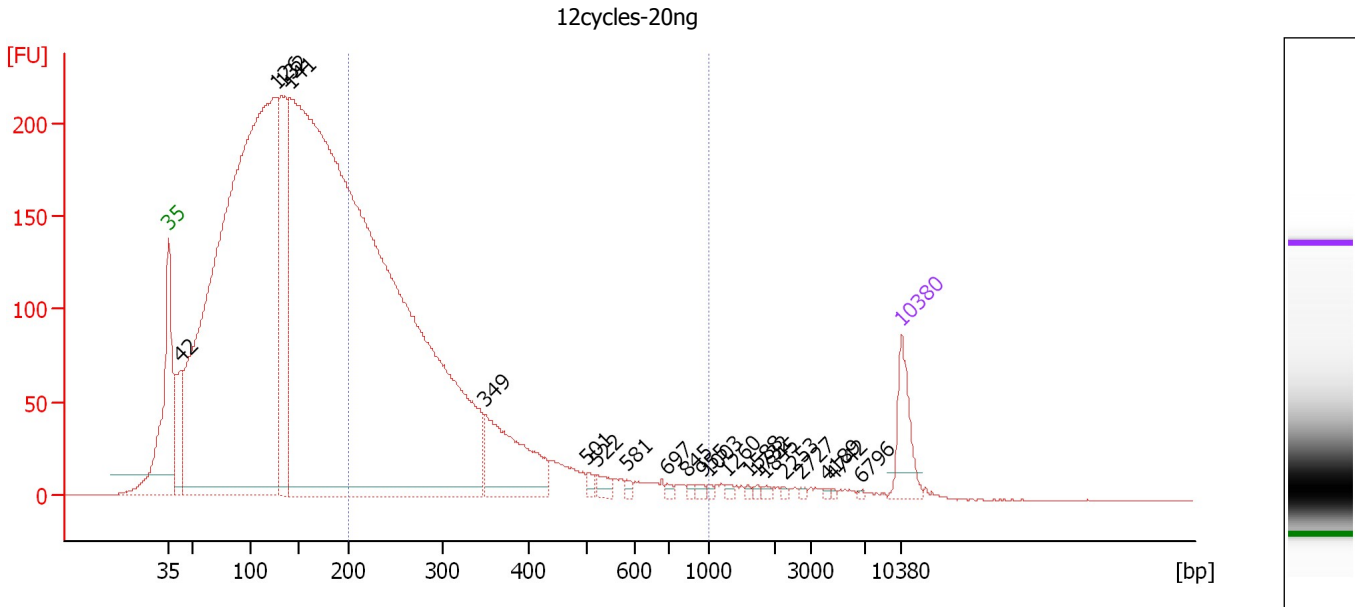
... Region table for sample 8 : 8cycles-20ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	352	5,301.9	1,023.52	1,106.3	43	44.7	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 12cycles-20ng

Number of peaks found: 21 Corr. Area 1: 2,417.8
 Noise: 0.2

Peak table for sample 9 : 12cycles-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	167.07	6,035.7	
3	126	3,844.48	46,093.7	
4	132	470.32	5,383.3	
5	141	6,264.13	67,526.3	
6	349	286.21	1,241.2	
7	501	12.74	38.5	
8	522	21.10	61.2	
9	581	6.62	17.3	
10	697	6.66	14.5	
11	845	5.46	9.8	
12	955	6.76	10.7	
13	1,003	4.64	7.0	
14	1,260	5.43	6.5	
15	1,588	3.75	3.6	
16	1,732	4.09	3.6	
17	1,845	5.84	4.8	
18	2,253	3.54	2.4	
19	2,727	3.95	2.2	
20	4,189	2.74	1.0	
21	4,742	2.49	0.8	
22	6,796	2.45	0.5	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...

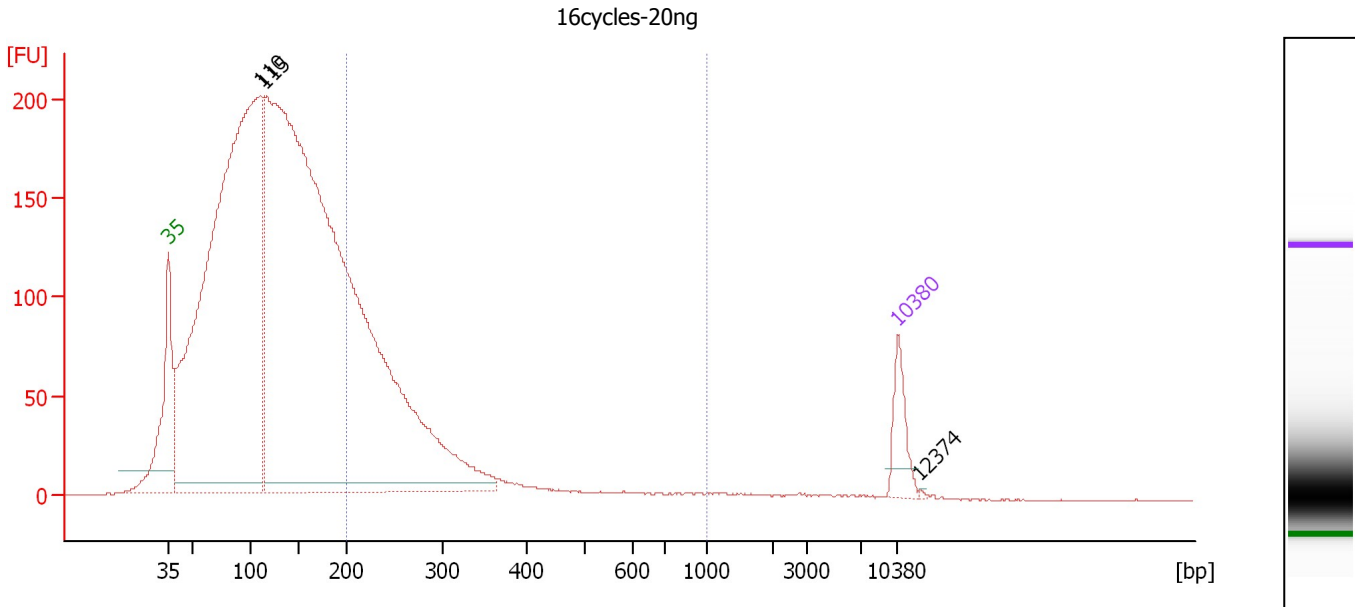
... Region table for sample 9 : 12cycles-20ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	303	15,945.3	2,842.13	2,417.8	31	38.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 16cycles-20ng

Number of peaks found: 3 Corr. Area 1: 1,119.2
 Noise: 0.2

Peak table for sample 10 : 16cycles-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	110	3,649.81	50,050.5	
3	115	5,814.79	76,330.4	
4	10,380	75.00	10.9	Upper Marker
5	12,374	0.00	0.0	

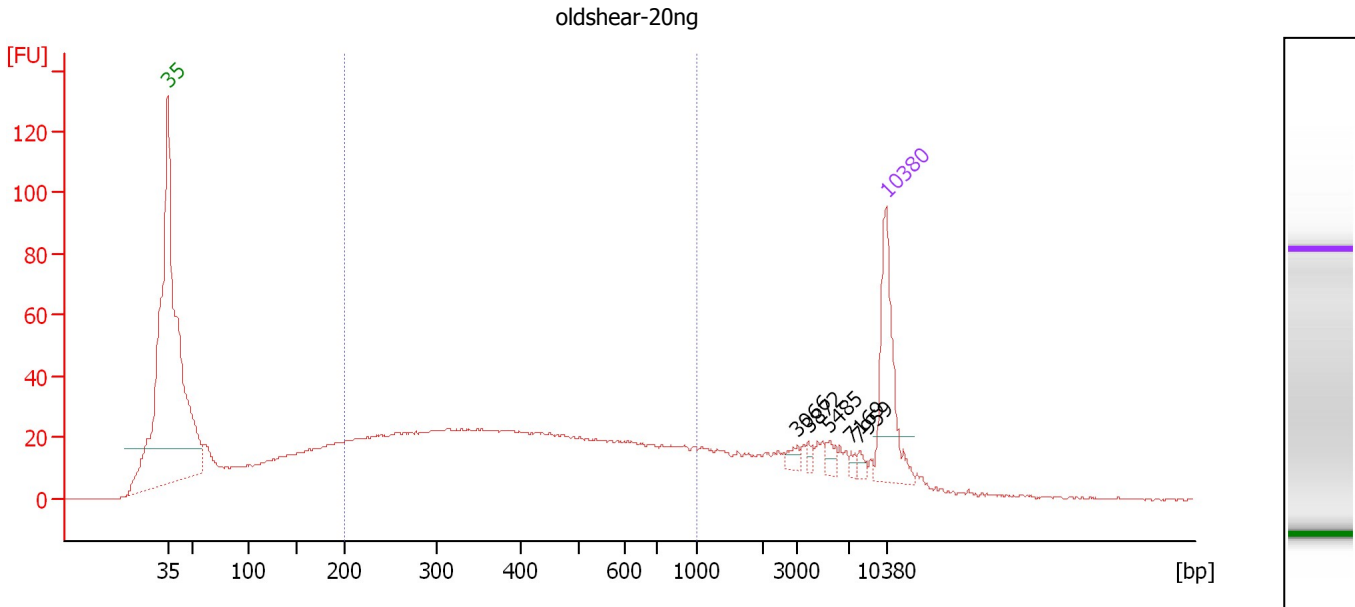
Region table for sample 10 : 16cycles-20ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	274	8,668.1	1,444.39	1,119.2	18	35.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
 Modified: 7/18/2012 4:56:26 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : oldshear-20ng

Number of peaks found: 5 Corr. Area 1: 924.2
 Noise: 0.2

Peak table for sample 11 : oldshear-20ng

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	3,066	7.02	3.5	
3	3,872	4.09	1.6	
4	5,485	7.28	2.0	
5	7,169	3.56	0.8	
6	7,959	4.89	0.9	
7	10,380	75.00	10.9	Upper Marker

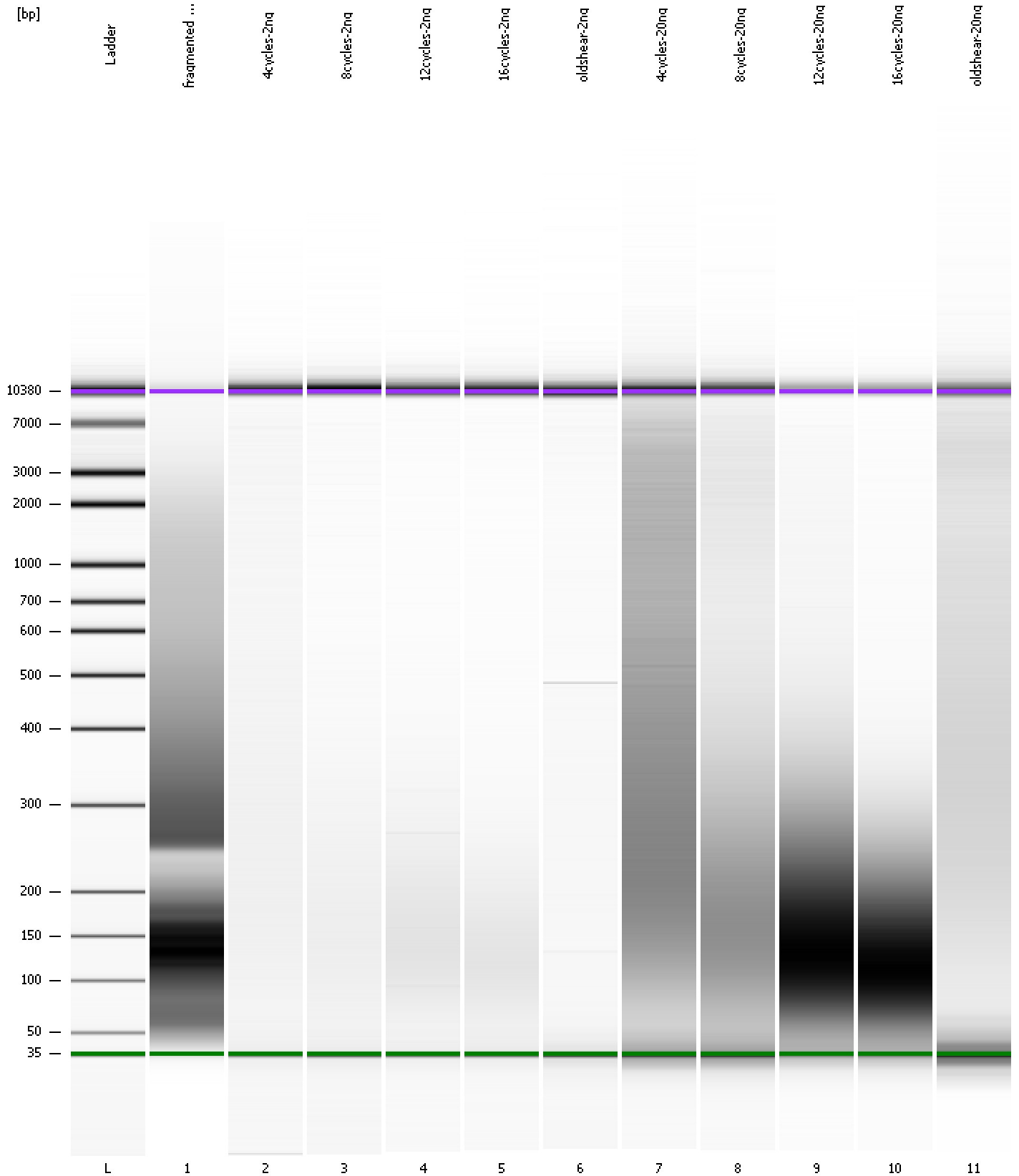
Region table for sample 11 : oldshear-20ng

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	436	4,058.6	932.49	924.2	59	42.3	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-18\2012-07-18_005.xad

Created: 7/18/2012 4:15:07 PM
Modified: 7/18/2012 4:56:26 PM

Curves

Standard Curve

