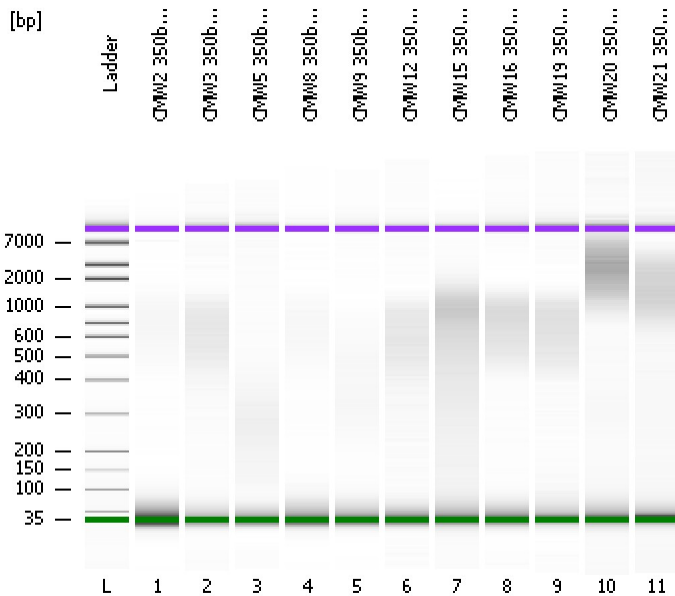


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
Modified: 4/11/2012 12:57:45 PM

Electrophoresis File Run Summary



Instrument Information:

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

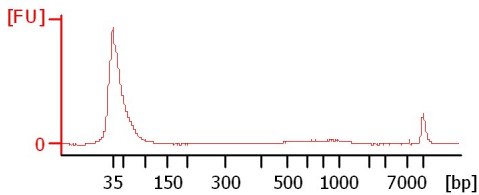
Assay Information:

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

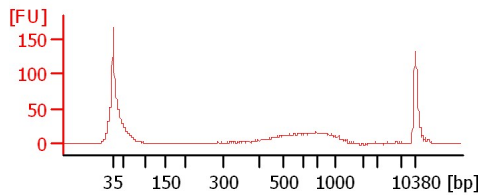
Chip Information:

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

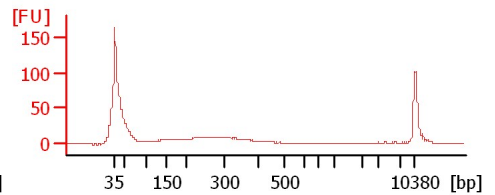
CMW2 350bp 21 cycles 1:10



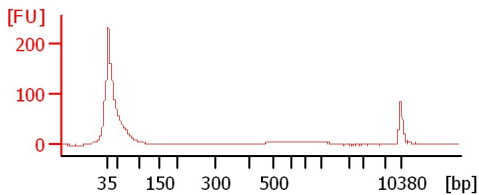
CMW3 350bp 21 cycles 1:10



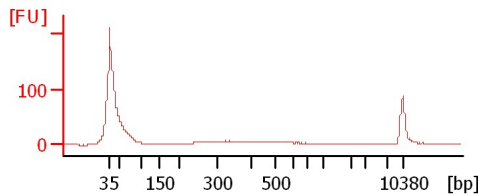
CMW5 350bp 1:20



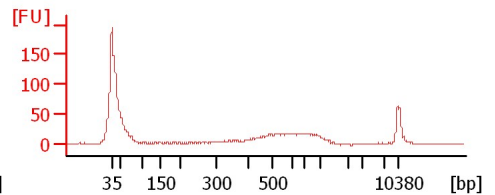
CMW8 350bp 22 cycles 1:10



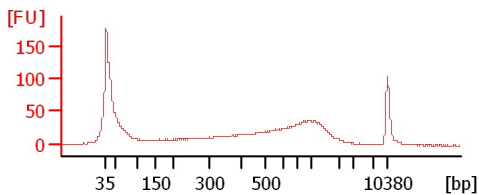
CMW9 350bp 14 cycles 1:10



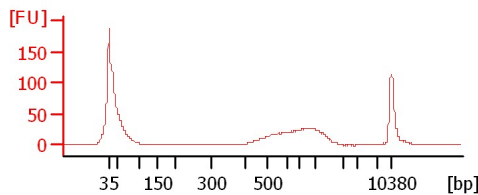
CMW12 350bp 16 cycles 1:10



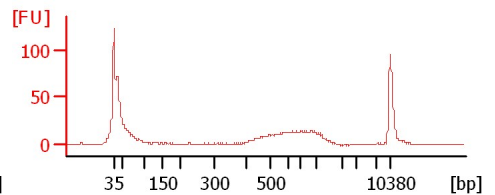
CMW15 350bp 19 cycles 1:10



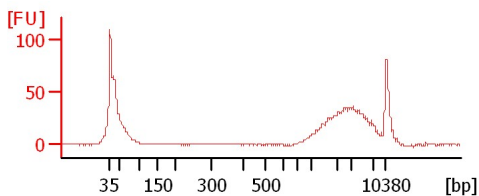
CMW16 350bp 15 cycles 1:10



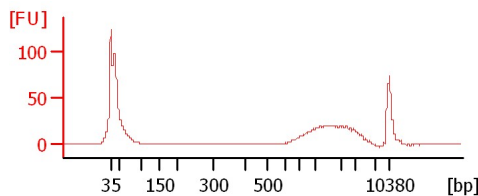
CMW19 350bp 1:2



CMW20 350bp 1:30



CMW21 350bp 1:30



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
Modified: 4/11/2012 12:57:45 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
CMW2 350bp 21 cycles 1:10		<input type="checkbox"/>	✓			
CMW3 350bp 21 cycles 1:10		<input type="checkbox"/>	✓			
CMW5 350bp 1:20		<input type="checkbox"/>	✓			
CMW8 350bp 22 cycles 1:10		<input type="checkbox"/>	✓			
CMW9 350bp 14 cycles 1:10		<input type="checkbox"/>	✓			
CMW12 350bp 16 cycles 1:10		<input type="checkbox"/>	✓			
CMW15 350bp 19 cycles 1:10		<input type="checkbox"/>	✓			
CMW16 350bp 15 cycles 1:10		<input type="checkbox"/>	✓			
CMW19 350bp 1:2		<input type="checkbox"/>	✓			
CMW20 350bp 1:30		<input type="checkbox"/>	✓			
CMW21 350bp 1:30		<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\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 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

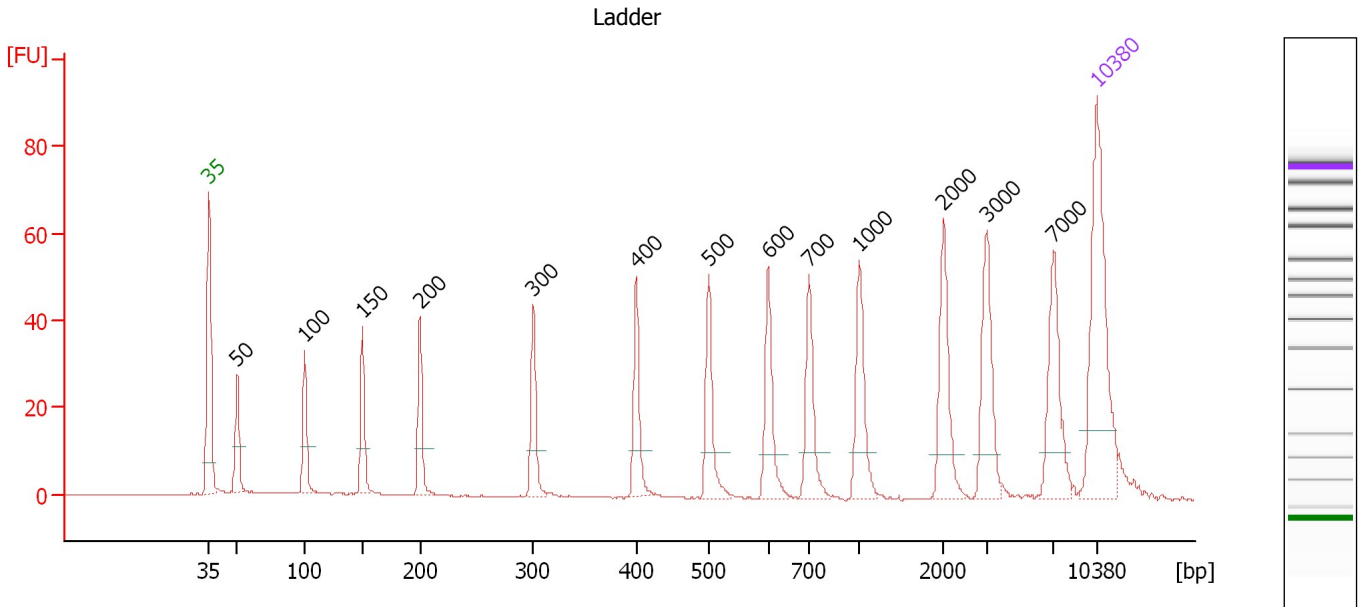
Ladder

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\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

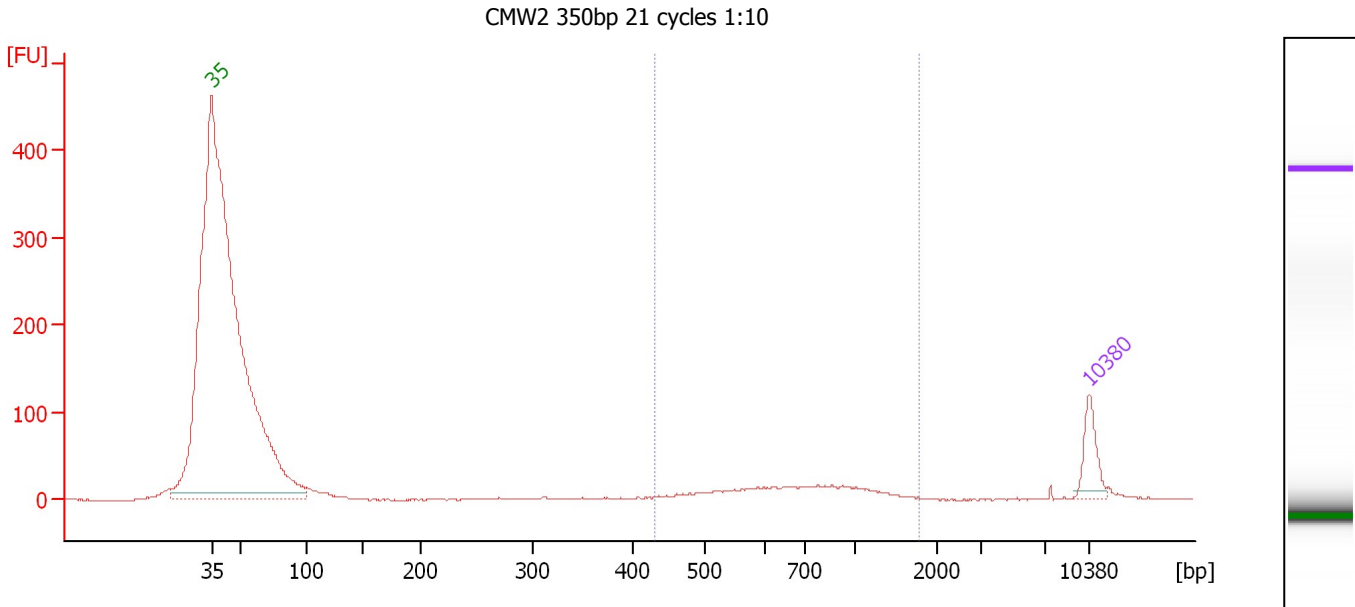
Peak table for Ladder

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\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : CMW2 350bp 21 cycles 1:10

Height Threshold [FU] : 20

Overall Results for sample 1 : CMW2 350bp 21 cycles 1:10

Number of peaks found: 0 Corr. Area 1: 237.5
 Noise: 0.5

Peak table for sample 1 : CMW2 350bp 21 cycles 1:10

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

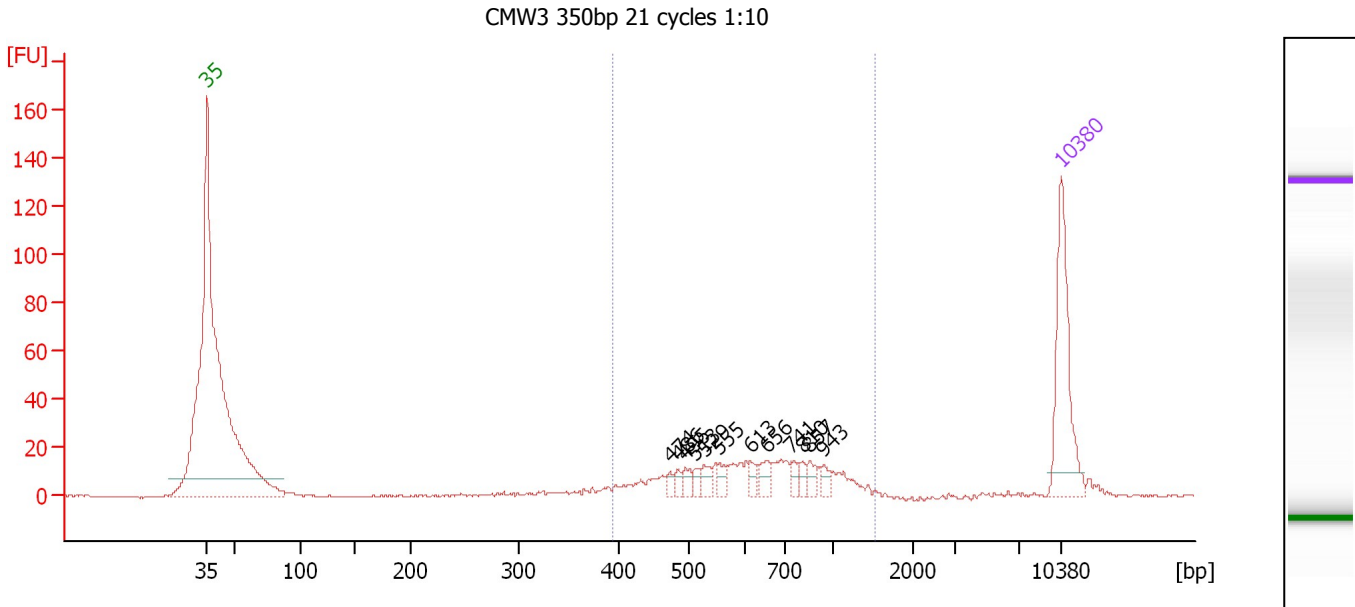
Region table for sample 1 : CMW2 350bp 21 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
429	400.4	772	178.97	1,770	237.5	66	35.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : CMW3 350bp 21 cycles 1:10

Height Threshold [FU] : 8

Overall Results for sample 2 : CMW3 350bp 21 cycles 1:10

Number of peaks found: 12 Corr. Area 1: 255.6
 Noise: 0.4

Peak table for sample 2 : CMW3 350bp 21 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	474	5.44	17.4	
3	486	6.43	20.0	
4	495	8.14	24.9	
5	513	6.37	18.8	
6	529	10.58	30.3	
7	555	7.85	21.4	
8	613	6.45	16.0	
9	656	11.20	25.9	
10	741	6.92	14.1	
11	810	7.43	13.9	
12	857	9.11	16.1	
13	943	6.50	10.4	
14	10,380	75.00	10.9	Upper Marker

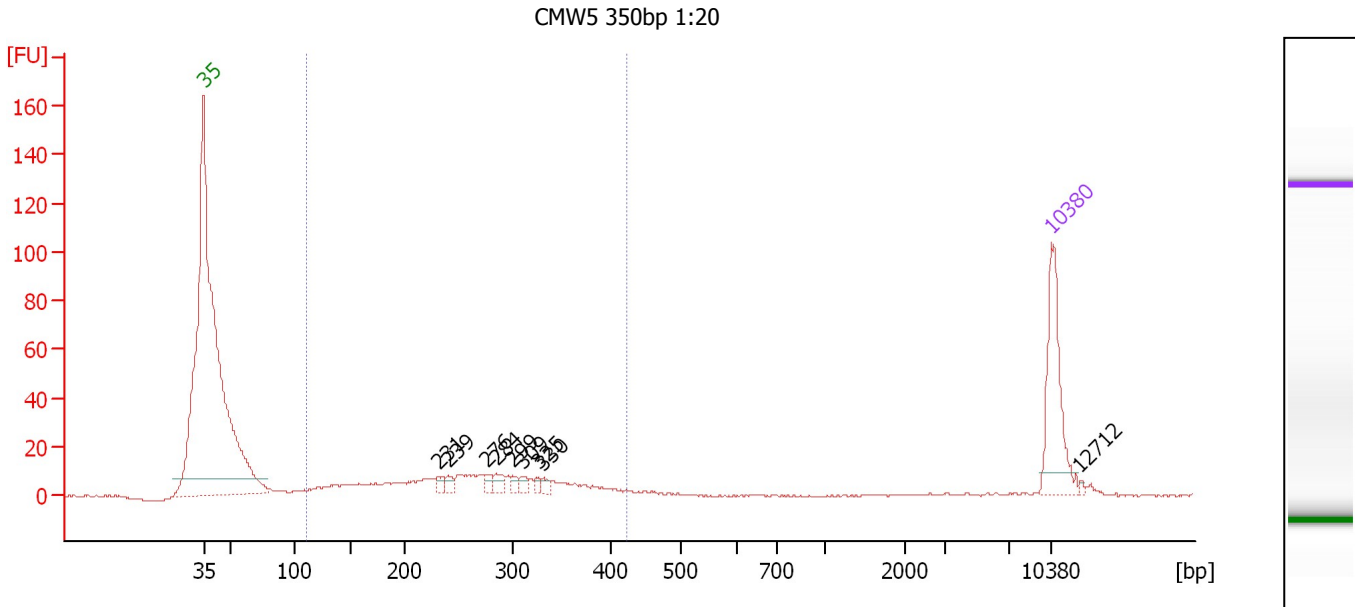
Region table for sample 2 : CMW3 350bp 21 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
395	450.1	683	181.48	1,530	255.6	89	32.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : CMW5 350bp 1:20

Number of peaks found: 9 Corr. Area 1: 235.3
 Noise: 0.3

Peak table for sample 3 : CMW5 350bp 1:20

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	231	7.81	51.3	
3	239	9.05	57.3	
4	276	8.89	48.8	
5	284	11.97	64.0	
6	299	6.69	33.8	
7	309	8.22	40.4	
8	325	5.34	24.9	
9	330	6.04	27.8	
10	10,380	75.00	10.9	Upper Marker
11	12,712	0.00	0.0	

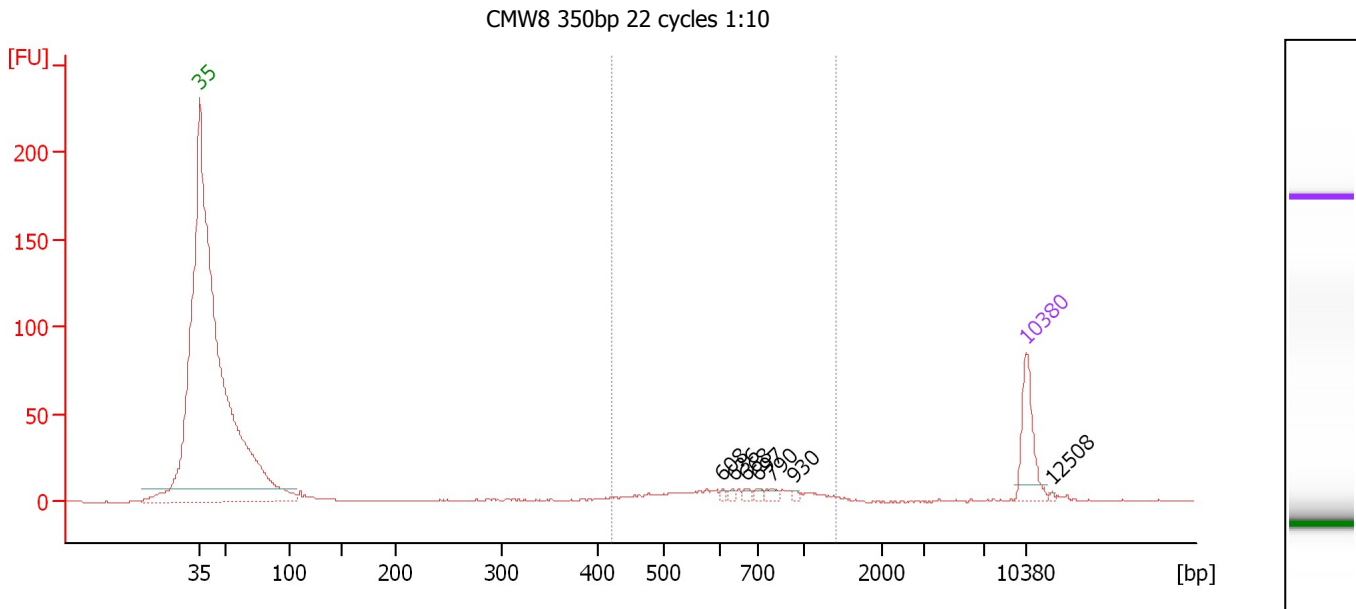
Region table for sample 3 : CMW5 350bp 1:20

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
110	1,721.5	260	254.91	423	235.3	90	28.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : CMW8 350bp 22 cycles 1:10

Number of peaks found: 7 Corr. Area 1: 105.7
 Noise: 0.2

Peak table for sample 4 : CMW8 350bp 22 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	608	4.53	11.3	
3	636	5.06	12.1	
4	668	7.10	16.1	
5	697	6.82	14.8	
6	790	10.42	20.0	
7	930	4.33	7.0	
8	10,380	75.00	10.9	Upper Marker
9	12,508	0.00	0.0	

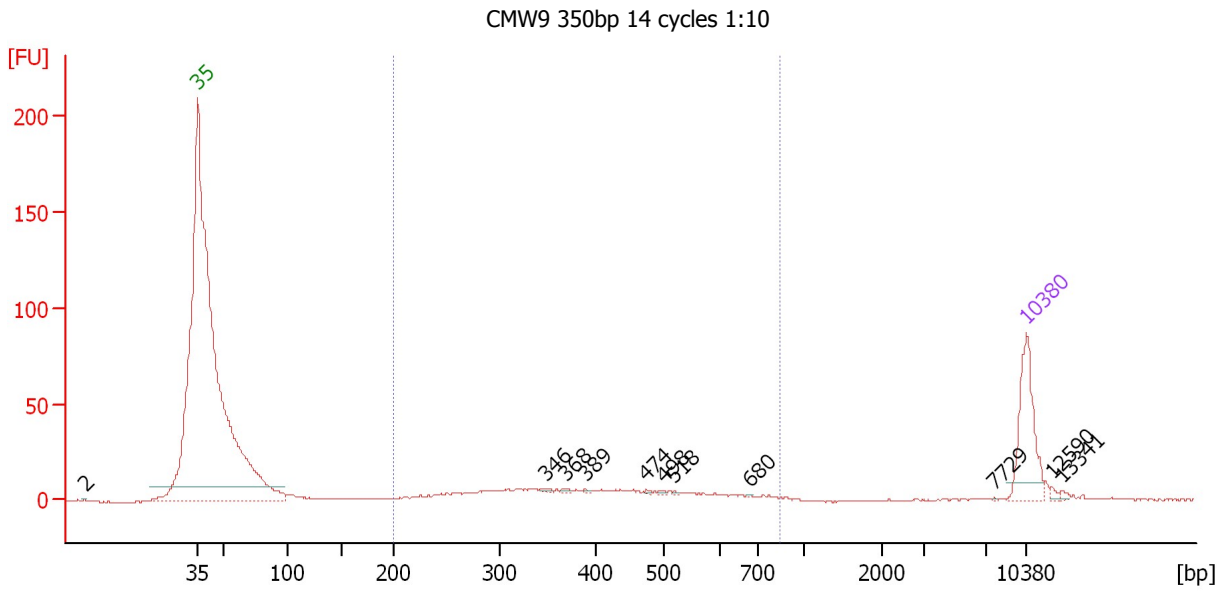
Region table for sample 4 : CMW8 350bp 22 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
421	292.5	701	122.21	1,399	105.7	71	30.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : CMW9 350bp 14 cycles 1:10

Height Threshold [FU] : 1

Overall Results for sample 5 : CMW9 350bp 14 cycles 1:10

Number of peaks found: 11 Corr. Area 1: 180.8
 Noise: 0.2

Peak table for sample 5 : CMW9 350bp 14 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	2	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	346	2.37	10.4	
4	368	1.90	7.8	
5	389	1.23	4.8	
6	474	1.29	4.1	
7	498	1.49	4.5	
8	518	0.91	2.7	
9	680	0.41	0.9	
10	7,729	0.31	0.1	
11	10,380	75.00	10.9	Upper Marker
12	12,590	0.00	0.0	
13	13,341	0.00	0.0	

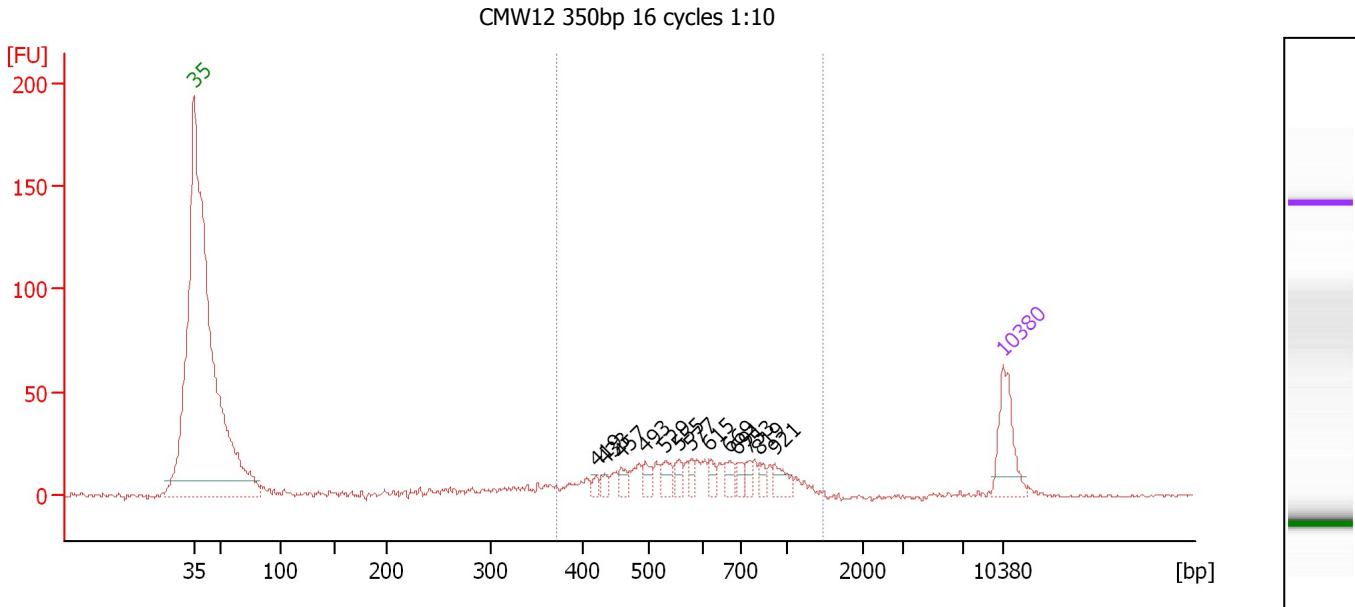
Region table for sample 5 : CMW9 350bp 14 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	801.7	406	187.45	845	180.8	83	31.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : CMW12 350bp 16 cycles 1:10

Height Threshold [FU] : 10

Overall Results for sample 6 : CMW12 350bp 16 cycles 1:10

Number of peaks found: 13 Corr. Area 1: 319.0
 Noise: 0.5

Peak table for sample 6 : CMW12 350bp 16 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	419	10.54	38.1	
3	433	13.55	47.4	
4	457	17.86	59.2	
5	493	20.59	63.3	
6	529	28.90	82.8	
7	555	20.64	56.4	
8	577	16.47	43.2	
9	615	18.26	45.0	
10	669	23.40	53.0	
11	691	18.08	39.6	
12	753	14.04	28.3	
13	819	15.74	29.1	
14	921	27.76	45.7	
15	10,380	75.00	10.9	Upper Marker

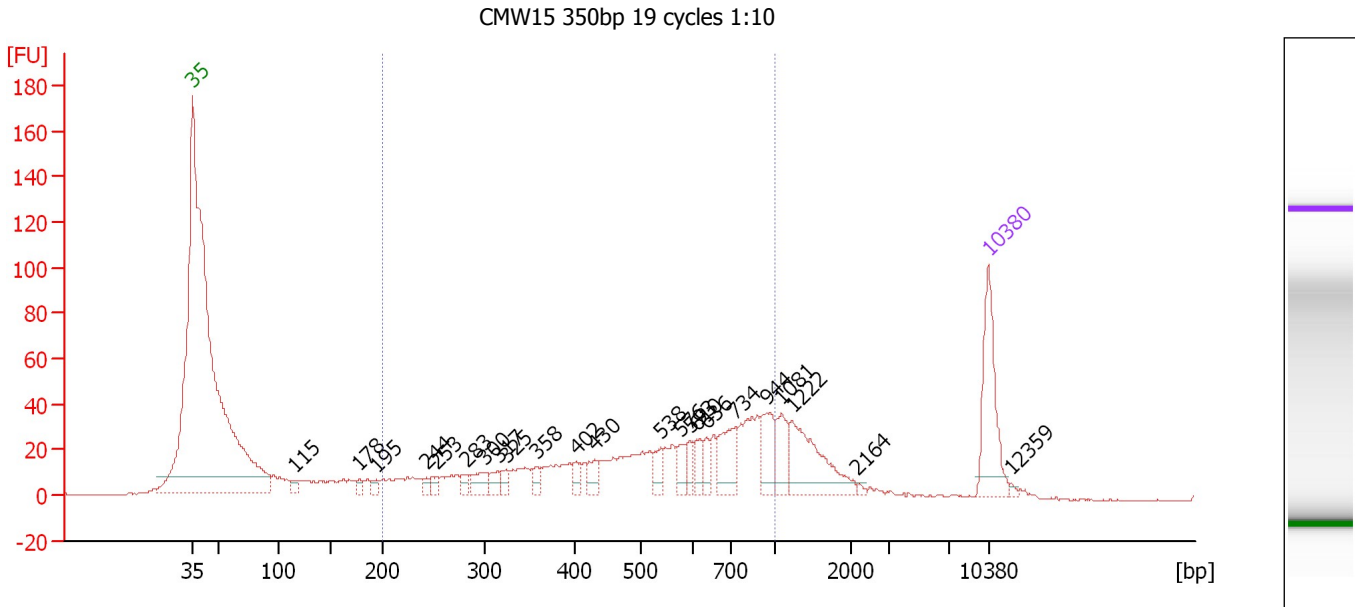
Region table for sample 6 : CMW12 350bp 16 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
372	1,043.3	641	397.02	1,475	319.0	83	31.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : CMW15 350bp 19 cycles 1:10

Number of peaks found: 23 Corr. Area 1: 773.0
 Noise: 0.3

Peak table for sample 7 : CMW15 350bp 19 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	115	9.67	127.6	
3	178	8.30	70.6	
4	195	9.58	74.4	
5	244	8.41	52.2	
6	253	11.13	66.6	
7	283	11.06	59.2	
8	300	22.21	112.0	
9	317	15.15	72.5	
10	325	13.37	62.4	
11	358	13.02	55.1	
12	402	12.21	46.0	
13	430	17.67	62.3	
14	538	17.22	48.5	
15	576	20.42	53.7	
16	593	14.35	36.7	
17	610	19.16	47.6	
18	636	15.08	36.0	
19	734	52.28	107.9	
20	944	40.90	65.6	
21	1,081	32.12	45.0	
22	1,222	86.18	106.8	
23	2,164	2.33	1.6	
24	10,380	75.00	10.9	Upper Marker
25	12,359	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...

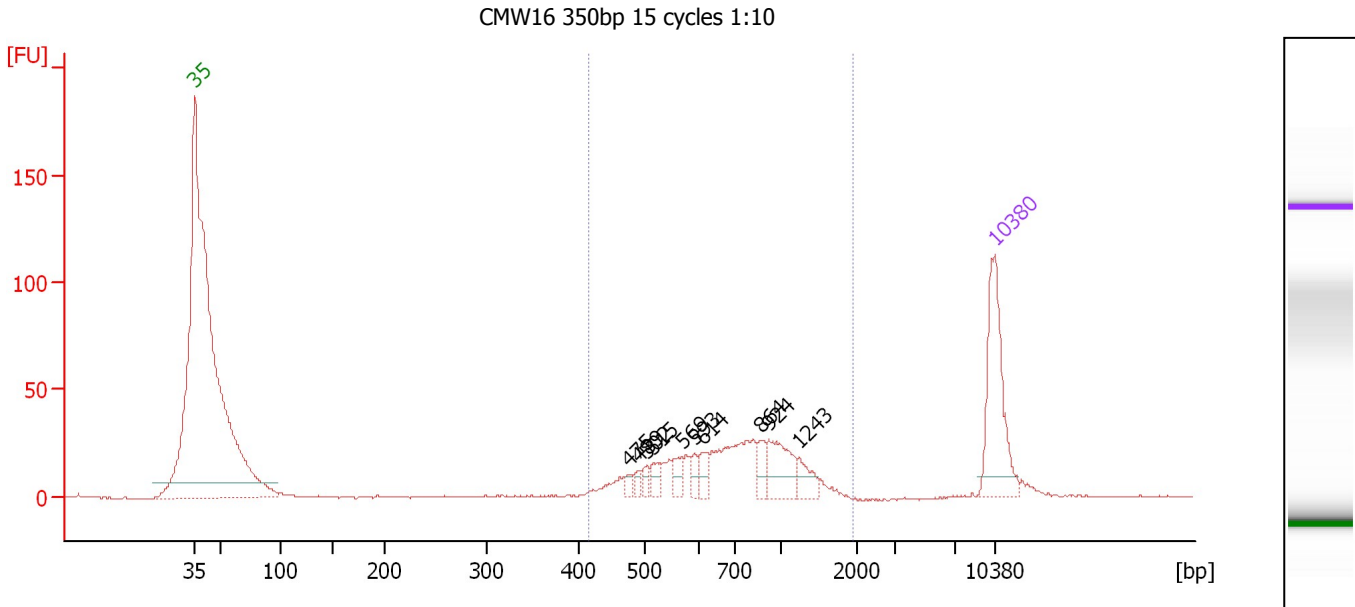
... Region table for sample 7 : CMW15 350bp 19 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	2,647.3	546	743.89	1,000	773.0	69	38.6	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 8 : CMW16 350bp 15 cycles 1:10

Height Threshold [FU] : 10

Overall Results for sample 8 : CMW16 350bp 15 cycles 1:10

Number of peaks found: 10 Corr. Area 1: 398.5
 Noise: 0.4

Peak table for sample 8 : CMW16 350bp 15 cycles 1:10

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	475	5.96	19.0	
3	489	6.26	19.4	
4	502	7.71	23.2	
5	515	11.77	34.6	
6	569	13.88	37.0	
7	593	10.35	26.5	
8	614	14.17	35.0	
9	864	13.30	23.3	
10	924	41.64	68.3	
11	1,243	15.52	18.9	
12	10,380	75.00	10.9	Upper Marker

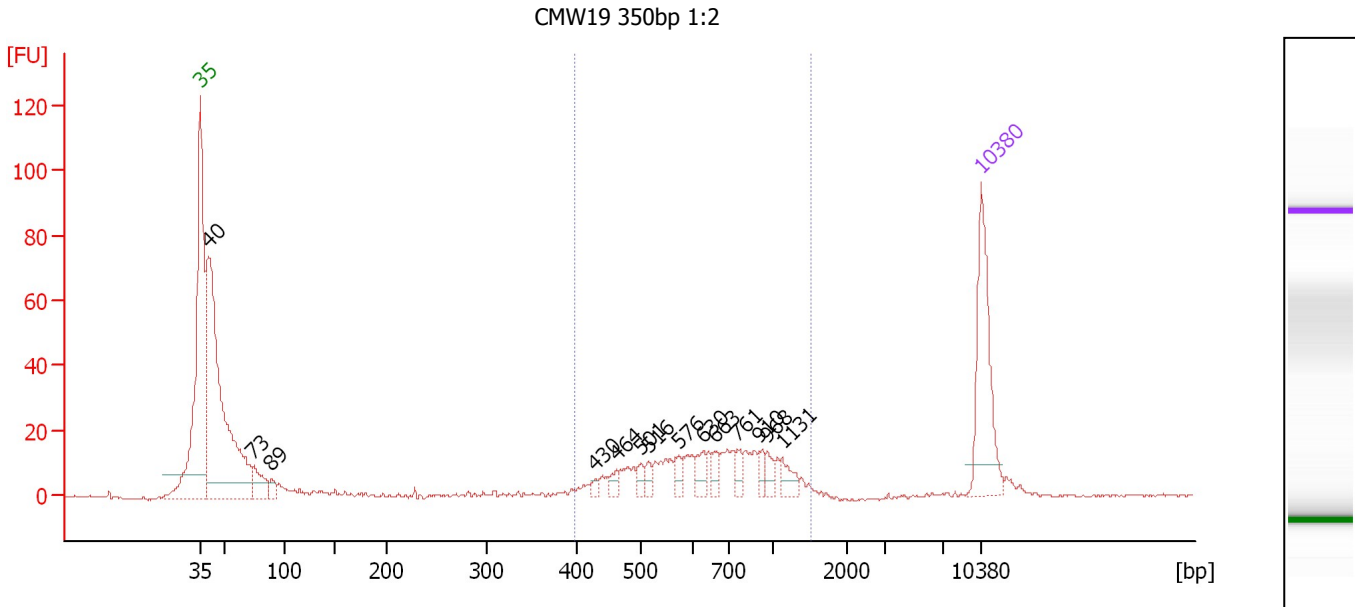
Region table for sample 8 : CMW16 350bp 15 cycles 1:10

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
415	558.6	779	250.61	1,944	398.5	96	36.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : CMW19 350bp 1:2

Number of peaks found: 14 Corr. Area 1: 234.4
 Noise: 0.3

Peak table for sample 9 : CMW19 350bp 1:2

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	447.48	16,886.9	
3	73	34.17	709.1	
4	89	10.20	174.2	
5	430	4.61	16.3	
6	464	8.41	27.5	
7	501	8.38	25.3	
8	516	7.49	22.0	
9	576	9.36	24.6	
10	630	13.88	33.4	
11	663	9.54	21.8	
12	761	10.88	21.6	
13	910	8.64	14.4	
14	968	9.07	14.2	
15	1,131	12.42	16.6	
16	10,380	75.00	10.9	Upper Marker

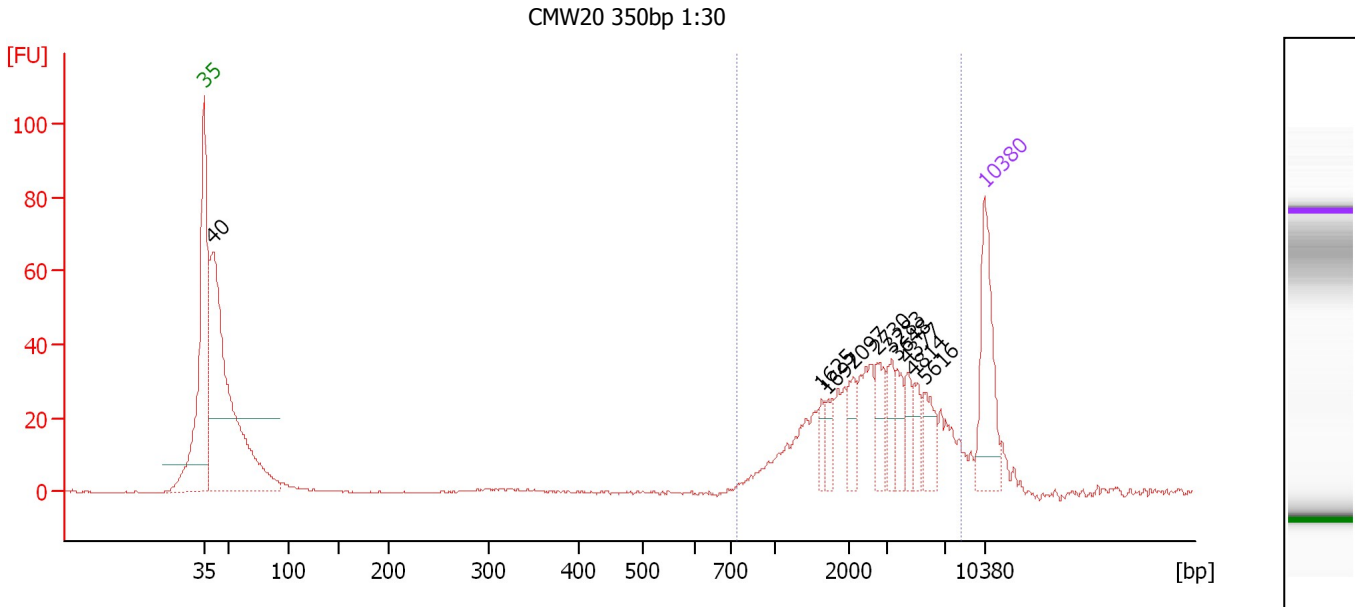
Region table for sample 9 : CMW19 350bp 1:2

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/µl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
399	518.7	715	216.85	1,527	234.4	40	33.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 10 : CMW20 350bp 1:30

Height Threshold [FU] : 20

Overall Results for sample 10 : CMW20 350bp 1:30

Number of peaks found: 10 Corr. Area 1: 417.2
 Noise: 0.1

Peak table for sample 10 : CMW20 350bp 1:30

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	575.85	21,554.6	
3	1,625	14.04	13.1	
4	1,697	16.51	14.7	
5	2,097	23.83	17.2	
6	2,730	29.41	16.3	
7	3,283	22.42	10.3	
8	3,648	20.57	8.5	
9	4,377	18.84	6.5	
10	4,814	19.55	6.2	
11	5,616	28.19	7.6	
12	10,380	75.00	10.9	Upper Marker

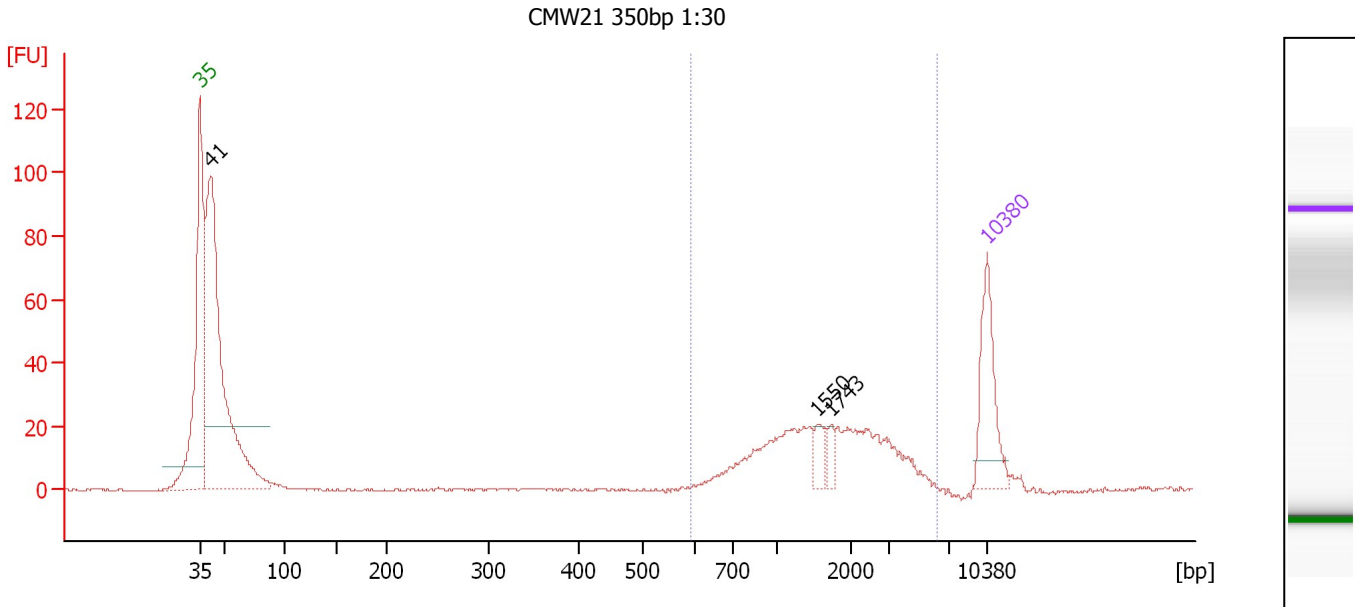
Region table for sample 10 : CMW20 350bp 1:30

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
737	255.2	3,200	384.98	8,404	417.2	55	58.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 11 : CMW21 350bp 1:30

Height Threshold [FU] : 20

Overall Results for sample 11 : CMW21 350bp 1:30

Number of peaks found: 3 Corr. Area 1: 282.6
 Noise: 0.3

Peak table for sample 11 : CMW21 350bp 1:30

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	688.83	25,213.8	
3	1,550	18.48	18.1	
4	1,743	11.84	10.3	
5	10,380	75.00	10.9	Upper Marker

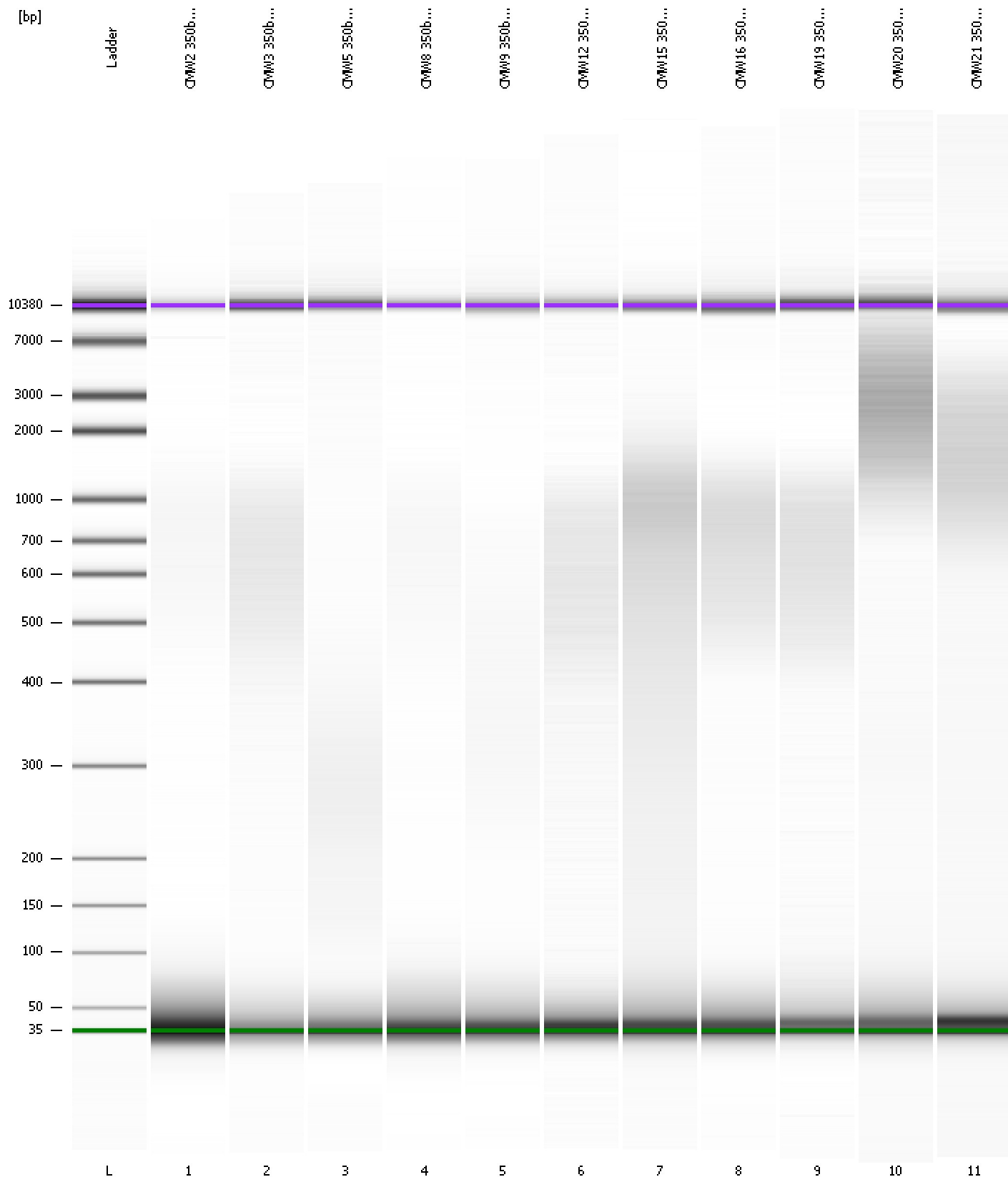
Region table for sample 11 : CMW21 350bp 1:30

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
591	284.7	1,877	262.08	6,315	282.6	41	55.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
Modified: 4/11/2012 12:57:45 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad

Created: 4/11/2012 12:14:37 PM
 Modified: 4/11/2012 12:57:45 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		4/11/2012 12:55:56 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-04-11\2012-04-11_004.xad)		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/11/2012 12:14:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1