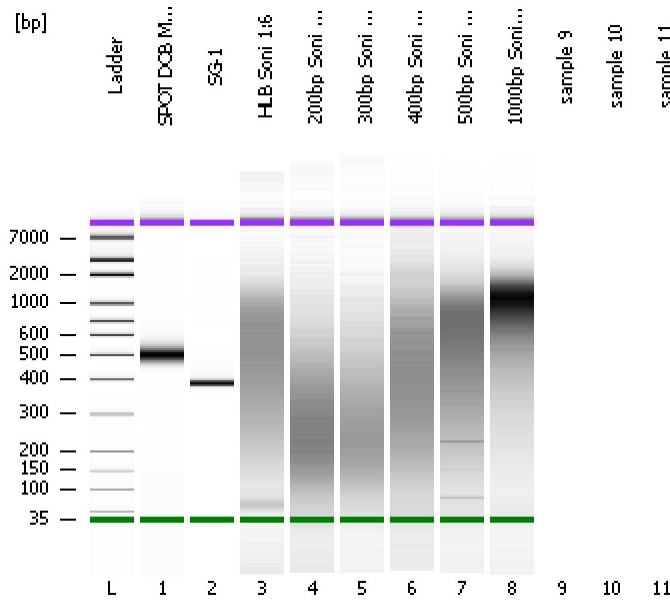


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
Modified: 3/22/2013 5:16:39 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

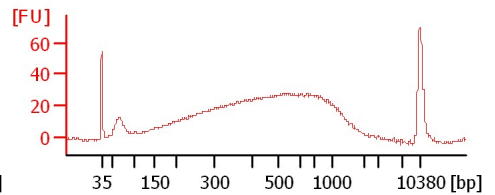
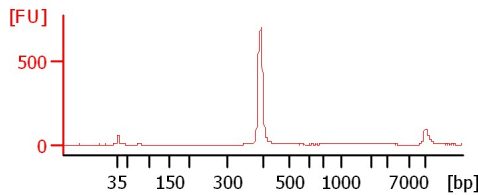
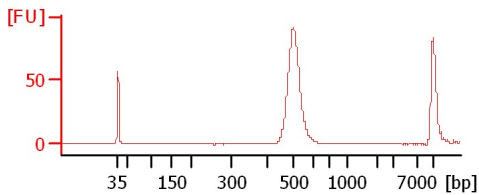
Chip Information:

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

SPOT DOB MG Pipp 490-600bp

SG-1

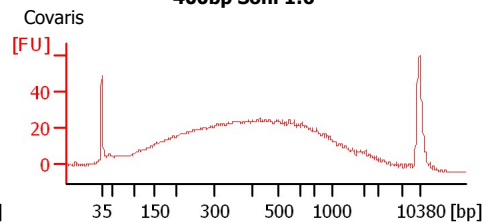
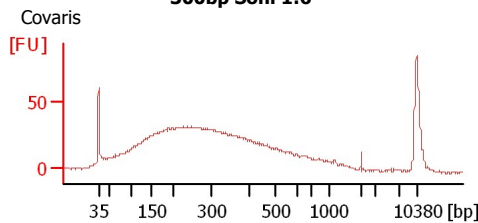
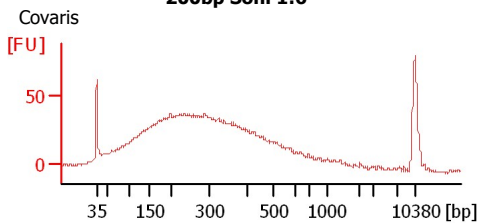
HLB Soni 1:6



200bp Soni 1:6

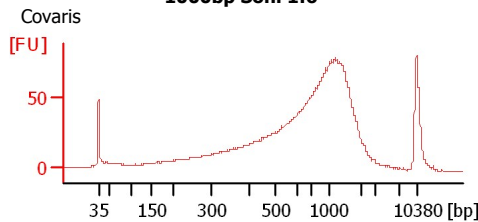
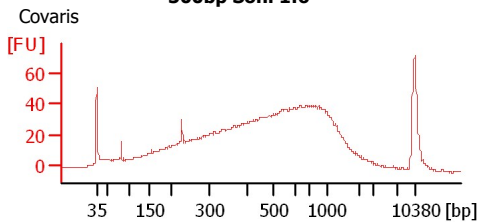
300bp Soni 1:6

400bp Soni 1:6



500bp Soni 1:6

1000bp Soni 1:6



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
Modified: 3/22/2013 5:16:39 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
SPOT DOB MG Pipp 490-600bp		<input type="checkbox"/>	✓			
SG-1		<input type="checkbox"/>	✓			
HLB Soni 1:6		<input type="checkbox"/>	✓			
200bp Soni 1:6	Covaris	<input type="checkbox"/>	✓			
300bp Soni 1:6	Covaris	<input type="checkbox"/>	✓			
400bp Soni 1:6	Covaris	<input type="checkbox"/>	✓			
500bp Soni 1:6	Covaris	<input type="checkbox"/>	✓			
1000bp Soni 1:6	Covaris	<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:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
Modified: 3/22/2013 5:16:39 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

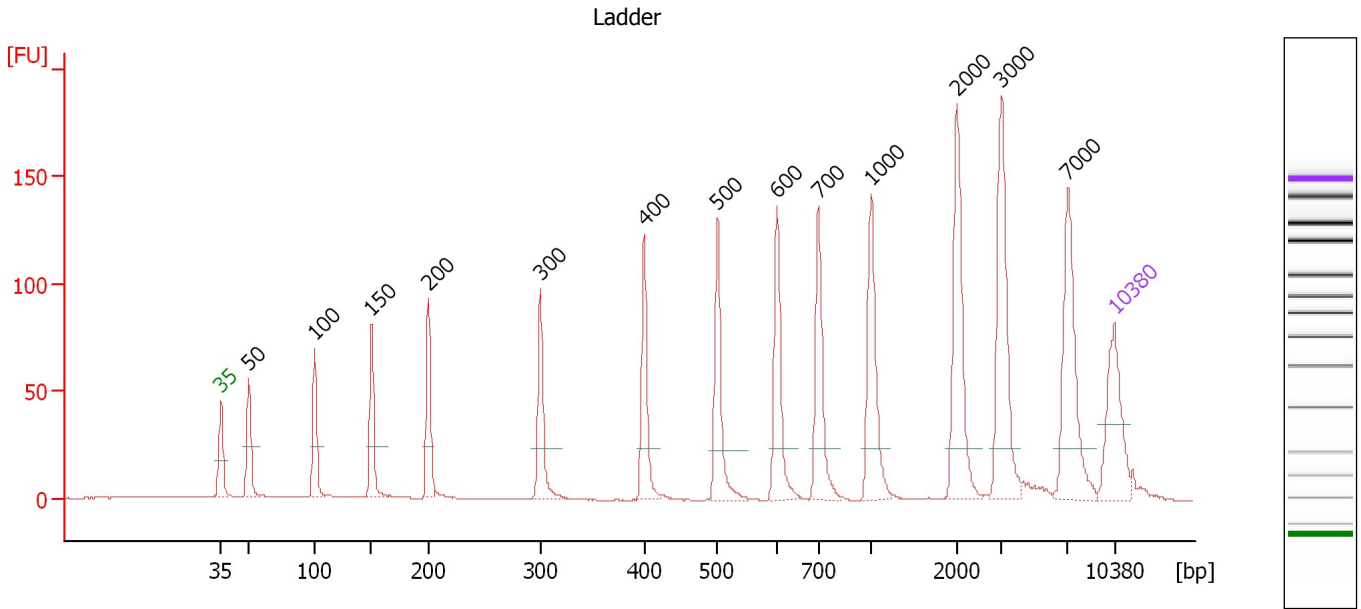
Ladder

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:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

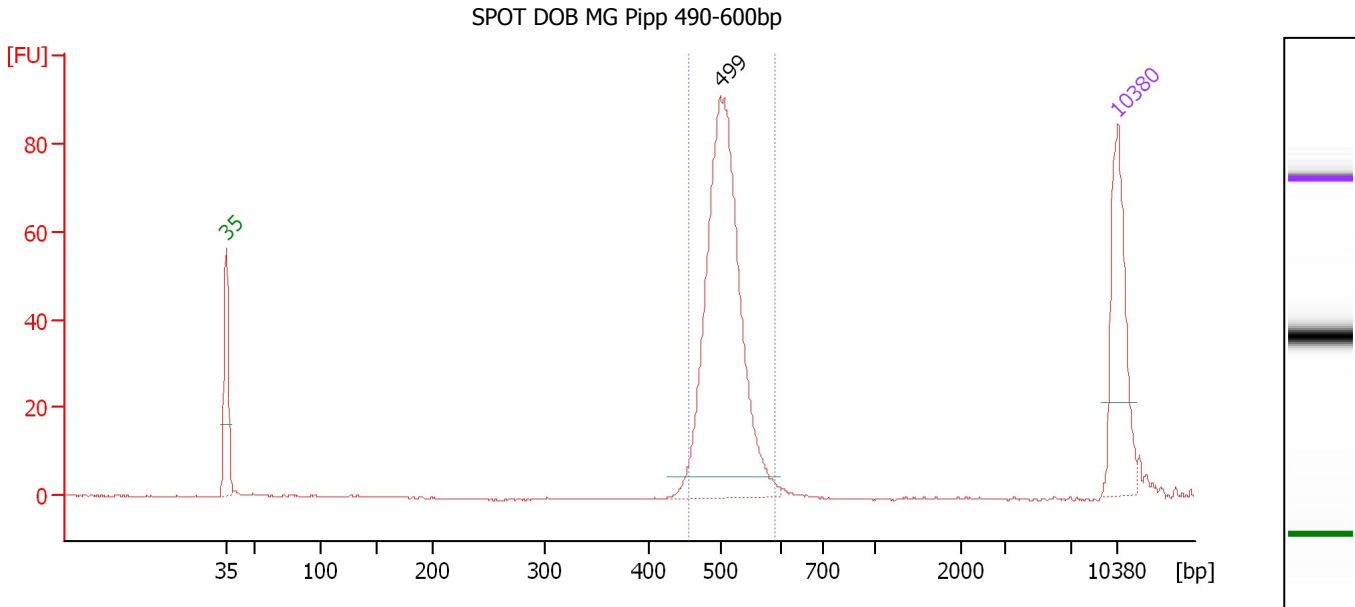
Peak table for Ladder

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\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : SPOT DOB MG Pipp 490-600bp

Number of peaks found: 1 Corr. Area 1: 349.4
 Noise: 0.2

Peak table for sample 1 : SPOT DOB MG Pipp 490-600bp

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	499	379.07	1,151.7	
3	10,380	75.00	10.9	Upper Marker

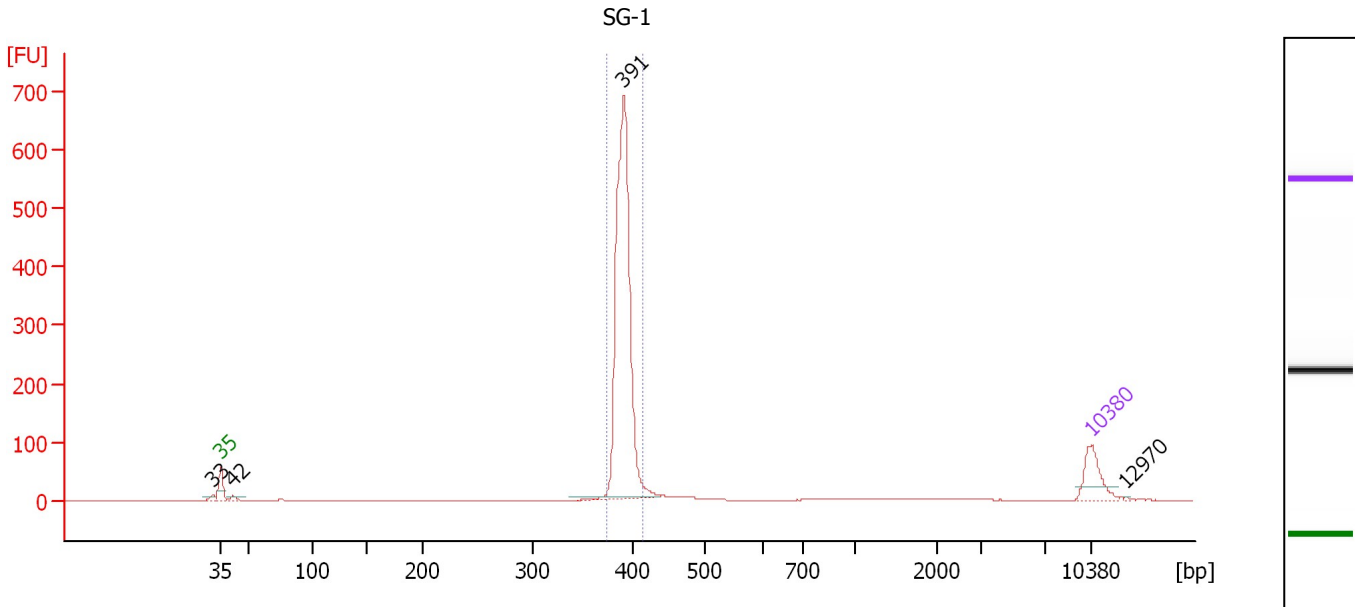
Region table for sample 1 : SPOT DOB MG Pipp 490-600bp

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
455	588	506	1,083.4	360.76	349.4	96	4.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : SG-1

Number of peaks found: 4 Corr. Area 1: 1,199.5
 Noise: 0.3

Peak table for sample 2 : SG-1

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	42	16.43	595.5	
4	391	1,019.69	3,951.9	
5	10,380	75.00	10.9	Upper Marker
6	12,970	0.00	0.0	

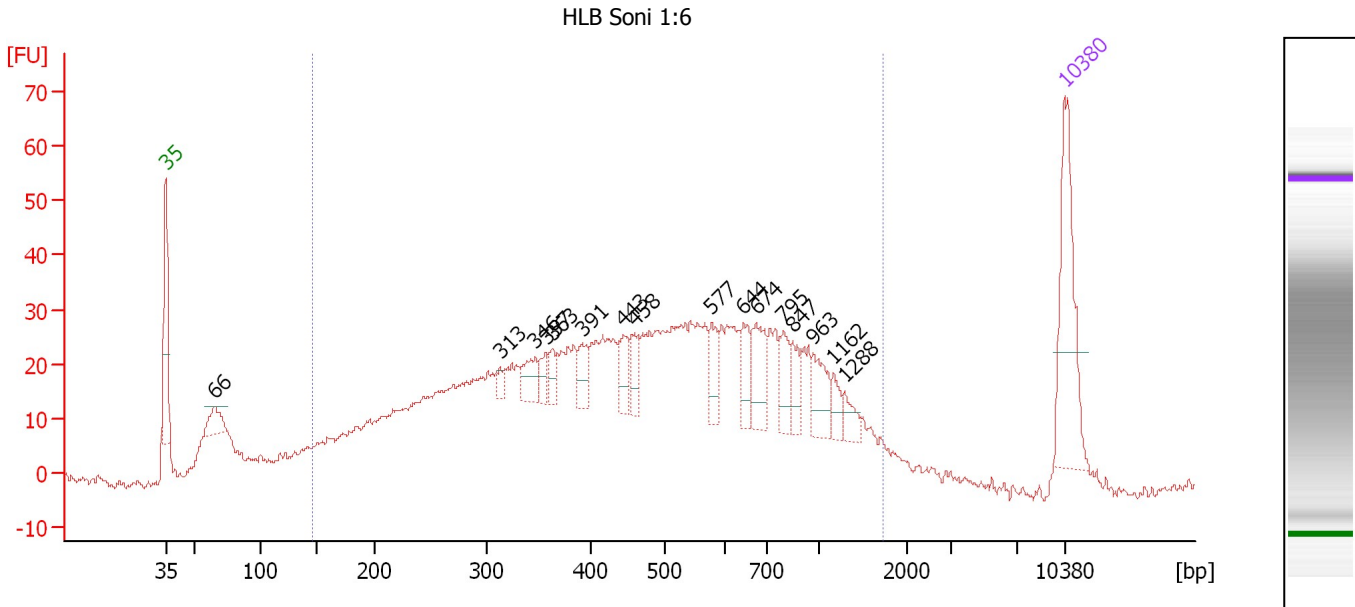
Region table for sample 2 : SG-1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
374	415	391	3,895.4	1,004.21	1,199.5	88	1.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : HLB Soni 1:6

Number of peaks found: 16 Corr. Area 1: 1,143.0
 Noise: 0.8

Peak table for sample 3 : HLB Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	66	24.59	565.2	
3	313	7.04	34.1	
4	346	22.66	99.2	
5	357	12.95	55.0	
6	363	12.52	52.3	
7	391	18.98	73.5	
8	443	19.39	66.3	
9	458	18.87	62.5	
10	577	22.19	58.3	
11	644	21.38	50.3	
12	674	36.56	82.1	
13	795	21.50	41.0	
14	847	16.93	30.3	
15	963	26.49	41.7	
16	1,162	11.24	14.7	
17	1,288	10.58	12.4	
18	10,380	75.00	10.9	Upper Marker

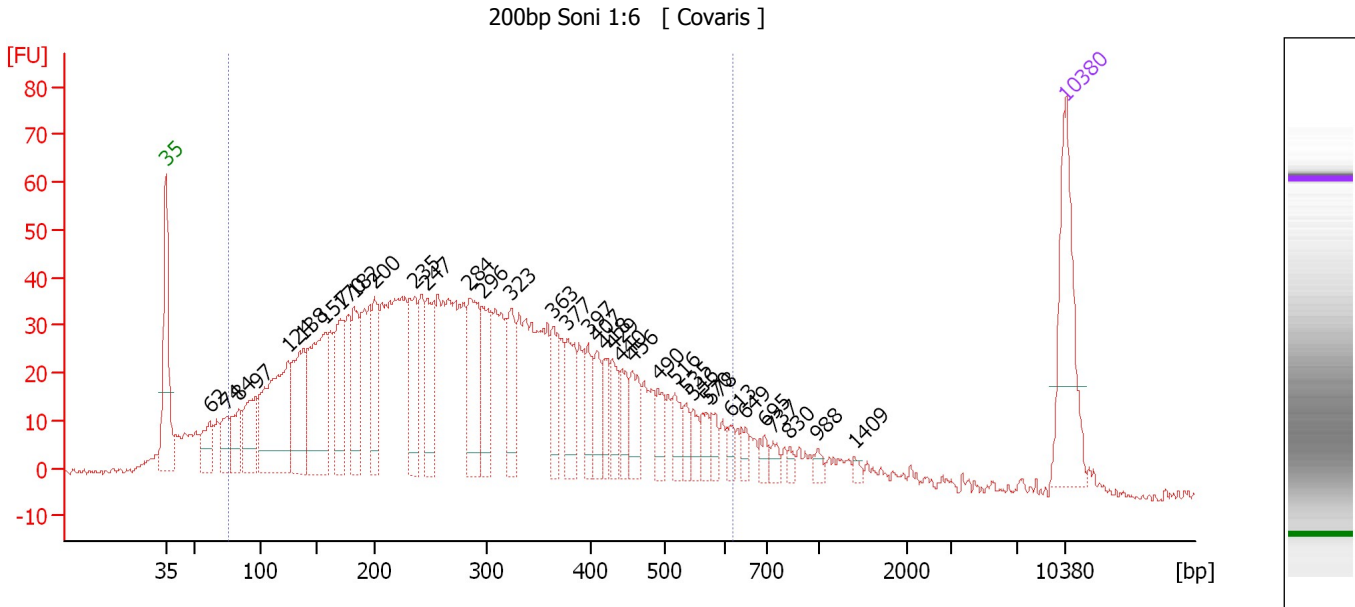
Region table for sample 3 : HLB Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
145	1,738	541	6,703.5	1,654.77	1,143.0	91	54.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 200bp Soni 1:6

Number of peaks found: 36 Corr. Area 1: 1,658.5
 Noise: 0.6

Peak table for sample 4 : 200bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	62	35.89	877.2	
3	74	28.01	571.2	
4	84	36.01	649.8	
5	97	58.82	921.6	
6	124	160.94	1,960.0	
7	138	87.09	957.7	
8	157	133.25	1,283.9	
9	170	67.90	603.4	
10	182	65.96	548.5	
11	200	53.51	405.3	
12	235	65.71	423.1	
13	247	55.61	341.5	
14	284	74.74	399.4	
15	296	53.91	276.4	
16	323	48.70	228.3	
17	363	33.05	137.9	
18	377	39.88	160.4	
19	397	26.60	101.6	
20	407	26.91	100.1	
21	418	22.52	81.7	
22	429	26.41	93.3	
23	440	24.27	83.6	
24	456	30.32	100.8	
25	490	20.26	62.6	
26	516	19.13	56.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad


Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : 200bp Soni 1:6

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	535	12.38	35.1	
28	546	13.50	37.4	
29	570	13.71	36.5	
30	578	12.13	31.8	
31	613	9.51	23.5	
32	649	8.91	20.8	
33	695	9.44	20.6	
34	737	7.82	16.1	
35	830	4.77	8.7	
36	988	5.74	8.8	
37	1,409	3.77	4.0	
38	10,380	75.00	10.9	Upper Marker

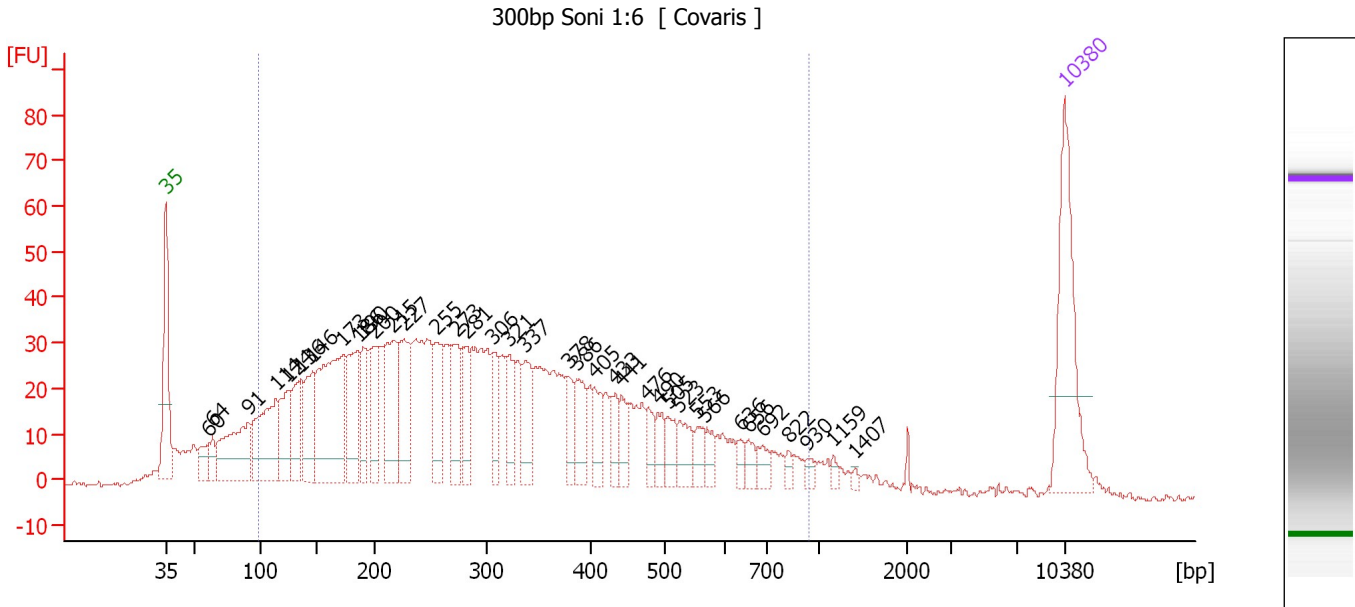
Region table for sample 4 : 200bp Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
76	619	292	16,309.9	2,262.70	1,658.5	90	42.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 300bp Soni 1:6

Number of peaks found: 37 Corr. Area 1: 1,413.5
 Noise: 0.6

Peak table for sample 5 : 300bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	60	18.48	464.0	
3	64	17.11	405.6	
4	91	88.48	1,477.1	
5	114	94.67	1,260.6	
6	124	48.33	589.4	
7	136	49.41	551.4	
8	146	60.94	633.7	
9	173	149.64	1,312.9	
10	186	68.28	557.2	
11	190	41.25	329.3	
12	200	46.79	354.2	
13	215	71.01	499.3	
14	227	57.67	385.6	
15	255	44.63	265.6	
16	273	42.30	235.2	
17	281	33.11	178.5	
18	306	29.89	148.1	
19	321	30.15	142.5	
20	337	37.53	169.0	
21	378	20.68	83.0	
22	386	28.65	112.3	
23	405	19.92	74.5	
24	433	18.43	64.5	
25	441	17.75	61.0	
26	476	14.01	44.6	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...

... Peak table for sample 5 : 300bp Soni 1:6

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	490	14.90	46.1	
28	505	16.62	49.9	
29	523	20.93	60.6	
30	553	12.77	35.0	
31	566	11.87	31.8	
32	636	7.44	17.7	
33	656	9.56	22.1	
34	692	10.80	23.7	
35	822	4.78	8.8	
36	930	5.23	8.5	
37	1,159	3.83	5.0	
38	1,407	2.06	2.2	
39	▶ 10,380	75.00	10.9	Upper Marker

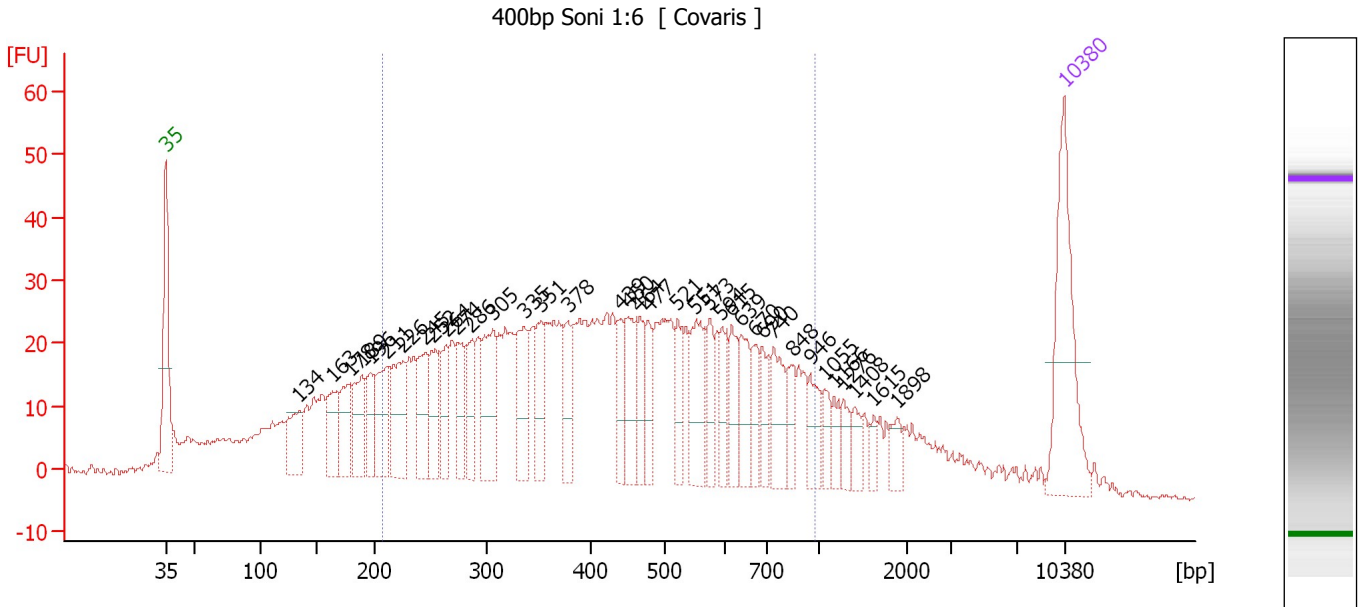
Region table for sample 5 : 300bp Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
99	936	320	11,306.0	1,711.98	1,413.5	88	48.5	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : 400bp Soni 1:6

Height Threshold [FU] : 10

Overall Results for sample 6 : 400bp Soni 1:6

Number of peaks found: 37 Corr. Area 1: 1,048.6
 Noise: 0.5

Peak table for sample 6 : 400bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	134	43.49	491.8	
3	163	43.29	401.8	
4	178	40.42	343.5	
5	189	45.89	367.4	
6	196	30.41	235.1	
7	211	54.39	391.1	
8	226	53.60	360.0	
9	245	43.74	270.9	
10	252	39.67	239.0	
11	264	32.39	186.1	
12	274	33.05	182.9	
13	286	34.78	184.3	
14	305	60.70	301.1	
15	335	47.70	215.6	
16	351	36.52	157.5	
17	378	32.31	129.6	
18	439	26.62	91.9	
19	450	38.75	130.5	
20	464	26.14	85.3	
21	477	27.32	86.9	
22	521	24.13	70.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...

... Peak table for sample 6 : 400bp Soni 1:6

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
23	551	45.77	125.9	
24	573	25.47	67.3	
25	594	22.44	57.2	
26	615	25.19	62.1	
27	639	28.76	68.2	
28	670	20.28	45.9	
29	690	22.30	49.0	
30	740	36.36	74.4	
31	848	17.15	30.6	
32	946	21.49	34.4	
33	1,055	10.71	15.4	
34	1,166	11.54	15.0	
35	1,276	11.63	13.8	
36	1,408	11.18	12.0	
37	1,615	7.03	6.6	
38	1,898	11.27	9.0	
39	▶ 10,380	75.00	10.9	Upper Marker

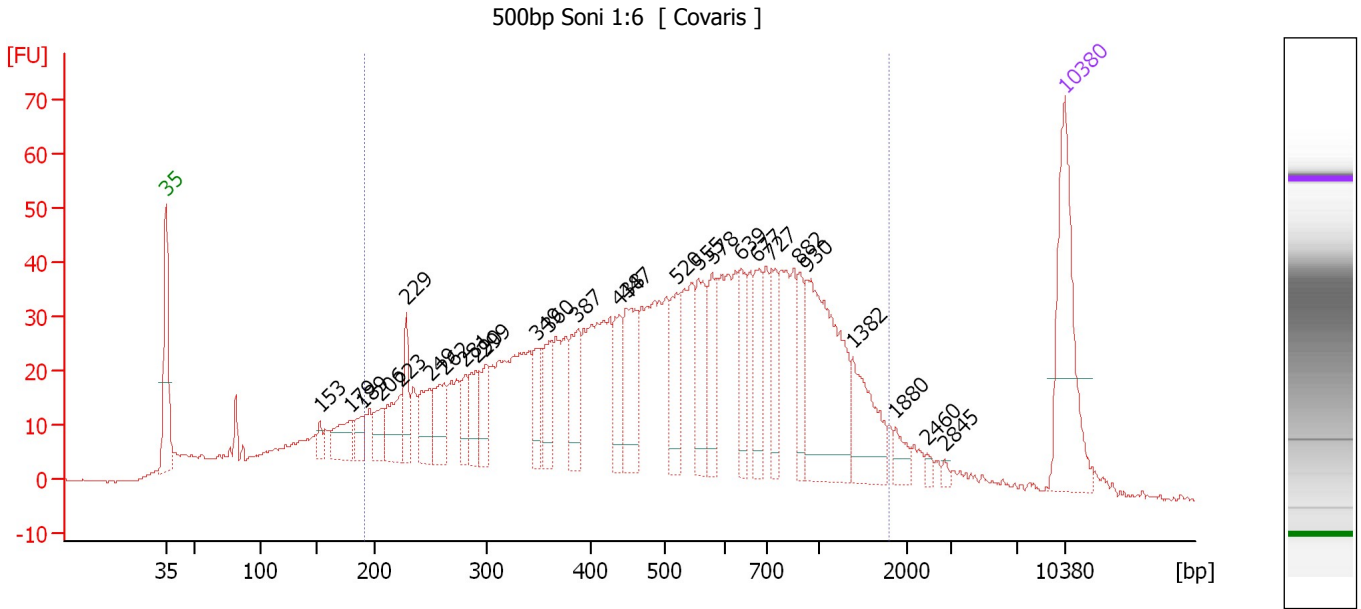
Region table for sample 6 : 400bp Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
207	975	453	5,871.4	1,426.70	1,048.6	70	38.7	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 500bp Soni 1:6

Number of peaks found: 28 Corr. Area 1: 1,494.4
 Noise: 0.2

Peak table for sample 7 : 500bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	153	9.53	94.6	
3	179	29.58	250.2	
4	189	17.07	136.8	
5	206	19.62	144.4	
6	223	35.07	238.5	
7	229	29.28	194.1	
8	249	34.11	207.3	
9	262	33.03	191.3	
10	281	19.99	107.9	
11	290	28.45	148.5	
12	299	26.33	133.6	
13	349	26.64	115.8	
14	360	27.25	114.7	
15	387	35.38	138.5	
16	438	29.77	102.9	
17	447	51.64	175.0	
18	520	38.20	111.4	
19	555	41.29	112.7	
20	578	32.17	84.3	
21	639	28.32	67.1	
22	677	33.09	74.1	
23	727	30.51	63.6	
24	882	25.34	43.5	
25	930	118.09	192.5	
26	1,382	44.19	48.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...

... Peak table for sample 7 : 500bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	1,880	9.99	8.0	
28	2,460	2.95	1.8	
29	2,845	2.24	1.2	
30	10,380	75.00	10.9	Upper Marker

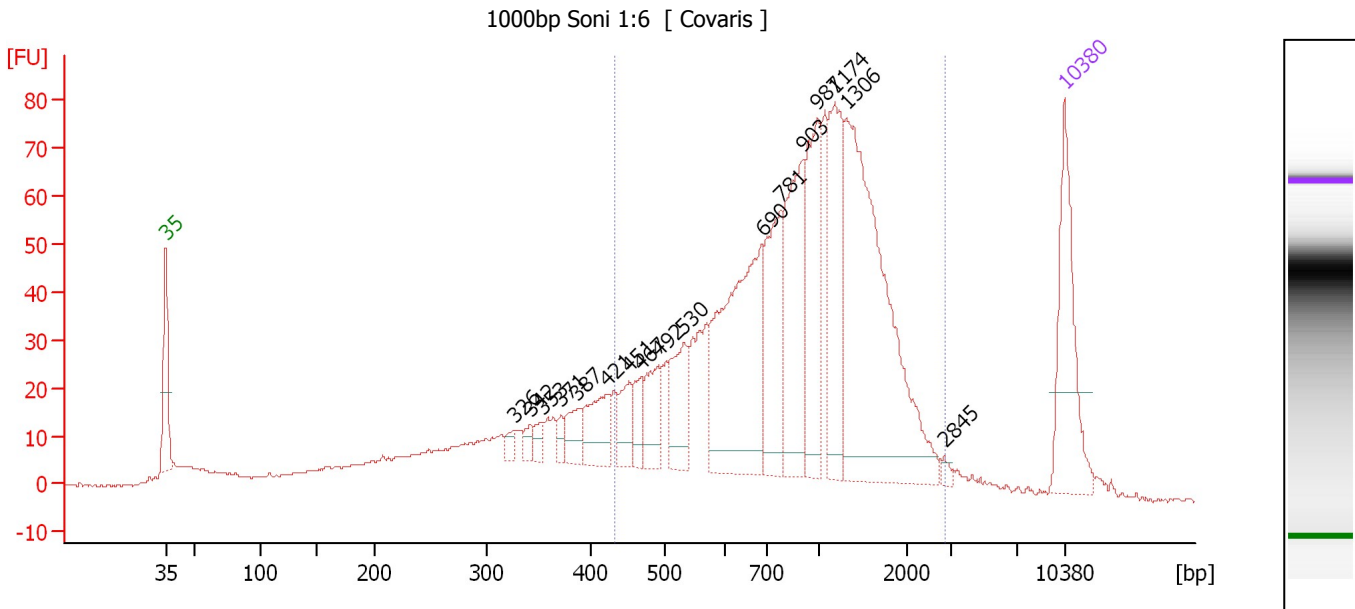
Region table for sample 7 : 500bp Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
192	1,804	593	6,301.8	1,723.88	1,494.4	84	55.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 1000bp Soni 1:6

Number of peaks found: 17 Corr. Area 1: 1,246.1
 Noise: 0.3

Peak table for sample 8 : 1000bp Soni 1:6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	326	8.03	37.4	
3	342	8.88	39.4	
4	353	9.74	41.9	
5	371	9.22	37.7	
6	387	21.84	85.5	
7	421	40.86	146.9	
8	451	26.28	88.2	
9	467	19.02	61.7	
10	492	37.42	115.3	
11	530	47.92	136.9	
12	690	196.00	430.5	
13	781	84.83	164.6	
14	903	108.79	182.6	
15	987	90.03	138.2	
16	1,174	92.93	119.9	
17	1,306	267.59	310.5	
18	2,845	3.94	2.1	
19	10,380	75.00	10.9	Upper Marker

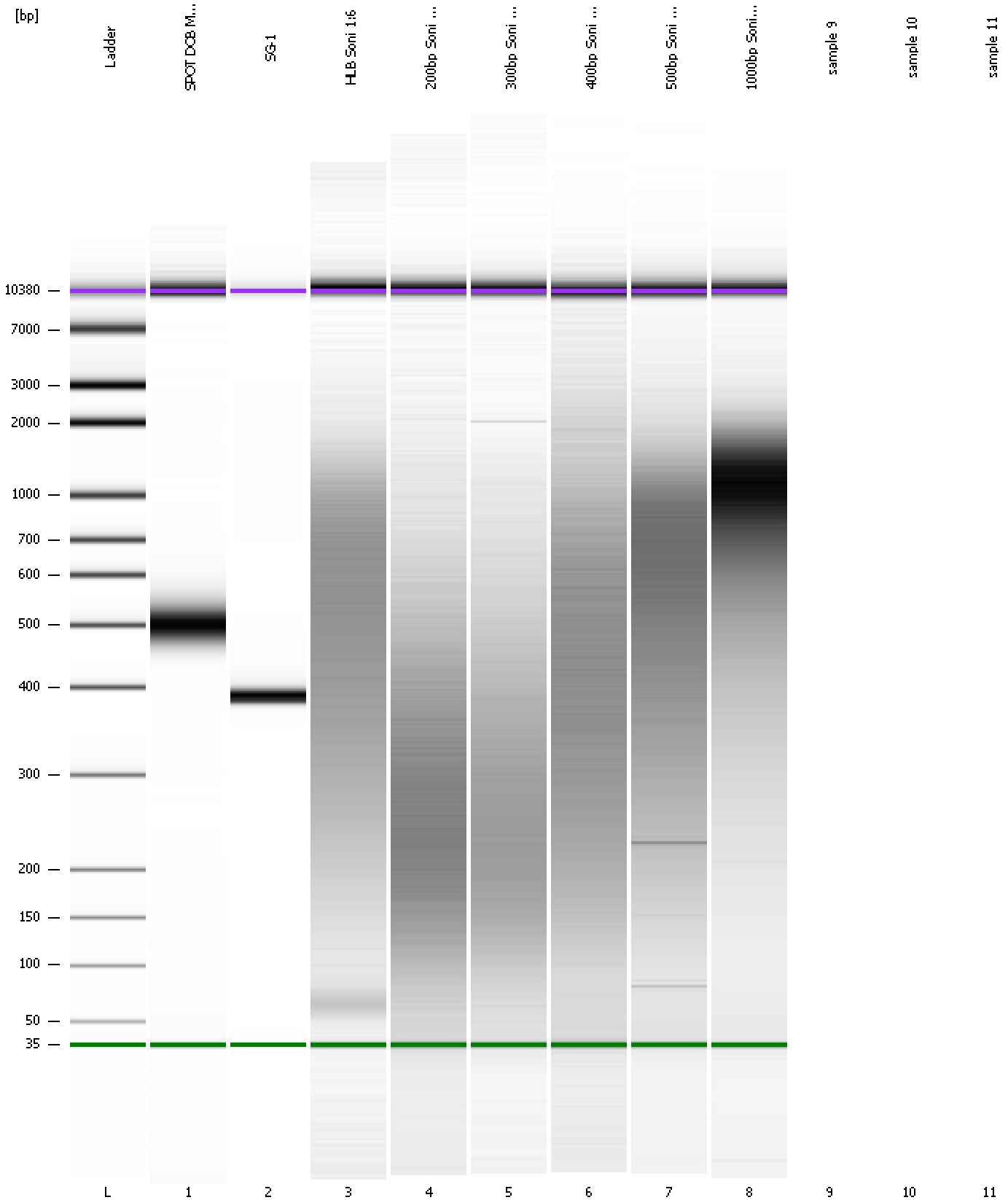
Region table for sample 8 : 1000bp Soni 1:6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
431	2,850	1,018	2,321.5	1,213.53	1,246.1	73	47.3	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
Modified: 3/22/2013 5:16:39 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
Modified: 3/22/2013 5:16:39 PM

Invalid Samples

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad

Created: 3/22/2013 4:40:36 PM
 Modified: 3/22/2013 5:16:39 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		3/22/2013 5:13:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-03-22\2013-03-22_002.xad)		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/22/2013 4:40:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1