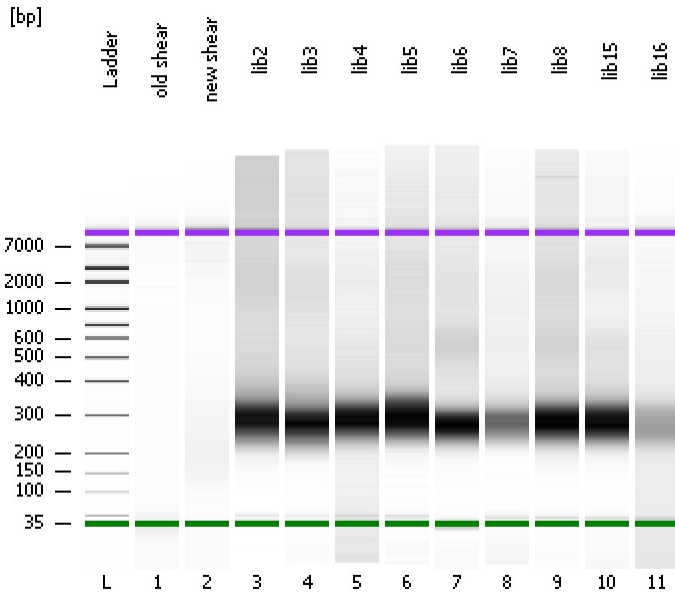


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 PM

Electrophoresis File Run Summary



Instrument Information:

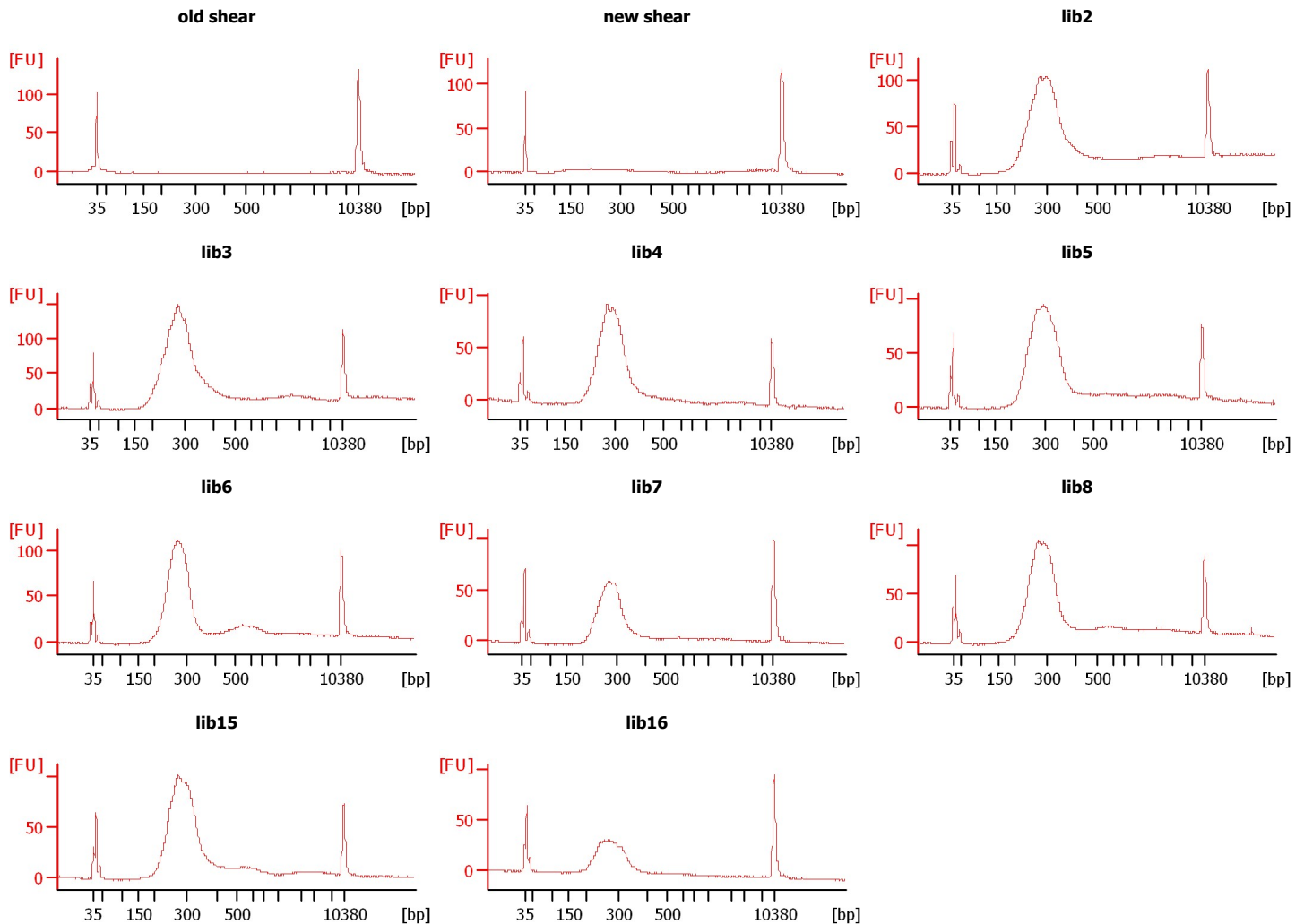
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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:



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
old shear		<input type="checkbox"/>	✓			
new shear		<input type="checkbox"/>	✓			
lib2		<input type="checkbox"/>	✓			
lib3		<input type="checkbox"/>	✓			
lib4		<input type="checkbox"/>	✓			
lib5		<input type="checkbox"/>	✓			
lib6		<input type="checkbox"/>	✓			
lib7		<input type="checkbox"/>	✓			
lib8		<input type="checkbox"/>	✓			
lib15		<input type="checkbox"/>	✓			
lib16		<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\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 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

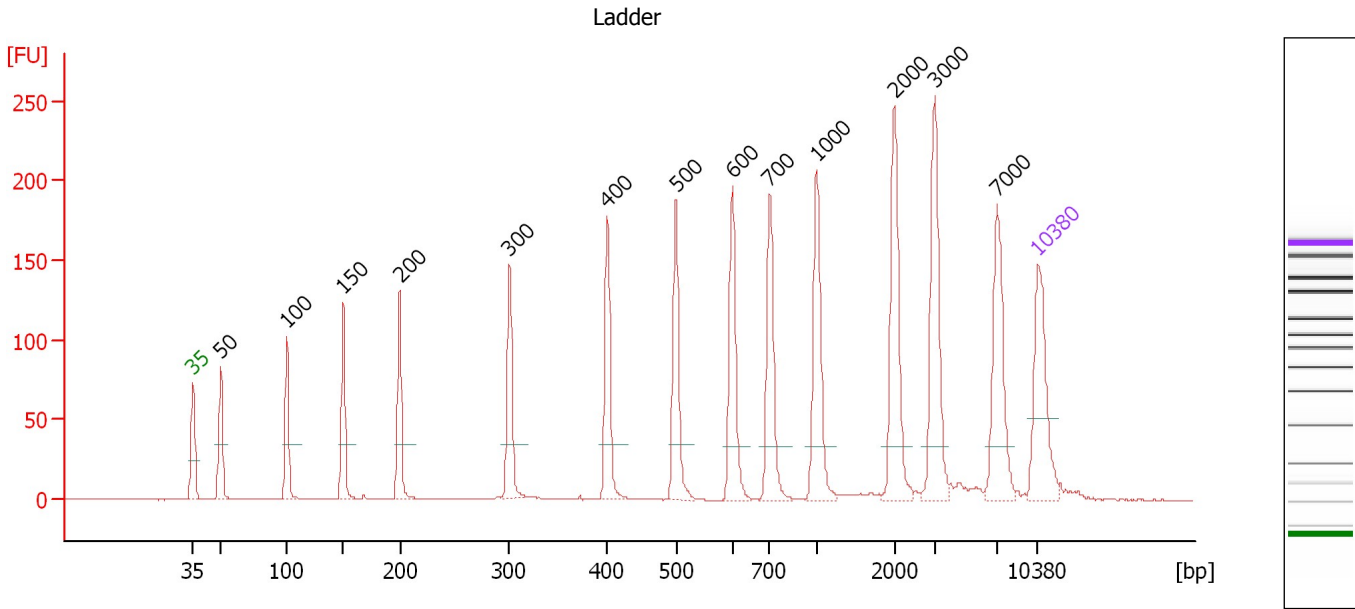
Ladder

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\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

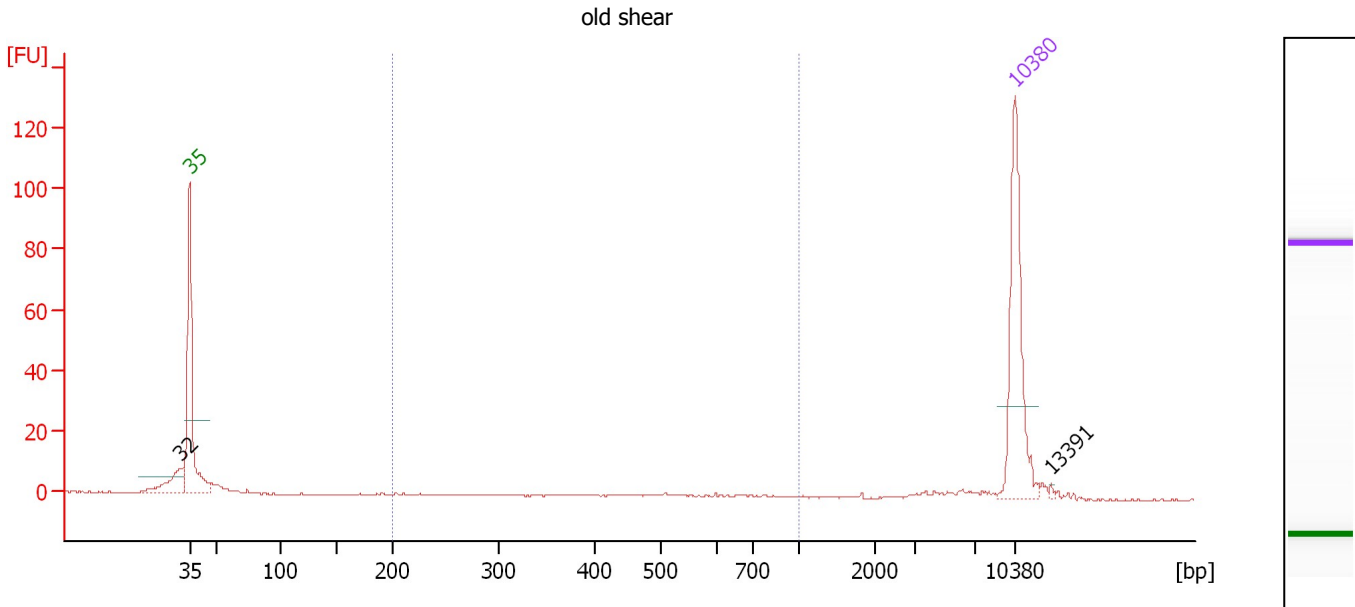
Peak table for Ladder

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\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : old shear

Number of peaks found: 2 Corr. Area 1: 3.1
 Noise: 0.1

Peak table for sample 1 : old shear

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	10,380	75.00	10.9	Upper Marker
4	13,391	0.00	0.0	

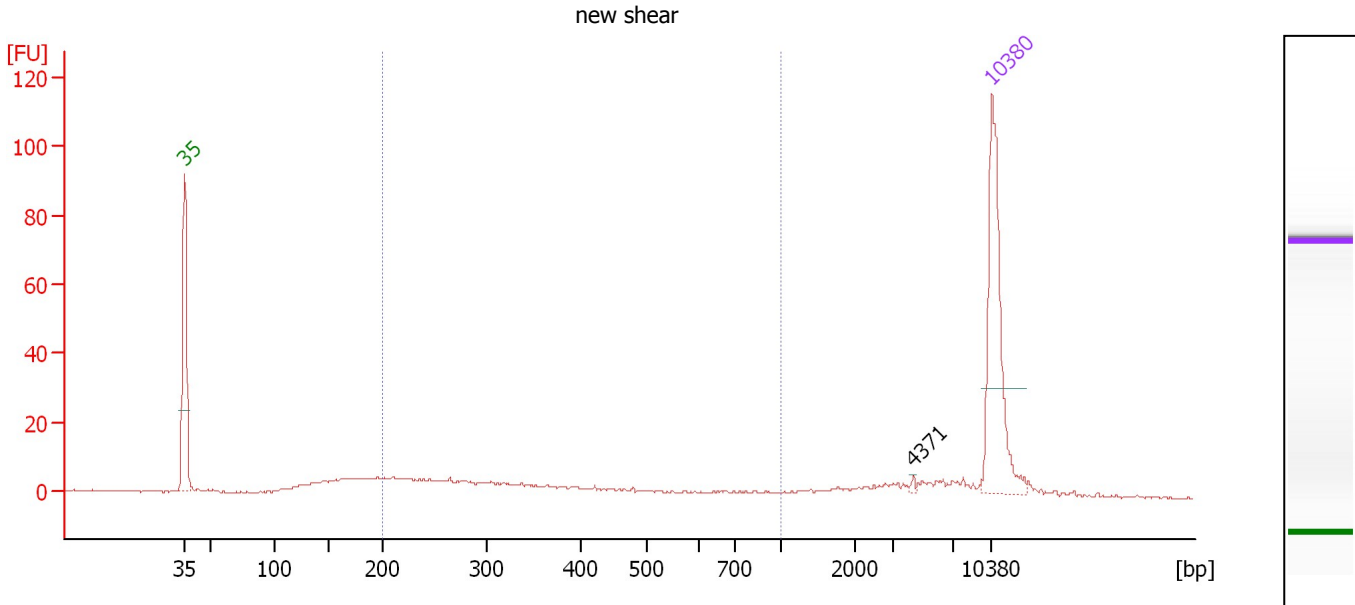
Region table for sample 1 : old shear

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	596	6.6	2.45	3.1	5	22.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

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 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : new shear

Number of peaks found: 1 Corr. Area 1: 91.6
 Noise: 0.3

Peak table for sample 2 : new shear

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	4,371	1.18	0.4	
3	10,380	75.00	10.9	Upper Marker

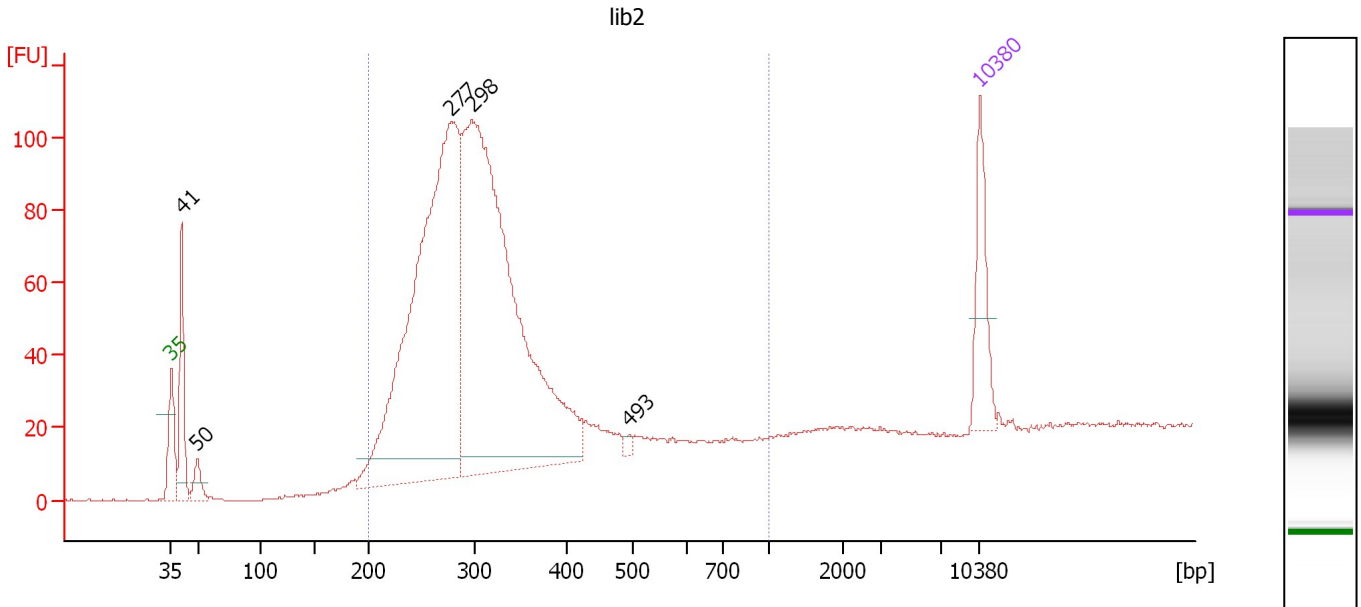
Region table for sample 2 : new shear

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	340	436.3	83.57	91.6	49	42.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : lib2

Number of peaks found: 5 Corr. Area 1: 1,596.8
 Noise: 0.2

Peak table for sample 3 : lib2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	156.17	5,767.4	
3	50	36.67	1,116.3	
4	277	1,033.03	5,641.9	
5	298	1,140.88	5,796.5	
6	493	6.86	21.1	
7	10,380	75.00	10.9	Upper Marker

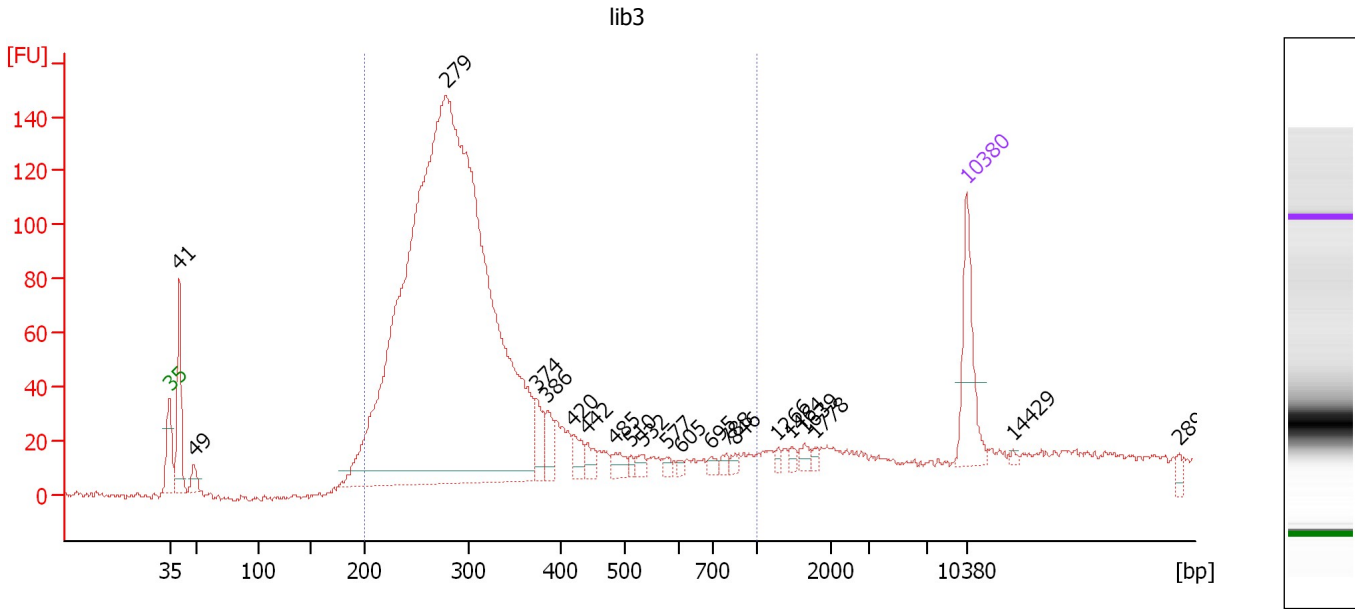
Region table for sample 3 : lib2

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	323	11,503.2	2,265.31	1,596.8	89	31.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : lib3

Number of peaks found: 21 Corr. Area 1: 2,112.5
 Noise: 1.2

Peak table for sample 4 : lib3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	139.62	5,222.7	
3	49	23.49	725.3	
4	279	2,484.04	13,501.6	
5	374	40.78	165.2	
6	386	32.52	127.6	
7	420	26.25	94.7	
8	442	17.69	60.7	
9	485	18.03	56.4	
10	510	6.50	19.3	
11	532	10.15	28.9	
12	577	6.26	16.4	
13	605	4.39	11.0	
14	695	7.66	16.7	
15	788	7.25	13.9	
16	846	6.55	11.7	
17	1,266	5.34	6.4	
18	1,464	6.45	6.7	
19	1,639	9.58	8.9	
20	1,778	5.65	4.8	
21	10,380	75.00	10.9	Upper Marker
22	14,429	0.00	0.0	
23	28,902	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...

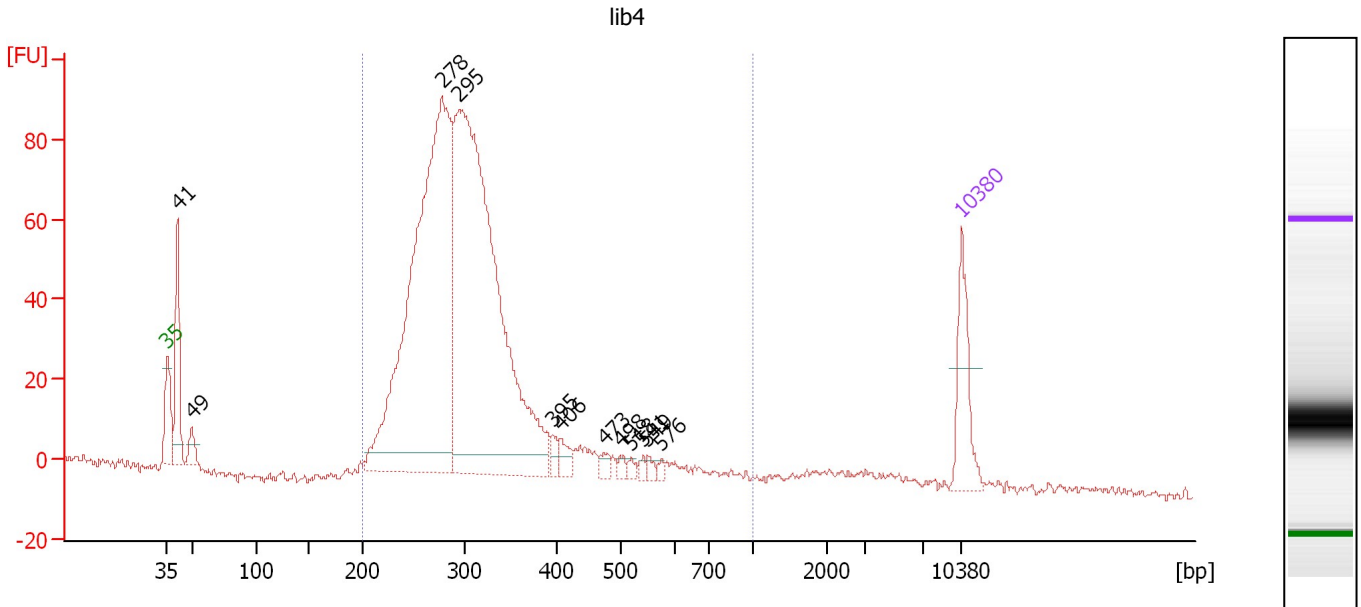
... Region table for sample 4 : lib3

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	314	14,169.8	2,705.64	2,112.5	89	33.4	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 5 : lib4

Number of peaks found: 12 Corr. Area 1: 1,292.6
 Noise: 1.1

Peak table for sample 5 : lib4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	160.07	5,939.8	
3	49	31.61	975.3	
4	278	1,107.75	6,046.3	
5	295	1,172.39	6,029.1	
6	395	14.88	57.1	
7	406	22.89	85.4	
8	473	13.61	43.6	
9	498	8.90	27.1	
10	518	7.06	20.6	
11	541	6.87	19.2	
12	549	8.23	22.7	
13	576	5.94	15.6	
14	10,380	75.00	10.9	Upper Marker

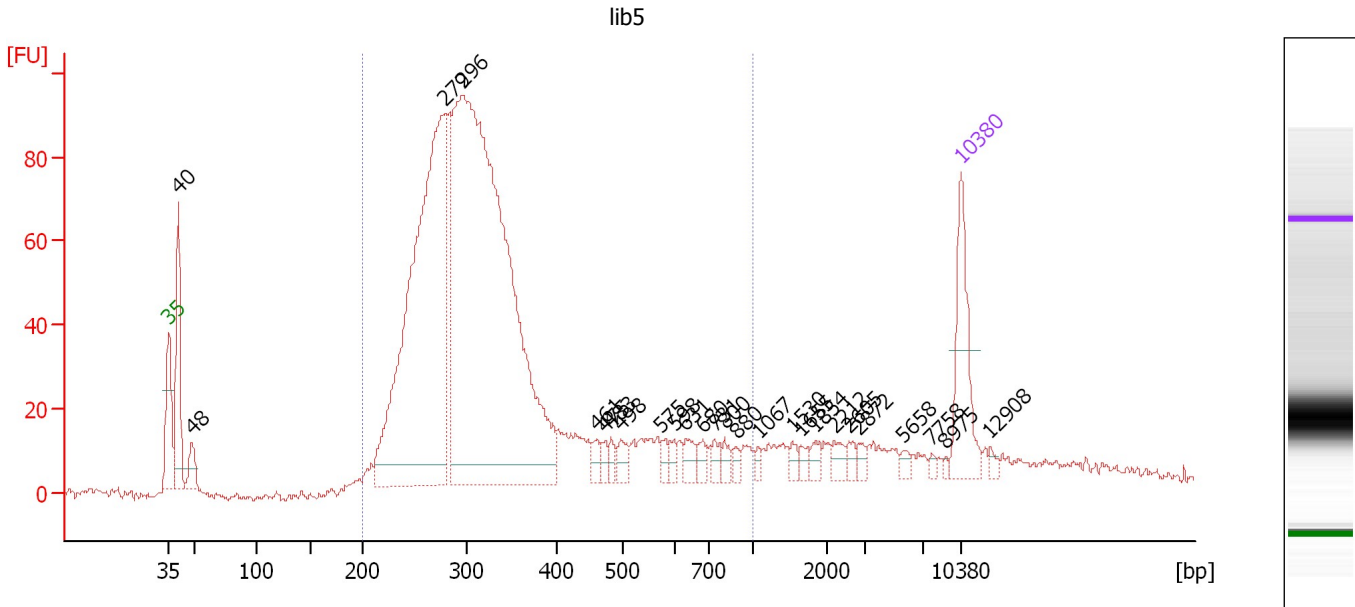
Region table for sample 5 : lib4

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	314	12,222.0	2,388.90	1,292.6	91	26.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : lib5

Number of peaks found: 26 Corr. Area 1: 1,604.6
 Noise: 1.0

Peak table for sample 6 : lib5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	145.73	5,488.4	
3	48	33.26	1,044.8	
4	279	750.36	4,077.5	
5	296	1,200.08	6,134.0	
6	461	13.05	42.9	
7	475	10.15	32.4	
8	483	10.57	33.2	
9	498	17.75	54.0	
10	575	9.03	23.8	
11	598	9.25	23.4	
12	631	16.30	39.2	
13	680	12.52	27.9	
14	731	12.14	25.2	
15	800	9.98	18.9	
16	880	7.27	12.5	
17	1,067	5.63	8.0	
18	1,530	7.25	7.2	
19	1,655	8.02	7.3	
20	1,854	9.34	7.6	
21	2,212	11.04	7.6	
22	2,605	7.60	4.4	
23	2,872	7.32	3.9	
24	5,658	5.94	1.6	
25	7,758	3.54	0.7	
26	8,975	2.66	0.4	


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...**... Peak table for sample 6 : lib5**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	10,380	75.00	10.9	Upper Marker
28	12,908	0.00	0.0	

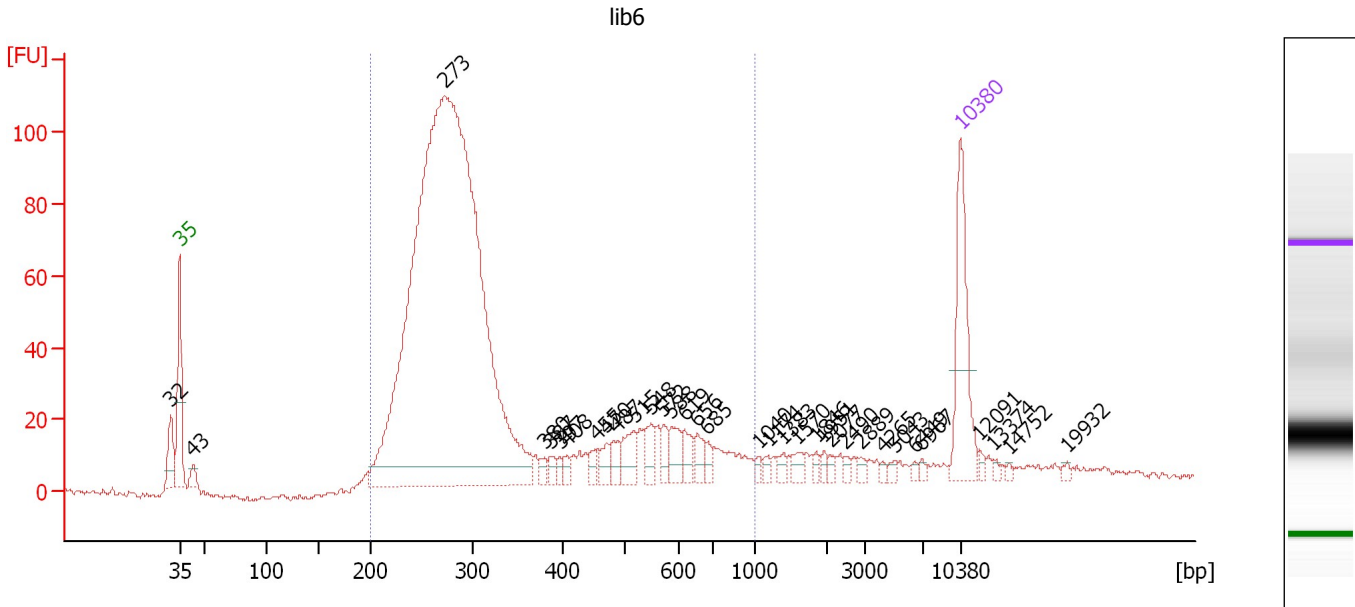
Region table for sample 6 : lib5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	348	11,423.3	2,335.57	1,604.6	84	37.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
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Electropherogram Summary Continued ...



Overall Results for sample 7 : lib6

Number of peaks found: 34 Corr. Area 1: 1,475.1
 Noise: 0.9

Peak table for sample 7 : lib6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	32	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	43	13.84	486.3	
4	273	1,541.28	8,558.7	
5	380	8.03	32.0	
6	387	8.71	34.1	
7	397	6.90	26.3	
8	408	7.07	26.3	
9	455	10.70	35.7	
10	470	14.72	47.5	
11	487	13.89	43.2	
12	515	26.05	76.6	
13	548	20.38	56.3	
14	572	12.96	34.4	
15	588	20.95	54.0	
16	619	14.90	36.5	
17	656	14.39	33.2	
18	685	8.01	17.7	
19	1,040	4.38	6.4	
20	1,174	5.02	6.5	
21	1,383	6.12	6.7	
22	1,570	8.31	8.0	
23	1,846	4.24	3.5	
24	1,951	4.14	3.2	
25	2,077	4.09	3.0	
26	2,490	3.52	2.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...

... Peak table for sample 7 : lib6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	2,889	4.30	2.3	
28	4,265	2.64	0.9	
29	5,043	3.90	1.2	
30	6,449	2.70	0.6	
31	6,967	2.86	0.6	
32	10,380	75.00	10.9	Upper Marker
33	12,091	0.00	0.0	
34	13,374	0.00	0.0	
35	14,752	0.00	0.0	
36	19,932	0.00	0.0	

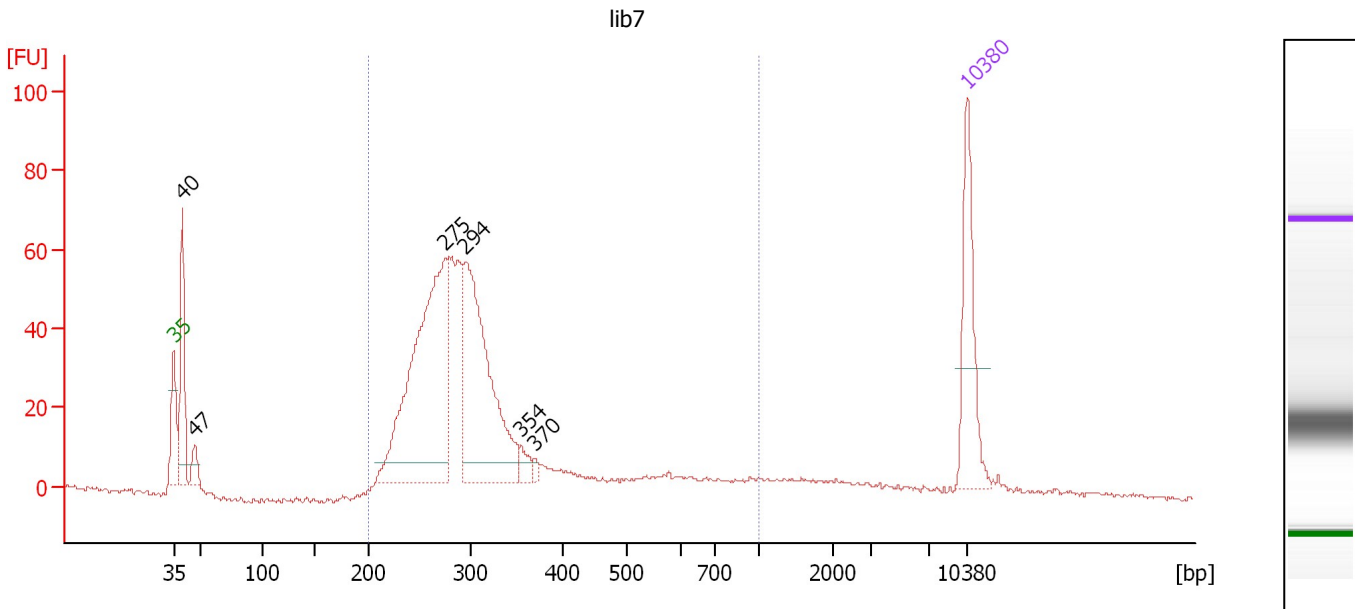
Region table for sample 7 : lib6

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	341	9,410.5	1,839.37	1,475.1	88	41.4	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
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Electropherogram Summary Continued ...



Overall Results for sample 8 : lib7

Number of peaks found: 6 Corr. Area 1: 788.1
 Noise: 0.6

Peak table for sample 8 : lib7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	116.48	4,421.9	
3	47	20.27	649.4	
4	275	382.06	2,103.6	
5	294	273.02	1,405.6	
6	354	13.38	57.3	
7	370	5.07	20.8	
8	10,380	75.00	10.9	Upper Marker

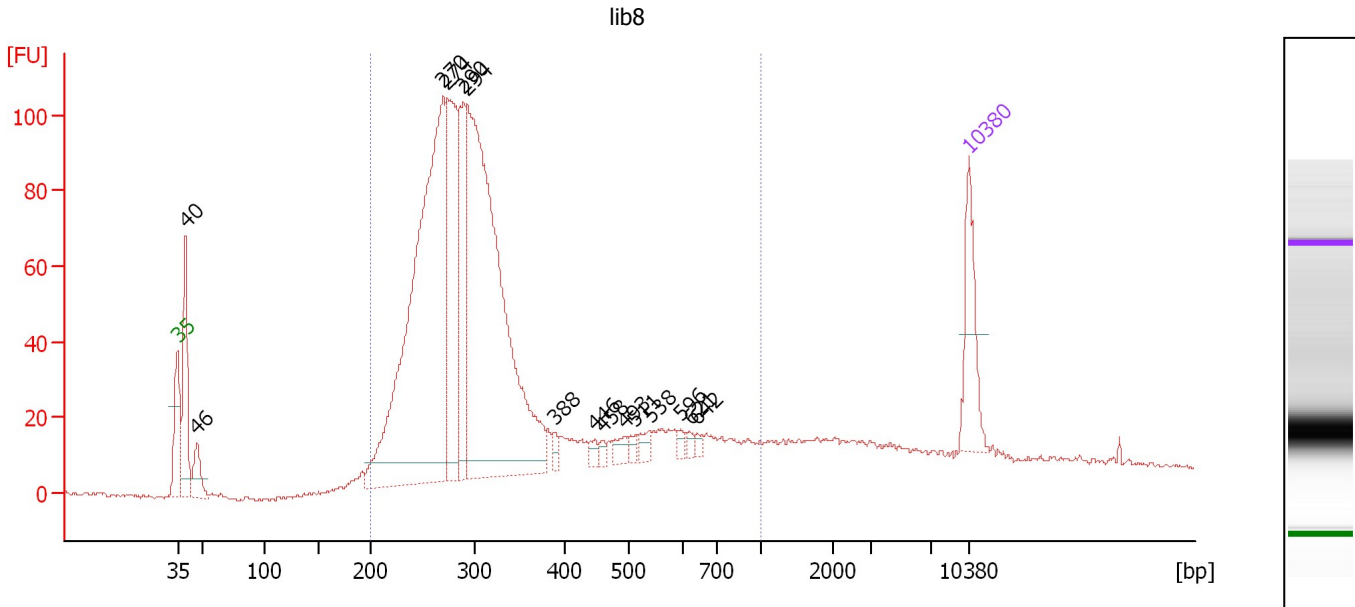
Region table for sample 8 : lib7

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	321	4,975.6	961.18	788.1	85	36.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

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Electropherogram Summary Continued ...



Overall Results for sample 9 : lib8

Number of peaks found: 15 Corr. Area 1: 1,608.3
 Noise: 0.6

Peak table for sample 9 : lib8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	174.08	6,657.0	
3	46	56.89	1,857.8	
4	270	927.91	5,210.0	
5	274	291.48	1,611.8	
6	290	157.21	822.6	
7	294	874.53	4,511.6	
8	388	12.18	47.6	
9	446	10.48	35.6	
10	458	8.23	27.2	
11	493	17.89	55.0	
12	511	9.84	29.2	
13	538	15.69	44.2	
14	596	7.63	19.4	
15	621	7.70	18.8	
16	642	6.44	15.2	
17	10,380	75.00	10.9	Upper Marker

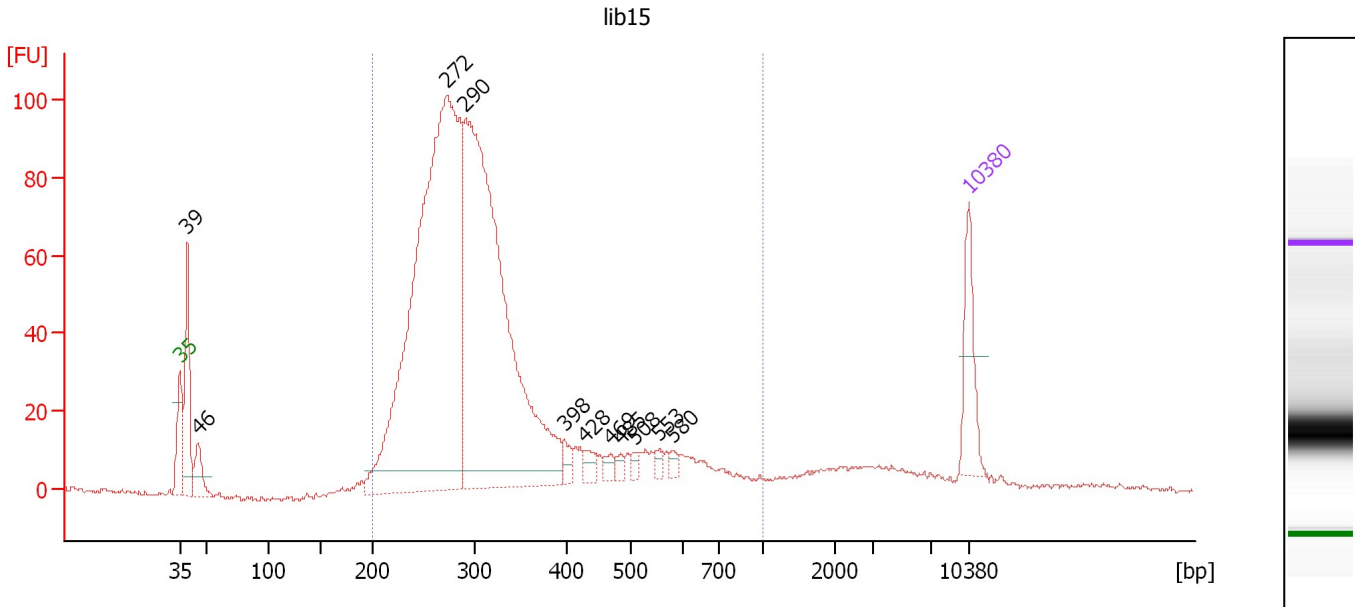
Region table for sample 9 : lib8

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	342	13,421.8	2,666.40	1,608.3	85	40.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

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 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : lib15

Number of peaks found: 11 Corr. Area 1: 1,522.7
 Noise: 0.7

Peak table for sample 10 : lib15

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	195.38	7,587.0	
3	46	65.72	2,187.9	
4	272	1,498.35	8,353.7	
5	290	1,217.08	6,359.4	
6	398	22.22	84.7	
7	428	21.17	74.9	
8	469	14.22	45.9	
9	485	10.67	33.3	
10	508	9.08	27.1	
11	553	12.10	33.1	
12	580	9.82	25.6	
13	10,380	75.00	10.9	Upper Marker

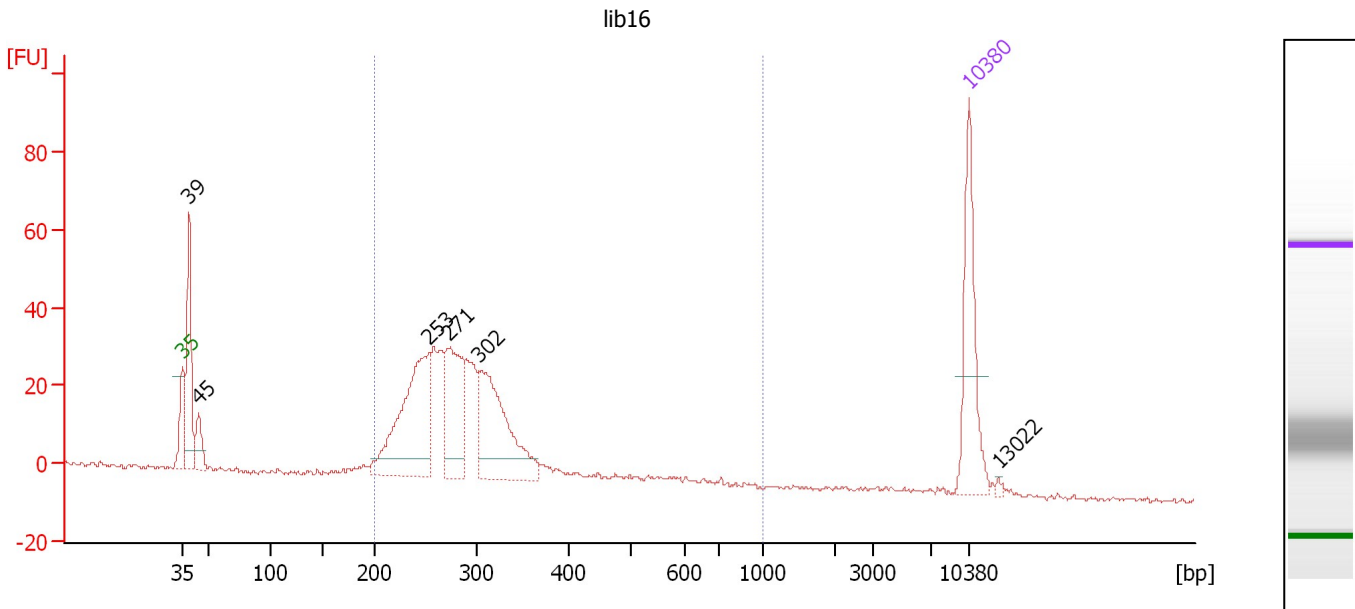
Region table for sample 10 : lib15

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	324	15,186.4	2,963.38	1,522.7	89	33.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

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 Modified: 7/17/2012 12:59:49 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : lib16

Number of peaks found: 6 Corr. Area 1: 498.9
 Noise: 0.6

Peak table for sample 11 : lib16

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	39	127.18	4,937.0	
3	45	35.20	1,195.5	
4	253	190.75	1,141.6	
5	271	110.81	618.5	
6	302	151.38	758.3	
7	10,380	75.00	10.9	Upper Marker
8	13,022	0.00	0.0	

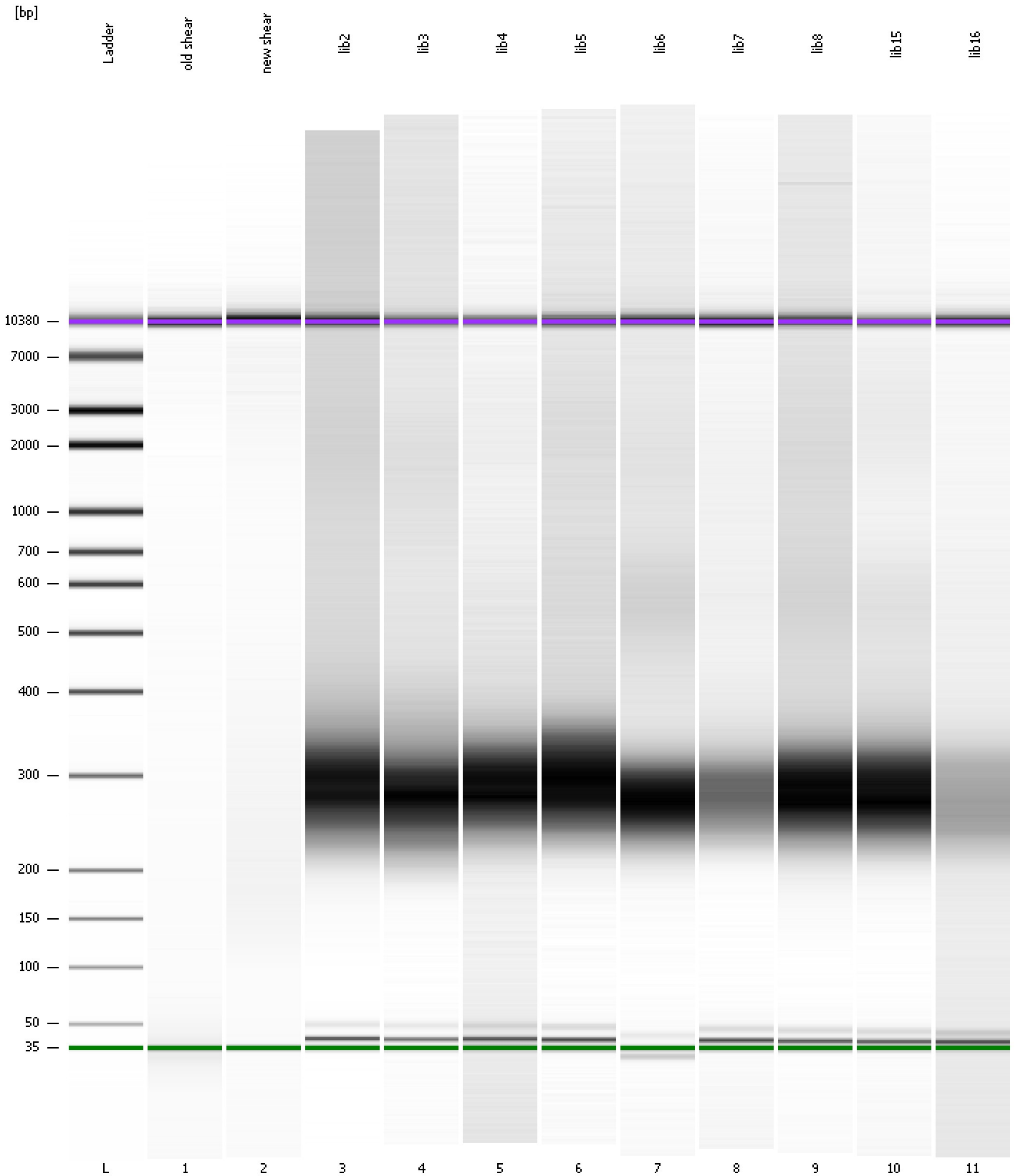
Region table for sample 11 : lib16

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	297	3,374.5	624.25	498.9	81	27.4	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2012-07-17\2012-07-17_001.xad

Created: 7/17/2012 12:17:09 PM
Modified: 7/17/2012 12:59:49 PM

Curves

Standard Curve

