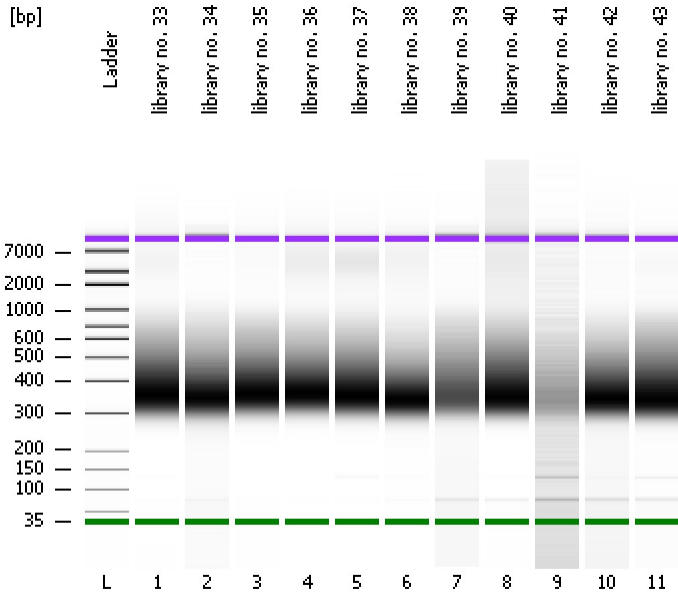


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
Modified: 8/27/2013 10:52:27 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

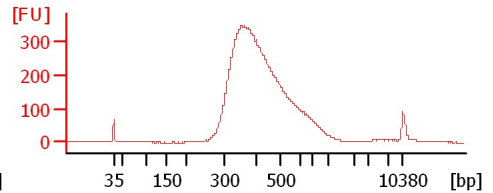
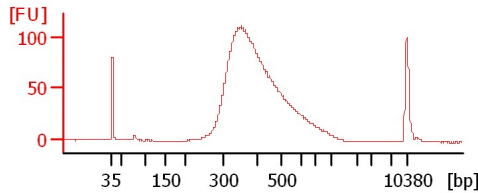
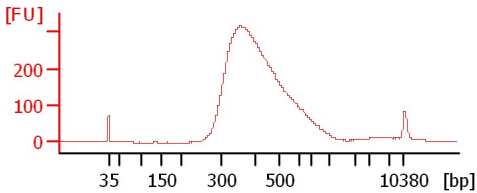
Chip Information:

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

library no. 33

library no. 34

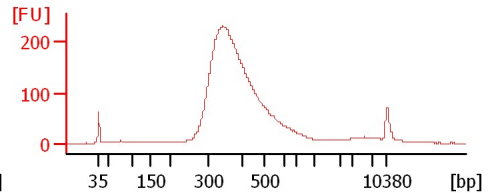
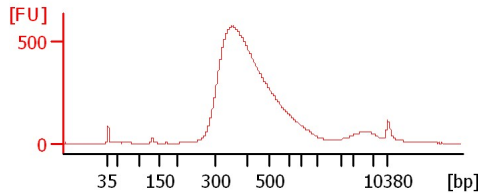
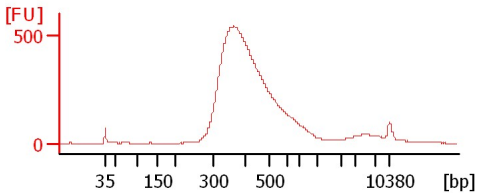
library no. 35



library no. 36

library no. 37

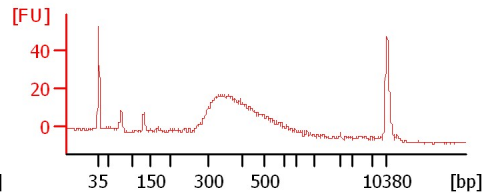
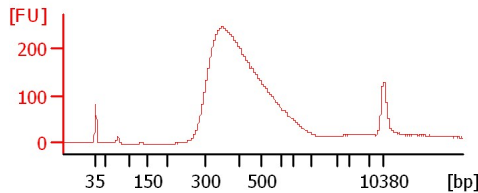
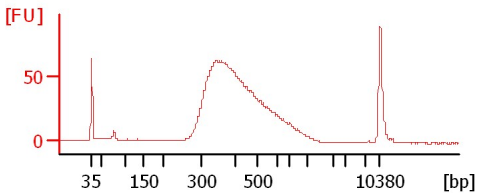
library no. 38



library no. 39

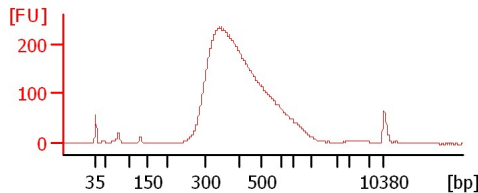
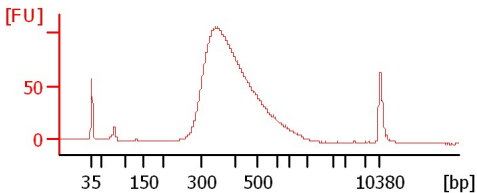
library no. 40

library no. 41



library no. 42

library no. 43



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
library no. 33		<input type="checkbox"/>	✓			
library no. 34		<input type="checkbox"/>	✓			
library no. 35		<input type="checkbox"/>	✓			
library no. 36		<input type="checkbox"/>	✓			
library no. 37		<input type="checkbox"/>	✓			
library no. 38		<input type="checkbox"/>	✓			
library no. 39		<input type="checkbox"/>	✓			
library no. 40		<input type="checkbox"/>	✓			
library no. 41		<input type="checkbox"/>	✓			
library no. 42		<input type="checkbox"/>	✓			
library no. 43		<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\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
Modified: 8/27/2013 10:52:27 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

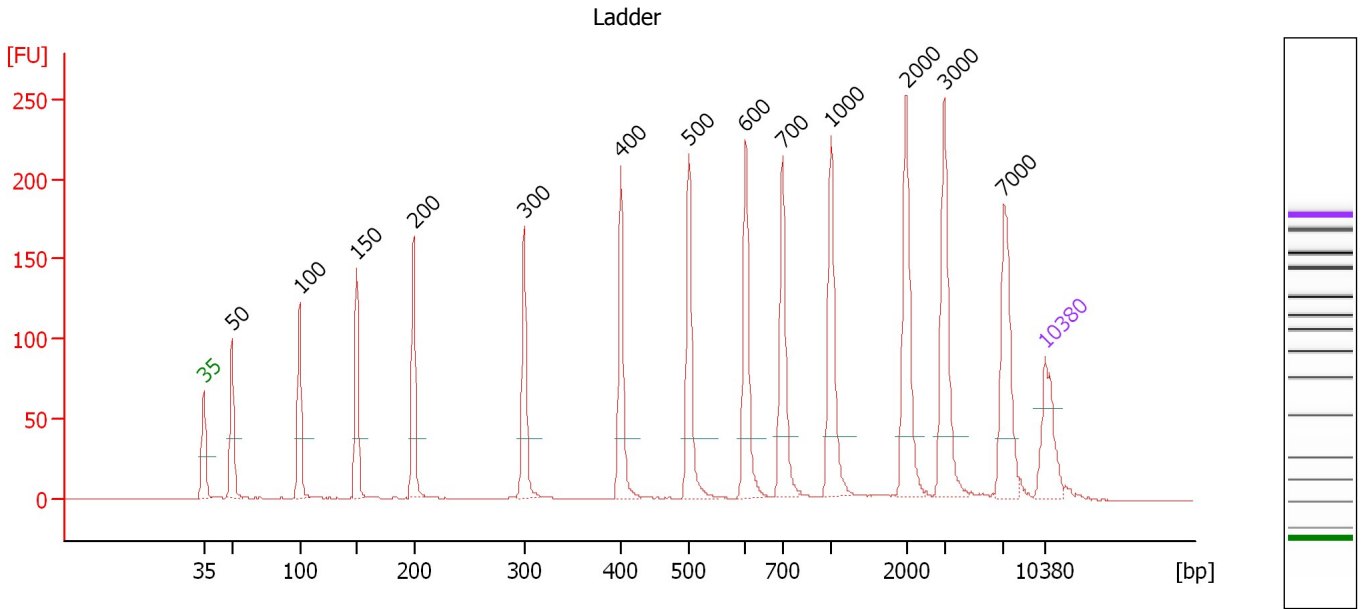
Ladder

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:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

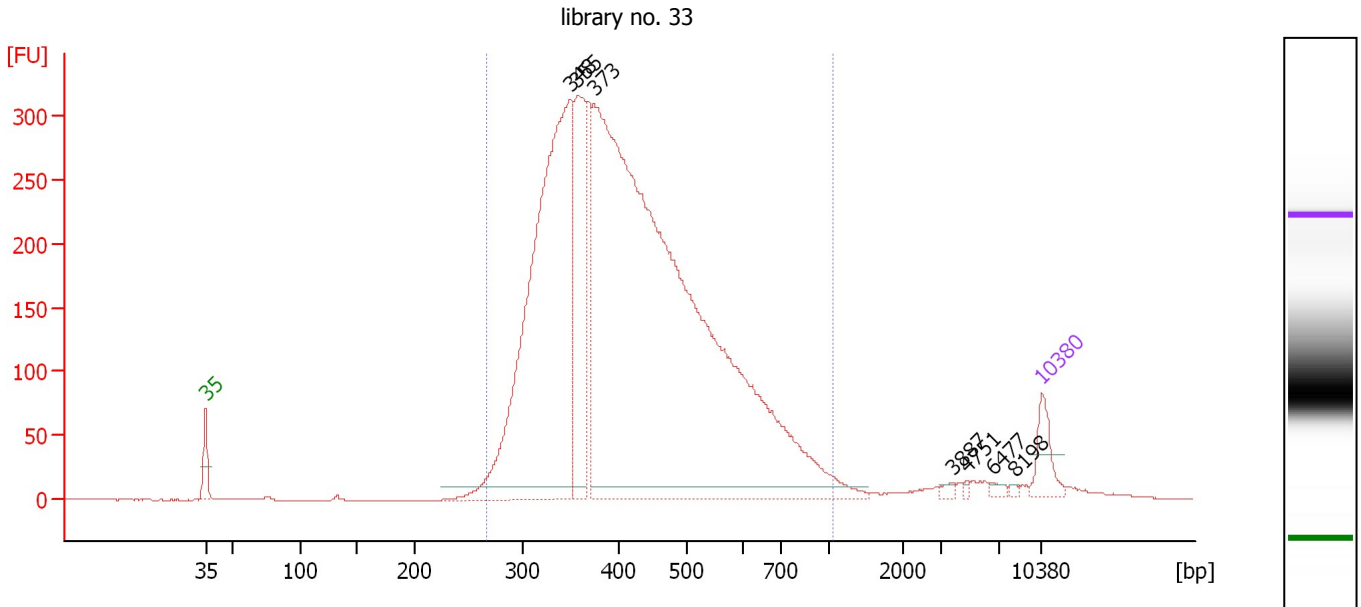
Peak table for Ladder

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\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : library no. 33

Height Threshold [FU] : 10

Overall Results for sample 1 : library no. 33

Number of peaks found: 7 Corr. Area 1: 6,138.0
 Noise: 0.2

Peak table for sample 1 : library no. 33

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	348	2,077.93	9,040.9	
3	355	542.69	2,313.4	
4	373	4,540.73	18,437.9	
5	3,887	11.79	4.6	
6	4,751	6.31	2.0	
7	6,477	13.12	3.1	
8	8,198	6.11	1.1	
9	10,380	75.00	10.9	Upper Marker

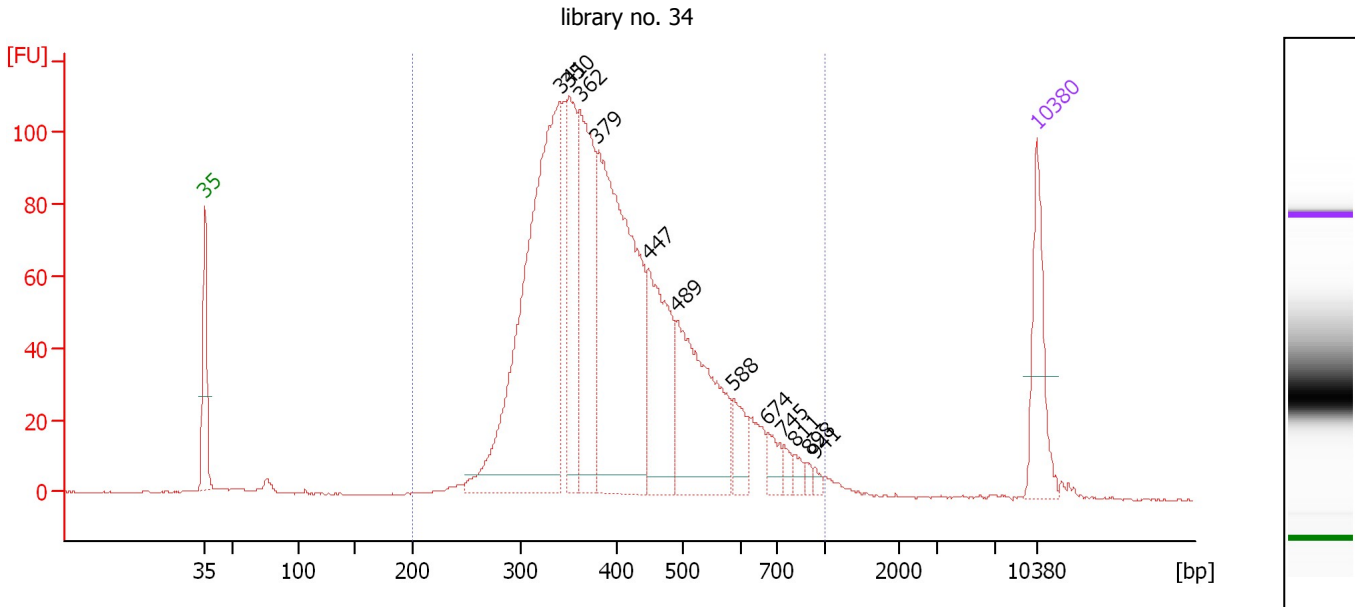
Region table for sample 1 : library no. 33

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
267	1,059	432	26,249.5	6,890.56	6,138.0	96	27.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : library no. 34

Number of peaks found: 12 Corr. Area 1: 1,978.0
 Noise: 0.2

Peak table for sample 2 : library no. 34

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	341	648.82	2,882.5	
3	350	176.58	763.3	
4	362	255.73	1,071.5	
5	379	511.28	2,041.8	
6	447	182.87	619.9	
7	489	234.09	725.1	
8	588	42.60	109.7	
9	674	23.84	53.6	
10	745	12.40	25.2	
11	811	9.74	18.2	
12	898	5.69	9.6	
13	941	5.75	9.2	
14	10,380	75.00	10.9	Upper Marker

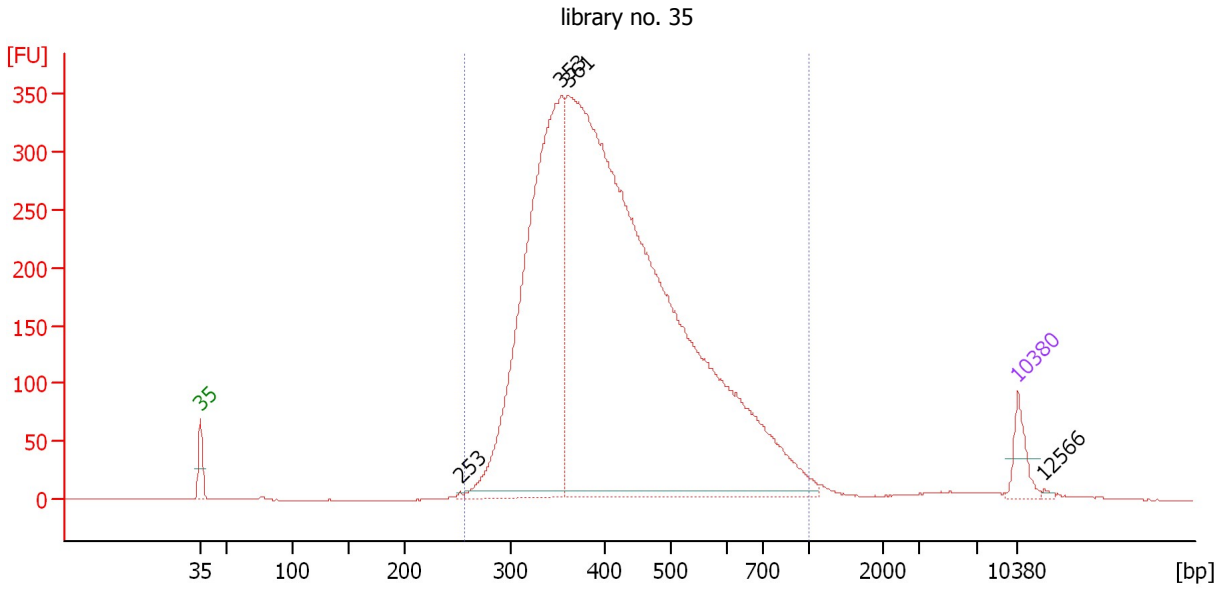
Region table for sample 2 : library no. 34

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	416	8,937.2	2,264.10	1,978.0	98	27.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : library no. 35

Number of peaks found: 4 Corr. Area 1: 6,401.7
 Noise: 0.2

Peak table for sample 3 : library no. 35

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	253	4.78	28.7	
3	353	2,242.32	9,633.8	
4	361	5,469.54	22,946.9	
5	10,380	75.00	10.9	Upper Marker
6	12,566	0.00	0.0	

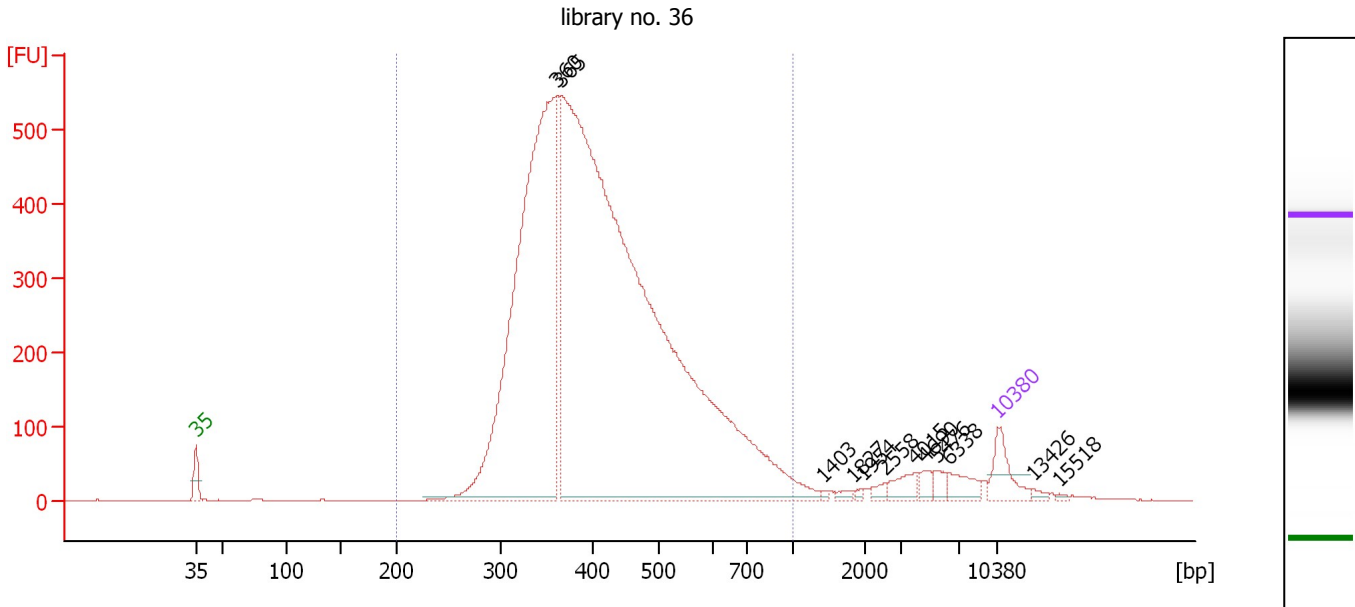
Region table for sample 3 : library no. 35

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
257	1,000	432	27,517.7	7,252.07	6,401.7	98	27.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : library no. 36

Number of peaks found: 12 Corr. Area 1: 9,414.7
 Noise: 0.2

Peak table for sample 4 : library no. 36

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	360	2,223.17	9,355.9	
3	365	4,862.99	20,174.5	
4	1,403	5.86	6.3	
5	1,827	10.47	8.7	
6	1,954	5.74	4.5	
7	2,558	15.08	8.9	
8	4,015	40.52	15.3	
9	4,690	23.96	7.7	
10	5,476	23.74	6.6	
11	6,338	48.22	11.5	
12	10,380	75.00	10.9	Upper Marker
13	13,426	0.00	0.0	
14	15,518	0.00	0.0	

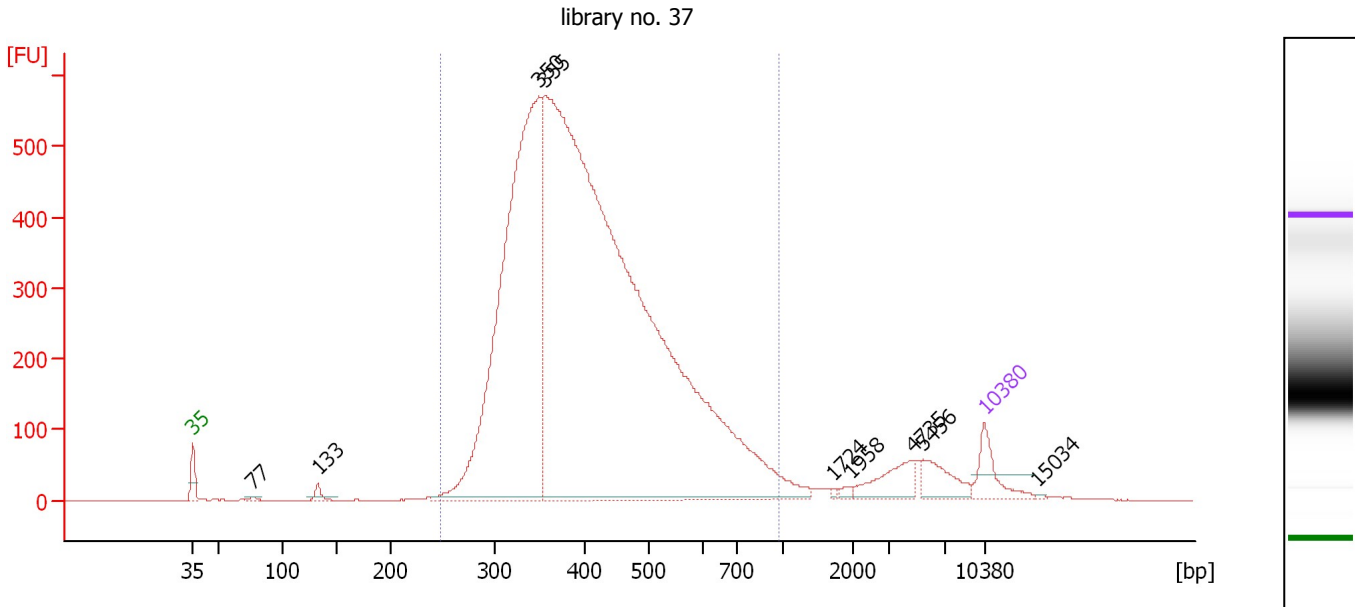
Region table for sample 4 : library no. 36

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	428	25,930.3	6,808.06	9,414.7	95	26.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : library no. 37

Number of peaks found: 9 Corr. Area 1: 10,325.9
 Noise: 0.2

Peak table for sample 5 : library no. 37

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	9.02	177.9	
3	133	28.60	326.8	
4	350	2,191.37	9,499.7	
5	355	5,354.25	22,829.4	
6	1,724	4.83	4.2	
7	1,958	10.96	8.5	
8	4,735	93.64	30.0	
9	5,456	82.43	22.9	
10	10,380	75.00	10.9	Upper Marker
11	15,034	0.00	0.0	

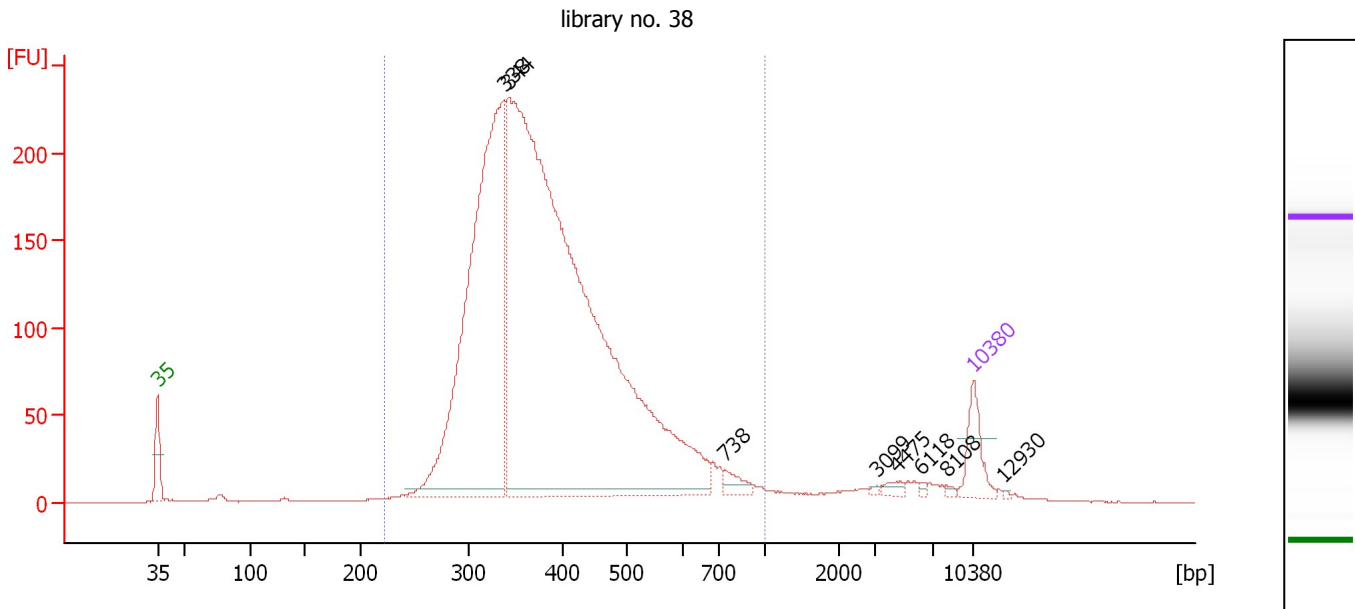
Region table for sample 5 : library no. 37

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
248	974	424	26,779.6	6,948.39	10,325.9	94	26.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : library no. 38

Number of peaks found: 8 Corr. Area 1: 3,738.0
 Noise: 0.3

Peak table for sample 6 : library no. 38

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	338	1,604.59	7,186.4	
3	344	3,565.32	15,722.0	
4	738	32.26	66.2	
5	3,099	4.24	2.1	
6	4,475	14.20	4.8	
7	6,118	5.40	1.3	
8	8,108	5.68	1.1	
9	10,380	75.00	10.9	Upper Marker
10	12,930	0.00	0.0	

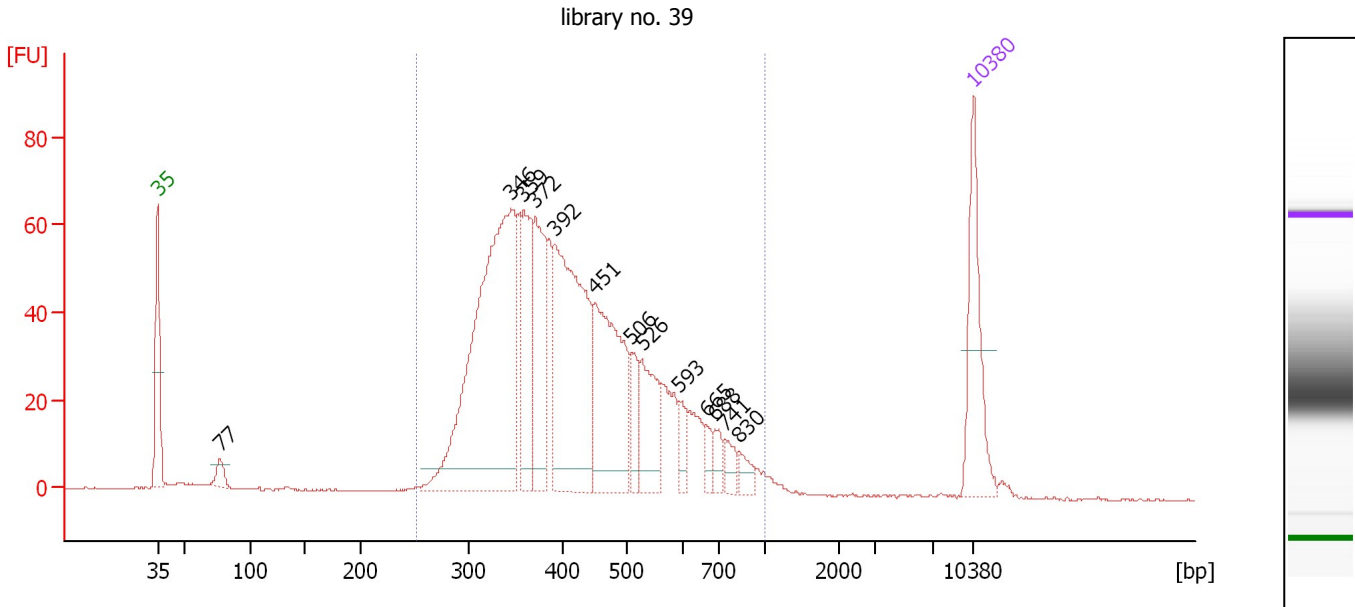
Region table for sample 6 : library no. 38

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
223	1,000	400	20,943.9	5,161.44	3,738.0	95	25.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : library no. 39

Number of peaks found: 13 Corr. Area 1: 1,245.3
 Noise: 0.2

Peak table for sample 7 : library no. 39

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	17.36	340.9	
3	346	452.06	1,979.7	
4	359	106.73	450.4	
5	372	117.96	481.1	
6	392	269.45	1,040.7	
7	451	178.16	598.5	
8	506	31.93	95.5	
9	526	70.58	203.4	
10	593	18.04	46.1	
11	665	11.62	26.5	
12	688	14.88	32.8	
13	741	15.01	30.7	
14	830	13.95	25.5	
15	10,380	75.00	10.9	Upper Marker

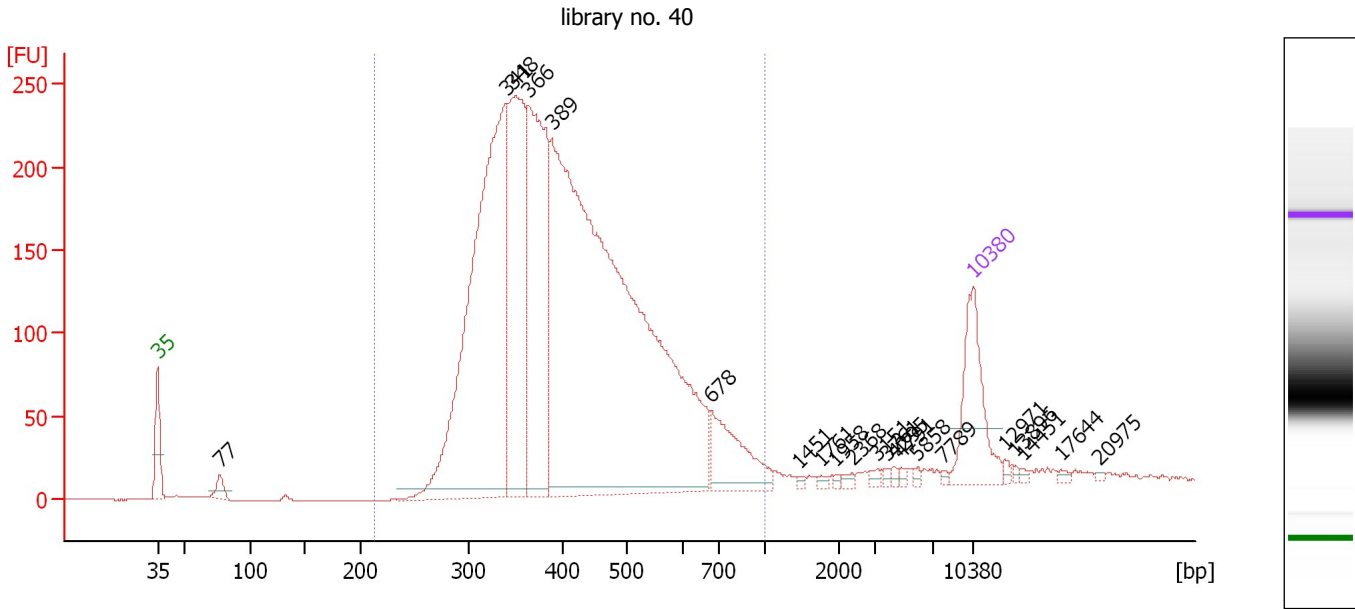
Region table for sample 7 : library no. 39

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
253	1,000	434	5,739.8	1,506.95	1,245.3	96	28.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : library no. 40

Number of peaks found: 21 Corr. Area 1: 4,498.9
 Noise: 0.2

Peak table for sample 8 : library no. 40

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	16.96	333.7	
3	341	637.71	2,832.8	
4	348	285.88	1,246.4	
5	366	330.55	1,369.5	
6	389	1,190.10	4,633.3	
7	678	84.14	188.0	
8	1,451	2.51	2.6	
9	1,761	2.67	2.3	
10	1,958	1.92	1.5	
11	2,368	3.87	2.5	
12	3,151	4.17	2.0	
13	3,761	2.95	1.2	
14	4,295	2.82	1.0	
15	4,791	2.71	0.9	
16	5,858	2.57	0.7	
17	7,789	1.98	0.4	
18	10,380	75.00	10.9	Upper Marker
19	12,971	0.00	0.0	
20	13,896	0.00	0.0	
21	14,451	0.00	0.0	
22	17,644	0.00	0.0	
23	20,975	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...

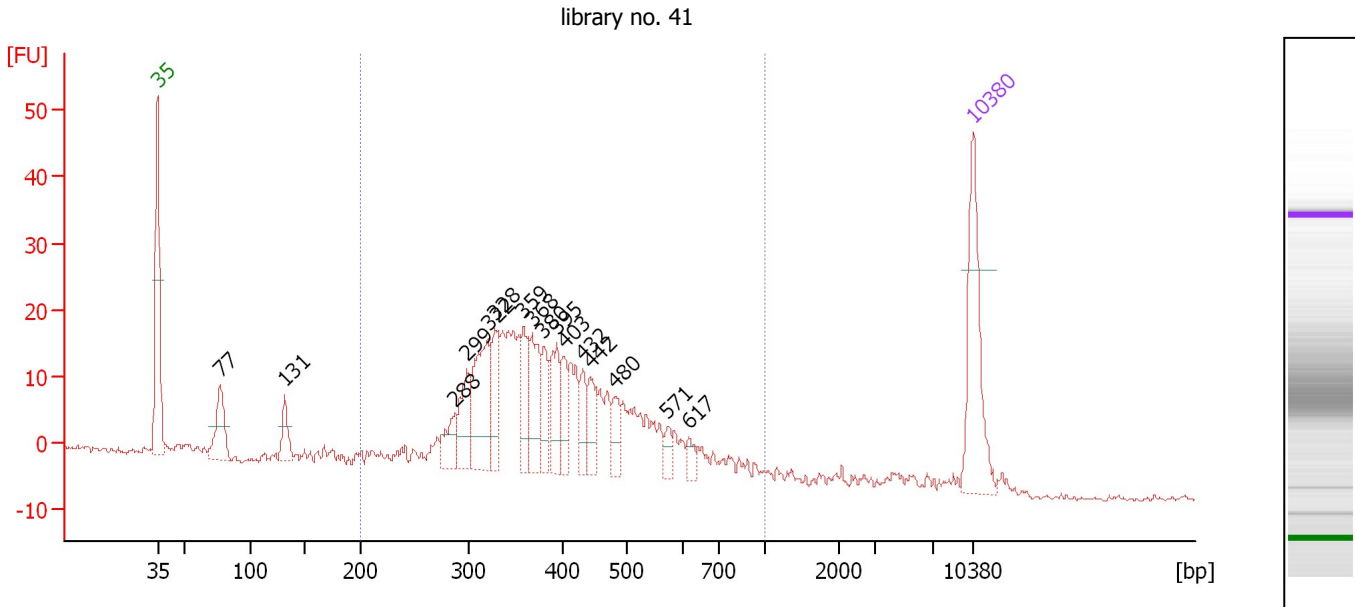
... Region table for sample 8 : library no. 40

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
213	1,000	426	9,219.1	2,397.45	4,498.9	95	27.1	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : library no. 41

Number of peaks found: 16 Corr. Area 1: 379.2
 Noise: 0.4

Peak table for sample 9 : library no. 41

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	56.03	1,100.3	
3	131	28.36	326.9	
4	288	28.44	149.8	
5	299	45.54	230.6	
6	322	92.93	437.5	
7	328	43.61	201.2	
8	359	38.38	162.0	
9	368	50.06	206.2	
10	380	29.52	117.6	
11	395	41.46	159.1	
12	403	26.54	99.8	
13	432	22.47	78.8	
14	442	27.54	94.3	
15	480	22.13	69.8	
16	571	11.02	29.2	
17	617	9.54	23.4	
18	10,380	75.00	10.9	Upper Marker

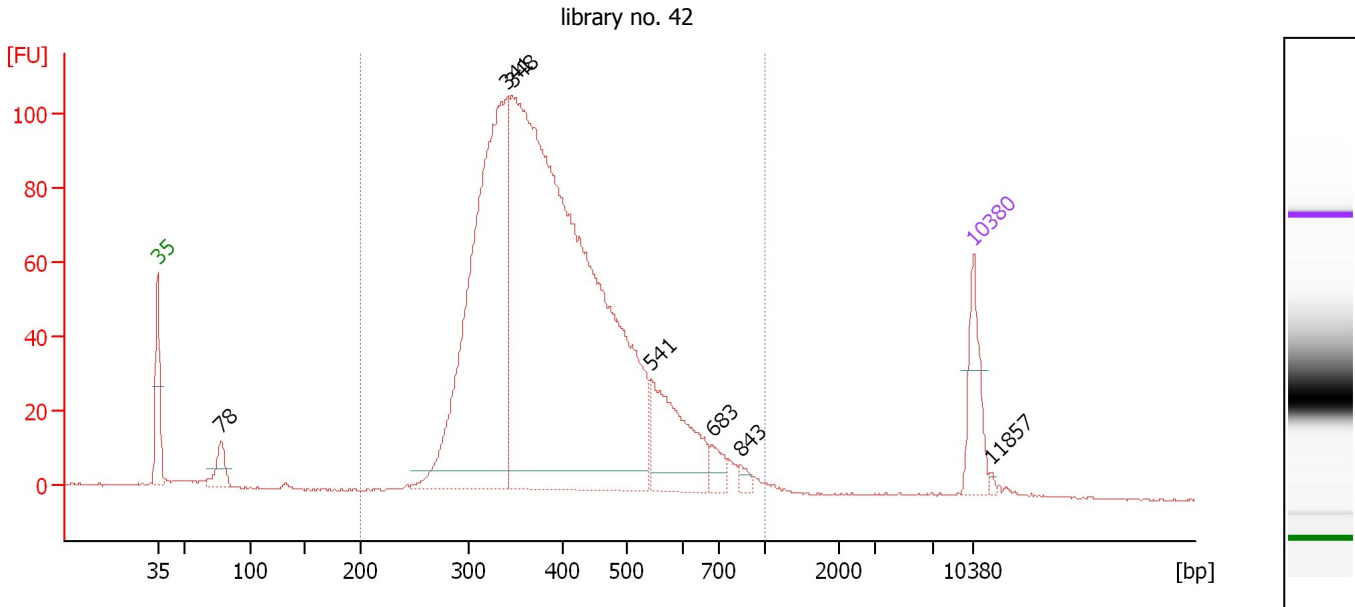
Region table for sample 9 : library no. 41

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	412	3,016.3	755.92	379.2	91	27.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : library no. 42

Number of peaks found: 7 Corr. Area 1: 1,789.0
 Noise: 0.3

Peak table for sample 10 : library no. 42

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	55.82	1,090.1	
3	341	946.81	4,203.1	
4	348	1,989.75	8,664.2	
5	541	199.06	557.0	
6	683	29.23	64.8	
7	843	12.40	22.3	
8	10,380	75.00	10.9	Upper Marker
9	11,857	0.00	0.0	

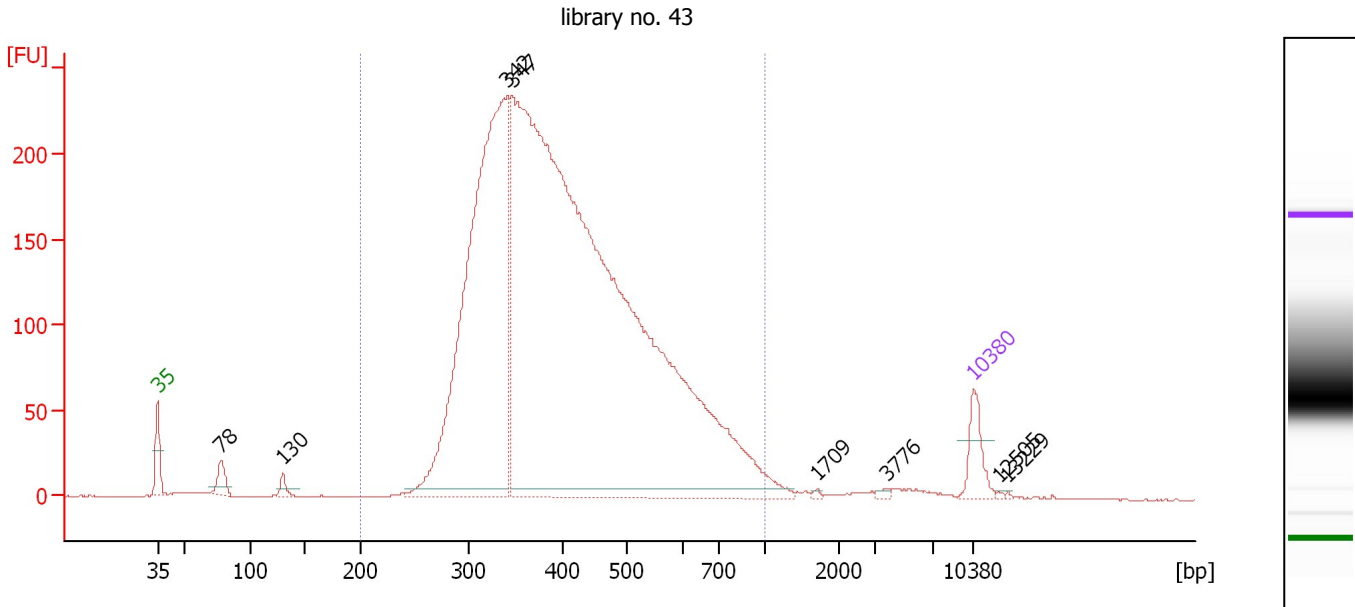
Region table for sample 10 : library no. 42

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	409	12,259.1	3,089.31	1,789.0	97	25.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 AM

Electropherogram Summary Continued ...



Overall Results for sample 11 : library no. 43

Number of peaks found: 8 Corr. Area 1: 4,473.3
 Noise: 0.2

Peak table for sample 11 : library no. 43

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	69.12	1,346.2	
3	130	31.90	372.1	
4	342	2,007.68	8,894.5	
5	347	5,372.59	23,465.7	
6	1,709	4.60	4.1	
7	3,776	6.92	2.8	
8	10,380	75.00	10.9	Upper Marker
9	12,505	0.00	0.0	
10	13,229	0.00	0.0	

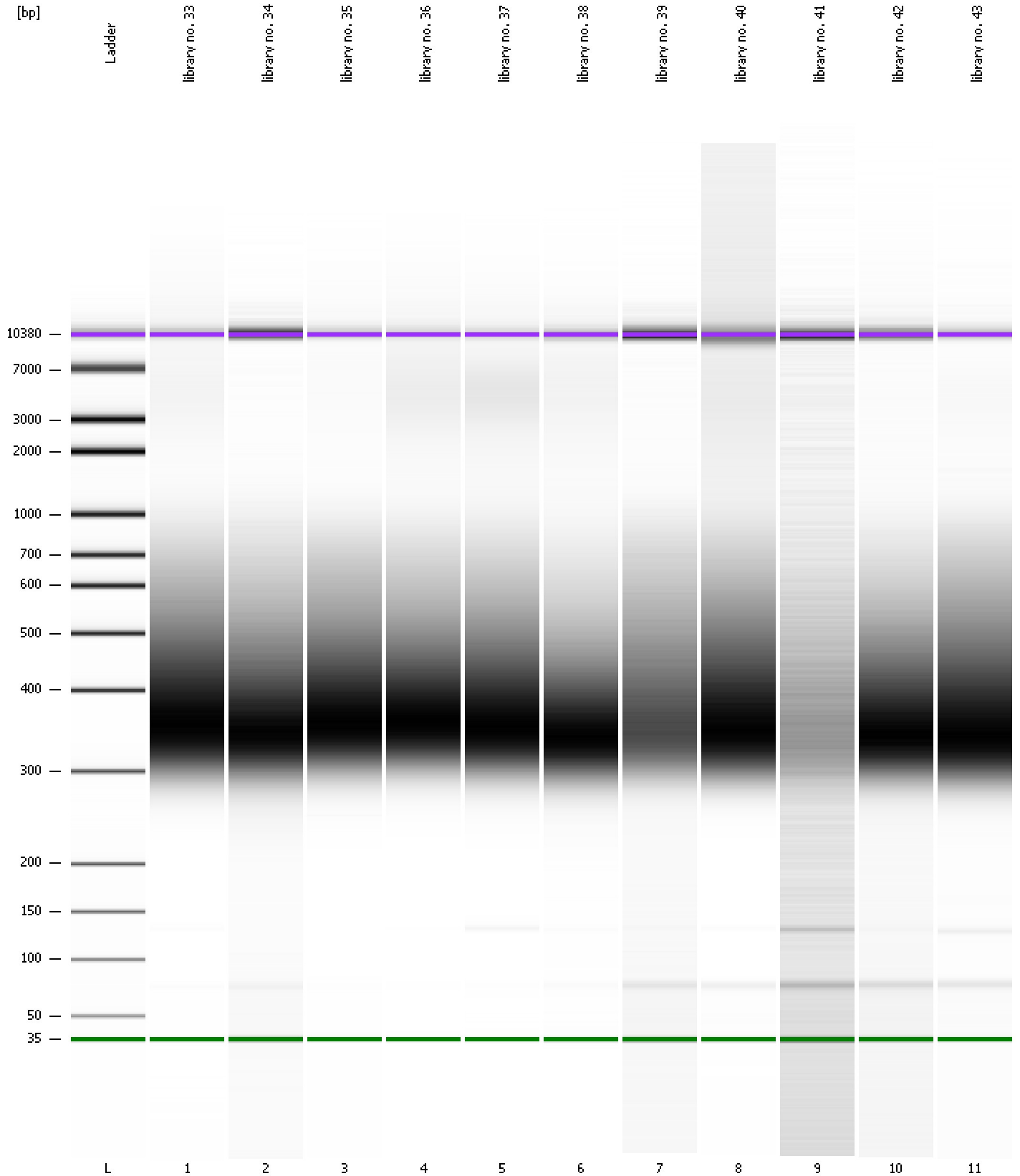
Region table for sample 11 : library no. 43

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	424	26,556.7	6,815.20	4,473.3	96	28.6	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
Modified: 8/27/2013 10:52:27 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad

Created: 8/27/2013 10:11:07 AM
 Modified: 8/27/2013 10:52:27 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		8/27/2013 10:52:24 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-08-27\2013-08-27_001.xad)		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/27/2013 10:11:13 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1