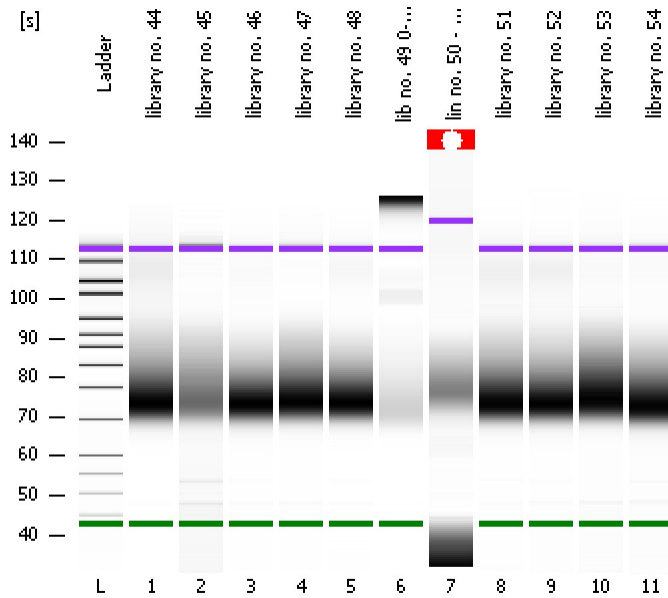


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
Modified: 8/27/2013 11:46:50 AM

Electrophoresis File Run Summary



Instrument Information:

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

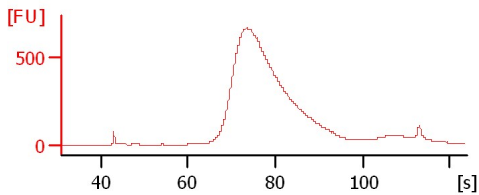
Assay Information:

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

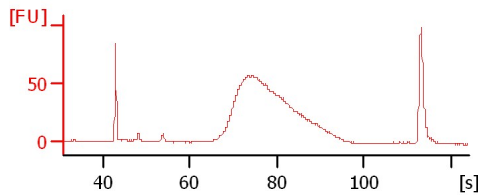
Chip Information:

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

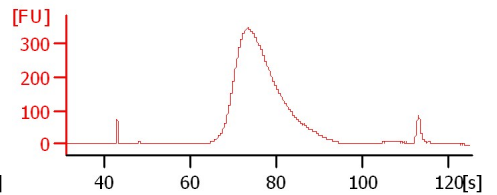
library no. 44



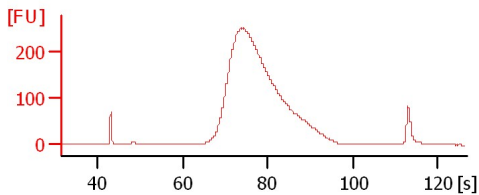
library no. 45



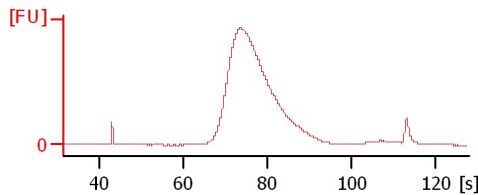
library no. 46



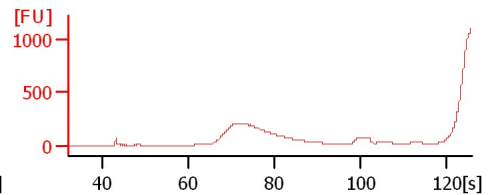
library no. 47



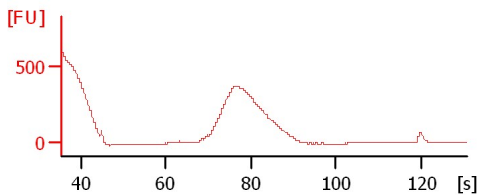
library no. 48



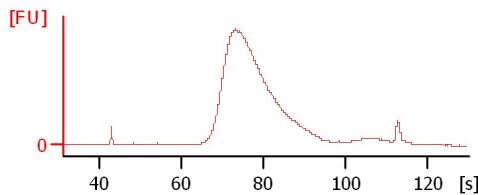
lib no. 49 0- gel problem



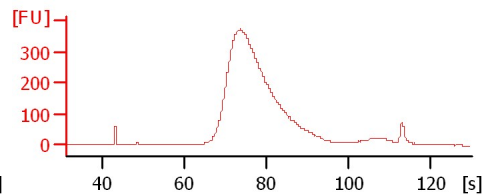
lin no. 50 - gel problem



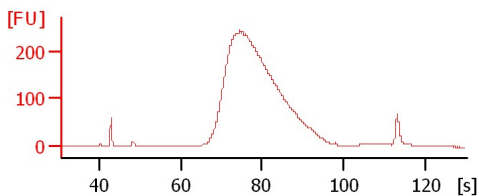
library no. 51



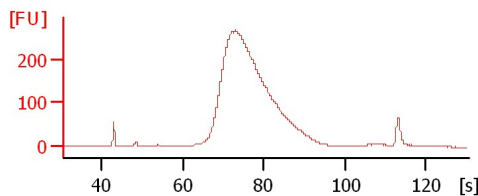
library no. 52



library no. 53



library no. 54



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
Modified: 8/27/2013 11:46:50 AM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
library no. 44		<input type="checkbox"/>	✓			
library no. 45		<input type="checkbox"/>	✓			
library no. 46		<input type="checkbox"/>	✓			
library no. 47		<input type="checkbox"/>	✓			
library no. 48		<input type="checkbox"/>	✓			
lib no. 49 0- gel problem		<input type="checkbox"/>	✓			
lin no. 50 - gel problem		<input type="checkbox"/>	✓			
library no. 51		<input type="checkbox"/>	✓			
library no. 52		<input type="checkbox"/>	✓			
library no. 53		<input type="checkbox"/>	✓			
library no. 54		<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\_002.xad

Created: 8/27/2013 11:06:17 AM  
Modified: 8/27/2013 11:46:50 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

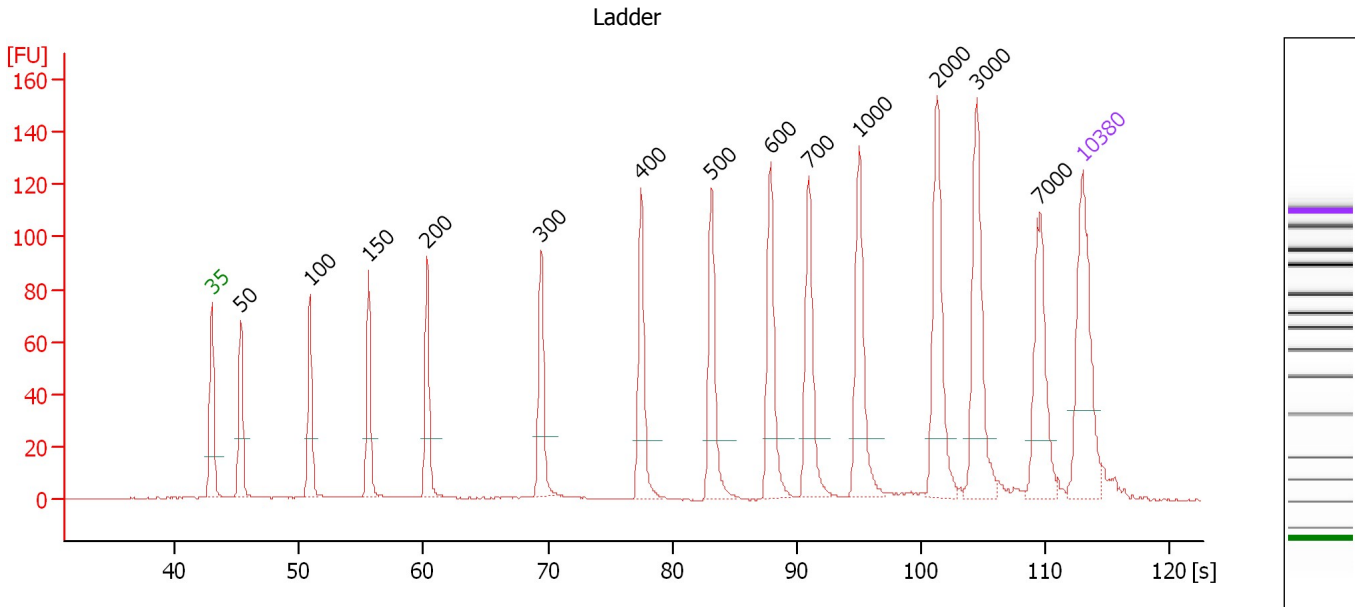
**Ladder**

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\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

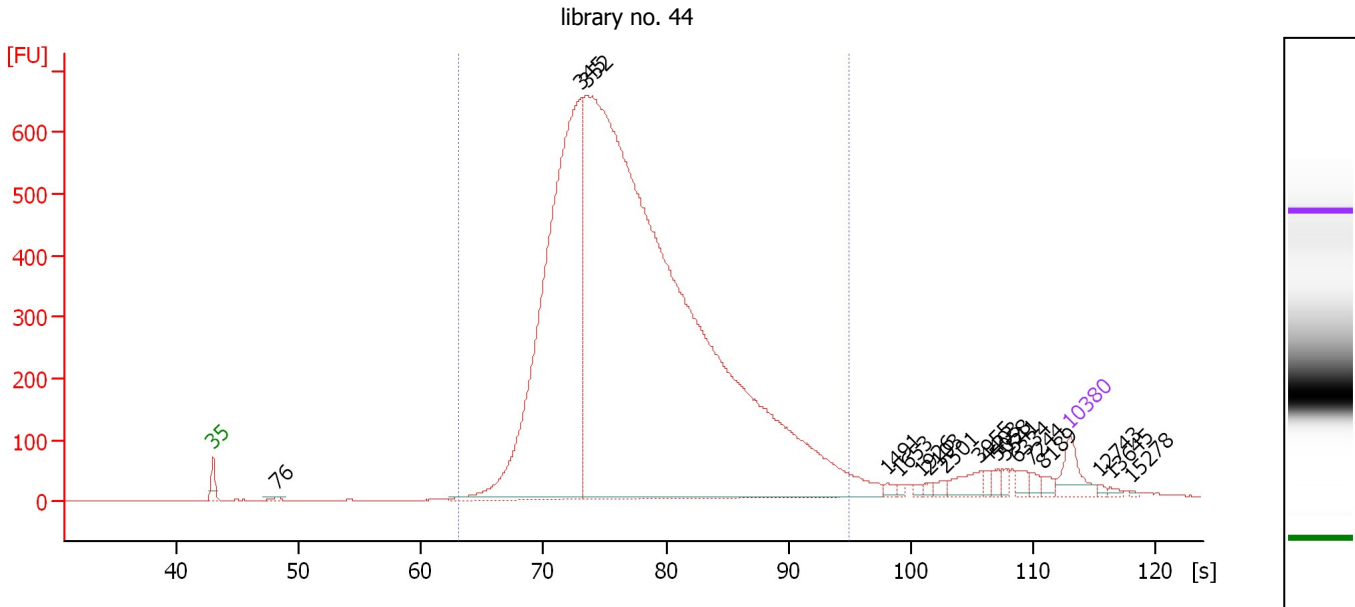
**Peak table for Ladder**

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\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : library no. 44**

Number of peaks found: 18                      Corr. Area 1: 11,621.7  
 Noise: 0.2

**Peak table for sample 1 : library no. 44**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	76	12.53	249.2	
3	345	2,647.76	11,611.7	
4	352	6,978.07	30,078.8	
5	1,491	13.62	13.8	
6	1,653	8.66	7.9	
7	1,926	8.96	7.0	
8	2,103	9.87	7.1	
9	2,501	17.14	10.4	
10	3,955	53.88	20.6	
11	4,403	13.04	4.5	
12	5,058	20.48	6.1	
13	5,541	14.50	4.0	
14	6,334	26.05	6.2	
15	7,244	18.39	3.8	
16	8,189	17.77	3.3	
17	10,380	75.00	10.9	Upper Marker
18	12,743	0.00	0.0	
19	13,645	0.00	0.0	
20	15,278	0.00	0.0	

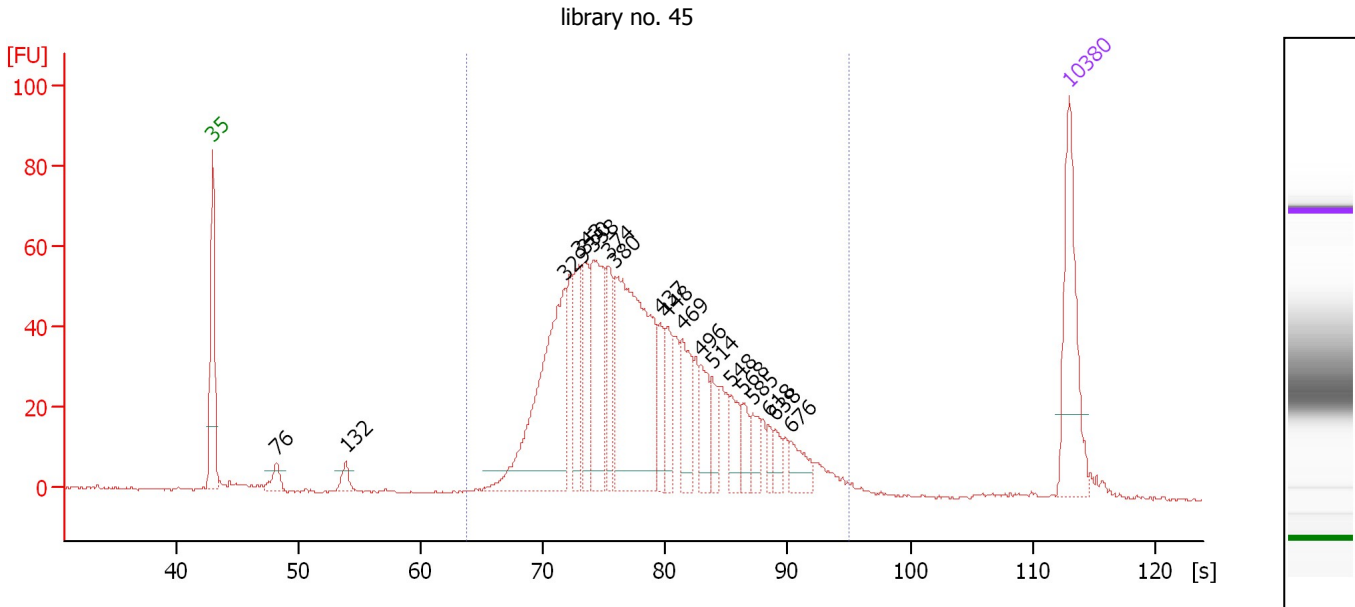
**Region table for sample 1 : library no. 44**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
230	1,000	421	34,257.1	8,798.96	11,621.7	95	27.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : library no. 45**

Number of peaks found: 19      Corr. Area 1: 1,134.6  
 Noise: 0.4

**Peak table for sample 2 : library no. 45**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	76	17.06	339.3	
3	132	14.74	169.3	
4	329	209.74	967.3	
5	343	65.00	286.9	
6	350	57.82	250.4	
7	358	109.56	463.6	
8	374	46.12	186.9	
9	380	243.68	970.4	
10	437	31.82	110.4	
11	448	37.58	127.2	
12	469	47.34	153.1	
13	496	34.06	104.1	
14	514	22.51	66.3	
15	548	24.03	66.5	
16	568	17.13	45.7	
17	585	16.94	43.8	
18	618	10.29	25.3	
19	638	11.59	27.5	
20	676	22.68	50.8	
21	10,380	75.00	10.9	Upper Marker

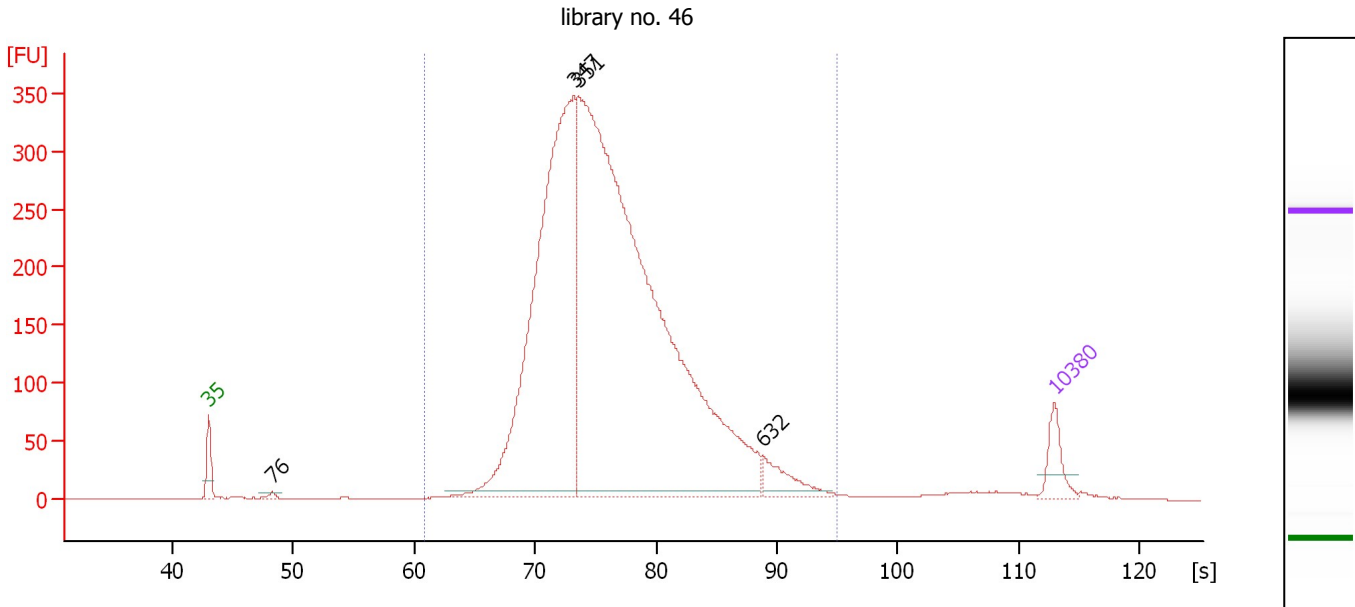
**Region table for sample 2 : library no. 45**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
239	1,000	432	4,592.5	1,206.75	1,134.6	96	27.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : library no. 46**

Number of peaks found: 4                      Corr. Area 1: 5,449.9  
 Noise: 0.3

**Peak table for sample 3 : library no. 46**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	76	16.04	318.2	
3	347	2,282.11	9,966.7	
4	351	4,264.18	18,388.2	
5	632	110.48	264.8	
6	10,380	75.00	10.9	Upper Marker

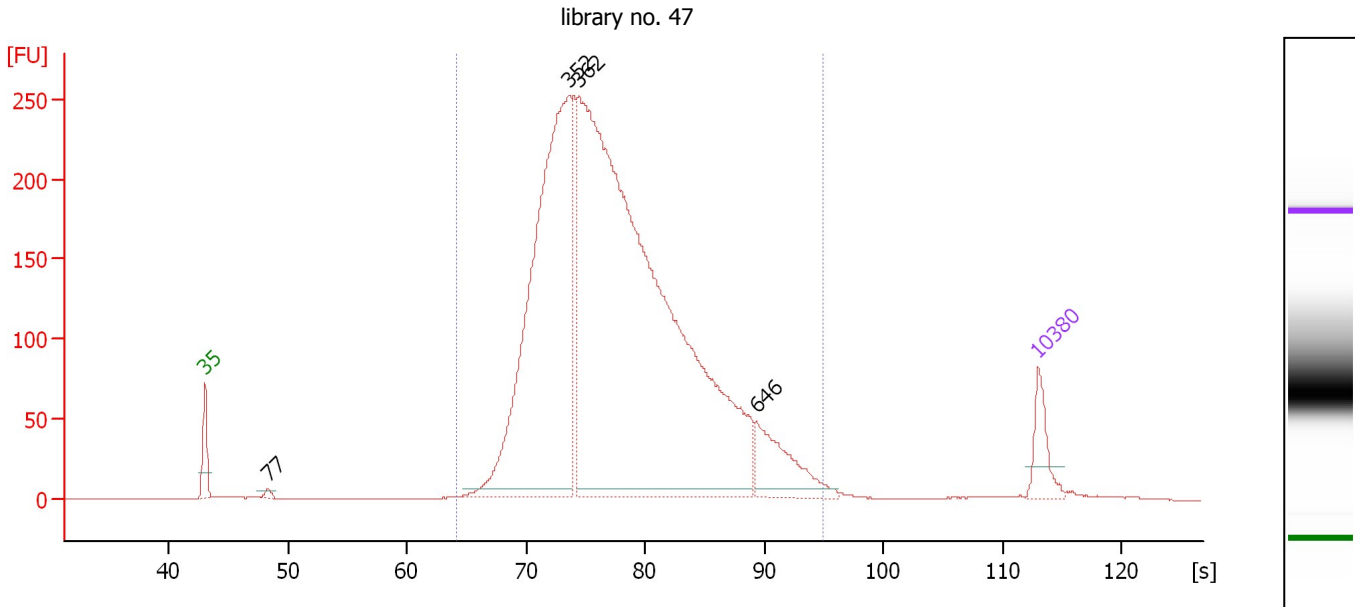
**Region table for sample 3 : library no. 46**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
207	1,000	398	26,059.5	6,462.63	5,449.9	98	23.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : library no. 47**

Number of peaks found: 4                      Corr. Area 1: 4,363.1  
 Noise: 0.3

**Peak table for sample 4 : library no. 47**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	14.86	293.4	
3	352	1,674.16	7,202.3	
4	362	3,415.14	14,303.8	
5	646	204.91	480.3	
6	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : library no. 47**

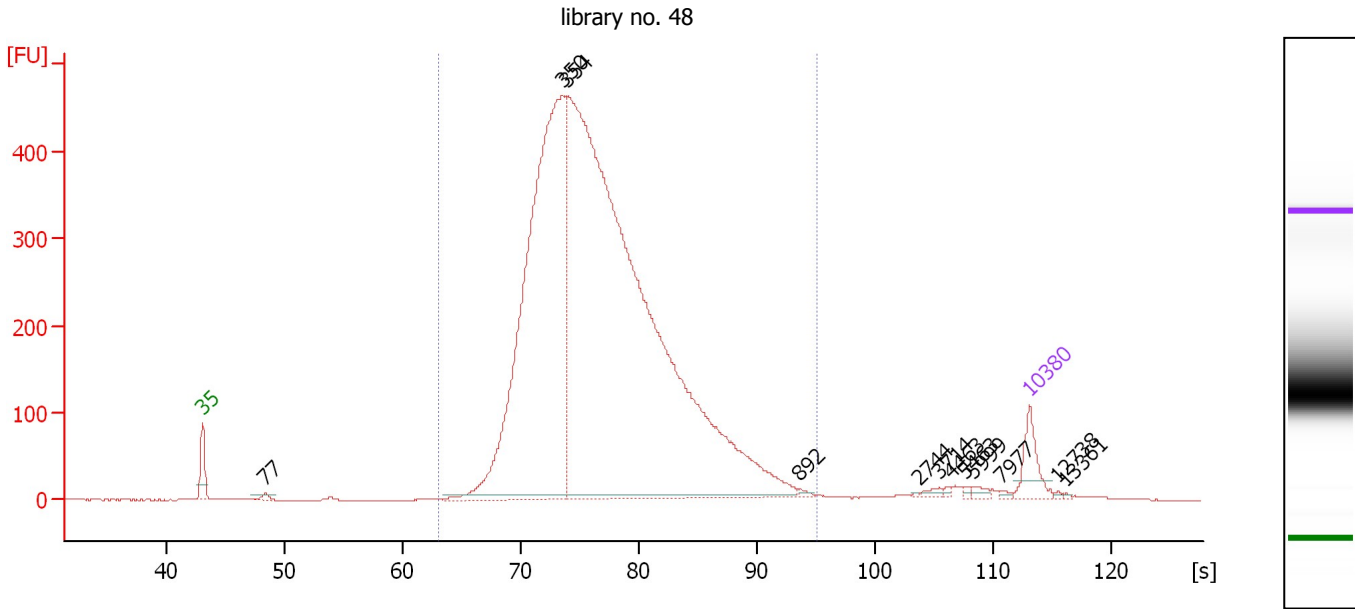
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
241	1,000	422	20,298.0	5,256.32	4,363.1	98	26.3	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : library no. 48**

Number of peaks found: 12                      Corr. Area 1: 7,254.5  
 Noise: 0.2

**Peak table for sample 5 : library no. 48**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	14.29	281.0	
3	350	2,284.93	9,896.4	
4	354	4,466.38	19,097.3	
5	892	7.43	12.6	
6	2,744	2.26	1.2	
7	3,714	9.85	4.0	
8	4,463	5.41	1.8	
9	5,463	5.97	1.7	
10	5,999	11.21	2.8	
11	7,977	5.46	1.0	
12	10,380	75.00	10.9	Upper Marker
13	12,738	0.00	0.0	
14	13,361	0.00	0.0	

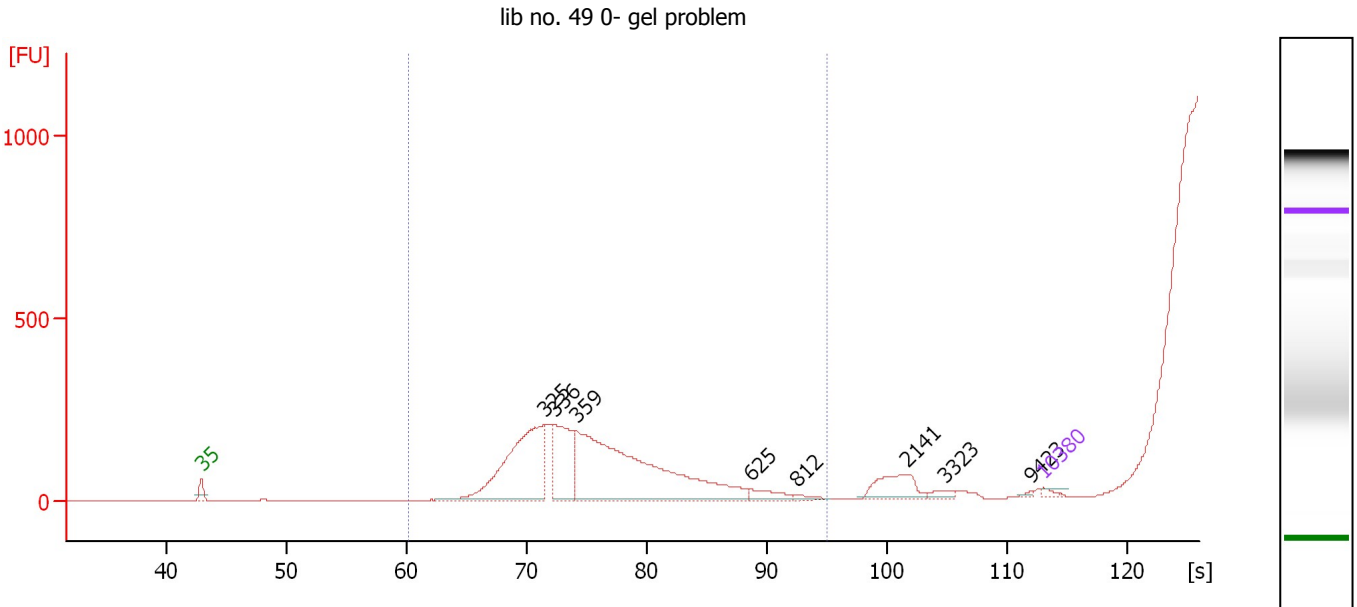
**Region table for sample 5 : library no. 48**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
231	1,000	404	25,645.6	6,460.65	7,254.5	97	23.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : lib no. 49 0- gel problem**

Number of peaks found: 8                      Corr. Area 1: 0.0  
 Noise: 0.2

**Peak table for sample 6 : lib no. 49 0- gel problem**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	325	4,522.10	21,060.2	
3	336	2,068.18	9,314.8	
4	359	7,609.49	32,105.6	
5	625	333.70	809.2	
6	812	97.95	182.7	
7	2,141	711.67	503.7	
8	3,323	128.46	58.6	
9	9,423	31.50	5.1	
10	10,380	75.00	10.9	Upper Marker

**Region table for sample 6 : lib no. 49 0- gel problem**

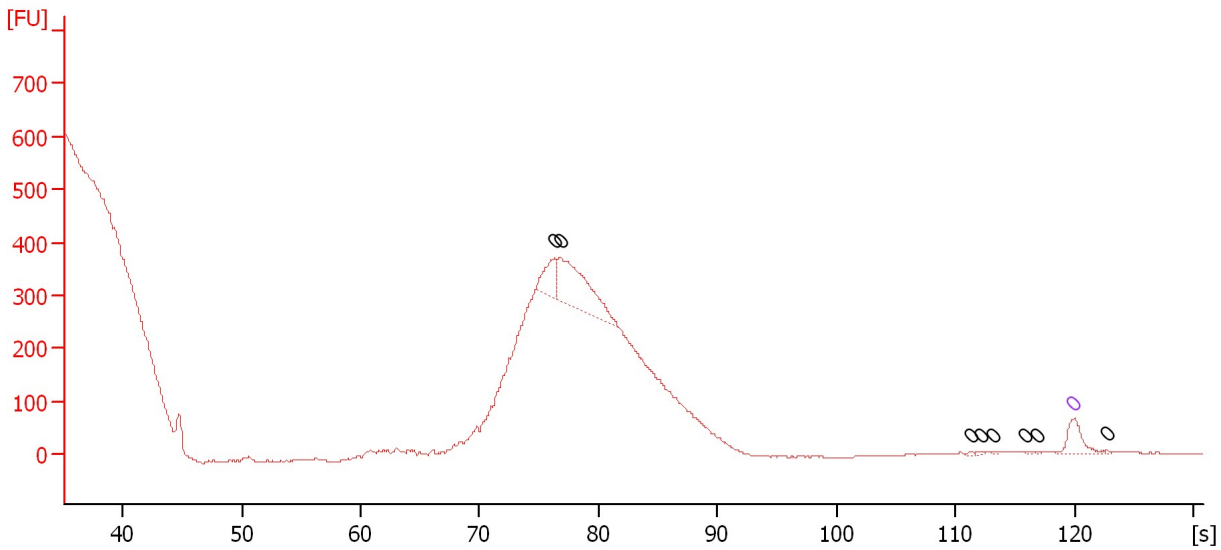
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	0	0.0	0.00	0.0	0	0.0	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**

lin no. 50 - gel problem



**Overall Results for sample 7 : lin no. 50 - gel problem**

Number of peaks found: 0                      Noise: 0.5

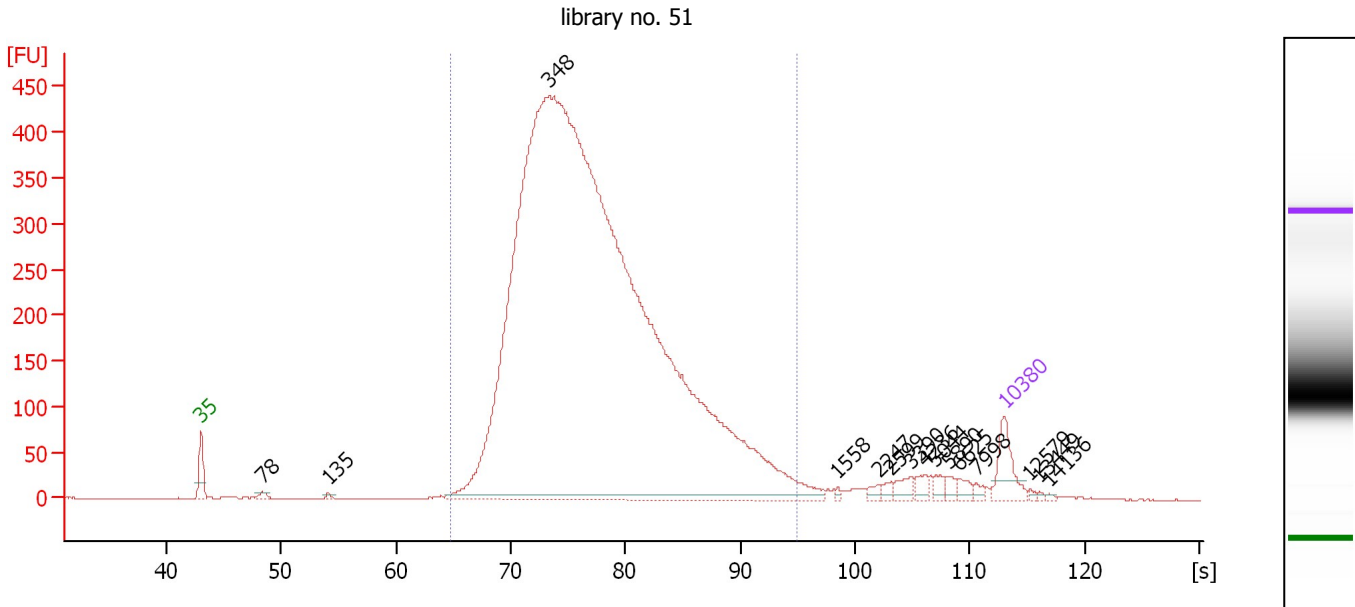
**Peak table for sample 7 : lin no. 50 - gel problem**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	
6	0	0.00	0.0	
7	0	0.00	0.0	
8	0	0.00	0.0	Upper Marker
9	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : library no. 51**

Number of peaks found: 15                      Corr. Area 1: 7,446.9  
 Noise: 0.3

**Peak table for sample 8 : library no. 51**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	14.20	277.2	
3	135	8.60	96.8	
4	348	7,564.76	32,920.9	
5	1,558	5.24	5.1	
6	2,247	11.84	8.0	
7	2,599	13.35	7.8	
8	3,390	26.00	11.6	
9	4,236	20.54	7.3	
10	5,044	16.60	5.0	
11	5,890	14.65	3.8	
12	6,625	19.98	4.6	
13	7,998	10.20	1.9	
14	10,380	75.00	10.9	Upper Marker
15	12,579	0.00	0.0	
16	13,449	0.00	0.0	
17	14,136	0.00	0.0	

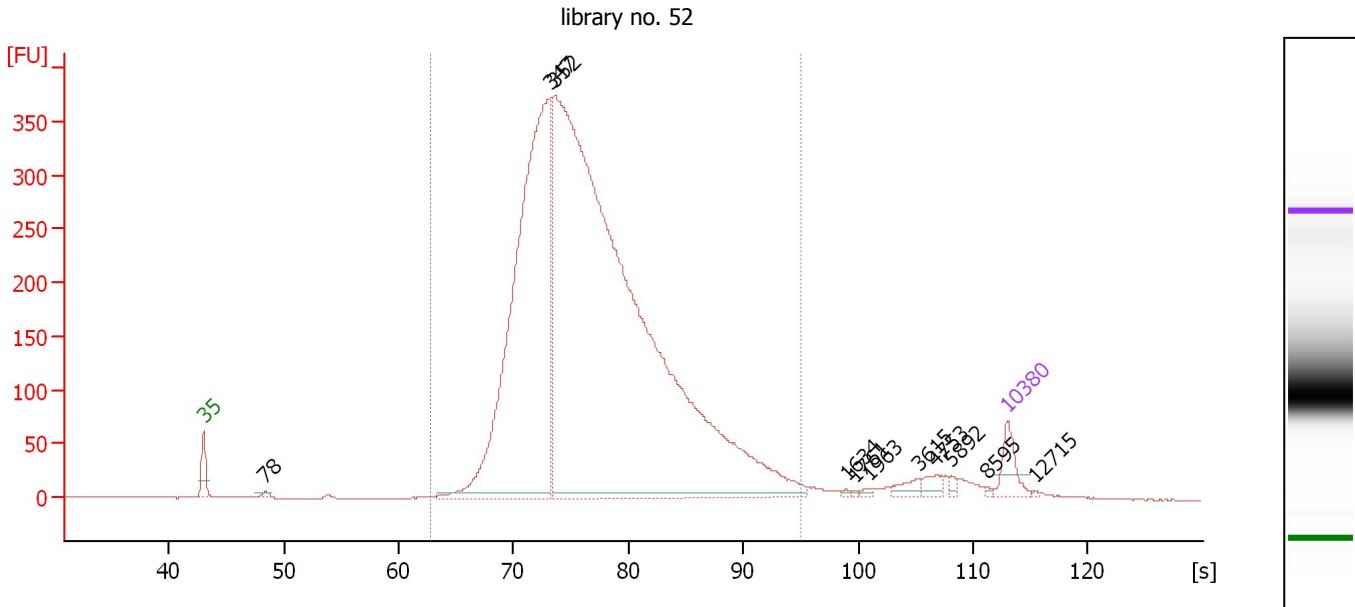
**Region table for sample 8 : library no. 51**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
248	1,000	416	27,097.3	6,930.24	7,446.9	95	26.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : library no. 52**

Number of peaks found: 11                      Corr. Area 1: 5,996.1  
 Noise: 0.3

**Peak table for sample 9 : library no. 52**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	16.14	315.2	
3	347	2,458.86	10,744.4	
4	352	5,707.54	24,568.6	
5	1,634	5.29	4.9	
6	1,761	4.27	3.7	
7	1,963	7.71	6.0	
8	3,615	31.79	13.3	
9	4,753	31.88	10.2	
10	5,892	10.98	2.8	
11	8,595	4.33	0.8	
12	10,380	75.00	10.9	Upper Marker
13	12,715	0.00	0.0	

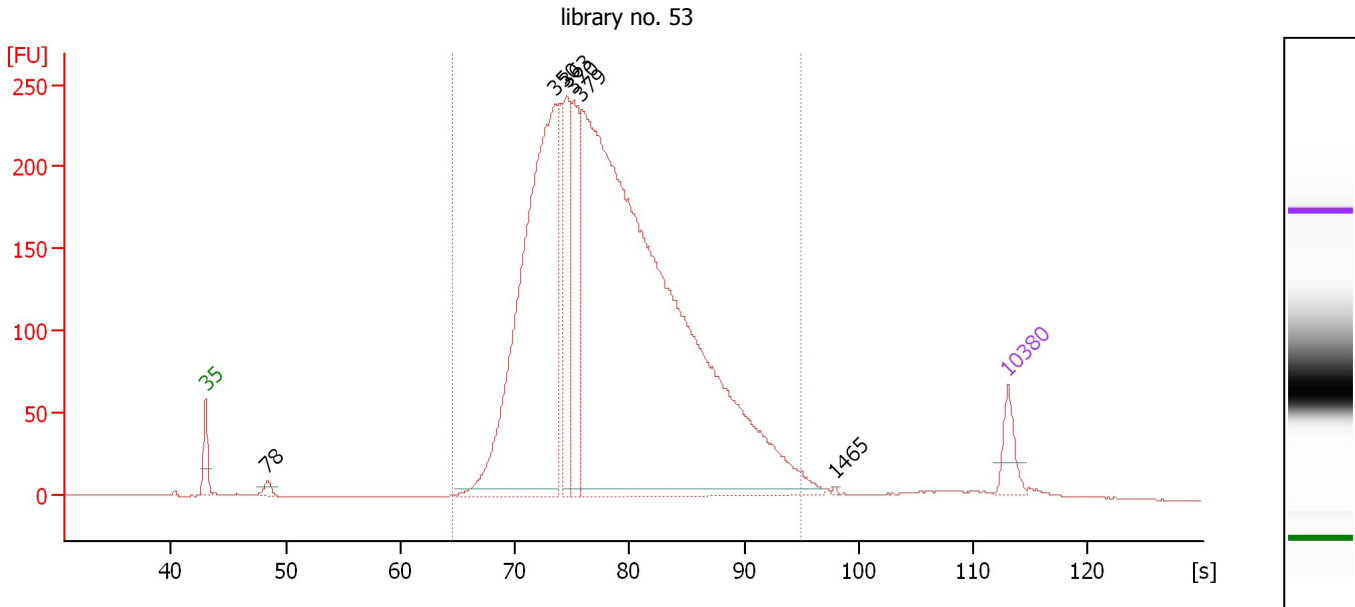
**Region table for sample 9 : library no. 52**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
228	1,000	410	30,765.1	7,779.85	5,996.1	95	25.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : library no. 53**

Number of peaks found: 6                      Corr. Area 1: 4,519.5  
 Noise: 0.2

**Peak table for sample 10 : library no. 53**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	31.83	620.9	
3	350	2,001.76	8,655.3	
4	363	404.20	1,685.9	
5	370	440.31	1,801.8	
6	379	4,577.31	18,298.1	
7	1,465	3.12	3.2	
8	10,380	75.00	10.9	Upper Marker

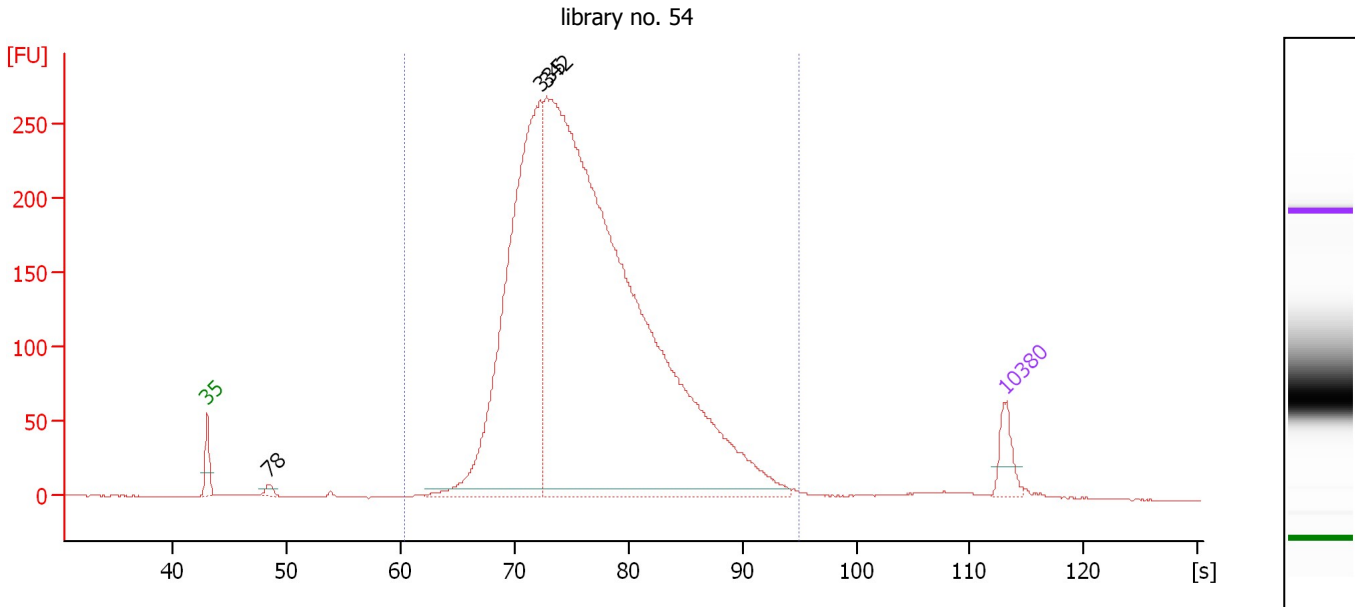
**Region table for sample 10 : library no. 53**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
248	1,000	434	27,415.3	7,279.53	4,519.5	97	26.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : library no. 54**

Number of peaks found: 3                      Corr. Area 1: 4,554.0  
 Noise: 0.2

**Peak table for sample 11 : library no. 54**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	28.59	555.2	
3	335	2,129.91	9,640.1	
4	342	5,235.88	23,209.1	
5	10,380	75.00	10.9	Upper Marker

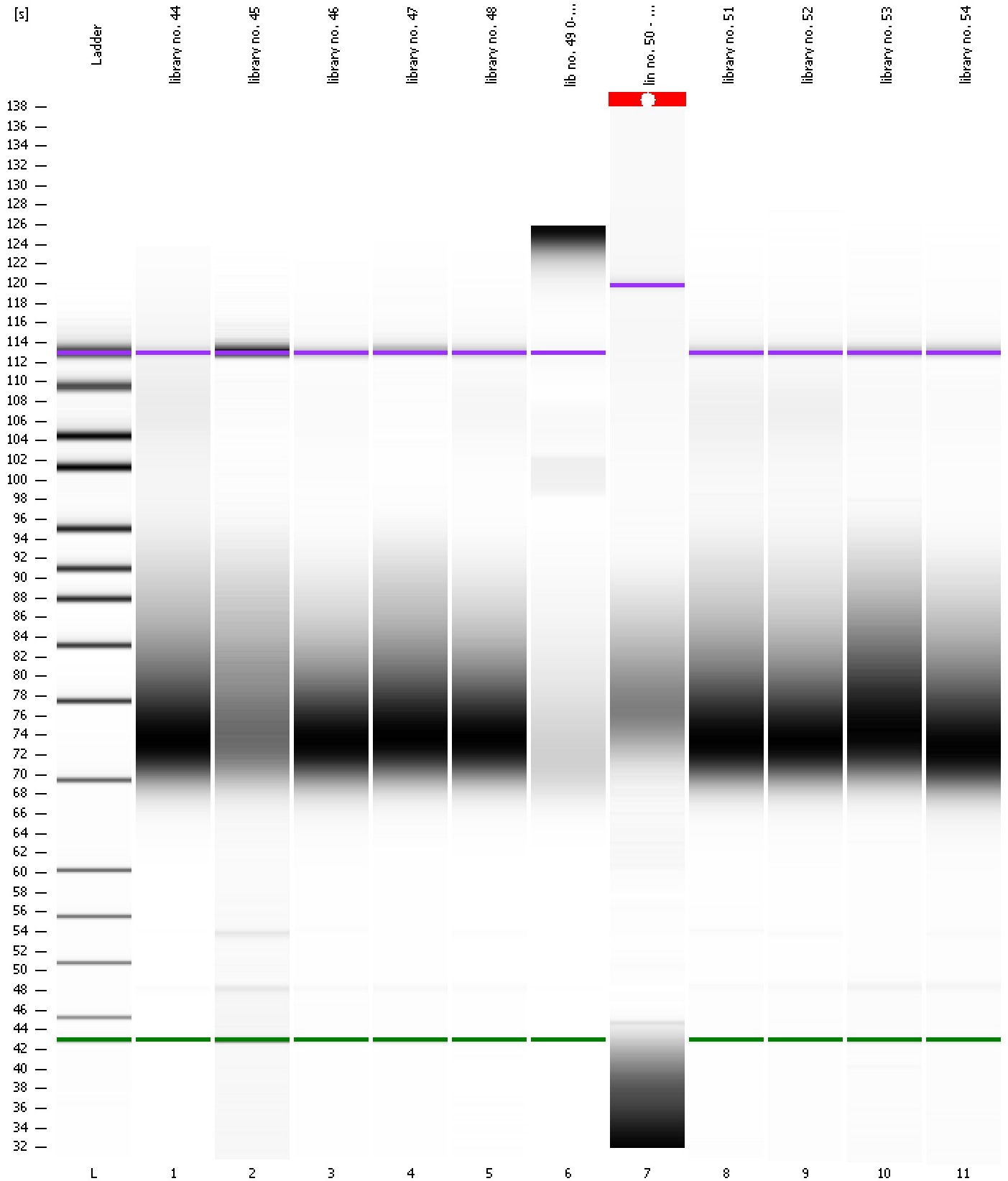
**Region table for sample 11 : library no. 54**

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	401	27,884.8	6,897.70	4,554.0	98	24.9	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
Modified: 8/27/2013 11:46:50 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-08-27\2013-08-27\_002.xad

Created: 8/27/2013 11:06:17 AM  
 Modified: 8/27/2013 11:46:50 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 11:46:46 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_002.xad)		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/27/2013 11:06:23 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1