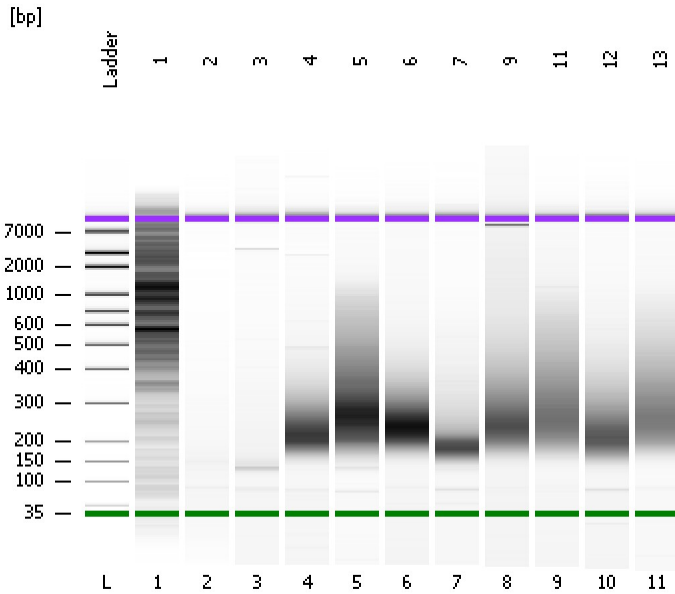


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
Modified: 9/5/2014 1:08:18 PM

**Electrophoresis File Run Summary**



Instrument Information:

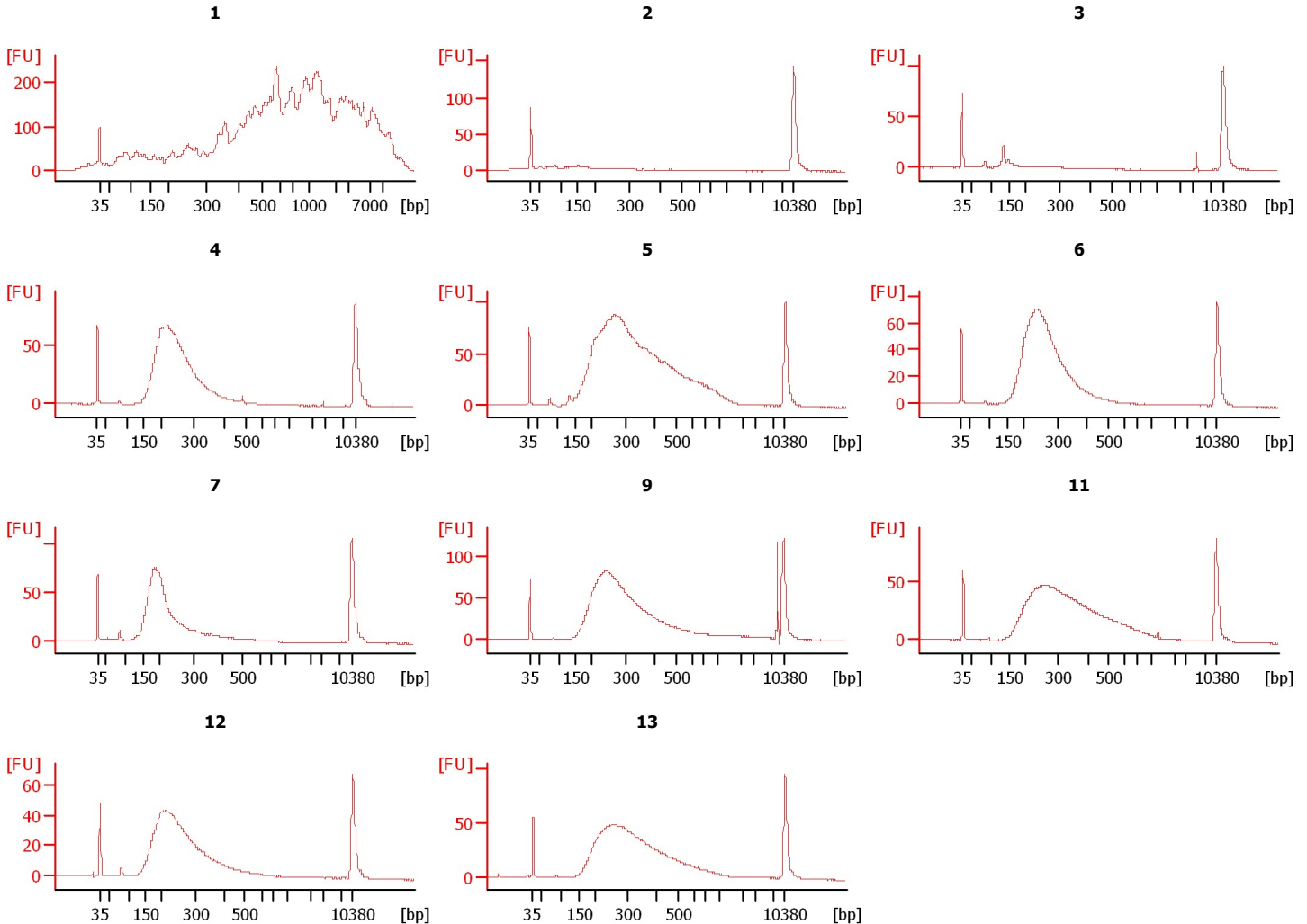
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1		<input type="checkbox"/>	✓			
2		<input type="checkbox"/>	✓			
3		<input type="checkbox"/>	✓			
4		<input type="checkbox"/>	✓			
5		<input type="checkbox"/>	✓			
6		<input type="checkbox"/>	✓			
7		<input type="checkbox"/>	✓			
9		<input type="checkbox"/>	✓			
11		<input type="checkbox"/>	✓			
12		<input type="checkbox"/>	✓			
13		<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\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
Modified: 9/5/2014 1:08:18 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

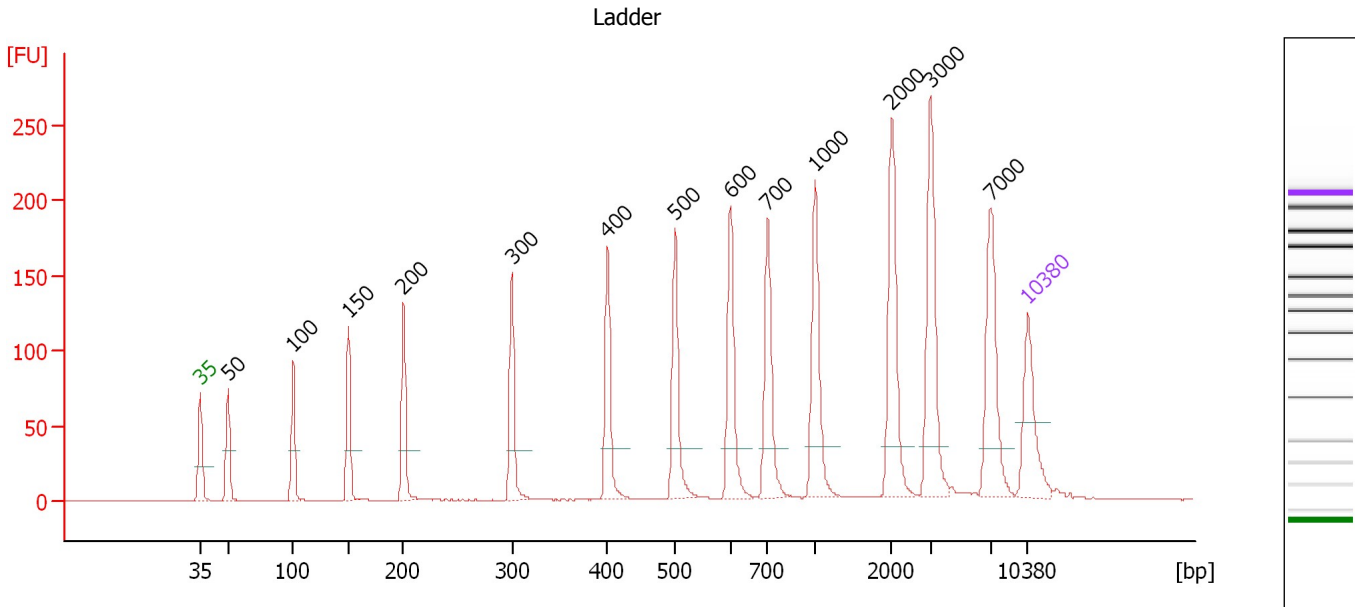
**Ladder**

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\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

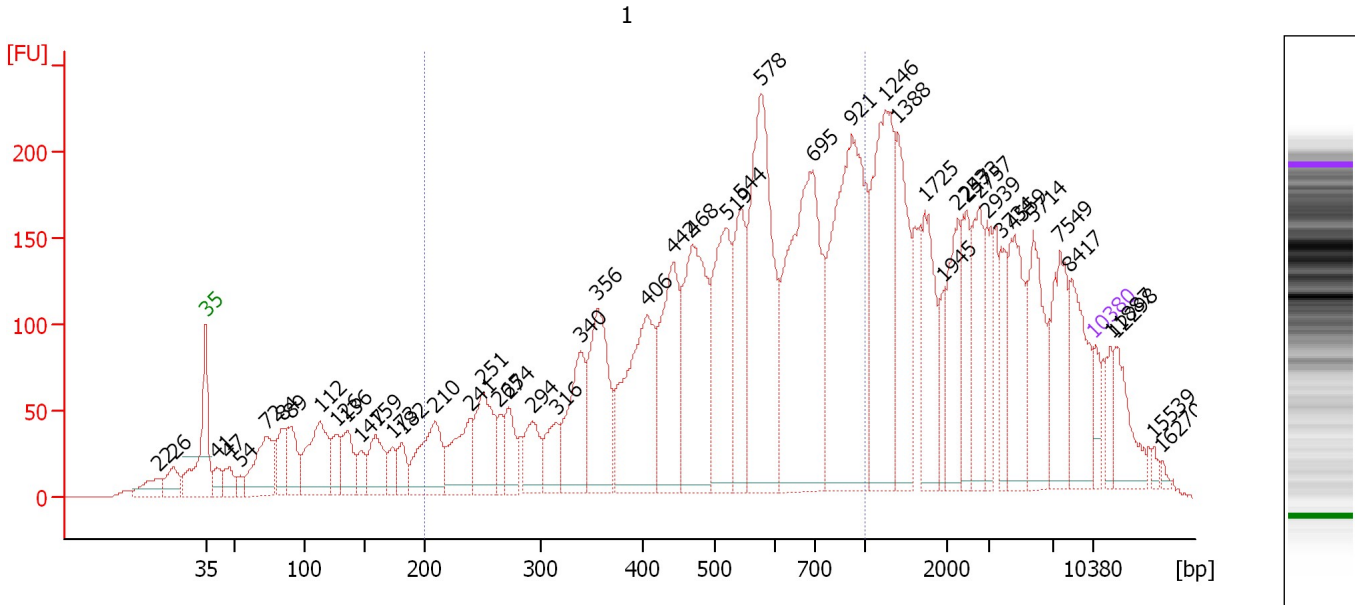
**Peak table for Ladder**

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\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1**

Number of peaks found: 49                      Corr. Area 1: 4,727.3  
 Noise: 0.7

**Peak table for sample 1 : 1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	22	0.00	0.0	
2	26	0.00	0.0	
3	35	125.00	5,411.3	Lower Marker
4	41	102.95	3,837.6	
5	47	115.79	3,746.2	
6	54	50.41	1,427.1	
7	72	435.86	9,142.1	
8	84	226.56	4,082.8	
9	89	236.54	4,007.6	
10	112	528.62	7,135.7	
11	126	160.63	1,936.4	
12	136	232.17	2,595.2	
13	147	107.76	1,109.2	
14	159	257.28	2,445.8	
15	173	99.79	871.9	
16	182	125.53	1,045.0	
17	210	413.97	2,990.3	
18	241	321.10	2,022.8	
19	251	394.65	2,381.5	
20	265	100.45	573.7	
21	274	184.25	1,020.4	
22	294	212.55	1,096.2	
23	316	184.86	885.6	
24	340	438.55	1,956.7	
25	356	583.14	2,480.7	
26	406	783.02	2,920.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 1 : 1**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
27	442	605.16	2,076.0	
28	468	840.41	2,719.1	
29	519	625.21	1,825.4	
30	544	444.45	1,237.8	
31	578	1,102.25	2,888.8	
32	695	1,318.27	2,872.6	
33	921	1,238.39	2,036.3	
34	1,246	785.23	954.9	
35	1,388	436.52	476.4	
36	1,725	309.92	272.2	
37	1,945	101.40	79.0	
38	2,253	274.42	184.6	
39	2,473	200.02	122.6	
40	2,757	250.79	137.8	
41	2,939	169.36	87.3	
42	3,734	137.20	55.7	
43	4,559	311.30	103.5	
44	5,714	324.88	86.1	
45	7,549	299.68	60.1	
46	8,417	278.32	50.1	
47	10,380	75.00	10.9	Upper Marker
48	11,887	0.00	0.0	
49	12,298	0.00	0.0	
50	15,539	0.00	0.0	
51	16,270	0.00	0.0	

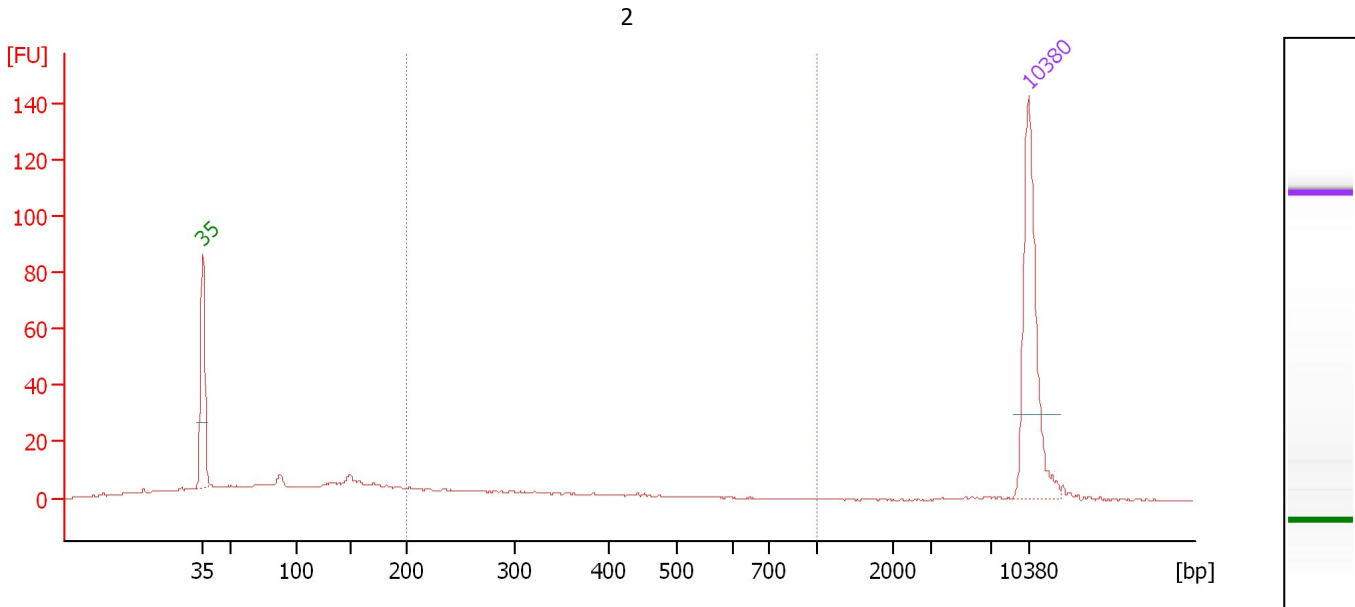
**Region table for sample 1 : 1**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/µl]	Molarity [pmol/l]	Color
200	1,000	4,727.3	54	544	36.2	9,951.00	34,528.9	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2**

Number of peaks found: 0                      Corr. Area 1: 77.6  
 Noise: 0.2

**Peak table for sample 2 : 2**

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

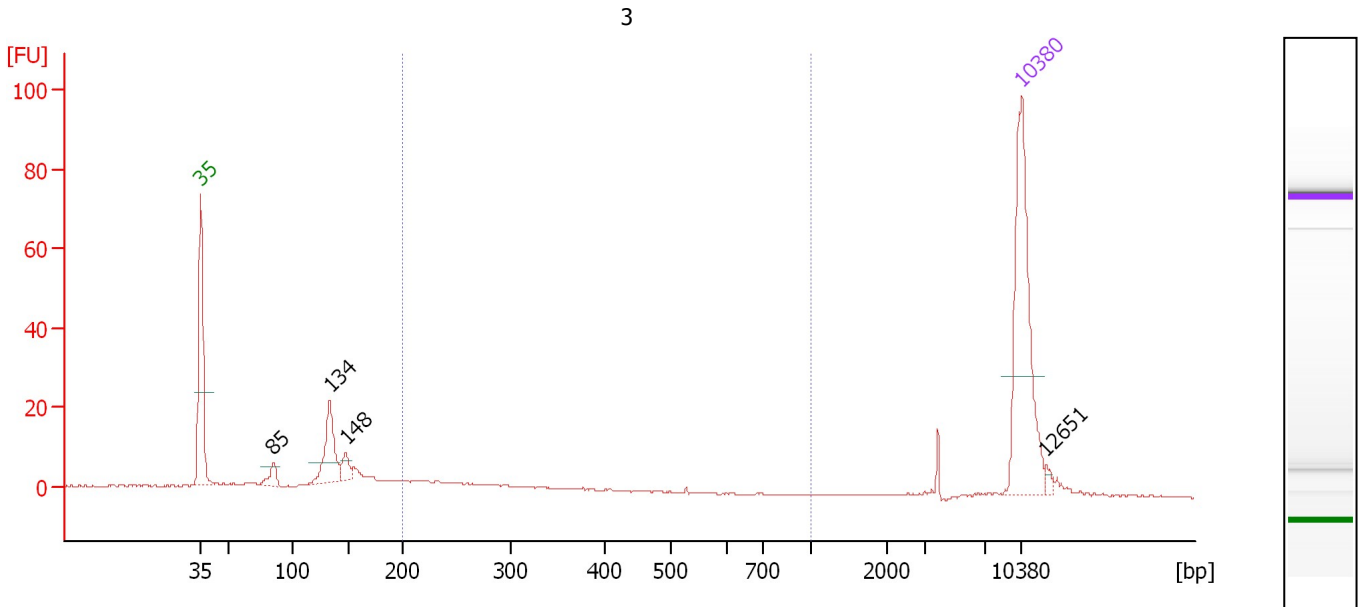
**Region table for sample 2 : 2**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	77.6	27	347	39.2	57.28	293.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

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 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3**

Number of peaks found: 4                      Corr. Area 1: 34.4  
 Noise: 0.1

**Peak table for sample 3 : 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	11.02	196.8	
3	134	42.50	482.0	
4	148	10.18	104.1	
5	10,380	75.00	10.9	Upper Marker
6	12,651	0.00	0.0	

**Region table for sample 3 : 3**

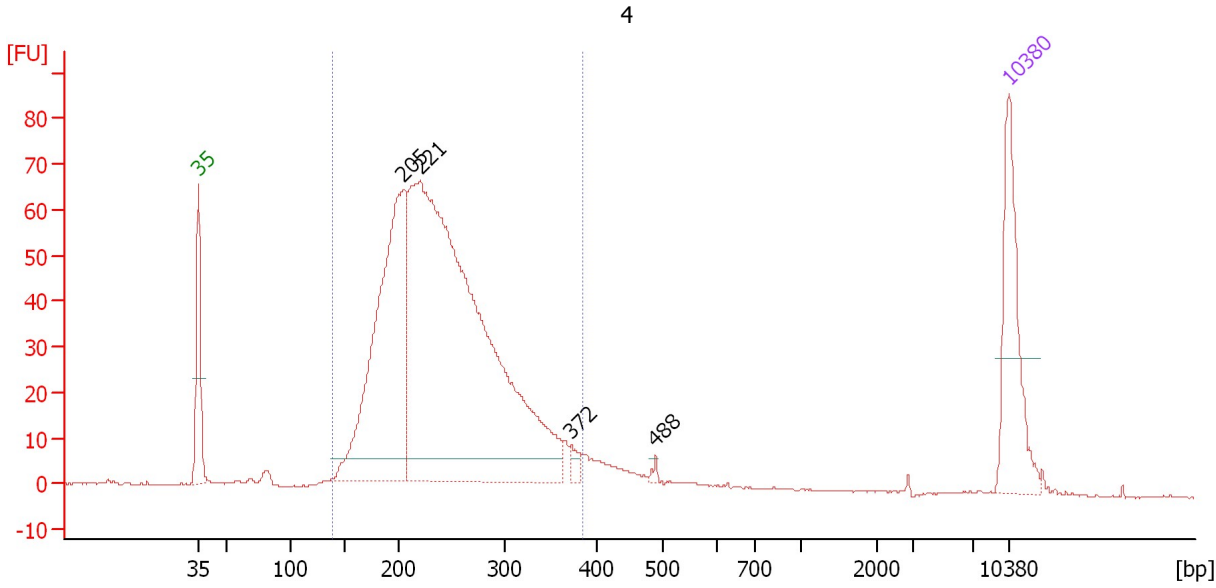
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,000	34.4	22	278	22.9	33.36	191.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 4**

Number of peaks found: 4                      Corr. Area 1: 1,162.7  
 Noise: 0.1

**Peak table for sample 4 : 4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	205	366.58	2,703.3	
3	221	906.02	6,210.0	
4	372	9.23	37.7	
5	488	2.90	9.0	
6	10,380	75.00	10.9	Upper Marker

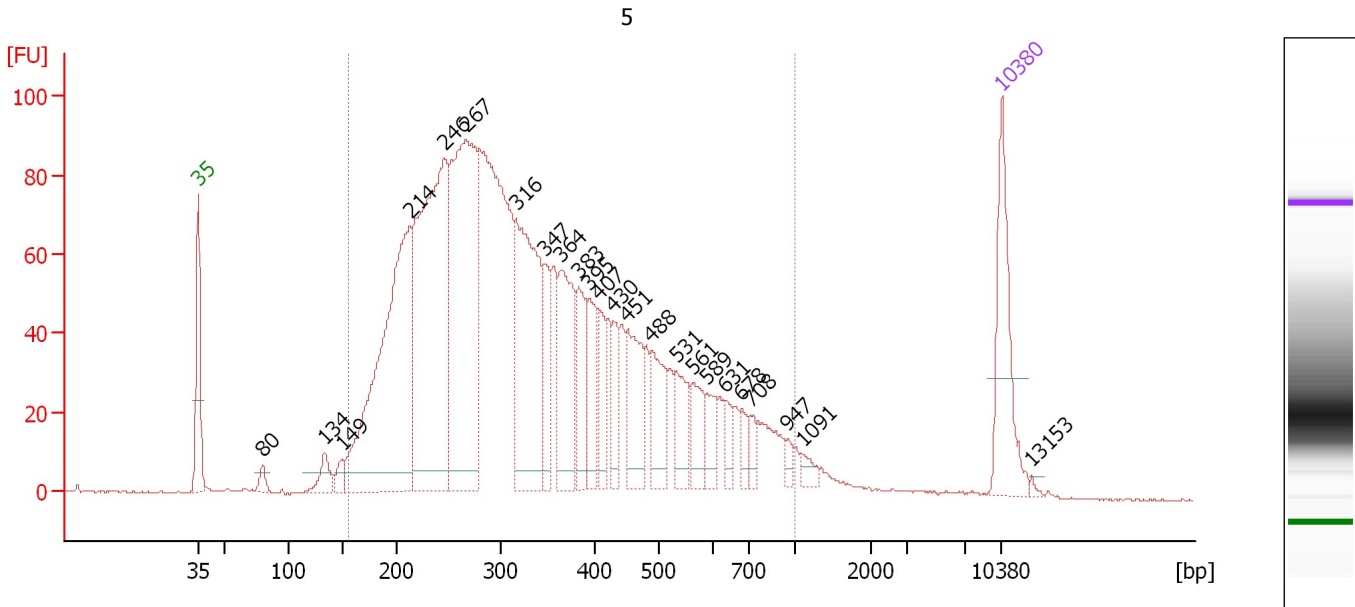
**Region table for sample 4 : 4**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
139	383	1,162.7	93	243	20.7	1,292.21	8,469.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 5**

Number of peaks found: 24                      Corr. Area 1: 2,651.0  
 Noise: 0.1

**Peak table for sample 5 : 5**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	80	12.45	236.7	
3	134	25.93	294.1	
4	149	14.87	150.8	
5	214	425.67	3,019.5	
6	246	442.21	2,723.2	
7	267	387.55	2,200.6	
8	316	241.60	1,157.2	
9	347	53.26	232.4	
10	364	117.47	488.5	
11	383	58.50	231.3	
12	395	56.81	217.8	
13	407	39.53	147.1	
14	430	34.11	120.2	
15	451	74.04	248.6	
16	488	57.90	179.8	
17	531	39.87	113.8	
18	561	33.44	90.4	
19	589	24.93	64.1	
20	631	16.49	39.6	
21	678	13.74	30.7	
22	708	13.59	29.1	
23	947	6.73	10.8	
24	1,091	8.68	12.1	
25	10,380	75.00	10.9	Upper Marker
26	13,153	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**

... Region table for sample 5 :

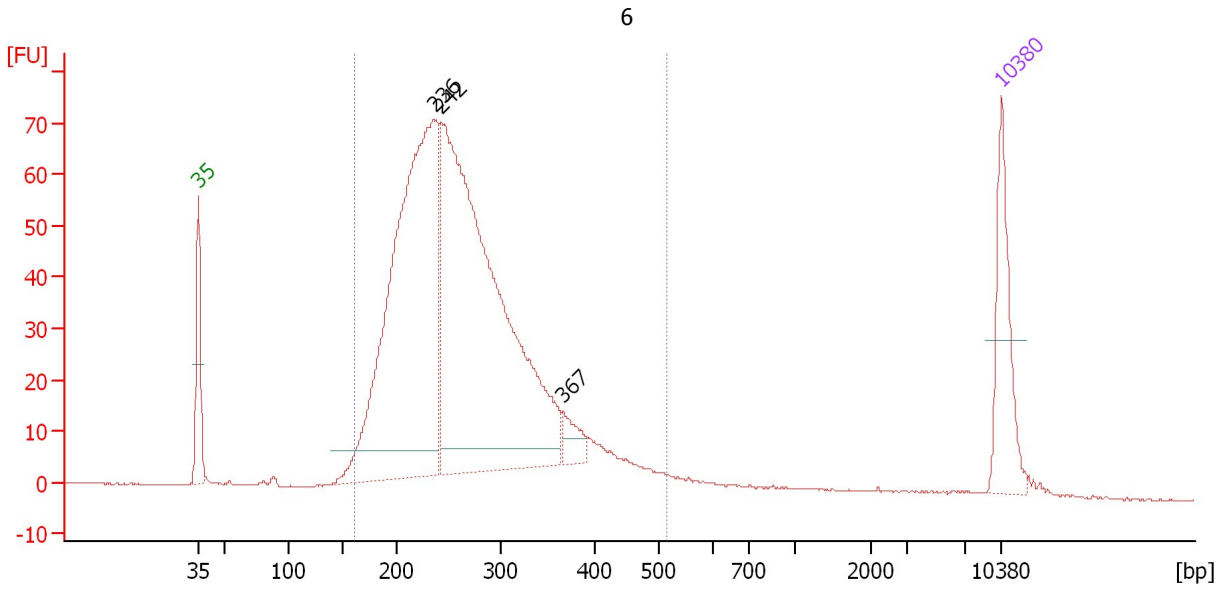
5

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
156	1,000	2,651.0	96	357	42.3	2,871.28	14,879.5	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 6**

Number of peaks found: 3                      Corr. Area 1: 1,294.9  
 Noise: 0.1

**Peak table for sample 6 : 6**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	236	735.52	4,714.0	
3	242	890.88	5,566.5	
4	367	28.38	117.1	
5	10,380	75.00	10.9	Upper Marker

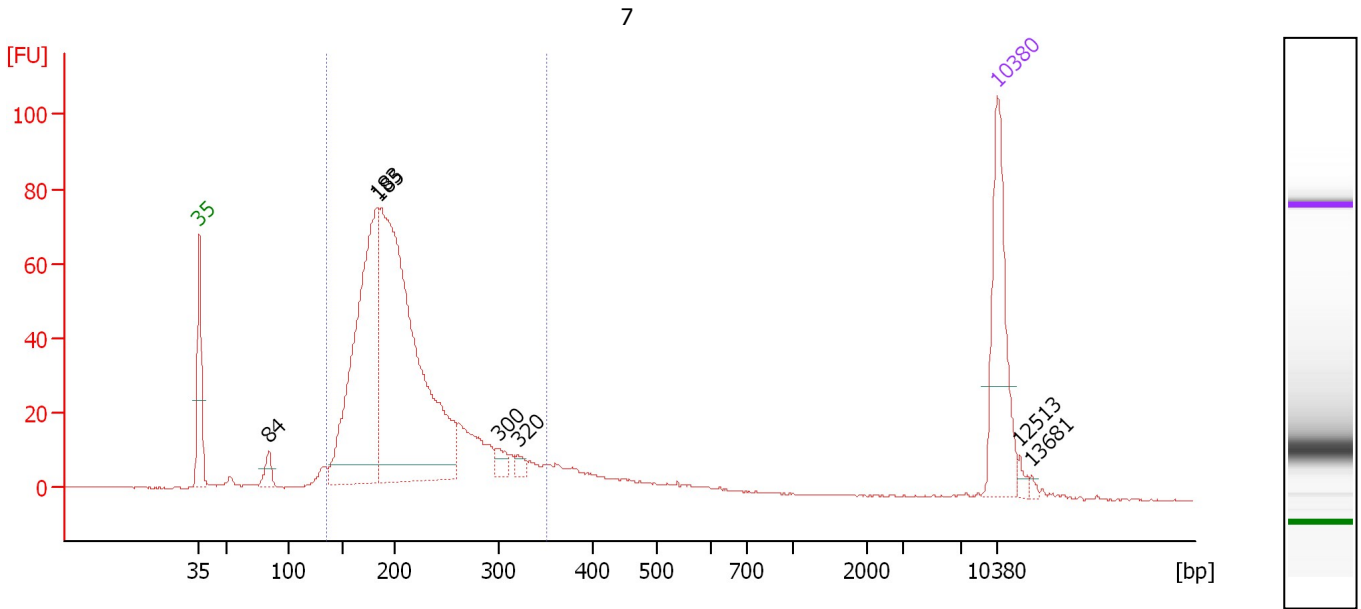
**Region table for sample 6 : 6**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
162	515	1,294.9	95	268	23.9	1,830.73	11,026.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 7**

Number of peaks found: 7                      Corr. Area 1: 944.5  
 Noise: 0.1

**Peak table for sample 7 : 7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	84	15.59	281.5	
3	183	309.98	2,564.4	
4	185	495.63	4,055.7	
5	300	11.55	58.4	
6	320	6.36	30.1	
7	10,380	75.00	10.9	Upper Marker
8	12,513	0.00	0.0	
9	13,681	0.00	0.0	

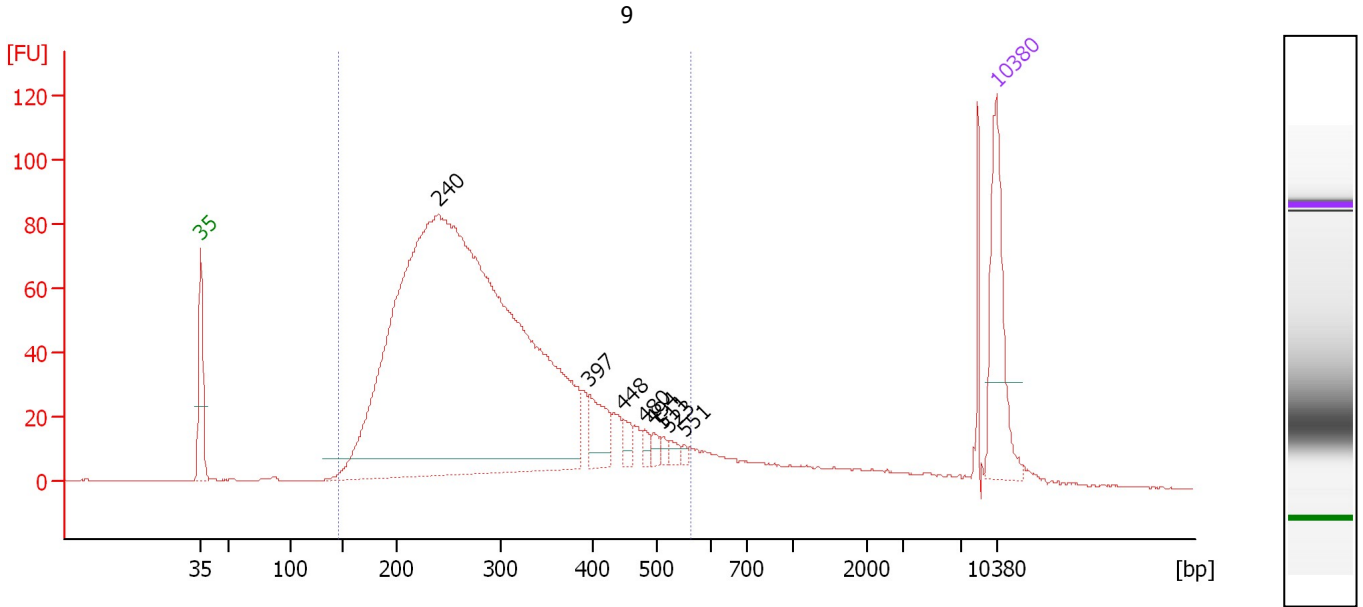
**Region table for sample 7 : 7**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
135	351	944.5	86	211	21.7	960.89	7,259.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 9**

Number of peaks found: 8  
 Noise: 0.2  
 Corr. Area 1: 1,904.0

**Peak table for sample 8 : 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	240	1,534.90	9,682.1	
3	397	40.17	153.5	
4	448	12.10	40.9	
5	480	7.20	22.7	
6	494	7.15	21.9	
7	511	5.03	14.9	
8	523	6.65	19.3	
9	551	3.09	8.5	
10	10,380	75.00	10.9	Upper Marker

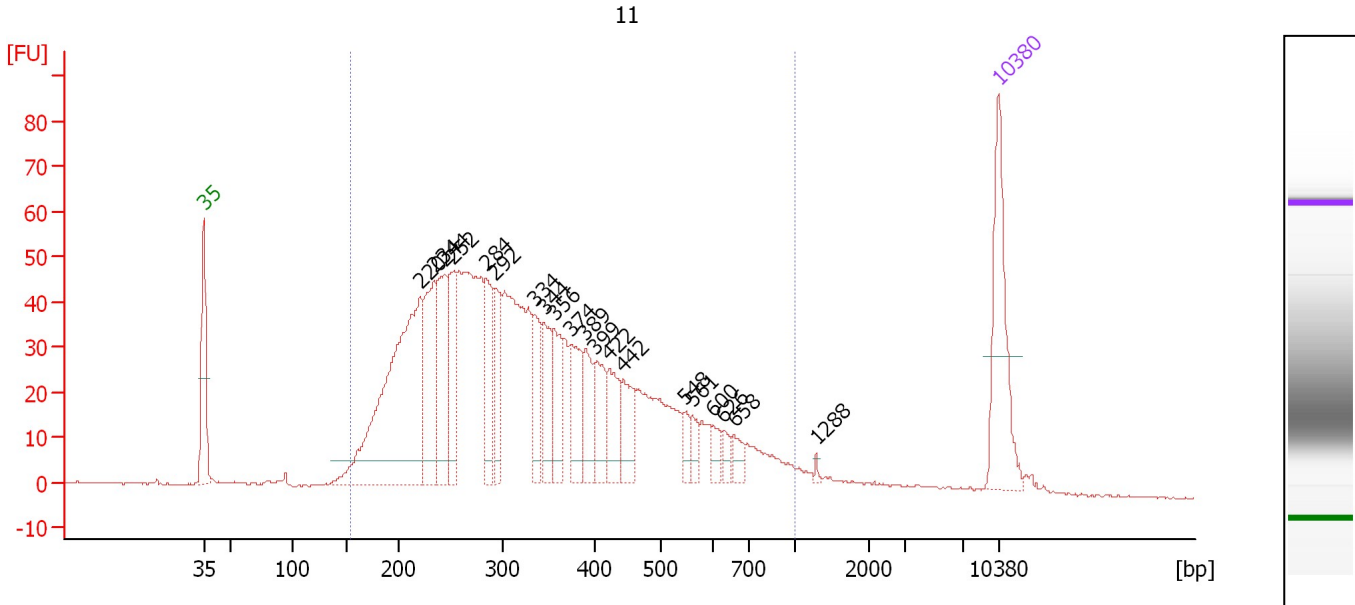
**Region table for sample 8 : 9**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
145	562	1,904.0	90	293	29.2	1,712.33	9,853.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 11**

Number of peaks found: 20                      Corr. Area 1: 1,497.6  
 Noise: 0.2

**Peak table for sample 9 : 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	220	334.44	2,301.0	
3	234	111.70	723.1	
4	244	88.85	551.1	
5	252	62.19	373.9	
6	284	62.46	333.6	
7	292	51.55	267.1	
8	334	48.37	219.3	
9	344	47.59	209.6	
10	356	46.63	198.7	
11	374	51.08	206.9	
12	389	38.65	150.5	
13	399	40.26	152.7	
14	422	40.98	147.3	
15	442	35.15	120.5	
16	548	11.47	31.7	
17	561	13.59	36.7	
18	600	10.97	27.7	
19	626	9.39	22.7	
20	658	11.75	27.1	
21	1,288	1.85	2.2	
22	10,380	75.00	10.9	Upper Marker

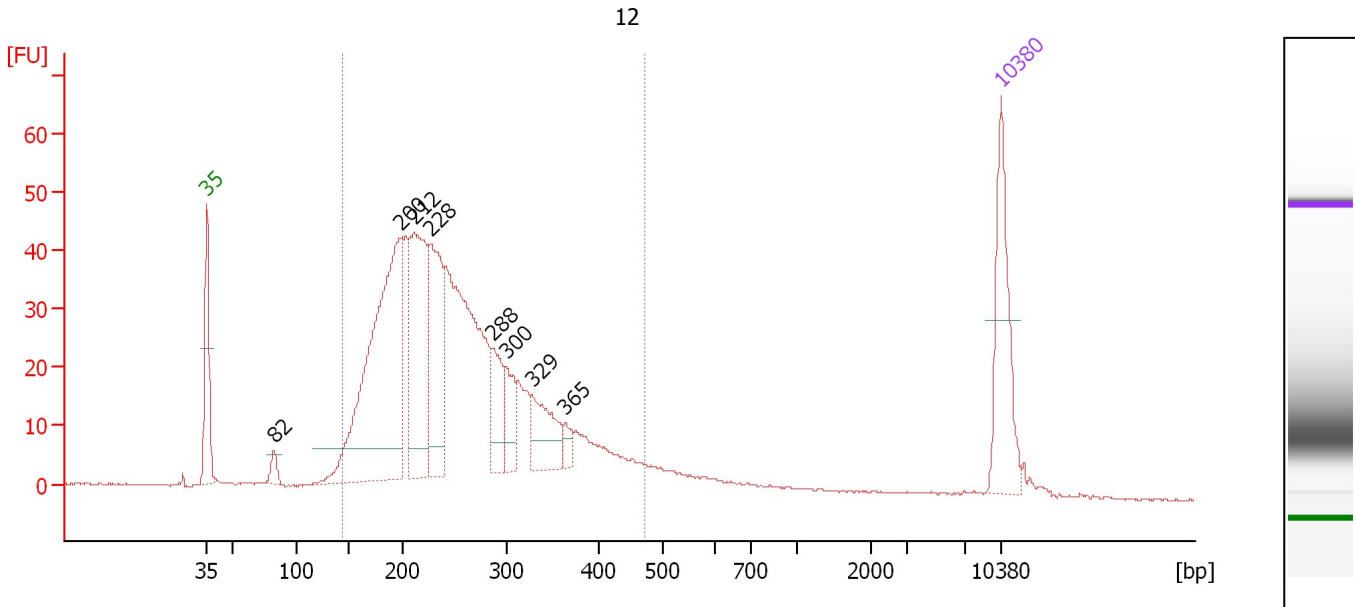
**Region table for sample 9 : 11**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
154	1,000	1,497.6	95	353	41.1	1,829.12	9,522.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 12**

Number of peaks found: 8                      Corr. Area 1: 906.5  
 Noise: 0.2

**Peak table for sample 10 : 12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	82	14.42	265.0	
3	200	393.94	2,990.2	
4	212	190.41	1,361.4	
5	228	141.17	938.8	
6	288	52.37	275.6	
7	300	37.48	189.2	
8	329	60.48	278.9	
9	365	11.32	47.0	
10	10,380	75.00	10.9	Upper Marker

**Region table for sample 10 : 12**

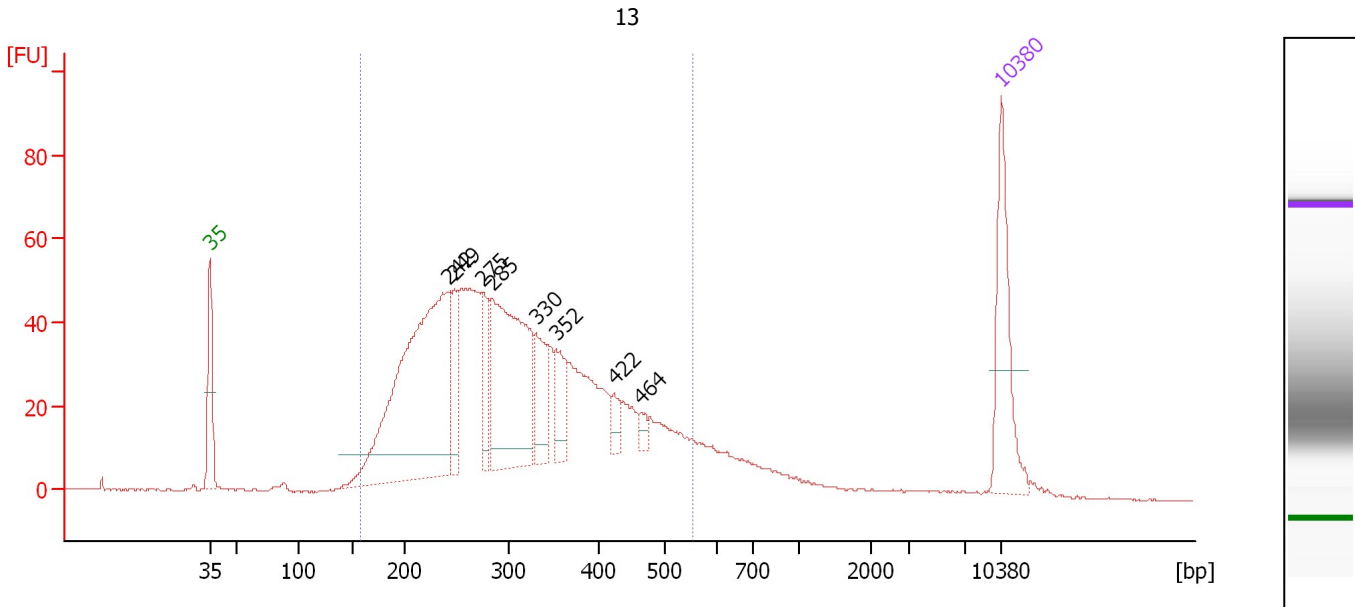
From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
144	472	906.5	91	256	27.1	1,508.12	9,793.2	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 13**

Number of peaks found: 8                      Corr. Area 1: 1,330.9  
 Noise: 0.1

**Peak table for sample 11 : 13**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	242	439.22	2,750.6	
3	249	51.75	315.4	
4	275	49.63	273.0	
5	285	242.83	1,290.1	
6	330	57.18	262.3	
7	352	42.90	184.4	
8	422	15.08	54.1	
9	464	9.27	30.3	
10	10,380	75.00	10.9	Upper Marker

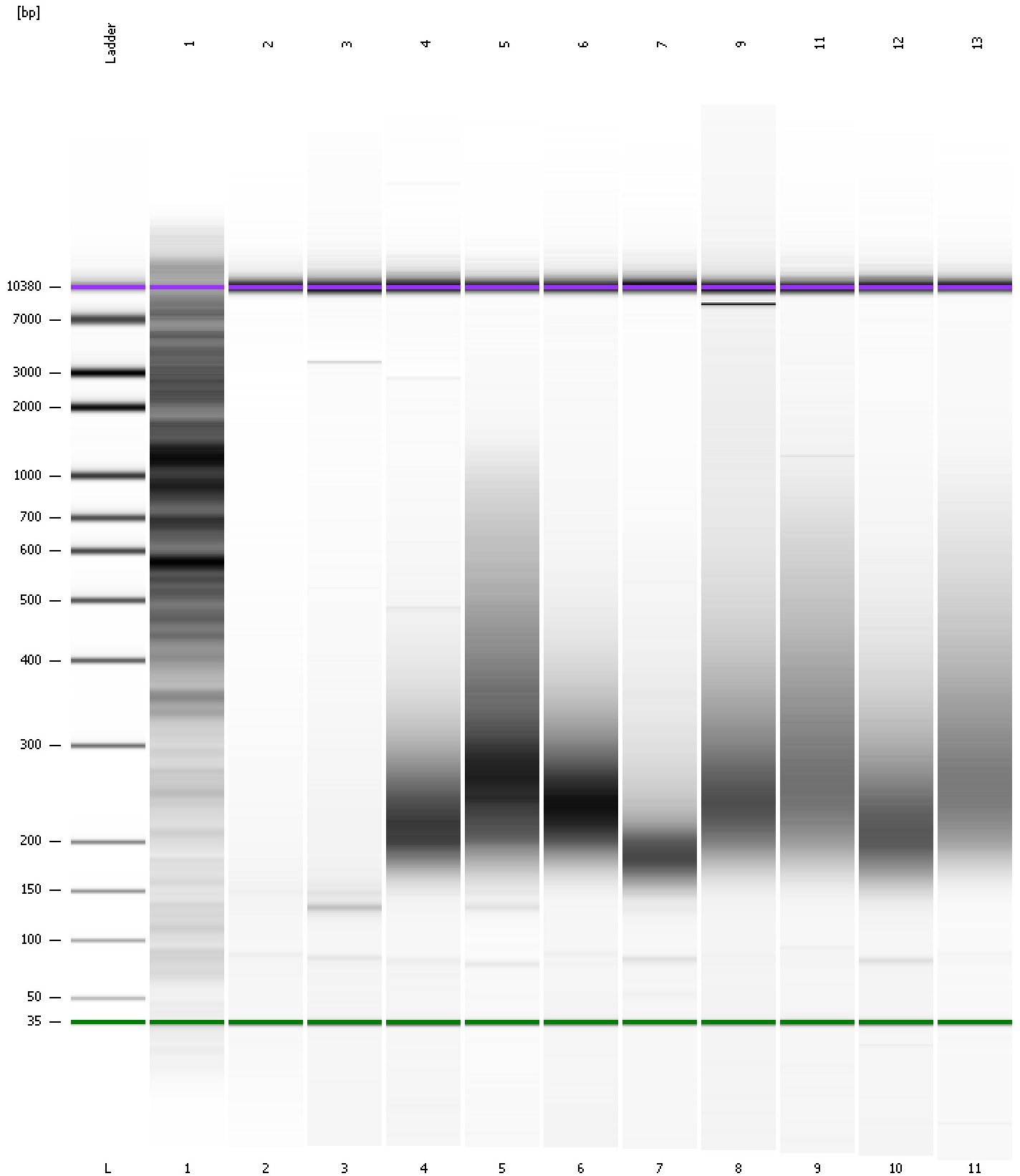
**Region table for sample 11 : 13**

From [bp]	To [bp]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
159	554	1,330.9	90	312	29.0	1,566.75	8,537.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
Modified: 9/5/2014 1:08:18 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-05\2014-09-05\_003.xad

Created: 9/5/2014 12:25:48 PM  
 Modified: 9/5/2014 1:08:18 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		9/5/2014 1:06:11 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-05\2014-09-05_003.xad)		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/5/2014 12:25:49 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1