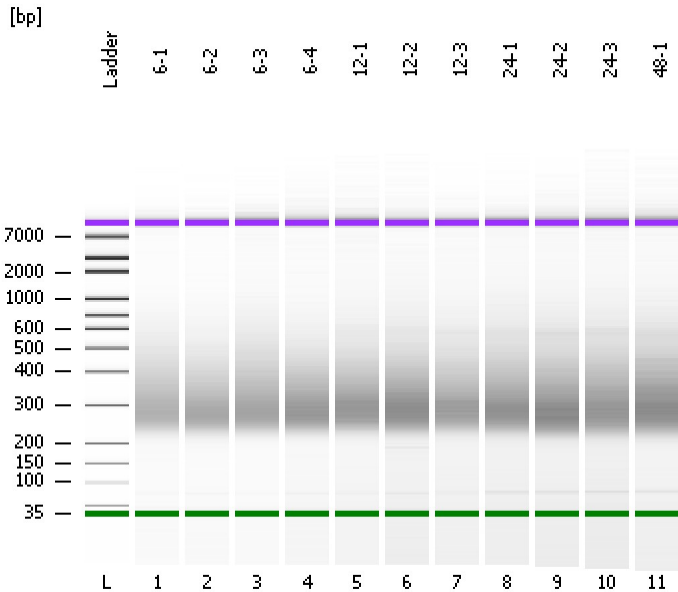


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
Modified: 10/10/2014 2:05:37 PM

### Electrophoresis File Run Summary



#### Instrument Information:

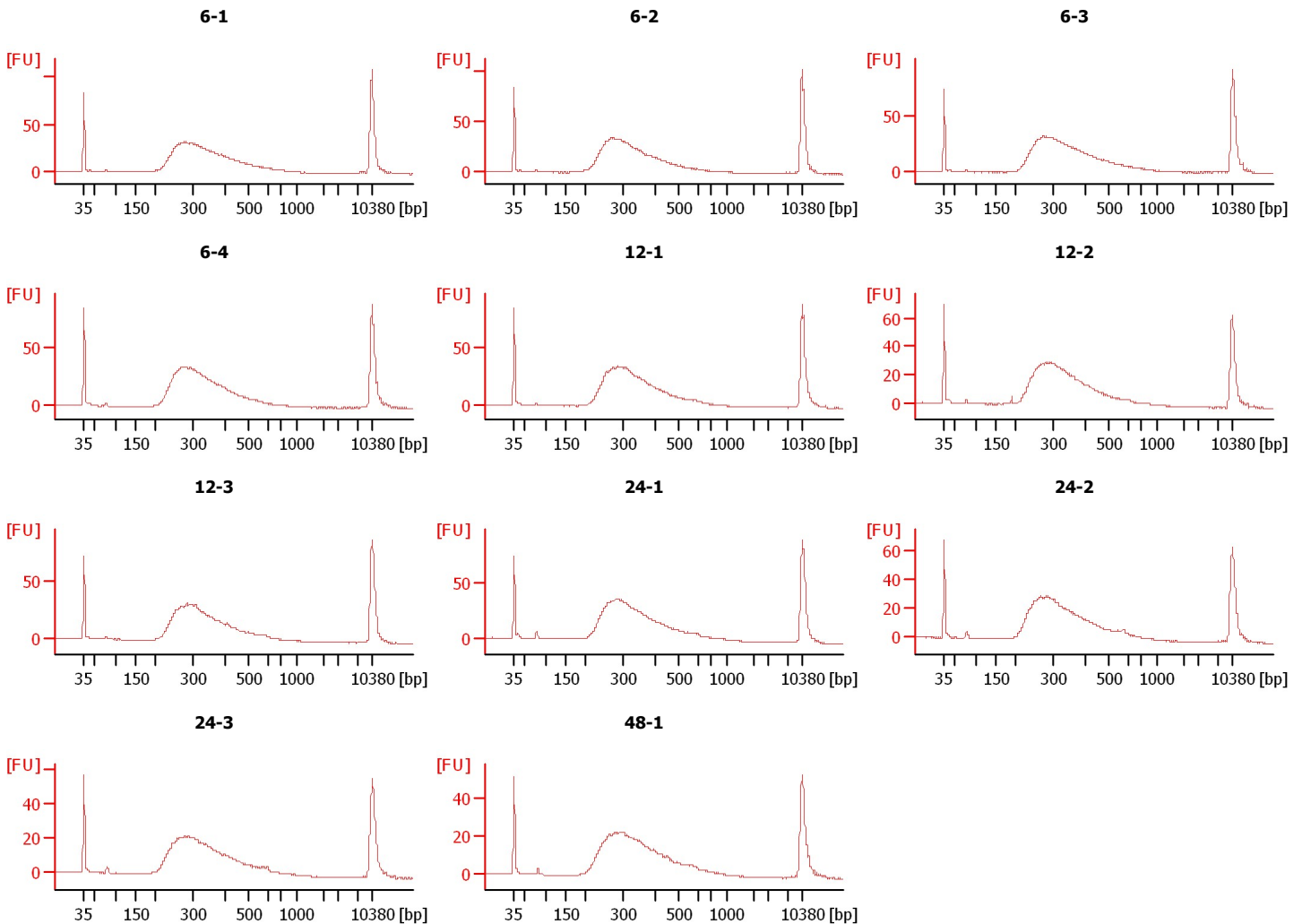
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
Modified: 10/10/2014 2:05:37 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
6-1		<input type="checkbox"/>	✓			
6-2		<input type="checkbox"/>	✓			
6-3		<input type="checkbox"/>	✓			
6-4		<input type="checkbox"/>	✓			
12-1		<input type="checkbox"/>	✓			
12-2		<input type="checkbox"/>	✓			
12-3		<input type="checkbox"/>	✓			
24-1		<input type="checkbox"/>	✓			
24-2		<input type="checkbox"/>	✓			
24-3		<input type="checkbox"/>	✓			
48-1		<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\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
Modified: 10/10/2014 2:05:37 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

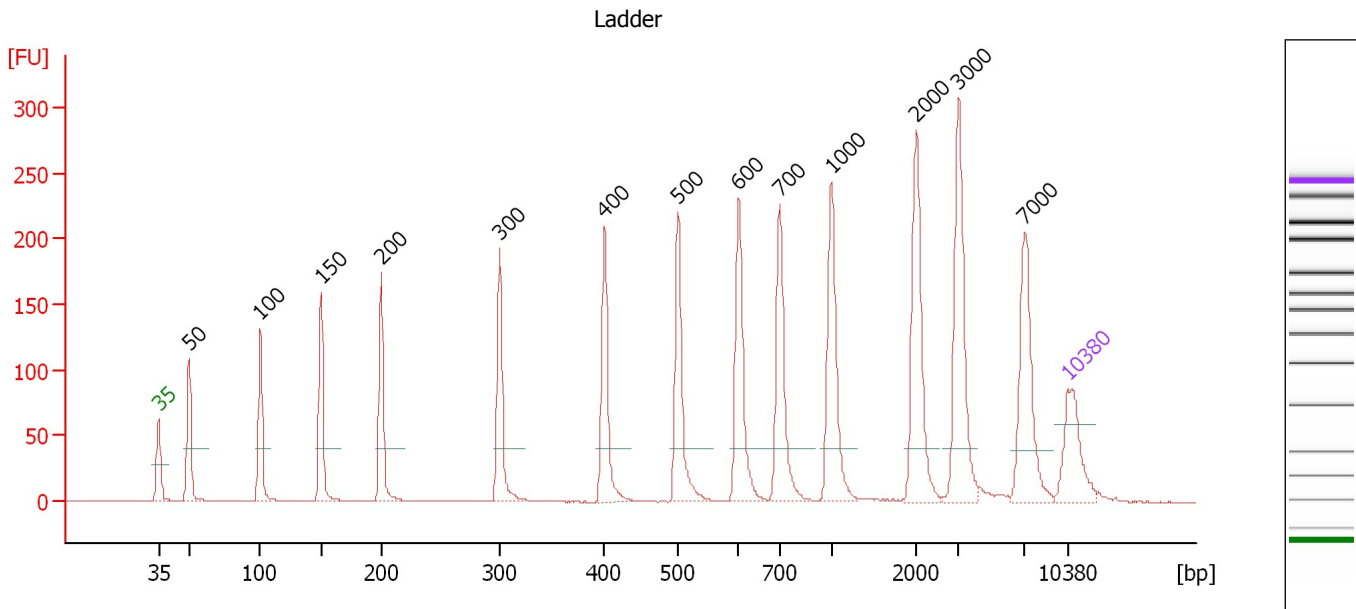
**Ladder**

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\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

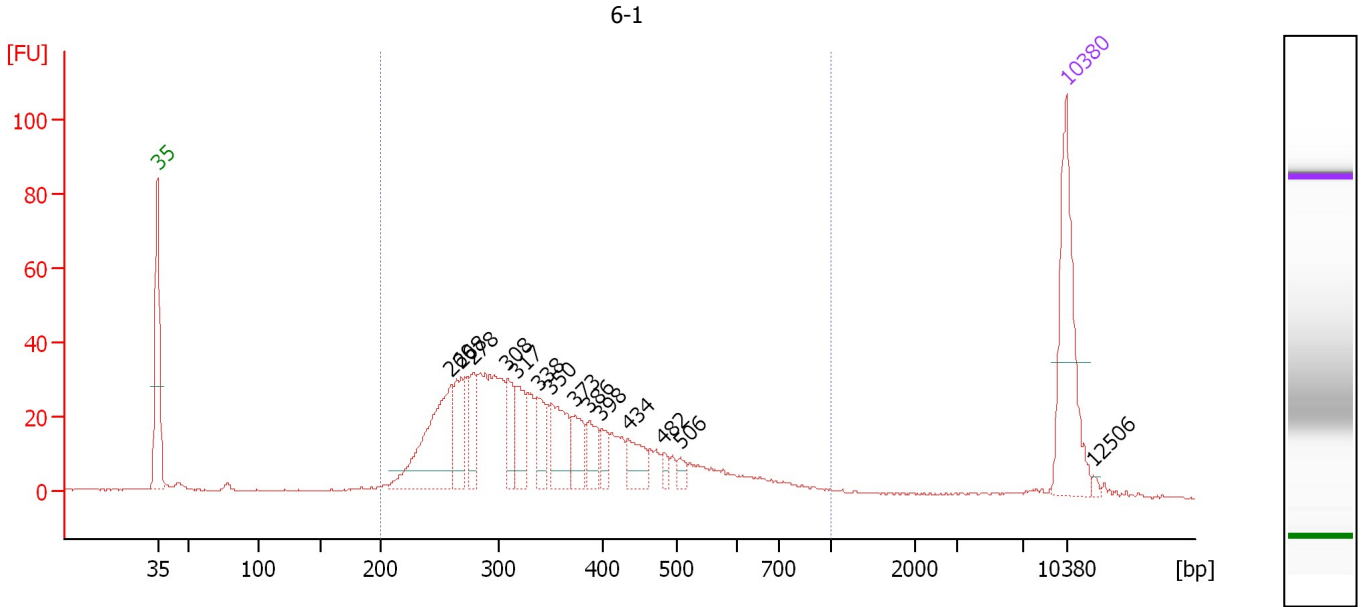
**Peak table for Ladder**

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\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 6-1**

Number of peaks found: 14                      Corr. Area 1: 726.5  
 Noise: 0.2

**Peak table for sample 1 : 6-1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	260	109.88	640.8	
3	268	38.27	216.3	
4	278	32.68	177.9	
5	308	30.18	148.4	
6	317	34.72	166.2	
7	338	27.68	124.2	
8	350	45.72	197.7	
9	373	24.66	100.3	
10	386	20.82	81.6	
11	398	14.25	54.2	
12	434	23.58	82.4	
13	482	5.92	18.6	
14	506	6.76	20.2	
15	10,380	75.00	10.9	Upper Marker
16	12,506	0.00	0.0	

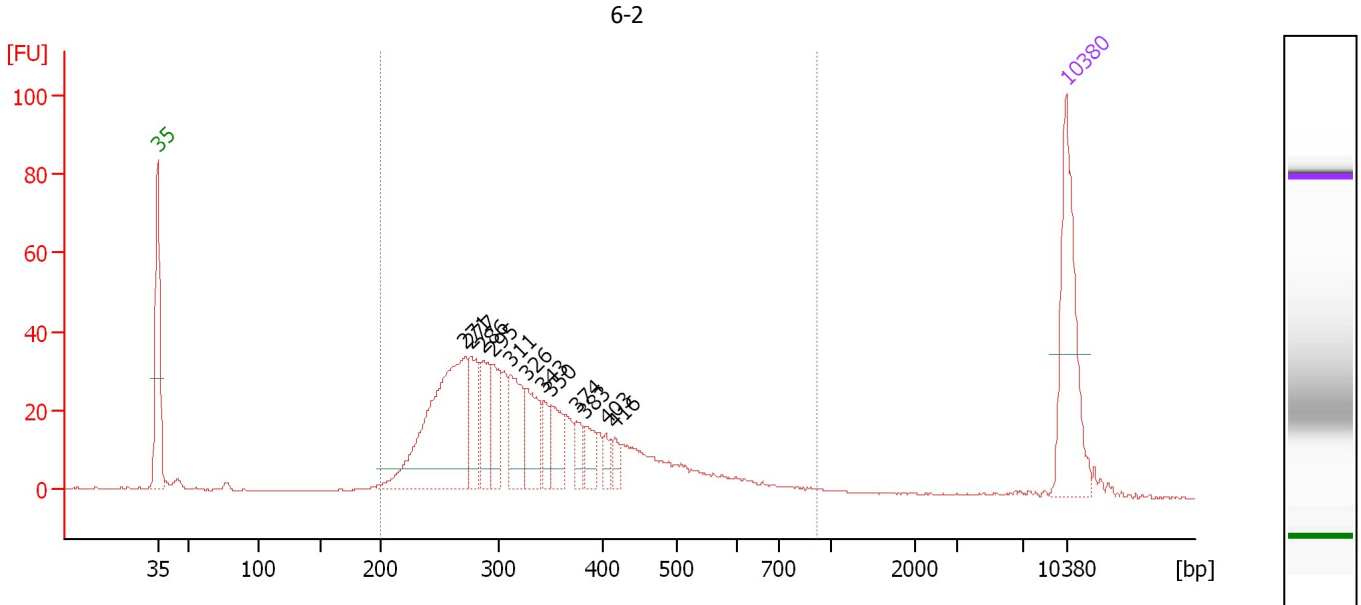
**Region table for sample 1 : 6-1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	362	1,000	726.5	93	32.6	702.25	3,287.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 6-2**

Number of peaks found: 12                      Corr. Area 1: 691.9  
 Noise: 0.2

**Peak table for sample 2 : 6-2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	271	191.34	1,068.8	
3	277	43.51	238.3	
4	286	43.69	231.1	
5	295	36.59	187.7	
6	311	51.51	250.6	
7	326	43.53	202.0	
8	343	17.74	78.4	
9	350	29.56	127.8	
10	374	15.52	62.9	
11	383	17.37	68.8	
12	403	9.35	35.1	
13	416	9.18	33.5	
14	10,380	75.00	10.9	Upper Marker

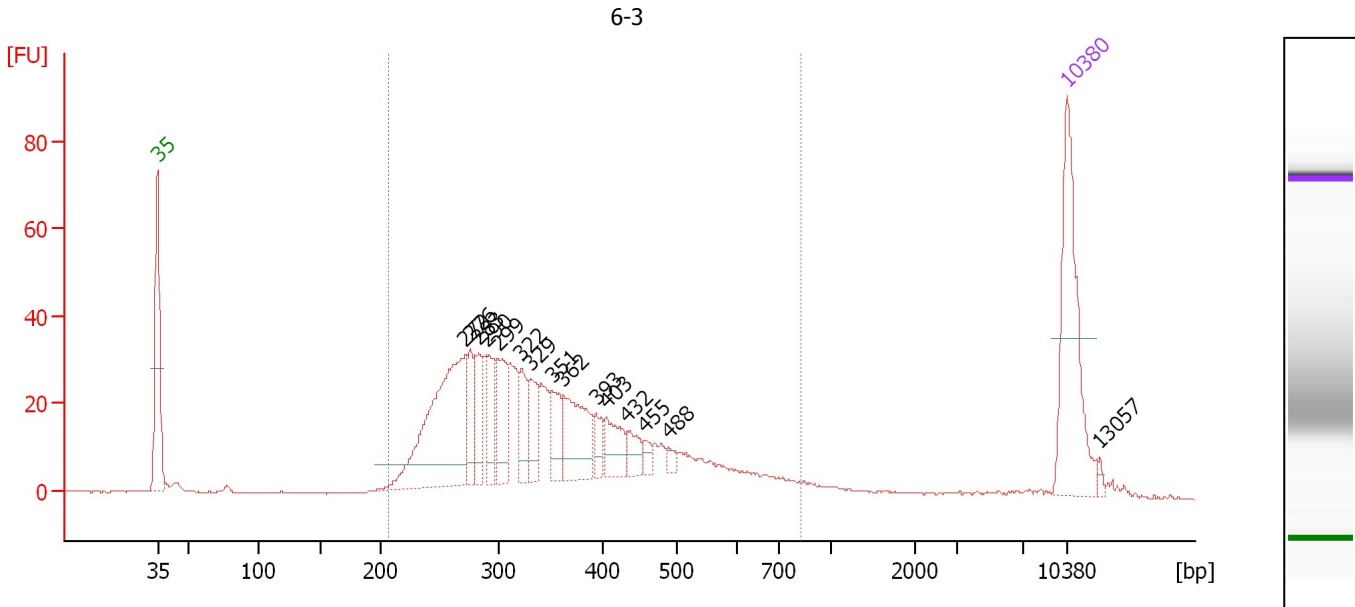
**Region table for sample 2 : 6-2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	345	920	691.9	95	30.1	691.64	3,342.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 6-3**

Number of peaks found: 15      Corr. Area 1: 724.2  
 Noise: 0.2

**Peak table for sample 3 : 6-3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	272	164.20	915.4	
3	276	29.70	162.9	
4	283	28.96	155.2	
5	290	30.11	157.5	
6	299	38.54	195.2	
7	322	26.89	126.7	
8	329	23.01	105.8	
9	351	25.09	108.3	
10	362	52.18	218.6	
11	393	12.81	49.4	
12	403	23.76	89.3	
13	432	14.16	49.7	
14	455	6.49	21.6	
15	488	4.97	15.4	
16	10,380	75.00	10.9	Upper Marker
17	13,057	0.00	0.0	

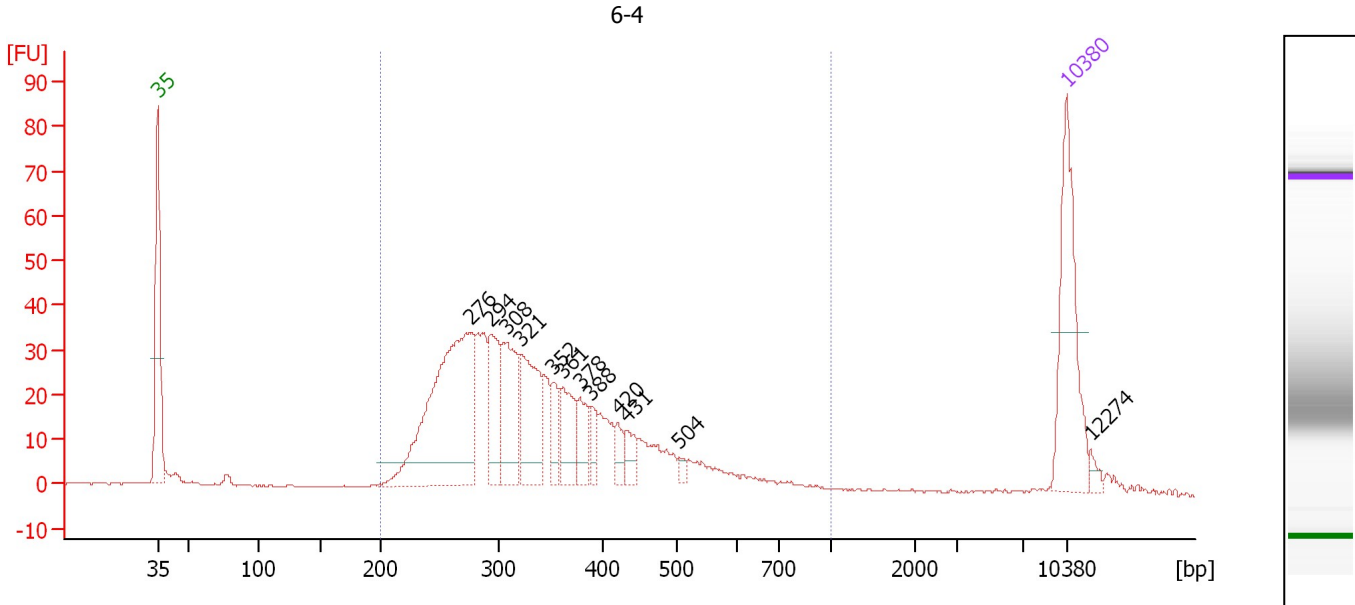
**Region table for sample 3 : 6-3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
206	361	831	724.2	93	30.5	740.49	3,459.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 6-4**

Number of peaks found: 12      Corr. Area 1: 725.7  
 Noise: 0.1

**Peak table for sample 4 : 6-4**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	276	229.84	1,261.7	
3	294	53.54	276.3	
4	308	66.94	329.2	
5	321	72.16	340.5	
6	352	21.06	90.7	
7	361	37.56	157.7	
8	378	24.38	97.8	
9	388	13.63	53.3	
10	420	10.49	37.9	
11	431	13.16	46.3	
12	504	4.56	13.7	
13	10,380	75.00	10.9	Upper Marker
14	12,274	0.00	0.0	

**Region table for sample 4 : 6-4**

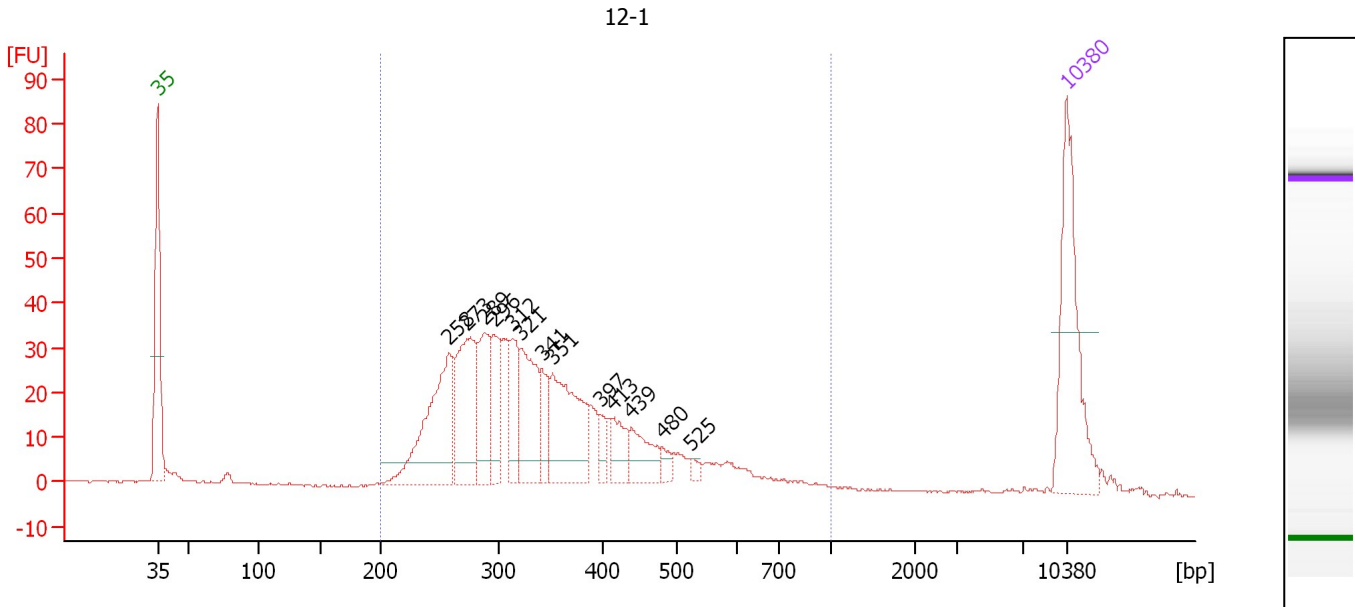
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	349	1,000	725.7	92	30.5	788.24	3,763.1	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 12-1**

Number of peaks found: 13                      Corr. Area 1: 711.8  
 Noise: 0.1

**Peak table for sample 5 : 12-1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	258	115.07	675.3	
3	273	87.93	487.3	
4	289	53.27	279.7	
5	296	35.58	182.0	
6	312	37.22	180.6	
7	321	63.92	301.8	
8	341	23.75	105.6	
9	351	83.61	360.6	
10	397	10.96	41.9	
11	413	21.21	77.8	
12	439	27.11	93.7	
13	480	6.70	21.1	
14	525	4.43	12.8	
15	10,380	75.00	10.9	Upper Marker

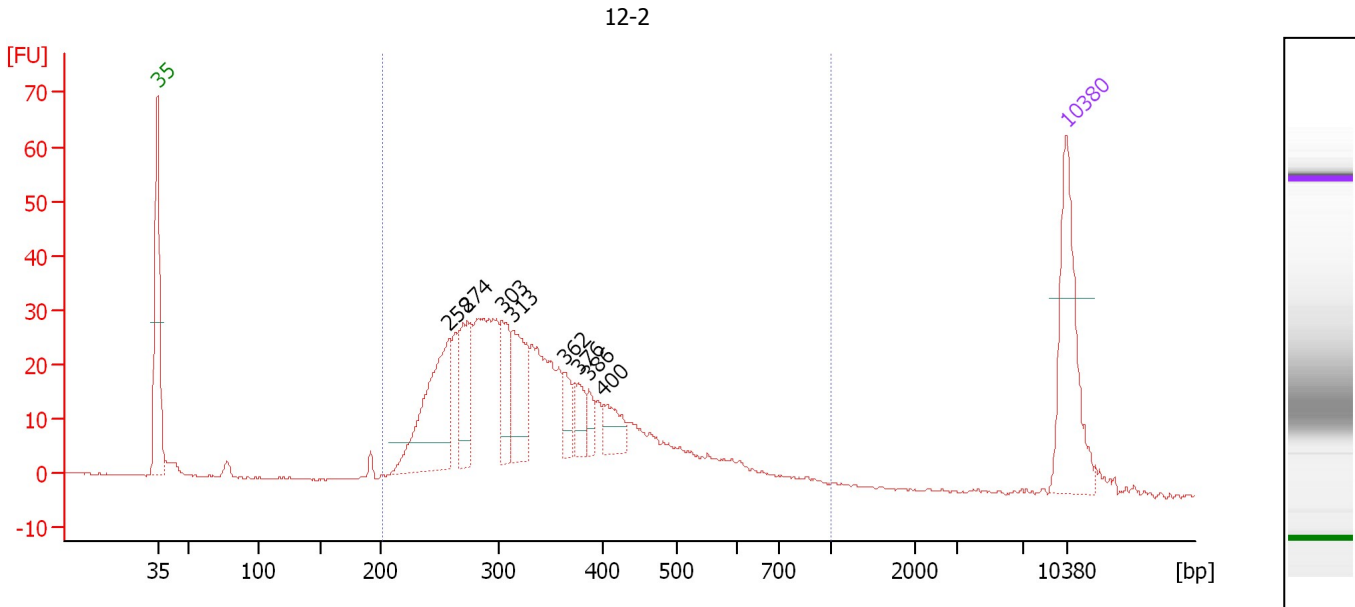
**Region table for sample 5 : 12-1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	355	1,000	711.8	94	31.0	717.51	3,378.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 12-2**

Number of peaks found: 8                      Corr. Area 1: 643.9  
 Noise: 0.2

**Peak table for sample 6 : 12-2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	258	123.82	727.6	
3	274	53.61	296.9	
4	303	46.16	231.0	
5	313	63.54	307.4	
6	362	18.43	77.1	
7	376	18.52	74.6	
8	386	13.02	51.1	
9	400	22.93	86.8	
10	10,380	75.00	10.9	Upper Marker

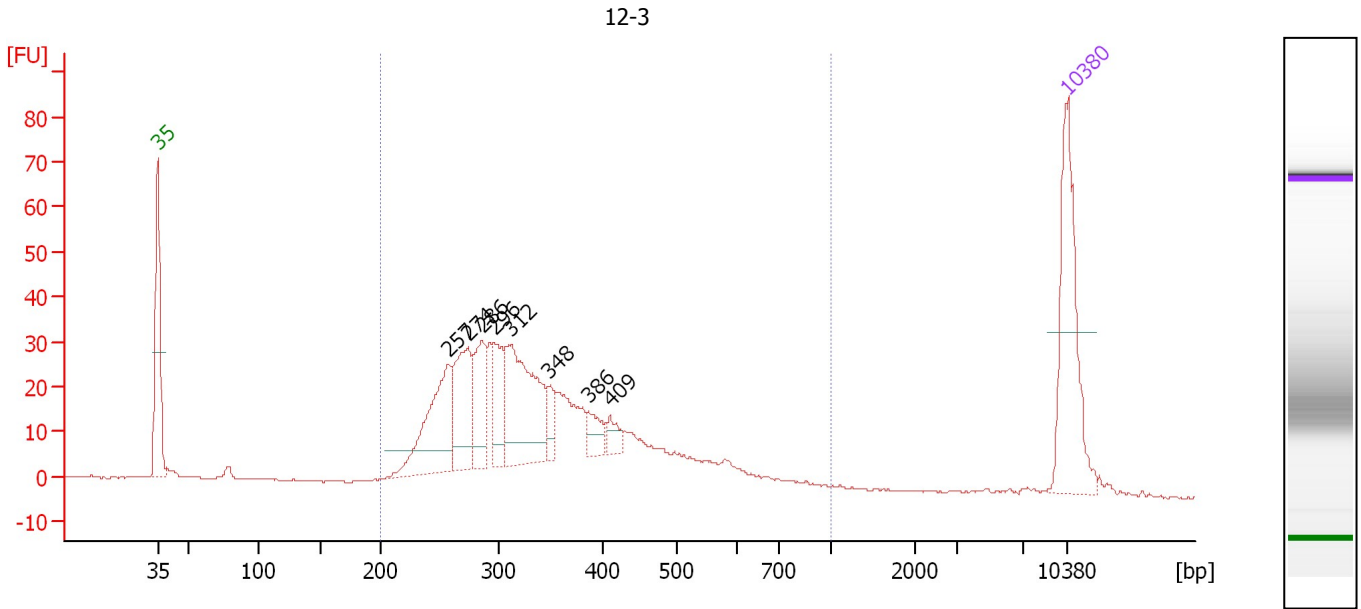
**Region table for sample 6 : 12-2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
202	355	1,000	643.9	95	31.6	869.59	4,114.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 12-3**

Number of peaks found: 8                      Corr. Area 1: 643.8  
 Noise: 0.2

**Peak table for sample 7 : 12-3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	257	90.76	535.4	
3	274	66.86	370.0	
4	286	45.76	242.7	
5	296	34.12	174.7	
6	312	105.45	512.6	
7	348	13.94	60.7	
8	386	15.84	62.1	
9	409	10.11	37.5	
10	10,380	75.00	10.9	Upper Marker

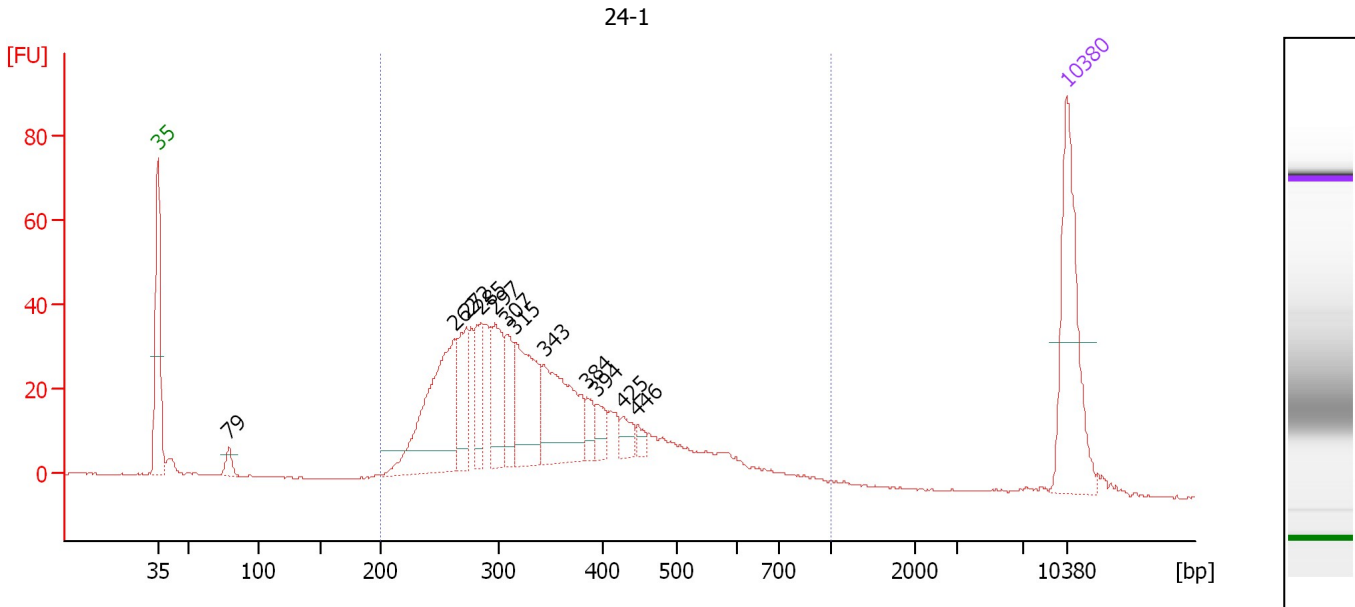
**Region table for sample 7 : 12-3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	356	1,000	643.8	95	31.4	668.02	3,145.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 24-1**

Number of peaks found: 12                      Corr. Area 1: 803.1  
 Noise: 0.2

**Peak table for sample 8 : 24-1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	79	9.97	192.0	
3	262	138.19	797.7	
4	272	46.58	259.2	
5	285	34.79	184.8	
6	297	48.93	249.9	
7	307	29.59	146.2	
8	315	76.58	368.4	
9	343	85.15	376.0	
10	384	13.18	52.0	
11	394	13.35	51.4	
12	425	11.91	42.4	
13	446	5.94	20.1	
14	10,380	75.00	10.9	Upper Marker

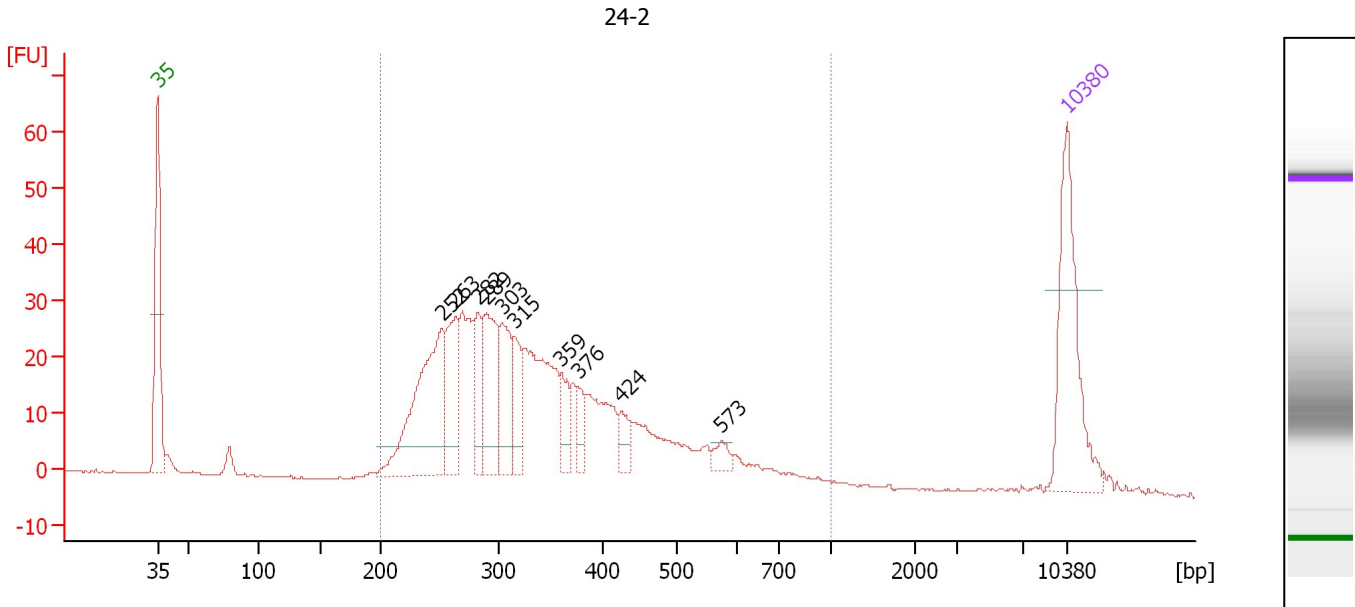
**Region table for sample 8 : 24-1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	362	1,000	803.1	93	33.5	785.55	3,690.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 24-2**

Number of peaks found: 10                      Corr. Area 1: 653.2  
 Noise: 0.2

**Peak table for sample 9 : 24-2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	252	138.87	834.7	
3	263	59.00	339.3	
4	282	37.28	200.2	
5	289	66.82	349.8	
6	303	48.78	243.6	
7	315	32.71	157.6	
8	359	20.79	87.7	
9	376	14.42	58.2	
10	424	14.01	50.1	
11	573	8.25	21.8	
12	10,380	75.00	10.9	Upper Marker

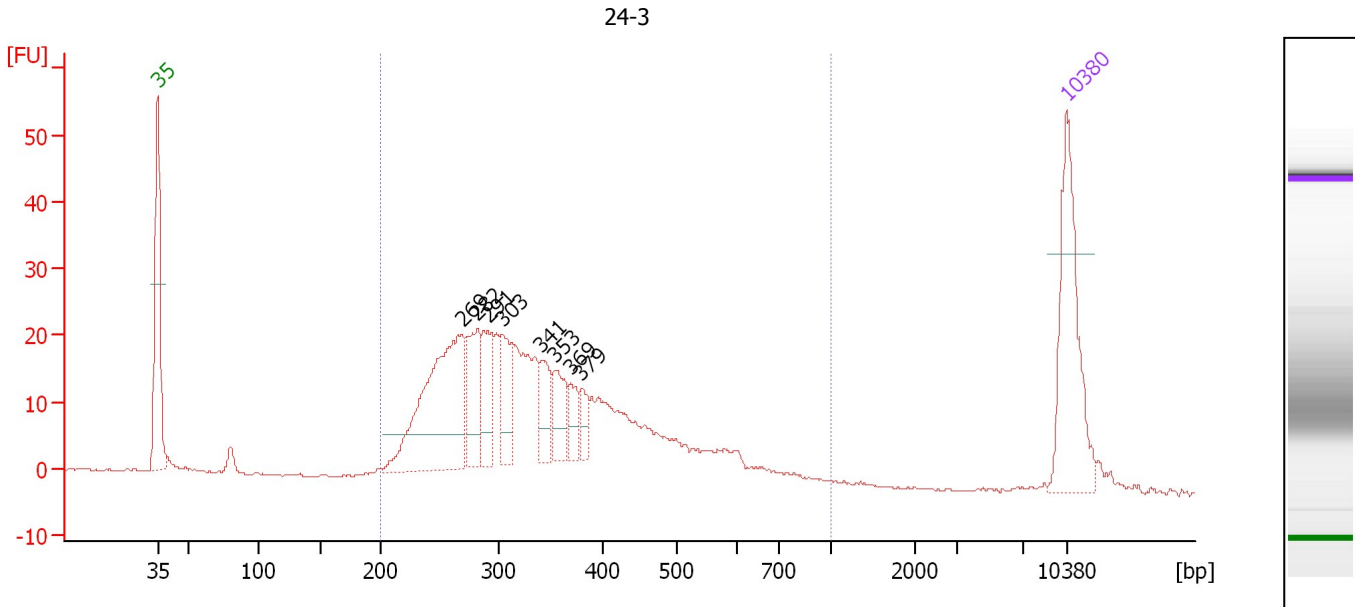
**Region table for sample 9 : 24-2**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	355	1,000	653.2	94	33.8	833.55	3,993.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 24-3**

Number of peaks found: 8                      Corr. Area 1: 501.3  
 Noise: 0.2

**Peak table for sample 10 : 24-3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	269	168.40	949.6	
3	282	52.81	284.0	
4	291	38.95	203.1	
5	303	37.59	188.0	
6	341	28.15	125.1	
7	353	28.44	122.2	
8	369	15.78	64.8	
9	379	13.20	52.8	
10	10,380	75.00	10.9	Upper Marker

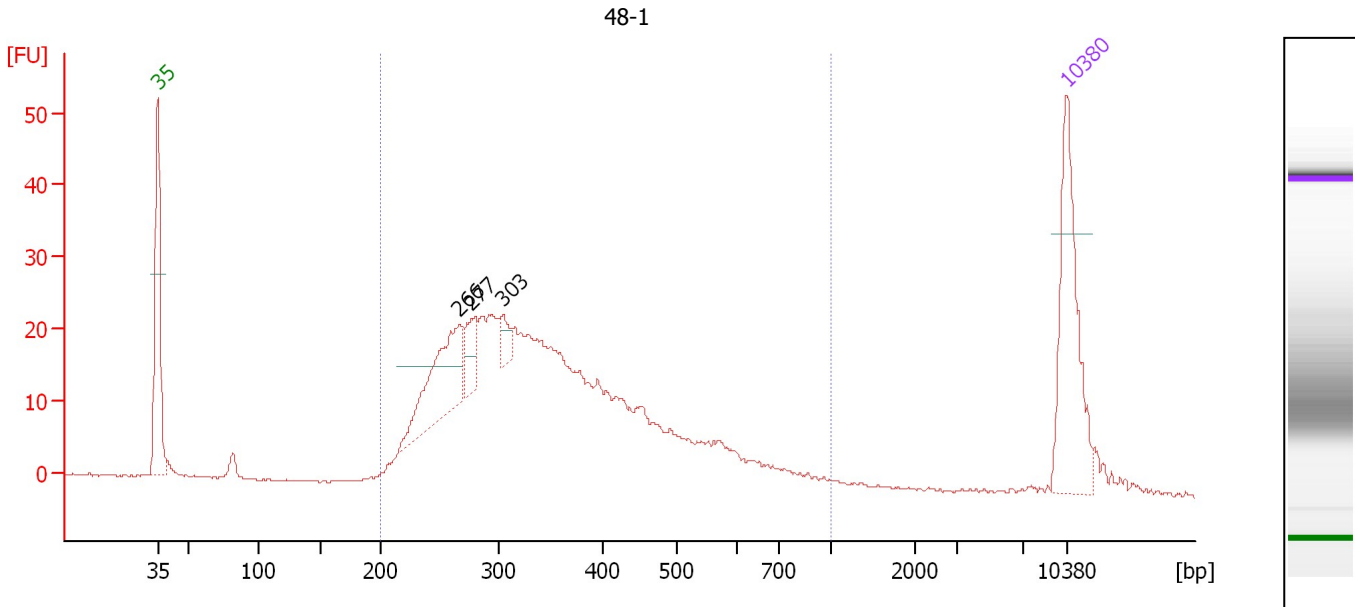
**Region table for sample 10 : 24-3**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	359	1,000	501.3	93	33.0	742.25	3,508.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 48-1**

Number of peaks found: 3                      Corr. Area 1: 538.9  
 Noise: 0.1

**Peak table for sample 11 : 48-1**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	266	86.65	493.1	
3	277	22.53	123.4	
4	303	12.51	62.5	
5	10,380	75.00	10.9	Upper Marker

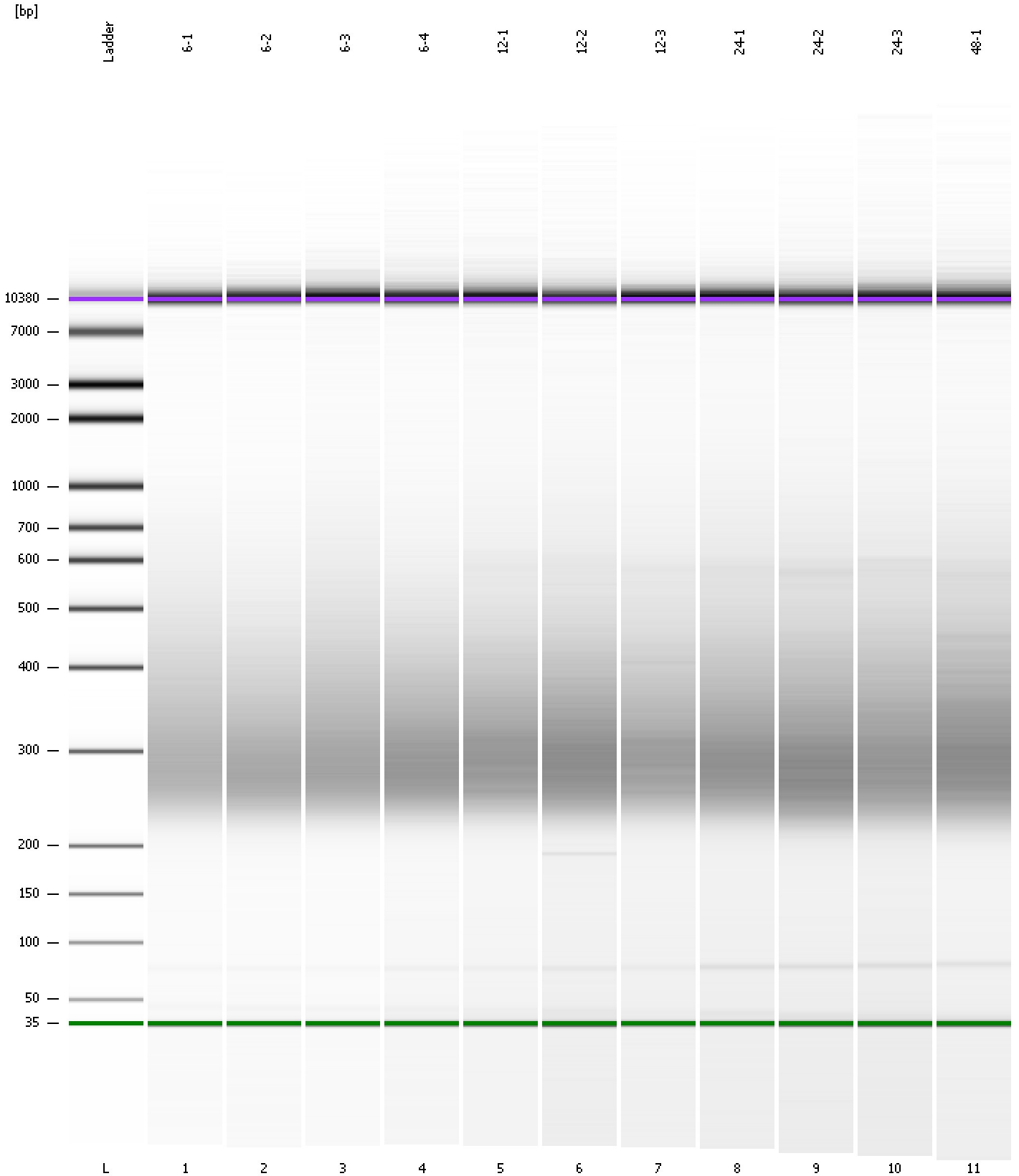
**Region table for sample 11 : 48-1**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	366	1,000	538.9	93	33.8	845.07	3,940.1	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
Modified: 10/10/2014 2:05:37 PM

**Gel Image**



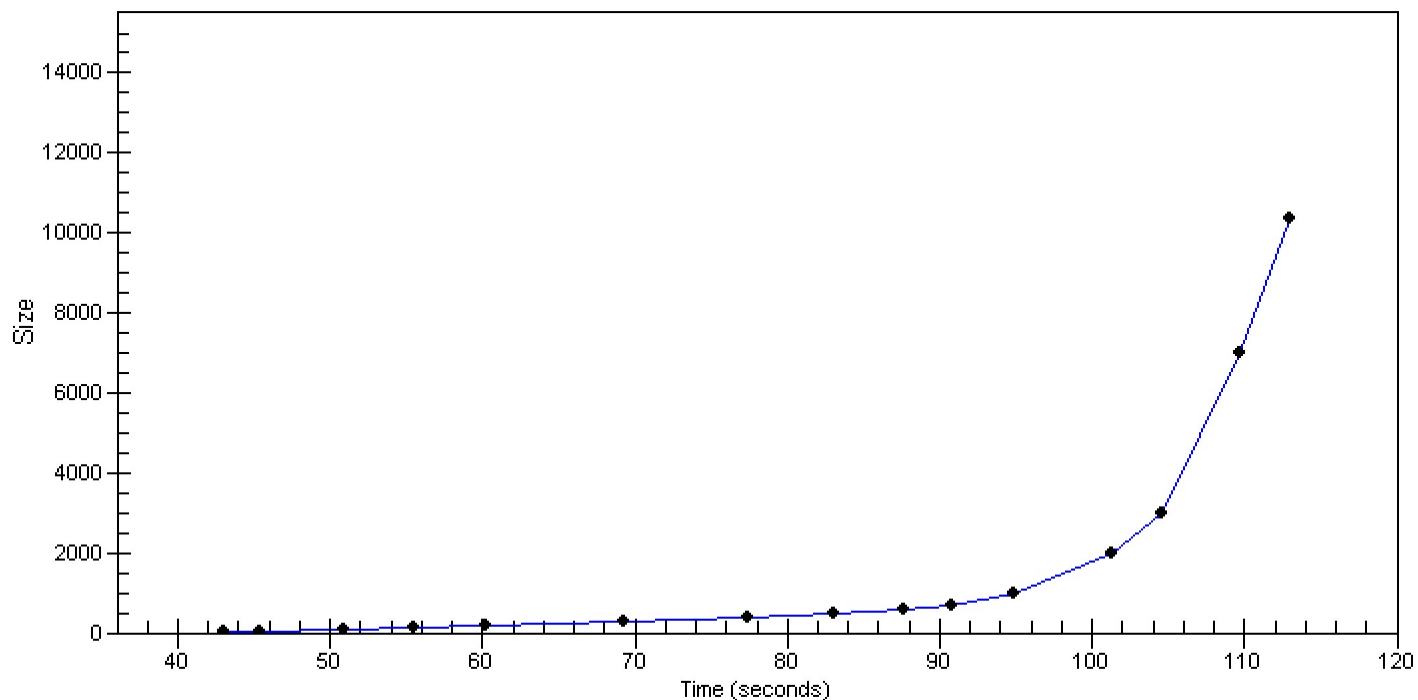


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
Modified: 10/10/2014 2:05:37 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-10-10\2014-10-10\_001.xad

Created: 10/10/2014 1:23:56 PM  
 Modified: 10/10/2014 2:05:37 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		10/10/2014 2:05:15 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-10-10\2014-10-10_001.xad)		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/10/2014 1:24:02 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1