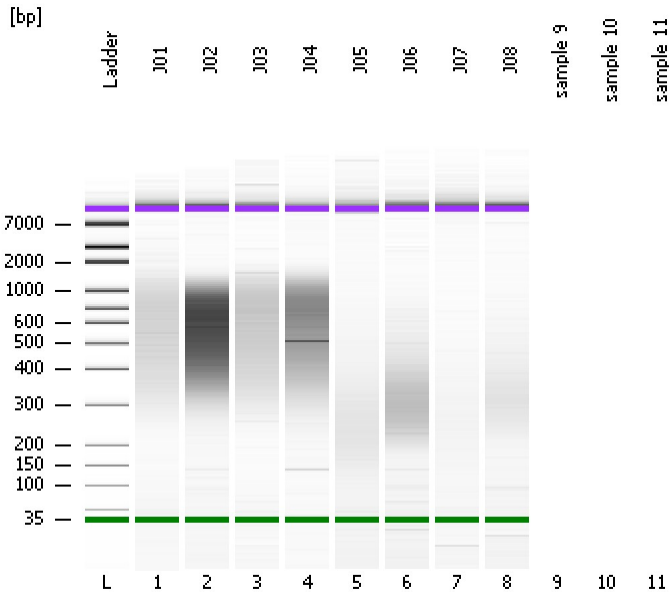


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 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

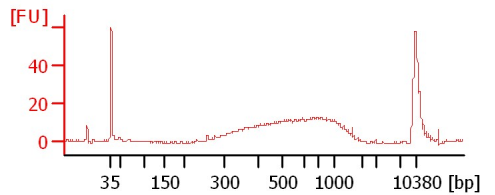
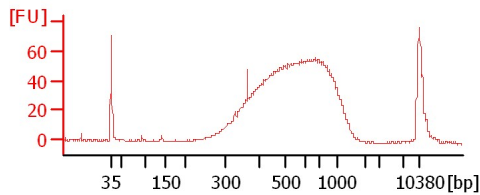
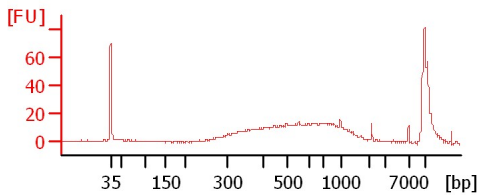
Chip Information:

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

**J01**

**J02**

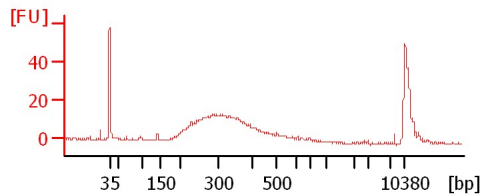
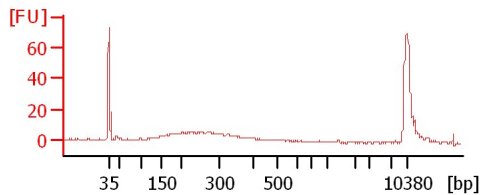
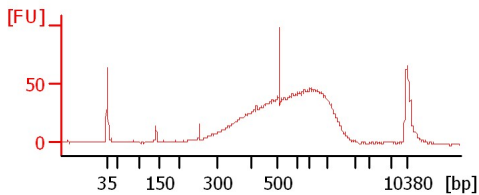
**J03**



**J04**

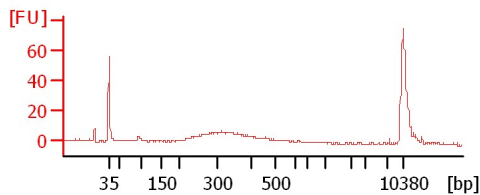
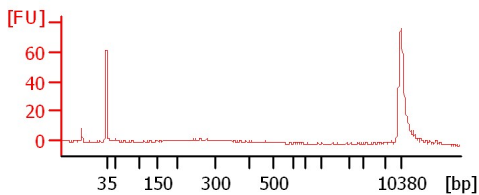
**J05**

**J06**



**J07**

**J08**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
J01		<input type="checkbox"/>	✓			
J02		<input type="checkbox"/>	✓			
J03		<input type="checkbox"/>	✓			
J04		<input type="checkbox"/>	✓			
J05		<input type="checkbox"/>	✓			
J06		<input type="checkbox"/>	✓			
J07		<input type="checkbox"/>	✓			
J08		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>				
sample 10		<input type="checkbox"/>				
sample 11		<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\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 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

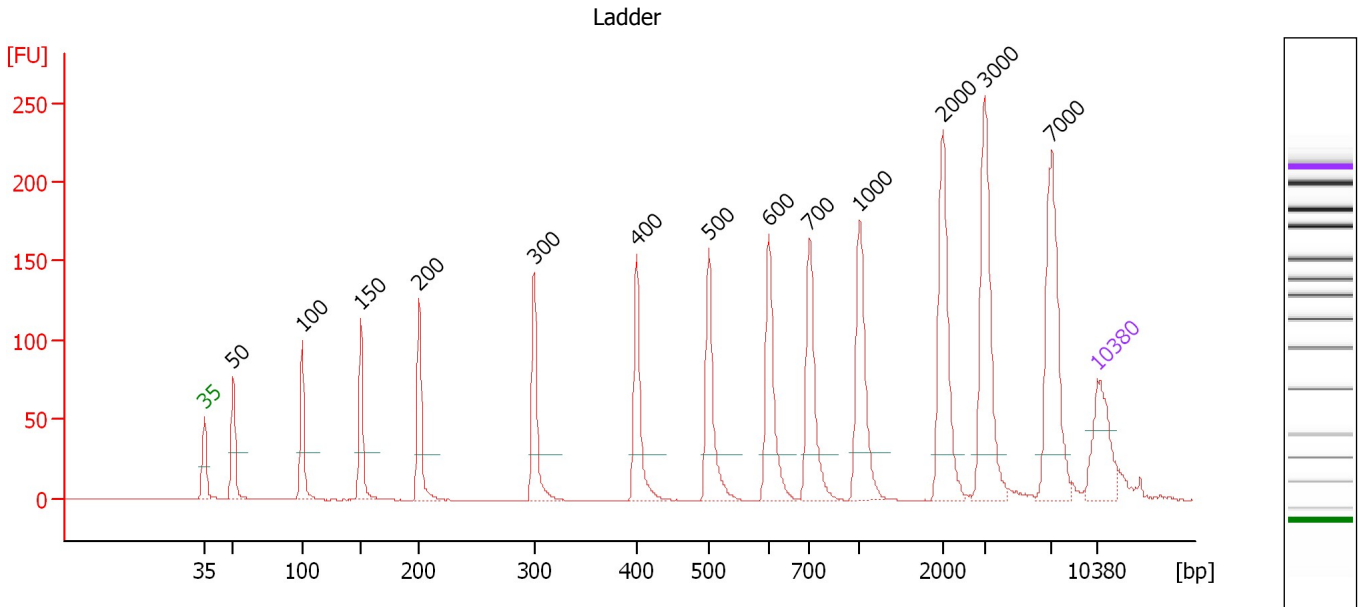
**Ladder**

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\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

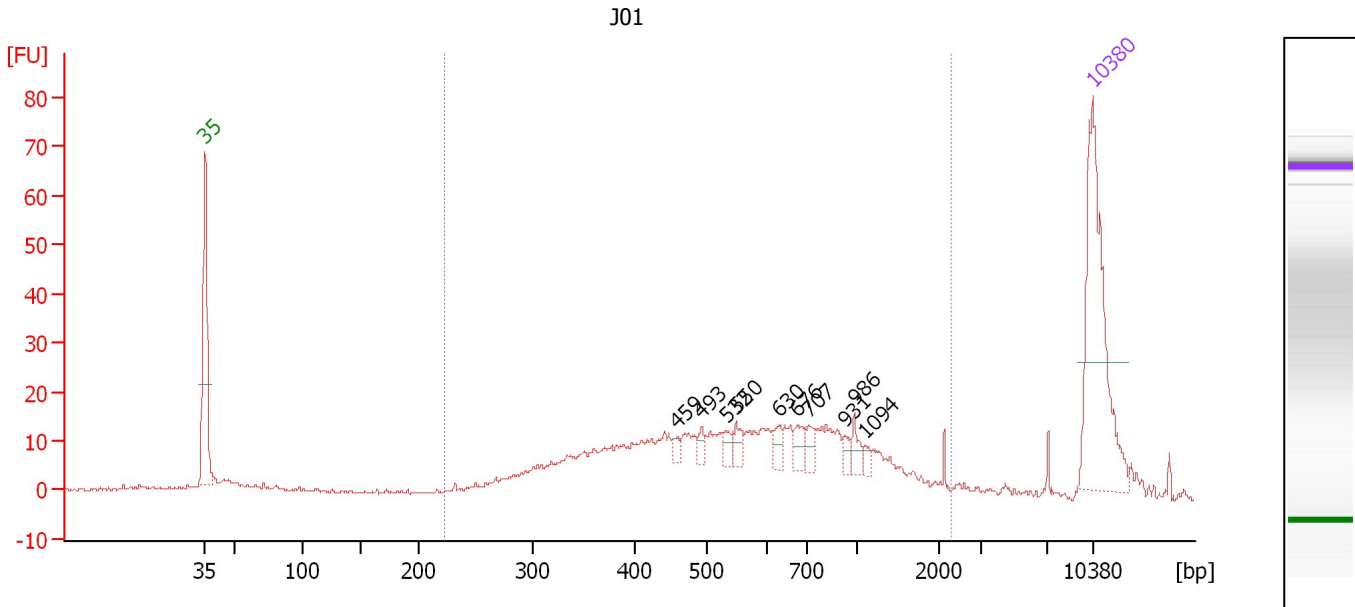
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.26
3	100	150.00	2,272.7	Ladder Peak	50.65
4	150	150.00	1,515.2	Ladder Peak	55.25
5	200	150.00	1,136.4	Ladder Peak	59.81
6	300	150.00	757.6	Ladder Peak	68.84
7	400	150.00	568.2	Ladder Peak	76.87
8	500	150.00	454.5	Ladder Peak	82.56
9	600	150.00	378.8	Ladder Peak	87.28
10	700	150.00	324.7	Ladder Peak	90.46
11	1,000	150.00	227.3	Ladder Peak	94.35
12	2,000	150.00	113.6	Ladder Peak	100.92
13	3,000	150.00	75.8	Ladder Peak	104.18
14	7,000	150.00	32.5	Ladder Peak	109.40
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : J01**

Number of peaks found: 10                      Corr. Area 1: 418.6  
 Noise: 0.3

**Peak table for sample 1 : J01**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	459	3.63	12.0		80.21
3	493	4.83	14.9		82.14
4	532	5.78	16.5		84.08
5	550	7.07	19.5		84.92
6	630	7.14	17.2		88.24
7	676	7.96	17.8		89.71
8	707	6.87	14.7		90.55
9	931	3.90	6.4		93.45
10	986	6.52	10.0		94.17
11	1,094	2.98	4.1		94.96
12	10,380	75.00	10.9	Upper Marker	113.00

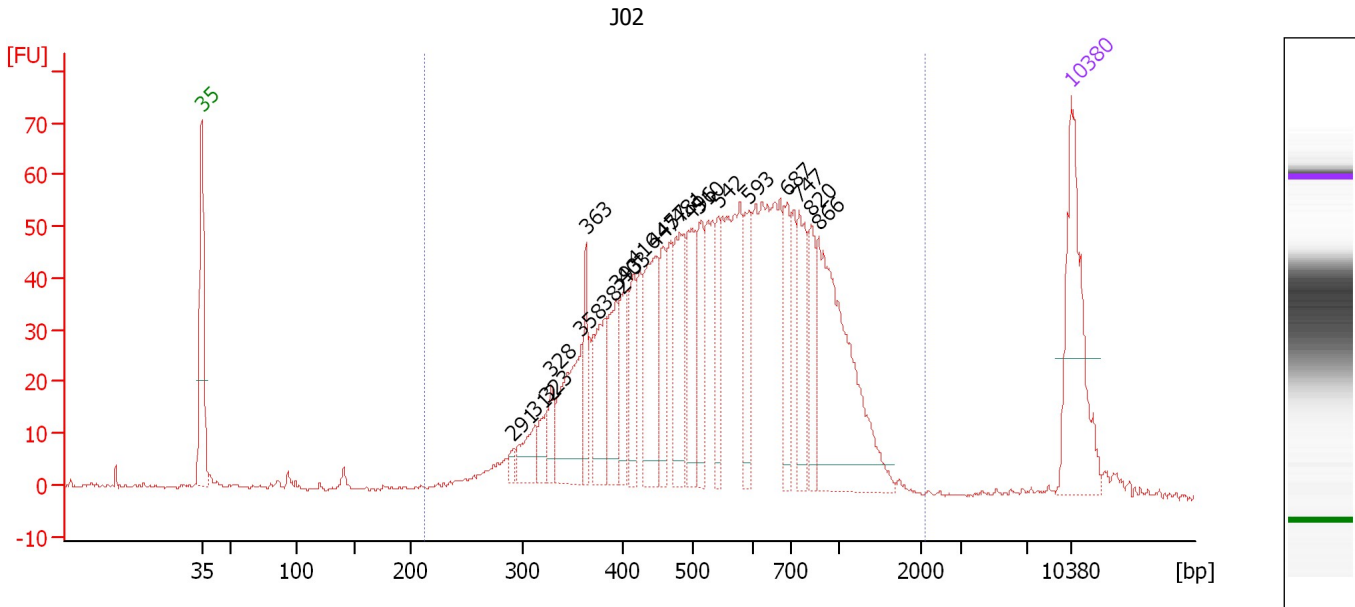
**Region table for sample 1 : J01**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
223	651	2,251	418.6	91	54.5	365.29	1,123.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : J02**

Number of peaks found: 21                      Corr. Area 1: 1,489.7  
 Noise: 0.4


**Peak table for sample 2 : J02**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	291	6.51	33.9		68.06
3	312	24.32	118.0		69.82
4	323	17.26	80.9		70.73
5	328	16.57	76.5		71.11
6	358	71.33	301.7		73.52
7	363	30.45	127.1		73.90
8	382	51.77	205.2		75.45
9	393	41.71	160.6		76.35
10	403	35.57	133.8		77.03
11	416	37.50	136.7		77.76
12	447	72.62	246.3		79.52
13	457	36.74	121.8		80.12
14	481	60.10	189.5		81.45
15	496	52.52	160.3		82.36
16	510	44.17	131.2		83.04
17	542	35.21	98.4		84.55
18	593	38.62	98.7		86.95
19	687	34.23	75.5		90.04
20	747	48.48	98.4		91.07
21	820	33.41	61.8		92.01
22	866	154.72	270.7		92.61
23	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 PM

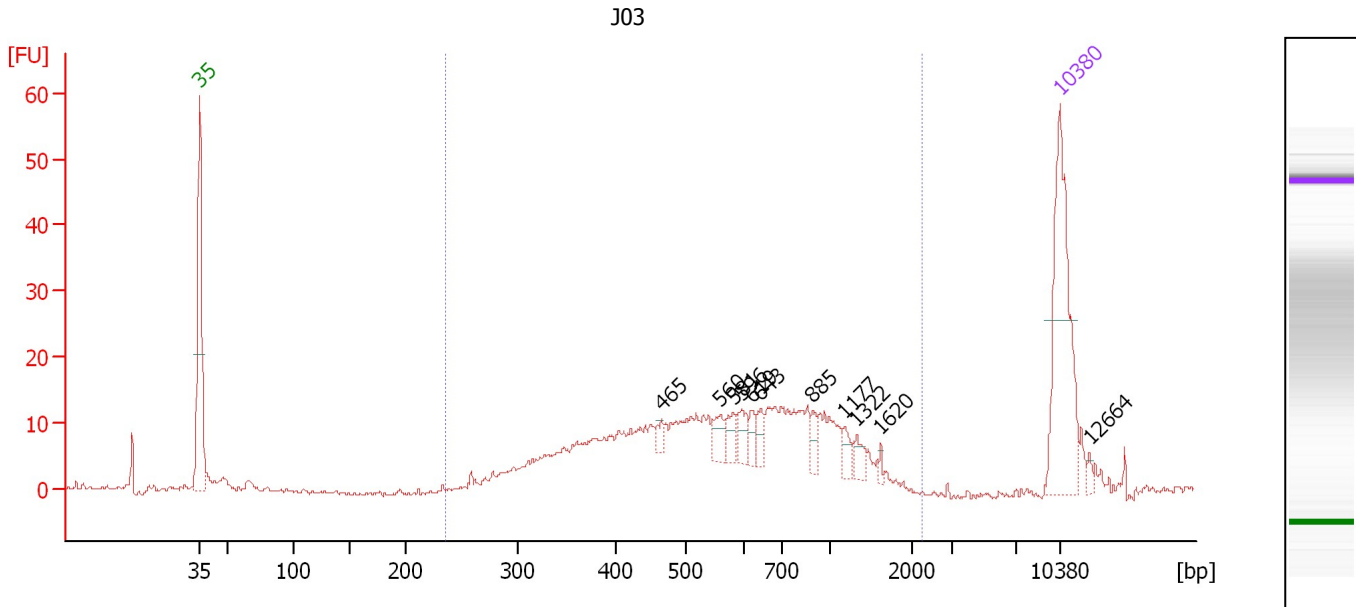
**Electropherogram Summary Continued ...****... Region table for sample 2 :      J02**

<b>From [bp]</b>	<b>Average Size [bp]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Conc. [pg/<math>\mu</math>l]</b>	<b>Molarity [pmol/l]</b>	<b>Co lor</b>
212	597	2,074	1,489.7	97	40.6	1,462.73	4,446.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : J03**

Number of peaks found: 11                      Corr. Area 1: 331.8  
 Noise: 0.3

**Peak table for sample 3 : J03**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	465	6.06	19.7		80.58
3	560	10.90	29.5		85.40
4	581	9.10	23.7		86.40
5	596	10.32	26.2		87.09
6	619	6.88	16.9		87.87
7	643	8.28	19.5		88.65
8	885	7.12	12.2		92.86
9	1,177	6.42	8.3		95.51
10	1,322	6.93	7.9		96.47
11	1,620	2.20	2.1		98.42
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,664	0.00	0.0		115.43

**Region table for sample 3 : J03**

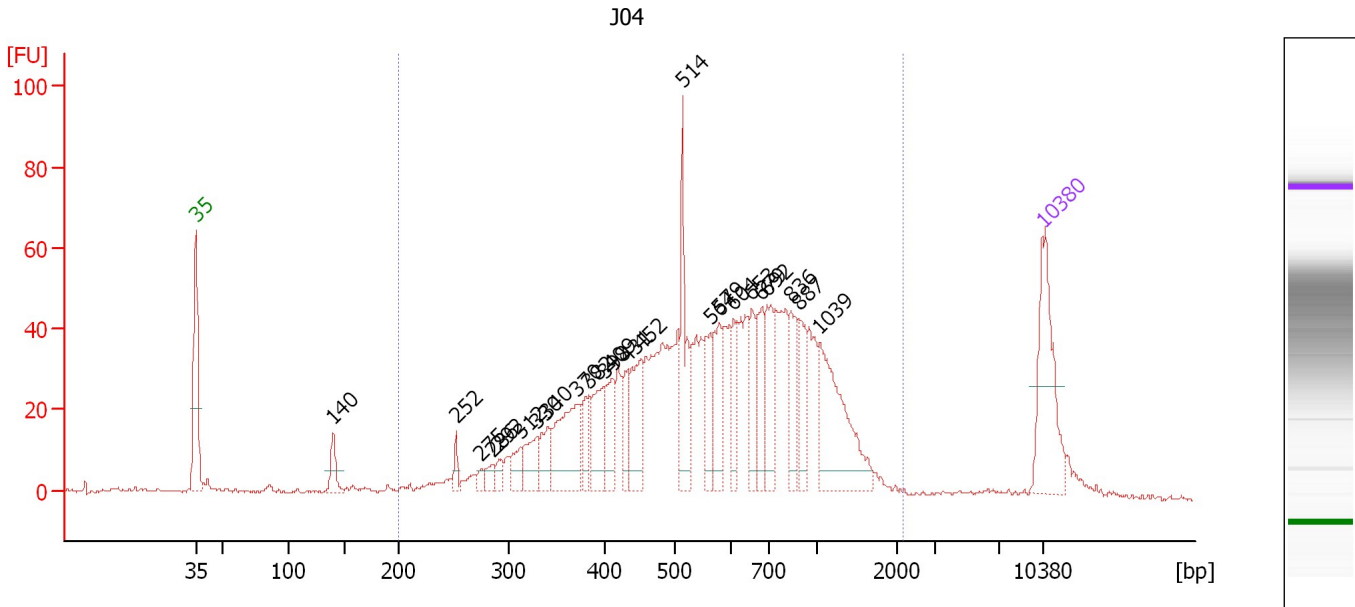
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
235	644	2,243	331.8	94	46.8	441.30	1,310.7	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : J04**

Number of peaks found: 24                      Corr. Area 1: 1,240.0  
 Noise: 0.4

**Peak table for sample 4 : J04**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	140	24.51	265.2		54.34
3	252	10.94	65.8		64.52
4	275	7.49	41.2		66.60
5	286	10.43	55.2		67.61
6	292	10.43	54.2		68.10
7	312	21.39	103.8		69.82
8	330	33.35	153.2		71.23
9	340	27.22	121.2		72.07
10	370	90.31	370.0		74.45
11	382	23.62	93.6		75.46
12	398	47.78	181.7		76.74
13	409	35.08	130.1		77.36
14	431	28.45	100.0		78.64
15	452	56.99	191.0		79.83
16	514	73.92	217.8		83.23
17	564	36.81	99.0		85.56
18	579	45.26	118.5		86.27
19	604	35.43	88.8		87.42
20	653	37.30	86.6		88.96
21	679	40.58	90.5		89.80
22	692	47.03	103.0		90.20
23	836	39.13	70.9		92.22
24	887	38.64	66.0		92.89
25	1,039	106.03	154.6		94.61


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...****... Peak table for sample 4 : J04**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	10,380	75.00	10.9	Upper Marker	113.00

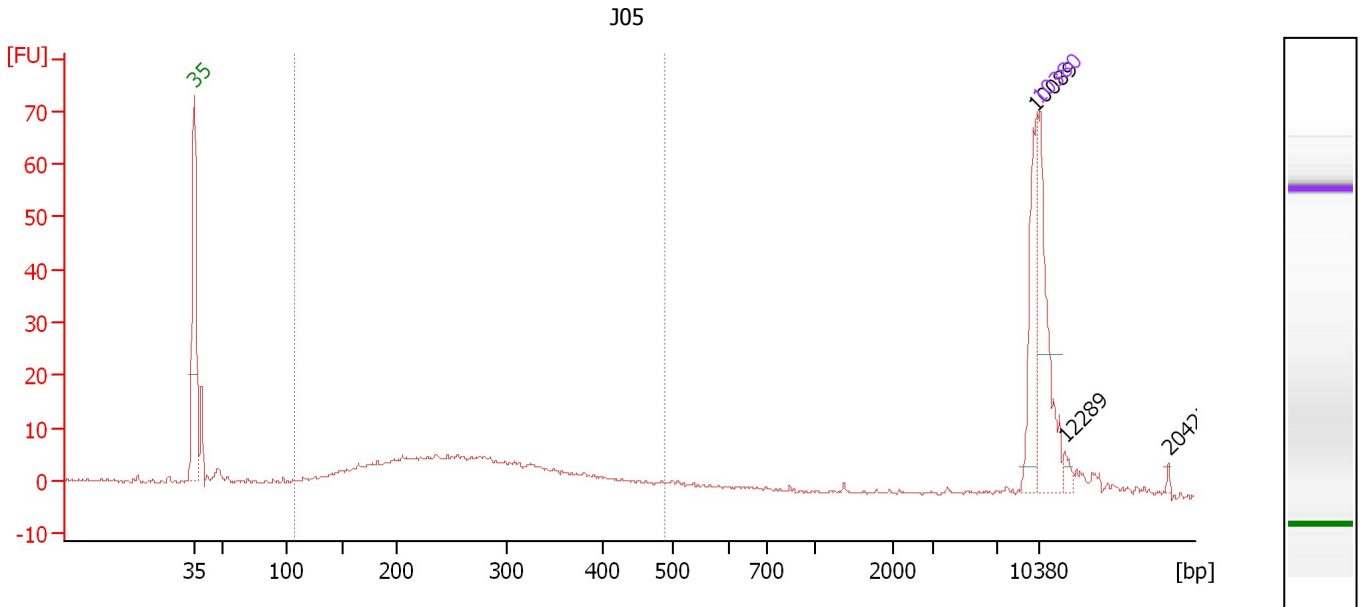
**Region table for sample 4 : J04**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Color
200	642	2,171	1,240.0	94	46.9	1,507.30	4,534.2	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : J05**

Number of peaks found: 3                      Corr. Area 1: 170.4  
 Noise: 0.2

**Peak table for sample 5 : J05**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,089	47.60	7.1		112.69
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,289	0.00	0.0		115.03
5	20,425	0.00	0.0		123.69

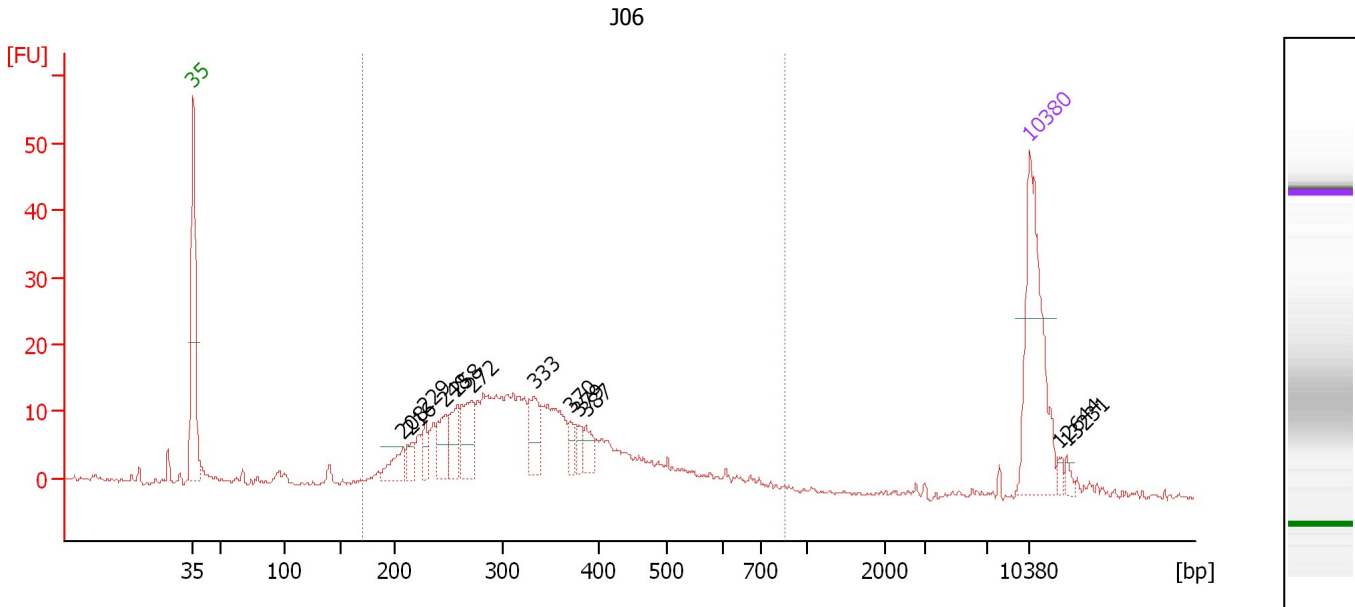
**Region table for sample 5 : J05**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
107	268	490	170.4	63	30.4	315.45	2,062.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : J06**

Number of peaks found: 12                      Corr. Area 1: 330.4  
 Noise: 0.4

**Peak table for sample 6 : J06**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	208	19.15	139.5		60.53
3	216	11.66	81.8		61.25
4	229	14.21	94.1		62.41
5	248	24.86	152.2		64.10
6	258	24.77	145.3		65.08
7	272	35.11	195.8		66.29
8	333	28.23	128.4		71.51
9	370	9.11	37.3		74.50
10	379	8.31	33.2		75.21
11	387	12.08	47.3		75.84
12	10,380	75.00	10.9	Upper Marker	113.00
13	12,644	0.00	0.0		115.41
14	13,231	0.00	0.0		116.03

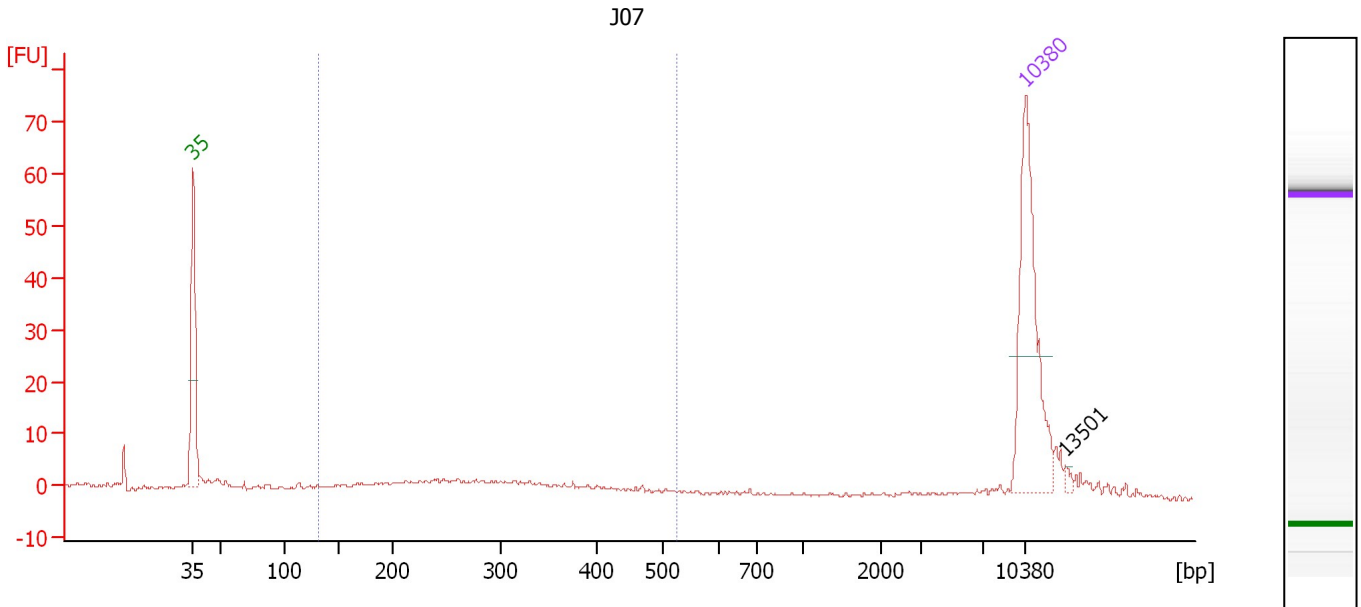
**Region table for sample 6 : J06**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
172	339	852	330.4	93	29.5	518.67	2,569.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : J07**

Number of peaks found: 1                      Corr. Area 1: 56.0  
 Noise: 0.3

**Peak table for sample 7 : J07**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00
3	13,501	0.00	0.0		116.32

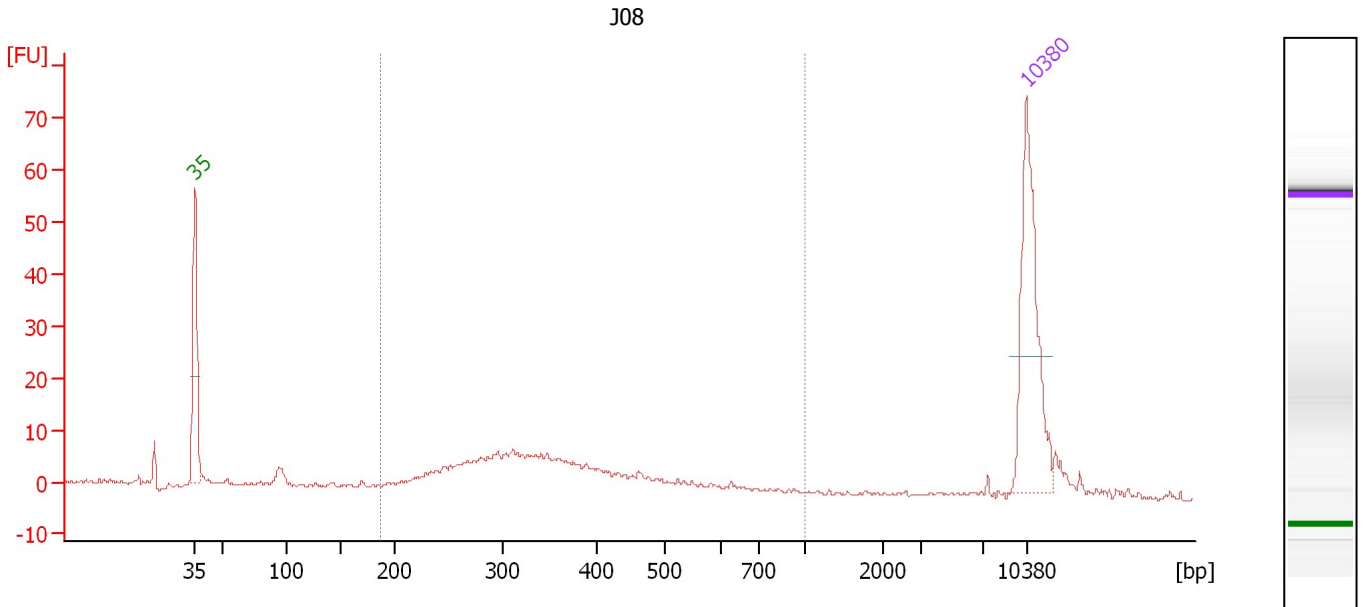
**Region table for sample 7 : J07**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
131	294	523	56.0	51	29.6	62.57	369.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : J08**

Number of peaks found: 0                      Corr. Area 1: 163.2  
 Noise: 0.4

**Peak table for sample 8 : J08**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	10,380	75.00	10.9	Upper Marker	113.00

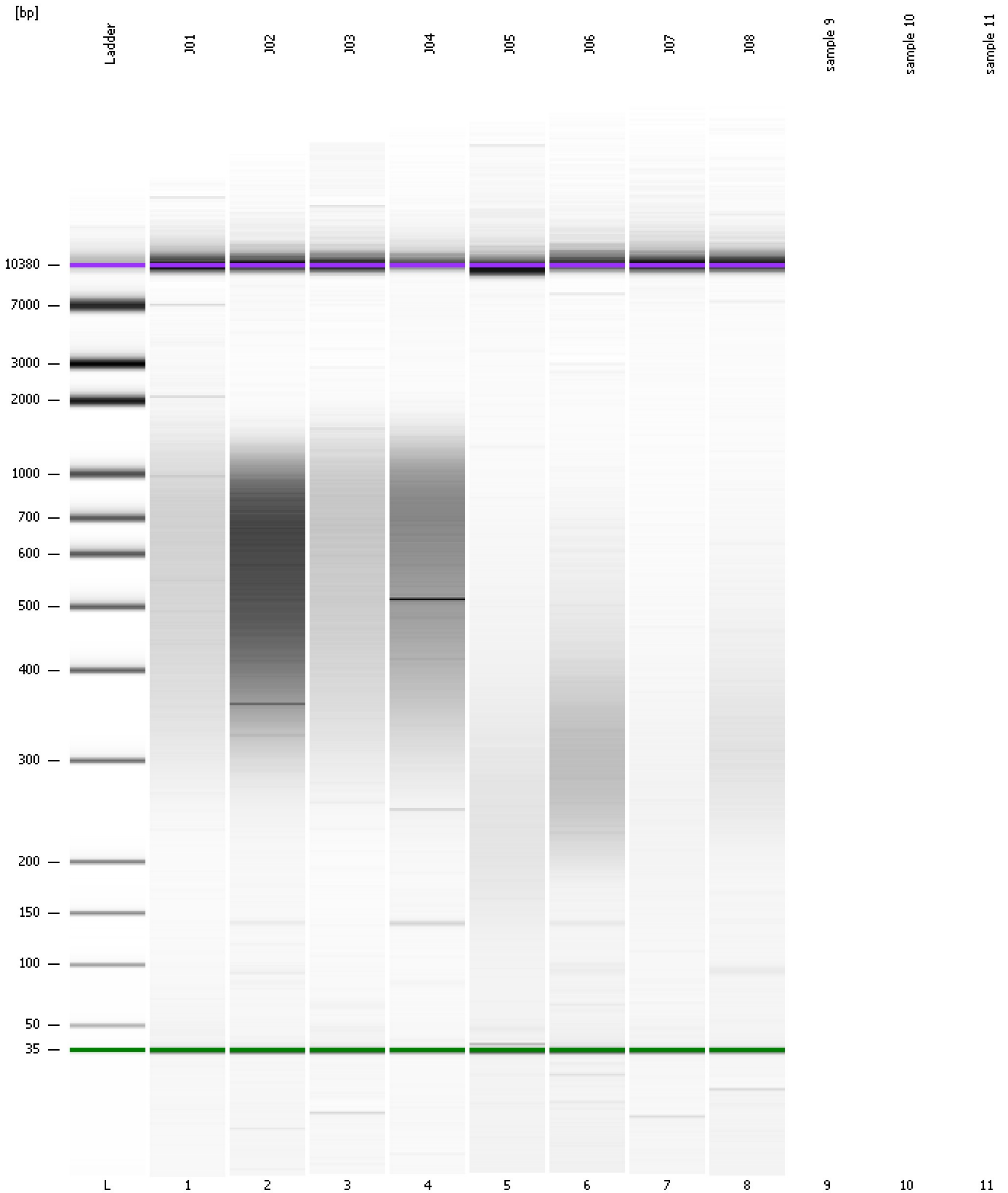
**Region table for sample 8 : J08**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
187	367	1,000	163.2	76	32.7	182.30	845.8	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
Modified: 12/16/2014 12:12:44 PM

**Invalid Samples**

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-12-16\2014-12-16\_002.xad

Created: 12/16/2014 11:31:57 AM  
 Modified: 12/16/2014 12:12:44 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 9)		Instrument	Run		12/16/2014 12:04:39 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-12-16\2014-12-16_002.xad)		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/16/2014 11:32:02 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1