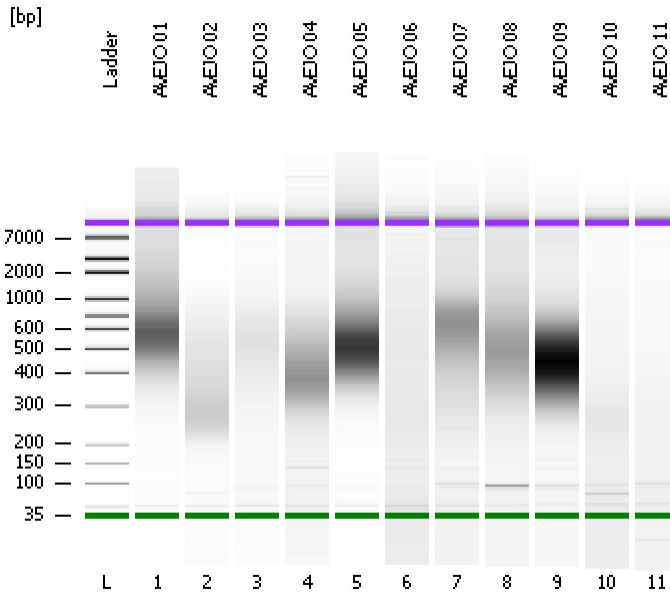


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
Modified: 11/13/2014 9:48:03 AM

**Electrophoresis File Run Summary**



Instrument Information:

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

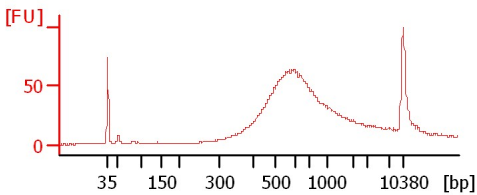
Assay Information:

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

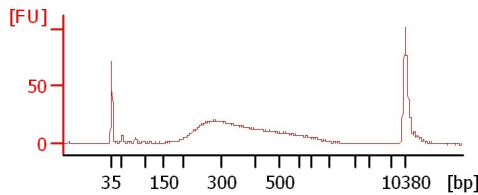
Chip Information:

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

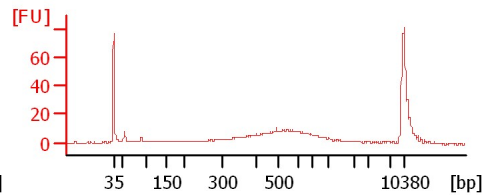
**AVEJO 01**



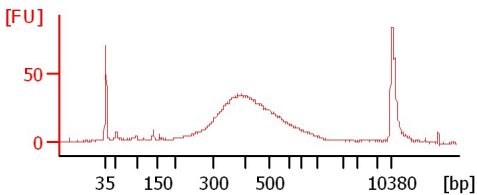
**AVEJO 02**



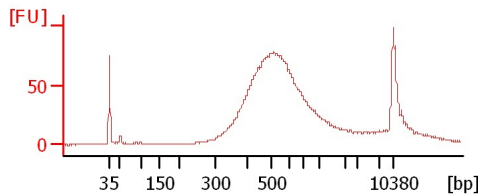
**AVEJO 03**



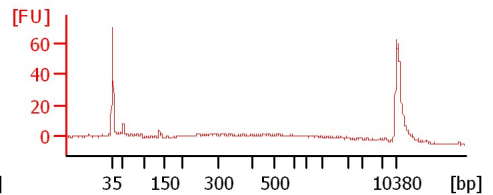
**AVEJO 04**



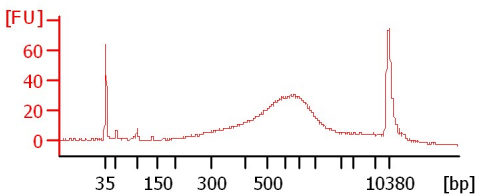
**AVEJO 05**



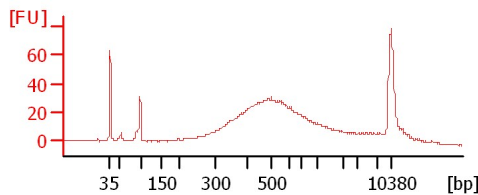
**AVEJO 06**



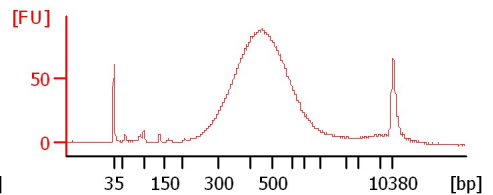
**AVEJO 07**



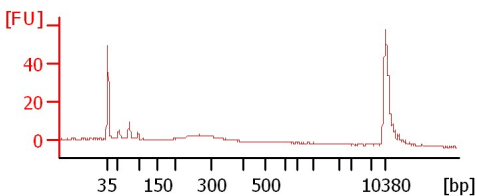
**AVEJO 08**



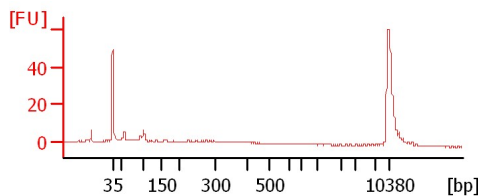
**AVEJO 09**



**AVEJO 10**



**AVEJO 11**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
AVEJO 01		<input type="checkbox"/>	✓			
AVEJO 02		<input type="checkbox"/>	✓			
AVEJO 03		<input type="checkbox"/>	✓			
AVEJO 04		<input type="checkbox"/>	✓			
AVEJO 05		<input type="checkbox"/>	✓			
AVEJO 06		<input type="checkbox"/>	✓			
AVEJO 07		<input type="checkbox"/>	✓			
AVEJO 08		<input type="checkbox"/>	✓			
AVEJO 09		<input type="checkbox"/>	✓			
AVEJO 10		<input type="checkbox"/>	✓			
AVEJO 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\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
Modified: 11/13/2014 9:48:03 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

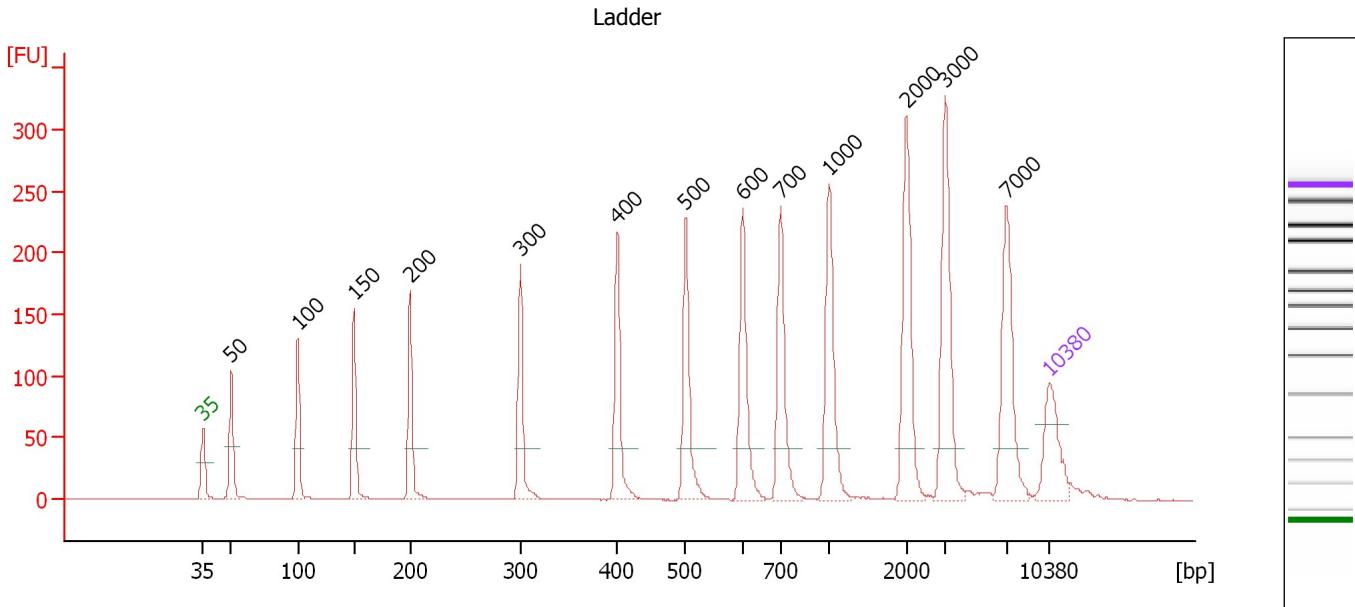
**Ladder**

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\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

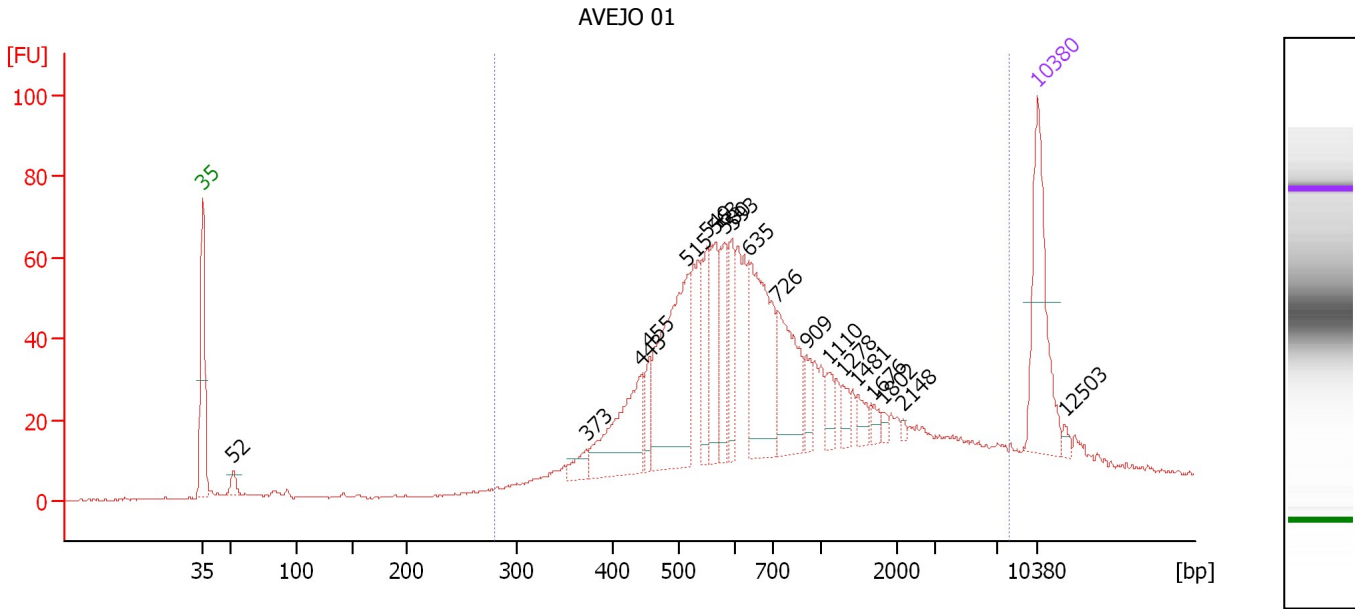
**Peak table for Ladder**

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\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : AVEJO 01**

Number of peaks found: 19                      Corr. Area 1: 1,185.7  
 Noise: 0.2

**Peak table for sample 1 : AVEJO 01**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	11.18	326.3	
3	373	14.31	58.2	
4	443	88.17	301.3	
5	455	20.43	68.0	
6	515	155.24	457.1	
7	549	41.53	114.7	
8	563	50.30	135.4	
9	580	43.55	113.8	
10	593	34.74	88.7	
11	635	109.49	261.1	
12	726	75.21	157.1	
13	909	17.22	28.7	
14	1,110	13.56	18.5	
15	1,278	9.94	11.8	
16	1,481	9.80	10.0	
17	1,676	5.74	5.2	
18	1,802	3.37	2.8	
19	2,148	1.97	1.4	
20	10,380	75.00	10.9	Upper Marker
21	12,503	0.00	0.0	

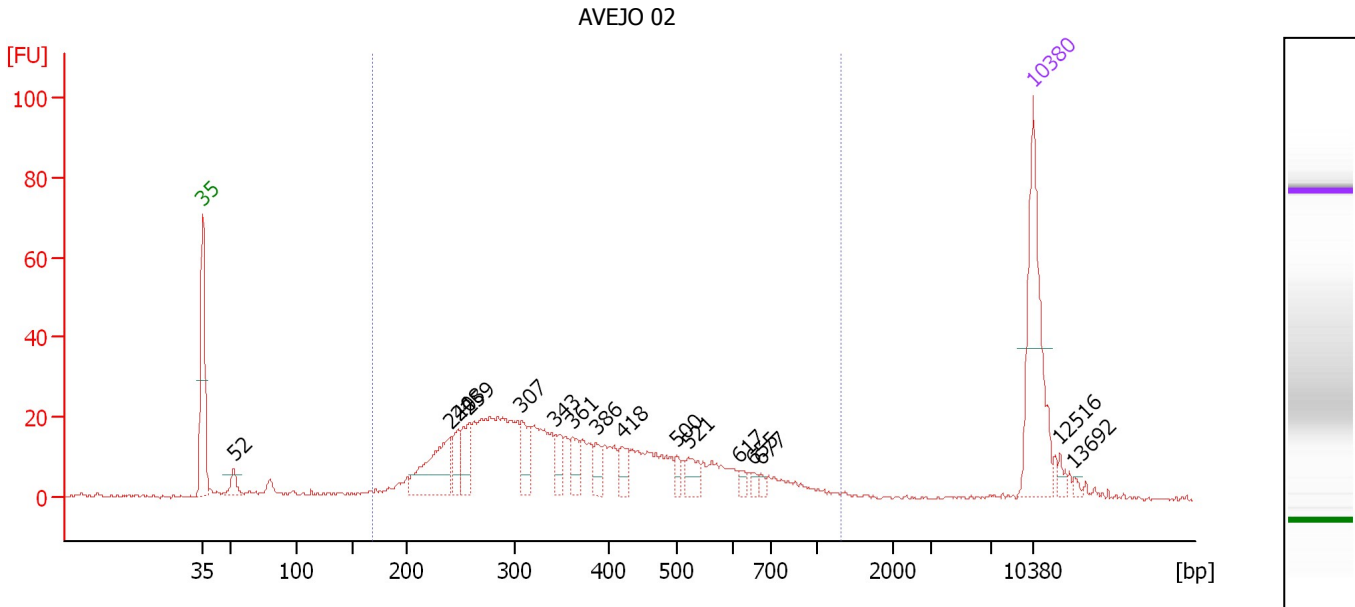
**Region table for sample 1 : AVEJO 01**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
280	1,028	7,952	1,185.7	96	100.0	1,129.60	2,765.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : AVEJO 02**

Number of peaks found: 16      Corr. Area 1: 560.2  
 Noise: 0.4

**Peak table for sample 2 : AVEJO 02**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	13.55	391.6	
3	240	62.00	390.8	
4	248	18.49	113.0	
5	259	26.91	157.7	
6	307	25.85	127.5	
7	343	16.10	71.1	
8	361	16.31	68.4	
9	386	12.38	48.6	
10	418	14.50	52.5	
11	500	7.37	22.4	
12	521	13.95	40.6	
13	617	5.18	12.7	
14	655	3.92	9.1	
15	677	3.56	8.0	
16	10,380	75.00	10.9	Upper Marker
17	12,516	0.00	0.0	
18	13,692	0.00	0.0	

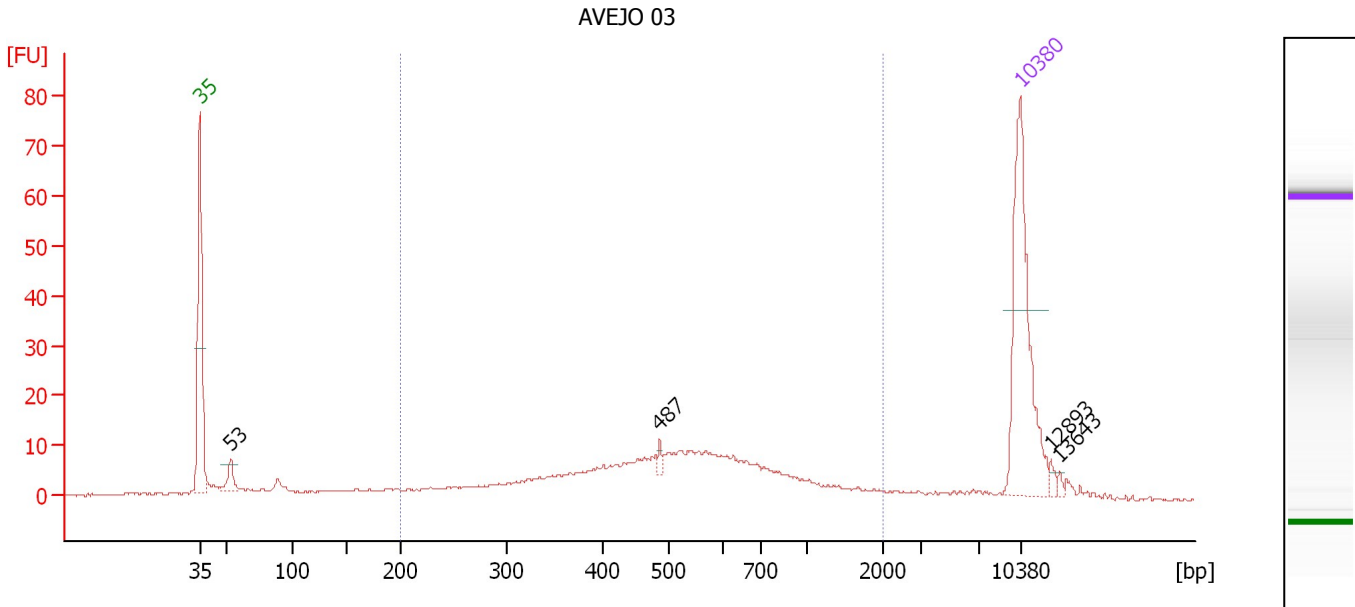
**Region table for sample 2 : AVEJO 02**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
170	384	1,317	560.2	91	39.6	594.03	2,778.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : AVEJO 03**

Number of peaks found: 4                      Corr. Area 1: 245.3  
 Noise: 0.2

**Peak table for sample 3 : AVEJO 03**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	12.52	359.8	
3	487	3.56	11.1	
4	10,380	75.00	10.9	Upper Marker
5	12,893	0.00	0.0	
6	13,643	0.00	0.0	

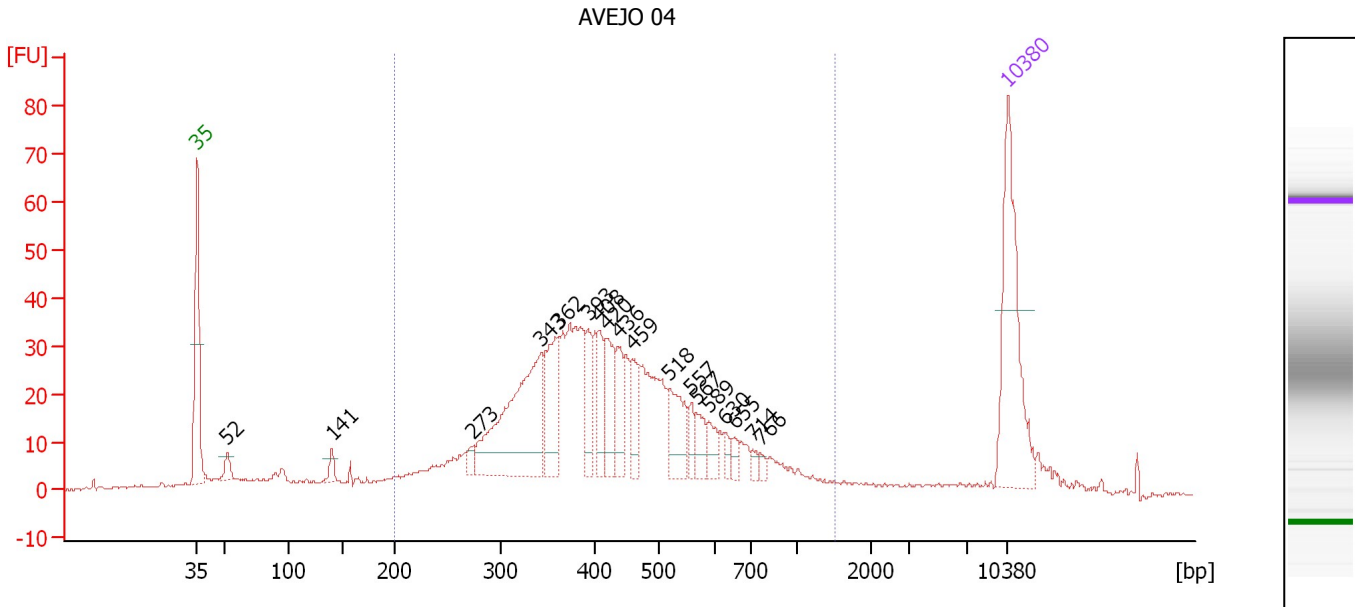
**Region table for sample 3 : AVEJO 03**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	576	1,998	245.3	73	52.8	237.98	815.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : AVEJO 04**

Number of peaks found: 18      Corr. Area 1: 805.8  
 Noise: 0.2

**Peak table for sample 4 : AVEJO 04**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	52	9.88	286.9	
3	141	8.13	87.6	
4	273	5.80	32.1	
5	343	129.83	573.7	
6	362	52.34	219.2	
7	393	23.99	92.4	
8	408	23.04	85.5	
9	420	34.69	125.2	
10	436	24.82	86.2	
11	459	18.10	59.7	
12	518	33.91	99.2	
13	557	10.50	28.5	
14	567	12.94	34.6	
15	589	11.24	28.9	
16	630	6.13	14.8	
17	655	5.35	12.4	
18	714	3.96	8.4	
19	766	3.36	6.7	
20	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : AVEJO 04**

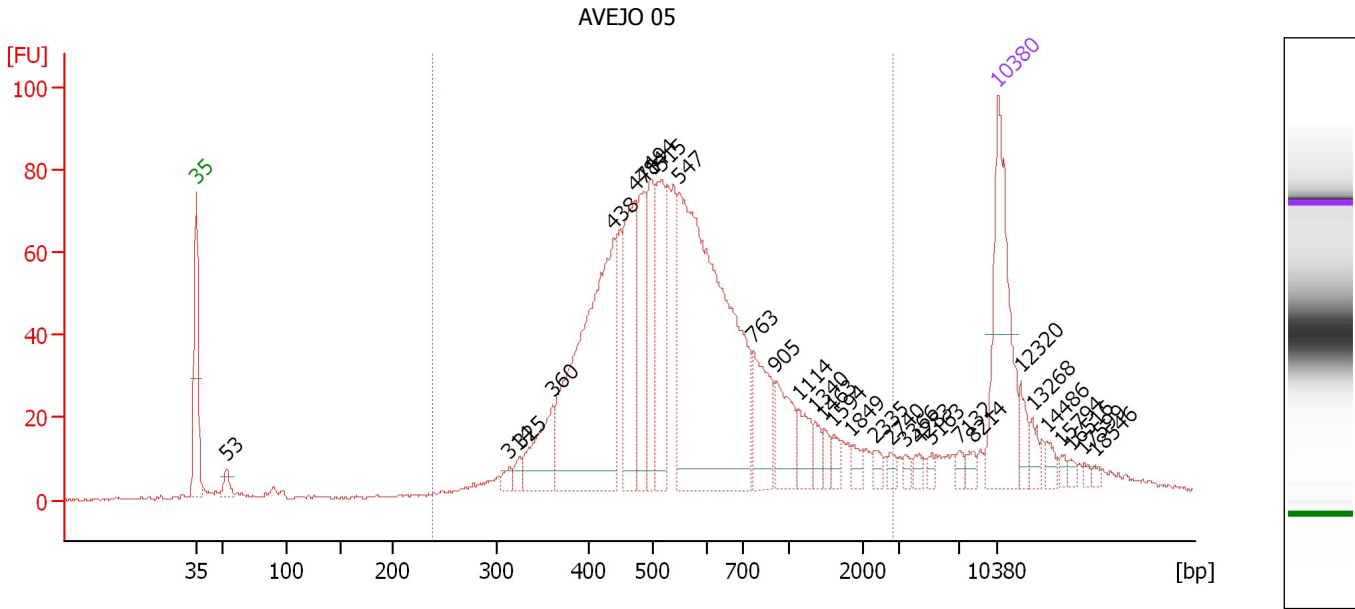
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	448	1,519	805.8	84	37.4	812.34	3,158.5	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : AVEJO 05**

Number of peaks found: 31                      Corr. Area 1: 1,508.4  
 Noise: 0.4

**Peak table for sample 5 : AVEJO 05**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	10.64	305.1	
3	314	6.42	31.0	
4	325	7.25	33.8	
5	360	44.67	187.9	
6	438	227.79	787.9	
7	471	81.86	263.3	
8	484	53.28	166.7	
9	494	54.56	167.3	
10	515	66.89	197.0	
11	547	314.35	870.6	
12	763	45.45	90.3	
13	905	34.82	58.3	
14	1,114	17.49	23.8	
15	1,340	8.71	9.9	
16	1,463	5.92	6.1	
17	1,594	6.35	6.0	
18	1,849	6.31	5.2	
19	2,335	4.85	3.1	
20	2,740	3.81	2.1	
21	3,366	3.20	1.4	
22	4,283	4.25	1.5	
23	5,163	3.53	1.0	
24	7,132	4.01	0.9	
25	8,214	4.32	0.8	
26	10,380	75.00	10.9	Upper Marker


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...****... Peak table for sample 5 : AVEJO 05**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	12,320	0.00	0.0	
28	13,268	0.00	0.0	
29	14,486	0.00	0.0	
30	15,794	0.00	0.0	
31	16,516	0.00	0.0	
32	17,599	0.00	0.0	
33	18,546	0.00	0.0	

**Region table for sample 5 : AVEJO 05**

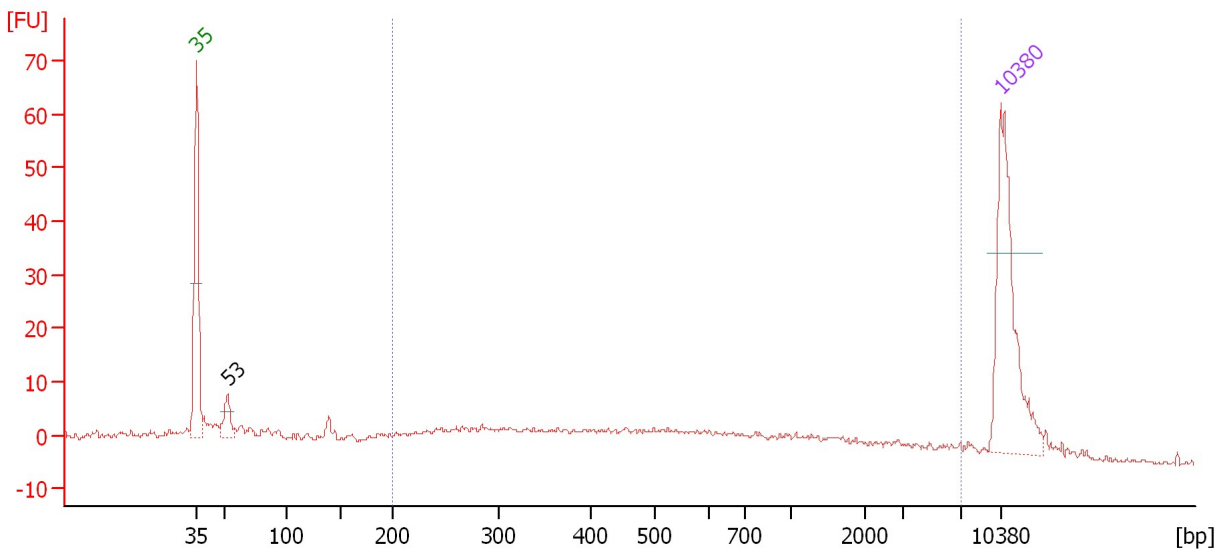
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
239	642	2,829	1,508.4	89	59.6	1,161.52	3,420.3	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**

AVEJO 06



**Overall Results for sample 6 : AVEJO 06**

Number of peaks found: 1                      Corr. Area 1: 184.4  
 Noise: 0.5

**Peak table for sample 6 : AVEJO 06**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	19.27	548.9	
3	10,380	75.00	10.9	Upper Marker

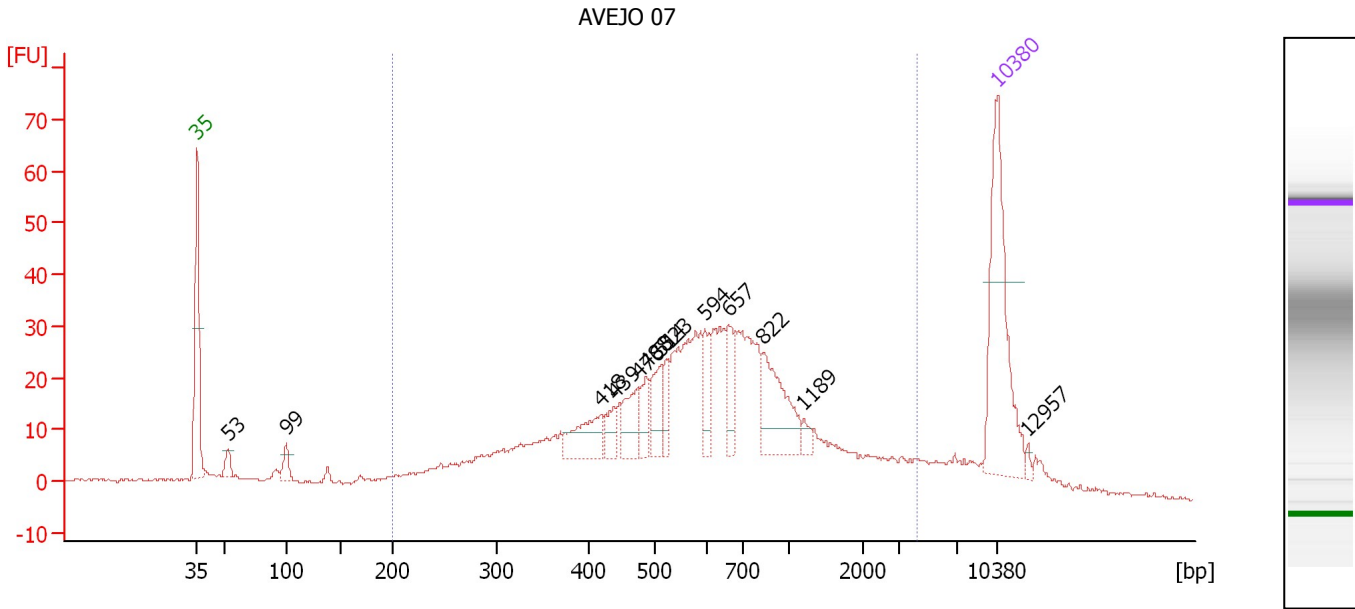
**Region table for sample 6 : AVEJO 06**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	1,018	7,039	184.4	67	100.0	192.19	687.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : AVEJO 07**

Number of peaks found: 13                      Corr. Area 1: 770.9  
 Noise: 0.2

**Peak table for sample 7 : AVEJO 07**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	53	9.54	271.2	
3	99	11.77	179.5	
4	418	30.62	111.0	
5	439	12.71	43.8	
6	476	22.79	72.6	
7	488	16.18	50.2	
8	514	21.79	64.2	
9	523	13.53	39.2	
10	594	17.98	45.8	
11	657	19.79	45.7	
12	822	45.88	84.6	
13	1,189	4.38	5.6	
14	10,380	75.00	10.9	Upper Marker
15	12,957	0.00	0.0	

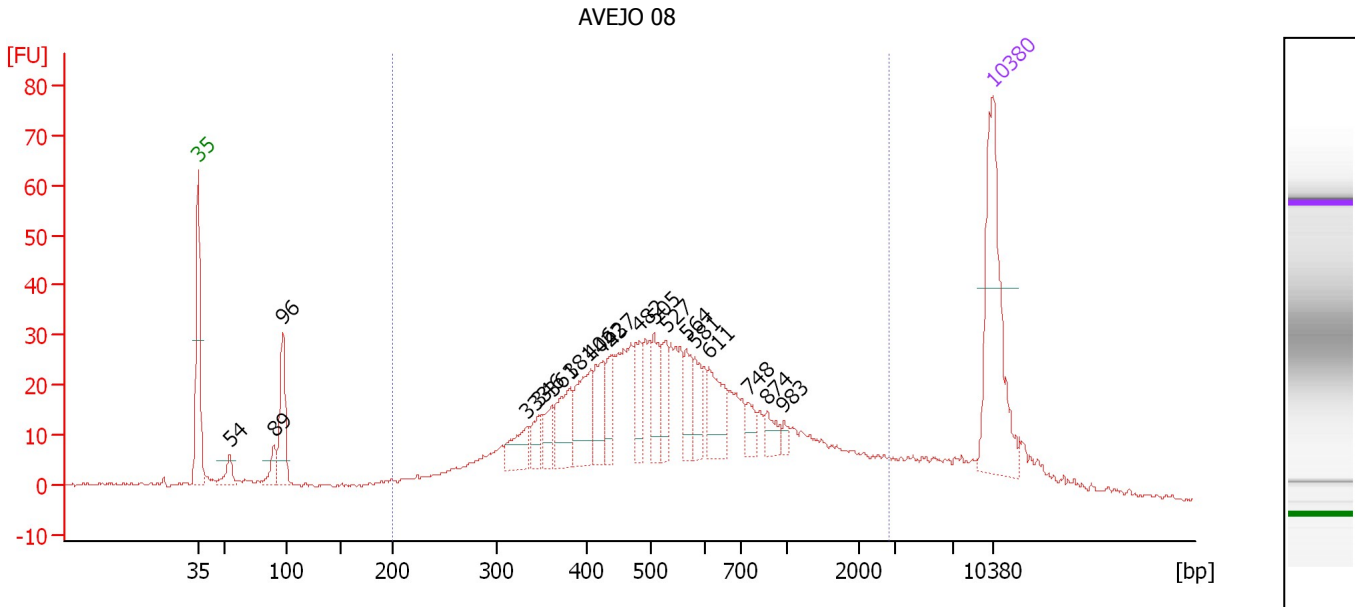
**Region table for sample 7 : AVEJO 07**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	764	4,139	770.9	86	76.9	747.51	2,229.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : AVEJO 08**

Number of peaks found: 19                      Corr. Area 1: 822.1  
 Noise: 0.3

**Peak table for sample 8 : AVEJO 08**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	13.68	384.4	
3	89	14.72	249.8	
4	96	51.91	815.0	
5	333	23.17	105.3	
6	346	14.14	61.9	
7	361	13.90	58.3	
8	381	32.98	131.1	
9	406	39.72	148.3	
10	422	25.75	92.5	
11	437	19.28	66.9	
12	482	22.27	70.1	
13	505	23.34	70.1	
14	527	19.48	56.0	
15	564	19.76	53.0	
16	581	16.76	43.7	
17	611	28.90	71.7	
18	748	9.77	19.8	
19	874	10.03	17.4	
20	983	3.75	5.8	
21	10,380	75.00	10.9	Upper Marker

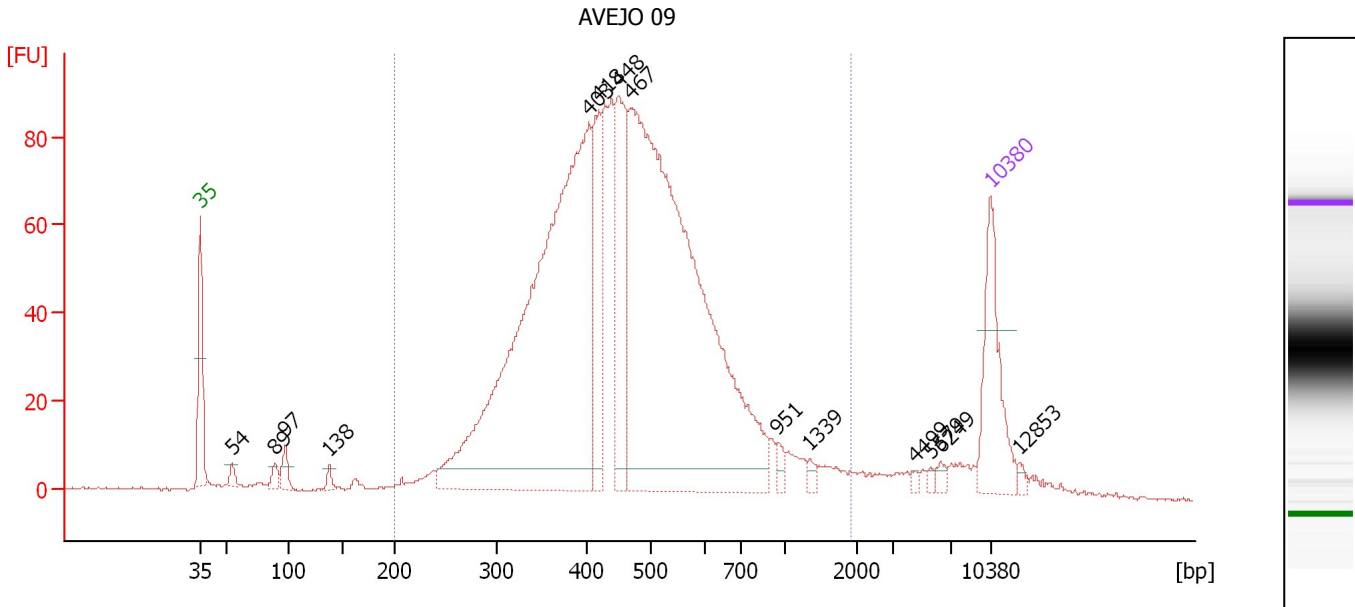
**Region table for sample 8 : AVEJO 08**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	662	2,800	822.1	82	68.8	799.87	2,565.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : AVEJO 09**

Number of peaks found: 14                      Corr. Area 1: 1,914.5  
 Noise: 0.3

**Peak table for sample 9 : AVEJO 09**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	9.95	276.7	
3	89	12.18	207.9	
4	97	20.06	313.8	
5	138	8.34	91.5	
6	403	771.46	2,898.3	
7	418	104.48	378.4	
8	448	141.36	477.6	
9	467	864.46	2,805.6	
10	951	8.53	13.6	
11	1,339	6.01	6.8	
12	4,499	2.98	1.0	
13	5,579	2.69	0.7	
14	6,249	5.81	1.4	
15	10,380	75.00	10.9	Upper Marker
16	12,853	0.00	0.0	

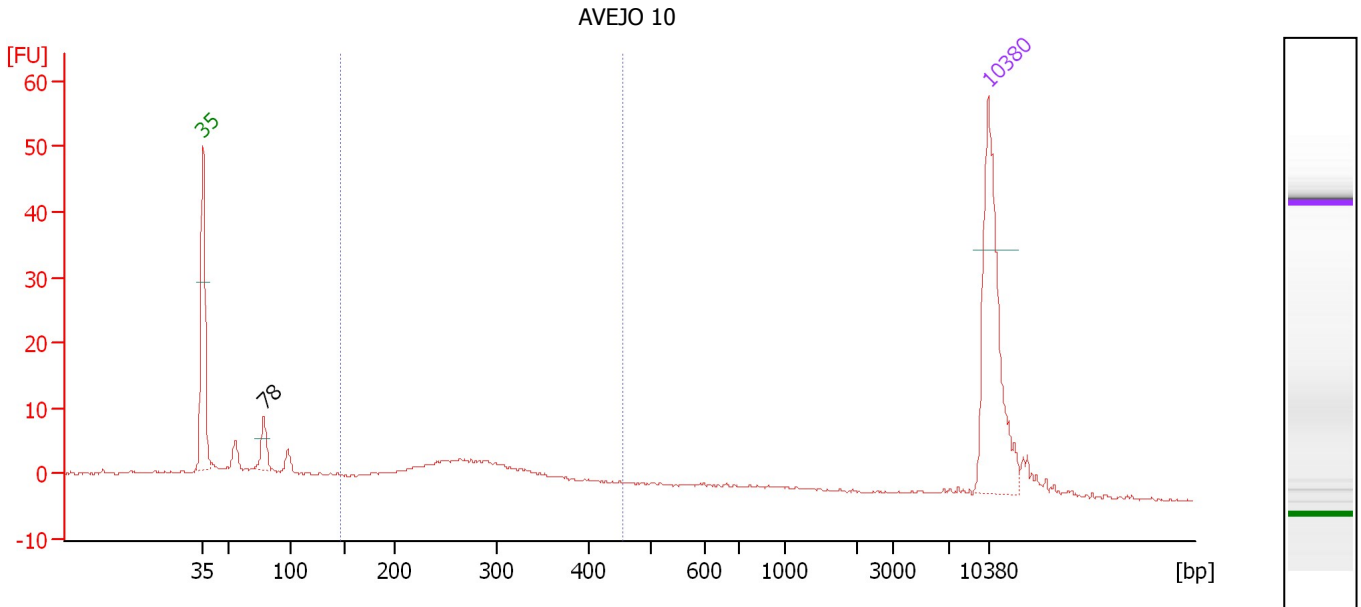
**Region table for sample 9 : AVEJO 09**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	490	1,905	1,914.5	93	41.7	2,156.43	7,660.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : AVEJO 10**

Number of peaks found: 1                      Corr. Area 1: 67.2  
 Noise: 0.2

**Peak table for sample 10 : AVEJO 10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	78	17.92	348.6	
3	10,380	75.00	10.9	Upper Marker

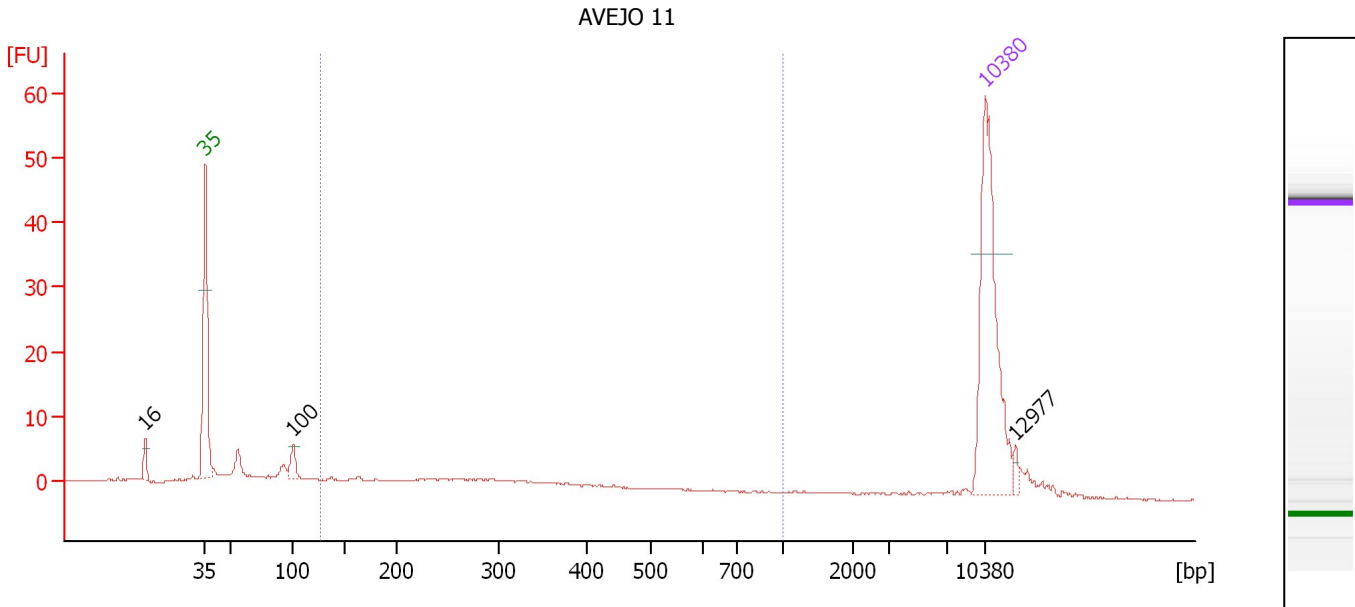
**Region table for sample 10 : AVEJO 10**

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
148	280	457	67.2	47	22.5	96.80	562.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : AVEJO 11**

Number of peaks found: 3                      Corr. Area 1: 50.4  
 Noise: 0.1

**Peak table for sample 11 : AVEJO 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	16	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	100	10.13	152.9	
4	10,380	75.00	10.9	Upper Marker
5	12,977	0.00	0.0	

**Region table for sample 11 : AVEJO 11**

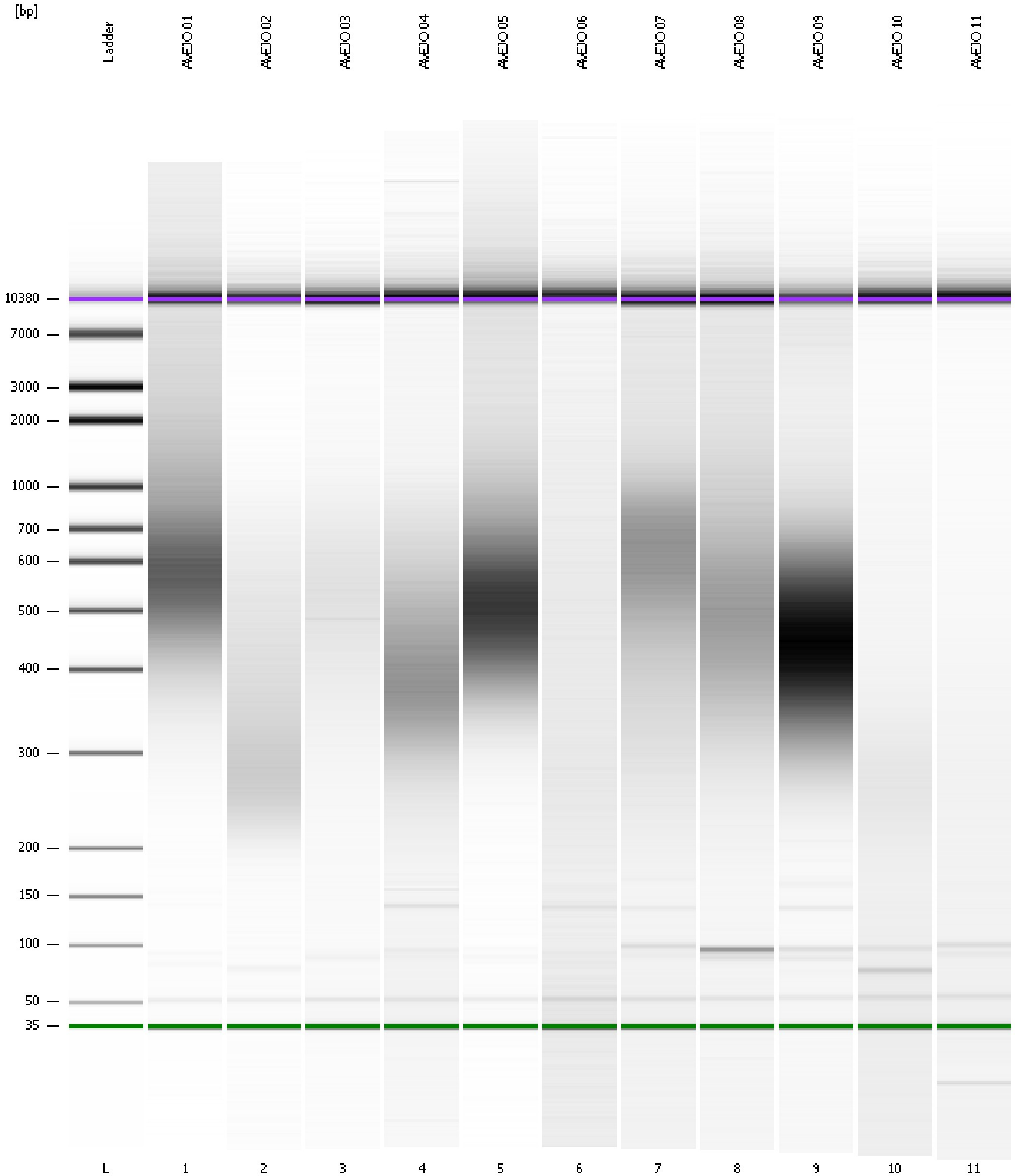
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
127	317	1,000	50.4	41	46.2	71.76	445.7	Blue



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
Modified: 11/13/2014 9:48:03 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-13\2014-11-13\_002.xad

Created: 11/13/2014 8:58:03 AM  
 Modified: 11/13/2014 9:48:03 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		11/13/2014 9:39:20 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-11-13\2014-11-13_002.xad)		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/13/2014 8:58:08 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1