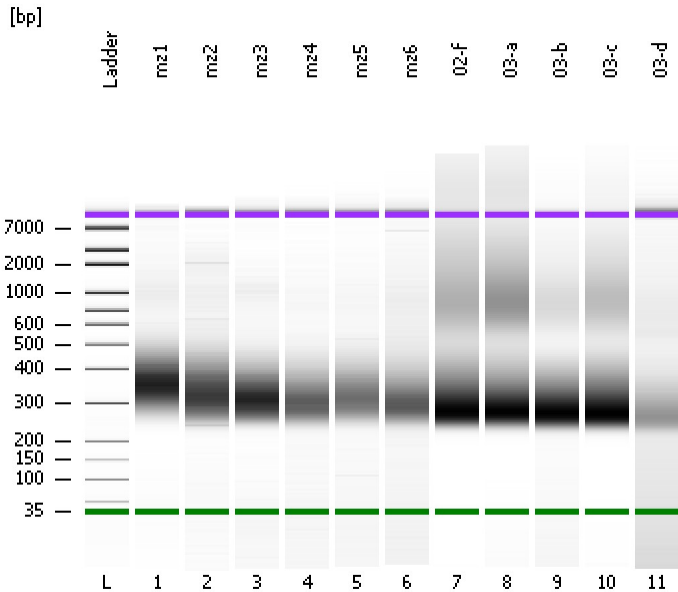


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
Modified: 12/10/2013 1:02:49 PM

### Electrophoresis File Run Summary



#### Instrument Information:

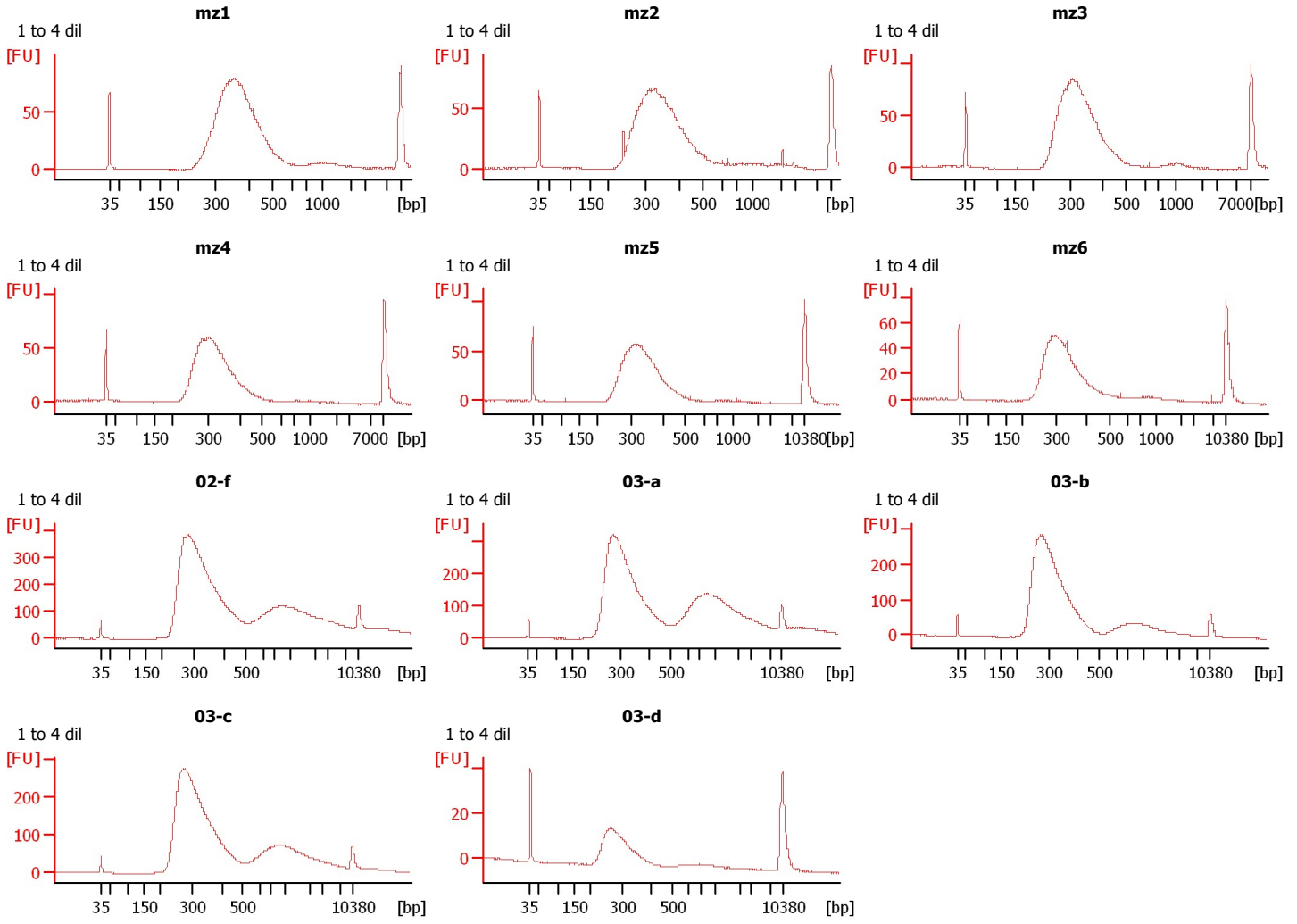
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
mz1	1 to 4 dil	<input type="checkbox"/>	✓			
mz2	1 to 4 dil	<input type="checkbox"/>	✓			
mz3	1 to 4 dil	<input type="checkbox"/>	✓			
mz4	1 to 4 dil	<input type="checkbox"/>	✓			
mz5	1 to 4 dil	<input type="checkbox"/>	✓			
mz6	1 to 4 dil	<input type="checkbox"/>	✓			
02-f	1 to 4 dil	<input type="checkbox"/>	✓			
03-a	1 to 4 dil	<input type="checkbox"/>	✓			
03-b	1 to 4 dil	<input type="checkbox"/>	✓			
03-c	1 to 4 dil	<input type="checkbox"/>	✓			
03-d	1 to 4 dil	<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\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
Modified: 12/10/2013 1:02:49 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/ $\mu$ l] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/ $\mu$ l] : 125  
Upper Marker Concentration [pg/ $\mu$ l] : 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

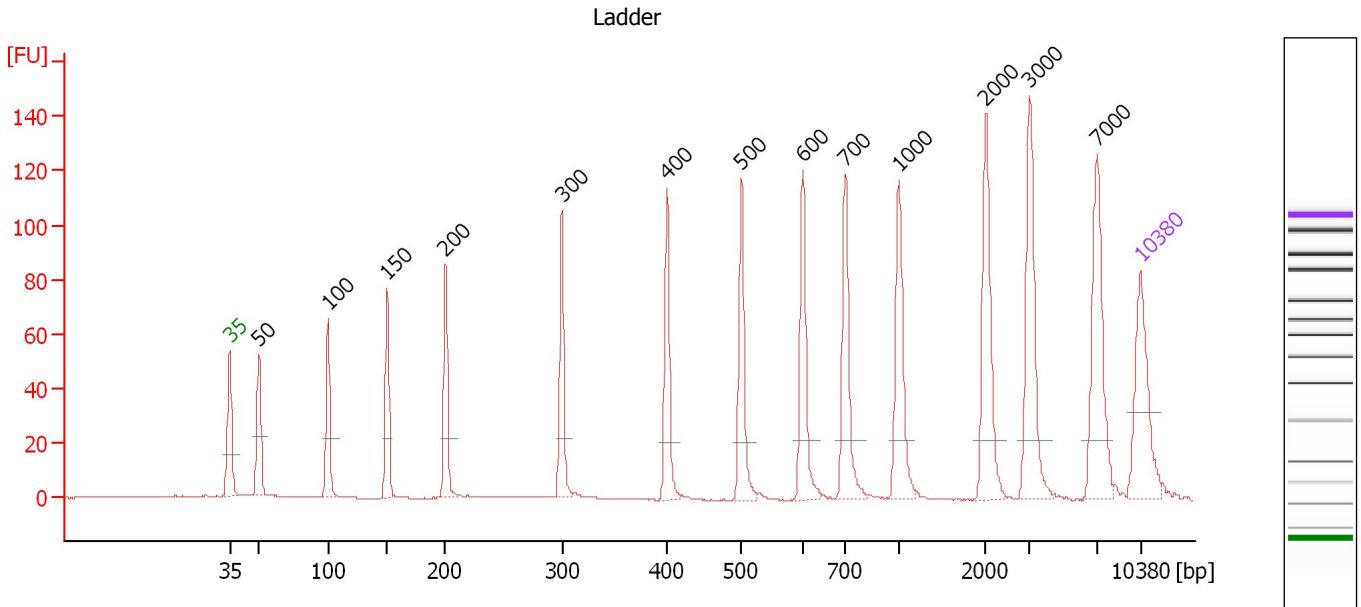
**Ladder**

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\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

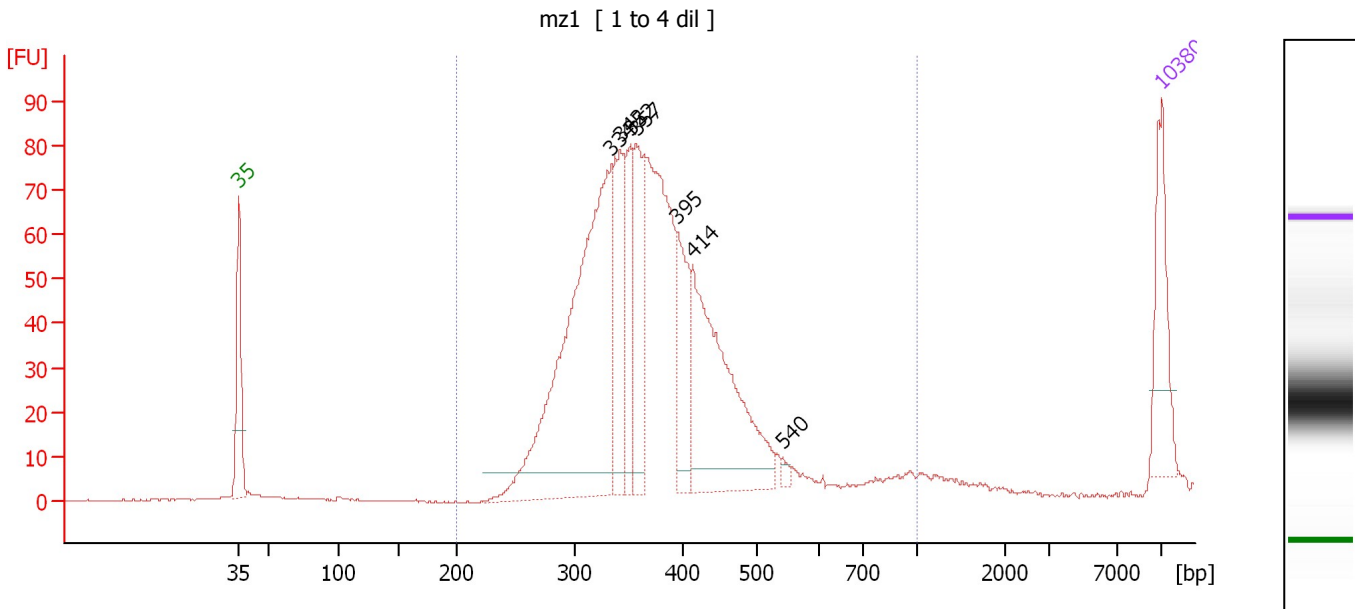
**Peak table for Ladder**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.25	50	150.00	4,545.5	Ladder Peak
3	50.58	100	150.00	2,272.7	Ladder Peak
4	55.13	150	150.00	1,515.2	Ladder Peak
5	59.60	200	150.00	1,136.4	Ladder Peak
6	68.53	300	150.00	757.6	Ladder Peak
7	76.61	400	150.00	568.2	Ladder Peak
8	82.34	500	150.00	454.5	Ladder Peak
9	87.06	600	150.00	378.8	Ladder Peak
10	90.34	700	150.00	324.7	Ladder Peak
11	94.43	1,000	150.00	227.3	Ladder Peak
12	101.11	2,000	150.00	113.6	Ladder Peak
13	104.48	3,000	150.00	75.8	Ladder Peak
14	109.68	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : mz1**

Number of peaks found: 7                      Corr. Area 1: 1,257.8  
 Noise: 0.2

**Peak table for sample 1 : mz1**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	71.27	334	605.34	2,747.2	
3	71.95	342	151.11	668.7	
4	72.72	352	111.35	479.4	
5	73.13	357	142.06	603.1	
6	76.24	395	107.53	412.0	
7	77.41	414	306.17	1,120.4	
8	84.25	540	6.89	19.3	
9	113.00	10,380	75.00	10.9	Upper Marker

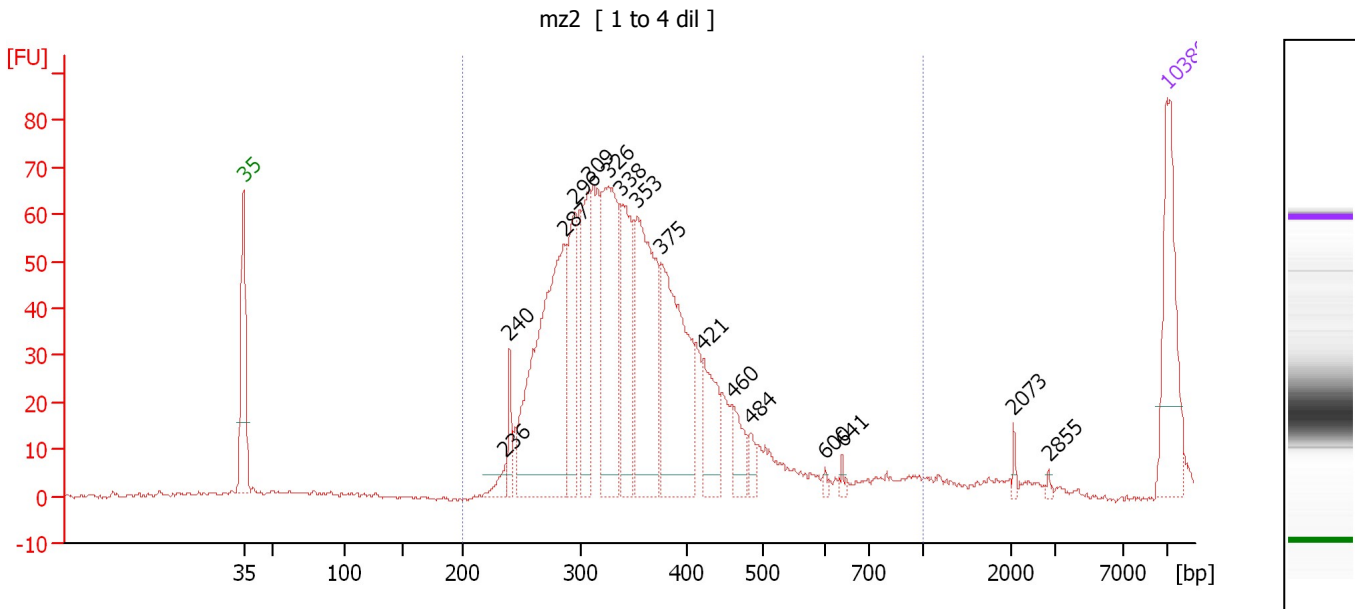
**Region table for sample 1 : mz1**

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	376	7,620.7	1,802.98	1,257.8	99	22.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : mz2**

Number of peaks found: 16                      Corr. Area 1: 1,103.1  
 Noise: 0.4

**Peak table for sample 2 : mz2**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	62.84	236	13.74	88.1	
3	63.17	240	22.48	141.9	
4	67.33	287	313.67	1,658.6	
5	68.14	296	97.05	497.5	
6	69.23	309	86.57	425.0	
7	70.64	326	185.40	861.3	
8	71.61	338	115.55	517.7	
9	72.83	353	200.76	861.3	
10	74.61	375	191.09	771.7	
11	77.84	421	58.82	211.5	
12	80.06	460	31.13	102.5	
13	81.44	484	12.22	38.3	
14	87.05	600	3.42	8.6	
15	88.39	641	3.80	9.0	
16	101.36	2,073	4.08	3.0	
17	103.99	2,855	1.86	1.0	
18	113.00	10,380	75.00	10.9	Upper Marker

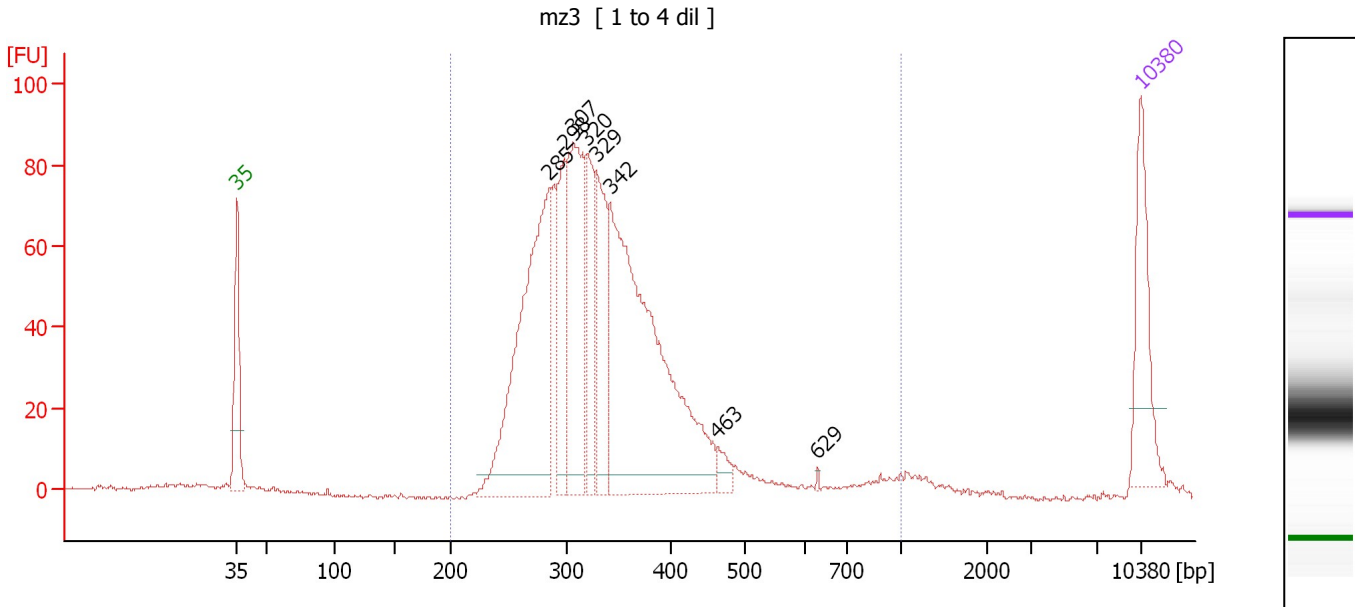
**Region table for sample 2 : mz2**

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	343	6,834.5	1,484.27	1,103.1	98	18.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : mz3**

Number of peaks found: 8                      Corr. Area 1: 1,327.2  
 Noise: 0.5

**Peak table for sample 3 : mz3**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	67.21	285	402.88	2,140.0	
3	68.33	298	107.13	545.2	
4	69.07	307	227.18	1,122.3	
5	70.15	320	97.86	463.3	
6	70.85	329	125.52	578.6	
7	71.88	342	529.58	2,349.5	
8	80.23	463	16.38	53.6	
9	88.00	629	1.65	4.0	
10	113.00	10,380	75.00	10.9	Upper Marker

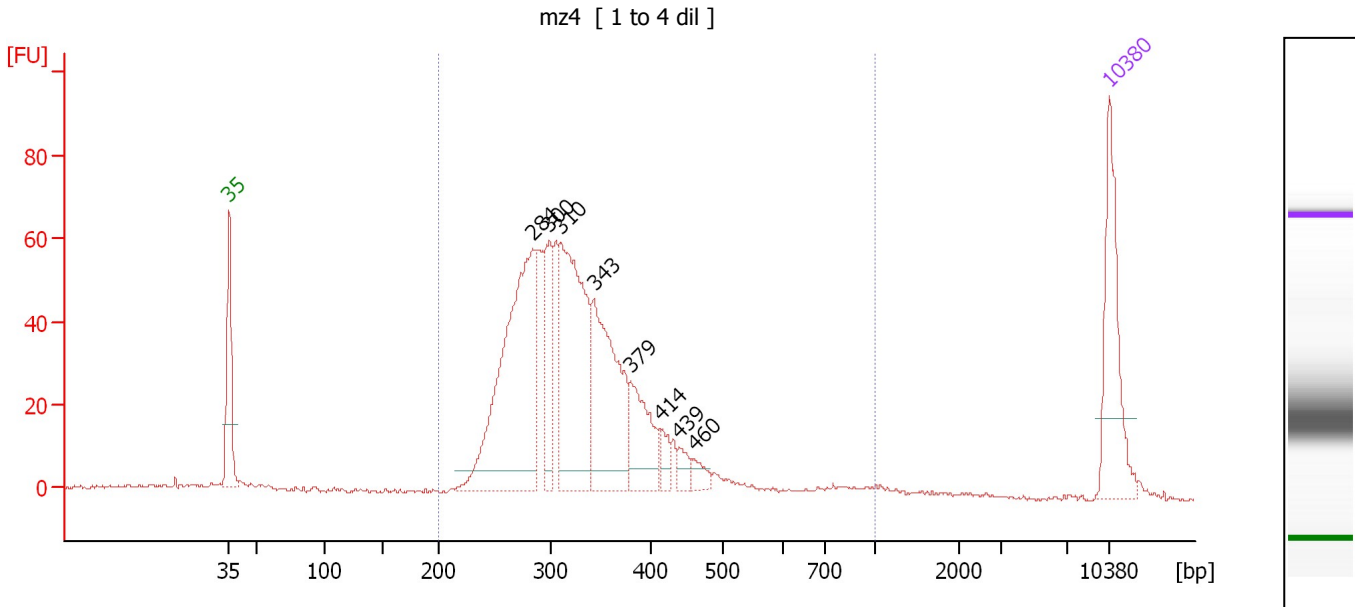
**Region table for sample 3 : mz3**

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	339	7,447.8	1,581.90	1,327.2	97	24.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : mz4**

Number of peaks found: 8                      Corr. Area 1: 956.8  
 Noise: 0.4

**Peak table for sample 4 : mz4**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	67.14	284	321.86	1,714.7	
3	68.50	300	75.29	380.8	
4	69.35	310	233.71	1,142.0	
5	72.02	343	168.67	744.7	
6	74.95	379	73.10	291.9	
7	77.41	414	14.81	54.2	
8	78.85	439	12.84	44.3	
9	80.04	460	12.28	40.5	
10	113.00	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : mz4**

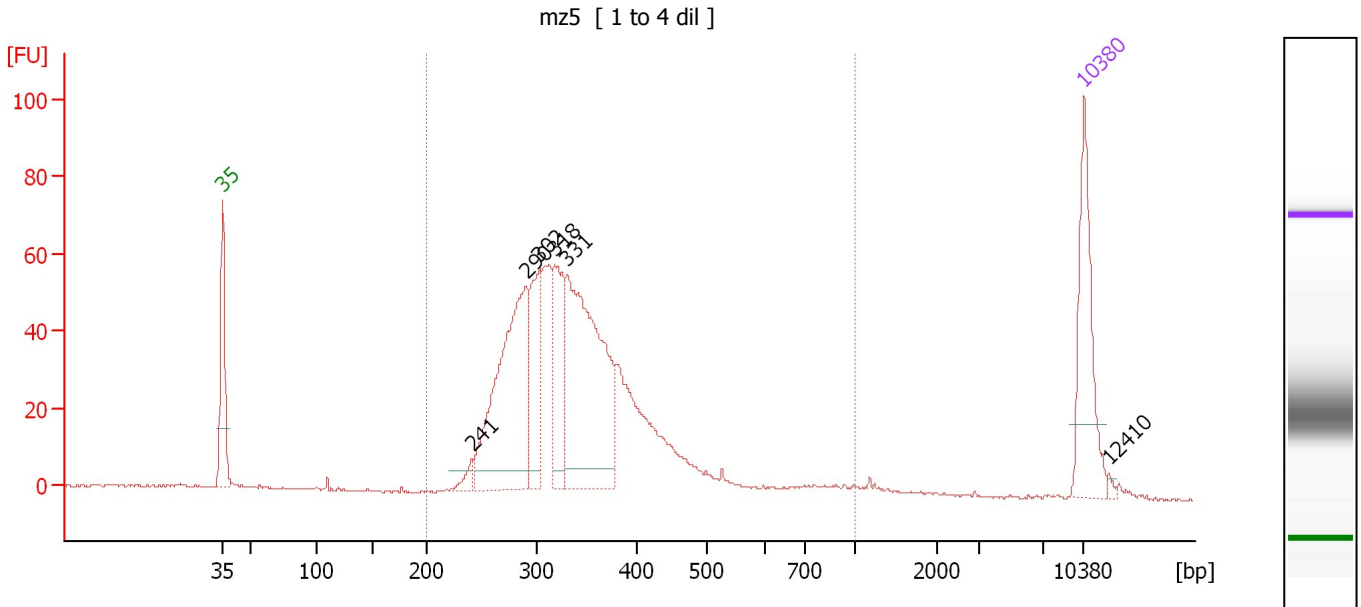
From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	1,000	337	5,181.2	1,084.35	956.8	96	26.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : mz5**

Number of peaks found: 6                      Corr. Area 1: 954.8  
 Noise: 0.3

**Peak table for sample 5 : mz5**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	63.24	241	11.66	73.4	
3	67.66	290	250.76	1,309.0	
4	68.70	302	86.58	434.2	
5	70.00	318	85.89	409.0	
6	71.04	331	274.93	1,258.1	
7	113.00	10,380	75.00	10.9	Upper Marker
8	114.99	12,410	0.00	0.0	

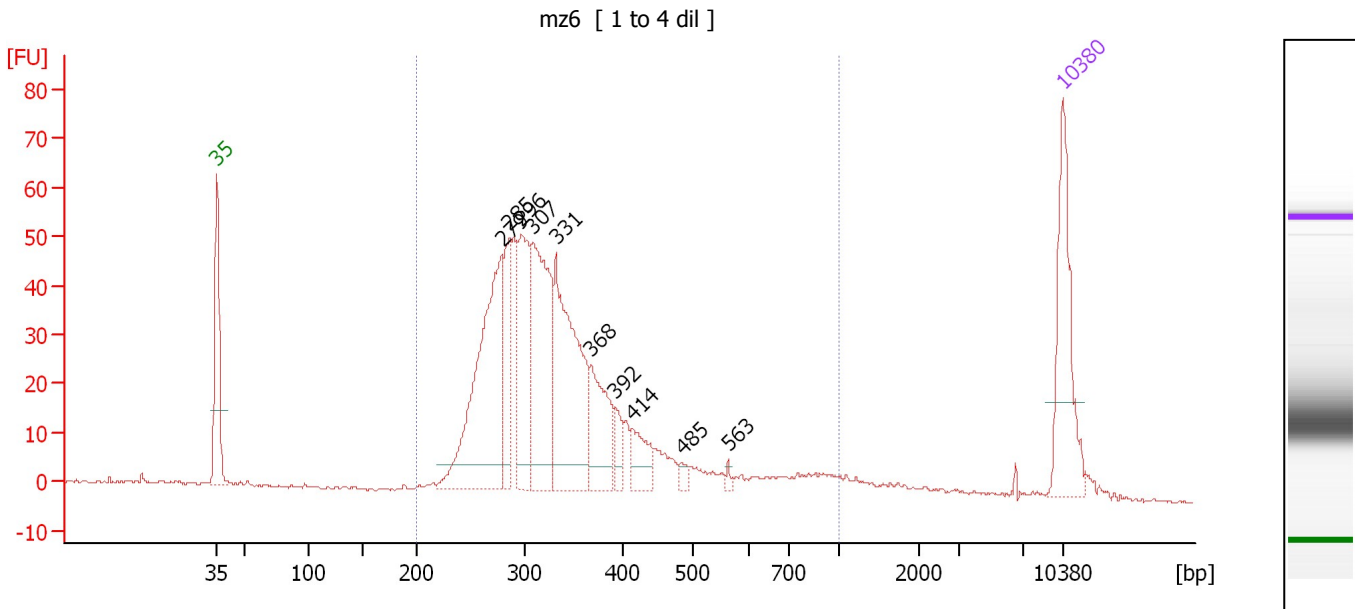
**Region table for sample 5 : mz5**

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	350	4,677.5	1,013.14	954.8	95	26.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : mz6**

Number of peaks found: 10                      Corr. Area 1: 833.8  
 Noise: 0.4

**Peak table for sample 6 : mz6**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	66.61	279	242.05	1,316.8	
3	67.23	285	63.81	338.7	
4	68.16	296	104.96	537.6	
5	69.13	307	171.93	847.5	
6	71.07	331	184.81	844.8	
7	73.98	368	73.31	302.2	
8	75.93	392	19.11	73.9	
9	77.43	414	30.18	110.4	
10	81.49	485	6.77	21.1	
11	85.33	563	3.10	8.4	
12	113.00	10,380	75.00	10.9	Upper Marker

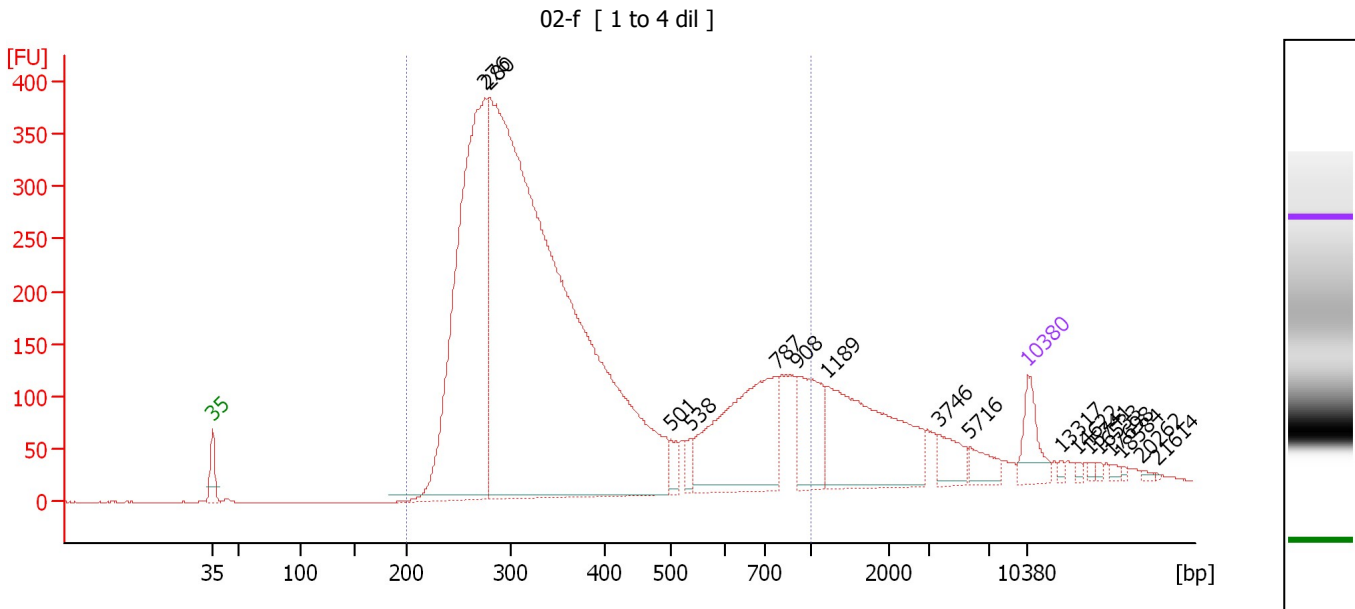
**Region table for sample 6 : mz6**

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	353	5,059.7	1,075.20	833.8	94	33.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 02-f**

Number of peaks found: 17                      Corr. Area 1: 6,947.3  
 Noise: 0.2

**Peak table for sample 7 : 02-f**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	66.35	276	1,628.92	8,956.8	
3	66.71	280	4,129.76	22,374.9	
4	82.37	501	38.29	115.9	
5	84.11	538	30.27	85.3	
6	91.53	787	494.89	952.4	
7	93.18	908	193.06	322.2	
8	95.69	1,189	437.54	557.7	
9	105.45	3,746	62.23	25.2	
10	108.01	5,716	47.61	12.6	
11	113.00	10,380	75.00	10.9	Upper Marker
12	115.88	13,317	0.00	0.0	
13	117.17	14,622	0.00	0.0	
14	118.26	15,741	0.00	0.0	
15	119.04	16,533	0.00	0.0	
16	120.19	17,698	0.00	0.0	
17	121.06	18,584	0.00	0.0	
18	122.71	20,262	0.00	0.0	
19	124.03	21,614	0.00	0.0	

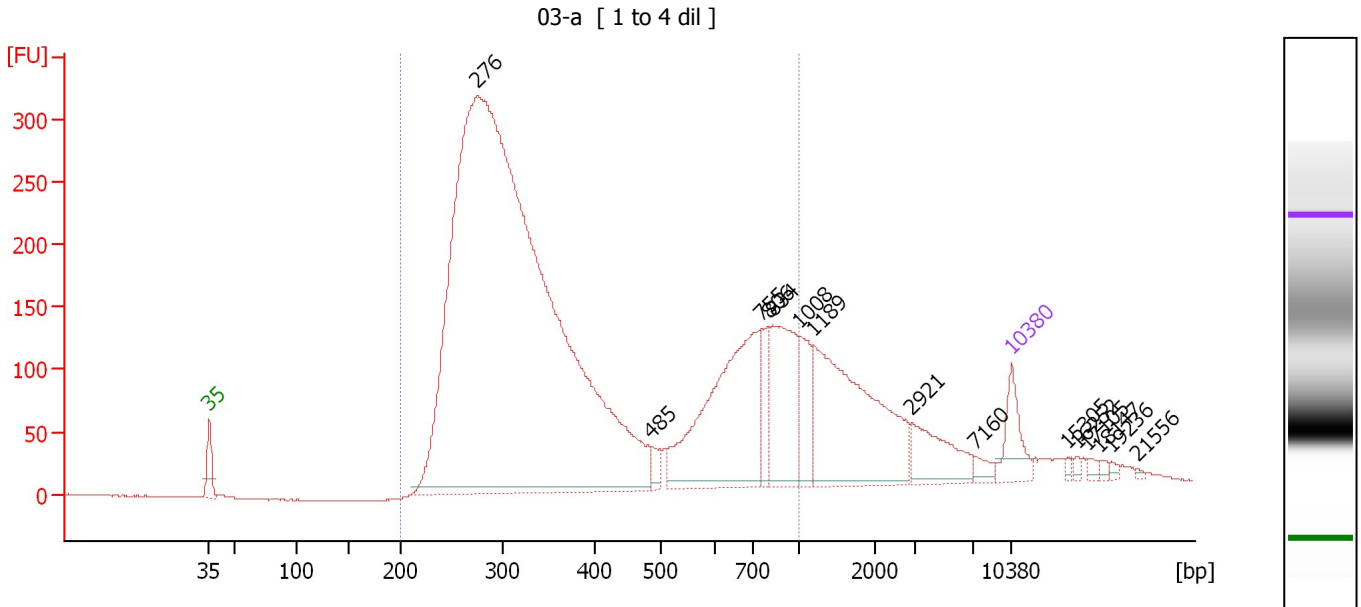
**Region table for sample 7 : 02-f**

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	398	27,204.7	5,966.92	6,947.3	86	44.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 03-a**

Number of peaks found: 15                      Corr. Area 1: 5,690.6  
 Noise: 0.5

**Peak table for sample 8 : 03-a**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	66.35	276	4,869.77	26,776.5	
3	81.51	485	35.18	109.8	
4	91.09	755	597.15	1,197.7	
5	91.79	806	78.21	146.9	
6	92.16	834	268.92	488.7	
7	94.49	1,008	107.13	161.0	
8	95.70	1,189	500.10	637.2	
9	104.21	2,921	120.83	62.7	
10	109.84	7,160	21.25	4.5	
11	113.00	10,380	75.00	10.9	Upper Marker
12	117.84	15,305	0.00	0.0	
13	118.77	16,252	0.00	0.0	
14	119.60	17,105	0.00	0.0	
15	120.63	18,147	0.00	0.0	
16	121.70	19,236	0.00	0.0	
17	123.98	21,556	0.00	0.0	

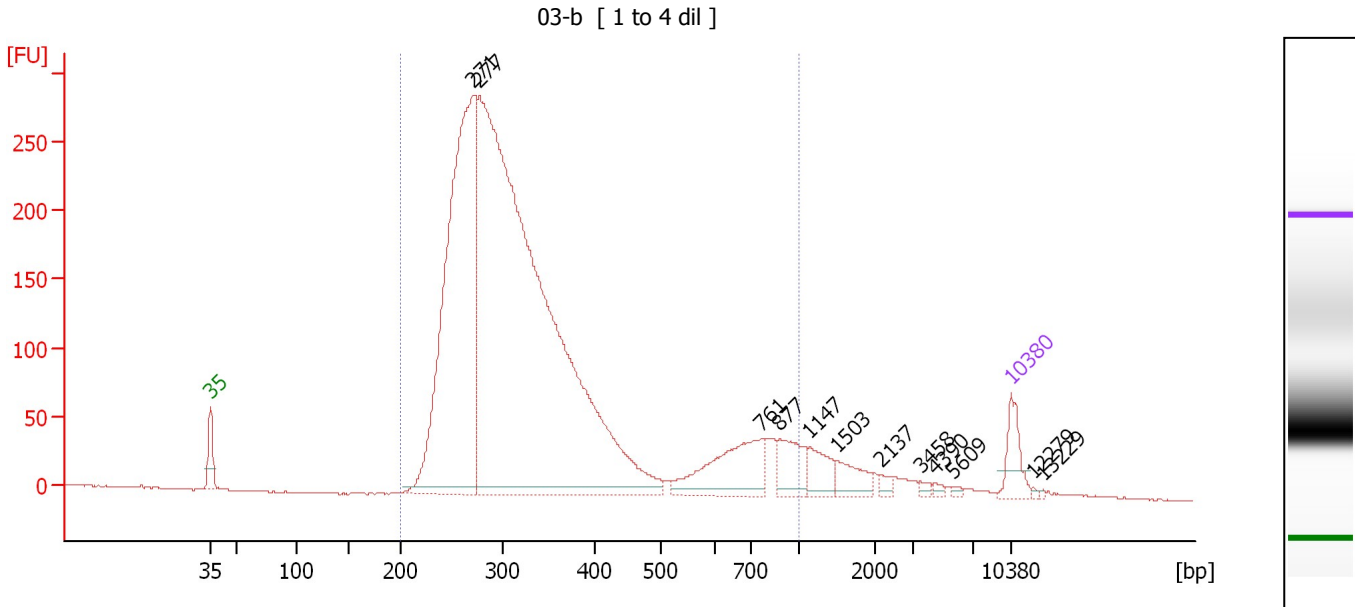
**Region table for sample 8 : 03-a**

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	421	24,234.9	5,406.55	5,690.6	83	47.1	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 03-b**

Number of peaks found: 12                      Corr. Area 1: 4,409.7  
 Noise: 0.4

**Peak table for sample 9 : 03-b**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	65.94	271	1,930.58	10,792.5	
3	66.50	277	4,184.33	22,863.2	
4	91.17	761	279.14	555.5	
5	92.76	877	119.92	207.1	
6	95.42	1,147	82.79	109.3	
7	97.80	1,503	70.41	71.0	
8	101.57	2,137	17.64	12.5	
9	105.07	3,458	10.79	4.7	
10	106.28	4,390	9.33	3.2	
11	107.87	5,609	6.46	1.7	
12	113.00	10,380	75.00	10.9	Upper Marker
13	114.87	12,279	0.00	0.0	
14	115.80	13,229	0.00	0.0	

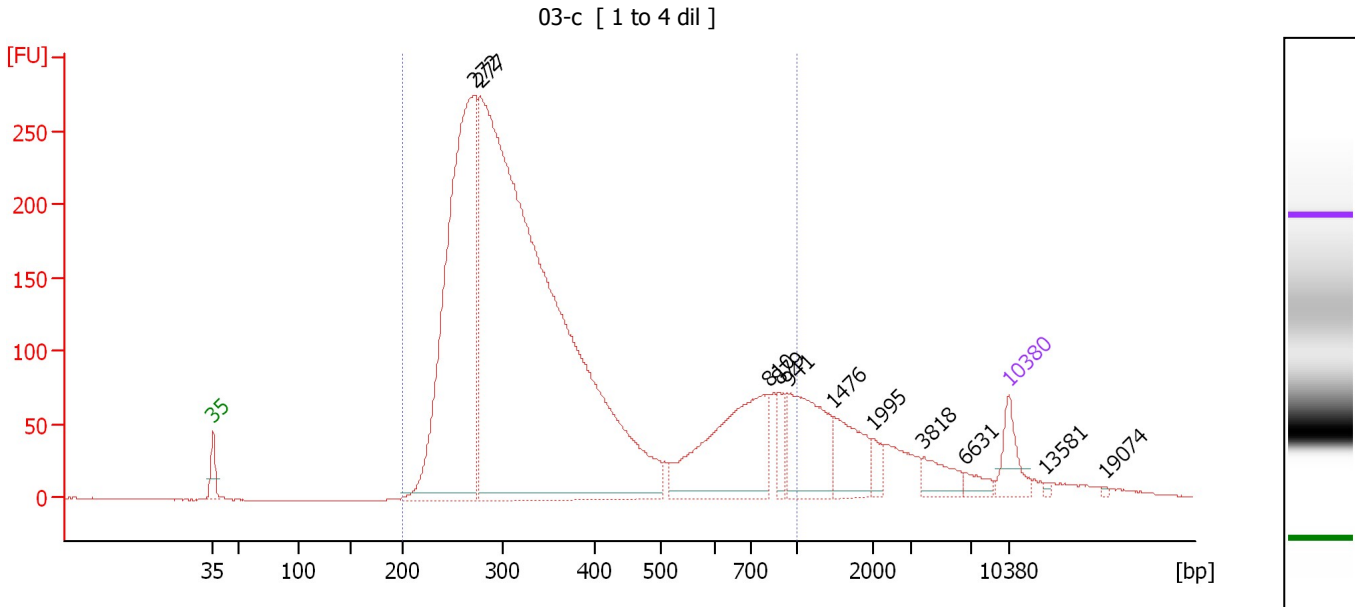
**Region table for sample 9 : 03-b**

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	354	29,570.9	6,055.77	4,409.7	93	41.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 03-c**

Number of peaks found: 11                      Corr. Area 1: 4,804.1  
 Noise: 0.2

**Peak table for sample 10 : 03-c**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	65.99	272	1,807.96	10,088.4	
3	66.46	277	4,282.88	23,445.2	
4	91.84	810	509.07	952.1	
5	92.78	879	68.46	118.0	
6	93.62	941	282.78	455.5	
7	97.61	1,476	151.60	155.7	
8	101.08	1,995	34.89	26.5	
9	105.54	3,818	66.76	26.5	
10	109.20	6,631	29.83	6.8	
11	113.00	10,380	75.00	10.9	Upper Marker
12	116.14	13,581	0.00	0.0	
13	121.54	19,074	0.00	0.0	

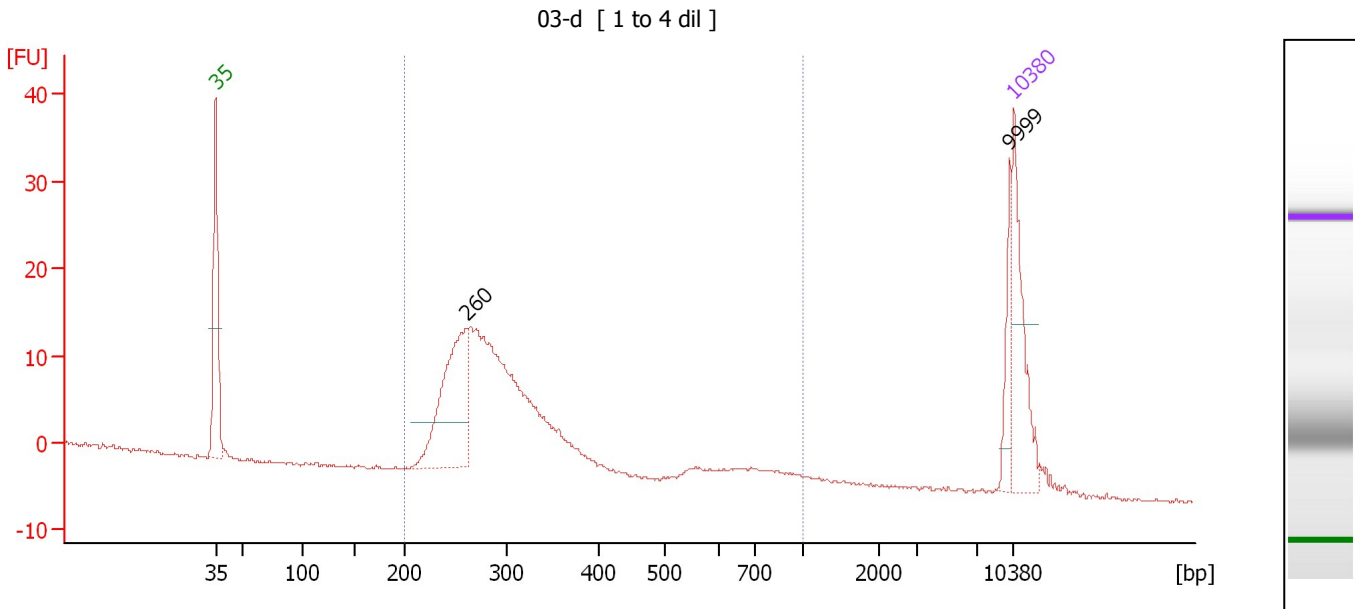
**Region table for sample 10 : 03-c**

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	385	29,503.1	6,283.96	4,804.1	88	45.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
 Modified: 12/10/2013 1:02:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 03-d**

Number of peaks found: 2                      Corr. Area 1: 199.1  
 Noise: 0.1

**Peak table for sample 11 : 03-d**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	64.93	260	173.41	1,011.8	
3	112.63	9,999	27.39	4.2	
4	113.00	10,380	75.00	10.9	Upper Marker

**Region table for sample 11 : 03-d**

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	318	2,844.4	543.90	199.1	90	37.5	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-10\2013-12-10\_004.xad

Created: 12/10/2013 12:21:27 PM  
Modified: 12/10/2013 1:02:49 PM

**Gel Image**

