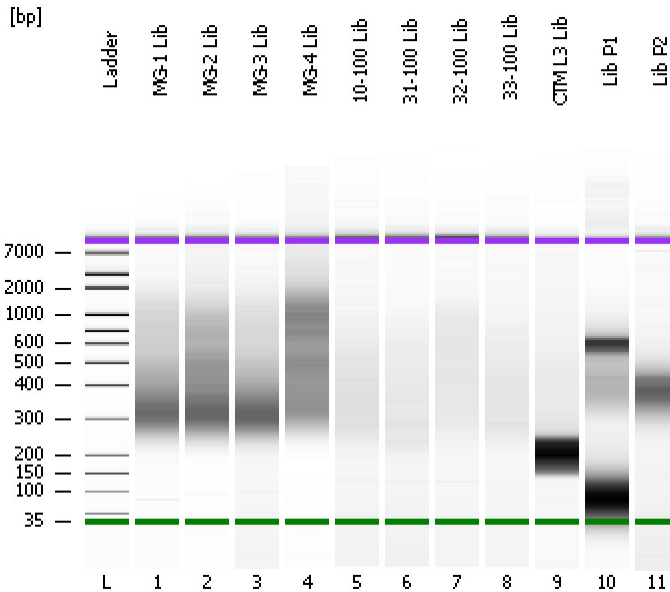


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 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

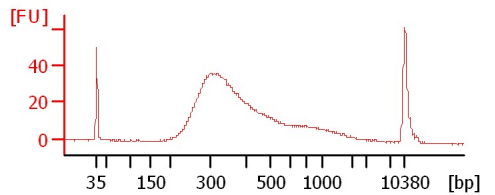
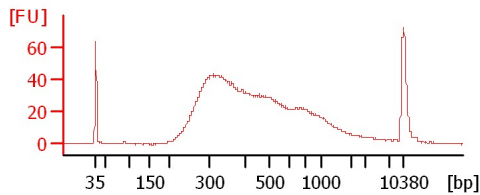
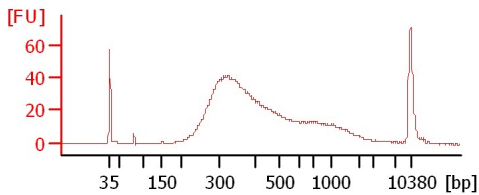
Chip Information:

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

**MG-1 Lib**

**MG-2 Lib**

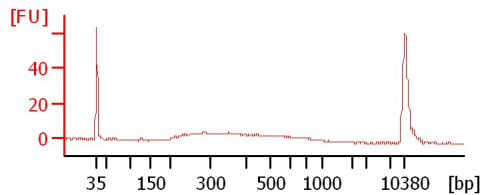
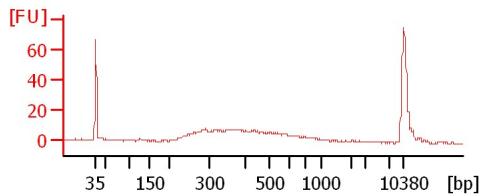
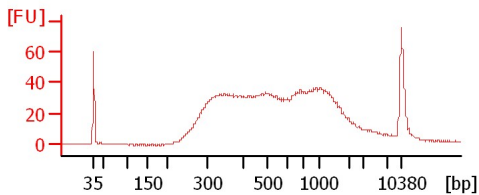
**MG-3 Lib**



**MG-4 Lib**

**10-100 Lib**

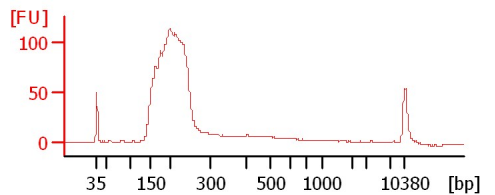
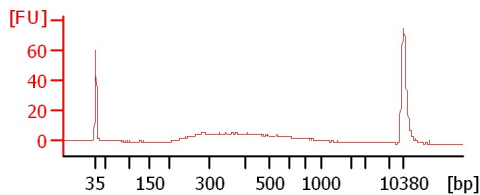
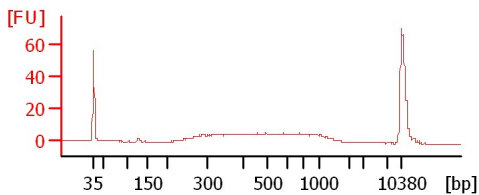
**31-100 Lib**



**32-100 Lib**

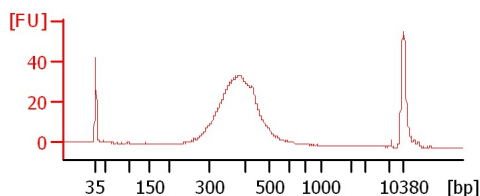
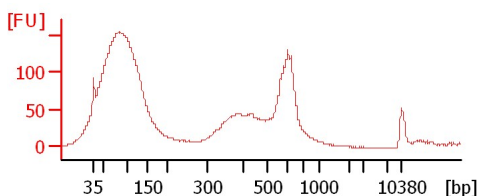
**33-100 Lib**

**CTM L3 Lib**



**Lib P1**

**Lib P2**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
MG-1 Lib		<input type="checkbox"/>	✓			
MG-2 Lib		<input type="checkbox"/>	✓			
MG-3 Lib		<input type="checkbox"/>	✓			
MG-4 Lib		<input type="checkbox"/>	✓			
10-100 Lib		<input type="checkbox"/>	✓			
31-100 Lib		<input type="checkbox"/>	✓			
32-100 Lib		<input type="checkbox"/>	✓			
33-100 Lib		<input type="checkbox"/>	✓			
CTM L3 Lib		<input type="checkbox"/>	✓			
Lib P1		<input type="checkbox"/>	✓			
Lib P2		<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\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 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

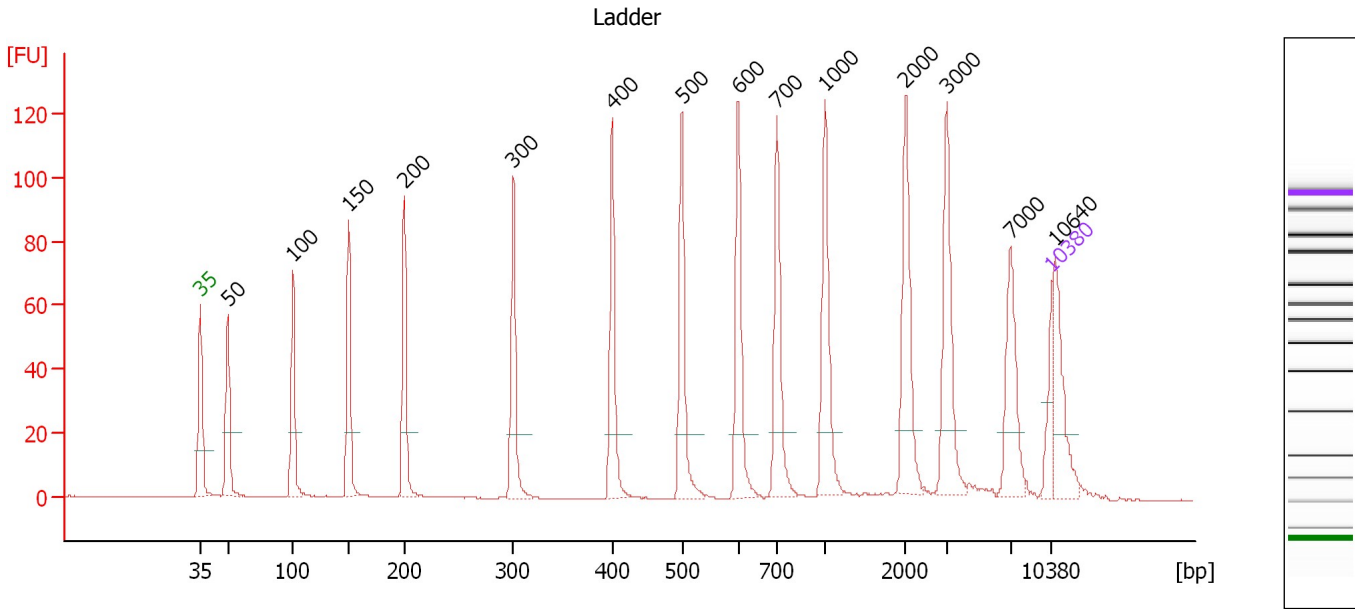
**Ladder**

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\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

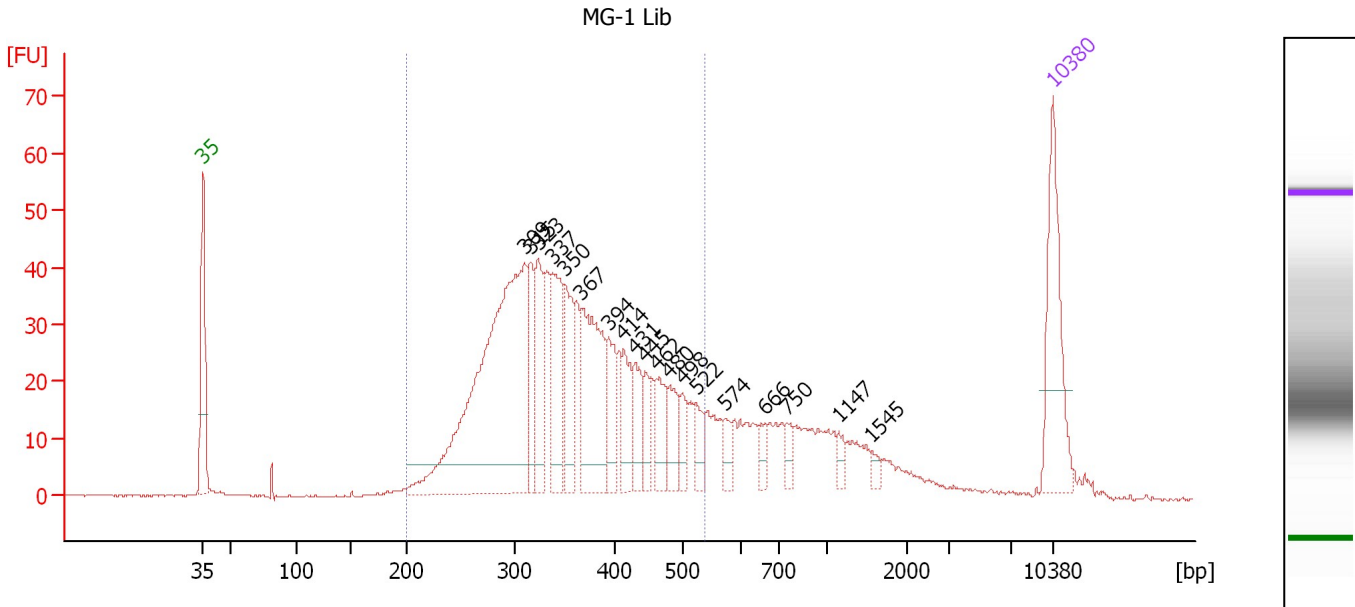
**Peak table for Ladder**

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
16	10,640	0.00	0.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : MG-1 Lib**

Number of peaks found: 19      Corr. Area 1: 849.9  
 Noise: 0.2

**Peak table for sample 1 : MG-1 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	309	436.44	2,142.0	
3	315	53.79	258.5	
4	323	68.71	322.5	
5	337	85.15	382.3	
6	350	63.17	273.1	
7	367	130.08	536.7	
8	394	44.46	170.8	
9	414	38.89	142.3	
10	431	33.83	118.9	
11	445	21.69	73.9	
12	462	35.38	116.2	
13	480	30.84	97.4	
14	498	18.10	55.1	
15	522	19.63	56.9	
16	574	14.58	38.5	
17	666	13.21	30.1	
18	750	10.49	21.2	
19	1,147	8.01	10.6	
20	1,545	5.95	5.8	
21	10,380	75.00	10.9	Upper Marker

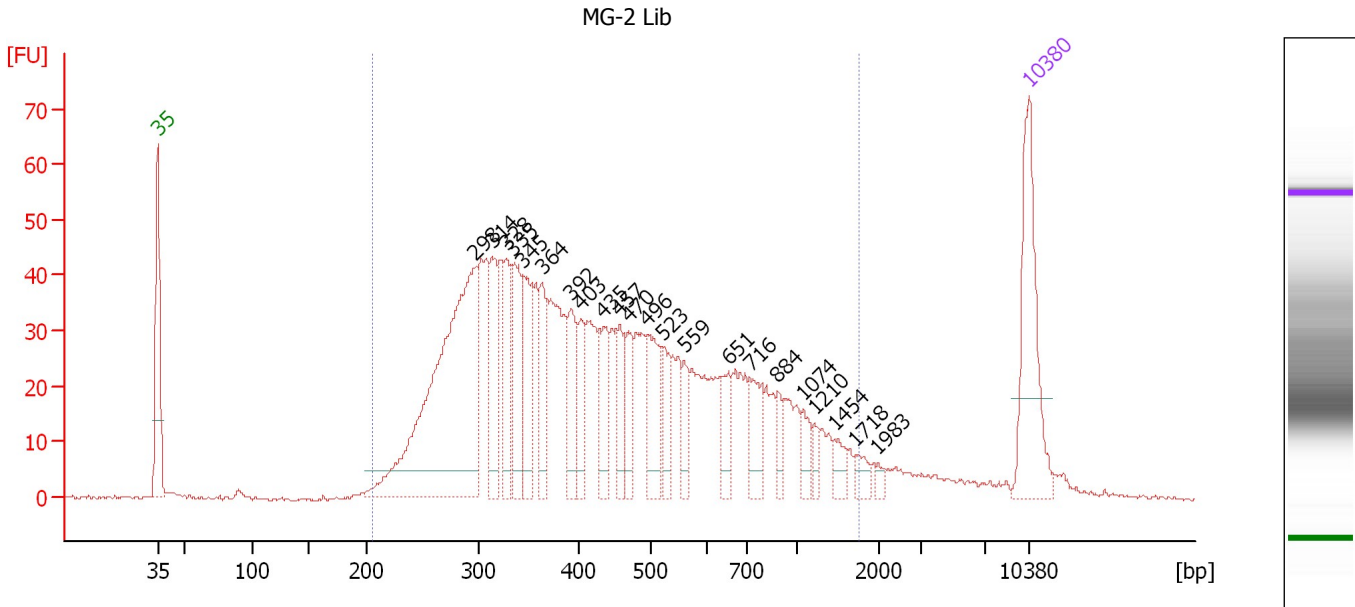
**Region table for sample 1 : MG-1 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	5,834.1	357	1,295.26	538	849.9	77	20.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : MG-2 Lib**

Number of peaks found: 22                      Corr. Area 1: 1,305.3  
 Noise: 0.3

**Peak table for sample 2 : MG-2 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	298	336.32	1,710.1	
3	314	60.65	292.3	
4	328	50.90	234.9	
5	335	62.75	283.9	
6	345	54.81	240.5	
7	364	44.04	183.5	
8	392	41.24	159.4	
9	403	29.84	112.1	
10	435	36.27	126.4	
11	457	29.23	96.8	
12	470	30.23	97.5	
13	496	51.47	157.1	
14	523	23.98	69.5	
15	559	18.97	51.4	
16	651	22.99	53.5	
17	716	29.85	63.1	
18	884	12.55	21.5	
19	1,074	14.19	20.0	
20	1,210	7.93	9.9	
21	1,454	11.03	11.5	
22	1,718	9.29	8.2	
23	1,983	3.56	2.7	
24	10,380	75.00	10.9	Upper Marker


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**

... Region table for sample 2 :

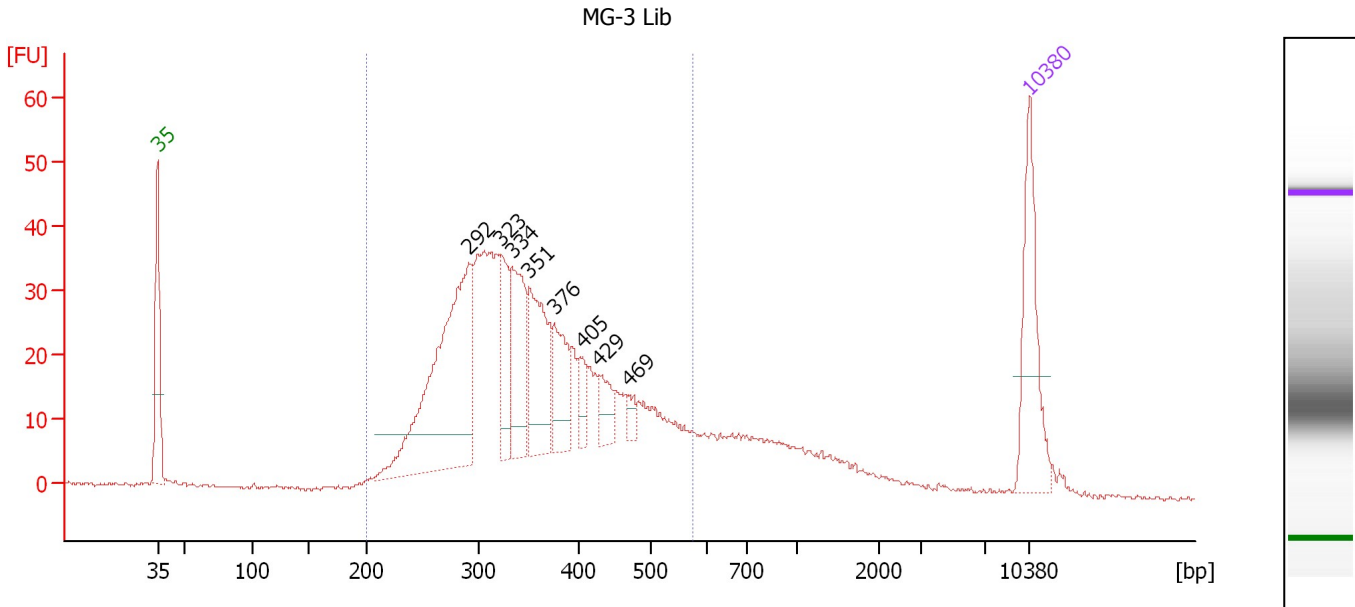
**MG-2 Lib**

<b>From [bp]</b>	<b>Molarity [pmol/l]</b>	<b>Average Size [bp]</b>	<b>Conc. [pg/μl]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Co lor</b>
205	6,259.5	496	1,591.52	1,763	1,305.3	95	54.6	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : MG-3 Lib**

Number of peaks found: 8                      Corr. Area 1: 756.6  
 Noise: 0.3

**Peak table for sample 3 : MG-3 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	292	296.14	1,538.2	
3	323	64.60	303.0	
4	334	92.95	422.0	
5	351	105.34	455.1	
6	376	59.18	238.7	
7	405	21.04	78.6	
8	429	25.93	91.7	
9	469	10.41	33.6	
10	10,380	75.00	10.9	Upper Marker

**Region table for sample 3 : MG-3 Lib**

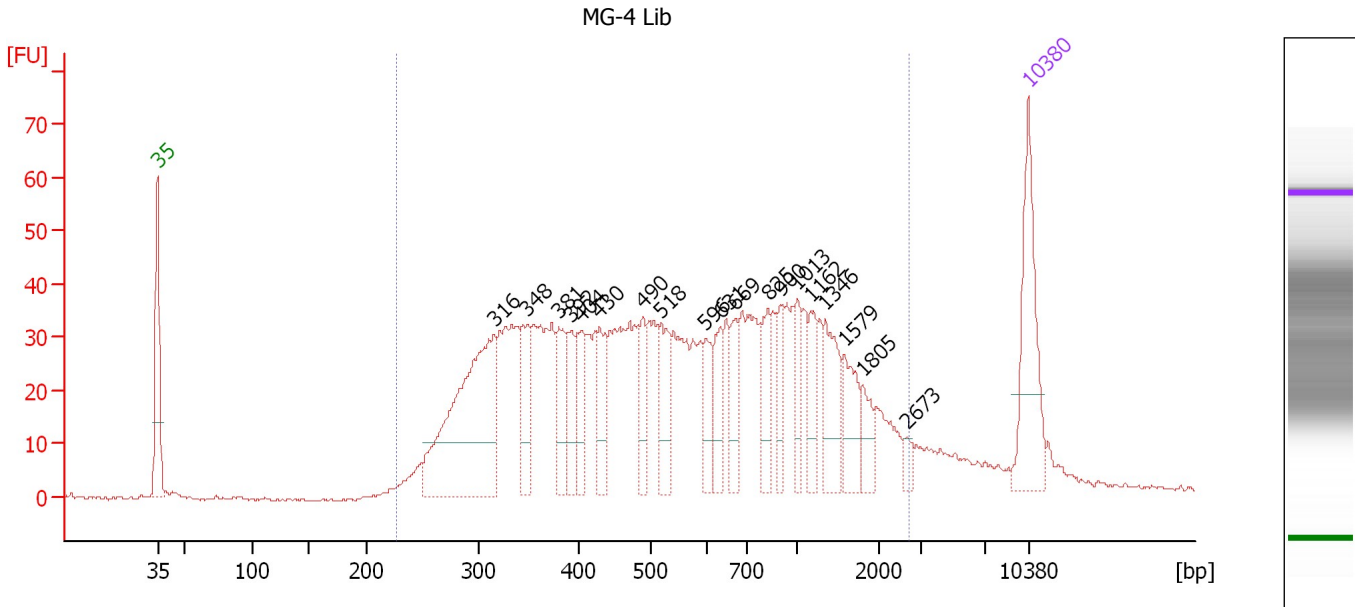
From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
200	5,818.2	356	1,278.89	573	756.6	82	22.6	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 4 : MG-4 Lib**

Height Threshold [FU] : 10

**Overall Results for sample 4 : MG-4 Lib**

Number of peaks found: 19      Corr. Area 1: 1,340.2  
 Noise: 0.3

**Peak table for sample 4 : MG-4 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	316	250.02	1,199.3	
3	348	50.66	220.4	
4	381	45.74	182.1	
5	392	38.69	149.5	
6	404	42.94	160.9	
7	430	42.08	148.4	
8	490	32.52	100.6	
9	518	48.70	142.5	
10	596	30.45	77.3	
11	631	33.81	81.1	
12	669	32.18	72.8	
13	825	39.07	71.7	
14	900	26.82	45.2	
15	1,013	25.64	38.3	
16	1,162	30.80	40.2	
17	1,346	48.77	54.9	
18	1,579	36.87	35.4	
19	1,805	19.77	16.6	
20	2,673	7.93	4.5	
21	10,380	75.00	10.9	Upper Marker


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**

... Region table for sample 4 :

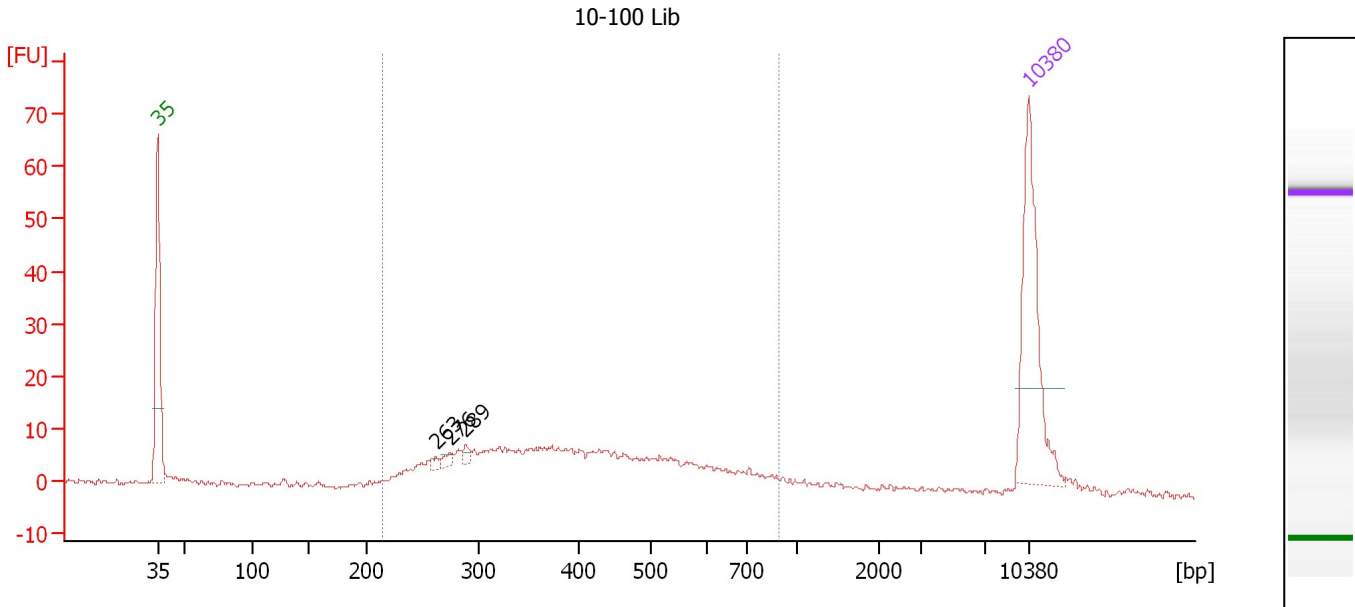
**MG-4 Lib**

<b>From [bp]</b>	<b>Molarity [pmol/l]</b>	<b>Average Size [bp]</b>	<b>Conc. [pg/μl]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Co lor</b>
227	5,597.1	704	1,724.88	2,703	1,340.2	95	67.8	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 5 : 10-100 Lib**

Height Threshold [FU] : 2

**Overall Results for sample 5 : 10-100 Lib**

Number of peaks found: 3                      Corr. Area 1: 237.7  
 Noise: 0.5

**Peak table for sample 5 : 10-100 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	263	3.52	20.3	
3	276	4.60	25.3	
4	289	4.46	23.4	
5	10,380	75.00	10.9	Upper Marker

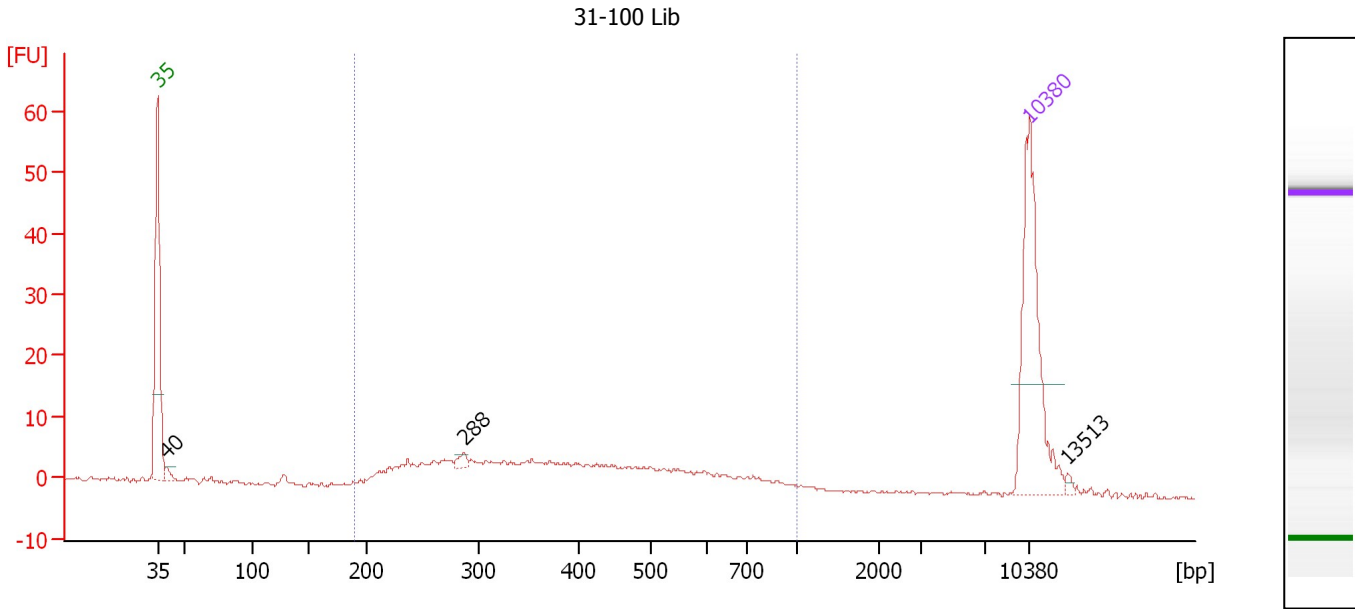
**Region table for sample 5 : 10-100 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
215	1,198.0	421	289.43	889	237.7	86	32.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 6 : 31-100 Lib**

Height Threshold [FU] : 2

**Overall Results for sample 6 : 31-100 Lib**

Number of peaks found: 3                      Corr. Area 1: 152.2  
 Noise: 0.3

**Peak table for sample 6 : 31-100 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	4.30	163.5	
3	288	4.61	24.3	
4	10,380	75.00	10.9	Upper Marker
5	13,513	0.00	0.0	

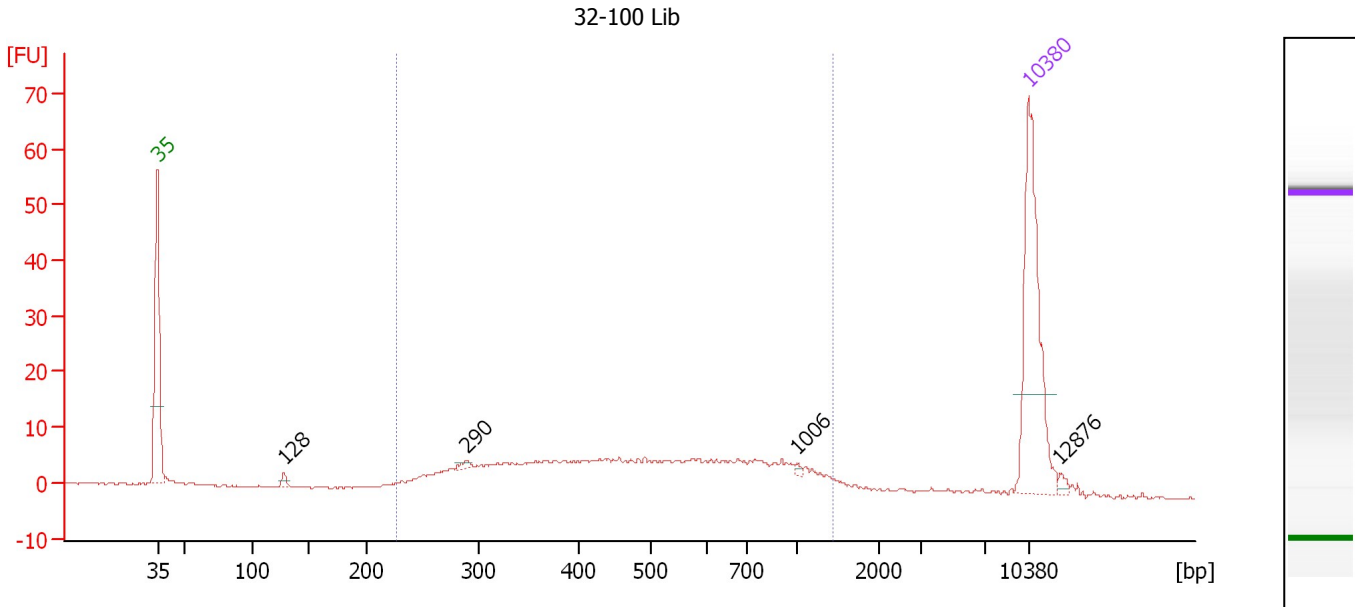
**Region table for sample 6 : 31-100 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
191	912.2	416	208.63	997	152.2	88	38.0	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 7 : 32-100 Lib**

Height Threshold [FU] : 1

**Overall Results for sample 7 : 32-100 Lib**

Number of peaks found: 4      Corr. Area 1: 205.3  
 Noise: 0.2

**Peak table for sample 7 : 32-100 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	128	3.52	41.8	
3	290	2.61	13.6	
4	1,006	1.24	1.9	
5	10,380	75.00	10.9	Upper Marker
6	12,876	0.00	0.0	

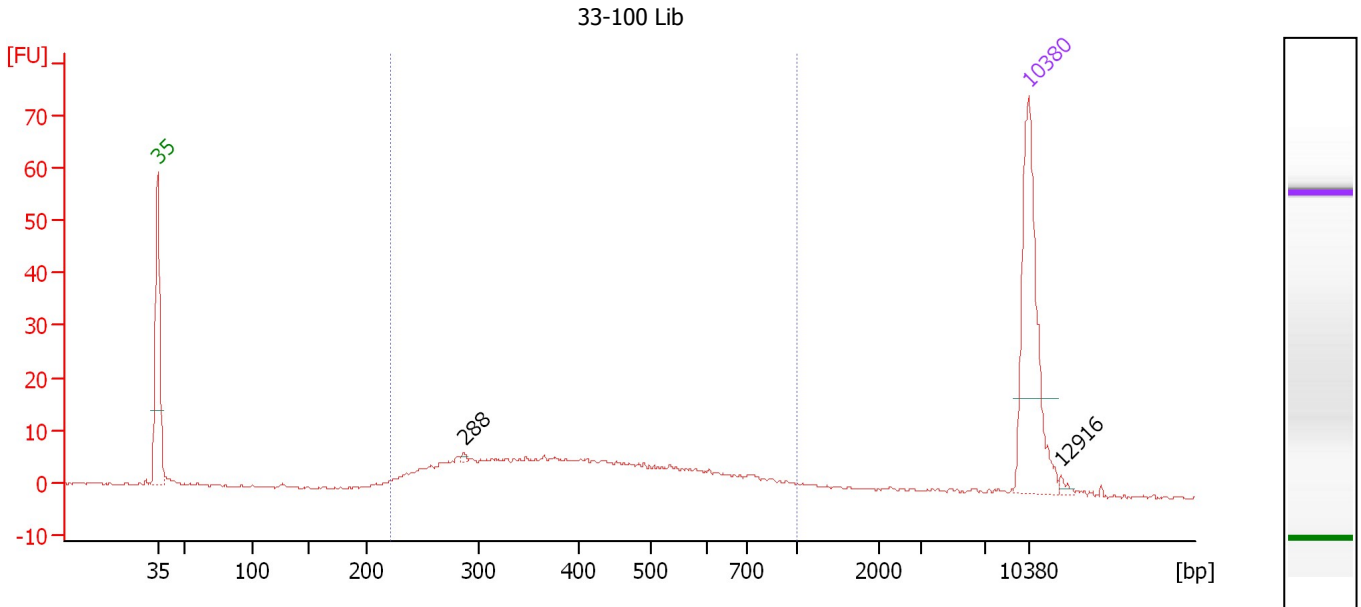
**Region table for sample 7 : 32-100 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
227	903.2	545	254.83	1,428	205.3	88	45.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 8 : 33-100 Lib**

Height Threshold [FU] : 1

**Overall Results for sample 8 : 33-100 Lib**

Number of peaks found: 2                      Corr. Area 1: 186.8  
 Noise: 0.1

**Peak table for sample 8 : 33-100 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	288	1.62	8.5	
3	10,380	75.00	10.9	Upper Marker
4	12,916	0.00	0.0	

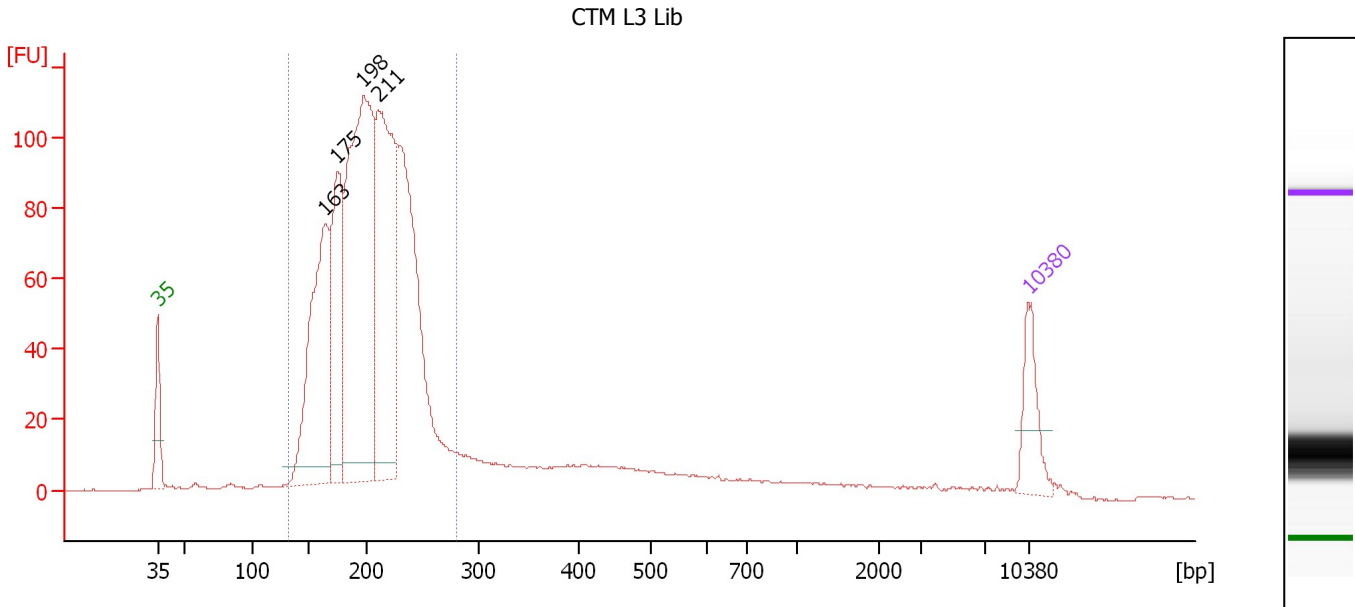
**Region table for sample 8 : 33-100 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
222	897.8	437	220.86	1,000	186.8	87	35.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : CTM L3 Lib**

Number of peaks found: 4                      Corr. Area 1: 1,505.6  
 Noise: 0.2

**Peak table for sample 9 : CTM L3 Lib**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	163	533.18	4,942.2	
3	175	343.58	2,979.2	
4	198	917.91	7,030.4	
5	211	629.46	4,522.9	
6	10,380	75.00	10.9	Upper Marker

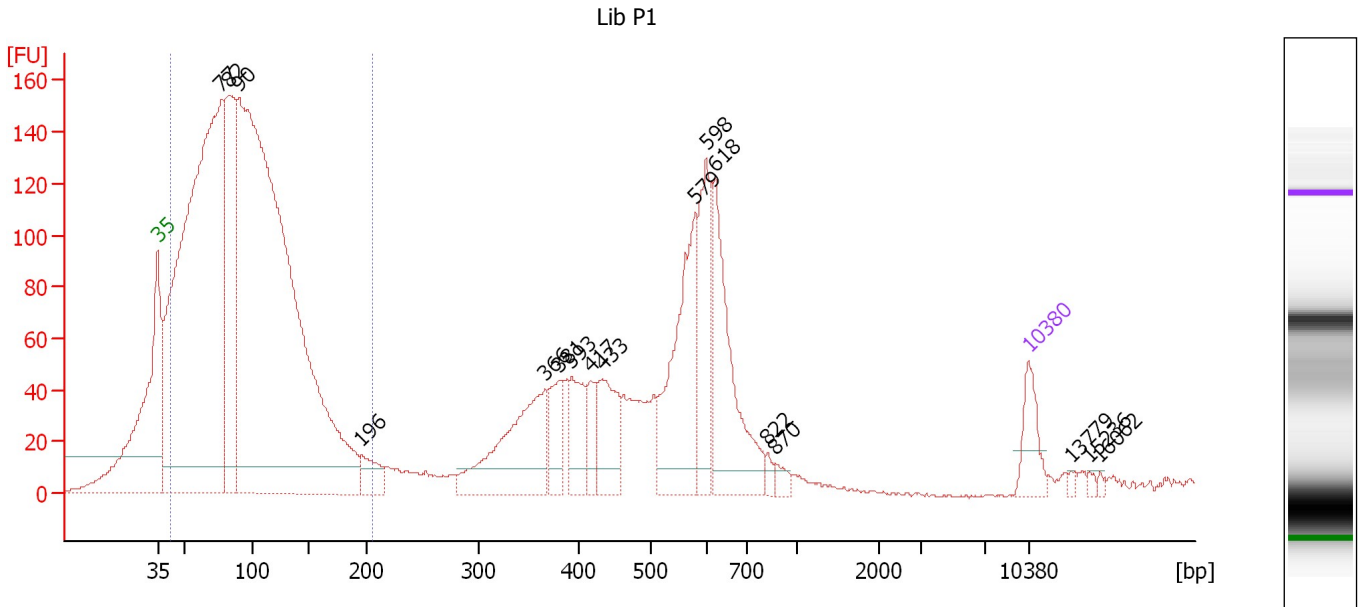
**Region table for sample 9 : CTM L3 Lib**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
132	24,496.9	203	3,192.46	282	1,505.6	82	15.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 10 : Lib P1**

Height Threshold [FU] : 10

**Overall Results for sample 10 : Lib P1**

Number of peaks found: 17      Corr. Area 1: 2,942.8  
 Noise: 0.3

**Peak table for sample 10 : Lib P1**


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	77	2,927.47	57,869.5	
3	82	732.10	13,583.8	
4	90	3,847.30	64,870.9	
5	196	87.84	679.8	
6	366	394.88	1,634.0	
7	381	122.27	486.6	
8	393	135.29	521.8	
9	417	70.22	255.0	
10	433	178.40	624.8	
11	579	393.74	1,031.2	
12	598	241.15	611.5	
13	618	383.51	940.4	
14	822	16.35	30.2	
15	870	23.58	41.1	
16	10,380	75.00	10.9	Upper Marker
17	13,779	0.00	0.0	
18	15,236	0.00	0.0	
19	16,062	0.00	0.0	



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 AM

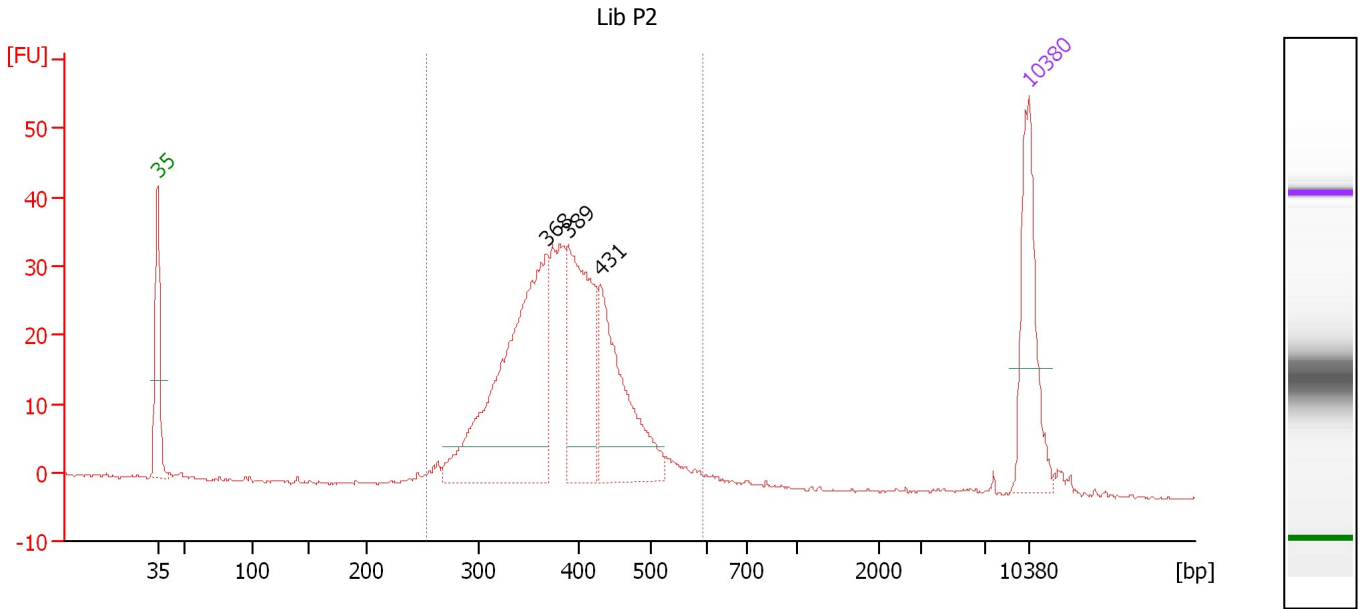
**Electropherogram Summary Continued ...****... Region table for sample 10 : Lib P1**

<b>From [bp]</b>	<b>Molarity [pmol/l]</b>	<b>Average Size [bp]</b>	<b>Conc. [pg/μl]</b>	<b>To [bp]</b>	<b>Corr. Area</b>	<b>% of Total</b>	<b>Size distribution in CV [%]</b>	<b>Co lor</b>
42	130,020.4	97	7,216.04	206	2,942.8	64	37.0	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : Lib P2**

Number of peaks found: 3                      Corr. Area 1: 463.8  
 Noise: 0.2

**Peak table for sample 11 : Lib P2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	368	295.29	1,216.0	
3	389	156.32	608.4	
4	431	139.19	489.8	
5	10,380	75.00	10.9	Upper Marker

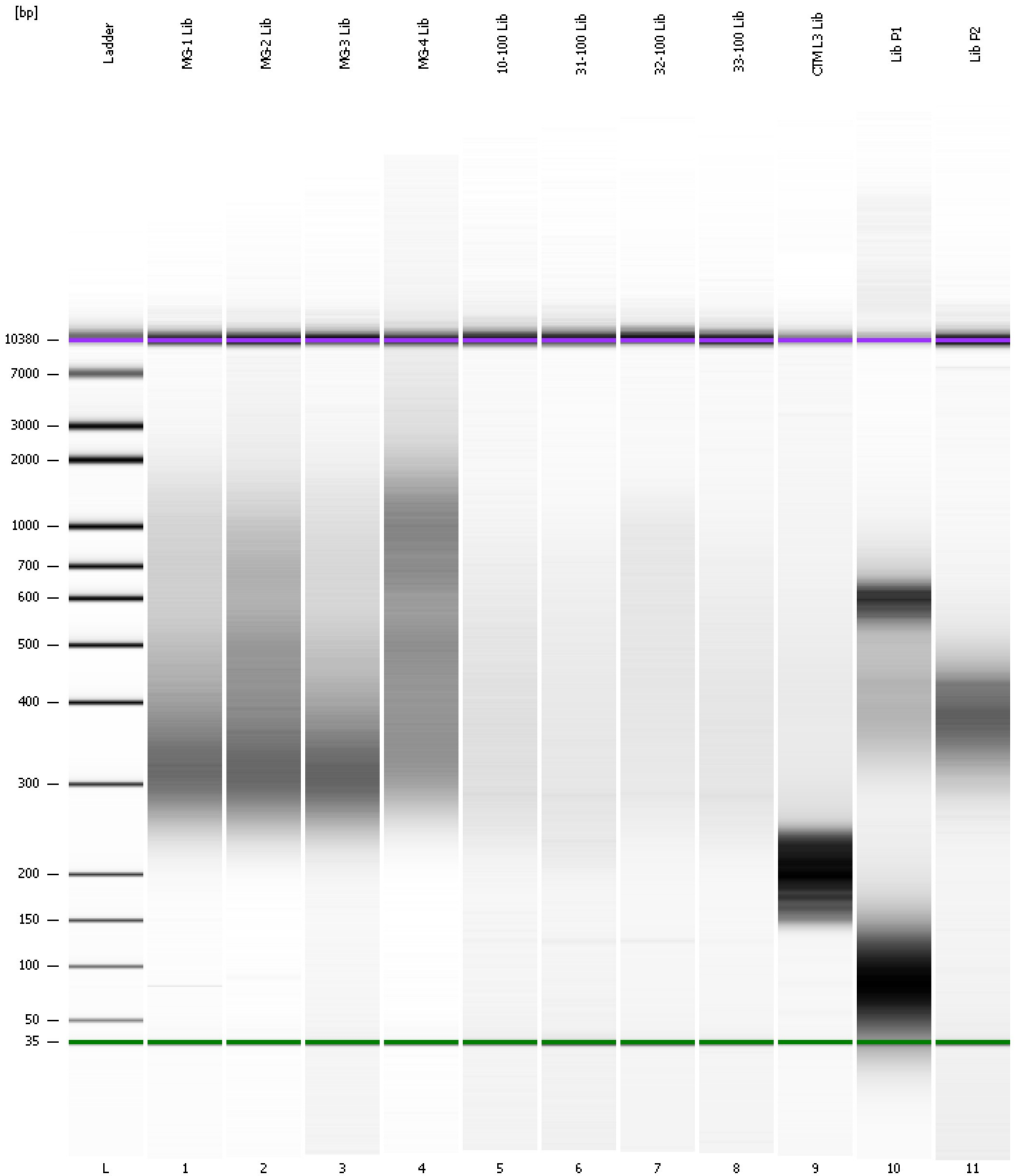
**Region table for sample 11 : Lib P2**

From [bp]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Color
255	2,953.9	389	737.10	591	463.8	97	15.0	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
Modified: 5/21/2012 10:56:42 AM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-21\2012-05-21\_001.xad

Created: 5/21/2012 10:07:44 AM  
 Modified: 5/21/2012 10:56:42 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		5/21/2012 10:49:02 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-05-21\2012-05-21_001.xad)		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/21/2012 10:07:50 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1