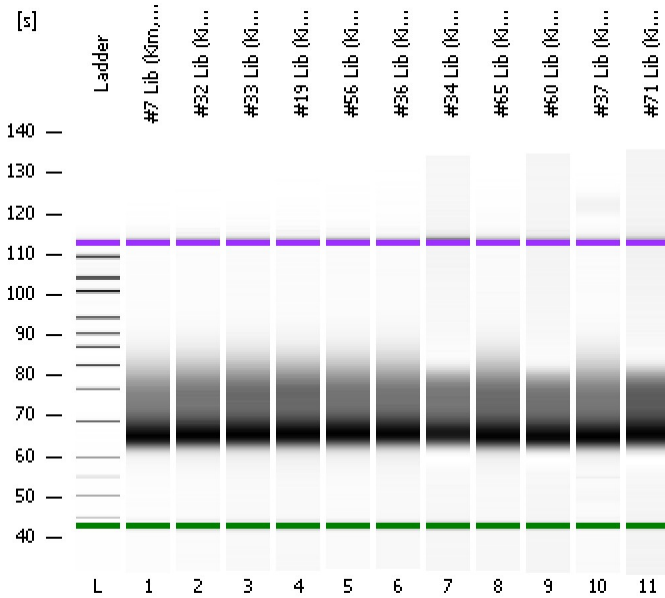


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
Modified: 5/4/2012 11:00:42 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

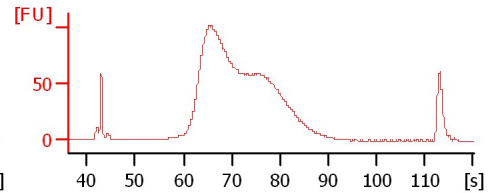
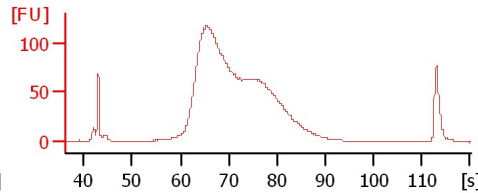
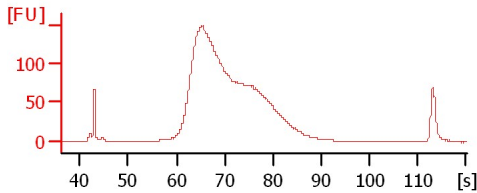
Chip Information:

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

#7 Lib (Kim, H.) 5/3/12

#32 Lib (Kim, H.) 5/3/12

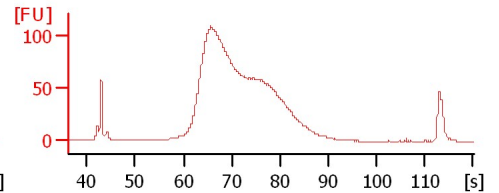
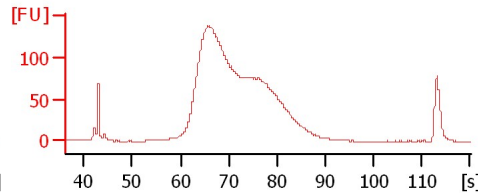
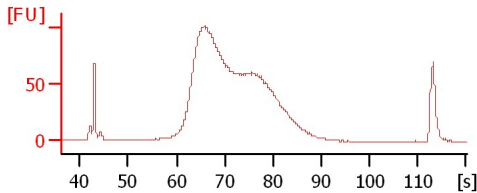
#33 Lib (Kim, H.) 5/3/12



#19 Lib (Kim, H.) 5/3/12

#56 Lib (Kim, H.) 5/3/12

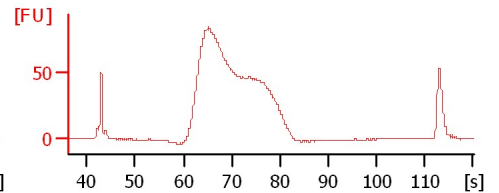
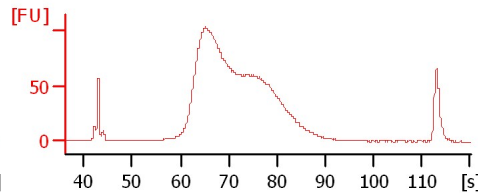
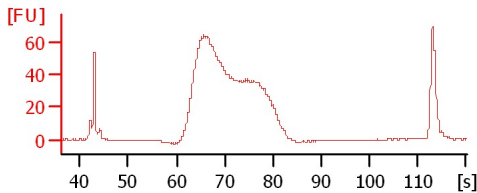
#36 Lib (Kim, H.) 5/3/12



#34 Lib (Kim, H.) 5/3/12

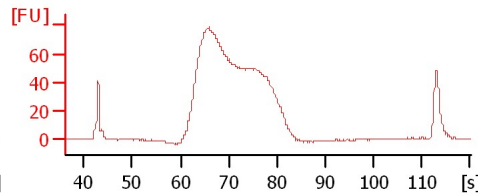
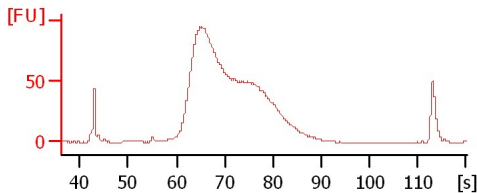
#65 Lib (Kim, H.) 5/3/12

#60 Lib (Kim, H.) 5/3/12



#37 Lib (Kim, H.) 5/3/12

#71 Lib (Kim, H.) 5/3/12



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
Modified: 5/4/2012 11:00:42 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
#7 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#32 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#33 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#19 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#56 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#36 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#34 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#65 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#60 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#37 Lib (Kim, H.) 5/3/12		<input type="checkbox"/>	✓			
#71 Lib (Kim, H.) 5/3/12		<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\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
Modified: 5/4/2012 11:00:42 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] : 20  
Area Threshold : 0.1  
Width Threshold [s] : 0.6  
Baseline Plateau [s] : 0.5

**Filter Settings**

Filter Width [s] : 0.5  
Polynomial Order : 4

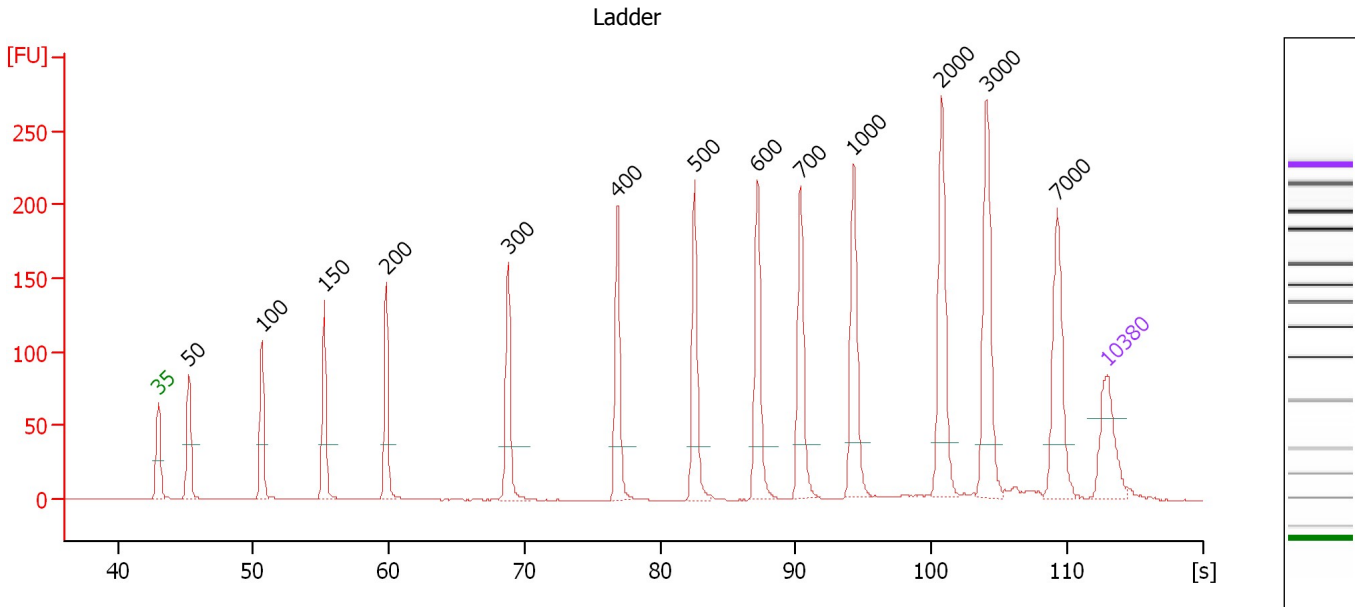
**Ladder**

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\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

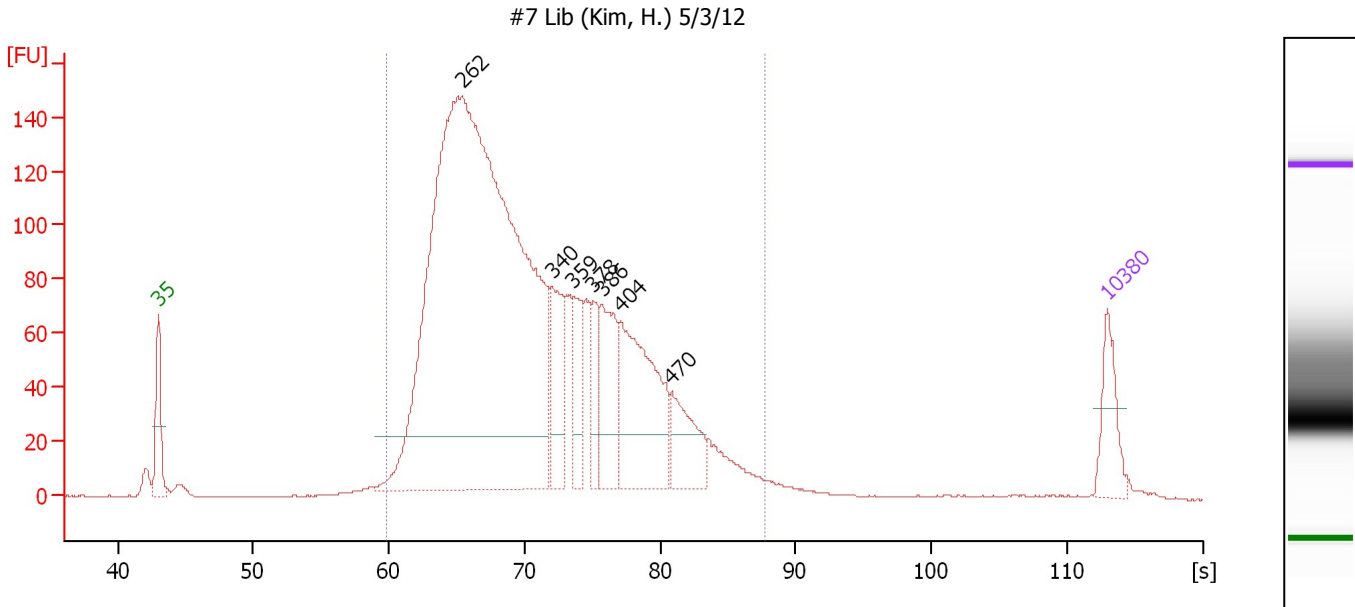
**Peak table for Ladder**

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

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : #7 Lib (Kim, H.) 5/3/12**

Number of peaks found: 7                      Corr. Area 1: 2,757.3  
 Noise: 0.2

**Peak table for sample 1 : #7 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	2,943.51	17,006.5	
3	340	177.39	789.9	
4	359	117.92	497.2	
5	378	79.50	318.8	
6	386	176.10	691.1	
7	404	356.13	1,335.0	
8	470	130.24	420.1	
9	10,380	75.00	10.9	Upper Marker

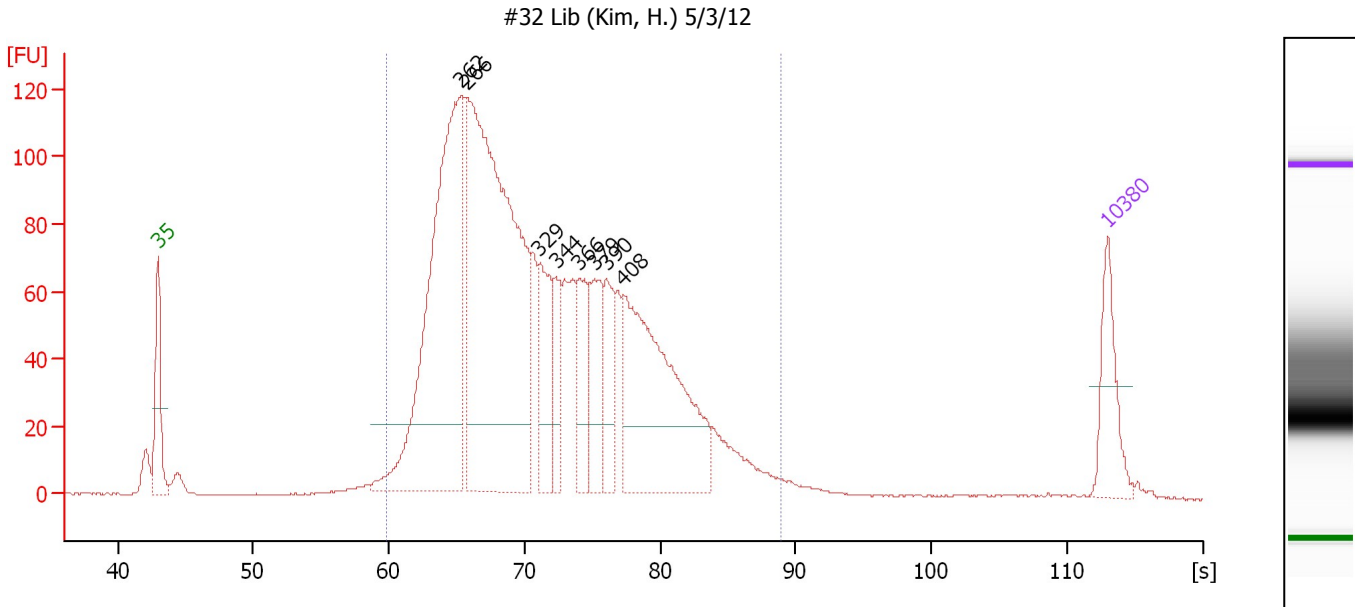
**Region table for sample 1 : #7 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	21,348.5	330	4,299.82	87.73	2,757.3	96	24.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : #32 Lib (Kim, H.) 5/3/12**

Number of peaks found: 8                      Corr. Area 1: 2,322.4  
 Noise: 0.2

**Peak table for sample 2 : #32 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	755.27	4,375.3	
3	266	1,037.13	5,906.8	
4	329	139.82	644.2	
5	344	76.15	335.5	
6	366	97.53	404.3	
7	379	114.02	455.3	
8	390	90.37	351.1	
9	408	427.60	1,588.7	
10	10,380	75.00	10.9	Upper Marker

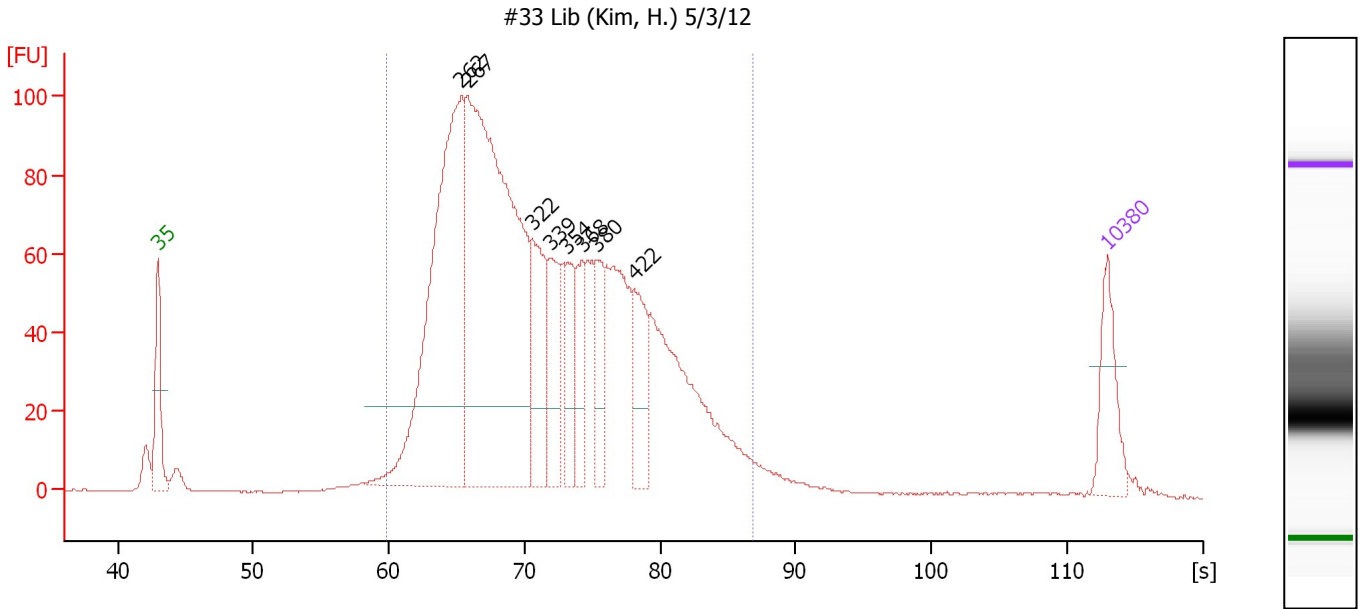
**Region table for sample 2 : #32 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	15,404.7	339	3,165.75	88.90	2,322.4	96	25.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : #33 Lib (Kim, H.) 5/3/12**

Number of peaks found: 8                      Corr. Area 1: 2,029.6  
 Noise: 0.2

**Peak table for sample 3 : #33 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	262	774.69	4,488.5	
3	267	1,084.89	6,154.2	
4	322	188.34	885.7	
5	339	122.95	550.2	
6	354	93.27	398.7	
7	368	90.66	373.2	
8	380	94.55	376.5	
9	422	109.09	391.7	
10	10,380	75.00	10.9	Upper Marker

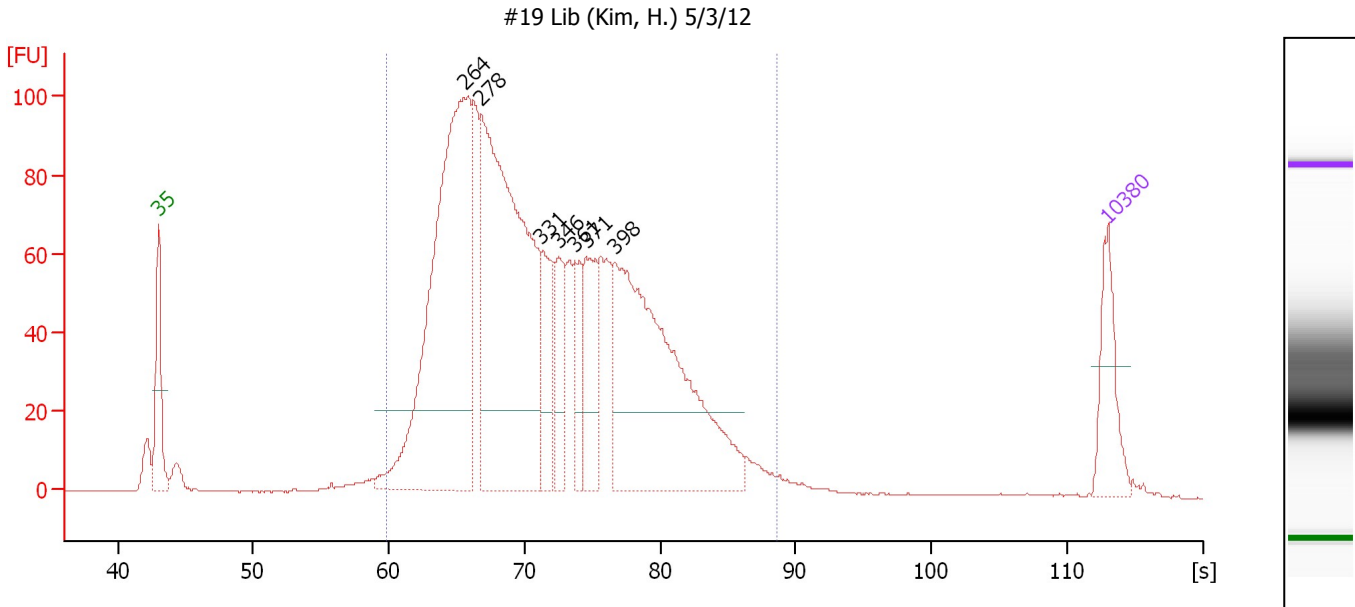
**Region table for sample 3 : #33 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	16,186.1	340	3,351.60	86.82	2,029.6	95	24.6	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : #19 Lib (Kim, H.) 5/3/12**

Number of peaks found: 7                      Corr. Area 1: 2,049.2  
 Noise: 0.2

**Peak table for sample 4 : #19 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	264	840.46	4,822.5	
3	278	821.34	4,476.0	
4	331	124.37	569.6	
5	346	89.79	392.7	
6	361	75.28	315.6	
7	371	133.04	543.0	
8	398	591.30	2,252.7	
9	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : #19 Lib (Kim, H.) 5/3/12**

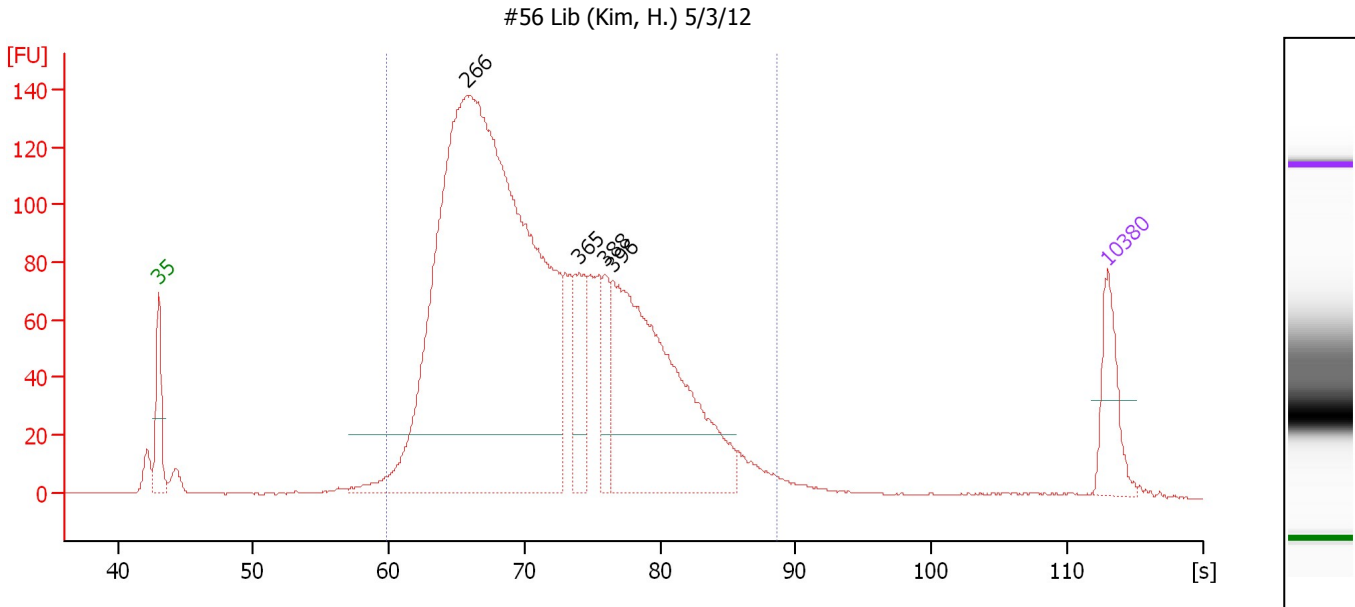
From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	14,667.7	343	3,050.33	88.67	2,049.2	95	25.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : #56 Lib (Kim, H.) 5/3/12**

Number of peaks found: 4                      Corr. Area 1: 2,698.6  
 Noise: 0.2

**Peak table for sample 5 : #56 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	266	2,331.45	13,287.4	
3	365	134.02	556.4	
4	388	76.54	298.6	
5	396	618.81	2,367.7	
6	10,380	75.00	10.9	Upper Marker

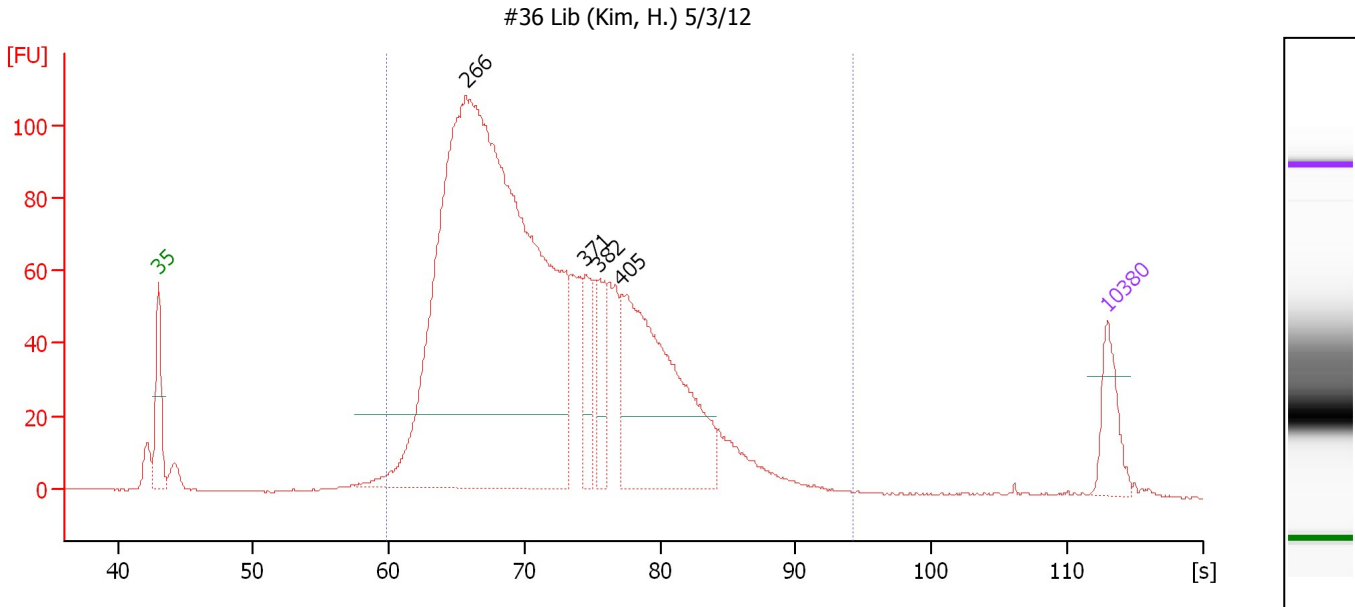
**Region table for sample 5 : #56 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	16,107.8	341	3,337.94	88.68	2,698.6	96	25.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : #36 Lib (Kim, H.) 5/3/12**

Number of peaks found: 4                      Corr. Area 1: 2,093.1  
 Noise: 0.2

**Peak table for sample 6 : #36 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	266	2,989.28	17,040.9	
3	371	108.12	442.0	
4	382	103.57	410.3	
5	405	619.48	2,315.5	
6	10,380	75.00	10.9	Upper Marker

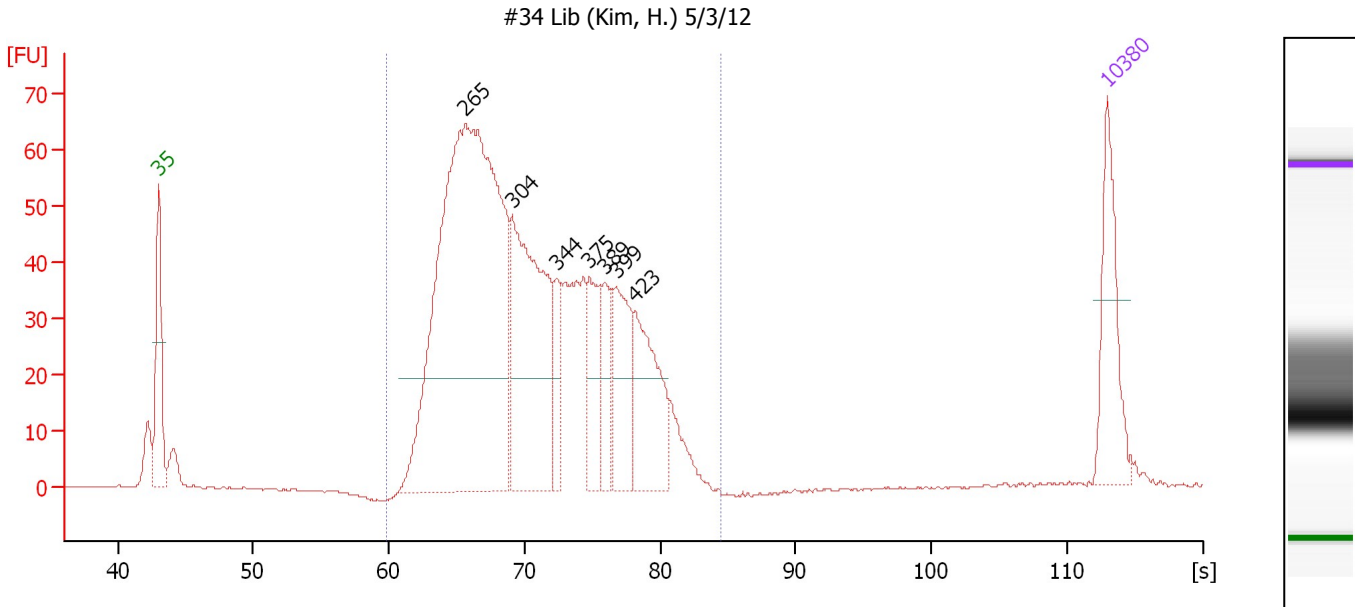
**Region table for sample 6 : #36 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	20,169.9	346	4,205.64	94.27	2,093.1	97	27.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : #34 Lib (Kim, H.) 5/3/12**

Number of peaks found: 7                      Corr. Area 1: 1,115.3  
 Noise: 0.2

**Peak table for sample 7 : #34 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	265	912.47	5,220.1	
3	304	315.13	1,572.2	
4	344	50.22	221.1	
5	375	71.14	287.8	
6	389	54.61	212.8	
7	399	97.33	369.6	
8	423	122.91	440.3	
9	10,380	75.00	10.9	Upper Marker

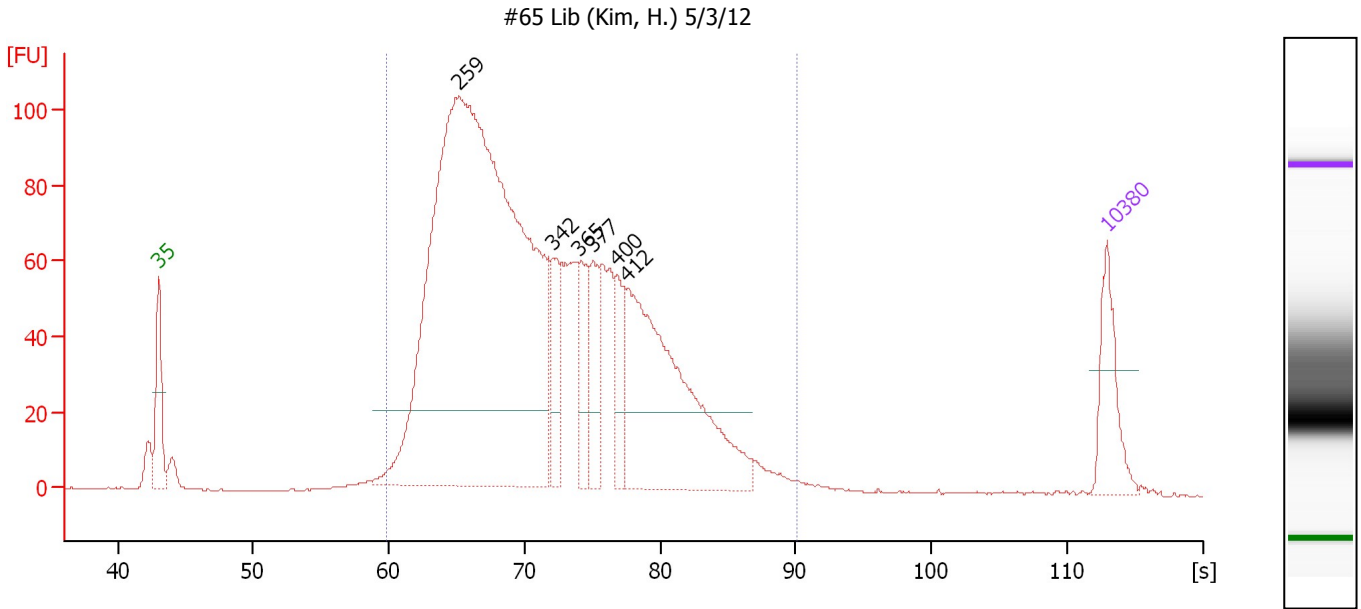
**Region table for sample 7 : #34 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	8,625.6	326	1,758.92	84.46	1,115.3	97	20.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : #65 Lib (Kim, H.) 5/3/12**

Number of peaks found: 6      Corr. Area 1: 2,083.3  
 Noise: 0.2

**Peak table for sample 8 : #65 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	259	1,991.96	11,648.1	
3	342	94.71	420.1	
4	365	93.81	388.9	
5	377	85.59	343.6	
6	400	75.53	286.0	
7	412	473.52	1,741.5	
8	10,380	75.00	10.9	Upper Marker

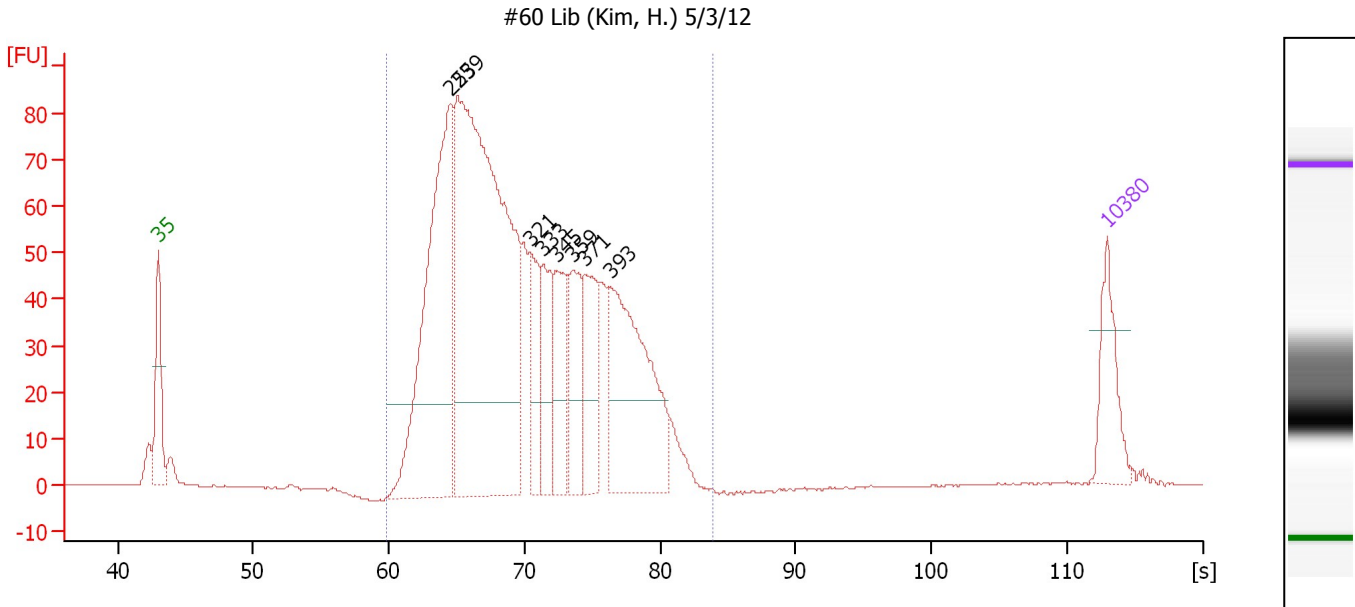
**Region table for sample 8 : #65 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	15,008.3	341	3,094.43	90.13	2,083.3	96	26.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : #60 Lib (Kim, H.) 5/3/12**

Number of peaks found: 8                      Corr. Area 1: 1,409.0  
 Noise: 0.2

**Peak table for sample 9 : #60 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	253	625.52	3,742.2	
3	259	1,154.03	6,746.0	
4	321	110.89	523.9	
5	333	122.62	558.5	
6	345	123.69	543.7	
7	359	119.16	502.7	
8	371	136.66	558.8	
9	393	341.81	1,316.5	
10	10,380	75.00	10.9	Upper Marker

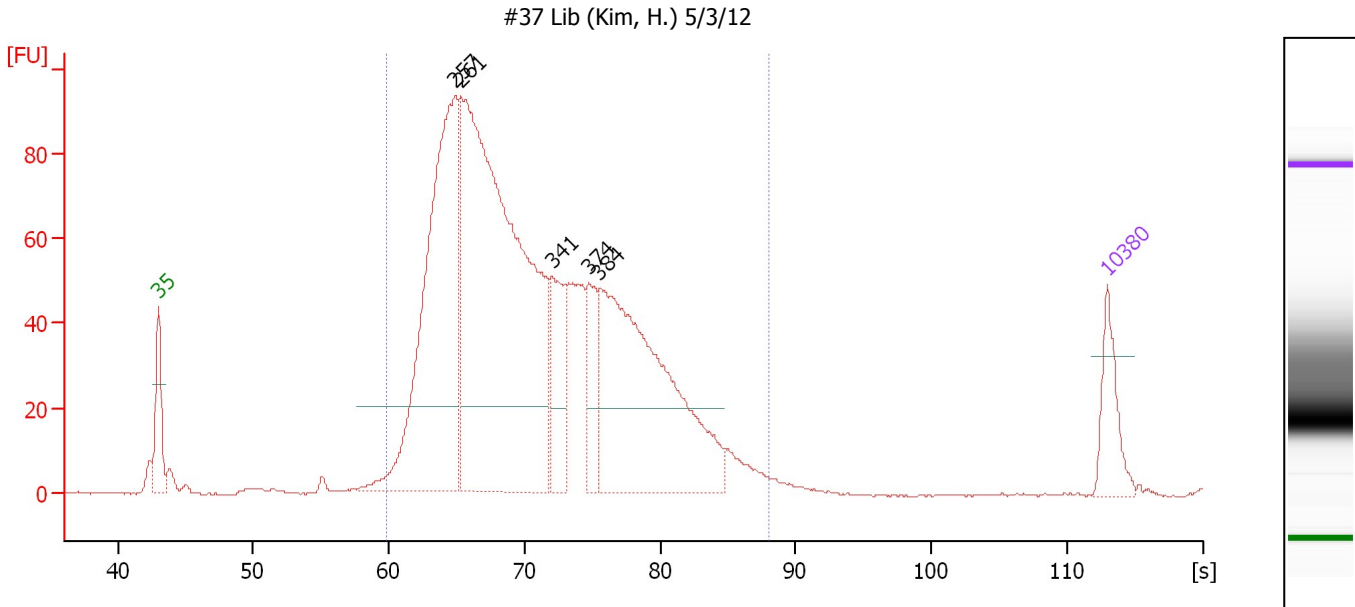
**Region table for sample 9 : #60 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	14,154.2	318	2,817.40	83.83	1,409.0	98	20.3	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : #37 Lib (Kim, H.) 5/3/12**

Number of peaks found: 5                      Corr. Area 1: 1,734.7  
 Noise: 0.2

**Peak table for sample 10 : #37 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	257	904.06	5,332.6	
3	261	1,627.31	9,438.3	
4	341	186.97	831.6	
5	374	117.30	475.1	
6	384	749.19	2,958.0	
7	10,380	75.00	10.9	Upper Marker

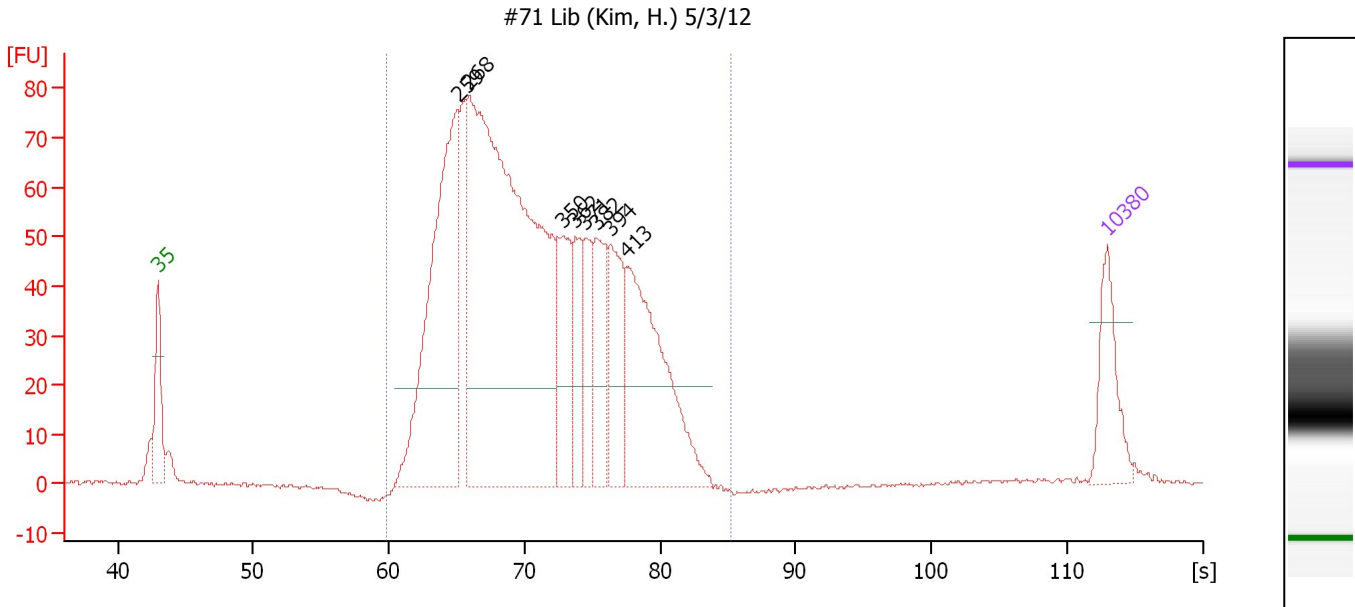
**Region table for sample 10 : #37 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	18,671.7	333	3,782.13	88.06	1,734.7	95	25.4	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : #71 Lib (Kim, H.) 5/3/12**

Number of peaks found: 8                      Corr. Area 1: 1,433.9  
 Noise: 0.3

**Peak table for sample 11 : #71 Lib (Kim, H.) 5/3/12**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	259	557.29	3,260.6	
3	268	1,280.28	7,245.0	
4	350	144.66	625.8	
5	362	91.41	382.7	
6	371	89.38	365.0	
7	382	115.37	457.6	
8	394	133.28	512.2	
9	413	323.30	1,187.1	
10	10,380	75.00	10.9	Upper Marker

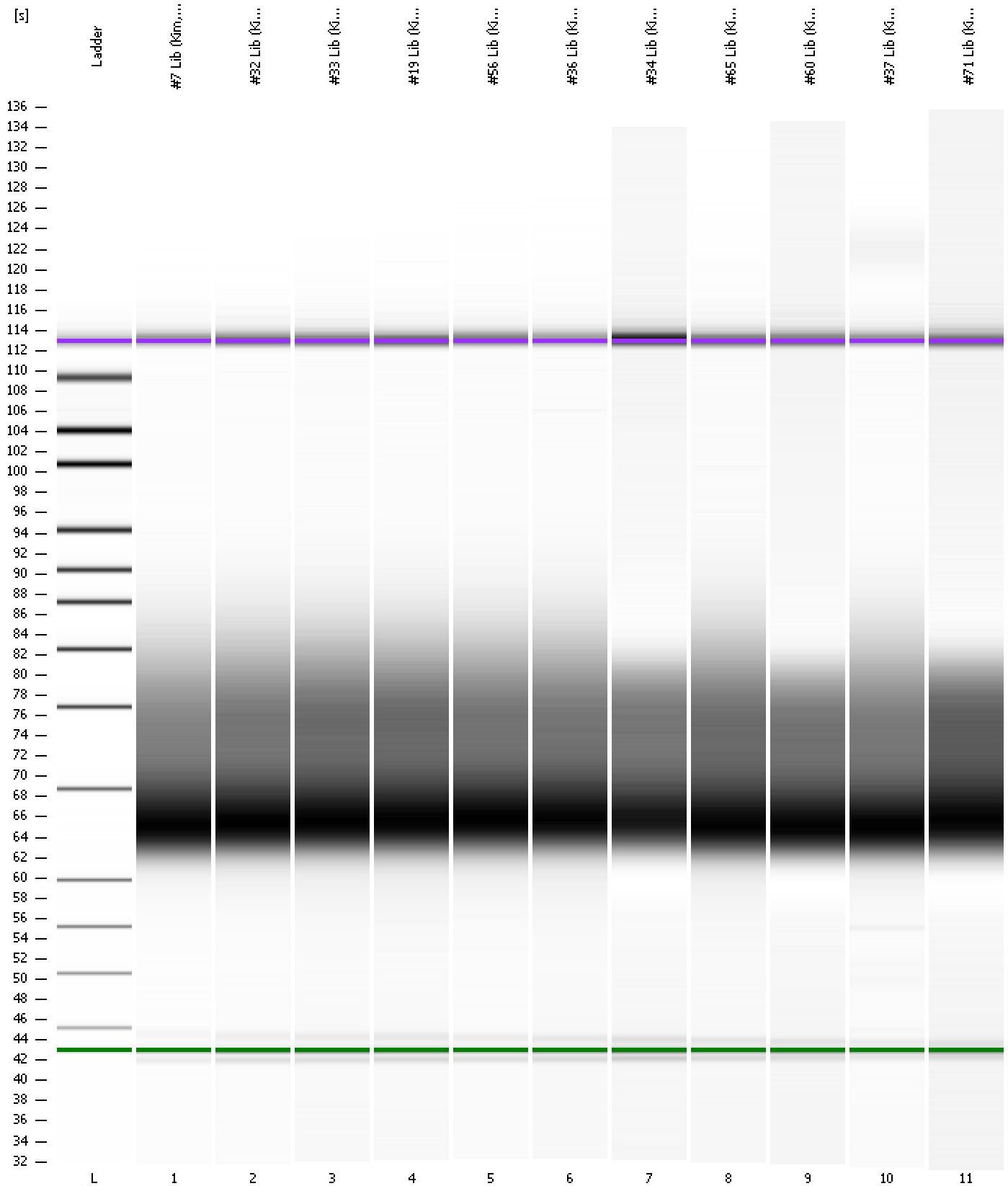
**Region table for sample 11 : #71 Lib (Kim, H.) 5/3/12**

From [s]	Molarity [pmol/l]	Average Size [bp]	Conc. [pg/μl]	To [s]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.80	13,559.9	328	2,769.15	85.26	1,433.9	98	20.6	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
Modified: 5/4/2012 11:00:42 AM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2012-05-04\2012-05-04\_002.xad

Created: 5/4/2012 10:11:32 AM  
 Modified: 5/4/2012 11:00:42 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		5/4/2012 10:52:51 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2012-05-04\2012-05-04_002.xad)		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/4/2012 10:11:38 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1