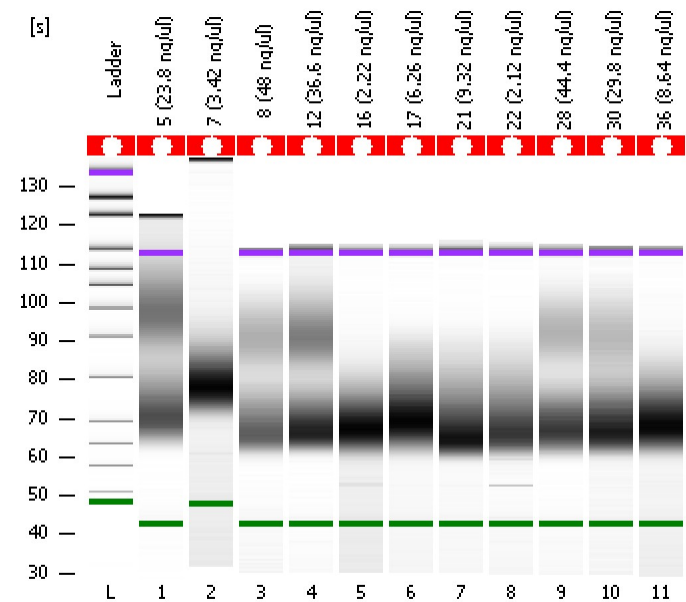


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
Modified: 1/27/2015 11:25:50 AM

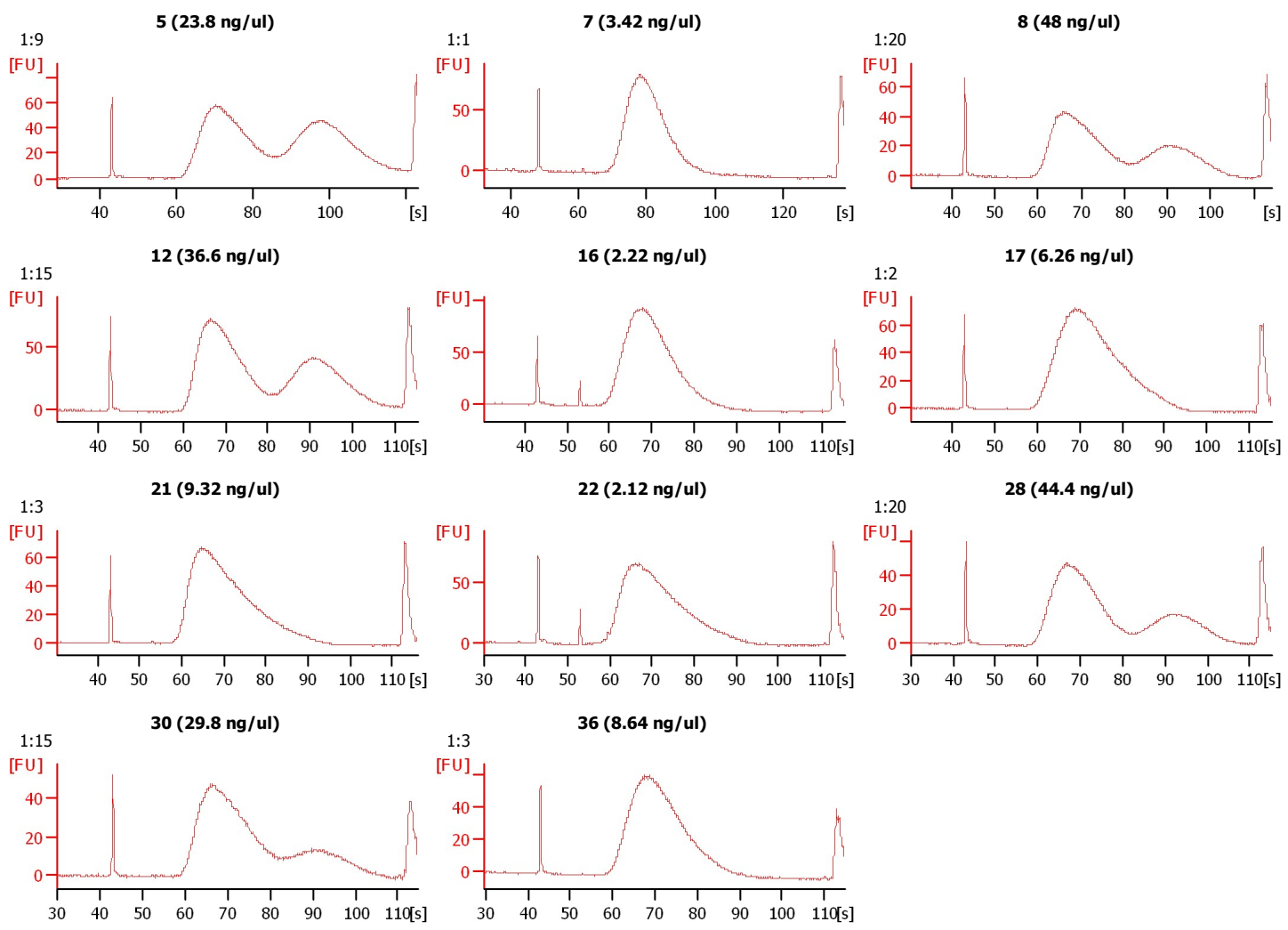
### Electrophoresis File Run Summary



**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:



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
Modified: 1/27/2015 11:25:50 AM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
5 (23.8 ng/ul)	1:9	<input type="checkbox"/>	✓			
7 (3.42 ng/ul)	1:1	<input type="checkbox"/>	✓			
8 (48 ng/ul)	1:20	<input type="checkbox"/>	✓			
12 (36.6 ng/ul)	1:15	<input type="checkbox"/>	✓			
16 (2.22 ng/ul)		<input type="checkbox"/>	✓			
17 (6.26 ng/ul)	1:2	<input type="checkbox"/>	✓			
21 (9.32 ng/ul)	1:3	<input type="checkbox"/>	✓			
22 (2.12 ng/ul)		<input type="checkbox"/>	✓			
28 (44.4 ng/ul)	1:20	<input type="checkbox"/>	✓			
30 (29.8 ng/ul)	1:15	<input type="checkbox"/>	✓			
36 (8.64 ng/ul)	1:3	<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\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
Modified: 1/27/2015 11:25:50 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

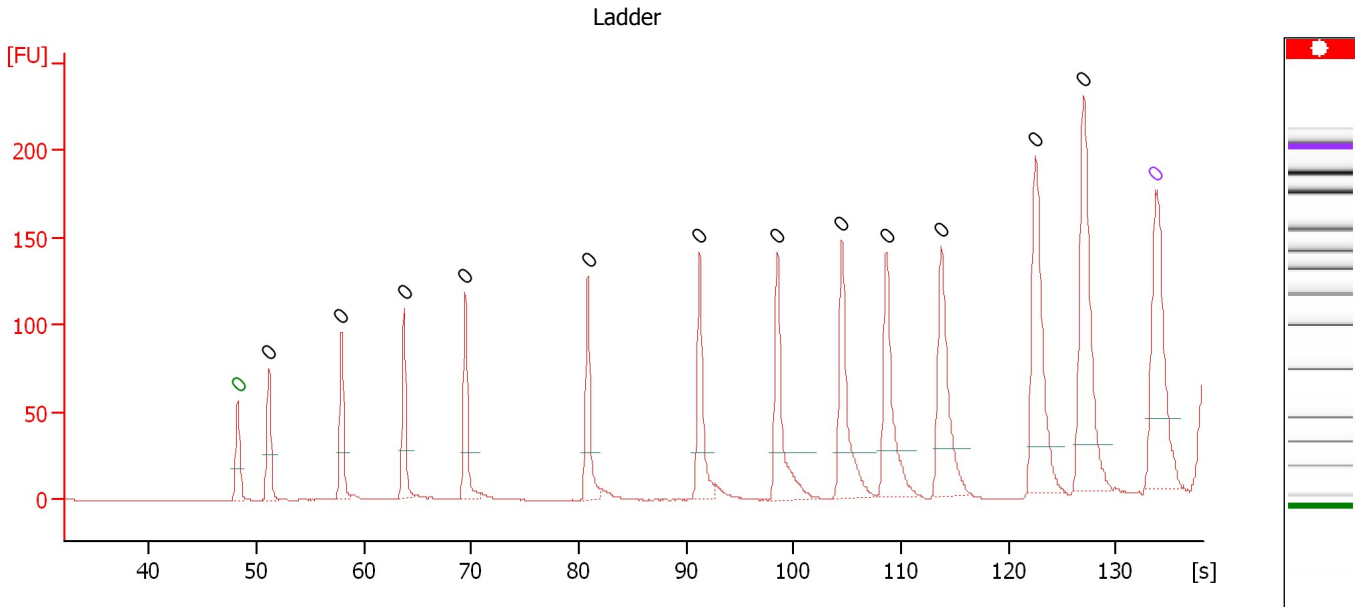
**Ladder**

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\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

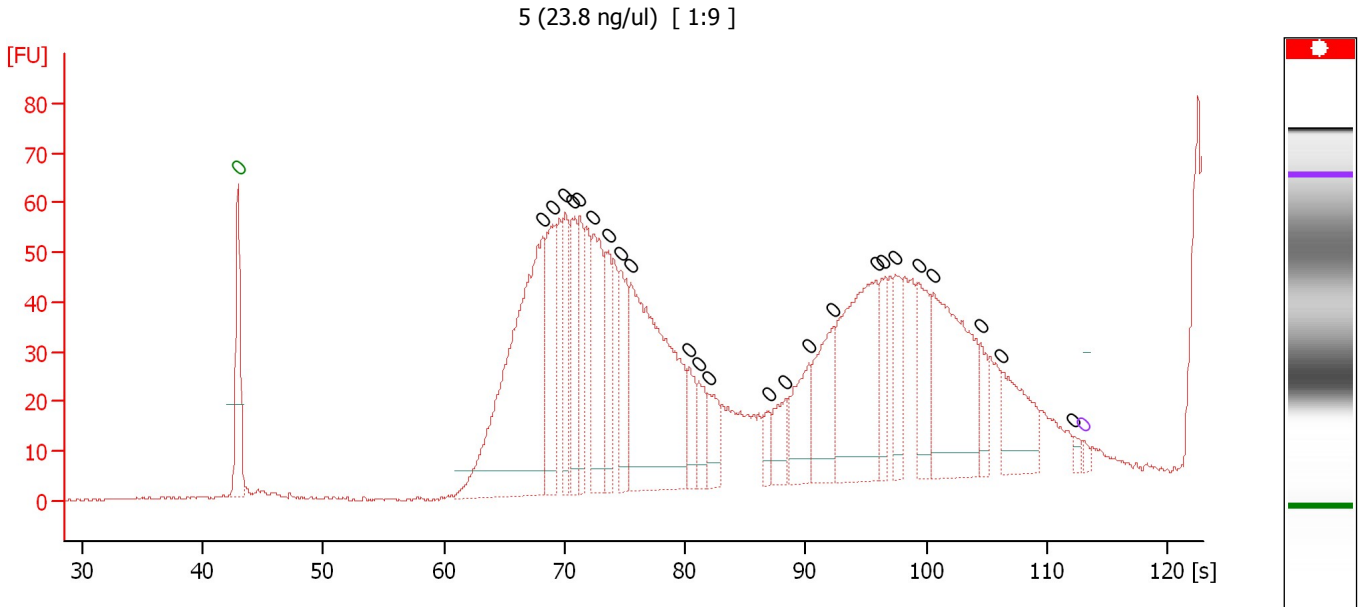
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	48.25
2	0	0.00	0.0	Ladder Peak	51.15
3	0	0.00	0.0	Ladder Peak	57.90
4	0	0.00	0.0	Ladder Peak	63.75
5	0	0.00	0.0	Ladder Peak	69.45
6	0	0.00	0.0	Ladder Peak	80.85
7	0	0.00	0.0	Ladder Peak	91.25
8	0	0.00	0.0	Ladder Peak	98.50
9	0	0.00	0.0	Ladder Peak	104.50
10	0	0.00	0.0	Ladder Peak	108.65
11	0	0.00	0.0	Ladder Peak	113.75
12	0	0.00	0.0	Ladder Peak	122.50
13	0	0.00	0.0	Ladder Peak	127.00
14	0	0.00	0.0	Upper Marker	133.70

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 5 (23.8 ng/ul)**

Number of peaks found: 24 Noise: 0.2

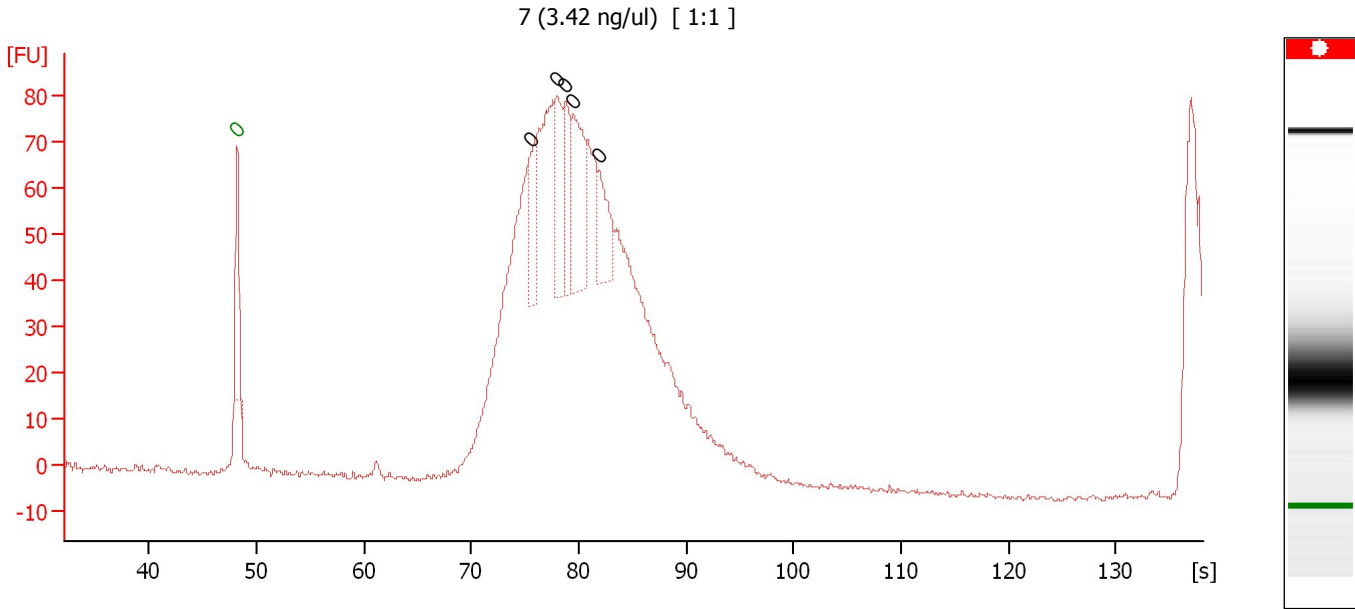
**Peak table for sample 1 : 5 (23.8 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		68.17
3	0	0.00	0.0		69.06
4	0	0.00	0.0		70.08
5	0	0.00	0.0		70.62
6	0	0.00	0.0		71.24
7	0	0.00	0.0		72.40
8	0	0.00	0.0		73.60
9	0	0.00	0.0		74.66
10	0	0.00	0.0		75.51
11	0	0.00	0.0		80.36
12	0	0.00	0.0		81.11
13	0	0.00	0.0		81.91
14	0	0.00	0.0		86.89
15	0	0.00	0.0		88.27
16	0	0.00	0.0		90.27
17	0	0.00	0.0		92.28
18	0	0.00	0.0		95.83
19	0	0.00	0.0		96.32
20	0	0.00	0.0		97.39
21	0	0.00	0.0		99.30
22	0	0.00	0.0		100.55
23	0	0.00	0.0		104.46
24	0	0.00	0.0		106.24
25	0	0.00	0.0		112.20
26	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Setpoint Deviations for sample 2 : 7 (3.42 ng/ul)**

Area Threshold : 0.05

**Overall Results for sample 2 : 7 (3.42 ng/ul)**

Number of peaks found: 5 Noise: 0.6

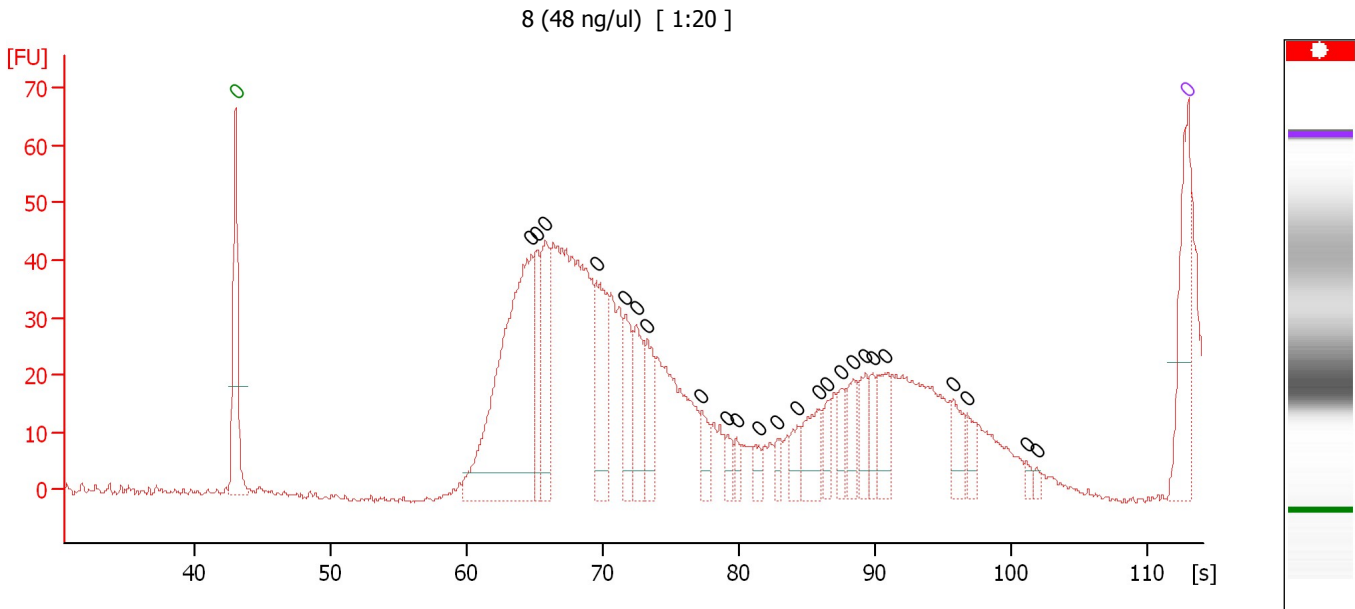
**Peak table for sample 2 : 7 (3.42 ng/ul)**

Pea k	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	48.20
2	0	0.00	0.0		75.50
3	0	0.00	0.0		77.95
4	0	0.00	0.0		78.70
5	0	0.00	0.0		79.35
6	0	0.00	0.0		81.80

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 8 (48 ng/ul)**

Number of peaks found: 24 Noise: 0.6

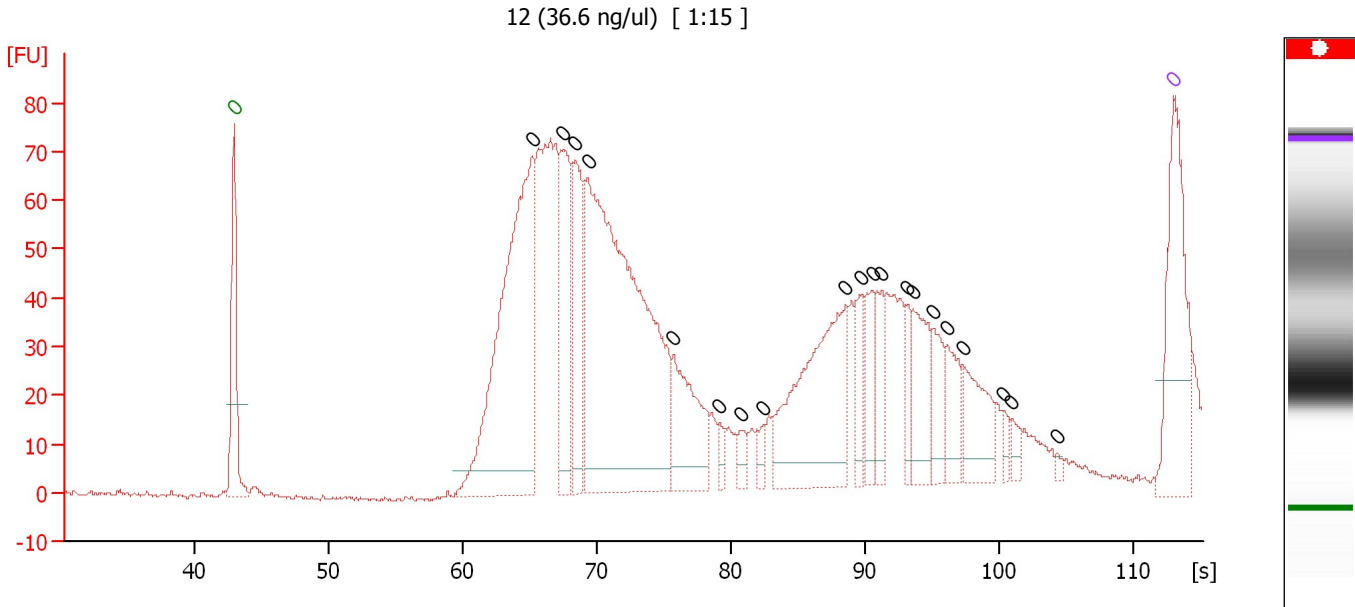
**Peak table for sample 3 : 8 (48 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		64.75
3	0	0.00	0.0		65.19
4	0	0.00	0.0		65.78
5	0	0.00	0.0		69.53
6	0	0.00	0.0		71.66
7	0	0.00	0.0		72.45
8	0	0.00	0.0		73.24
9	0	0.00	0.0		77.23
10	0	0.00	0.0		79.13
11	0	0.00	0.0		79.84
12	0	0.00	0.0		81.45
13	0	0.00	0.0		82.84
14	0	0.00	0.0		84.30
15	0	0.00	0.0		85.96
16	0	0.00	0.0		86.47
17	0	0.00	0.0		87.46
18	0	0.00	0.0		88.40
19	0	0.00	0.0		89.31
20	0	0.00	0.0		89.79
21	0	0.00	0.0		90.77
22	0	0.00	0.0		95.71
23	0	0.00	0.0		96.81
24	0	0.00	0.0		101.12
25	0	0.00	0.0		101.91
26	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 12 (36.6 ng/ul)**

Number of peaks found: 20                      Noise: 0.4

**Peak table for sample 4 : 12 (36.6 ng/ul)**

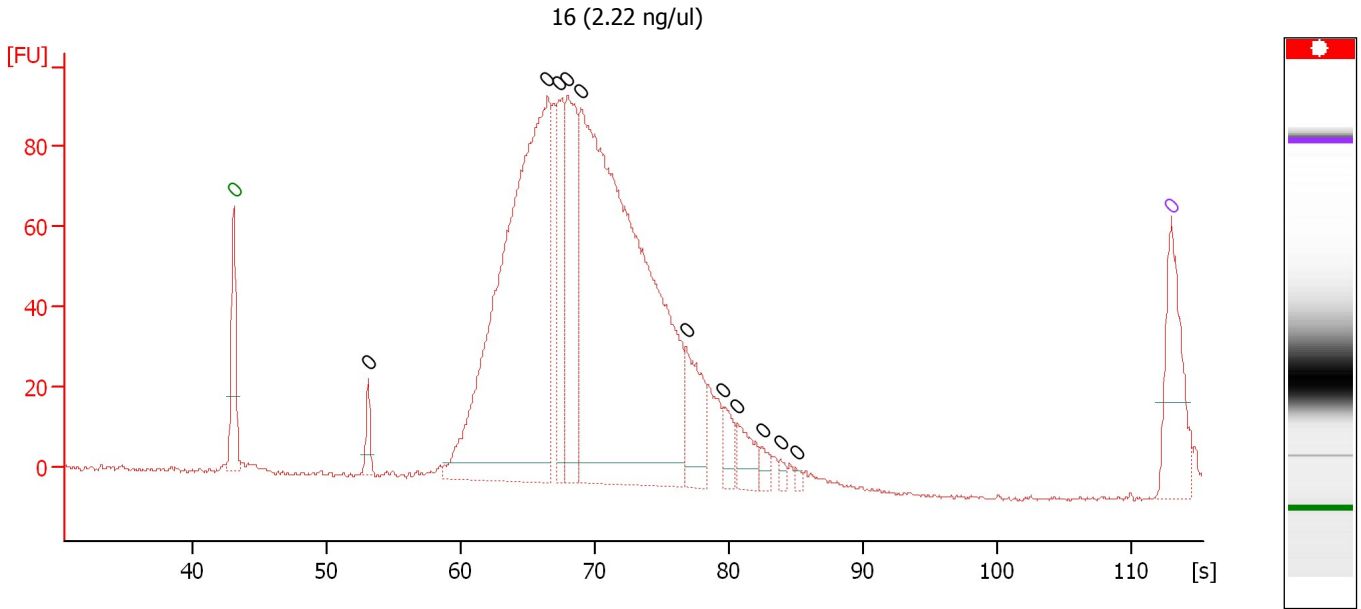
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		65.21
3	0	0.00	0.0		67.49
4	0	0.00	0.0		68.45
5	0	0.00	0.0		69.38
6	0	0.00	0.0		75.74
7	0	0.00	0.0		79.14
8	0	0.00	0.0		80.74
9	0	0.00	0.0		82.46
10	0	0.00	0.0		88.59
11	0	0.00	0.0		89.75
12	0	0.00	0.0		90.55
13	0	0.00	0.0		91.27
14	0	0.00	0.0		93.15
15	0	0.00	0.0		93.63
16	0	0.00	0.0		95.11
17	0	0.00	0.0		96.15
18	0	0.00	0.0		97.31
19	0	0.00	0.0		100.35
20	0	0.00	0.0		100.95
21	0	0.00	0.0		104.36
22	0	0.00	0.0	Upper Marker	113.00



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 16 (2.22 ng/ul)**

Number of peaks found: 11                      Noise: 0.5

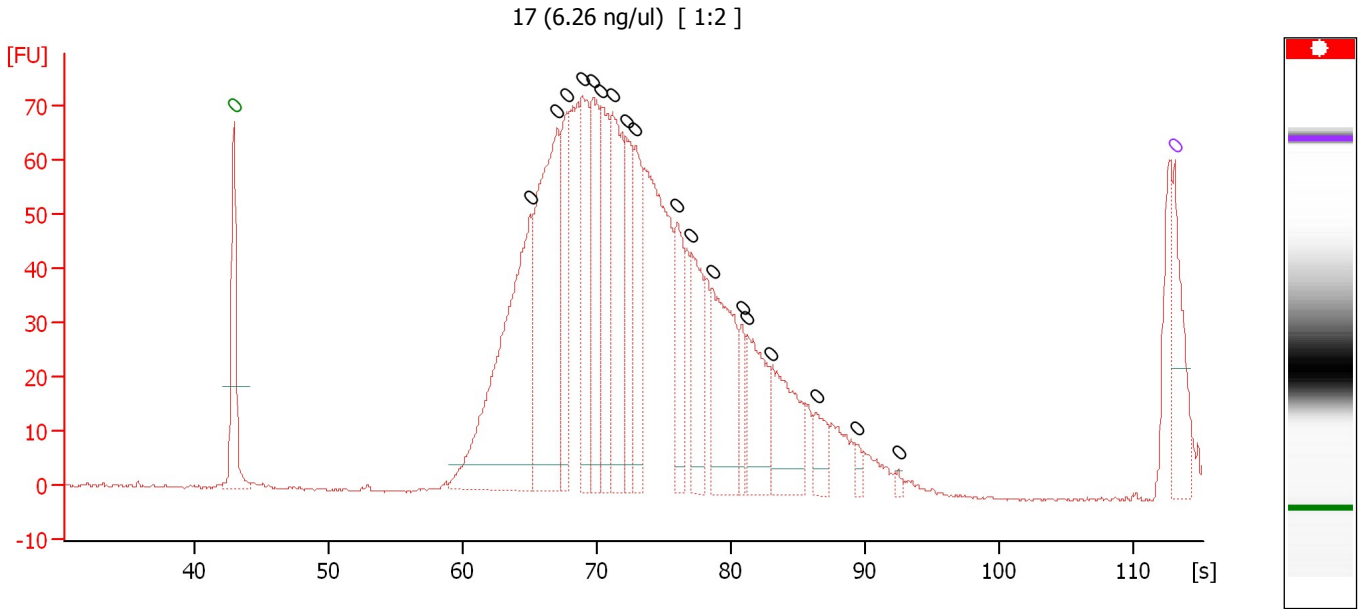
**Peak table for sample 5 : 16 (2.22 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		53.06
3	0	0.00	0.0		66.45
4	0	0.00	0.0		67.34
5	0	0.00	0.0		67.94
6	0	0.00	0.0		68.94
7	0	0.00	0.0		76.80
8	0	0.00	0.0		79.60
9	0	0.00	0.0		80.65
10	0	0.00	0.0		82.45
11	0	0.00	0.0		83.85
12	0	0.00	0.0		85.02
13	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 17 (6.26 ng/ul)**

Number of peaks found: 18 Noise: 0.3

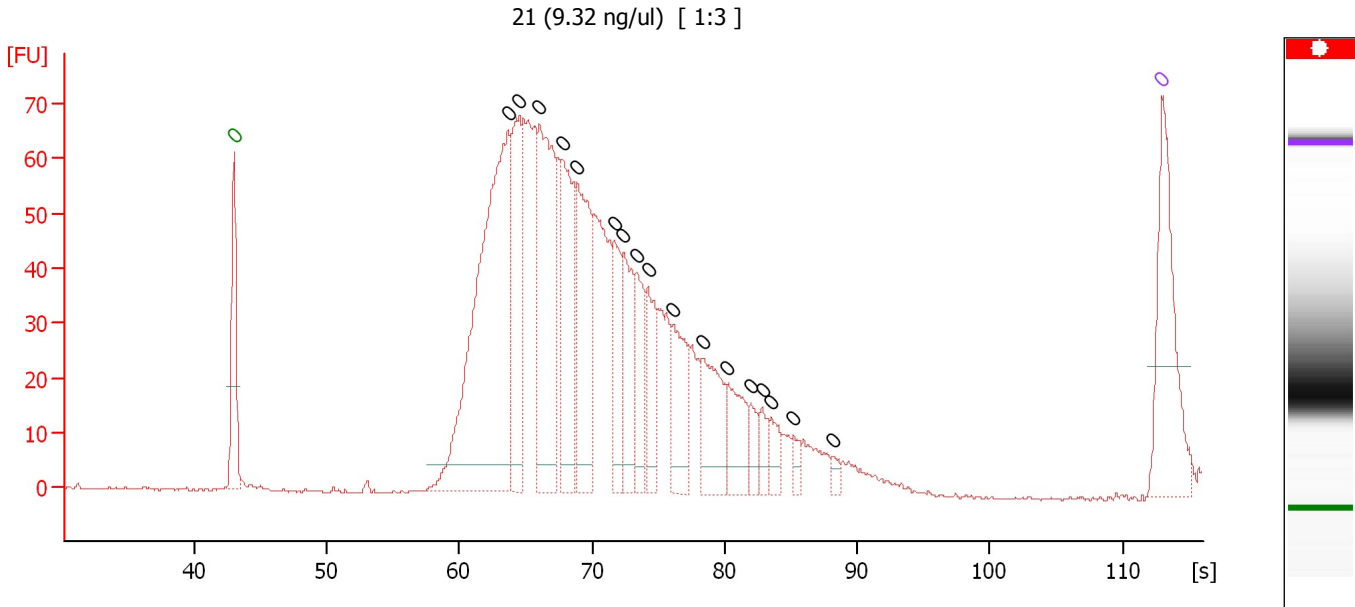
**Peak table for sample 6 : 17 (6.26 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		65.07
3	0	0.00	0.0		67.03
4	0	0.00	0.0		67.79
5	0	0.00	0.0		68.99
6	0	0.00	0.0		69.74
7	0	0.00	0.0		70.34
8	0	0.00	0.0		71.18
9	0	0.00	0.0		72.18
10	0	0.00	0.0		72.86
11	0	0.00	0.0		75.94
12	0	0.00	0.0		77.06
13	0	0.00	0.0		78.62
14	0	0.00	0.0		80.82
15	0	0.00	0.0		81.22
16	0	0.00	0.0		82.98
17	0	0.00	0.0		86.38
18	0	0.00	0.0		89.41
19	0	0.00	0.0		92.45
20	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 21 (9.32 ng/ul)**

Number of peaks found: 17                      Noise: 0.3

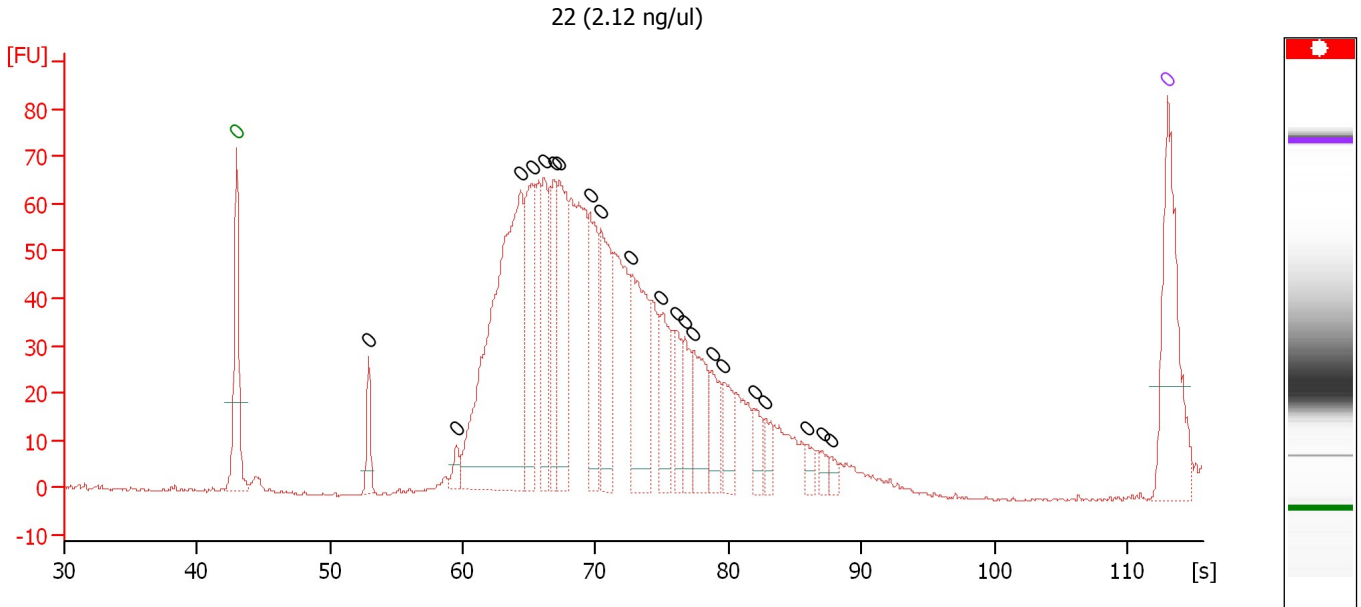
**Peak table for sample 7 : 21 (9.32 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		63.66
3	0	0.00	0.0		64.47
4	0	0.00	0.0		66.05
5	0	0.00	0.0		67.75
6	0	0.00	0.0		68.89
7	0	0.00	0.0		71.72
8	0	0.00	0.0		72.37
9	0	0.00	0.0		73.34
10	0	0.00	0.0		74.23
11	0	0.00	0.0		76.06
12	0	0.00	0.0		78.32
13	0	0.00	0.0		80.23
14	0	0.00	0.0		82.01
15	0	0.00	0.0		82.82
16	0	0.00	0.0		83.47
17	0	0.00	0.0		85.17
18	0	0.00	0.0		88.21
19	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 22 (2.12 ng/ul)**

Number of peaks found: 21                      Noise: 0.2

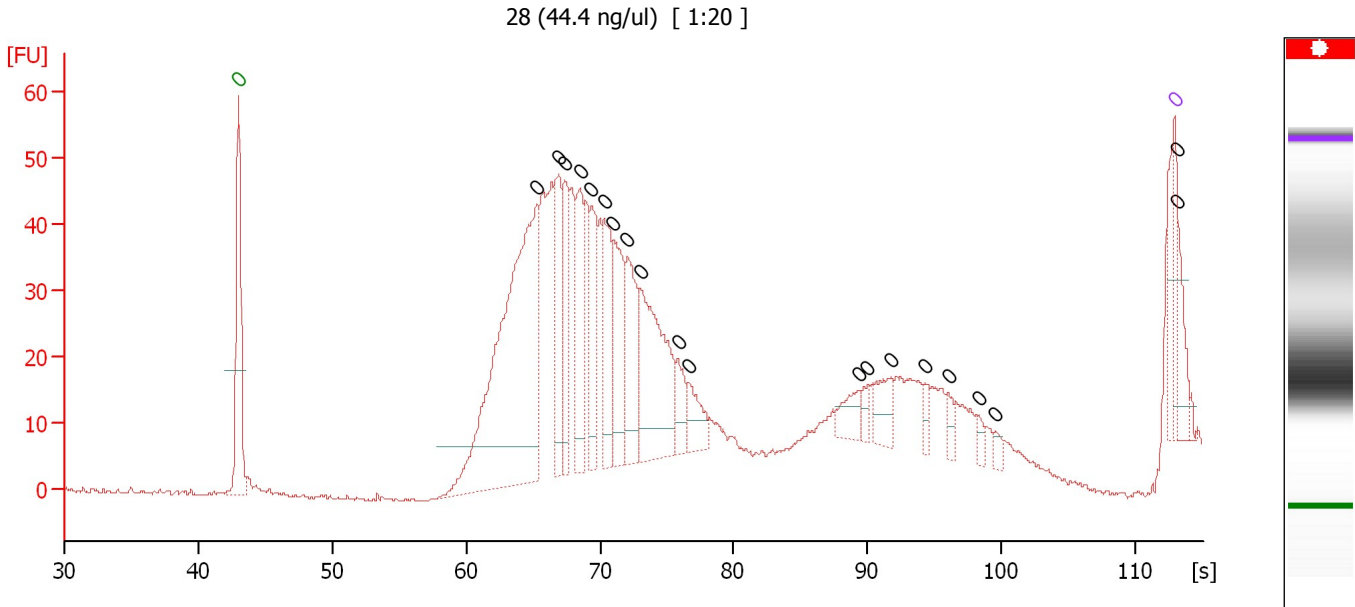
**Peak table for sample 8 : 22 (2.12 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		52.94
3	0	0.00	0.0		59.52
4	0	0.00	0.0		64.33
5	0	0.00	0.0		65.22
6	0	0.00	0.0		66.10
7	0	0.00	0.0		66.87
8	0	0.00	0.0		67.28
9	0	0.00	0.0		69.58
10	0	0.00	0.0		70.35
11	0	0.00	0.0		72.61
12	0	0.00	0.0		74.91
13	0	0.00	0.0		76.12
14	0	0.00	0.0		76.69
15	0	0.00	0.0		77.37
16	0	0.00	0.0		78.75
17	0	0.00	0.0		79.64
18	0	0.00	0.0		81.94
19	0	0.00	0.0		82.79
20	0	0.00	0.0		85.82
21	0	0.00	0.0		87.03
22	0	0.00	0.0		87.75
23	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 28 (44.4 ng/ul)**

Number of peaks found: 21                      Noise: 0.3

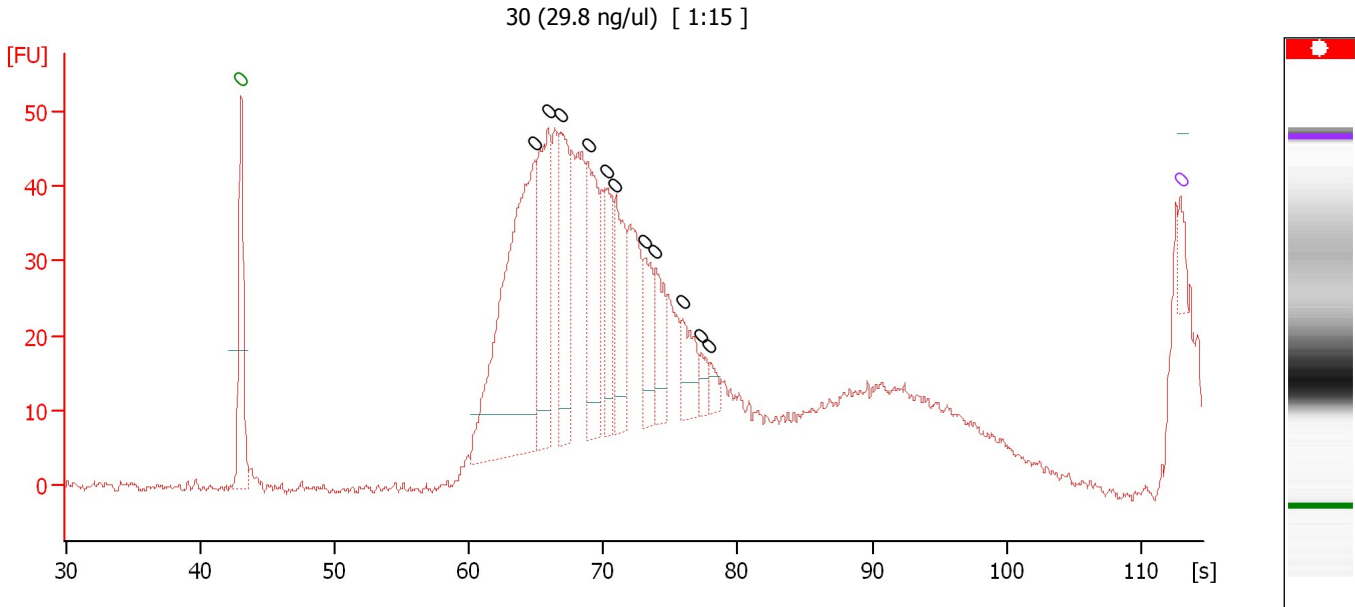
**Peak table for sample 9 : 28 (44.4 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		4.29
2	0	0.00	0.0	Lower Marker	43.00
3	0	0.00	0.0		65.33
4	0	0.00	0.0		66.94
5	0	0.00	0.0		67.34
6	0	0.00	0.0		68.50
7	0	0.00	0.0		69.39
8	0	0.00	0.0		70.31
9	0	0.00	0.0		70.99
10	0	0.00	0.0		72.08
11	0	0.00	0.0		73.00
12	0	0.00	0.0		75.85
13	0	0.00	0.0		76.65
14	0	0.00	0.0		89.35
15	0	0.00	0.0		90.03
16	0	0.00	0.0		91.80
17	0	0.00	0.0		94.29
18	0	0.00	0.0		96.05
19	0	0.00	0.0		98.34
20	0	0.00	0.0		99.59
21	0	0.00	0.0	Upper Marker	113.00
22	0	0.00	0.0		113.12
23	0	0.00	0.0		113.24

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : 30 (29.8 ng/ul)**

Number of peaks found: 11                      Noise: 0.5

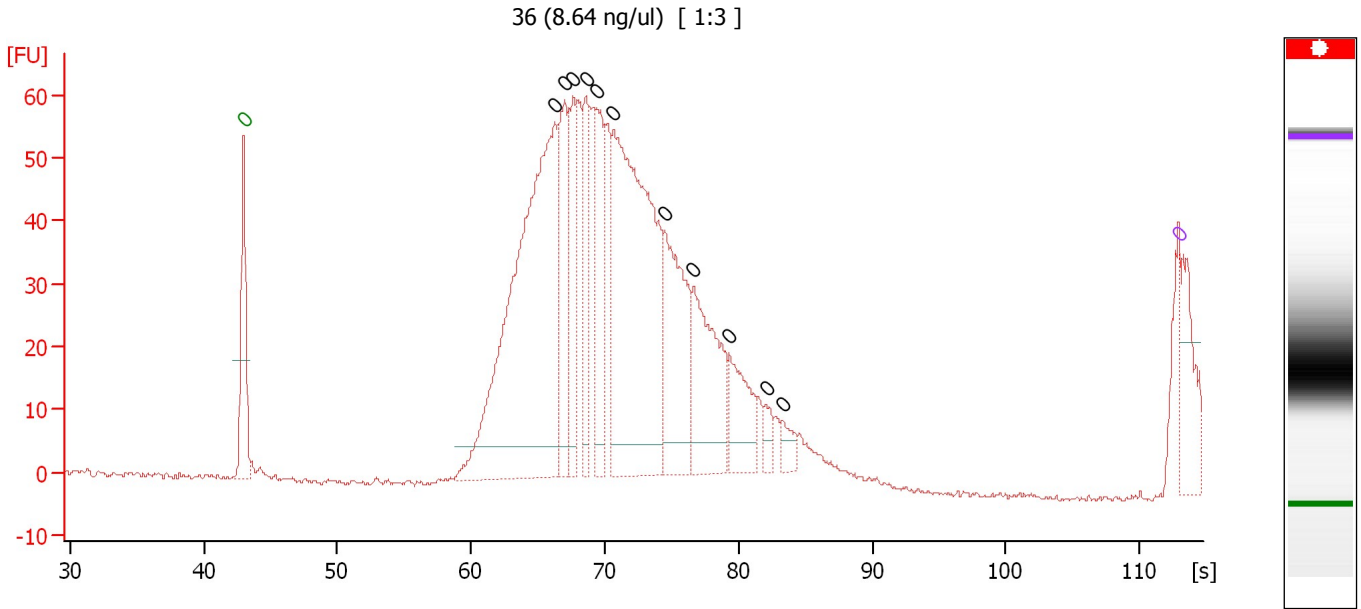
**Peak table for sample 10 : 30 (29.8 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0	Lower Marker	43.00
2	0	0.00	0.0		64.88
3	0	0.00	0.0		65.88
4	0	0.00	0.0		66.88
5	0	0.00	0.0		68.84
6	0	0.00	0.0		70.24
7	0	0.00	0.0		70.84
8	0	0.00	0.0		73.04
9	0	0.00	0.0		73.88
10	0	0.00	0.0		75.88
11	0	0.00	0.0		77.28
12	0	0.00	0.0		77.92
13	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 AM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : 36 (8.64 ng/ul)**

Number of peaks found: 12                      Noise: 0.4

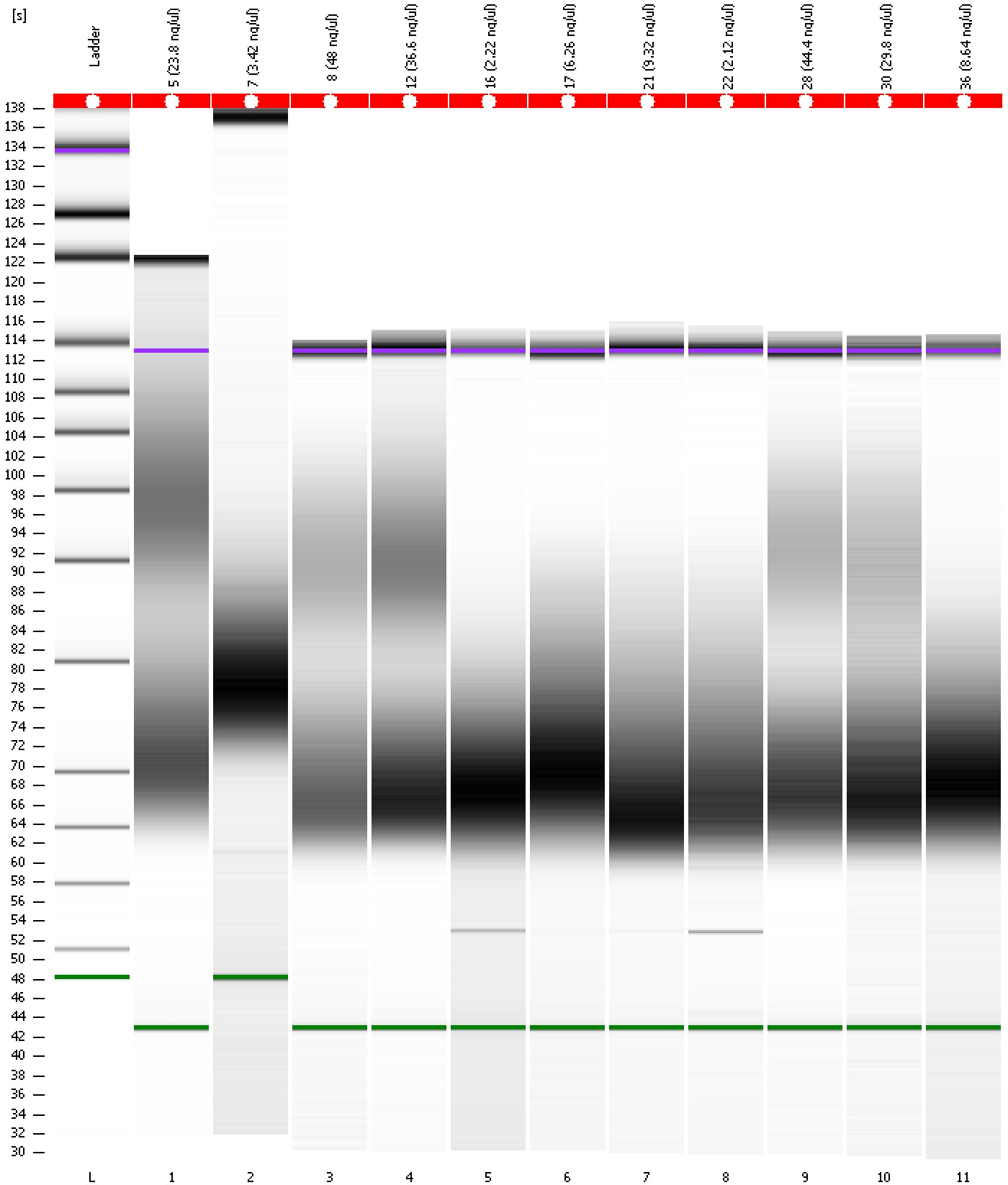
**Peak table for sample 11 : 36 (8.64 ng/ul)**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	0	0.00	0.0		3.92
2	0	0.00	0.0	Lower Marker	43.00
3	0	0.00	0.0		66.25
4	0	0.00	0.0		66.98
5	0	0.00	0.0		67.62
6	0	0.00	0.0		68.62
7	0	0.00	0.0		69.43
8	0	0.00	0.0		70.67
9	0	0.00	0.0		74.53
10	0	0.00	0.0		76.65
11	0	0.00	0.0		79.31
12	0	0.00	0.0		82.12
13	0	0.00	0.0		83.32
14	0	0.00	0.0	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
Modified: 1/27/2015 11:25:50 AM

Gel Image





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-01-27\2015-01-27\_002.xad

Created: 1/27/2015 10:21:32 AM  
 Modified: 1/27/2015 11:25:50 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		1/27/2015 11:02:50 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-01-27\2015-01-27_002.xad)		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/27/2015 10:21:37 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1