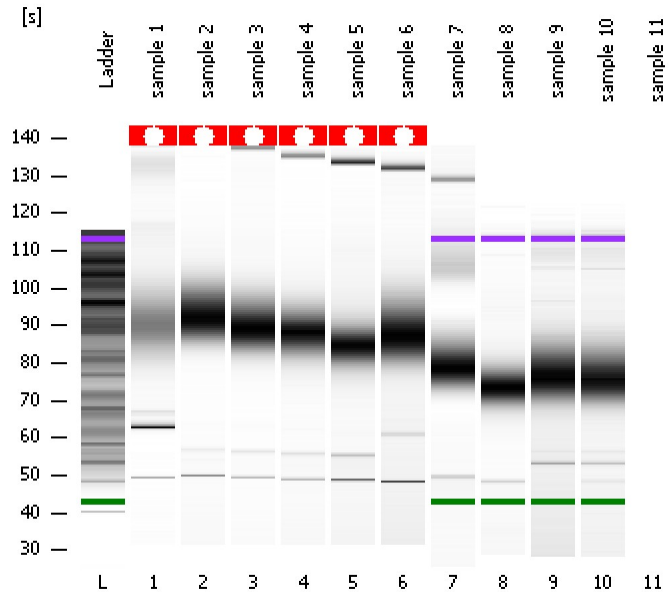


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 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

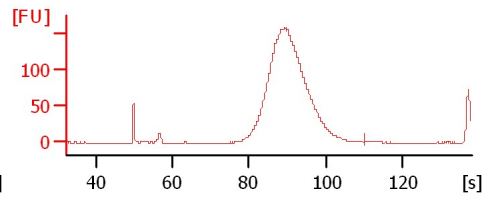
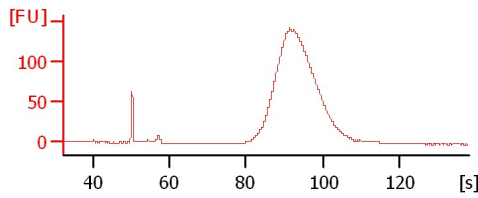
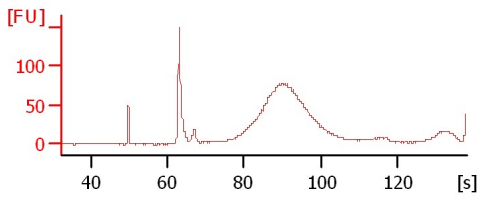
Chip Information:

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

sample 1

sample 2

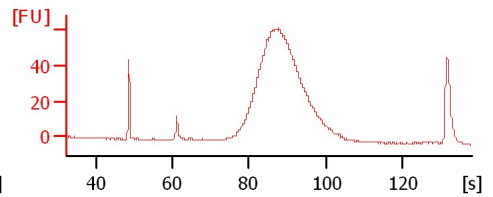
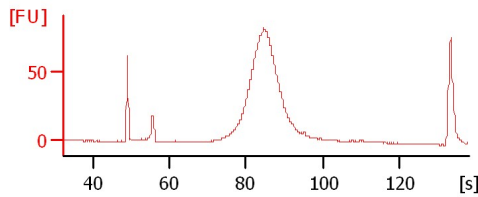
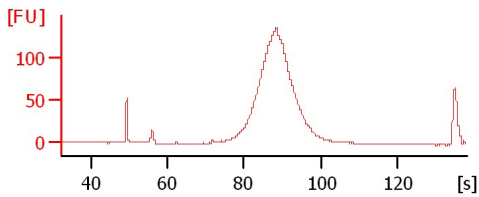
sample 3



sample 4

sample 5

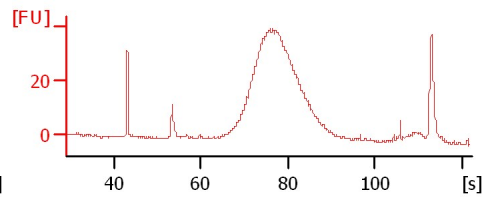
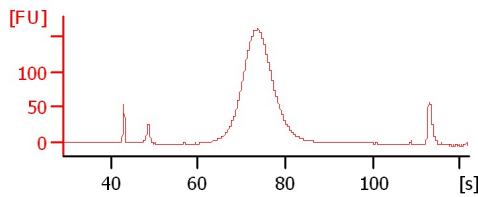
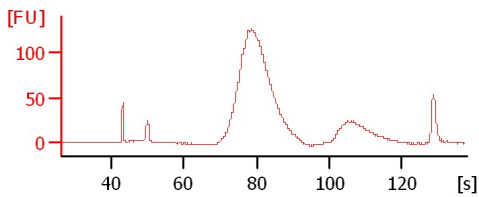
sample 6



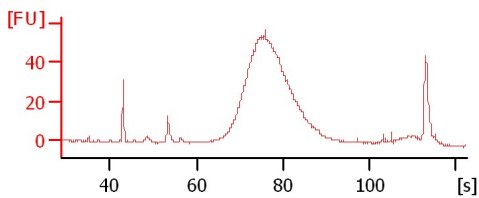
sample 7

sample 8

sample 9



sample 10



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>	✓			
sample 7		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>	✓			
sample 9		<input type="checkbox"/>	✓			
sample 10		<input type="checkbox"/>	✓			
sample 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\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 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/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

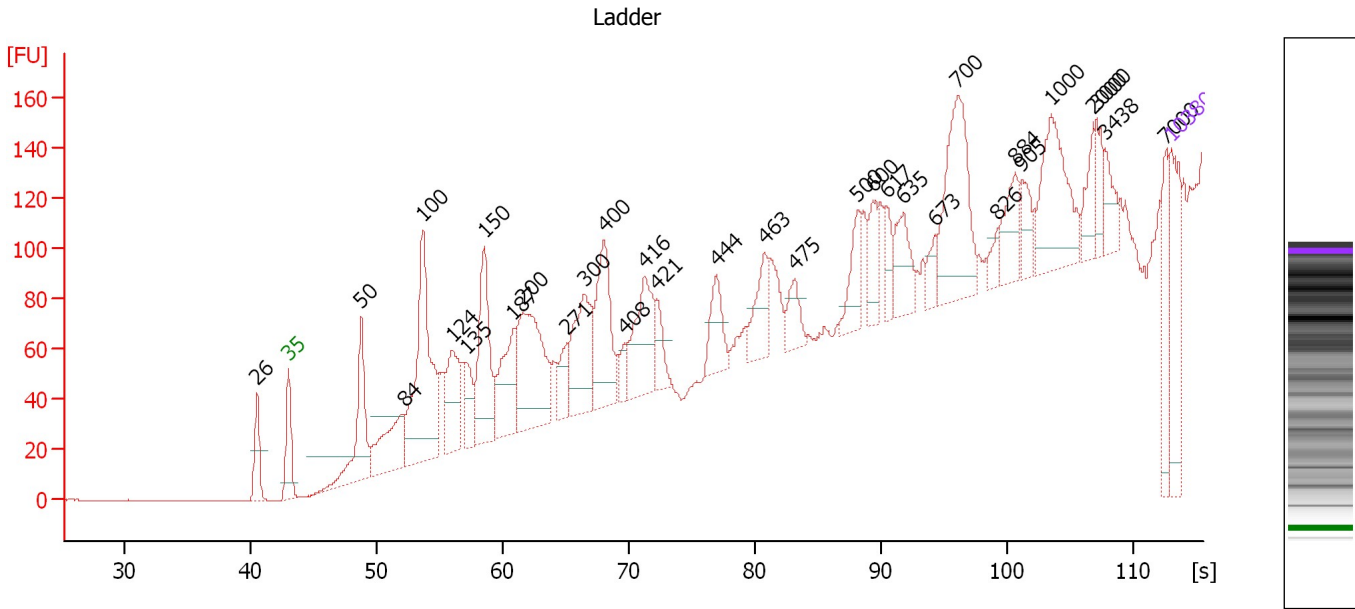
Ladder

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\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 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	40.53	26	0.00	0.0	
2	43.00	35	125.00	5,411.3	Lower Marker
3	48.79	50	150.00	4,545.5	Ladder Peak
4	52.15	84	0.00	0.0	
5	53.69	100	150.00	2,272.7	Ladder Peak
6	56.03	124	0.00	0.0	
7	57.09	135	0.00	0.0	
8	58.54	150	150.00	1,515.2	Ladder Peak
9	60.84	187	0.00	0.0	
10	61.61	200	150.00	1,136.4	Ladder Peak
11	65.10	271	0.00	0.0	
12	66.50	300	150.00	757.6	Ladder Peak
13	68.08	400	150.00	568.2	Ladder Peak
14	69.70	408	0.00	0.0	
15	71.27	416	0.00	0.0	
16	72.25	421	0.00	0.0	
17	76.98	444	0.00	0.0	
18	80.77	463	0.00	0.0	
19	83.19	475	0.00	0.0	
20	88.13	500	150.00	454.5	Ladder Peak
21	89.33	600	150.00	378.8	Ladder Peak
22	90.48	617	0.00	0.0	
23	91.71	635	0.00	0.0	
24	94.27	673	0.00	0.0	
25	96.10	700	150.00	324.7	Ladder Peak
26	99.20	826	0.00	0.0	
27	100.65	884	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

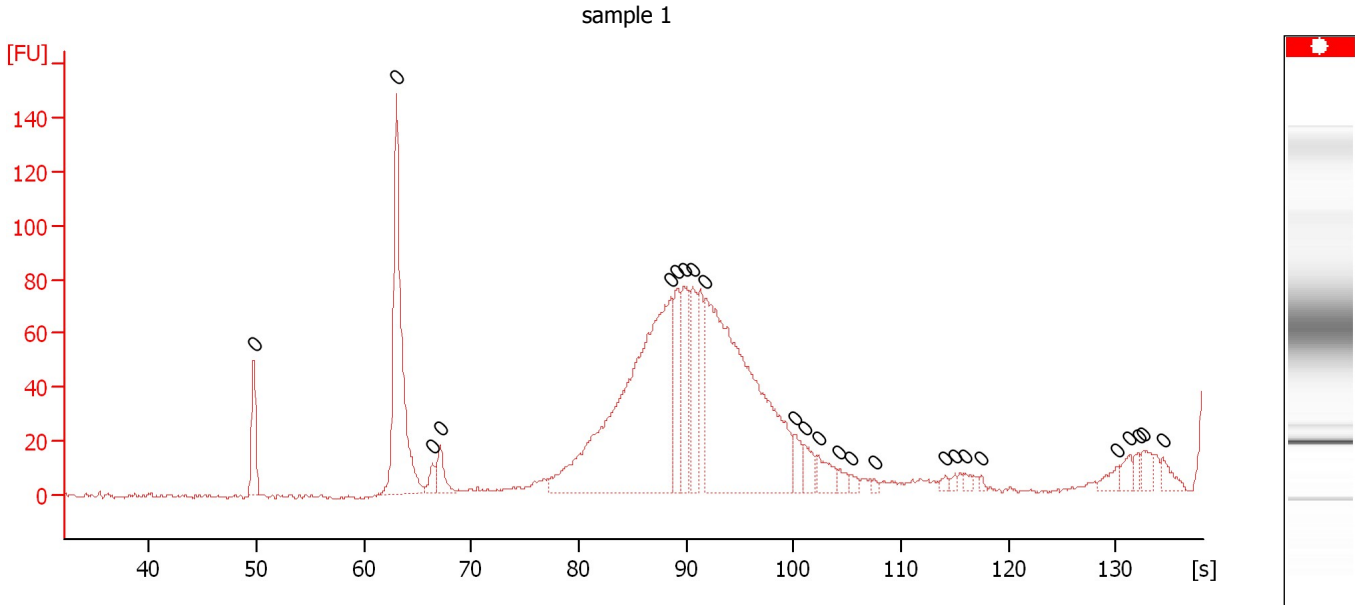
Electropherogram Summary Continued ...**... Peak table for Ladder**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
28	101.16	905	0.00	0.0	
29	 103.50	1,000	150.00	227.3	Ladder Peak
30	 106.83	2,000	150.00	113.6	Ladder Peak
31	 107.12	3,000	150.00	75.8	Ladder Peak
32	107.72	3,438	0.00	0.0	
33	 112.57	7,000	150.00	32.5	Ladder Peak
34	 113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 0 Noise: 0.6

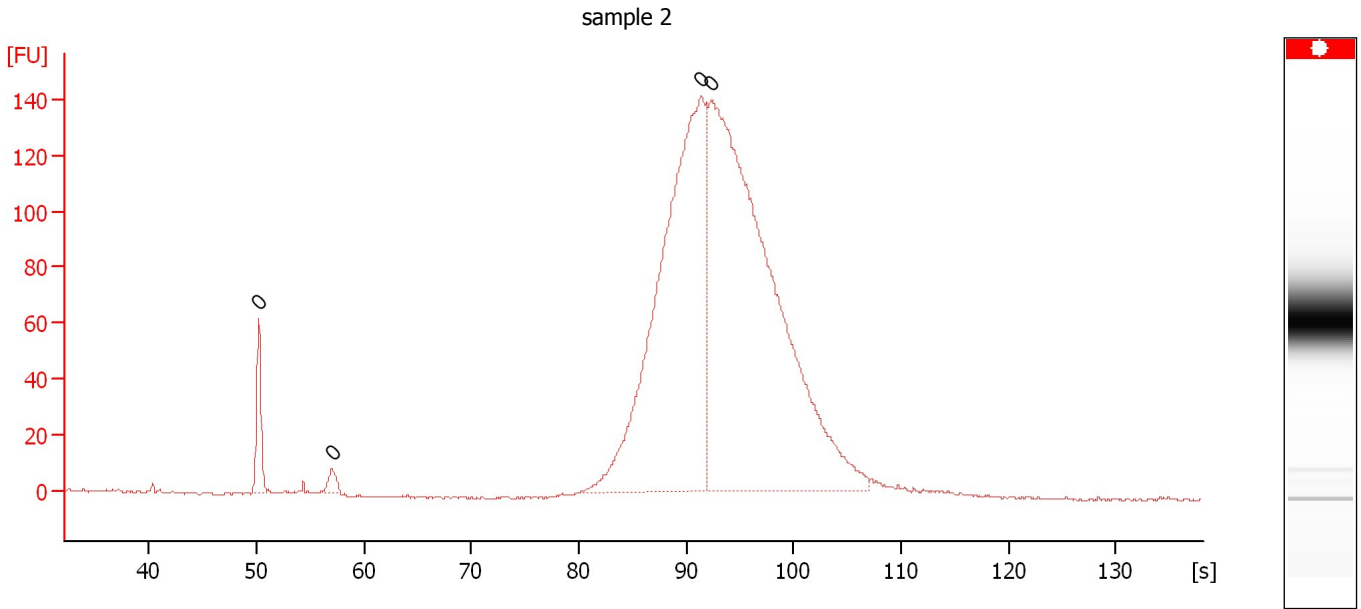
Peak table for sample 1 : sample 1

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	49.75	0	0.00	0.0	
2	63.00	0	0.00	0.0	
3	66.35	0	0.00	0.0	
4	67.10	0	0.00	0.0	
5	88.60	0	0.00	0.0	
6	89.10	0	0.00	0.0	
7	89.80	0	0.00	0.0	
8	90.60	0	0.00	0.0	
9	91.80	0	0.00	0.0	
10	100.15	0	0.00	0.0	
11	101.05	0	0.00	0.0	
12	102.30	0	0.00	0.0	
13	104.25	0	0.00	0.0	
14	105.30	0	0.00	0.0	
15	107.50	0	0.00	0.0	
16	114.15	0	0.00	0.0	
17	115.00	0	0.00	0.0	
18	116.00	0	0.00	0.0	
19	117.50	0	0.00	0.0	
20	130.05	0	0.00	0.0	
21	131.20	0	0.00	0.0	
22	132.10	0	0.00	0.0	
23	132.60	0	0.00	0.0	
24	134.35	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 0 Noise: 0.4

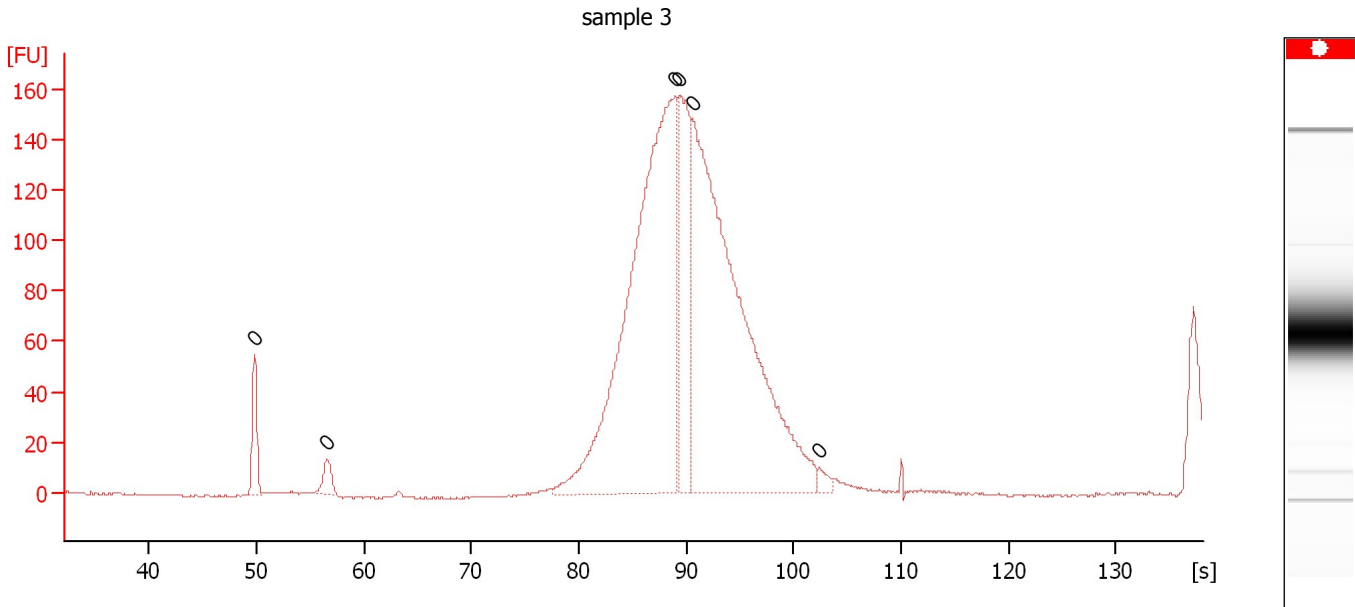
Peak table for sample 2 : sample 2

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	50.20	0	0.00	0.0	
2	57.05	0	0.00	0.0	
3	91.35	0	0.00	0.0	
4	92.30	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 0 Noise: 0.3

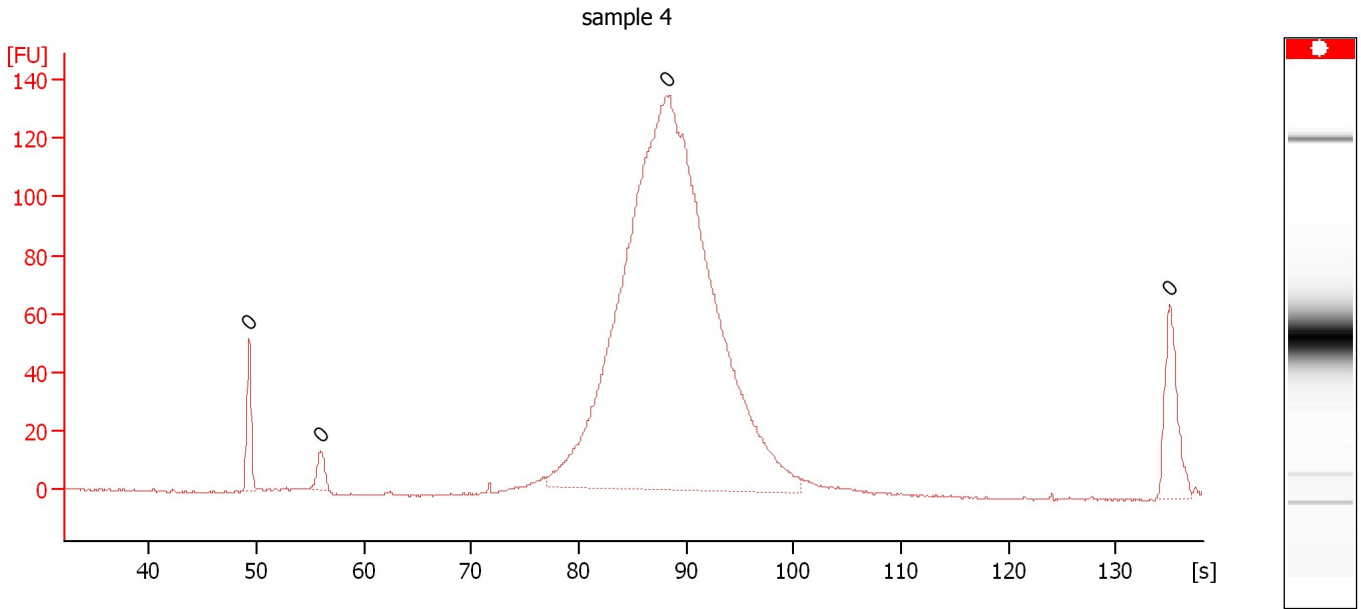
Peak table for sample 3 : sample 3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	49.80	0	0.00	0.0	
2	56.55	0	0.00	0.0	
3	89.00	0	0.00	0.0	
4	89.35	0	0.00	0.0	
5	90.55	0	0.00	0.0	
6	102.45	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 0 Noise: 0.3

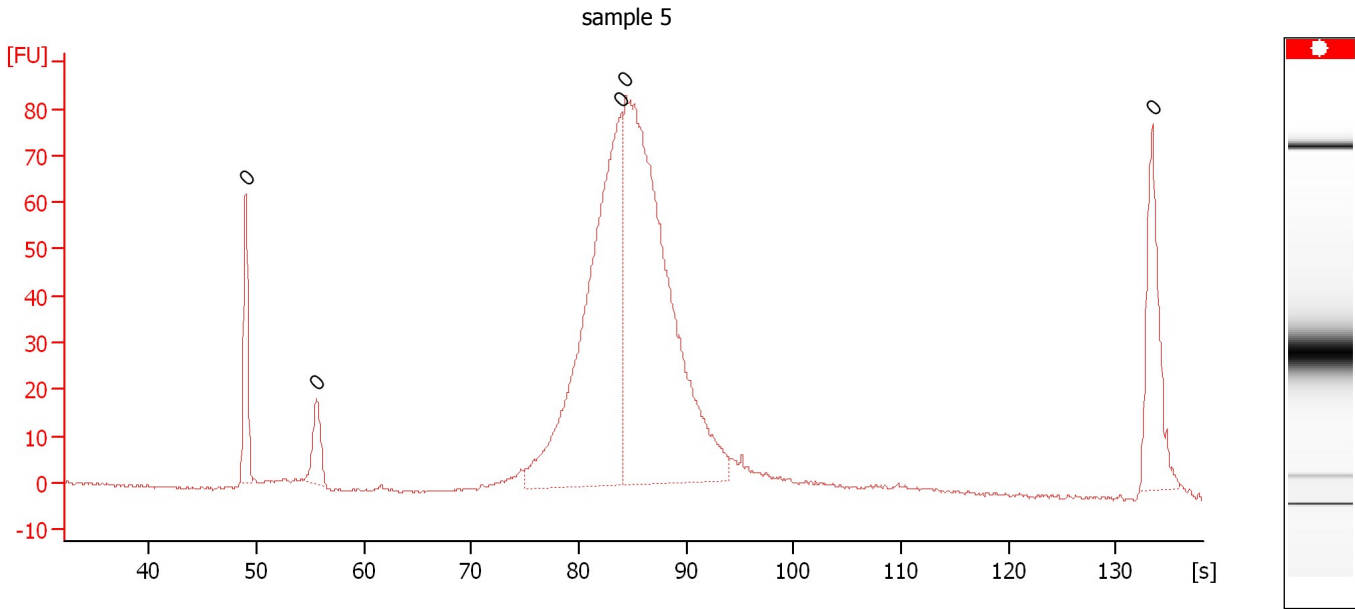
Peak table for sample 4 : sample 4

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	49.30	0	0.00	0.0	
2	56.00	0	0.00	0.0	
3	88.15	0	0.00	0.0	
4	135.05	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 0 Noise: 0.3

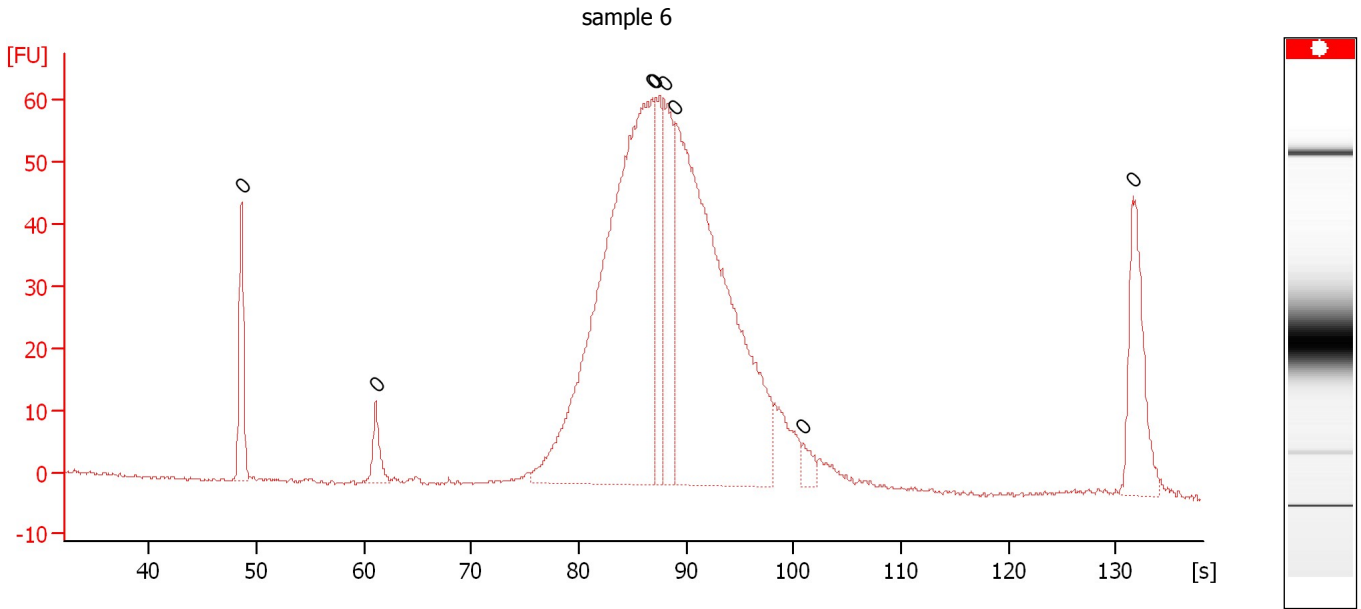
Peak table for sample 5 : sample 5

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	49.00	0	0.00	0.0	
2	55.60	0	0.00	0.0	
3	83.90	0	0.00	0.0	
4	84.35	0	0.00	0.0	
5	133.40	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 0 Noise: 0.3

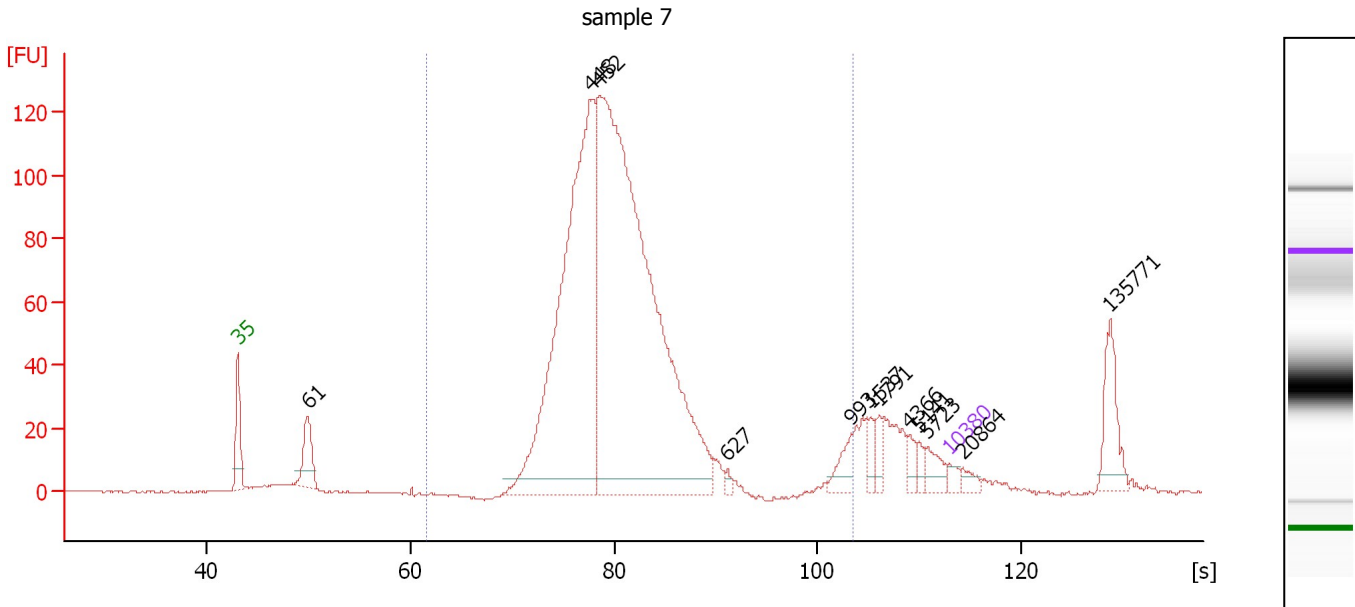
Peak table for sample 6 : sample 6

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	48.60	0	0.00	0.0	
2	61.10	0	0.00	0.0	
3	86.85	0	0.00	0.0	
4	87.10	0	0.00	0.0	
5	87.95	0	0.00	0.0	
6	89.00	0	0.00	0.0	
7	100.85	0	0.00	0.0	
8	131.60	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 12 Corr. Area 1: 1,448.2
 Noise: 0.2

Peak table for sample 7 : sample 7

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	49.87	61	627.18	15,578.4	
3	77.66	448	6,568.59	22,227.2	
4	78.55	452	10,526.84	35,268.7	
5	91.18	627	51.78	125.0	
6	103.33	993	252.34	385.0	
7	105.29	1,537	131.02	129.2	
8	106.13	1,791	128.33	108.6	
9	108.98	4,366	115.26	40.0	
10	110.04	5,141	84.63	24.9	
11	110.83	5,723	185.31	49.1	
12	113.00	10,380	75.00	10.9	Upper Marker
13	114.32	20,864	0.00	0.0	
14	128.80	135,771	0.00	0.0	

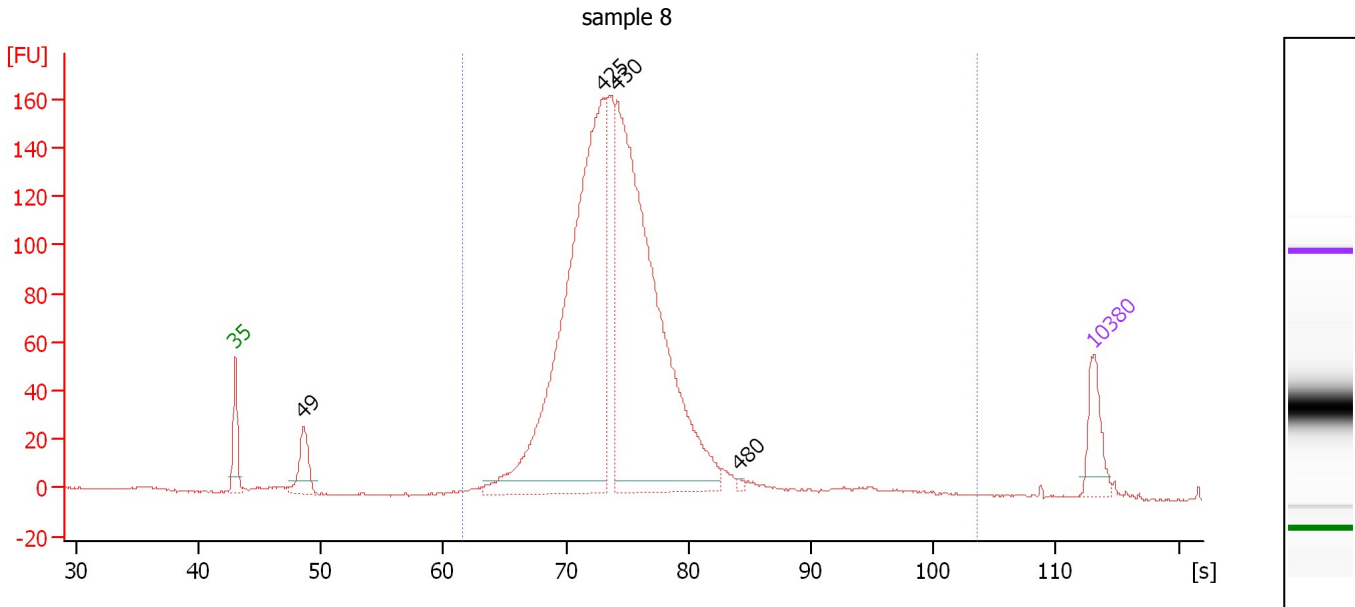
Region table for sample 7 : sample 7

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	473	55,585.6	17,005.66	1,448.2	83	16.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 4 Corr. Area 1: 1,896.6
 Noise: 0.4

Peak table for sample 8 : sample 8

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	48.57	49	127.26	3,901.7	
3	73.03	425	1,392.22	4,967.3	
4	74.16	430	1,383.13	4,869.7	
5	84.07	480	6.25	19.7	
6	113.00	10,380	75.00	10.9	Upper Marker

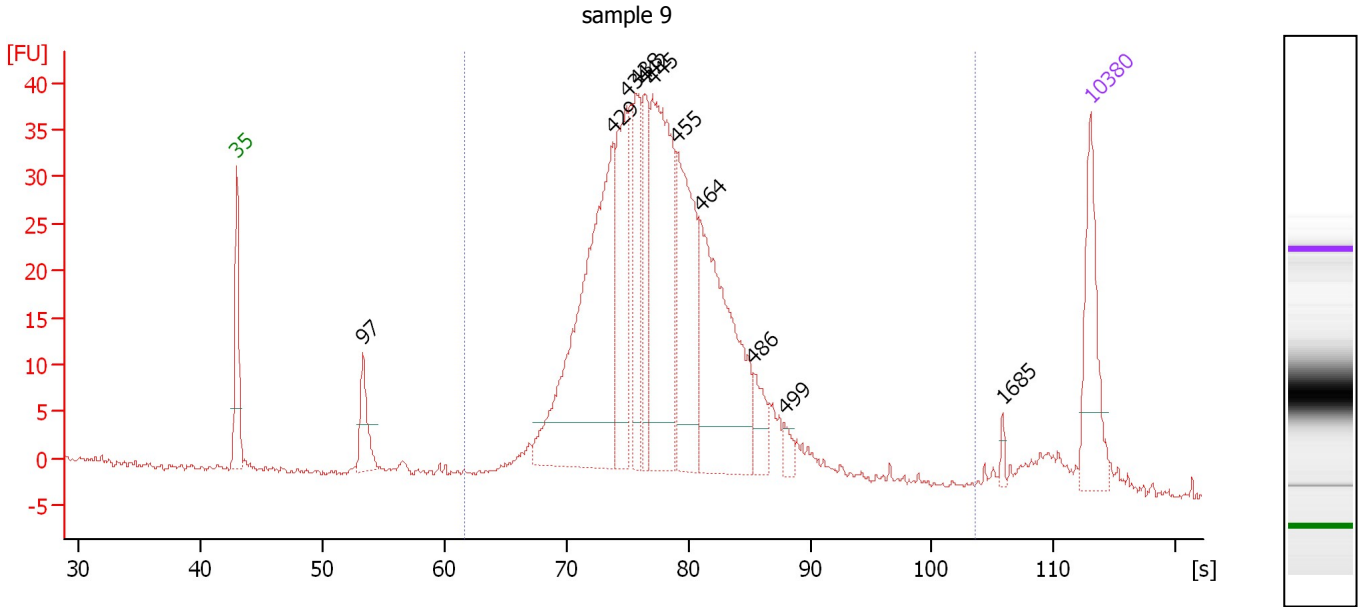
Region table for sample 8 : sample 8

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	1,000	432	11,306.9	3,173.39	1,896.6	97	11.7

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 11 Corr. Area 1: 658.1
 Noise: 0.4

Peak table for sample 9 : sample 9

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	53.35	97	60.29	946.5	
3	73.86	429	392.57	1,387.0	
4	74.96	434	142.78	498.1	
5	75.80	438	97.49	336.9	
6	76.50	442	78.53	269.2	
7	77.08	445	272.67	928.7	
8	79.10	455	185.84	618.9	
9	80.99	464	270.02	881.0	
10	85.40	486	37.25	116.1	
11	87.86	499	12.38	37.6	
12	105.78	1,685	5.27	4.7	
13	113.00	10,380	75.00	10.9	Upper Marker

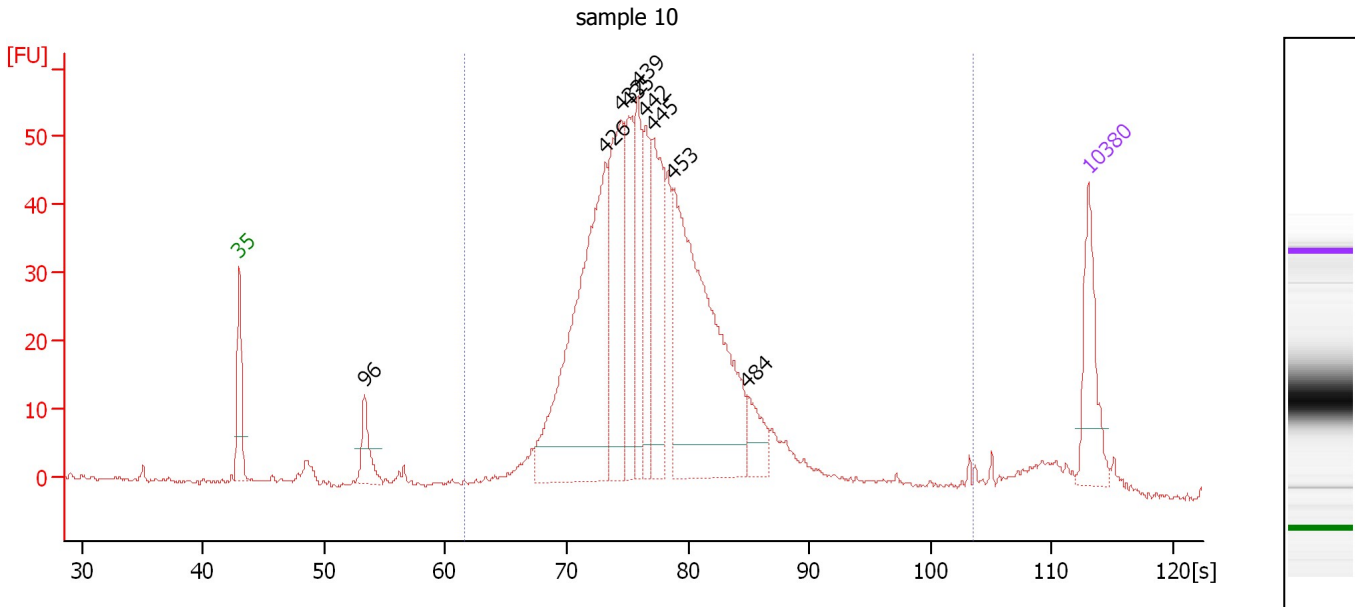
Region table for sample 9 : sample 9

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	453	5,852.0	1,727.14	658.1	94	12.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 9 Corr. Area 1: 868.1
 Noise: 0.3

Peak table for sample 10 : sample 10

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	53.32	96	62.58	985.6	
3	73.20	426	473.32	1,685.4	
4	74.44	432	224.06	786.4	
5	75.10	435	134.64	469.0	
6	75.85	439	112.60	388.8	
7	76.47	442	105.95	363.3	
8	77.14	445	177.31	603.5	
9	78.73	453	490.30	1,639.5	
10	84.88	484	48.38	151.5	
11	113.00	10,380	75.00	10.9	Upper Marker

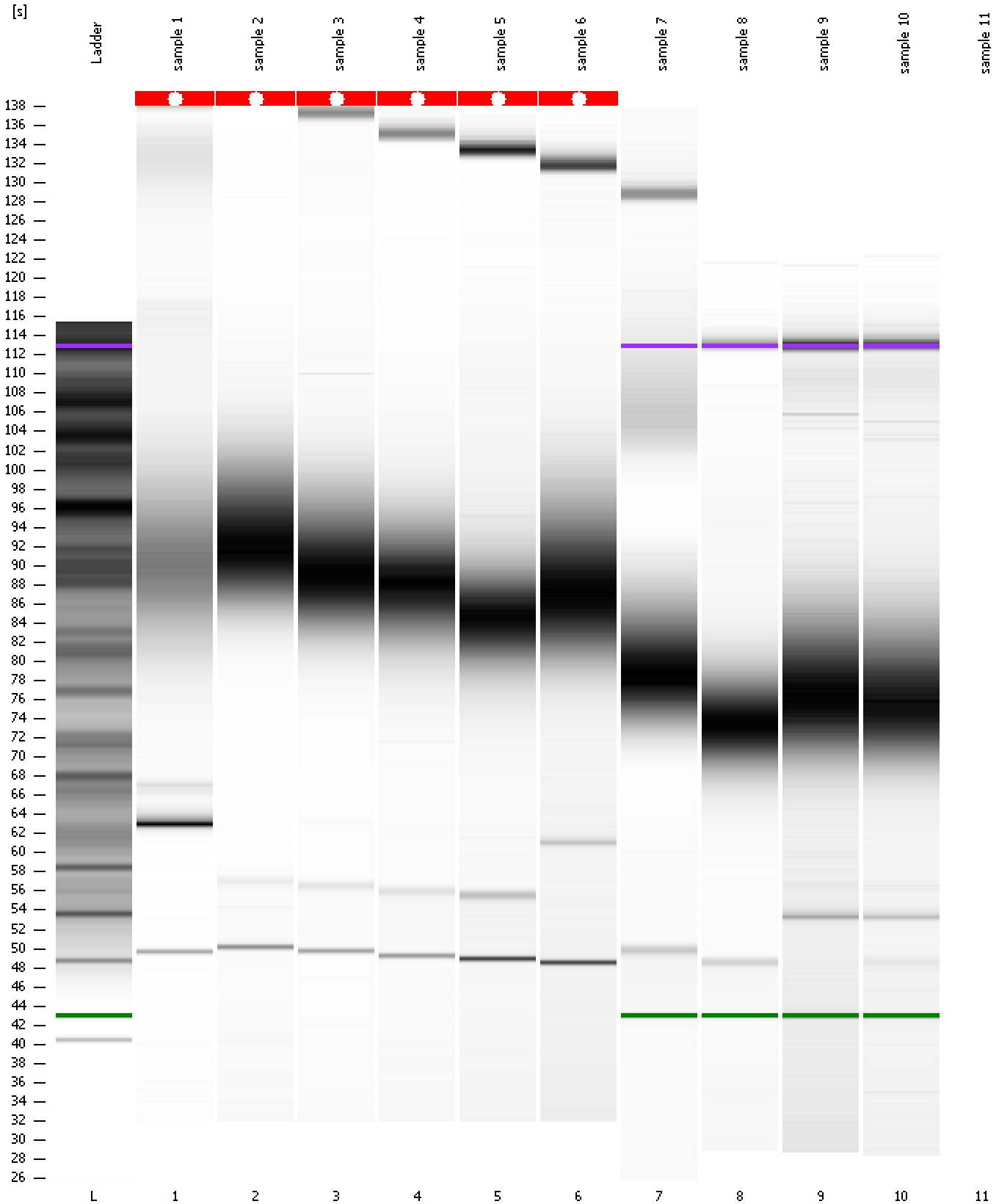
Region table for sample 10 : sample 10

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	1,000	454	7,076.2	2,073.57	868.1	93	15.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
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Gel Image

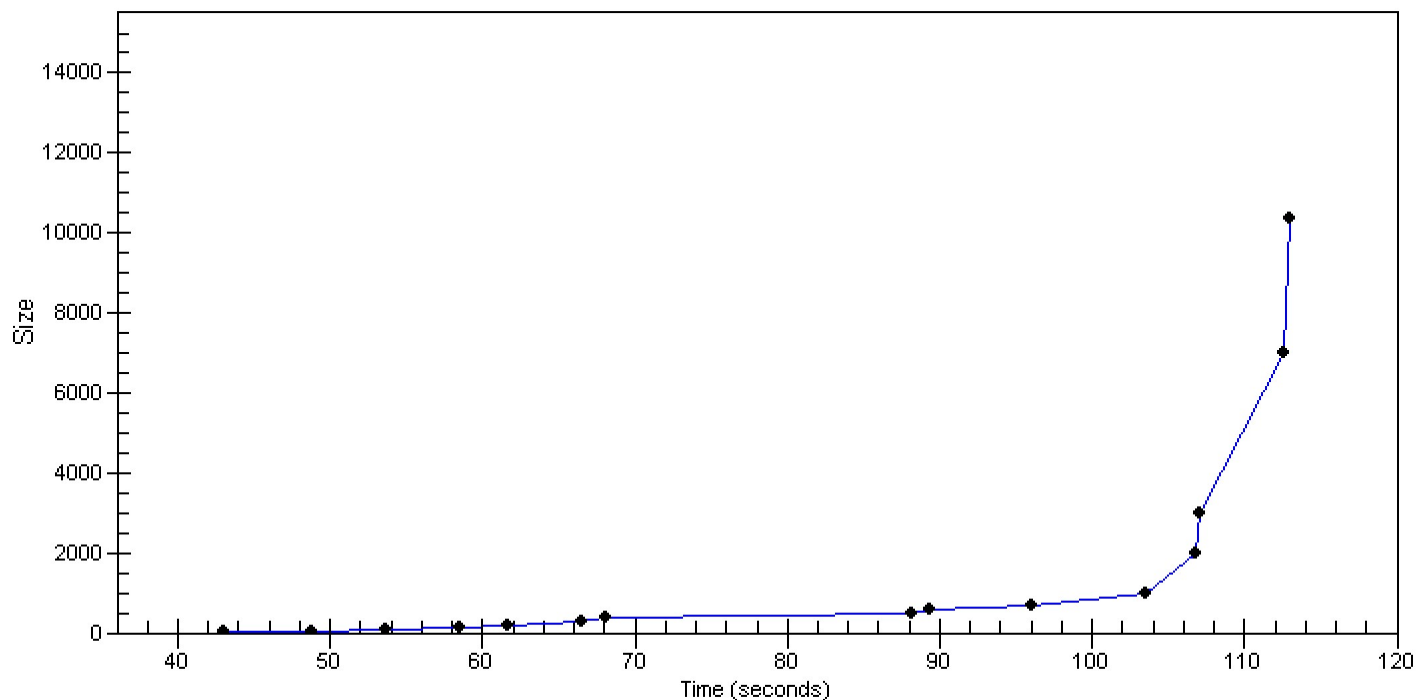


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
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Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
Modified: 3/26/2014 3:07:30 PM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad

Created: 3/26/2014 2:30:21 PM
 Modified: 3/26/2014 3:07:30 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		3/26/2014 3:08:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-26\2014-03-26_003.xad)		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/26/2014 2:30:26 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1