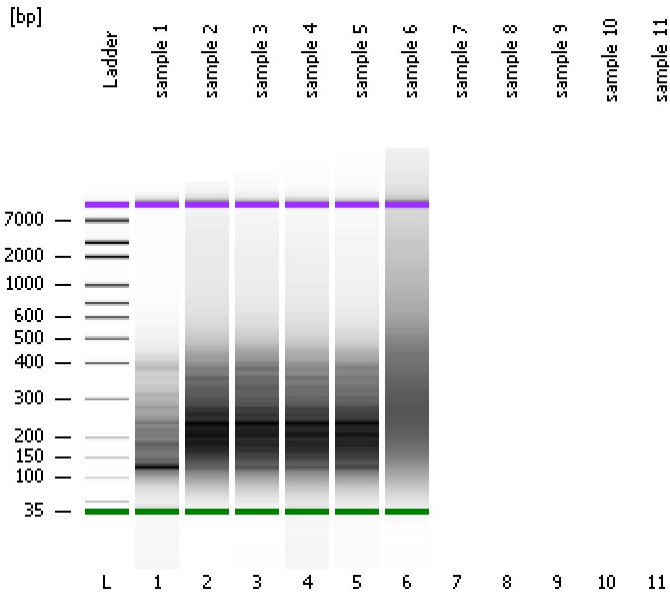


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Electrophoresis File Run Summary



Instrument Information:

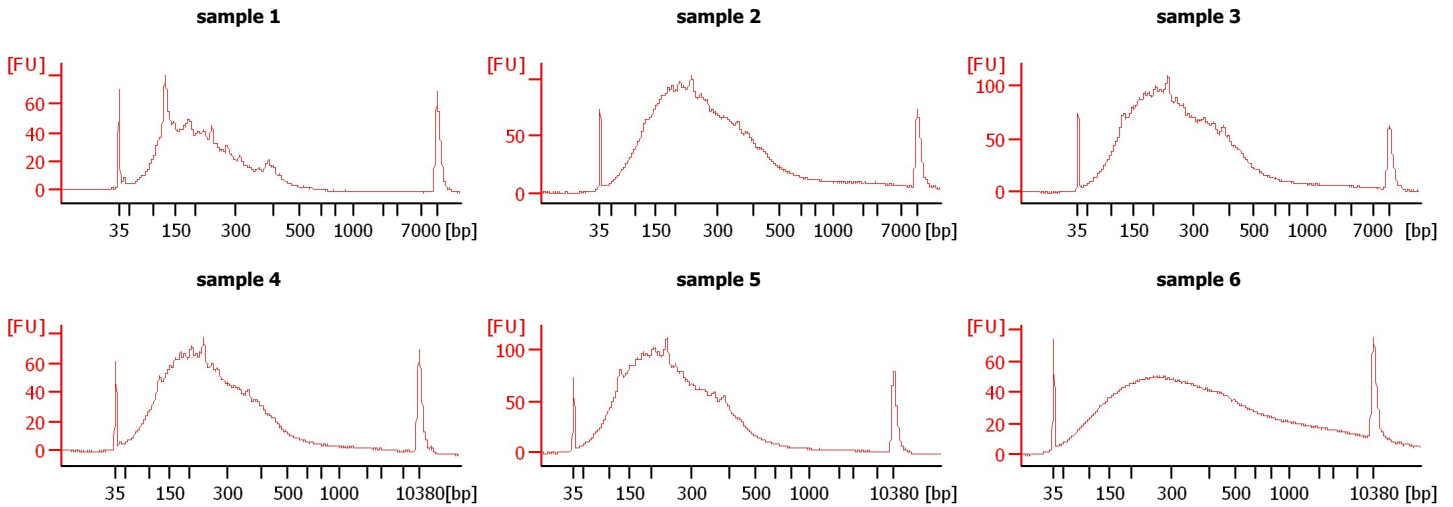
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 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\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 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

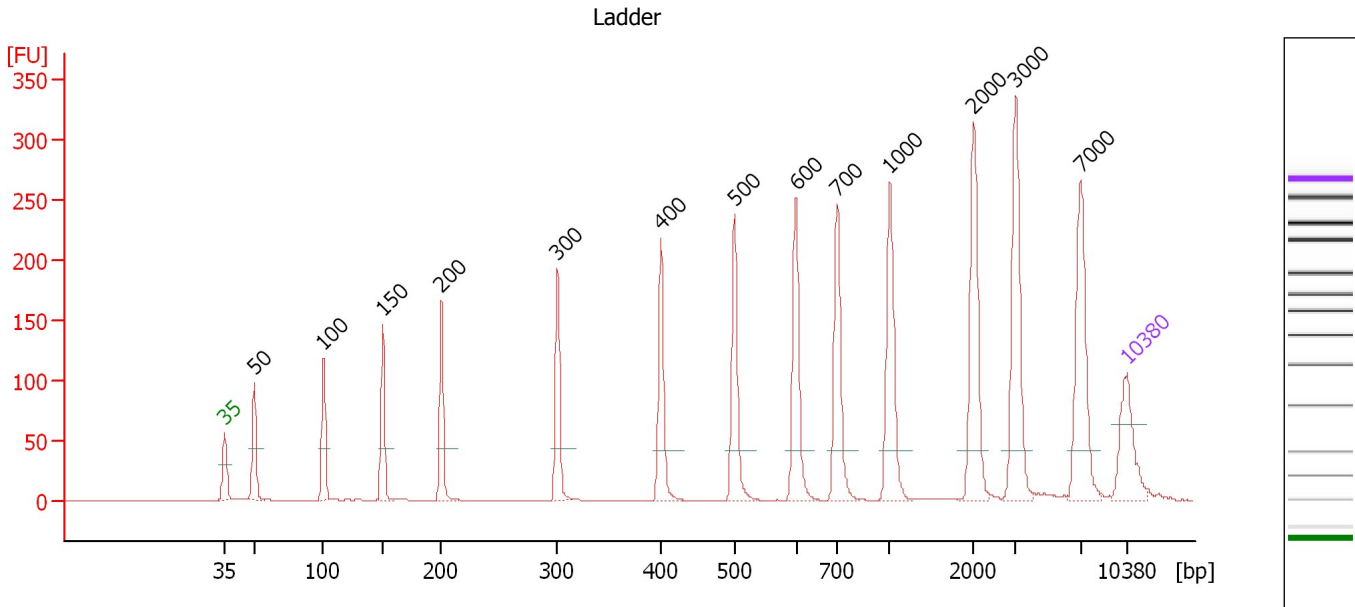
Ladder

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\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

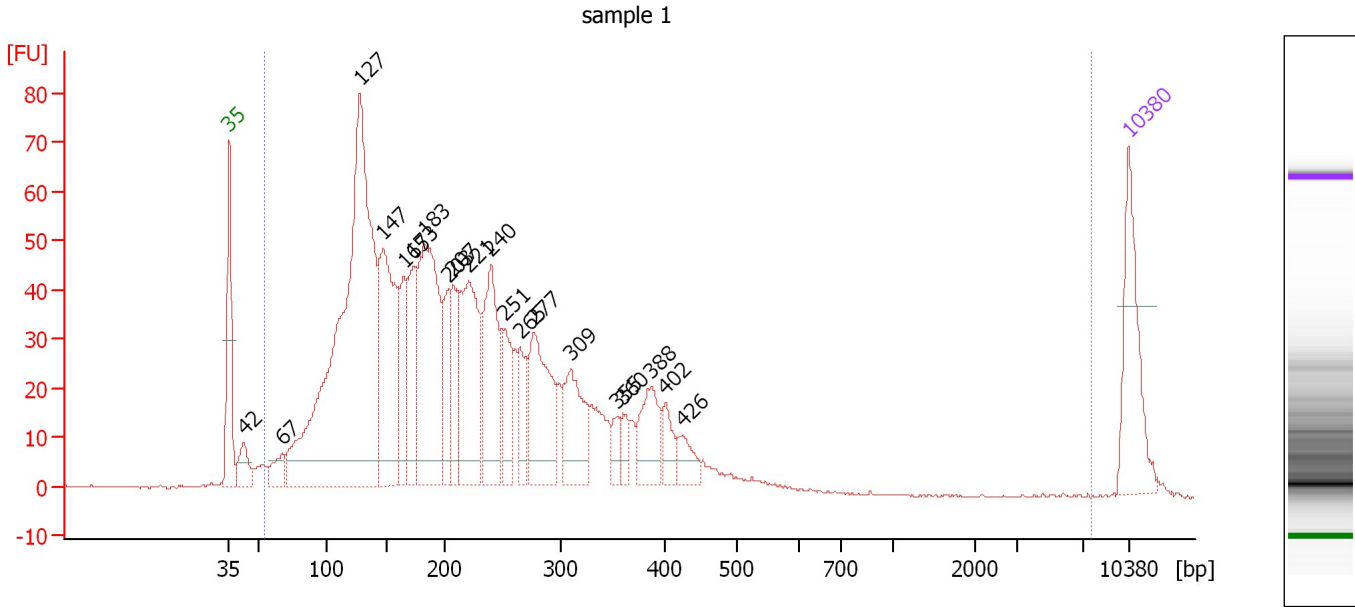
Peak table for Ladder

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	45.28	50	150.00	4,545.5	Ladder Peak
3	50.65	100	150.00	2,272.7	Ladder Peak
4	55.25	150	150.00	1,515.2	Ladder Peak
5	59.80	200	150.00	1,136.4	Ladder Peak
6	68.82	300	150.00	757.6	Ladder Peak
7	76.84	400	150.00	568.2	Ladder Peak
8	82.55	500	150.00	454.5	Ladder Peak
9	87.31	600	150.00	378.8	Ladder Peak
10	90.54	700	150.00	324.7	Ladder Peak
11	94.59	1,000	150.00	227.3	Ladder Peak
12	101.09	2,000	150.00	113.6	Ladder Peak
13	104.35	3,000	150.00	75.8	Ladder Peak
14	109.40	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\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 20 Corr. Area 1: 1,708.3
 Noise: 0.2

Peak table for sample 1 : sample 1

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	44.12	42	40.89	1,461.6	
3	47.11	67	29.64	669.9	
4	53.17	127	861.65	10,251.1	
5	54.99	147	252.93	2,602.9	
6	56.61	165	80.41	738.4	
7	57.32	173	105.56	925.9	
8	58.23	183	280.08	2,321.9	
9	60.05	203	70.87	529.3	
10	60.47	207	72.03	526.1	
11	61.67	221	185.23	1,271.1	
12	63.41	240	153.74	970.1	
13	64.41	251	67.41	406.7	
14	65.61	265	44.37	254.1	
15	66.73	277	136.15	744.9	
16	69.56	309	93.47	458.0	
17	73.21	355	17.70	75.6	
18	73.66	360	18.99	79.9	
19	75.86	388	60.62	236.8	
20	76.94	402	25.83	97.4	
21	78.31	426	25.70	91.5	
22	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

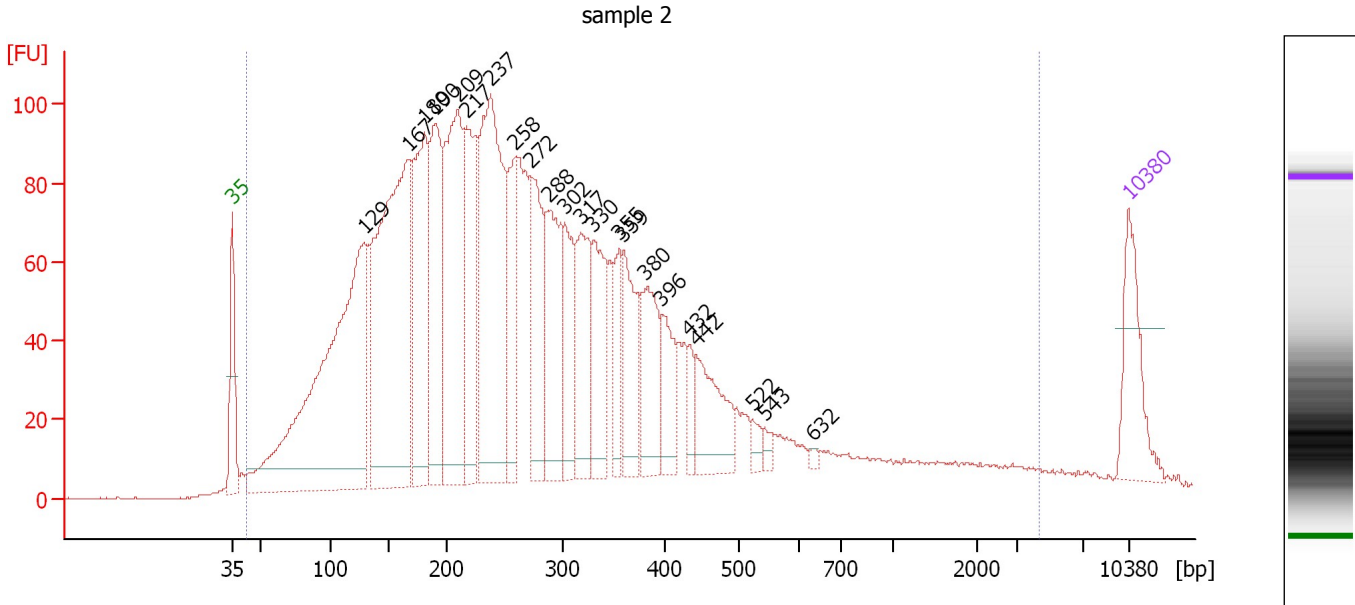
... Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
54	7,633	221	26,114.9	2,874.73	 1,708.3	98	48.8

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 22 Corr. Area 1: 3,896.7
 Noise: 0.2

Peak table for sample 2 : sample 2


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	53.29	129	809.53	9,533.7	
3	56.78	167	661.35	6,004.1	
4	57.99	180	298.80	2,512.9	
5	58.87	190	262.23	2,093.7	
6	60.61	209	363.43	2,633.9	
7	61.32	217	224.35	1,567.1	
8	63.15	237	459.38	2,934.0	
9	65.07	258	123.80	725.7	
10	66.28	272	179.33	999.4	
11	67.69	288	184.78	973.6	
12	68.94	302	111.56	560.5	
13	70.19	317	143.47	685.4	
14	71.19	330	131.27	603.4	
15	73.23	355	64.12	273.7	
16	73.57	359	111.26	469.3	
17	75.27	380	113.25	451.0	
18	76.52	396	70.41	269.4	
19	78.69	432	25.88	90.7	
20	79.23	442	106.73	366.0	
21	83.60	522	15.33	44.5	
22	84.60	543	9.66	26.9	
23	88.35	632	4.40	10.6	
24	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

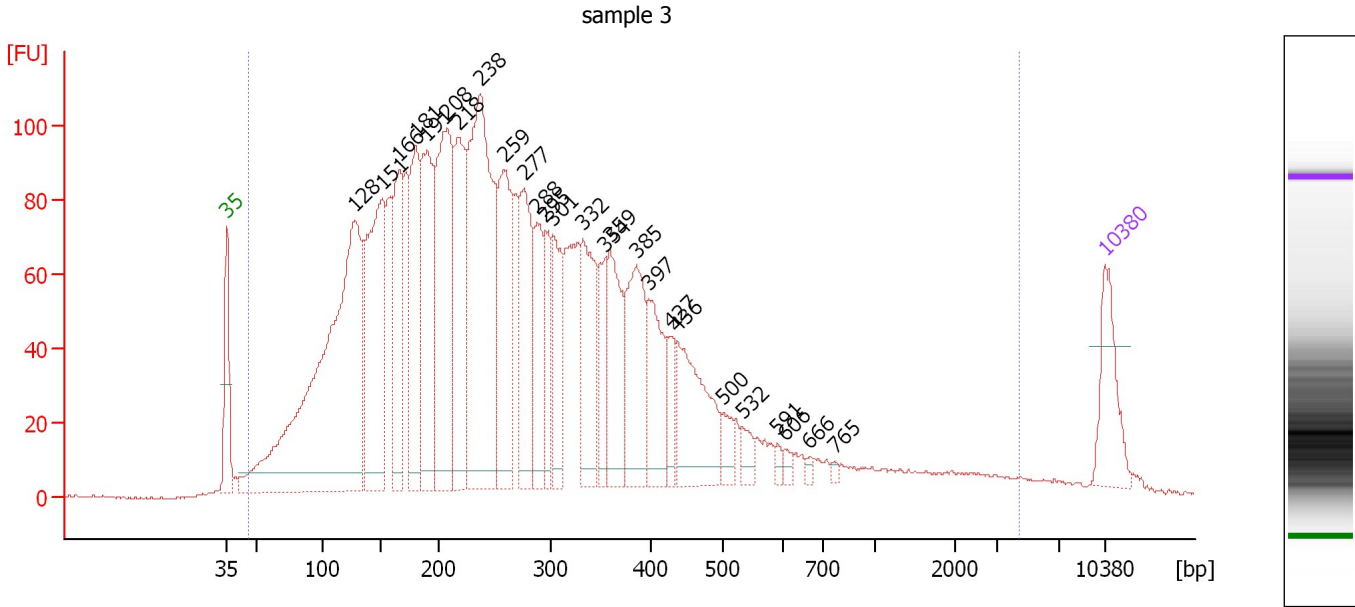
... Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
42	4,333	320	43,386.4	5,379.25	 3,896.7	99	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 26 Corr. Area 1: 4,013.3
 Noise: 0.4

Peak table for sample 3 : sample 3


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	53.24	128	1,053.16	12,447.8	
3	55.37	151	431.40	4,319.0	
4	56.69	166	223.81	2,045.1	
5	58.05	181	249.76	2,093.5	
6	58.98	191	299.14	2,372.5	
7	60.55	208	409.82	2,979.7	
8	61.45	218	277.07	1,923.2	
9	63.19	238	602.72	3,843.4	
10	65.14	259	265.91	1,553.9	
11	66.72	277	212.27	1,162.2	
12	67.69	288	133.07	701.1	
13	68.37	295	87.09	447.2	
14	68.93	301	132.46	665.9	
15	71.39	332	180.67	824.3	
16	73.13	354	72.25	309.4	
17	73.52	359	160.37	677.6	
18	75.60	385	183.79	724.2	
19	76.62	397	122.04	465.5	
20	78.36	427	47.82	169.8	
21	78.87	436	182.97	636.5	
22	82.53	500	31.44	95.3	
23	84.06	532	25.06	71.4	
24	86.90	591	8.79	22.5	
25	87.50	606	11.38	28.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad


Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : sample 3

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
26	89.45	666	5.58	12.7	
27	91.41	765	5.21	10.3	
28	 113.00	10,380	75.00	10.9	Upper Marker

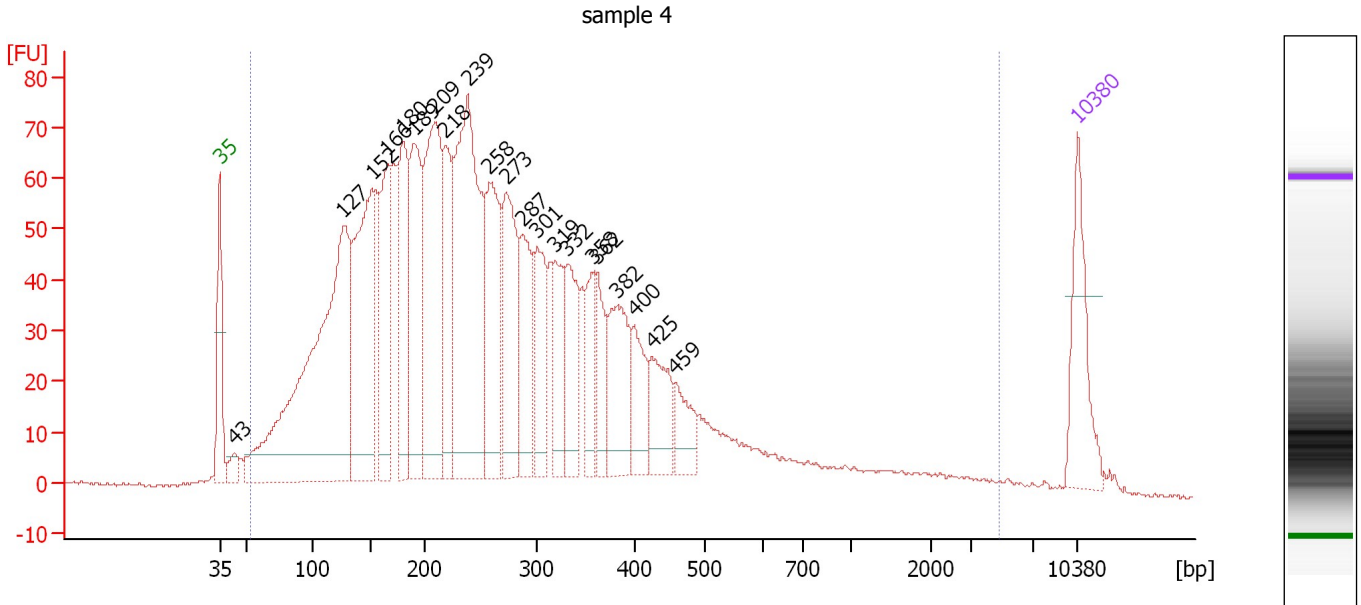
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
46	4,448	316	51,161.3	6,456.80	 4,013.3	99	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 21 Corr. Area 1: 2,750.6
 Noise: 0.4

Peak table for sample 4 : sample 4


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	44.22	43	22.11	778.4	
3	53.09	127	694.73	8,317.0	
4	55.44	152	320.87	3,195.1	
5	56.70	166	180.55	1,647.7	
6	58.01	180	176.67	1,484.2	
7	58.84	189	203.81	1,630.1	
8	60.58	209	302.97	2,200.1	
9	61.45	218	127.74	886.6	
10	63.27	239	440.81	2,799.8	
11	65.01	258	171.37	1,007.0	
12	66.36	273	165.40	918.6	
13	67.67	287	121.85	642.7	
14	68.93	301	99.08	498.1	
15	70.36	319	75.39	357.8	
16	71.41	332	97.62	445.1	
17	73.50	358	57.74	244.2	
18	73.80	362	54.80	229.3	
19	75.41	382	109.46	433.9	
20	76.85	400	60.18	227.9	
21	78.28	425	71.52	254.8	
22	80.20	459	44.65	147.5	
23	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

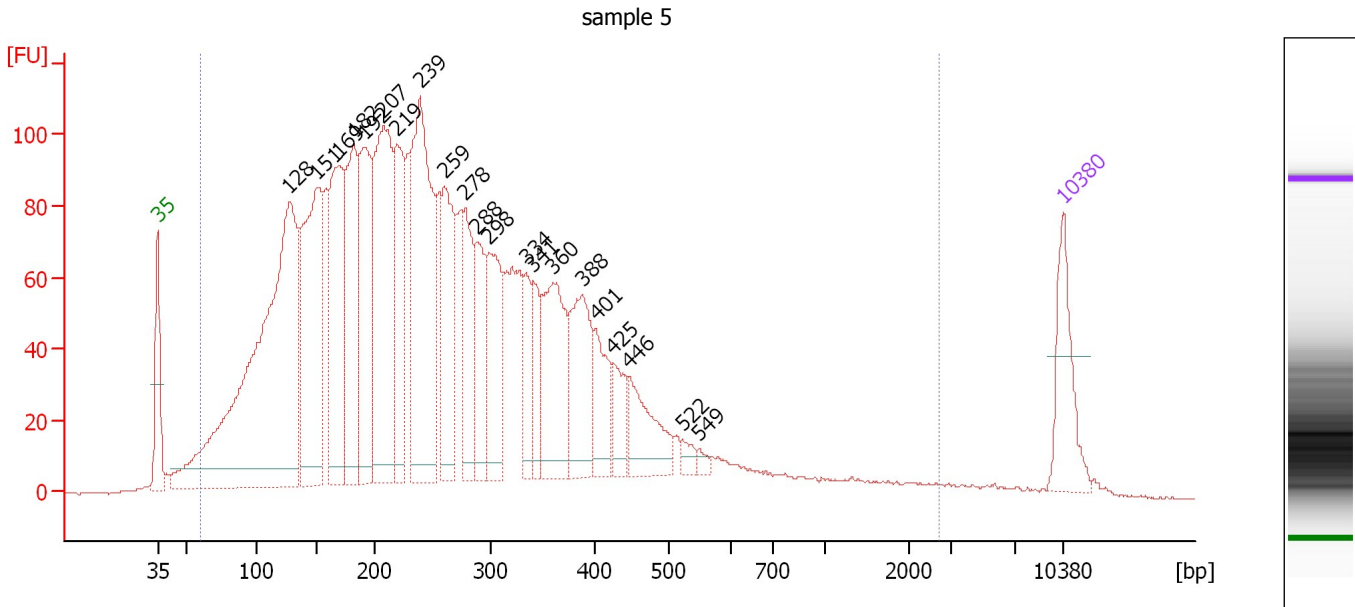
... Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
52	4,830	318	33,832.8	4,266.55	 2,750.6	98	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 21 Corr. Area 1: 3,902.4
 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	43.00	35	125.00	5,411.3	Lower Marker
2	53.20	128	976.77	11,583.4	
3	55.30	151	407.28	4,098.3	
4	56.99	169	299.43	2,681.7	
5	58.19	182	246.73	2,049.6	
6	59.04	192	252.99	1,999.6	
7	60.47	207	385.05	2,812.6	
8	61.49	219	195.52	1,354.0	
9	63.32	239	426.88	2,705.7	
10	65.15	259	186.93	1,092.3	
11	66.79	278	129.34	706.0	
12	67.73	288	109.33	575.3	
13	68.62	298	159.64	812.1	
14	71.52	334	71.18	323.2	
15	72.10	341	57.94	257.5	
16	73.61	360	182.94	770.5	
17	75.84	388	139.38	545.0	
18	76.91	401	75.66	285.8	
19	78.29	425	47.08	167.7	
20	79.45	446	91.66	311.6	
21	83.59	522	13.33	38.7	
22	84.88	549	7.85	21.7	
23	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

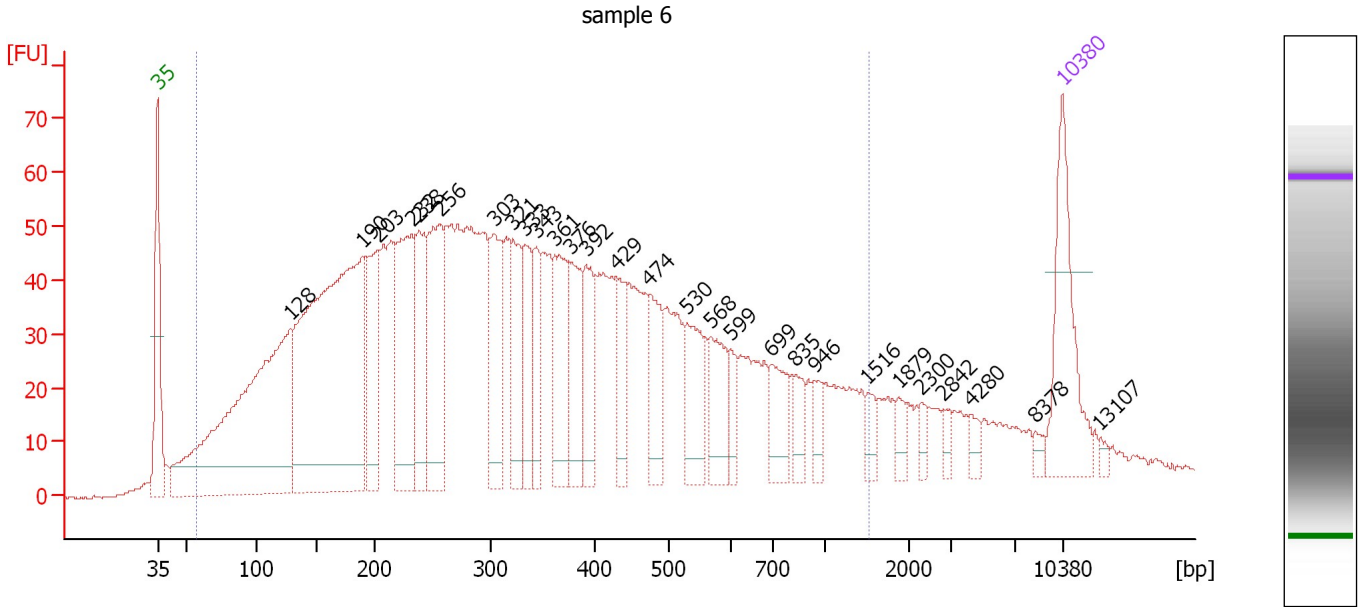
... Region table for sample 5 : sample 5

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
60	2,741	287	43,308.7	5,422.76	 3,902.4	98	80.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 28 Corr. Area 1: 2,566.4
 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	43.00	35	125.00	5,411.3	Lower Marker
2	53.25	128	461.13	5,445.7	
3	58.88	190	510.20	4,070.5	
4	60.06	203	102.33	764.2	
5	62.69	232	155.63	1,016.1	
6	63.23	238	82.58	525.5	
7	64.82	256	129.47	767.1	
8	69.04	303	84.06	420.6	
9	70.54	321	67.64	318.8	
10	71.44	333	54.55	248.4	
11	72.31	343	46.06	203.2	
12	73.71	361	82.03	344.3	
13	74.89	376	65.08	262.4	
14	76.16	392	59.00	228.3	
15	78.52	429	41.49	146.4	
16	81.06	474	52.62	168.2	
17	83.97	530	58.39	167.0	
18	85.78	568	49.92	133.2	
19	87.28	599	16.48	41.7	
20	90.50	699	36.48	79.1	
21	92.36	835	20.80	37.7	
22	93.86	946	15.34	24.6	
23	97.94	1,516	12.72	12.7	
24	100.30	1,879	11.56	9.3	
25	102.07	2,300	7.54	5.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad


Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Electropherogram Summary Continued ...

... Peak table for sample 6 : sample 6

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
26	103.84	2,842	7.36	3.9	
27	105.97	4,280	7.56	2.7	
28	110.87	8,378	5.59	1.0	
29	113.00	10,380	75.00	10.9	Upper Marker
30	115.90	13,107	0.00	0.0	

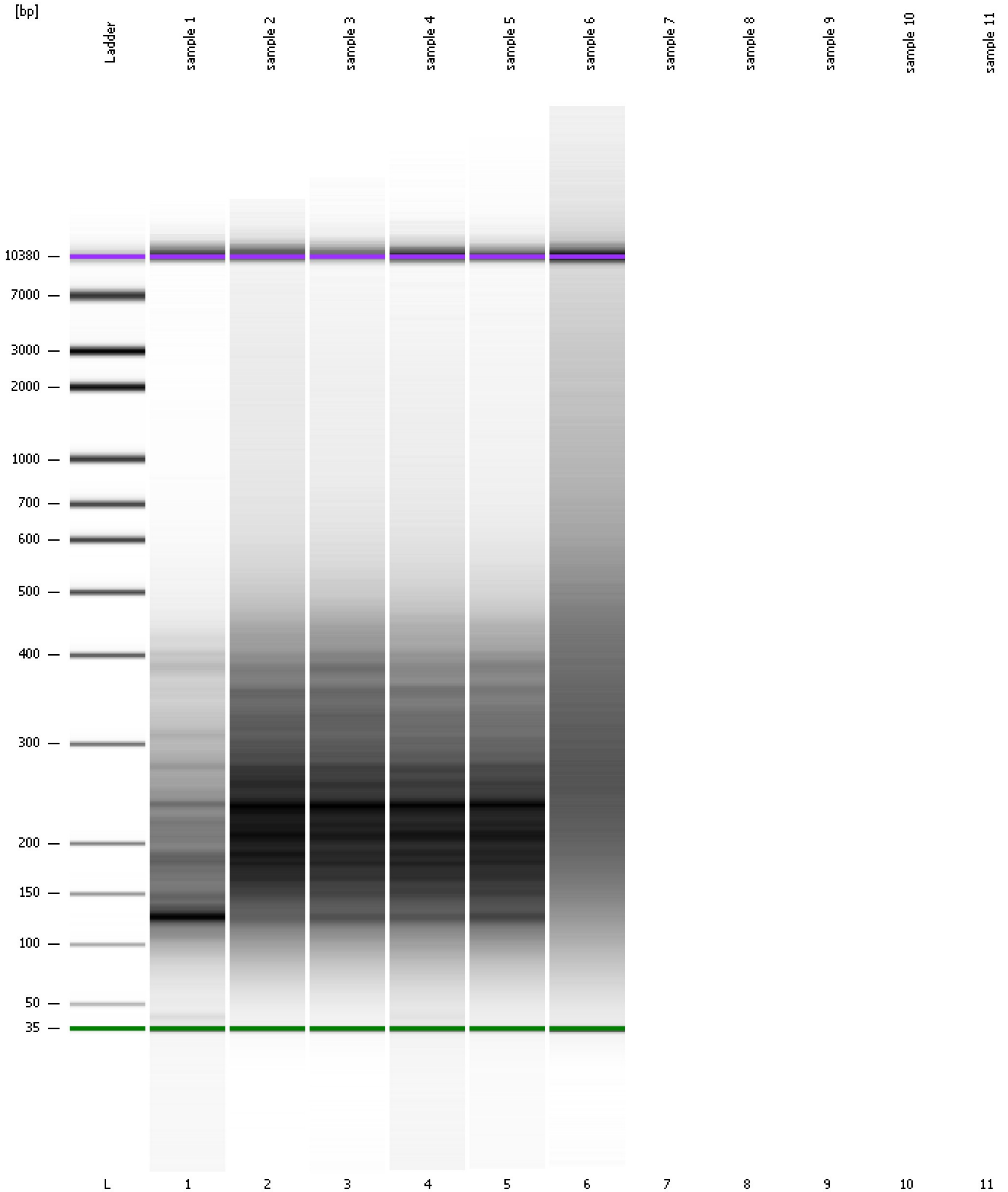
Region table for sample 6 : sample 6

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. for Area	% of Total	Size distribution in CV [%]
57	1,520	373	22,593.8	3,215.19	 2,566.4	92	66.2

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Gel Image

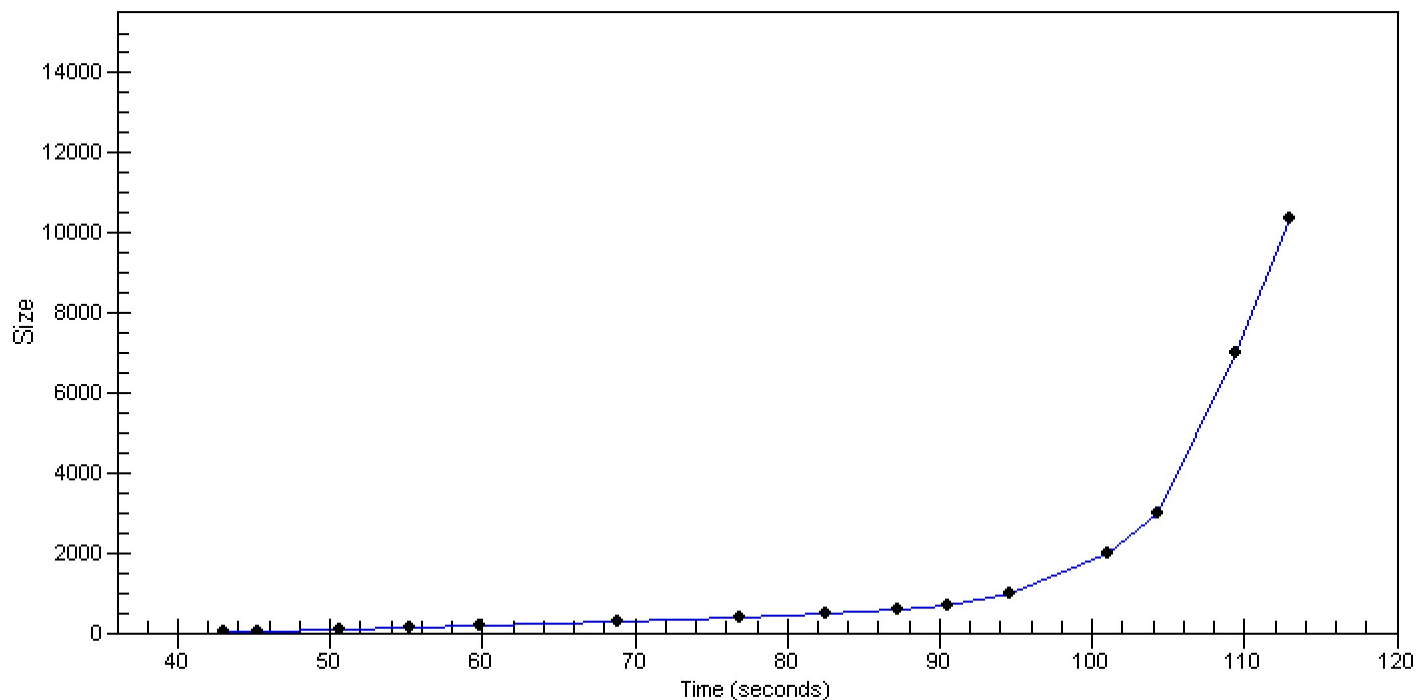


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
Modified: 4/23/2014 2:59:28 PM

Invalid Samples

Sample 7 has not been run, no results available.

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad

Created: 4/23/2014 2:31:43 PM
 Modified: 4/23/2014 2:59:28 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 7)		Instrument	Run		4/23/2014 2:58:42 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-04-23\2014-04-23_005.xad)		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/23/2014 2:31:48 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1