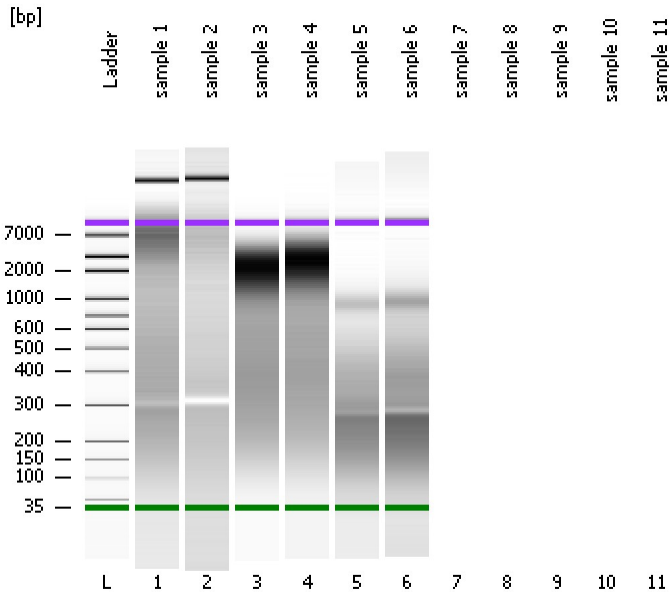


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 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

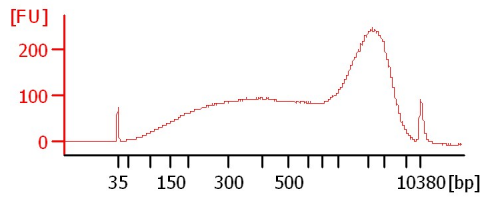
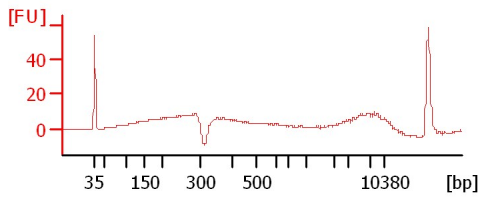
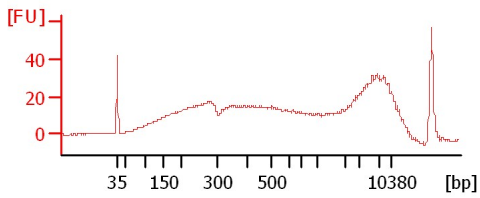
Chip Information:

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

sample 1

sample 2

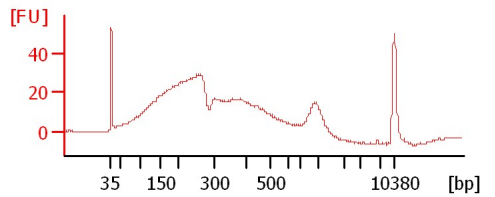
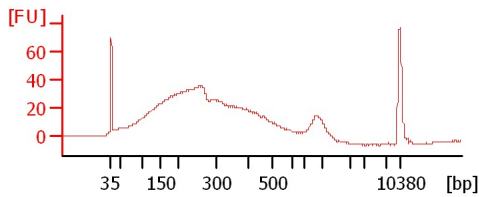
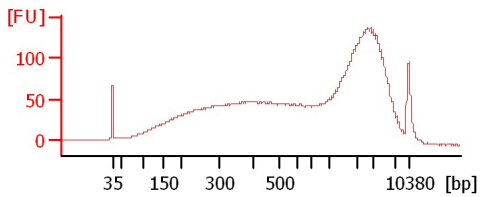
sample 3



sample 4

sample 5

sample 6



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 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\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 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

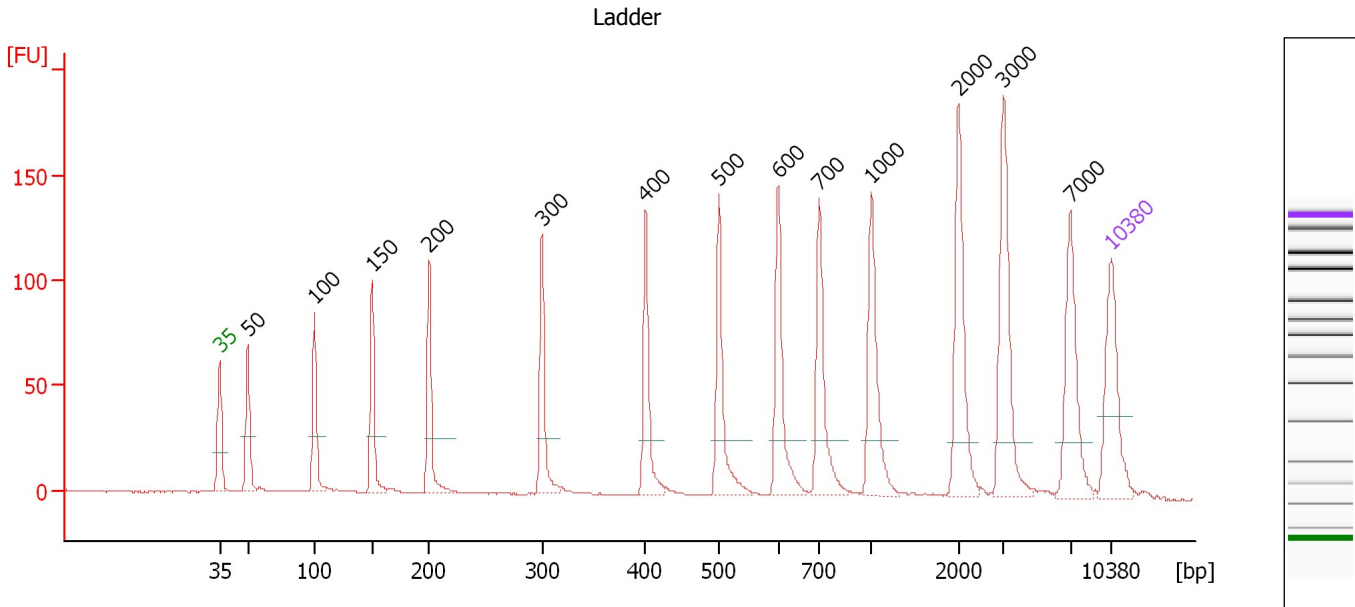
Ladder

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\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
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Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

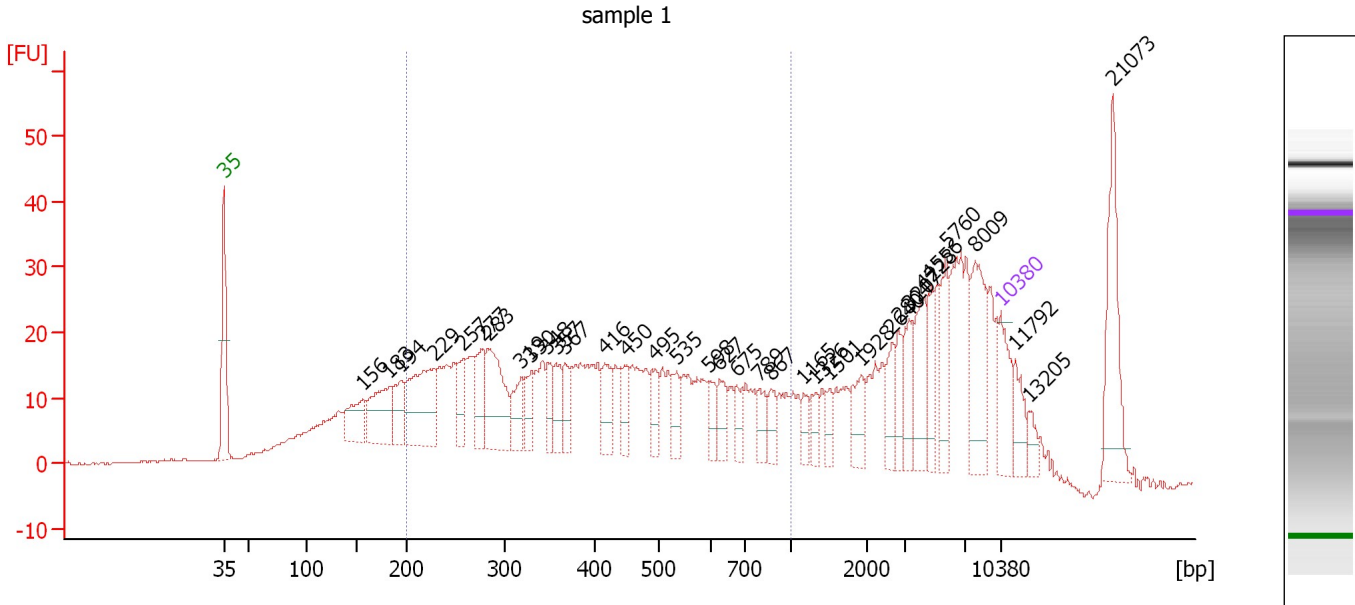
Peak table for Ladder

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	50	150.00	4,545.5	Ladder Peak	45.22
3	100	150.00	2,272.7	Ladder Peak	50.45
4	150	150.00	1,515.2	Ladder Peak	54.97
5	200	150.00	1,136.4	Ladder Peak	59.44
6	300	150.00	757.6	Ladder Peak	68.31
7	400	150.00	568.2	Ladder Peak	76.43
8	500	150.00	454.5	Ladder Peak	82.21
9	600	150.00	378.8	Ladder Peak	86.85
10	700	150.00	324.7	Ladder Peak	90.07
11	1,000	150.00	227.3	Ladder Peak	94.13
12	2,000	150.00	113.6	Ladder Peak	100.99
13	3,000	150.00	75.8	Ladder Peak	104.51
14	7,000	150.00	32.5	Ladder Peak	109.78
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 35 Corr. Area 1: 689.2
 Noise: 0.2

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	156	112.86	1,092.7		55.55
3	183	164.28	1,361.6		57.90
4	194	85.87	670.4		58.91
5	229	255.19	1,690.5		61.99
6	257	69.33	408.1		64.54
7	277	95.15	519.6		66.32
8	283	205.33	1,099.7		66.80
9	319	72.44	344.5		69.83
10	330	62.76	288.2		70.74
11	348	52.86	230.3		72.18
12	357	63.27	268.4		72.95
13	367	54.48	225.1		73.72
14	416	76.08	277.4		77.33
15	450	63.81	215.0		79.30
16	495	59.63	182.4		81.94
17	535	48.90	138.6		83.82
18	598	36.20	91.7		86.75
19	627	48.95	118.3		87.71
20	675	36.71	82.5		89.25
21	789	42.79	82.2		91.27
22	867	36.33	63.5		92.33
23	1,165	28.20	36.7		95.26
24	1,326	26.35	30.1		96.37
25	1,501	26.97	27.2		97.57

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	1,928	54.28	42.6		100.50
27	2,640	48.61	27.9		103.24
28	2,804	39.26	21.2		103.82
29	3,207	58.37	27.6		104.78
30	4,228	94.59	33.9		106.13
31	4,556	60.34	20.1		106.56
32	5,760	84.00	22.1		108.14
33	8,009	145.98	27.6		110.74
34	10,380	75.00	10.9	Upper Marker	113.00
35	11,792	0.00	0.0		114.35
36	13,205	0.00	0.0		115.69
37	21,073	0.00	0.0		123.19

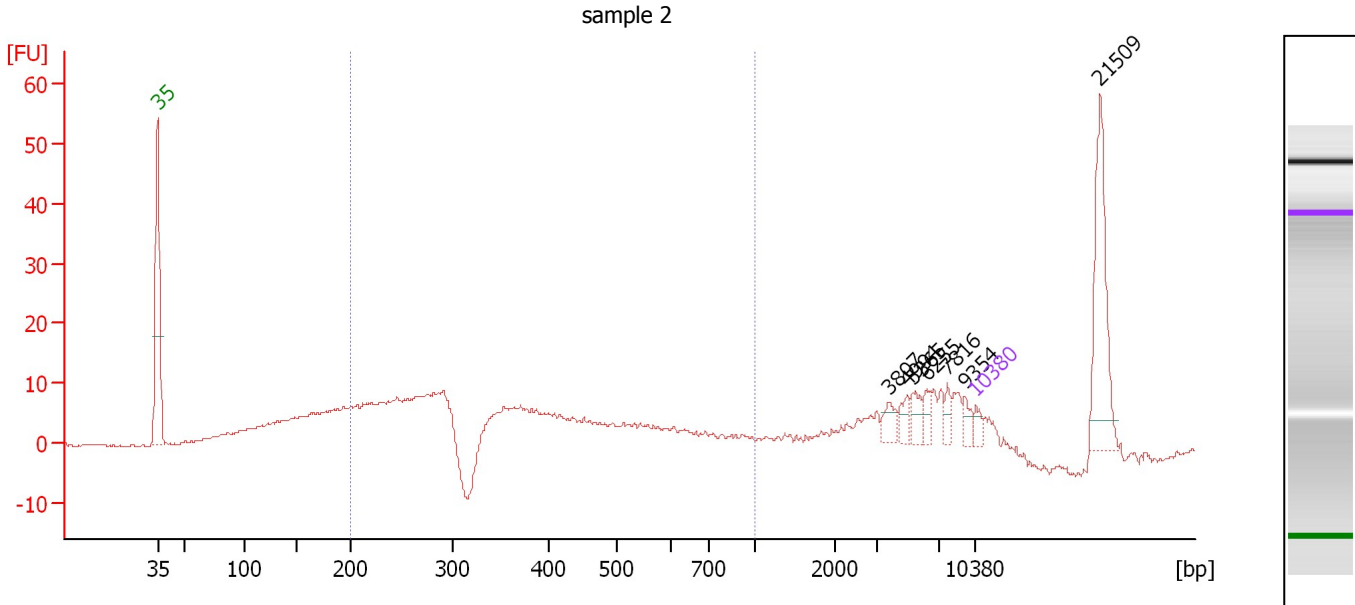
Region table for sample 1 : sample 1

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	440	1,000	689.2	13,878.1	50	42.0	3,210.71

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 7 Corr. Area 1: 211.4
 Noise: 0.2

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	3,807	147.35	58.6		105.57
3	4,994	120.96	36.7		107.13
4	5,365	145.95	41.2		107.62
5	6,255	96.30	23.3		108.80
6	7,816	94.89	18.4		110.56
7	9,354	103.04	16.7		112.02
8	10,380	75.00	10.9	Upper Marker	113.00
9	21,509	0.00	0.0		123.61

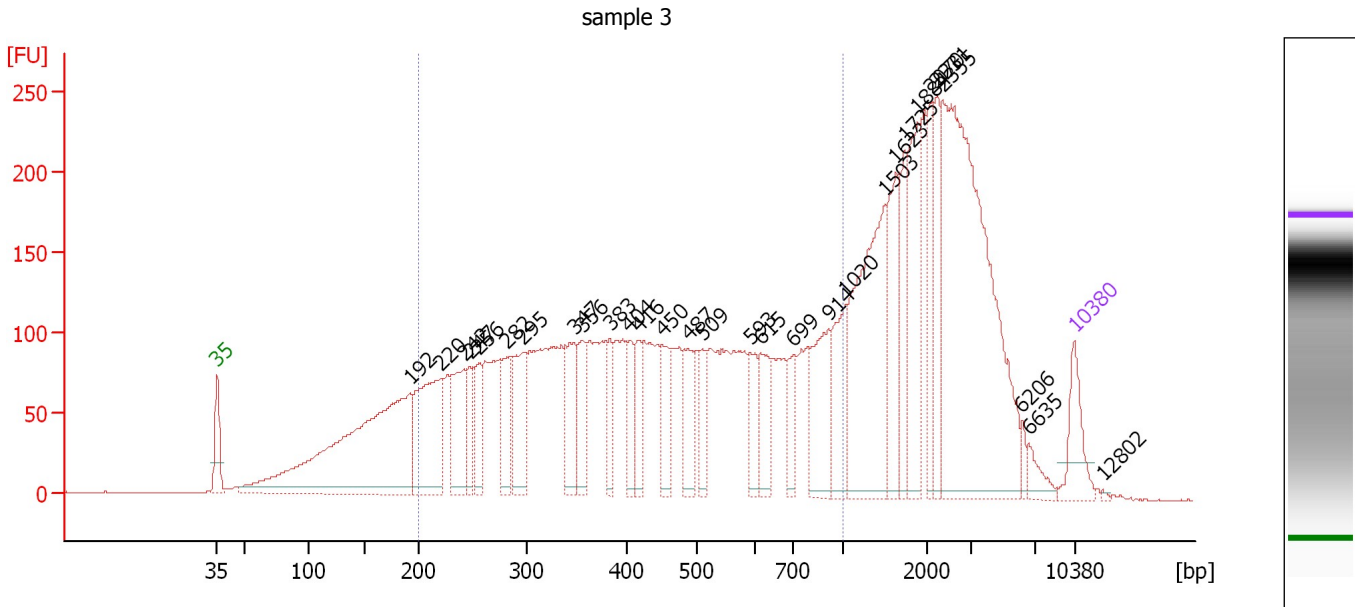
Region table for sample 2 : sample 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	388	1,000	211.4	28,180.8	48	41.7	5,902.42

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

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 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 30 Corr. Area 1: 4,244.9
 Noise: 0.2

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	192	936.21	7,389.0		58.72
3	220	350.89	2,412.4		61.25
4	242	188.52	1,180.4		63.17
5	247	86.40	529.2		63.65
6	256	99.81	591.4		64.39
7	282	111.95	602.0		66.70
8	295	170.57	876.0		67.87
9	347	130.19	568.2		72.14
10	356	111.05	473.0		72.84
11	383	76.01	300.6		75.06
12	404	78.19	293.1		76.67
13	416	77.58	282.4		77.37
14	450	94.05	316.5		79.33
15	487	99.41	309.2		81.46
16	509	72.71	216.3		82.64
17	593	79.45	203.1		86.52
18	615	102.19	251.6		87.34
19	699	65.35	141.6		90.04
20	914	163.52	271.2		92.96
21	1,020	126.94	188.5		94.27
22	1,503	386.79	390.0		97.58
23	1,623	168.28	157.1		98.41
24	1,725	107.46	94.4		99.10
25	1,884	179.33	144.2		100.19

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	2,070	102.60	75.1		101.24
27	2,231	111.60	75.8		101.81
28	2,355	805.62	518.2		102.24
29	6,206	16.65	4.1		108.73
30	6,635	30.43	6.9		109.30
31	10,380	75.00	10.9	Upper Marker	113.00
32	12,802	0.00	0.0		115.31

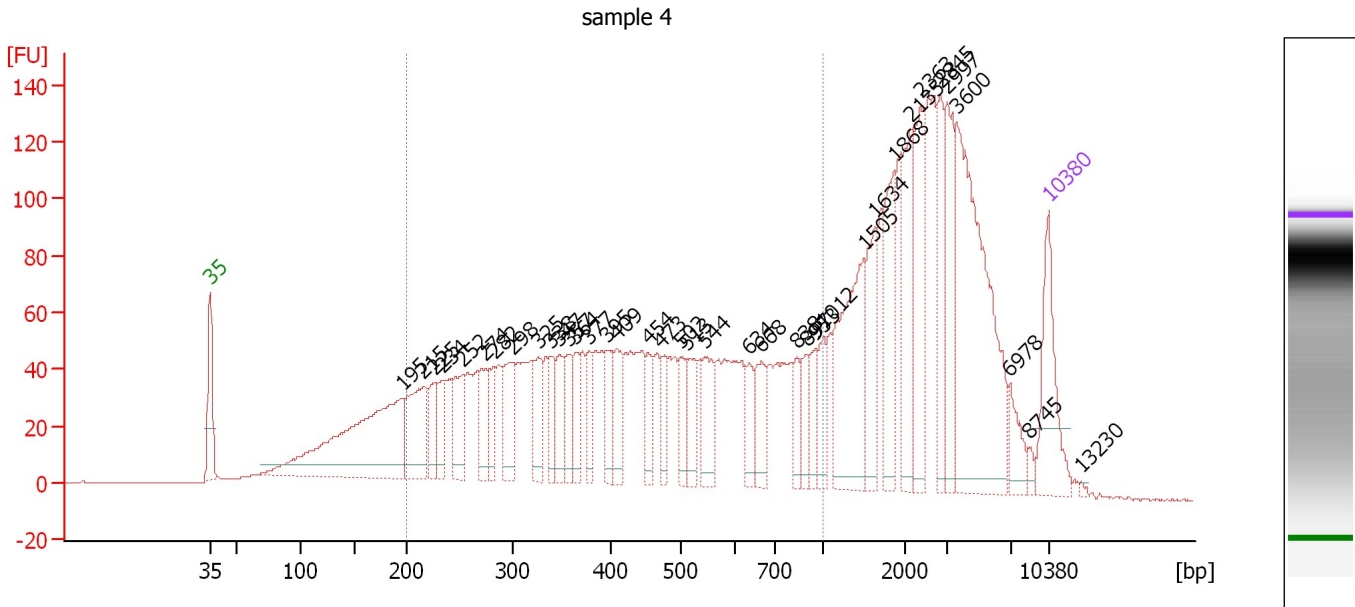
Region table for sample 3 : sample 3

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/μl]
200	464	1,000	4,244.9	18,111.3	54	42.5	4,359.87

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 38 Corr. Area 1: 2,122.6
 Noise: 0.2

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	195	346.74	2,695.7		58.99
3	215	119.98	845.8		60.77
4	225	49.21	330.7		61.70
5	234	43.94	284.5		62.46
6	252	73.67	442.8		64.06
7	274	53.94	298.6		65.98
8	282	41.81	224.9		66.69
9	298	71.98	365.6		68.16
10	325	49.99	233.1		70.34
11	338	37.59	168.7		71.37
12	347	48.64	212.4		72.12
13	357	36.78	156.2		72.92
14	364	36.74	152.9		73.50
15	377	36.03	144.8		74.57
16	395	40.49	155.2		76.04
17	409	47.70	176.9		76.93
18	454	32.50	108.4		79.56
19	473	31.72	101.7		80.63
20	502	37.63	113.7		82.27
21	513	46.14	136.3		82.81
22	544	52.93	147.5		84.23
23	634	35.03	83.8		87.93
24	668	41.49	94.1		89.04
25	838	24.86	44.9		91.94

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	897	26.58	44.9		92.74
27	953	28.60	45.5		93.50
28	1,012	33.55	50.3		94.21
29	1,505	143.63	144.6		97.59
30	1,634	65.06	60.3		98.48
31	1,868	79.67	64.6		100.09
32	2,135	81.27	57.7		101.47
33	2,363	95.25	61.1		102.27
34	2,845	63.55	33.9		103.96
35	2,997	81.78	41.3		104.49
36	3,600	260.82	109.8		105.30
37	6,978	28.45	6.2		109.75
38	8,745	6.44	1.1		111.44
39	10,380	75.00	10.9	Upper Marker	113.00
40	13,230	0.00	0.0		115.72

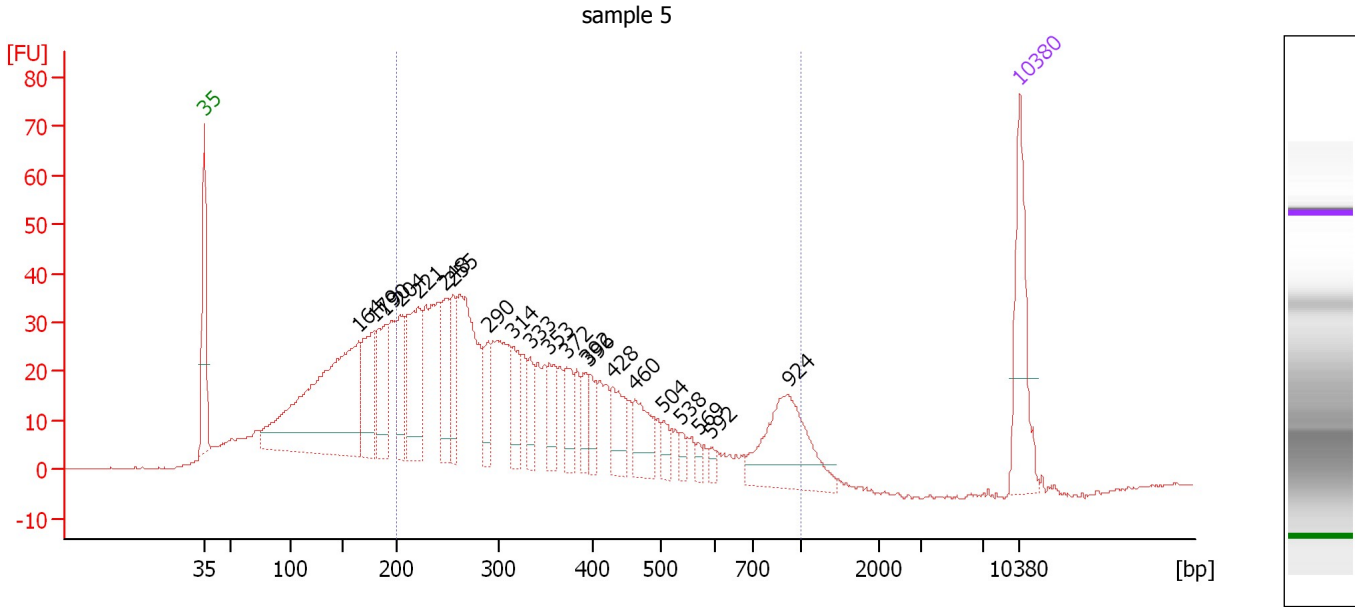
Region table for sample 4 : sample 4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	463	1,000	2,122.6	8,706.4	51	41.9	2,101.07

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 21 Corr. Area 1: 972.5
 Noise: 0.2

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	164	392.44	3,625.1		56.22
3	179	93.95	795.9		57.55
4	190	86.28	687.8		58.56
5	204	58.66	434.7		59.84
6	221	120.90	827.2		61.35
7	248	67.80	413.8		63.73
8	255	51.91	307.9		64.37
9	290	35.07	183.5		67.39
10	314	44.22	213.0		69.49
11	333	30.17	137.5		70.95
12	353	33.94	145.5		72.65
13	372	35.32	143.9		74.16
14	392	22.25	86.1		75.76
15	396	27.95	107.0		76.08
16	428	43.98	155.7		78.05
17	460	46.70	153.7		79.92
18	504	16.19	48.7		82.39
19	538	10.25	28.9		83.95
20	569	6.96	18.5		85.41
21	592	6.98	17.9		86.46
22	924	110.36	181.0		93.10
23	10,380	75.00	10.9	Upper Marker	113.00


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
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Electropherogram Summary Continued ...

... Region table for sample 5 :

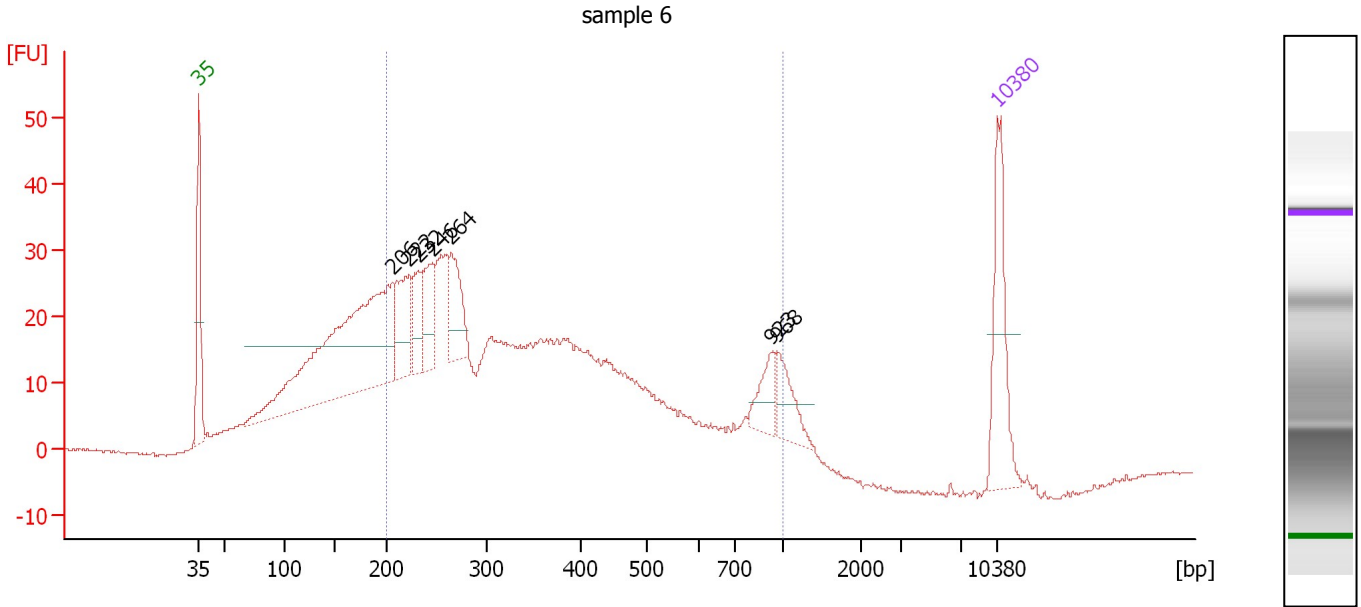
sample 5

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/ μ l]
200	376	1,000	972.5	7,192.3	 64	47.0	1,453.30

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
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Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 7 Corr. Area 1: 777.6
 Noise: 0.2

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	35	125.00	5,411.3	Lower Marker	43.00
2	206	405.72	2,986.2		59.96
3	222	79.96	545.3		61.41
4	232	46.19	302.1		62.25
5	246	58.55	360.8		63.51
6	264	64.73	371.8		65.10
7	923	32.05	52.6		93.09
8	968	37.21	58.2		93.70
9	10,380	75.00	10.9	Upper Marker	113.00

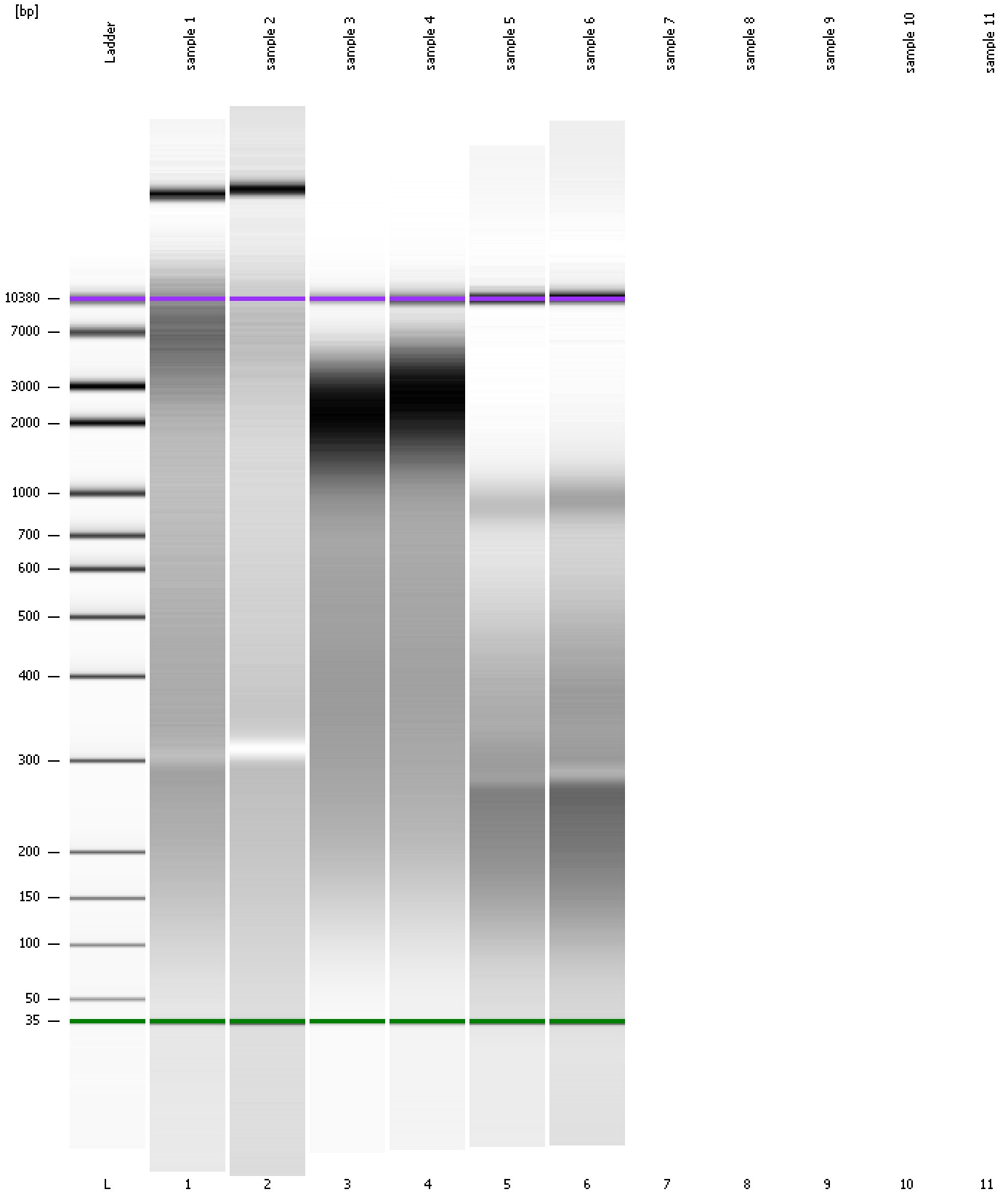
Region table for sample 6 : sample 6

From [bp]	Average Size [bp]	To [bp]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]	Conc. [pg/μl]
200	389	1,000	777.6	7,611.8	66	47.9	1,558.33

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 PM

Gel Image

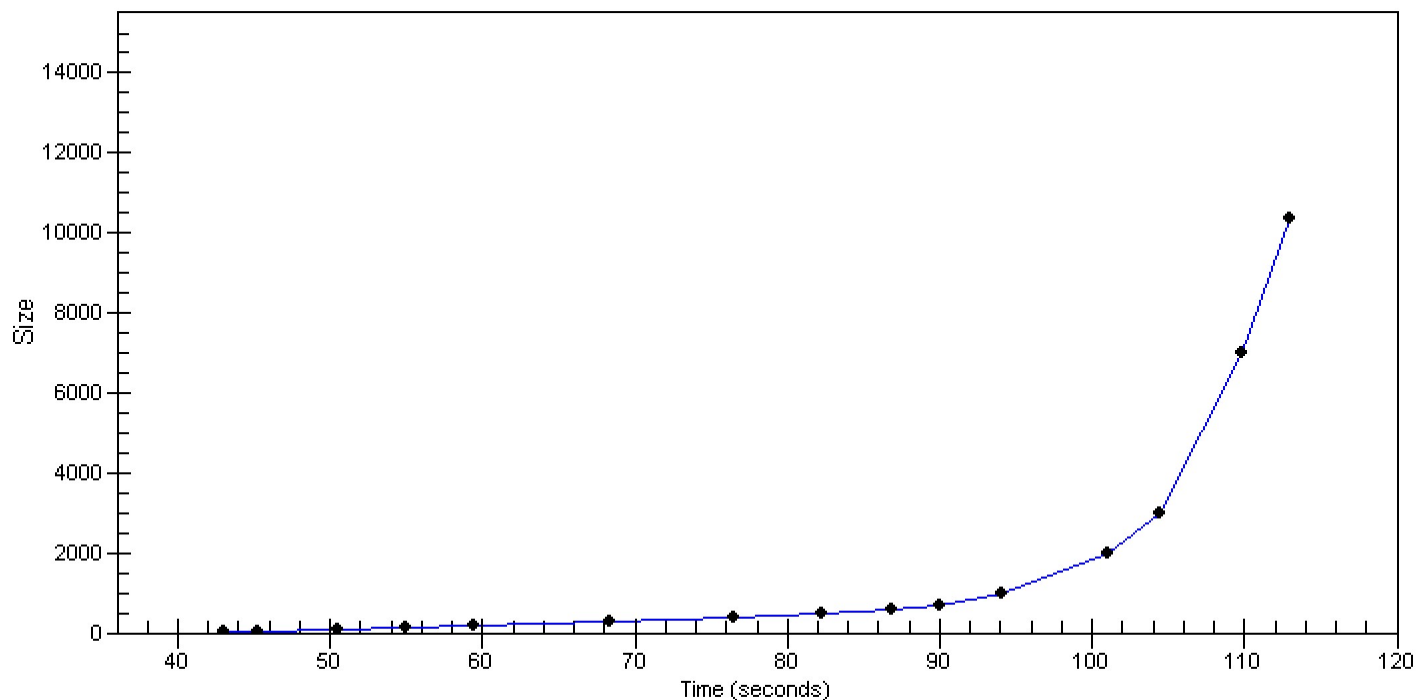


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
Modified: 9/14/2015 12:01:13 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\2015-09-14\2015-09-14_001.xad

Created: 9/14/2015 11:34:12 AM
 Modified: 9/14/2015 12:01:13 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		9/14/2015 12:01:13 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-09-14\2015-09-14_001.xad)		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		9/14/2015 11:34:18 AM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1