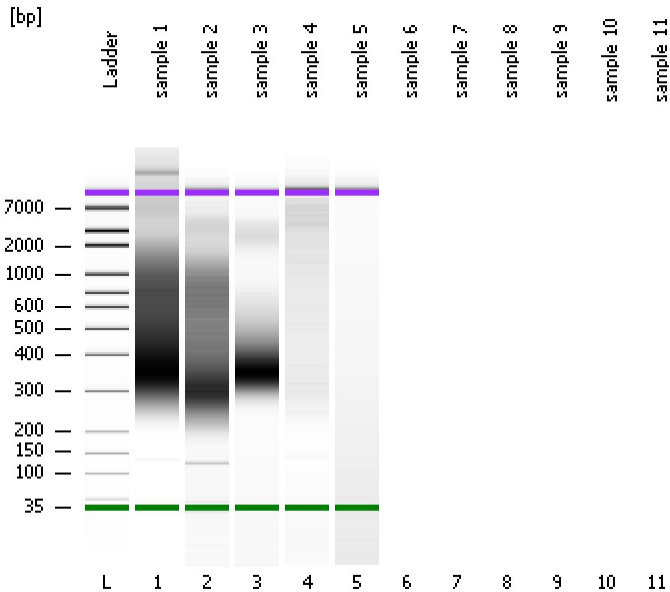


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
Modified: 3/21/2014 1:58:15 PM

Electrophoresis File Run Summary



Instrument Information:

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

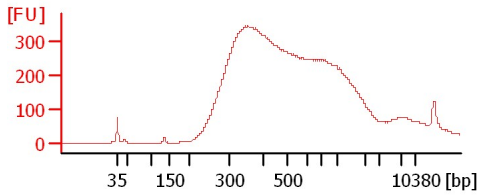
Assay Information:

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

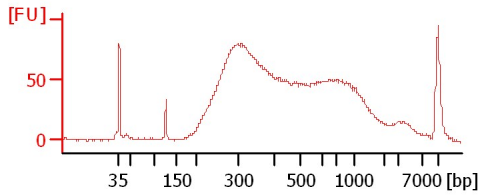
Chip Information:

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

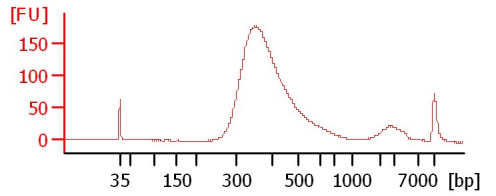
sample 1



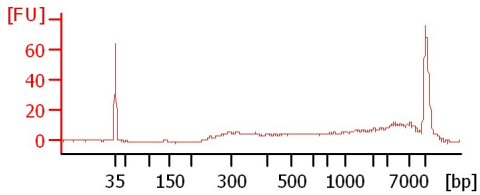
sample 2



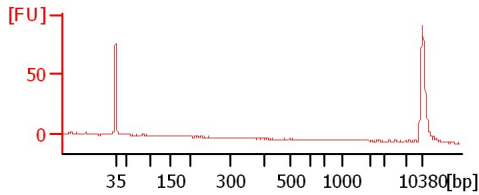
sample 3



sample 4



sample 5



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 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\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 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

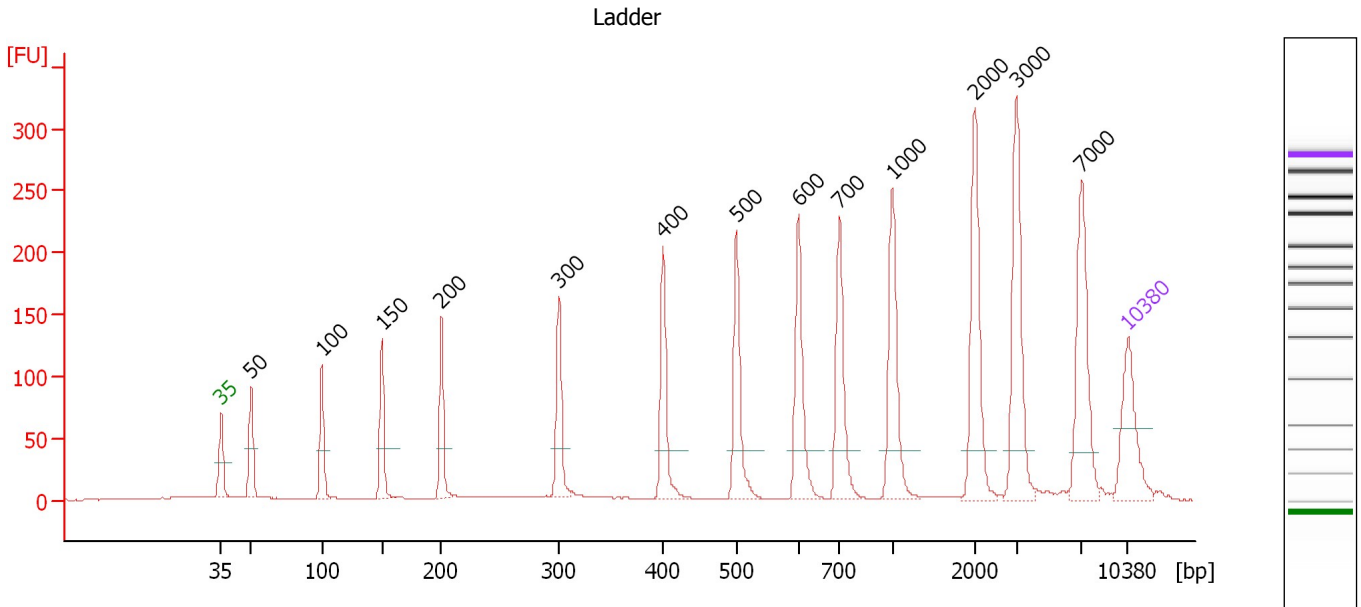
Ladder

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\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

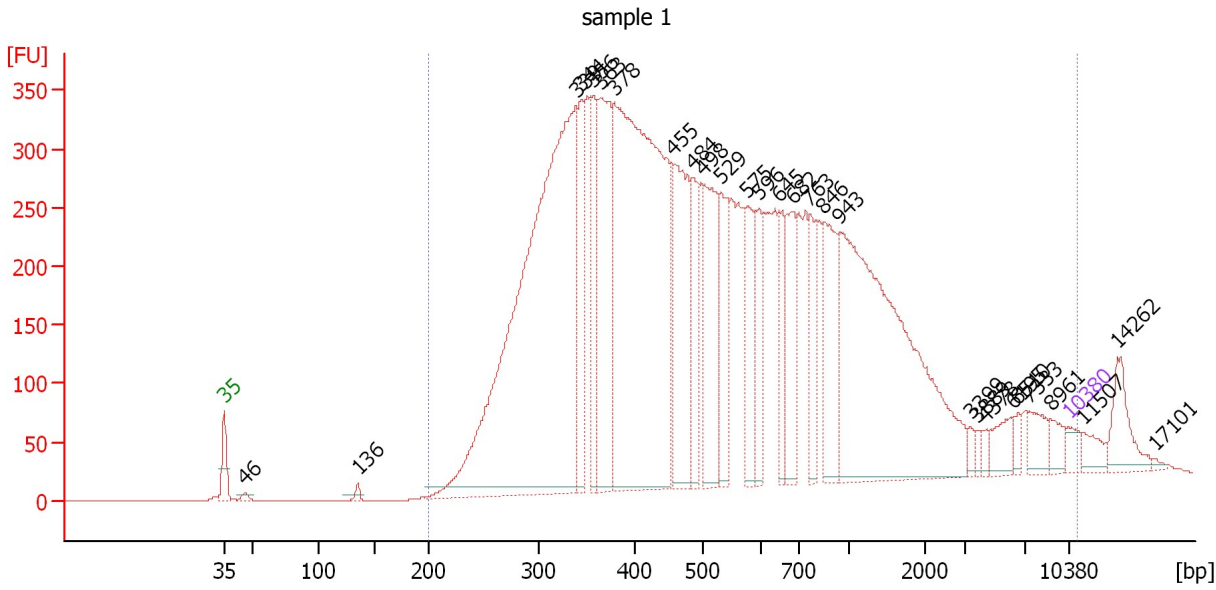
Peak table for Ladder

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.30	50	150.00	4,545.5	Ladder Peak
3	50.78	100	150.00	2,272.7	Ladder Peak
4	55.43	150	150.00	1,515.2	Ladder Peak
5	60.00	200	150.00	1,136.4	Ladder Peak
6	69.09	300	150.00	757.6	Ladder Peak
7	77.12	400	150.00	568.2	Ladder Peak
8	82.75	500	150.00	454.5	Ladder Peak
9	87.57	600	150.00	378.8	Ladder Peak
10	90.70	700	150.00	324.7	Ladder Peak
11	94.81	1,000	150.00	227.3	Ladder Peak
12	101.19	2,000	150.00	113.6	Ladder Peak
13	104.36	3,000	150.00	75.8	Ladder Peak
14	109.42	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\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 28 Corr. Area 1: 11,370.2
 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	44.72	46	40.42	1,325.0	
3	54.10	136	44.54	497.3	
4	72.19	339	6,473.79	28,971.8	
5	72.58	344	756.10	3,334.9	
6	73.56	356	691.40	2,945.5	
7	74.17	363	1,396.39	5,822.7	
8	75.32	378	5,044.94	20,238.6	
9	80.19	455	1,298.94	4,330.0	
10	81.83	484	528.75	1,656.8	
11	82.67	498	1,047.04	3,182.8	
12	84.17	529	658.54	1,884.7	
13	86.38	575	475.17	1,251.4	
14	87.35	596	430.02	1,094.1	
15	88.99	645	344.13	807.9	
16	90.14	682	530.35	1,177.9	
17	91.55	763	376.01	747.1	
18	92.70	846	687.31	1,230.4	
19	94.03	943	3,107.19	4,992.1	
20	104.86	3,399	41.99	18.7	
21	105.48	3,889	40.13	15.6	
22	106.10	4,378	42.89	14.8	
23	108.40	6,195	158.89	38.9	
24	108.80	6,510	51.54	12.0	
25	109.77	7,333	154.10	31.8	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...

... Peak table for sample 1 : sample 1

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
26	111.50	8,961	96.76	16.4	
27	113.00	10,380	75.00	10.9	Upper Marker
28	114.19	11,507	0.00	0.0	
29	117.11	14,262	0.00	0.0	
30	120.12	17,101	0.00	0.0	

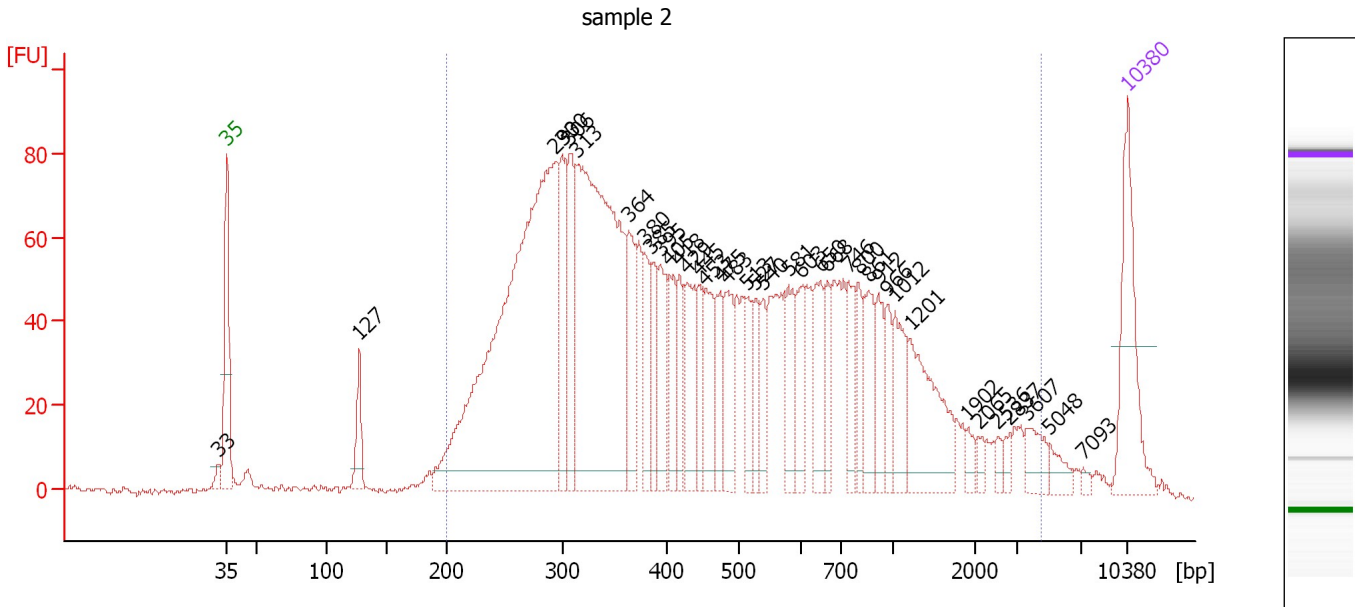
Region table for sample 1 : sample 1

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	11,039	916	92,789.6	27,307.83	11,370.2	98	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 38 Corr. Area 1: 2,742.6
 Noise: 0.6

Peak table for sample 2 : sample 2


Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	42.30	33	0.00	0.0	
2	43.00	35	125.00	5,411.3	Lower Marker
3	53.28	127	41.32	493.4	
4	68.49	293	726.14	3,750.1	
5	69.07	300	81.90	413.9	
6	69.61	306	91.94	454.6	
7	70.15	313	472.88	2,287.9	
8	74.25	364	69.10	287.4	
9	75.49	380	44.34	176.9	
10	75.95	385	42.56	167.3	
11	76.69	395	59.02	226.5	
12	77.40	405	44.29	165.7	
13	78.15	418	37.62	136.3	
14	78.73	429	67.13	237.3	
15	79.68	445	35.73	121.5	
16	80.09	453	53.05	177.5	
17	81.34	475	38.72	123.5	
18	81.79	483	51.32	161.0	
19	83.37	513	31.63	93.5	
20	84.07	527	30.64	88.0	
21	84.69	540	29.70	83.3	
22	86.64	581	45.51	118.7	
23	87.68	603	42.73	107.3	
24	89.13	650	48.13	112.2	
25	89.71	668	30.06	68.1	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...

... Peak table for sample 2 : sample 2

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	91.32	746	38.18	77.6	
27	92.07	800	27.63	52.3	
28	92.90	861	45.83	80.7	
29	93.60	912	33.45	55.6	
30	94.35	966	24.28	38.1	
31	94.89	1,012	42.07	63.0	
32	96.09	1,201	88.57	111.8	
33	100.57	1,902	8.41	6.7	
34	101.40	2,065	7.23	5.3	
35	102.89	2,536	5.81	3.5	
36	103.84	2,837	6.39	3.4	
37	105.13	3,607	20.24	8.5	
38	106.95	5,048	11.71	3.5	
39	109.52	7,093	3.41	0.7	
40	 113.00	10,380	75.00	10.9	Upper Marker

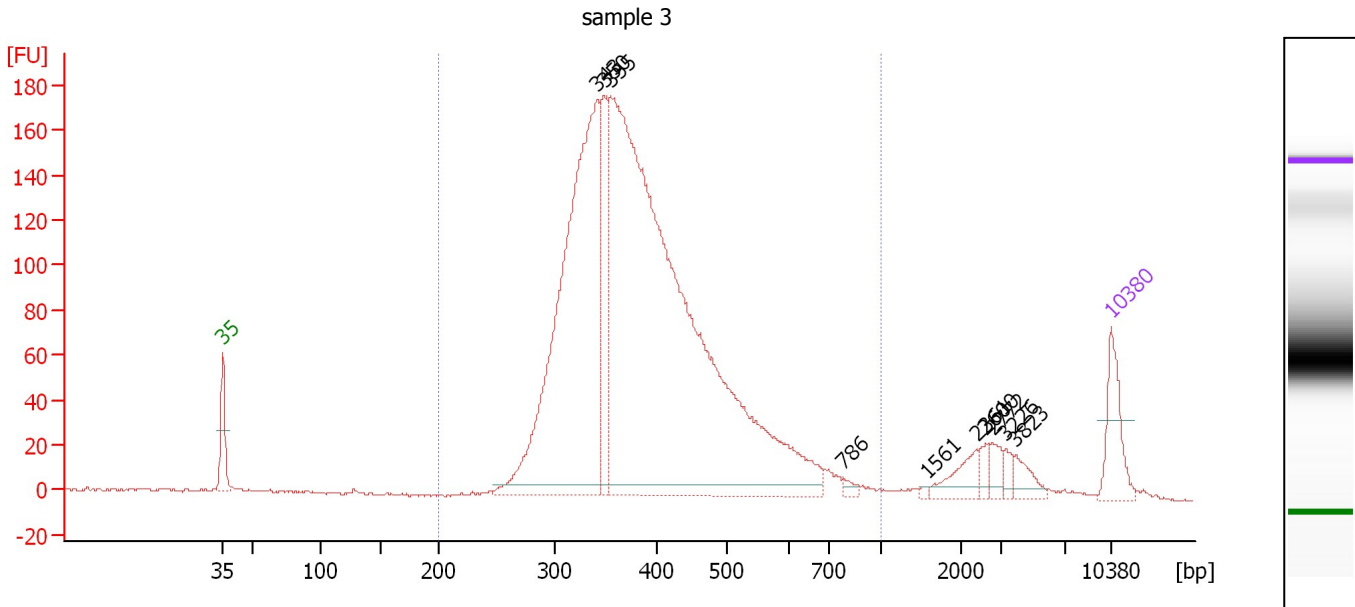
Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	4,560	622	11,338.5	2,886.78	 2,742.6	96	94.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 10 Corr. Area 1: 2,769.7
 Noise: 0.6

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	72.52	343	1,191.93	5,269.2	
3	73.07	350	214.50	929.8	
4	73.53	355	2,369.49	10,104.6	
5	91.88	786	11.80	22.7	
6	98.39	1,561	3.80	3.7	
7	102.33	2,361	44.80	28.7	
8	103.09	2,600	16.65	9.7	
9	103.64	2,772	23.97	13.1	
10	104.64	3,226	15.41	7.2	
11	105.40	3,823	28.74	11.4	
12	113.00	10,380	75.00	10.9	Upper Marker

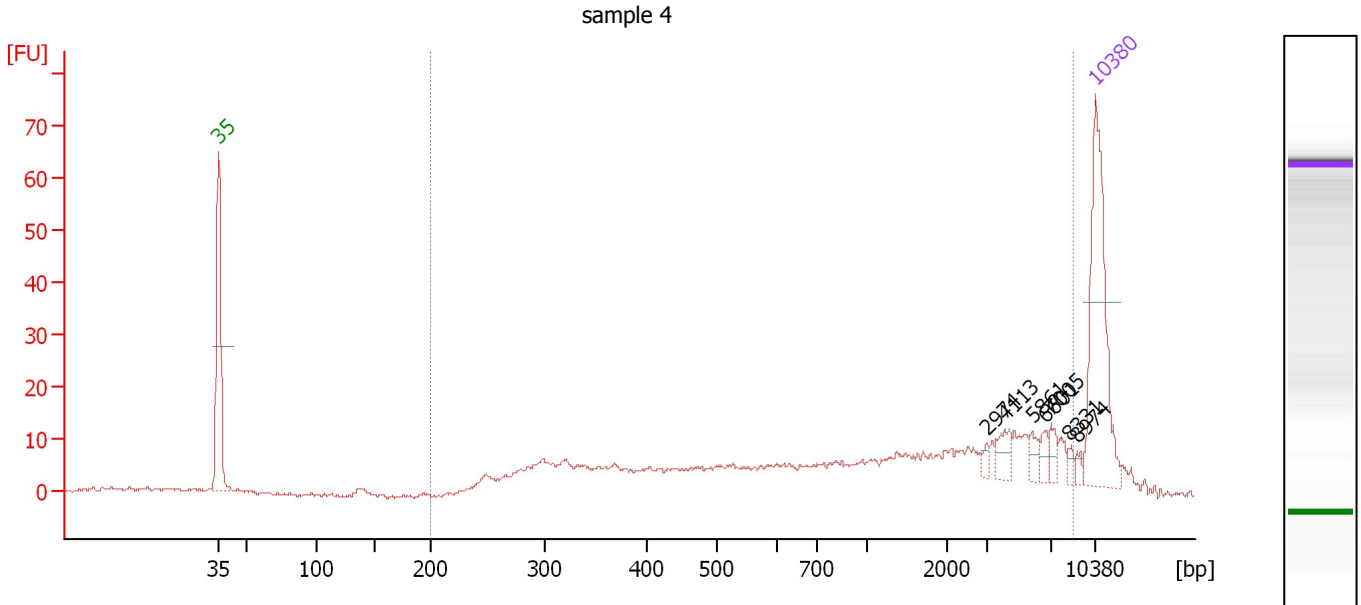
Region table for sample 3 : sample 3

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	1,000	398	14,589.2	3,620.77	2,769.7	94	23.5

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 7 Corr. Area 1: 347.8
 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	43.00	35	125.00	5,411.3	Lower Marker
2	104.28	2,974	2.88	1.5	
3	105.77	4,113	10.10	3.7	
4	107.98	5,861	5.60	1.4	
5	108.91	6,601	5.26	1.2	
6	109.43	7,005	6.25	1.4	
7	110.83	8,331	2.88	0.5	
8	111.51	8,974	2.93	0.5	
9	113.00	10,380	75.00	10.9	Upper Marker

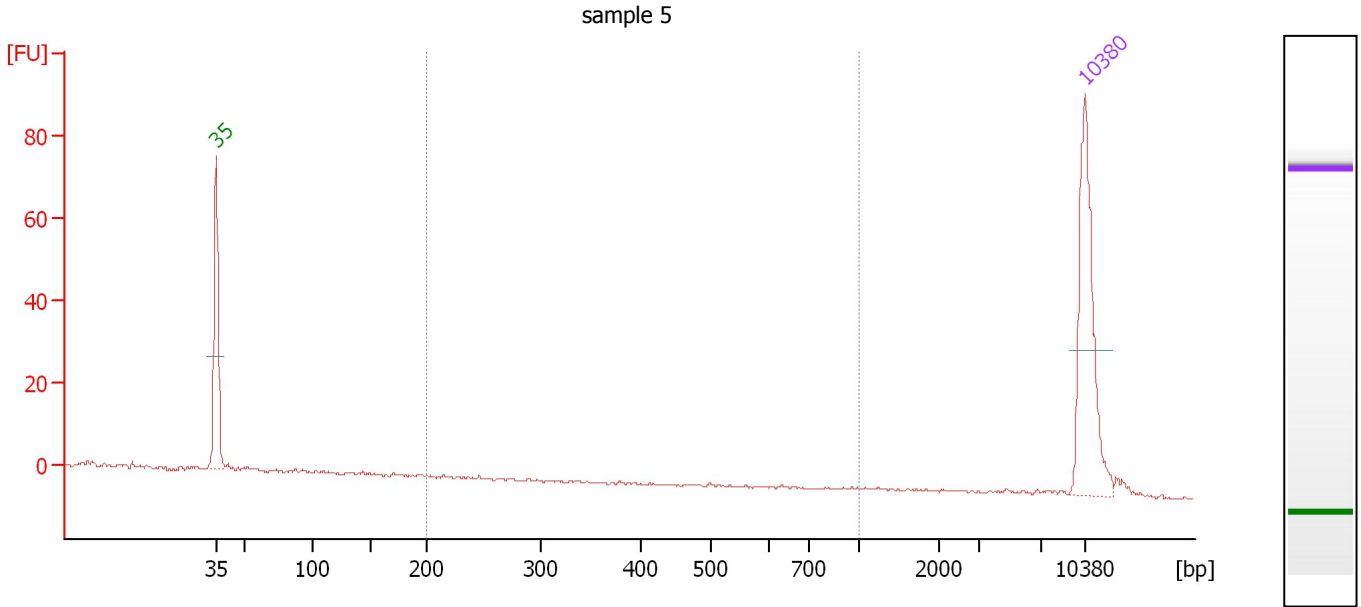
Region table for sample 4 : sample 4

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	8,655	2,122	974.0	370.99	347.8	93	100.0

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 0 Corr. Area 1: 0.1
 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	113.00	10,380	75.00	10.9	Upper Marker

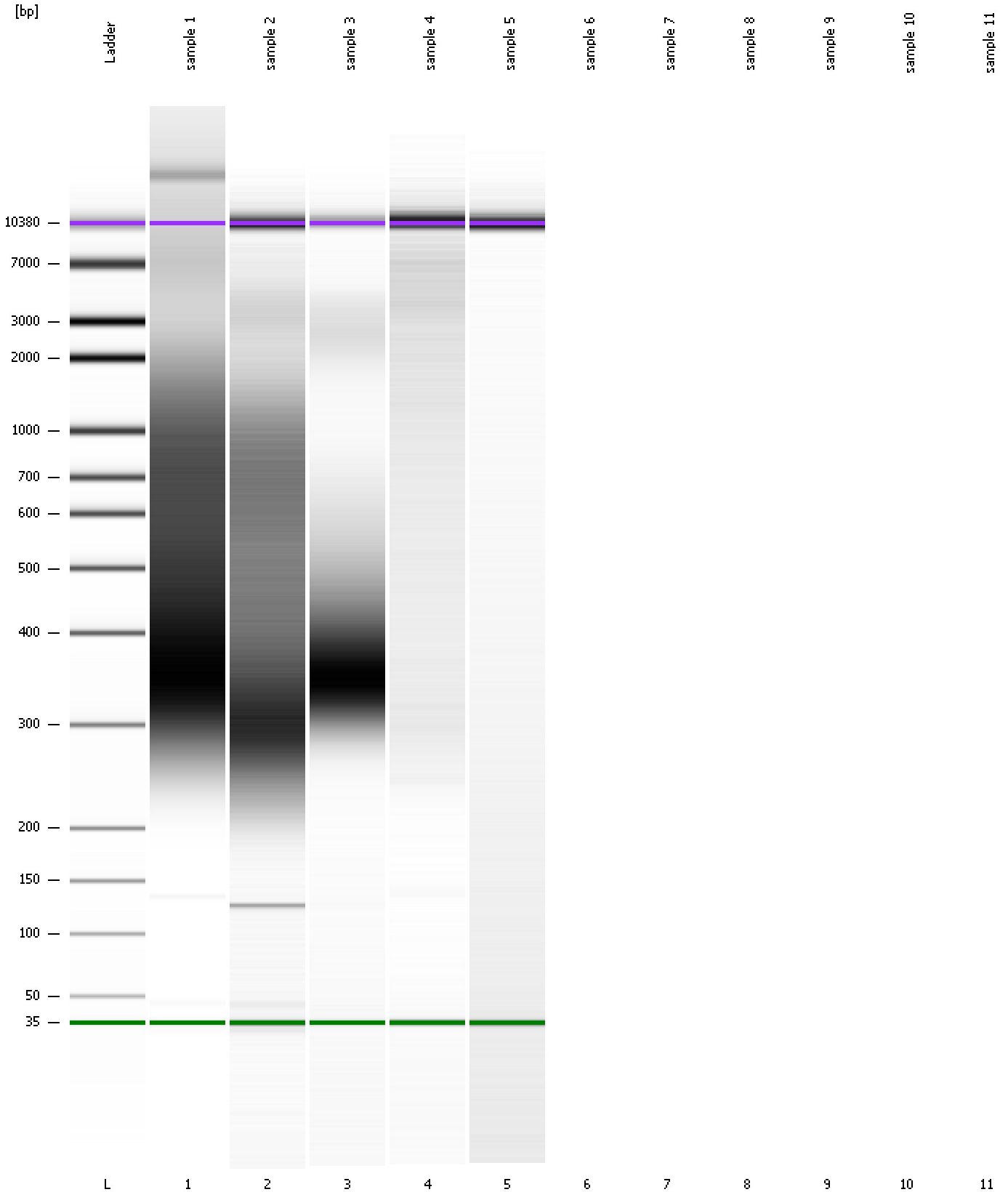
Region table for sample 5 : sample 5

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	500	0.6	0.13	0.1	1	59.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
Modified: 3/21/2014 1:58:15 PM

Gel Image

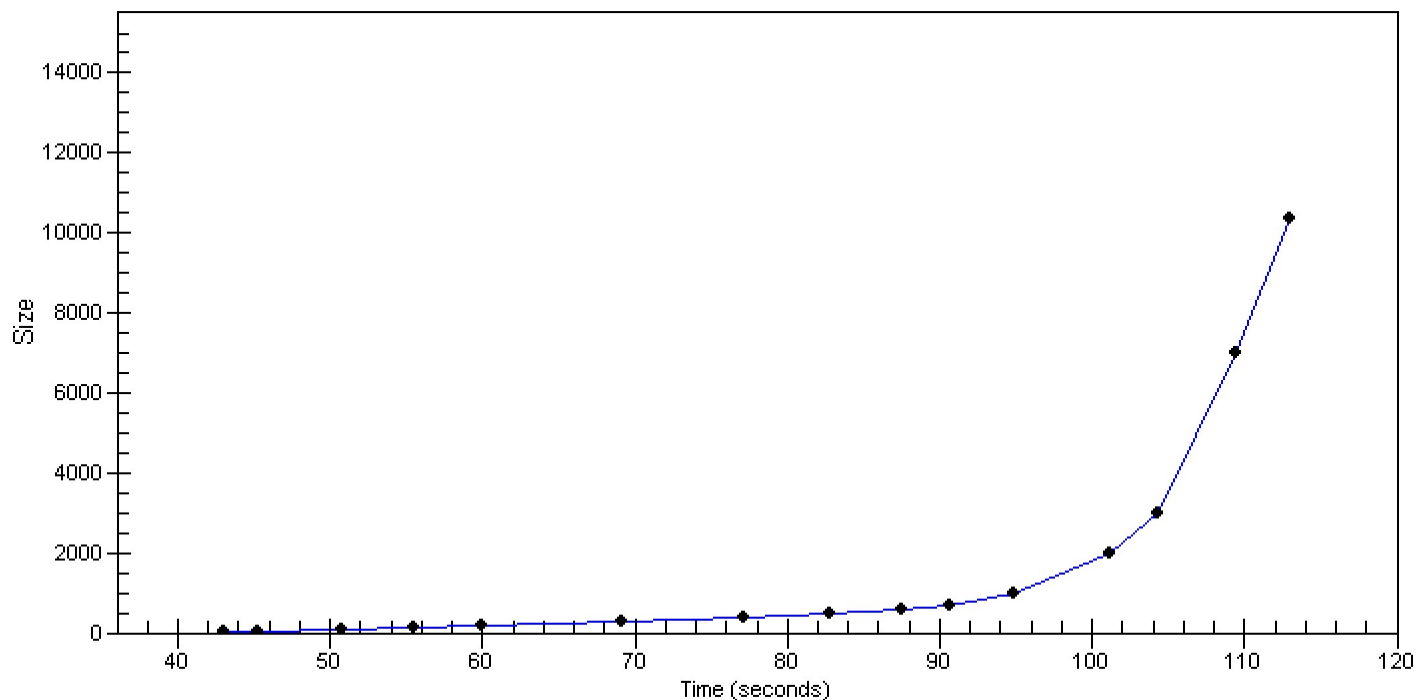


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
Modified: 3/21/2014 1:58:15 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
Modified: 3/21/2014 1:58:15 PM

Invalid Samples

- Sample 6 has not been run, no results available.
- 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\2014-03-21\2014-03-21_006.xad

Created: 3/21/2014 1:34:31 PM
 Modified: 3/21/2014 1:58:15 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 6)		Instrument	Run		3/21/2014 1:58:13 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-03-21\2014-03-21_006.xad)		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		3/21/2014 1:34:37 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1