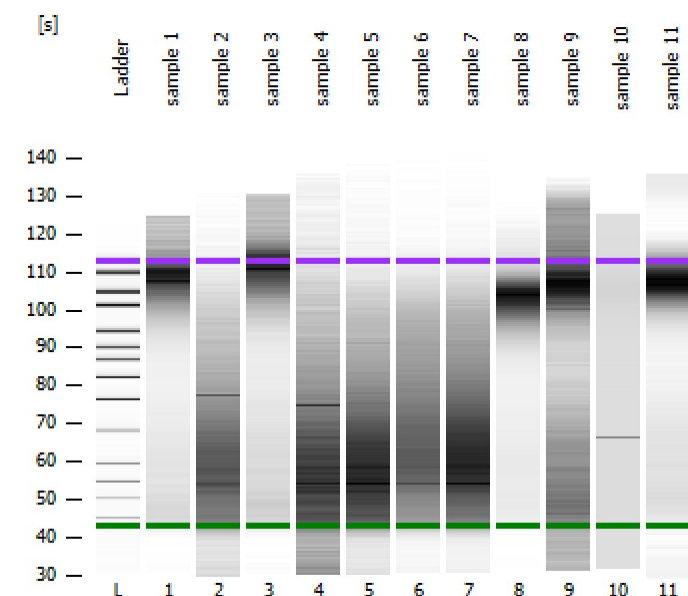


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Electrophoresis File Run Summary



Instrument Information:

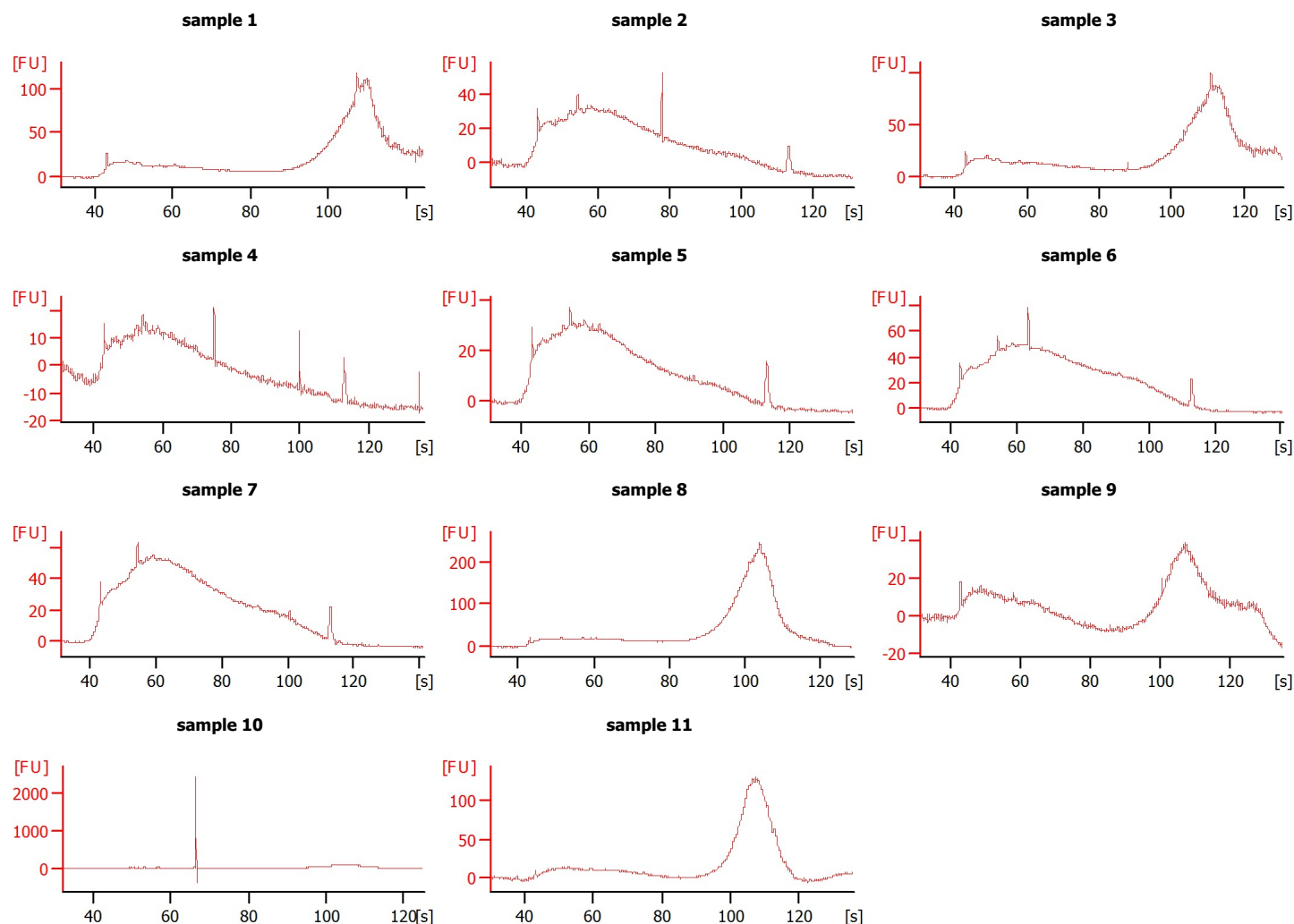
Instrument Name: DE04103186 Firmware: C.01.069
Serial#: DE04103186 Type: G2939A

Assay Information:

Assay Origin Path: C:\Program Files (x86)\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:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 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:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 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/ μ l] : 1950
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [pg/ μ l] : 125
Upper Marker Concentration [pg/ μ l] : 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

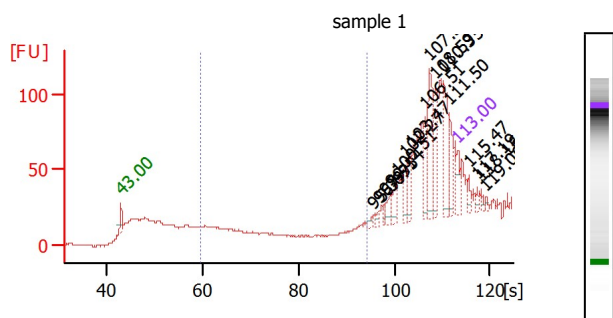
Ladder

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:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Electropherogram Summary



Overall Results for sample 1 : sample 1

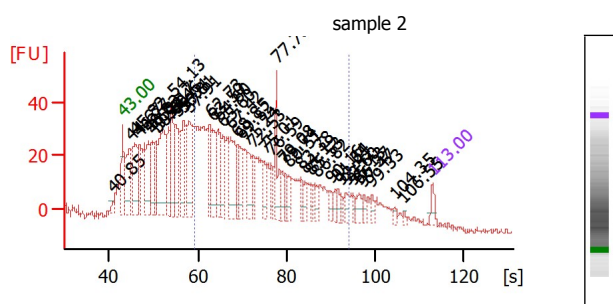
Number of peaks found: 16
Noise: 0.3
Corr. Area 1: 26.3

Region table for sample 1 : sample 1

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
59.52	94.35	26.3	2	225	8.1	96.93	651.9	Blue

Peak table for sample 1 :

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	1,151	17.93	23.6	
3	1,338	18.98	21.5	
4	1,524	20.30	20.2	
5	1,698	49.95	44.6	
6	1,897	64.26	51.3	
7	2,303	63.33	41.7	
8	2,643	88.00	50.4	
9	4,391	87.44	30.2	
10	5,076	254.04	75.8	
11	6,000	175.74	44.4	
12	7,515	204.32	41.2	
13	8,756	119.62	20.7	
14	10,380	75.00	10.9	Upper Marker
15	13,054	0.00	0.0	
16	14,917	0.00	0.0	
17	15,968	0.00	0.0	
18	16,875	0.00	0.0	



Overall Results for sample 2 : sample 2

Number of peaks found: 43
Noise: 0.9
Corr. Area 1: 1,035.0

Region table for sample 2 : sample 2

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
59.52	94.35	1,035.0	49	392	43.5	8,557.87	40,674.6	Blue

Peak table for sample 2 :

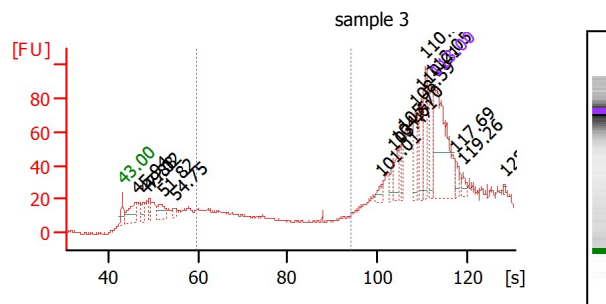
Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
1	27	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	46	784.46	25,815.0	
4	55	584.44	16,025.5	
5	64	425.00	9,993.8	
6	84	652.05	11,738.0	
7	95	509.06	8,103.7	
8	101	368.13	5,505.5	
9	119	1,246.67	15,918.0	
10	133	388.35	4,428.7	
11	140	783.42	8,465.2	
12	150	651.30	6,569.4	
13	170	545.62	4,866.5	
14	182	618.09	5,142.9	
15	237	321.31	2,058.2	
16	245	545.15	3,368.4	
17	258	412.67	2,426.3	
18	269	364.79	2,053.9	
19	290	559.93	2,928.2	
20	306	221.80	1,096.7	
21	315	211.05	1,016.6	
22	335	314.94	1,422.6	
23	351	173.62	749.2	
24	381	207.56	824.9	
25	401	119.90	453.5	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Electropherogram Summary Continued ...

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	421	387.64	1,394.2	
27	444	104.55	357.1	
28	455	106.53	354.6	
29	468	95.92	310.2	
30	523	93.61	271.3	
31	540	94.44	264.8	
32	570	69.71	185.4	
33	598	70.43	178.5	
34	705	67.27	144.6	
35	786	78.44	151.3	
36	809	56.80	106.4	
37	863	44.60	78.3	
38	947	74.53	119.2	
39	1,113	45.20	61.5	
40	1,294	88.53	103.6	
41	1,454	59.02	61.5	
42	1,726	41.14	36.1	
43	2,896	31.52	16.5	
44	4,421	20.39	7.0	
45	10,380	75.00	10.9	Upper Marker




Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Peak table for sample 4 : sample 4

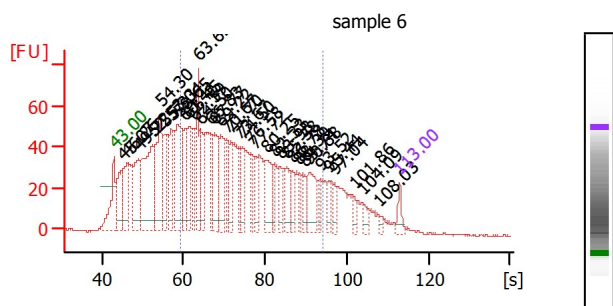
Region table for sample 5 : sample 5

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
26	616	86.16	211.8	
27	663	64.70	147.9	
28	698	53.09	115.2	
29	783	80.84	156.5	
30	836	68.42	123.9	
31	1,123	35.01	47.3	
32	1,219	35.97	44.7	
33	1,472	29.95	30.8	
34	1,866	27.19	22.1	
35	2,247	25.90	17.5	
36	2,655	18.46	10.5	
37	4,596	13.11	4.3	
38	 10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

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Modified: 1/8/2014 4:01:53 PM

Electropherogram Summary Continued ...**Overall Results for sample 6 :** sample 6

Number of peaks found: 36
Noise: 0.4
Corr. Area 1: 1,776.8

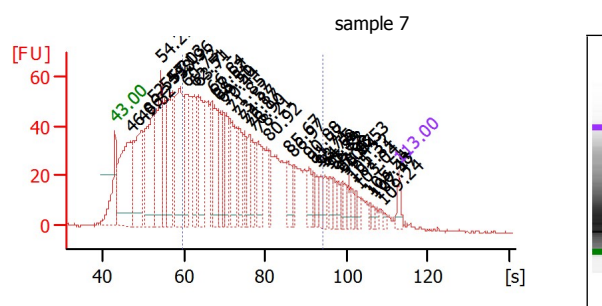
Region table for sample 6 : sample 6

From To	Corr.	% of	Average	Size	Conc.	Molarit	Co
[s]	Area	Total	Size [bp]	distribution	[pg/μl]	y	lo
				in CV [%]		[pmol/l]	r
59.52	94.35	1,776.8	55	415	43.9	8,636.94	39,464.7

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	700.18	21,791.0	
3	60	482.71	12,285.6	
4	88	732.99	12,635.3	
5	123	1,462.25	18,068.0	
6	142	1,044.21	11,141.2	
7	153	465.73	4,598.7	
8	172	380.21	3,340.3	
9	190	916.81	7,298.7	
10	210	301.99	2,177.5	
11	222	410.08	2,800.1	
12	235	285.55	1,842.2	
13	247	348.04	2,138.3	
14	257	298.06	1,759.8	
15	283	296.60	1,587.3	
16	294	444.87	2,295.0	
17	311	485.95	2,368.4	
18	329	200.30	923.8	
19	341	265.20	1,178.1	
20	365	211.25	876.9	
21	375	179.95	727.0	
22	400	157.89	597.6	
23	420	161.38	582.1	
24	464	360.57	1,177.3	
25	500	128.49	389.4	
26	536	148.78	420.5	

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	566	214.11	572.7	
28	597	92.74	235.4	
29	646	104.76	245.6	
30	689	107.21	235.8	
31	755	291.94	585.8	
32	941	71.07	114.4	
33	1,158	83.93	109.8	
34	1,392	96.59	105.1	
35	2,184	59.53	41.3	
36	2,820	69.29	37.2	
37	5,565	28.82	7.8	
38	10,380	75.00	10.9	Upper Marker

**Overall Results for sample 7 :** sample 7

Number of peaks found: 42
Noise: 0.4
Corr. Area 1: 1,719.4

Region table for sample 7 : sample 7

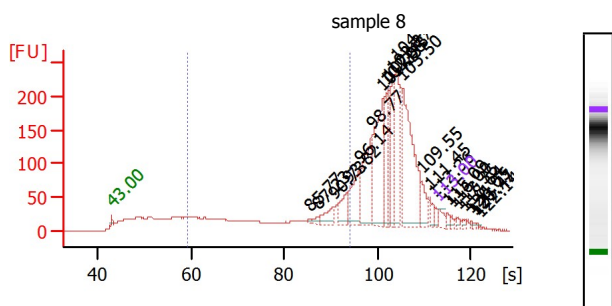
From To	Corr.	% of	Average	Size	Conc.	Molarit	Co
[s]	Area	Total	Size [bp]	distribution	[pg/μl]	y	lo
				in CV [%]		[pmol/l]	r
59.52	94.35	1,719.4	53	401	43.8	8,831.45	41,307.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Electropherogram Summary Continued ...**Peak table for sample 7 : sample 7**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker	27	818	83.57	154.8	
2	65	1,588.30	36,880.2		28	884	72.24	123.8	
3	91	1,243.97	20,757.7		29	958	86.67	137.1	
4	122	1,443.88	17,990.5		30	1,034	78.93	115.6	
5	142	1,202.01	12,853.3		31	1,224	71.03	87.9	
6	152	455.32	4,537.3		32	1,369	84.48	93.5	
7	172	955.16	8,397.0		33	1,528	46.48	46.1	
8	194	1,231.68	9,628.9		34	1,673	48.35	43.8	
9	214	442.80	3,137.7		35	1,741	55.45	48.3	
10	234	344.43	2,230.5		36	1,901	55.72	44.4	
11	248	699.56	4,280.9		37	2,029	40.24	30.1	
12	283	287.92	1,540.7		38	2,312	34.29	22.5	
13	291	392.55	2,044.9		39	2,520	46.26	27.8	
14	302	333.57	1,672.2		40	3,639	30.84	12.8	
15	314	246.82	1,189.9		41	4,367	26.85	9.3	
16	326	301.46	1,402.4		42	5,135	18.04	5.3	
17	343	314.40	1,389.7		43	6,510	21.54	5.0	
18	364	350.38	1,459.7		44	10,380	75.00	10.9	Upper Marker
19	380	198.44	792.2						
20	395	221.38	848.4						
21	406	187.28	698.9						
22	429	250.93	887.0						
23	476	155.61	495.7						
24	573	178.02	471.0						
25	602	82.72	208.3						
26	756	116.71	234.0						

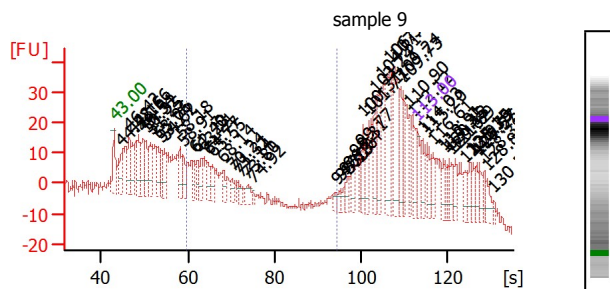


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Electropherogram Summary Continued ...

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
25	20,266	0.00	0.0	

**Overall Results for sample 9 : sample 9**

Number of peaks found: 55
Noise: 1.2
Corr. Area 1: 279.2

Region table for sample 9 : sample 9

From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
59.52	94.35	279.2	18	368	53.3	1,271.96	6,584.4	Blue

Peak table for sample 9 : sample 9

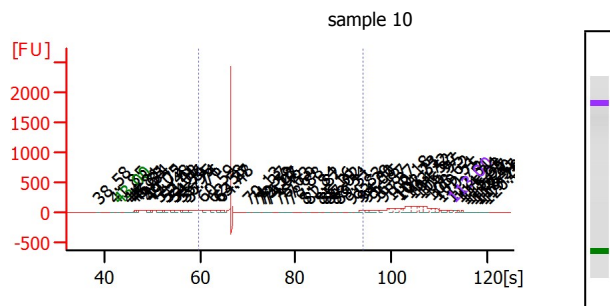
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	44	123.75	4,228.0	
3	61	200.99	4,992.5	
4	68	183.59	4,088.9	
5	83	174.04	3,193.9	
6	91	206.52	3,438.5	
7	99	175.68	2,702.3	
8	108	131.09	1,830.8	
9	128	125.21	1,477.9	
10	136	101.83	1,135.4	
11	146	152.10	1,583.2	
12	185	92.69	758.6	
13	193	104.11	816.1	
14	221	63.88	437.1	
15	231	82.38	540.7	
16	242	70.41	441.0	
17	260	67.37	393.1	
18	269	71.60	404.0	
19	298	56.58	287.8	
20	323	37.07	173.7	
21	336	31.97	144.0	
22	346	28.71	125.6	
23	367	50.35	208.1	
24	380	13.01	51.9	
25	997	21.61	32.9	
26	1,114	19.34	26.3	
27	1,263	24.14	28.9	
28	1,377	25.41	28.0	
29	1,576	48.18	46.3	
30	1,790	44.41	37.6	
31	1,868	45.07	36.6	
32	2,159	83.05	58.3	
33	2,577	97.83	57.5	
34	2,940	140.77	72.6	
35	4,275	218.09	77.3	
36	5,296	161.99	46.3	
37	6,508	90.54	21.1	
38	6,886	80.29	17.7	
39	8,109	57.47	10.7	
40	9,429	57.25	9.2	
41	10,380	75.00	10.9	Upper Marker
42	11,489	0.00	0.0	
43	12,757	0.00	0.0	
44	14,289	0.00	0.0	
45	16,771	0.00	0.0	
46	17,247	0.00	0.0	
47	18,092	0.00	0.0	
48	18,620	0.00	0.0	
49	19,782	0.00	0.0	
50	22,212	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

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Electropherogram Summary Continued ...

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
51	23,532	0.00	0.0	
52	24,219	0.00	0.0	
53	25,064	0.00	0.0	
54	25,803	0.00	0.0	
55	27,018	0.00	0.0	
56	27,546	0.00	0.0	
57	29,395	0.00	0.0	



Overall Results for sample 10 : sample 10

Number of peaks found: 62
 Noise: 1.2
 Corr. Area 1: 1,381.7

Region table for sample 10 : sample 10

From To [s]	Area	Corr. % of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
59.52 94.35	1,381.7	39	355	49.5	6,492.11	33,131.0	Blue

Peak table for sample 10 : sample 10

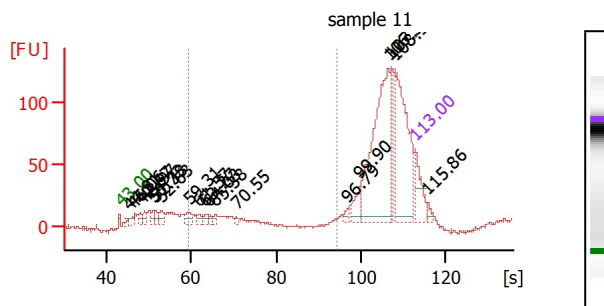
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	20	0.00	0.0		26	370	47.95	196.5	
2	31	0.00	0.0		27	375	65.95	266.8	
3	35	125.00	5,411.3	Lower Marker	28	401	46.26	174.7	
4	47	254.52	8,211.4		29	420	44.37	160.2	
5	54	178.09	5,029.8		30	440	57.11	196.5	
6	60	279.90	7,066.7		31	492	30.83	95.0	
7	65	208.40	4,850.0		32	511	29.59	87.8	
8	86	229.03	4,019.9		33	562	26.66	71.9	
9	93	230.39	3,766.0		34	587	24.06	62.1	
10	111	338.41	4,616.0		35	603	33.31	83.7	
11	121	232.25	2,901.2		36	645	28.10	66.0	
12	129	232.11	2,735.0		37	675	39.56	88.8	
13	143	174.41	1,852.0		38	823	61.39	113.1	
14	147	210.08	2,171.5		39	925	67.24	110.1	
15	160	166.13	1,570.2		40	975	69.14	107.4	
16	169	315.82	2,829.0		41	1,116	87.81	119.2	
17	180	274.55	2,305.2		42	1,367	205.30	227.6	
18	212	271.55	1,939.3		43	1,586	129.45	123.7	
19	235	239.65	1,546.8		44	1,850	206.88	169.4	
20	248	118.34	722.1		45	2,147	242.54	171.1	
21	256	220.46	1,303.1		46	2,311	151.99	99.6	
22	322	88.87	418.1		47	2,715	479.97	267.8	
23	337	102.58	461.1		48	2,942	383.71	197.6	
24	351	48.18	208.0		49	3,974	345.40	131.7	
25	359	45.17	190.6		50	4,728	321.15	102.9	
					51	6,030	180.03	45.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
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Electropherogram Summary Continued ...

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
52	6,715	130.22	29.4	
53	7,941	152.08	29.0	
54	9,854	56.37	8.7	
55	10,380	75.00	10.9	Upper Marker
56	11,719	0.00	0.0	
57	12,580	0.00	0.0	
58	13,249	0.00	0.0	
59	13,918	0.00	0.0	
60	14,923	0.00	0.0	
61	15,688	0.00	0.0	
62	16,405	0.00	0.0	
63	17,170	0.00	0.0	
64	18,031	0.00	0.0	



Overall Results for sample 11 : sample 11

Number of peaks found: 19
 Noise: 1.0
 Corr. Area 1: 158.6

Region table for sample 11 : sample 11

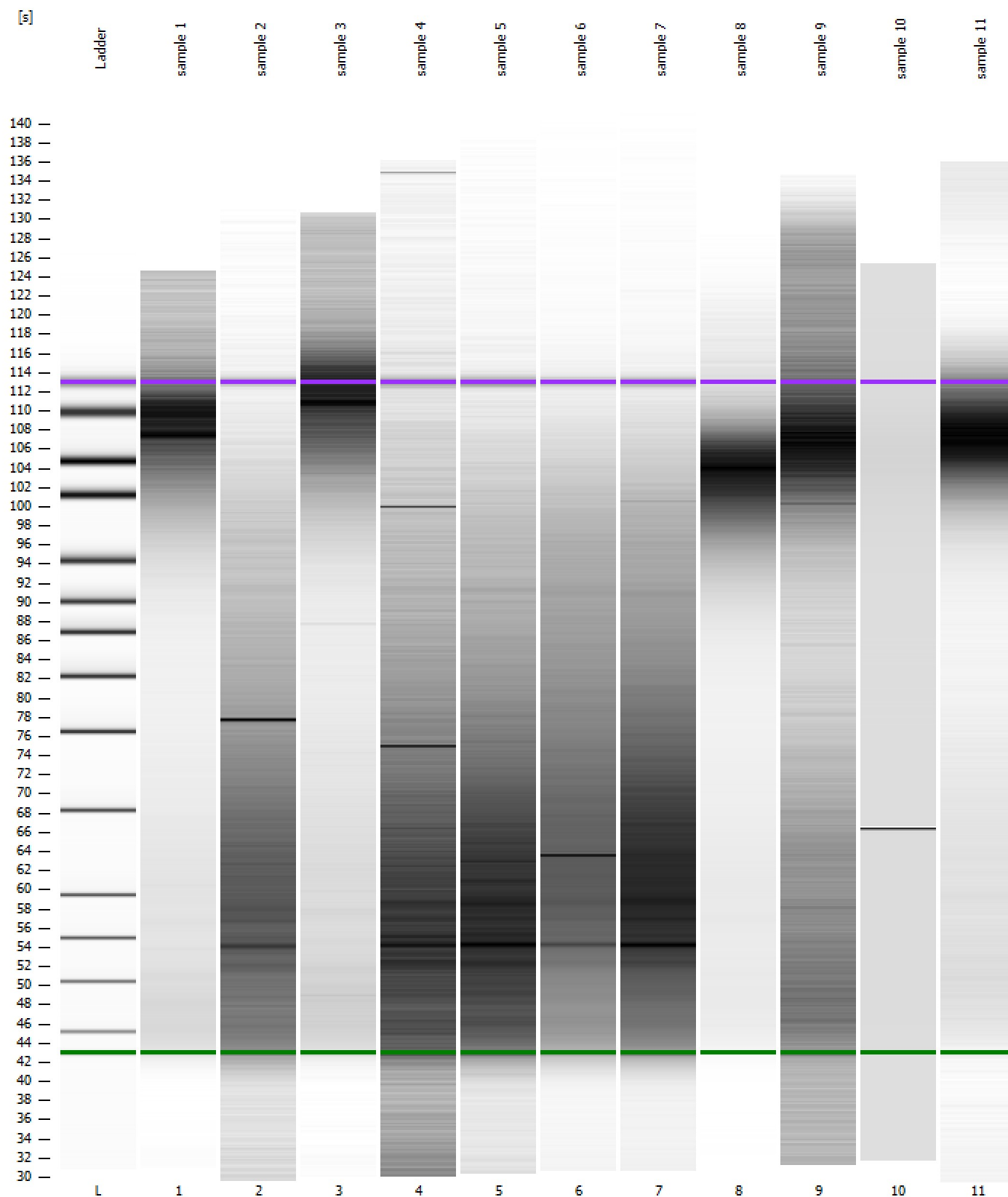
From [s]	To [s]	Corr. Area	% of Total	Average Size [bp]	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
59.52	94.35	158.6	10	299	41.5	219.42	1,223.3	Blue

Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	14.06	447.7	
3	58	23.96	630.6	
4	73	29.84	619.4	
5	86	34.20	605.9	
6	103	30.40	448.3	
7	110	28.12	387.5	
8	124	45.02	551.4	
9	198	36.23	277.7	
10	223	21.32	144.7	
11	243	22.89	142.9	
12	251	13.78	83.1	
13	267	12.44	70.7	
14	327	5.71	26.5	
15	1,356	10.35	11.6	
16	1,809	41.17	34.5	
17	4,442	471.29	160.8	
18	5,103	80.94	24.0	
19	5,687	347.40	92.6	
20	10,380	75.00	10.9	Upper Marker
21	13,475	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

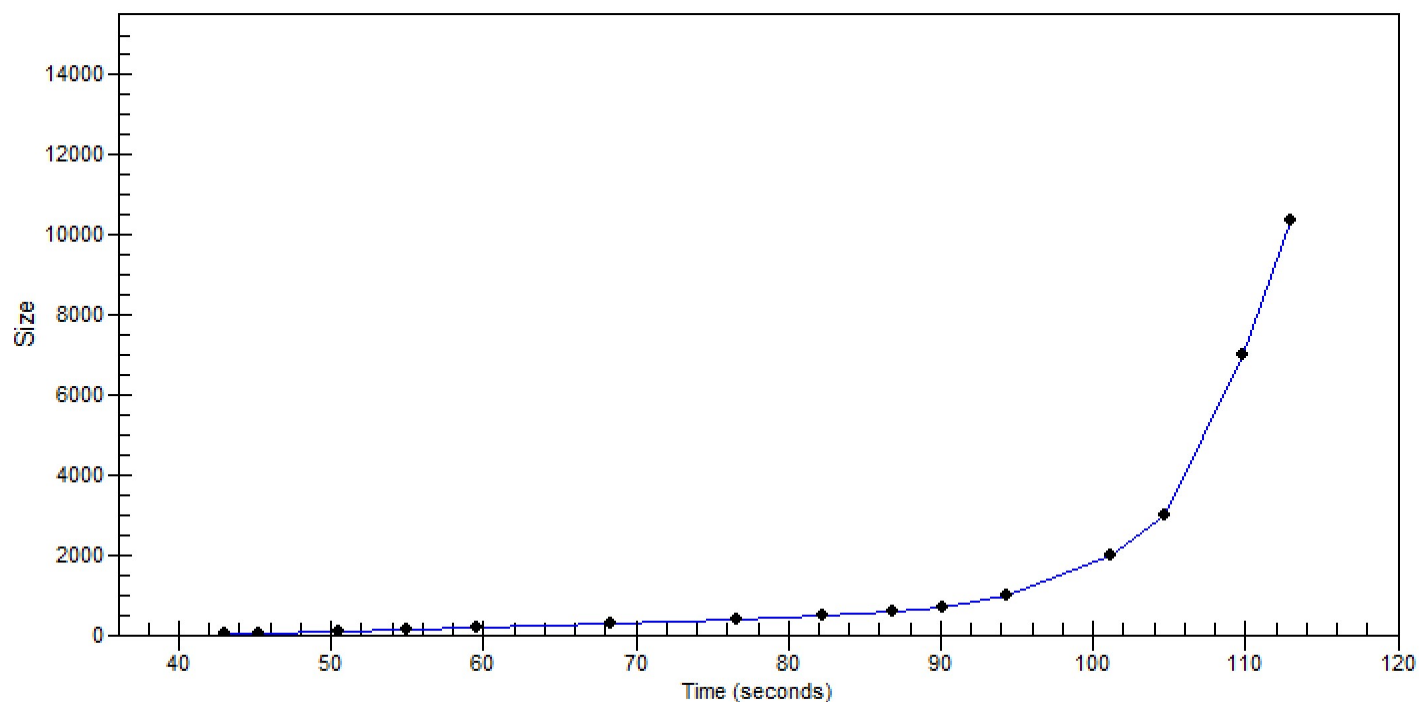
Gel Image

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad

Created: 1/8/2014 3:20:32 PM
Modified: 1/8/2014 4:01:53 PM

Curves

Standard Curve



Assay Class:	High Sensitivity DNA Assay	Created:	1/8/2014 3:20:32 PM
Data Path:	C:\...gh Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad	Modified:	1/8/2014 4:01:53 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 4 (Number of wells acquired: 12)		Instrument	Run		1/8/2014 4:01:51 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Run started on port 4 (File: C:\Program Files (x86)\Agilent\2100 bioanalyzer\2100 expert\Data\2014-01-08\pinsky2014-01-08_High Sensitivity DNA Assay_DE04103186_2014-01-08_15-20-32.xad)		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Product Number : G2939A		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Name :		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Vendor : Agilent Technologies		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Serial# : DE04103186		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Firmware : C.01.069		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP
Cartridge : Electrode		Instrument	Run		1/8/2014 3:20:37 PM	(GMT --05:00) Eastern Standard Time	Divino	Bioanalyzer-HP