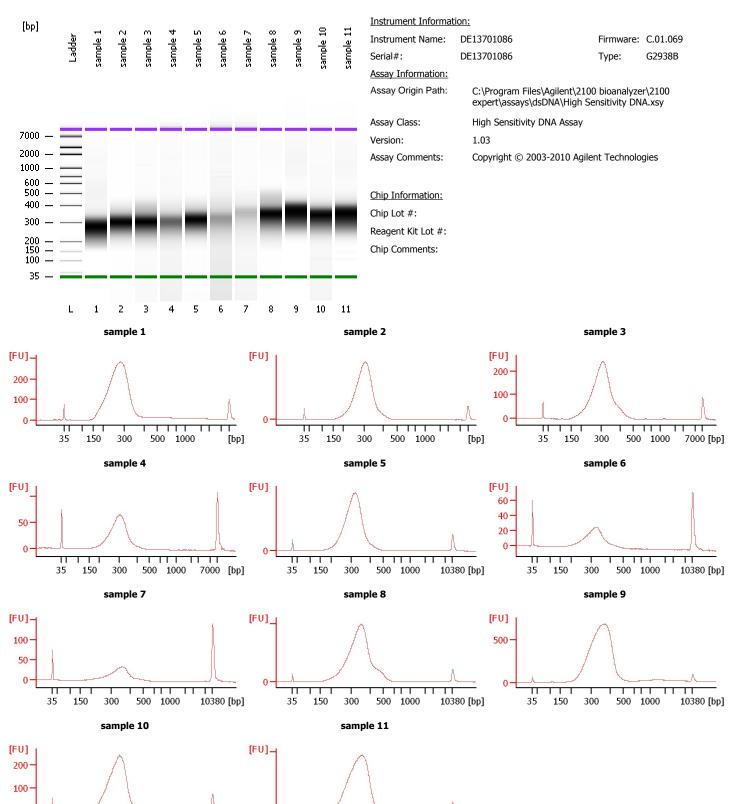
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Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad

Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electrophoresis File Run Summary



150

300

500 1000

10380 [bp]

35

150

35

500 1000

10380 [bp]

300

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Modified: 6/30/2015 4:57:54 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1			~			
sample 2			~			
sample 3			~			
sample 4			~			
sample 5			~			
sample 6			~			
sample 7			~			
sample 8			~			
sample 9			~			
sample 10			~			
sample 11			~			
Ladder			~			
Chip Lot #			Reag	ent Kit Lot #		

Chip Comments:

2015-06-30_007.xad Page 3 of 16

Assay Class: High Sensitivity DNA Assay

6/30/2015 4:16:37 PM Created: 6/30/2015 4:57:54 PM C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Data Path: Modified:

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

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

Standard Curve Fit is Point to Point

Filter Settings

Filter Width [s]: 0.5 Polynomial Order: 4

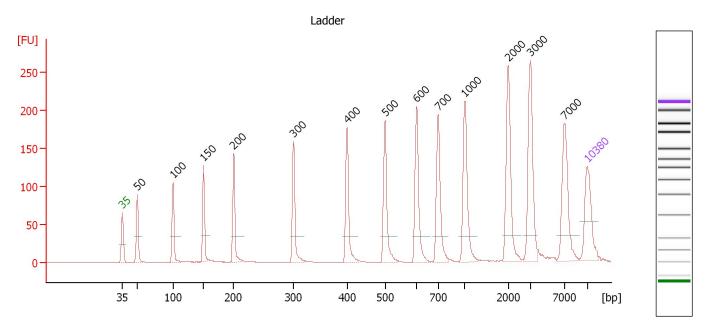
Ladder

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

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

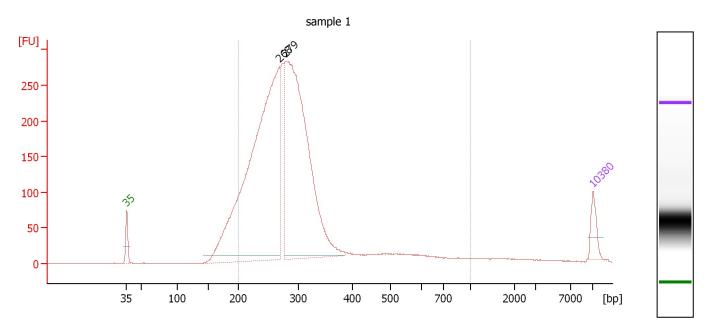
Peak table for Ladder

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2	L	50	150.00	4,545.5	Ladder Peak	45.25
3	L	100	150.00	2,272.7	Ladder Peak	50.63
4	L	150	150.00	1,515.2	Ladder Peak	55.24
5	L	200	150.00	1,136.4	Ladder Peak	59.78
6	L	300	150.00	757.6	Ladder Peak	68.77
7	L	400	150.00	568.2	Ladder Peak	76.84
8	L	500	150.00	454.5	Ladder Peak	82.58
9	L	600	150.00	378.8	Ladder Peak	87.31
10	L	700	150.00	324.7	Ladder Peak	90.56
11	L	1,000	150.00	227.3	Ladder Peak	94.58
12	L	2,000	150.00	113.6	Ladder Peak	101.16
13	L	3,000	150.00	75.8	Ladder Peak	104.45
14	L	7,000	150.00	32.5	Ladder Peak	109.63
15		10,380	75.00	10.9	Upper Marker	113.00

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 2 Corr. Area 1: 4,396.5

Noise: 0.2

Peak table for sample 1 : <u>sample 1</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		268	3,258.85	18,422.7		65.89
3		279	2,655.21	14,434.8		66.85
4	8	10,380	75.00	10.9	Upper Marker	113.00

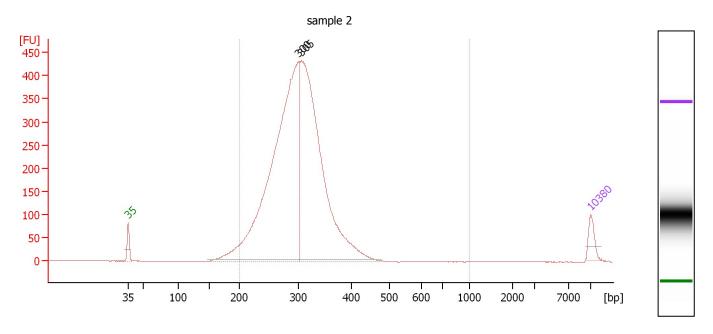
Region table for sample 1: <u>sample 1</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	290	1,000	4.396.5	34.635.4	91	28.3	6.275.80

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 2 Corr. Area 1: 5,657.1

Noise: 0.3

Peak table for sample 2 : <u>sample 2</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		300	3,997.31	20,190.1		68.77
3		305	3,247.97	16,136.5		69.17
4	B	10,380	75.00	10.9	Upper Marker	113.00

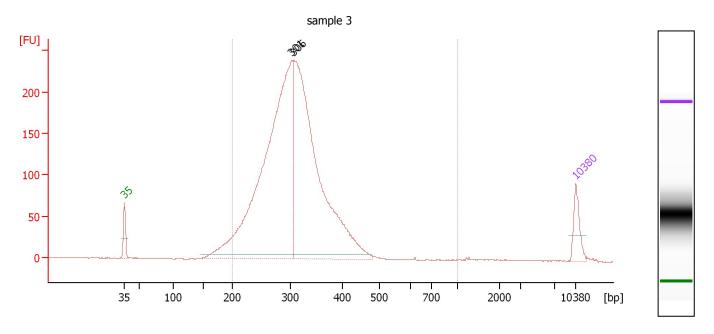
Region table for sample 2: <u>sample 2</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	300	1,000	5,657.1	36,931.8	98	14.1	7,142,40

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 3: sample 3

Number of peaks found: 2 Corr. Area 1: 3,506.7

Noise: 0.2

Peak table for sample 3: sample 3

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		301	2,444.04	12,293.1		68.87
3		306	2,150.63	10,654.3		69.24
4	B	10,380	75.00	10.9	Upper Marker	113.00

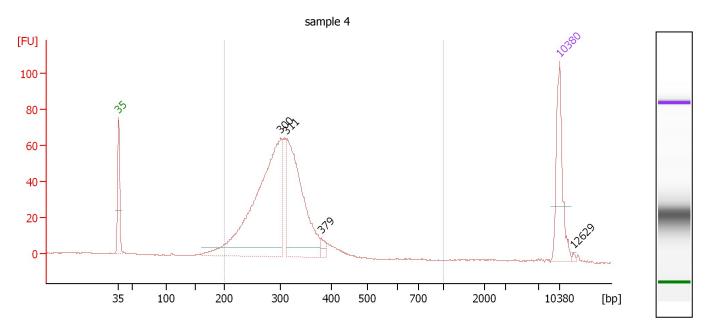
Region table for sample 3: <u>sample 3</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	309	1,000	3,506.7	23,281.8	96	19.6	4,575.15

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 4: sample 4

Number of peaks found: 4 Corr. Area 1: 901.9

Noise: 0.2

Peak ta	ble for	sample '	4:	<u>sample 4</u>
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Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		300	505.94	2,558.7		68.73
3		311	313.59	1,529.9		69.62
4		379	12.69	50.7		75.16
5		10,380	75.00	10.9	Upper Marker	113.00
6		12,629	0.00	0.0		115.24

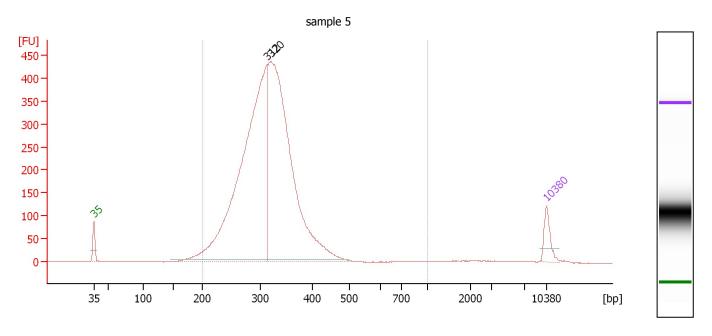
Region table for sample 4: <u>sample 4</u>

From [bp]	Average Size [bp]	To [bp] Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/µl]
200	304	1,000	901.9	4,839.4	93	17.6	940.38

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 2 Corr. Area 1: 5,785.8

Noise: 0.2

Peak table for sample 5 : <u>sample 5</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		312	2,799.51	13,575.7		69.77
3		320	2,606.14	12,339.7		70.38
4		10,380	75.00	10.9	Upper Marker	113.00

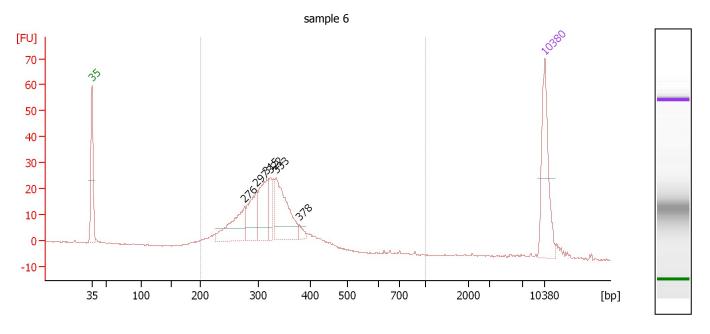
Region table for sample 5: <u>sample 5</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	316	1.000	5.785.8	27,185.3	97	17.8	5.492.58

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 6: sample 6

Number of peaks found: 6 Corr. Area 1: 382.9

Noise: 0.1

Peak ta	ble for	sample	e 6 :	<u>sample 6</u>
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Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		276	80.73	443.1		66.61
3		297	64.86	331.1		68.48
4		315	73.22	352.0		69.99
5		322	30.74	144.5		70.56
6		333	108.40	492.8		71.45
7		378	8.72	35.0		75.05
8		10,380	75.00	10.9	Upper Marker	113.00

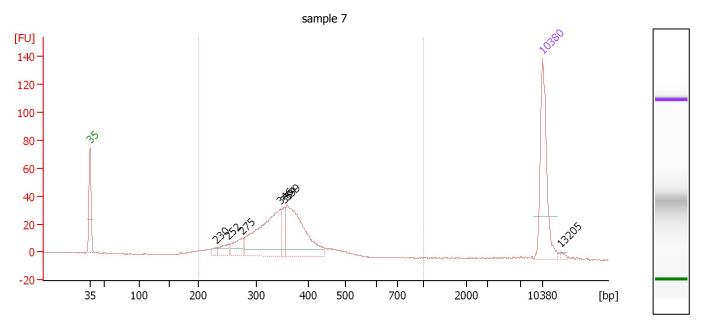
Region table for sample 6: sample 6

From [bp]	Average Size [bp]	To [bp] Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/µl]
200	319	1,000	382.9	2,651.0	95	17.2	539.35

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 7: sample 7

Number of peaks found: 7 Corr. Area 1: 485.1

Noise: 0.2

Peak table for sample 7: <u>sample 7</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		230	7.24	47.6		62.50
3		252	17.34	104.3		64.45
4		275	25.89	142.5		66.55
5		346	141.12	618.5		72.45
6		354	21.62	92.6		73.09
7		359	127.14	536.3		73.55
8		10,380	75.00	10.9	Upper Marker	113.00
9		13,205	0.00	0.0		115.82

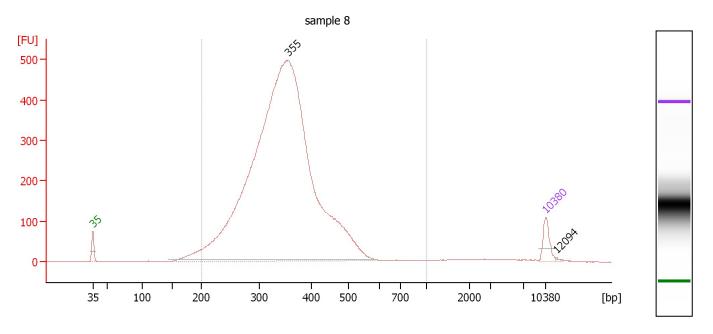
Region table for sample 7: <u>sample 7</u>

From [bp]	Average Size [bp]		Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]	Conc. [pg/µl]
200	343	1 000	485 1	1 698 8	96	17 2	369 48

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 2 Corr. Area 1: 7,525.9

Noise: 0.2

Peak table for sample 8 : <u>sample 8</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		355	7,235.50	30,918.0		73.17
3		10,380	75.00	10.9	Upper Marker	113.00
4		12,094	0.00	0.0		114.71

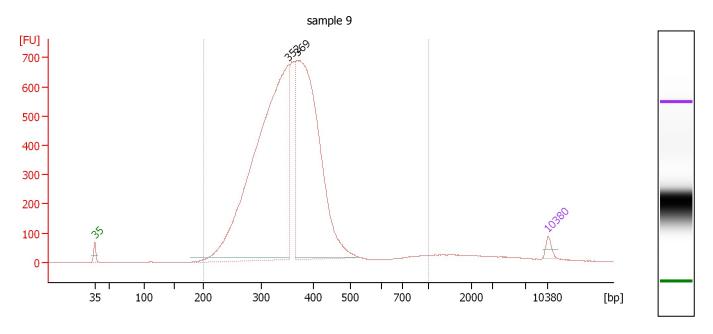
Region table for sample 8: <u>sample 8</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	349	1,000	7.525.9	34,455.0	97	20.6	7.552.55

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 9: sample 9

Number of peaks found: 2 Corr. Area 1: 11,115.1

Noise: 0.3

Peak table for sample 9 : <u>sample 9</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		352	9,142.56	39,330.5		72.98
3		369	6,360.35	26,116.9		74.33
4		10,380	75.00	10.9	Upper Marker	113.00

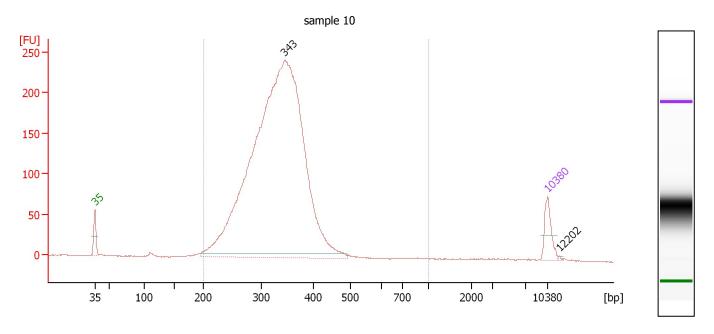
Region table for sample 9: <u>sample 9</u>

From	Average Size	To [bp		Molarity	Co % of		Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	355	1,000	11,115.1	82,023.7	97	21.7	18,345.06

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 2 Corr. Area 1: 3,259.4

Noise: 0.4

Peak table for sample 10 : <u>sample 10</u>

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		343	4,204.95	18,554.5		72.27
3		10,380	75.00	10.9	Upper Marker	113.00
4		12.202	0.00	0.0		114.82

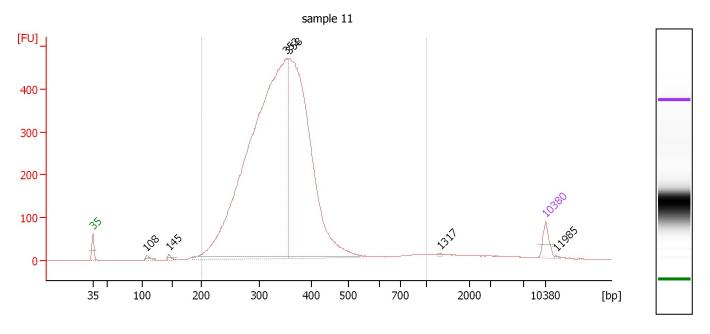
Region table for sample 10 : <u>sample 10</u>

From	Average Size	To [bp] Corr.	Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	331	1,000	3.259.4	20.871.9	99	16.4	4.420.08

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Assay Class: High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad Created: 6/30/2015 4:16:37 PM Modified: 6/30/2015 4:57:54 PM

Electropherogram Summary Continued ...



Overall Results for sample 11: sample 11

Number of peaks found: 6 Corr. Area 1: 7,479.5

Noise: 0.2

Region table for sample 11:

Peak table for sample 11 : sample 11

Pea k		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	4	35	125.00	5,411.3	Lower Marker	43.00
2		108	36.31	511.1		51.33
3		145	25.82	270.1		54.77
4		352	6,088.56	26,186.4		72.99
5		358	3,477.27	14,735.8		73.41
6		1,317	3.48	4.0		96.67
7		10,380	75.00	10.9	Upper Marker	113.00
8		11,985	0.00	0.0		114.60

From	Average Size	To [bp] Corr.		Molarity	Co % of	Size distribution in	Conc.
[bp]	[bp]		Area	[pmol/l]	<u>lor</u> Total	CV [%]	[pg/µl]
200	344	1,000	7,479.5	48,242.2	96	22.8	10,432.86

sample 11

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 $\label{thm:ligh} \begin{tabular}{ll} High Sensitivity DNA Assay \\ C:\...ents and Settings\Bioanalyzer\2015-06-30\2015-06-30_007.xad \\ \end{tabular}$ Created: Modified: 6/30/2015 4:16:37 PM 6/30/2015 4:57:54 PM Assay Class: Data Path: **Gel Image** [bp] sample 10 sample 11 sample 5 sample 7 10380 -7000 — 3000 — 2000 -1000 -700 — 600 — 500 — 400 — 300 -200 — 150 — 100 — 7 L 1 2 3 5 6 8 9 10 11