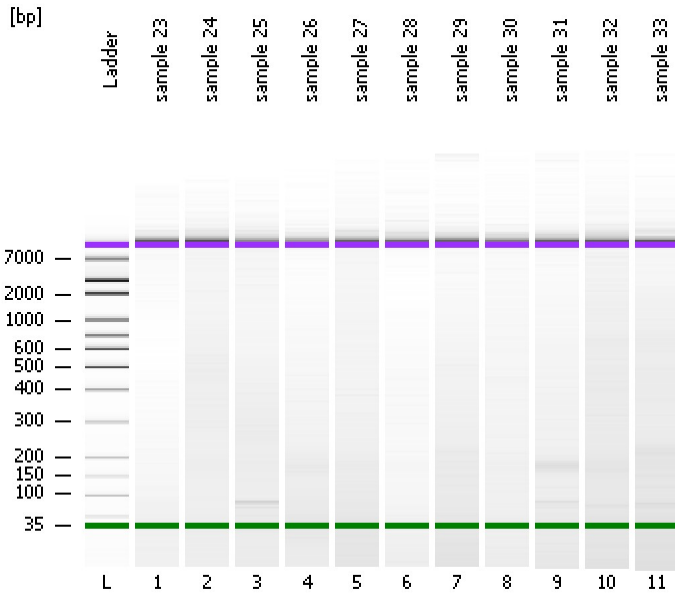


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
Modified: 2/3/2015 2:11:09 PM

Electrophoresis File Run Summary



Instrument Information:

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

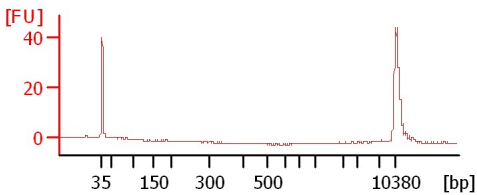
Assay Information:

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

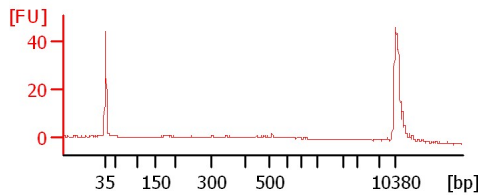
Chip Information:

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

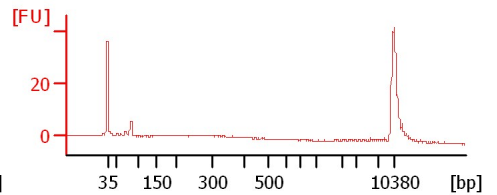
sample 23



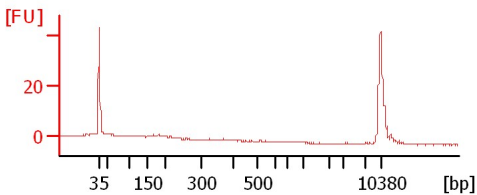
sample 24



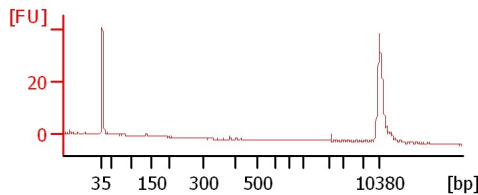
sample 25



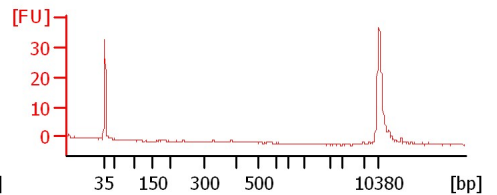
sample 26



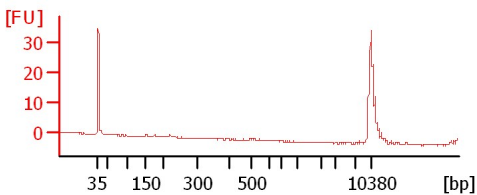
sample 27



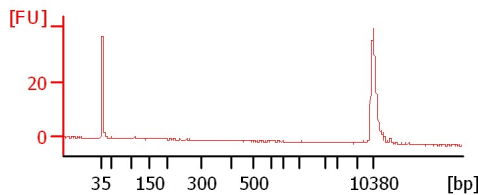
sample 28



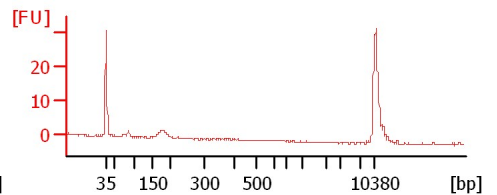
sample 29



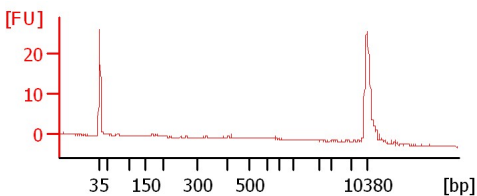
sample 30



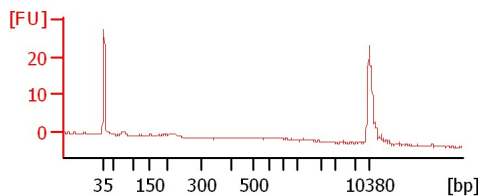
sample 31



sample 32



sample 33



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
Modified: 2/3/2015 2:11:09 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 23		<input type="checkbox"/>	✓			
sample 24		<input type="checkbox"/>	✓			
sample 25		<input type="checkbox"/>	✓			
sample 26		<input type="checkbox"/>	✓			
sample 27		<input type="checkbox"/>	✓			
sample 28		<input type="checkbox"/>	✓			
sample 29		<input type="checkbox"/>	✓			
sample 30		<input type="checkbox"/>	✓			
sample 31		<input type="checkbox"/>	✓			
sample 32		<input type="checkbox"/>	✓			
sample 33		<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\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
Modified: 2/3/2015 2:11:09 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

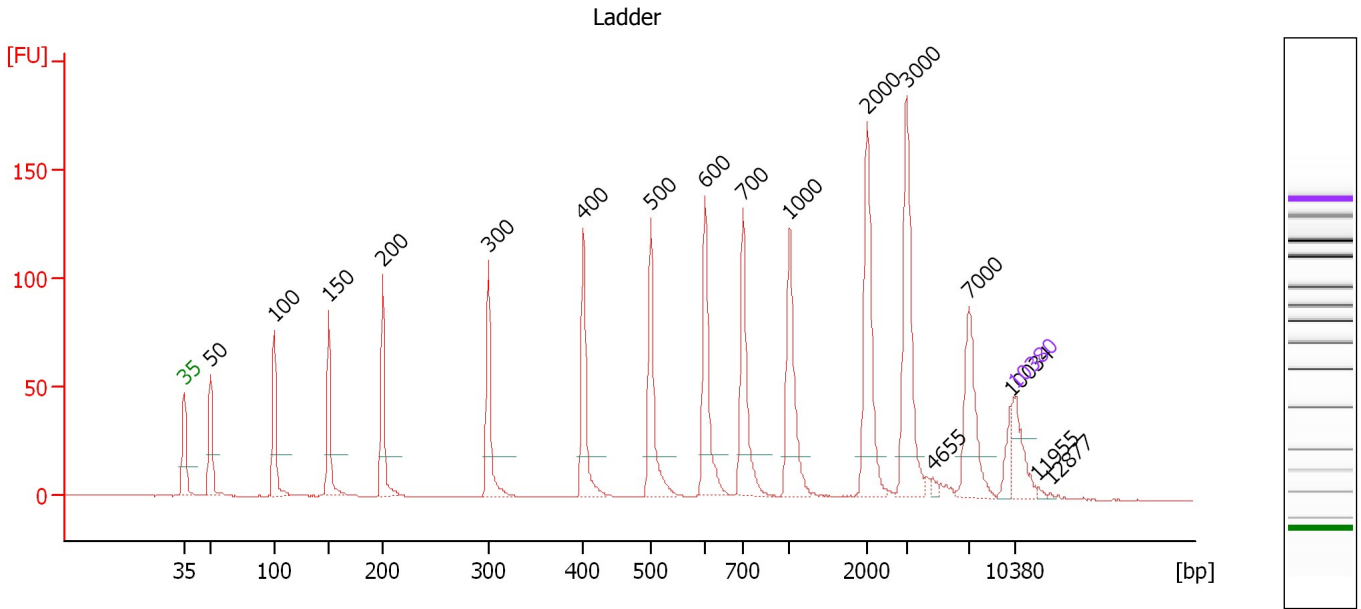
Ladder

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\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

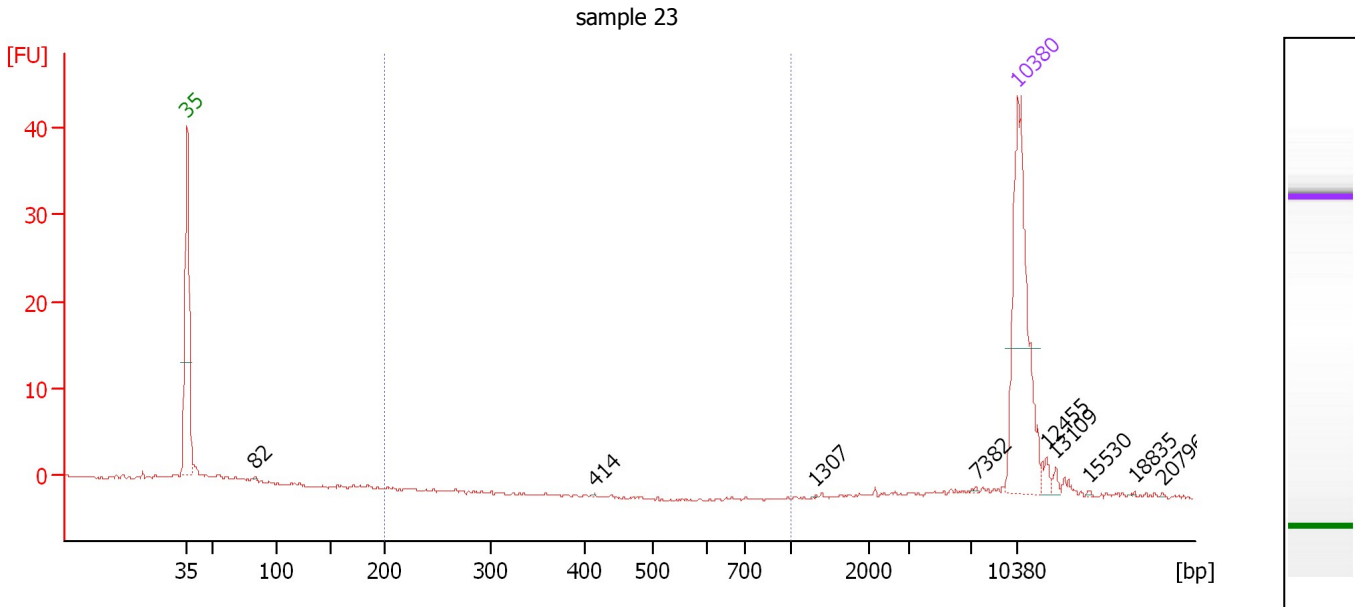
Peak table for Ladder

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	45.20
3	100	150.00	2,272.7	Ladder Peak	50.59
4	150	150.00	1,515.2	Ladder Peak	55.17
5	200	150.00	1,136.4	Ladder Peak	59.70
6	300	150.00	757.6	Ladder Peak	68.59
7	400	150.00	568.2	Ladder Peak	76.59
8	500	150.00	454.5	Ladder Peak	82.29
9	600	150.00	378.8	Ladder Peak	86.87
10	700	150.00	324.7	Ladder Peak	90.06
11	1,000	150.00	227.3	Ladder Peak	93.96
12	2,000	150.00	113.6	Ladder Peak	100.52
13	3,000	150.00	75.8	Ladder Peak	103.84
14	4,655	0.00	0.0		106.00
15	7,000	150.00	32.5	Ladder Peak	109.05
16	10,034	0.00	0.0		112.60
17	10,380	75.00	10.9	Upper Marker	113.00
18	11,955	0.00	0.0		114.84
19	12,877	0.00	0.0		115.92

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 1 : sample 23

Height Threshold [FU] : 0.1

Overall Results for sample 1 : sample 23

Number of peaks found: 9 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 1 : sample 23

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	82	0.70	13.1		48.62
3	414	0.25	0.9		77.37
4	1,307	0.17	0.2		95.97
5	7,382	0.34	0.1		109.50
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,455	0.00	0.0		115.43
8	13,109	0.00	0.0		116.19
9	15,530	0.00	0.0		119.02
10	18,835	0.00	0.0		122.88
11	20,796	0.00	0.0		125.18

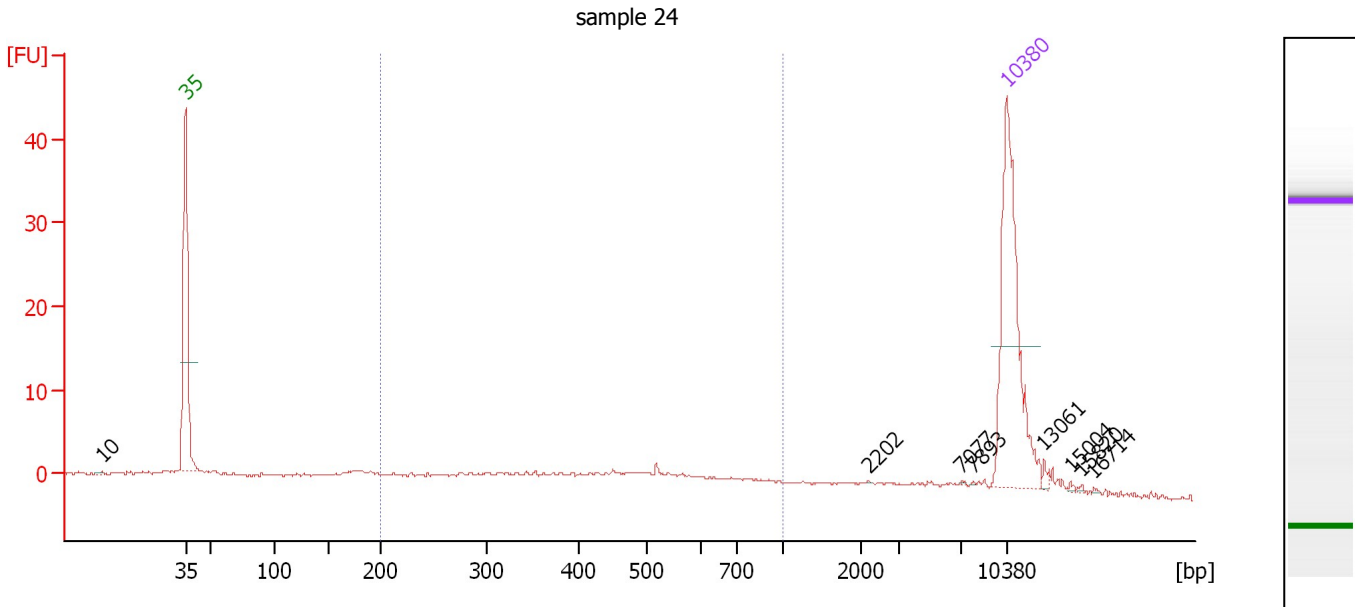
Region table for sample 1 : sample 23

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 2 : sample 24

Height Threshold [FU] : 0.1

Overall Results for sample 2 : sample 24

Number of peaks found: 8 Corr. Area 1: 57.1
 Noise: 0.1

Peak table for sample 2 : sample 24

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	10	0.00	0.0		35.87
2	35	125.00	5,411.3	Lower Marker	43.00
3	2,202	0.12	0.1		101.19
4	7,077	0.18	0.0		109.14
5	7,893	0.18	0.0		110.09
6	10,380	75.00	10.9	Upper Marker	113.00
7	13,061	0.00	0.0		116.13
8	15,004	0.00	0.0		118.41
9	15,820	0.00	0.0		119.36
10	16,714	0.00	0.0		120.40

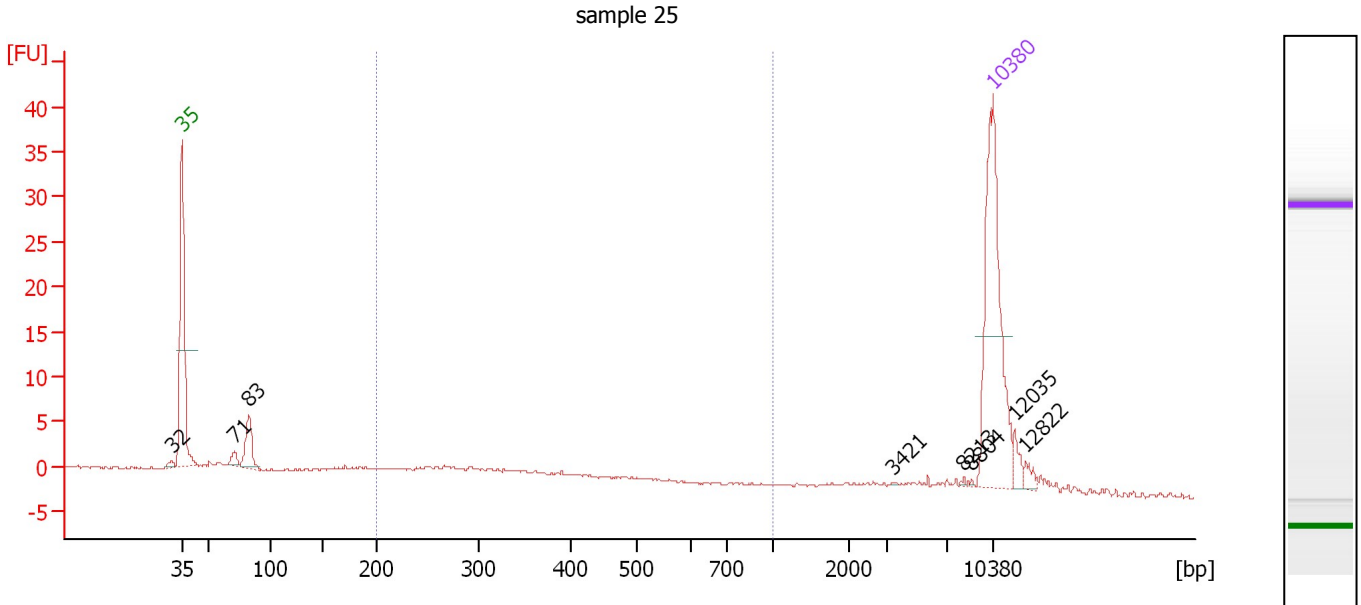
Region table for sample 2 : sample 24

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	465	1,000	57.1	52	38.3	91.36	366.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 3 : sample 25

Height Threshold [FU] : 0.1

Overall Results for sample 3 : sample 25

Number of peaks found: 8 Corr. Area 1: 27.2
 Noise: 0.1

Peak table for sample 3 : sample 25

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.13
2	35	125.00	5,411.3	Lower Marker	43.00
3	71	5.21	110.4		47.51
4	83	21.69	395.9		48.76
5	3,421	0.13	0.1		104.39
6	8,213	0.46	0.1		110.47
7	8,804	0.28	0.0		111.16
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,035	0.00	0.0		114.93
10	12,822	0.00	0.0		115.86

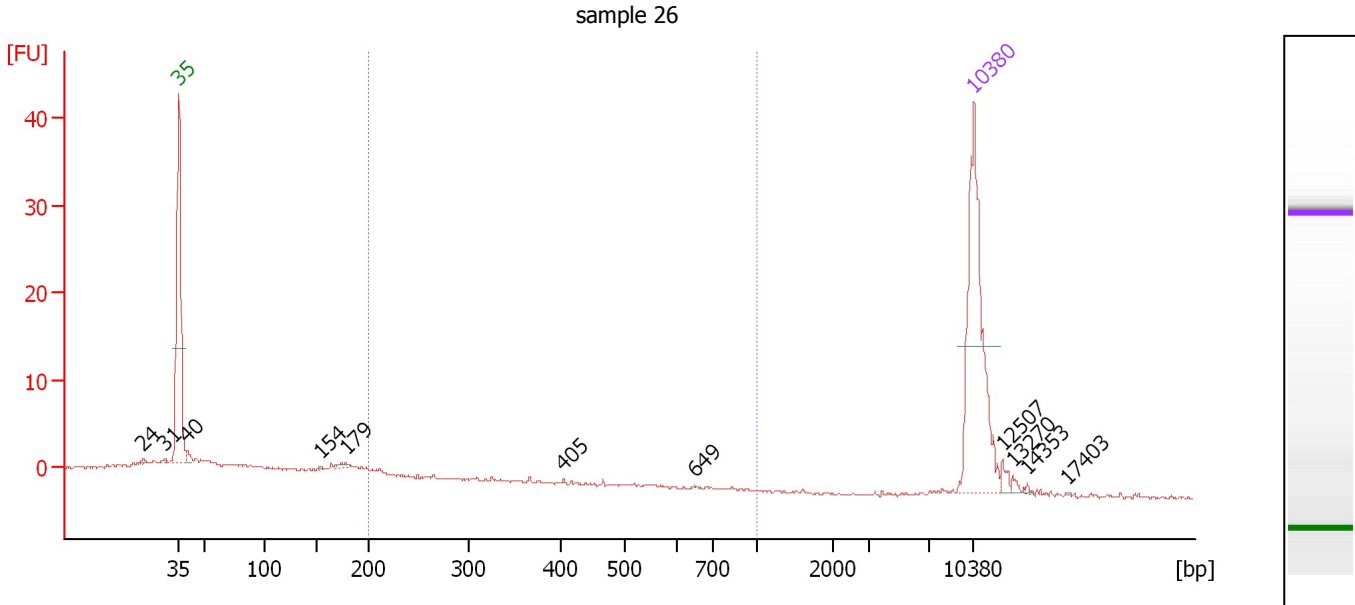
Region table for sample 3 : sample 25

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	342	1,000	27.2	37	32.9	54.11	268.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 4 : sample 26

Height Threshold [FU] : 0.1

Overall Results for sample 4 : sample 26

Number of peaks found: 11 Corr. Area 1: 1.7
 Noise: 0.1

Peak table for sample 4 : sample 26

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	24	0.00	0.0		39.90
2	31	0.00	0.0		41.78
3	35	125.00	5,411.3	Lower Marker	43.00
4	40	4.83	182.5		43.75
5	154	0.64	6.3		55.57
6	179	1.56	13.2		57.78
7	405	0.25	0.9		76.87
8	649	0.20	0.5		88.42
9	10,380	75.00	10.9	Upper Marker	113.00
10	12,507	0.00	0.0		115.49
11	13,270	0.00	0.0		116.38
12	14,353	0.00	0.0		117.64
13	17,403	0.00	0.0		121.21

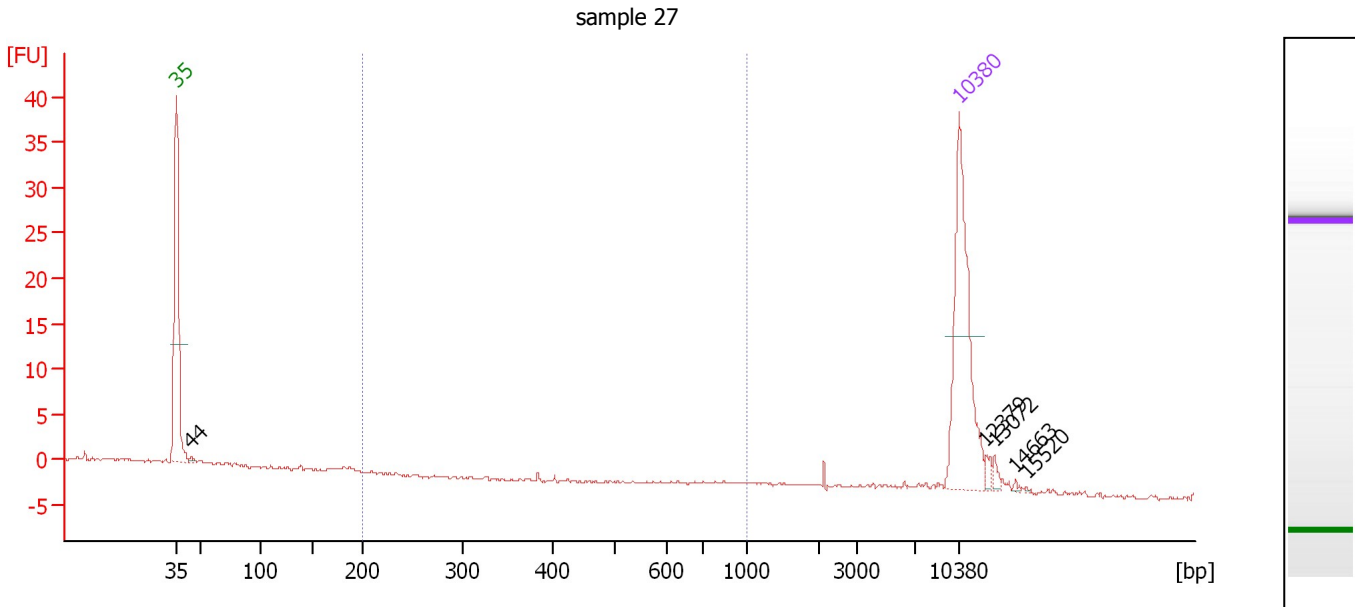
Region table for sample 4 : sample 26

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	224	1,000	1.7	4	21.6	3.88	27.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 5 : sample 27

Height Threshold [FU] : 0.1

Overall Results for sample 5 : sample 27

Number of peaks found: 5 Corr. Area 1: 0.1
 Noise: 0.1

Peak table for sample 5 : sample 27

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	44	1.47	50.4		44.34
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,379	0.00	0.0		115.34
5	13,072	0.00	0.0		116.15
6	14,663	0.00	0.0		118.01
7	15,520	0.00	0.0		119.01

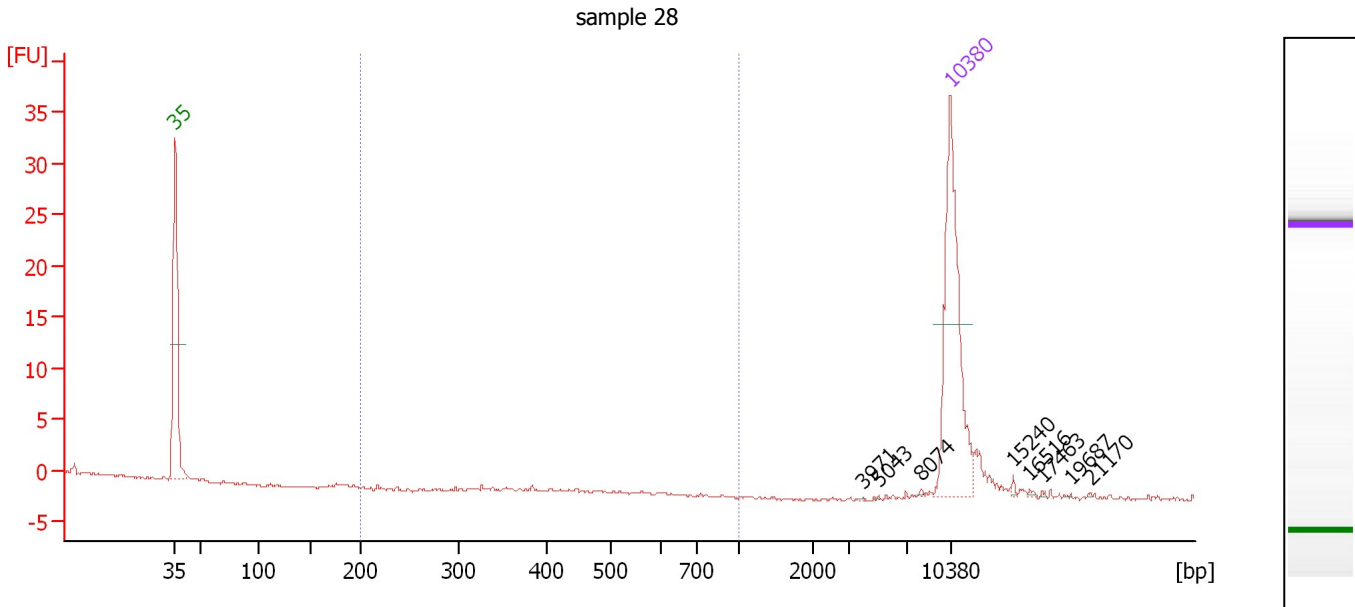
Region table for sample 5 : sample 27

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	652	1,000	0.1	1	42.1	0.20	0.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 6 : sample 28

Height Threshold [FU] : 0.1

Overall Results for sample 6 : sample 28

Number of peaks found: 8 Corr. Area 1: 0.0
 Noise: 0.1

Peak table for sample 6 : sample 28

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	3,971	0.16	0.1		105.10
3	5,043	0.20	0.1		106.50
4	8,074	0.36	0.1		110.30
5	10,380	75.00	10.9	Upper Marker	113.00
6	15,240	0.00	0.0		118.68
7	16,516	0.00	0.0		120.17
8	17,463	0.00	0.0		121.28
9	19,687	0.00	0.0		123.88
10	21,170	0.00	0.0		125.61

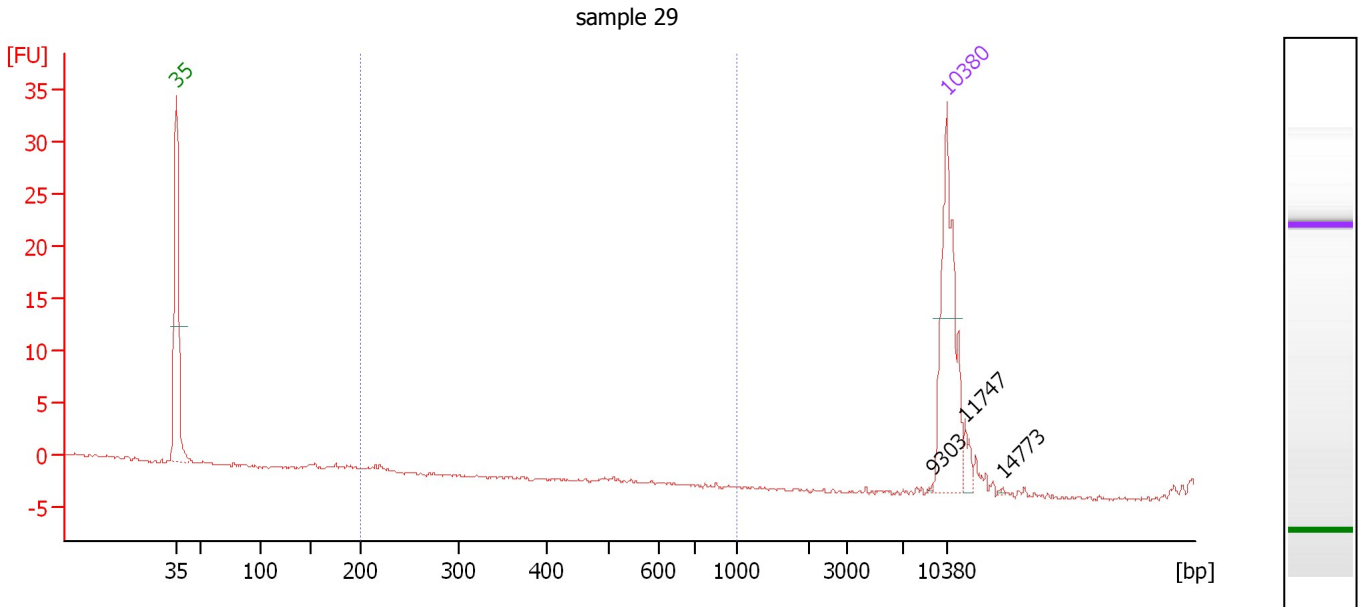
Region table for sample 6 : sample 28

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 7 : sample 29

Height Threshold [FU] : 0.1

Overall Results for sample 7 : sample 29

Number of peaks found: 3 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 7 : sample 29

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	9,303	0.47	0.1		111.74
3	10,380	75.00	10.9	Upper Marker	113.00
4	11,747	0.00	0.0		114.60
5	14,773	0.00	0.0		118.13

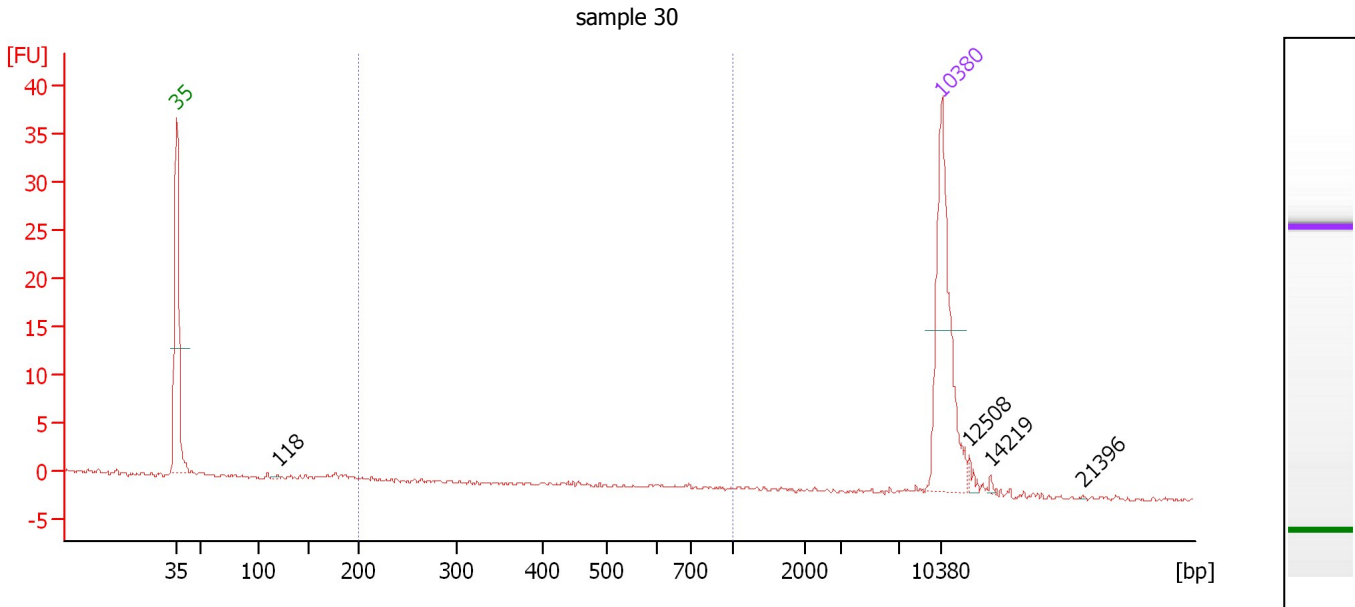
Region table for sample 7 : sample 29

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	0	1,000	0.0	0	0.0	0.00	0.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

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 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 8 : sample 30

Height Threshold [FU] : 0.1

Overall Results for sample 8 : sample 30

Number of peaks found: 4 Corr. Area 1: 2.4
 Noise: 0.2

Peak table for sample 8 : sample 30

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	118	0.63	8.1		52.27
3	10,380	75.00	10.9	Upper Marker	113.00
4	12,508	0.00	0.0		115.49
5	14,219	0.00	0.0		117.49
6	21,396	0.00	0.0		125.88

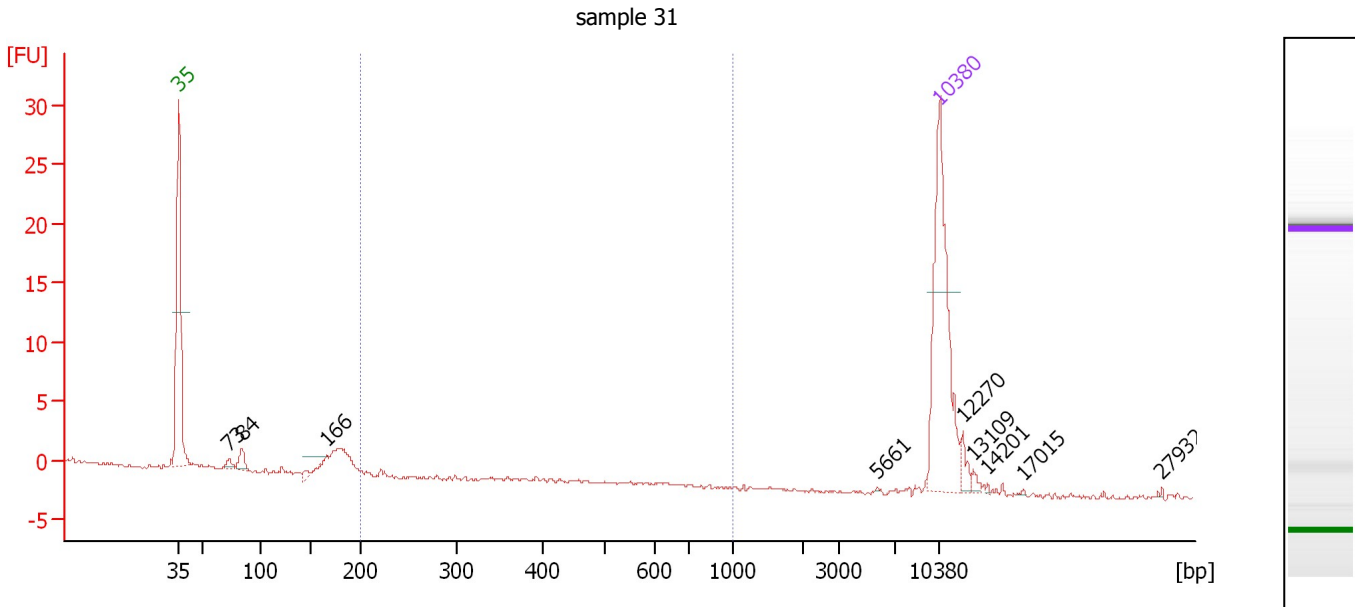
Region table for sample 8 : sample 30

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	499	1,000	2.4	16	38.2	4.94	19.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

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Electropherogram Summary Continued ...



Setpoint Deviations for sample 9 : sample 31

Height Threshold [FU] : 0.1

Overall Results for sample 9 : sample 31

Number of peaks found: 9 Corr. Area 1: 0.0
 Noise: 0.2

Peak table for sample 9 : sample 31

Pea k	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	73	3.44	71.6		47.66
3	84	7.56	136.7		48.84
4	166	3.40	31.1		56.60
5	5,661	0.18	0.0		107.31
6	10,380	75.00	10.9	Upper Marker	113.00
7	12,270	0.00	0.0		115.21
8	13,109	0.00	0.0		116.19
9	14,201	0.00	0.0		117.47
10	17,015	0.00	0.0		120.76
11	27,932	0.00	0.0		133.52

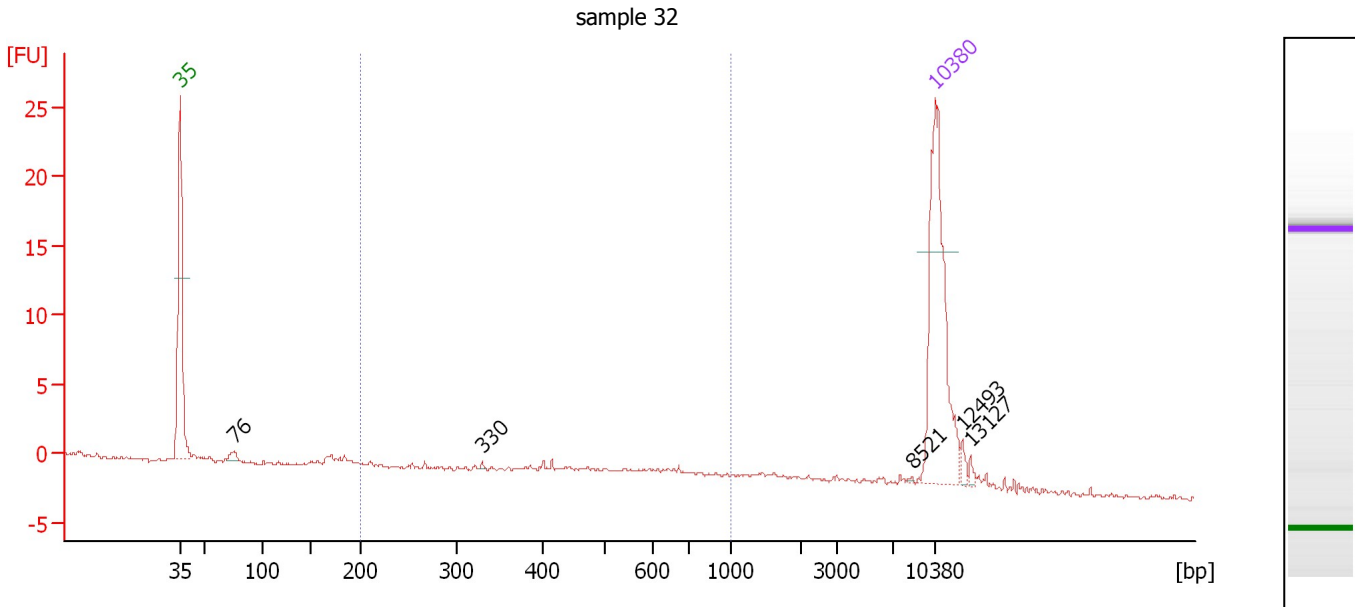
Region table for sample 9 : sample 31

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Co lor
200	222	1,000	0.0	0	0.4	0.10	0.7	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 10 : sample 32

Height Threshold [FU] : 0.1

Overall Results for sample 10 : sample 32

Number of peaks found: 5 Corr. Area 1: 11.7
 Noise: 0.1

Peak table for sample 10 : sample 32

Pea k	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	76	4.26	85.1		47.99
3	330	0.71	3.3		71.01
4	8,521	0.35	0.1		110.83
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,493	0.00	0.0		115.47
7	13,127	0.00	0.0		116.21

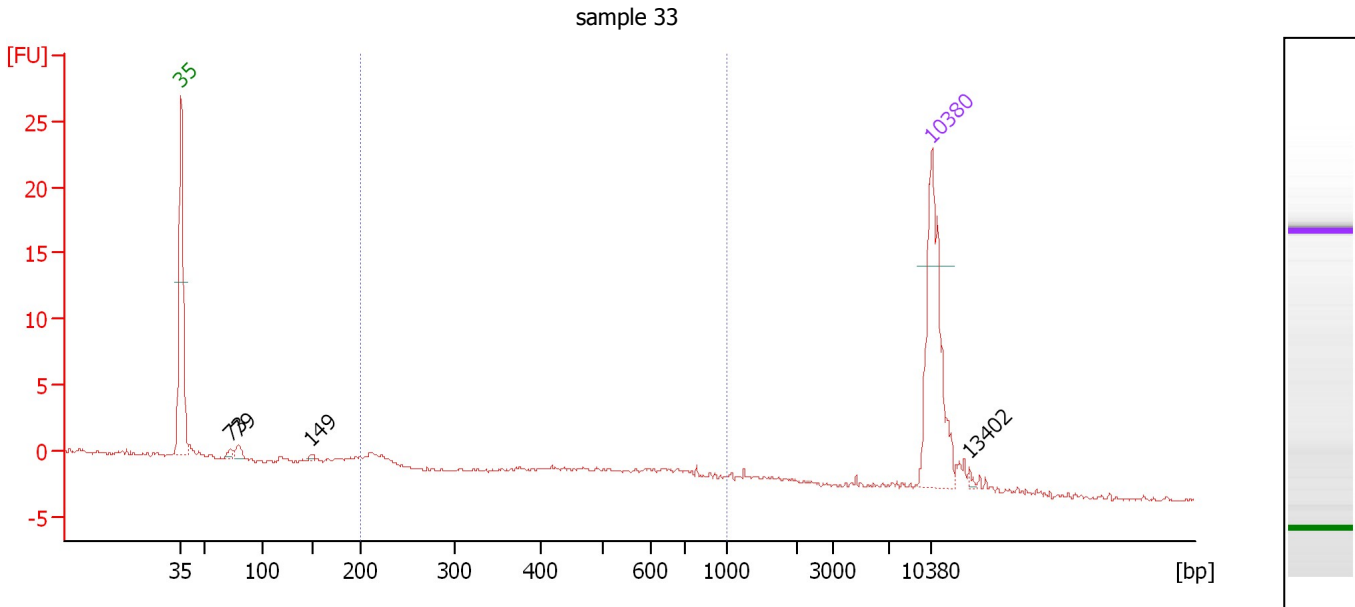
Region table for sample 10 : sample 32

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Co lor
200	541	1,000	11.7	42	32.3	30.64	101.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
 Modified: 2/3/2015 2:11:09 PM

Electropherogram Summary Continued ...



Setpoint Deviations for sample 11 : sample 33

Height Threshold [FU] : 0.1

Overall Results for sample 11 : sample 33

Number of peaks found: 4 Corr. Area 1: 13.3
 Noise: 0.1

Peak table for sample 11 : sample 33

Pea k	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	73	4.05	84.1		47.68
3	79	6.71	127.9		48.37
4	149	1.79	18.2		55.04
5	10,380	75.00	10.9	Upper Marker	113.00
6	13,402	0.00	0.0		116.53

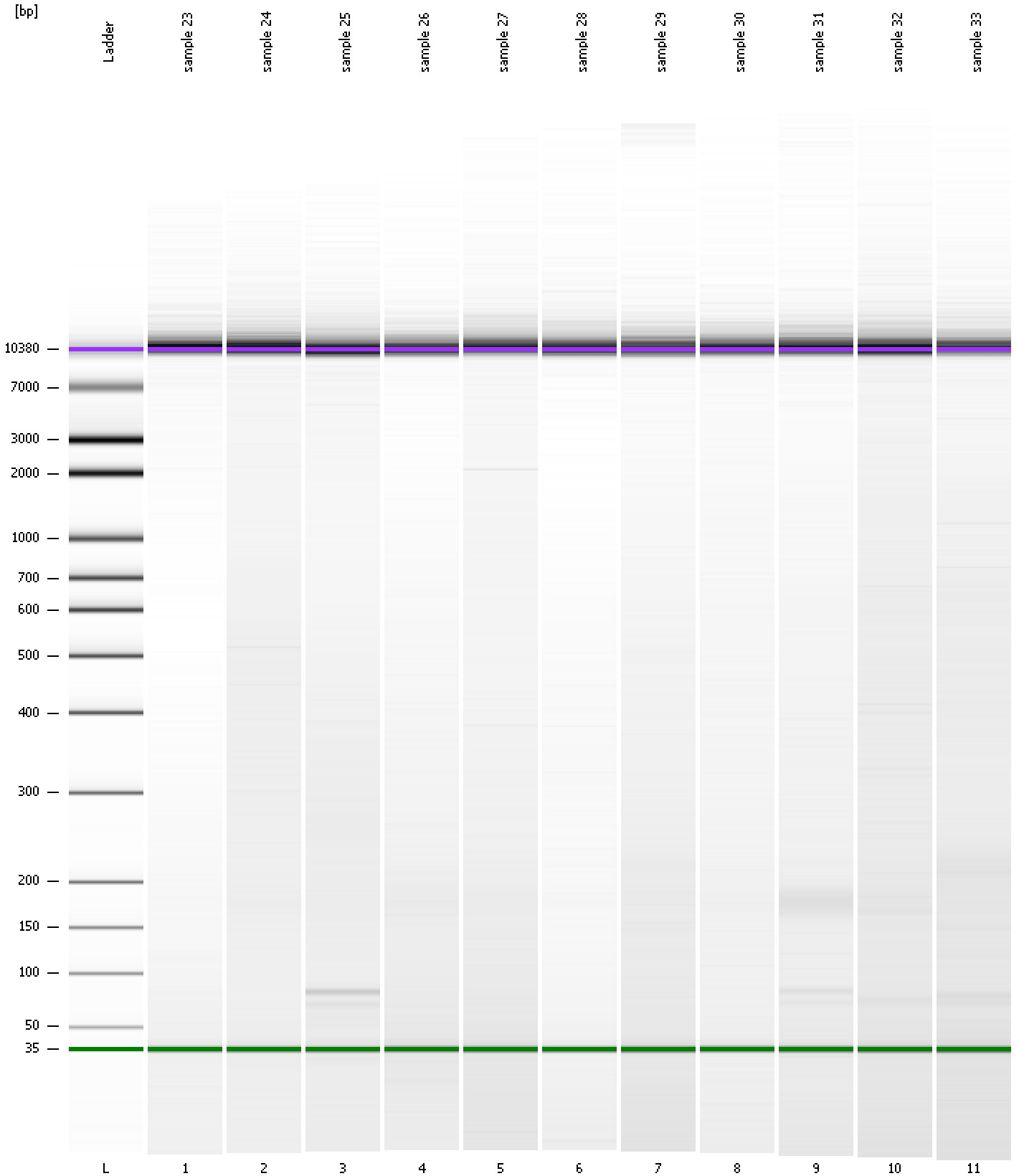
Region table for sample 11 : sample 33

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
200	508	1,000	13.3	42	39.3	43.30	179.3	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad

Created: 2/3/2015 1:25:51 PM
Modified: 2/3/2015 2:11:09 PM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 2/3/2015 1:25:51 PM
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad Modified: 2/3/2015 2:11:09 PM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		2/3/2015 2:07:09 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-02-03\2015-02-03_002.xad)		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		2/3/2015 1:25:57 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1