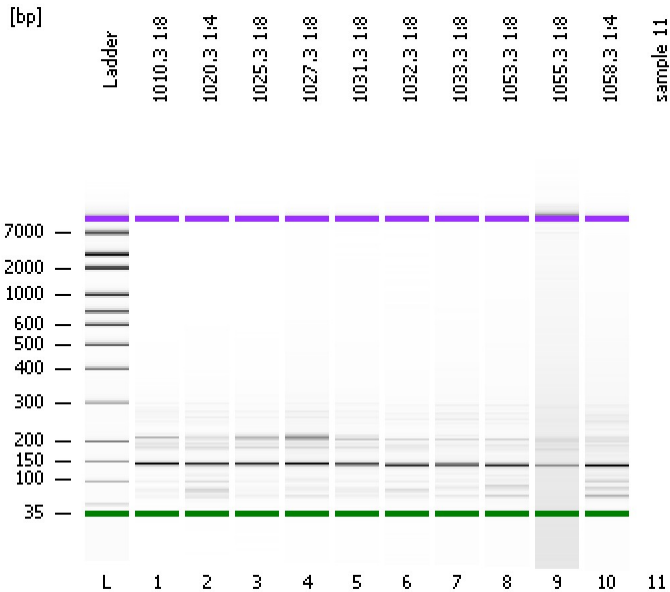


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
Modified: 11/12/2014 11:59:02 AM

Electrophoresis File Run Summary



Instrument Information:

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

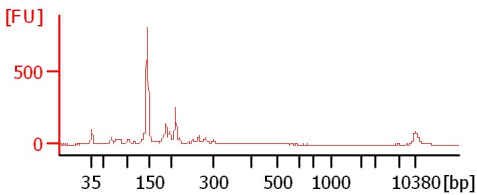
Assay Information:

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

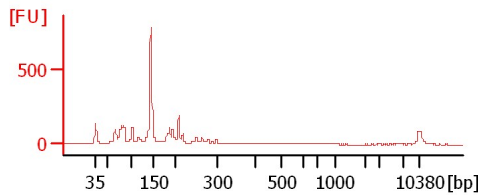
Chip Information:

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

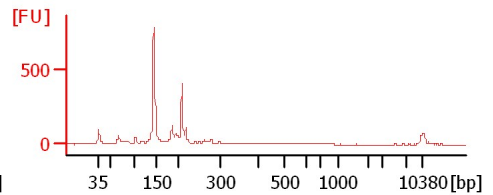
1010.3 1:8



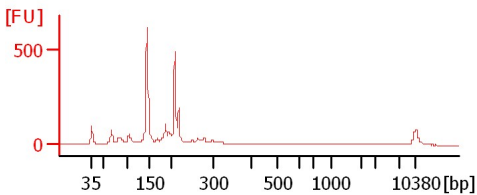
1020.3 1:4



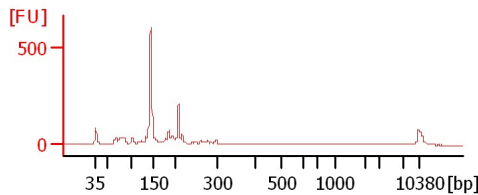
1025.3 1:8



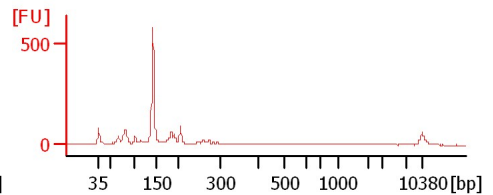
1027.3 1:8



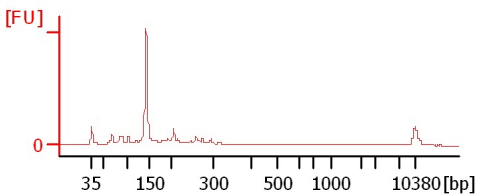
1031.3 1:8



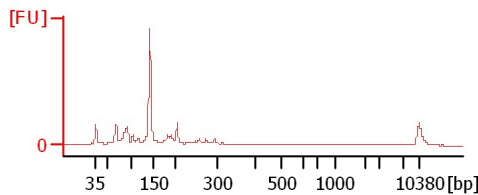
1032.3 1:8



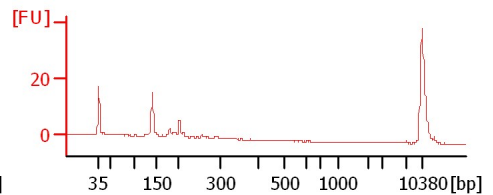
1033.3 1:8



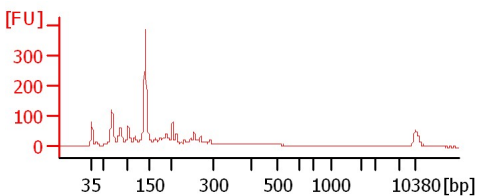
1053.3 1:8



1055.3 1:8



1058.3 1:4



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1010.3 1:8		<input type="checkbox"/>	✓			
1020.3 1:4		<input type="checkbox"/>	✓			
1025.3 1:8		<input type="checkbox"/>	✓			
1027.3 1:8		<input type="checkbox"/>	✓			
1031.3 1:8		<input type="checkbox"/>	✓			
1032.3 1:8		<input type="checkbox"/>	✓			
1033.3 1:8		<input type="checkbox"/>	✓			
1053.3 1:8		<input type="checkbox"/>	✓			
1055.3 1:8		<input type="checkbox"/>	✓			
1058.3 1:4		<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\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
Modified: 11/12/2014 11:59:02 AM

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

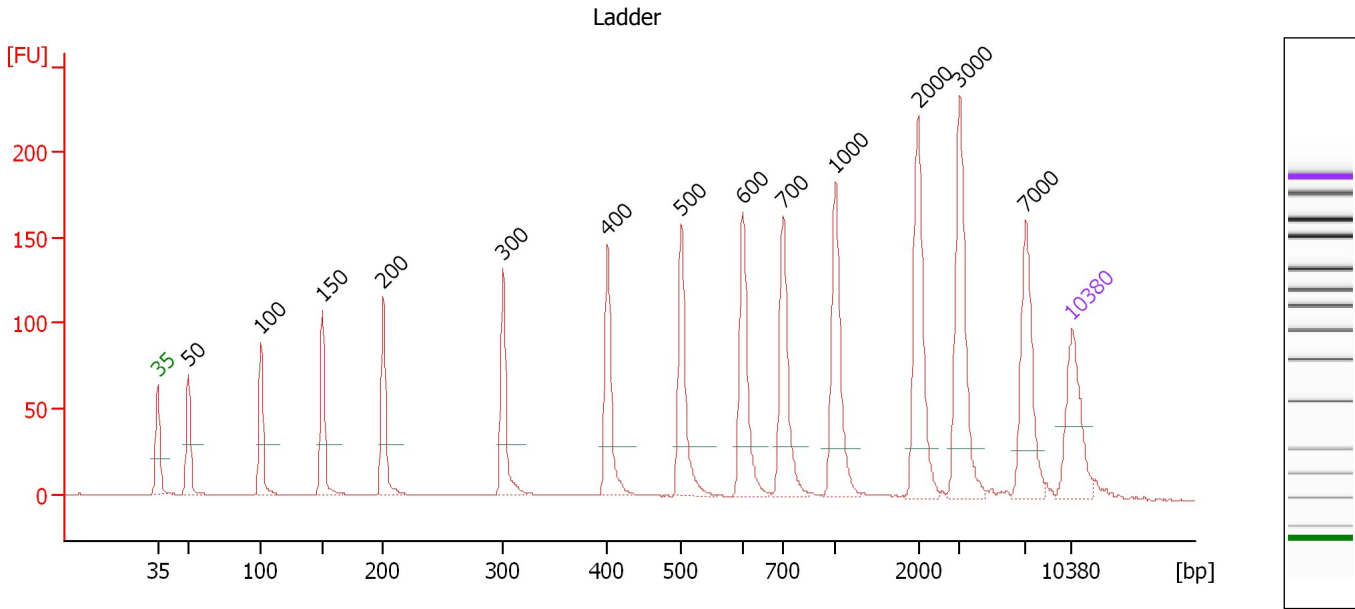
Ladder

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\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

Peak table for Ladder

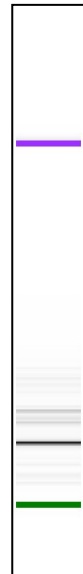
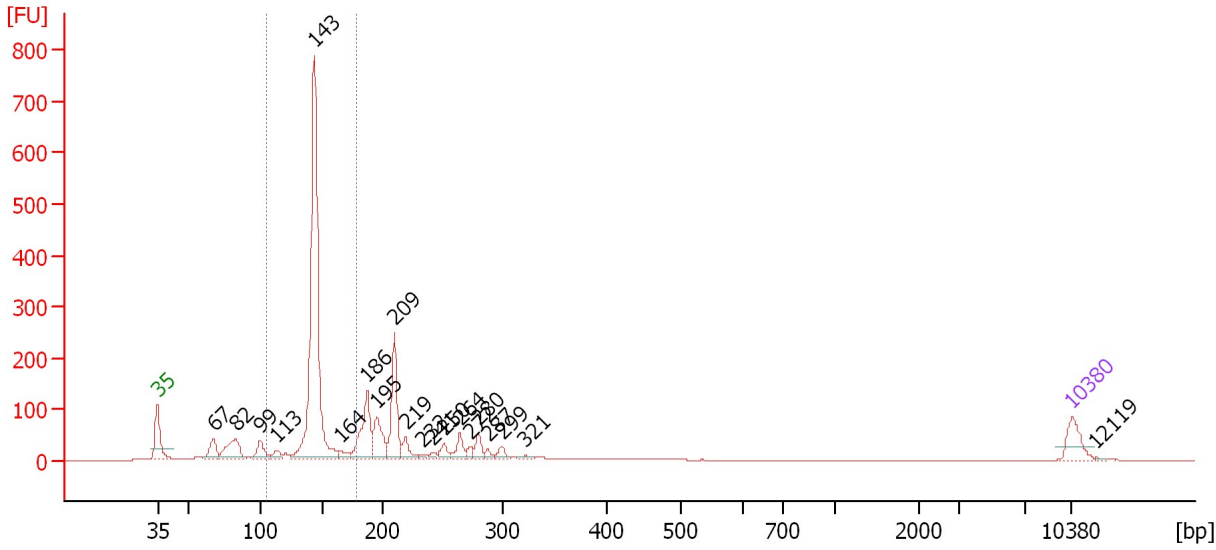
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...

1010.3 1:8



Overall Results for sample 1 : 1010.3 1:8

Number of peaks found: 20 Corr. Area 1: 1,103.5
 Noise: 0.2

Peak table for sample 1 : 1010.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	67	83.96	1,894.5	
3	82	152.57	2,808.5	
4	99	77.23	1,180.7	
5	113	32.56	436.7	
6	143	1,505.96	15,903.7	
7	164	30.02	276.6	
8	186	255.14	2,073.9	
9	195	150.66	1,172.4	
10	209	279.31	2,024.3	
11	219	58.13	403.0	
12	232	8.78	57.2	
13	241	15.27	96.0	
14	250	38.64	233.8	
15	264	56.96	326.5	
16	272	24.13	134.2	
17	280	49.16	266.2	
18	287	16.64	87.7	
19	299	29.12	147.5	
20	321	9.51	44.9	
21	10,380	75.00	10.9	Upper Marker
22	12,119	0.00	0.0	

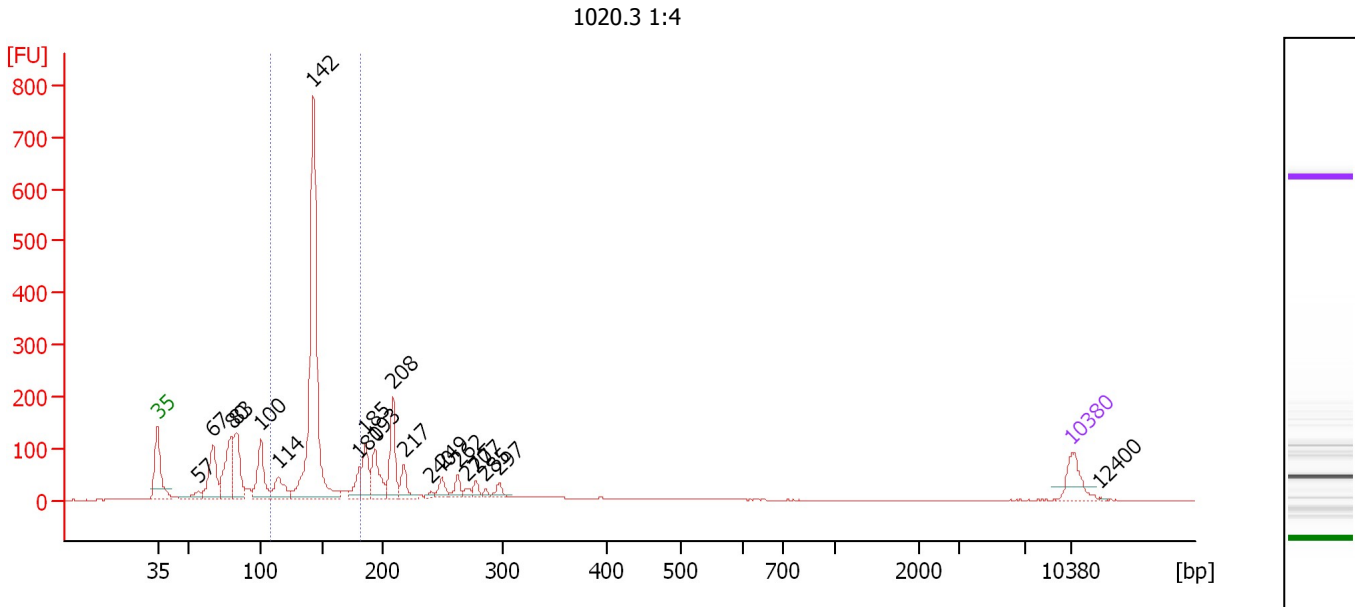
Region table for sample 1 : 1010.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
104	143	178	1,103.5	49	6.9	1,693.44	17,959.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 2 : 1020.3 1:4

Number of peaks found: 20 Corr. Area 1: 1,136.2
 Noise: 0.2

Peak table for sample 2 : 1020.3 1:4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	57	49.78	1,328.7	
3	67	228.69	5,194.9	
4	80	256.25	4,881.9	
5	83	247.46	4,526.0	
6	100	206.90	3,140.9	
7	114	112.32	1,493.5	
8	142	1,318.57	14,040.6	
9	180	69.39	583.4	
10	185	136.20	1,114.6	
11	193	144.07	1,130.8	
12	208	194.68	1,418.2	
13	217	72.82	508.3	
14	240	12.50	79.0	
15	249	45.79	278.4	
16	262	42.42	245.0	
17	270	18.25	102.3	
18	277	27.96	152.7	
19	285	12.85	68.2	
20	297	28.63	146.1	
21	10,380	75.00	10.9	Upper Marker
22	12,400	0.00	0.0	

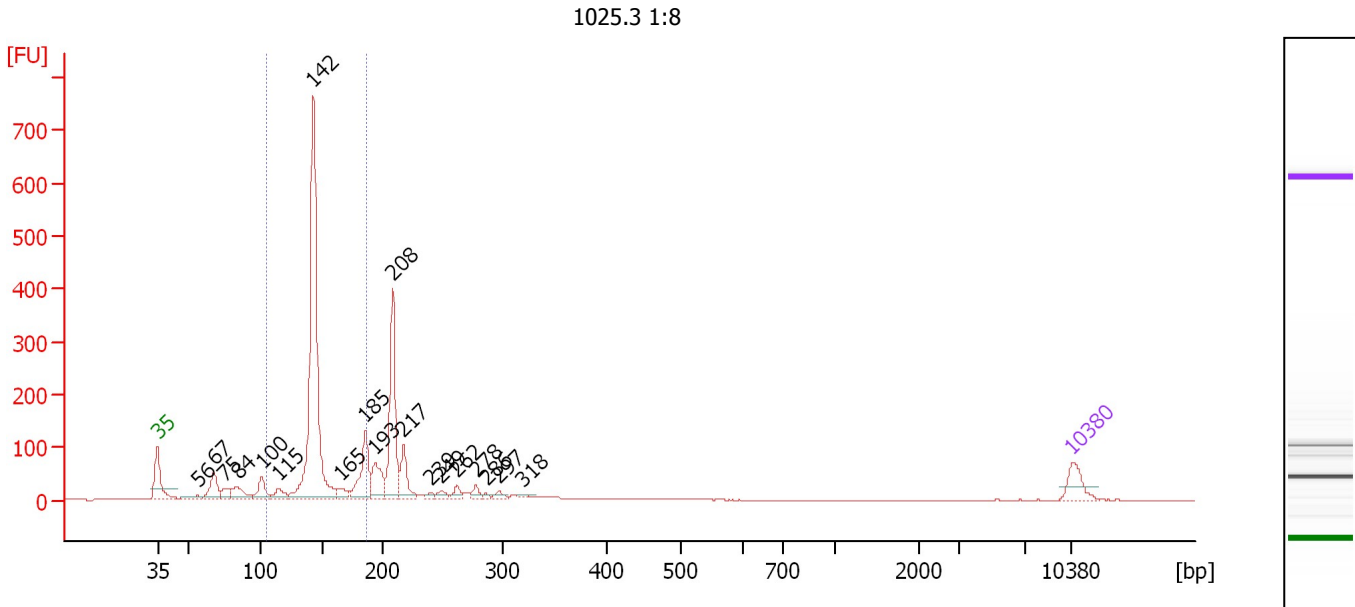
Region table for sample 2 : 1020.3 1:4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
107	143	182	1,136.2	42	9.1	1,584.56	16,894.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 3 : 1025.3 1:8

Number of peaks found: 19 Corr. Area 1: 1,169.5
 Noise: 0.1

Peak table for sample 3 : 1025.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	56	30.65	827.0	
3	67	137.98	3,100.9	
4	75	49.99	1,005.2	
5	84	97.68	1,768.4	
6	100	100.45	1,515.3	
7	115	60.16	794.5	
8	142	1,630.24	17,357.0	
9	165	49.36	452.9	
10	185	253.74	2,078.1	
11	193	156.57	1,229.4	
12	208	505.69	3,692.0	
13	217	146.85	1,027.0	
14	239	16.20	102.5	
15	249	24.42	148.8	
16	262	31.07	179.8	
17	278	28.80	157.2	
18	286	9.36	49.7	
19	297	19.53	99.7	
20	318	11.66	55.5	
21	10,380	75.00	10.9	Upper Marker

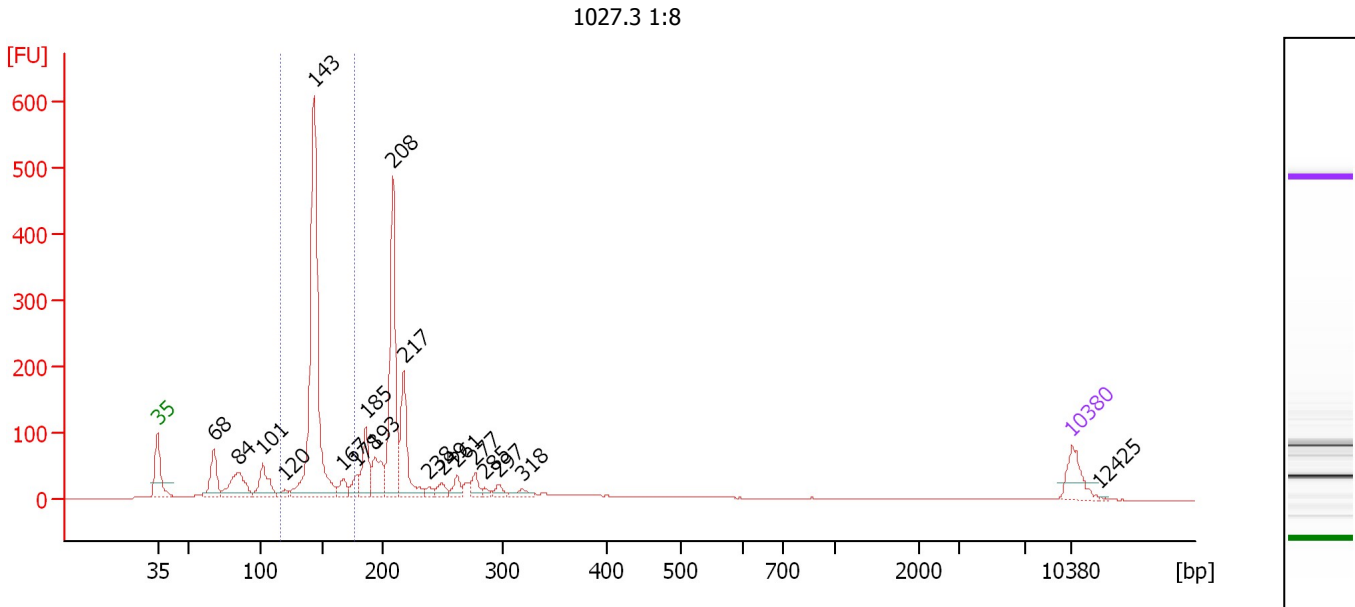
Region table for sample 3 : 1025.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
104	147	186	1,169.5	51	10.5	2,006.81	20,946.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 4 : 1027.3 1:8

Number of peaks found: 19 Corr. Area 1: 879.5
 Noise: 0.2

Peak table for sample 4 : 1027.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	68	150.38	3,370.5	
3	84	170.74	3,066.5	
4	101	135.02	2,019.0	
5	120	23.85	302.0	
6	143	1,203.26	12,758.1	
7	167	49.20	446.9	
8	178	52.62	448.4	
9	185	149.97	1,226.2	
10	193	131.86	1,036.3	
11	208	568.18	4,140.1	
12	217	251.99	1,758.6	
13	238	20.51	130.6	
14	249	33.60	204.7	
15	261	41.15	238.5	
16	277	44.00	240.9	
17	285	15.22	80.9	
18	297	24.60	125.7	
19	318	26.00	123.8	
20	10,380	75.00	10.9	Upper Marker
21	12,425	0.00	0.0	

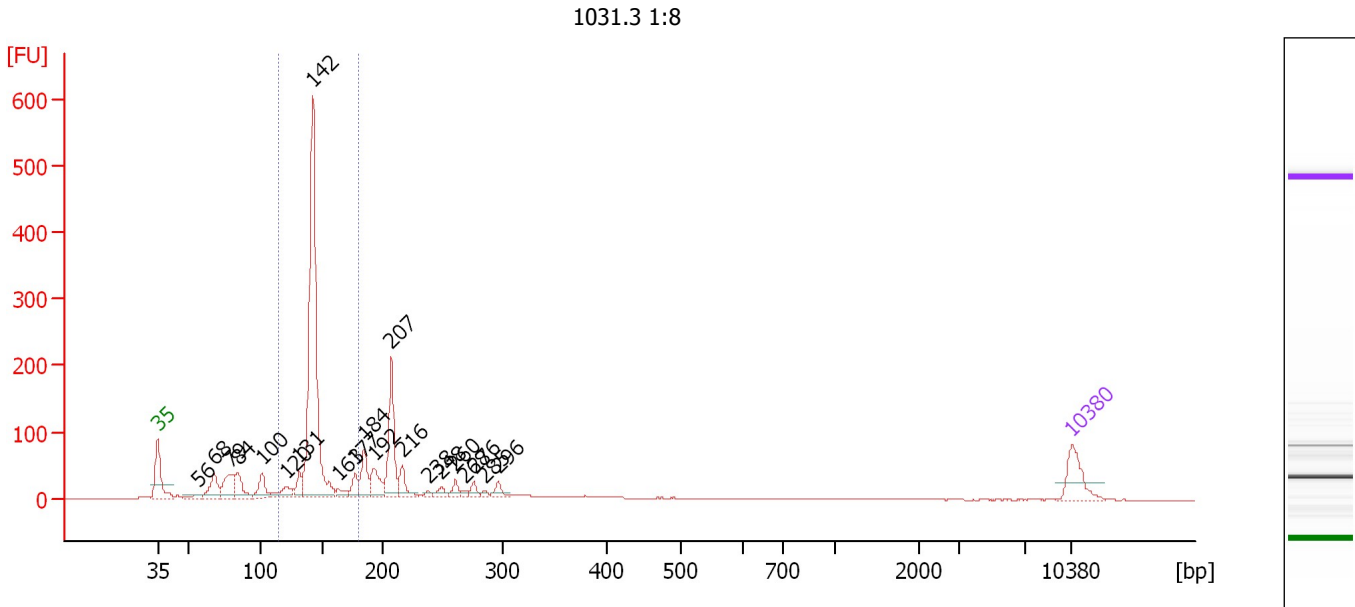
Region table for sample 4 : 1027.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
116	144	176	879.5	35	6.3	1,359.34	14,307.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 5 : 1031.3 1:8

Number of peaks found: 21 Corr. Area 1: 858.6
 Noise: 0.1

Peak table for sample 5 : 1031.3 1:8


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	56	20.29	545.7	
3	68	91.13	2,040.9	
4	79	108.99	2,079.8	
5	84	80.16	1,445.5	
6	100	71.50	1,078.4	
7	120	54.27	683.7	
8	131	50.02	579.9	
9	142	1,074.71	11,461.0	
10	163	27.26	253.4	
11	177	47.79	410.2	
12	184	92.00	757.5	
13	192	83.17	656.2	
14	207	227.48	1,667.8	
15	216	61.10	428.9	
16	238	9.73	62.0	
17	248	21.60	131.7	
18	260	25.67	149.4	
19	268	10.63	60.1	
20	276	21.52	118.3	
21	285	8.13	43.3	
22	296	23.91	122.4	
23	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...

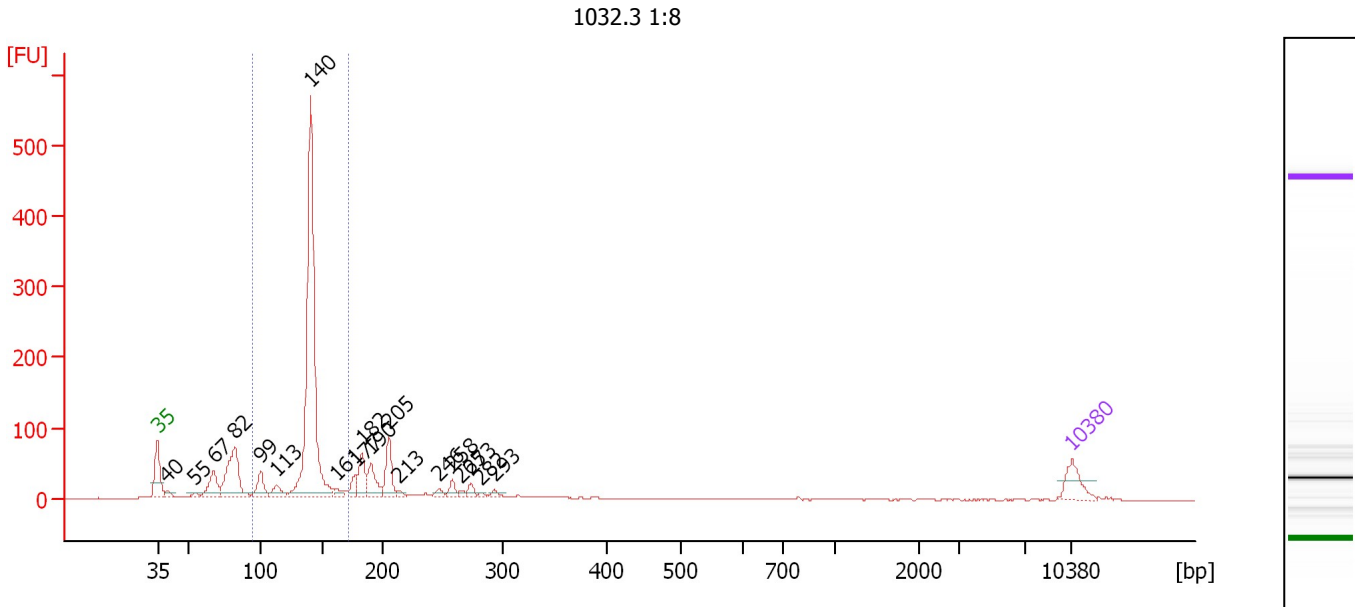
... Region table for sample 5 : 1031.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
113	143	180	858.6	48	7.3	1,295.02	13,737.2	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 6 : 1032.3 1:8

Number of peaks found: 19 Corr. Area 1: 835.1
 Noise: 0.1

Peak table for sample 6 : 1032.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	23.88	911.5	
3	55	13.16	365.2	
4	67	133.50	3,011.9	
5	82	340.95	6,314.3	
6	99	99.59	1,518.0	
7	113	58.42	785.8	
8	140	1,525.22	16,466.5	
9	161	27.37	258.0	
10	177	48.48	414.5	
11	182	122.28	1,016.9	
12	190	116.84	933.3	
13	205	140.35	1,038.6	
14	213	15.20	108.2	
15	246	21.44	131.8	
16	258	35.46	208.5	
17	265	13.61	77.7	
18	273	26.76	148.3	
19	282	9.22	49.5	
20	293	17.42	90.1	
21	10,380	75.00	10.9	Upper Marker

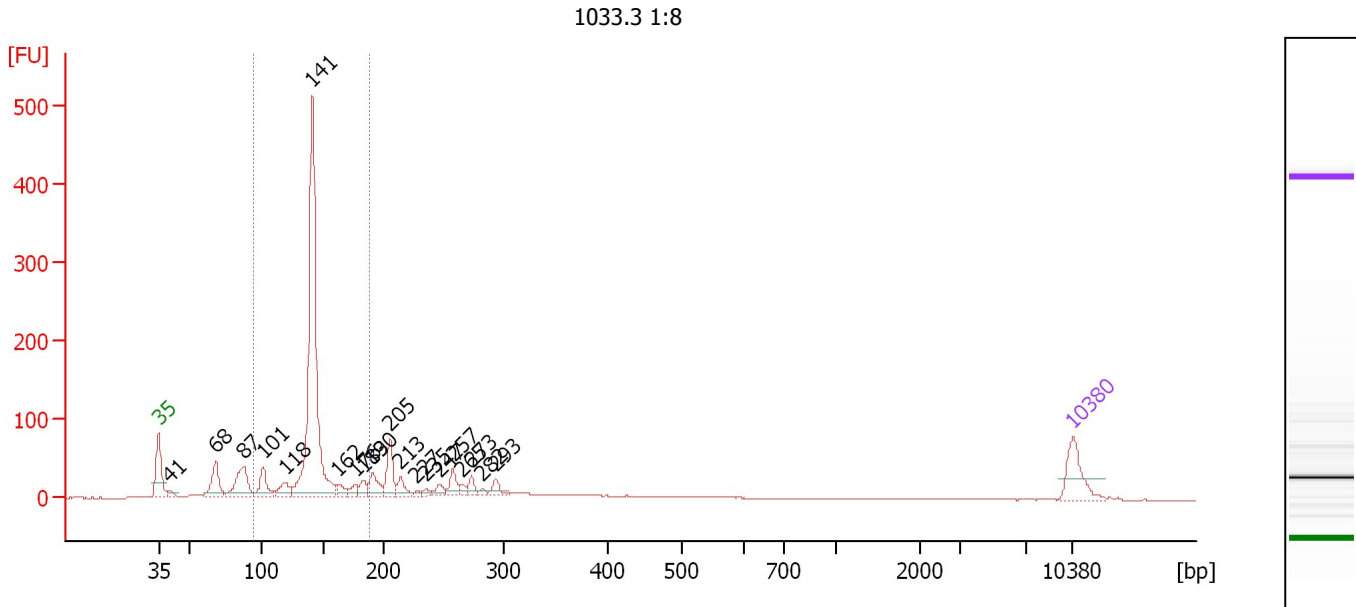
Region table for sample 6 : 1032.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
93	138	172	835.1	55	9.1	1,812.95	20,071.4	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 7 : 1033.3 1:8

Number of peaks found: 20 Corr. Area 1: 836.1
 Noise: 0.1

Peak table for sample 7 : 1033.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	23.25	867.7	
3	68	112.87	2,511.3	
4	87	145.28	2,518.2	
5	101	84.40	1,266.0	
6	118	51.95	665.0	
7	141	1,024.29	11,032.2	
8	162	27.01	253.3	
9	176	23.28	200.9	
10	183	30.21	250.6	
11	190	58.38	465.2	
12	205	91.09	674.0	
13	213	36.00	255.5	
14	227	7.63	51.0	
15	235	11.17	72.1	
16	247	23.65	145.3	
17	257	40.10	236.1	
18	265	16.22	92.8	
19	273	26.35	146.4	
20	282	9.82	52.8	
21	293	26.30	136.0	
22	10,380	75.00	10.9	Upper Marker

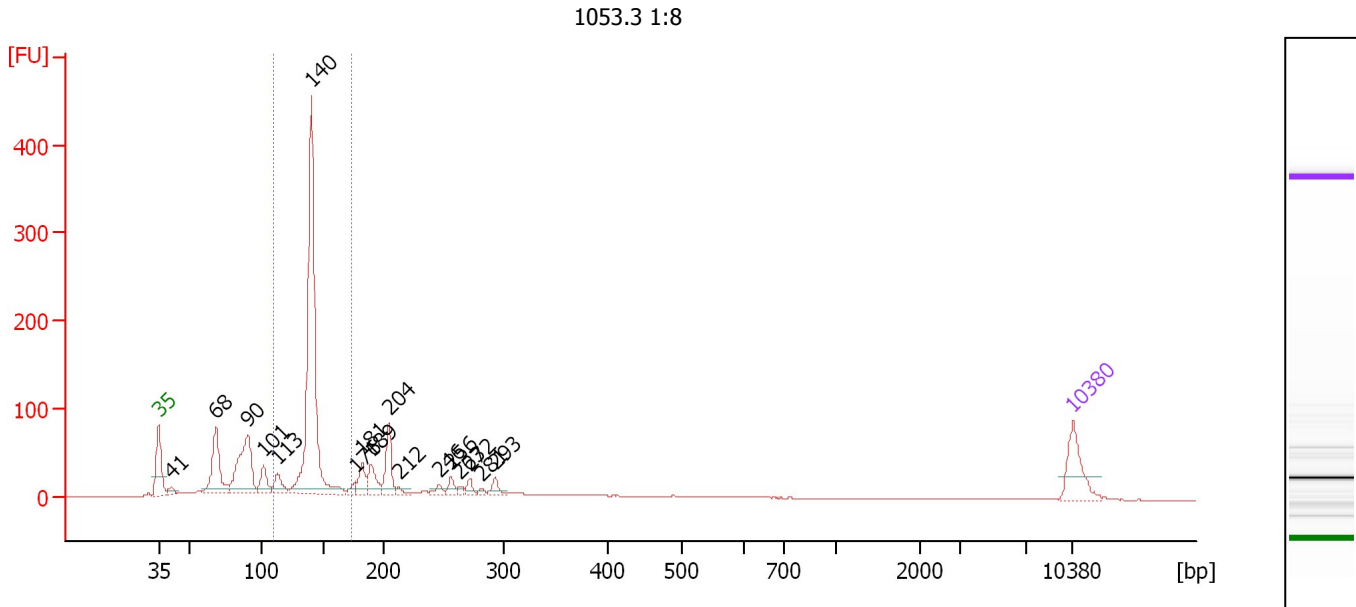
Region table for sample 7 : 1033.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
95	141	187	836.1	55	11.4	1,314.46	14,317.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 8 : 1053.3 1:8

Number of peaks found: 17 Corr. Area 1: 634.5
 Noise: 0.1

Peak table for sample 8 : 1053.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	17.21	633.0	
3	68	183.57	4,079.6	
4	90	250.23	4,210.0	
5	101	59.11	885.3	
6	113	50.84	684.1	
7	140	843.51	9,133.4	
8	176	16.95	146.0	
9	181	48.94	408.6	
10	189	58.94	472.5	
11	204	88.00	654.8	
12	212	8.63	61.7	
13	246	13.70	84.5	
14	256	19.96	118.3	
15	263	8.84	50.8	
16	272	16.69	93.1	
17	281	5.54	29.8	
18	293	20.09	104.0	
19	10,380	75.00	10.9	Upper Marker

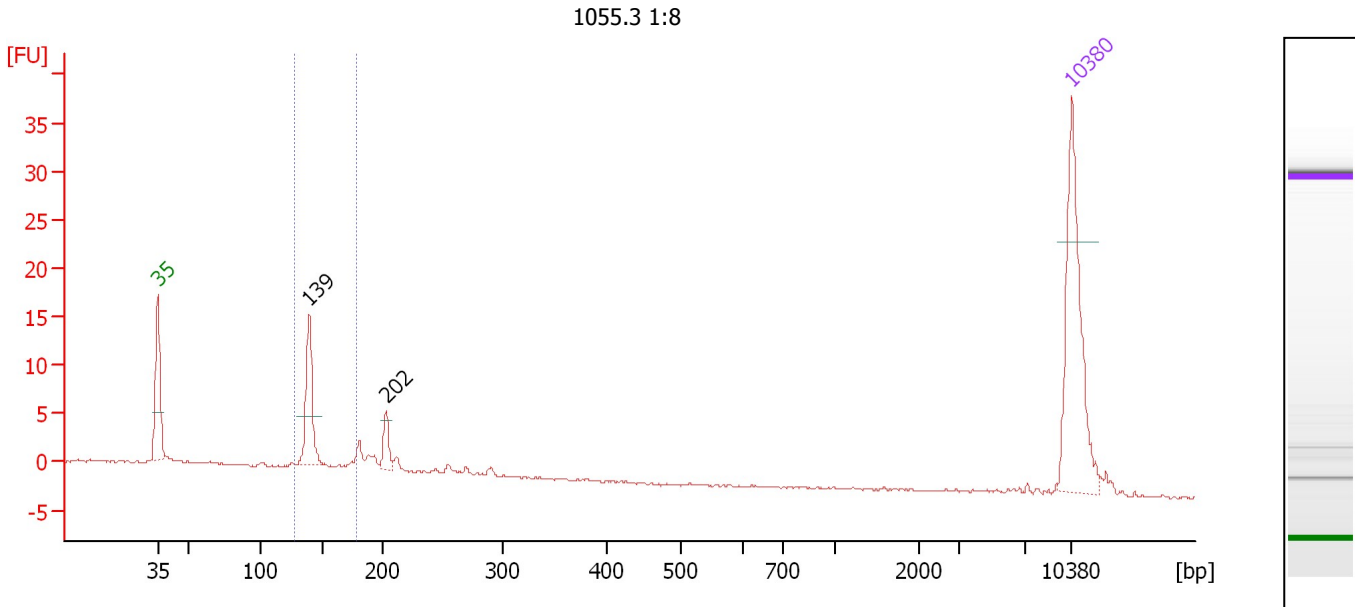
Region table for sample 8 : 1053.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
110	139	172	634.5	42	6.8	979.28	10,668.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 9 : 1055.3 1:8

Number of peaks found: 2 Corr. Area 1: 21.9
 Noise: 0.1

Peak table for sample 9 : 1055.3 1:8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	139	52.99	577.6	
3	202	14.51	108.9	
4	10,380	75.00	10.9	Upper Marker

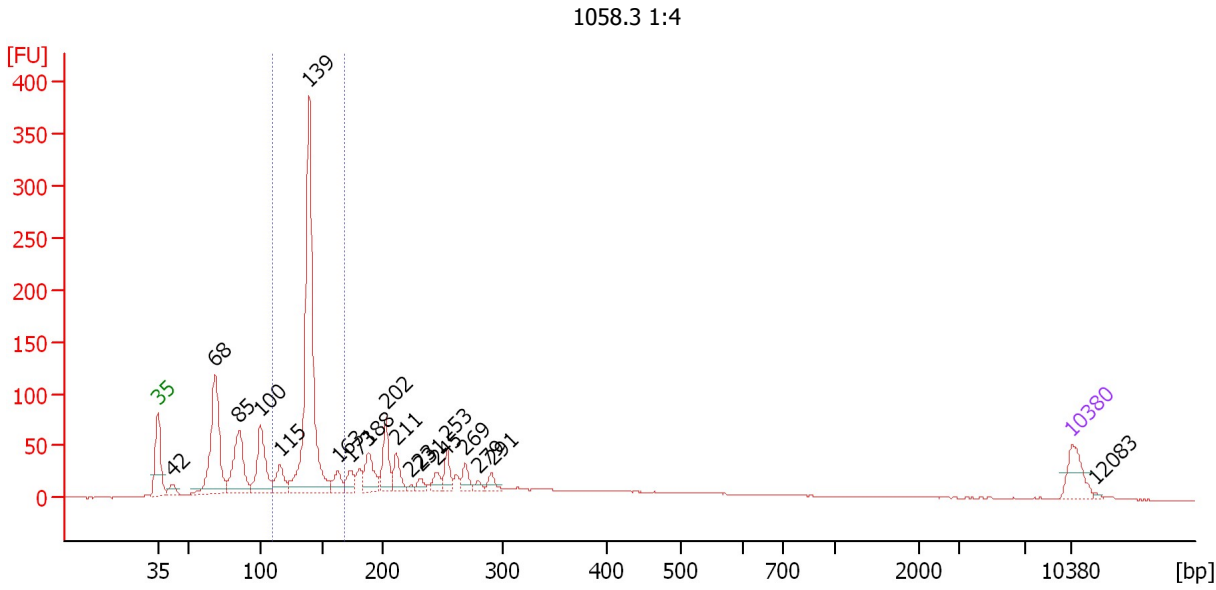
Region table for sample 9 : 1055.3 1:8

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
127	143	178	21.9	34	7.6	72.53	772.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Electropherogram Summary Continued ...



Overall Results for sample 10 : 1058.3 1:4

Number of peaks found: 19 Corr. Area 1: 607.8
 Noise: 0.1

Peak table for sample 10 : 1058.3 1:4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	42	35.04	1,260.6	
3	68	464.24	10,293.1	
4	85	278.26	4,971.2	
5	100	243.65	3,706.6	
6	115	92.91	1,218.9	
7	139	1,144.30	12,479.2	
8	163	55.89	521.1	
9	173	55.21	484.7	
10	188	112.07	904.8	
11	202	132.67	996.0	
12	211	76.63	550.1	
13	223	10.40	70.5	
14	231	25.97	170.3	
15	245	38.82	240.1	
16	253	60.92	364.6	
17	269	42.11	237.5	
18	279	15.88	86.1	
19	291	30.27	157.8	
20	10,380	75.00	10.9	Upper Marker
21	12,083	0.00	0.0	

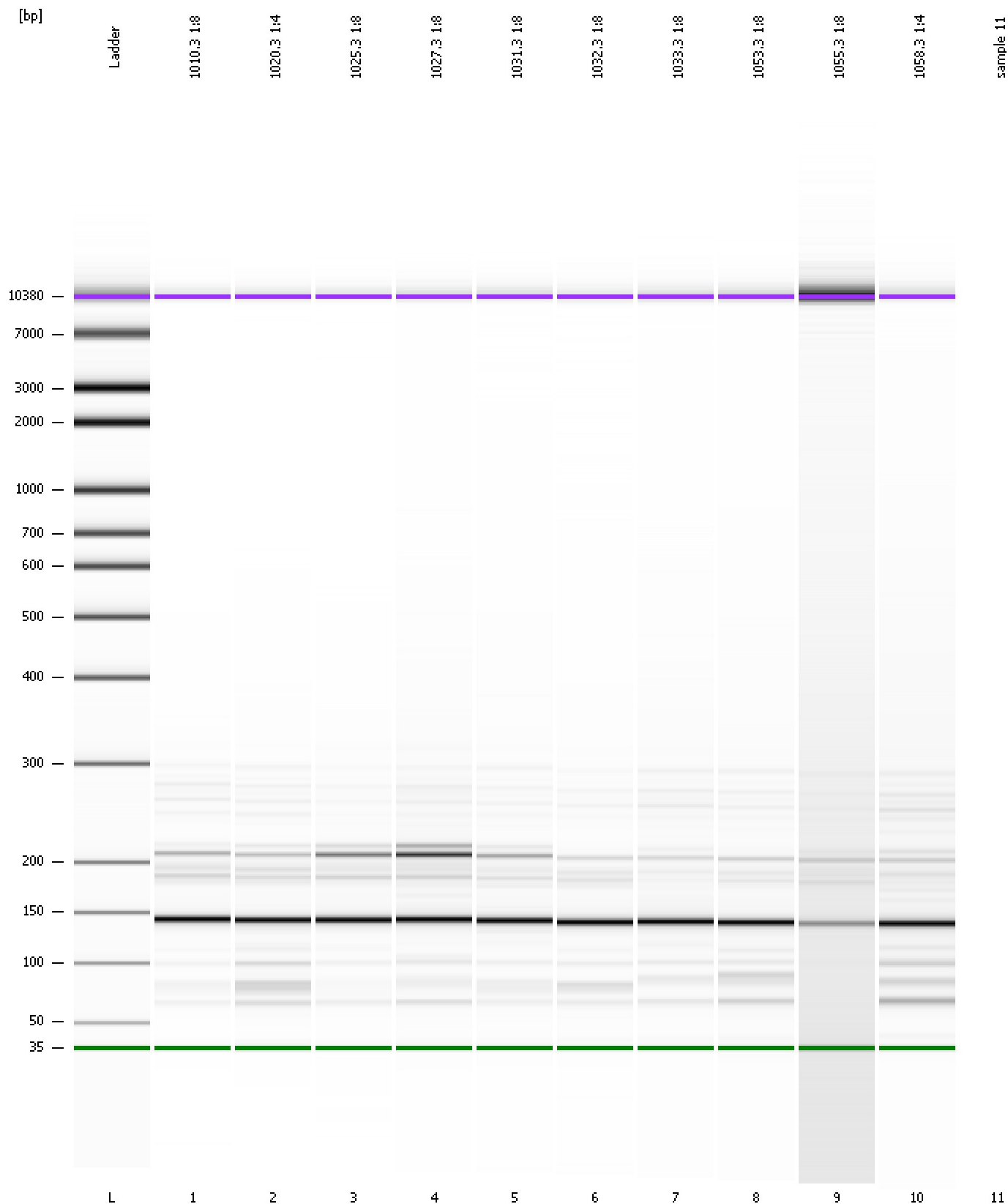
Region table for sample 10 : 1058.3 1:4

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
109	138	168	607.8	33	7.6	1,439.62	15,806.1	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
Modified: 11/12/2014 11:59:02 AM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
Modified: 11/12/2014 11:59:02 AM

Invalid Samples

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad

Created: 11/12/2014 11:19:55 AM
 Modified: 11/12/2014 11:59:02 AM

Run Logbook

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 11)		Instrument	Run		11/12/2014 11:58:22 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-11-12\2014-11-12_001.xad)		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/12/2014 11:20:00 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1