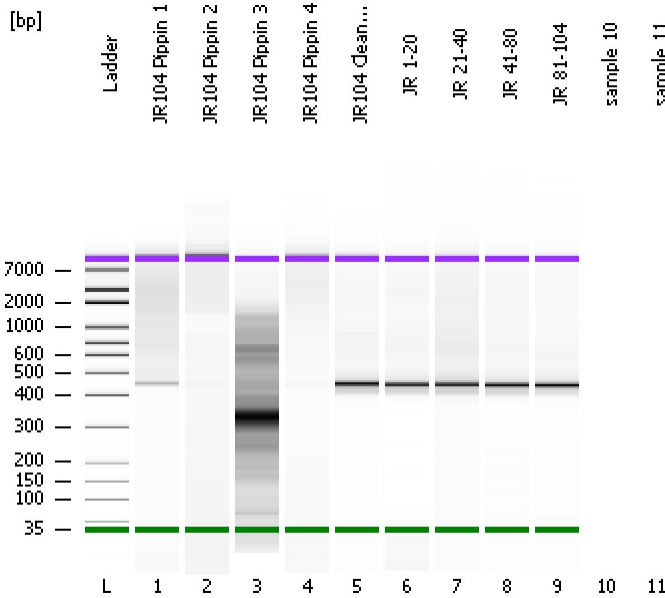


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
Modified: 12/20/2018 12:40:34 PM

### Electrophoresis File Run Summary



#### Instrument Information:

Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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

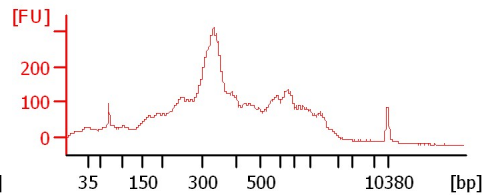
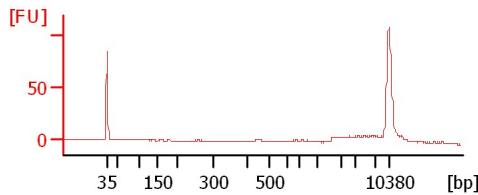
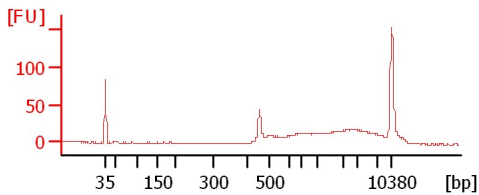
#### Chip Information:

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

JR104 Pippin 1

JR104 Pippin 2

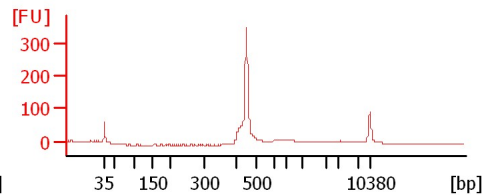
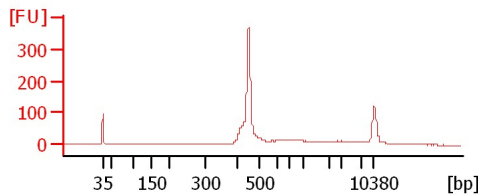
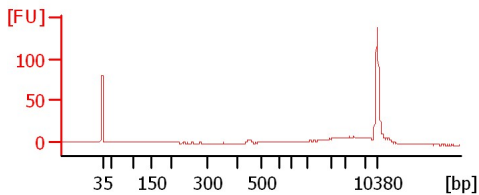
JR104 Pippin 3



JR104 Pippin 4

JR104 Clean Pool

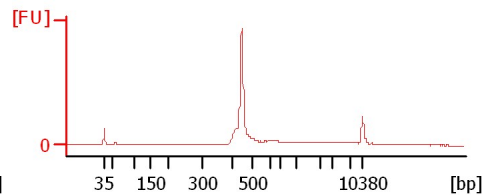
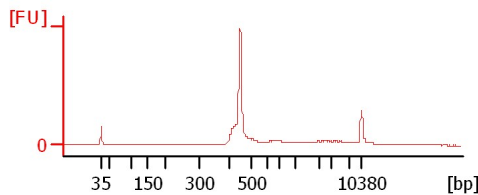
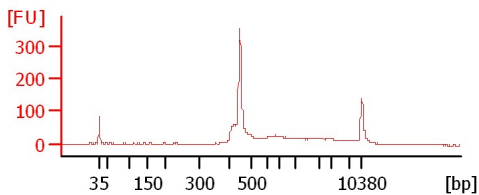
JR 1-20



JR 21-40

JR 41-80

JR 81-104



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electrophoresis File Run Summary (Chip Summary)**

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
JR104 Pippin 1		<input type="checkbox"/>	✓			
JR104 Pippin 2		<input type="checkbox"/>	✓			
JR104 Pippin 3		<input type="checkbox"/>	✓			
JR104 Pippin 4		<input type="checkbox"/>	✓			
JR104 Clean Pool		<input type="checkbox"/>	✓			
JR 1-20		<input type="checkbox"/>	✓			
JR 21-40		<input type="checkbox"/>	✓			
JR 41-80		<input type="checkbox"/>	✓			
JR 81-104		<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:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
Modified: 12/20/2018 12:40:34 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

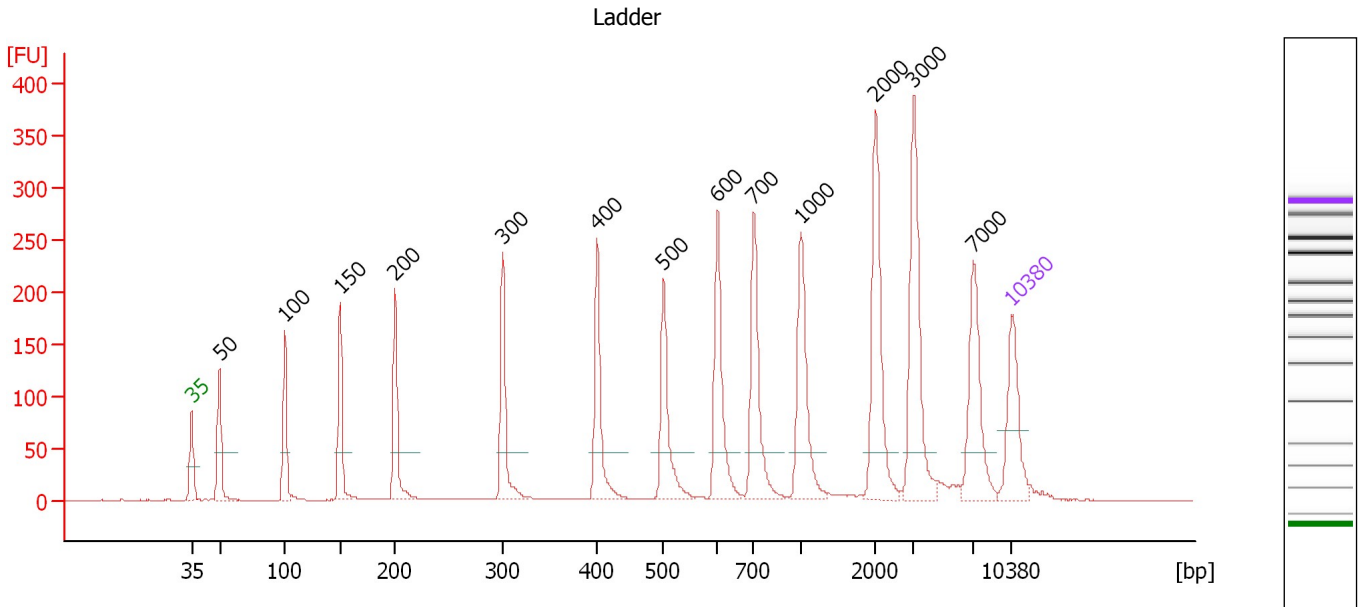
**Ladder**

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:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

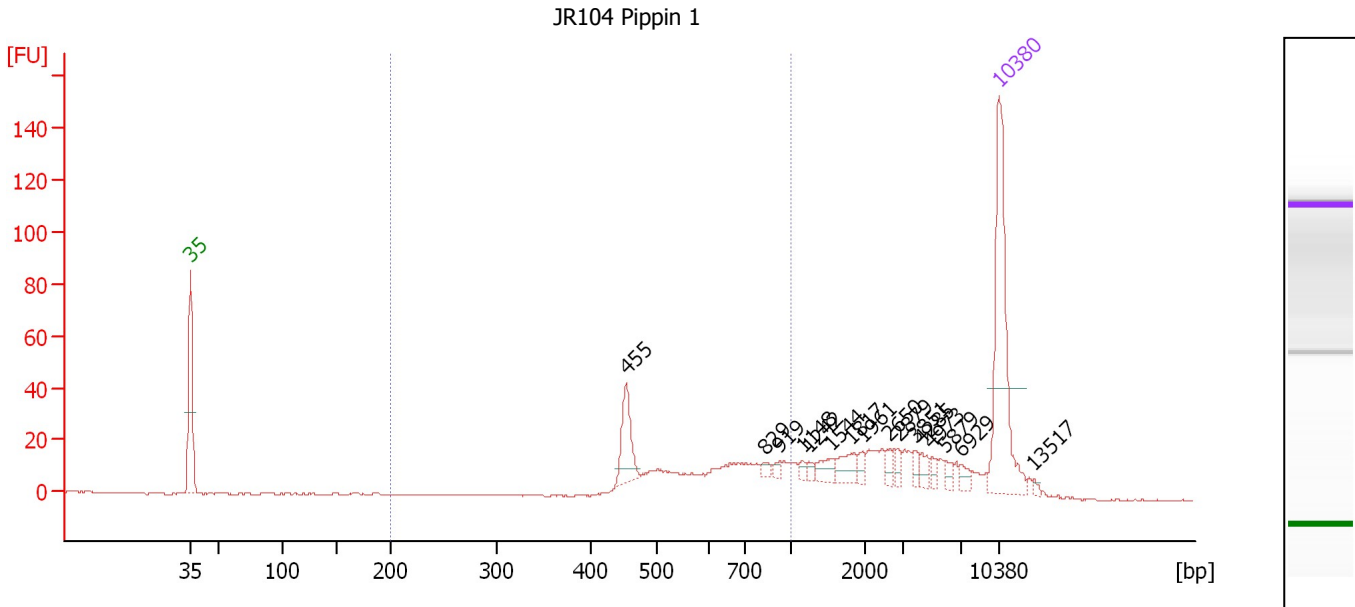
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	50.92
4	150	150.00	1,515.2	Ladder Peak	55.66
5	200	150.00	1,136.4	Ladder Peak	60.35
6	300	150.00	757.6	Ladder Peak	69.55
7	400	150.00	568.2	Ladder Peak	77.61
8	500	150.00	454.5	Ladder Peak	83.31
9	600	150.00	378.8	Ladder Peak	87.91
10	700	150.00	324.7	Ladder Peak	91.00
11	1,000	150.00	227.3	Ladder Peak	95.01
12	2,000	150.00	113.6	Ladder Peak	101.43
13	3,000	150.00	75.8	Ladder Peak	104.67
14	7,000	150.00	32.5	Ladder Peak	109.77
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : JR104 Pippin 1**

Number of peaks found: 16                      Corr. Area 1: 228.0  
 Noise: 0.2

**Peak table for sample 1 : JR104 Pippin 1**

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	455	30.76	102.5		80.72
3	829	3.51	6.4		92.73
4	919	3.00	4.9		93.93
5	1,148	2.64	3.5		95.96
6	1,242	2.66	3.2		96.56
7	1,544	7.89	7.7		98.50
8	1,817	10.28	8.6		100.26
9	1,961	4.67	3.6		101.18
10	2,650	4.96	2.8		103.53
11	2,879	4.62	2.4		104.27
12	3,851	4.15	1.6		105.75
13	4,285	5.89	2.1		106.30
14	4,973	3.81	1.2		107.18
15	5,879	4.22	1.1		108.34
16	6,929	4.14	0.9		109.68
17	10,380	75.00	10.9	Upper Marker	113.00
18	13,517	0.00	0.0		116.00

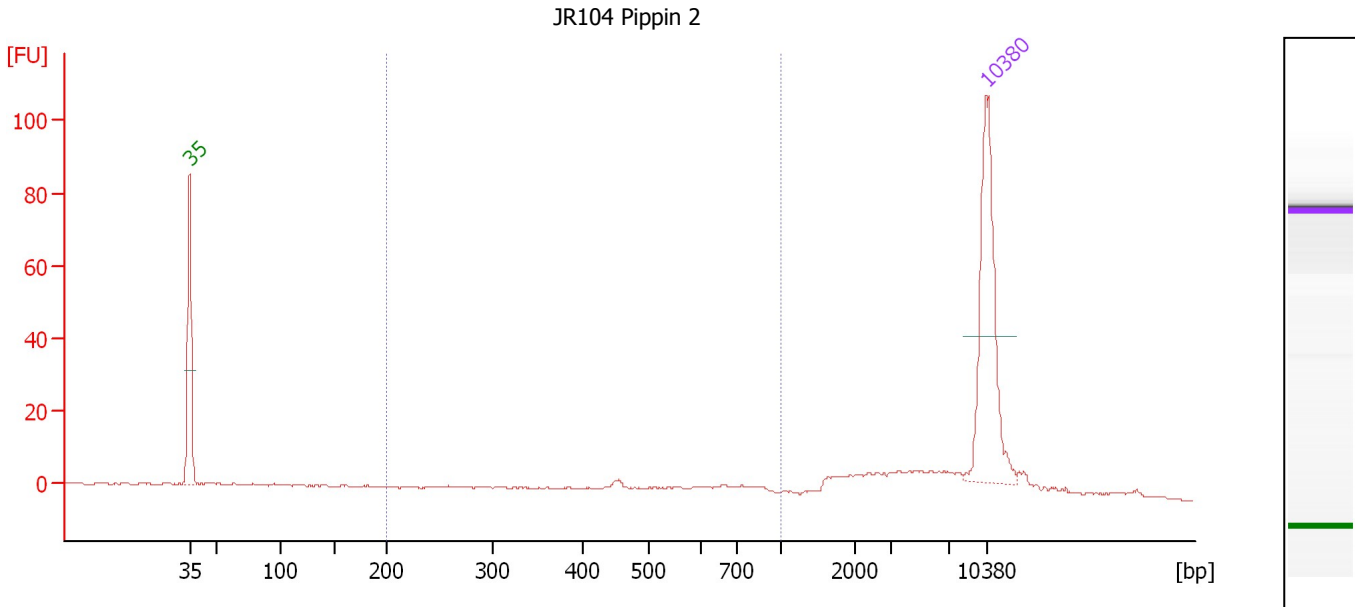
**Region table for sample 1 : JR104 Pippin 1**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	621	152.13	228.0	403.2	46	26.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : JR104 Pippin 2**

Number of peaks found: 0                      Corr. Area 1: 40.6  
 Noise: 0.2

**Peak table for sample 2 : JR104 Pippin 2**

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	10,380	75.00	10.9	Upper Marker	113.00

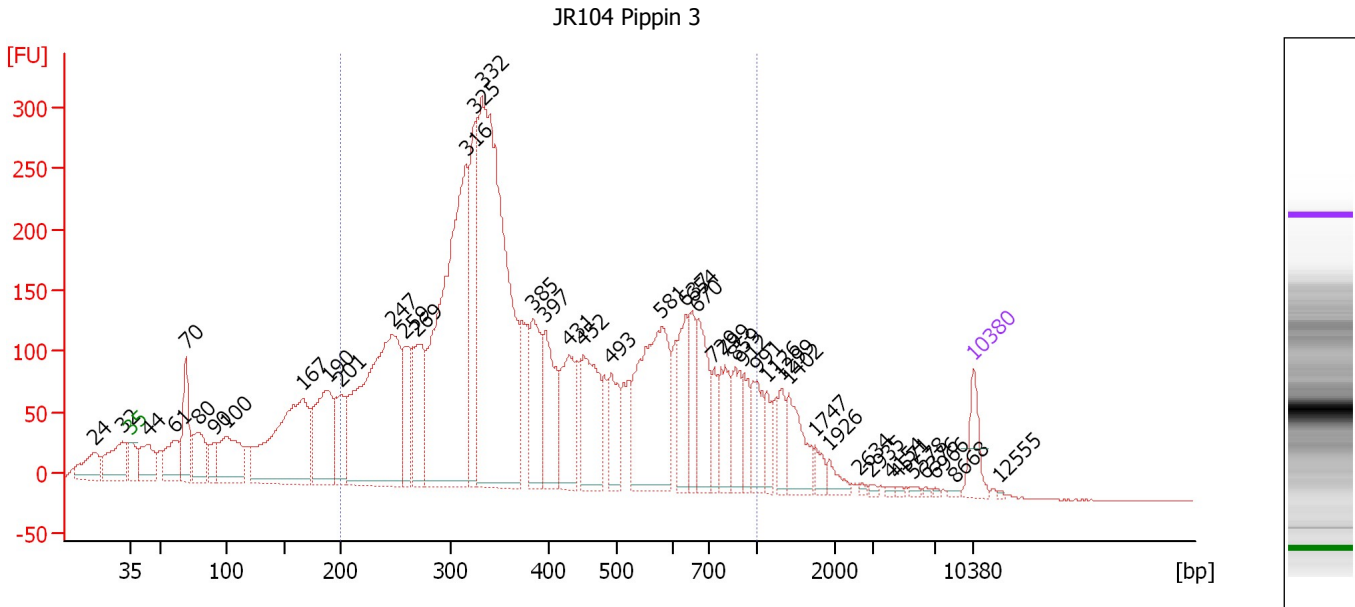
**Region table for sample 2 : JR104 Pippin 2**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	530	30.43	40.6	106.3	26	34.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : JR104 Pippin 3**

Number of peaks found: 45                      Corr. Area 1: 6,635.2  
 Noise: 0.5

**Peak table for sample 3 : JR104 Pippin 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	24	0.00	0.0		39.99
2	32	0.00	0.0		42.25
3	35	125.00	5,411.3	Lower Marker	43.00
4	44	196.91	6,828.3		44.37
5	61	184.34	4,581.5		46.59
6	70	244.50	5,312.8		47.56
7	80	195.92	3,725.1		48.67
8	90	93.21	1,561.5		49.86
9	100	294.58	4,442.1		50.97
10	167	759.07	6,886.5		57.26
11	190	354.86	2,834.8		59.38
12	201	181.22	1,366.0		60.44
13	247	1,072.31	6,572.2		64.70
14	259	196.14	1,148.5		65.76
15	269	271.19	1,525.5		66.73
16	316	1,290.10	6,194.6		70.81
17	325	415.11	1,932.7		71.60
18	332	1,576.28	7,193.1		72.13
19	385	244.36	962.3		76.38
20	397	247.51	943.7		77.40
21	431	231.04	811.6		79.39
22	452	292.37	979.4		80.59
23	493	135.13	415.5		82.89
24	581	505.80	1,317.9		87.05
25	637	161.22	383.6		89.05

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : JR104 Pippin 3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	654	114.33	264.9		89.58
27	670	196.45	444.4		90.07
28	729	70.23	145.9		91.39
29	799	131.36	249.1		92.32
30	859	101.60	179.3		93.12
31	912	69.33	115.2		93.83
32	991	103.30	157.9		94.89
33	1,126	57.86	77.8		95.82
34	1,299	68.96	80.5		96.93
35	1,402	127.94	138.3		97.59
36	1,747	32.74	28.4		99.81
37	1,926	30.75	24.2		100.96
38	2,634	4.92	2.8		103.48
39	2,935	5.14	2.7		104.45
40	4,154	5.70	2.1		106.14
41	4,571	5.06	1.7		106.67
42	5,578	7.03	1.9		107.95
43	6,376	5.03	1.2		108.97
44	6,966	3.92	0.9		109.72
45	8,668	4.67	0.8		111.36
46	10,380	75.00	10.9	Upper Marker	113.00
47	12,555	0.00	0.0		115.08

**Region table for sample 3 : JR104 Pippin 3**

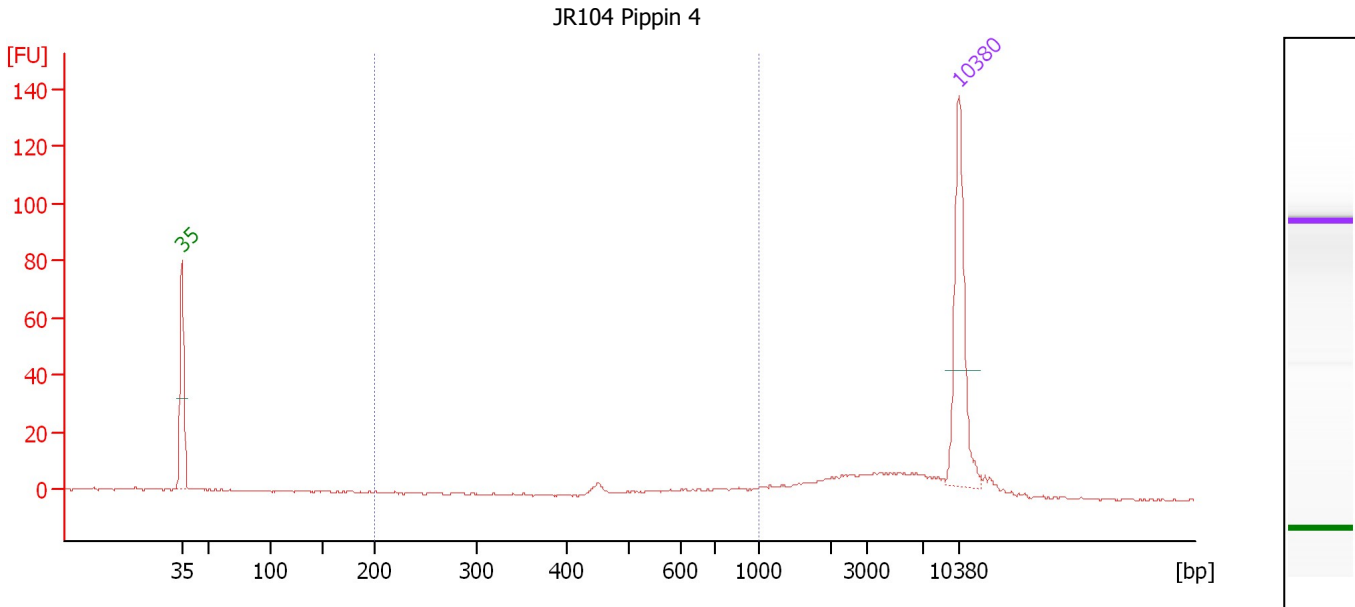
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	430	7,679.48	6,635.2	33,092.8	77	41.2



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : JR104 Pippin 4**

Number of peaks found: 0                      Corr. Area 1: 36.0  
 Noise: 0.4

**Peak table for sample 4 : JR104 Pippin 4**

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	10,380	75.00	10.9	Upper Marker	113.00

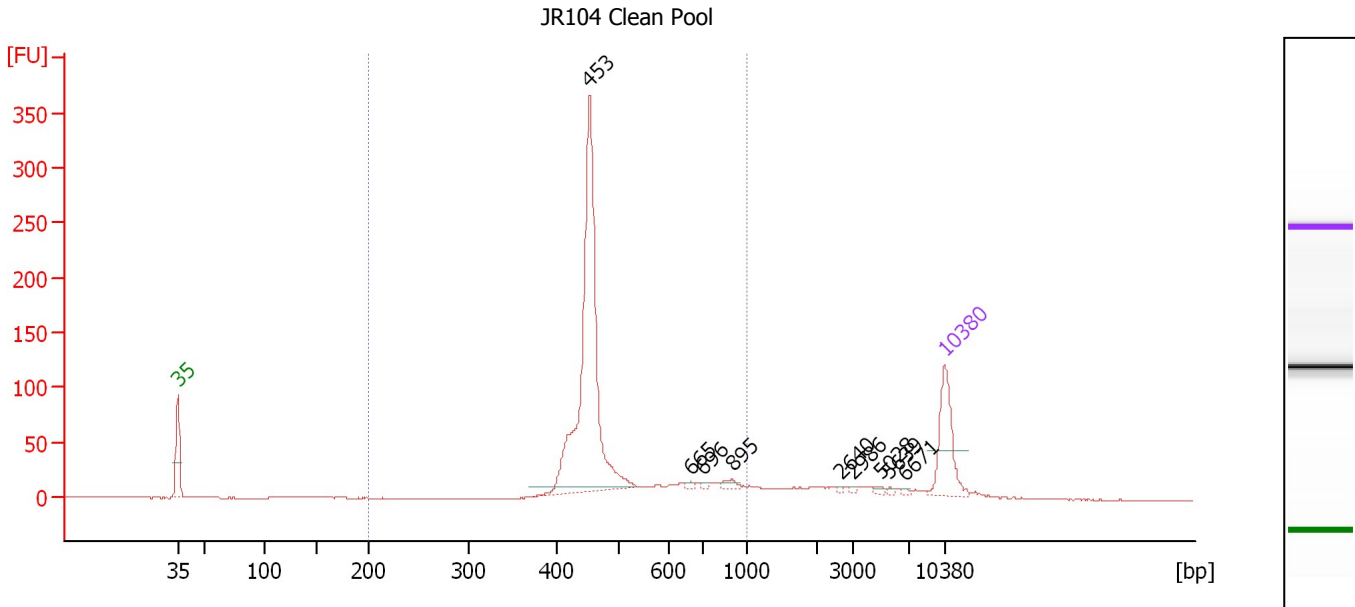
**Region table for sample 4 : JR104 Pippin 4**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	653	28.13	36.0	72.5	20	26.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : JR104 Clean Pool**

Number of peaks found: 9                      Corr. Area 1: 919.7  
 Noise: 0.2

**Peak table for sample 5 : JR104 Clean Pool**

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	453	518.40	1,735.5		80.61
3	665	3.88	8.8		89.91
4	696	3.06	6.6		90.88
5	895	8.68	14.7		93.61
6	2,640	1.98	1.1		103.50
7	2,986	2.02	1.0		104.62
8	5,028	3.62	1.1		107.25
9	5,639	1.89	0.5		108.03
10	6,671	2.19	0.5		109.35
11	10,380	75.00	10.9	Upper Marker	113.00

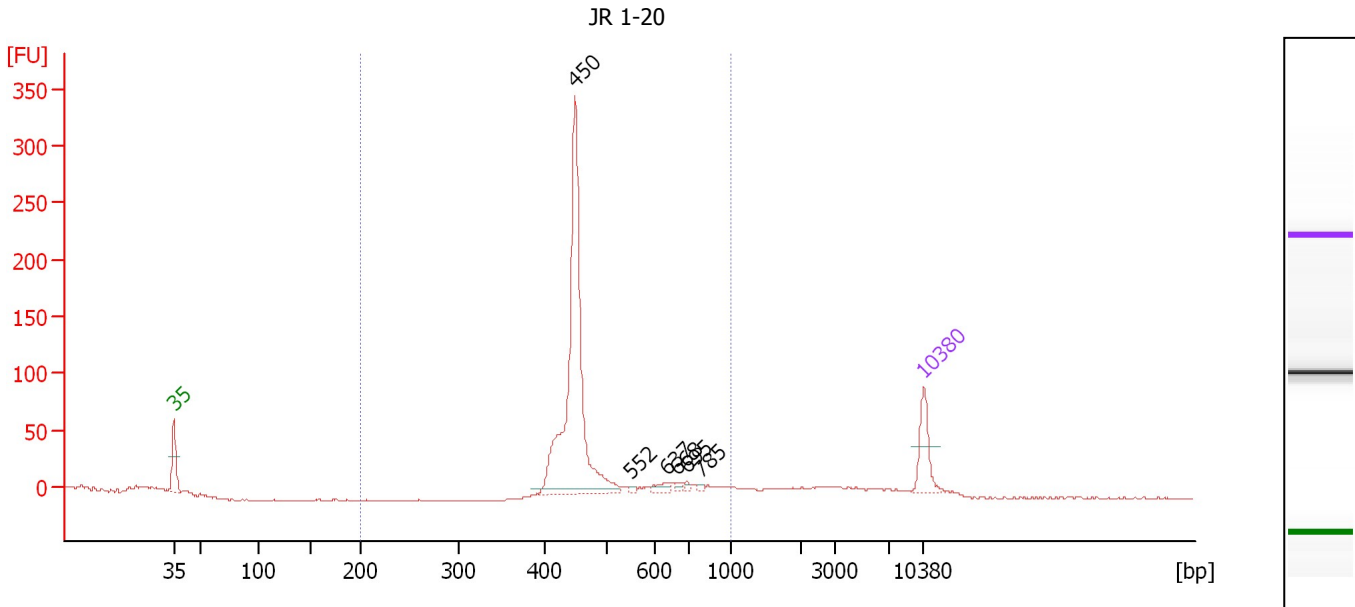
**Region table for sample 5 : JR104 Clean Pool**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	501	676.25	919.7	2,149.1	82	23.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : JR 1-20**

Number of peaks found: 6                      Corr. Area 1: 664.1  
 Noise: 0.6

**Peak table for sample 6 : JR 1-20**

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	450	794.80	2,678.2		80.44
3	552	5.79	15.9		85.72
4	637	18.42	43.8		89.05
5	668	8.79	20.0		90.00
6	695	6.93	15.1		90.84
7	785	4.83	9.3		92.14
8	10,380	75.00	10.9	Upper Marker	113.00

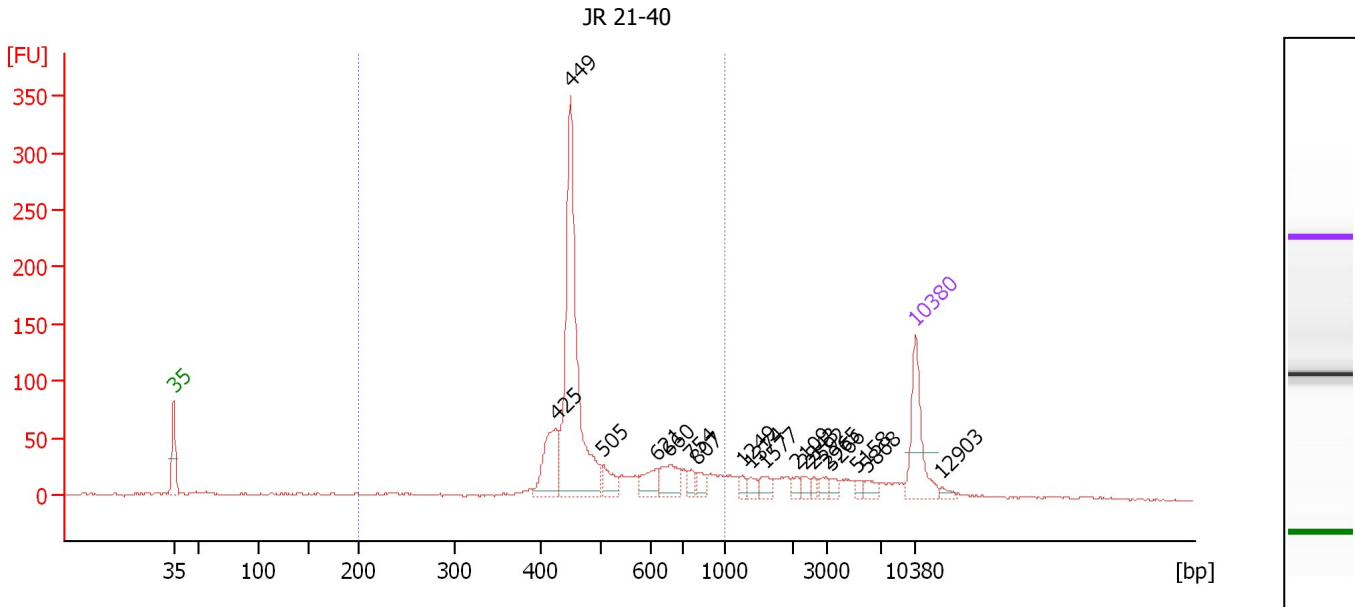
**Region table for sample 6 : JR 1-20**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	483	873.14	664.1	2,837.4	86	20.8

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : JR 21-40**

Number of peaks found: 18                      Corr. Area 1: 1,025.8  
 Noise: 0.9

**Peak table for sample 7 : JR 21-40**

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	425	92.16	328.3		79.06
3	449	397.47	1,340.7		80.41
4	505	31.13	93.4		83.53
5	621	32.86	80.2		88.56
6	660	40.50	93.0		89.77
7	754	13.33	26.8		91.73
8	807	14.90	28.0		92.43
9	1,249	7.43	9.0		96.61
10	1,374	10.46	11.5		97.41
11	1,577	13.23	12.7		98.72
12	2,109	8.43	6.1		101.79
13	2,343	8.45	5.5		102.54
14	2,592	6.69	3.9		103.34
15	2,965	8.99	4.6		104.55
16	3,266	8.62	4.0		105.00
17	5,158	6.49	1.9		107.42
18	5,868	11.38	2.9		108.32
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,903	0.00	0.0		115.41

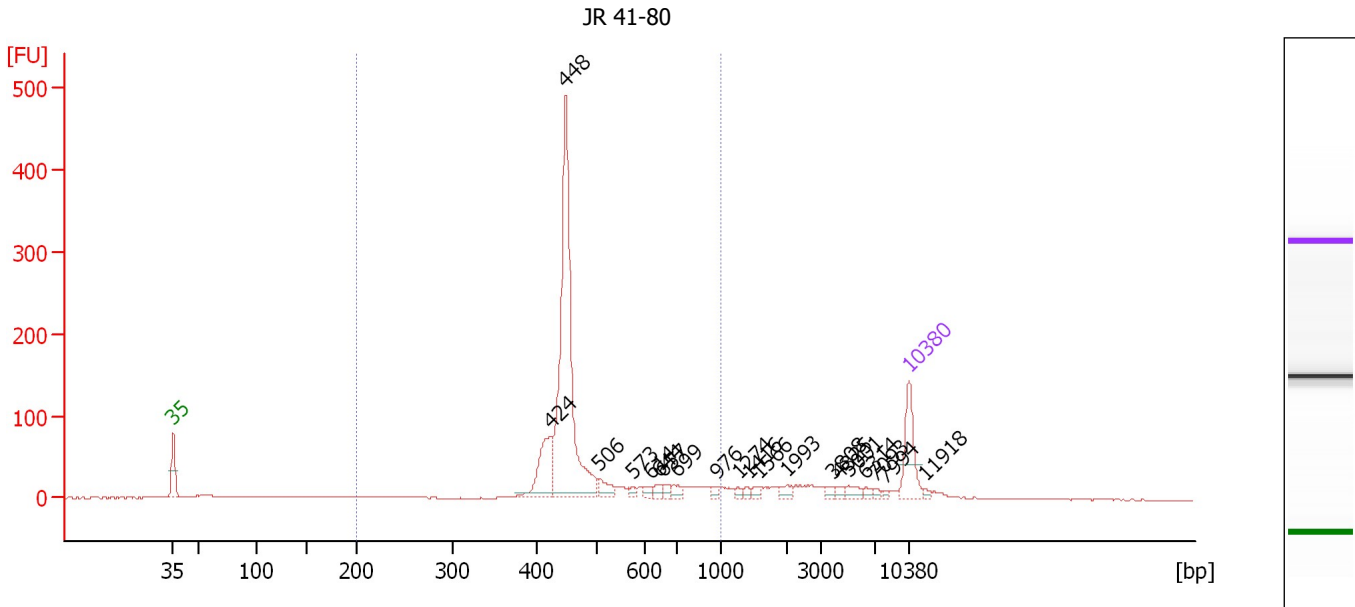
**Region table for sample 7 : JR 21-40**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	514	745.71	1,025.8	2,400.6	71	27.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : JR 41-80**

Number of peaks found: 20                      Corr. Area 1: 1,134.6  
 Noise: 0.5

**Peak table for sample 8 : JR 41-80**

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	424	122.86	439.3		78.96
3	448	606.17	2,051.1		80.33
4	506	26.83	80.4		83.58
5	573	7.43	19.6		86.67
6	614	11.42	28.2		88.35
7	644	11.42	26.9		89.26
8	657	11.01	25.4		89.67
9	699	14.01	30.4		90.99
10	976	9.34	14.5		94.69
11	1,274	6.60	7.9		96.77
12	1,416	7.07	7.6		97.68
13	1,566	8.39	8.1		98.64
14	1,993	11.61	8.8		101.38
15	3,808	7.53	3.0		105.70
16	4,325	8.12	2.8		106.36
17	5,001	13.75	4.2		107.22
18	6,314	7.86	1.9		108.89
19	7,093	4.93	1.1		109.86
20	7,994	4.11	0.8		110.72
21	10,380	75.00	10.9	Upper Marker	113.00
22	11,918	0.00	0.0		114.47

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**

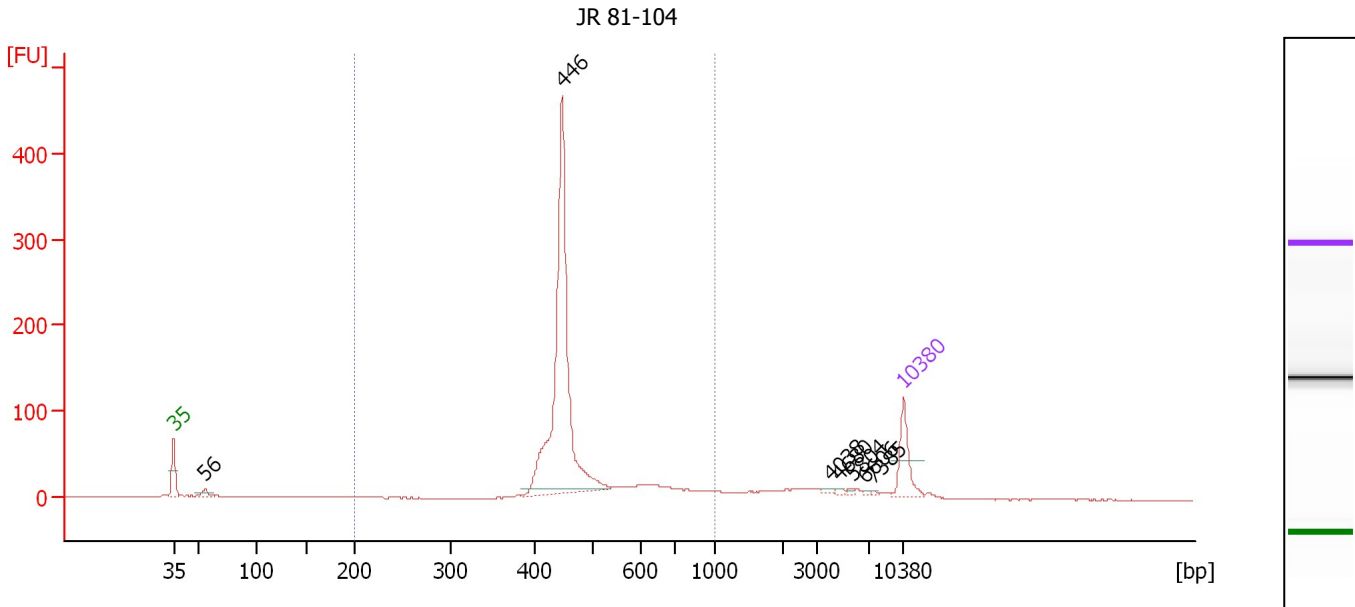
... Region table for sample 8 : JR 41-80

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
200	1,000	487	955.45	1,134.6	3,173.9	 74	24.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
 Modified: 12/20/2018 12:40:34 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : JR 81-104**

Number of peaks found: 7                      Corr. Area 1: 1,015.0  
 Noise: 0.3

**Peak table for sample 9 : JR 81-104**

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	56	25.17	682.7		46.02
3	446	835.61	2,836.5		80.25
4	4,038	4.80	1.8		105.99
5	4,680	3.96	1.3		106.81
6	5,804	3.62	0.9		108.24
7	6,606	2.82	0.6		109.26
8	7,385	2.42	0.5		110.13
9	10,380	75.00	10.9	Upper Marker	113.00

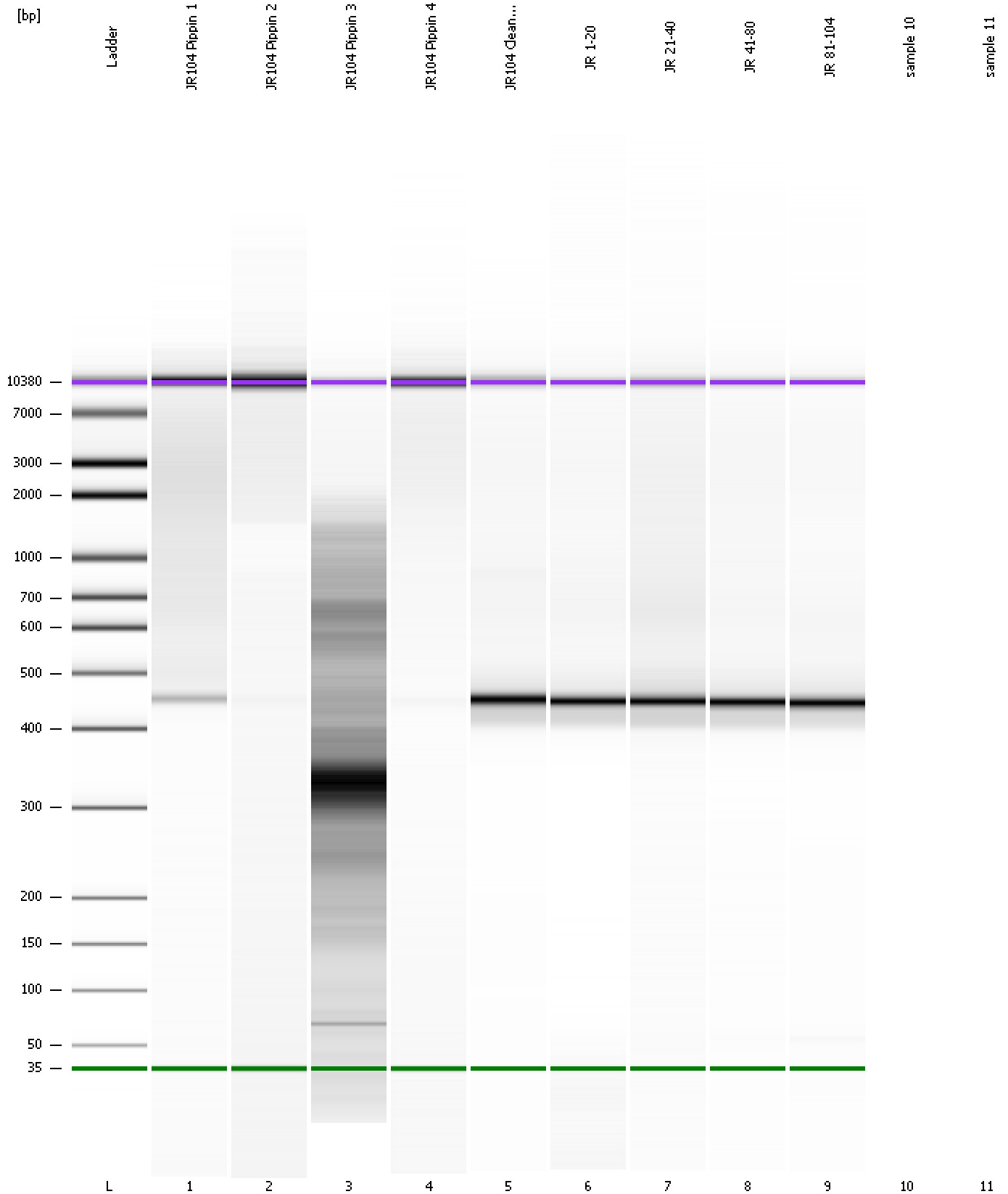
**Region table for sample 9 : JR 81-104**

From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	484	1,096.03	1,015.0	3,580.5	80	21.5

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
Modified: 12/20/2018 12:40:34 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2018-12-20\2018-12-20\_001.xad

Created: 12/20/2018 12:04:53 PM  
Modified: 12/20/2018 12:40:34 PM

**Invalid Samples**

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.