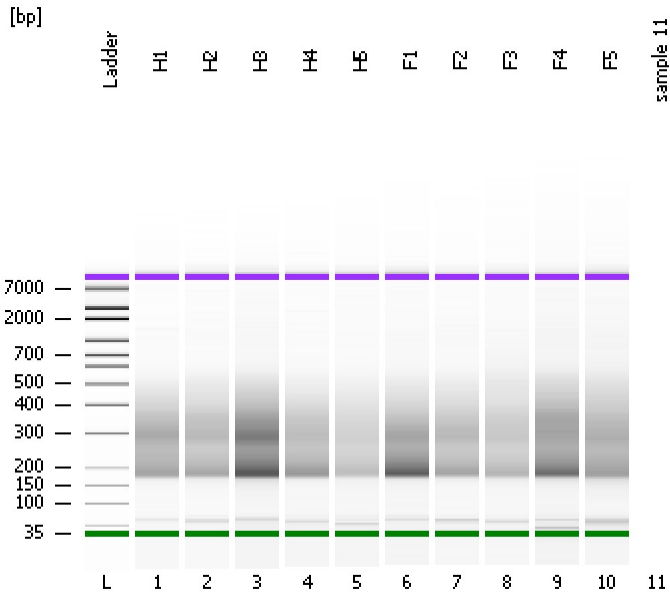


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
Modified: 5/31/2019 1:55:47 PM

### Electrophoresis File Run Summary



#### Instrument Information:

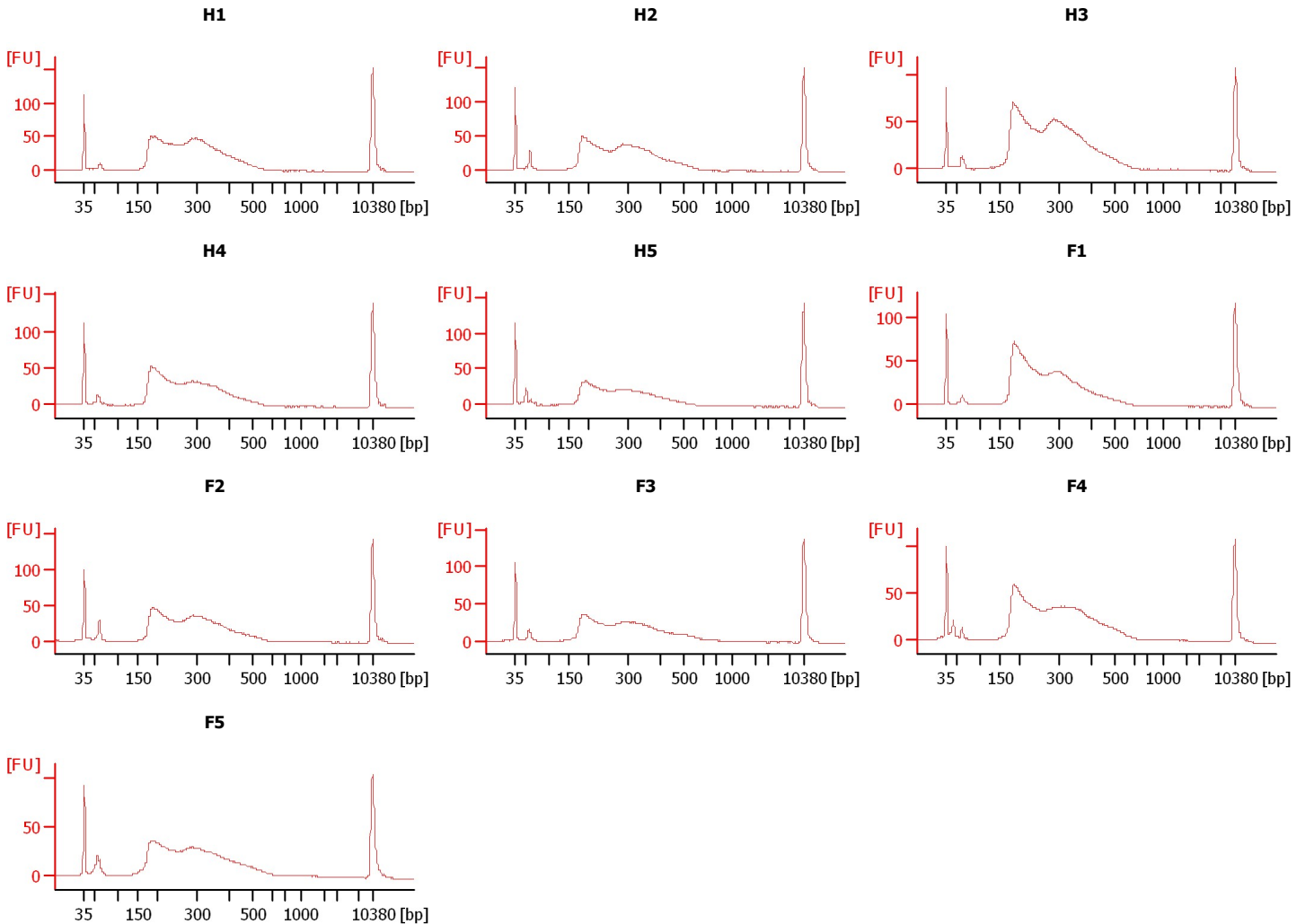
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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:



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
 Modified: 5/31/2019 1:55:47 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
H1		<input type="checkbox"/>	✓			
H2		<input type="checkbox"/>	✓			
H3		<input type="checkbox"/>	✓			
H4		<input type="checkbox"/>	✓			
H5		<input type="checkbox"/>	✓			
F1		<input type="checkbox"/>	✓			
F2		<input type="checkbox"/>	✓			
F3		<input type="checkbox"/>	✓			
F4		<input type="checkbox"/>	✓			
F5		<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\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
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**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

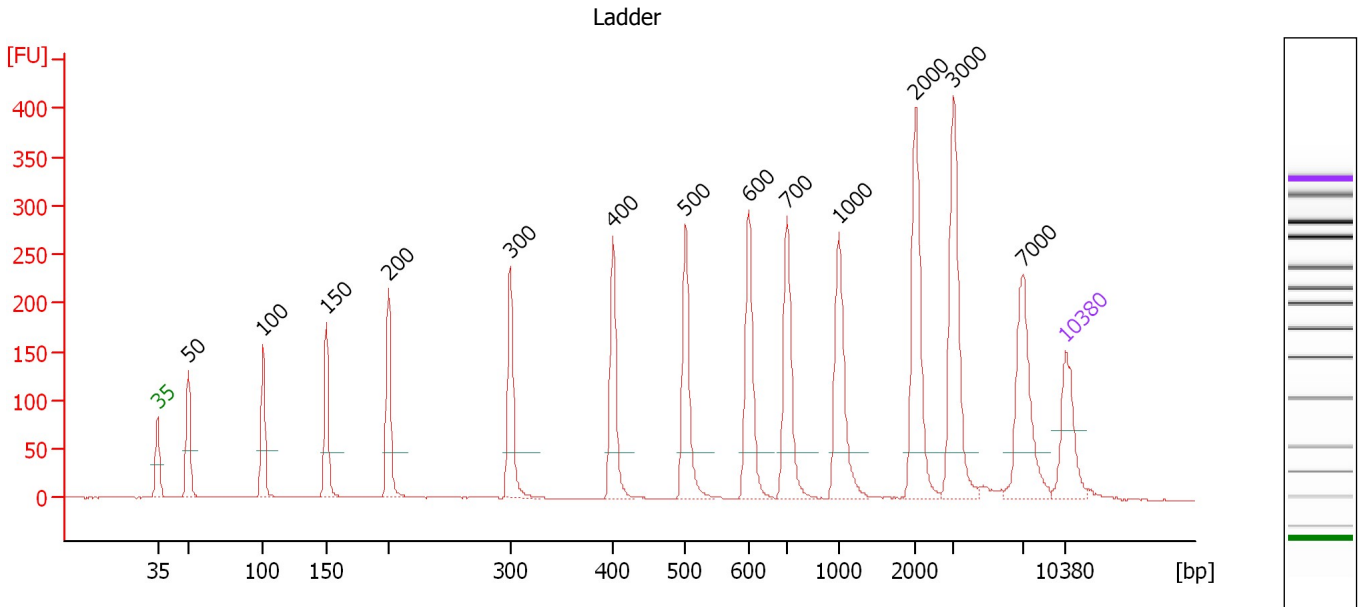
**Ladder**

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\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

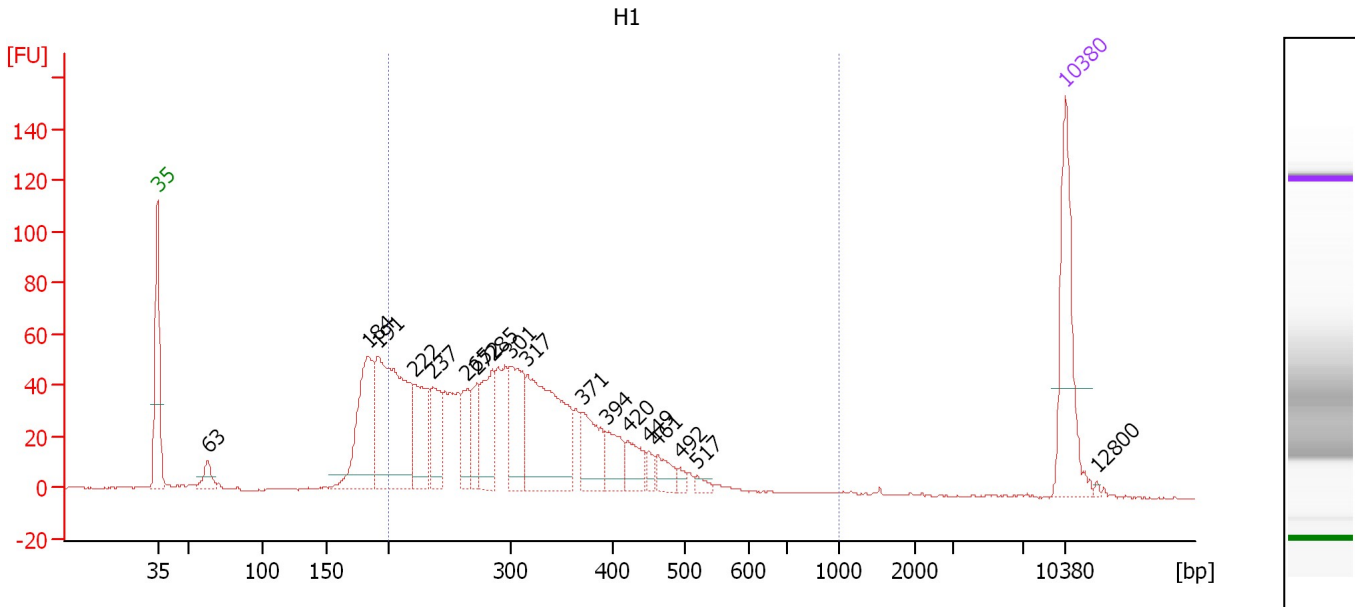
**Peak table for Ladder**

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	45.37
3	100	150.00	2,272.7	Ladder Peak	51.11
4	150	150.00	1,515.2	Ladder Peak	56.03
5	200	150.00	1,136.4	Ladder Peak	60.81
6	300	150.00	757.6	Ladder Peak	70.19
7	400	150.00	568.2	Ladder Peak	78.11
8	500	150.00	454.5	Ladder Peak	83.72
9	600	150.00	378.8	Ladder Peak	88.59
10	700	150.00	324.7	Ladder Peak	91.55
11	1,000	150.00	227.3	Ladder Peak	95.51
12	2,000	150.00	113.6	Ladder Peak	101.43
13	3,000	150.00	75.8	Ladder Peak	104.39
14	7,000	150.00	32.5	Ladder Peak	109.68
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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 Modified: 5/31/2019 1:55:47 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : H1**

Number of peaks found: 18                      Corr. Area 1: 1,202.0  
 Noise: 0.3

**Peak table for sample 1 : H1**

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	63	19.47	467.4		46.87
3	184	123.24	1,017.0		59.24
4	191	218.79	1,731.8		59.99
5	222	70.63	482.9		62.83
6	237	51.25	328.3		64.23
7	265	35.38	202.4		66.89
8	272	36.31	202.0		67.59
9	285	63.49	337.2		68.81
10	301	73.33	369.4		70.25
11	317	162.68	778.3		71.51
12	371	49.31	201.4		75.81
13	394	31.06	119.5		77.63
14	420	25.55	92.1		79.26
15	449	9.56	32.3		80.85
16	461	17.13	56.3		81.55
17	492	4.93	15.2		83.27
18	517	5.97	17.5		84.53
19	10,380	75.00	10.9	Upper Marker	113.00
20	12,800	0.00	0.0		115.38

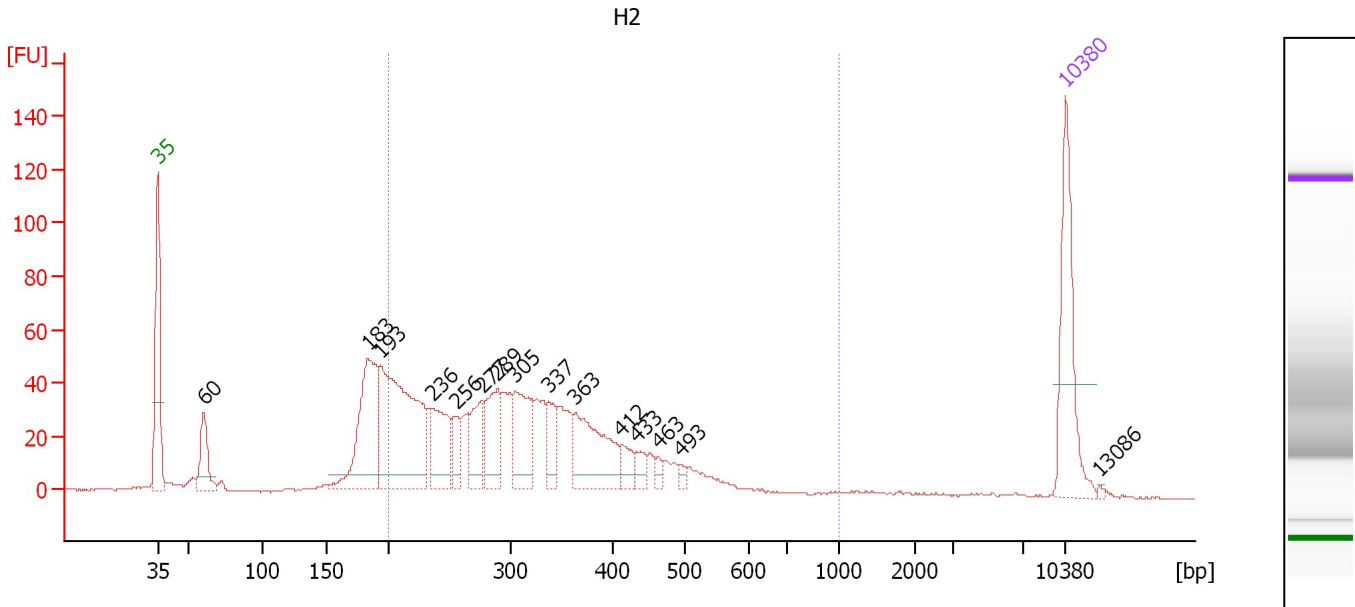
**Region table for sample 1 : H1**

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	317	958.41	1,202.0	5,002.1	80	28.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : H2**

Number of peaks found: 15                      Corr. Area 1: 1,009.7  
 Noise: 0.3

**Peak table for sample 2 : H2**

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	60	49.38	1,238.2		46.56
3	183	140.78	1,164.0		59.21
4	193	238.67	1,871.9		60.16
5	236	64.29	412.6		64.19
6	256	23.41	138.3		66.10
7	277	45.11	246.6		68.04
8	289	58.77	307.8		69.18
9	305	64.22	318.7		70.61
10	337	33.20	149.2		73.13
11	363	84.76	353.3		75.22
12	412	15.69	57.7		78.78
13	433	12.49	43.7		79.97
14	463	6.65	21.8		81.64
15	493	5.03	15.5		83.30
16	10,380	75.00	10.9	Upper Marker	113.00
17	13,086	0.00	0.0		115.66

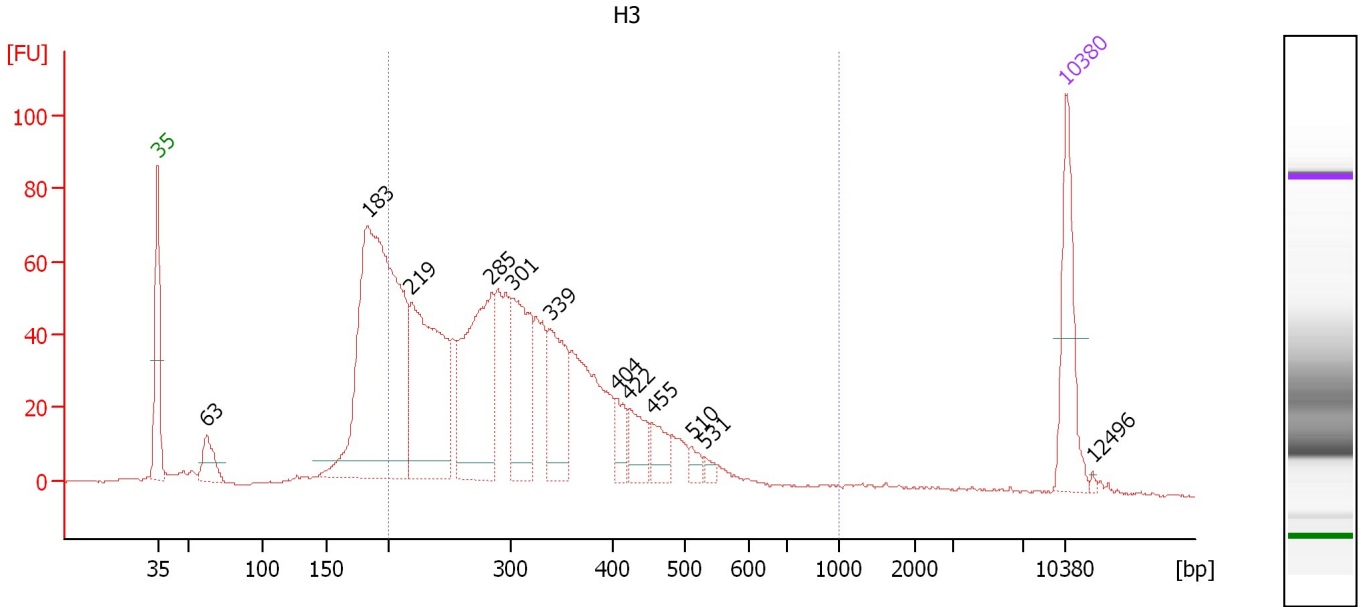
**Region table for sample 2 : H2**

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	326	850.00	1,009.7	4,377.0	76	30.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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 Modified: 5/31/2019 1:55:47 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : H3**

Number of peaks found: 12                      Corr. Area 1: 1,330.8  
 Noise: 0.2

**Peak table for sample 3 : H3**

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	63	44.33	1,071.5		46.82
3	183	620.48	5,126.8		59.22
4	219	286.38	1,984.4		62.56
5	285	233.26	1,241.4		68.75
6	301	147.64	742.1		70.30
7	339	104.67	468.2		73.26
8	404	28.66	107.5		78.34
9	422	40.45	145.2		79.36
10	455	28.27	94.1		81.20
11	519	11.51	34.2		84.20
12	531	7.04	20.1		85.21
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,496	0.00	0.0		115.08

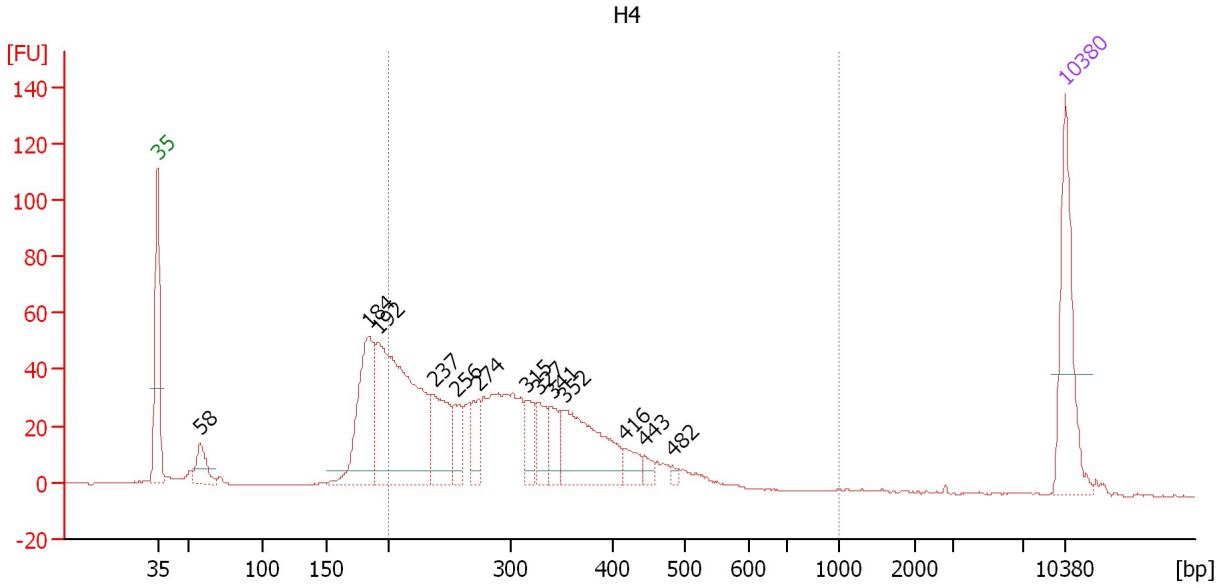
**Region table for sample 3 : H3**

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	320	1,561.32	1,330.8	8,136.1	77	30.2

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : H4**

Number of peaks found: 13                      Corr. Area 1: 905.1  
 Noise: 0.2

**Peak table for sample 4 : H4**

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	58	34.03	887.8		46.30
3	184	138.11	1,137.0		59.28
4	192	308.47	2,437.2		60.02
5	237	73.81	471.4		64.30
6	256	30.90	183.2		66.02
7	274	31.13	172.2		67.74
8	315	29.82	143.4		71.38
9	327	33.11	153.2		72.37
10	341	28.93	128.7		73.40
11	352	113.12	486.5		74.34
12	416	17.42	63.4		79.01
13	443	8.87	30.3		80.53
14	482	4.28	13.5		82.70
15	10,380	75.00	10.9	Upper Marker	113.00

**Region table for sample 4 : H4**

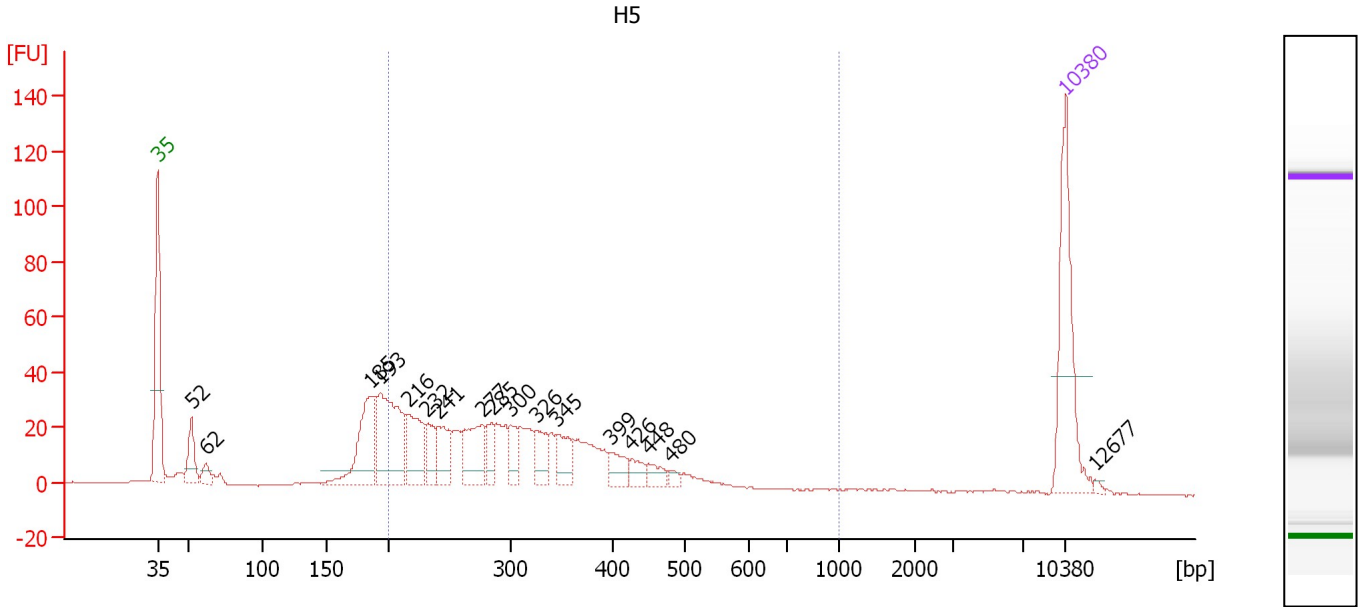
From [bp]	To [bp]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
200	1,000	311	819.28	905.1	4,355.8	75	27.8



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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 Modified: 5/31/2019 1:55:47 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : H5**

Number of peaks found: 17                      Corr. Area 1: 634.1  
 Noise: 0.2

**Peak table for sample 5 : H5**

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	52	34.49	1,002.7		45.61
3	62	11.76	288.5		46.72
4	185	77.09	631.5		59.37
5	193	108.67	851.5		60.17
6	216	52.75	369.6		62.33
7	232	24.30	158.8		63.79
8	241	31.71	199.0		64.69
9	277	48.34	264.7		68.01
10	285	20.41	108.6		68.76
11	300	18.95	95.6		70.22
12	326	24.10	112.1		72.23
13	345	26.09	114.5		73.78
14	399	16.67	63.4		78.00
15	426	11.00	39.1		79.56
16	448	11.08	37.5		80.81
17	480	4.55	14.4		82.57
18	10,380	75.00	10.9	Upper Marker	113.00
19	12,677	0.00	0.0		115.26

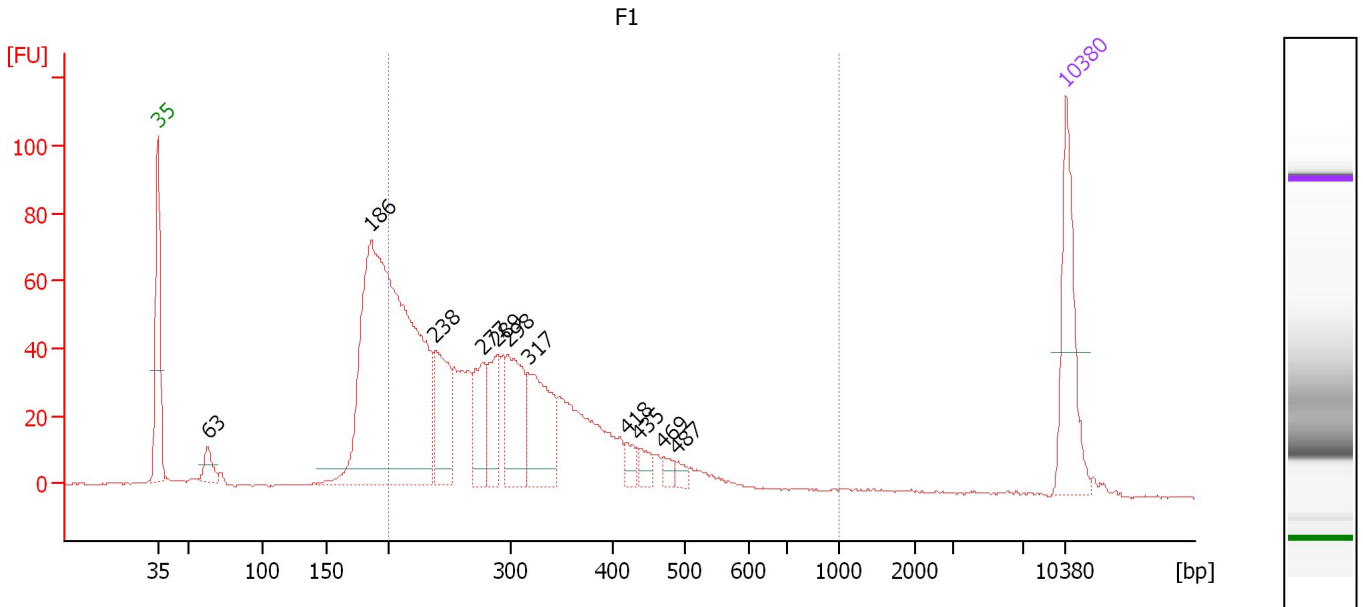
**Region table for sample 5 : H5**

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	319	545.59	634.1	2,862.7	73	30.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : F1**

Number of peaks found: 11                      Corr. Area 1: 1,036.7  
 Noise: 0.3

**Peak table for sample 6 : F1**

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	63	23.77	571.8		46.86
3	186	680.48	5,546.3		59.46
4	238	88.07	560.1		64.40
5	277	63.25	345.7		68.05
6	289	53.66	281.1		69.18
7	298	93.82	477.0		70.00
8	317	99.23	474.1		71.55
9	418	14.49	52.5		79.11
10	435	14.68	51.1		80.08
11	469	9.43	30.5		81.99
12	487	7.55	23.5		82.96
13	10,380	75.00	10.9	Upper Marker	113.00

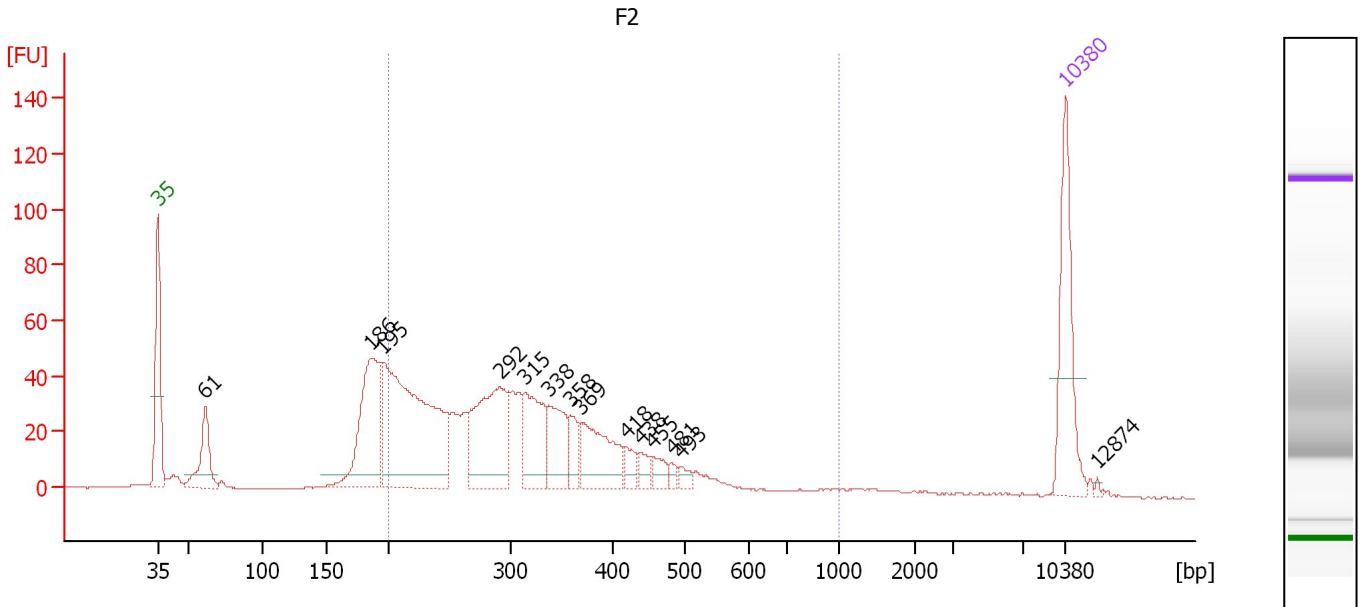
**Region table for sample 6 : F1**

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	307	1,080.34	1,036.7	5,853.6	75	30.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : F2**

Number of peaks found: 14                      Corr. Area 1: 923.0  
 Noise: 0.2

**Peak table for sample 7 : F2**

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	61	66.17	1,638.1		46.65
3	186	150.53	1,228.0		59.44
4	195	325.61	2,529.8		60.33
5	292	149.09	774.3		69.41
6	315	84.02	404.7		71.34
7	338	56.98	255.7		73.17
8	358	24.23	102.5		74.79
9	369	75.92	311.5		75.68
10	418	15.58	56.5		79.12
11	438	13.45	46.6		80.22
12	455	13.64	45.4		81.21
13	481	6.39	20.1		82.67
14	493	8.28	25.4		83.35
15	10,380	75.00	10.9	Upper Marker	113.00
16	12,874	0.00	0.0		115.45

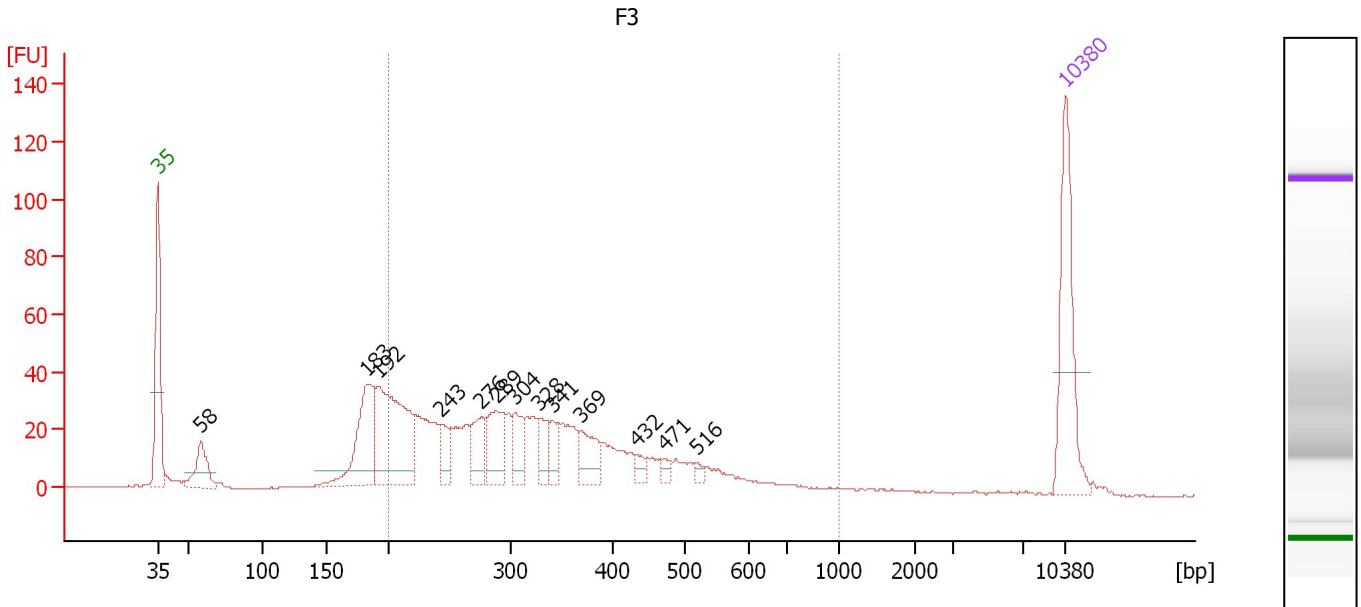
**Region table for sample 7 : F2**

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	323	889.97	923.0	4,624.7	76	31.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : F3**

Number of peaks found: 13                      Corr. Area 1: 768.7  
 Noise: 0.2

**Peak table for sample 8 : F3**

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	58	42.69	1,107.7		46.33
3	183	101.84	843.3		59.18
4	192	160.49	1,267.7		60.02
5	243	23.50	146.6		64.84
6	276	37.08	203.4		67.95
7	289	50.55	265.4		69.12
8	304	28.77	143.1		70.55
9	328	20.77	96.0		72.40
10	341	19.38	86.1		73.45
11	369	31.75	130.3		75.67
12	432	8.92	31.3		79.90
13	471	7.00	22.5		82.07
14	516	4.51	13.2		84.50
15	10,380	75.00	10.9	Upper Marker	113.00

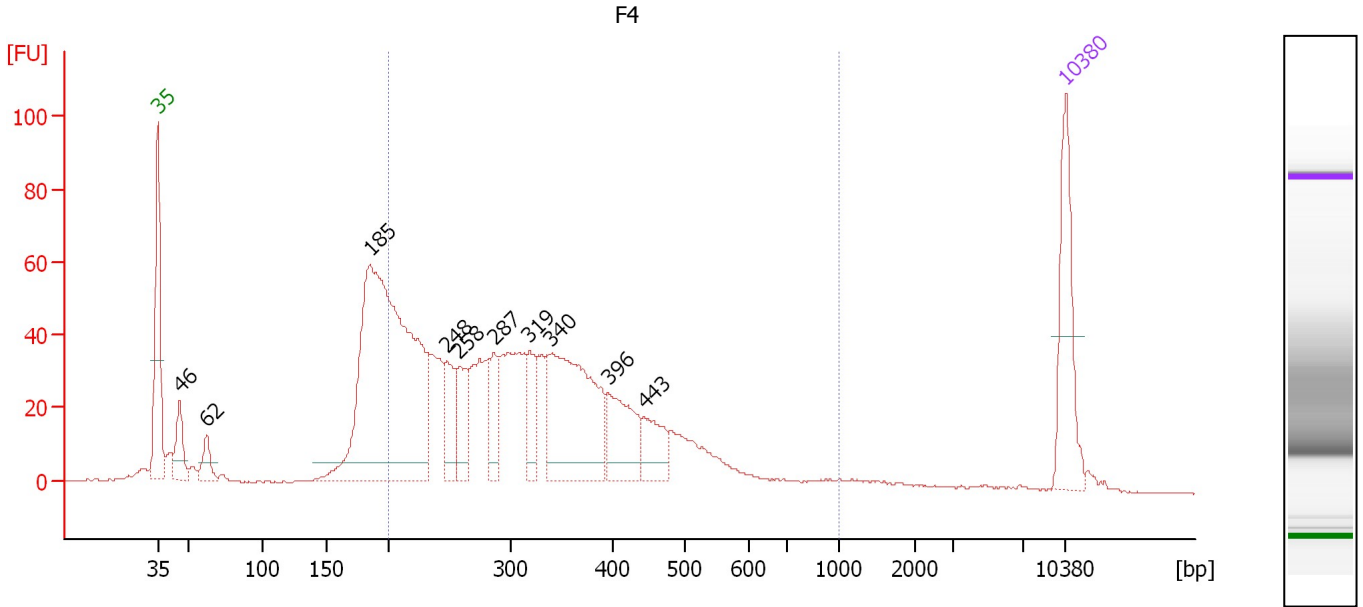
**Region table for sample 8 : F3**

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	343	700.50	768.7	3,532.9	75	35.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

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 Modified: 5/31/2019 1:55:47 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : F4**

Number of peaks found: 10                      Corr. Area 1: 1,099.9  
 Noise: 0.2

**Peak table for sample 9 : F4**

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	46	47.49	1,568.8		44.72
3	62	27.21	664.3		46.75
4	185	623.66	5,115.1		59.35
5	248	55.68	340.4		65.30
6	258	52.45	307.9		66.26
7	287	41.41	218.9		68.94
8	319	42.15	200.4		71.68
9	340	215.41	960.7		73.34
10	396	76.43	292.5		77.79
11	443	43.18	147.7		80.52
12	10,380	75.00	10.9	Upper Marker	113.00

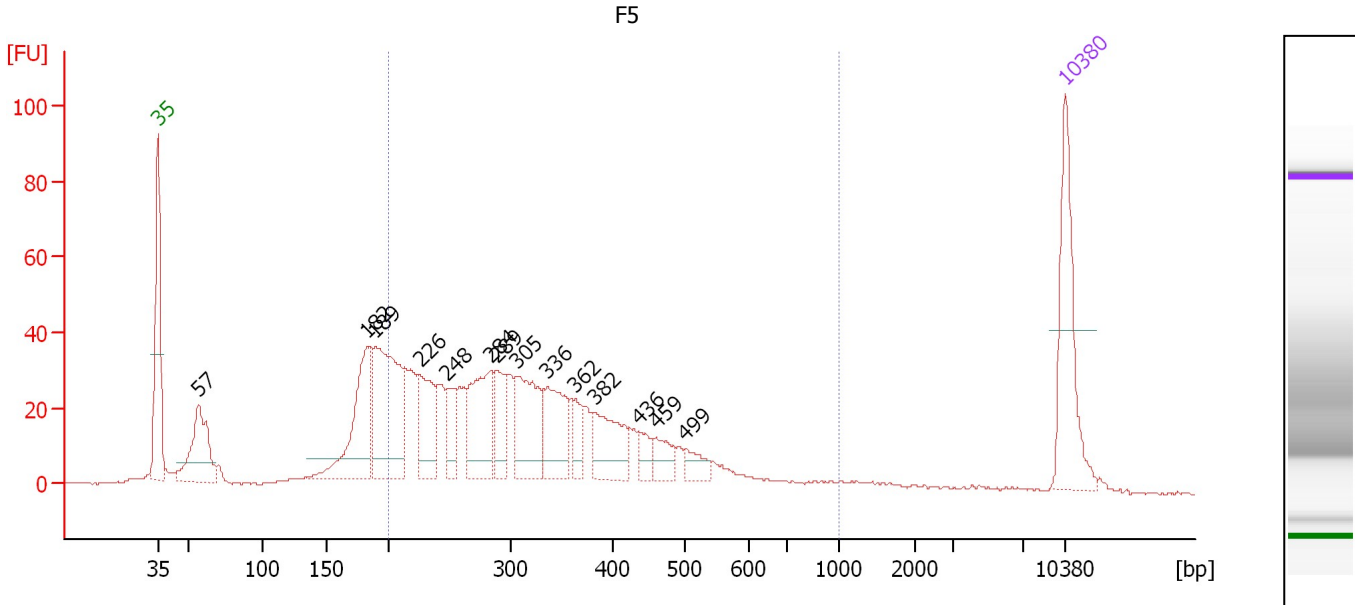
**Region table for sample 9 : F4**

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	335	1,267.71	1,099.9	6,474.3	74	33.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : F5**

Number of peaks found: 14      Corr. Area 1: 844.0  
 Noise: 0.2

**Peak table for sample 10 : F5**

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	57	92.37	2,453.3		46.18
3	182	118.21	983.3		59.10
4	189	173.13	1,384.5		59.80
5	226	69.84	468.2		63.25
6	248	30.19	184.1		65.35
7	284	84.73	452.1		68.68
8	289	42.23	221.7		69.12
9	305	84.27	418.0		70.62
10	336	67.04	302.3		73.05
11	362	21.20	88.8		75.09
12	382	59.36	235.7		76.65
13	436	15.06	52.3		80.15
14	459	21.20	69.9		81.45
15	499	15.80	48.0		83.65
16	10,380	75.00	10.9	Upper Marker	113.00

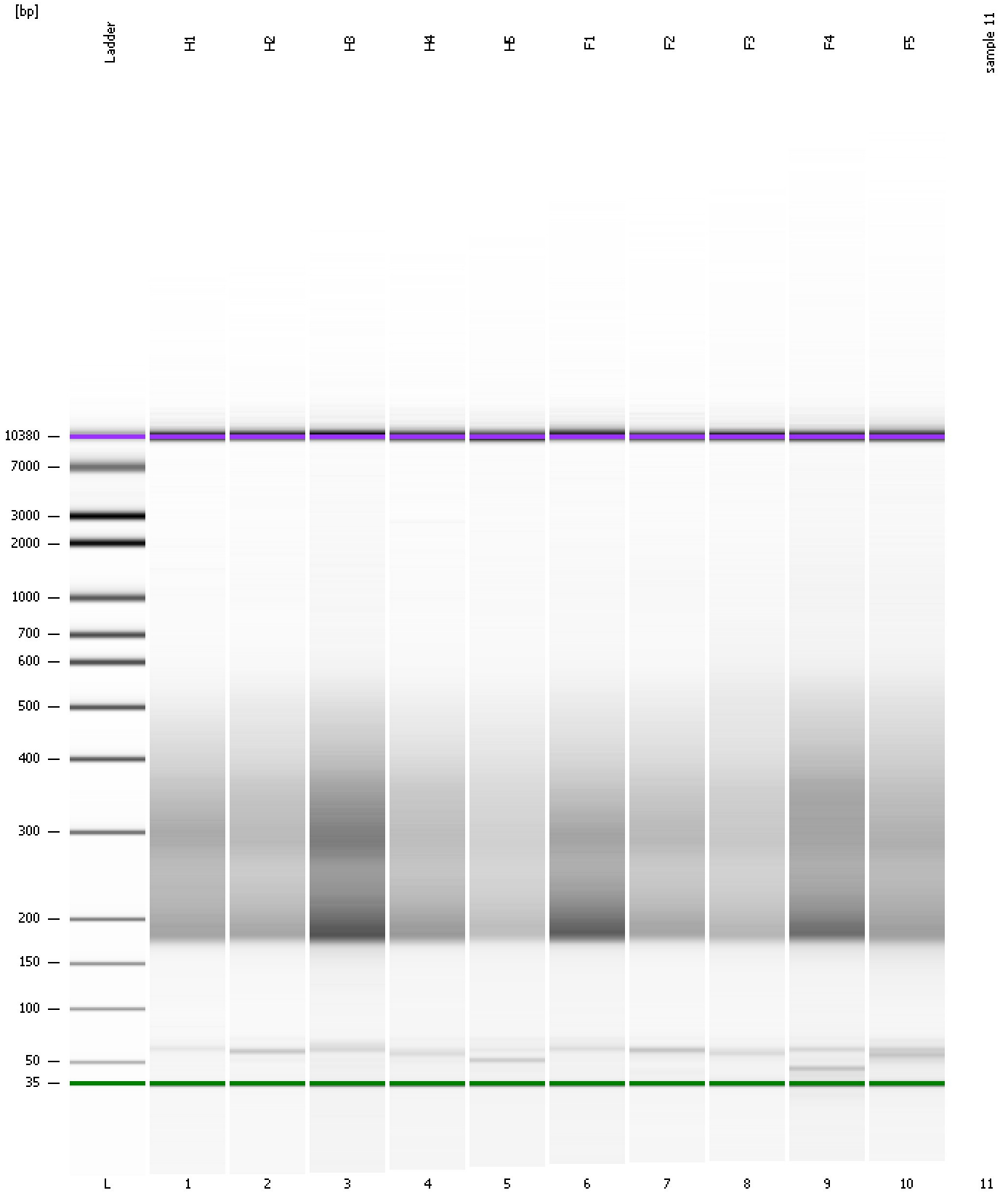
**Region table for sample 10 : F5**

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	338	924.46	844.0	4,699.3	72	35.2

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
Modified: 5/31/2019 1:55:47 PM

**Gel Image**

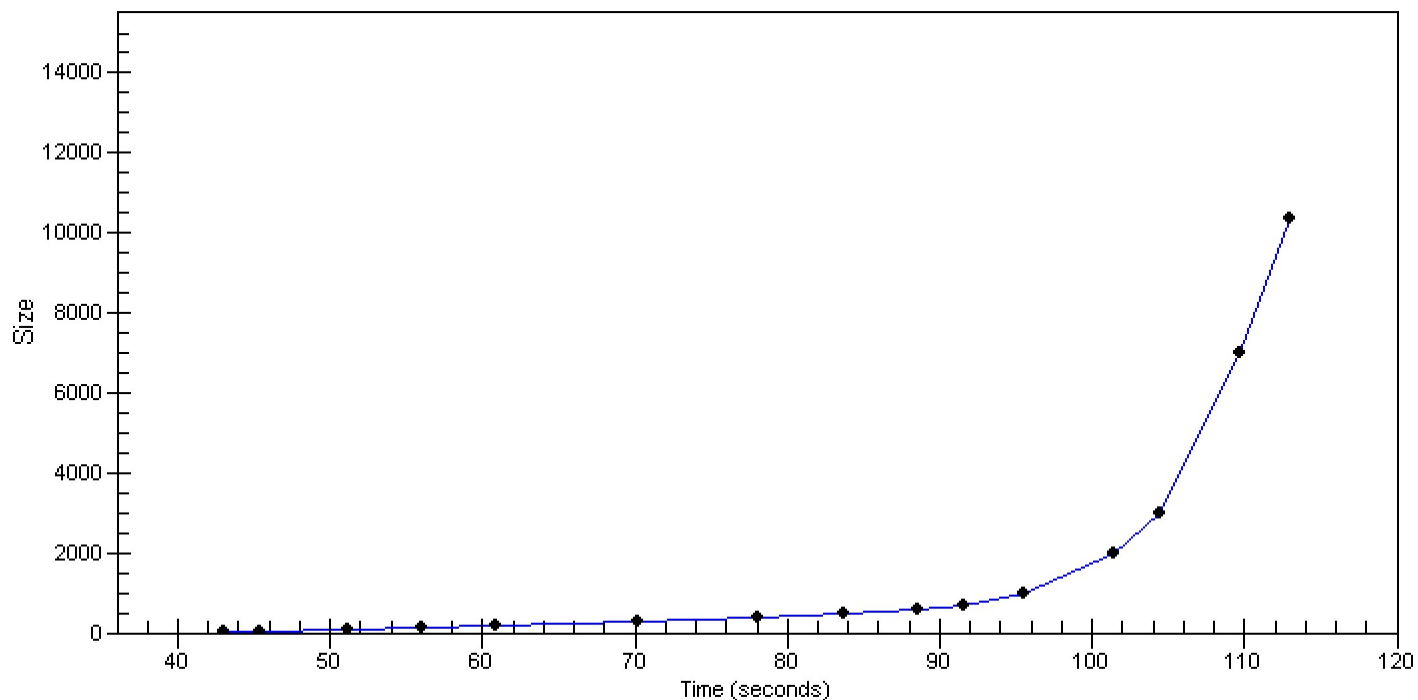


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
Modified: 5/31/2019 1:55:47 PM

**Curves**

**Standard Curve**





Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
Modified: 5/31/2019 1:55:47 PM

**Invalid Samples**

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-05-31\2019-05-31\_002.xad

Created: 5/31/2019 1:17:23 PM  
 Modified: 5/31/2019 1:55:47 PM

**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		5/31/2019 1:55:47 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2019-05-31\2019-05-31_002.xad)		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/31/2019 1:17:28 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1