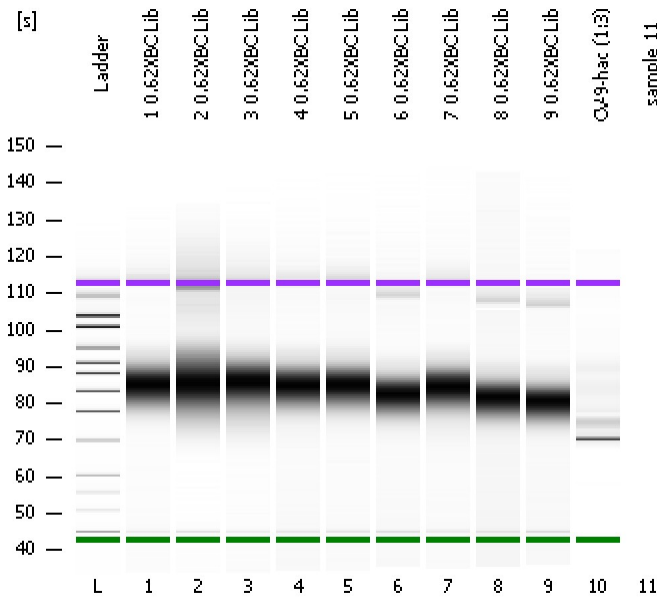


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
Modified: 8/22/2019 5:06:57 PM

### Electrophoresis File Run Summary



#### Instrument Information:

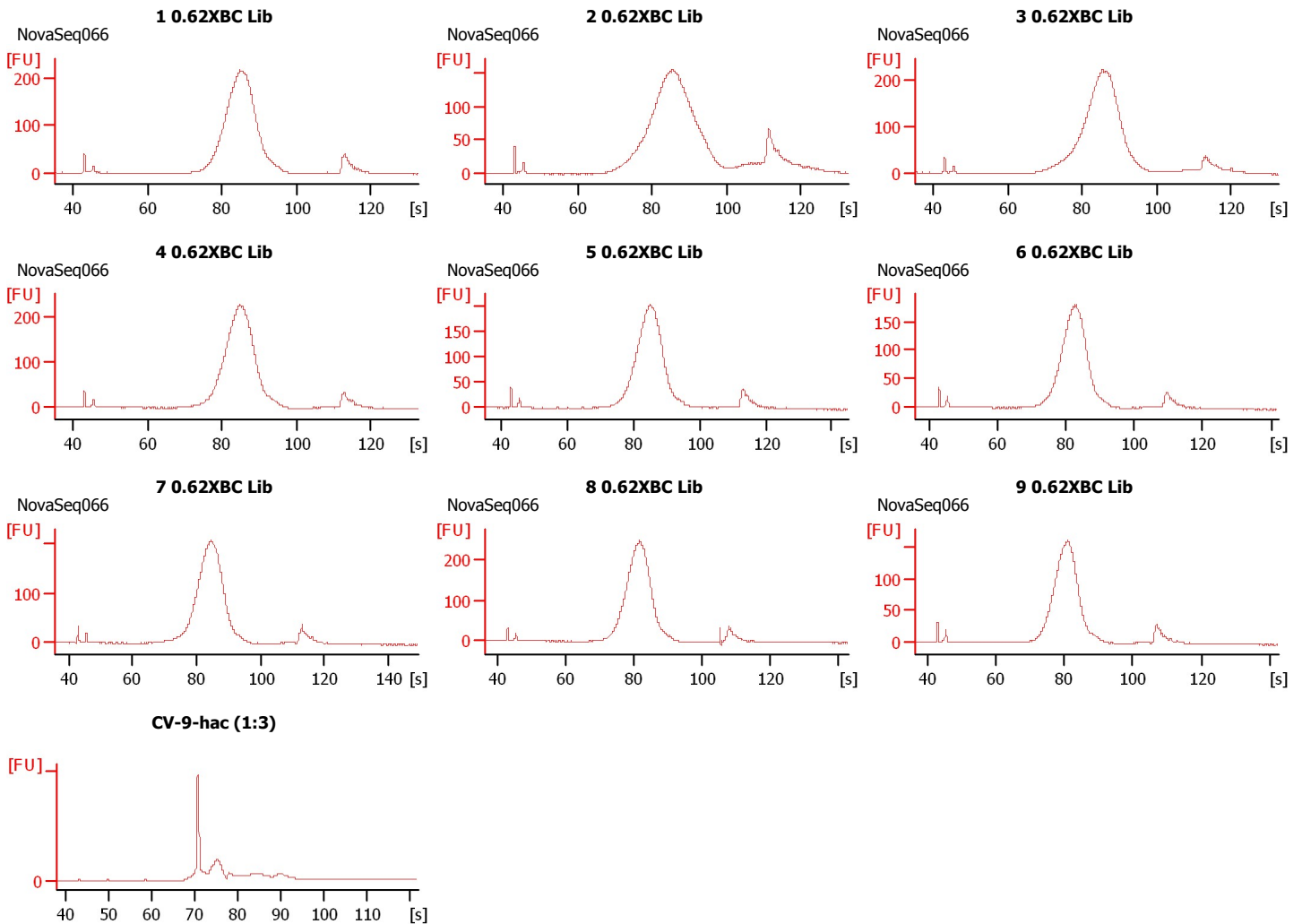
Instrument Name: DE34903152      Firmware: C.01.069  
Serial#: DE34903152      Type: G2938C

#### 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\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
1 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
2 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
3 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
4 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
5 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
6 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
7 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
8 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
9 0.62XBC Lib	NovaSeq066	<input type="checkbox"/>	✓			
CV-9-hac (1:3)		<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\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
Modified: 8/22/2019 5:06:57 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

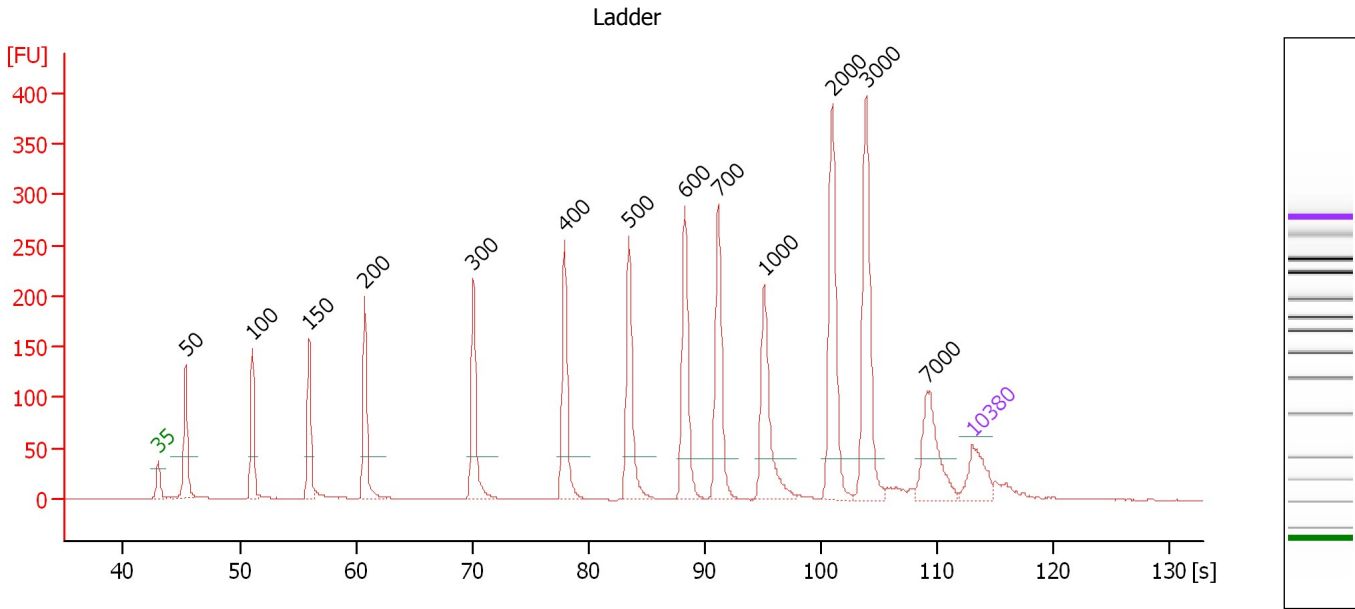
**Ladder**

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\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.3

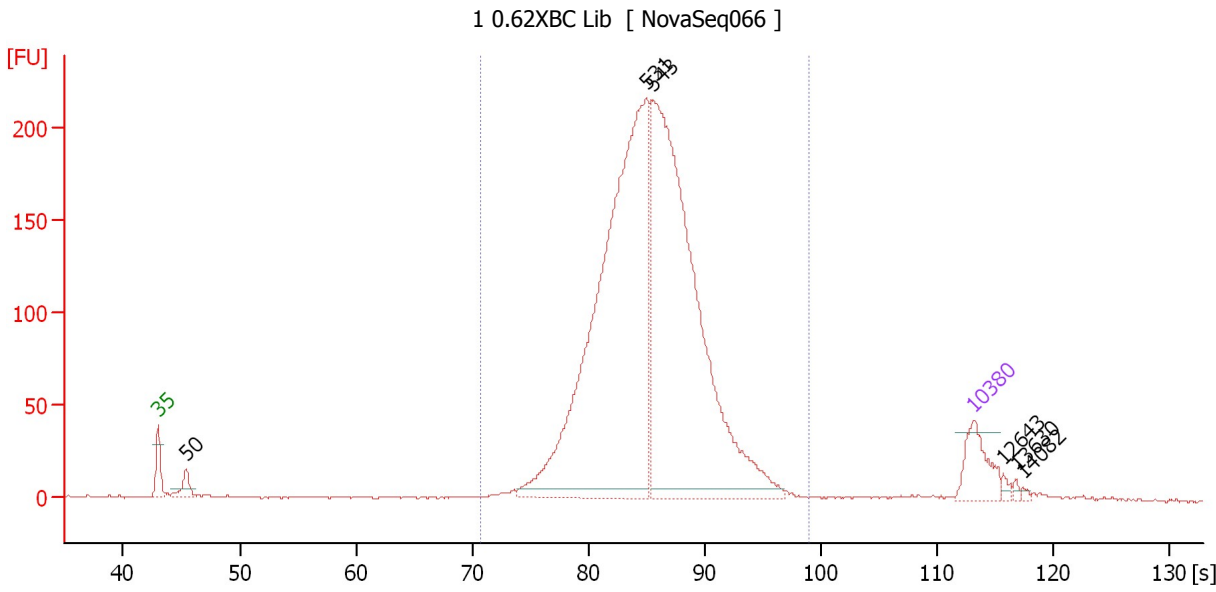
**Peak table for Ladder**

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	45.36
3	100	150.00	2,272.7	Ladder Peak	51.11
4	150	150.00	1,515.2	Ladder Peak	55.96
5	200	150.00	1,136.4	Ladder Peak	60.77
6	300	150.00	757.6	Ladder Peak	70.10
7	400	150.00	568.2	Ladder Peak	77.93
8	500	150.00	454.5	Ladder Peak	83.49
9	600	150.00	378.8	Ladder Peak	88.25
10	700	150.00	324.7	Ladder Peak	91.13
11	1,000	150.00	227.3	Ladder Peak	95.09
12	2,000	150.00	113.6	Ladder Peak	100.98
13	3,000	150.00	75.8	Ladder Peak	103.86
14	7,000	150.00	32.5	Ladder Peak	109.09
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1 0.62XBC Lib**

Number of peaks found: 6                      Corr. Area 1: 2,552.1  
 Noise: 0.4

**Peak table for sample 1 : 1 0.62XBC Lib**

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	47.71	1,439.6		45.38
3	531	1,477.67	4,218.9		84.95
4	543	1,358.05	3,791.6		85.52
5	10,380	75.00	10.9	Upper Marker	113.00
6	12,643	0.00	0.0		115.62
7	13,630	0.00	0.0		116.76
8	14,082	0.00	0.0		117.29

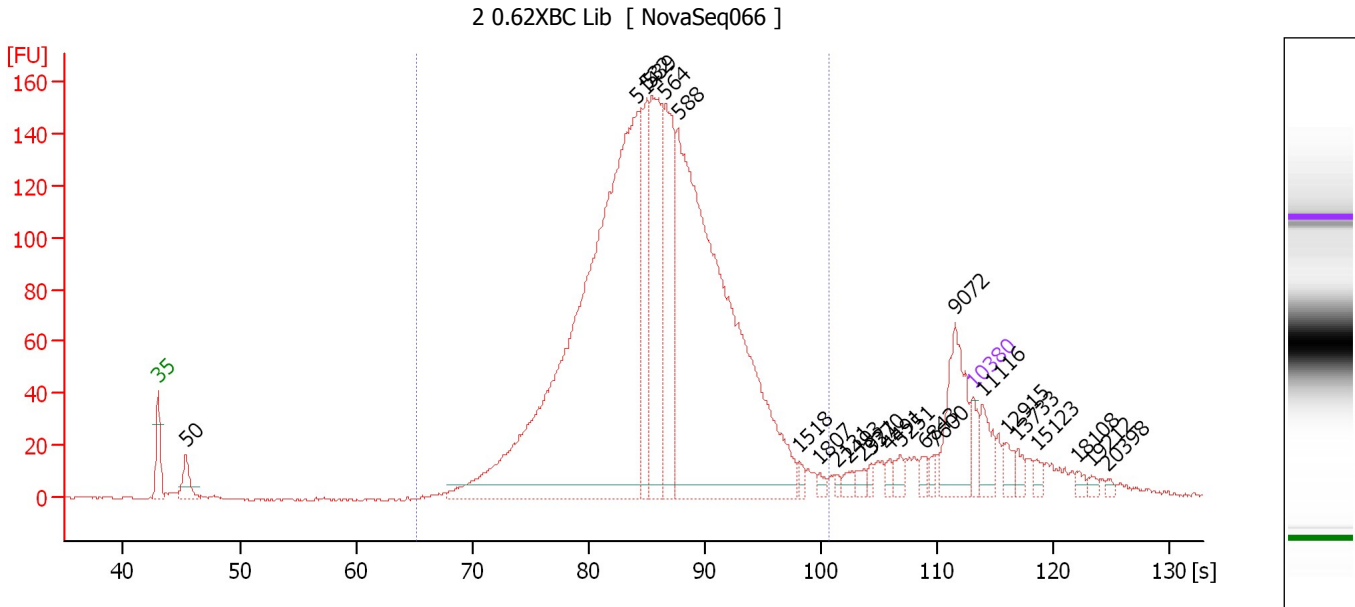
**Region table for sample 1 : 1 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
70.70	98.99	550	2,893.72	2,552.1	8,346.2	96	21.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2 0.62XBC Lib**

Number of peaks found: 24                      Corr. Area 1: 2,601.7  
 Noise: 0.5

**Peak table for sample 2 : 2 0.62XBC Lib**

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	183.00	5,536.1		45.37
3	514	4,673.69	13,766.6		84.18
4	532	544.39	1,549.6		85.03
5	539	910.14	2,557.3		85.36
6	564	773.45	2,077.5		86.54
7	588	3,450.92	8,893.0		87.68
8	1,518	29.60	29.5		98.14
9	1,807	23.64	19.8		99.84
10	2,131	16.97	12.1		101.36
11	2,493	32.62	19.8		102.40
12	2,921	33.59	17.4		103.63
13	3,370	23.68	10.6		104.34
14	4,491	31.28	10.6		105.81
15	5,251	46.48	13.4		106.80
16	6,843	38.05	8.4		108.88
17	7,600	29.32	5.8		109.78
18	9,072	350.08	58.5		111.49
19	10,380	75.00	10.9	Upper Marker	113.00
20	11,116	0.00	0.0		113.85
21	12,915	0.00	0.0		115.93
22	13,733	0.00	0.0		116.88
23	15,123	0.00	0.0		118.49
24	18,108	0.00	0.0		121.95
25	19,212	0.00	0.0		123.22

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...****... Peak table for sample 2 : 2 0.62XBC Lib**

Peak	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	20,398	0.00	0.0		124.60

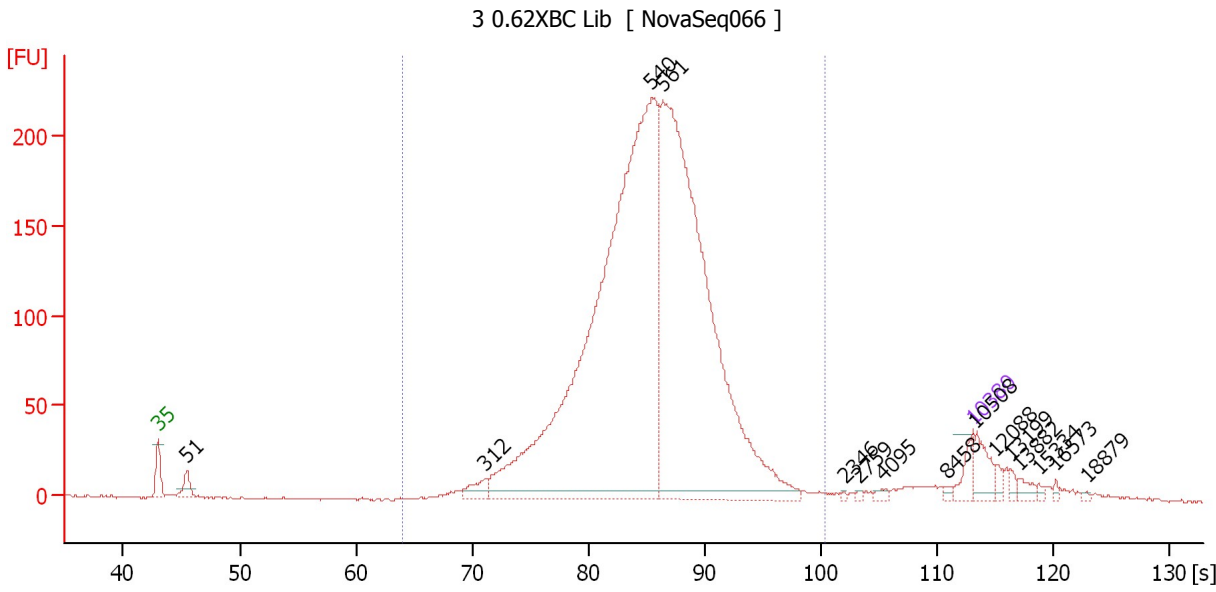
**Region table for sample 2 : 2 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/ $\mu$ l]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
65.20	100.75	591	10,637.91	2,601.7	30,719.1	 86	37.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3 0.62XBC Lib**

Number of peaks found: 15                      Corr. Area 1: 2,997.3  
 Noise: 0.6

**Peak table for sample 3 : 3 0.62XBC Lib**

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	51	112.12	3,331.2		45.47
3	312	95.97	466.3		71.03
4	540	5,160.52	14,468.7		85.42
5	561	3,869.95	10,448.8		86.40
6	2,346	6.84	4.4		101.98
7	2,759	8.73	4.8		103.16
8	4,095	18.05	6.7		105.29
9	8,458	13.75	2.5		110.78
10	10,380	75.00	10.9	Upper Marker	113.00
11	10,508	0.00	0.0		113.15
12	12,088	0.00	0.0		114.98
13	13,199	0.00	0.0		116.26
14	13,882	0.00	0.0		117.05
15	15,334	0.00	0.0		118.73
16	16,573	0.00	0.0		120.17
17	18,879	0.00	0.0		122.84

**Region table for sample 3 : 3 0.62XBC Lib**

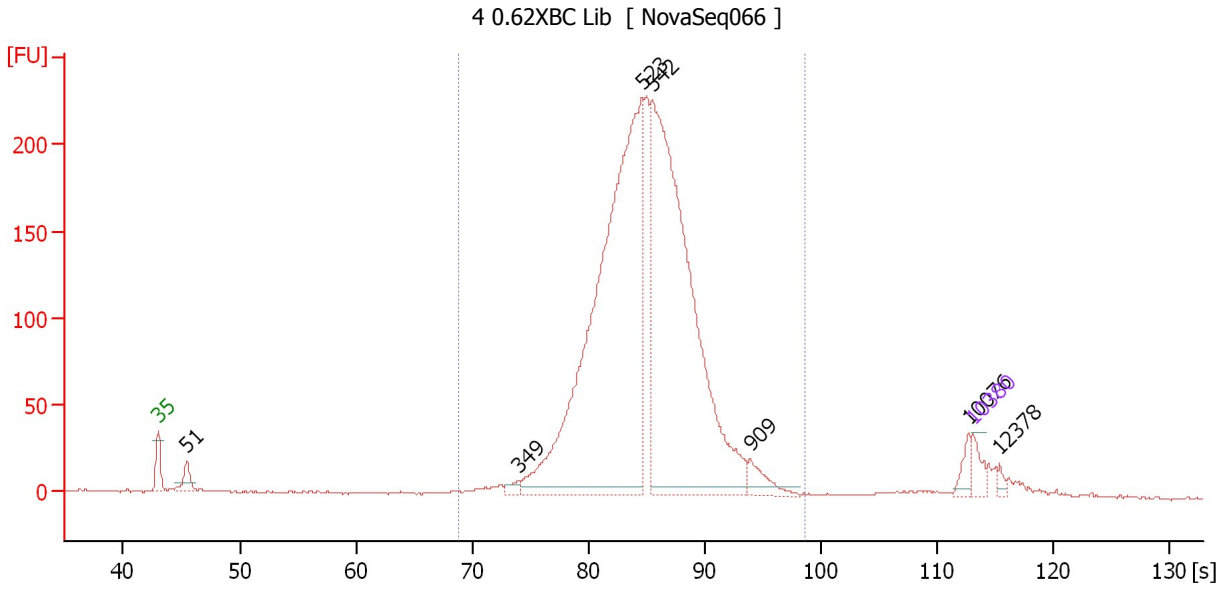
From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
64.03	100.34	558	9,328.95	2,997.3	27,286.0	93	27.6



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 4 0.62XBC Lib**

Number of peaks found: 7                      Corr. Area 1: 2,596.4  
 Noise: 0.6

**Peak table for sample 4 : 4 0.62XBC Lib**

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	51	148.64	4,421.8		45.46
3	349	49.33	213.8		73.98
4	523	4,280.70	12,400.8		84.59
5	542	3,683.37	10,296.1		85.49
6	909	129.03	215.0		93.89
7	10,076	72.48	10.9		112.65
8	10,380	75.00	10.9	Upper Marker	113.00
9	12,378	0.00	0.0		115.31

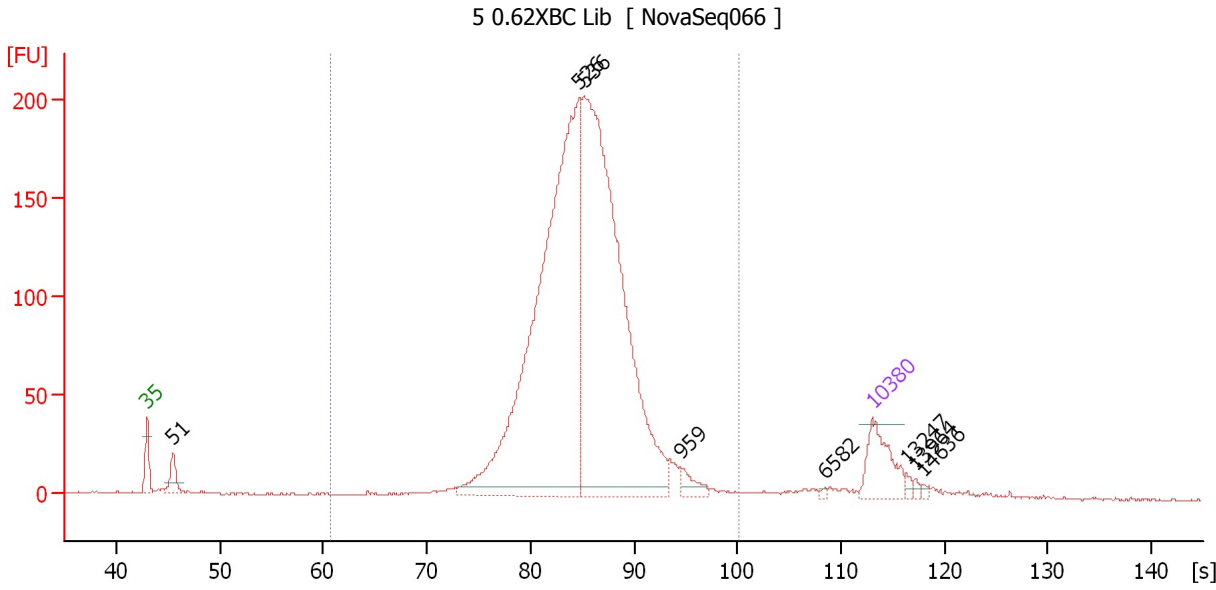
**Region table for sample 4 : 4 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Total	Size distribution in CV [%]
68.84	98.51	540	8,789.25	2,596.4	25,756.7	94	20.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : 5 0.62XBC Lib**

Number of peaks found: 8                      Corr. Area 1: 2,296.0  
 Noise: 0.5

**Peak table for sample 5 : 5 0.62XBC Lib**

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	51	53.02	1,570.7		45.49
3	526	1,263.90	3,639.0		84.74
4	536	1,183.80	3,346.1		85.21
5	959	26.55	42.0		94.54
6	6,582	2.57	0.6		108.54
7	10,380	75.00	10.9	Upper Marker	113.00
8	13,247	0.00	0.0		116.32
9	13,964	0.00	0.0		117.15
10	14,636	0.00	0.0		117.93

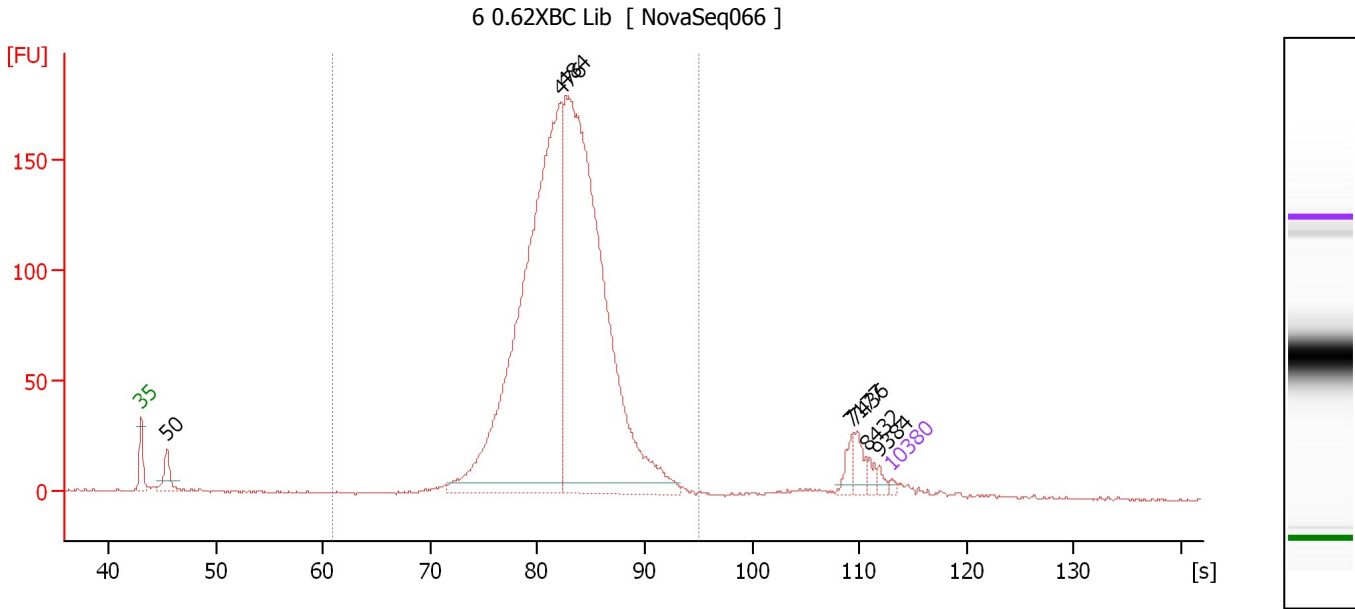
**Region table for sample 5 : 5 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
60.77	100.17	548	2,538.04	2,296.0	7,401.4	95	24.6

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : 6 0.62XBC Lib**

Number of peaks found: 7                      Corr. Area 1: 1,986.6  
 Noise: 0.5

**Peak table for sample 6 : 6 0.62XBC Lib**

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	902.07	27,108.1		45.41
3	476	19,270.29	61,391.9		82.13
4	484	20,561.21	64,406.5		82.58
5	7,177	333.47	70.4		109.29
6	7,436	412.20	84.0		109.59
7	8,432	195.08	35.1		110.75
8	9,384	129.69	20.9		111.85
9	10,380	75.00	10.9	Upper Marker	113.00

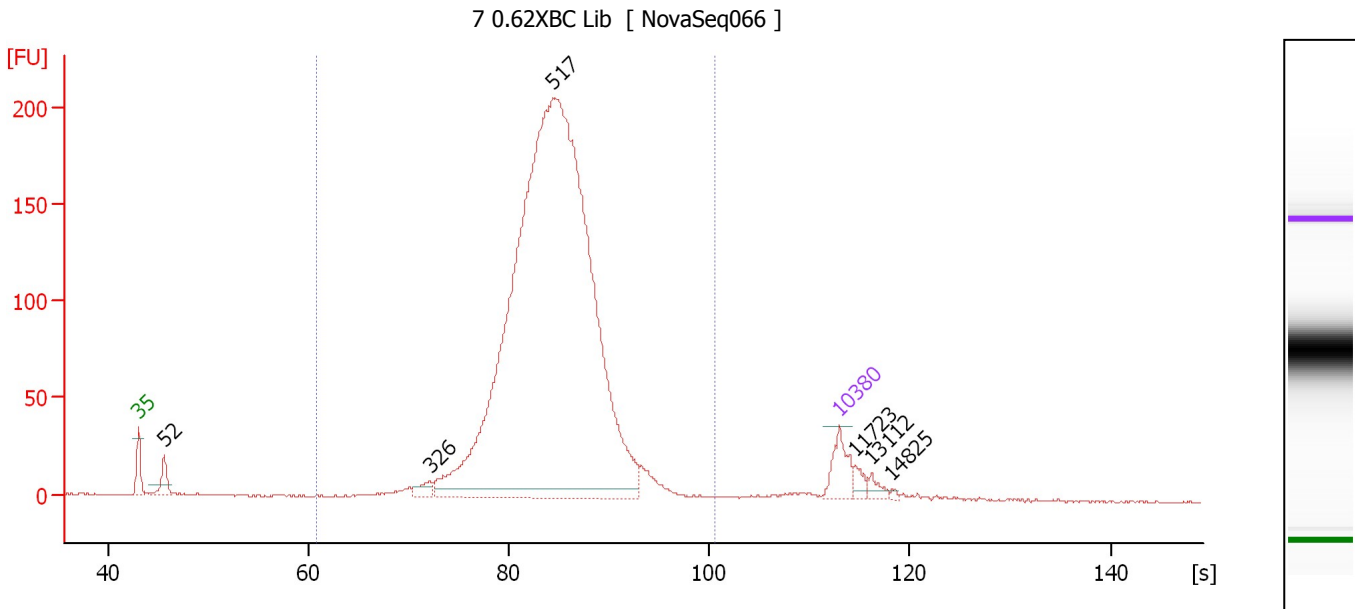
**Region table for sample 6 : 6 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
60.77	95.09	486	40,017.48	1,986.6	128,409.5	92	15.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : 7 0.62XBC Lib**

Number of peaks found: 6                      Corr. Area 1: 2,372.4  
 Noise: 0.4

**Peak table for sample 7 : 7 0.62XBC Lib**

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	82.43	2,407.5		45.57
3	326	38.58	179.6		72.10
4	517	4,143.54	12,131.6		84.32
5	10,380	75.00	10.9	Upper Marker	113.00
6	11,723	0.00	0.0		114.55
7	13,112	0.00	0.0		116.16
8	14,825	0.00	0.0		118.15

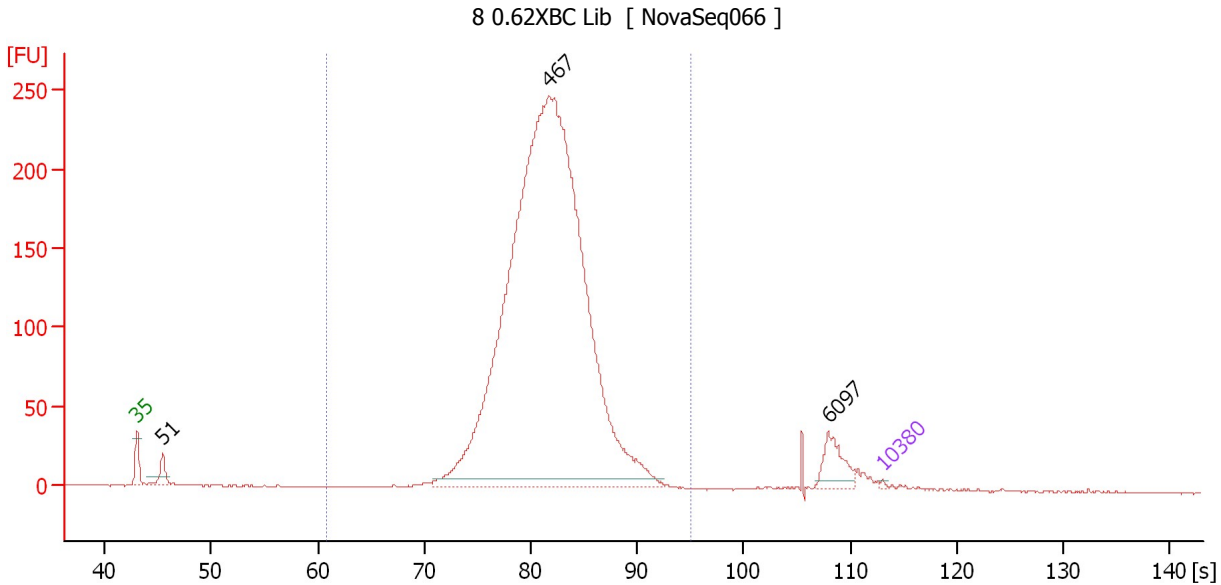
**Region table for sample 7 : 7 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
60.77	100.52	527	4,279.84	2,372.4	12,917.0	95	21.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : 8 0.62XBC Lib**

Number of peaks found: 3                      Corr. Area 1: 2,677.3  
 Noise: 0.4

**Peak table for sample 8 : 8 0.62XBC Lib**

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	51	1,475.46	44,219.8		45.42
3	467	88,456.44	286,709.2		81.68
4	6,097	1,819.79	452.2		107.91
5	10,380	75.00	10.9	Upper Marker	113.00

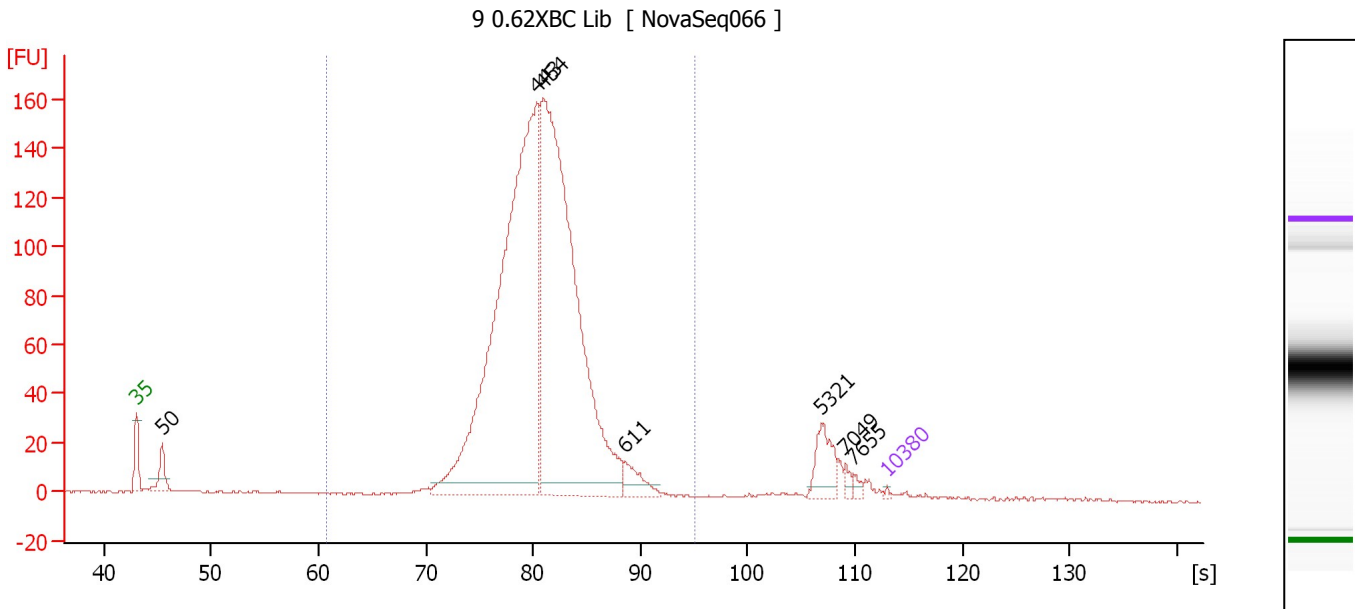
**Region table for sample 8 : 8 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of Ior Total	Size distribution in CV [%]
60.77	95.09	468	89,877.33	2,677.3	298,718.3	94	14.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : 9 0.62XBC Lib**

Number of peaks found: 7                      Corr. Area 1: 1,760.4  
 Noise: 0.5

**Peak table for sample 9 : 9 0.62XBC Lib**

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	2,137.77	64,260.7		45.40
3	443	46,519.07	159,219.6		80.30
4	454	41,791.83	139,355.8		80.95
5	611	1,596.07	3,958.8		88.57
6	5,321	2,145.42	610.9		106.89
7	7,049	352.86	75.8		109.14
8	7,655	291.27	57.7		109.85
9	10,380	75.00	10.9	Upper Marker	113.00

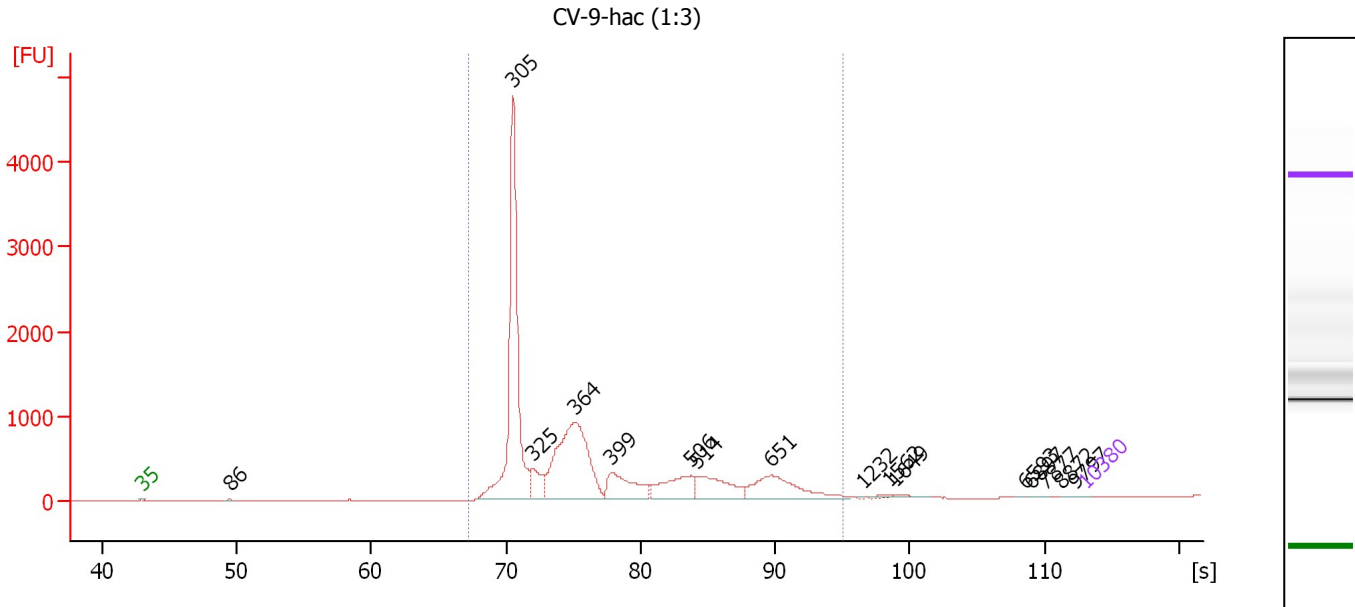
**Region table for sample 9 : 9 0.62XBC Lib**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
60.77	95.09	450	92,564.17	1,760.4	319,704.6	91	14.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : CV-9-hac (1:3)**

Number of peaks found: 16                      Corr. Area 1: 14,585.8  
 Noise: 0.8

**Peak table for sample 10 : CV-9-hac (1:3)**

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	86	783.89	13,851.6		49.47
3	305	284,993.66	1,415,504.8		70.50
4	325	27,727.10	129,329.8		72.05
5	364	181,701.91	756,577.3		75.10
6	399	46,383.34	176,189.8		77.84
7	506	41,939.84	125,497.8		83.79
8	514	45,732.60	134,849.2		84.15
9	651	53,159.32	123,807.6		89.71
10	1,232	474.52	583.8		96.45
11	1,562	1,864.57	1,809.1		98.40
12	1,649	2,005.24	1,842.3		98.91
13	6,593	100.89	23.2		108.56
14	6,897	137.96	30.3		108.95
15	7,877	355.77	68.4		110.10
16	8,872	341.99	58.4		111.25
17	9,797	154.69	23.9		112.33
18	10,380	75.00	10.9	Upper Marker	113.00

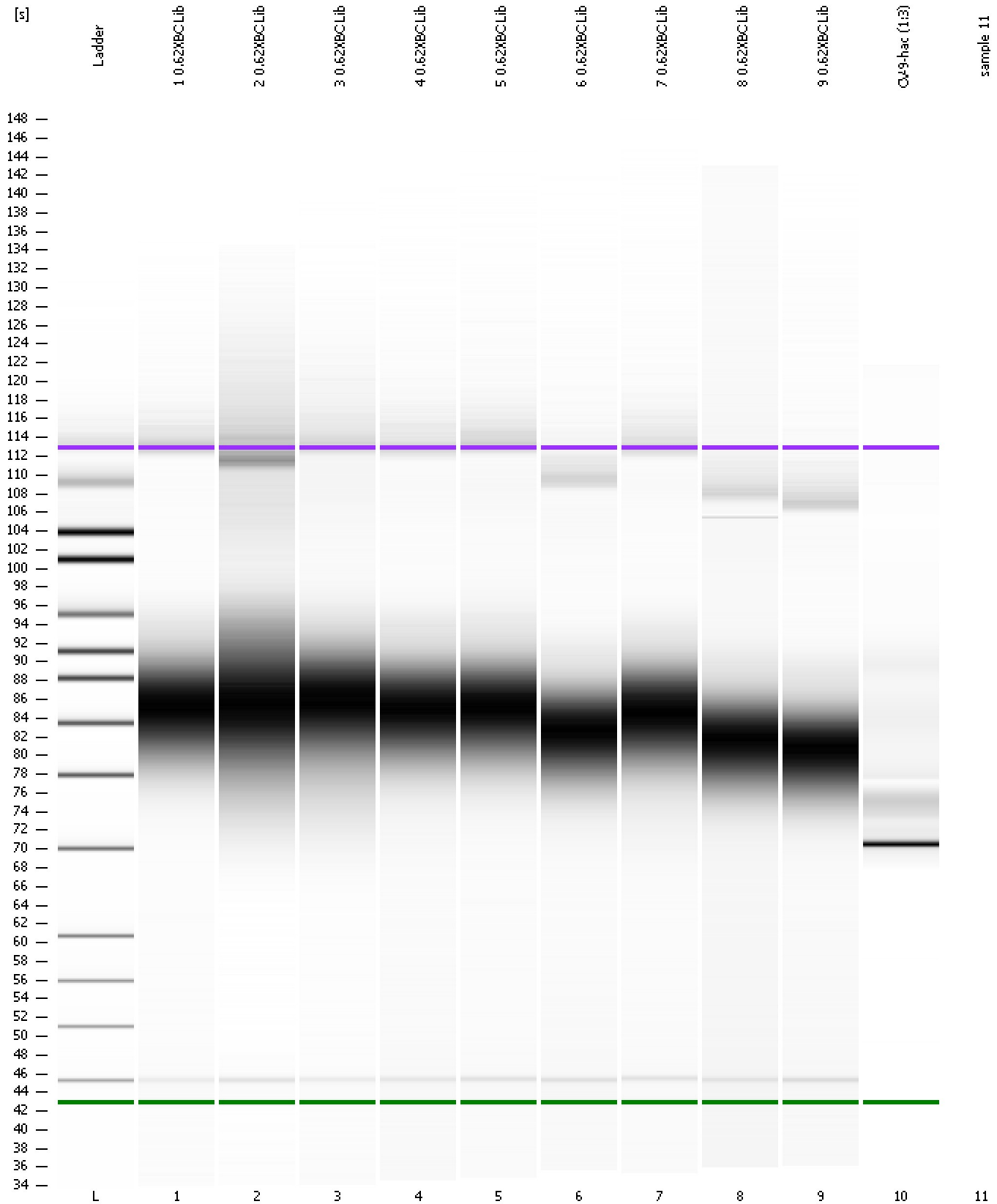
**Region table for sample 10 : CV-9-hac (1:3)**

From [s]	To [s]	Average Size [bp]	Conc. [pg/μl]	Corr. Area	Molarity [pmol/l]	Co % of lor Total	Size distribution in CV [%]
67.21	95.09	401	673,235.69	14,585.8	2,796,306.8	99	30.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
Modified: 8/22/2019 5:06:57 PM

Gel Image





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Assay Class: High Sensitivity DNA Assay  
Data Path: C:\... bioanalyzer\2100 expert\data\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
Modified: 8/22/2019 5:06:57 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\2019-08-22\2019-08-22\_001.xad

Created: 8/22/2019 4:23:28 PM  
 Modified: 8/22/2019 5:06:57 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		8/22/2019 5:01:55 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\2019-08-22\2019-08-22_001.xad)		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938C		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE34903152		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		8/22/2019 4:23:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1