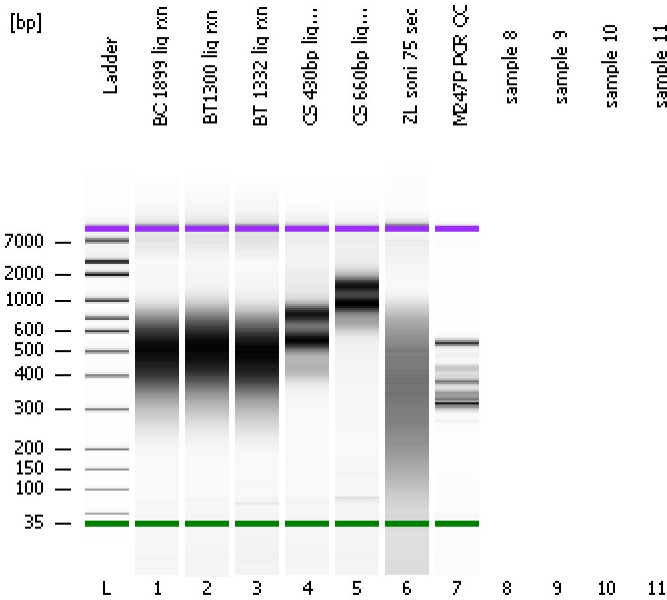


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
Modified: 12/14/2015 4:20:00 PM

**Electrophoresis File Run Summary**



Instrument Information:

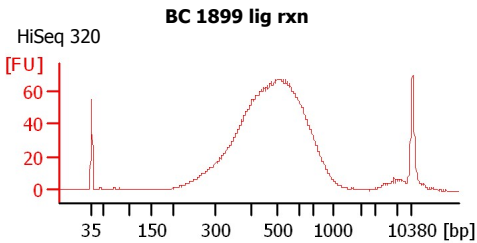
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

Assay Information:

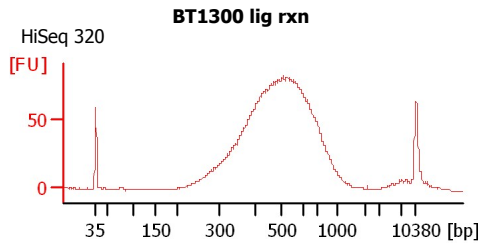
Assay Origin Path: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\assays\dsDNA\High Sensitivity DNA.xsy  
Assay Class: High Sensitivity DNA Assay  
Version: 1.03  
Assay Comments: Copyright © 2003-2010 Agilent Technologies

Chip Information:

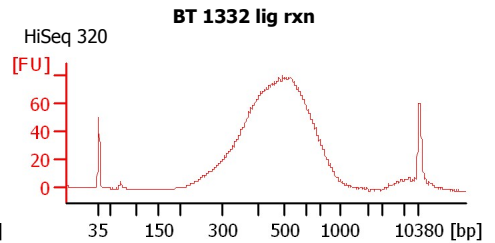
Chip Lot #:   
Reagent Kit Lot #:   
Chip Comments:



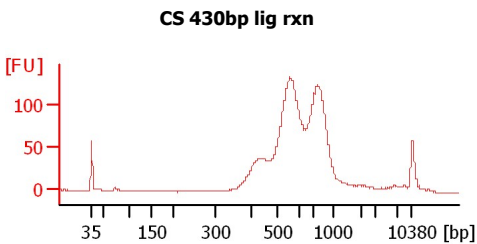
**BC 1899 lig rxn**



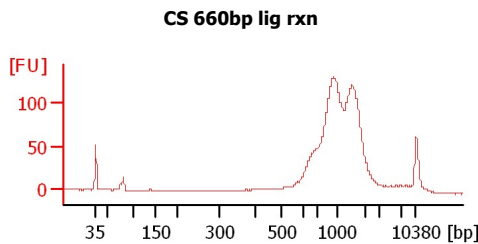
**BT1300 lig rxn**



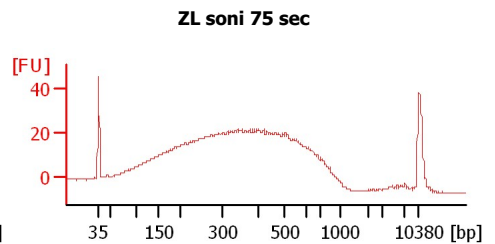
**BT 1332 lig rxn**



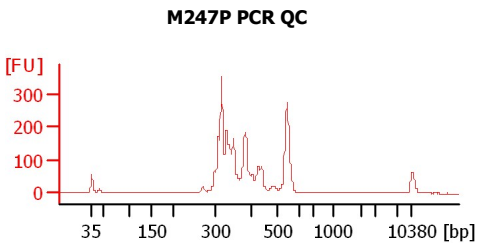
**CS 430bp lig rxn**



**CS 660bp lig rxn**



**ZL soni 75 sec**



**M247P PCR QC**

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
BC 1899 lig rxn	HiSeq 320	<input type="checkbox"/>	✓			
BT1300 lig rxn	HiSeq 320	<input type="checkbox"/>	✓			
BT 1332 lig rxn	HiSeq 320	<input type="checkbox"/>	✓			
CS 430bp lig rxn		<input type="checkbox"/>	✓			
CS 660bp lig rxn		<input type="checkbox"/>	✓			
ZL soni 75 sec		<input type="checkbox"/>	✓			
M247P PCR QC		<input type="checkbox"/>	✓			
sample 8		<input type="checkbox"/>				
sample 9		<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:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
Modified: 12/14/2015 4:20:00 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

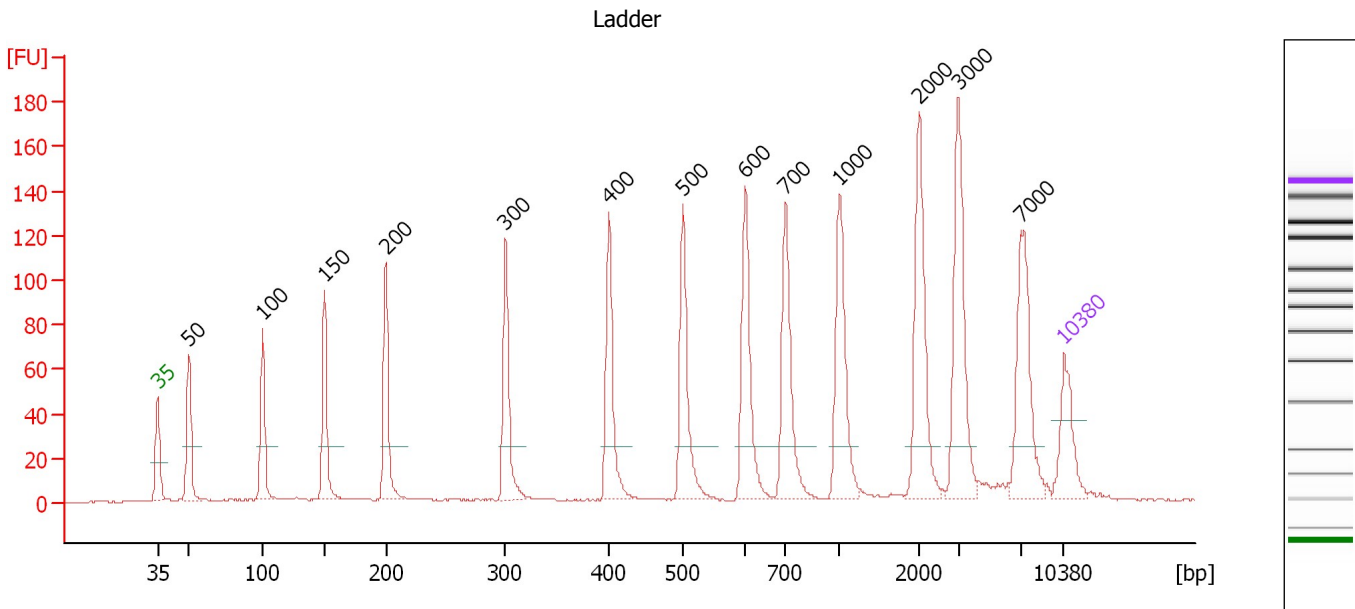
**Ladder**

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\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

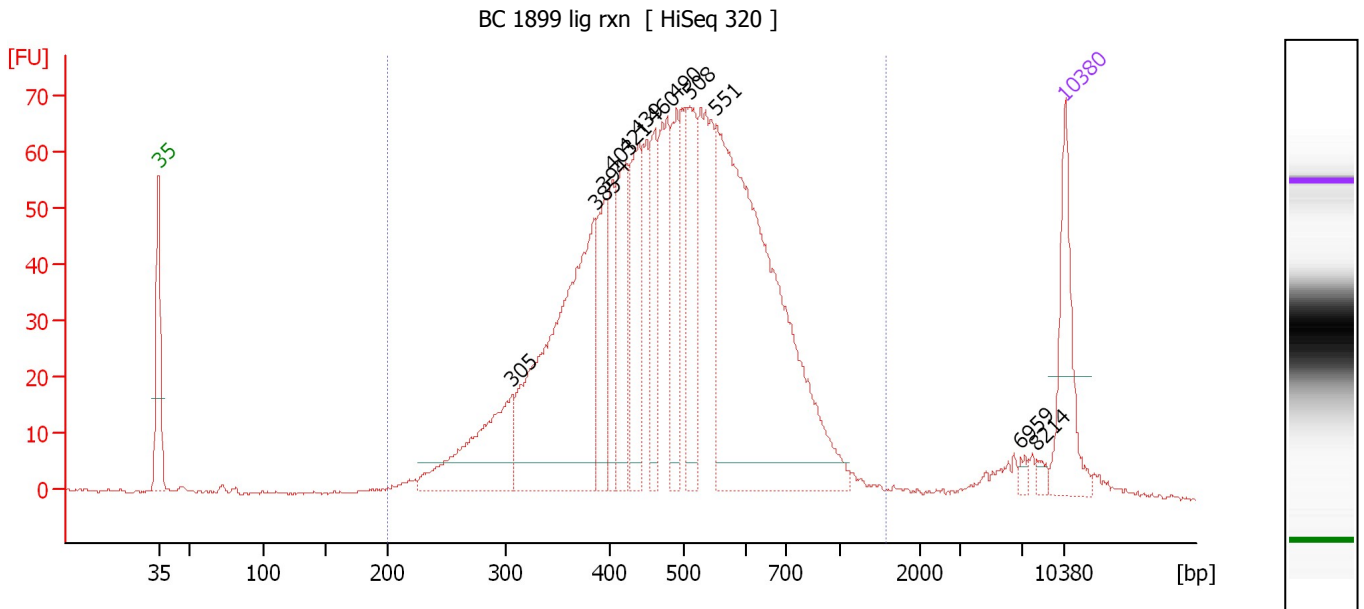
**Peak table for Ladder**

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	45.44
3	100	150.00	2,272.7	Ladder Peak	51.12
4	150	150.00	1,515.2	Ladder Peak	55.90
5	200	150.00	1,136.4	Ladder Peak	60.64
6	300	150.00	757.6	Ladder Peak	69.88
7	400	150.00	568.2	Ladder Peak	77.86
8	500	150.00	454.5	Ladder Peak	83.59
9	600	150.00	378.8	Ladder Peak	88.37
10	700	150.00	324.7	Ladder Peak	91.49
11	1,000	150.00	227.3	Ladder Peak	95.68
12	2,000	150.00	113.6	Ladder Peak	101.81
13	3,000	150.00	75.8	Ladder Peak	104.84
14	7,000	150.00	32.5	Ladder Peak	109.62
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : BC 1899 lig rxn**

Number of peaks found: 12                      Corr. Area 1: 1,531.1  
 Noise: 0.2

**Peak table for sample 1 : BC 1899 lig rxn**

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	305	164.75	818.5		70.28
3	385	405.80	1,595.8		76.69
4	394	84.48	324.6		77.41
5	403	69.39	260.8		78.05
6	421	118.64	426.7		79.08
7	439	123.61	427.0		80.08
8	460	77.79	256.3		81.30
9	490	85.24	263.6		83.01
10	508	108.61	324.1		83.96
11	551	612.13	1,682.8		86.04
12	6,959	5.34	1.2		109.57
13	8,214	5.76	1.1		110.83
14	10,380	75.00	10.9	Upper Marker	113.00

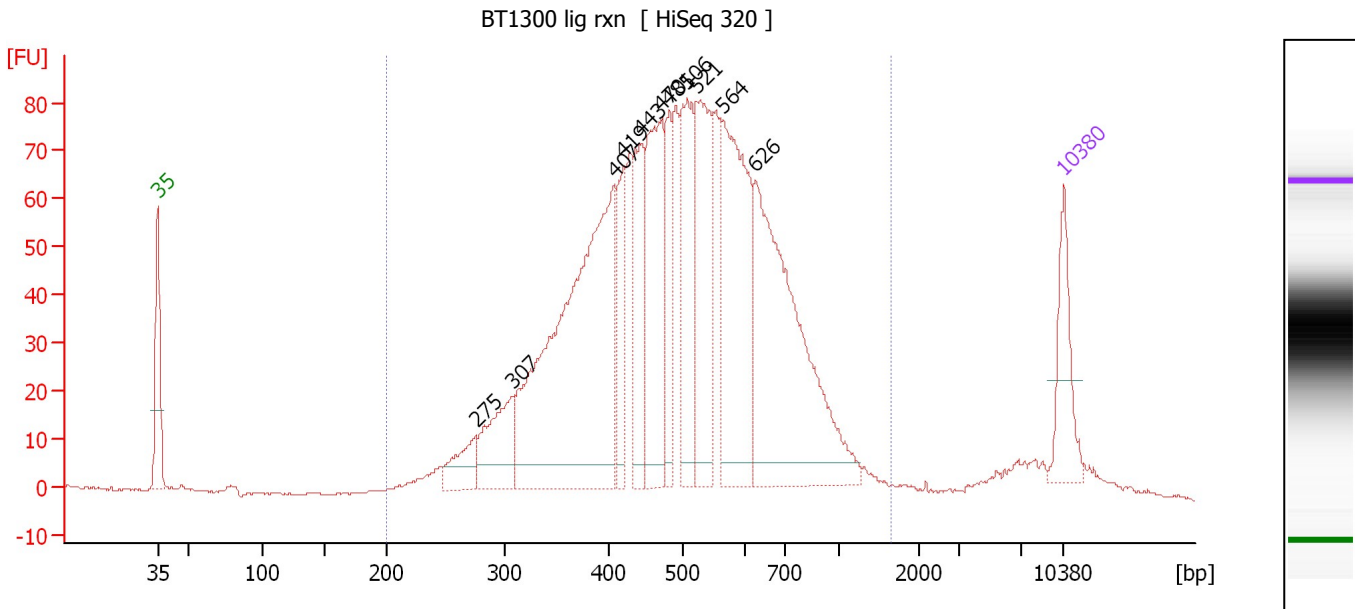
**Region table for sample 1 : BC 1899 lig rxn**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,561	499	1,531.1	8,067.5	2,361.60	96	30.5

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : BT1300 lig rxn**

Number of peaks found: 11                      Corr. Area 1: 1,836.8  
 Noise: 0.3

**Peak table for sample 2 : BT1300 lig rxn**

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	275	63.42	349.2		67.59
3	307	125.62	620.8		70.41
4	407	708.67	2,640.4		78.25
5	419	87.33	315.7		78.96
6	443	135.75	463.9		80.35
7	470	258.72	834.1		81.87
8	481	98.30	309.7		82.50
9	506	182.65	546.7		83.89
10	521	237.57	690.6		84.61
11	564	338.49	908.9		86.67
12	626	477.94	1,157.3		89.17
13	10,380	75.00	10.9	Upper Marker	113.00

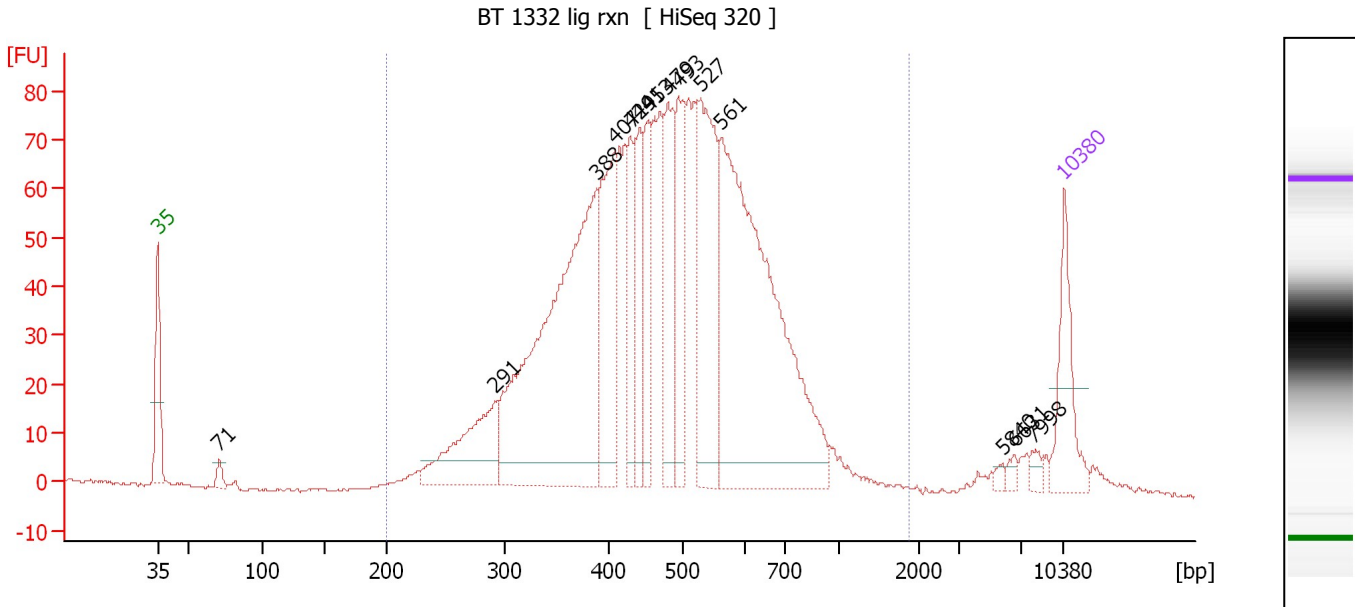
**Region table for sample 2 : BT1300 lig rxn**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,642	517	1,836.8	10,673.1	3,210.77	97	32.7

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : BT 1332 lig rxn**

Number of peaks found: 14                      Corr. Area 1: 1,797.3  
 Noise: 0.3

**Peak table for sample 3 : BT 1332 lig rxn**

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	71	15.55	334.1		47.77
3	291	166.49	865.5		69.09
4	388	649.79	2,536.3		76.92
5	407	201.92	751.6		78.27
6	429	90.96	321.2		79.53
7	441	99.12	340.7		80.20
8	453	100.79	337.4		80.88
9	479	139.73	441.7		82.41
10	493	133.11	408.7		83.22
11	527	245.31	705.3		84.88
12	561	654.34	1,767.7		86.50
13	5,840	5.72	1.5		108.23
14	6,631	7.24	1.7		109.18
15	7,998	9.19	1.7		110.62
16	10,380	75.00	10.9	Upper Marker	113.00

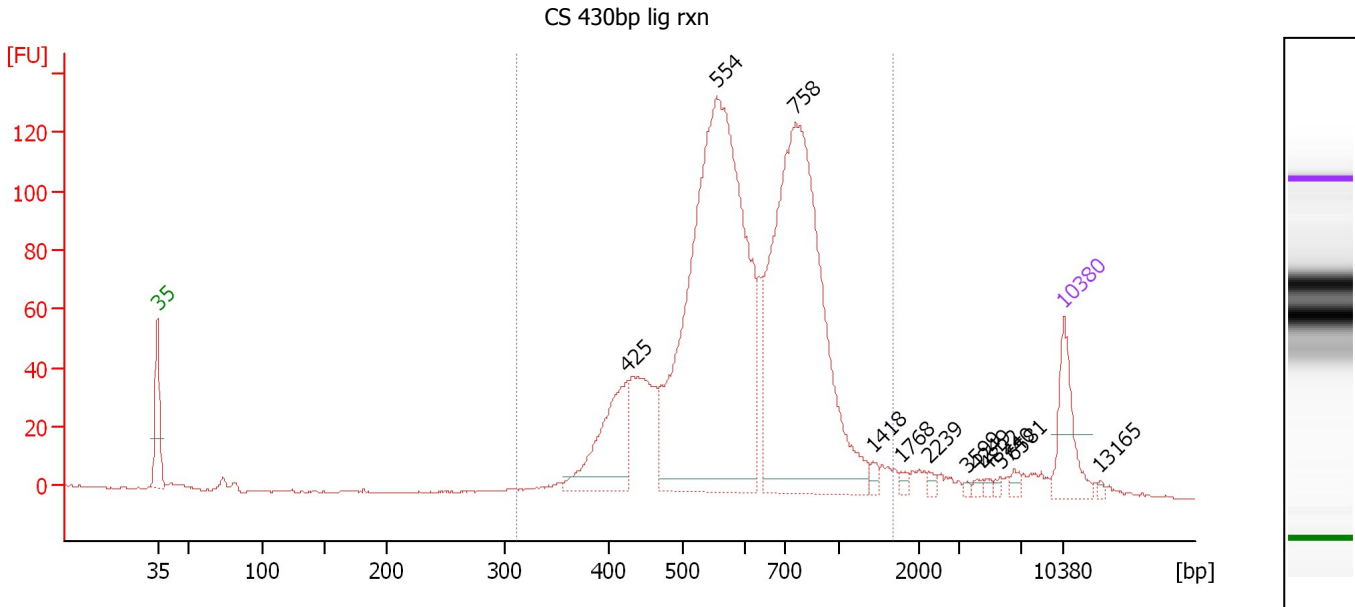
**Region table for sample 3 : BT 1332 lig rxn**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,879	494	1,797.3	10,584.9	3,061.60	96	32.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : CS 430bp lig rxn**

Number of peaks found: 12                      Corr. Area 1: 1,735.3  
 Noise: 0.2

**Peak table for sample 4 : CS 430bp lig rxn**

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	184.41	657.9		79.28
3	554	1,144.25	3,128.9		86.18
4	758	887.88	1,774.0		92.30
5	1,418	10.31	11.0		98.24
6	1,768	6.39	5.5		100.39
7	2,239	6.24	4.2		102.54
8	3,599	3.03	1.3		105.55
9	4,249	5.10	1.8		106.33
10	4,822	4.40	1.4		107.01
11	5,740	4.29	1.1		108.11
12	6,581	8.54	2.0		109.12
13	10,380	75.00	10.9	Upper Marker	113.00
14	13,165	0.00	0.0		115.79

**Region table for sample 4 : CS 430bp lig rxn**

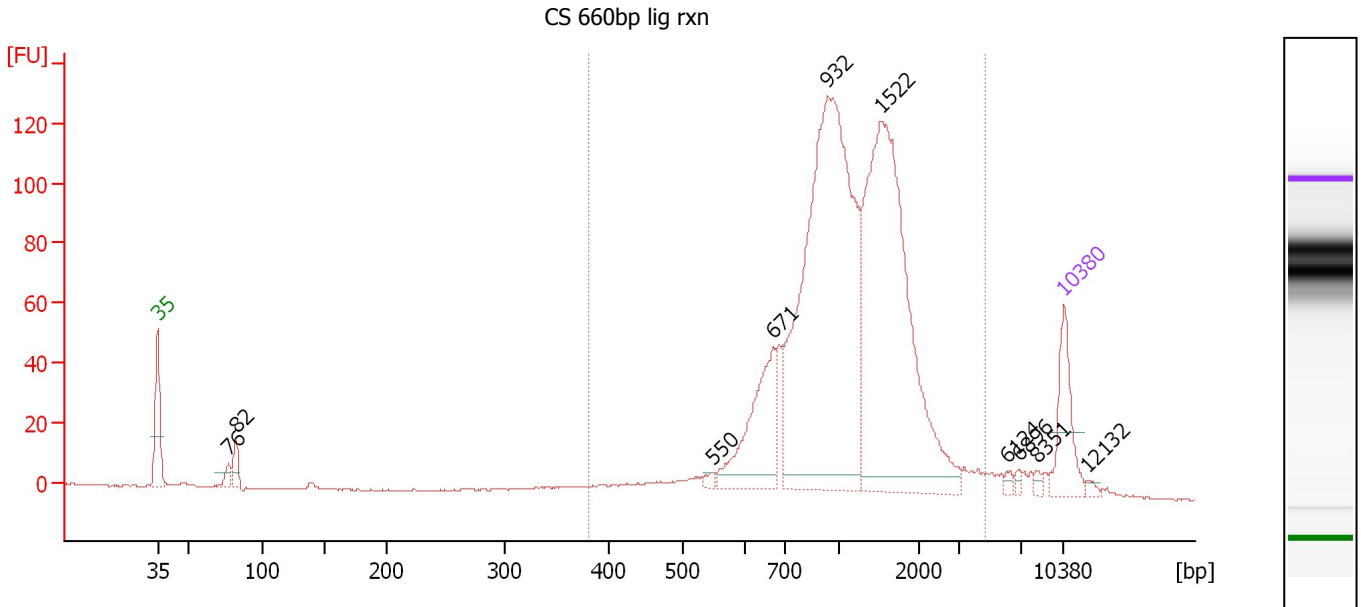
From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
311	1,676	645	1,735.3	6,433.3	2,495.27	94	30.0



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : CS 660bp lig rxn**

Number of peaks found: 10                      Corr. Area 1: 1,351.2  
 Noise: 0.2

**Peak table for sample 5 : CS 660bp lig rxn**

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	76	19.60	388.2		48.44
3	82	33.55	621.8		49.04
4	550	7.44	20.5		85.96
5	671	177.88	401.8		90.57
6	932	847.33	1,377.8		94.73
7	1,522	624.69	622.0		98.88
8	6,124	6.43	1.6		108.57
9	6,896	5.41	1.2		109.49
10	8,351	5.51	1.0		110.97
11	10,380	75.00	10.9	Upper Marker	113.00
12	12,132	0.00	0.0		114.75

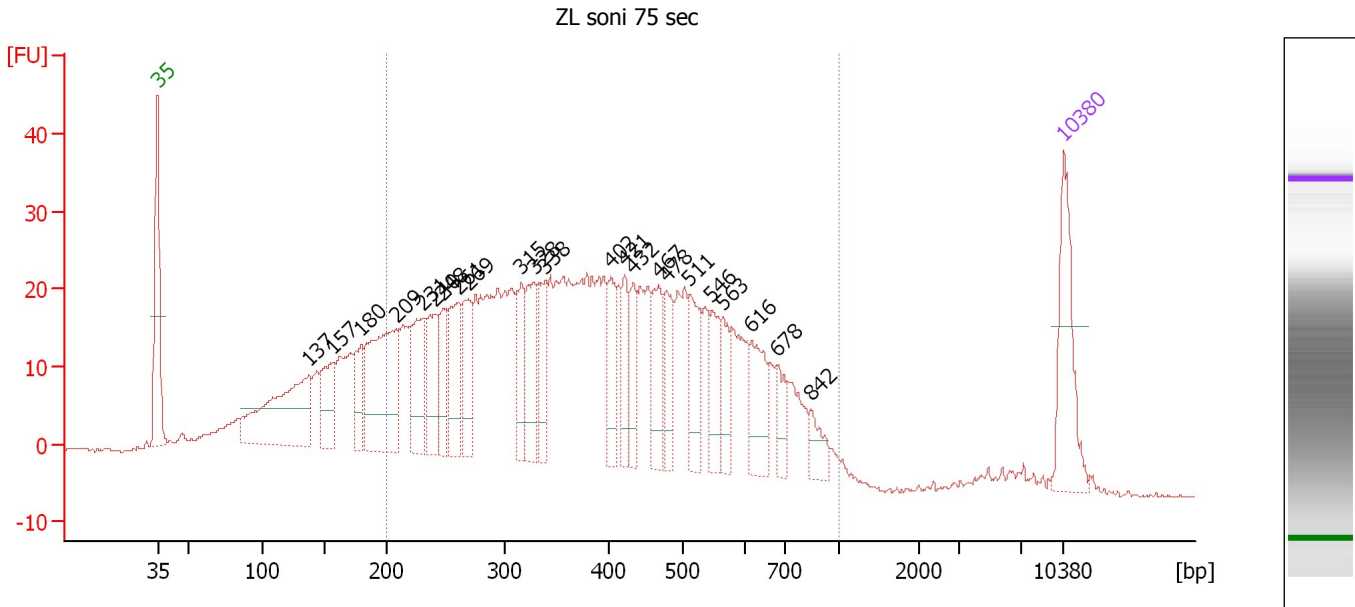
**Region table for sample 5 : CS 660bp lig rxn**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
380	4,769	1,230	1,351.2	2,747.1	1,817.68	94	46.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : ZL soni 75 sec**

Number of peaks found: 23                      Corr. Area 1: 919.9  
 Noise: 0.2

**Peak table for sample 6 : ZL soni 75 sec**

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	137	200.94	2,223.2		54.65
3	157	60.84	589.0		56.52
4	180	47.11	396.3		58.75
5	209	186.82	1,355.2		61.46
6	231	89.49	588.1		63.46
7	240	69.45	438.2		64.34
8	248	52.26	319.0		65.09
9	261	78.81	457.0		66.30
10	269	61.04	343.4		67.05
11	315	48.88	234.9		71.10
12	328	63.36	293.1		72.08
13	338	55.36	248.1		72.92
14	402	46.38	174.6		78.00
15	421	42.12	151.6		79.07
16	432	41.10	144.0		79.72
17	467	58.00	188.0		81.73
18	478	47.32	150.0		82.33
19	511	55.20	163.8		84.11
20	546	41.70	115.8		85.78
21	563	40.87	109.9		86.62
22	616	55.78	137.3		88.86
23	678	28.27	63.1		90.82
24	842	23.71	42.7		93.47
25	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**

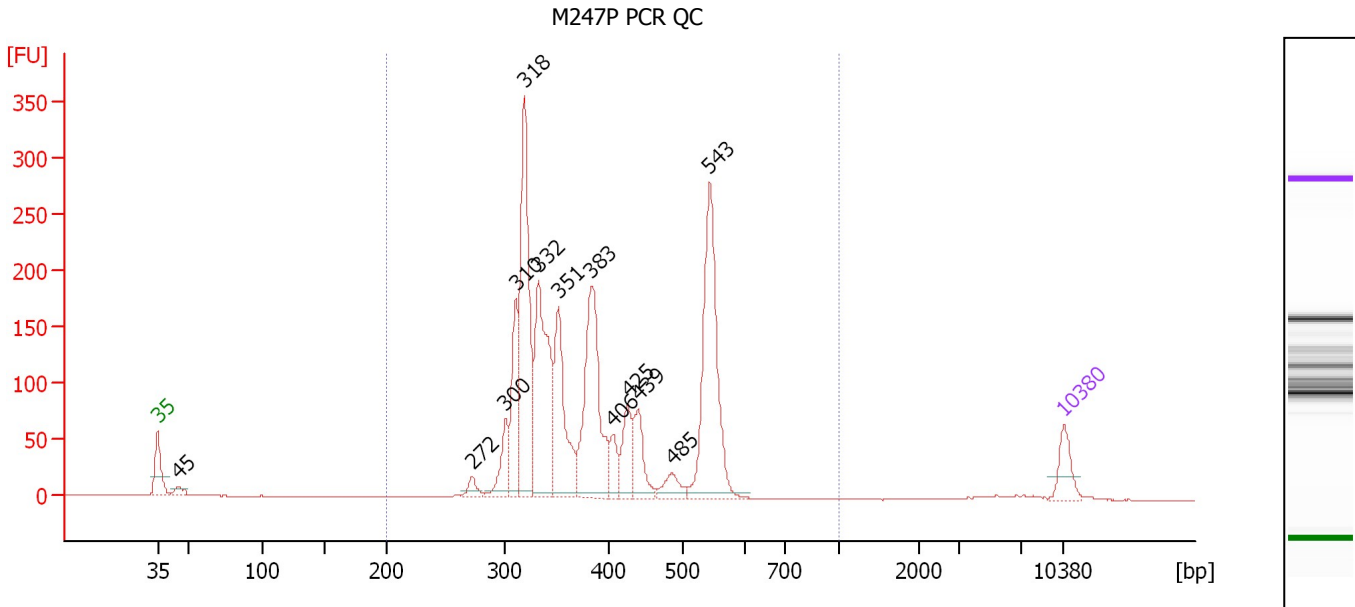
... Region table for sample 6 : ZL soni 75 sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	415	919.9	9,789.3	2,234.87	78	36.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : M247P PCR QC**

Number of peaks found: 13                      Corr. Area 1: 2,168.4  
 Noise: 0.2

**Peak table for sample 7 : M247P PCR QC**

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	45	36.96	1,247.6		44.61
3	272	40.65	226.6		67.28
4	300	139.81	706.2		69.88
5	310	251.73	1,230.4		70.68
6	318	713.39	3,396.1		71.34
7	332	574.69	2,623.7		72.43
8	351	384.08	1,656.0		73.99
9	383	571.46	2,262.1		76.49
10	406	79.70	297.7		78.19
11	425	152.01	541.4		79.32
12	439	142.32	490.7		80.13
13	485	66.18	206.8		82.72
14	543	645.74	1,801.6		85.65
15	10,380	75.00	10.9	Upper Marker	113.00

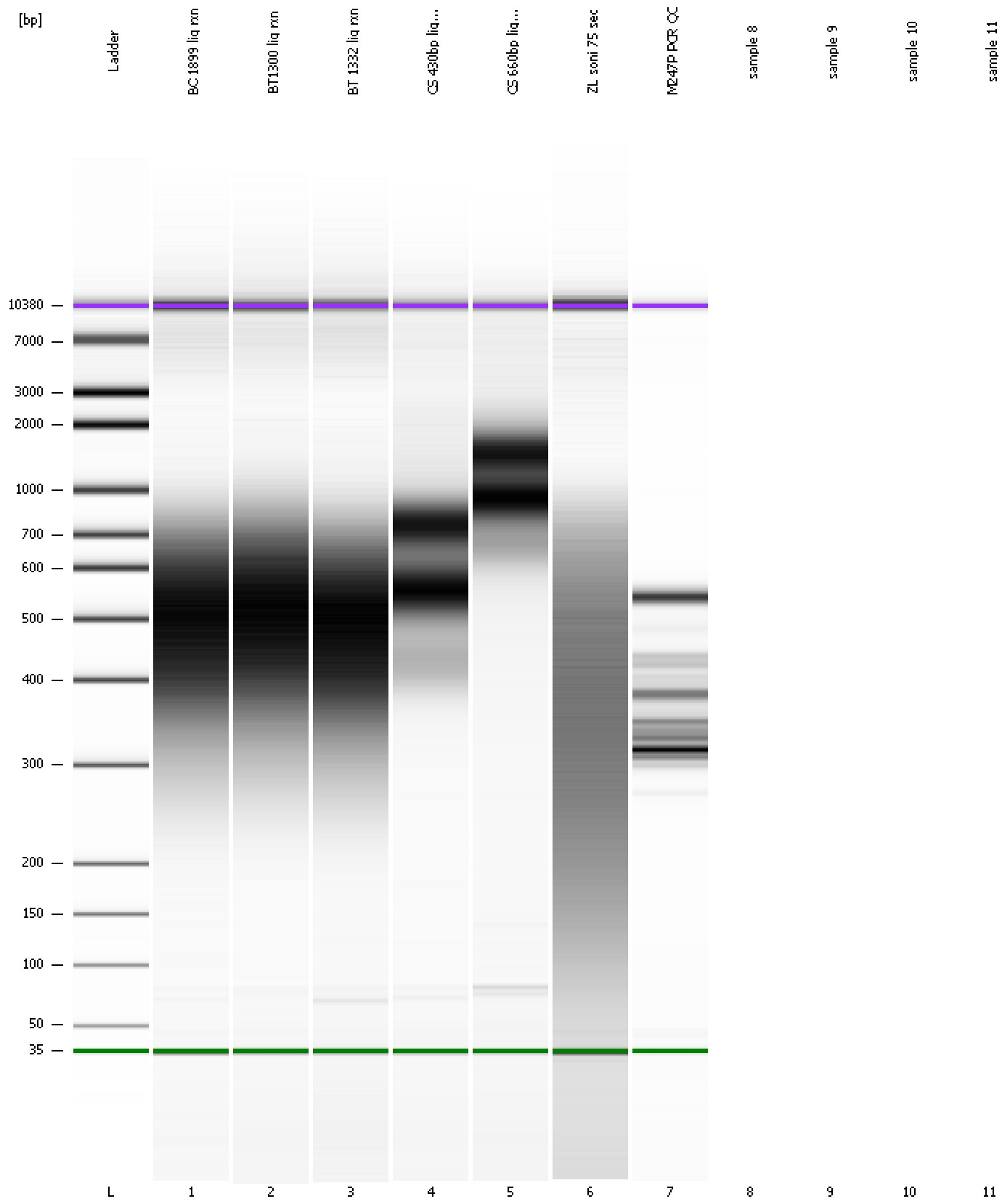
**Region table for sample 7 : M247P PCR QC**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
200	1,000	396	2,168.4	15,207.6	3,750.98	98	22.1

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
Modified: 12/14/2015 4:20:00 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
Modified: 12/14/2015 4:20:00 PM

**Invalid Samples**

Sample 8 has not been run, no results available.

Sample 9 has not been run, no results available.

Sample 10 has not been run, no results available.

Sample 11 has not been run, no results available.

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-12-14\2015-12-14\_004.xad

Created: 12/14/2015 3:45:11 PM  
 Modified: 12/14/2015 4:20:00 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 8)		Instrument	Run		12/14/2015 4:15:04 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-12-14\2015-12-14_004.xad)		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		12/14/2015 3:45:16 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1