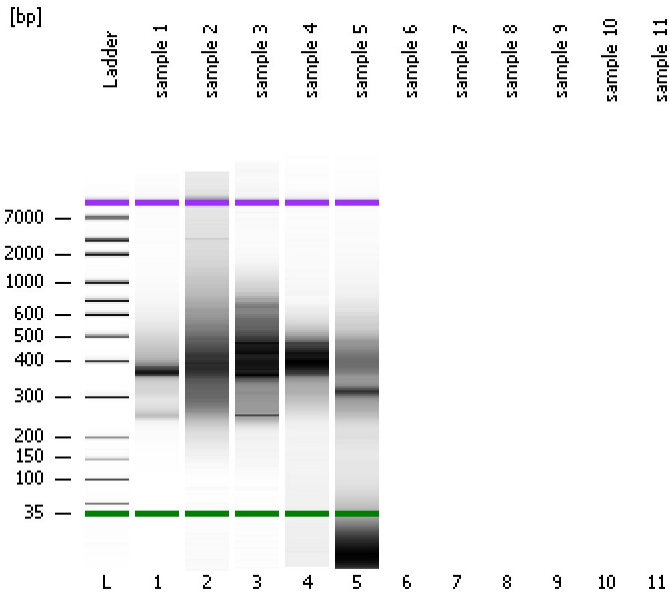


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
Modified: 4/14/2014 1:11:14 PM

### Electrophoresis File Run Summary



#### Instrument Information:

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

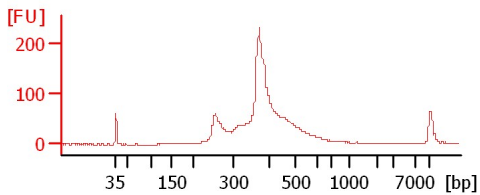
#### Assay Information:

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

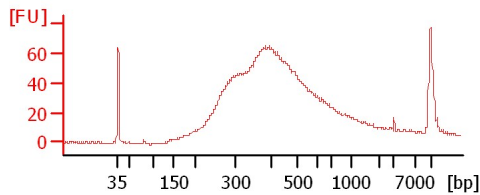
#### Chip Information:

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

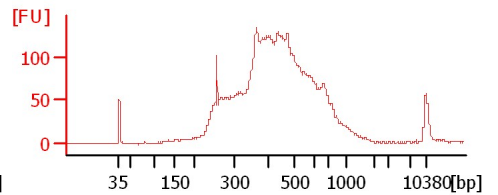
sample 1



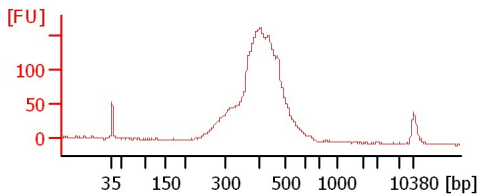
sample 2



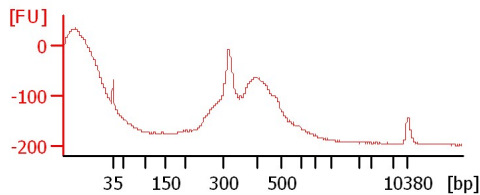
sample 3



sample 4



sample 5



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1		<input type="checkbox"/>	✓			
sample 2		<input type="checkbox"/>	✓			
sample 3		<input type="checkbox"/>	✓			
sample 4		<input type="checkbox"/>	✓			
sample 5		<input type="checkbox"/>	✓			
sample 6		<input type="checkbox"/>				
sample 7		<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\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
Modified: 4/14/2014 1:11:14 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/ $\mu$ l] : 1950  
Uses Standard Area for Ladder Fragments  
Lower Marker Concentration [pg/ $\mu$ l] : 125  
Upper Marker Concentration [pg/ $\mu$ l] : 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

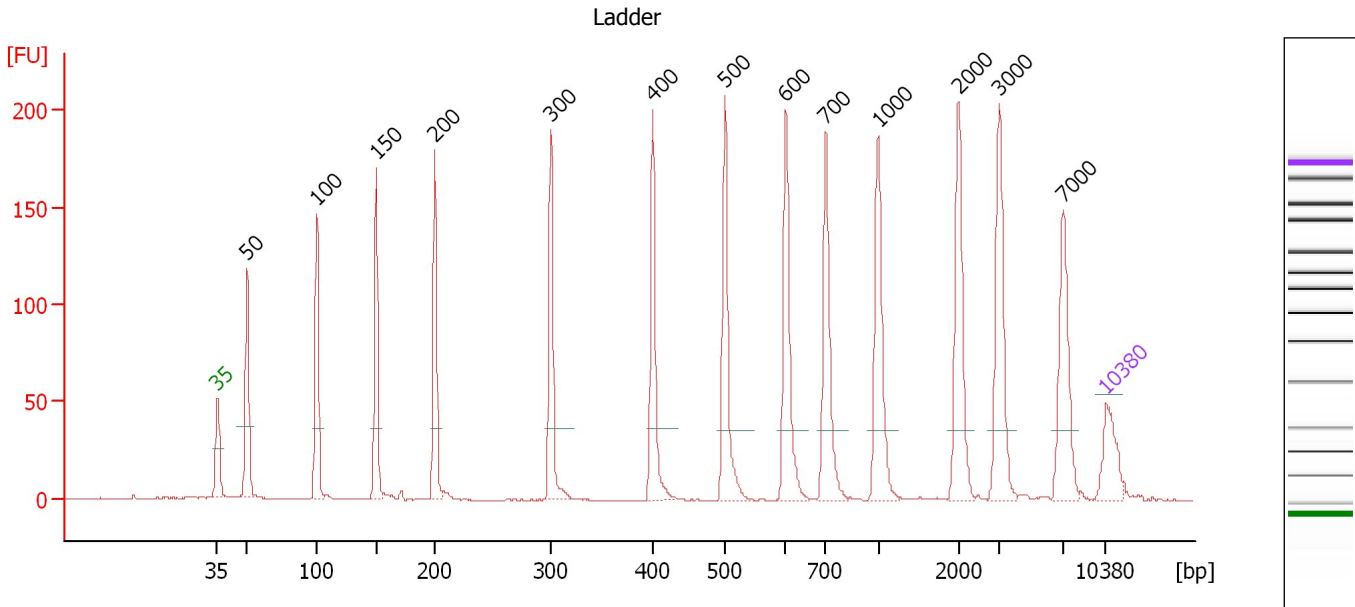
**Ladder**

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\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

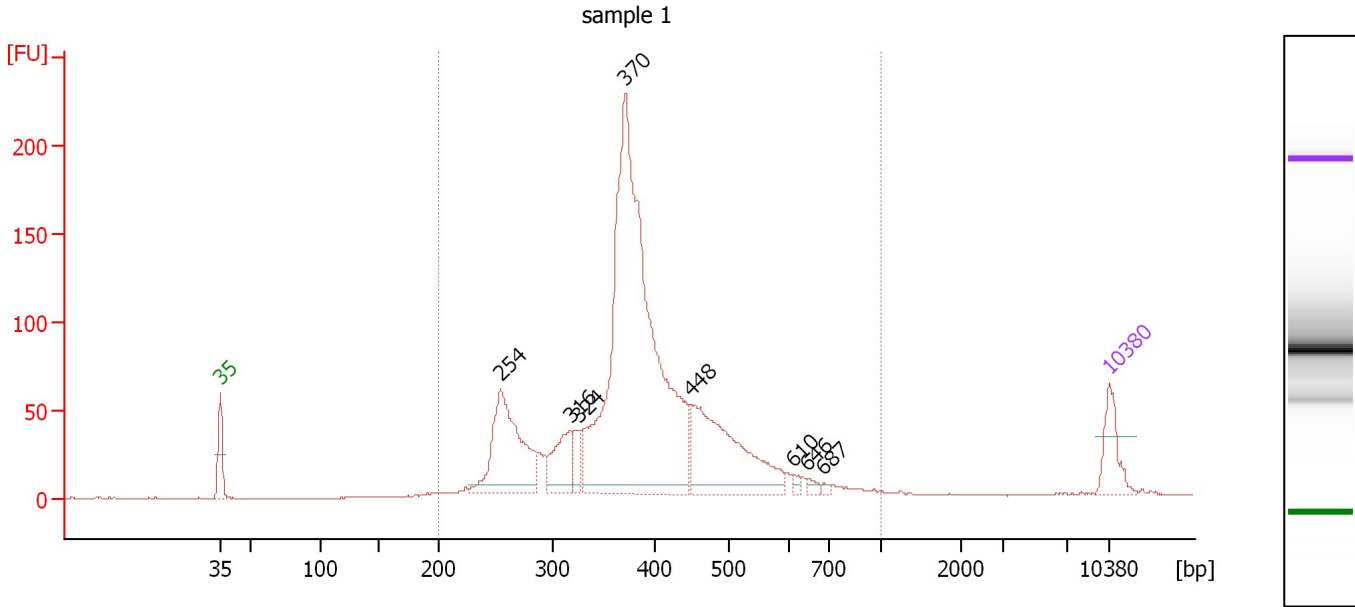
**Peak table for Ladder**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	45.35	50	150.00	4,545.5	Ladder Peak
3	50.86	100	150.00	2,272.7	Ladder Peak
4	55.52	150	150.00	1,515.2	Ladder Peak
5	60.14	200	150.00	1,136.4	Ladder Peak
6	69.26	300	150.00	757.6	Ladder Peak
7	77.29	400	150.00	568.2	Ladder Peak
8	83.00	500	150.00	454.5	Ladder Peak
9	87.79	600	150.00	378.8	Ladder Peak
10	90.94	700	150.00	324.7	Ladder Peak
11	95.06	1,000	150.00	227.3	Ladder Peak
12	101.40	2,000	150.00	113.6	Ladder Peak
13	104.60	3,000	150.00	75.8	Ladder Peak
14	109.64	7,000	150.00	32.5	Ladder Peak
15	113.00	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : sample 1**

Number of peaks found: 8                      Corr. Area 1: 1,935.1  
 Noise: 0.3

**Peak table for sample 1 : sample 1**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	65.09	254	439.46	2,619.1	
3	70.55	316	142.61	683.7	
4	71.18	324	47.59	222.6	
5	74.91	370	1,735.64	7,099.0	
6	80.04	448	448.04	1,514.8	
7	88.10	610	12.15	30.2	
8	89.23	646	13.87	32.5	
9	90.53	687	6.77	14.9	
10	113.00	10,380	75.00	10.9	Upper Marker

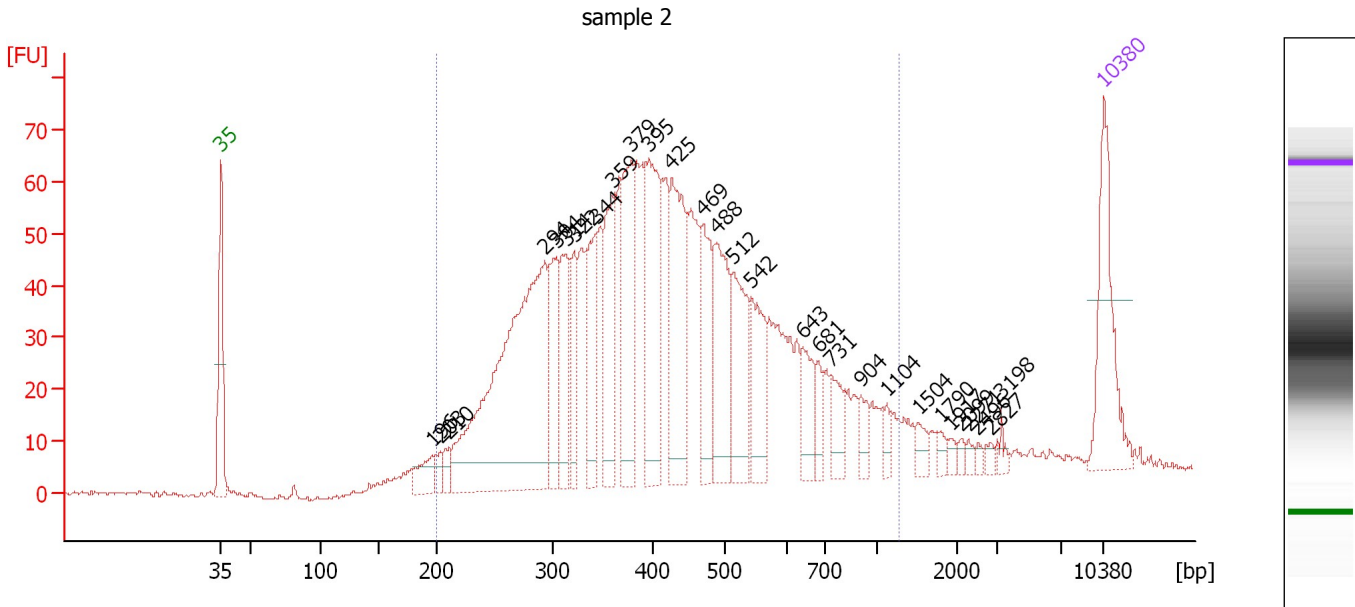
**Region table for sample 1 : sample 1**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	393	12,693.0	3,042.71	1,935.1	98	24.9

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : sample 2**

Number of peaks found: 29                      Corr. Area 1: 1,669.4  
 Noise: 0.4

**Peak table for sample 2 : sample 2**


Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	59.73	196	30.92	239.6	
3	60.40	203	11.96	89.3	
4	61.08	210	14.75	106.3	
5	68.73	294	443.57	2,284.8	
6	69.57	304	81.81	407.9	
7	70.37	314	76.93	371.4	
8	71.01	322	55.80	262.7	
9	72.78	344	84.16	370.8	
10	74.01	359	105.39	444.6	
11	75.57	379	109.61	438.6	
12	76.88	395	137.31	526.8	
13	78.74	425	141.69	504.6	
14	81.23	469	77.43	250.1	
15	82.33	488	103.30	320.6	
16	83.56	512	89.33	264.6	
17	85.03	542	68.33	190.9	
18	89.13	643	39.54	93.2	
19	90.36	681	19.57	43.5	
20	91.37	731	30.27	62.7	
21	93.74	904	15.88	26.6	
22	95.72	1,104	8.45	11.6	
23	98.26	1,504	10.27	10.3	
24	100.07	1,790	7.17	6.1	
25	100.88	1,917	4.73	3.7	

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad


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 Modified: 4/14/2014 1:11:14 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 2 : sample 2

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
26	101.72	2,099	4.30	3.1	
27	102.27	2,271	4.36	2.9	
28	102.99	2,496	3.40	2.1	
29	104.04	2,827	4.21	2.3	
30	104.85	3,198	4.89	2.3	
31	 113.00	10,380	75.00	10.9	Upper Marker

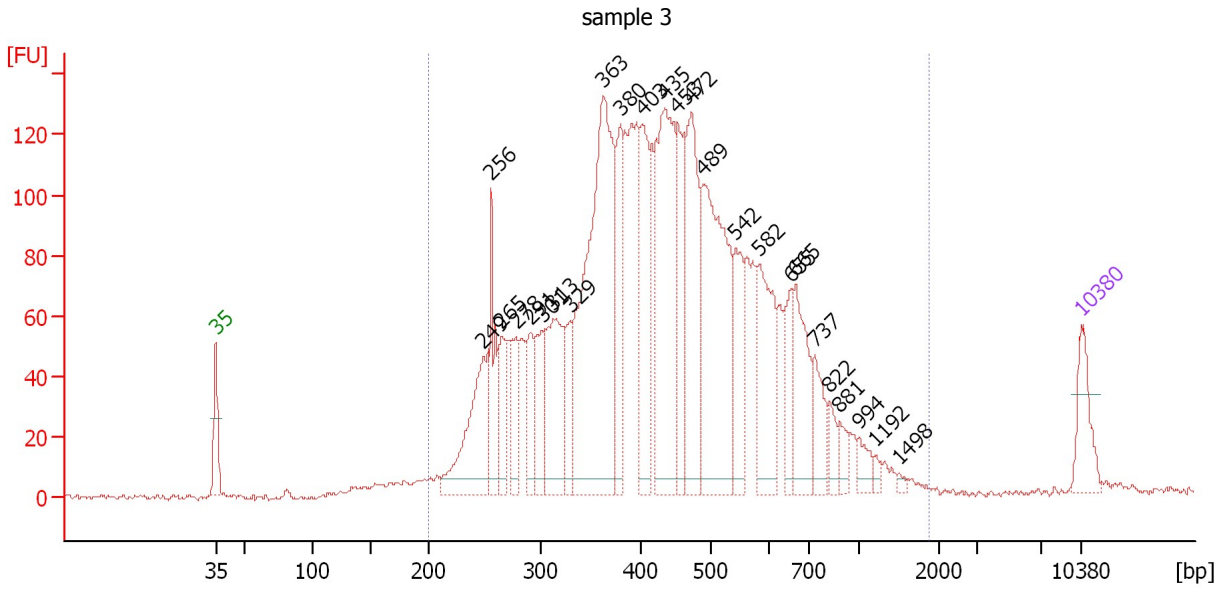
#### Region table for sample 2 : sample 2

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	1,257	442	9,023.6	2,242.50	 1,669.4	94	38.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : sample 3**

Number of peaks found: 25                      Corr. Area 1: 3,273.0  
 Noise: 0.8

**Peak table for sample 3 : sample 3**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	64.64	249	297.83	1,810.1	
3	65.28	256	162.67	961.3	
4	66.10	265	101.31	578.5	
5	67.27	278	119.88	653.0	
6	68.47	291	111.33	578.9	
7	69.38	301	117.27	589.4	
8	70.28	313	262.51	1,271.7	
9	71.62	329	88.89	408.9	
10	74.29	363	860.86	3,596.1	
11	75.72	380	204.72	815.3	
12	77.44	403	233.04	876.8	
13	79.29	435	501.09	1,744.8	
14	80.33	453	165.53	553.4	
15	81.41	472	339.88	1,090.8	
16	82.40	489	527.13	1,631.8	
17	85.03	542	148.53	415.0	
18	86.92	582	227.47	592.3	
19	89.51	655	85.21	197.2	
20	89.85	665	172.44	392.6	
21	91.45	737	83.37	171.4	
22	92.61	822	38.77	71.5	
23	93.43	881	33.58	57.7	
24	94.98	994	32.03	48.8	
25	96.28	1,192	11.52	14.6	




Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

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Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary Continued ...****... Peak table for sample 3 : sample 3**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/ $\mu$ l]	Molarity [pmol/l]	Observations
26	98.22	1,498	7.63	7.7	
27	113.00	10,380	75.00	10.9	Upper Marker

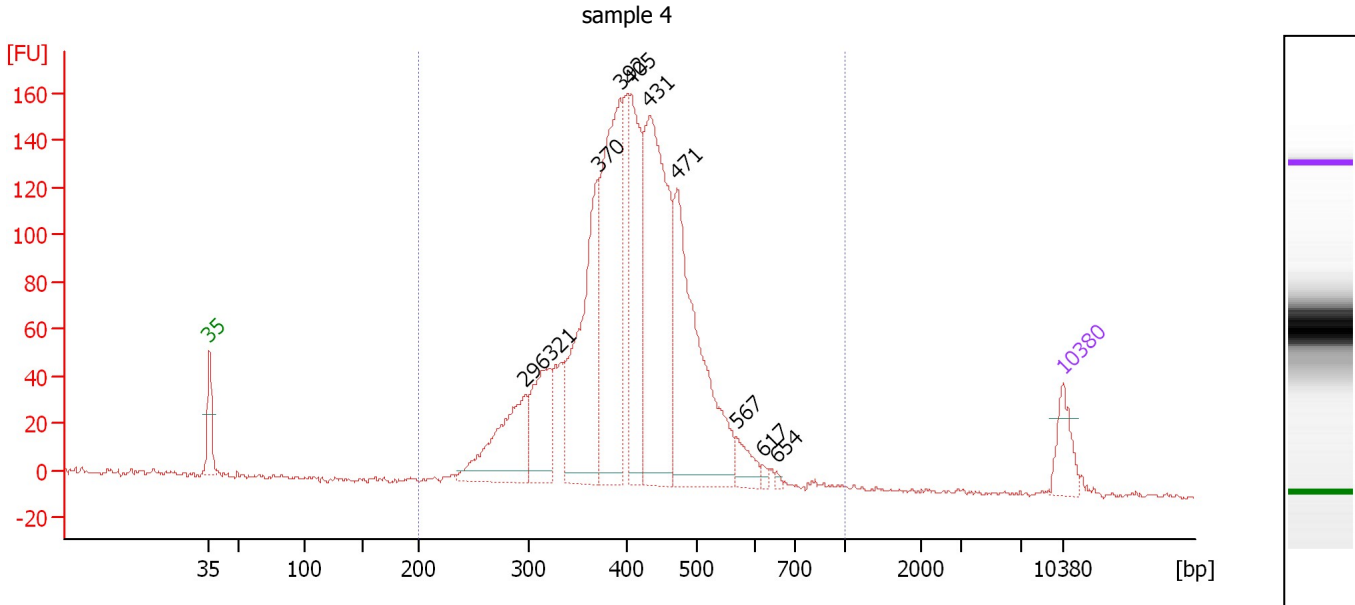
**Region table for sample 3 : sample 3**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ $\mu$ l]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,882	463	22,635.7	5,900.59	 3,273.0	98	39.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : sample 4**

Number of peaks found: 10                      Corr. Area 1: 2,358.1  
 Noise: 1.0

**Peak table for sample 4 : sample 4**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	43.00	35	125.00	5,411.3	Lower Marker
2	68.93	296	359.61	1,838.6	
3	70.94	321	264.14	1,247.1	
4	74.87	370	612.86	2,510.0	
5	76.67	392	748.29	2,890.2	
6	77.58	405	464.43	1,736.5	
7	79.07	431	861.83	3,028.0	
8	81.34	471	736.96	2,370.5	
9	86.20	567	65.70	175.6	
10	88.34	617	11.86	29.1	
11	89.48	654	6.91	16.0	
12	113.00	10,380	75.00	10.9	Upper Marker

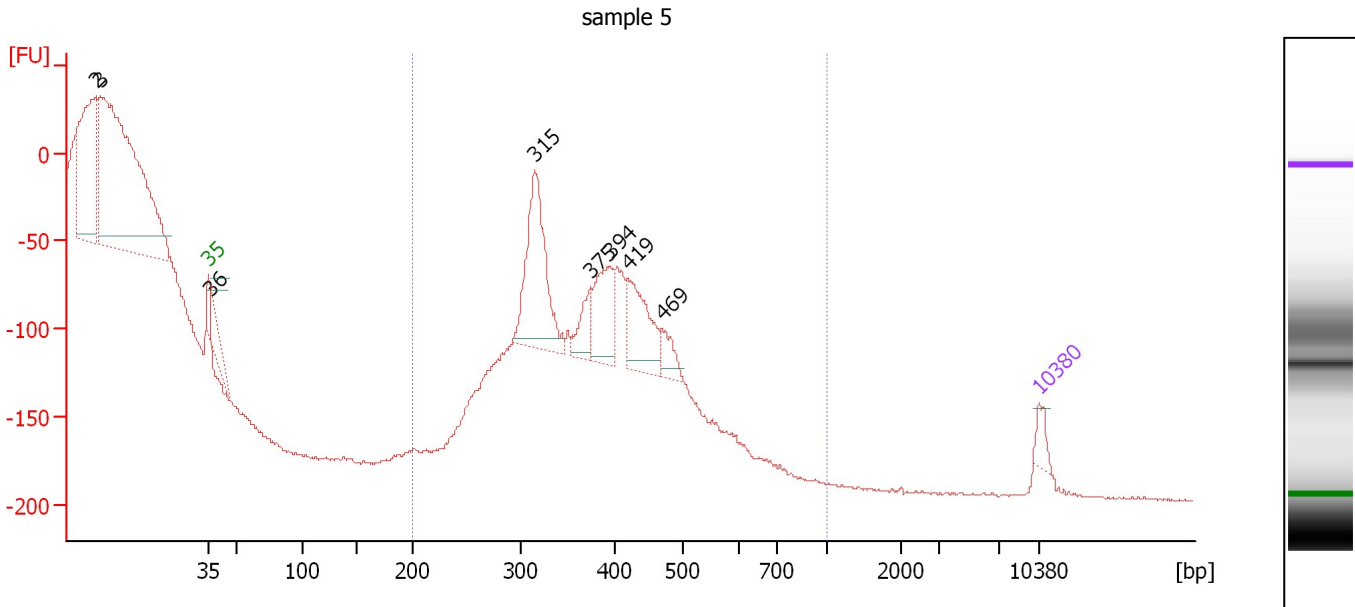
**Region table for sample 4 : sample 4**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. for Area	% of Total	Size distribution in CV [%]
200	1,000	411	17,397.2	4,502.98	2,358.1	99	18.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5**

Number of peaks found: 8                      Corr. Area 1: 228.7  
 Noise: 0.7

**Peak table for sample 5 : sample 5**

Peak	Aligned Migration Time [s]	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33.53	2	0.00	0.0	
2	33.85	3	0.00	0.0	
3	43.00	35	125.00	5,411.3	Lower Marker
4	43.13	36	0.00	0.0	
5	70.46	315	1,054.47	5,072.5	
6	75.26	375	215.28	870.3	
7	76.83	394	446.55	1,715.7	
8	78.36	419	521.23	1,885.8	
9	81.23	469	159.69	515.9	
10	113.00	10,380	75.00	10.9	Upper Marker

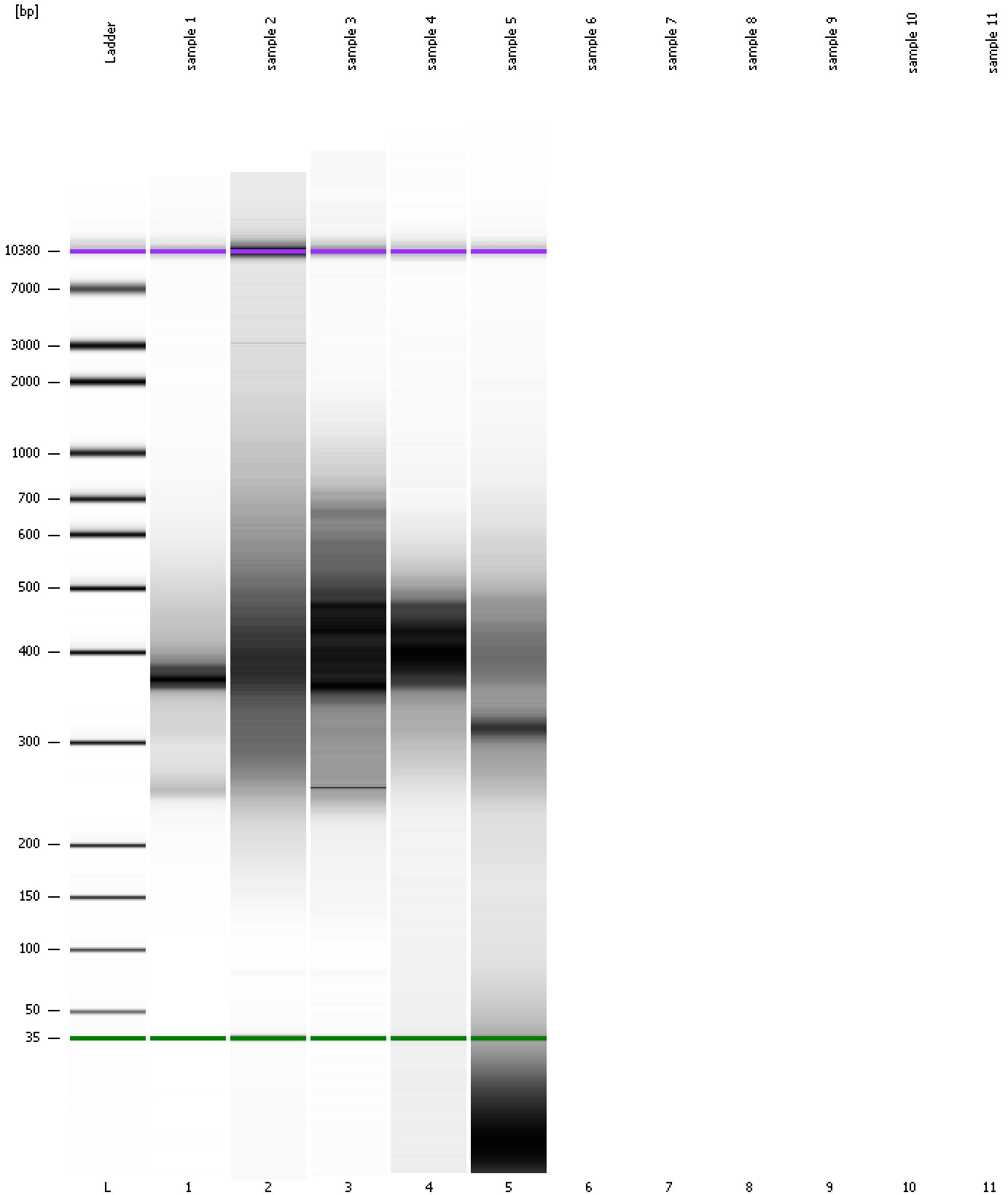
**Region table for sample 5 : sample 5**

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Co Corr. lor Area	% of Total	Size distribution in CV [%]
200	1,000	365	3,473.8	825.14	228.7	50	12.9

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
Modified: 4/14/2014 1:11:14 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
Modified: 4/14/2014 1:11:14 PM

**Invalid Samples**

- Sample 6 has not been run, no results available.
- Sample 7 has not been run, no results available.
- 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\2014-04-14\2014-04-14\_003.xad

Created: 4/14/2014 12:27:10 PM  
 Modified: 4/14/2014 1:11:14 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 6)		Instrument	Run		4/14/2014 12:51:21 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-04-14\2014-04-14_003.xad)		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		4/14/2014 12:27:16 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1