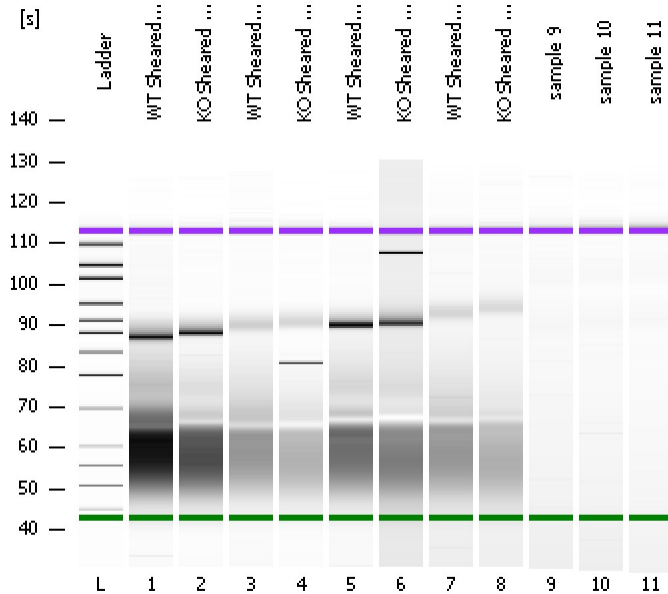


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
Modified: 7/26/2013 1:54:49 PM

### Electrophoresis File Run Summary



#### Instrument Information:

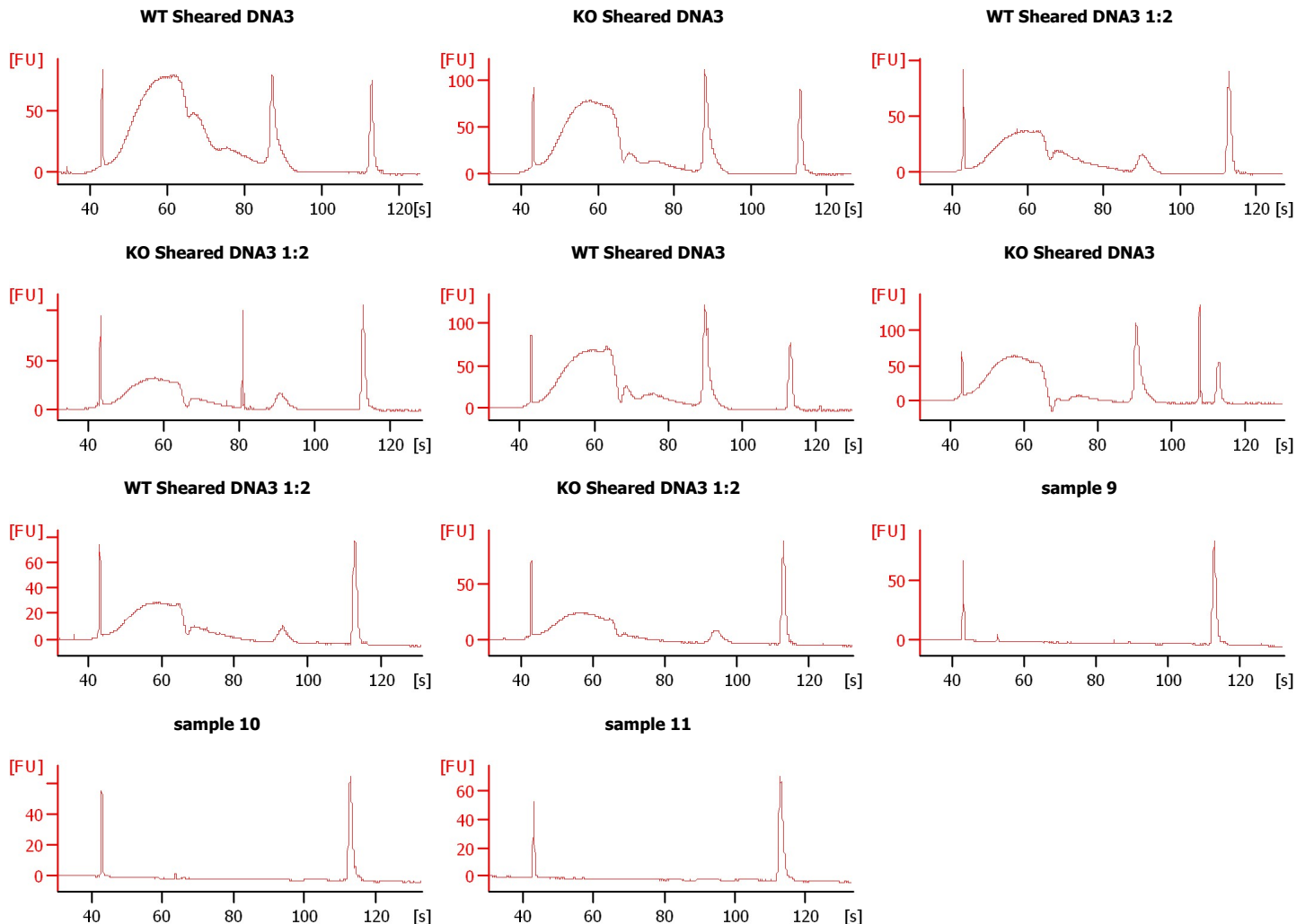
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

#### 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:



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
WT Sheared DNA3		<input type="checkbox"/>	✓			
KO Sheared DNA3		<input type="checkbox"/>	✓			
WT Sheared DNA3 1:2		<input type="checkbox"/>	✓			
KO Sheared DNA3 1:2		<input type="checkbox"/>	✓			
WT Sheared DNA3		<input type="checkbox"/>	✓			
KO Sheared DNA3		<input type="checkbox"/>	✓			
WT Sheared DNA3 1:2		<input type="checkbox"/>	✓			
KO Sheared DNA3 1:2		<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\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 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

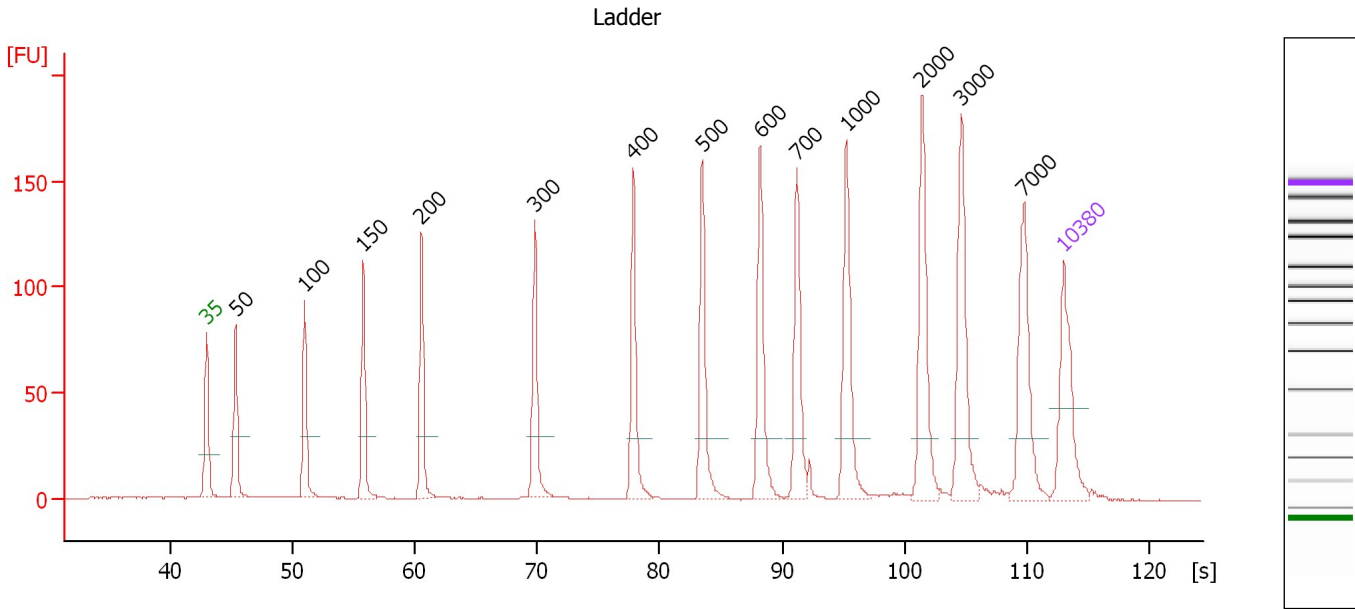
**Ladder**

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\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

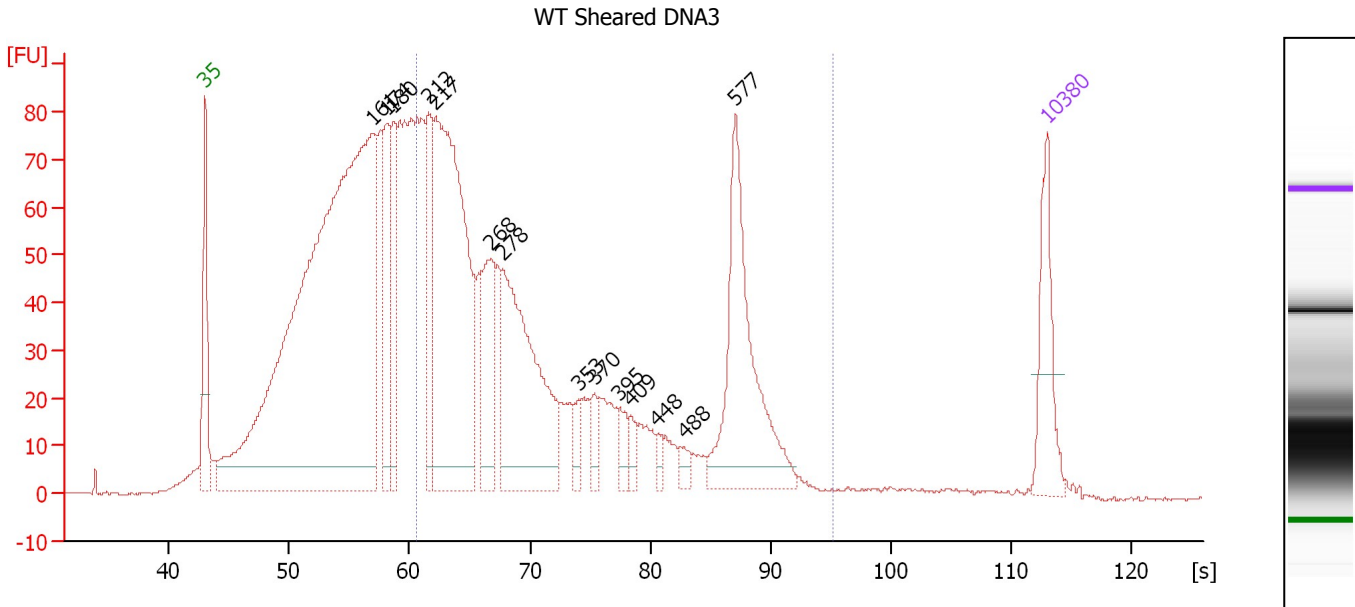
**Peak table for Ladder**

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	Ladder Peak
9	600	150.00	378.8	Ladder Peak
10	700	150.00	324.7	Ladder Peak
11	1,000	150.00	227.3	Ladder Peak
12	2,000	150.00	113.6	Ladder Peak
13	3,000	150.00	75.8	Ladder Peak
14	7,000	150.00	32.5	Ladder Peak
15	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : WT Sheared DNA3**

Number of peaks found: 14      Corr. Area 1: 1,456.6  
 Noise: 0.1

**Peak table for sample 1 : WT Sheared DNA3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	161	1,775.93	16,674.9	
3	174	143.16	1,246.0	
4	180	140.65	1,182.5	
5	212	140.02	1,002.7	
6	217	648.84	4,522.6	
7	268	136.36	772.2	
8	278	367.48	2,005.2	
9	353	23.23	99.8	
10	370	22.06	90.3	
11	395	24.01	92.1	
12	409	18.91	70.0	
13	448	11.66	39.4	
14	488	14.81	46.0	
15	577	262.47	689.8	
16	10,380	75.00	10.9	Upper Marker

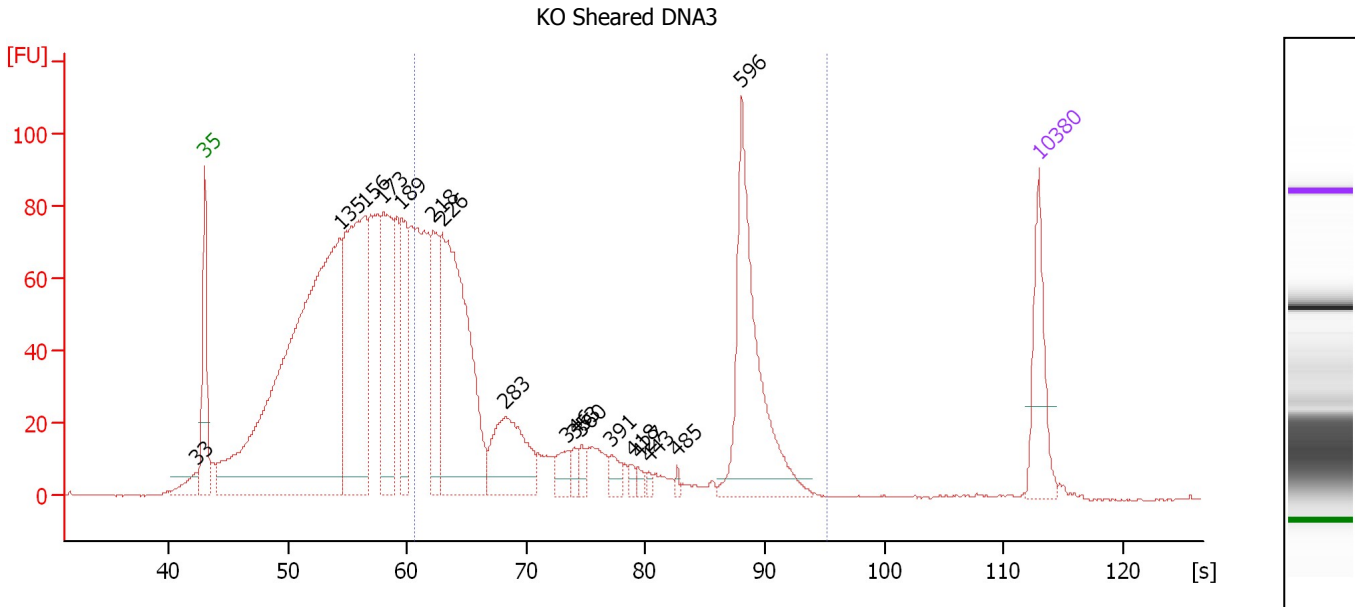
**Region table for sample 1 : WT Sheared DNA3**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.54	95.24	349	11,683.4	2,210.72	1,456.6    48	42.2	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : KO Sheared DNA3**

Number of peaks found: 17      Corr. Area 1: 1,131.3  
 Noise: 0.1

**Peak table for sample 2 : KO Sheared DNA3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	135	1,275.94	14,344.1	
4	156	494.23	4,799.2	
5	173	255.54	2,236.1	
6	189	141.92	1,138.7	
7	218	133.18	926.6	
8	226	494.69	3,322.9	
9	283	155.50	832.5	
10	346	29.95	131.4	
11	353	14.00	60.1	
12	360	14.05	59.1	
13	391	19.38	75.1	
14	418	7.88	28.6	
15	427	8.89	31.5	
16	443	5.93	20.3	
17	485	5.27	16.5	
18	596	269.71	685.3	
19	10,380	75.00	10.9	Upper Marker

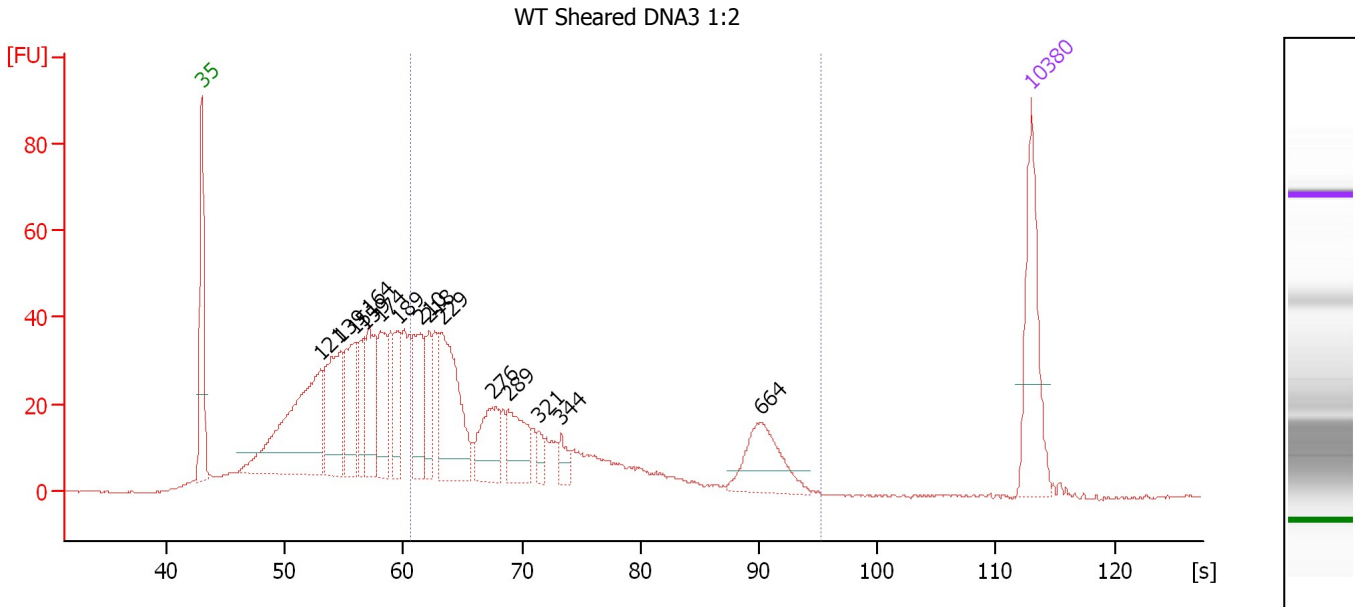
**Region table for sample 2 : KO Sheared DNA3**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
60.54	95.24	369	8,337.2	1,559.38	1,131.3	40	47.2	■

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : WT Sheared DNA3 1:2**

Number of peaks found: 15                      Corr. Area 1: 624.9  
 Noise: 0.2

**Peak table for sample 3 : WT Sheared DNA3 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	121	251.98	3,161.0	
3	139	127.87	1,396.0	
4	151	95.17	957.2	
5	159	50.43	479.8	
6	164	88.00	815.3	
7	174	77.40	673.7	
8	189	48.56	388.5	
9	210	79.34	573.3	
10	218	44.19	307.1	
11	229	140.34	927.5	
12	276	61.77	339.3	
13	289	57.45	300.7	
14	321	11.75	55.5	
15	344	16.16	71.2	
16	664	65.16	148.7	
17	10,380	75.00	10.9	Upper Marker

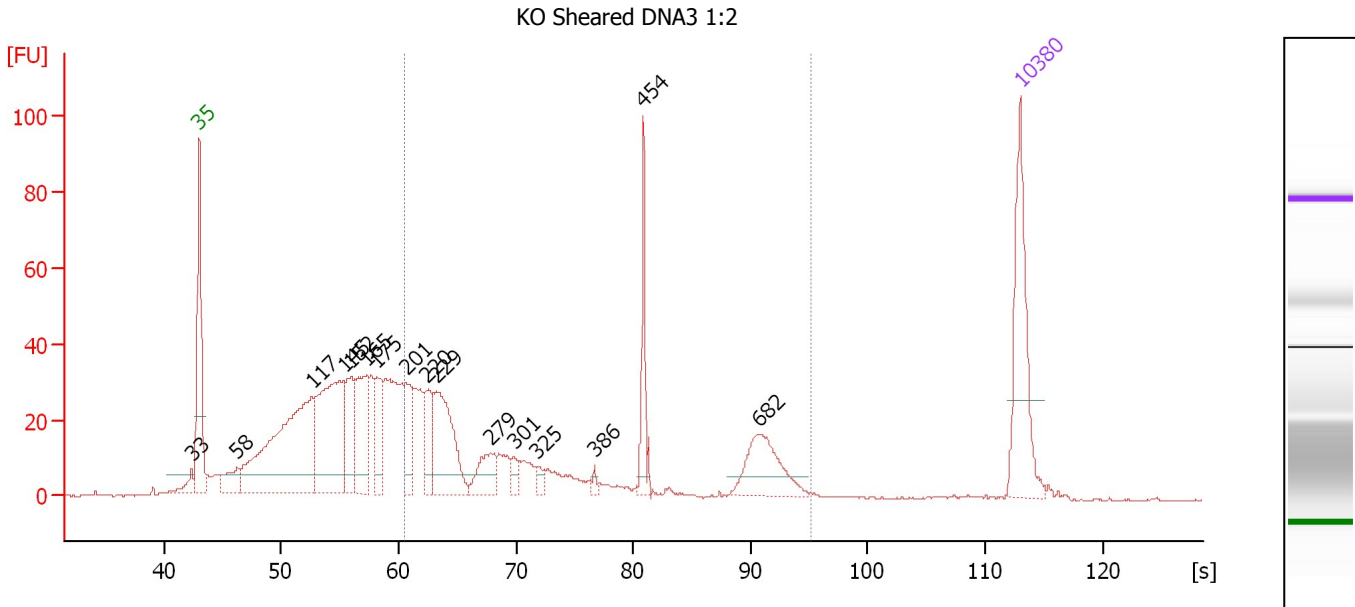
**Region table for sample 3 : WT Sheared DNA3 1:2**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
60.54	95.24	347	4,121.4	769.20	624.9	46	46.7	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : KO Sheared DNA3 1:2**

Number of peaks found: 16                      Corr. Area 1: 460.0  
 Noise: 0.2

**Peak table for sample 4 : KO Sheared DNA3 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	58	31.90	836.3	
4	117	287.96	3,741.7	
5	145	186.32	1,948.9	
6	152	64.29	642.6	
7	165	86.47	793.5	
8	175	49.40	427.1	
9	201	39.95	301.3	
10	220	38.41	264.3	
11	229	103.90	687.2	
12	279	34.82	189.1	
13	301	9.48	47.7	
14	325	6.58	30.6	
15	386	3.83	15.1	
16	454	41.88	139.6	
17	682	59.65	132.6	
18	10,380	75.00	10.9	Upper Marker

**Region table for sample 4 : KO Sheared DNA3 1:2**

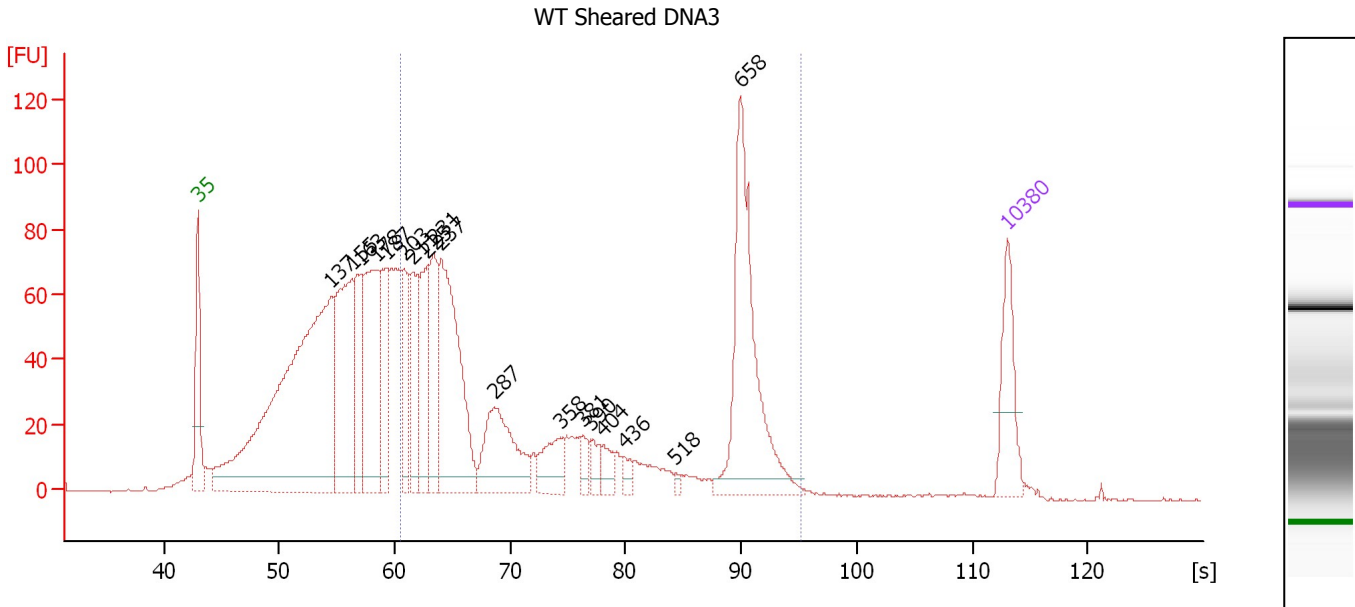
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.54	95.24	378	2,724.9	520.69	460.0 39	50.4	Blue



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : WT Sheared DNA3**

Number of peaks found: 18      Corr. Area 1: 1,263.5  
 Noise: 0.2

**Peak table for sample 5 : WT Sheared DNA3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	137	1,045.57	11,596.0	
3	155	334.98	3,271.6	
4	163	148.62	1,377.5	
5	178	278.48	2,367.8	
6	187	149.77	1,213.3	
7	203	116.24	868.5	
8	211	128.27	919.6	
9	225	133.02	896.2	
10	231	153.95	1,010.1	
11	237	361.24	2,305.1	
12	287	173.03	913.0	
13	358	63.82	270.4	
14	381	24.49	97.3	
15	390	25.48	99.0	
16	404	25.27	94.8	
17	436	16.13	56.1	
18	518	6.11	17.9	
19	658	312.79	720.4	
20	10,380	75.00	10.9	Upper Marker

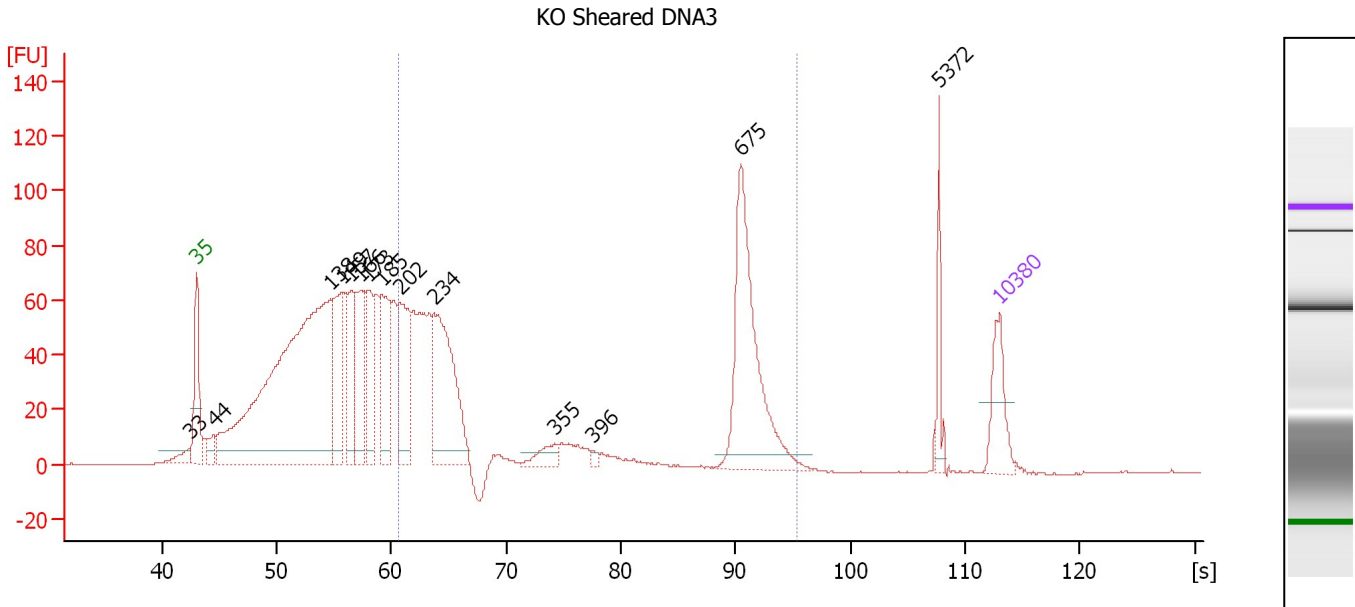
**Region table for sample 5 : WT Sheared DNA3**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.54	95.24	400	8,820.6	1,726.79	1,263.5 47	49.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : KO Sheared DNA3**

Number of peaks found: 14                      Corr. Area 1: 833.7  
 Noise: 0.2

**Peak table for sample 6 : KO Sheared DNA3**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	33	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	44	38.62	1,315.6	
4	138	1,505.84	16,485.4	
5	149	225.44	2,297.5	
6	157	188.34	1,816.9	
7	166	194.95	1,779.9	
8	173	166.77	1,457.6	
9	185	206.93	1,692.8	
10	202	231.71	1,737.5	
11	234	384.54	2,490.9	
12	355	37.87	161.6	
13	396	7.08	27.1	
14	675	387.67	870.6	
15	5,372	47.32	13.3	
16	10,380	75.00	10.9	Upper Marker

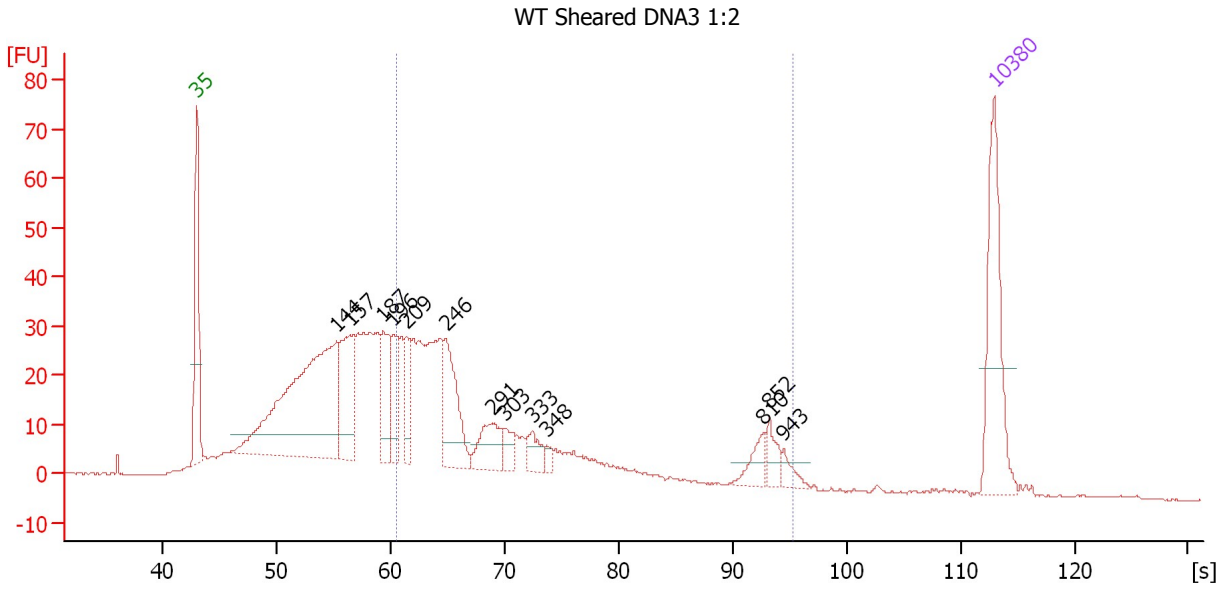
**Region table for sample 6 : KO Sheared DNA3**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
60.54	95.24	433	7,756.8	1,491.77	833.7	36	53.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : WT Sheared DNA3 1:2**

Number of peaks found: 13                      Corr. Area 1: 473.7  
 Noise: 0.2

**Peak table for sample 7 : WT Sheared DNA3 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	144	347.81	3,653.7	
3	157	88.72	855.6	
4	187	56.04	452.9	
5	196	41.98	323.8	
6	209	37.07	268.7	
7	246	75.02	461.6	
8	291	38.68	201.7	
9	303	16.78	84.0	
10	333	17.98	81.9	
11	348	5.41	23.5	
12	810	17.43	32.6	
13	852	14.70	26.1	
14	943	9.42	15.1	
15	10,380	75.00	10.9	Upper Marker

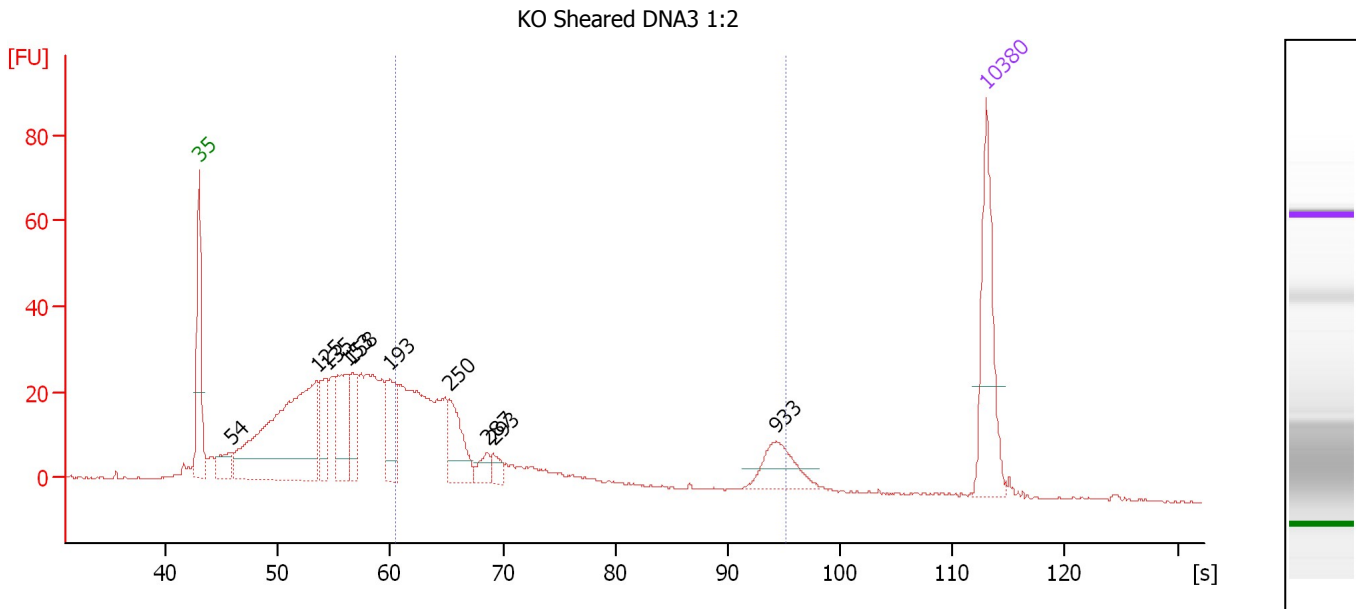
**Region table for sample 7 : WT Sheared DNA3 1:2**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.54	95.24	354	3,358.5	614.24	473.7 43	55.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : KO Sheared DNA3 1:2**

Number of peaks found: 10                      Corr. Area 1: 321.9  
 Noise: 0.2

**Peak table for sample 8 : KO Sheared DNA3 1:2**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	54	26.78	751.9	
3	125	335.70	4,055.3	
4	135	53.05	595.8	
5	153	82.00	809.8	
6	158	52.45	501.5	
7	193	59.70	468.1	
8	250	59.12	357.8	
9	287	16.16	85.3	
10	293	12.76	65.9	
11	933	39.50	64.2	
12	10,380	75.00	10.9	Upper Marker

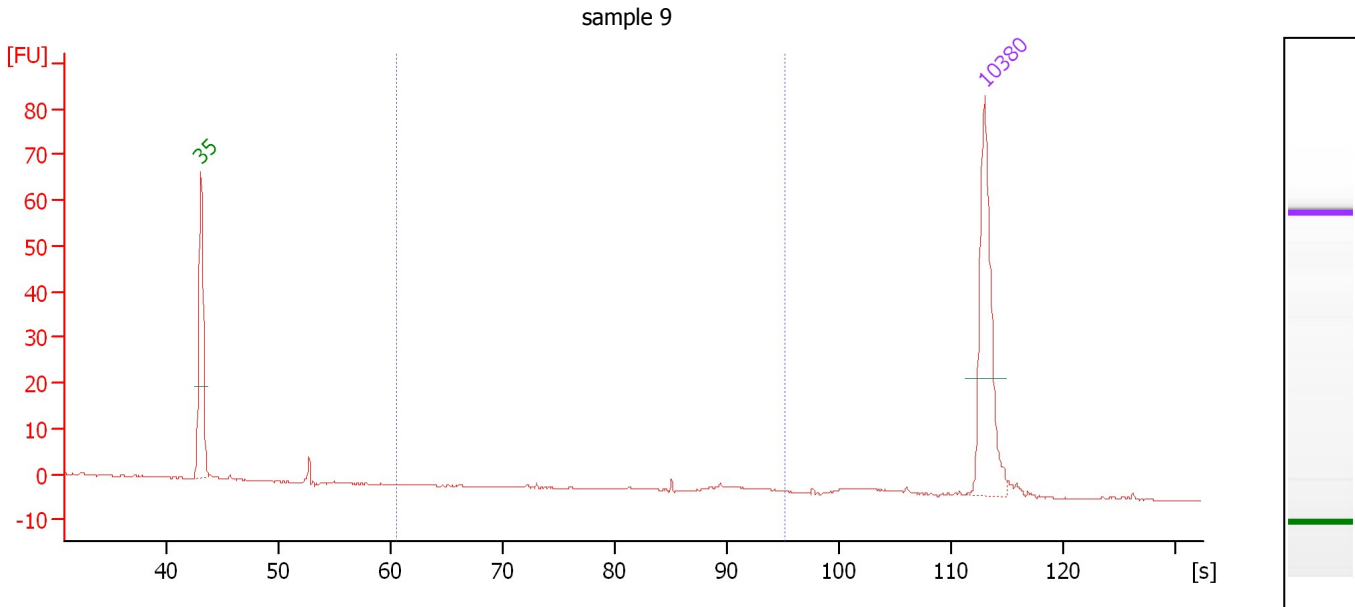
**Region table for sample 8 : KO Sheared DNA3 1:2**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
60.54	95.24	356	2,348.4	417.81	321.9 34	62.8	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9**

Number of peaks found: 0                      Corr. Area 1: 4.0  
 Noise: 0.1

**Peak table for sample 9 : sample 9**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

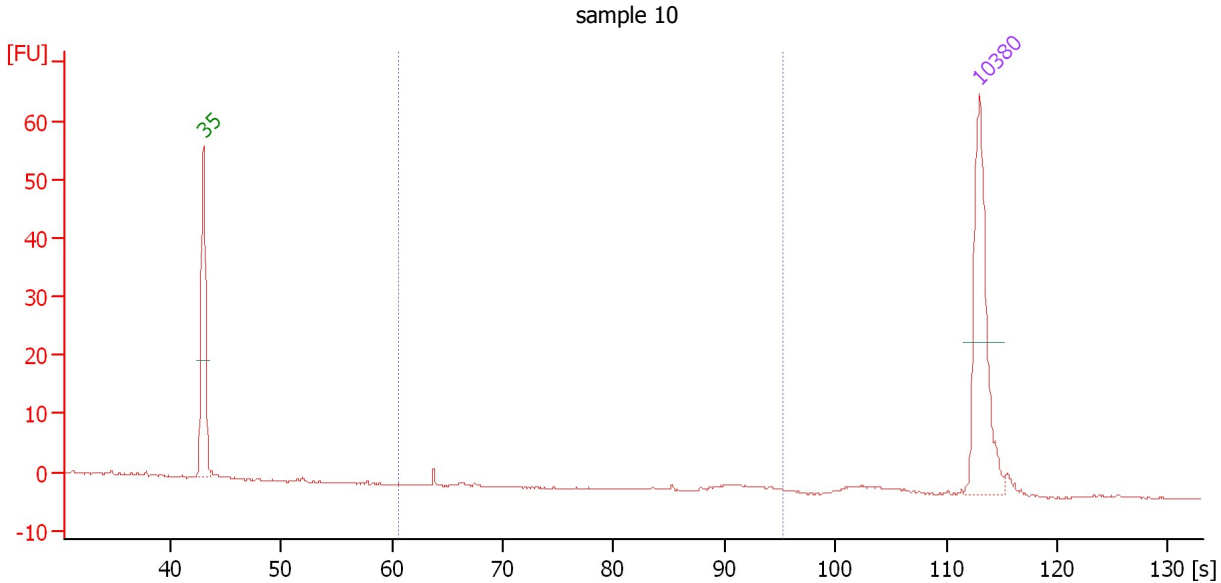
**Region table for sample 9 : sample 9**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
60.54	95.24	691	9.9	4.33	4.0	22	16.9	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10**

Number of peaks found: 0                      Corr. Area 1: 2.1  
 Noise: 0.1

**Peak table for sample 10 : sample 10**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

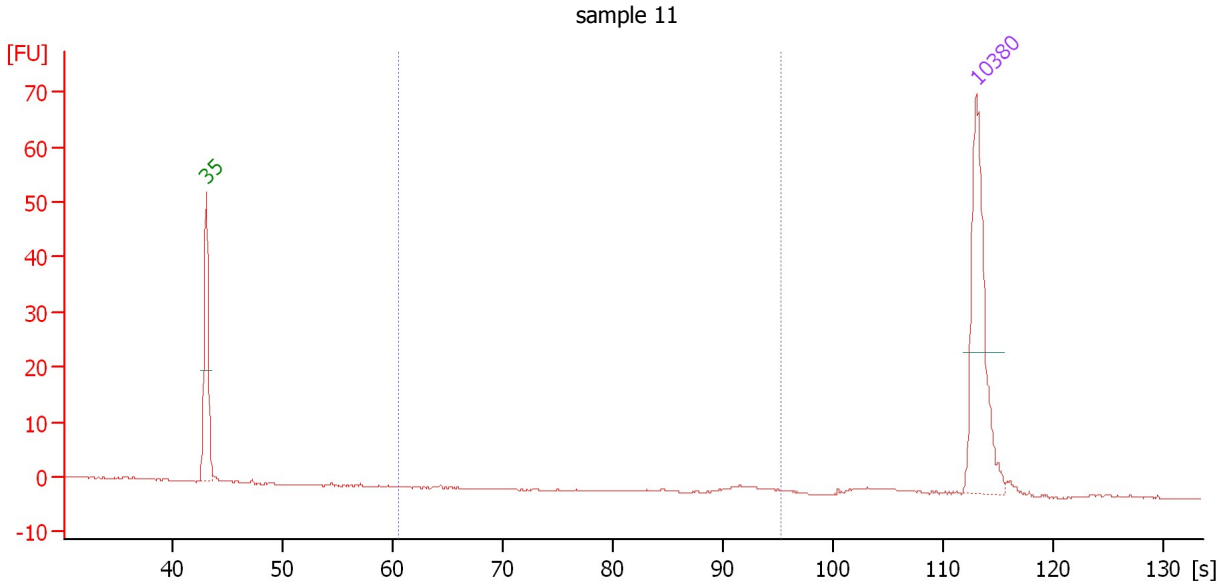
**Region table for sample 10 : sample 10**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
60.54	95.24	631	9.8	2.80	2.1	22	34.5	Blue

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 0                      Corr. Area 1: 2.3  
 Noise: 0.1

**Peak table for sample 11 : sample 11**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	10,380	75.00	10.9	Upper Marker

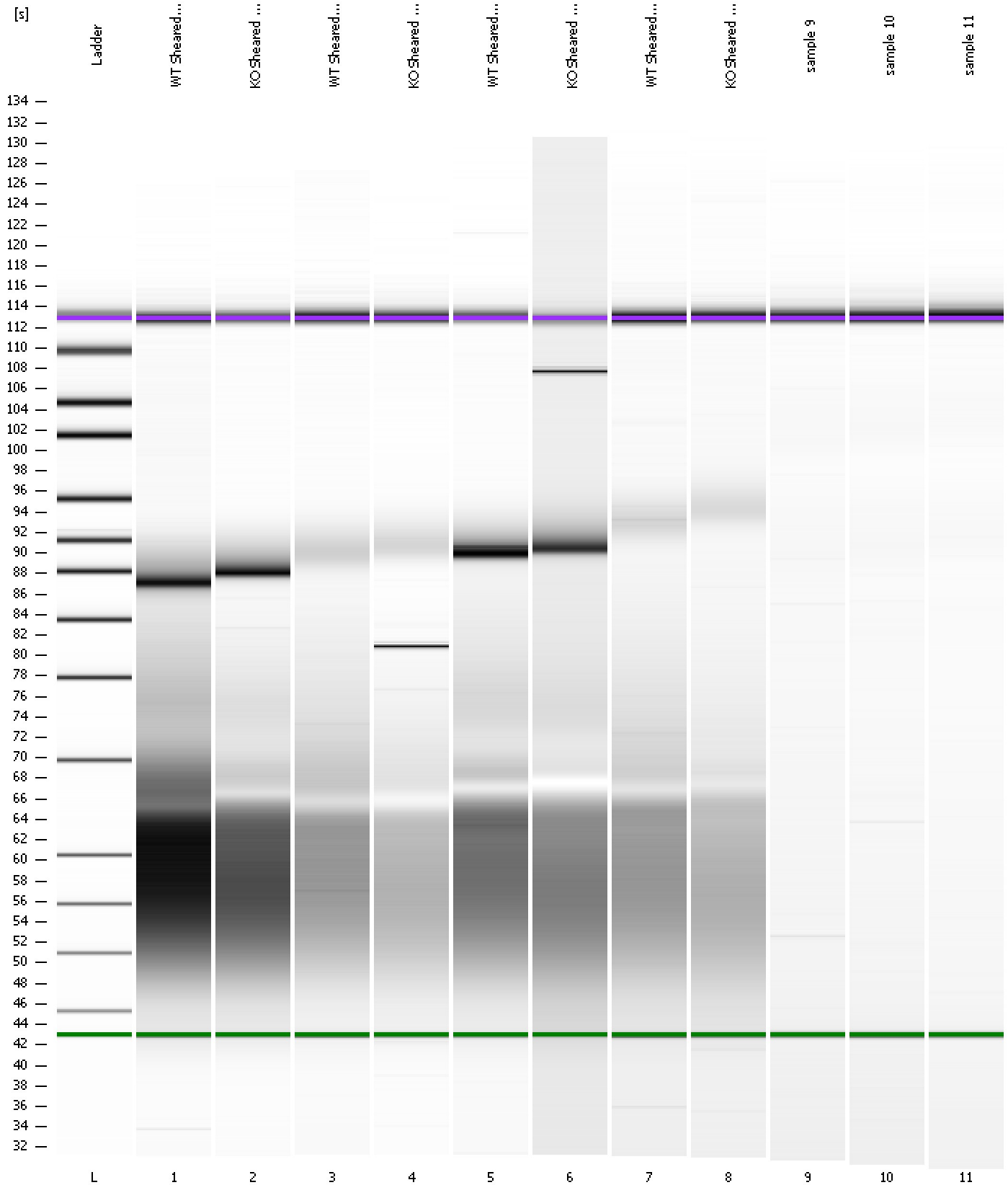
**Region table for sample 11 : sample 11**

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color	
60.54	95.24	793	4.9	2.53	2.3	20	11.2	Blue

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
Modified: 7/26/2013 1:54:49 PM

**Gel Image**





Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-07-26\2013-07-26\_002.xad

Created: 7/26/2013 1:13:27 PM  
 Modified: 7/26/2013 1:54:49 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 12)		Instrument	Run		7/26/2013 1:54:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-07-26\2013-07-26_002.xad)		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		7/26/2013 1:13:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1