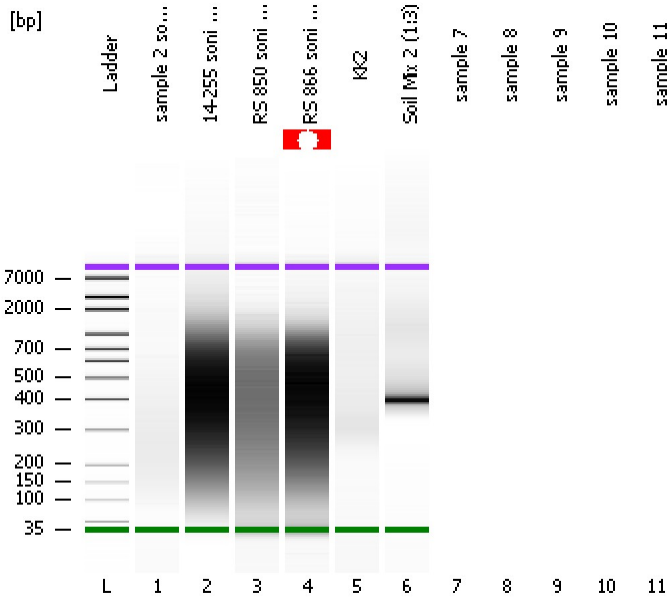


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 PM

**Electrophoresis File Run Summary**



Instrument Information:

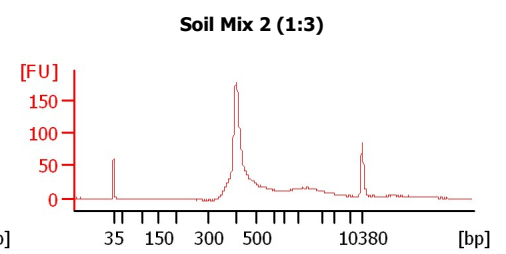
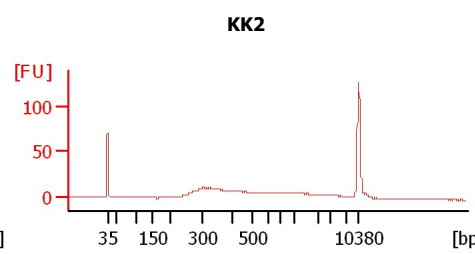
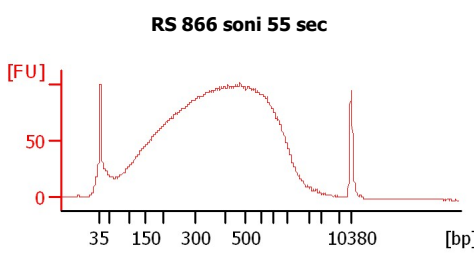
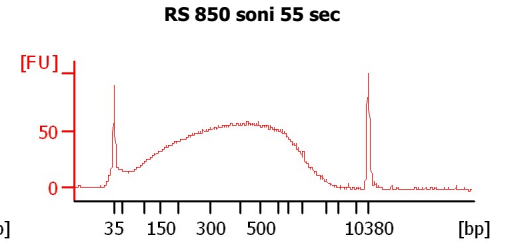
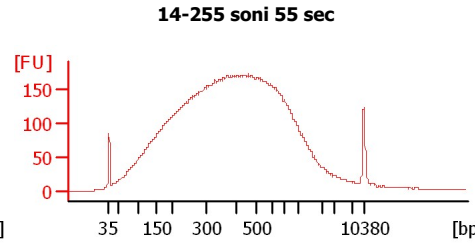
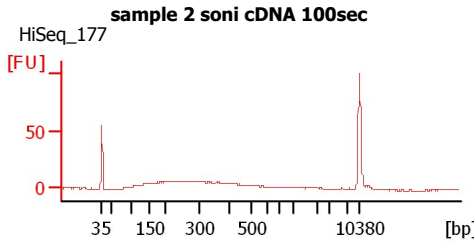
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

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

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 2 soni cDNA 100sec	HiSeq_177	<input type="checkbox"/>	✓			
14-255 soni 55 sec		<input type="checkbox"/>	✓			
RS 850 soni 55 sec		<input type="checkbox"/>	✓			
RS 866 soni 55 sec		<input type="checkbox"/>	⚠			
KK2		<input type="checkbox"/>	✓			
Soil Mix 2 (1:3)		<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\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 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

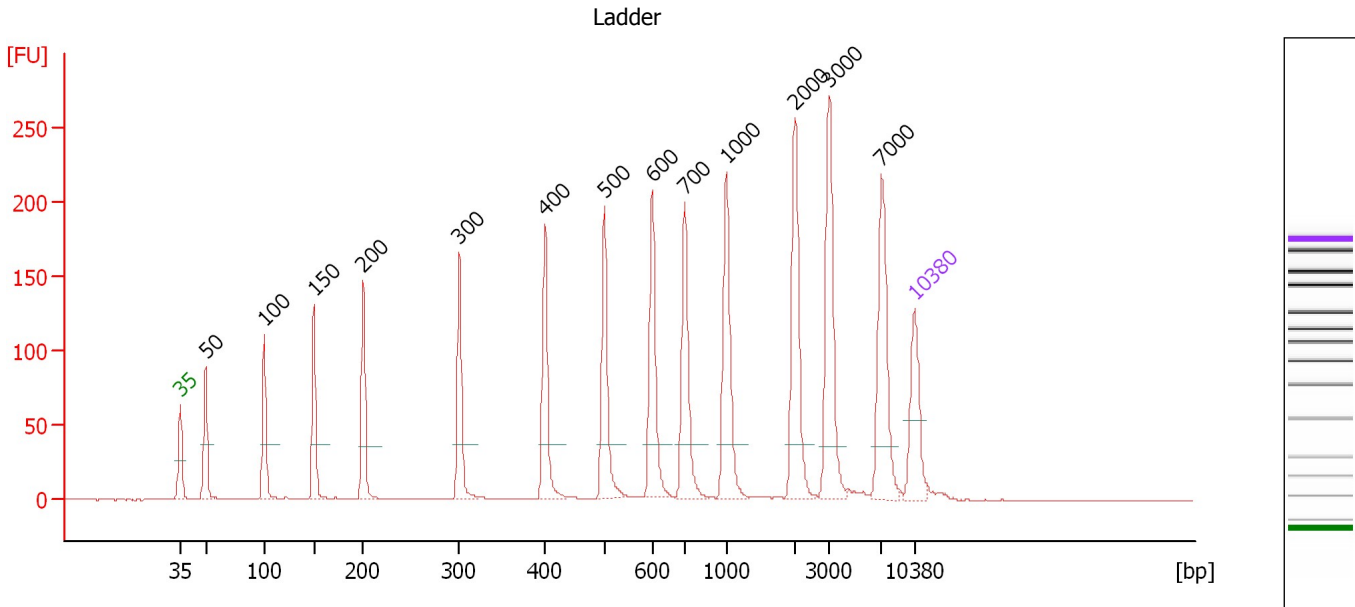
**Ladder**

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\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.2

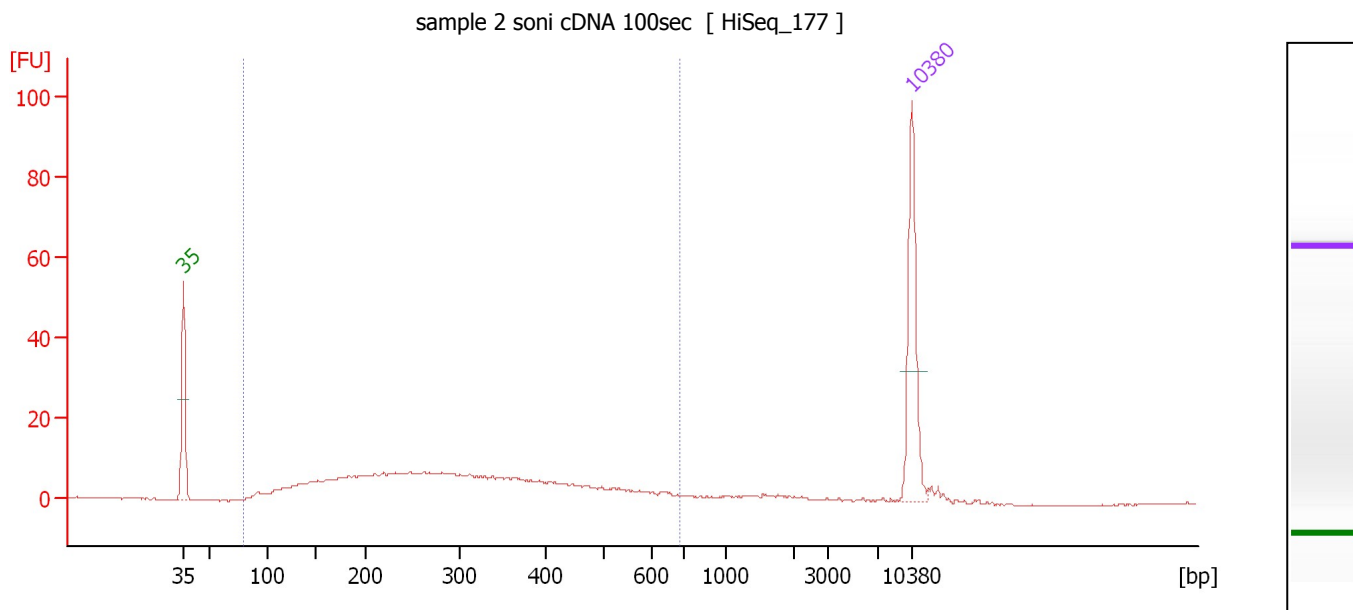
**Peak table for Ladder**

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	51.03
4	150	150.00	1,515.2	Ladder Peak	55.75
5	200	150.00	1,136.4	Ladder Peak	60.47
6	300	150.00	757.6	Ladder Peak	69.62
7	400	150.00	568.2	Ladder Peak	77.75
8	500	150.00	454.5	Ladder Peak	83.44
9	600	150.00	378.8	Ladder Peak	88.01
10	700	150.00	324.7	Ladder Peak	91.06
11	1,000	150.00	227.3	Ladder Peak	95.07
12	2,000	150.00	113.6	Ladder Peak	101.57
13	3,000	150.00	75.8	Ladder Peak	104.87
14	7,000	150.00	32.5	Ladder Peak	109.80
15	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 2 soni cDNA 100sec

Number of peaks found: 0                                      Corr. Area 1: 254.7  
 Noise: 0.1

Peak table for sample 1 : sample 2 soni cDNA 100sec

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	10,380	75.00	10.9	Upper Marker	113.00

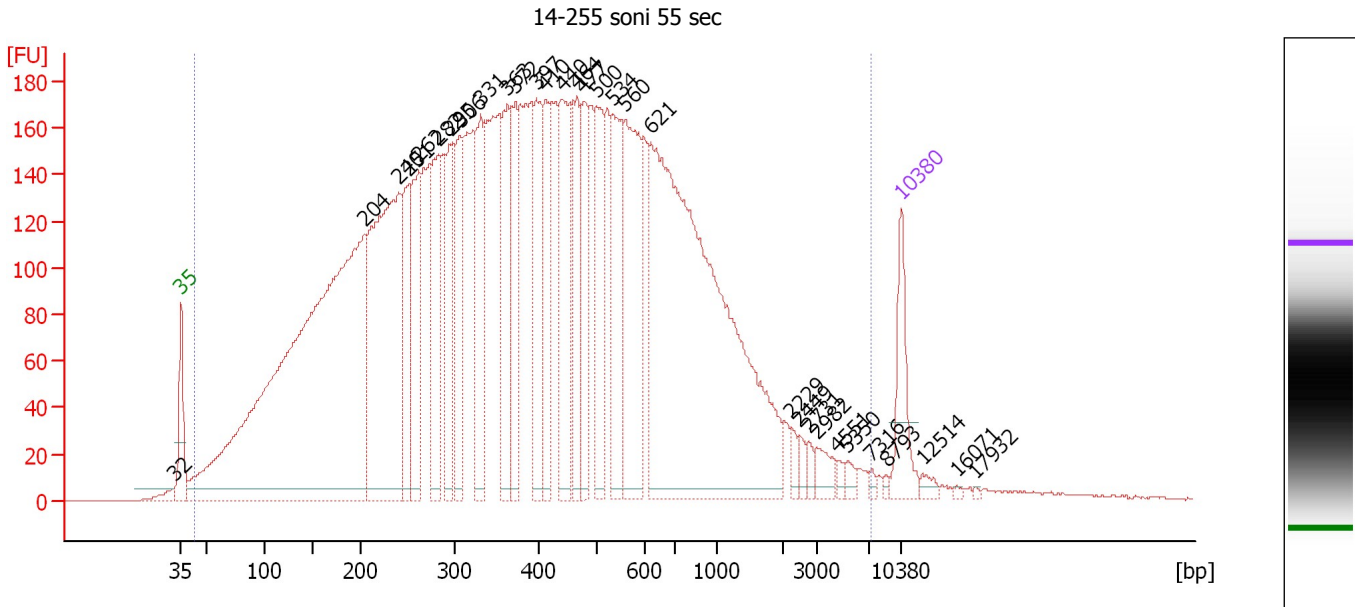
Region table for sample 1 : sample 2 soni cDNA 100sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
80	688	306	254.7	2,694.1	412.98	92	41.4

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 14-255 soni 55 sec**

Number of peaks found: 31                      Corr. Area 1: 8,803.8  
 Noise: 0.2

**Peak table for sample 2 : 14-255 soni 55 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
1	32	0.00	0.0		42.27
2	35	125.00	5,411.3	Lower Marker	43.00
3	204	1,816.24	13,501.6		60.82
4	240	712.52	4,496.6		64.14
5	251	157.34	950.3		65.12
6	262	214.88	1,244.5		66.11
7	282	205.12	1,102.0		67.97
8	295	171.17	879.0		69.17
9	306	171.10	847.5		70.10
10	331	200.78	919.7		72.12
11	363	172.33	720.0		74.71
12	372	159.87	650.8		75.49
13	397	163.01	622.0		77.51
14	410	150.52	555.7		78.34
15	440	216.17	745.2		79.99
16	464	125.41	409.4		81.39
17	477	142.73	453.5		82.12
18	500	175.26	531.5		83.41
19	534	197.12	559.8		84.97
20	560	280.20	758.7		86.16
21	621	1,119.04	2,730.3		88.65
22	2,229	12.50	8.5		102.33
23	2,449	13.00	8.0		103.05
24	2,731	11.53	6.4		103.98
25	2,982	26.54	13.5		104.81

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 2 : 14-255 soni 55 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	4,551	7.88	2.6		106.78
27	5,350	10.62	3.0		107.77
28	7,316	5.11	1.1		110.10
29	8,793	3.85	0.7		111.50
30	10,380	75.00	10.9	Upper Marker	113.00
31	12,514	0.00	0.0		115.02
32	16,071	0.00	0.0		118.39
33	17,932	0.00	0.0		120.15

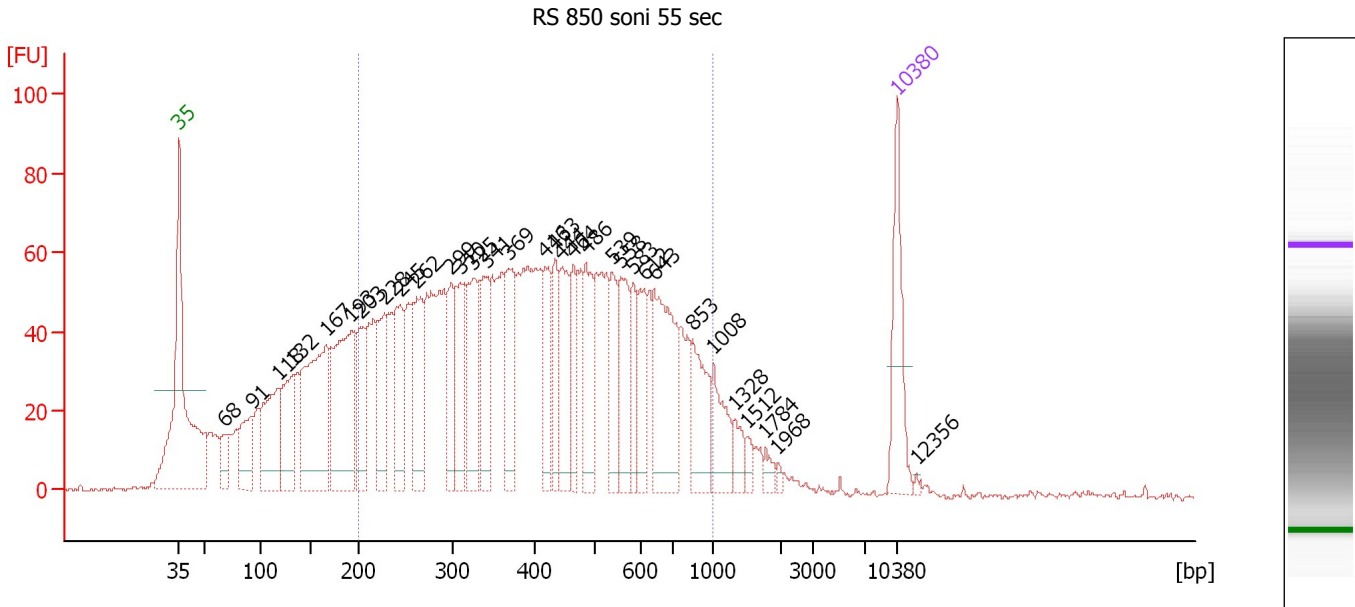
**Region table for sample 2 : 14-255 soni 55 sec**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/μl]	% of Total	Size distribution in CV [%]
43	7,322	539	8,803.8	52,250.4	8,735.85	99	100.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : RS 850 soni 55 sec**

Number of peaks found: 32                      Corr. Area 1: 2,235.0  
 Noise: 0.7

**Peak table for sample 3 : RS 850 soni 55 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	68	40.20	893.4		47.47
3	91	83.23	1,379.4		50.07
4	118	148.97	1,914.4		52.72
5	132	113.38	1,299.4		54.07
6	167	274.66	2,494.1		57.34
7	193	243.02	1,910.7		59.79
8	203	91.55	684.3		60.72
9	228	102.35	679.4		63.06
10	245	103.71	642.0		64.57
11	262	119.90	692.4		66.18
12	299	69.62	352.4		69.56
13	310	94.82	463.3		70.44
14	325	108.82	507.6		71.63
15	341	96.17	426.8		72.99
16	369	93.53	384.1		75.22
17	416	77.81	283.5		78.65
18	433	64.16	224.4		79.64
19	444	88.84	303.0		80.26
20	464	57.08	186.3		81.40
21	486	85.98	267.9		82.65
22	539	62.77	176.6		85.20
23	558	82.22	223.3		86.08
24	583	45.25	117.6		87.22
25	612	60.36	149.5		88.37



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**

**... Peak table for sample 3 : RS 850 soni 55 sec**

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	643	157.11	370.5		89.30
27	853	75.12	133.5		93.10
28	1,008	52.84	79.4		95.12
29	1,328	20.96	23.9		97.20
30	1,512	10.20	10.2		98.40
31	1,784	9.78	8.3		100.16
32	1,968	3.87	3.0		101.36
33	10,380	75.00	10.9	Upper Marker	113.00
34	12,356	0.00	0.0		114.87

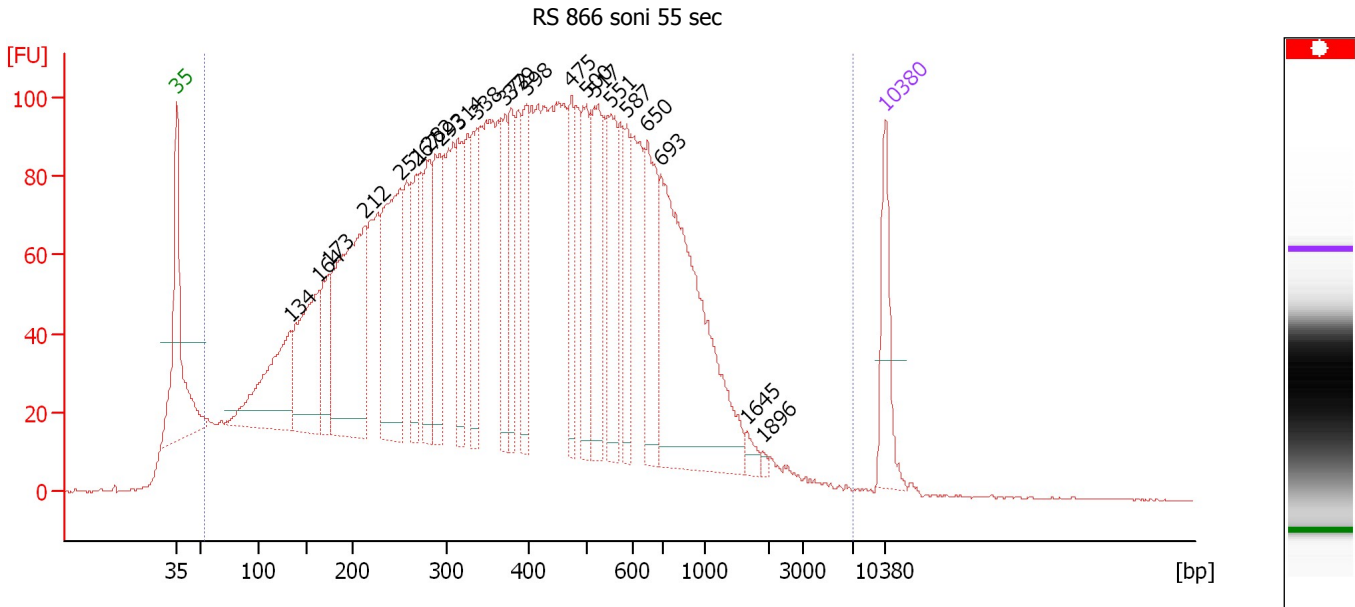
**Region table for sample 3 : RS 850 soni 55 sec**

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	439	2,235.0	12,567.7	2,947.63	73	40.1

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : RS 866 soni 55 sec**

Number of peaks found: 22                      Corr. Area 1: 4,911.7  
 Noise: 0.2

**Peak table for sample 4 : RS 866 soni 55 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	134	249.52	2,827.7		54.21
3	164	248.74	2,301.1		57.05
4	173	98.45	861.0		57.95
5	212	424.14	3,030.2		61.58
6	251	313.53	1,895.3		65.11
7	267	114.78	650.5		66.63
8	282	133.42	717.6		67.95
9	293	141.70	732.1		69.00
10	314	118.75	572.3		70.79
11	338	116.97	523.8		72.74
12	372	98.86	402.6		75.47
13	379	98.67	395.0		76.00
14	398	111.16	423.2		77.58
15	475	93.57	298.6		82.00
16	500	125.18	379.5		83.42
17	517	156.21	457.8		84.21
18	551	145.73	400.4		85.79
19	587	75.79	195.6		87.42
20	650	143.05	333.5		89.53
21	693	467.27	1,021.6		90.84
22	1,645	13.07	12.0		99.26
23	1,896	3.95	3.2		100.89
24	10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**

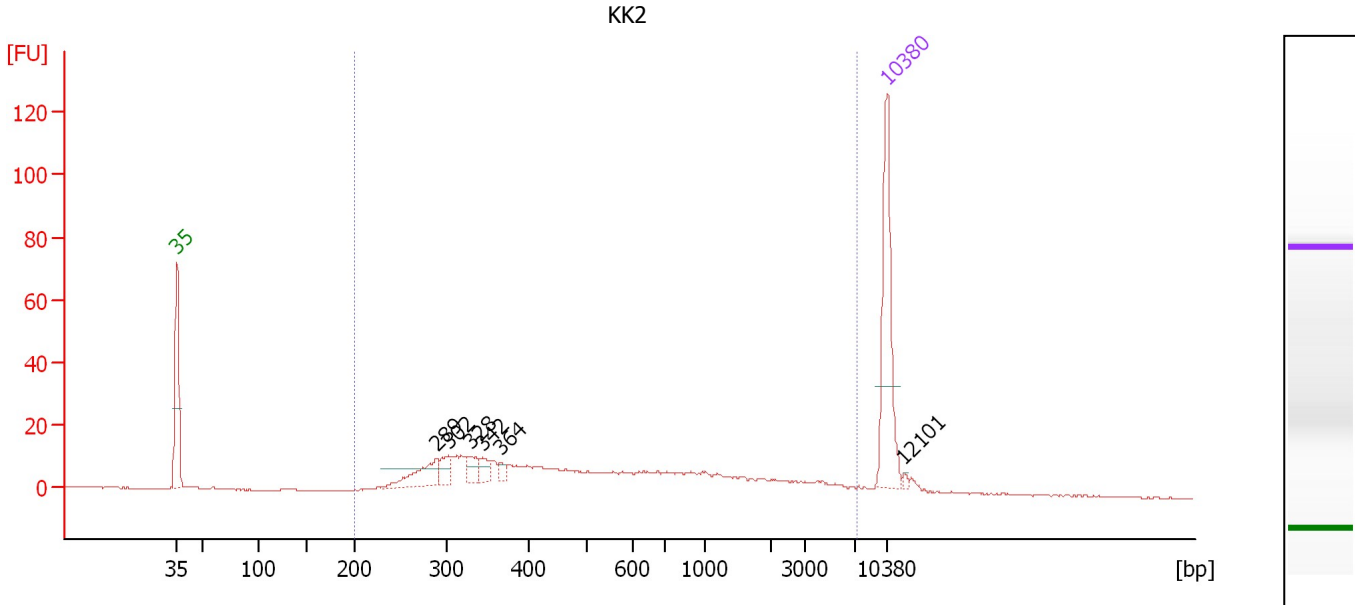
... Region table for sample 4 : RS 866 soni 55 sec

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. lor [pg/ $\mu$ l]	% of Total	Size distribution in CV [%]
53	6,947	470	4,911.7	41,844.2	6,918.02	99	92.3

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : KK2**

Number of peaks found: 6                      Corr. Area 1: 361.1  
 Noise: 0.1

**Peak table for sample 5 : KK2**

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	289	36.42	191.1		68.59
3	302	15.70	78.9		69.75
4	328	13.78	63.6		71.90
5	342	11.58	51.2		73.06
6	364	5.82	24.2		74.85
7	10,380	75.00	10.9	Upper Marker	113.00
8	12,101	0.00	0.0		114.63

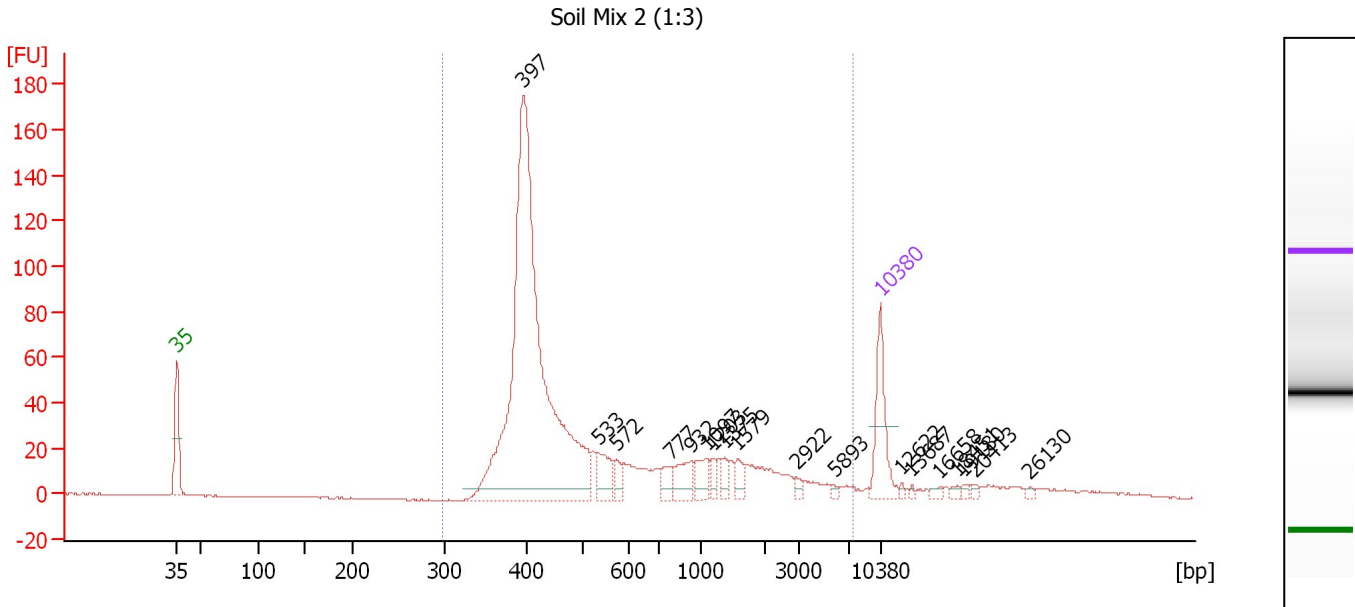
**Region table for sample 5 : KK2**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/μl]	% of Total	Size distribution in CV [%]
200	7,209	937	361.1	1,224.2	351.10	92	100.0

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : Soil Mix 2 (1:3)**

Number of peaks found: 18                      Corr. Area 1: 1,044.6  
 Noise: 0.2

**Peak table for sample 6 : Soil Mix 2 (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	397	1,038.11	3,962.7		77.50
3	533	47.01	133.7		84.93
4	572	19.44	51.5		86.73
5	777	22.57	44.0		92.09
6	932	39.37	64.0		94.16
7	1,097	30.02	41.5		95.70
8	1,203	14.10	17.8		96.39
9	1,375	13.57	15.0		97.50
10	1,579	17.80	17.1		98.83
11	2,922	7.50	3.9		104.61
12	5,893	4.37	1.1		108.44
13	10,380	75.00	10.9	Upper Marker	113.00
14	12,622	0.00	0.0		115.12
15	13,687	0.00	0.0		116.13
16	16,658	0.00	0.0		118.94
17	18,451	0.00	0.0		120.64
18	19,180	0.00	0.0		121.33
19	20,413	0.00	0.0		122.50
20	26,130	0.00	0.0		127.91

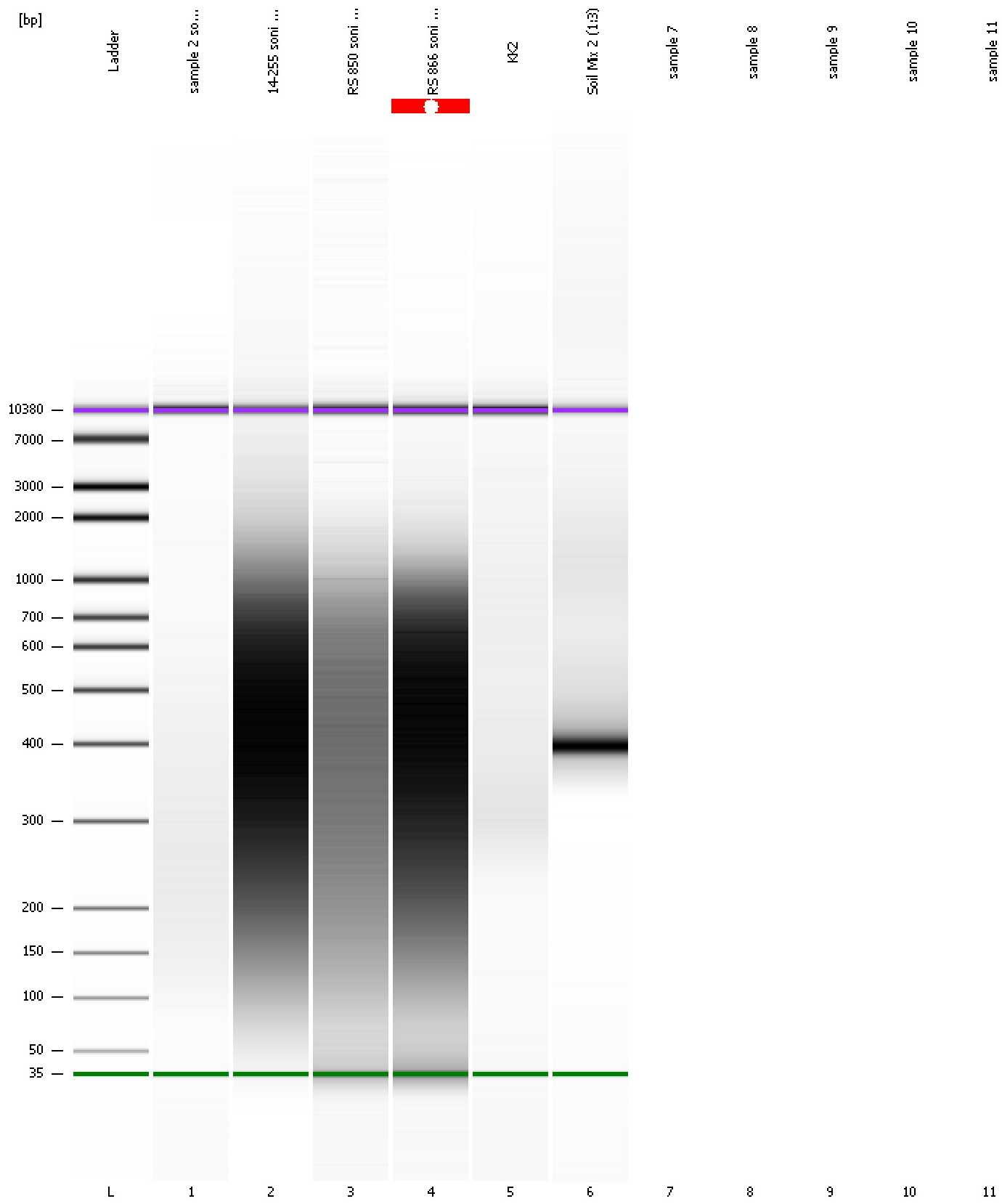
**Region table for sample 6 : Soil Mix 2 (1:3)**

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Co Conc. [pg/µl]	% of Total	Size distribution in CV [%]
299	7,463	817	1,044.6	4,309.6	1,385.04	92	100.0

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 PM

**Gel Image**

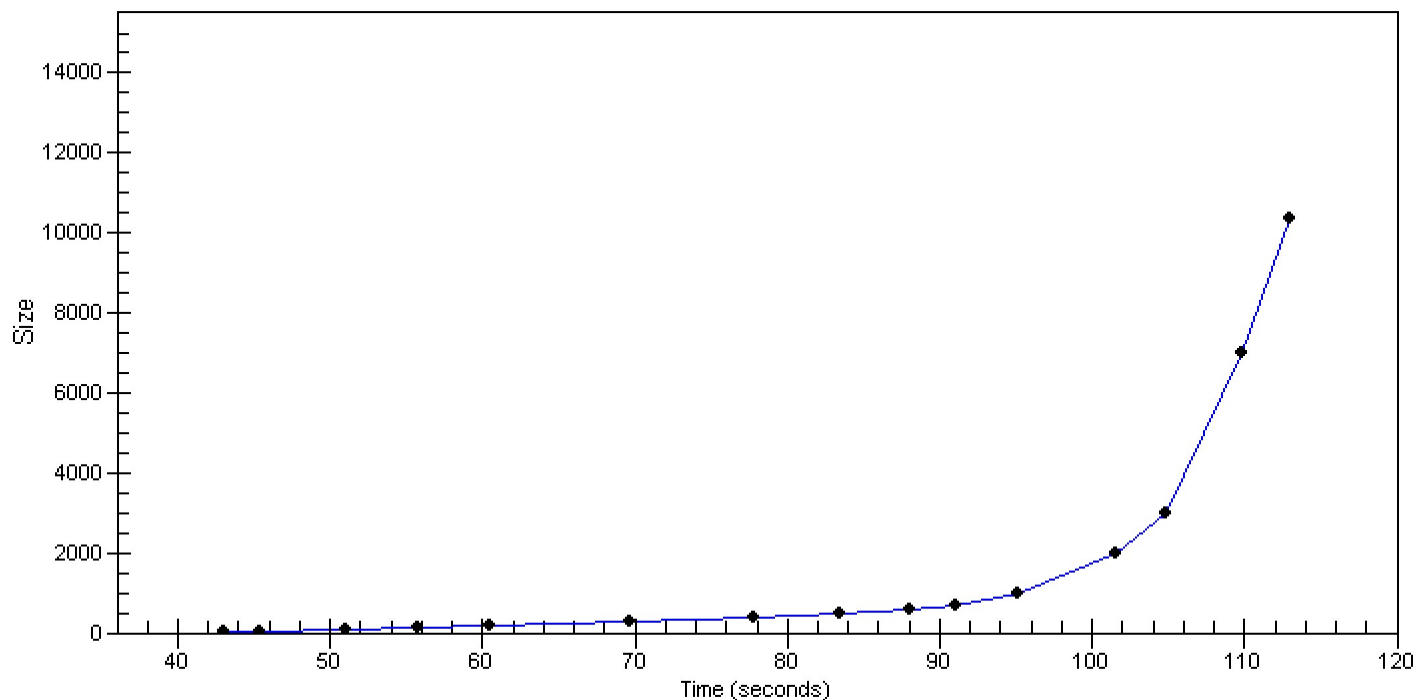


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 PM

**Curves**

**Standard Curve**



Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
Modified: 10/28/2015 1:03:10 PM

**Invalid Samples**

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\2015-10-28\2015-10-28\_002.xad

Created: 10/28/2015 12:30:30 PM  
 Modified: 10/28/2015 1:03:10 PM

**Run Logbook**

Description	Number	Source	Category	Sub Category	Time	Time Zone	User	Host
Run ended on port 1 (Number of wells acquired: 7)		Instrument	Run		10/28/2015 12:57:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2015-10-28\2015-10-28_002.xad)		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		10/28/2015 12:30:35 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1