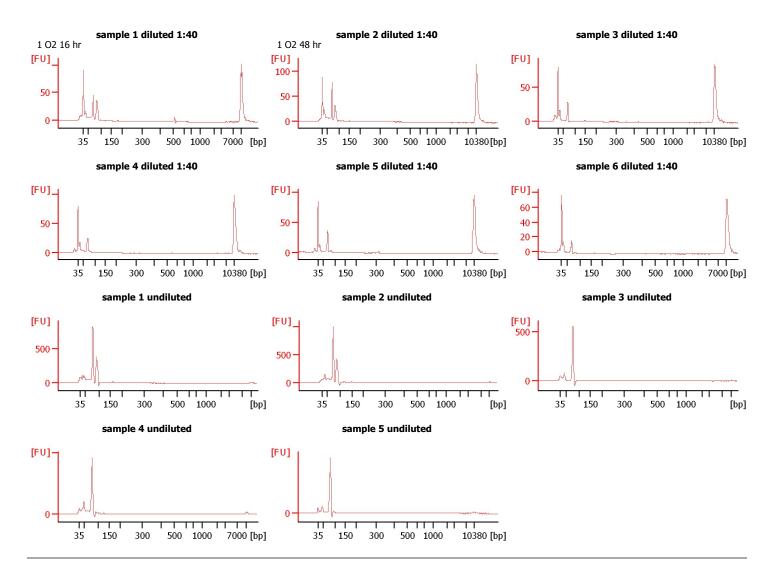
Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM

Electrophoresis File Run Summary

Instrument Information	tion:		
Instrument Name:	DE13701086	Firmware:	C.01.069
Serial#:	DE13701086	Type:	G2938B
Assay Information:			
Assay Origin Path:	C:\Program Files\Agilent\21 expert\assays\dsDNA\High	,	•
Assay Class:	High Sensitivity DNA Assay		
Version:	1.03		
Assay Comments:	Copyright © 2003-2010 Ag	ilent Technolo	ogies
Chip Information:			
Chip Lot #:			
Reagent Kit Lot #:			

Chip Comments:



2012-05-30_	_003.xad								Page	2 of	17
Assay Class: Data Path: Electrophore							Created: Modified:			.1:52:3 .2:33:5	
Sample Name sample 1 diluted sample 2 diluted sample 3 diluted sample 4 diluted sample 5 diluted sample 6 diluted sample 1 undilu sample 2 undilu	e d 1:40 d 1:40 d 1:40 d 1:40 d 1:40 d 1:40 uted uted	Sample Comment 1 O2 16 hr 1 O2 48 hr		Status	Observation		Result La	bel	Re	sult Co	lor
sample 5 undilu sample 5 undilu Ladder	ited			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							

Chip Lot #

Reagent Kit Lot #

Chip Comments :

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] : 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

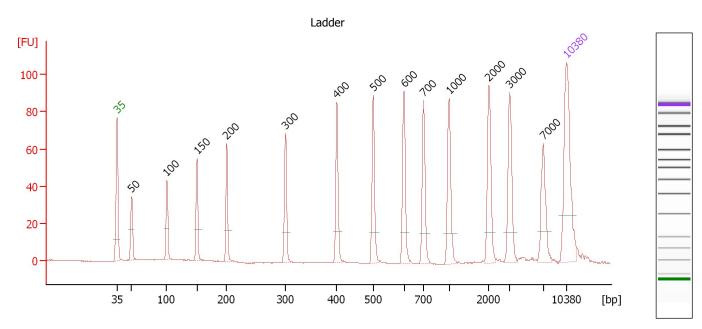
Ladder Peak	Size	Area
1	35	160
2	50	210
3	100	208
4	150	221
5	200	242
6	300	270
7	400	305
8	500	306
9	600	336
10	700	321
11	1000	366
12	2000	413
13	3000	411
14	7000	400
15	10380	214

Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM

High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad Assay Class: Data Path:

5/30/2012 11:52:36 AM 5/30/2012 12:33:59 PM Created: Modified:

Electropherogram Summary



Overall Results for Ladder

Noise:

0.1

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

2012-05-30_003.xad Page 5 of 17 High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad Created: Modified: 5/30/2012 11:52:36 AM 5/30/2012 12:33:59 PM Assay Class: Data Path: **Electropherogram Summary Continued ...** sample 1 diluted 1:40 [1 O2 16 hr] 10380 [FU] 100 80. 60 ଡ ŝ 40 20 12591 2 0-Thre

					P		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
_	3	0 20	0 300	400	500	700	2000	10380	[bp]

Overall Results for sam	ple 1 :	sample 1 diluted 1:40	
Number of peaks found:	7	Corr. Area 1:	177.8
Noise:	0.2	Corr. Area 2:	23.6

Peak t	Peak table for sample 1 : <u>sample 1 diluted 1:40</u>								
Peak		Size [l	bp] Co	nc. [pg/µl]	Molari	ity [pmol/	1]	Observations	
1		30	0.0	00	0.0				
2		32	0.0	00	0.0				
3	10	35	12	5.00	5,411.3	3		Lower Marker	
4		41	53	.60	1,991.9	Ð			
5		49	15	.10	464.1				
6		69	75	.38	1,659.0)			
7		83	10	3.09	1,882.9	Ð			
8	6	10,380) 75	.00	10.9			Upper Marker	
9		12,597	· 0.0	00	0.0				
Regio	n tab	le for s	ample 1 :	sample 1 d	liluted 1:40				
From [bp]		[I	verage Size bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
18 40	30		.6 .a	2,283.0 5 940 1	39.11 257 58	23.6 177.8	10 78	9.4 22.8	
40	11	15 6	9	5,940.1	257.58	177.8	78	22.8	

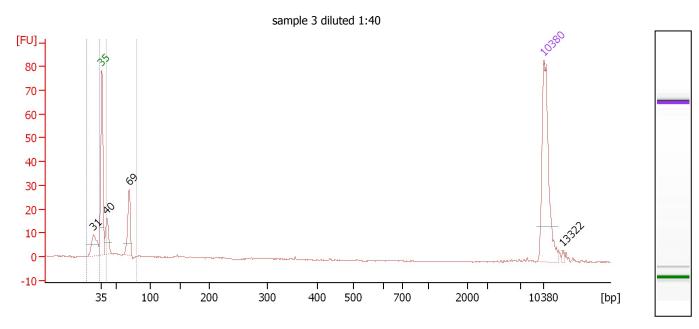
2012-05-30_	_003.xad							Page 6 of 17
Assay Class: Data Path: Electrophere	Assay Class: High Sensitivity DNA Assay Data Path: C:\ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad Electropherogram Summary Continued							5/30/2012 11:52:36 AM 5/30/2012 12:33:59 PM
		sample	2 diluted 1:4	ł0 [1024	48 hr]			
[FU] _ 100 - 80 - 60 - 40 - 20 - 0 -	5 6 6 6 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	200 3	 1 1 300 400) 500			10380	

Overall Results for sample	2:	sample 2 diluted 1:40		
Number of peaks found:	5	Corr. Area 1:	243.8	
Noise:	0.2	Corr. Area 2:	8.7	

Peak ta	Peak table for sample 2 : <u>sample 2 diluted 1:40</u>							
Peak		Size [bp]	Conc. [pg/µl]	Mola	rity [pmol	/I]	Observations	
1		33	0.00	0.0				
2		35	125.00	5,411	3		Lower Marker	
3		40	64.06	2,405	5.6			
4		51	34.63	1,019).9			
5		69	104.48	2,280).2			
6		82	84.57	1,571	5			
7		10,380	75.00	10.9			Upper Marker	
Region	tab	le for sample 2	: <u>sample 2</u>	2 diluted 1:4	<u>0</u>			
From [bp] 20 38	29	o [bp] Average S [bp] 9 26 52 69	Size Molarity [pmol/l] 795.1 7,856.1	Conc. [pg/μl] 13.40 326.05	Corr. Area 8.7 243.8	% of Total 3 87	Size distribution in CV [%] 8.8 29.8	Co lor

Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM

Electropherogram Summary Continued ...



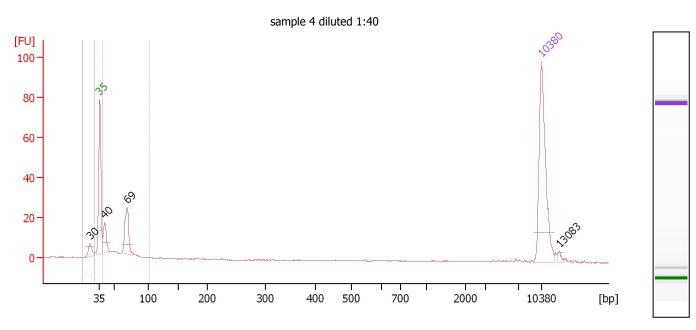
Overall Results for sam	ple 3:	sample 3 diluted 1:40				
Number of peaks found:	4	Corr. Area 1:	58.0			
Noise:	0.2	Corr. Area 2:	26.3			

Peak	table	for sample 3	: <u>sample 3 dilu</u>	ited 1:40	
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1		31	0.00	0.0	
2	-	35	125.00	5,411.3	Lower Marker
3		40	35.54	1,340.3	
4		69	49.54	1,092.5	
5		10,380	75.00	10.9	Upper Marker
6		13,322	0.00	0.0	
Regio	n tat	ole for sample	3 : <u>sample 3 d</u>	iluted 1:40	
From	т	o [bp] Average	Size Molarity	Conc. Corr. %	o of Size distribution in

....

From [bp]	To [b	p] Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
19	33	27	2,652.1	47.97	26.3	24	10.1	
40	79	58	2,582.3	93.89	58.0	52	21.3	

Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM



Overall Results for sam	ble 4 :	sample 4 diluted 1:40	
Number of peaks found:	4	Corr. Area 1:	95.7
Noise:	0.1	Corr. Area 2:	13.9
Peak table for sample 4	: sa	mple 4 diluted 1:40	

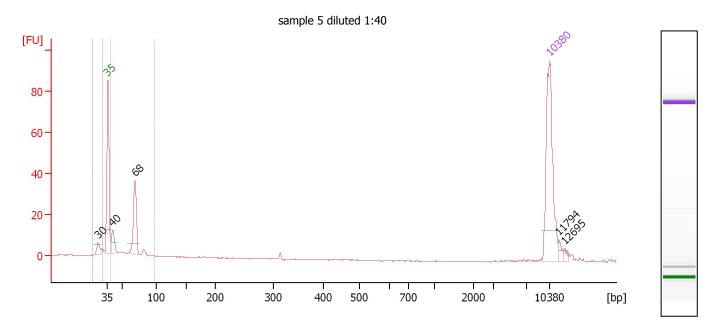
Peak table	for sample 4 :	sample 4 diluted	1:40			
Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations		
1	30	0.00	0.0			
2 ┥	35	125.00	5,411.3	Lower Marker		
3	40	32.26	1,213.6			
4	69	53.27	1,168.8			
5 🕨	10,380	75.00	10.9	Upper Marker		
6	13,083	0.00	0.0			
Region table for sample 4 : <u>sample 4 diluted 1:40</u>						

From [bp]	To [bp] Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
16	29	25	1,386.1	22.68	13.9	10	9.2	
38	100	58	3,807.3	137.13	95.7	72	24.7	

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Created: Modified:

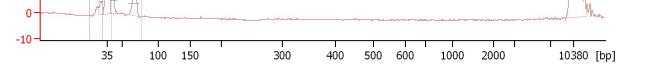
Assay Class:High Sensitivity DNA AssayData Path:C:\...ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad



Overall Results for sam	ple 5 :	sample 5 diluted 1:40		
Number of peaks found:	5	Corr. Area 1:	83.2	
Noise:	0.1	Corr. Area 2:	12.0	

Peak t	able	for sample 5 :	sample 5 di	iluted 1:40				
Peak		Size [bp]	Conc. [pg/µl]	Mola	rity [pmol	/I]	Observations	
1		30	0.00	0.0				
2		35	125.00	5,411	.3		Lower Marker	
3		40	22.83	863.6				
4		68	67.05	1,485	.1			
5		10,380	75.00	10.9			Upper Marker	
6		11,794	0.00	0.0				
7		12,695	0.00	0.0				
Region table for sample 5 : <u>sample 5 diluted 1:40</u>								
From [bp]	T	o [bp] Average S [bp]	ize Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
19	29	9 25	1,196.9	20.05	12.0	10	8.0	
38	9	7 61	3,190.5	122.08	83.2	70	21.7	

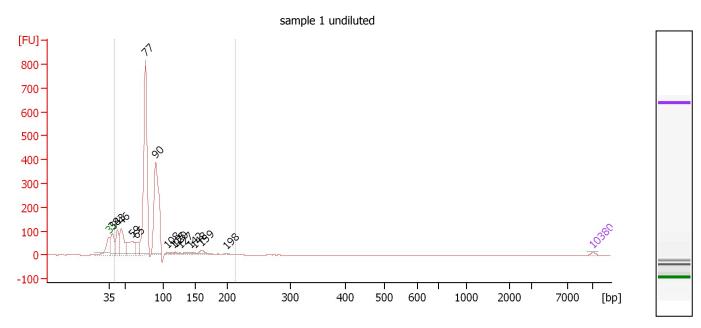
2012-05-30_	2012-05-30_003.xad Page 10 of						
Assay Class: Data Path: Electropher	High Sensitivity DNA Assay C:\ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad ogram Summary Continued	Created: Modified:	5/30/2012 11:52:36 AM 5/30/2012 12:33:59 PM				
	sample 6 diluted 1:40						
[FU] _ 70 - 60 - 50 - 40 -		10380					
30 -							
20-	[∞] ⇔						
10-	- AL	τt.					



Overall Results for sam	ple 6 :	sample 6 diluted 1:40	
Number of peaks found:	3	Corr. Area 1:	39.3
Noise:	0.2	Corr. Area 2:	8.5

Peak table for sample 6 :			sample 6 diluted 1:40					
Peak		Size [bp]	Conc. [pg/µl]	Mola	rity [pmol	/I]	Observations	
1		32	0.00	0.0				
2		35	125.00	5,411	.3		Lower Marker	
3		40	39.76	1,516	.6			
4		68	43.52	972.5				
5	6	10,380	75.00	10.9			Upper Marker	
Region table for sample 6 : <u>sample 6 diluted 1:40</u>								
From [bp]	Т	o [bp] Average S [bp]	ize Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
18	30) 27	980.7	17.75	8.5	14	6.8	
39	77	7 55	2,168.3	73.46	39.3	66	23.9	

ated: 5/30/2012 11:52:36 AM fied: 5/30/2012 12:33:59 PM

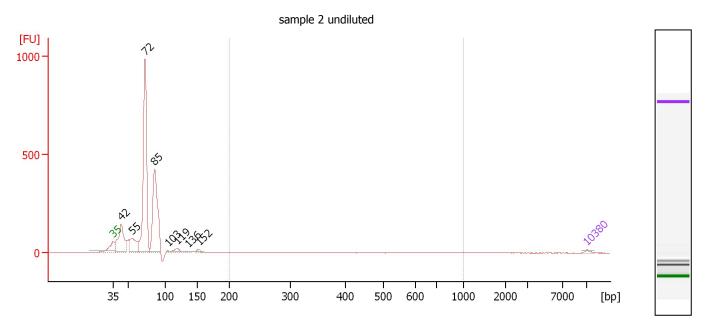


Overall Results for samp	ole 7 :	sample 1 undiluted	
Number of peaks found:	15	Corr. Area 1:	2,855.0
Noise:	0.2		

Peak Size [bp] Conc. [pg/µ] Molarity [pmol/l] Observations 1 ▲ 35 125.00 5,411.3 Lower Marker 2 38 2,297.24 91,503.7 Lower Marker 3 43 2,169.42 77,166.5 Lower Marker 4 46 3,240.65 105,833.7 Lower Marker 5 59 2,435.95 62,124.2 Lower Marker 6 65 1,038.45 24,192.4 Lower Marker 7 77 16,621.65 327,093.9 Lower Marker 8 90 10,858.52 182,079.6 Lower Marker 9 108 204.25 2,875.2 Lower Marker 10 115 195.72 2,568.8 Lower Marker 11 120 191.64 2,428.9 Lower Marker 12 127 121.49 1,454.8 Lower Marker 13 142 397.83 4,253.0 Lower Marker 14 148<	Peak tab					
238 $2,297.24$ $91,503.7$ 343 $2,169.42$ $77,166.5$ 446 $3,240.65$ $105,833.7$ 559 $2,435.95$ $62,124.2$ 665 $1,038.45$ $24,192.4$ 777 $16,621.65$ $327,093.9$ 890 $10,858.52$ $182,079.6$ 9108 204.25 $2,875.2$ 10115195.72 $2,568.8$ 11120191.64 $2,428.9$ 12127121.49 $1,454.8$ 13142 397.83 $4,253.0$ 14148160.66 $1,641.4$ 15159 553.44 $5,258.1$ 16198 64.30 492.0	Peak					
3432,169.4277,166.54463,240.65105,833.75592,435.95 $62,124.2$ 6651,038.45 $24,192.4$ 77716,621.65 $327,093.9$ 89010,858.52182,079.69108204.25 $2,875.2$ 10115195.72 $2,568.8$ 11120191.64 $2,428.9$ 12127121.491,454.813142397.83 $4,253.0$ 14148160.661,641.415159553.44 $5,258.1$ 1619864.30492.0	1					
4463,240.65105,833.75592,435.9562,124.26651,038.4524,192.477716,621.65327,093.989010,858.52182,079.69108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	2					
5592,435.9562,124.26651,038.4524,192.477716,621.65327,093.989010,858.52182,079.69108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	3					
6651,038.4524,192.477716,621.65327,093.989010,858.52182,079.69108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	4					
77716,621.65327,093.989010,858.52182,079.69108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	5					
89010,858.52182,079.69108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	6					
9108204.252,875.210115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	7					
10115195.722,568.811120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	8					
11120191.642,428.912127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	9					
12127121.491,454.813142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	10					
13142397.834,253.014148160.661,641.415159553.445,258.11619864.30492.0	11					
14148160.661,641.415159553.445,258.11619864.30492.0	12					
15159553.445,258.11619864.30492.0	13					
16 198 64.30 492.0	14					
	15					
17 🍋 10.380 75.00 10.9 Upper Marker	16					
	17 👌					
Region table for sample 7 : <u>sample 1 undiluted</u>						
From To [bp] Average Size Molarity Conc. Corr. % of Size distribution in Co [bp] [bp] [pmol/l] [pg/μl] Area Total CV [%] lor 40 212 80 808,435.9 39,235.33 2,855.0 95 30.8	[bp]					

Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM

Electropherogram Summary Continued ...

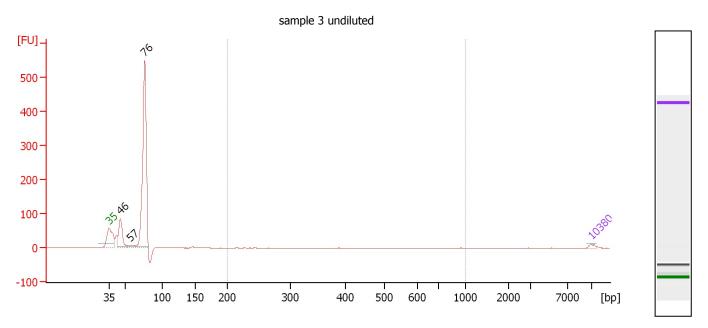


Overall Results for sample 8 : <u>sample 2 undiluted</u>

Number of peaks found:	8	Corr. Area 1:	2.0
Noise:	0.2		

Peak t	able	for sample 8 :	sample 2 un	<u>idiluted</u>				
Peak		Size [bp]	Conc. [pg/µl]	Mola	rity [pmol	/I]	Observations	
1		35	125.00	5,411	.3		Lower Marker	
2		42	4,961.38	177,0	34.3			
3		55	2,654.95	73,27	5.1			
4		72	16,678.70	350,7	28.3			
5		85	10,129.34	180,7	33.3			
6		103	100.91	1,480	.7			
7		119	637.36	8,135	.5			
8		136	114.01	1,268	.0			
9		152	226.87	2,259	.7			
10	6	10,380	75.00	10.9			Upper Marker	
Regio	Region table for sample 8 : <u>sample 2 undiluted</u>							
From [bp]		o [bp] Average S [bp]	[pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
200	1,	000 800	29.9	14.27	2.0	0	22.0	

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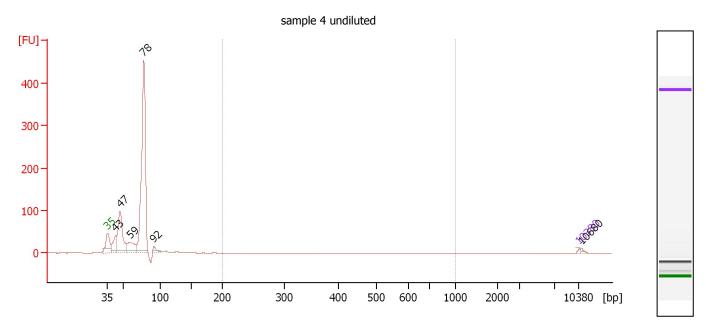
Overall Results for sample 9 : <u>sample 3 undiluted</u>								
Number of peaks found:			3	Corr. Area 1: 0				
Noise:			0.2					
Peak t	table	for sample 9 :	sample 3 undilut	<u>ed</u>				
Peak		Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations			
1	-	35	125.00	5,411.3	Lower Marker			
2		46	2,446.02	81,191.3				
3		57	320.34	8,571.1				
4		76	13,278.63	263,537.0				
5	6	10,380	75.00	10.9	Upper Marker			

Region table for sample 9 :			sample 3	undiluted				
From [bp]] Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area	% of Total	Size distribution in CV [%]	Co lor
200	1,000	0	0.0	0.00	0.0	0	0.0	

High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad Assay Class: Data Path:



Electropherogram Summary Continued ...

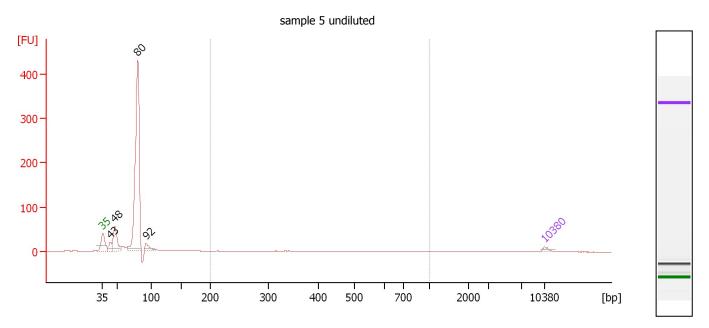


10.3

Overall Results for sam	ple 10 :	sample 4 undiluted	
Number of peaks found:	6	Corr. Area 1:	
Noise:	0.1		

Peak table for sample 10 : <u>sample 4 undiluted</u>								
Peak		Size [bp]	Conc. [pg/µl]	Molar	ity [pmol/	1]	Observations	
1		35	125.00	5,411.	3		Lower Marker	
2		43	2,366.99	83,291	1.1			
3		47	7,321.81	234,95	51.3			
4		59	2,811.91	71,614	1.0			
5		78	24,671.38	477,62	20.4			
6		92	770.32	12,738	3.7			
7	0	10,380	75.00	10.9			Upper Marker	
8		10,680	0.00	0.0				
Region table for sample 10 : <u>sample 4 undiluted</u>								
From [bp] 200		b [bp] Average S [bp] 000 495	[pmol/ĺ] [Conc. [pg/μl] 235.88	Corr. Area 10.3	% of Total 1	Size distribution in CV [%] 34.9	Co lor

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Number of peaks found:	4	Corr. Area 1:	48.9
Noise:	0.2		

Peak table for sample 11 : <u>sample 5 undiluted</u>								
Peak		Size [bp]	Conc. [pg/µl]	Mola	rity [pmol	/I]	Observations	
1		35	125.00	5,411	.3		Lower Marker	
2		43	351.31	12,39	3.5			
3		48	1,340.50	42,72	7.8			
4		80	9,044.14	171,9	41.5			
5		92	403.89	6,650	.8			
6		10,380	75.00	10.9			Upper Marker	
Region table for sample 11 : <u>sample 5 undiluted</u>								
From [bp] 200		o [bp] Average S [bp] ,000 437	ize Molarity [pmol/l] 2,008.9	Conc. [pg/μl] 468.55	Corr. Area 48.9	% of Total 5	Size distribution in CV [%] 40.7	Co lor

Gel Image

Created: 5/30/2012 11:52:36 AM Modified: 5/30/2012 12:33:59 PM

2012-05-30_003.xad

Assay Class: Data Path:

High Sensitivity DNA Assay C:\...ents and Settings\Bioanalyzer\2012-05-30\2012-05-30_003.xad

Created: Modified: 5/30/2012 11:52:36 AM 5/30/2012 12:33:59 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		5/30/2012 12:33:55 PM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioana yzer\2012-05-3 \2012-05-30_00 3.xad)	0	Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Numbe : G2938B	r	Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilen Technologies	t	Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/30/2012 11:52:41 AM	(GMT07:00) Pacific Standard Time	UC Davis	D8XSMGH1