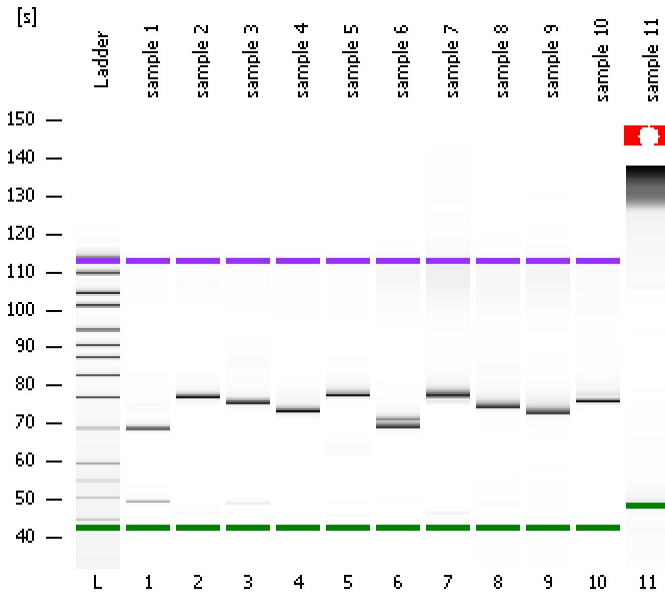


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
Modified: 5/22/2013 4:17:22 PM

Electrophoresis File Run Summary



Instrument Information:

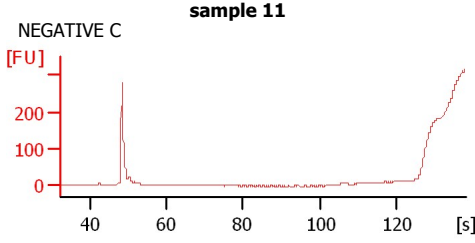
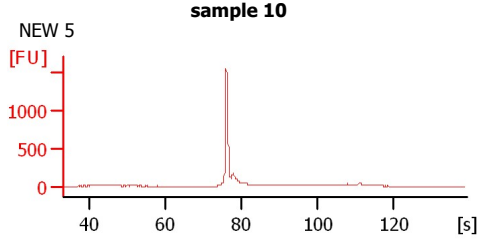
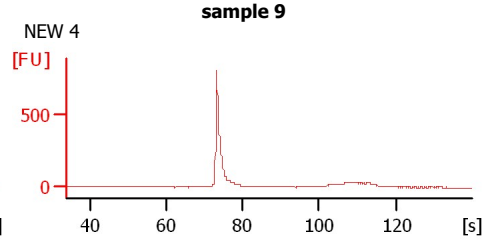
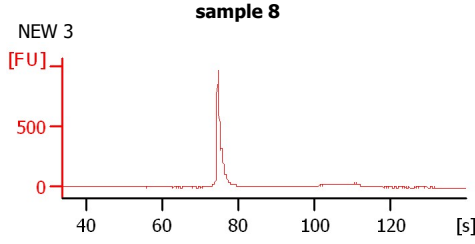
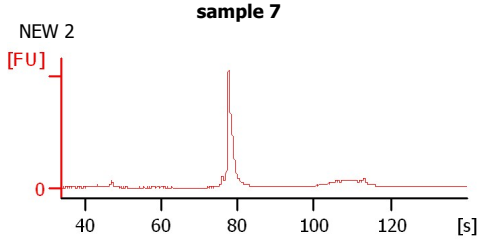
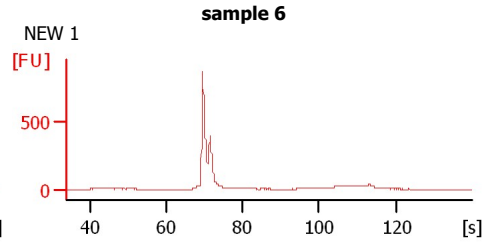
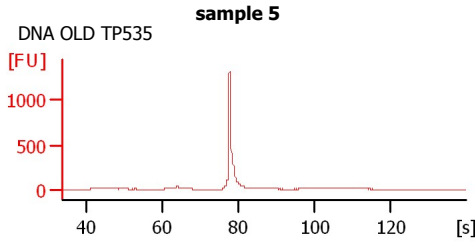
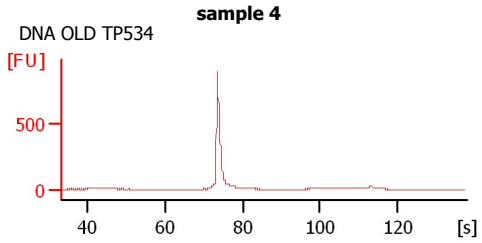
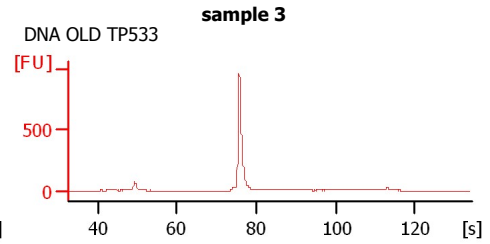
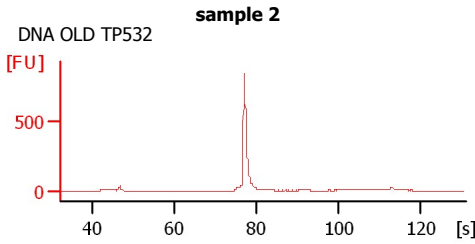
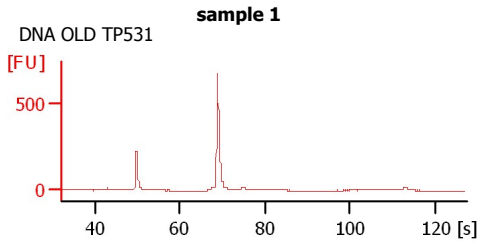
Instrument Name: DE13701086 Firmware: C.01.069
Serial#: DE13701086 Type: G2938B

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\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
sample 1	DNA OLD TP531	<input type="checkbox"/>	✓			
sample 2	DNA OLD TP532	<input type="checkbox"/>	✓			
sample 3	DNA OLD TP533	<input type="checkbox"/>	✓			
sample 4	DNA OLD TP534	<input type="checkbox"/>	✓			
sample 5	DNA OLD TP535	<input type="checkbox"/>	✓			
sample 6	NEW 1	<input type="checkbox"/>	✓			
sample 7	NEW 2	<input type="checkbox"/>	✓			
sample 8	NEW 3	<input type="checkbox"/>	✓			
sample 9	NEW 4	<input type="checkbox"/>	✓			
sample 10	NEW 5	<input type="checkbox"/>	✓			
sample 11	NEGATIVE C	<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\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
Modified: 5/22/2013 4:17:22 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

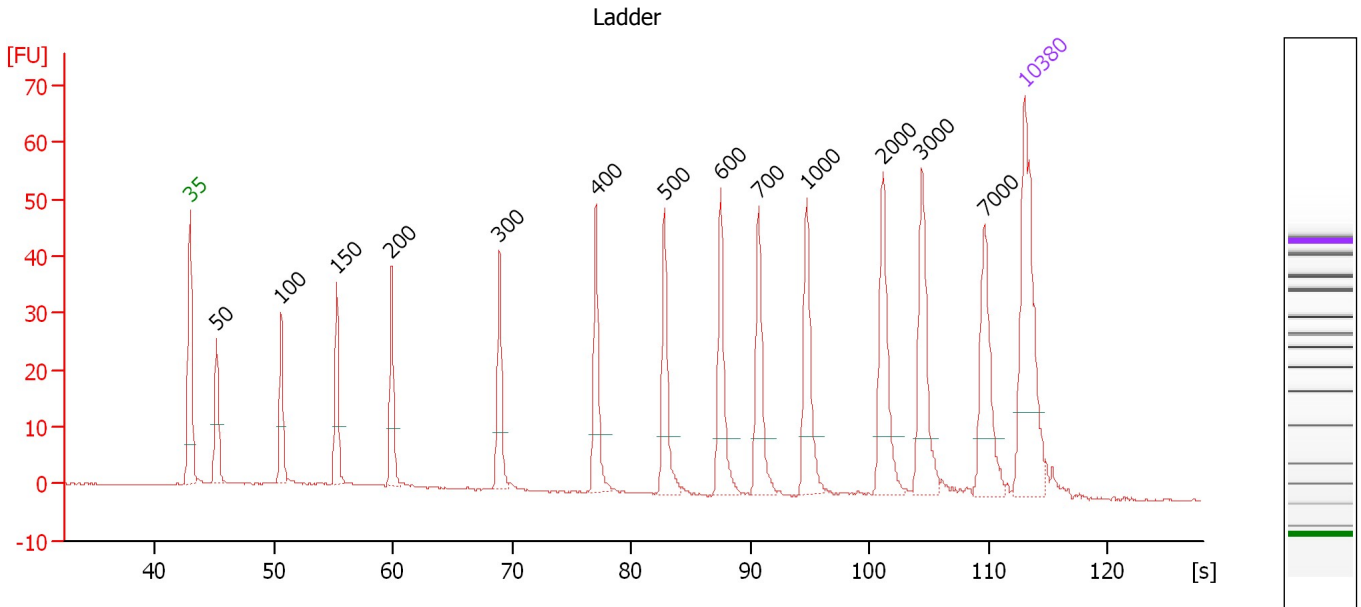
Ladder

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\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.1

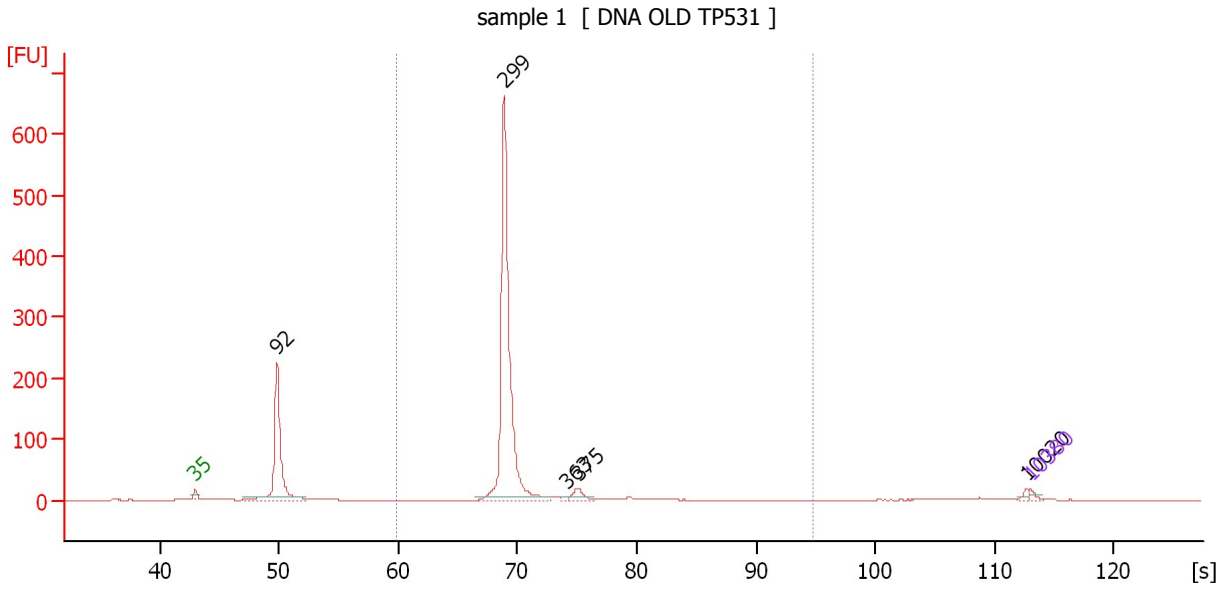
Peak table for Ladder

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

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : sample 1

Number of peaks found: 5 Corr. Area 1: 843.1
 Noise: 0.2

Peak table for sample 1 : sample 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	92	4,189.19	68,649.1	
3	299	8,756.78	44,326.8	
4	363	48.87	203.9	
5	375	293.86	1,186.3	
6	10,020	64.78	9.8	
7	10,380	75.00	10.9	Upper Marker

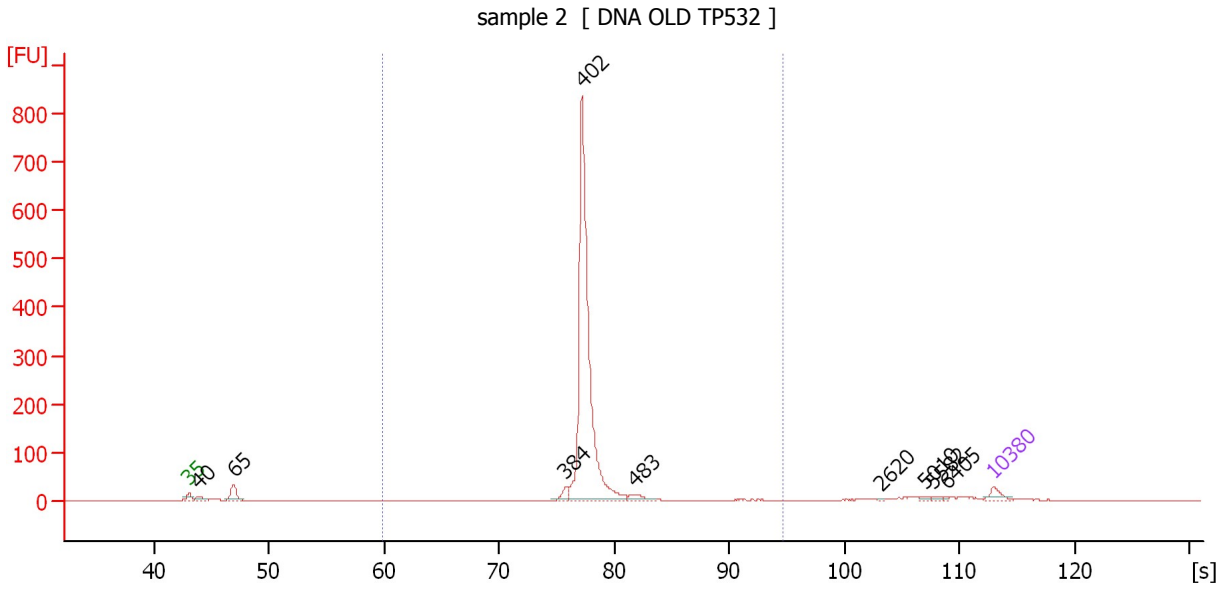
Region table for sample 1 : sample 1

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	311	45,957.2	9,354.42	843.1 70	10.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : sample 2

Number of peaks found: 9 Corr. Area 1: 1,142.0
 Noise: 0.4

Peak table for sample 2 : sample 2

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	40	89.02	3,373.8	
3	65	223.36	5,205.0	
4	384	91.83	362.6	
5	402	3,665.41	13,807.1	
6	483	84.79	265.9	
7	2,620	6.33	3.7	
8	5,010	21.25	6.4	
9	5,582	18.19	4.9	
10	6,405	10.34	2.4	
11	10,380	75.00	10.9	Upper Marker

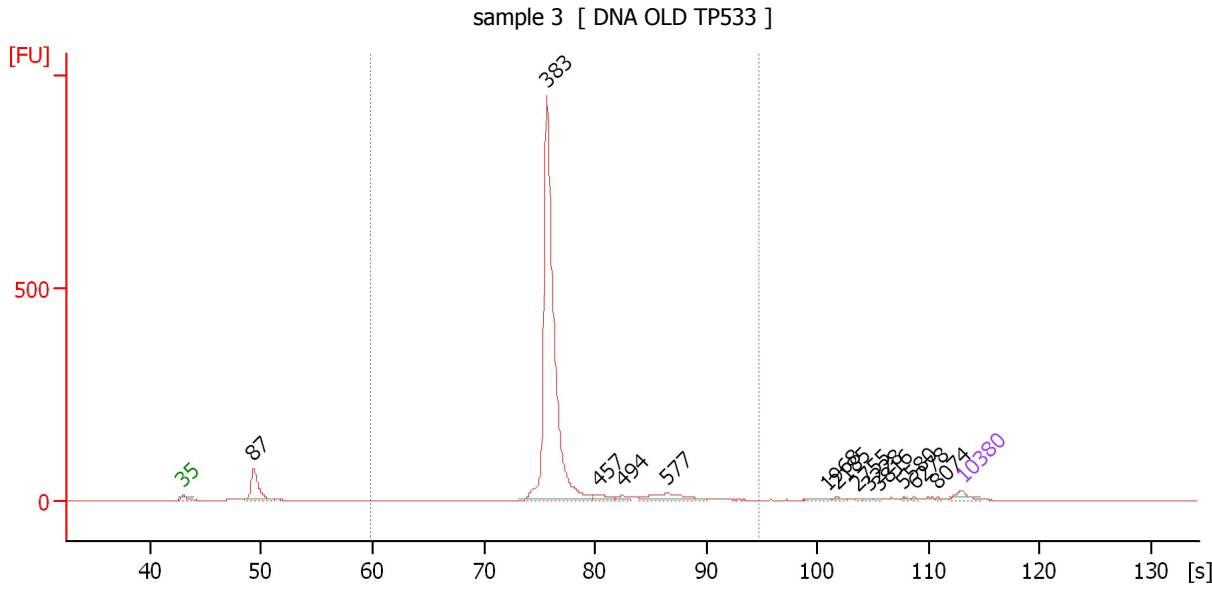
Region table for sample 2 : sample 2

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/µl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	417	14,381.3	3,918.01	1,142.0 86	11.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : sample 3

Number of peaks found: 13 Corr. Area 1: 1,506.6
 Noise: 0.5

Peak table for sample 3 : sample 3

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	87	654.56	11,354.6	
3	383	4,798.50	18,970.8	
4	457	94.02	311.6	
5	494	55.06	168.9	
6	577	261.34	685.7	
7	1,968	28.61	22.0	
8	2,185	22.74	15.8	
9	2,755	9.80	5.4	
10	3,228	10.28	4.8	
11	3,816	12.01	4.8	
12	5,580	13.27	3.6	
13	6,278	11.26	2.7	
14	8,074	10.17	1.9	
15	10,380	75.00	10.9	Upper Marker

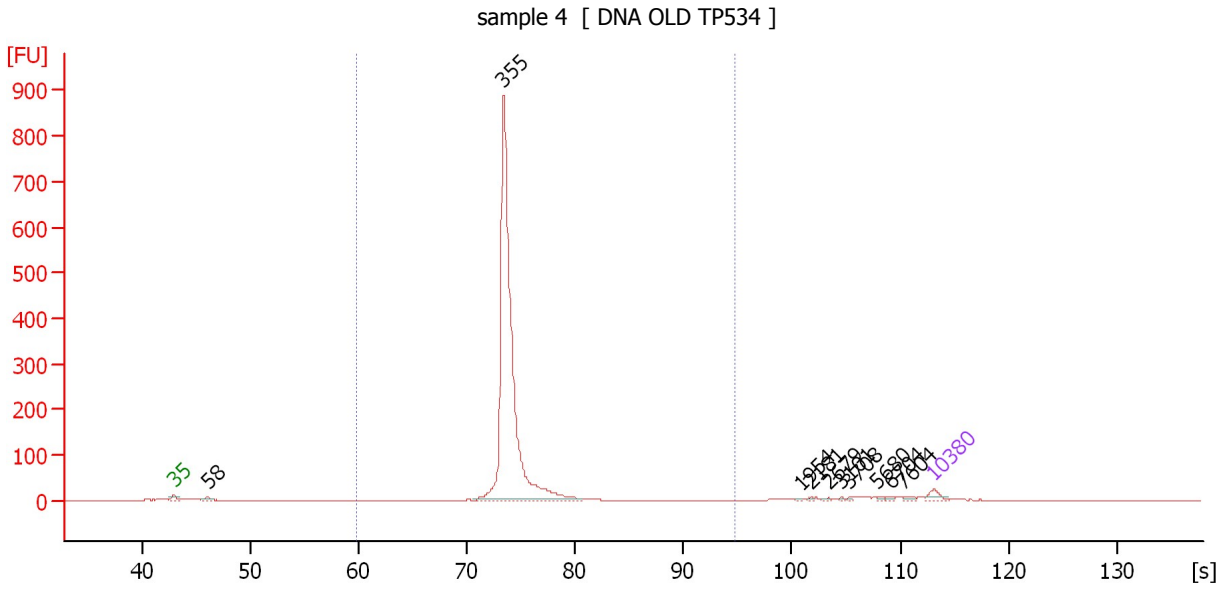
Region table for sample 3 : sample 3

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	408	19,924.5	5,245.29	1,506.6 85	16.7	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : sample 4

Number of peaks found: 10 Corr. Area 1: 1,443.5
 Noise: 0.4

Peak table for sample 4 : sample 4

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	58	66.72	1,741.9	
3	355	5,818.72	24,824.0	
4	1,954	13.09	10.2	
5	2,181	13.02	9.0	
6	2,679	17.00	9.6	
7	3,101	10.78	5.3	
8	3,708	11.72	4.8	
9	5,680	14.92	4.0	
10	6,704	20.97	4.7	
11	7,604	28.78	5.7	
12	10,380	75.00	10.9	Upper Marker

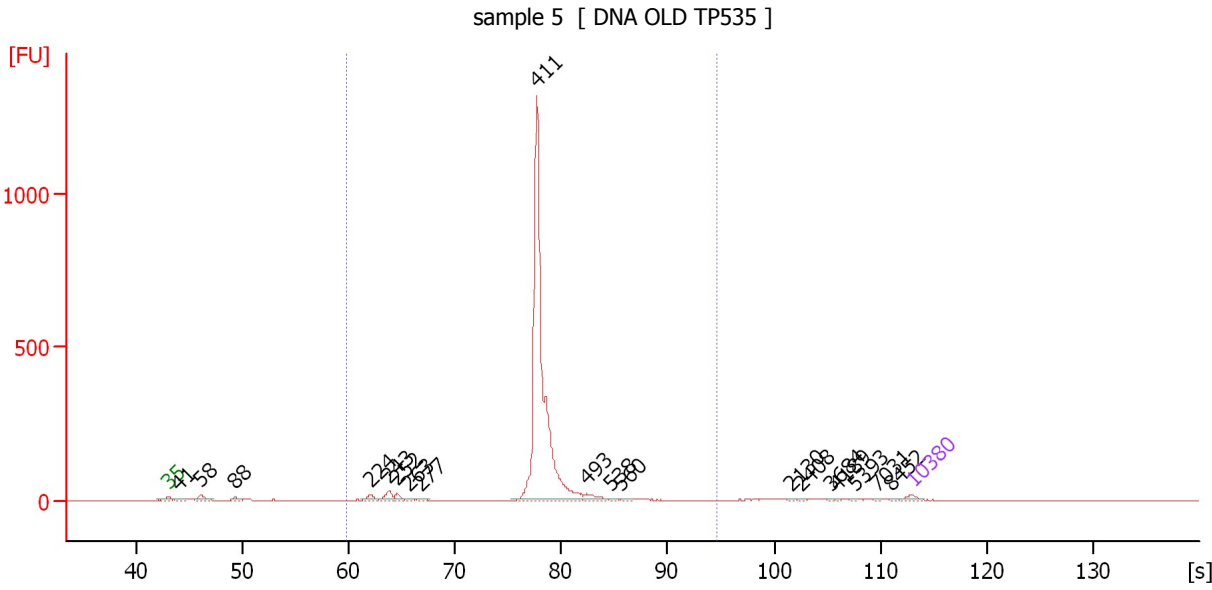
Region table for sample 4 : sample 4

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	365	24,142.8	5,789.32	1,443.5 90	6.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : sample 5

Number of peaks found: 19 Corr. Area 1: 1,875.9
 Noise: 0.5

Peak table for sample 5 : sample 5

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	80.97	2,962.1	
3	58	187.46	4,875.3	
4	88	86.88	1,498.9	
5	224	142.76	965.3	
6	243	228.29	1,422.7	
7	252	128.14	771.9	
8	263	44.46	256.4	
9	277	55.00	301.1	
10	411	7,615.77	28,066.8	
11	493	187.92	577.6	
12	538	36.94	104.1	
13	560	28.69	77.7	
14	2,130	13.44	9.6	
15	2,408	16.35	10.3	
16	3,684	10.87	4.5	
17	4,189	10.09	3.6	
18	5,393	13.51	3.8	
19	7,031	12.02	2.6	
20	8,452	14.92	2.7	
21	10,380	75.00	10.9	Upper Marker

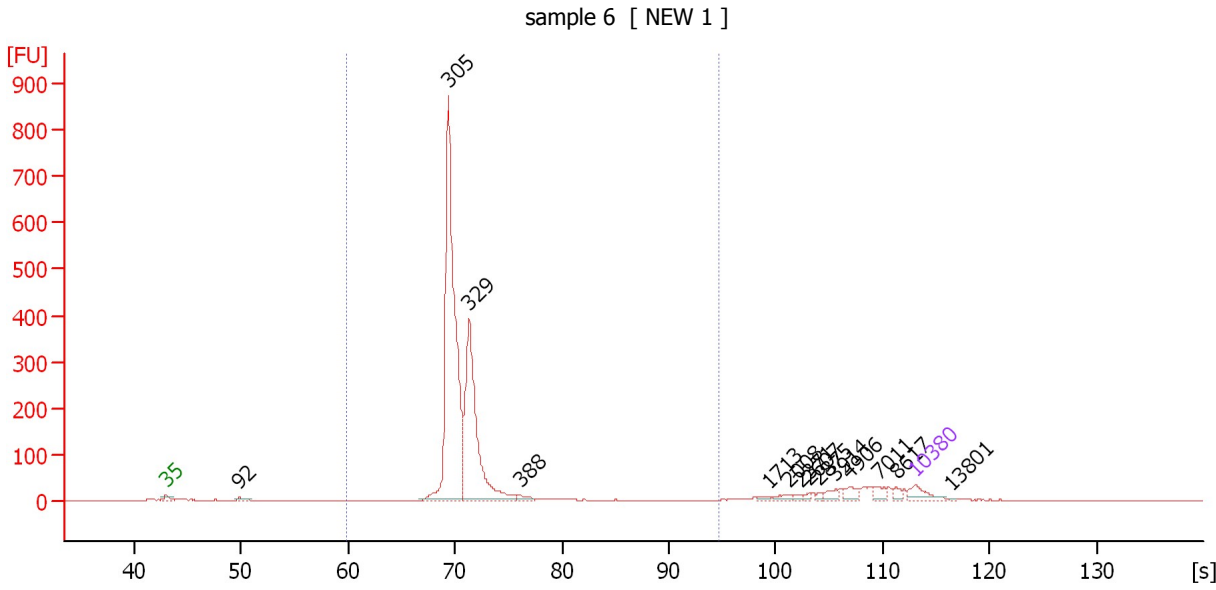
Region table for sample 5 : sample 5

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	417	32,495.1	8,613.46	1,875.9 91	14.3	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : sample 6

Number of peaks found: 14 Corr. Area 1: 1,995.6
 Noise: 0.5

Peak table for sample 6 : sample 6

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	92	35.68	584.9	
3	305	2,465.99	12,239.6	
4	329	1,292.69	5,954.9	
5	388	30.81	120.4	
6	1,713	13.66	12.1	
7	2,008	24.83	18.7	
8	2,371	15.23	9.7	
9	2,607	11.98	7.0	
10	2,875	14.16	7.5	
11	3,914	38.08	14.7	
12	4,906	51.81	16.0	
13	7,011	44.88	9.7	
14	8,617	26.76	4.7	
15	10,380	75.00	10.9	Upper Marker
16	13,801	0.00	0.0	

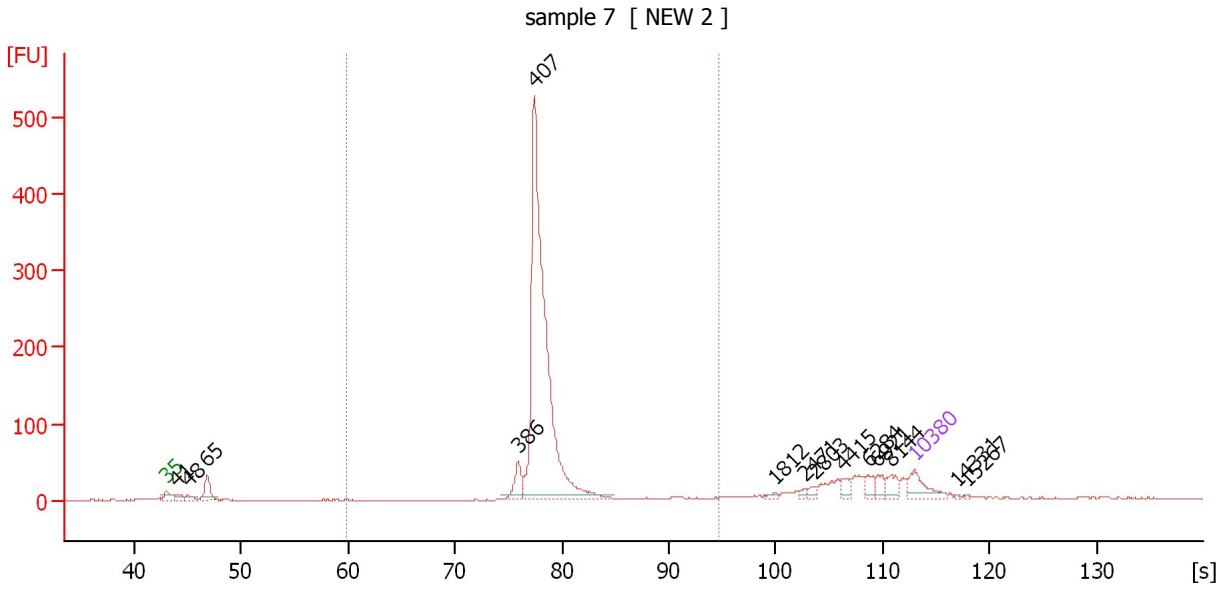
Region table for sample 6 : sample 6

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	324	18,057.7	3,826.45	1,995.6 85	13.5	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : sample 7

Number of peaks found: 14 Corr. Area 1: 1,058.7
 Noise: 0.6

Peak table for sample 7 : sample 7

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	41	34.40	1,274.9	
3	48	26.39	824.6	
4	65	97.90	2,291.3	
5	386	82.32	323.4	
6	407	1,611.57	6,000.3	
7	1,812	10.95	9.2	
8	2,471	11.50	7.1	
9	2,803	16.68	9.0	
10	4,415	28.98	9.9	
11	6,284	31.50	7.6	
12	6,921	30.52	6.7	
13	8,144	41.98	7.8	
14	10,380	75.00	10.9	Upper Marker
15	14,331	0.00	0.0	
16	15,267	0.00	0.0	

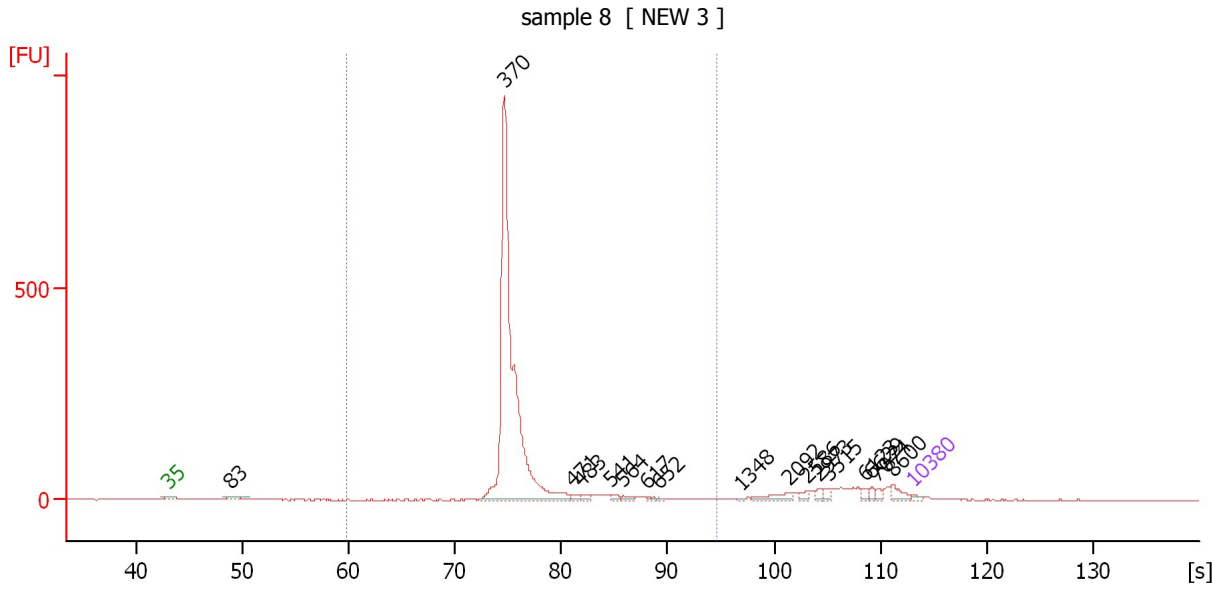
Region table for sample 7 : sample 7

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
59.89	94.71	424	6,100.2	1,692.62	1,058.7	75	10.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : sample 8

Number of peaks found: 17 Corr. Area 1: 1,710.2
 Noise: 1.0

Peak table for sample 8 : sample 8

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	83	360.63	6,564.0	
3	370	14,520.04	59,463.8	
4	471	125.14	402.9	
5	483	121.31	380.6	
6	541	113.96	319.2	
7	564	114.90	308.9	
8	617	53.20	130.7	
9	652	36.70	85.3	
10	1,348	26.28	29.5	
11	2,092	300.60	217.7	
12	2,586	128.13	75.1	
13	2,973	114.98	58.6	
14	3,515	131.93	56.9	
15	6,123	126.88	31.4	
16	6,629	114.74	26.2	
17	7,074	105.47	22.6	
18	8,600	265.82	46.8	
19	10,380	75.00	10.9	Upper Marker

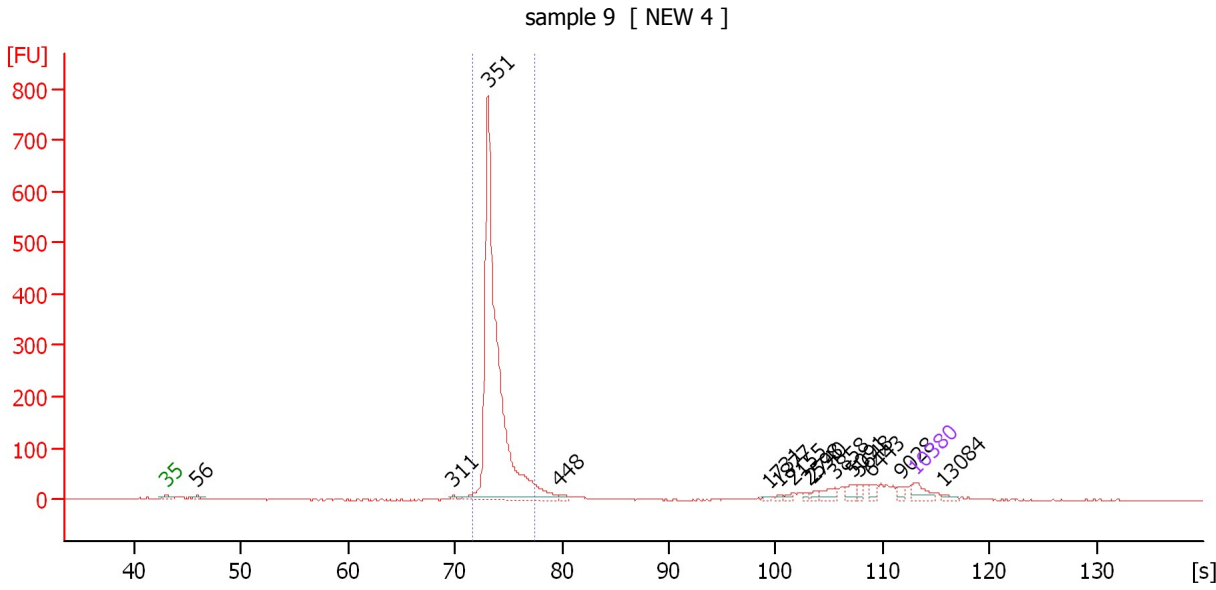
Region table for sample 8 : sample 8

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
59.89	94.71	396	60,652.9	15,480.82	1,710.2 78	17.4	■

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : sample 9

Number of peaks found: 15 Corr. Area 1: 1,343.3
 Noise: 0.8

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	56	44.86	1,211.8	
3	311	15.20	74.0	
4	351	3,448.14	14,880.3	
5	448	21.65	73.3	
6	1,731	8.28	7.2	
7	1,877	10.92	8.8	
8	2,155	16.62	11.7	
9	2,598	16.17	9.4	
10	2,740	22.11	12.2	
11	3,858	55.35	21.7	
12	5,091	51.13	15.2	
13	5,648	32.27	8.7	
14	6,443	36.22	8.5	
15	9,028	28.74	4.8	
16	10,380	75.00	10.9	Upper Marker
17	13,084	0.00	0.0	

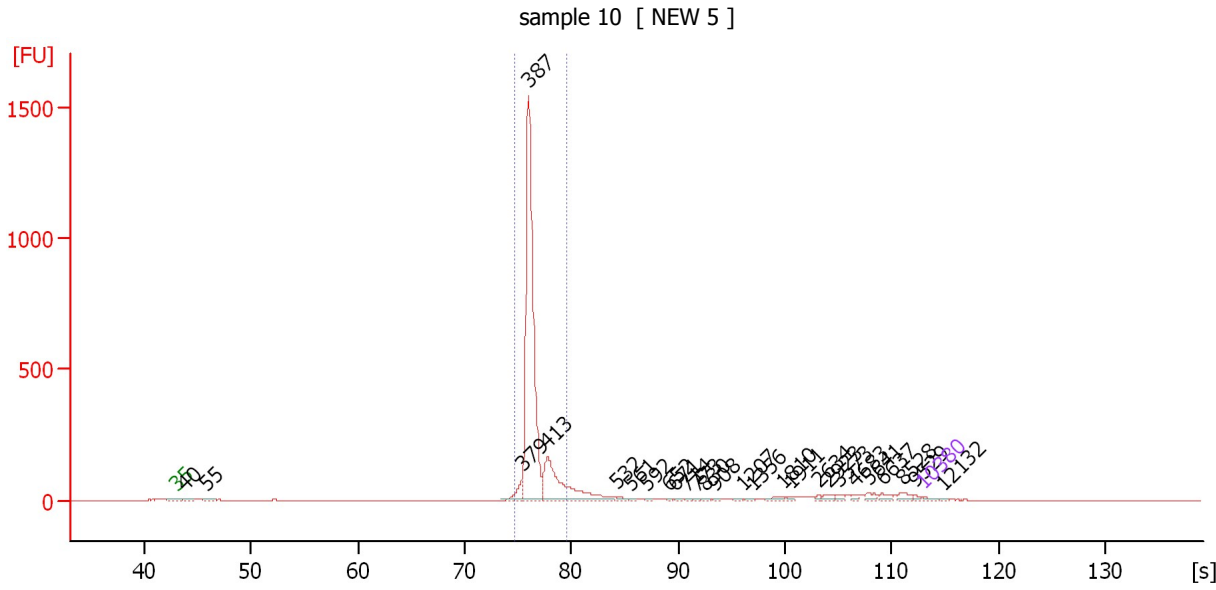
Region table for sample 9 : sample 9

From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area % of Total	Size distribution in CV [%]	Color
71.73	77.40	360	13,549.5	3,217.49	1,343.3 75	3.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : sample 10

Number of peaks found: 27 Corr. Area 1: 1,958.6
 Noise: 0.7

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	40	156.53	5,880.2	
3	55	111.91	3,078.3	
4	379	478.70	1,912.4	
5	387	11,691.32	45,738.5	
6	413	3,358.32	12,335.4	
7	532	99.84	284.2	
8	561	62.58	169.0	
9	592	56.60	144.9	
10	652	48.98	113.7	
11	671	51.23	115.6	
12	714	41.83	88.8	
13	773	29.89	58.6	
14	830	38.64	70.6	
15	908	30.95	51.6	
16	1,207	25.50	32.0	
17	1,356	30.00	33.5	
18	1,810	125.03	104.7	
19	1,911	70.80	56.1	
20	2,634	62.82	36.1	
21	2,923	131.27	68.0	
22	3,573	89.88	38.1	
23	4,683	89.83	29.1	
24	5,641	169.21	45.4	
25	6,637	172.84	39.5	
26	8,528	200.03	35.5	


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...**... Peak table for sample 10 : sample 10**

Peak	Size [bp]	Conc. [pg/ μ l]	Molarity [pmol/l]	Observations
27	9,529	60.66	9.6	
28	10,380	75.00	10.9	Upper Marker
29	12,132	0.00	0.0	

Region table for sample 10 : sample 10

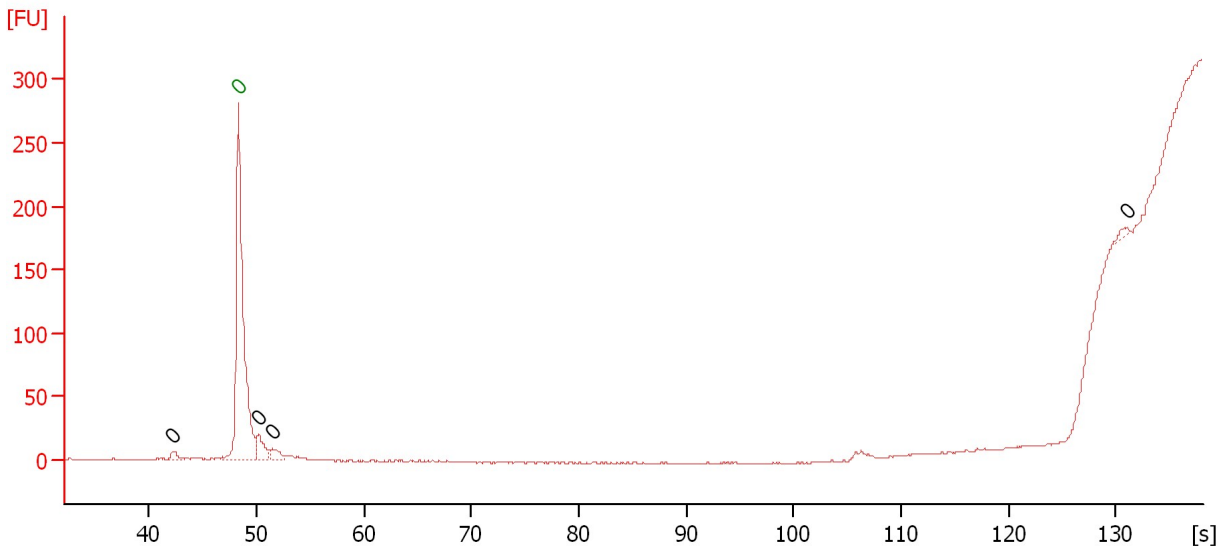
From [s]	To [s]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/ μ l]	Corr. Area % of Total	Size distribution in CV [%]	Color	
74.75	79.64	394	54,583.5	14,178.27	1,958.6	73	3.3	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
Modified: 5/22/2013 4:17:22 PM

Electropherogram Summary Continued ...

sample 11 [NEGATIVE C]



Overall Results for sample 11 : sample 11

Number of peaks found: 4 Noise: 0.6

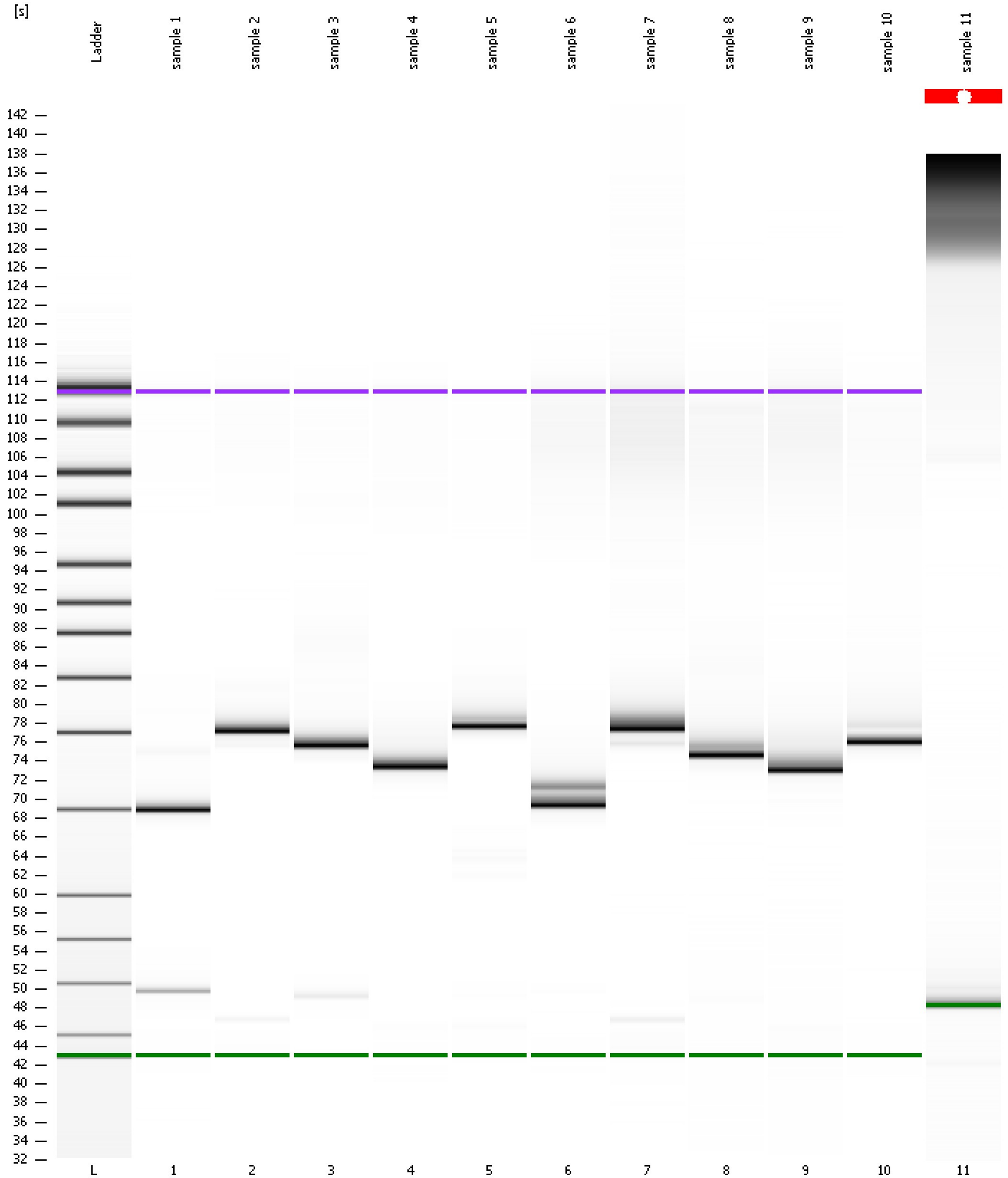
Peak table for sample 11 : sample 11

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	0	0.00	0.0	
2	0	0.00	0.0	Lower Marker
3	0	0.00	0.0	
4	0	0.00	0.0	
5	0	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
Modified: 5/22/2013 4:17:22 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad

Created: 5/22/2013 3:28:26 PM
 Modified: 5/22/2013 4:17:22 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		5/22/2013 4:09:44 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-05-22\2013-05-22_004.xad)		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		5/22/2013 3:28:32 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1