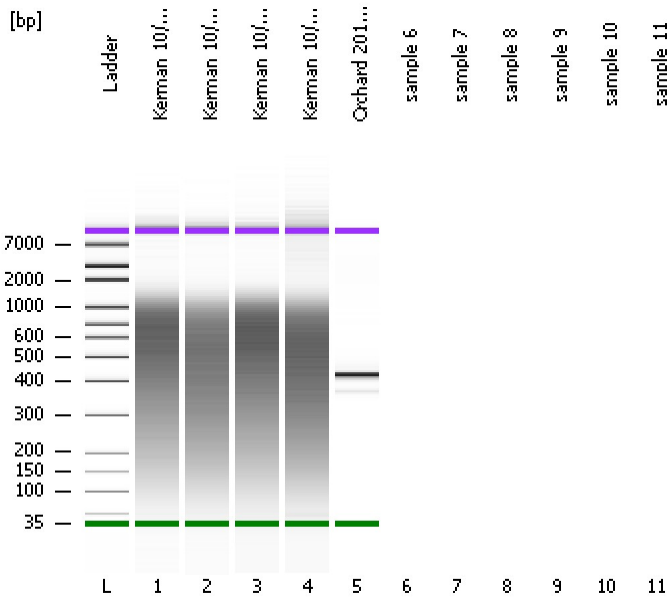


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 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

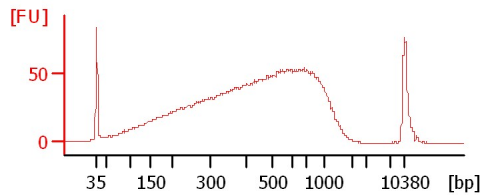
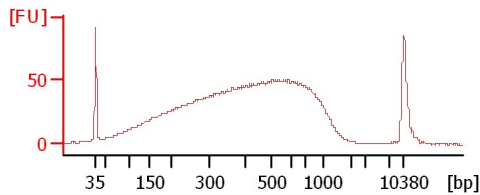
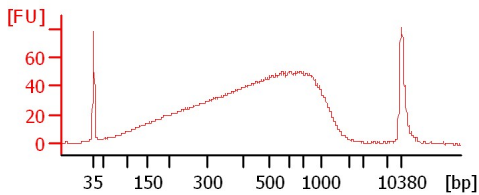
Chip Information:

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

Kerman 10/24/14 top - 1

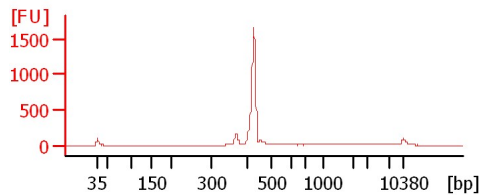
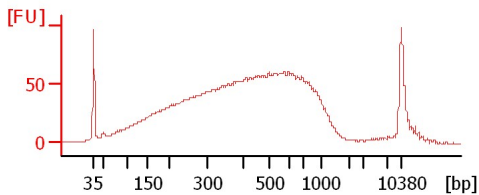
Kerman 10/24/14 top - 2

Kerman 10/24/14 bottom - 1



Kerman 10/24/14 bottom - 2

Orchard 2014 library



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Kerman 10/24/14 top - 1		<input type="checkbox"/>		✓		
Kerman 10/24/14 top - 2		<input type="checkbox"/>		✓		
Kerman 10/24/14 bottom - 1		<input type="checkbox"/>		✓		
Kerman 10/24/14 bottom - 2		<input type="checkbox"/>		✓		
Orchard 2014 library		<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\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 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

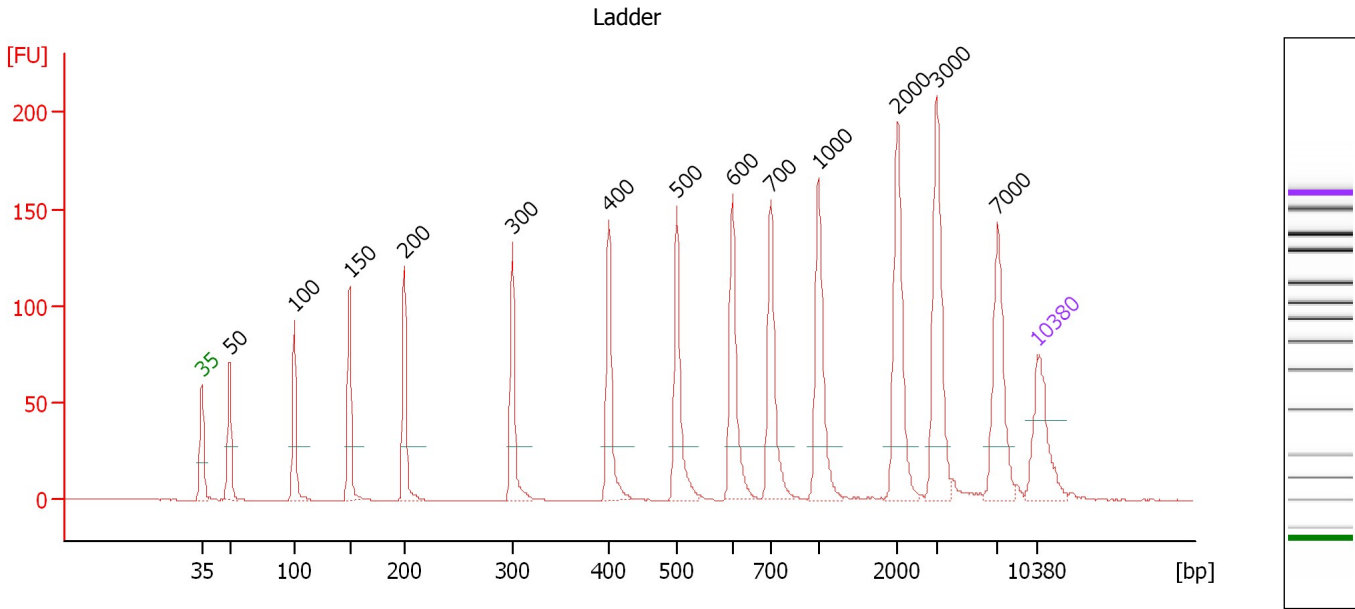
Ladder

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\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

Peak table for Ladder

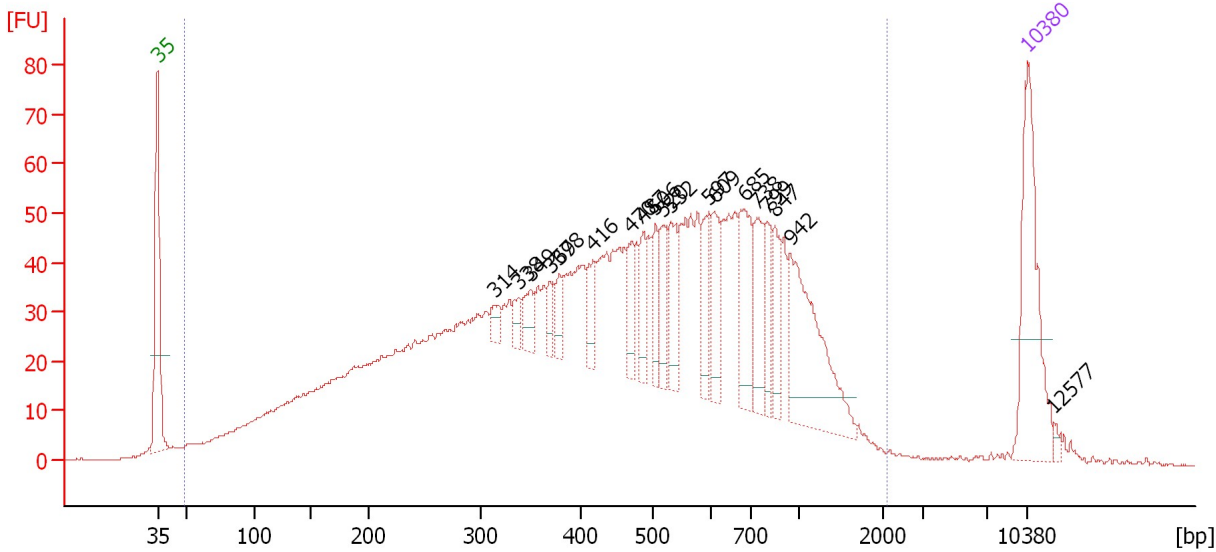
Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	150.00	4,545.5	Ladder Peak
3	100	150.00	2,272.7	Ladder Peak
4	150	150.00	1,515.2	Ladder Peak
5	200	150.00	1,136.4	Ladder Peak
6	300	150.00	757.6	Ladder Peak
7	400	150.00	568.2	Ladder Peak
8	500	150.00	454.5	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\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

Kerman 10/24/14 top - 1



Overall Results for sample 1 : Kerman 10/24/14 top - 1

Number of peaks found: 19 Corr. Area 1: 2,157.3
 Noise: 0.2

Peak table for sample 1 : Kerman 10/24/14 top - 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	314	10.41	50.3	
3	338	10.91	48.9	
4	349	16.37	71.0	
5	369	12.49	51.3	
6	378	14.48	58.0	
7	416	21.37	77.8	
8	470	21.81	70.3	
9	487	23.21	72.2	
10	506	22.50	67.3	
11	520	26.40	77.0	
12	532	31.76	90.4	
13	597	24.91	63.3	
14	609	30.82	76.6	
15	685	51.67	114.3	
16	738	35.10	72.0	
17	799	24.87	47.1	
18	847	23.40	41.8	
19	942	95.26	153.2	
20	10,380	75.00	10.9	Upper Marker
21	12,577	0.00	0.0	

Region table for sample 1 : Kerman 10/24/14 top - 1

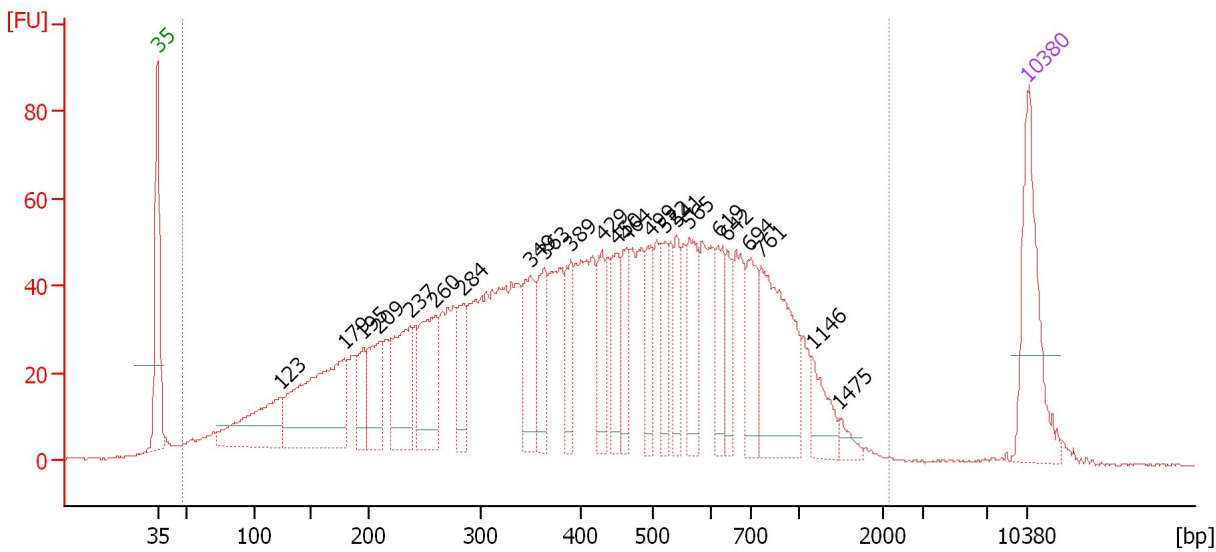
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
49	516	2,092	2,157.3	98	59.6	2,284.64	12,011.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

Kerman 10/24/14 top - 2



Overall Results for sample 2 : Kerman 10/24/14 top - 2

Number of peaks found: 23 Corr. Area 1: 2,412.9
 Noise: 0.2

Peak table for sample 2 : Kerman 10/24/14 top - 2


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	123	101.28	1,251.4	
3	179	183.72	1,557.3	
4	195	37.88	294.2	
5	209	60.73	440.1	
6	237	88.07	563.4	
7	260	87.85	512.8	
8	284	37.60	200.4	
9	349	63.49	275.7	
10	363	50.92	212.6	
11	389	42.48	165.3	
12	429	42.86	151.4	
13	450	40.17	135.3	
14	464	40.56	132.4	
15	499	37.79	114.8	
16	522	32.37	94.0	
17	541	31.66	88.6	
18	565	51.47	138.1	
19	619	36.85	90.2	
20	642	27.50	64.9	
21	694	44.88	98.0	
22	761	122.92	244.7	
23	1,146	27.57	36.4	
24	1,475	8.45	8.7	
25	10,380	75.00	10.9	Upper Marker

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

... Region table for sample 2 : Kerman 10/24/14 top - 2

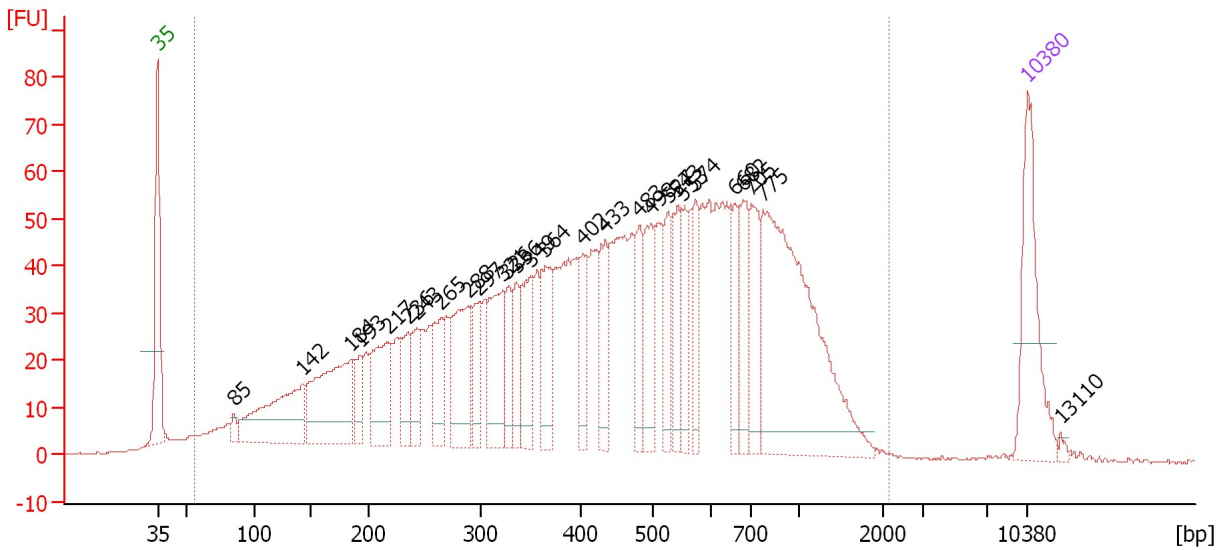
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
48	466	2,149	2,412.9	98	59.0	2,465.57	14,061.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

Kerman 10/24/14 bottom - 1



Overall Results for sample 3 : Kerman 10/24/14 bottom - 1

Number of peaks found: 28 Corr. Area 1: 2,330.3
 Noise: 0.2

Peak table for sample 3 : Kerman 10/24/14 bottom - 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	85	9.91	175.9	
3	142	128.37	1,368.3	
4	184	142.30	1,170.2	
5	193	26.37	207.3	
6	217	79.26	552.9	
7	236	36.59	235.3	
8	243	33.05	206.2	
9	265	53.27	304.8	
10	288	89.47	470.1	
11	297	41.11	209.7	
12	321	74.57	351.6	
13	326	34.46	159.9	
14	336	34.34	155.0	
15	349	58.12	252.1	
16	364	60.31	250.9	
17	402	38.15	143.8	
18	433	47.45	166.1	
19	483	43.55	136.7	
20	498	52.45	159.6	
21	527	46.72	134.3	
22	543	47.03	131.2	
23	553	37.92	103.9	
24	574	37.50	98.9	
25	660	36.26	83.2	
26	682	45.22	100.5	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad


Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

... Peak table for sample 3 : Kerman 10/24/14 bottom - 1

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
27	705	52.56	113.0	
28	775	280.78	549.1	
29	10,380	75.00	10.9	Upper Marker
30	13,110	0.00	0.0	

Region table for sample 3 : Kerman 10/24/14 bottom - 1

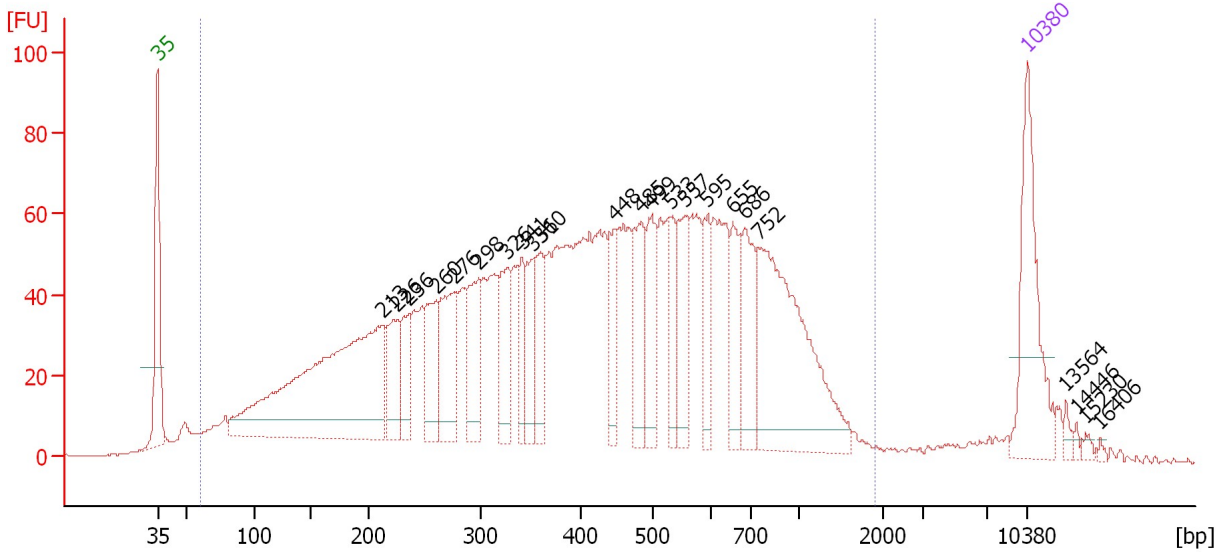
From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
56	508	2,156	2,330.3	98	59.1	2,674.92	14,114.3	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

Kerman 10/24/14 bottom - 2



Overall Results for sample 4 : Kerman 10/24/14 bottom - 2

Number of peaks found: 23 Corr. Area 1: 2,786.7
 Noise: 0.2

Peak table for sample 4 : Kerman 10/24/14 bottom - 2


Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	213	341.16	2,426.5	
3	226	53.89	361.9	
4	236	39.09	251.5	
5	260	55.53	324.1	
6	276	78.23	428.8	
7	298	63.49	322.9	
8	326	51.30	238.2	
9	341	33.68	149.7	
10	351	36.01	155.5	
11	360	49.44	208.3	
12	448	36.40	123.0	
13	485	52.12	162.9	
14	499	50.08	152.0	
15	533	32.98	93.7	
16	557	49.18	133.7	
17	595	32.61	83.1	
18	655	39.98	92.4	
19	686	55.58	122.7	
20	752	192.73	388.3	
21	10,380	75.00	10.9	Upper Marker
22	13,564	0.00	0.0	
23	14,446	0.00	0.0	
24	15,230	0.00	0.0	
25	16,406	0.00	0.0	

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...

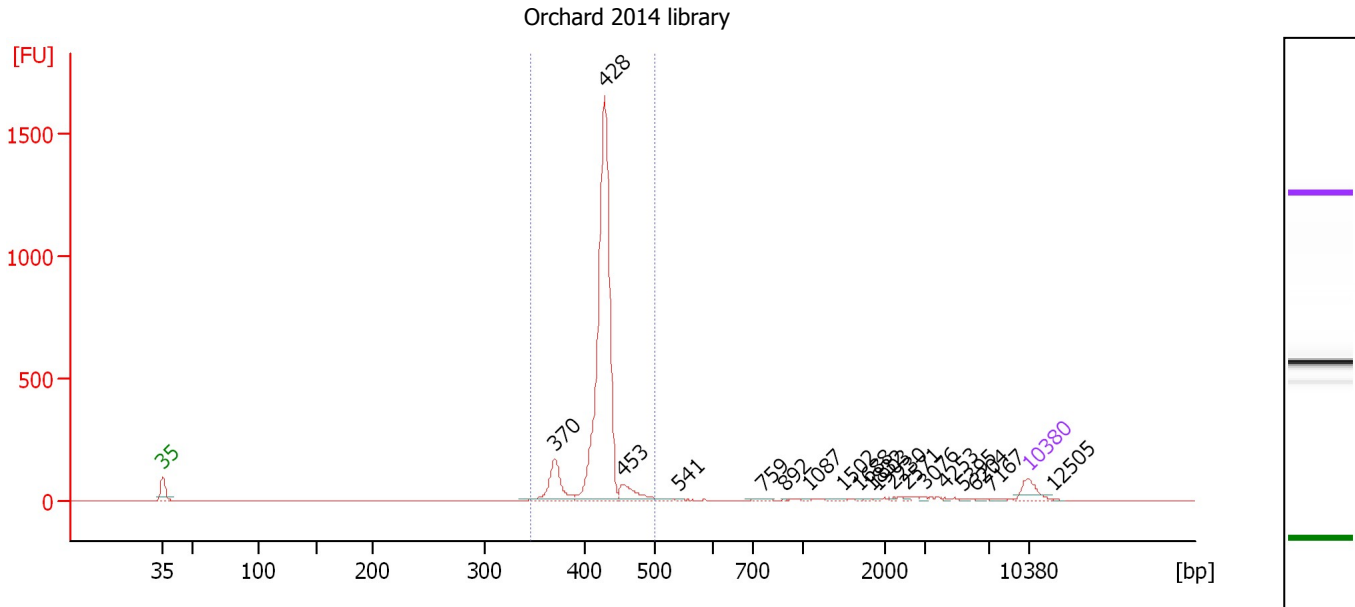
... Region table for sample 4 : Kerman 10/24/14 bottom - 2

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/ μ l]	Molarity [pmol/l]	Color
60	467	1,899	2,786.7	96	57.9	2,465.34	13,668.9	

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Orchard 2014 library

Number of peaks found: 19 Corr. Area 1: 2,741.5
 Noise: 0.3

Peak table for sample 5 : Orchard 2014 library

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	370	247.52	1,013.4	
3	428	2,046.90	7,247.2	
4	453	135.50	453.1	
5	541	5.09	14.2	
6	759	12.15	24.3	
7	892	2.75	4.7	
8	1,087	3.78	5.3	
9	1,502	11.16	11.3	
10	1,688	5.12	4.6	
11	1,832	5.11	4.2	
12	1,903	5.50	4.4	
13	2,230	5.69	3.9	
14	2,571	5.67	3.3	
15	3,076	6.66	3.3	
16	4,253	5.81	2.1	
17	5,395	7.37	2.1	
18	6,204	6.20	1.5	
19	7,167	6.70	1.4	
20	10,380	75.00	10.9	Upper Marker
21	12,505	0.00	0.0	

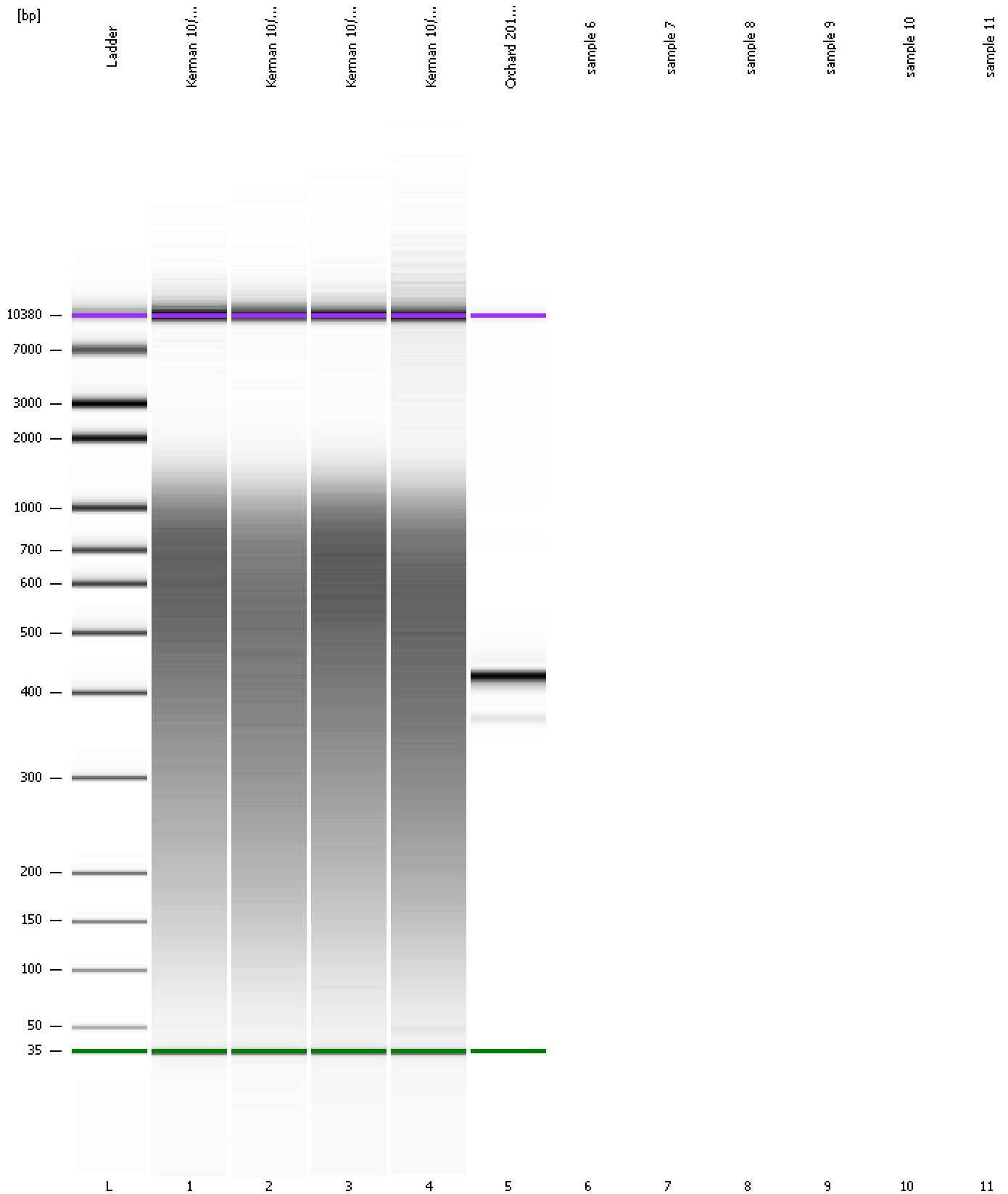
Region table for sample 5 : Orchard 2014 library

From [bp]	Average Size [bp]	To [bp]	Corr. Area	% of Total	Size distribution in CV [%]	Conc. [pg/μl]	Molarity [pmol/l]	Color
347	423	499	2,741.5	89	5.1	2,427.49	8,730.5	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
Modified: 11/10/2014 12:09:50 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\2014-11-10\2014-11-10_001.xad

Created: 11/10/2014 11:43:42 AM
 Modified: 11/10/2014 12:09:50 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		11/10/2014 12:07:51 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-11-10\2014-11-10_001.xad)		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		11/10/2014 11:43:47 AM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1