Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 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

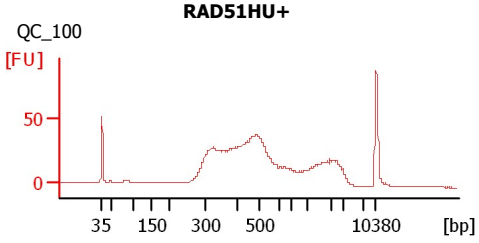
Chip Information:

Chip Lot #:

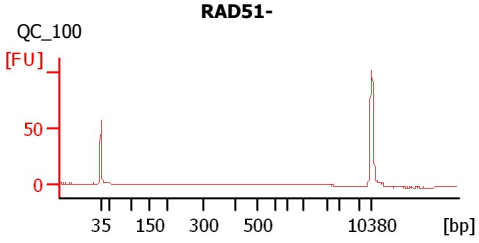
Reagent Kit Lot #:

Chip Comments:

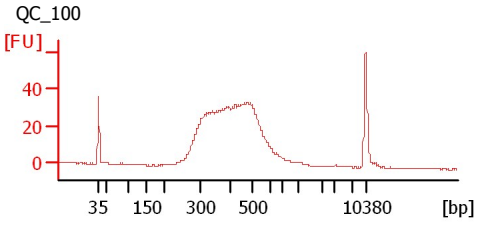
RAD51HU+



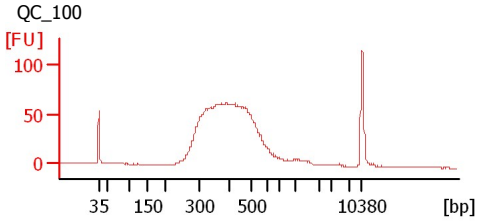
RAD51-



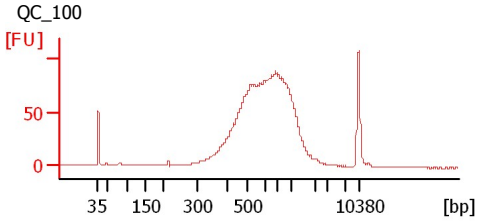
P+



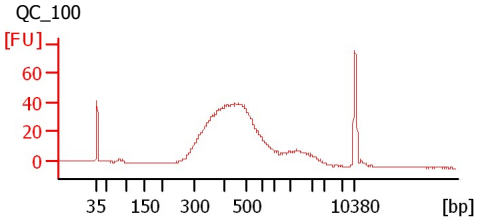
P-



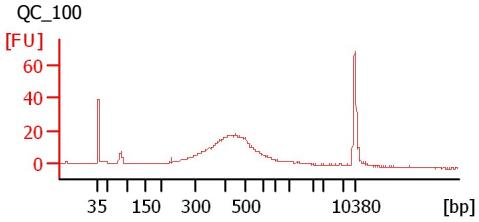
M+



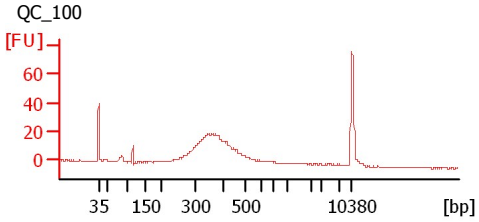
M-



WC+



WC-



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
RAD51HU+	QC_100	☐	✔			
RAD51-	QC_100	☐	✔			
P+	QC_100	☐	✔			
P-	QC_100	☐	✔			
M+	QC_100	☐	⚠			
M-	QC_100	☐	✔			
WC+	QC_100	☐	✔			
WC-	QC_100	☐	✔			
Ladder		☐	✔			

Chip Lot # **Reagent Kit Lot #**

Chip Comments :

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad
Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 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

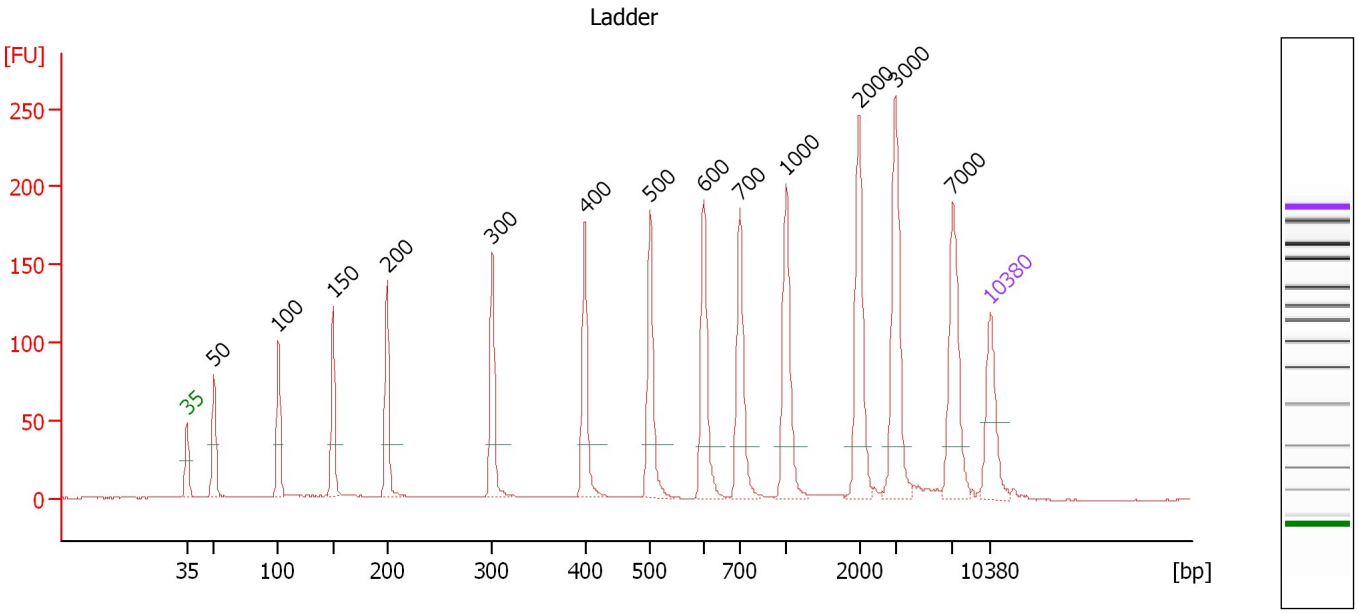
Ladder

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:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

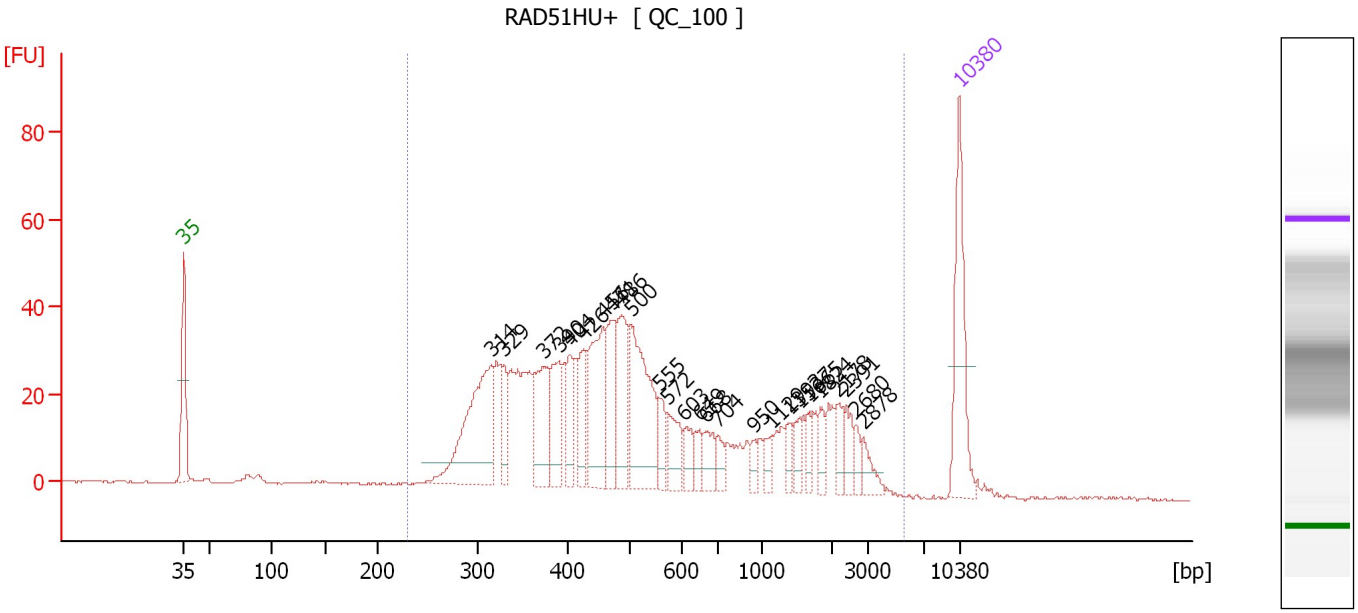
Peak table for Ladder

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	45.32
3		100	150.00	2,272.7	Ladder Peak	50.95
4		150	150.00	1,515.2	Ladder Peak	55.74
5		200	150.00	1,136.4	Ladder Peak	60.43
6		300	150.00	757.6	Ladder Peak	69.59
7		400	150.00	568.2	Ladder Peak	77.67
8		500	150.00	454.5	Ladder Peak	83.35
9		600	150.00	378.8	Ladder Peak	88.04
10		700	150.00	324.7	Ladder Peak	91.15
11		1,000	150.00	227.3	Ladder Peak	95.20
12		2,000	150.00	113.6	Ladder Peak	101.57
13		3,000	150.00	75.8	Ladder Peak	104.73
14		7,000	150.00	32.5	Ladder Peak	109.75
15		10,380	75.00	10.9	Upper Marker	113.00

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : RAD51HU+

Number of peaks found:	26	Corr. Area 1:	1,021.4
Noise:	0.3		

Peak table for sample 4 : RAD51HU+

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	314	168.95	813.9		70.76
3	329	36.35	167.5		71.91
4	372	73.08	297.5		75.43
5	390	55.95	217.3		76.87
6	404	39.20	147.1		77.88
7	426	42.85	152.5		79.13
8	456	95.29	316.5		80.86
9	471	57.22	184.2		81.68
10	486	73.83	230.2		82.55
11	500	121.38	367.5		83.36
12	555	22.21	60.7		85.91
13	572	33.79	89.5		86.73
14	603	18.72	47.1		88.13
15	649	16.29	38.0		89.57
16	668	22.32	50.6		90.15
17	704	14.23	30.6		91.21
18	950	9.30	14.8		94.53
19	1,129	11.01	14.8		96.02
20	1,393	12.27	13.3		97.70
21	1,537	15.37	15.2		98.62
22	1,665	12.55	11.4		99.43
23	1,824	13.67	11.4		100.44
24	2,178	16.20	11.3		102.13
25	2,391	16.07	10.2		102.80

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...

... Peak table for sample 4 : RAD51HU+

Peak	Size [bp]	Conc. [pg/µl]	Molarity [pmol/l]	Observations	Aligned Migration Time [s]
26	2,680	9.23	5.2		103.71
27	2,878	14.80	7.8		104.34
28	10,380	75.00	10.9	Upper Marker	113.00

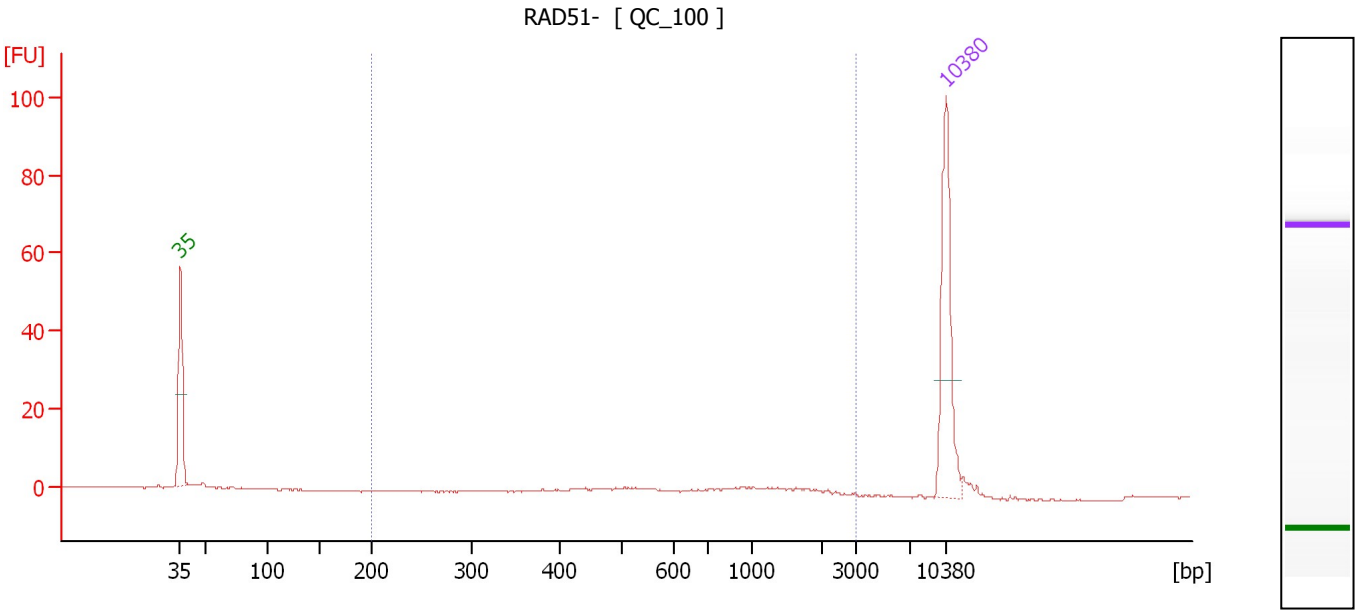
Region table for sample 4 : RAD51HU+

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
230	5,672	759	1,021.4	4,612.4	1,395.83	97	88.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : RAD51-

Number of peaks found:	0	Corr. Area 1:	24.1
Noise:	0.2		

Peak table for sample 5 : RAD51-

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

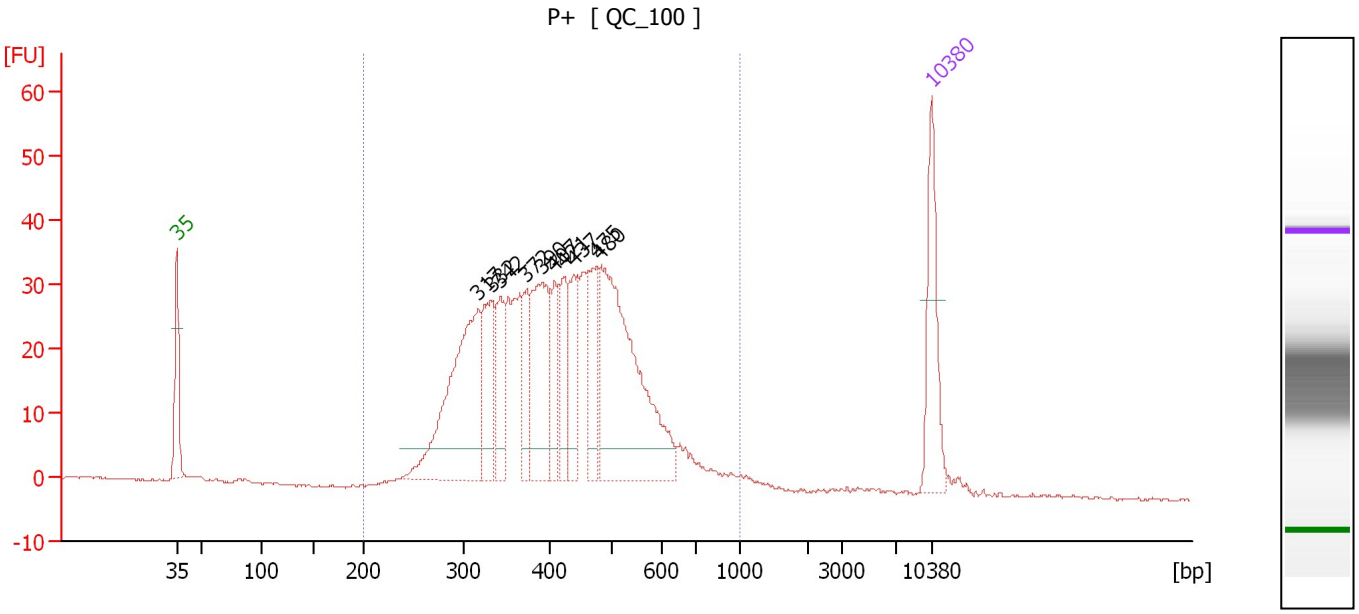
Region table for sample 5 : RAD51-

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color Conc. [pg/µl]	% of Total	Size distribution in CV [%]
200	2,990	969	24.1	54.4	25.11	71	53.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : P+

Number of peaks found:	10	Corr. Area 1:	782.9
Noise:	0.2		

Peak table for sample 6 : P+

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	317	272.76	1,302.8		70.98
3	332	96.05	438.5		72.17
4	342	67.87	300.4		73.01
5	372	50.78	206.7		75.43
6	390	142.74	554.6		76.86
7	407	52.90	197.1		78.05
8	421	61.55	221.3		78.89
9	437	61.31	212.5		79.78
10	475	81.93	261.1		81.95
11	480	326.51	1,031.0		82.20
12	10,380	75.00	10.9	Upper Marker	113.00

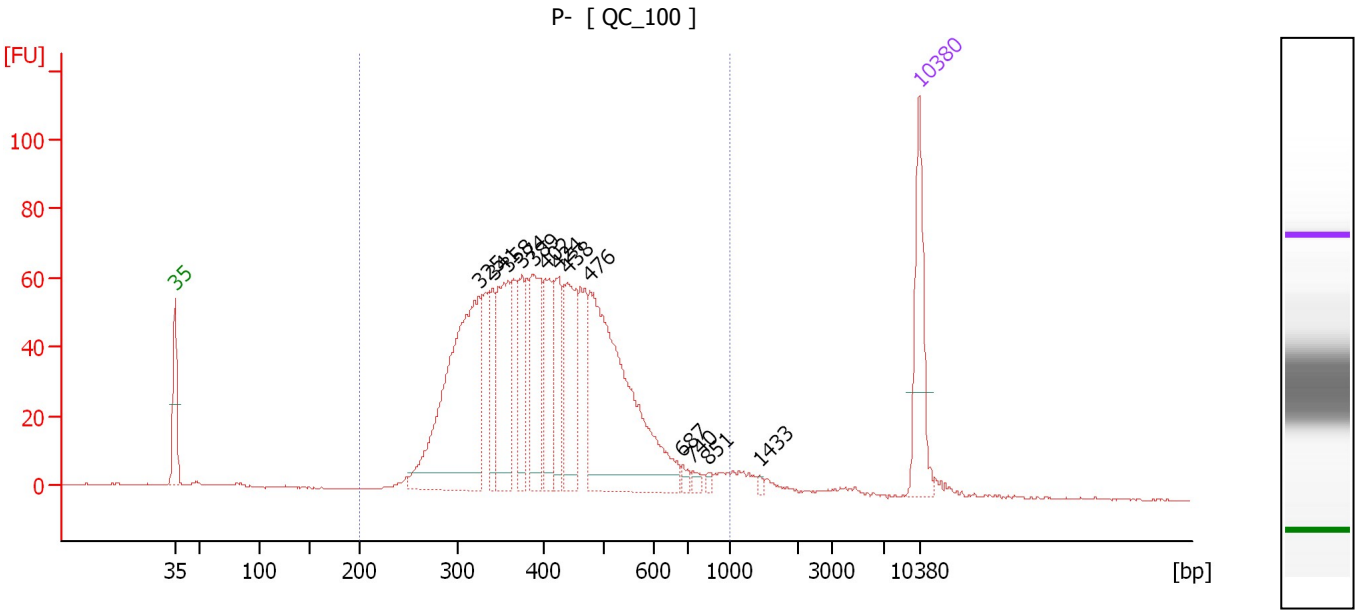
Region table for sample 6 : P+

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	426	782.9	6,091.8	1,575.91	97	25.9

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : P-

Number of peaks found:	13	Corr. Area 1:	1,430.9
Noise:	0.3		

Peak table for sample 7 : P-

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	325	352.81	1,646.5		71.58
3	341	61.01	271.3		72.89
4	358	129.66	548.5		74.29
5	374	69.15	280.0		75.59
6	389	108.21	422.0		76.75
7	402	82.38	310.3		77.80
8	424	72.18	257.8		79.05
9	438	114.61	396.1		79.86
10	476	346.10	1,100.5		82.01
11	687	6.90	15.2		90.74
12	740	7.25	14.9		91.69
13	851	3.96	7.1		93.19
14	1,433	2.81	3.0		97.96
15	10,380	75.00	10.9	Upper Marker	113.00

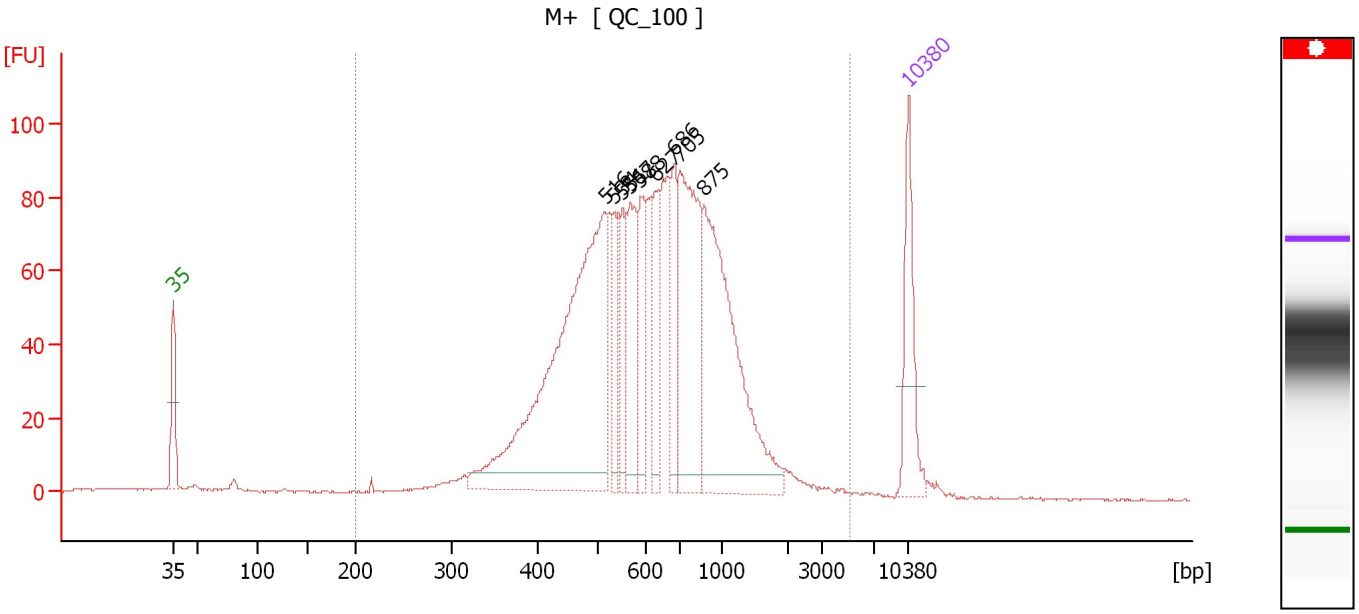
Region table for sample 7 : P-

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	420	1,430.9	6,334.4	1,620.55	96	26.3

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M+

Number of peaks found:	9	Corr. Area 1:	1,705.3
Noise:	0.3		

Peak table for sample 8 : M+

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	516	558.91	1,639.8		84.12
3	534	64.71	183.7		84.93
4	551	63.18	173.7		85.74
5	567	96.82	258.6		86.50
6	588	72.24	186.2		87.47
7	627	73.49	177.5		88.89
8	686	79.06	174.6		90.72
9	705	224.59	482.6		91.22
10	875	308.56	534.5		93.51
11	10,380	75.00	10.9	Upper Marker	113.00

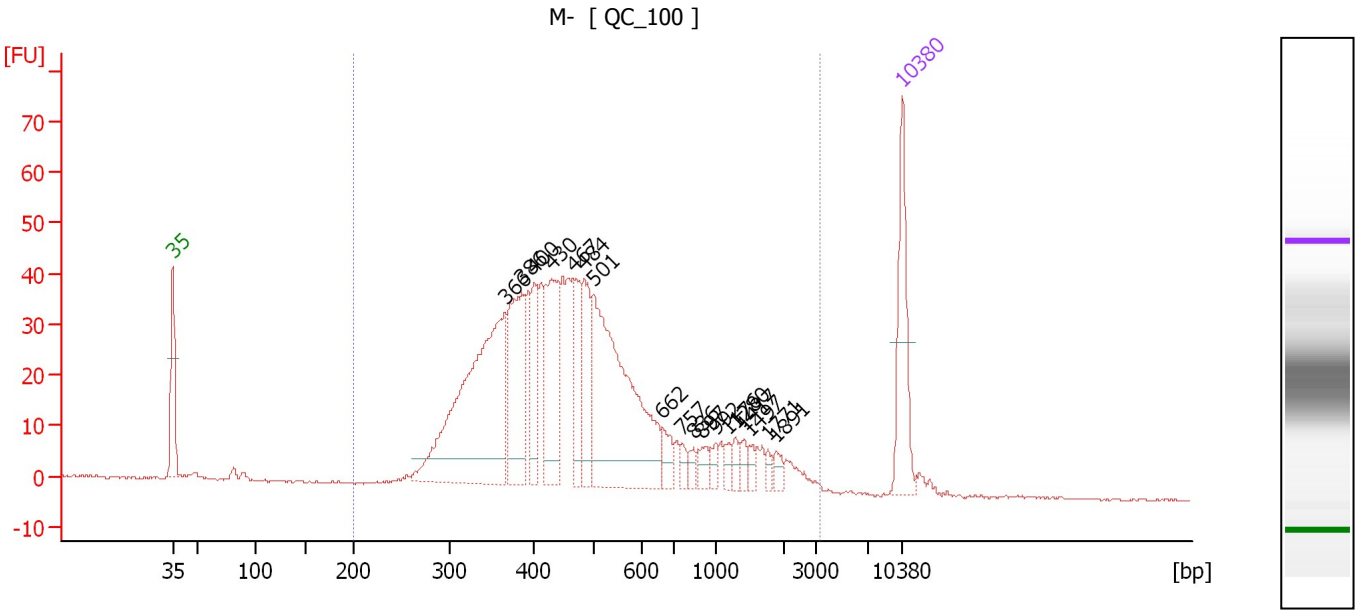
Region table for sample 8 : M+

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color Conc. [pg/µl]	% of Total	Size distribution in CV [%]
200	5,211	705	1,705.3	4,790.4	1,833.60	98	51.6

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M-

Number of peaks found:	18	Corr. Area 1:	927.7
Noise:	0.2		

Peak table for sample 9 : M-

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	366	363.66	1,505.2		74.93
3	386	139.02	546.1		76.52
4	400	59.74	226.1		77.69
5	430	127.95	450.7		79.38
6	467	63.07	204.6		81.48
7	484	77.05	241.1		82.45
8	501	306.68	928.3		83.37
9	662	20.42	46.7		89.97
10	757	9.13	18.3		91.92
11	836	9.93	18.0		92.99
12	897	14.54	24.6		93.81
13	992	8.96	13.7		95.09
14	1,176	9.77	12.6		96.32
15	1,280	9.54	11.3		96.98
16	1,417	9.60	10.3		97.85
17	1,497	7.55	7.6		98.37
18	1,771	6.13	5.2		100.11
19	1,891	9.07	7.3		100.87
20	10,380	75.00	10.9	Upper Marker	113.00

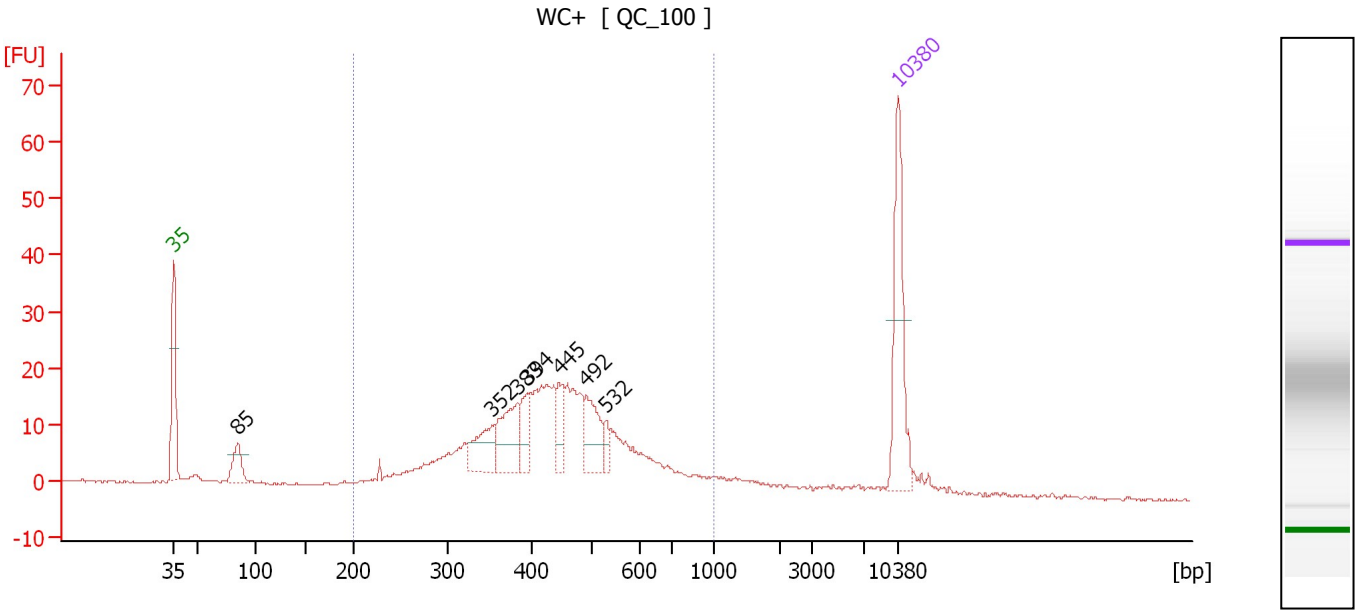
Region table for sample 9 : M-

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color Conc. [pg/µl]	% of Total	Size distribution in CV [%]
200	3,359	569	927.7	5,286.2	1,532.04	98	69.7

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : WC+

Number of peaks found:	7	Corr. Area 1:	358.2
Noise:	0.2		

Peak table for sample 10 : WC+

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	85	33.44	597.8		49.23
3	352	42.50	182.9		73.80
4	383	57.84	229.0		76.27
5	394	28.97	111.5		77.15
6	445	26.92	91.6		80.24
7	492	42.24	129.9		82.92
8	532	10.87	31.0		84.82
9	10,380	75.00	10.9	Upper Marker	113.00

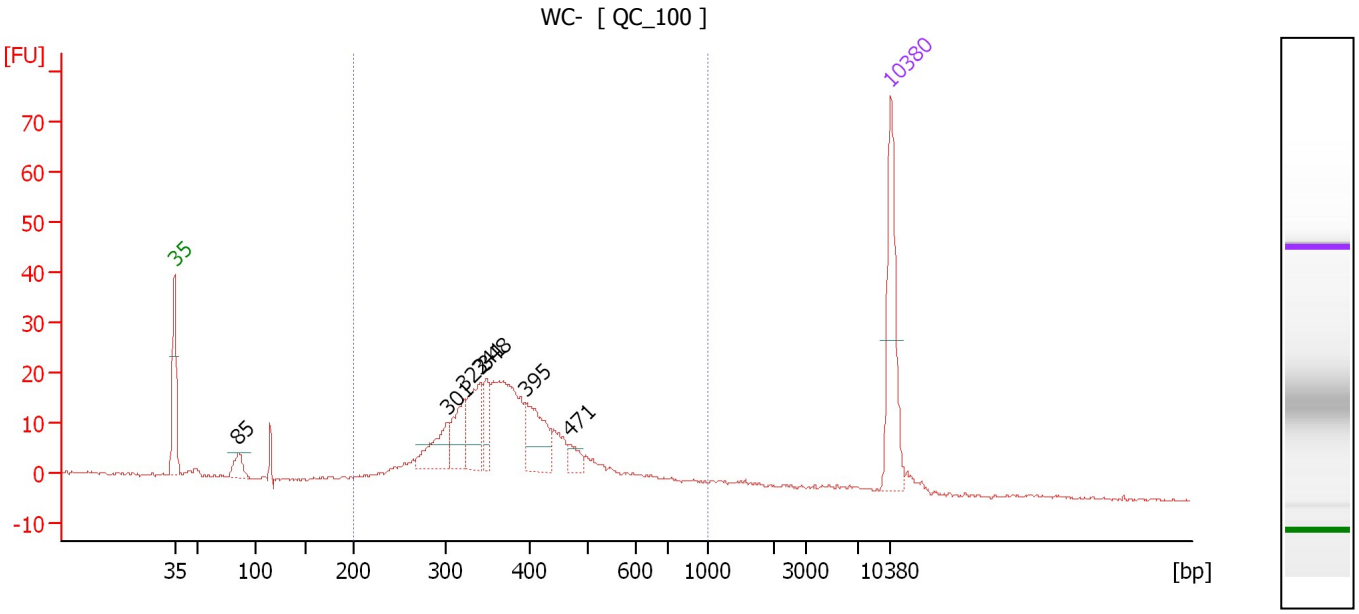
Region table for sample 10 : WC+

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	447	358.2	2,353.3	627.64	87	28.0

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : WC-

Number of peaks found:	7	Corr. Area 1:	339.5
Noise:	0.3		

Peak table for sample 11 : WC-

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	85	23.43	418.0		49.25
3	301	45.33	228.0		69.69
4	322	41.10	193.5		71.35
5	341	59.44	264.5		72.87
6	348	29.44	128.3		73.44
7	395	59.51	228.1		77.30
8	471	13.60	43.8		81.67
9	10,380	75.00	10.9	Upper Marker	113.00

Region table for sample 11 : WC-

From [bp]	To [bp]	Average Size [bp]	Corr. Area	Molarity [pmol/l]	Color [pg/µl]	% of Total	Size distribution in CV [%]
200	1,000	391	339.5	2,398.2	573.18	90	27.4

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

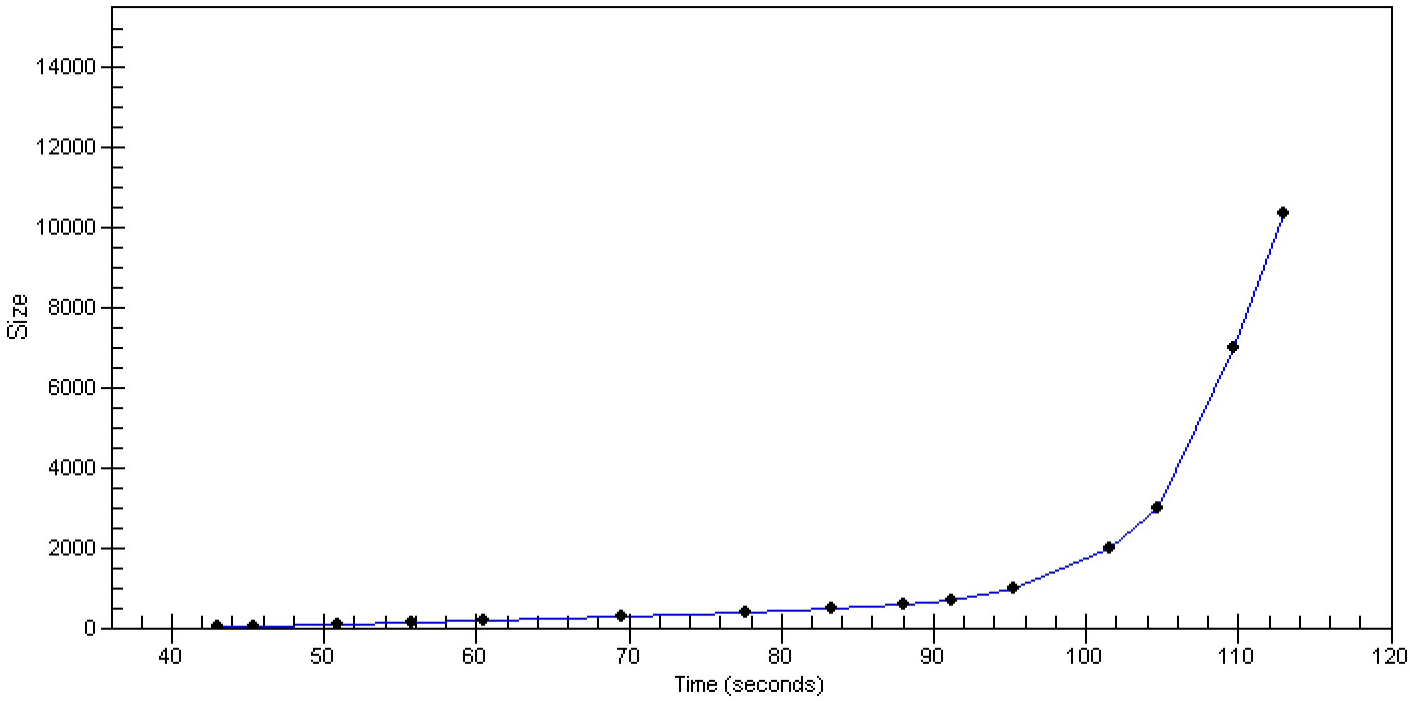
Gel Image

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 PM

Curves

Standard Curve



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...lyzer\2100 expert\data\2016-06-27\2016-06-27_003_QC_100.xad

Created: 6/27/2016 1:45:27 PM
Modified: 6/27/2016 2:33:38 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		6/27/2016 2:26:46 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-06-27\2016-06-27_003.xad)		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		6/27/2016 1:45:33 PM	(GMT --07:00) Pacific Standard Time	UC Davis	D8XSMGH1