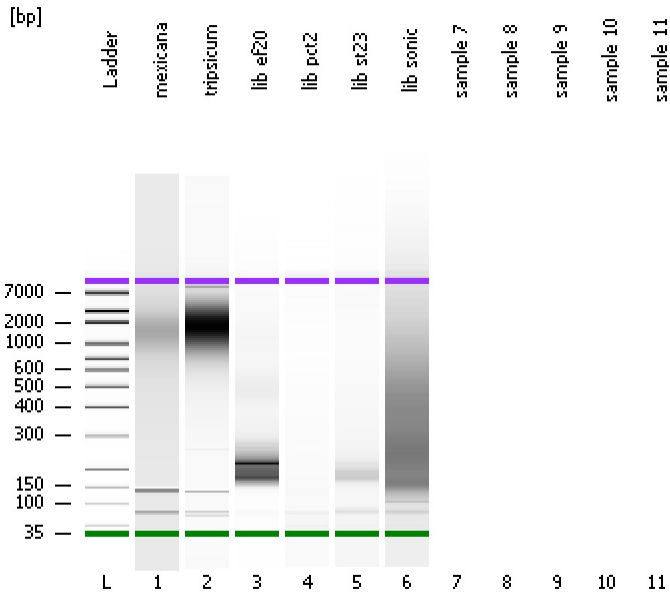


Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 PM

Electrophoresis File Run Summary



Instrument Information:

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

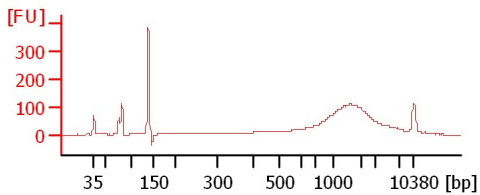
Assay Information:

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

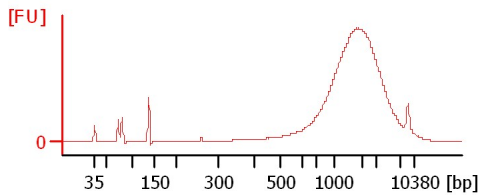
Chip Information:

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

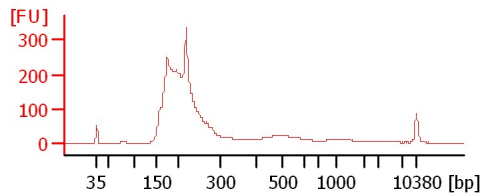
mexicana



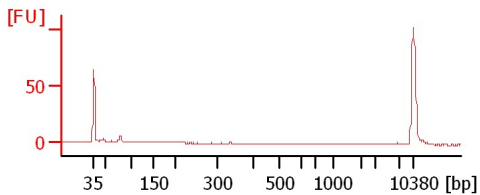
tripsicum



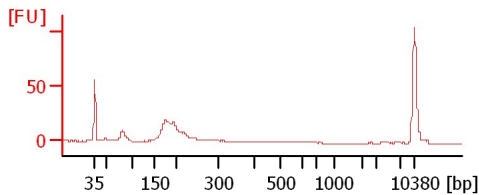
lib ef20



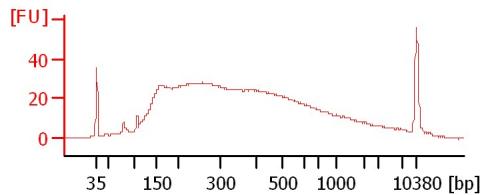
lib pct2



lib st23



lib sonic



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| mexicana | | <input type="checkbox"/> | ✓ | | | |
| tripsicum | | <input type="checkbox"/> | ✓ | | | |
| lib ef20 | | <input type="checkbox"/> | ✓ | | | |
| lib pct2 | | <input type="checkbox"/> | ✓ | | | |
| lib st23 | | <input type="checkbox"/> | ✓ | | | |
| lib sonic | | <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:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 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

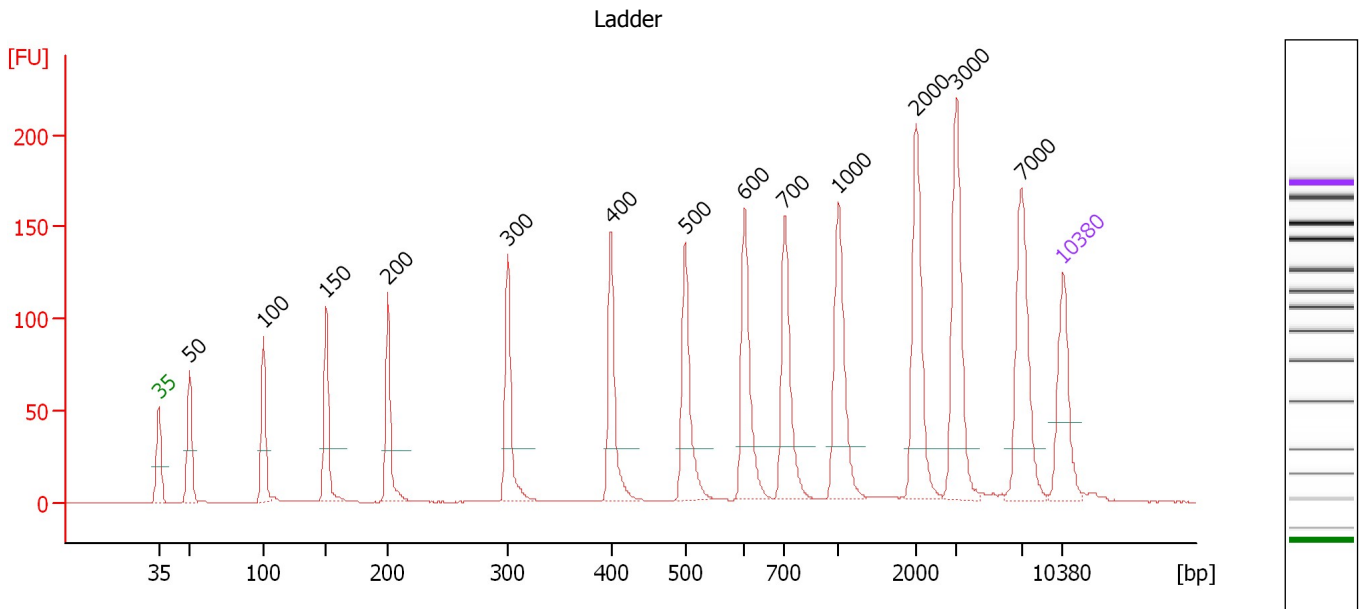
Ladder

| 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:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

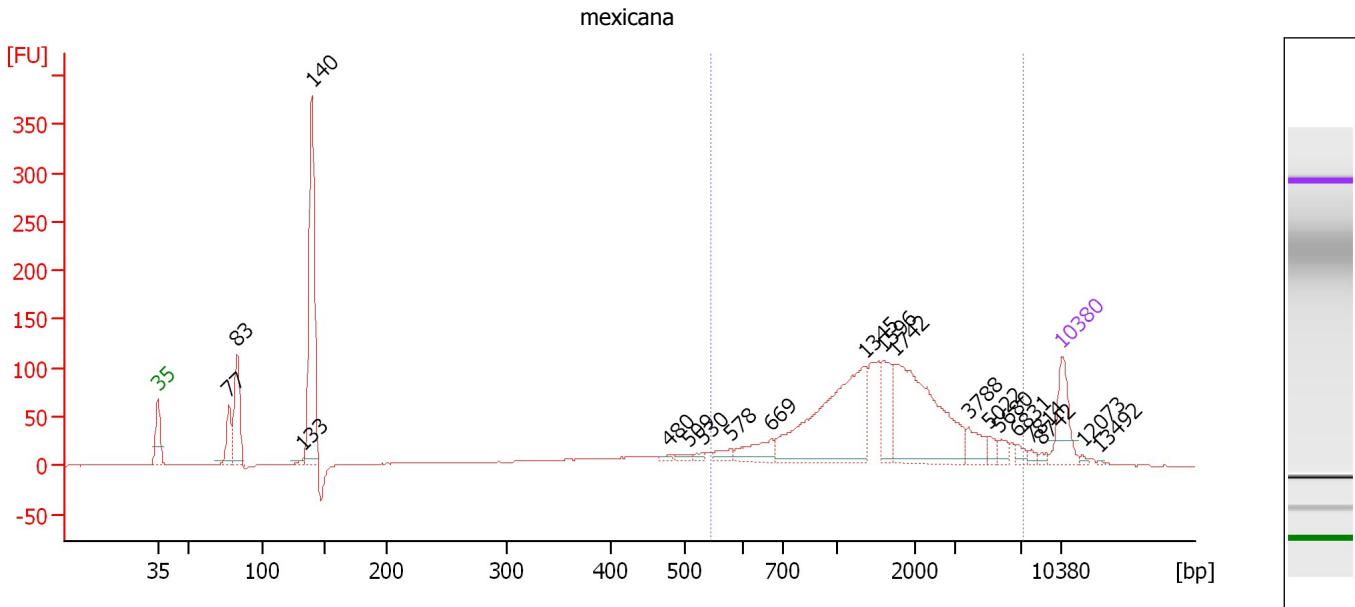
Peak table for Ladder

| 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 | 45.39 |
| 3 | 100 | 150.00 | 2,272.7 | Ladder Peak | 51.14 |
| 4 | 150 | 150.00 | 1,515.2 | Ladder Peak | 55.97 |
| 5 | 200 | 150.00 | 1,136.4 | Ladder Peak | 60.75 |
| 6 | 300 | 150.00 | 757.6 | Ladder Peak | 70.01 |
| 7 | 400 | 150.00 | 568.2 | Ladder Peak | 78.05 |
| 8 | 500 | 150.00 | 454.5 | Ladder Peak | 83.75 |
| 9 | 600 | 150.00 | 378.8 | Ladder Peak | 88.38 |
| 10 | 700 | 150.00 | 324.7 | Ladder Peak | 91.48 |
| 11 | 1,000 | 150.00 | 227.3 | Ladder Peak | 95.65 |
| 12 | 2,000 | 150.00 | 113.6 | Ladder Peak | 101.66 |
| 13 | 3,000 | 150.00 | 75.8 | Ladder Peak | 104.76 |
| 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:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : mexicana

Number of peaks found: 20 Corr. Area 1: 1,318.2
 Noise: 0.2

Peak table for sample 1 : mexicana

| 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 | 77 | 86.73 | 1,698.1 | | 48.54 |
| 3 | 83 | 172.94 | 3,164.9 | | 49.16 |
| 4 | 133 | 7.44 | 85.1 | | 54.29 |
| 5 | 140 | 499.13 | 5,420.1 | | 54.96 |
| 6 | 480 | 6.61 | 20.9 | | 82.61 |
| 7 | 509 | 10.54 | 31.4 | | 84.16 |
| 8 | 530 | 8.59 | 24.6 | | 85.14 |
| 9 | 578 | 19.27 | 50.5 | | 87.37 |
| 10 | 669 | 57.13 | 129.3 | | 90.53 |
| 11 | 1,345 | 350.72 | 395.0 | | 97.73 |
| 12 | 1,596 | 68.82 | 65.4 | | 99.23 |
| 13 | 1,742 | 309.25 | 268.9 | | 100.11 |
| 14 | 3,788 | 39.40 | 15.8 | | 105.75 |
| 15 | 5,022 | 14.83 | 4.5 | | 107.30 |
| 16 | 5,680 | 15.16 | 4.0 | | 108.13 |
| 17 | 6,831 | 11.82 | 2.6 | | 109.58 |
| 18 | 7,814 | 7.36 | 1.4 | | 110.57 |
| 19 | 8,742 | 5.27 | 0.9 | | 111.45 |
| 20 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 21 | 12,073 | 0.00 | 0.0 | | 114.61 |
| 22 | 13,492 | 0.00 | 0.0 | | 115.95 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...

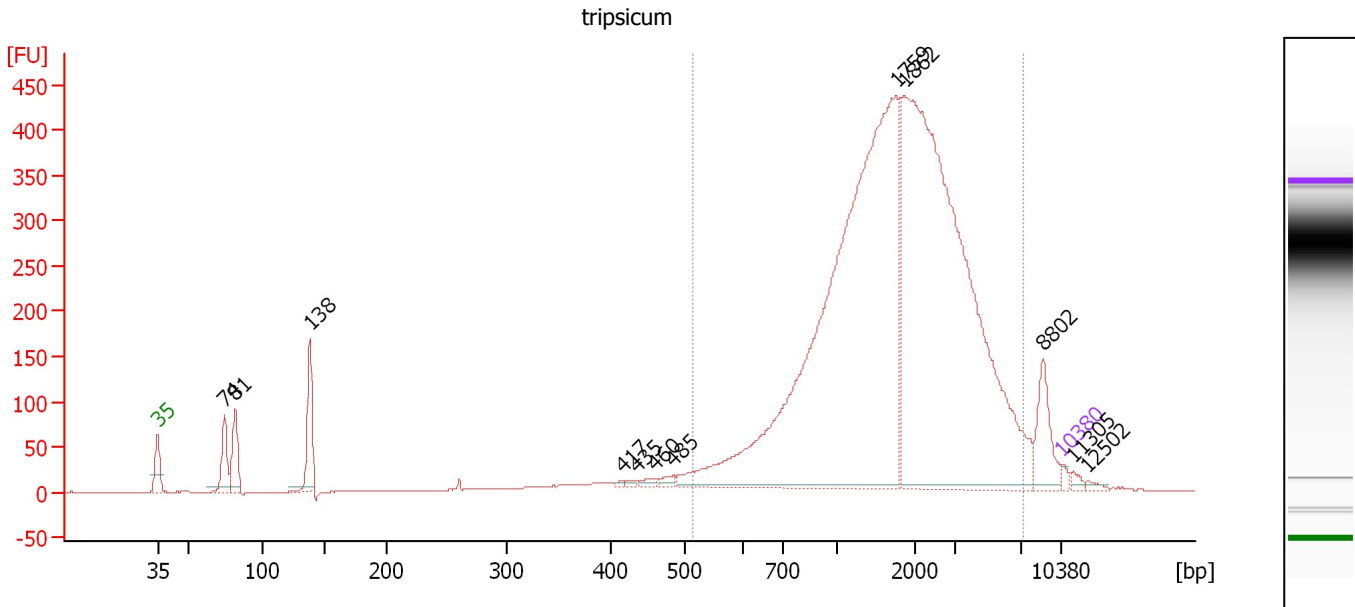
... Region table for sample 1 : mexicana

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 546 | 7,233 | 1,883 | 1,318.2 | 1,293.4 | 1,093.48 | 62 | 69.5 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : tripsicum

Number of peaks found: 12 Corr. Area 1: 5,379.3
 Noise: 0.2

Peak table for sample 2 : tripsicum

| 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 | 74 | 865.77 | 17,709.6 | | 48.16 |
| 3 | 81 | 964.56 | 17,987.2 | | 48.98 |
| 4 | 138 | 1,359.76 | 14,928.9 | | 54.81 |
| 5 | 417 | 42.54 | 154.6 | | 79.01 |
| 6 | 435 | 57.74 | 201.2 | | 80.04 |
| 7 | 460 | 111.68 | 367.7 | | 81.48 |
| 8 | 485 | 126.89 | 396.7 | | 82.87 |
| 9 | 1,759 | 15,061.74 | 12,975.9 | | 100.21 |
| 10 | 1,862 | 13,670.71 | 11,125.2 | | 100.83 |
| 11 | 8,802 | 791.30 | 136.2 | | 111.50 |
| 12 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 13 | 11,305 | 0.00 | 0.0 | | 113.88 |
| 14 | 12,502 | 0.00 | 0.0 | | 115.01 |

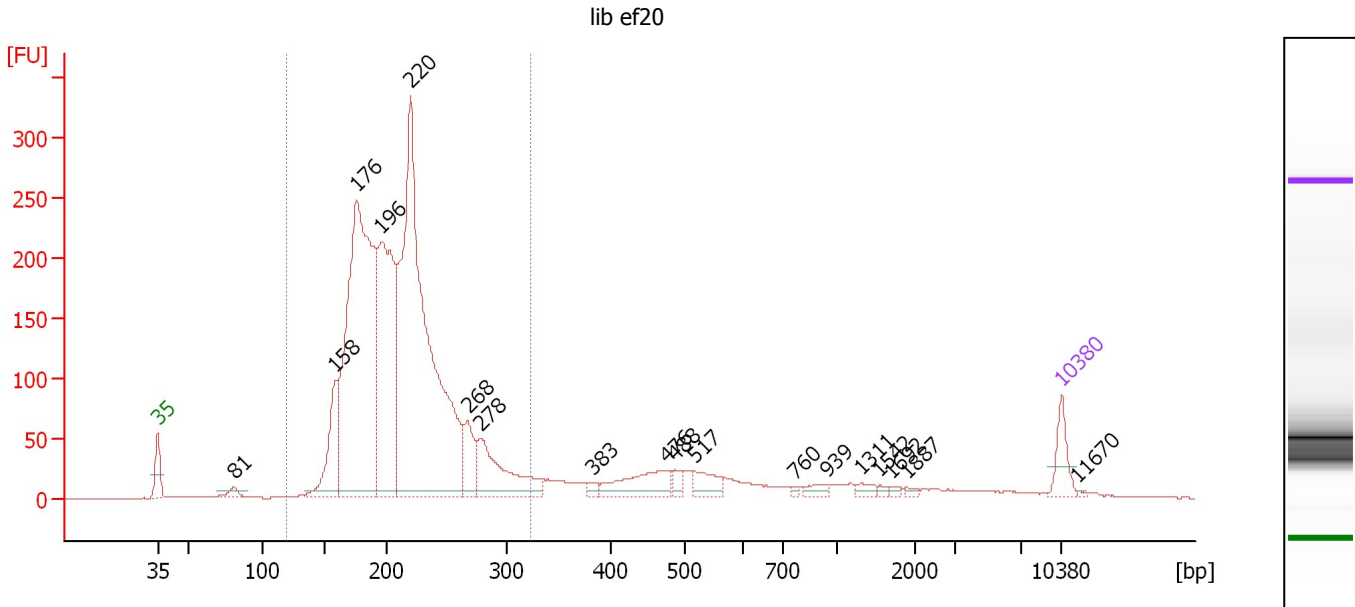
Region table for sample 2 : tripsicum

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 514 | 7,232 | 2,089 | 5,379.3 | 32,404.8 | 30,678.35 | 87 | 63.2 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : lib ef20

Number of peaks found: 18 Corr. Area 1: 3,111.3
 Noise: 0.3

Peak table for sample 3 : lib ef20

| 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 | 81 | 34.72 | 653.0 | | 48.90 |
| 3 | 158 | 292.30 | 2,795.8 | | 56.78 |
| 4 | 176 | 2,053.38 | 17,712.3 | | 58.43 |
| 5 | 196 | 989.80 | 7,664.3 | | 60.34 |
| 6 | 220 | 2,325.37 | 16,039.9 | | 62.57 |
| 7 | 268 | 153.25 | 866.7 | | 67.04 |
| 8 | 278 | 338.50 | 1,847.0 | | 67.95 |
| 9 | 383 | 18.14 | 71.7 | | 76.72 |
| 10 | 476 | 171.39 | 545.9 | | 82.36 |
| 11 | 488 | 35.15 | 109.2 | | 83.05 |
| 12 | 517 | 79.04 | 231.6 | | 84.54 |
| 13 | 760 | 8.86 | 17.7 | | 92.31 |
| 14 | 939 | 25.44 | 41.0 | | 94.81 |
| 15 | 1,311 | 21.20 | 24.5 | | 97.52 |
| 16 | 1,542 | 8.93 | 8.8 | | 98.90 |
| 17 | 1,692 | 8.47 | 7.6 | | 99.81 |
| 18 | 1,887 | 9.01 | 7.2 | | 100.98 |
| 19 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |
| 20 | 11,670 | 0.00 | 0.0 | | 114.22 |

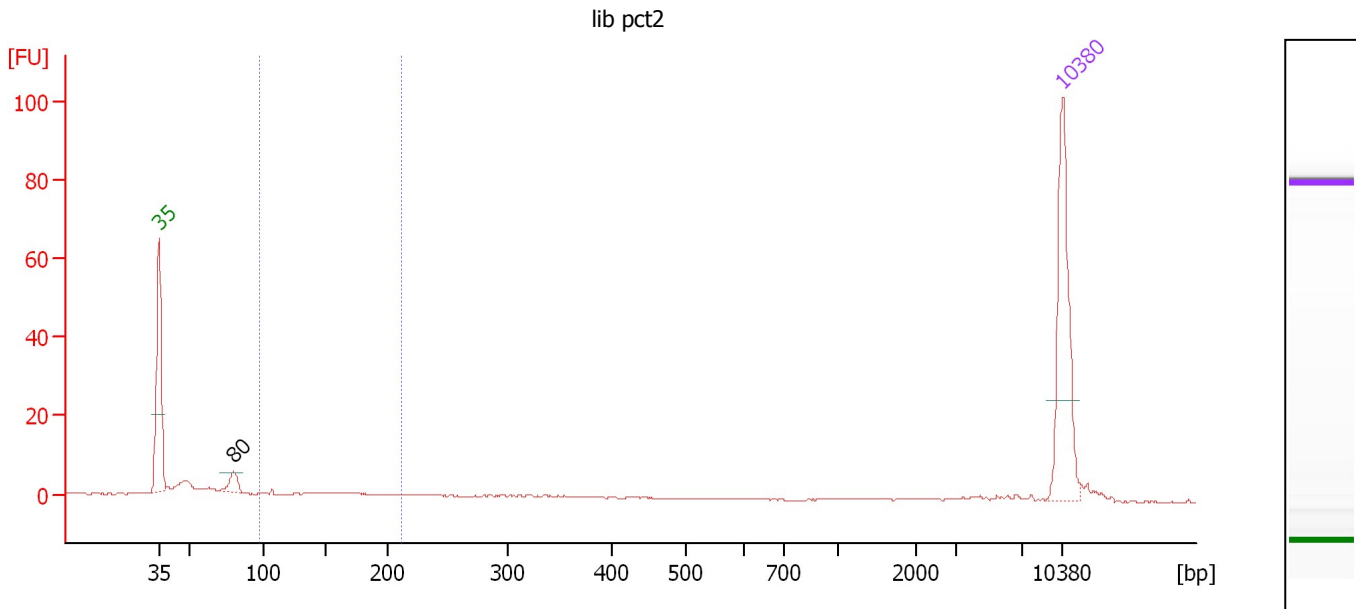
Region table for sample 3 : lib ef20

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|------------------|------------|-----------------------------|
| 119 | 323 | 211 | 3,111.3 | 45,570.1 | 6,131.72 | 82 | 17.0 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : lib pct2

Number of peaks found: 1 Corr. Area 1: 9.7
 Noise: 0.1

Peak table for sample 4 : lib pct2

| 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 | 80 | 13.40 | 254.5 | | 48.82 |
| 3 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

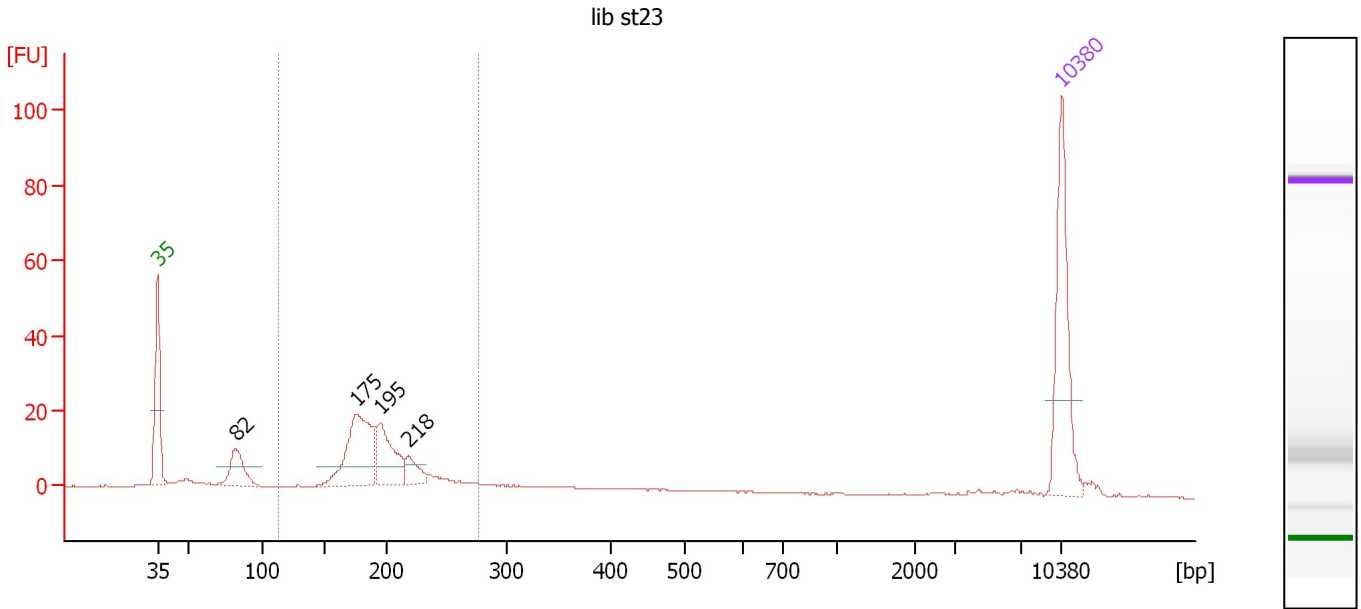
Region table for sample 4 : lib pct2

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 97 | 212 | 151 | 9.7 | 163.5 | 15.57 | 18 | 20.4 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : lib st23

Number of peaks found: 4 Corr. Area 1: 163.3
 Noise: 0.1

Peak table for sample 5 : lib st23

| 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 | 82 | 39.87 | 739.3 | | 49.04 |
| 3 | 175 | 106.41 | 919.7 | | 58.39 |
| 4 | 195 | 57.44 | 447.1 | | 60.24 |
| 5 | 218 | 18.90 | 131.4 | | 62.42 |
| 6 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

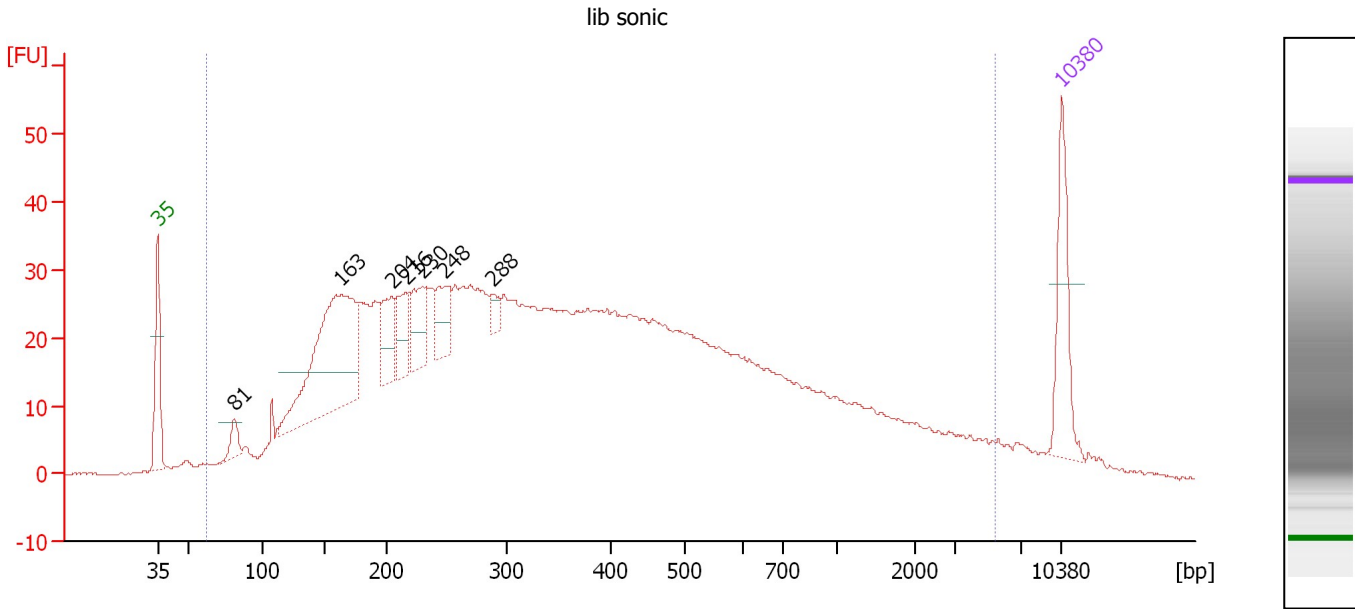
Region table for sample 5 : lib st23

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. lor [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|----------------------|------------|-----------------------------|
| 113 | 277 | 196 | 163.3 | 1,874.1 | 236.75 | 67 | 14.2 |

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : lib sonic

Number of peaks found: 7 Corr. Area 1: 1,521.0
 Noise: 0.2

Peak table for sample 6 : lib sonic

| 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 | 81 | 26.34 | 491.9 | | 48.97 |
| 3 | 163 | 350.19 | 3,256.3 | | 57.21 |
| 4 | 204 | 60.86 | 451.8 | | 61.14 |
| 5 | 216 | 57.14 | 400.7 | | 62.24 |
| 6 | 230 | 68.65 | 451.4 | | 63.57 |
| 7 | 248 | 55.07 | 336.0 | | 65.23 |
| 8 | 288 | 15.73 | 82.7 | | 68.93 |
| 9 | 10,380 | 75.00 | 10.9 | Upper Marker | 113.00 |

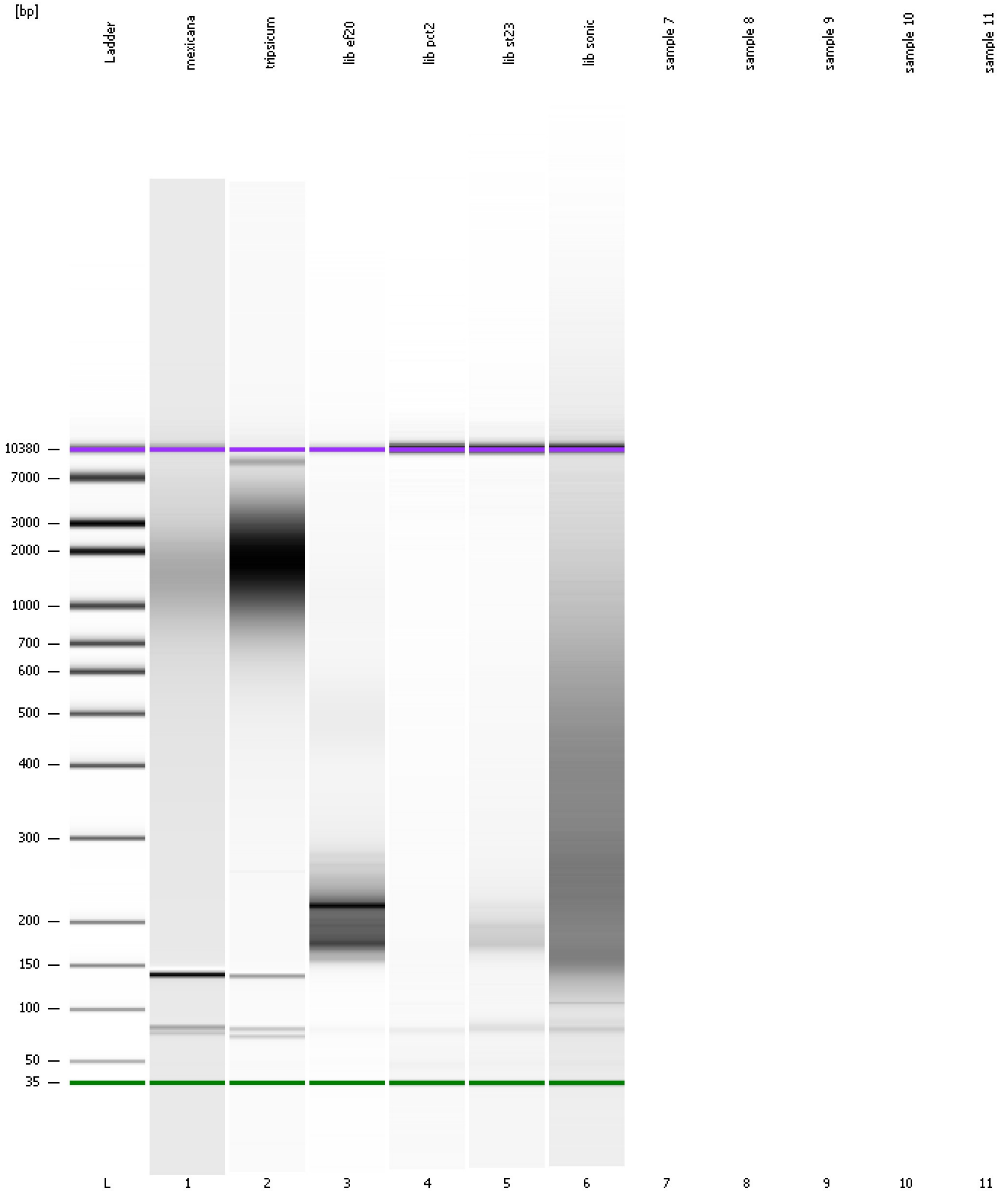
Region table for sample 6 : lib sonic

| From [bp] | To [bp] | Average Size [bp] | Corr. Area | Molarity [pmol/l] | Co Conc. [pg/μl] | % of Total | Size distribution in CV [%] |
|-----------|---------|-------------------|------------|-------------------|------------------|------------|-----------------------------|
| 61 | 5,392 | 556 | 1,521.0 | 25,020.3 | 4,159.63 | 95 | 100.0 |

Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 PM

Gel Image



Assay Class: High Sensitivity DNA Assay
Data Path: C:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
Modified: 11/7/2016 2:45:21 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:\... bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad

Created: 11/7/2016 2:17:40 PM
 Modified: 11/7/2016 2:45:21 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 | | 11/7/2016 2:44:40 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Program Files\Agilent\2100 bioanalyzer\2100 expert\data\2016-11-07\2016-11-07_002.xad) | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 11/7/2016 2:17:46 PM | (GMT --08:00) Pacific Standard Time | UC Davis | D8XSMGH1 |