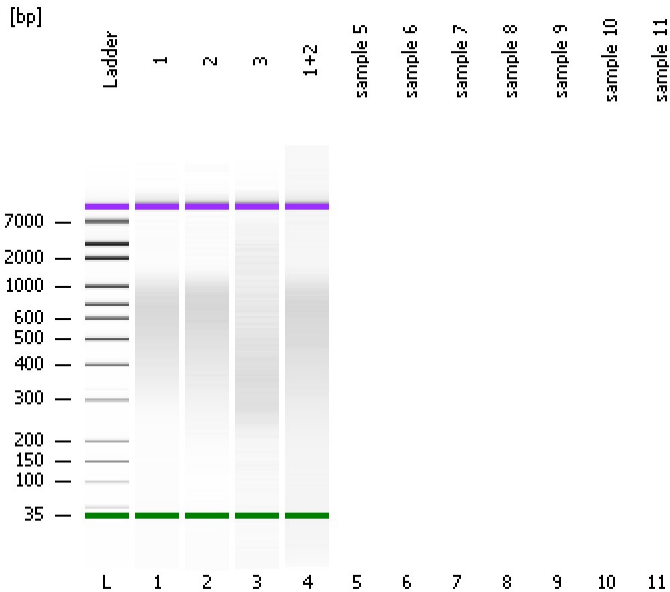


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
Modified: 9/9/2014 2:10:49 PM

**Electrophoresis File Run Summary**



Instrument Information:

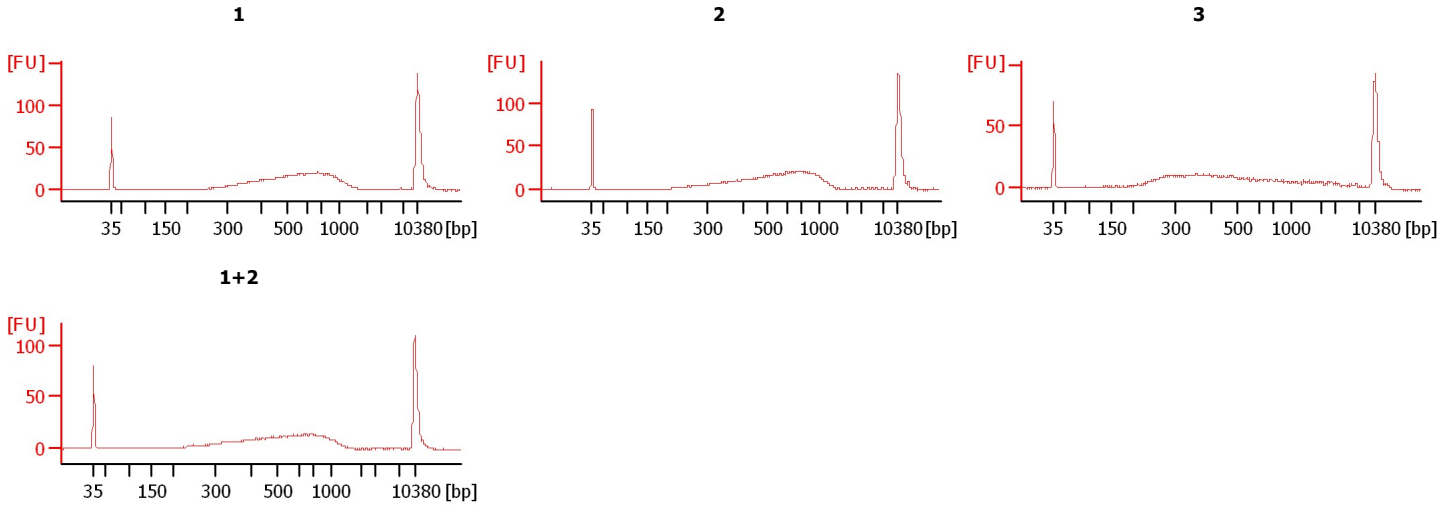
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
 Modified: 9/9/2014 2:10:49 PM

**Electrophoresis File Run Summary (Chip Summary)**

| Sample Name | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| 1           |                | <input type="checkbox"/> | ✓      |             |              |              |
| 2           |                | <input type="checkbox"/> | ✓      |             |              |              |
| 3           |                | <input type="checkbox"/> | ✓      |             |              |              |
| 1+2         |                | <input type="checkbox"/> | ✓      |             |              |              |
| sample 5    |                | <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\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
Modified: 9/9/2014 2:10:49 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

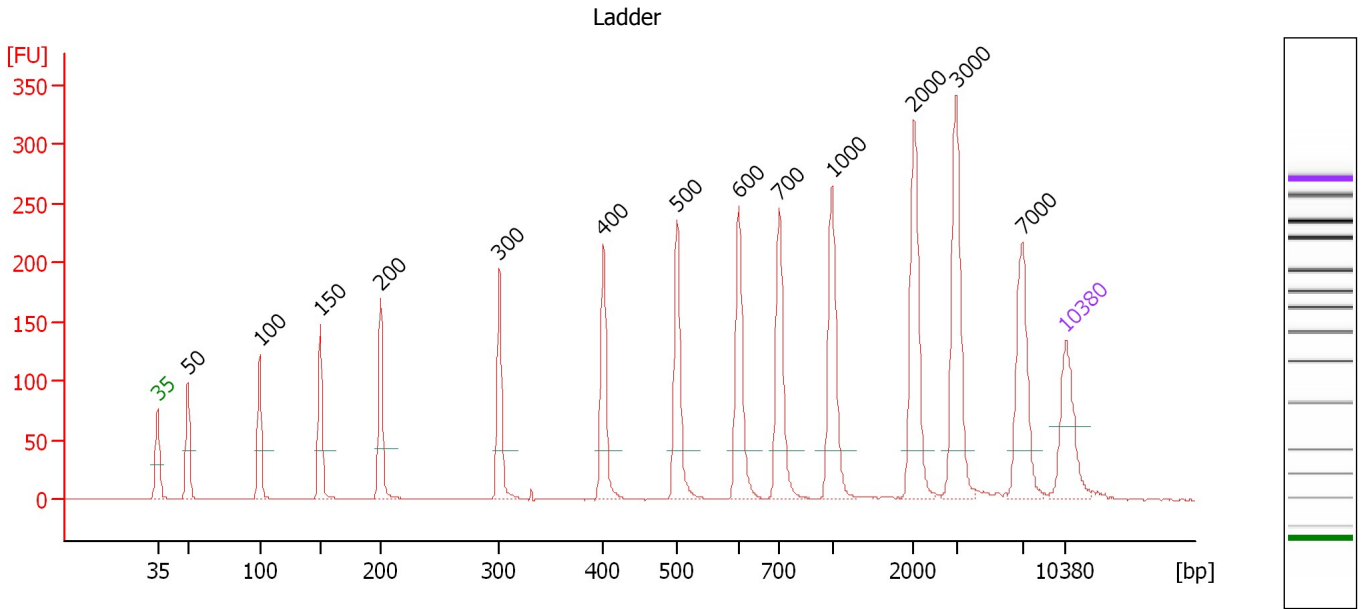
**Ladder**

| 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\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
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**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

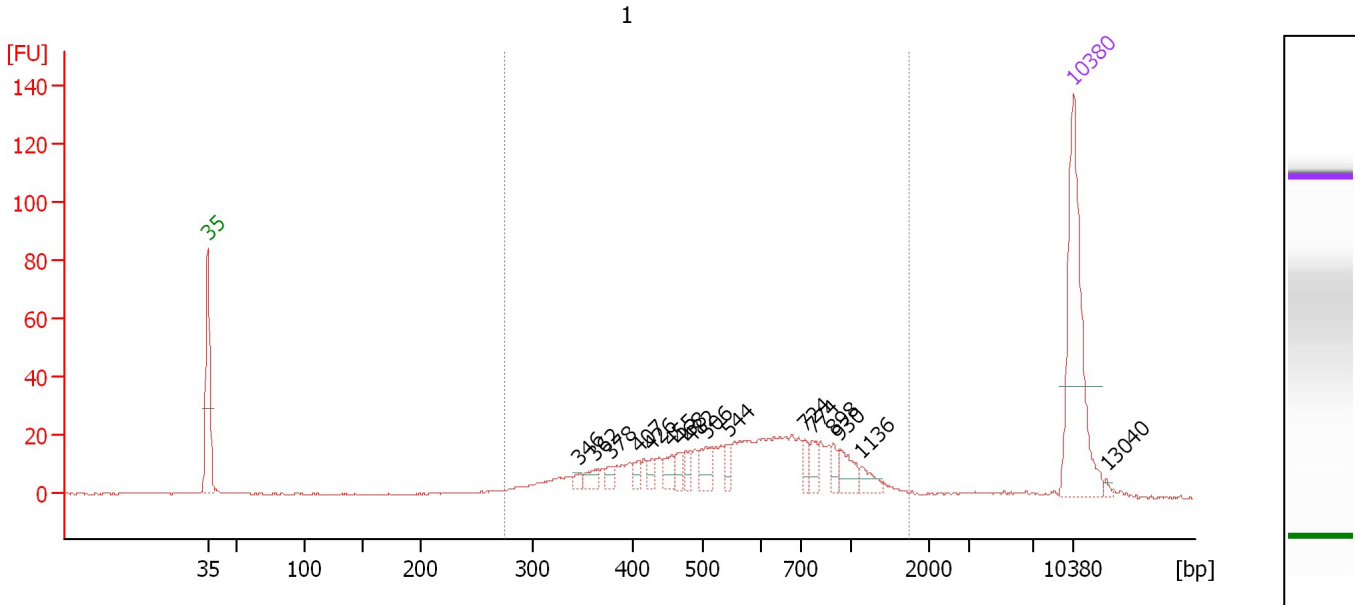
**Peak table for Ladder**

| 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\2014-09-09\2014-09-09\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : 1**

Number of peaks found: 16                      Corr. Area 1: 492.8  
 Noise: 0.2

**Peak table for sample 1 : 1**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 346       | 3.42          | 15.0              |              |
| 3    | 362       | 6.99          | 29.3              |              |
| 4    | 378       | 4.85          | 19.4              |              |
| 5    | 407       | 5.80          | 21.6              |              |
| 6    | 426       | 5.49          | 19.5              |              |
| 7    | 455       | 8.40          | 28.0              |              |
| 8    | 468       | 7.94          | 25.7              |              |
| 9    | 482       | 6.28          | 19.7              |              |
| 10   | 506       | 13.28         | 39.8              |              |
| 11   | 544       | 7.47          | 20.8              |              |
| 12   | 724       | 7.01          | 14.7              |              |
| 13   | 774       | 8.26          | 16.2              |              |
| 14   | 898       | 6.10          | 10.3              |              |
| 15   | 930       | 13.08         | 21.3              |              |
| 16   | 1,136     | 6.96          | 9.3               |              |
| 17   | 10,380    | 75.00         | 10.9              | Upper Marker |
| 18   | 13,040    | 0.00          | 0.0               |              |

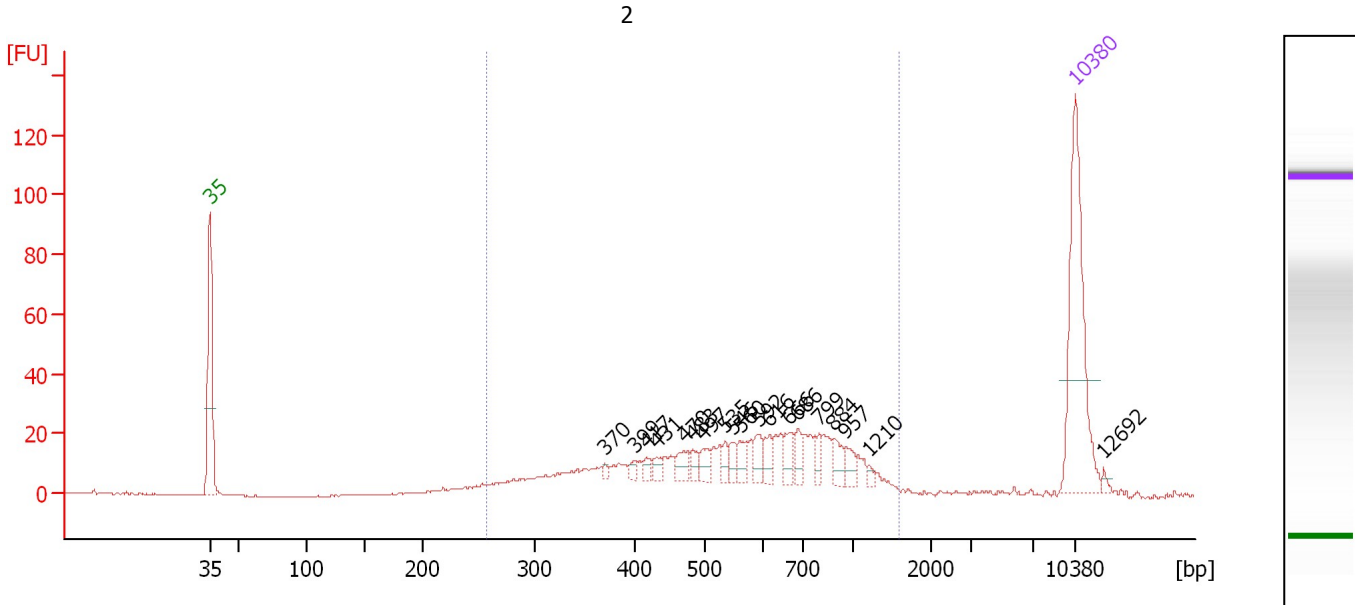
**Region table for sample 1 : 1**

| From [bp] | To [bp] | Corr. Area | % of Total | Average Size [bp] | Size distribution in CV [%] | Conc. [pg/μl] | Molarity [pmol/l] | Color |
|-----------|---------|------------|------------|-------------------|-----------------------------|---------------|-------------------|-------|
| 274       | 1,745   | 492.8      | 88         | 616               | 40.6                        | 316.43        | 934.4             | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 2**

Number of peaks found: 19                      Corr. Area 1: 490.2  
 Noise: 0.2

**Peak table for sample 2 : 2**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 370       | 2.66          | 10.9              |              |
| 3    | 399       | 3.29          | 12.5              |              |
| 4    | 417       | 4.31          | 15.7              |              |
| 5    | 431       | 4.77          | 16.8              |              |
| 6    | 470       | 9.70          | 31.3              |              |
| 7    | 483       | 6.20          | 19.5              |              |
| 8    | 497       | 8.08          | 24.6              |              |
| 9    | 535       | 5.96          | 16.9              |              |
| 10   | 546       | 6.99          | 19.4              |              |
| 11   | 560       | 8.01          | 21.7              |              |
| 12   | 592       | 9.28          | 23.8              |              |
| 13   | 616       | 8.58          | 21.1              |              |
| 14   | 666       | 10.51         | 23.9              |              |
| 15   | 686       | 9.23          | 20.4              |              |
| 16   | 799       | 7.18          | 13.6              |              |
| 17   | 884       | 9.18          | 15.7              |              |
| 18   | 957       | 7.38          | 11.7              |              |
| 19   | 1,210     | 2.22          | 2.8               |              |
| 20   | 10,380    | 75.00         | 10.9              | Upper Marker |
| 21   | 12,692    | 0.00          | 0.0               |              |

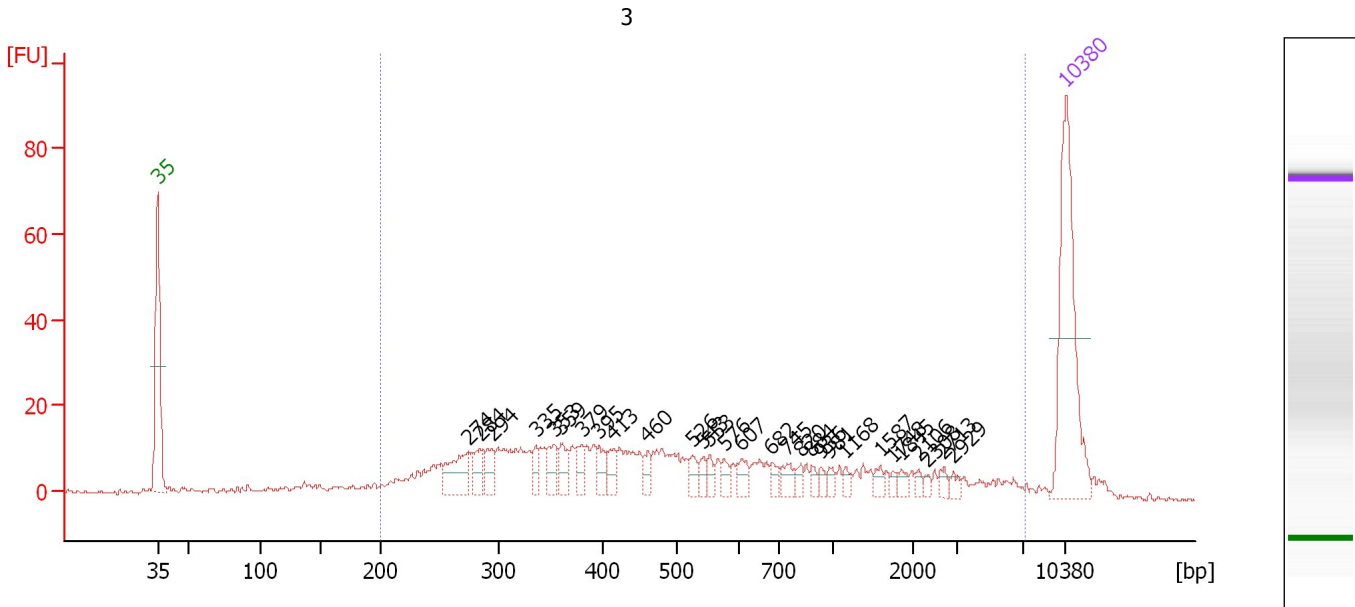
**Region table for sample 2 : 2**

| From [bp] | To [bp] | Corr. Area | % of Total | Average Size [bp] | Size distribution in CV [%] | Conc. [pg/μl] | Molarity [pmol/l] | Color |
|-----------|---------|------------|------------|-------------------|-----------------------------|---------------|-------------------|-------|
| 257       | 1,588   | 490.2      | 95         | 607               | 39.9                        | 330.53        | 1,007.2           | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 3**

Number of peaks found: 29                      Corr. Area 1: 478.6  
 Noise: 0.5

**Peak table for sample 3 : 3**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 274       | 29.08         | 161.0             |              |
| 3    | 284       | 13.57         | 72.5              |              |
| 4    | 294       | 12.85         | 66.3              |              |
| 5    | 335       | 9.28          | 41.9              |              |
| 6    | 353       | 13.53         | 58.1              |              |
| 7    | 359       | 11.23         | 47.4              |              |
| 8    | 379       | 9.54          | 38.1              |              |
| 9    | 395       | 10.44         | 40.0              |              |
| 10   | 413       | 10.67         | 39.1              |              |
| 11   | 460       | 6.88          | 22.6              |              |
| 12   | 526       | 7.46          | 21.5              |              |
| 13   | 543       | 5.45          | 15.2              |              |
| 14   | 553       | 5.24          | 14.3              |              |
| 15   | 576       | 5.88          | 15.5              |              |
| 16   | 607       | 8.13          | 20.3              |              |
| 17   | 682       | 5.35          | 11.9              |              |
| 18   | 745       | 7.47          | 15.2              |              |
| 19   | 820       | 4.59          | 8.5               |              |
| 20   | 884       | 3.74          | 6.4               |              |
| 21   | 936       | 3.44          | 5.6               |              |
| 22   | 981       | 4.05          | 6.3               |              |
| 23   | 1,168     | 3.39          | 4.4               |              |
| 24   | 1,587     | 3.93          | 3.7               |              |
| 25   | 1,748     | 2.47          | 2.1               |              |
| 26   | 1,845     | 3.43          | 2.8               |              |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
 Modified: 9/9/2014 2:10:49 PM

### Electropherogram Summary Continued ...

#### ... Peak table for sample 3 : 3

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 27   | 2,106     | 2.62          | 1.9               |              |
| 28   | 2,308     | 2.16          | 1.4               |              |
| 29   | 2,713     | 3.42          | 1.9               |              |
| 30   | 2,929     | 3.03          | 1.6               |              |
| 31   | 10,380    | 75.00         | 10.9              | Upper Marker |

#### Region table for sample 3 : 3

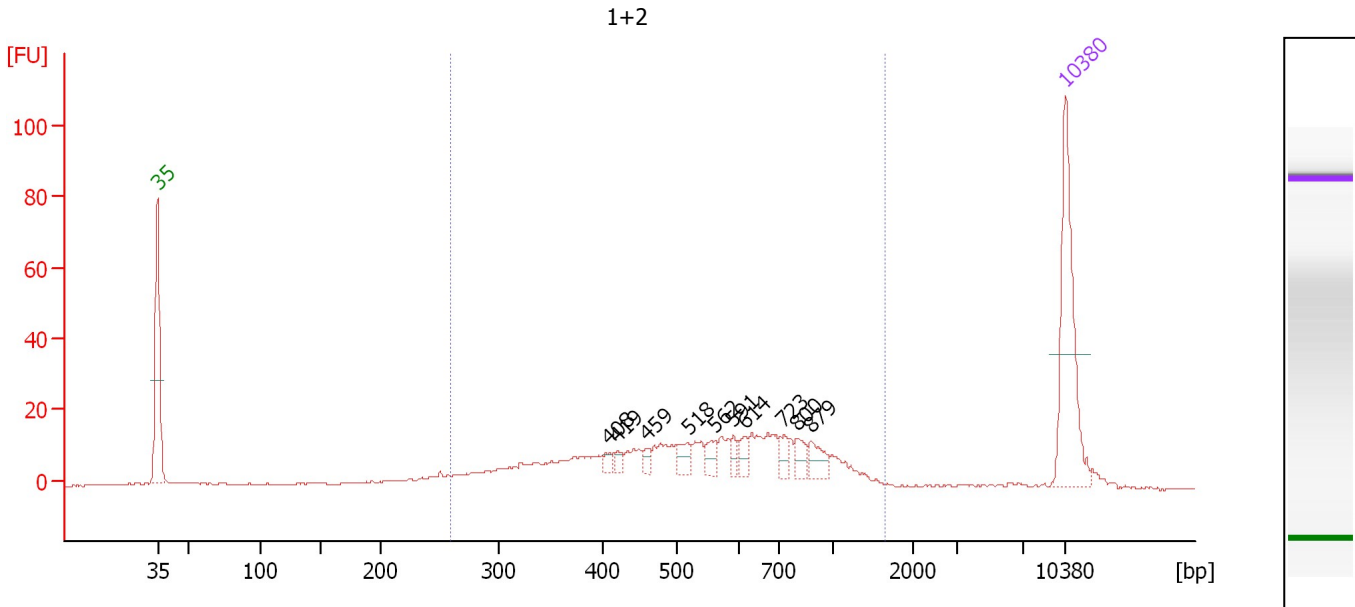
| From [bp] | To [bp] | Corr. Area | % of Total | Average Size [bp] | Size distribution in CV [%] | Conc. [pg/μl] | Molarity [pmol/l] | Color   |
|-----------|---------|------------|------------|-------------------|-----------------------------|---------------|-------------------|---|
| 200       | 7,181   | 478.6      | 91         | 889               | 100.0                       | 457.34        | 1,685.4           |  |



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

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**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 1+2**

Number of peaks found: 10                      Corr. Area 1: 428.8  
 Noise: 0.2

**Peak table for sample 4 : 1+2**

| Peak | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1    | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 408       | 6.10          | 22.6              |              |
| 3    | 419       | 5.50          | 19.9              |              |
| 4    | 459       | 5.22          | 17.2              |              |
| 5    | 518       | 11.84         | 34.6              |              |
| 6    | 562       | 10.21         | 27.5              |              |
| 7    | 591       | 6.84          | 17.5              |              |
| 8    | 614       | 8.89          | 22.0              |              |
| 9    | 723       | 7.85          | 16.4              |              |
| 10   | 800       | 10.69         | 20.2              |              |
| 11   | 879       | 13.88         | 23.9              |              |
| 12   | 10,380    | 75.00         | 10.9              | Upper Marker |

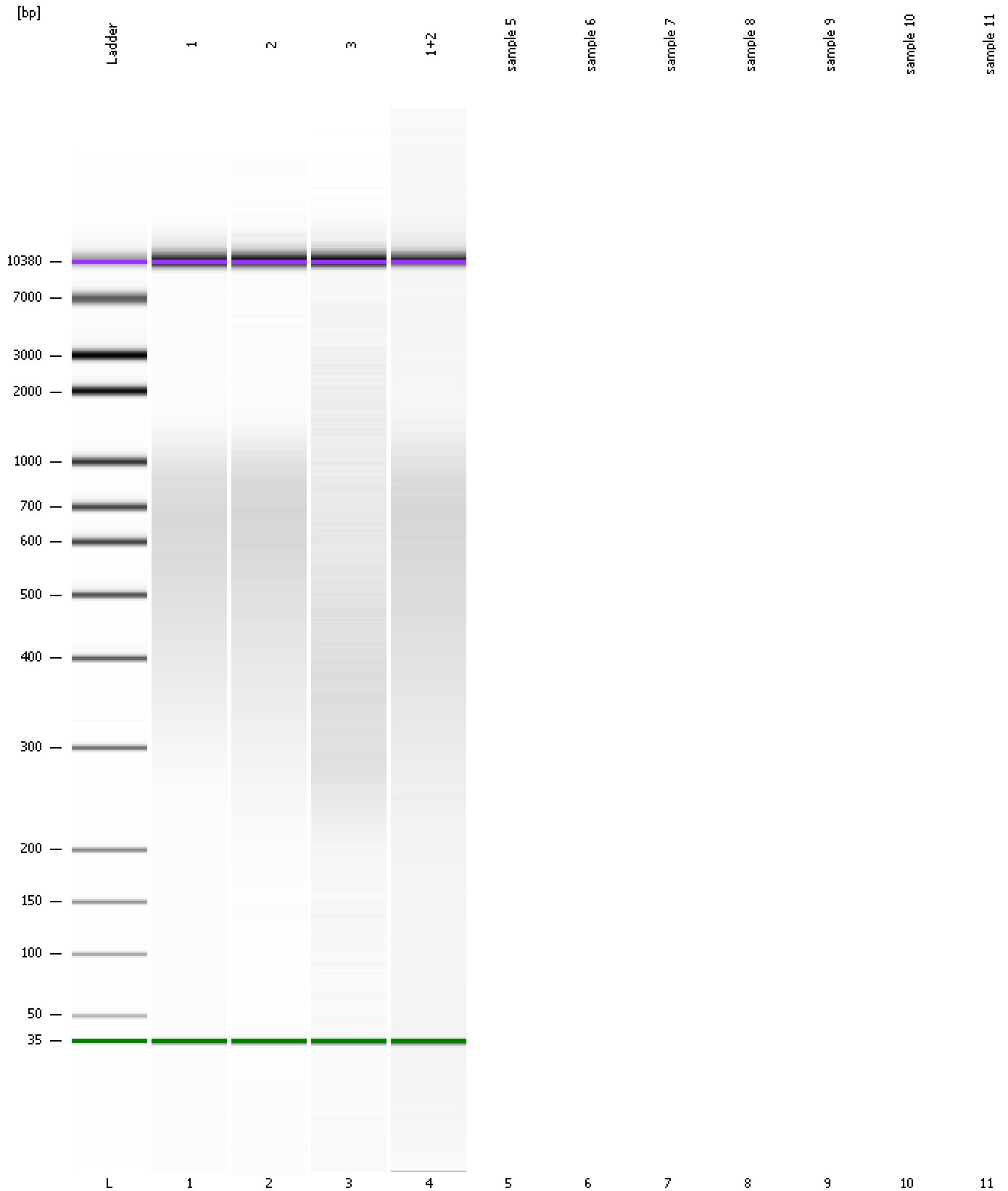
**Region table for sample 4 : 1+2**

| From [bp] | To [bp] | Corr. Area | % of Total | Average Size [bp] | Size distribution in CV [%] | Conc. [pg/μl] | Molarity [pmol/l] | Color |
|-----------|---------|------------|------------|-------------------|-----------------------------|---------------|-------------------|-------|
| 259       | 1,650   | 428.8      | 69         | 582               | 42.9                        | 426.23        | 1,372.3           | Blue  |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad

Created: 9/9/2014 1:47:35 PM  
Modified: 9/9/2014 2:10:49 PM

**Gel Image**



Assay Class: High Sensitivity DNA Assay Created: 9/9/2014 1:47:35 PM  
 Data Path: C:\...ents and Settings\Bioanalyzer\2014-09-09\2014-09-09\_002.xad Modified: 9/9/2014 2:10:49 PM

**Run Logbook**

| Description   | Number | Source     | Category | Sub Category | Time                | Time Zone                           | User     | Host     |
|---|--------|------------|----------|--------------|---------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 5)   |        | Instrument | Run      |              | 9/9/2014 2:08:55 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2014-09-09\2014-09-09_002.xad) |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B   |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name :  |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies   |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086  |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069   |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode   |        | Instrument | Run      |              | 9/9/2014 1:47:40 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |