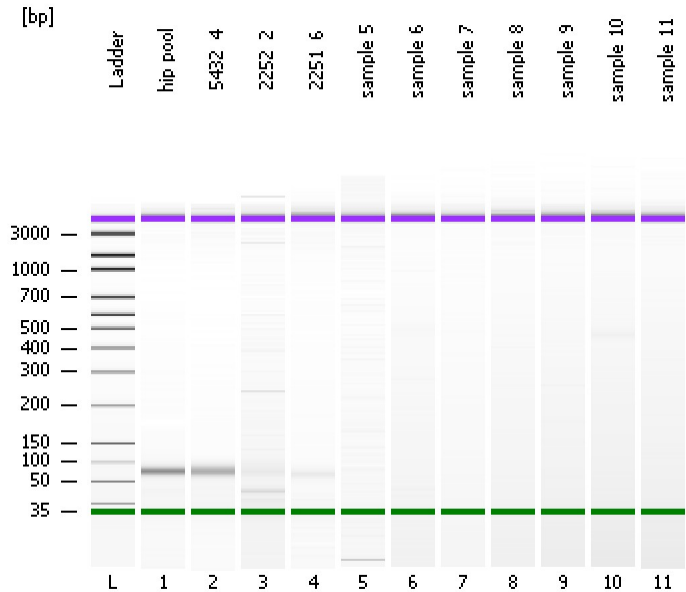


Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
Modified: 12/13/2013 1:55:44 PM

**Electrophoresis File Run Summary**



Instrument Information:

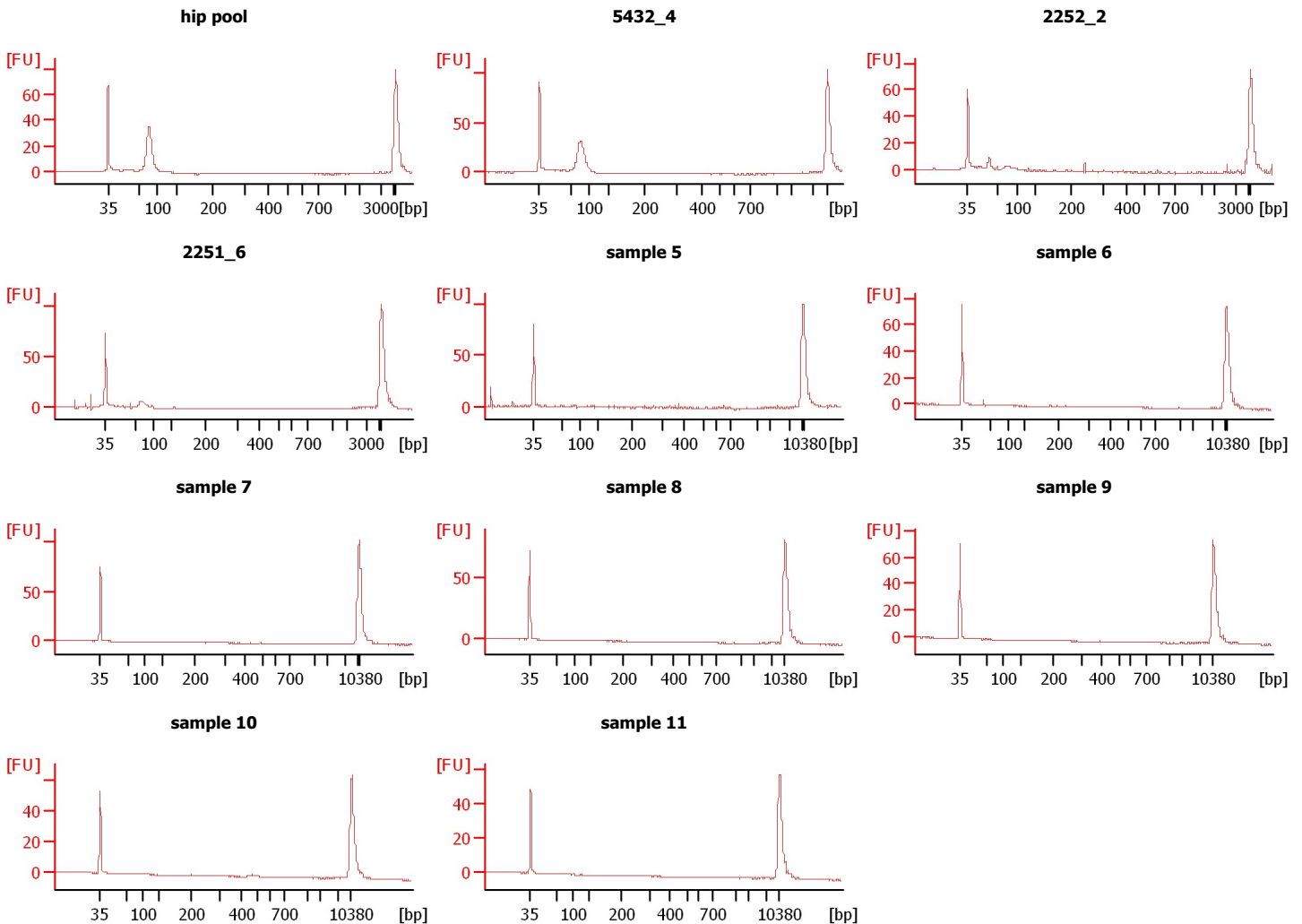
Instrument Name: DE13701086      Firmware: C.01.069  
Serial#: DE13701086      Type: G2938B

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\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

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

| Sample Name | Sample Comment | Rest. Digest             | Status | Observation | Result Label | Result Color |
|-------------|----------------|--------------------------|--------|-------------|--------------|--------------|
| hip pool    |                | <input type="checkbox"/> | ✓      |             |              |              |
| 5432_4      |                | <input type="checkbox"/> | ✓      |             |              |              |
| 2252_2      |                | <input type="checkbox"/> | ✓      |             |              |              |
| 2251_6      |                | <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\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
Modified: 12/13/2013 1:55:44 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

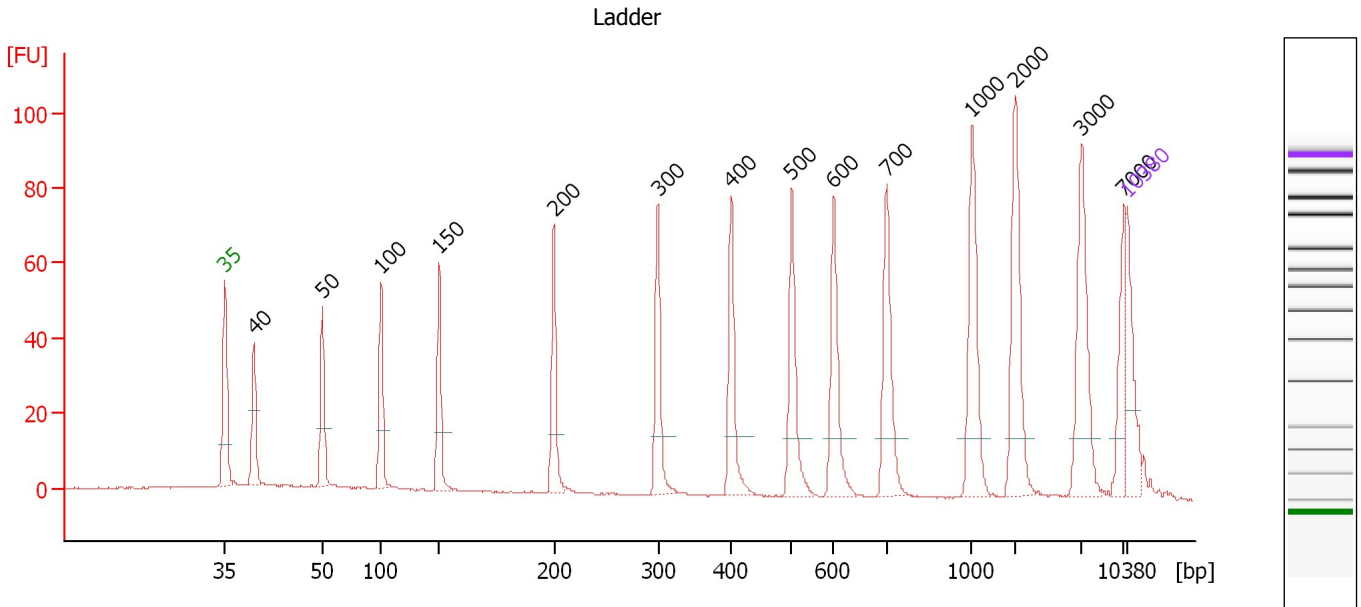
**Ladder**

| 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\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary**



**Overall Results for Ladder**

Noise: 0.1

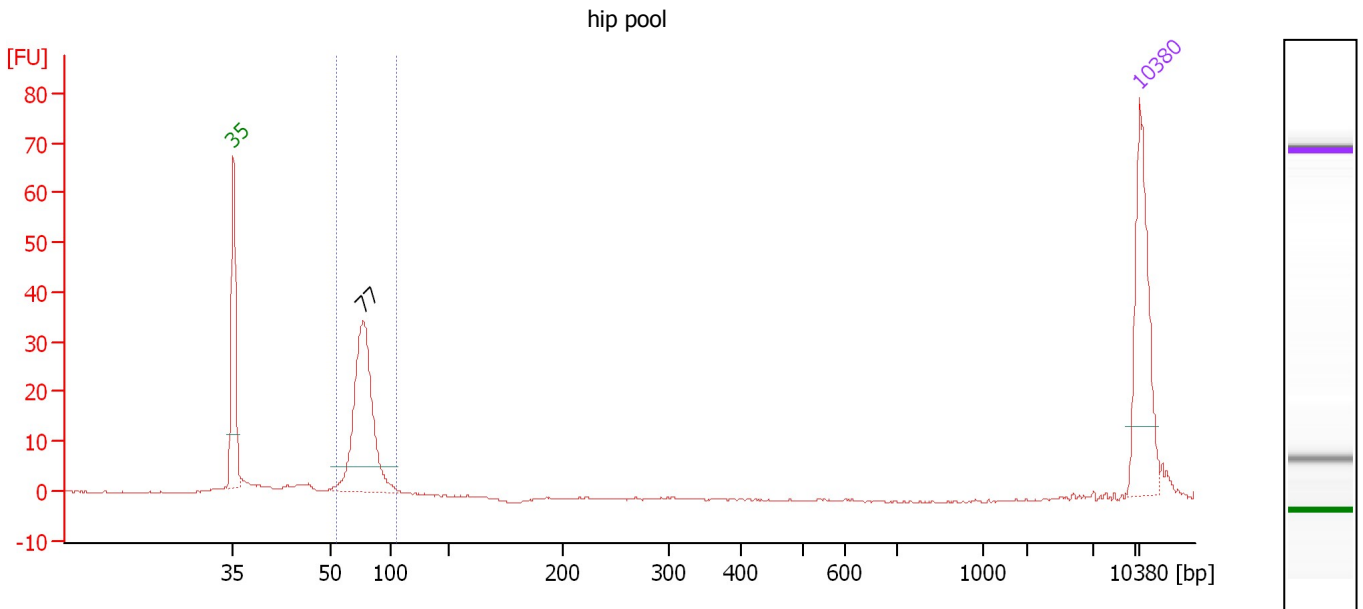
**Peak table for Ladder**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 45.27                      | 40        | 0.00          | 0.0               |              |
| 3    | 50.57                      | 50        | 150.00        | 4,545.5           | Ladder Peak  |
| 4    | 55.11                      | 100       | 150.00        | 2,272.7           | Ladder Peak  |
| 5    | 59.62                      | 150       | 150.00        | 1,515.2           | Ladder Peak  |
| 6    | 68.51                      | 200       | 150.00        | 1,136.4           | Ladder Peak  |
| 7    | 76.57                      | 300       | 150.00        | 757.6             | Ladder Peak  |
| 8    | 82.28                      | 400       | 150.00        | 568.2             | Ladder Peak  |
| 9    | 86.95                      | 500       | 150.00        | 454.5             | Ladder Peak  |
| 10   | 90.22                      | 600       | 150.00        | 378.8             | Ladder Peak  |
| 11   | 94.31                      | 700       | 150.00        | 324.7             | Ladder Peak  |
| 12   | 100.93                     | 1,000     | 150.00        | 227.3             | Ladder Peak  |
| 13   | 104.32                     | 2,000     | 150.00        | 113.6             | Ladder Peak  |
| 14   | 109.44                     | 3,000     | 150.00        | 75.8              | Ladder Peak  |
| 15   | 112.71                     | 7,000     | 150.00        | 32.5              | Ladder Peak  |
| 16   | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 1 : hip pool**

Number of peaks found: 1                      Corr. Area 1: 116.8  
 Noise: 0.2

**Peak table for sample 1 : hip pool**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 53.01                      | 77        | 208.17        | 4,102.5           |              |
| 3    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

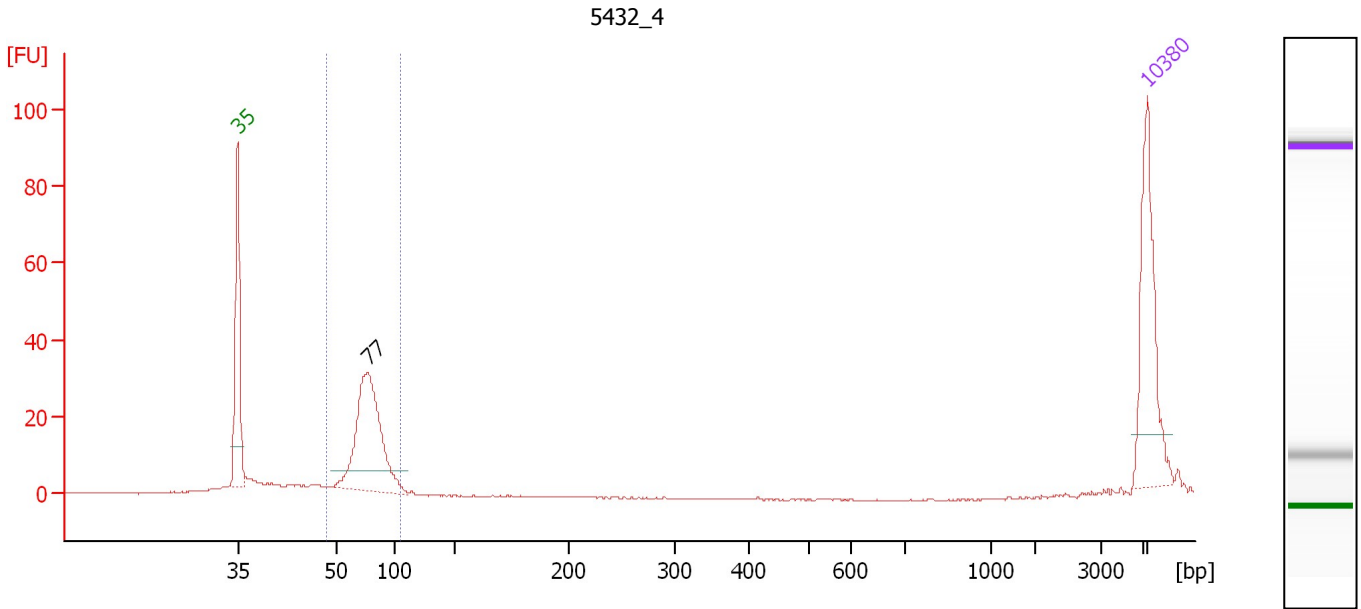
**Region table for sample 1 : hip pool**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 55        | 105     | 77                | 4,176.2           | 213.29        | 116.8      | 78         | 10.6                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 2 : 5432\_4**

Number of peaks found: 1                      Corr. Area 1: 142.8  
 Noise: 0.2

**Peak table for sample 2 : 5432\_4**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 53.01                      | 77        | 192.56        | 3,794.8           |              |
| 3    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

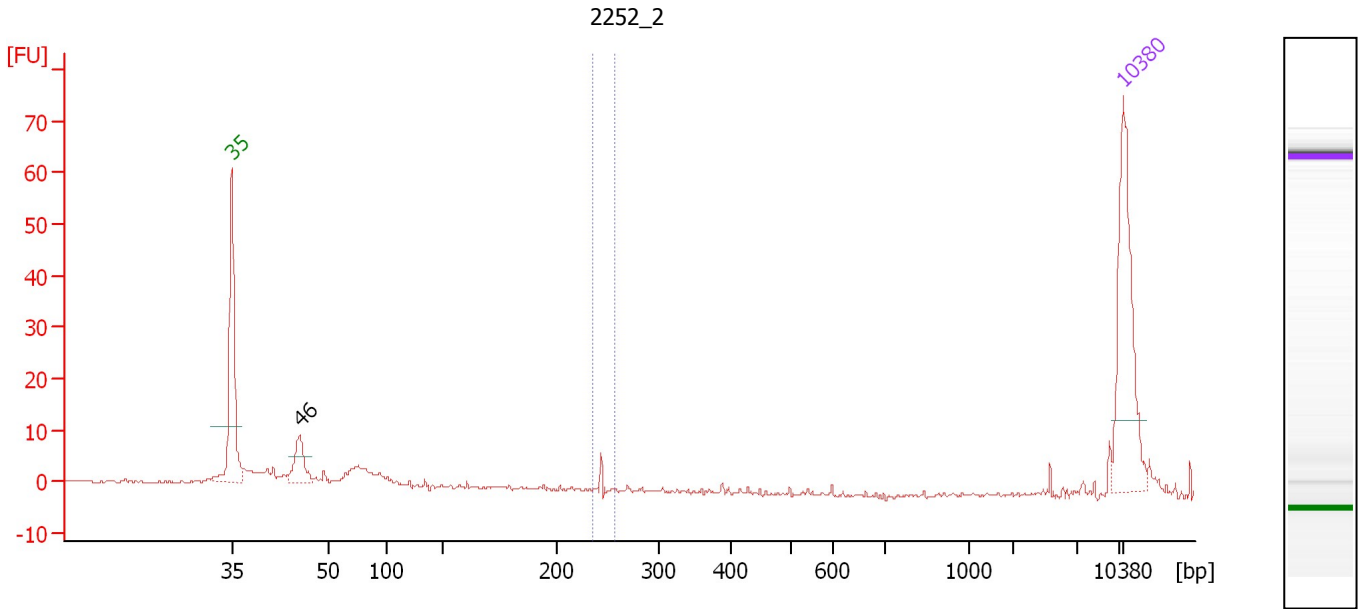
**Region table for sample 2 : 5432\_4**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 49        | 104     | 77                | 3,969.7           | 200.61        | 142.8      | 75         | 13.9                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 3 : 2252\_2**

Number of peaks found: 1                      Corr. Area 1: 1.5  
 Noise: 0.3

**Peak table for sample 3 : 2252\_2**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 48.32                      | 46        | 35.10         | 1,167.7           |              |
| 3    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

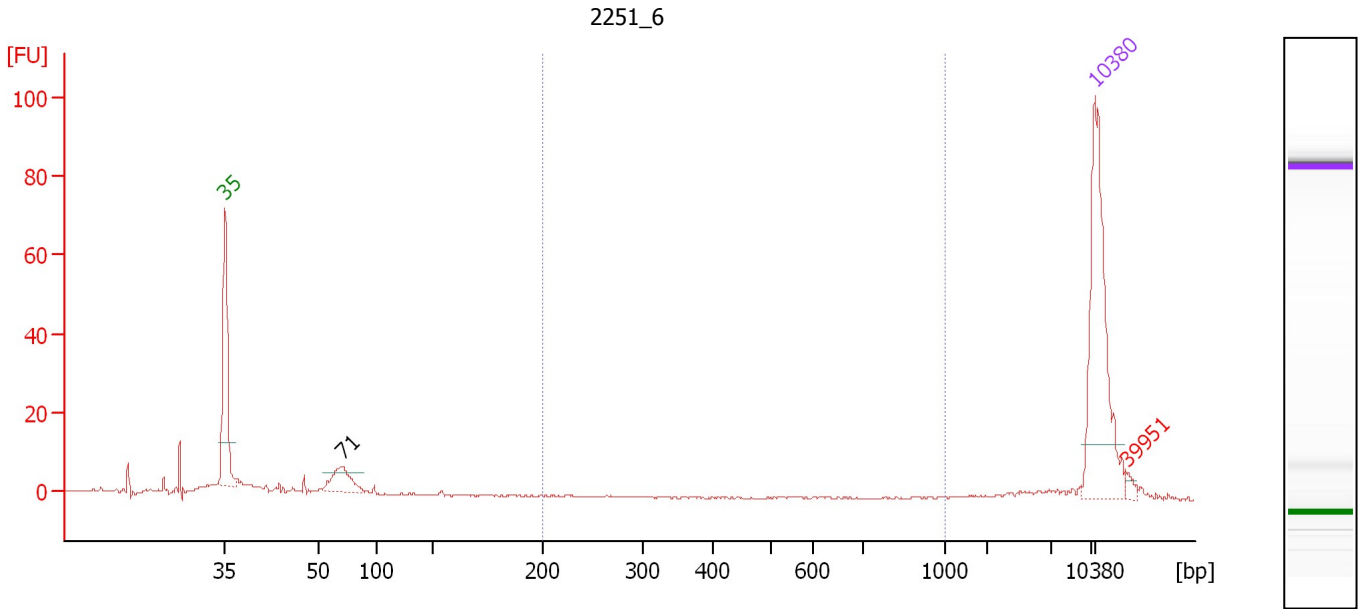
**Region table for sample 3 : 2252\_2**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 235       | 257     | 243               | 14.0              | 2.25          | 1.5        | 2          | 0.3                         | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 4 : 2251\_6**

Number of peaks found: 1                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 4 : 2251\_6**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations  |
|------|----------------------------|-----------|---------------|-------------------|---------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker  |
| 2    | 52.44                      | 71        | 26.85         | 576.2             |               |
| 3    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker  |
| 4    | 115.53                     | 39,951    | 0.00          | 0.0               | excluded peak |

**Region table for sample 4 : 2251\_6**

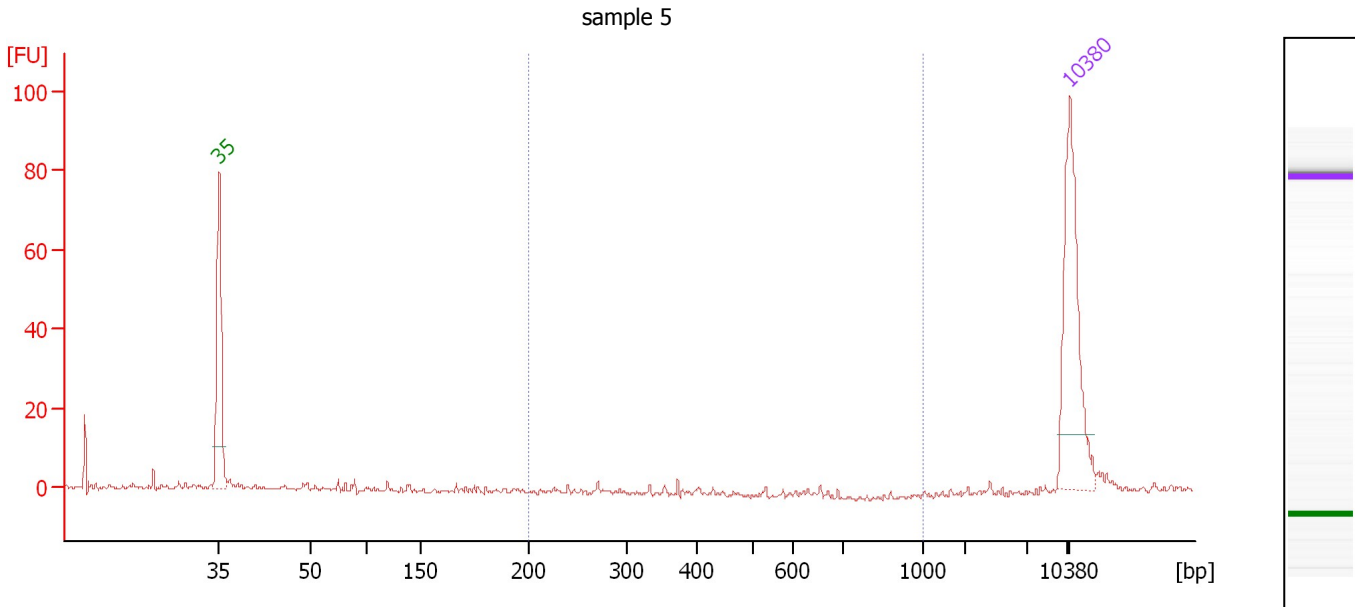
| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 0                 | 0.0               | 0.00          | 0.0        | 0          | 0.0                         | Blue  |



Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 5 : sample 5**

Number of peaks found: 0                      Corr. Area 1: 0.8  
 Noise: 0.6

**Peak table for sample 5 : sample 5**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

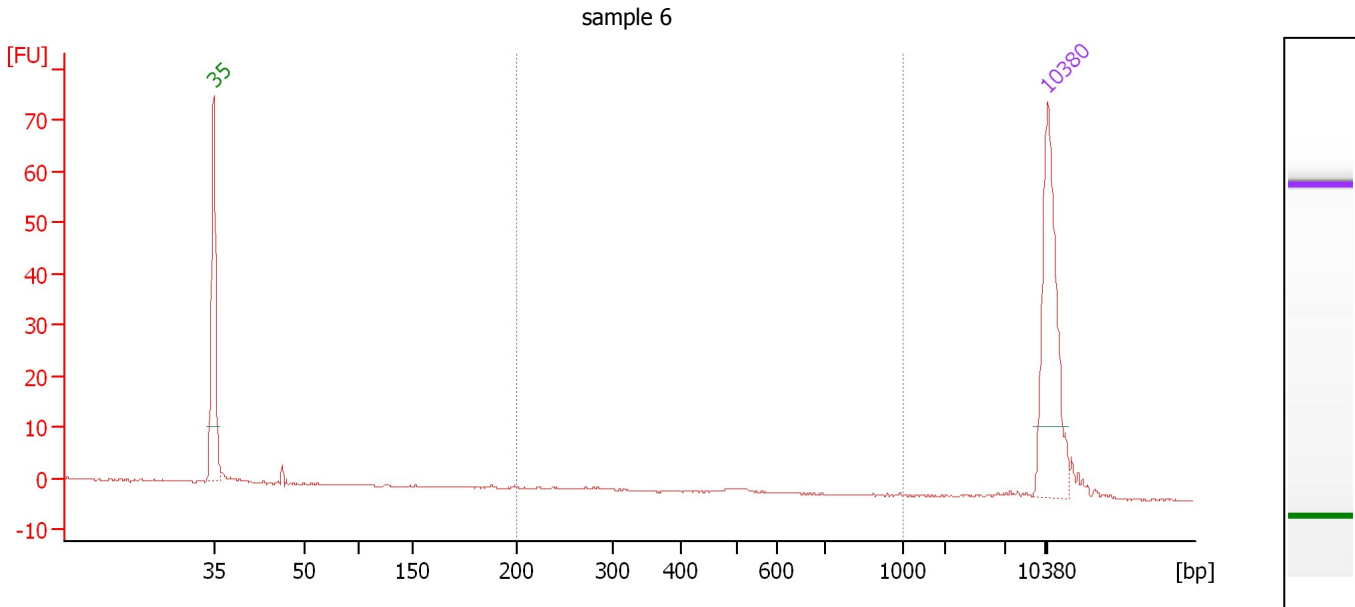
**Region table for sample 5 : sample 5**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 350               | 3.6               | 0.73          | 0.8        | 2          | 31.2                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 6 : sample 6**

Number of peaks found: 0                      Corr. Area 1: 1.9  
 Noise: 0.1

**Peak table for sample 6 : sample 6**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

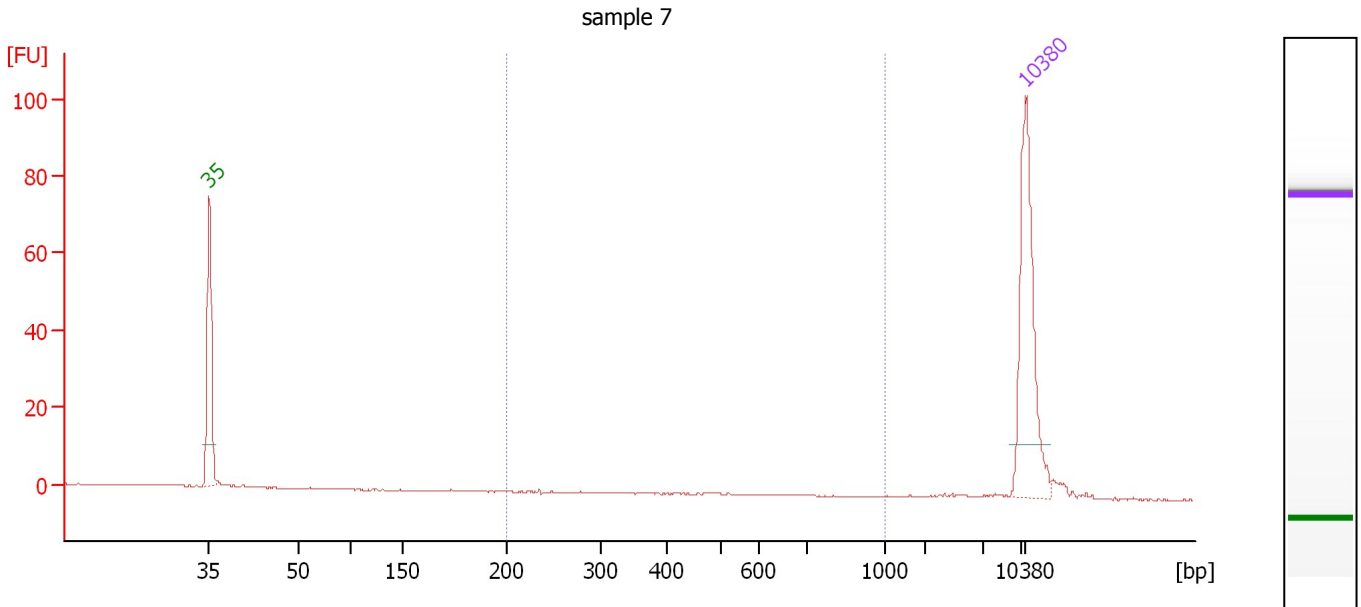
**Region table for sample 6 : sample 6**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 478               | 7.8               | 2.16          | 1.9        | 11         | 29.3                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 7 : sample 7**

Number of peaks found: 0                      Corr. Area 1: 0.5  
 Noise: 0.1

**Peak table for sample 7 : sample 7**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

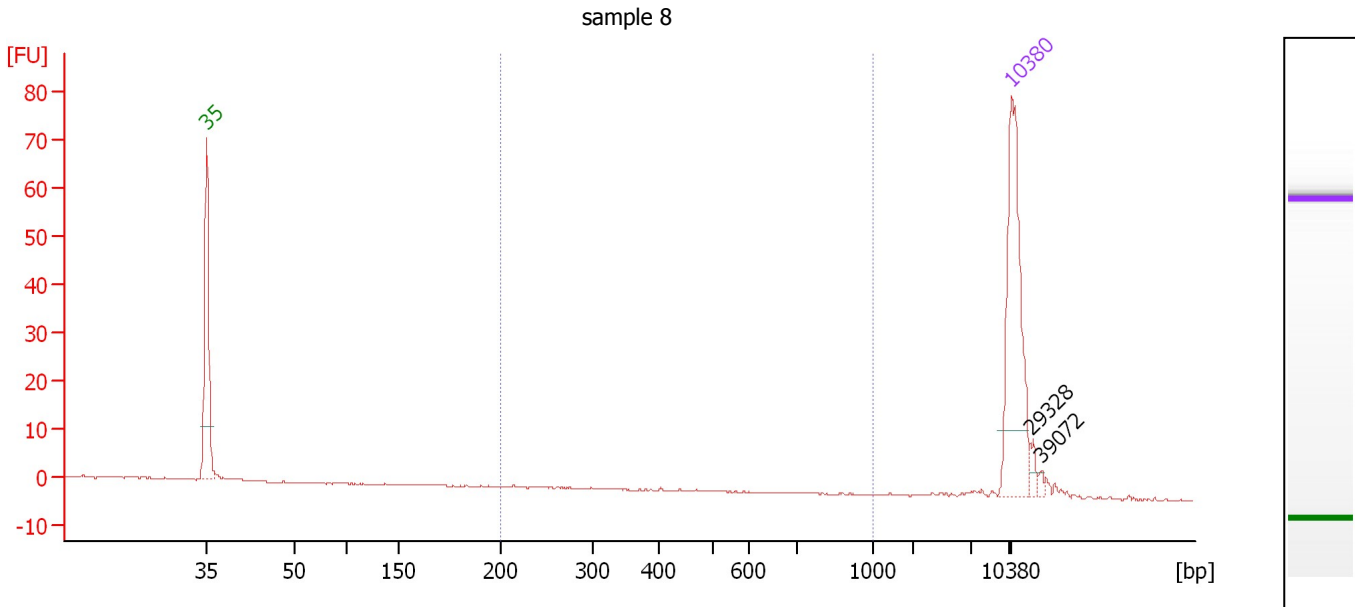
**Region table for sample 7 : sample 7**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 431               | 1.9               | 0.44          | 0.5        | 2          | 33.5                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 8 : sample 8**

Number of peaks found: 2                      Corr. Area 1: 0.2  
 Noise: 0.1

**Peak table for sample 8 : sample 8**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |
| 3    | 114.62                     | 29,328    | 0.00          | 0.0               |              |
| 4    | 115.46                     | 39,072    | 0.00          | 0.0               |              |

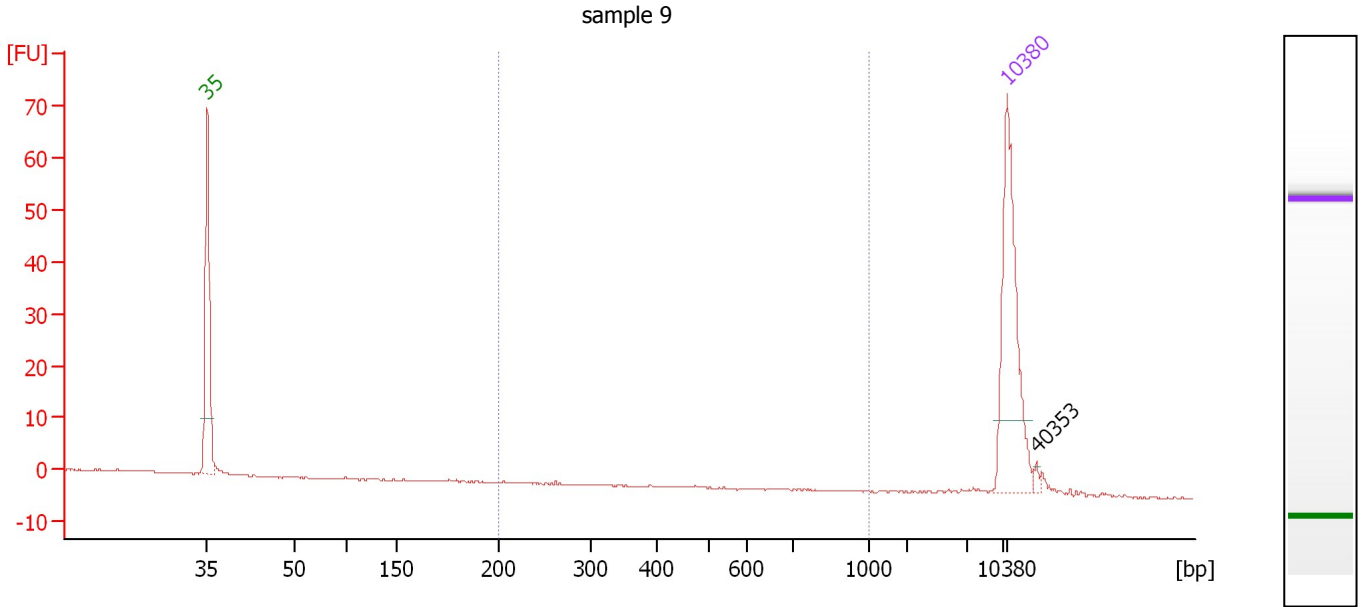
**Region table for sample 8 : sample 8**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 411               | 0.7               | 0.17          | 0.2        | 1          | 33.2                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 9 : sample 9**

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

**Peak table for sample 9 : sample 9**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |
| 3    | 115.57                     | 40,353    | 0.00          | 0.0               |              |

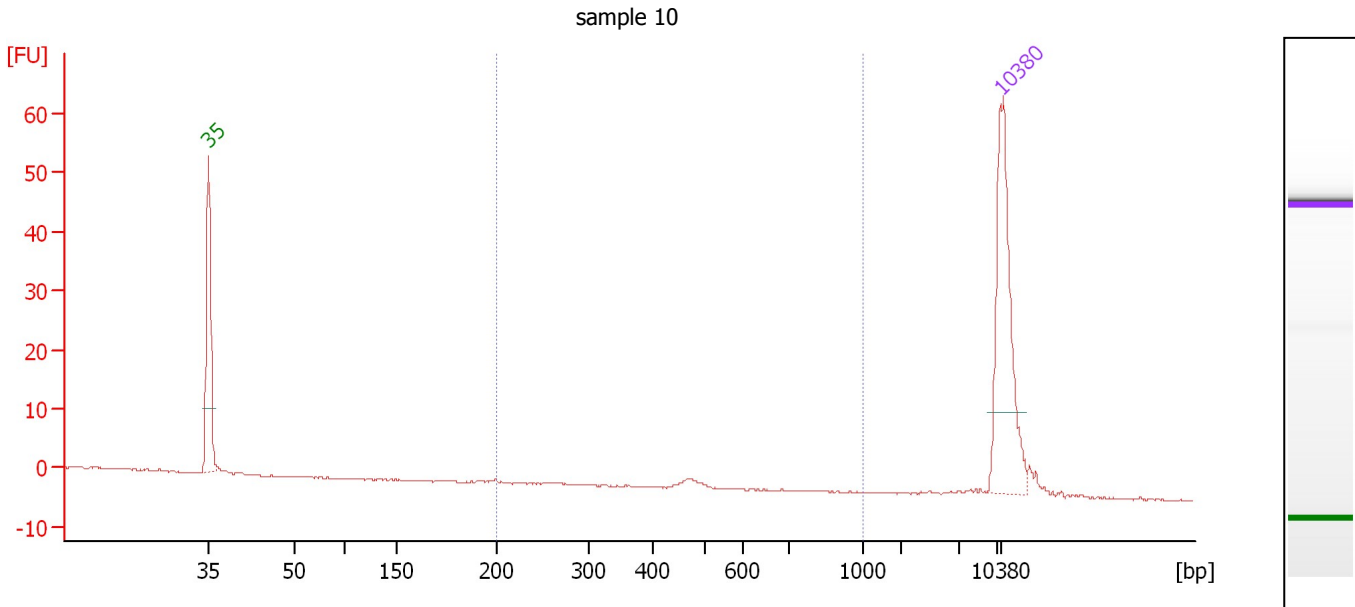
**Region table for sample 9 : sample 9**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 293               | 0.9               | 0.16          | 0.1        | 1          | 25.3                        | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 10 : sample 10**

Number of peaks found: 0                      Corr. Area 1: 2.2  
 Noise: 0.1

**Peak table for sample 10 : sample 10**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

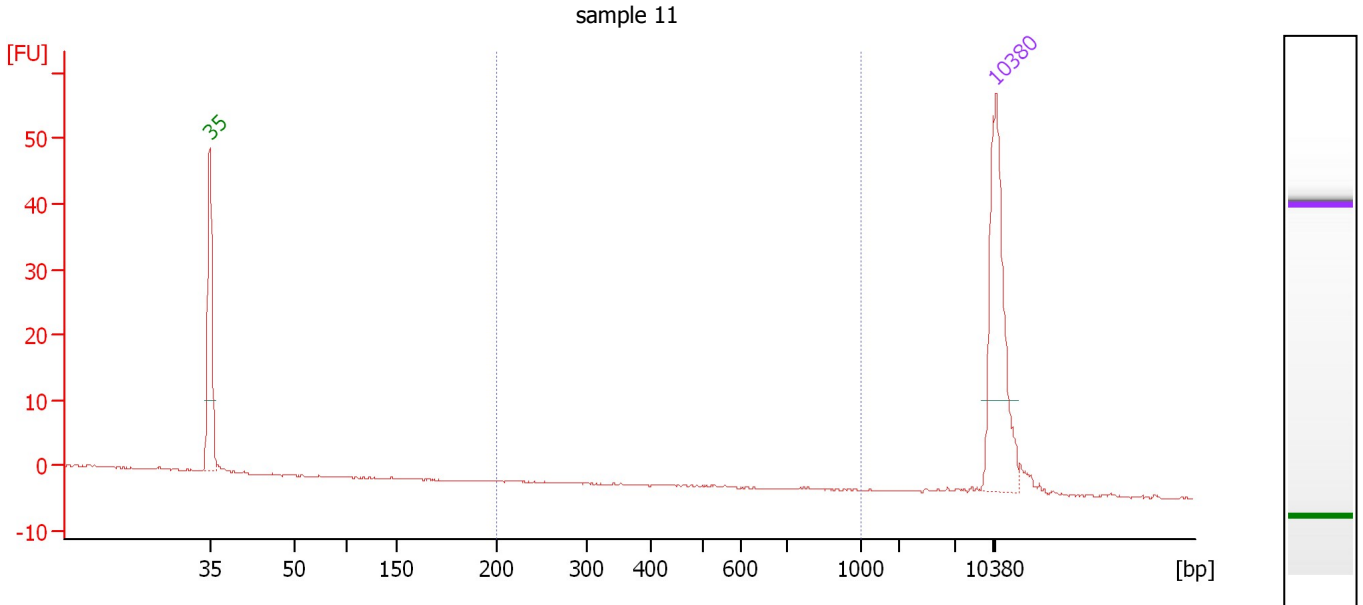
**Region table for sample 10 : sample 10**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 469               | 8.7               | 2.70          | 2.2        | 20         | 6.4                         | Blue  |

Assay Class: High Sensitivity DNA Assay  
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
 Modified: 12/13/2013 1:55:44 PM

**Electropherogram Summary Continued ...**



**Overall Results for sample 11 : sample 11**

Number of peaks found: 0                      Corr. Area 1: 0.0  
 Noise: 0.1

**Peak table for sample 11 : sample 11**

| Peak | Aligned Migration Time [s] | Size [bp] | Conc. [pg/μl] | Molarity [pmol/l] | Observations |
|------|----------------------------|-----------|---------------|-------------------|--------------|
| 1    | 43.00                      | 35        | 125.00        | 5,411.3           | Lower Marker |
| 2    | 113.00                     | 10,380    | 75.00         | 10.9              | Upper Marker |

**Region table for sample 11 : sample 11**

| From [bp] | To [bp] | Average Size [bp] | Molarity [pmol/l] | Conc. [pg/μl] | Corr. Area | % of Total | Size distribution in CV [%] | Color |
|-----------|---------|-------------------|-------------------|---------------|------------|------------|-----------------------------|-------|
| 200       | 1,000   | 0                 | 0.0               | 0.00          | 0.0        | 0          | 0.0                         | Blue  |

Assay Class: High Sensitivity DNA Assay  
Data Path: C:\...ents and Settings\Bioanalyzer\2013-12-13\2013-12-13\_003.xad

Created: 12/13/2013 1:14:21 PM  
Modified: 12/13/2013 1:55:44 PM

**Gel Image**

