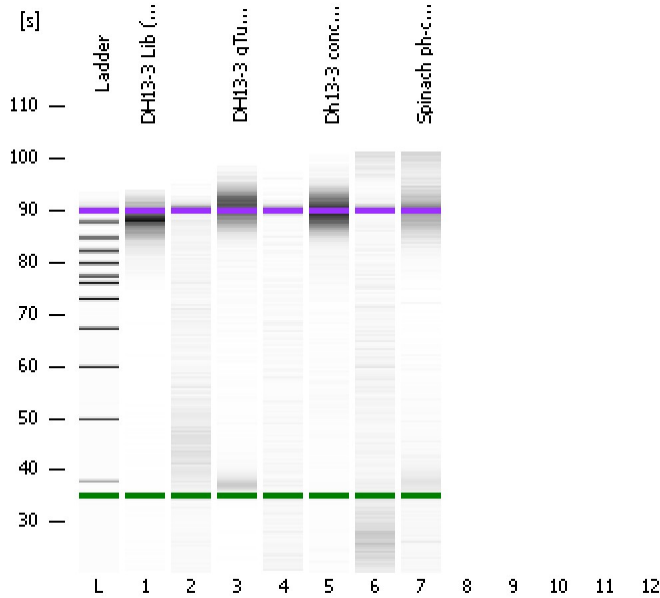


Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 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\DNA 12000 Series II.xsy

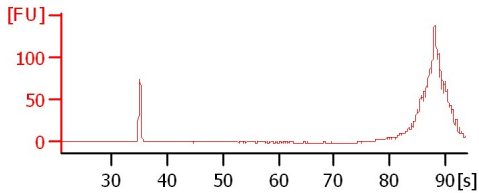
Assay Class: DNA 12000
 Version: 2.4
 Assay Comments: DNA Analysis 100 -12000 bp

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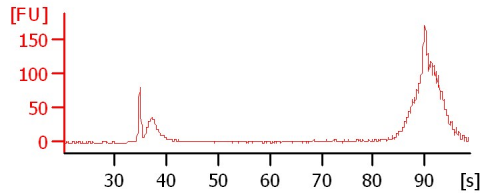
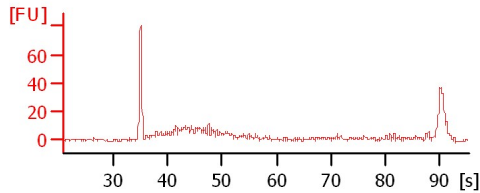
Chip Information:

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

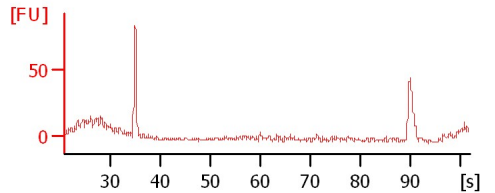
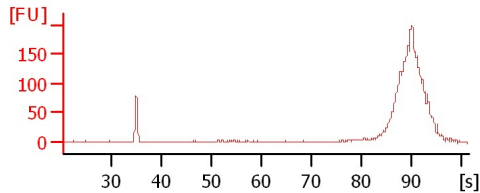
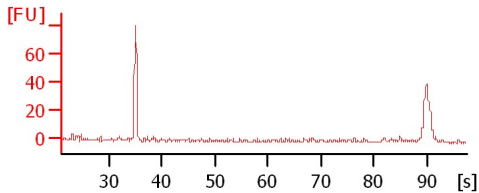
DH13-3 Lib (1:4) 4/16/13



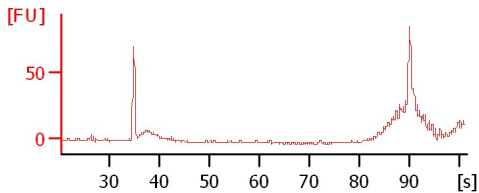
DH13-3 gTube (1:4) 4/8/13



Dh13-3 conc (1:5) 4/12/13



Spinach ph-chl (1:4) 4/8/13



Assay Class: DNA 12000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
Modified: 4/17/2013 3:30:58 PM

Electrophoresis File Run Summary (Chip Summary)

| Sample Name | Sample Comment | Rest. Digest | Status | Observation | Result Label | Result Color |
|-----------------------------|----------------|--------------------------|--------|--------------------------|--------------|--------------|
| DH13-3 Lib (1:4) 4/16/13 | | <input type="checkbox"/> | ✓ | | | |
| DH13-3 gTube (1:4) 4/8/13 | | <input type="checkbox"/> | ✓ | | | |
| Dh13-3 conc (1:5) 4/12/13 | | <input type="checkbox"/> | ✓ | | | |
| Spinach ph-chl (1:4) 4/8/13 | | <input type="checkbox"/> | ✓ | | | |
| | | <input type="checkbox"/> | | | | |
| | | <input type="checkbox"/> | | | | |
| | | <input type="checkbox"/> | | | | |
| | | <input type="checkbox"/> | | | | |
| Ladder | | <input type="checkbox"/> | ✓ | | | |
| Chip Lot # | | | | Reagent Kit Lot # | | |

Chip Comments :

Assay Class: DNA 12000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
Modified: 4/17/2013 3:30:58 PM

Electrophoresis Assay Details

General Analysis Settings

Number of Available Sample and Ladder Wells (Max.) : 13
Minimum Visible Range [s] : 20
Maximum Visible Range [s] : 99
Start Analysis Time Range [s] : 20
End Analysis Time Range [s] : 98.95
Ladder Concentration [ng/μl] : 44
Uses Standard Area for Ladder Fragments
Lower Marker Concentration [ng/μl] : 8.3
Upper Marker Concentration [ng/μl] : 4.2
Used Upper Marker for Quantitation
This is a Qualitative Assay Only
Standard Curve Fit is Point to Point
Show Data Aligned to Lower and Upper Marker

Integrator Settings

Integration Start Time [s] : 20
Integration End Time [s] : 98.95
Slope Threshold : 0.8
Height Threshold [FU] : 20
Area Threshold : 0.1
Width Threshold [s] : 0.5
Baseline Plateau [s] : 0.5

Filter Settings

Filter Width [s] : 0.5
Polynomial Order : 4

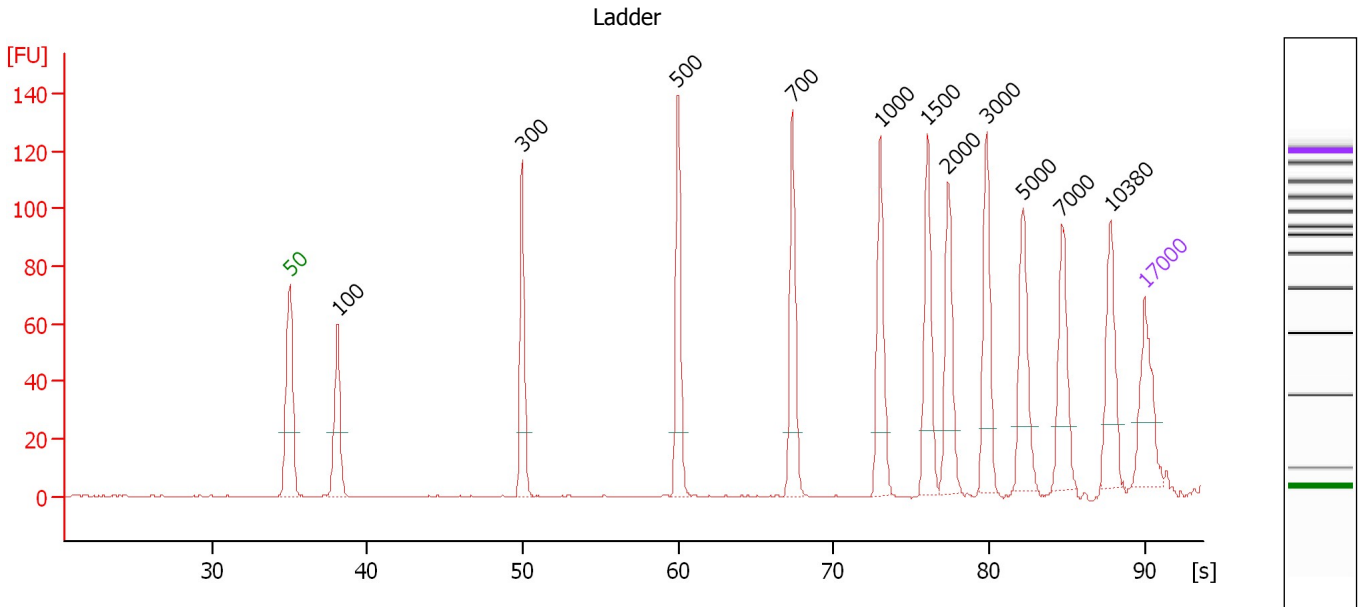
Ladder

| Ladder Peak | Size | Area |
|-------------|-------|------|
| 1 | 50 | 120 |
| 2 | 100 | 48 |
| 3 | 300 | 61 |
| 4 | 500 | 77 |
| 5 | 700 | 81 |
| 6 | 1000 | 86 |
| 7 | 1500 | 92 |
| 8 | 2000 | 92 |
| 9 | 3000 | 96 |
| 10 | 5000 | 100 |
| 11 | 7000 | 98 |
| 12 | 10380 | 102 |
| 13 | 17000 | 110 |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary



Peak table for Ladder

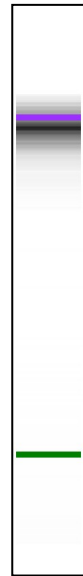
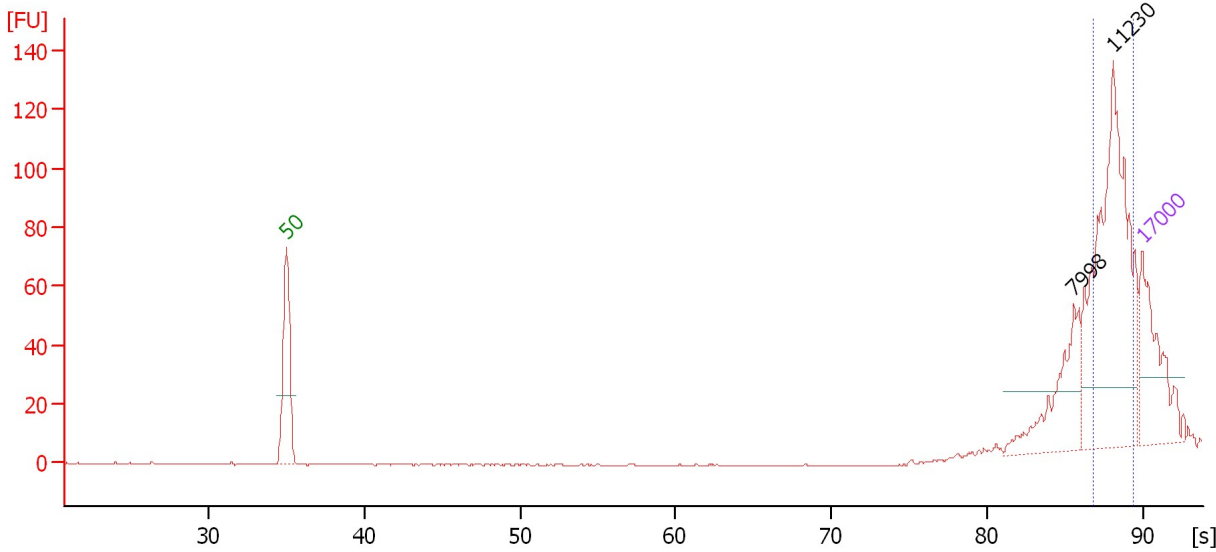
| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 100 | 4.00 | 60.6 | Ladder Peak |
| 3 | 300 | 4.00 | 20.2 | Ladder Peak |
| 4 | 500 | 4.00 | 12.1 | Ladder Peak |
| 5 | 700 | 4.00 | 8.7 | Ladder Peak |
| 6 | 1,000 | 4.00 | 6.1 | Ladder Peak |
| 7 | 1,500 | 4.00 | 4.0 | Ladder Peak |
| 8 | 2,000 | 4.00 | 3.0 | Ladder Peak |
| 9 | 3,000 | 4.00 | 2.0 | Ladder Peak |
| 10 | 5,000 | 4.00 | 1.2 | Ladder Peak |
| 11 | 7,000 | 4.00 | 0.9 | Ladder Peak |
| 12 | 10,380 | 4.00 | 0.6 | Ladder Peak |
| 13 | 17,000 | 4.20 | 0.4 | Upper Marker |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...

DH13-3 Lib (1:4) 4/16/13



Overall Results for sample 1 : DH13-3 Lib (1:4) 4/16/13

Number of peaks found: 2 Area 1: 243.4

Peak table for sample 1 : DH13-3 Lib (1:4) 4/16/13

| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 7,998 | 4.31 | 0.8 | |
| 3 | 11,230 | 13.83 | 1.9 | |
| 4 | 17,000 | 4.20 | 0.4 | Upper Marker |

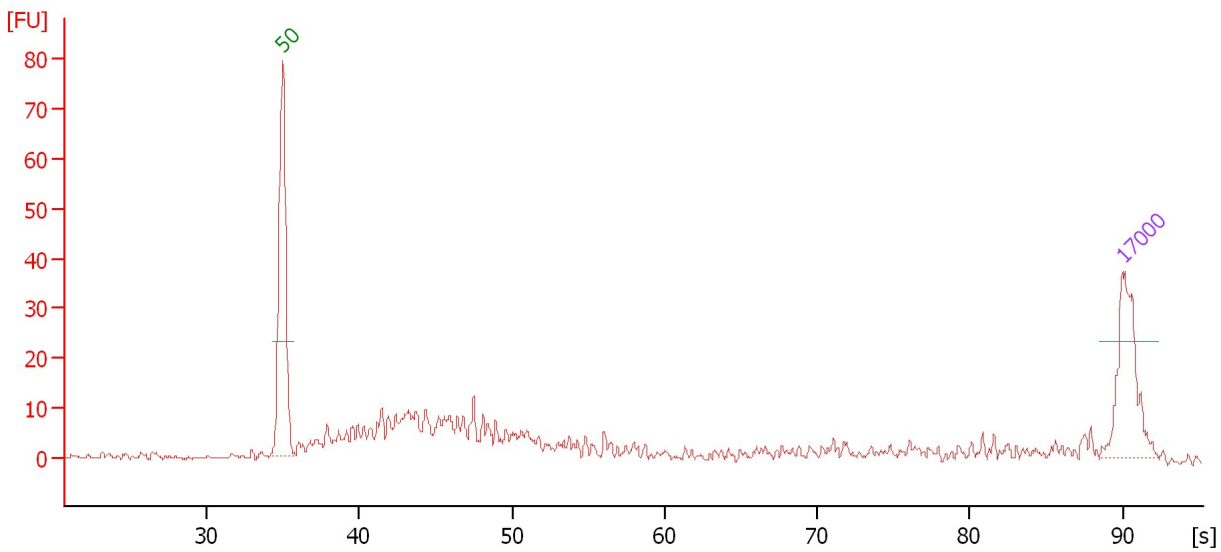
Region table for sample 1 : DH13-3 Lib (1:4) 4/16/13

| From [s] | To [s] | Average Size [bp] | Conc. [ng/μl] | Area | % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|---------------|-------|------------|-----------------------------|-------|
| 86.81 | 89.47 | 11,597 | 10.78 | 243.4 | 64 | 14.6 | Blue |

Assay Class: DNA 12000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : -

Number of peaks found: 0

Peak table for sample 2 : -

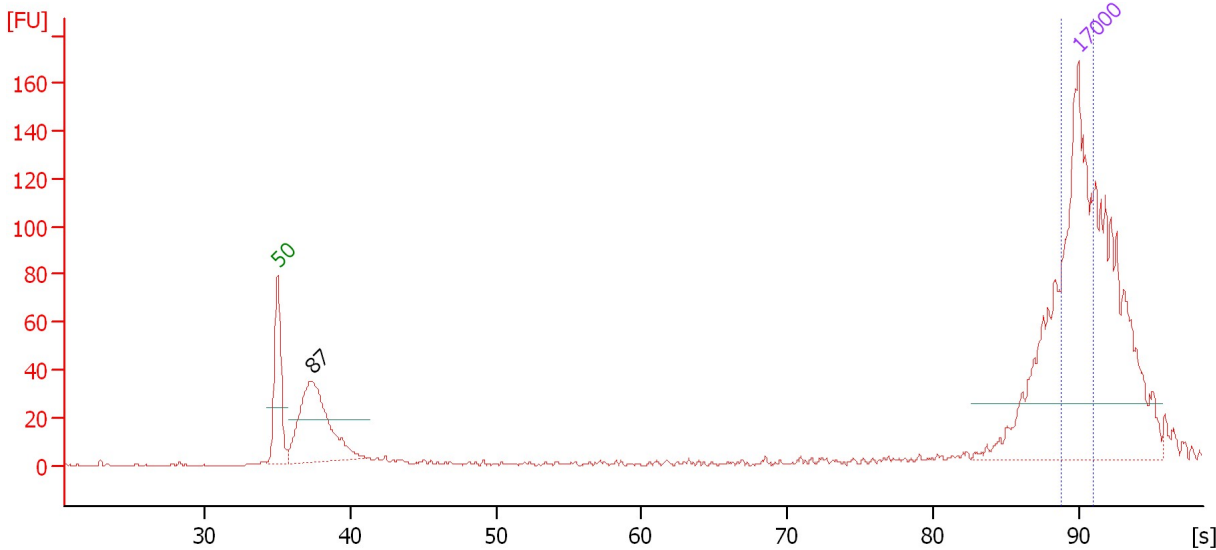
| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 17,000 | 4.20 | 0.4 | Upper Marker |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...

DH13-3 gTube (1:4) 4/8/13



Setpoint Deviations for sample 3 : DH13-3 gTube (1:4) 4/8/13

Height Threshold [FU] : 18

Overall Results for sample 3 : DH13-3 gTube (1:4) 4/8/13

Number of peaks found: 1 Area 1: 0.0

Peak table for sample 3 : DH13-3 gTube (1:4) 4/8/13

| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 87 | 0.97 | 16.9 | |
| 3 | 17,000 | 4.20 | 0.4 | Upper Marker |

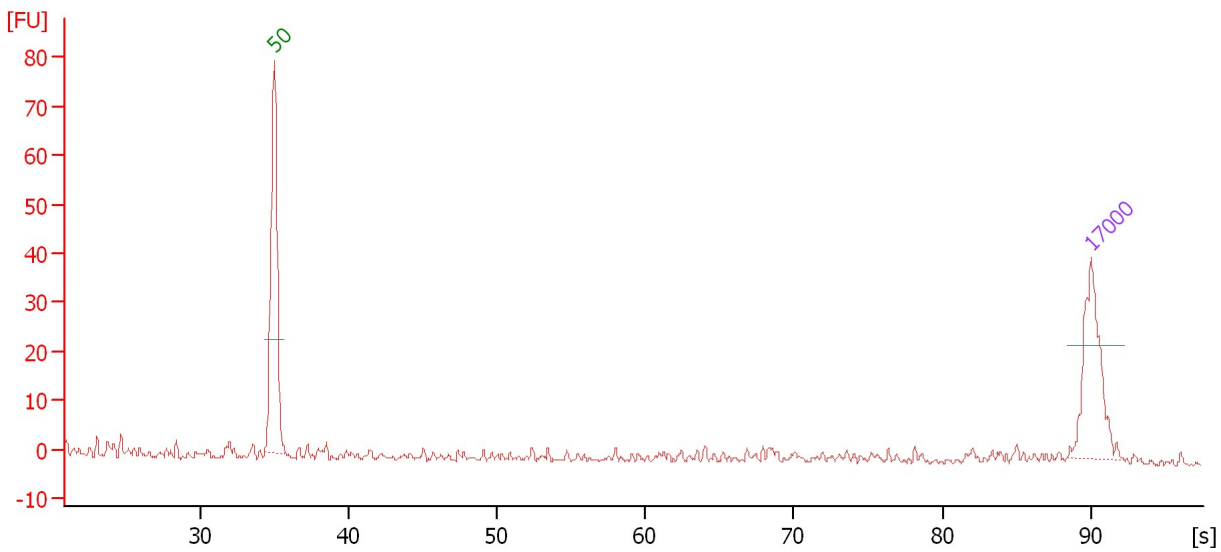
Region table for sample 3 : DH13-3 gTube (1:4) 4/8/13

| From [s] | To [s] | Average Size [bp] | Conc. [ng/μl] | Area | % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|---------------|------|------------|-----------------------------|-------|
| 88.87 | 91.00 | 16,782 | 0.00 | 0.0 | 0 | 10.4 | Blue |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 :

Number of peaks found: 0

Peak table for sample 4 :

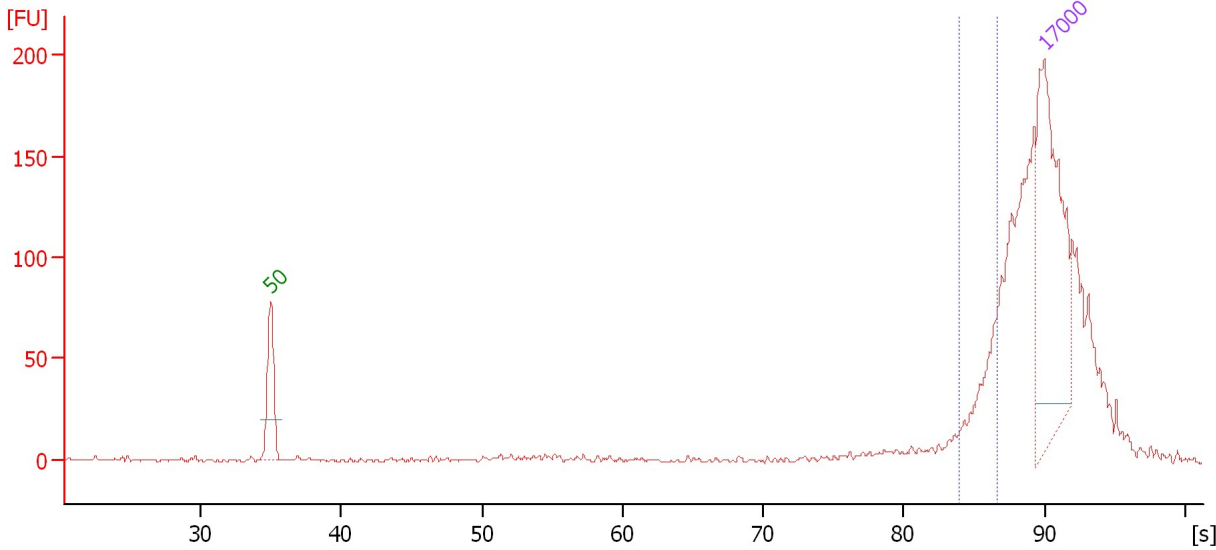
| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 17,000 | 4.20 | 0.4 | Upper Marker |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...

Dh13-3 conc (1:5) 4/12/13



Overall Results for sample 5 : Dh13-3 conc (1:5) 4/12/13

Number of peaks found: 0 Area 1: 94.6

Peak table for sample 5 : Dh13-3 conc (1:5) 4/12/13

| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 17,000 | 4.20 | 0.4 | Upper Marker |

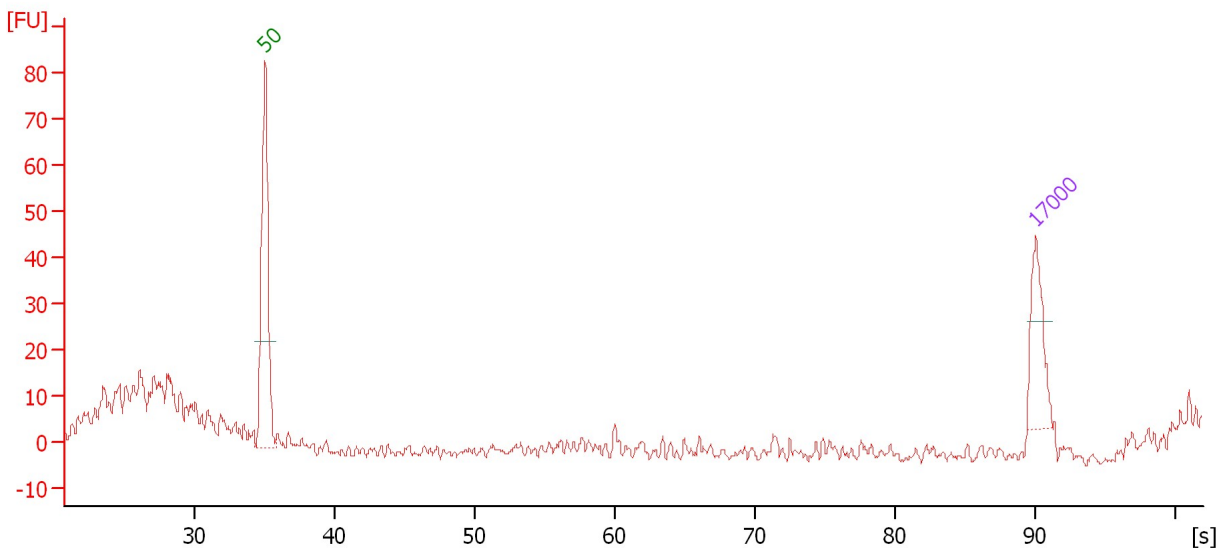
Region table for sample 5 : Dh13-3 conc (1:5) 4/12/13

| From [s] | To [s] | Average Size [bp] | Conc. [ng/μl] | Area | % of Total | Size distribution in CV [%] | Color |
|----------|--------|-------------------|---------------|------|------------|-----------------------------|-------|
| 83.98 | 86.60 | 7,997 | 1.14 | 94.6 | 13 | 9.5 | Blue |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 :

Number of peaks found: 0

Peak table for sample 6 :

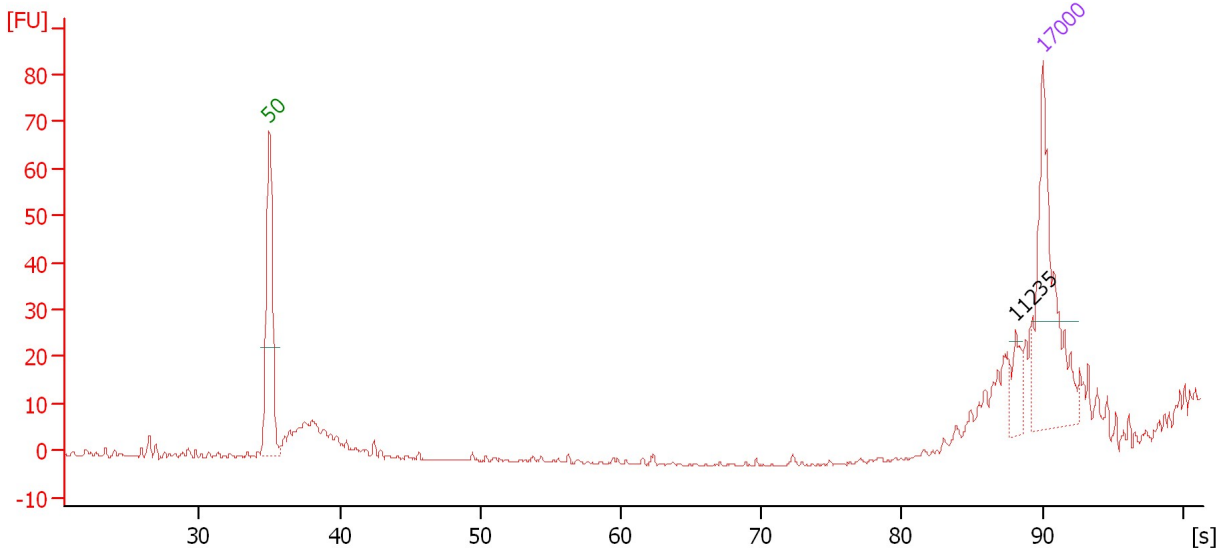
| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 17,000 | 4.20 | 0.4 | Upper Marker |

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Electropherogram Summary Continued ...

Spinach ph-chl (1:4) 4/8/13



Overall Results for sample 7 : Spinach ph-chl (1:4) 4/8/13

Number of peaks found: 1

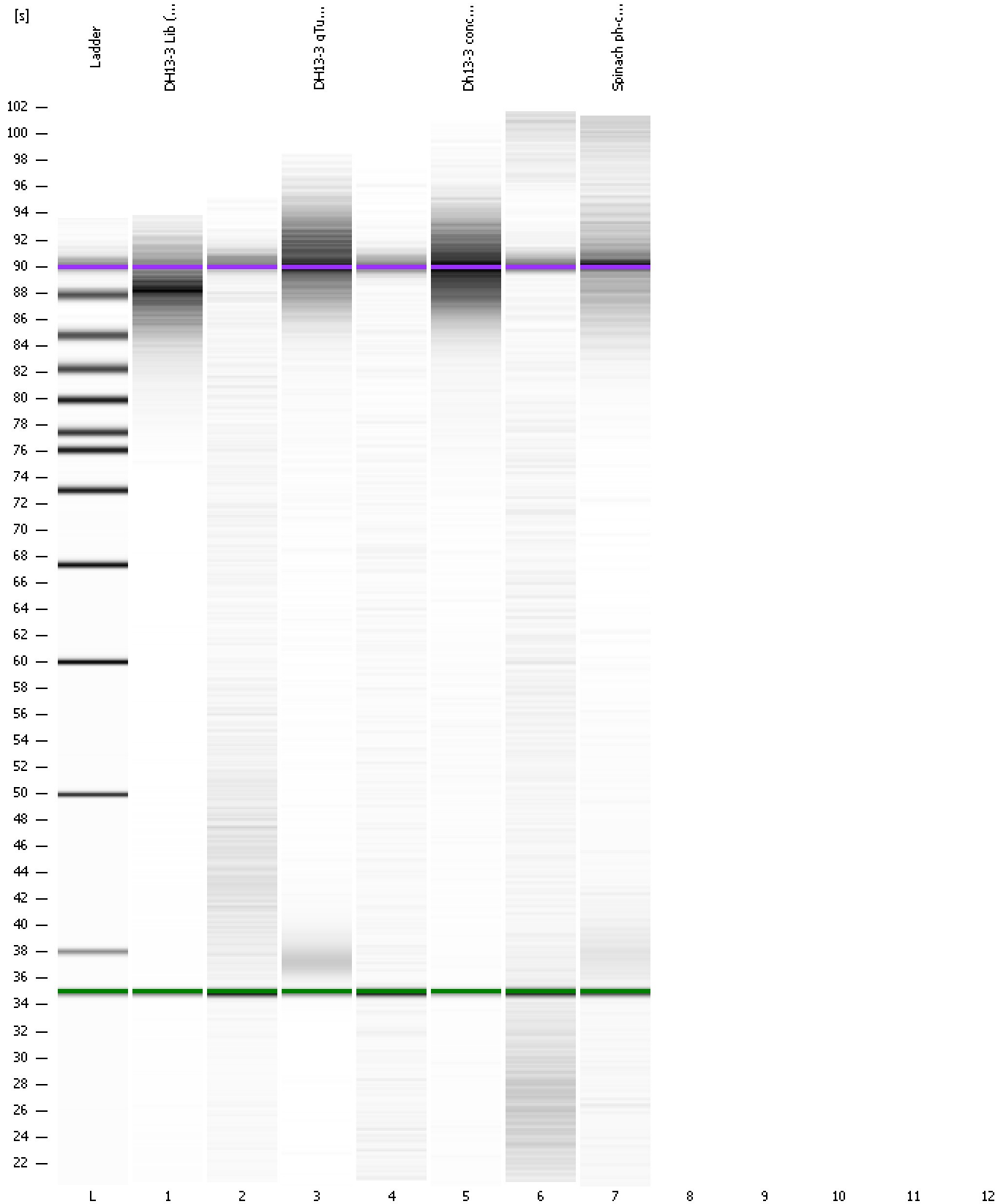
Peak table for sample 7 : Spinach ph-chl (1:4) 4/8/13

| Peak | Size [bp] | Conc. [ng/μl] | Molarity [nmol/l] | Observations |
|------|-----------|---------------|-------------------|--------------|
| 1 | 50 | 8.30 | 251.5 | Lower Marker |
| 2 | 11,235 | 0.79 | 0.1 | |
| 3 | 17,000 | 4.20 | 0.4 | Upper Marker |

Assay Class: DNA 12000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
Modified: 4/17/2013 3:30:58 PM

Gel Image



Assay Class: DNA 12000
Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
Modified: 4/17/2013 3:30:58 PM

Invalid Samples

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.

Sample 12 has not been run, no results available.

Assay Class: DNA 12000
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad

Created: 4/17/2013 3:01:43 PM
 Modified: 4/17/2013 3:30:58 PM

Run Logbook

| Description | Number | Source | Category | Sub Category | Time | Time Zone | User | Host |
|---|--------|------------|----------|--------------|----------------------|-------------------------------------|----------|----------|
| Run ended on port 1 (Number of wells acquired: 8) | | Instrument | Run | | 4/17/2013 3:26:04 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-04-17\2013-04-17_004.xad) | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Product Number : G2938B | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Name : | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Vendor : Agilent Technologies | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Serial# : DE13701086 | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Firmware : C.01.069 | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |
| Cartridge : Electrode | | Instrument | Run | | 4/17/2013 3:01:44 PM | (GMT --07:00) Pacific Standard Time | UC Davis | D8XSMGH1 |