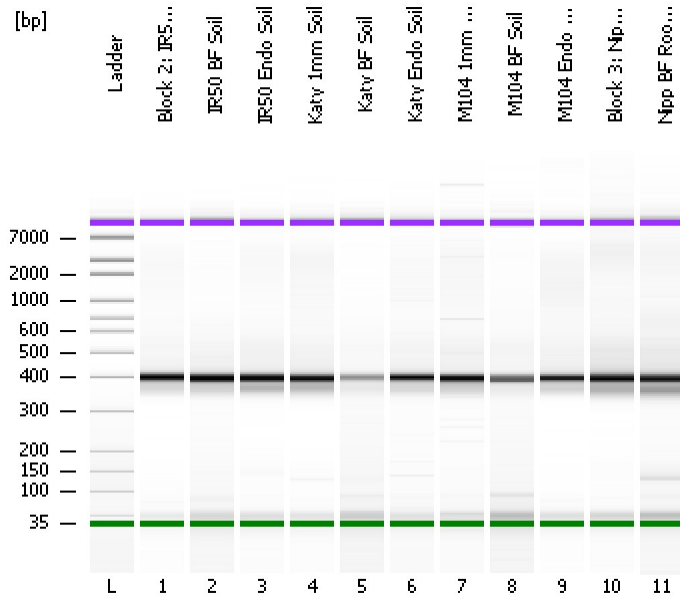


Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
Modified: 1/4/2013 2:00:57 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

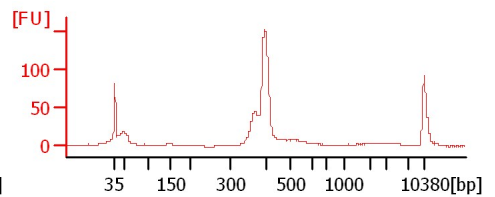
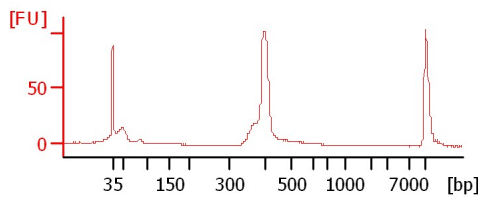
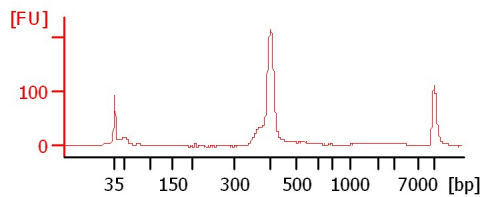
Chip Information:

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

Block 2: IR50 1mm Soil

IR50 BF Soil

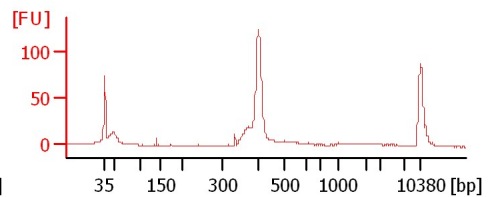
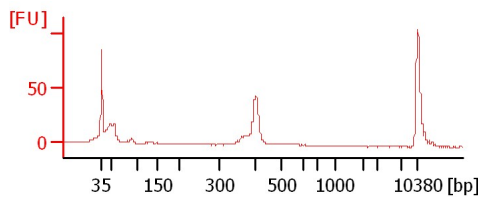
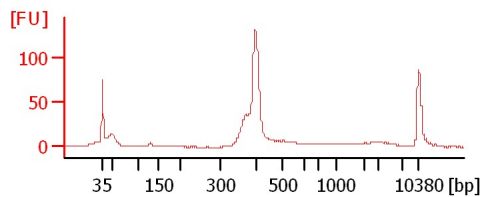
IR50 Endo Soil



Katy 1mm Soil

Katy BF Soil

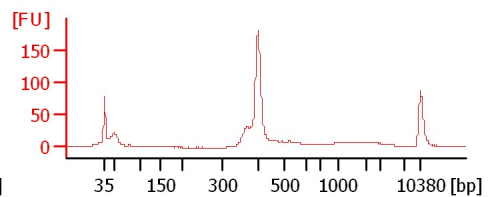
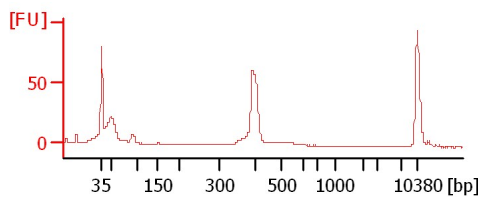
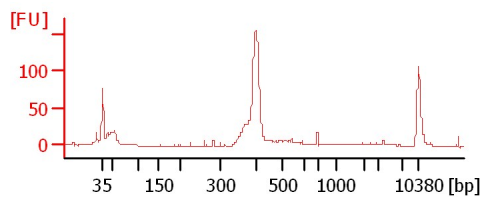
Katy Endo Soil



M104 1mm Soil

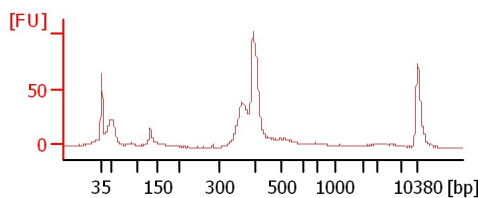
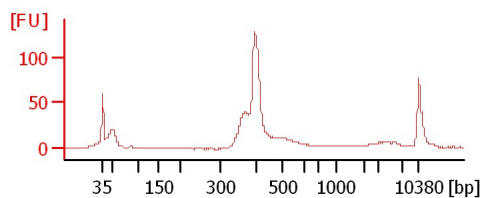
M104 BF Soil

M104 Endo Soil



Block 3: Nipp 1mm Root-N

Nipp BF Root-N



Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
Modified: 1/4/2013 2:00:57 PM

Electrophoresis File Run Summary (Chip Summary)

Sample Name	Sample Comment	Rest. Digest	Status	Observation	Result Label	Result Color
Block 2: IR50 1mm Soil		<input type="checkbox"/>	✓			
IR50 BF Soil		<input type="checkbox"/>	✓			
IR50 Endo Soil		<input type="checkbox"/>	✓			
Katy 1mm Soil		<input type="checkbox"/>	✓			
Katy BF Soil		<input type="checkbox"/>	✓			
Katy Endo Soil		<input type="checkbox"/>	✓			
M104 1mm Soil		<input type="checkbox"/>	✓			
M104 BF Soil		<input type="checkbox"/>	✓			
M104 Endo Soil		<input type="checkbox"/>	✓			
Block 3: Nipp 1mm Root-N		<input type="checkbox"/>	✓			
Nipp BF Root-N		<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\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
Modified: 1/4/2013 2:00:57 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

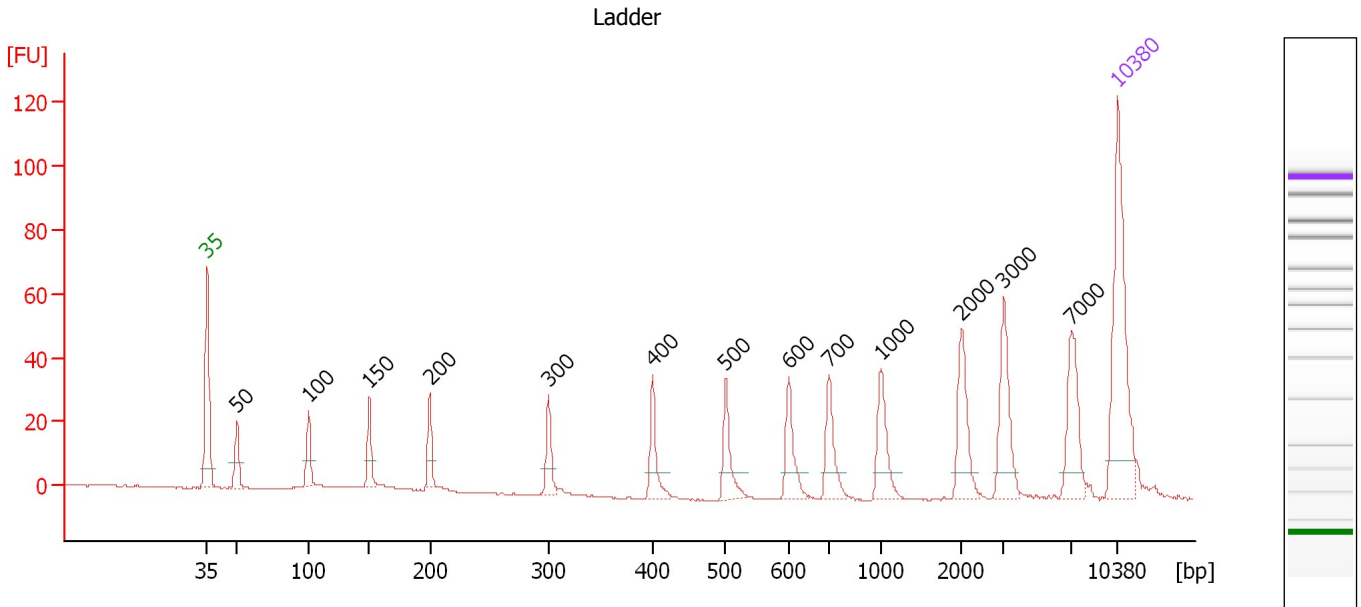
Ladder

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\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary



Overall Results for Ladder

Noise: 0.2

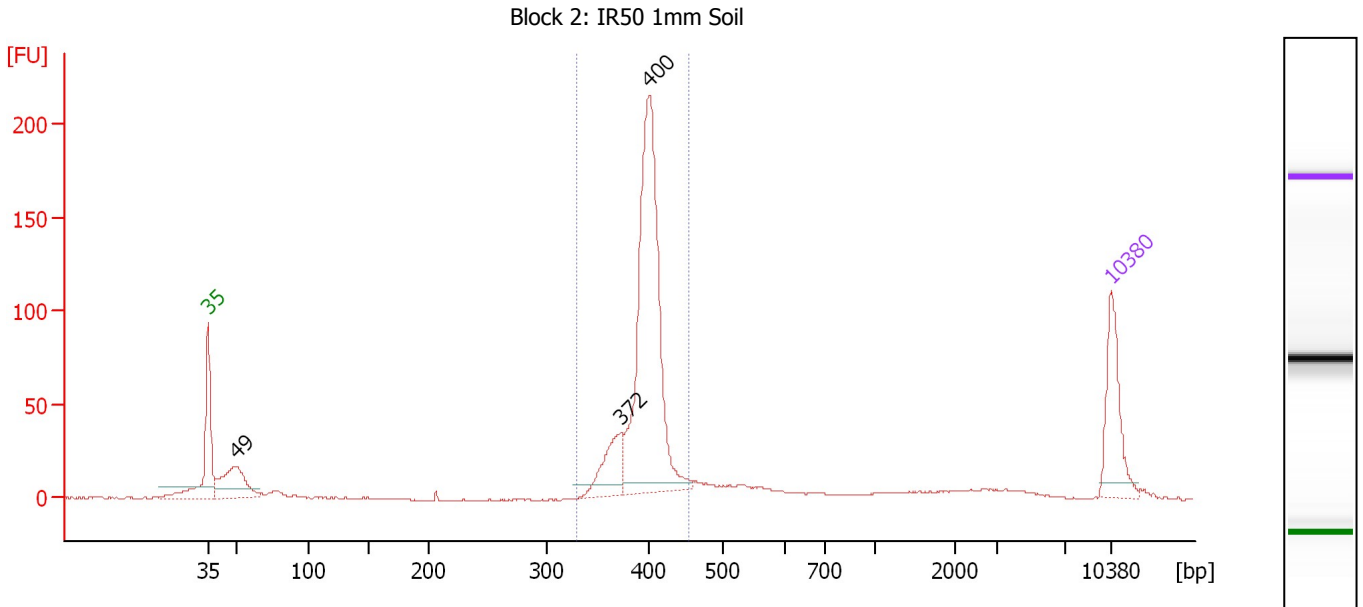
Peak table for Ladder

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\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 1 : Block 2: IR50 1mm Soil

Number of peaks found: 3 Corr. Area 1: 655.4
 Noise: 0.2

Peak table for sample 1 : Block 2: IR50 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	117.70	3,616.9	
3	372	77.54	315.6	
4	400	480.36	1,821.1	
5	10,380	75.00	10.9	Upper Marker

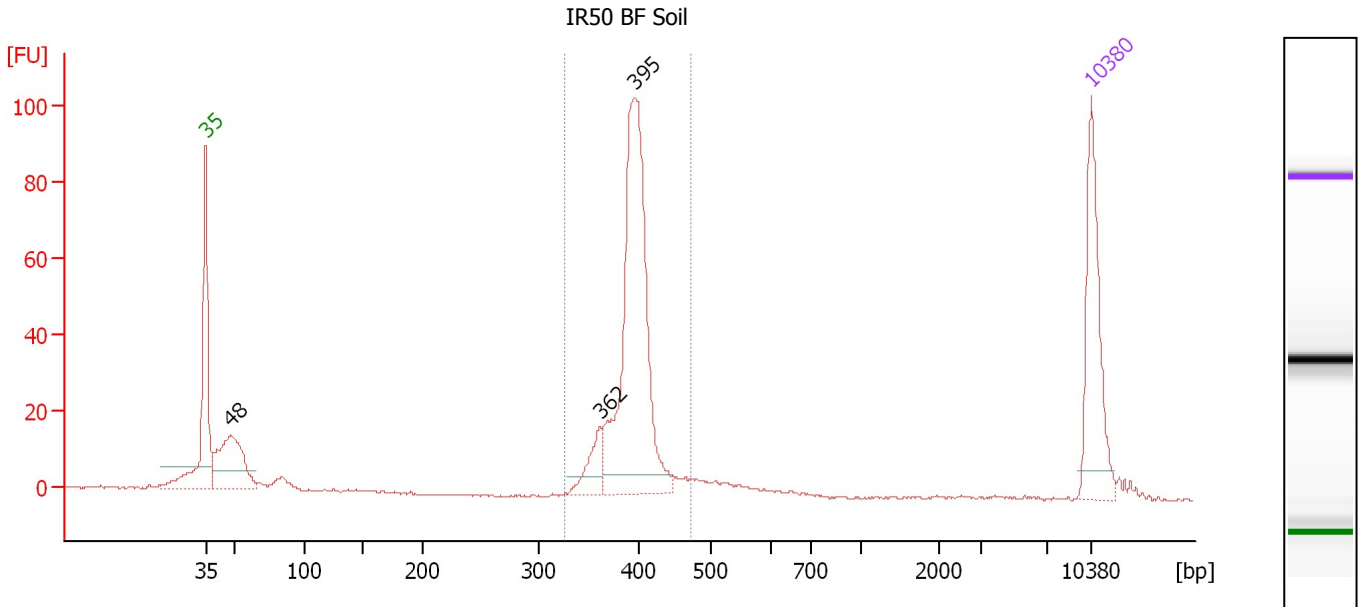
Region table for sample 1 : Block 2: IR50 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
329	455	396	2,242.7	585.55	655.4	73	4.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 2 : IR50 BF Soil

Number of peaks found: 3 Corr. Area 1: 346.1
 Noise: 0.3

Peak table for sample 2 : IR50 BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	112.10	3,525.7	
3	362	32.07	134.3	
4	395	293.91	1,127.4	
5	10,380	75.00	10.9	Upper Marker

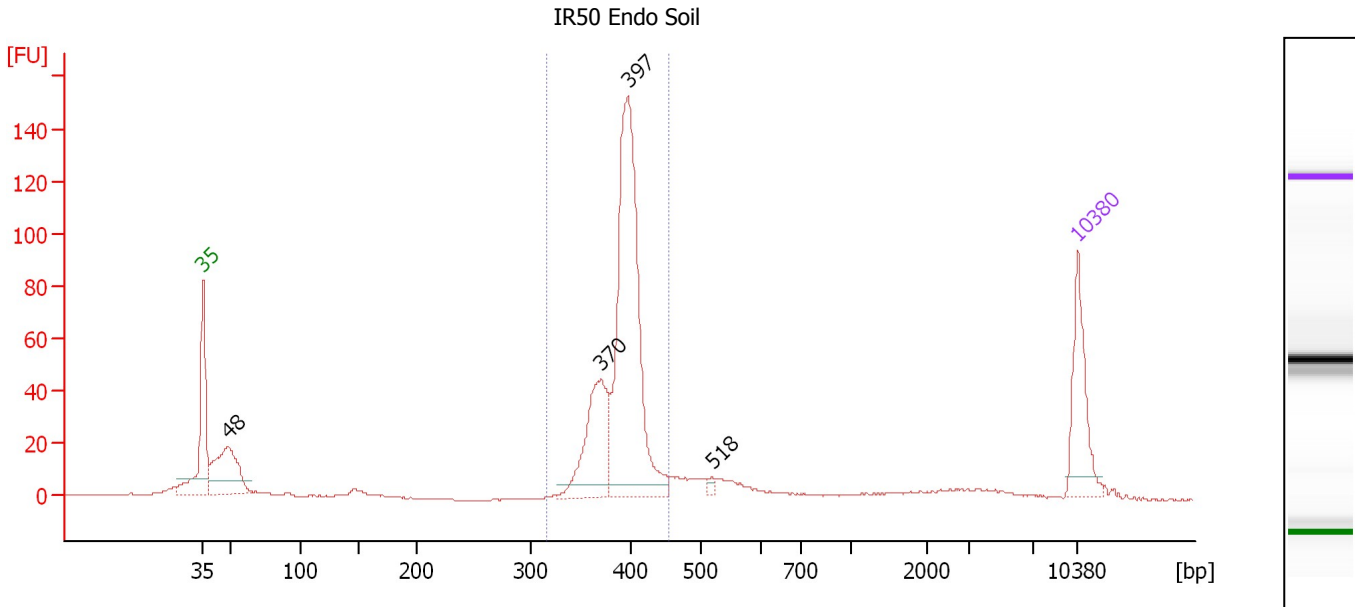
Region table for sample 2 : IR50 BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
326	474	395	1,256.6	326.71	346.1	74	5.1	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 3 : IR50 Endo Soil

Number of peaks found: 4 Corr. Area 1: 546.0
 Noise: 0.2

Peak table for sample 3 : IR50 Endo Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	152.71	4,815.4	
3	370	152.57	625.2	
4	397	451.28	1,722.5	
5	518	6.57	19.2	
6	10,380	75.00	10.9	Upper Marker

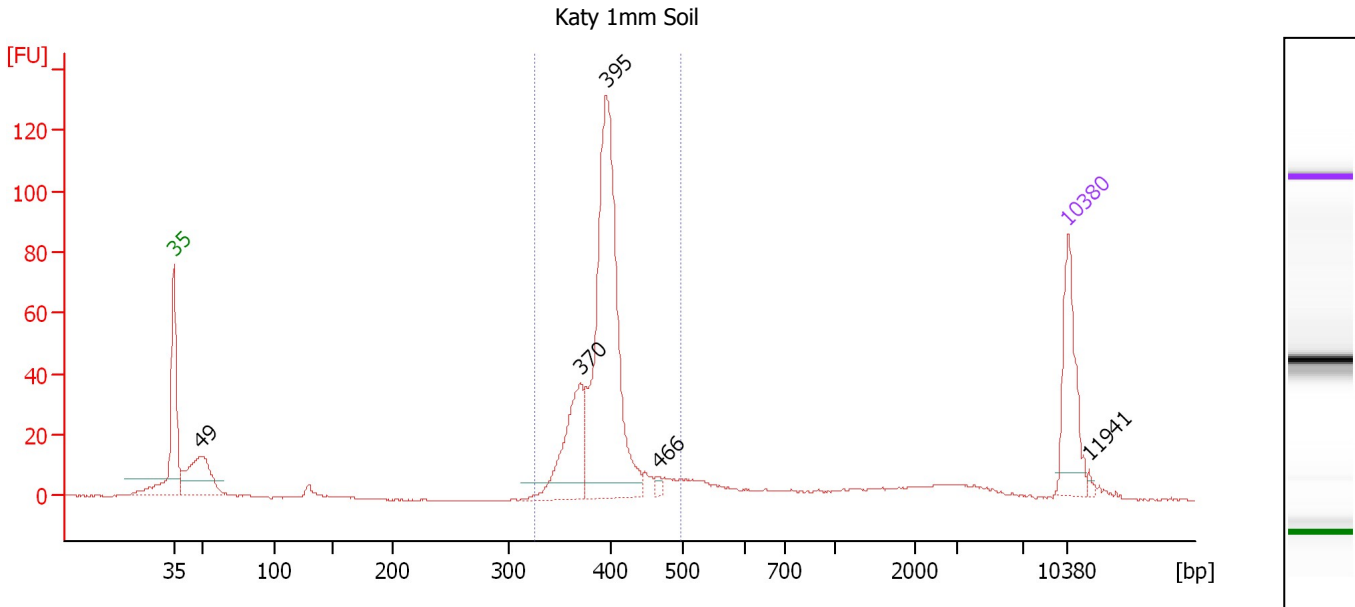
Region table for sample 3 : IR50 Endo Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
315	453	391	2,351.3	605.84	546.0	68	5.2	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 4 : Katy 1mm Soil

Number of peaks found: 5 Corr. Area 1: 464.4
 Noise: 0.2

Peak table for sample 4 : Katy 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	119.48	3,706.1	
3	370	119.69	490.3	
4	395	413.51	1,586.8	
5	466	5.36	17.4	
6	10,380	75.00	10.9	Upper Marker
7	11,941	0.00	0.0	

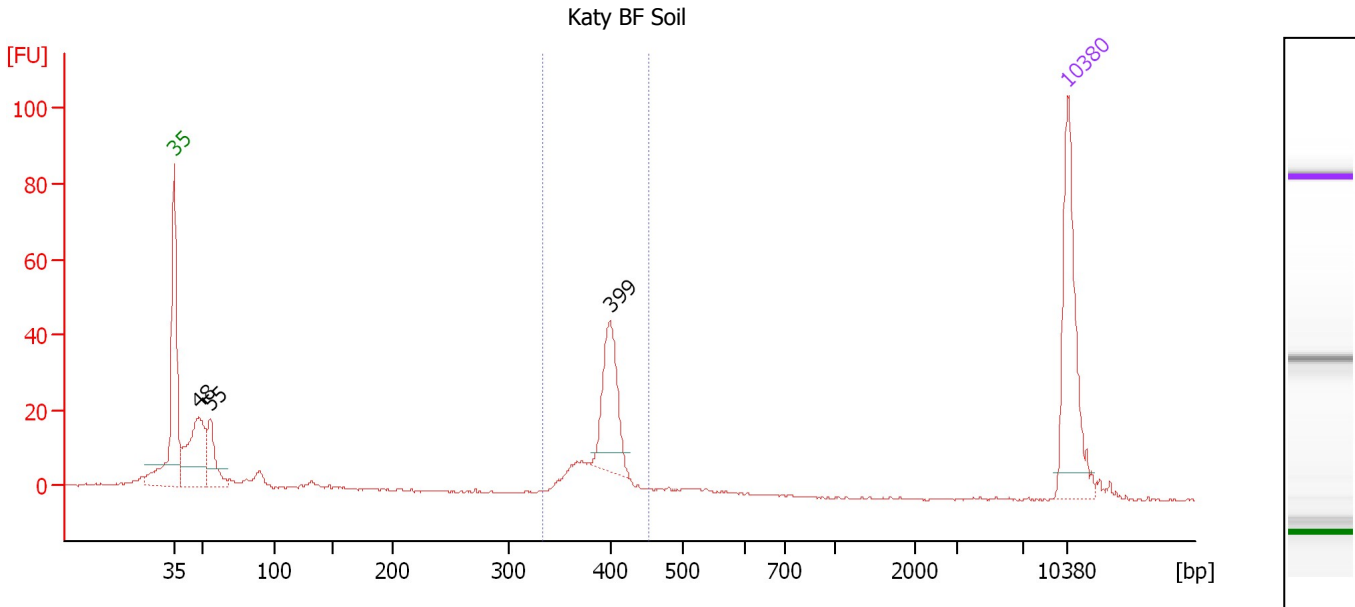
Region table for sample 4 : Katy 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
326	496	394	2,183.8	566.31	464.4	71	6.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 5 : Katy BF Soil

Number of peaks found: 3 Corr. Area 1: 124.4
 Noise: 0.3

Peak table for sample 5 : Katy BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	97.66	3,093.8	
3	55	43.67	1,195.1	
4	399	70.30	267.1	
5	10,380	75.00	10.9	Upper Marker

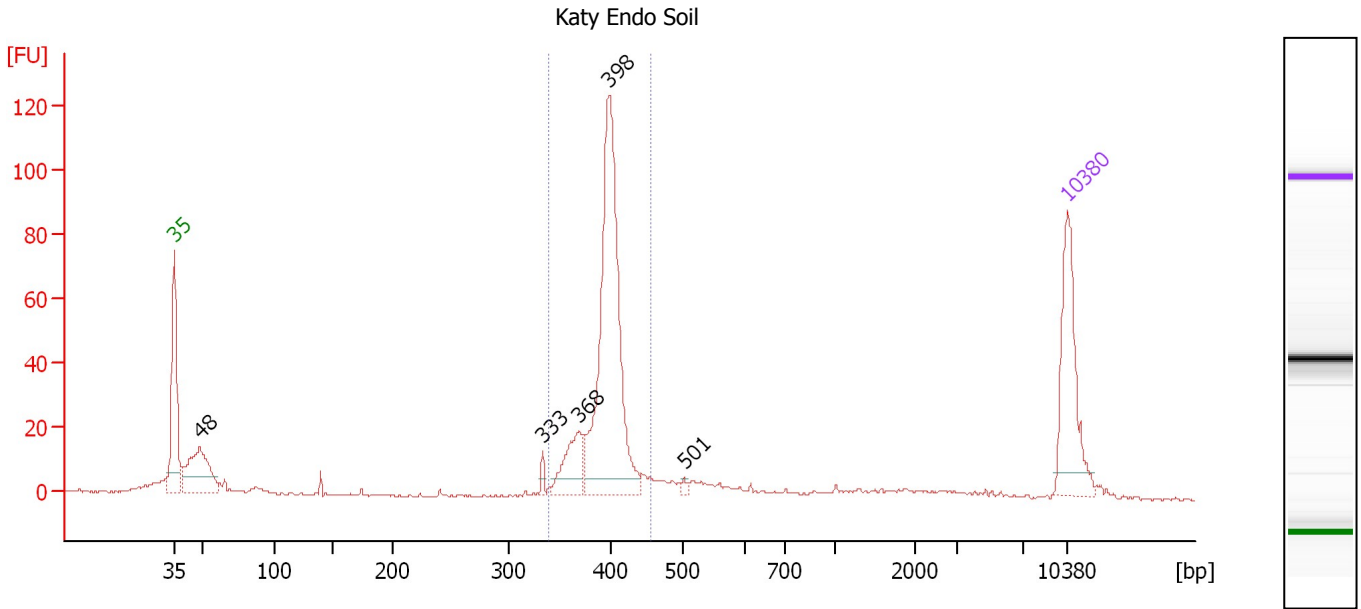
Region table for sample 5 : Katy BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
332	453	394	459.5	119.23	124.4	46	4.6	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 6 : Katy Endo Soil

Number of peaks found: 5 Corr. Area 1: 340.6
 Noise: 0.3

Peak table for sample 6 : Katy Endo Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	48	94.94	2,982.4	
3	333	5.93	27.0	
4	368	45.47	187.1	
5	398	285.57	1,088.3	
6	501	3.00	9.0	
7	10,380	75.00	10.9	Upper Marker

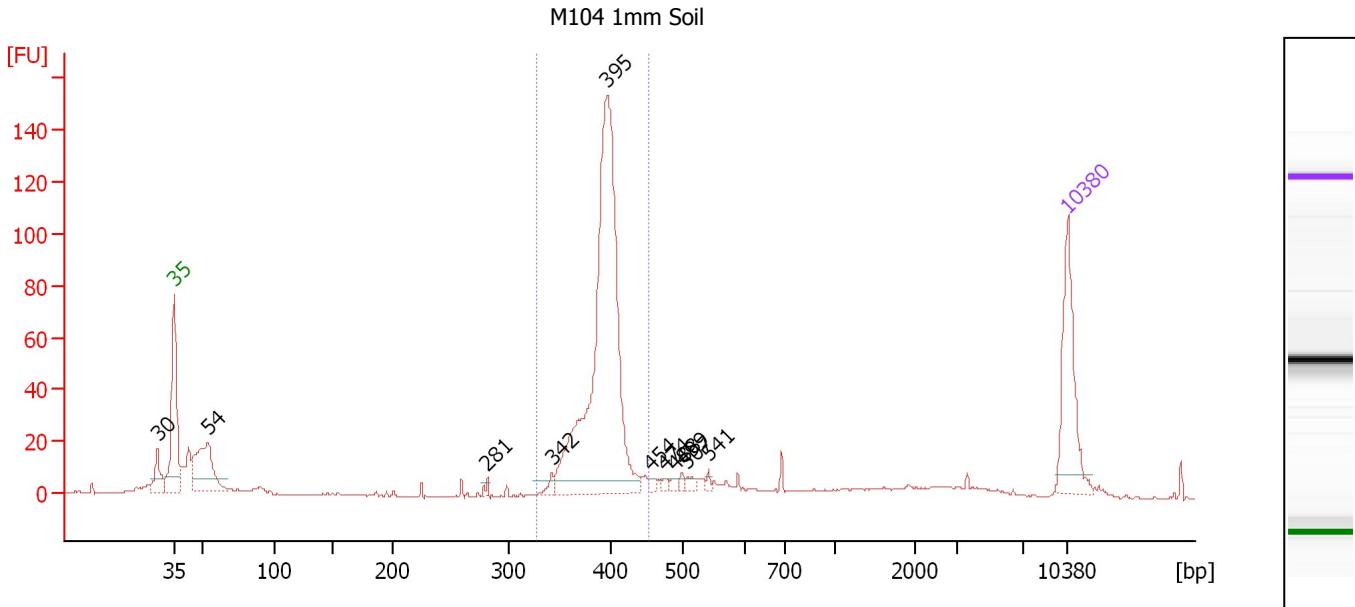
Region table for sample 6 : Katy Endo Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
340	456	395	1,339.4	348.85	340.6	63	4.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 7 : M104 1mm Soil

Number of peaks found: 11 Corr. Area 1: 468.2
 Noise: 0.3

Peak table for sample 7 : M104 1mm Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	30	0.00	0.0	
2	35	125.00	5,411.3	Lower Marker
3	54	105.61	2,990.3	
4	281	3.92	21.1	
5	342	6.51	28.9	
6	395	470.77	1,803.6	
7	454	4.29	14.3	
8	474	3.73	11.9	
9	488	4.35	13.5	
10	499	4.34	13.2	
11	507	5.36	16.0	
12	541	3.46	9.7	
13	10,380	75.00	10.9	Upper Marker

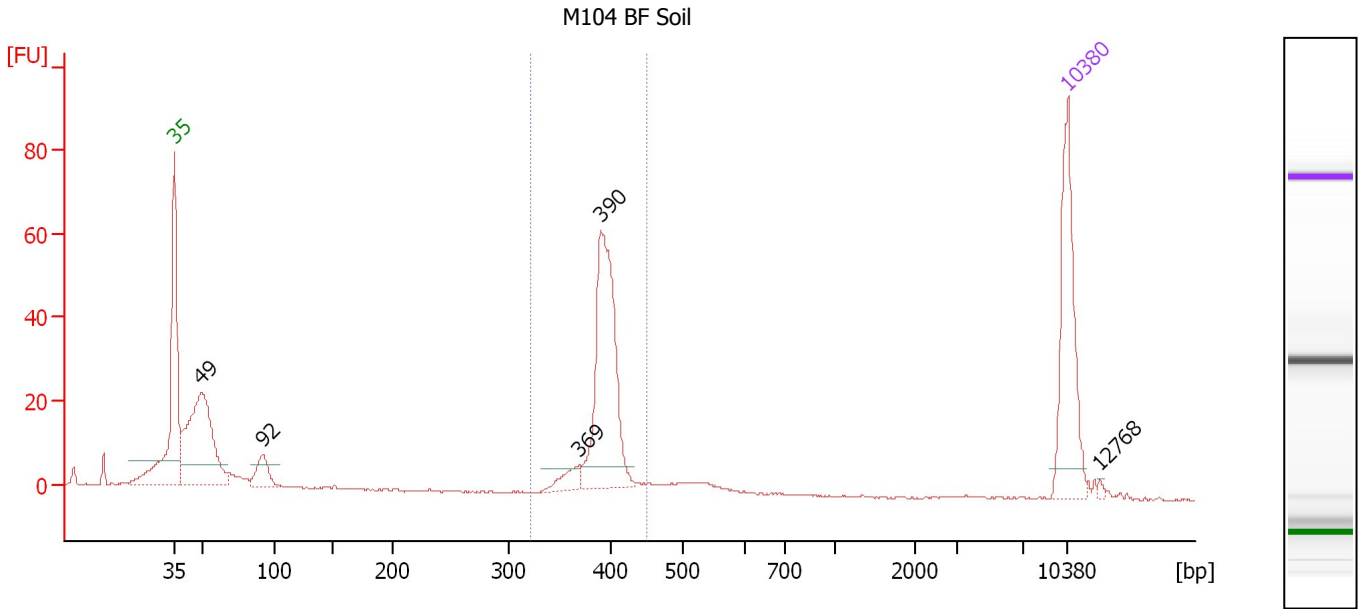
Region table for sample 7 : M104 1mm Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
326	451	392	1,946.4	502.41	468.2	59	4.8	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 8 : M104 BF Soil

Number of peaks found: 5 Corr. Area 1: 170.5
 Noise: 0.2

Peak table for sample 8 : M104 BF Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	184.24	5,688.8	
3	92	26.44	436.2	
4	369	14.93	61.4	
5	390	159.35	619.9	
6	10,380	75.00	10.9	Upper Marker
7	12,768	0.00	0.0	

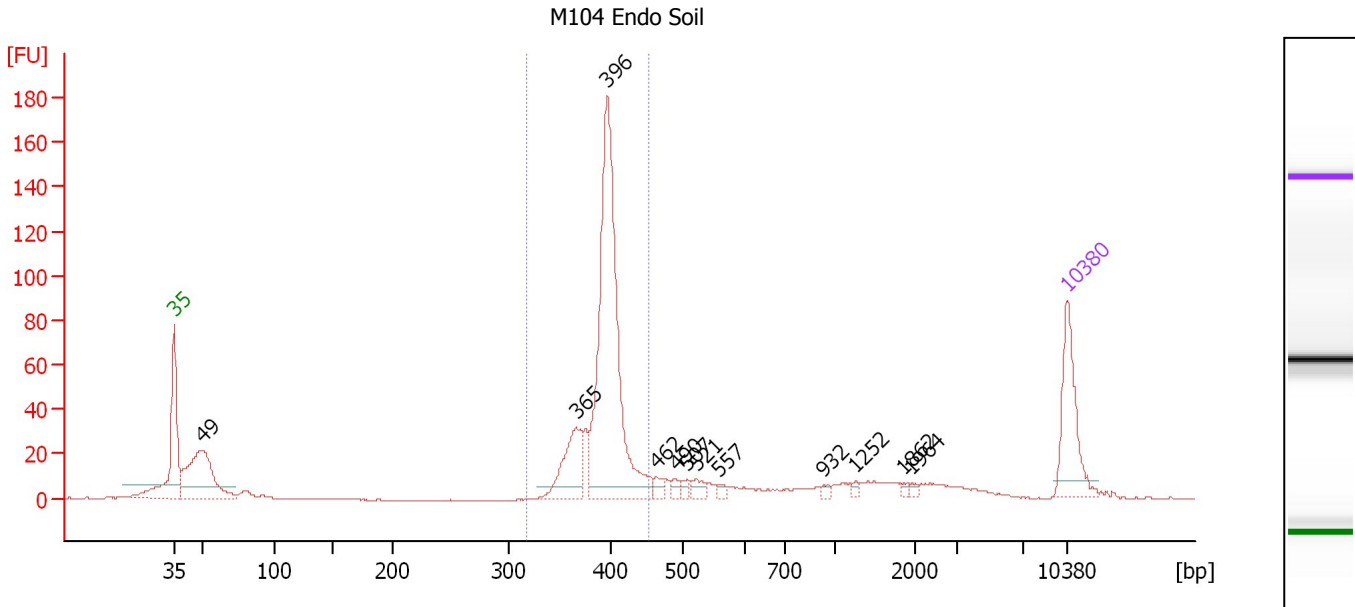
Region table for sample 8 : M104 BF Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
321	450	393	704.6	182.65	170.5	48	4.0	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 9 : M104 Endo Soil

Number of peaks found: 12 Corr. Area 1: 483.3
 Noise: 0.2

Peak table for sample 9 : M104 Endo Soil

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	49	190.17	5,854.5	
3	365	83.36	345.7	
4	396	437.37	1,672.9	
5	462	10.94	35.8	
6	490	8.28	25.6	
7	507	6.78	20.2	
8	521	12.11	35.2	
9	557	6.02	16.4	
10	932	4.54	7.4	
11	1,252	3.85	4.7	
12	1,862	3.18	2.6	
13	1,964	3.95	3.0	
14	10,380	75.00	10.9	Upper Marker

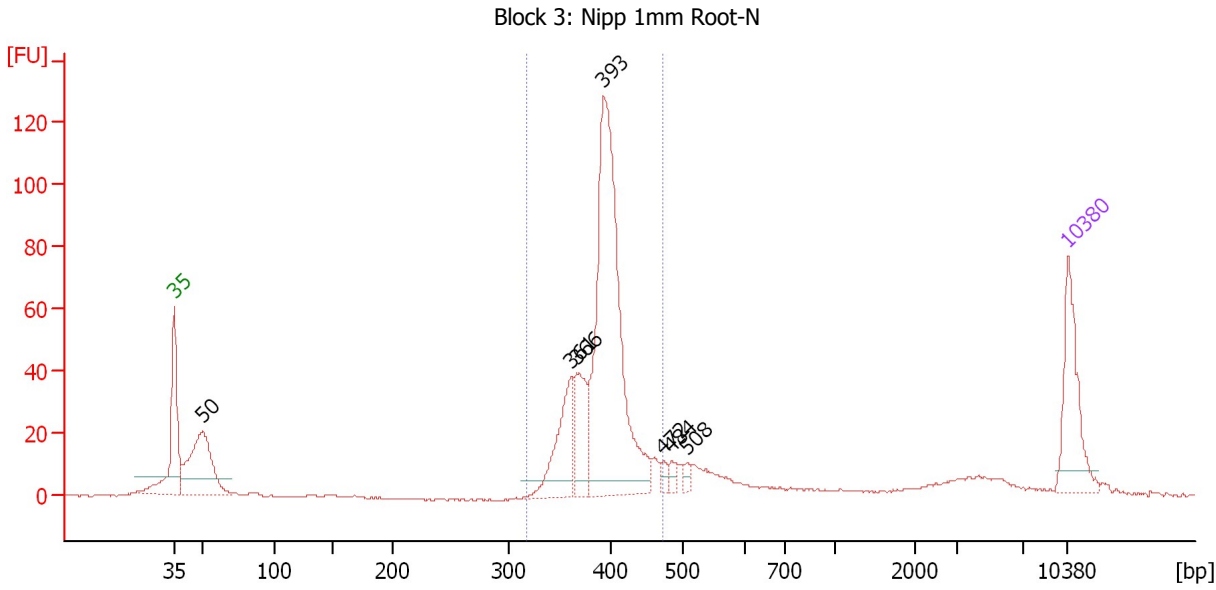
Region table for sample 9 : M104 Endo Soil

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
318	453	393	2,077.3	538.24	483.3	61	4.9	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 10 : Block 3: Nipp 1mm Root-N

Number of peaks found: 7 Corr. Area 1: 515.0
 Noise: 0.3

Peak table for sample 10 : Block 3: Nipp 1mm Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	178.08	5,396.5	
3	361	104.27	437.8	
4	366	73.47	304.1	
5	393	461.60	1,781.9	
6	472	9.15	29.4	
7	484	10.89	34.1	
8	508	9.42	28.1	
9	10,380	75.00	10.9	Upper Marker

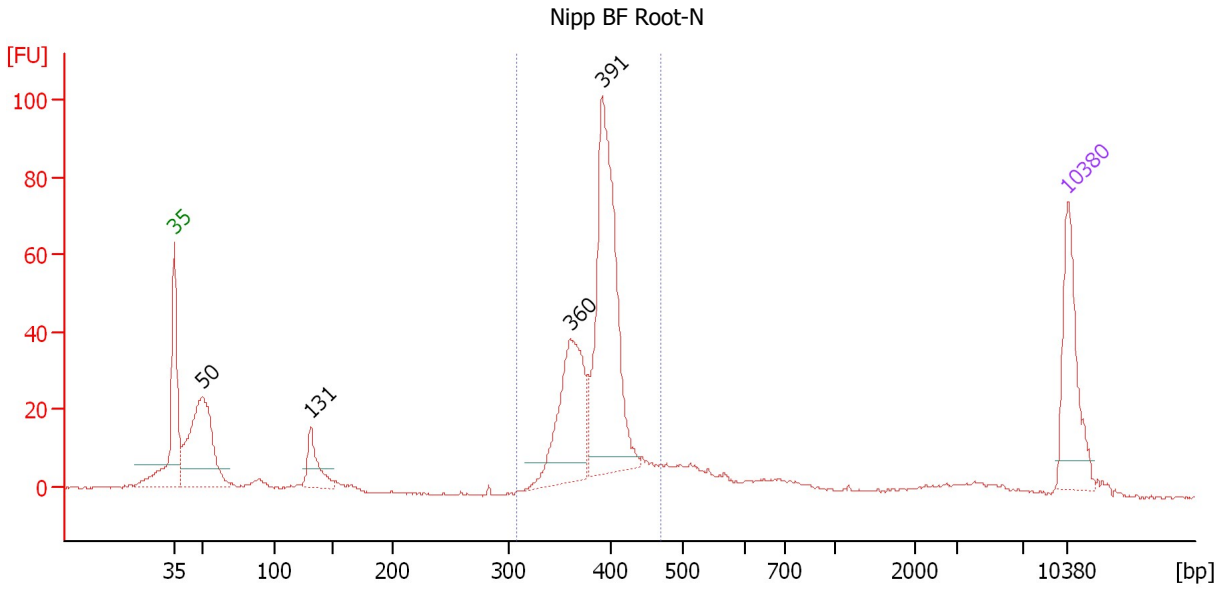
Region table for sample 10 : Block 3: Nipp 1mm Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
317	473	393	2,536.8	655.08	515.0	67	6.7	Blue

Assay Class: High Sensitivity DNA Assay
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
 Modified: 1/4/2013 2:00:57 PM

Electropherogram Summary Continued ...



Overall Results for sample 11 : Nipp BF Root-N

Number of peaks found: 4 Corr. Area 1: 419.1
 Noise: 0.3

Peak table for sample 11 : Nipp BF Root-N

Peak	Size [bp]	Conc. [pg/μl]	Molarity [pmol/l]	Observations
1	35	125.00	5,411.3	Lower Marker
2	50	206.87	6,330.8	
3	131	50.36	580.9	
4	360	157.59	664.1	
5	391	295.13	1,143.9	
6	10,380	75.00	10.9	Upper Marker

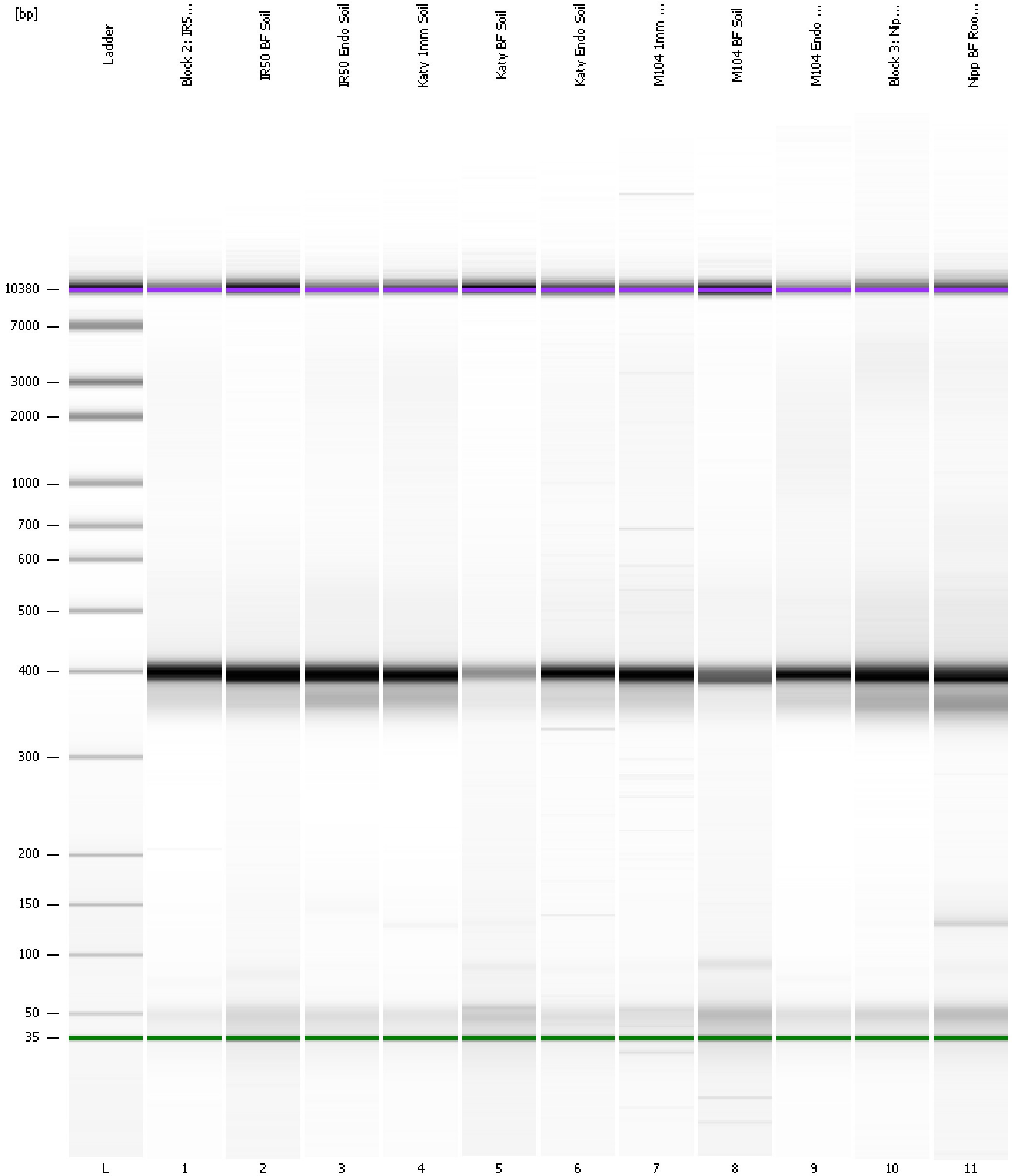
Region table for sample 11 : Nipp BF Root-N

From [bp]	To [bp]	Average Size [bp]	Molarity [pmol/l]	Conc. [pg/μl]	Corr. Area	% of Total	Size distribution in CV [%]	Color
307	470	388	2,112.5	538.72	419.1	57	6.9	Blue

Assay Class: High Sensitivity DNA Assay
Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad

Created: 1/4/2013 1:18:39 PM
Modified: 1/4/2013 2:00:57 PM

Gel Image



Assay Class: High Sensitivity DNA Assay Created: 1/4/2013 1:18:39 PM
 Data Path: C:\...ents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad Modified: 1/4/2013 2:00:57 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		1/4/2013 1:59:58 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Run started on port 1 (File: C:\Documents and Settings\Bioanalyzer\2013-01-04\2013-01-04_002.xad)		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Product Number : G2938B		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Name :		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Vendor : Agilent Technologies		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Serial# : DE13701086		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Firmware : C.01.069		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1
Cartridge : Electrode		Instrument	Run		1/4/2013 1:18:44 PM	(GMT --08:00) Pacific Standard Time	UC Davis	D8XSMGH1