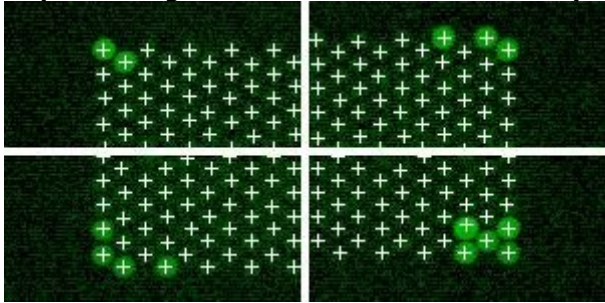


QC Report - Agilent Technologies : 1 Color Gene Expression

Date	Friday, March 04, 2011 - 15:54	Grid	027516_D_F_20100501
Image	US81603235_252751610049_S01 [1_2]	BG Method	No Background
Protocol	GE1_107_Sep09 (Read Only)	Background Detrend	On(FeatNCRRange, LoPass)
User Name	rockstro	Multiplicative Detrend	True
FE Version	10.7.3.1	Additive Error	3(Green)
Sample(red/green)		Saturation Value	778045 (g)

Spot Finding of the Four Corners of the Array

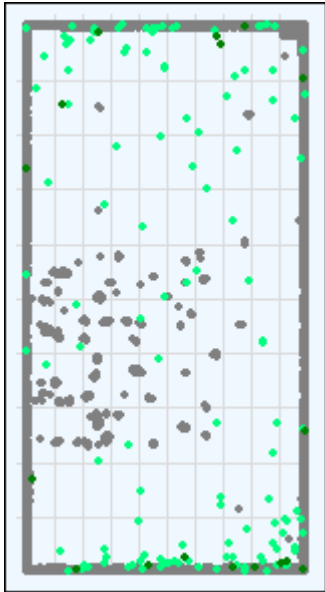


Grid Normal

Feature	Local Background	
	Green	Green
Non Uniform	17	0
Population	128	6345

Spatial Distribution of All Outliers on the Array

1064 rows x 170 columns



# FeatureNonUnif (Green) = 17(0.01%)

# GeneNonUnif (Green) = 15 (0.009 %)

- BG NonUniform      ● BG Population
- Green FeaturePopulation ● Green Feature NonUniform

Net Signal Statistics

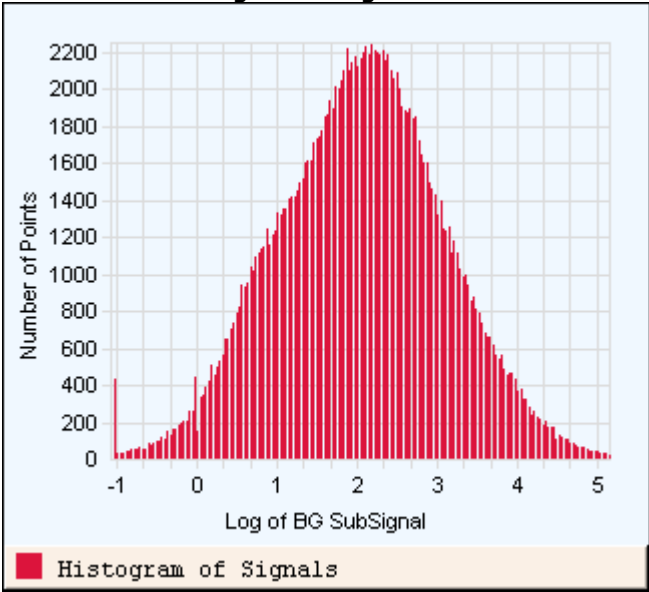
Agilent SpikeIns: Green

# Saturated Features	0
99% of Sig. Distrib.	199643
50% of Sig. Distrib.	365
1% of Sig. Distrib.	27

Non-Control probes: Green

# Saturated Features	0
99% of Sig. Distrib.	18974
50% of Sig. Distrib.	110
1% of Sig. Distrib.	26

Histogram of Signals Plot



# Features (NonCtrl) with BGSubSignal < 0: 12693 (Green)

### Negative Control Stats

Green

Average Net Signals	28.89
StdDev Net Signals	3.04
Average BG Sub Signal	-3.22
StdDev BG Sub Signal	2.25

### Local Bkg (inliers)

Green

Number	174535
Avg	24.40
SD	1.49

### Foreground Surface Fit

Green

RMS_Fit	2.02
RMS_Resid	2.57
Avg_Fit	37.00

### Multiplicative Surface Fit

Green

RMS_Fit	0.21
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### Reproducibility: %CV for Replicated Probes

Median %CV Signal (inliers)

Non-Control  
probes

Agilent SpikeIns

Green

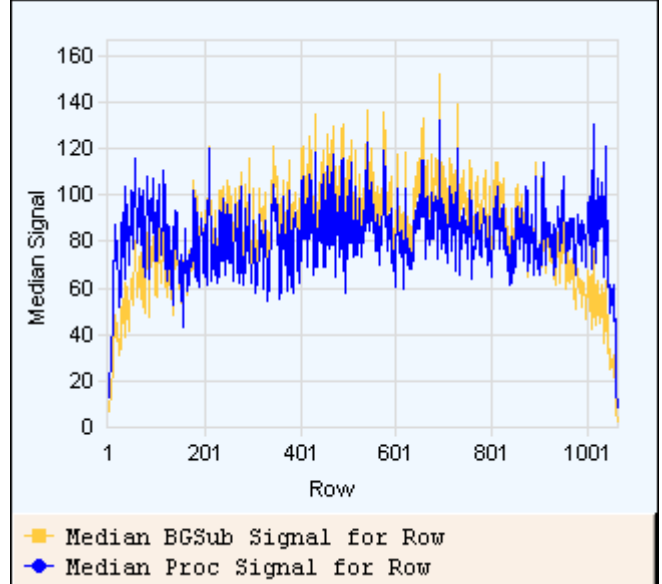
Green

BGSubSignal	20.34	27.11
ProcessedSignal	12.71	18.79

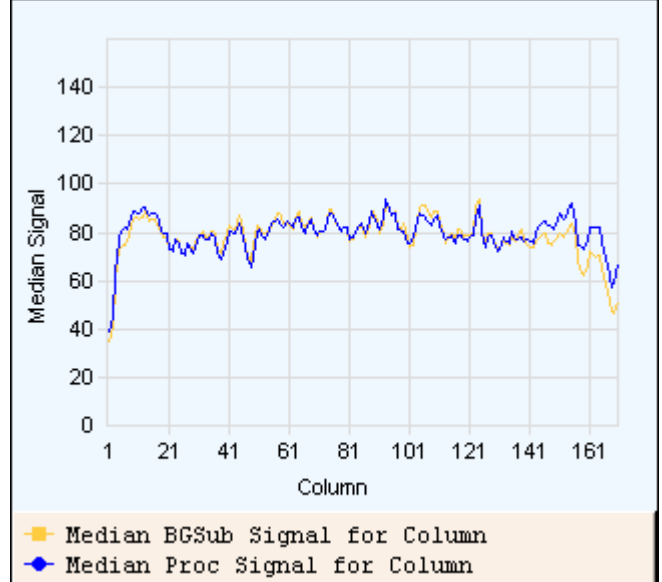
### Agilent SpikeIns Signal Statistics

Probe Name	Log (Relative Conc.)	Median (Log Proc. Sig.)	% CV	StdDev
(+)E1A_r60_3	0.30	0.94	66.70	0.22
(+)E1A_r60_a104	1.30	0.47	42.58	0.16
(+)E1A_r60_a107	2.30	1.37	19.74	0.10
(+)E1A_r60_a135	3.30	2.12	21.55	0.20
(+)E1A_r60_a20	3.83	2.43	16.89	0.10
(+)E1A_r60_a22	4.30	3.11	19.74	0.17
(+)E1A_r60_a97	4.82	3.75	7.71	0.04
(+)E1A_r60_n11	5.30	4.32	18.79	0.15
(+)E1A_r60_n9	5.82	4.62	28.19	0.31
(+)E1A_r60_1	6.30	5.23	16.56	0.10

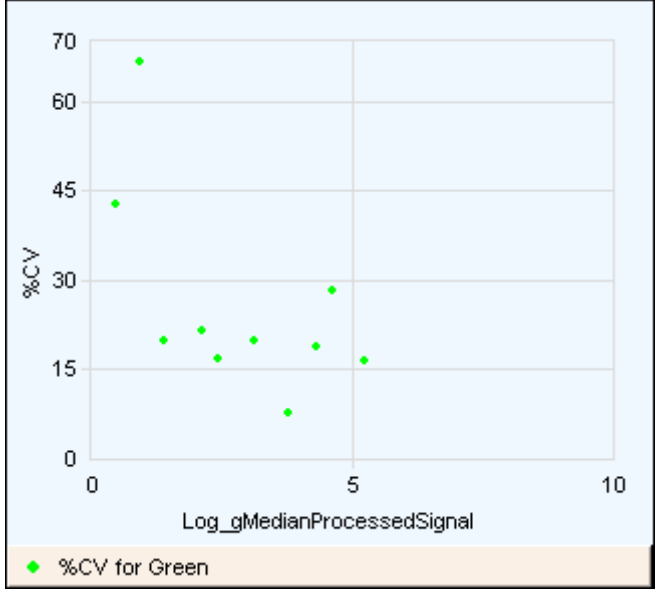
### Spatial Distribution of Median Signals for each Row



### Spatial Distribution of Median Signals for each Column

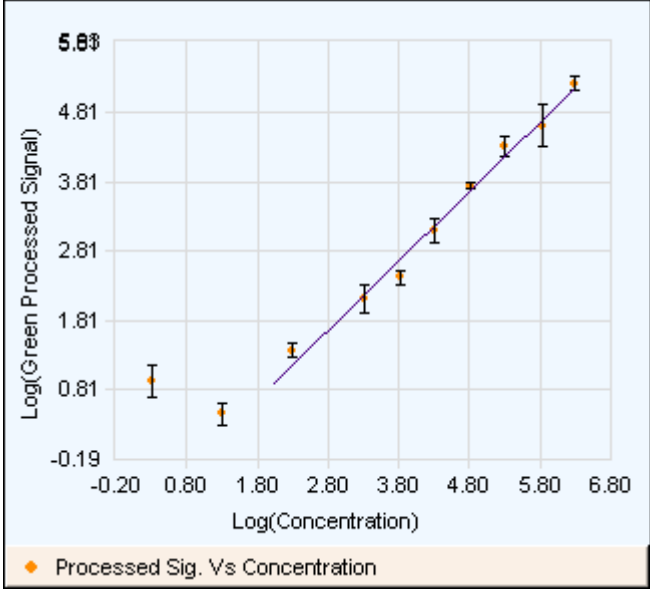


Agilent SpikeIns: %CV of Avg. Processed Signal Plot



Median %CV:18.79

Agilent SpikeIns: Log(Signal) vs. Log(Relative concentration) Plot



Evaluation Metrics for GE1\_QCMT\_Sep09 :

Good (8) ; Evaluate (2)

Metric Name	Value	Excellent	Good	Evaluate
IsGoodGrid	1.00		>1	<1
AnyColorPrcntFeatNonUn...	0.01		<1	>1
gNegCtrlAveNetSig	28.89		<40	>40
gNegCtrlAveBGSubSig	-3.22		-10 to 5	<-10 or >5
gNegCtrlSDevBGSubSig	2.25		<10	>10
gSpatialDetrendRMSFilt...	2.57		<15	>15
gNonCtrlMedCVProcSign...	12.71		0 to 8	<0 or >8
gE1aMedCVProcSignal	18.79		0 to 8	<0 or >8
absGE1E1aSlope	1.00		0.90 to 1.20	<0.90 or >1.20
DetectionLimit	1.14		0.01 to 2	<0.01 or >2

◆ Excellent ◆ Good ◆ Evaluate

Agilent Spike-In Concentration-Response Statistics

Linear Range Statistics:

Low Signal	0.91
High Signal	5.75
Low Relative Concentration	2.03
High Relative Concentration	6.89
Slope	1.00
R^2 Value	0.99

Signal Detection Limit Statistics

Saturation Point	5.89
Low Threshold	0.58
Low Threshold Error	0.27
Spike-In Detection Limit	1.14