

FIGURE 3

The proof is in the numbers

Tests of hypotheses show statistically significant long-term sustainable improvement in reducing contaminants and labeling defects.

TOH 2 SAMPLE PROPORTIONS – LABELING DEFECTS

	Pre-Implementation	Post-Implementation
Specimen Collections	10124	892
Labeling Defects	238	10

p1:	0.02
n1:	10124
p2:	0.01
n2:	892
alpha:	0.05
z test:	3.208
1 tail z table:	1.645
2 tail z table:	1.960

Test of Hypothesis – To ensure that the process has improved statistically based on process changes undertaken

Null Hypothesis

Process Pre Implementation = Process Post Implementation

Alternate Hypothesis

Process Pre Implementation > Process Post Implementation

Test Statistic: z-test = 3.208
Critical Value: z-table = 1.645

Result: Since the test statistic (z-test) is > than the critical value (z-table), reject the null hypothesis and conclude with 95% confidence that the

Process Pre Implementation > Process Post Implementation

TOH 2 SAMPLE PROPORTIONS – CONTAMINANTS

	Pre-Implementation	Post-Implementation
Specimen Collections	10124	892
Contaminants	677	43

p1:	0.07
n1:	10124
p2:	0.05
n2:	892
alpha:	0.05
z test:	2.459
1 tail z table:	1.645
2 tail z table:	1.960

Test of Hypothesis – To ensure that the process has improved statistically based on process changes undertaken

Null Hypothesis

Process Pre Implementation = Process Post Implementation

Alternate Hypothesis

Process Pre Implementation > Process Post Implementation

Test Statistic: z-test = 2.459
Critical Value: z-table = 1.645

Result: Since the test statistic (z-test) is > than the critical value (z-table), reject the null hypothesis and conclude with 95% confidence that the

Process Pre Implementation > Process Post Implementation