	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Uncensored Full Data Sets											
2												
3	User Selected Options											
4	Date/Time of Computation			7/30/2013 7:44:32 AM								
5	From File			WorkSheet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	mber of Bootstrap Operations			2000								
9												
10												
11	PCDD											
12												
13	General Statistics											
14	Total Number of Observations					33	Number of Distinct Observations					33
15							Number of Missing Observations					0
16	Minimum					0.00563	Mean					0.0675
17	Maximum					0.308	Median					0.0391
18	SD					0.0682	Std. Error of Mean					0.0119
19	Coefficient of Variation					1.01	Skewness					1.625
20												
21	Normal GOF Test											
22	Shapiro Wilk Test Statistic					0.817	Shapiro Wilk GOF Test					
23	5% Shapiro Wilk Critical Value					0.931	Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic					0.182	Lilliefors GOF Test					
25	5% Lilliefors Critical Value					0.154	Data Not Normal at 5% Significance Level					
26	Data Not Normal at 5% Significance Level											
27												
28	Assuming Normal Distribution											
29	95% Normal UCL						95% UCLs (Adjusted for Skewness)					
30	95% Student's-t UCL					0.0876	95% Adjusted-CLT UCL (Chen-1995)					0.0906
31							95% Modified-t UCL (Johnson-1978)					0.0881
32												
33	Gamma GOF Test											
34	A-D Test Statistic					0.64	Anderson-Darling Gamma GOF Test					
35	5% A-D Critical Value					0.774	etected data appear Gamma Distributed at 5% Significance Lev					
36	K-S Test Statistic					0.12	Kolmogrov-Smirnoff Gamma GOF Test					
37	5% K-S Critical Value					0.157	etected data appear Gamma Distributed at 5% Significance Lev					
38	Detected data appear Gamma Distributed at 5% Significance Level											
39												
40	Gamma Statistics											
41	k hat (MLE)					1.086	k star (bias corrected MLE)					1.008
42	Theta hat (MLE)					0.0621	Theta star (bias corrected MLE)					0.067
43	nu hat (MLE)					71.69	nu star (bias corrected)					66.5
44	MLE Mean (bias corrected)					0.0675	MLE Sd (bias corrected)					0.0672
45							Approximate Chi Square Value (0.05)					48.74
46	Adjusted Level of Significance					0.0419	Adjusted Chi Square Value					47.95
47												
48	Assuming Gamma Distribution											
49	95% Approximate Gamma UCL (use when n>=50)					0.0921	95% Adjusted Gamma UCL (use when n<50)					0.0936
50												
51	Lognormal GOF Test											
52	Shapiro Wilk Test Statistic					0.951	Shapiro Wilk Lognormal GOF Test					
53	5% Shapiro Wilk Critical Value					0.931	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.0956	Lilliefors Lognormal GOF Test					
55	5% Lilliefors Critical Value					0.154	Data appear Lognormal at 5% Significance Level					
56	Data appear Lognormal at 5% Significance Level											
57												
58	Lognormal Statistics											
59	Minimum of Logged Data					-5.18	Mean of logged Data					-3.223
60	Maximum of Logged Data					-1.179	SD of logged Data					1.099
61												
62	Assuming Lognormal Distribution											

	A	B	C	D	E	F	G	H	I	J	K	L
63					95% H-UCL	0.12				90% Chebyshev (MVUE) UCL		0.119
64				95% Chebyshev (MVUE) UCL		0.141				97.5% Chebyshev (MVUE) UCL		0.171
65				99% Chebyshev (MVUE) UCL		0.23						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data appear to follow a Discernible Distribution at 5% Significance Level**											
69												
70	**Nonparametric Distribution Free UCLs**											
71					95% CLT UCL	0.087				95% Jackknife UCL		0.0876
72				95% Standard Bootstrap UCL		0.0869				95% Bootstrap-t UCL		0.0921
73				95% Hall's Bootstrap UCL		0.0955				95% Percentile Bootstrap UCL		0.0873
74				95% BCA Bootstrap UCL		0.0893						
75				90% Chebyshev(Mean, Sd) UCL		0.103				95% Chebyshev(Mean, Sd) UCL		0.119
76				97.5% Chebyshev(Mean, Sd) UCL		0.142				99% Chebyshev(Mean, Sd) UCL		0.186
77												
78	**Suggested UCL to Use**											
79				95% Adjusted Gamma UCL		0.0936						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												