

BEDROCK SAMPLES FROM RFI REPORT

BARIUM

Summary Statistics for	Barium(mg/kg)	Summary Statistics for	ln(Barium(mg/kg))
Number of Samples	10	Minimum	0.802002
Minimum	2.23	Maximum	3.77069
Maximum	43.41	Mean	1.763253
Mean	8.958	Standard Deviation	0.83923
Median	5.385	Variance	0.704308
Standard Deviation	12.27968313		
Variance	150.7906178	Shapiro-Wilk Test Statistic	0.85823
Coefficient of Variation	1.370806333	Shapiro-Wilk 5% Critical Value	0.842
Skewness	2.996280592	Data are Lognormal at 5% Significance Level	

Estimates Assuming Lognormal Distribution

MLE Mean	8.292955
MLE Standard Deviation	8.385509
MLE Coefficient of Variation	1.011161
MLE Skewness	4.067338
MLE Median	5.831373
MLE 80% Quantile	11.85088
MLE 90% Quantile	17.14426
MLE 95% Quantile	23.19151
MLE 99% Quantile	41.071

MVU Estimate of Median	5.628954
MVU Estimate of Mean	7.937577
MVU Estimate of Std. Dev.	7.016805
MVU Estimate of SE of Mean	2.190457

UCL Assuming Lognormal Distribution

95% H-UCL	18.06751
95% Chebyshev (MVUE) UCL	17.48556
99% Chebyshev (MVUE) UCL	29.73235
Recommended UCL to use: H-UCL	

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CHROMIUM

Summary Statistics for	Chromium(mg/kg)
Number of Samples	10
Minimum	1.4
Maximum	8.2
Mean	4.1
Median	4
Standard Deviation	2.278400999
Variance	5.191111111
Coefficient of Variation	0.555707561
Skewness	0.347849509

Shapiro-Wilk Test Statistic **0.932885775**
Shapiro-Wilk 5% Critical Value 0.842
Data are Normal at 5% Significance Level
Recommended UCL to use: Student's-t

95 % UCL (Assuming Normal Data)
Student's-t **5.420746153**

NICKEL

Summary Statistics for	Nickel(mg/kg)
Number of Samples	10
Minimum	2.25
Maximum	8.14
Mean	4.431
Median	4.23
Standard Deviation	1.800403967
Variance	3.241454444
Coefficient of Variation	0.406320011
Skewness	0.880426131

Shapiro-Wilk Test Statistic **0.941210879**
Shapiro-Wilk 5% Critical Value 0.842
Data are Normal at 5% Significance Level
Recommended UCL to use: Student's-t

95 % UCL (Assuming Normal Data)
Student's-t **5.474660275**

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ZINC

Summary Statistics for	Zinc(mg/kg)	Summary Statistics for	ln(Zinc(mg/kg))
Number of Samples	10	Minimum	0.631272
Minimum	1.88	Maximum	2.729812
Maximum	15.33	Mean	1.40542
Mean	4.909	Standard Deviation	0.589008
Median	3.63	Variance	0.346931
Standard Deviation	3.89340311		
Variance	15.15858778	Shapiro-Wilk Test Statistic	0.924584
Coefficient of Variation	0.793115321	Shapiro-Wilk 5% Critical Value	0.842
Skewness	2.520825875	Data are Lognormal at 5% Significance Level	

Estimates Assuming Lognormal Distribution

MLE Mean	4.849545
MLE Standard Deviation	3.123041
MLE Coefficient of Variation	0.643986
MLE Skewness	2.199033
MLE Median	4.077237
MLE 80% Quantile	6.706864
MLE 90% Quantile	8.691062
MLE 95% Quantile	10.7439
MLE 99% Quantile	16.04589

MVU Estimate of Median	4.007011
MVU Estimate of Mean	4.755923
MVU Estimate of Std. Dev.	2.877673
MVU Estimate of SE of Mean	0.906768

UCL Assuming Lognormal Distribution

95% H-UCL	7.694082
95% Chebyshev (MVUE) UCL	8.708433
99% Chebyshev (MVUE) UCL	13.77815
Recommended UCL to use: H-UCL	

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DICHLORODIFLUOROMETHANE

Summary Statistics for	Dichlorodifluoromethane(mg/kg)
Number of Samples	10
Minimum	0.0008
Maximum	0.0106
Mean	0.00178
Median	0.0008
Standard Deviation	0.003099032
Variance	9.60E-06
Coefficient of Variation	1.741029274
Skewness	3.16227766

Shapiro-Wilk Test Statistic **0.3659569**

Shapiro-Wilk 5% Critical Value 0.842

Data not Normal at 5% Significance Level

Data not Lognormal: Try Non-parametric UCL

95 % UCL (Assuming Normal Data)

Student's-t 0.003576451

95 % Non-parametric UCL

CLT 0.003391957

Jackknife **0.003576451**

CONFIRMATION SAMPLES

CADMIUM

Summary Statistics for	Cadmium
Number of Samples	13
Minimum	0.1
Maximum	3.88
Mean	0.568461539
Median	0.29
Standard Deviation	0.999290133
Variance	0.998580769
Coefficient of Variation	1.757885213
Skewness	3.550648395

Shapiro-Wilk Test Statistic **0.398035432**

Shapiro-Wilk 5% Critical Value 0.866

Data not Normal at 5% Significance Level

Data not Lognormal: Try Non-parametric UCL

95 % UCL (Assuming Normal Data)

Student's-t 1.062428244

95 % UCL (Adjusted for Skewness)

Adjusted-CLT 1.315970786

Modified-t 1.107917063

95 % Non-parametric UCL

CLT 1.024338012

Jackknife **1.062428244**