**Lead**

| Sample ID | Sample Type | Lead (mg/kg) |
|---|---|---|
| B29-BOT01 | N1 | 249.83 |
| B29-BOT02 | N1 | 17.32 |
| B29-BOT03 | N1 | 27.3 |
| B29-BOT04 | N1 | 37.85 |
| B29-BOT04 | FD1 | 34.05 |
| B29-BOT05 | N1 | 5.37 |
| B29-BOT06 | N1 | 10.51 |
| B29-BOT07 | N1 | 13.92 |
| B29-SW01 | N1 | 3.53 |
| B29-SW02 | N1 | 3.01 |
| B29-SW03 | N1 | 6.81 |
| B29-SW04 | N1 | 5.23 |
| B29-SW05 | FD1 | 4.08 |
| B29-SW05 | N1 | 3.76 |
| B29-SW06 | N1 | 5.32 |
| B29-SW07 | N1 | 6.41 |
| B29-SW08 | N1 | 18.49 |
| B29-SW09 | N1 | 127.42 |
| B29-SW10 | N1 | 5.2 |
| B29-SW11 | N1 | 38.14 |
| B29-SW12 | N1 | 89.23 |
| B29-SW12 | FD1 | 50.07 |
| B29-SW13 | FD1 | 39.77 |
| B29-SW13 | N1 | 39.74 |
| B29-SW14 | N1 | 62.42 |
| B29-SW15 | N1 | 20.64 |

| Summary Statistics for | Lead |
|---|---|
| Number of Samples | 22 |
| Minimum | 3.01 |
| Maximum | 249.83 |
| Mean | 36.26364 |
| Median | 15.62 |
| Standard Deviation | 57.07201 |
| Variance | 3257.214 |
| Coefficient of Variation | 1.573808 |
| Skewness | 2.91452 |
| 95 % UCL (Assuming Normal Data) | |
| Student's-t | 57.20128 |
| 95 % UCL (Adjusted for Skewness) | |
| Adjusted-CLT | 64.35669 |
| Modified-t | 58.46141 |
| 95 % Non-parametric UCL | |
| CLT | 56.27787 |
| Jackknife | 57.20128 |
| Standard Bootstrap | 55.88925 |
| Bootstrap-t | 81.27199 |
| Chebyshev (Mean, Std) | 89.30182 |

| Summary Statistics for | ln(Lead) |
|---|---|
| Minimum | 1.101940079 |
| Maximum | 5.520780687 |
| Mean | 2.783690944 |
| Standard Deviation | 1.253321987 |
| Variance | 1.570816003 |
| Shapiro-Wilk Test Statisitic | **0.940082038** |
| Shapiro-Wilk 5% Critical Value | 0.911 |
| Data are Lognormal at 5% Significance Level | |
| Estimates Assuming Lognormal Distribution | |
| MLE Mean | 35.48460516 |
| MLE Standard Deviation | 69.26838545 |
| MLE Coefficient of Variation | 1.952068655 |
| MLE Skewness | 13.29470418 |
| MLE Median | 16.17862528 |
| MLE 80% Quantile | 46.65350332 |
| MLE 90% Quantile | 80.98060623 |
| MLE 95% Quantile | 127.1548471 |
| MLE 99% Quantile | 298.544167 |
| MVU Estimate of Median | 15.61036246 |
| MVU Estimate of Mean | 33.47271048 |
| MVU Estimate of Std. Dev. | 53.59307584 |
| MVU Estimate of SE of Mean | 10.49316107 |
| UCL Assuming Lognormal Distribution | |
| 95% H-UCL | 78.63254076 |
| 95% Chebyshev (MVUE) UCL | **79.2113392** |
| 99% Chebyshev (MVUE) UCL | 137.8783449 |
| Recommended UCL to use: | |
| 95 % Chebyshev (MVUE) UCL | |

Note: The samples highlighted in grey were not used in the UCL calculation.
The highest value of the parent sample or the field duplicate sample was used for the UCL calculation.

The samples highlighted in yellow were the samples that exceeded the background concentration for lead.

The values in bold are the values used for reporting the UCL.

**Copper**

| Sample ID | Sample Type | Copper (mg/kg) |
|---|---|---|
| B29-BOT01 | N1 | 8.96 |
| B29-BOT02 | N1 | 2.1 |
| B29-BOT03 | N1 | 3.24 |
| B29-BOT04 | N1 | 44.85 |
| B29-BOT04 | FD1 | 27.7 |
| B29-BOT05 | N1 | 1.3 |
| B29-BOT06 | N1 | 2 |
| B29-BOT07 | N1 | 1.98 |
| B29-SW01 | N1 | 1.12 |
| B29-SW02 | N1 | 0.22 |
| B29-SW03 | N1 | 3.01 |
| B29-SW04 | N1 | 2.15 |
| B29-SW05 | N1 | 3.51 |
| B29-SW05 | FD1 | 2.07 |
| B29-SW06 | N1 | 1 |
| B29-SW07 | N1 | 0.87 |
| B29-SW08 | N1 | 7.09 |
| B29-SW09 | N1 | 21.13 |
| B29-SW10 | N1 | 1 |
| B29-SW11 | N1 | 8.61 |
| B29-SW12 | N1 | 4.87 |
| B29-SW12 | FD1 | 4.44 |
| B29-SW13 | FD1 | 9.42 |
| B29-SW13 | N1 | 5.81 |
| B29-SW14 | N1 | 14.55 |
| B29-SW15 | N1 | 5.98 |

| Summary Statistics for | Copper |
|---|---|
| Number of Samples | 22 |
| Minimum | 0.22 |
| Maximum | 44.85 |
| Mean | 6.770909 |
| Median | 3.125 |
| Standard Deviation | 9.924916 |
| Variance | 98.50396 |
| Coefficient of Variation | 1.465817 |
| Skewness | 3.049086 |
| 95 % UCL (Assuming Normal Data) | |
| Student's-t | 10.412 |
| 95 % UCL (Adjusted for Skewness) | |
| Adjusted-CLT | 11.7212 |
| Modified-t | 10.64126 |
| 95 % Non-parametric UCL | |
| CLT | 10.25142 |
| Jackknife | 10.412 |
| Standard Bootstrap | 10.24878 |
| Bootstrap-t | 14.89189 |
| Chebyshev (Mean, Std) | 15.99434 |

| Summary Statistics for | ln(Copper) |
|---|---|
| Minimum | -1.514127733 |
| Maximum | 3.803323589 |
| Mean | 1.208609986 |
| Standard Deviation | 1.22416021 |
| Variance | 1.498568221 |
| Shapiro-Wilk Test Statisitic | **0.984872969** |
| Shapiro-Wilk 5% Critical Value | 0.911 |
| Data are Lognormal at 5% Significance Level | |
| Estimates Assuming Lognormal Distribution | |
| MLE Mean | 7.084392301 |
| MLE Standard Deviation | 13.20679107 |
| MLE Coefficient of Variation | 1.86420945 |
| MLE Skewness | 12.07127234 |
| MLE Median | 3.348826502 |
| MLE 80% Quantile | 9.421792567 |
| MLE 90% Quantile | 16.14573385 |
| MLE 95% Quantile | 25.08709405 |
| MLE 99% Quantile | 57.74326019 |
| MVU Estimate of Median | 3.236527514 |
| MVU Estimate of Mean | 6.706903943 |
| MVU Estimate of Std. Dev. | 10.37764217 |
| MVU Estimate of SE of Mean | 2.044637469 |
| UCL Assuming Lognormal Distribution | |
| 95% H-UCL | 15.23281307 |
| 95% Chebyshev (MVUE) UCL | **15.61927205** |
| 99% Chebyshev (MVUE) UCL | 27.0507899 |
| Recommended UCL to use: | |
| 95 % Chebyshev (MVUE) UCL | |

Note: The samples highlighted in grey were not used in the UCL calculation.
The highest value of the parent sample or the field duplicate sample was used for the UCL calculation.

The samples highlighted in yellow were the samples that exceeded the background concentration for copper.

The values in bold are the values used for reporting the UCL.