

Experiment 3: Determination of Lead in Soil by Atomic Spectroscopy

Grading Rubrics for _____

Notebook (out of 8): _____

- 1: Missing entry in Table of Contents
- 1: Missing page numbers
- 1: Missing hypothesis
- 1: Missing units
- 2: Thin in observations
- +1: Excellent documentation

Data Analysis (out of 12) _____

- 1: Assumed $[\text{Pb}^{2+}]$ of stock solution was exactly 18 ppm
- 2: Incorrect $[\text{Pb}^{2+}]$ values for standards
- 1: Draconian rounding of x-values for calibration curve data
- 2 or -3: Wrong $[\text{Pb}^{2+}]$ values for soil samples
- 1: Incorrect s_x values
- 1: Incorrect 95% confidence intervals
- 1: Error in LOD/LOQ calculation

Accuracy and Precision of Results (out of 5) _____

- 1: Very imprecise calibration curve
- 1: $[\text{Pb}^{2+}]$ values for soil deviating significantly from class results

Paper (out of 25) _____

Graded holistically

Grading scale out of 25: A = 25, A- = 23, B+ = 20, B = 17, B- = 14

TOTAL (out of 50) _____