



Magruder Certificate of Analysis

Magruder Sample #230411 Grade 1-3-2

Analyte	Value	± Uncertainty	# Labs
Total N (1%)	1.644	0.019	51
Total P2O5 (%)	3.898	0.162	32
Direct Available P2O5 (3%)	4.035	0.105	35
Soluble K2O (2%)	1.950	0.026	66
Acid Soluble Mg (2%)	0.3525	0.0069	40
Total S (2%)	7.652	0.272	32
Acid Soluble Cu (4%)	3.390	0.046	49
Acid Soluble Fe (35%)	22.80	1.85	41
Acid Soluble Mn (0.5%)	0.2084	0.0041	39
Acid Soluble Zn (7%)	6.374	0.107	49

1. Data obtained from participant results in the Magruder Check Sample Program.
2. Guaranteed concentrations noted by the value preceding the unit in Analyte name.
3. Values are robust means. Uncertainty determined as $1.25 \times \text{robust standard deviation} / \sqrt{\text{\#Labs}}$.
Results only shown for analytes tested by 16 or more labs. Values and uncertainties for analytes tested by less than 16 labs are available in Analyte Reports.