



Magruder Certificate of Analysis

Magruder Sample #180111 Secondary & Micronutrients

Analyte	Value	± Standard Uncertainty	# Labs
Acid Soluble Calcium (18%)	18.87	0.19	63
Total Sulfur (16%)	16.34	0.16	49
Acid Soluble Boron (0.5%)	0.5058	0.0072	52
Acid Soluble Cadmium (ppm)	0.3151	0.0338	16
Acid Soluble Chromium (ppm)	16.00	1.49	24
Acid Soluble Cobalt (ppm)	1.868	0.174	23
Acid Soluble Copper (%)	0.00110	0.00040	19
Acid Soluble Lead (ppm)	1.572	0.214	16
Acid Soluble Molybdenum (ppm)	2.285	0.413	19
Acid Soluble Nickel (ppm)	4.663	0.172	24
Acid Soluble Zinc (1.5%)	1.519	0.014	63

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. Standard 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.
4. Technical information on Certificate of Analysis available at www.magruderchecksample.org/prod/Articles.html