



Magruder Certificate of Analysis

Magruder Sample #211111 5-2-0 Organic

Analyte	Value	± Standard Uncertainty	# Labs
Total N (5%)	5.167	0.020	81
Total P2O5 (%)	4.451	0.10	43
Direct Available P2O5 (2%)	3.467	0.222	39
Acid Soluble Cd (ppm)	1.996	0.130	23
Acid Soluble Cr (ppm)	52.73	2.29	23
Acid Soluble Co (ppm)	8.220	0.640	18
Acid Soluble Cu (%)	0.02621	0.00065	36
Acid Soluble Fe (%)	2.504	0.046	17
Acid Soluble Pb (ppm)	34.94	2	23
Acid Soluble Mn (%)	0.1179	0.0038	17
Acid Soluble Mo (ppm)	9.353	0.836	20
Acid Soluble Ni (ppm)	24.30	0.9	23
Acid Soluble Zn (%)	0.1478	0.0031	34

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