



Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 15

Sample # 250631

Nitrogen Select PT Scheme

Labs Reporting: 9

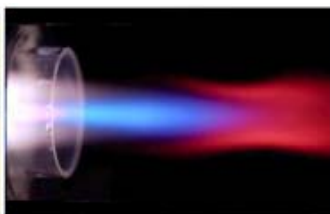
32-0-0 UAN

Statistical Summary

Issue Date : 07/31/2025

Analyte Code	Analyte Sample # 250631	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal N (%)	3	3	8.100	0.7108	8.100		0.7108	0.5130	8.78%		0.0500	2.92%
002	Nitrate N (%)	1		7.410									
005	Urea N (%)	1		17.57									
007	Urea (%)	1		17.83									
008	Biuret (%)	1		0.7250									
010	Total N (32%)	9	9	32.12	0.8058	32.20	0.8800	0.7257	0.3024	2.25%	1.92	0.2219	1.76%
151	Acid Soluble As (ppm)	2	0	0.5000	0.0000								
181	Acid Soluble Cd (ppm)	2	0	0.1000	0.0000								
191	Acid Soluble Cr (ppm)	2	2	0.3750	0.1061								
202	Acid Soluble Co (ppm)	2	0	0.1000	0.0000								
251	Acid Soluble Pb (ppm)	2	2	0.3500	0.0707								
281	Acid Soluble Hg (ppm)	1		0.0100									
289	Acid Soluble Mo (ppm)	2	2	1.875	0.1061								
291	Acid Soluble Ni (ppm)	2	2	0.2750	0.1061								
301	Acid Soluble Se (ppm)	2	1	0.3500	0.0707								

The Analyte IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Analyte Assigned Value}$. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting. The Horwitz %RSD is calculated using the Thompson Modification, Analyst,2000,125,385-386.



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Lab Values

Issue Date : 07/31/2025

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
001	Ammoniacal N (%)	0594	7.410	0.0000	8.100	0.7108	0.0500	3	-0.97	001.99	0
001	Ammoniacal N (%)	0586	8.060	0.0400	8.100	0.7108	0.0500	3	-0.06	001.99	0
001	Ammoniacal N (%)	0220	8.830	0.0600	8.100	0.7108	0.0500	3	1.03	001.99	0
002	Nitrate N (%)	0594	7.410	0.0000				1		002.99	0
005	Urea N (%)	0594	17.57	0.0000				1		005.99	0
007	Urea (%)	0220	17.83	0.5000				1		007.20	0
008	Biuret (%)	0220	0.7250	0.0700				1		008.99	0
010	Total N (32%)	0309	30.70†	0.0900	32.20	0.7257	0.2219	9	-1.92	010.11	0
010	Total N (32%)	0494	30.76†	0.5000	32.20	0.7257	0.2219	9	-1.84	010.60	0
010	Total N (32%)	0220	32.22	0.0400	32.20	0.7257	0.2219	9	0.02	010.60	0
010	Total N (32%)	0594	32.40	0.0000	32.20	0.7257	0.2219	9	0.25	010.99	0
010	Total N (32%)	0561	32.44	0.0300	32.20	0.7257	0.2219	9	0.30	010.60	0
010	Total N (32%)	0586	32.52	0.2800	32.20	0.7257	0.2219	9	0.40	010.60	0
010	Total N (32%)	0086	32.57	0.1720	32.20	0.7257	0.2219	9	0.47	010.60	0
010	Total N (32%)	0131	32.60	0.5630	32.20	0.7257	0.2219	9	0.50	010.60	0
010	Total N (32%)	0040	32.85	0.1000	32.20	0.7257	0.2219	9	0.82	010.60	0
151	Acid Soluble As (ppm)	0220	< 0.5					0		151.32	5
151	Acid Soluble As (ppm)	0220	< 0.5					0		151.99	5
181	Acid Soluble Cd (ppm)	0220	< 0.1					0		181.32	5
181	Acid Soluble Cd (ppm)	0220	< 0.1					0		181.99	5
191	Acid Soluble Cr (ppm)	0220	0.3000	0.0000				2		191.32	0
191	Acid Soluble Cr (ppm)	0220	0.4500	0.1000				2		191.99	0
202	Acid Soluble Co (ppm)	0220	< 0.1					0		202.32	5
202	Acid Soluble Co (ppm)	0220	< 0.1					0		202.99	5
251	Acid Soluble Pb (ppm)	0220	0.3000	0.2000				2		251.32	0
251	Acid Soluble Pb (ppm)	0220	0.4000	0.0000				2		251.99	0
281	Acid Soluble Hg (ppm)	0220	< 0.01					0		281.99	5
289	Acid Soluble Mo (ppm)	0220	1.800	0.0000				2		289.32	0
289	Acid Soluble Mo (ppm)	0220	1.950	0.3000				2		289.99	0
291	Acid Soluble Ni (ppm)	0220	0.2000	0.2000				2		291.32	0
291	Acid Soluble Ni (ppm)	0220	0.3500	0.1000				2		291.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
301	Acid Soluble Se (ppm)	0220	0.4000	0.0000				1		301.99	0
301	Acid Soluble Se (ppm)	0220	< 0.3					1		301.32	5

Interpreting Z Scores and Flags:

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated.

Notes:

*Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Identical duplicates not included in calculation of Rob R-bar. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.