

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 150111

Grade 18-46-0 (DAP)

Statistical Summary

Issue Date : 02/28/2015

Analyte Code	Analyte	Total # Labs Submitting	# Labs in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	15	15	17.47	0.3929	17.45		0.4118	0.0752	2.36%		0.0675	2.60%
009	Ammoniacal Plus Nitrate Nitrogen (%)	3	3	17.70	0.1769	17.70		0.1769	0.0722	1.00%		0.0833	2.60%
010	Total Nitrogen (18%)	67	66	17.72	0.3142	17.74	0.6961	0.2353	0.0205	1.33%	1.96%	0.0857	2.59%
020	Total Phosphorus as P2O5 (%)	46	44	46.54	0.5696	46.55		0.5391	0.0575	1.16%		0.2099	2.24%
030	Citrate Insoluble Phosphorus as P2O5 (%)	3	3	0.0633	0.0226	0.0633		0.0225	0.0092	35.60%		0.0133	6.06%
040	Indirect Available Phosphorus as P2O5 (46%)	4	4	46.65	0.1841	46.65	1.0097	0.1841	0.0651	0.39%	1.08%	0.0675	2.24%
041	Direct Available Phosphorus as P2O5 (46%)	37	36	46.38	1.426	46.55	1.0083	0.7703	0.0908	1.65%	1.08%	0.2989	2.24%
048	Water Soluble Phosphorus as P2O5 (%)	3	3	43.02	0.6917	43.02		0.6917	0.2824	1.61%		0.1500	2.27%
050	Soluble Potassium as K2O (%)	14	14	0.3294	0.4149	0.2191	0.4100	0.0414	0.0078	18.89%	93.57%	0.0606	5.03%
060	Water (%)	7	6	1.152	0.1857	1.197		0.1022	0.0295	8.54%		0.0121	3.89%
101	Acid Soluble Calcium (%)	13	12	0.4358	0.1105	0.4380		0.0303	0.0062	6.92%		0.0114	4.53%
121	Acid Soluble Magnesium (%)	13	13	1.099	0.0957	1.086		0.0402	0.0079	3.70%		0.0192	3.95%
131	Water Soluble Magnesium (%)	1		1.530									
144	Sulfur (%)	11	10	2.172	0.1672	2.143		0.0920	0.0206	4.29%		0.0118	3.57%
151	Acid Soluble Arsenic (ppm)	7	7	2.286	1.106	2.090		0.8848	0.2365	42.33%		0.0586	14.32%
165	Acid Soluble Boron (%)	4	4	0.0205	0.0115	0.0205		0.0114	0.0040	55.94%		0.0011	7.18%
181	Acid Soluble Cadmium (ppm)	18	17	27.16	7.941	29.28		2.896	0.4967	9.89%		0.3448	9.62%
191	Acid Soluble Chromium (ppm)	13	13	231.4	25.59	236.8		13.29	2.607	5.61%		6.833	7.03%
202	Acid Soluble Cobalt (ppm)	4	4	1.429	0.5145	1.429		0.5144	0.1819	36.00%		0.0330	15.16%
221	Acid Soluble Copper (%)	6	3	1.572	0.6929	1.572		0.6929	0.2829	44.09%		0.1767	3.74%
241	Acid Soluble Iron (%)	14	14	0.6278	0.0406	0.6279		0.0306	0.0058	4.87%		0.0082	4.29%
251	Acid Soluble Lead (ppm)	5	5	3.681	3.659	3.681		3.659	1.157	99.40%		0.5220	13.15%
261	Acid Soluble Manganese (%)	12	11	0.0057	0.0017	0.0052		0.0005	0.0001	8.97%		0.0001	8.81%
281	Acid Soluble Mercury (ppm)	1		189.5									
289	Acid Soluble Molybdenum (ppm)	9	9	3.857	1.382	3.960		1.319	0.3110	33.31%		0.3200	13.00%
291	Acid Soluble Nickel (ppm)	16	16	20.72	3.600	20.69		2.266	0.4007	10.95%		0.6459	10.14%
301	Acid Soluble Selenium (ppm)	1		0.0296									
311	Sodium (%)	7	7	0.2247	0.0219	0.2231		0.0212	0.0057	9.49%		0.0037	5.01%
321	Acid Soluble Zinc (%)	24	23	0.0417	0.0062	0.0415		0.0030	0.0004	7.23%		0.0005	6.46%

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Sample # 150111

Lab Values

Grade 18-46-0 (DAP)

Issue Date : 02/28/2015

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0444	16.97	0.0000	17.45	0.4118	0.0675	15	-1.17	001.10	0
001	Ammoniacal Nitrogen (%)	0258	17.01	0.0300	17.45	0.4118	0.0675	15	-1.08	001.10	0
001	Ammoniacal Nitrogen (%)	0420	17.05	0.0700	17.45	0.4118	0.0675	15	-0.99	001.99	0
001	Ammoniacal Nitrogen (%)	0487	17.14	0.0000	17.45	0.4118	0.0675	15	-0.76	001.99	0
001	Ammoniacal Nitrogen (%)	0456	17.17	0.0200	17.45	0.4118	0.0675	15	-0.68	001.10	0
001	Ammoniacal Nitrogen (%)	0027	17.27	0.1700	17.45	0.4118	0.0675	15	-0.45	001.99	0
001	Ammoniacal Nitrogen (%)	0397	17.39	0.0900	17.45	0.4118	0.0675	15	-0.16	001.99	0
001	Ammoniacal Nitrogen (%)	0169	17.42	0.1800	17.45	0.4118	0.0675	15	-0.08	001.10	0
001	Ammoniacal Nitrogen (%)	0090	17.50	0.0000	17.45	0.4118	0.0675	15	0.12	001.10	0
001	Ammoniacal Nitrogen (%)	0500	17.50	0.0000	17.45	0.4118	0.0675	15	0.12	001.99	0
001	Ammoniacal Nitrogen (%)	0416	17.60	0.0000	17.45	0.4118	0.0675	15	0.36	001.10	0
001	Ammoniacal Nitrogen (%)	0096	17.79	0.0400	17.45	0.4118	0.0675	15	0.82	001.99	0
001	Ammoniacal Nitrogen (%)	0510	17.89	0.0400	17.45	0.4118	0.0675	15	1.07	001.99	0
001	Ammoniacal Nitrogen (%)	0506	18.05	0.1000	17.45	0.4118	0.0675	15	1.45	001.99	0
001	Ammoniacal Nitrogen (%)	0307	18.26	0.2720	17.45	0.4118	0.0675	15	1.97	001.99	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0090	17.56	0.0800	17.70	0.1769	0.0833	3	-0.80	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0444	17.65	0.0700	17.70	0.1769	0.0833	3	-0.32	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0497	17.90	0.1000	17.70	0.1769	0.0833	3	1.12	009.10	0
010	Total Nitrogen (18%)	0415	16.58*	0.0000	17.74	0.2353	0.0857	66	-4.96	010.11	0
010	Total Nitrogen (18%)	0102	16.85*	0.1000	17.74	0.2353	0.0857	66	-3.79	010.60	0
010	Total Nitrogen (18%)	0498	17.00*	0.2000	17.74	0.2353	0.0857	66	-3.15	010.12	0
010	Total Nitrogen (18%)	0309	17.04*	0.0000	17.74	0.2353	0.0857	66	-2.98	010.11	0
010	Total Nitrogen (18%)	0049	17.17	0.0000	17.74	0.2353	0.0857	66	-2.43	010.60	0
010	Total Nitrogen (18%)	0444	17.42	0.0300	17.74	0.2353	0.0857	66	-1.38	010.60	0
010	Total Nitrogen (18%)	0455	17.45	0.1000	17.74	0.2353	0.0857	66	-1.24	010.11	0
010	Total Nitrogen (18%)	0157	17.45	0.1000	17.74	0.2353	0.0857	66	-1.24	010.60	0
010	Total Nitrogen (18%)	0402	17.45	0.3000	17.74	0.2353	0.0857	66	-1.24	010.60	0
010	Total Nitrogen (18%)	0095	17.46	0.3300	17.74	0.2353	0.0857	66	-1.21	010.60	0
010	Total Nitrogen (18%)	0356	17.47	0.0800	17.74	0.2353	0.0857	66	-1.15	010.60	0
010	Total Nitrogen (18%)	0114	17.49	0.0100	17.74	0.2353	0.0857	66	-1.09	010.11	0
010	Total Nitrogen (18%)	0211	17.53	0.0300	17.74	0.2353	0.0857	66	-0.92	010.11	0
010	Total Nitrogen (18%)	0489	17.54	0.0100	17.74	0.2353	0.0857	66	-0.87	010.60	0
010	Total Nitrogen (18%)	0474	17.57	0.0300	17.74	0.2353	0.0857	66	-0.75	010.11	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (18%)	0137	17.57	0.1200	17.74	0.2353	0.0857	66	-0.73	010.11	0
010	Total Nitrogen (18%)	0420	17.59	0.1100	17.74	0.2353	0.0857	66	-0.66	010.99	0
010	Total Nitrogen (18%)	0086	17.59	0.2210	17.74	0.2353	0.0857	66	-0.66	010.60	0
010	Total Nitrogen (18%)	0325	17.60	0.0000	17.74	0.2353	0.0857	66	-0.60	010.60	0
010	Total Nitrogen (18%)	0390	17.60	0.2000	17.74	0.2353	0.0857	66	-0.60	010.60	0
010	Total Nitrogen (18%)	0500	17.60	0.0000	17.74	0.2353	0.0857	66	-0.60	010.99	0
010	Total Nitrogen (18%)	0423	17.64	0.1300	17.74	0.2353	0.0857	66	-0.45	010.60	0
010	Total Nitrogen (18%)	0105	17.68	0.0200	17.74	0.2353	0.0857	66	-0.26	010.11	0
010	Total Nitrogen (18%)	0247	17.70	0.0100	17.74	0.2353	0.0857	66	-0.19	010.60	0
010	Total Nitrogen (18%)	0007	17.70	0.0000	17.74	0.2353	0.0857	66	-0.17	010.60	0
010	Total Nitrogen (18%)	0028	17.70	0.1400	17.74	0.2353	0.0857	66	-0.17	010.60	0
010	Total Nitrogen (18%)	0443	17.70	0.0000	17.74	0.2353	0.0857	66	-0.17	010.60	0
010	Total Nitrogen (18%)	0405	17.71	0.0700	17.74	0.2353	0.0857	66	-0.15	010.60	0
010	Total Nitrogen (18%)	0371	17.72	0.0800	17.74	0.2353	0.0857	66	-0.09	010.11	0
010	Total Nitrogen (18%)	0043	17.74	0.0300	17.74	0.2353	0.0857	66	-0.02	010.60	0
010	Total Nitrogen (18%)	0105	17.75	0.0100	17.74	0.2353	0.0857	66	0.02	010.60	0
010	Total Nitrogen (18%)	0482	17.75	0.3000	17.74	0.2353	0.0857	66	0.04	010.60	0
010	Total Nitrogen (18%)	0377	17.76	0.1800	17.74	0.2353	0.0857	66	0.08	010.60	0
010	Total Nitrogen (18%)	0292	17.79	0.0100	17.74	0.2353	0.0857	66	0.19	010.60	0
010	Total Nitrogen (18%)	0300	17.79	0.2100	17.74	0.2353	0.0857	66	0.19	010.99	0
010	Total Nitrogen (18%)	0035	17.79	0.0400	17.74	0.2353	0.0857	66	0.21	010.60	0
010	Total Nitrogen (18%)	0230	17.80	0.2000	17.74	0.2353	0.0857	66	0.25	010.60	0
010	Total Nitrogen (18%)	0324	17.80	0.2000	17.74	0.2353	0.0857	66	0.25	010.60	0
010	Total Nitrogen (18%)	0493	17.80	0.1000	17.74	0.2353	0.0857	66	0.25	010.99	0
010	Total Nitrogen (18%)	0494	17.81	0.0400	17.74	0.2353	0.0857	66	0.29	010.60	0
010	Total Nitrogen (18%)	0233	17.82	0.0200	17.74	0.2353	0.0857	66	0.34	010.60	0
010	Total Nitrogen (18%)	0504	17.82	0.1000	17.74	0.2353	0.0857	66	0.34	010.99	0
010	Total Nitrogen (18%)	0470	17.83	0.0100	17.74	0.2353	0.0857	66	0.36	010.11	0
010	Total Nitrogen (18%)	0360	17.83	0.0600	17.74	0.2353	0.0857	66	0.38	010.60	0
010	Total Nitrogen (18%)	0483	17.84	0.0100	17.74	0.2353	0.0857	66	0.40	010.60	0
010	Total Nitrogen (18%)	0096	17.84	0.0200	17.74	0.2353	0.0857	66	0.42	010.60	0
010	Total Nitrogen (18%)	0504	17.85	0.0100	17.74	0.2353	0.0857	66	0.44	010.12	0
010	Total Nitrogen (18%)	0451	17.85	0.2200	17.74	0.2353	0.0857	66	0.46	010.60	0
010	Total Nitrogen (18%)	0368	17.88	0.0600	17.74	0.2353	0.0857	66	0.59	010.60	0
010	Total Nitrogen (18%)	0029	17.90	0.2800	17.74	0.2353	0.0857	66	0.68	010.60	0
010	Total Nitrogen (18%)	0481	17.91	0.0900	17.74	0.2353	0.0857	66	0.70	010.12	0
010	Total Nitrogen (18%)	0291	17.92	0.0100	17.74	0.2353	0.0857	66	0.74	010.60	0
010	Total Nitrogen (18%)	0023	17.94	0.0080	17.74	0.2353	0.0857	66	0.85	010.60	0
010	Total Nitrogen (18%)	0452	17.95	0.0100	17.74	0.2353	0.0857	66	0.87	010.60	0
010	Total Nitrogen (18%)	0117	17.95	0.1000	17.74	0.2353	0.0857	66	0.89	010.17	0
010	Total Nitrogen (18%)	0040	17.95	0.1000	17.74	0.2353	0.0857	66	0.89	010.60	0
010	Total Nitrogen (18%)	0025	17.96	0.0500	17.74	0.2353	0.0857	66	0.91	010.60	0
010	Total Nitrogen (18%)	0485	17.99	0.1100	17.74	0.2353	0.0857	66	1.04	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (18%)	0354	18.03	0.1930	17.74	0.2353	0.0857	66	1.22	010.60	0
010	Total Nitrogen (18%)	0055	18.04	0.0100	17.74	0.2353	0.0857	66	1.25	010.60	0
010	Total Nitrogen (18%)	0136	18.04	0.0300	17.74	0.2353	0.0857	66	1.25	010.60	0
010	Total Nitrogen (18%)	0506	18.05	0.1000	17.74	0.2353	0.0857	66	1.31	010.99	0
010	Total Nitrogen (18%)	0510	18.15	0.2200	17.74	0.2353	0.0857	66	1.74	010.11	0
010	Total Nitrogen (18%)	0472	18.17	0.0200	17.74	0.2353	0.0857	66	1.82	010.60	0
010	Total Nitrogen (18%)	0351	18.21	0.0740	17.74	0.2353	0.0857	66	1.98	010.60	0
010	Total Nitrogen (18%)	0487	18.57	0.0000	17.74	0.2353	0.0857	66	3.52	010.99	0
010	Total Nitrogen (18%)	0162	18.19	0.5720	17.74	0.2353	0.0857	66	1.90	010.60	1
020	Total Phosphorus as P2O5 (%)	0402	45.16	0.3000	46.55	0.5391	0.2099	44	-2.58	020.50	0
020	Total Phosphorus as P2O5 (%)	0455	45.38	0.1600	46.55	0.5391	0.2099	44	-2.18	020.99	0
020	Total Phosphorus as P2O5 (%)	0309	45.41	0.0000	46.55	0.5391	0.2099	44	-2.12	020.20	0
020	Total Phosphorus as P2O5 (%)	0322	45.80	0.0230	46.55	0.5391	0.2099	44	-1.39	020.10	0
020	Total Phosphorus as P2O5 (%)	0420	45.83	0.1300	46.55	0.5391	0.2099	44	-1.35	020.20	0
020	Total Phosphorus as P2O5 (%)	0482	45.85	0.1000	46.55	0.5391	0.2099	44	-1.30	020.50	0
020	Total Phosphorus as P2O5 (%)	0025	45.90	0.2000	46.55	0.5391	0.2099	44	-1.21	020.50	0
020	Total Phosphorus as P2O5 (%)	0371	46.03	0.0700	46.55	0.5391	0.2099	44	-0.98	020.20	0
020	Total Phosphorus as P2O5 (%)	0389	46.03	0.2200	46.55	0.5391	0.2099	44	-0.97	020.50	0
020	Total Phosphorus as P2O5 (%)	0307	46.09	0.8520	46.55	0.5391	0.2099	44	-0.86	020.50	0
020	Total Phosphorus as P2O5 (%)	0451	46.22	0.5900	46.55	0.5391	0.2099	44	-0.63	020.50	0
020	Total Phosphorus as P2O5 (%)	0472	46.22	0.1300	46.55	0.5391	0.2099	44	-0.63	020.50	0
020	Total Phosphorus as P2O5 (%)	0481	46.25	0.3000	46.55	0.5391	0.2099	44	-0.56	020.20	0
020	Total Phosphorus as P2O5 (%)	0474	46.28	0.2500	46.55	0.5391	0.2099	44	-0.52	020.20	0
020	Total Phosphorus as P2O5 (%)	0035	46.30	0.0600	46.55	0.5391	0.2099	44	-0.47	020.40	0
020	Total Phosphorus as P2O5 (%)	0356	46.34	0.0100	46.55	0.5391	0.2099	44	-0.40	020.20	0
020	Total Phosphorus as P2O5 (%)	0456	46.38	0.0900	46.55	0.5391	0.2099	44	-0.33	020.40	0
020	Total Phosphorus as P2O5 (%)	0405	46.46	0.0400	46.55	0.5391	0.2099	44	-0.17	020.20	0
020	Total Phosphorus as P2O5 (%)	0510	46.48	0.0800	46.55	0.5391	0.2099	44	-0.14	020.20	0
020	Total Phosphorus as P2O5 (%)	0506	46.50	0.2000	46.55	0.5391	0.2099	44	-0.10	020.20	0
020	Total Phosphorus as P2O5 (%)	0487	46.55	0.0600	46.55	0.5391	0.2099	44	-0.01	020.99	0
020	Total Phosphorus as P2O5 (%)	0169	46.56	0.0800	46.55	0.5391	0.2099	44	0.01	020.20	0
020	Total Phosphorus as P2O5 (%)	0444	46.58	0.3600	46.55	0.5391	0.2099	44	0.05	020.10	0
020	Total Phosphorus as P2O5 (%)	0500	46.60	0.2000	46.55	0.5391	0.2099	44	0.09	020.99	0
020	Total Phosphorus as P2O5 (%)	0324	46.70	0.4000	46.55	0.5391	0.2099	44	0.27	020.20	0
020	Total Phosphorus as P2O5 (%)	0096	46.74	0.0900	46.55	0.5391	0.2099	44	0.34	020.40	0
020	Total Phosphorus as P2O5 (%)	0470	46.77	0.0300	46.55	0.5391	0.2099	44	0.39	020.40	0
020	Total Phosphorus as P2O5 (%)	0470	46.81	0.0100	46.55	0.5391	0.2099	44	0.47	020.10	0
020	Total Phosphorus as P2O5 (%)	0247	46.82	0.0800	46.55	0.5391	0.2099	44	0.49	020.50	0
020	Total Phosphorus as P2O5 (%)	0416	46.85	0.1000	46.55	0.5391	0.2099	44	0.55	020.20	0
020	Total Phosphorus as P2O5 (%)	0105	46.91	0.1700	46.55	0.5391	0.2099	44	0.65	020.40	0
020	Total Phosphorus as P2O5 (%)	0247	46.91	0.0200	46.55	0.5391	0.2099	44	0.66	020.40	0
020	Total Phosphorus as P2O5 (%)	0489	46.92	0.0400	46.55	0.5391	0.2099	44	0.68	020.20	0
020	Total Phosphorus as P2O5 (%)	0493	46.95	0.1000	46.55	0.5391	0.2099	44	0.74	020.10	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total Phosphorus as P2O5 (%)	0090	46.99	0.1300	46.55	0.5391	0.2099	44	0.80	020.10	0
020	Total Phosphorus as P2O5 (%)	0258	46.99	1.550	46.55	0.5391	0.2099	44	0.80	020.20	0
020	Total Phosphorus as P2O5 (%)	0211	47.01	0.0200	46.55	0.5391	0.2099	44	0.85	020.10	0
020	Total Phosphorus as P2O5 (%)	0292	47.03	0.0500	46.55	0.5391	0.2099	44	0.88	020.20	0
020	Total Phosphorus as P2O5 (%)	0497	47.04	0.9900	46.55	0.5391	0.2099	44	0.89	020.20	0
020	Total Phosphorus as P2O5 (%)	0105	47.05	0.0600	46.55	0.5391	0.2099	44	0.92	020.10	0
020	Total Phosphorus as P2O5 (%)	0157	47.25	0.1000	46.55	0.5391	0.2099	44	1.29	020.10	0
020	Total Phosphorus as P2O5 (%)	0368	47.37	0.1700	46.55	0.5391	0.2099	44	1.51	020.50	0
020	Total Phosphorus as P2O5 (%)	0291	47.42	0.0200	46.55	0.5391	0.2099	44	1.61	020.50	0
020	Total Phosphorus as P2O5 (%)	0027	47.95	0.6000	46.55	0.5391	0.2099	44	2.59	020.20	0
020	Total Phosphorus as P2O5 (%)	0390	44.00	2.800	46.55	0.5391	0.2099	44	-4.74	020.50	1
020	Total Phosphorus as P2O5 (%)	0483	46.98	3.210	46.55	0.5391	0.2099	44	0.78	020.50	1
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	0.0400	0.0200	0.0633	0.0225	0.0133	3	-1.03	030.40	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0405	0.0650	0.0100	0.0633	0.0225	0.0133	3	0.07	030.20	0
030	Citrate Insoluble Phosphorus as P2O5 (%)	0247	0.0850	0.0100	0.0633	0.0225	0.0133	3	0.96	030.50	0
040	Indirect Available Phosphorus as P2O5 (46%)	0405	46.38	0.0700	46.65	0.1841	0.0675	4	-1.47	040.20	0
040	Indirect Available Phosphorus as P2O5 (46%)	0096	46.70	0.1100	46.65	0.1841	0.0675	4	0.26	040.40	0
040	Indirect Available Phosphorus as P2O5 (46%)	0247	46.74	0.0700	46.65	0.1841	0.0675	4	0.48	040.50	0
040	Indirect Available Phosphorus as P2O5 (46%)	0247	46.78	0.0200	46.65	0.1841	0.0675	4	0.73	040.40	0
041	Direct Available Phosphorus as P2O5 (46%)	0472	40.40*	1.600	46.55	0.7703	0.2989	36	-7.99	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0368	43.58*	0.3300	46.55	0.7703	0.2989	36	-3.86	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0325	44.75*	1.500	46.55	0.7703	0.2989	36	-2.34	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0504	45.03*	0.1200	46.55	0.7703	0.2989	36	-1.98	041.20	0
041	Direct Available Phosphorus as P2O5 (46%)	0007	45.45*	0.9000	46.55	0.7703	0.2989	36	-1.43	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0043	45.62	0.1400	46.55	0.7703	0.2989	36	-1.21	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0354	45.69	0.0110	46.55	0.7703	0.2989	36	-1.11	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0397	45.81	0.0900	46.55	0.7703	0.2989	36	-0.97	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0095	46.00	0.0900	46.55	0.7703	0.2989	36	-0.72	041.40	0
041	Direct Available Phosphorus as P2O5 (46%)	0055	46.01	0.0100	46.55	0.7703	0.2989	36	-0.71	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0506	46.15	0.1000	46.55	0.7703	0.2989	36	-0.52	041.99	0
041	Direct Available Phosphorus as P2O5 (46%)	0043	46.26	0.1200	46.55	0.7703	0.2989	36	-0.38	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0360	46.29	0.6500	46.55	0.7703	0.2989	36	-0.35	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0049	46.42	0.2700	46.55	0.7703	0.2989	36	-0.18	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0055	46.43	0.1300	46.55	0.7703	0.2989	36	-0.16	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0185	46.53	0.2300	46.55	0.7703	0.2989	36	-0.03	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0137	46.54	0.1700	46.55	0.7703	0.2989	36	-0.02	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0377	46.60	0.2000	46.55	0.7703	0.2989	36	0.06	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0029	46.62	0.6300	46.55	0.7703	0.2989	36	0.08	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0086	46.62	0.1220	46.55	0.7703	0.2989	36	0.09	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0105	46.63	0.2800	46.55	0.7703	0.2989	36	0.10	041.99	0
041	Direct Available Phosphorus as P2O5 (46%)	0105	46.69	0.0500	46.55	0.7703	0.2989	36	0.17	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0041	46.72	0.1200	46.55	0.7703	0.2989	36	0.22	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0105	46.75	0.1300	46.55	0.7703	0.2989	36	0.25	041.10	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041	Direct Available Phosphorus as P2O5 (46%)	0040	46.80	0.2000	46.55	0.7703	0.2989	36	0.32	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0485	46.84	0.2100	46.55	0.7703	0.2989	36	0.37	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0102	47.00	0.0000	46.55	0.7703	0.2989	36	0.58	041.10	0
041	Direct Available Phosphorus as P2O5 (46%)	0117	47.00	0.2000	46.55	0.7703	0.2989	36	0.58	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0136	47.08	0.1200	46.55	0.7703	0.2989	36	0.69	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0452	47.24	0.0200	46.55	0.7703	0.2989	36	0.89	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0023	47.53	0.0000	46.55	0.7703	0.2989	36	1.27	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0423	47.62	0.2300	46.55	0.7703	0.2989	36	1.38	041.50	0
041	Direct Available Phosphorus as P2O5 (46%)	0027	47.90	0.5900	46.55	0.7703	0.2989	36	1.74	041.20	0
041	Direct Available Phosphorus as P2O5 (46%)	0498	47.95	0.5000	46.55	0.7703	0.2989	36	1.82	041.20	0
041	Direct Available Phosphorus as P2O5 (46%)	0034	48.54	0.5980	46.55	0.7703	0.2989	36	2.58	041.60	0
041	Direct Available Phosphorus as P2O5 (46%)	0230	48.65	0.1000	46.55	0.7703	0.2989	36	2.72	041.99	0
041	Direct Available Phosphorus as P2O5 (46%)	0494	51.63	10.09	46.55	0.7703	0.2989	36	6.59	041.60	1
048	Water Soluble Phosphorus as P2O5 (%)	0420	42.30	0.3800	43.02	0.6917	0.1500	3	-1.04	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	43.08	0.0300	43.02	0.6917	0.1500	3	0.08	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0247	43.68	0.0400	43.02	0.6917	0.1500	3	0.96	048.99	0
050	Soluble Potassium as K2O (%)	0185	0.0810	0.1380	0.2191	0.0414	0.0606	14	-3.34	050.30	0
050	Soluble Potassium as K2O (%)	0292	0.1900	0.0000	0.2191	0.0414	0.0606	14	-0.70	050.50	0
050	Soluble Potassium as K2O (%)	0096	0.1900	0.0000	0.2191	0.0414	0.0606	14	-0.70	050.51	0
050	Soluble Potassium as K2O (%)	0389	0.1900	0.0060	0.2191	0.0414	0.0606	14	-0.70	050.51	0
050	Soluble Potassium as K2O (%)	0474	0.1900	0.0000	0.2191	0.0414	0.0606	14	-0.70	050.99	0
050	Soluble Potassium as K2O (%)	0354	0.1920	0.0440	0.2191	0.0414	0.0606	14	-0.65	050.51	0
050	Soluble Potassium as K2O (%)	0482	0.2000	0.0400	0.2191	0.0414	0.0606	14	-0.46	050.99	0
050	Soluble Potassium as K2O (%)	0105	0.2300	0.0600	0.2191	0.0414	0.0606	14	0.26	050.61	0
050	Soluble Potassium as K2O (%)	0325	0.2300	0.2200	0.2191	0.0414	0.0606	14	0.26	050.99	0
050	Soluble Potassium as K2O (%)	0420	0.2390	0.0000	0.2191	0.0414	0.0606	14	0.48	050.50	0
050	Soluble Potassium as K2O (%)	0105	0.2450	0.0900	0.2191	0.0414	0.0606	14	0.63	050.99	0
050	Soluble Potassium as K2O (%)	0377	0.2750	0.0500	0.2191	0.0414	0.0606	14	1.35	050.51	0
050	Soluble Potassium as K2O (%)	0472	0.4100	0.0400	0.2191	0.0414	0.0606	14	4.61	050.31	0
050	Soluble Potassium as K2O (%)	0510	1.750	0.1600	0.2191	0.0414	0.0606	14	36.99	050.60	0
060	Water (Free) (%)	0504	0.7950	0.0100	1.197	0.1022	0.0121	6	-3.93	060.20	0
060	Water (Free) (%)	0510	1.135	0.0300	1.197	0.1022	0.0121	6	-0.61	060.10	0
060	Water (Free) (%)	0504	1.195	0.0100	1.197	0.1022	0.0121	6	-0.02	060.99	0
060	Water (Free) (%)	0247	1.210	0.0000	1.197	0.1022	0.0121	6	0.13	060.00	0
060	Water (Free) (%)	0456	1.260	0.0200	1.197	0.1022	0.0121	6	0.62	060.00	0
060	Water (Free) (%)	0416	1.319	0.0023	1.197	0.1022	0.0121	6	1.19	060.00	0
060	Water (Free) (%)	0096	1.375	0.1900	1.197	0.1022	0.0121	6	1.74	060.00	1
101	Acid Soluble Calcium (%)	0105	0.1927	0.0066	0.4380	0.0303	0.0114	12	-8.09	101.00	0
101	Acid Soluble Calcium (%)	0474	0.3400	0.0400	0.4380	0.0303	0.0114	12	-3.23	101.30	0
101	Acid Soluble Calcium (%)	0389	0.4200	0.0000	0.4380	0.0303	0.0114	12	-0.59	101.30	0
101	Acid Soluble Calcium (%)	0102	0.4205	0.0010	0.4380	0.0303	0.0114	12	-0.58	101.30	0
101	Acid Soluble Calcium (%)	0482	0.4250	0.0100	0.4380	0.0303	0.0114	12	-0.43	101.30	0
101	Acid Soluble Calcium (%)	0354	0.4360	0.0040	0.4380	0.0303	0.0114	12	-0.07	101.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101	Acid Soluble Calcium (%)	0472	0.4400	0.0400	0.4380	0.0303	0.0114	12	0.07	101.30	0
101	Acid Soluble Calcium (%)	0247	0.4500	0.0000	0.4380	0.0303	0.0114	12	0.40	101.99	0
101	Acid Soluble Calcium (%)	0390	0.4550	0.0080	0.4380	0.0303	0.0114	12	0.56	101.30	0
101	Acid Soluble Calcium (%)	0420	0.4575	0.0030	0.4380	0.0303	0.0114	12	0.64	101.30	0
101	Acid Soluble Calcium (%)	0035	0.5170	0.0120	0.4380	0.0303	0.0114	12	2.61	101.30	0
101	Acid Soluble Calcium (%)	0025	0.6760	0.0120	0.4380	0.0303	0.0114	12	7.85	101.30	0
101	Acid Soluble Calcium (%)	0041	0.5550	0.1700	0.4380	0.0303	0.0114	12	3.86	101.30	1
121	Acid Soluble Magnesium (%)	0354	0.9435	0.0150	1.086	0.0402	0.0192	13	-3.54	121.30	0
121	Acid Soluble Magnesium (%)	0474	1.010	0.0000	1.086	0.0402	0.0192	13	-1.89	121.30	0
121	Acid Soluble Magnesium (%)	0420	1.050	0.0200	1.086	0.0402	0.0192	13	-0.89	121.30	0
121	Acid Soluble Magnesium (%)	0102	1.062	0.0040	1.086	0.0402	0.0192	13	-0.59	121.30	0
121	Acid Soluble Magnesium (%)	0105	1.075	0.0200	1.086	0.0402	0.0192	13	-0.27	121.99	0
121	Acid Soluble Magnesium (%)	0096	1.075	0.0100	1.086	0.0402	0.0192	13	-0.27	121.30	0
121	Acid Soluble Magnesium (%)	0390	1.085	0.0300	1.086	0.0402	0.0192	13	-0.02	121.30	0
121	Acid Soluble Magnesium (%)	0035	1.100	0.0200	1.086	0.0402	0.0192	13	0.35	121.30	0
121	Acid Soluble Magnesium (%)	0247	1.100	0.0000	1.086	0.0402	0.0192	13	0.35	121.30	0
121	Acid Soluble Magnesium (%)	0482	1.100	0.0400	1.086	0.0402	0.0192	13	0.35	121.30	0
121	Acid Soluble Magnesium (%)	0105	1.130	0.0110	1.086	0.0402	0.0192	13	1.09	121.00	0
121	Acid Soluble Magnesium (%)	0041	1.205	0.0300	1.086	0.0402	0.0192	13	2.96	121.30	0
121	Acid Soluble Magnesium (%)	0472	1.345	0.0500	1.086	0.0402	0.0192	13	6.45	121.30	0
131	Water Soluble Magnesium (%)	0510	1.530	0.0800			0.0800	1			
144	Sulfur (%)	0354	1.985	0.0060	2.143	0.0920	0.0118	10	-1.71	144.99	0
144	Sulfur (%)	0096	2.070	0.0200	2.143	0.0920	0.0118	10	-0.79	144.99	0
144	Sulfur (%)	0482	2.075	0.0300	2.143	0.0920	0.0118	10	-0.73	144.99	0
144	Sulfur (%)	0390	2.100	0.0000	2.143	0.0920	0.0118	10	-0.46	144.99	0
144	Sulfur (%)	0102	2.144	0.0110	2.143	0.0920	0.0118	10	0.01	144.99	0
144	Sulfur (%)	0247	2.155	0.0100	2.143	0.0920	0.0118	10	0.13	144.99	0
144	Sulfur (%)	0474	2.165	0.0100	2.143	0.0920	0.0118	10	0.24	144.70	0
144	Sulfur (%)	0472	2.190	0.0200	2.143	0.0920	0.0118	10	0.52	144.99	0
144	Sulfur (%)	0292	2.235	0.0100	2.143	0.0920	0.0118	10	1.00	144.02	0
144	Sulfur (%)	0233	2.604	0.0010	2.143	0.0920	0.0118	10	5.01	144.01	0
144	Sulfur (%)	0389	2.090	0.0600	2.143	0.0920	0.0118	10	-0.57	144.99	1
151	Acid Soluble Arsenic (ppm)	0025	1.375	0.0100	2.090	0.8848	0.0586	7	-0.81	151.00	0
151	Acid Soluble Arsenic (ppm)	0096	1.400	0.0000	2.090	0.8848	0.0586	7	-0.78	151.30	0
151	Acid Soluble Arsenic (ppm)	0136	1.550	0.1000	2.090	0.8848	0.0586	7	-0.61	151.00	0
151	Acid Soluble Arsenic (ppm)	0368	1.950	0.1000	2.090	0.8848	0.0586	7	-0.16	151.30	0
151	Acid Soluble Arsenic (ppm)	0498	2.010	0.1800	2.090	0.8848	0.0586	7	-0.09	151.00	0
151	Acid Soluble Arsenic (ppm)	0230	3.720	0.0200	2.090	0.8848	0.0586	7	1.84	151.30	0
151	Acid Soluble Arsenic (ppm)	0474	4.000	0.0000	2.090	0.8848	0.0586	7	2.16	151.30	0
165	Acid Soluble Boron (%)	0482	0.0100	0.0000	0.0205	0.0114	0.0011	4	-0.91	165.99	0
165	Acid Soluble Boron (%)	0105	0.0154	0.0015	0.0205	0.0114	0.0011	4	-0.45	165.00	0
165	Acid Soluble Boron (%)	0389	0.0200	0.0020	0.0205	0.0114	0.0011	4	-0.04	165.99	0
165	Acid Soluble Boron (%)	0354	0.0365	0.0010	0.0205	0.0114	0.0011	4	1.40	165.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181	Acid Soluble Cadmium (ppm)	0498	0.2900	0.0800	29.28	2.896	0.3448	17	-10.01	181.00	0
181	Acid Soluble Cadmium (ppm)	0096	19.00	0.4000	29.28	2.896	0.3448	17	-3.55	181.30	0
181	Acid Soluble Cadmium (ppm)	0506	23.45	0.1000	29.28	2.896	0.3448	17	-2.01	181.00	0
181	Acid Soluble Cadmium (ppm)	0481	25.05	0.1000	29.28	2.896	0.3448	17	-1.46	181.30	0
181	Acid Soluble Cadmium (ppm)	0444	25.66	0.0800	29.28	2.896	0.3448	17	-1.25	181.30	0
181	Acid Soluble Cadmium (ppm)	0230	27.00	0.6000	29.28	2.896	0.3448	17	-0.79	181.30	0
181	Acid Soluble Cadmium (ppm)	0035	28.30	0.6000	29.28	2.896	0.3448	17	-0.34	181.30	0
181	Acid Soluble Cadmium (ppm)	0487	29.60	0.0000	29.28	2.896	0.3448	17	0.11	181.99	0
181	Acid Soluble Cadmium (ppm)	0009	30.00	0.0000	29.28	2.896	0.3448	17	0.25	181.30	0
181	Acid Soluble Cadmium (ppm)	0136	30.20	0.4000	29.28	2.896	0.3448	17	0.32	181.00	0
181	Acid Soluble Cadmium (ppm)	0095	30.50	1.000	29.28	2.896	0.3448	17	0.42	181.30	0
181	Acid Soluble Cadmium (ppm)	0504	30.53	1.310	29.28	2.896	0.3448	17	0.43	181.00	0
181	Acid Soluble Cadmium (ppm)	0474	31.00	0.0000	29.28	2.896	0.3448	17	0.59	181.30	0
181	Acid Soluble Cadmium (ppm)	0368	31.15	0.3000	29.28	2.896	0.3448	17	0.64	181.30	0
181	Acid Soluble Cadmium (ppm)	0102	31.50	0.1420	29.28	2.896	0.3448	17	0.76	181.30	0
181	Acid Soluble Cadmium (ppm)	0247	33.35	0.1000	29.28	2.896	0.3448	17	1.40	181.30	0
181	Acid Soluble Cadmium (ppm)	0117	35.23	0.6500	29.28	2.896	0.3448	17	2.05	181.30	0
181	Acid Soluble Cadmium (ppm)	0482	31.05	2.700	29.28	2.896	0.3448	17	0.61	181.30	1
191	Acid Soluble Chromium (ppm)	0506	155.5	1.000	236.8	13.29	6.833	13	-6.11	191.00	0
191	Acid Soluble Chromium (ppm)	0444	211.5	7.000	236.8	13.29	6.833	13	-1.90	191.30	0
191	Acid Soluble Chromium (ppm)	0230	218.5	5.000	236.8	13.29	6.833	13	-1.38	191.30	0
191	Acid Soluble Chromium (ppm)	0504	234.3	15.18	236.8	13.29	6.833	13	-0.18	191.00	0
191	Acid Soluble Chromium (ppm)	0482	234.5	19.00	236.8	13.29	6.833	13	-0.17	191.30	0
191	Acid Soluble Chromium (ppm)	0009	235.0	10.00	236.8	13.29	6.833	13	-0.14	191.30	0
191	Acid Soluble Chromium (ppm)	0247	237.5	3.000	236.8	13.29	6.833	13	0.05	191.30	0
191	Acid Soluble Chromium (ppm)	0102	243.7	1.646	236.8	13.29	6.833	13	0.52	191.30	0
191	Acid Soluble Chromium (ppm)	0481	245.0	10.00	236.8	13.29	6.833	13	0.62	191.00	0
191	Acid Soluble Chromium (ppm)	0368	246.0	4.000	236.8	13.29	6.833	13	0.69	191.30	0
191	Acid Soluble Chromium (ppm)	0474	247.0	4.000	236.8	13.29	6.833	13	0.77	191.30	0
191	Acid Soluble Chromium (ppm)	0096	249.5	3.000	236.8	13.29	6.833	13	0.96	191.30	0
191	Acid Soluble Chromium (ppm)	0035	250.0	6.000	236.8	13.29	6.833	13	0.99	191.30	0
202	Acid Soluble Cobalt (ppm)	0368	0.7500	0.1000	1.429	0.5144	0.0330	4	-1.32	202.30	0
202	Acid Soluble Cobalt (ppm)	0035	1.460	0.0200	1.429	0.5144	0.0330	4	0.06	202.30	0
202	Acid Soluble Cobalt (ppm)	0102	1.506	0.0120	1.429	0.5144	0.0330	4	0.15	202.30	0
202	Acid Soluble Cobalt (ppm)	0474	2.000	0.0000	1.429	0.5144	0.0330	4	1.11	202.30	0
221	Acid Soluble Copper (%)	0433	0.8650	0.0300	1.572	0.6929	0.1767	3	-1.02	221.30	0
221	Acid Soluble Copper (%)	0487	1.600	0.0000	1.572	0.6929	0.1767	3	0.04	221.99	0
221	Acid Soluble Copper (%)	0506	2.250	0.5000	1.572	0.6929	0.1767	3	0.98	221.99	0
221	Acid Soluble Copper (%)	0368	2.650	1.300	1.572	0.6929	0.1767	3	1.56	221.30	1
221	Acid Soluble Copper (%)	0354	0.0000	0.0000	1.572	0.6929	0.1767	3	-2.27	221.30	4
221	Acid Soluble Copper (%)	0041	0.0001	0.0002	1.572	0.6929	0.1767	3	-2.27	221.30	4
241	Acid Soluble Iron (%)	0354	0.5365	0.0030	0.6279	0.0306	0.0082	14	-2.99	241.30	0
241	Acid Soluble Iron (%)	0474	0.6000	0.0000	0.6279	0.0306	0.0082	14	-0.91	241.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241	Acid Soluble Iron (%)	0096	0.6050	0.0100	0.6279	0.0306	0.0082	14	-0.75	241.30	0
241	Acid Soluble Iron (%)	0247	0.6050	0.0100	0.6279	0.0306	0.0082	14	-0.75	241.30	0
241	Acid Soluble Iron (%)	0105	0.6055	0.0110	0.6279	0.0306	0.0082	14	-0.73	241.99	0
241	Acid Soluble Iron (%)	0105	0.6190	0.0060	0.6279	0.0306	0.0082	14	-0.29	241.00	0
241	Acid Soluble Iron (%)	0390	0.6190	0.0060	0.6279	0.0306	0.0082	14	-0.29	241.30	0
241	Acid Soluble Iron (%)	0102	0.6320	0.0080	0.6279	0.0306	0.0082	14	0.13	241.30	0
241	Acid Soluble Iron (%)	0389	0.6385	0.0050	0.6279	0.0306	0.0082	14	0.35	241.30	0
241	Acid Soluble Iron (%)	0482	0.6400	0.0000	0.6279	0.0306	0.0082	14	0.39	241.30	0
241	Acid Soluble Iron (%)	0035	0.6570	0.0200	0.6279	0.0306	0.0082	14	0.95	241.30	0
241	Acid Soluble Iron (%)	0041	0.6570	0.0140	0.6279	0.0306	0.0082	14	0.95	241.30	0
241	Acid Soluble Iron (%)	0472	0.6600	0.0200	0.6279	0.0306	0.0082	14	1.05	241.30	0
241	Acid Soluble Iron (%)	0420	0.7150	0.0020	0.6279	0.0306	0.0082	14	2.85	241.30	0
251	Acid Soluble Lead (ppm)	0136	1.000	0.2000	3.681	3.659	0.5220	5	-0.73	251.00	0
251	Acid Soluble Lead (ppm)	0474	1.000	0.0000	3.681	3.659	0.5220	5	-0.73	251.30	0
251	Acid Soluble Lead (ppm)	0095	3.000	0.0000	3.681	3.659	0.5220	5	-0.19	251.30	0
251	Acid Soluble Lead (ppm)	0506	3.505	0.0100	3.681	3.659	0.5220	5	-0.05	251.00	0
251	Acid Soluble Lead (ppm)	0247	9.900	2.400	3.681	3.659	0.5220	5	1.70	251.30	0
261	Acid Soluble Manganese (%)	0096	0.0033	0.0001	0.0052	0.0005	0.0001	11	-4.20	261.30	0
261	Acid Soluble Manganese (%)	0105	0.0049	0.0004	0.0052	0.0005	0.0001	11	-0.74	261.99	0
261	Acid Soluble Manganese (%)	0009	0.0050	0.0001	0.0052	0.0005	0.0001	11	-0.64	261.30	0
261	Acid Soluble Manganese (%)	0102	0.0050	0.0000	0.0052	0.0005	0.0001	11	-0.53	261.30	0
261	Acid Soluble Manganese (%)	0105	0.0051	0.0003	0.0052	0.0005	0.0001	11	-0.42	261.11	0
261	Acid Soluble Manganese (%)	0389	0.0051	0.0000	0.0052	0.0005	0.0001	11	-0.32	261.30	0
261	Acid Soluble Manganese (%)	0474	0.0054	0.0002	0.0052	0.0005	0.0001	11	0.32	261.30	0
261	Acid Soluble Manganese (%)	0035	0.0055	0.0000	0.0052	0.0005	0.0001	11	0.53	261.30	0
261	Acid Soluble Manganese (%)	0247	0.0065	0.0003	0.0052	0.0005	0.0001	11	2.75	261.30	0
261	Acid Soluble Manganese (%)	0041	0.0066	0.0002	0.0052	0.0005	0.0001	11	2.87	261.30	0
261	Acid Soluble Manganese (%)	0482	0.0100	0.0000	0.0052	0.0005	0.0001	11	10.08	261.30	0
261	Acid Soluble Manganese (%)	0354	0.0000	0.0000	0.0052	0.0005	0.0001	11	-11.14	261.30	4
281	Acid Soluble Mercury (ppm)	0506	189.5	1.000			1.000	1			
289	Acid Soluble Molybdenum (ppm)	0368	1.050	0.1000	3.960	1.319	0.3200	9	-2.21	289.30	0
289	Acid Soluble Molybdenum (ppm)	0096	2.650	0.1000	3.960	1.319	0.3200	9	-0.99	289.30	0
289	Acid Soluble Molybdenum (ppm)	0498	3.465	0.2700	3.960	1.319	0.3200	9	-0.38	289.00	0
289	Acid Soluble Molybdenum (ppm)	0230	3.515	0.1500	3.960	1.319	0.3200	9	-0.34	289.30	0
289	Acid Soluble Molybdenum (ppm)	0474	4.000	0.0000	3.960	1.319	0.3200	9	0.03	289.30	0
289	Acid Soluble Molybdenum (ppm)	0095	4.500	1.000	3.960	1.319	0.3200	9	0.41	289.30	0
289	Acid Soluble Molybdenum (ppm)	0506	5.075	0.3500	3.960	1.319	0.3200	9	0.85	289.00	0
289	Acid Soluble Molybdenum (ppm)	0433	5.185	0.2700	3.960	1.319	0.3200	9	0.93	289.30	0
289	Acid Soluble Molybdenum (ppm)	0035	5.270	0.6400	3.960	1.319	0.3200	9	0.99	289.30	0
291	Acid Soluble Nickel (ppm)	0096	13.00	0.0000	20.69	2.266	0.6459	16	-3.39	291.30	0
291	Acid Soluble Nickel (ppm)	0481	17.00	2.000	20.69	2.266	0.6459	16	-1.63	291.00	0
291	Acid Soluble Nickel (ppm)	0498	17.25	0.1000	20.69	2.266	0.6459	16	-1.52	291.00	0
291	Acid Soluble Nickel (ppm)	0230	18.55	0.7000	20.69	2.266	0.6459	16	-0.94	291.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
291	Acid Soluble Nickel (ppm)	0482	19.45	2.100	20.69	2.266	0.6459	16	-0.55	291.30	0
291	Acid Soluble Nickel (ppm)	0136	19.95	0.3000	20.69	2.266	0.6459	16	-0.33	291.00	0
291	Acid Soluble Nickel (ppm)	0102	20.81	0.2140	20.69	2.266	0.6459	16	0.05	291.30	0
291	Acid Soluble Nickel (ppm)	0247	20.85	0.9000	20.69	2.266	0.6459	16	0.07	291.30	0
291	Acid Soluble Nickel (ppm)	0009	21.00	0.0000	20.69	2.266	0.6459	16	0.14	291.30	0
291	Acid Soluble Nickel (ppm)	0474	21.00	0.0000	20.69	2.266	0.6459	16	0.14	291.30	0
291	Acid Soluble Nickel (ppm)	0368	21.20	0.2000	20.69	2.266	0.6459	16	0.23	291.30	0
291	Acid Soluble Nickel (ppm)	0035	21.95	0.9000	20.69	2.266	0.6459	16	0.56	291.30	0
291	Acid Soluble Nickel (ppm)	0504	22.20	1.440	20.69	2.266	0.6459	16	0.67	291.00	0
291	Acid Soluble Nickel (ppm)	0095	22.50	1.000	20.69	2.266	0.6459	16	0.80	291.30	0
291	Acid Soluble Nickel (ppm)	0444	25.67	0.2800	20.69	2.266	0.6459	16	2.20	291.30	0
291	Acid Soluble Nickel (ppm)	0506	29.10	0.2000	20.69	2.266	0.6459	16	3.71	291.00	0
301	Acid Soluble Selenium (ppm)	0485	0.0296	0.0005			0.0005	1			
311	Sodium (%)	0474	0.2000	0.0000	0.2231	0.0212	0.0037	7	-1.09	311.99	0
311	Sodium (%)	0482	0.2050	0.0100	0.2231	0.0212	0.0037	7	-0.86	311.99	0
311	Sodium (%)	0102	0.2160	0.0020	0.2231	0.0212	0.0037	7	-0.34	311.99	0
311	Sodium (%)	0096	0.2200	0.0000	0.2231	0.0212	0.0037	7	-0.15	311.99	0
311	Sodium (%)	0510	0.2300	0.0000	0.2231	0.0212	0.0037	7	0.32	311.30	0
311	Sodium (%)	0035	0.2375	0.0090	0.2231	0.0212	0.0037	7	0.68	311.99	0
311	Sodium (%)	0354	0.2645	0.0050	0.2231	0.0212	0.0037	7	1.95	311.99	0
321	Acid Soluble Zinc (%)	0027	0.0230	0.0000	0.0415	0.0030	0.0005	23	-6.16	321.30	0
321	Acid Soluble Zinc (%)	0230	0.0364	0.0009	0.0415	0.0030	0.0005	23	-1.70	321.30	0
321	Acid Soluble Zinc (%)	0498	0.0385	0.0010	0.0415	0.0030	0.0005	23	-0.99	321.00	0
321	Acid Soluble Zinc (%)	0009	0.0390	0.0000	0.0415	0.0030	0.0005	23	-0.82	321.30	0
321	Acid Soluble Zinc (%)	0354	0.0390	0.0000	0.0415	0.0030	0.0005	23	-0.82	321.30	0
321	Acid Soluble Zinc (%)	0105	0.0396	0.0001	0.0415	0.0030	0.0005	23	-0.63	321.99	0
321	Acid Soluble Zinc (%)	0095	0.0400	0.0000	0.0415	0.0030	0.0005	23	-0.48	321.30	0
321	Acid Soluble Zinc (%)	0482	0.0400	0.0000	0.0415	0.0030	0.0005	23	-0.48	321.30	0
321	Acid Soluble Zinc (%)	0506	0.0400	0.0000	0.0415	0.0030	0.0005	23	-0.48	321.99	0
321	Acid Soluble Zinc (%)	0105	0.0401	0.0010	0.0415	0.0030	0.0005	23	-0.45	321.00	0
321	Acid Soluble Zinc (%)	0474	0.0406	0.0002	0.0415	0.0030	0.0005	23	-0.28	321.30	0
321	Acid Soluble Zinc (%)	0102	0.0410	0.0000	0.0415	0.0030	0.0005	23	-0.15	321.30	0
321	Acid Soluble Zinc (%)	0389	0.0415	0.0010	0.0415	0.0030	0.0005	23	0.02	321.30	0
321	Acid Soluble Zinc (%)	0043	0.0422	0.0004	0.0415	0.0030	0.0005	23	0.25	321.00	0
321	Acid Soluble Zinc (%)	0368	0.0427	0.0014	0.0415	0.0030	0.0005	23	0.42	321.30	0
321	Acid Soluble Zinc (%)	0247	0.0431	0.0005	0.0415	0.0030	0.0005	23	0.53	321.30	0
321	Acid Soluble Zinc (%)	0035	0.0435	0.0009	0.0415	0.0030	0.0005	23	0.67	321.30	0
321	Acid Soluble Zinc (%)	0096	0.0436	0.0010	0.0415	0.0030	0.0005	23	0.72	321.30	0
321	Acid Soluble Zinc (%)	0433	0.0439	0.0001	0.0415	0.0030	0.0005	23	0.82	321.30	0
321	Acid Soluble Zinc (%)	0504	0.0450	0.0020	0.0415	0.0030	0.0005	23	1.18	321.00	0
321	Acid Soluble Zinc (%)	0481	0.0475	0.0010	0.0415	0.0030	0.0005	23	2.02	321.00	0
321	Acid Soluble Zinc (%)	0292	0.0500	0.0000	0.0415	0.0030	0.0005	23	2.85	321.30	0
321	Acid Soluble Zinc (%)	0420	0.0592	0.0001	0.0415	0.0030	0.0005	23	5.90	321.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Labs	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321	Acid Soluble Zinc (%)	0041	0.0633	0.0189	0.0415	0.0030	0.0005	23	7.27	321.30	1

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 and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs reporting, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or 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.