

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 151111

KCI

Statistical Summary

Analytes: 24

Labs Reporting: 77

Issue Date : 12/31/2015

Analyte Code	Analyte	# 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	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	1		0.0000									
010	Total Nitrogen (%)	6	2	0.2213	0.1043	0.2213		0.1043	0.0521	47.14%		0.0325	5.02%
020	Total Phosphorus as P2O5 (%)	2	0	0.0000									
040	Indirect Available Phosphorus as P2O5 (%)	1		0.0000									
041	Direct Available Phosphorus as P2O5 (%)	4	1	0.0150		0.2213		0.1043	0.0738	47.14%		0.0100	5.02%
048	Water Soluble Phosphorus as P2O5 (%)	1		0.0000									
050	Soluble Potassium as K2O (60%)	77	76	60.61	4.049	60.54	1.7854	0.9397	0.0762	1.55%	1.47%	0.5162	2.16%
060	Water (Free) (%)	5	4	0.0929	0.0990	0.0929		0.0990	0.0350	106.55%		0.0148	5.72%
101	Acid Soluble Calcium (%)	5	5	0.0541	0.0055	0.0541		0.0055	0.0017	10.08%		0.0037	6.20%
121	Acid Soluble Magnesium (%)	5	5	0.0266	0.0031	0.0266		0.0031	0.0010	11.63%		0.0008	6.90%
148	Total Sulfur (%)	4	3	0.0202	0.0174	0.0202		0.0174	0.0071	86.33%		0.0037	7.20%
165	Acid Soluble Boron (%)	1		0.0020									
181	Acid Soluble Cadmium (ppm)	1		0.0000									
190	Water Soluble Chlorine (%)	11	11	47.93	4.474	46.84		1.597	0.3405	3.41%		0.7591	2.24%
191	Acid Soluble Chromium (ppm)	2	2	193.5	273.3								
202	Acid Soluble Cobalt (ppm)	1		10.99									
221	Acid Soluble Copper (%)	4	4	0.0009	0.0011	0.0009		0.0011	0.0004	130.43%		0.0003	11.57%
241	Acid Soluble Iron (%)	7	7	0.0846	0.0074	0.0863		0.0053	0.0014	6.17%		0.0037	5.78%
251	Acid Soluble Lead (ppm)	2	1	70.83									
261	Acid Soluble Manganese (%)	3	3	0.0010	0.0001	0.0010		0.0001	0.0000	5.97%		0.0002	11.37%
291	Acid Soluble Nickel (ppm)	2	2	22.00	27.73								
301	Acid Soluble Selenium (ppm)	1		0.0000									
311	Sodium (%)	19	18	1.362	0.1760	1.377		0.1415	0.0236	10.27%		0.0463	3.81%
321	Acid Soluble Zinc (%)	6	4	0.0164	0.0317	0.0164		0.0317	0.0112	193.49%		0.0003	7.43%

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Analyte Proficiency From All Labs

Analytes: 24

Sample # 151111

Lab Values

Labs Reporting: 77

KCI

Issue Date : 12/31/2015

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0420	0.0000	0.0000			0.0000	0			4
010	Total Nitrogen (%)	0354	0.1475	0.0350	0.2213	0.1043	0.0325	2	-0.71	010.60	0
010	Total Nitrogen (%)	0472	0.2950	0.0300	0.2213	0.1043	0.0325	2	0.71	010.60	0
010	Total Nitrogen (%)	0072	0.0000	0.0000	0.2213	0.1043	0.0325	2	-2.12	010.60	4
010	Total Nitrogen (%)	0292	0.0000	0.0000	0.2213	0.1043	0.0325	2	-2.12	010.60	4
010	Total Nitrogen (%)	0420	0.0000	0.0000	0.2213	0.1043	0.0325	2	-2.12	010.99	4
010	Total Nitrogen (%)	0325	0.2000	0.4000	0.2213	0.1043	0.0325	2	-0.20	010.60	4
020	Total Phosphorus as P2O5 (%)	0292	0.0000	0.0000	0.2213	0.1043	0.0000	0	-2.12	020.20	4
020	Total Phosphorus as P2O5 (%)	0420	0.0000	0.0000	0.2213	0.1043	0.0000	0	-2.12	020.20	4
040	Indirect Available Phosphorus as P2O5 (%)	0072	0.0000	0.0000			0.0000	0			4
041	Direct Available Phosphorus as P2O5 (%)	0325	0.0150	0.0100	0.2213	0.1043	0.0100	1	-1.98	041.50	0
041	Direct Available Phosphorus as P2O5 (%)	0009	0.0000	0.0000	0.2213	0.1043	0.0100	1	-2.12	041.10	4
041	Direct Available Phosphorus as P2O5 (%)	0072	0.0000	0.0000	0.2213	0.1043	0.0100	1	-2.12	041.10	4
041	Direct Available Phosphorus as P2O5 (%)	0354	0.0000	0.0000	0.2213	0.1043	0.0100	1	-2.12	041.60	4
048	Water Soluble Phosphorus as P2O5 (%)	0420	0.0000	0.0000			0.0000	0			4
050	Soluble Potassium as K2O (60%)	0501	40.54*	0.0700	60.54	0.9397	0.5162	76	-21.29	050.99	0
050	Soluble Potassium as K2O (60%)	0025	52.03*	0.8100	60.54	0.9397	0.5162	76	-9.06	050.52	0
050	Soluble Potassium as K2O (60%)	0472	54.90*	3.000	60.54	0.9397	0.5162	76	-6.00	050.31	0
050	Soluble Potassium as K2O (60%)	0095	56.93*	0.1100	60.54	0.9397	0.5162	76	-3.84	050.62	0
050	Soluble Potassium as K2O (60%)	0035	57.79*	0.5500	60.54	0.9397	0.5162	76	-2.93	050.61	0
050	Soluble Potassium as K2O (60%)	0422	57.80*	1.200	60.54	0.9397	0.5162	76	-2.91	050.99	0
050	Soluble Potassium as K2O (60%)	0325	58.70*	0.8000	60.54	0.9397	0.5162	76	-1.95	050.99	0
050	Soluble Potassium as K2O (60%)	0486	58.83	0.2500	60.54	0.9397	0.5162	76	-1.82	050.52	0
050	Soluble Potassium as K2O (60%)	0402	58.97	0.1500	60.54	0.9397	0.5162	76	-1.67	050.99	0
050	Soluble Potassium as K2O (60%)	0406	59.40	1.350	60.54	0.9397	0.5162	76	-1.21	050.50	0
050	Soluble Potassium as K2O (60%)	0356	59.45	0.0900	60.54	0.9397	0.5162	76	-1.16	050.30	0
050	Soluble Potassium as K2O (60%)	0040	59.55	0.1000	60.54	0.9397	0.5162	76	-1.05	050.30	0
050	Soluble Potassium as K2O (60%)	0482	59.60	0.8000	60.54	0.9397	0.5162	76	-1.00	050.99	0
050	Soluble Potassium as K2O (60%)	0420	59.67	0.7400	60.54	0.9397	0.5162	76	-0.92	050.50	0
050	Soluble Potassium as K2O (60%)	0360	59.75	0.1500	60.54	0.9397	0.5162	76	-0.84	050.52	0
050	Soluble Potassium as K2O (60%)	0506	59.75	0.5000	60.54	0.9397	0.5162	76	-0.84	050.99	0
050	Soluble Potassium as K2O (60%)	0072	59.80	1.330	60.54	0.9397	0.5162	76	-0.79	050.51	0
050	Soluble Potassium as K2O (60%)	0136	59.90	0.2000	60.54	0.9397	0.5162	76	-0.68	050.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble Potassium as K2O (60%)	0096	59.94	0.0300	60.54	0.9397	0.5162	76	-0.64	050.99	0
050	Soluble Potassium as K2O (60%)	0055	59.98	0.0800	60.54	0.9397	0.5162	76	-0.59	050.50	0
050	Soluble Potassium as K2O (60%)	0043	60.02	0.1600	60.54	0.9397	0.5162	76	-0.55	050.51	0
050	Soluble Potassium as K2O (60%)	0489	60.03	0.0400	60.54	0.9397	0.5162	76	-0.54	050.00	0
050	Soluble Potassium as K2O (60%)	0518	60.03	0.0000	60.54	0.9397	0.5162	76	-0.54	050.99	0
050	Soluble Potassium as K2O (60%)	0510	60.04	0.0400	60.54	0.9397	0.5162	76	-0.53	050.60	0
050	Soluble Potassium as K2O (60%)	0072	60.09	1.020	60.54	0.9397	0.5162	76	-0.48	050.00	0
050	Soluble Potassium as K2O (60%)	0157	60.10	1.400	60.54	0.9397	0.5162	76	-0.46	050.30	0
050	Soluble Potassium as K2O (60%)	0481	60.16	0.8600	60.54	0.9397	0.5162	76	-0.40	050.99	0
050	Soluble Potassium as K2O (60%)	0090	60.20	0.2000	60.54	0.9397	0.5162	76	-0.36	050.00	0
050	Soluble Potassium as K2O (60%)	0043	60.21	0.0500	60.54	0.9397	0.5162	76	-0.35	050.99	0
050	Soluble Potassium as K2O (60%)	0220	60.25	0.0400	60.54	0.9397	0.5162	76	-0.30	050.00	0
050	Soluble Potassium as K2O (60%)	0309	60.26	0.1500	60.54	0.9397	0.5162	76	-0.30	050.60	0
050	Soluble Potassium as K2O (60%)	0292	60.27	0.2500	60.54	0.9397	0.5162	76	-0.29	050.50	0
050	Soluble Potassium as K2O (60%)	0508	60.30	0.0500	60.54	0.9397	0.5162	76	-0.26	050.99	0
050	Soluble Potassium as K2O (60%)	0023	60.32	1.870	60.54	0.9397	0.5162	76	-0.24	050.52	0
050	Soluble Potassium as K2O (60%)	0390	60.50	0.4000	60.54	0.9397	0.5162	76	-0.04	050.50	0
050	Soluble Potassium as K2O (60%)	0452	60.50	0.0800	60.54	0.9397	0.5162	76	-0.04	050.51	0
050	Soluble Potassium as K2O (60%)	0421	60.50	0.6000	60.54	0.9397	0.5162	76	-0.04	050.52	0
050	Soluble Potassium as K2O (60%)	0291	60.55	0.0100	60.54	0.9397	0.5162	76	0.01	050.51	0
050	Soluble Potassium as K2O (60%)	0231	60.56	0.2100	60.54	0.9397	0.5162	76	0.02	050.00	0
050	Soluble Potassium as K2O (60%)	0405	60.60	0.0400	60.54	0.9397	0.5162	76	0.07	050.00	0
050	Soluble Potassium as K2O (60%)	0397	60.62	0.3264	60.54	0.9397	0.5162	76	0.09	050.50	0
050	Soluble Potassium as K2O (60%)	0105	60.63	0.0400	60.54	0.9397	0.5162	76	0.10	050.60	0
050	Soluble Potassium as K2O (60%)	0444	60.64	0.5200	60.54	0.9397	0.5162	76	0.11	050.99	0
050	Soluble Potassium as K2O (60%)	0200	60.65	0.0300	60.54	0.9397	0.5162	76	0.12	050.60	0
050	Soluble Potassium as K2O (60%)	0389	60.68	0.4700	60.54	0.9397	0.5162	76	0.15	050.99	0
050	Soluble Potassium as K2O (60%)	0169	60.72	0.0700	60.54	0.9397	0.5162	76	0.19	050.60	0
050	Soluble Potassium as K2O (60%)	0041	60.79	0.0800	60.54	0.9397	0.5162	76	0.27	050.60	0
050	Soluble Potassium as K2O (60%)	0516	60.86	0.1300	60.54	0.9397	0.5162	76	0.34	050.30	0
050	Soluble Potassium as K2O (60%)	0485	60.87	0.3800	60.54	0.9397	0.5162	76	0.35	050.52	0
050	Soluble Potassium as K2O (60%)	0354	60.89	0.1130	60.54	0.9397	0.5162	76	0.37	050.52	0
050	Soluble Potassium as K2O (60%)	0114	60.94	0.1200	60.54	0.9397	0.5162	76	0.43	050.00	0
050	Soluble Potassium as K2O (60%)	0029	60.97	0.3400	60.54	0.9397	0.5162	76	0.46	050.62	0
050	Soluble Potassium as K2O (60%)	0457	60.98	0.1000	60.54	0.9397	0.5162	76	0.47	050.99	0
050	Soluble Potassium as K2O (60%)	0371	61.01	0.2600	60.54	0.9397	0.5162	76	0.50	050.99	0
050	Soluble Potassium as K2O (60%)	0034	61.05	0.6738	60.54	0.9397	0.5162	76	0.54	050.62	0
050	Soluble Potassium as K2O (60%)	0037	61.09	0.2600	60.54	0.9397	0.5162	76	0.59	050.62	0
050	Soluble Potassium as K2O (60%)	0007	61.10	0.4000	60.54	0.9397	0.5162	76	0.60	050.51	0
050	Soluble Potassium as K2O (60%)	0428	61.16	1.961	60.54	0.9397	0.5162	76	0.66	050.30	0
050	Soluble Potassium as K2O (60%)	0513	61.18	0.1500	60.54	0.9397	0.5162	76	0.68	050.61	0
050	Soluble Potassium as K2O (60%)	0324	61.20	0.2000	60.54	0.9397	0.5162	76	0.71	050.50	0
050	Soluble Potassium as K2O (60%)	0049	61.22	0.1400	60.54	0.9397	0.5162	76	0.73	050.00	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble Potassium as K2O (60%)	0394	61.35	0.1000	60.54	0.9397	0.5162	76	0.87	050.99	0
050	Soluble Potassium as K2O (60%)	0177	61.45	0.2430	60.54	0.9397	0.5162	76	0.97	050.99	0
050	Soluble Potassium as K2O (60%)	0494	61.49	0.3400	60.54	0.9397	0.5162	76	1.01	050.00	0
050	Soluble Potassium as K2O (60%)	0483	61.50	0.6100	60.54	0.9397	0.5162	76	1.02	050.51	0
050	Soluble Potassium as K2O (60%)	0055	61.80	0.3700	60.54	0.9397	0.5162	76	1.34	050.00	0
050	Soluble Potassium as K2O (60%)	0157	62.05	3.300	60.54	0.9397	0.5162	76	1.61	050.50	0
050	Soluble Potassium as K2O (60%)	0102	62.30	0.0000	60.54	0.9397	0.5162	76	1.88	050.00	0
050	Soluble Potassium as K2O (60%)	0234	62.66	0.0500	60.54	0.9397	0.5162	76	2.25	050.99	0
050	Soluble Potassium as K2O (60%)	0451	63.44	0.7900	60.54	0.9397	0.5162	76	3.08	050.99	0
050	Soluble Potassium as K2O (60%)	0086	63.57	0.7650	60.54	0.9397	0.5162	76	3.23	050.50	0
050	Soluble Potassium as K2O (60%)	0131	64.03	0.6300	60.54	0.9397	0.5162	76	3.71	050.61	0
050	Soluble Potassium as K2O (60%)	0307	64.03	1.639	60.54	0.9397	0.5162	76	3.72	050.99	0
050	Soluble Potassium as K2O (60%)	0377	64.62	0.2600	60.54	0.9397	0.5162	76	4.35	050.52	0
050	Soluble Potassium as K2O (60%)	0073	72.58	0.7900	60.54	0.9397	0.5162	76	12.81	050.30	0
050	Soluble Potassium as K2O (60%)	0230	81.90	2.800	60.54	0.9397	0.5162	76	22.74	050.00	0
050	Soluble Potassium as K2O (60%)	0260	61.15	8.440	60.54	0.9397	0.5162	76	0.65	050.99	1
060	Water (Free) (%)	0510	0.0185	0.0010	0.0929	0.0990	0.0148	4	-0.75	060.99	0
060	Water (Free) (%)	0394	0.0330	0.0180	0.0929	0.0990	0.0148	4	-0.61	060.00	0
060	Water (Free) (%)	0394	0.0850	0.0100	0.0929	0.0990	0.0148	4	-0.08	060.20	0
060	Water (Free) (%)	0513	0.2350	0.0300	0.0929	0.0990	0.0148	4	1.44	060.99	0
060	Water (Free) (%)	0055	0.0500	0.1000	0.0929	0.0990	0.0148	4	-0.43	060.30	4
101	Acid Soluble Calcium (%)	0102	0.0490	0.0000	0.0541	0.0055	0.0037	5	-0.93	101.30	0
101	Acid Soluble Calcium (%)	0105	0.0510	0.0000	0.0541	0.0055	0.0037	5	-0.56	101.00	0
101	Acid Soluble Calcium (%)	0105	0.0523	0.0004	0.0541	0.0055	0.0037	5	-0.32	101.03	0
101	Acid Soluble Calcium (%)	0482	0.0550	0.0100	0.0541	0.0055	0.0037	5	0.17	101.30	0
101	Acid Soluble Calcium (%)	0354	0.0630	0.0080	0.0541	0.0055	0.0037	5	1.64	101.30	0
121	Acid Soluble Magnesium (%)	0105	0.0238	0.0015	0.0266	0.0031	0.0008	5	-0.93	121.03	0
121	Acid Soluble Magnesium (%)	0105	0.0245	0.0003	0.0266	0.0031	0.0008	5	-0.71	121.00	0
121	Acid Soluble Magnesium (%)	0102	0.0250	0.0000	0.0266	0.0031	0.0008	5	-0.53	121.30	0
121	Acid Soluble Magnesium (%)	0354	0.0300	0.0020	0.0266	0.0031	0.0008	5	1.08	121.30	0
121	Acid Soluble Magnesium (%)	0482	0.0300	0.0000	0.0266	0.0031	0.0008	5	1.08	121.30	0
148	Total Sulfur (%)	0354	0.0010	0.0000	0.0202	0.0174	0.0037	3	-1.10	148.99	0
148	Total Sulfur (%)	0102	0.0245	0.0010	0.0202	0.0174	0.0037	3	0.25	148.07	0
148	Total Sulfur (%)	0482	0.0350	0.0100	0.0202	0.0174	0.0037	3	0.85	148.99	0
148	Total Sulfur (%)	0072	0.0000	0.0000	0.0202	0.0174	0.0037	3	-1.16	148.99	4
165	Acid Soluble Boron (%)	0354	0.0020	0.0000			0.0000	1			0
181	Acid Soluble Cadmium (ppm)	0009	0.0000	0.0000			0.0000	0			4
190	Water Soluble Chlorine (%)	0027	44.80	1.800	46.84	1.597	0.7591	11	-1.28	190.00	0
190	Water Soluble Chlorine (%)	0506	45.00	0.0000	46.84	1.597	0.7591	11	-1.15	190.00	0
190	Water Soluble Chlorine (%)	0501	45.59	0.6200	46.84	1.597	0.7591	11	-0.78	190.99	0
190	Water Soluble Chlorine (%)	0481	46.22	0.7800	46.84	1.597	0.7591	11	-0.39	190.00	0
190	Water Soluble Chlorine (%)	0043	46.48	0.2500	46.84	1.597	0.7591	11	-0.23	190.00	0
190	Water Soluble Chlorine (%)	0105	46.61	0.4800	46.84	1.597	0.7591	11	-0.14	190.00	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
190	Water Soluble Chlorine (%)	0444	47.29	0.3300	46.84	1.597	0.7591	11	0.28	190.00	0
190	Water Soluble Chlorine (%)	0389	47.45	0.7000	46.84	1.597	0.7591	11	0.38	190.99	0
190	Water Soluble Chlorine (%)	0394	48.25	0.5000	46.84	1.597	0.7591	11	0.88	190.00	0
190	Water Soluble Chlorine (%)	0055	48.70	0.2900	46.84	1.597	0.7591	11	1.16	190.00	0
190	Water Soluble Chlorine (%)	0230	60.90	2.600	46.84	1.597	0.7591	11	8.80	190.00	0
191	Acid Soluble Chromium (ppm)	0102	0.2160	0.0120	193.5	273.3	10.33	2	-0.71	191.30	0
191	Acid Soluble Chromium (ppm)	0512	386.8	20.66	193.5	273.3	10.33	2	0.71	191.99	0
202	Acid Soluble Cobalt (ppm)	0512	10.99	2.000			2.000	1			0
221	Acid Soluble Copper (%)	0102	0.0001	0.0000	0.0009	0.0011	0.0003	4	-0.68	221.30	0
221	Acid Soluble Copper (%)	0512	0.0002	0.0001	0.0009	0.0011	0.0003	4	-0.63	221.99	0
221	Acid Soluble Copper (%)	0105	0.0007	0.0000	0.0009	0.0011	0.0003	4	-0.14	221.03	0
221	Acid Soluble Copper (%)	0354	0.0025	0.0010	0.0009	0.0011	0.0003	4	1.46	221.30	0
241	Acid Soluble Iron (%)	0420	0.0737	0.0029	0.0863	0.0053	0.0037	7	-2.38	241.30	0
241	Acid Soluble Iron (%)	0102	0.0750	0.0015	0.0863	0.0053	0.0037	7	-2.14	241.30	0
241	Acid Soluble Iron (%)	0472	0.0850	0.0100	0.0863	0.0053	0.0037	7	-0.25	241.30	0
241	Acid Soluble Iron (%)	0105	0.0871	0.0041	0.0863	0.0053	0.0037	7	0.14	241.03	0
241	Acid Soluble Iron (%)	0105	0.0883	0.0011	0.0863	0.0053	0.0037	7	0.36	241.00	0
241	Acid Soluble Iron (%)	0482	0.0900	0.0000	0.0863	0.0053	0.0037	7	0.69	241.30	0
241	Acid Soluble Iron (%)	0354	0.0930	0.0060	0.0863	0.0053	0.0037	7	1.25	241.30	0
251	Acid Soluble Lead (ppm)	0512	70.83	4.970	0.0863	0.0053	4.970	1	13289.57	251.99	0
251	Acid Soluble Lead (ppm)	0009	0.0000	0.0000	0.0863	0.0053	4.970	1	-16.22	251.00	4
261	Acid Soluble Manganese (%)	0102	0.0009	0.0000	0.0010	0.0001	0.0002	3	-1.15	261.30	0
261	Acid Soluble Manganese (%)	0105	0.0010	0.0006	0.0010	0.0001	0.0002	3	0.58	261.15	0
261	Acid Soluble Manganese (%)	0354	0.0010	0.0000	0.0010	0.0001	0.0002	3	0.58	261.30	0
291	Acid Soluble Nickel (ppm)	0105	2.390	0.1580	22.00	27.73	1.459	2	-0.71	291.30	0
291	Acid Soluble Nickel (ppm)	0512	41.60	2.760	22.00	27.73	1.459	2	0.71	291.99	0
301	Acid Soluble Selenium (ppm)	0009	0.0000	0.0000			0.0000	0			4
311	Sodium (%)	0230	0.8815	0.0250	1.377	0.1415	0.0463	18	-3.50	311.99	0
311	Sodium (%)	0515	1.158	0.1742	1.377	0.1415	0.0463	18	-1.55	311.33	0
311	Sodium (%)	0394	1.190	0.0200	1.377	0.1415	0.0463	18	-1.32	311.32	0
311	Sodium (%)	0515	1.272	0.0739	1.377	0.1415	0.0463	18	-0.74	311.99	0
311	Sodium (%)	0324	1.290	0.0400	1.377	0.1415	0.0463	18	-0.62	311.32	0
311	Sodium (%)	0043	1.310	0.0000	1.377	0.1415	0.0463	18	-0.48	311.30	0
311	Sodium (%)	0444	1.320	0.0600	1.377	0.1415	0.0463	18	-0.40	311.32	0
311	Sodium (%)	0481	1.335	0.0100	1.377	0.1415	0.0463	18	-0.30	311.00	0
311	Sodium (%)	0389	1.375	0.0300	1.377	0.1415	0.0463	18	-0.02	311.99	0
311	Sodium (%)	0482	1.400	0.0200	1.377	0.1415	0.0463	18	0.16	311.99	0
311	Sodium (%)	0405	1.405	0.0100	1.377	0.1415	0.0463	18	0.20	311.00	0
311	Sodium (%)	0102	1.407	0.0210	1.377	0.1415	0.0463	18	0.21	311.33	0
311	Sodium (%)	0096	1.450	0.0200	1.377	0.1415	0.0463	18	0.51	311.99	0
311	Sodium (%)	0371	1.450	0.0000	1.377	0.1415	0.0463	18	0.51	311.99	0
311	Sodium (%)	0105	1.520	0.1200	1.377	0.1415	0.0463	18	1.01	311.30	0
311	Sodium (%)	0510	1.525	0.0100	1.377	0.1415	0.0463	18	1.04	311.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311	Sodium (%)	0354	1.571	0.1220	1.377	0.1415	0.0463	18	1.37	311.99	0
311	Sodium (%)	0501	1.662	0.0770	1.377	0.1415	0.0463	18	2.01	311.99	0
311	Sodium (%)	0422	1.260	0.2800	1.377	0.1415	0.0463	18	-0.83	311.33	1
321	Acid Soluble Zinc (%)	0105	0.0003	0.0003	0.0164	0.0317	0.0003	4	-0.51	321.00	0
321	Acid Soluble Zinc (%)	0105	0.0004	0.0003	0.0164	0.0317	0.0003	4	-0.51	321.03	0
321	Acid Soluble Zinc (%)	0354	0.0010	0.0000	0.0164	0.0317	0.0003	4	-0.49	321.30	0
321	Acid Soluble Zinc (%)	0512	0.0639	0.0005	0.0164	0.0317	0.0003	4	1.50	321.99	0
321	Acid Soluble Zinc (%)	0072	0.0000	0.0000	0.0164	0.0317	0.0003	4	-0.52	321.30	4
321	Acid Soluble Zinc (%)	0292	0.0000	0.0000	0.0164	0.0317	0.0003	4	-0.52	321.30	4

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 used in calculations, 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.