

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 150212

Zinc Oxy-Sulfate

Statistical Summary

Issue Date : 03/31/2015

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
101	Acid Soluble Calcium (%)	7	7	2.673	0.1474	2.697		0.1112	0.0297	4.12%		0.0890	3.45%
121	Acid Soluble Magnesium (%)	7	7	0.2658	0.0244	0.2658		0.0277	0.0074	10.43%		0.0136	4.88%
144	Sulfur (%)	12	12	7.832	2.988	8.649		1.966	0.4012	22.72%		0.2523	2.89%
151	Acid Soluble Arsenic (ppm)	12	11	196.8	79.24	220.5		35.64	7.598	16.16%		4.549	7.10%
165	Acid Soluble Boron (%)	2	2	0.0545	0.0014								
181	Acid Soluble Cadmium (ppm)	13	12	166.9	59.24	176.9		35.35	7.215	19.98%		4.409	7.34%
191	Acid Soluble Chromium (ppm)	11	10	90.87	26.23	91.50		28.41	6.352	31.05%		4.735	8.11%
202	Acid Soluble Cobalt (ppm)	12	12	252.7	47.72	257.1		45.64	9.317	17.75%		9.681	6.94%
221	Acid Soluble Copper (%)	17	17	1.265	0.3441	1.322		0.0875	0.0150	6.62%		0.0487	3.84%
241	Acid Soluble Iron (%)	10	10	4.538	0.9704	4.549		1.077	0.2409	23.68%		0.2612	3.18%
251	Acid Soluble Lead (ppm)	13	12	657.4	134.7	671.9		69.02	14.09	10.27%		13.20	6.01%
261	Acid Soluble Manganese (%)	8	8	0.2653	0.0174	0.2629		0.0137	0.0034	5.21%		0.0184	4.89%
281	Acid Soluble Mercury (ppm)	2	2	0.5140	0.2673								
289	Acid Soluble Molybdenum (ppm)	13	13	606.2	120.5	627.6		44.41	8.709	7.08%		23.60	6.07%
291	Acid Soluble Nickel (ppm)	12	12	186.0	26.71	188.2		21.75	4.439	11.56%		11.19	7.27%
301	Acid Soluble Selenium (ppm)	3	3	1.454	0.6390	1.454		0.6390	0.2609	43.95%		0.9680	15.12%
311	Sodium (%)	4	4	0.1381	0.0393	0.1381		0.0393	0.0139	28.45%		0.0283	5.39%
321	Acid Soluble Zinc (36%)	53	52	37.11	2.549	36.91	1.0000	1.823	0.1787	4.94%	1.35%	0.5814	2.32%
325	Water Soluble Zinc (%)	5	5	6.692	4.920	6.692		4.919	1.556	73.51%		0.1912	3.00%

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 150212

Lab Values

Zinc Oxy-Sulfate

Issue Date : 03/31/2015

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				
101	Acid Soluble Calcium (%)	0035	2.385	0.2300	2.697	0.1112	0.0890	7	-2.80	101.30	0
101	Acid Soluble Calcium (%)	0105	2.634	0.1150	2.697	0.1112	0.0890	7	-0.57	101.00	0
101	Acid Soluble Calcium (%)	0354	2.636	0.0700	2.697	0.1112	0.0890	7	-0.55	101.30	0
101	Acid Soluble Calcium (%)	0102	2.699	0.0782	2.697	0.1112	0.0890	7	0.02	101.30	0
101	Acid Soluble Calcium (%)	0472	2.725	0.0300	2.697	0.1112	0.0890	7	0.25	101.30	0
101	Acid Soluble Calcium (%)	0096	2.795	0.0500	2.697	0.1112	0.0890	7	0.88	101.30	0
101	Acid Soluble Calcium (%)	0041	2.835	0.0500	2.697	0.1112	0.0890	7	1.24	101.30	0
121	Acid Soluble Magnesium (%)	0105	0.2351	0.0025	0.2658	0.0277	0.0136	7	-1.11	121.00	0
121	Acid Soluble Magnesium (%)	0035	0.2360	0.0240	0.2658	0.0277	0.0136	7	-1.07	121.30	0
121	Acid Soluble Magnesium (%)	0096	0.2600	0.0200	0.2658	0.0277	0.0136	7	-0.21	121.30	0
121	Acid Soluble Magnesium (%)	0041	0.2650	0.0100	0.2658	0.0277	0.0136	7	-0.03	121.30	0
121	Acid Soluble Magnesium (%)	0354	0.2805	0.0150	0.2658	0.0277	0.0136	7	0.53	121.30	0
121	Acid Soluble Magnesium (%)	0102	0.2840	0.0040	0.2658	0.0277	0.0136	7	0.66	121.30	0
121	Acid Soluble Magnesium (%)	0472	0.3000	0.0200	0.2658	0.0277	0.0136	7	1.23	121.30	0
144	Sulfur (%)	0043	1.570	0.0200	8.649	1.966	0.2523	12	-3.60	144.01	0
144	Sulfur (%)	0096	4.600	0.0800	8.649	1.966	0.2523	12	-2.06	144.99	0
144	Sulfur (%)	0354	4.671	0.0230	8.649	1.966	0.2523	12	-2.02	144.99	0
144	Sulfur (%)	0506	6.510	0.7000	8.649	1.966	0.2523	12	-1.09	144.70	0
144	Sulfur (%)	0506	6.510	0.7000	8.649	1.966	0.2523	12	-1.09	144.99	0
144	Sulfur (%)	0472	9.355	0.1300	8.649	1.966	0.2523	12	0.36	144.99	0
144	Sulfur (%)	0292	9.400	0.0400	8.649	1.966	0.2523	12	0.38	144.02	0
144	Sulfur (%)	0389	9.810	0.0800	8.649	1.966	0.2523	12	0.59	144.99	0
144	Sulfur (%)	0035	10.07	0.6700	8.649	1.966	0.2523	12	0.72	144.99	0
144	Sulfur (%)	0494	10.36	0.4310	8.649	1.966	0.2523	12	0.87	144.99	0
144	Sulfur (%)	0102	10.54	0.1390	8.649	1.966	0.2523	12	0.96	144.01	0
144	Sulfur (%)	0102	10.59	0.0150	8.649	1.966	0.2523	12	0.99	144.99	0
151	Acid Soluble Arsenic (ppm)	0096	45.55	5.500	220.5	35.64	4.549	11	-4.91	151.30	0
151	Acid Soluble Arsenic (ppm)	0506	46.50	0.0000	220.5	35.64	4.549	11	-4.88	151.99	0
151	Acid Soluble Arsenic (ppm)	0025	175.6	1.700	220.5	35.64	4.549	11	-1.26	151.00	0
151	Acid Soluble Arsenic (ppm)	0027	205.0	10.00	220.5	35.64	4.549	11	-0.44	151.30	0
151	Acid Soluble Arsenic (ppm)	0230	225.5	7.000	220.5	35.64	4.549	11	0.14	151.30	0
151	Acid Soluble Arsenic (ppm)	0037	225.6	4.460	220.5	35.64	4.549	11	0.14	151.30	0
151	Acid Soluble Arsenic (ppm)	0481	228.5	1.000	220.5	35.64	4.549	11	0.22	151.30	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				
151	Acid Soluble Arsenic (ppm)	0095	231.5	7.000	220.5	35.64	4.549	11	0.31	151.30	0
151	Acid Soluble Arsenic (ppm)	0102	240.8	3.377	220.5	35.64	4.549	11	0.57	151.30	0
151	Acid Soluble Arsenic (ppm)	0041	258.0	4.000	220.5	35.64	4.549	11	1.05	151.30	0
151	Acid Soluble Arsenic (ppm)	0368	282.0	6.000	220.5	35.64	4.549	11	1.73	151.30	0
151	Acid Soluble Arsenic (ppm)	0042	81.65	135.3	220.5	35.64	4.549	11	-3.90	151.99	1
165	Acid Soluble Boron (%)	0354	0.0535	0.0030	0.0545	0.0014	0.0020	2	-0.71	165.99	0
165	Acid Soluble Boron (%)	0102	0.0555	0.0010	0.0545	0.0014	0.0020	2	0.71	165.99	0
181	Acid Soluble Cadmium (ppm)	0498	0.9150	0.0900	176.9	35.35	4.409	12	-4.98	181.00	0
181	Acid Soluble Cadmium (ppm)	0042	133.9	5.400	176.9	35.35	4.409	12	-1.22	181.99	0
181	Acid Soluble Cadmium (ppm)	0506	145.1	0.1000	176.9	35.35	4.409	12	-0.90	181.99	0
181	Acid Soluble Cadmium (ppm)	0481	157.5	1.000	176.9	35.35	4.409	12	-0.55	181.30	0
181	Acid Soluble Cadmium (ppm)	0230	173.5	1.000	176.9	35.35	4.409	12	-0.10	181.30	0
181	Acid Soluble Cadmium (ppm)	0037	178.8	4.540	176.9	35.35	4.409	12	0.05	181.30	0
181	Acid Soluble Cadmium (ppm)	0027	179.0	2.000	176.9	35.35	4.409	12	0.06	181.30	0
181	Acid Soluble Cadmium (ppm)	0095	193.5	7.000	176.9	35.35	4.409	12	0.47	181.30	0
181	Acid Soluble Cadmium (ppm)	0096	195.7	5.300	176.9	35.35	4.409	12	0.53	181.30	0
181	Acid Soluble Cadmium (ppm)	0041	204.0	12.00	176.9	35.35	4.409	12	0.77	181.30	0
181	Acid Soluble Cadmium (ppm)	0102	204.9	9.480	176.9	35.35	4.409	12	0.79	181.30	0
181	Acid Soluble Cadmium (ppm)	0368	235.5	5.000	176.9	35.35	4.409	12	1.66	181.30	0
181	Acid Soluble Cadmium (ppm)	0035	153.5	37.00	176.9	35.35	4.409	12	-0.66	181.30	1
191	Acid Soluble Chromium (ppm)	0042	44.65	2.900	91.50	28.41	4.735	10	-1.65	191.99	0
191	Acid Soluble Chromium (ppm)	0506	69.00	0.0000	91.50	28.41	4.735	10	-0.79	191.99	0
191	Acid Soluble Chromium (ppm)	0368	69.45	5.500	91.50	28.41	4.735	10	-0.78	191.30	0
191	Acid Soluble Chromium (ppm)	0230	72.85	3.900	91.50	28.41	4.735	10	-0.66	191.30	0
191	Acid Soluble Chromium (ppm)	0481	98.00	10.00	91.50	28.41	4.735	10	0.23	191.00	0
191	Acid Soluble Chromium (ppm)	0035	99.80	10.40	91.50	28.41	4.735	10	0.29	191.30	0
191	Acid Soluble Chromium (ppm)	0096	102.7	2.100	91.50	28.41	4.735	10	0.39	191.30	0
191	Acid Soluble Chromium (ppm)	0037	104.0	3.640	91.50	28.41	4.735	10	0.44	191.30	0
191	Acid Soluble Chromium (ppm)	0041	116.0	2.000	91.50	28.41	4.735	10	0.86	191.30	0
191	Acid Soluble Chromium (ppm)	0102	132.3	6.913	91.50	28.41	4.735	10	1.44	191.30	0
191	Acid Soluble Chromium (ppm)	0027	134.0	26.00	91.50	28.41	4.735	10	1.50	191.30	1
202	Acid Soluble Cobalt (ppm)	0042	168.6	15.00	257.1	45.64	9.681	12	-1.94	202.99	0
202	Acid Soluble Cobalt (ppm)	0481	180.0	0.0000	257.1	45.64	9.681	12	-1.69	202.00	0
202	Acid Soluble Cobalt (ppm)	0506	200.0	0.0000	257.1	45.64	9.681	12	-1.25	202.99	0
202	Acid Soluble Cobalt (ppm)	0027	242.0	4.000	257.1	45.64	9.681	12	-0.33	202.30	0
202	Acid Soluble Cobalt (ppm)	0035	245.0	22.00	257.1	45.64	9.681	12	-0.27	202.30	0
202	Acid Soluble Cobalt (ppm)	0037	261.3	11.90	257.1	45.64	9.681	12	0.09	202.30	0
202	Acid Soluble Cobalt (ppm)	0230	270.0	6.000	257.1	45.64	9.681	12	0.28	202.30	0
202	Acid Soluble Cobalt (ppm)	0096	271.0	16.00	257.1	45.64	9.681	12	0.30	202.30	0
202	Acid Soluble Cobalt (ppm)	0095	278.0	8.000	257.1	45.64	9.681	12	0.46	202.30	0
202	Acid Soluble Cobalt (ppm)	0041	300.5	13.00	257.1	45.64	9.681	12	0.95	202.30	0
202	Acid Soluble Cobalt (ppm)	0102	307.9	6.270	257.1	45.64	9.681	12	1.11	202.30	0
202	Acid Soluble Cobalt (ppm)	0368	308.0	14.00	257.1	45.64	9.681	12	1.11	202.30	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				
221	Acid Soluble Copper (%)	0498	0.0067	0.0001	1.322	0.0875	0.0487	17	-15.04	221.00	0
221	Acid Soluble Copper (%)	0096	1.150	0.0525	1.322	0.0875	0.0487	17	-1.96	221.30	0
221	Acid Soluble Copper (%)	0506	1.215	0.1700	1.322	0.0875	0.0487	17	-1.22	221.99	0
221	Acid Soluble Copper (%)	0368	1.240	0.0000	1.322	0.0875	0.0487	17	-0.94	221.30	0
221	Acid Soluble Copper (%)	0472	1.295	0.0300	1.322	0.0875	0.0487	17	-0.31	221.30	0
221	Acid Soluble Copper (%)	0037	1.299	0.0170	1.322	0.0875	0.0487	17	-0.27	221.30	0
221	Acid Soluble Copper (%)	0042	1.311	0.1520	1.322	0.0875	0.0487	17	-0.12	221.99	0
221	Acid Soluble Copper (%)	0035	1.320	0.0600	1.322	0.0875	0.0487	17	-0.02	221.30	0
221	Acid Soluble Copper (%)	0433	1.320	0.0000	1.322	0.0875	0.0487	17	-0.02	221.30	0
221	Acid Soluble Copper (%)	0481	1.340	0.0000	1.322	0.0875	0.0487	17	0.21	221.00	0
221	Acid Soluble Copper (%)	0095	1.340	0.0400	1.322	0.0875	0.0487	17	0.21	221.30	0
221	Acid Soluble Copper (%)	0105	1.342	0.0000	1.322	0.0875	0.0487	17	0.23	221.00	0
221	Acid Soluble Copper (%)	0041	1.375	0.0500	1.322	0.0875	0.0487	17	0.61	221.30	0
221	Acid Soluble Copper (%)	0230	1.380	0.0200	1.322	0.0875	0.0487	17	0.67	221.99	0
221	Acid Soluble Copper (%)	0025	1.414	0.1520	1.322	0.0875	0.0487	17	1.05	221.30	0
221	Acid Soluble Copper (%)	0354	1.470	0.0240	1.322	0.0875	0.0487	17	1.69	221.30	0
221	Acid Soluble Copper (%)	0102	1.687	0.0600	1.322	0.0875	0.0487	17	4.18	221.30	0
241	Acid Soluble Iron (%)	0025	2.827	0.1540	4.549	1.077	0.2612	10	-1.60	241.30	0
241	Acid Soluble Iron (%)	0472	3.365	0.0500	4.549	1.077	0.2612	10	-1.10	241.30	0
241	Acid Soluble Iron (%)	0035	4.055	0.2500	4.549	1.077	0.2612	10	-0.46	241.30	0
241	Acid Soluble Iron (%)	0506	4.080	0.6000	4.549	1.077	0.2612	10	-0.44	241.99	0
241	Acid Soluble Iron (%)	0377	4.425	0.0100	4.549	1.077	0.2612	10	-0.11	241.30	0
241	Acid Soluble Iron (%)	0041	4.730	0.7800	4.549	1.077	0.2612	10	0.17	241.30	0
241	Acid Soluble Iron (%)	0105	5.304	0.1600	4.549	1.077	0.2612	10	0.70	241.00	0
241	Acid Soluble Iron (%)	0096	5.340	0.0400	4.549	1.077	0.2612	10	0.73	241.30	0
241	Acid Soluble Iron (%)	0354	5.435	0.3850	4.549	1.077	0.2612	10	0.82	241.30	0
241	Acid Soluble Iron (%)	0102	5.821	0.1830	4.549	1.077	0.2612	10	1.18	241.30	0
251	Acid Soluble Lead (ppm)	0042	293.7	62.10	671.9	69.02	13.20	12	-5.48	251.99	0
251	Acid Soluble Lead (ppm)	0025	600.7	3.800	671.9	69.02	13.20	12	-1.03	251.00	0
251	Acid Soluble Lead (ppm)	0506	605.0	0.0000	671.9	69.02	13.20	12	-0.97	251.99	0
251	Acid Soluble Lead (ppm)	0027	650.5	19.00	671.9	69.02	13.20	12	-0.31	251.30	0
251	Acid Soluble Lead (ppm)	0230	657.0	0.0000	671.9	69.02	13.20	12	-0.22	251.30	0
251	Acid Soluble Lead (ppm)	0095	664.5	11.00	671.9	69.02	13.20	12	-0.11	251.30	0
251	Acid Soluble Lead (ppm)	0037	672.3	13.85	671.9	69.02	13.20	12	0.01	251.30	0
251	Acid Soluble Lead (ppm)	0096	682.7	22.60	671.9	69.02	13.20	12	0.16	251.30	0
251	Acid Soluble Lead (ppm)	0102	687.8	8.010	671.9	69.02	13.20	12	0.23	251.30	0
251	Acid Soluble Lead (ppm)	0035	744.5	11.00	671.9	69.02	13.20	12	1.05	251.30	0
251	Acid Soluble Lead (ppm)	0041	783.5	3.000	671.9	69.02	13.20	12	1.62	251.30	0
251	Acid Soluble Lead (ppm)	0368	847.0	4.000	671.9	69.02	13.20	12	2.54	251.30	0
251	Acid Soluble Lead (ppm)	0481	836.5	97.00	671.9	69.02	13.20	12	2.39	251.30	1
261	Acid Soluble Manganese (%)	0035	0.2475	0.0190	0.2629	0.0137	0.0184	8	-1.12	261.30	0
261	Acid Soluble Manganese (%)	0354	0.2520	0.0060	0.2629	0.0137	0.0184	8	-0.79	261.30	0
261	Acid Soluble Manganese (%)	0472	0.2550	0.0100	0.2629	0.0137	0.0184	8	-0.57	261.30	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				
261	Acid Soluble Manganese (%)	0102	0.2600	0.0175	0.2629	0.0137	0.0184	8	-0.21	261.30	0
261	Acid Soluble Manganese (%)	0506	0.2600	0.0400	0.2629	0.0137	0.0184	8	-0.21	261.99	0
261	Acid Soluble Manganese (%)	0105	0.2721	0.0291	0.2629	0.0137	0.0184	8	0.67	261.11	0
261	Acid Soluble Manganese (%)	0096	0.2741	0.0037	0.2629	0.0137	0.0184	8	0.82	261.30	0
261	Acid Soluble Manganese (%)	0041	0.3020	0.0220	0.2629	0.0137	0.0184	8	2.86	261.30	0
281	Acid Soluble Mercury (ppm)	0042	0.3250	0.0100	0.5140	0.2673	0.0070	2	-0.71	281.99	0
281	Acid Soluble Mercury (ppm)	0230	0.7030	0.0040	0.5140	0.2673	0.0070	2	0.71	281.00	0
289	Acid Soluble Molybdenum (ppm)	0096	313.3	12.10	627.6	44.41	23.60	13	-7.08	289.30	0
289	Acid Soluble Molybdenum (ppm)	0042	408.3	42.90	627.6	44.41	23.60	13	-4.94	289.99	0
289	Acid Soluble Molybdenum (ppm)	0506	600.0	0.0000	627.6	44.41	23.60	13	-0.62	289.99	0
289	Acid Soluble Molybdenum (ppm)	0035	603.0	36.00	627.6	44.41	23.60	13	-0.55	289.30	0
289	Acid Soluble Molybdenum (ppm)	0037	603.9	32.67	627.6	44.41	23.60	13	-0.53	289.30	0
289	Acid Soluble Molybdenum (ppm)	0095	614.0	18.00	627.6	44.41	23.60	13	-0.31	289.30	0
289	Acid Soluble Molybdenum (ppm)	0433	625.0	10.00	627.6	44.41	23.60	13	-0.06	289.30	0
289	Acid Soluble Molybdenum (ppm)	0027	631.5	35.00	627.6	44.41	23.60	13	0.09	289.30	0
289	Acid Soluble Molybdenum (ppm)	0230	650.0	10.00	627.6	44.41	23.60	13	0.50	289.30	0
289	Acid Soluble Molybdenum (ppm)	0102	651.2	23.09	627.6	44.41	23.60	13	0.53	289.30	0
289	Acid Soluble Molybdenum (ppm)	0041	709.0	50.00	627.6	44.41	23.60	13	1.83	289.30	0
289	Acid Soluble Molybdenum (ppm)	0368	734.0	20.00	627.6	44.41	23.60	13	2.40	289.30	0
289	Acid Soluble Molybdenum (ppm)	0481	737.5	17.00	627.6	44.41	23.60	13	2.47	289.00	0
291	Acid Soluble Nickel (ppm)	0042	132.2	12.60	188.2	21.75	11.19	12	-2.57	291.99	0
291	Acid Soluble Nickel (ppm)	0506	147.1	0.1000	188.2	21.75	11.19	12	-1.89	291.99	0
291	Acid Soluble Nickel (ppm)	0027	172.0	20.00	188.2	21.75	11.19	12	-0.74	291.30	0
291	Acid Soluble Nickel (ppm)	0035	180.0	14.00	188.2	21.75	11.19	12	-0.38	291.30	0
291	Acid Soluble Nickel (ppm)	0037	183.9	1.330	188.2	21.75	11.19	12	-0.19	291.30	0
291	Acid Soluble Nickel (ppm)	0230	188.5	7.000	188.2	21.75	11.19	12	0.01	291.30	0
291	Acid Soluble Nickel (ppm)	0481	189.5	3.000	188.2	21.75	11.19	12	0.06	291.00	0
291	Acid Soluble Nickel (ppm)	0096	192.2	14.50	188.2	21.75	11.19	12	0.18	291.30	0
291	Acid Soluble Nickel (ppm)	0095	199.5	13.00	188.2	21.75	11.19	12	0.52	291.30	0
291	Acid Soluble Nickel (ppm)	0102	206.6	6.735	188.2	21.75	11.19	12	0.85	291.30	0
291	Acid Soluble Nickel (ppm)	0041	209.5	19.00	188.2	21.75	11.19	12	0.98	291.30	0
291	Acid Soluble Nickel (ppm)	0368	230.5	23.00	188.2	21.75	11.19	12	1.95	291.30	0
301	Acid Soluble Selenium (ppm)	0485	0.8674	0.0341	1.454	0.6390	0.9680	3	-0.92	301.99	0
301	Acid Soluble Selenium (ppm)	0041	1.360	1.760	1.454	0.6390	0.9680	3	-0.15	301.30	0
301	Acid Soluble Selenium (ppm)	0368	2.135	1.110	1.454	0.6390	0.9680	3	1.07	301.30	0
311	Sodium (%)	0102	0.1060	0.0160	0.1381	0.0393	0.0283	4	-0.82	311.99	0
311	Sodium (%)	0096	0.1150	0.0100	0.1381	0.0393	0.0283	4	-0.59	311.99	0
311	Sodium (%)	0035	0.1380	0.0620	0.1381	0.0393	0.0283	4	0.00	311.99	0
311	Sodium (%)	0354	0.1935	0.0250	0.1381	0.0393	0.0283	4	1.41	311.99	0
321	Acid Soluble Zinc (36%)	0483	32.45*	0.3000	36.91	1.823	0.5814	52	-2.45	321.30	0
321	Acid Soluble Zinc (36%)	0377	33.20*	0.2000	36.91	1.823	0.5814	52	-2.04	321.30	0
321	Acid Soluble Zinc (36%)	0512	33.55*	0.5000	36.91	1.823	0.5814	52	-1.84	321.99	0
321	Acid Soluble Zinc (36%)	0157	33.95*	1.300	36.91	1.823	0.5814	52	-1.63	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 (36%)	0402	34.25*	0.1000	36.91	1.823	0.5814	52	-1.46	321.30	0
321	Acid Soluble Zinc (36%)	0102	35.08*	0.1340	36.91	1.823	0.5814	52	-1.00	321.30	0
321	Acid Soluble Zinc (36%)	0029	35.14*	2.670	36.91	1.823	0.5814	52	-0.98	321.00	0
321	Acid Soluble Zinc (36%)	0354	35.27*	0.3350	36.91	1.823	0.5814	52	-0.90	321.30	0
321	Acid Soluble Zinc (36%)	0500	35.40*	0.4000	36.91	1.823	0.5814	52	-0.83	321.00	0
321	Acid Soluble Zinc (36%)	0472	35.41*	0.1200	36.91	1.823	0.5814	52	-0.82	321.30	0
321	Acid Soluble Zinc (36%)	0351	35.42*	0.2600	36.91	1.823	0.5814	52	-0.82	321.00	0
321	Acid Soluble Zinc (36%)	0258	35.48*	0.2600	36.91	1.823	0.5814	52	-0.79	321.00	0
321	Acid Soluble Zinc (36%)	0040	35.66*	0.1350	36.91	1.823	0.5814	52	-0.69	321.00	0
321	Acid Soluble Zinc (36%)	0486	35.75*	0.2400	36.91	1.823	0.5814	52	-0.64	321.30	0
321	Acid Soluble Zinc (36%)	0169	35.77*	0.0900	36.91	1.823	0.5814	52	-0.63	321.00	0
321	Acid Soluble Zinc (36%)	0105	35.80*	0.5100	36.91	1.823	0.5814	52	-0.61	321.00	0
321	Acid Soluble Zinc (36%)	0506	35.80*	0.0000	36.91	1.823	0.5814	52	-0.61	321.99	0
321	Acid Soluble Zinc (36%)	0095	36.11	1.200	36.91	1.823	0.5814	52	-0.44	321.30	0
321	Acid Soluble Zinc (36%)	0433	36.13	0.1200	36.91	1.823	0.5814	52	-0.43	321.30	0
321	Acid Soluble Zinc (36%)	0055	36.14	0.1100	36.91	1.823	0.5814	52	-0.43	321.30	0
321	Acid Soluble Zinc (36%)	0028	36.25	0.1000	36.91	1.823	0.5814	52	-0.36	321.00	0
321	Acid Soluble Zinc (36%)	0485	36.37	0.3400	36.91	1.823	0.5814	52	-0.30	321.00	0
321	Acid Soluble Zinc (36%)	0043	36.63	0.6500	36.91	1.823	0.5814	52	-0.16	321.00	0
321	Acid Soluble Zinc (36%)	0025	36.87	0.6900	36.91	1.823	0.5814	52	-0.03	321.30	0
321	Acid Soluble Zinc (36%)	0042	36.90	0.0500	36.91	1.823	0.5814	52	-0.01	321.99	0
321	Acid Soluble Zinc (36%)	0324	36.95	0.7000	36.91	1.823	0.5814	52	0.02	321.30	0
321	Acid Soluble Zinc (36%)	0231	36.96	0.0100	36.91	1.823	0.5814	52	0.02	321.30	0
321	Acid Soluble Zinc (36%)	0037	36.99	0.1500	36.91	1.823	0.5814	52	0.04	321.30	0
321	Acid Soluble Zinc (36%)	0049	37.00	0.1700	36.91	1.823	0.5814	52	0.05	321.30	0
321	Acid Soluble Zinc (36%)	0177	37.01	0.4555	36.91	1.823	0.5814	52	0.05	321.30	0
321	Acid Soluble Zinc (36%)	0096	37.15	2.041	36.91	1.823	0.5814	52	0.13	321.30	0
321	Acid Soluble Zinc (36%)	0481	37.15	0.5000	36.91	1.823	0.5814	52	0.13	321.00	0
321	Acid Soluble Zinc (36%)	0117	37.16	2.190	36.91	1.823	0.5814	52	0.13	321.99	0
321	Acid Soluble Zinc (36%)	0494	37.28	1.173	36.91	1.823	0.5814	52	0.20	321.30	0
321	Acid Soluble Zinc (36%)	0090	37.39	0.1200	36.91	1.823	0.5814	52	0.26	321.30	0
321	Acid Soluble Zinc (36%)	0136	37.67	0.3800	36.91	1.823	0.5814	52	0.42	321.00	0
321	Acid Soluble Zinc (36%)	0498	37.75	0.9000	36.91	1.823	0.5814	52	0.46	321.00	0
321	Acid Soluble Zinc (36%)	0389	37.75	0.3000	36.91	1.823	0.5814	52	0.46	321.30	0
321	Acid Soluble Zinc (36%)	0371	38.05	1.600	36.91	1.823	0.5814	52	0.62	321.30	0
321	Acid Soluble Zinc (36%)	0368	38.10	0.0000	36.91	1.823	0.5814	52	0.65	321.30	0
321	Acid Soluble Zinc (36%)	0292	38.24	0.0100	36.91	1.823	0.5814	52	0.73	321.30	0
321	Acid Soluble Zinc (36%)	0230	38.55	0.1000	36.91	1.823	0.5814	52	0.90	321.30	0
321	Acid Soluble Zinc (36%)	0117	38.79	1.660	36.91	1.823	0.5814	52	1.03	321.30	0
321	Acid Soluble Zinc (36%)	0307	39.05	1.473	36.91	1.823	0.5814	52	1.17	321.30	0
321	Acid Soluble Zinc (36%)	0027	39.09	0.4800	36.91	1.823	0.5814	52	1.19	321.30	0
321	Acid Soluble Zinc (36%)	0291	39.17	0.2500	36.91	1.823	0.5814	52	1.24	321.30	0
321	Acid Soluble Zinc (36%)	0452	39.40	0.0800	36.91	1.823	0.5814	52	1.36	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 (36%)	0360	39.58	0.2200	36.91	1.823	0.5814	52	1.46	321.30	0
321	Acid Soluble Zinc (36%)	0325	40.00	0.8000	36.91	1.823	0.5814	52	1.69	321.99	0
321	Acid Soluble Zinc (36%)	0114	41.52	0.9900	36.91	1.823	0.5814	52	2.52	321.30	0
321	Acid Soluble Zinc (36%)	0041	42.45	0.1000	36.91	1.823	0.5814	52	3.04	321.30	0
321	Acid Soluble Zinc (36%)	0428	48.86	2.567	36.91	1.823	0.5814	52	6.56	321.00	0
321	Acid Soluble Zinc (36%)	0035	40.60	3.000	36.91	1.823	0.5814	52	2.02	321.30	1
325	Water Soluble Zinc (%)	0230	3.250	0.1000	6.692	4.919	0.1912	5	-0.70	325.99	0
325	Water Soluble Zinc (%)	0105	4.691	0.1560	6.692	4.919	0.1912	5	-0.41	325.00	0
325	Water Soluble Zinc (%)	0025	5.020	0.1600	6.692	4.919	0.1912	5	-0.34	325.30	0
325	Water Soluble Zinc (%)	0368	5.110	0.2200	6.692	4.919	0.1912	5	-0.32	325.30	0
325	Water Soluble Zinc (%)	0027	15.39	0.3200	6.692	4.919	0.1912	5	1.77	325.00	0

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 and 2 = Rejected as extreme outlier. 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 asterix 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.