

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210112

Micronutrients

Statistical Summary

Methods: 128

Labs Reporting: 84

Issue Date : 02/28/2021

Method Code	Analyte & Method Sample # 210112	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
001.99	Ammoniacal N, Other (%)	2	2	1.840	0.4313								
010.12	Total N, Salicylic (%)	1		2.040									
010.60	Total N, Combustion (%)	7	6	2.111	0.0432	2.121	0.4900	0.0419	0.0214	1.97%	0.20	0.0113	3.57%
010.99	Total N, Other (%)	1		2.090									
020.50	Total P2O5, ICP (%)	4	4	0.0691	0.0217	0.0691		0.0217	0.0136	31.38%		0.0030	5.98%
020.99	Total P2O5, Other (%)	1		0.0212									
041.20	Direct Available P2O5, Spectrophotometric (%)	1		0.0225									
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	3	3	0.0882	0.0401	0.0882	0.6700	0.0401	0.0290	45.51%	0.14	0.0010	5.76%
041.50	Direct Available P2O5, ICP (%)	1		0.1000									
050.51	Soluble K2O, ICP (Citrate) (%)	2	2	0.7094	0.0503								
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	2	2	0.6398	0.0166								
050.99	Soluble K2O, Other (%)	8	7	0.7756	0.0551	0.7781	0.4100	0.0637	0.0301	8.19%	0.36	0.0113	4.15%
060.99	Water (Free), Other (%)	1		2.633									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	7	7	6.055	1.003	6.055	0.5028	1.138	0.5376	18.79%	5.27	0.1080	3.05%
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	2	2	6.148	1.079								
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	16	16	6.427	0.5273	6.480	0.5240	0.4738	0.1481	7.31%	2.11	0.2025	3.02%
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (5%)	3	3	6.190	0.5753	6.190	0.5095	0.5753	0.4152	9.29%	2.63	0.0667	3.04%
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	5	5	6.566	0.3501	6.566	0.5283	0.3501	0.1957	5.33%	1.54	0.1340	3.01%
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	19	18	6.626	0.8488	6.573	0.5286	0.4178	0.1231	6.36%	1.84	0.1097	3.01%
101.70	Acid Soluble Ca, Titrimetric (5%)	5	5	4.977	0.4263	4.977	0.4489	0.4263	0.2383	8.57%	2.21	0.1114	3.14%
101.99	Acid Soluble Ca, Other (5%)	13	13	6.029	0.8081	6.029	0.5014	0.9164	0.3177	15.20%	4.26	0.1165	3.05%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (9.5%)	3	3	0.2277	0.0264	0.2277	0.2114	0.0264	0.0190	11.59%	0.29	0.0200	5.00%
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (9.5%)	1		0.5350									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (9.5%)	4	4	0.3061	0.0814	0.3061	0.2153	0.0814	0.0509	26.60%	0.88	0.0428	4.78%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (9.5%)	2	2	0.4070	0.1011								
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	7	7	0.5400	0.2170	0.5338	0.2267	0.2318	0.1095	43.43%	2.38	0.0177	4.40%
121.99	Acid Soluble Mg, Other (9.5%)	5	5	0.2362	0.0535	0.2362	0.2118	0.0535	0.0299	22.64%	0.59	0.0184	4.97%
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur (%)	1		0.5750									
143.99	Elemental S, Other (%)	6	6	9.809	0.8028	9.809		0.9104	0.4646	9.28%		0.1901	2.84%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	4	4	9.603	0.1379	9.603		0.1379	0.0862	1.44%		0.2350	2.85%
145.99	Sulfate S, HCl soluble, Other (%)	5	5	9.474	0.2778	9.474		0.2778	0.1553	2.93%		0.1760	2.85%
146.00	Total S in Liquid, Gravimetric - sulfate, sulfite, thiosulfate, a... (%)	1		9.500									
148.00	Total S, Combustion (%)	6	6	9.789	0.3282	9.789	0.6894	0.3722	0.1900	3.80%	1.26	0.2300	2.84%

Method Code	Analyte & Method Sample # 210112	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
148.01	Total S, Gravimetric - sulfate and elemental (%)	13	12	9.872	0.5257	9.749	0.6874	0.3332	0.1202	3.42%	1.13	0.1677	2.84%
148.07	Total S, ICP, test portion as in 2017.02 (%)	17	16	9.781	0.6219	9.773	0.6886	0.4914	0.1535	5.03%	1.66	0.1436	2.84%
148.99	Total S, Other (%)	17	17	9.539	1.898	9.806	0.6903	0.8821	0.2674	9.00%	2.98	0.1013	2.84%
149.03	S - HNO3 soluble, Spectrometric (%)	1		9.445									
149.04	S - HNO3 soluble, ICP (%)	3	3	9.771	0.5449	9.771		0.5449	0.3933	5.58%		0.0665	2.84%
149.99	S - HNO3 soluble, Other (%)	1		9.120									
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		3.455									
151.30	Acid Soluble As, ICP (ppm)	4	4	3.921	0.4655	3.921		0.4655	0.2910	11.87%		0.6978	13.02%
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	2	2	3.455	0.0071								
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	6	5	5.126	2.435	4.152		0.5331	0.2980	12.84%		0.2813	12.91%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	2	7.001	4.553								
151.99	Acid Soluble As, Other (ppm)	4	4	3.039	1.943	3.039		1.943	1.215	63.95%		0.1575	13.53%
165.00	Acid Soluble B, Spectrophotometric (1.25%)	16	16	1.289	0.3001	1.223	0.1865	0.1227	0.0384	10.04%	1.53	0.0586	3.88%
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	19	18	1.176	0.1315	1.152	0.1758	0.0976	0.0287	8.47%	1.29	0.0307	3.92%
165.99	Acid Soluble B, Other (1.25%)	21	20	1.117	0.1014	1.124	0.1716	0.0764	0.0214	6.80%	1.04	0.0364	3.93%
171.10	Water Soluble B, Spectrophotometric (%)	5	5	1.192	0.1084	1.192		0.1084	0.0606	9.09%		0.0236	3.90%
171.99	Water Soluble B, Other (%)	2	2	1.208	0.1308								
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		9.690									
181.30	Acid Soluble Cd, ICP (ppm)	8	7	10.87	3.019	11.17		3.544	1.674	31.72%		0.4730	11.12%
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	2	2	11.36	0.0849								
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	6	6	12.56	0.8159	12.56		0.9252	0.4721	7.37%		1.758	10.93%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	2	11.66	1.396								
181.99	Acid Soluble Cd, Other (ppm)	3	3	12.59	1.730	12.59		1.730	1.249	13.74%		1.043	10.93%
190.00	Water Soluble Cl, Titrimetric (%)	1		0.3300									
191.30	Acid Soluble Cr, ICP (ppm)	7	6	32.25	10.44	28.78		6.974	3.559	24.23%		1.049	9.65%
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	2	2	42.32	19.35								
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	6	6	40.42	12.19	43.45		5.995	3.059	13.80%		1.607	9.07%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	25.87	3.789								
191.99	Acid Soluble Cr, Other (ppm)	3	3	32.55	6.903	32.55		6.903	4.982	21.21%		2.533	9.47%
202.30	Acid Soluble Co, ICP (ppm)	6	5	17.80	6.233	16.85	6.0562	6.475	3.620	38.42%	2.49	0.4889	10.46%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	2	2	21.30	0.7814								
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	6	6	23.51	3.674	23.85	8.1540	3.361	1.715	14.09%	0.96	0.6092	9.92%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	2	19.22	0.8528								
202.99	Acid Soluble Co, Other (ppm)	4	4	20.14	3.235	20.14	7.0414	3.235	2.022	16.06%	1.07	1.878	10.18%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	7	7	0.0197	0.0103	0.0205	0.0071	0.0067	0.0031	32.44%	2.20	0.0033	7.18%
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	7	5	0.0183	0.0090	0.0220	0.0072	0.0045	0.0025	20.26%	1.44	0.0000	7.10%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	2	2	0.0191	0.0016								
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	9	9	0.0193	0.0017	0.0193	0.0069	0.0019	0.0008	9.80%	0.64	0.0013	7.25%
221.99	Acid Soluble Cu, Other (%)	7	7	0.0193	0.0018	0.0193	0.0069	0.0021	0.0010	10.77%	0.70	0.0014	7.25%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	3	3	0.8383	0.1934	0.8383	0.0888	0.1934	0.1396	23.07%	5.07	0.0833	4.11%
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	4	4	0.7481	0.0793	0.7481	0.0798	0.0793	0.0495	10.59%	2.31	0.0458	4.18%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	2	2	0.8893	0.0527								
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	5	5	0.8964	0.1081	0.8964	0.0946	0.1081	0.0604	12.06%	2.66	0.0337	4.07%
241.99	Acid Soluble Fe, Other (%)	4	4	0.7603	0.0626	0.7603	0.0810	0.0626	0.0391	8.24%	1.80	0.0281	4.17%

Method Code	Analyte & Method Sample # 210112	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	1		135.4									
251.30	Acid Soluble Pb, ICP (ppm)	8	8	126.6	27.89	126.6		31.63	13.98	24.99%		12.73	7.72%
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	2	2	144.0	32.56								
251.33	Acid Soluble Pb, ICP, 2006.03 (ppm)	7	7	152.5	17.23	152.5		19.54	9.232	12.81%		6.050	7.51%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	2	140.7	10.74								
251.99	Acid Soluble Pb, Other (ppm)	3	3	149.4	3.568	149.4		3.568	2.575	2.39%		9.800	7.53%
261.11	Acid Soluble Mn, AA, total Mn (5%)	2	2	5.170	0.9475								
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	9	9	5.049	0.1671	5.034	0.5084	0.1547	0.0645	3.07%	0.71	0.0843	3.14%
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (5%)	1		5.075									
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	1		4.710									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	9	8	5.225	0.1655	5.216	0.5266	0.1977	0.0874	3.79%	0.87	0.0688	3.12%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (5%)	2	2	5.165	0.0212								
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	6	5	5.370	0.5208	5.177	0.5227	0.2441	0.1364	4.72%	1.09	0.0914	3.12%
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (5%)	3	3	5.495	0.3061	5.495	0.5545	0.3061	0.2209	5.57%	1.29	0.1433	3.10%
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	17	16	5.251	0.4257	5.286	0.5336	0.1954	0.0611	3.70%	0.85	0.0917	3.11%
261.50	Acid Soluble Mn, Spectrometric (5%)	1		4.725									
261.99	Acid Soluble Mn, Other (5%)	15	15	5.479	1.326	5.299	0.5349	0.5568	0.1797	10.51%	2.43	0.1081	3.11%
271.00	Water Soluble Mn, AA (%)	1		5.200									
281.00	Acid Soluble Hg, AA (ppm)	3	3	1.304	0.2380	1.304		0.2380	0.1718	18.26%		0.0979	15.37%
281.30	Acid Soluble Hg, ICP (ppm)	5	4	1.290	0.8575	1.612		0.5371	0.3357	33.32%		0.3171	14.89%
281.99	Acid Soluble Hg, Other (ppm)	6	5	1.213	0.4523	1.255		0.4921	0.2751	39.21%		0.0590	15.46%
289.30	Acid Soluble Mo, ICP (ppm)	4	4	7.119	3.618	7.119	3.1357	3.618	2.261	50.82%	2.69	0.7690	11.91%
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	1		3.150									
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	6	5	5.794	1.642	5.953	2.7858	1.784	0.9973	29.97%	1.49	1.950	12.23%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	2	2	3.381	3.261								
289.99	Acid Soluble Mo, Other (ppm)	3	3	8.017	2.098	8.017	3.4050	2.098	1.514	26.17%	1.44	0.1667	11.69%
291.30	Acid Soluble Ni, ICP (ppm)	7	7	138.9	30.27	138.9		34.32	16.22	24.72%		9.998	7.61%
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	2	2	135.0	43.11								
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	7	7	161.8	15.73	161.8		17.84	8.426	11.03%		7.684	7.44%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	153.7	11.72								
291.99	Acid Soluble Ni, Other (ppm)	4	4	129.9	32.31	129.9		32.31	20.19	24.87%		12.57	7.69%
301.30	Acid Soluble Se, ICP (ppm)	2	2	0.7326	0.0793								
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	1		33.70									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	5	5	18.47	16.75	18.47		16.75	9.364	90.69%		0.6536	10.31%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	2	1	6.552	7.852								
301.99	Acid Soluble Se, Other (ppm)	4	3	10.31	16.60	13.72		18.53	13.37	135.09%		1.463	10.79%
311.00	Sodium, AA (%)	1		1.485									
311.32	Sodium, ICP, 2006.03 test portion (%)	1		1.225									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	6	6	1.316	0.1665	1.316	0.1366	0.1888	0.0964	14.35%	3.22	0.0384	3.84%
311.99	Sodium, Other (%)	1		1.350									
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	11	11	8.485	1.045	8.320	0.8370	0.7721	0.2910	9.28%	2.15	0.2046	2.91%
321.01	Acid Soluble Zn, AA, organic 965.09 (7.5%)	1		7.650									
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (7.5%)	1		9.019									
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	21	21	8.967	1.087	8.928	0.8978	0.9554	0.2606	10.70%	2.48	0.4617	2.88%

Method Code	Analyte & Method Sample # 210112	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	5	5	9.213	1.044	9.213	0.9263	1.044	0.5834	11.33%	2.63	0.2518	2.86%
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	16	16	8.978	0.7607	8.944	0.8994	0.7806	0.2439	8.73%	2.02	0.3081	2.88%
321.99	Acid Soluble Zn, Other (7.5%)	15	15	7.866	1.576	7.949	0.7999	1.605	0.5180	20.19%	4.67	0.1282	2.93%
325.00	Water Soluble Zn, AA (%)	1		7.755									
325.10	Water Soluble Zn, Gravimetric (%)	1		7.595									
325.30	Water Soluble Zn, ICP (%)	1		8.678									
325.99	Water Soluble Zn, Other (%)	1		7.115									

The Method IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Method Assigned Value}$. 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.

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210112

Method Precision Report

Issue Date : 02/28/2021

Micronutrients

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
010.60	Total N, Combustion (%)	7	6	2.121	0.0369	0.0361	0.0109	0.0377	1.70%	0.51%	1.78%	3.453
050.99	Soluble K2O, Other (%)	8	7	0.7792	0.0585	0.0581	0.0097	0.0589	7.45%	1.24%	7.55%	6.087
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	7	7	6.055	1.003	1.001	0.0908	1.006	16.54%	1.50%	16.61%	11.07
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	16	14	6.409	0.5591	0.5524	0.1220	0.5657	8.62%	1.90%	8.83%	4.636
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	5	5	6.566	0.3501	0.3354	0.1423	0.3643	5.11%	2.17%	5.55%	2.560
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	19	16	6.470	0.5284	0.5256	0.0762	0.5311	8.12%	1.18%	8.21%	6.971
101.70	Acid Soluble Ca, Titrimetric (5%)	5	5	4.977	0.4263	0.4216	0.0897	0.4310	8.47%	1.80%	8.66%	4.807
101.99	Acid Soluble Ca, Other (5%)	13	13	6.029	0.8081	0.8040	0.1153	0.8122	13.34%	1.91%	13.47%	7.046
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	7	7	0.5400	0.2170	0.2167	0.0166	0.2173	40.13%	3.08%	40.25%	13.07
143.99	Elemental S, Other (%)	6	6	9.809	0.8028	0.7928	0.1785	0.8126	8.08%	1.82%	8.28%	4.553
145.99	Sulfate S, HCl soluble, Other (%)	5	5	9.474	0.2778	0.2614	0.1330	0.2933	2.76%	1.40%	3.10%	2.205
148.00	Total S, Combustion (%)	6	6	9.789	0.3282	0.3003	0.1876	0.3540	3.07%	1.92%	3.62%	1.887
148.01	Total S, Gravimetric - sulfate and elemental (%)	13	12	9.749	0.2938	0.2733	0.1525	0.3130	2.80%	1.56%	3.21%	2.052
148.07	Total S, ICP, test portion as in 2017.02 (%)	17	15	9.871	0.4986	0.4902	0.1289	0.5069	4.97%	1.31%	5.14%	3.932
148.99	Total S, Other (%)	17	16	9.954	0.8517	0.8497	0.0819	0.8536	8.54%	0.82%	8.58%	10.42
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	6	5	4.152	0.5331	0.4986	0.2672	0.5656	12.01%	6.43%	13.62%	2.117
165.00	Acid Soluble B, Spectrophotometric (1.25%)	16	15	1.221	0.1362	0.1328	0.0432	0.1396	10.87%	3.54%	11.43%	3.229
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	19	16	1.133	0.0800	0.0777	0.0273	0.0823	6.85%	2.41%	7.26%	3.013
165.99	Acid Soluble B, Other (1.25%)	21	18	1.127	0.0635	0.0595	0.0315	0.0673	5.28%	2.79%	5.97%	2.138
171.10	Water Soluble B, Spectrophotometric (%)	5	5	1.192	0.1084	0.1074	0.0199	0.1093	9.02%	1.67%	9.17%	5.489
181.30	Acid Soluble Cd, ICP (ppm)	8	7	11.17	3.125	3.113	0.3931	3.137	27.86%	3.52%	28.08%	7.980
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	6	6	12.56	0.8159		1.489			11.86%		
191.30	Acid Soluble Cr, ICP (ppm)	7	6	29.05	6.719	6.686	0.9425	6.752	23.01%	3.24%	23.24%	7.164
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	6	5	45.25	3.267	3.127	1.341	3.402	6.91%	2.96%	7.52%	2.537
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	6	6	23.51	3.674	3.658	0.4783	3.689	15.56%	2.03%	15.69%	7.714
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	7	7	0.0197	0.0103	0.0100	0.0033	0.0105	50.85%	16.61%	53.50%	3.220
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	9	9	0.0193	0.0017	0.0015	0.0011	0.0018	7.71%	5.52%	9.48%	1.718
221.99	Acid Soluble Cu, Other (%)	7	7	0.0193	0.0018	0.0017	0.0011	0.0020	8.64%	5.58%	10.29%	1.843
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	5	5	0.8964	0.1081	0.1064	0.0272	0.1098	11.87%	3.03%	12.25%	4.039

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
251.30	Acid Soluble Pb, ICP (ppm)	8	8	126.6	27.89	27.00	9.935	28.77	21.33%	7.85%	22.73%	2.895
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	7	7	152.5	17.23	16.85	5.091	17.60	11.05%	3.34%	11.54%	3.458
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	9	9	5.049	0.1671	0.1594	0.0708	0.1744	3.16%	1.40%	3.45%	2.464
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	9	8	5.216	0.1743	0.1693	0.0590	0.1793	3.25%	1.13%	3.44%	3.038
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	17	15	5.342	0.2843	0.2782	0.0829	0.2903	5.21%	1.55%	5.43%	3.501
261.99	Acid Soluble Mn, Other (5%)	15	13	5.146	0.6303	0.6276	0.0816	0.6329	12.20%	1.59%	12.30%	7.754
281.99	Acid Soluble Hg, Other (ppm)	6	5	1.255	0.4921	0.4910	0.0461	0.4932	39.12%	3.67%	39.29%	10.71
291.30	Acid Soluble Ni, ICP (ppm)	7	6	136.9	32.67	32.44	5.543	32.91	23.69%	4.05%	24.03%	5.937
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	7	7	161.8	15.73	14.94	6.948	16.48	9.24%	4.30%	10.19%	2.371
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	5	5	18.47	16.75	16.75	0.6075	16.76	90.66%	3.29%	90.72%	27.58
311.33	Sodium, ICP, test portion as in 2017.02 (%)	6	5	1.280	0.1578	0.1574	0.0158	0.1582	12.30%	1.23%	12.36%	10.03
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	11	9	8.063	0.4118	0.3993	0.1424	0.4240	4.95%	1.77%	5.26%	2.978
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	21	19	8.731	0.8263	0.7980	0.3029	0.8536	9.14%	3.47%	9.78%	2.818
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	16	16	8.978	0.7607	0.7337	0.2841	0.7868	8.17%	3.16%	8.76%	2.769
321.99	Acid Soluble Zn, Other (7.5%)	15	15	7.866	1.576	1.573	0.1215	1.578	20.00%	1.54%	20.06%	12.99

Notes: Precision data calculated when 5 or more Tests included.

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210112

Micronutrients

Lab Values

Methods: 128

Labs Reporting: 84

Issue Date : 02/28/2021

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.99	Ammoniacal N, Other (%)	0524	1.535	0.1100				2			0
001.99	Ammoniacal N, Other (%)	0553	2.145	0.0700				2			0
010.12	Total N, Salicylic (%)	0568	2.040	0.0800				1			0
010.60	Total N, Combustion (%)	0421	2.065	0.0300	2.121	0.0419	0.0113	6	-1.20	OK	0
010.60	Total N, Combustion (%)	0472	2.096	0.0040	2.121	0.0419	0.0113	6	-0.54	OK	0
010.60	Total N, Combustion (%)	0527	2.120	0.0040	2.121	0.0419	0.0113	6	-0.03	OK	0
010.60	Total N, Combustion (%)	0354	2.135	0.0100	2.121	0.0419	0.0113	6	0.29	OK	0
010.60	Total N, Combustion (%)	0521	2.142	0.0000	2.121	0.0419	0.0113	6	0.45	OK	0
010.60	Total N, Combustion (%)	0325	2.170	0.0200	2.121	0.0419	0.0113	6	1.03	OK	0
010.60	Total N, Combustion (%)	0523	2.050	0.1000	2.121	0.0419	0.0113	6	-1.52	OK	1
010.99	Total N, Other (%)	0524	2.090	0.0076				1			0
020.50	Total P2O5, ICP (%)	0524	0.0531	0.0014	0.0691	0.0217	0.0030	4	-0.74		0
020.50	Total P2O5, ICP (%)	0389	0.0550	0.0100	0.0691	0.0217	0.0030	4	-0.65		0
020.50	Total P2O5, ICP (%)	0527	0.0683	0.0006	0.0691	0.0217	0.0030	4	-0.04		0
020.50	Total P2O5, ICP (%)	0523	0.1000	0.0000	0.0691	0.0217	0.0030	4	1.43		0
020.99	Total P2O5, Other (%)	0515	0.0212	0.0021				1			0
041.20	Direct Available P2O5, Spectrophotometric (%)	0553	0.0225	0.0010				1			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0568	0.0500	0.0000	0.0882	0.0401	0.0010	3	-0.95		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0354	0.0845	0.0030	0.0882	0.0401	0.0010	3	-0.09		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0472	0.1300	0.0000	0.0882	0.0401	0.0010	3	1.04		0
041.50	Direct Available P2O5, ICP (%)	0325	0.1000	0.0000				1			0
050.51	Soluble K2O, ICP (Citrate) (%)	0368	0.6739	0.0051				2			0
050.51	Soluble K2O, ICP (Citrate) (%)	0568	0.7450	0.0100				2			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0423	0.6280	0.0120				2			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0354	0.6515	0.0130				2			0
050.99	Soluble K2O, Other (%)	0523	0.7000	0.0000	0.7781	0.0637	0.0113	7	-1.11	OK	0
050.99	Soluble K2O, Other (%)	0553	0.7440	0.0180	0.7781	0.0637	0.0113	7	-0.48	OK	0
050.99	Soluble K2O, Other (%)	0521	0.7472	0.0000	0.7781	0.0637	0.0113	7	-0.44	OK	0
050.99	Soluble K2O, Other (%)	0389	0.7800	0.0200	0.7781	0.0637	0.0113	7	0.03	OK	0
050.99	Soluble K2O, Other (%)	0524	0.7841	0.0179	0.7781	0.0637	0.0113	7	0.08	OK	0
050.99	Soluble K2O, Other (%)	0527	0.8176	0.0126	0.7781	0.0637	0.0113	7	0.56	OK	0
050.99	Soluble K2O, Other (%)	0563	0.8816	0.0103	0.7781	0.0637	0.0113	7	1.47	OK	0
050.99	Soluble K2O, Other (%)	0325	0.7500	0.1000	0.7781	0.0637	0.0113	7	-0.40	OK	1
060.99	Water (Free), Other (%)	0510	2.633	0.0485				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0551	5.100	0.2000	6.055	1.138	0.1080	7	-0.76	Low	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0535	5.150	0.1000	6.055	1.138	0.1080	7	-0.72	Low	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0539	5.150	0.1000	6.055	1.138	0.1080	7	-0.72	Low	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0553	5.825	0.1500	6.055	1.138	0.1080	7	-0.18	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0485	6.579	0.0022	6.055	1.138	0.1080	7	0.42	High	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0029	7.064	0.0240	6.055	1.138	0.1080	7	0.80	High	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (5%)	0550	7.520	0.1800	6.055	1.138	0.1080	7	1.16	High	0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0534	5.385	0.1900				2			0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0546	6.911	0.0268				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0035	5.220	0.1000	6.480	0.4738	0.2025	16	-2.66	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0255	5.470	0.4810	6.480	0.4738	0.2025	16	-2.13	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0073	5.810	0.0000	6.480	0.4738	0.2025	16	-1.41	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0234	6.065	0.0100	6.480	0.4738	0.2025	16	-0.87	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0377	6.365	0.7900	6.480	0.4738	0.2025	16	-0.24	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0472	6.390	0.0000	6.480	0.4738	0.2025	16	-0.19	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0451	6.509	0.0740	6.480	0.4738	0.2025	16	0.06	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0360	6.602	0.0950	6.480	0.4738	0.2025	16	0.26	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0568	6.610	0.1200	6.480	0.4738	0.2025	16	0.28	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0354	6.730	0.0600	6.480	0.4738	0.2025	16	0.53	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0450	6.740	0.8000	6.480	0.4738	0.2025	16	0.55	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0433	6.750	0.1000	6.480	0.4738	0.2025	16	0.57	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0371	6.760	0.2800	6.480	0.4738	0.2025	16	0.59	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0325	6.850	0.1000	6.480	0.4738	0.2025	16	0.78	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0444	6.880	0.0200	6.480	0.4738	0.2025	16	0.85	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (5%)	0324	7.075	0.2100	6.480	0.4738	0.2025	16	1.26	High	0
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (5%)	0422	5.625	0.1500	6.190	0.5753	0.0667	3	-0.98		0
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (5%)	0231	6.170	0.0200	6.190	0.5753	0.0667	3	-0.03		0
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (5%)	0023	6.775	0.0300	6.190	0.5753	0.0667	3	1.02		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	0521	5.987	0.0000	6.566	0.3501	0.1340	5	-1.66		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	0220	6.530	0.2000	6.566	0.3501	0.1340	5	-0.10		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	0028	6.660	0.0400	6.566	0.3501	0.1340	5	0.27		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	0423	6.765	0.0300	6.566	0.3501	0.1340	5	0.57		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (5%)	0095	6.890	0.4000	6.566	0.3501	0.1340	5	0.92		0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0025	5.200	0.0200	6.573	0.4178	0.1097	18	-3.29	Low	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0486	5.610	0.1400	6.573	0.4178	0.1097	18	-2.30	Low	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0177	6.304	0.1334	6.573	0.4178	0.1097	18	-0.64	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0292	6.310	0.0000	6.573	0.4178	0.1097	18	-0.63	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0055	6.350	0.0600	6.573	0.4178	0.1097	18	-0.53	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0040	6.375	0.0100	6.573	0.4178	0.1097	18	-0.47	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0034	6.479	0.0980	6.573	0.4178	0.1097	18	-0.22	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0368	6.513	0.0420	6.573	0.4178	0.1097	18	-0.14	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0527	6.523	0.1486	6.573	0.4178	0.1097	18	-0.12	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0043	6.585	0.0900	6.573	0.4178	0.1097	18	0.03	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0494	6.586	0.0954	6.573	0.4178	0.1097	18	0.03	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0419	6.605	0.0300	6.573	0.4178	0.1097	18	0.08	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0037	6.634	0.0180	6.573	0.4178	0.1097	18	0.15	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0117	6.703	0.1363	6.573	0.4178	0.1097	18	0.31	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0136	6.850	0.5000	6.573	0.4178	0.1097	18	0.66	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0169	7.350	0.1000	6.573	0.4178	0.1097	18	1.86	High	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0563	7.394	0.2526	6.573	0.4178	0.1097	18	1.97	High	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0421	9.460	0.1000	6.573	0.4178	0.1097	18	6.91	High	0
101.33	Acid Soluble Ca, ICP, 2017.02 (5%)	0515	6.069	1.075	6.573	0.4178	0.1097	18	-1.21	OK	1
101.70	Acid Soluble Ca, Titrimetric (5%)	0476	4.364	0.0416	4.977	0.4263	0.1114	5	-1.44		0
101.70	Acid Soluble Ca, Titrimetric (5%)	0510	4.792	0.0754	4.977	0.4263	0.1114	5	-0.43		0
101.70	Acid Soluble Ca, Titrimetric (5%)	0549	4.985	0.2100	4.977	0.4263	0.1114	5	0.02		0
101.70	Acid Soluble Ca, Titrimetric (5%)	0537	5.325	0.1500	4.977	0.4263	0.1114	5	0.82		0
101.70	Acid Soluble Ca, Titrimetric (5%)	0532	5.420	0.0800	4.977	0.4263	0.1114	5	1.04		0
101.99	Acid Soluble Ca, Other (5%)	0540	4.955	0.0300	6.029	0.9164	0.1165	13	-1.17	Low	0
101.99	Acid Soluble Ca, Other (5%)	0516	4.971	0.0450	6.029	0.9164	0.1165	13	-1.15	Low	0
101.99	Acid Soluble Ca, Other (5%)	0042	4.975	0.1700	6.029	0.9164	0.1165	13	-1.15	Low	0
101.99	Acid Soluble Ca, Other (5%)	0558	5.160	0.0000	6.029	0.9164	0.1165	13	-0.95	Low	0
101.99	Acid Soluble Ca, Other (5%)	0506	5.620	0.0000	6.029	0.9164	0.1165	13	-0.45	OK	0
101.99	Acid Soluble Ca, Other (5%)	0538	6.225	0.1500	6.029	0.9164	0.1165	13	0.21	OK	0
101.99	Acid Soluble Ca, Other (5%)	0561	6.245	0.0500	6.029	0.9164	0.1165	13	0.24	OK	0
101.99	Acid Soluble Ca, Other (5%)	0389	6.310	0.1000	6.029	0.9164	0.1165	13	0.31	OK	0
101.99	Acid Soluble Ca, Other (5%)	0405	6.515	0.3300	6.029	0.9164	0.1165	13	0.53	OK	0
101.99	Acid Soluble Ca, Other (5%)	0390	6.535	0.1500	6.029	0.9164	0.1165	13	0.55	High	0
101.99	Acid Soluble Ca, Other (5%)	0547	6.610	0.1000	6.029	0.9164	0.1165	13	0.63	High	0
101.99	Acid Soluble Ca, Other (5%)	0444	6.880	0.0200	6.029	0.9164	0.1165	13	0.93	High	0
101.99	Acid Soluble Ca, Other (5%)	0027	7.375	0.3700	6.029	0.9164	0.1165	13	1.47	High	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (9.5%)	0539	0.2100	0.0200	0.2277	0.0264	0.0200	3	-0.67		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (9.5%)	0535	0.2150	0.0300	0.2277	0.0264	0.0200	3	-0.48		0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (9.5%)	0553	0.2580	0.0100	0.2277	0.0264	0.0200	3	1.15		0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (9.5%)	0534	0.5350	0.0500				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (9.5%)	0472	0.1850	0.0300	0.3061	0.0814	0.0428	4	-1.49		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (9.5%)	0035	0.3345	0.1110	0.3061	0.0814	0.0428	4	0.35		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (9.5%)	0568	0.3450	0.0100	0.3061	0.0814	0.0428	4	0.48		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (9.5%)	0354	0.3600	0.0200	0.3061	0.0814	0.0428	4	0.66		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (9.5%)	0028	0.3355	0.0110				2			0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (9.5%)	0423	0.4785	0.0110				2			0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0419	0.2500	0.0000	0.5338	0.2318	0.0177	7	-1.11	Low	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0368	0.3474	0.0189	0.5338	0.2318	0.0177	7	-0.73	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0515	0.4914	0.0311	0.5338	0.2318	0.0177	7	-0.17	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0494	0.5396	0.0142	0.5338	0.2318	0.0177	7	0.02	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0563	0.6118	0.0473	0.5338	0.2318	0.0177	7	0.30	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0527	0.6151	0.0023	0.5338	0.2318	0.0177	7	0.32	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (9.5%)	0421	0.9250	0.0100	0.5338	0.2318	0.0177	7	1.53	High	0
121.99	Acid Soluble Mg, Other (9.5%)	0516	0.1775	0.0030	0.2362	0.0535	0.0184	5	-1.10		0
121.99	Acid Soluble Mg, Other (9.5%)	0515	0.2029	0.0700	0.2362	0.0535	0.0184	5	-0.62		0
121.99	Acid Soluble Mg, Other (9.5%)	0524	0.2155	0.0088	0.2362	0.0535	0.0184	5	-0.39		0
121.99	Acid Soluble Mg, Other (9.5%)	0389	0.2850	0.0100	0.2362	0.0535	0.0184	5	0.91		0
121.99	Acid Soluble Mg, Other (9.5%)	0523	0.3000	0.0000	0.2362	0.0535	0.0184	5	1.19		0
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur (%)	0405	0.5750	0.1300				1			0
143.99	Elemental S, Other (%)	0390	9.090	0.2000	9.809	0.9104	0.1901	6	-0.70	NA	0
143.99	Elemental S, Other (%)	0472	9.095	0.0300	9.809	0.9104	0.1901	6	-0.70	NA	0
143.99	Elemental S, Other (%)	0255	9.490	0.4210	9.809	0.9104	0.1901	6	-0.31	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
143.99	Elemental S, Other (%)	0368	9.556	0.0397	9.809	0.9104	0.1901	6	-0.25	NA	0
143.99	Elemental S, Other (%)	0389	10.73	0.0500	9.809	0.9104	0.1901	6	0.90	NA	0
143.99	Elemental S, Other (%)	0325	10.90	0.4000	9.809	0.9104	0.1901	6	1.07	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0027	9.405	0.4100	9.603	0.1379	0.2350	4	-1.43		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0405	9.620	0.1200	9.603	0.1379	0.2350	4	0.13		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0550	9.665	0.3700	9.603	0.1379	0.2350	4	0.45		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0561	9.720	0.0400	9.603	0.1379	0.2350	4	0.85		0
145.99	Sulfate S, HCl soluble, Other (%)	0562	9.200	0.2000	9.474	0.2778	0.1760	5	-0.99		0
145.99	Sulfate S, HCl soluble, Other (%)	0444	9.205	0.2100	9.474	0.2778	0.1760	5	-0.97		0
145.99	Sulfate S, HCl soluble, Other (%)	0553	9.550	0.1000	9.474	0.2778	0.1760	5	0.27		0
145.99	Sulfate S, HCl soluble, Other (%)	0537	9.555	0.2700	9.474	0.2778	0.1760	5	0.29		0
145.99	Sulfate S, HCl soluble, Other (%)	0419	9.860	0.1000	9.474	0.2778	0.1760	5	1.39		0
146.00	Total S in Liquid, Gravimetric - sulfate, sulfite, thiosulfate, a... (%)	0538	9.500	0.2000				1			0
148.00	Total S, Combustion (%)	0049	9.275	0.0500	9.789	0.3722	0.2300	6	-1.23	OK	0
148.00	Total S, Combustion (%)	0527	9.628	0.1610	9.789	0.3722	0.2300	6	-0.39	OK	0
148.00	Total S, Combustion (%)	0029	9.704	0.1590	9.789	0.3722	0.2300	6	-0.20	OK	0
148.00	Total S, Combustion (%)	0114	9.885	0.3900	9.789	0.3722	0.2300	6	0.23	OK	0
148.00	Total S, Combustion (%)	0451	10.04	0.4200	9.789	0.3722	0.2300	6	0.60	OK	0
148.00	Total S, Combustion (%)	0136	10.20	0.2000	9.789	0.3722	0.2300	6	0.98	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0564	9.420	0.0600	9.749	0.3332	0.1677	12	-0.99	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0444	9.445	0.4500	9.749	0.3332	0.1677	12	-0.91	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0073	9.480	0.2600	9.749	0.3332	0.1677	12	-0.81	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0028	9.515	0.3900	9.749	0.3332	0.1677	12	-0.70	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0231	9.550	0.1000	9.749	0.3332	0.1677	12	-0.60	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0549	9.615	0.0900	9.749	0.3332	0.1677	12	-0.40	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0055	9.735	0.0900	9.749	0.3332	0.1677	12	-0.04	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0534	9.775	0.0300	9.749	0.3332	0.1677	12	0.08	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0532	9.980	0.1600	9.749	0.3332	0.1677	12	0.69	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0476	10.08	0.1321	9.749	0.3332	0.1677	12	0.99	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0405	10.20	0.2500	9.749	0.3332	0.1677	12	1.34	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0324	10.20	0.0000	9.749	0.3332	0.1677	12	1.35	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (%)	0157	11.35	1.100	9.749	0.3332	0.1677	12	4.81	High	1
148.07	Total S, ICP, test portion as in 2017.02 (%)	0521	8.191	0.0000	9.773	0.4914	0.1436	16	-3.22	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0117	9.197	0.1709	9.773	0.4914	0.1436	16	-1.17	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0486	9.420	0.1800	9.773	0.4914	0.1436	16	-0.72	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0169	9.500	0.1000	9.773	0.4914	0.1436	16	-0.56	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0444	9.595	0.3100	9.773	0.4914	0.1436	16	-0.36	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0023	9.655	0.0100	9.773	0.4914	0.1436	16	-0.24	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0515	9.666	0.1404	9.773	0.4914	0.1436	16	-0.22	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0037	9.696	0.0580	9.773	0.4914	0.1436	16	-0.16	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0040	9.700	0.2000	9.773	0.4914	0.1436	16	-0.15	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0494	9.714	0.3322	9.773	0.4914	0.1436	16	-0.12	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0292	9.755	0.0700	9.773	0.4914	0.1436	16	-0.04	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0177	9.865	0.1536	9.773	0.4914	0.1436	16	0.19	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0546	10.08	0.0332	9.773	0.4914	0.1436	16	0.62	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0527	10.47	0.0888	9.773	0.4914	0.1436	16	1.41	High	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0563	10.79	0.3209	9.773	0.4914	0.1436	16	2.08	High	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
148.07	Total S, ICP, test portion as in 2017.02 (%)	0043	10.96	0.1300	9.773	0.4914	0.1436	16	2.41	High	0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0421	10.03	1.150	9.773	0.4914	0.1436	16	0.51	OK	1
148.99	Total S, Other (%)	0516	2.906	0.2010	9.806	0.8821	0.1013	17	-7.82	Low	0
148.99	Total S, Other (%)	0450	8.705	0.0300	9.806	0.8821	0.1013	17	-1.25	Low	0
148.99	Total S, Other (%)	0523	8.725	0.0900	9.806	0.8821	0.1013	17	-1.23	Low	0
148.99	Total S, Other (%)	0540	9.495	0.1300	9.806	0.8821	0.1013	17	-0.35	OK	0
148.99	Total S, Other (%)	0354	9.590	0.0600	9.806	0.8821	0.1013	17	-0.24	OK	0
148.99	Total S, Other (%)	0072	9.622	0.0403	9.806	0.8821	0.1013	17	-0.21	OK	0
148.99	Total S, Other (%)	0433	9.635	0.0700	9.806	0.8821	0.1013	17	-0.19	OK	0
148.99	Total S, Other (%)	0506	9.690	0.0000	9.806	0.8821	0.1013	17	-0.13	OK	0
148.99	Total S, Other (%)	0558	9.710	0.1000	9.806	0.8821	0.1013	17	-0.11	OK	0
148.99	Total S, Other (%)	0567	9.750	0.1000	9.806	0.8821	0.1013	17	-0.06	OK	0
148.99	Total S, Other (%)	0422	9.890	0.1800	9.806	0.8821	0.1013	17	0.10	OK	0
148.99	Total S, Other (%)	0220	10.00	0.0600	9.806	0.8821	0.1013	17	0.22	OK	0
148.99	Total S, Other (%)	0559	10.01	0.0100	9.806	0.8821	0.1013	17	0.23	OK	0
148.99	Total S, Other (%)	0371	10.05	0.2500	9.806	0.8821	0.1013	17	0.27	OK	0
148.99	Total S, Other (%)	0551	11.10	0.2000	9.806	0.8821	0.1013	17	1.47	High	0
148.99	Total S, Other (%)	0535	11.65	0.1000	9.806	0.8821	0.1013	17	2.09	High	0
148.99	Total S, Other (%)	0539	11.65	0.1000	9.806	0.8821	0.1013	17	2.09	High	0
149.03	S - HNO3 soluble, Spectrometric (%)	0518	9.445	0.2900				1			0
149.04	S - HNO3 soluble, ICP (%)	0231	9.405	0.0100	9.771	0.5449	0.0665	3	-0.67		0
149.04	S - HNO3 soluble, ICP (%)	0423	9.510	0.0600	9.771	0.5449	0.0665	3	-0.48		0
149.04	S - HNO3 soluble, ICP (%)	0524	10.40	0.1295	9.771	0.5449	0.0665	3	1.15		0
149.99	S - HNO3 soluble, Other (%)	0547	9.120	0.0400				1			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0534	3.455	0.2500				1			0
151.30	Acid Soluble As, ICP (ppm)	0255	3.336	1.955	3.921	0.4655	0.6978	4	-1.26		0
151.30	Acid Soluble As, ICP (ppm)	0524	3.773	0.0470	3.921	0.4655	0.6978	4	-0.32		0
151.30	Acid Soluble As, ICP (ppm)	0450	4.200	0.6000	3.921	0.4655	0.6978	4	0.60		0
151.30	Acid Soluble As, ICP (ppm)	0523	4.377	0.1890	3.921	0.4655	0.6978	4	0.98		0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0220	3.450	0.7000				2			0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0529	3.460	0.1000				2			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	3.567	0.3680	4.152	0.5331	0.2813	5	-0.96		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	3.885	0.3500	4.152	0.5331	0.2813	5	-0.44		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	4.020	0.0133	4.152	0.5331	0.2813	5	-0.22		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0563	4.309	0.0003	4.152	0.5331	0.2813	5	0.26		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0494	4.978	0.6750	4.152	0.5331	0.2813	5	1.35		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	< 10		4.152	0.5331	0.2813	5			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	3.781	2.784				2			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	10.22	2.240				2			0
151.99	Acid Soluble As, Other (ppm)	0550	0.3550	0.1700	3.039	1.943	0.1575	4	-1.38		0
151.99	Acid Soluble As, Other (ppm)	0506	3.300	0.0600	3.039	1.943	0.1575	4	0.13		0
151.99	Acid Soluble As, Other (ppm)	0220	3.500	0.4000	3.039	1.943	0.1575	4	0.24		0
151.99	Acid Soluble As, Other (ppm)	0405	5.000	0.0000	3.039	1.943	0.1575	4	1.01		0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0055	1.005	0.0200	1.223	0.1227	0.0586	16	-1.78	Low	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0405	1.135	0.0100	1.223	0.1227	0.0586	16	-0.72	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0029	1.140	0.0320	1.223	0.1227	0.0586	16	-0.68	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0028	1.141	0.0040	1.223	0.1227	0.0586	16	-0.67	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0535	1.150	0.1000	1.223	0.1227	0.0586	16	-0.60	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0553	1.150	0.1000	1.223	0.1227	0.0586	16	-0.60	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0506	1.180	0.0400	1.223	0.1227	0.0586	16	-0.35	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0550	1.180	0.0400	1.223	0.1227	0.0586	16	-0.35	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0537	1.185	0.0700	1.223	0.1227	0.0586	16	-0.31	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0540	1.230	0.0400	1.223	0.1227	0.0586	16	0.06	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0533	1.267	0.0310	1.223	0.1227	0.0586	16	0.35	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0538	1.275	0.1500	1.223	0.1227	0.0586	16	0.42	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0558	1.300	0.0200	1.223	0.1227	0.0586	16	0.63	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0220	1.385	0.0100	1.223	0.1227	0.0586	16	1.32	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0309	1.595	0.0300	1.223	0.1227	0.0586	16	3.03	High	0
165.00	Acid Soluble B, Spectrophotometric (1.25%)	0556	2.300	0.2400	1.223	0.1227	0.0586	16	8.77	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0324	0.9700	0.0800	1.152	0.0976	0.0307	18	-1.87	Low	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0169	1.024	0.0020	1.152	0.0976	0.0307	18	-1.31	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0521	1.056	0.0000	1.152	0.0976	0.0307	18	-0.99	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0377	1.065	0.0900	1.152	0.0976	0.0307	18	-0.89	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0354	1.090	0.0400	1.152	0.0976	0.0307	18	-0.64	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0292	1.115	0.0100	1.152	0.0976	0.0307	18	-0.38	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0444	1.125	0.0300	1.152	0.0976	0.0307	18	-0.28	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0422	1.130	0.0600	1.152	0.0976	0.0307	18	-0.23	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0494	1.138	0.0095	1.152	0.0976	0.0307	18	-0.15	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0234	1.170	0.0000	1.152	0.0976	0.0307	18	0.18	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0433	1.180	0.0200	1.152	0.0976	0.0307	18	0.28	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0389	1.190	0.0400	1.152	0.0976	0.0307	18	0.39	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0546	1.191	0.0100	1.152	0.0976	0.0307	18	0.40	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0043	1.195	0.0100	1.152	0.0976	0.0307	18	0.44	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0023	1.200	0.0000	1.152	0.0976	0.0307	18	0.49	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0451	1.273	0.1110	1.152	0.0976	0.0307	18	1.23	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0073	1.295	0.0300	1.152	0.0976	0.0307	18	1.46	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0371	1.495	0.0100	1.152	0.0976	0.0307	18	3.51	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.25%)	0325	1.450	0.3000	1.152	0.0976	0.0307	18	3.05	High	1
165.99	Acid Soluble B, Other (1.25%)	0516	0.7720	0.0080	1.124	0.0764	0.0364	20	-4.61	Low	0
165.99	Acid Soluble B, Other (1.25%)	0390	1.015	0.0710	1.124	0.0764	0.0364	20	-1.43	OK	0
165.99	Acid Soluble B, Other (1.25%)	0231	1.025	0.0100	1.124	0.0764	0.0364	20	-1.30	OK	0
165.99	Acid Soluble B, Other (1.25%)	0423	1.067	0.0070	1.124	0.0764	0.0364	20	-0.75	OK	0
165.99	Acid Soluble B, Other (1.25%)	0421	1.070	0.0400	1.124	0.0764	0.0364	20	-0.71	OK	0
165.99	Acid Soluble B, Other (1.25%)	0472	1.090	0.0200	1.124	0.0764	0.0364	20	-0.44	OK	0
165.99	Acid Soluble B, Other (1.25%)	0255	1.094	0.0500	1.124	0.0764	0.0364	20	-0.39	OK	0
165.99	Acid Soluble B, Other (1.25%)	0564	1.095	0.0100	1.124	0.0764	0.0364	20	-0.38	OK	0
165.99	Acid Soluble B, Other (1.25%)	0547	1.105	0.0100	1.124	0.0764	0.0364	20	-0.25	OK	0
165.99	Acid Soluble B, Other (1.25%)	0559	1.115	0.0100	1.124	0.0764	0.0364	20	-0.12	OK	0
165.99	Acid Soluble B, Other (1.25%)	0117	1.137	0.0045	1.124	0.0764	0.0364	20	0.16	OK	0
165.99	Acid Soluble B, Other (1.25%)	0368	1.137	0.0034	1.124	0.0764	0.0364	20	0.17	OK	0
165.99	Acid Soluble B, Other (1.25%)	0360	1.142	0.0110	1.124	0.0764	0.0364	20	0.23	OK	0
165.99	Acid Soluble B, Other (1.25%)	0562	1.150	0.1000	1.124	0.0764	0.0364	20	0.34	OK	0
165.99	Acid Soluble B, Other (1.25%)	0136	1.190	0.1600	1.124	0.0764	0.0364	20	0.86	OK	0
165.99	Acid Soluble B, Other (1.25%)	0515	1.195	0.1017	1.124	0.0764	0.0364	20	0.93	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165.99	Acid Soluble B, Other (1.25%)	0486	1.195	0.0100	1.124	0.0764	0.0364	20	0.93	OK	0
165.99	Acid Soluble B, Other (1.25%)	0527	1.208	0.0013	1.124	0.0764	0.0364	20	1.10	OK	0
165.99	Acid Soluble B, Other (1.25%)	0524	1.218	0.0508	1.124	0.0764	0.0364	20	1.23	OK	0
165.99	Acid Soluble B, Other (1.25%)	0042	1.225	0.0500	1.124	0.0764	0.0364	20	1.32	OK	0
165.99	Acid Soluble B, Other (1.25%)	0563	1.223	0.2116	1.124	0.0764	0.0364	20	1.29	OK	1
171.10	Water Soluble B, Spectrophotometric (%)	0534	1.010	0.0200	1.192	0.1084	0.0236	5	-1.68		0
171.10	Water Soluble B, Spectrophotometric (%)	0551	1.175	0.0500	1.192	0.1084	0.0236	5	-0.16		0
171.10	Water Soluble B, Spectrophotometric (%)	0532	1.244	0.0080	1.192	0.1084	0.0236	5	0.48		0
171.10	Water Soluble B, Spectrophotometric (%)	0567	1.255	0.0100	1.192	0.1084	0.0236	5	0.58		0
171.10	Water Soluble B, Spectrophotometric (%)	0549	1.275	0.0300	1.192	0.1084	0.0236	5	0.77		0
171.99	Water Soluble B, Other (%)	0027	1.115	0.0700				2			0
171.99	Water Soluble B, Other (%)	0562	1.300	0.1000				2			0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0534	9.690	0.6600				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0444	7.265	0.7300	11.17	3.544	0.4730	7	-1.00	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0524	8.563	0.2313	11.17	3.544	0.4730	7	-0.67	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0389	9.495	0.1500	11.17	3.544	0.4730	7	-0.43	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0523	10.32	0.4500	11.17	3.544	0.4730	7	-0.22	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0450	12.25	0.3000	11.17	3.544	0.4730	7	0.28	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0035	15.00	0.4000	11.17	3.544	0.4730	7	0.98	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0419	15.32	1.050	11.17	3.544	0.4730	7	1.06	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0255	8.729	4.776	11.17	3.544	0.4730	7	-0.62	NA	1
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0220	11.30	0.8000				2			0
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0529	11.42	0.3000				2			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	11.38	3.258	12.56	0.9252	1.758	6	-1.14	NA	0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	12.07	0.5000	12.56	0.9252	1.758	6	-0.47	NA	0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0037	12.16	0.4040	12.56	0.9252	1.758	6	-0.39	NA	0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0494	13.10	3.267	12.56	0.9252	1.758	6	0.52	NA	0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	13.11	1.675	12.56	0.9252	1.758	6	0.54	NA	0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0563	13.52	1.445	12.56	0.9252	1.758	6	0.93	NA	0
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	10.68	0.9300				2			0
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	12.65	0.8220				2			0
181.99	Acid Soluble Cd, Other (ppm)	0506	10.65	0.3000	12.59	1.730	1.043	3	-1.12		0
181.99	Acid Soluble Cd, Other (ppm)	0550	13.16	1.850	12.59	1.730	1.043	3	0.33		0
181.99	Acid Soluble Cd, Other (ppm)	0405	13.97	0.9800	12.59	1.730	1.043	3	0.80		0
190.00	Water Soluble Cl, Titrimetric (%)	0553	0.3300	0.0200				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0389	20.36	0.0700	28.78	6.974	1.049	6	-1.08	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	26.23	1.946	28.78	6.974	1.049	6	-0.33	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0444	27.95	0.3400	28.78	6.974	1.049	6	-0.11	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0419	28.91	1.630	28.78	6.974	1.049	6	0.02	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	30.00	2.000	28.78	6.974	1.049	6	0.16	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0523	40.89	0.3100	28.78	6.974	1.049	6	1.55	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	51.40	7.600	28.78	6.974	1.049	6	2.89	NA	1
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0529	28.63	0.6600				2			0
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0220	56.00	0.0000				2			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	16.25	1.900	43.45	5.995	1.607	6	-4.04	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	43.10	0.0491	43.45	5.995	1.607	6	-0.05	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	43.43	2.679	43.45	5.995	1.607	6	0.00	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	43.63	1.263	43.45	5.995	1.607	6	0.03	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0563	45.18	2.918	43.45	5.995	1.607	6	0.26	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0494	50.92	0.8333	43.45	5.995	1.607	6	1.11	NA	0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	23.20	0.8100				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	28.55	4.375				2			0
191.99	Acid Soluble Cr, Other (ppm)	0550	24.76	1.400	32.55	6.903	2.533	3	-1.13		0
191.99	Acid Soluble Cr, Other (ppm)	0405	35.00	6.000	32.55	6.903	2.533	3	0.35		0
191.99	Acid Soluble Cr, Other (ppm)	0506	37.90	0.2000	32.55	6.903	2.533	3	0.77		0
202.30	Acid Soluble Co, ICP (ppm)	0550	8.990	0.3000	16.85	6.475	0.4889	5	-1.06		0
202.30	Acid Soluble Co, ICP (ppm)	0389	11.60	0.0300	16.85	6.475	0.4889	5	-0.71		0
202.30	Acid Soluble Co, ICP (ppm)	0524	18.36	0.3446	16.85	6.475	0.4889	5	0.20		0
202.30	Acid Soluble Co, ICP (ppm)	0419	20.61	0.1100	16.85	6.475	0.4889	5	0.51		0
202.30	Acid Soluble Co, ICP (ppm)	0523	24.72	1.660	16.85	6.475	0.4889	5	1.06		0
202.30	Acid Soluble Co, ICP (ppm)	0035	22.50	5.000	16.85	6.475	0.4889	5	0.76		1
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0220	20.75	0.7000				2			0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0423	21.86	0.2100				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	16.80	0.6000	23.85	3.361	0.6092	6	-1.87	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	21.67	1.047	23.85	3.361	0.6092	6	-0.58	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0494	25.00	0.4000	23.85	3.361	0.6092	6	0.31	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0037	25.59	0.8580	23.85	3.361	0.6092	6	0.46	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0563	25.85	0.6109	23.85	3.361	0.6092	6	0.53	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	26.17	0.1394	23.85	3.361	0.6092	6	0.62	OK	0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	18.62	1.310				2			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	19.82	6.400				2			0
202.99	Acid Soluble Co, Other (ppm)	0255	16.10	4.011	20.14	3.235	1.878	4	-1.25		0
202.99	Acid Soluble Co, Other (ppm)	0506	19.30	0.8000	20.14	3.235	1.878	4	-0.26		0
202.99	Acid Soluble Co, Other (ppm)	0220	21.45	0.9000	20.14	3.235	1.878	4	0.41		0
202.99	Acid Soluble Co, Other (ppm)	0405	23.70	1.800	20.14	3.235	1.878	4	1.10		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0550	0.0003	0.0002	0.0205	0.0067	0.0033	7	-2.75	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0534	0.0170	0.0000	0.0205	0.0067	0.0033	7	-0.48	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0553	0.0195	0.0010	0.0205	0.0067	0.0033	7	-0.14	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0533	0.0220	0.0040	0.0205	0.0067	0.0033	7	0.20	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0535	0.0220	0.0040	0.0205	0.0067	0.0033	7	0.20	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0539	0.0221	0.0041	0.0205	0.0067	0.0033	7	0.21	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0538	0.0350	0.0100	0.0205	0.0067	0.0033	7	1.97	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0231	0.0200	0.0000	0.0220	0.0045	0.0000	5	-0.40		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	0.0200	0.0000	0.0220	0.0045	0.0000	5	-0.40		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0472	0.0200	0.0000	0.0220	0.0045	0.0000	5	-0.40		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0234	0.0201	0.0002	0.0220	0.0045	0.0000	5	-0.38		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0444	0.0300	0.0000	0.0220	0.0045	0.0000	5	1.56		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0035	0.0180	0.0012	0.0220	0.0045	0.0000	5	-0.79		1
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0000	0.0000	0.0220	0.0045	0.0000	5			4
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0423	0.0180	0.0000				2			0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0220	0.0202	0.0008				2			0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0136	0.0165	0.0010	0.0193	0.0019	0.0013	9	-1.36	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0515	0.0173	0.0011	0.0193	0.0019	0.0013	9	-0.99	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0419	0.0190	0.0020	0.0193	0.0019	0.0013	9	-0.14	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0368	0.0191	0.0027	0.0193	0.0019	0.0013	9	-0.11	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0494	0.0192	0.0003	0.0193	0.0019	0.0013	9	-0.06	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0037	0.0200	0.0020	0.0193	0.0019	0.0013	9	0.35	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0043	0.0200	0.0000	0.0193	0.0019	0.0013	9	0.35	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0563	0.0205	0.0014	0.0193	0.0019	0.0013	9	0.60	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	0.0221	0.0009	0.0193	0.0019	0.0013	9	1.35	OK	0
221.99	Acid Soluble Cu, Other (%)	0220	0.0170	0.0020	0.0193	0.0021	0.0014	7	-1.00	OK	0
221.99	Acid Soluble Cu, Other (%)	0515	0.0182	0.0021	0.0193	0.0021	0.0014	7	-0.50	OK	0
221.99	Acid Soluble Cu, Other (%)	0389	0.0185	0.0010	0.0193	0.0021	0.0014	7	-0.35	OK	0
221.99	Acid Soluble Cu, Other (%)	0523	0.0185	0.0010	0.0193	0.0021	0.0014	7	-0.35	OK	0
221.99	Acid Soluble Cu, Other (%)	0524	0.0196	0.0004	0.0193	0.0021	0.0014	7	0.13	OK	0
221.99	Acid Soluble Cu, Other (%)	0506	0.0210	0.0020	0.0193	0.0021	0.0014	7	0.74	OK	0
221.99	Acid Soluble Cu, Other (%)	0405	0.0224	0.0013	0.0193	0.0021	0.0014	7	1.33	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	0.6150	0.0500	0.8383	0.1934	0.0833	3	-1.15		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0535	0.9500	0.1000	0.8383	0.1934	0.0833	3	0.58		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0539	0.9500	0.1000	0.8383	0.1934	0.0833	3	0.58		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0472	0.6700	0.0000	0.7481	0.0793	0.0458	4	-0.99		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0444	0.6900	0.0600	0.7481	0.0793	0.0458	4	-0.73		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	0.8100	0.0400	0.7481	0.0793	0.0458	4	0.78		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0035	0.8225	0.0830	0.7481	0.0793	0.0458	4	0.94		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0028	0.8520	0.0480				2			0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	0.9265	0.0090				2			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0368	0.7386	0.0175	0.8964	0.1081	0.0337	5	-1.46		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	0.8593	0.0634	0.8964	0.1081	0.0337	5	-0.34		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0494	0.8946	0.0312	0.8964	0.1081	0.0337	5	-0.02		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0563	0.9711	0.0440	0.8964	0.1081	0.0337	5	0.69		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	1.018	0.0125	0.8964	0.1081	0.0337	5	1.13		0
241.99	Acid Soluble Fe, Other (%)	0515	0.6977	0.0225	0.7603	0.0626	0.0281	4	-1.00		0
241.99	Acid Soluble Fe, Other (%)	0523	0.7200	0.0280	0.7603	0.0626	0.0281	4	-0.64		0
241.99	Acid Soluble Fe, Other (%)	0389	0.7900	0.0200	0.7603	0.0626	0.0281	4	0.48		0
241.99	Acid Soluble Fe, Other (%)	0524	0.8334	0.0417	0.7603	0.0626	0.0281	4	1.17		0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0534	135.4	8.800				1			0
251.30	Acid Soluble Pb, ICP (ppm)	0444	89.35	9.160	126.6	31.63	12.73	8	-1.08	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0255	95.41	19.72	126.6	31.63	12.73	8	-0.90	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0389	100.4	4.200	126.6	31.63	12.73	8	-0.76	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0523	130.0	16.00	126.6	31.63	12.73	8	0.10	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0035	135.5	23.00	126.6	31.63	12.73	8	0.26	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0450	150.1	8.900	126.6	31.63	12.73	8	0.68	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0524	151.6	8.579	126.6	31.63	12.73	8	0.72	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0419	160.3	12.30	126.6	31.63	12.73	8	0.97	NA	0
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0529	121.0	2.030				2			0
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0220	167.0	10.00				2			0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	134.5	5.000	152.5	19.54	6.050	7	-0.83	NA	0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	135.4	11.68	152.5	19.54	6.050	7	-0.79	NA	0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	143.6	5.066	152.5	19.54	6.050	7	-0.41	NA	0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0037	144.3	9.155	152.5	19.54	6.050	7	-0.38	NA	0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0494	164.5	1.000	152.5	19.54	6.050	7	0.55	NA	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0563	167.3	9.487	152.5	19.54	6.050	7	0.68	NA	0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	178.1	0.9639	152.5	19.54	6.050	7	1.18	NA	0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	133.1	1.080				2			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	148.2	21.61				2			0
251.99	Acid Soluble Pb, Other (ppm)	0405	145.5	1.000	149.4	3.568	9.800	3	-1.09		0
251.99	Acid Soluble Pb, Other (ppm)	0550	150.2	21.40	149.4	3.568	9.800	3	0.22		0
251.99	Acid Soluble Pb, Other (ppm)	0220	152.5	7.000	149.4	3.568	9.800	3	0.87		0
261.11	Acid Soluble Mn, AA, total Mn (5%)	0553	4.500	0.0200				2			0
261.11	Acid Soluble Mn, AA, total Mn (5%)	0550	5.840	0.1200				2			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0538	4.900	0.0400	5.034	0.1547	0.0843	9	-0.80	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0533	4.950	0.1000	5.034	0.1547	0.0843	9	-0.50	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0535	4.950	0.1000	5.034	0.1547	0.0843	9	-0.50	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0539	4.950	0.1000	5.034	0.1547	0.0843	9	-0.50	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0537	4.980	0.0600	5.034	0.1547	0.0843	9	-0.32	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0485	5.001	0.0105	5.034	0.1547	0.0843	9	-0.20	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0551	5.050	0.1000	5.034	0.1547	0.0843	9	0.09	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0040	5.261	0.0400	5.034	0.1547	0.0843	9	1.35	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (5%)	0029	5.395	0.2080	5.034	0.1547	0.0843	9	2.15	OK	0
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (5%)	0292	5.075	0.0300				1			0
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0534	4.710	0.1400				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0234	4.980	0.1600	5.216	0.1977	0.0688	8	-1.09	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0390	5.010	0.0600	5.216	0.1977	0.0688	8	-0.95	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0035	5.115	0.1300	5.216	0.1977	0.0688	8	-0.47	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0472	5.170	0.0600	5.216	0.1977	0.0688	8	-0.21	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0433	5.285	0.0500	5.216	0.1977	0.0688	8	0.32	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0444	5.325	0.0300	5.216	0.1977	0.0688	8	0.51	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0422	5.385	0.0500	5.216	0.1977	0.0688	8	0.78	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0354	5.455	0.0100	5.216	0.1977	0.0688	8	1.11	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (5%)	0325	5.300	1.000	5.216	0.1977	0.0688	8	0.39	OK	1
261.31	Acid Soluble Mn, ICP, test portion 972.02b (5%)	0360	5.150	0.0000				2			0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (5%)	0324	5.180	0.0200				2			0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0451	4.834	0.2570	5.177	0.2441	0.0914	5	-1.23		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0231	5.035	0.0700	5.177	0.2441	0.0914	5	-0.51		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0371	5.235	0.0700	5.177	0.2441	0.0914	5	0.21		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0073	5.335	0.0500	5.177	0.2441	0.0914	5	0.57		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0023	5.445	0.0100	5.177	0.2441	0.0914	5	0.96		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (5%)	0377	6.335	0.8500	5.177	0.2441	0.0914	5	4.14		1
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (5%)	0220	5.175	0.0500	5.495	0.3061	0.1433	3	-1.05		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (5%)	0423	5.525	0.0300	5.495	0.3061	0.1433	3	0.10		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (5%)	0095	5.785	0.3500	5.495	0.3061	0.1433	3	0.95		0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0521	3.972	0.0000	5.286	0.1954	0.0917	16	-6.72	Low	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0419	4.915	0.1300	5.286	0.1954	0.0917	16	-1.90	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0515	5.115	0.1020	5.286	0.1954	0.0917	16	-0.87	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0055	5.220	0.2200	5.286	0.1954	0.0917	16	-0.34	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0527	5.224	0.0418	5.286	0.1954	0.0917	16	-0.32	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0034	5.231	0.0140	5.286	0.1954	0.0917	16	-0.28	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0037	5.244	0.1250	5.286	0.1954	0.0917	16	-0.22	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0368	5.247	0.0592	5.286	0.1954	0.0917	16	-0.20	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0136	5.250	0.1000	5.286	0.1954	0.0917	16	-0.18	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0117	5.319	0.0175	5.286	0.1954	0.0917	16	0.17	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0025	5.335	0.2500	5.286	0.1954	0.0917	16	0.25	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0494	5.371	0.0862	5.286	0.1954	0.0917	16	0.43	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0177	5.400	0.0611	5.286	0.1954	0.0917	16	0.59	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0043	5.495	0.1300	5.286	0.1954	0.0917	16	1.07	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0546	5.561	0.0704	5.286	0.1954	0.0917	16	1.40	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0486	6.210	0.0600	5.286	0.1954	0.0917	16	4.73	High	0
261.35	Acid Soluble Mn, ICP, 2017.02 (5%)	0563	5.162	0.4471	5.286	0.1954	0.0917	16	-0.63	OK	1
261.50	Acid Soluble Mn, Spectrometric (5%)	0564	4.725	0.0500				1			0
261.99	Acid Soluble Mn, Other (5%)	0516	3.528	0.0030	5.299	0.5568	0.1081	15	-3.18	Low	0
261.99	Acid Soluble Mn, Other (5%)	0562	4.800	0.2000	5.299	0.5568	0.1081	15	-0.90	OK	0
261.99	Acid Soluble Mn, Other (5%)	0558	4.845	0.0500	5.299	0.5568	0.1081	15	-0.82	OK	0
261.99	Acid Soluble Mn, Other (5%)	0567	4.925	0.0500	5.299	0.5568	0.1081	15	-0.67	OK	0
261.99	Acid Soluble Mn, Other (5%)	0255	5.033	0.1030	5.299	0.5568	0.1081	15	-0.48	OK	0
261.99	Acid Soluble Mn, Other (5%)	0506	5.075	0.0300	5.299	0.5568	0.1081	15	-0.40	OK	0
261.99	Acid Soluble Mn, Other (5%)	0523	5.095	0.0580	5.299	0.5568	0.1081	15	-0.37	OK	0
261.99	Acid Soluble Mn, Other (5%)	0559	5.110	0.0200	5.299	0.5568	0.1081	15	-0.34	OK	0
261.99	Acid Soluble Mn, Other (5%)	0220	5.335	0.2100	5.299	0.5568	0.1081	15	0.06	OK	0
261.99	Acid Soluble Mn, Other (5%)	0524	5.516	0.3803	5.299	0.5568	0.1081	15	0.39	OK	0
261.99	Acid Soluble Mn, Other (5%)	0389	5.520	0.0200	5.299	0.5568	0.1081	15	0.40	OK	0
261.99	Acid Soluble Mn, Other (5%)	0042	5.670	0.2600	5.299	0.5568	0.1081	15	0.67	OK	0
261.99	Acid Soluble Mn, Other (5%)	0027	5.879	0.0110	5.299	0.5568	0.1081	15	1.04	High	0
261.99	Acid Soluble Mn, Other (5%)	0515	6.084	0.0268	5.299	0.5568	0.1081	15	1.41	High	0
261.99	Acid Soluble Mn, Other (5%)	0547	9.770	0.2000	5.299	0.5568	0.1081	15	8.03	High	0
271.00	Water Soluble Mn, AA (%)	0532	5.200	0.1600				1			0
281.00	Acid Soluble Hg, AA (ppm)	0534	1.030	0.1000	1.304	0.2380	0.0979	3	-1.15		0
281.00	Acid Soluble Hg, AA (ppm)	0506	1.420	0.1800	1.304	0.2380	0.0979	3	0.49		0
281.00	Acid Soluble Hg, AA (ppm)	0117	1.461	0.0138	1.304	0.2380	0.0979	3	0.66		0
281.30	Acid Soluble Hg, ICP (ppm)	0529	1.060	0.1200	1.612	0.5371	0.3171	4	-1.03		0
281.30	Acid Soluble Hg, ICP (ppm)	0450	1.270	0.0800	1.612	0.5371	0.3171	4	-0.64		0
281.30	Acid Soluble Hg, ICP (ppm)	0515	1.909	0.8750	1.612	0.5371	0.3171	4	0.55		0
281.30	Acid Soluble Hg, ICP (ppm)	0563	2.209	0.1933	1.612	0.5371	0.3171	4	1.11		0
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001		1.612	0.5371	0.3171	4			5
281.99	Acid Soluble Hg, Other (ppm)	0524	0.4449	0.0221	1.255	0.4921	0.0590	5	-1.44		0
281.99	Acid Soluble Hg, Other (ppm)	0035	1.260	0.1000	1.255	0.4921	0.0590	5	0.01		0
281.99	Acid Soluble Hg, Other (ppm)	0368	1.376	0.0428	1.255	0.4921	0.0590	5	0.21		0
281.99	Acid Soluble Hg, Other (ppm)	0405	1.420	0.0800	1.255	0.4921	0.0590	5	0.29		0
281.99	Acid Soluble Hg, Other (ppm)	0220	1.775	0.0500	1.255	0.4921	0.0590	5	0.92		0
281.99	Acid Soluble Hg, Other (ppm)	0550	1.000	0.5160	1.255	0.4921	0.0590	5	-0.45		1
289.30	Acid Soluble Mo, ICP (ppm)	0035	3.820	2.380	7.119	3.618	0.7690	4	-0.91		0
289.30	Acid Soluble Mo, ICP (ppm)	0524	4.204	0.0360	7.119	3.618	0.7690	4	-0.81		0
289.30	Acid Soluble Mo, ICP (ppm)	0255	9.687	0.1900	7.119	3.618	0.7690	4	0.71		0
289.30	Acid Soluble Mo, ICP (ppm)	0419	10.77	0.4700	7.119	3.618	0.7690	4	1.01		0
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0220	3.150	0.5000				1			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	3.538	0.8130	5.953	1.784	1.950	5	-1.18		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0563	5.478	0.6630	5.953	1.784	1.950	5	-0.23		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	6.060	0.0395	5.953	1.784	1.950	5	0.05		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0037	6.163	0.4360	5.953	1.784	1.950	5	0.10		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0494	8.525	7.800	5.953	1.784	1.950	5	1.26		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0136	< 5		5.953	1.784	1.950	5			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	1.075	1.110				2			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	5.687	0.9860				2			0
289.99	Acid Soluble Mo, Other (ppm)	0405	5.820	0.0000	8.017	2.098	0.1667	3	-1.05		0
289.99	Acid Soluble Mo, Other (ppm)	0550	8.230	0.5000	8.017	2.098	0.1667	3	0.10		0
289.99	Acid Soluble Mo, Other (ppm)	0506	10.00	0.0000	8.017	2.098	0.1667	3	0.95		0
291.30	Acid Soluble Ni, ICP (ppm)	0444	95.71	5.890	138.9	34.32	9.998	7	-1.14	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0389	96.64	0.9500	138.9	34.32	9.998	7	-1.11	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	148.1	4.518	138.9	34.32	9.998	7	0.24	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	150.5	35.00	138.9	34.32	9.998	7	0.31	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0523	153.2	0.1000	138.9	34.32	9.998	7	0.38	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0419	155.0	7.530	138.9	34.32	9.998	7	0.42	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	173.0	16.00	138.9	34.32	9.998	7	0.90	NA	0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0529	104.5	3.880				2			0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0220	165.5	25.00				2			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	140.3	5.858	161.8	17.84	7.684	7	-1.09	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	147.3	3.900	161.8	17.84	7.684	7	-0.74	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	155.4	2.544	161.8	17.84	7.684	7	-0.32	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0494	160.5	17.00	161.8	17.84	7.684	7	-0.06	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	168.9	17.14	161.8	17.84	7.684	7	0.36	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0563	174.9	5.942	161.8	17.84	7.684	7	0.66	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	185.2	1.412	161.8	17.84	7.684	7	1.19	NA	0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	145.4	13.41				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	162.0	3.636				2			0
291.99	Acid Soluble Ni, Other (ppm)	0255	87.90	4.989	129.9	32.31	12.57	4	-1.30		0
291.99	Acid Soluble Ni, Other (ppm)	0550	123.2	22.30	129.9	32.31	12.57	4	-0.21		0
291.99	Acid Soluble Ni, Other (ppm)	0405	146.0	12.00	129.9	32.31	12.57	4	0.50		0
291.99	Acid Soluble Ni, Other (ppm)	0220	162.5	11.00	129.9	32.31	12.57	4	1.01		0
301.30	Acid Soluble Se, ICP (ppm)	0524	0.6765	0.0450				2			0
301.30	Acid Soluble Se, ICP (ppm)	0523	0.7887	0.0147				2			0
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0220	33.70	0.6000				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0563	2.564	0.1092	18.47	16.75	0.6536	5	-0.95		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	2.631	0.1686	18.47	16.75	0.6536	5	-0.95		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	16.51	1.574	18.47	16.75	0.6536	5	-0.12		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0494	30.50	1.000	18.47	16.75	0.6536	5	0.72		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0037	40.15	0.4160	18.47	16.75	0.6536	5	1.29		0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	12.10	8.455				1			0
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 1					1			5
301.99	Acid Soluble Se, Other (ppm)	0255	1.153	1.589	13.72	18.53	1.463	3	-0.68		0
301.99	Acid Soluble Se, Other (ppm)	0405	5.000	0.0000	13.72	18.53	1.463	3	-0.47		0
301.99	Acid Soluble Se, Other (ppm)	0220	35.00	2.800	13.72	18.53	1.463	3	1.15		0
301.99	Acid Soluble Se, Other (ppm)	0550	< 0.08		13.72	18.53	1.463	3			5
311.00	Sodium, AA (%)	0553	1.485	0.0300				1			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	1.225	0.0000				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	1.100	0.0400	1.316	0.1888	0.0384	6	-1.02	Low	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0368	1.171	0.0027	1.316	0.1888	0.0384	6	-0.69	Low	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0494	1.283	0.0259	1.316	0.1888	0.0384	6	-0.16	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	1.341	0.0090	1.316	0.1888	0.0384	6	0.11	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0563	1.497	0.1417	1.316	0.1888	0.0384	6	0.85	High	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	1.507	0.0113	1.316	0.1888	0.0384	6	0.90	High	0
311.99	Sodium, Other (%)	0354	1.350	0.0000				1			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0553	7.575	0.3500	8.320	0.7721	0.2046	11	-0.90	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0538	7.725	0.2500	8.320	0.7721	0.2046	11	-0.72	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0534	7.950	0.3000	8.320	0.7721	0.2046	11	-0.45	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0533	7.950	0.1000	8.320	0.7721	0.2046	11	-0.45	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0551	8.025	0.0500	8.320	0.7721	0.2046	11	-0.36	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0535	8.050	0.1000	8.320	0.7721	0.2046	11	-0.33	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0539	8.050	0.1000	8.320	0.7721	0.2046	11	-0.33	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0556	8.200	0.2000	8.320	0.7721	0.2046	11	-0.15	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0040	9.042	0.1320	8.320	0.7721	0.2046	11	0.87	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0029	9.771	0.6590	8.320	0.7721	0.2046	11	1.76	High	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (7.5%)	0550	11.00	0.0100	8.320	0.7721	0.2046	11	3.24	High	0
321.01	Acid Soluble Zn, AA, organic 965.09 (7.5%)	0537	7.650	0.1000				1			0
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (7.5%)	0037	9.019	0.1910				1			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0292	6.875	0.0500	8.928	0.9554	0.4617	21	-2.15	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0072	7.322	0.2320	8.928	0.9554	0.4617	21	-1.68	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0324	7.410	0.8200	8.928	0.9554	0.4617	21	-1.59	Low	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0472	8.045	0.1100	8.928	0.9554	0.4617	21	-0.92	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0444	8.505	0.1500	8.928	0.9554	0.4617	21	-0.44	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0451	8.523	0.0650	8.928	0.9554	0.4617	21	-0.42	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0035	8.560	0.2200	8.928	0.9554	0.4617	21	-0.39	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0390	8.710	0.4600	8.928	0.9554	0.4617	21	-0.23	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0073	8.730	0.2600	8.928	0.9554	0.4617	21	-0.21	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0231	8.785	0.2900	8.928	0.9554	0.4617	21	-0.15	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0422	8.915	0.2100	8.928	0.9554	0.4617	21	-0.01	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0371	9.110	0.2800	8.928	0.9554	0.4617	21	0.19	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0433	9.135	0.1900	8.928	0.9554	0.4617	21	0.22	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0354	9.285	0.0900	8.928	0.9554	0.4617	21	0.37	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0157	9.345	0.7700	8.928	0.9554	0.4617	21	0.44	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0360	9.500	0.0200	8.928	0.9554	0.4617	21	0.60	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0234	9.645	0.2700	8.928	0.9554	0.4617	21	0.75	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0255	9.680	0.2880	8.928	0.9554	0.4617	21	0.79	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0023	9.810	1.180	8.928	0.9554	0.4617	21	0.92	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0377	10.87	1.840	8.928	0.9554	0.4617	21	2.03	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (7.5%)	0325	11.55	1.900	8.928	0.9554	0.4617	21	2.74	High	0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	0521	7.378	0.0000	9.213	1.044	0.2518	5	-1.76		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	0095	9.505	0.1700	9.213	1.044	0.2518	5	0.28		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	0220	9.540	0.3000	9.213	1.044	0.2518	5	0.31		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	0028	9.650	0.7000	9.213	1.044	0.2518	5	0.42		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (7.5%)	0423	9.991	0.0890	9.213	1.044	0.2518	5	0.75		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0043	7.755	0.1700	8.944	0.7806	0.3081	16	-1.52	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0515	7.835	0.4964	8.944	0.7806	0.3081	16	-1.42	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0169	8.050	0.1000	8.944	0.7806	0.3081	16	-1.14	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0136	8.450	0.1000	8.944	0.7806	0.3081	16	-0.63	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0025	8.645	0.2500	8.944	0.7806	0.3081	16	-0.38	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0527	8.747	0.2322	8.944	0.7806	0.3081	16	-0.25	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0055	8.915	0.2300	8.944	0.7806	0.3081	16	-0.04	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0034	9.008	0.2030	8.944	0.7806	0.3081	16	0.08	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0419	9.090	0.8600	8.944	0.7806	0.3081	16	0.19	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0494	9.167	0.4318	8.944	0.7806	0.3081	16	0.29	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0177	9.224	0.0762	8.944	0.7806	0.3081	16	0.36	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0563	9.272	0.9599	8.944	0.7806	0.3081	16	0.42	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0368	9.296	0.1541	8.944	0.7806	0.3081	16	0.45	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0486	9.400	0.1800	8.944	0.7806	0.3081	16	0.58	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0421	10.20	0.4000	8.944	0.7806	0.3081	16	1.61	High	0
321.33	Acid Soluble Zn, ICP, 2017.02 (7.5%)	0546	10.59	0.0857	8.944	0.7806	0.3081	16	2.11	High	0
321.99	Acid Soluble Zn, Other (7.5%)	0523	4.829	0.3270	7.949	1.605	0.1282	15	-1.94	Low	0
321.99	Acid Soluble Zn, Other (7.5%)	0547	5.005	0.0900	7.949	1.605	0.1282	15	-1.83	Low	0
321.99	Acid Soluble Zn, Other (7.5%)	0516	6.115	0.0200	7.949	1.605	0.1282	15	-1.14	Low	0
321.99	Acid Soluble Zn, Other (7.5%)	0518	7.385	0.0700	7.949	1.605	0.1282	15	-0.35	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0567	7.520	0.0000	7.949	1.605	0.1282	15	-0.27	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0558	7.620	0.0800	7.949	1.605	0.1282	15	-0.20	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0506	7.675	0.0700	7.949	1.605	0.1282	15	-0.17	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0562	7.750	0.2000	7.949	1.605	0.1282	15	-0.12	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0559	8.435	0.0300	7.949	1.605	0.1282	15	0.30	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0042	8.600	0.2800	7.949	1.605	0.1282	15	0.41	OK	0
321.99	Acid Soluble Zn, Other (7.5%)	0515	8.910	0.2163	7.949	1.605	0.1282	15	0.60	High	0
321.99	Acid Soluble Zn, Other (7.5%)	0405	9.040	0.3400	7.949	1.605	0.1282	15	0.68	High	0
321.99	Acid Soluble Zn, Other (7.5%)	0389	9.405	0.1700	7.949	1.605	0.1282	15	0.91	High	0
321.99	Acid Soluble Zn, Other (7.5%)	0524	9.491	0.0193	7.949	1.605	0.1282	15	0.96	High	0
321.99	Acid Soluble Zn, Other (7.5%)	0027	10.21	0.0100	7.949	1.605	0.1282	15	1.41	High	0
325.00	Water Soluble Zn, AA (%)	0532	7.755	0.2100				1			0
325.10	Water Soluble Zn, Gravimetric (%)	0549	7.595	0.0900				1			0
325.30	Water Soluble Zn, ICP (%)	0117	8.678	0.2188				1			0
325.99	Water Soluble Zn, Other (%)	0564	7.115	0.0300				1			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, 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. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower, Green indicates within the IA range. Method 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.