

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 201111

Ca-Mg-S-B

Statistical Summary

Methods: 120

Labs Reporting: 92

Issue Date : 12/31/2020

Method Code	Analyte & Method Sample # 201111	# 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 (%)	4	4	0.1612	0.0423	0.1612		0.0423	0.0264	26.24%		0.0184	5.26%
002.99	Nitrate N, Other (%)	1		0.0071									
005.99	Urea N, Other (%)	2	2	1.253	0.1662								
009.99	Ammoniacal Plus Nitrate N, Other (%)	1		0.7650									
010.11	Total N, Modified Comprehensive (1%)	8	8	1.624	0.3843	1.624	0.4900	0.4358	0.1926	26.83%	2.07	0.1148	3.72%
010.12	Total N, Salicylic (1%)	4	3	1.422	0.4358	1.422	0.4900	0.4358	0.3145	30.65%	2.07	0.0300	3.79%
010.60	Total N, Combustion (1%)	49	47	1.801	0.1371	1.820	0.4900	0.0629	0.0115	3.45%	0.30	0.0390	3.65%
010.99	Total N, Other (1%)	16	16	1.626	0.2862	1.653	0.4900	0.2624	0.0820	15.88%	1.25	0.0617	3.71%
020.50	Total P2O5, ICP (%)	6	5	0.2674	0.0436	0.2674		0.0436	0.0244	16.31%		0.0074	4.88%
020.99	Total P2O5, Other (%)	1		0.1192									
041.20	Direct Available P2O5, Spectrophotometric (%)	1		0.0515									
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	3	3	0.2285	0.0552	0.2285	0.6700	0.0552	0.0399	24.18%	0.19	0.0143	4.99%
041.50	Direct Available P2O5, ICP (%)	2	2	0.3367	0.0896								
050.31	Soluble K2O, AA (Citrate) (%)	1		0.2600									
050.51	Soluble K2O, ICP (Citrate) (%)	1		0.4600									
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	2	2	0.4635	0.0806								
050.99	Soluble K2O, Other (%)	9	7	0.4855	0.1098	0.4685	0.4100	0.0815	0.0385	17.41%	0.46	0.0138	4.48%
060.00	Water (Free), Vacuum Oven (%)	1		1.980									
060.10	Water (Free), Vacuum Desiccation (%)	1		1.760									
060.99	Water (Free), Other (%)	1		3.708									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	11	10	10.17	2.161	9.866	0.6933	0.7460	0.2949	7.56%	2.51	0.0910	2.83%
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (10%)	2	2	9.773	0.4057								
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	19	18	10.12	0.7398	10.10	0.7048	0.7718	0.2274	7.64%	2.55	0.1661	2.82%
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (10%)	1		6.650									
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	5	5	9.955	1.097	9.955	0.6978	1.097	0.6134	11.02%	3.66	0.2608	2.83%
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	17	17	9.741	0.7008	9.622	0.6811	0.5007	0.1518	5.20%	1.71	0.2249	2.84%
101.70	Acid Soluble Ca, Titrimetric (10%)	8	8	9.953	1.199	10.04	0.7019	0.4812	0.2127	4.79%	1.60	0.0739	2.83%
101.99	Acid Soluble Ca, Other (10%)	13	12	9.658	0.4732	9.648	0.6824	0.5110	0.1844	5.30%	1.74	0.1445	2.84%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	13	12	4.834	0.8825	4.687	0.4343	0.5631	0.2032	12.01%	3.02	0.1165	3.17%
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	2	2	4.084	0.0087								
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	18	17	4.298	0.2747	4.285	0.4142	0.2792	0.0846	6.52%	1.57	0.1309	3.21%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	6	6	4.131	0.2368	4.131	0.4066	0.2686	0.1370	6.50%	1.54	0.1079	3.23%
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	16	15	4.215	0.3553	4.152	0.4076	0.1963	0.0634	4.73%	1.12	0.1591	3.23%

Method Code	Analyte & Method Sample # 201111	# 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)	Howitz %RSD
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	4	4	4.861	0.3431	4.861	0.4430	0.3431	0.2145	7.06%	1.80	0.1812	3.15%
121.99	Acid Soluble Mg, Other (5%)	14	13	4.455	0.5555	4.480	0.4240	0.5723	0.1984	12.78%	3.15	0.0875	3.19%
131.00	Water Soluble Mg, AA (%)	3	3	0.8367	0.0284	0.8367		0.0284	0.0205	3.40%		0.0333	4.11%
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	2	2	2.940	3.012								
143.99	Elemental S, Other (%)	6	6	3.539	0.3405	3.539		0.3861	0.1970	10.91%		0.0983	3.31%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	6	5	2.585	0.8271	2.585		0.8271	0.4624	32.00%		0.0240	3.47%
145.99	Sulfate S, HCl soluble, Other (%)	3	3	2.857	1.149	2.857		1.149	0.8291	40.22%		0.0667	3.42%
146.00	Total S in Liquid, Gravimetric - sulfate, sulfite, thiosulfate, a... (1.5%)	1		1.500									
148.00	Total S, Combustion (1.5%)	7	7	3.329	0.2061	3.346	0.3673	0.1935	0.0914	5.78%	1.23	0.0880	3.33%
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	8	8	2.767	0.7955	2.767	0.3383	0.9021	0.3987	32.60%	6.21	0.0863	3.43%
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	17	16	3.516	0.1676	3.516	0.3758	0.1901	0.0594	5.41%	1.18	0.0760	3.31%
148.99	Total S, Other (1.5%)	18	18	3.198	0.5120	3.290	0.3645	0.2999	0.0884	9.12%	1.92	0.1145	3.34%
149.04	S - HNO3 soluble, ICP (%)	4	4	3.864	0.5957	3.864		0.5957	0.3723	15.41%		0.0422	3.26%
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	2	1	27.15									
151.30	Acid Soluble As, ICP (ppm)	4	4	19.94	3.339	19.94		3.339	2.087	16.75%		0.6070	10.20%
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	5	5	24.90	2.439	24.90		2.439	1.364	9.79%		1.062	9.86%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	2	28.82	9.051								
151.99	Acid Soluble As, Other (ppm)	2	2	23.58	2.722								
165.00	Acid Soluble B, Spectrophotometric (10%)	16	15	9.554	1.078	9.807	1.0000	0.4502	0.1453	4.59%	1.05	0.1411	2.84%
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	22	21	10.01	1.033	9.965	1.0000	0.6554	0.1788	6.58%	1.53	0.2829	2.83%
165.99	Acid Soluble B, Other (10%)	21	20	9.659	0.7481	9.669	1.0000	0.6061	0.1694	6.27%	1.41	0.1078	2.84%
171.00	Water Soluble B, AA, JAOAC 52.950 (%)	1		10.01									
171.10	Water Soluble B, Spectrophotometric (%)	12	12	8.492	2.354	8.492		2.669	0.9631	31.43%		0.1192	2.90%
171.99	Water Soluble B, Other (%)	2	2	8.110	2.249								
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	2	2	1.385	0.8273								
181.30	Acid Soluble Cd, ICP (ppm)	6	5	0.5691	0.1821	0.5691		0.1821	0.1018	32.01%		0.0248	17.41%
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	5	2	3.232	3.716	3.232		3.716	3.284	114.99%		0.9759	13.41%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	2	3.324	3.853								
181.99	Acid Soluble Cd, Other (ppm)	2	2	0.5940	0.1188								
190.99	Water Soluble Cl, Other (%)	1		2.505									
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	2	2	10.38	9.429								
191.30	Acid Soluble Cr, ICP (ppm)	7	7	17.70	4.613	17.70		5.231	2.471	29.56%		1.148	10.38%
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	4	4	21.81	6.222	21.81		6.222	3.888	28.53%		1.740	10.06%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	22.39	2.428								
191.99	Acid Soluble Cr, Other (ppm)	1		23.00									
202.30	Acid Soluble Co, ICP (ppm)	4	4	5.739	2.960	5.739	2.7216	2.960	1.850	51.58%	2.53	0.3039	12.30%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	1		5.575									
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	6	5	7.597	2.764	7.597	3.2791	2.764	1.545	36.38%	1.96	0.6660	11.79%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	2	6.808	5.485								
202.99	Acid Soluble Co, Other (ppm)	2	2	7.603	2.188								
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	3	3	0.0401	0.0084	0.0401	0.0090	0.0084	0.0060	20.83%	2.16	0.0023	6.49%
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	8	6	0.0429	0.0064	0.0413	0.0091	0.0031	0.0016	7.53%	0.79	0.0033	6.46%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	3	3	0.0410	0.0045	0.0410	0.0091	0.0045	0.0032	10.86%	1.14	0.0009	6.47%
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	9	0.0431	0.0039	0.0430	0.0093	0.0042	0.0017	9.75%	1.05	0.0025	6.42%

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221.99	Acid Soluble Cu, Other (%)	5	5	0.0428	0.0051	0.0428	0.0093	0.0051	0.0028	11.80%	1.27	0.0037	6.43%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	1		0.5375									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	5	5	0.5458	0.0603	0.5458	0.0596	0.0603	0.0337	11.06%	2.36	0.0628	4.38%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	2	2	0.5513	0.0137								
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	8	8	0.5227	0.1197	0.5526	0.0603	0.0507	0.0224	9.17%	1.96	0.0205	4.37%
241.99	Acid Soluble Fe, Other (%)	3	3	0.3635	0.2702	0.3635	0.0414	0.2702	0.1950	74.33%	15.23	0.0118	4.66%
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	2	1	3.690									
251.30	Acid Soluble Pb, ICP (ppm)	8	7	3.706	0.9861	3.706		1.118	0.5283	30.17%		0.2341	13.13%
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	5	4	4.566	0.9272	4.566		0.9272	0.5795	20.31%		0.9698	12.73%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	0	0.0000									
251.99	Acid Soluble Pb, Other (ppm)	1		5.200									
261.11	Acid Soluble Mn, AA, total Mn (%)	1		0.2645									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	4	4	0.2739	0.0215	0.2739	0.0324	0.0215	0.0135	7.86%	1.55	0.0193	4.86%
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	1		0.3250									
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	2	2	0.2771	0.0479								
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	7	6	0.2860	0.0205	0.2860	0.0336	0.0233	0.0119	8.14%	1.62	0.0195	4.83%
261.99	Acid Soluble Mn, Other (%)	3	3	0.2566	0.0284	0.2566	0.0307	0.0284	0.0205	11.06%	2.16	0.0057	4.91%
281.00	Acid Soluble Hg, AA (ppm)	2	1	0.0299									
281.30	Acid Soluble Hg, ICP (ppm)	3	0	0.0000		0.2566		0.0284		11.06%		0.0000	19.63%
281.99	Acid Soluble Hg, Other (ppm)	3	3	0.0487	0.0082	0.0487		0.0082	0.0059	16.89%		0.0001	25.21%
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (ppm)	1		1.000									
289.30	Acid Soluble Mo, ICP (ppm)	5	5	10.39	13.29	10.39	4.1184	13.29	7.427	127.81%	7.52	0.7335	11.25%
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	7	6	4.700	0.6482	4.700	2.4099	0.7350	0.3751	15.64%	0.71	0.5059	12.67%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	2	1	5.558									
289.99	Acid Soluble Mo, Other (ppm)	1		5.780									
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	2	2	9.035	0.2616								
291.30	Acid Soluble Ni, ICP (ppm)	6	6	11.98	3.232	11.98		3.665	1.870	30.59%		1.010	11.01%
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	5	5	18.09	3.288	18.09		3.288	1.838	18.18%		0.9024	10.35%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	18.16	2.513								
291.99	Acid Soluble Ni, Other (ppm)	2	2	14.37	2.304								
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.0800									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	3	1	1.760		14.37		2.304	2.880	16.03%		0.2400	10.71%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	2	0	0.0000									
301.99	Acid Soluble Se, Other (ppm)	3	3	36.16	56.37	36.16		56.37	40.68	155.89%		1.892	9.32%
311.00	Sodium, AA (%)	1		6.775									
311.32	Sodium, ICP, 2006.03 test portion (%)	1		3.577									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	6	6	5.042	0.2009	5.042	0.5092	0.2278	0.1162	4.52%	1.04	0.1358	3.14%
311.99	Sodium, Other (%)	1		4.890									
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	2	2	0.5700	0.0495								
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	9	8	0.5260	0.0202	0.5265	0.0577	0.0218	0.0096	4.13%	0.88	0.0157	4.41%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	3	3	0.5411	0.1042	0.5411	0.0591	0.1042	0.0752	19.25%	4.11	0.0096	4.39%
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	10	9	0.4994	0.0648	0.5066	0.0557	0.0390	0.0163	7.70%	1.63	0.0481	4.43%
321.99	Acid Soluble Zn, Other (%)	5	5	0.4926	0.0505	0.4926	0.0543	0.0505	0.0282	10.25%	2.17	0.0135	4.45%

The Method IA Ratio = 2.33 * Robust SD / 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

Method Code	Analyte & Method Sample # 201111	# 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
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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 # 201111

Method Precision Report

Ca-Mg-S-B

Issue Date : 12/31/2020

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 (1%)	49	44	1.829	0.0605	0.0541	0.0382	0.0662	2.96%	2.09%	3.62%	1.735
010.99	Total N, Other (1%)	16	15	1.617	0.2942	0.2926	0.0443	0.2959	18.09%	2.74%	18.29%	6.685
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	11	9	9.556	1.020	1.019	0.0654	1.021	10.66%	0.68%	10.68%	15.61
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	19	17	10.17	0.7349	0.7300	0.1195	0.7397	7.18%	1.17%	7.27%	6.192
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	17	15	9.573	0.5148	0.5042	0.1476	0.5253	5.27%	1.54%	5.49%	3.559
101.70	Acid Soluble Ca, Titrimetric (10%)	8	8	9.953	1.199	1.198	0.0736	1.200	12.04%	0.74%	12.06%	16.30
101.99	Acid Soluble Ca, Other (10%)	13	12	9.658	0.4732	0.4670	0.1078	0.4793	4.84%	1.12%	4.96%	4.445
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	13	10	4.661	0.4279	0.4244	0.0769	0.4313	9.11%	1.65%	9.25%	5.609
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	18	16	4.314	0.2758	0.2685	0.0893	0.2829	6.22%	2.07%	6.56%	3.170
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	16	14	4.149	0.2586	0.2373	0.1452	0.2782	5.72%	3.50%	6.71%	1.916
121.99	Acid Soluble Mg, Other (5%)	14	13	4.455	0.5555	0.5524	0.0837	0.5587	12.40%	1.88%	12.54%	6.676
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	17	16	3.516	0.1676	0.1600	0.0709	0.1750	4.55%	2.02%	4.98%	2.468
148.99	Total S, Other (1.5%)	18	17	3.299	0.2883	0.2793	0.1015	0.2971	8.46%	3.08%	9.01%	2.929
165.00	Acid Soluble B, Spectrophotometric (10%)	16	14	9.793	0.5703	0.5643	0.1167	0.5763	5.76%	1.19%	5.88%	4.936
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	22	18	9.983	0.5407	0.5231	0.1933	0.5577	5.24%	1.94%	5.59%	2.885
165.99	Acid Soluble B, Other (10%)	21	19	9.762	0.6052	0.6011	0.0998	0.6093	6.16%	1.02%	6.24%	6.103
171.10	Water Soluble B, Spectrophotometric (%)	12	11	8.355	2.418	2.417	0.0765	2.418	28.93%	0.92%	28.95%	31.62
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	10	8	0.0422	0.0030	0.0028	0.0016	0.0032	6.71%	3.71%	7.67%	2.067
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	9	8	0.5260	0.0202	0.0174	0.0144	0.0226	3.31%	2.74%	4.29%	1.569
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	10	8	0.5177	0.0368	0.0355	0.0135	0.0380	6.87%	2.61%	7.35%	2.815

Notes: Precision data calculated when 8 or more Tests included.

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 201111

Lab Values

Ca-Mg-S-B

Methods: 120

Labs Reporting: 92

Issue Date : 12/31/2020

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 (%)	0423	0.1250	0.0300	0.1612	0.0423	0.0184	4	-0.86		0
001.99	Ammoniacal N, Other (%)	0524	0.1333	0.0004	0.1612	0.0423	0.0184	4	-0.66		0
001.99	Ammoniacal N, Other (%)	0506	0.1685	0.0410	0.1612	0.0423	0.0184	4	0.17		0
001.99	Ammoniacal N, Other (%)	0553	0.2180	0.0020	0.1612	0.0423	0.0184	4	1.34		0
002.99	Nitrate N, Other (%)	0553	0.0071	0.0002				1			0
005.99	Urea N, Other (%)	0524	1.135	0.0140				2			0
005.99	Urea N, Other (%)	0506	1.370	0.0200				2			0
009.99	Ammoniacal Plus Nitrate N, Other (%)	0518	0.7650	0.0900				1			0
010.11	Total N, Modified Comprehensive (1%)	0540	0.9850	0.0700	1.624	0.4358	0.1148	8	-1.34	Low	0
010.11	Total N, Modified Comprehensive (1%)	0309	1.115	0.3500	1.624	0.4358	0.1148	8	-1.07	Low	0
010.11	Total N, Modified Comprehensive (1%)	0522	1.558	0.0750	1.624	0.4358	0.1148	8	-0.14	OK	0
010.11	Total N, Modified Comprehensive (1%)	0533	1.735	0.0900	1.624	0.4358	0.1148	8	0.23	OK	0
010.11	Total N, Modified Comprehensive (1%)	0535	1.750	0.1000	1.624	0.4358	0.1148	8	0.26	OK	0
010.11	Total N, Modified Comprehensive (1%)	0546	1.895	0.1300	1.624	0.4358	0.1148	8	0.57	OK	0
010.11	Total N, Modified Comprehensive (1%)	0510	1.905	0.0033	1.624	0.4358	0.1148	8	0.59	OK	0
010.11	Total N, Modified Comprehensive (1%)	0456	2.050	0.1000	1.624	0.4358	0.1148	8	0.89	OK	0
010.12	Total N, Salicylic (1%)	0498	0.9250	0.0300	1.422	0.4358	0.0300	3	-1.14		0
010.12	Total N, Salicylic (1%)	0117	1.600	0.0200	1.422	0.4358	0.0300	3	0.41		0
010.12	Total N, Salicylic (1%)	0568	1.740	0.0400	1.422	0.4358	0.0300	3	0.73		0
010.12	Total N, Salicylic (1%)	0529	< 2		1.422	0.4358	0.0300	3			5
010.60	Total N, Combustion (1%)	0534	1.090	0.0000	1.820	0.0629	0.0390	47	-11.61	Low	0
010.60	Total N, Combustion (1%)	0234	1.404	0.0240	1.820	0.0629	0.0390	47	-6.62	OK	0
010.60	Total N, Combustion (1%)	0042	1.700	0.4000	1.820	0.0629	0.0390	47	-1.91	OK	0
010.60	Total N, Combustion (1%)	0230	1.710	0.0400	1.820	0.0629	0.0390	47	-1.75	OK	0
010.60	Total N, Combustion (1%)	0423	1.715	0.0300	1.820	0.0629	0.0390	47	-1.67	OK	0
010.60	Total N, Combustion (1%)	0055	1.745	0.0500	1.820	0.0629	0.0390	47	-1.20	OK	0
010.60	Total N, Combustion (1%)	0106	1.750	0.0400	1.820	0.0629	0.0390	47	-1.12	OK	0
010.60	Total N, Combustion (1%)	0422	1.750	0.1000	1.820	0.0629	0.0390	47	-1.12	OK	0
010.60	Total N, Combustion (1%)	0043	1.765	0.0100	1.820	0.0629	0.0390	47	-0.88	OK	0
010.60	Total N, Combustion (1%)	0527	1.766	0.0140	1.820	0.0629	0.0390	47	-0.86	OK	0
010.60	Total N, Combustion (1%)	0377	1.770	0.0800	1.820	0.0629	0.0390	47	-0.80	OK	0
010.60	Total N, Combustion (1%)	0472	1.790	0.0000	1.820	0.0629	0.0390	47	-0.48	OK	0
010.60	Total N, Combustion (1%)	0493	1.790	0.0200	1.820	0.0629	0.0390	47	-0.48	OK	0
010.60	Total N, Combustion (1%)	0451	1.793	0.0510	1.820	0.0629	0.0390	47	-0.44	OK	0
010.60	Total N, Combustion (1%)	0292	1.795	0.0100	1.820	0.0629	0.0390	47	-0.40	OK	0
010.60	Total N, Combustion (1%)	0136	1.800	0.0000	1.820	0.0629	0.0390	47	-0.32	OK	0

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010.60	Total N, Combustion (1%)	0325	1.800	0.0000	1.820	0.0629	0.0390	47	-0.32	OK	0
010.60	Total N, Combustion (1%)	0450	1.800	0.0000	1.820	0.0629	0.0390	47	-0.32	OK	0
010.60	Total N, Combustion (1%)	0543	1.805	0.0300	1.820	0.0629	0.0390	47	-0.24	OK	0
010.60	Total N, Combustion (1%)	0494	1.810	0.0000	1.820	0.0629	0.0390	47	-0.16	OK	0
010.60	Total N, Combustion (1%)	0561	1.810	0.0000	1.820	0.0629	0.0390	47	-0.16	OK	0
010.60	Total N, Combustion (1%)	0114	1.815	0.0100	1.820	0.0629	0.0390	47	-0.08	OK	0
010.60	Total N, Combustion (1%)	0360	1.820	0.0200	1.820	0.0629	0.0390	47	0.00	OK	0
010.60	Total N, Combustion (1%)	0035	1.825	0.1900	1.820	0.0629	0.0390	47	0.08	OK	0
010.60	Total N, Combustion (1%)	0231	1.825	0.0100	1.820	0.0629	0.0390	47	0.08	OK	0
010.60	Total N, Combustion (1%)	0086	1.825	0.0019	1.820	0.0629	0.0390	47	0.08	OK	0
010.60	Total N, Combustion (1%)	0073	1.830	0.0200	1.820	0.0629	0.0390	47	0.16	OK	0
010.60	Total N, Combustion (1%)	0177	1.834	0.0070	1.820	0.0629	0.0390	47	0.21	OK	0
010.60	Total N, Combustion (1%)	0405	1.835	0.0100	1.820	0.0629	0.0390	47	0.24	OK	0
010.60	Total N, Combustion (1%)	0419	1.838	0.0110	1.820	0.0629	0.0390	47	0.28	OK	0
010.60	Total N, Combustion (1%)	0029	1.846	0.0590	1.820	0.0629	0.0390	47	0.40	OK	0
010.60	Total N, Combustion (1%)	0521	1.851	0.0000	1.820	0.0629	0.0390	47	0.48	OK	0
010.60	Total N, Combustion (1%)	0371	1.855	0.0700	1.820	0.0629	0.0390	47	0.55	OK	0
010.60	Total N, Combustion (1%)	0547	1.855	0.0100	1.820	0.0629	0.0390	47	0.55	OK	0
010.60	Total N, Combustion (1%)	0324	1.860	0.0000	1.820	0.0629	0.0390	47	0.63	OK	0
010.60	Total N, Combustion (1%)	0354	1.860	0.0000	1.820	0.0629	0.0390	47	0.63	OK	0
010.60	Total N, Combustion (1%)	0486	1.860	0.0200	1.820	0.0629	0.0390	47	0.63	OK	0
010.60	Total N, Combustion (1%)	0421	1.867	0.0010	1.820	0.0629	0.0390	47	0.74	OK	0
010.60	Total N, Combustion (1%)	0037	1.873	0.0020	1.820	0.0629	0.0390	47	0.84	OK	0
010.60	Total N, Combustion (1%)	0025	1.882	0.0800	1.820	0.0629	0.0390	47	0.98	OK	0
010.60	Total N, Combustion (1%)	0550	1.885	0.0300	1.820	0.0629	0.0390	47	1.03	OK	0
010.60	Total N, Combustion (1%)	0040	1.900	0.0000	1.820	0.0629	0.0390	47	1.27	OK	0
010.60	Total N, Combustion (1%)	0368	1.904	0.0030	1.820	0.0629	0.0390	47	1.32	OK	0
010.60	Total N, Combustion (1%)	0291	1.905	0.0100	1.820	0.0629	0.0390	47	1.35	OK	0
010.60	Total N, Combustion (1%)	0516	1.905	0.0900	1.820	0.0629	0.0390	47	1.35	OK	0
010.60	Total N, Combustion (1%)	0402	1.920	0.1400	1.820	0.0629	0.0390	47	1.59	OK	0
010.60	Total N, Combustion (1%)	0027	2.040	0.1400	1.820	0.0629	0.0390	47	3.50	OK	0
010.60	Total N, Combustion (1%)	0255	2.385	0.7470	1.820	0.0629	0.0390	47	8.97	High	1
010.60	Total N, Combustion (1%)	0041	3.257	0.0280	1.820	0.0629	0.0390	47	22.85	High	2
010.99	Total N, Other (1%)	0532	1.010	0.0600	1.653	0.2624	0.0617	16	-2.45	Low	0
010.99	Total N, Other (1%)	0538	1.075	0.0500	1.653	0.2624	0.0617	16	-2.20	Low	0
010.99	Total N, Other (1%)	0549	1.265	0.1300	1.653	0.2624	0.0617	16	-1.48	OK	0
010.99	Total N, Other (1%)	0560	1.430	0.0600	1.653	0.2624	0.0617	16	-0.85	OK	0
010.99	Total N, Other (1%)	0506	1.535	0.0700	1.653	0.2624	0.0617	16	-0.45	OK	0
010.99	Total N, Other (1%)	0394	1.616	0.0010	1.653	0.2624	0.0617	16	-0.14	OK	0
010.99	Total N, Other (1%)	0556	1.700	0.0200	1.653	0.2624	0.0617	16	0.18	OK	0
010.99	Total N, Other (1%)	0562	1.750	0.2000	1.653	0.2624	0.0617	16	0.37	OK	0
010.99	Total N, Other (1%)	0476	1.772	0.0161	1.653	0.2624	0.0617	16	0.45	OK	0
010.99	Total N, Other (1%)	0493	1.775	0.0500	1.653	0.2624	0.0617	16	0.47	OK	0
010.99	Total N, Other (1%)	0513	1.810	0.0200	1.653	0.2624	0.0617	16	0.60	OK	0
010.99	Total N, Other (1%)	0564	1.820	0.0600	1.653	0.2624	0.0617	16	0.64	OK	0
010.99	Total N, Other (1%)	0558	1.830	0.0200	1.653	0.2624	0.0617	16	0.68	OK	0
010.99	Total N, Other (1%)	0524	1.839	0.0403	1.653	0.2624	0.0617	16	0.71	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
010.99	Total N, Other (1%)	0545	1.850	0.1000	1.653	0.2624	0.0617	16	0.75	OK	0
010.99	Total N, Other (1%)	0539	1.935	0.0900	1.653	0.2624	0.0617	16	1.08	OK	0
020.50	Total P2O5, ICP (%)	0524	0.2116	0.0022	0.2674	0.0436	0.0074	5	-1.12		0
020.50	Total P2O5, ICP (%)	0521	0.2431	0.0000	0.2674	0.0436	0.0074	5	-0.49		0
020.50	Total P2O5, ICP (%)	0389	0.2600	0.0200	0.2674	0.0436	0.0074	5	-0.15		0
020.50	Total P2O5, ICP (%)	0527	0.3072	0.0050	0.2674	0.0436	0.0074	5	0.80		0
020.50	Total P2O5, ICP (%)	0472	0.3150	0.0100	0.2674	0.0436	0.0074	5	0.95		0
020.50	Total P2O5, ICP (%)	0552	0.0000	0.0000	0.2674	0.0436	0.0074	5			4
020.99	Total P2O5, Other (%)	0515	0.1192	0.0039				1			0
041.20	Direct Available P2O5, Spectrophotometric (%)	0553	0.0515	0.0010				1			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0472	0.1650	0.0100	0.2285	0.0552	0.0143	3	-1.15		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0568	0.2550	0.0100	0.2285	0.0552	0.0143	3	0.48		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0354	0.2655	0.0230	0.2285	0.0552	0.0143	3	0.67		0
041.50	Direct Available P2O5, ICP (%)	0421	0.2733	0.0020				2			0
041.50	Direct Available P2O5, ICP (%)	0325	0.4000	0.0000				2			0
050.31	Soluble K2O, AA (Citrate) (%)	0472	0.2600	0.0200				1			0
050.51	Soluble K2O, ICP (Citrate) (%)	0568	0.4600	0.0000				1			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0354	0.4065	0.0030				2			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0423	0.5205	0.0150				2			0
050.99	Soluble K2O, Other (%)	0515	0.3980	0.0572	0.4685	0.0815	0.0138	7	-0.78	OK	0
050.99	Soluble K2O, Other (%)	0421	0.4013	0.0025	0.4685	0.0815	0.0138	7	-0.75	OK	0
050.99	Soluble K2O, Other (%)	0553	0.4285	0.0010	0.4685	0.0815	0.0138	7	-0.44	OK	0
050.99	Soluble K2O, Other (%)	0524	0.4475	0.0016	0.4685	0.0815	0.0138	7	-0.23	OK	0
050.99	Soluble K2O, Other (%)	0527	0.4780	0.0141	0.4685	0.0815	0.0138	7	0.11	OK	0
050.99	Soluble K2O, Other (%)	0521	0.5352	0.0000	0.4685	0.0815	0.0138	7	0.74	OK	0
050.99	Soluble K2O, Other (%)	0389	0.7100	0.0200	0.4685	0.0815	0.0138	7	2.68	OK	0
050.99	Soluble K2O, Other (%)	0325	0.6500	0.5000	0.4685	0.0815	0.0138	7	2.01	OK	1
050.99	Soluble K2O, Other (%)	0552	0.0000	0.0000	0.4685	0.0815	0.0138	7			4
060.00	Water (Free), Vacuum Oven (%)	0456	1.980	0.0800				1			0
060.10	Water (Free), Vacuum Desiccation (%)	0419	1.760	0.0600				1			0
060.99	Water (Free), Other (%)	0510	3.708	0.0004				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0200	7.075	0.0700	9.866	0.7460	0.0910	10	-3.48	Low	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0553	9.225	0.0500	9.866	0.7460	0.0910	10	-0.80	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0534	9.280	0.0000	9.866	0.7460	0.0910	10	-0.73	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0513	9.785	0.1100	9.866	0.7460	0.0910	10	-0.10	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0551	9.975	0.0500	9.866	0.7460	0.0910	10	0.14	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0531	9.995	0.0100	9.866	0.7460	0.0910	10	0.16	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0539	10.01	0.0700	9.866	0.7460	0.0910	10	0.17	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0535	10.05	0.1000	9.866	0.7460	0.0910	10	0.23	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0029	10.61	0.2000	9.866	0.7460	0.0910	10	0.93	High	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0550	15.68	0.2500	9.866	0.7460	0.0910	10	7.24	High	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (10%)	0498	10.70	1.000	9.866	0.7460	0.0910	10	1.04	High	1
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (10%)	0546	9.486	0.0865				2			0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (10%)	0169	10.06	0.1600				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0073	9.205	0.2100	10.10	0.7718	0.1661	18	-1.15	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0231	9.290	0.0600	10.10	0.7718	0.1661	18	-1.04	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0451	9.333	0.7530	10.10	0.7718	0.1661	18	-0.99	Low	0

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101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0472	9.505	0.0300	10.10	0.7718	0.1661	18	-0.77	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0568	9.550	0.1000	10.10	0.7718	0.1661	18	-0.71	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0360	9.705	0.0500	10.10	0.7718	0.1661	18	-0.51	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0444	9.705	0.2500	10.10	0.7718	0.1661	18	-0.51	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0377	9.880	0.3200	10.10	0.7718	0.1661	18	-0.28	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0433	9.890	0.1600	10.10	0.7718	0.1661	18	-0.27	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0324	9.965	0.2700	10.10	0.7718	0.1661	18	-0.17	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0234	10.06	0.0739	10.10	0.7718	0.1661	18	-0.05	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0371	10.13	0.0390	10.10	0.7718	0.1661	18	0.04	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0354	10.25	0.3000	10.10	0.7718	0.1661	18	0.20	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0450	10.83	0.2300	10.10	0.7718	0.1661	18	0.94	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0325	10.85	0.1000	10.10	0.7718	0.1661	18	0.98	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0402	11.17	0.0100	10.10	0.7718	0.1661	18	1.38	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0255	11.18	0.0240	10.10	0.7718	0.1661	18	1.41	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0291	11.77	0.0100	10.10	0.7718	0.1661	18	2.16	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (10%)	0035	8.825	1.650	10.10	0.7718	0.1661	18	-1.65	Low	1
101.31	Acid Soluble Ca, ICP, test portion organic 965.09 (10%)	0516	6.650	0.1000				1			0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	0095	8.445	0.4700	9.955	1.097	0.2608	5	-1.38		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	0028	9.660	0.1800	9.955	1.097	0.2608	5	-0.27		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	0394	10.08	0.2770	9.955	1.097	0.2608	5	0.11		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	0521	10.08	0.0000	9.955	1.097	0.2608	5	0.12		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (10%)	0515	11.51	0.3770	9.955	1.097	0.2608	5	1.42		0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0055	8.955	0.1900	9.622	0.5007	0.2249	17	-1.33	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0040	9.020	0.0800	9.622	0.5007	0.2249	17	-1.20	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0543	9.058	0.1240	9.622	0.5007	0.2249	17	-1.13	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0421	9.262	0.0199	9.622	0.5007	0.2249	17	-0.72	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0106	9.391	0.5129	9.622	0.5007	0.2249	17	-0.46	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0419	9.490	0.1200	9.622	0.5007	0.2249	17	-0.26	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0025	9.525	0.1500	9.622	0.5007	0.2249	17	-0.19	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0368	9.579	0.0229	9.622	0.5007	0.2249	17	-0.09	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0177	9.586	0.1530	9.622	0.5007	0.2249	17	-0.07	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0117	9.591	0.1080	9.622	0.5007	0.2249	17	-0.06	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0494	9.664	0.2397	9.622	0.5007	0.2249	17	0.08	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0292	9.675	0.0700	9.622	0.5007	0.2249	17	0.11	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0023	9.820	0.3600	9.622	0.5007	0.2249	17	0.40	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0136	9.835	0.2500	9.622	0.5007	0.2249	17	0.43	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0043	10.47	0.7900	9.622	0.5007	0.2249	17	1.68	High	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0527	11.14	0.0728	9.622	0.5007	0.2249	17	3.04	High	0
101.33	Acid Soluble Ca, ICP, 2017.02 (10%)	0486	11.53	0.5600	9.622	0.5007	0.2249	17	3.81	High	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0536	7.500	0.2000	10.04	0.4812	0.0739	8	-4.82	Low	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0529	9.780	0.0800	10.04	0.4812	0.0739	8	-0.49	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0538	9.795	0.1900	10.04	0.4812	0.0739	8	-0.46	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0510	10.06	0.0263	10.04	0.4812	0.0739	8	0.03	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0522	10.07	0.0050	10.04	0.4812	0.0739	8	0.06	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0564	10.23	0.0500	10.04	0.4812	0.0739	8	0.36	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0560	10.31	0.0300	10.04	0.4812	0.0739	8	0.51	OK	0
101.70	Acid Soluble Ca, Titrimetric (10%)	0544	11.90	0.0100	10.04	0.4812	0.0739	8	3.53	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				
101.99	Acid Soluble Ca, Other (10%)	0476	8.872	0.1110	9.648	0.5110	0.1445	12	-1.52	Low	0
101.99	Acid Soluble Ca, Other (10%)	0552	9.165	0.1700	9.648	0.5110	0.1445	12	-0.95	OK	0
101.99	Acid Soluble Ca, Other (10%)	0389	9.170	0.1000	9.648	0.5110	0.1445	12	-0.94	OK	0
101.99	Acid Soluble Ca, Other (10%)	0405	9.245	0.1700	9.648	0.5110	0.1445	12	-0.79	OK	0
101.99	Acid Soluble Ca, Other (10%)	0506	9.605	0.0700	9.648	0.5110	0.1445	12	-0.08	OK	0
101.99	Acid Soluble Ca, Other (10%)	0422	9.695	0.1700	9.648	0.5110	0.1445	12	0.09	OK	0
101.99	Acid Soluble Ca, Other (10%)	0558	9.840	0.1200	9.648	0.5110	0.1445	12	0.38	OK	0
101.99	Acid Soluble Ca, Other (10%)	0547	9.860	0.1200	9.648	0.5110	0.1445	12	0.41	OK	0
101.99	Acid Soluble Ca, Other (10%)	0536	9.875	0.1500	9.648	0.5110	0.1445	12	0.44	OK	0
101.99	Acid Soluble Ca, Other (10%)	0540	9.885	0.2700	9.648	0.5110	0.1445	12	0.46	OK	0
101.99	Acid Soluble Ca, Other (10%)	0532	10.14	0.1200	9.648	0.5110	0.1445	12	0.96	OK	0
101.99	Acid Soluble Ca, Other (10%)	0027	10.54	0.1630	9.648	0.5110	0.1445	12	1.75	High	0
101.99	Acid Soluble Ca, Other (10%)	0042	10.65	1.100	9.648	0.5110	0.1445	12	1.96	High	1
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0553	4.003	0.0250	4.687	0.5631	0.1165	12	-1.22	Low	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0498	4.100	0.4000	4.687	0.5631	0.1165	12	-1.04	Low	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0200	4.150	0.1000	4.687	0.5631	0.1165	12	-0.95	Low	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0040	4.235	0.1500	4.687	0.5631	0.1165	12	-0.80	Low	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0029	4.498	0.1930	4.687	0.5631	0.1165	12	-0.34	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0513	4.520	0.0200	4.687	0.5631	0.1165	12	-0.30	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0539	5.005	0.0500	4.687	0.5631	0.1165	12	0.57	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0536	5.025	0.1500	4.687	0.5631	0.1165	12	0.60	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0535	5.050	0.1000	4.687	0.5631	0.1165	12	0.65	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0551	5.050	0.1000	4.687	0.5631	0.1165	12	0.65	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0531	5.075	0.0500	4.687	0.5631	0.1165	12	0.69	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0550	7.300	0.0600	4.687	0.5631	0.1165	12	4.64	High	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0309	235.4	461.3	4.687	0.5631	0.1165	12	409.70	High	2
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0546	4.078	0.0183				2			0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0169	4.090	0.1000				2			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0231	3.905	0.0700	4.285	0.2792	0.1309	17	-1.36	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0444	3.940	0.2200	4.285	0.2792	0.1309	17	-1.24	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0402	4.025	0.0060	4.285	0.2792	0.1309	17	-0.93	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0451	4.048	0.7190	4.285	0.2792	0.1309	17	-0.85	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0073	4.075	0.1500	4.285	0.2792	0.1309	17	-0.75	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0371	4.092	0.0260	4.285	0.2792	0.1309	17	-0.69	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0360	4.245	0.0300	4.285	0.2792	0.1309	17	-0.14	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0377	4.265	0.0100	4.285	0.2792	0.1309	17	-0.07	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0433	4.280	0.2200	4.285	0.2792	0.1309	17	-0.02	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0568	4.300	0.0000	4.285	0.2792	0.1309	17	0.05	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0291	4.320	0.0600	4.285	0.2792	0.1309	17	0.13	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0324	4.425	0.1500	4.285	0.2792	0.1309	17	0.50	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0234	4.505	0.0407	4.285	0.2792	0.1309	17	0.79	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0255	4.518	0.1340	4.285	0.2792	0.1309	17	0.84	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0325	4.550	0.1000	4.285	0.2792	0.1309	17	0.95	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0354	4.645	0.2700	4.285	0.2792	0.1309	17	1.29	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0472	4.930	0.0200	4.285	0.2792	0.1309	17	2.31	High	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0035	3.835	0.8500	4.285	0.2792	0.1309	17	-1.61	Low	1
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0095	3.770	0.2200	4.131	0.2686	0.1079	6	-1.20	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0521	3.976	0.0000	4.131	0.2686	0.1079	6	-0.51	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0394	4.125	0.0576	4.131	0.2686	0.1079	6	-0.02	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0423	4.170	0.0600	4.131	0.2686	0.1079	6	0.13	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0292	4.310	0.0600	4.131	0.2686	0.1079	6	0.59	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0028	4.435	0.2500	4.131	0.2686	0.1079	6	1.01	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0043	3.700	0.0400	4.152	0.1963	0.1591	15	-2.30	Low	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0136	3.920	0.1600	4.152	0.1963	0.1591	15	-1.18	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0055	3.955	0.3100	4.152	0.1963	0.1591	15	-1.00	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0419	4.050	0.1800	4.152	0.1963	0.1591	15	-0.52	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0543	4.062	0.3760	4.152	0.1963	0.1591	15	-0.46	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0023	4.085	0.3300	4.152	0.1963	0.1591	15	-0.34	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0106	4.095	0.3952	4.152	0.1963	0.1591	15	-0.29	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0494	4.152	0.1152	4.152	0.1963	0.1591	15	0.00	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0421	4.231	0.0007	4.152	0.1963	0.1591	15	0.40	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0117	4.232	0.0422	4.152	0.1963	0.1591	15	0.41	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0368	4.233	0.0383	4.152	0.1963	0.1591	15	0.41	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0025	4.250	0.0600	4.152	0.1963	0.1591	15	0.50	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0177	4.262	0.0892	4.152	0.1963	0.1591	15	0.56	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0527	4.863	0.0102	4.152	0.1963	0.1591	15	3.62	High	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0486	5.130	0.2400	4.152	0.1963	0.1591	15	4.98	High	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0515	5.508	0.8966	4.152	0.1963	0.1591	15	6.91	High	1
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	0476	4.412	0.2447	4.861	0.3431	0.1812	4	-1.31		0
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	0529	4.785	0.1300	4.861	0.3431	0.1812	4	-0.22		0
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	0560	5.055	0.3300	4.861	0.3431	0.1812	4	0.57		0
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	0564	5.190	0.0200	4.861	0.3431	0.1812	4	0.96		0
121.99	Acid Soluble Mg, Other (5%)	0516	3.300	0.0000	4.480	0.5723	0.0875	13	-2.06	Low	0
121.99	Acid Soluble Mg, Other (5%)	0552	3.915	0.0700	4.480	0.5723	0.0875	13	-0.99	Low	0
121.99	Acid Soluble Mg, Other (5%)	0524	3.924	0.0170	4.480	0.5723	0.0875	13	-0.97	Low	0
121.99	Acid Soluble Mg, Other (5%)	0547	4.145	0.0500	4.480	0.5723	0.0875	13	-0.58	OK	0
121.99	Acid Soluble Mg, Other (5%)	0389	4.215	0.1100	4.480	0.5723	0.0875	13	-0.46	OK	0
121.99	Acid Soluble Mg, Other (5%)	0506	4.370	0.0600	4.480	0.5723	0.0875	13	-0.19	OK	0
121.99	Acid Soluble Mg, Other (5%)	0405	4.420	0.2200	4.480	0.5723	0.0875	13	-0.10	OK	0
121.99	Acid Soluble Mg, Other (5%)	0027	4.519	0.0600	4.480	0.5723	0.0875	13	0.07	OK	0
121.99	Acid Soluble Mg, Other (5%)	0540	4.875	0.2500	4.480	0.5723	0.0875	13	0.69	OK	0
121.99	Acid Soluble Mg, Other (5%)	0042	5.035	0.0100	4.480	0.5723	0.0875	13	0.97	High	0
121.99	Acid Soluble Mg, Other (5%)	0558	5.045	0.0500	4.480	0.5723	0.0875	13	0.99	High	0
121.99	Acid Soluble Mg, Other (5%)	0532	5.070	0.0400	4.480	0.5723	0.0875	13	1.03	High	0
121.99	Acid Soluble Mg, Other (5%)	0450	5.080	0.2000	4.480	0.5723	0.0875	13	1.05	High	0
121.99	Acid Soluble Mg, Other (5%)	0422	2.760	3.240	4.480	0.5723	0.0875	13	-3.00	Low	1
131.00	Water Soluble Mg, AA (%)	0536	0.8050	0.0700	0.8367	0.0284	0.0333	3	-1.11		0
131.00	Water Soluble Mg, AA (%)	0535	0.8450	0.0100	0.8367	0.0284	0.0333	3	0.29		0
131.00	Water Soluble Mg, AA (%)	0539	0.8600	0.0200	0.8367	0.0284	0.0333	3	0.82		0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0535	0.8100	0.0200				2			0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0510	5.069	0.0130				2			0
143.99	Elemental S, Other (%)	0255	3.120	0.2060	3.539	0.3861	0.0983	6	-0.97	NA	0
143.99	Elemental S, Other (%)	0472	3.335	0.0100	3.539	0.3861	0.0983	6	-0.47	NA	0
143.99	Elemental S, Other (%)	0368	3.402	0.0938	3.539	0.3861	0.0983	6	-0.32	NA	0

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143.99	Elemental S, Other (%)	0291	3.575	0.0500	3.539	0.3861	0.0983	6	0.08	NA	0
143.99	Elemental S, Other (%)	0389	3.705	0.0300	3.539	0.3861	0.0983	6	0.38	NA	0
143.99	Elemental S, Other (%)	0325	4.100	0.2000	3.539	0.3861	0.0983	6	1.29	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0549	1.560	0.0400	2.585	0.8271	0.0240	5	-1.08		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0522	2.100	0.0100	2.585	0.8271	0.0240	5	-0.51		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0550	2.410	0.0400	2.585	0.8271	0.0240	5	-0.18		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0106	3.410	0.0200	2.585	0.8271	0.0240	5	0.87		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0544	3.445	0.0100	2.585	0.8271	0.0240	5	0.91		0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0498	3.100	0.2000	2.585	0.8271	0.0240	5	0.54		1
145.99	Sulfate S, HCl soluble, Other (%)	0518	1.540	0.1600	2.857	1.149	0.0667	3	-1.15		0
145.99	Sulfate S, HCl soluble, Other (%)	0200	3.375	0.0100	2.857	1.149	0.0667	3	0.45		0
145.99	Sulfate S, HCl soluble, Other (%)	0553	3.655	0.0300	2.857	1.149	0.0667	3	0.69		0
146.00	Total S in Liquid, Gravimetric - sulfate, sulfite, thiosulfate, a... (1.5%)	0538	1.500	0.1000				1			0
148.00	Total S, Combustion (1.5%)	0419	2.938	0.0980	3.346	0.1935	0.0880	7	-1.90	Low	0
148.00	Total S, Combustion (1.5%)	0114	3.225	0.0100	3.346	0.1935	0.0880	7	-0.56	OK	0
148.00	Total S, Combustion (1.5%)	0451	3.327	0.0140	3.346	0.1935	0.0880	7	-0.09	OK	0
148.00	Total S, Combustion (1.5%)	0136	3.385	0.1500	3.346	0.1935	0.0880	7	0.18	OK	0
148.00	Total S, Combustion (1.5%)	0029	3.408	0.2270	3.346	0.1935	0.0880	7	0.29	OK	0
148.00	Total S, Combustion (1.5%)	0025	3.421	0.0570	3.346	0.1935	0.0880	7	0.35	OK	0
148.00	Total S, Combustion (1.5%)	0493	3.600	0.0600	3.346	0.1935	0.0880	7	1.19	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0534	1.500	0.0000	2.767	0.9021	0.0863	8	-1.28	Low	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0560	1.750	0.0600	2.767	0.9021	0.0863	8	-1.03	Low	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0073	2.555	0.0900	2.767	0.9021	0.0863	8	-0.21	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0564	2.635	0.0300	2.767	0.9021	0.0863	8	-0.13	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0055	3.385	0.1500	2.767	0.9021	0.0863	8	0.63	High	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0029	3.430	0.0200	2.767	0.9021	0.0863	8	0.67	High	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0324	3.435	0.2900	2.767	0.9021	0.0863	8	0.68	High	0
148.01	Total S, Gravimetric - sulfate and elemental (1.5%)	0513	3.445	0.0500	2.767	0.9021	0.0863	8	0.69	High	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0546	3.251	0.0408	3.516	0.1901	0.0760	16	-1.39	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0486	3.255	0.0900	3.516	0.1901	0.0760	16	-1.37	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0421	3.312	0.0177	3.516	0.1901	0.0760	16	-1.07	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0117	3.374	0.0065	3.516	0.1901	0.0760	16	-0.75	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0444	3.380	0.0000	3.516	0.1901	0.0760	16	-0.71	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0040	3.450	0.1000	3.516	0.1901	0.0760	16	-0.35	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0023	3.460	0.0600	3.516	0.1901	0.0760	16	-0.29	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0394	3.546	0.0774	3.516	0.1901	0.0760	16	0.16	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0169	3.565	0.1300	3.516	0.1901	0.0760	16	0.26	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0402	3.590	0.0600	3.516	0.1901	0.0760	16	0.39	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0527	3.597	0.0912	3.516	0.1901	0.0760	16	0.43	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0494	3.605	0.1865	3.516	0.1901	0.0760	16	0.47	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0043	3.660	0.0000	3.516	0.1901	0.0760	16	0.76	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0515	3.697	0.2345	3.516	0.1901	0.0760	16	0.95	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0292	3.715	0.0100	3.516	0.1901	0.0760	16	1.05	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0177	3.797	0.1119	3.516	0.1901	0.0760	16	1.48	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (1.5%)	0543	1.999	0.9580	3.516	0.1901	0.0760	16	-7.98	Low	1
148.99	Total S, Other (1.5%)	0532	1.480	0.0800	3.290	0.2999	0.1145	18	-6.03	Low	0
148.99	Total S, Other (1.5%)	0562	2.550	0.2000	3.290	0.2999	0.1145	18	-2.47	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				
148.99	Total S, Other (1.5%)	0551	2.975	0.1500	3.290	0.2999	0.1145	18	-1.05	OK	0
148.99	Total S, Other (1.5%)	0558	2.990	0.0600	3.290	0.2999	0.1145	18	-1.00	OK	0
148.99	Total S, Other (1.5%)	0422	3.040	0.3400	3.290	0.2999	0.1145	18	-0.83	OK	0
148.99	Total S, Other (1.5%)	0533	3.150	0.1000	3.290	0.2999	0.1145	18	-0.47	OK	0
148.99	Total S, Other (1.5%)	0516	3.250	0.1000	3.290	0.2999	0.1145	18	-0.13	OK	0
148.99	Total S, Other (1.5%)	0539	3.300	0.1000	3.290	0.2999	0.1145	18	0.03	OK	0
148.99	Total S, Other (1.5%)	0535	3.350	0.1000	3.290	0.2999	0.1145	18	0.20	OK	0
148.99	Total S, Other (1.5%)	0354	3.355	0.0500	3.290	0.2999	0.1145	18	0.22	OK	0
148.99	Total S, Other (1.5%)	0450	3.365	0.0300	3.290	0.2999	0.1145	18	0.25	OK	0
148.99	Total S, Other (1.5%)	0547	3.385	0.1300	3.290	0.2999	0.1145	18	0.32	OK	0
148.99	Total S, Other (1.5%)	0433	3.410	0.0200	3.290	0.2999	0.1145	18	0.40	OK	0
148.99	Total S, Other (1.5%)	0377	3.520	0.1000	3.290	0.2999	0.1145	18	0.77	OK	0
148.99	Total S, Other (1.5%)	0476	3.544	0.2676	3.290	0.2999	0.1145	18	0.85	OK	0
148.99	Total S, Other (1.5%)	0506	3.620	0.0400	3.290	0.2999	0.1145	18	1.10	OK	0
148.99	Total S, Other (1.5%)	0536	3.625	0.1500	3.290	0.2999	0.1145	18	1.12	OK	0
148.99	Total S, Other (1.5%)	0371	3.659	0.0430	3.290	0.2999	0.1145	18	1.23	High	0
149.04	S - HNO3 soluble, ICP (%)	0423	3.470	0.0600	3.864	0.5957	0.0422	4	-0.66		0
149.04	S - HNO3 soluble, ICP (%)	0521	3.577	0.0000	3.864	0.5957	0.0422	4	-0.48		0
149.04	S - HNO3 soluble, ICP (%)	0524	3.660	0.0487	3.864	0.5957	0.0422	4	-0.34		0
149.04	S - HNO3 soluble, ICP (%)	0231	4.750	0.0600	3.864	0.5957	0.0422	4	1.49		0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	27.15	0.5000				1			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.08					1			5
151.30	Acid Soluble As, ICP (ppm)	0444	16.95	0.5000	19.94	3.339	0.6070	4	-0.90		0
151.30	Acid Soluble As, ICP (ppm)	0524	17.59	0.6660	19.94	3.339	0.6070	4	-0.70		0
151.30	Acid Soluble As, ICP (ppm)	0255	21.07	1.162	19.94	3.339	0.6070	4	0.34		0
151.30	Acid Soluble As, ICP (ppm)	0450	24.15	0.1000	19.94	3.339	0.6070	4	1.26		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	21.55	2.898	24.90	2.439	1.062	5	-1.38		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	23.76	1.130	24.90	2.439	1.062	5	-0.47		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	25.14	0.9120	24.90	2.439	1.062	5	0.10		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	26.03	0.0714	24.90	2.439	1.062	5	0.46		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0494	28.05	0.3000	24.90	2.439	1.062	5	1.29		0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	22.42	0.3210				2			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	35.22	0.5083				2			0
151.99	Acid Soluble As, Other (ppm)	0506	21.65	0.3000				2			0
151.99	Acid Soluble As, Other (ppm)	0405	25.50	1.000				2			0
165.00	Acid Soluble B, Spectrophotometric (10%)	0533	6.200	0.2000	9.807	0.4502	0.1411	15	-8.01	Low	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0055	8.145	0.2270	9.807	0.4502	0.1411	15	-3.69	Low	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0029	9.256	0.2450	9.807	0.4502	0.1411	15	-1.22	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0506	9.665	0.0900	9.807	0.4502	0.1411	15	-0.32	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0558	9.745	0.2100	9.807	0.4502	0.1411	15	-0.14	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0536	9.800	0.1000	9.807	0.4502	0.1411	15	-0.02	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0539	9.800	0.2000	9.807	0.4502	0.1411	15	-0.02	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0535	9.850	0.1000	9.807	0.4502	0.1411	15	0.10	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0028	9.863	0.0050	9.807	0.4502	0.1411	15	0.12	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0309	9.875	0.0900	9.807	0.4502	0.1411	15	0.15	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0534	9.900	0.0000	9.807	0.4502	0.1411	15	0.21	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0405	10.08	0.0100	9.807	0.4502	0.1411	15	0.60	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 (10%)	0553	10.25	0.3000	9.807	0.4502	0.1411	15	0.98	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0518	10.28	0.1400	9.807	0.4502	0.1411	15	1.05	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0498	10.60	0.2000	9.807	0.4502	0.1411	15	1.76	OK	0
165.00	Acid Soluble B, Spectrophotometric (10%)	0550	8.685	0.8900	9.807	0.4502	0.1411	15	-2.49	Low	1
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0389	7.536	0.0000	9.965	0.6554	0.2829	21	-3.71	Low	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0543	8.960	0.5850	9.965	0.6554	0.2829	21	-1.53	Low	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0292	9.340	0.1000	9.965	0.6554	0.2829	21	-0.95	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0169	9.360	0.1200	9.965	0.6554	0.2829	21	-0.92	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0377	9.370	0.3000	9.965	0.6554	0.2829	21	-0.91	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0402	9.475	0.0700	9.965	0.6554	0.2829	21	-0.75	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0444	9.650	0.0200	9.965	0.6554	0.2829	21	-0.48	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0106	9.745	1.814	9.965	0.6554	0.2829	21	-0.34	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0371	9.935	0.0420	9.965	0.6554	0.2829	21	-0.05	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0546	10.03	0.0624	9.965	0.6554	0.2829	21	0.10	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0037	10.06	0.0570	9.965	0.6554	0.2829	21	0.14	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0023	10.10	0.0000	9.965	0.6554	0.2829	21	0.21	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0043	10.10	0.6000	9.965	0.6554	0.2829	21	0.21	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0451	10.11	0.2100	9.965	0.6554	0.2829	21	0.21	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0521	10.17	0.0000	9.965	0.6554	0.2829	21	0.31	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0354	10.25	0.3000	9.965	0.6554	0.2829	21	0.43	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0073	10.53	0.2100	9.965	0.6554	0.2829	21	0.85	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0394	10.58	0.5312	9.965	0.6554	0.2829	21	0.94	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0234	10.62	0.1985	9.965	0.6554	0.2829	21	1.00	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0433	11.06	0.1200	9.965	0.6554	0.2829	21	1.67	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0325	13.20	0.6000	9.965	0.6554	0.2829	21	4.94	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (10%)	0324	13.05	5.900	9.965	0.6554	0.2829	21	4.71	High	1
165.99	Acid Soluble B, Other (10%)	0516	7.700	0.0000	9.669	0.6061	0.1078	20	-3.25	Low	0
165.99	Acid Soluble B, Other (10%)	0472	8.810	0.0200	9.669	0.6061	0.1078	20	-1.42	OK	0
165.99	Acid Soluble B, Other (10%)	0552	8.835	0.2900	9.669	0.6061	0.1078	20	-1.38	OK	0
165.99	Acid Soluble B, Other (10%)	0231	9.175	0.1500	9.669	0.6061	0.1078	20	-0.82	OK	0
165.99	Acid Soluble B, Other (10%)	0423	9.235	0.0500	9.669	0.6061	0.1078	20	-0.72	OK	0
165.99	Acid Soluble B, Other (10%)	0117	9.368	0.0535	9.669	0.6061	0.1078	20	-0.50	OK	0
165.99	Acid Soluble B, Other (10%)	0513	9.420	0.2000	9.669	0.6061	0.1078	20	-0.41	OK	0
165.99	Acid Soluble B, Other (10%)	0422	9.515	0.0100	9.669	0.6061	0.1078	20	-0.25	OK	0
165.99	Acid Soluble B, Other (10%)	0421	9.516	0.0172	9.669	0.6061	0.1078	20	-0.25	OK	0
165.99	Acid Soluble B, Other (10%)	0524	9.752	0.1773	9.669	0.6061	0.1078	20	0.14	OK	0
165.99	Acid Soluble B, Other (10%)	0360	9.760	0.1200	9.669	0.6061	0.1078	20	0.15	OK	0
165.99	Acid Soluble B, Other (10%)	0527	9.894	0.1080	9.669	0.6061	0.1078	20	0.37	OK	0
165.99	Acid Soluble B, Other (10%)	0291	9.955	0.1300	9.669	0.6061	0.1078	20	0.47	OK	0
165.99	Acid Soluble B, Other (10%)	0368	9.956	0.0621	9.669	0.6061	0.1078	20	0.47	OK	0
165.99	Acid Soluble B, Other (10%)	0255	9.991	0.1380	9.669	0.6061	0.1078	20	0.53	OK	0
165.99	Acid Soluble B, Other (10%)	0136	10.10	0.3100	9.669	0.6061	0.1078	20	0.70	OK	0
165.99	Acid Soluble B, Other (10%)	0547	10.10	0.0100	9.669	0.6061	0.1078	20	0.70	OK	0
165.99	Acid Soluble B, Other (10%)	0562	10.10	0.1000	9.669	0.6061	0.1078	20	0.71	OK	0
165.99	Acid Soluble B, Other (10%)	0486	10.67	0.1200	9.669	0.6061	0.1078	20	1.65	High	0
165.99	Acid Soluble B, Other (10%)	0042	11.35	0.0900	9.669	0.6061	0.1078	20	2.76	High	0
165.99	Acid Soluble B, Other (10%)	0515	15.46	3.173	9.669	0.6061	0.1078	20	9.56	High	1

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				
171.00	Water Soluble B, AA, JAOAC 52.950 (%)	0531	10.01	0.0200				1			0
171.10	Water Soluble B, Spectrophotometric (%)	0518	4.535	0.0300	8.492	2.669	0.1192	12	-1.48	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0536	5.600	0.1000	8.492	2.669	0.1192	12	-1.08	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0539	5.600	0.2000	8.492	2.669	0.1192	12	-1.08	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0535	5.650	0.1000	8.492	2.669	0.1192	12	-1.06	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0556	9.500	0.0400	8.492	2.669	0.1192	12	0.38	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0538	9.800	0.1000	8.492	2.669	0.1192	12	0.49	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0549	10.00	0.4000	8.492	2.669	0.1192	12	0.56	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0551	10.01	0.0200	8.492	2.669	0.1192	12	0.57	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0564	10.09	0.0400	8.492	2.669	0.1192	12	0.60	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0532	10.36	0.1100	8.492	2.669	0.1192	12	0.70	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0560	10.37	0.1500	8.492	2.669	0.1192	12	0.70	NA	0
171.10	Water Soluble B, Spectrophotometric (%)	0200	10.40	0.1400	8.492	2.669	0.1192	12	0.71	NA	0
171.99	Water Soluble B, Other (%)	0027	6.519	0.1980				2			0
171.99	Water Soluble B, Other (%)	0562	9.700	0.2000				2			0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	0.8000	0.0000				2			0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	1.970	1.440				2			0
181.30	Acid Soluble Cd, ICP (ppm)	0444	0.3750	0.0100	0.5691	0.1821	0.0248	5	-0.93		0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.4593	0.0198	0.5691	0.1821	0.0248	5	-0.53		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.4990	0.0920	0.5691	0.1821	0.0248	5	-0.34		0
181.30	Acid Soluble Cd, ICP (ppm)	0419	0.6920	0.0020	0.5691	0.1821	0.0248	5	0.59		0
181.30	Acid Soluble Cd, ICP (ppm)	0389	0.8200	0.0000	0.5691	0.1821	0.0248	5	1.20		0
181.30	Acid Soluble Cd, ICP (ppm)	0450	< 0.5		0.5691	0.1821	0.0248	5			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	0.6040	0.0038				2			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	5.859	1.948				2			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0494	< 0.54					2			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	< 1					2			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	< 5					2			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	0.5996	0.0398				2			0
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	6.048	0.3780				2			0
181.99	Acid Soluble Cd, Other (ppm)	0405	0.5100	0.0200				2			0
181.99	Acid Soluble Cd, Other (ppm)	0506	0.6780	0.0100				2			0
190.99	Water Soluble Cl, Other (%)	0553	2.505	0.0300				1			0
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	3.715	0.0500				2			0
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	17.05	2.100				2			0
191.30	Acid Soluble Cr, ICP (ppm)	0444	12.21	0.7600	17.70	5.231	1.148	7	-0.95	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0389	13.48	0.0900	17.70	5.231	1.148	7	-0.73	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	14.55	2.900	17.70	5.231	1.148	7	-0.54	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0394	18.25	1.500	17.70	5.231	1.148	7	0.10	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	18.84	0.0571	17.70	5.231	1.148	7	0.20	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0419	21.56	0.7300	17.70	5.231	1.148	7	0.67	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	25.00	2.000	17.70	5.231	1.148	7	1.26	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	15.02	0.2387	21.81	6.222	1.740	4	-1.09		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	18.47	1.830	21.81	6.222	1.740	4	-0.54		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0494	24.92	3.900	21.81	6.222	1.740	4	0.50		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	28.83	0.9900	21.81	6.222	1.740	4	1.13		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	20.68	0.4898				2			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				
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	24.11	4.814				2			0
191.99	Acid Soluble Cr, Other (ppm)	0405	23.00	0.0000				1			0
202.30	Acid Soluble Co, ICP (ppm)	0389	3.010	0.0000	5.739	2.960	0.3039	4	-0.92		0
202.30	Acid Soluble Co, ICP (ppm)	0035	3.615	0.2300	5.739	2.960	0.3039	4	-0.72		0
202.30	Acid Soluble Co, ICP (ppm)	0524	7.034	0.6157	5.739	2.960	0.3039	4	0.44		0
202.30	Acid Soluble Co, ICP (ppm)	0419	9.295	0.3700	5.739	2.960	0.3039	4	1.20		0
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0423	5.575	0.0900				1			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0550	4.090	0.1000	7.597	2.764	0.6660	5	-1.11		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	6.062	0.0776	7.597	2.764	0.6660	5	-0.48		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0494	8.080	0.4200	7.597	2.764	0.6660	5	0.15		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0546	8.251	0.5936	7.597	2.764	0.6660	5	0.21		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	11.50	2.139	7.597	2.764	0.6660	5	1.23		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	< 5		7.597	2.764	0.6660	5			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	2.930	0.8494				2			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	10.69	0.6750				2			0
202.99	Acid Soluble Co, Other (ppm)	0255	6.056	0.9690				2			0
202.99	Acid Soluble Co, Other (ppm)	0405	9.150	2.500				2			0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0550	0.0324	0.0028	0.0401	0.0084	0.0023	3	-0.93		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0498	0.0390	0.0040	0.0401	0.0084	0.0023	3	-0.14		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0553	0.0490	0.0000	0.0401	0.0084	0.0023	3	1.06		0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0402	0.0381	0.0008	0.0413	0.0031	0.0033	6	-0.92	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	0.0400	0.0000	0.0413	0.0031	0.0033	6	-0.37	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0472	0.0400	0.0000	0.0413	0.0031	0.0033	6	-0.37	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0035	0.0410	0.0100	0.0413	0.0031	0.0033	6	-0.09	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0234	0.0428	0.0021	0.0413	0.0031	0.0033	6	0.41	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0444	0.0555	0.0070	0.0413	0.0031	0.0033	6	4.07	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0552	0.0950	0.0700	0.0413	0.0031	0.0033	6	15.39	High	1
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0000	0.0000	0.0413	0.0031	0.0033	6			4
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0521	0.0366	0.0000	0.0410	0.0045	0.0009	3	-0.99		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0394	0.0409	0.0018	0.0410	0.0045	0.0009	3	-0.02		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0423	0.0455	0.0010	0.0410	0.0045	0.0009	3	1.01		0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0043	0.0400	0.0000	0.0430	0.0042	0.0025	9	-0.66	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0136	0.0400	0.0000	0.0430	0.0042	0.0025	9	-0.66	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0421	0.0404	0.0002	0.0430	0.0042	0.0025	9	-0.57	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0546	0.0406	0.0050	0.0430	0.0042	0.0025	9	-0.53	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0106	0.0424	0.0014	0.0430	0.0042	0.0025	9	-0.13	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0515	0.0425	0.0030	0.0430	0.0042	0.0025	9	-0.11	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0494	0.0427	0.0018	0.0430	0.0042	0.0025	9	-0.07	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	0.0492	0.0002	0.0430	0.0042	0.0025	9	1.36	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0368	0.0504	0.0111	0.0430	0.0042	0.0025	9	1.62	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0419	47.16	7.390	0.0430	0.0042	0.0025	9	10373.20	High	2
221.99	Acid Soluble Cu, Other (%)	0389	0.0375	0.0010	0.0428	0.0051	0.0037	5	-1.05		0
221.99	Acid Soluble Cu, Other (%)	0524	0.0384	0.0003	0.0428	0.0051	0.0037	5	-0.88		0
221.99	Acid Soluble Cu, Other (%)	0515	0.0431	0.0004	0.0428	0.0051	0.0037	5	0.06		0
221.99	Acid Soluble Cu, Other (%)	0506	0.0455	0.0050	0.0428	0.0051	0.0037	5	0.53		0
221.99	Acid Soluble Cu, Other (%)	0405	0.0497	0.0119	0.0428	0.0051	0.0037	5	1.35		0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	0.5375	0.0050				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				
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0035	0.4740	0.1240	0.5458	0.0603	0.0628	5	-1.19		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0472	0.4900	0.0000	0.5458	0.0603	0.0628	5	-0.92		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	0.5650	0.0100	0.5458	0.0603	0.0628	5	0.32		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0444	0.5950	0.0100	0.5458	0.0603	0.0628	5	0.82		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0552	0.6050	0.1700	0.5458	0.0603	0.0628	5	0.98		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0521	0.5416	0.0000				2			0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	0.5610	0.0040				2			0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0546	0.2376	0.0059	0.5526	0.0507	0.0205	8	-5.68	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0419	0.5130	0.0020	0.5526	0.0507	0.0205	8	-0.71	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	0.5325	0.0710	0.5526	0.0507	0.0205	8	-0.36	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0368	0.5505	0.0030	0.5526	0.0507	0.0205	8	-0.04	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0421	0.5680	0.0038	0.5526	0.0507	0.0205	8	0.28	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0494	0.5723	0.0458	0.5526	0.0507	0.0205	8	0.36	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0106	0.5910	0.0284	0.5526	0.0507	0.0205	8	0.69	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	0.6169	0.0037	0.5526	0.0507	0.0205	8	1.16	High	0
241.99	Acid Soluble Fe, Other (%)	0389	0.0515	0.0010	0.3635	0.2702	0.0118	3	-1.15		0
241.99	Acid Soluble Fe, Other (%)	0515	0.5178	0.0092	0.3635	0.2702	0.0118	3	0.57		0
241.99	Acid Soluble Fe, Other (%)	0524	0.5212	0.0252	0.3635	0.2702	0.0118	3	0.58		0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	3.690	0.1000				1			0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.5					1			5
251.30	Acid Soluble Pb, ICP (ppm)	0444	2.335	0.1700	3.706	1.118	0.2341	7	-1.11	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0389	2.670	0.0400	3.706	1.118	0.2341	7	-0.84	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0524	3.413	0.1294	3.706	1.118	0.2341	7	-0.24	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0255	3.956	0.3390	3.706	1.118	0.2341	7	0.20	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0394	4.150	0.0000	3.706	1.118	0.2341	7	0.36	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0450	4.200	0.0000	3.706	1.118	0.2341	7	0.40	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0419	5.220	0.9600	3.706	1.118	0.2341	7	1.22	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0035	6.285	3.870	3.706	1.118	0.2341	7	2.09	NA	1
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0494	3.255	3.470	4.566	0.9272	0.9698	4	-1.41		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	4.605	0.0700	4.566	0.9272	0.9698	4	0.04		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	5.041	0.0802	4.566	0.9272	0.9698	4	0.51		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	5.362	0.2590	4.566	0.9272	0.9698	4	0.86		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	4.337	8.673	4.566	0.9272	0.9698	4			4
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.8					0			5
251.99	Acid Soluble Pb, Other (ppm)	0405	5.200	0.2000				1			0
261.11	Acid Soluble Mn, AA, total Mn (%)	0553	0.2645	0.0030				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0035	0.2455	0.0570	0.2739	0.0215	0.0193	4	-1.32		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0472	0.2700	0.0000	0.2739	0.0215	0.0193	4	-0.18		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0444	0.2850	0.0100	0.2739	0.0215	0.0193	4	0.52		0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0354	0.2950	0.0100	0.2739	0.0215	0.0193	4	0.98		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0552	0.3250	0.0500				1			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0521	0.2432	0.0000				2			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0423	0.3110	0.0040				2			0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0546	0.2593	0.0162	0.2860	0.0233	0.0195	6	-1.02	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0106	0.2691	0.0400	0.2860	0.0233	0.0195	6	-0.65	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0515	0.2871	0.0506	0.2860	0.0233	0.0195	6	0.04	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 (%)	0494	0.2904	0.0026	0.2860	0.0233	0.0195	6	0.17	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0368	0.2915	0.0020	0.2860	0.0233	0.0195	6	0.21	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0527	0.3186	0.0057	0.2860	0.0233	0.0195	6	1.25	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0419	290.5	19.50	0.2860	0.0233	0.0195	6	11097.84	High	2
261.99	Acid Soluble Mn, Other (%)	0524	0.2251	0.0095	0.2566	0.0284	0.0057	3	-1.11		0
261.99	Acid Soluble Mn, Other (%)	0515	0.2649	0.0075	0.2566	0.0284	0.0057	3	0.29		0
261.99	Acid Soluble Mn, Other (%)	0389	0.2800	0.0000	0.2566	0.0284	0.0057	3	0.82		0
281.00	Acid Soluble Hg, AA (ppm)	0550	0.0299	0.0002				1			0
281.00	Acid Soluble Hg, AA (ppm)	0498	< 0.5					1			5
281.30	Acid Soluble Hg, ICP (ppm)	0515	0.0000	0.0000				0			4
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0450	< 0.5					0			5
281.99	Acid Soluble Hg, Other (ppm)	0405	0.0400	0.0000	0.0487	0.0082	0.0001	3	-1.06		0
281.99	Acid Soluble Hg, Other (ppm)	0524	0.0497	0.0000	0.0487	0.0082	0.0001	3	0.12		0
281.99	Acid Soluble Hg, Other (ppm)	0368	0.0564	0.0003	0.0487	0.0082	0.0001	3	0.93		0
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 1					0			5
289.30	Acid Soluble Mo, ICP (ppm)	0402	3.000	2.000	10.39	13.29	0.7335	5	-0.56		0
289.30	Acid Soluble Mo, ICP (ppm)	0524	3.648	0.1953	10.39	13.29	0.7335	5	-0.51		0
289.30	Acid Soluble Mo, ICP (ppm)	0035	3.860	0.3800	10.39	13.29	0.7335	5	-0.49		0
289.30	Acid Soluble Mo, ICP (ppm)	0255	7.516	0.3920	10.39	13.29	0.7335	5	-0.22		0
289.30	Acid Soluble Mo, ICP (ppm)	0419	33.95	0.7000	10.39	13.29	0.7335	5	1.77		0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	4.018	1.331	4.700	0.7350	0.5059	6	-0.83	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0494	4.064	0.3925	4.700	0.7350	0.5059	6	-0.77	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0423	4.305	0.0500	4.700	0.7350	0.5059	6	-0.48	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	5.058	0.1568	4.700	0.7350	0.5059	6	0.43	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0546	5.253	0.1051	4.700	0.7350	0.5059	6	0.67	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0106	5.500	1.000	4.700	0.7350	0.5059	6	0.97	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0136	< 5		4.700	0.7350	0.5059	6			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	5.558	1.615				1			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				1			4
289.99	Acid Soluble Mo, Other (ppm)	0405	5.780	0.0600				1			0
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	8.850	1.700				2			0
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	9.220	1.000				2			0
291.30	Acid Soluble Ni, ICP (ppm)	0444	6.765	0.3500	11.98	3.665	1.010	6	-1.27	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0394	10.90	0.0000	11.98	3.665	1.010	6	-0.26	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	11.20	0.3570	11.98	3.665	1.010	6	-0.19	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	12.30	3.000	11.98	3.665	1.010	6	0.08	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	15.00	2.000	11.98	3.665	1.010	6	0.73	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0419	15.73	0.3500	11.98	3.665	1.010	6	0.91	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	15.19	0.1625	18.09	3.288	0.9024	5	-0.88		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	15.20	0.8000	18.09	3.288	0.9024	5	-0.88		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	17.36	0.8910	18.09	3.288	0.9024	5	-0.22		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0494	19.83	0.1333	18.09	3.288	0.9024	5	0.53		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	22.88	2.525	18.09	3.288	0.9024	5	1.46		0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	16.38	0.0705				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	19.94	0.6260				2			0
291.99	Acid Soluble Ni, Other (ppm)	0255	12.74	0.4820				2			0

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			Value	Range	Rob Mean	Rob SD	R-bar				
291.99	Acid Soluble Ni, Other (ppm)	0405	16.00	0.0000				2			0
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	< 0.08					0			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0494	1.760	0.2400				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	9.641	19.28				1			4
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.001					1			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 1.3					0			5
301.99	Acid Soluble Se, Other (ppm)	0255	3.232	2.175	36.16	56.37	1.892	3	-0.58		0
301.99	Acid Soluble Se, Other (ppm)	0405	4.000	0.0000	36.16	56.37	1.892	3	-0.57		0
301.99	Acid Soluble Se, Other (ppm)	0506	101.3	3.500	36.16	56.37	1.892	3	1.15		0
311.00	Sodium, AA (%)	0553	6.775	0.0500				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	3.577	0.0000				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	4.775	0.4900	5.042	0.2278	0.1358	6	-1.04	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0494	4.960	0.0066	5.042	0.2278	0.1358	6	-0.32	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0368	4.974	0.0330	5.042	0.2278	0.1358	6	-0.27	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	4.980	0.0400	5.042	0.2278	0.1358	6	-0.24	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	5.277	0.1448	5.042	0.2278	0.1358	6	0.92	OK	0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0546	5.287	0.1004	5.042	0.2278	0.1358	6	0.96	OK	0
311.99	Sodium, Other (%)	0354	4.890	0.0000				1			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0550	0.5350	0.0080				2			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0553	0.6050	0.0000				2			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0472	0.4900	0.0000	0.5265	0.0218	0.0157	8	-1.53	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0234	0.5048	0.0087	0.5265	0.0218	0.0157	8	-0.91	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0552	0.5250	0.0300	0.5265	0.0218	0.0157	8	-0.06	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0433	0.5280	0.0120	0.5265	0.0218	0.0157	8	0.06	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0354	0.5300	0.0400	0.5265	0.0218	0.0157	8	0.15	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0255	0.5340	0.0220	0.5265	0.0218	0.0157	8	0.31	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0444	0.5450	0.0100	0.5265	0.0218	0.0157	8	0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0402	0.5515	0.0030	0.5265	0.0218	0.0157	8	1.05	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0035	0.4505	0.1330	0.5265	0.0218	0.0157	8	-3.20	Low	1
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0521	0.4540	0.0000	0.5411	0.1042	0.0096	3	-0.84		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0394	0.5129	0.0198	0.5411	0.1042	0.0096	3	-0.27		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0423	0.6565	0.0090	0.5411	0.1042	0.0096	3	1.11		0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0106	0.3530	0.3256	0.5066	0.0390	0.0481	9	-3.63	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0368	0.4793	0.0025	0.5066	0.0390	0.0481	9	-0.65	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0043	0.4950	0.0100	0.5066	0.0390	0.0481	9	-0.27	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0136	0.4950	0.0100	0.5066	0.0390	0.0481	9	-0.27	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0515	0.5029	0.0467	0.5066	0.0390	0.0481	9	-0.09	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0494	0.5045	0.0163	0.5066	0.0390	0.0481	9	-0.05	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0527	0.5312	0.0002	0.5066	0.0390	0.0481	9	0.58	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0421	0.5386	0.0073	0.5066	0.0390	0.0481	9	0.76	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0546	0.5949	0.0146	0.5066	0.0390	0.0481	9	2.09	High	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0419	527.1	10.70	0.5066	0.0390	0.0481	9	12454.84	High	2
321.99	Acid Soluble Zn, Other (%)	0524	0.4118	0.0002	0.4926	0.0505	0.0135	5	-1.60		0
321.99	Acid Soluble Zn, Other (%)	0405	0.4793	0.0012	0.4926	0.0505	0.0135	5	-0.26		0
321.99	Acid Soluble Zn, Other (%)	0515	0.5098	0.0519	0.4926	0.0505	0.0135	5	0.34		0
321.99	Acid Soluble Zn, Other (%)	0389	0.5200	0.0000	0.4926	0.0505	0.0135	5	0.54		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				
321.99	Acid Soluble Zn, Other (%)	0506	0.5420	0.0140	0.4926	0.0505	0.0135	5	0.98		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.